

THIS FILM MAY NOT BE USED TO REPRODUCE ADDITIONAL FILM COPIES

Use of this film in reproduction is limited to individual page reprints when occasional demands require paper copies for use and study.

Micro Photo Inc.

OFFICIAL
GAZETTE
UNITED STATES
PATENT OFFICE

VOL. 196 - 197

NOV. - DEC.

1913

MICRO PHOTO INC. MP
CLEVELAND, OHIO

2/4.14 PL.
OFFICIAL GAZETTE

OF THE

UNITED STATES PATENT OFFICE.

VOLUME CXCVI.

NOVEMBER,

1913.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1913.

OFFICIAL GAZETTE

ERRATA.

- 1,077,265, page 8, first column, line 6, strike out the word "vertical" and same line for the word "fulcrum" read *fulcrumed*.
- 1,077,308, page 23, in heading, name of patentee, for "Frederick Grandersen Sargent" read *Frederick Grandison Sargent*.
- 1,077,958, page 246, in heading, assignment, name of assignee, for "New-Metals and Process Company" read *New-Metals and Process Company*.
- 1,078,817, page 607, in heading, name of patentee, for "Herbert Austin" read *Hebert Austin*.
- 1,079,131, page 716, first claim, line 6, for the word "spring" read *spraying*.
- 1,079,436, page 848, third claim, line 3, strike out the words "against the shoe."
- 1,079,516, page 876, in claim, line 3, after the word "diameters" strike out the comma and same line after the word "thereto" insert a comma.
- OFFICIAL GAZETTE, page 279, second column, line 9 from bottom of page, for the date "October 10, 1903" read *October 10, 1913*.
- OFFICIAL GAZETTE, page 529, second column, lines 13-6 from bottom of page, strike out notice of "Adverse Decision in Interference."
- VOL. 196.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, November 4, 11, 18, 25.....	3,281,531,809
TRADE-MARKS PUBLISHED AND REGISTERED, November 4, 11, 18, 25.....	261,509,789,1031
LABELS AND PRINTS REGISTERED, November 4, 18, 25.....	273,802,1050
DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS, November 4, 11, 18, 25.....	275,525,803,1051
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.....	1055
ALPHABETICAL LIST OF PATENTEES AND INVENTIONS.....	1

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	
Notice of—Dunn, No. 855,237.....	1
Helander, No. 1,048,532.....	807
Holland, No. 1,003,459.....	807
Mudge, No. 1,058,782.....	807
Staples, No. 1,023,889.....	279
Publication of—Order 2079.....	529
AMENDMENTS—	
Prompt delivery of.....	807
APPLICATIONS—	
Condition of pending.....	2,280,530,808
BRIEFS IN APPEALED CASES.....	279
CLASSIFICATION OF INVENTIONS—	
Changes in—Order 2077.....	278
Order 2080.....	806
DISCLAIMERS—	
Vauclain, Samuel M.....	279
INTERFERENCE NOTICES—	
Culver, Katherine.....	527,806,1054
Fred Ippich & Treffinger.....	278,528,806
Gordon, Louise H.....	528,806,1054
McMullen, Frank C.....	527,806,1054
Pacific Soap & Chemical Co.....	278
Tebbetts, Forrest F.....	278,528,806
Wassmer, Joseph.....	527,806,1054
INTERNATIONAL EXPOSITION—	
Panama-Pacific.....	528
NOTARIES PUBLIC—	
Amended law relative to.....	1
OFFICIAL GAZETTE—	
Trade-mark portion, price of.....	529
PATENTS—	
List of adjudicated.....	277,527,805

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 196—No. 1.

TUESDAY, NOVEMBER 4, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address, the Commissioner of Patents, Washington, D. C.

CONTENTS.		Page.
ISSUE OF NOVEMBER 4, 1913.....		1
PATENT No. 855,237—ADVERSE DECISION IN INTERFERENCE.....		1
NOTARIES PUBLIC—AMENDED LAW.....		2
APPLICATIONS UNDER EXAMINATION.....		3
PATENTS GRANTED.....		250
DESIGNS.....		254
TRADE-MARKS—REGISTRATION APPLIED FOR.....		261
TRADE-MARKS—REGISTERED.....		269
LABELS AND PRINTS.....		273
COMMISSIONER'S DECISIONS—		
In re Forward.....		275
DECISIONS OF THE U. S. COURTS—		
Westinghouse Mach. Co. et al. v. General Electric Co. et al.....		276
ADJUDICATED PATENTS.....		277
INTERFERENCE NOTICES.....		278
CHANGES IN CLASSIFICATION.....		278

ISSUE OF NOVEMBER 4, 1913.		
Patents.....	719—No. 1,077,248 to No. 1,077,966, inclusive.	
Designs.....	36—No. 44,531 to No. 44,566, inclusive.	
Trade-Marks.....	100—No. 94,043 to No. 94,142, inclusive.	
Labels.....	29—No. 17,512 to No. 17,540, inclusive.	
Prints.....	9—No. 3,406 to No. 3,413, inclusive.	
Reissues.....	4—No. 13,637 to No. 13,640, inclusive.	
Total.....	897	

TO RESIDENTS OF THE UNITED STATES.			
States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	
Alabama.....	4	1	
Arizona.....	4	1	
Arkansas.....	1		
California.....	42	5	
Colorado.....	7		
Connecticut.....	24		
Delaware.....	1		
Florida.....	5	1	
Georgia.....	4	1	
Idaho.....	5		
Illinois.....	77	9	
Indiana.....	14	1	
Iowa.....	9		
Kansas.....	4	2	
Kentucky.....	1		
Louisiana.....	1		
Maine.....	5		
Maryland.....	38	11	
Massachusetts.....	19	3	
Michigan.....	11	2	
Minnesota.....	3		
Mississippi.....	14	3	
Missouri.....	2		
Montana.....	6	1	
Nebraska.....	41	5	
New Hampshire.....	3	1	
New Jersey.....	41	5	
New Mexico.....	133	49	
New York.....			
North Carolina.....	4	1	
North Dakota.....	40	7	
Ohio.....	6		
Oklahoma.....	3	2	
Oregon.....	62	8	
Pennsylvania.....	7	1	
Rhode Island.....	3		
South Carolina.....	1		
South Dakota.....	2		
Tennessee.....	9	3	
Texas.....	5	1	
Utah.....	1		
Vermont.....	6		
Virginia.....	8	1	
Washington.....	21	5	
West Virginia.....	2		
Wisconsin.....			
Wyoming.....			
Alaska, District of.....			
Canal Zone.....			
District of Columbia.....			
Hawaii Territory.....			
Philippine Islands.....			
Porto Rico.....			
U. S. Army.....			
U. S. Navy.....			
Total to residents of the United States.....	677	126	

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....			Netherlands.....		
Austria-Hungary.....	3	2	Newfoundland.....		
Belgium.....	1		New South Wales.....	1	
British India.....			New Zealand.....		
Brazil.....			Norway.....	1	
British West Indies.....			Portugal.....		
Canada.....	9	2	Queensland.....		
Cape Colony.....			Roumania.....		
Chile.....			Russia.....	1	
Costa Rica.....			Scotland.....	1	
Cuba.....			South Australia.....		
Denmark.....			Spain.....		
Dominican Republic.....			Sweden.....		
England.....	21		Switzerland.....	1	
France.....	4	3	Transvaal, South.....		
Germany.....	27	6	Africa.....	1	
India.....	1		Victoria.....	1	
Ireland.....	1		Wales.....	1	
Italy.....	1				
Japan.....	1		Total to residents of foreign countries.....	78	12
Mexico.....	2				

Patent No. 855,237—Adverse Decision in Interference.
On April 30, 1913, Gano S. Dunn was held not the first inventor of the invention covered by claims 1, 2, 3, and 6 of his Patent No. 855,237 in view of a concession of priority as to this subject-matter filed by him April 24, 1913.

Notaries Public—Amended Law. [PUBLIC—No. 362.]

An act to amend section five hundred and fifty-eight of the Code of Law for the District of Columbia.
Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section five hundred and fifty-eight of the Code of Law for the District of Columbia, relating to notaries public, be amended by adding at the end of said section the following: "Provided, That the appointment of any person as such notary public, or the acceptance of his commission as such, or the performance of the duties thereunder, shall not disqualify or prevent such person from representing clients before any of the Departments of the United States Government in the District of Columbia or elsewhere, provided such person so appointed as a notary public who appears to practice or represent clients before any such Department is not otherwise engaged in Government employ, and shall be admitted by the heads of such Departments to practice therein in accordance with the rules and regulations prescribed for other persons or attorneys who are admitted to practice therein: And provided further, That no notary public shall be authorized to take acknowledgments, administer oaths, certify papers, or perform any official acts in connection with matters in which he is employed as counsel, attorney, or agent or in which he may be in any way interested before any of the Departments aforesaid." Approved, June 29, 1906.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 1, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Aug. 21	Aug. 9	751
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Fastening and Paper Hanging; Paper Files and Binders; Pneumatic Dispatch; Pneumatics; Presses; Store-Services; Tobacco.	July 2	Aug. 20	720
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Oct. 2	Oct. 20	248
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traveling Hoists.	July 17	Sept. 2	745
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 17	Aug. 19	601
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 16	Aug. 14	757
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 27	Sept. 2	1036
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 16	Sept. 10	1062
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 9	Sept. 26	708
235	10. Carriages and Wagons.	June 25	Aug. 26	1198
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 20	Sept. 26	346
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	June 23	June 28	1537
329	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 3	Aug. 27	727
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Banding; Metal-Ornamenting; Sheet-Metal Ware; Making; Tools; Wire Fabrics and Structures; Wire-Working.	May 31	Oct. 2	532
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Apr. 19	Aug. 8	1628
166	16. Radiant Energy; Telegraphy; Telephony.	June 17	Aug. 4	551
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Sept. 4	Oct. 2	308
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Aug. 4	Sept. 25	256
286	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 16	Aug. 27	663

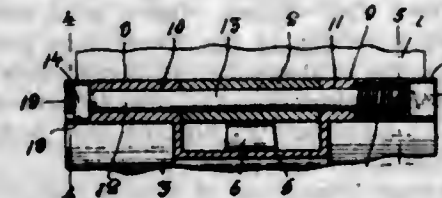
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	Sept. 25	Sept. 25	276
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	June 27	July 16	701
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buys; Firearms; Marine Propulsion; Ordnance; Ships.	July 21	Aug. 27	452
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 11	Sept. 2	518
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Sept. 2	Sept. 3	605
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Sept. 11	Oct. 2	266
106	26. Electricity, Generation; Motive Power.	May 24	July 22	640
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 2	Sept. 8	513
65	28. Internal-Combustion Engines.	Aug. 15	Aug. 25	823
147	29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	June 19	June 6	755
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 28	Oct. 16	239
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 16	Aug. 8	455
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	June 16	Oct. 1	461
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 14	Aug. 25	429
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Aug. 14	Aug. 14	524
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	July 21	Oct. 1	826
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Aug. 8	Aug. 8	1030
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 4	June 27	999
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Aug. 11	1025
321	39. Water Distribution.	July 23	Aug. 27	513
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 11	Sept. 9	1050
125	41. Railway Draft Appliances; Re-silient Tires and Wheels.	Sept. 16	Sept. 8	518
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	May 23	June 11	1001
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Sept. 4	Sept. 18	269
Oldest new case, Apr. 4; oldest amended, June 6.				
Total number of applications awaiting action..... 20,342				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 9	Oct. 6	932
	Designs.....	Sept. 9	Oct. 7	242
	Labels and Prints.....	Oct. 15	Oct. 10	81

PATENTS

GRANTED NOVEMBER 4, 1913.

1,077,248. NUT-LOCK. ARTHUR E. ARNOLD, Weehawken, N. J. Filed May 11, 1912. Serial No. 696,745. (Cl. 151-2.)



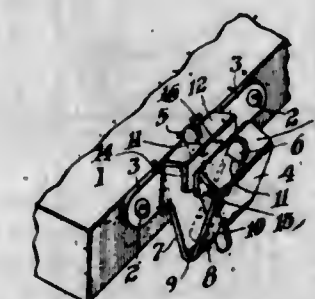
1. In combination, two members adapted to be pivotally connected to each other, pivot lugs on said members provided with aligning bores, certain of said lugs having non-circular pockets formed therein of various relative depths contiguous the bores, a headed pivot bolt passed through the bores in said lugs and capable of longitudinal movement therein and having the head disposed within the deep pocket and of a contour similar to that of said pocket whereby turning movement of the bolt is prevented, a fastening device secured to one end of said bolt and disposed within the shallow pocket, and shaped to conform to the contour of said pocket whereby rotation of the fastening device within the pocket is prevented, and means surrounding the bolt and disposed within the deep pocket and acting normally to hold the fastening device within the respective pocket.

2. In combination, two members adapted to be pivotally connected to each other, a pivot lug on one of said members and formed with a bore, lugs on the other member spaced apart to embrace the first-mentioned lug and each formed with a bore aligning with the bore in the first lug, and a non-circular pocket contiguous said bore and opening into the outer end of the respective lug, one of said pockets being of a depth greater than that of the other, a headed pivot pin passed through the aligning bores of said lugs and having the head thereof disposed within the relatively deep pocket, and of a contour similar to that of said pocket whereby turning movement of the pivot pin is prevented, a securing device on the free end of said pin and adapted to lie within the shallow pocket, and means disposed within the deep pocket and shaped to conform to the contour of said pocket whereby rotation of the securing device within the pocket is prevented and contacting with said pin to hold the securing device thereon in normal position whereby accidental displacement of said fastening device and pin is avoided.

3. In combination, two members adapted to be pivotally connected to each other, a pivot lug on one of said members and formed with a bore, lugs on the other member spaced apart to embrace the first-mentioned lug and each formed with a bore aligning with the bore in the first-mentioned lug, and a non-circular pocket contiguous such bore and extending through the outer end of the respective lug, one of said pockets being of a depth greater than that of the other, a headed pivot pin passed through the aligning bores of said lugs and having the head thereof disposed in the relatively deep pocket, and of a contour similar to that of said pocket whereby turning movement of said pin is prevented, a securing device on the free end of said pin and adapted to normally lie within the shallow pocket and shaped to conform to the contour of the pocket whereby rotation of said nut within the pocket is prevented, and an expansion spring coiled about said pivot pin and disposed within the relatively deep pocket and having one end bearing upon the adjacent end

wall of said pocket and the opposite end abutting the head of said bolt, said spring acting upon the pin to hold the securing device thereon in normal position and within the shallow pocket whereby accidental displacement of said pin and fastening device is eliminated.

1,077,249. KNIFE-SHARPENER. JAMES HERMAN AB-BOTT, Philadelphia, Pa. Filed Feb. 15, 1912. Serial No. 677,722. (Cl. 76-86.)

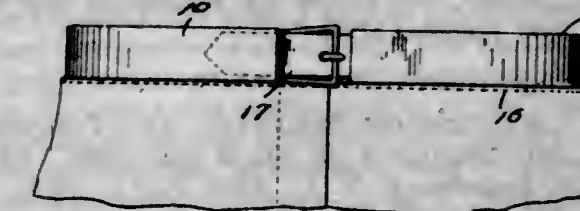


1. In a device of the character stated, a sheet metal frame having converging sides, sharpener blades retained by engagement laterally and longitudinally with the converging lower portions of the sides and extending substantially parallel with the sides, extensions from the upper ends of the sides toward each other, forming upper supports for the blades and guiding flanges upon these extensions.

2. In a device of the character stated, a frame of uniform thickness having converging sides united at their lower ends and there apertured, sharpener blades supported at their upper ends against lateral movement and tapered to pass through the aperture and engage with the sides abutting thereagainst in the direction of the length of the plates, and guiding flanges secured to the upper parts of the frame.

3. In a device of the character stated, a V shaped frame having its sides united at their lower edges and apertured in proximity to the line of union, the upper edges of the sides being inwardly and downwardly extended and apertured within the inward extensions to form upper sharpener blade supports and guides for the knife to be sharpened, in combination with sharpener blades, tapered at their lower ends, retained parallel with the respective V shaped sides by the walls of the apertures and passing partly through the lower aperture.

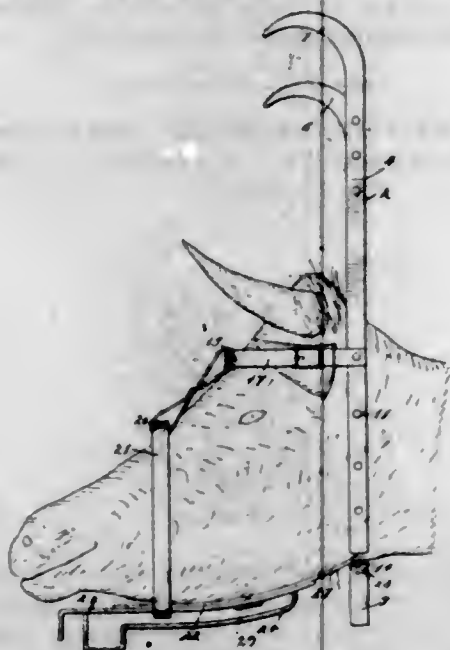
1,077,250. TUBULAR WAISTBAND. ARTHUR E. ALLUM, New York, N. Y. Filed Dec. 9, 1910. Serial No. 596,472. (Cl. 2-143.)



The combination with a pair of trousers, of a tubular waistband therefor comprising an inner stiffening and protecting section formed from a strip of material folded longitudinally medially, an outer facing strip of material having its upper edge portion folded over to overlap the

fold in the first mentioned strip and having its lower edge portion folded to engage the edges of the first mentioned strip, and a lining strip having its upper edge portion united by a line of stitching to the folded over upper edge of the facing strip and having its lower edge portion united by a line of stitching with the folded over lower edge portion of the facing strip and the lower edges of the first mentioned folded strip, the band being united at its lower edge portion to the garment at the waist line of the latter and lying bodily above the said waist line of the garment.

1,077,251. COMBINED HALTER AND YOKE. JESSE DAREY BABB, Dallas, Ga. Filed May 24, 1911. Serial No. 629,136. (Cl. 119-138.)



1. A halter comprising a rigid collar terminating in a projecting hooked member, a forehead strap adapted to hold said collar and hooked member in a vertical position, and a hook-supporting member depending from said collar, said hook being slidable on said member.

2. A halter comprising a rigid collar terminating in a projecting hooked member, a forehead strap adapted to hold said collar and hooked member in a vertical position, a hook-supporting member depending from said collar, said hook being slidable on said member, and means for holding said hook normally in an outer position on said member.

3. A halter comprising a rigid collar terminating in a projecting hooked member, a forehead strap adapted to hold said collar and hooked member in a vertical position, a hook-supporting member depending from said collar, said hook being slidable on said member, means for holding said hook normally in an outer position on said member, and a nose strap adapted to hold said member in a horizontal position.

4. A halter comprising a rigid collar terminating in a projecting hooked member, a forehead strap adapted to hold said collar and hooked member in a vertical position, a hook-supporting member depending from said collar, said hook being slidable on said member, means for holding said hook normally in an outer position on said member, a nose strap adapted to hold said member in a horizontal position, and means for connecting said nose strap and said forehead strap.

1,077,252. PROCESS OF TREATING AND COLORING WOOD AND PRODUCT OF SUCH PROCESS. LEIGH S. BACHM, Boundbrook, N. J. Filed July 6, 1911. Serial No. 637,207. (Cl. 99-12.)

1. The herein described process of treating wood and fiber which consists in boiling said wood or fiber in a solution of saturated hydro-carbon, wax, oxidized hydro-carbon, stearic acid and coloring matter, said boiling being continued until the gravity of the wood or fiber is greater than that of the solution.

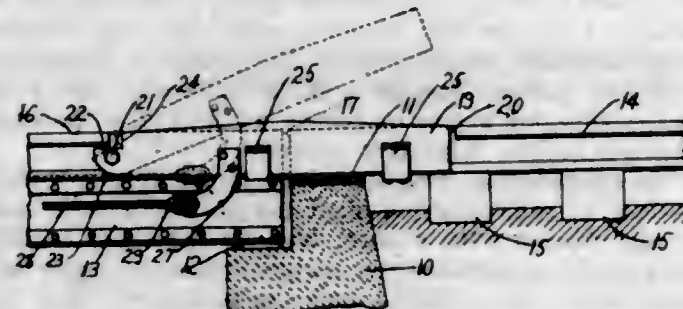
2. The herein described process of treating wood and fiber which consists in subjecting said wood or fiber to a boiling bath of paraffin, carnauba wax, rosin and coloring matter soluble in the said menstruum with substantially equal parts by weight of carnauba wax and rosin and an excess of paraffin.

3. A new product consisting of a solid fibrous body impregnated through and through with saturated hydrocarbon, wax, oxidized hydrocarbon and a coloring matter that is soluble in the menstruum composed of said ingredients, the said saturating ingredients co-acting to cause a uniform saturation and also to prevent flow of the impregnating materials within the said body after it has been saturated.

4. A new product consisting of a solid fibrous body impregnated through and through with saturated hydrocarbon, wax, oxidized hydrocarbon, stearic acid, and a coloring matter that is soluble in the menstruum composed of said ingredients, the said saturating ingredients co-acting to cause a uniform saturation and also to prevent flow of the impregnating materials within the said body after it has been saturated.

5. A new product consisting of a solid fibrous body impregnated through and through with a compound of saturated hydrocarbon, wax, oxidized hydrocarbon and a coloring matter soluble in the menstruum composed of said ingredients, the specific gravity of the product being greater than that of the impregnating medium.

1,077,253. RAIL-JOINT. ROBERT S. BOHANNAN and NEAL DUGGER, Ensley, Ala. Filed July 2, 1912. Serial No. 707,321. (Cl. 104-19.)



1. In a rail joint, the combination with the end of a movable rail section and a meeting end of a stationary rail section; of a plate pivoted to one of the sections and coacting with the other section to form a continuous joint, the pivoted end of the plate being provided with a lug to prevent unlimited downward movement of the plate and having a similar lug at its free end whereby said lugs will support the plate and the intermediate portion will be cushioned.

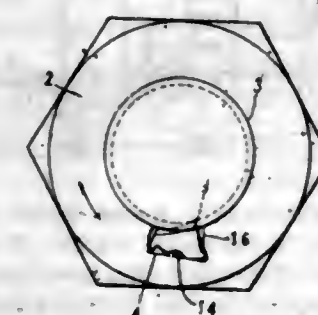
2. In a rail joint, the combination with the meeting ends of rail sections having co-acting recesses vertically and continuously in common faces thereof; of a plate pivotally connected at one end to the flanged portion of one section for vertical movement into and out of the recesses and means for holding and guiding the plate in its operative movements, said means including brackets having flanged attaching portions and outwardly directed upper ends.

3. In a rail joint, the combination with two rail sections; the ends of the sections being spaced apart; of a tread member and connecting plate disposed in recesses in the sections and inclined toward opposite ends upon its upper edge, said plate being adapted for movement into and out of line with the sections and a spacing block carried by the plate between the ends of the sections.

1,077,254. NUT-LOCK. LEON S. BRACH, New York, N. Y. Filed July 27, 1909. Serial No. 509,805. (Cl. 151-25.)

1. A nut lock comprising a nut having a recess formed therein, and a locking member adapted to have a bodily rolling movement in said recess, the walls of said recess having parts of such shape as to retain said locking member against any sliding movement in said recess in the direction of its bodily rolling movement.

2. A nut lock comprising a nut having a recess formed therein, having a bottom wall and opposite side walls, and a locking member adapted to have a bodily rolling movement along the bottom wall of said recess, the opposite side walls of said recess being of such shape as to retain said locking member against any sliding movement along the bottom wall of said recess in the direction of its bodily rolling movement.



3. A nut lock comprising a nut having a recess formed therein, having a bottom wall and opposite side walls, and a locking member adapted to have a bodily rolling movement along the bottom wall of said recess, a portion of one of the side walls of said recess being curved on a curve defined by the movement of an adjacent portion of said locking member, so as to retain said locking member against any sliding movement along the bottom wall of said recess in the direction of its bodily rolling movement.

4. In a device of the class described, the combination with a bolt, of a nut provided with a longitudinally extending recess having opposite side walls and a bottom wall, and a threaded locking element within said recess having a bodily rolling movement along said bottom wall, said locking element when in locking position having one longitudinal edge of its threaded portion engaging the bolt, and the remainder of its threaded portion extending in divergent relation with a line tangent to the axis of the bolt at a point where it is engaged by said element, the bottom wall of said recess being inclined relatively to said line so as to dispose a portion of the bottom wall relatively nearer to the bolt than that portion of the bottom wall which is intersected by said line, so that in moving to locking position, the locking member rolls relatively uphill toward the bolt, the side walls of said recess being curved on a curve defined by the movement of adjacent portions of said locking member so as to retain said locking member against any sliding movement along the bottom wall of the recess in the direction of its bodily rolling movement.

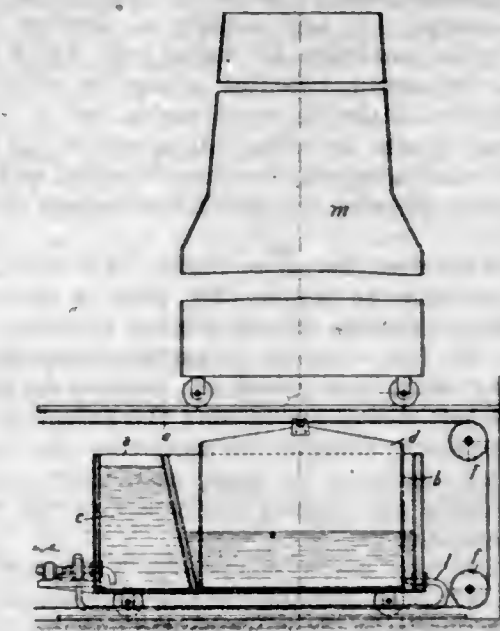
5. A nut lock comprising a nut having a recess formed therein, and a locking member adapted to have a bodily rolling movement in said recess, the walls of said recess having parts adapted to coöperate with adjacent parts of the locking member to retain said locking member against sliding movement in the direction of its rolling movement in said recess, and said coöperating parts serving also to retain the locking member in the recess.

[Claims 6 and 7 not printed in the Gazette.]

1,077,255. COKE QUENCHING AND CONVEYING APPARATUS. ALFRED BRUNNER, Leipzig-Eutritzsch, and WILHELM SCHÖNDELING, Leipzig-Gohlis, Germany, assignors to Adolf Bleichert & Company, Leipzig-Gohlis, Germany. Filed Apr. 30, 1910. Serial No. 558,592. (Cl. 202-5.)

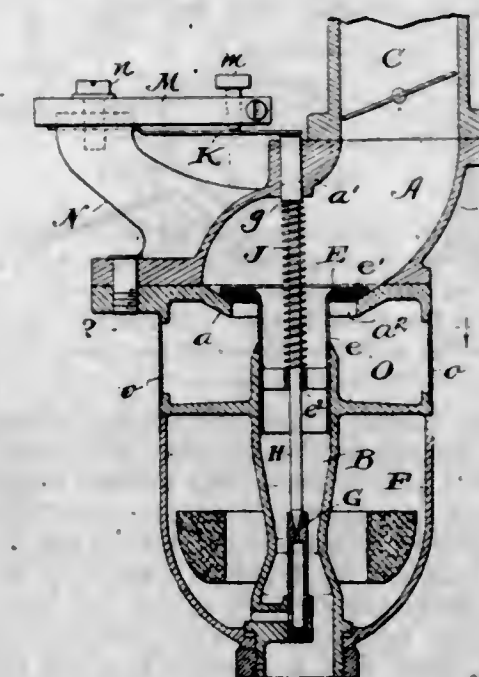
1. In an appliance for quenching coke, a quenching receptacle, a water supply tank in connection therewith and traveling conjointly with the quenching receptacle on rails extending past the fronts of a number of fixed coke ovens, means for circulating the water between the supply tank and the quenching receptacle, and a coke receiving bucket with perforated walls standing loosely in the quenching receptacle and adapted to be raised therefrom by means of any kind, said means being free from connection with the quenching receptacle.

2. In an appliance for quenching coke, a quenching receptacle, a water supply tank in connection therewith and traveling conjointly with the quenching receptacle on rails extending past the fronts of a number of fixed coke ovens, means for circulating the water between the supply tank and the quenching receptacle, a coke receiving bucket with perforated walls standing loosely in the quenching receptacle and adapted to be raised therefrom by means of any kind, said means being free from connection with the quenching receptacle, and an endless rope connected to the coke receiving bucket for moving the bucket with the receptacle and the tank along the oven fronts.



3. In an appliance for quenching coke, a quenching receptacle and adapted to be raised therefrom by means of any kind, said means being free from connection with the quenching receptacle, and an endless rope connected to the coke receiving bucket for moving the bucket with the receptacle and the tank along the oven fronts.

1,077,256. CARBURETER. ALANSON P. BRUSH, Detroit, Mich. Filed Mar. 21, 1912. Serial No. 685,240. (Cl. 48-154.1.)



1. In a carbureting device, the combination of a mixing chamber having an always open main inlet and a normally closed auxiliary air inlet, a suction operated valve adapted to control the flow of air through said auxiliary air inlet, a spring acting to oppose the movement of said valve from its seat, a fuel nozzle, a valve for said nozzle, means intermediate of said valve and the auxiliary air valve whereby a movement of the latter from its seat will impart to the fuel valve a tendency to move from its seat, and a spring of variable modulus and tension opposing the movement of said fuel valve from its seat.

2. In a carbureter, the combination of a mixing chamber having an air inlet, a fuel nozzle for discharging fuel into said chamber, an air valve, a fuel valve, a spring which has the double function of opposing the opening of

the air valve and of applying to the fuel valve a force tending to open it, and a second spring which acts on the fuel valve only and opposes its opening movement, whereby the position of the fuel valve is determined by the balance of tension of said two springs.

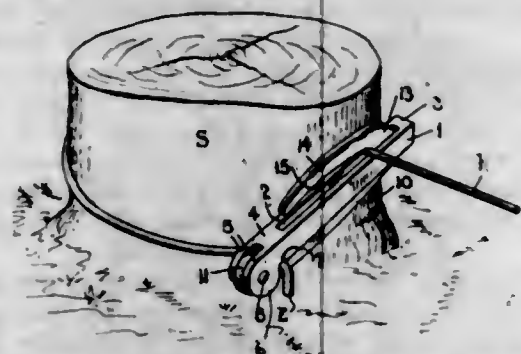
3. In a carbureter, the combination of a mixing chamber having an air inlet, a fuel nozzle for discharging fuel into said mixing chamber, a valve controlling the fuel discharge opening of said nozzle, a suction operated spring-controlled auxiliary air valve past which air may be drawn to the mixing chamber, means by which any increase in tension of the air valve spring due to this opening movement of said air valve will impart to the fuel controlling valve an increasing tendency to open, and an independent spring opposing the opening movement of the fuel valve.

4. In a carbureter, the combination of a fuel chamber, a mixing chamber having an air inlet, a fuel passage from the float chamber to the mixing chamber, a valve controlling the fuel opening, a suction operated spring-controlled air valve past which air may be drawn to the mixing chamber, means for causing the reduction in pressure in the mixing chamber to impart to the fuel valve an increasing tendency to open, and additional elastic means to oppose the opening movement of the fuel controlling mechanism.

5. A carbureting device comprising a mixing chamber having an air inlet, a fuel inlet nozzle disposed within said air inlet, an auxiliary air valve controlling the admission of auxiliary air to the mixing chamber, a valve controlling the size of the discharge opening in the fuel nozzle, a spring acting on the auxiliary air valve to close it, and acting also on the fuel valve in the direction to open it, and another spring engaging the fuel valve and exerting its force in a direction to close the same.

[Claims 6 to 8 not printed in the Gazette.]

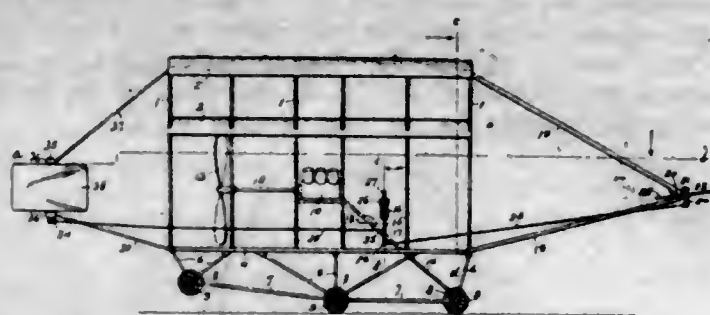
1,077,257. WIRE CABLE CLASP. WILLIAM CAHILL and LORENZO A. CHATTELLE, Caledonia, Minn. Filed June 24, 1912. Serial No. 705,624. (Cl. 24—132.)



1. The herein described clasp comprising a substantially straight lever member having its inner end turned downward and forked and its lower edge notched adjacent the fork-arms, and a body member having its inner end turned upward and pivoted between the fork-arms and its upper edge notched adjacent the latter to coast with the notch in the lever-member and clasp an article, the outer end of the body member being bent upward and backward into a hook whose lower edge is adapted to stand above the upper edge of the lever member when said notches engage the article being clasped, for the purpose set forth.

2. The herein described clasp consisting of upper and lower members pivotally connected with each other at their inner ends and having registering notches in their contiguous edges adjacent said pivot and adapted to grip a flexible element, one member being slotted toward its other end and the other member being bent upward and obliquely inward from its outer end into a hook adapted to pass through said slot as the members are drawn together, the lower edge of the hook of this member standing above the upper edge of the opposite member when said notches coast to clasp the article being engaged, the lower edge of the hook and the upper edge of the slotted member forming gripping jaws for engagement of a flexible element.

1,077,258. FLYING-MACHINE. HURSHEL R. COFFMAN, Kansas City, Mo. Filed Feb. 12, 1912. Serial No. 677,100. (Cl. 244—2.)

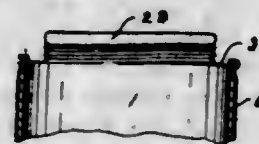


1. In a flying machine, a frame which includes a supporting aeroplane, a carriage frame of diamond shape having its longest dimension disposed longitudinally and centrally with respect to the longitudinal center of the machine, four carrying wheels rotatively mounted on the carriage frame and disposed respectively adjacent the four corners of the carriage frame, and means for supporting the frame upon said carriage frame.

2. In a flying machine, a frame, an engine supported by the frame, a carriage frame supporting said frame, front and rear carrying wheels rotatively mounted on the carriage frame and disposed respectively fore and aft of the engine, and an upwardly and rearwardly inclined brace secured at its lower end to the carriage frame, and secured at its upper end to the engine.

3. In a flying machine, a frame, an engine supported by the frame, a carriage frame supporting said frame, carrying wheels mounted on the carriage frame, two braces having their forward ends secured to the carriage frame adjacent to the front end thereof and extending upwardly and rearwardly and having their rear ends secured to the engine, an operating lever pivoted to said two braces, and a seat secured to said braces between the lever and engine.

1,077,259. RECEPTACLE WITH METAL LABEL. JAMES F. CRAVEN, Pittsburgh, Pa., assignor to Craven Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 14, 1912. Serial No. 677,529. (Cl. 229—14.)



1. A receptacle for holding greasy or oily substances, comprising a self-sustaining paper tube forming the receptacle body, a thin tubular metal sheath surrounding said paper body, end caps or heads forming closures for the ends of said tubes and having their peripheral portions incorporated in a joint with the ends of both the paper body and the metal sheath, and thereby permanently and non-removably securing both the end caps or heads and the sheath to the paper body.

2. A receptacle for holding greasy or oily substances, comprising a self-sustaining paper tube forming the receptacle body, a thin tubular metal sheath surrounding said paper body, and sheet metal caps or heads having their central portions depressed, and fitting within the ends of the paper body and having their peripheral portions crimped around the ends thereof, the end portions of both the paper body and sheath being compressed between the central depressed portions and the peripheral portions of said end caps or heads.

1,077,260. HYDROCARBON-BURNER. HUGH DALEY, Chicago, Ill. Filed Jan. 18, 1913. Serial No. 742,804. (Cl. 158—28.)

1. A hydrocarbon burner for the purpose described comprising an inlet member having a nozzle, a control valve, and a source of fuel supply, a plurality of downwardly

perforated flame tubes connected to said inlet member, and baffle bars located under said flame tubes beneath said perforations.



2. A hydrocarbon burner for the purpose described comprising an inlet member having a nozzle, a control valve, and a source of fuel supply, a plurality of parallel, downwardly perforated flame tubes connected to said inlet member, and a baffle bar located under each of said flame tubes, directly beneath said perforations.

3. A hydrocarbon burner for the purpose described comprising an inlet member having a nozzle, a control valve, and a source of fuel supply, a plurality of parallel, downwardly perforated flame tubes connected to said inlet member, a baffle bar located under each of said flame tubes, directly beneath said perforations, a medially located, downwardly perforated flame tube also connected to said inlet member, and a downwardly perforated jacket surrounding said last named flame tube.

4. A hydrocarbon burner for the purpose described comprising an inlet member having a nozzle, a control valve, and a source of fuel supply, a volatilizing cup under said inlet member extending the entire length thereof, downwardly perforated flame tubes extending from said inlet member, and means connected to said tubes and located beneath said perforations to assist in the volatilization of fuel passing through said tubes.

5. A hydrocarbon burner for the purpose described comprising an inlet member having a nozzle, a control valve, and a source of fuel supply, a volatilizing cup under said inlet member, downwardly perforated flame tubes extending from said inlet member, means connected to said tubes and located beneath said perforations to assist in the volatilization of fuel passing through said tubes, a medially located, downwardly perforated flame tube also connected to said inlet member, and a downwardly perforated jacket surrounding said last named flame tube.

[Claims 6 to 8 not printed in the Gazette.]

1,077,261. GOLD-EXTRACTING MACHINE. CHARLES R. DENNISON, Youngstown, Ohio. Filed June 15, 1912. Serial No. 703,911. (Cl. 83—67.)



1. A mining machine including a gold extracting tube containing mercury and adapted to have the gold bearing material circulated therethrough, and a rotary agitating drum mounted within the gold extracting tube, the said agitating drum being formed with a series of radially disposed perforate plates and being provided at the periphery thereof with a series of longitudinally disposed mercury cups.

2. A mining machine including a gold extracting tube containing mercury and adapted to have the gold bearing material circulated through the same, and a rotary agitating drum mounted within the gold extracting tube, the said agitating drum being provided with a series of perforate mercury cups.

3. A mining machine including a gold extracting tube containing mercury and adapted to have the gold bear-

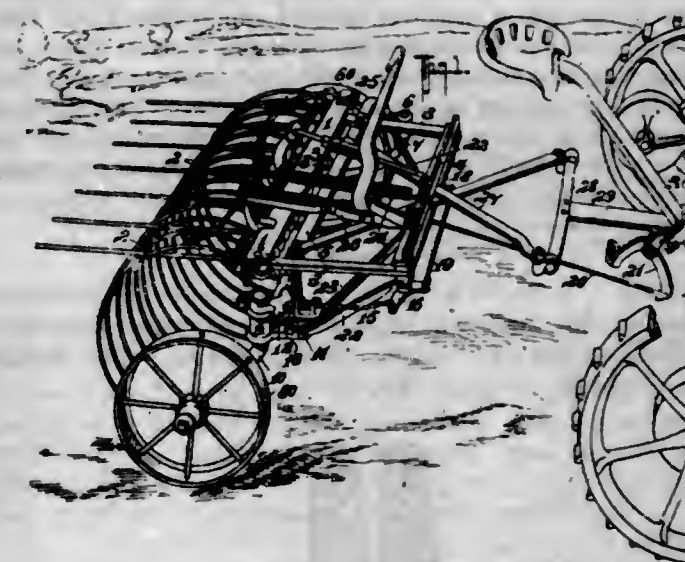
ing material circulated through the same, and a rotary agitating drum mounted within the gold extracting tube, the said agitating drum being provided with a series of longitudinally disposed mercury cups having perforate bottoms.

4. A mining machine including a gold extracting tube containing mercury and adapted to have the gold bearing material circulated through the same, and a rotary agitating drum mounted within the gold extracting tube, the said agitating drum being provided at the periphery thereof with a series of perforate mercury cups and being also formed with spirally disposed baffle plates.

5. A mining machine including a substantially horizontally disposed gold extracting tube containing mercury and adapted to have the gold bearing material circulated through the same, and a rotary agitating drum mounted within the gold extracting tube, the said agitating drum being provided with longitudinally disposed mercury cups having perforate bottoms and being also formed with inwardly projecting spirally disposed perforate baffle plates.

[Claims 6 to 10 not printed in the Gazette.]

1,077,262. RAKE ATTACHMENT FOR MOWERS. CLAUDE H. DOVE, Lynn, Nebr. Filed June 10, 1912. Serial No. 702,860. (Cl. 56—67.)



1. A raking attachment for mowers; comprising a sulky frame, said frame including an arched axle, a caster wheel at each end of the axle, a locking device for normally holding one of the caster wheels from swiveling with relation to said arched axle, and means operable from the mowing machine for releasing the said locking device to permit said wheel to swivel with relation to said arched axle, draft devices for connecting the sulky frame with the mowing machine, and a rake head mounted on the sulky frame.

2. A raking attachment for mowers; comprising a sulky frame, said frame including an arched axle, a caster wheel at each end of the axle, draft devices for detachably connecting the sulky frame with the mowing machine, a rockable rake head mounted on the sulky frame, means for holding the rake head down to its raking position, and a lever device operable from the mowing machine for dumping the rake.

3. In combination with the mowing machine having a rearwardly extending seat; an attachment comprising a sulky frame, including an arched axle and a caster wheel at each end of the axle, a draft rigging connecting said sulky frame with the mowing machine, a rockable rake head mounted on the sulky frame, means for holding the rake head down to its raking position, and a lever device for dumping the rake, said lever device including an operating lever mounted on the sulky frame and projecting to a point adjacent to the mowing machine's seat.

4. In a raking attachment for mowers, a frame comprising a main axle supporting member, bearing boxes mounted on the ends of said member, caster wheels mounted in

said bearing boxes, front frame cross bars, side bars connecting said front frame cross bars with said axle supporting member, diagonal brace rods connecting said front frame cross bars with the ends of said axle supporting member, a rake including rake teeth, and an angle bar forming a rake head for said teeth, means pivotally connecting said angle bar with said side bars, a lever mounted on said front bars and projectable adjacent to the mowing machine, a connection between said lever and said angle bar by virtue of which as said lever is moved forwardly said rake will be lifted, and means for holding said rake in its elevated position.

1,077,263. PROCESS FOR PREPARING COTTON FOR DYEING AND BLEACHING. ALBERT J. DRONSFELD, Providence, R. I., assignor of forty-nine one-hundredths to Edward L. Martin, Providence, R. I. Filed Feb. 12, 1912. Serial No. 677,149. (Cl. 19—10.)

1. A process of dyeing or bleaching cotton, consisting in beating up cotton from the bale, forming the loose cotton into a lap of uniform density, superimposing a plurality of these laps one upon the other with a non-adhesive moisture intermediate the contacting surfaces of the laps, whereby the moisture will not interfere with the diffusion of the dye throughout the mass, and compressing the laps into a compound lap, and then dyeing or bleaching.

2. A process of dyeing or bleaching cotton, consisting in beating up the cotton from the bale, forming the loose cotton into a lap of uniform density comprising fibers that are loose and non-parallel with relation to each other, superimposing a plurality of these laps one upon another after having applied a non-adhesive spray to the contacting surfaces of the laps, whereby the moisture will not interfere with the diffusion of the dye throughout the mass, and compressing the compound lap and then dyeing or bleaching.

1,077,264. INFANT'S BAND. GEORGE F. EARNSHAW, Chicago, Ill., assignor to Earnshaw Knitting Company, a Corporation of Illinois. Filed Sept. 4, 1912. Serial No. 718,477. (Cl. 2—98.)

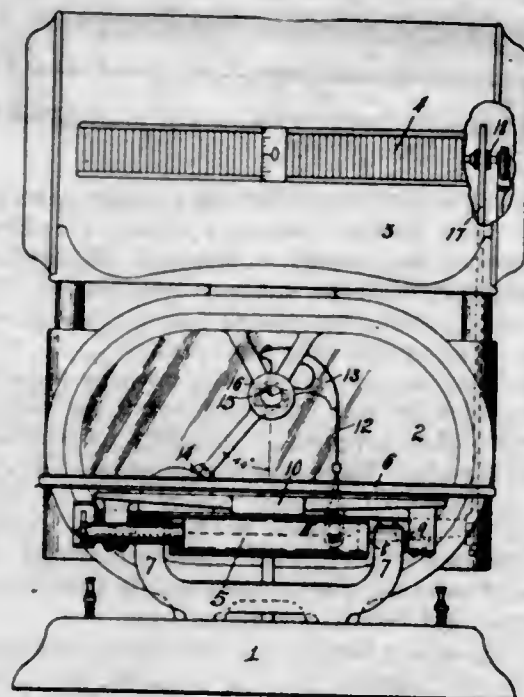


An infant's band comprising a sleeveless and seamless continuous tubular knit body provided with a pair of integral extensions forming the shoulder straps disposed in close proximity to each other and extending upwardly from the central portion of the back thereof, said integral extensions being adapted to overlie the shoulders of the wearer to form the sole suspension means, and means for securing the free end of said straps to the front of the body portion.

1,077,265. SCALE. STONE E. EKLUND, Toledo, Ohio. Filed Feb. 26, 1912. Serial No. 680,076. (Cl. 73—104.)

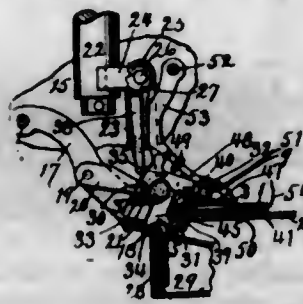
1. In a scale of the character described, a scale lever carrying an article supporting means fulcrumed adjacent one end in a fixed support, a pendulum weight also fulcrumed in a fixed support having a cam projection and a ribbon connecting the same with the free end of the

vertical lever, said fulcrum weight being held in poise at an inclination to a vertical plane in the normal zero position of the parts by the weight of said scale lever and the article supporting means and serving the double purpose of a counterpoise for said parts and as a counter-weight for articles to be weighed.



2. In a scale, the combination of a base, a rigid bearing affixed to one end of said base and having a forked upper end, a hollow casing secured to the other end of the base, a pendulum weight fulcrumed in said casing, a cam carried by said pendulum weight, a scale lever comprising an open rectangular frame from opposite sides of which project knife-edge studs supported on the forked upper end of the rigid bearing, an arm projecting from said lever into said casing, a ribbon or like flexible connection between said arm and the cam carried by the pendulum lever, a second pair of knife-edge studs projecting from the lever frame parallel to the first-named studs, an article supporting platform carried by said second mentioned knife-edge studs, arms projecting outwardly from said lever frame and a tare beam connected to said arms.

1,077,266. FEEDING MECHANISM. CHARLES J. FANCHER, Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1912. Serial No. 718,599. (Cl. 211—33.)



1. Feeding mechanism comprising a guide for a flexible perforated strip of units, a horizontal serrated jaw positioned adjacent to the place of exit from said guide, a second horizontal serrated jaw independent of the first and mounted to oscillate adjacent to said place of exit, and means to move said second jaw downward into operative relation to said first-mentioned jaw and upward out of such relation.

2. Feeding mechanism comprising a guide for a flexible perforated strip of units, a horizontal serrated jaw positioned adjacent to the place of exit from said guide and adapted to yield rearwardly under pressure from one of said units, a second horizontal serrated jaw independent of the first and mounted to oscillate adjacent to said

place of exit, and means to move said second jaw downward into operative relation to said first-mentioned jaw and upward out of such relation.

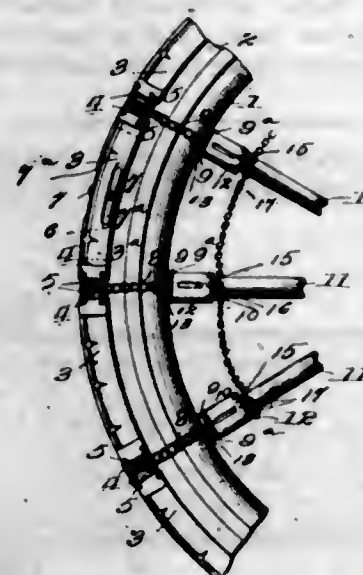
3. Feeding mechanism comprising a guide for a flexible perforated strip of units, a horizontal serrated jaw positioned adjacent to the place of exit from said guide, a second horizontal serrated jaw independent of the first mounted to oscillate adjacent to said place of exit, and having the points of its teeth arranged in the arc of a circle, and means to move said second jaw downward into operative relation to said first-mentioned jaw and upward out of such relation.

4. Feeding mechanism comprising a guide for a flexible perforated strip of units, a horizontal jaw provided with centrally located teeth and positioned adjacent to the place of exit from said guide, a second horizontal serrated jaw independent of the first and mounted to oscillate adjacent to such place of exit, and means to move such second jaw downward into operative relation to said first-mentioned jaw and upward out of such position.

5. Feeding mechanism comprising a guide for a flexible perforated strip of units, a horizontal jaw provided with centrally located teeth and positioned adjacent to the place of exit from said guide, a second horizontal jaw independent of the first mounted to oscillate adjacent to such place of exit, and provided with teeth arranged with their points in the arc of a circle, and means to move said second jaw downward into operative relation to said first-mentioned jaw and upward out of such relation.

[Claims 6 to 16 not printed in the Gazette.]

1,077,267. SHIELD FOR PNEUMATIC TIRES. JAMES E. FAWCETT, Platteville, Wis. Filed Apr. 20, 1912. Serial No. 692,163. (Cl. 152—17.)



1. A tire shield arranged to fit over a wheel tread; in combination with means for retaining the shield in position comprising collars slidably mounted on the spokes of the wheel, chains connecting said collars with the shield, and chains connecting the several collars.

2. The combination with a wheel having spokes and a tire; of a shield fitted on said tire, sleeves comprising telescopic sections mounted on said spokes, a chain having its ends connected to one of the sections on a respective spoke and passing around said shield, lateral chains carried by the shield provided with hooks engaging the first mentioned chains, a chain extending around said wheel and lying inwardly of said sleeves, hooks connecting the last mentioned chain with the remaining sections of the sleeves, and locking means to hold sleeve sections in adjustable relation to each other and the spokes.

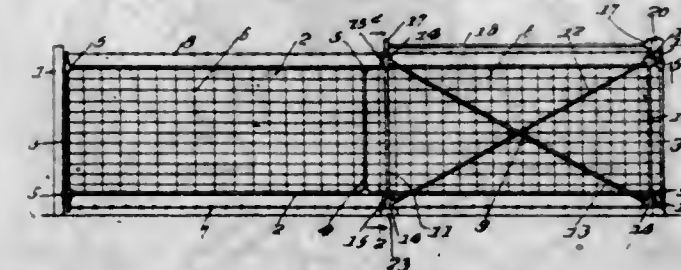
1,077,268. DOUBLE-SHEAVE BLOCK. GEORGE W. FLOYD, Spokane, Wash. Filed Mar. 1, 1913. Serial No. 751,624. (Cl. 57—34.)

In a device of the character described, a double strap, a pair of sheaves journaled between the arms thereof, and

having their peripheries in close relation, and laterally disposed guards secured to the arms of the strap intermediate the sheaves with their ends arranged adjoining and tangential to the sheaves.



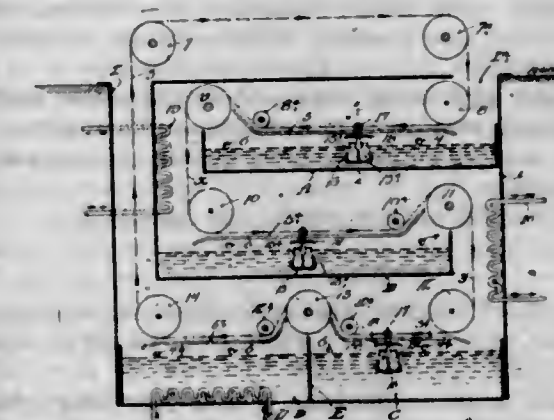
1,077,269. GATE. WILLIAM H. GEE and CHARLES E. GEE, Maskell, Nebr. Filed Apr. 3, 1913. Serial No. 758,607. (Cl. 39—7.)



1. A swinging frame, rollers mounted therein at the top and bottom thereof, and a gate slidable through said frame with its top and bottom bars engaging and cooperating with said rollers, said frame comprising spaced vertical and longitudinal members, the latter being crossed, and a brace rod connecting the upper ends of the end members of the frame above the upper roller.

2. A swinging frame comprising spaced end members and spaced side members extending angularly from the end members and crossed, arched members joining the upper ends of the end members, a brace rod connecting said arched members, rollers in said frame at the top and bottom thereof, and a gate slidable in said swinging frame independent thereof with its top and bottom bars engaging said rollers and disposed between the same, said gate being adapted to swing in said frame.

1,077,270. PASTEURIZING. FREDERICK GETTELMAN, Milwaukee, Wis. Filed Feb. 6, 1912. Serial No. 675,853. (Cl. 126—272.)

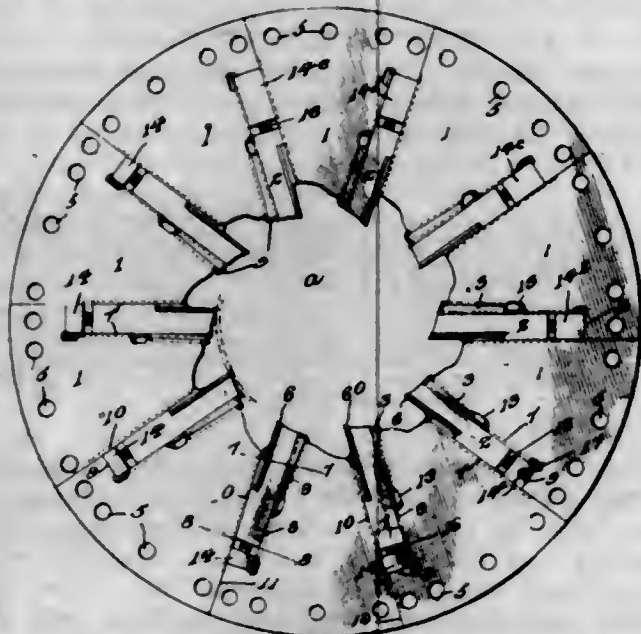


1. A pasteurizing method consisting in subjecting an atmospherically exposed product to a series of step by step water baths having progressively higher temperatures to effect sterilization, pre-heating the product by in-

direct radiation between the water baths of progressively higher temperatures, and thereafter subjecting said product, step by step, to a series of water baths having progressively lower temperatures relative to the maximum temperature of the first named series, and pre-cooling the product between the cooling baths by subjecting said product to the influence of an indirect cooling medium.

2. A pasteurizing method consisting in subjecting the product to a series of step by step water baths having progressively higher temperatures to effect sterilization, pre-heating the product by indirect radiation between the water baths of progressively higher temperatures, and thereafter subjecting said product, step by step, to a series of water baths having progressively lower temperatures relative to the maximum temperature of the first named series, and pre-cooling the product between the cooling baths by subjecting said product to the influence of an indirect cooling medium.

1,077,271. ROTARY CUTTING-OFF SAW AND THE LIKE. GEORGE GORTON, Racine, Wis. Filed Nov. 11, 1912. Serial No. 730,755. (Cl. 29—105.)



1. A rotary cutting-off saw comprising a blade having a central work-receiving opening, and cutters carried by said blade and arranged around and projecting into said opening, said blade composed of sector-shaped removable sections and means for wedging the same tightly together.

2. A rotary cutting-off saw comprising a blade having a central work-receiving opening and composed of removable radially arranged sections, each extending from the inner edge of the blade to the outer edge thereof and at its outer end formed to receive securing means, interposed removable inserted cutters, and locking keys for rigidly wedging the cutters and sections together.

3. A rotary cutting off saw having a central work-receiving opening, and composed of series of abutting sectors, interposed cutters and locking keys.

4. A rotary saw blade composed of abutting sector shaped sections and inserted cutters rigidly wedged and locked together.

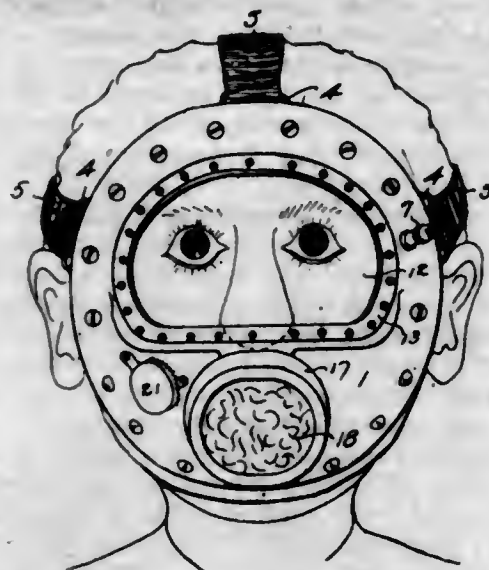
5. A rotary saw blade composed of removable sections, and interposed radially-arranged removable inserted cutters rigidly wedged to the sections to lock the sections and cutters together.

[Claims 6 to 26 not printed in the Gazette.]

1,077,272. FACE-MASK. HENRY C. GRAYBILL and ADOLPH C. EROGLER, Altoona, Pa. Filed Dec. 16, 1912. Serial No. 737,158. (Cl. 128—42.)

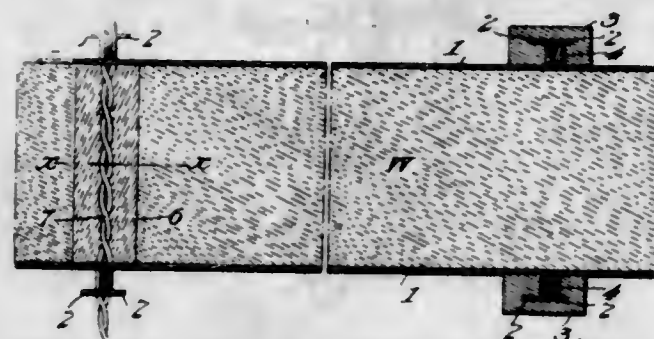
1. A face mask comprising a body provided with an opening in the front thereof, and an annular recess having a wall provided with a plurality of openings, a tube adapted to be inflated and thereby form a cushion located in said annular recess, resilient projections provided with a central cavity, said projections adapted to enter the open-

ings in the wall of said annular recess, means for entering the cavity of said projections and expanding the same into firm engagement with the walls of the openings in the recess, a fresh air supply inlet, an exhaust valve, and head attaching means.



2. A face mask comprising a body provided with an opening in the front thereof, and an annular recess having a wall provided with a plurality of openings, a tube adapted to be inflated and thereby form a cushion located in said annular recess, means on said tube for entering the openings in the wall of the recess, means for attaching the tube to the body of the mask, a transparent element fitted to the body and covering the opening in the front thereof, means for holding the said element in place, an air intake member containing a filtering medium associated with the body, an exhaust valve comprising a spring pressed valve head, and a cover therefor, and means for securing the mask to the head of the wearer.

1,077,273. MOLDING APPARATUS. ALFRED W. GREGG, Phoenix, Ariz. Filed Oct. 18, 1911. Serial No. 655,313. (Cl. 25—131.)

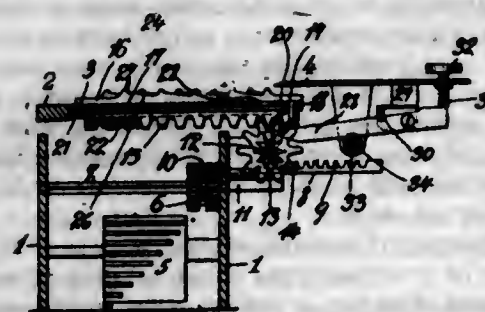


A molding apparatus comprising similar sections having angularly disposed abutting portions provided with oppositely directed terminal flanges; clamping blocks for said edges provided with T-shaped slots to receive said abutting portions, and the terminal flanges; wedges fitting between said blocks and the abutting portions of the sections, spacing members fitting within said sections transversely of the mold and between said abutting portions; and twisted tie rods passing through said members, the mold sections, and the terminal flanges thereof, said tie rods adapted to hold the mold sections against the spacing members, and said spacing members and the tie rods providing reinforcing members for the finished molded structure.

1,077,274. CALCULATING-MACHINE. ARTHUR HANTSCH, Linden, N. J. Filed July 31, 1912. Serial No. 712,427. (Cl. 235—75.)

1. In a setting up mechanism for calculating machines, the combination of a cover plate, a tens wheel, a finger slide movably supported on said cover plate for operating

said tens wheel, said finger slide comprising a member provided with the numbers 0-9 below the said cover plate but adapted to appear through a window in the same, said finger slide being arranged to be moved manually in one direction and to be stopped always at the same given point irrespective of the length of the movement of said slide as indicated by the number appearing through said window in the cover.



2. In a setting up mechanism for calculating machines the combination of a fixed support, a tens wheel, a finger slide for operating the same and movably supported on the said fixed support, said finger slide being provided with a set of exposed numbers 0-9 arranged in two columns and a second set of numbers 0-9 below the said fixed support but adapted to appear single through a window in the latter to indicate the position of the said tens wheel when the said finger slides is operated.

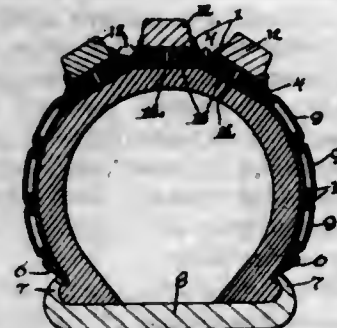
3. In a setting up mechanism for calculating machines, the combination of a tens wheel, a rack operatively connected to the latter, a rotatable shaft, a gear on the latter in mesh with the said rack and a finger slide for operating said gear and rack to cause an axial movement of said tens wheel.

4. In a setting up mechanism for calculating machines, the combination of a tens wheel, a rack operatively connected to the same, a shaft, a gear on said shaft in mesh with the said rack, a second gear on said shaft, a finger slide having a rack in mesh with said second gear, which latter is of a greater diameter than the first named gear whereby when said slide is moved a given distance, the said tens wheel is moved axially a less distance to place the same in a given position.

5. A finger slide for setting up the product numerals in calculating machines comprising a forked member, the upper branch of said forked member bearing the numerals 0-9 arranged in two columns, the lower branch of said forked member bearing the numerals 0-9 arranged in a single column.

[Claims 6 to 9 not printed in the Gazette.]

1,077,275. TIRE-PROTECTOR. RALPH V. HASTINGS, Chicago, Ill. Filed Jan. 19, 1912. Serial No. 672,172. Renewed Sept. 18, 1913. Serial No. 790,581. (Cl. 152—16.)

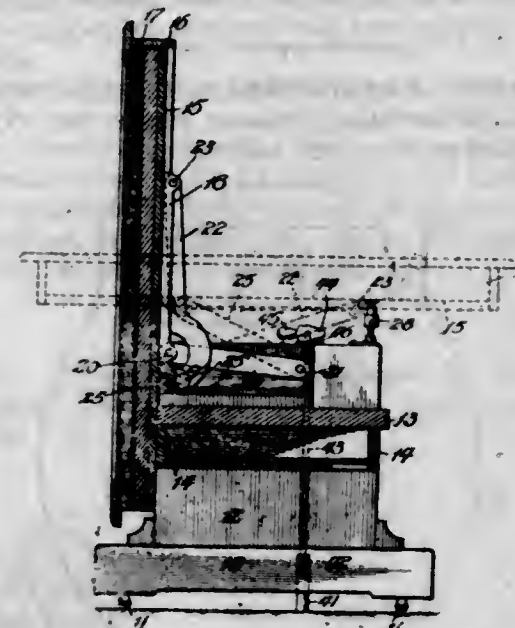


1. The combination of a tread block comprising a resilient tread portion and a firm base portion made up of layers of fabric vulcanized together; a metallic plate riveted to the under side of said fabric; a holder having flanges engaging the edges and ends of said resilient tread block, said firm base block and said metallic plate; and supporting loops on said holder, substantially as described.

2. A tire tread comprising a plurality of holders; supporting loops on said holders; links in said loops securing

said holders together; resilient tire blocks, each comprising a tread portion of resilient material and a firm base portion composed of layers of fabric vulcanized together and a metallic plate riveted to the under side of such firm base portion; and flanges on said holders engaging the edges and ends of said tire blocks, substantially as described.

1,077,276. COMBINED DAVENPORT AND BILLIARD TABLE. AXEL F. HJORT, Chicago, Ill., assignor to The Brunswick-Balke-Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Dec. 27, 1910. Serial No. 599,263. (Cl. 155—6.)



1. In a combined davenport and billiard table, the combination of a davenport seat, supporting end members therefor, a table top, links connecting said top with said end members whereby the table may be tilted from vertical to horizontal position, arm rests, and means for connecting said arm rests to said end members whereby the arm rests may be disposed upon said end members in position to conceal said links when the table top is in vertical position and folded down against said seat when the table top is in horizontal position.

2. In a combined davenport and billiard table, the combination of supporting end members, a table top pivotally mounted thereon, arm rests, links pivotally connected at one end to said rests and hinged at their other end to said supporting members whereby said rests may be disposed in operative position upon said supporting members and against the vertical face of said table top or folded into horizontal position beneath said table top.

3. In a convertible davenport and billiard table, the combination of a supporting end member, an arm rest, hinges mounted on said supporting member, links connecting said arm rest with said hinges, said links permitting a limited forward and backward movement of the arm rest relatively to the supporting member in a vertical plane and said hinges permitting said arm rest to be folded in a horizontal plane.

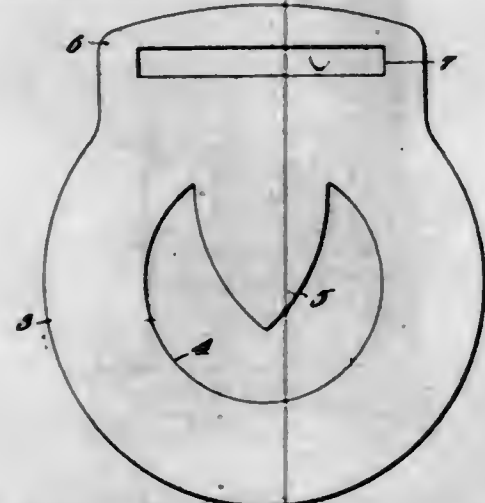
4. In a combined davenport and billiard table the combination of end members, a seat connecting the end members, a top member adapted to rest upon the tops of the end members to form a table top and to lie in a vertical position against the rear edges of the end members to form a back for the davenport, a link pivoted at one end to one of the end members and at its opposite end to the table top at one side of the longitudinal axis thereof, a second link crossing the first mentioned link and pivoted at one end to the table top at the opposite side of the longitudinal axis thereof, the other end of said second link having a slidable and pivotal connection with the end member, said second link having a slidable movement upon its pivot during the initial tilting of the table top and a pivotal movement thereafter.

5. In a combined davenport and billiard table, the combination of end members, a seat connecting said end

members, a top member adapted to rest upon the tops of the end members to form a table top and to lie in a vertical position against the rear edges of the end members to form a back for the davemport, a link pivoted at one end to one of the end members and at its opposite end to the table top at one side of the longitudinal axis thereof, a second link crossing the first mentioned link and pivoted at one end to the table top at the opposite side of the longitudinal axis thereof, the other end of said link having a slot and pin connection with the end member whereby said link is fulcrumed on the end member during a portion of its movement and slidably connected therewith during another portion of its movement.

[Claims 6 to 9 not printed in the Gazette.]

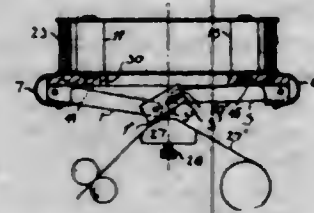
1,077,277. LATRINE-SEAT SHIELD. SAMUEL A. HOLMES, Storm Lake, Iowa. Filed Feb. 13, 1913. Serial No. 748,168. (Cl. 4-18.)



1. A latrine seat shield comprising a blank having a flap to fold under the front end of the seat with a slot in the flap to accommodate the front end of the seat.

2. A latrine seat shield comprising a blank having a flap to fold under the front end of the seat with a slot in the flap to accommodate the front end of the seat, and having a guard flap to fold in back of the front end of the seat.

1,077,278. PRINTING-TELEGRAPH SYSTEM AND ALPHABET. DAVID S. HULFISH, WILLIAM J. HERDMAN, and ROBERT S. LORIMER, Toronto, Ontario, Canada, assignors, by mesne assignments, to General Engineering and Construction Company, Limited, Toronto, Canada, a Corporation of Ontario. Filed Mar. 2, 1911. Serial No. 611,780. (Cl. 178-54.)



1. In a system of printing telegraphy, a plurality of operating electromagnets, a plurality of levers individually operated thereby, a plurality of type blocks each reciprocally borne by a pair of said levers, a plurality of printing types borne by each of said type blocks, and means for selectively imprinting any of said printing types.

2. In a system of printing telegraphy, a plurality of electromagnets, a plurality of operating levers individually operated thereby, a plurality of type blocks each reciprocally borne by a pair of said operating levers, a plurality of printing types borne by each of said type blocks, a record sheet opposite all of said printing types, means for selectively energizing said electromagnets to operate said operating levers to bring said printing types selectively into contact with said record sheet.

3. In a system of printing telegraphy, a plurality of type blocks, a plurality of operating levers in pairs and

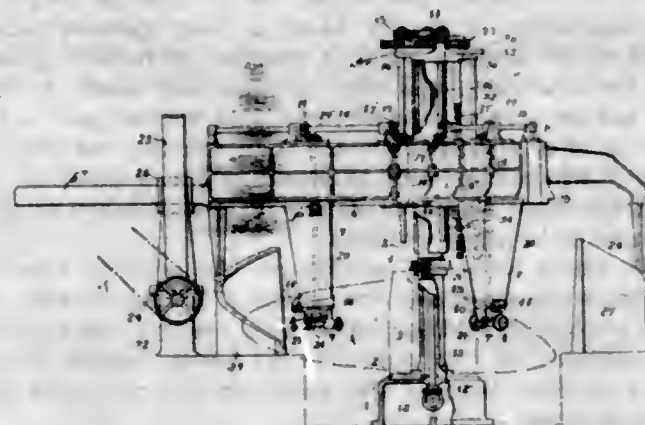
each such pair bearing one of said type blocks, electromagnetic means for selectively imparting through said operating levers either rotatory or transitory motion to said type blocks, a plurality of printing types borne by each of said type blocks and means for selectively operating said operating levers to produce impressions in a predetermined sequence from said printing types.

4. In a system of printing telegraphy, a pair of type blocks, a plurality of printing types borne by each of said type blocks, a pair of operating levers reciprocally attached to each of said type blocks, operating electromagnets for said operating levers, a record sheet adjacent to said printing types, means for selectively operating said operating levers to impart rotatory or transitory motion to said type blocks to bring said printing types selectively into contact with said record sheet.

5. In a printing telegraph system, a pair of type blocks, a plurality of printing types borne by each of said blocks, a record sheet therefor, a pair of operating levers attached to each of said type blocks, an operating electromagnet for each of said operating levers, a polarizing helix common to all of said operating magnets and adapted through said operating magnets to retain said operating levers in a normal non-operative position, means for selectively energizing said operating magnets to cause said operating levers to impart either rotatory or transitory motion to said type blocks to imprint on said record sheet any of said printing types.

[Claims 6 to 11 not printed in the Gazette.]

1,077,279. PROPELLER-BLADE-MILLING MACHINE. KUMIZO ITO, Fukuoka-Ken, Japan. Filed Feb. 14, 1912. Serial No. 677,531. (Cl. 90-13.)



1. In a propeller blade milling machine, the combination of a column, an arm moving longitudinally and circumferentially with respect to said column, means adapted to guide said arm in a predetermined path of movement longitudinally and circumferentially of said column, a bed disposed horizontally and at right angles to the axis of the path of movement of said arm, a rest movable longitudinally upon said bed, two upright arms carried by said rest, said arms being spaced apart from each other and having coacting concave faces to form guide ways longitudinally thereof, a drum-like member oscillatable and longitudinally movable in said guide ways, and an arm operatively connected with said first mentioned arm and extending diametrically through said drum-like member, but movable in said drum-like member, substantially as and for the purpose set forth.

2. In a propeller blade milling machine, the combination of a column, an arm adapted to carry a tool, movable longitudinally and circumferentially with respect to said column, means adapted to guide said arm in a predetermined path of movement longitudinally and circumferentially of said column, a bed disposed horizontally and at right angles to the axis of movement of said arm, a rest movable longitudinally upon said bed, means providing oppositely disposed upright coacting concave guide ways, carried by said rest, a drum like member oscillatable and longitudinally movable in said guide ways, an arm operatively connected with said first mentioned arm and extending diametrically through said drum like member but

movable longitudinally with respect thereto, and means for actuating said rest longitudinally of said bed in either direction, substantially as and for the purpose set forth.

3. In a propeller blade milling machine, the combination of a column, an arm adapted to carry a tool movable longitudinally and circumferentially with respect to said column, means adapted to guide said arm in a predetermined path of movement longitudinally and circumferentially of said column, a bed disposed horizontally and at right angles to the axis of movement of said arm, a rest movable longitudinally upon said bed, means providing oppositely disposed upright coacting concave guide ways, carried by said rest, a drum like member oscillatable and longitudinally movable in said guide ways, and an arm operatively connected with said first mentioned arm and extending diametrically through said drum like member but movable longitudinally with respect thereto, substantially as and for the purpose set forth.

4. In a propeller blade milling machine, the combination of a column, an arm adapted to carry a tool movable longitudinally and circumferentially with respect to said column, means adapted to guide said arm in a predetermined path of movement longitudinally and circumferentially of said column, a bed, a rest movable longitudinally upon said bed, and means operatively connecting said arm with said rest whereby movement of the latter imparts circumferential and longitudinal movement to the former with respect to said column, substantially as and for the purpose set forth.

5. In a propeller blade milling machine, the combination with a tool holder and mechanism for imparting movement to said holder in a helical path about an axis common to the axes of said holder and the piece to be worked, of a cutter carrying element carried by said tool holder and means for adjusting the position of said cutter carrying element with respect to said holder in an axial direction parallel to the said axis about which the latter moves, substantially as and for the purpose set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,077,280. BUTTONHOLE-SCISSORS. FRANK KARSITZ, Bridgeport, Conn. Filed Jan. 23, 1913. Serial No. 748,817. (Cl. 164-5.)



1. Button-hole scissors of the character described, comprising pivoted cutting members including shanks, a rod pivotally connected with the cutting members and disposed between the shanks, an adjusting nut having screw-threaded engagement with the shank, and means to normally hold the adjusting nut in permanent yielding engagement with one of the shanks.

2. Button-hole scissors of the character described, comprising co-acting cutting members including shanks, one cutting member provided with a recess formed therein, pivoted means to connect the cutting member and passing through a portion of the recess, a rod disposed within the recess and having pivotal connection with the pivot means and extending outwardly of the recess between the shanks, an adjusting nut having screw-threaded engagement with the shank and adapted to engage with the same, and a spring disposed within the recess and engaging the shank to normally retain the same in one position with relation to one shank whereby the adjusting nut will be held in yielding engagement with such shank.

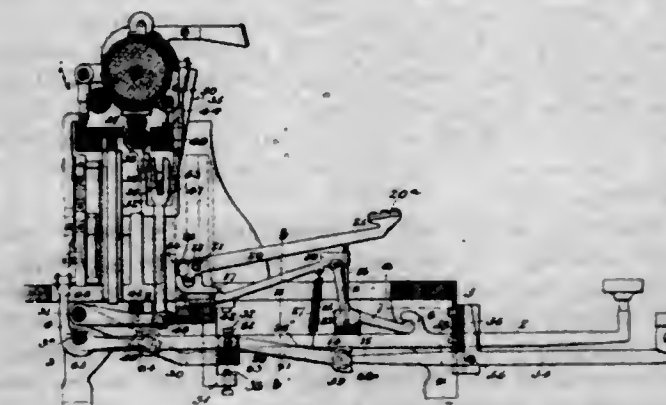
3. Button-hole scissors of the character described, comprising co-acting cutting members including shanks, a recess formed within one cutting member including a circular and longitudinally extending portion, a pin pivotally connecting the cutting members and extending through the circular portion of the recess, a rod extending with the longitudinal portion of the recess and having a curved head disposed within the circular portion of the recess in

engagement with the pin, a leaf spring including a curved portion surrounding the curved head within the circular portion of the recess and carrying an outwardly extending arm disposed within the longitudinal portion of the recess in engagement with the rod, and an adjusting nut having screw-threaded engagement with the outer portion of the rod.

4. Button-hole scissors of the character described, comprising co-acting cutting members including shanks, means pivotally connecting the cutting members, a rod disposed between the shanks and pivotally connected with the cutting members, a spring attached to the rod and engaging a portion of one cutting member to urge the rod toward such cutting member, and an adjusting nut having screw-threaded engagement with the rod and adapted to engage the shanks.

5. Button-hole scissors of the character described, comprising pivoted cutting members including shanks, a rod pivotally connected with the cutting members and disposed between the shanks, an adjusting nut having screw-threaded engagement with the rod to limit the inward movements of the shanks, and means to prevent accidental rotation of the adjusting nut.

1,077,281. TYPE-WRITER. WILLIAM J. KAUFFMAN, Cleveland, Ohio. Filed Feb. 13, 1903. Serial No. 143,208. (Cl. 197-22.)



1. In a typewriter key-movement, a shaft having a series of circumferential recesses, a circular bearing flattened along one side in each of said recesses, a series of key-levers having open circular hubs of more than a half circle arranged to receive the flattened bearing at their recessed portions, the shaft being arranged to be turned to lock the levers thereon and to provide a continuous curved bearing surface for key levers for more than half the circumference of said bearing surface; substantially as described.

2. In a typewriter key-movement, a fulcrum shaft having a series of circumferential recesses therein, each recess having a circular bearing with one flattened side, a series of key-levers having open curved recesses therein of more than a semi-circle and arranged to receive the recessed portions of the shaft, said shaft being arranged to be turned to lock the key-levers, and to provide a continuous curved bearing surface of more than a half a circle for the key-levers; substantially as described.

3. In a typewriter key-movement, a fulcrum shaft having a series of circumferential recesses therein, each recess having a circular bearing with one flattened side, a series of key-levers having open curved recesses therein of more than a semi-circle and arranged to receive the recessed portion of the shaft, said shaft being arranged to be turned to lock the key-levers, to provide a continuous curved bearing surface of more than a half circle for the key levers, and means for locking the shaft in its turned position; substantially as described.

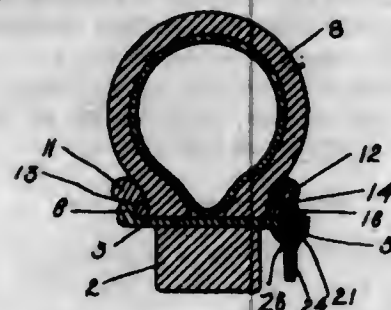
4. A typewriter having in its key movement a lever connection comprising a member having at its end an open forked portion with a concave bearing surface therein, a lever arm having a convex head engaging both sides of said fork, the member and the lever being in the same

vertical plane, and a guide engaging both sides of the member and the lever for holding the parts against side-wise displacement; substantially as described.

5. A typewriter key movement having a lever connection between two elements lying in the same vertical plane, said connections consisting of a fork portion on the end of one of the elements having bearing surfaces at both sides, a convex head portion on the other element engaging said bearing surfaces, and a guide engaging both sides of both elements for holding said parts against sidewise displacement; substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,077,282. LOCKING-RING. WALTER L. KELLEY, Pawtucket, R. I. Filed July 14, 1911. Serial No. 638,488. (Cl. 152-21.)



1. The combination with a wheel rim, of a flange upon the rim provided with a longitudinal groove, a split locking ring seated in the groove and provided near one end with a recess, a plate resting upon the flange in the groove, and registering in the recess, and a screw loosely mounted in the plate and flange and abutting against the ring to elevate the recessed end of the locking ring above the flange of the rim.

2. The combination with a wheel rim, of a flange upon the rim provided with a groove and with two openings, a split locking ring seated in the groove, a lug upon one end of the locking ring extending into one opening, a screw loosely mounted in the second opening and abutting against the other end of the locking ring to elevate the recessed end thereof in position for its easy removal and a plate located between the flange and the last mentioned end and provided with a threaded opening to receive said screw.

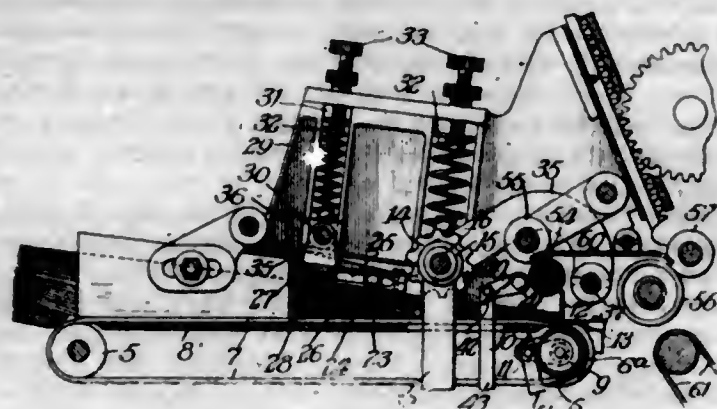
3. The combination with a wheel rim having a grooved flange, of a plate seated in said flange, a bearing ring bearing on said flange, a locking ring with its ends disconnected and having one end engaged in said flange and the other provided with a longitudinally disposed recess upon its under face to receive said plate, and a forcing device independent of said locking ring and movably mounted in said plate and engageable with the adjacent end of said ring to elevate the latter in position for easy removal.

4. The combination with a wheel rim having a grooved flange, of a plate seated in said flange, a bearing ring bearing on said flange, a locking ring with its ends disconnected and having one end engaged in said flange and the other provided with a longitudinally disposed recess upon its under face to receive said plate, and a forcing device independent of said locking ring and movably mounted in said plate and engageable with the adjacent end of said ring to elevate the latter in position for easy removal, the outer face of said bearing ring being outwardly inclined for outwardly guiding the end of the locking ring as the latter is forced outward.

1,077,283. PRINTING-PRESS. KARL F. KIRKMAN, Erie, Pa., assignor to Automatic Press Feeder Company, Chicago, Ill., a Corporation of Illinois. Original application filed Jan. 19, 1909, Serial No. 473,171. Divided and this application filed Oct. 1, 1909. Serial No. 520,512. (Cl. 101-40.)

1. In feeding mechanism for a printing press, the combination of an endless belt adapted to support a pile of sheets of paper, rollers for said belt, one of which is circumferentially grooved to thereby form corresponding

grooves in the belt passing thereover, and a series of fingers positioned in said grooves to take off the front end of the sheets from the belt.

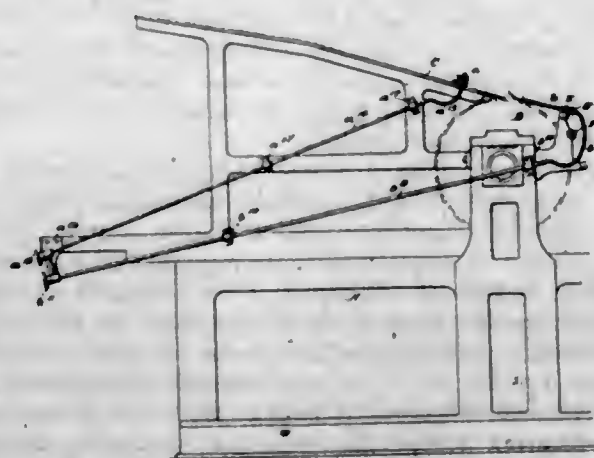


2. In feeding mechanism, for a printing press, the combination of an endless belt adapted to support a pile of sheets of paper, rollers for said belt, one of which is circumferentially grooved to thereby form corresponding grooves in the belt passing thereover, and a stop bar arranged at the forward end of the belt and having a series of fingers positioned in said grooves to take off the front end of the sheets from the belt.

3. In feeding mechanism for a printing press, the combination of a support for a pile of sheets of paper, an oscillating roller adapted to buckle the topmost sheet thereon, movable bearing boxes for the roller, yielding pressure means for holding the boxes and roller toward the pile, a cross shaft 30, a cross frame suspended therefrom and having blocks 26 projecting forwardly, a pressure bar 23 mounted in said blocks, and a supplemental bar 28 upon the underside of the cross frame.

4. In feeding mechanism for a printing press, the combination of a support for a pile of sheets of paper, an oscillating roller adapted to buckle the topmost sheet thereon, movable bearing boxes for the roller, yielding pressure means for holding the boxes and roller toward the pile, a cross-shaft 30, bearing boxes for the shaft, yielding pressure means for acting on the latter boxes, a cross frame suspended from the cross-shaft, a pressure bar 23 mounted in said cross frame, and arms acting upon the boxes of the roller and shaft for positively moving them away from the pile when the topmost sheet is being removed.

1,077,284. FEED-GAGE FOR PRINTING-PRESSES. STEPHEN J. KUBEL, Washington, D. C. Filed June 10, 1912. Serial No. 702,760. (Cl. 101-38.)



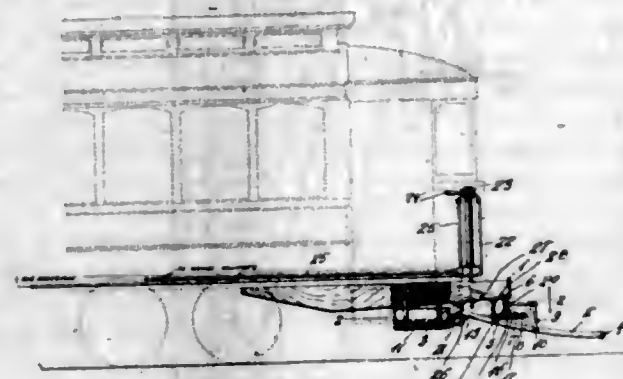
1. The combination with a printing press, of feed gage mechanism therefor including a gage plate and means for effecting fine adjustments of said plate, and means extending to proximity of the operator's station for positively actuating said adjusting means to bring the gage plate directly to any desired point of its range of movement, whereby the adjustment of the gages may be made by the operator without leaving his station at the delivery end of the press and while observing the delivered printed sheets.

2. The combination with a printing press, of a feed gage therefor including a gage plate and an adjusting screw for effecting fine adjustments of said plate, and rotary shafting extending from the adjusting screw to proximity of the operator's station for positively actuating said screw to move the gage plate to any desired point in its range of travel, whereby the adjustment of the gages may be made by the operator without leaving his station at the delivery end of the press and while observing the delivered printed sheets.

3. A feed gage for printing presses, comprising a gage plate and an adjusting screw for effecting fine adjustments of said plate, a hand operating device located near the press operator's station and transmission mechanism including rotary shafting disposed between said hand operating device and the adjusting screw, whereby the gage plate may be moved directly by the operator at his station to any definite point in its range of travel, while the printed sheets are being delivered under observation of the operator.

4. A feed gage for printing presses, comprising an adjustable gage member, a hand operating device located near the press operator's station, shafting including a flexible shaft section connecting said hand operating device and the adjustable gage member.

1,077,285. COMBINED CAR FENDER AND BRAKE. JAMES A. LAUGHLIN, St. Louis, Mo. Filed July 29, 1912. Serial No. 712,108. (Cl. 105-250.)



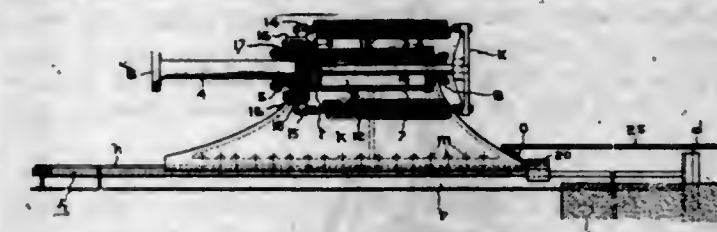
1. A fender fulcrumed so that its front end may be forced to the ground, in combination with fluid-operated means for forcing to the ground the said front end of the fender whenever the motorman's brake-valve handle is thrown to an "emergency stop" position, a slotted connection to permit a limited movement of said fluid-operated means without moving said fender, and means for returning the fender to its normal position after an "emergency stop" has been made.

2. A pivotally mounted fender, in combination with a brake-valve, a brake-valve handle, a reservoir pipe for supplying air to said brake-valve, an exhaust pipe connected to said brake-valve, a brake cylinder pipe connected to said brake-valve, a fender cylinder pipe also connected to said brake-valve, a piston in said cylinder, a spring in said cylinder for moving said piston in one direction, a rock shaft mounted above said fender, a rocker arm fixed upon said rock shaft, a piston rod connected to said piston, means for connecting said piston rod to said rocker arm, horizontal rocker-arms having one end fixed to said rock-shaft, and links pivotally connecting said horizontal rocker-arms to the said fender.

3. A pivotally mounted fender, in combination with a brake-valve, a brake-valve handle, a reservoir pipe for supplying air to said brake-valve, an exhaust pipe connected to said brake-valve, a brake cylinder pipe connected to said brake-valve, a fender cylinder pipe also connected to said brake-valve, a piston in said cylinder, a spring in said cylinder for moving said piston in one direction, a rock shaft mounted above said fender, a rocker arm fixed upon said rock shaft, a piston rod connected to said piston, a slotted connection between said piston rod and said rocker arm to permit movement of the piston rod without moving said rocker

arm, horizontal rocker-arms having one end fixed to said rock-shaft, and links pivotally connecting said horizontal rocker-arms to the said fender.

1,077,286. MEANS FOR STOPPING TRAINS. WILLIAM T. B. McDONALD, Granby, Quebec, Canada, assignor to MacDonald Car Buffer Limited, Montreal, Canada, a Corporation. Filed Aug. 19, 1912. Serial No. 715,894. (Cl. 104-49.)



1. In a railway train stopping appliance, the combination of a pair of rails, a buffer mounted slidably upon the rails, and a pair of blocks clamped to and under certain conditions slidably along the rails contiguous to the buffer.

2. A railway train stopping appliance comprising a pair of shoes supported slidably upon the rails at a railroad terminal, and a buffer mounted yieldingly upon the shoes in position to receive the impact of a train running upon the shoes, such buffer comprising a pair of webs mounted rigidly upon the shoes, a hermetically sealed cylinder rigidly secured upon the webs, a piston in the cylinder, a bar secured to the piston and projecting through one of the cylinder heads and having a buffing head at its outer end; and pressure and vacuum safety valves located at the opposite ends of the cylinder.

3. A railway train stopping appliance comprising a pair of shoes supported slidably upon the rails at a railroad terminal, and a buffer mounted yieldingly upon the shoes in position to receive the impact of a train running upon the shoes, such buffer comprising a pair of webs mounted rigidly upon the shoes, a hermetically sealed cylinder rigidly secured upon the webs, a piston in the cylinder, a bar secured to the piston and projecting through one of the cylinder heads and having a buffing head at its outer end; pressure and vacuum safety valves located at the opposite ends of the cylinder, and means returning the said last mentioned means to normal position.

4. A railway train stopping appliance comprising a pair of shoes supported slidably upon the rails at a railroad terminal, and a buffer mounted yieldingly upon the shoes in position to receive the impact of a train running upon the shoes, such buffer comprising a pair of webs mounted rigidly upon the shoes, a hermetically sealed cylinder rigidly secured upon the webs, a piston in the cylinder, a bar secured to the piston and projecting through one of the cylinder heads and having a buffing head at its outer end; a bar secured to the opposite side of the piston and projecting through the cylinder head at that side and having a cross-arm at its outer end, a pair of lateral bosses upon the cylinder, and helical spring connected between the ends of the cross-arm and the bosses.

5. In a railway train stopping appliance, the combination of a pair of rigid stops at a railroad terminal, a pair of rails abutting the stops, a buffer mounted slidably upon the rails and spaced from the stops.

[Claims 6 to 8 not printed in the Gazette.]

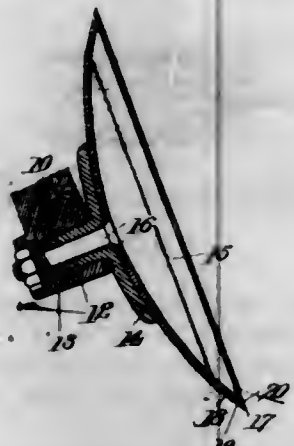
1,077,287. MANUFACTURE OF TAR ACIDS. ISAAC McDUGALL, SIDNEY McDUGALL, and FRED HOWLES, Manchester, England. Filed June 6, 1913. Serial No. 772,211. (Cl. 23-24.)

1. Process for the manufacture or recovery of tar acids from tar distillates, consisting in treating the latter with a mixture of alcohol and water, as set forth.

2. Process for the manufacture or recovery of tar acids from tar distillates consisting in agitating the latter with

a mixture of alcohol and water, allowing the liquid to settle, and separating the partially spent distillate from the acid extract, the said process being repeated at least once, the extracted acid being subsequently distilled, as set forth.

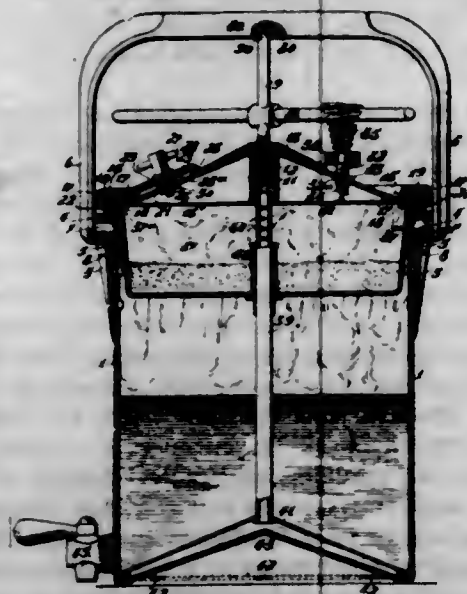
1,077,288. ROTARY DISK. CHARLES H. MCKEE, Pittsburgh, Pa. Filed Jan. 4, 1910. Serial No. 536,340. (Cl. 97-64.)



1. A disk for tilling machines comprising a continuously curved concavo-convex body of uniform thickness throughout, said body being bent inwardly adjacent the edge in a straight line to provide a beveled portion forming an annular rim, the edge of said rim being provided with an inner bevel arranged at an angle to the plane of the rim and reaching to the outer edge of the latter.

2. A disk for tilling machines comprising a continuously curved concavo-convex body of uniform thickness throughout, said body being bent inwardly adjacent the edge in a straight line to form an annular rim, the edge of said rim being provided with an inner bevel arranged at an angle to the plane of the rim and reaching to the outer edge of the latter, said bevel being narrower than the width of said rim.

1,077,289. HIGH-PRESSURE STEAM-COOKING UTENSIL. THOMAS J. NASH, Lincoln, Nebr. Filed Dec. 18, 1912. Serial No. 737,427. (Cl. 53-3.)

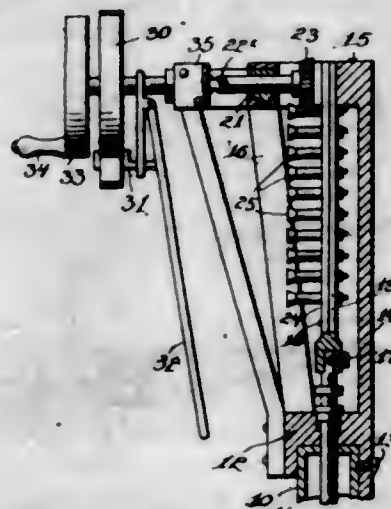


1. An improved cooking utensil comprising a pot-like body, a cover removably mountable on the top edge of the said body, a bail shaped handle whose ends pivotally connect with the body to swing over the cover, the said handle including a bearing portion that is disposed centrally over the cover when the handle is swung up to its carrying position, a presser screw which includes a horizontally extended handle, the said screw being adapted for engaging the cover and the bearing in the bail shaped handle, whereby when the said screw handle is swung around pressure is applied to the cover, a safety valve removably mounted on the cover, said valve including a vertical extension that projects into the plane of the sweep of the handle of the presser screw.

2. An improved means for clamping a cover steam-tight on a cooking utensil, said means comprising a central hub on the cover having an internally threaded socket, a screw shank that engages the said socket, the said shank having a horizontal sweep arm, a bail like handle whose ends are pivotally connected to the utensil, the said utensil having socket bearings on the sides thereof for receiving the ends of the handle bail, the said bearings including wedge members that lead to and form the lower edges of the socket bearings.

3. In a cooking utensil, a kettle, a tray removably supported within the upper edge of the kettle and having a centrally upwardly extended tube, a false bottom mountable upon the bottom of the kettle and having members for holding it spaced from the said bottom of the kettle, a tube extending from the said false bottom up through the tube in the tray and having its upper end perforated to discharge into the tray, a cover, said cover including a pendent hub having a socket for engaging the upper end of the perforated tube, the said cover including an annular flange having a packing receiving groove adapted for engaging the upper edge of the kettle and the tray suspended therein, and means for clamping the cover under pressure upon the kettle.

1,077,290. PUMP-OPERATING MECHANISM. PAUL C. NOWATSKY, Mukwonago, Wis. Filed Oct. 31, 1912. Serial No. 728,926. (Cl. 103-62.)



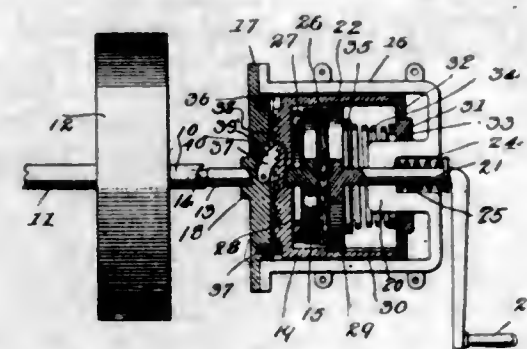
1. In a pump, the combination with its cylinder and piston rod; of a supporting head mounted on the cylinder, a horizontal guide frame supported above the head, a rack bar detachably connected to the piston rod and vertically movable in the frame, a transversely shiftable drive shaft carried by the frame in mesh with the rack bar and means for rotating the shaft to reciprocate the rack bar and piston rod connected thereto.

2. The combination with a pump having a reciprocable piston and the pump rod; of a supporting head mounted on the pump, set screws operating through said head to secure the same to the pump, a casting formed integral with the head and comprising a rear upright, a horizontal frame at the upper end of the upright and braced to the sides of the head, said frame having a horizontally slotted forward portion, a rack bar comprising a plurality of spaced rollers, a cross head attached to the pump rod and supporting said rollers, said cross head being vertically slidable in the frame, a shaft having a pinion at its inner end in mesh with the rack bar, an arm braced to the head and rotatably supporting the shaft, a sliding bearing engaged in the slotted portion of the frame and rotatably receiving the shaft for transverse movement and means for rotating the shaft.

1,077,291. CRANKING DEVICE FOR INTERNAL-COMBUSTION ENGINES. JOHN F. O'BERT, Los Angeles, Cal. Filed Aug. 7, 1912. Serial No. 713,760. (Cl. 123-185.)

1. An engine starter comprising an outer and an inner shaft, clutch members positioned upon the adjacent ends of said shafts, means for normally closing said clutch members, means for rotating the outer one of said shafts,

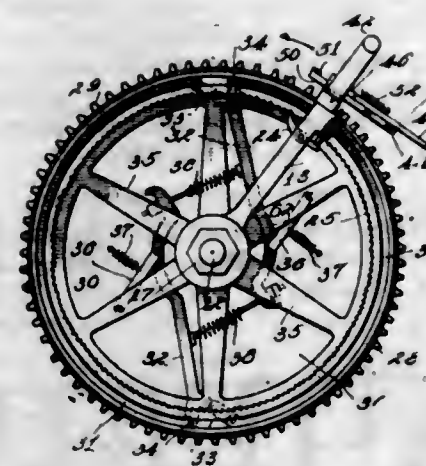
a cup-shaped cage adapted for containing said clutch members, and a stationary case inclosing said cage, said cage adapted for free rotary movement in one direction and being longitudinally movable, pivoted pawls engaging the rear of said cage whereby a reverse movement of said shaft and cage pivotally actuates said pawls outwardly and rotary resilient means encircling said shaft for returning said pawls.



2. An engine starter comprising an outer and an inner crank shaft, a shaft engaging means upon said inner shaft, cooperating clutch members fixed to the adjacent ends of said shafts, adjustable resilient means engaging said clutch members, said clutch members and shafts adapted for free rotation in one direction, a stationary member, pawls pivoted to the latter, a receiver for said clutch members, teeth upon said receiver adjacent said pawls, said receiver, clutch members, and shafts adapted for limited outward movement upon a rocking of said pawls.

3. An engine starter comprising an outer and an inner crank shaft, a shaft engaging means upon said inner shaft, cooperating clutch members fixed to the adjacent ends of said shafts, adjustable resilient means engaging said clutch members, said clutch members and shafts adapted for free rotation in one direction, a stationary member, pawls pivoted to the latter, a rotary receiver for said clutch members, a rotary spring actuated pawl stop engaging said pawls, a stationary case for said receiver, anti-friction members between said case and receiver, and means for rotating said outer shaft.

1,077,292. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. JOHN F. O'BERT, Los Angeles, Cal. Filed Oct. 8, 1912. Serial No. 724,010. (Cl. 123-185.)

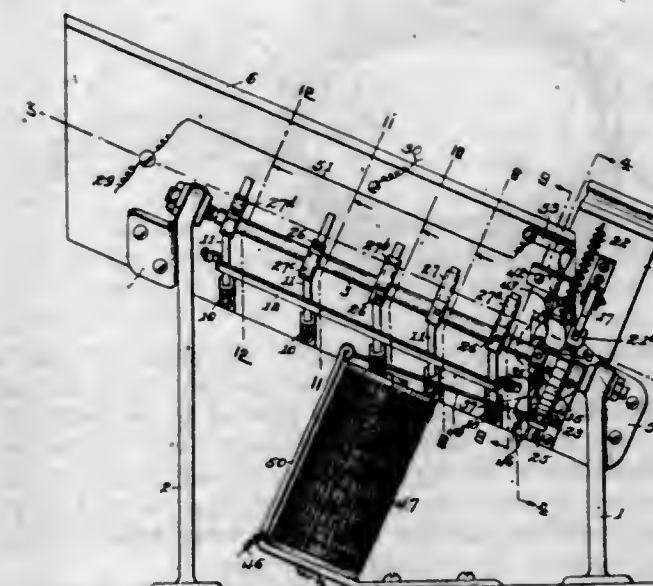


1. A device of the class described comprising in combination with an engine shaft, a stationary axle, a spool journaled upon said axle, a stationary support, peripheral teeth upon the outer side disk of said spool, dogs pivoted to said support adapted for engagement with said teeth, an internal rack upon the inner side disk of said spool, a foot lever journaled upon said axle, a pawl pivoted to said lever adapted for normal engagement with said internal rack, a sprocket wheel journaled upon said spool between the side disks thereof, clutching means positioned between said sprocket wheel and said inner side disk of said spool, and operative connections between said sprocket wheel and engine shaft.

196 O. G.—2

2. A device of the class described comprising in combination with an engine shaft, a stationary axle, a spool journaled upon said axle, a stationary support, peripheral teeth upon one side of said spool, dogs pivoted to said support adapted for engagement with said teeth, an internal rack upon the other side of said spool, a foot lever journaled upon said axle, a pawl pivoted to said lever adapted for normal engagement with said internal rack, a clutch casing journaled upon said spool between the opposite sides thereof, a sprocket wheel mounted upon the exterior of said casing, a stub shaft adapted for engagement with the engine shaft, a small sprocket wheel upon said stub shaft, operative connections between said sprocket wheels, and means including brake bands within said casing adapted for clutching the latter to said spool.

1,077,293. COIN-CONTROLLED MECHANISM. EDWIN J. ORNOLD, Wheeling, W. Va. Filed July 3, 1912. Serial No. 707,445. (Cl. 194-6.)



1. The combination of a coin chute adapted to accommodate therein a plurality of coins at a time, a plurality of coin seats formed in said chute, said seats varying in size to accommodate coins of different denominations, a motor circuit closed by a coin occupying seated position in said chute, a ratchet wheel, means for intermittently rotating said wheel, and means actuated by rotation of said wheel for successively dislodging coins in a sequence determined by their positions in the chute.

2. The combination of a coin chute adapted to accommodate therein a plurality of coins at a time, a plurality of coin seats formed in said chute, said seats varying in size to accommodate coins of different denominations, a motor circuit closed by a coin occupying seated position in said chute, a ratchet wheel, means for intermittently rotating said wheel, means actuated by rotation of said wheel for successively dislodging coins in a sequence determined by their positions in the chute, and means for returning said wheel to normal position.

3. The combination of a coin chute adapted to accommodate therein a plurality of coins at a time, a plurality of coin seats formed in said chute, said seats varying in size to accommodate coins of different denominations, a motor circuit closed by a coin occupying seated position in said chute, a ratchet wheel, means for intermittently rotating said wheel, means actuated by rotation of said wheel for successively dislodging coins in a sequence determined by their positions in the chute, and means controlled by the dislodged coin for returning said wheel to normal position.

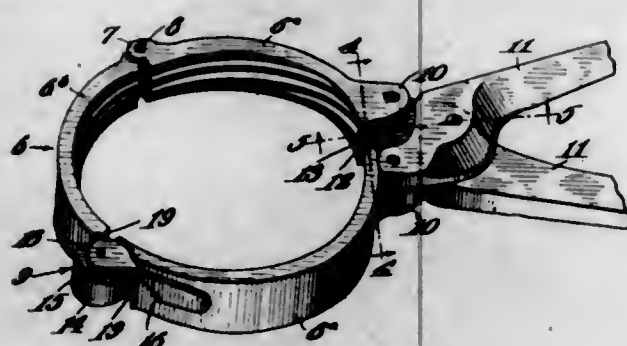
4. The combination of a coin chute having coin seats therein and adapted to accommodate a plurality of coins at a time, a motor circuit closed by a coin occupying seated position in said chute, a ratchet wheel, means for intermittently rotating said wheel, means actuated by rotation of said wheel for successively dislodging coins in a sequence determined by the positions which they occupy,

a magnetic circuit closed by each coin after dislodgment, means under the control of said magnetic circuit for releasing the advanced wheel, and means for returning said wheel and the coin dislodging means to normal position.

5. The combination of a coin chute having a plurality of coin seats therein and adapted to accommodate a plurality of coins at a time, an electric circuit closed by a coin occupying seated position in said chute, means operating across the seating positions of said coins at predetermined intervals for successively dislodging the same in a sequence determined by their positions in the chute, and means actuated by a dislodged coin for returning the dislodging means to normal position.

[Claims 6 to 22 not printed in the Gazette.]

1,077,294. CAN-TOP SET AND WRENCH. GEORGE E. ORT, Lancaster, N. Y. Filed Dec. 6, 1912. Serial No. 735,340. (Cl. 65-28.)



1. In a device of the character described, a pair of crossed and pivoted levers, and a clamping ring embodying a plurality of hinged sections pivoted to the respective levers, the hinged connection between two of the sections including a lever pivoted to the end of one section and having an eccentric member engaging the end of the adjoining section, the last mentioned lever being adapted to swing against the respective sections.

2. In a device of the character described, a pair of crossed and pivoted levers, a clamping ring embodying a plurality of hinged sections pivoted to the respective levers, two of the sections having overlapped ears, a lever having a boss journaled through one ear, and a pivot pin passing through the other ear and passing eccentrically through the boss, the last mentioned lever being adapted to swing against the respective sections.

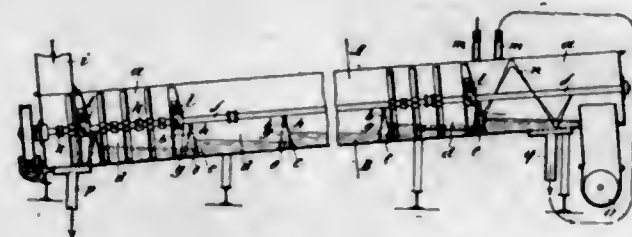
1,077,295. METALLIC SHEET-PILING. JOHN SWITZER OWENS, London, England, assignor to John Malan De Mendoza y Mehr, London, England. Filed Mar. 21, 1912. Serial No. 685,185. (Cl. 61-52.)



1. A metal pile comprising a trough shaped section, flanges extending outward from the edges of the trough, one of said flanges being provided with an outer edge formed in substantial U-shape in cross section, the remaining flange having its outer edge rounded, and a co-operating member carried by the last mentioned flange and provided with a rounded portion in spaced relation to the rounded portion of the flange whereby a groove is formed adapted to receive the U-shaped edge of a second pile.

2. A metal sheet pile of a trough shape in cross section and provided with flanges extending outwardly from the edges of said trough, each of said flanges having its edge of U-shape in cross section, and a plate secured to one of said flanges and provided with a bulb edge extending into the concavity of the flange edge and lying in spaced relation to the inner side of said edge whereby to provide a groove adapted to receive the opposite edge of a corresponding pile.

1,077,296. APPARATUS FOR LEACHING SACCHARIFEROUS VEGETABLES. MAX PASCHEN, Köthen, Germany. Filed Oct. 15, 1912. Serial No. 725,790. (Cl. 127-8.)

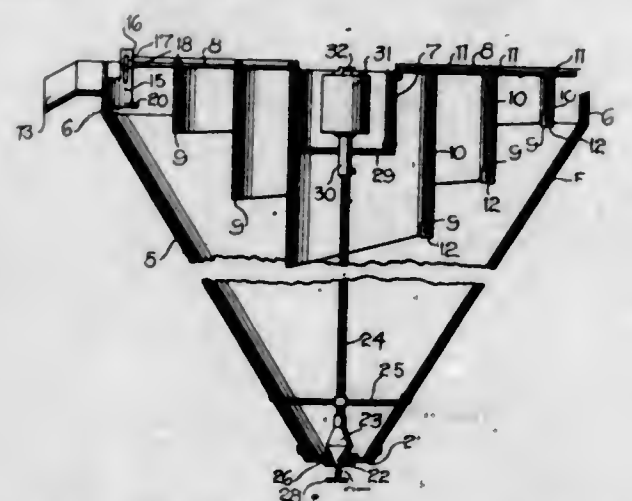


1. A chamber apparatus for leaching sacchariferous vegetable slices by counter-current, comprising an inclined trough with an inlet for the slices at one end and with an inlet for the liquid at the other end the outlet for slices and liquid being also at opposite ends of the trough, the latter being divided by partitions into several chambers, agitating and conveying means in the chambers adapted to throw the slices over the several partitions and separate overfalls being provided for the passage of the liquid from one chamber to the next.

2. A chamber apparatus for leaching sacchariferous vegetable slices by counter-current, comprising an inclined trough with an inlet for the slices at one end and with an inlet for the liquid at the other end the outlets for slices and liquid being also at opposite ends of the trough, the latter being divided by partitions into several chambers, agitating and conveying means in the chambers adapted to throw the slices over the several partitions and separate overfalls being provided for the passage of the liquid from one chamber to the next, said overfalls comprising hollow partitions forming chambers, said chambers having inlet openings for the liquid of the higher chamber at the upper end of one wall and having outlet openings communicating with the lower chamber formed in the lower end of the other wall.

3. A chamber apparatus for leaching sacchariferous vegetable slices by counter-current, comprising an inclined trough with an inlet for the slices at one end and with an inlet for the liquid at the other end the outlets for slices and liquid being also at opposite ends of the trough, the latter being divided by partitions into several chambers, agitating and conveying means in the chambers adapted to throw the slices over the several partitions and separate overfalls being provided for the passage of the liquid from one chamber to the next, said overfalls comprising hollow partitions forming chambers, said chambers having inlet openings for the liquid of the higher chamber at the upper end of one wall and having outlet openings communicating with the lower chamber formed in the lower end of the other wall, said walls forming a chamber in the form of an inverted V.

1,077,297. MINERAL-SEPARATOR. MARION L. PORTER, Silverton, Colo. Filed May 15, 1913. Serial No. 767,840. (Cl. 83-52.)



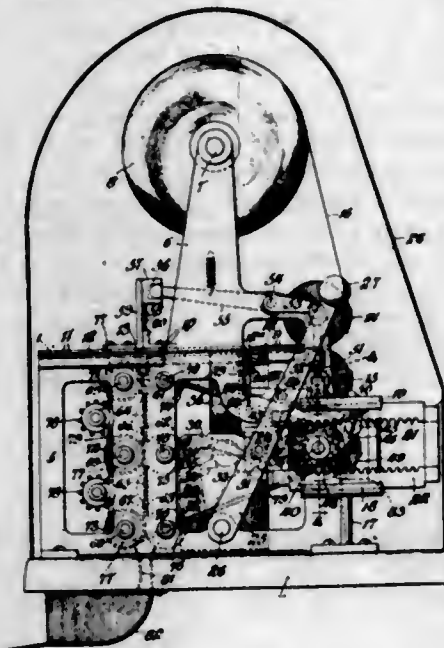
1. In a mineral separator, a tank provided with an outlet at its upper edge, radially disposed supporting bars

fixed at their outer ends to the wall of said tank, a spirally wound plate arranged in said tank, stirrup members depending from said bars and engaging the lower edge of said plate to support the same, and a deflecting plate fixed to said spiral plate and to the wall of the tank to direct the mineral bearing water through the outlet of said tank.

2. In a mineral separator, a tank provided with an outlet spout at its upper edge, a spirally wound directing plate arranged in the top of the tank and gradually decreasing in depth from the center of the tank outwardly to the wall thereof, said plate directing the mineral bearing water through a circuitous path from the point of intake to said outlet thereby permitting the heavier particles to settle to the bottom of the tank.

3. In a mineral separator, a tank to receive the mineral bearing water, a housing centrally arranged in the upper end of said tank, supporting bars connected to the housing and to the tank wall, means depending from said bars to cause the mineral bearing water to travel in a spiral path as it is fed to the tank, said tank having an outlet at its upper end for the finer particles of mineral carried upon the surface of the water and an outlet at its bottom for the waste products, a valve normally closing said latter outlet, a float arranged in said housing, and a rod connecting said float to the valve, to move the latter to its open position.

1,077,298. APPARATUS FOR MAKING AND VENDING SANITARY CUPS. JAMES POWERS, Newark, N. J. Filed Apr. 4, 1912. Serial No. 688,487. (Cl. 93-36.)



1. In a machine for making sanitary drinking cups, a support for a web from which the cups are to be made, feeding means for the web, severing means for the web, folding means for folding the severed portion of the web intermediately upon itself, folding means and compressing means for the meeting sides of the folded web, an inclosing means for the web supporting, severing and compressing means, and a single means accessible from the exterior of the inclosing means for imparting motion to the several web operating means in timed relation to cause the formation and delivery of a cup from a web of material within the machine.

2. In a machine for making sanitary drinking cups, a support for a web from which the cups are to be made, feeding means for the web, severing means for the web, folding means for folding the severed portion of the web intermediately upon itself, folding means and compressing means for the meeting sides of the folded web, an inclosing means for the web supporting, severing and compressing means, and a single means accessible from the exterior of the inclosing means for imparting motion to the several web operating means in timed relation to cause the formation and delivery of a cup from a web of material within the machine, the feeding means for the

web having a range of movement to cause the feeding of a length of web into position to be severed from the web supply and folded into another cup on a subsequent operation of the mechanism.

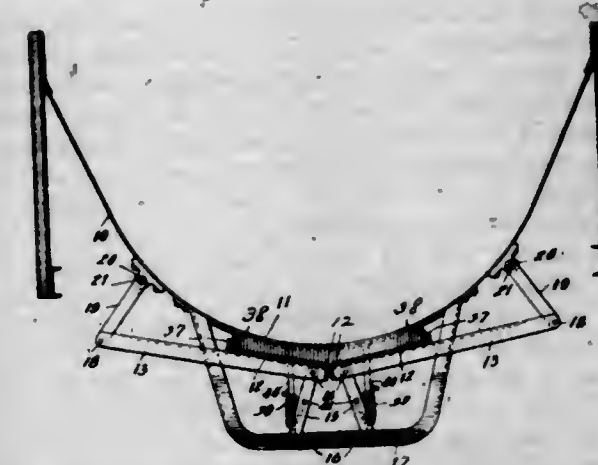
3. A machine for manufacturing and delivering a drinking cup at each operation of the machine, comprising means for supporting a web of material, means for severing a blank from the web, means for folding the blank into cup form with folded over edges, means for pressing said edges into cohesive liquid-tight relation, a casing inclosing the cup forming mechanism and web support, and a single manipulating member for the web treating means accessible from the exterior of the casing.

4. In a machine of the class described, a casing, mechanisms for the complete formation of the article to be vended housed in said casing, a reciprocating manipulating member for said mechanisms extending into said casing, and connecting means within the casing between the manipulating member and the first-named mechanisms for converting both movements of a complete reciprocation of the manipulating member into a one-way movement of said first-named mechanisms.

5. In a machine of the class described, mechanisms for the complete formation of the article to be vended, a casing for inclosing said mechanism, a one-way mechanism for causing a timed operation of the article forming mechanisms and also inclosed by the casing, manipulating means for actuating the one-way mechanism accessible to an operator at the exterior of the casing, said manipulating means being mounted for reciprocation from a position of rest to a limit of movement and then back again to the position of rest to complete the cycle of operations, and means within the casing for converting both movements of the manipulating means into a one-way movement of the article forming mechanisms substantially coextensive in time of operation with both movements of a complete reciprocation of the manipulating means.

[Claims 6 to 22 not printed in the Gazette.]

1,077,299. HOPPER-CAR. HERMAN C. PRIEBE, Chicago, Ill. Filed June 15, 1910. Serial No. 566,897. (Cl. 105-185.)



1. In a hopper-bottom railroad-car, in combination: a hopper having a central discharge; longitudinal doors closing the discharge of said hopper and bodily movable laterally outward; upwardly extending rock arms supporting the said doors from below; operating connections for opening said doors; and a power-operated motor for actuating the said operating connections to open said doors positively; substantially as specified.

2. In a hopper-bottom railroad-car, in combination: a hopper having a central discharge; longitudinal doors closing the discharge of said hopper and bodily movable laterally outward; upwardly extending rock arms supporting the said doors from below; operating connections for opening said doors; and a motor-cylinder for actuating the said operating connections to open said doors positively; substantially as specified.

3. In a hopper-bottom railroad-car, in combination: a hopper having a central discharge; longitudinal doors

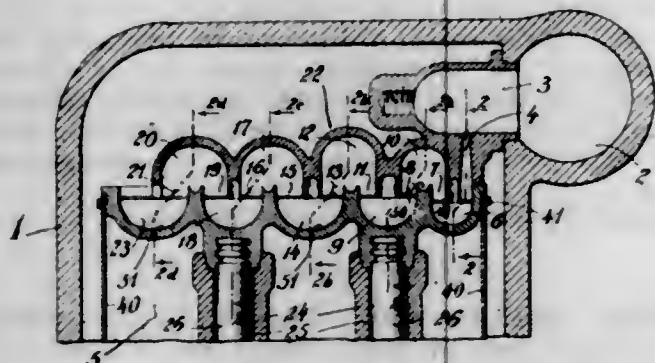
closing the discharge of said hopper and bodily movable laterally outward; upwardly extending rock arms supporting the said doors from below; operating connections for opening said doors; and an air-cylinder for actuating said operating connections to open said doors positively; substantially as specified.

4. In a hopper-bottom railroad-car, in combination: a hopper having a central discharge; longitudinal doors closing the discharge of said hopper and bodily movable laterally outward, said doors being mounted on laterally swinging arms; operating connections for opening said doors; and a power-operated motor for actuating the said operating connections to open said doors positively; substantially as specified.

5. In a hopper-bottom railroad-car, in combination: a hopper having a central discharge; longitudinal doors closing the discharge of said hopper and bodily movable laterally outward, said doors being mounted on laterally swinging arms; operating connections for opening said doors; and a motor-cylinder for actuating the said operating connections to open said doors positively; substantially as specified.

[Claims 6 to 13 not printed in the Gazette.]

1,077,300. AXIAL-FLOW STEAM-TURBINE. CHARLES BENIS REARICK, New London, Conn., assignor to Connecticut Turbine Manufacturing Company, New London, Conn., a Corporation of Connecticut. Filed Dec. 9, 1912. Serial No. 735,602. (Cl. 121-57.)



1. In axial flow elastic fluid turbines, a cast turbine wheel rim provided with a number of annular sets of lapping curved buckets, substantially radial bronze expansion spokes secured to said rim, a wheel hub being formed of cast ferrous metal of less coefficient of expansion embracing and gripping said spokes adjacent their inner ends and forming integral spoke supports loosely surrounding said spokes and allowing their radial expansion and said plates secured to said rim to inclose said spokes, said wheel buckets being substantially flat and a number of the succeeding sets of said wheel buckets being arranged at a greater angle to the wheel circumference than the preceding set, a series of return members mounted to cooperate with said wheel, each of said members being provided with a number of sets of curved return passages cooperating with the sets of wheel buckets, one or more sets of return passages being substantially flat and arranged at a greater angle than the wheel buckets from which they receive fluid.

2. In axial flow elastic fluid turbines, a cast turbine wheel rim provided with a number of annular sets of lapping curved buckets, bronze expansion spokes secured to said rim, a wheel hub being formed of cast ferrous metal of less co-efficient of expansion embracing and gripping said spokes adjacent their inner ends, said wheel buckets being substantially flat and a number of the succeeding set of said wheel buckets being arranged at a greater angle to the wheel circumference than the preceding set, a series of return members mounted to cooperate with said wheel, each of said members being provided with a number of sets of curved return passages cooperating with the sets of wheel buckets, one or more sets of return passages being substantially flat and arranged at a greater angle than the wheel buckets from which they receive fluid.

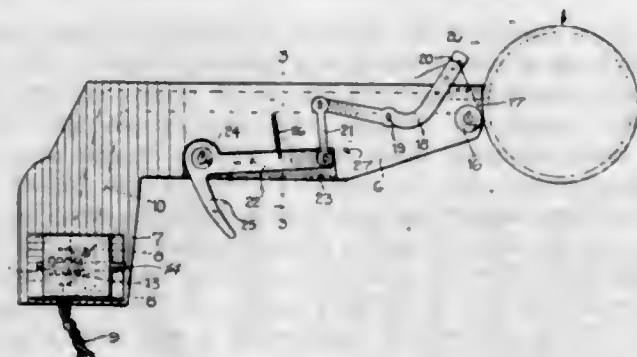
3. In axial flow elastic fluid turbines, a cast turbine wheel rim provided with a number of annular sets of lapping curved buckets, bronze expansion spokes secured to said rim, a wheel hub being formed of metal of less co-efficient of expansion embracing and gripping said spokes adjacent their inner ends, said wheel buckets being substantially flat and a succeeding set of said wheel buckets being arranged at a greater angle to the wheel circumference than the preceding set, a series of return members mounted to cooperate with said wheel, each of said members being provided with a number of sets of curved return passages cooperating with the sets of wheel buckets.

4. In axial flow elastic fluid turbines, a cast turbine wheel provided with a number of annular sets of lapping curved buckets, said wheel buckets being substantially flat and a number of the succeeding sets of said wheel buckets being arranged at a greater angle to the wheel circumference than the preceding set, a series of nozzle and return members mounted to cooperate with said wheel, each of said members being provided with a plurality of injecting nozzles to cooperate with the first set of wheel buckets and with a number of sets of curved return passages cooperating with the succeeding sets of wheel buckets, one or more sets of return passages being substantially flat and arranged at a greater angle than the wheel buckets from which they receive fluid and one of said sets of return passages being warped and arranged to return the fluid to the wheel buckets at a less angle to the wheel circumference than said fluid was received.

5. In axial flow elastic fluid turbines, a cast turbine wheel provided with a number of annular sets of lapping curved buckets, said wheel buckets being substantially flat and a number of the succeeding sets of said wheel buckets being arranged at a greater angle to the wheel circumference than the preceding set and a succeeding set of said wheel buckets having a greater axial width than the preceding set, a series of nozzle and return members mounted to cooperate with said wheel, each of said members being provided with a plurality of injecting nozzles to cooperate with the first set of wheel buckets and with a number of sets of curved return passages cooperating with the succeeding sets of wheel buckets, one or more sets of return passages being substantially flat and arranged at a greater angle than the wheel buckets from which they receive fluid.

[Claims 6 to 58 not printed in the Gazette.]

1,077,301. CAPPING-TOOL. DANIEL M. RESSLER and FRANK BUTLER, Mount Vernon, Ohio. Filed Feb. 8, 1913. Serial No. 747,126. (Cl. 219-21.)



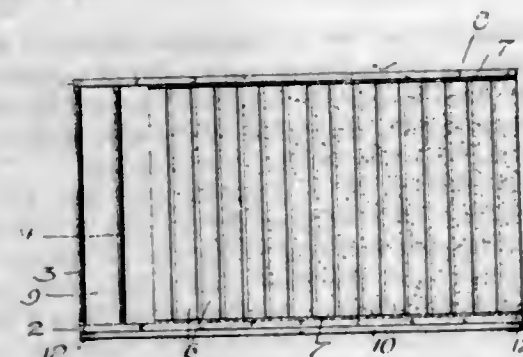
1. A device of the character described including a body provided with a hand grasp and having suitable conductors and terminals, a heating wire connected with such terminals and adapted to be passed around the article to be severed, a circuit closer for the conductors positioned adjacent the hand grasp, and manually operated means positioned adjacent the hand grasp for tensioning said wire.

2. A device of the character described including a body provided with a hand grasp and having conductors and terminals, a heating wire engaged with said terminals and

adapted to encircle the article to be severed, and manually operable tensioning means for the wire positioned adjacent to the hand grasp.

3. A device of the character described including a body affording a hand grasp and having suitable terminals and conductors, a circuit closer for the conductors carried by the hand grasp provided with a reciprocating stem directed transversely of the hand grasp, a heating wire operatively engaged with the terminals, and manually operable tensioning means for the wire positioned adjacent the hand grasp.

1,077,302. DOOR-MAT. RICHARD W. REYNOLDS, Kittanning, Pa. Filed Feb. 24, 1913. Serial No. 750,411. (Cl. 15-62.)

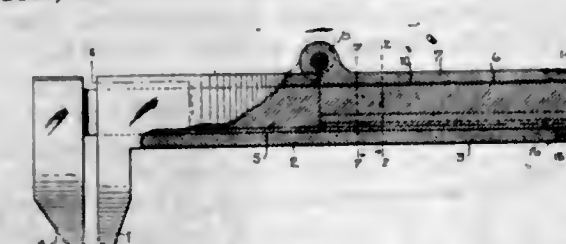


1. A door mat comprising parallel side rails, scraper bars connecting said rails at one end thereof, rods connecting said rails, fabric covers arranged upon said rods, and a flexible holder forming the bottom of said mat.

2. A door mat comprising parallel side rails, scraper bars connecting said rails at one end thereof, rods connecting said rails, fabric covers arranged upon said rods, and a flexible holder forming the bottom of said mat and having one edge thereof permanently connected to one rail and the other edge detachably connected to the other rail.

3. A door mat comprising rails, transverse rods connecting said rails, fabric covers arranged upon said rods, and a movable flexible holder carried by said rails and forming the bottom of said mat.

1,077,303. WRENCH. GUSTAAF ADOLF RIENKS, Freeport, Ill. Filed Dec. 18, 1912. Serial No. 737,511. (Cl. 81-135.)



1. A wrench comprising a stationary jaw having a hollow handle, said handle being formed with an extension having longitudinal grooves formed therein adjacent its opposite edges, a movable jaw having a shank slidably disposed in said handle, said shank being provided with teeth, a locking member pivotally connected to said handle, said locking member having spaced side walls adapted to engage the opposite faces of said shank, the locking member being provided with teeth to engage the teeth on said shank, the free edges of said side walls being adapted for frictional engagement in said grooves, as and for the purpose described.

2. A wrench comprising a stationary jaw having a hollow handle, said handle being formed with an extension having longitudinal grooves formed therein adjacent its opposite edges, a movable jaw having a shank slidably disposed in said handle, said shank being provided with teeth, a locking member pivotally connected to said handle, said locking member being formed with spaced side walls adapted to engage the opposite faces of said shank, the locking member being provided with teeth to engage the teeth on said shank, the outer walls of said grooves being beveled inwardly, and the free edges of the walls of the

locking member being adapted to frictionally engage the beveled walls of said grooves, as and for the purpose described.

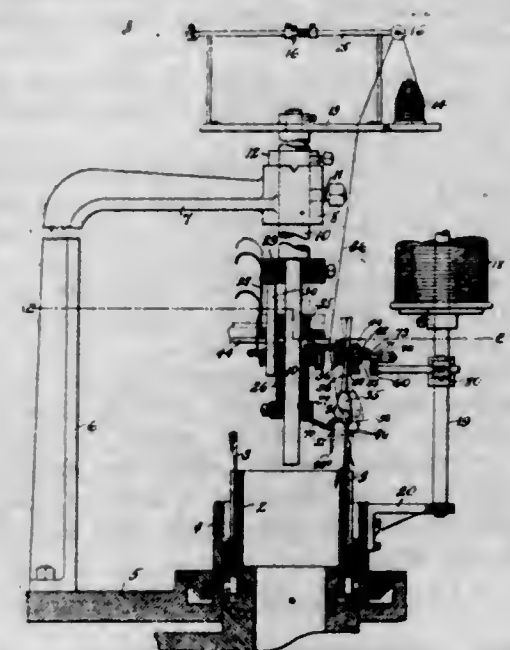
3. A wrench comprising a stationary jaw having a hollow handle, said handle being formed with an extension having grooves formed therein adjacent its opposite edges, a movable jaw having a shank slidably disposed in said handle, said shank being provided with teeth, a locking member pivotally connected to said handle, said locking member being formed with spaced side walls for engagement with the opposite faces of said shank, the locking member being provided with teeth to engage the teeth on said shank, and the free edges of the walls of said locking member being turned outwardly for frictional engagement with the outer walls of said grooves, as and for the purpose set forth.

4. A wrench of the character described, comprising a jaw having a hollow handle, a movable jaw having a shank slidably disposed in said handle, the side faces of said shank being beveled inwardly, said shank being provided on its outer face with a plurality of transversely extending teeth, the opposite ends of said teeth being beveled outwardly, a locking member pivotally secured to said handle, said locking member being provided with inwardly converging resilient walls, the locking member being also provided on its inner face with transversely extending teeth adapted to engage the teeth on the shank, and the walls of said locking member being adapted to frictionally engage the beveled faces of said shank, as and for the purpose described.

5. A wrench comprising a stationary jaw having a hollow handle, said handle being formed with an extension having grooves formed therein adjacent its opposite edges, a movable jaw having a shank slidably disposed in said handle, a locking member pivotally connected to said handle, said member being formed with spaced side walls for engagement with the opposite faces of said shank, the locking member being provided with teeth to engage the teeth on said shank, the outer walls of said grooves being beveled inwardly, and the free edges of the walls of said locking member being turned outwardly for frictional engagement with the beveled walls of said grooves, as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

1,077,304. VERTICAL-STRIPING ATTACHMENT FOR CIRCULAR-KNITTING MACHINES. FRANK W. ROBINSON, Reading, Pa., assignor to The Nolde & Horst Company, Reading, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1910. Serial No. 540,334. (Cl. 66-12.)



1. In combination with a circular knitting machine having vertically guided needles and an operating cam cylinder therefor provided with an exterior cam, a freely suspended spring-retracted thread carrier having its thread-eye adapted to swing above said needles and provided with

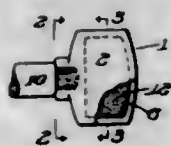
spaced-apart projections into the path of said cam whereby the latter in passing will impart successive radial and lateral movements to the carrier whereby said thread-eye is swung around the axis of a determined needle.

2. In combination with a circular knitting machine having vertically guided needles and an operating cam cylinder therefor provided with an exterior cam, a fixed carrier-bearing above said needles, and a thread-carrier freely suspended in said bearing with its thread-eye above said needles, said suspended carrier being operated by said cam so as to impart a swinging movement to the thread-eye thereof around the axis of a determined needle.

3. In combination with a circular knitting machine having vertically guided needles and an operating cam cylinder therefor provided with an exterior cam, a fixed carrier-bearing above said needles, and a thread-carrier freely suspended in said bearing with its thread-eye above said needles, said suspended carrier being operated by said cam so as to impart a swinging movement to the thread-eye thereof around the axis of a determined needle; and means for freeing said carrier from the action of the cam.

4. In combination with a circular knitting machine having vertically guided needles and an operating cam cylinder therefor provided with a radially adjustable exterior cam, separate thread carriers all freely suspended above said needles and provided with projections into the normal path of said cam, and certain of them only having projections into another path of said adjustable cam, whereby the latter in passing will impart successive radial and lateral swinging movements to all, or certain only, of said carriers as determined by the cam adjustment.

1,077,305. LUMINOUS SWITCH-KEY. MILTON T. ROSENHEIM, Philadelphia, Pa. Filed Mar. 20, 1913. Serial No. 755,593. (Cl. 240-122.)



1. A luminous switch key, comprising a translucent body portion having an interior cavity and containing a mass of luminous substance, the luminosity of said substance being visible from any angle, and means for attaching said key to a switch or the like.

2. A luminous switch key, comprising a translucent body portion having a plurality of sections, the meeting faces of said sections being hollowed out to form a cavity within said body portion, means for securing said sections in fixed relation, means for attaching said key to a switch or the like, and a mass of luminous substance within said cavity, the luminosity of said substance being observable from any angle.

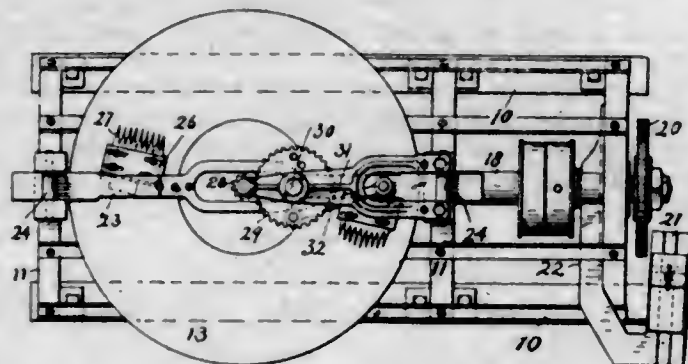
3. A luminous switch key, comprising two translucent members having the centers of their meeting faces hollowed out and the edges of said faces united by an adhesive, means for attaching said key to a switch or the like, and a mass of luminous substance within the cavity between said members, the luminosity of said substance being visible from any angle.

4. A luminous switch key, comprising two translucent members having portions of their meeting faces hollowed out and forming a closed cavity, means for holding said members in permanent contact, means for attaching said key to a switch or the like, and a mass of comminuted luminous material within said cavity, said material being visible from any angle.

1,077,306. GRINDING-MACHINE. PERCY H. ROOT, Plymouth, Ohio. Filed Mar. 1, 1913. Serial No. 751,415. (Cl. 51-7.)

1. In combination in a grinding machine, a rotary grinding disk, a reciprocable work-holding member arranged at one side of the disk, and positive driving means

between the said disk and the said member for reciprocating the latter, said driving means being located wholly at one side of the disk.



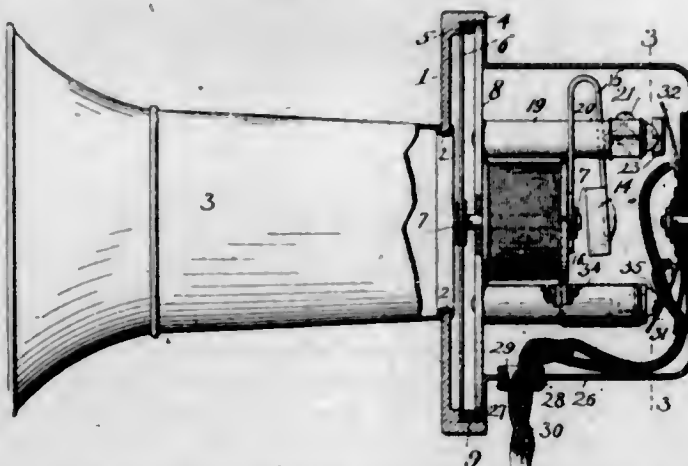
2. In combination in a grinding machine, a rotary grinding disk, a reciprocable work-holding member at one side of the disk, a spindle extending outwardly from the disk, and mechanism connected to the said spindle and to said member for reciprocating the member.

3. In combination in a grinding machine, a frame, a rotary grinding disk supported thereby, a reciprocable member arranged at one side of the disk, a spindle extending outwardly from the disk, and means for positively actuating said reciprocable member comprising a gear connected to the spindle, a second gear engaging the first gear, and a crank arm connected to an off center point of the second gear and connected to said reciprocable member.

4. In combination in a grinding machine, a rotary grinding disk, a work holding support arranged at the side of the disk, a workholder between the disk and said support, and connected to the latter, said workholder having a pair of work-engaging members which are relatively adjustable toward and away from each other.

5. In combination in a grinding machine, a rotary grinding disk, a workholding member arranged at the side of the disk, and means connected thereto for holding the work and for pressing the same against the disk comprising a plate having a plurality of work engaging abutments relatively adjustable toward and away from each other, at least one of said abutments comprising a pin adapted to be inserted in an opening in the work.

1,077,307. ELECTRIC HORN. RALPH R. ROOT, Cleveland, Ohio, assignor to The Adams-Bagnall Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 31, 1913. Serial No. 757,827. (Cl. 177-7.)



1. In a horn, the combination of a base plate, a diaphragm spaced from said base plate, a post mounted upon the diaphragm and extending through an opening in the base plate, core pieces mounted upon the base plate, electric magnetic coils supported upon said pole pieces, the pole pieces extending slightly beyond the ends of the said coils, the said post which is mounted upon the diaphragm extending slightly beyond the pole pieces, a member mounted upon the pole pieces and serving to hold the coils in place, a resilient tongue carried by the said member, an armature upon the resilient tongue, said armature extending between the pole pieces, and means for regulating the movement of said tongue.

2. In a horn, the combination with a supporting plate, of a diaphragm spaced therefrom, a post carried by the diaphragm and extending through the plate, pole pieces mounted upon the plate, coils encircling said pole pieces, said coils being upon opposite sides of the said post which is secured to the diaphragm, a supporting plate formed with openings which engage with the ends of the pole pieces, other openings formed in the supporting plate, hollow post sections upon either side of the said supporting plate, bolts extending through said hollow post section and through the openings in the said supporting plate, said bolts being secured in the base plate, a flexible tongue carried by the supporting plate, an armature carried by the flexible tongue extending between the pole pieces, and means for regulating the throw of the armature.

3. In a horn, the combination with a base plate, a flexible diaphragm spaced from the base plate, a post carried by the diaphragm, and extending through an opening in the base plate, pole pieces carried by the base plate, said pole pieces being slotted near the upper ends thereof, coil spools which are adapted to fit over the said pole pieces, a supporting plate formed with two sets of intersecting openings of different diameters, the larger diameter being slightly larger than the diameter of the pole pieces, the smaller diameter opening being substantially that of the reduced diameter portion of the pole pieces, said supporting member being adapted to be inserted over the pole pieces through the openings of larger diameter, and moved so that the openings of the smaller diameter engage with the slotted portions of the pole pieces, said supporting plate being formed with other openings, hollow sleeves extending between said supporting plate and the base plate, and other hollow sleeves extending above the supporting plate, the said sleeves being in alignment with the openings through the supporting plate, and bolts extending through said sleeves and through the opening in the plate, said bolts being secured to the base plate, a flexible tongue carried by said supporting plate, an armature upon the tongue which extends between the pole pieces.

4. In a horn, the combination with a supporting plate, a diaphragm spaced from said plate, a post carried by the diaphragm which extends through said plate, pole pieces carried by the plate, spools of coiled wire carried by the said pole pieces, a supporting plate having openings which engage with the ends of the pole pieces, said supporting plate being provided with additional openings upon opposite sides, hollow sleeves which extend between the supporting plate and the base plate, shorter sleeves above the supporting plate, said sleeves being in registry with the openings, a cross member resting upon the said sleeves and provided with openings through opposite ends, bolts extending through the holes in the cross member, through the hollow sleeves and through the openings in the supporting plate, said bolts being secured to the base plate, an adjusting screw carried by the cross piece, a flexible tongue carried by the supporting plate and adapted to be engaged by the adjusting screw, and an armature carried by the flexible tongue, and adapted to extend between the pole pieces.

5. In a horn, the combination of a base plate, a flexible diaphragm spaced from said base plate, a post mounted upon the diaphragm and extending through the base plate, electro-magnets carried by the base plate, an insulated post supported from the base plate, a wire from said electro-magnets being secured to said insulated post, a conducting portion at the top of said post with which the wire communicates, an armature extending between the pole pieces of the electro-magnets, a flexible support for said armature said flexible support being electrically connected with the electro-magnets, a contact adapted to engage said flexible support, a cover adapted to cooperate with the aforesaid elements, contacts carried by said cover, one of said contacts engaging with the conducting portion at the top of the aforesaid post, the other of said contacts being electrically connected with the contact that engages the flexible support.

[Claim 6 not printed in the Gazette.]

1,077,308. SETTLING-TANK. FREDERICK GRANDERSEN SARGENT, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed July 24, 1912. Serial No. 711,279. (Cl. 210-5.)



1. In a settling tank, the combination of a plurality of settling and skimming sections located one above another and all open to the atmosphere, and means for causing the partially clarified liquor from each section to overflow by gravity directly into the feed end of the one below and for maintaining the level of liquor in each section substantially as high as that in the section above, to keep the circulation quiescent.

2. In a settling tank, the combination of a plurality of sections arranged one above another, each section having a plurality of bottoms each pair of which converge downwardly at their meeting points, each section also being open to the atmosphere at the end and having an overflow at one end by means of which the liquor can pass by gravity to the section immediately below, the overflows of each two adjacent sections being located at opposite ends of the tank, an overflow extending upwardly from the bottom section to the level of the top section, the depressed portions of said bottoms extending down materially below the top of the liquor in the section below and located between the outlet and inlet thereof so as to constitute a skimming device therefor, and upwardly extending partitions from the highest point of each bottom between two adjacent depressed portions of the bottom above.

3. In a settling tank, the combination of a plurality of sections one above another, each section open to the atmosphere and having an overflow at one end by means of which the liquor passes by gravity to the section immediately below, the overflows of each two adjacent sections being located at opposite ends of the tank, and an overflow extending from the bottom section up to the level of the top section, the bottom of each section above the bottom one extending down materially below the top of the liquor in the section below transversely across the tank between the outlet and inlet thereof and constituting a skimming device therefor to prevent the liquor from flowing rapidly and cause it to deposit its heavier particles.

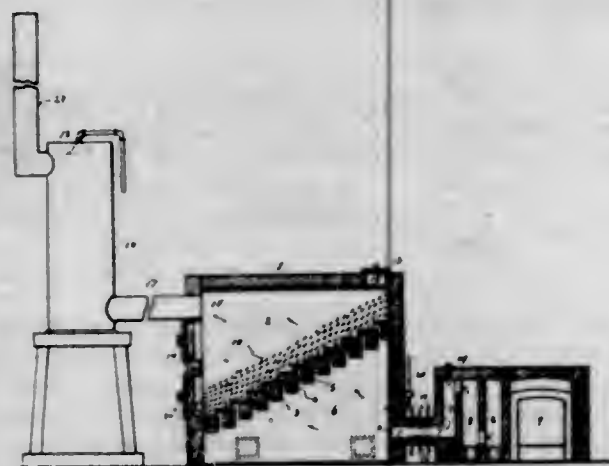
4. In a settling tank, the combination of a plurality of sections, one above another, the bottom of each section constituting the top of the section below, each section having an overflow at one end, an overflow extending up from the bottom section to the level of the liquor in the top section, the overflow from each section below the top one being located alongside one of the side walls of the top section and being at substantially the level of the top of the top section so that all the receptacles can be kept filled with liquor and splashing prevented.

5. As an article of manufacture, a settling tank comprising a plurality of sections one above another and all opening to the atmosphere at the top, each section having an overflow at one end, and located along the side wall, the overflows of each two adjacent sections being located at opposite ends, and each overflow extending up substantially to the level of the liquor in the top section, whereby all of said sections can be kept full of liquor.

1,077,309. METHOD OF PREPARING ALUMINUM SULFATE. HEINRICH F. D. SCHWANN, Belleville, Ill. Filed Sept. 16, 1912. Serial No. 720,541. (Cl. 23-13.)

1. The manufacture of aluminum sulfate which consists in the treating of aluminous materials with a combination

of sulfurous anhydrid and ozonized oxygen in the presence of moisture, thus transforming the aluminum content of such material into a sulfate, substantially as described.

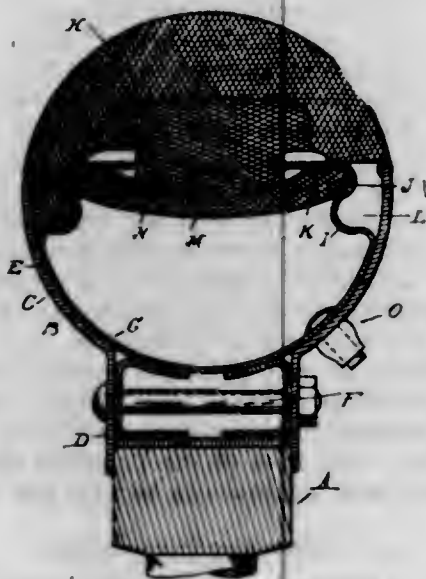


2. The manufacture of aluminum sulfate which consists in the treating of aluminous materials with a combination of sulfurous anhydrid and ozonized air in the presence of moisture, thus transforming the aluminum content of such materials into a sulfate, substantially as described.

3. The method of preparing aluminum sulfate, which consists in treating sufficiently wet aluminous materials with sulfurous anhydrid and ozone or ozonized air, thus transforming the aluminum content of those materials into a sulfate and the iron content of such materials into a basic ferric salt, then lixiviating the resultant mass with water, and then separating the dissolved aluminum sulfate, the basic ferric salt with other insoluble ingredients contained in the aluminous materials remaining as a residue, thus producing a pure aluminum sulfate.

4. The herein-described method of preparing aluminum sulfate, which consists in treating sufficiently wet aluminous materials with sulfurous acid gas and ozone or ozonized air, thus transforming the aluminum and iron content of said materials into sulfate and basic sulfate respectively, then lixiviating the resultant mass with water, then injecting into the resultant solution ozone or ozonized air sufficiently to transform the last traces of iron sulfate contained in the solution into a basic ferric salt, and then separating the solution of aluminum sulfate from the insoluble matter.

1,077,310. VEHICLE-TIRE. BENJAMIN COPLIN SEATON, Detroit, Mich. Filed Dec. 2, 1909. Serial No. 531,104. (Cl. 152,10.)



1. A pneumatic tire, comprising a hollow metallic rim, a flexible tread member engaging said rim, an inner rim within the first-mentioned rim having a bearing on said

tread member, an inwardly bowed compressible member having a bearing on said inner rim and forming an air-tight joint therewith, said bowed member also having a central bearing upon the tread member.

2. A pneumatic tire, comprising a hollow metallic rim, a flexible tread member engaging said rim, an inwardly bowed compressible member forming an air-tight joint with said rim and having a bearing on said tread member, and flanges upon said rim forming a seat for supporting said tread, when the tire is deflated.

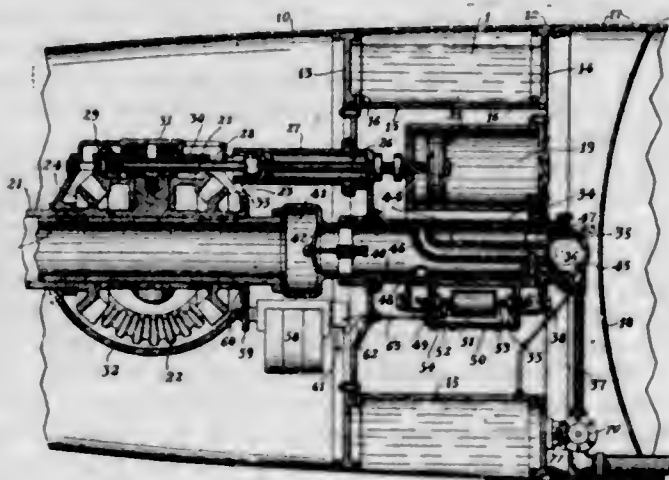
3. A pneumatic tire, comprising a hollow metallic rim, a flexible tread member having a bearing on said rim, an inwardly bowed compressible member forming an air-tight joint with said rim, and a filler member interposed between the tread member and the inwardly bowed member for maintaining the latter bowed.

4. A pneumatic tire, comprising an outer hollow metallic rim, a tread portion secured to and supported by said rim, a second metallic rim arranged within the outer rim and having laterally extending spaced portions, a flexible member engaging said spaced portions and serving to form an air-tight connection therebetween.

5. A pneumatic tire, comprising an outer hollow metallic casing, a flexible tread member, means for anchoring said tread member to said rim, a second rim arranged within the outer rim and having the upper ends thereof interlocked with the flexible tread, said upper ends being spaced, and a flexible member forming an air-tight connection between said upper ends.

[Claims 6 to 8 not printed in the Gazette.]

1,077,311. SUBMARINE TORPEDO. HAROLD W. SHONARD, East Orange, N. J. Filed Feb. 15, 1912. Serial No. 677,763. (Cl. 114-20.)



1. In a self-propelled torpedo, a water-tight bulkhead, a propeller shaft having its forward end near said bulkhead, a compartment accessible to the sea directly forward of said bulkhead, a heat engine in said compartment comprising cylinders and pistons grouped around the axis of and suitably connected with said shaft, a tight valve casing piercing said bulkhead in the line of said shaft, and a rotary valve for said cylinders within said valve casing, attached to said shaft, substantially as described.

2. In a self-propelled torpedo, a water-tight bulkhead, a propeller shaft having its forward end near said bulkhead, a compartment accessible to the sea directly forward of said bulkhead, a heat engine in said compartment comprising cylinders and pistons arranged parallel to the axis of said shaft and suitably connected thereto, a tight valve casing piercing said bulkhead in the line of said shaft and a rotary valve for said cylinders within said valve casing attached to said shaft, substantially as described.

3. In a self-propelled torpedo, a water-tight bulkhead, a propeller shaft having its forward end near said bulkhead, a compartment accessible to the sea directly forward of said bulkhead, a heat engine in said compartment comprising cylinders and pistons grouped around the axis of and suitably connected with said shaft, a tight valve casing piercing said bulkhead in the line of said shaft, and a

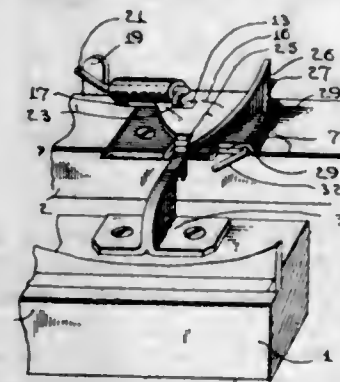
rotary valve within said casing, attached to said shaft, and arranged to control inlet and outlet of gases at both ends of all of said cylinders, substantially as described.

4. In a self-propelled torpedo, a water-tight bulkhead, a propeller shaft having its forward end near said bulkhead, a compartment accessible to the sea directly forward of said bulkhead, a heat engine in said compartment comprising cylinders and pistons arranged parallel to the axis of said shaft, tight casings piercing said bulkhead opposite said cylinders, connecting means between said pistons and said propeller passing through said casings, a tight valve casing piercing said bulkhead in the line of said shaft, and a rotary valve for said cylinders within said valve casing attached to said shaft, substantially as described.

5. In a self-propelled torpedo, a water-tight bulkhead, a propeller shaft having its forward end near said bulkhead, a compartment accessible to the sea directly forward of said bulkhead, an internal explosion engine comprising sparking means and three parallel cylinders and pistons grouped around the axis of and suitably connected with said shaft, two of said cylinders being located below said axis and one above it, a magneto located below the axis of said shaft behind said bulkhead and electrically connected with said sparking means, and means connected with said shaft for driving said magneto, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,077,312. AUTOMATIC BURGLAR-PROOF SASH-LOCK. ELMER L. SLOAN, Joplin, Mo. Filed Jan. 21, 1913. Serial No. 743,372. (Cl. 16-145.)



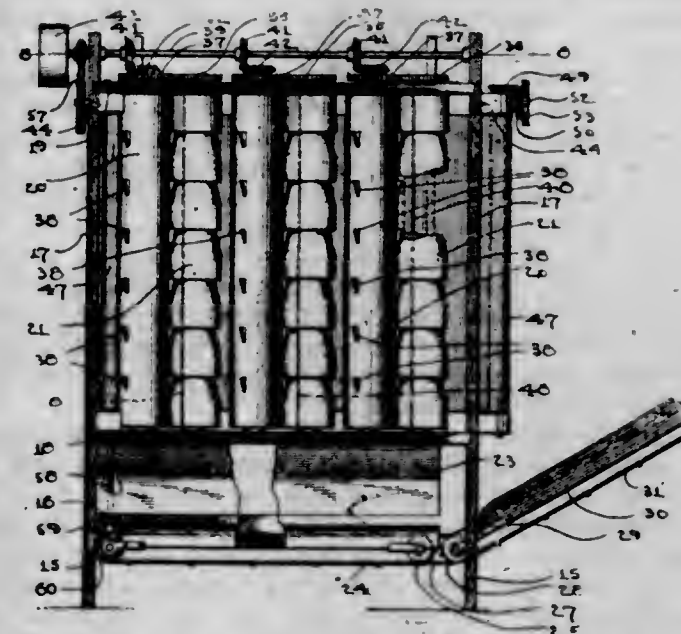
1. A sash lock comprising a base, a latching member pivotally mounted upon said base, means for urging said latching member to swing in one direction, a safety latch carried by said base comprising an elongated body, an upwardly extending arm carried by one end of said body, an inclined finger carried by the other end of said body, said upwardly extending arm adapted to engage said latching member for holding said latching member in a set position, said inclined finger adapted to be engaged by a window sash, whereby said inclined finger will swing upwardly and the upwardly extending arm will swing outwardly from engagement with said latching member for allowing said latching member to swing into engagement with a keeper.

2. A sash lock comprising a base, a latching member pivotally mounted upon said base, means for urging said latching member to swing in one direction, a safety latch comprising a body, said body positioned upon the under side of said base for protecting the same, said body having an upwardly bent finger, at one end extending through said base, said latching member provided with a lug, said arm adapted to engage said lug for holding said latching member in a set position, said body having an inclined finger at its opposite end, said inclined finger adapted to be swung upwardly for swinging said arm from engagement with said lug, whereby said latching member can swing into engagement with a keeper.

3. A sash lock comprising a base, a latching member pivotally mounted upon said base, said latching member provided with a neck, a sleeve integrally formed upon said neck, a locking arm positioned within said sleeve, said

locking arm provided with a depending finger, said base and said latching member provided with registering apertures, said finger fitting in said apertures for holding said latching member against pivotal movement, and an upwardly extending neck carried by said locking arm, said neck positioned adjacent the outer end of said neck of said latching member, whereby said upwardly extending neck may be moved for lifting said finger from engagement with base and latching member for allowing said latching member to be swung.

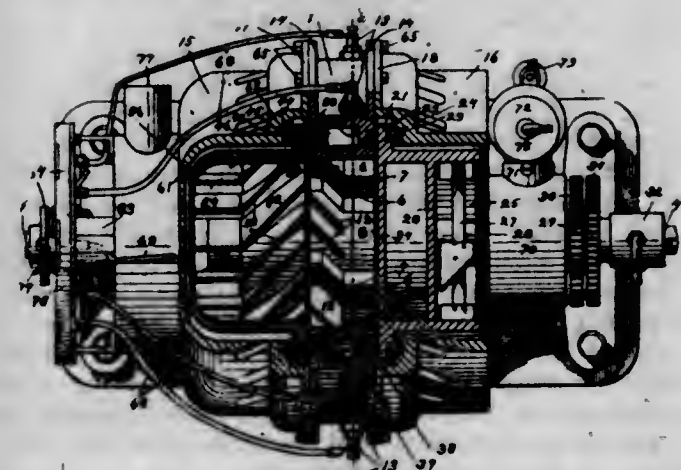
1,077,313. CORN-HUSKING MACHINE. THEODORE STRICHEN, Alton, Iowa. Filed Jan. 14, 1913. Serial No. 741,975. (Cl. 130-5.)



1. A corn husking machine comprising a frame, husking rollers rotatably mounted in said frame, a traveling apron carried by said frame and extending parallel to said rollers, resilient strips carried by said frame and positioned between said rollers and apron for holding ears of corn in the proper position to be operated upon by said rollers, and operating means for said rollers and apron.

2. A corn husking machine comprising a frame, husking means carried by said frame, an apron extending substantially parallel to said husking means and movable transversely thereof, and means between said apron and husking means for holding an ear of corn in the proper position to be operated upon by said husking means.

1,077,314. ROTARY GAS-ENGINE. WALTER F. STERN, Gap, Pa., assignor to Stern Manufacturing Company, a firm composed of Walter F. Stern, John A. Shank, and Samuel J. Shank, Lancaster, Pa. Filed Apr. 29, 1911. Serial No. 624,208. (Cl. 123-9.)



1. In a rotary gas engine of the class described, a stationary member formed with a series of explosion chambers arranged in a circle, a driving shaft rotatably mount-

ed in said stationary member in axial relation thereto, a rotating compression member secured upon said shaft adjacent to one side of said stationary member, an impulse receiving rotor secured upon said shaft adjacent to the other side of said stationary member, casings secured to both sides of said stationary member and inclosing both of said rotating members, means for drawing in and compressing the charge, said impulse receiving rotor formed with a side wall providing a temporary wall on the exhaust side of said explosion chambers during the period of compression, and said compression member formed with a side wall providing a temporary wall on the intake side of the explosion chambers during the period of ignition.

2. In a rotary explosive engine of the class described, comprising a stationary member formed with a series of explosion chambers, each being provided with ignition means, a driving shaft rotatably mounted in said stationary member, a rotating compression device mounted on and driven by said shaft and adapted to compress the charge in said explosion chambers, a fan rotatably mounted on said shaft and driven at a greater speed than the speed of said shaft and adapted to deliver the explosive mixture to said compression device, a rotor mounted on said shaft and adapted to receive the impact of the ignited charges from the explosion chambers and be driven thereby and to drive said shaft, means for cooling said explosion chamber by a circulation of water, and means for cooling said compression device and said rotor by an air current actuated thereby.

3. In a rotary explosive engine of the class described, comprising a stationary circular member, formed with a series of explosion chambers open on both sides, each of said explosion chambers provided with a series of stationary blades, a fuel charge compressing member rotatably mounted upon one side of said stationary member and adapted to compress the fuel into said chambers, an impact wheel rotatably mounted upon the other side of said stationary member, said impact wheel formed with an opening through the side thereof, stationary blades mounted in said opening at right angles to the blades of said explosion chambers and adapted to receive the impact of the exploding charges for the purpose of rotating said impact wheel, said impact wheel providing a temporary wall for said explosion chambers during the period of compression, said compression member providing a temporary wall for said explosion chambers during the period of ignition.

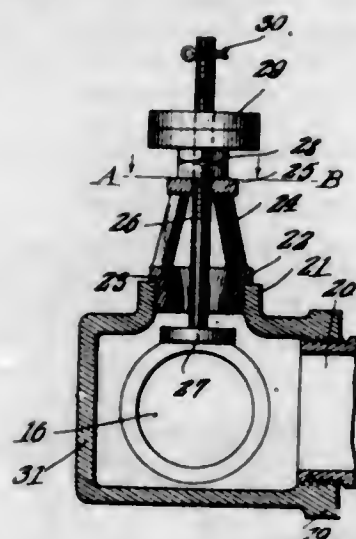
4. In a rotary gas engine of the class described, having a stationary member formed with a series of explosion chambers, double walls formed with water ducts and separating said chambers, a central axial bearing, a main driving shaft rotatably mounted in said bearing, said member formed with a central water chamber and an outer water chamber communicating with each other by said ducts, stationary blades secured in said explosion chambers and adapted to guide the exploded charge, each of said chambers also provided with ignition means for exploding the charge, casings secured upon both sides of said stationary member, one of said casings formed with an intake chamber, having a carbureter attached thereto, the other casing formed with an exhaust port, a bladed suction and forcing fan mounted in one of said casings adjacent to the intake chamber and adapted to draw the gas from the carbureter, a compression member mounted on the driving shaft and rotated thereby, within said casing between said bladed fan and said stationary member and adapted to receive the gas from the fan and compress the same within the explosion chambers, means for providing a temporary wall for said explosion chambers during the period of compression, means for receiving the impact of the exploding charges and rotating the driving shaft thereby, and means for making a gas-tight connection between said compression member and said stationary member, and between said stationary member and the shaft driving means.

5. A compression means for rotary gas engines comprising in combination with a stationary member formed with a series of explosion chambers, each provided with

ignition means, and a driving shaft rotatably mounted in axial relation to said stationary member, a compression member secured upon said shaft adjacent to said stationary member, and adapted to be rotated by said shaft, said compression member formed with spaced side walls joined together by a hub and a rim, and having an opening extending through the sides thereof, blades secured within said opening and set at an angle, a suction and forcing fan mounted adjacent thereto and adapted to deliver gas to said bladed opening in said compression member whereby it is compressed into the explosion chambers, means for providing a temporary side wall for said explosion chambers during the period of compression, and means for providing a temporary side wall for said explosion chamber during the period of ignition.

[Claims 6 and 7 not printed in the Gazette.]

1,077,315. HYDRAULIC RAM. SIDNEY M. STEVENS, Prince George, Va., assignor of one-half to Grant Chase, Prince George, Va. Filed Dec. 19, 1910. Serial No. 598,112. (Cl. 103—29.)



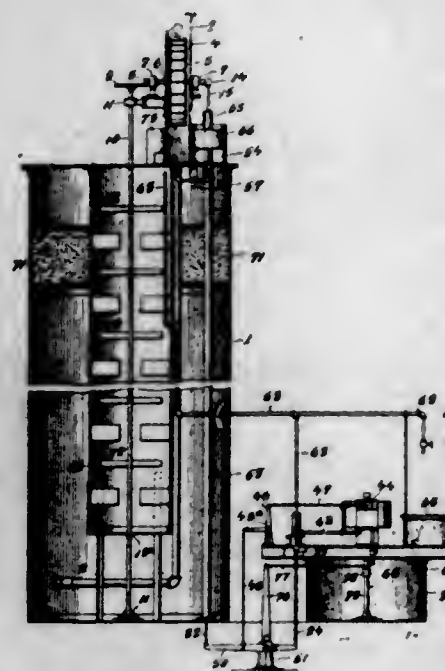
1. In a device of the class described, a casing having a seat; a stem vertically movable in the casing and having a valve upwardly movable to register in the seat; a weight freely slidable upon the stem; and a projection upon the stem, upon which the weight is supported when the valve is in open position, the projection engaging the casing to limit the opening movement of the valve; the engagement between the valve and the seat serving to lift the weight free from the projection, and the engagement between the weight and the projection, when the weight descends, serving to displace the valve from the seat.

2. In a device of the class described, a casing having a seat; a threaded stem vertically movable in the casing and having a valve upwardly movable to register in the seat; a weight freely slidable upon the stem; a primary nut upon the stem; a lock nut upon the stem and engaging the primary nut, the weight being supported by the lock nut, when the valve is in open position, the primary nut engaging the casing to limit the opening movement of the valve, the engagement between the valve and the seat serving to lift the weight free from the lock nut, and the engagement between the weight and the lock nut, when the weight descends, serving to displace the valve from the seat.

1,077,316. APPARATUS FOR TREATING LIQUIDS. HARRY HERBERT SUTRO, New York, N. Y.; Victor Sutro, administrator of said Harry Herbert Sutro, deceased, assignor to L. M. Booth Company, a Corporation of New York. Filed June 1, 1909. Serial No. 499,559. (Cl. 210—1.)

1. In an apparatus for treating flowing liquids with reagents, a source of reagent supply, a weir, means for discharging the reagent over the weir in a stream, a movable deflector automatically actuated by an increase or decrease in the flow of liquid and adapted to cut off from such stream of reagent an amount of reagent in direct

proportion to the flow of liquid to be treated, and means for supplying the reagent so cut off to the liquid to be treated.



2. In an apparatus for treating liquids with reagents, a source of reagent supply, means for discharging the reagent in a horizontally elongated apron or stream at a predetermined head, a horizontally movable deflector actuated in direct proportion to and by an increase or decrease in the flow of liquid to be treated and adapted to cut off from the wide apron or stream of reagent a portion thereof and means for supplying the reagent so cut off to the liquid to be treated.

3. In an apparatus for treating liquids with reagents, a source of reagent supply, means for supplying reagent to a chamber provided with an overflow weir, and with a submerged orifice communicating between said chamber and a second chamber, a discharge weir for said second chamber, a movable member travelling on said discharge weir and adapted to cut off a percentage of the flow of reagent over said discharge weir and means for supplying the percentage of reagent so cut off to the liquid to be treated.

4. In an apparatus for treating a liquid with a reagent, a liquid container provided with a discharge orifice therein, of such proportional dimensions that the flow of liquid therethrough will be in direct proportion to the height of the liquid above a fixed point, and means controlled by the height of liquid flowing through said orifice for regulating the amount of reagent fed to the liquid.

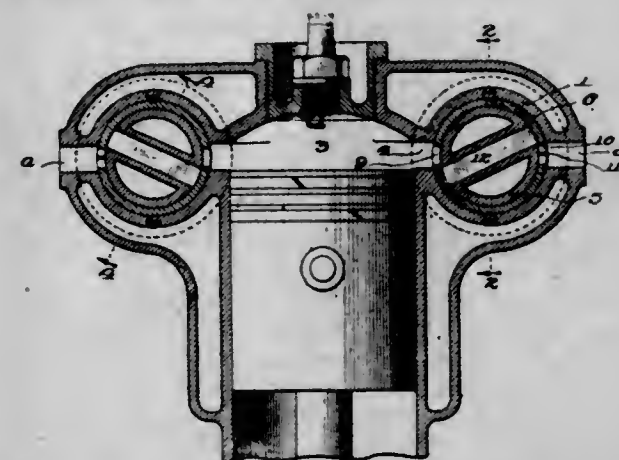
5. In an apparatus for treating liquids, a compartment adapted to receive the raw liquid, provided with a discharge orifice of such proportional dimensions that the flow of liquid therethrough will be in direct proportion to the height of liquid above a certain fixed point of the orifice, a chemical supply tank, means for maintaining a uniform level therein, such chemical supply tank being provided with a weir over which the chemical reagent overflows, and a gate adapted to be shifted along the weir and increase or decrease the flow of said chemical reagent to the tank from which it is supplied to the raw liquid in direct proportion to the height of liquid in said raw water compartment.

[Claims 6 to 9 not printed in the Gazette.]

1,077,317. VALVE FOR INTERNAL-COMBUSTION ENGINES. CARL E. SWENSON, Rockford, Ill. Filed July 8, 1912. Serial No. 708,154. (Cl. 136—7.)

1. A valve construction for internal-combustion engines comprising a valve casing having inlet and outlet passages, an expansible and contractible split sleeve non-rotatably mounted within said casing and having openings communicating with said passages, a cylindrical valve member within said sleeve and having fluid-passage means arranged to communicate with the openings in the sleeve, and means for operating said valve member.

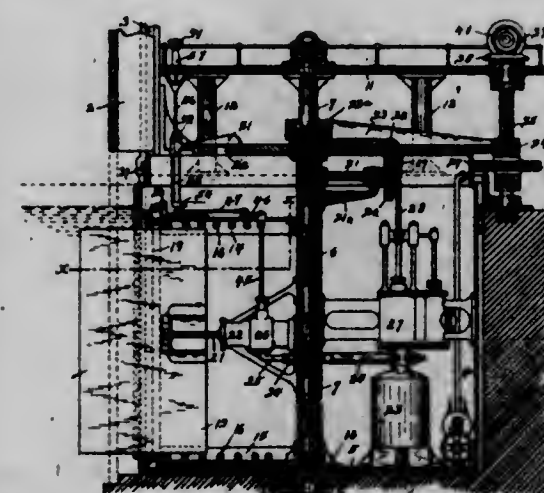
2. A valve construction for internal-combustion engines comprising a valve casing having an inner and an outer fluid-passage, an expansible and contractible split sleeve within said casing, the split side of the sleeve being adjacent to said outer fluid-passage, a valve member within said sleeve and having fluid-passage means arranged to communicate with the openings in the sleeve, and means for operating said valve member.



3. An internal combustion engine comprising a combustion chamber, a valve casing having diametrically opposite inner and outer fluid-passages, said inner passage communicating with the combustion chamber, an expansible and contractible split sleeve within said casing, adapted to be forced by the pressure within the combustion chamber against the wall of the valve chamber surrounding the outer fluid-passage, said sleeve having diametrically opposite openings registering with said passages; packing means between the sleeve and the valve casing; a cylindrical valve member within said sleeve and having fluid-passage means arranged to communicate with the openings in the sleeve; and means for turning said valve member.

4. A valve construction for internal-combustion engines comprising a valve chamber having inner and outer fluid-passages, a sleeve within said casing, said sleeve being longitudinally severed, and having openings communicating with said passages, said sleeve having peripheral arcuate grooves, the ends of said grooves terminating adjacent to the line of severance, said line being adjacent to said outer fluid-passage; split packing rings within said sleeve; a cylindrical valve member within said sleeve adapted to connect said passages; and means for operating said valve member.

1,077,318. CURRENT WATER-WHEEL. THEOPHILUS SYMMONDS, Buffalo, N. Y. Filed Oct. 1, 1904. Serial No. 226,765. Renewed Dec. 18, 1907. Serial No. 407,043. (Cl. 170—120.)



1. In a current water-wheel, in combination, a hollow drum provided with openings in its wall, a casing closely surrounding the drum and open on the side exposed to the current, a plurality of paddles within the drum adapted for outward movement into the current through the openings of the drum, and means constructed and arranged to successively project one paddle at a time into the current

across the opening in the side of the casing and sheathing the remaining paddles within the drum during the projection of one paddle.

2. In a current water-wheel, in combination, a hollow drum provided with openings in its wall, a casing closely surrounding the drum and open on the side exposed to the current, a plurality of unconnected paddles within the drum adapted for outward movement into the current through the openings of the drum, and means constructed and arranged for projecting one paddle at a time into the current across the open side of said casing and sheathing the same within the drum during the remainder of its travel.

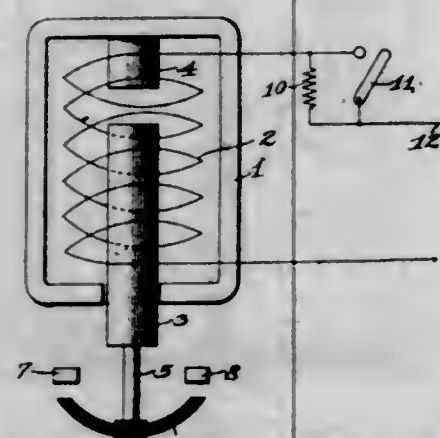
3. In a current water-wheel, in combination, a vertical hollow drum provided with spaced openings in its wall, a casing surrounding the drum and open on the side exposed to the current, a series of unconnected radial vertical paddles within the drum adapted for outward movement into the current through said vertical openings and across the open side of said casing, and means constructed and arranged for projecting one paddle at a time into the current across the open side of said casing and sheathing such paddle within the drum during the remainder of its travel and maintaining such paddle stationary when sheathed within the drum until again projected.

4. In a current water-wheel, in combination, a hollow drum provided with openings in its wall, a casing surrounding the drum and provided with an opening, a plurality of paddles within the drum adapted for outward movement through the openings in the drum and across the opening in the casing, and means constructed and arranged to reciprocate said paddles and to project one paddle at a time across the opening in the casing and to draw such paddle into the drum wherein it is sheathed until again projected, each paddle being held stationary while projected.

5. In a current water-wheel, in combination, a hollow drum provided with openings in its wall, a casing surrounding the drum and provided with an opening, a plurality of paddles within the drum adapted for outward movement through the openings in the drum and across the opening in the casing, and means constructed and arranged to reciprocate said paddles and to project one paddle at a time across the opening in the casing and to draw such paddle into the drum wherein it is sheathed until again projected, each paddle being held stationary while projected and each paddle being held stationary while sheathed within the drum.

[Claims 6 to 20 not printed in the Gazette.]

1,077,319. MEANS FOR CONTROLLING ELECTRO-MAGNETS AND SOLENOIDS. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 16, 1910, Serial No. 567,219. Renewed Mar. 19, 1913. Serial No. 755,519. (Cl. 175-21.)

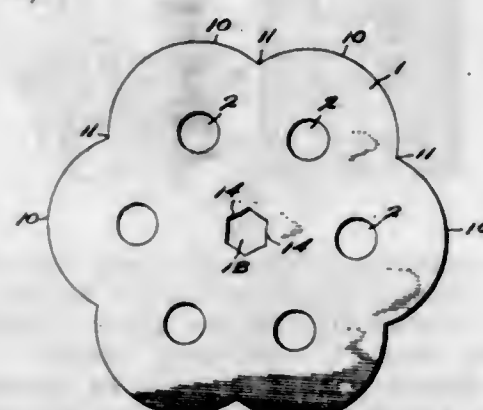


1. The combination with an electromagnet having a stationary pole-piece and a movable magnetically attracted part adapted to seal with said pole-piece, of a control switch for said electromagnet and a resistance connected in parallel to said control switch, said resistance being

adapted when said control switch is opened, to reduce the current flowing through said electromagnet to an amount insufficient to hold said magnetically attracted part, but sufficient to change the polarity of the magnetic parts upon each reversal thereof.

2. The combination with an alternating current solenoid having a stationary core and a movable plunger arranged to be magnetically attracted and to seal with said stationary core, of a switch for controlling the continuity of the circuit of the solenoid winding and a resistance connected in parallel with said control switch to cause sufficient current to pass through the solenoid winding to release said movable plunger when said switch is opened.

1,077,320. POWDER-GRAIN. JAMES L. WALSH, U. S. Army. Filed Feb. 20, 1913. Serial No. 749,695. (Cl. 102-13.)



1. A powder grain provided with a plurality of intermediate perforations between its center and circumference, with a central perforation having a portion of its wall substantially concentric with the wall of each of said intermediate perforations, and said grain also having a portion of its outer circumference concentric with the wall of each of said first mentioned perforations, substantially as described.

2. A substantially cylindrical smokeless powder grain having a plurality of intermediate perforations extending from end to end of said grain, a central perforation extending parallel to said intermediate perforations throughout their length and having convex wall portions substantially concentric with the walls of said intermediate perforations, and said grain also having an outer circumference composed of convex surfaces substantially concentric with the walls of said first mentioned perforations, substantially as described.

1,077,321. CEMENT SHINGLE STRUCTURE. EDGAR M. WALTON, Kansas City, Mo. Filed May 2, 1910. Serial No. 558,918. (Cl. 108-6.)

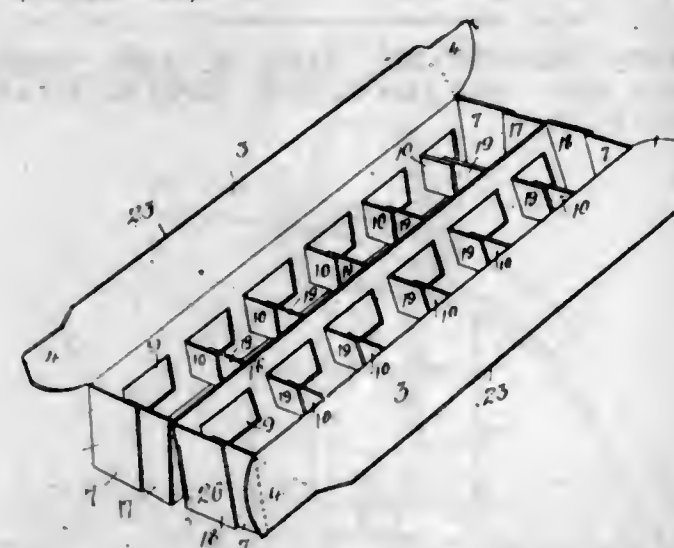


1. A house covering having sheathing, a course of metal reinforcing inserts loosely secured to said sheathing, said inserts having a covering of plastic cement divided with respect to the inserts, a second course of inserts loosely secured to the sheathing and overlapping the finished course of cement, and a layer of plastic cement applied to the second course of inserts and divided with respect to said inserts, the interstices between the sheathing, the second course of inserts and the upper edge of the first course being filled with cement to form a shoulder, for the purpose set forth.

2. A house covering, comprising a sheathing, a course of metal reinforcing inserts spaced from and loosely secured to said sheathing, said inserts having a covering of plastic cement divided with respect to the inserts, a second course of inserts loosely secured to the sheathing and overlapping the finished course of cement, and a layer of plastic cement applied to the second course of inserts and

divided with respect to said inserts, each division of said last named course of cement being formed with a shoulder on its under side for abutting the top of the lower course, for the purpose set forth.

1,077,322. EGG-CARTON. EDWARD F. WARD, Trumansburg, N. Y. Filed Mar. 13, 1911. Serial No. 614,260. (Cl. 229-29.)



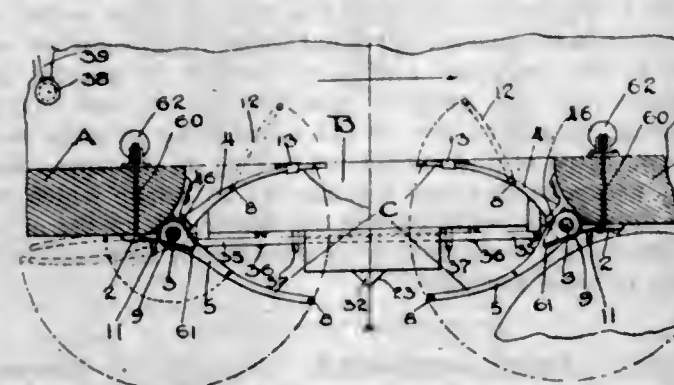
1. An egg carrier comprising a pair of similar receptacles arranged side by side and having adjacent sides flexibly united along one edge directly to each other, and having the opposite edges of their open sides provided with flaps extending across the junction of united sides when closed.

2. An egg carrier comprising a pair of pockets arranged side by side and having covering flaps for their open sides, a flap upon each of said covering flaps adapted to extend downwardly in said pockets, the upper edges of adjacent sides being flexibly united to each other independently of the covering flaps.

3. An egg carrier comprising a pair of similar receptacles arranged side by side and having adjacent sides flexibly united along one edge directly to each other, and having the opposite edges of their open sides provided with flaps extending across the junction of united sides when closed, tongues extending from the sides of said pockets and interengaging over the bottoms thereof.

4. An egg carrier comprising two similar parallel receptacles arranged side by side and having covering flaps for their open sides, the upper edges of adjacent sides being flexibly united to each other, independently of the covering flaps.

1,077,323. MAIL-BAG-DELIVERING APPARATUS. CHRISTOPHER J. M. WEBER, St. Paul, Minn. Filed July 21, 1913. Serial No. 780,204. (Cl. 105-261.)



1. The combination with a railway car having a mail delivery opening, of a sack carrier having swinging support adjacent said opening, a bumper having sliding support upon the car frame, and means actuated by the bumper, when inwardly thrust, for swinging out the carrier.

2. The combination with a railway car having a mail delivery opening, of a bottomless sack carrier comprising folding wings having swinging support adjacent said

opening, a sliding bumper projecting outwardly from the side of the car frame, and mechanism actuated by the bumper for swinging out the carrier.

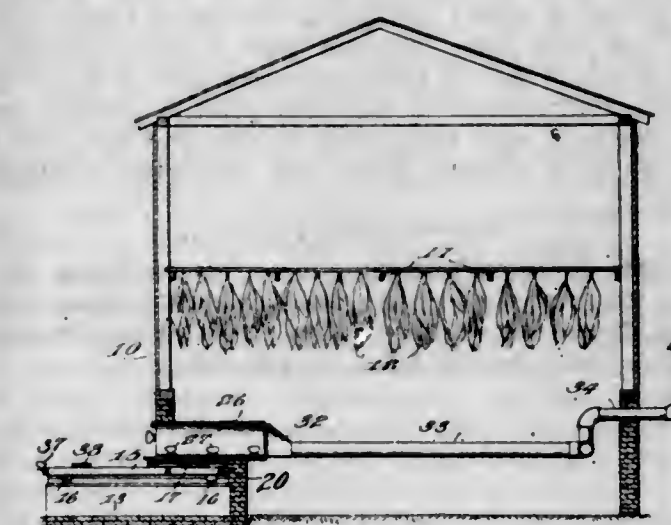
3. The combination with a railway car having a mail delivery opening, of a sack carrier having swinging support adjacent said opening, locking means for holding said carrier swung inwardly in mail receiving position, a sliding bumper projecting outwardly from the side of the car frame, and means actuated by the bumper, when the same is thrust in, for simultaneously releasing said locking means and swinging out the carrier.

4. The combination with a railway car having a mail delivery opening, of a sack carrier having swinging support adjacent said opening, a bumper having sliding support upon the car frame and extending outwardly from the side thereof, mechanism extending into the path of the bumper for swinging said carrier, and a trigger pivotally connected with the inner end of the bumper and adapted, when thrust in, first to actuate said carrier operating mechanism and then to drop out of the way of said mechanism, whereby to free said mechanism from the control of the bumper.

5. The combination with a railway car having a mail delivery opening, of a pair of cooperating cages having swinging support at opposite sides of the car opening, a bumper having sliding support upon the car frame, and means actuated by the bumper for swinging the cages out in unison.

[Claims 6 to 23 not printed in the Gazette.]

1,077,324. HEAT-DISTRIBUTING APPARATUS. LUTON A. WILLIAMS, Marietta, N. C. Filed Dec. 19, 1911. Serial No. 666,749. (Cl. 126-96.)



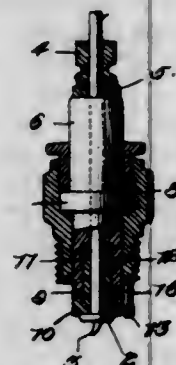
1. A heat distributing apparatus comprising a tank for containing liquid fuel, a track on the tank, a burner frame slidable on the track and having wicks depending in the said tank, a hood on the burner frame, and a radiator pipe having connection with the said hood, the said hood being movable into and out of engagement with the radiator pipe.

2. A heat distributing apparatus comprising a tank adapted to contain a liquid fuel, a burner frame mounted to slide on the said tank and having wicks depending in the said tank, a hood on the burner frame, and a radiator pipe normally engaged by the said hood, the said hood being movable into and out of engagement with the radiator pipe.

1,077,325. SPARK-PLUG. WILLIAM S. WITTER, Toledo, Iowa. Filed Nov. 20, 1911. Serial No. 661,250. (Cl. 123-169.)

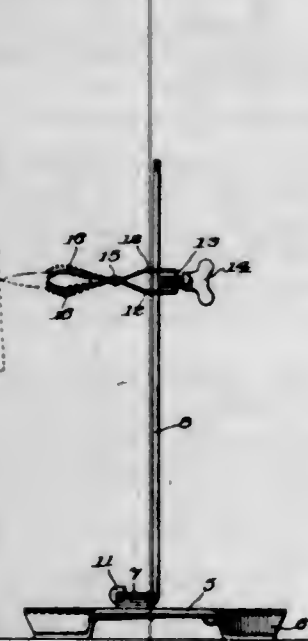
1. A spark plug, including a shell, a core mounted in said shell and projecting below the same, an intermediate electrode provided with a collar, a detachable clamping section secured to the end of the core and clamping the collar of said intermediate electrode against the end of the core and in an exposed position below the lower end of the shell, a stem mounted in the core and extending there-through and provided with a head exposed below the lower

end of the core, and an electrode secured to the shell and extending below and in spaced relation to the collar of the intermediate electrode and said intermediate electrode being provided with diverging points, one of which extends close to and in spaced relation to the second named electrode, the stem being provided with a point extending away from the second named electrode and arranged in closely spaced relation to the other point of the intermediate electrode.



2. A spark plug, including a shell, a core mounted in said shell and projecting below the same, an intermediate electrode provided with a collar, a detachable clamping section secured to the end of the core and clamping the collar of said intermediate electrode against the end of the core and in an exposed position below the lower end of the shell, a stem mounted in the core and extending through and provided with a head exposed below the lower end of the core, and an electrode secured to the shell and extending below and in spaced relation to the collar of the intermediate electrode and said intermediate electrode being provided with diverging points, one of which extends close to and in spaced relation to the second named electrode, the stem being provided with a point extending away from the second named electrode and arranged in closely spaced relation to the other point of the intermediate electrode, said stem being further provided with a head which is exposed below the detachable clamping section.

1,077,326. SKIRT-MARKER. JOHN GEORGE ZUBER, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Oct. 24, 1912. Serial No. 727,500. (Cl. 73-48.)

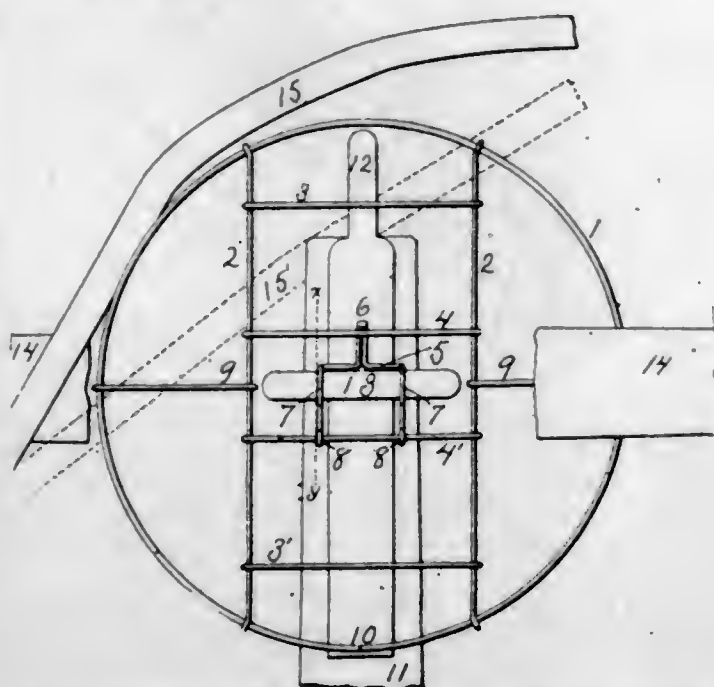


1. A skirt marker comprising a base having a raised strap, a standard detachably mounted on said base and adapted to be folded parallel with said base when not in use, a spring adapted to cooperate with the said strap to hold said standard in an upright position when in use, and a crayon holder adjustably mounted on said standard.

2. In a skirt marker, in combination, a base raised upon legs formed by bending the corners of said base, said base having a raised strap at the center thereof and an

aperture beneath said strap; a graduated standard adapted to be inserted between said base and said strap, said standard having a curved and hooked foot extending therefrom substantially at a right angle and adapted to engage the said raised strap; a spring fixed to said base and adapted to bear against said foot to hold said standard in an upright position; and a crayon-holder adjustably mounted on said standard.

1,077,327. REIN-GUARD. LEWIS B. AVERY, Bridge-water, Mich. Filed June 23, 1913. Serial No. 775,446. (Cl. 21-77.)



1. A flat-shaped rein-guard, whose central portion is situated beneath the middle portion of the neckyoke on which it is used, having a slot through its center to admit the passage of the neckyoke ring and links, and whose forward edge extends laterally each way from near the front end of the tongue and backwardly toward the under side of the neckyoke to prevent the cross-lines, when sagging, from getting under the end of the tongue.

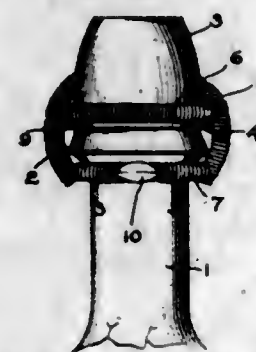
2. A rein-guard consisting of a ring or hoop having a slot through its central portion formed by cross-wires secured to its periphery and large enough to permit the neckyoke ring and links to pass through it, and whose central portion is situated beneath the middle portion of the neckyoke on which it is used, and whose diameter is such that its forward half will extend over the most of that portion of the tongue that is in front of the neckyoke, substantially as shown and described and for the purpose specified.

3. A rein-guard consisting of a ring or hoop having a slot through its central portion formed by cross-wires secured to its periphery and large enough to permit the neckyoke ring and links to pass through it, and having a bearing hinged to one of the cross-wires forming said slot, and fitted to and capable of resting on the upper side of the neckyoke ring and terminating in a loop which extends beyond and rests against the under side of the opposite cross-wire, substantially as shown and described and for the purpose specified.

1,077,328. BOTTLE-CLOSURE. CHARLES D. BOWYER, Camden, N. J. Filed Jan. 28, 1913. Serial No. 744,610. (Cl. 215-25.)

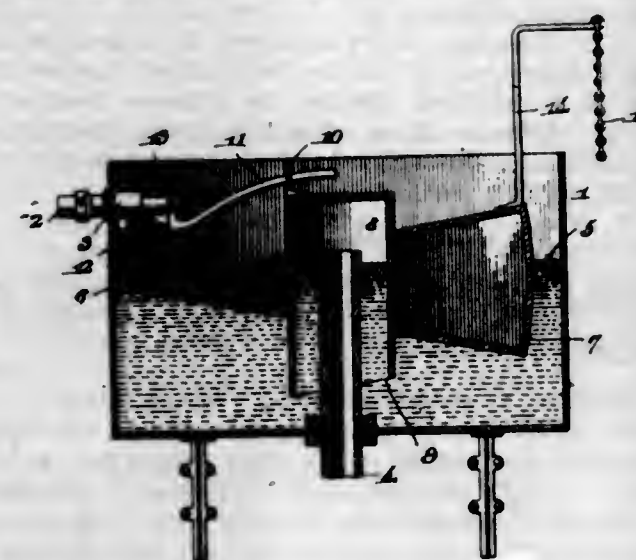
1. A device of the character described, comprising two coiled springs held in circular formation, other coiled springs located at opposite sides of the first-mentioned springs, and having their convolutions interlocked with the convolutions of the first-mentioned springs, one of said first-mentioned springs adapted to surround a bottle neck, and the other of said first-mentioned springs adapted to surround a closure, substantially as described.

2. A device of the character described, comprising two coiled springs held in circular formation, other coiled springs located at opposite sides of the first-mentioned springs, and having their convolutions interlocked with the convolutions of the first-mentioned springs, one of said first-mentioned springs adapted to surround a bottle neck, and the other of said first-mentioned springs adapted to surround a closure, said closure comprising a cap having a flange at its lower edge, against which said first-mentioned spring bears, and openings in the opposite sides of said cap into which the last-mentioned springs are projected, substantially as described.



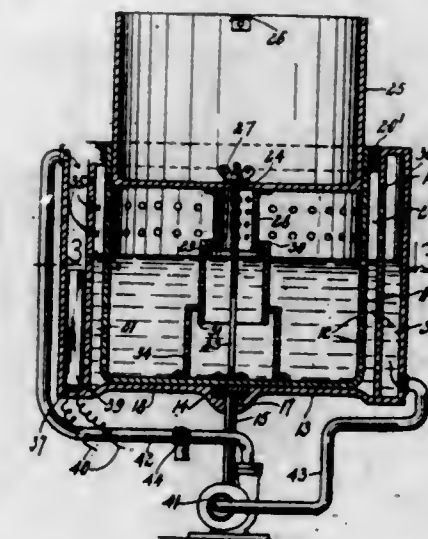
3. A device of the character described, comprising two coiled springs held in circular formation, other coiled springs located at opposite sides of the first-mentioned springs, and having their convolutions interlocked with the convolutions of the first-mentioned springs, one of said first-mentioned springs adapted to surround a bottle neck, and the other of said first-mentioned springs adapted to surround a closure, said closure comprising a cap having a flange at its lower edge, against which said first-mentioned spring bears, openings in the opposite side of said cap into which the last-mentioned springs are projected, and blocks located within the caps and against the inwardly projecting ends of said springs limiting the movement of the blocks in the caps, substantially as described.

1,077,329. FLUSH-TANK FOR WATER-CLOSETS. DANIEL CABRAL, Guadalajara, Mexico. Filed Sept. 19, 1911. Serial No. 650,229. (Cl. 4-5.)



In a flushing apparatus, the combination with a tank having a supply pipe connected thereto, of a flushing pipe extending into the tank, a triangular float having its narrow end pivoted to the wall of the tank, a hollow member secured to and extending through the float, and surrounding the upper end of the flushing pipe, said hollow member having an angular sheared bottom, a rod connected to the upper free end of the float and extending above the tank and having a lateral extension, a chain connected to the lateral extension for depressing the free end of the float, a supply valve connected in the supply pipe above the hinging point of the float, an operating lever therefor, and an apertured lug connected to the hollow member and adapted to freely receive said operating lever whereby when the float is depressed the lever will be operated to open the valve.

1,077,330. WASHING-MACHINE. DAVID E. G. CLARKE, New York, N. Y. Filed Jan. 8, 1913. Serial No. 740,500. (Cl. 68-37.)

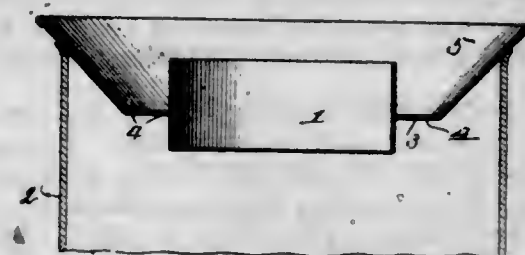


1. In an apparatus of the character described, the combination with a closed cylindrical tank, of a perforated cylindrical receptacle rotatably arranged therein adapted to receive a liquid and the articles to be treated, the annular space formed between said tank and said receptacle being divided into two compartments, a cover upon said receptacle, a pump drawing liquid from one of said compartments and forcing it into the other one, and means for rotating said receptacle and its contents.

2. In an apparatus of the character described, the combination with a closed cylindrical tank, of a perforated cylindrical receptacle rotatably arranged therein adapted to receive a liquid and the articles to be treated, the annular space formed between said tank and said receptacle being divided into two compartments, a cover upon said receptacle, a pump drawing liquid from one of said compartments and forcing it into the other one, means for rotating said receptacle and its contents, and a perforated tubular member centrally arranged within said receptacle.

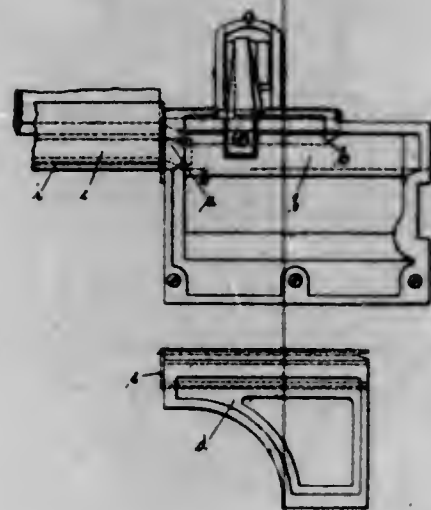
3. In an apparatus of the character described, the combination with a closed cylindrical tank, of a perforated cylindrical receptacle rotatably arranged therein adapted to receive a liquid and the articles to be treated, the annular space formed between said tank and said receptacle being divided into two compartments, a cover slidably arranged upon said receptacle, a pump drawing liquid from one of said compartments and forcing it into the other one, means for rotating said receptacle and its contents, and a plurality of telescoping perforated tubular members centrally arranged within said receptacle extending from said cover to the bottom of said receptacle.

1,077,331. SKIMMER FOR MAKING SYRUP. OTIS B. DEES and PAUL F. MCINTOSH, Mayo, Fla. Filed Oct. 27, 1911. Serial No. 657,055. (Cl. 127-9.)



A syrup skimmer comprising a cylinder open at each end, and an annular receptacle carried by said cylinder, and secured to the cylinder midway the ends of the cylinder, said receptacle having a perforated bottom, and being adapted to rest upon the top of a kettle and support the said cylinder centrally within the upper portion of said kettle.

1,077,332. MATRIX-SETTING AND TYPE-LINE-CASTING MACHINE. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 11, 1911. Serial No. 613,930. (Cl. 199-7.)



1. In a matrix setting and line casting machine in combination a casting carriage, and a transport channel, provided with an inclined guiding device bringing matrices assembled in different levels with their bottom in one level, said guiding device being extended so as to project over the left hand side edge of the transport channel and said casting carriage being recessed so as to correspond with the extended guiding device.

2. In a matrix setting and line casting machine in combination a casting carriage, an intermediate channel guiding the assembled matrix line to the casting carriage and being provided with fixed guide-edges, said guide-edges being elongated as to project over the left hand side edge of the intermediate channel and said casting carriage being recessed so as to correspond with the elongated guide-edges, in such manner that when the carriage registers with the channel, an unbroken track is provided for the matrices in their passage from one to the other.

3. In a matrix setting and line casting machine in combination a casting carriage, a transport channel being provided with an extended and inclined guiding device bringing the matrices assembled in different levels with their bottom in one level and an intermediate channel guiding the assembled matrix line to the casting carriage and being provided with guide ledges, said guiding device being extended and said guide ledges being elongated so as to project over the left hand side edge of the transport and intermediate channel and said casting carriage being recessed as to correspond with the extended guiding device and elongated guide ledges, substantially as described.

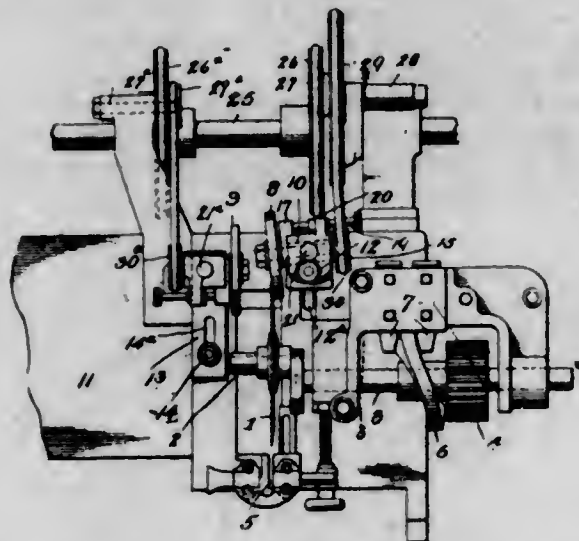
4. In a typographical machine, the combination of the first elevator to transport the matrices, with an adjacent organ, the said parts being so arranged as to permit the transfer of the matrices from one to the other, and the said organ being provided with fixed guiding means for the matrices, which means are extended so as to project into the elevator, in such manner that when the elevator registers with the organ, an unbroken track is provided for the matrices in their passage from one to the other.

1,077,333. ROTARY KNIFE-GRINDER. NAPOLEON DU BRUL, Cincinnati, Ohio, assignor to The Miller, Du Brul and Peters Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 11, 1912. Serial No. 719,881. (Cl. 51-7.)

1. In combination with a mounting for a rotary machine knife having a reciprocation in a transverse direction relative to the axis of the knife, a pair of grinders positioned to be impinged against by opposite faces of the knife when said knife is being reciprocated by said mounting.

2. In combination with a mounting for a machine knife, said mounting having reciprocations during operation in

two directions perpendicular to each other, a pair of grinders respectively located to be impinged against by a knife on said mounting, said knife partaking of said reciprocations.



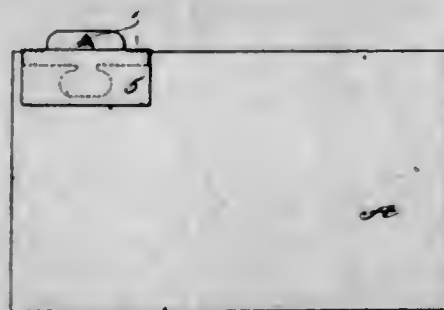
3. In combination with a mounting for a machine knife having an edgewise orbital movement and an axial reciprocation in the plane of an axis of its orbit; a pair of grinders located at the ends of the said orbital axis and offset in the said orbital plane, by the distance of the said axial reciprocation, whereby the said grinders are impinged against by the respective outer faces of the said knife as when at the limit of the said movements.

4. In combination with a mounting for a machine knife having a reciprocating movement during operation, a pair of grinders located to be impinged against by the respective outer faces of said knife by the reciprocation of said mounting; the grinding face of one of said grinders being held at a substantial angle to the plane of the knife, whereby it grinds a bevel at the edge, and the other having its grinding faces substantially parallel to the plane of the knife; means being provided to rotate each of said grinders, and one of said grinders being rotated more rapidly than the others.

5. In combination with a mounting for a machine knife having a reciprocating movement, a pair of grinders positioned to be impinged against by opposite faces of the knife, in the reciprocation of said mounting; both of said grinders being adjustable toward the axis of said knife.

[Claims 6 to 11 not printed in the Gazette.]

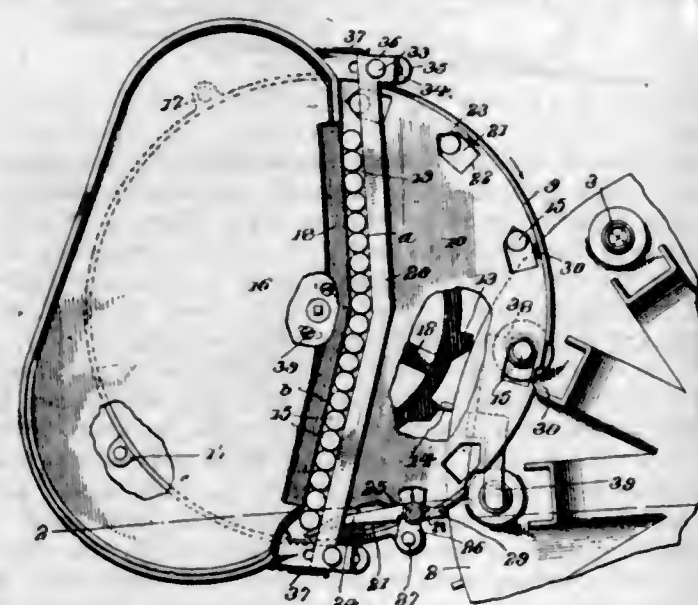
1,077,334. TAB FOR INDEX-CARDS. JAMES F. DUNLEAVY, Newton, Mass. Filed Dec. 18, 1912. Serial No. 737,382. (Cl. 129-16.)



1. The index card above described, recessed on its upper edge to receive the lower side of the index tab; the tab within said recess; and a retaining strip to engage and connect the index tab and the card.

2. The two-part tab above described, made up of a body part with a projecting anchor portion shaped to fit into a recess in the upper edge of an index card and a retaining band adapted to engage and connect the tab and card.

1,077,335. FEEDING DEVICE FOR BUTTON-MAKING MACHINES. PAUL F. DUSHA, ANTON FEYK, and JOSEPH KOMANCSEK, New York, N. Y., assignors to Holub-Dusha Company, New York, N. Y. Filed Nov. 25, 1911. Serial No. 662,495. (Cl. 79-17.)



1. A blank feeding device, including a movable feed disk, provided with blank engaging means, a tray extending transversely to the feed disk and discharging thereon, in combination with a chuck support disposed beneath said disk and movable in a direction to cause the intersection of the paths of movement of the chucks and the blank engaging means of said disk, and means for intermittently actuating said disk, for the purpose specified.

2. A blank feeding device including a base plate having a discharge opening, a movable feed disk formed with open bottom pockets for the blanks, in combination with a chuck support movable beneath the under face of the base plate to bring its chucks in register with the discharge opening of the base plate, and means carried by the chuck support for intermittently actuating said disk to effect a transfer of a blank from a pocket to a chuck.

3. A blank feeding device including a base plate having a discharge opening, a revoluble feed disk formed with downwardly opening pockets in its margin registering with the discharge opening, in combination with a chuck support movable underneath the base plate to bring its chucks one by one into register with said discharge opening, and means carried by said support for intermittently actuating said disk to effect the registry of a pocket with a chuck and the opening in the base plate to thereby effect the automatic transfer of a blank from a pocket to a chuck.

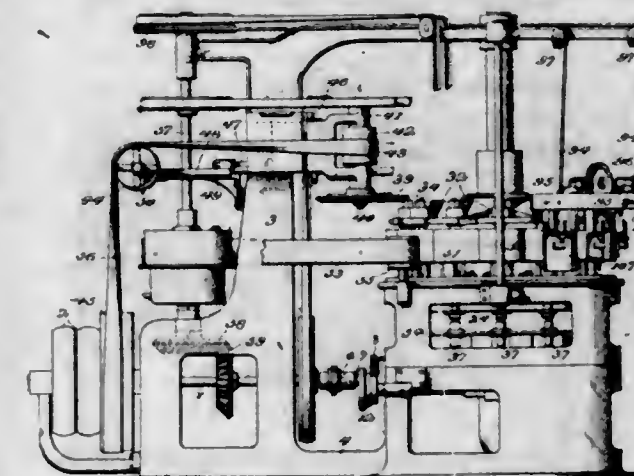
4. A blank feeding device, including a revoluble disk formed with a plurality of bottom opening blank receiving pockets, and a base plate on which the disk rests having a discharge opening, in combination with a revoluble chuck support, and chucks carried thereby, the parts being so mounted that the path of movement of the pockets will intersect the path of movement of the chucks, and means for automatically and intermittently actuating said disk to effect the registry of a pocket with a chuck and said opening in the base plate.

5. A blank feeding device, including a base plate having a discharge opening and a revoluble disk resting upon said base plate and provided with bottom opening blank receiving pockets adapted to register with the discharge opening of the base plate, in combination with a chuck support and chucks carried thereby and adapted to pass underneath and into registry with said pockets, a toothed wheel mounted underneath said disk and movable therewith, and pins projecting from said support and engageable with the teeth of said wheel, for the purpose specified.

[Claims 6 to 22 not printed in the Gazette.]

196 O. G.—3

1,077,336. BUTTON-MAKING MACHINE. PAUL F. DUSHA, ANTON FEYK, and JOSEPH KOMANCSEK, New York, N. Y., assignors to Holub-Dusha Company, New York, N. Y. Filed Dec. 28, 1911. Serial No. 668,253. (Cl. 79-6.)



1. A button forming machine including a movable chuck carrier, a button chuck carried thereby, a shank grinding wheel disposed in parallel relation to the plane of movement of the carrier, means for rotating the chuck and grinding wheel, and means for subsequently drilling perforations through the shank so formed parallel to the face of the button.

2. A button forming machine including a movable chuck carrier, a button chuck carried thereby, means for forming a shank on the blank carried by the chuck, and a drill operated subsequently to the shank forming mechanism, said drill operating in a plane parallel to the face of the button.

3. A button forming machine including a movable chuck carrier, a chuck carried thereby, means for forming a shank on a blank carried by the chuck during the movement of the carrier, means for milling out the opposite portions of a shank of said blank during the movement of the carrier, said means operating in a plane parallel to the face of the button, and means for subsequently drilling said shank through the milled out portions thereof and parallel to the face of the button.

4. A button forming machine, including a movable chuck carrier, chucks carried thereby, and means for automatically milling out one side of a shank of a blank in one chuck, for simultaneously milling out the opposite side from the shank of a blank in another chuck, said milling means operating parallel to the face of the button and transversely of the shank, and means for simultaneously drilling the shank of a blank in another chuck during the movement of the carrier, said drilling means operating parallel to the face of the button.

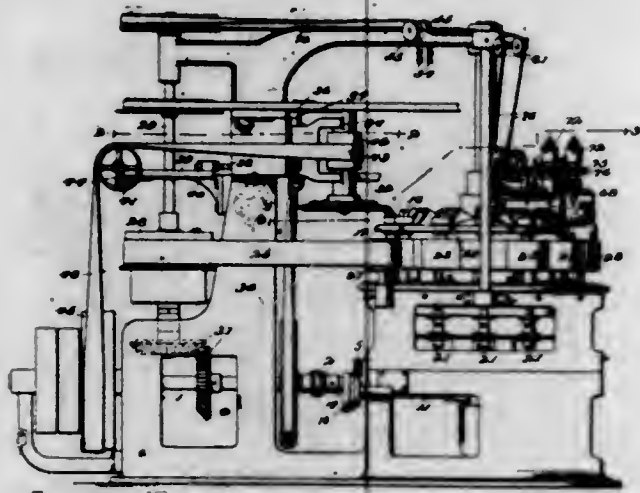
5. A button forming machine, including a movable carrier, a plurality of chucks carried thereby, milling tools and a drilling tool movable with the carrier and operating in a plane parallel to the face of the button, and means for automatically effecting the engagement of one milling tool with one side of a shank of a blank carried in a chuck, for subsequently effecting the engagement of another milling tool with the opposite side of the shank, and for then effecting the engagement of the drilling tool with said shank.

[Claims 6 to 24 not printed in the Gazette.]

1,077,337. BUTTON-MAKING MACHINE. PAUL F. DUSHA, ANTON FEYK, and JOSEPH KOMANCSEK, New York, N. Y., assignors to Holub-Dusha Company, New York, N. Y. Filed Dec. 28, 1911. Serial No. 668,254. (Cl. 79-12.)

1. A button forming machine including a movable chuck carrier, button chucks carried thereby, a tool carrier movable with the chuck carrier for a predetermined distance and including diverging arms having a common pivot,

means for adjusting said arms with relation to each other to change their angular distance, and tools mounted, one upon each of the arms and adjustable with said arms toward and from each other.



2. A button forming machine including a movable chuck carrier, chucks carried thereby, an arm mounted for movement independent of the chuck carrier, a fish-eye forming tool mounted upon said arm, a second arm movable with the first arm but extending angularly therefrom, and comprising sections having a common pivot and means for adjusting said sections with relation to each other to change their angular distance, drills mounted, one upon each section and adjustable with the sections toward and from each other, and means for moving said arms with the chuck carrier for a predetermined period and for subsequently returning said arms to their initial position.

3. A button forming machine, including a movable chuck carrier, chucks carried thereby, a movable arm, a bracket secured to said arm, arms pivotally mounted upon a common center and carried by said bracket, means for adjusting said last named arms toward and away from each other, drills carried by said last named arms, and means for automatically moving the first named arm with the chuck carrier for a predetermined distance and for subsequently returning said arms to its initial position.

4. A button forming machine, including a movable chuck carrier, chucks carried thereby, an arm movable with the chuck carrier for a predetermined distance and subsequently automatically movable in the opposite direction independently of the chuck carrier, a bracket secured to said arm, pivoted arms mounted on said bracket, tool holders carried by said last named arms, the said arms being formed with apertured lugs, and a right and left hand adjusting screw working through said lugs and arranged to move the last named arms toward and away from each other.

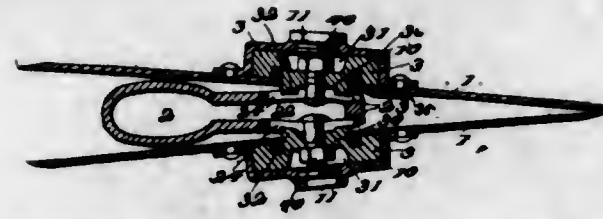
5. A button forming machine including a movable button carrier, a tool supporting member movable in a parallel path to the button carrier, a device carried by said supporting member and engaging the button carrier to cause a simultaneous movement in the same direction of the button carrier and said tool support, and means actuated by the button carrier for shifting said tool supporting member in a direction reverse to the movement of the button carrier after the button carrier and tool supporting member have moved together for a predetermined distance.

[Claims 6 to 13 not printed in the Gazette.]

1,077,338. DOUBLE-DISK GRAIN-DRILL. WILLIAM ELIOTT, HERMAN M. LOEBER, and ROBERT H. SCHLACHTER, Beatrice, Nebr., assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr., a Corporation of Nebraska. Filed Apr. 18, 1912. Serial No. 691,649. (Cl. 111-11.)

1. A double disk grain drill comprising a support provided with opposite side seats having forwardly converging curved faces, a pair of disks having their journals abutting against said seats and adjustable forwardly thereon to maintain the desired contact between front portions of their cutting edges, a guard rigid with said support and

extending forwardly over said disks and downwardly in front thereof and means for independently securing said journals to said seats.



2. A double disk grain drill having forwardly converging rotary disks independently rockable laterally to maintain contact between front portions of their edges, a boot carrying said disks and provided with a guard extending forwardly over said disks and downwardly at the front thereof and terminating above the point of contact between said disks, and adjustable mountings for said disks.

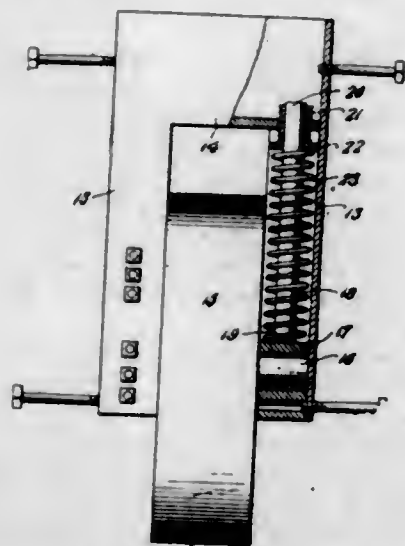
3. In combination, a support embodying a boot and provided with opposite forwardly converging side faces, inclined forwardly-converging rotary disks between which said boot is arranged, said disks provided with and carried by means forming the axes on which the disks rotate, said means abutting against and adjustable on said faces to maintain contact between front portions of the disk edges, said boot provided with a guard over said disks and depending at the front thereof, and adjustable clamping devices for said means, respectively, for independently securing and adjusting the same.

4. In combination, a vertically disposed boot provided with a forwardly and downwardly extending guard, said boot formed with opposite side curved forwardly converging seats, a pair of inclined forwardly converging rotary disks arranged under said guard and on opposite sides of said boot, each disk carried by and provided with means forming the axis on which the disk rotates, and securing and adjusting devices for said means, respectively, for independently securing said means to and permitting forward adjustment thereof on said seats.

5. In combination, in a double disk grain drill, a boot formed with opposite side longitudinally curved seats, a pair of rotary furrow opener disks, said disks provided with, carried by and rotating on bearing blocks having ends bearing against, conforming to and longitudinally adjustable on said faces, a guard depending at the front of said disks and adjustable securing devices for independently securing said blocks, respectively, to said support and in the desired adjustment on said seats.

[Claims 6 to 16 not printed in the Gazette.]

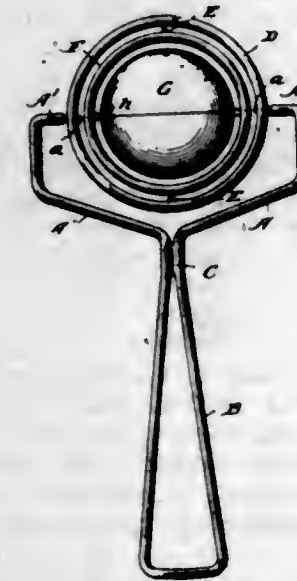
1,077,339. BELT-TIGHTENER. WILLIAM E. FARRELL, Little Rock, Ark. Filed Sept. 16, 1911. Serial No. 649,708. (Cl. 64-52.)



A belt tightener or tensioning device comprising an inverted U-shaped frame formed of a top cross bar and side bars depending therefrom and spaced apart, axially aligned boxes carried by said side bars and slidable therein, a

shaft journaled in said boxes, a pulley upon said shaft, a rod extending from each box parallel with the respective side bar, sleeves threaded into said connecting bar for receiving the free ends of said rods, and springs surrounding said rods and each having one end bearing upon the respective box and the opposite end in contact with the sleeve whereby the tension of the spring may be adjusted.

1,077,340. AMUSEMENT DEVICE. WILLIAM R. GRAHAM, Washington, D. C., assignor to Hattie B. Graham, Washington, D. C. Filed Nov. 4, 1912. Serial No. 729,402. (Cl. 46-14.)



1. In a toy adapted to be held in the hand, a handle having diverging arms provided with oppositely located inwardly directed pivots forming an axis at a wide angle from the major axis of the handle, an annular body journaled on said pivots at diametrically opposite points, and a second annular body journaled in said first mentioned annular body on peripheral pivots forming an axis disposed at an angle to the axis of the first mentioned body, whereby the bodies may be brought into coincident planes and are free to rotate on their own axes in intersecting planes.

2. In a device of the class described, a handle having divergent arms formed at their ends into oppositely disposed inwardly directed pivots of less diameter than the arms, a ring having bearings at diametrically opposite points in which said pivots are journaled, whereby the ring is permitted to rotate freely between the arms, a second ring located within the first mentioned ring and having pivot seats therein at diametrically opposite points, and outwardly tapered pivot pins mounted in the outer ring and extending into the seats in the inner ring, whereby both outward and inward displacement of the pivot pins is prevented and the inner ring is freely supported for rotation on its own axis independently of the outer ring.

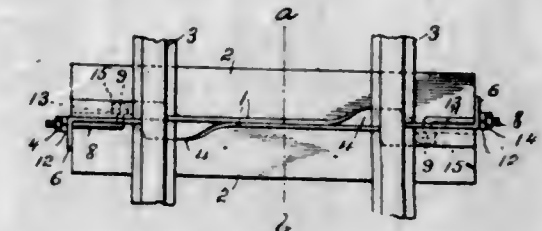
3. In a device of the type described, a handle provided with oppositely disposed inwardly directed pivots, a ring having diametrically opposite bearings for the reception of said pivots, whereby the ring is journaled for free rotation on the handle, a second ring journaled in the first mentioned ring on an axis at an angle to the axis of said first mentioned ring, and a body journaled concentrically within the second ring on an axis at an angle to the axis of the second ring, substantially as described.

4. A device of the type described embodying a handle having oppositely located, inwardly directed pivots, a ring journaled for free rotation on said pivots, a second ring journaled within the first mentioned ring on an axis at an angle to the axis of the first mentioned ring, the pivot pins for said second mentioned ring being prevented from moving longitudinally by the respective rings, a body journaled within the inner ring, the pivot for said body being formed by a wire extending across the ring from side to side and having portions between the body and ring transversely enlarged to limit the longitudinal movement of the

wire, and to limit the longitudinal movement of the body on the wire, whereby the latter is held central within the ring, but is free to rotate.

5. In a toy to be held in the hand, the combination with concentric members mounted on peripheral pivots forming axes, of a support on which said members are pivotally mounted, embodying a handle adapted to be gripped between the thumb and fingers, said handle having major and minor transverse axes whereby it is of greater dimension in one direction transversely than in the other and may be rotated by a transference of the gripping pressure from the major axis toward the minor axis, substantially as described.

1,077,341. RAILROAD-TIE. JAMES K. GRANT, Mounds, Okla., assignor to The Texas Steel Tie Company, Denison, Tex., a Corporation. Filed Mar. 10, 1913. Serial No. 753,211. (Cl. 238-5.)



1. In a railroad tie, two members having longitudinal upstanding portions disposed side by side and provided respectively with means for clamping opposite sides of a rail, one of the members having an abutment, a device provided with means for holding together said upstanding portions, said device being slidable longitudinally relative to the member having the abutment and non-slidable lengthwise of the other member, and means engaging said device and said abutment for moving the device longitudinally relative to the member having the abutment.

2. In a railroad tie, two members having longitudinal upstanding portions disposed side by side and provided respectively with means for clamping opposite sides of a rail, one member having an abutment, a bolt provided with means for holding the two upstanding portions together and provided with a portion longitudinally movable relative to said abutment, and a nut mounted on said bolt and bearing against said abutment for longitudinally moving said bolt, the bolt being affixed to and movable with the opposite member.

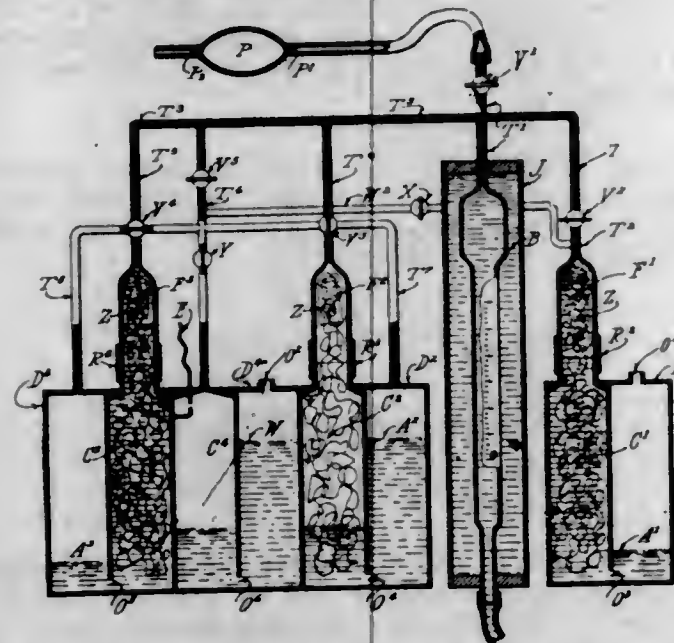
3. In a railroad tie, two members having longitudinal upstanding portions disposed side by side and provided respectively with means for clamping opposite sides of a rail, one member having an abutment and provided with a longitudinal slot in its upstanding portion, the other member having a hole in its upstanding portion registering with said slot, a bolt having a transverse portion extending through said slot and hole and having a longitudinal portion extending through and slidable in said abutment, and a nut bearing against said abutment and mounted on the bolt.

4. In a railroad tie, two members having longitudinal upstanding portions disposed side by side and provided respectively with means for clamping opposite sides of a rail, one member having an abutment and provided with a longitudinal slot in its upstanding portion, the other member having a hole in its upstanding portion which registers with said slot, a bolt having a threaded longitudinal portion longitudinally movable in said abutment and having a threaded transverse portion which extends through said hole and slot, a nut on the longitudinal portion of the bolt and bearing against said abutment, and a nut on the transverse portion of the bolt and bearing against the member opposite the one having the abutment.

1,077,342. GAS-ANALYZING APPARATUS. JOSEPH W. HAYS, Chicago, Ill. Filed July 3, 1912. Serial No. 707,647. (Cl. 23-3.)

1. A gas analysis apparatus, consisting of a gas measuring burette; a leveling bottle connected with said bu-

rette; a multiplicity of absorption vessels, each having a displacement vessel connected with the bottom thereof, one of said displacement vessels being open to the air and the absorption vessel of said last mentioned displacement vessel being connected by tubes with each of said other displacement vessels; a stop cock in each of said tubes; a tube on said burette having a stop cock thereon; tubes connecting each of said absorption vessels with said burette and a stop cock on each of said tubes.



2. A gas analysis apparatus consisting of a gas measuring burette having a tube and a stop cock thereon; a leveling bottle connected with said burette; a multiplicity of absorption vessels, each connected by a tube having a stop cock thereon with said burette; a displacement vessel connected with the bottom of each of said absorption vessels and a fibrous packing filling each of said absorption vessels.

3. A gas analysis apparatus, consisting of a gas measuring burette having a tube and a stop cock thereon; a leveling bottle connected with said burette; a multiplicity of absorption vessels, each connected by a tube with said burette and each having a displacement vessel connected with the bottom thereof; a stop cock on each of said tubes; two vessels, adapted to contain a liquid and connected with each other near the bottoms thereof, the one chamber open at the top to the air and the other connected at the top by means of a tube with the top of each of said displacement vessels.

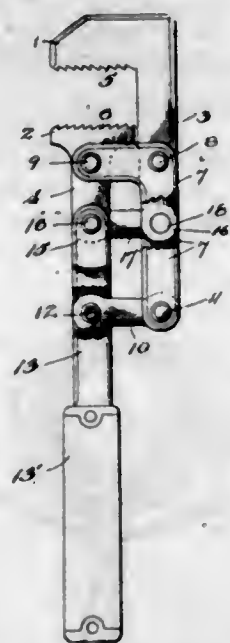
4. A gas analysis apparatus, consisting of a gas measuring burette having a tube connected at the top thereof with a stop cock thereon; a leveling bottle connected with said burette; a multiplicity of absorption vessels, each connected at the bottom thereof with a displacement vessel and each being connected by a tube with a stop cock thereon with said burette; a tube leading from each of said last mentioned stop cocks to each of said displacement vessels; a vessel adapted to contain a sealing liquid and a tube leading from said vessel to said last mentioned tube.

5. A gas absorption and liquid sealing apparatus for a gas analysis instrument consisting of an absorber vessel having a displacement vessel connected at the bottom thereof; a liquid container vessel connected at the bottom thereof with a displacement vessel open at the top to the atmosphere; a tube connecting said container vessel with said firstmentioned displacement vessel; a tube leading from the top of said absorber vessel to a gas measuring burette and a common valve in said tubes by means of which communication is simultaneously established between said absorber vessel and said burette and said container and said displacement vessel.

1,077,343. WRENCH. HUBERT H. HAYWARD, Aldrich, Mo. Filed July 11, 1912. Serial No. 708,890. (Cl. 81-91.)

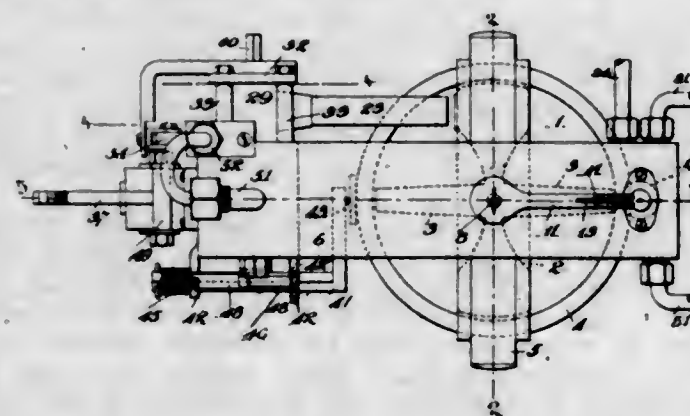
1. The combination with a pair of jaws each having a shank, of side plates pivotally connecting said shanks, a

link pivotally connecting said shanks at their ends, and a handle having a stem connected to one of said shanks and to said side plates, whereby movement of the handle changes the relative position of said jaws.



2. In a wrench, the combination with a pair of jaws each having a shank, of side plates forming levers with the short arm of the levers pivotally connecting said shanks, a link pivotally connecting the ends of the shanks, a stem pivotally connected to the end of one shank, and a link pivotally connecting the stem to the long lever arm of the side plates.

1,077,344. GYROSCOPE STEERING-GEAR. PAUL HENNING, New York, N. Y. Filed Mar. 28, 1912. Serial No. 686,957. (Cl. 114-24.)



1. A gyroscope steering gear having a rotor, a gimbal ring carrying the rotor, a second gimbal ring, and gas generating means carried by the latter ring, for rotating the rotor.

2. A gyroscope steering gear having a rotor, a gimbal ring carrying the rotor, a second gimbal ring, and gas generating means carried by the latter ring and co-acting with the rotor, for rotating the latter.

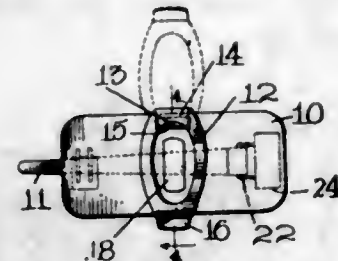
3. A gyroscope steering gear having a gyroscope wheel, forming a turbine rotor, an inner gimbal ring carrying the rotor, and a gas generator having nozzles which co-operate with the rotor, said gas generator being carried by an outer gimbal ring.

4. A gyroscope steering gear having a turbine stator comprising a gimbal ring, a chamber carried thereby for generating gas, nozzles communicating with the chamber, a turbine rotor and gyroscope wheel located within a second gimbal ring, the nozzles being directed against the rotor.

5. A gyroscope steering gear having a gimbal ring, a chamber for generating gas, carried thereby, nozzles communicating with the chamber, a gyroscope wheel carried by a second gimbal ring and having buckets on the wheel against which the gas is directed from the nozzles.

[Claims 6 to 20 not printed in the Gazette.]

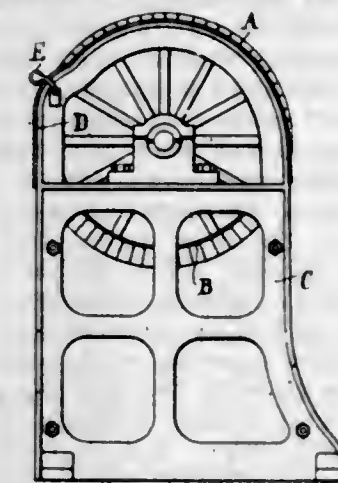
1,077,345. BARRETTE. WILLIAM J. HINES and WALTER F. HICKS, Leominster, Mass., assignors to Puritan Comb Company, Leominster, Mass., a Corporation of Massachusetts. Filed Aug. 30, 1911. Serial No. 646,821. (Cl. 132-22.)



1. As an article of manufacture, a hair ornament comprising a curved main body of sheet material having a perforation near one edge, and a retaining means on the concave side thereof, said main body being provided with a plate of sheet material independent of said retaining means and on the convex side for holding a bow of ribbon on the exposed face thereof, said plate having an integral tongue at one end extending beyond the edge of the main body and into said perforation by which the plate is pivoted to the main body and having an under cut and out-turned integral resilient extension at the other end by which the plate may be detachably secured in holding position and may be released therefrom.

2. As an article of manufacture, a hair ornament comprising a main body, a retaining means on one side, and a plate on the other side constituting means for holding a bow thereon, said plate having an opening therein extending substantially across the main body, and the body having a raised portion entirely under the opening and of smaller size and similar shape, said raised portion acting to project the central portion of the bow into the opening in the clamping plate.

1,077,346. MACHINE FOR WORKING LEATHER. ARTHUR HODGES and FRANK COOPER, Yeovil, England. Filed Nov. 12, 1912. Serial No. 730,864. (Cl. 149-14.)

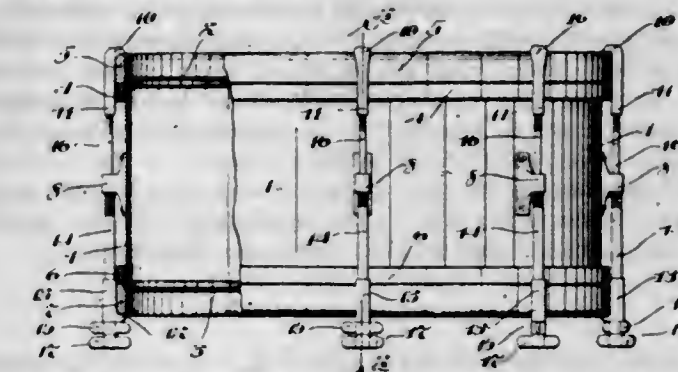


In a leather working machine, in combination, a frame, a drum rotatably mounted thereon and having its axis of rotation in a horizontal plane, said drum having transversely positioned blades on its periphery, and shields positioned on both sides of said drum adjacent the upper portion thereof, said shields extending in the direction of the axis of said drum and forming supports for the material to be treated, the surface of said shields at the central portion thereof being below the outer edges of the blades, the surface of said shields at the front and rear portions thereof being curved outwardly with respect to the axis of the drum to extend beyond the outer edges of the blades whereby the material being treated will not be caught between the drum and the shields.

1,077,347. DIFFERENTIAL ADJUSTING-ROD FOR DRUMS. ADELMOUR M. HOSKINS, Minneapolis, Minn. Filed Mar. 31, 1913. Serial No. 757,753. (Cl. 84-10.)

1. The combination with a drum, of drum head adjusting rods telescoped one within the other and having op-

erating devices located at one head of said drum, for independently or simultaneously adjusting said rods, at will, substantially as described.

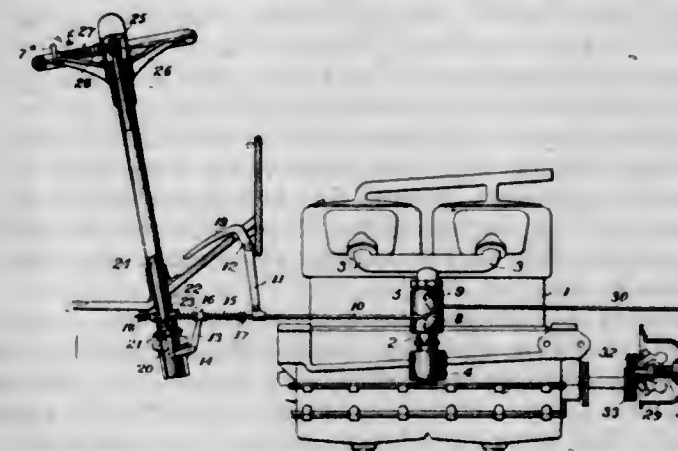


2. The combination with a drum shell, drum heads, and hoops for securing said heads to said shell, of a plurality of drum head adjusting devices, each comprising an anchor lug secured to said shell, fastenings applied to said hoops, and adjusting rods telescoped one within the other, the outer of said rods having screw threaded engagement with said anchor lug and bearing against one of said fastenings, and the inner rod having screw threaded engagement with the other of said fastenings and bearing against said outer rod, said rods being adapted to be turned to adjust said fastenings, substantially as described.

3. The combination with a drum shell, drum heads, and hoops for securing said heads to said shell, of a plurality of drum head adjusting devices, each comprising an anchor lug secured to said shell, fastenings applied to said hoops, and adjusting rods telescoped one within the other, the outer of said rods having screw threaded engagement with said anchor lug and having a thumb piece bearing against one of said fastenings, and the inner rod having screw threaded engagement with the other of said fastenings and having a thumb piece bearing against the thumb piece of said outer rod, said rods being adapted to be turned by said thumb pieces to adjust said fastenings, substantially as described.

4. The combination with a drum shell, drum heads, and hoops for securing said heads to said shell, of a plurality of drum head adjusting devices, each comprising an anchor lug secured to said shell, sleeve equipped hooks applied to said hoops, and adjusting rods telescoped one within the other and passed through the sleeve of one of said hooks, the outer of said rods having screw threaded engagement with said lug and having a thumb piece reacting against the sleeve through which it is passed, and the inner rod having screw threaded engagement with the other of said sleeves and having a thumb piece reacting against the thumb piece of said outer rod, said rods being adapted to be turned by said thumb pieces to adjust said fastenings, substantially as described.

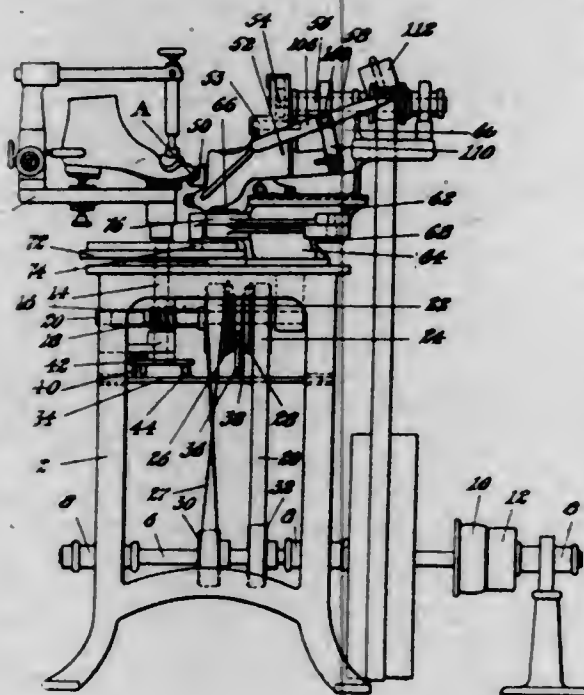
1,077,348. SPEED CONTROL FOR MOTOR-CARS. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 27, 1907. Serial No. 375,961. (Cl. 121-112.)



In a motor vehicle, the combination of a motor, a governor for the motor, a motive fluid intake pipe for the

motor, two independent throttle valves in said pipe, means operatively connecting one of said valves with the governor whereby the governor is adapted to control the supply of motive fluid to the motor when the motor exceeds a predetermined speed, a pedal lever, means operatively connecting said lever with the other of said valves, and a hand lever flexibly connected with said means whereby said other valve is adapted to be independently operated by either lever, said levers being accessible to the vehicle driver when operating the vehicle, and said governor and its connection with the valve controlled thereby being inaccessible to the driver when operating the vehicle.

1,077,349. BURNISHING-MACHINE. WALTER JACKSON and HAROLD NICHOLS POCHIN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 2, 1907. Serial No. 395,568. (Cl. 12-78.)



1. A machine of the class described comprising a tool, a tool carrying head provided with parallel cheeks and a tool supporting member mounted between said cheeks and within said head to enable the tool to move bodily in a plurality of directions relatively to the head as it follows the contour of the work.

2. A machine of the class described comprising a tool, a tool carrying head provided with guides and a tool supporting member cooperating with said guides and arranged to have a variety of bodily movements relatively to the head to enable the tool to follow the contour of the work.

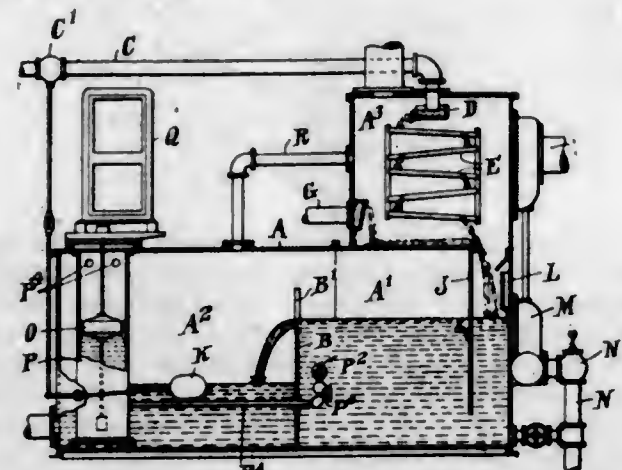
3. A machine of the class described comprising a tool-carrying head, a tool and supporting mechanism for the tool mounted within the head and comprising a parallel link system, means for supporting the tool on one link, and means connected with the opposite link of the system for transmitting pressure to the tool.

4. A machine of the class described comprising a tool-carrying head, a tool, and supporting mechanism for the tool comprising a parallel link system, means for supporting the tool on one link and means connected with the opposite link of the system for transmitting pressure to the tool.

5. A machine of the class described comprising a tool-carrying head, a tool, and supporting mechanism for the tool comprising a parallel link system, one link of the system being adapted to support the tool and the opposite link being adapted to receive and transmit to the tool the working pressure.

[Claims 6 to 17 not printed in the Gazette.]

1,077,350. WATER HEATING AND MEASURING APPARATUS. EDWARD G. JAY, JR., Philadelphia, Pa., assignor to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., doing business as Firm of Harrison Safety Boiler Works, Philadelphia, Pa. Filed Jan. 31, 1912. Serial No. 674,604. (Cl. 62-31.)



1. Water heating and measuring apparatus comprising in combination a weir chamber, a weir located in said weir chamber approximately midway between the ends of the latter and dividing said chamber into inlet and outlet compartments, a heating chamber above the weir chamber at one end of the latter, steam and water supply connections to said heating chamber, provisions for conveying the water heated therein to the inlet compartment of the weir chamber, a float chamber located within the compartment of the weir chamber at the opposite end of the latter from said heating chamber and provisions placing said float chamber in communication with said inlet compartment below the lowermost level of flow over the weir, a float located within the float chamber and having a stem projecting through the top wall of the weir chamber, and cooperating float actuated mechanism mounted on top of the weir chamber above said float chamber.

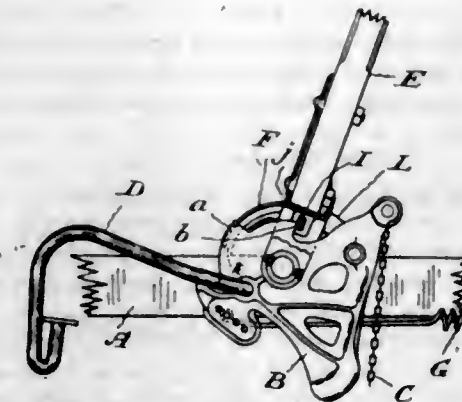
2. Water heating and measuring apparatus having in combination, a unitary tank structure comprising a weir chamber and a heating chamber above the weir chamber at one end of the latter, a weir dividing said weir chamber into inlet and outlet compartments said inlet compartment being at the end of the weir beneath said heating chamber, steam and water supply connections to said heating chamber, provisions for conveying the water heated therein to the inlet compartment of the weir chamber, a float chamber located within the outlet compartment of the weir chamber, a conduit connecting said float chamber to said inlet compartment below the lowermost level of flow over the weir, said float chamber being also open to the weir chamber above the maximum height of water level therein, a float located within the float chamber and having a stem projecting through the top wall of the weir chamber, and cooperating float actuated mechanism mounted on top of the weir compartment above said float chamber.

1,077,351. LIFTING DEVICE OF MOWER CUTTER-BARS. LYMAN MELVIN JONES and ROBERT HENRY VERITY, Toronto, Ontario, Canada, assignors to Massey-Harris Co., Ltd., Toronto, Canada. Filed Sept. 20, 1909. Serial No. 518,631. (Cl. 56-74.)

1. In a lifting device for mower cutter bars the combination of a quadrant lever fulcrumed on the frame of the machine; a chain secured to the said quadrant lever for connection to a mower cutter bar; a yielding spring pressed stop supported from the frame of the machine and determining the normal downward swing of the quadrant lever and a part connected with said quadrant lever and adapted to engage said stop.

2. In a lifting device for mower cutter bars the combination of a quadrant lever fulcrumed on the frame of the machine; a hand lever adapted to operate said quadrant lever; and a retaining quadrant for the hand lever

provided with a yielding spring pressed stop supported from the frame of the machine and limiting the normal forward movement of the hand lever.

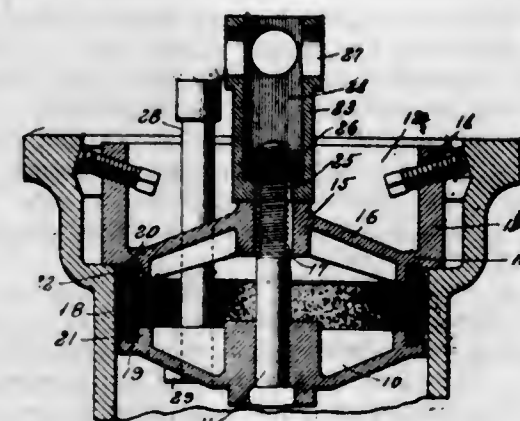


3. In a lifting device for mower cutter bars the combination of a quadrant lever fulcrumed on the frame of the machine and having a substantially straight chain engaging face; a chain secured to said quadrant lever for connection to a mower cutter bar; and a yielding spring pressed stop supported from the frame of the machine and determining the normal downward swing of the quadrant lever.

4. In a lifting device for mower cutter bars the combination of a quadrant lever fulcrumed on the frame of the machine and having a substantially straight chain engaging face; a hand lever adapted to operate said quadrant lever; and a retaining quadrant for the hand lever provided with a yielding spring pressed stop supported from the frame of the machine and limiting the normal forward movement of the hand lever.

5. In a mower the combination of a quadrant lever fulcrumed on the frame of the machine; a hand lever pivoted on the same fulcrum; a notched slide suitably guided in the hand lever transverse of the quadrant lever; a part on the quadrant lever adapted to work through the notch, a shoulder being formed thereon; a spring normally tending to press the slide endwise to bring its unnotched portion into the path of the shoulder of the quadrant lever; a retaining quadrant for the hand lever mounted on the frame; a stationary cam on said retaining quadrant with which the said slide engages so that it is given an endwise motion as the hand lever is rocked; and a yielding spring pressed stop supported from the frame of the machine and limiting the normal forward movement of the hand lever.

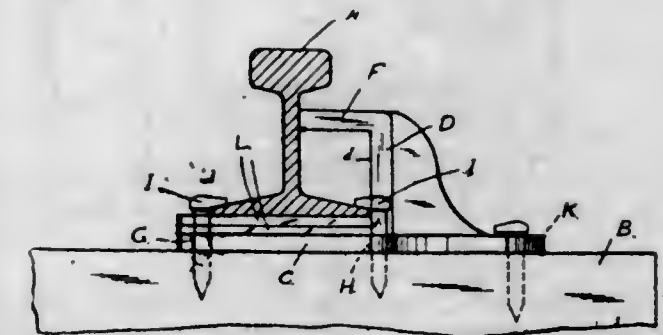
1,077,352. PIPE-TESTING PLUG. CLARENCE M. KEMP and CHARLES E. KEMP, Baltimore, Md., assignors to C. M. Kemp Manufacturing Co., Baltimore, Md., a Corporation of Maryland. Filed May 20, 1911. Serial No. 628,596. (Cl. 137-76.)



A testing plug for pipes comprising a pair of compression heads of different diameters, one of which is adapted to enter the bore of a pipe and the other to remain outside the same, a resilient packing sleeve between said heads, a threaded stem fixed in the inner head and projecting freely through an opening in the outer head, an elongated tightening member adapted to project beyond

the end of the pipe when the plug is applied for rotating the same, through which member said stem freely passes, a deep pocket of polygonal cross-section in the outer end of said member, and a polygonal nut threaded on said stem longitudinally slidable within said pocket but rotatable with said member when the latter is turned for drawing the heads together.

1,077,353. RAILWAY-TRACK DEVICE. EDWARD LAAS, Shawnee, Okla., and HIRAM H. SPONENBURG, Gurnee, Ill., assignors to Laas & Sponenburgh Co., a Corporation of Illinois. Filed Apr. 14, 1913. Serial No. 760,975. (Cl. 238-2.)



1. A track device of the character described, comprising a plate adapted to extend under the base of a rail and be secured to one of the supporting ties thereof, provided with an upright member having a vertical surface parallel with the edge of the base of the rail, against which surface said edge is adapted to bear when resting on said plate and also when shimmed up therefrom, and a substantially horizontal member projecting from said upright member which bears against the vertical web of the rail.

2. A track device of the character described, comprising co-engaging plates adapted to extend under the base of a rail and to be secured to one of the supporting ties thereof, one of said plates being formed with an upright member having a vertical surface against which one edge of the base of the rail is adapted to bear, and formed with a substantially horizontal member which bears against the vertical web of the rail, the other plate provided with an abutment, having a vertical face in line with the opposite edge of the base of said rail.

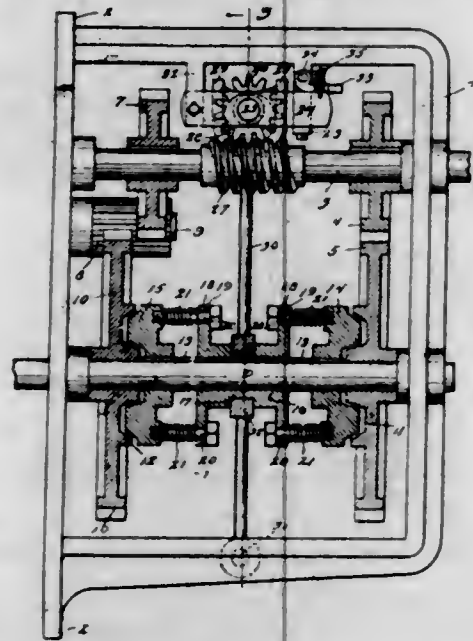
3. A track device of the character described, comprising co-engaging plates adapted to extend under the base of a rail and to be secured to one of the supporting ties thereof, each plate having a projection adapted to enter a similarly formed recess in the meeting edge of the other plate, one of said plates being formed with an upright member having a vertical surface against which one edge of the base of the rail is adapted to bear at different altitudes, and the other provided with an abutment, having a vertical face in line with the opposite edge of the base of said rail.

1,077,354. ALTERNATING ROTARY GEARING. ARTHUR S. LEMAY, Jerome, Idaho. Filed Sept. 10, 1912. Serial No. 719,660. (Cl. 74-50.)

1. In a device of the character described, a driving shaft, a driven shaft, two sets of gearing connecting said driving shaft with said driven shaft, clutch members splined upon said driven shaft and adapted to engage alternately clutch members formed upon the gears upon the driven shaft; means for shifting said first named clutch members into and out of engagement with said last named clutch members, said means comprising a shifting lever, a cam for operating the same, a short shaft upon which said cam is mounted, a gear on said short shaft, a gear on said driving shaft meshing with the gear on said short shaft, and means for disengaging said last named gears, said means comprising a pivoted spring pressed arm through which said short shaft is journaled, and a cam lever for maintaining said pivoted arm in position for holding said last named gears in engagement.

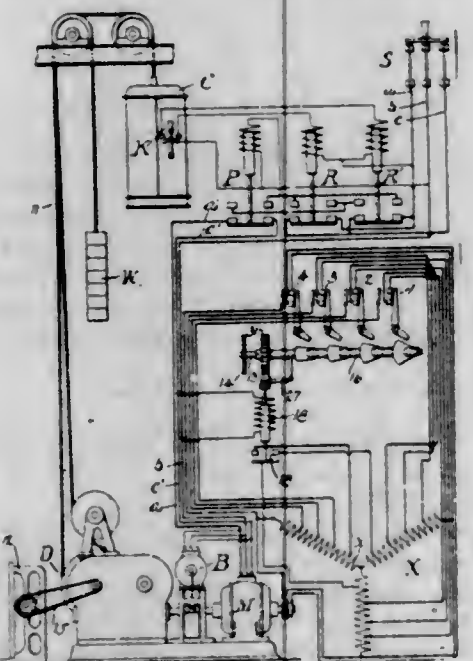
2. In a device of the character described, a driving shaft, a driven shaft, two sets of gearing connecting said

shafts, clutch members splined upon said driven shaft and adapted to engage alternately clutch members formed upon the gears upon the driven shaft, means for shifting said first named clutch members into and out of engagement with said last named clutch members, said means comprising a shifting lever, a cam for operating the



same, a short shaft upon which said cam is mounted, a gear on said short shaft, a gear on said driving shaft meshing therewith, and means for disengaging said last named gears, said means comprising a pivoted arm through which said short shaft is journaled, and means for maintaining said pivoted arm in position for holding said gears in engagement.

1,077,355. ALTERNATING-CURRENT ELECTROMAGNETIC CONTROLLER. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 3, 1911. Serial No. 612,057. (Cl. 172-152.)



1. The combination with an electric motor, of an electromagnetic brake, resistance in a circuit of the motor, an electromagnet, means operated thereby for cutting a portion of said resistance out of the motor circuit, means for simultaneously connecting the motor, said electromagnet and brake magnet to a source of alternating current supply, and mechanism controlled by said electromagnet and operated by the motor to cut out the remainder of said resistance.

2. The combination of a motor, an electromagnetic brake, an electroresponsive device slower in operation than the brake magnet and controlled independently of

the brake magnet and motor, starting resistance for the motor controlled by said electroresponsive device, and switch mechanism for simultaneously establishing parallel circuits for the motor, the brake and said electroresponsive device.

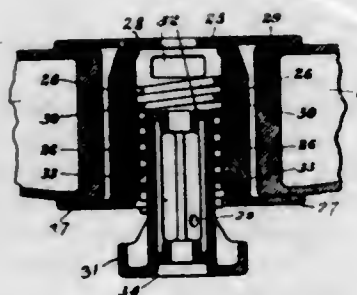
3. The combination with an electric motor comprising a stator and a rotor, of an electromagnetic brake having its magnet windings connected to the terminals of the stator, resistance in the rotor circuit, an electroresponsive device controlling a portion of said resistance and operable independently of the brake and motor, said electroresponsive device being connected in parallel with said stator windings, and a device for connecting the circuits for the brake magnet, motor, and said electroresponsive device to a source of alternating current supply.

4. The combination with an electric motor, of an electromagnetic brake, sectional resistance in a circuit of the motor, a switch controlling a portion of said resistance, an electroresponsive device for operating said switch, and mechanical means controlled by said electroresponsive device for effecting the short-circuiting of the remaining portion of said resistance.

5. The combination with an electric motor, of starting resistance for the motor, accelerating switches controlling said resistance, an extra resistance in the motor circuit and of sufficient value to prevent the motor starting, a switch controlling said extra resistance, an electroresponsive device for operating said switch, and means dependent upon the operation of said electroresponsive device to effect the operation of said accelerating switches.

[Claims 6 to 15 not printed in the Gazette.]

1,077,356. CENTER-BEARING FOR CARS. BURNS D. LOCKWOOD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 21, 1911. Serial No. 667,249. (Cl. 105-108.)



1. In a car underframe, the combination with a center bearing, of a hollow member adapted to receive said center bearing, said member being secured to said underframe, and means passed through said hollow member adapted to engage with said center bearing.

2. In a car underframe, the combination with a center bearing, of a hollow member adapted to receive said center bearing in its hollow portion, said member being secured to said underframe, and means passed through said hollow member adapted to engage with said center bearing.

3. In a car underframe, the combination with an adjustable center bearing, of a member adapted to receive said center bearing, said member being secured in said under-frame, and means passed through said member adapted to engage with said center bearing to hold it in preferred adjusted position.

4. In a car underframe, the combination with an adjustable center bearing, of a member adapted to receive said center bearing, said member being secured to said under-frame, and means passed through said member adapted to engage with said center bearing to hold it in preferred adjusted position.

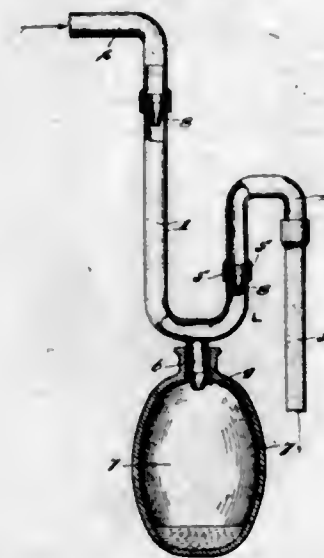
5. In a car underframe, the combination with an adjustable center bearing, of a hollow member adapted to receive said center bearing, said member being secured in said underframe, and means passed through said hollow member adapted to engage with said center bearing to hold it in preferred adjusted position.

[Claims 6 to 39 not printed in the Gazette.]

1,077,357. METALLIZING CERAMIC AND OTHER SURFACES. QUINTIN MARINO, London, England. Filed Aug. 14, 1913. Serial No. 784,796. (Cl. 91-68.3)

Process for metallizing ceramic and other surfaces, consisting in applying to the said surfaces a solution of iron fluoride and subsequently reducing the iron of the fluoride solution to a metallic state by applying to the said surface a finely divided metal capable of reducing the iron.

1,077,358. WATER-TRAP FOR CARBID LIGHT SYSTEMS. JAMES B. McDEVITT, Chicago, Ill. Filed Oct. 17, 1912. Serial No. 726,275. (Cl. 48-140.)



1. In a gas purifier, the combination of a pipe having a depending U-bend therein; a nipple depending from the lower portion of said bend, said nipple having a restricted opening; and a collector provided at the lower end of said nipple, substantially as described.

2. In a gas purifier, the combination of a pipe having a depending U-bend therein; a nipple depending from the lower portion of said bend; a collector detachably connected with the lower end of said nipple, and a conical member arranged in said pipe restricting the passage through said pipe, substantially as described.

3. In a gas purifier, the combination of a pipe having a downwardly turned bend; a nipple depending from said bend, the lower end of said nipple being contracted; a collector connected with said nipple, and means in said pipe restricting the passage through said pipe, substantially as described.

4. In a gas purifier, the combination of a pipe having a downwardly turned bend; a nipple depending from said bend; a collector detachably connected with said nipple; and means in said pipe at either side of said nipple restricting the passage through said pipe, substantially as described.

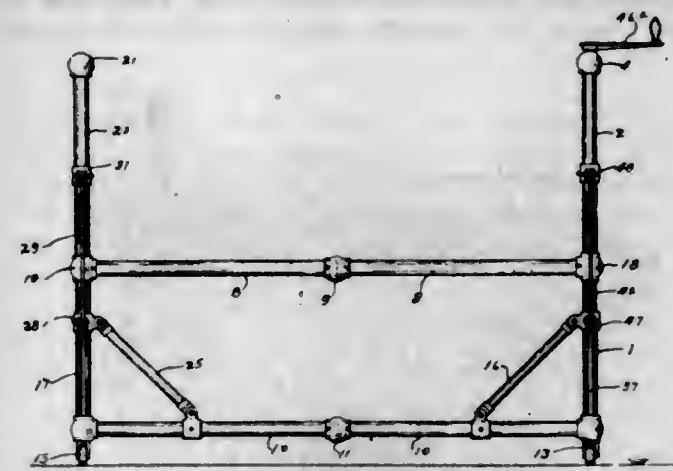
5. In a water trap for carbide light systems, the combination of a pipe having a downwardly turned bend; a nipple depending from said bend; a collector detachably connected with said nipple; and conical members arranged in said pipe at either side of said nipple restricting the passage through said pipe, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,077,359. ADJUSTMENT FOR INVALIDS' COTS. ROYAL RUEBEN MILLER, Pueblo, Colo. Filed Mar. 13, 1912. Serial No. 683,603. (Cl. 5-12.)

In an adjustment of invalid cots as described, the combination of cranes united by tubular side pieces with the uprights and overhanging arms constructed of tubular material; extended base bearings provided with casters the whole suitably braced; a crank; and a screw threaded bar disposed centrally in one of the upright portions of the crane construction; a nut on said screw threaded bar provided with a boss adapted to engage a slot in the tube inclosing said screw threaded bar; a slot in the upright

tube containing said screw threaded bar adapted to receive the said boss on said nut; cables attached to said nut conducted on the interior of the tubing construction by



pulley means at every angle, one to the exterior end of each of said overhanging arms, all substantially as set forth.

1,077,360. SAFETY-PIN. MAURICE LOUIS MIRALTO, Les Riceys, France. Filed Feb. 29, 1912. Serial No. 680,577. (Cl. 24-160.)



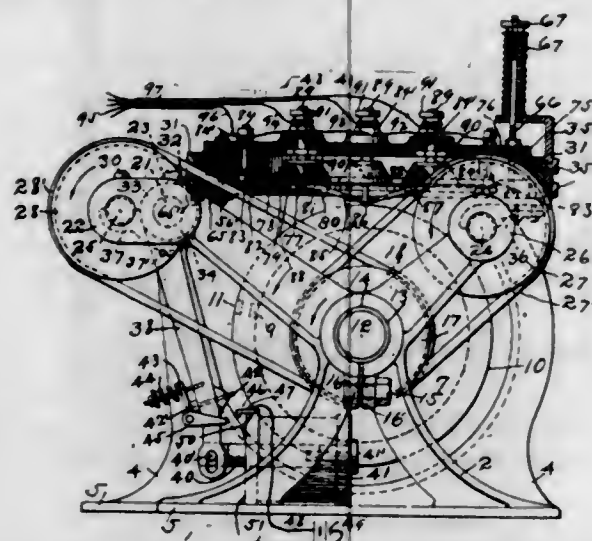
1. A safety pin comprising a sheet metal body bent to form a narrow bar having a U-shaped cross section and perforations in its bottom, and a pin mounted on a pivot between the sides of said bar and provided with an operating handle and with a curved end portion adapted to pass through said perforations, and terminating in a point, said pin having throughout its length a uniform thickness substantially equal to the width of the space between the sides of said bar, and the handle and the point of the pin when closed being received within the bar whereby the latter serves to protect said point and to guide the pin laterally throughout its movements.

2. A safety pin comprising a sheet metal body bent to form a narrow bar having a U-shaped cross section and perforations in its bottom, and a pin composed of a single piece of wire mounted at one end on a pivot between the sides of the bar and having at its other end a curved portion adapted to pass through said perforations, and terminating in a point said pin being doubled between its ends to provide an operating handle and having throughout its length a uniform thickness substantially equal to the width of the space between the sides of the bar, and said handle and the point of the pin when closed being received within the bar, whereby the latter serves to protect said point and to guide the pin laterally throughout its movements.

3. A safety pin comprising a body made of thin metal and having the form of a narrow bar with parallel sides, with perforations in its bottom and outwardly-flaring portions at the sides of the perforations, and a pin pivoted between the sides of the body portion and having an operating handle and an end portion formed on a curve having the pivotal axis of the pin as its center, said pin having a uniform thickness substantially equal to the space between the sides of the body, and its curved portion being located in position to pass through said perforations.

4. A safety pin comprising a body made of thin metal and having the form of a narrow bar with parallel sides, a pin composed of a single piece of wire pivoted at one end between the sides of the body and having a curved portion at its other end, said pin being doubled between its ends to form an operating handle adapted to enter between the sides of the body, and a projection extending inward from one of the sides of the body. In position to spring between the parts of the doubled portion of the pin and hold the same within the body.

1,077,361. ELECTROGRAPH. RICHARD S. M. MITCHELL, Syracuse, N. Y., assignor, by direct and mesne assignments, to The Talking Moving Picture Co., Inc., Syracuse, N. Y., a Corporation of New York. Filed Mar. 13, 1912. Serial No. 683,593. (Cl. 181—1.)



1. The combination of a frame, a rotatable drum supported by said frame, said drum having a circumferential groove and adapted to support a record, a carriage reciprocable in said frame above said drum, a transmitter supported by said carriage and having a stylus adapted to engage said record, a rocking lever carried by said frame, means for interlocking said lever with said carriage, said lever capable of being rocked by hand for tilting said carriage and transmitter away from the record and drum, for stopping the playing of the record, a magnet, said magnet having an armature connected to said lever adapted when said magnet is energized to hold said carriage in the tilted position, and a pin carried by said lever adapted to enter the groove of said drum for deenergizing said magnet for allowing said carriage to gravitate toward said drum.

2. In combination, a rotatable drum adapted to carry a cylindrical record, a carriage mounted above said drum, means for moving said carriage from the head toward the tail of the drum, a rocking lever adapted to tilt said carriage away from the record cylinder, an electro-magnet adapted for holding said lever and said carriage in the tilted position, means carried by said drum, and means carried by said lever adapted to effect the deenergizing of said magnet for allowing said carriage to gravitate to the starting position.

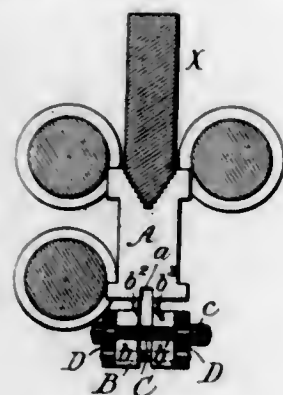
3. In combination, a rotatable drum having a circumferential recess, said drum adapted to carry and operate a record, a carriage mounted above and adapted to travel along said drum, a rocking lever adapted to lift said carriage away from said drum, a reciprocating pin carried by said lever, a magnet to hold said carriage in the elevated position until said reciprocating pin engages the recess in said drum, and means controlled by said reciprocating pin for effecting the starting of said carriage at a fixed point on the record relative to the recess in said drum.

4. In combination, a frame, a rotatable drum supported by said frame, said drum having a circumferential notch, a carriage disposed above said drum, said carriage supporting a transmitter having a stylus adapted to engage a record carried by said drum, a lever pivoted in said frame, said lever having a pin adapted to engage the notch of said drum, said lever capable of being operated by hand for lifting said carriage for breaking the engagement of said stylus with the record and for bringing said pin into engagement with said drum, a magnet for holding said carriage and stylus in the inoperative position, and means for rotating said drum so as to permit said pin to enter the notch in said drum for effecting the lowering of the carriage and the engagement of the stylus with the record.

5. In an electrograph, the combination with a frame and a rotatable drum adapted to support a record, said

drum having a key for engaging a key-way in the record, a carriage reciprocably mounted in said frame, said carriage supporting a transmitter in position to engage the record, a shaft carried by the frame upon which said carriage is slidable, a rocking lever, said lever journaled at one end on said shaft and having a clutch-portion adapted to engage a similar portion of the carriage, whereby said carriage is lifted away from the record when said lever is brought toward said drum, an electro-magnet adapted when energized to temporarily hold said lever in said operated position, and means for deenergizing said magnet for allowing said carriage to approach the record for starting the recording or reproducing.

1,077,362. LINE-CASTING MACHINE. MELVIN W. MOREHOUSE, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 7, 1910. Serial No. 591,075. (Cl. 199—7.)



1. In a distributing mechanism, a matrix sustaining bridge to deliver matrices at different levels and comprising two members, one movable relatively to the other, and adapted to be set in different relative positions.

2. In a distributing mechanism, a matrix sustaining bridge to deliver matrices at different levels and comprising a plurality of members, one adjustable relatively to the other, and means for maintaining said member in its adjusted position.

3. A matrix sustaining bridge to deliver matrices at different levels and comprising a plurality of members, and means for adjusting one of said members toward and from the other and for maintaining it in its adjusted position.

4. A matrix sustaining bridge comprising two members, and means for adjusting them equally in reverse directions and for maintaining them in their adjusted positions.

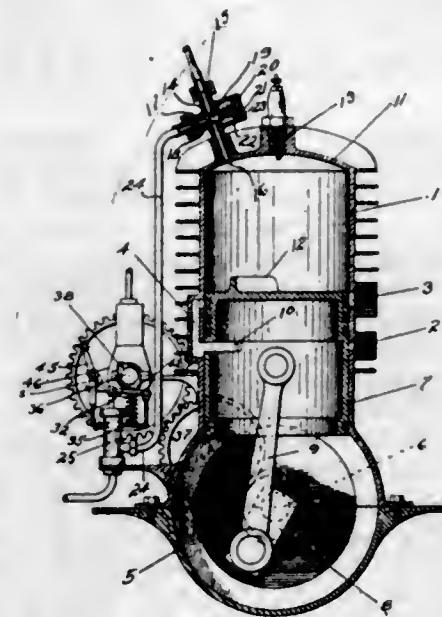
5. In a line casting machine, the combination of notched matrices, and a bridge or detector comprising two members, relatively movable in order that they may act within or without the notches.

1,077,363. CONVERTIBLE CYCLE-MOTOR. LAWRENCE S. NASH, Detroit, Mich., assignor, by mesne assignments, to Oliver Motor Car Co., Detroit, Mich., a Corporation of Michigan. Filed Sept. 26, 1907. Serial No. 394,622. (Cl. 123—21.)

1. A convertible cycle motor comprising a compression chamber, a crank shaft journaled therein, a cylinder having an air-inlet port connected with said chamber, and an exhaust port, a piston controlling said ports, a cam shaft operated by the crank shaft, a two-part cam on the shaft, one part having a single lifting point, and the other part having two lifting points, a vaporizing valve opening into the explosion end of the cylinder, a pump for forcing liquid fuel through said valve, a member operable by either part of said cam to impart a stroke to the pump during the up-stroke of the piston once or twice during each revolution of the cam shaft, and means for moving either part of the cam into engagement with said pump-operating member.

2. The combination in a two-cycle engine, of a compression chamber, a crank shaft journaled therein, a cylinder having an air-inlet port connected with said chamber, and

an exhaust port, and a piston controlling said ports, with a vaporizing valve discharging into the explosion-end of the cylinder, a fuel pump discharging into said valve, a cam shaft operated by the crank shaft, a lever for operating the pump, a cam on the cam shaft adapted to impart a stroke to said lever during the up-stroke of the piston either once or twice during each revolution of the cam shaft, and means for shifting the cam into either said single or double engagement with the lever.



3. In a two-cycle motor, the combination with a compression chamber, a crank shaft provided therein, a cylinder having an air inlet port connected with said chamber, and an exhaust port, and a piston controlling the ports of the cylinder, of a cam shaft exterior to the compression-chamber and operatively connected to the main shaft, a fuel pump comprising a plunger reciprocable transversely of the cam shaft, a lever articulated to the plunger and oscillatable transversely of the cam shaft, a cam shiftable longitudinally of the shaft and provided with two cam faces one of which is adapted to momentarily depress the lever once during each revolution of the cam shaft, and the other of which is adapted to momentarily depress the lever twice during each revolution of the said shaft, a stop oscillatable in the path of the lever and adapted to vary the stroke thereof, and a lever adapted to shift the cam on the shaft.

4. Means for supplying fuel to the cylinder of a conventional two-cycle compression engine during either each up-stroke or during alternate up-strokes of the piston, said means comprising a vaporizing valve discharging into the explosion end of the motor, a jet nozzle in said valve discharging into the cylinder, an air passage through the valve adapted to be connected to a supply of compressed air, a fuel-duct opening into said passage, a spring-pressed closure controlling the air passage and also said fuel duct, a fuel-pump mounted on the motor and piped to discharge into said duct, a cam shaft geared to the motor shaft to operate at half the speed of the latter, a cam shiftable on the cam shaft adapted to operate either once or twice during one revolution of the cam shaft, a lever for operating the pump adapted to be oscillated by the cam, and means for shifting the cam to operate the lever either once or twice during each revolution of the cam shaft.

5. Means for supplying fuel to the cylinder of a two-cycle engine during either each up-stroke or during alternate up-strokes of the piston, comprising a vaporizing valve discharging into the explosion-end of the motor, a jet nozzle in said valve discharging into the cylinder, an air-passage through the valve adapted to be connected to a supply of compressed air, a spring-pressed closure simultaneously controlling the air passage and said fuel duct, a fuel-pump, a pipe connecting the outlet of the pump with the fuel duct of the valve, a plunger reciprocable in the pump, a cam shaft operated by the motor at half the motor speed, a cam reciprocable on the shaft and pro-

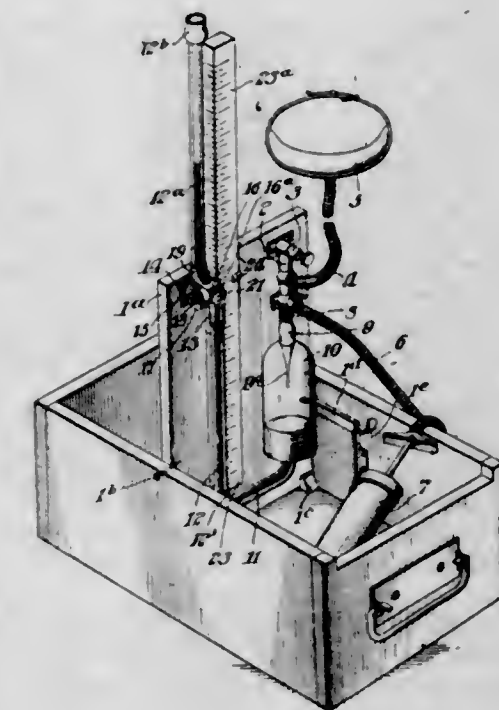
vided with a single and a double acting face, a lever for operating the plunger adapted to be depressed by the cam, means for moving the cam to operate either singly or doubly on the plunger-lever, and a stop limiting the return throw of the plunger-lever.

1,077,364. WICK-TUBE FOR ALCOHOL-LAMPS. CHARLES NELSON, Brooklyn, N. Y., assignor to S. Sternau & Co., Brooklyn, N. Y., a Copartnership composed of Sigmund Sternau and Lionel Strassburger. Filed Feb. 28, 1907. Serial No. 359,750. (Cl. 158—72.)



A wick tube for an alcohol lamp, formed of sheet metal, with one end closed, forming a cap of metal of substantially the same thickness as the sides of the tube, an inset beading adjacent to the closed end, a screen engaging against the beading on the side opposite to the closed end of the tube, and a wick tightly packed within the tube, and in contact with the screen.

1,077,365. SPHYGMOMANOMETER. PERCIVAL NICHOLSON, Ardmore, Pa. Filed Feb. 7, 1913. Serial No. 746,789. (Cl. 73—44.)



1. The combination of a cistern, a tube section having a bend connected with said cistern, a second tube section,

means comprising a valve whereby said second tube section is hinged to said tube section first named and communication between said sections is controlled, and a scale for reading the height of a liquid column in either of said sections.

2. The combination of a cistern, a tube section connected with said cistern, a valve casing connected with an end of said tube section, a valve journaled in said casing, said valve having a passage adapted for communicating with said tube and a socket in communication with said passage, and a tube section having an end seated in said last named socket, said valve acting as a hinge for said second tube section and serving to close said first named tube section.

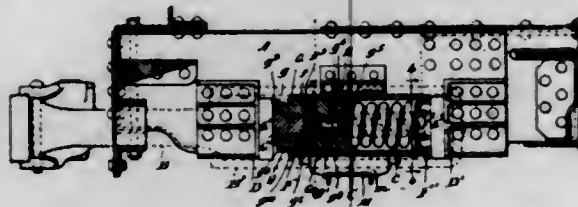
3. The combination of a case having a hinged lid, a cistern and tube connected by a bend and connected to the inside of said lid, a second tube, and valve mechanism whereby said tubes are connected and said second tube is hinged in relation to said first tube.

4. The combination of a case having a hinged lid, a cistern and a tube communicating therewith and fixed within said lid, a second tube adapted to communicate with said first tube and means whereby said second tube is hinged with relation to said first tube and the communication between said tubes is controlled.

5. The combination of a cistern, a tube communicating therewith, a second tube adapted to communicate with said first tube, means whereby said second tube is hinged to said first tube and the communication between them controlled, and a scale having sections in juxtaposition to said tubes when in communication, said scale sections being hinged together.

[Claims 6 to 9 not printed in the Gazette.]

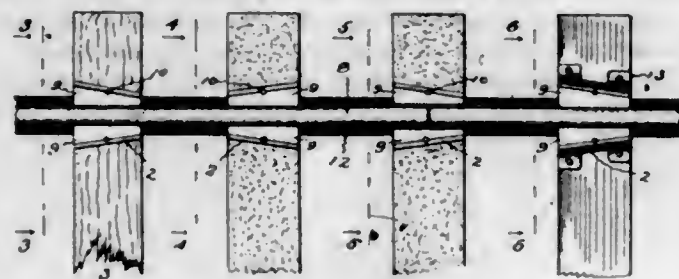
1,077,366. FRICTION DRAFT-RIGGING FOR RAILWAY CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor, by mesne assignments, to William H. Miner, Chicago, Ill. Filed May 8, 1907. Serial No. 372,597. (Cl. 213—64.)



1. In a friction draft rigging, the combination with the draw-bar, yoke, followers, front and rear stops for the followers, of a longitudinally movable friction shell, longitudinally movable friction blocks inside said shell, a wedge block between said friction blocks, a longitudinally arranged spring acting at one end against said friction blocks and at its other end against said friction shell, and a pin extending through said friction shell normally in engagement with said friction blocks, said friction blocks having retaining shoulders normally engaging said pin and arranged to prevent the spring from forcing the friction blocks out of the casing, substantially as specified.

2. In a friction draft rigging, the combination with the draw-bar, yoke, followers, front and rear stops for the followers, of a longitudinally movable friction shell, longitudinally movable friction blocks inside said shell, a wedge block between said friction blocks, a longitudinally arranged spring acting at one end against said friction blocks and at its other end against said friction shell, a pin extending through said friction shell normally in engagement with said friction blocks, said friction blocks having retaining shoulders normally engaging said pin and arranged to prevent the spring from forcing the friction blocks out of the casing, and guides on the exterior of said shell located centrally, vertically thereof on opposite sides, said guides being secured to the shell by said pin, substantially as specified.

1,077,367. RAIL-CHAIR. WARREN M. OSBORN, New Britain, Conn. Filed Dec. 16, 1912. Serial No. 737,037. (Cl. 238—2.)



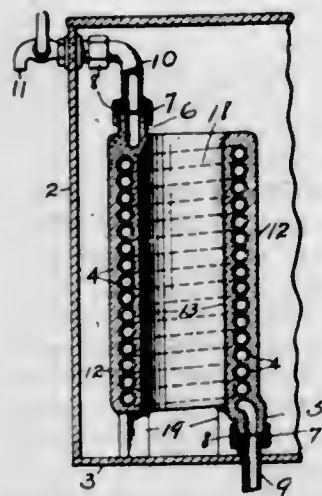
1. The combination of a tie having a transverse tapering and dovetail opening, a metallic rail-chair fitting said opening in the tie and having a space that is narrower at one end than the other and narrower at the top than at the bottom, and wooden wedges adapted to be driven into said space, said wedges being shaped to fit the side walls of the opening and conform to the base, web and hall of the rail.

2. The combination of a tie formed of concrete with a transverse dovetail tapering opening, a metallic chair fitting said opening, said chair having its side walls inclining toward each other from one end to the other and inclining toward each other from the bottom to the top, and wooden wedges adapted to be driven into said chair, said wedges conforming to the side walls of the chair and to the sides of the rail to be held thereby.

3. The combination of cross ties having transverse dovetail tapering openings, rail-chairs with a base and oblique and inclined walls fitting said openings, rails supported by said chairs, wedges driven into the chairs in opposite directions, and plates fastened to the side of the rails and extending adjacent to the larger ends of the wedges.

4. The combination of a rail-chair having a tapering dovetail opening, a rail supported in said chair, and wedges driven into said opening between the chair walls and the sides of the rail.

1,077,368. LIQUID-COOLER. JOHN PLONY, Syracuse, N. Y. Filed Apr. 4, 1913. Serial No. 758,842. (Cl. 62—2.)



1. A liquid cooler, comprising a vitreous coil having screw-threaded terminals for connecting with supply and discharge pipes, and a vitreous envelop adhering to said coil for protecting and supporting the coil.

2. A liquid cooler, comprising a hollow vitreous cylinder open at its opposite ends, and a tubular coil embedded in the walls of said cylinder, the opposite ends of said coil provided with means for connecting with pipes which conduct the liquid to and from said coil.

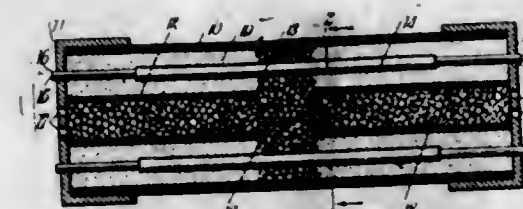
3. A cooler comprising a transparent vitreous coil adapted for carrying liquid to be cooled, and a transparent vitreous protector completely enveloping said coil, said protector arranged in the form of a hollow cylinder capable of being submerged in and also filled with ice water for cooling the liquid.

4. A beer cooler, comprising a coiled tube arranged in the form of a cylinder, and a covering for said coiled tube, said covering consisting of vitreous material disposed on the opposite sides of said tube, the said material filling the winding crevices of said coil for rendering the said parts inseparable.

5. The combination of a cylindrical vitreous coil having a liquid passage therethrough, and a support for said coil, said support comprising an envelop of vitreous material, said envelop completely inclosing and adhering to the said coil, said envelop having a series of integral feet at one end for supporting the weight of the coil and the envelop.

[Claims 6 to 12 not printed in the Gazette.]

1,077,369. FUSE. EDWARD E. ROBERTS, Hartford, Conn. Filed Dec. 28, 1911. Serial No. 668,354. (Cl. 175—273.)



1. In a fuse, a casing having two passages with an opening from one to the other, a fusible member in one of the passages, a non-conducting granular filling in the last-mentioned passage, and a coarser non-conducting granular filling in the other passage, the coarser filling extending through said opening to the fusible member.

2. In a fuse, a casing having two passages with an opening from one to the other, a fusible member in one of the passages, a non-conducting granular filling in the last-mentioned passage, and a coarser non-conducting granular filling in the other passage.

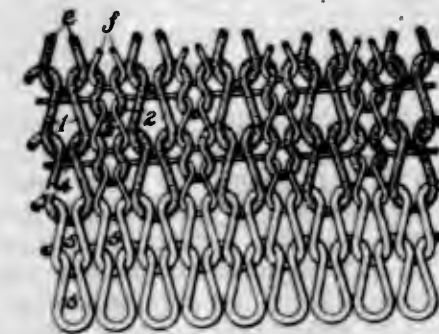
3. In a fuse, a casing having two passages with an opening from one to the other, a fusible member in one of the passages, a non-conducting granular filling in the last-mentioned passage, and a coarser non-conducting granular filling in the other passage, the passage containing the coarser filling being vented to the atmosphere.

4. In a fuse, a casing having two passages with an opening from one to the other, and a fusible member in one of the passages, said passages being respectively filled with granular non-conducting material of different degrees of granulation.

5. A fuse having a casing divided in the interior into a plural number of communicating chambers, a fusible member in one of the chambers, a non-conducting granular material about the fusible member, and a non-conducting granular material of coarser granulation which will permit the easier escape of the gas in the other chamber.

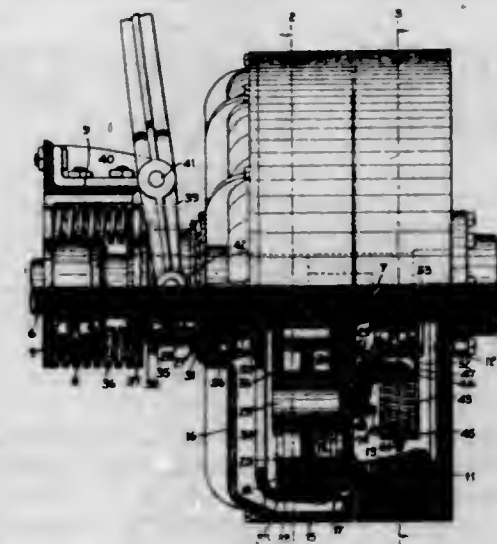
[Claims 6 to 10 not printed in the Gazette.]

1,077,370. STOCKING. FRANK W. ROBINSON, Reading, Pa., assignor to The Nolde & Horst Co., Reading, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1912. Serial No. 738,200. (Cl. 66—4.)



A seamless stocking comprising circularly knitted accorcion-effect leg and foot portions made up of two yarns of different thicknesses with long loops of the heavier yarn alternating in each course with interlocked half-length loops of the lighter yarn; and continuous ordinarily knitted heel and toe portions; substantially as set forth.

1,077,371. POWER-TRANSMISSION MECHANISM. ARTHUR R. SELDEN, Rochester, N. Y. Filed June 14, 1912. Serial No. 703,758. (Cl. 192—18.)



1. Power-transmission mechanism having, in combination with two rotary elements, yielding connections, between said elements, comprising: planetary pinions journaled on one element; an internal gear meshing with the pinions and connected with the other element, said gear being provided, at its opposite faces, with rigid closures for the ends of the spaces between its teeth, whereby a series of fluid-receptacles are formed into which the teeth of the pinions fit closely; and means for incasing the gear and the pinions to retain a body of fluid.

2. Power-transmission mechanism comprising intermeshing gears provided, at the end of their teeth, with closely-fitting surfaces whereby a series of fluid-receptacles are produced between the teeth, means for incasing the gears to retain a body of fluid whereby the receptacles are filled so as to resist the relative rotation of the gears, the receptacles being provided with escape-passages for the fluid therein, and means for controlling said passages to provide adjustably for the escape of the fluid there-through and vary said resistance.

3. Power-transmission mechanism having, in combination, a driving element and a driven element rotatable about a common axis, a pinion journaled concentrically on one of said elements, the other element being provided with a concentric gear meshing with the pinion, the gear and the pinion having closely-fitting surfaces at the ends of their teeth whereby a series of fluid receptacles are provided between the teeth, means for incasing the gear and the pinion to retain a body of fluid, and means for rotatively connecting the driving element and the driven element independently of the gear and the pinion.

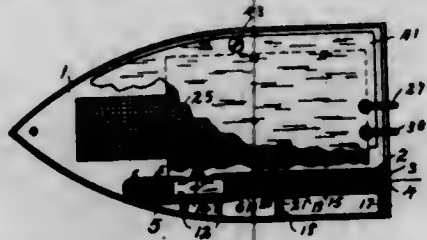
4. Power-transmission mechanism having, in combination, a driving element and a driven element rotatable about a common axis; an annular member connected with one of said elements and provided with a series of gear-teeth, a conical clutch-surface, and a series of escape-passages extending from the spaces between the gear-teeth to said surface; a planetary gear carried by the second of said elements and loosely meshing with said gear-teeth; means for incasing a body of fluid in which the gears are immersed; a conical clutch-member rotatively connected with the second of said elements and cooperating with said clutch-surface and escape-passages; and means for moving said clutch-member into and out of frictional engagement with the clutch-surface so as both to provide a mechanical driving-connection between said elements and to control the escape-passages and regulate the operation of the gears.

5. Power-transmission mechanism having, in combination, two elements rotatable about a common axis and provided with cooperating clutch-members engageable by axial movement; and means for maintaining the clutch-members in engagement comprising a series of bell-crank levers connecting the clutch-members, a series of radially-arranged springs engaging the respective bell-crank levers, and an annular member engaging and mutually supporting

said springs, said annular member being free to move radially in all directions so as to equalize the pressures of the several springs.

[Claim 6 not printed in the Gazette.]

1,077,372. ELECTRICALLY-HEATED SAD-IRON. CLARENCE A. SHALER, Waupun, Wis. Filed Feb. 12, 1912. Serial No. 677,073. (Cl. 219-25.)



1. An electrically heated sad iron comprising the combination with a base and an inclosing shell, of an electrical heater mounted upon the base within the shell and provided with a main heating coil and an auxiliary heating coil, a set of binding posts electrically connected to supply current to said coils, and a thermostat controlling the flow of current through the auxiliary coil, the main coil being in constant circuit connection with the binding posts; said coils being adapted by separate use and association to vary the heating capacity while maintaining a predetermined substantial degree of heat in either relation.

2. An electrically heated sad iron comprising the combination with a base and an inclosing shell, of an electrical heater mounted upon the base within the shell and provided with a plurality of heating coils, a set of binding posts electrically connected to supply current to said coils, and a thermostat controlling the flow of current through one of said coils and the other of said coils being in constant circuit connection with the binding posts, said thermostat being mounted in a recess in said base, the side and bottom walls of which recess are in proximity to the thermostat.

3. An electrically heated sad iron comprising the combination with a base and an inclosing shell, of an electrical heater mounted upon the base within the shell and provided with a plurality of heating coils, a set of binding posts electrically connected to supply current to said coils, and a thermostat controlling the flow of current through one of said coils and the other of said coils being in constant circuit connection with the binding posts, said thermostat being mounted in a recess in said base, the side and bottom walls of which recess are in proximity to the thermostat, and said recess and thermostat being covered by non heat conducting material.

4. An electrically heated sad iron comprising the combination with a recessed base and an inclosing shell, of an electric heater within said shell and a thermostat in the base recess regulating the supply of current to the heater, said thermostat comprising a terminal bar and a thermostatic bar, each adapted to be included in the circuit with said heater, contact electrodes mounted upon said bars, an adjustable bearing screw and an adjustable wedge interposed between said bearing screw and the terminal bar, whereby the movement of the wedge may adjust said terminal bar into greater or less proximity to the thermostatic bar.

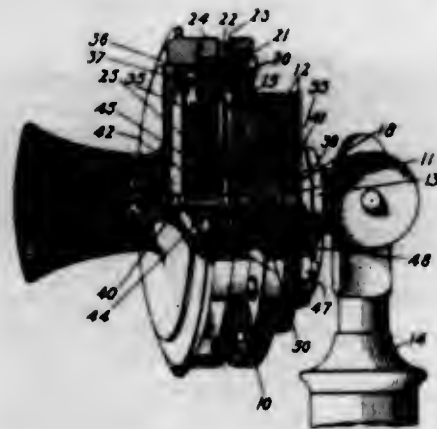
5. An electrically heated sad iron, comprising the combination of a base, provided with a recess, a heating coil, a shell inclosing the heating coil, and covering the recess in the base, and a thermostat mounted in said recess and controlling the supply of current to said heating coil, said recess being covered by heat insulating material, whereby it is protected against direct heat from the heater and exposed to heat from the base at the sides and bottom of said recess.

[Claim 6 not printed in the Gazette.]

1,077,373. TELEPHONE-TRANSMITTER. HERBERT E. SHREEVE, Milburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 13, 1911. Serial No. 654,485. (Cl. 179-135.)

1. In a telephone transmitter, the combination of two stationary electrodes spaced apart, heat-dissipating pro-

jections integral therewith, an insulating bushing located between and concentrically mounted with respect thereto and defining a chamber, carbon granules therein, a plunger electrode of less diameter than the inside diameter of the bushing, mounted in said chamber, whereby the plunger electrode may have room to expand in the direction of its diameter, a stuffing box in one of the stationary electrodes, a diaphragm, a stem integral with the plunger electrode, passing through the stuffing box and adjustably connected with the diaphragm, a mica washer mounted in the stuffing box and surrounding the electrode stem, and a spring mounted between the diaphragm and the mica washer, whereby the washer is held in the stuffing box and the escape of carbon granules from the chamber is prevented.



2. In a telephone transmitter, the combination of two stationary electrode supports spaced apart, heat-dissipating flanges integral therewith, electrodes mounted on adjacent faces thereof, an annular catlinite bushing located between the electrode supports and forming therewith an electrode chamber, a movable electrode mounted in said chamber, a diaphragm, and means mechanically connecting said diaphragm with said movable electrode, said connecting means passing through an orifice in one of the stationary electrode supports, and granular carbon in said chamber and on either side of said movable electrode.

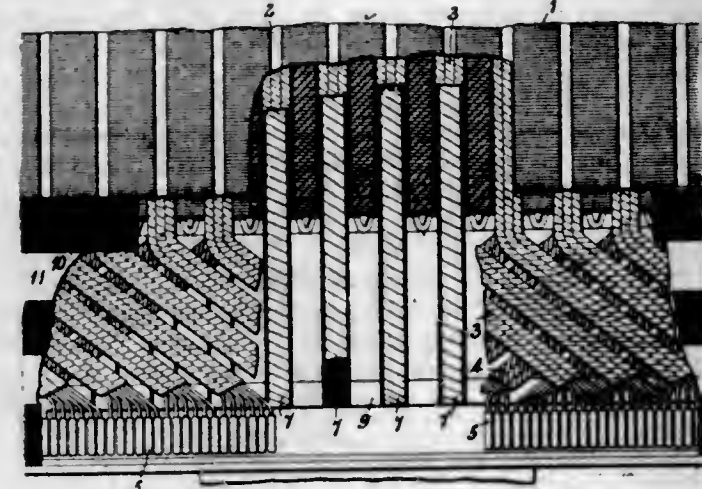
3. In a telephone transmitter, the combination of a rigid electrode forming the back of the carbon chamber, a perforated electrode spaced therefrom and forming the front wall of the carbon chamber, two annular grooves, one in each electrode, and a bushing fitting into said annular grooves.

4. In a telephone transmitter, the combination of massive front and back plates spaced apart and provided with heat-dissipating flanges, annular grooves in the opposing faces of said back plates defining electrode supports, electrodes mounted thereon, a heat-resisting bushing loosely mounted in said annular grooves and forming with said back plates an electrode chamber, a movable electrode mounted in said chamber out of contact with either wall thereof, a diaphragm, connecting means passing through an orifice in one of said back plates and connecting said movable electrode and said diaphragm together, whereby the vibrations of said diaphragm are communicated to said electrode, granular carbon in said chamber on either side of said movable electrode, and means to prevent the escape of the carbon granules through the orifice in the front plate.

5. In a telephone transmitter, the combination of two rigid electrodes, massive supports therefor spaced apart and provided with heat-dissipating projections, a catlinite bushing located between said supports and forming therewith an electrode chamber, a diaphragm, a movable electrode located in said chamber and of less diameter than the inside diameter of the bushing, means for connecting said electrode and diaphragm together, said means comprising a stem rigidly attached to the electrode and passing through one of the supports and through the diaphragm, resilient compensating means located between the diaphragm and one of the supports, and means on the end of the stem whereby the distance between the diaphragm and the movable electrode may be adjusted.

[Claims 6 and 7 not printed in the Gazette.]

1,077,374. DYNAMO-ELECTRIC MACHINE. CHARLES E. SKINNER, Wilkesburg, and THOMAS S. SCOTT, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 16, 1906. Serial No. 296,329. (Cl. 171-206.)



1. The combination with a slotted armature core, a plurality of coils located in the core slots, and auxiliary conductors located in the core slots and beneath the armature coils, of an annular supporting bracket having peripheral slots or recesses in which the ends of the auxiliary conductors are supported.

2. The combination with a slotted armature core, a winding therefor comprising a plurality of coils located in the core slots, and commutator conductors located in the core slots and beneath the armature coils, of an annular supporting bracket having peripheral slots or recesses in which the ends of the commutator conductors are supported.

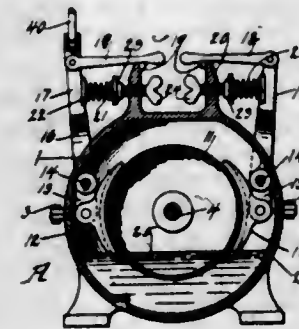
3. The combination with a slotted armature core, a plurality of coils located in the core slots, and folded auxiliary conductors located in the core slots, beneath the armature coils, the folded ends of which project therefrom, of an annular supporting bracket having peripheral slots or recesses in which the folded projecting ends of the conductors are supported.

4. The combination with a slotted armature core, and a winding therefor the conductors of which project from the core slots, of an annular supporting bracket for the projecting portions of the conductors having peripheral ribs between which some of the conductors are supported and upon the ends of which other conductors are supported.

5. The combination with a laminated and slotted armature core and a winding therefor, the conductors of which project from the core slots, of an annular member that retains the core laminae in position and is provided with peripheral ribs between and upon which the projecting portions of the conductors are located and supported.

[Claims 6 to 8 not printed in the Gazette.]

1,077,375. AUTOMATIC BRAKE MECHANISM FOR SPOOL-WINDING MACHINES. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 8, 1908. Serial No. 425,914. (Cl. 242-156.)



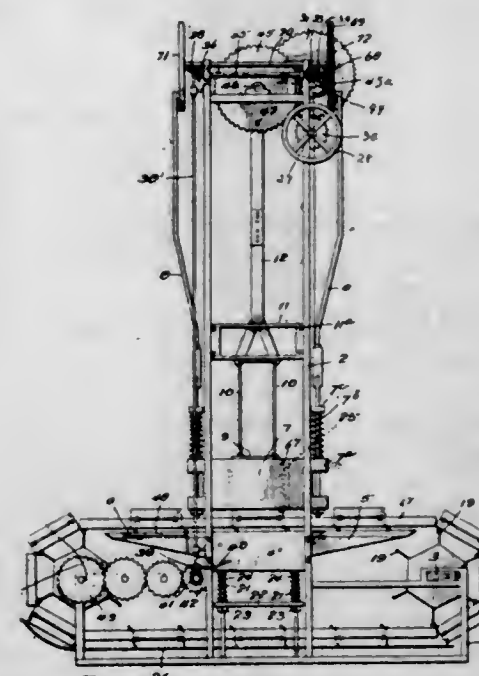
1. In brake mechanism, the combination with a supply member, of a brake wheel connected thereto, brake shoes,

means for applying the brake shoes, means for independently locking either brake shoe in an inoperative position, and means to apply tension to the material from the supply member in opposition to the tension on one of the brake shoes.

2. In winding mechanism, the combination with a rotary supply member, of means to draw winding material from said member, a brake pulley, a brake lever, a brake shoe, a spring to apply the brake shoe, a pulley carried by the brake lever and over which the winding material passes and applies tension to the brake lever in opposition to the brake spring, said pulley being adjustable longitudinally of said lever to vary the said opposing tension.

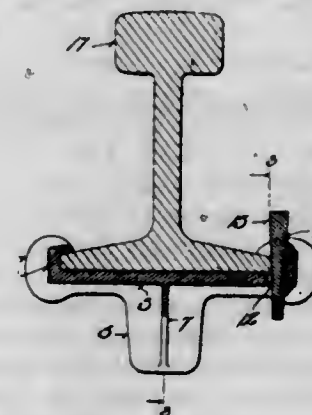
3. In winding mechanism, the combination of a supply spool, a brake wheel, brake shoes, adjustable means for holding one of the brake shoes on the brake wheel with a yielding pressure, means to lock said brake shoes out of contact with the brake wheel, and means for automatically varying the pressure of the other brake shoe in response to variations in the tension of the supply material.

1,077,376. CEMENT-BLOCK MACHINE. EDMUND A. SWITZER, Lodi, Ohio. Filed Nov. 30, 1912. Serial No. 734,340. (Cl. 25-100.)



An apparatus for making cement blocks comprising a frame, an endless carrier made up of pivotal plates hinged together and spaced apart, one section of each plate having a recessed end, a platen detachably held in said recess, a mold within which said platen is movably contained, a plunger within the mold, and means for intermittently operating said plunger and mold, as set forth.

1,077,377. ANTICREEP RAILWAY-RAIL ATTACHMENT. WILLIAM R. THOMAS, Watertown, Wis. Filed Apr. 17, 1913. Serial No. 761,799. (Cl. 238-4.)



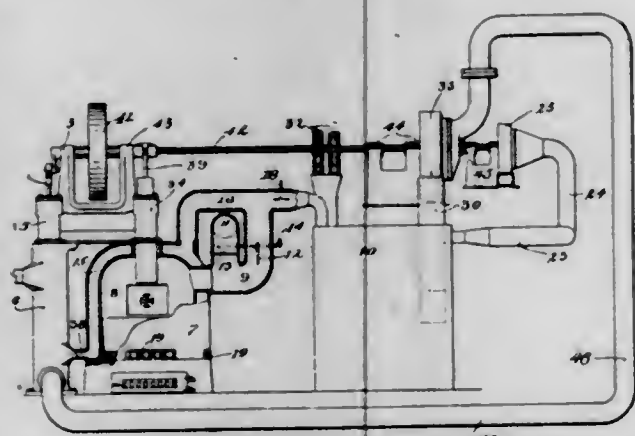
1. A railway-rail anti-creep attachment comprising a slotted horizontal plate member having rail-engaging jaw-

extremities and a forward depending stop-flange for cross-tie abutment, together with a wedge-block member engageable with the plate-slot in opposition to a flange of the rail, and means integral with the plate member for holding the wedge-block member against automatic retraction from adjusted position.

2. A railway-rail anti-creep attachment comprising a slotted horizontal plate member having a depending forward stop-flange for cross-tie abutment and said plate provided at its extremities with rail-engaging jaws one of which has a toothed inner face, together with a wedge-block member engaging the plate-slot in opposition to a flange of the rail, and means integral with the plate member for holding the wedge-block member against automatic retraction from adjusted position.

3. A railway-rail anti-creep attachment comprising a slotted horizontal plate member having a depending forward stop-flange and provided at its extremities with rail-engaging jaws, there being a pair of the jaws and an intermediate web at one extremity of the plate, said web constituting a wall of the plate-slot and having upper and lower teeth, together with a wedge-block member engageable with said slot and having its outer side rack-notched to be engaged by the aforesaid teeth.

1,077,378. HEATING APPARATUS. NATHANIEL B. WALES, Boston, Mass. Filed Mar. 6, 1911. Serial No. 612,518. (Cl. 237—1.)



1. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber, a stack-heater for heating said air, a hot-air engine operated by the heat generated in said combustion chamber, means operated by said hot-air engine for forcing the circulation of said air throughout said system and means for utilizing said air for cooling the cooling end of said hot-air engine before it is heated by said stack-heater for use as the heat-conveying or circulating medium.

2. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber, a stack-heater connected thereto for heating said air, a hot-air engine operated by the heat generated in said combustion chamber, means operated by said hot-air engine for forcing the flow of the products of combustion through said stack-heater and the flow of said air throughout said system and means for utilizing said air at atmospheric temperature for cooling the cooling end of said hot-air engine before it is heated by said stack-heater for use as the heat-conveying or circulating medium.

3. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber, a stack-heater, a hot-air engine having its hot air cylinder mounted within said combustion chamber and its cooling end mounted outside said chamber, means operated by said hot-air engine for forcing the circulation of the products of combustion from said combustion chamber through said stack-heater, means operated by said hot-air engine for forcing the circulation of said air throughout said system and means for utilizing said air for cooling the cooling cylinder of said hot-air engine before it is heated by said stack-heater for use as the heat-conveying or circulating medium.

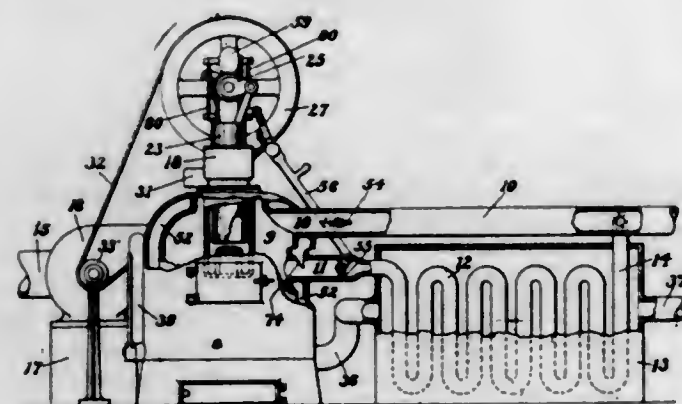
4. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion

chamber for generating products of combustion, a stack-heater for heating said air, a hot-air engine having its hot air cylinder mounted within said combustion chamber and its cooling cylinder mounted outside and provided with a jacket and means operated by said hot-air engine for forcing said air through said jacket to cool the cooling end of said hot-air engine and then through said heater to be heated for use as the heat conveying or circulating medium.

5. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber for generating products of combustion, a stack-heater for heating said air, a hot air engine operated by the heat generated in said combustion chamber, means operated by said hot-air engine for forcing the circulation of the products of combustion through said stack-heater and the circulation of said air throughout said system, and means for utilizing said air for cooling the cooling end of said hot-air engine before said air is heated by said stack-heater for use as the circulating or heat-conveying medium.

[Claims 6 and 7 not printed in the Gazette.]

1,077,379. HEATING APPARATUS. NATHANIEL B. WALES, Boston, Mass. Filed Apr. 10, 1911. Serial No. 620,125. (Cl. 237—1.)



1. A heating system in which air is utilized as the heat-conveying or circulating medium comprising means for heating said medium, a hot-air engine operated by said heating means, means operated by said hot-air engine for forcing the circulation of said air throughout said system, and means for utilizing said air for cooling the cooling end of said hot-air engine before said air is heated by said heating means for use as the circulating or heat-conveying medium.

2. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber for heating said medium, a hot-air engine operated by the heat generated in said combustion chamber, means operated by said hot-air engine for forcing the circulation of said air throughout said system, and means for utilizing said air for cooling the cooling end of said hot-air engine before said air is heated by said heating means for use as the circulating or heat-conveying medium.

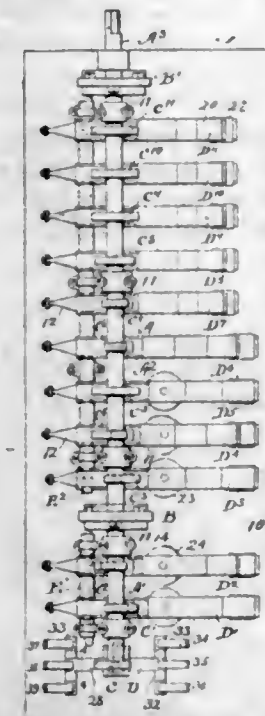
3. A heating system in which air is utilized as the heat-conveying or circulating medium comprising means for heating said medium, a hot-air engine operated by said heating means, a fan operated by said hot-air engine for forcing the circulation of said air throughout said system, and means for utilizing said air for cooling the cooling end of said hot-air engine before said air is heated by said heating means for use as the circulating or heat-conveying fluid.

4. A heating system in which air is utilized as the heat-conveying or circulating medium comprising means for heating said medium, a hot-air engine operated by said heating means, means operated by said hot-air engine for forcing the circulation of said air throughout said system, and means for utilizing said air at atmospheric temperature for cooling the cooling end of said hot-air engine before said air is heated by said heating means for use as the circulating or heat-conveying medium.

5. A heating system in which air is utilized as the heat-conveying or circulating medium comprising a combustion chamber for heating said medium, a hot-air engine operated by the heat generated in said combustion chamber, a fan operated by said hot-air engine for forcing the circulation of said air throughout said system, and means for utilizing said air for cooling the cooling end of said hot-air engine before said air is heated by said combustion chamber for use as the circulating or heat-conveying fluid.

[Claims 6 and 7 not printed in the Gazette.]

1,077,380. QUICK-BREAK SWITCHING MECHANISM. HOLLEY G. WELLMAN, Cleveland, Ohio. Filed Feb. 5, 1912. Serial No. 675,505. (Cl. 172—179.)



1. In a quick break electric switch, the combination of a movable switch member, a movable switch closing device adapted to engage the said member to cause the closure of the switch, and to permit the opening of the switch when moved out of engagement with said switch member, and means comprising a magnet for holding the switch closed independently of said closing device until after the latter is moved a predetermined distance away from said switch member.

2. In a quick break electric switch, the combination of a movable switch member, a switch closing device adapted to engage said member to close the switch and to permit the opening of the switch when moved out of engagement with said member, means comprising a magnet for holding the switch closed independently of said device, and means for deenergizing said magnet when said device is moved a predetermined distance out of engagement with said member.

3. In a quick break electric switch, the combination of a movable switch member, means for moving said switch member in one direction to open the switch, a switch closing device adapted to cause the closure of the switch when the device is moved in one direction, and to permit the opening of the switch when said device is moved in the reverse direction, and means independent of said device for temporarily preventing the opening of the switch until after said device is moved a predetermined distance in said reverse direction.

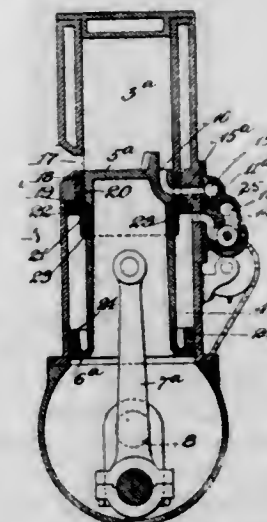
4. In a quick break electric switch, the combination of a pivoted switch lever, means for moving said lever in one direction to open the switch, a switch closing device adapted to engage said lever and to close the switch when said device is moved in one direction and to permit the opening of the switch when said device is moved in the reverse direction, and means separate from said device for preventing the opening of the switch until said device is moved out of engagement with the lever, and is moved a predetermined distance in said reverse direction.

196 O. G.—4

5. In a quick break electric switch, the combination of a movable switch member, means for moving the same in one direction to open the switch, a switch closing device adapted to close the switch when said device is moved in one direction and to permit the opening of the switch when moved in the reverse direction, means comprising a magnet for holding the switch closed, and means for deenergizing said magnet when said device has moved a predetermined distance in said reverse direction.

[Claims 6 to 13 not printed in the Gazette.]

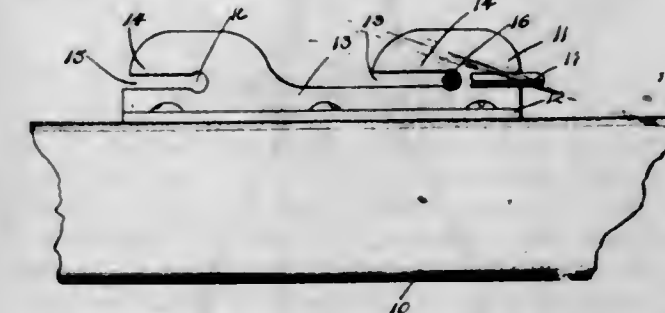
1,077,381. INTERNAL-COMBUSTION ENGINE. JOHN WILLOUGHBY, New York, N. Y., assignor of one-half to George W. Bayley, Brooklyn, N. Y. Original application filed June 9, 1911, Serial No. 632,153. Divided and this application filed Jan. 4, 1912. Serial No. 669,306. (Cl. 123—71.)



1. An internal combustion engine, having a cylinder; a bull ring therein; there being a port passing through the bull ring; there being a second port in the cylinder to one side of the bull ring; and a packing ring between the two ports, said packing ring being held in place by means of the bull ring.

2. An internal combustion engine, having a cylinder; a bull ring therein; there being a port passing through the bull ring; there being a second port in the cylinder to one side of the bull ring; and a packing ring between the two ports, said packing ring being held in place by means of the bull ring; a second packing ring engaged by the bull ring, and a plate engaging with the second ring, and holding it in place.

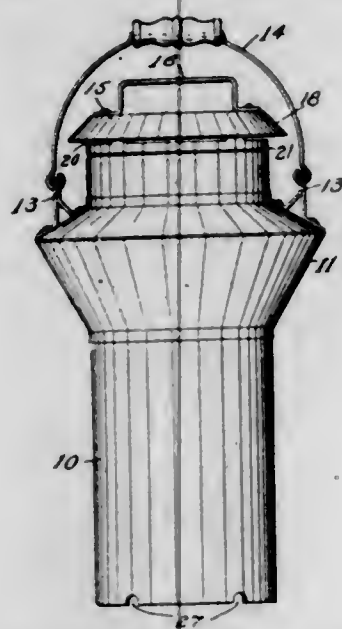
1,077,382. HOLDBACK. MARTIN J. WOODWARD, Chanute, Kans. Filed Apr. 14, 1911. Serial No. 621,035. (Cl. 21—77.)



As an article of manufacture, a holdback comprising an elongated plate bent at right angles along its longitudinal median line, one wing of said plate having openings for the reception of fastenings, the other wing of the plate having an open-ended longitudinally arranged slot at one end thereof, the inner end portion of the slot being circular and of a diameter slightly greater than the width of the slot, the free edge portion of the slotted wing being cut away midway of its length, the opposite end portion of the slotted wing being formed with an open-ended slot in line with the first slot and letting into the cutaway

portion, one end of the last-named slot having a circular end of a diameter slightly greater than the width of the slot.

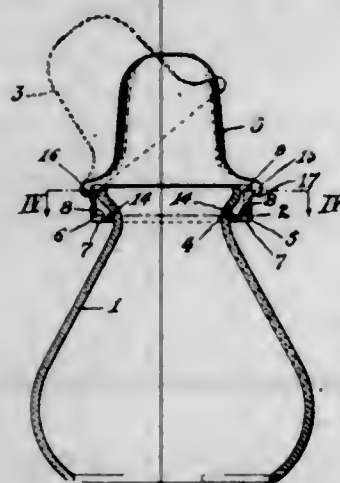
1,077,383. CREAM-COOLER. BROR E. ANGLUND, Atwater, Minn. Filed Apr. 24, 1913. Serial No. 763,296. (Cl. 31-85.)



1. A cream cooler having a detachable cover comprising a top piece with a downwardly sloping outer edge, a collar adapted to register with the opening in the can and having wide slots in its periphery adjacent its points of attachment to the top piece, a flange below the slots to register with the top wall of the can, and means removably attached within the collar to permit the circulation of air in the receptacle while preventing the entrance of dirt.

2. A cream cooler comprising a top piece, a collar attached to the bottom of said top piece and having wide slots in its periphery adjacent said top piece, a ring removably positioned within said collar, a handle on said ring, and a filter inserted over the ring and held positioned by binding contact with the outer wall of the ring and the inner wall of the collar to permit the free circulation of air while preventing the entrance of dirt.

1,077,384. SHADE-HOLDER. ROBERT S. ASPINWALL, Cleveland, Ohio, assignor to The Virden Manufacturing Company, a Corporation of Ohio. Filed May 31, 1913. Serial No. 770,810. (Cl. 240-115.)



1. In a shade-holder, a securing device comprising a collar having a movable section one end of which is detachably secured to the collar, and a bell detachably secured to said collar to support it.

2. In a shade-holder, a securing device comprising a collar having a movable section one end of which is detachably secured to the collar, and a bell detachably secured to said collar and upon the outside thereof to support it and hold it closed.

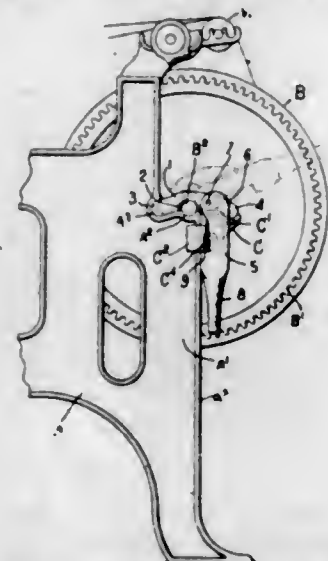
3. In a shade-holder, a securing device comprising a collar having a movable section one end of which is detachably secured to the collar, and yielding devices secured to said collar and normally restricting the area of the space surrounded thereby.

4. In a shade-holder, a securing device comprising a collar formed with an inwardly extending annular flange and including a movable section having one end detachably secured to said collar, and yielding means secured to said collar and normally extending inwardly toward the axis of the latter, a distance greater than that to which said flange extends.

5. In a shade-holder, a securing device comprising two sections forming a collar having two of their adjacent ends hinged to each other and the other two ends detachably secured to each other, and a bell detachably secured to said collar to support it.

[Claims 6 to 17 not printed in the Gazette.]

1,077,385. BEAM-LOCK FOR LOOMS. CARL E. BAILEY, Manchester, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Dec. 9, 1912. Serial No. 735,624. (Cl. 139-59.)



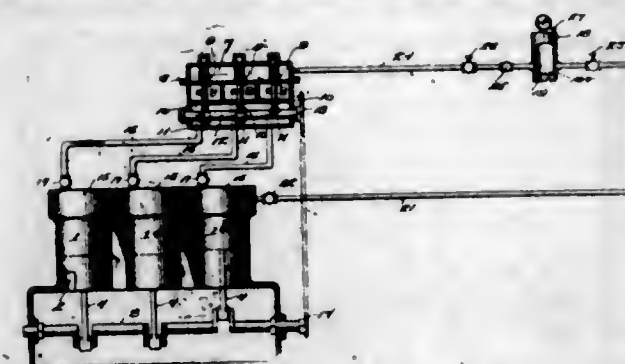
1. In a loom having each of its sides provided with an offset having at its top an open bearing for one of the beam journals and a temporary journal-support, a warp-beam, a downhold recessed between its ends to fit over the beam journal and adapted to seat removably at its inner end in a recess on the top of the offset and at its outer end on the temporary support, a fixed keeper below the support, and a latch pivotally connected with the downhold between its outer end and the journal recess and having a transverse shoulder to extend under the keeper when the latch is depending from the downhold, the cooperation of said shoulder and the keeper acting through the latch to maintain the downhold in locking position.

2. In a loom having each of its sides provided with an offset having at its top inner and outer open bearings adapted to receive one of the beam journals, a warp-beam, a downhold recessed between its ends to fit over the journal when seated in the outer bearing, the inner end of the downhold being adapted to enter the inner bearing and seat upon the top of the offset, a latch pivotally connected with the downhold between its outer end and the journal recess and adapted to depend from the downhold when in locking position, a transverse shoulder on the latch, and a fixed keeper on the offset, to be engaged by the shoulder when the latch is in locking position.

1,077,386. GAS-ENGINE STARTER. EDWIN D. BANGS, Milwaukee, Wis. Filed Aug. 20, 1910. Serial No. 578,092. (Cl. 123-180.)

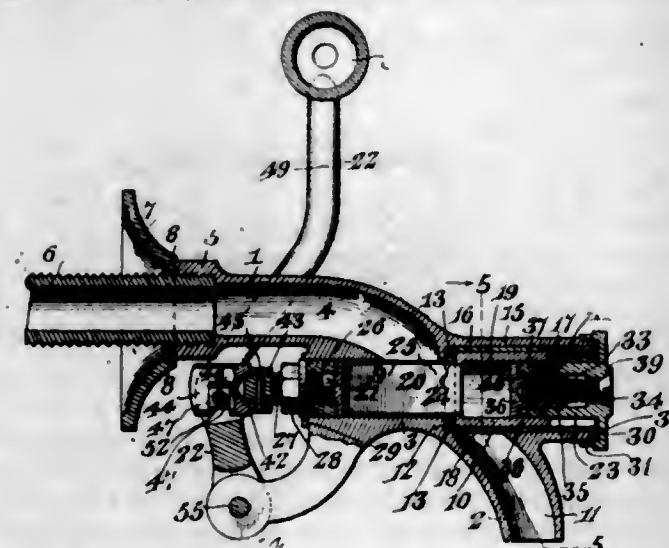
In a gas-engine having a series of cylinders, a piston reciprocative in each cylinder, and a crank shaft having the cranks thereof in rod connection with the pistons; the combination of a starting apparatus comprising a casing

having an upper chamber and separate lower compartments, self-sealing valves controlling ports by which communication is established between said chamber and compartments, an arbor provided with cams by which to actuate said valves, gearing connecting the crank-shaft and



arbor, a reservoir in check-valve controlled communication with the compression chamber of one of said cylinders and with the upper chamber of said casing, means for cutting off the reservoir from said cylinder and chamber, and a check-valve controlled duct leading from said casing-compartments to the aforesaid cylinders.

1,077,387. BEER-FAUCET. THOMAS R. BEGGS, New York, N. Y., assignor to Jessie E. Beggs, New York, N. Y., and William A. Murray, Yonkers, N. Y. Filed Sept. 24, 1912. Serial No. 722,144. (Cl. 137-4.)



1. A faucet of the class described including a body comprising an upper barrel, a lower spout, and an intermediate tubular portion or casing intersecting the barrel and the spout and communicating therewith, a piston operating in the intermediate tubular portion below the plane of the upper barrel and having means for cutting off communication between the barrel and the spout, and an operating lever fulcrumed on the body and connected with the inner end of the piston for reciprocating the same.

2. A faucet of the class described including a body comprising an upper substantially horizontal barrel, a lower depending spout, and an intermediate substantially horizontal tubular portion or casing intersecting the barrel and the spout and located below the plane of the upper barrel and extending in advance and in rear of the same, a piston operating in the intermediate tubular portion or casing and provided with means for cutting off communication between the barrel and the spout, and an oscillatory operating lever fulcrumed on the body and connected with the rear end of the piston and adapted to reciprocate the same.

3. A faucet of the class described including a body comprising an upper substantially horizontal barrel, a lower depending spout, an intermediate substantially horizontal tubular portion or casing intersecting the barrel and the spout and extending in advance and in rear of the same, and a bracket arm formed integral with and extending rearwardly from the rear end of the intermediate tubular portion or casing, a piston operating within the intermediate tubular portion or casing and provided with means for cutting off communication between the barrel and the

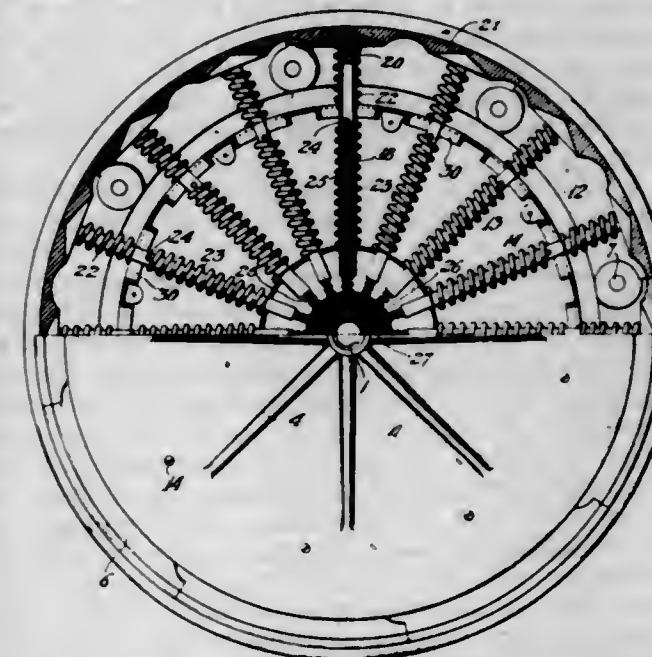
spout, and an oscillatory operating lever pivoted at its lower end to the bracket arm and connected at an intermediate point with the rear end of the piston and extending above the body.

4. A faucet of the class described including a body comprising an upper substantially horizontal barrel, a lower depending spout, and an intermediate substantially horizontal tubular portion or casing intersecting the barrel and the spout and extending in advance and in rear of the same, a piston operating in the intermediate tubular portion or casing and provided with means for cutting off communication between the barrel and the spout, and an oscillatory operating lever pivoted at its lower end to the body at a point below the piston and provided with an upper loop portion receiving the barrel and provided at the top with a handle or grip, said operating lever being connected at an intermediate point with the rear end of the piston.

5. A faucet of the class described including a body comprising an upper substantially horizontal barrel, a lower depending spout, an intermediate substantially horizontal tubular portion or casing intersecting the barrel and the spout and extending in advance and in rear of the same, a piston operating in the intermediate tubular portion or casing and provided with means for cutting off communication between the barrel and the spout, a coupling member carried by the rear end of the piston and provided with a bottom recess, an oscillatory lever pivotally connected at the lower end with the body and provided with an upper loop portion receiving the barrel, and an anti-friction sleeve pivoted at the bottom of the loop of the lever and arranged in the recess of said coupling member.

[Claims 6 to 20 not printed in the Gazette.]

1,077,388. VEHICLE-WHEEL. JOSEPH BRAY, Arlington Station, Cal. Filed Oct. 23, 1911. Serial No. 656,320. (Cl. 152-30.)



1. A vehicle wheel comprising a hub, a pair of plates secured to said hub extending outwardly therefrom, a plurality of tire members slidably mounted between said plates, means for pivotally connecting said tire members together, an inner ring between said plates, an outer ring between said plates, spokes slidably mounted in said inner and outer rings, elastic means between said tire members and said outer ring, a pin in each of said spokes, a coil spring on each spoke between the pin thereon and said inner ring, and a coil spring within each spoke between the pin thereon and said hub.

2. A vehicle wheel comprising a hub, a pair of plates secured to said hub extending outwardly therefrom, a plurality of tire members slidably mounted between said plates, each having a V-shaped recess in the inner face thereof, means for pivotally connecting said tire members together, an inner ring between said plates, an outer ring between said plates, spokes slidably mounted in said inner and outer rings, a head secured in the outer end of each

spoke adapted to engage a V-shaped recess in a tire member, a coil spring on each spoke between the head thereon and the outer ring, a pin in each spoke, a coil spring on each spoke between said pin and said inner ring, and a coil spring in each spoke between the pin thereon and said hub.

3. A vehicle wheel comprising a hub, a pair of flanges secured to said hub, a rubber cushion on said hub between said flanges, a flat ring on said cushion between said flanges, a pair of plates secured to said hub extending outwardly therefrom, a plurality of tire members slidably mounted between said plates, each tire member having a V-shaped recess in the inner face thereof, means for pivotally connecting said tire members together, an inner and outer ring secured to said plates therebetween, a plurality of spokes slidably mounted in said inner and outer rings, a head secured to the outer end of each spoke, each head having a V-shaped outer face adapted to engage one of said recesses in said tire members, a coil spring on each spoke between said head and said outer ring, a pin in each spoke, a coil spring on each spoke between said pin and said inner ring, and a coil spring within each spoke between said pin and the ring on said cushion.

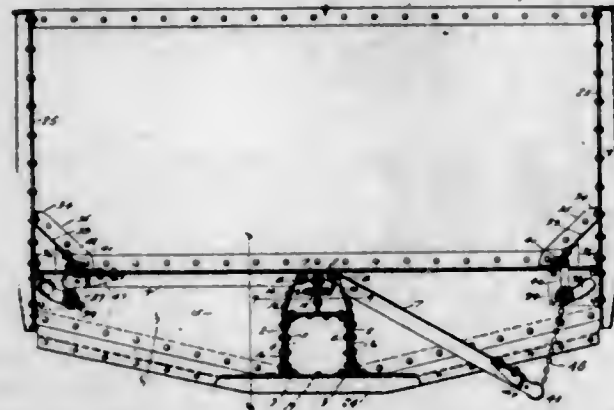
4. A vehicle wheel comprising a hub, a pair of flanges secured to said hub, an elastic cushion on said hub between said flanges, a pair of plates extending outwardly from said hub, a plurality of tire members slidably mounted between said plates, each tire member having a groove in its outer face and a V-shaped recess in its inner face, a tire seated in the grooves in said tire members, an inner and outer ring secured to said plates therebetween, said outer ring having a plurality of circumferential slots therein, said inner ring having a plurality of perforations therein, a plurality of hollow spokes, each spoke extending through a slot in the outer ring and a perforation in the inner ring, a pin extending through each spoke in contact with the inner face of said outer ring, a head secured to the outer end of each spoke provided with a V-shaped outer face adapted to engage one of said recesses in said tire members, a coil spring on each spoke between the head thereon and the outer ring, a coil spring on each spoke between the pin therein and the inner ring, a coil spring in each spoke between the pin therein and the cushion on said hub.

5. A vehicle wheel comprising a hub, a pair of flanges on said hub, an elastic cushion between said flanges, a ring on said cushion, a pair of plates secured to said hub extending outwardly therefrom, each of said plates having a plurality of radially extending grooves in its inner face, a plurality of tire members slidably mounted between said plates, each tire member having a groove in its outer face and a plurality of V-shaped recesses in its inner face, a tire seated in the grooves in the outer face of said tire members, means for pivotally connecting said tire members together, an inner ring between said plates, a plurality of projections on said ring, each extending into a groove in said plates, an outer ring secured to said plates therebetween, said inner ring having a plurality of perforations therein, said outer ring having a plurality of circumferential slots therein, a plurality of hollow spokes, each spoke extending through one of said radial slots in the outer ring and a perforation in the inner ring, a head secured to the outer end of each spoke adapted to engage one of said V-shaped recesses in the inner face of said tire members, a coil spring on each spoke between the head thereon and the outer ring, a pin on each spoke extending therethrough in engagement with the inner face of said outer ring, a coil spring on each spoke between the pin therein and the inner ring, and a coil spring in each spoke between the pin therein and the ring on said cushion.

1,077,389. DUMP OR DROP-BOTTOM CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed July 27, 1910. Serial No. 574,069. (Cl. 105-14.)

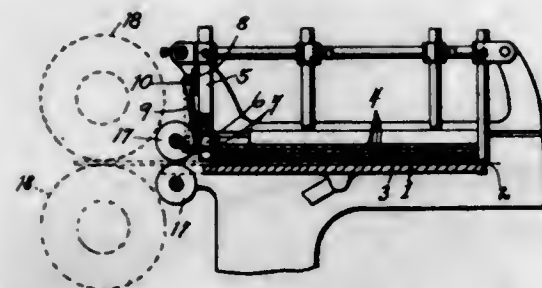
In a dump car, the combination with the floor, upright sides and transverse diaphragms of the car body, of doors

hinged at their inner longitudinal edges and provided with supporting bars projecting beyond their outer edges, said supporting bars having toothed heads, a swinging operating shaft furnished with winding drums and with gears adapted to engage the toothed heads of said supporting bars, flexible connections between said operating shaft and



said doors, said gears on said operating shaft and said toothed heads being brought to engaging position by said flexible connections and suspension links for supporting said swinging operating shaft, and castings having slots to permit the swinging movement of said operating shaft, substantially as specified.

1,077,390. FEEDING MECHANISM. CAREY A. CHESHIRE, Des Moines, Iowa. Filed Nov. 29, 1912. Serial No. 734,076. (Cl. 101-39.)



1. Feeding mechanism comprising a stop member; a reciprocating feed plate arranged to feed an article past said stop member; holding means mounted for cooperation with said stop member; and automatic means operable by said feed plate, for moving said holding means to engage the edge of an article resting against said stop member during the feed of an adjacent article and to release said edge for feed of the corresponding article, substantially as described.

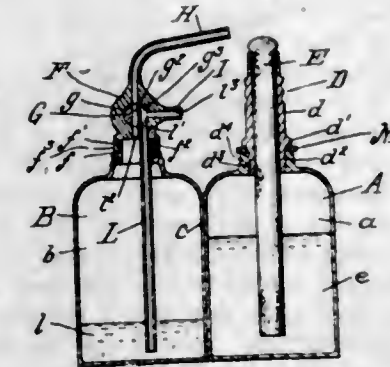
2. Feeding mechanism comprising a stop member; a reciprocating feed plate arranged to feed articles under said stop member; a block slidable in the lower portion of said stop member and provided with a plurality of projecting points adapted to engage the edges of articles stacked against said stop member; and means for moving said block to cause said points to engage said edges during feed of an article and to withdraw said points during the idle movement of said feed plate, substantially as described.

3. Feeding mechanism comprising a stop member; a reciprocating feed plate arranged to feed articles under said stop member; a block slidable in the lower portion of said stop member and provided with a plurality of projecting points adapted to engage the edges of articles stacked against said stop member; and means operable by said feed plate for moving said block to cause said points to engage said edges during feed of an article and to withdraw said points during the idle movement of said feed plate, substantially as described.

4. Feeding mechanism comprising a stop member; a reciprocating feed plate arranged to feed articles under said stop member; a block slidable in the lower portion of said stop member and provided with a plurality of projecting points adapted to engage the edges of articles stacked against said stop member; an upwardly extend-

ing lever connected with said block; a pivot shaft for said lever; an operating arm on said shaft; and an adjustable link connection between said arm and said feed plate, substantially as described.

1,077,391. BLOW-TORCH. LOUIS J. CLOUTIER, Providence, R. I. Filed Feb. 27, 1913. Serial No. 750,957. (Cl. 158-13.5.)



1. In a blow torch, the combination with a receptacle and a wick therein, of a second receptacle connected with the first receptacle, a valve casing upon the second receptacle, a valve mounted in the valve casing, a blow pipe nozzle upon the valve casing communicating with the valve and directed over the wick, and an air inlet tube upon the valve casing said valve serving to control the flow of air and vapor.

2. In a blow torch, the combination with a receptacle and a wick therein, of a second receptacle connected with the first receptacle, a valve casing upon the second receptacle, a valve in the casing, a blow pipe nozzle upon the casing directed over the wick and communicating with the second receptacle through the valve, and an air supply tube upon the casing communicating with the second receptacle through the valve said valve serving to control the flow of air and vapor.

3. In a blow torch, the combination with a receptacle and a wick therein, of a second receptacle connected with the first receptacle, a valve casing on the second receptacle, a valve in the casing, a blow pipe nozzle upon the casing directed over the wick and communicating with the second receptacle through the valve, and an air supply tube upon the casing communicating with the nozzle through the valve said valve serving to control the flow of air and vapor.

4. In a blow torch, the combination with a receptacle and a wick therein, of a second receptacle connected with the first receptacle, a valve casing on the second receptacle, a valve in the casing, a blow pipe nozzle upon the casing directed over the wick and communicating with the second receptacle through the valve, an air supply tube upon the valve casing communicating with the valve, and a pipe in the casing extending into the second receptacle and communicating with the valve, said casing being provided with a passage leading from the valve into the second receptacle.

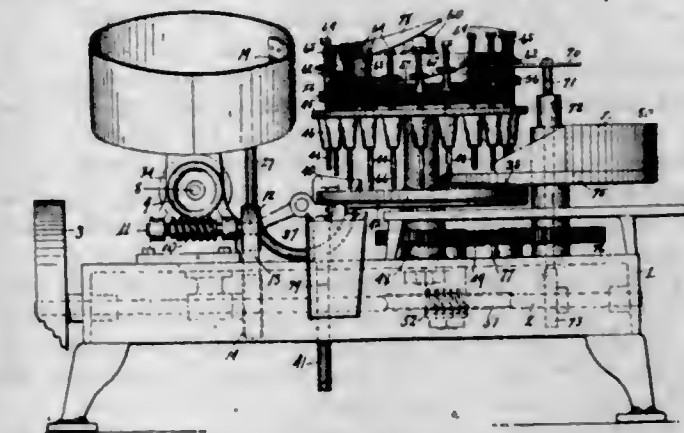
5. In a blow torch, the combination with a receptacle and a wick therein, of a second receptacle connected with the first receptacle, a valve casing on the second receptacle, a rotary valve in the casing provided with two transverse openings, a blow pipe nozzle upon the casing directed over the wick and communicating with the valve, an air supply tube upon the valve casing communicating with the valve, and a pipe in the casing extending into the second receptacle and communicating with the valve, said casing being provided with a passage leading from the valve into the second receptacle.

(Claims 6 to 9 not printed in the Gazette.)

1,077,392. CAPSULE-FILLING MACHINE. ARTHUR COLTON, Detroit, Mich., assignor to Arthur Colton Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 8, 1912. Serial No. 689,341. (Cl. 128-32.)

1. A machine for filling capsules, comprising capsule feeding mechanism, means for unjoining the capsule parts, a tray to contain medicinal substance, means for dipping

the open end of a capsule part into said tray to fill it with said substance, and means for joining the capsule parts after the operation of filling.



2. A machine for filling capsules, comprising feeding means, a traveling member having therein a capsule receiving cell into which a capsule is directed, means for lifting one part of a capsule from the other while in said cell, a tray adapted to contain medicinal material, means for reciprocating the lifted part of the capsule in said tray to fill the open end thereof with medicine, and means for joining together the capsule parts in said cell after the operation of filling.

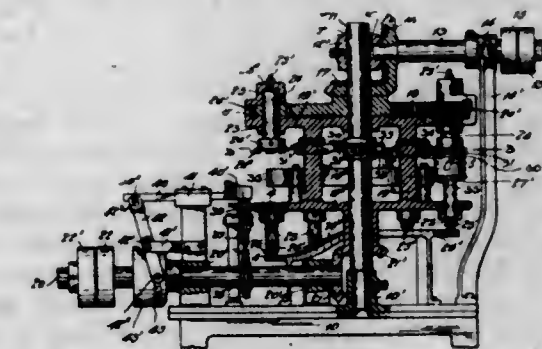
3. A capsule filling machine, comprising capsule feeding mechanism, a holder into which the capsule is fed, a vertically movable spindle to engage a part of the capsule and withdraw it from the part in said holder, a tray containing medicinal material, means for reciprocating said spindle over said tray to dip the open end of the capsule part carried thereby into said material, means for moving the spindle and capsule holder in unison to carry both parts beyond said tray, and means for actuating the spindle to join the capsule parts.

4. A machine for filling capsules, comprising capsule feeding mechanism, a movable holder into which a capsule is fed, a vertically movable spindle adapted to lift one part of a capsule from the other in said holder, a tray for medicinal material, means for carrying the spindle to said tray and from it, means for reciprocating said spindle over said tray to fill the capsule part carried thereby, and means for joining the capsule parts after the operation of filling.

5. A capsule filling machine, comprising capsule feeding mechanism, a movable holder into which the capsules are fed, a vertically movable spindle adapted to engage a capsule part in the holder and unjoin the capsule, a tray to contain medicinal material, means for carrying the spindle to said tray and from it, means for reciprocating the spindle over said tray to fill the capsule part, means for rotating said spindle, and means for joining the capsule parts after the operation of filling.

(Claims 6 to 24 not printed in the Gazette.)

1,077,393. DOUBLE-SEAMING CAN-MACHINE. EDWARD W. CONRAD, Seattle, Wash. Filed Mar. 31, 1910. Serial No. 552,661. Renewed Feb. 26, 1913. Serial No. 750,933. (Cl. 113-23.)



1. In a machine of the character described, comprising an upright non-rotatable shaft, a frame rotatably

mounted upon the shaft and formed with upper and lower platforms, means for effecting the rotation of said frame, a feed-wheel mounted with said frame, a circular non-rotative cam track, a plurality of mandrels mounted in the lower of the frame-platforms and severally provided with a roller upon their lower ends to travel upon said track, a spindle mounted for rotation in each of said mandrels and severally provided with an enlarged head, spindles mounted for rotation in the upper of said platforms and severally provided with enlarged heads at their lower ends, a toothed gear-wheel fixedly mounted upon the last named spindles, a driving gear-wheel meshing with all of the aforesaid gear-wheels, means for rotating the said driving wheel, slidable bars revoluble with said frame, a former-wheel upon the outer end of each of said bars, a reciprocating feed-bar supplying to said frame the cans to be operated upon, and means for supplying such cans to said feed-bar.

2. A machine of the class described comprising an upright non-rotative shaft, a frame rotatably mounted upon the shaft and formed with upper and lower platforms, means for effecting the rotation of said frame, a feed-wheel mounted with said frame, a circular non-rotative cam track, a plurality of mandrels mounted in the lower of the frame-platforms and severally provided with a roller upon their lower ends to travel upon said track, a spindle mounted for rotation in each of said mandrels and severally provided with an enlarged head, spindles mounted for rotation in the upper of said platforms and severally provided with enlarged heads at their lower ends, means for effecting the rotation of the last named spindles, slidable bars revoluble with said frame, a former-wheel upon the outer end of each of said bars, means for effecting the reciprocation of said bars to actuate said former-wheels, a reciprocating feed-bar for supplying to said frame the cans to be operated upon, means comprising a vibratory lever and a cam-drum for causing the reciprocation of the feed-bar, a carrier chain for supplying such cans to said feed-bar, and means for driving said chain.

3. A machine of the character described comprising an upright non-rotatable shaft, a frame rotatably mounted upon the shaft and formed with upper and lower platforms, means for effecting the rotation of said frame, a feed-wheel mounted with said frame, a circular non-rotative cam-track, a plurality of mandrels mounted in the lower of the frame-platforms and severally provided with a roller upon their lower ends to travel upon said track, a spindle mounted for rotation in each of said mandrels and severally provided with an enlarged head, spindles mounted for rotation in the upper of said platforms and severally provided with enlarged heads at their lower ends, means for effecting the rotation of the last named spindles, two cams fixedly mounted upon said upright shaft, slidable bars revoluble with said frame, a roller for each of said bars and arranged to engage with said cams, a retractile spring for each of said bars and adapted to maintain said rollers in position for engagement with the respective cams, a former-wheel upon the outer end of each of said bars, a reciprocating feed-bar for supplying to said frame the cans to be operated upon, and means for supplying such cans to said feed-bar.

4. A machine of the character described comprising an upright non-rotatable shaft, a frame rotatably mounted upon the shaft and formed with an upper and a lower platform, means for effecting the rotation of said frame, a feed-wheel mounted with said frame, a plurality of mandrels mounted in the lower of the frame-platforms, means for effecting the vertical reciprocation of said mandrels, a spindle mounted for rotation in each of said mandrels and severally provided with an enlarged head, spindles mounted for rotation in the upper of said platforms and severally provided with enlarged heads at their lower ends, means for effecting the rotation of the last named spindles, two cams fixedly mounted upon said upright shaft, slidable bars revoluble with said frame, a roller for each of said bars and arranged to engage with said cams, a retractile spring for each of said bars and adapted

to maintain said rollers in position for engagement with the respective cams, a former-wheel upon the outer end of each of said bars, a reciprocating feed-bar for supplying to said frame the cans to be operated upon, means comprising a vibratory lever and a cam-drum for causing the reciprocation of the feed-bar, a carrier chain for supplying such cans to said feed-bar, and means for driving said chain.

5. A machine of the character described comprising an upright non-rotatable shaft, a frame rotatably mounted upon the shaft and formed with an upper and a lower platform, means for effecting the rotation of said frame, a feed-wheel mounted with said frame, a plurality of mandrels mounted in the lower of the frame-platforms, means for effecting the vertical reciprocation of said mandrels, a spindle mounted for rotation in each of said mandrels and severally provided with an enlarged head, spindles mounted for rotation in the upper of said platforms and severally provided with enlarged heads at their lower ends, a toothed gear-wheel fixedly mounted upon the last named spindles, a driving gear-wheel meshing with all of the aforesaid gear-wheels, means for rotating the said driving wheel, slidable bars revoluble with said frame, a former-wheel upon the outer end of each of said bars, means for effecting the reciprocation of said bars to actuate said former-wheels, a reciprocating feed-bar for supplying to said frame the cans to be operated upon, means comprising a vibratory lever and a cam-drum for causing the reciprocation of the feed-bar, a carrier chain for supplying such cans to said feed-bar, and means for driving said chain.

[Claims 6 to 13 not printed in the Gazette.]

1,077,394. FLOOR CONSTRUCTION. EDWARD F. CRANE, Newark, N. J. Filed Jan. 9, 1911. Serial No. 601,558. (Cl. 72-66.)



1. A hollow tile for floor construction having its peripheral wall made of a folded sheet of metal fastened together at its ends and stiffened by a bead pressed in each side of said wall adjacent one edge, and a thin end wall of non-metallic material supported by said beads.

2. A hollow tile for floor construction having a sheet metal peripheral wall formed of a folded blank, an interlocking element integral with said wall formed by bending said blank, and a thin end wall of non-metallic substance held in place by said interlocking element, said element also serving to stiffen the metallic wall of the tile.

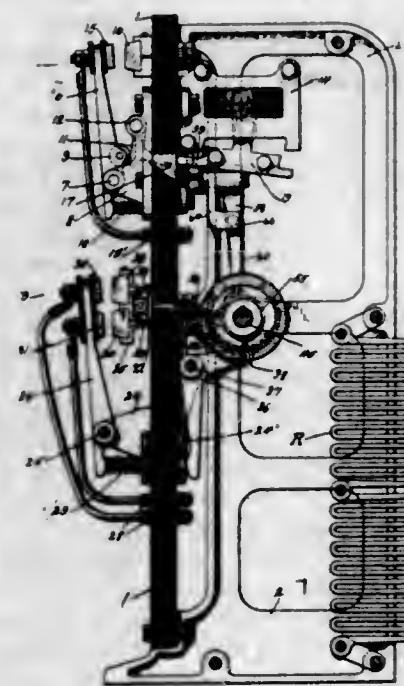
3. A hollow tile for floor construction having a peripheral wall formed of a folded metal blank, a bead integral with said wall formed by bending the same into desired shape, and an end wall comprising a relatively thin slab of concrete supported by said bead.

4. A hollow tile for floor construction formed with a metallic peripheral wall provided with a circumferential bead near each end, and a relatively thin concrete end wall supported by each bead.

5. A hollow tile for floor construction formed with a metallic peripheral wall provided with an interlocking element within each end, and a non-metallic wall supported and held in each end of said tile by said interlocking element, the outer surface of said non-metallic walls being substantially flush with the ends of the metallic walls.

[Claims 6 to 15 not printed in the Gazette.]

1,077,395. MECHANICALLY-OPERATED ACCELERATING MECHANISM. WILLIAM DEATS, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 16, 1908. Serial No. 467,837. (Cl. 172-152.)



1. The combination with an electric motor, of controlling mechanism therefor comprising a switch, a clutch having one member operatively connected to the motor, a connection between the other clutch member and the said switch for effecting the engagement of the clutch members, and means for automatically disengaging said members when they have operated through a predetermined distance.

2. The combination with an electric motor, of accelerating mechanism, gearing comprising a clutch between the motor and accelerating mechanism, means for connecting the clutch members when current is supplied to the motor, and positively operated mechanism for automatically disconnecting said members when said mechanism has operated and permitting the continued operation of the motor.

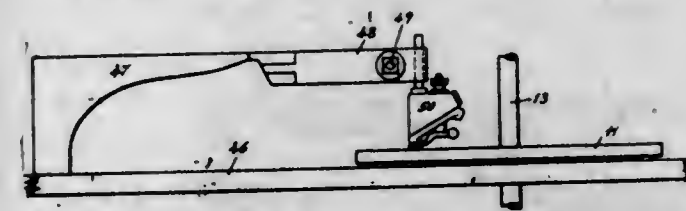
3. The combination with an electric motor, of a plurality of accelerating switches, a cam member for successively operating said switches, a shaft on which said cam member is mounted, mechanical connections between the motor and cam member including clutch members connected to said shaft and cam member respectively, means for effecting an engagement of the clutch upon closing a circuit to the motor, and means for effecting a disengagement of the clutch after the cam member has been moved a predetermined amount.

4. The combination with an electric motor, of accelerating switches therefor, a cam device for operating the switches in a predetermined order, a clutch having one member geared to the motor and the other member operatively connected to the cam device, an electromagnetic device for effecting an engagement of the clutch members upon closing a circuit to said motor, and automatic means for effecting the disengagement of the clutch members after the operation of the accelerating switches and while said electromagnetic device remains energized.

5. The combination with an electric motor, of a plurality of mechanically operated accelerating switches, a cam member for effecting the operation of said switches in successive order, a clutch geared to said motor and connected to said cam member, means for effecting an engagement of the clutch members, and positive means for effecting a disengagement of said clutch members independently of the condition of said clutch-engaging means after the cam member has made a predetermined movement.

[Claims 6 to 17 not printed in the Gazette.]

1,077,396. DIAMOND-POLISHING MACHINE. BENJAMIN DE GRAAF and GERRIT A. DE GRAAF, Bloomfield, N. J.; said Benjamin de Graaf assignor to said Gerrit A. de Graaf. Filed Feb. 2, 1911. Serial No. 606,115. (Cl. 51-11.)



1. A machine for the purpose described comprising a revoluble wheel, a diamond holding chuck coöperating therewith, a rotatable adjustable plate on said chuck, a pin coacting with holes to hold the plate when adjusted, a plurality of cups on the outer face of said plate, an adjustable clamp coöperating with said cups to hold a diamond in working position, a plurality of handle socket nuts in the body of said chuck, and clamping means for holding the chuck in one or another position according to the handle socket in which the handle is inserted, and means for revolving said wheel across the face of said chuck.

2. A machine for the purpose described, comprising a revoluble wheel and a coöperating chuck provided with a body portion, a clamping bolt passing through the axis thereof, means to prevent turning of the bolt, clamping fork arms secured to the end of said bolt, means for adjusting the distance between the fork arms, a rotatably adjustable plate on said body portion at an angle to the axis thereof and through which said bolt is adapted to pass, means for holding the plate in adjusted position, a plurality of circumferentially arranged cups on said plate and means for clamping a diamond between the fork arm and one of said cups.

3. A machine for the purpose described comprising a revoluble wheel, and a coöperating chuck provided with a body portion, an angularly disposed rotatable plate having means which when rotated into position for use is adapted to hold a diamond with its axial line parallel to the axis of said body portion, and means coöperating with said diamond holding means for clamping a diamond in said position.

4. A machine for the purpose described comprising a revoluble wheel, and a coöperating chuck provided with a body portion, a rotatably adjustable plate at an angle to the axis of the body portion, a plurality of diamond holding receptacles on said plate, any one of which when rotated into position for use is adapted to hold a diamond with its axial line parallel to the axis of said body portion, a clamping bolt carrying clamping fingers, and means for clamping a diamond between said fingers and the receptacle on said plate which is in position for use.

5. In a machine for the purpose described, a diamond holding chuck comprising a body portion, a revolubly adjustable plate at an angle to the axis of the body portion, diamond holding cups on said plate each adapted, by adjusting the plate, to be brought into a position with its axis parallel to the axis of said body portion and co-acting means between the plate and said body portion for positioning and holding said plate with one of the cups in said position.

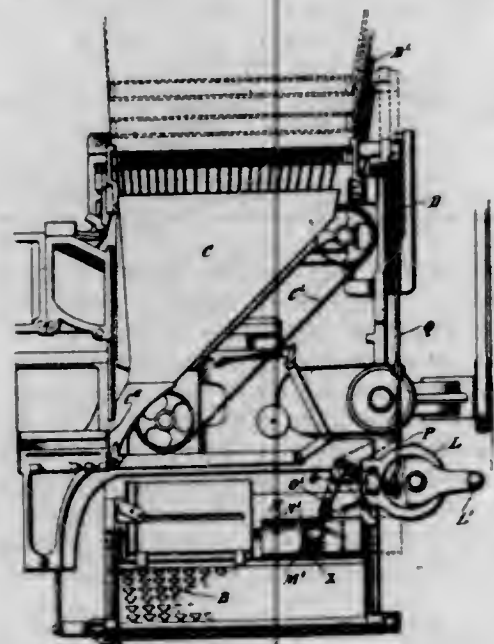
[Claims 6 to 8 not printed in the Gazette.]

1,077,397. TYPOGRAPHICAL MACHINE. NORMAN DODGE, East Orange, N. J., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 9, 1911. Serial No. 643,248. (Cl. 199-7.)

1. In a typographical machine, the combination of a plurality of magazines, any one of which may be brought into action at will, with the matrix receptacle provided with a cover, the said parts being relatively movable, and means for effecting such relative movement when a selected magazine is brought into action.

2. In a typographical machine, the combination of a plurality of magazines, any one of which may be brought

into action at will, with the matrix receptacle provided with a movable cover having the opening N¹, and means for moving the cover when a selected magazine is brought into action.



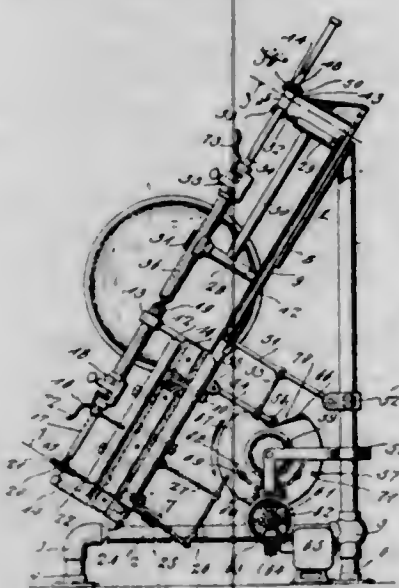
3. In a typographical machine, the combination of a plurality of magazines, any one of which may be brought into action at will, with the matrix receptacle formed with a series of compartments and provided with a movable cover having an opening to register with one of the said compartments, and means whereby the cover is moved when a selected magazine is brought into action.

4. In a typographical machine comprising a plurality of shiftable magazines, the matrix receptacle provided with a movable section in combination with connections to move the said section when the magazines are shifted.

5. In a typographical machine comprising a plurality of shiftable magazines, in combination, the matrix receptacle formed with a series of compartments and provided with a movable cover having an opening therein to register with one of the said compartments, and connections to move the cover when the magazines are shifted.

[Claims 6 to 10 not printed in the Gazette.]

1,077,398. ELECTRIC FOG-SIGNAL LIGHT. ROY C. DOUGLAS, San Francisco, Cal. Filed Oct. 24, 1912. Serial No. 727,565. (Cl. 177-346.)



1. A fog signal light comprising a supporting frame, a stationary electrode support secured thereto, a stationary electrode holder having an adjustable engagement with said support, a stationary electrode carried by said holder,

a feeding mechanism connected with said holder, a movable electrode carried slidably mounted on said frame, a movable electrode secured in said carrier, a gripping and releasing device engaged with said movable electrode carrier, and an operating mechanism connected with said gripping device whereby the latter is actuated to retract said carrier and the electrode therein.

2. A fog signal light comprising a supporting frame, a stationary electrode support secured thereto, a stationary electrode holder having an adjustable engagement with said support, a stationary electrode carried by said holder, a feeding mechanism connected with said holder, a movable electrode carried slidably mounted on said frame, a movable electrode secured in said holder, a gripping and releasing device engaged with said movable electrode carrier, an operating mechanism connected with said gripping device whereby the latter is actuated to retract said carrier and the electrode therein, and means to release said gripping mechanism whereby the latter and the movable electrode carrier are permitted to automatically adjust themselves to bring the electrode in said carrier into proper position with respect to the stationary electrode.

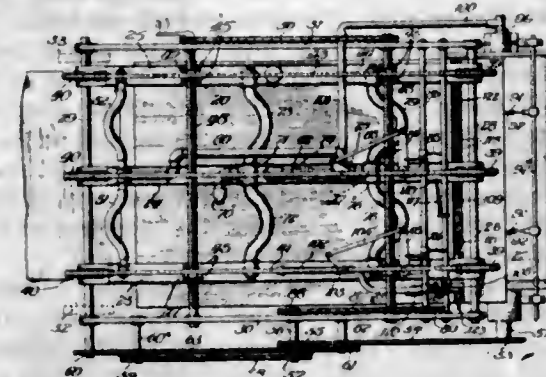
3. A fog signal light comprising a supporting frame, a stationary electrode support secured thereto, a stationary electrode holder having an adjustable engagement with said support, a stationary electrode carried by said holder, a feeding mechanism connected with said holder, a movable electrode carried slidably mounted on said frame, a movable electrode secured in said holder, a gripping and releasing device engaged with said movable electrode carrier, an operating mechanism for said movable carrier comprising a slidably mounted operating bar connected with said gripping device, a pivotally mounted lever connected with said operating bar, a trip arm connected with said lever, a cam having an operative engagement with said trip arm whereby said operating mechanism is actuated to lift said movable electrode carrier and to permit the same to lower thereby disengaging and engaging the electrode therein with said stationary electrode, and means to operate said cam.

4. A fog signal light comprising a supporting frame, a stationary electrode support secured thereto, a stationary electrode holder arranged on said support, a stationary electrode secured in said holder, a movable electrode carried slidably mounted on said supporting frame, a movable electrode secured in said carrier, a gripping and releasing device having an operative engagement with said carrier, a slidably mounted operating bar connected at one end with said gripping and releasing device, a pivotally mounted lever operatively connected with the opposite end of said bar, a pivoted trip arm having an adjustable connection with said lever, a trip roller carried by said arm, a revolvably mounted adjustable tripping cam engaged with the roller of said trip arm whereby the latter and said tripping lever and bar are projected in one direction to raise said movable electrode carrier and release to permit said carrier and electrode to drop thereby bringing the movable electrode into and out of engagement with the stationary electrode, and a motor geared to said cam.

5. A fog signal light comprising a supporting frame, a stationary electrode holder arranged thereon, a stationary electrode secured in said holder, a movable electrode carrier, having a stem, a movable electrode secured in said carrier, a suitably mounted stop plate to slidably support said stem, a gripping and releasing device comprising a sleeve having a sliding engagement with said stem, gripping blocks pivotally mounted on said sleeve to grip said stem, operating levers connected with said gripping blocks whereby they are actuated to grip said stem when the gripping device is moved in one direction, said blocks being released by the engagement of said sleeve with said stop plate when the gripping device is brought into engagement therewith, a slidably mounted operating bar having on one end a fork operatively connected with the levers of said gripping blocks whereby the latter are actuated to grip the stem of the movable electrode carrier and to thereby raise said carrier, and the movable electrode, and means to actuate said operating bar.

[Claims 6 and 7 not printed in the Gazette.]

1,077,399. PAPER-FEEDER. MICHAEL ANDREW DROIT-COUR, Oak Park, Ill. Filed Jan. 8, 1912. Serial No. 670,030. (Cl. 101-41.)



1. In a paper transporting device, the combination of a plurality of suction shoes, each having an opening in the bottom wall thereof, a plurality of bands each encircling one of said shoes and arranged to travel over the opening therein, said bands being provided with perforations adapted to coincide with said shoe openings whereby suction is exerted through said perforations, means for imposing a sheet of paper against the lower faces of the bands so that the sheet is supported on the bands by suction, and means for moving the bands along the shoes to transport the sheet of paper, substantially as described.

2. In a paper transporting device, the combination of a suction shoe comprising a plurality of non-communicating compartments each having an opening in one wall thereof, a band arranged to encircle said shoe with one travel thereof disposed over the openings of said compartments, said band being provided with perforations adapted to coincide with the openings in said compartments whereby suction may be exerted through said perforations, means for imposing a sheet of paper against the lower face of said band, and means for moving the band along the shoe to transport the sheet of paper, substantially as described.

3. In a paper transporting device, the combination of a suction shoe provided with a longitudinally extending opening in the bottom wall thereof, a band provided with perforations adapted to coincide with said shoe opening, said band being arranged to travel outside of and adjacent to the bottom wall of the shoe, means for elevating one edge of a sheet of paper into coöperative relation with said band, and means for moving the band along the shoe to transport the sheet of paper, substantially as described.

4. In a paper transporting device, the combination of a suction shoe provided with a longitudinally extending opening in the bottom wall thereof, a band provided with perforations adapted to coincide with said shoe opening, said band being arranged to travel adjacent to the outer face of the bottom wall of the shoe, an air-blast for imposing a sheet of paper against said band, and means for moving the band along the shoe to transport the sheet of paper, substantially as described.

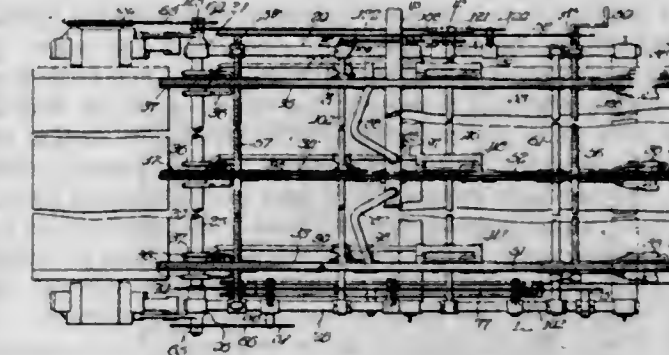
5. In a paper transporting device, the combination of a suction shoe provided with an opening in its bottom wall, a flexible band arranged to travel longitudinally of the shoe and across the mouth of the said opening therein, means for intermittently applying suction to said shoe to produce a suction through said band, means for imposing a sheet of paper against the band, and means for moving the band along the shoe to transport the sheet of paper held to the band by suction, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,077,400. PAPER-DELIVERY MECHANISM. MICHAEL ANDREW DROIT-COUR, Oak Park, Ill., assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 19, 1912. Serial No. 678,498. (Cl. 101-31.)

1. In a paper transporting mechanism, the combination of a pneumatic device for withdrawing a sheet of paper from a printing cylinder, means for supporting the ends of the sheet and transporting said sheet away from said cylinder, and controlling means for causing the release

of the rear end of said sheet prior to the release of the forward end thereof, substantially as described.



2. In a paper transporting mechanism, the combination of means for pneumatically separating a sheet from a printing cylinder, a traveling tape, means for pneumatically holding the sheet against said tape whereby the sheet is caused to travel with the tape, and controlling means whereby the pneumatic action upon the sheet is discontinued sequentially from one end of the sheet to the other, substantially as described.

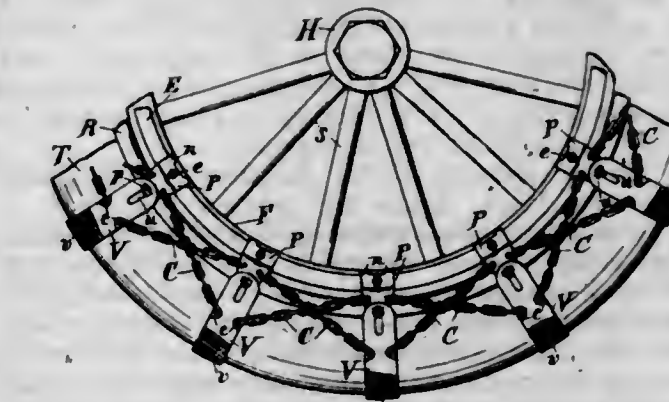
3. In a paper transporting mechanism, the combination of a pair of perforated tape drums, a perforated tape surrounding said drums, a suction shoe disposed between said drums and adjacent the lower travel of said tape, means for causing said tape to travel around the drums, means for inducing suction through said tape in the drums and in the suction shoe, and means for automatically controlling the suction in said drums and shoe, substantially as described.

4. In a paper transporting mechanism, the combination of a perforated drum, a suction box disposed therein, a suction shoe comprising a plurality of compartments and having one end disposed in proximity to said drum, a perforated tape arranged to travel around said drum and adjacent said shoe, means for applying suction to said suction box and said shoe whereby to hold a sheet by suction against said traveling tape and means for controlling said suction, substantially as described.

5. In a paper transporting mechanism, the combination of a pair of perforated drums, suction boxes arranged in said drums, a suction shoe disposed between said drums with its ends in proximity thereto and comprising a plurality of compartments, a perforated tape arranged to encircle said drums and travel adjacent to said shoe, and means for applying suction to the suction boxes and the compartments of the shoe whereby to retain a sheet by suction in contact with the traveling tape, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

1,077,401. ANTISKID ATTACHMENT FOR AUTOMOBILE TIRES. JOSEPH G. FLORACK, Rochester, N. Y. Filed Oct. 14, 1912. Serial No. 725,631. (Cl. 152-14.)



1. A device for the purpose described comprising a series of tread pieces having inwardly extending side arms, a common supporting element with the side arms of the tread pieces slidably mounted thereon to move in radial planes, and flexible connections between the tread pieces tending to return them to and hold them in relative normal positions in radial planes, such flexible connections

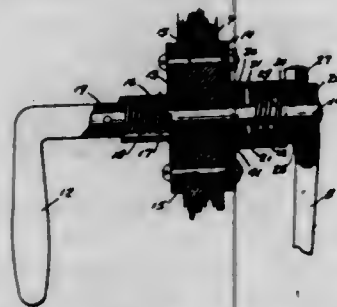
comprising chains connecting each tread piece to the supporting element at points adjacent to the tread piece on each side thereof.

2. A device for the purpose described comprising a series of tread pieces having inwardly extending side arms, a common supporting element with the side arms of the tread pieces slidably mounted thereon to move in radial planes and also pivotally mounted thereon to swing to positions departing angularly from radial planes, and flexible connections between the tread pieces tending to return them to and hold them in relative normal positions in radial planes, such flexible connections comprising chains connecting each tread piece to the supporting element at points adjacent to the tread piece on each side thereof.

3. A device for the purpose described comprising a series of tread pieces having inwardly extending side arms, a ring on each side of the wheel, attaching members on the rings upon which the side arms of the tread pieces are slidably mounted to move in planes extending radially of the wheel and rings, the rings being otherwise unattached to the wheel or tire, and flexible connections between the tread pieces tending to return them to and hold them in relative normal positions in radial planes, such flexible connections comprising chains connecting each tread piece to the attaching member of the adjacent tread piece on each side thereof.

4. A device for the purpose described comprising a series of tread pieces having inwardly extending side arms, a ring on each side of the wheel, attaching members on the rings upon which the side arms of the tread pieces are slidably mounted to move in planes extending radially of the wheel and rings and pivotally mounted thereon to swing to positions departing angularly from radial planes, the rings being otherwise unattached to the wheel or tire, and flexible connections between the tread pieces tending to return them to and hold them in relative normal positions in radial planes, such flexible connections comprising chains connecting each tread piece to the attaching member of the adjacent tread piece on each side thereof.

1,077,402. WINDOW-CLEANER. WILLIAM H. FORD, Buffalo, N. Y., assignor of one-half to Peter G. Bradley, Buffalo, N. Y. Filed Mar. 3, 1913. Serial No. 751,885. (Cl. 15-59.)



1. A window cleaning device comprising, a longitudinally movable shaft, means for rotating said shaft, a cleaner, a cleaner arm non-rotatably carried by said shaft, said arm being pivotally united at its outer end to said cleaner and longitudinally movable and rotatably mounted means carried by said shaft for moving said cleaner in and out of contact with the window-pane.

2. A window cleaning device comprising, a longitudinally movable shaft, means for rotating said shaft, a cleaner, a cleaner arm non-rotatably carried by said shaft, said arm being pivotally united at its outer end to said cleaner, spring means for moving said cleaner into contact with the window-pane being cleaned and longitudinally movable and rotatably mounted ratchet and cam-shaped means carried by said shaft for moving said cleaner into and out of contact with the window-pane.

3. A window cleaning device comprising, a longitudinally movable shaft, means for rotating said shaft, a cleaner, a cleaner arm non-rotatably carried by said shaft, said arm being pivotally united at its outer end to said cleaner, a spring carried by said shaft for moving said cleaner into contact with the window-pane, a ratchet ring rotatably carried by said shaft, a spring pressed ratchet pin engageable with said ratchet ring and cam-shaped

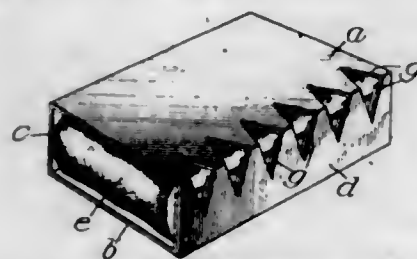
means carried by said shaft, whereby said cleaner may be moved into and out of contact with the window-pane.

4. A window cleaning device comprising, a longitudinally movable shaft, means for rotating said shaft, a cleaner, a cleaner arm pivotally united to said cleaner, said cleaner arm having a hub non-rotatably mounted on said shaft, said hub being provided with a plurality of cam-shaped teeth, a ratchet ring rotatably mounted on said shaft, said ratchet ring being provided with a plurality of co-acting cam-shaped teeth and a plurality of ratchet teeth, a spring pressed ratchet pin engageable with said ratchet teeth and a spring for keeping said cam-shaped teeth in engagement.

5. A window cleaning device comprising a longitudinally movable shaft, means for rotating said shaft, a cleaner, a cleaner arm pivotally united to said cleaner, said cleaner arm having a hub non-rotatably mounted on said shaft, said hub being provided with a plurality of cam-shaped teeth, a ratchet ring rotatably mounted on said shaft, said ratchet ring being provided with a plurality of co-acting cam-shaped teeth and a plurality of ratchet teeth, a spring pressed ratchet pin engageable with said ratchet teeth, a spring for keeping said cam-shaped teeth in engagement and a cushion spring disposed between said cleaner arm hub and said ratchet ring.

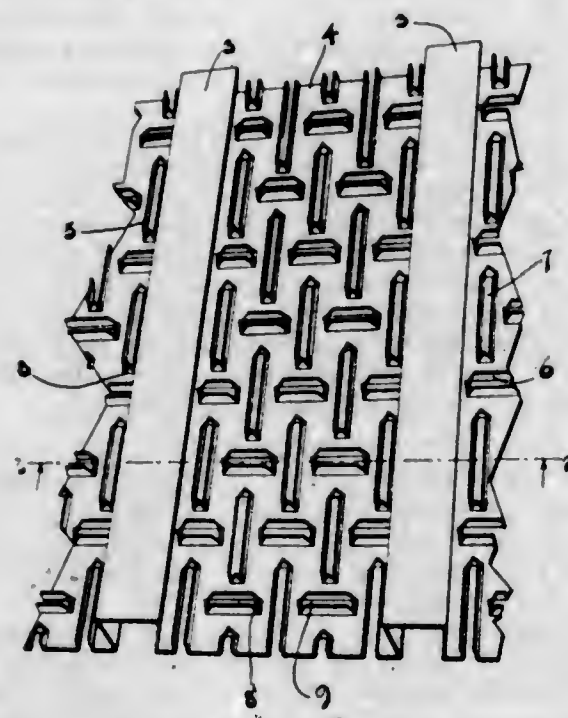
[Claim 6 not printed in the Gazette.]

1,077,403. HAIR-COMB. GUSTAV C. FRICKE, Morgan Park, Ill. Filed Mar. 14, 1912. Serial No. 683,797. (Cl. 132-3.)



A receptacle constituting the handle or body portion of a comb and having adjacent angularly related walls each of which is provided with a row of teeth, the crowns of the teeth of one row merging with the crowns of the teeth of the other row to form a single row of comb teeth, said walls of the receptacle being collapsible whereby the rows of teeth may be mutually approached to form such single row.

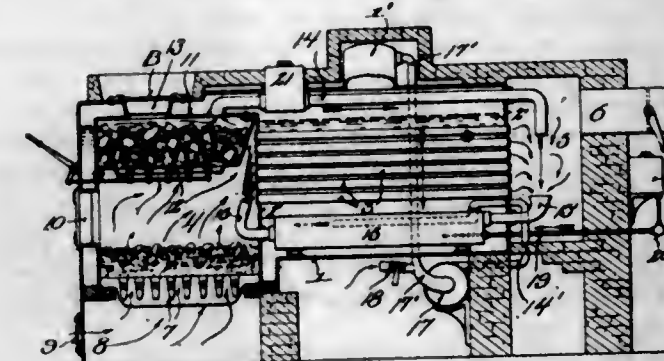
1,077,404. METAL LATH. WILLIAM M. GOLDSMITH, Cincinnati, Ohio. Filed Oct. 7, 1912. Serial No. 724,285. (Cl. 72-116.)



A sheet metal lath having rows of transverse openings in staggered relation, and rows of longitudinal openings in

staggered relation, the transverse being longer than the longitudinal openings, and outwardly extending lugs along each side of each opening, each transverse opening and its transverse lugs crossing a straight line joining the ends of adjacent transverse openings, whereby said lugs stiffen the sheet along said lines.

1,077,405. FURNACE. ALFRED O. GUTSCH, Sheboygan, Wis. Filed Nov. 18, 1912. Serial No. 732,106. (Cl. 110-24.)



1. In a furnace, its shell having a forwardly grated bottom combustion chamber and rear chamber connected thereto by flues; the combination of a generator retort disposed above the grated bottom of the combustion chamber, a pipe connection between the generating retort and rear furnace chamber, a combustion retort in communication with said rear chamber and combustion chamber, and air and gaseous fluid supply means for said combustion retort.

2. In a furnace, its shell having a forwardly grated bottom combustion chamber and rear chamber connected thereto by flues; the combination of a generator retort disposed above the grated bottom of the combustion chamber, a pipe connection between the generating retort and rear furnace chamber, a combustion retort in communication with said rear chamber and combustion chamber, means for admitting a mixture of air and steam to said combustion retort, and means for supplying gaseous fluid to the aforesaid combustion retort.

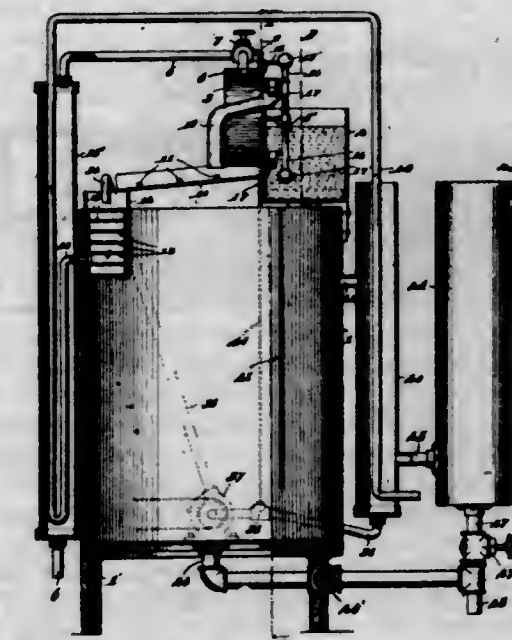
3. In a furnace having a forwardly disposed combustion chamber, a rearward chamber, and flues connecting the forward combustion chamber and rearward chamber; the combination of a generating retort disposed within the combustion chamber, the generating retort being provided with a shiftable bottom, a pipe in communication with the generating retort and rear chamber, a combustion retort in communication with the rear chamber and combustion chamber, means for admitting air and steam to the combustion retort, means for superheating the steam, and means for admitting gaseous fluid to said combustion retort.

1,077,406. APPARATUS FOR TREATING WATER. EDWARD HIXON and EDWY S. PARKER, Chicago, Ill. Filed Mar. 18, 1912. Serial No. 684,621. (Cl. 210-1.)

1. A device of the kind described comprising a reservoir; a mixing chamber in the upper portion of said reservoir in communication therewith; a solution tank; a source of water supply; means for taking solution from said solution tank and water from said source of water supply and emptying them in said mixing chamber; a source of steam supply in communication with said mixing chamber supplying steam therewith to facilitate the mixing of the water and solution in said mixing chamber; and means for taking mixed water and solution from said reservoir and repassing it through said mixing chamber, substantially as described.

2. A device of the kind described comprising a reservoir; a partition in said reservoir extending nearly to the bottom thereof; an exhaust port in one part of said reservoir; a mixing chamber in communication with the other part of said reservoir; and means for passing the fluids contained in said reservoir through one part thereof;

under said partition, through the other part of said reservoir, through said exhaust port and emptying them in said mixing chamber to reënter such reservoir, substantially as described.



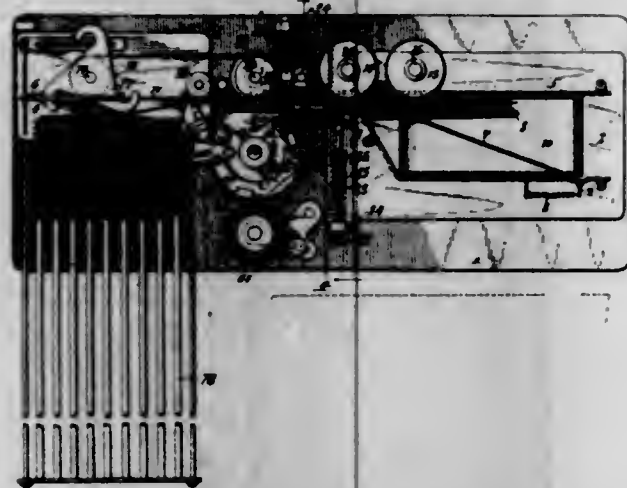
3. A device of the kind described comprising a reservoir; a partition in said reservoir extending nearly to the bottom thereof; an exhaust port in one part of said reservoir; a mixing chamber in communication with the other part of said reservoir; a communication between said exhaust port and the top of said mixing chamber; a pump in the communication between said exhaust port and said mixing chamber for producing a circulation of the fluids contained in said reservoir through one part of said reservoir, under said partition, the other part of said reservoir, said exhaust port, and through such communication into said mixing chamber and thence into the reservoir again; and means for limiting such circulation of the liquid contained in said reservoir, substantially as described.

1,077,407. AUTOMOBILE-TIRE. ALBERT B. HOLLENBECK, Sidney, N. Y. Filed June 8, 1910. Serial No. 565,827. (Cl. 152-34.)



In a wheel tire, the combination of two metal annular portions loosely sleeved together in the plane of the wheel and forming an annular chamber between them of normally circular cross section and the outer annular portions having lateral annular grooved portions curved in cross section to form lateral annular spaces, a pneumatic tube arranged in the annular chamber, and a separate protecting flexible but non-stretchable case inclosing the pneumatic tube and interposed between it and the walls of the annular chamber and adapted to spread laterally into the lateral annular grooved spaces when the pneumatic tube is compressed radially, said grooved spaces snugly receiving and supporting the case when spread laterally.

1,077,408. MAIL-MARKING MACHINE. FRED C. IEL-FIELD, Silver Creek, N. Y., assignor to Columbia Postal Supply Company, Silver Creek, N. Y., a Corporation of New York. Filed Nov. 24, 1911. Serial No. 662,199. (Cl. 101—82.)



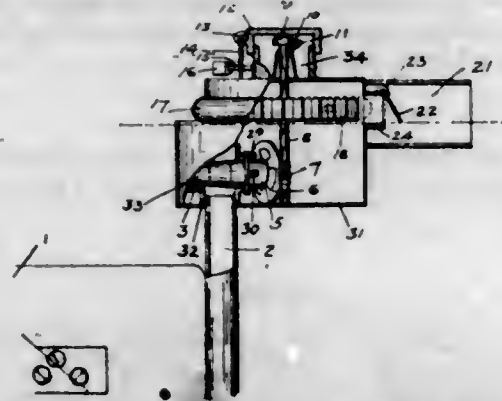
1. A mail marking machine comprising a printing wheel, a printing die movably mounted on said wheel and means operated by the mail matter for shifting said die into or out of its operative position on said wheel, said means comprising parts mounted on said printing wheel.
2. A mail marking machine comprising a printing wheel, a carrier movably mounted on said wheel and having a printing die for marking mail matter, a trip lever mounted on said wheel and adapted to be turned by engagement with mail matter at the printing position, and means for causing said die carrier to be moved into its operative position as the trip lever is turned by the mail matter.
3. A mail marking machine comprising a printing wheel, a carrier movably mounted on said wheel and having a printing die for marking mail matter, a trip lever mounted on said wheel and adapted to be turned by engagement with mail matter at the printing position, and a cam turning with said trip lever and operating to move said die carrier into its operative position when said lever is moved by engagement with mail matter.
4. A mail marking machine comprising a printing wheel, a carrier movably mounted on said wheel and having a printing die for marking mail matter, a trip lever mounted on said wheel and adapted to be turned by engagement with mail matter at the printing position, means for causing said die carrier to be moved into its operative position as the trip lever is turned by the mail matter, and means for restoring said trip lever to its normal position after clearing said mail matter.
5. A mail marking machine comprising a rotary printing wheel, a carrying arm pivoted at its rear end on said wheel and provided with a printing die for marking mail matter, a trip shaft journaled on the printing wheel and provided with a shifting cam engaging with said carrying arm, and a trip lever mounted on said shaft and adapted to be turned by engaging mail matter at the printing position and cause the cam to move the die on said arm into its operative position.

[Claims 6 to 11 not printed in the Gazette.]

1,077,409. PROTECTIVE DEVICE FOR GAS-METERS AND THE LIKE. HERMAN KAUFMAN, New York, N. Y. Filed Oct. 25, 1912. Serial No. 727,636. (Cl. 73—1.)

1. In a device of the character described, the combination of an outer casing, means for connecting said casing with the outlet pipe of a meter, an outlet pipe attached to said casing, a valve, and means for permanently locking said valve until properly unlocked actuated by blowing into said casing outlet pipe.
2. The combination with the outlet pipe of a gas meter, of an outer casing suitably attached to said meter outlet pipe, an outlet pipe attached to said casing, and locking means interposed between said meter outlet pipe and said casing outlet pipe actuated by blowing into said casing

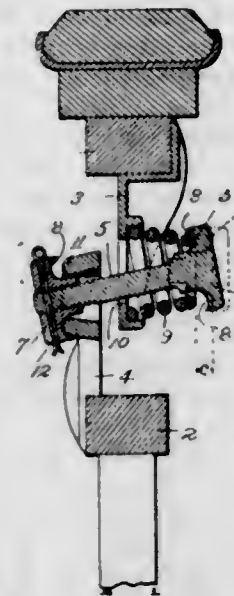
outlet pipe, for permanently preventing the flow of gas from said meter outlet pipe until said locking means are properly unlocked.



3. A device of the character described, having an outer casing, an inlet pipe, an outlet pipe, and locking means within said casing actuated by blowing into said outlet pipe for permanently preventing a flow of gas into said casing through said inlet pipe until said locking means are properly unlocked.
4. A device of the character described having an outer casing, an inlet pipe, an outlet pipe, and a revolvable shaft suitably positioned within said casing and having a valve to open or close said inlet pipe, said valve being operatively connected to said shaft, a fan attached to said shaft, means for diverting the returning gaseous substances around the outside of said casing and means for causing the said returning gaseous substances to revolve said fan.
5. A device of the character described, having an outer casing, an inlet pipe, an outlet pipe, a revolvable shaft suitably positioned within said casing and having a valve to open or close said inlet pipe, said valve being operatively connected with said shaft, and a fan attached to said shaft at the part where said shaft passes said outlet pipe, and means at the opposite end of said shaft from said valve for turning said shaft by hand.

[Claims 6 and 7 not printed in the Gazette.]

1,077,410. SPRING-WHEEL. PETER M. KLING, Elizabeth, N. J. Filed Oct. 20, 1909. Serial No. 523,645. (Cl. 152—32.)



1. A spring wheel comprising outer and inner members moving relatively to each other under the load which the wheel sustains when in use and resilient means yieldingly resisting said relative movement, comprising resiliently sustained bolts connecting the relatively moving parts; said bolts having rigidly related heads constructed with rocking bearings at points removed from the axes of the bolts through which the bolts bear against the parts to be sustained and said bolts having freedom of angular movement relatively to the parts against which they bear, the bearing surface of said heads embracing the bearing surface of the parts to be sustained.

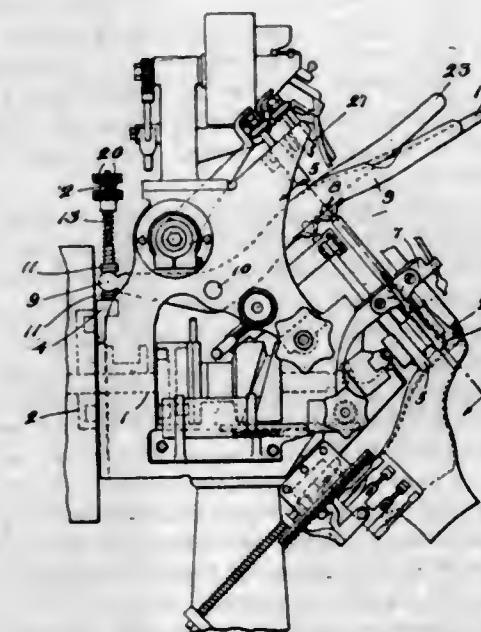
2. A spring wheel comprising inner and outer wheel members, which move relatively under the load which the wheel sustains when in use, resilient supporting means comprising bolts yieldingly connecting the wheel members having circumferentially continuous rocking bearings radially removed from the axis of the bolt and bearing elements connecting said bolts with said wheel members, said elements having circular bearing tracks to which the circumferentially continuous rocking bearings of the bolts are fitted and which they surround.

3. A spring wheel comprising inner and outer wheel members moving relatively under the load which the wheel sustains when in use, resilient sustaining means for said wheel members comprising bolts yieldingly connecting said members in sustaining relation one to the other but having freedom of angular movement relative to said members, and springs interposed between the bolts and the members from which the bolts are supported; said bolts being constructed with a circumferentially continuous rocking bearing radially removed from the axis of the bolt and the parts against which the bolts bear being provided each with a circular bearing track surrounded by said rocking bearing.

4. A spring wheel comprising outer and inner wheel members having overlapping parts moving relatively under the load which the wheel sustains when in use; bolts extending through said overlapped parts normally transversely to the plane of the wheel but having freedom of angular adjustment relatively to the wheel members and compression springs interposed between each bolt and a wheel member, permitting freedom of angular movement of the bolt relatively thereto; the bolt having bearings at its ends through the medium of radially displaced circumferentially continuous rocking bearings which surround the contact surfaces of said wheel members and the spring respectively.

5. A spring wheel comprising members moving relatively under the wheel load and resilient connections having bolts and adapted to yieldingly resist such relative movement, said bolts having freedom of angular movement relatively to the wheel members and constructed with rocking and rolling heads through which the load is transmitted to and from the bolts, constructed to develop a center of rocking movement radially removed from the axis of the bolt, said rolling heads having bearing surfaces surrounding the corresponding bearing surfaces of said wheel members.

1,077,411. LASTING-MACHINE. EUCLID I. LA CHAPPELLE, Beverly, Mass. Filed Sept. 19, 1912. Serial No. 721,125. (Cl. 12—4.)



1. A lasting machine, having, in combination, a plurality of grippers for straining the toe-end and sides of an upper over a last, means for applying fastenings at the toe-end and at the sides of the upper to secure the upper in lasted condition and means for stopping the action of some of the grippers while continuing the engagement of

the remainder of the grippers before the fastenings are applied.

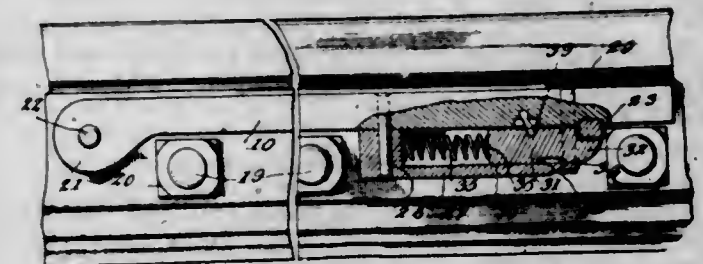
2. A lasting machine, having, in combination, two sets of straining means to pull an upper over a last, means for applying fastenings to hold the upper in lasted condition, means for releasing the engagement of the first set of straining means with the upper before the fastenings are applied and means for releasing the engagement of the second set of straining means with the upper after the fastenings are applied.

3. A lasting machine, having, in combination, grippers for engaging an upper and its lining on a last, additional grippers for engaging the lining, means to impart a pulling movement to all the grippers, means for applying fastenings to hold the upper and its lining in lasted condition and means to release the engagement of the grippers which engage the upper and the lining before the fastenings are applied and during the pulling movement of the grippers which engage the lining.

4. A lasting machine, having, in combination, grippers for engaging an upper on a last, means for actuating the grippers to pull the upper over the last, means for releasing the engagement of some of the grippers while continuing the engagement of the remainder of the grippers, means for applying fastenings at the released points before the remainder of the grippers release their engagement with the upper.

5. A lasting machine, having, in combination, straining means to engage the upper, independent straining means to engage the lining, means for actuating the straining means to strain the upper and the lining, means for applying fastenings to hold the upper and lining in lasted condition, means for releasing the engagement of the straining means acting upon the upper before the fastenings are applied and means for releasing the engagement of the straining means acting upon the lining after the fastenings are applied.

1,077,412. NUT-LOCK. BEN LACKEY, Meridian, Miss. Filed Apr. 18, 1912. Serial No. 691,598. (Cl. 151—65.)

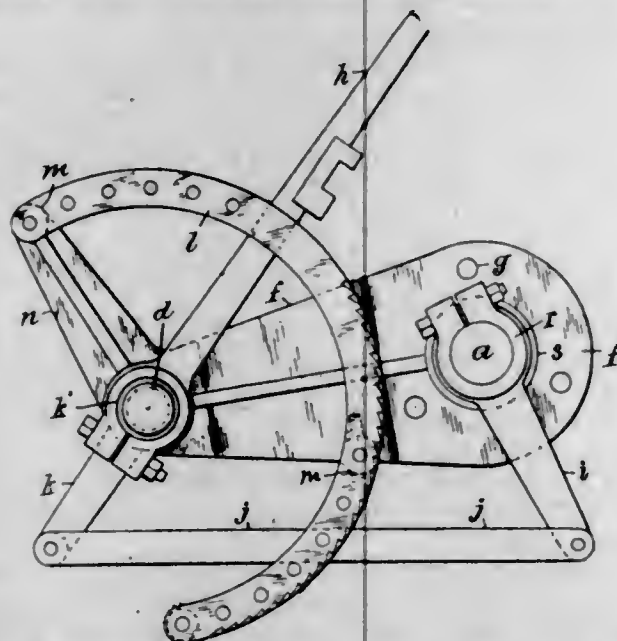


1. The combination with a fish plate having a plurality of aligned bolt receiving apertures, of a bar pivoted at one end to the plate and movable into parallel spaced relation to the line of the apertures, a pin extending from the fish plate in position to support the bar, a casing secured to the lower face of the bar, a spring pressed bolt slidable in said casing and adapted in extended position to engage beneath the pin and lock the bar thereto, and key operable means for retracting said bolt.
2. The combination with a fish plate having a plurality of aligned bolt receiving apertures, of a bar pivoted at one end to the fish plate and movable into parallel spaced relation to the line of the apertures, the free end of the bar being cut-away transversely to provide a seat, a pin extending from the fish plate in position to engage in said seat when the bar is in locking position and hold the latter against further downward movement, said pin being cut-away to receive the bar and to provide a terminal shoulder engaging the outer face of the bar to hold the same against outward swinging movement, a casing secured to the bar, and a spring pressed normally extended bolt movable in the casing and adapted to engage beneath the pin to lock the bar against upward awing movement.

1,077,413. CLUTCH-OPERATING MECHANISM. ASHER LAMBERT, Newark, N. J. Filed Sept. 11, 1911. Serial No. 648,763. (Cl. 192—1.)

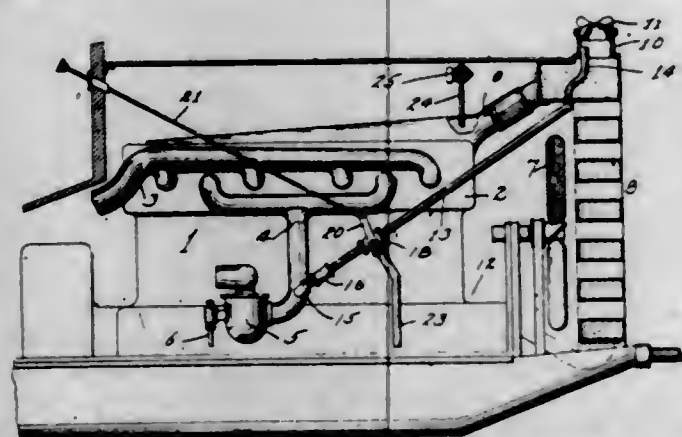
1. In a bolster having a claw with a thrust-screw threaded therein, the combination, with such claw, of a

bracket bolted detachably upon the outer end of the claw and projected laterally therefrom, and the said claw having a bearing for the head of the screw outside of the thread in the claw, a pivot upon the bracket and a hand-lever mounted upon such pivot, crank-arms attached to the hand-lever and to the screw outside of the bearing in the bracket, and a link connecting such crank-arms and operating to turn the screw-head in its bearing.



2. In a bolster having a claw, the combination, with a claw having a screw-thread therein, of a bracket bolted upon the outer end of the claw and projected laterally therefrom and having a bearing outside of the thread in the claw, a thrust-screw threaded in the claw and having a head fitted to the bearing in the bracket and projected outwardly therefrom, a pivot upon the bracket, a hub rotatable upon the pivot having the same size as the head of the screw, a hand-lever mounted detachably upon such hub, crank-arms attached to the hand-lever and the screw, and a link connecting such crank-arms, whereby the bracket and parts thereon form a removable attachment to the claw, and the hand-lever may be transferred from the screw-head to the hub on the pivot when such attachment is applied to the claw.

1,077,414. COOLING DEVICE FOR AN ENGINE. GEORGE W. MARSH, Oakland, Cal. Filed Jan. 6, 1913. Serial No. 740,511. (Cl. 123-25.)

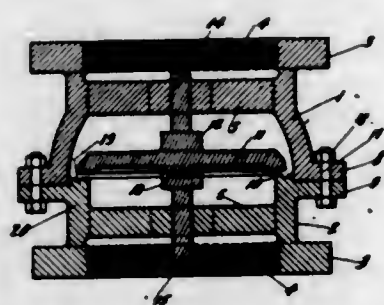


1. In a cooling system for an automobile, the combination with a water jacket and a cylinder of a gas engine, a radiator positioned contiguous to said water jacket, a conduit forming a communication between said water jacket and radiator, a carburetor provided with an inlet leading into said cylinder a tube provided with a check valve, said tube also provided with a valve casing, a three-way valve mounted in said casing, an exhaust member carried by said casing and depending therefrom, said exhaust communicating with said three-way valve for allowing the vapor from said radiator to be exhausted when so desired, manually operating means connected to said three-

way valve for operating the same, the vapor in said radiator adapted to pass through said tube, valves, and inlet so as to enter the cylinder.

2. In a cooling system for an automobile, the combination with a water jacket and a cylinder of a gas engine, a radiator positioned adjacent said water jacket, a conduit forming a communication between said water jacket and radiator, a carburetor provided with an inlet leading into said cylinder, a tube provided with a check valve and a manually operable valve constituting a passage between said radiator and said inlet, said manually adjustable valve provided with an exhaust for discharging the vapor from said radiator, a stem extending from said manually operable valve, and an operating rod connected to said stem for operating said valve.

1,077,415. CHECK-VALVE. HARRY W. MASSEY, Bessemer, Ala. Filed Sept. 9, 1911. Serial No. 648,522. (Cl. 137-32.)



1. In a check valve-fitting, in combination, a sectional casing having as an integral part thereof an internally offset shoulder which has its upper face machined to form a flat valve seat and a surrounding annular groove, said shoulder comprising additional stock which can be cut away to lower the seat and groove without weakening the valve casing, a disk shaped check valve which is peripherally enlarged to form a flat valve face which overhangs said groove and has additional stock which can be cut away to lower the valve face without weakening the valve, and means to guide said valve on both sides of its face, substantially as described.

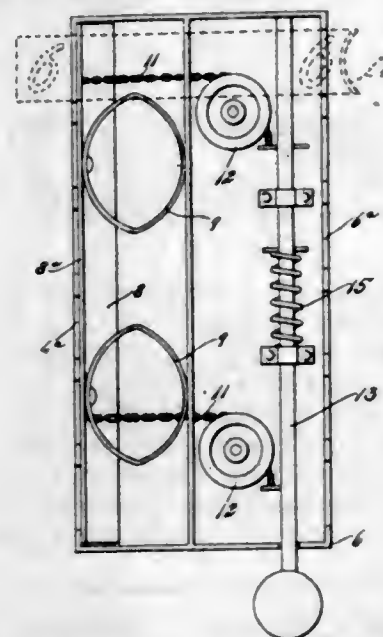
2. A check valve-fitting comprising a casing divided into sections on a transverse intermediate plane, each section having a guide for the check valve, and one section having an integral enlargement forming a valve seat which is purposely given extra size to permit it to be machined down without weakening it or the casing section, the exposed end face of said seat being machined to form a raised flat valve seat surrounded by a channel or groove, means to detachably connect the casing sections together, a check valve mounted on said casing and having guide stems which work in said guides, said valve having its periphery purposely thickened to give additional stock for its valve face which can be machined down without weakening the valve, and said valve having a flat valve face adapted to engage said raised valve seat and overhang said channel or groove.

3. A check valve-fitting comprising two casing sections, means to connect said sections, a spider in each section having central aligning openings, a disk disposed between said spiders and having a raised flat valve face and centrally disposed guide stems which work in said spider openings, and a seat for the valve carried by one of the sections and formed by an annular integral shoulder which makes a close turning fit in the other casing section to center the sections, said seat being formed of additional stock which is removable without weakening the casing and having about its inner marginal edge a flat surface forming a valve seat which is raised so that the outer edge of the face of the valve is free of engagement with the seat, when the valve is seated.

4. A check valve-fitting comprising two casing sections having machined annular flanges which engage, means to detachably connect said flanges, a spider in each section having central aligning openings, a disk valve disposed between said spiders and having centrally disposed guide stems which work in said spider openings, and a seat for

the valve carried by one of the sections and formed by an annular shoulder which rises above the machined surface of the flange on its respective casing section and has its outer side wall turned to make a close turning fit in the other casing section to center the sections, said seat being formed of additional stock which is removable without weakening the casing and having a flat surface off-set so the outer edge of the face of the valve when seated is free of engagement with the seat.

1,077,416. ELEVATOR-INDICATOR. THOMAS S. MAXWELL, Cleveland, Ohio. Filed July 11, 1913. Serial No. 778,484. (Cl. 40-65.)

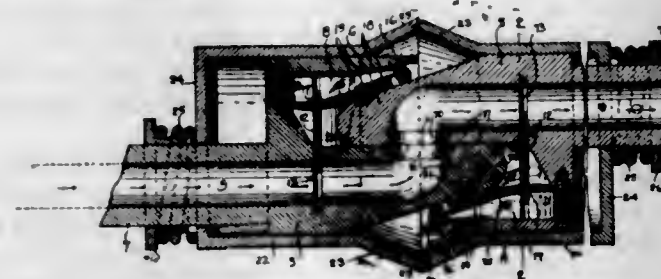


1. An indicator comprising a casing, a plurality of slides provided with indicating marks at opposite ends and movable across the casing to advance either end beyond the casing, and means to return the slides after they are advanced in one direction.

2. An indicator comprising a casing, a plurality of slides mounted therein and provided at opposite ends with indicating marks, said slides being movable individually to advance one end thereof beyond the casing, and means to simultaneously retract all of the slides.

3. An indicator comprising a casing, slides movable across the same and having indicating marks at opposite ends and also having projecting pins, a spring pressed bar engageable with the pins when the slides are advanced in one direction, and means to shift the bar to retract all of the slides so advanced.

1,077,417. PIPE-COUPLING. JOHN T. MCCrackEN, Bradford, Ky. Filed Sept. 30, 1912. Serial No. 723,150. (Cl. 188-13.)



1. In a coupling of the character set forth, the combination with coacting coupling members, each having a nose that extends alongside the other, said members having longitudinal passages that open through the coacting faces of the noses, a slide valve movable across the passage of each member and operating transversely of such member, and a valve actuating device disposed longitudinally of each member and having its outer end pivoted thereto in spaced relation to the nose thereof, the rear end of each actuating device being connected to the slide valve, the

nose of each member entering the space between the actuating device and the nose of the other member and effecting the operation of the former.

2. In a coupling of the character set forth, the combination with coacting coupling members, each having a nose that extends alongside the other, said members having longitudinal passages that open through the coacting faces of the noses, a slide valve movable across the passage of each member and operating transversely of such member, a valve actuating device disposed longitudinally of each member and movable toward and from the nose thereof, the rear end of each actuating device being connected to the slide valve, the nose of each member entering the space between the actuating device and the nose of the other member and effecting the operation of the former, and a spring bearing against each valve actuating device for urging it toward the nose.

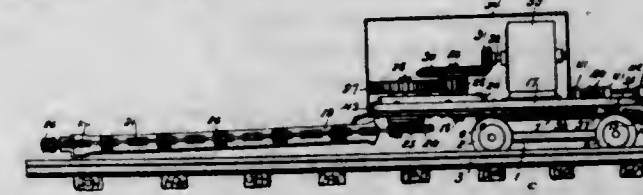
3. In a coupling of the character set forth, the combination with coacting coupling members, each having a nose that extends alongside the other, said members having longitudinal passages that open through the coacting faces of the noses, a slide valve movable across the passage of each member and operating transversely of such member, a valve actuating device disposed longitudinally of each member and movable toward and from the nose thereof, the rear end of each actuating device being connected to the slide valve, the nose of each member entering the space between the actuating device and the nose of the other member and effecting the operation of the former, and a spring bearing against each valve actuating device for urging it toward the nose, the valve actuating device of one member and the nose of the other having interlocking engagements to hold the members against separation.

4. In a coupling of the character set forth, the combination with coacting coupling members, each having a nose that extends alongside the other, said members having passages therethrough that open and communicate through the opposing faces of the noses, a valve in each member controlling the passage therethrough, and valve actuating means for the valve of each member operated by the nose of the other member and bearing against the outer side of such nose, said means serving to urge the opposing faces of said noses toward each other.

5. In a coupling of the character set forth, the combination with coacting coupling members, each having a nose that extends alongside the other, said members having passages therethrough that open and communicate through the opposing faces of the noses, a valve in each member controlling the passage therethrough, and valve actuating means for the valve of each member operated by the nose of the other member and bearing against the outer side of such nose, said means serving to urge the opposing faces of said noses toward each other, and said actuating means furthermore interlocking with the noses to secure the members against separation.

[Claim 6 not printed in the Gazette.]

1,077,418. MINING MACHINE. EDWARD MCGOWAN, Mulberry, Kans. Filed June 14, 1912. Serial No. 703,683. (Cl. 125-14.)



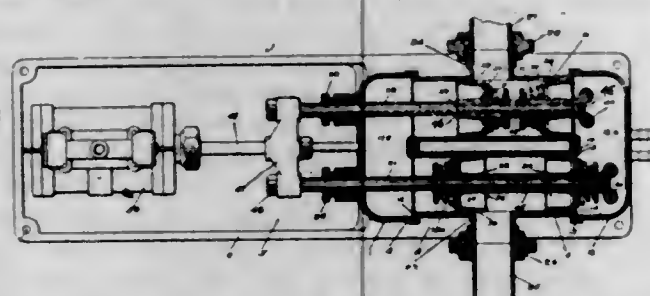
1. In a mining machine, carrying means adapted to be freely moved forward during the operation of the machine, cutting means adapted to cut a kerf in the wall of a mine, and supporting means pivoted to the carrying means and carrying the cutting means and having a guard adapted to travel along and bear against the wall of a mine, the bearing surface of said guard being an arc the center of which is the axis on which the supporting means swings.

2. In a mining machine, a track, a wheeled truck adapted to run on said track and to be moved freely forward

during the cutting operation, cutting means adapted to cut a kerf in a wall of a mine, and supporting means carrying the cutting means and pivotally mounted on the truck and having a guard adapted to travel along and bear against the wall during the cutting operation, the guard having an arcuate bearing surface the center of which is the axis of said supporting means.

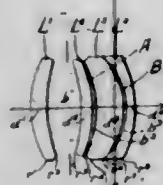
3. In a mining machine, pivotally mounted supporting means having an arcuate guard adapted to travel along and bear against the wall of a mine during the cutting operation, the bearing surface of the guard being an arc the center of which is the axis of the supporting means, and cutting means carried by the supporting means and in operation being adapted to force the guard toward the work and against the wall.

1,077,419. PUMP. FOSTER M. METCALF, Battle Creek, Mich. Filed Feb. 18, 1913. Serial No. 749,131. (Cl. 103—83.)



A pump comprising companion communicating cylinders, each cylinder having a nipple, piston rods working in the cylinders, valved piston heads on one of the rods with outwardly opening valves, valved piston heads on the other piston rod with inwardly opening valves; each piston head consisting of a central tube adapted to be secured to the piston rod, a cylindrical body adapted to slide against the cylinder wall, a perforated end wall connecting said cylindrical body and tube, a sleeve projecting outwardly of the end wall, a valve collar seatable on the end wall and slidable on the sleeve, a coiled spring bearing against the valve collar to hold the same seated, and a stop collar for holding the spring in place.

1,077,420. PHOTOGRAPHIC OBJECTIVE. CHARLES CLAYTON MINOR, Chicago, Ill. assignor of one-eighth to Wirt F. Smith and one-fourth to Charles L. Jenness, Chicago, Ill. Filed May 26, 1910. Serial No. 563,595. (Cl. 88—57.)



1. A spherically, chromatically and astigmatically corrected photographic doublet, one of the components of which comprises a plurality of lenses separated by air spaces of plus meniscus form curved in the same direction.

2. A spherically, chromatically and astigmatically corrected photographic doublet, one of the components of which comprises a plurality of lenses separated by air spaces, curved in the same direction and of like sign, one of said air spaces serving to correct spherical and chromatic aberration, and another of said air spaces serving to eliminate astigmatism and curvature of field.

3. A spherically and chromatically corrected photographic objective, having a large and flattened field, freed from coma and astigmatism, consisting of a plurality of lenses located on one side of the diaphragm, having between them air spaces of plus meniscus form, and a lens of plus meniscus form on the other side of the diaphragm.

4. In an unsymmetrical photographic objective for widely varying apertures, in combination, a lens of plus meniscus form on one side of the diaphragm, and a plu-

rality of lenses on the other side of the diaphragm, said last mentioned lenses having between them consecutive air spaces of plus meniscus form.

5. In an unsymmetrical photographic objective for high apertures, in combination, a lens of plus meniscus form on one side of the diaphragm, and a plurality of lenses on the other side of the diaphragm, said last mentioned lenses having between them consecutive air spaces of plus meniscus form, and a lens of plus meniscus form placed at the end of either combination.

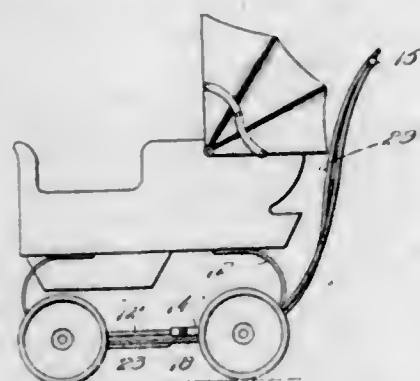
[Claims 6 to 11 not printed in the Gazette.]

1,077,421. COFFIN. WILLIAM F. MOORE, Charlotte, N. C. Filed Oct. 31, 1912. Serial No. 728,949. (Cl. 27—16.)



The combination with a longitudinally extensible coffin and a longitudinally extensible lid, of a lining for the coffin, a lining for the lid, a covering for the coffin and a covering for the lid; the coverings and the linings being secured at their ends and along their sides to the coffin and to the lid respectively, and being provided in their intermediate portions only with continuous transverse folds permitting an elongation of the coverings and the linings in the direction of the length of the coffin only.

1,077,422. BABY-CARRIAGE. FREDERICK LEWIS MORING, JR., Forreston, Ill. Filed May 7, 1913. Serial No. 768,045. (Cl. 21—12.)



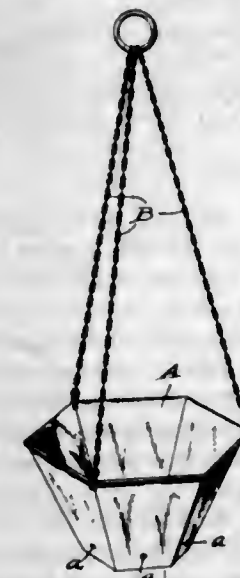
1. In a baby carriage, a frame consisting of a front axle, a rear axle, stub axles pivoted to the front axle, a lever pivoted to the front axle and extending rearward beyond the rear axle, a cross bar secured to the lever, links connecting the cross bar with the respective stub axles, and a lever pivoted to the rear axle and being connected with the rear end of the first said lever and adapted to be shifted laterally and to coact with the first said lever and with the cross beam and links for swinging the stub axles on their pivots.

2. In combination with the running gear of a vehicle having a rear axle and having a pair of pivotally mounted stub axles forwardly thereof, a lever pivotally mounted on the running gear and extending rearwardly, a cross beam pivotally mounted on the lever and having links connecting its ends with said stub axles, a U-shaped spring element having its middle portion secured to the lever and having its ends connected to the cross beam, and means pivoted on the first said axle and engaged with said lever whereby the latter may be swung on its pivot.

3. The combination in a baby carriage, of a rear axle, a forwardly disposed beam having stub axles pivoted thereto, brace members connecting the rear axle with said beam, a lever pivoted to said beam and extending rearwardly of said rear axle, a bar extending across said lever and having its middle portion secured thereto, links con-

necting the respective ends of the bar with the stub axles, a combined brace and spring element having its ends connected to said bar and having its middle portion connected to the said lever, a second lever pivoted to the rear axle and engaged with the rear end of the first said lever, and a handle extending into contiguity with the second said lever and having means thereon for engaging the latter for holding it in its normal position.

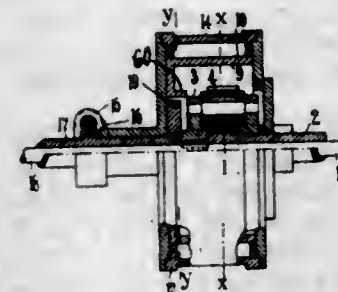
1,077,423. PLANT-HOLDER. ALLEN S. MYERS, Altoona, Pa. Filed Apr. 16, 1913. Serial No. 761,445. (Cl. 47—23.)



1. A plant holder, comprising a soil receptacle having perforations in its sides an appreciable distance above the bottom thereof to permit the overflow of water and to prevent the rise of water above them, and a removable false bottom provided with holes to freely permit the passage of water through it and which is supported in the receptacle above the overflow openings therein and above any possible water level in such receptacle.

2. A plant holder, comprising a soil receptacle having perforations in its sides an appreciable distance above the bottom thereof to permit the overflow of water and to prevent the rise of water above them, a removable false bottom or partition having holes through it to permit the free passage of water and standards attached to the middle portion of the partition which support it in the receptacle above the overflow perforations and above any possible water level in such receptacle.

1,077,424. VARIABLE-SPEED GEAR. JAMES JOSEPH MYERS, Thurles, Ireland. Filed Apr. 29, 1911. Serial No. 624,049. (Cl. 74—53.)



1. In a variable speed gearing for converting a motion with rotation at constant speed in one direction into a motion of rotation at variable speed in the same or reversed direction by the use of a planet gearing; the combination of a central sun gear wheel mounted upon a sleeve, a spider mounted upon a central shaft carrying said sleeve, a plurality of planet pinions mounted on said spider adapted to rotate freely in one direction and to engage said central sun gear wheel, lever arms adapted to control the rotation of said pinions through one-way clutches, freely revolvable rollers mounted at the free ends of said lever arms, a rotating cam having an eccentric roller

track encircling and in engagement with said rollers and adapted to swing backward and forward said lever arms, a circular shoulder projecting from said eccentric track, secondary rollers at the ends of said levers bearing against said circular shoulder and means for adjusting the eccentricity of said roller track to vary through said lever arms the rotation in one direction of said pinions on their axes.

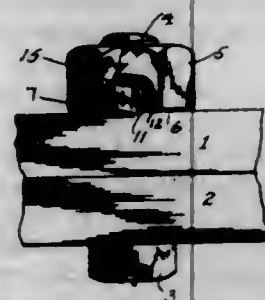
2. In a variable speed gearing for converting a motion with rotation at constant speed in one direction into a motion of rotation at variable speed in the same or reversed direction by the use of a planet gearing; the combination of a central sun gear wheel mounted upon a sleeve, a spider mounted upon a central shaft carrying said sleeve, a plurality of planet pinions mounted on said spider adapted to rotate freely in one direction and to engage said central sun gear wheel, lever arms adapted to control the rotation of said pinions, a balanced rotating cam having an eccentric groove encircling and in engagement with and adapted to swing backward and forward said lever arms, means for adjusting the eccentricity of said eccentric groove to vary through said lever arms the rotation in one direction of said pinions on their axes, a wheel loose on said central shaft, a double clutch slidably connected with said central gear wheel and adapted to couple said central gear wheel with said loose wheel or to part of the frame, a similar clutch on the other side of said loose wheel slidably connected with said spider and adapted to clutch said spider with said loose wheel or to the frame.

3. In a variable speed gearing for converting a motion with rotation at constant speed in one direction into a motion of rotation at variable speed in the same or reversed direction by the use of a planet gearing; the combination of a central sun gear wheel mounted upon a sleeve, a spider mounted upon a central shaft carrying said sleeve, a plurality of planet pinions mounted on said spider adapted to rotate freely in one direction and to engage said central sun gear wheel, lever arms adapted to control the rotation of said pinions, a balanced rotating cam having an eccentric groove encircling and in engagement with and adapted to swing backward and forward said lever arms, means for adjusting the eccentricity of said eccentric groove to vary through said lever arms the rotation in one direction of said pinions on their axes, a wheel loose on said central shaft, a double clutch slidably connected with said central gear wheel and adapted to couple said central gear wheel with said loose wheel or to part of the frame, a similar clutch on the other side of said loose wheel slidably connected with said spider and adapted to clutch said spider with said loose wheel or to the frame, and lever mechanism adapted to move said clutches simultaneously so that when the clutch connected with said central gear wheel has been moved to a position in which said loose wheel is coupled to said central gear wheel the clutch connected with said spider is moved to a position in which said spider is coupled to the frame and vice versa.

4. In a variable speed gearing for converting a motion with rotation at constant speed in one direction into a motion of rotation at variable speed in the same or reversed direction by the use of a planet gearing; the combination of a central sun gear wheel mounted upon a sleeve holding a spider mounted upon a central shaft carrying said sleeve, a plurality of planet pinions mounted on spindles in said spider adapted to rotate freely in one direction and to engage said central sun gear wheel, lever arms mounted on said spindles and adapted to control the rotation of said pinions through one-way clutches, freely revolvable rollers mounted at the free ends of said lever arms, a rotating case wheel with a bearing surface eccentric with said sun gear wheel, a cam wheel mounted in said case wheel with a bearing surface engaging the bearing surface of said case wheel, a roller track in said cam wheel eccentric to its bearing surface encircling in engagement with said rollers and adapted to swing backward and forward said lever arms, means for adjusting the position of said cam wheel in said rotating case wheel to vary the rotation in one direction of said pinions on their axes, a wheel loose on said central shaft, a double

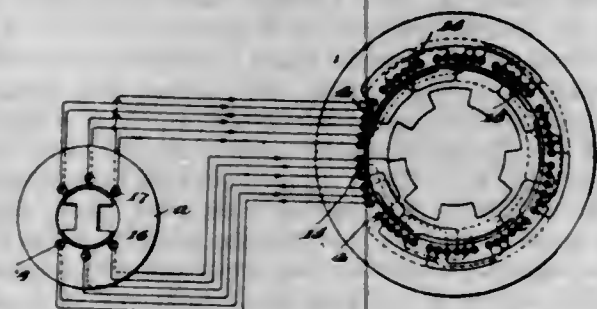
clutch slidably connected with said central gear wheel and adapted to couple the said gear wheel with said loose wheel or to a part of the frame, a similar clutch on the other side of said loose wheel slidably connected with said spider and adapted to clutch said spider with said loose wheel or to the frame and lever mechanism adapted to move said clutches simultaneously so that when the clutch connected with said central gear wheel has been moved to a position in which said loose wheel is coupled to said central gear wheel the clutch connected with said spider is moved to a position in which said spider is coupled to the frame and vice versa.

1,077,425. NUT-LOCK. WILLIAM S. OLD, Youngstown, Ohio. Filed Feb. 3, 1912. Serial No. 675,281. (Cl. 151-37.)



A nut-lock comprising a bolt and a nut; said nut being provided with a vertical recess with the upper corners thereof symmetrical, a reversible pawl adapted to fulcrum in either corner of said recess to impede rotation of the nut, yielding means inserted in said vertical recess to normally hold the pawl in yielding contact with an abutment.

1,077,426. DYNAMO-ELECTRIC MACHINERY. CHARLES ALGERNON PARSONS, GEORGE GERALD STONEY, and ALEXANDER HENRY LAW, Newcastle-upon-Tyne, England; said Stoney and Law assignors to said Parsons. Filed Mar. 14, 1910. Serial No. 549,267. (Cl. 172-237.)



1. Dynamo electric machinery comprising in combination a generator having an armature, a plurality of groups of windings each containing a small number of electro-motive force generating conductors on said armature, current utilizing devices, a plurality of groups of windings on said current utilizing devices, a plurality of connections leading current from each of said groups of conductors of said armature to said groups of windings on said current utilizing devices, return connections, one of each of said plurality of connections, one of said groups of conductors on said armature, one of said return connections and one of said groups of windings on said current utilizing devices being in series and forming a complete circuit, and said complete circuits being connected in series, as and for the purposes described.

2. Dynamo electric machinery comprising in combination, a generator having an armature, a plurality of groups of windings, each containing a small number of electro-motive force generating conductors on said armature, an electromotor, a plurality of groups of windings on said electro-motor, a plurality of connections leading current from each of said groups of conductors of said armature to said groups of windings on said electro-motor, return connections, one of each of said plurality of connections, one of said groups of conductors on said arma-

ture, one of said return conductors and one of said groups of windings on said electromotor being in series and forming a complete circuit, and said complete circuits being connected in series, as and for the purpose described.

1,077,427. RAILWAY-SWITCH. SAMUEL C. PERRY, London, Ky. Filed Mar. 16, 1912. Serial No. 684,274. (Cl. 104-77.)



1. In a switch, a pair of switch points, a transverse member secured to the switch points and provided with an elongated slot, a spring latch member pivoted in the slot, and a shifting locking bolt for cooperating with the latch member for locking the switch points open or closed.

2. In a switch, a pair of switch points, a transverse member secured to the switch points and provided with an elongated slot, a spring latch member pivoted in the slot, and a shifting locking bolt for cooperating with the latch member for locking the switch points open or closed, means actuated by a member on the car for shifting the locking bolt to permit the latch member to pass the same when the switch points are moved, and means adapted to be actuated by a member on the car for moving the switch points.

3. In a switch, a pair of switch points, a transverse member secured to the switch points and provided with an elongated slot, a spring latch member pivoted in the slot, and a shifting locking bolt for cooperating with the latch member for locking the switch points open or closed, and means for manually moving the transverse member for moving the switch points, said means including manually manipulated means for throwing the latch member from cooperation with the shifting locking bolt prior to moving the transverse member.

4. In a switch, a pair of switch points having a transverse member provided with a spring retained latch member, the latch member having a lug, a locking bolt having diagonally opposite recesses provided with beveled portions, the locking bolt having solid walls opposite the recesses against which the lug engages, for locking the transverse member and the switch points open or closed, means adapted to be actuated by a member on the car for shifting the locking bolt to bring one or the other of the recesses in registration with the lug of the latch, and means adapted to be actuated by a member on the car for throwing the transverse member so as to cause the lug of the latch member to enter one or the other of the recesses, so as to unlock the transverse member and the switch points.

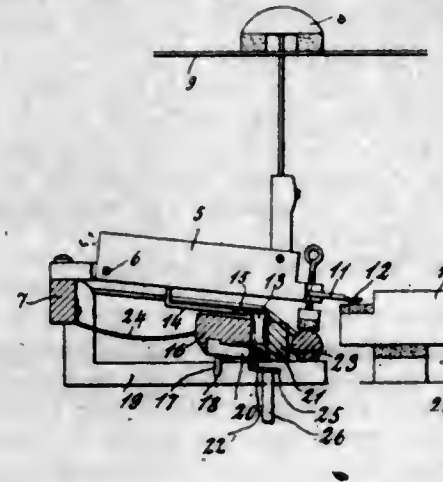
5. In a switch, a pair of switch points including a locking mechanism therefor, a guide rail, a switch unlocking bar pivoted on the guide rail and adapted to be oscillated by a member on a moving train, a guide for the free end of the switch unlocking bar, and connections between the switch unlocking bar and the locking mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,077,428. SOSTENUTO DEVICE FOR PIANOS. EMANUEL PETERSON, Wakefield, Mass. Filed Dec. 30, 1912. Serial No. 739,293. (Cl. 84-70.)

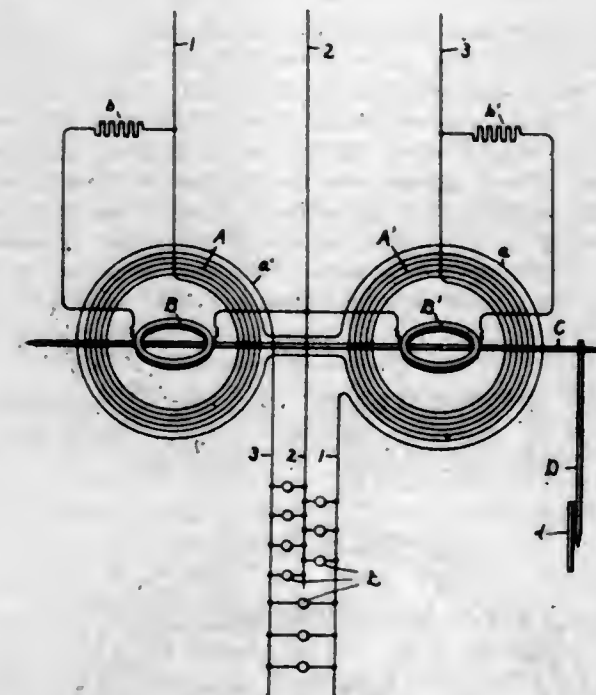
1. In a piano, the combination of a damper lever, a rod carried thereby, rocking and stationary rails, and a pivoted finger carried by the rocking rail and adapted to engage the rod to lock the damper lever, said finger being normally positioned between the rocking and stationary rails.

2. In a piano, the combination of a damper lever, a rod carried thereby, rocking and stationary rails, a flange carried by the rocking rail and projecting therefrom, and a finger pivoted to the projecting portion of the flange and adapted to engage the rod to lock the damper lever, said finger normally having one side in engagement with the rocking rail and its other side with the stationary rail.



3. In a piano, the combination of a damper lever, a rod carried thereby, a rocking rail, a pivoted finger carried by the rocking rail and adapted to engage the rod to lock the damper lever, and a stationary rail engageable by said finger for holding the same in alignment.

1,077,429. ELECTRICAL MEASURING INSTRUMENT. WILLIAM H. PRATT, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 14, 1911. Serial No. 643,843. (Cl. 171-95.)



1. In an electrical measuring instrument, two elements, each comprising a stationary and a movable winding, a mechanical connection between the movable windings, and auxiliary windings in inductive relation to one of the windings of each element and arranged to neutralize the effect upon said last mentioned winding of the leakage flux of the other winding of the other element respectively.

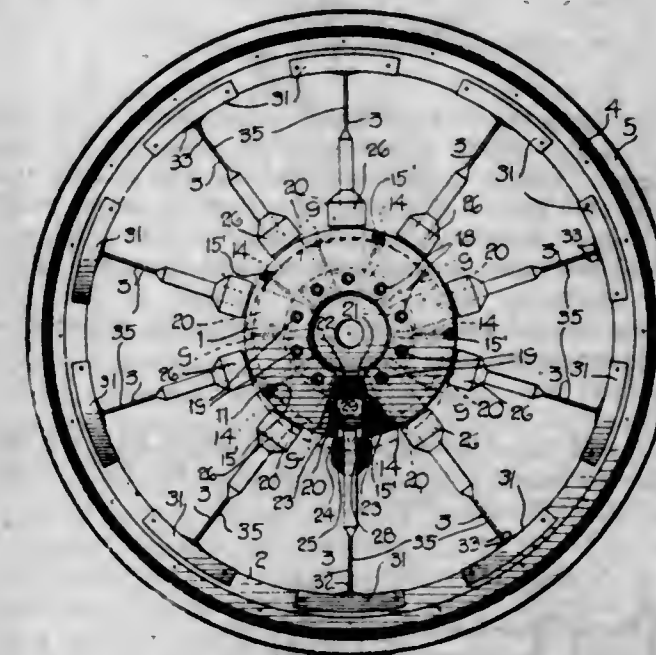
2. In an electrical measuring instrument, two elements, each comprising a movable member and a stationary actuating winding therefor, a mechanical connection between said movable members, and auxiliary windings, each in circuit with the stationary winding of one element and neutralizing the effect of its leakage flux on the movable member of the other element.

3. In an electrical measuring instrument for multicircuit systems, two elements, each comprising a movable member and a stationary actuating winding therefor, a mechanical connection between the movable members, said windings being connected in different circuits, and aux-

iliary windings of few turns compared to said actuating windings each in inductive relation to the movable member of one of said elements and connected in series with the actuating winding of the other element.

4. In an electrical measuring instrument, two elements, each comprising a stationary and a movable member, a mechanical connection between said movable members, an actuating winding and an auxiliary winding being comprised in one member of each element, the auxiliary winding having few ampere turns compared to the actuating winding, and the auxiliary winding of one element being connected in circuit with the actuating winding of the other element and acting to neutralize the effect of its leakage flux on the first element.

1,077,430. RESILIENT WHEEL. MADISON B. RAY and EDWARD K. HENDERSON, Nederland, Colo. Filed June 25, 1913. Serial No. 775,747. (Cl. 152-48.)



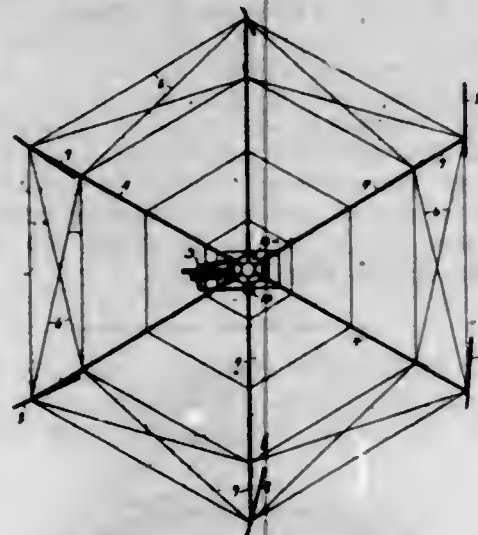
1. A resilient wheel including a hub, radially extending cylinders pivotally connected to said hub, a rim, keepers secured at intervals to said rim, said keepers being provided with centrally arranged openings, downwardly projecting opposed brace members formed integral with said keepers and arranged upon opposite sides of the opening, spokes, the outer portions of said spokes being flattened for engagement by the brace members, a circular threaded extension formed on said spokes and disposed within said openings, and pistons connected to the other ends of said spokes for reciprocation within said cylinders, as and for the purpose specified.

2. A wheel comprising a hub, a rim, side plates extending outwardly from said hub, radially projecting cylinders pivotally connected to the hub between said plates, said plates being formed with inwardly extending flanges and said cylinders being disposed between said flanges, cushioning blocks arranged between the cylinders and flanges, keepers secured at intervals to said rim, said keepers being provided with centrally arranged openings, downwardly projecting opposed brace members formed integral with said keepers and arranged upon opposite sides of the openings, spokes, the outer portions of said spokes being flattened for engagement by the brace members, a circular threaded extension formed on said spokes and disposed within said openings, and pistons connected to the other ends of said spokes for reciprocation within said cylinders.

1,077,431. IRRIGATOR AND SPRINKLER. AUSTIN E. RICHARDSON, West Palm Beach, Fla. Filed Oct. 18, 1912. Serial No. 726,452. (Cl. 137-66.)

1. An irrigator and sprinkler, comprising a rotatable upright hollow shaft, a water supply pipe coupled therewith, radial hollow arms coupled with said shaft provided with a plurality of sprinkling ports, wind vanes car-

ried on said arms to rotate the shaft and arms, a pump for forcing water through said shaft and arms, and connecting means between said rotatable shaft and pump for operating the pump.



2. An irrigator and sprinkler, comprising a rotatable upright hollow shaft, a water supply pipe coupled therewith, radial hollow arms coupled at one end to said shaft and provided with a plurality of sprinkling ports, rectangular frames carried on the outer ends of said arms, wind vanes eccentrically pivoted on the outer members of said frames, shiftable stops pivotally carried on the inner members thereof adapted to be adjusted to intercept or escape said vanes.

1,077,432. ADJUSTABLE GUIDE-PLATE GUARD.
PAUL RIEBE, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,344. (Cl. 101-38.)



1. In a feed guide for printing presses, the combination of a guide plate, an open loop shape guard having a fixed portion secured against the upper portion of the guide plate and an adjustable free portion associated with the lower end of said guide plate, and an adjusting means disposed within said loop shape guard and attached at its respective ends to said guard to provide a self-contained structure.

2. In a feed guide for printing presses, the combination of a guide plate, an open loop shape guard associated with said plate, and means disposed within said loop shape guard for varying the size thereof, the same comprising an upright screw-threaded shaft, and nuts associated with said shaft and with the upper and lower portions of said loop shaped guard.

3. In a feed guide for printing presses, the combination of a guide plate, an open loop shape guard associated with said plate, and means disposed within said loop shape guard for varying the size thereof, the same comprising an upright screw-threaded shaft, and nuts associated with said shaft and with the upper and lower portions of said loop shaped guard, said guard having an elongated slot at the top for the passage and longitudinal adjustment of the upper end of the aforesaid shaft.

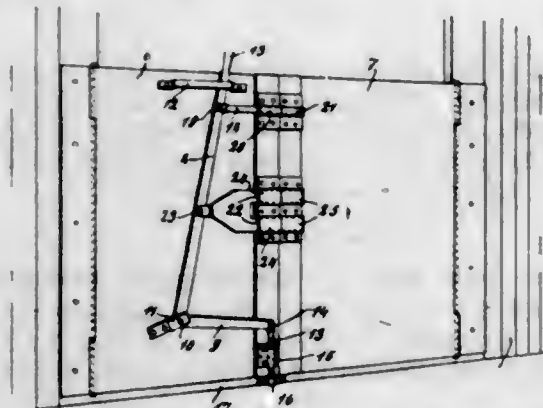
4. In a feed guide for printing presses, the combination of a guide plate, an open loop shape guard associated with said plate, and means disposed within said loop shape guard for varying the size thereof, the same comprising an upright right and left hand screw-threaded shaft, a nut secured to the lower free portion of said guard and having engagement with the lower portion of said shaft, a nut bearing beneath the upper portion of

said guard and having engagement with the upper portion of said shaft, and a clamping nut engaging said shaft outside the guard aforesaid.

5. In a feed guide for printing presses, the combination of a guide plate, an open loop shape guard associated with said plate, and means disposed within said loop shape guard for varying the size thereof, the same comprising an upright right and left hand screw-threaded shaft, a nut secured to the lower free portion of said guard and having engagement with the lower portion of said shaft, a nut bearing beneath the upper portion of said shaft, a nut bearing beneath the upper portion of said guard and having engagement with the upper portion of said shaft, and a clamping nut engaging said shaft outside the guard aforesaid, said guard having an elongated slot at the top for the passage and longitudinal adjustment of the aforesaid shaft.

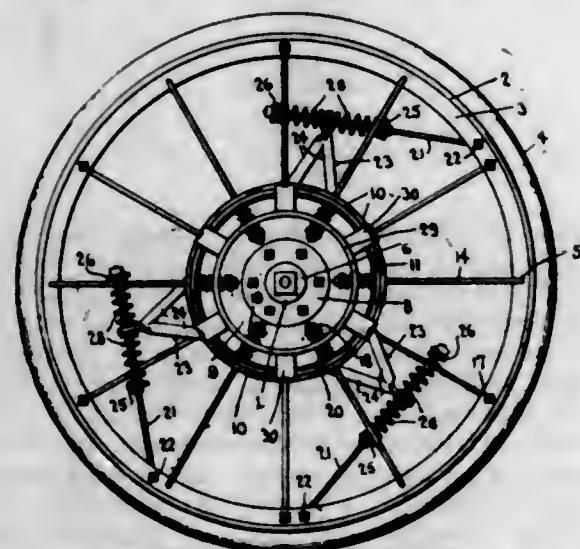
[Claim 6 not printed in the Gazette.]

1,077,433. DOOR-FASTENER. MICHAEL SCHLIS, Bayfield, Wis. Filed Jan. 15, 1913. Serial No. 742,232. (Cl. 16-63.)



The combination with a door, of an angle lever pivoted at its angle to one side of said door near the bottom thereof to swing parallel to the face of the door, one branch of the lever extending in the direction of the top of the door and having thereat a hand grip, a guide on the door, a bolt pivoted to the aforesaid branch of the lever and working in the guide, a keeper for the bolt, a bolt pivoted to the other branch of the lever, a guide on the door for the last-mentioned bolt, and a keeper for said bolt, the aforesaid bolts working at right angles to each other.

1,077,434. SPRING-WHEEL. ARTHUR D. SEIBERT and BURTON R. ANDREWS, Pendleton, Oreg. Filed Apr. 14, 1913. Serial No. 761,019. (Cl. 152-28.)



1. In a spring wheel, a rim, a hub comprising a box, a spoke receiving plate secured to said box, series of oppositely projecting spoke receiving lugs formed on said plate, bracing bands secured to said lugs, said bands and lugs having therein spoke receiving apertures, a series of radially arranged spokes secured at their outer ends to said rim and having a loose sliding engagement at their inner

ends with the apertures in said lugs and bands, stops arranged on the inner ends of said spokes, and coiled springs arranged between said stops and the inner side of said bracing bands.

2. In a spring wheel, a rim, a hub comprising a box, a spoke receiving plate secured thereto and having on its outer edge a series of oppositely projecting spoke receiving lugs, bracing bands secured to said lugs, said bands and lugs having therein spoke receiving apertures, thimbles secured in said apertures, a series of spokes having a loose sliding engagement at their inner ends with said thimbles, right angularly projecting tapered studs formed on the outer ends of said spokes and having threaded ends, said tapered studs being inserted through said rim, clamping nuts engaged with the threaded ends of said studs, stops arranged on the inner ends of said spokes and springs arranged on said inner ends of the spokes between said stops and said bracing bands.

3. In a spring wheel, a rim, a hub comprising a box, a spoke receiving plate secured to said box, spoke receiving lugs formed on the outer edge of said plate and projecting at right angles and in opposite directions, bracing bands secured to said lugs, said bands and lugs having therein spoke receiving apertures, spokes secured at their outer ends in said rim and having their inner ends loosely and yieldingly secured in said apertured lugs and bracing bands, and resilient driving connections between said hub and the rim of the wheel.

4. In a spring wheel, a rim, a hub comprising a box, a spoke receiving plate secured to said box, spoke receiving lugs formed on the outer edge of said plate and projecting at right angles and in opposite directions, bracing bands secured to said lugs, said bands and lugs having therein spoke receiving apertures, spokes secured at their outer ends in said rim and having their inner ends loosely and yieldingly secured in said apertured lugs and bracing bands, resilient driving connections arranged between the hub and rim of the wheel and comprising levers secured to and projecting radially from the spoke receiving plate of the hub, said levers having apertured outer ends, driving rods secured at their outer ends to the rim of the wheel and having a sliding engagement with the apertured outer ends of said levers, stops arranged on said driving rods on opposite sides of said levers, and coiled springs arranged between the opposite sides of the levers and said stops.

5. In a spring wheel, a rim, a hub comprising a box, a spoke receiving plate secured to said box, spoke receiving lugs formed on the outer edge of said plate and projecting at right angles and in opposite directions, bracing bands secured to said lugs, said bands and lugs having therein spoke receiving apertures, spokes secured at their outer ends in said rim and having their ends loosely and yieldingly secured in said apertured lugs and bracing bands, and a friction band secured to one of said bracing bands.

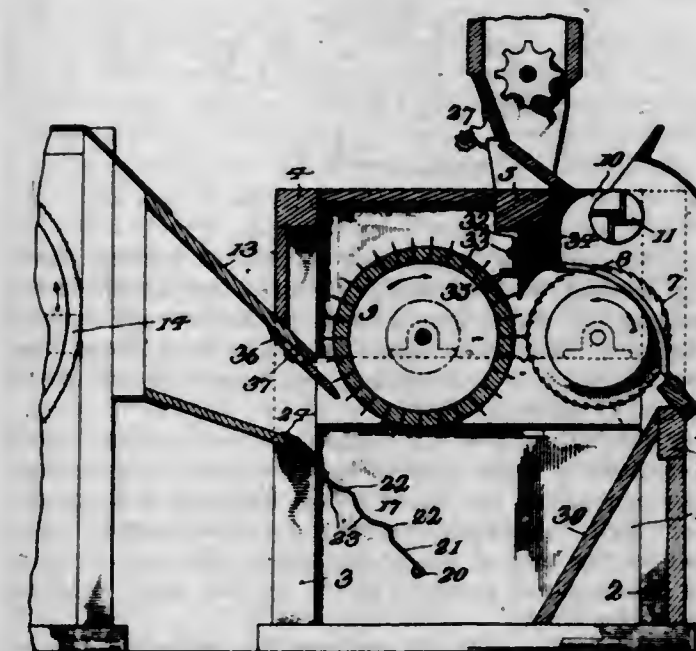
[Claim 6 not printed in the Gazette.]

1,077,435. COTTON-SEED LINTER. HUGH E. SESSIONS, Columbia, S. C. Filed June 27, 1912. Serial No. 706,250. (Cl. 13-9.)

1. In a cotton seed linter, the combination with a casing forming a substantially closed chamber, of a saw cylinder, a brush cylinder adapted to discharge lint downwardly from said saw cylinder into said chamber, a flue for the lint leading from said casing on the side next to said brush cylinder, a mote board widely separated from said brush cylinder extending inwardly and downwardly at an angle of approximately forty-five degrees from said flue to a point above the floor leaving an inlet for air beneath its edge, and a rear wall for said chamber on the side next to said saw cylinder extending inwardly and downwardly to the floor of the chamber at an angle.

2. In a cotton seed linter, the combination with a casing forming a substantially closed chamber, of a saw cylinder, a brush cylinder adapted to discharge lint downwardly from said saw cylinder into said chamber, a flue for the lint leading from said casing on the side next to said brush cylinder, a mote board widely separated from said brush cylinder extending inwardly and downwardly

at an angle of approximately forty-five degrees from said flue to a point above the floor leaving an inlet for air beneath its edge, and a rear wall for said chamber on the side next to said saw cylinder extending inwardly and downwardly to the floor of the chamber at an angle and adjustable means for regulating the passage of air down between said brush and saw cylinders into said chamber.



3. In a cotton seed linter, the combination with a casing forming a substantially closed chamber, of a saw cylinder, a brush cylinder adapted to discharge lint downwardly from said saw cylinder into said chamber, a flue for the lint leading from said casing on the side next to said brush cylinder, a mote board having horizontal ridges on its upper surface widely separated from said brush cylinder extending inwardly and downwardly at an angle of approximately forty-five degrees from said flue to a point above the floor leaving an inlet for air beneath its edge and a rear wall for said chamber on the side next to said saw cylinder extending inwardly and downwardly to the floor of the chamber at an angle.

4. In a device of the class described, the combination with a saw cylinder, of a brush cylinder adapted to discharge lint downwardly, a mote board widely separated therefrom arranged at an angle of about forty-five degrees, and a casing forming an unobstructed chamber to receive the downwardly directed lint so constructed as to admit air below said mote board but prevent side drafts up to the peripheral line of said saw cylinder, the said mote board having transverse separated ribs on its upper surface.

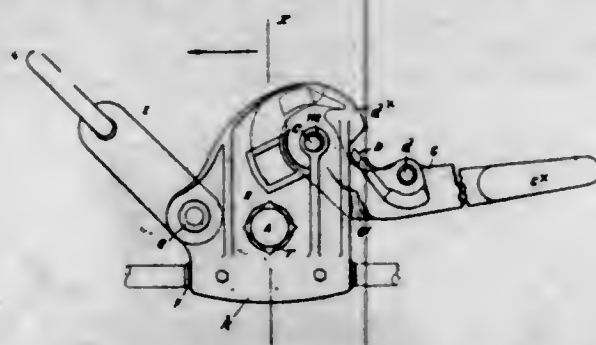
5. In a device of the class described, the combination with a saw cylinder, of a brush cylinder adapted to discharge lint downwardly, a mote board widely separated therefrom arranged at an angle of about forty-five degrees, and a casing forming an unobstructed chamber to receive the downwardly directed lint so constructed as to admit air below said mote board but prevent side drafts up to the peripheral line of said saw cylinder, the said mote board having transverse separated ribs on its upper surface with concave depressions between them and a flat smooth surface at the lower edge.

[Claims 6 to 11 not printed in the Gazette.]

1,077,436. HAULAGE-CLIP. JAMES W. SMALLMAN, Blackdown, near Leamington, England. Filed Aug. 14, 1911. Serial No. 643,997. (Cl. 104-130.)

1. A haulage clip comprising a pair of rocking shells which have inclines without stops, a central adjustable device for connecting the shells consisting of a bolt having a bearing surface of "ball" shape that matches a corresponding "cup" formed on the boss of one of the shells, the bolt screwing into a trunnion-nut mounted in the opposite shell, and a lever pivoted to act between the in-

clines, the lever being provided with stops extending laterally to bed against the fronts of the shells, substantially as described.

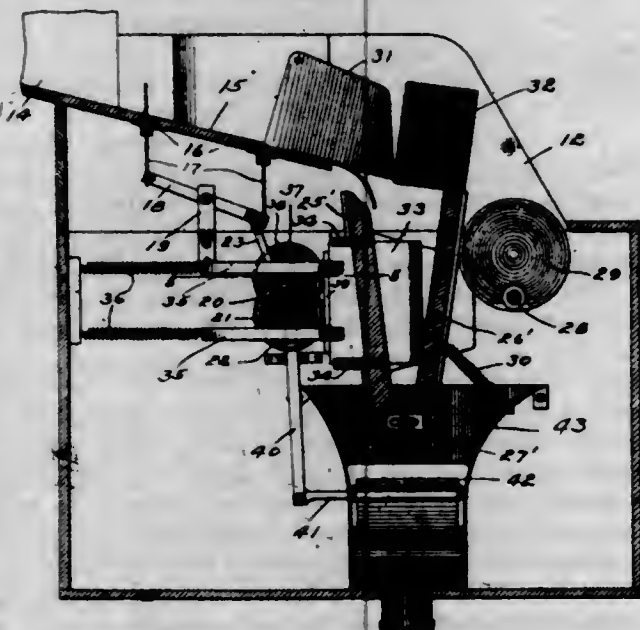


2. A haulage clip comprising a pair of rocking shells having inclines without stops, a central adjustable device connecting the shells and a lever pivoted to act between the inclines, the lever being provided with stops that extend laterally to bed against the fronts of the shells, substantially as described.

3. A haulage clip comprising a pair of rocking shells with inclines, a lever pivoted to act between the inclines, and for connecting the shells a bolt having a bearing surface of "ball" shape that matches a corresponding "cup" formed on the boss of one of the shells, the bolt screwing into a trunnion-nut mounted in the opposite shell, substantially as described.

4. In a haulage clip, the combination, with the rocking shells R and L which have inclines N and N', and the central bolt A that passes through a hole in one shell and screws into a trunnion-nut B mounted in the other shell, of the lever C pivoted on the trunnion-peg c to act between the inclines N and N' and provided with stops C' extending laterally to bed against the fronts of the shells R and L, substantially as set forth.

1,077,437. FRUIT-PRESS. JAMES SMITH, Oakland, Cal. Filed Nov. 7, 1912. Serial No. 730,078. (Cl. 100—39.)



1. In a device of the kind described, fruit pressing means, comprising a fixed jaw and oscillating jaw, fruit cutting means including a knife arranged to reciprocate through said fixed jaw, and means to successively operate said knife and said oscillating jaw.

2. In a device of the kind described, fruit pressing means comprising a fixed jaw and an oscillating jaw, a cam for moving said oscillating jaw to and from said fixed jaw, a knife passing through said fixed jaw and reciprocable therethrough, a second cam arranged to reciprocate said knife, and gearing connecting said cams.

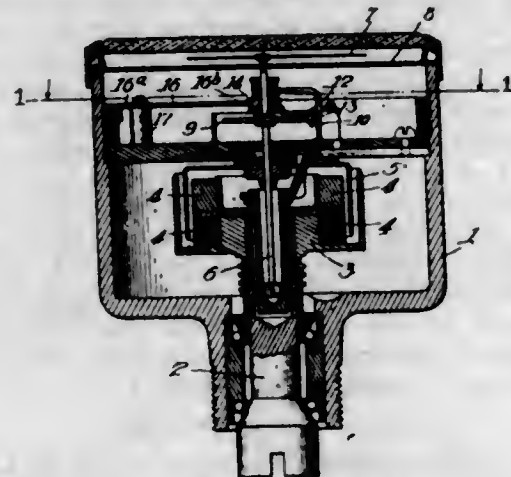
3. In a device of the kind described, fruit pressing means including a fixed jaw and an oscillating jaw opposed thereto, an eccentric cam for operating said oscillating jaw, a knife reciprocable through said fixed jaw, an

eccentric cam for operating said knife, a feeding chute, spaced gates on said feeding chute, an operative connection between said gates to raise the one as the other is lowered, a shaft on which the second mentioned cam is mounted, an eccentric operatively connected to the gate operating mechanism, gearing connecting said eccentric and cams, the eccentric being mounted on said shaft.

4. In a device of the kind described, fruit pressing means including a fixed jaw and an oscillating jaw opposed thereto, an eccentric cam for operating said oscillating jaw, a knife reciprocable through said fixed jaw, an eccentric cam for operating said knife, a feeding chute, spaced gates on said feeding chute, an operative connection between said gates to raise the one as the other is lowered, a shaft on which the second mentioned cam is mounted, an eccentric operatively connected to the gate operating mechanism, gearing connecting said eccentric and cams, the eccentric being mounted on said shaft, an oscillating screen and an operative connection between the oscillating screen and the second mentioned eccentric cam.

5. In a device of the kind described, fruit pressing means including a fixed jaw and an oscillating jaw opposed thereto, an eccentric cam for operating said oscillating jaw, a knife reciprocable through said fixed jaw, an eccentric cam for operating said knife, a feeding chute, spaced gates on said feeding chute, an operative connection between said gates to raise the one as the other is lowered, a shaft on which the second mentioned cam is mounted, an eccentric operatively connected to the gate operating mechanism, gearing connecting said eccentric and cams, the eccentric being mounted on said shaft, an oscillating screen and an operative connection between the oscillating screen and the second mentioned eccentric cam, and spring means to restore said knife and oscillating jaw to normal position.

1,077,438. MAGNETIC SPEEDOMETER. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, of Virginia. Filed Nov. 5, 1910. Serial No. 590,778. (Cl. 73—123.)



1. In a speed indicating device, a scale member, a pointer associated therewith, a spindle connected to one of these parts, a spring having one end connected to said spindle, a split ring device sensitive to variations in atmospheric temperature, and having one end fixed, connections between the other end of said spring and the free end of said split ring device, and means operated by the shaft, the speed of which is to be indicated, for rotatively moving said spindle against the action of said spring.

2. In a speed indicating device, a scale member, a pointer associated therewith, a spindle connected to one of these parts, a spring connected to said spindle, a thermostatic device, connections between said thermostatic device and said spring, means operated by the shaft, the speed of which is to be indicated, for creating a rotating magnetic field, and means connected to the spindle and acted on by the magnetic field to rotatively displace said spindle against the action of said spring.

3. In a speed indicating device, a magnet and a magnetic mass, a member interposed therebetween to be cut

by the lines of force in the magnetic field thereof, a spindle connected to said member, a spring connected at one end to said spindle, a thermostatic device, connections between said thermostatic device and said spring, and means for imparting rotation to the magnetic mass.

4. In a speed indicating device, means for creating a rotating magnetic field, a member arranged to be rotatively displaced by said rotating magnetic field, a spindle carrying said member, a spring to yieldingly resist the rotative displacement of said member, a thermostatic device and connections between said thermostatic device and said spring to vary the effective tension of said spring by and in accordance with variations in atmospheric temperature.

5. In a speedometer, in combination with a rotating magnet and a non-magnetic member mounted for oscillation in the magnetic field; a metallic spiral having one end fixed; a spring fixed at one end and operatively connected with said member for biasing the latter to a position of rest; means for holding the spring fixed at a point intermediate its ends for limiting its effective length, said means comprising a part connected with the free end of the metallic spiral for movement thereby along the spring for a distance from its fixed end.

[Claims 6 to 12 not printed in the Gazette.]

1,077,439. FUSE FOR A PROJECTILE. HARRY BLAND STRANGE, Sheffield, England, assignor to Thomas Firth and Sons, Limited, Sheffield, England. Filed Oct. 4, 1911. Serial No. 652,796. (Cl. 102—39.)



1. In a fuse for a projectile the combination of a tube of great tensile strength having one portion comparatively weak, a cartridge adapted to travel in such tube, a safety device for retaining the cartridge normally in the strong portion of the tube, means within the tube adjacent to the weak portion thereof for exploding the cartridge and means operated by the pressure of the gases generated on the discharge of the gun for removing said safety device and substituting for such safety device another retaining member which is easily sheared when the impact occurs.

2. In a fuse for a projectile, the combination with a fuse body, of a tube carried thereby of such tensile strength and cross sectional dimensions as to withstand the explosive force of a cartridge of high power, and a weakened portion intermediate its ends, and a casing mounted on the fuse body for supporting the weakened portion of the tube to normally prevent its deformation.

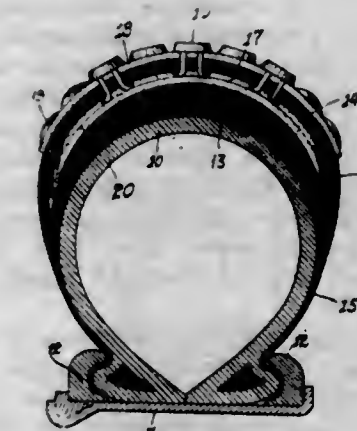
3. In a fuse for a projectile, the combination with a fuse body having a portion thereof of such tensile strength and cross sectional dimension as to withstand the explosive force of a cartridge of high power, and a weakened portion intermediate its ends, a casing mounted on the fuse body and supporting the weakened portion of the tube and to normally prevent the deformation of the weakened portion and a supplementary explosive charge surrounding the tube and within the casing.

4. In a fuse for projectiles, the combination with a fuse body, of a tube having a portion of such tensile strength and cross sectional dimension as to withstand the explosive force of a cartridge of high power, a weakened portion intermediate its ends, and a casing mounted on the fuse body and supporting the weakened portion of the tube, and a flange on the tube dividing the space between the tube and casing into two compartments and supplementary charges in such compartments.

5. In a fuse for a projectile the combination of a fuse body, a casing mounted thereon, a tube or chamber within such casing and axial therewith, such tube being of great tensile strength but having a comparatively weak portion near the end remote from the fuse body, a detonating needle mounted in such tube adjacent to the weak portion thereof, a cartridge of explosive material adapted to travel in the tube, a safety device for retaining the cartridge normally at that portion of the tube remote from the detonating needle, a chamber in the fuse body adjacent to the safety device, a deformable substance in such chamber and means operated by the pressure of the gases generated on the discharge of the gun, for causing such deformable substance to displace the safety device thereby forming a retaining member which is easily sheared when the impact occurs.

[Claims 6 and 7 not printed in the Gazette.]

1,077,440. TIRE-PROTECTOR. VARNEY K. STURGES, Oakland, Cal. Filed Dec. 10, 1912. Serial No. 735,938. (Cl. 152—16.)



1. A tire protector comprising a fabric body portion, inner and outer strips positioned along the tread portion of said body portion, securing rivets having their prongs passing through said outer and inner strips to secure the same to said body portion, resilient strips formed along the side portions of said protector and extending beneath the side portion of said outer protecting strip, and a strip placed in the tread portion of said protector to cover the points of said rivets.

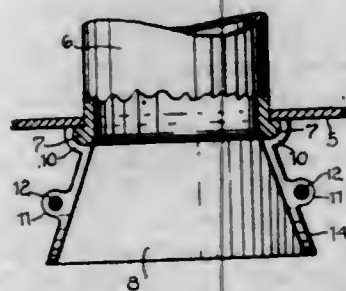
2. A tire protector comprising a body portion, inner and outer bands extending around the tread portion of said protector and secured to said body portion, and resilient reinforcing strips formed upon the side portions of said body portion for holding said protector to a tire and extending beneath the side portions of said outer band to protect said side strips from wear.

1,077,441. ATTACHMENT FOR BOILER-TUBES. WALTER E. THOMPSON, Chester, Pa. Filed Jan. 8, 1913. Serial No. 740,889. (Cl. 110—97.)

1. The combination with a boiler tube having a bead turned on its end, of a device having opposed parallel walls and convergently disposed walls connecting said parallel walls, a concavo-convex flange formed upon one end of the device and adapted to be seated upon the bead at the end of the boiler tube and means for removably clamping said flange to the bead of the boiler tube.

2. An attachment of the character described comprising two similar sections, a concavo-convex flange formed upon one end of each of said sections, and adapted for en-

gagement with the end of the boiler tube, said sections having outwardly flaring side walls, perforated ears formed upon the longitudinal edges of each of said sections, bolts removably arranged within said ears and clamping nuts threaded upon the ends of said bolts whereby said sections are securely clamped to the end of the boiler tube.



3. The combination with a boiler tube having a bead turned on its end, of a sectional attachment for directing the flame and products of combustion into said tube, said attachment having opposed walls converging inwardly to the mouth of the tube, said sections being each provided with means for engagement upon the bead of the boiler tube, perforated ears formed upon the longitudinal edges of said sections, bolts removably mounted in said ears and clamping nuts mounted upon said bolts whereby the sections are securely clamped together upon said bead.

4. The combination with a boiler tube having a bead turned on its end, of a sectional attachment for directing the flame and products of combustion in said tube, said attachment having opposed walls converging inwardly to the mouth of the tube, a concavo-convex flange formed upon the inner end of said attachment and adapted to be seated upon the bead of the boiler tube, perforated ears formed on the longitudinal edges of each of said sections, bolts removably arranged within said ears and clamping nuts mounted upon said bolts whereby said sections are securely clamped together upon said bead.

5. The combination with the fire tubes of a boiler, of a sectional attachment for directing the flame and products of combustion thereto, said attachment including opposed side walls converging inwardly to the end of the tube, the attachment upon the ends of adjacent tubes having their opposed walls at their outer ends disposed closely adjacent to each other, a concavo-convex flange formed upon the inner end of said attachment and adapted to be seated upon the end of the boiler tube, ears formed upon the longitudinal edges of each of said sections, and means for clamping said ears together whereby said sections will be securely clamped to the end of the boiler tube.

1,077,442. PROCESS OF HYDROGENIZING ORGANIC COMPOUNDS. HEINRICH THRON, Frankfort-on-the-Main, Germany, assignor to Vereinigte Chemiefabriken Zimmer & Co., G. M. B. H., Frankfort, Germany, a Society organized under the laws of Germany. Filed Apr. 30, 1913. Serial No. 784,641. (Cl. 23-24.)

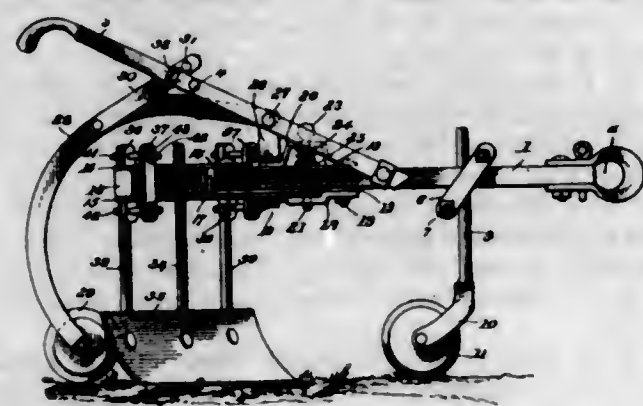
1. The hereindescribed process of hydrogenizing organic compounds, which consists in treating the substance to be hydrogenized with formic acid and a finely divided metal of the platinum group.

2. The hereindescribed process of hydrogenizing organic compounds, which consists in treating the substance to be hydrogenized with formic acid and a colloidal solution of a metal of the platinum group.

1,077,443. AGRICULTURAL IMPLEMENT. DANIEL B. VANDERWATER, Liberty, Tex. Filed June 20, 1912. Serial No. 704,921. (Cl. 97-10.)

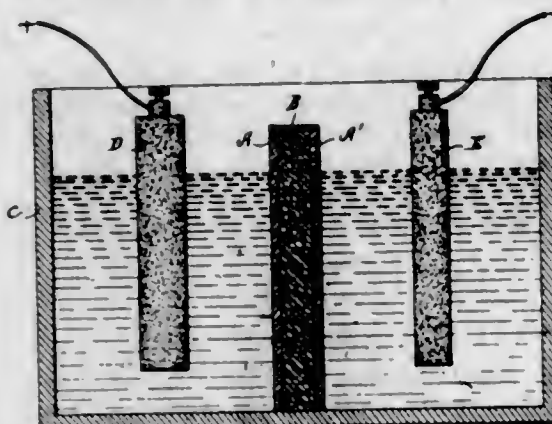
In an agricultural implement, the combination of a draft beam, a cross beam connected therewith, handles

secured to the draft beam, arched standards secured to the handles and extending rearwardly over the cross beam and



downwardly in rear thereof, and a colter carried by the lower ends of said standards in rear of the cross beam.

1,077,444. ELECTROLYTIC DIAPHRAGM. HERMAN A. WAGNER, New York, N. Y. Filed May 3, 1912. Serial No. 694,893. (Cl. 204-28.)



1. In an electrolytic cell, a diaphragm comprising a porous material, metallic mercury in a finely divided state, and manganese dioxide.

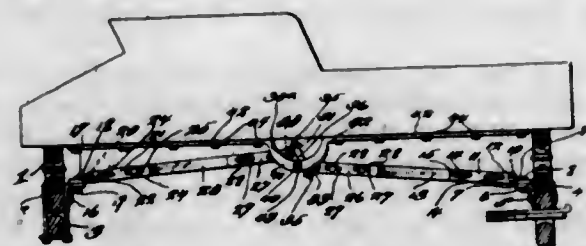
2. A diaphragm comprising a porous material, in combination with metallic mercury in a finely divided state contained therein, a finely divided metal of the palladium group, and an oxidizing agent.

3. A diaphragm comprising a molded plate of granulated porous material, containing metallic mercury, palladium black, and an oxidizing agent.

4. A diaphragm comprising a molded, granulated porous material, in combination with finely divided metallic mercury, a hydrogen absorbing agent, and an oxidizing agent.

5. A diaphragm consisting of manganese dioxide, in combination with metallic mercury in a finely divided state, and a hydrogen absorbing metal in a finely divided state.

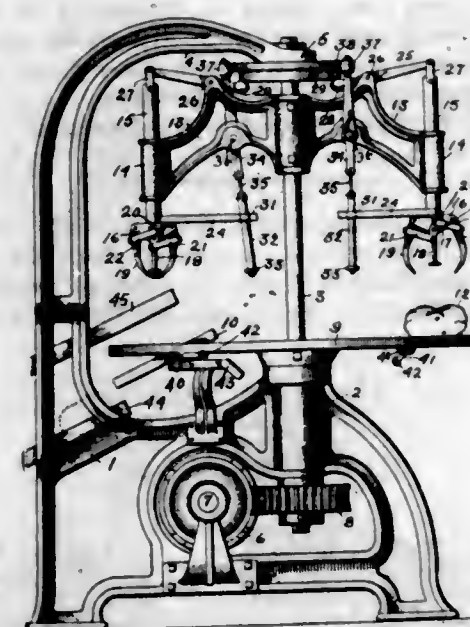
1,077,445. VEHICLE-SUPPORT. LEO WAND, Elizabeth, Ill. Filed June 12, 1913. Serial No. 773,301. (Cl. 21-105.)



In combination with the forward and rear running gears of a vehicle, a pair of supporting bars constructed with opposed offset portions extending downwardly, said supporting bars adapted to be secured to a vehicle body, a rock pin mounted in said offset portions, a second pin arranged vertically and pivoted to the first pin to oscillate laterally, a reach bar connected at one end to the rear running gear while its other end is connected to the lower end of the vertically arranged pin, a second reach bar

having one end connected to the forward running gear and its other end connected to the upper end of the vertical pin.

1,077,446. TOMATO-CORING MACHINE. ARTHUR P. WOLFE, Vineland, N. J. Filed Feb. 3, 1912. Serial No. 675,363. (Cl. 146-6.)



1. Means for coring tomatoes, comprising means for supporting and centering the tomatoes, knives adapted to enter the tomato on opposite sides of the core, a support for said knives movable toward and away from the tomato, means carried by said support to contact with the tomato to limit the movement of the support toward the tomato and means for operating the knives to cause them to core the tomato.

2. Means for coring tomatoes, comprising means for supporting and centering the tomato with its core end up, knives adapted to enter the tomato on opposite sides of the core, a support for said knives, movable toward and away from the tomato, a rod carried by said support adapted to bear against the tomato core to thereby correctly fix the position of the knives with relation to the tomato, means for operating the knives to core the tomato.

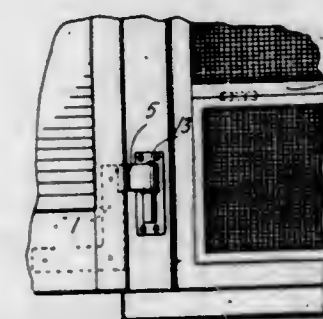
3. A machine for coring tomatoes, consisting of a supporting table for the tomatoes, supporting means above said table for coring knives, said knife-carrying support movable toward and away from said tomato carrying table, a blunt rod attached to said knife carrying support adapted to limit the downward movement of said support by bearing against the tomato core to thereby properly fix the knives in relation to the tomato, means for actuating the knives to cause them to core the tomato.

4. A machine for coring tomatoes, consisting of a circular table, a movable support for the tomatoes attached to and mounted flush with said table, said table fastened securely to and rotated by a vertical shaft, supporting means for knives securely attached to and rotated with the above mentioned shaft, coring knives attached to said support, means for bringing the knives into proper relation with the tomato depending on the size of the latter, and means for operating the knives to cause them to core the tomato.

5. A machine for coring tomatoes, consisting of a circular table, a movable support for the tomato, adapted to discharge the latter after the completion of the coring, a support for the coring knives mounted movable in guides, said guides securely attached to a vertical shaft upon which shaft is also mounted the said circular table, a cam for moving the knife support into proper position for coring, a cam operating the knives to thereby core the tomatoes.

[Claims 6 and 7 not printed in the Gazette.]

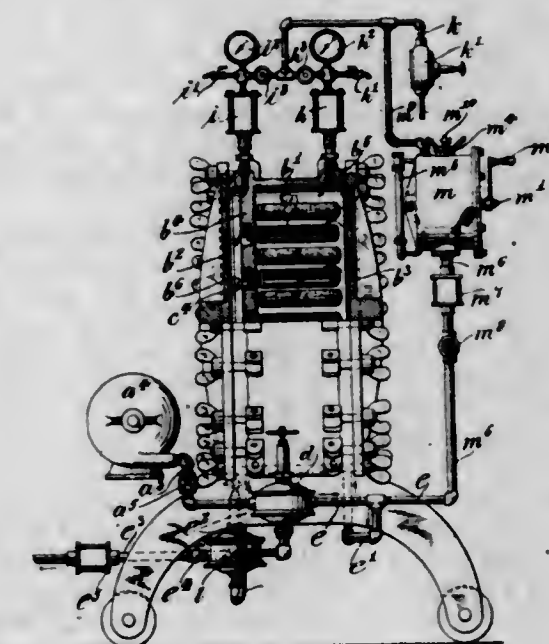
1,077,447. HINGE. WILLIAM YATES, Glen Rock, N. J. Filed Aug. 18, 1913. Serial No. 785,293. (Cl. 16-106.)



1. A hinge, comprising an arm having a knuckle formed on one edge thereof; a member having a knuckle formed on one end thereof, adapted to register with the knuckle aforesaid, the other end of said member also formed with a knuckle, adapted to pass over a pin and means for retaining the knuckle of said arm and the inner knuckle of said member in their registered position.

2. In a hinge, an arm having a knuckle on one edge thereof, said knuckle being in an offset position; a member provided with knuckles at its opposite ends, said knuckles also being in an offset position and means for pivotally connecting the knuckle of the arm and one of the knuckles of said member and retaining the same in their registered position.

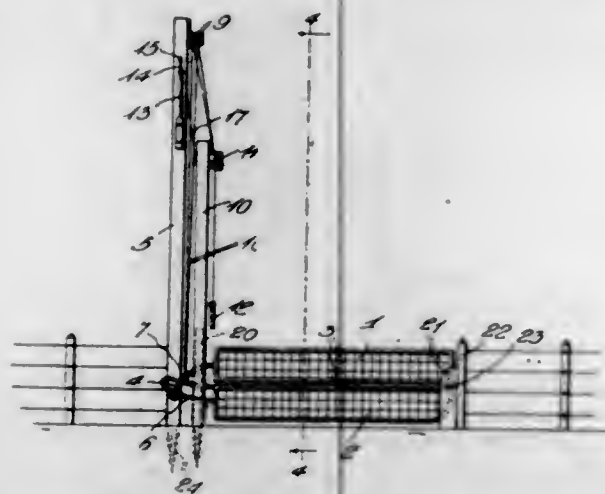
1,077,448. FILTRATION. EDWARD ZAHM, Buffalo, N. Y., assignor to Zahm Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed Jan. 20, 1912. Serial No. 672,463. (Cl. 210-9.)



1. The combination with a filter, of a supply pipe, a container for loose filter material independent of the supply pipe, connections through which a portion of the liquid to be filtered may be admitted to the container and through which the mixture of liquid and loose filter material may be discharged into the filter, and means independent of the liquid supply to force the mixture of liquid and loose filter material from the container into the filter.

2. The combination with a filter, of a supply pipe, a container independent of the supply pipe to receive loose filter material, connections through which a portion of the liquid to be filtered may be admitted to the container and through which the mixture of liquid and loose filter material may be discharged into the filter, and connections from the top of the container to a supply of gas under pressure by which the mixture of liquid and loose filter material may be forced from the container into the filter.

1,077,449. GATE. CHARLES E. ANDERSON, Lake Andes, S. D. Filed Aug. 1, 1912. Serial No. 712,680. (Cl. 39-5.)



1. A gate of the character described comprising upper and lower pivotally connected members adapted to swing together one above the other to close the gate, a gate supporting post, an arm on the inner end of the upper member pivotally connected to said post, gate lifting cables connected with the inner end of the lower member and leading upwardly alongside the gate post and to remote handles, a catch to engage and hold said gate members in an open position, and means whereby said members are disengaged from the catch.

2. A gate of the character described comprising upper and lower pivotally connected members adapted to swing together one above the other to close the gate, a gate supporting post, an arm on the inner end of said upper gate member and pivotally connected to said post, gate lifting cables connected with the adjacent end of the lower gate member whereby said members may be drawn upwardly to open positions alongside the gate post to open the gate, means to support said cables in operative position, counterbalancing weights on said cables, a catch to engage and hold said gate members in an open position, and means whereby said members are disengaged from the catch and permitted to close by gravity.

3. A gate of the character described comprising upper and lower pivotally connected members adapted to swing together one above the other to close the gate, a gate supporting post, an arm on the inner end of said upper gate member and pivotally connected to said post, gate lifting cables connected with the adjacent end of the lower gate member whereby said members may be drawn upwardly to open positions alongside the gate post to open the gate, means to support said cables in operative position, counterbalancing weights on said cables, a spring catch to receive the lower member of the gate when swung to an open position, a flexible gate releasing element connected with said spring catch to receive the portion of the gate member engaged thereby and to disengage said gate member from the catch, whereby the gate is permitted to close by gravity under the retarding action of said counterbalancing weights, and gate releasing cables connected with said flexible releasing element whereby the latter is actuated to disengage said lower gate member from the catch.

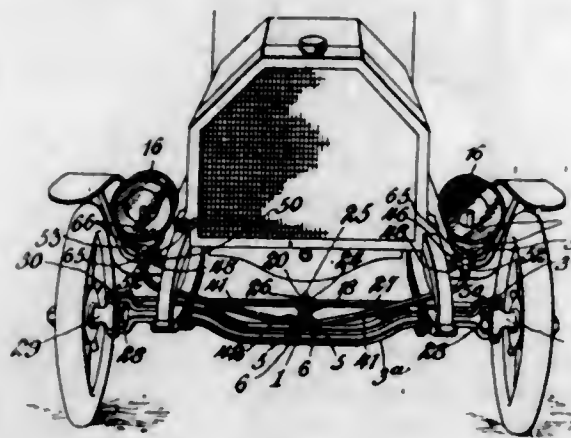
4. A gate of the character described comprising upper and lower pivotally connected members adapted to swing together one above the other when closed, a gate supporting post, an arm on said upper gate member and pivotally connected to said post, a loop-shaped gate-operating arm on the inner end of said lower gate member, gate lifting and opening cables connected to said operating arm, cable supporting posts to hold said cables in operative position, a spring catch to receive the loop-shaped arm of said lower gate member when said members are raised to open the gate, means to disengage said arm from said catch to permit the gate members to close, guide posts to receive and hold the inner ends of the gate members when closed, guiding and retaining plates to receive the outer ends of the gate members when closed,

and a stop bolt to prevent the raising of the lower gate member when in closed position.

5. A gate of the character described comprising upper and lower pivotally connected members adapted to swing together one above the other to close the gate, a post, a downwardly curved arm at the inner end of the upper member pivoted to said post, an upwardly curved arm at the inner end of the lower member having an eye, a cable leading through a guide near the top of said post and connected with said eye, a catch on the post with which said upwardly curved arm engages as the folded members approach a position directly over the lower pivot, and means for disengaging this arm from the catch.

[Claims 6 to 8 not printed in the Gazette.]

1,077,450. CONTROLLABLE HEADLIGHT FOR AUTOMOBILES. FRANCIS G. ANSPACH, Deerfield, Mich., assignor of one-third to Vernor B. Cannon, Deerfield, Mich. Filed July 16, 1912. Serial No. 709,763. (Cl. 240-62.)



1. An automatic headlight controlling device including spaced pivotally mounted headlights, centrally arranged gearing, means for transmitting motion from the gearing to the headlights, and means for connecting the gearing with the steering mechanism of an automobile, the last-mentioned means having a single lost motion device located at the said central gearing to permit a limited independent movement of the steering mechanism to prevent the slight turning or weaving of the wheels of the machine from being transmitted to either of the headlights.

2. An automatic headlight controlling device including spaced pivotally mounted headlights, centrally located gearing, an oscillatory arm, means for connecting the latter with the steering mechanism of an automobile, means for connecting the arm with the gearing, the latter means having a single lost motion device located at the said central gearing to permit independent movement of the arm and adapted to prevent the slight turning or weaving of the wheel from being communicated to either of the headlights and also capable of permitting the arm to be disconnected from the gearing.

3. An automatic headlight controlling device comprising spaced pivotally mounted headlights, centrally located gearing including a gear having a stem, means for transmitting motion from the gearing to the headlights, an oscillatory arm having an opening receiving the stem, means carried by the arm and coacting with the stem to permit the arm to have movement independently of the said gearing, and means for connecting the oscillatory arm with the steering mechanism of an automobile.

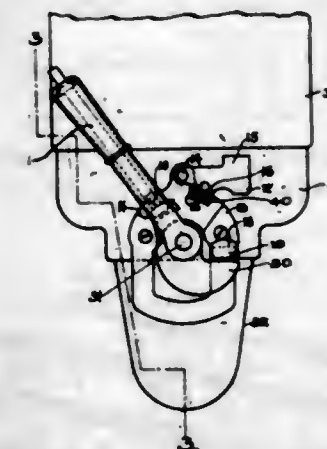
4. An automatic headlight controlling device comprising pivotally mounted headlights, gearing including an actuating gear having a stem provided with a polygonal portion, means for connecting the gearing with the headlights, an oscillatory arm having an opening receiving the said stem, means for connecting the oscillatory arm with the steering mechanism of an automobile, and adjustable means carried by the oscillatory arm and arranged to coact with the polygonal portion of the stem to permit the arm to have movement independently of the stem.

5. An automatic headlight controlling device comprising pivotally mounted headlights, gearing including a gear

having a stem provided with a polygonal portion, an oscillatory arm having an opening receiving the stem, and a screw mounted on the arm and arranged to coact with the polygonal portion to actuate the said gear and to permit the arm to have limited movement independently of the gearing, and means for connecting the arm with the steering mechanism of an automobile.

[Claims 6 to 15 not printed in the Gazette.]

1,077,451. ELECTRICAL CONTROLLING AND REGULATING APPARATUS. GEORGE T. ASHLEY, Santa Monica, Cal., assignor to Fairbanks-Morse Electrical Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 13, 1909. Serial No. 532,968. (Cl. 172-179.)



1. The combination of a movable contact device, said device having thereon points for making electrical contacts, fingers connected to electric conductors, a handle, a catch temporarily arresting the movement of said handle at an intermediate position, a gravity dog having a tooth for holding the handle in running position, and means for throwing said handle back to its initial position without its stopping at any intermediate position, thereby making a quick break of said connections.

2. The combination of a movable contact device with electrical contact points or plates thereon, a handle operating said contact device, fingers connected to coils or conductors making different electrical connections successively through said contact points or plates, a spring opposing the motion of said handle, a catch on said handle, a projection which at an intermediate position prevents further movement of said handle until said catch is depressed, whereupon said handle may be thrown to its final position, a tooth which holds said handle in final position and yet admits of a quick release of the handle and its return to its initial position.

3. The combination of a handle attached to a movable contact device, contact points or plates on said contact device; coils or conductors which through fingers are differently connected with said contact points or plates by the turning of said contact device, a catch and a projection for temporarily arresting the turning of said handle, means for disengaging said catch and projection, a catch or tooth for holding said handle at its final position and means for quickly throwing back said handle to its initial position without its being stopped at any intermediate point.

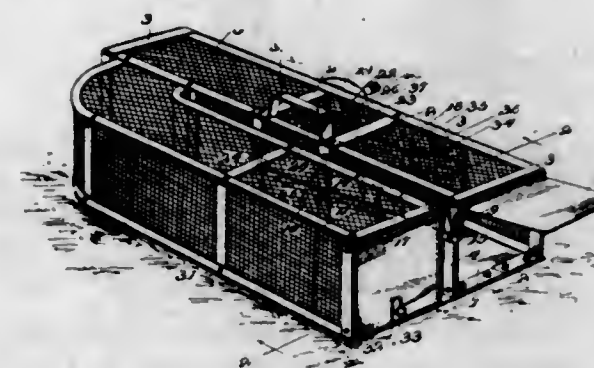
4. The combination of a movable contact device, a handle turning said contact device through gearing, a catch arresting said handle at its intermediate position, a projection engaging said catch, means for disengaging said catch at its intermediate position, means for holding said handle at its final position, yet allowing a ready release of said handle, means for causing said handle to swing back without stopping to its initial position, substantially as described.

5. The combination of a movable contact device with electrical contact points or plates thereon, a handle connected with and turning said contact device so as to make different electrical connections through the contact points or plates on said contact device with fingers, fingers connected to coils or conductors; a spring opposing the forward

ward turning of said handle, a catch, a projection, means for disengaging said catch and projection, a gravity dog, a tooth therein for causing a quick break of said electrical connections and return of the handle and said contact device to their initial positions, without stopping at any intermediate point.

[Claims 6 to 23 not printed in the Gazette.]

1,077,452. ANIMAL-TRAP. THOMAS J. BURKE, New Orleans, La. Filed Sept. 27, 1912. Serial No. 722,754. (Cl. 43-26.)



1. A trap comprising a series of communicating compartments, closures for the several compartments, means for simultaneously operating some of said closures, a bait chamber in one of the compartments, a movable closure for said bait chamber, and means whereby said closure will operate simultaneously with the closure of the compartment.

2. A trap comprising a series of communicating compartments, closures for the several compartments, means for simultaneously operating some of said closures, a bait chamber in one of the compartments, a movable closure for said bait chamber, and connections between the closure for the bait chamber and the closure for the entrance to the compartment whereby the said closures will operate simultaneously.

3. A trap comprising an entrance compartment and a compartment communicating therewith, an entrance door adapted to close the front end of the entrance compartment, a trigger door movable within the communicating compartment adapted to cut off communication between the two compartments when the entrance door is open, means for automatically operating the said doors, yieldable means for holding the trigger door normally closed, means to engage said door and retain it in an open position, and means at the exit of the compartment containing said door for releasing said retaining means.

4. In a trap having a series of communicating compartments, the combination of a trigger door controlling communication between two of said compartments, means for normally holding said door in a closed position, a yieldable support adapted to be engaged by said door in its open position, and means for releasing said support from the said door.

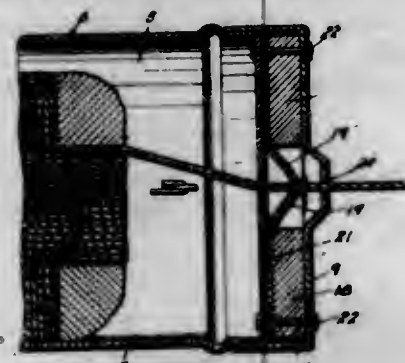
5. In a trap having a series of communicating compartments, a trigger door controlling the entrance to one of said compartments, a trap door controlling the egress from said compartment, means for holding the trigger door normally in a closed position, means for automatically opening said trigger door upon release of said holding means, a yieldable catch adapted to engage the trigger door in its open position, and means whereby said catch will be withdrawn from the trigger door when the trap door is opened.

[Claims 6 to 10 not printed in the Gazette.]

1,077,453. TWINE-HOLDER. JAMES C. CASE, Sleepy Eye, Minn. Filed July 15, 1912. Serial No. 709,538. (Cl. 242-146.)

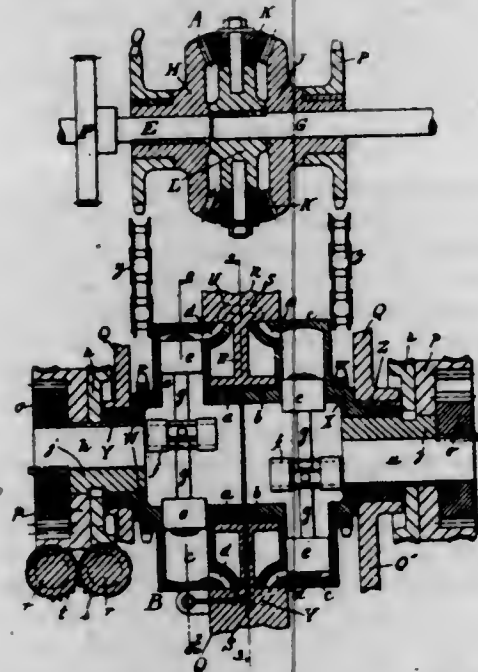
In a twine holder, the combination of a cylinder casing having an open end, a cap closure for said open end detachably telescoping with the casing and provided with an upset central portion having an opening, blocks se-

cured against the inner side of the head of said cap closure, springs secured against the inner sides of said blocks respectively and having their terminals directed



toward the head of the cap closure to frictionally engage twine therebetween, and a plate secured against said springs, said plate being provided with an opening aligning with the opening in the closure cap head.

1,077,454. VARIABLE-SPEED-TRANSMISSION GEARING. ALEXANDER H. COOKE, New York, N. Y. Filed May 11, 1912. Serial No. 696,628. (Cl. 74-34.)



1. In variable speed transmission gearing, the combination of the driving and driven shafts, positively acting variable transmission devices connecting said shafts, and positively acting fluid pressure means operatively connected with the driving shaft for controlling said transmission devices, and thereby positively varying the speed and direction of rotation of the driven shaft by infinitely small amounts between predetermined limits.

2. In variable speed transmission gearing, the combination of the driving and driven shafts, positively acting variable transmission devices connecting said shafts, and positively acting fluid pressure controlling means operatively connected with the driving shaft and connected to one member of the variable transmission devices, for controlling said devices and thereby positively varying the speed and direction of rotation of the driven shaft by infinitely small amounts between predetermined limits.

3. In variable speed transmission gearing, the combination of the driving and driven shafts, positively acting variable transmission devices connecting said shafts and having a movable controlling member, and positively acting fluid pressure controlling means operatively connected with the driving shaft and connected to said movable controlling member for positively varying the speed and direction of rotation of the driven shaft by infinitely small amounts between predetermined limits.

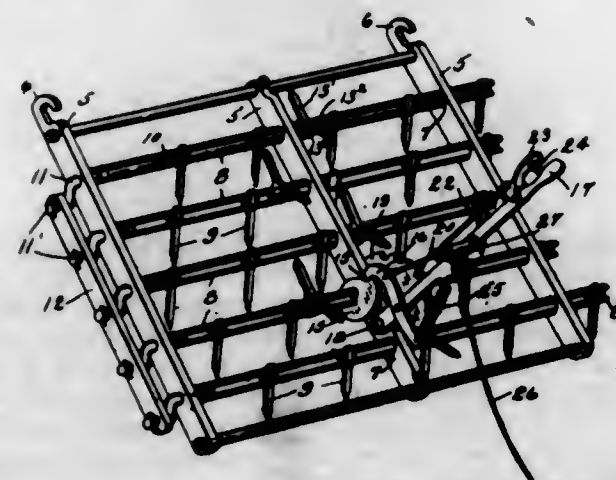
4. In variable speed transmission gearing, the combination of the driving and driven shafts, positively acting variable transmission devices connecting said shafts and

having a movable controlling member, and positively acting controlling apparatus for the transmission devices comprising a fluid pressure pump operatively connected with the driving shaft and a fluid pressure motor driven by the pump and connected to the said movable controlling member, for positively varying the speed and direction of rotation of the driven shaft by infinitely small amounts between predetermined limits.

5. In variable speed transmission gearing, the combination of the driving and driven shafts, positively acting differential gearing connecting said shafts having a movable controlling member, and positively acting fluid pressure controlling apparatus comprising a circulating chamber, a pump operatively connected with the driving shaft and a motor connected to the said movable controlling member, whereby the speed and direction of rotation of the driven shaft are positively varied by infinitely small amounts between predetermined limits.

[Claims 6 and 7 not printed in the Gazette.]

1,077,455. HARROW. HERMAN C. COPENHAGEN, Auburn, Wash. Filed Aug. 10, 1912. Serial No. 714,461. (Cl. 55-34.)



1. In a harrow, the combination of the frame, tooth bars, rotatably mounted in the frame, a lever pawl, a stop on one of the bars and engageable by said pawl, and an adjustable support for said pawl.

2. In a harrow, the combination with the frame, bars rotatably connected to the frame, teeth secured to said bars, means carried by the bars and cooperating with said teeth for revolving the latter by engaging in the ground in the progressive travel of the harrow, of a wheel fixedly mounted upon one of said bars and provided with a ratchet tooth, a toothed segment mounted on the frame, a manually controlled lever pivoted to said frame, a pawl carried by said lever and engaging said segment, a lever pawl carried by the manually-controlled lever engaging said toothed wheel, the manually-controlled lever being shiftable to control the angularity of the harrow teeth.

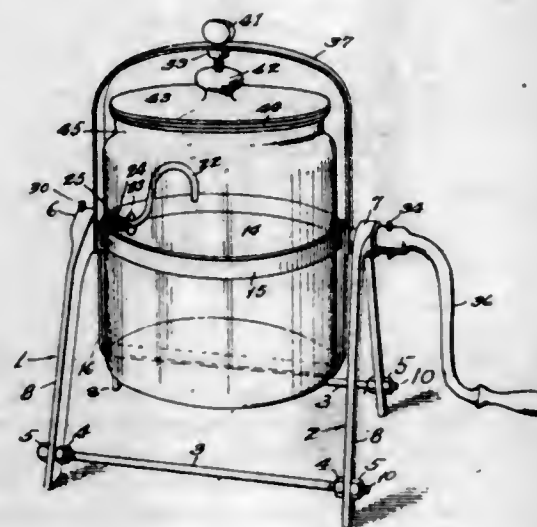
1,077,456. SANITARY CHURN. CHARLES DE FOREST, Los Angeles, Cal., assignor to Sanitary Utilities Company, San Bernardino, Cal., a Corporation of California. Filed Dec. 20, 1911. Serial No. 667,011. (Cl. 31-18.)

1. In a churn the combination with journal boxes, of a swing mounted in said journal boxes and comprising a ring, a stirrup, journals in the journal boxes and passing through the stirrup, and a ball mounted on the journals; a container in the swing; a cover for the container; and means carried by the ball to engage the cover.

2. In a churn the combination with a ring and a stirrup and journals therefor; of a container in the ring and on the stirrup; a ball journaled to the ring and stirrup; a cover for the container; and adjustable means carried by the ball to hold the cover in place.

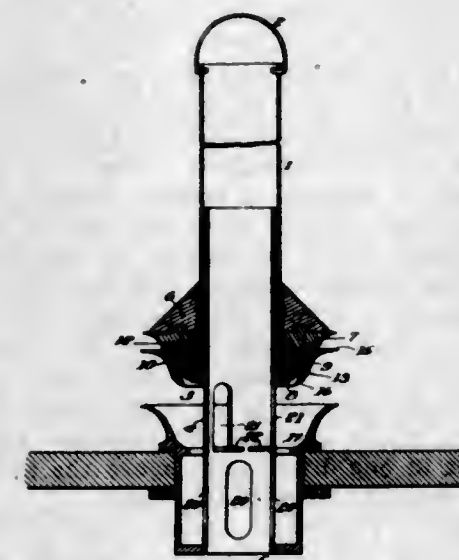
3. A churn comprising a ring; a stirrup and ball in alignment with one another; journals on the ring, stirrup and ball; a container in the ring and on the stirrup; a cover for the container; and means in alignment with the stirrup and ball to hold the cover on the container.

4. In a churn; the combination with a frame provided with two journal boxes; of a swing provided with journals in the journal boxes; a container in the swing; a vent tube in the container and extending through the container



and axially through one of the journals; means to fasten the vent tube in its journal box; means to hold the container in the swing; and a crank fastened on one of the journals to turn the swing and to fasten its journal in its journal box.

1,077,457. VALVE FOR FLUSH-TANKS. EDWARD L. DELANY, New York, N. Y. Filed Dec. 26, 1911. Serial No. 667,650. (Cl. 4-5.)



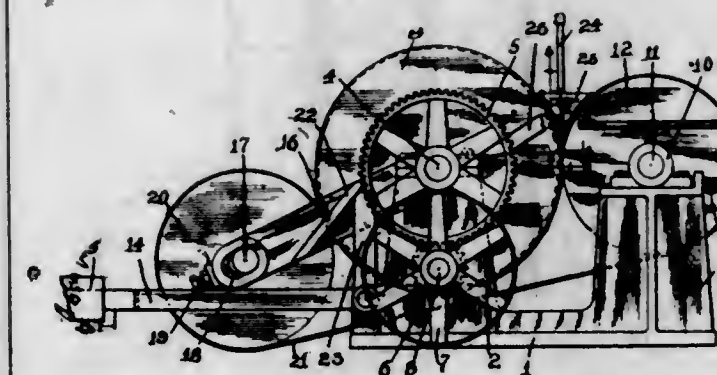
1. In a flush tank valve, a two part valve element, and a washer having a shoulder held between said parts and having a lateral portion extending outward between said valve parts and formed with substantially horizontal and depending pliable tapering extremities, said depending portion being spaced apart from said valve, in combination with a valve seat of formation corresponding to that of the extremities of said washer, whereby said horizontal portion of said washer is normally immersed and said depending portion is immersed only when said valve is open.

2. In a flush tank valve, a two part valve element having its outer surface curved upward and outward, and a flaring valve seat corresponding in formation to that of said valve element, in combination with a washer held between said valve parts and having horizontal and depending portions corresponding in formation to said valve and said seat.

3. In a flush tank valve, the combination with the overflow tube and its valve and valve seat, said valve having a lateral flange, as 8, and a ring, as 7 on said tube above said flange, of a washer having an inner portion as 10

held by and between said flange and said ring and having an outward extending washer portion 15, and a depending washer portion 16 spaced apart from said flange 8.

1,077,458. MACHINE FOR MOLDING METAL IN INDETERMINATE LENGTHS. GEORGE W. DENNIS, Harvey, Ill. Filed Feb. 2, 1911. Serial No. 606,094. (Cl. 207-12.)



1. In a machine for molding metal in long strips, a rotatable die member having a peripheral recess therein, affording a mold, a continuous band affording a closure for the mold, and a plurality of band wheels adapted to guide said band, one of said wheels being revoluble about the die member.

2. In a machine for molding metal in long strips, a pair of adjustable band wheels, a shaft, a pair of arms journaled on said shaft and supporting one of the band wheels, a rotative die member rigidly secured to said shaft, and a band trained around said band wheels and a part of the die member.

3. In a device of the class described, a frame, a rotative die member having a continuous peripheral recess therein to afford a mold, a pair of arms journaled coaxially with the rotative die member, a band wheel adjustably journaled therein, a second band wheel supported on said frame, and a band trained over said band wheels and a part of the rotatable die member, adapted to afford the closure for said mold.

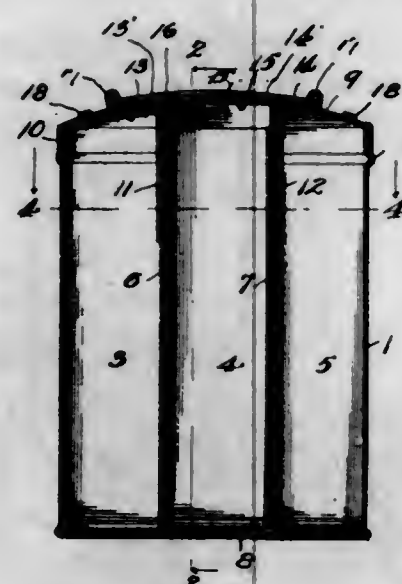
4. In a machine for molding metal in long strips, a frame consisting of a horizontal base and a long and a short pair of upright members, a driving shaft journaled on the long pair of said members, a rotatable die member rigidly secured to said shaft, a shaft journaled on the short pair of uprights, a band wheel secured thereon, a pair of arms journaled on the driving shaft, a band wheel adjustably journaled in said arms adapted to be revolved about the die member, a band trained around said band wheels and die member, and means provided for admitting the molten metal into the grooves.

5. In a machine for molding metal in long strips, a frame consisting of a horizontal base and two pairs of upright members thereon, a die member rotatably mounted on one pair of said members, means for driving said member, a band wheel adjustably mounted on the other pair of said members, arms revoluble about said die member, the second band wheel adjustably mounted in said arms, and a band trained over said band wheels and under the die member.

1,077,459. TOILET-POWDER CASE. DANIEL A. DRISCOLL, Buffalo, N. Y. Filed Mar. 22, 1912. Serial No. 685,607. (Cl. 221-62.)

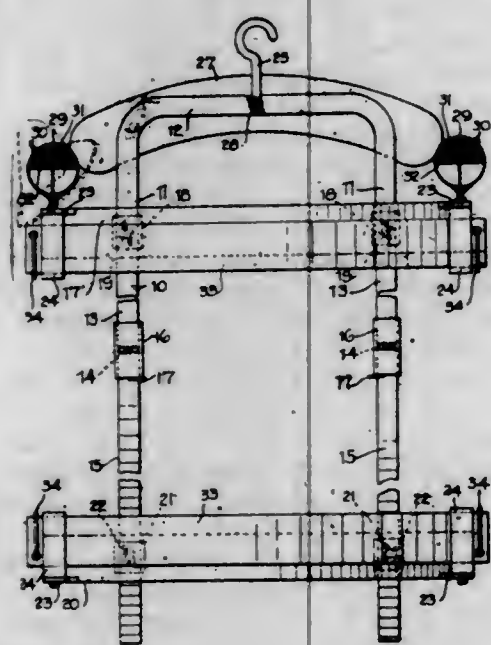
As an article of manufacture a case having a plurality of intermediate cross partitions forming a plurality of aligned compartments, a cover having a plurality of cross partitions overlapping said first mentioned partitions, and an outer flange, and having openings to register with said compartments; parallel flanges forming a guide way mounted on said cover, and a slidable plate having openings cooperating with said openings in the cover; the

openings in the plate being so positioned that when the openings of any one compartment are in alignment with



the openings in the plate, the openings in all the other compartments are closed.

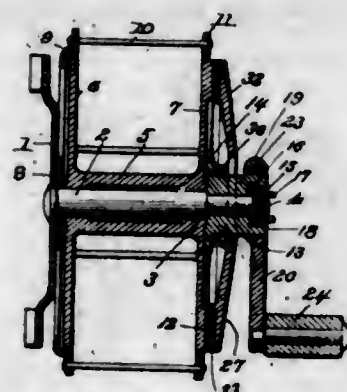
1,077,460. GARMENT-STRETCHER. EMMA S. DUNCAN, Globe, Ariz. Filed Mar. 1, 1913. Serial No. 751,575. (Cl. 223-19.)



1. In a garment stretcher the combination with a U-shaped frame, having spaced side members, extension members hinged to the side members, sleeves for retaining the extension members in alignment with the side members, stops for the sleeves, bars adjustably upon the side members and their extensions, flanges projecting from the bars, hangers secured to the flanges, slats passing through the hangers, and means for forcing the slats toward each other and retaining them in such position.

2. In a garment stretcher, the combination with a U-shaped frame, of extension members hinged to the free ends of the legs of said member, means for supporting the frame, a bar adjustably mounted upon the legs of the member, a bar adjustably mounted upon the extension members hinged to the legs of the U-shaped member, means for securing the bars in adjusted position, means for retaining the extension members in alignment with the legs of the U-shaped member, loop hangers supported by the bars, a pair of slats engaged through the hangers carried by each bar, and means for forcing the slats of each pair toward one another to cause the same to retain a garment therebetween.

1,077,461. REEL. LEWIS BELDEN DUTCHER, Oswego, N. Y. Filed May 23, 1912. Serial No. 699,271. (Cl. 242-84.5.)



1. In a reel, a support, a spindle carried thereby, a spool mounted for rotation upon the spindle, a friction member arranged to have braking cooperation with the spool, means normally holding the said member away from the spool, and a pivoted handle operable to rotate the said member and to move the same into cooperative relation to the spool.

2. In a reel, a support, a spindle carried thereby, a spool mounted for rotation upon the spindle, a friction member arranged to have braking cooperation with the spool, means normally holding the said member away from the spool, and a rotatable handle pivotally mounted and arranged when rotated to rotate the said member and when swung upon its pivot in one direction to move the member into cooperative relation to the spool.

3. In a reel, a support, a spindle carried thereby, a spool mounted for rotation upon the spindle, a friction member arranged to have braking cooperation with the spool, a spring interposed between the member and the spool and normally holding the member away from the spool, and a handle mounted for rotation and arranged when rotated to rotate the said member, the handle being movable toward the spool and upon such movement being arranged to move the friction member against the tension of the spring and into cooperative relation to the spool.

4. In a reel, a support, a spindle carried thereby, a spool mounted for rotation upon the spindle, a member rotatably mounted upon the spindle at one side of the spool, a friction member slidably mounted upon the first mentioned member and rotatable therewith and arranged for cooperation with the said side of the spool, means yieldably holding the friction member away from the spool, and a handle pivoted to the first mentioned member and operable to rotate the same and arranged when moved upon its pivot in one direction to move the said friction member into engagement with the spool.

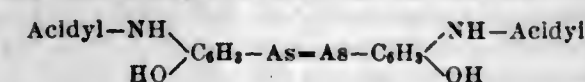
5. In a reel, a support, a spindle carried thereby, a spool mounted for rotation upon the spindle, a member rotatably mounted upon the spindle, a friction disk mounted upon the said member and held for rotation therewith and slidable thereon into and out of cooperative relation with respect to the said member and operable to rotate the same and thereby rotate the friction disk, a handle pivoted to the said member, the handle being movable upon its pivot, in one direction, to move the friction disk into frictional engagement with the said head of the spool, and a spring interposed between the said member and the friction disk and normally holding the latter out of cooperative engagement with the spool head.

[Claim 6 not printed in the Gazette.]

1,077,462. DERIVATIVES OF ACIDYLAMINOXYARSENOBENZENE AND PROCESS OF MAKING SAME. PAUL EHRLICH and ALFRED BERTHEIM, Frankfort-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Dec. 3, 1912. Serial No. 734,772. (Cl. 23-24.)

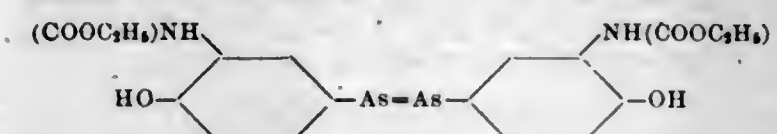
1. The process of preparing derivatives of the acidylaminoxyarsenobenzene, which consists in treating an acidylaminoxyphenyl-arsinic acid with a reducing agent.

2. As new products, the di-(acidylamino) dloxyarsenobenzenes, containing a radical of the formula:



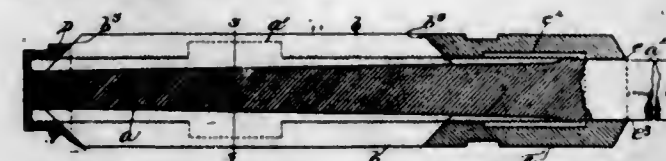
being yellow powders, insoluble in ether, benzene and diluted acids, soluble in acetone, alcohol, alkalis and sodium carbonate, splitting up, when heated with diluted acids, with production of diaminodloxyarsenobenzenes.

3. As a new product, the 3,3'-urethane-4,4'-dloxyarsenobenzene of the constitution:



being a light yellow, crystalline powder, insoluble in ether and benzene and also in diluted hydrochloric acid, soluble in acetone and alcohol, also readily soluble in alkalis and sodium carbonate, yielding, on heating with hydrochloric acid 3,3'-diaminodloxyarsenobenzene.

1,077,463. ADJUSTABLE REAMER. ROBERT L. ELLERY, Portsmouth, N. H. Filed Aug. 17, 1912. Serial No. 715,024. (Cl. 77-75.5.)



1. An adjustable reamer comprising a shank with threads and having a portion of less diameter than the threaded portion said unthreaded portion having a longitudinal scale; blades mounted to move longitudinally on the shank; a nut to move the blades and threaded at one portion to engage the shank and having an internal projection to engage the side of the end thread of the shank and thereby limit the movement in one direction of said nut, the latter carrying a scale in adjacency to the scale on the shank.

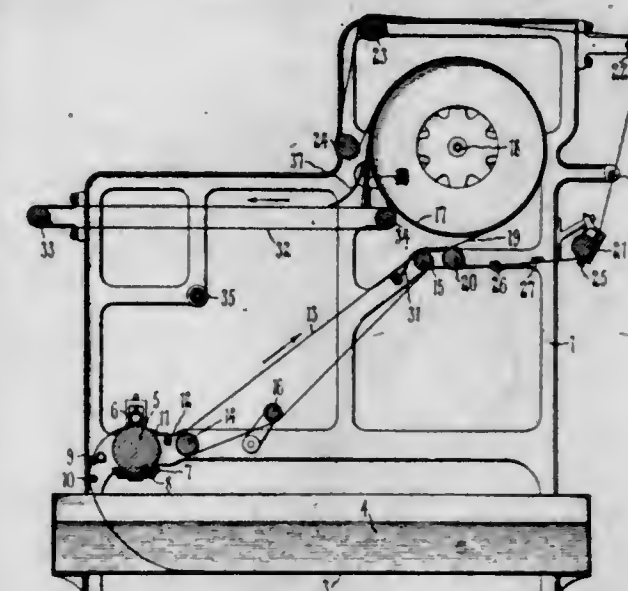
2. An adjustable reamer comprising a shank having tapered grooves and having a threaded portion and an unthreaded portion of smaller diameter than the threaded portion and carrying a longitudinal scale; blades mounted to move longitudinally in said grooves; a nut to directly engage and thereby move the blades in the grooves and to hold them at one end to the shank, said nut having an inner threaded portion to engage the shank and having a portion extending over and inclosing the end threads of the shank but out of engagement with said threads and at its end having a portion of smaller diameter than the threaded portion of the shank, this end portion of the nut inclosing the unthreaded portion of the shank and being adapted to engage the side of the outermost thread on the shank to limit the movement in one direction of said nut, said end portion carrying a scale which is adjacent to the scale on the shank in whatever position the nut may be, said nut being between the longitudinal scale and the blades and the scale on the nut being prevented by the thread on the shank from moving in one direction out of adjacency to the scale on the shank.

1,077,464. MACHINE FOR WASHING AND DRYING PHOTOGRAPHIC SHEETS. CHARLES J. EVERETT and JOHN V. MCADAM, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,051. (Cl. 34-4.)

1. In a machine for washing and drying photographic sheets, a heated drum around which the sheet is passed, and an independent heated sheet delivery device arranged to receive the sheet from the drum.

2. In a machine for washing and drying photographic sheets, a liquid bath, a wringer for receiving the sheet therefrom, a heated drum and an independent means for passing the sheet from the wringer to the drum and means for passing the sheet around the drum.

3. In a machine for washing and drying photographic sheets, a wringer, a heated drum, independent means for passing the sheet from the wringer to the drum and means for passing the sheet around the drum and an independent sheet delivery device arranged to receive the sheet from the drum.

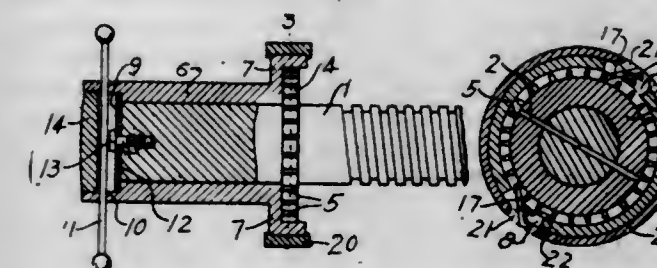


4. In a machine for washing and drying photographic sheets, a wringer, a heated drum, independent means for passing the sheet from the wringer to the drum and means for passing the sheet around the drum and an independent heated sheet delivery device arranged to receive the sheet from the drum.

5. In a machine for washing and drying photographic sheets, a liquid bath, a wringer arranged to receive the sheet therefrom, an independent heated drum, independent means for passing the sheet from the wringer to and around the drum and a sheet delivery device arranged to receive the sheet from the drum.

[Claims 6 to 19 not printed in the Gazette.]

1,077,465. SCREW-OPERATING MECHANISM. LUTHER JOSEPH FANNING, Seely Creek, N. Y. Filed Apr. 3, 1913. Serial No. 758,686. (Cl. 81-33.)



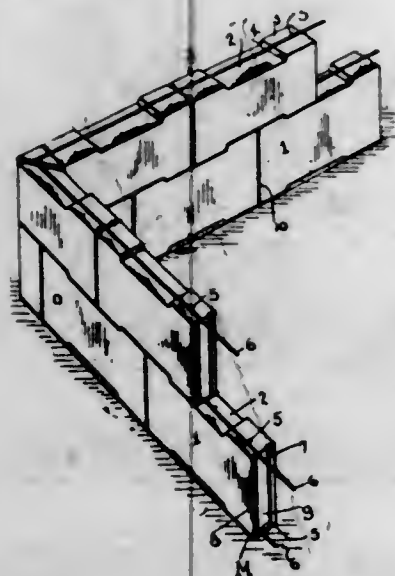
1. A device of the class described comprising a rotatable member, a wheel secured to said member and provided with teeth upon its periphery, a sleeve mounted upon said member and having a collar extending over the teeth of the wheel, means for securing the sleeve upon the rotatable member, means for turning the sleeve, means carried by the collar for locking the wheel and rotatable member for rotation with the collar and sleeve, and means for controlling the locking means.

2. A device of the class described comprising a rotatable member, a toothed wheel carried by said member, a sleeve mounted on said member, means for rotating the sleeve, means for locking the wheel and rotatable member for rotation in one direction with the sleeve, means for locking the wheel and rotatable member for rotation in an opposite direction with the sleeve, and means for controlling the locking means.

3. A device of the class described comprising a vise screw, a toothed wheel carried by the vise screw, a wheel rotatably mounted on the vise screw, means for securing the sleeve in position, means for rotating the sleeve,

means for locking the wheel and screw for rotation with the sleeve at times, and a ring for throwing the locking means into inoperative position.

1,077,466. INTERLOCKING BLOCK. HOWARD M. FRANCIS, Forrest, Ill. Filed Feb. 24, 1913. Serial No. 750,394. (Cl. 72-40.)



1. A corner block for walls having on each horizontal edge a lug at one end, a lug at the other end duplicating the first excepting that it is cut away on a diagonal line extending from the inner face to the outer corner of this block, and a recess between said diagonal line of one lug and the inner end of the other lug.

2. A corner block for walls having on each horizontal edge a lug at one end, a lug at the other end duplicating the first excepting that it is cut away on a diagonal line extending from the inner face to the outer corner of this block, a recess between said diagonal line of one lug and the inner end of the other lug, all full-length lugs being provided with longitudinal grooves in their outer edges, and each divided lug being provided with a groove at right angles to the length of the groove in its full-length lug, for the purpose set forth.

3. In a wall corner, the combination with main blocks whereof each is recessed in its upper and lower edges so as to leave lugs at both ends of each recess, the latter being substantially twice the length of each lug; of corner blocks three-quarters the length of the main block, each having on each horizontal edge a lug at one end duplicating one of the lugs on a main block, a lug at the other end duplicating the other lug on said main block excepting that it is cut away on a diagonal line extending from the inner face to the outer corner of this block, and a recess between said diagonal line of one lug and the inner end of the other lug.

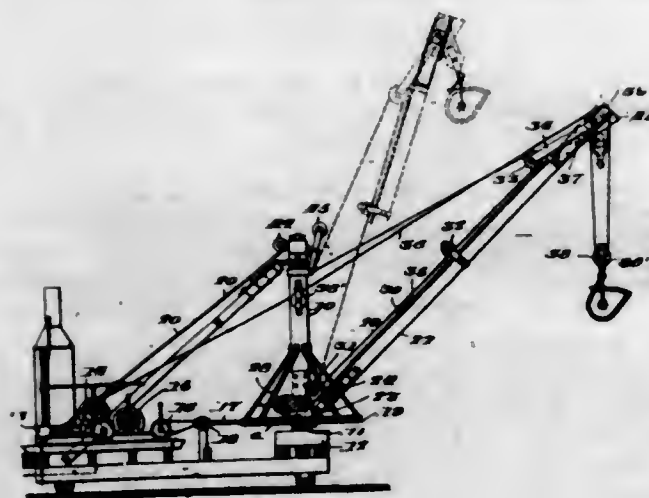
4. In a wall corner, the combination with main blocks whereof each is recessed in its upper and lower edges so as to leave lugs at both ends of each recess, the latter being substantially twice the length of each lug; of corner blocks three-quarters the length of the main block, each having on each horizontal edge a lug at one end duplicating one of the lugs on a main block, a lug at the other end duplicating the other lug on said main block excepting that it is cut away on a diagonal line extending from the inner face to the outer corner of this block, a recess between said diagonal line of one lug and the inner end of the other lug, all full-length lugs being provided with longitudinal grooves in their outer edges, and said divided lug being provided with a groove at right angles to the length of the groove in its full-length lug, for the purpose set forth.

5. In a wall corner, the combination with main blocks whereof each is recessed in its upper and lower edges so as to leave lugs at both ends of each recess, the latter being substantially twice the length of each lug; of corner blocks three-quarters the length of the main block, each

having on each horizontal edge a lug at one end duplicating one of the lugs on a main block, a lug at the other end duplicating the other lug on said main block excepting that it is cut away on a diagonal line extending from the inner face to the outer corner of this block, a recess between said diagonal line of one lug and the inner end of the other lug, all full-length lugs being provided with longitudinal grooves in their outer edges, and said divided lugs being provided with a groove at right angles to the length of the groove in its full-length lug and all said grooves being sunk in said lugs for half the distance which the latter project above the bottom of the contiguous recesses, and interlocking rods lying in said grooves.

[Claims 6 and 7 not printed in the Gazette.]

1,077,467. CRANE AND DERRICK. OMAR N. GARDNER, Jamestown, N. Y. Filed Feb. 7, 1913. Serial No. 746,827. (Cl. 212-8.)



1. In a device of the character described, the combination with a mast, a boom mounted to swing on a horizontal axis, and a load attaching means, of a cable having its opposite ends adapted to connect with a winding drum; a shiftable pulley block through which an intermediate portion of the cable is rove, said cable being guided over the upper portion of the boom and through the load attaching means, a boom hoisting cable rove between the boom and the mast and having one end connected to the shiftable pulley block in opposition to said cable and the opposite end secured to said mast, pulleys around which the intermediate portion of said boom hoisting cable is guided, and means for locking the said boom hoisting cable against movement whereby the shiftable pulley block is held in a fixed position relatively to the boom.

2. In a device of the character described, the combination with a mast, a boom mounted to swing on a horizontal axis, and a load attaching means, of a cable having its opposite ends adapted to connect with a winding drum, a shiftable pulley block through which an intermediate portion of the cable is rove, said cable being guided over the upper portion of the boom and through the load attaching means, a boom hoisting cable rove between the boom and the mast and having one end connected to the shiftable pulley block in opposition to said cable and the opposite end secured to said mast, pulleys around which the intermediate portion of said boom hoisting cable is guided, means for locking the said boom hoisting cable against movement whereby the shiftable pulley block is held in a fixed position relatively to the boom, and means for releasing said boom hoisting cable from its locked position to permit the shiftable pulley block to move in response to changes in the vertical height of the boom.

3. In a device of the character described, the combination with a vertical mast, a boom mounted to swing on a horizontal axis, and a hoisting block, of a cable having its opposite ends adapted to connect with a winding drum, a shiftable pulley block through which a looped intermediate

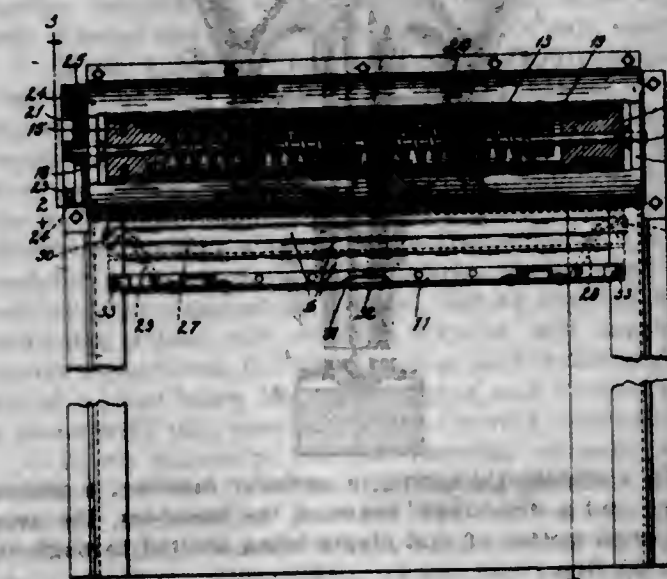
portion of the cable is rove, said cable being guided over the upper portion of the boom and through the hoisting block, a boom hoisting cable rove between the boom and the mast and having one end connected to the shiftable pulley block in opposition to said cable and the opposite end secured to said mast, pulleys at the base of the mast and on the outer portion of the boom around which the intermediate portion of said boom hoisting cable is guided, and means for releasably locking said boom hoisting cable against movement whereby the shiftable pulley block is held in a fixed position relatively to the boom when the boom is in one position and is permitted to move relatively to the boom when said boom is moved to a different position.

4. In a device of the character described, having a boom mounted to swing on a horizontal axis, and a vertical mast, an operating cable having opposite end portions adapted to connect with a winding drum, a hoisting block through which the cable is rove, said cable returning from the hoisting block toward said mast, and provided with a loop in an intermediate portion, a pulley block carried in the loop of the cable, and shiftable therewith lengthwise of the boom in response to variations in the inclination of said boom, a boom operating cable connecting with the pulley block, means associated with the boom operating cable for holding the same inactive while the load is being lifted toward the boom, and means for releasing the boom operating cable to enable the pulley block to shift its position on the boom in response to ascending and descending changes in the inclination of said boom.

5. In a device of the character described, having a boom mounted to swing on a horizontal axis, and a vertical mast, an operating cable having the opposite end portions adapted to connect with a winding drum, a hoisting block through which the cable is rove, said cable returning from the hoisting block toward said mast, and provided with a loop in an intermediate portion, a pulley block carried in the loop of the cable, and shiftable therewith lengthwise of the boom in response to variations in the inclination of said boom, a boom operating cable connecting with the pulley block, means associated with the boom operating cable for holding the same inactive while the load is being lifted toward the boom, and means for releasing the boom operating cable to enable the pulley block to shift its position on the boom in response to ascending and descending changes in the inclination of said boom, said hoisting block adapted to engage the boom from below during the winding function of the first-named cable whereby the continued winding thereof causes the boom to be moved from a lower to a higher elevation.

[Claims 6 and 7 not printed in the Gazette.]

1,077,468. FIRE-DOOR. MILLARD GILMORE, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 31, 1912. Serial No. 717,902. (Cl. 189-58.)



1. In apparatus of the class described, the combination of a drum, supports for said drum, a flexible metal shutter

196 O. G.—6

secured to said drum and adapted to close an opening when in its down position, spring mechanism inside of said drum to form counterbalancing means, a bar secured to the free end of said shutter, guides on each side of the opening for the bar, a weight associated with said shutter, guides for said weight, a lever pivoted to said weight, a rest for said lever, a fuse connected with said lever and adapted when melted to permit the weight to engage the bar and thus lower the door to close the opening.

2. In apparatus of the class described, the combination of a drum, supports for said drum, a flexible metal shutter secured to said drum and adapted to close an opening when in its down position, spring mechanism inside of said drum to form counterbalancing means, a ledge on said shutter, a weight independent of said shutter and normally out of engagement with said ledge, levers pivoted to said weight, engaging members for said levers, and a wire connecting said levers and having a fuse associated therewith, said fuse when melted causing said weight to drop onto the ledge and thus force the shutter into its closed position, said weight also serving to maintain said shutter in such position.

3. In apparatus of the class described, the combination of a drum, supports for said drum, a flexible metal shutter secured to said drum and adapted to close an opening when in its down position, means inside of said drum to form counterbalancing mechanism, a bar secured to the free end of said shutter, guides on each side of the opening for the bar, a weight associated with said shutter, guides for said weight, a movable member supported by said weight, a rest for said member, a fuse connected with said member and adapted to be melted to permit the weight to engage the door and thus lower the door to close the opening.

4. In apparatus of the class described, the combination of a drum, supports for said drum, a flexible metal shutter secured to said drum and adapted to close an opening when in its down position, mechanism inside of said drum to form counterbalancing means, a ledge on said shutter, a weight independent of said shutter and normally out of engagement with said ledge, movable members supported by said weight, engaging devices for said members, and a wire connecting said members and having a fuse associated therewith, said fuse when melted causing said weight to drop onto the ledge and thus force the shutter into its closed position, said weight also serving to maintain said shutter in such position.

5. In apparatus of the class described, the combination of a drum, supports for said drum, a flexible metal shutter secured to said drum and adapted to close an opening when in its down position, counterbalancing devices inside of said drum, a projection on the free end of said shutter, guides for said shutter, a weight associated with said shutter, guides for said weight, a movable member supported by said weight, a rest for said member, and a wire connected with said member and having a fuse associated therewith, said fuse when melted causing said weight to engage the projection so as to force the shutter into its closed position.

1,077,469. POWER-DRIVEN HAMMER. AUGUST A. GOUBERT, Englewood, N. J. Filed Dec. 2, 1911. Serial No. 663,481. (Cl. 121-19.)

1. A power-driven hammer comprising in combination a movable hammer proper, a plunger in the line of movement in one direction only of the hammer proper, a reversible valve and means connecting the plunger with the valve, whereby the valve will be operated by the hammer during its upward stroke only, substantially as described.

2. A power-driven hammer comprising in combination a movable hammer proper, a sleeve, a plunger movable in the sleeve, a reversible valve and means connecting the plunger with the valve, the plunger being free from connection with the hammer, whereby the valve will be operated by the hammer during its upward stroke only, substantially as described.

3. A power-driven hammer comprising in combination a movable hammer proper, a sleeve, a plunger provided with

a shoulder near its lower end and movable in the sleeve, a cushion between the shoulder and the bottom of the sleeve, a reversible valve and means connecting the plunger with the valve, substantially as described.

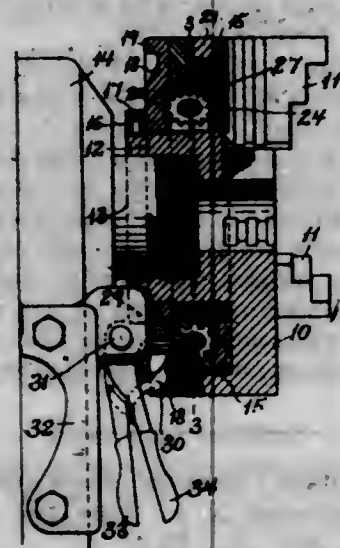


4. A power-driven hammer comprising in combination a movable hammer proper, a sleeve, a plunger movable in the sleeve, a cushion to limit the movement of the plunger in the direction of the movement of the hammer proper when the hammer proper strikes its blow, a reversible valve, and means connecting the plunger with the valve, substantially as described.

5. A power-driven hammer comprising in combination a movable hammer proper, a sleeve, a plunger provided with a shoulder and movable in the sleeve, a stop adapted to engage with said shoulder and limit the movement of the plunger in the direction in which the plunger moves when the hammer proper contacts therewith, a reversible valve and means connecting the plunger with the valve, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,077,470. CHUCK. JAMES HARTNESS, Springfield, Vt. Filed Sept. 28, 1912. Serial No. 722,962. (Cl. 29—126.)



1. A chuck comprising a rotatable body, radially movable jaws, a jaw-operating scroll, a second scroll, and intermediate power-transmitting connections between said scrolls.

2. A chuck comprising a rotatable body, radially movable jaws, a jaw-operating scroll, a second scroll, and an intermediate gear between said scrolls and engaging teeth on said scrolls.

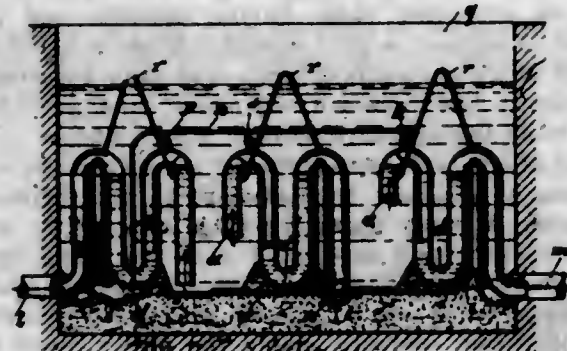
3. A chuck comprising a rotatable body, radially movable jaws, a jaw-operating scroll, a second scroll, and intermediate power-transmitting connections between said scrolls, in combination with means for stopping or retarding the rotation of said gear-operating scroll.

4. A chuck comprising a rotatable body, radially movable jaws, a jaw-operating scroll, a second scroll, and an

intermediate gear between said scrolls and engaging teeth on said scrolls, in combination with means for stopping or retarding the rotation of said jaw-operating scroll.

5. A chuck comprising a rotatable body, radially movable jaws, a jaw-operating scroll having rack teeth, a second scroll having spiral teeth and an intermediate spiral gear intermeshed with the said teeth on said scrolls. [Claims 6 to 8 not printed in the Gazette.]

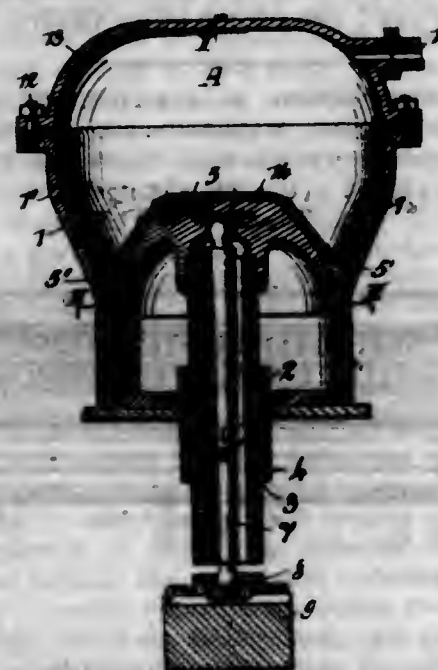
1,077,471. INTERMITTENTLY-ACTING DOUBLE SIPHON. JULIUS HERZFELD, Schöneberg, near Berlin, Germany, assignor to Sucrofiltrat- und Wasserreinigungs-Gesellschaft mit beschränkter Haftung, Schöneberg, Germany. Filed Feb. 6, 1912. Serial No. 675,905. (Cl. 137—106.)



1. In combination with a tank having a plurality of outlets, a series of intermittently acting double siphons for the several outlets of said tank, a common blow-out tube closely connected to said siphons and serving as an auxiliary water seal for all the siphons, auxiliary means for carrying off the water remaining in the lower bend of said siphons, and a common pipe connecting said auxiliary means, substantially as described.

2. In combination with a tank having a plurality of outlets, a series of intermittently acting double siphons for the several outlets of said tank, a common blow-out tube closely connected to said siphons and serving as an auxiliary water seal for all the siphons, auxiliary siphons adapted to carry off the water remaining in the lower bends of the siphons, and a common pipe connecting said auxiliary siphons, substantially as described.

1,077,472. PNEUMATIC SPRING. JOSEF HOFMANN, Baumaroché, Switzerland. Filed July 18, 1912. Serial No. 710,252. (Cl. 21—50.)



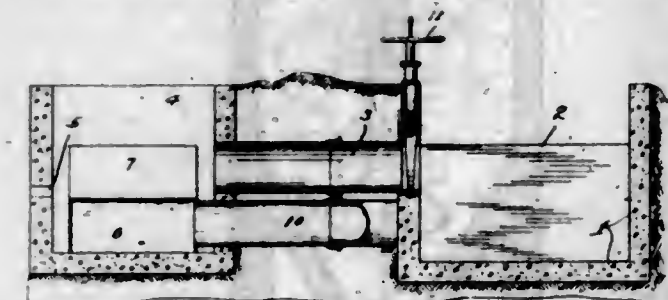
1. In a pneumatic spring, a cylinder member, a piston member and a diaphragm between the members, the area of the cross-section of said piston being limited through an undulated line.

2. In a pneumatic spring a cylinder member, a piston member and a diaphragm between the members and corrugations provided on the surface of the piston member.

3. In a pneumatic spring a cylinder member, a piston member and a diaphragm between the members, the effective area of the diaphragm increasing with the increase of the load as the two members approach one another, and corrugations provided on the surface of the piston member.

4. In a pneumatic spring a cylinder member having diameters transverse to one another of different length, a piston member, a diaphragm between the members and corrugations provided on the longitudinal walls of said piston member, the longitudinal walls of both members being parallel, while the lateral walls of both members diverge from one another toward the interior of the cylinder member.

1,077,473. WATER-SUPPLY SYSTEM. TIMOTHY F. HORNUNG, Sacramento, Cal. Filed Mar. 5, 1913. Serial No. 752,082. (Cl. 137—66.)



1. In an apparatus for the described purpose and in combination with a water distributing channel, a water pressure accumulator provided with an outlet opening for controlling the water supply to a lateral, a water supply connection between the distributing channel and the accumulator for introducing water thereto from the distributing channel, a spillway within the accumulator and provided with an inlet opening disposed in a plane above the outlet formed in said accumulator, a return connection between the spillway and the distributing channel for the discharge of the waste water from the accumulator into the distributing channel, and an overflow barrier extending across said channel between said supply and return connections, the upper edge of said barrier terminating at a point below the upper edge of said channel and approximately level with said spillway.

2. In an apparatus for the described purpose and in combination with a water distributing channel, a water supply connection between the distributing channel and the accumulator, a plurality of spillways within the accumulator and having their inlets disposed in a plane above the outlet formed in said accumulator, a return connection common to all of said spillways extending to the distributing channel, and an overflow barrier extending across said channel between said supply and return connections, the upper edge of said barrier terminating at a point below the upper edge of said channel and approximately level with said spillways.

3. In an apparatus for the described purpose and in combination with a water distributing channel, a water pressure accumulator provided with an outlet opening, a water supply connection between the distributing channel and the accumulator, an overflow reservoir mounted in the accumulator and provided with an overflow opening therein located in a plane above the outlet of the accumulator, a return connection between the overflow reservoir and the distributing channel, and an overflow barrier extending across said channel between said supply and return connections, the upper edge of said barrier terminating at a point below the upper edge of said channel and in a plane with said opening in said overflow reservoir.

4. In an apparatus for the described purpose, and in combination with a water distributing channel, a water pressure accumulator provided with an outlet opening, a water supply connection between the water distributing channel and the accumulator, an overflow reservoir mounted within the accumulator and provided with a plurality of upwardly extending open topped ribs providing spillways, the tops thereof extending to a plane above the out-

let for the accumulator, a return connection between the overflow reservoir and the distributing channel, and an overflow barrier extending across said channel between said supply and return connections, the upper edge of said barrier terminating at a point below the upper edge of said channel and in a plane with the tops of said ribs.

5. In an apparatus for the described purpose and in combination with a water distributing channel, a water pressure accumulator provided in its side wall with an outlet opening, a valve controlled water supply connection between the distributing channel and the accumulator, an overflow reservoir fixed within the accumulator and provided with a plurality of spaced upwardly extending open topped ribs forming spillways, the tops thereof extending to a plane above the outlet of the accumulator, a return connection between the overflow reservoir and the distributing channel, and an overflow barrier extending across said distributing channel between said supply and return connections, the upper edge of said barrier terminating at a point below the upper edge of said channel and in a plane with the tops of said ribs.

1,077,474. PUMPING APPARATUS. CHARLES R. HUDSON, Green Bay, Wis., assignor of one-half to David W. Hudson, Green Bay, Wis. Filed Apr. 14, 1911. Serial No. 621,091. (Cl. 103—70.)



1. A pumping apparatus comprising the combination with a set of cylinder sections, connected together and provided with a ported plug at the point of connection, of a tubular piston rod extending through said plug, a piston supported by said tubular piston rod and operating in one of the cylinder sections, said piston having a valved passage leading therethrough, a valve casing mounted on said piston and ported at its upper end at the sides of the piston rod, a valve controlling the delivery of fluid to the tubular piston rod from below the piston, a spring actuated valve controlling the delivery of fluid to the tubular piston rod through the upper ports in the valve casing from above the piston, a valve controlling the admission of fluid through said ported plug to the space above the piston, a coiled spring normally closing said valve, a supporting member therefor connected with the ported plug, and another valve controlling the admission of fluid from below the lower cylinder section to the space below the piston.

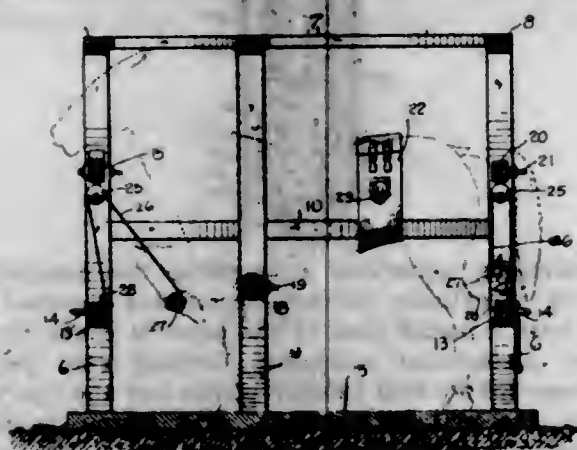
2. A pumping apparatus comprising the combination of a set of cylinder sections, a connecting member therefor, a tapered plug seated in said connecting member and provided with inlet ports, said connecting member being provided with apertures in registry with said ports, a spring seated check valve permitting the delivery of fluid to the lower cylinder through said ports, a tubular piston rod extending through said plug, a ported piston, a valve

casing connecting the same with said piston rod, a check valve permitting an upward delivery of fluid through the piston port into said casing, another check valve permitting a downward delivery of fluid from the cylinder space above the piston into the valve casing, the interior of said valve casing being in communication with the tubular piston rod section, and a check valve adapted to admit fluid to said cylinder section below the piston.

3. A pumping apparatus comprising the combination of a set of cylinder sections, a tapered and ported connecting member therefor, a plug seated in the connecting member and provided with downwardly extending valved passages leading from the connecting member ports through the plug into the lower cylinder section, a check valve at the lower end of said cylinder section, a two way acting piston in said cylinder section provided with a port extending upwardly therethrough, a valve casing mounted upon said piston, a check valve in said casing permitting fluid to enter the casing through the piston port from below the piston, another check valve admitting fluid to said casing from above the piston, a tubular piston rod connected with said casing and in communication with the interior thereof, said tubular piston rod extending through said ported plug and communicating with the interior of the upper cylinder section above the plug.

4. A pump piston provided with a passage therethrough, a tubular piston rod with which said passage communicates, a downwardly closing valve seated in said passage and controlling the flow of fluid therethrough from below the piston, and an upwardly closing valve seated in said passage and controlling the admission of fluid thereto from the space above the piston exterior to the piston rod, said upwardly closing valve being adapted, when closed, to permit a delivery of fluid to the tubular piston rod, said passage being enlarged to receive the valves and said valves being provided with interlapping guide members, together with a spring for seating the upper valve.

1,077,475. HORSESHOEING RACK. POLLY HUFFMAN, Cameron, Tex. Filed Feb. 14, 1913. Serial No. 748,482. (Cl. 119—98.)

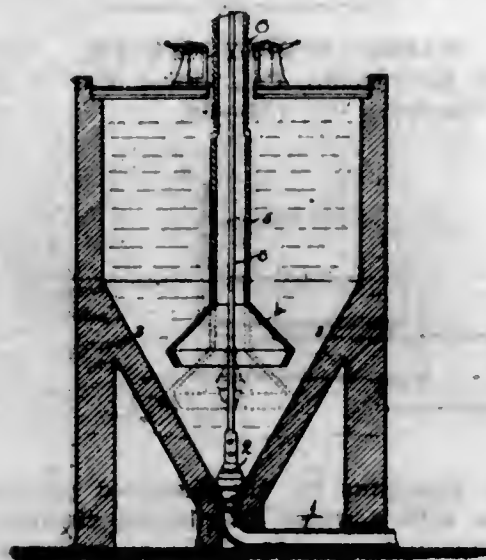


1. A structure of the character described comprising a platform, corner uprights mounted upon said platform, additional uprights mounted upon the platform adjacent to one of its ends, a single longitudinal rail connecting the series of uprights at each side of the platform, upper and lower confining bars removably mounted at their ends in the corner uprights, a transverse bar having its ends mounted in the additional uprights below the longitudinal rails and adapted to extend beneath the animal's body adjacent to the fore legs, means adapted for attachment to said longitudinal rails and designed to encircle the animal's body adjacent the hind legs, and means arranged on each of the front and rear transverse bars for elevating the animal's hoof.

2. A structure of the character described comprising a platform, corner uprights mounted upon said platform, additional uprights mounted upon the platform adjacent to one of its ends, longitudinal rails connecting the additional uprights and the corner uprights, upper and lower transverse confining bars removably mounted at

their ends in said corner uprights, a transverse yoke bar removably mounted at its ends in the additional uprights and adapted to extend beneath the animal's body adjacent to the fore legs, a block and pulley attached to one of the rear transverse bars, and a rope extending over said pulley and provided with a sling to receive the animal's hoof whereby the same may be elevated.

1,077,476. APPARATUS FOR SEPARATING DEPOSITED MATTER FROM LIQUIDS. BURKHARDT KAIBEL, Darmstadt, Germany. Filed May 4, 1912. Serial No. 695,300. (Cl. 210—5.)



1. In an apparatus for separating deposited matter from liquids, the combination of a funnel-shaped well the lower part of which adjacent to and above the apex is adapted to serve as a settling space for the sludge, a bell having means of communication with the external air, and adapted to serve as a valve, a valve seat for same at the upper portion of said settling space, and means for withdrawing the deposited matter directly from said settling space.

2. In an apparatus for separating deposited matter from liquids the combination of a well having its walls continued downwardly to form a funnel-shaped settling space, a valve seat at the upper part of said settling space, a bell adapted to seat on said valve seat, and having means of communication with the outer air, and means for withdrawing the deposited contents from said settling space.

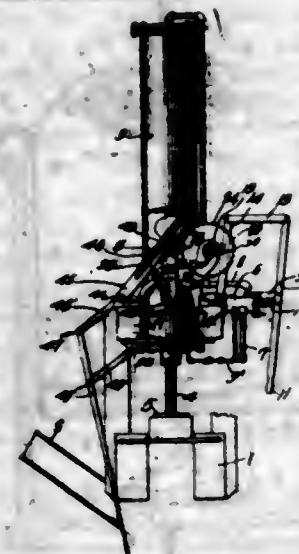
3. Apparatus for separating deposited matter from liquids, comprising in combination a downwardly funnel-shaped well, a ring or valve seat in said well above the apex thereof, the space between said ring or valve seat serving as a settling space for the sludge, a bell adapted to seat on said ring, a pipe or tube connecting said bell with the outer air, means for raising and lowering said bell by said tube or pipe, and means for removing the sludge from said settling space.

4. An apparatus for separating sludge from water comprising a clearing well whose lower extremity is cone-shaped and whose wall contains a turned metal ring, a bell adapted to seal with said ring, the said bell being open below and connected with an open tube above, said open tube communicating with the air, means to raise and lower said bell by said open tube, a stopper adapted to fit within an aperture at the lowest point of the cone, a rod attached to said stopper passing through the bell and the open tube and a pipe attached to the outlet through which the sludge flows away after depression of the bell and elevation of the stopper.

5. An apparatus for separating sludge from water comprising a clearing well whose lower extremity is cone-shaped, and whose wall contains at a distance above the apex of the cone a turned metal ring, a bell adapted to seat with said ring, the said bell being open below and connected with an open tube above, said open tube communicating with the air, means to raise and lower said

bell by said open tube, means for withdrawing the contents of said cone-shaped lower extremity between said turned metal ring and the apex.

1,077,477. COTTON-PACKER. TEMPEL LEEROY KINNE, Dallas, Tex. Filed Nov. 29, 1912. Serial No. 734,217. (Cl. 100—28.)



1. In a cotton packer the combination with a lint slide, a tamper, and a valve for controlling the action of the slide, of means movable across the discharge end of the slide for directing cotton into the path of the tamper, a drive shaft, a wrist pin revoluble therewith, means operated by the wrist pin for actuating said feeding means, and adapted, when the feeding means are subjected to excessive resistance, to shift the wrist pin into alignment with the drive shaft.

2. A cotton packer including a lint slide, a drive shaft, a wrist pin revoluble therewith and adapted to swing relative thereto, a tamper, means for feeding material from the lint slide and into the path of the tamper, and a connection between said feeding means and the wrist pin, said feeding means and connection constituting means for shifting the wrist pin into alignment with the drive shaft when the feeding means is subjected to excessive resistance.

3. The combination with a tamper, and a lint slide, of a drive shaft, a wrist pin revoluble therewith and adapted to move relative thereto, feeding means movable across the discharge end of the lint slide for directing material into the path of the tamper, and means for transmitting motion to the feeding means from the wrist pin, said feeding means and motion transmitting means cooperating to shift the wrist pin into alignment with the drive shaft when the feeding means is subjected to excessive resistance.

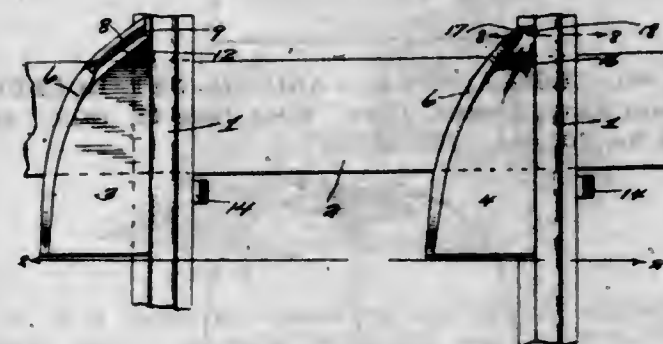
4. A cotton packer including a tamper, a lint slide, a drive shaft, a wrist pin revoluble with the drive shaft and adapted to move relative thereto, feeding means movable across the discharge end of the lint slide for directing material into the path of the tamper, means for transmitting motion to the feeding means from the wrist pin, said feeding means and motion transmitting means cooperating to shift the wrist pin to inactive position in alignment with the drive shaft when the feeding means is subjected to excessive resistance, and yielding means for holding the wrist pin in both active and inactive positions.

5. A cotton packer including a tamper, a lint slide, a drive shaft, a wrist pin revoluble with the drive shaft and adapted to move relative thereto, feeding means movable across the discharge end of the lint slide for directing material into the path of the tamper, means for transmitting motion to the feeding means from the wrist pin, said feeding means and motion transmitting means cooperating to shift the wrist pin to inactive position in alignment with the drive shaft when the feeding means is subjected to excessive resistance, yielding means for

holding the wrist pin in both active and inactive positions, and means for automatically shifting the wrist pin out of inactive position.

[Claims 6 to 14 not printed in the Gazette.]

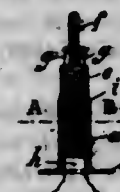
1,077,478. CAR-REPLACER. JOSEPH L. KLATON, Jackson, Mich. Filed July 12, 1913. Serial No. 778,809. (Cl. 104—163.)



1. In a car or engine replacer, an outer replacing frog having an upper surface inclined upwardly toward the tread of a rail and provided with a rib adapted to be engaged by the flange of a car wheel to guide the same toward the rail, a removable supplemental rib secured to the said rib adjacent the tread of the rail, and a securing hook provided with a shoulder to lock the frog to the rail.

2. In a car or engine replacer, an outer frog having a rib adapted to be engaged by the flange of a car wheel so as to guide the car wheel toward the rail, said rib terminating in a removable renewable supplemental rib having dove-tailed connections with the said guiding rib, and a securing hook provided with a shoulder to lock the frog to the rail.

1,077,479. DEVICE ADAPTED TO SHOW WHETHER AN ELECTRIC INCANDESCENT LAMP HAS BEEN IN USE. SIMON KLEIN, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 17, 1910. Serial No. 550,059. Renewed May 1, 1913. Serial No. 764,936. (Cl. 176—16.)



1. The combination, with an incandescent lamp, of a device sealed thereto and adapted to show whether said lamp has been used, substantially as set forth.

2. The combination, with an incandescent lamp, of a substance sensitive to light and adapted, by changing its appearance under the influence of light, to show when said lamp has been used, substantially as set forth.

3. The combination, with an incandescent lamp, of a body dyed in a color sensitive to light, substantially as and for the purpose set forth.

4. The combination, with an incandescent lamp, of a porous substance dyed in a color sensitive to light, substantially as and for the purpose set forth.

5. The combination, with an incandescent lamp, of a body sensitive to light and provided in the foot of said lamp, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,077,480. PROCESS FOR THE TREATMENT OF THE SURFACES OF ARTICLES OF ALUMINUM. ALBERT LANG, Karlsruhe, Germany. Filed Feb. 6, 1907. Serial No. 358,109. (Cl. 148—41.)

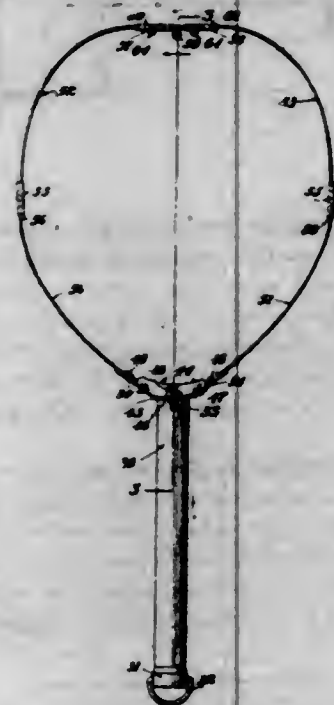
1. The herein described method of treating the surface of aluminum which consists in coating the surface with

an oxidizing agent and then subjecting the coated aluminum surface to the action of heat.

2. The herein described method of treating the surface of aluminum which consists in coating the surface with a metallic oxidizing salt and then subjecting the coated aluminum surface to the action of heat.

3. The herein described method of treating the surface of aluminum which consists in coating the surface with a metallic chlorid and then subjecting the coated aluminum surface to the action of heat.

1,077,481. COLLAPSIBLE-LANDING-NET HOLDER. HARRY LEVY, Boston, Mass. Filed June 17, 1912. Serial No. 704,054. (Cl. 43-9.)



1. A device of the character described, comprising two members hingedly connected at their inner and outer ends, each member comprising a plurality of sections slidably connected to vary the length of the members.

2. A device of the character described, comprising a net frame composed of two members, hingedly connected at their inner and outer ends, each member comprising a plurality of resilient sections slidably connected to vary the length of the members.

3. A device of the character described, comprising a net frame composed of a plurality of sections slidably connected together at two points and hingedly connected together at two other points.

4. A device of the character described, comprising a collapsible net frame, means for varying the length of the frame when collapsed, and a hollow handle for containing said frame.

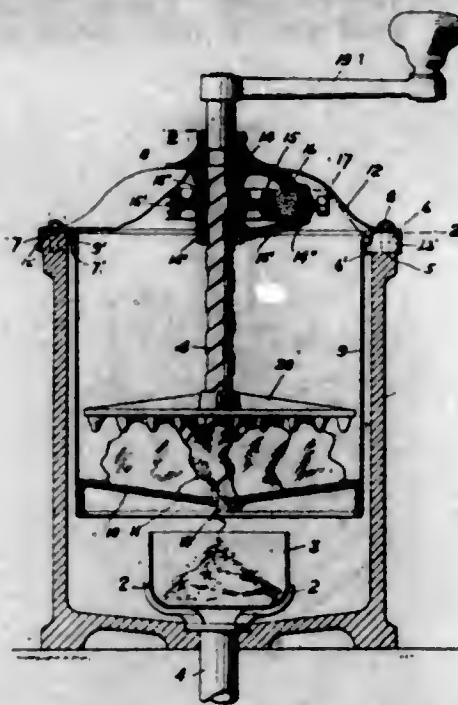
5. A landing net comprising a net frame having members hingedly connected at their inner and outer ends, one of the outer hinge members having a keeper, the other outer hinge member having a frame member slidably relatively to it to engage and disengage the said keeper.

[Claims 6 to 14 not printed in the Gazette.]

1,077,482. ICE-SHAVING MACHINE. FISHER H. LIP-PINCOTT, Philadelphia, Pa., assignor to A. H. & F. H. Lip-pincott, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 19, 1910. Serial No. 587,800. (Cl. 83-62.)

1. An ice crushing machine comprising a casing, ice comminuting means mounted in the lower end of said casing, a longitudinally movable and rotative follower mounted in the upper end of the casing engaging said follower to cause the feeding movement of said follower toward the lower end of said casing, said means adapted to yield upon an excessive resistance to said feeding movement to prevent said feeding movement.

2. An ice shaving machine comprising a vessel having a recess in the rim thereof, a shell having a ring with a block thereon adapted to engage said recess, cutting mechanism carried by said shell, a cover, and means for engaging said cover to said ring.

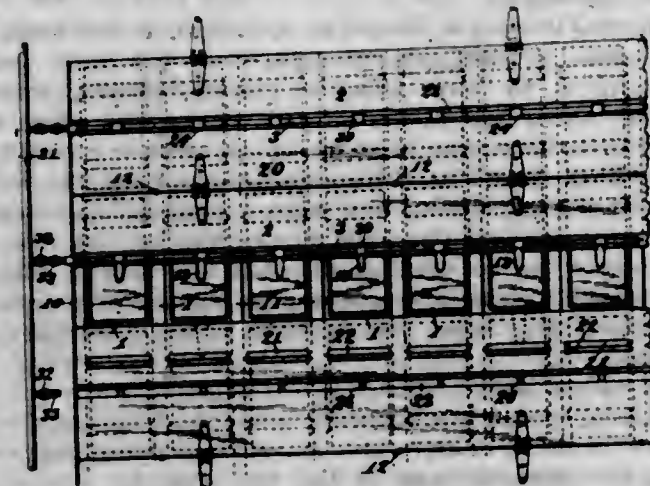


3. An ice shaving machine comprising a vessel having a recess in the rim thereof, a block adapted for engagement in said recess, a ring fixed to said block, a shell having means for engaging said ring, cutting mechanism carried by said shell, headed studs fixed to said ring, and a cover having means for engaging said studs.

1,077,483. METHOD OF PRODUCING PRINTING-PLATES. OTTO LUPPE, Munich, Germany. Filed May 20, 1911. Serial No. 628,410. (Cl. 101-205.)

The herein described method of producing printing plates which consists in coating the surface of the plate with a resinous composition, applying thereto a sensitized gelatin film, subjecting said film to the action of light and developing the same, subjecting the light-affected portion of said film to a tanning action and then to the action of a hygroscopic fluid adapted to render such light-affected part hard and brittle, whereby it and the resinous layer therebeneath will separate from said plate, and finally etching the plate.

1,077,484. ICE-MAKING APPARATUS. WILLIAM MCCORMICK, Seattle, Wash., assignor of one-fourth to Thomas C. Wand and one-fourth to C. F. McDowell, Snohomish, Wash. Filed July 18, 1912. Serial No. 710,297. (Cl. 62-6.)



1. In an apparatus for making clear can-ice from raw water, the combination with the cans, of a metal air-discharge pipe for each can extending substantially from the upper level of the can downward and a flexible suspension therefor permitting free lateral movement of the lower end of the pipe.

2. In an apparatus for making ice by the can system, a pressure air header extending centrally over each row of cans, an air-discharge pipe for each can extending from the header downward into the cans and each composed of a metal pipe extending throughout substantially the distance from the surface of the water downward, and a flexible pipe section connecting said depending pipe with the header and forming a flexible suspension support and air supply therefor.

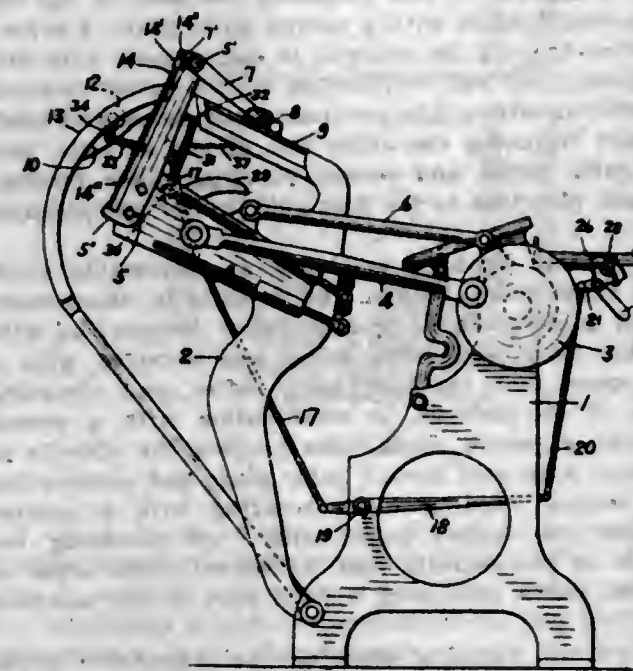
3. An apparatus for making clear can-ice from raw water comprising an air discharge pipe for each can, a support therefor permitting free lateral movement of its lower end, and a non-metallic fender surrounding the lower end of said pipe.

4. An apparatus for making clear can-ice from raw water comprising an air discharge pipe within each can extending substantially from the surface of the water downward, a hose section for each pipe forming the supporting and air supplying means therefor, and a non-metallic fender surrounding the lower end of each pipe.

5. In an apparatus for making can-ice, a tank cover composed of a pair of hinged sections for each can row, their swinging edge coming together, one section having notches in its swinging edge for the passage of air discharge pipes.

[Claims 6 to 29 not printed in the Gazette.]

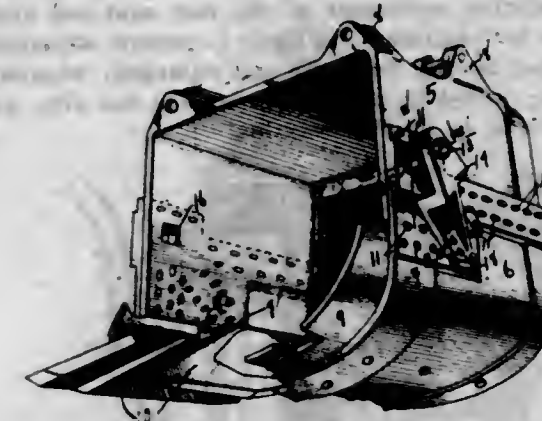
1,077,485. PRINTING-PRESS. BERNARD MCGINTY, Doylestown, Pa., assignor to Printers Specialties Company, a Corporation of Delaware. Filed Apr. 3, 1912. Serial No. 688,133. (Cl. 101-79.)



1. In a printing press, the combination with a stationary frame having a feed board and a rocking bed, having adjustable ink supply means, of a bearing fixed to said feed board, a shaft journaled in said bearing, a handle fixed to and adapted for turning said shaft, a slotted sector fixed to said shaft, means passing through said sector to an engagement with said bearing for holding said shaft, and mechanism connected with said shaft whereby said ink supply means are adjusted and held.

2. In a printing press, the combination of a stationary frame, a rocking bed, an ink fountain pivotally mounted on said bed, an ink supply roller connected with said fountain, a journaled cam carried by said bed whereby the position of said fountain and roller are adjusted, an arm fixed to said cam, a lever fulcrumed on said bed, a link connecting said arm and lever, a feed board carried by said frame, a bearing carried by said feed board, a shaft journaled in said bearing, an arm fixed to said shaft, a link connecting said last named arm and said lever, a handle fixed to said shaft, a member having a slot therein fixed to said shaft, and means comprising a bolt connected with said bearing and extending through said slot whereby said shaft is fixed.

1,077,486. TWO-PART DIPPER FOR EXCAVATING-MACHINES. WALTER S. MCKEE, Glencoe, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed June 11, 1912. Serial No. 703,012. (Cl. 37-16.)



1. In a dipper for excavating and similar machines, a dipper body comprising front and rear portions formed from cast metal and secured together along joints located in the sides thereof to thereby form a two-part dipper body, the rear ends of said front portion overlapping the forward ends of said rear portion; two lifting ears located one upon each side of the body and the bases of which ears rest entirely upon the front portion of said body, said ears having each a bearing to receive one end of a ball pin and the front portion of said body having bearings located in line with the bearing in said ears; two lugs formed integrally with the front portion of the body and against which the bases of said ears abut; and means for securing said several parts together.

2. In a dipper for excavating and similar machines, a dipper body comprising front and rear portions formed from cast metal and secured together along joints located in the sides thereof to thereby form a two-part dipper body, the rear ends of said front portion overlapping the forward ends of said rear portion; two lifting ears located one upon each side of the body and the bases of which ears rest entirely upon the front portion of said body, said ears having each a bearing to receive one end of a ball pin, the front portion of said body having bearings located in line with the bearings in said ears, and the rear portion of said body having openings in line with and larger than the bearings in said front portion; two lugs formed integrally with the front portion of the body and against which the bases of said ears abut; and means for securing said several parts together.

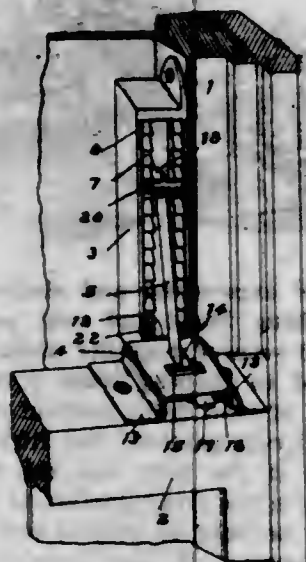
3. In a dipper for excavating and similar machines, a dipper body comprising front and rear portions formed from cast metal and secured together along joints located in the sides thereof to thereby form a two-part dipper body, the rear ends of said front portion overlapping the forward ends of said rear portion; two lifting ears located one upon each side of the body and the bases of which ears rest entirely upon the front portion of said body; fastening means for securing said ears in place and which fastening means extend through the overlapping parts of the front and rear portions of said body; two lugs formed integrally with the front portion of the body and against which the bases of said ears abut; and fastening means arranged along the joint between said front and rear portions for securing them together.

1,077,487. WINDOW-SASH LOCK. GEORGE C. MILLER, New York, N. Y. Filed July 8, 1913. Serial No. 777,810. (Cl. 16-146.)

1. In a window sash lock, the combination of an intermediate member, means for adjustably engaging said member for enabling said member to be in operative relation with a sash, and means including a relatively movable catch for securing said member to another sash, whereby the two sashes can adjustably engage each other or be freed from each other.

2. In a window lock, the combination of a casing adapted to be secured to a sash and having a vertical slot in

its front and teeth along said slot, a clip having an opening with an enlarged portion secured to another sash adjacent to the first sash, and a connecting rod having means at one end located within the casing and adapted to prevent separation of the rod from the casing without preventing relative movement of the rod, said rod also having means for engaging the teeth to permit adjustment of the rod and having its other end enlarged, whereby said end can be placed in position to engage the clip, and the sashes secured in desired relation.



3. In a window lock, the combination of a casing adapted to be secured to a sash and having a vertical slot in its front and teeth along said slot, a clip having an opening with an enlarged portion secured to another sash adjacent to the first sash, a connecting rod having means at one end located within the casing and adapted to prevent separation of the rod from the casing without preventing relative movement of the rod in the slot, said rod also having means for engaging the teeth to permit adjustment of the rod and having its other end enlarged, whereby the said end can be placed in position to engage the clip, and a spring associated with the clip to prevent disengagement of the rod and clip except from the inside of the window, whereby the sashes can be secured in desired relation.

4. In a window lock, the combination of a casing adapted to be secured to a sash and having a vertical slot in its front, teeth along the slot, and a pocket having an opening leading into the same from the top of the pocket at the lower end of the slot, a retaining clip having an opening with an enlarged portion secured to another sash adjacent to the first sash, and a connecting rod having means at one end located within the casing and adapted to prevent separation of the rod from the casing without preventing relative movement of the rod in the slot, said rod also having means for engagement of the teeth to permit adjustment of the rod and having its other end enlarged, whereby the said end can be caused to engage the clip to secure the sashes in desired relation, or placed in the opening leading to the pocket when the sashes are released.

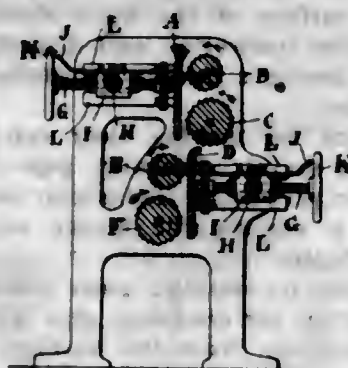
5. In a window lock, a retaining clip having an opening with an enlarged portion, and a spring associated with the clip to close the enlarged portion of the opening, said spring having a lug to enable the same to be manipulated to uncover the enlarged portion of the opening.

[Claims 6 and 7 not printed in the Gazette.]

1,077,488. ENTRAIL-CLEANING MACHINE. AKSEL OGAARD, Christiania, Norway. Filed Apr. 24, 1913. Serial No. 763,305. (Cl. 17-12.)

1. In entrail cleaning machines a guide, a guide roller keeping the entrails in engagement with said guide, a cleaning roller cooperating with said guide and guide roller and rotating with a greater speed than the said guide roller, and cleansing one side of the entrails in combination with a second guide, a second guide roller keep-

ing the entrails in engagement with said second guide and cooperating with a second cleaning roller rotating with a greater speed than the second guide roller, and cleansing the other side of the entrails.



2. In entrail cleaning machines a guide plate, a guide roller keeping the entrails in engagement with said guide plate, a cleaning roller cooperating with said guide plate and guide roller and rotating with a greater speed than the said guide roller, and cleansing one side of the entrails, in combination with a second guide plate, a second guide roller keeping the entrails in engagement with said second guide plate and cooperating with a second cleaning roller rotating with a greater speed than the second guide roller, and cleansing the other side of the entrails.

3. In entrail cleaning machines a guide plate, a guide roller keeping the entrails in engagement with said guide plate, a cleaning roller cooperating with said guide plate and guide roller and rotating with a greater speed than the said guide roller, and cleansing one side of the entrails, in combination with a second guide plate, a second guide roller keeping the entrails in engagement with said second guide plate and cooperating with a second cleaning roller rotating with a greater speed than the second guide roller, and cleansing the other side of the entrails, said second guide roller and second cleaning roller rotating in opposite direction to the first guide roller and cleaning roller.

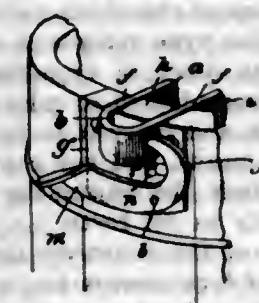
4. In entrail cleaning machines an adjustable guide plate, a guide roller keeping the entrails in engagement with said guide plate, a cleaning roller cooperating with said guide plate and guide roller and rotating with a greater speed than the said guide roller, and cleansing one side of the entrails, in combination with a second guide plate, a second guide roller keeping the entrails in engagement with said second guide plate and cooperating with a second cleaning roller rotating with a greater speed than the second guide roller, and cleansing the other side of the entrails, and bifurcated guide arms on said guide plates embracing a fixed part of the machine frame.

5. In entrail cleaning machines an adjustable guide plate, a guide roller keeping the entrails in engagement with said guide plate, a cleaning roller cooperating with said guide plate and guide roller and rotating with a greater speed than the said guide roller and cleansing one side of the entrails, in combination with a second guide plate, a second guide roller keeping the entrails in engagement with said second guide plate and cooperating with a second cleaning roller rotating with a greater speed than the second guide roller, and cleansing the other side of the entrails, bifurcated guide arms on said guide plates embracing a fixed part of the machine frame, and screws for adjusting said guide plates.

1,077,489. ICE-CREAM-FREEZER-FRAME LOCK. JAMES SCOTT PARRISH, Richmond, Va., assignor to Richmond Cedar Works, a Corporation of Virginia. Original application filed Dec. 21, 1910, Serial No. 598,573. Divided and this application filed Mar. 20, 1912. Serial No. 685,031. (Cl. 62-4.)

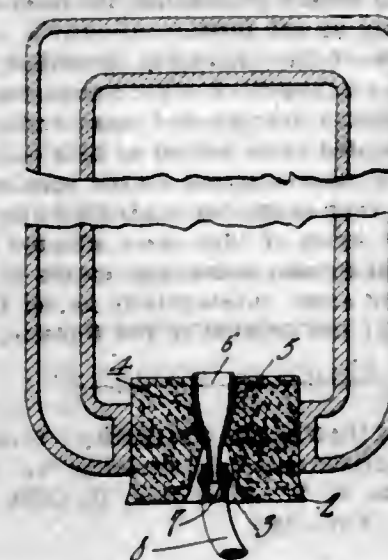
In an ice cream freezer, a tub having notches formed in its rim at diametrically opposite points, the notches at one side consisting of a pair of separated notches having an upstanding part *h* of the tub rim lying between

them, a gearing frame set down in said notches, this frame at one end consisting of separated bars which fit down in said separated notches, a lock plate fastened to the exterior of the tub extending to the upper edge of the



rim thereof, said lock plate being provided with a pair of separated notches coincident with the separated notches in the tub rim, these notches in the plate forming an upstanding tongue *h* which abuts against the outer face of the aforesaid part *h* of the tub rim.

1,077,490. RECTUM-BOTTLE. DANIEL T. QUIGLEY, North Platte, Nebr. Filed Dec. 16, 1912. Serial No. 727,063. (Cl. 215-59.)



1. In a device of the class described, a receptacle, a stopper therefor, a tube extending through said stopper, a zone of material surrounding said tube which under normal conditions allows the passage of air and prevents the passage of a liquid therethrough.

2. In a device of the class described, a bottle, a stopper therefor, a dispensing tube extending through a bore in said stopper, and means surrounding said tube which under normal conditions of pressure prevents liquid and allows the passage of air therethrough.

3. The combination of a receptacle, a stopper therefor, a tube extending therethrough, a zone of material extending through said stopper of such stereochemic structure as to allow for the passage of air and prevent the passage of a liquid therethrough under normal conditions.

4. In a device of the class described, a receptacle, a stopper therefor, an opening extending through said stopper, a tube extending through said opening, a zone of material extending through said stopper of such molecular structure to allow the ingress of air and preventing the escapement of a liquid under normal conditions, and a catheter tube communicating with said tube.

5. The combination of a receptacle, a cork stopper therefor, said stopper provided with a burnt opening extending therethrough, a tube fitting within said opening and extending therethrough, the zone of burnt cork under normal conditions allowing for the ingress of air and preventing the escapement of a liquid.

[Claim 6 not printed in the Gazette.]

1,077,491. APPARATUS FOR MAKING TEA AND OTHER INFUSIONS. GEORGE E. SAVAGE, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed June 28, 1912. Serial No. 708,357. (Cl. 53-3.)



1. In a device of the character described, a pot body provided with a seat, a container adapted to rest upon and be supported by said seat within said pot body and having an imperforate bottom, a filtration tube extending upwardly from said container bottom having a closed lower end provided with a restricted aperture therein in communication with the interior of said pot body, said tube having an aperture formed therein above the bottom of said container and in communication with the interior thereof, said container having overflow apertures therein adjacent its upper end.

2. In a device of the character described, a pot body provided with a seat, a container adapted to rest upon and be supported by said seat within said pot body and having an imperforate bottom, a filtration tube extending upwardly from said container bottom having a closed lower end provided with a restricted aperture therein in communication with the interior of said pot body, said tube having an aperture formed therein above the bottom of said container and in communication with the interior thereof, said container having overflow apertures therein adjacent its upper end, and an imperforate retainer seated within said container above the overflow apertures therein and provided with a liquid inlet opening.

3. In a device of the character described, a pot body having a seat, a container adapted to rest upon and be supported by said seat and having an imperforate bottom, a filtration tube extending upwardly from said bottom having a closed lower end provided with a restricted aperture therein in communication with the interior of said pot body, said tube having an aperture formed therein above the base of said container and in communication with the interior thereof, and a combined funnel and retainer adapted to be detachably seated within said container over the material therein with its funnel aperture of greater diameter than and extending about said filtration tube and serving to direct liquid to the interior of said container below said retainer.

4. In a device of the character described, a pot body having a seat, a container constructed and arranged to rest upon and be supported by said seat and having an imperforate bottom and an internal seat intermediate of its top and bottom, a filtration tube extending upwardly from said bottom having a closed lower end provided with a restricted aperture therein in communication with the interior of said pot body, said tube having apertures formed therein above the base of said container and in communication with the interior thereof, an imperforate retainer having a liquid inlet opening therein adapted to be detachably seated within said container over the material therein and resting upon and supported by said internal seat, and a plurality of apertures formed in the sides of said container below said annular seat and said retainer and in communication with the interior of the pot body.

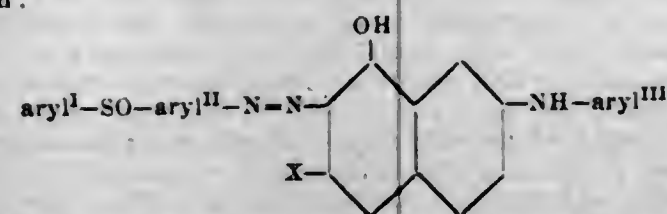
5. In a device of the character described, a pot body having a seat, a container constructed and arranged to rest

upon and be supported by said seat and having an impermeable bottom and an internal seat intermediate of its top and bottom, a filtration tube extending upwardly from said bottom having a closed lower end provided with a restricted aperture therein in communication with the interior of said pot-body, said tube having apertures formed therein above the base of said container and in communication with the interior thereof, a combined funnel and retainer detachably seated within said container with its outer edge resting upon said internal seat and with its funnel aperture of greater diameter than and extending about said filtration tube and serving to direct liquid to the interior of said body portion below said retainer, and a plurality of apertures formed in the sides of said container below said annular seat and said retainer and in communication with the interior of the pot body.

[Claims 6 to 8 not printed in the Gazette.]

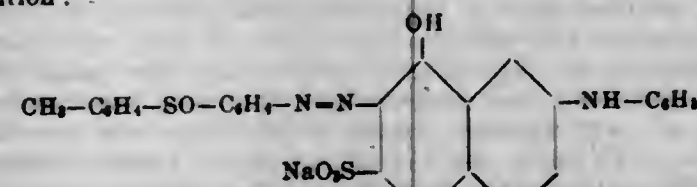
1,077,492. BROWN AZO DYESTUFFS. KARL SCHIRMACHER and HEINRICH EYHART, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Jan. 2, 1913. Serial No. 739,882. (Cl. 8-1.)

1. As new products, the azo-dyestuffs of the constitution:



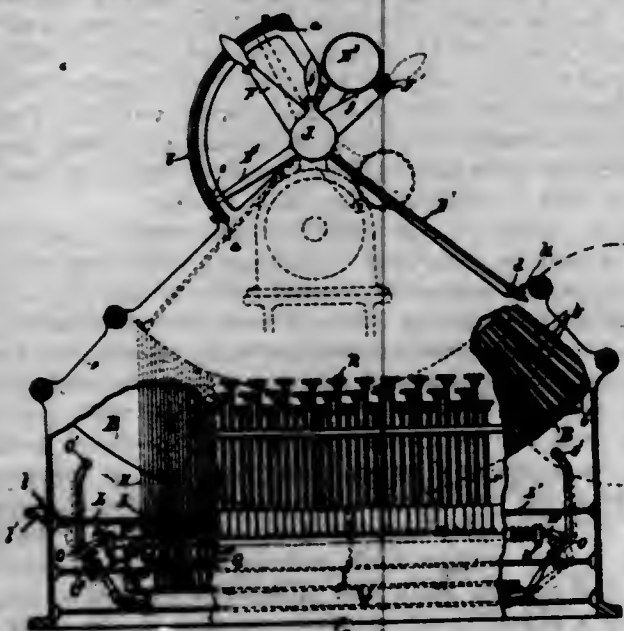
wherein aryl^I, aryl^{II} and aryl^{III} mean aromatic residues and X means a sulfo group, being brown powders, soluble in water to a brown solution, almost insoluble in ether, benzene and alcohol, and dyeing wool fast brown tints.

2. As a new product, the azo-dyestuff of the constitution:



being a brown powder, soluble in water to a brown solution, almost insoluble in ether, benzene and alcohol, and dyeing wool fast brown tints.

1,077,493. TYPE-SETTING AND TYPE-DISTRIBUTING MACHINE. ABRAHAM SMITH, Erie, Pa. Filed Apr. 14, 1913. Serial No. 760,971. (Cl. 101-130.)



1. In a machine of the character described, the combination of a type receptacle having an open upper end, a

type-line receiving means, a pneumatic carrier mechanism adapted to lift type from the upper end of said receptacle and deposit them in said receiving means, and key controlled stop mechanism adapted to limit the movement of said pneumatic carrier, substantially as set forth.

2. In a mechanism of the character described, the combination of a tubular type receptacle adapted to contain type one above the other, a type-line receiving means, pneumatic mechanism adapted to raise one type at a time from said receptacle and carry it to and deposit it in said type-line receiving means, and key controlled stop mechanism adapted to limit the movement of said pneumatic carrier, substantially as set forth.

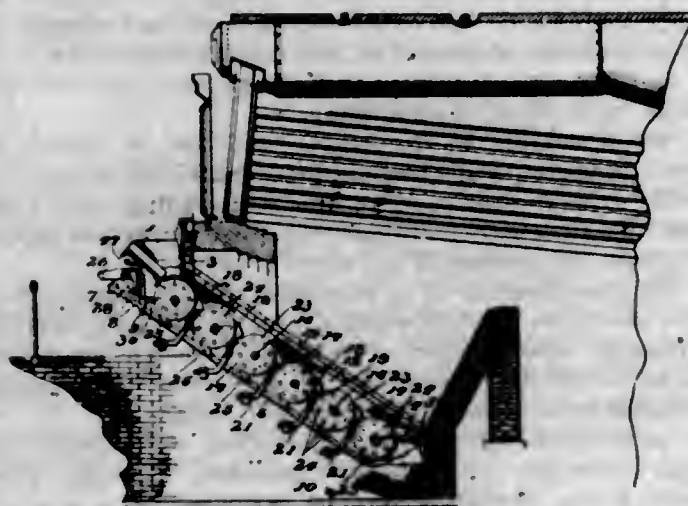
3. In a machine of the character described, the combination of a series of type receptacles, a type-line receiving means, a series of pneumatic carriers adapted to be operated to carry type from said type receptacles and deposit them in said type-line receiving means, a record element in said machine, key controlled stop mechanism adapted to limit the movement of said pneumatic carriers, and mechanism adapted to record on said record element, the limitations of movement of said pneumatic carriers, substantially as set forth.

4. In a device of the character described, a type-case composed of type compartments having vents in the bottoms thereof and open ends, a tubular arm adapted to be moved so that one end thereof will pass adjacent to the open end of each of said type compartments, key controlled means adapted to limit the movement of said tubular arm, and means to exhaust air from said tubular arm, substantially as set forth.

5. In a device of the character described, a series of type-cases each composed of type compartments having vents in the bottoms thereof and open ends, a series of tubular arms adapted to be moved so that one end of each of said arms will pass adjacent to the open ends of each of said series of type-cases, key-controlled stop mechanism mounted in said series of type-cases adapted to limit the movement of said tubular arms, and means to exhaust air from said tubular arms, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,077,494. MECHANICAL STOKER. WILLIAM PAUL STARKEY, Harrisburg, Pa., assignor to Thomas E. Martin, Buffalo, N. Y. Filed Nov. 19, 1908. Serial No. 463,488. (Cl. 110-35.)



1. In a device of the character described, a series of rotatable cylindrical grates, means for supporting said grates alongside of each other, means common to all of said grates for rotating the same, said means comprising ratchet wheels and pawls engaging said wheels, and independently adjustable means for varying the duration of the engagement of each pawl with its respective ratchet

wheel, whereby each pawl turns its ratchet wheel farther than the next succeeding pawl turns its ratchet wheel, substantially as described.

2. In a fuel feeding grate, the combination of a series of fuel supporting members, cylindrical in shape and extending across the furnace, said members having substantially the same diameter and each having fuel supporting surfaces and ash discharge and air supply openings, and means common to all of said grate members for rotating the same, said means adapted to so rotate the grate members as to produce a gradually decreasing feeding action upon the fuel from the front to the rear of the grate, substantially as described.

3. In a fuel feeding grate, the combination of a series of transversely arranged cylindrical grate members, non-rotatable grate bars arranged between the said grate members, said bars adapted to feed fuel from a high point on one adjacent grate member to a relatively low point on the next succeeding grate member, and means for rotating the cylindrical members to progressively feed the fuel from the front to the rear of the grate, substantially as described.

4. In a device of the character described, a series of rotary grates, a ratchet wheel for each grate, a pawl carrier adapted to co-act with said ratchet wheels to rotate said wheels and their grates, and a curved shield or plate for each ratchet wheel, said curved shields being independently adjustable to control the amount of rotation of the same, substantially as described.

5. In a device of the character described, a series of rotary grates, a ratchet wheel for each grate, a pawl carrier having pawls co-acting with said ratchet wheels to rotate said wheels and their grates, a curved shield or plate for each ratchet wheel, said shields being independently adjustable to control the amount of rotation of the ratchet wheels, and a series of levers for controlling the position of said curved shields or plates, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,077,495. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 2, 1911. Serial No. 658,140. (Cl. 197-136.)



1. In a typewriting machine, the combination of a platen and a pair of clamping devices, each clamping device comprising a set of clamping tongues, the tongues being parallel with each other and spaced apart, the two clamping devices being interseated and oppositely disposed, the tongues of one set projecting into the spaces between the tongues of the other set.

2. In a typewriting machine, the combination of a platen, and a pair of paper clamping devices mounted thereon and comprising sets of parallel clamping tongues, the tongues of the two devices alternating with each other.

3. In a typewriting machine, the combination of a platen, a pair of paper clamping devices extending lengthwise of the platen and secured thereto, said paper clamping devices being oppositely disposed, and sets of stop devices, the members of each set of stop devices being arranged alternately with clamping portions of one of said clamp devices.

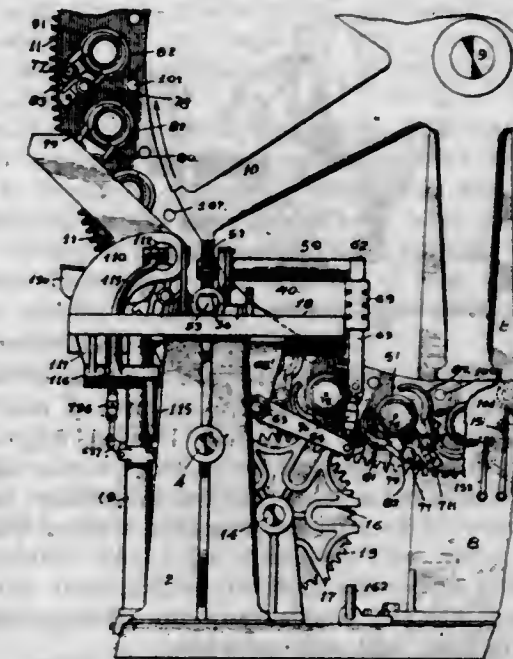
4. In a typewriting machine, the combination of a platen, a pair of paper clamping devices separately mounted on the platen and oppositely disposed, and paper stop devices comprising sets of stop members, said stop members being arranged in parallel rows, the members of each

row alternating with the clamping portions of one of said pairs of paper clamping devices and being independent of the clamping portions with which they alternate.

5. In a typewriting machine, the combination of a platen, a pair of paper clamping devices mounted thereon comprising sets of oppositely disposed parallel clamping tongues, and stop devices alternating with said clamping tongues.

[Claims 6 to 16 not printed in the Gazette.]

1,077,496. CONTAINER-FORMING MACHINE. JAMES M. TAYLOR, San Francisco, Cal. Filed Apr. 5, 1912. Serial No. 688,696. (Cl. 93-39.)



1. In a receptacle or container forming machine, the combination with means for feeding blanks thereto, devices for forming said blanks into semi-cylindrical bodies, means for forming said semi-cylindrical bodies into tubular containers having a side seam, and devices for inserting bottoms within said tubular containers when in a semi-formed condition and before the side seams thereof are completely closed.

2. In a receptacle or container forming machine, the combination with means for feeding blanks thereto, devices for forming said blanks into semi-cylindrical bodies, means for forming said semi-cylindrical bodies into tubular containers having a side seam and lapping the edges thereof, and devices for inserting bottoms within said tubular containers when in a semi-formed condition and before the edges thereof are lapped.

3. In a receptacle or container forming machine, the combination with means for feeding the blanks thereto, devices for forming said blanks into semi-cylindrical bodies, means for forming said semi-cylindrical containers into tubular bodies and clamping the edges thereof together forming a side seam, devices for inserting bottoms within said tubular containers when in a semi-formed condition and before the edges thereof are clamped together, and means for expelling the formed containers with their applied bottoms from the machine.

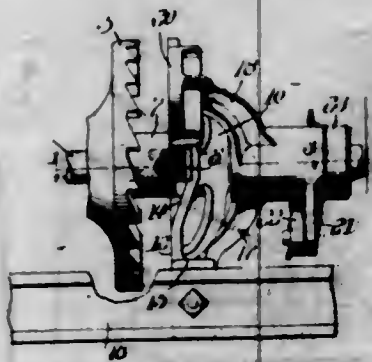
4. In a receptacle or container forming machine, the combination with means for feeding blanks thereto, mechanism for applying an adhesive to one edge of the blanks, devices for forming said blanks into semi-cylindrical bodies, means for forming said semi-cylindrical bodies into tubular containers and securing the adhesive coated edge to the opposite edge of said blanks to form a side seam, devices for inserting bottoms within said tubular containers when in a semi-formed condition and before the edges thereof are secured together, and means for expelling the formed containers with their applied bottoms from the machine.

5. In a receptacle or container forming machine, the combination with the mandrel on which the body of the

container is formed; of mechanism for supplying a semi-cylindrical body blank to said mandrel, means for completely closing the semi-cylindrical body blank on the mandrel, mechanism for inserting a bottom within the formed body when in a semi-formed condition, and devices for expelling the formed container with its applied bottom from the mandrel.

[Claims 6 to 25 not printed in the Gazette.]

1,077,497. CLUTCH MECHANISM. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 18, 1910. Serial No. 587,758. (Cl. 192-6.)



1. In a clutch mechanism, the combination of a continuously rotating clutch member, a stationary disk member having diametrically oppositely located depressions in its face, a dog adapted to be located in one of said depressions, a rocking member having oppositely extending arms, means for rocking said rocking member whereby one of said arms will cooperate with and actuate the dog out of said depression and into engagement with the rotating clutch member, and means for disengaging the dog to move it from said clutch member.

2. In a clutch mechanism, the combination of a continuously rotating clutch member, a stationary disk member having diametrically oppositely located depressions in its face, a dog adapted to be located in one of said depressions, a rocking member having oppositely extending arms with face members at the free end of said arms, means for rocking said rocking member, thereby moving said face members to a position opposite said depressions and forming a continuous face to allow said dog to be continuously rotated with the clutch member, and means for disengaging the dog from said clutch member.

3. In a clutch mechanism, the combination of a shaft having mounted thereon, a loosely mounted continuously rotating clutch member, a loosely mounted stationary disk member having oppositely located depressions in its face, and a fixedly secured member carrying a dog adapted to be located in one of said depressions, a rocking member loosely mounted concentric with the shaft and having oppositely extending arms with face members at the free end of the arms one of the face members cooperating with the dog, means for rocking the rocking member, whereby one of said face members will actuate the dog to move it out of said depression and into engagement with the rotating clutch member, thereby rotating said shaft, and means for disengaging the dog from said clutch member.

4. In a clutch mechanism, the combination of a shaft, a continuously rotating clutch member mounted loosely thereon, a stationary disk member having oppositely located depressions in its face, said disk member being stationary and loosely mounted on the shaft, a member fixedly secured to the shaft and carrying a pivotal dog adapted to be located in one of said depressions, a rocking member loosely mounted concentric with said shaft and having oppositely extending arms with face members at the free end of the arms, and means for rocking said rocking member, thereby moving the face members to a position opposite said depressions and forming a continuous face to allow said dog to be rotated, thereby rotating said shaft.

5. In a clutch mechanism, the combination of a continuously rotating clutch member, a stationary disk member

having depressions in its face, an intermittently-operated dog adapted to be located in one of the depressions, means for holding the dog therein, a rocking member having oppositely extending arms with face members at the free end of the arms, said face members located adjacent the rim of the face of said disk member, and means for rocking the rocking member whereby one of said face members will actuate the dog to move it out of said depression and into engagement with the rotating clutch member, the dog traveling with said clutch member until a depression is reached into which the dog will be forced.

[Claims 6 to 8 not printed in the Gazette.]

1,077,498. MOP. JOHN FRANCIS WELCH, Bloomington, Ill. Filed Feb. 11, 1913. Serial No. 747,761. (Cl. 15-13.)



1. In a mop head, a block having a peripheral groove forming a lower projecting ridge, doubled fibers having their bights disposed in the groove, a band passing through the bights of the fibers to clamp them in position, and a plate secured on the block and having its edge overhanging the ridge, the fibers being bound between the ridge and edge of the plate.

2. In a mop head, a block having a lower annular ridge, doubled fibers, a band passing through the bights of the fibers and embracing the block above the ridge, and a member secured on the block and overhanging the ridge to bind the fibers thereagainst.

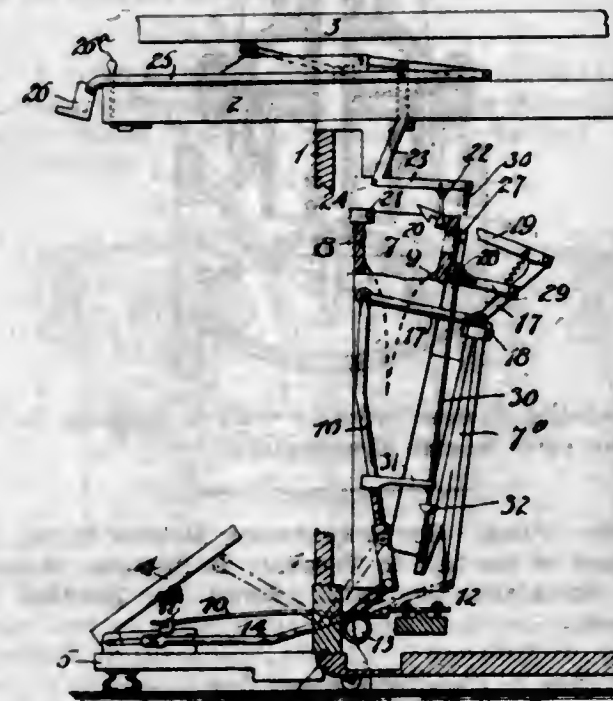
3. In a mop, a head embodying a circular block having an annular peripheral groove forming a lower projecting annular ridge, the bottom of the block being flat and the top being convex, doubled fibers having their bights disposed in the groove, a wire passing through the bights of the fibers and having its ends secured together to clamp the fibers in position, a concave plate secured on the block and having its edge beaded inwardly below the plane of the ridge to bind the fibers between the bead and ridge, and a handle passed through the plate and taking into the block.

1,077,499. AUTOMATIC PEDAL-FOLDER FOR PLAYER-PIANOS AND THE LIKE. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 14, 1912. Serial No. 731,388. (Cl. 84-169.)

1. In a pneumatic player apparatus, movable pumping pedal mechanism having an extended position and a retired position, power controlled means to move said pedal mechanism from the extended to the retired position, and manually controllable means cooperating therewith for starting said pedal mechanism on its movement from its retired toward its extended position.

2. In a pneumatic player apparatus, movable pumping pedal mechanism having an extended position and a retired position, power controlled means to move said pedal mechanism from the extended to the retired position, and manually controllable means for starting said pedal mechanism on its movement from its retired toward its extended position, said manually controllable means cooperating with said power mechanism to couple and uncouple the latter with said pedal mechanism.

3. In a player piano, movable pumping pedal mechanism having an extended position and a retired position, power controlled means to move said pedal mechanism from the extended to the retired position, and manually controllable means for starting said pedal mechanism on its movement from its retired toward its extended position, said manually controllable means cooperating with said power mechanism to couple and uncouple the latter with said pedal mechanism, said manually controllable means comprising a movable key slip.

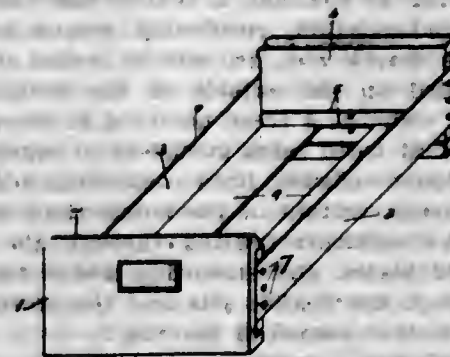


4. In an apparatus of the character described for mechanical player mechanism, a foldable foot pedal pumping mechanism, a collapsible bellows, a spring for normally distending said bellows, a connection between the movable part of said bellows and said pumping pedal mechanism to fold up said pumping pedal mechanism by the distention of said bellows, a relief valve connected with said bellows, with means for opening said valve when said bellows is being distended for the purpose of folding said pumping pedal mechanism.

5. In a musical instrument, the combination of pumping pedal mechanism movable into and from operative position, including a collapsible bellows arranged to move said pedals positively into the inoperative position, and a relief valve for said bellows to permit the same to operate freely when performing said work.

[Claims 6 and 7 not printed in the Gazette.]

1,077,500. FILING-TRAY. CHARLES E. WILSON, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a Corporation of Michigan. Filed Mar. 9, 1912. Serial No. 682,656. (Cl. 129-16.)



1. A filing tray having end pieces, and side pieces removably attached thereto, the side pieces having a vertical portion forming a side of the tray, and one side piece having a horizontal portion forming a bottom of the tray.

2. A filing tray having end pieces and side pieces attached thereto, each end piece having a horizontal kerf on its inner side, the side pieces having a vertical portion forming a side of the tray, and one side piece having a horizontal portion forming a bottom of the tray and inserted into the kerfs.

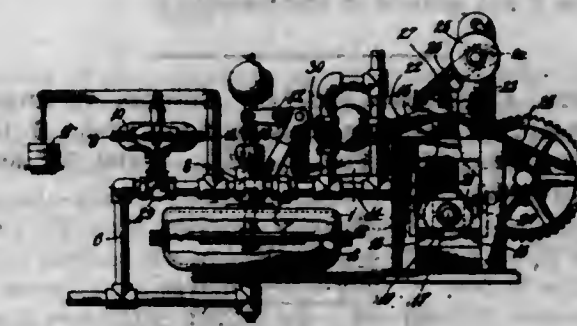
3. A filing tray having end pieces and side pieces attached thereto, each end piece having a horizontal kerf on its inner side, and each side piece having a vertical portion forming a side of the tray and a horizontal portion forming a part of the bottom of the tray and inserted into the kerfs.

4. A filing tray having end pieces and side pieces detachably fastened thereto, each end piece having a plurality of horizontal kerfs on its inner side, severally adapted to removably hold the horizontal portion of a side piece, and the side pieces having a vertical portion forming a side of the tray, and one side piece having a horizontal portion forming a bottom of the tray and inserted into one of the kerfs.

5. A filing tray having end pieces and side pieces, each end piece having a plurality of horizontal kerfs on its inner side, severally adapted to removably hold the horizontal portions of the side pieces, and each side piece having a vertical portion forming a side of the tray and detachably fastened to the end pieces and having a horizontal portion forming a part of the bottom of the tray and inserted into one of the kerfs.

[Claims 6 and 7 not printed in the Gazette.]

1,077,501. PRESSURE-CONTROLLER. ALFRED C. ALLEN, Detroit, Mich. Filed Mar. 29, 1912. Serial No. 687,034. (Cl. 103-93.)



1. A pressure controller comprising a rotatable member adapted to be operatively connected to a throttle, means for rotating the member adapted to be operated by a reciprocating member, an oscillatory member adapted when swung in one direction from neutral position to connect the driving mechanism with a rotatable throttle member to rotate the throttle in one direction and when moved in the other direction from neutral position to connect the driving mechanism with the rotatable throttle member to turn the latter in reverse direction, and fluid pressure controlled means operatively connected to the oscillatory member to move the latter in and out of such engagement in response to variations in pressure of fluid governing such means.

2. A pressure controller comprising a rotatable member for operating a throttle, a positively driven reciprocating member that is adapted to oscillate in either direction from a central, neutral point transversely to the reciprocating movement, means adapted to be engaged by the reciprocating member when the latter is moved in one direction from its central, neutral position to rotate the throttle member in one direction and to turn the throttle in the other direction when the reciprocating member is moved in the other way from neutral position, a conduit, and means controlled by variations in pressure of fluid in the conduit and adapted to oscillate the reciprocating member in response thereto in either direction from the central neutral position.

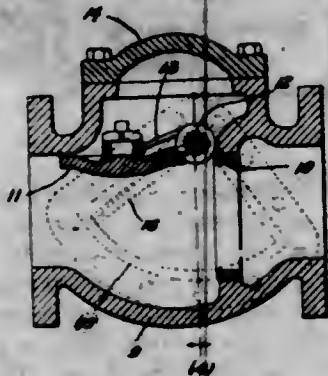
3. A pressure controller comprising a rotatable member for operating a regulating valve, a pendant member

adapted when swung in one direction out of neutral position to rotate the valve operating member in one direction and when swung in the other direction from neutral position to rotate the valve operating member in reverse direction, a reciprocating member operatively connected to the reversing member to drive the latter, means for swinging the reversing member in either direction in and out of neutral position, and means operated by fluid under pressure and adapted to govern the movement of the means for swinging the reversing member.

4. The pressure controller comprising a pressure drum, a reciprocable member therein, a conduit in communication with the drum on one side of the movable member, means for admitting fluid under pressure from the conduit to the drum on the opposite side of the movable member at a pressure lower than that of the other drum compartment, mechanism for operating the throttle valve, and means governed by the movable member of the drum and adapted to regulate the direction of motion of the throttle operating means in response to the variations in pressure in the drum.

5. A pressure controller comprising a rotatable shaft, oppositely disposed ratchet wheels thereon, a reciprocable member oscillating transverse to its movement of reciprocation in either direction from a central, neutral position, adapted when moved from said central neutral position in one direction to engage one ratchet wheel to turn the shaft and when moved in the opposite direction to engage the other ratchet wheel to drive the shaft in reverse direction, mechanism for reciprocating the ratchet driving member, means for moving the ratchet driving member in either direction in and out of neutral position, and fluid pressure controlled means for operating the ratchet driving member controlling means. [Claim 6 not printed in the Gazette.]

1,077,502. CUSHION-VALVE. EDWARD V. ANDERSON, Monesson, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed Feb. 1, 1911. Serial No. 606,058. (Cl. 137-4.)



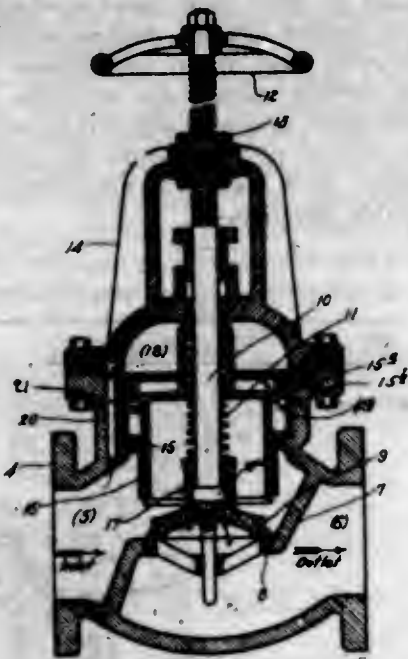
1. A direct seating valve having means to cushion its approach to its seat and also its opening movement said cushioning means being designed to interpose increasing resistance as the valve approaches its limiting position.

2. The combination with a valve casing and a valve therein, of a supplementary closed compartment on the casing, and a retarding vane located in said compartment and rigidly mounted on the same shaft with the valve, whereby to prevent sudden closing of the valve, substantially as described.

1,077,503. AUTOMATIC VALVE. EDWARD V. ANDERSON, Monesson, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed Oct. 18, 1911. Serial No. 655,434. (Cl. 136-15.)

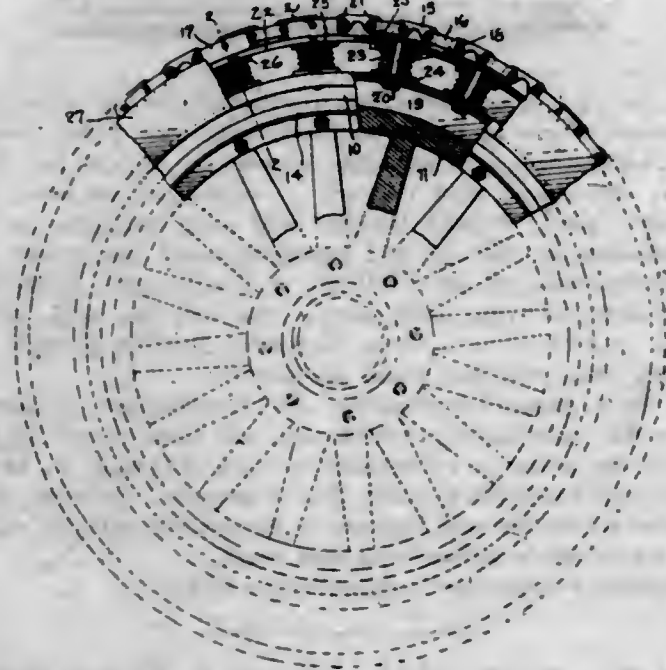
A quick operating emergency valve comprising a casing having a double valve seat, a main and a supplementary valve engaging said seat and also engaging each other to form a cushion on closing the supplementary valve, means to normally maintain the supplementary valve under balanced pressure, a spring to support the weight of the supplemental valve on the main

valve, a port adapted to control fluid pressure to close the supplemental valve, a pilot valve controlling said port.



and electrical devices operable from a distance to trip said pilot valve in case of emergency.

1,077,504. TIRE. GOTTLIEB ANGER, McKees Rocks, Pa., assignor of one-half to Theodore A. Spague, Bellevue, Pa. Filed Oct. 28, 1912. Serial No. 728,185. (Cl. 152-8.)

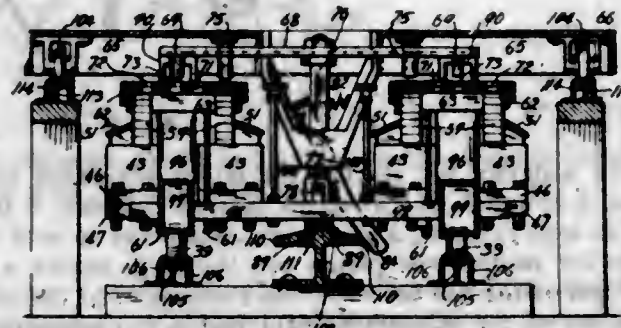


1. A wheel tire comprising a rigid rim, a ring encircling the rim, said ring having a channel in its inner periphery and radial apertures opening from the channel through the outer periphery of the ring, means for securing the ring to the rim, a flexible rim encircling the ring in spaced relation, cushioning means between the ring and the flexible rim, an annular series of channeled plates mounted on the outside of the flexible rim and spaced apart endwise, a tread mounted in the channels of said plates, said tread being composed of segments which are spaced apart endwise, links connecting adjacent ends of said segments, certain of the connections between the links and the segments passing through the flanges of the channeled plates, and anchoring means for the tread passing through the flexible rim and the aforesaid radial apertures into the channel of the ring.

2. A wheel tire comprising a rigid rim, a ring encircling the rim, said ring having a channel in its inner periphery and radial apertures opening from the channel through the outer periphery of the ring, means for securing the ring to the rim, a flexible rim encircling the ring in spaced relation, cushioning means between the

ring and the flexible rim, an annular series of channeled plates mounted on the outside of the flexible rim and spaced apart endwise, a tread mounted in the channels of said plates, said tread being composed of segments which are spaced apart endwise, links connecting adjacent ends of said segments, certain of the connections between the links and the segments passing through the flanges of the channeled plates, anchoring means for the tread passing through the flexible rim and the aforesaid radial apertures into the channel of the ring, and flexible connections between the ring and the channeled plates for limiting the outward movement of the latter.

1,077,505. RUNNING-GEAR OF RAILWAY-CARS. ARTHUR REGINALD ANGUS, Split Road Mosman, New South Wales, Australia. Filed July 7, 1910. Serial No. 570,783. (Cl. 105-11.)



1. Railway car running gear comprising two wheel frames located respectively at the two sides of a car and adjustable transversely thereto independently of each other, a running wheel mounted in each of said frames, means on the track adapted to move said wheels and wheel frames transversely so as to change the gage of said wheels, means adapted to lock said frames in any position to which they may be adjusted by said means on said track, means adapted to unlock said frames before their transverse adjustment by said means on said track and to keep them unlocked during said transverse adjustment, and means adapted to relieve said running wheels of the weight of the body of said car during said transverse adjustment.

2. In running gear of railway cars, in combination, transversely adjustable wheel frames, independently rotatable wheels on semi-axes carried thereby, a vertically movable connector lock adapted to lock said wheel frames at varying gages and a vertically mounted body portion supported by said frames above said connector lock.

3. In running gear of railway cars, in combination, transversely adjustable wheel frames, independently rotatable wheels carried thereby, a body supported by said wheel frames and adapted to move vertically with respect thereto, a connector lock operatively associated with said body and vertically movable with respect thereto, said connector lock being provided with devices engaging said wheel frames, devices on the railway adapted to raise said body and to support it above said connector lock, devices on the railway to raise said connector lock from said wheel frames and to move said wheel frames transversely with respect to the body and to restore said connector lock and body to their normal positions, substantially as described.

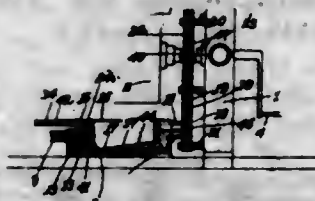
4. In running gear of railway cars, in combination, transversely adjustable wheel frames, independently rotatable wheels carried thereby, a body supported by said wheel frames and adapted to move vertically with respect thereto, a connector lock operatively associated with said body and vertically movable with respect thereto, said lock having studs or holding pins, said frames having orifices corresponding to varying gages of wheels adapted to be engaged by said studs, and devices depending from said running gear or car structure adapted as the car is traveling through a verging shunt or change of gage station by contact with devices therein to support the weight of the car structure above said connector lock and said wheel

frames to raise said connector lock free of said wheel frames to effect the adjustment of the gage of wheels and to restore the parts to proper normal position, substantially as described.

5. In running gear of railway cars, in combination, transversely adjustable wheel frames, independently rotatable wheels carried thereby, a body supported by said wheel frames and adapted to move vertically with respect thereto, a connector lock operatively associated with said body and vertically movable with respect thereto, said lock being provided with holding pins, said frames having orifices adapted to be engaged by said holding pins for varying gages of the wheels, devices for supporting the body above said connector lock and wheel frames, a lifter on said lock, a ramp rail adapted to engage said lifter for lifting said lock and withdrawing the holding pins from the orifices in the wheel frames and for permitting the lowering of said lock to enable said holding pins to engage in other orifices in the wheel frames, and locking devices for preventing movement of said lifter except at the proper time and place, substantially as described.

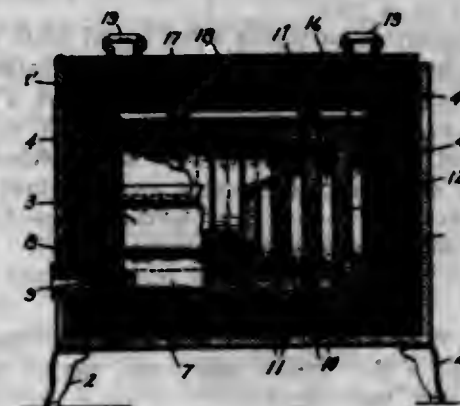
[Claims 6 to 26 not printed in the Gazette.]

1,077,506. AUTOMATIC SAFETY-CRANK AND GEAR-SHIFT FOR AUTOMOBILES. FREDERICK H. ARNSBURGER, Stockton, Cal., assignor of one-half to William J. Rundle, Stockton, Cal. Filed Dec. 14, 1911. Serial No. 665,860. (Cl. 123-179.)



A device of the character described comprising the combination with a motor having a crank shaft and a starting crank adapted to be engaged with said crank shaft, of a guide disposed on each side of said starting crank, a third guide spaced from one of said first named guides, a plurality of rods movable through all of said guides, a centrally orificed disk on each rod, such disk being adapted to be moved so that its orifice is in or out of alignment with said starting crank, a bell crank flexibly connected to each rod between said third named guide and one of said first named guides, a plurality of levers, each lever being provided with a cross bar, one end of each cross bar being connected with one of said bell cranks, as described.

1,077,507. ELECTRIC STORAGE DEVICE. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 11, 1912. Serial No. 682,964. (Cl. 219-19.)



1. An electric heat storage device comprising a heat insulating receptacle, a heat storage mass therein consisting of a plurality of removable sections having high heat storage capacity and high heat conductivity and electric heating means supported independently of the said sections in good thermal conductive relation with said heat storage mass.

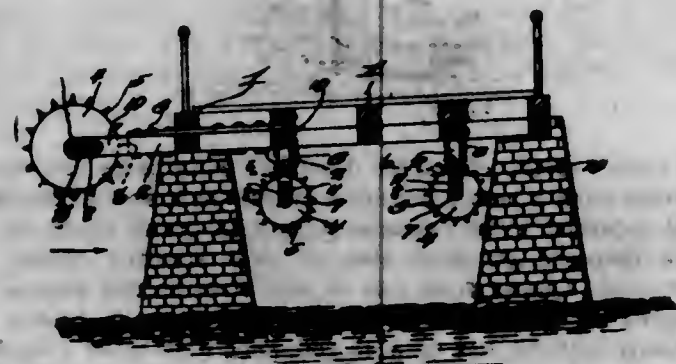
2. An electric heat storage device comprising a heat insulating receptacle, a heat storage mass therein having high heat storage capacity and high heat conductivity, said mass including a stationary holder and a plurality of removable sections supported thereby and electric heating means for said heat storage mass.

3. An electric heat storage device comprising a heat insulating receptacle, a heat storage mass mounted therein consisting of a plurality of removable sections and partitions separating the same, said sections and said partitions having high heat storage capacity and high heat conductivity, and electric heating means in good thermal conductive relation with said heat storage mass.

4. An electric heat storage device comprising a heat insulating receptacle, a heat storage mass located therein and consisting of a plurality of removable sections having high heat storage capacity and high heat conductivity, and electrical means supported independently of said sections for heating the same, said receptacle having a removable cover to allow any desired number of the said sections to be removed.

5. An electric heat storage device consisting of a heat insulating receptacle, a heat storage mass therein comprising a plurality of removable disk shaped metal sections each supported on end, and electric heating means for the said storage mass supported independently of the said sections.

1,077,508. DRIFT-WHEEL FOR PIERS AND BRIDGES. GEORGE M. D. BELL, Lucerne, Ind. Filed May 22, 1913. Serial No. 769,148. (Cl. 14-76.)



1. In combination with a pier, a bracket having a bifurcation, a heavy steel spring strap for securing the bracket yieldably to the pier, and a heavy solid metal wheel mounted in said bifurcation and having its periphery armored with spikes.

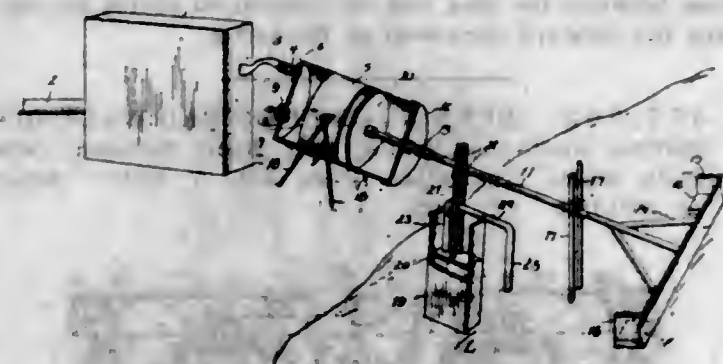
2. In combination, a heavy solid metal drift wheel having its periphery armored with spikes, a bracket member having a bifurcation and provided with arms, a stub shaft mounted in said arms, and on which shaft the wheel is mounted, said wheel extending into said bifurcation, and a heavy steel spring strap for securing the bracket member yieldably to a pier.

3. In combination, a heavy solid metal drift wheel having its periphery armored with spikes, a bracket member having a bifurcation and provided with arms, a stub shaft mounted in said arms, and on which shaft the wheel is mounted, said wheel extending into said bifurcation, said arms having slots, springs in said slots against which the stub shafts act, and heavy steel spring straps for securing the bracket member yieldably to a pier.

1,077,509. WAVE-MOTOR. RICHARD A. BEMIS, San Bernardino, Cal. Filed Mar. 18, 1913. Serial No. 750,228. (Cl. 230-32.)

1. In a device for storing the power generated by the waves, a compression cylinder provided with oppositely disposed valves, a piston head mounted in said cylinder, a piston rod connected to said head, buoyant means for receiving impact of the waves connected to said rod, means for guiding said rod, a supporting device for said piston rod comprising a well, a float in said well, and a siphon connected to said float and extending outside the well.

2. In a device for storing the power generated by the waves, the combination of a cylinder, a piston mounted in said cylinder, a piston rod connected to said piston, means on the end of said piston rod for receiving the impact of the waves, and means for holding the piston rod in alignment with the cylinder comprising a well, a float in said well, and a siphon connected to said float and extending outside of the well.



3. In a device for storing the power generated by the waves, a cylinder, check valves in said cylinder, a piston head in said cylinder, a piston rod connected to said head, means for moving the piston rod outward, means at the outer end of the rod for receiving the impact of the waves, and a device for supporting said piston rod comprising a well, a float therein, a siphon connected to the float, and supporting arms connected to the float and provided with rollers disposed upon opposite sides of the piston rod.

1,077,510. HOLDER. FRANCIS D. CULVER, Humboldt, Kans. Filed Nov. 4, 1912. Serial No. 729,434. (Cl. 220-8.)



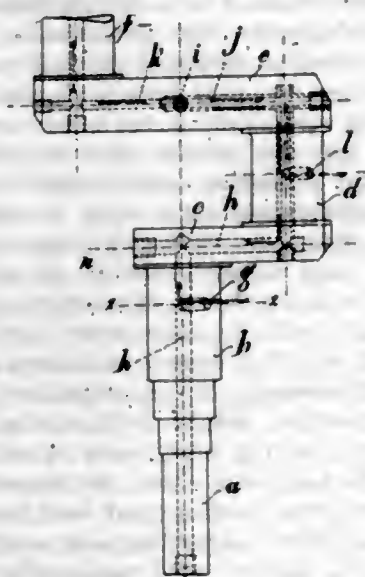
A receptacle comprising a cylindrical side wall, a top and a bottom, said top and bottom being circular and of greater diameter than the body of the receptacle formed by the cylindrical side wall, the edges of the top and bottom projecting beyond said side wall, and the latter having an opening, and a hinged closure for the opening, said closure being curved to form when closed a continuation of the side wall, and fitting between the projecting parts of the top and bottom, said projecting parts having lugs extending into the path of the free end of the closure and engageable by the top and bottom edges thereof to hold the same closed, the free end of the closure terminating in an outward curve to provide a finger hold.

1,077,511. CRANK-SHAFT. ARTHUR DE CONINCK, Woluwe-St.-Lambert, near Brussels, Belgium. Filed June 11, 1912. Serial No. 703,068. (Cl. 74-38.)

1. In a crank shaft provided with a plurality of pins, said shaft being provided with conduits for equally lubricating adjacent pins comprising a conduit leading through said shaft from one end to a point intermediate a pair of adjacent pins, and branch conduits leading from the first conduit at said intermediate point and opening outward through respective pins.

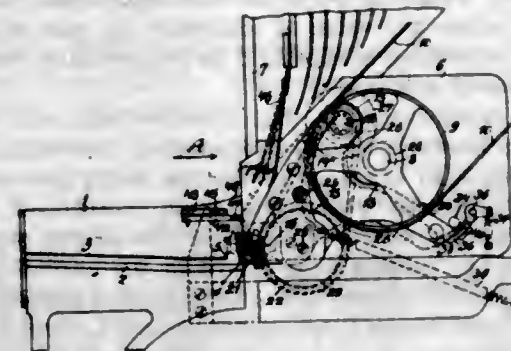
2. In a crank shaft provided with a pair of pins connected by a double armed crank, said shaft being provided with conduits for equally lubricating said pins comprising a conduit leading through said shaft from one end thereof to a point in said double armed crank in the axis of said

shaft, and branch conduits leading through said crank shaft from said first mentioned conduit and opening out-



ward through said pins, said branch conduits communicating with the first conduit at said axial point.

1,077,512. MATRIX-SETTING AND TYPE-CASTING MACHINE. HEINRICH DREWELL, Charlottenburg, Germany, assignor to Schnellsetzmaschinen-Gesellschaft mit beschränkter Haftung, Berlin, Germany. Filed Feb. 24, 1909. Serial No. 479,773. (Cl. 199-7.)



1. In a matrix-setting and type-casting machine of the character described, the combination of an assembling block having two receiving tracks at different heights, a guide for guiding matrices to said tracks, a collecting star, and means for adjusting said guide and said collecting star.

2. In a matrix-setting and type-casting machine of the character described, the combination of an assembling block having two receiving tracks at different heights, a guide, mounted revolvably, for guiding matrices to said tracks, a collecting star, and means for simultaneously adjusting said guide and said collecting star.

3. In a matrix-setting and type-casting machine of the character described, the combination of an assembling block having two receiving faces at different heights and arranged so far from one another that sufficient space remains in front of the top receiving face to admit of the matrices falling uninterruptedly onto the bottom receiving face, and two pairs of books in the assembling blocks, one pair of hooks being arranged at the receiving end of each of said faces.

4. In a matrix-setting and type-casting machine of the character described, a collecting star comprising two star-shaped members and a pinion fixed between the same, for the purpose specified.

5. In a matrix-setting and type-casting machine of the character described, the combination, with the frame, of an axle (12), carrying two plates (13, 24), journaled therein, a toothed wheel and a pulley on said axle, a third plate (15), a guide (14) between the latter plate (15)

196 O. G.—7

and the former plate (13), a pin holding the latter plates together, a second axle, carrying a second pulley, passing through said plates, an axle journaled in said third plate and in the former plate (13), a collecting star comprising two stars and a pinion between the same fixed on the latter axle, and a toothed wheel on said second axle and meshing with said pinion, for the purpose specified. [Claims 6 and 7 not printed in the Gazette.]

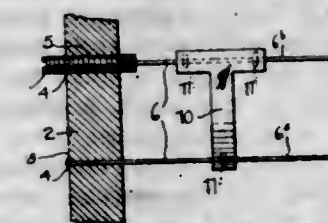
1,077,513. TOBACCO-SUPPORTING LATH. DANIEL EAGLESON, East Granby, Conn. Filed Feb. 20, 1912. Serial No. 678,906. (Cl. 131-21.)



1. A lath for supporting tobacco leaves formed of a strip of sheet metal with one edge of the strip punched so as to provide integral hooks and the other edge of the strip bent over to form a tubular body, and means movable along the body and extending adjacent to the points of the hooks for temporarily retaining the leaves thereon.

2. A lath for supporting tobacco leaves, formed of sheet metal and having a tubular body with integral hooks projecting from one side, wires extending longitudinally of the body and having portions that project transversely of the body into line with the points of the hooks, and springs normally holding the wires with the transversely projecting portions adjacent to the points of the hooks for retaining the leaves thereon.

1,077,514. SIGN. HARVEY EVERETT, Lewiston, Idaho. Filed Dec. 18, 1912. Serial No. 737,520. (Cl. 40-144.)

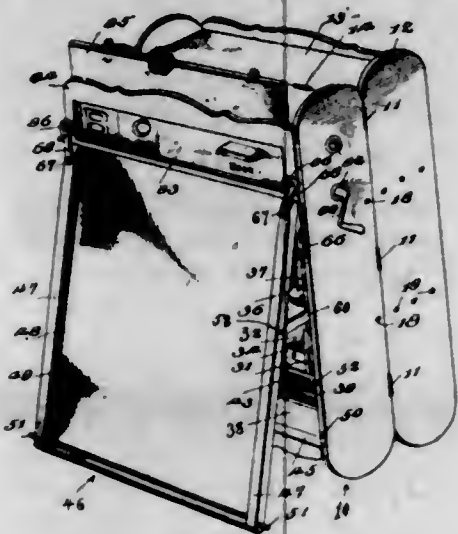


A sign comprising a pair of supports, a pair of wires extending between said supports, one end of each of said wires being rigidly secured to one of said supports, one of said wires being rigidly secured at its opposite end to the other of said supports, said other support being formed with a transversely extending threaded opening, a longitudinally extending threaded pin engaged in said opening and projecting beyond the opposite sides of said support, the opposite end of the other of said wires being secured to the inner end of said pin, said pin being adjustable in said opening to tighten and loosen said other wire, as and for the purpose described.

1,077,515. EDUCATIONAL DEVICE. SAM H. FANNING, Dallas, Tex., assignor of one-half to Homer Frady, Dallas, Tex. Filed July 28, 1911. Serial No. 641,006. (Cl. 45-69.)

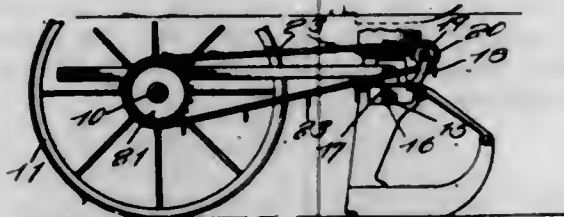
In a device of the class described, a casing including side members, a desk member, bars pivoted at one end to said desk member intermediate the ends thereof, slotted bars pivoted at one end to said casing near the upper end, pivot devices carried by said desk-engaging bars and slidable in the slots, hooks extending from the casing above the pivots of the slotted bars, means for detachably coupling said desk to the casing when in lower position, hooks swinging from said desk and adapted to engage

the hooks of the casing when the desk is in its upper position, and stops carried by the casing and against



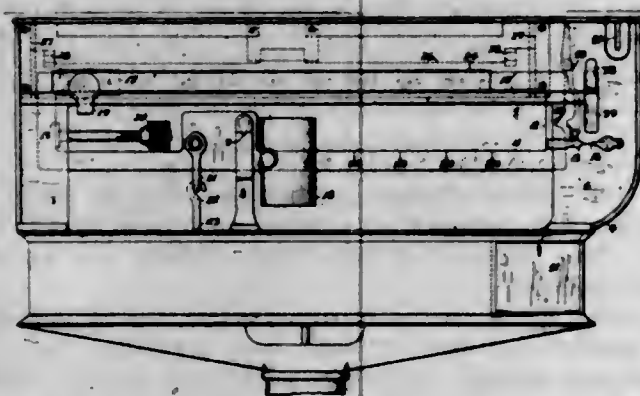
which said slotted bars bear to support the desk in sloping position relative to the casing in said upper position.

1,077,516. ATTACHMENT FOR CORN-PLANTERS. SAMUEL E. FAUBER and DELMER W. FAUBER, Hillsboro, Ohio. Filed Nov. 25, 1912. Serial No. 733,453. (Cl. 111-46.)



In a corn planter, the combination of a frame, a wheeled axle supporting said frame, a sprocket wheel fixed on said axle, a seed dropping mechanism rock shaft, means yieldingly holding said rock shaft against movement, a tripping finger mounted on said shaft, a second shaft mounted on the frame, a sprocket wheel fixed on the second named shaft, a sprocket chain traveling on the last named sprocket wheel and the sprocket wheel on the axle, and tripping balls pivoted on said sprocket chain and adapted to successively engage said tripping finger during the travel of the chain to rock the first named shaft against the influence of its holding means.

1,077,517. COIN-OPERATED WEIGHING-SCALE. CHARLES AUGUST FEY, Fond du Lac, Wis. Filed Sept. 28, 1912. Serial No. 722,459. (Cl. 194-95.)



1. In a weighing-scale, the combination with a scale-beam and a movable weight cooperating therewith, a shield normally covering said scale-beam and weight, mechanism for locking said shield in its normal position, means carried by said movable weight and extending exteriorly of said shield for adjusting said weight relative

to said scale beam to balance said beam when the same is covered by said shield, and means for operating said shield to expose the position of said weight relative to said scale-beam when the beam is in its balanced position.

2. In a weighing-scale, the combination with a scale-beam and a movable weight cooperating therewith, a shield normally covering said scale-beam and weight, mechanism for locking said shield in its normal position, means carried by said movable weight and extending exteriorly of said shield for adjusting said weight relative to said scale beam to balance said beam when the same is covered by said shield, means for operating said shield to expose the position of said weight relative to said scale-beam when the beam is in its balanced position, and means for locking said scale-beam in inoperative position upon the operating of said shield to expose said beam to view.

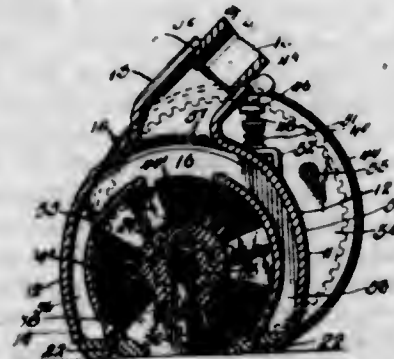
3. In a weighing-scale, the combination with a scale-beam and a movable weight cooperating therewith, a shield normally covering said scale beam and weight, mechanism for locking said shield in its normal position, means extending from said weight and projecting exteriorly of said shield for adjusting said weight relative to said scale-beam to balance said beam when the same is covered by said shield, means for operating said shield to expose the position of said weight relative to said scale-beam, and means controllable by said shield operating means for locking said scale-beam in its balanced position upon the exposing of the same to view.

4. In a weighing-scale, the combination with a scale-beam and a movable weight cooperating therewith, a housing inclosing said beam, said housing being provided with an opening through which said beam is exposed, a shield normally closing said opening, means extending from said weight and projecting exteriorly of said housing for adjusting said weight relative to said scale-beam to balance said beam when the same is concealed by said shield, and means for operating said shield to expose said beam when in its balanced position.

5. In a weighing-scale, the combination with a scale-beam and a movable weight cooperating therewith, a housing inclosing said beam, said housing being provided with an opening through which said beam is exposed, a shield normally closing said opening and concealing said beam, mechanism for locking said shield in its normal position, means extending from said weight and projecting exteriorly of said housing for adjusting said weight relative to said scale-beam to balance said beam when the same is concealed by said shield, a plunger for shifting said shield to expose said beam, and means for normally preventing movement of said plunger.

[Claims 6 to 12 not printed in the Gazette.]

1,077,518. VACUUM-CLEANER. JOHN W. FULPER, Anandale, N. J. Filed July 17, 1911. Serial No. 639,002. (Cl. 15-80.)



1. The combination in a vacuum cleaning device such as described, of a casing, shafts located therein, a brush removably secured within the casing by said shafts, plates formed upon the casing, plates slidably engaging these first mentioned plates, studs extending through the plates, wheels journaled upon the second mentioned plates and means operatively connecting the wheels with the shafts for rotating the brush, upon the rotation of the wheels.

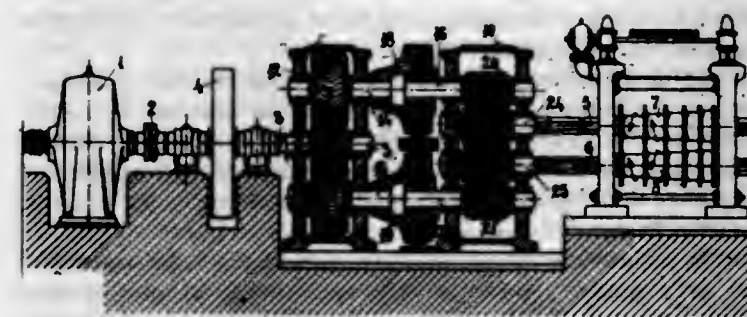
2. The combination in a device such as described of a casing comprising opposite side and end walls converged

at their upper ends and terminating in a tubular extension, arcuate plates connecting the end walls of the casing, a brush rotatably mounted between said arcuate plates and shoes removably secured to the plates and connecting the lower edges of the casing with the arcuate plates.

3. The combination in a device such as described, of a casing comprising opposite side and end walls, converged at their upper ends and terminating in a tubular extension, arcuate plates connecting the end walls of the casing, vertical plates integrally formed upon the outside of the end walls of the casing, and provided with sockets, studs located within said sockets and extending through the plates, outer plates slidably upon the first named plates, wheels journaled upon the outer plates and geared with the studs, shafts passing through the casing and connected to the studs, and a brush supported by the shafts.

4. The combination in a vacuum cleaning apparatus such as described of a casing comprising opposite side and end walls and provided with a tubular extension, arcuate plates connecting the end walls of the casing, said plates being spaced from each other and from the casing at their upper edges and formed with slots adjacent their lower edges, shoes secured to the lower side of the casing and connecting the same with the lower edges of the arcuate plates, plates secured to the end walls of the casing, sleeves connecting these said plates to the said end walls, shafts slidably through said sleeves, a brush carried by the said shafts, plates slidably upon the first mentioned plates, studs extending from these last mentioned plates, internally toothed wheels journaled upon said studs, gears meshing with said toothed wheels and operatively connected with the brush and springs yieldingly holding the casing against movement relatively to the second mentioned plates.

1,077,519. REVERSING MECHANISM. FERDINANDO GATTA, Turin, Italy. Filed Sept. 13, 1911. Serial No. 649,077. (Cl. 74-59.)



1. The combination with a power shaft and a plurality of driven shafts geared together, of a plurality of countershafts arranged to be driven from the power shaft, a like plurality of intermediate shafts aligned with the countershafts, and clutches between the countershafts and their aligned intermediate shafts, said intermediate shafts arranged to drive the driven shafts.

2. The combination with a power shaft and a plurality of driven shafts, of a plurality of countershafts arranged to be driven from the power shaft, a like plurality of intermediate shafts aligned with the countershafts, clutches between the countershafts and their aligned intermediate shafts, and intermeshing gear wheels on said intermediate and driven shafts whereby the latter may be driven in opposite directions.

3. The combination with a power shaft and a plurality of driven shafts, of a plurality of countershafts arranged to be driven from the power shaft, a like plurality of intermediate shafts aligned with the countershafts, clutches between the countershafts and their aligned intermediate shafts, intermeshing gear wheels on the driven shafts, and gear wheels on the intermediate shafts gearing with said intermeshing gear wheels.

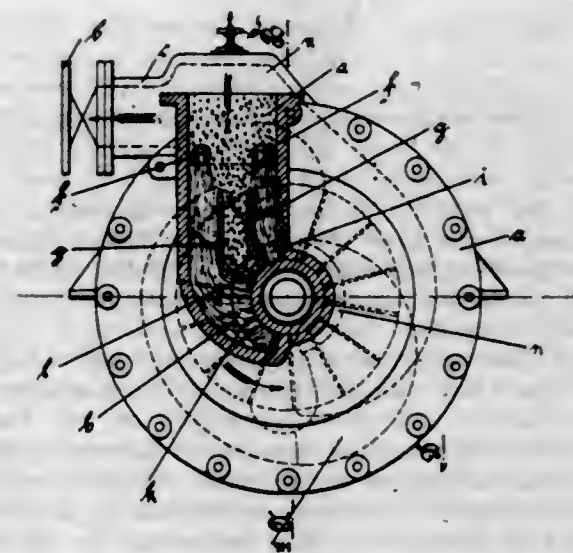
4. The combination with a power shaft, and a pair of driven shafts geared together, of a pair of countershafts arranged to be driven from the power shaft, of a pair of intermediate shafts aligned with the counter shafts, and

alternately operable clutches between the counter shafts and their aligned intermediate shafts, the latter shafts arranged to drive the driven shafts.

5. The combination with a power shaft and a pair of driven shafts geared together, of a pair of countershafts, a gear on the power shaft, gears on the countershafts meshing with the gear on the power shaft, a pair of intermediate shafts aligned with the countershafts, alternately operable clutches between the latter and their aligned shafts, gears on the driven shafts, and gears on the intermediate shafts meshing with the gears on the driven shafts.

[Claims 6 to 8 not printed in the Gazette.]

1,077,520. CENTRIFUGAL PUMP. ANTON GENTIL, Aschaffenburg, Germany. Filed Mar. 29, 1913. Serial No. 757,571. (Cl. 103-43.)



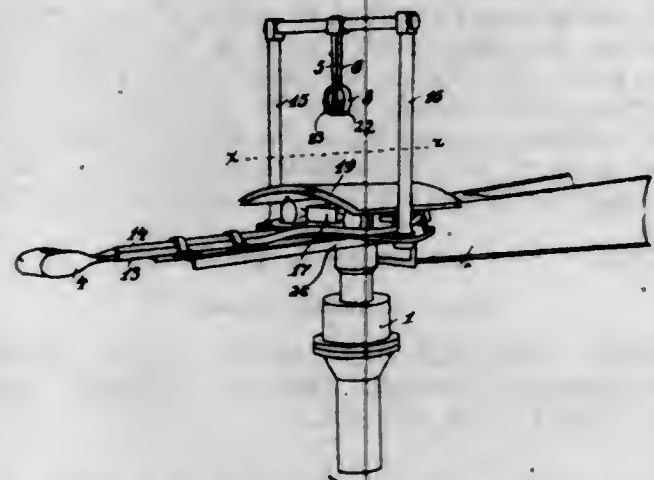
1. In a centrifugal pump the combination of a vane-wheel, an induction conduit upwardly directed from said vane-wheel, three ducts arranged for delivery of fluid from said conduit to said vane-wheel, the openings of said ducts to the vane-wheel being arranged in series to be swept in succession by the vanes, an eduction conduit having openings to said induction conduit, said openings located above the first and the last of said ducts respectively, and valves controlling the last-mentioned openings, for the purpose set forth.

2. In a centrifugal pump, the combination of a vane-wheel, an induction conduit upwardly directed from said vane-wheel, three ducts arranged for delivery of fluid from said conduit to said vane-wheel, the openings of said ducts to the vane-wheel being arranged in series to be swept in succession by the vanes, an eduction conduit having openings to said induction conduit, said openings located above the first and the last of said ducts respectively, a valve whereby the outlet of said eduction conduit can be closed, means for the discharge of air from said eduction conduit while said valve is closed, and valves controlling the openings of said eduction conduit to said induction conduit, for the purpose set forth.

1,077,521. APPARATUS FOR MEASURING THE VELOCITY AND INCLINATION OF THE WIND. HANS GERDIEN, Halensee, near Berlin, and RAGNAR HOLM, Charlottenburg, Germany, assignors to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed May 12, 1913. Serial No. 767,206. (Cl. 73-2.)

1. In apparatus for measuring the velocity and inclination of the wind, the combination with a support, of a frame rotatable thereon, a wind-vane on the frame, a member for indicating the velocity of the wind independently of the inclination of the wind mounted on the frame, a member for indicating the velocity of the wind in dependence on the inclination of the wind carried by the frame,

an indicating instrument operatively connected to the former member, and an indicating instrument operatively connected to the latter member.

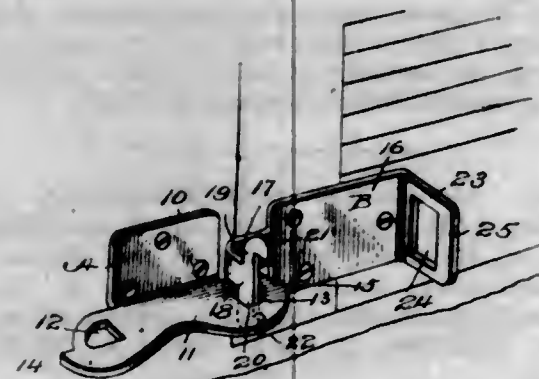


2. In apparatus for measuring the velocity and inclination of the wind, the combination with a support, of a frame rotatable thereon, a wind-vane on the frame, a member having wide rims on both sides thereof for indicating the velocity of the wind independently of the inclination of the wind and mounted on the frame, a member for indicating the velocity of the wind in dependence on the inclination of the wind carried by the frame, an indicating instrument operatively connected to the former member, and an indicating instrument operatively connected to the latter member.

3. In apparatus for measuring the velocity and inclination of the wind, the combination with a support, of a frame rotatable thereon, a wind-vane on the frame, a member for indicating the velocity of the wind independently of the inclination of the wind and mounted on the frame, a member of a shape corresponding as nearly as possible to a stream line for indicating the velocity of the wind in dependence on the inclination of the wind and carried by the frame, an indicating instrument operatively connected to the former member, and an indicating instrument operatively connected to the latter member.

4. In apparatus for measuring the velocity and inclination of the wind, the combination with a column, of a frame horizontally rotatable thereon, a wind-vane on the frame, a vertical dam-body, two conduits mounted on the frame carrying the dam-body vertically above the column and opening at the two sides of the dam-body, and an indicating instrument connected to said conduits; a horizontal dam-body, two conduits carrying the latter dam-body laterally of the column and opening at the upper and lower sides of the horizontal dam-body, and an indicating instrument connected to the latter two conduits.

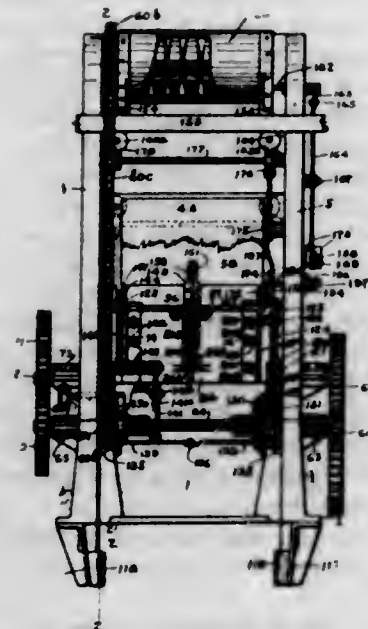
1,077,522. HINGE. CHESLEY T. J. GILES, Greenville, S. C. Filed Jan. 13, 1912. Serial No. 671,089. (Cl. 16—110.)



In a hinge, a stationary plate having ends formed with pintle openings and catch noses, a movable plate having a central projecting portion of less width than the movable plate extending from the end thereof, and bent at right angles to the movable plate, said extending portion being

formed with pintles extending in opposite directions having recessed jaws, and arranged to engage either of the openings in said stationary plate, the other arm being formed with an opening arranged to engage a catch nose of the stationary plate when said movable plate is swung into contact with said stationary plate.

1,077,523. PLASTIC-BLOCK-MAKING APPARATUS. CHARLES W. GILL, Erie, Pa., assignor to The Gill Brick Machine Company, Westfield, N. Y., a Corporation of Arizona. Filed July 7, 1909. Serial No. 506,392. (Cl. 25—58.)



1. In a plastic block making apparatus, the combination of a mold; a plunger operating in the mold; guides for the plunger; means for raising the plunger with the mold, and for giving the mold an initial movement in advance of the plunger to strip the mold from the material and a spring between the plunger and the mold for forcing the mold off the plunger.

2. In a plastic block making apparatus, the combination of a mold; a plunger operating in the mold; racks on the mold; gears meshing the racks; a shaft; a clutch connecting the shaft with the gears; means for automatically throwing in the clutch on the compression movement of the plunger.

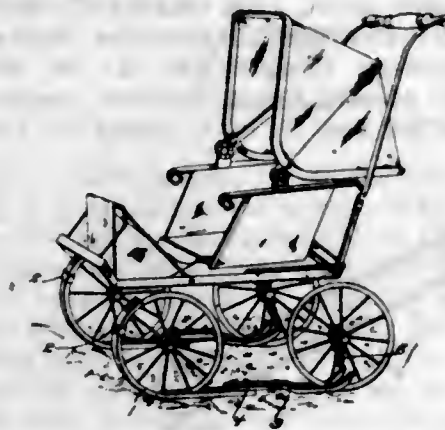
3. In a plastic block making apparatus, the combination of a platen; table having registering stops; ejector slides normally resting against the rear stops, and having shoulders thereon, springs for holding said slides against such stops; means for moving said slides toward the front of the machine; a pallet on said slides, and against said shoulders; side registering stops on the platen table for the pallet; a mold registering with the pallet; and a plunger for compressing the material in the mold.

4. In a plastic block making apparatus, the combination of a mold form, having a surrounding frame open at the top and bottom having vertical grooves in the opposing faces; partition plates notched at their ends with projections at the tops and bottoms, extending into the grooves; side plates notched at the tops and bottoms through which said projections on the partition plates extend; and screws extending through the side frames, and engaging the projections on the partition plates to lock the partition plates in place.

5. In a plastic block making apparatus, the combination of a surrounding frame for a mold form, having vertical grooves in opposing faces; screw-threaded opening leading from said vertical grooves and terminating in sockets; partition plates, having notched ends with projections at the tops and bottoms, extending into the grooves; side plates notched at the tops and bottoms through which said projections on the partition plates extend; and screws in said screw-threaded opening for clamping the side plates, and engaging the projections, the heads of said screws being arranged in said sockets.

[Claims 6 to 17 not printed in the Gazette.]

1,077,524. SLEIGH-RUNNERS FOR GO-CARTS AND THE LIKE. EDWARD C. GLEDHILL, Gallon, Ohio. Filed Mar. 5, 1912. Serial No. 681,729. (Cl. 21—96.)



1. Sled runners adapted to engage respectively beneath the forward and rear wheels of a vehicle with longitudinal recesses in their rear ends and with the portions of the runner at the sides of the recess curving rearwardly and upwardly, and means carried by said runners for attaching the same to the forward wheels of a vehicle.

2. Sled runners formed of channel members and adapted to engage beneath the forward and rear wheels of a vehicle with longitudinal recesses in their rear ends and with the side webs of the runners curving rearwardly and upwardly, and means carried by said runners for attaching the same to the forward wheels of a vehicle.

3. The combination with a vehicle including the forward wheels and the rear wheels, of sled runners engaging beneath the wheels and with longitudinal recesses in their rear ends, the inner ends of the recesses being substantially in vertical alignment with the centers of the rear wheels and with portions of each runner at the sides of the recess curving upwardly at each side of the rear wheel to support the same and likewise to permit the runners to move backwardly over snow, and means for coupling the runners to the forward wheels.

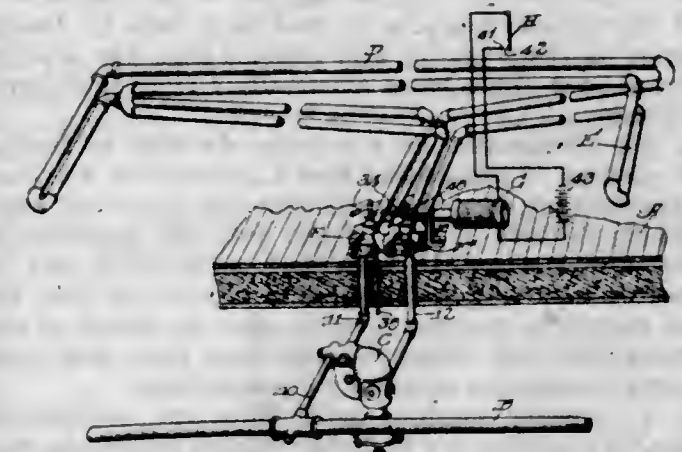
4. The combination with a vehicle including the forward wheels and the rear wheels, of sled runners engaging beneath the wheels and with longitudinal recesses in their rear ends, the inner ends of the recesses being substantially in vertical alignment with the centers of the rear wheels and with portions of each runner at the sides of the recess curving upwardly at each side of the rear wheel to support the same and likewise to permit the runners to move backwardly over snow, means for coupling the runners to the forward wheels, and means for flexibly coupling the runners to the rear wheels.

5. The combination with a vehicle including the forward wheels and the rear wheels, with sled runners engaging beneath the wheels and curving upwardly at their forward ends to engage partly around the forward wheels and with longitudinal recesses in the rear ends, the inner ends of the recesses being substantially in vertical alignment with the centers of the rear wheels and with portions of each runner at the sides of the recess curving upwardly at each side of the rear wheel to support the wheels and likewise to permit the runners to move backwardly over snow, means for rigidly coupling the runners to the forward wheels, and means for flexibly coupling the runners to the rear wheels.

1,077,525. CAR-HEATING SYSTEM. EGBERT H. GOLD, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,750. (Cl. 237—12.)

1. In a heating system for railway cars, the combination with a radiator comprising two radiating units arranged so as to heat the same region, of controlling means for one of said units which maintains the medium therein at a relatively constant temperature, and controlling means for the other unit which automatically varies the temperature of the medium in said unit.

2. In a heating system for railway cars, the combination with a radiator comprising two radiating units arranged so as to heat the same region, of controlling means for one of said units which maintains the medium therein at a relatively constant temperature, and controlling means responsive directly to temperature conditions in the car which automatically varies the temperature of the medium in the other radiating unit.



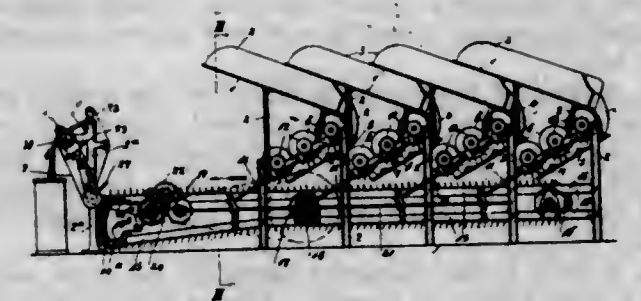
3. In a heating system for railway cars, the combination with a radiator comprising two radiating units arranged so as to heat the same region, of controlling means for one of said units automatically responsive to thermostatic conditions in the medium outflowing from said unit, and controlling means for the other unit automatically responsive directly to temperature conditions in the car.

4. In a heating system for railway cars, the combination with a radiator comprising two radiating units arranged so as to heat the same region, of means for maintaining one of said units filled with steam at a constant pressure, and means responsive directly to temperature conditions in the car for proportionately varying the amount of steam admitted to the other unit.

5. In a heating system for railway cars, the combination with a radiator comprising two radiating units arranged so as to heat the same region, of means for maintaining one of said units filled with steam at atmospheric pressure, and means responsive directly to temperature conditions in the car for proportionately varying the amount of steam admitted to the other radiating unit.

[Claims 6 to 18 not printed in the Gazette.]

1,077,526. COMBING-MACHINE. JOHN GOOD, deceased, Far Rockaway, N. Y., by Julia E. Good, administratrix, assignor to Good Inventions Co., a Corporation of New York. Filed Nov. 26, 1909. Serial No. 529,949. (Cl. 19—6.)



1. A combing machine suitable for operation on raw hemp or like fiber, having means for forming a plurality of laps out of bunches of fiber and operating to feed such plurality of laps, in combination with an organization of moving combing-pins adapted for operation simultaneously on each of said laps and a silver-delivery head co-operating with said combing-pins to produce a composite silver from said plurality of laps.

2. A combing machine of the kind described, comprising, in combination, fiber-receiving means adapted for form-

ing a plurality of laps of the fiber, feeding-pins adapted to engage and feed said laps, an organization of combing-pins operating simultaneously on each of said laps and adapted to draw the fibers thereof from their engagement with said feeding-pins, and a silver-delivery head producing a single sliver from the said plurality of laps.

3. A combing machine of the kind described, comprising an organization of moving combing-pins adapted for simultaneous operation on a plurality of continuous fiber-laps, in combination with feeding means coordinated with said moving combing-pins to feed such laps in floating position on the points of said combing-pins, and a silver-delivery head producing a single sliver from said plurality of laps.

4. The combination, in a combing machine, of feeding-pins adapted to engage and feed a plurality of fiber-laps, an organization of moving combing-pins operating simultaneously on each of said laps to draw the fibers thereof from their engagement with said feeding-pins and coordinated with said feeding-pins to receive the laps supplied thereby in floating position upon the points of said combing-pins, and means for delivering from said combing-pins a composite sliver of the several laps.

5. A combing machine comprising, in combination, means for receiving raw fiber and forming continuous fiber-laps thereof, feeding-pins adapted to engage and feed said laps, combing-pins adapted to operate simultaneously upon said laps to draw the fibers thereof from engagement with said feeding-pins and coordinated with said feeding-pins to cause the fiber of said laps to float upon the points of the combing-pins, and means for delivering a composite sliver of the several laps from said combing-pins.

[Claims 6 to 56 not printed in the Gazette.]

1,077,527. SEALING-WAX LAMP. ELKAN GOSLINER, San Francisco, Cal. Filed Aug. 6, 1912. Serial No. 713,552. (Cl. 120—116.)



1. A lamp of the character described, the same comprising a base having a reservoir formed therein for receiving the fuel, a closure for said reservoir, and parallel spaced wick-arms telescopically mounted in said closure.

2. A lamp of the character described, the same comprising a base having a reservoir formed therein for receiving the fuel, a closure for said reservoir, and parallel spaced wick-arms pivotally mounted in said closure and adapted to extend laterally over and beyond the edge of said base.

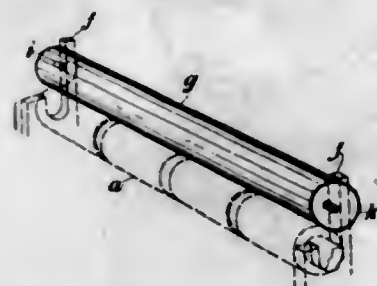
3. A lamp of the character described, the same comprising a base having a reservoir formed therein for receiving the fuel, a closure for said reservoir, and parallel spaced wick-arms telescopically mounted in said closure and extending laterally over and beyond the edge of said base.

4. A lamp of the character described, the same comprising a base having a reservoir formed therein for receiving the fuel, a closure for said reservoir, and parallel spaced wick-arms pivotally and telescopically mounted in said closure and adapted when in operative position to extend laterally over and beyond the edge of said base, and when in inoperative position to be telescoped within said closure.

5. A lamp of the character described, the same comprising a base having a reservoir formed therein for receiving the fuel, a closure for said reservoir, a guide tube removably mounted within said closure, and parallel spaced wick-arms pivotally mounted in said guide tube and adapted

ed to extend laterally over and beyond the edge of said base and capable of telescoping within said guide tube.

1,077,528. CLEARER-ROLL FOR DRAWING, ROVING, AND SPINNING FRAMES. MARCELLUS GOULD and NELSON C. CLOUETTE, Penacook, N. H.; W. Herbert Adams, executor of said Gould, deceased, assignor to said Clouette. Filed Dec. 18, 1911. Serial No. 666,532. (Cl. 118—26.)

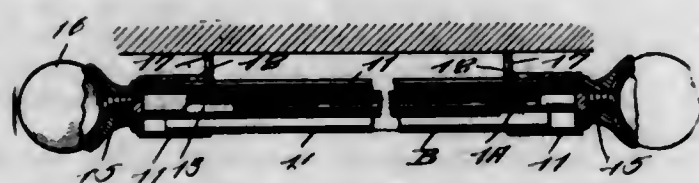


1. In a machine of the class specified, the combination with the top-rolls of a clearing device, consisting of a roller having an eccentric shaft, said roller bearing upon and given a rotary motion by said top-rolls, said eccentric shaft bearing against upright stops and adapted by the free vertical movement of said shaft to impart an oscillating motion to said roller while rotating.

2. In a machine of the class specified, the combination with the top-rolls of a clearing device, gravity held in engagement with the top-rolls, said clearing device consisting of an eccentric shaft and a cylinder rigidly mounted on said shaft, said shaft to movably engage uprights attached to the frame, and thereby impart an oscillating and longitudinal rubbing movement to said cylinder in its rotation.

3. A clearing device for the rolls of drawing, roving and spinning frames, consisting of a roller adapted to lie upon and be rotated by said rolls, said roller being circular in cross section and having an eccentric shaft intended to movably engage vertical stops fixed in the frame, whereby said roller in rotating is given an oscillating and irregular movement.

1,077,529. CURTAIN-POLE. GUSSIE G. GRIFFIN, Mulberry, Fla. Filed Dec. 23, 1912. Serial No. 738,312. (Cl. 156—19.)



The combination with a supporting part, of headed members projecting therefrom, a curtain pole comprising a tubular body portion provided with a longitudinal slot extending throughout its length, said body portion detachably engaging over the heads of said members with the shanks of the latter disposed in said slots whereby the body portion is supported by the members, caps telescopically engaged from each end of the body portion, and tubular rods carried by and extending inwardly from the heads of said caps and telescoping with each other whereby a curtain may be engaged with the outer telescoping tubular rod and inserted within the bore of the body portion.

1,077,530. CONVERTIBLE HAIR-CUTTER AND SAFETY-RAZOR. ALTUS T. HAUSER, Ellensburg, Wash. Filed Oct. 10, 1912. Serial No. 725,004. (Cl. 30—12.)

1. In a combined hair cutter and razor, a holder comprising a single piece of metal bent upon itself, one end thereof provided with depending teeth, the other end thereof outwardly bent upon itself to provide a receptacle for the razor blade and provided with teeth adjacent

to the bottom of the receptacle, the cutting edge of said razor blade engaging the inner surfaces of the bent-over portion and the holder.



2. In a combined hair cutter and razor, a holder comprising a rectangular piece of sheet metal bent upon itself semi-cylindrically, the extremities of said holder projecting tangentially therefrom, teeth formed upon the edges of said projecting ends, a receptacle for a razor blade formed with one of said projecting ends, a razor blade mounted in said receptacle and adapted to cut substances engaged by the teeth of said other projecting end, the cutting edge of said razor blade engaging the inner surfaces of the bent-over portion and the holder and extending beyond the inner terminal of said teeth.

3. In a combined hair cutter and razor, a holder bent upon itself semi-cylindrically, closures for the ends of the semi-cylindrical portion formed intermediate the end of said holder, a resilient guard formed at one end thereof by outwardly bending one end of the holders upon itself, teeth formed through both thicknesses of metal adjacent to the line of said bending, roughened surfaces on the adjacent surfaces of said guard and the body of the holder, a razor blade mounted between said roughened surfaces, means for binding said razor blade between said guard and the body of said holder and the cutting edge of said razor blade engaging the surfaces of the bent-over portion and the holder and extending beyond the inner terminals of said teeth, a handle formed with said guard, depending teeth formed with the opposite end of said holder and adapted to cooperate with said razor blade in the process of cutting the hair.

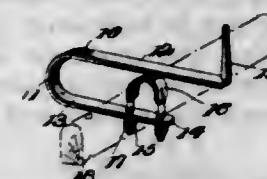
4. In a combined hair cutter and razor, a substantially semi-cylindrical holder, heads at the opposite ends thereof, wings formed by the tangential extension of the cylindrical walls, depending teeth formed on the edges of said wings, a pocket adapted to hold a razor blade formed integral with one of said wings and the inner wall of said socket provided with openings, a razor blade in said pocket, means for clamping said blade in the pocket including downwardly extending lugs formed on the inner surface of the outer wall of said pocket and adapted to extend through said openings in the inner wall of said pocket and engage the back of said razor blade, said pocket adapted to resilient cooperation with the teeth formed on the extremity of the opposite wing.

5. In a combined hair cutter and razor, a semi-cylindrical holder formed of a single sheet of metal, outwardly extending wings integral with said holder, one of said wings provided with longitudinal slots adjacent one end thereof, and bent centrally of the slots back upon itself convergent of the outwardly extending portion to form a pocket, said slots forming teeth at the outer extremity of said wing, teeth formed at the extremity of the other wing and the inner wall of said pocket provided with openings, closures for the semi-cylindrical portion formed integral with the holder intermediate its ends, a razor blade adapted to be fitted within the pocket aforesaid, means for holding said razor blade within said pocket, including lugs formed on the outer wall of said pocket adapted to engage the back of said blade and extend through the openings in the inner wall of the pocket, a handle formed integral with the outer wall of said pocket, the cutting edge of said razor blade engaging the inner surfaces of said pocket and extending beyond the inner terminal of said teeth, and said pocket adapted to resilient cooperation with the teeth formed on the extremity of the opposite wing.

1,077,531. LAMP-BRACKET. MERRITT W. HAZLETT, Treadwell, N. Y. Filed Nov. 26, 1912. Serial No. 733,671. (Cl. 248—20.)

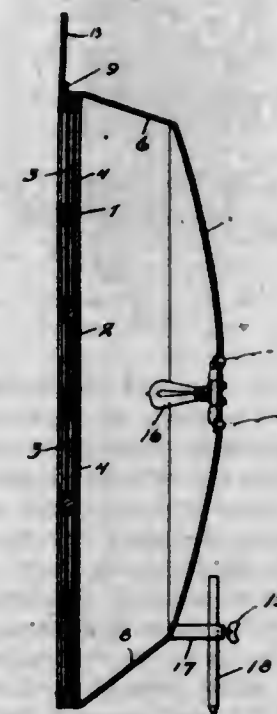
A lamp-bracket comprising a member, one terminal of which is secured to the under face of a transverse bar of

a vehicle, the member being bent intermediate its ends and carried forward over and beyond said bar, its terminals being bent at right angles to its body portion to form a lamp support, the member being sufficiently resilient



whereby its portion which extends over the bar will be normally spaced from the bar, the bar forming a support for said portion when excessive weight is applied to the same.

1,077,532. ELECTRIC SIGN. AUGUST HOEHL, Haledon, N. J. Filed Nov. 23, 1912. Serial No. 733,125. (Cl. 40—132.)



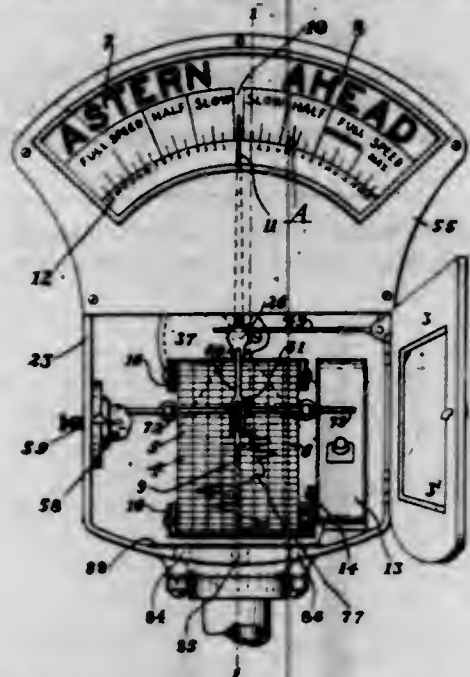
1. In a sign of the character described, a pair of longitudinal bars, transverse bars connecting said longitudinal bars, thereby forming a frame, the first mentioned bars being provided with longitudinal slots extending therethrough, the second mentioned bars being provided with longitudinal grooves communicating with said slots, a casing formed from a single piece of material and comprising a rear wall, top and bottom walls and side walls, one of said side walls being bent laterally, forwardly and inwardly to provide a channel for the reception of one side of said frame, thereby closing the outer sides of the longitudinal slots in said side, the other side wall being bent laterally for engagement with the frame, the bottom wall being extended along the lowermost transverse bar and then upwardly, and a plurality of plates adapted to be held within said slots and grooves.

2. A sign of the character described, comprising a frame having longitudinally grooved transverse bars, a casing supporting said frame, said casing including a rear wall, top and bottom walls, and side walls, one of said side walls being bent to form a channel for the reception of one side of said frame, the other side wall being bent laterally for engagement with the frame, the bottom wall of said casing being extended under the frame and then upwardly, and suitable lighting means carried on the inner side of the rear wall of said casing.

1,077,533. MARINE SPEEDOMETER. CHARLES H. KENNEY, New London, Conn., assignor, by mesne assignments, to The American Speed Indicator Company, New London, Conn., a Corporation of Connecticut. Filed June 23, 1911. Serial No. 634,881. (Cl. 73—123.)

1. A pneumatically operated speed and direction indicator, comprised of a housing, an open ended duct in said housing, a shaft in said duct extending into the said

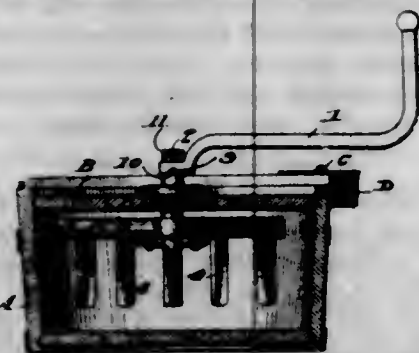
housing, a movable closure member fixedly attached to said shaft in said duct, a needle fixedly attached to said shaft in said housing, a portion thereof being flattened, a right-angled two-arm resilient member pivoted in said housing adjacent to said shaft, one arm of said resilient member resting in the flat in said shaft, adjusting means carried by said housing and arranged adjacent to the other arm of said resilient member whereby the resistance may be adjustably regulated to keep said needle vertical.



2. A pneumatically operated speed and direction indicator, comprised of a housing, an open ended duct in said housing, a shaft rotatably mounted in said duct, one end of which extends into the interior of said housing, a closure member fixedly mounted upon said shaft in said duct, a needle mounted upon the other end of said shaft in said housing, said shaft having a flat seat thereon, a right-angled tension member pivoted adjacent to said needle, tension adjusting means in said housing, one arm of said right-angled member being in connection with said adjusting means, the other arm of said right-angled member resting in said flat seat on said shaft, a dial in said housing divided into two sections, one section indicating a right hand motion of said needle, the other section indicating a left hand motion of said needle, said needle resting normally in a vertical position and traversing said right-hand side of said dial or said left hand side of said dial accordingly as the closure member in said duct is acted upon by either suction or pressure.

3. A pneumatic speed and direction indicator comprising a housing, a conduit having a curved portion, a shaft pivoted adjacent the curved portion of the conduit and provided with a flattened part, a closure fast on the shaft and arranged to be swung through said curved conduit portion by the air pressure in the conduit, a pointer carried by said shaft, a resilient member having a portion engaging the said flattened part of the shaft, and an adjusting member carried by the housing and engaging a portion of the resilient member to regulate the tension thereof.

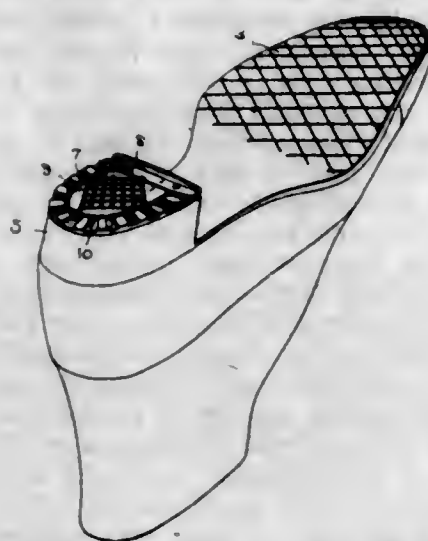
1,077,534. WASHING-MACHINE. HENRY FREDERICK KUHLMANN, Indianapolis, Ind. Filed Feb. 26, 1909. Serial No. 480,095. (Cl. 68-15.)



A washing machine comprising an agitator having arms, V-shaped teeth mounted on the arms, said teeth

alternately arranged, and the V-shaped edges of the outer teeth projecting inwardly and the V-shaped edges of the inner teeth projecting outwardly, and means for operating the agitator whereby the clothes will receive a back-and-forth movement, as well as an inward and outward movement.

1,077,535. HEEL TOP LIFT. ALFRED LENDGREN, Cording, Iowa. Filed Nov. 7, 1912. Serial No. 730,041. (Cl. 36-59.)

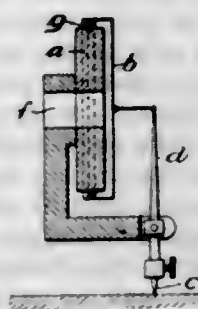


1. A heel top lift consisting of a flat metal body having grooves and bosses on its lower side, its upper side having a forwardly disposed recess and apertures communicating with the recess and adapted to receive fastening means such as nails, and a downwardly flanged plate fitted into the forwardly disposed recess.

2. A heel top lift comprising a metal plate having a groove in its lower side and a recess in its upper front side and also having apertures communicating with the groove and the recess and adapted to receive securing means such as nails, and a wedge-shaped plate seated in the recess and adapted to be engaged by the securing means, said wedge-shaped plate having a downwardly extended flange thereon.

3. A heel top lift adapted to be fitted to the heel of a shoe and having a groove adjacent to one edge and having a flange forming a wall of the groove and extending below the level of the lower surface of the lift, said flange being of malleable material and adapted to be bent over into the said groove.

1,077,536. ACOUSTICAL INSTRUMENT. LOUIS LUMIERE, Lyon, France, assignor to Victor Talking Machine Company, Camden, N. J., a Corporation of New Jersey. Original application filed May 18, 1910, Serial No. 561,928. Divided and this application filed Apr. 20, 1911. Serial No. 622,213. (Cl. 181-11.)



1. A sound box comprising a stationary wall, a movable wall and a solid yielding annular packing arranged to roll between said walls.

2. A sound box for acoustical instruments comprising a wall, a diaphragm telescoping with said wall, and a packing arranged to roll between said wall and said diaphragm and rotated by the vibration of said diaphragm, and free to respond to all vibrations imposed.

3. A sound box for acoustical instruments comprising a wall and a diaphragm telescoping with said wall, and a

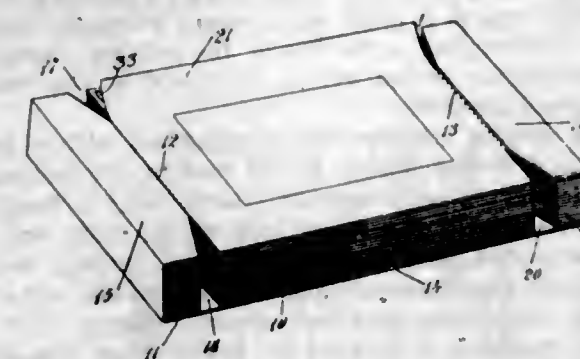
yielding packing arranged to roll between said wall and said diaphragm and free to be rotated by the vibration of said diaphragm.

4. A sound box, comprising a cylindrical stationary wall, a movable wall, and a packing arranged to roll between said walls, and maintain a constant diameter.

5. A sound box, comprising a cylindrical stationary wall, a movable wall, and a packing arranged to roll between said walls, the movement of the packing being substantially one-half that of the movable wall.

[Claims 6 to 22 not printed in the Gazette.]

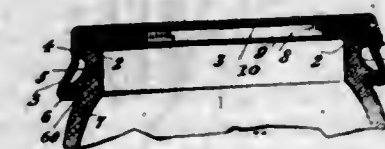
1,077,537. PAD. GAVIN SPIERS' MACMILLAN, New York, N. Y. Filed Jan. 3, 1912. Serial No. 669,287. (Cl. 206-57.)



1. A block or pad comprising a plurality of gummed labels each provided with stubs at two opposite ends, a holding device having two retaining strips overlapping said stubs, weakened lines adjacent to the inner edge of said retaining strips separating said stubs from said gummed labels, notches at the ends of said weakened lines, and means for securing said gummed labels and holding device together; substantially as described.

2. A block or pad comprising a plurality of gummed labels disposed with their entry surfaces uppermost and each provided with a stub at each of two opposite edges, weakened lines between each of said labels and both of its stubs, a relatively deep notch being provided at an end of each such weakened line and extending inwardly from the edges of the label, and means engaging opposite ends of said pad for binding said stubs.

1,077,538. JAR-CLOSURE. UMBERTO MAGNI, San Francisco, Cal. Filed July 2, 1913. Serial No. 776,909. (Cl. 215-91.)

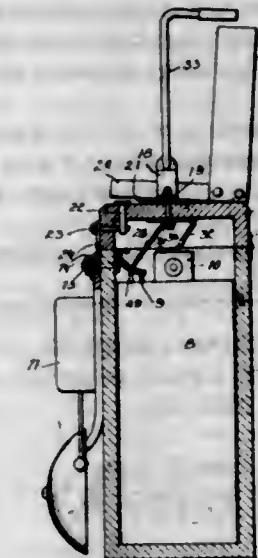


As a new article of manufacture, a jar having a mouth and two distinct annular grooves on its outside adjacent to said mouth to form a shoulder portion at the intersection of such grooves, the under face of said shoulder being straight cut, the first of said grooves being curved throughout in cross section and lying between the mouth end and the second groove, and a cap consisting of a body portion having a pendent flange, and resilient gripping fingers adapted to rest in said grooves, the fingers supporting the body portion of the cap in a plane above the mouth of the jar when said fingers engage the first groove, and said fingers holding the body portion of the cap in sealing position with the jar when said fingers engage in the second groove.

1,077,539. BATTERY-BOX. CHARLES A. MAHLA, New York, N. Y. Filed Mar. 6, 1913. Serial No. 752,525. (Cl. 204-52.)

1. A battery box having a hinged cover, contact members carried by said cover and adapted to engage the poles of a battery within the box, a terminal member extend-

ing into the box and adapted to be engaged by one of said contact members, means for locking the cover in its closed position, said means forming a second exterior terminal, and circuit closing means positioned upon the cover of the box.

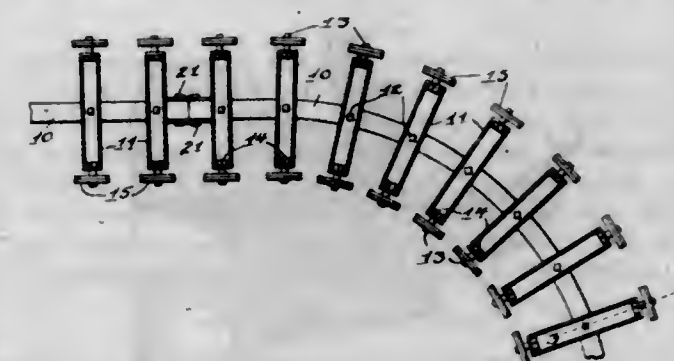


2. A battery box having a hinged cover, spring contact members carried by said cover and adapted to engage the poles of a battery within the box, a terminal member extending through the wall of the box to engage one of said contact members, means for locking the cover in its closed position, said means forming an exterior terminal, and circuit closing means carried by the cover for engagement with said fastening means.

3. The combination with a battery box having a hinged cover, of a battery positioned within said box, spring contact members carried by the cover and adapted to engage the poles of said battery, a screw extending through the wall of the battery box, a fastener secured upon the inner end of said screw and adapted to engage one of said contact members, said screw forming an exterior terminal, a hook pivoted to the box and forming the other exterior terminal, means carried by the cover for engagement by said hook whereby the cover is held in its closed position, and circuit closing means positioned upon the cover.

4. In combination, a battery box, a battery positioned therein, movable contact members carried in said box for engagement with the pole of the battery, a terminal member extending into the box and engaging one of the contact members, means for locking the contact members in engagement with the poles of the battery, said means including a pivoted member, and circuit closing means positioned upon the exterior of the box.

1,077,540. GRAVITY-CARRIER. WILLIAM STEWART McCURDY, St. Paul, Minn. Filed July 20, 1912. Serial No. 712,057. (Cl. 193-1.)



1. In a gravity-carrier, the combination of a rail, yokes mounted at intervals on said rail and extending beyond the sides thereof and antifriction-wheels on said yokes over which articles may be transported.

2. In a gravity-carrier, the combination of a rail, yokes mounted transversely on said rail and a wheel journaled at each extremity of said yokes.

3. A gravity-carrier formed of separable sections, each comprising a rail extending beyond the sides thereof, yokes on said rail, wheels journaled on said yokes and means for connecting the abutting sections.

4. In a gravity-carrier, the combination of a supporting rail, elongated U shaped yokes secured at their centers upon said rail, a pair of antifriction-wheels revoluble on each yoke, said wheels being mounted on the vertical ends of said yokes.

5. In a gravity-carrier, a rail, yokes secured at intervals on said rail, studs mounted on and extending beyond each yoke in horizontal alignment and antifriction-wheels revoluble on said studs.

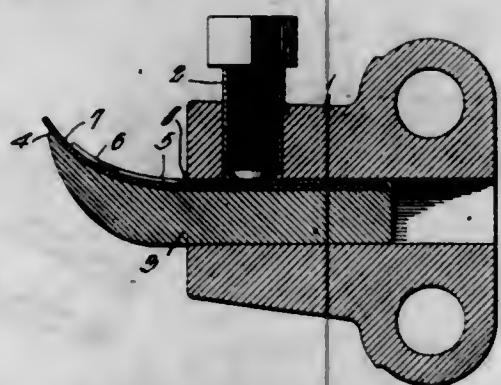
[Claims 6 to 8 not printed in the Gazette.]

1,077,541. DRENCHING-BOTTLE. JAMES BRAMBLE MOONEY, Coldwater, Kans. Filed Dec. 18, 1911. Serial No. 666,402. (Cl. 215-70.)



A drenching bottle comprising a transparent base portion, and a metal upper section, said upper section having a reduced neck, an annular flange formed upon said neck, an annular series of downwardly tapered corrugations formed integral with the flange and neck, and below the former, and a circular series of beads formed integral with the upper surface of the flange and upper edge of the neck.

1,077,542. BIT FOR MINING-MACHINES. JUSTUS J. MOORE, Springfield, Ill., assignor of one-fourth to Harry Thomas, Harrisburg, Ill., one-fourth to W. A. Brewerton, Chicago, Ill., and one-fourth to W. B. May, Clarksburg, W. Va. Filed Apr. 15, 1912. Serial No. 690,793. (Cl. 125-14.)



1. A bit for mining machines including a body having one end portion curved forwardly, the front and back faces of said portion converging to an edge, a longitudinal channel within the front face of the body and of said curved portion, said channel extending longitudinally of the bit, a cutting element seated within the channel and

projecting at one end to the edge of the bit, and means integral with the body and overlapping a portion of the cutting element to hold said element within that portion of the channel in the curved portion of the bit.

2. A bit for mining machines, including a body having one end portion curved forwardly, there being a longitudinal channel within the front face of said curved portion, a cutting element seated within the channel and extending to the end of the curved portion, and means integral with the body and engaging the said cutting element for holding the cutting element seated in that portion of the channel in the curved portion.

3. A bit for mining machines including a body having one end portion curved forwardly, there being a longitudinal channel within the front face of the body and within the front or concave face of said curved portion, a cutting element seated within the channel and extending to the end of the curved portion, and means integral with the body for overlapping a portion of the cutting element to hold said portion seated within that part of the channel in the curved portion.

4. In a mining machine the combination with a socket member, of a bit detachably seated therein and having one end portion extended forwardly, there being a longitudinal channel within the front face of the body and forwardly extended portion of the bit, a cutting element seated within the channel and projecting to the end of the forwardly projecting portion, means integral with the body for engaging a portion of the cutting element to hold said portion seated within that part of the channel located in the forwardly extending portion of the bit, and a set screw engaging the socket member for binding the cutting element upon the bit and for binding the bit in the socket member.

5. In a mining machine the combination with a socket member, of a bit seated therein, a cutting element mounted upon one face of the bit and projecting to one end thereof, and a set screw engaging the socket member for binding the cutting element upon the bit and for binding the bit upon the socket member.

[Claims 6 and 7 not printed in the Gazette.]

1,077,543. WRENCH. SAMUEL MOSS, Waltham, Mass. Filed Jan. 22, 1913. Serial No. 743,459. (Cl. 81-126.)

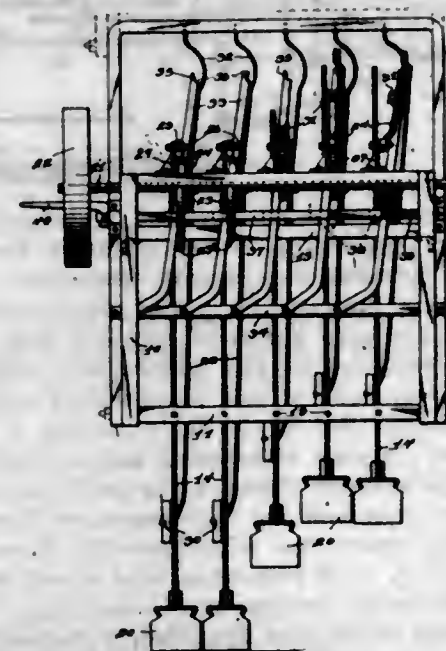


1. A wrench comprising a shank, a yoke pivotally supported on the shank, resilient means for normally retaining the yoke at right angles to the shank, the shank at its end remote from its handle portion being formed with an enlargement, a pin passing through said enlargement and projecting beyond both faces of the shank, a second yoke embracing the enlarged end of the shank, said yoke being formed with arcuate slots which receive the terminals of the pin which passes through the shank, a jaw supported by the yokes, means carried by the first mentioned yoke for feeding the jaw through the yokes, both of said yokes being maintained parallel with each other and the work-engaging portion of the sliding jaw at all times.

2. A wrench comprising a shank, said shank being reduced in width intermediate its ends, a yoke pivotally

mounted on said reduced portion, resilient means for normally retaining the yoke at right angles to the shank, the terminals of the shank adjacent the reduced portion being enlarged, a pin supported by the enlarged end of the said shank, a yoke receiving said enlarged end, said yoke being formed with arcuate slots which receive the pin which passes through the shank, the yoke including a sleeve, a sliding jaw, the shank of which is supported for movement within said sleeve and which extends through the first mentioned yoke, means carried by the first mentioned yoke for feeding said jaw through the yokes, said jaws being at all times maintained parallel with each other, and the work-engaging face of the sliding jaw.

1,077,544. TAMPING-MACHINE. CHARLES E. NEILSEN, St. Paul, Minn., assignor to Clarence R. Wilkinson, St. Paul, Minn. Filed Jan. 13, 1913. Serial No. 741,893. (Cl. 83-57.)



1. In a device of the class described, the combination of a frame, vertically movable tamping bars, on the frame, adapted to fall by gravity, a lever for each bar pivotally attached at one end to said frame and adapted to tilt vertically and horizontally, a connecting rod between each tamping bar and lever, power driven arms adapted to engage said levers and raise said bars, dogs for engaging the levers to secure the bars in elevated inoperative positions, said dogs being also adapted to carry and locate the levers in positions to be engaged by said arms whereby the levers are disengaged from the dogs to permit the fall of the tamping bars.

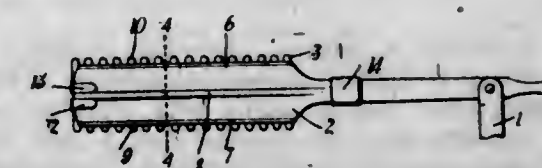
2. In a device of the class described, the combination of a frame, vertically movable tamping bars on the frame adapted to fall by gravity, said bars being formed with a perforation centrally arranged therein, adjustable roller bearings for said bars, lifting levers pivotally attached to said frame and adapted to tilt vertically and horizontally thereon, guides for said levers, a rod pivotally connecting each lever with its respective tamping bar and extending at its lower end through the perforation in said bar, said lever and rod being adapted to tilt, rollers on said levers, power driven cam arms adapted to engage said rollers and raise said bars, and dogs for engaging the levers to secure the tamping bars in elevated, inoperative positions, said bars being also adapted to carry and locate the levers in positions to be engaged by said arms, whereby the levers are disengaged from the dogs to permit the fall of the tamping bars.

3. In a device of the class described, the combination of a frame, vertically movable tamping bars, on the frame, adapted to fall by gravity, a lever for each bar pivotally attached at one end to said frame and adapted to tilt vertically and horizontally thereon, a connecting rod between each bar and lever, said rods and levers being adapted to normally tilt, guides for said levers, power driven cam arms adapted to move said levers and raise

said bars, tiltable dogs on the frame adapted to engage the levers and secure the bars in elevated, inoperative positions, an operating bar for shifting said dogs to carry and locate the levers in positions to be engaged by said arms, whereby the levers are disengaged from the dogs to permit the fall of the tamping bars.

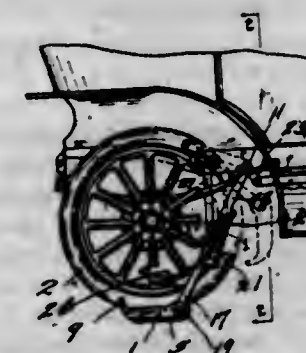
4. In a device of the class described, the combination of a frame, vertically movable tamping bars, on the frame, adapted to fall by gravity, a lifting lever for each bar pivotally attached at one end to said frame and adapted to tilt vertically and horizontally thereon, a connecting rod between each tamping bar and its lever, said rods and levers being adapted to normally tilt, guides for said levers, rollers on said levers, power driven arms adapted to engage said rollers and raise said bars, and tiltable dogs on the frame formed with lugs and seats at their upper ends, said dogs being adapted to secure the levers and bars in elevated, inoperative positions, an operating bar for shifting said dogs to carry and locate the levers in positions to be engaged by said cam arms, whereby the levers are unseated from the dogs and removed therefrom to permit said levers to clear said dogs as the tamping bars fall.

1,077,545. RAZOR AND GUARD THEREFOR. ALBERT OBERHEIM, Ogden, Utah. Filed Apr. 1, 1912. Serial No. 687,581. (Cl. 30-12.)



In a razor of the class described, the combination with a blade provided with a handle and having a longitudinally positioned bead, of a guard formed with a pair of space bent-over fingers adapted to fit over the end of said blade and each side of said bead, and means for connecting said guard to said blade on the end opposite to said fingers.

1,077,546. VEHICLE-BRAKE. STEPHEN R. O'BRIEN, Pittsburgh, Pa. Filed Mar. 24, 1913. Serial No. 756,461. (Cl. 21-8.)

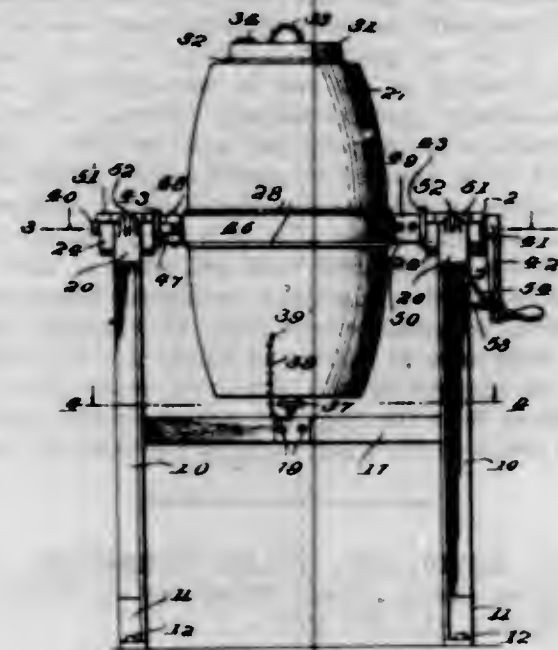


An emergency brake including a chock, a pair of hanger bar sections pivoted to the chock, a rock shaft and a second pair of hanger bars pivoted to the first pair so that the sections may double up, springs for absorbing shock when said parts are straightened, means for rocking the shaft, a cam guide rib integral with one section hanger, and anti-friction means engaging said cam guide for positively guiding the chock to operative position.

1,077,547. GHURN. BELZIMERE O'HARA, Orofino, Idaho. Filed Mar. 17, 1913. Serial No. 754,876. (Cl. 31-18.)

1. In a churn, a supporting frame including bearings spaced apart, a cream receptacle supporting member having journals spaced apart and engaging said frame bearings and engaging the cream receptacle at one side, said supporting member having a hinge member near one of said journals and a seat near the other journal, another cream receptacle supporting member engaging the cream

receptacle at the other side, said last-mentioned supporting member being hingedly connected at one end to said hinge member and having bearings at the other end engaging the seat of the first-mentioned receptacle supporting member.



2. In a churn, a support including bearings spaced apart, a cream receptacle supporting member having journals spaced apart and engaging said bearings and with a hinge member near one journal and a seat near the other journal, another cream receptacle supporting member having a hinge member at one end and a seat at the other end for respectively engaging the hinge member and the seat of the first-mentioned cream receptacle supporting member.

1,077,548. RAILWAY CONSTRUCTION. ADAM OSTHEIMER, Cleveland, Ohio. Filed Jan. 20, 1913. Serial No. 743,072. (Cl. 238-5.)



1. A railway construction comprising the combination of a plurality of ties formed with a concavity intermediate of their ends, a corresponding number of plates overlying said ties respectively and spanning such concavity, transversely extending rails, and means for fixing said ties, plates and rails relative to each other.

2. A railway construction comprising the combination of inverted U shaped beams, rails thereon and extending parallel therewith, a plurality of underlying ties extending transversely of said beams, and a separate support of I shaped cross-section snugly interposed between each beam and tie, the web portion of said supports likewise extending transversely of said beams, and means for fixing said rails, beams, supports and ties relative to each other.

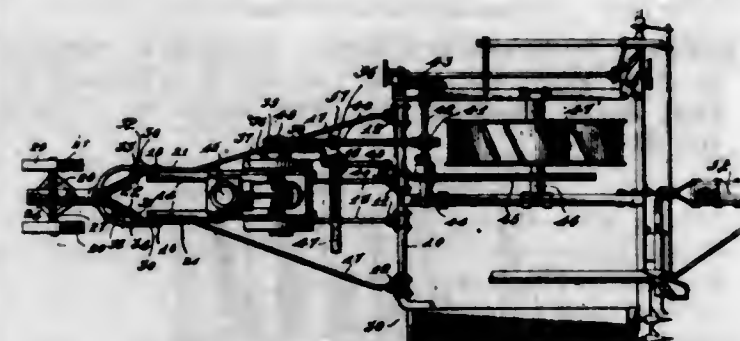
3. A railway construction comprising the combination of a pair of rail supporting members, a plurality of underlying ties extending transversely thereto and formed with a concavity intermediate thereof, transverse plates interposed between said members and ties and spanning said concavity, and means for fixing said members, plates and ties with relation to each other.

4. A railway construction comprising the combination of a pair of rails, a plurality of underlying ties of T shaped cross-section and depressed centrally, plates interposed between said rails and ties and spanning said depressions, and means for fixing said rails, plates and ties relative to each other.

5. A railway construction comprising the combination of a plurality of ties, beams having concave under sides transversely supported upon said ties, rails upon said beams, means for fixing said ties, beams and rails with respect to each other, and separate supports seated within said beam concavities and themselves provided with concave under sides adapted to inclose said ties.

[Claims 6 and 7 not printed in the Gazette.]

1,077,549. PLATFORM FOR ENGINES. EMIEL PAHL, Sister Bay, Wis. Filed May 27, 1912. Serial No. 700,093. (Cl. 56-32.)



1. In a device of the kind described, a platform comprising a pair of longitudinal frame members having their forward ends adapted for pivotal connection to a harvester, a pair of laterally diverging brace members having their forward ends similarly attached and their rear ends fixedly connected to the longitudinal members, uprights at the rear ends of said longitudinal members provided with means for pivotally attaching a yoke adjustably thereto, a yoke attached to said uprights by said means, a supplementary frame, a vertically disposed pivot connecting the yoke and the supplementary frame, standards extending below the supplementary frame, ground wheels carried by said standards, and means to prevent upward movement of the yoke at its rear end.

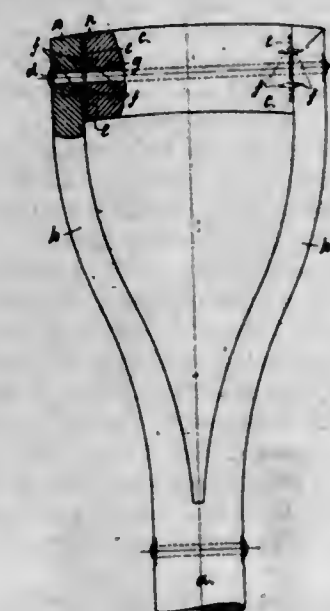
2. In a device of the kind described, a platform comprising a pair of longitudinal frame members having their forward ends adapted for pivotal connection to a harvester, a pair of laterally diverging brace members having their forward ends similarly attached and their rear ends fixedly connected to the longitudinal members, uprights at the rear ends of said longitudinal members provided with means for pivotally attaching a yoke adjustably thereto, a yoke attached to said uprights by said means, a supplementary frame, a vertically disposed pivot bolt connecting the yoke and the supplementary frame, standards extending below the supplementary frame, ground wheels carried by said standards, and a plate having a series of openings spaced thereon, a bolt passing through one of said openings and one of the uprights, and a spring having one end connected to said plate and the other to the pivot bolt.

1,077,550. HANDLE FOR SPADES, SHOVELS, FORKS, AND LIKE IMPLEMENTS. SIDNEY RICHMOND PARK, Wigan, England. Filed June 6, 1912. Serial No. 702,026. (Cl. 55-116.)

1. An implement handle comprising a bifurcated stem having the furcations in separated and spaced relation, a transverse handle piece interposed between the end portions of the furcations, a metal plate inset in each end face of the transverse handle, spurs struck up from the body of the metal in opposite directions transversely to the plane thereof and embedded in the material of the cross piece and the furcations, and a rivet passing through the furcations and handle piece and headed at the ends.

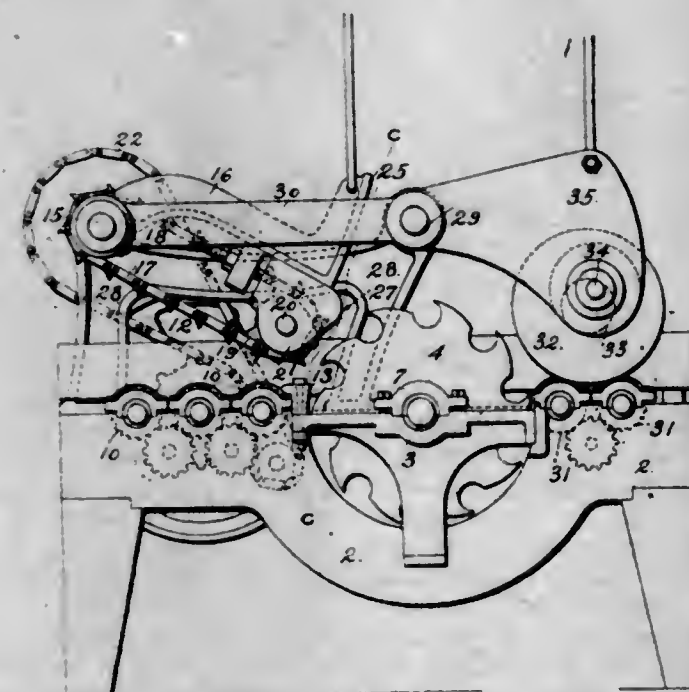
2. An implement handle comprising a bifurcated wooden stem, whose furcations are sprung outwardly and bent into substantially parallel spaced relation near the outer ends thereof, a transverse piece disposed between and gripped by the parallel portions having recesses in its end faces, a sheet metal plate of less diameter than the handle piece seated in each recess, spurs struck up

from the body of each plate and extended from each face thereof into the face of the contiguous handle and cross



piece, and a rivet passing through the furcations, the cross piece and the plates and clamping them together.

1,077,551. LATH-BOLTER. MAHLON L. PETERMAN, Millside, British Columbia, Canada. Filed Feb. 10, 1910. Serial No. 543,158. (Cl. 143-56.)



1. In a machine of the character stated, a main frame, a gang of circular saws rotatably mounted on a common axis in said main frame, a lower feed mechanism, a supplemental frame mounted on said main frame, a driving shaft mounted on said supplemental frame, a feed chain carrying frame pivoted on said drive shaft, a set of sprockets on said drive shaft, a sprocket carrying shaft mounted in the front end of said pivoted frame, endless feeding sprocket chains passing over said sprockets, a support bar extending across in front of said gang of saws between said gang of saws and said lower feed mechanism, the contact of said feeding sprocket chains being directly over said support bar, a second frame pivoted to said supplemental frame, and rollers carried by said second pivoted frame cooperating with the delivery end of the lower feed mechanism to hold the split boards on said lower feed mechanism at the delivery end.

2. In a machine of the class described, a main frame having bearings, a shaft mounted in said bearings, a gang

of saws carried by said shaft and spaced apart, feeding rollers in advance of said saws, a supplemental frame supported on said main frame, a driving shaft mounted in bearings in said supplemental frame, a feed chain carrying frame pivoted on said driving shaft, a gang of feeding sprocket chains one for aligning with each space between an adjacent pair of saws, a second frame pivotally mounted on said supplemental frame and a plurality of yieldable presser rollers carried by said second supplemental frame and held over said delivery rollers to retain the sawed boards in contact with said delivery rollers.

3. In a machine of the character stated, a main frame, a gang of circular saws rotatably mounted on a common axis in said main frame, a lower feed mechanism for feeding the boards to the saws, a bearing carrying member mounted on said main frame, a driving shaft mounted in said bearing carrying member, a feed chain carrying frame pivoted on said driving shaft, a plurality of sprockets on said driving shaft, bearing members mounted on said feed chain carrying frame adjacent to its free end, a plate connecting said bearing members together, adjusting devices at each side of said chain carrying frame to adjust the bearing members at the corresponding sides, a sprocket carrying shaft having its ends mounted in said bearing members, endless feeding sprocket chains passing over said sprockets, means for driving said driving shaft, and means for turning said saws.

4. In a machine of the character stated, a main frame, a gang of circular saws rotatably mounted on a common axis in said main frame, a lower feed mechanism for feeding the boards to the saws, a bearing carrying member mounted on said main frame, a driving shaft mounted in said bearing carrying member, a feed chain carrying frame pivoted on said driving shaft, a plurality of sprockets on said driving shaft, bearing members mounted on said feed chain carrying frame adjacent to its free end, a plate connecting said bearing members together, adjusting devices at each side of said chain carrying frame to adjust the bearing members at the corresponding sides, a sprocket carrying shaft having its ends mounted in said bearing members, endless feeding sprocket chains passing over said sprockets, means for driving said driving shaft, and means for turning said saws, said bar which connects said bearing members having its front edge turned over downwardly to form a guard between said saws and said chains.

5. In a machine of the class described a gang of circular saws, a lower feeding mechanism at the entrant end of said machine, a lower delivering mechanism at the exit end of the machine, an upper feeding mechanism for holding the boards on the lower feeding mechanism and assisting in feeding them to the saws, said upper feeding mechanism including a plurality of feeding chains, one for each space between adjacent saws, and means for applying a yielding pressure separately to each bolt to hold them down on the lower delivery mechanism, said last named means including a plurality of yieldable rollers for each space between adjacent saws, substantially as specified.

[Claim 6 not printed in the Gazette.]

1,077,552. PROCESS OF MAKING BAKERS' PRODUCTS. GUSTAV PETERS, Hoboken, N. J. Filed Dec. 20, 1912. Serial No. 737,822. (Cl. 99-10.)

1. Process of making sanitary bread, cake and similar bakers' products which consists in preparing a mixture of kephir-impregnated milk with natural milk, separately preparing egg albumen dissolved in water, forming a dough containing flour together with said kephir milk-mixture and said egg albumen, and baking said dough.

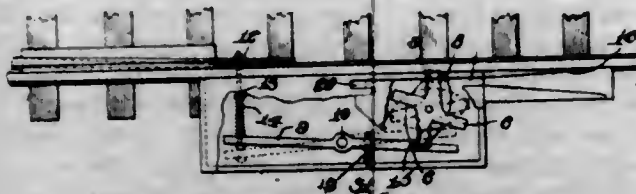
2. A step in making a dough for sanitary bread, cake and similar bakers' products which consists in preparing a component part of said dough in the following manner: impregnating milk at about 68° F. with the principle of softened kephir grains, mixing the impregnated milk with a body of natural milk at about a like temperature, reducing the temperature of the mixture, and agitating the same repeatedly until thickening.

1,077,553. SHUTTLE-GUARD FOR LOOMS. TOOMBS O. POPE, Columbus, Ga., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Feb. 15, 1913. Serial No. 748,596. (Cl. 139—30.)



In a loom, a lay having a shuttle-box and a reed-cap, and a longitudinally extended guide-rod on the cap, combined with a shuttle-guard comprising a flat deflecting portion slotted to embrace the guide-rod, and an up-turned flange on said deflecting portion, fixedly secured to the reed-cap, said deflecting portion overhanging the shuttle path and being inclined downward toward the mouth of the box to prevent the shuttle from flying out of the loom.

1,077,554. LOCK-SWITCH. WILLIAM PRICE and HARRY E. SHERIDAN, Scranton, Pa. Filed Aug. 8, 1912. Serial No. 714,105. (Cl. 104—24.)



A switch operating mechanism of the class described comprising a supporting member, a rotative member provided with a plurality of laterally extending arms, a cam carried by said rotative member, a switch throwing arm pivotally mounted upon said supporting member and means connecting said switch throwing arm to the switch point, said switch throwing arm provided with a transverse extending aperture, a pin carried by said support and passing through said aperture to prevent said arm from wobbling said arm provided at one end with an arcuate notched portion, said rotating member adapted to be moved one quarter of a revolution, said cam adapted to engage said notched portion whereby said rotative member and said cam will be prevented from moving more than one quarter of a revolution at a time, since a portion of the cam will rest in said notched portion whereby the switch will be held in an open or closed position as desired and said pin preventing said arm from wobbling whereby the same would become disengaged with said cam.

1,077,555. BUFFER FOR SWINGING INDICATOR-FRAMES. JAMES H. RAND, Newton, Mass. Filed Apr. 5, 1912. Serial No. 688,710. (Cl. 40—102.)



1. In an indicator device, a hinged leaf frame provided with inwardly facing marginal channels, and a removable strip held at its ends by said channels and having a buffer projecting beyond the plane of the frame surface.
2. In an indicator device, a hinged leaf frame provided with inwardly facing marginal channels, and a removable strip held at its ends in said channels in a position transverse to the axis of the leaf, a portion of said strip being bowed outwardly to form a buffer adapted to hold the faces of said leaf out of engagement with the next adjacent leaf.

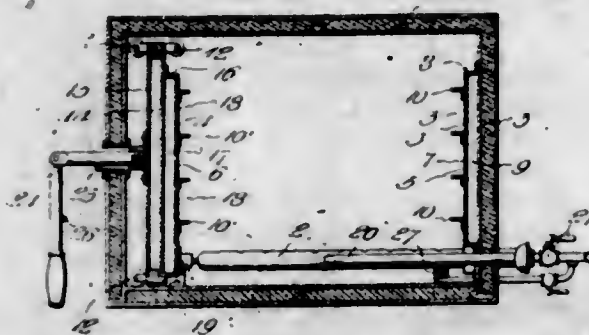
3. In an indicator device, a hinged leaf frame provided with inwardly facing marginal channels, and a removable strip held at its ends by said channels in a position transverse to the axis of the leaf, a portion of said strip closely adjacent to the outer margin of the leaf being bowed outwardly to form a buffer adapted to engage the marginal frame of the next adjacent leaf and hold the same out of engagement with the first named leaf.

4. In an indicator device, a hinged leaf frame provided with inwardly facing marginal channels, a removable strip held at its ends by said channels and having a buffer projecting beyond the plane of the frame surface adapted to hold the face of said leaf out of engagement with the next adjacent leaf, and an indicator tab carried by said strip projecting beyond the edge of the frame.

5. In an indicator device, a hinged leaf frame provided with inwardly facing marginal channels, a removable strip held at its ends by said channels and having a buffer projecting beyond the plane of the frame surface adapted to hold the face of said leaf out of engagement with the next adjacent leaf, and an indicator tab carried by and formed in an integral piece with said strip projecting beyond the edge of the frame.

(Claims 6 to 9 not printed in the Gazette.)

1,077,556. COMBINED BROILER AND OVEN. SIERRA LEONE RICHARDS, Baltimore, Md., assignor, by means assignments, to Charles H. Pease, Baltimore, Md. Filed Oct. 17, 1912. Serial No. 726,326. (Cl. 126—41.)

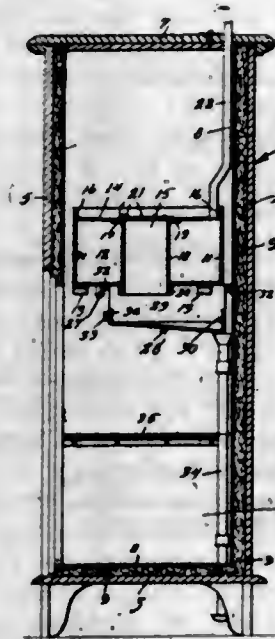


1. A gas oven having an upright fixed burner therein, an upright burner freely movable toward and away from said fixed burner, a handle secured to the rear wall of said movable burner and provided with a pivoted outer section having longitudinally spaced lugs, said oven having an opening in one end wall through which said handle is adapted to slide freely, said opening being of greater diameter than the handle to permit the lugs thereon to pass therethrough.

2. A gas oven having an upright burner box fixed to one end wall thereof and provided with a plurality of jet openings, means for supplying gas to said box, a partition movable toward and away from said fixed burner box and extending the full height of said oven and having casters for engaging the top and bottom walls thereof, said partition having an upright burner box on one face thereof, said box having a coupling at its lower end, a gas pipe extending horizontally in said oven and terminating at its inner end about midway the length of the oven in position to engage the coupling of said box when in its extreme inward position, and means for locking said adjustable burner in adjusted position.

3. A gas oven having an upright burner box fixed to one end wall thereof and provided with a plurality of jet openings, means for supplying gas to said box, a partition movable toward and away from said fixed burner box and having an upright burner box on one face thereof, said box having a coupling at its lower end, a gas pipe extending horizontally in said oven and terminating at its inner end intermediately of the length of the oven in position to engage the coupling of said box when in its extreme inward position and means for locking said adjustable burner in an adjusted position.

1,077,557. WATER-COOLING REFRIGERATOR. ROY R. RITCHIE, Wickenburg, Ariz. Filed Dec. 18, 1912. Serial No. 737,527. (Cl. 62—10.)



A refrigerator comprising a body, a water tank mounted within said body, the upper wall of said tank having an opening centrally arranged therein, disposed in a plane below the upper edges of the side walls of said tank and forming an ice support, upwardly extending flanges engaging the side walls of said tank and secured thereto, formed on the edges of said upper wall, wires disposed over the opening in said upper wall to prevent small particles of ice from falling therethrough, a duct extending entirely through said water tank, an annular outwardly extending flange formed on the upper end of said duct secured to the under surface of said upper wall adjacent the opening therein, a downwardly extending annular flange formed on the bottom of said tank and engaging the lower terminal of said duct, brackets formed on the under side of the bottom of said tank, a drip pan having outwardly extending flanges formed on its side walls, said flanges slidably engaging the brackets on the bottom of said tank, and said drip pan adapted to be removed from the refrigerator.

1,077,558. TROLLEY-POLE RETRIEVER. CHARLES B. RODGERS and JAMES A. BRENNAN, Bordentown, N. J. Filed June 14, 1912. Serial No. 703,743. (Cl. 191—90.)



1. The combination of a spring pressed trolley pole, retrieving means therefor, a harp pivoted to the pole, guides carried by the pole, a rod slidable through the guides and operatively connected to the retrieving means, a link connecting the rod and harp and adapted to swing beyond a position at right angles to the harp, and means for yieldingly sliding the rod to bring the retrieving means into operation.

2. The combination of a spring pressed trolley pole, retrieving means therefor, a harp pivoted to the pole, guides carried by the pole, a rod slidable through the guides

and operatively connected to the retrieving means, a link connecting the rod and harp and adapted to swing beyond a position at right angles to the harp, means for yieldingly sliding the rod to bring the retrieving means into operation, and means for sliding the rod against the tension of the last mentioned means.

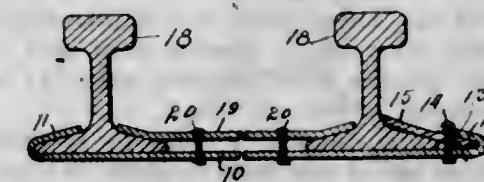
3. The combination of a spring pressed trolley pole, retrieving means therefor, a harp pivoted to the pole, guides carried by the pole, a rod slidable through the guides and operatively connected to the retrieving means, a link connecting the rod and harp and adapted to swing beyond a position at right angles to the harp, means for yieldingly sliding the rod to bring the retrieving means into operation, a trolley rope operatively connected to the said rod for sliding the said rod against the tension of the last mentioned means.

4. The combination of a spring pressed trolley pole, retrieving means therefor, a harp pivoted to the pole, guides carried by the pole, a rod slidable through the guides and operatively connected to the retrieving means, a link connecting the rod and harp and adapted to swing beyond a position at right angles to the harp, means for yieldingly sliding the rod to bring the retrieving means into operation, a sheave carried by the pole, a link connecting the sheave and rod, and a trolley rope wound upon the sheave so as to slide the said rod against the tension of the last mentioned means when the rope is unwound.

5. The combination of a spring pressed trolley pole, a spring pressed harp pivoted thereto, a fluid pressure cylinder, a piston in the cylinder and connected to the trolley pole, a fluid pressure supply pipe connected to the cylinder, a valve for the said pipe and normally partially open, the said valve being connected to the trolley pole, so that the valve is opened farther as the trolley pole is depressed, and a second valve for the said pipe normally closed and connected to the harp so that the last mentioned valve is opened when the harp is swung relative to the pole.

(Claims 6 and 7 not printed in the Gazette.)

1,077,559. TIE-STRAP. JOSEPH ROOP, Frankfort, Ind. Filed May 20, 1913. Serial No. 768,816. (Cl. 238—5.)



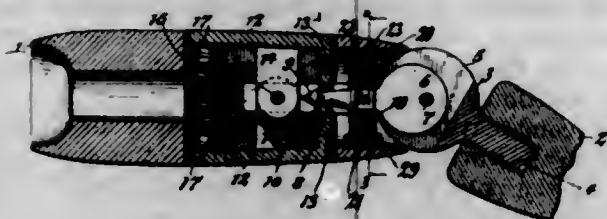
1. A tie strap having the ends bent back upon one side of the body of the strap and producing hook-like lips, a wedge plate carried in the inclosure of one of said lips, recesses in the wedge plate confining lip, and bolts passed through said wedge plate and the body of said strap and having the heads disposed within said recesses.

2. The combination with a member having a web and a base flange, of a strap having the ends bent back upon one side of the body of the strap to produce hook-like lips, one of said lips receiving within its inclosure and engaging with one edge of said flange, a wedge plate within the inclosure of the other of said lips and bearing with its edge upon the member web and serving to bind said strap tightly in position upon said base flange, and bolts passed through said wedge plate and its confining lip for preventing displacement of said wedge plate.

1,077,560. DISPLAY-FORM. EDWARD J. RYAN, Buffalo, N. Y. Filed June 30, 1913. Serial No. 776,480. (Cl. 211—13.)

1. A display form comprising two form sections, a coupling shank arranged on one of said sections, a catch arranged on the other section and engaging with said coupling shank, and means for frictionally retarding the rotation of said shank relatively to said catch comprising an intermediate friction member detachably connected with said shank, and two friction members engaging with opposite sides of said intermediate member and connected with said form section on which said catch is mounted.

2. A display form comprising two form sections, a coupling shank arranged on one of said sections, a catch arranged on the other section and engaging with said coupling shank, and means for frictionally retarding the rotation of said shank relatively to said catch comprising an intermediate friction disk detachably connected with said shank, an inner friction disk engaging with the inner side of said intermediate disk and connected with the form section on which said catch is mounted, and an outer friction disk engaging with the outer side of said intermediate disk and adjustably connected with said inner disk.

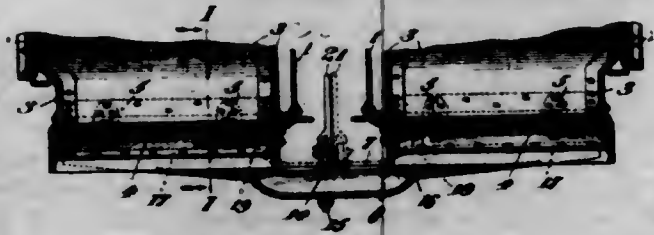


3. A display form comprising two form sections, a coupling shank arranged on one of said sections, a catch arranged on the other section and engaging with said coupling shank, and means for frictionally retarding the rotation of said shank relatively to said catch comprising a square hub on said coupling shank, a sleeve provided internally with a square opening which receives said hub and externally with an intermediate friction disk, an inner friction disk connected with the form member on which the catch is mounted and bearing against the inner side of said intermediate disk and having an opening which receives the inner end of said sleeve, and an outer friction disk connected with said inner disk and bearing against the outer side of said intermediate disk and having an opening which receives the outer end of said sleeve.

4. A display form comprising two form sections, a pivot pin mounted on one of said form sections, two catch levers pivoted on said pin, a coupling shank connected with the other form section and having a tapering head engaging with said catch levers and a square hub in front of said head, an intermediate friction disk having a square opening which receives said hub, an inner friction disk engaging with the inner side of said intermediate disk and provided with arms which connect with said pivot pin, and an outer friction disk engaging with the outer side of said intermediate disk.

5. A display form comprising two form sections, a pivot pin mounted on one of said form sections, two catch levers pivoted on said pin, a coupling shank connected with the other form section and having a tapering head engaging with said catch levers and a square hub in front of said head, an intermediate friction disk having a square opening which receives said hub, an inner friction disk engaging with the inner side of said intermediate disk and provided with arms which connect with said pivot pin, an outer friction disk engaging with the outer side of said intermediate disk and adjusting screws connecting said inner and outer disks.

1,077,561. CAR-DOOR SPREADER. RALPH V. SAGE, Westmont borough, Pa. Filed June 7, 1913. Serial No. 772,233. (Cl. 105-185.)



1. In a dumping car, a pair of hinged doors thereon, a cast spreader-bar substantially U-shaped in cross section, secured to, and connecting said pair of doors, the legs of said U-shaped bar being connected together at intervals by webs formed integral therewith.

2. In a dumping car, a plurality of hinged doors thereon, a cast spreader-bar substantially U-shaped in cross section, secured to, and connecting said hinged doors, said U-shaped bar being of greatest depth centrally and tapering gradually toward each end, and provided with integral webs connecting the legs of said U-shaped bar.

3. In a dumping car, a plurality of hinged doors thereon, a spreader-bar substantially U-shaped in cross section, secured to, and connecting said plurality of doors, integral webs connecting the legs of the U-shaped bar, said bar having an arched or offset central portion and tapering end portions.

4. In a dumping car, a plurality of hinged doors thereon, a spreader-bar substantially U-shaped in cross section, integral web connections between the legs of the U-shaped bar, said spreader-bar having an offset central portion and tapering end portions, the upper faces of said tapering end portions being flat and connected to said doors.

5. In a dumping car, a plurality of aligned hinged doors thereon, a spreader-bar substantially U-shaped in cross section, transverse web connections between the legs of the U-shaped bar, said U-shaped bar having an offset central portion and tapering end portions, the upper face of said tapering end portions being straight, perforations in the straight faces of the end portions and a perforated integral bracket extending laterally from said end portions, whereby said bar is connected to said doors.

[Claims 6 to 11 not printed in the Gazette.]

1,077,562. DUMPING-CAR-DOOR SPREADER. RALPH V. SAGE, Westmont, borough, Pa. Filed June 7, 1913. Serial No. 772,234. (Cl. 105-185.)



1. In a dumping car, a pair of hinged doors thereon, a cast spreader-bar substantially I-shaped in cross section, secured to, and connecting said pair of doors, the web of said I-shaped bar being provided at intervals with ribs formed integral therewith.

2. In a dumping car, a plurality of hinged doors thereon, a cast spreader-bar substantially I-shaped in cross section, secured to, and connecting said hinged doors, said I-shaped bar being of greatest depth centrally and tapering gradually toward each end, and provided with integral ribs connecting the webs and flanges of said I-shaped bar.

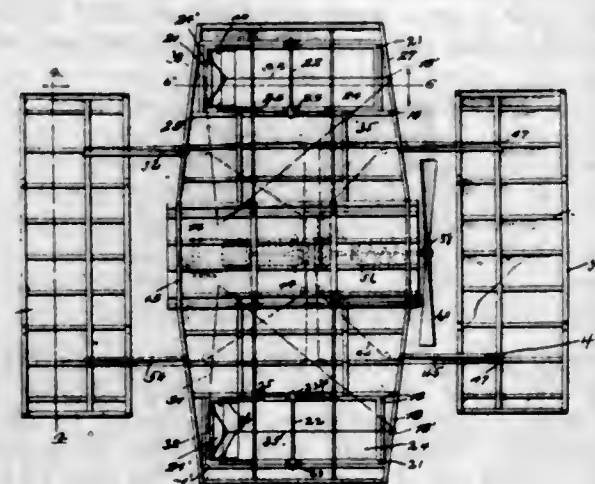
3. In a dumping car, a plurality of hinged doors thereon, a spreader-bar substantially I-shaped in cross section, secured to, and connecting said plurality of doors, integral ribs connecting the web and flanges of the I-shaped bar, said bar having an arched or offset central portion and tapering end portions.

4. In a dumping car, a plurality of hinged doors thereon, a spreader-bar substantially I-shaped in cross section, integral rib connections between the web and flanges of the I-shaped bar, said spreader-bar having an offset central portion and tapering end portions, the upper faces of said tapering end portions being flat and in a plane and connected to said doors.

5. In a dumping car, a plurality of aligned hinged doors thereon, a spreader-bar substantially I-shaped in cross section, integral transverse ribs connecting the web and flanges of the I-shaped bar, said I-shaped bar having an offset central portion and tapering end portions, the upper faces of said tapering end portions being plane and straight, perforations in the said straight faces of the end portions and a perforated integral bracket extending laterally from said end portions, whereby said bar is connected to said doors.

[Claims 6 to 9 not printed in the Gazette.]

1,077,563. AIRSHIP. JOHN C. SCHLICHER, Mount Vernon, N. Y. Filed Feb. 4, 1911. Serial No. 606,574. (Cl. 244-12.)



1. In a flying machine, an aeroplane having a curved frame, a curved brace extending below portions of the frame and having its ends connected to the frame at the edges thereof, rods connecting the frame and braces, double ribs held by the frame and a plane secured between the ribs.

2. In a flying machine, a frame, laterally disposed planes, doors pivotally mounted in the planes, a flexible plane comprising a portion of each door, means for flexing the said flexible planes of the doors and means for holding the said flexible planes in alignment with the doors.

3. In a flying machine, a frame, laterally disposed planes pivotally supported by the frame, each of said planes having an opening therein, a door frame supported in each of the planes, a panel on each frame, each of the panels having a flexible end portion, means for moving the door frames, and means for operating the flexible end portions.

4. In a flying machine, a frame, laterally disposed planes, a rectangular opening in each of said planes, door frames pivotally mounted intermediate their lengths in said planes, a panel on each of said frames, each of the panels having a flexible end portion, means for operating the flexible end portions, means for moving said panels, spring members secured to the sides of the openings for holding the flexible end portions normally aligned with the panels, and springs for holding the door frames normally aligned with the respective planes.

5. In a flying machine, a plane, two planes pivotally mounted horizontally with relation to the first mentioned plane, the axis of one of the second mentioned planes being rearwardly of the longitudinal center thereof, the axis of the other of the second mentioned planes being forwardly of the longitudinal center, means for connecting the second mentioned planes whereby the movement of one plane will be communicated to the other plane, and means independent of the plane actuating mechanism for limiting the swinging movement of the planes.

[Claim 6 not printed in the Gazette.]

1,077,564. MUSHROOM-BULLET. HENRY W. STARK-WEATHER, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,596. (Cl. 102-28.)

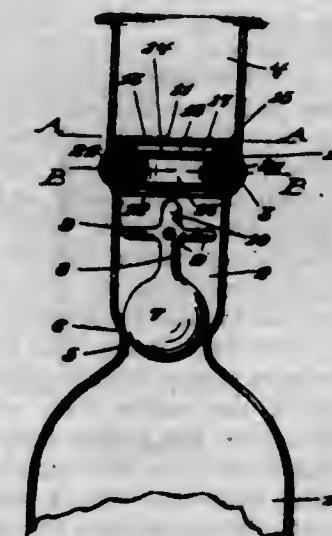
1. A mushroom bullet having a soft metal core, a jacket-body applied thereto, and a hollow jacket tip the open end of which is indented to form a plurality of retaining-fingers alternated with extrusion-openings, the ends of the fingers being frictionally held between the core and the swaged edge of the jacket, and the outer portions of the said extrusion openings being filled with extruded

portions of the soft metal of the core which form interrupted areas of soft metal on the outside of the bullet.



2. A mushroom bullet having a soft metal core, a jacket-body, and a hollow jacket-tip the open inner end of which is indented to form alternating retaining-fingers having anchor-ends and extrusion-openings, the ends of the said fingers being frictionally held between the surface of the core and the swaged edge of the jacket and the outer portions of the said openings being filled with extruded portions of the soft metal of the core which form interrupted areas of soft metal on the outside of the bullet.

1,077,565. NON-REFILLABLE BOTTLE. LOUIS J. STILLINO, Newark, N. J., assignor of one-half to Louis Isenberg, Newark, N. J. Filed July 18, 1912. Serial No. 710,115. (Cl. 215-67.)



1. In combination with the neck of a bottle having a reduced portion forming a valve seat and having a peripheral bulge spaced at a distance above said seat, providing a peripheral shoulder adjacent said bulge between it and said seat, a packing bushing within said bulge, a collar compressing said packing against said shoulder and into said bulge, said collar having transverse spaced plates with openings, those of one plate being in staggered relation to those of the other, a valve for said valve seat between the same and said collar, and means for connecting said packing and collar against independent movement longitudinally of the bottle neck.

2. In combination with the neck of a bottle having a reduced portion forming a valve seat of transverse means irremovable within said neck closing the direct passage thereof, a valve for said valve seat having an upwardly projecting stem integrally formed therewith and having guides projecting substantially perpendicular outwardly for sliding engagement with the neck of the bottle and an end projecting beyond said guides, whereby the valve is held in alignment with its seat and limited in its movement from the seat by the engagement of said projecting end of the stem with the said transverse means while the said guides are still below and out of contact with the same.

1,077,566. TOP PACKER FOR OIL OR GAS WELLS. JAMES C. STINSON, Bradford, Pa. Filed Apr. 11, 1912. Serial No. 689,973. (Cl. 166-11.)



1. In packers for deep wells, the combination with a lower packer, of a tube rising therefrom and rigid therewith, an upper packer body rigid with the upper end of said tube, an elastic sleeve around said packer body, an annular shoulder on said body above the elastic sleeve, an extension sleeve slidably mounted on the packer body and adapted to expand the elastic sleeve, said extension sleeve having an internal annular shoulder adapted to impinge upwardly against the annular shoulder on the packer body, and means to effect an adjustable engagement between the packer body and the extension sleeve.

2. In a packer for deep wells, the combination of a packer body, an elastic sleeve thereon, an extension sleeve loosely mounted upon the upper end of the packer body and adapted to exert an expanding force upon the elastic sleeve, a lateral projection at the upper end of the packer body, and a plurality of teeth on the extension sleeve adapted to be engaged by said projection.

3. In a packer for deep wells, the combination of a packer body, an elastic sleeve thereon, a lateral projection on the upper end of the packer body, and an extension sleeve loosely fitted upon the packer body and adapted to exert an expanding force upon the elastic sleeve, said extension sleeve being provided with a longitudinal series of inclined teeth adapted to engage the lateral projection on the packer body.

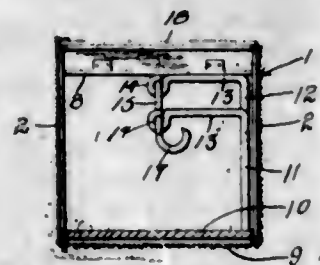
4. In a packer for deep wells, the combination of a packer body, an elastic sleeve thereon, a lateral projection at the upper end of the packer body, and an extension sleeve loosely fitted upon the packer body and adapted to exert an expanding force upon the elastic sleeve, said extension sleeve being provided with a longitudinal slot engaging said lateral projection, one wall of said slot having a series of upwardly inclined teeth projecting therefrom to engage the said lateral projection.

5. In a packer for deep wells, the combination of a packer body, an elastic sleeve thereon, a lateral projection at the upper end of the packer body, and an extension sleeve slidably mounted upon the packer body and adapted to exert an expanding force against the elastic sleeve, the said extension sleeve being provided with a longitudinal slot engaging the said lateral projection and having a series of teeth formed on one wall of said slot, the lowermost tooth having an expanded head and the lower end of the slot being inclined upwardly toward the said tooth.

1,077,567. TRAP. JACOB G. STOLL, Orrville, Ohio. Filed Jan. 28, 1913. Serial No. 744,734. (Cl. 43-19.)

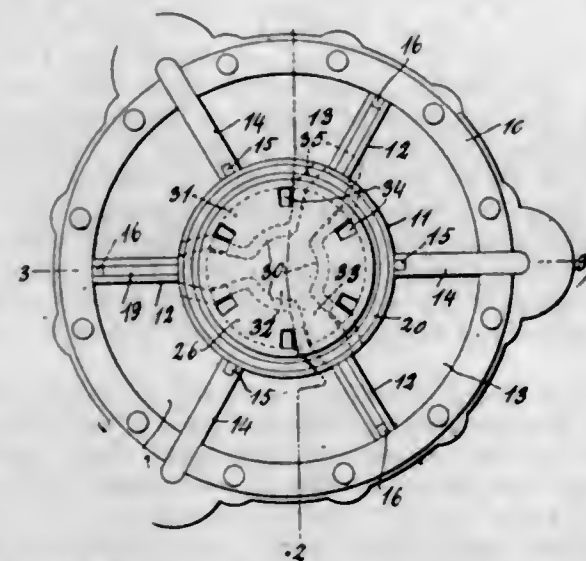
An animal trap comprising a box like structure, a hood carried by one end of the structure, a door pivotally mounted in the hood, a plate mounted upon the bottom of

the trap, aligned posts rising from the plate and having their upper ends terminating in lateral arms, eyes formed upon the ends of the arms and arranged upon different planes, a trip rod mounted for rocking and sliding movement in the eyes, the inner ends of said rod being provided with a bait hook arranged at right angles to the rod, the outer end of said rod being provided with a



downwardly curved portion adapted to engage the door to hold the same open, said rod being adapted to be rocked when lateral movement is imparted to the bait hook, thereby causing the same to slide forwardly, so that the curved end thereof disengages the door to permit the same to close the hood, and means carried by the hood to engage the door to hold the same positively closed.

1,077,568. ROTARY FLUID-PRESSURE MOTOR. WILLIAM F. SULLIVAN and ALFRED M. WASBAUER, Paterson, N. J., assignors of one-eighth to Isidore Wasbauer, Paterson, N. J. Filed Feb. 18, 1913. Serial No. 749,182. (Cl. 121-43.)



1. A rotary fluid pressure motor comprising an inclosing chamber, a rotor having a radial piston wing working in the chamber, and end ports opening into the chamber on opposite sides of the piston wing, a rotatable valve seating on the ported end of the rotor, said valve normally uncovering both end ports of the rotor, and also provided with an exhaust passage, and an inlet chamber in which the valve is located.

2. A rotary fluid pressure motor comprising an inclosing chamber, a rotor having a radial piston wing working in the chamber, and end ports opening into the chamber on opposite sides of the piston wing, a rotatable valve seating on the ported end of the rotor, said valve normally uncovering both end ports of the rotor, and also provided with an exhaust passage, an inlet chamber in which the valve is located, and an operating stem connected to the valve, said stem passing through the center of the rotor and being provided with an exhaust outlet in communication with the exhaust passage of the valve.

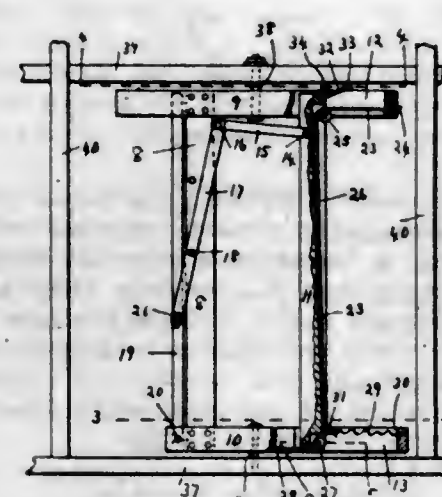
3. A rotary fluid pressure motor comprising an inclosing chamber, a rotor having a hub extension at one end projecting from the chamber, a radial piston wing carried by the rotor and working in the chamber, said rotor also having end ports opening into the chamber on opposite sides of the piston wing, a rotatable valve seating on the ported end of the rotor, said valve normally uncovering both end ports of the rotor, and also provided with an exhaust passage, and an inlet chamber in which the valve is located.

4. A rotary fluid pressure motor comprising an inclosing chamber, a rotor having a hub extension at one end projecting from the chamber, a radial piston wing carried by the rotor and working in the chamber, said rotor also having end ports opening into the chamber on opposite sides of the piston wing, a rotatable valve seating on the ported end of the rotor, said valve normally uncovering both end ports of the rotor, and also provided with an exhaust passage, an inlet chamber in which the valve is located, and an operating stem connected to the valve, said stem passing through the rotor and the hub extension and projecting from the latter, and having an exhaust outlet in communication with the exhaust passage of the valve.

5. A rotary fluid pressure motor comprising a cylinder, radial abutments in the cylinder, a rotor in the cylinder and having radial piston wings working in the cylinder space between the abutments, said rotor also having end ports opening into the cylinder space on opposite sides of the pistons, a rotatable valve seating on the ported end of the rotor, said valve normally uncovering respectively the end ports of the rotor, and also provided with exhaust passages, and an inlet chamber in which the valve is located.

[Claims 6 to 12 not printed in the Gazette.]

1,077,569. STANCHION. GUSTAVUS TARCZA, Litchfield, N. Y. Filed July 1, 1912. Serial No. 706,925. (Cl. 119-149.)



1. In a stanchion, a top, a bottom, a fixed side, an oppositely disposed relatively narrow side slidably mounted in said top and bottom, means including a link and lever operatively connected to the upper end of said sliding side whereby movement of said lever will operate the upper end of said movable side, a resilient member tensioned to move the lower end of said movable side in one direction and a flexible equalizing member adapted to move the lower end of said movable side in the opposite direction when the upper end is so moved, said resilient member and equalizing member operating to keep said movable side parallel with said fixed side.

2. In a stanchion, a top, a bottom, a fixed side, an oppositely disposed relatively narrow side slidably mounted in said top and bottom, means including a link and lever operatively connected to the upper end of said sliding side whereby movement of said lever will operate the upper end of said movable side, a resilient member tensioned to move the lower end of said movable side outwardly and a flexible equalizing member adapted to move the lower end of said movable side inwardly when its upper end is so moved, said resilient member and equalizing member operating to keep said movable side parallel with said fixed side.

3. In a stanchion, a top, a bottom, a fixed side rigidly connecting said top and bottom, an oppositely disposed relatively narrow side slidably mounted in said top and

bottom, means including a link and lever operatively connected to the upper end of said sliding side whereby movement of said lever will operate the upper end of said movable side, a resilient member tensioned to move the lower end of said movable side in one direction and a flexible equalizing member adapted to move the lower end of said movable side in the opposite direction when the upper end is so moved, said resilient member and equalizing member operating to keep said movable side parallel with said fixed side.

4. In combination a supporting frame and a stanchion pivotally mounted therein comprising a top, a bottom, a fixed side rigidly connecting said top and bottom, an oppositely disposed side slidably mounted in said top and bottom, means including a link and lever operatively connected to the upper end of said sliding side whereby movement of said lever will operate the upper end of said movable side, a resilient member tensioned to move the lower end of said movable side in one direction and a flexible equalizing member adapted to move the lower end of said movable side in the opposite direction when the upper end is so moved, said resilient member and equalizing member operating to keep said movable side parallel with said fixed side.

1,077,570. AUTO DUMPING-TRUCK. ERNEST HENRY VINCENT, Emeryville, Cal. Filed June 20, 1911. Serial No. 634,324. (Cl. 21-20.)

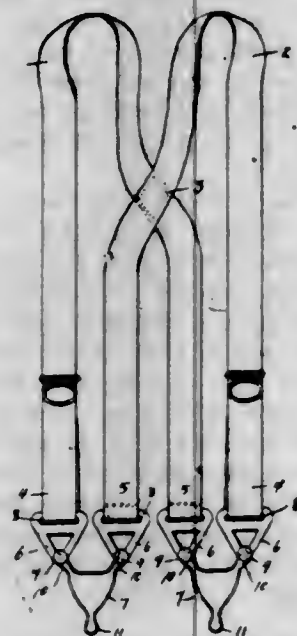


A dumping truck including a wheel support, a pair of parallel longitudinal tracks mounted upon said support, the outer ends of said tracks extending in a downward direction, a body, pairs of rollers carried by said body and coöperating with said tracks, a worm screw rotatably mounted between said tracks, a nut upon said worm screw, a bracket rigidly connected to said body and hinged to said nut, said bracket being located substantially between one pair of said rollers, a pair of cam rails rigidly mounted upon said support, means carried by said body and adapted to coöperate with said cam rails to tilt the body when the same is moved rearwardly upon the tracks, said cam rails being curved in such manner that the tilting of said body takes place about the pintle of said hinge as a center.

1,077,571. SUSPENDERS. HENRY C. WEBER, Milwaukee, Wis. Filed June 12, 1912. Serial No. 703,121. (Cl. 241-19.)

In a pair of suspenders of the described class, means for connecting the front end of each strap with the rear end of the other strap, comprising two pairs of triangular plates and one pair of triangular connecting members, one triangular plate of each pair being permanently connected at one of its triangular sides with one of the front ends and the other plate of each pair with one of the back ends of said suspenders, each of said connecting members being detachably connected at its upper corners

with one pair of said triangular plates, the lower corner of each connecting member being provided with a central



loop adapted to detachably engage a button at the side of a pair of pants.

1,077,572. DENTAL-ENGINE STONE AND MANDREL. JOHN W. WELCH, Chicago, Ill., assignor of one-fourth to Edward L. Chott and one-fourth to Hugo J. Chott, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,352. (Cl. 32-13.)



1. The combination of a mandrel; an abrasive element arranged at one end of said mandrel, said mandrel end fitting snugly a recess formed in one side of said element extending partly through the latter; and means for locking said abrasive element to said mandrel, said recess and engaging end of said mandrel being of corresponding non-circular form, substantially as described.

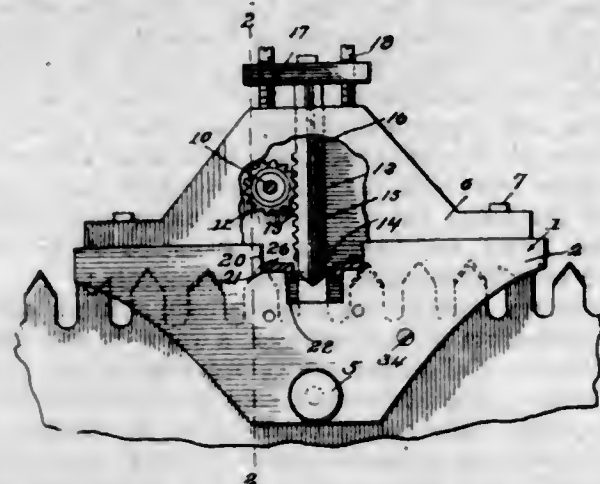
2. The combination of a mandrel; an abrasive element arranged at one end of said mandrel, said mandrel end fitting snugly a recess formed in one side of said element extending partly through the latter; and means in threaded connection with said mandrel for locking said abrasive element to said mandrel, said recess and engaging end of said mandrel being of corresponding non-circular form, substantially as described.

1,077,573. SAW-SWAGE. EDWARD H. WOLFE, Camas, Wash. Filed Mar. 29, 1912. Serial No. 687,207. (Cl. 76-51.)

1. In a device of the class described, a body including spaced cheek plates, said cheek plates being formed with a saw-blade receiving recess, a plunger mounted for movement between said cheek plates and having a beveled saw tooth engaging end, means for moving the plunger into and out of cooperative engagement with a saw-blade engaging in the recess, and a file plate secured within the recess and having an opening to receive the operating end of the plunger, said plate being formed with file-receiving depressions, the ends of the plate being offset and secured to said cheek plates.

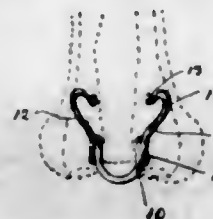
2. In a device of the class described, a body having a saw-blade receiving recess, a plunger mounted for movement upon the body and having a beveled saw tooth engaging ends, means for moving the plunger into and out of cooperative relation to a saw-blade engaging in the re-

cess, and means for limiting the movement of the plunger in a direction to cooperate with the teeth of the saw-blade, said means comprising a head fixed at the other



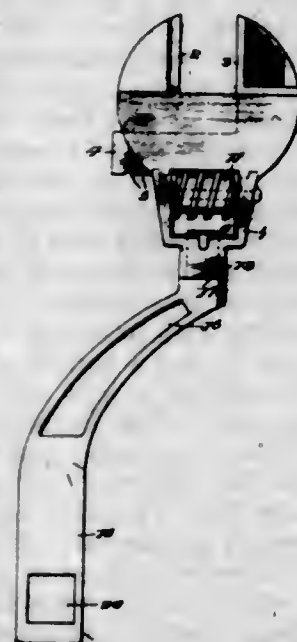
end of the plunger, and an abutment screw adjustably threaded in the head and arranged to engage against the adjacent side of the body.

1,077,574. NOSTRIL-EXPANDER. HENRY R. WOODWARD, Leesburg, Va. Filed Jan. 15, 1913. Serial No. 742,093. (Cl. 128-13.)



A nostril expander comprising a U shaped central member or bridge shaped to straddle the nose cartilage, said member having a downward bend at its middle portion, said bend merging into side members which extend rearwardly in the nasal cavity, the side members merging in gripping coils which are adapted to grip the nose cartilage, and the gripping coils merging into curved members which extend rearward, outward, and forward so as to support the walls of the nose.

1,077,575. WRENCH. FRANK C. WUTKE, Chicago, Ill. Filed Feb. 25, 1913. Serial No. 750,686. (Cl. 81-177.)



1. In a wrench, a stock having a socket, a handle having a stud removably fitted and angularly adjustable in the said socket, and a latch member having spaced side members pivotally supported upon the stock and a connecting portion, the stud having a circumscribing groove

and the latch member being movable upon its pivot to position with its connecting portion engaging in the groove in the studs.

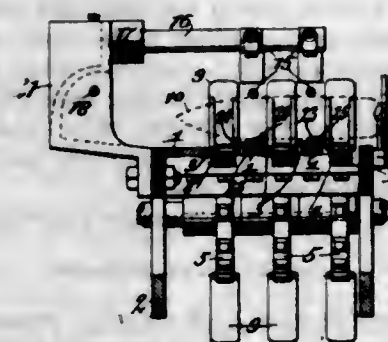
2. In a wrench, a stock having a recess, the stock having a socket opening through one wall of the recess, a handle having a stud removably fitted in the socket and projecting at one end beyond the said wall of the recess, said stud having a groove in its projecting end-portion, and a latch-member having spaced portions and a connecting portion, the spaced portions being pivoted upon opposite walls of the recess and the said latch member being movable upon its pivot to position with its connecting portion engaging in the groove.

3. In a wrench, a stock having a recess, the stock having a socket opening through one wall of the recess, a handle having a stud removably fitted in the socket and projecting at one end beyond the said wall of the recess, a stud having a groove in its projecting end-portion, and a latch-member having spaced portions and a connecting portion, the spaced portions being pivoted upon opposite walls of the recess and the said latch member being movable upon its pivot to position with its connecting portion engaging in the groove, the walls of the recess being provided with depressions and the spaced portions of the latch-members having protuberances arranged to seat in said depressions when the connecting portion of the latch-member is in engagement in the groove in the stud.

1,077,576. ADHESIVE COMPOUND. VICTOR KICOVICH, Seattle, Wash. Filed Feb. 13, 1913. Serial No. 748,257. (Cl. 87-17.)

The herein described cement made by combining six parts copal varnish with three parts of rosin by the application of heat until the mass becomes fluid, then adding to this, after cooling, an additional two and a half parts of copal varnish and five parts of Portland cement.

1,077,577. TRIMMER FOR BUTT-ENDS OF CORN. JOHN B. ZIMMERMAN and OGDEN S. SELLS, Buffalo, N. Y., assignors to Peerless Husker Company, Buffalo, N. Y., a Corporation of New York. Filed June 6, 1912. Serial No. 701,962. (Cl. 146-7.)



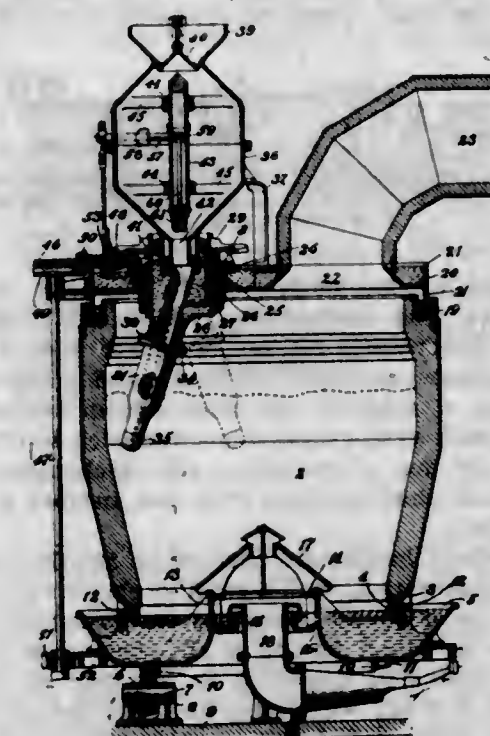
The combination of a cutter, a gage arranged adjacent to said cutter, a conveyer for moving ears of corn in a crosswise position lengthwise of said gage and past the cutter, and means for moving said ears transversely of said conveyer and toward said gage comprising a shifting rail arranged at an oblique angle relatively to the direction of movement of said conveyer and having a forwardly sloping upperside forming a sharp rear corner which is adapted to engage with the outer side of the ears of corn.

1,077,578. GAS-PRODUCER. WALTER O. AMSLER, Pittsburgh, Pa. Filed Mar. 14, 1910. Serial No. 549,168. (Cl. 48-85.2.)

1. A gas-producer having a rotatable body, a fixed cover-member, a fuel-reservoir supported above the cover-member, and a combined poker and fuel feeding device in communication with the reservoir and projecting downwardly therefrom into the rotatable body.

2. A gas producer having a rotatable body, a cover-member, a fuel-reservoir, means operable to effect a pos-

sitive forced feed of fuel from the reservoir, and a combined rotatable fuel feed and poker device extending downwardly into the bed of fuel in the producer.



3. A gas producer having a revoluble body, a fixed fuel reservoir and a revoluble feed device arranged eccentrically of the producer body and in communication with the reservoir and projecting downwardly therefrom into the producer body.

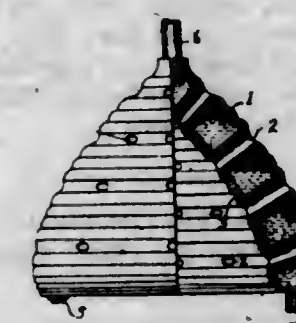
4. A gas producer having a body, a cover-member, one of said parts being rotatable, a fuel reservoir, and a hollow member constituting a combined poker and fuel feeding device arranged eccentrically of the producer body and in communication with the reservoir.

5. A gas-producer having a body, a cover-member, and a combined rotatable poker and feed device projecting into the bed of fuel and having a discharging opening above its lower end.

[Claims 6 to 10 not printed in the Gazette.]

1,077,579. WATER-HEATER. JOSEPH ANTONUCCIO, Fruitvale, Cal. Filed Sept. 5, 1911. Serial No. 647,484. (Cl. 122-16.)

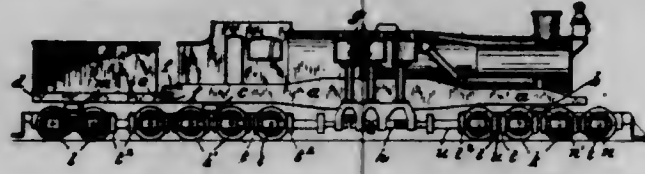
1. A water-heater comprising a hollow heating drum



having an inner concave wall and an outer convex wall and providing a conical annular water chamber therebetween, inlet and outlet pipes connected therewith at the bottom and top respectively, and said drum having a plurality of upwardly extending channels passing transversely therethrough.

2. A water-heater comprising a hollow heating drum having an inner concave wall and an outer convex wall and providing a conical annular water chamber therebetween, said walls being annularly corrugated, inlet and outlet pipes connected therewith at the bottom and top respectively, and said drum having a plurality of upwardly extending channels passing transversely therethrough.

1,077,580. GEARED LOCOMOTIVE WITH INDEPENDENTLY-HUNG AXLES. WILLIAM A. AUSTIN and LEWIS E. FEIGHTNER, Lima, Ohio, assignors to Lima Locomotive Corporation of Lima, Ohio, a Corporation of Ohio. Filed June 26, 1913. Serial No. 775,960. (Cl. 105—227.)



1. In a geared locomotive carried by two multiple-wheeled-trucks, the combination, with the locomotive-frame, of a power-shaft rotated by power upon the locomotive, axle-boxes movable vertically and independently in the trucks, a separate line-shaft-section movable vertically with each axle, gears connecting each shaft-section separately with one of the axles, and mechanism flexibly connecting such shaft-sections with one another and with the power-shaft.

2. In a geared locomotive carried by multiple-wheeled-trucks, the combination, with a rigid locomotive-frame having bolsters under opposite ends, of trucks supporting the said bolsters, a tender having a pivot-lug upon its front end resting upon and supported by the rear of the locomotive-frame, a truck supporting the rear end of the tender upon the track, axle-boxes movable vertically and independently in the trucks, a separate line-shaft-section movable vertically with each axle, a power-shaft operated by a motor upon the locomotive, and gearing with universal joints connecting the said power-shaft with each axle in the locomotive and tender-trucks.

3. In a geared locomotive carried by two multiple-wheeled trucks having their axle boxes movable vertically and independently, the combination, with the said trucks, of a rigid locomotive-frame having bolsters under opposite ends resting upon the said trucks, vertical engines and a crank-shaft mounted upon the said locomotive-frame, a separate line-shaft-section and gearing for separately operating each truck-axle, and universal joints connecting such shaft-sections with the said crank-shaft, thus securing flexibility upon uneven track and easy movement around curves.

4. In a geared locomotive carried by two multiple-wheeled-trucks, the combination, with the said trucks, of a rigid locomotive-frame having bolsters under opposite ends resting upon the said trucks, a tender having a pivot-lug upon its front end resting upon and supported by the rear of the locomotive-frame, a truck supporting the rear end of the tender upon the track, axle-boxes movable vertically and independently in the trucks, a separate line-shaft-section movable vertically with each axle, vertical engines supported wholly or in part upon the said frame, a crank-shaft operated thereby, and gearing with universal joints connecting the said crank-shaft with each axle in the locomotive and tender-trucks.

1,077,581. ENGINE-VALVE CONTROL. IRVIN BAKER, Latty, Ohio. Filed Oct. 23, 1912. Serial No. 727,463. (Cl. 123—47.)



1. In an internal combustion engine, communicating main and auxiliary cylinders; a valve controlling the passage of the exhaust from the main cylinder to the auxiliary cylinder; piston structures operating in the cylinders; a valve in the piston structure of the main cylinder;

an engine shaft with which the piston structures are connected; and a single means operatively connected with the engine shaft for actuating both valves.

2. In an internal combustion engine, communicating main and auxiliary cylinders; a valve controlling the passage of the exhaust from the main cylinder to the auxiliary cylinder; piston structures operating in the cylinders; a valve in the piston structure of the main cylinder; an engine shaft with which the piston structures are operatively connected; means for actuating the exhaust controlling valve; a rock shaft supported for rotation and having an eccentric portion engaging the valve actuating means for operatively connecting the rock shaft with the engine shaft; and slidable means for actuating the piston valve, mounted on the rock shaft to rock therewith.

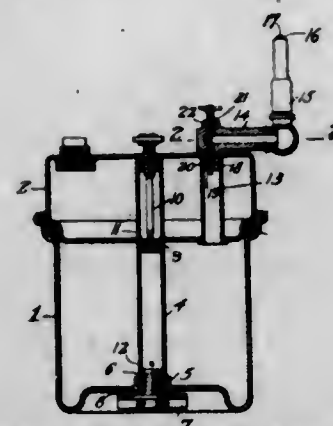
3. In an internal combustion engine, communicating main and auxiliary cylinders; a valve controlling the passage of the exhaust from the main cylinder to the auxiliary cylinder; piston structures operating in the cylinders; an engine shaft with which the piston structures are operatively connected; a movable member adapted to actuate the valve; a rock shaft supported for rotation and provided with an eccentric portion engaging said member; a crank arm projecting from the rock shaft; a lever movable to engage the crank arm; a cam rotatably supported adjacent the lever and positioned to engage the same; and means for operatively connecting the cam with the engine shaft.

4. In an internal combustion engine, communicating main and auxiliary cylinders; a valve controlling the passage of the exhaust from the main cylinder to the auxiliary cylinder; piston structures operating in the cylinders; an engine shaft with which the piston structures are operatively connected; a valve movable in the piston structure of the main cylinder and timed for operation subsequent to the first mentioned valve; a single means for actuating both valves from the engine shaft; and governor controlled mechanism for rendering said means inactive.

5. In an internal combustion engine, communicating main and auxiliary cylinders; a valve controlling the passage of the exhaust from the main cylinder to the auxiliary cylinder; pistons operating in the cylinders; an engine shaft; means for connecting the piston of the auxiliary cylinder with the engine shaft; a hollow piston rod connected with the piston of the main cylinder; means for connecting the hollow piston rod with the engine shaft; a rod journaled within the hollow piston rod; a valve in the piston of the main cylinder, operable when the journaled rod is actuated; a rock shaft having eccentric portions respectively controlling the exhaust valve and rotating the journaled rod; and means for imparting movement to the rock shaft from the engine shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,077,582. ACETYLENE-GAS LAMP. FREDERIC E. BALDWIN, New York, N. Y. Filed July 30, 1912. Serial No. 712,279. (Cl. 48—4.)



1. In a portable acetylene gas lamp, the combination with the water tank and a carbide reservoir, of a gas duct leading from the reservoir, a burner with which the duct communicates, and a movable constrictor located in the duct and accessible from the exterior of the lamp, the con-

strictor being of such size with respect to the size of the duct as to prevent the passage therethrough of particles of carbide dust which will not pass through the burner orifice.

2. In a portable acetylene lamp, the combination with a water-tank and carbide reservoir, of a gas duct leading to the reservoir, a burner with which the duct communicates, and a movable constrictor located in the duct, the distance between the surface of the constrictor and the wall of the duct being less than the diameter of the orifice in the burner.

3. In a portable acetylene gas lamp, the combination with a water tank and a carbide reservoir, of a gas duct leading from the reservoir, a burner with which the duct communicates, a plug, and a rod carried by the plug and extending into the duct, the constrictor being of such size with respect to the size of the duct as to prevent the passage therethrough of particles of carbide dust which will not pass through the burner orifice.

4. In a portable acetylene gas lamp, the combination with a water tank and a carbide reservoir, of a gas duct leading from the reservoir, a burner with which the duct communicates, a plug, and a rod carried by the plug and extending into the duct, the distance between the surface of the rod and the wall of the duct being less than the diameter of the orifice in the burner.

1,077,583. RAILROAD-SPIKE. AVERY B. BAXTER, Frederick, Okla. Filed Apr. 19, 1911. Serial No. 622,038. (Cl. 85—21.)



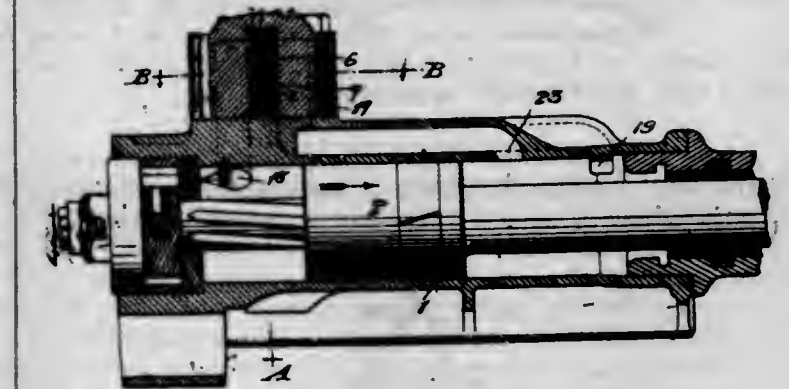
A railroad spike including a shank having a driving point and provided on its front and rear longitudinal edges with transverse anchoring notches disposed in staggered relation and defining square shoulders extending the entire width of said shank, the longitudinal edges at the sides of the spike being smooth and unobstructed, there being a flat face of the same width as the shank of the spike formed on the front and rear longitudinal edges thereof beneath each anchoring notch and intersecting the adjacent shoulder, the flat faces on each edge of the spike being all disposed in the same vertical plane, and the height of said faces being less than the height of the inclined walls forming said notches.

1,077,584. VALVE-MOTION FOR ROCK-DRILLS. LEWIS C. BAYLES, Johannesburg, Transvaal, assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 28, 1909. Serial No. 525,002. (Cl. 121—11.)

1. A cylinder having independent inlet and discharge passages for both ends, its piston, a valve chest and a fluid actuated double winged oscillating valve having one wing arranged to control the inlet passages and the other wing arranged to control the discharge passages.

2. A cylinder having independent inlet and discharge passages for both ends, its piston, a valve chest and a fluid actuated double winged oscillating valve having one wing arranged to alternately open and close the inlet passages and the other wing arranged to alternately open and close the discharge passages.

3. A cylinder, its piston, a valve chest having independent inlet and discharge passages for both ends of the cylinder, and a fluid actuated double winged oscillating valve having one wing arranged to open the inlet passage for one end of the cylinder at the same time that its other wing opens the discharge passage for the other end of the cylinder.

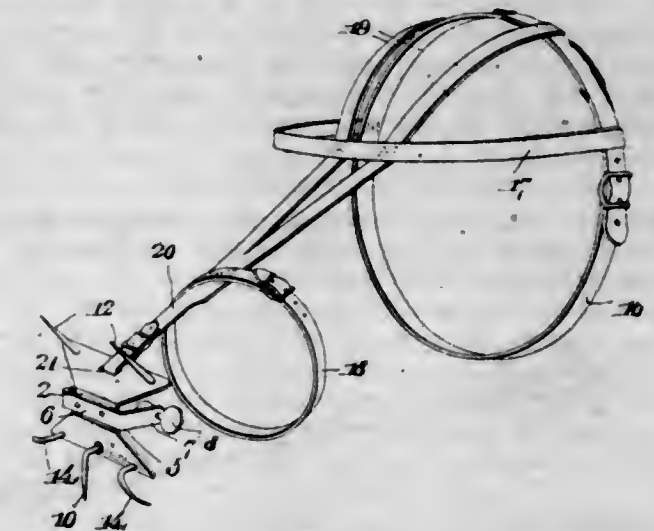


4. A cylinder, its piston, a valve chest having independent inlet and discharge passages for both ends of the cylinder and a fluid actuated double winged oscillating valve having one wing arranged to open the inlet passage for one end of the cylinder at the same time that its other wing opens the discharge passage for the other end of the cylinder, said first named wing also being arranged to close the other inlet passage at the same time that the second named wing closes the other discharge passage.

5. A cylinder, its piston, a valve chest having inlet and discharge passages for both ends of the cylinder and a double winged oscillating valve having one wing arranged to alternately open and close the inlet passages and another wing arranged to alternately open and close the discharge passages.

[Claims 6 and 7 not printed in the Gazette.]

1,077,585. NOSE-GUARD FOR CATTLE. GEORGE W. BENAGE, Juda, Wis. Filed Apr. 11, 1913. Serial No. 760,339. (Cl. 119—132.)



1. In a device of the class described, a nose plate bent transversely to form a pair of angularly disposed portions, prongs projecting from said plate, one of said prongs being centrally arranged on the lower portion of said plate and projecting downwardly to extend below the animal's lip and means for holding said plate in position on the nose, said downwardly projecting prong being adapted to swing laterally with relation to said plate, substantially as described.

2. In a device of the class described, a nose plate bent transversely to form a pair of angularly disposed portions, prongs projecting from said plate, one of said prongs being centrally arranged on the lower portion of said plate and projecting downwardly to extend below the animal's lip, and adapted to swing laterally, and ears extending inwardly from said plate, screws threaded through said ears and provided with ends to engage the nose between

the nostrils in combination with a halter and a flexible connection between said plate and said halter, substantially as described.

3. In a device of the class described, a nose plate bent transversely to form a pair of angularly disposed portions, prongs projecting from said plate, one of said prongs being centrally arranged on the lower portion of said plate and curved downwardly to extend below the animal's lip, the last mentioned prong being swiveled in said plate, and means for securing the plate in position on the animal's nose, substantially as described.

1,077,586. SASH-WEIGHT. MICHAEL D. BINGHAM, Somerville, Mass. Filed Jan. 4, 1912. Serial No. 689,688. (Cl. 16-20.)



A sash weight unit composed of an elongated body one end of which is formed with ears 21 having rounded tops and undercut rear portions presenting convex shoulders 25, said ears being connected by a head 20 having its lower surface rounded and curved from one ear to the other, the outer side faces and the front edges of the ears being in alignment with the surface portions of the said body, the other end of the body being formed with a transverse recess having a curved rear face 13 and with a horn or seat 15 having a transversely rounded upper surface, the portions of the body at the sides of said horn having concave shoulders 26 to receive the convex shoulders 25 of a duplicate unit, the body being also formed with a stop 16 projecting partially across the transverse recess to enter the space between the ears 21 of a duplicate unit.

1,077,587. CAR-SEAL. FREDERICK E. BROWN, McHenry, N. D. Filed Apr. 22, 1912. Serial No. 692,414. (Cl. 70-99.)

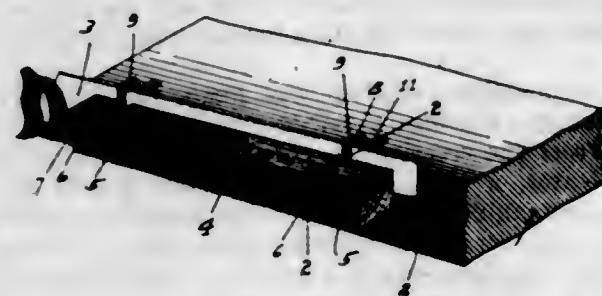


A car seal comprising a metallic strap provided with an aperture in one end thereof, the other end having a substantially rectangular-shaped head thereon, said head provided with elongated slots on the sides and one end thereof, a housing of substantially rectangular shape secured to the head, said housing consisting of turned-down sides, tongues formed on the sides and one end adapted to be received by said elongated slots, and an inwardly projecting resilient catch located in said housing and adapted to be received by the aperture in said strap.

1,077,588. SAW-HOLDER. SAMUEL HARRISON BRUNDIGE, Oakland, Cal. Filed Jan. 6, 1913. Serial No. 740,524. (Cl. 76-78.)

1. The combination with a fixed bench or structural portion having a free horizontal upper surface and a substantially vertical clamping surface adapted to receive

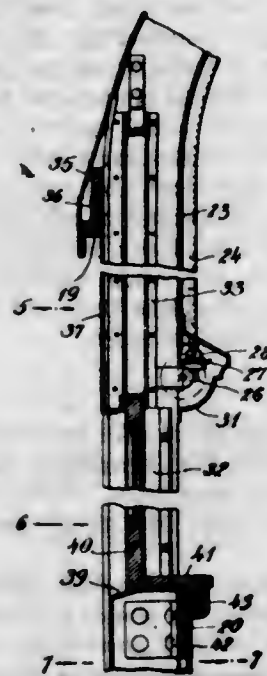
one side of a saw, of an elongated clamp adapted to engage the opposite face of a saw, anchoring elements removably secured to the upper free face of said structural portion for supporting said clamping member, and devices co-acting with said elements and engaging said clamping member to clamp the saw in place, substantially as described.



2. The combination with a fixed bench or like structural portion having a free upper surface and a substantially vertical clamping surface adapted to receive one side of the saw, of an elongated clamp adapted to engage the opposite face of the saw, bolts having pointed ends adapted to be driven into the upper face of said structural portion and having supporting parts for said clamp, and nuts for said bolts adapted to engage said clamp and force the same into a clamping position, substantially as described.

3. The combination with a fixed bench or like structural portion having a free upper face and a substantially vertical clamping face, of a clamp bar between which and said vertical face a saw is adapted to be clamped, said bar having horizontal holes and vertical recesses intersecting said holes and said recesses being disposed on the clamping side of said bar, bolts having pointed ends adapted to be driven into said horizontal face of said portion and having lengths lying flat on said horizontal portion and bends extending over the saw and downwardly into said recesses and outwardly through said holes with the terminals of said outward ends threaded and nuts engaging said threaded terminals to force said bar into a clamping position, substantially as described.

1,077,589. CAR CONSTRUCTION. EDWARD G. BUDD, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Apr. 9, 1912. Serial No. 689,456. (Cl. 105-19.)



1. In a car, a metallic roof structure, a non-metallic lining on the interior of the car, and means for forcing said lining upward and holding it in position against the roof structure, substantially as set forth.

2. In a car, a metallic roof structure, a non-metallic lining on the interior of the car, securing-strips below the

lining, and adjusting devices at the ends of the strips for forcing the strips upward and thereby clamping the lining against the roof structure, substantially as set forth.

3. In a car, a metallic roof structure, a non-metallic lining on the interior of the car, and a device for securing the lining in position against said structure which device extends transversely of the car across the face of the lining engaging the inner surface of the lining between the edges of the latter and engaging the roof structure at points beyond the edges of the lining, substantially as set forth.

4. In a car, a metallic roof structure, non-metallic lining pieces underlying the roof structure, sheet-metal strips of U-shaped cross-section underlying said pieces and each engaging the edges of two adjacent pieces, and adjusting devices at the ends of the strips for forcing the strips upward and thus clamping said pieces to the roof structure, substantially as set forth.

5. In a car, a metallic roof structure, a non-metallic lining on the interior of the car, securing-strips below the lining, adjusting devices at the ends of the strips for forcing the strips upward to clamp the lining against the roof structure, and means additional to said devices for preventing lateral movement of the lining, substantially as set forth.

(Claims 6 and 7 not printed in the Gazette.)

1,077,590. SOAPSUDS AND HOT-WATER DISPENSER. EDWIN M. BURROUGHS, Detroit, Mich. Filed Apr. 18, 1913. Serial No. 761,881. (Cl. 45-28.)



1. In a device of the character described, a cup to receive soap, a closure cap for the cup fitted with a valve to admit water into the cup or to discharge it outside of the cup without passing through the cup, and a revolving paddle housed within the cup adapted to be actuated by the water passing through the cup, whereby the water may be churned within the cup while passing through it.

2. In a device of the character described, a cup to contain soap provided with a discharge port below, a removable closure cap having an upstanding annular neck to receive the end of a faucet, an annular gasket carried by the neck to receive the faucet whereby a water tight connection between the same may be obtained, a revolving paddle housed within the cup actuated by the water and to churn the water as it passes through the cup, and a chain engaging the device adapted to be looped around the faucet to suspend it therefrom.

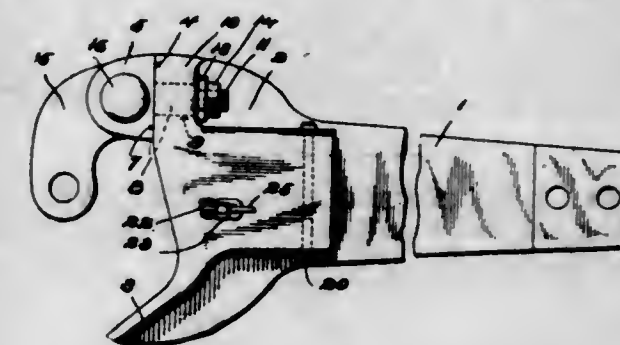
3. In a device of the character described, a cup provided with a discharge orifice below, a screen fitted within the cup above the discharge orifice to support soap and to arrest its discharge through the orifice, a removable closure cap having an upstanding annular neck to receive the end of a faucet, an annular gasket carried by the neck to receive the faucet whereby a water tight connection between the same may be obtained, a revolving paddle housed within the cup actuated by the water and to churn the water as it passes through the cup, and a chain engaging the device adapted to be looped around the faucet to suspend it therefrom.

1,077,591. PIPE-WRENCH. WILLIAM CAMERON, Toledo, Ohio. Filed Mar. 22, 1913. Serial No. 756,111. (Cl. 81-64.)



A pipe-wrench comprising a handle having an end forked and the furcations thereof connected at their outer ends by a cross-bar having a serrated surface, a jaw pivoted to said furcations and having a transverse opening, a strap having an end portion looped through the opening in said jaw and a portion looped outwardly between said cross-bar and the free end of said jaw, said bar and jaw co-operating to firmly grip said outwardly looped portion of the strap when strain is applied thereto, and a rotatable cam-bar removably secured within said opening and co-operating with the jaw to attach the strap thereto.

1,077,592. CAR-COUPLING. WILLIAM R. H. CAPEWELL, Jamesburg, N. J. Filed Sept. 11, 1912. Serial No. 710,734. (Cl. 213-85.)



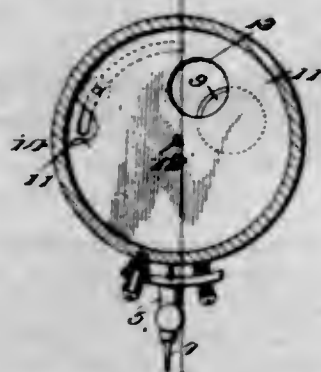
1. A car coupling comprising a head having enlargements at top and bottom, said enlargements having flat front faces, and openings extending through the same longitudinally of the coupling, ears having flat surfaces positioned against the enlargements, and integral extensions on said ears secured within the openings in the enlargements, substantially as described.

2. A car coupling comprising a head having enlargements at top and bottom, said enlargements having flat front faces, and openings extending through the same longitudinally of the coupling, ears having flat surfaces positioned against the enlargements, and integral extensions on said ears projected through the openings in the enlargements, devices securing the extensions in the enlargements, and said openings and said extensions angular in cross section, substantially as described.

3. A car coupling comprising a head having enlargements on its top and bottom at one side, said enlargements having flat faces and openings therethrough, ears positioned against the flat face of the head, extensions on the ears projected through the openings, and means on the rear face of the enlargements securing the extensions in the openings, substantially as described.

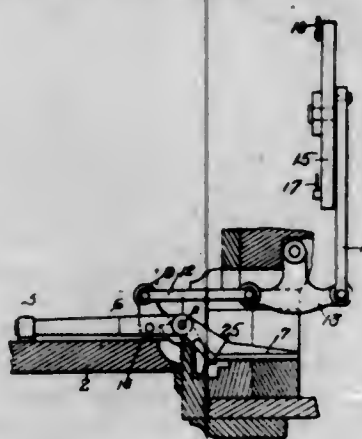
4. A car coupling comprising a head having enlargements on its top and bottom at one side, said enlargements having flat faces and angular openings therethrough, ears having flat faces positioned against the flat faces of the enlargements, angular extensions on said ears positioned in the angular openings of the enlargements, cylindrical integral screw-threaded studs on the ends of said extensions, angle plates having openings therein through which the lugs are projected, and nuts on the lugs pressing the angle plates against the rear faces of the enlargements, substantially as described.

1,077,593. SOUND-MODIFYING REPRODUCER FOR PHONOGRAPHS. CARL G. CARLSON, Hawthorne, Ill. Filed Apr. 3, 1912. Serial No. 688,146. (Cl. 181—11.)



A sound box for sound reproducing machines having a sound discharge opening eccentrically set with relation to the box and arranged to communicate with the sound tube of the machine, a plate disposed within the box, said plate being of a diameter slightly less than the inner diameter of the box, a pin extending centrally through said plate and the rear wall of the box, the terminal of said pin which projects through the rear wall of the box being threaded to receive jam nuts, the rear wall being provided with an arcuate slot, a pin supported by the plate and disposed to extend through said arcuate slot, said pin remote from the plate being threaded, a jam nut mounted on the threaded portion of the pin, said nut contacting with the outer face of the rear wall of the box to lock the plate against movement, the plate being provided with an eccentrically disposed sound discharge opening arranged to register with the opening in the rear wall of the box.

1,077,594. DOOR-CONTROLLING MECHANISM. CARL A. CARLSON, San Francisco, Cal. Filed June 18, 1912. Serial No. 704,405. (Cl. 39—95.)



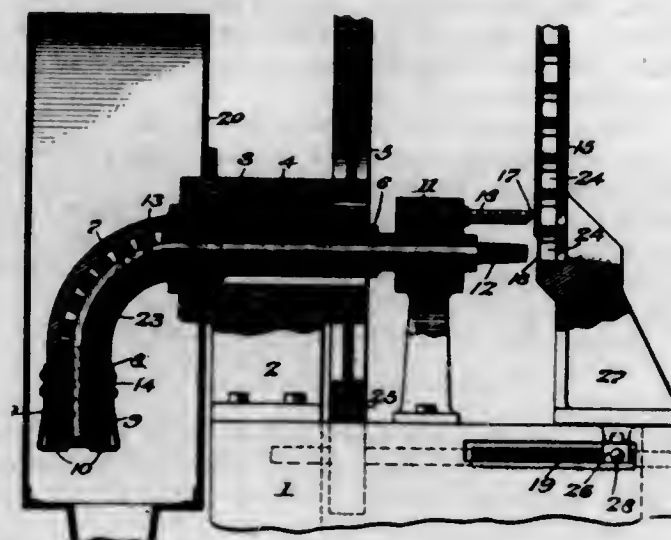
1. The combination with a hinged door provided with a latch, of a lever operatively connected to said door fulcrumed adjacent the door hinge and provided with a closed end slot, a second lever arranged in said slot and fulcrumed on said first lever and adapted to engage the closed end of said slot, said second lever having a limited movement independent of said first lever, means for moving said second lever to bring it into contact with the closed end of the slot and means operative by the independent movement of the second lever for releasing the latch.

2. The combination with a hinged door provided with a latch, of a lever having a closed end slot operatively connected thereto, a second lever arranged in said slot and fulcrumed to said first lever, said second lever having a limited movement independent of the first lever, a third lever fulcrumed at the pivot of said first lever, shoulders on said second and third levers in contact with each other, and means engaging said third lever operative to release said latch.

3. The combination with a hinged door provided with a latch, of a lever having a closed end slot operatively connected to said door, a second lever pivoted adjacent the

closed end of said slot and arranged to contact therewith at the end of its throw in either direction, a shoulder on the side of said lever remote from said closed end, a third lever fulcrumed on the pivot of the first lever, a shoulder on said lever engaging the shoulder on the second lever, a lever contacting with said third lever on the opposite side of said pivot from the shoulder, a latch releasing means, and means connecting said last named lever with said latch releasing means.

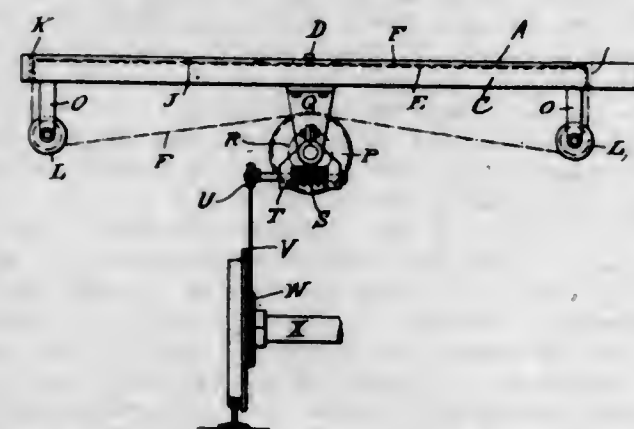
1,077,595. NUT-TAPPING MACHINE. EDWARD H. CHAPMAN, San Francisco, Cal. Filed May 14, 1913. Serial No. 767,586. (Cl. 10—129.)



1. In a nut-tapping machine, a rotatable nut-guiding tube having a laterally curved rear portion, a tap in such tube and having its smooth shank correspondingly curved, means for successively feeding nut-blanks upon said tap and shank, and springs secured to the sides of the rear portion of said nut-guiding tube and having inwardly bent ends projecting partly across the open end of the same.

2. In a nut-tapping machine, a rotatable nut-guiding tube, a nut-guide registering with said tube, a tap in said tube and guide and projecting beyond the latter, a magazine adapted to contain a column of edgewise arranged nut-blanks and formed with a discharge-opening registering with the nut-guide and through which the tapped nut may be withdrawn and with an opening registering with the hole in the next adjoining nut, means for moving such magazine toward and from said tap and nut-guide, and a pin upon the nut-guide and adapted to enter the opening in the magazine and the hole of the nut-blank adjoining the one being tapped to hold the column of blanks until the tapped nut is withdrawn.

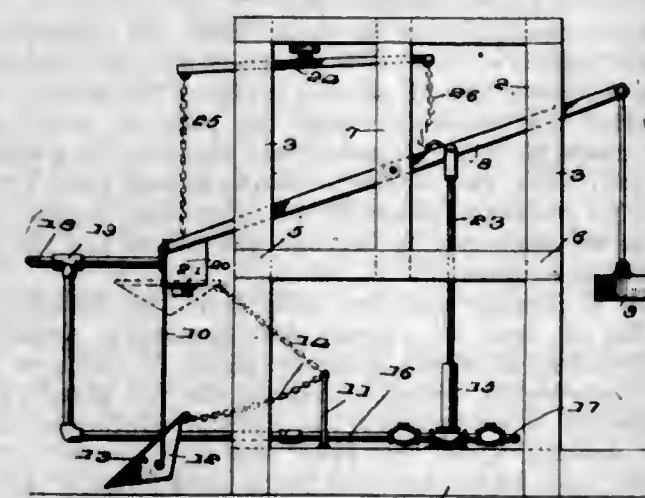
1,077,596. GEOGRAPHICAL-POSITION INDICATOR. WALTER G. CLARK, New York, N. Y. Filed June 28, 1911. Serial No. 635,780. (Cl. 116—31.)



A device for continuously indicating both the geographical position and rate of travel of a moving vehicle, comprising a support or frame, a map or chart mounted on said support, said support having a groove following a definite route on the map, guide rollers at each end of the

groove, intermediate guide rollers alongside the groove along its length, an endless cord or connector lying in the groove and passing over said end rollers and intermediate rollers, forming a driving length extending across the back of the board directly connecting the said end rollers, an indicator connected to said cord and traveling in the groove, driving devices operatively connected to the said driving length of the cord, means for continuously driving said devices from the driving connections of the vehicle without stoppage or intermission at a rate proportionate to the speed of the vehicle, indications along the route on the map representing the scale of distances traveled, whereby the continuous rate of travel of the vehicle as well as its geographic position are constantly indicated to the observer, and means for reversing the continuous operation of the said driving devices to which the endless cord is operatively connected to reverse the travel of the cord.

1,077,597. AUTOMATIC PUMP. WALTER C. CLARK, Canby, Oreg. Filed Sept. 3, 1912. Serial No. 718,351. (Cl. 253—13.)



1. The combination with a pump and piston thereof, of a pivoted beam operatively connected to the piston, links suspended from one end of the beam, a bucket pivoted between said links in a position of unstable equilibrium, a stop on the bucket limiting the rotation of the bucket in one direction, a flexible connection fixedly attached at a point to one side of the path of movement of the bucket and between the terminal of said path, the upper end of the flexible connection being attached to the side of the bucket opposite the stop, means for counterweighting the other end of the beam to cause the bucket end of the beam to lift when the contents of the bucket has been discharged, and means for discharging liquid into the bucket, said flexible connection when the bucket has reached the lowest terminus of its movement causing an initial tipping of the bucket to permit the discharge of its contents.

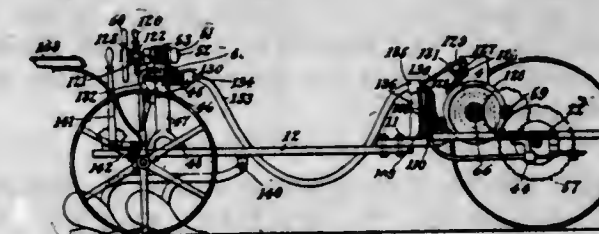
2. A pump motor including a supporting frame, a beam supported above the pump, buckets suspended in unstable equilibrium from opposite ends of the beam, discharge pipes discharging into each of the buckets, means for tipping the buckets to a horizontal receiving position when the buckets have reached their uppermost positions, said means causing the tilting of each bucket when it has reached its lowest position to discharge the contents thereof, cut-off valves, one for each discharge pipe, and a pair of levers each pivoted intermediate its ends, each lever being connected at its outer end to one of the cut-off valves, the inner end of the lever being connected to the beam beyond the pivotal point thereof.

3. The combination with a pump, of a beam pivotally supported above the pump, a rod connecting the pump piston to the beam, a tipping bucket carried upon one end of the beam in unstable equilibrium, a counterweight operatively engaging the other end of the beam to lift the bucket end of the beam when the contents of the bucket is discharged, means for holding the bucket in a hori-

zontal receiving position until the bucket has reached the lower terminus of its movement, said means causing the bucket to tip when the bucket has reached the lower terminus of its movement, a discharge pipe disposed above the bucket, the casing into which said pipe discharges having a discharge opening, the casing having a capacity approximately equal to that of the bucket, a cut-off valve in the casing, a beam pivotally mounted above the first named beam and flexibly connected to the cut off valve, the other end of the last named beam being flexibly connected to the first named beam.

4. The combination with a pump, of a pivotally supported beam, a piston for the pump operatively connected to the beam, links pivoted to the end of the beam and depending therefrom, a bucket pivoted between said links in a position of unstable equilibrium, a stop projecting from the bucket and engaging with the links when the buckets are in a horizontal position, a chain support disposed in a plane between the path of movement of the bucket and the axis of the beam, a flexible connection extending from said chain support to the inner end of the bucket and acting to hold the bucket in a horizontal position when the bucket is raised but causing said bucket to initially tip when the bucket is lowered, a counterweight operatively engaging the beam opposite the end of the bucket to lift the bucket end of the beam when the contents of the bucket is discharged, a discharge pipe disposed above the bucket, a casing into which said pipe discharges and having a discharge opening, said casing having a capacity approximately equal to that of the bucket, a cut-off valve in said casing, a beam pivotally mounted above the first named beam and flexibly connected at one end to the cut-off valve, the other end of the last named beam being flexibly connected to the first named beam.

1,077,598. SELF-PROPELLED VEHICLE. CLARENCE W. COLEMAN, Westfield, N. J.; Katharine Coleman administratrix of said Clarence W. Coleman, deceased. Filed May 4, 1909. Serial No. 493,819. (Cl. 21—114.)



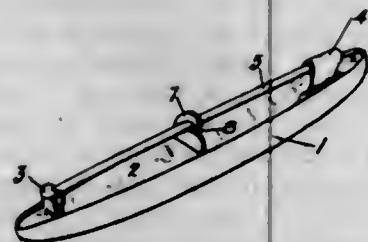
1. The combination of a tractor vehicle having steering wheels jointed to the driving axle and mechanically connected to swing in unison, a propelling engine mounted upon said vehicle, a distinct tractor-advanced apparatus detachably connected to said vehicle and at some distance from said engine and wheels, a manually operated device carried by said apparatus, and a detachable flexible connection for transmitting manual controlling power from said device to said wheels for steering said vehicle, said connection having a length adapting it for use with a variety of tractor-advanced apparatuses.

2. The combination of a tractor vehicle having propelling wheels and a driving engine, a distinct tractor-advanced apparatus detachably connected to said vehicle, devices borne by said vehicle for controlling the application of the engine's power, operator-actuated mechanism carried with said apparatus, and a flexible and detachable connection for mechanically transmitting power from said mechanism to said controlling devices, said connection being of sufficient length to permit its use with a variety of such tractor-advanced apparatuses.

3. The combination with a tractor vehicle having its steering wheels jointed to its driving axle to swing in unison, a propelling engine carried by said vehicle, a distinct tractor-advanced apparatus detachably connected to said vehicle, a flexible and detachable connection, for mechanically transmitting steering power from said apparatus to said wheels, of sufficient length for permitting substitution of a variety of tractor-advanced apparatuses

and comprising cooperating and mutually supporting flexible tension and compression members, one of said members being anchored at its opposite ends upon said vehicle and said apparatus, respectively, and the other member being operatively connected with said wheels, to swing them, and provided at the other end with a suitable operating handle.

1,077,599. PIN. GEORGE W. DOVER, Cranston, R. I. Filed Dec. 14, 1911. Serial No. 965,758. (Cl. 24—156.)

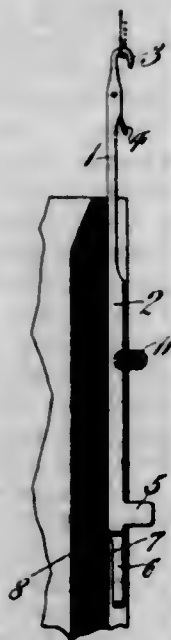


1. An article of the character described comprising a body portion, a pin-tongue hinged thereon, a catch member provided with an opening on one side adapted to receive the pointed end of said pin-tongue, and a second catch member provided with a slot located upon the opposite side from the opening in said first catch member, the closed end of said slot being in line with the upper interior wall of said first catch member.

2. An article of the character described comprising a body portion, a pin-tongue hinged thereon at one end, a catch member at the opposite end provided with an opening on one side, a second catch member intermediate the ends and provided with a curved slot oppositely disposed to the opening in said first catch member, the inner end of said slot being in line with the upper interior wall of said first catch member.

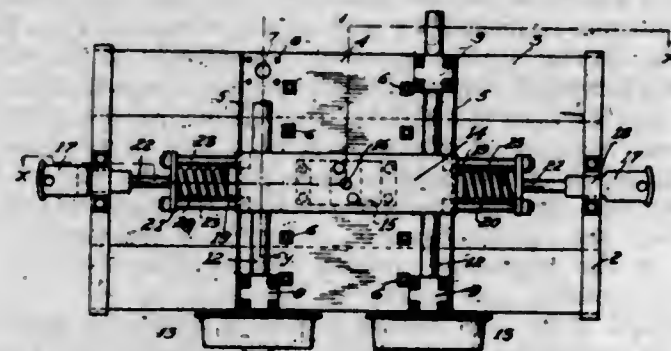
3. An article of the character described comprising a body portion, a pin-tongue hinged thereon at one end, a catch member at the opposite end, and a support intermediate the ends having a transverse slot in line with said catch member and adapted to prevent any movement of the pin-tongue toward the back-plate when the pin is in closed position.

1,077,600. KNITTING-MACHINE NEEDLE. GEORGE C. EGGLE, Philadelphia, Pa. Filed May 20, 1912. Serial No. 898,374. (Cl. 66—5.)



A knitting machine needle having a butt, a shank which extends above and slightly below said butt to form a bearing point, and a spring depending from the lower portion of said shank and offset from the plane of the rear edge thereof, at said bearing point, and curved in a plane transverse of that of the thickness of the needle.

1,077,601. RUNNING-GEAR AND DRAW-BAR ATTACHMENT FOR MINE-CARS. JOHN F. FOX, Birmingham, Ala. Filed Mar. 27, 1913. Serial No. 757,182. (Cl. 105—15.)



1. In a running gear for cars, the combination with the bottom of a car, of a metal plate attached thereto, journal boxes for the axles of the car which are connected to the corners of said plate which holds the axles in parallelism, and means to reinforce said plate transversely of the car while leaving its body free to flex lengthwise of the car, as and for the purposes described.

2. In a running gear for mine cars, the combination with the bottom of a car, of a flexible metal plate attached to the underside thereof, journal boxes for the axles of the car which are connected near the ends of said plate which holds the axles in parallelism, the axle being spaced from said plate, and means to reinforce said plate transversely of the car adjacent to the axles while leaving the body of the plate free to flex and vibrate, as and for the purposes described.

3. In a running gear for mine cars, the combination with the car body, of a metal plate detachably connected to the underside of the car body, means to reinforce the plate transversely, journal boxes for the car axles which are attached to said plate, a longitudinal reinforcing plate which extends under the axles and is connected at its ends to said first mentioned plate, substantially as described.

4. A running gear for mine cars comprising in combination a main metal plate attached to the underside of the bottom of the car and having its ends bent down, journal boxes for the car axles which are connected to said plate, and a longitudinal reinforcing plate which at its center is braced to the main plate and has its ends upturned and connected to the downturned ends of the metal plate, substantially as described.

5. In a mine car, a main metal plate connected to the bottom of the car, a reinforcing plate disposed longitudinally of the car and spaced from said main plate, braces to connect the main and reinforcing plates near the center of the latter, and a draw bar at each end of the car which is connected to the adjacent ends of the main and reinforcing plates, substantially as described.

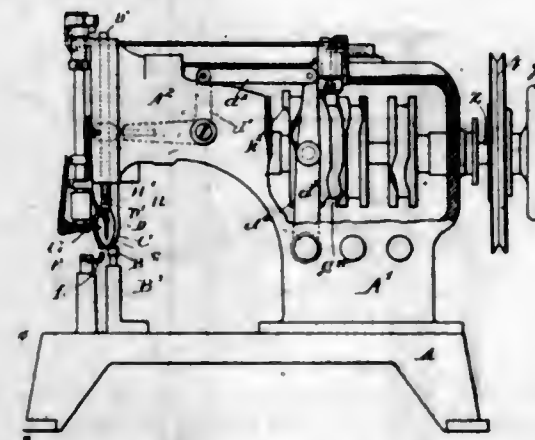
[Claims 6 to 8 not printed in the Gazette.]

1,077,602. BUTTON-ATTACHING MACHINE. CHRISTIAN H. T. HAGELSTEIN, Dorchester, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Oct. 26, 1912. Serial No. 727,890. (Cl. 112—32.)

1. A machine for attaching by thread to the work buttons or like articles, including in combination, a reciprocable loop forming needle, a combined needle backing and loop engaging member adapted to be intermittently moved to the needle to give it backing in a given direction against opposite deflection, and means to move said member to the needle to cause it to give such backing and to enter the thread loop on said needle in the same direction as said backing.

2. A machine for attaching by thread to the work buttons or like articles, including in combination, a reciprocable loop forming needle, a combined needle backing and loop engaging member adapted to be intermittently moved to the needle to give it backing in a given direction against opposite deflection, and means to move said mem-

ber to the needle to cause it to give such backing and to enter the thread loop on said needle in the same direction as said backing, and means for relatively advancing the work while the loop is on the needle in a direction opposite to said backing.



3. A machine for attaching by thread to the work buttons or like articles, including in combination, a reciprocable loop forming needle, a combined needle backing and loop engaging member adapted to be intermittently moved to the needle to give it backing in a given direction against opposite deflection, a spreader adapted to enter a thread loop while the loop is still engaged upon the needle and to spread the loop over a button, and means to move said member to the needle in advance of the spreader's operation to cause it to give such backing and to enter the thread loop on said needle in the same direction as said backing.

4. A machine for attaching by thread to the work buttons or like articles, including in combination, a reciprocable loop forming needle, a combined needle backing and loop engaging member adapted to be intermittently moved to the needle to give it backing in a given direction against opposite deflection, a spreader adapted to enter a thread loop while the loop is still engaged upon the needle and to spread the loop over a button, means to move said member to the needle in advance of the spreader's operation to cause it to give such backing and to enter the thread loop on said needle, and means for causing the spreader to enter the loop oppositely to said backing after said member has engaged a loop but before the needle and loop are disengaged.

5. A machine for attaching by thread to the work buttons or like articles, including in combination, a reciprocable loop forming needle, a combined needle backing and loop engaging member adapted to be intermittently moved to the needle to give it backing in a given direction against opposite deflection, a spreader adapted to enter a thread loop while the loop is still engaged upon the needle and to spread the loop over a button, means to move said member to the needle in advance of the spreader's operation to cause it to give such backing and to enter the thread loop on said needle in the same direction as said backing, and means to operate the spreader while both said member and the needle are engaged with the loop to enter the loop oppositely to the aforesaid given direction.

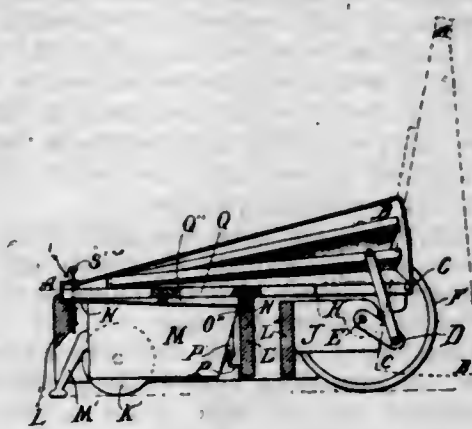
[Claims 6 and 7 not printed in the Gazette.]

1,077,603. VACUUM CARPET-CLEANER. WILLIAM H. HALL, Cicero, Ill. Filed Apr. 2, 1912. Serial No. 688,093. (Cl. 15—60.)

1. In a vacuum carpet cleaner, a supporting frame-work mounted on wheels in combination with a one-piece nozzle and dust-pan having a yielding detachable connection with the frame-work, a vacuum pump, and an air-chamber having a dust-screen between the nozzle and the inhaling valves of the pump.

2. In a vacuum carpet cleaner, a suitable frame-work in combination with a one-piece nozzle and dust-pan having a detachable air-tight connection with the frame-work, an air pump hinged to the frame and provided with a base

the pump is in operative position, said base and pan thus with which the dust-pan is hermetically connected when forming an air chamber, and means for holding the pump base in air-tight connection therewith.

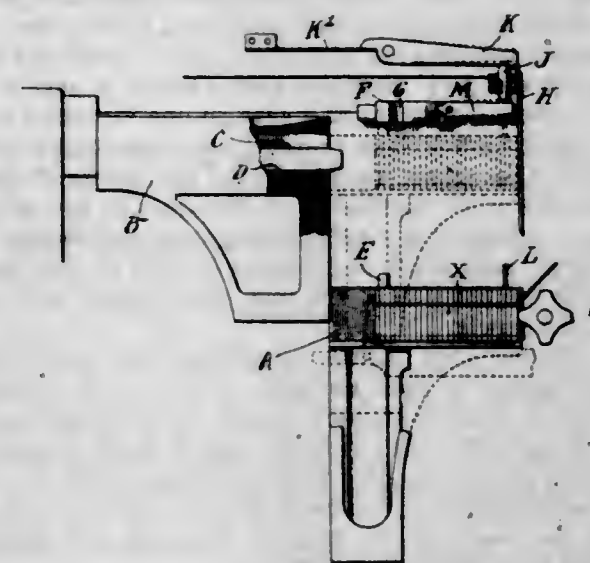


3. In a vacuum carpet cleaner, a suitable frame-work having a dirt compartment adapted to receive a one-piece dust-pan and nozzle, a hinged connection between the dust pan and walls of the compartment whereby the nozzle is permitted to rest on the floor and caused to move in unison with the machine, and an air chamber and means for exhausting the air from same.

4. In a vacuum carpet cleaner, a suitable frame-work in combination with a one-piece detachable dust-pan and nozzle, an air pump hinged to the frame and provided with a base with which the dust-pan is hermetically connected when the pump is in operative position, said base and pan thus forming an air chamber, said base being adapted to swing back allowing the free removal of the dust-pan and nozzle from the machine.

5. In a vacuum cleaner, the combination of a support, a combined dust-pan and nozzle carried thereby, means for yieldingly connecting said pan and nozzle to the support to permit adjusting movements of the nozzle, and an air pump hinged on the support and adapted when in operative position to be hermetically connected with the dust-pan.

1,077,604. TYPOGRAPHICAL MACHINE. SCOTT D. HANDLIN, Eldora, Iowa, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 4, 1913. Serial No. 740,117. (Cl. 199—7.)



1. In a typographical machine, the combination of the assembler movable to different extents, a machine device adapted to be tripped by said assembler in one of its positions, and an interponent adapted to be inserted therebetween so as to trip the machine device in another position of the assembler.

2. In a typographical machine, the combination of the assembler movable to different extents, a machine device, means carried by the assembler to trip the said device

In one position of the assembler, and an interponent adapted to be inserted between said device and tripping means so as to trip the former in another position of the assembler.

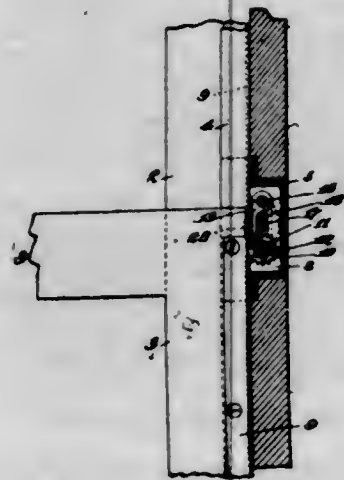
3. In a typographical machine, the combination of the assembler movable to different extents, transfer devices to remove the matrices from the assembler, the said devices comprising a detent, means connected to the assembler to trip the detent when the assembler is moved to one position, and a member adapted to be interposed between the tripping means and the detent when the assembler is moved to another position.

4. In a typographical machine, the combination of the movable assembler A provided with the pin E, and the adjustable stop piece F formed with the recess G to receive the pin in one of its adjusted positions.

5. In a typographical machine, the combination of a machine device, the assembler A movable to different extents, and arranged to trip said device in one of its positions, and the adjustable interponent M, to enable it to trip the said device in another of its positions.

[Claims 6 and 7 not printed in the Gazette.]

1,077,605. WINDOW-LOCK. CHARLES F. HANINGTON, Roselle Park, N. J. Filed Mar. 22, 1911. Serial No. 616,056. (Cl. 16—117.)



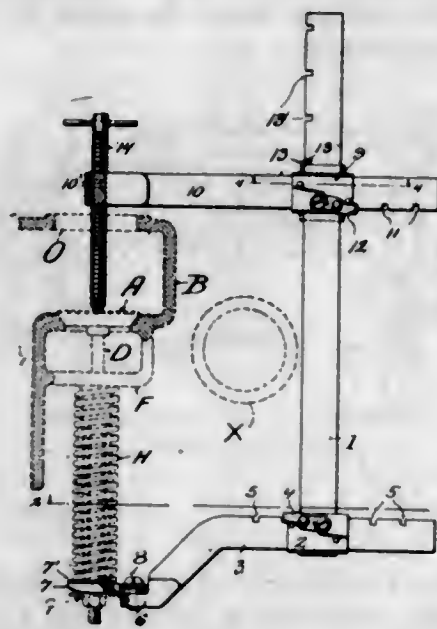
1. The combination with two sashes and a rack upon each sash, of a shaft, two independently rotatable pinions on the shaft, said pinions each engaging a rack, two oppositely faced ratchets on the shaft, each ratchet turning with a pinion, a pawl engaging each ratchet in such a manner as to allow movement of a sash in one direction only, a second shaft having lugs thereon, said lugs being engageable with the pawls to disengage the latter from the ratchets and allow movement of the sash in the other direction, a separable key cooperating with the second shaft for rotating said shaft and means carried by the key for indicating the position of the lugs on the shaft with reference to the pawls.

2. A window lock having in combination with a casing and two sashes, a rack on each sash, a pinion engaging each rack, a ratchet on each pinion, an independent pawl normally engaging each ratchet, and a shaft between the pawls, and means whereby rotation of the shaft in one direction will disengage one pawl from its ratchet, and rotation of the shaft in the reverse direction will disengage the other pawl from its ratchet.

1,077,606. TOOL FOR HANDLING COMPRESSED COILED SPRINGS. JOHN F. HAUSMANN, Milwaukee, Wis. Filed Jan. 13, 1913. Serial No. 741,661. (Cl. 29—87.1.)

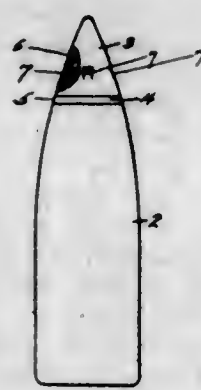
A tool for handling compressed coiled springs comprising a reach-bar, a block in slidable union with the reach-bar, a transversely disposed arm in slidable union with the block, means for adjustably locking the block to the

reach-bar, means for adjustably locking the arm to said block, a second transversely disposed arm extending from



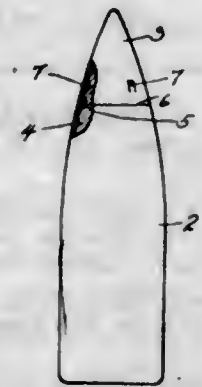
the reach-bar, a spanner carried by one of the arms, and a jack-screw carried by the opposite arm.

1,077,607. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 15, 1913. Serial No. 789,887. (Cl. 102—28.)



A mushroom bullet having a soft metal core, a jacket-body, and a jacket-tip, the said body and tip being formed independently of each other and swaged upon the core and separated by an accommodation space occupied by a band of metal exuded from the core and the tip being externally indented to take into the core for its retention upon the point thereof without permitting the metal of the core to flow into the external indentations in the tip.

1,077,608. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 15, 1913. Serial No. 789,888. (Cl. 102—28.)



As a new article of manufacture, a mushroom bullet comprising a soft-metal core having a sheet-metal jacket-body and a sheet-metal jacket-tip swaged thereupon, the

inner edge of the tip being set over the edge of the jacket to form a close, circumferential joint and the tip being formed forward of the said joint with a plurality of retaining anchors produced by setting portions of the metal of the tip into the core, leaving shallow indentations upon the surface of the tip.

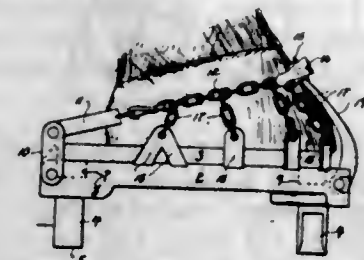
1,077,609. WATER-HEATER. JOSEPH F. JONES, Cleveland, Ohio, assignor to The Porcupine Water Heater Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 4, 1912. Serial No. 681,481. (Cl. 122—216.)



1. In a water heater, the combination of a series of suitably connected sections, each section including an annular chamber, a single diametrically extending hollow bar opening at its ends into the annular chamber, the bar being provided intermediate its ends with aligned inlet and outlet openings, an inclined partition within said bar separating the inlet and outlet openings, the annular chamber being unconnected with the inlet and outlet openings except through the respective portions of said bar, a series of solid baffling bars extending across the open spaces between the hollow bar and the annular chamber, and a series of radially outwardly extending lugs attached to said section around the outside of the same.

2. In a water heater, the combination of a series of suitably connected sections, each section including an annular chamber, a single diametrically extending hollow bar opening at its end into the annular chamber, the bar being provided intermediate its ends with aligned inlet and outlet openings, an inclined partition within said bar separating the inlet and outlet openings, the annular chamber being unconnected with the inlet and outlet openings except through the respective portions of said bar, a series of solid baffling bars extending across the open spaces between the hollow bar and the annular chamber, a series of radially outwardly extending lugs attached to said section around the outside of the same, adjacent sections being placed with such hollow bars at an angle to each other so that such baffling bars are criss-crossed.

1,077,610. AUXILIARY HORSESHOE. VICTOR KOLAKOWSKI, New Haven, Conn. Filed May 22, 1913. Serial No. 769,161. (Cl. 168—30.)

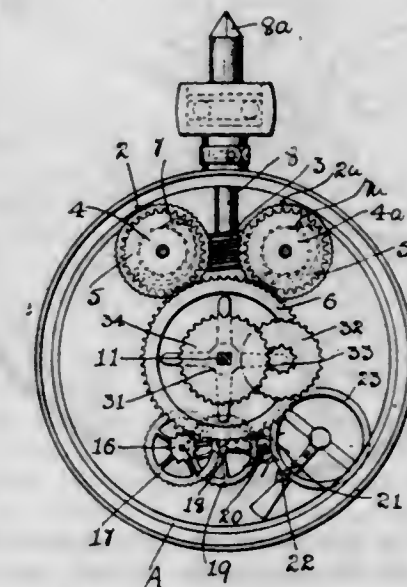


1. An auxiliary horseshoe provided with a series of upwardly extending arms, links pivotally attached to the heels, latches pivotally connected with the outer ends of said links, said latches when in use being positioned above the heels of the shoe and movable into engagement therewith, means for drawing the said latches forward, and connections between said means and said arms.

2. An auxiliary horseshoe provided with a series of upwardly extending arms and a tongue pivotally connected at the toe, links connected with the heels, latches pivotally connected with the outer ends of said links, said latches when in use positioned above the heels of the shoe and movable into holding engagement therewith, chains connected with the outer ends of said latches, the ends of the chain adapted to be adjustably connected together, and connections between the chains and said arms.

3. An auxiliary horseshoe formed in its upper face at the heel and toe with recesses, said auxiliary shoe provided on opposite sides with a series of outwardly projecting arms and a tongue extending upward at the toe, latches pivotally connected with the heels of the auxiliary shoe and adapted when in use to position above the heels of the shoe and being movable into holding engagement therewith, means for drawing the outer ends of the said latches forward and for holding the tongue in a locked position, and connections between said means and arms.

1,077,611. REVOLUTION-COUNTER. CHRISTIAN KORTE, Leeds, England, assignor of one-third to Samuel Denison and one-third to George Henry Denison, Leeds, England. Filed Aug. 31, 1911. Serial No. 646,989. (Cl. 235—104.)



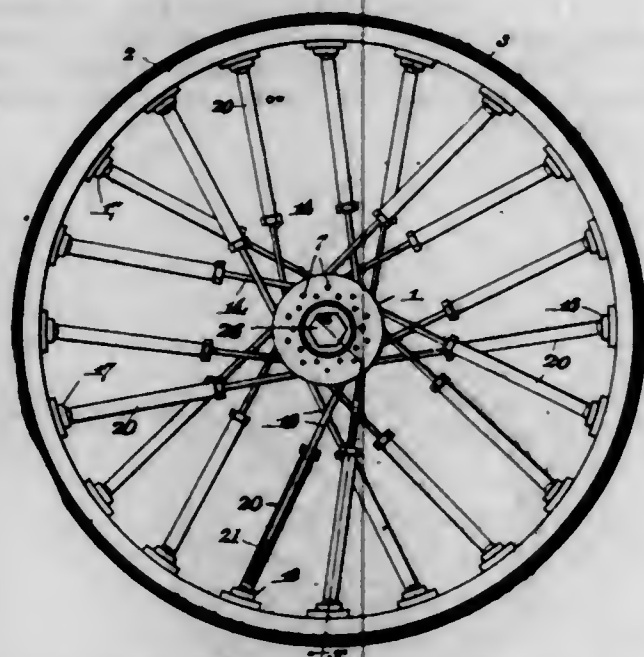
An instrument of the character described having a spindle provided with a free end to be pressed against a rotating member to cause said spindle to be rotated by said member, said spindle having a worm, two worm wheels meshing with said worm, ratchet wheels carried by said worm wheels, spur wheels carried by ratchets engaging with said ratchet wheels, a hollow toothed wheel, a shaft on which said wheel is mounted, said shaft having an angular portion, a spring fitting said angular portion of the shaft and located in said hollow toothed wheel, revolution indicating hands actuated by said shaft, a friction disk adapted to be driven by the hollow toothed wheel, and a time indicator and connections for actuating the latter from said friction toothed wheel.

1,077,612. RESILIENT WHEEL. GILBERT A. LEITZMAN, Clayton, Ind. Filed July 25, 1912. Serial No. 711,420. (Cl. 152—47.)

1. A wheel comprising a rim, a plurality of spokes, the outer ends of said spokes being connected at intervals to said rim, a hub provided with a series of spaced staggered pockets at each end to receive the inner ends of said spokes, said spokes being arranged in groups of four, the innermost spokes of each group extending to the outermost pockets at the opposite ends of the hub and the outermost spokes extending to the innermost pockets at the opposite ends of the hub, substantially as described.

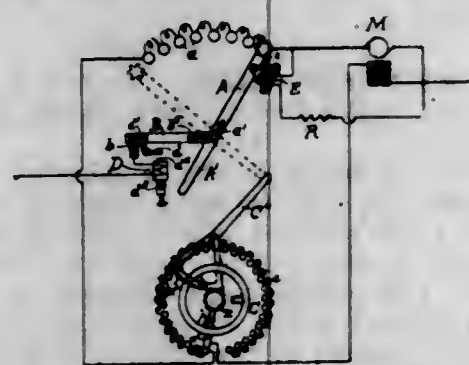
2. A wheel comprising a rim, a plurality of spokes, connected at their outer ends at intervals to said rim, each of said spokes comprising a tubular outer portion and a telescopic inner portion and a spring arranged in said tubular portion, a hub provided with a series of spaced staggered pockets at each end to receive the inner ends of said spokes, said spokes being arranged in groups of four, the innermost spokes of each group extending to the outermost pockets at the opposite ends of the hub and the innermost spokes extending to the innermost pockets at the opposite ends of the hub, substantially as described.

3. In a wheel, a hub provided with annular flanges, an annular plate secured to each of said flanges, the adjacent faces to said flanges and said plate being provided with a series of registering recesses together forming pockets, the inner ends of said pockets being spherical and the outer portion being flared circumferentially and spokes having balls on their inner ends arranged in the spherical portions of said pockets, and the side walls of said flared portion being parallel and spaced apart a distance substantially equal to the diameter of the adjacent portion of the spoke, substantially as described.



4. In a wheel, a hub provided with a pair of annular flanges, a pair of annular plates secured one upon the other to each of said flanges, the adjacent faces of said flanges and abutting plates and the adjacent faces of the plates being provided with a series of registering recesses forming a series of staggered pockets at each end of said hub, and spokes having their ends arranged in said pockets, substantially as described.

1,077,613. CONTROLLER FOR ELECTRIC MOTORS AND SIMILAR DEVICES. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed July 11, 1903, Serial No. 165,061. Divided and this application filed May 17, 1907, Serial No. 374,129. Renewed July 22, 1909. Serial No. 509,063. (Cl. 172-179.)



1. The combination with a motor having a shunt field winding, a rheostat in series with said field winding, an additional starting rheostat, means tending to move the contact arm thereof toward the initial position and which arm is designed to be held in its final position, an automatic release for said arm which responds when the supply voltage falls below a certain amount, the movement of said contact arm toward the initial position also causing the movement of the arm of said rheostat in series with the field winding toward the resistance all out position.

2. The combination with a motor having a shunt field winding, a rheostat in series with said field winding, an additional starting rheostat, means tending to move the contact arm thereof toward the initial position and which

arm is designed to be held in its final position, an automatic release for said arm which responds when the supply voltage falls below a certain amount, the said contact arm when moving toward the initial position mechanically engaging the field adjusting means of said rheostat in series with the field winding and actuating the same to decrease the field resistance in circuit.

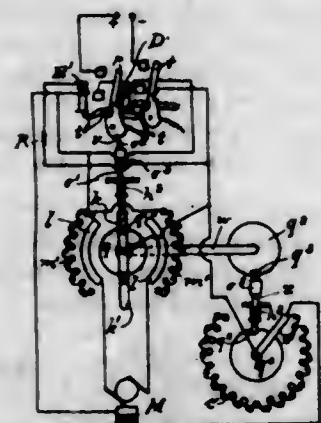
3. The combination of an electric motor, a starting resistance having a movable contact element, an additional field resistance having a movable contact element which may be moved independently of said first named element, a no-voltage device for retaining said first named element in final position, and means carried by said first named element adapted to engage said second element when said first element is released for moving said second element to its initial position.

4. The combination of an electric motor, a starting switch for closing the armature circuit of the motor, a field resistance having a movable element for varying said resistance, and means for returning said element toward the resistance all out position by the movement of said starting switch toward its open circuit position.

5. The combination of an electric motor having a permanently closed local loop containing the armature winding and a field winding, a starting switch for connecting and disconnecting said loop to and from the supply conductors, a field resistance having a movable element for varying said resistance, and means for returning said element toward the resistance all out position by the movement of said starting switch toward the open circuit position.

[Claims 6 to 43 not printed in the Gazette.]

1,077,614. CONTROLLER FOR ELECTRIC MOTORS AND SIMILAR DEVICES. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed July 11, 1903, Serial No. 165,061. Divided and this application filed May 17, 1907, Serial No. 374,130. Renewed July 18, 1910. Serial No. 572,581. (Cl. 172-179.)



1. The combination of independently movable means for controlling the field and armature circuits of an electric motor, one of said means being adapted to reverse the direction of rotation of the motor and also vary resistance in series with its circuit, and means functionally relating the said independent controlling means whereby improper operation of the said two controlling means relatively to each other is prevented.

2. The combination of an electric motor, a reversing rheostat for varying and reversing the current in one element of the motor, correlated rheostatic means for controlling the current in the other element of the motor, and an electro-responsive protective device energized by a current independent of that in the motor armature or field circuit.

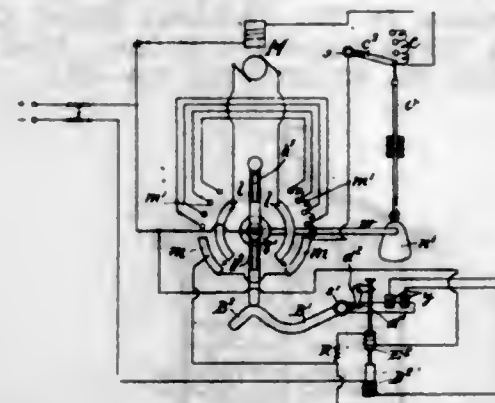
3. The combination of an electric motor, a circuit breaker, a reversing controller, a field rheostat, and means for preventing the circuit breaker from being closed except when the reversing controller is in its proper position and for preventing the resistance of the controller from being cut out except when the field rheostat is in its proper position.

4. The combination of an electric motor, a reversing switch for reversing the current in one element of said motor, means in the circuit of the other element of the motor for affecting the current in said circuit, and means for functionally relating said switch and said first named means.

5. The combination of an electric motor, a controlling resistance in series with the armature and a different controlling resistance in series with the field winding, each of said resistances having a cooperating movable element and at least one of said movable elements being movable independently of the other, two switches in series with each other and with said armature, and means protectively correlating said two switches and at least one of said switches to the means for varying the resistance in the field circuit.

[Claims 6 to 29 not printed in the Gazette.]

1,077,615. CONTROLLER FOR ELECTRIC MOTORS AND SIMILAR DEVICES. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed July 11, 1903, Serial No. 165,061. Divided and application filed May 17, 1907, Serial No. 374,130. Divided and this application filed July 15, 1912. Serial No. 709,432. (Cl. 172-179.)



1. A controlling device for an electric motor comprising an armature controlling movable element, a field resistance controlling movable element, said elements being independently movable, and a single operating handle for moving both of said elements and for causing resistance to be inserted in the field circuit.

2. A motor having a field winding energized independently of its armature current, a circuit controlling movable element for controlling the armature and the field circuit, a second circuit controlling movable element for controlling resistance in the field circuit and movable independently of said first named element, and a single operating device for moving said movable elements and for causing resistance to be inserted in the field circuit.

3. A shunt wound motor, a movable switch element for making and breaking the armature and field circuits of said motor, a movable element for gradually and controllably weakening the motor field strength, and a common means for moving said elements and for causing the movement of said second element to weaken the motor field to any desired degree.

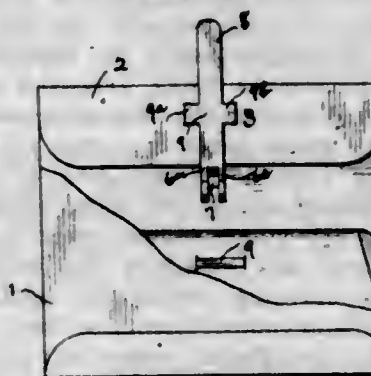
4. An electric motor having a shunt field winding, two movable motor controlling elements, one of said elements being the movable element of a motor field rheostat, a common operating member for said elements and for accelerating the motor by movement of said last named element, a no-voltage winding, and an automatic switch, the said switch controlling the three circuits in which are connected the motor armature, the motor field winding and the no-voltage winding.

5. An electric motor, and controlling apparatus, said controlling apparatus comprising a no-voltage controlling magnet, and a movable member for starting the motor and weakening its field strength and for rendering effective the no-voltage magnet.

[Claims 6 to 28 not printed in the Gazette.]

196 O. G.—9

1,077,616. ENVELOP-FASTENER. GEORGE W. LOGAN, Steubenville, Ohio. Filed June 9, 1911. Serial No. 632,210. (Cl. 229-78.)



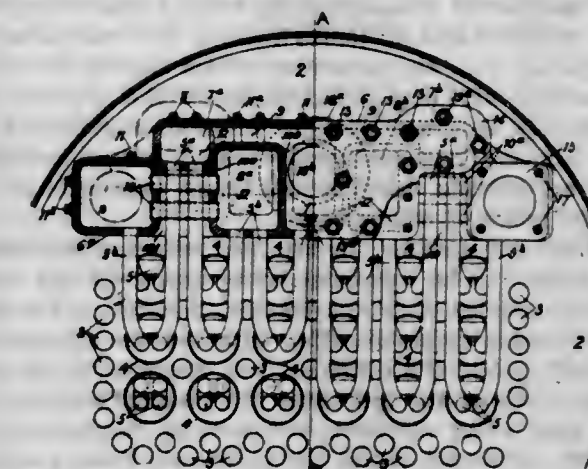
1. In combination with an envelop, a fastener secured to one side thereof and engaging the other side at its edge and below its edge to seal the contents of the envelop.

2. In an envelop the combination of a flap, a hook mounted on said flap, an eye mounted on the inner face of the opposite side of the envelop, said hook being caused to engage said eye to secure the inner faces of the envelop, and a tab for manipulating said hook, said tab being arranged to secure the edges of said sides.

3. In an envelop, the combination of a flap arranged to lie between the sides of the envelop, a sheet-metal member having integral means for attachment to said flap, a sheet metal eye below the inclosed flap having integral means for attachment to the side opposite the flap, hooks formed upon said member at one end, arranged to engage with said eye, and a tab formed integral with said member at its opposite end for securing the edges of the envelop.

4. In an envelop, in combination, a flap, an eye mounted on one side of the envelop, a member mounted on the flap, two hooks formed on said member arranged to engage with said eye, a tab formed upon said member to direct the flap to a position alongside of said eye, and an angular part formed on said member frictionally engaging said eye when the hooks are in engagement with the latter.

1,077,617. STEAM-SUPERHEATER FOR LOCOMOTIVE, MARINE, AND OTHER BOILERS. EDWARD SYDNEY LUARD, London, England. Filed Jan. 11, 1912. Serial No. 670,588. (Cl. 122-462.)



1. In a superheater, the combination, with superheater elements, of a header provided with integrally-formed transverse partitions which divide it into a series of compartments and longitudinal passages connecting certain of the alternate compartments and extending across the intervening compartments, said series comprising a plurality of compartments for saturated steam and a plurality of compartments for superheated steam, said compartments being arranged side by side and alternately and having the said superheater elements connected to their lower parts, each steam compartment having a large opening in its front side to afford free access to its interior, and removable covering means for closing the large openings so that the compartments are normally steam-tight.

2. In a superheater, the combination, with superheater elements, of a header provided with integrally-formed transverse partitions which divide it into a series of steam compartments and hot-air pockets, said series comprising a plurality of compartments for saturated steam and a plurality of compartments for superheated steam, said steam compartments being arranged side by side and alternately and having the said superheater elements connected to their lower parts, and each of the said hot-air pockets being formed between two of the compartments for superheated steam and being open at its front and lower sides, each steam compartment having a large opening in its front side to afford free access to its interior, removable covering means for closing the large openings of the steam compartments so that they are normally steam-tight, and steam connecting pipes extending across the said hot-air pockets between the adjacent chambers for superheated steam.

3. In a superheater, the combination, with superheater elements, of a header provided with integrally-formed transverse partitions which divide it into a series of steam compartments, hot-air pockets, and longitudinal passages connecting certain of the alternate steam compartments and extending above and across the intervening steam compartments, said series comprising a plurality of compartments for saturated steam and a plurality of compartments for superheated steam, said steam compartments being arranged side by side and alternately and having the superheater elements connected to their lower parts, and each of the said hot-air pockets being formed between two of the compartments for superheated steam and being open at its front and lower sides, each steam compartment having a large opening in its front side to afford free access to its interior, removable covering means for closing the large openings of the steam compartments so that they are normally steam-tight, and steam connecting pipes extending across the said hot-air pockets between the adjacent chambers for superheated steam.

4. A steam superheater for fire tube boilers, comprising a header provided with a number of compartments, a portion of the compartments having communication with a source of saturated steam supply, one wall of the header being removably secured in place, a series of superheater elements communicating with the compartments provided with the saturated steam and extending into the fire tubes of the boiler with their opposite ends communicating with the other compartments of the header, said last mentioned compartments having communication with the steam chests of the cylinders, the compartments communicating with the saturated steam supply and those communicating with the steam chests of the cylinders being alternately arranged, means whereby communication between adjacently placed superheated steam compartments is established, said means being arranged in the path of the gases of combustion.

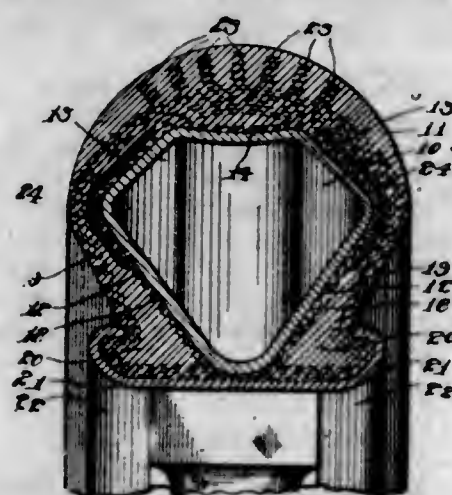
5. A steam superheater for fire tube boilers, comprising a header adapted to be arranged transversely of the boiler and having a series of compartments, one set of the compartments having communication with a source of saturated steam supply while the other set has communication with the steam chests of the cylinders, the compartments of the different sets being alternately arranged, communication between the saturated steam compartments being arranged within the header and to one side of the superheated steam compartments, conduits for establishing communication between the adjacently arranged superheated steam compartments, said conduits being arranged in the path of the gases of combustion, and a series of tubes leading from the saturated steam compartments into the fire tubes of the boiler and communicating at their opposite ends with the saturated steam compartments.

[Claims 6 to 9 not printed in the Gazette.]

1,077,618. TIRE. WILLIAM MAGINNIS, Ogontz, Pa. Filed Mar. 26, 1912. Serial No. 686,292. (Cl. 152-13.)

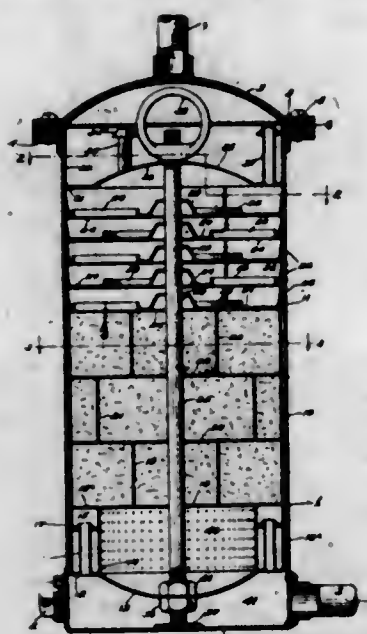
A tire casing comprising a body portion having a tread and side walls leading from the tread, the side walls of

the casing being gradually tapered to a point adjacent the center of the side walls and being then gradually thickened and merging into the tread whereby the side walls



will be substantially V-shape in cross section, and reinforcing bands V-shape in cross section embedded intermediate the height of the side walls to brace the side walls and prevent cracking under pressure.

1,077,619. FILTER. HARVEY F. MARANVILLE, Akron, Ohio, assignor to The Perfection Spring Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 26, 1912. Serial No. 679,887. (Cl. 210-10.)



1. In a filter, the combination of a casing having an inlet at the top thereof and an outlet at the bottom thereof, a series of filtering pans, each having one or more openings in the bottom thereof provided with upwardly projecting flanges, the apertures in adjacent pans being out of alignment, and a filtering cloth extending across the openings in each of said pans and beneath the bottom of said pan.

2. In a filter, the combination of a casing having an inlet near one end thereof and an outlet near the other end thereof, a series of filtering pans, each having one or more openings in the bottom thereof provided with upwardly projecting flanges, the apertures in the pans being staggered, and a filtering cloth extending across the openings in said pans.

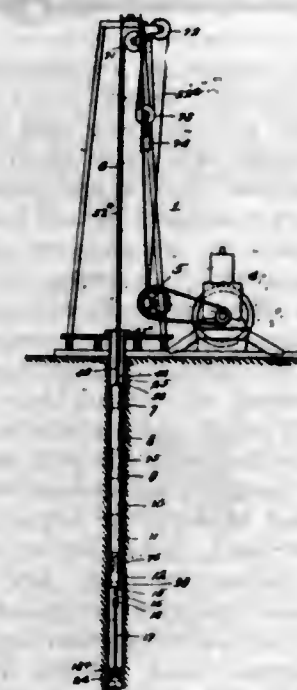
3. In a filter, the combination of a casing having an inlet and an outlet, a series of filtering pans in said casing between the inlet and the outlet, each pan having an aperture in the bottom thereof surrounded by an upwardly projecting flange, the aperture in one pan being staggered with respect to those in the adjacent pans, said pans having their side walls flared outwardly and adapted to nest one within the other, and a filtering cloth extending across the bottom of each pan and upwardly along the flaring side wall of the pan.

4. In a filter, the combination of a casing having an inlet and an outlet, a casing within the former casing and having a plurality of filtering elements therein, the end of the second casing which is directed toward the inlet being flared outwardly to contact with the wall of the first casing, a series of pans interposed between the second casing and the inlet and having flared side walls and openings in their bottoms, and cloth beneath the bottom of each pan and extending across said openings and upwardly along the flaring side wall of each pan.

5. In a filter, the combination of a casing, having an inlet and an outlet, a series of filtering devices in said casing between the inlet and the outlet, and a pan above said devices and located beneath the inlet, said pan having a depressed bottom portion and one or more overflow tubes projecting upwardly from such depressed portion, each of said tubes being provided with a downwardly inclined hood near the top thereof.

[Claims 6 to 21 not printed in the Gazette.]

1,077,620. WELL-DRILLING GEAR. SAMUEL J. MATHEWS, Kansas City, Mo. Filed June 20, 1912. Serial No. 704,809. (Cl. 255-4.)



1. In a drilling gear of the character described, a suitable tool, a motor having a stationary part and a rotary part which latter is operably-connected to the tool to actuate the same, and electrically-controlled means adapted to coact with the walls of a well bore in preventing the stationary part of the motor from rotating with the tool.

2. In a drilling gear of the character described, a suitable tool, a motor having a stationary part and a rotary part which latter is operably-connected to the tool to actuate the same, and electrically-controlled frictional means adapted to coact with the walls of a well bore in preventing the stationary part of said motor from rotating with the tool.

3. In a drilling gear of the character described, a tool, a motor having a stationary part and a rotary part which latter is operably-connected to said tool to actuate the same, and electrically-controlled shoes to engage the walls of a well bore to prevent the stationary part of said motor from rotating.

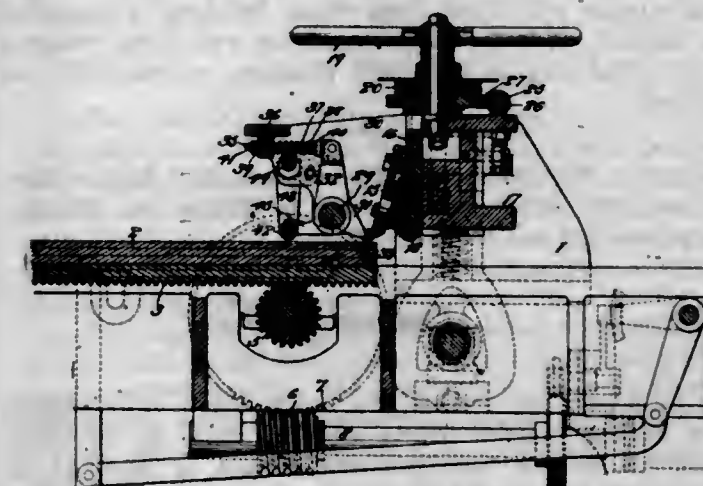
4. In a drilling gear of the character described, a tool, a motor having a stationary part and a rotary part which latter is operably-connected to said tool to actuate the same, shoes operably-connected to the stationary part of said motor and adapted to engage the walls of a well bore to prevent said stationary part from rotating with the tool, integral racks on said shoes to actuate the same, pinions to actuate said racks, and means for actuating said pinions.

5. In a drilling gear of the character described, a tool, a motor having a stationary part and a rotary part which

latter is operably-connected to said tool to actuate the same, shoes operably-connected to the stationary part of said motor and adapted to engage the walls of a well bore to prevent said stationary part from rotating with the tool, and a solenoid for actuating said shoes.

[Claims 6 to 15 not printed in the Gazette.]

1,077,621. TREATMENT OF PRINTING-PLATES. MILTON A. MCKEE, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 24, 1911. Serial No. 616,736. (Cl. 101-178.)



1. In the process of treating printing plates, to bring their printing faces and backs into substantial parallelism, placing the plates on a flat surface, subjecting the back of the plate to the action of a shoving knife and to the independent application of pressure at different points along the same, in close proximity to the shoving knife, for assisting the knife in forcing the unsupported parts of the plate away from its edge during the shoving action.

2. In the process of treating printing plates, to bring their printing faces and backs into substantial parallelism, placing the plates on a flat surface, subjecting the back of the plate to the action of a shoving knife, and to the independent application of pressure at different points along the same, in close proximity to the shoving knife, for assisting the knife in forcing the unsupported parts of the plate away from its edge during the shoving action, and finally subjecting the plate to heat and pressure for leveling the face of the plate.

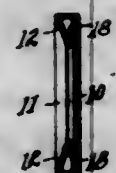
3. In the process of treating printing plates, to bring their printing faces and backs into substantial parallelism, placing the plates on a flat surface, subjecting the back of the plate to the action of a shoving knife and to the independent application of pressure at different points along the same, in close proximity to the shoving knife, by a plurality of independent pressure devices, for assisting the knife in forcing the unsupported parts of the plate away from its edge during the shoving action.

4. In the process of treating printing plates, to bring their printing faces and backs into substantial parallelism, placing the plates on a flat surface, subjecting the back of the plate to the action of a shoving knife and to the independent application of pressure at different points along the same, in close proximity to the shoving knife, by a plurality of independent pressure devices, for assisting the knife in forcing the unsupported parts of the plate away from its edge during the shoving action, and finally subjecting the plate to heat and pressure for leveling the face of the plate.

1,077,622. PICTURE-FRAME. JAMES MCLELLAN, Kankakee, Ill. Filed Feb. 25, 1913. Serial No. 750,567. (Cl. 40-155.)

1. A picture frame comprising a backing sheet; a locking sheet secured to said backing sheet and providing pockets therebetween; and flaps formed integrally with

said backing sheet, folded over said locking sheet and having their edges removably secured in said pockets, substantially as described.



2. A picture frame comprising a backing-sheet; a locking sheet secured to said backing sheet and providing pockets therebetween; and flaps formed integrally with said locking sheet, and adapted to be folded to form the frame proper with their free edges frictionally engaging said pockets when in erected position and being adapted to be folded flat in collapsed position, substantially as described.

1,077,623. PICTURE-FRAME. JAMES McLELLAN, Kankakee, Ill. Filed Apr. 24, 1913. Serial No. 763,224. (Cl. 40—155.)



1. In a picture frame, the combination of a flexible sheet having foldable frame forming flaps on its edges, detachable locking edge portions carried by flaps on opposite edges of said flexible sheet, said edge portions when secured together locking the frame in collapsed condition, substantially as described.

2. In a picture frame, the combination with a rectangular sheet having foldable frame forming flaps on its edges, of locking strips formed integrally on the outer ends of flaps on opposite edges of said sheet, said locking strips being secured together, and there being a line of severing perforations between each locking strip and its flap on which it is formed, substantially as described.

1,077,624. WIRE-BOUND CRATE. HOWARD G. MEAD, St. Louis, Mo., assignor to William P. Healy, Chicago, Ill. Filed Feb. 1, 1911. Serial No. 605,910. (Cl. 217—51.)

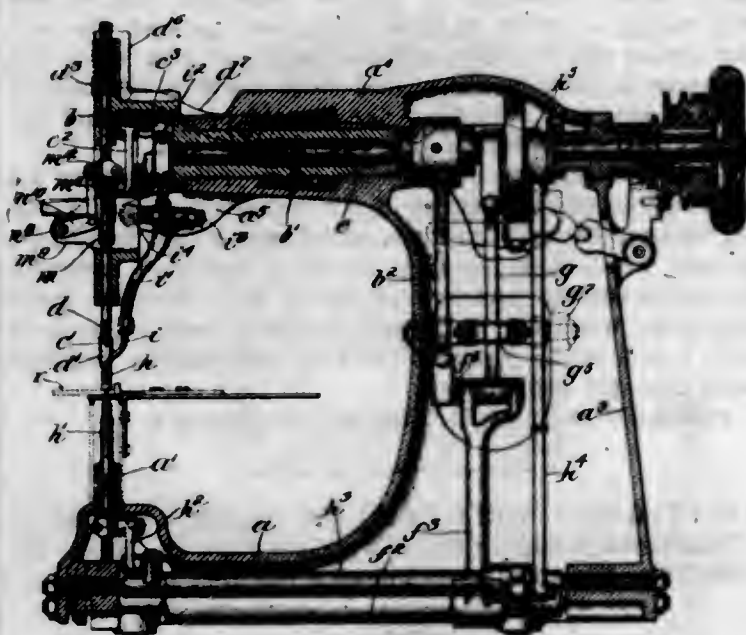


A wire bound crate comprising end walls, cleats secured along the edges of said end walls, with the outer edges of the cleats disposed a distance outside of said edges of the end walls, thereby leaving a portion of each cleat uncovered by the end wall secured thereto, the said uncovered portions of the cleats having gains therein, slats disposed in said gains, flush with the outer edges of said cleats, binding wires stretched around the crate, staples for securing both the binding wires and slats in place, and other staples for securing the binding wires directly to the cleats between the slats, said slats spaced apart to provide the crate with side openings, and said cleats having tongues occupying said spaces, to which tongues said wires are directly secured, as set forth.

1,077,625. SEWING-MACHINE. FRANK W. MERRICK, Boston, Mass., assignor to Union Lock Stitch Company, Boston, Mass., a Corporation of Maine. Filed July 8, 1901. Serial No. 67,395. (Cl. 112—8.)

1. In a sewing machine, in combination, an operating shaft, an awl-bar carrying an awl and a needle-bar carrying a needle, means for imparting endwise motion to the said bars from the said operating shaft, a head having one of said bars guided therein, and means for producing con-

tinuous vibratory movement of said head concentrically with respect to the said shaft and relative to the latter during the operation of the machine for the purposes of the feed.



2. In a sewing machine, in combination, an operating shaft, an awl-bar carrying an awl and a needle-bar carrying a needle, means for operating said bars, a head having a sleeve concentric with said shaft and also having one of said bars guided therein, and means for producing continuous vibratory movement of said head during the operation of the machine for the purposes of the feed.

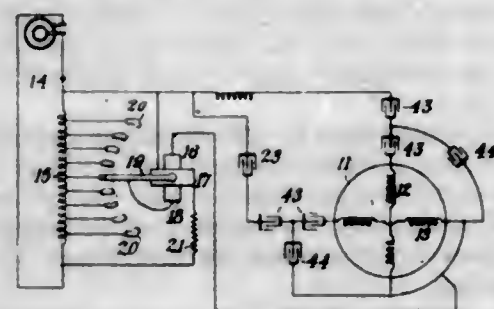
3. In a sewing machine, in combination, the fixed frame of the machine, an operating shaft, the head journaled concentrically with the said shaft, means to vibrate the said head around the said shaft and thereby occasion the feed-movement thereof, the presser-bar and presser-foot carried by the said head, and automatic presser-foot lifting mechanism operated from the said shaft.

4. In a sewing machine, in combination, a counter-balanced head mounted to swing or vibrate, feeding devices carried by the said head, and means to communicate continuous vibratory movement to the said head during the operation of the machine for the purposes of the feed.

5. In a sewing machine, in combination, a rotating operating shaft, a movable head, feeding devices carried by the said head, and means to continuously swing or vibrate said head concentrically around said shaft during the operation of the machine for the purposes of the feed.

[Claims 6 to 21 not printed in the Gazette.]

1,077,626. ALTERNATING-CURRENT APPARATUS. RALPH D. MERRISON, New York, N. Y. Filed Apr. 27, 1910. Serial No. 557,980. Renewed May 24, 1913. Serial No. 769,767. (Cl. 172—233.)



1. The combination of electrical apparatus having polyphase circuits, adjustable phase-modifying means connected with said circuits to enable the apparatus to operate on a single phase circuit, and automatic means for adjusting said phase-modifying means to maintain a given phase-relation in the polyphase circuits of the apparatus.

2. The combination of a single-phase circuit; electrical apparatus connected therewith and having polyphase circuits; adjustable reactance and capacity connected with the polyphase circuits to give a desired phase-relation

therein; and automatic adjusting means for the reactance and capacity, to restore the desired phase-relation when the same is departed from.

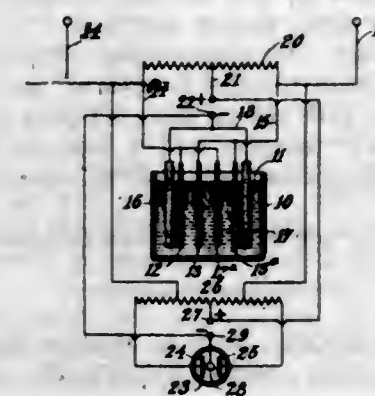
3. The combination of a single-phase circuit, electrical apparatus connected therewith and having polyphase circuits, external reactance and capacity connected with the polyphase circuits for the production of a desired phase-relation therein, and automatic means for varying the external reactance and capacity as the current in the said apparatus varies, whereby to maintain the desired phase-relation.

4. The combination of an alternating current motor having polyphase circuits, phase-modifying means connected with the motor for the production of a desired polyphase relation in said circuits when the motor is supplied from a single-phase source, and automatic means for controlling the phase-modifying means to maintain the desired phase-relation in said polyphase circuits.

5. The combination of an alternating current motor having polyphase circuits, external reactance and capacity connected with said circuits for the production of a given polyphase relation therein, and automatic means for varying the external reactance and capacity to maintain the given phase relation in said polyphase circuits.

[Claims 6 to 13 not printed in the Gazette.]

1,077,627. ELECTROLYTIC CONDENSER. RALPH D. MERRISON and JOHN S. RIDDLE, New York, N. Y.; said Riddle assignor to said Mereson. Filed Dec. 14, 1910. Serial No. 597,280. Renewed May 24, 1913. Serial No. 769,768. (Cl. 175—315.)



1. In an electrolytic condenser, the combination with a series of condenser electrodes, of collecting electrodes arranged at the ends of the series of condenser electrodes and electrically connected together.

2. In an electrolytic condenser, the combination with a series of filmed electrodes arranged side by side, of collecting electrodes arranged to cooperate with two or more electrodes of the said series and electrically connected together.

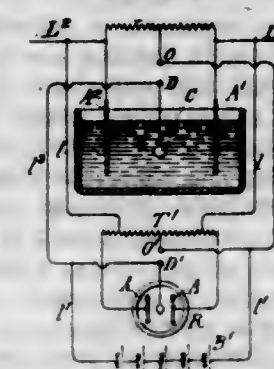
3. In an electrolytic condenser, the combination with a series of inductively related electrodes adapted to be immersed in an electrolyte, of means for bridging a portion of the electrolytic between two or more electrodes of the series.

4. In an electrolytic condenser, the combination with a series of inductively related filmed electrodes adapted to be immersed in an electrolyte, of collecting electrodes serving to bridge a portion of the electrolyte between two or more electrodes of the series, and exciting means having one terminal connected with the inductively related electrodes and the other connected with the collecting electrodes.

5. In an electrolytic condenser, the combination of a series of inductively related filmed electrodes adapted to be immersed in an electrolyte, electrically connected charge-collecting electrodes adapted to be immersed in the electrolyte adjacent to one or more of the filmed electrodes, and means electrically connected with the filmed electrodes and with the collecting electrodes for opposing the flow of current from the electrolyte to the filmed electrodes.

[Claims 6 to 9 not printed in the Gazette.]

1,077,628. ELECTROLYTIC CONDENSER. RALPH D. MERRISON, New York, N. Y. Filed Oct. 27, 1909. Serial No. 524,874. Renewed May 29, 1913. Serial No. 770,792. (Cl. 175—315.)



1. The combination with an electrolytic condenser, of a transformer connected to the condenser electrodes, means electrically connected with the transformer and the electrolyte to provide a unidirectional electromotive force opposing that between the electrolyte and the transformer, and an independent source of electromotive force in parallel with said means.

2. The combination with an electrolytic condenser, and means whereby uni-directional electromotive force will be generated between the electrolyte and the condenser electrodes, of a battery electrically connected with said means and the electrolyte to oppose said uni-directional electromotive force.

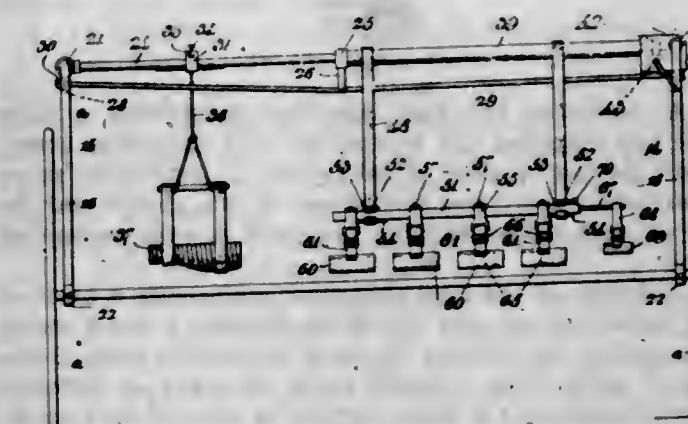
3. The combination with an electrolytic condenser, of a transformer connected to the condenser electrodes, a rectifier connected between the electrolyte and the transformer, and an independent source of current in parallel with the rectifier.

4. The combination with an electrolytic condenser, of a transformer connected to the condenser electrodes, an electrolytic rectifier electrically connected with the transformer and the electrolyte, and a battery in parallel with the rectifier.

5. The combination with an electrolytic condenser, of a transformer connected to the condenser electrodes, an electrolytic rectifier connected with the transformer and the electrolyte to provide a unidirectional electromotive force opposing that between the electrolyte and the transformer, and an independent source of electromotive force in parallel with the rectifier.

[Claims 6 and 7 not printed in the Gazette.]

1,077,629. SURGICAL APPLIANCE. NORMAN E. MICHELL, Marshalltown, Iowa. Filed Jan. 9, 1913. Serial No. 740,904. (Cl. 128—52.)



1. In a surgical appliance, a pair of arched frame members and a longitudinal member connecting the same, in combination with means on said longitudinal member for supporting a patient's body, a block slidably mounted on said longitudinal member and provided with means to prevent rotation of the same thereon, a transverse rod adjustably and reversibly secured to said block, a pulley swiveled to one end of said rod and an extension device supported by said pulley, substantially as described.

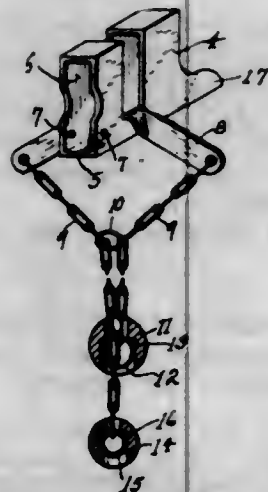
2. In a surgical appliance, a frame comprising end members and a longitudinal member, a drum rotatably mounted on said longitudinal member, a pair of flexible members connected at one end to said drum and adapted to be wound thereon, a floating bar secured to the free ends of said flexible members, a plurality of yokes adjustably mounted on said floating bar, a like number of body supporting slings and adjustable straps connecting said slings and said yokes, substantially as described.

3. In a surgical appliance, a floating bar and means for adjustably supporting the same, in combination with a plurality of transversely arranged yokes adjustably mounted on said bar, each end of each of said yokes being provided with a pair of apertures, a plurality of slings corresponding in number to said yokes, adjustable straps threaded through said apertures and a detachable connection between the free ends of said straps and the ends of said slings, substantially as described.

4. In a surgical appliance, a rotary drum, a pair of flexible members secured at one end to said drum and adapted to wind thereon, a floating bar provided adjacent each end with a pair of vertical longitudinally disposed slots, reinforcement members secured to the under face of said bar between the slots of each pair, said flexible members extending through said slots, and means on said floating bar for supporting a body, substantially as described.

5. In a surgical appliance, a bar, a yoke arranged transversely of said bar and adjustably secured thereto, straps depending from the ends of said yoke, the free ends of said strap each being formed with a loop, a sling provided at each end with a hem, the central portion of each hem being cut away to receive said loops, and rods extending through said loops and ends to detachably connect said straps with said sling, substantially as described.

1,077,630. KEY-SOCKET ATTACHMENT. EDWIN N. MINCER, Chicago, Ill. Filed Feb. 25, 1913. Serial No. 750,581. (Cl. 240-123.)



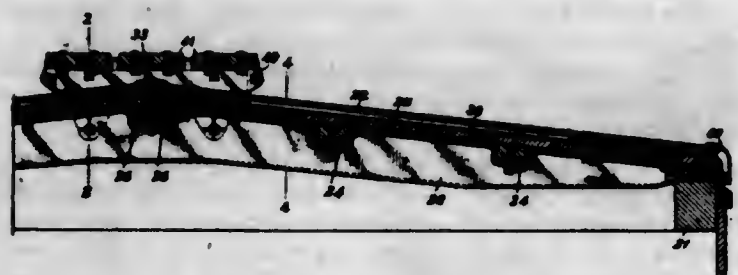
1. A device of the kind described comprising a lamp socket key engaging clip having laterally extending arms; a chain carried by each of said arms; a perforated member carried on the lower end of one of said chains and the other of said chains slidably mounted in said perforated member.

2. A device of the kind described comprising a piece of sheet metal cut out and struck up forming a lamp socket key engaging clip having laterally extending arms thereon, said arms being adapted to be adjusted at different angles to said clip; a chain carried by each of said arms; and projections on said clip tending to prevent either chain from passing to the opposite side of said clip upon operation thereof, substantially as described.

1,077,631. CAR-ROOF CONSTRUCTION. JOHN L. MOHUN, Brooklyn, N. Y. Filed Dec. 21, 1911. Serial No. 667,069. (Cl. 108-5.)

1. In a car roof, the combination with inside roofing boards, of metal roof sheets on the outer surface of said

boards, metal drain troughs also located upon the outer surface of the roofing boards at the edges of the roof sheets, caps covering said troughs, and hoods for fastening the caps and covering the open ends of the troughs at the eaves of the car.



2. In a car roof, the combination with inside roofing boards, of a ridge drain trough located on the upper surface of the roofing boards at the ridge, and metal roof sheets upon the outer surface of said roofing boards, and having their upper edges adapted to drain into the ridge trough.

3. In a car roof, the combination with inside roofing boards, of metal roof sheets on said roofing boards, a metal drain trough located on the upper surface of the roofing boards at the ridge, the upper edges of the roof sheets being adapted to drain into said roof trough, and a metal ridge cap covering said trough.

4. In a car roof, the combination with inside roofing boards, a ridge drain trough located on said boards, and outside metal roof sheets having their upper edges adapted to drain into said trough, of a ridge cap covering said trough, and a hood at the end of the ridge for covering the ends of said drain trough and cap.

5. In a car roof, the combination with outside metal roof sheets, of drain troughs located at the side edges of said roof sheets, said sheets being adapted at their edges to drain into said troughs, and a running board saddle having a trough portion adapted to connect with said drain trough.

[Claims 6 to 10 not printed in the Gazette.]

1,077,632. CAR-ROOF. JOHN L. MOHUN, Brooklyn, N. Y. Filed Dec. 21, 1911. Serial No. 667,070. (Cl. 108-5.)



1. In a car roof, the combination with an inside metal roof, of outside roofing boards, a metal bar supporting the lower ends of said boards and having an integral portion extending over the top edge of said boards holding said boards in place, and means supporting said bar above the metal roof sheets.

2. In a car roof, the combination with an inside metal roof, of outside roofing boards, a metal U bar inclosing the lower ends of said boards, and means supporting said U bar above the metal roof.

3. In a car roof, the combination with an inside metal roof, of outside roofing boards, a metal U bar inclosing the lower ends of said boards, and a metal bracket supporting said bar above the metal roof.

4. In a car roof, the combination with inside metal roof sheets, of outside roofing boards, running board saddles extending above said roofing boards and a bar supported on the saddles above the metal roof and holding the upper ends of the roofing boards.

5. In a car roof, the combination with inside metal roof sheets and running board saddles, of outside roofing boards, a bar supported on the saddles for holding the

upper ends of the roofing boards, and a longitudinal bar covering the ends of said boards and holding the same in place.

[Claims 6 to 13 not printed in the Gazette.]

1,077,633. CAR-ROOF CONSTRUCTION. JOHN L. MOHUN, Brooklyn, N. Y. Filed Dec. 21, 1911. Serial No. 667,071. (Cl. 108-5.)



1. In a car roof, the combination of a wooden carline having a metal drain trough mounted thereon the wooden carline covering the sides of said trough, and metal roof sheets having their side edges adapted to drain into said trough.

2. In a car roof, the combination of wooden carlines having metal drain troughs or carlines mounted thereon, roofing boards supported by said carlines substantially flush with the top of the trough, and outside metal roof sheets having their side edges adapted to drain into said troughs.

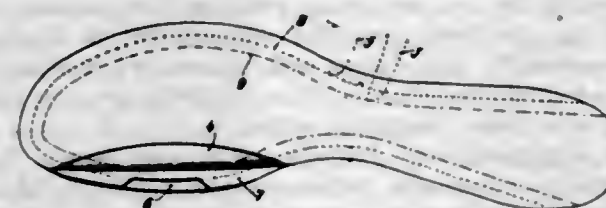
3. In a car roof, the combination of wooden carlines having metal drain troughs or carlines embedded within the wooden carlines substantially flush with the top thereof, roofing boards supported by the wooden carlines also flush with the top thereof, and outside metal roofing sheets laid on said roofing boards and carlines, and having their side edges adapted to drain into said troughs.

4. In a car roof, the combination with carlines having drain troughs, of metal roof sheets having their side edges adapted to drain into said troughs, and a running board saddle formed in separate parts, one portion being fastened to the carlines and having a web extending up between the roof sheets longitudinally of the carline, and the other portion mounted on the web portion above the roof sheets.

5. In a car roof, the combination of wooden carlines having U shaped metal carlines embedded therein, roofing boards between said carlines, metal roofing sheets having their edges adapted to drain into said carlines, and a running board saddle formed in two parts, one being bolted longitudinally to the carlines and extending up between the roof sheets, and the other mounted on the first part above the roof sheets for supporting the running boards.

[Claims 6 to 11 not printed in the Gazette.]

1,077,634. INSOLE-MAKING ART. ALBERT C. OPPENHEIMER, Norwood, Ohio. Filed Jan. 18, 1913. Serial No. 742,831. (Cl. 12-146.)

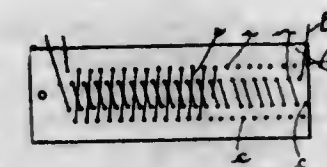


1. A method of the nature disclosed consisting in obtaining an insole-blank composed of cemented layers of material, forming upper and lower marginal flaps by slitting said blank edgewise leaving an intervening tongue of material, turning up one flap and stitching through the remaining material alongside its juncture with said upturned flap, cementing said upturned flap down on said tongue to cover one side of said stitching, and turning the other marginal flap over the exposed side of said stitching to form a lip to which a shoe upper may be sewed.

2. A method of the nature disclosed consisting in obtaining an insole-blank composed of cemented layers of material, forming a lower marginal flap by slitting said blank edgewise and also forming an upper marginal flap having its juncture line within that of the lower flap by similarly slitting said blank edgewise more deeply, turning up the upper flap and stitching between said juncture lines, turning down the upper flap, and turning the lower flap over the stitch line to form a lip to which a shoe upper may be sewed.

3. A method of the nature disclosed consisting in cementing together a thin leather layer and a thick leather layer to form a two-piece unitary insole-blank, forming a continuous marginal flap by slitting said two-piece blank edgewise into the thick layer, stitching alongside the juncture line between the flap and the body of the blank, and turning said flap over said stitching to form a lip to which a shoe upper may be sewed.

1,077,635. ELECTRICAL RESISTANCE UNIT. EDWARD J. OVINGTON, Los Angeles, Cal. Filed Mar. 3, 1911. Serial No. 612,050. Renewed May 20, 1913. Serial No. 768,854. (Cl. 219-63.)



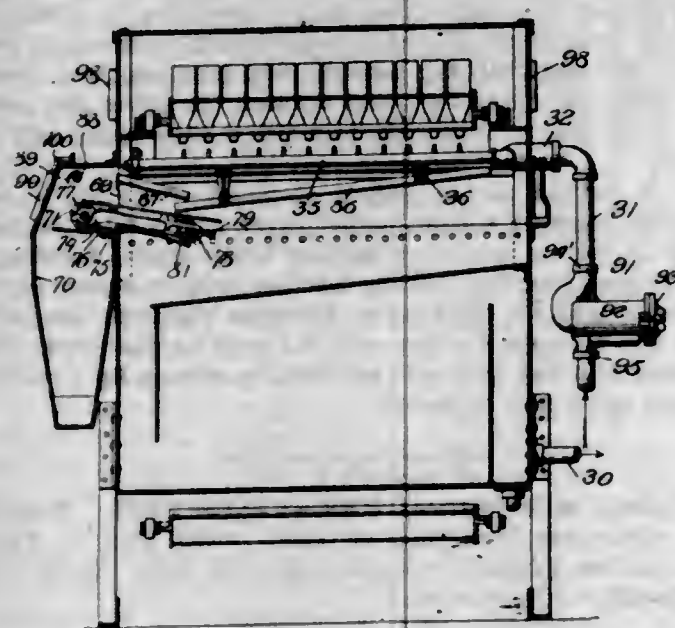
1. An electrical resistance unit including a flat insulating sheet having rows of perforations therein, the said perforations of the rows having a staggered relation to each other and being spaced from the edges of the insulating sheet to provide marginal portions of the sheet adapted to be grasped for supporting the same, and a coiled resistance element associated with the perforated insulating sheet and supported thereby, the convolutions of the resistance element passing through the perforations of the two rows and the coiled resistance element being applied to the insulating sheet by screwing the same into the perforations.

2. An electrical resistance unit including relatively movable insulating members having corresponding rows of perforations therein, and a coiled resistance element associated with the insulating members, the convolutions of the resistance element being applied to the insulating members by screwing the same into the perforations thereof, the relative movement of the insulating members serving to bend the convolutions of the resistance element so as to prevent axial rotation thereof.

3. An electrical resistance unit including a flat insulating sheet having a plurality of pairs of rows of perforations therein, the distance between the rows of perforations of the various pairs being different, and a coiled resistance element for each pair of rows of perforations, the diameter of each resistance element corresponding to the distance between the rows of perforations of the corresponding pair and the said resistance elements being associated with the insulating sheet and supported thereby with the convolutions of the resistance elements passing through the perforations of the corresponding rows, the said resistance elements being applied to the insulating sheet by screwing the same into the perforations and the rows of perforations being so arranged that the smaller coiled resistance element is located within the larger coiled resistance element.

4. The process of producing electrical resistance units which consists in screwing a coiled resistance member through rows of openings formed in an insulating element, severing the insulating element between the rows of perforations, and then producing relative movement of the severed portions of the insulating member to bend the convolutions of the resistance coil.

1,077,636. BOTTLE-WASHING MACHINE. JOHN T. H. PAUL, Chicago, Ill., assignor to E. Goldman & Co., Inc., Chicago, Ill., a Corporation of Illinois. Filed May 18, 1911. Serial No. 628,037. (Cl. 141-7.)



1. In a bottle-washing machine, the combination of a tank, a track, a bottle-conveyer supported on the track to travel over the tank, a set of jet-pipes comprising a manifold divided into washing and rinsing water-chambers and having jet-pipes projecting from it, means for supplying washing-water to one manifold-chamber, means for supplying rinsing water to the other manifold-chamber, a screen-conveyer working in the tank below said pipes, and a spraying-pipe supported to discharge against the screen-conveyer and having a supply-pipe connecting it with said washing-water supplying-means.

2. In a bottle-washing machine, the combination of a tank, a track, a bottle-conveyer supported on the track to travel over the tank, a set of jet-pipes supported to extend below the track, means for supplying washing-water to said pipes, a screen-conveyer working in the tank below said pipes, and a pair of tables inclining downwardly toward each other in the tank below said pipes and lapping one another to discharge at the receiving end of the screen-conveyer.

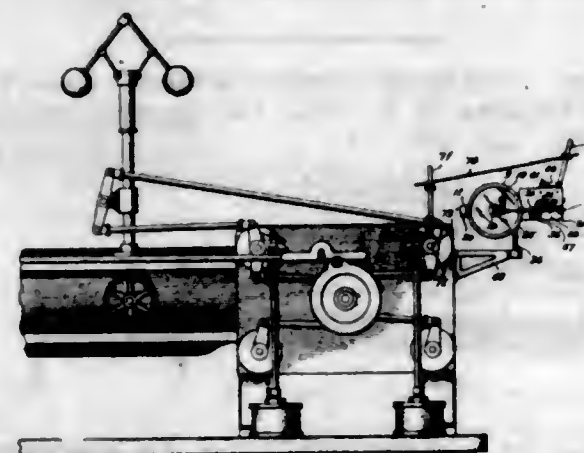
3. In a bottle-washing machine, the combination of a tank containing a side-opening, a track, a bottle-conveyer supported on the track to travel over the tank, a set of jet-pipes supported to extend below the track, means for supplying washing-water to said pipes, a discharge-chute on the tank at said opening, and a screen-conveyer working through said opening below the pipes to catch labels and dirt washed from the bottles and discharge the same into said chute.

4. In a bottle-washing machine, the combination of a tank containing a side-opening, a track, a bottle-conveyer supported on the track to travel over the tank, a set of jet-pipes supported to extend below the track, means for supplying washing-water to said pipes, a discharge-chute on the tank at said opening, a screen-conveyer working through said opening to catch labels, and dirt washed from the bottles and discharge the same into said chute, and a shield-equipped spray-pipe supported in the chute to discharge against the screen-conveyer.

1,077,637. HORSE-POWER RECORDER. CHARLES N. PETESCH, Chicago, Ill. Filed June 9, 1913. Serial No. 772,669. (Cl. 234-18.)

1. In a horse-power recorder, the combination of a clock having a rotatable horse-power indicating dial-face, a bracket-device on which the clock is reciprocally supported, a rod reciprocally supported on the bracket-device to work at one end across said face, a stylus-device on said end of the rod, a scale on the bracket-device, an index-finger connected with the reciprocating rod to cooperate with said scale, an operating-lever, and

lever and link-connections of the operating-lever with said finger and clock for moving them together, with a relatively-greater movement of said finger along the scale.



2. In a horse-power recorder, the combination of a clock provided with a rotatable dial-face having non-radial lines thereon, with horse-power denoting characters spaced along one or more of said lines, a bracket-device on which the clock is reciprocally-supported, a rod reciprocally supported on the bracket-device to work at one end across said face, a stylus-device on said end of the rod having the stylus thereon movable, by the movement of said rod, in a path parallel with the non-radial line brought coincident therewith in the rotation of the dial-face, a scale on the bracket-device, an index-finger connected with the reciprocating rod to cooperate with said scale, an operating-lever, and lever and link connections of the operating-lever with said finger and clock for moving them together, with a relatively-greater movement of said finger along the scale.

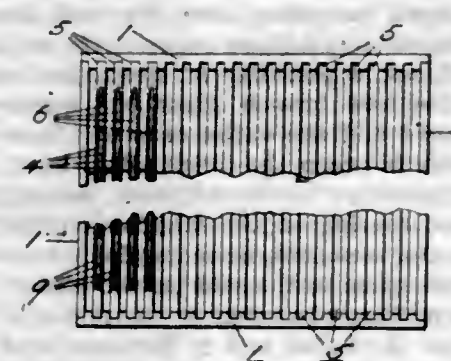
3. In a horse-power recorder, the combination of a clock having a rotatable horse-power indicating dial-face, a slotted bracket-device having a bar on which the clock is supported to be reciprocated, a rod reciprocally supported on the bracket-device to work at one end across said face, a stylus-device on said end of the rod, a scale extending along a slot in the bracket-device, an index-finger reciprocally confined in said slot and connected with the reciprocating rod to move therewith, an operating-lever, and lever and link connections of the operating-lever with said finger and clock for moving them together, with a relatively-greater movement of said finger along the scale.

4. In a horse-power recorder, the combination of a clock having a rotatable horse-power indicating dial-face, a bracket-plate having a slotted bar extending from it across the clock-base, a strip extending along said bar, bolted to said base through the bar-slots and having a tongue extending guidedly along said plate, a rod reciprocally supported on said plate to work at one end across said face, a stylus-device on said end of the rod, a scale on the bracket-device, an index-finger connected with the reciprocating rod to cooperate with said scale, an operating lever, and lever and link connections of the operating lever with said finger and tongue for moving the finger and clock together, with a relatively-greater movement of said finger along the scale.

5. In a horse-power recorder, the combination of a clock having a rotatable horse-power indicating dial-face, a slotted bracket-device, by which the recorder is supported in operative position, and having a plate with a slotted bar extending from it across the clock-base, a pair of strips embracing said bar and bolted through its slots to said base, the outermost strip having an off-set tongue guided along a slot in said plate, posts extending from the face of said plate, a rod reciprocally supported by said posts to work at one end across the dial-face, a stylus-device on said end of the rod, a scale extending along a second slot in said plate, an arm on said rod, an index-finger on said arm reciprocally confined in said second slot, an operating-lever fulcrumed at one end on said plate, and a lever fulcrumed between its ends on

said plate and linked at its opposite ends respectively to said operating-lever and the index-finger and between its ends to said tongue, for the purpose set forth.

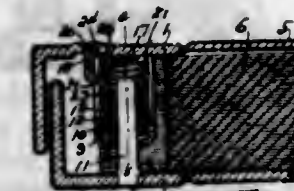
1,077,638. FILING-CABINET. AUGUST C. PETSCHE. Yonkers, N. Y. Filed Apr. 11, 1912. Serial No. 690,022. (Cl. 211-16.)



1. A filing cabinet, comprising a casing, recessed partitions set in the casing, approximately equi-distant from each other and dividing the casing into approximately equal filing compartments, and means on the partitions for holding phonographic disks and the like objects in the recesses of the partitions, substantially as herein shown and described whereby the space between the partitions, and also the space occupied by the partitions, are utilized for filing phonographic records and the like objects.

2. A filing cabinet comprising a casing, partitions set in the casing; means for holding the partitions approximately equi-distant from each other; recesses in the partitions and means for holding phonographic disks and the like objects in the recesses of the partitions, substantially as herein shown and described whereby the space between the partitions, and also the space occupied by the partitions, are utilized for filing phonographic records and the like objects.

1,077,639. LOOSE-LEAF BINDER. WILLIAM P. PITT, Independence, Mo., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Nov. 8, 1911. Serial No. 659,145. (Cl. 129-8.)



1. In a loose leaf binder, two leaf clamping members, two locking members secured respectively to the clamping members, a wedge movable to and from a position in which it will lock the locking members against relative movement in one direction, and means including a lever adapted to be grasped and operated by hand for moving the wedge from the locking position.

2. In a loose leaf binder, two leaf clamping members, two locking members secured respectively to the clamping members, a rolling wedge movable to and from a position in which it will lock the locking members against relative movement in one direction, and means including a lever adapted to be grasped and operated by hand for moving the wedge from the locking position.

3. In a loose leaf binder, two leaf clamping members, two locking members secured respectively to the clamping members, one of the locking members having an inclined portion, a wedge movable into locked engagement with said inclined portion and the opposing locking member, and means including a lever adapted to be grasped and operated by hand for moving the wedge from said locked engagement.

4. In a loose leaf binder, two leaf clamping members, two locking members secured respectively to the clamping members, one of the locking members having an inclined portion, a rolling wedge movable into locked engagement with said inclined portion and the opposing locking member, and means including a lever adapted to be grasped and operated by hand for moving the wedge from said locked engagement.

5. In a loose leaf binder, two leaf clamping members, two locking members secured respectively to the clamping members, a wedge, yielding means for moving the wedge to a position in which it will lock the locking members against relative movement in one direction, and a lever adapted to be grasped and operated by hand for operating the yielding means to withdraw the wedge from the locking position.

[Claims 6 to 21 not printed in the Gazette.]

1,077,640. FRUIT-PICKER. MARION I. RANDALL, Oakland, Cal. Filed Oct. 8, 1912. Serial No. 724,615. (Cl. 56-99.)



1. A fruit picker or gatherer comprising in combination, a manually operable holder, revoluble gatherers mounted at their inner ends on said holder in spaced relation with respect to each other and having free outer ends adapted to straddle a branch and engage the fruit with the axes of the rollers at substantially right angles to the stems, and means for revolving said gatherers against the fruit to sever the stems from the branch, substantially as described.

2. A fruit gatherer or picker comprising in combination, a two part manually operable holder, a spring normally acting to maintain the parts in spaced relation, a revoluble roller in each part adapted to be brought into engagement with the fruit, and means for revolving said rollers, substantially as described.

3. A fruit gatherer or picker comprising in combination, a two part manually operable holder, a spring normally acting to maintain the parts in spaced relation, a revoluble roller in each part, means revolubly connecting said rollers with each other irrespective of the adjustment of said parts, and means for revolving said rollers, substantially as described.

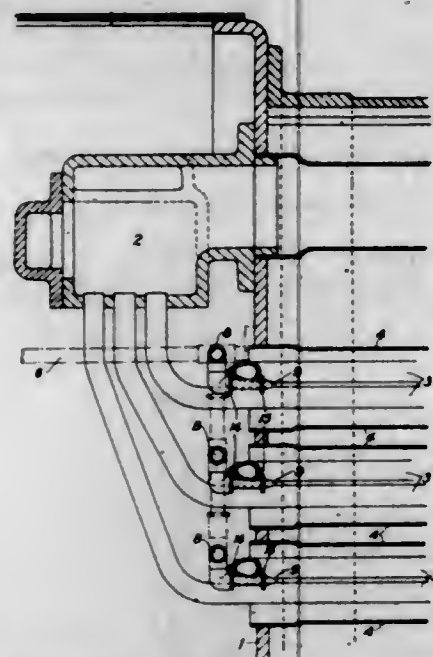
4. A fruit gatherer or picker comprising in combination, a two part manually operable holder, a pivot connecting said parts, a spring normally holding said parts in an open position, shafts mounted in said parts, gears, connecting said shafts, rollers of soft material mounted on said shafts and adapted for engagement with the fruit to be picked, and means for revolving said shafts, substantially as described.

5. A fruit gatherer comprising in combination, a manually operable holder, shafts having inner ends mounted in said holder in spaced relation with respect to each other, having free outer ends unconnected with each

other, rollers of soft material carried by said shafts, and adapted to engage the fruit, and means for revolving the shafts, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,077,641. STEAM SUPERHEATER FOR LOCOMOTIVE AND OTHER SMOKE-TUBE BOILERS. JOHN GEORGE ROBINSON, Manchester, England. Filed July 28, 1912. Serial No. 711,681. (Cl. 122-479.)



1. In a locomotive or like boiler, the combination of a multiplicity of enlarged smoke or fire tubes, superheater elements or steam pipes extending into the said fire tubes, a plurality of branch steam pipes opposite the outlet ends of the said fire tubes, a plurality of steam jet nozzles connected with the said branch pipes, one nozzle for each of said fire tubes and the outlet ends of the said nozzles projecting into the outlet ends of the said fire tubes, a steam pipe connection from the boiler steam space to the said branch steam pipes and means for controlling the admission of steam to the said pipe connection from the boiler and to the branch steam pipes and nozzles, substantially as and for the purposes set forth.

2. In a locomotive or like boiler, the combination of a multiplicity of enlarged smoke or fire tubes, superheater elements or pipes extending into the said fire tubes, a plurality of branch steam pipes opposite the outlet ends of the said fire tubes, a plurality of steam jet nozzles connected with the said branch pipes one nozzle for each enlarged fire tube and the outlet ends of the said nozzles located centrally between the longitudinal portions of the superheater elements, a steam pipe connection from the boiler steam space to the said branch steam pipes, and means for controlling admission of steam to the said pipe connection from the boiler and to the branch steam pipes and nozzles connected thereto, substantially as and for the purposes set forth.

3. In a locomotive or like boiler, the combination of a multiplicity of enlarged smoke or fire tubes, superheater elements or pipes extending into the said fire tubes, a plurality of branch steam pipes opposite the outlet ends of the said fire tubes, a plurality of steam jet nozzles connected with the said branch pipes, one nozzle for each enlarged fire tube and the outlet ends of the said nozzles located centrally between the longitudinal portions of the superheater elements, and a steam pipe connection from the boiler steam supply pipe to the said branch steam pipes, substantially as and for the purposes set forth.

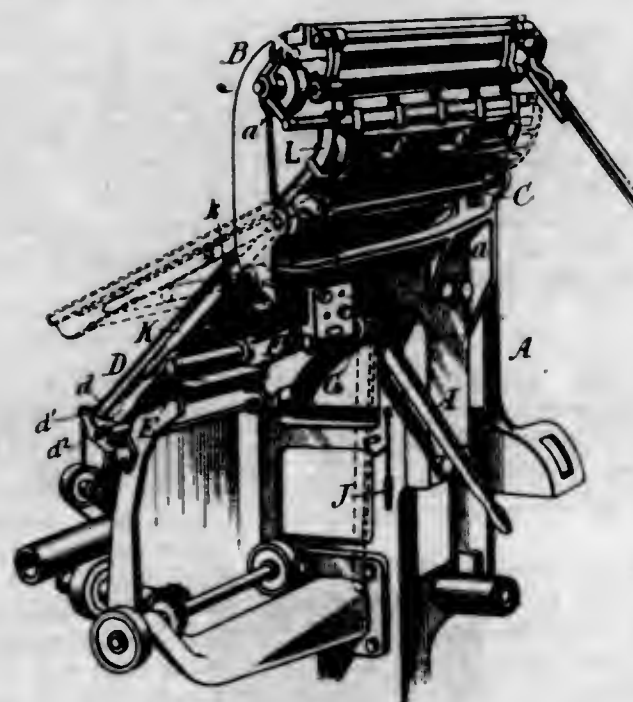
4. In a locomotive or like boiler, the combination of a multiplicity of enlarged smoke or fire tubes, superheater elements or steam pipes extending into the said fire tubes, a plurality of horizontally arranged steam pipes, a vertical steam pipe connecting the said horizontal pipes, downwardly projecting pipe connections to the said horizontal pipes, steam jet nozzles connected to the said down-

wardly projecting pipes and in axial alignment with the respective fire tubes and having their outlet ends located centrally between the longitudinal portions of the superheater elements, and a steam pipe connection from the boiler steam supply pipe to the said horizontal and vertical steam pipes and nozzles, substantially as and for the purposes set forth.

5. In a locomotive or like boiler the combination of a multiplicity of enlarged smoke or fire tubes, superheater elements or pipes extending into the said fire tubes, a plurality of branch steam pipes opposite the outlet ends of the said fire tubes, a plurality of steam jet nozzles connected with the said branch pipes one nozzle for each enlarged fire tube and the outlet ends of the said nozzles located centrally between the longitudinal portions of the superheater elements, a collar adjacent the outlet end of each nozzle and bearing on the said longitudinal portions of the superheater elements, a steam pipe connection from the boiler steam space to the said branch steam pipes, and means for controlling admission of steam to the said pipe connection from the boiler and to the branch steam pipes and nozzles connected thereto, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

1,077,642. LINE-CASTING MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 16, 1911. Serial No. 602,865. (Cl. 199-7.)



1. In a line casting machine of the class described, the main-frame containing the rod C and the inclined magazine sustained at its upper end on said rod, and relatively movable means connected to the magazine whereby the magazine may be disconnected from the rod at will, in combination with means for lifting the forward end of the magazine and sustaining the same near the middle of its length, said means adapted to permit the magazine to be drawn forward and balanced thereover and removed at the front of the machine.

2. In combination, the main frame having a rear magazine support, the inclined magazine removable therefrom in a forward direction, the rod E underlying the middle portion of the magazine, lever connections for lifting the rod and upholding the same, and locking devices connected to the magazine and engaging the support, the said devices being movable relatively to the magazine to disengage them from the support and permit the removal of the magazine.

3. In a machine of the class described the combination of the main frame, an inclined magazine with a rigid base-frame, and a lifting and sustaining means directly underlying the middle portion of the magazine, said means adapted to permit the magazine to be drawn forward thereon and

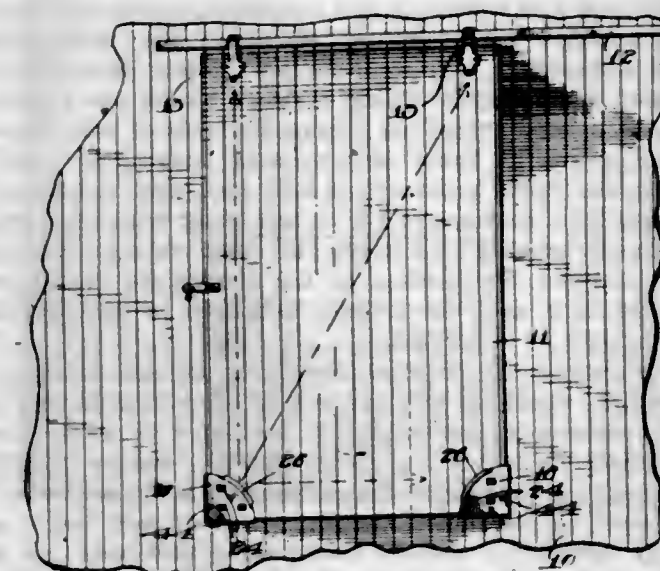
balanced thereover for removal at the front of the machine, together with relatively movable means connected to the base frame whereby the magazine may be disengaged from the main frame at will.

4. In a machine of the class described, the main frame, the inclined magazine mounted thereon and removable therefrom in a forward direction, locking means carried by the magazine and engaging the main frame to support it in position thereon, and means for lifting and sustaining the magazine without disengaging the locking means from the main frame, the said locking means being movable relatively to the magazine to disengage them from the main frame and permit the removal of the magazine.

5. In a machine of the class described, the main frame having a support for the rear end of the magazine, the inclined magazine removable therefrom in a forward direction, and locking devices carried by the magazine and engaging the rear support, the said devices being movable relatively to the magazine to disengage them from the support and permit the removal of the magazine.

[Claim 6 not printed in the Gazette.]

1,077,643. COMBINATION-PLATE. JOHN L. SATKA, Winona, Minn. Filed Mar. 22, 1913. Serial No. 758,201. (Cl. 20-22.)



1. A device of the character described comprising a body portion, flanges extending from said body portion, one of said flanges being provided with a plurality of openings, a guiding plate secured to said body portion, a flange extending from said guiding plate beneath the flange of said body portion, securing lugs extending from the flange of said guiding plate and extending through the openings formed in the flange of said body portion, and ribs extending from the flange of said guiding plate and forming a groove.

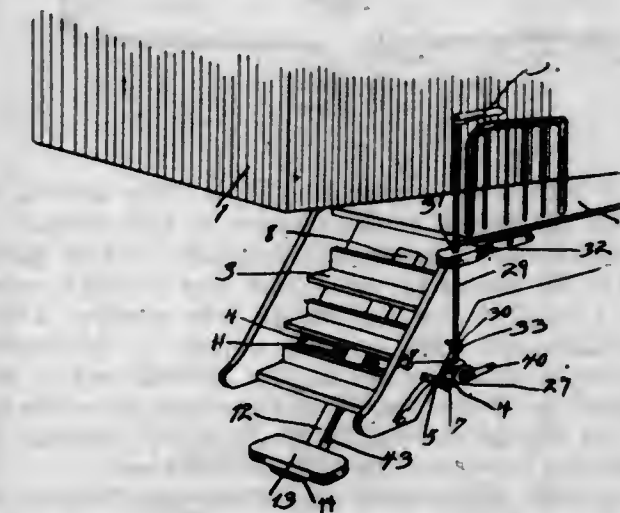
2. In combination with a door, a protecting plate fitting upon one of the lower corner portions of said door, a guiding plate removably connected with said protecting plate, and common means for securing the protecting plate to the door and connecting the guiding plate with the protecting plate.

3. In combination with a door, a protecting plate for one of the lower corners of said door, said protecting plate being provided with a plurality of openings, an auxiliary plate fitting against said guiding plate and provided with securing lugs extending through the openings of said protecting plate, and means carried by the door for holding said protecting plate in position and for securing said auxiliary plate to said protecting plate.

4. In a device of the character described, a protecting plate, an auxiliary plate fitting against said guiding plate, said auxiliary plate comprising a body portion, a curved

guiding flange extending from said body portion, a reinforcing rib extending from said body portion, and a securing bolt connecting said body portion with said protecting plate and passing through the reinforcing rib carried by said body portion.

1,077,644. SLIDING EXTENSIBLE STEP. LOUIS F. SAUNDERS, Knoxville, Tenn. Filed Mar. 13, 1913. Serial No. 754,072. (Cl. 105-87.)



1. A sliding extensible step comprising, in combination with the steps of a car, a channel member upon the rear of the steps of the car, an extensible step having an extension corresponding in shape to the channel member and received therein, a rock shaft mounted in bearings of the steps of the car, toggle-link connections between the rock shaft and the extension of the extensible step, devices on the channel member to clamp one of the toggle links, to prevent the toggle links from accidentally operating, and means for operating the rock shaft.

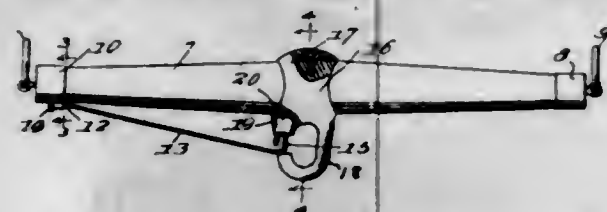
2. A sliding extensible step comprising in combination with the steps of a car, a channel member upon the rear of the steps of the car, an extensible step having an extension corresponding in shape to the channel member and received therein, a rock shaft mounted in bearings of the steps of the car, toggle-link connections between the rock shaft and the extension of the extensible step, a transverse bar to which said channel member is fixed, an arm on the extension of the extensible step to engage said transverse bar to limit the extensible step in its downward movement, and means for operating the rock shaft.

3. A sliding extensible step comprising, in combination with the steps of a car, a channel member upon the rear of the steps of the car, an extensible step having an extension corresponding in shape to the channel member and received therein, a rock shaft mounted in bearings of the steps of the car, toggle-link connections between the rock shaft and the extension of the extensible step, a transverse bar to which said channel member is fixed, an arm on the extension of the extensible step to engage said transverse bar to limit the extensible step in its downward movement, said extension of the extensible step having shoulders to contact with the channel member to limit the extensible step in its upward movement, and means for rocking the rock shaft.

4. A sliding extensible step comprising, in combination with the steps of a car, a channel member upon the rear of the steps of the car, an extensible step having an extension corresponding in shape to the channel member and received therein, a rock shaft mounted in bearings of the steps of the car, toggle-link connections between the rock shaft and the extension of the extensible step, a transverse bar to which said channel member is fixed, an arm on the extension of the extensible step to engage said transverse bar to limit the extensible step in its downward movement, said extension of the extensible step having shoulders to contact with the channel member to limit the extensible step in its upward movement, and means for rocking the rock shaft, and means on said channel

member for clamping one of the toggle links to prevent the toggle links and the extensible step from accidentally operating.

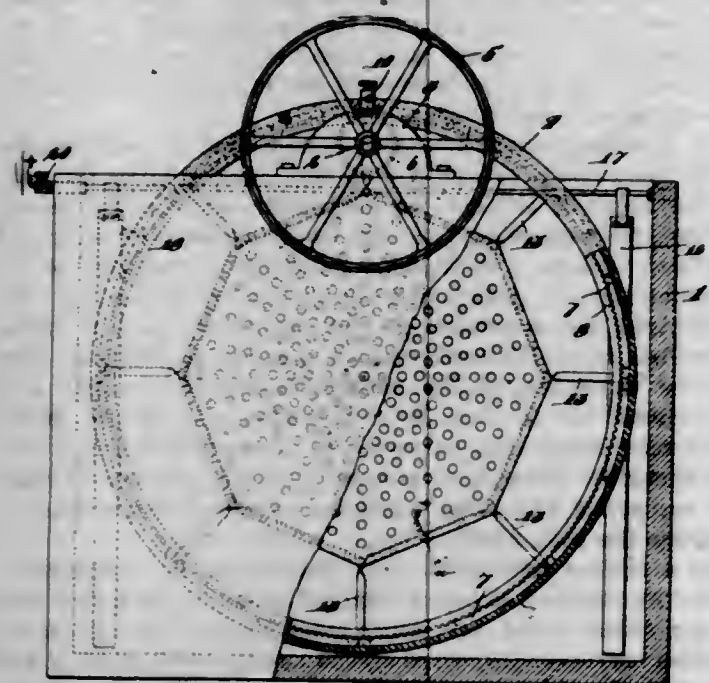
1,077,645. NECK-YOKE. EDWARD SCHAUTH, ALBERT SCHRUTH, and JOHN SCHRUTH, Pepin, Wis. Filed Mar. 20, 1913. Serial No. 755,738. (Cl. 21-77.)



1. In a neck yoke, a yoke member, a collar secured intermediate the length of the member, a hook formed on said collar, a boss integral with the collar and in spaced relation to the end of the hook, said boss having a recess therein, a collar on the end of the yoke member, a loop formed on the said collar, a spring having one end secured in the loop, a guard formed on the opposite end of said spring, said guard lying within the recess of the collar and adapted to engage the end of the hook for guarding the space between the end of the hook and the boss.

2. In a neck yoke, a yoke member, a collar secured intermediate the length of the said yoke member, a hook formed integral with said collar, a boss on the collar having an aperture, said boss being in spaced relation to the end of the hook, a collar near the end of the yoke member, said collar having a loop integral therewith, a spring having a lug at its end, said spring lying in the loop and having the lug secured between the edge of the loop and the edge of the collar, that portion of the spring within the loop being reduced in width and having shoulders engaging the inner edge of the collar to prevent displacement of the said spring, and a guard formed on the inner end of the spring lying in the space between the end of the hook and the boss.

1,077,646. ELECTROPLATING DEVICE. LOUIS SCHULTE, Chicago, Ill., assignor to Bennett-O'Connell Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 11, 1913. Serial No. 741,417. (Cl. 204-11.)



1. A device of the class described comprising a tank; a shaft journaled adjacent said tank with a free end projecting partially over the latter; rotary propelling means on the free end of said shaft; a ring loosely suspended in said tank on said propelling means and adapted to be rotated thereby; and a work holding receptacle carried in the opening of said ring, there being sufficient space between the free end of said shaft and walls of said tank

to permit the passage of said ring and work holding receptacle into and out of said tank, substantially as described.

2. A device of the class described comprising a tank; a shaft journaled adjacent said tank with a free end projecting partially over the latter; a pinion on the free end of said shaft; an internal gear loosely suspended in said tank on said pinion and meshing therewith; annular flanges on said internal gear at the ends of the teeth thereof and extending beyond the latter forming guides; and a work holding receptacle secured concentrically in said internal gear and adapted to be rotated therewith.

3. A device of the class described comprising a tank; a shaft journaled adjacent said tank with a free end projecting partially over the latter; a pinion on said free end; an internal gear loosely resting on and in mesh with said pinion and hanging in said tank; spokes in said internal gear; a cathode receptacle carried in said internal gear by the spokes thereof; an electrolyte in said tank engaging said cathode receptacle; an anode suspended in said tank engaging said electrolyte; and an electric circuit including said shaft, pinion, internal gear, cathode receptacle, electrolyte and anode, substantially as described.

4. In a device of the class described, the combination of a tank; an electric circuit; rotary propelling means; a cathode-forming holder included in said circuit, there being an electrical connection between said propelling means and said holder through which the current passes when said circuit is completed, said holder being removably arranged in said tank and rotatably and detachably suspended from said propelling means for propulsion by the latter, said holder comprising a non-conductive hollow foraminated body and a conductive frame through which the current passes from said propelling means, surfaces of said frame opening upon the inner side of said body; and anode-forming electrodes arranged in said tank and spaced and insulated from said holder the circuit being completed from said anode-forming electrodes to said cathode-forming holder through the medium of the electrolyte introduced into said tank and the articles arranged in said holder, substantially as described.

5. In a device of the class described, the combination of a tank; an electrical circuit; rotary propelling means; a holder removably and rotatably arranged in said tank, said holder comprising a non-conductive hollow foraminated body; a conductive frame for said body, surfaces of said frame opening upon the inner side of said body; an annular conductive member surrounding said body; an insulating covering for said annular member, said annular member loosely resting upon said propelling means for propulsion thereby, the current of said circuit passing from said propelling means through said annular member to said frame of said holder body; and electrodes arranged in said tank spaced and insulated from said holder, the circuit being completed from said electrodes to said holder frame through the medium of the electrolyte introduced into said tank and the articles arranged in said holder, substantially as described.

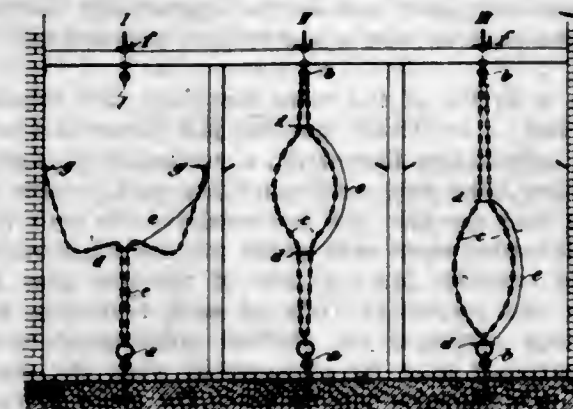
[Claim 6 not printed in the Gazette.]

1,077,647. CATTLE-FASTENER. PAUL SCHUPPLI, Grabnerhof, near Admont, Austria-Hungary. Filed June 2, 1913. Serial No. 771,335. (Cl. 119-119.)

1. A cattle fastener comprising, in combination, a pair of vertical chains arranged side by side and adapted to receive between them the neck of the animal; a pair of supporting hooks to which the opposite ends of said chains are removably connected, the upper hook being vertically adjustable; a pair of rings slidable loosely over said chains and arranged one above and the other below said neck, to hold the chains together and cause the same to encircle said neck; and a flexible element connecting said rings.

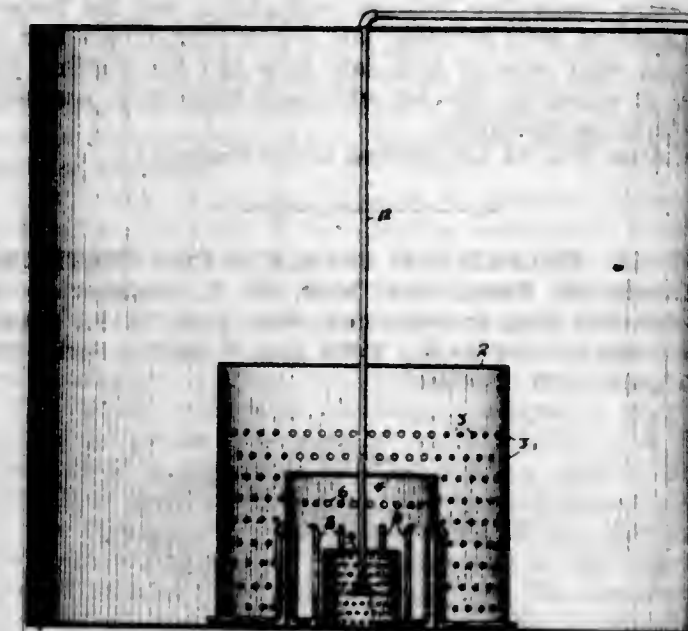
2. A cattle fastener comprising, in combination, a pair of vertical chains arranged side by side and adapted to receive between them the neck of the animal; a pair of supporting devices to which the opposite ends of said chains are connected; a pair of rings slidable loosely over

said chains and arranged one above and the other below said neck, to hold the chains together and cause the same



to encircle said neck and a flexible element connecting said rings.

1,077,648. WATER-HEATER. SADAMI SOEDA, Alameda, Cal. Filed Dec. 17, 1912. Serial No. 737,244. (Cl. 62-31.)



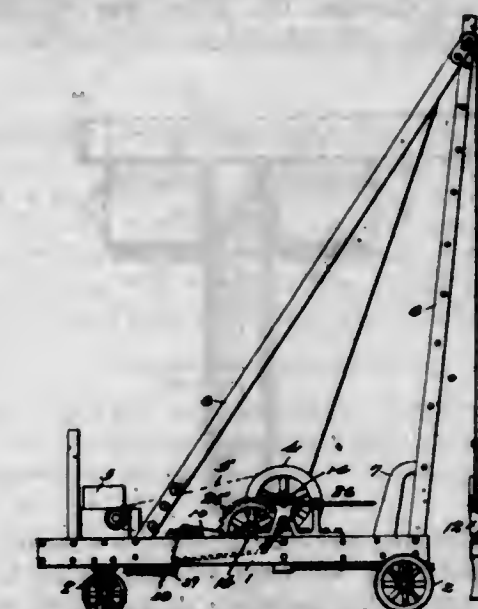
1. In an apparatus for heating by steam a body of water in a tank, a large vessel, secured at the bottom of the tank and having a perforated wall, an intermediate vessel contained within the first-named vessel at the bottom thereof, and having in its wall near the top a horizontal row of apertures, pipes leading through said latter wall and then downwardly, a small vessel within the intermediate vessel, and secured at the bottom thereof and having perforations in its vertical wall, and a steam pipe discharging into said small vessel.

2. In an apparatus for heating by steam a body of water in a tank, a large vessel, secured at the bottom of the tank and having a perforated wall, an intermediate vessel contained within the first-named vessel at the bottom thereof, and having in its wall near the top a horizontal row of apertures, pipes leading through said latter wall and then downwardly, a small vessel within the intermediate vessel, and secured at the bottom thereof and having perforations in its vertical wall, and a steam pipe discharging into said small vessel, and having a flaring extension having small apertures only.

3. In an apparatus for heating by steam a body of water in a tank, a vessel, secured at the bottom of the tank and having a perforated wall, an intermediate vessel contained within the first-named vessel at the bottom thereof, and having in its wall near the top a horizontal row of apertures, a small vessel within the intermediate vessel, and secured at the bottom thereof and having perforations in its vertical wall, a steam pipe discharging into said small vessel, and pipes passing through the wall of the intermediate vessel and leading from the bottom of the tank

first upwardly within said wall and then downwardly to a point near the bottom of the tank, and then outwardly through the wall of the large vessel.

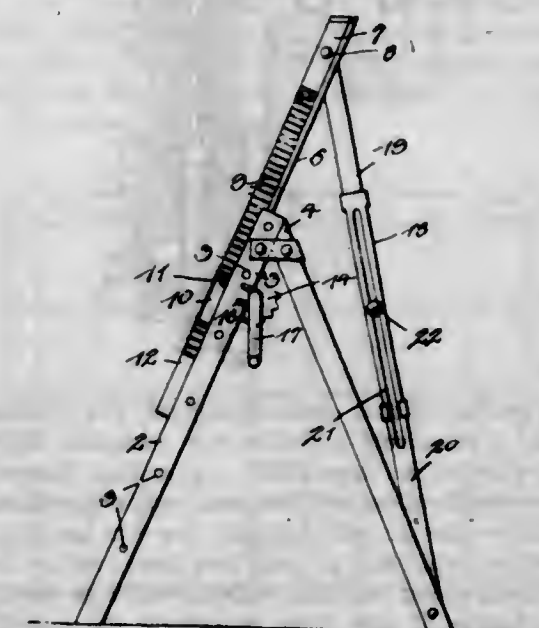
1,077,649. DRILLING-MACHINE. FRANK STEVENS and FREDERICK SPICKER, Roundup, Mont. Filed Jan. 6, 1913. Serial No. 740,499. (Cl. 255-7.)



1. In a boring machine, the combination with a drum, rope, and tool, of a rotary impact member carrying a pulley, a pivoted frame having a roller over which the rope passes between the drum and impact member, and a movable carriage having a pulley over which the rope passes between the frame and the impact member, whereby the stroke of the impact member may be varied.

2. In a boring machine, a stroke adjusting device comprising a movable carriage and a pulley thereon, and a screw bar for actuating said carriage.

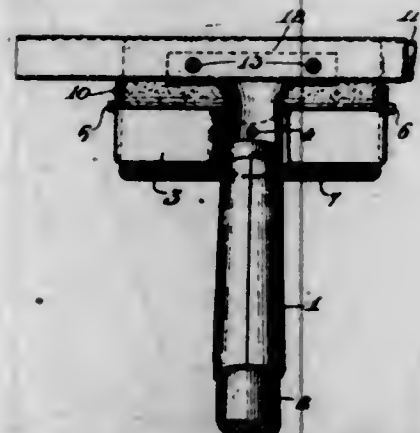
1,077,650. STEP-LADDER. CLARENCE E. STROUD, Grand Island, Nebr. Filed Oct. 12, 1912. Serial No. 725,497. (Cl. 228-19.)



In a device of the character described, the combination with a main ladder having the forward edges of the side rails thereof directed inwardly at right angles to form guides, of an extension having serrations formed on the outer faces of the side rails thereof while the rear edges of said side rails are directed outwardly at right angles and engaged against the rear faces of the inwardly directed edges of the side rails of the main ladder, said outwardly directed edges being provided upon their rear faces with racks, gears engaged with the racks for raising and lowering the extension, a shaft engaged through

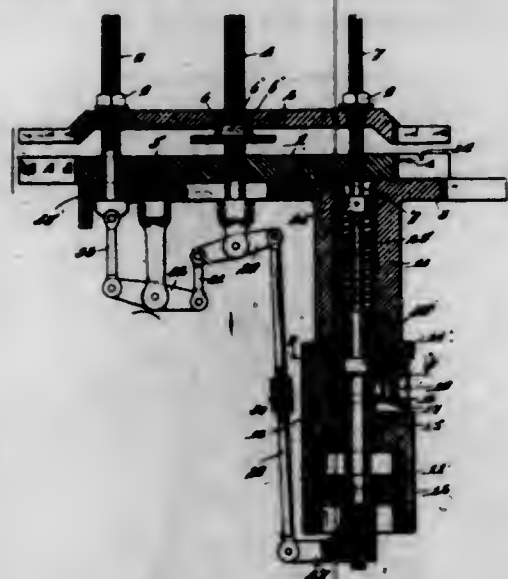
said gears, means carried by the main ladder for supporting the shaft, means for rotating the shaft, means for engagement with the serrations to lock the extension in adjusted position, and means for supporting the extension in adjusted position.

1,077,651. WINDOW-CLEANING DEVICE. HERMAN F. STUBENRAUCH, Chicago, Ill. Filed May 19, 1913. Serial No. 768,464. (Cl. 15—53.)



A window cleaning device comprising a support, a cylindrical tank rotatably mounted in said support; an absorbent covering on the periphery of said tank, said tank having discharge openings over which said covering is arranged; and means for limiting the amplitude of free rotary movement of said tank, substantially as described.

1,077,652. CLAMPING DEVICE. ALFRED J. SUTCH, Chicago, Ill., assignor of one-half to William A. J. Smale, Chicago, Ill. Filed Feb. 12, 1913. Serial No. 747,950. (Cl. 77—63.)



1. In a device of the class described, the combination with a bed; a relatively movable jaw mounted above said bed for coöperation therewith; operating means; and an operative connection between said operating means and the respective ends of said movable jaw for moving either one or both of said ends of said jaw into and for holding the same in clamping position, substantially as described.

2. In a device of the class described, the combination with a bed; a relatively movable jaw mounted above said bed for coöperation therewith; operating means; a direct connection between said operating means and one end of said movable jaw; and a series of levers operatively connected with each other and connecting said operating means with the other end of said movable jaw whereby said ends of said movable jaw may be moved into and retained in clamping position, substantially as described.

3. In a device of the class described, the combination with a bed; a relatively movable jaw mounted above said bed for coöperation therewith; means engaging said movable jaw intermediate its extremities for supporting said

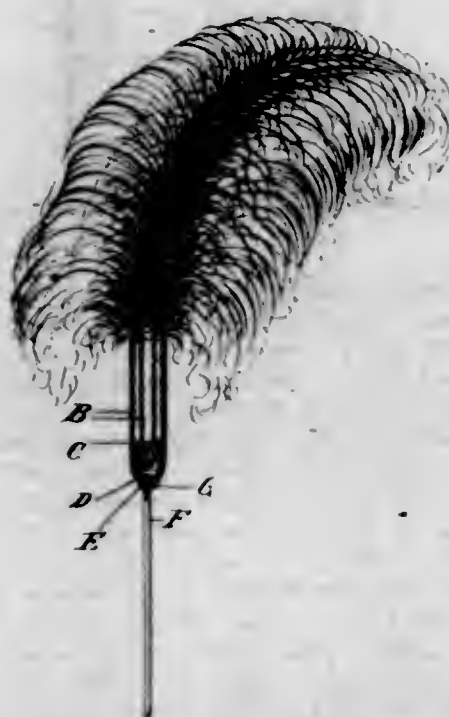
movable jaw adjustably above said bed; means engaging the respective ends of said movable jaw for moving the same into clamping position; and means coöperating with said last mentioned means for operatively moving the respective ends of said movable jaw, substantially as described.

4. In a device of the class described, the combination with a bed; a relatively movable jaw mounted above said bed for coöperation therewith; a vertically disposed guide pin arising from said stationary jaw and passing loosely through said movable jaw intermediate the ends thereof; a nut threaded upon said guide pin for adjustably holding said movable jaw; a pair of movable pins passing through the respective ends of said vertically movable jaw; stops arranged for vertical adjustment upon said last mentioned pins for engagement with the respective ends of said movable jaw to move the same downwardly when said pins are lowered; and means for simultaneously moving said movable pins downwardly, substantially as described.

5. In a device of the class described the combination with a bed; a relatively stationary jaw arranged thereon; a relatively movable jaw mounted for coöperation with said stationary jaw; a compressed air cylinder; a piston mounted for operation in said cylinder; and an operative connection between said piston and the respective ends of said movable jaw for moving either one or both of said ends of said jaw into and for holding the same in clamping relation with said stationary jaw, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,077,653. HOLDER AND ATTACHER FOR FEATHERS. MARCEL H. TISNE, New York, N. Y., assignor to A. Schrader's Son, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 3, 1912. Serial No. 713,054. (Cl. 2—108.)



1. A feather holder and attacher comprising a cup adapted to be contracted about the stem of a feather, and a pliable member connected with the cup by which the feather may be attached to a hat or the like.

2. A feather holder and attacher comprising a metal cup adapted to be contracted about the stem of a feather, and a pliable wire member connected to said cup.

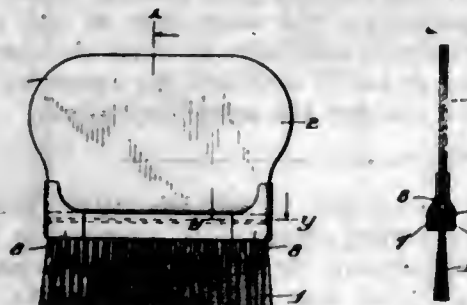
3. A feather holder and attacher comprising a sheet metal cup having a conical lower end and adapted to be contracted about the stem of a feather, and a pliable wire connected to said conical end.

4. A feather holder and attacher comprising a sheet metal cup adapted to be contracted about the stem of a feather, and a pliable wire passing through said lower end and riveted thereto.

5. A feather holder and attacher comprising an elongated sheet metal cup having a conical lower end, an aperture at said lower end, a pliable wire having a collar contacting with said lower end and a portion extending within said cup and riveted down on the interior thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,077,654. HAT-BRUSH. HENRY J. TRAH, Chicago, Ill. Filed Mar. 28, 1913. Serial No. 757,343. (Cl. 15—30.)



1. A brush comprising bristles; a handle; means for securing said bristles to said handle; said means comprising a member having a recess in one side for the reception of the ends of said bristles; and a recess in its opposite side for the reception of one edge of said handle, substantially as described.

2. A brush comprising bristles; a handle; means for securing said bristles to said handle, said means comprising a member having a recess in one side for the reception of the ends of said bristles; and two recesses at its opposite side for the reception of one edge of said handle, said edge of said handle being bifurcated to engage said last mentioned recesses, substantially as described.

3. A brush comprising bristles; a handle; a back establishing connection between said bristles and said handle, said back being formed of a single piece of sheet metal bent upon itself to form an elongated narrow recess for the reception of the ends of said bristles; and oppositely opening elongated narrow recesses at the opposite sides of said first mentioned recesses for the reception of one edge of said handle, said edge of said handle being bifurcated to engage said last mentioned recesses, substantially as described.

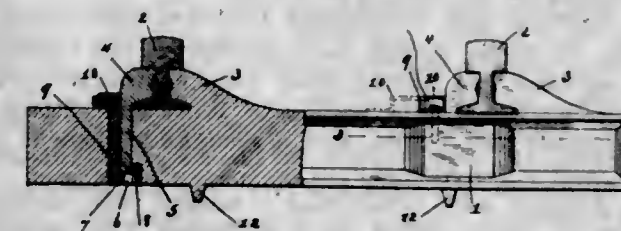
4. A brush comprising bristles; a handle; a back establishing connection between said bristles and said handle, said back being formed of a single piece of sheet metal bent upon itself to form a recess in one side for the reception of the ends of said bristles; oppositely opening recesses for the reception of one side of said handle; and ears on said back-forming piece folded to embrace the ends of said back, substantially as described.

5. A brush comprising bristles; a handle; a back establishing connection between said bristles and said handle; said back being formed of a single piece of sheet metal bent upon itself to form a recess in one side for the reception of the ends of said bristles; oppositely opening recesses for the reception of one side of said handle; and ears at the ends of said back-forming piece engaging around the end of said back, substantially as described.

1,077,655. AZO COLORING-MATTER. ERNST ULRICH, Reval, Russia, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 7, 1913. Serial No. 766,084. (Cl. 8—1.)

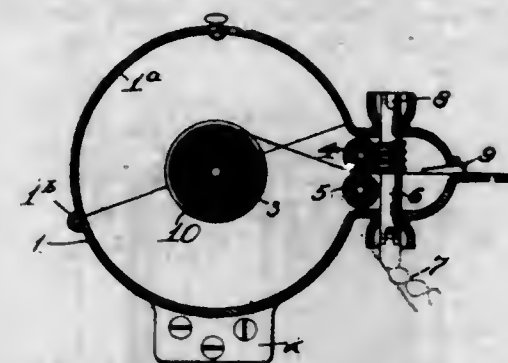
The new compound, being a bisulfite compound of the coloring matter naphthalene-1-sulfonic-acid-2-azo-beta-naphthol, which consists, when dry, of an orange powder, is easily soluble in water, giving an orange-yellow solution, from which, on the addition of caustic soda solution, the said coloring matter naphthalene-sulfonic-acid-2-azo-beta-naphthol is obtained in the form of its sodium salt.

1,077,656. METAL RAILWAY-TIE. CARY VAN DEUSEN, Craryville, N. Y. Filed June 23, 1913. Serial No. 775,211. (Cl. 238—5.)



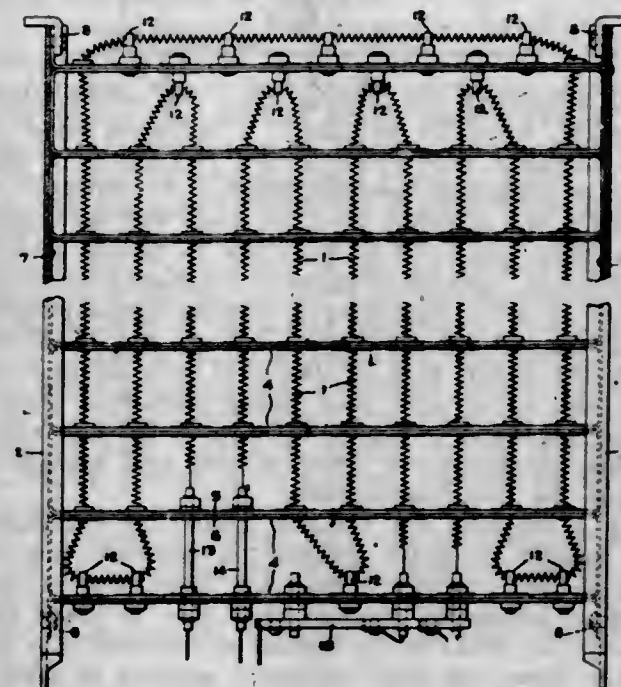
Rail-clamping mechanism comprising in part, a railway-tie and a vertically-removable locking-key in combination with a U-shaped strap overhanging said key, having one end pivotally connected to the tie; and a removable screw-connection between the other end of the strap and the tie, whereby said strap can be swung on its pivotal connection to and from a position overhanging said key.

1,077,657. MEANS FOR ISSUING DIRECTIONS CONCERNING CARE OF MOTOR-VEHICLES. GEORGE S. VAN VOORHIS, Brookline, Mass. Filed Jan. 25, 1913. Serial No. 744,257. (Cl. 40—41.)



In combination a suitable case, a roll of paper or tape therein having printed thereon *seriatim* directions for the care of a motor vehicle, feed rolls driven by the movement of the vehicle for delivering said tape from the case as the vehicle progresses, and means for effecting severance of the withdrawn portions.

1,077,658. HEATING UNIT. FREDERICK M. VOËL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 12, 1913. Serial No. 773,169. (Cl. 219—63.)



1. A heating unit comprising angular side strips, a plurality of cross strips having angularly bent ends loosely supported by said side strips and a resistance element carried by said cross strips.

2. A heating unit comprising U-shaped side strips, a plurality of cross strips having angularly bent ends loosely supported by said side strips, and a resistance element carried by said cross strips.

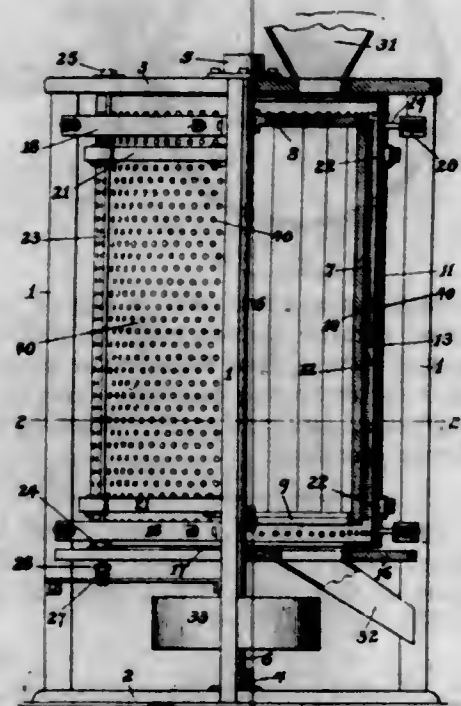
3. A heating unit comprising U-shaped side strips, a plurality of cross strips each including two members joined together and having their ends angularly bent in opposite directions, said angularly bent ends fitting in said U-shaped side strips, and a resistance element carried by said cross strips.

4. A heating unit comprising U-shaped side strips, a plurality of cross strips each including two members joined together, and having their ends angularly bent in opposite directions, said angularly bent ends fitting in said U-shaped side strips, means for fastening the outermost cross strips to said side strips, and a resistance element carried by said cross strips.

5. In a heating unit, a metal cross strip having an opening therein, an annular disk of insulating material supported at its outer edge in said opening and a metal eyelet clamping the inner edge of said annular disk.

[Claims 6 to 9 not printed in the Gazette.]

1,077,659. RICE-HULLING MACHINE. ROSIA W. WELCH, Baltimore, Md., assignor of one-half to John Townsend Burwell, Millwood, Va. Filed Nov. 15, 1912. Serial No. 731,462. (Cl. 83-29.)



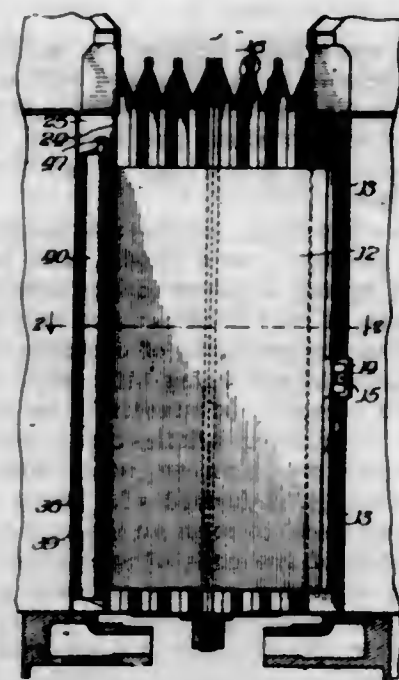
1. In a machine for treating rice, the combination of an upright revoluble cylinder; a cylindric case completely inclosing said cylinder and comprising a plural number of segmental sections separated vertically from each other and standing on their ends and each section free to move outwardly or inwardly to expand and contract the case; springs to cause the segmental sections of the case to move expansively; flexible bands exteriorly surrounding all of said case-sections, one band being around the lower part of the case and another band around the upper part, and means connected with the ends of said band or bands to draw them, and thereby overcome the expansive effect of the said springs and compress the said case-sections.

2. In a machine for treating grain, the combination of an upright revoluble cylinder; a cylindric case completely inclosing said cylinder and comprising a plural number of segmental sections each free to move either outwardly or inwardly to expand or contract the case; means to cause the said segmental sections to move expansively; two flexible bands exteriorly surrounding all of said case-sections—one band being at the lower part and the other band at the upper part a shaft outside of the case and parallel with the axis of said revoluble cylinder and capable of turning, and two cross-heads fixed on said

shaft—one of which is secured to the ends of one of said flexible bands, and the other cross-head secured to the ends of the other flexible band, whereby upon turning the said shaft the ends of both flexible bands will be simultaneously drawn and the case sections contracted.

3. In a machine for treating grain, the combination of an upright revoluble cylinder; a cylindric case completely inclosing said cylinder and comprising a plural number of segmental sections each free to move either outwardly or inwardly to expand or contract the case; horizontal curved bars forming a circle outside of the case-sections; bolts secured to the case-sections and passing freely through said bars; springs on the outer side of the bars and drawing outwardly on said bolts to cause the case-sections to expand; and means to overcome the expansive effect of the springs and contract the said case-sections.

1,077,660. VESTIBULE-CURTAIN MOUNTING. EDWARD E. WHITMORE, Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 7, 1913. Serial No. 783,518. (Cl. 105-266.)



1. In a device of the character described, a vertical housing comprising an elongated headed casing and open on one side, upper and lower bearings for the roller trunnions and a door hinged at one side of and adapted to close the opening, substantially as described.

2. In a device of the character described, a vertical housing comprising an elongated headed casing and open on one side, upper and lower bearings for the roller trunnions, a door hinged at one side of and adapted to close the opening, and a spring catch for the door, substantially as described.

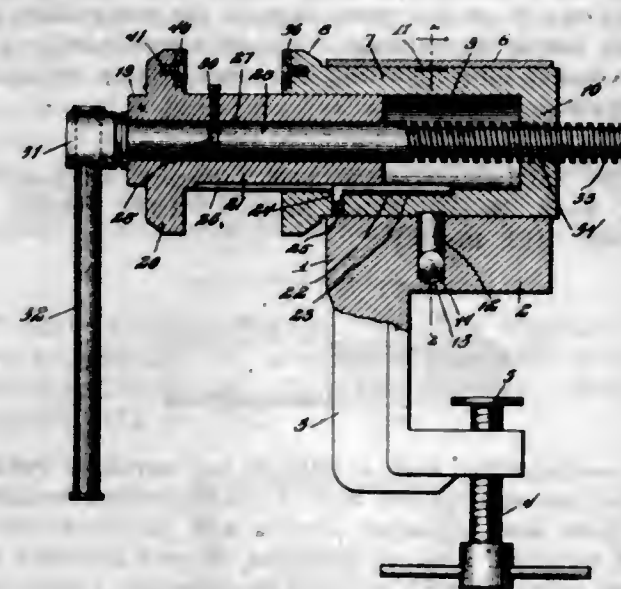
3. In a device of the character described, an upright housing comprising an elongated sheet metal casing having separate top and bottom heads and open on one side, bearings for the roller trunnions within the casing and a door hinged to one side of and adapted to close the opening, substantially as described.

4. In a device of the character described, an upright housing comprising a semicylindrical sheet metal casing having cast top and bottom heads, bearings on the heads for the roller trunnions and a door hinged at one side of and adapted to close the open side of the casing, substantially as described.

5. In a device of the character described, a housing comprising an elongated sheet metal casing having separate top and bottom cast heads and open on one side, and a door hinged to one side of and adapted to close the opening, a fixed bearing for one trunnion of the roller and an adjustable bearing for the other trunnion of the roller, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,077,661. JEWELER'S VISE. EARL C. WILCOXSON and ERIC SWANSON, Denver, Colo. Filed July 15, 1912. Serial No. 709,609. (Cl. 81-20.)



1. A jeweler's vise comprising a support, a jaw removably and rotatably mounted therein, a second jaw telescopically engaging the first jaw, one of said jaws having a plurality of clamping faces for coaction with the other jaw, means for slidably adjusting said jaws with relation to each other, means for holding the first jaw against removal and in any of its positions of axial adjustment, and a feathering connection between said jaws operative to permit sliding motion of the second jaw to a determined degree and hold it against rotary movement independent of the first jaw, and adapted upon an abnormal outward movement of the second jaw to release said jaws for relative rotary adjustment.

2. A jeweler's vise comprising a support, a hollow jaw adjustably and removably mounted in said support and provided with a circumferential groove and a plurality of clamping faces, a vertically movable locking pin supported by the support and adapted to be projected upward to engage said groove, to lock the jaw against both longitudinal and rotary movements, said pin having a beveled lower end, a second jaw telescopically engaging the first jaw, connecting means between the jaws to normally permit said second jaw to have longitudinal without rotary movement and also to permit it to be released within its range of longitudinal movement for relative rotary movement of the jaws, means for relatively adjusting said jaws, and a threaded pin upon the support at right angles to the locking pin, said threaded pin having a beveled end to engage the beveled end of the locking pin and provided at its opposite end with a handle.

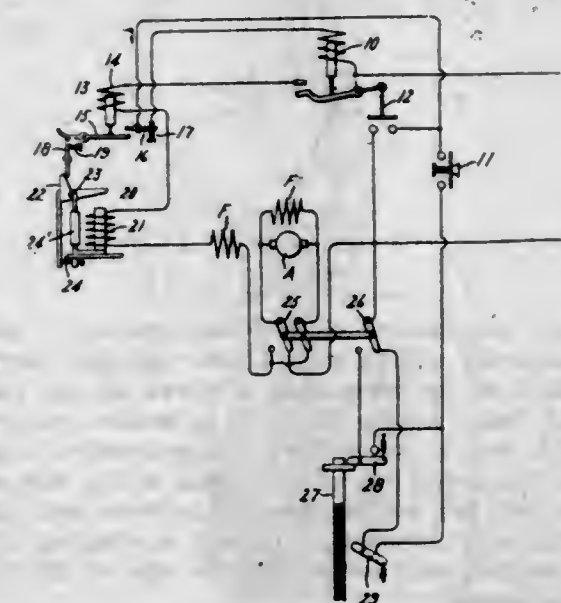
3. A jeweler's vise comprising a support, a socketed jaw removably and rotatably mounted in said support, a single locking means for holding said jaw against removal and also in any of its positions of axial adjustment, a second jaw slidable within the socket of the first named jaw, connecting means between the jaws to normally permit said second jaw to have longitudinal without rotary movement and also to permit it to be released within its range of longitudinal movement for relative rotary movement of the jaws, and an operating screw journaled in the second named jaw and in threaded engagement with the first named jaw.

4. A jeweler's vise comprising a support, a hollow jaw removably and rotatably mounted in said support, said jaw having an external annular groove, an internal longitudinal groove and an opening intersecting the latter named groove, locking means for coöperation with the external annular groove of said jaw to lock the same against removal and in any of its positions of axial adjustment, a second jaw telescopically mounted in the first jaw and provided in its under side with a groove, a screw shaft journaled in said second jaw and in threaded engagement with the first jaw, and a locking pin engaging the groove in the second jaw and internal groove in

the first jaw and having a bent end inserted in the opening in the latter, said pin being of less length than the degree of longitudinal adjustment of the second jaw.

5. A jeweler's vise comprising a support, a jaw removably and rotatably mounted therein and provided with an angular clamping head having a plurality of clamping surfaces, means for holding said jaw against removal and in any of its positions of axial adjustment, a second jaw having a clamping surface for coöperation with any of the clamping surfaces of the first named jaw, means slidably connecting said jaws and normally holding the second named jaw against rotary movement independent of the first named jaw, while permitting said second named jaw to be adjusted to a predetermined position for independent rotation, and means for adjusting the jaws to move their clamping surfaces toward and from each other.

1,077,662. MOTOR-CONTROL SYSTEM. WILLIAM C. YATES, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 2, 1912. Serial No. 707,149. (Cl. 172-239.)



1. The combination with an electric motor, of an overload device and means for rendering the same inoperative during the starting of the motor, and an electromagnetic device actuated by the motor current for rendering the same operative, said electromagnetic device being inactive during the starting of the motor.

2. The combination with an electric motor, of an overload device for stopping the same upon a predetermined current flow, means for locking said device against operation during the starting of the motor, and an electromagnetic device which is inactive during the starting of the motor for releasing said overload device.

3. The combination with an electric motor, of an overload device for stopping the same upon a predetermined current flow, means for rendering said device inoperative upon a heavier current flow, and an electromagnetic device having an actuating winding in series with the motor armature which is inactive during the heavier current flow for rendering said overload device operative.

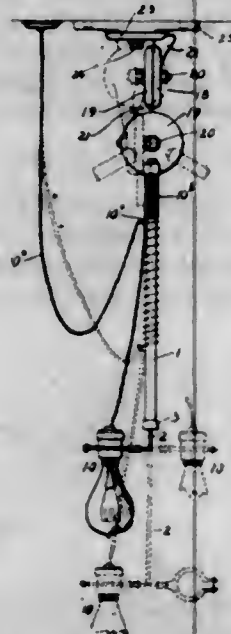
4. The combination with an electric motor, of an electromagnetic device which is inactive during the starting of the motor having an actuating winding in series with the motor armature, and an overload device responsive to a current which is less than the starting current of the motor for stopping the motor, said overload device being inoperative during the starting of the motor rendered operative by the actuation of said electromagnetic device.

5. The combination with an electric motor, of an overload device for stopping the same upon a predetermined current flow, means for rendering said device inoperative upon a heavier current flow and an electromagnetic device having an actuating winding permanently in series with

the motor armature and the winding of said overload device for rendering said overload device operative, said electromagnetic device being inactive during the heavier current flow.

[Claims 6 and 7 not printed in the Gazette.]

1,077,663. INCANDESCENT-LAMP HANGER. ROBERT D. H. ANDERSON, Cincinnati, Ohio, assignor of one-half to Walter K. Rockhold, Cincinnati, Ohio. Filed Mar. 26, 1910. Serial No. 551,687. (Cl. 248—8.)



1. In an incandescent electric-lamp holder, a tube, a rod telescopically sliding within said tube and having a flanged head at its inner end, a sleeve on the rod beneath said flange within the tube, a washer on the rod below said sleeve, an orificed screw-threaded cap attached at the lower end of said tube and a wire spiral wound on said rod within the tube between said washer and the cap and adapted to present a clinging friction device to sustain said rod within the tube at the desired point of extension.

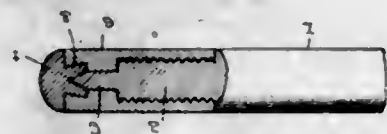
2. In an incandescent electric-lamp holder, a tube, a rod telescopically sliding within said tube and having an inner head, a sleeve within said tube beneath said headed rod, a washer on the rod, an orificed cap fitting the outer end of said tube, an angled-arm at the lower outer end of said rod, a spring-jawed clamp having a two-part clamp engaging said angled-arm on the rod, a bolt or screw for holding said spring-jawed clamp at the desired angle on said angled-arm and a link or ring variably-engaging the closing ends of said spring clamping-jaws over the shank of a lamp.

3. In an incandescent electric-lamp holder, a tube, a rod telescopically-sliding within said tube and having a flanged head at its inner end, a sleeve on the rod beneath said flanged head, an orificed friction-spiral on said rod, a cap fitting the outer end of said tube and through which said rod passes, a pair of clamping-jaws at the outer end of said rod, an electric-lamp supported in said clamping-jaws, an electric conductor-cord leading from said lamp to the source of current supply, a spiral-spring freely mounted on said tube with one end thereof attached to said tube and the other end thereof provided with a hook over which said lamp-cord engages and such spring forming a take-up device for the lamp-cord in its automatic expanding and contracting actions thereby providing for the slack in the lamp-cord.

4. An incandescent electric-lamp holder comprising a tube, a lamp-rod adapted to telescopically-reciprocate within said tube, a pair of hinge-disks each having flat, contacting, inner marginal faces and from one of which said tube extends and the other one of which has an inner, central, orificed boss that is suitably spaced away from the inner face of the companion disk and, also, has a lubricant-holding groove or recess surrounding the said boss, and the first-named of which disks has a centrally-

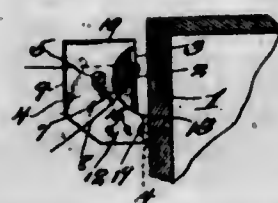
orificed countersunk inner face, and a central bolt connecting said disks in such a manner that the coinciding countersunk portions of both disks are duly aligned and spaced from each other and said central boss of one disk spaced away from the inner face of the other disk, and the said flat-faced marginal edges frictionally-held in resilient-contact for supporting the electric-lamp at the desired angle.

1,077,664. BILLIARD-CUE TIP. GEORGE ANKENMANN, New York, N. Y. Filed Nov. 7, 1912. Serial No. 729,998. (Cl. 46—9.)



The combination with a billiard cue having a reduced threaded end and formed with a pin extending longitudinally from said threaded portion and provided with a beveled terminal, a sleeve threaded on said threaded portion and provided with an opening to snugly receive said pin and a socket having an under-cut wall into which said beveled terminal is adapted to extend and a tip of yielding material having a conical stud adapted to fit in said socket and having a centrally disposed opening adapted to receive the beveled terminal of said pin, said pin being adapted to force said stud into locking engagement with the under-cut wall of said socket when said sleeve is threaded on said threaded portion and to permit the release of said tip when said sleeve is loosened.

1,077,665. CORD-CUTTER. LOUIS E. BARNARD, Washington, D. C. Filed Sept. 19, 1912. Serial No. 721,214. (Cl. 30—14.)



1. In a cord cutter, a blade having a plurality of cutting edges, a holder having a series of protecting portions to shield all but one of said cutting edges, means whereby the holder may be attached to a support with the exposed cutting edge adjacent to but offset from and spaced apart opposite the face of said support to which the device is attached.

2. In a cord cutter, a polygonal shaped blade having a plurality of cutting edges, a holder having a series of protecting portions to shield all but one of the said edges, means whereby the holder may be attached to a support with the exposed cutting edge adjacent to but offset from and spaced apart opposite the face of said support to which the device is attached.

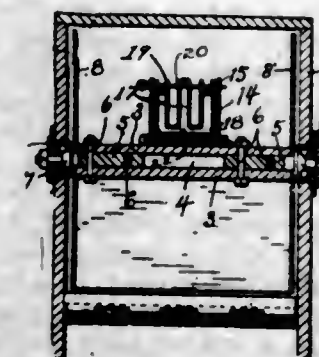
3. In a cord cutter, a polygonal shaped blade having four cutting edges, a holder having a series of protecting portions to shield all but one of said cutting edges, means whereby the holder may be attached to a support with the exposed cutting edge adjacent to but offset from and spaced apart opposite the base of said support to which the device is attached, some of said protecting portions overhanging two of said cutting edges.

4. In combination, a cord cutter comprising a blade having a plurality of cutting edges, a holder for said blade provided with a series of protecting portions adapted to shield all but one of said cutting edges, means for detachably securing the blade in the holder with two of the cutting edges arranged under two of the protecting portions, and means whereby the holder may be attached movably to a support, with the exposed cutting edge in close vicinity to, but offset from and spaced apart opposite the face of said support to which said device is attached.

5. In combination, a polygonal blade having a plurality of cutting edges, a holder therefor having a series of protecting portions adapted to shield all but one of said cutting edges, several of the protecting portions overlap two of the cutting edges, means for detachably anchoring the blade to the holder, means whereby the holder may be detachably connected to a support with the exposed cutting edge adjacent to but offset from and spaced apart opposite the face of said support to which the device is attached, thereby constituting means for guarding and protecting said exposed cutting edge.

[Claim 6 not printed in the Gazette.]

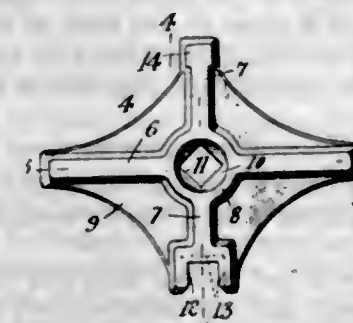
1,077,666. ANIMAL-TRAP. WILLIAM THOMAS BRANITZKY, Chicago, Ill., assignor of one-fourth to Joseph Hausler, Chicago, Ill. Filed Oct. 30, 1912. Serial No. 728,534. (Cl. 43—24.)



1. In an animal trap, the combination of a casing; a rotatable member mounted in said casing; a substantially U-shaped wire member having its legs rebent with the rebent portion extending beyond the bight portion thereof and pivotally connected with said rotatable member; bait holding means mounted between the legs of said wire member; and a locking bolt pivoted to the bight portion of said wire member and engaging said casing to lock said rotatable member, substantially as described.

2. In a trap, the combination of a casing; a rotatable member mounted in said casing; a substantially U-shaped wire member having its legs rebent with the rebent portion extending beyond the bight portion thereof and pivotally connected with said rotatable member; a bait holding wire bent with a plurality of portions in spaced parallel relation with each other and disposed between the legs of said U-shaped member with the ends thereof pivoted on the bight portion of said U-shaped member; hooks formed on said bait holding wire; a pin in the bight portions of said U-shaped member and said hooks; and a locking bolt pivoted to the bight portion of said wire member and engaging said casing to lock said rotatable member, substantially as described.

1,077,667. TRACTION-LUG. J. GROVE BROWN, Groton, N. Y., assignor of one-half to George T. Bacon, Groton, N. Y. Filed July 6, 1912. Serial No. 708,042. (Cl. 21—215.)



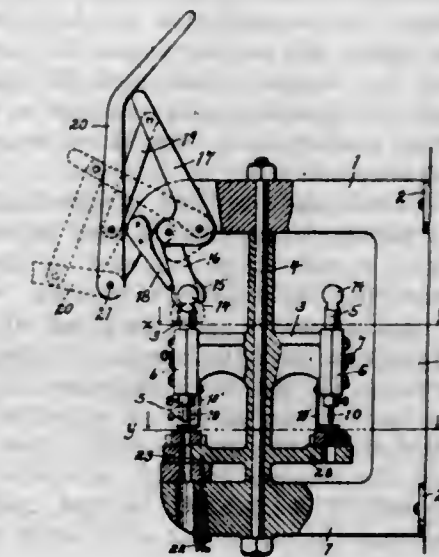
1. A removable traction lug comprising a web, a central boss projecting outwardly therefrom, said boss having an opening formed therein, and longitudinal and transverse ribs radiating from said boss and projecting outwardly from said web.

2. A removable traction lug comprising a web, a central boss and longitudinal and transverse ribs all projecting outwardly from said web, and all being of the same height, said boss having a bolt hole extending therethrough, the outer end of said hole being countersunk.

3. A traction lug comprising a web, longitudinal and transverse ribs projecting outwardly from said web, one end of said longitudinal rib being bifurcated, and the other end being formed to fit such bifurcation, the construction being such that two similar lugs are adapted to interlock, when placed end to end, and each lug being provided with but a single fastening device, whereby it may be individually secured upon a wheel.

4. The combination with the rim of a traction wheel, of a series of removable lugs independently secured thereto, each lug comprising transverse and longitudinal ribs disposed substantially at right angles to each other and projecting radially beyond the wheel rim, said longitudinal ribs being constructed to interlock and placed end to end to form a continuous smooth circumferential fin or tread.

1,077,668. PUNCH-PRESS. CHARLES A. CARLSON, Blue Island, Ill. Filed Nov. 25, 1912. Serial No. 733,392. (Cl. 164—96.)



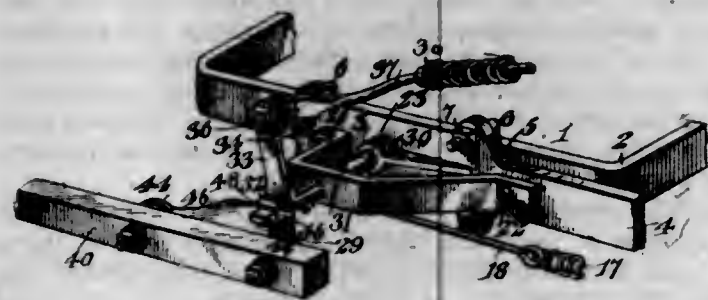
1. A punch press comprising a frame; a set of compound levers pivoted in said frame; a connecting link operatively connected with said compound levers; an arm on said frame engaging the lower end of said connecting link assisting in maintaining the latter inclined when in normal condition; and a revolvable holder mounted in said frame and carrying a plurality of punch press elements each of which is adapted to engage and be operated by said connecting link, substantially as described.

2. A punch press comprising a frame; a bell crank lever pivoted in said frame; a lever pivoted in said frame and operatively connected with said bell crank lever, said lever and bell crank lever being formed to engage each other and define their normal positions at one terminal of their movements; a connecting link connected with one arm of said bell crank lever; an arm on said frame and engaging the under side of said connecting link maintaining the latter normally in inclined position; and a revolvable holder mounted in said frame and carrying a plurality of punch press elements each of which is adapted to engage and be operated by said connecting link, substantially as described.

1,077,669. MARKER-OPERATING MECHANISM. JOHN CARNEY, Chatsworth, Ill. Filed Dec. 4, 1911. Serial No. 663,656. (Cl. 111—24.)

1. A device of the class described comprising a marker bar arranged to extend transversely of the line of travel, a bearing bracket, means for connecting the bearing bracket to the frame of the planter, a stub shaft mounted in the bearing bracket and extending rearwardly therefrom, means for connecting the marker bar directly to the rear end of the stub shaft, a crank arm separate from the stub

shaft, means for rigidly securing the crank arm to the stub shaft at an intermediate point of its length outside the bracket and between the bracket and the marker bar, an operating lever, and means for connecting the outer end of the crank arm to the operating lever.



2. A device of the character described comprising a marker bar arranged to extend transversely of the line of travel and to be swung in an arc, an operating lever, a connection between the lever and the marker consisting of a shaft, a crank arm, and means for connecting the lever with the crank arm, and a connection between the shaft and the marker bar including a wedge, spaced flanges arranged to engage the wedge, and a pivot piercing the flanges and the wedge and having means for causing the flanges to clamp the wedge to maintain the marker bar normally in operative position with relation to the shaft and to permit the marker bar to swing rearwardly when subjected to excessive strain.

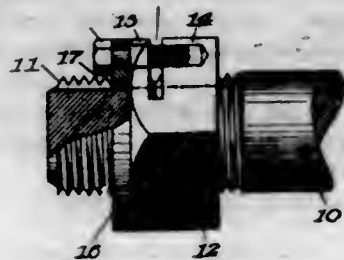
3. A device of the class described comprising a marker bar arranged to extend transversely of the line of travel, a bearing bracket, a stub shaft mounted in the bearing bracket and extending rearwardly therefrom, means for connecting the marker bar to the rear end of the stub shaft in spaced relation with the bearing bracket, a crank arm rigidly secured to the shaft between the bearing bracket and the marker bar having an attaching plate at its lower end, said arm extending upwardly from the shaft to a point above the bearing bracket, an operating lever mounted at one side of the bearing bracket, and a transverse rod connecting the operating lever with the crank arm.

4. In a device of the character described including a marker bar arranged to extend transversely of the line of travel, and an operating lever therefor, of a connection between the lever and marker comprising a stub shaft having a crank arm, a link connecting the crank arm and lever, said stub shaft having a transverse head of wedge-shaped cross section and widening outwardly, a keeper mounted on the bar and provided with spaced flanges embracing a slot extending longitudinally of the bar, said slot adapted to receive the wedge-shaped head, and means to pivot the keeper to the head and to compress the flanges inwardly to frictionally engage said head.

5. In a device of the character described including a marker bar arranged to be extended transversely of the line of travel, and to be swung in an arc, and an operating lever, of a connection between the lever and marker comprising a stub shaft bearing an angular crank arm, a link connected to the crank arm and slidably connected to the lever, abutments on the link on opposite sides of the lever, a compression spring mounted on the link and bearing respectively against the lever and against the abutment between said lever and crank arm, an expansion spring connecting the opposite arm of said lever and a fixed support, the stub shaft having a transverse head of wedge shape cross section thickened outwardly, a keeper mounted on the marker bar and comprising spaced flanges embracing a slot extending longitudinally of the bar, said slot adapted to receive the thickened edge of the cross head with the flanges overlying the reduced portions thereof, and means to pivotally clamp said flanges upon the reduced portion of the cross head to effect a frictional engagement between the crosshead and keeper throughout their longitudinal extent.

[Claim 6 not printed in the Gazette.]

1,077,670. LOCK-NUT. HAROLD D. CHURCH, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 31, 1912. Serial No. 700,723. (Cl. 151-28.)



1. A lock nut comprising a nut proper split transversely and a device having a locking key or tongue, and means for securing it to the nut and cooperating with the split portion of the nut to bind the threads of the latter.

2. A lock nut comprising a nut proper split transversely and a device having a locking key or tongue and having a bolt extending into the nut through said split for securing said device to the nut and for cooperating with the split portion of the nut to bind the threads of the latter.

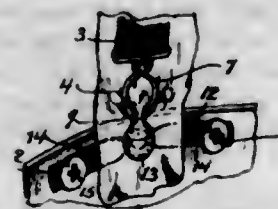
3. A combination lock nut and washer comprising a nut proper split transversely, a locking piece having a key or tongue, and means adapted to secure the locking piece to the nut and bind the threads of the latter.

4. The combination with a shaft or other threaded piece formed with a longitudinal keyway, of a nut cut part way through transversely of its axis and adapted to be adjusted on said shaft, a locking piece provided with a key adapted to said keyway, and a binding bolt adapted to secure said locking piece to said nut and bind the latter to the shaft.

5. The combination with a shaft or other threaded piece formed with a longitudinal keyway, of a nut on said piece split transversely of its axis, a locking piece formed with a key adapted to said keyway and with a series of holes, and a binding bolt adapted to pass through any one of said holes, into said nut, and across said split to secure the locking piece to the nut and simultaneously bind the nut to the said shaft by contracting or expanding the parts of the nut separated by said split.

[Claim 6 not printed in the Gazette.]

1,077,671. GARMENT-SUPPORTER. RICHARD T. CLARKE, Columbus, Ohio. Filed Sept. 5, 1912. Serial No. 719,695. (Cl. 241-25.)

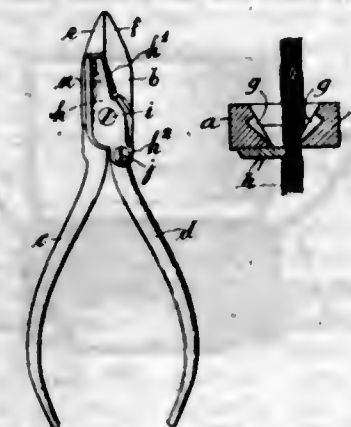


The combination of shoulder straps, a back strap, three flexible tapes each adapted at both of its ends for attachment to trousers, a rigid loop on the free end of each strap, a button mounted on each tape intermediate the ends thereof, the rigid loops on the ends of the straps being adapted for removable connection with the buttons on the tapes with the material of the wearer's shirt intervening.

1,077,672. MILLINERY-PLIERS. ROBERT C. VOM CLEFF, Hoboken, N. J. Filed June 3, 1911. Serial No. 631,029. (Cl. 164-81.)

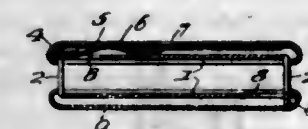
1. Millinery pliers for cutting fine silk covered wires comprising a pivoted pair of handled jaws each cut out so as to form a crescent-shape incision and a transverse flaring main recess, a straight cutting edge formed on the middle portion of one of its sides, and a cutting attachment secured to the second jaw by means of the pivot and with its inner end to the handle of said second jaw, said attachment having a cutting edge extending in-

wardly toward the handle in a slanting direction overlapping the cutting edge portion of the first jaw when the pliers are closed.



2. Millinery pliers for cutting fine silk covered wires comprising a pivoted pair of handled jaws, noses thereon with opposed roughened grasping faces and at one side opposed straight edges with inclined bottoms forming conjointly a flaring recess across the jaws, said bottoms having each a second recess of crescent-shape beginning at said straight edge and deepening therefrom across the jaw to its curved boundary, and a cutting attachment secured to the second jaw by means of the pivot and with its inner end to the handle of said second jaw, said attachment having a cutting edge extending inwardly toward the handle in a slanting direction overlapping the cutting edge portion of the first jaw when the pliers are closed.

1,077,673. BRACELET UNIT. WILLIAM E. COLES, Attleboro, Mass., assignor to Bates & Bacon, Attleboro, Mass. Filed Feb. 20, 1913. Serial No. 749,565. (Cl. 59-82.)



1. A bracelet unit consisting of a pair of caps, a member connected to each cap in spaced relation thereto and having a right angular end formed on its extremity with opposed slots to provide a substantially T-shaped head, the opposite end of each body having a key-hole shaped slot therein, the head of each member being received in the slot of the other member and in the space between the members and the caps and a flat spring between one body and the cap thereof having its free end disposed adjacent to the outer end of the slot thereof, said heads being movable along the lengths of said slots and said spring having its free end engaging the adjacent head when the parts are assembled to prevent movement of the head toward the enlarged end of the key-hole slot in which said head is received.

2. A bracelet unit consisting of a pair of caps, a member connected to each cap in spaced relation thereto and having a right angular end formed on its extremity with opposed slots to provide a substantially T-shaped head, the opposite end of each body having a key-hole shaped slot therein, the head of each member being received in the slot of the other member and in the space between the members and the caps and spring means to engage one of the heads to hold same against movement.

3. A bracelet unit including a pair of caps, a member secured to each cap in spaced relation thereto, each member having a slot in one end and having its other end disposed at right angles and formed on its extremity with a head, the head of one member being received in the slot of the other member, and spring means confined in the space between one of the caps and the member secured thereto to engage the head of the other member to hold the members locked against relative movement.

1,077,674. PRODUCTION OF REFRACTORY CONDUCTORS. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1908. Serial No. 454,452. (Cl. 176-132.)

1. The method which consists in heating a molded article comprising a refractory powder and a metal binder in the presence of means for progressively taking up at least some of the more easily fusible portion of said binder to stiffen the article and prevent its undue softening when heated to a higher temperature.

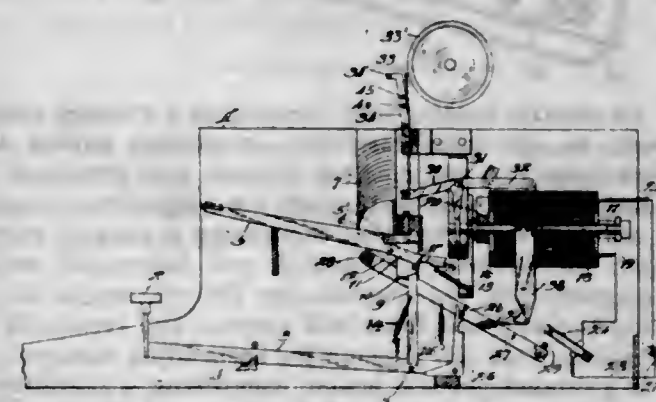
2. The method of preparing an unfinished lamp filament comprising refractory material and an amalgam binder for high heat treatment which consists in heating the same in a stream of fluid to remove part of the binder, and regulating the rate of flow of said fluid to prevent the formation of surface globules.

3. The method which consists in heating articles comprising refractory material and an amalgam binder in a strong current of gas to progressively remove some of the metal binder and finally heating by heat generated externally to a higher temperature to complete the removal of the binder and consolidate the residue.

4. In the process of making tungsten filaments the step which consists in heating a shaped wire of tungsten powder and a binder of cadmium, mercury and bismuth in a current of gas to remove exuded metal and prevent the formation of surface globules.

5. The method of hardening shaped articles comprising refractory material and an amalgam binder which consists in heating in the presence of means for removing exuded metal from the surface at a rate which will prevent large globules from forming on the surface of said body.

1,077,675. TYPE-WRITER. MANSFIELD C. CRAWLEY, San Francisco, Cal., assignor to Addograph Company, a Corporation of California. Filed Dec. 21, 1909. Serial No. 534,284. (Cl. 197-14.)



1. In an electrical typewriter, the combination of a pivoted key bar, a sliding rod directly pivoted on and carried by the key bar, a push bar, a pivoted type bar, a coupler pivoted directly to the type bar and arranged in the path of the sliding rod, so that when the latter is reciprocated the coupler is positioned in the path of the push bar, and electrical means controlled by the key bar whereby on the depression of the key bar the push bar is operated to actuate the type bar.

2. In an electrical typewriter, the combination of a pivoted key bar, a sliding rod directly pivoted on and carried by the key bar, a push bar, a pivoted type bar, a coupler pivoted directly to the type bar and arranged in the path of the sliding rod, so that when the latter is reciprocated the coupler is positioned in the path of the push bar, electrical means controlled by the key bar whereby on the depression of the key bar the push bar is operated to actuate the type bar, and means independent of the movement of the key bar for disrupting the electrical connections whereby the type bar may return to initial position, independent of the movement of the key bar.

3. In an electrical typewriter, the combination of a pivoted key bar, a sliding rod directly pivoted on and carried by the key bar, a push bar, a pivoted type bar, a coupler

pivoted directly to the type bar and arranged in the path of the sliding rod, so that when the latter is reciprocated the coupler is positioned in the path of the push bar, electrical means controlled by the key bar whereby on the depression of the key bar the push bar is operated to actuate the type bar, and means operatively connected to the power bar for disrupting the electrical connections.

4. In a typewriting machine, the combination of a series of movable type-bars, a key for each type-bar, means including a single electrically operated actuator common to all the type-bars for operating any type-bar on the depression of a corresponding key, means controlled by said actuator for disconnecting the same from the control of the key after the type-bar has been moved to printing position, and independent of whether pressure on the key has been released or not, and a movable ribbon guide operated directly by said actuator.

5. In a typewriting machine, the combination of a pivoted type-bar, a coupler member carried thereby, an actuator bar, a key-lever, means on the key-lever for moving the coupler into operative position with respect to the actuator-bar, electrically controlled mechanism controlled by the key-lever for operating the actuator-bar, means operated by the actuator bar operating means for disconnecting the coupler, a platen, and a movable ribbon guide operative directly by the actuator bar which controls the key-bar.

[Claims 6 to 9 not printed in the Gazette.]

1,077,676. ELECTRIC HEATER. ARCHIBALD S. CUBITT, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 21, 1910. Serial No. 583,023. (Cl. 219—63.)



1. An electric heating unit comprising a channel shaped support, an electrical resistance suspended within said support from the web member thereof, and terminals for said resistance extending through the suspending member.

2. An electric heating unit comprising a channel shaped support, an electrical resistance coil suspended within said support from the web member thereof, means for insulating the said coil from said support and terminals extending from said coil through the suspending member.

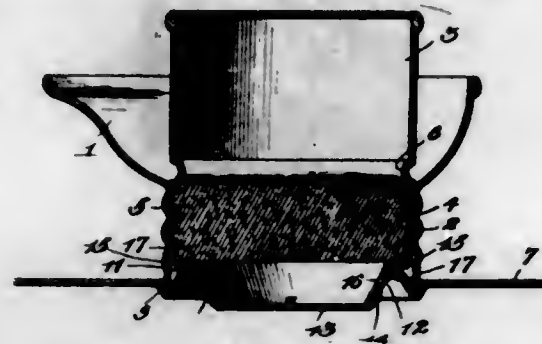
3. A sectional electric heater comprising a plurality of channel shaped supports, each having an electrical resistance suspended within the same from the web member thereof and insulated therefrom, terminals connected to each of said resistances extending through the web members of said supports and means for mechanically connecting said members together.

1,077,677. SPOUT-CLOSURE FOR RECEPTACLES. ALLEN H. CURTISS, Conneaut, Ohio. Filed Apr. 12, 1913. Serial No. 760,751. (Cl. 221—8.)

1. In combination with a receptacle, a spout attached thereto and receiving within it at the bottom an annular part of the top of said receptacle having an upwardly presented face, a plug cap fitting said spout, a spring seal adapted to close the passage to said spout and arranged to receive the pressure of said plug cap and having a flat annular part extending over said annular part of the receptacle top and a gasket arranged between said annular parts of said seal and said receptacle and adapted to be spread by said pressure for preventing leakage.

2. In combination with a receptacle, a spout attached thereto, a seal closing the passage to said spout and engaging said receptacle, a removable tubular plug cap within said spout and a cushion of soft material fitted into the

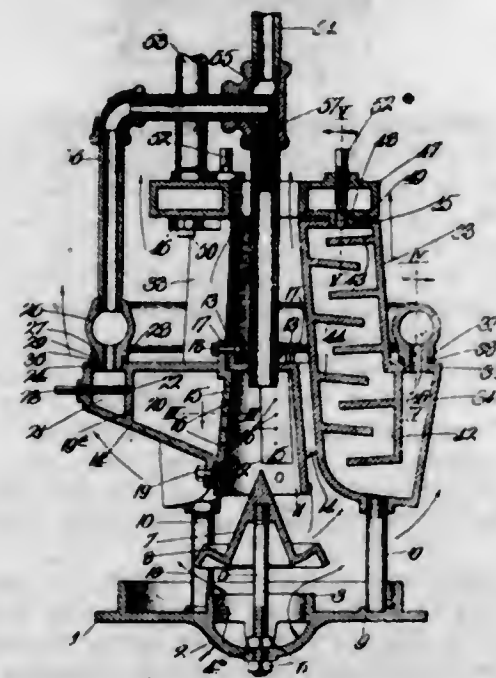
lower end of said plug cap, the latter being provided with an internal annular integral shoulder formed in its side wall and serving as a stop to prevent said cushion from being pressed upward too far within said cap.



3. In combination with a receptacle having a spout, a plug fitting into said spout to close the same, a spring seal engaging said receptacle to close said spout and arranged to receive the pressure of said plug and an expansible gasket arranged under said seal and on the top of a part of said receptacle, in order that such pressure may spread said gasket between said part and the bottom of said seal to make a water proof joint.

4. In combination with a receptacle, a spout therefor having a screw-threaded tubular lower part, a plug cap screw threaded to engage therewith, a spring seal arranged to be pressed by said plug cap and packing material between said seal and receptacle arranged above an upwardly presented face of one of these parts and below a downwardly presented face of the other, in order that it may be expanded radially by screwing home said cap, for tightening the joint between said seal and said receptacle.

1,077,678. OIL-BURNER. RUSSELL L. DAILEY, Kansas City, Kans. Filed July 29, 1912. Serial No. 712,167. Renewed Sept. 18, 1913. Serial No. 790,571. (Cl. 158—92.)



1. An oil burner, comprising an apertured base plate, a spreader above the apertured portion of the plate, a downwardly-opening receiver above the spreader, one or more steam generators adjacent to the receiver, one or more steam receptacles to receive steam produced in the generator or generators and each provided with one or more jet orifices to discharge steam radially into the receiver, and an oil supply pipe for discharging oil into the receiver so that it shall fall upon the spreader and in its passage thereto be intercepted by the steam from said jet orifice or orifices.

2. An oil burner, comprising an apertured base plate, a spreader above the apertured portion of the plate, a down-

wardly-opening receiver above the spreader, one or more steam generators adjacent to the receiver, one or more steam receptacles to receive steam produced in the generator or generators and each provided with one or more jet orifices to discharge steam radially into the receiver, an oil supply pipe for discharging oil into the receiver so that it shall fall upon the spreader and in its passage thereto be intercepted by the steam from said jet orifice or orifices, and means for controlling the passage of steam from the generator or generators to the receptacle or receptacles.

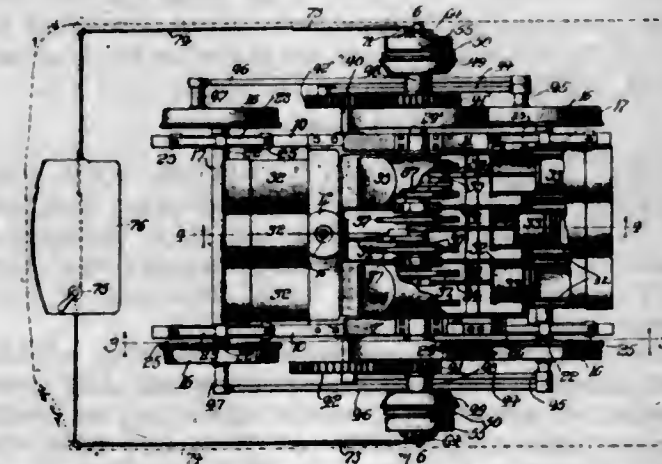
3. An oil burner, comprising an apertured base plate, a spreader above the apertured portion of the plate, a downwardly-opening receiver above the spreader, one or more steam generators adjacent to the receiver, one or more steam receptacles to receive steam produced in the generator or generators and each provided with one or more jet orifices to discharge steam radially into the receiver, an oil supply pipe for discharging oil into the receiver so that it shall fall upon the spreader and in its passage thereto be intercepted by the steam from said jet orifice or orifices, and an adjustable valve in each receptacle for controlling the volume of steam passing from the generator or generators to the said jet orifice or orifices.

4. An oil burner, comprising an apertured base plate, a spreader above the apertured portion of the plate, a downwardly-opening receiver above the spreader, one or more steam generators adjacent to the receiver, one or more steam receptacles to receive steam produced in the generator or generators and each provided with one or more jet orifices to discharge steam radially into the receiver, an oil supply pipe for discharging oil into the receiver so that it shall fall upon the spreader and in its passage thereto be intercepted by the steam from said jet orifice or orifices, and a steam supply pipe to receive steam from the generator or generators and discharge it into the oil supply pipe toward the discharge end thereof.

5. An oil burner, comprising an apertured base plate, a spreader above the apertured portion of the plate, a downwardly-opening receiver above the spreader, one or more steam generators adjacent to the receiver, one or more steam receptacles to receive steam produced in the generator or generators and each provided with one or more jet orifices to discharge steam radially into the receiver, an oil supply pipe for discharging oil into the receiver so that it shall fall upon the spreader and in its passage thereto be intercepted by the steam from said jet orifice or orifices, means for controlling the passage of steam from the generator or generators to the receptacle or receptacles, and a steam supply pipe to receive steam from the generator or generators and discharge it into the oil supply pipe toward the discharge end thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,077,679. CAR-MOTOR. WILLIAM F. DAVIS, Kansas City, Kans., assignor to McKeen Motor Car Company, a Corporation. Filed Oct. 10, 1905. Serial No. 282,154. (Cl. 105—28.)



1. In car motors, the combination with the bogie truck and car body swiveled thereon, of two pairs of wheels whereon said truck is spring-supported, a shaft journaled

on the truck, pitman rods connecting said shaft and one pair of wheels, an internal combustion engine mounted on the truck, connections between the engine and said shaft, and a friction clutch interposed in said connections.

2. In car motors, the combination with the bogie truck and car body swiveled thereon, of two pairs of wheels whereon said truck is spring-supported, a shaft journaled on the truck, driving means connecting said shaft and one pair of wheels, an internal combustion engine mounted on the truck, connections between the engine and said shaft, a friction clutch interposed in said connections, and fluid pressure devices for actuating said clutch.

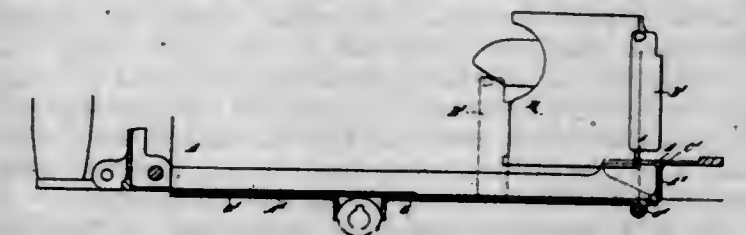
3. In car motors, the combination with the bogie truck and car body swiveled thereon, of two pairs of wheels whereon said truck is spring-supported, a shaft journaled on the truck, driving means connecting said shaft and one pair of wheels, an internal combustion engine mounted on the truck, connections between the engine and said shaft, a friction clutch in said connections, fluid pressure devices for actuating said clutch, a controlling valve in the car body, and flexible pipe connections between said valve and the fluid pressure device.

4. In car motors, the combination with the bogie truck and car body swiveled thereon, of wheels whereon said truck is spring-supported, a counter shaft and a crank shaft journaled on the truck, driving means connecting said counter shaft and the truck wheels, gears connecting said crank and counter shafts, and internal combustion engines mounted on the truck and connected to said crank shaft.

5. In car motors, the combination with the bogie truck and car body swiveled thereon, of wheels whereon said truck is spring-supported, a counter shaft and a crank shaft journaled on the truck, driving means connecting said counter shaft and the truck wheels, gears connecting said crank and counter shafts, a friction clutch cooperating with one of said gears, a fluid pressure device for actuating said clutch, a valve on the car body, flexible pipe connection between said valve and said fluid pressure device, and internal combustion engines mounted on the truck and connected to said crank shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,077,680. AUTOMATIC GUN. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Oct. 19, 1911. Serial No. 655,618. (Cl. 89—2.)



1. In an automatic gun the combination with the mechanism casing having an aperture in the bottom and forward part thereof for the escape of the spent cartridges, of manually actuated means for covering and uncovering said aperture and for retarding the movement of the mechanism and preventing loading of the gun so long as the aperture remains closed.

2. In an automatic gun, the combination with the mechanism casing having an aperture in the bottom and forward part thereof for the escape of the spent cartridges, of a manually actuated shutter for covering and uncovering said aperture and for retarding the movement of the mechanism and preventing the loading of the gun as long as said aperture remains closed.

3. In an automatic gun, the combination with the mechanism casing having an aperture in the bottom and forward part thereof for the escape of the spent cartridges, of a manually actuated shutter for covering and uncovering said aperture and for retarding the movement of the mechanism and preventing the loading of the gun

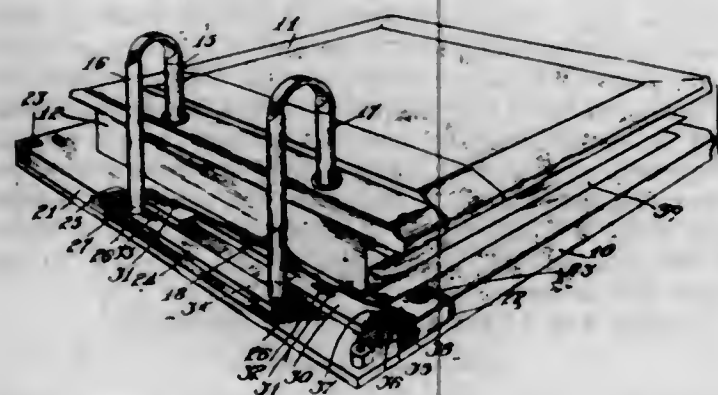
as long as said aperture remains closed, and means for retaining said shutter in its open or closed position relatively to the said aperture.

4. In an automatic gun, the combination with the mechanism casing having an aperture in the bottom and forward part thereof for the escape of the spent cartridges, of a manually actuated sliding plate for covering and uncovering the portion of the aperture in the bottom of the mechanism casing and an upward projection on the forward end of the said plate for covering and uncovering the portion of the aperture in the forward part of the mechanism casing, the said plate retarding the movement of the mechanism and preventing the loading of the gun so long as the aperture remains closed.

5. In an automatic gun, the combination with the mechanism casing of a bottom plate attached to said casing and having an aperture of substantial length and width and a sliding plate carried by said bottom plate for covering and uncovering said aperture and for retarding the movement of the mechanism and preventing the loading of the gun so long as the aperture remains closed.

[Claims 6 to 10 not printed in the Gazette.]

1,077,681. LOOSE-LEAF BINDER. JAMES C. DAWSON, Webster Groves, Mo., assignor to George D. Barnard & Co., St. Louis, Mo., a Corporation of Illinois. Filed Nov. 11, 1912. Serial No. 730,698. (Cl. 129—11.)



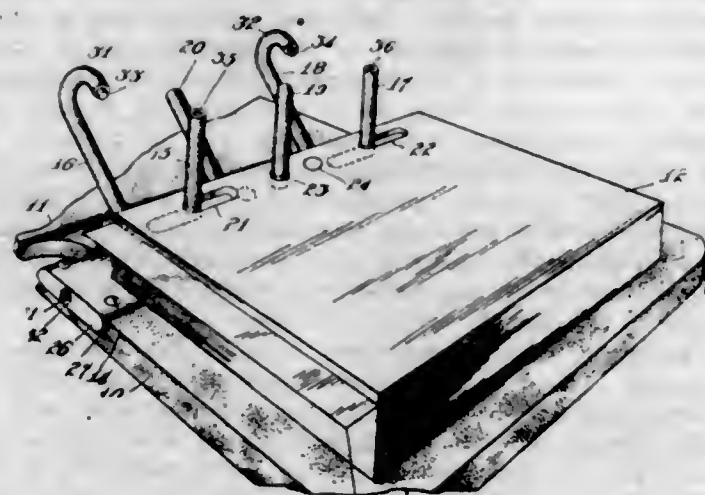
1. In a loose leaf binder, in combination, a base, a pair of normally upright filing posts, one having an overhanging top and the other post being fixed in the base, the ends of the two posts being constructed for telescopic connection, a pair of trunnions projecting laterally in opposite directions from the lower end of the post having the overhanging top, vertically slotted bearing blocks mounted on the base for receiving the trunnions, an upwardly facing shoulder rigid with the post having the trunnions, and a locking plate movable over the said shoulder when the trunnions occupy the lower ends of the said slots.

2. In a loose leaf binder, in combination, a flattened tubular base having a slotted opening in its wall, a pair of filing posts rising from the base, one thereof being fixed at its lower end in a wall of the base and the other having an integral overhanging top and extending at its lower end through the said slotted opening into the chamber of the base, the higher ends of the two posts being constructed for telescopic connection, a plate within the chamber of the base fixed upon the lower end of the post having the overhanging top, trunnions on the end of the plate, a vertically slotted bearing block fixed within the chamber of the base for receiving each of the trunnions, and a locking plate sliding within the chamber of the base and movable over the first named plate when the trunnions occupy the lower ends of the slots of the said bearing blocks.

3. In a loose leaf binder, in combination, a base, a pair of normally upright filing posts, one having an overhanging top and being connected to the base by a vertically sliding pivot and the other post being fixed in the base, the ends of the two posts being constructed for telescopic

connection, an upwardly facing shoulder rigid with the post having the overhanging top, said shoulder being offset from the line of pivotal connection of the post with the base toward the fixed post and a locking plate movable over the said shoulder when the ends of the two posts are in telescopic engagement.

1,077,682. LOOSE-LEAF BINDER. JAMES C. DAWSON, Webster Groves, Mo. Filed Nov. 11, 1912. Serial No. 730,699. (Cl. 129—11.)



1. In a loose leaf binder, in combination, a plurality of pairs of filing posts, one of the posts of each pair being fixed and the other post of each pair being movable toward and away from the fixed post, all of the movable posts being rigidly connected, and the posts of one pair being of such length as to meet when the movable posts are in one position, the posts of another pair being separated at all times.

2. In a loose leaf binder, in combination, two pairs of relatively movable filing posts, the corresponding posts of the two pairs being rigidly connected, the posts of one pair being of such length as to meet when in one position and the posts of the other pair being separated at all times.

1,077,683. RESILIENT TIRE FOR TRUCKS. DANIEL H. DERRY, Bridgeport, Conn. Filed June 11, 1912. Serial No. 703,047. (Cl. 152—9.)



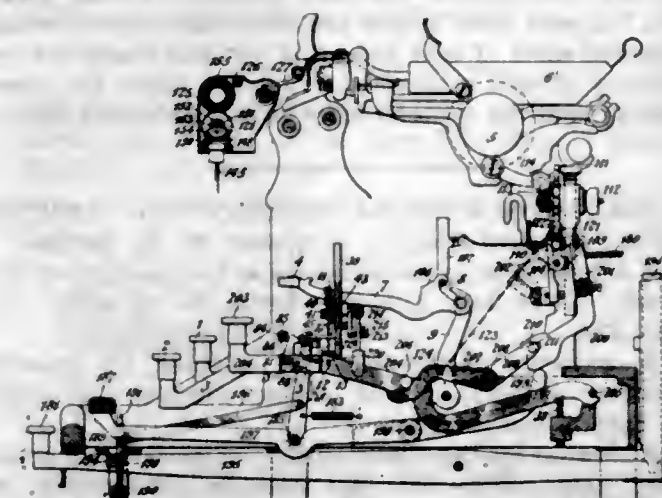
A tire comprising a series of transverse radial sections of resilient material having notches in their edges, retaining rings engaging the notches and a metallic rim of larger circumference than the normal inner circumference of the assembled sections whereby when assembled the bases of the series of sections are placed under longitudinal and radial compression.

1,077,684. COMBINED TYPE-WRITING AND COMPUTING MACHINE. GUSTAVE O. DEGENER, New York, N. Y., and HENRY RESCH, Bayonne, N. J., assignors to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Aug. 27, 1910. Serial No. 579,226. (Cl. 235—59.)

1. In a combined typewriting and computing machine, the combination of a carriage, type-operating keys, including alphabet and numeral keys, a space key, an escapement mechanism controllable by all of said keys, computing mechanism controlled by said numeral keys, means settable by any of said numeral keys for locking against actuation the type-operating keys and the space key, and

an auxiliary key having means operating through the escapement mechanism for effecting release of all of said keys.

2. In a combined typewriting and computing machine, the combination of a carriage, type-operating keys, including alphabet and numeral keys, a space key, an escapement mechanism controllable by all of said keys, computing mechanism controlled by said numeral keys, means settable by any of said numeral keys for locking against actuation the type-operating keys and the space key, automatically operating means for releasing said keys, and an auxiliary key having means operating through the escapement mechanism for effecting release of all of said keys.



3. In a combined typewriting and computing machine, the combination of a set of type-operating keys, including alphabet and numeral keys, a power-driven computing mechanism controlled by the numeral keys and including an escapement wheel having escapement pins settable by the numeral keys, means settable by any numeral key for locking the type-operating keys against actuation, said key-locking means being releasable through the movement of said escapement wheel, means also settable by said numeral keys for locking said escapement wheel against actuation, and an auxiliary key having means for effecting the release of said escapement wheel.

4. In a combined typewriting and computing machine, the combination of a set of type-operating keys, including alphabet and numeral keys, a letter-spacing key, a power-driven computing mechanism controlled by the numeral keys and including an escapement wheel having escapement pins settable by the numeral keys, means settable by any numeral key for locking said type-operating keys and said letter spacing key against actuation, said key-locking means being releasable through the movement of said escapement wheel, means also settable by said numeral keys for locking said escapement wheel against actuation, automatically operating means for unlocking said escapement wheel, and an auxiliary key having means for effecting the release of said escapement wheel.

5. In a combined typewriting and computing machine, the combination of a typewriter carriage, carriage-feeding means, type-operating keys including alphabet and numeral keys, a space key, a computing mechanism operable by the numeral keys, carriage-feeding means operable by all of said keys, means settable by any of said numeral keys for locking against actuation the type-operating keys and the space key, means dependent upon the actuation of said carriage-feeding means for releasing said keys from said locking means, and an auxiliary key having means for operating said carriage-feeding devices.

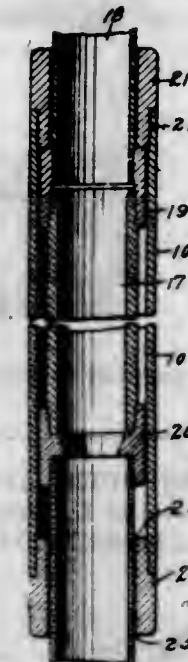
[Claims 6 to 22 not printed in the Gazette.]

1,077,685. PUMP-PROTECTOR. JOSEPH J. DRUEL, Bakersfield, Cal., assignor to Axelson Machine Co., Los Angeles, Cal., a firm composed of Charles F. Axelson and Gustavus A. Axelson. Filed July 23, 1912. Serial No. 711,170. (Cl. 103—53.)

1. The combination with pump tubing and a working barrel of means for loosely connecting the pump tubing

to the bottom of the working barrel, so that if the working barrel breaks in two, the part below the break may be withdrawn from the pump tubing.

2. A pump protector comprising, a case adapted for inclosing the working barrel of a pump; means for connecting the case to the lower end of the pump tubing; and means for loosely connecting the lower end of the case to the lower end of the working barrel, so that if the working barrel breaks in two, the part below the break may be removed by removing the tubing.



3. The combination with a pump tubing, of a working barrel rigidly secured to the lower end of the tubing; an anchor extending downwardly from the working barrel; a case adapted to inclose the working barrel; said case being longer than the working barrel; a connection between the upper end of the case and the pump tubing; and a loose connection between the lower end of the case and the lower end of the working barrel; so that if the working barrel breaks in two, the part below the break may be withdrawn by withdrawing the pump tubing.

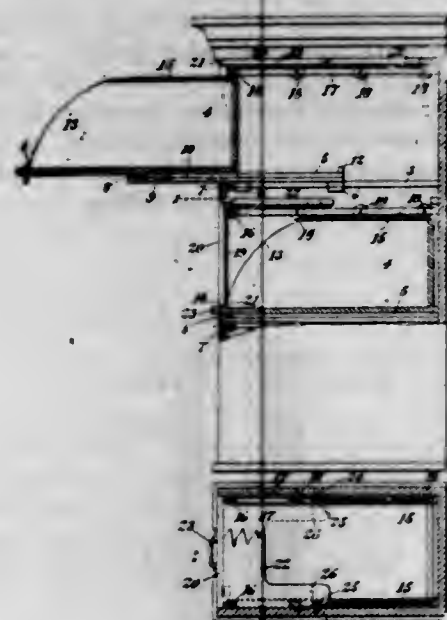
4. In a pump the combination with the tubing and working barrel, of a collar fixed to the tubing and of greater diameter than the tubing, a collar of greater diameter than the tubing loosely mounted on the tubing above and resting on the first named collar, a case fastened to the loose collar and inclosing the working barrel and provided with an internal projection below the working barrel to prevent escape thereof.

5. A pump protector comprising, the combination with a tubing and working barrel of a case longer than the working barrel and adapted to inclose the working barrel; a loose connection between the upper end of the case and the lower end of the tubing; and a loose connection between the lower end of the case and the lower end of the working barrel; so that if the working barrel breaks, it cannot get out of the case.

1,077,686. SAMPLE-CASE. CHARLES G. DUFFY, New York, N. Y. Filed May 25, 1912. Serial No. 699,797. (Cl. 45—7.)

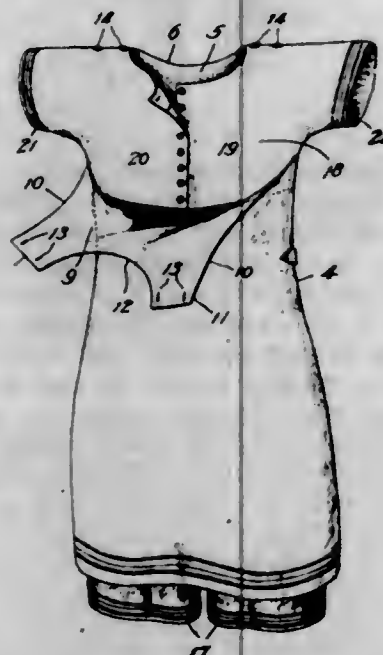
The combination, with a sample-case frame, of a drawer provided with a projecting, transversely-grooved bottom and sides backwardly curved at their forward ends and with cogged racks along their upper edges, a cogged wheel adapted to mesh above each of said racks, a sliding door-guide provided at each side with a section of cogged rack adapted to engage above one of said cogged wheels, a downwardly swinging door hinged to the forward end of said door-guide and provided with a backwardly and down-

wardly beveled lower edge to engage in said transverse bottom groove, and also provided at each side with a



section of cogged rack adapted to engage above one of said cogged wheels.

1,077,687. SWIMMING-SUIT. DOROTHY DYRENFORTH, (now by marriage Dorothy D. Auracher,) Oak Park, Ill. Filed Nov. 29, 1912. Serial No. 734,030. (Cl. 2-145.)



1. A one-piece swimming-suit comprising a jacket with trunks, a bust-supporter on the jacket and permanently connected therewith from the shoulders to a substantial distance below the arm pits, and a part forming a portion of the jacket for covering said supporter and constituting the unbroken closure for the upper portion of the suit.
2. A one-piece swimming-suit comprising a skirted jacket with trunks in the skirt, a bust-supporter formed of chest-sections extending from the sides of the jacket to meet between them and provided with means for fastening the sections together where they meet, and a bib forming a part of the jacket, folding downwardly to open it and upwardly for covering said supporter and adapted to be fastened to the shoulder-portions of the jacket.

1,077,688. STOVE AND FURNACE LIGHTER. JOHN EDMAN, Minneapolis, Minn., assignor to Herbert L. Laird, Minneapolis, Minn. Filed Jan. 17, 1913. Serial No. 742,633. (Cl. 158-10.)

1. A portable stove or furnace lighter adapted to be inserted into a body of coal, comprising a tube having a wedge shaped point, and a combined guard and deflecting

bar secured on top of said tube and extended longitudinally thereof, said tube having gas discharge orifices arranged to direct the escaping gas against said bar.



2. A portable stove or furnace lighter adapted to be inserted into a body of fuel, comprising a tube having a wedge shaped tip with its sharp edge vertically extended, and a combined guard and deflecting bar secured on top of said tube and extended longitudinally thereof with its front end overlapping the rear portion of said wedge shaped tip, said tube having gas discharge orifices located on opposite sides of said deflecting bar and staggered longitudinally of said tube and arranged to direct the escaping gas against the opposite sides of said deflecting bar.

1,077,689. CONCRETE-WATERPROOFING COMPOSITION. CARLETON ELLIS, Montclair, N. J., assignor to New Jersey Testing Laboratories, a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,216. (Cl. 106-43.)

1. A waterproofing composition adapted for concrete comprising neutralized acid sludge carrying an alkali-earth base in combination.
2. A waterproofing composition comprising overneutralized acid sludge carrying lime in combination, admixed with pulverulent material.

1,077,690. REVOLVING SIGN. CLARENCE A. EVANS, Chester, Pa. Filed Dec. 16, 1912. Serial No. 736,882. (Cl. 40-39.)



1. A base, a heating device therein, a jacket surrounding the upper portion of said base with an intervening air space, a casing rising from said jacket, a windwheel, a casing therefor supported upon the first-mentioned casing, a sign mounted on the windwheel shaft, and a stationary frame within which said sign is received.

2. A base, a heating device therein, a flue rising from said base, a jacket surrounding said flue with an air space intervening, a casing rising from said jacket, a windwheel, a casing therefor supported upon the first-mentioned casing, a sign mounted on the windwheel shaft, and a stationary frame within which said sign is received, said flue and jacket being conical to increase the upward draft of the products of combustion into the lowermost casing.

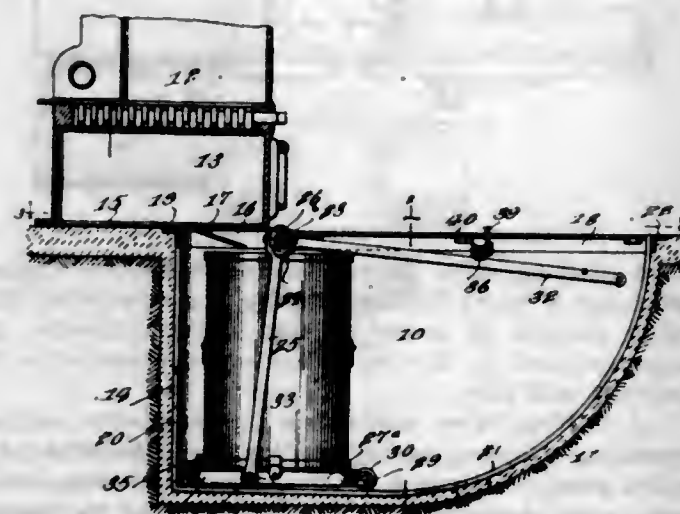
3. A base, a heating device therein, a deflector depending within the base, a flue rising from said base, a casing surrounding the flue, a windwheel casing, a windwheel therein, a frame supported above the windwheel casing, the windwheel shaft having a bearing in said frame, and a sign within the frame carried by the windwheel shaft and revoluble therewith.

4. A base, a heating device therein, a flue rising from said base, a casing surrounding the flue, a windwheel casing, a lining of nonconducting material within said windwheel casing, an open frame supported above the casing, a windwheel shaft supported in said frame and windwheel casing, a windwheel on said shaft within the windwheel casing and a revoluble sign mounted on said shaft within said frame.

5. A base, a heating device therein, a jacket surrounding the upper portion of said base with an intervening air space, a casing rising from said base, a shaft mounted in said casing, a windwheel on said shaft within said casing, said shaft being extended above said casing, and a sign on said shaft revoluble therewith.

[Claim 6 not printed in the Gazette.]

1,077,691. ELEVATING DEVICE. LEWIS J. EVANS, Kirkwood, N. Y. Filed Apr. 19, 1912. Serial No. 691,951. (Cl. 214-1.)



1. In an elevating device, the combination with a supporting frame and depressed track, of a squared shaft journaled thereon, arms rigidly secured to the said shaft and depending into proximity to said track, a carriage having pivotal connection with the said arms, a roller on the said carriage and movable over the said track, an operating lever secured to the said shaft to rotate the same and operate the said arms to advance the said carriage along the said track, and locking members mounted on the said supporting frame and adapted to be engaged by the said arms to retain the said carriage in stationary position relatively to the supporting frame.

2. In an elevating device, the combination with a supporting frame and depressed track, of a squared shaft journaled in said frame, arms rigidly secured to the said shaft and depending into proximity to said track, a carriage having pivotal connection with the said arms, a roller on the said carriage and movable over the said track, an operating lever secured to the said shaft to rotate the same and operate the said arms to advance the said carriage along the said track, and means on the said supporting frame for locking the said carriage in stationary position relatively thereto.

3. In an elevating device, the combination with a supporting frame and depressed track, of a squared shaft journaled on said frame, arms rigidly secured to the said shaft and depending into proximity to said track, a carriage having pivotal connection with the said arms, a roller on the said carriage and movable over the said track, and an operating lever secured to the said shaft to rotate the same and operate the said arms to advance the said carriage along the said track.

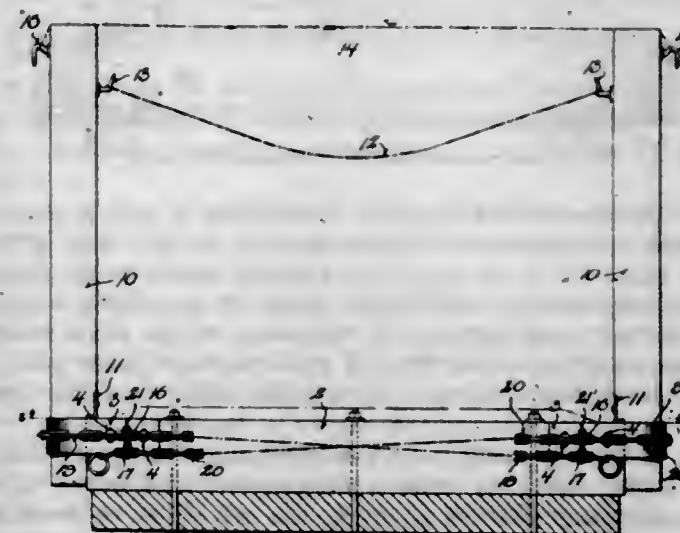
4. In an elevating device, the combination with a supporting frame, of a track thereon, a carriage frame mounted to depend from the supporting frame, a carriage mounted to swing on the carriage frame and movable over the said track, and means for operating the said carriage frame to advance the said carriage along the said track and swing the said carriage relatively to the said

carriage frame as the said carriage is advanced along the said track so that the said carriage will at all times assume a horizontal position.

5. In an elevating device, the combination with a supporting frame, of a track thereon, a carriage frame mounted to depend from the supporting frame, a carriage mounted to swing on the carriage frame and movable over the said track, and means for operating the said carriage frame to advance the said carriage along the said track.

[Claims 6 to 15 not printed in the Gazette.]

1,077,692. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Apr. 11, 1913. Serial No. 760,456. (Cl. 105-173.)



1. A bolster-stake holder comprising a sill, a pair of cap-plates secured to the same side of the sill at its opposite ends, an inwardly curved fixed jaw-clip extending from each cap-plate beyond the sill end, a locking cleat extending from each plate, a second pair of cap-plates secured to the sill side opposite the first mentioned cap-plates, a curved jaw-clip in hinged connection with each of the last mentioned cap-plates, the hinged jaw-clips being arranged to articulate with the aforesaid fixed jaw-clips to form stake-receiving pockets, and a flexible lock-and-release runner secured to each hinged jaw-clip, each runner being in interlocking engagement with a cleat.

2. A bolster-stake holder comprising a sill, a cap-plate secured to one side of the sill at each end thereof, the cap-plates being provided with inwardly curved rigid jaw-clips, pairs of locking cleats extending from each of the aforesaid cap-plates, other cap-plates secured to the opposite side of the sill adjacent to its ends, jaw-clips in hinge connection with the last mentioned cap-plates adapted to articulate with the fixed jaw-clips to form stake-pockets, a chain secured to each hinged jaw-clip and having their free ends extending transversely of the sill in opposite directions, each chain being provided with links adapted to engage one cleat of each pair of the cap-plates.

3. A bolster-stake holder comprising a sill, a cap-plate secured to one side of the sill at each end thereof, the cap-plates being provided with inwardly curved rigid jaw-clips, pairs of locking cleats extending from each of the aforesaid cap-plates, other cap-plates secured to the opposite side of the sill adjacent to its ends, jaw-clips in hinge connection with the last mentioned cap-plates adapted to articulate with the fixed jaw-clips to form stake-pockets, a chain secured to each hinged jaw-clip and having their free ends extending transversely of the sill in opposite directions, each chain being provided with links adapted to engage one cleat of each pair of the cap-plates, and means for locking the chains in connection with the cleats.

4. In a pair of bolster stakes having releasable stake-holding pockets; the combination of a chain or cable detachably secured to the inner faces of the stakes intermediate of their ends, downwardly inclined hooks se-

cured to the outer faces of the stakes adjacent to the ends of the same, and a chain in engagement with the stakes.

5. In a pair of bolster stakes having releasable stake-holding pockets; the combination of downwardly inclined hooks secured to the outer faces of the stakes adjacent to the ends of the same, and a chain or cable engageable with the hooks, whereby either one of the stakes, when released from its holder, is held in suspension.

[Claim 6 not printed in the Gazette.]

1,077,693. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Apr. 11, 1913. Serial No. 760,457. (Cl. 105—173.)

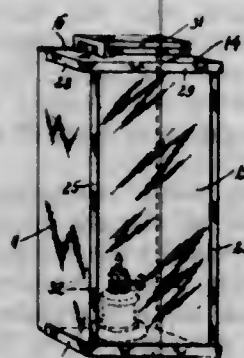


1. A bolster stake holder comprising a sill, a pair of chains each having one end secured to the side of the sill adjacent to its end, a detachable saddle-plate permanently secured to each chain, pairs of cap-plates secured to the sill sides adjacent to the ends of the same having extensions projecting beyond the sill ends each pair of cap-plates being provided with saddle-plate receiving jaws, and means for locking the chains to the sills.

2. A bolster stake holder comprising a sill, cap-plates extending from its ends having upper and lower jaws, a saddle-plate adapted to bridge the cap-plates between the jaws, a chain permanently secured to one of the cap-plates and to the saddle-plate, the chain being extended to that side of the sill opposite the cap-plates referred to, and a cleat for engagement with a link of the chain.

3. A bolster stake holder comprising a sill, a pair of cap-plates projecting beyond its end, the cap-plates being provided with upper and lower jaw-members, a saddle-plate extending transversely of the cap-plates and fitted between the jaw members, flanges extending inwardly from the ends of the saddle-plate for engagement with the side faces of the cap-plates, a chain permanently secured to the sill and saddle-plate and means extending from the far side of the sill for effecting locking engagement with the chain.

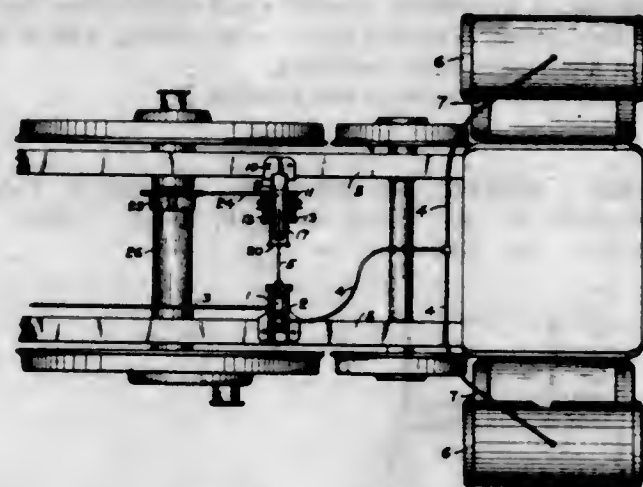
1,077,694. DARK-ROOM LANTERN. GUSTAV MAX FIEDLER, New York, N. Y. Filed June 2, 1913. Serial No. 771,197. (Cl. 240—20.)



A device of the character described, comprising a box-like receptacle including a rear wall, two parallel spaced sides pivotally attached to the longitudinal edges thereof, a top and a bottom hinged to the upper and lower edges, respectively, of said rear wall, said side walls being provided along their longitudinal edges with inwardly turned flanges, one set of said flanges being adapted to bear against the outer face of said rear wall, said top and bottom having side and front flanges, the flanges of said top projecting downward and the flanges of said bottom upward, a glass plate constituting the front of said

box and causing said sides to abut against the side flanges of said top and bottom, and means on said sides adapted to hold said glass plate against the front flanges of said top and bottom and the corresponding flanges of said sides.

1,077,695. DRIFTING-VALVE MECHANISM FOR LOCOMOTIVE ENGINES. WILLIAM H. FOSTER, New York, N. Y., assignor of one-half to William O. Taylor, North Plainfield, N. J. Filed July 3, 1913. Serial No. 777,225. (Cl. 121—14.)



1. A drifting valve mechanism for locomotive engines, comprising a valve for controlling the admission of a limited amount of steam to the engine cylinders, and means operated by the movement of the locomotive for governing said valve.

2. A drifting valve mechanism for locomotive engines, comprising a valve for controlling the admission of a limited amount of steam to the engine cylinders, and a speed governor operated by the movement of the locomotive for actuating said valve.

3. A drifting valve mechanism for locomotive engines, comprising a valve for controlling the admission of a limited amount of steam to the engine cylinders, and a centrifugal governor driven from an axle of the locomotive for opening and closing said valve.

4. A drifting valve mechanism for locomotive engines, comprising a valve for controlling the admission of a limited amount of steam to the engine cylinders, and means driven by the running of the locomotive for opening said valve and adapted to close the same when the speed is reduced below a certain minimum rate.

5. In a drifting valve mechanism for locomotive engines, the combination of a balanced valve for controlling the admission of a limited amount of steam to the engine cylinders, and a centrifugal governor driven by the movement of the locomotive for opening said valve and adjusted to close the same upon a reduction of speed below a certain minimum rate.

[Claim 6 not printed in the Gazette.]

1,077,696. WORKING TUNGSTEN. CARL T. FULLER, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed Mar. 29, 1912. Serial No. 687,228. (Cl. 205—21.)

1. The process of working metal which has become brittle during drawing or other working which consists in removing the outer surface or skin of metal and then proceeding with the drawing or working.

2. The process of rendering tungsten, which has become brittle during working, susceptible to further working which consists in removing an outer layer of metal.

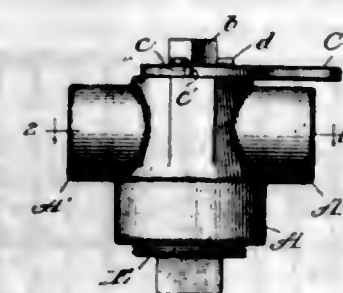
1,077,697. VALVE FOR CONTROLLING COMPRESSED AIR. ALBERT J. GATES, Chicago, Ill. Filed July 1, 1911. Serial No. 636,436. Renewed May 15, 1913. Serial No. 767,903. (Cl. 137—7.)

1. In a device for controlling the flow of compressed air, the combination with a casing having supply, de-

livery and exhaust ports, of a valve in said casing adapted to close all of said ports when in one position and having passages for connecting said supply and exhaust ports prior to connecting said supply and delivery ports, thereby preliminarily ejecting foreign matter, and means for restricting the movement of said valve relatively to said casing to said described operation.

2. In a device of the character described, the combination with a conduit leading from a source of fluid under pressure, of a valve casing with which said conduit communicates, a conduit leading from said casing to a fluid operated device, said casing having an exhaust port intermediate of its connections with said conduits, a valve in said casing having a passage adapted to connect or disconnect said conduits, said valve also having a passage for connecting said first conduit with said exhaust port momentarily during the movement of the valve from closed to open positions, and means for restricting the movement of said valve relatively to said casing to said described operation.

3. In a device of the character described, the combina-



tion with a valve casing having two ports and an intermediate exhaust port, of supply and delivery conduits communicating respectively with said two ports, a valve in said casing adapted to close said two ports when in one position and having a passage adapted to connect said two ports and also having a passage adapted to connect the supply port with the exhaust port during the preliminary movement of the valve from its closed to its open position, and means for restricting the movement of said valve relatively to said casing to said described operation.

4. A valve mechanism for controlling the flow of fluid under pressure comprising a valve and seat having co-operating ports and passages for preliminarily discharging fluid under pressure during the movement of the valve from closed to open positions and for permitting a free flow of fluid through said valve when in open position, and means for restricting the movement of said valve relatively to said seat to said described operation.

5. A valve mechanism for controlling the flow of fluid under pressure comprising a valve seat having supply and delivery ports and an intermediate exhaust port, a valve co-operating with said seat for closing said supply and delivery ports when in one position and having passages for momentarily connecting said supply and exhaust ports and subsequently connecting said supply and delivery ports, and means for restricting the movement of said valve relatively to said seat to said described operation.

1,077,698. LEAD-COPPER-TIN COMPOSITION. EDWARD D. GLEASON, New York, N. Y., assignor to Plastic Metal Company, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1913. Serial No. 752,600. (Cl. 75—1.)

1. A composition containing lead, copper, tin, and lead sulfid.

2. A composition containing lead, tin, lead sulfid, and from 50 to 60 per cent. copper.

3. A composition containing lead, tin, a non-metallic derivative of lead capable of increasing the miscibility of lead and copper, and copper.

1,077,699. LEAD-COPPER COMPOSITION. EDWARD D. GLEASON, New York, N. Y., assignor to Plastic Metal Company, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1913. Serial No. 752,601. (Cl. 75—1.)

1. A composition containing lead, copper, and lead sulfid.

2. A composition containing lead, lead sulfid, and 50 to 60 per cent. copper.

3. A composition containing lead, a non-metallic derivative of lead capable of increasing the miscibility of lead and copper, and copper.

1,077,700. PROCESS OF MAKING LEAD-COPPER COMPOSITIONS. EDWARD D. GLEASON, New York, N. Y., assignor to Plastic Metal Company, New York, N. Y., a Corporation of New York. Original application filed Mar. 7, 1913, Serial No. 752,601. Divided and this application filed Mar. 31, 1913. Serial No. 757,860. (Cl. 75—1.)

1. A process of making a composition containing copper and lead which consists in fusing said metals with lead sulfid and thereby increasing the miscibility of said metals.

2. A process of making a composition which consists in fusing lead sulfid with copper and then adding lead thereto and fusing the mixture.

3. A process of making a composition which consists in fusing with copper a non-metallic derivative of another metal, capable of increasing the miscibility of copper with that metal, and then adding the other metal thereto and fusing the mixture.

4. The process of making a composition containing copper and another metal which consists in fusing with the copper a sulfid of the other metal, and then mixing the other metal therewith.

5. A process of making a composition containing copper and another metal which consists in fusing therewith a non-metallic derivative of the other metal, capable of increasing the miscibility of copper with that metal.

1,077,701. PROCESS OF MAKING LEAD-COPPER-TIN COMPOSITIONS. EDWARD D. GLEASON, New York, N. Y., assignor to Plastic Metal Company, New York, N. Y., a Corporation of New York. Original application filed Mar. 7, 1913, Serial No. 752,600. Divided and this application filed Apr. 4, 1913. Serial No. 758,833. (Cl. 75—1.)

1. A process of making a composition of copper, lead and tin which consists in fusing said metals with lead sulfid and thereby increasing the miscibility of said metals.

2. A process of making a composition which consists in fusing lead sulfid with copper and then adding lead and tin thereto and fusing the mixture.

3. A process of making a composition containing tin and another metal, which consists in fusing therewith a non-metallic derivative of the other metal, capable of increasing the miscibility of tin with that metal.

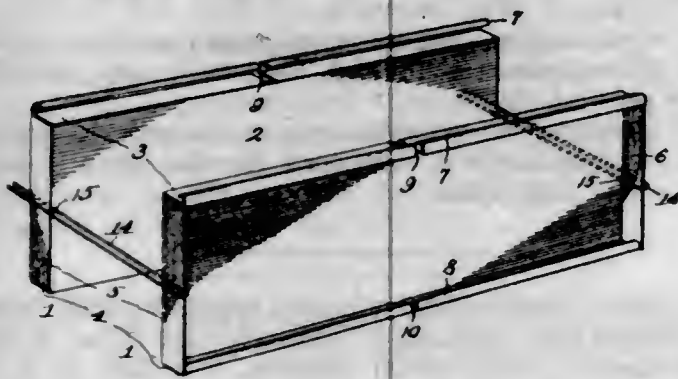
4. A process of making a composition containing tin and another metal which consists in fusing therewith a sulfid of the other metal, capable of increasing the miscibility of tin with that metal.

5. A process of making a composition of copper, lead and tin, which consists in fusing said metals with a non-metallic derivative of one of them, capable of increasing the miscibility of said metals.

1,077,702. CONCRETE-MOLD. BURT E. GRANT, Kansas City, Kans., assignor of one-half to Eugene R. Boynton, Kansas City, Kans. Filed June 20, 1912. Serial No. 704,718. (Cl. 25—131.)

A mold consisting of a plurality of sections, locking elements on the upper and lower margins of each section adapted to interlock with corresponding elements on abut-

ting sections when the same are arranged in tiers, said locking-elements having intervening slots, and transverse



elements on each section adapted to enter the slots of abutting sections when the same are arranged in tiers.

1,077,703. MOLD FOR MAKING DENTAL PLATES. JACOB W. GREENE, Chillicothe, Mo. Filed Jan. 18, 1913. Serial No. 742,962. (Cl. 32-6.)



1. In a device of the character described, the combination, with a dental flask, a dental model, and the investment of the flask, of a tooth-supporting element adapted to be positioned over the teeth, and means for retaining said tooth supporting element in position for the purposes described.

2. In a device of the character described, the combination, with a dental flask, a dental model, and the investment of the flask, of a tooth supporting element adapted to be positioned over the arch of the teeth, said tooth supporting element comprising a plurality of walls forming a channel, and means for retaining said element on the teeth.

3. In a device of the character described, the combination, with a dental flask, a dental model, and the investment of the flask, of a tooth-supporting element adapted to be positioned over the teeth, said element being provided with a channel for the reception of the teeth, a thin layer of investment within said channel and substantially surrounding the teeth, and means for securing the tooth supporting element in position.

4. In a device of the character described, the combination, with a dental flask, a dental model, and the investment of the flask, of a palatal support positioned over the arch or roof of the base plate, and means for separating the palatal support from the dental mold, for the purpose described.

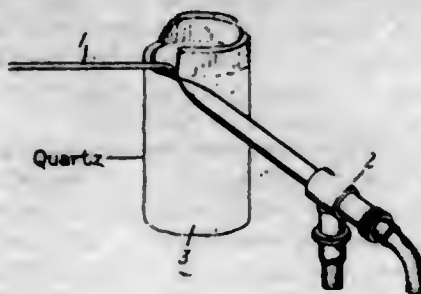
5. In a device of the character described, the combination, with a dental flask, a dental model, and the investment of the flask, of a palatal support positioned over the arch or roof of the base plate, and a thin layer of investment positioned between the support and the base plate.

[Claims 6 to 10 not printed in the Gazette.]

1,077,704. PRODUCTION OF ARTICLES FROM REFRACTORY MATERIAL. OTTO GEMMER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1912. Serial No. 733,028. (Cl. 49-78.1.)

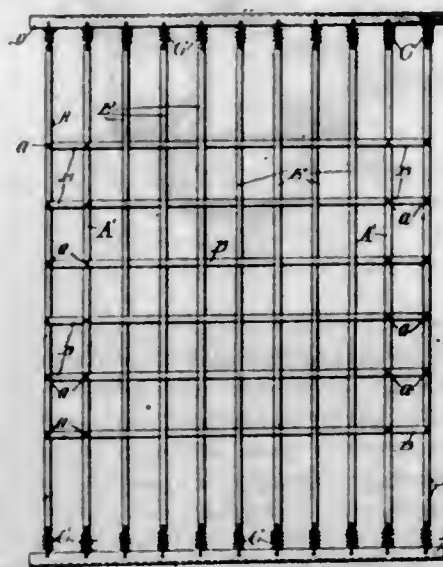
1. The process of shaping refractory material which consists in applying a softened thread of said material with a reciprocating stroke on a foundation longitudinal to the growth of the article.

2. The process of making quartz tubes which consists in building up said tube by applying softened quartz at the



end of said tube with a reciprocating stroke in the general direction of the axis of the tube and then working the tube in a softened condition to a desired shape.

1,077,705. METALLIC FABRIC FOR BEDS OR COUCHES. WILLIAM J. GROTEHUIS, Chicago, Ill., assignor, by mesne assignments, to Kinney-Rome Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1909. Serial No. 530,428. (Cl. 5-39.)



1. A bed frame and resilient metal fabric stretched thereon, comprising two sets of longitudinally opposed springs for uniting the opposite ends of the fabric with the bed frame, and means whereby the transverse action of the fabric, and also the longitudinal action thereof, are sustained entirely by the said springs, including longitudinal members having free and unlimited sliding self-adjustment on the fabric to equalize the tension of the springs at opposite ends thereof, said means comprising a ladder-frame upon the cross members of which the said longitudinal members slide endwise independently of each other.

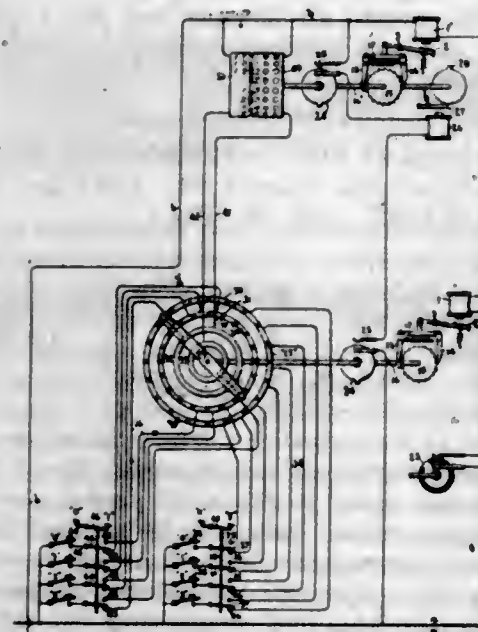
2. A bed frame and resilient metal fabric stretched thereon, comprising two sets of longitudinally opposed springs for uniting the opposite ends of the fabric with the bed frame, and means whereby the transverse action of the fabric, and also the longitudinal action thereof, are sustained entirely by the said springs, including longitudinal members having free and unlimited sliding self-adjustment on the fabric to equalize the tension of the springs at opposite ends thereof, said fabric having a trussed formation therein to reduce the distortion of the fabric resulting from the said transverse action thereof.

3. A bed frame and resilient metal fabric stretched thereon, comprising two sets of longitudinally opposed springs for uniting the opposite ends of the fabric with the bed frame, and means whereby the transverse action of the fabric, and also the longitudinal action thereof, are sustained entirely by the said springs, including longitudinal members having free and unlimited sliding self-adjustment on the fabric to equalize the tension of the springs at opposite ends thereof, said springs being independent of each other to provide individual tension for said longitudinal members and prevent interference between them.

4. A bed frame and resilient metal fabric stretched thereon, comprising two sets of longitudinally opposed springs for uniting the opposite ends of the fabric with the bed frame, and means whereby the transverse action of the fabric, and also the longitudinal action thereof, are sustained entirely by the said springs, including longitudinal members having free and unlimited sliding self-adjustment on the fabric to equalize the tension of the springs at opposite ends thereof, said means comprising cross members two or more of which are provided with means for holding inner longitudinal portions of the fabric against lateral displacement.

5. A bed frame and resilient metal fabric stretched thereon, comprising two sets of longitudinally opposed springs for uniting the opposite ends of the fabric with the bed frame, and means whereby the transverse action of the fabric, and also the longitudinal action thereof, are sustained entirely by the said springs, including longitudinal members having free and unlimited sliding self-adjustment on the fabric to equalize the tension of the springs at opposite ends thereof, said means comprising a ladder-frame upon the cross members of which the said longitudinal members slide endwise independently of each other, and other longitudinal members held by said cross members against endwise movement thereon, serving to hold the cross members in spaced relation.

1,077,706. RANGE-TRANSMITTER. JOHN L. HALL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 27, 1910. Serial No. 569,009. (Cl. 177-338.)



1. A range transmitter comprising two shafts located respectively at the sending and receiving stations, synchronously operating motors for driving said shafts, an electrical phase correcting device for said shafts, circuit closers for said device operated by said shafts, one or more rotary indicators driven frictionally by the shaft at the receiving station, electromagnetic devices for arresting the rotation of said indicator or indicators, and selective devices for energizing said electromagnetic devices from the sending station.

2. A range transmitter comprising two shafts located respectively at the sending and receiving stations, synchronously operated motors for driving said shafts, a stop on one shaft, an electromagnet having an armature adapted to engage said stop, circuit closers controlling said electromagnet and adapted to be closed by said shafts at a given point in their revolution, one or more rotary indicators driven frictionally by the shaft at the receiving station, electromagnetic devices for arresting the rotation of said indicator or indicators, and selective devices for energizing said electromagnetic devices from the sending station.

3. A range transmitter comprising two shafts located respectively at the sending and receiving stations, syn-

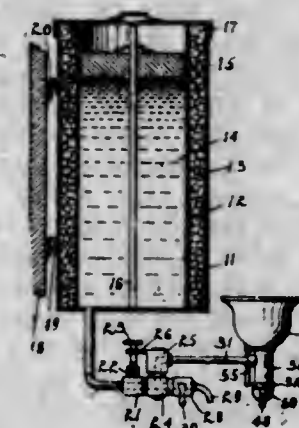
chronously operating motors for driving said shafts, a stop on one shaft, an electromagnet having an armature adapted to engage with said stop, a circuit closer operated by said shaft and in circuit with said electromagnet and arranged to be closed just before said stop is engaged by said armature, a second circuit closer in the same circuit but operated by the other shaft at the same angular point in its revolution as the other circuit closer, one or more rotary indicators driven frictionally by the shaft at the receiving station, electromagnetic devices for arresting the rotation of said indicator or indicators, and selective devices for energizing said electromagnetic devices from the sending station.

4. A range transmitter comprising two shafts located respectively at the sending and receiving stations, means for actuating said shafts synchronously, means for keeping them in phase, one or more rotary indicators driven frictionally by one shaft, a plurality of latches, an electromagnet for actuating any of said latches to arrest the rotation of each indicator, a contact arm driven by the other shaft and in circuit with the electromagnet actuating said latches, a plurality of contact segments co-operating with said arm, and means for energizing any given segment.

5. A range transmitter comprising two shafts located respectively at the sending and receiving stations, means for actuating said shafts synchronously and means for keeping them in phase, one or more rotary indicators driven frictionally by one shaft, a plurality of latches for arresting the movement of said indicator, an electromagnetic selector having a bar rotating with the indicator, a contact arm driven by the other shaft, and in circuit with said selector, and means for energizing said contact arm at any desired point in its revolution.

[Claims 6 and 7 not printed in the Gazette.]

1,077,707. DRINKING-FOUNTAIN. AUGUST H. HARTMAN, Stamford, Conn. Filed Apr. 9, 1910. Serial No. 554,427. (Cl. 137-109.)



1. In a drinking fountain, in combination with a pipe communicating with a source of water supply and having a valve therein, a valve-controlled discharge nozzle, a pipe connection between said nozzle and the supply pipe, and means connecting said nozzle pipe and the valve in said supply pipe, whereby the nozzle will be locked in operative position.

2. In a drinking fountain, in combination with a pipe communicating with a source of water supply and having a valve therein, an adjustable valve controlled discharge nozzle, a pipe connection between said nozzle and the supply pipe, and means connecting said nozzle pipe and the valve in said supply pipe, whereby the nozzle will be locked against adjustment to inoperative position.

3. In a drinking fountain, in combination with a valve-controlled pipe communicating with a source of water supply, a cup, a valve-controlled chambered nozzle, arranged within said cup, a pipe leading to the chamber in said nozzle, a swivel connection between said nozzle pipe and said supply pipe, and means for locking said nozzle pipe against swivel movements.

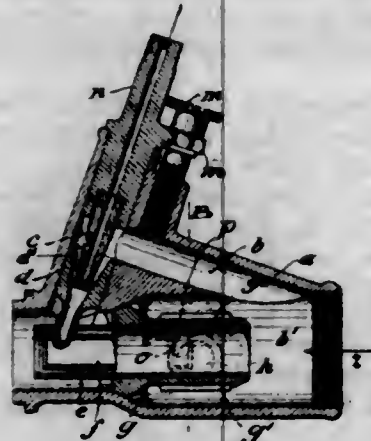
4. A drinking fountain, including a water supply pipe, a branch pipe having a swiveled connection with the sup-

ply pipe, a regulating valve for the supply pipe, means for locking said branch pipe in extended position, a nozzle attached to said branch, a valve for the nozzle, means for operating said nozzle valve, a cup surrounding said nozzle, and a discharge pipe for the cup.

5. A drinking fountain including a water supply pipe, a valve therefor, a faucet connected with said pipe, a branch pipe having a swiveled connection with the supply pipe, means for locking the branch pipe in extended position, a nozzle attached to the branch pipe, a valve controlling the orifice of said nozzle, a spring for the valve, means for operating said valve, and a cup surrounding the nozzle and extending above the said orifice, said cup having a double margin comprising an outer flaring portion and an inner contracted portion.

(Claims 6 and 7 not printed in the Gazette.)

1,077,708. ATOMIZER. CARL HASSLER, Aalen, Germany. Filed Feb. 24, 1913. Serial No. 750,140. (Cl. 137-80.)



1. In an atomizer, the combination with a casing, a liquid nozzle adjustably mounted therein, a mixing nozzle mounted in front of the liquid nozzle, the area of the orifice of the mixing nozzle being equal to the area of the inlet for the supply of air when the liquid nozzle is nearest the mixing nozzle while the area of the air inlet in all other positions of the liquid nozzle is greater than the area of the orifice of the mixing nozzle, an additional air supply conduit arranged in the casing at an inclination to the axis of the liquid nozzle, into which conduit the mixing nozzle projects, the orifice of the mixing nozzle being so formed that the mixture of air and liquid flows therefrom in bands or ribbons transversely of the current of air in the said conduit, and means for regulating the flow of air through the said conduit.

2. In an atomizer, the combination of a casing, a liquid nozzle adjustably mounted therein, a mixing nozzle arranged in front of the liquid nozzle, the area of the orifice of the mixing nozzle being equal to the area of the inlet for the supply of air when the liquid nozzle is nearest the mixing nozzle, while the area of the air inlet in all the other positions of the liquid nozzle is greater than the area of the orifice of the mixing nozzle, an additional air supply conduit arranged in the casing at an inclination to the axis of the liquid nozzle, into which conduit the mixing nozzle projects, and means for varying the flow of air through the additional air supply conduit independently of the inlet to the liquid nozzle whereby the regulation of the supply of liquid as well as the mixing action of air and sprayed liquid are increased.

3. In an atomizer, the combination of a casing, a liquid nozzle adjustably mounted therein, a mixing nozzle arranged in front of the liquid nozzle, the area of the orifice of the mixing nozzle being equal to the area of the inlet for the supply of air when the liquid nozzle is nearest the mixing nozzle, while the area of the air inlet in all the other positions of the liquid nozzle is greater than the area of the orifice of the mixing nozzle, an additional regulatable air supply conduit arranged in the casing at an inclination to the axis of the liquid nozzle, into which conduit the mixing nozzle projects, the orifice of the mixing nozzle being formed step-shaped, so that the mixture of

air and liquid flows away at various elevations in the form of bands or ribbons transversely of the current of air in said conduit.

4. An atomizer comprising a casing providing separate air passages therein, a nozzle in which there is a mixing chamber the walls of which diverge as they extend from the discharge end of the said nozzle, an adjustable liquid supply pipe extending into the mixing chamber and providing an annular air inlet between its end and the diverging walls of the mixing chamber for air from one of the said passages, the area of the air inlet being equal to the area of the orifice of the nozzle when the pipe is in its innermost position, and larger than the area of the orifice of the nozzle when the pipe is in all other positions, means for adjusting the said liquid supply pipe in position within the said mixing chamber, and devices in the other air passage and independent of the mixing chamber for subdividing the air into a plurality of currents.

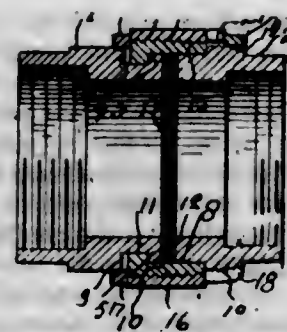
5. An atomizer comprising a casing providing air passages therein, a nozzle in which there is a mixing chamber the walls of which diverge as they extend from the discharge end of the said nozzle, an adjustable liquid supply pipe extending into the mixing chamber and providing an annular air inlet between its end and the diverging walls of the mixing chamber for air from one of the said passages, the area of the air inlet being equal to the area of the orifice of the nozzle when the pipe is in its innermost position, and larger than the area of the orifice of the nozzle when the pipe is in all other positions, means for adjusting the said liquid supply pipe in position within the said mixing chamber, a valve in the second air passage, means for opening and closing the valve to vary the flow of air through both passages, and concentric tubes also within the second air passage and into the inner of which tubes the said discharge nozzle extends and its orifice is located.

1,077,709. PROCESS FOR CONSTRUCTING BOLSTERS. ALONZO L. HASTINGS, Chicago, Ill. Filed Jan. 20, 1912. Serial No. 672,272. (Cl. 29-164.)



The process of constructing bolsters for railway trucks, which consists in pouring molten metal direct from the crucible between mold members to produce an embryo bolster structure whose walls are of greater width and less thickness than in the finished structure, then subjecting this embryo structure to die treatment and during such treatment working and compressing the walls transversely of the structure to bring the walls to substantially the same width and thickness as in the finished structure, then subjecting such structure to a final die treatment to bring the walls to finished width and thickness and to trim off the edges of said walls.

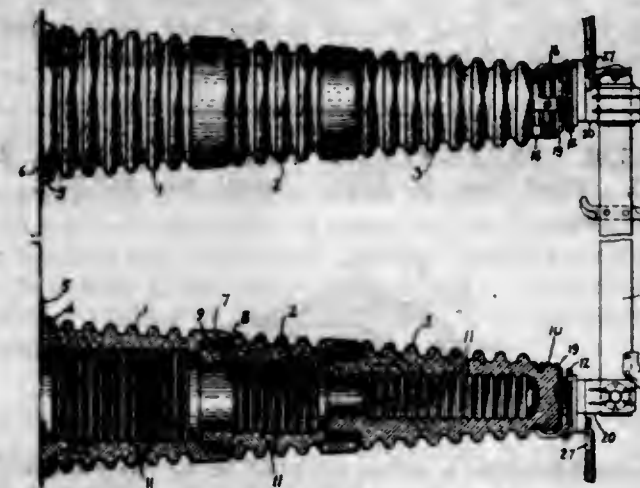
1,077,710. HOSE-COUPLING. OTTO HESSE, Hoboken, N. J. Filed Sept. 19, 1912. Serial No. 721,207. (Cl. 137-28.)



A hose coupling comprising male and female members, the male member having a flange on its outer margin

adapted to seat within the female member and provided with notches, the female member formed with recesses in its outer surface, clamping members slidably mounted in said recesses and having inwardly extending heads adapted to coincide with the notches in the male member and to engage the flange thereon when in the clamping position, the outer surfaces of said clamping members being threaded, a shoulder on the outer margin of the female member, a clamping ring mounted on said female member and engaging said shoulder, said clamping ring being interiorly threaded to engage the threads on said clamping members, a threaded ring mounted on said female member and having a recess therein, and the clamping ring aforesaid formed with a lug or projection operating in the recess aforesaid to limit the rotation of the clamping ring on the female member.

1,077,711. HIGH-POTENTIAL INSULATOR. EDWARD M. HEWLETT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 5, 1908. Serial No. 430,987. (Cl. 173-318.)



1. The combination with an insulator post, of a metallic cap having means for coupling to the end of said post, and means for angularly adjusting or leveling said cap thereon.

2. The combination with an insulator post having a grooved end, of a metallic cap having a clamp for engaging the said grooved end, an adjustable means carried by said cap for angularly adjusting or leveling it with relation to the said post.

3. The combination with an insulator post, of a metallic cap having means for coupling to the end of said post, a plate on the end of said post, and means carried by the cap for engaging said plate and operating to adjust or level said cap with relation to said post.

1,077,712. MANUFACTURE OF BORON NITRID. RICHARD HEYDER, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 2, 1912. Serial No. 688,037. (Cl. 23-13.)

1. The method of producing boron nitrid comprising the step of subjecting a mixture of a reducible boron compound, a reducing metal and decomposable nitrogen compound to the reaction temperature.

2. The method of producing boron nitrid comprising the step of subjecting a mixture of boric anhydrid, magnesium and ammonium chloride to the reaction temperature.

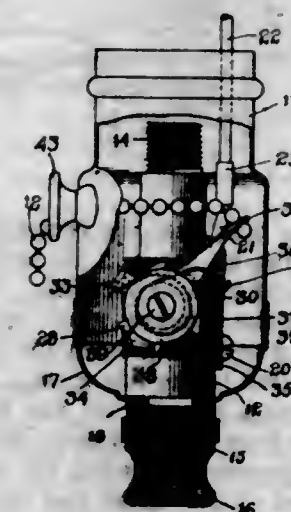
3. The method of producing pure boron nitrid which consists in subjecting a mixture of boric anhydrid, magnesium and an ammonium compound to a temperature sufficient to initiate the reaction, and after completion of said reaction, cooling, and washing the resulting product with dilute acid.

4. The method of producing pure boron nitrid which consists in subjecting a reducible boron material, magnesium, and an ammonium compound to a temperature of about 300° C. to initiate a reaction, after completion of said reaction, cooling, and washing the resulting product successively with dilute acid and alcohol and drying at a low temperature *in vacuo*.

196 O. G.—11

5. The method of producing boron nitrid which consists in subjecting a mixture of a reducible boron compound, a reducing metal and ammonium chloride to the reaction temperature, after completion of the reaction, cooling and washing with a solvent for the by-products of the reaction, and finally drying the boron nitrid *in vacuo* at a temperature of about 60-70 degrees C.

1,077,713. GAS-BURNER. LOUIS C. HILLER and FRANKLIN IRVING CAMP, Meriden, Conn. Filed Apr. 5, 1913. Serial No. 759,106. (Cl. 67-16.)



1. In a gas burner, in combination, a body having a gas passage, a shell inclosing said body, a rotary valve controlling said passage, the axis of said valve being parallel to a diameter of said shell, operating mechanism including an operating arm on the end of said valve within the shell, a guide on said shell arranged perpendicular to said axis at a point opposite said arm, and a chain secured to said arm and passing through said guide.

2. In a gas burner, the combination with a body having a gas passage, of a rotary valve arranged with its axis transverse to the axis of said passage and at one side thereof, said valve having three equally spaced communicating radial ports of the same size as the gas passage arranged so that two of said ports are adapted to register simultaneously with the passage and allow an uninterrupted flow of gas therethrough.

3. In a gas burner the combination with a body having a gas passage, a valve controlling said passage, a ratchet wheel for operating said valve, and a pilot tube communicating with said passage, of a spring coöperating with said ratchet wheel, and a screw for securing said spring to said body and for controlling communication between said pilot tube and passage.

4. In a gas burner the combination with a body having a gas passage, a valve controlling said passage, a ratchet wheel for operating said valve, and a pilot tube communicating with said passage, of a spring plate secured to said body, said plate having an attaching arm provided with an opening for said pilot tube and a spring arm coöperating with said ratchet wheel.

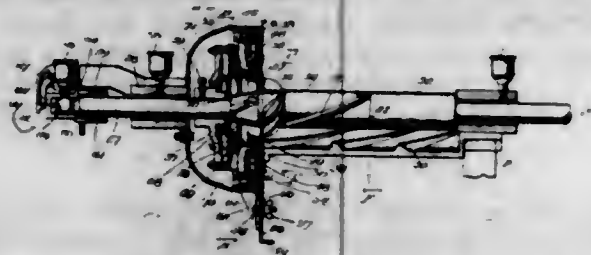
5. In a gas burner the combination with a body having a gas passage, a valve controlling said passage, a ratchet wheel for operating said valve, and a pilot tube communicating with said passage, of a spring plate secured to said body, said plate having an attaching arm provided with an opening for said pilot tube and a spring arm coöperating with said ratchet wheel, an operating member for said ratchet wheel, and a second spring secured to said attaching arm for controlling said operating member.

(Claims 6 to 20 not printed in the Gazette.)

1,077,714. GRINDING-MACHINE. GEORGE HOLLAND-LETTZ and JOHN HOLLAND-LETTZ, Crown Point, Ind. Filed Nov. 18, 1911. Serial No. 661,052. (Cl. 83-8.)

1. In a grinding machine, the combination with a concave, of a bur casing at one end thereof, a shaft extending through said concave and casing, crushing cylinders

on the shaft above the concave, a bur secured to the shaft within the casing, a stationary bur secured to the bur casing, an auger secured on the shaft to force the crushed material from the concave into the bur casing and between the burs, said auger having two sets of projections on opposite sides of a central plain annular space with the bur casing fitting on one side of said annular space, and a plate movable to and from the other side of said annular space of the auger to determine the effective size of the passage between the concave and the casing.



2. In a grinding machine, the combination with a concave, of a bur-casing at one end thereof, a shaft extending through said concave and casing, crushing cylinders on the shaft above the concave, a bur secured to the shaft within the casing and having inwardly extending teeth, a stationary bur secured to the bur casing, and an auger having a conical portion secured on the shaft to force the crushed material from the concave into the bur-casing and having ribs thereon following the general outline of the conical portion of the auger and tapering toward the rotating bur and rotating adjacent the points of the teeth on the stationary bur.

3. In a grinding machine, the combination with a bur casing, of burs suitably supported therein, a shaft extending through the bur casing, a bur secured to the shaft, arms extending from the bur casing, a bearing sleeve for the shaft between said arms, a lug on one arm co-operating with the recess in the sleeve, and a set screw in the other arm co-operating with an elongated recess in the opposite side of the sleeve from the first recess.

4. In a grinding machine, the combination with a bur-casing cover, of a pair of arms secured thereto and extending generally parallel to the shaft and near thereto at their inner ends, a bearing sleeve extending between the arms and yieldingly supported therefrom, a lever pivoted in the end of one of the arms and having an aperture at its free end, a bolt connected to the end of the other arm and extending through said aperture, a set nut on the bolt, a spring between the set nut and lever, a shaft journaled in the sleeve, and an end-thrust bearing for the shaft engaged by the lever.

5. In a grinding machine, a stationary bur-casing member consisting of a disk having a peripheral flange and two concentric flanges toward the center of the same side to form an annular channel adapted to receive packing, and recesses at the edges thereof for passing bolts there-through to secure a stationary cover thereon.

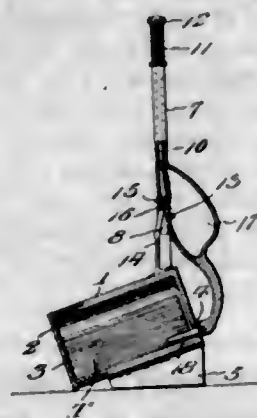
[Claims 6 to 10 not printed in the Gazette.]

1,077,715. SINGLE-DELIVERY TOOTHPICK-HOLDER. ABEDNEGO B. HUGHES, Cedarville, Cal. Filed May 2, 1912. Serial No. 694,651. (Cl. 206-25.)

1. The combination with an obliquely held receptacle having an aperture within the lowest portion of its elevated end, of a tubular standard secured adjacent to said receptacle having an access opening intermediate of its ends, an operating bar within and projecting above said standard the lower end being bent at right angles to form a crank extending through said access opening, a supporting frame secured to said receptacle, a member pivotally held to said supporting frame said crank being secured to said member, a resilient bifurcated stem carried by said pivotally held member arranged to enter said aperture, and a spring to normally force said operating bar into a protracted position.

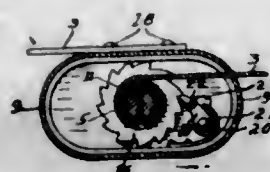
2. The combination with an obliquely held receptacle having an aperture within the lowest portion of its elevated end, of a tubular standard secured adjacent to said

receptacle having an access opening intermediate of its ends, an operating bar within and projecting above said standard the lower end being bent at right angles to form a crank extending through said access opening, a supporting frame secured to said receptacle, a member pivotally held to said supporting frame said crank being secured to said member, a resilient bifurcated stem carried by said pivotally held member arranged to enter said aperture, and a head secured to said bar, said spring being interposed between said head and said standard.



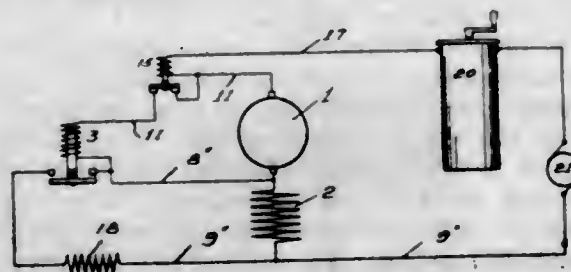
totally held to said supporting frame said crank being secured to said member, a resilient bifurcated stem carried by said pivotally held member arranged to enter said aperture, and a head secured to said bar, said spring being interposed between said head and said standard.

1,077,716. TRUNK-STRAP. FREDERICK C. ISITT, Russ, Cal. Filed Dec. 9, 1911. Serial No. 664,740. (Cl. 24-19.)



In combination, a strap adapted to be extended around an article, and a casing adapted to be loosely disposed on such article, one of the strap ends being connected with the casing and having its connected portions disposed coincident with the line of pull on the strap in one direction, strap tightening and locking mechanism in the casing, the other end of the strap being connected with said mechanism and extending toward the casing in a direction opposite to the direction of the first named end and also in a direction coincident with its line of pull whereby the opposite lines of pull on the casing will tend to seat the same on such article, and devices extending exteriorly of the casing whereby the mechanism may be operated or released, said casing having a broad, flat portion engaging the article and disposed in such relation with respect to the opposing lines of pull of the strap ends that the casing will be maintained in a given position during and subsequent to the tightening of the strap, substantially as described.

1,077,717. MOTOR CONTROL. WILLIAM P. JACKSON, Oakland, Cal. Filed June 18, 1912. Serial No. 704,412. (Cl. 172-288.)

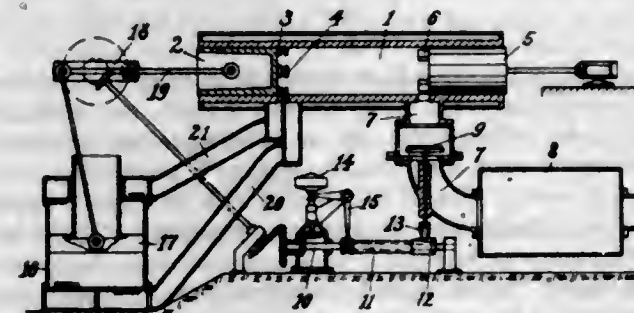


1. The combination with a generator and motor; of a wire connecting one pole of said motor and the generator, one portion of said wire forming the series field winding of said motor, a solenoid having one end connected to said generator and the other end connected to the remaining pole of said motor, a core for said solenoid, a contact bar carried by said core, a pair of contacts engaged by

said bar when the solenoid is deenergized, a wire connecting one of said pair of contacts with the connection from the solenoid to the motor, a wire connecting the remaining contact of the pair with the first mentioned wire between the series field winding and the armature of the motor, the last mentioned wire including a second solenoid, a core for the second solenoid, a contact bar carried by the second core, a pair of contacts engaged by said bar when the second solenoid is energized, a wire leading from one of the second pair of contacts to a point on the first mentioned wire between the series field winding and said generator, and a wire leading from the remaining contact of the second pair to one of the wires connected to the first mentioned pole of the motor.

2. The combination with a generator and motor; of a wire connecting one pole of said motor and the generator, one portion of said wire forming the series field winding of said motor, a solenoid having one end connected to said generator and the other end connected to the remaining pole of said motor, a core for said solenoid, a contact bar carried by said core, a pair of contacts engaged by said bar when the solenoid is deenergized, a wire connecting one of said pair of contacts with the connection from the solenoid to the motor, a wire connecting the remaining contact of the pair with the first mentioned wire between the series field winding and the armature of the motor, the last mentioned wire including a second solenoid, a core for the second solenoid, a contact bar carried by the second core, a pair of contacts engaged by said bar when the second solenoid is energized, a wire leading from one of the second pair of contacts to a point on the first mentioned wire between the series field winding and said generator, and including a resistance, and a wire connecting the remaining contact of the second pair with the wire connecting the second solenoid and the motor.

1,077,718. COMBUSTION-ENGINE. HUGO JUNKERS, Aix-la-Chapelle, Germany. Filed Oct. 7, 1907. Serial No. 396,280. (Cl. 123-99.)



1. Means for increasing the charge in a two-stroke cycle internal combustion engine to increase the output thereof comprising a throttling valve controlling the cylinder exhaust outlet, and mechanism for actuating said valve to fully open the exhaust outlet and permit the free exit of the products of combustion during the earlier portion of the exhaust period and to throttle the outlet and allow the building up of pressure and increase of the incoming charge during the later portion of the exhaust period; substantially as described.

2. Means for increasing the charge in a two-stroke cycle internal combustion engine to increase the output thereof comprising a throttling valve controlling the cylinder exhaust outlet, and mechanism for actuating said valve to fully open the exhaust outlet and permit the free exit of the products of combustion during the earlier portion of the exhaust period and to throttle the outlet and allow the building up of pressure and increase of the incoming charge during the later portion of the exhaust period, said actuating mechanism being responsive to the load on the engine to vary the throttling and thereby the cylinder charge according to the load; substantially as described.

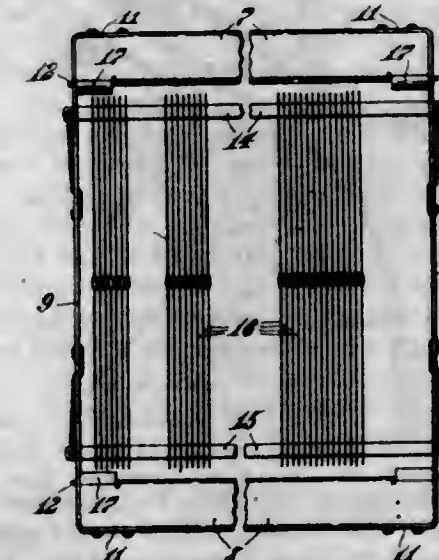
3. Means for increasing the charge in a two-stroke cycle internal combustion engine to increase the output thereof comprising a throttling valve controlling the cylinder exhaust outlet, and mechanism for actuating said valve to fully open the exhaust outlet and permit the free exit of the products of combustion during the earlier por-

tion of the exhaust period and to throttle the outlet and allow the building up of pressure and increase of the incoming charge during the later portion of the exhaust period, said actuating mechanism being responsive to the load on the engine and adapted to effect the throttling action earlier and for a longer time as the load increases; substantially as described.

4. In a two-stroke cycle internal combustion engine, the combination with a working cylinder having a charging pump in connection therewith and an exhaust outlet, of a throttling valve controlling the exhaust outlet, and mechanism for actuating said valve to fully open the exhaust outlet and permit the free exit of the products of combustion during the earlier portion of the exhaust period and to throttle the outlet and allow the building up of pressure and increase of the incoming charge during the later portion of the exhaust period, and mechanism for obtaining a high piston velocity of the charging pump during the period of introduction of the charge into the working cylinder; substantially as described.

5. Means for increasing the charge in a two-stroke cycle internal combustion engine to increase the output thereof comprising a throttling valve controlling the cylinder exhaust outlet, and mechanism for actuating said valve to fully open the exhaust outlet and permit the free exit of the products of combustion during the earlier portion of the exhaust period and to throttle the outlet and allow the building up of pressure and increase of the incoming charge during the later portion of the exhaust period, said actuating mechanism being responsive to the load on the engine to vary the throttling and thereby the cylinder charge according to the load, an exhaust chamber into which the exhaust outlet discharges, and a manually operated throttling device at the exit of said exhaust chamber to throttle the outgoing gases independently of the first mentioned throttling valve; substantially as described.

1,077,719. LOOM HEDDLE-FRAME. JACOB KAUFMANN, Philadelphia, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 29, 1911. Serial No. 646,632. (Cl. 139-73.)



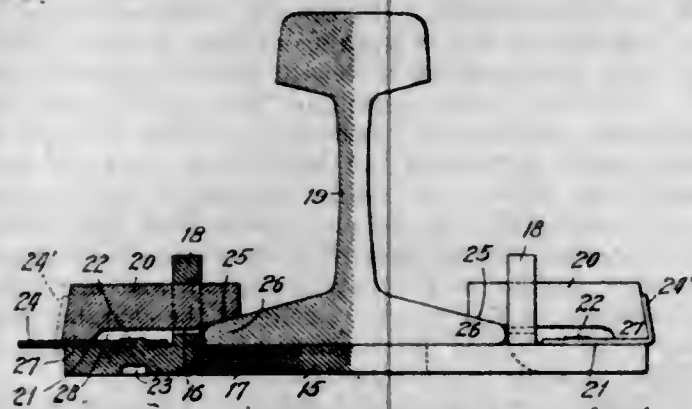
In a heddle frame, means for preventing fouling of the adjacent frames in the loom comprising a sheet metal device having a flat portion secured to one edge of the horizontal rails and having inclined converging wings extending therefrom.

1,077,720. RAILWAY-TIE PLATE. JOHN W. KENDRICK, Chicago, Ill. Filed Mar. 26, 1912. Serial No. 686,244. (Cl. 238-2.)

1. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge.

2. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the said base, and a fastener under said wedge, said wedge having a heel resting upon said fastener.

3. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said fastener engaging the tie plate at its end toward the rail and having a projecting end away therefrom adapted to hook behind the said wedge.

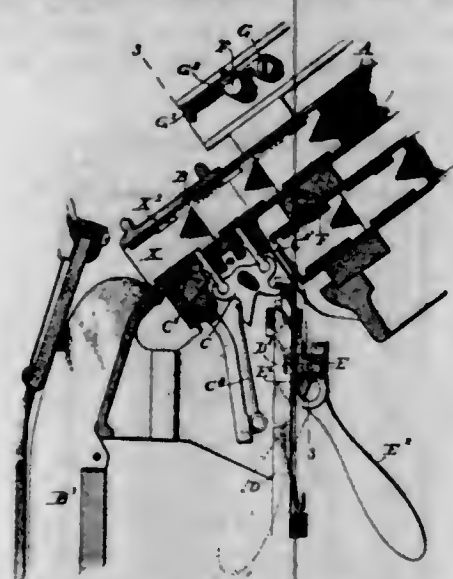


4. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge engaging the tie plate and the wedge and holding the wedge toward the rail.

5. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said fastener consisting of a plate of malleable metal engaging the tie plate and having its outer extremity projecting behind the head of the wedge and adapted to be bent up behind the same.

[Claims 6 and 7 not printed in the Gazette.]

1,077,721. **TYPOGRAPHICAL MACHINE.** DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 4, 1912. Serial No. 723,821. (Cl. 199—7.)



1. In a typographical machine, the combination of a magazine for the type or matrices, a device disconnected from the magazine to restore displaced type or matrices thereto, and means for connecting said device to the magazine to adapt it for retaining the type or matrices therein.

2. In a typographical machine, the combination of a magazine for the type or matrices, and a device adapted to be connected to the magazine to retain the type or matrices therein, the said device being adapted when disconnected from the magazine to engage and restore displaced type or matrices thereto in its movement to operative position.

3. In a typographical machine, the combination of a magazine for the type or matrices, and a locking bar detachably connected to the magazine to retain the type or matrices therein, the said bar being laterally movable into and out of the end of the magazine.

4. In a typographical machine, the combination of a magazine for the type or matrices, a movable device disconnected from the magazine to restore displaced type or

matrices thereto, and locking means to engage said device at a plurality of points during its restoring movement.

5. In a typographical machine, the combination of a magazine for the type or matrices, a bar disconnected therefrom and movable bodily to restore displaced matrices thereto, and a latch formed with a plurality of locking projections to engage the bar at a plurality of points during its restoring movement.

[Claims 6 to 10 not printed in the Gazette.]

1,077,722. **PUNCHING-TOOL.** ALEXANDER KIRK, Crosby, Wyo. Filed Dec. 6, 1912. Serial No. 735,279. (Cl. 164—94.)



A punching tool comprising an anvil having a rigid integral base extension terminating in an upwardly extending portion which is in line with the face of the anvil and forms a gage, and said portion being continued forwardly above the base extension and terminating above the anvil in a stationary punch-holder, and a gage pin passing loosely through the aforesaid forward continuation and downward through the space between the same and the base extension, said pin being located between the anvil and the aforesaid gage and removable to give access to said gage.

1,077,723. **PENCIL-SHARPENER.** GUSTAV K. H. KLOSS, New York, N. Y., assignor to Eagle Pencil Company, New York, N. Y. Filed May 5, 1913. Serial No. 765,712. (Cl. 120—93.)



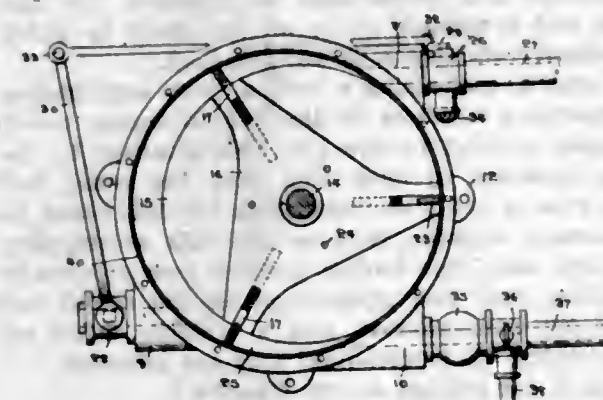
1. A pencil sharpener comprising a conical longitudinally slotted sharpener body having a knife bed and knife bordering one edge of the slot, a handle portion consisting of a conical socket and handle laterally projecting therefrom, said socket formed to receive and fit closely around the sharpener body and having a longitudinal slot through which the knife bed of the sharpener protrudes, and means for detachably fastening the socket to the sharpener body, substantially as hereinbefore set forth.

2. A pencil sharpener comprising a conical longitudinally slotted sharpener body having a knife bed and knife bordering one edge of said slot and a notch in its base at the point where the knife bed joins the body, and a handle portion consisting of a conical socket and a handle, said socket formed to receive and fit closely around the conical sharpener body, and having a longitudinal slot or opening through which the knife bed of the sharpener protrudes, and a tongue on one edge of said opening, adapted to be engaged with and disengaged from the notch by a movement of partial rotation of the sharpener body in the socket, substantially as hereinbefore set forth.

1,077,724. **ENGINE.** JOHN D. KNEEDLER, Sioux City, Iowa. Filed Feb. 18, 1913. Serial No. 749,226. (Cl. 230—37.)

1. In a combined compressor and motor, the combination of a casing having an inlet and outlet adapted to communicate with a storage tank through said inlet and outlet, said casing being also provided with an exhaust outlet, a rotor in the casing, a check valve in the first said outlet, a suction inlet communicating with the first said inlet, a three-way valve at the junction of the first said inlet and the suction inlet, a valve for controlling the exhaust outlet, and means for simultaneously actuating the last said valve and said three-way valve, so as to transform the combination into a motor or a compressor alternately.

2. In a machine of the character described, the combination of a casing having an inlet and outlet, and an inlet port, a three-way valve associated with the inlet, said inlet comprising means through which air may be sucked in and means through which air may be forced into the casing alternately through the three-way valve, and a rotor in the casing adapted to be operated for sucking air into the casing and to alternately cooperate with the inlet and the casing so as to constitute a motor.



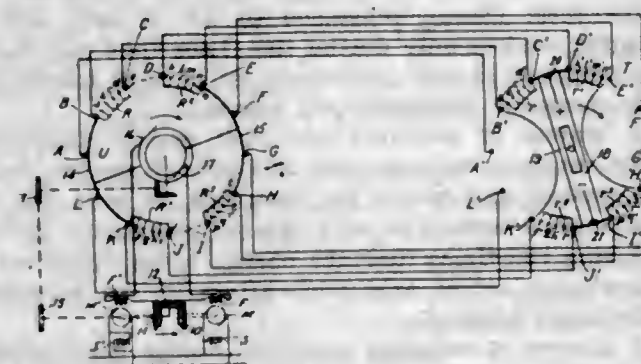
3. In a machine of the character described, the combination of a casing having an inlet and exhaust, a three-way valve associated with the inlet, said inlet comprising means through which air may be sucked in, and means through which air may be forced into the casing alternately through the three-way valve, a rotor in the casing adapted to be operated for sucking air into the casing and to alternately cooperate with the inlet and the casing so as to constitute a motor, and means for simultaneously controlling said inlet and exhaust.

4. In a machine of the character described, the combination of a casing having an inlet, a rotor in the casing, an exhaust outlet and an outlet, three-way valves in said inlet and outlet, and a valve in said exhaust outlet.

5. In a machine of the character described, the combination of a casing having an inlet and a plurality of outlets, a rotor in the casing, a three-way valve in said inlet, a three-way valve in one of said outlets, a check valve also in said last mentioned outlet, and a valve in another of the outlets.

[Claim 6 not printed in the Gazette.]

1,077,725. **MOTOR-CONTROL SYSTEM.** CHRISTIAN KRAMER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 14, 1912. Serial No. 703,607. (Cl. 172—239.)



1. The combination with electromagnetic driving means, of a controller therefor driven by said means having resistances connected in two parallel branch circuits, connections for said driving means across equal-potential points on said branches, a transmitting device comprising variable resistances arranged to be connected in circuit with the controller resistances to cause unequal potential at the terminals of said driving means, and connections whereby the movement of the controller in response to movement of the transmitting device restores the equal potential conditions.

2. The combination with electromagnetic driving means, of a controller therefor driven by said means having four resistances arranged in the form of a Wheatstone bridge

with the driving means across the equal-potential points, a transmitting device comprising variable resistances arranged to be connected in circuit with the controller resistances to cause unequal potential at the terminals of said driving means, and connections whereby said controller will be rotated through a predetermined movement to an equal-potential position in response to a corresponding movement of the transmitting device.

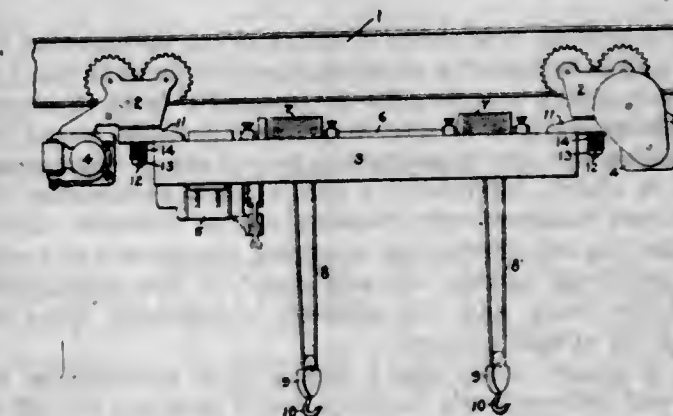
3. The combination with electromagnetic driving means, of a controller therefor driven by said means having resistances connected in two parallel branch circuits, connections for said driving means across equal-potential points on said branches, a transmitting device comprising variable resistances arranged to be connected in circuit with the controller resistances to cause unequal potential at the terminals of said driving means, and connections whereby said controller will rotate continuously in either direction in response to a corresponding movement of the transmitting device and restore the equal-potential conditions to stop the controller each time it reaches a position corresponding to the position of the transmitting device.

4. The combination with electromagnetic driving means, of a controller therefor driven by said means divided into two halves each consisting of two sectional resistances and a contact plate connecting the same, connections from the terminals of said driving means to said contact plates respectively, a transmitting device connected with the supply circuit and including four resistances connected with the four resistances on the controller, and connections whereby the controller will move to a position in which the driving means is connected across equal-potential points in response to a corresponding movement of the controller.

5. The combination with electromagnetic driving means, of a controller therefor driven by said means comprising a circular member divided into two insulated halves each consisting of a contact segment having a sectional resistance provided with contacts connected with each end and a plurality of brushes around said member engaging said segments and contacts, a transmitting device comprising similarly arranged brushes each connected with a corresponding brush on the controller and a controlling member cooperating therewith having a contact plate at each end bridging adjacent brushes and connected to opposite sides of the supply circuit, a sectional resistance provided with contacts connected with each end of each of said plates, a connection for the driving means across the contact segments of the controller, and connections whereby movement of the transmitting device varies the resistance connected therewith to cause a difference of potential at the terminals of said driving means and a corresponding movement of the controller establishes equal-potential conditions to stop the controller.

[Claims 6 and 7 not printed in the Gazette.]

1,077,726. **SUSPENSION DEVICE FOR MONORAIL-CRANES.** SAM H. LIBBY, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed Oct. 12, 1912. Serial No. 725,509. (Cl. 104—181.)



1. The combination with an overhead conveyer, comprising a frame suspended from two trucks, of a king bolt

for each truck having a spherical washer under its head, and a spherical seat for said washer in the frame of the truck.

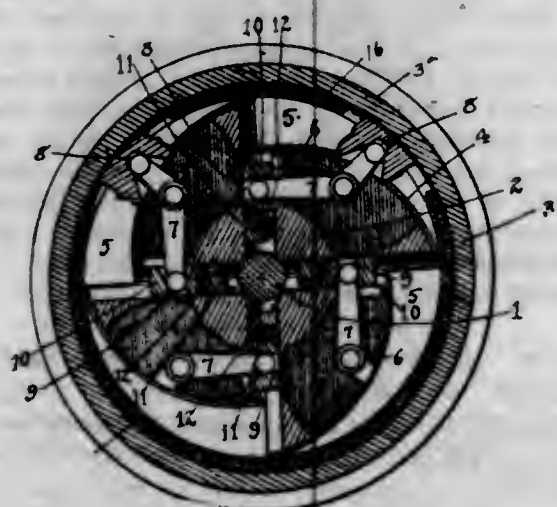
2. An overhead conveyer comprising two trucks, a frame located between said trucks and having an arm at each end, a king bolt passing through each arm and the frame of the corresponding truck, a ball and socket joint at the upper end of each bolt, a nut on its lower end, and a spring between said nut and the arm of the conveyer frame.

1,077,727. PIPE-HANGER. ALBERT JOHN LOEPSINGER, Providence, R. I., assignor to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Aug. 28, 1911. Serial No. 646,419. (Cl. 248—36.)



A pipe hanger comprising a bracket adapted to be secured to a vertical wall and having an outwardly-extending arm provided with vertical perforations which are elongated in the direction of the length of the arm, a pipe-suspending device having a threaded shank adapted to be passed through either of said elongated perforations and adjusted therein lengthwise of the arm, a nut on said shank for adjusting it vertically, and an extension adapted to be detachably secured at its inner portion to said outwardly-extending arm by means of bolts passing through the elongated perforations therein, whereby said extension is capable of adjustment lengthwise of said arm, said extension having in its outer portion one or more vertical perforations each adapted to receive the threaded shank of the pipe-suspending device.

1,077,728. CLUTCH. HORACE MANN, Muskegon, Mich. Filed Oct. 2, 1912. Serial No. 723,541. (Cl. 192—2.)



1. A clutch, comprising a hub, a drum surrounding the hub and independently rotative, eccentric faces on the hub, slidable clutch members on the eccentric faces to engage the inner surface of the drum, and positive means for actuating the clutch members into and out of engagement.

2. A clutch, comprising a hub, a drum surrounding the hub, and independently rotative, clutch members carried by the hub and frictionally engaging the drum, and means for positively moving the said members into engagement with the drum, and also adapted to positively move the same out of said contact.

3. A clutch, comprising a hub, a drum surrounding the hub and independently rotative, clutch members carried by the hub, adapted to engage the drum, radially slidable rods connected to said members to move the same in opposite directions, longitudinally slidable rods connected

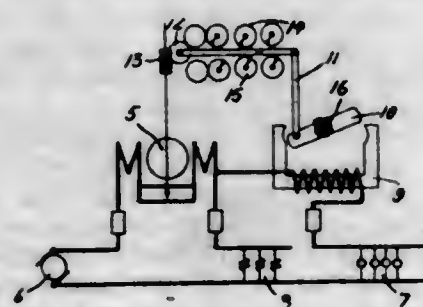
to the radially movable rods to move the same in both directions, and means for operating the last named rods.

4. A clutch, comprising a hub, a drum surrounding the hub and independently rotative, eccentric faces on the hub, slidable clutch members on the eccentric faces, bell crank levers pivoted on the hub and connected to the clutch members to slide the same, radially slidable rods attached to the bell crank levers, longitudinally slidable rods overlapping the radial rods, said rods also having inclined cam grooves and projections to traverse the inclined grooves, and a slidable collar on the shaft to which the longitudinally slidable rods are attached.

5. A clutch, comprising a hub, a drum surrounding the hub, expanding members on the hub to engage the drum, bell cranks pivoted to the hub and attached to the expanding members to open and close the same, radially slidable rods in the hub attached to the bell crank levers, longitudinally slidable rods in the hub overlapping the radial rods, said rods having inclined cam grooves in the longitudinal rods and projections on the radial rods to traverse the cam grooves, and a slidable collar on the shaft to which the longitudinal rods are attached.

[Claim 6 not printed in the Gazette.]

1,077,729. SYSTEM OF ELECTRIC METERING. KARL MARKAU, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 23, 1912. Serial No. 711,085. (Cl. 171—288.)



1. A system of metering electrical energy comprising a meter having a register dial, a plurality of sets of electric translating devices, and means for recording on said dial the total energy consumed in all of said sets of translating devices only during the times that energy is being consumed in one particular set of said translating devices.

2. A system of metering electrical energy comprising a meter having a register dial, a plurality of sets of electric translating devices, and means for recording on said dial the total energy consumed in all of said sets of translating devices only during the times that the energy being consumed in one particular set of said translating devices exceeds a predetermined amount.

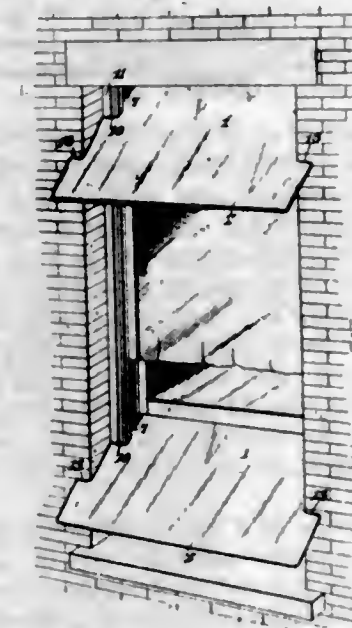
3. A system of metering electrical energy comprising a meter having a register dial, two sets of electric translating devices, and means for recording on said dial the total energy consumed in both sets of translating devices only during the times that the energy being consumed in one particular set of said translating devices exceeds a predetermined amount.

4. A system of metering electrical energy comprising a meter having a register dial, a lighting circuit, a power circuit, and means for recording on said dial the total energy consumed in both circuits only during the times that the energy being consumed in the lighting circuit exceeds a predetermined amount.

5. A system of metering electrical energy comprising a meter having a plurality of register dials, a plurality of sets of electric translating devices, means for recording on one of said dials the total energy consumed in all of said sets of translating devices only during the times that energy is being consumed in one particular set of said translating devices, and means for recording the total energy consumed in said sets of translating devices at other times.

[Claims 6 to 14 not printed in the Gazette.]

1,077,730. RAIN-SHIELD FOR WINDOWS. CHARLES EDWIN MARTIN, Louisville, Ky. Filed Apr. 3, 1913. Serial No. 758,666. (Cl. 156—15.)



1. A shield of the class described adapted to be arranged at an inclination in an open window with its upper portion fitted against the same and provided at an intermediate point between its top and bottom with means for engaging a window at opposite sides thereof to fulcrum the shield thereon, and means for connecting the lower portion of the shield to a portion of the window.

2. A shield of the class described adapted to be arranged at an inclination in an open window with its upper portion fitted against the same and provided at an intermediate point between its top and bottom with means for engaging a window at opposite sides thereof to fulcrum the shield thereon, and an adjustable flexible connection attached to and extending from the lower portion of the shield and provided with a hook for detachably engaging a portion of a window.

3. A shield of the class described adapted to be arranged in an inclined position in an open window with its top portion fitted against the same, said shield being provided at opposite sides with lateral projections located at an intermediate point between the top and bottom of the shield and arranged to extend into the guides or runways of the window frame, and means for connecting the lower portion of the shield with a portion of a window.

4. A shield of the class described adapted to be arranged in an inclined position in an open window with its upper portion fitted against a portion of the window, said shield being provided with means for engaging the window frame and having outer lateral extensions projecting beyond the window and adapted to fit against the exterior of a wall.

5. A shield of the class described adapted to be arranged in an inclined position in an open window with its top portion fitted against a portion of the said window, said shield being provided with intermediate and outer lateral extensions arranged to fit against the outer edges of the window frame and the outer face of a wall at points beyond the window frame.

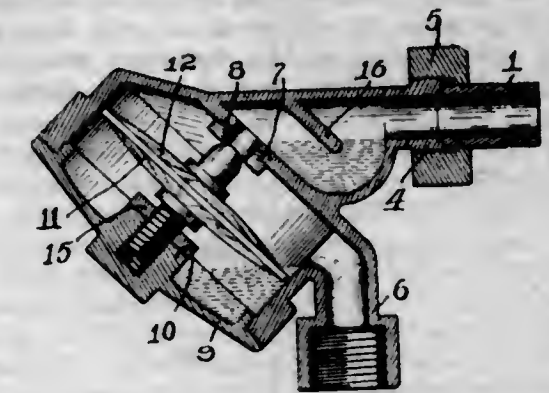
[Claims 6 and 7 not printed in the Gazette.]

1,077,731. DIAPHRAGM EXHAUST-VALVE FOR RADIATORS AND THE LIKE. JAMES MCALEER, Chicago, Ill. Filed Oct. 9, 1911. Serial No. 653,523. (Cl. 236—10.)

1. A thermostatic valve comprising a casing, a partition therein affording a valve seat, a water sealed chamber afforded by said casing and partition, an inwardly lugged cover threaded on said casing, and a heat operated valve secured thereto and adapted to seat within said casing.

2. A thermostatic valve comprising a casing affording integral inlet and outlet passages, and a water seal

chamber in said inlet passage, a diaphragm closure adapted to seat in one of said passages, and interior adjustment and locking means supporting the same.



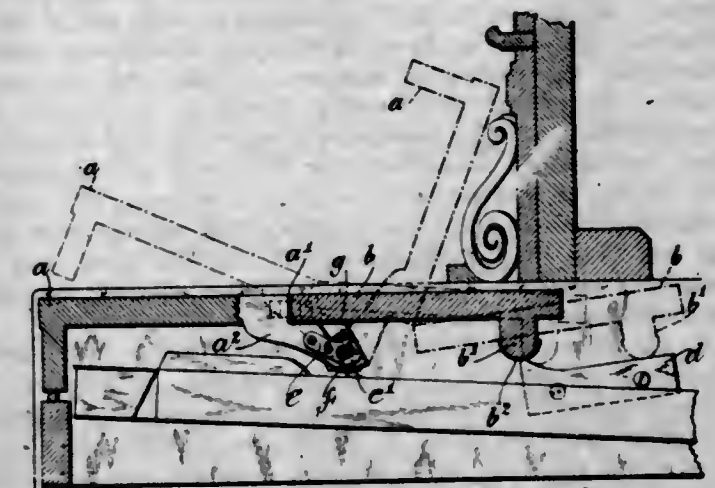
3. A device of the class described embracing a casing, integral partitions therein affording a water seal chamber, a cover secured on said casing, an inwardly directed lug thereon, and a diaphragm valve secured therein and adapted to seat within said casing.

4. A device of the class described comprising a casing, a water seal chamber integral therewith, a water pocket afforded by said casing, and a thermostatic diaphragm secured in said casing and partially submerged.

5. A device of the class described comprising a casing, a water seal chamber integral therewith, and a thermostatic valve diaphragm secured in said casing and partially submerged in the water affording the seal.

[Claims 6 to 9 not printed in the Gazette.]

1,077,732. FALL-BOARD FOR UPRIGHT PIANOS. CHARLES MEHLIN, Fort Lee, N. J. Filed Dec. 10, 1912. Serial No. 735,979. (Cl. 84—119.)



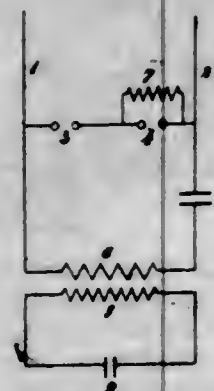
1. A fall-board for pianos comprising a front fall, a rear fall hinged thereto, a forked bracket mounted in the end face of said front fall and opening rearwardly, a supporting stud carried by the piano and adapted to engage said bracket and removable means to close said fork in rear of the stud.

2. A fall-board for pianos comprising a front fall, a rear fall hinged thereto, a bracket set in the end face of the front fall and having a forked portion opening rearwardly, a supporting stud mounted on the piano and adapted to be embraced by the forked portion of the bracket and a threaded stud to close the forked bracket in the rear of the stud and accessible from above.

1,077,733. MEANS FOR PRODUCING SLIGHTLY-DAMPED OSCILLATIONS BY SHOCK EXCITATION. ALEXANDER MEISSNER, Berlin, Germany, assignor to Gesellschaft für Drahtlose Telegraphie, M. B. H., Berlin, Germany, a Corporation of Germany. Filed June 7, 1910. Serial No. 565,558. (Cl. 250—37.)

1. An arrangement for producing slightly dampened electrical oscillations by shock excitation, comprising a

primary oscillation circuit, containing a capacity, a self-induction and two kinds of spark-gaps, of different characteristics, the first kind adapted to limit the charging tension, the second kind having means for causing it to only participate in the discharge of said first kind of spark-gap, a secondary, slightly dampened oscillation circuit coupled with and tuned to said primary circuit.



2. An arrangement for producing slightly dampened electrical oscillations by shock excitation, comprising a primary oscillation circuit, containing a capacity, a self-induction and two kinds of spark-gaps of different characteristics, the first kind adapted to limit the charging tension, the second kind having high frequency resistances in shunt with it causing it to only participate in the discharge of said first kind of spark gap, said resistances being suitably proportioned to form a low resistance for the charging current, and a secondary slightly dampened oscillation circuit coupled with and tuned to said primary circuit.

3. An arrangement for producing slightly dampened electrical oscillations by shock excitation, comprising a primary oscillation circuit, containing a capacity, a self-induction and two kinds of spark-gaps of different characteristics, the first kind adapted to limit the charging tension, the second kind having means for causing it to only participate in the discharge of said first kind of spark-gaps, two feeders connecting the electrodes of the spark-gap of the first kind with a current source, the total bridging distance of the spark-gaps of the second kind being less than that of spark-gaps of the first kind, and a secondary slightly dampened oscillation circuit coupled with and tuned to said primary circuit.

4. An arrangement for producing slightly dampened electrical oscillations by shock excitation, comprising a primary oscillation circuit, containing a capacity, a self-induction and two kinds of spark-gaps of different characteristics, the first kind adapted to limit the charging tension, the second kind having means for causing it to only participate in the discharge of said first kind of spark gaps, one of said two kinds of spark-gaps being formed as quench gaps proper, and a secondary slightly dampened oscillation circuit coupled with and tuned to said primary circuit.

5. An arrangement for producing slightly dampened electrical oscillations by shock excitation, comprising a primary oscillation circuit, containing a capacity, a self-induction and two kinds of spark-gaps of different characteristics, the first kind adapted to limit the charging tension, the second kind having means for causing it to only participate in the discharge of said first kind of spark-gaps, said spark-gaps being formed as quench gaps proper, and a secondary slightly dampened oscillation circuit coupled with and tuned to said primary circuit.

1,077,734. TERMINAL FOR METAL-SHEATHED WIRE. CHESTER N. MOORE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,830. (Cl. 173-324.)

1. The combination of a wire comprising an inner working conductor, an outer metallic sheath, and insulation between said conductor and said sheath, said sheath having

its electrical conductivity interrupted intermediate its ends, and means for electrically uniting an end of said conductor to the corresponding end of said sheath.



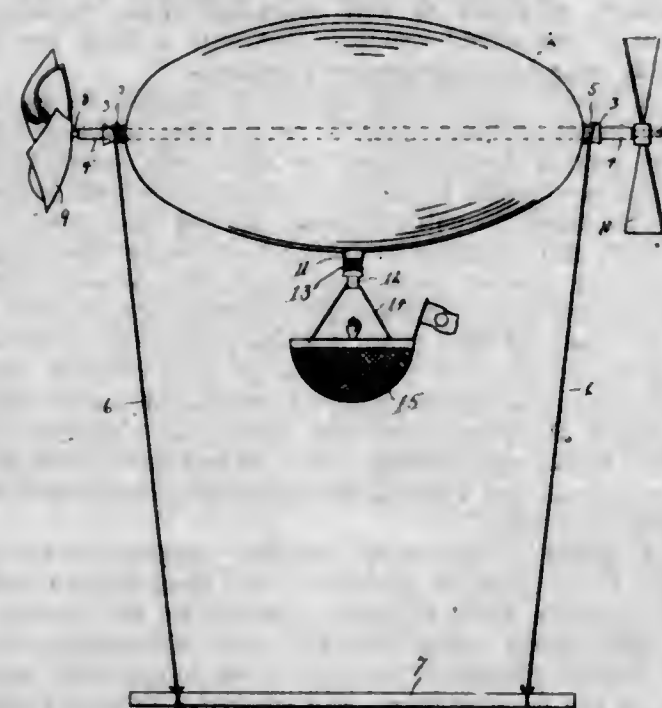
2. The combination of a wire comprising an inner working conductor, an outer metallic sheath and insulation between said conductor and said sheath, said sheath having its electrical conductivity interrupted intermediate its ends, and a terminal pin united to the said sheath and to the said conductor at an end of said wire.

3. The combination of a wire comprising an inner working conductor, an outer metallic sheath and insulation between said conductor and said sheath, said sheath having a small continuous gap therein intermediate its ends, an insulating sleeve surrounding said gap, and means for electrically uniting said conductor to said sheath at an end of said wire.

4. The combination of a wire comprising an inner working conductor, an outer metallic sheath and insulation between said conductor and said sheath, said sheath having a small continuous gap therein adjacent to an end thereof, an insulating sleeve surrounding the said gap, and means for electrically uniting said conductor and said sheath at the said end.

5. The combination of a wire comprising an inner working conductor, an outer metallic sheath and insulation between said conductor and said sheath, said sheath having a small continuous gap therein adjacent to an end thereof, an insulating sleeve surrounding the said gap, and a terminal pin united to said sheath and to said conductor at the said end.

1,077,735. TOY. FUMI MORINAGA, Philadelphia, Pa. Filed Jan. 28, 1913. Serial No. 744,688. (Cl. 244-3.)

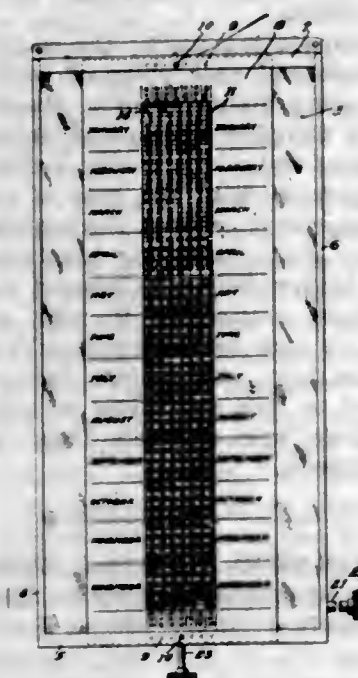


1. In a toy, a gas bag, oval in shape, having mouths formed from two opposite ends, a journal passing through the gas bag and projecting from both ends thereof, means for fastening the mouths about the journal, a shaft revolvably mounted in the journal and projecting from both ends of the latter, a propeller mounted upon one end of said shaft, a pin-wheel mounted upon the opposite end of said shaft, cables fastened about the journal, and a hand-hold secured to the ends of the cables.

2. In a toy, a gas bag, oval in shape, having mouths formed from two opposite ends, a journal passing through the gas bag and projecting from both ends thereof, means for fastening the mouth about the journal, a shaft revolvably mounted in the journal and projecting from both ends of the latter, a propeller mounted upon one end of

said shaft, a pin-wheel mounted upon the opposite end of said shaft, cables fastened about the journal, a hand-hold secured to the ends of the cables, a gas inlet carried by the under side of the gas bag, a plug adapted to fit within the inlet, means for holding said plug in place, and a basket suspended from the plug as shown.

1,077,736. TIME-CALCULATOR. KENNETH M. MORRISON, Minneapolis, Minn. Filed Mar. 5, 1913. Serial No. 752,144. (Cl. 235-89.)



1. A time calculator comprising a calendar sheet bearing numerals representing the days of the month arranged in parallel weekly rows spaced apart, and a computing table movable transversely of said rows of calendar figures and having a series of numerals running consecutively in parallel weekly rows from 1 to 365 and visible between the rows of calendar numerals, said computing table indicating the number of days from a date represented by a calendar numeral to a date represented by a subsequent, correspondingly located calendar numeral in the same year.

2. A time calculator comprising a calendar sheet having numerals arranged in parallel rows spaced apart and representing the days of the month and designated for the days of the week, and a computing table arranged beneath said calendar sheet and having numerals representing the days of the year also arranged in parallel rows, visible through the spaces between said calendar rows of numerals, said computing table being movable lengthwise and transversely of the rows of calendar numerals and indicating, when a character is set opposite a calendar date, the number of days from that calendar date to any subsequent date in the same year.

3. A time calculator comprising a calendar sheet bearing numerals representing the days of the month arranged in parallel, weekly, transverse rows spaced apart, and designated for the days of the week, and a computing table having numerals also arranged in parallel, transverse rows visible through the space between said calendar rows, the table numerals running consecutively from 1 to 365 upon opposite sides of a central, longitudinal column in said table, the numerals in the last six columns on one side of said central column being repeated in the first six columns of the next transverse row beneath on the other side of said central column, said table being movable transversely and lengthwise beneath said calendar sheet and indicating when a mark thereon is set opposite a calendar numeral from which computation is to be made the number of days from said calendar numeral to any subsequent calendar date in the same year.

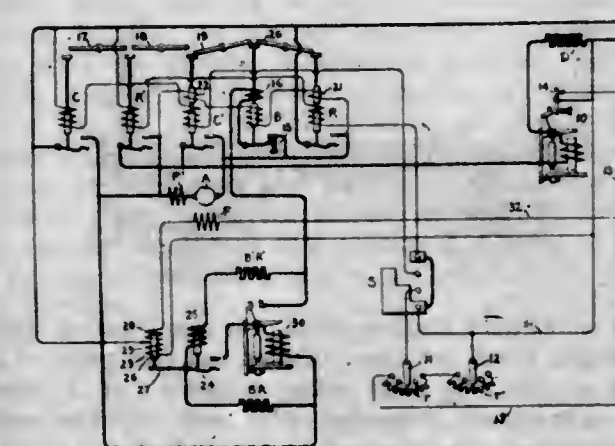
4. A time calculator comprising a calendar sheet bearing numerals representing the days of the month arranged in parallel weekly rows spaced apart, and a computing table arranged beneath said calendar sheet and having a series of numerals therein, also arranged in parallel rows

spaced apart and visible between the rows of calendar numerals, said computing table numerals representing the days of the year and arranged in thirteen columns running lengthwise of said table, the numerals of the last six columns in a row being repeated in the first six columns of the next row beneath, and the numerals running consecutively from 1 to 365 on each side of the middle column of the series, said computing table being movable transversely and lengthwise beneath said calendar sheet and indicating when a mark thereon is adjusted opposite a calendar date the number of days from that date to any subsequent calendar date of the same year.

5. A time calculator comprising a calendar sheet bearing numerals representing the days of the month arranged in parallel weekly rows, spaced apart, and a computing table movable transversely and lengthwise of said rows of calendar numerals and having numerals also arranged in parallel rows, visible between the rows of calendar numerals and representing the days of the current year and the days of the next succeeding year, said computing table, when a character is set opposite a calendar date of the current year, indicating the number of days from said calendar date in the current year to a calendar date of the next year.

[Claims 6 to 9 not printed in the Gazette.]

1,077,737. MOTOR-CONTROL SYSTEM. EDWIN J. MURPHY and JOHN E. BROBST, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed June 20, 1912. Serial No. 704,746. (Cl. 172-239.)



1. The combination with an electric motor, of a resistance in the field circuit thereof during normal operation, means for short circuiting said resistance and simultaneously causing said motor to act as a generator and generate a dynamic braking current to retard the motor armature, and an electromagnetic device for controlling the dynamic braking current having differential actuating windings one of which is connected across the supply circuit and the other in series with the motor field so as to counteract each other when the field reaches substantially full strength.

2. The combination with an electric motor, of a resistance in the field circuit thereof during normal operation, means for short circuiting said resistance and simultaneously causing said motor to act as a generator to generate a dynamic braking current to retard the motor armature, an electromagnetic switch for increasing the braking current when closed arranged to be energized upon the closing of the braking circuit, and means for preventing the closing of said switch until the field current reaches the predetermined value.

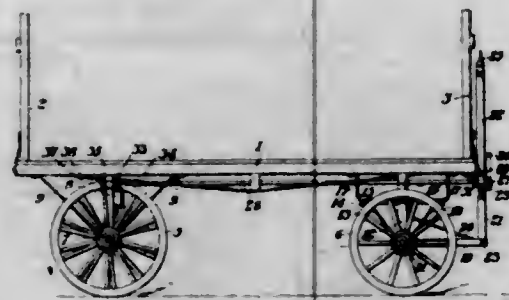
3. The combination with an electric motor, of a resistance in the field circuit thereof during normal operation, a brake resistance, means whereby the motor armature is short circuited through the brake resistance to generate a dynamic braking current and the field resistance simultaneously short circuited, and an electromagnetic device for controlling the dynamic braking current having differential actuating windings one of which is

connected across the supply circuit and the other in series with the motor field so as to counteract each other when the field reaches substantially full strength.

4. The combination with an electric motor, of a resistance in the field circuit thereof during normal operation, a brake resistance, means whereby the motor armature is short circuited through the brake resistance to generate a dynamic braking current and the field resistance simultaneously short circuited, an electromagnetic switch for controlling the braking current arranged to be energized upon the closing of the braking circuit, and means for preventing the closing of said switch until the field current reaches a predetermined value.

5. The combination with an electric motor, of a resistance in the field circuit thereof during normal operation, a brake resistance, means whereby the motor armature is short circuited through the brake resistance to generate a dynamic braking current and the field resistance simultaneously short circuited, an electromagnetic switch for controlling the braking current arranged to be energized upon the closing of the braking circuit, and an electromagnetic device for preventing the switch from closing until the field current reaches a predetermined value, said device having differential actuating windings which counteract each other when the field reaches substantially full strength, one of said windings being connected across the supply circuit and the other in series with the motor field. [Claim 6 not printed in the Gazette.]

1,077,738. RAILROAD-STATION TRUCK. JAMES A. MURPHY, Germantown, Pa. Filed May 17, 1910. Serial No. 561,886. (Cl. 21-63.)



1. In a railroad station truck, the combination with a body having front and rear bolsters and two pairs of supporting wheels, one pair being dirigible; of a pivoted tongue operatively connected with said dirigible wheels and arranged to be upturned at the end of the truck; a shaft journaled in said bolsters and projecting at the front end of said truck upon one side of said tongue; a bracket projecting at the front end of said truck upon the opposite side of said tongue; a lever handle rigidly secured on the front end of said shaft arranged to turn in front of said tongue and retain the latter in upturned position between said shaft and bracket, whereby said dirigible wheels are maintained parallel with the other wheels; a pin arranged to detachably connect said lever handle with said bracket; a slide bar arranged to reciprocate transversely with respect to the truck and engage one of the rear wheels thereof; a gear rack carried by said slide bar; a gear wheel fastened on said shaft in engagement with said rack; and means including a nut engaging the end of said shaft projecting through said rear bolster and preventing longitudinal displacement of said shaft.

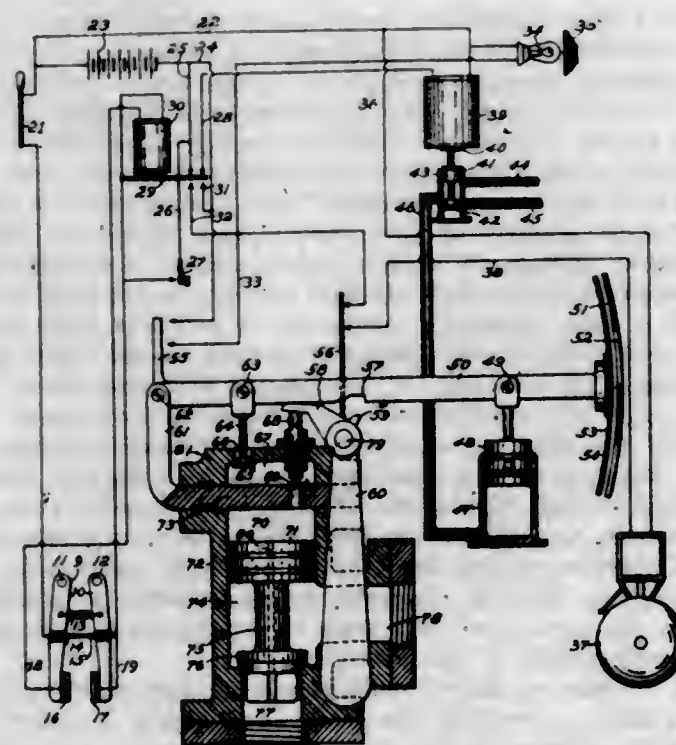
2. In a vehicle, the combination with a body having front and rear pairs of supporting wheels, one pair being dirigible; of a pivoted tongue operatively connected with said dirigible wheels and arranged to be upturned at the front end of the vehicle; a shaft projecting at the front end of said vehicle upon one side of said tongue; a lever handle on the front end of said shaft arranged to turn in front of said tongue and retain the latter in upturned position; a slide bar arranged to reciprocate transversely with respect to the vehicle and engage one of the rear wheels thereof; and, means operatively connecting said shaft and said slide bar.

3. In a railroad station truck; the combination of a body having front and rear pairs of supporting wheels,

the front pair being dirigible; of a pivoted tongue connected with said dirigible wheels and arranged to be upturned at the front end of the truck; a slide bar arranged to reciprocate parallel with the axis of the rear wheels to and from engagement between the spokes of one of said wheels; a rotary shaft extending longitudinally beneath the truck body, transversely with respect to said slide bar and having means connecting it with said slide bar, whereby the latter may be positively shifted to and from its operative position; and, means at the front end of said shaft arranged to hold said tongue in upturned position and thereby retain said dirigible front wheels parallel with said rear wheels.

4. In a railroad station truck; the combination with a body having front and rear pairs of supporting wheels, the front pair being dirigible; of a pivoted tongue connected with said dirigible wheels and arranged to be upturned at the front end of the truck; a slide bar arranged to reciprocate parallel with the axis of the rear wheels to and from engagement between the spokes of one of said wheels; a rotary shaft extending longitudinally beneath the truck body, transversely with respect to said slide bar and having means connecting it with said slide bar, whereby the latter may be positively shifted to and from its operative position; and, means, independent of said tongue, arranged to hold the latter in upturned position and thereby retain said dirigible front wheels parallel with said rear wheels.

1,077,739. TRAIN-STOP. ARTHUR R. MUTTON, Waterloo, Iowa, assignor of one-half to Otis P. Higdon, Waterloo, Iowa. Filed July 1, 1912. Serial No. 706,963. (Cl. 188-4.)



1. In combination, a chamber having a valve-seat in communication with the train-line of the air-brake apparatus of a train, a differential piston-valve in said chamber comprising differential heads connected by a stem, the valve having a longitudinal bore in communication between said valve-seat and the opposite end of the chamber, an exhaust-port to the atmosphere in said chamber intermediate said piston-heads, an exhaust-channel to the atmosphere in the end of said chamber adjacent to the larger piston-head and being of larger area than the area of the bore in said piston-valve, a valve seated removably to close said last-mentioned exhaust channel and means for closing said exhaust channel independently of its said exhaust-valve.

2. In combination, a chamber having a valve-seat in communication with the train-line of the air-brake apparatus of a train, a differential piston-valve in said chamber comprising differential heads connected by a stem, the

valve having a longitudinal bore in communication between said valve-seat and the opposite end of the chamber, said chamber having an exhaust-port intermediate said piston-heads, a partition in said chamber between the larger piston-head and the adjacent chamber-head to locate an interspace between said partition and chamber-head, said partition and said chamber-head each having a port and each port being of larger area than the area of the bore in said piston-valve, an exhaust-valve normally held on its seat over the port in said chamber-head, an exhaust-valve for the port in said partition normally held away from its seat, and independent means for seating the last-mentioned valve upon its seat.

3. In combination, a chamber having a valve-seat in communication with the train-line of the air-brake apparatus of a train, a differential piston-valve in said chamber comprising differential heads connected by a stem, the valve having a longitudinal bore in communication between said valve-seat and the opposite end of the chamber, said chamber having an exhaust-port to the atmosphere intermediate said piston-heads, an exhaust-port in the chamber-head adjacent to the larger piston-head, a lever-arm fulcrumed at one end on said chamber, a valve-stem pivotally connected to said arm and having a valve-head adapted to close the last mentioned exhaust-port, a cylinder containing an imperforate piston which is provided with a stem pivotally connected to said arm, a second valve-chamber containing an annularly-grooved piston having connected spaced apart heads, said chamber having a port intermediate its ends and a conduit in communication between said port and the said cylinder, said second-mentioned valve-chamber having ports adapted to be alternately in succession opened and closed respectively by the reciprocations past them of said annularly-grooved piston, one of the latter ports being in communication with a source of constant fluid pressure and the other with the atmosphere, a solenoid whose core is connected to the piston-valve in the second-mentioned chamber, an electrical circuit on the train including a source of current and said solenoid, and means for making and breaking the circuit through said solenoid.

4. In combination, a chamber having a valve-seat in communication with the train-line of the air-brake apparatus of a train, a differential piston-valve in said chamber comprising differential heads connected by a stem, the valve having a longitudinal bore in communication between said valve-seat and the other end of the chamber, said chamber having an exhaust-port to the atmosphere located intermediate said heads, and having a transverse partition in its end adjacent to the larger valve-head to furnish a separate chamber, said partition and said outer chamber wall each having ports, each of which is of larger area than the bore in said piston-valve, a lever-arm fulcrumed at one end to said valve chamber, a valve adapted to close the second-mentioned exhaust port in the said chamber pivotally connected to said arm, a needle-valve in said chamber adapted to be moved to close the port in said partition, engaging-means on said lever-arm, a bell-crank lever fulcrumed on said chamber with one member thereof in operative contact with said needle-valve and said lever being provided with engaging-means adapted to become detachably engaged with the engaging means on said lever-arm when the latter is dropped and the bell-crank lever is moved toward it.

5. In combination, a chamber having a valve seat in communication with the train-line of the air-brake apparatus of a train, a differential piston-valve in said chamber having oppositely-located heads of different areas, the smaller head being adapted to close the valve-seat opening, an exhaust-port being provided in said chamber adapted to communicate with said valve-seat opening only when the piston-valve is raised therefrom, another chamber in communication with the first-mentioned chamber above the larger piston-head and provided with an exhaust-port, means for closing and opening the last-mentioned exhaust-port, and means of communication between the said valve-seat opening and the end of the first-mentioned chamber above said larger piston-head, said means of communication being of less conducting area than the

area of the last-mentioned exhaust-port or the communicating opening between the two chambers.

[Claim 6 not printed in the Gazette.]

1,077,740. PROCESS FOR THE MANUFACTURE OF STAMPS. LUDWIG NEDOMANSKY, Vienna, Austria-Hungary. Filed Oct. 30, 1912. Serial No. 728,721. (Cl. 198-7.)

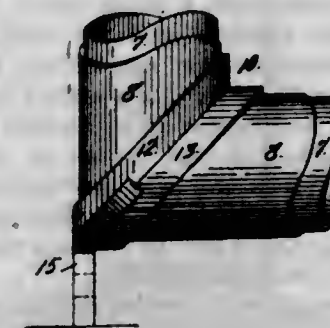


1. A process for the manufacture of stamps for embossing metal sheets, consisting in first making the matrix of fiber, engraving it, and imparting to it a firmly adhering glazed surface coat, and then making the die by first preparing a paste of powdered alabaster, shellac, chalk, glycerin, bone-glue and water, then spreading the paste over a suitable base, covering it with fiber paper, pressing it with the matrix, again covering it with fiber paper, and again pressing it with the matrix, and repeating these operations until the desired thickness is obtained, and finally glazing the surface.

2. A process for the manufacture of stamps for embossing metal sheets, consisting in first making the matrix of fiber, engraving it, and coating it with a solution of bone glue, and then with a mixture of shellac and glycerin, and then making the die by first preparing a paste of powdered alabaster, shellac, chalk, glycerin, bone-glue and water, then spreading the paste over a suitable base and covering it with a pliable paper, pressing it with the matrix, again covering it with the matrix, and repeating these operations until the desired thickness is obtained, and finally coating it with an adhesive and shellac and glycerin.

3. A process for the manufacture of stamps for embossing metal sheets, consisting in first making the matrix of fiber, engraving it, and coating it with a solution of bone-glue and a mixture of shellac and glycerin, and then making the die by first preparing a paste of 5 parts by weight of alabaster, 1 part shellac, 2 parts chalk, 1 part glycerin, 1 part bone-glue, and 2 parts water, then spreading the paste over a suitable base and covering it with Chinese fiber paper, pressing it with the matrix, again covering it with Chinese fiber paper, again pressing it with the matrix, and repeating these operations until the desired thickness is obtained, and finally glazing the surface to render it hard.

1,077,741. ELBOW PIPE-JOINT. FRANK A. NEVEU, Denver, Colo. Filed Mar. 19, 1913. Serial No. 755,361. (Cl. 62-32.)



1. The combination of two pipe members having their extremities beveled and fitted together to form an elbow and a reinforcing band applied exteriorly thereto, the said band being angular in cross-section to conform to the angular relation of the pipe members, and equipped with a projection constituting a support for the purpose set forth.

2. A soda-fountain cooler composed of pipe sections connected by elbow joints formed by placing the beveled extremities of the pipe in abutting relation, and an exterior reinforcement for said extremities, the said rein-

forcements having projections to facilitate the connection and support of the cooler members substantially as described.

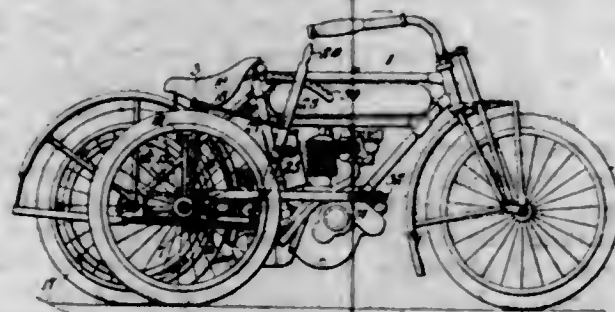
1,077,742. TIN CAN. JESSE W. NICHOLS, Chicago, Ill. Filed Sept. 29, 1910. Serial No. 584,437. (Cl. 220-67.)



1. A pry-open can provided with a weakened line practically surrounding a part adapted to be separated from the can body in opening and itself defining the line of opening, and a series of spaced, integrally formed shoulders arranged along said weakened line and adapted to form successive fulcrum points for the prying tool.

2. A pry-open can having an end closure provided with a weakened line arranged inside of the rim of the can and substantially surrounding the central portion of the can cap or closure and defining the line of rupture for the removal of said surrounded portion, and a series of spaced bosses arranged along said weakened line between the latter and the rim of the can and adapted to form successive fulcrum points for a prying tool.

1,077,743. SIDE CAR ATTACHMENT FOR MOTOR-CYCLES. ORON OVERTON, Mobile, Ala. Filed May 24, 1912. Serial No. 699,490. (Cl. 208-45.)



1. In a vehicle of the class described, the combination of a frame, a seat carried thereby, opposite wheels arranged in spaced relation, mechanism for connecting and maintaining the wheels in parallelism, an operating device spaced from the said mechanism and arranged adjacent to the seat within easy reach of the occupant, and connections between the operating device and the said mechanism for adjusting the latter to arrange the wheels either in a vertical or an inclined position, said device being capable of operation while the vehicle is in motion.

2. The combination with a motor cycle, of a side wheel arranged in spaced relation with the rear portion of the motor cycle, mechanism for connecting the side wheel with the motor cycle and for maintaining the same in parallelism with the rear wheel of the motor cycle, an operating device mounted on the frame of the motor cycle in spaced relation with the said mechanism, and connections between the operating device and the said mechanism for adjusting the latter to arrange the wheels either in a vertical or inclined position.

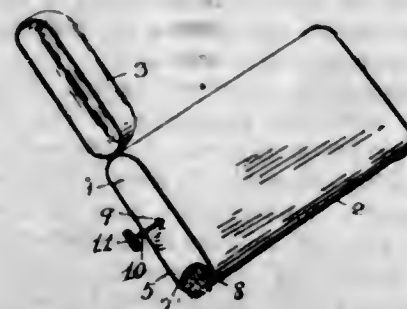
3. The combination with a motor cycle, of a transverse frame connected with and extending from the rear portion of the motor cycle and including inner and outer upright bars, and upper and lower link bars pivoted to the upright bars at points spaced from the ends thereof to form upper and lower projecting arms and maintaining the inner and outer upright bars in parallelism, said frame being provided at the outer portion with a spindle, a wheel mounted on the spindle, an operating device mounted on the frame of the motor cycle, and connections between the operating device and the said upper and lower projecting arms of the transverse frame for adjusting the latter to arrange the wheels either in a vertical or inclined position.

4. The combination with a motor cycle, of a transverse frame connected with and extending from the rear portion of the motor cycle and including inner and outer upright bars, and upper and lower link bars pivoted to and connecting the bars and maintaining the same in parallelism, said frame being provided at its outer portion with a spindle, a wheel mounted on the spindle, guides mounted on the upper and lower portions of the inner upright bar, flexible connections connected at their outer ends with the upper and lower portions of the outer upright bar and extending diagonally of the frame in opposite directions to the said guides and arranged in the same, and operating means connected with the inner portions of the flexible connections for simultaneously adjusting the same.

5. The combination with a motor cycle, of a transverse frame connected with and extending from the rear portion of the motor cycle and including inner and outer upright bars, and upper and lower link bars pivoted to and connecting the bars and maintaining the same in parallelism, said frame being provided at its outer portion with a spindle, a wheel mounted on the spindle, guides mounted on the upper and lower portions of the inner upright bar, flexible connections connected at their outer ends with the upper and lower portions of the outer upright bar and extending diagonally of the frame in opposite directions to the said guides and arranged in the same, and an upright operating bar pivoted at an intermediate point on the motor cycle and having the inner portions of the flexible connections connected to it at opposite sides of its pivot.

[Claim 6 not printed in the Gazette.]

1,077,744. TOBACCO-BOX. WILLIAM PARKER, Dunbar, W. Va. Filed May 23, 1913. Serial No. 769,414. (Cl. 206-41.)



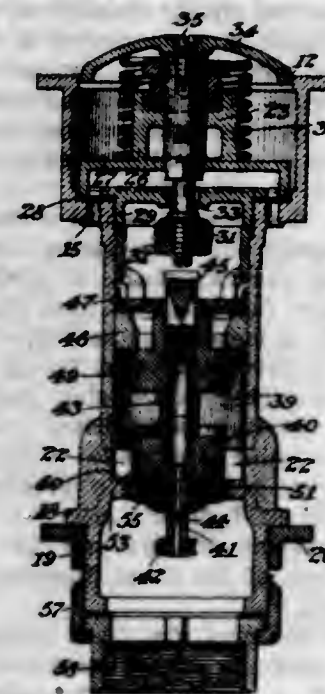
In a tobacco box, a mouth plate having a marginal connection flange, a concave end, and a central bearing, and a rod extending through said bearing, said rod having a spurred lower end, and a handle end above the plate; said rod being capable of reciprocating and oscillating movement in said bearing.

1,077,745. FLUSH-VALVE. ABRAHAM N. PASMAN, Jersey City, N. J. Filed Aug. 21, 1912. Serial No. 716,123. (Cl. 137-93.)

1. In a flush valve, a casing having an inlet connection, a discharge opening, and a cylindrical portion, a piston in the cylindrical portion, means permitting the flow of liquid from the inlet connection to the interior of the cylindrical portion above the piston, a release valve, an inlet valve carried by the piston, and means connected to and carried by the piston and also movable independently thereof so that the movement of the same may be continued in the same direction after the piston has reached the end of its forward stroke, for gradually and positively shutting off the flow of water from the inlet connection to the discharge opening.

2. In a flush valve, a casing having an inlet connection, a discharge opening, and a cylindrical portion, a piston in the cylindrical portion, an inlet valve connected to the piston, a stem depending from the piston and having a bore therethrough, means for regulating the passage of the water through the said bore, a release valve, means

for opening the release valve to permit the liquid above the piston to pass to the discharge opening, and means connected to and carried by the piston and also movable independently thereof so that the movement of the same may be continued in the same direction after the piston has reached the end of its forward stroke for gradually and positively shutting off the flow of liquid from the inlet connection to the discharge opening.



3. In a flush valve, a casing having an inlet connection, a discharge opening, and a cylindrical portion, a piston in the cylindrical portion, an inlet valve connected to the piston, a stem depending from the piston and having a bore therethrough, means for regulating the passage of the water through the said bore, a plunger connected to the said stem, a release valve, and means associated with the plunger and operative after the piston has reached the end of its forward stroke for closing a port between the inlet and discharge and maintaining the same closed so long as the release valve is open.

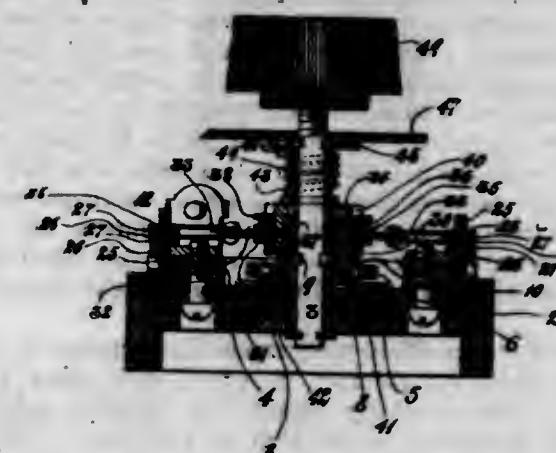
4. In a flush valve, a casing having an inlet connection, a discharge opening, and a cylindrical portion, a piston in the cylindrical portion, an inlet valve carried by the said piston, a stem depending from the piston and having a bore therethrough, means for regulating the passage of the water through the said bore, a plunger connected to the said stem, a dash pot movable on the said stem and within which the said plunger operates, a shut off valve associated with the said dash pot and adapted after the piston has reached the end of its inner stroke to close a port between the inlet and discharge, a release valve, and means for opening the release valve to permit the water in the cylinder above the piston to pass to the discharge.

1,077,746. SNAP-SWITCH. JOHANN G. PETERSON, Hartford, Conn. Filed Sept. 22, 1911. Serial No. 650,744. (Cl. 175-290.)

1. A switch comprising a supporting body, a plate fitted against said body and provided with a down-turned lug the supporting body having an opening to receive said lug, a screw extending through said body and engaging said plate, a second plate, the first plate having a slot and the second plate extending through said slot and having projections engaging the under surface of the first plate, and contact members carried by the second plate.

2. An electric switch provided with a commutator comprising superimposed plates and insulating washers, a carrier for said commutator, and a crown plate surrounding the commutator, provided with approximately diametrically opposite lugs extending through the plates and washers of the commutator and also through the carrier for holding said commutator parts and carrier in assembled relation.

3. A switch comprising a spindle, a commutator connected with said spindle, a crown plate surrounding said spindle, a dial and a dial carrier also surrounding the spindle, a spring coiled about the spindle, one end of said spring bearing against said dial carrier, said crown plate having several lugs adapted to interchangeably receive the other end of said spring.



4. An electric switch comprising a supporting body, a plate fitted against said body, means for connecting said plate with the supporting body at two different points to prevent rotation thereof, a second plate, the first plate having a slot and the second plate extending through said slot and having projections staked from its side edges, engaging the under surface of the first plate, and contact members carried by the second plate.

5. A switch comprising a supporting body, a plate fitted against said body and provided with a down-turned lug, the supporting body having an opening to receive said lug, a fastening member for connecting the plate with said supporting body, a second approximately flat plate, the first plate having a slot and the second plate extending through said slot, and having projections staked therefrom engaging the under surface of the first plate, the supporting body having an opening to receive the staked portion of the first plate, and contact members carried by the second plate.

[Claim 6 not printed in the Gazette.]

1,077,747. COIN-CONTROLLED MACHINE. OTIS B. PHILLIPS, Carbondale, Ill. Filed July 26, 1912. Serial No. 711,679. (Cl. 194-76.)



1. A coin-controlling mechanism comprising an operating member, a spring for actuating said member, movable coin-receiving jaws on said member for receiving a coin and holding it in a certain position, an actuating device that is adapted to engage the coin in said jaws and move

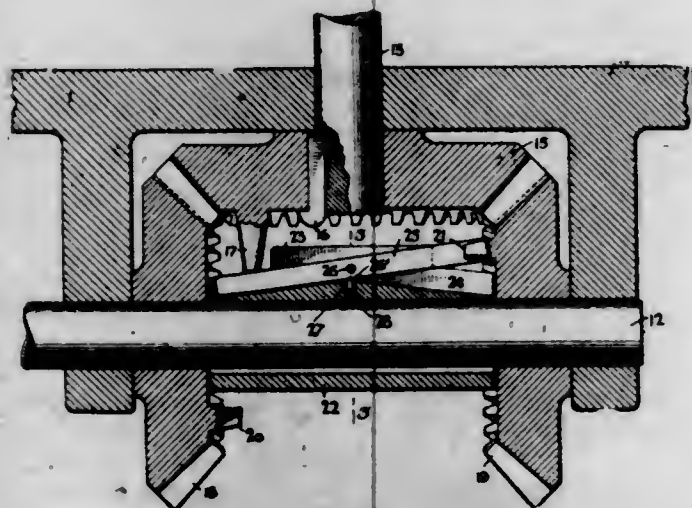
said member so as to store up energy in the spring which actuates same, an element arranged in the path of movement of said jaws for spreading or separating said jaws so as to release the coin and thus permit said member to operate, and means on said element that co-operates with the coin to insure a full stroke of said actuating device.

2. A coin-controlling mechanism comprising a pivotally mounted operating member, yielding coin-receiving jaws on said member adapted to receive a coin and hold it in a certain position, means adapted to co-operate with the coin in said jaws to move said member in one direction, a pivotally mounted element arranged in the path of said jaws for separating them so as to release the coin when said member reaches a certain position, teeth on said element that co-operate with the coin to insure a full stroke of the actuating device, and a spring for moving said member in the opposite direction when the coin is released.

3. A coin-controlling mechanism comprising a spring-actuated operating member provided with jaws for receiving a coin, yielding means for holding said jaws closed, an actuating device that is adapted to co-operate with the coin in said jaws to move said operating member in one direction, a flared or tapered device that co-operates with extensions on said jaws to cause them to separate and thus release the coin when said operating member reaches a certain position, and means on said tapered device that is adapted to co-operate with the coin to insure a full stroke of said actuating device.

4. In a coin-controlled machine, the combination of a table, a pivotally mounted lever for imparting a blow or sudden upward movement to said table, a spring for actuating said lever, yielding coin-engaging jaws on said lever for receiving a coin and holding it in a certain position, an actuating device that is adapted to co-operate with the coin in said jaws to move said lever in one direction, and means arranged in the path of movement of said lever for positively opening said coin-engaging jaws so as to release the coin and thus cause said lever to actuate said table, said means being provided with ratchet teeth that co-operate with the coin to insure a full stroke of the actuating device.

1,077,748. AUTOMATIC REVERSING MECHANISM. THOMAS HENLEY PHILLIPS, JR., New York, N. Y. Filed Dec. 13, 1912. Serial No. 736,516. (Cl. 74—50.)



1. A device of the class described, comprising a driving shaft, a driven shaft, transmission means from the driving shaft to said driven shaft, said transmission means including means to cause the reverse of said driven shaft at a predetermined number of revolutions, which number can be varied by changing the relation of said transmission means.

2. A device of the class described comprising a driving shaft, a driven shaft, a pair of facing bevel gears loosely mounted on said driving shaft, a bevel gear meshing with said facing gears and rigidly secured to said driven shaft.

a sleeve on the shaft intermediate said facing gears and rigidly secured to said driving shaft, a driving member on said sleeve adapted to engage said facing gears, and means on said rigidly secured bevel gear for causing said member on said sleeve to engage alternately each of said facing gears after a predetermined number of revolutions.

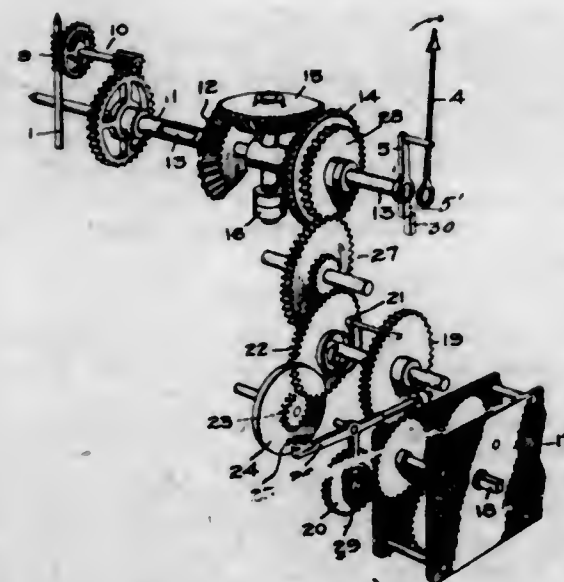
3. A device of the class described comprising a driving shaft, a driven shaft, a pair of facing bevel gears loosely mounted on one of the shafts, a bevel gear meshing with said facing gears and rigidly secured to the other shaft, a sleeve on the shaft intermediate said facing gears and rigidly secured to said shaft, a pivoted member on said sleeve, and means on said bevel gear meshing with said facing gears for causing said member on said sleeve to engage alternately each of said facing gears after a number of predetermined revolutions.

4. A device of the class described comprising a driving shaft, a driven shaft, a pair of facing bevel gears loosely mounted on said driving shaft, a bevel gear meshing with both of said facing gears and rigidly secured to said driven shaft, a member on said driving shaft rigidly secured thereto intermediate said facing gears and having means for engaging said facing gears, and shifting means on said rigidly secured bevel gear whereby said means on said member are made to engage alternately each of said facing gears after a predetermined number of revolutions of said rigidly secured bevel gear, the number of revolutions of said secured gear being controlled by the ratio of the pitch diameters of said facing and secured gears.

5. A device of the class described comprising a driving shaft, a driven shaft, a pair of oppositely rotating members on one shaft, a member intermediate said oppositely rotating members rigidly secured to said shaft and having means for alternate engagement with said oppositely rotating members, and a driven member rigidly secured to the other shaft engaging both of said oppositely rotating members and having shifting means co-operating with said means on said secured member, whereby said oppositely rotating members are made to become alternately driving members.

[Claims 6 to 10 not printed in the Gazette.]

1,077,749. MAXIMUM-DEMAND ELECTRIC METER. WILLARD E. PORTER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 19, 1910. Serial No. 544,758. (Cl. 171—34.)



1. The combination with a rotatable shaft of a second shaft, a differential gearing comprising two gear members loosely mounted on the second shaft and a planetary member adapted to rotate said second shaft, and means for causing said gearing to rotate the second shaft and for reversing the direction of rotation of said second shaft.

2. The combination with a rotatable shaft of a second shaft, a differential gearing comprising two gear members loosely mounted on the second shaft and a planetary mem-

ber adapted to rotate said second shaft, and means for causing said gearing to rotate the second shaft at recurring intervals of a definite time length and for returning said second shaft to its initial position at the end of each interval.

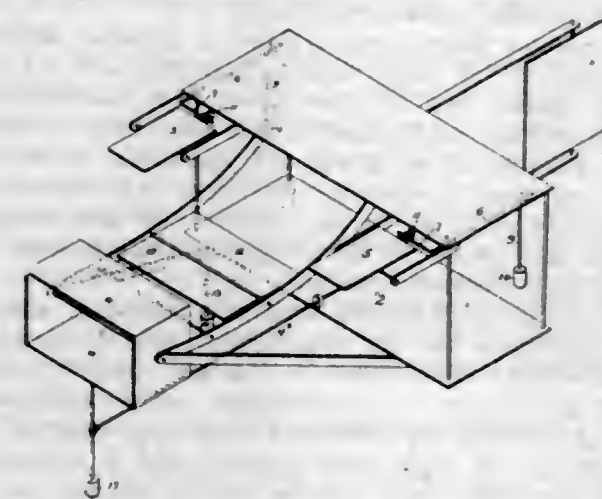
3. In a motor meter, a differential gearing comprising two gear members and a planetary member, means for driving one of the gear members from the meter, a shaft adapted to be rotated by the planetary member in one direction, and means for driving the other of said gear members for reversing the direction of rotation of the shaft.

4. In a motor meter, a differential gearing comprising two gear members and a planetary member, means for driving one of the gear members from the meter, a shaft adapted to be rotated by the planetary member in one direction, and means for periodically rotating the shaft in a reverse direction.

5. In a motor meter, a differential gearing comprising two gear members and a planetary member, means for driving one of the gear members from the meter, means for periodically locking the second gear member for equal intervals of time, a shaft adapted to be rotated by the planetary member in one direction, and means for rotating the shaft in the other direction when the second gear member is unlocked.

[Claims 6 to 11 not printed in the Gazette.]

1,077,750. AEROPLANE. BURT J. PRESSEY, Newport News, Va. Filed Oct. 17, 1908. Serial No. 458,234. (Cl. 244—12.)



1. The combination of a main plane, a weighted arm pivoted to said plane so as to be free to swing laterally, a dip-controlling plane swinging in a plane transverse to the plane of swing of the weighted arm, and connections between said dip-controlling plane and the swinging arm, one of which connections is slotted.

2. In an aeroplane, the combination of the main plane with a plurality of planes forward of the same, each of said planes being under control of a gravity-influenced weight, whereby it is retained in horizontal or substantially horizontal position irrespective of the longitudinal dip of the main plane.

3. In an aeroplane, the combination of the main plane with a manually controlled steering plane forward of the same, and in addition to said steering plane, a plane whose position is controlled by a gravity-influenced weight, whereby it is retained in horizontal or substantially horizontal position irrespective of the longitudinal dip of the main plane.

1,077,751. ELECTRIC-INCANDESCENT-LAMP CARRIER. ALBERT F. PRIBNOW, Mellen, Wis. Filed Mar. 19, 1913. Serial No. 755,461. (Cl. 229—90.)

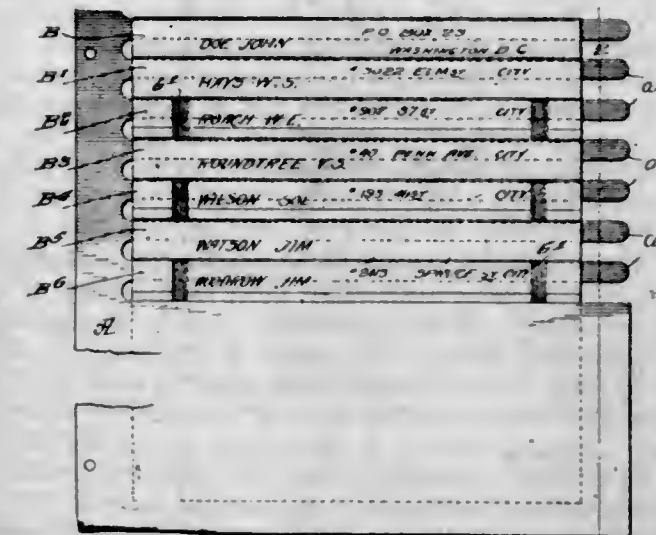
An incandescent electric lamp carrier embodying a resilient tube, and a flexible member disposed diametrically within one end of the tube, the said member having reduced end tabs bent against and secured to opposite walls

of the tube, the intermediate portion of the said member being enlarged and being provided with an opening to re-



ceive the plug of a lamp, and the side edges of the flexible member being spaced from the respective walls of the tube.

1,077,752. ACCOUNT-INDEX. WILLIAM ELI ROACH, San Antonio, Tex. Filed Dec. 4, 1912. Serial No. 734,877. (Cl. 129—16.)



1. An account index comprising the combination of a plurality of superposed parallel holding arms, and a plurality of cards having guides for reversible engagement with the said holding arms.

2. An account index card having one edge portion bent back and secured upon its reverse side whereby to form a channel along the said card edge, said card having name spaces both upon its obverse side and upon the said turned back edge portion on its reverse side, for the purpose described.

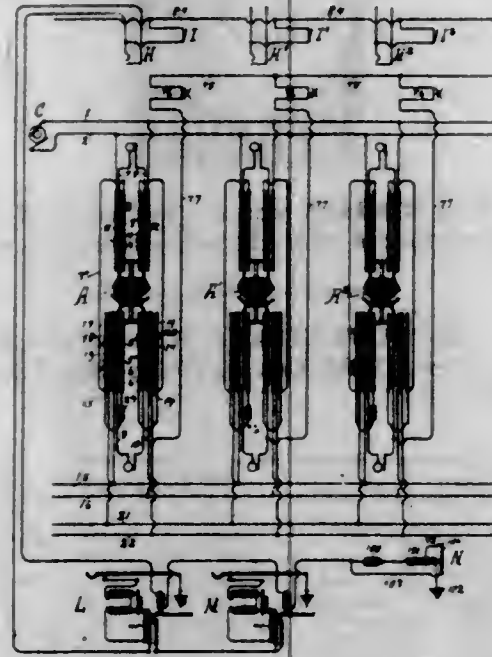
3. An account index comprising the combination of a holder, a plurality of laterally outstanding arms having a sliding connection with the holder and adapted to maintain themselves in selected position thereon, and a plurality of cards having detachable and reversible engagement with the said arms.

4. The combination of a card supporting member having a plurality of superposed outstanding arms, and a plurality of cards having guides detachably and reversibly engaged with the said arms.

1,077,753. SWITCHBOARD CIRCUITS AND APPARATUS FOR TELEPHONES. HOMER J. ROBERTS, Evanson, Ill., assignor, by mesne assignments, to Homer Roberts Telephone Co., a Corporation of West Virginia. Filed Sept. 5, 1905. Serial No. 276,975. (Cl. 179—85.)

1. In a telephone switch board system, the combination of a plurality of connection jacks, a plurality of connecting cords, corresponding keys controlling the same, each cord key having two sets of contact springs and cor-

responding positions of the key, local circuit connections and a source of ringing current connected with one set of spring contacts of each cord key, a master-key set and local circuit connections connecting the second set of contact springs of each cord key with said master-key set, an operator's set and circuit connections placing said set in listening connection with the respective cord keys when the latter are shifted into position to close circuit with the master-key set, spring contacts, suitable circuit connections and a source of special current controlled by said master-key set, whereby said special current may be extended to any connecting cord through said master-key set and the corresponding cord key.



2. In a telephone switch board system, the combination with a plurality of connecting jacks, a plurality of connecting cords, and corresponding cord keys controlling the connecting cords, of a source of alternating current and suitable current connections between each cord and said source of alternating current, a source of uni-directional pulsating current, a master-key set connected with and controlling said latter source of current, circuit connections between said master-key set and each of the cord keys and mechanism operating automatically for reversing the polarity of said uni-directional current.

3. In a telephone switch board system, the combination with a plurality of connecting jacks, a plurality of connecting cords, and corresponding cord keys controlling the connecting cords, of a source of alternating current and suitable current connections between each cord and said source of alternating current, a source of uni-directional pulsating current, a master-key set connected with and controlling said latter source of current, circuit connections between said master-key set and each of the cord keys, means for reversing the polarity of said uni-directional pulsating current, whereby the polarity of said current is automatically reversed at the end of a predetermined number of pulsations.

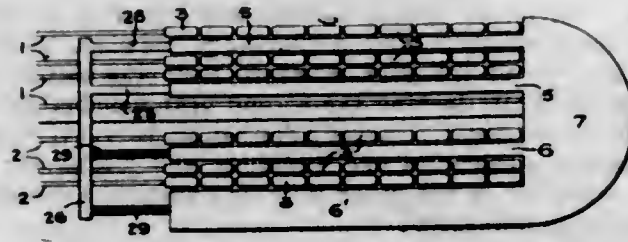
4. In a telephone switch board system, the combination with a plurality of connecting jacks, a plurality of connecting cords, and corresponding cord keys controlling the connecting cords, of a source of alternating current and suitable current connections between each cord and said source of alternating current, a source of uni-directional pulsating current, a master-key set connected with and controlling said latter source of current, circuit connections between said master-key set and each of the cord keys, means for manually reversing the polarity of said uni-directional pulsating current and means for automatically reversing said current.

5. In a telephone switchboard system, the combination of a plurality of connecting jacks and a plurality of connecting cords and corresponding cord keys, a master-key set, circuit connections between said master-key set and

the several cord keys, a battery, a constantly running generator D, circuit connections connecting the generator with the master-key set, circuit connections connecting the battery with the master-key set and subsidiary contact devices controlled by the master-key mechanism and operating to open the circuit between the master-key set and battery when the generator circuit is closed and vice versa to open the circuit between the generator and master-key when the battery circuit is closed.

[Claims 6 to 14 not printed in the Gazette.]

1,077,754. TRANSFER-TERMINAL. ROBERT H. ROGERS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 25, 1912. Serial No. 711,603. (Cl. 104-8.)



1. Means for distributing freight at terminal stations, comprising one or more tracks for incoming cars, one or more tracks for outgoing cars, one or more downwardly-inclined platforms extending continuously along both sets of tracks, vehicles adapted to run by gravity down said platforms, and means for transferring said vehicles from the low end of the outgoing platform to the high end of the incoming platform.

2. Means for distributing freight at terminal stations, comprising one or more incoming tracks, one or more outgoing tracks, one or more downwardly-inclined platforms extending continuously along both sets of tracks, vehicles adapted to run down said platforms, an elevated incline extending downwardly from near the low end of the outgoing platform to the high end of the incoming platform, and means for elevating said vehicles from said low end to the elevated incline.

3. Means for distributing freight at terminal stations, comprising tracks for the cars, downwardly-inclined platforms extending continuously along said tracks, vehicles adapted to run down said platforms, an elevated incline extending downwardly from near the low ends of said platforms to the high ends thereof, and a mechanical elevator for lifting said vehicles to said elevated incline.

4. Means for distributing freight at terminal stations, comprising tracks for incoming cars, tracks parallel therewith for the outgoing cars, downwardly-inclined platforms running along the incoming tracks, downwardly-inclined platforms extending along the outgoing tracks, a wide transverse downwardly-inclined platform connecting the low ends of the incoming platforms with the high ends of the outgoing platforms, a downwardly-inclined bridge crossing the tracks, runways connecting said bridge with the high ends of the incoming platforms, and elevators connecting the low ends of the outgoing platforms with said bridge.

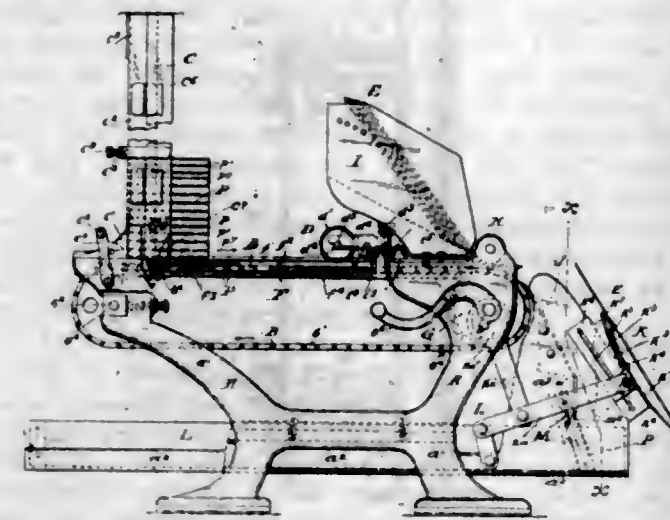
5. Means for distributing freight at terminal stations, comprising downwardly-inclined platforms running along the car tracks, and vehicles for use on said platforms and in the cars, said vehicles each comprising an ordinary two-wheeled truck and an independent wheeled yoke adapted to receive and support the handles of said ordinary truck.

[Claims 6 and 7 not printed in the Gazette.]

1,077,755. ADDRESSING-MACHINE. RUSSELL N. ROGERS, Chicago, Ill., assignor, by means assignments, to John B. Hall and Joseph S. Duncan, Chicago, Ill. Filed June 4, 1907. Serial No. 377,149. (Cl. 101-1.)

1. An addressing machine having a bed plate, F, provided with raised surfaces, f' and f'', and having conveyor and type-plate guides, in combination with a plate-holder

above the surface, f'', and an inking device above the surface, f', in position to ink a type-plate resting thereon substantially as described.



2. An addressing machine comprising a frame, in combination with a type-plate conveyor therein, a printing mechanism and a plate magazine to supply plates to said conveyor, and comprising a rigidly upright portion and vertically hinged sections at either side thereof, adapted to be opened to receive type-plates substantially as described.

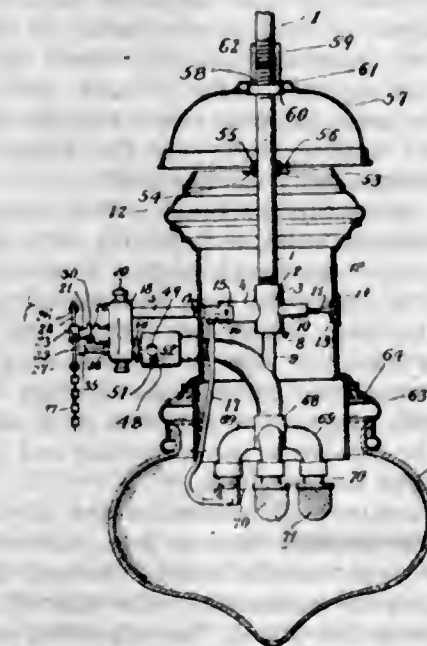
3. A magazine for addressing machines comprising a base, in combination with standards thereon, and sections vertically hinged upon said standards, and having interturned flanges at their forward edges substantially as described.

4. A magazine or plate-holder for addressing machines comprising a back and partial sides, in combination with sections having interturned flanges and vertically hinged on said sides, and means for operating said sections together substantially as described.

5. A magazine adapted to contain a plurality of type-plates arranged in a stack and having ears on their ends, comprising an upright frame or standard having vertical flanges engaged with said ears, and movable to admit plates to the magazine, or permit their withdrawal therefrom together, singly, or in stacked form substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,077,756. INCANDESCENT GAS-LAMP. LOUIS M. RUBIN, New York, N. Y. Filed Dec. 26, 1912. Serial No. 738,733. (Cl. 67-94.)



1. In a gas lamp, the combination of a gas supply-pipe, a burner and a burner-pipe, a valve-casing connected

with said gas supply-pipe and said burner-pipe, a bunsen located in said connection between said burner-pipe and valve-casing, an injector-nozzle having a valve seat therein and being secured to said valve-casing by means of a threaded joint and provided upon its exterior with a thread, a needle-valve operating in said nozzle, a tubular mixing-chamber provided with a thread for engaging said thread on the injector-nozzle, the other end of said mixing-chamber having a sliding joint on said burner-pipe and capable of sliding thereon when unscrewed from said injector-nozzle whereby it may be dismounted without manipulating the burner-pipe, substantially as described.

2. In a gas lamp, the combination of a gas supply pipe, a valve-casing connected with said gas supply pipe and provided with a valve, a burner, a substantially arc-shaped burner-pipe connected with said burner and with said valve-casing and having its interior formed with an enlargement gradually tapering toward each end of the pipe, substantially as and for the purpose set forth.

3. In a gas lamp, the combination of a gas supply pipe, a valve-casing provided with a valve controlling the flow of gas to the burner, a fitting connected with said supply pipe and provided with a laterally extending socket, a pipe connecting said lateral socket with said valve casing, the said lateral socket of the fitting being provided with a horizontally extending enlargement formed with a duct leading from the interior of the socket and provided with a screw-valve regulating the flow through said duct, and a pilot-light tube leading from said duct to the burner, substantially as and for the purpose set forth.

4. In a gas lamp, the combination of a gas supply pipe, a burner and a burner-pipe, a valve-casing connected with said gas supply-pipe and said burner-pipe, a bunsen located in said connection between said burner-pipe and valve-casing and having a tubular mixing-chamber provided with a screw-threaded joint at one end and a sliding-joint at the other, said sliding-joint including an internally threaded sleeve mounted on the threaded end of said burner-pipe, a chimney through which said burner-pipe extends and an abutment on said burner-pipe against which the inner side of the chimney rests, said threaded sleeve of the sliding-joint taking against the exterior of said chimney and serving to clamp it against the abutment on the burner-pipe.

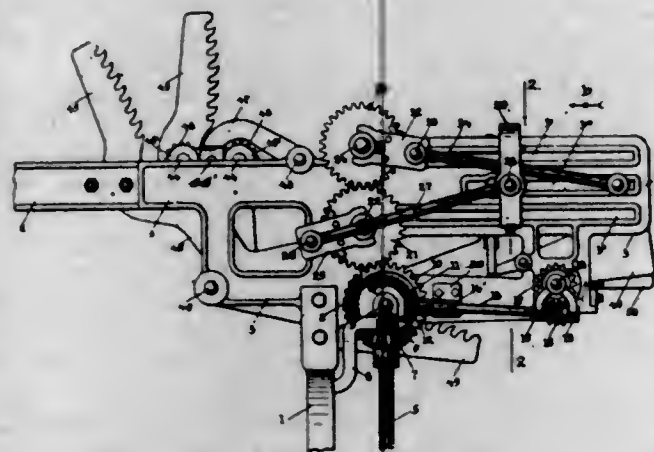
5. In a gas lamp, the combination of a gas supply-pipe, a burner and a burner-pipe, a valve-casing connected with said gas supply-pipe and said burner-pipe, a bunsen located in said connection between said burner-pipe and valve-casing and having a mixing-chamber provided with a rotatable tubular shutter formed with a series of peripheral openings for admitting air to said chamber, a peripheral slot connecting two of said shutter-openings, and a set-screw located in said slot and mounted in said chamber for holding the shutter in adjusted position.

1,077,757. SHEDDING MECHANISM FOR LOOMS. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 29, 1912. Serial No. 711,960. (Cl. 139-79.)

1. In a shedding mechanism of the class described, a pair of reciprocating lifter bars, having a simultaneous movement in the same direction in different planes, a third lifter bar, located to move in a plane intermediate the planes of movement of said pair of lifter bars, harness levers, each harness lever having a toothed wheel or pinion pivoted thereon and movable therewith, a connector or link, having one end pivotally connected to said pinion, and the other end pivotally attached to a stationary part of the mechanism, two hooks connected with each harness lever, each of said hooks having a shoulder or projection to cooperate with said third lifter bar, and a shoulder or projection to cooperate with one of said pair of lifter bars, a set of pattern indicators to operate one of said hooks, and another set of pattern indicators to operate the other of said hooks.

2. In a shedding mechanism of the class described, a pair of reciprocating lifter bars, having a simultaneous move-

ment in the same direction in different planes, a third lifter bar, located to move in a plane intermediate the planes of movement of said pair of lifter bars, harness levers, each harness lever having a toothed wheel or pinion pivoted thereon and movable therewith, a connector or link, having one end pivotally connected to said pinion, and the other end pivotally attached to a stationary part of the mechanism, two hooks connected with each harness lever, each of said hooks having a shoulder or projection to cooperate with said third lifter bar, and a shoulder or projection to cooperate with one of said pair of lifter bars, a set of pattern indicators to operate one of said hooks for one pick, and another set of pattern indicators to operate the other of said hooks for the next pick.



3. In a shedding mechanism of the class described, a pair of reciprocating lifter bars, having a simultaneous movement in the same direction in different planes, a third lifter bar, located to move in a plane intermediate the planes of movement of said pair of lifter bars, harness levers, each harness lever having a toothed wheel or pinion pivoted thereon and movable therewith, a connector or link, having one end pivotally connected to said pinion, and the other end pivotally attached to a stationary part of the mechanism, two hooks connected with each harness lever, each of said hooks having a shoulder or projection to cooperate with said third lifter bar, and a shoulder or projection to cooperate with one of said pair of lifter bars, a set of pattern indicators to operate one of said hooks for one pick, and another set of pattern indicators to operate the other of said hooks for the next pick, and means for causing each set of indicators to remain operative for practically two picks.

4. In a shedding mechanism of the class described, a harness lever, a toothed wheel or pinion pivoted thereon, and movable therewith, a connector or link having one end pivotally connected to said pinion, and the other end pivotally attached to a stationary part of the mechanism, a device to cooperate with said pinion to turn the same, and cause the movement of said harness lever, and means to operate said device.

5. In a shedding mechanism of the class described, a harness lever, a toothed crank wheel or pinion pivoted on said harness lever, a connector or link having one end pivotally attached to said pinion, and its other end pivotally attached to a stationary part of the mechanism, and means to turn said pinion on its pivotal center to move said harness lever, and lock the same at each end of its movement.

[Claim 6 not printed in the Gazette.]

1,077,758. GAGE-GLASS FIXTURE. THOMAS C. SALTER, San Francisco, Cal. Filed Dec. 5, 1912. Serial No. 735,125. (Cl. 73—54.)

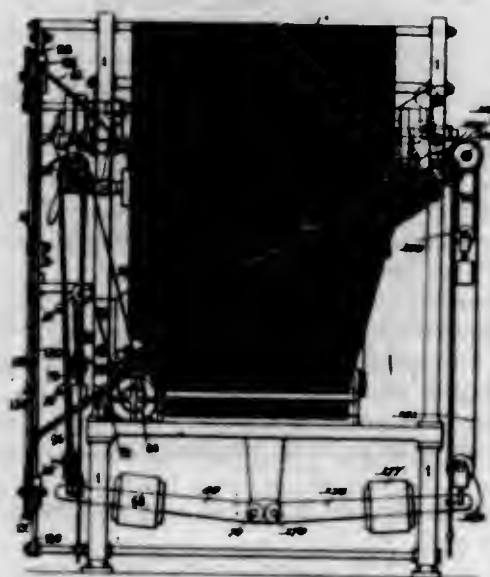
A water level indicator comprising superposed substantially L-shaped pipes having opposing vertically aligned ends, a slight glass terminally inserted in said ends, nuts on said ends, glands confined within said ends by said nuts, packing rings surrounding said glass, and nip-

ple nuts threaded into said ends against said glass and compressing said packing rings against said glands, each



nipple nut having intersecting passages communicating with the bore of the related pipe and with said glass.

1,077,759. TYPE-COMPOSING MACHINE. ANIELLO SAVARESE, Paris, France. Filed May 7, 1912. Serial No. 695,886. (Cl. 101—195.)



1. In a type composing machine of the character described, type magazine rails, a fall-rod cylinder having longitudinally arranged thereon a series of fall rods to receive the type from the type magazine rails, a ratchet wheel having a series of teeth corresponding in number to the fall-rods on the cylinder, sprocket wheels operatively connected to the opposite ends of said cylinder and counterweighted chains passing over said sprockets and serving to rotate said cylinder on the release of the ratchet wheel, substantially as described.

2. In a type composing machine of the character described, type magazine rails, a collecting rail having an upward stretch and a downward incline, a correcting and justifying bench to which the type slide down by gravity on said collecting rail, means for leading the type by gravity from the magazine rails to the collecting rail and a continuously operating traveler for moving the type upward on the collecting rail to the point from which they slide downward by gravity to the correcting and justifying bench, substantially as described.

3. In a type composing machine of the character described, a table for justified lines of type, supporting rails for each line of type, barrier means on said table and means for pressing the supporting rails against said barrier, gripping means for lifting the supporting rail which lies in contact with said barrier, and means for operating said gripping means to first lift said supporting rail and then move it from the barrier, in combination with a

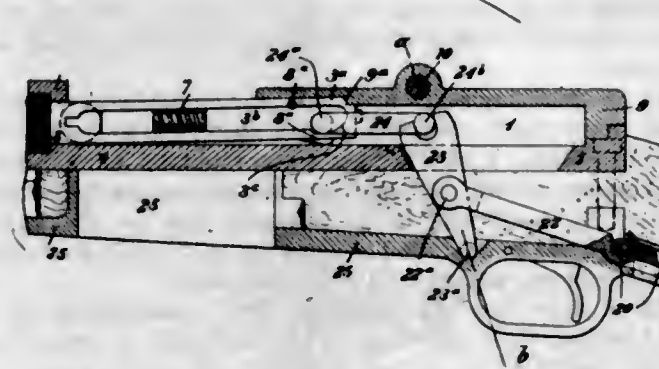
page table to which said gripping means moves and means for receiving and retaining the supporting rail at said table while the gripping means returns.

4. In a type composing machine of the character described, a table for justified lines of type, supporting rails for each line of type, barrier means on said table and means for pressing the supporting rails against said barrier, gripping means for lifting the supporting rail which lies in contact with said barrier, a pivoted carrier for said gripping means and means for first operating said gripping means to lift the supporting rail and then to move it in an arc from the barrier, in combination with a page table to which said gripping means moves and means for receiving and retaining the supporting rail at said table while the gripping means returns.

5. In a type composing machine of the character described, a correcting and justifying rule, a type magazine and means for automatically conveying the type successively therefrom to said justifying rule, in combination with a movable line-supporting rail adapted to be aligned with the end of said justifying rule and a movable fork for insuring said alignment, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,077,760. AUTOMATIC FIREARM. LOUIS SCHMEISSER, Erfurt, Germany. Filed Mar. 17, 1913. Serial No. 754,958. (Cl. 42—4.)

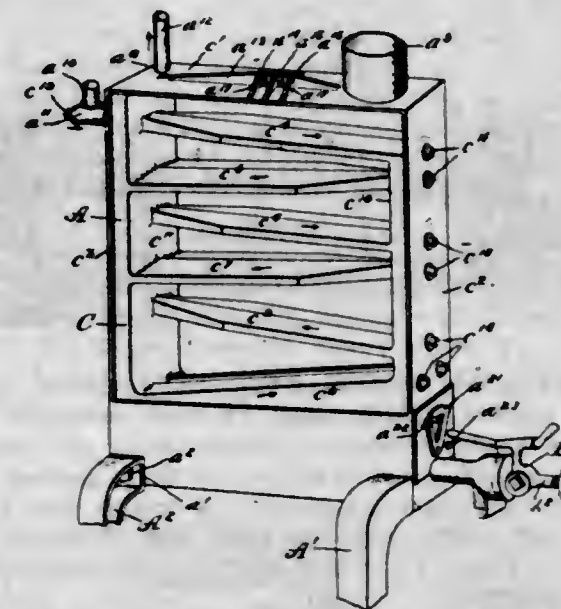


1. In an automatic fire-arm of the kind described, the combination with the fixed barrel, the stock, the breech casing and the breech block of a butt-cap, means for mounting the said butt-cap in a movable manner on the butt end of the stock, a spring controlling said butt cap, connecting means for connecting said butt-cap with said breech block, a groove in said breech block, an incline in said opening, a tenon provided on said connecting means and adapted to engage the said incline for the purpose of automatically unlocking the said breech block, a locking lever fulcrumed on the said breech block, a spring controlling said locking lever which locking lever is adapted to cause the said breech block to oscillate into the locking position, substantially as and for the purpose set forth.

2. In an automatic fire-arm of the kind described the combination with the fixed barrel, the breech casing and the breech block of a locking lever, a hook on said locking lever, a handle knob, a bar connected with said handle knob and adapted to longitudinally slide in said breech block, a spring adapted to control said bar and a hook provided on said bar and adapted to engage the hook of said locking lever, substantially as and for the purpose set forth.

3. In an automatic fire-arm of the kind described, the combination with the fixed barrel, the breech casing and the breech block, a locking lever fulcrumed on said breech block, a handle knob bar adapted to slide longitudinally in said breech block, a firing pin housed in said breech block and adapted to hold the said bar in position, a spring slid on said firing pin, and a tenon provided on said firing pin and adapted to engage the said locking lever substantially as and for the purpose set forth.

1,077,761. HEATER. FREDERICK D. SCHNEIDER, Bedford, Ohio. Filed Apr. 13, 1912. Serial No. 690,489. (Cl. 122—223.)



1. A heater comprising a member forming downwardly and upwardly inclined zig-zag water passages and a substantially straight interjacent section connecting the lower openings of said passages, a pair of members forming in conjunction with said first mentioned member a zig-zag flue passage, and heating means communicating below with said flue passage and disposed adjacent the upwardly inclined of said water passages.

2. A water heater comprising a member having a plurality of water passages in series communication with each other, means adjacent said member and forming in conjunction therewith a devious passage for the gases of combustion, said water being caused to travel successively in a direction opposed and corresponding to that traversed by the gases.

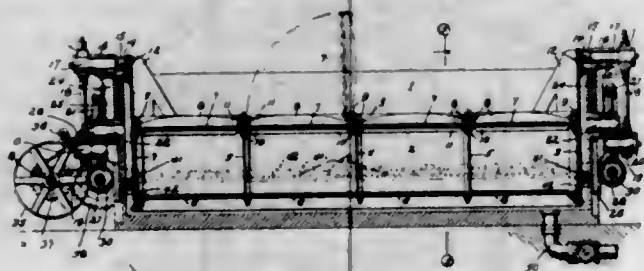
3. A water heater comprising an integral casting having a plurality of separate end and intermediately extending water passages in series communication with each other, one of said passages being provided with an inlet opening, another of said passages being provided with an outlet opening, means including plates for forming in conjunction with said casting a zig-zag flue passage between said water passages, and heating means in communication with said flue passage and intersecting the lower of said water passages.

4. A water heater comprising a casing, a plurality of superposed water passages alternately inclined in opposite directions therein, the proximate ends of a plurality of adjacent upper passages having series communication each with another, the lower ends of two alternate lower passages having series communication with each other, said casing and water passages forming together a single zig-zag flue passage, and heating means below and in communication with said flue passage.

5. In an apparatus for heating and causing the circulation of a fluid, a closed endless conduit system which includes a zig-zag passage comprising elongated interjacent portions and having a continuously downward direction from its inlet to its discharge end, a second zig-zag passage comprising elongated interjacent portions located below the first and having a continuously upward direction from its inlet toward its outlet end, and a duct which connects the lower discharge end of the first mentioned passage and the lower intake end of the second mentioned passage, heating means located below said passages, and an elongated inclosing casing which embraces said passages and heating means, and forms in conjunction therewith a single zig-zag flue having elongated interjacent portions through which the generated heat will flow upward in contact with said two passages, such elongated interjacent flue portions being interposed respectively between adjacent pairs of interjacent portions of said fluid conduit whereby a maximum travel of the heat units is assured.

[Claims 6 to 20 not printed in the Gazette.]

1,077,762. DYEING-MACHINE. ROBERT P. SMITH, GEORGE E. DRUM, and JAMES H. SKITT, Philadelphia, Pa. Filed Oct. 27, 1911. Serial No. 657,083. (Cl. 8—19.)



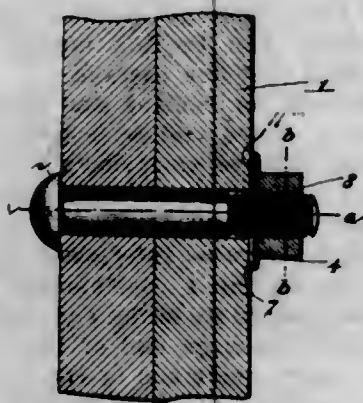
1. In a dyeing machine of the class described, an outer tank to contain the dye liquor, an inner receptacle to contain the goods, means for reciprocating the inner receptacle, a shaft on each end of the tank, gearing mounted thereon and having operative connection with the said means, and guides extending from said means and being cut-out to straddle the said shafts, and operating means for the gearing.

2. In a dyeing machine of the class described, an outer tank to contain the dye liquor, an inner receptacle to contain the goods, a shaft at one end of the tank, a worm thereon, a worm gear meshing therewith, a crank on the worm gear, a pitman having connection with said crank and said receptacle to reciprocate the latter in said tank, a shaft on the end of the tank mounting said worm gear, a guide provided for the tank and having a cut-out portion straddling said last shaft, and operating means for the said first shaft.

3. In a dyeing machine, a liquid receptacle, a goods receptacle therein, a U-shaped packing member, a second packing member telescoping therein, and spring means between said packing members, one of said members being secured to the sides of one of the receptacles and the other packing member slidably engaged with the sides of the other receptacle.

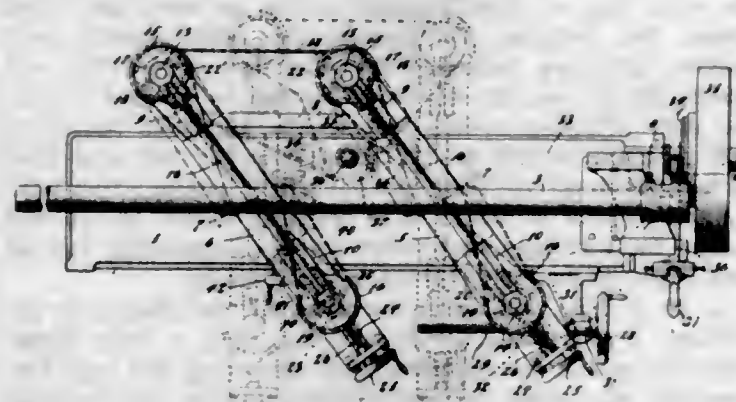
4. In a dyeing machine, a liquid receptacle, a goods receptacle therein, a U-shaped packing member, a male packing member telescoped in the channel thereof, the first member being provided with channel bosses, fastening means passing through the bosses and securing said member to one of the receptacles, and springs surrounding the bosses and bearing against the male member, the male member being slidably engaged with the sides of the other receptacle.

1,077,763. NUT-LOCK. ALMA P. STARK, Spanish Fork, Utah. Filed Dec. 17, 1912. Serial No. 737,322. (Cl. 151—52.)



A nut locking washer having means on its outer side to engage the nut on a bolt and also provided on its inner side with a longitudinally curved spring bolt locking arm adapted by pressure to extend longitudinally and engage its inner end with one side of the bolt on which the washer is used, the said washer being also provided with radial corrugations and the said bolt locking arm being arranged in one of the channels formed by said corrugations.

1,077,764. TUBE-MAKING MACHINE. ALDEN B. STARR, New York, N. Y., assignor to Starr Package Machinery Company, Inc., a Corporation of Massachusetts. Filed Jan. 27, 1913. Serial No. 744,290. (Cl. 93—80.)



1. In a tube forming machine, the combination of two plates mounted to swing on different centers and carrying presser-belts and driving pulleys, a fixed power driven pulley arranged eccentrically and in the same plane with said pulleys, and an endless belt communicating power from said pulley to the pulleys carried by said plates, substantially as described.

2. In a tube forming machine, the combination of a pair of presser-belt carrying plates mounted to swing on different centers, a driving pulley carried by each plate, a fixed power driven pulley eccentric and in the same plane with the pulleys carried by the plates, and an endless belt leading around all three pulleys, substantially as described.

3. In a tube forming machine, the combination of a pair of presser-belt carrying plates mounted to swing on different centers, a driving pulley carried by each plate, a fixed power driven pulley mounted eccentrically to the center of at least one of said plates and in the same plane with said pulleys and an endless belt leading around all three pulleys, substantially as described.

4. In a tube forming machine, the combination of a pair of presser-belt carrying plates mounted to swing on different centers, a pulley carried by each plate, a fixed power driven pulley eccentric to but in the same plane with the driving pulleys carried by the plates, an endless belt leading around all three pulleys and a belt tightener cooperating with said belt, substantially as described.

5. In a tube forming machine, the combination of a plurality of plates mounted to swing on different centers and one at least carrying a presser-belt and pulleys therefor, a driving pulley carried by each plate, a fixed power driven pulley eccentric to but in the same plane with the pulleys carried by the plates, and an endless belt leading around all three pulleys, substantially as described.

(Claim 6 not printed in the Gazette.)

1,077,765. ANTISLIP-OVERSHOE FOR HORSES. PHILIP STRUCK, Toronto, Ontario, Canada, assignor of one-half to Asa B. Wilson, Toronto, Canada. Filed Feb. 9, 1912. Serial No. 676,558. (Cl. 168—1.)

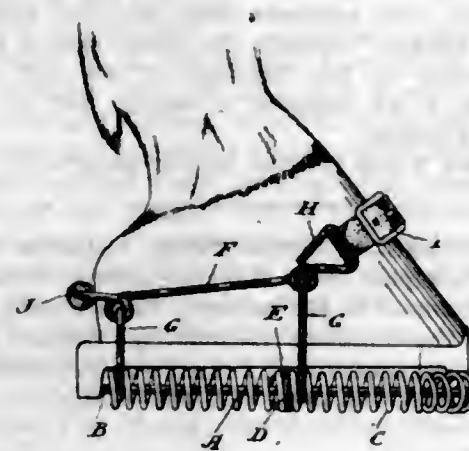
1. An anti-slip horseshoe comprising a wire coil bent round in horseshoe shape; means tying together the rear ends of the shoe; means tying together the opposite sides of the shoe intermediate the toe and heel; and means for detachably securing the same beneath a horse's hoof.

2. An anti-slip horseshoe comprising a wire coil bent round in horseshoe shape; a core extending through the same from end to end; and means for detachably securing the same beneath a horse's hoof.

3. An anti-slip horseshoe comprising a wire coil bent round in horseshoe shape; a core extending through the same from end to end; means tying together the rear ends of the core; and means for detachably securing the same beneath a horse's hoof.

4. An anti-slip horseshoe comprising a wire coil bent round in horseshoe shape; a core extending through the

same from end to end; means tying together the rear ends of the core; means tying together the opposite sides of the core intermediate the toe and the heel; and means for detachably securing the same beneath a horse's hoof.



5. An anti-slip horseshoe comprising a wire core bent round to horseshoe form; a wire coil surrounding the same; a wire tying together the rear ends of the core; and means for detachably securing the same beneath a horse's hoof.

(Claim 6 not printed in the Gazette.)

1,077,766. EAR APPLIANCE FOR FACILITATING HEARING. ANTON VON SUCHORZYNKI, Steglitz, near Berlin, Germany. Filed Apr. 1, 1912. Serial No. 687,660. (Cl. 181—23.)



1. An ear appliance comprising a membrane bag adapted to lie against the tympanic membrane, membranes arranged outside of the auditory canal, a tubular member connecting said inner and outer membranes, one of said outer membranes conforming to the outer portion of the ear and the other to the head.

2. An ear appliance comprising a membrane bag adapted to lie against the tympanic membrane, membranes adapted to be arranged outside of the auditory canal, a tubular member connecting said inner and outer membranes, one of said outer membranes conforming to the outer portion of the ear and the other to the head, and means for adjustably supporting the inner membrane.

3. An ear appliance comprising a membrane bag adapted to lie against the tympanic membrane, membranes adapted to be exposed outside of the auditory canal, a tubular member connecting said membranes, one set of said outer membranes conforming to the outward portion of the ear and the other to the head, the external membranes being arranged one above the other and adjustable relative to each other for varying the quantity of air inclosed between said membranes.

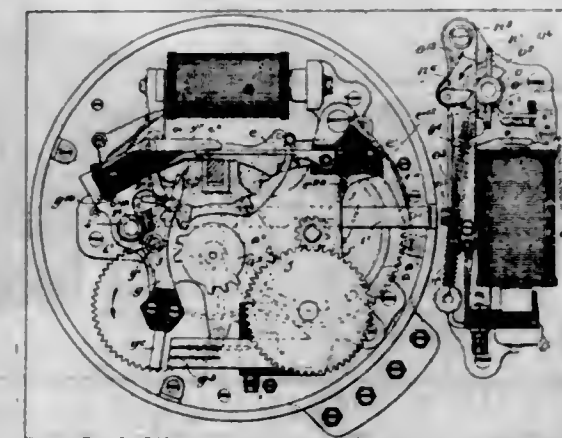
4. An ear appliance comprising a membrane bag designed to lie against the tympanic membrane, a plurality of membranes adapted to be arranged outside the auditory canal, one of said outer membranes conforming to the outer portion of the ear and the other to the cranium, a tubular member connecting the inner and outer membranes, levers connecting the external ear membranes with each other and with the inner membrane for increasing the sound vibrations corresponding to the size of the different membrane surfaces.

5. An ear appliance comprising a membrane bag designed to lie against the tympanic membrane, a plurality

of membranes adapted to be arranged outside the auditory canal, one of said outer membranes conforming to the outer portion of the ear and the other to the cranium, a tubular member connecting the inner and outer membranes, levers connecting the external ear membranes with each other and with the inner membrane for increasing the sound vibrations corresponding to the size of the different membrane surfaces, and tension devices connected with the outer membrane for varying the tension thereof.

(Claims 6 to 8 not printed in the Gazette.)

1,077,767. AUXILIARIZED FIRE-ALARM BOX. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire-Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1912. Serial No. 682,212. (Cl. 178—50.)



1. In an auxiliary fire-alarm box, the combination of a signaling-train having a locking-lever, a movable member engaging said locking-lever, an actuating-lever arranged remote from said member and adapted when released to strike said member a blow to suddenly move it to lift said locking-lever, a detent-lever normally engaging said actuating-lever controlled by the auxiliary-magnet and spring-actuated means for moving said actuating-lever when released by said detent-lever, substantially as described.

2. In an auxiliary fire-alarm box, the combination of a signaling-train having a locking-lever, a sliding bar engaging said locking-lever, a pivoted actuating-lever arranged remote from the end of said sliding-bar and adapted when released to strike said bar to lift the locking-lever, a detent-lever normally engaging said actuating-lever, controlled by the auxiliary-magnet, and spring-actuated means for moving said actuating-lever when released by said detent-lever, substantially as described.

3. In an auxiliary fire-alarm box, the combination of a signaling-train having a locking-lever, a pivoted actuating-lever for said locking-lever bearing an anvil for striking a blow to suddenly move said locking-lever, spring-actuated means normally engaging said actuating-lever for moving it, a detent-lever normally engaging said actuating-lever to hold it with the spring-actuated means set in condition to operate an electro-magnet and armature therefor controlling said detent-lever, substantially as described.

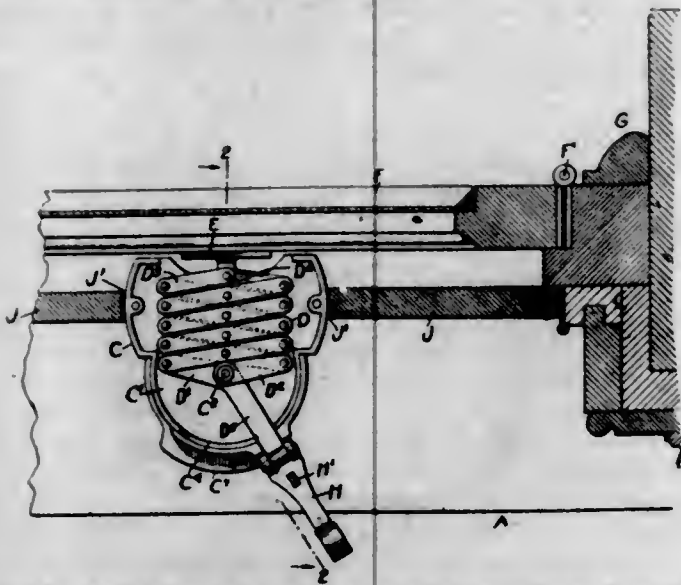
4. In an auxiliary fire-alarm box, the combination of a signaling-train, a pivoted locking-lever, a pivoted actuating-lever having a pivoted latch, a cam engaging said latch, a shaft bearing said cam, a spring connected with said shaft for turning it in one direction, and means connected with said shaft for resetting it, a detent-lever engaging said actuating-lever to hold it with the spring operated cam-shaft set in condition to operate, and an electro-magnet arranged to control the operation of said detent-lever, substantially as described.

5. In an auxiliary fire-alarm box, the combination of a signaling-train having a locking-lever, an actuating-lever for said locking-lever, a detent-lever controlled by the auxiliary-magnet for normally holding said actuating-lever in an intermediate position, spring-actuated means for moving said actuating-lever in one direction when

released by the detent-lever to operate the locking-lever, a circuit-breaker for the auxiliary-circuit, and means for subsequently moving said actuating-lever in the opposite direction to operate said circuit-breaker, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

- 1,077,768. ACTUATING DEVICE FOR WINDOW SASHES, SHUTTERS, AND LIKE MOVABLE PARTS. WILLIAM H. SYMONDS, Allendale, N. J., assignor of one-half to Caroline E. Brainard, New Rochelle, N. Y., and one-half to Irene V. Symonds, Allendale, N. J. Filed Mar. 25, 1913. Serial No. 736,863. (Cl. 16—135.)



1. An actuating device for sashes, shutters and like movable parts, comprising a casing mounted to turn, lazy tongs having their outer members attached to the part to be actuated and having their inner members pivoted in the said casing, the said casing being arranged to contain the lazy tongs when the part to be actuated is in closed position, and an actuating handle on one of the inner members of the lazy tongs.

2. An actuating device for sashes, shutters and like movable parts, comprising a casing mounted to turn, lazy tongs having their outer members attached to the part to be actuated and having their inner members pivoted in the said casing, the casing being adapted to contain the lazy tongs when the part to be actuated is in closed position, one of the inner members of the lazy tongs having an extension arm extending through a slot in the casing to the outside thereof, and a handle on the outer end of the said extension arm.

3. An actuating device for sashes, shutters and like movable parts, comprising a casing mounted to turn, lazy tongs having their outer members attached to the part to be actuated and having their inner members pivoted in the said casing, one of the inner members having an extension arm and the casing having a slot through which extends the said arm to the outside of the casing, and a handle pivoted on the outer end of the said extension arm, the said casing having a series of notches adapted to be engaged by the said handle.

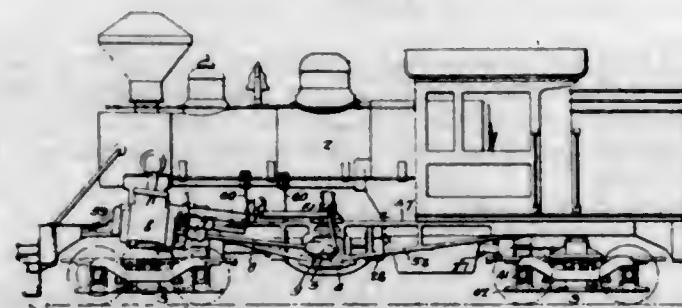
4. An actuating device for sashes, shutters and like movable parts, comprising a casing mounted to turn, lazy tongs having their outer members attached to the part to be actuated and having their inner members pivoted in the said casing, one of the inner members having an extension arm and the casing having a slot through which extends the said arm to the outside of the casing, a covering plate on the said extension arm covering the said slot, and a handle pivoted on the outer end of the said extension arm, the said casing being provided with notches adapted to be engaged by the said handle.

5. An actuating device for sashes, shutters and like movable parts, comprising a plate adapted to be attached to a window sill and provided at its forward end with a pivot, a casing mounted to turn on the said pivot and provided at its outer and inner ends with slots, the casing being provided with a top plate having notches along

its inner edge, a pivot in the casing a distance rearwardly from the said plate pivot, lazy tongs extending through the outer casing slot and having their outer ends pivotally connected with the part to be actuated, the inner members of the lazy tongs being pivoted on the said casing pivot, and one of the inner members being provided with an extension arm passing through the inner casing slot, and a handle pivoted on the terminal of the said arm and provided with a lug adapted to engage one of the said notches in the casing.

[Claims 6 to 9 not printed in the Gazette.]

- 1,077,769. GEARED LOCOMOTIVE. SAMUEL M. VAUCLAIN, Philadelphia, Pa., MORRIS LINTON, Moorestown, N. J., and GEORGE R. HENDERSON, Philadelphia, Pa., assignors to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 4, 1913. Serial No. 746,138. (Cl. 105—227.)



1. The combination in a geared locomotive, of a frame; trucks mounted under the frame; each truck having two axles; a beveled gear wheel on each axle; a longitudinal shaft; pinions on the shaft meshing with the said beveled gear wheels; a spur gear wheel on said shaft; a short driving shaft; a spur wheel on said shaft and meshing with the first mentioned spur wheel; a bearing frame in which the axles and shafts are mounted; a transverse crank shaft having cranks at each end; a beveled wheel secured to the crank shaft; short longitudinal shafts; a beveled wheel on each shaft meshing with the beveled wheel on the transverse driving shaft; the said shafts being adapted to bearings on the frame of the locomotive; connecting shafts and universal joints between the connecting shafts and the shafts on the main frame and on the truck frames; and cylinders on each side of the locomotive having pistons connected to the cranks of the crank shaft.

2. The combination of the main frame of a locomotive; a central transverse casing mounted in the frame; bearings in the casing; a transverse driving shaft mounted in said bearings and having a crank at each end and also having a beveled wheel thereon; two longitudinal shafts; bearings for the said shafts in extensions of the casing; a beveled wheel on each shaft meshing with the beveled wheel on the main crank shaft; two trucks; axles mounted in bearings on the trucks; gearing on each truck through which the axles are driven; and connections between the longitudinal shafts, which are geared to the transverse driving shaft, and to said gearing on the trucks.

3. The combination in a locomotive, of a main frame; a transverse casing adapted to the main frame and having extensions; bearings in the casing; a main crank shaft arranged transversely and mounted in the said bearings; two driven shafts mounted in the extensions of the casing; a beveled wheel secured to the crank shaft; and beveled wheels secured to the other longitudinal shafts; trucks and gearing thereon connected to the said longitudinal shafts; with bearings for the said longitudinal shafts having flanges which are adapted to rest between the rear of the beveled wheels and the extensions of the casing; said bearings being made in halves so that they can be inserted after the gearing is in position.

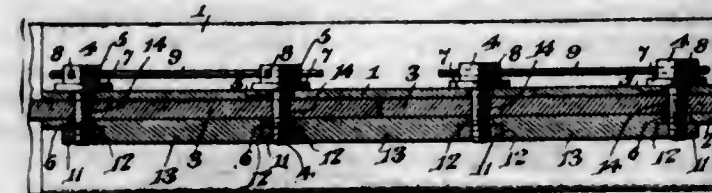
4. The combination of a casing; a shaft mounted in bearings in the casing; a beveled gear wheel on the shaft; a shaft arranged at an angle to the first mentioned shaft and having a gear wheel on the end thereof arranged to mesh with the gear wheel on the first mentioned shaft;

with a two-part bearing for the last mentioned shaft; said bearing having a flange arranged to rest between the rear of the bevel wheel and the casing; the parts being so designed that this gear wheel, and its shaft, can be placed in position in alignment with the other shaft prior to the insertion of the bearing.

5. The combination of a casing having a bearing; a shaft mounted in the bearing and having a beveled gear wheel thereon; two shafts; each having a beveled gear wheel arranged to mesh with the wheel on the first shaft; extensions on the casing; a two-part bearing through which the shafts extend; said bearing being mounted in the extension of the casing; and a two-part flanged bearing; the lower part of the said bearing having a flange arranged to extend between the back of its gear wheel and the casing so that the two shafts, with their gear wheels, can be placed in position and aligned with the gear wheel on the first mentioned shaft and moved into mesh prior to the insertion of the two-part flanged bearings.

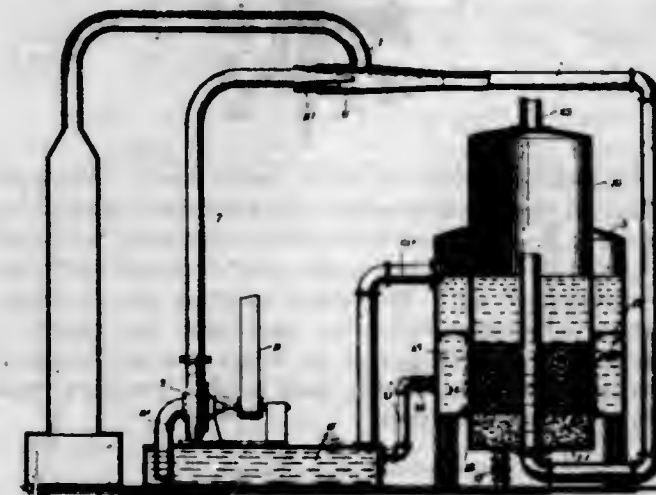
[Claims 6 to 18 not printed in the Gazette.]

- 1,077,770. COMBINED RAIL-JOINT AND NUT-LOCK. EDWIN T. WADE, Jackson, Miss., assignor of one-fourth to Charles W. Payne, Jackson, Miss. Filed May 5, 1913. Serial No. 765,588. (Cl. 151—32.)



In a rail joint, the combination with a pair of rails provided in their webs with belt openings, of fish plates located at opposite sides of the rails and also provided with bolt openings of greater diameter than those of the rails, one of the fish plates being provided on its exterior with a longitudinal series of integral longitudinally disposed ribs substantially rectangular in cross section and presenting vertical end faces at the sides of and in spaced relation with the bolt openings, bolts passing through the said openings, and nuts arranged on the bolts at the ends of the said ribs and fitting the space between the same, whereby they are held against rotary movement, said nuts being slidable vertically on the fish plates and cooperating with the enlarged bolt openings to permit a relative adjustment of the bolts and the nuts so that they will always fit.

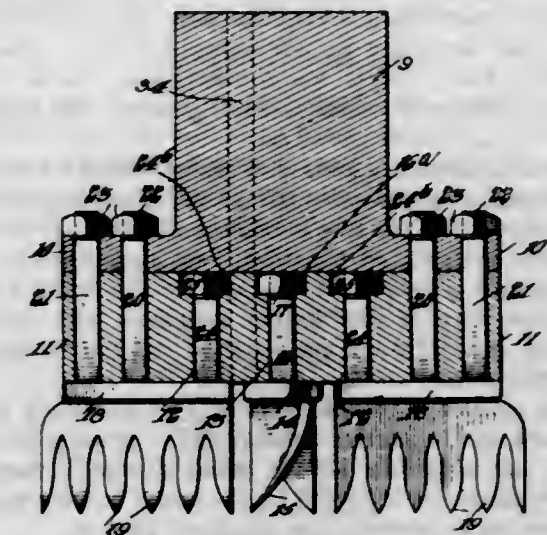
- 1,077,771. MEANS FOR CONTROLLING FUMES OR SMOKE. GEORGE ELLIS WAGGONER, Vacaville, Cal. Filed May 3, 1911. Serial No. 624,690. (Cl. 110—183.)



The combination of a pipe connected to a furnace stack, a nozzle within the pipe, a pipe extending from the said nozzle and connected to a pump, a water supply, the pump being connected to the water supply, the first pipe to which the said nozzle is connected extending into the in-

terior of and terminating within a suitable tank, a gas holder within the tank, a pocket at the bottom of the tank, a pipe leading from the top portion of the tank to the water supply whereby the pump may maintain a continuous flow of water through the said pipes and tank, thereby providing a continuous draft for the said furnace, the products of combustion of the furnace being carried on by the said water into the said tank, the gases being collected in the said gas holder, and the particles being allowed to collect in the said pocket.

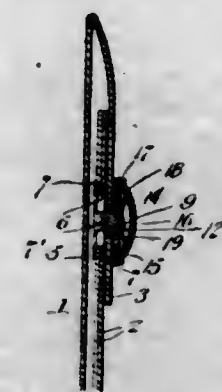
- 1,077,772. DRILL. FRED RICHARD WEATHERSBY, Houston, Tex. Filed Jan. 25, 1913. Serial No. 744,139. (Cl. 255—61.)



1. A drill comprising a revoluble member, a disk engaging the same and a cutter provided with stems, one of said stems being secured to said disk and another of said stems extending through said disk and being secured to said revoluble member.

2. A drill comprising a revoluble member, a disk provided with holes and with countersinks merging into some of said holes, cutters provided with stems extending through all of said holes, means for securing some of said stems to said revoluble member, and nuts located within said countersinks and engaging the stems extending through the holes into which said countersinks merge.

- 1,077,773. SAFETY-ENVELOP. OTTO L. WEIMAR, Philadelphia, Pa. Filed June 13, 1913. Serial No. 773,481. (Cl. 229—78.)



A fastener for envelopes comprising a member secured to the envelop and provided with a threaded stud disposed in the closing path of the sealing flap and adapted to be projected therethrough and provided with a kerf and operatively inclined surfaces at the sides of the kerf, and a threaded member adjustable on the stud and having a yieldable portion operable over said oppositely inclined surfaces and adapted to be projected into the kerf so as to hold the second member against removal from the first member and to retain the sealing flap in a confined condition between both members of the fastener.

1,077,774. AEROPLANE. HUGO C. WELL, New York, N. Y., assignor of one-half to Frederick A. B. Meinhardt, New York, N. Y. Filed Aug. 7, 1909. Serial No. 511,711. (Cl. 244-14.)



1. In an aeroplane a main plane, two auxiliary planes spaced apart and disposed substantially parallel, one over the other, the auxiliary planes being pivotally connected to the main plane on a horizontal axis, and a rudder mounted to rock on a vertical axis between the auxiliary planes.

2. In an aeroplane, a plane, a frame having two members extending longitudinally of the main plane, and members connected with the two members, the several members being loosely articulated together, two substantially horizontal auxiliary planes, one disposed at the front and the other at the rear of the frame members, the auxiliary planes being pivotally connected with the frame members on horizontal axes.

3. In an aeroplane, a main plane, two auxiliary planes, spaced apart and disposed substantially parallel one over the other, the auxiliary planes being pivotally connected to the main plane on a vertical axis, and a rudder mounted on a vertical axis between the auxiliary planes.

4. In an aeroplane, a main plane, two auxiliary parallel planes, spaced apart, a frame by which the auxiliary planes are secured together, the frame having a pivotal movement on an axis extending from the front to the rear of the main plane, two rudders mounted on vertical axes between the auxiliary planes, and means to operate the rudders simultaneously.

5. In an aeroplane, a main plane, two auxiliary planes, spaced apart, a frame by which the auxiliary planes are secured together, the frame having a pivotal movement on a vertical axis and also on an axis extending from the front to the rear of the main plane, and a rudder mounted on a vertical axis between the auxiliary planes.

[Claims 6 to 48 not printed in the Gazette.]

1,077,775. RAIL-JOINT. ALBERTUS B. WERT, Nevada, Mo. Filed May 3, 1913. Serial No. 765,296. (Cl. 239-3.)

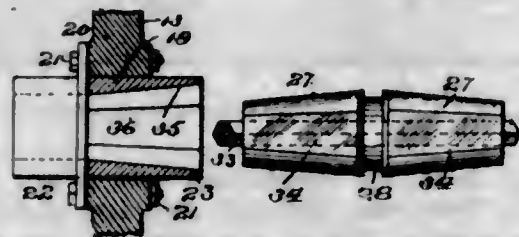


1. The combination with two rails having abutting ends, of a chair including a base having one of its longitudinal edges flanged and provided with a lip which overlies the base, the opposite edge of the base having an enlargement, the inner face of which being shaped to conform with the fishing spaces of the rails, a rail binding member including a body and a rail engaging lip, the said body adapted to be disposed below the lip of the flange of the base, and the base being provided with openings, the body being provided with registering openings of a lesser area than that of the openings in the base, and beveled spikes adapted to be passed through the openings to force the body and the lip thereof into tight frictional engagement with the base flanges of the rails.

2. The combination with two rails having abutting ends and having their base flanges notched, of a chair, said

chair including a base having its inner longitudinal edge provided with an upwardly projecting longitudinally extending flange, the inner face of the flange being formed at its upper portion with a laterally extending lip, the base of the chair having a longitudinally extending channel which is disposed below the lip, the opposite side of the base being enlarged, the enlargement being shaped to engage with the rails and to receive the said rails, the base of the chair and the base of the flange engaging portion of the enlargement of the chair having integrally formed lugs to enter the notches of the rails, the lip of the flange having its inner edge provided with depressions, the channel being provided with elongated openings which are disposed below the depressions, a rail engaging member, said member including a rectangular portion having its lower longitudinal edge rounded, the said body portion adapted to be received within the channel and to underlie the lip of the flange, the body being formed with a rail-engaging lip, the body being further formed with spike openings of a lesser area than the openings in the channeled portion of the base of the chair, and spikes adapted to pass through the registering openings and within the depressions and to force the body and the lip thereof into tight frictional engagement with the longitudinal edges and flanges of the rails.

1,077,776. CLUTCH MECHANISM. JOHN TYNDALL WILLIAMS, Swansea, Wales. Filed Apr. 3, 1912. Serial No. 688,245. (Cl. 192-9.)



1. A clutch comprising a conical member formed with opposite flattened portions, the flattened portions each cutting off approximately one-sixth of the surface of the cone, and a complementary cooperating clutch member adapted to engage the first mentioned clutch member.

2. A clutch, comprising a conical member formed with flattened portions, a complementary cooperating clutch member, the said members being movable with respect to each other, the ratio of the width of the flattened portion to the circumference of the cone being constant throughout the length of the conic members.

1,077,777. DITCHING-MACHINE. EDWARD B. WILSON, Worland, Wyo. Filed May 22, 1912. Serial No. 698,992. (Cl. 37-25.)

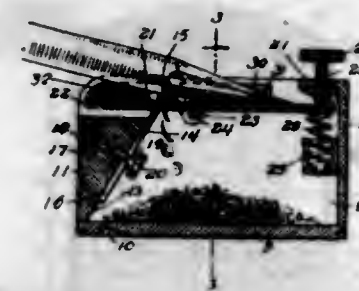


The combination with the main frame and a transporting wheel, an endless dirt carrier and sprocket mechanism for driving it, and gearing operatively connected with said wheel, of clutch mechanism interposed between and operatively connected with the wheel gearing and sprocket mechanism, a pivoted lever for operating the clutch, a plow-carrying frame hinged at its front end and adapted, when raised, for contact with, and lateral pressure upon, the said lever, as described.

1,077,778. PENCIL-SHARPENER. JOHN J. WOLF, San Antonio, Tex. Filed Apr. 30, 1913. Serial No. 764,583. (Cl. 120-90.)

1. A pencil sharpener, comprising a box; a bed block; a cutting blade slidably mounted on said block; means for holding said blade rigidly on said block; a table

mounted above said block and pivoted intermediate its ends, said table having a slot through which is protruded the cutting edge of said blade; and means for varying the extent of protrusion of said blade through said slot.



2. A pencil sharpener, comprising a box; a bed block; a cutting blade slidably mounted on said block; means for holding said blade rigidly on said block; a table mounted above said block and pivoted intermediate its ends, said table having a slot through which is protruded the cutting edge of said blade; a yielding support for said table; and an adjusting screw having a bearing on said table, said screw and yielding support cooperating to vary the protrusion of said blade through said slot.

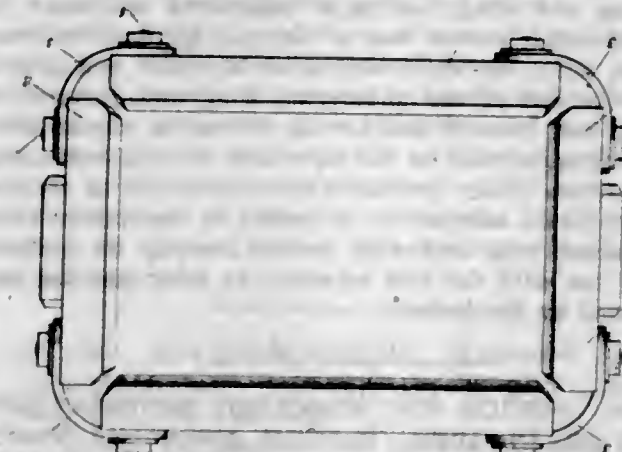
3. A pencil sharpener, comprising a box; a bed block; a cutting blade slidably mounted on said block; means for holding said blade rigidly on said block; a table mounted above said block and pivoted intermediate its ends, said table having a slot through which is protruded the cutting edge of said blade; a yielding support for said table; and an adjusting screw having a bearing on said table, said screw and yielding support cooperating to vary the protrusion of said blade through said slot.

4. A pencil sharpener, comprising a box; a bed block; a cutting blade slidably mounted on said block; means for holding said blade rigidly on said block; a table mounted above said block and pivoted intermediate its ends, said table having a slot through which is protruded the cutting edge of said blade; a spiral spring disposed below to support the inner end of said table; a feed screw mounted in said box to bear upon said table above said spring, said screw and spring cooperating to vary the elevation of said table; and a rocking bearing for said table intermediate said slot and said screw and spring.

5. A pencil sharpener, comprising a box; a bed block; a cutting blade slidably mounted on said block; means for holding said blade rigidly on said block; a table mounted above said block and pivoted intermediate its ends, said table having a slot through which is protruded the cutting edge of said blade; a spiral spring disposed below to support the inner end of said table; and a feed screw mounted in said box to bear upon said table above said spring, said screw and spring cooperating to vary the elevation of said table.

[Claims 6 to 8 not printed in the Gazette.]

1,077,779. MOLDING-JACKET. CHARLES O. WOOD, Chambersburg, Pa. Filed Mar. 5, 1913. Serial No. 752,096. (Cl. 22-112.)



1. In a molding jacket or casing the combination of sides, and connections between the ends of adjacent sides,

permitting relative movement in more than one plane, every side of the jacket being movable relative to each of its neighbors.

2. In a molding jacket or casing the combination of sides, and connections between the ends of adjacent sides permitting relative movement about more than one axis, every side of the jacket being movable relative to each of its neighbors.

3. A molding jacket consisting of a plurality of sides and a universal connection between each two sides.

4. A molding jacket consisting of a plurality of sides and a flexible connection between the adjacent ends of each pair of sides.

5. A molding jacket consisting of a plurality of sides and a connection between the ends of said sides permitting relative vertical adjustment thereof.

[Claims 6 to 21 not printed in the Gazette.]

1,077,780. SHUTTER-HINGE LATCH. JOHN B. WRIGHT and FRANK O. LAWSON, Greensboro, N. C., assignors to Wright Hinge & Lock Co., Greensboro, N. C., a Corporation of North Carolina. Filed Dec. 11, 1912. Serial No. 736,144. (Cl. 16-110.)



1. A shutter hinge and latch, the hinge consisting of two leaves, one leaf having a lateral extension at each end of one side edge, each of the said extensions having its free end beveled toward the adjacent end of the leaf, and each extension having a shoulder at the inner end of the beveled portion, said leaf having at the opposite side edge a lateral flange provided with a crosshead extending vertically when the leaf is in place, the other leaf of the hinge having at its lower edge a lateral flange provided at each end with an opening for receiving one end of the crosshead of the other leaf, said last mentioned leaf having a pair of upwardly extending bearing lugs at its upper edge, said lugs being grooved transversely on their inner faces, a latch plate having openings for permitting the passage of the bearing lugs, said plate having an opening at one end for receiving the shoulder of the uppermost lateral extension of the other leaf, the other end of the latch plate being in position for engagement by the upper end of the crosshead to lift the latch plate to release the shoulder when the first named leaf is lifted, said last named leaf having means for normally supporting the latch plate in horizontal position.

2. A shutter hinge and latch, the hinge consisting of two leaves, one leaf having a lateral extension at each end of one side edge, each of the said extensions having its free end beveled toward the adjacent end of the leaf, and each extension having a shoulder at the inner end of the beveled portion, said leaf having at the opposite side edge a lateral flange provided with a crosshead extending vertically when the leaf is in place, the other leaf of the hinge having at its lower edge a lateral flange provided at each end with an opening for receiving one end of the crosshead of the other leaf, a latch plate

hinged to said last named leaf near the upper edge thereof and having an opening at one end for receiving the shoulder of the uppermost lateral extension of the other leaf, the upper end of the crosshead engaging the opposite end of the latch plate from the opening to lift the said latch plate out of engagement with the shoulder when the shutter is lifted.

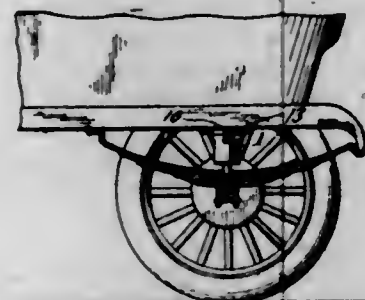
3. A shutter hinge and latch consisting of two leaves hinged together at one side edge, a latch plate hinged to one leaf near the upper edge thereof and extending transversely of the said leaf, said leaf having means for normally supporting the latch plate in approximately horizontal position, said latch plate having an opening at the end remote from the other leaf, said other leaf having at the end remote from the first named leaf a beveled surface for lifting the latch plate when the last named leaf is swung into approximate parallelism with the first named leaf and having a shoulder at the inner end of the beveled surface for engaging the opening of the latch plate to lock the leaves in approximate parallelism, the last named leaf having means for engaging and lifting the latch to release the shoulder when said leaf is moved upwardly with respect to the first leaf.

4. A detachable shutter hinge comprising leaves hinged together at one side edge, a latch plate hinged to one leaf and having an opening, the other leaf having a catch for engaging the opening to hold the leaves in approximate parallelism, said other leaf having a cam for lifting the latch plate to permit the catch to engage the opening, and having means for lifting the latch to release the catch when the said last named leaf is moved upwardly with respect to the first named leaf.

5. A shutter hinge comprising a plurality of leaves hinged together, one of the said leaves being adapted to be secured to a shutter and the other to a casement, a latch in connection with the said leaves for locking the leaves with the shutter in opened position, the shutter leaf having means for releasing the latch when the said leaf is lifted with respect to the casement leaf.

[Claim 6 not printed in the Gazette.]

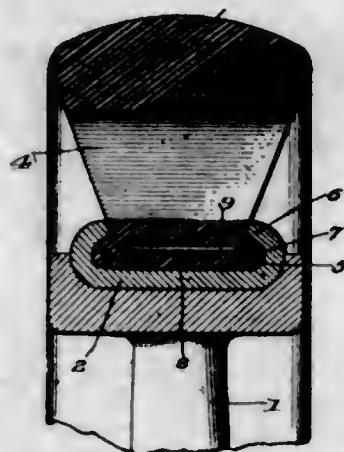
1,077,781. SHOCK-ABSORBER. CARL YEAGER, Birdsboro, Pa. Filed Mar. 15, 1913. Serial No. 754,438. (Cl. 21—105.)



1. A shock absorber for vehicles, comprising a cylinder having a valve controlled outlet and a passage for the inflow of air, a piston arranged to operate in the cylinder, and a regulator threaded into the air inlet and provided in its length with a flaring slot to admit of varying the air inlet by setting the regulator in or out.

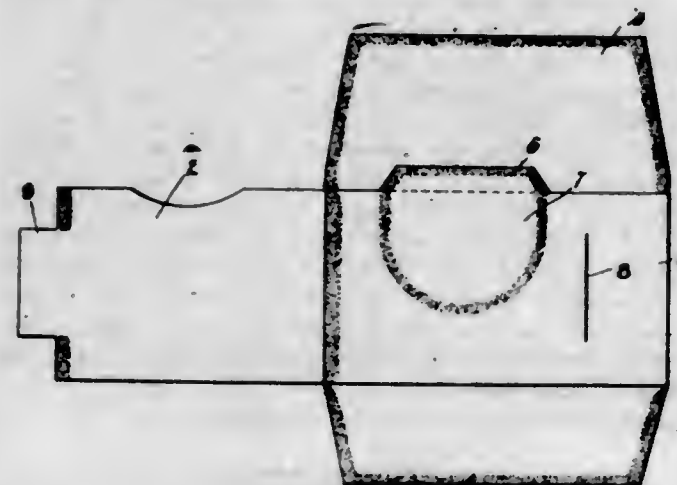
2. A shock absorber comprising a cylinder having a head near one end in which is formed an outwardly flared opening for the discharge of air and a passage for the inflow of air, a piston arranged to operate in the cylinder, a plate secured to the outer side of the cylinder head and extending over the flared opening thereof and provided with a central and side openings, a valve for closing downward in the said flared opening and having a stem projecting through the central opening of the said plate, a helical spring mounted upon the stem of the valve and confined between the latter and the plate and normally exerting a pressure to hold the valve seated, and a regulator threaded into the air inlet passage and provided in its length with a flaring slot to admit of varying the effective area of the air inlet.

1,077,782. RESILIENT TIRE. DAVID A. YORK, Northgrove, Ind. Filed Dec. 7, 1912. Serial No. 735,484. (Cl. 152—1.)



The combination with a tire formed of resilient material and having spaced transverse openings in its inner portion extending throughout its width and also having flanges at the sides of its inner edge portion; of circular side rods embedded in the said flanges of the tire, a central circular rod embedded in the inner edge portion of the tire, and spaced transverse rods embedded in the inner edge portion of the tire at the outer side of and spaced from the central rod and side rods, and having their ends disposed adjacent the side rods, the several rods being resilient, and the transverse rods being arranged at points between the transverse openings of the tire.

1,077,783. STAMP AND COIN ENVELOP. DENNIS C. ZIVLEY, El Paso, Tex. Filed Oct. 22, 1912. Serial No. 727,180. (Cl. 229—69.)

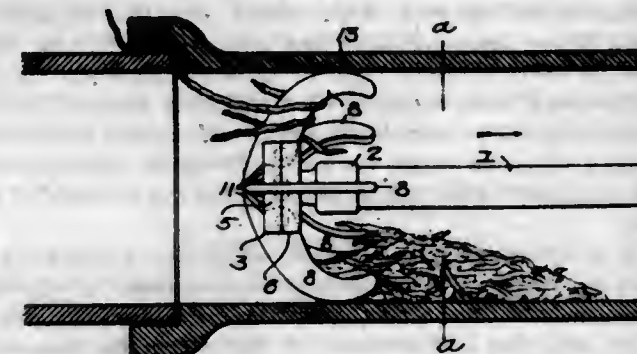


An envelop consisting of a blank embodying a front end, wings substantially coextensive with the front and of a like width, a bottom flap, and a sealing flap, the underlying end wing having a transverse slit near its inner end and a second flap at its top edge and the overlying end wing having a tongue at its outer end passed through the slit of the underlying wing and gummed to the inner side thereof and having the parts at the sides of the tongue gummed to the outer side of said underlying wing, the two wings having portions secured to form a pocket which is adapted to be sealed by the before mentioned second flap and said pocket having its opening about in line with the fold between the front and top flap to be closed by the latter.

1,077,784. DEVICE FOR REMOVING OBSTRUCTIONS FROM DRAIN-PIPES. HARRY E. ASBURY and WILBUR C. ATKINSON, Philadelphia, Pa. Filed Jan. 4, 1913. Serial No. 740,200. (Cl. 137—70.)

1. The combination of a rod; a two-part head coupled to the rod, each of said parts having radial slots and

sockets on each side of the slots; with a series of hooks mounted in the slots of the head and having pivot projections adapted to the sockets.



2. The combination in a device for removing obstructions from drain pipes, of a rod; a head coupled thereto; and a series of rearwardly extending hooks pivotally mounted in the head and having sharp points extending in advance of the head.

3. The combination of a rod; a head, said head having radial slots therein; hooks pivotally mounted in the slots and having sharp points at one end beyond the pivots and rounded extensions at the rear of the pivots, so that, when the device is expanded, the rounded portions of the hooks will bear against the inner wall of the pipe.

4. The combination of a rod; a coupling attached to the rod; a two-part head; an integral stem on one of said parts; the other part having a hole through which the stem extends, said stem being attached to the coupling; each of said parts of the head having radial slots; sockets in the side walls of the slots; a series of hooks in the slots; and pivot projections adapted to the sockets; said hooks being sharp at one end and rounded at the other end.

1,077,785. HINGE-GAGE. EDWARD T. BAILEY, Aurora, Ill. Filed Jan. 15, 1913. Serial No. 742,261. (Cl. 73—139.)



A gaging device including a rod, and a plurality of gaging elements secured thereon, each of said elements including a sleeve slidably mounted upon the rod, a set screw for securing the sleeve in fixed relation to the rod, and an arm projecting from the sleeve and having a marking edge at right angles to the rod, the relative thickness of the arm providing shoulders on opposite sides thereof at the juncture of the arm and sleeve, and a gage plate carried by one end of the rod and projecting beyond the surface thereof.

1,077,786. FLYING-MACHINE. MATTHEW A. BATSON, Springfield, Mass. Filed June 22, 1911. Serial No. 684,667. (Cl. 244—29.)

1. In a flying machine, the combination with a chassis structure, wings pivotally attached thereto, means to permit the wings to yield independently of each other and without control by the aviator to the increasing air forces, and to return with the decreasing air forces to their nor-

mally horizontal position, said movement being in a vertical plane transverse of the line of flight, means of varying the angle of incidence of the wings, and means to propel the machine.



2. In a flying machine, the combination with a chassis structure, wings attached thereto, means to permit the wings to automatically move upwardly independently of each other from a horizontal position, means to vary the angle of incidence of the wings, and means to propel the machine.

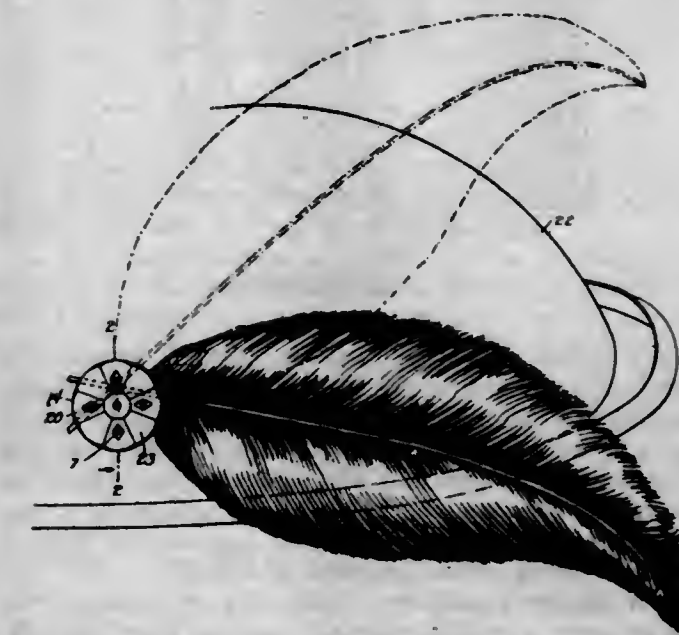
3. In a flying machine, the combination with a chassis structure, wings pivotally attached thereto, means to permit the wings to yield independently of each other and without control by the aviator to the increasing air forces and without varying the angle of incidence, and to return with the decreasing air forces to their normally horizontal position, said movement being in a vertical plane transverse of the line of flight, and means to propel the machine.

4. In a wing for flying machines substantially L-shaped consisting of a balancing portion transverse to the line of flight, and a base portion longitudinal to the line of flight, each portion being curved in cross section and concave underneath to form channels, the channel of the transverse portion merging into that of the base portion, the base portion of the wing being adjacent to the point of attachment to the chassis, substantially as described.

5. A wing for a flying machine having a balancing portion extending transversely to the line of flight, and a base portion extending longitudinally of the line of flight, the transverse cross-sections being concave from below to form channels, the channel in the transverse part merging into the channel in the longitudinal part at an obtuse angle thereto, whereby the waves of air during flight will be guided or directed from the transverse portion toward and under the longitudinal portion.

[Claims 6 to 20 not printed in the Gazette.]

1,077,787. ORNAMENT-HOLDER FOR HATS. AUGUST PEMBERTON BENNETT, New York, N. Y. Filed Mar. 27, 1913. Serial No. 757,090. (Cl. 2—108.)



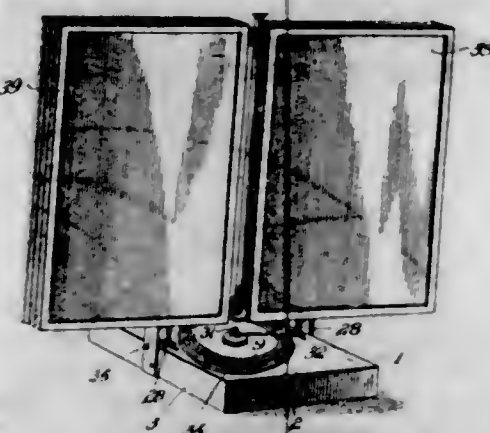
1. In a device of the class described, a blank having a plurality of pairs of adjacent openings providing securable means for the blank, said blank having on one of its faces a bordering corrugated portion and a central interiorly threaded portion projecting beyond the plane of said corrugated portion; a threaded member in engagement with

said central portion and having a head at one end and a reduced portion at the opposite end, said reduced portion projecting beyond the said central portion; a second blank engaging said threaded member and having a plurality of openings adapted to register with the said pairs of openings and through which said first blank can be secured, said second blank having a corrugated portion facing the first mentioned corrugated portion, and a central cup portion adapted to engage the said central projection and having a central opening engaged by the said reduced portion of said threaded member; and a head secured to said reduced portion beyond said cup portion for operating said threaded member and whereby said blanks become inseparable, and the said second blank can move to and from the said first blank and rotate on the said reduced end.

2. In a device of the class described, a blank having means whereby it may be secured to an object and a central interiorly threaded portion projecting beyond the surface of the blank; a threaded member engaging said central portion and having a reduced end projecting beyond said central portion; a second blank on said reduced portion having means adapted to register with the securable means on the first blank through which the said first blank is secured, said blank having a central cup portion adapted to engage the said central projection and having a central opening engaging said reduced portion of said threaded member; and means secured to said reduced portion above said cup portion whereby said threaded member is operated, causing said blanks to move to or from each other, said blanks having means on their facing surfaces for gripping an object engaged between them.

3. In a device of the class described, a blank having means whereby it can be secured to an object and a threaded central opening; a threaded member in said opening; a second blank secured to said threaded member adapted to rotate on same and move with same to or from the said first blank, means making said blanks and threaded member an inseparable unit, said second blank having means therein adapted to register with said securable means in said first blank and through which said unit is secured.

1,077,788. DISPLAY-RACK. EUGENE G. BENNETT, Carthage, Mo. Filed Oct. 10, 1911. Serial No. 653,780. (Cl. 40-104.)



1. In a device for the purpose set forth, a plurality of rotatable screens, means for rotating the screens, means for halting the movement of the screens at prearranged points, and means connected with both the first and the last screens and cooperating with the rotating means for continuously reversing the direction of movement of the screens when all of the screens have reached the limit of their movement in either direction of travel.

2. In a display apparatus, a plurality of screens, a rotatable member, a slidable member mounted upon the rotatable member and adapted to contact each screen successively to swing all of the screens a predetermined distance, means for halting and sustaining each and all of the screens at their limit of travel in one direction, and means actuated by one of the screens to reverse the travel of the rotatable and slidable member for successively returning the screens to their initial position.

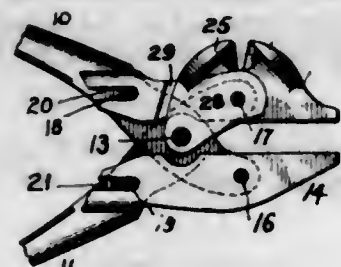
3. In a device for the purpose set forth, a post, screens upon the post, each of the screens being provided with a downwardly extending finger, a revoluble member, an arm carried by the said member, a stop member for the screens, a spring buffer serving as a catch for the screens, a resilient finger upon the arm and adapted to contact with the fingers of the screens and to be bent below the fingers after the same have engaged with the stop member, means for actuating the revoluble member, and means for sliding the sleeve so as to bring its resilient finger consecutively into engagement with the depending fingers of each of the screens.

4. In a device for the purpose set forth, a plurality of screens, and means for rotating the screens in approximately one half of a circle, members connected with both the first and the last screens of the series for reversing the movement of travel of the screens after the remainder of the screens have reached their terminals.

5. In a device for the purpose set forth, the combination with a shaft rotatable in one direction only, a post, a plurality of rotatable screens removably mounted upon the post, means actuated by the shaft for moving the screens one by one in one direction, halting means for the screen, and means also cooperating with the shaft and adapted to be actuated by one of the screens for reversing the direction of travel of the screens.

[Claims 6 to 15 not printed in the Gazette.]

1,077,789. CUTTING-PLIERS. WILLIAM A. BERNARD, New Haven, Conn., assignor to The Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 20, 1912. Serial No. 732,551. (Cl. 81-50.)



1. In a tool such as described, a main pair of jaws, a pivoted subsidiary jaw having a side cutting edge substantially flush with a side of one of said main jaws, and provided with an end cutting edge extending transversely of said main jaw at the outside of the latter and meeting said side cutting edge, cutting edges on said main jaw to cooperate with the respective first named cutting edges, and means to operate said jaws; substantially as described.

2. In a tool such as described, a main pair of jaws, a pivoted subsidiary jaw having a side cutting edge substantially flush with a side of one of said main jaws, and provided with an end cutting edge extending transversely of said main jaw at the outside of the latter and meeting said side cutting edge, cutting edges on said main jaw to cooperate with the respective first named cutting edges, and means to operate said jaws, the end cutting edge of said main jaw and subsidiary jaw overhanging said main jaw at one side; substantially as described.

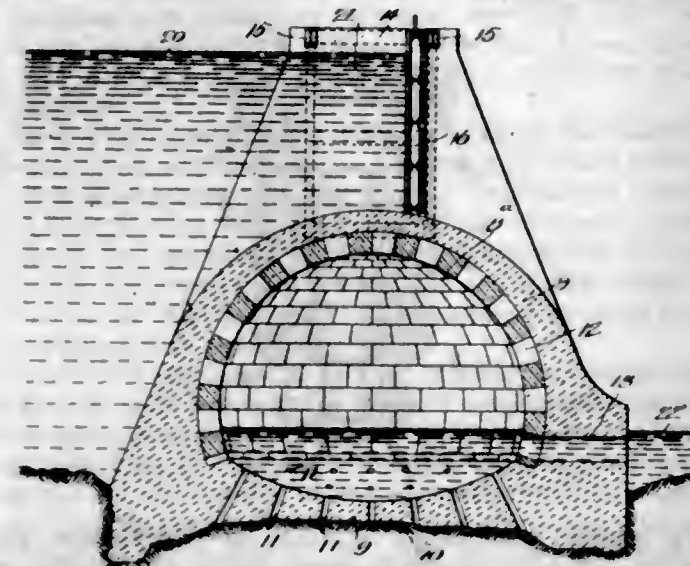
3. In a tool such as described, a main pair of jaws provided with cooperating inner working faces, one of said jaws having at the edge or side opposite its working face an enlargement presenting a transverse cutting edge extending across the jaw and overhanging the same at the side, a subsidiary jaw pivoted to said main jaw and provided with a cutting edge to cooperate with said first named cutting edge, and means for operating said jaws; substantially as described.

4. In a tool such as described, the combination of a pair of parallel main jaws, pivoted handles for operating the same, one of said jaws having at the side thereof a cutting edge, a subsidiary jaw pivoted to said main jaw at the side opposite said cutting edge and having a cutting edge cooperating with the latter, and means for operating said subsidiary jaw as the main jaws are moved toward and away from each other; substantially as described.

5. In a tool such as described, a pair of parallel main jaws, one of said jaws having on the outside thereof a transversely extending cutting edge overhanging said jaw at one side, pivoted handles to operate said jaws, a subsidiary jaw pivoted to the main jaw having said cutting edge at the same side as the overhanging portion of said cutting edge, said subsidiary jaw having a cutting edge to cooperate with that of the main jaw, and means to operate said subsidiary jaw as the main jaws are operated; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,077,790. DAM. GEERT BLAAUW, Pittsburgh, Pa. Filed Mar. 1, 1913. Serial No. 751,442. (Cl. 61-24.)



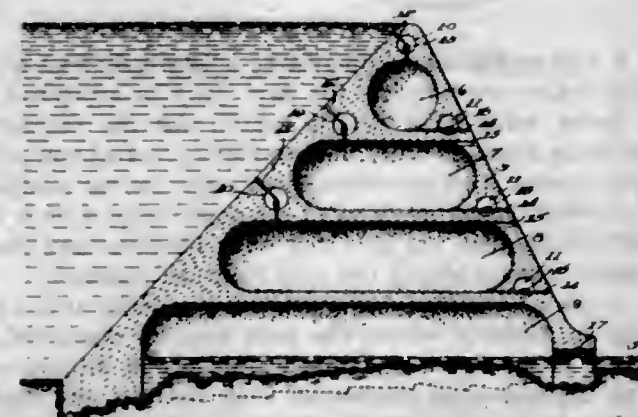
1. A dam comprising a wall having a series of substantially hemispherical compartments spaced apart on the underside thereof, and means for corralling a body of water of appreciable depth upon said dam for the purpose of weighting the same down.

2. A dam made in sections, each section being provided at its ends with pliers, and the members extending lengthwise of each section for the purpose of enabling the pliers of each section to act together, said sections being separated by expansion joints to allow for expansion and contraction throughout the entire dam in the general direction of the length thereof.

3. A hollow dam comprising a wall having a plurality of pockets, each pocket having a floor in the form of an inverted dome.

4. A hollow dam comprising a substantially hemispherical dome made of unit blocks loose relatively to each other, said dome being surrounded by concrete and provided with a floor, the upper surface of said floor being concave.

1,077,791. CELLULAR DAM. GEERT BLAAUW, Pittsburgh, Pa. Filed Mar. 26, 1913. Serial No. 750,872. (Cl. 61-24.)



1. A dam comprising a body portion provided with cells for the purpose of saving material employed in construction, said cells being superposed one over another.

2. A dam comprising a body portion provided with cells

superposed one over another and means for introducing water into said cells for the purpose of weighting the dam down.

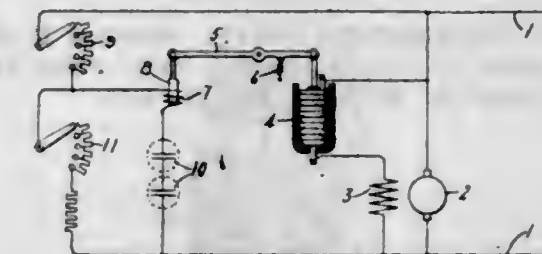
3. A dam comprising a body member provided with cells, means for introducing water into said cells for the purpose of weighting the dam, and means for emptying said cells.

4. A dam comprising a body member provided with cells, means for introducing water into said cells for the purpose of weighting said dam, and means for emptying said water, said body member being provided with overflow openings for preventing excessive hydrostatic pressure from developing within said cells.

5. A dam construction comprising a body member for obstructing and deepening a body of water, said body member being provided with cells of different lengths, the longest of said cells being located within the bottom portion of said body member and shorter cells being located above said longest cells.

[Claims 6 to 8 not printed in the Gazette.]

1,077,792. VOLTAGE-REGULATOR. WALTER S. BRALLEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 30, 1908. Serial No. 446,102. (Cl. 171-229.)



1. In combination with an electric generator, a circuit parallel to the circuit including the field winding thereof, an electrolytic cell of the aluminum type in said parallel circuit, and means for causing the variation of current in said parallel circuit to vary the magnetization produced by the field winding.

2. The combination with an electric generator, of a circuit parallel to the circuit including the field winding thereof, an electrolytic cell of the aluminum type in said parallel circuit, and a coil in series with said cell adapted to vary the magnetizing effect of said field winding.

3. The combination with an electric generator, of a rheostat in its field circuit, a circuit in parallel with said field circuit including an electrolytic cell of the aluminum type, and means in circuit with said cell for controlling said rheostat.

4. The combination with an electric generator, of a rheostat in its field circuit, a circuit in parallel with said field circuit including an electrolytic cell of the aluminum type, a solenoid in series with said cell and a means whereby said solenoid can operate said rheostat.

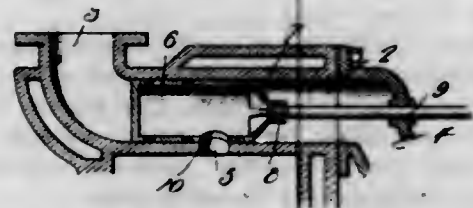
5. The combination with an electric generator, of a rheostat in its field circuit, and a circuit in parallel with said field circuit including an electrolytic cell of the aluminum type, a solenoid and a resistor in series with said cell, said solenoid controlling said rheostat, and a second resistor in series with the first mentioned resistor and in parallel with said cell and solenoid.

[Claims 6 and 7 not printed in the Gazette.]

1,077,793. INTERNAL-COMBUSTION ENGINE. HENRY LOWE BROWNBACK, Norristown, Pa. Filed Apr. 6, 1912. Serial No. 688,950. (Cl. 123-188.)

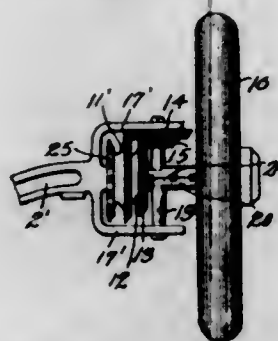
1. In an internal combustion engine a cylinder having a valve chamber provided at an intermediate point with a port opening into the cylinder and at opposite ends with an intake and an exhaust, a piston valve slidably mounted in the valve chamber and having an opening in a side and an opening in the end facing the end of the valve chamber provided with the intake, said valve having spaced packing

rings upon an end portion to come upon opposite sides of the port leading into the cylinder when the valve occupies a position to close said port both upon the compression and the working strokes of the piston, and operating means for the said valve.



2. In an internal combustion engine, a cylinder having a valve chamber provided at opposite ends with an intake and an exhaust and at an intermediate point with a port opening into the cylinder, a hollow piston valve arranged to operate in the valve chamber and having an opening in a side and an opening in the end facing the intake and having its opposite end imperforate, said valve having the end portion adjacent the exhaust provided with spaced packing rings to come upon opposite sides of the port leading into the cylinder when the valve occupies a position to close said port on the compression and working strokes of the piston, and operating means for the said valve.

1,077,794. FOUR-WHEEL DRIVE. SEABURY E. BRUNER and HARLEY F. HARDIN, Marion, Ind. Filed Apr. 15, 1912. Serial No. 601,054. (Cl. 21—90.)

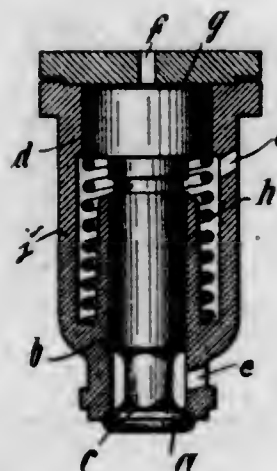


1. In a driving mechanism for motor vehicles, the combination of a trifurcated axle, the extreme arms of the trifurcation having bearings, a bearing sleeve in line with the axle and having journals mounted in said bearings, a wheel shaft journaled in said sleeve, a bevel gear journaled on the intermediate arm of the trifurcation and having a concave outer face, a pair of gears journaled on one of the journals of said sleeve, one of the last mentioned gears meshing with the first mentioned gear, and a bevel gear meshing with the other of the second mentioned gears and fixed to the wheel shaft and having a convex face conforming with and extending into the concavity of the first mentioned gear in position for finding a thrust bearing on the terminal of the intermediate arm of the trifurcation, said intermediate arm extending to and bearing against the convex face of the gear on the wheel shaft, said last mentioned gear being disposed at that side of the axis of the gears journaled on the sleeve bearing at which the first mentioned bevel gear is disposed, whereby driving rotation is delivered from the first mentioned gear to the last mentioned gear in the same direction of rotation.

2. In a driving mechanism for motor vehicles, the combination of an axle provided at one end thereof with a bracket composed of spaced parts having bearings, a bearing sleeve having journal members projecting from opposite sides thereof and mounted in the bearings on the spaced parts of said bracket, a drive shaft mounted in said sleeve, a wheel mounted on one end of said shaft, a driving gear mounted on the shaft, means for transmitting motion to said driving gear, and a bearing arm projecting from the bracket for cooperation with said shaft as a thrust bearing and disposed for transmitting thrust stresses independently of the mesh of the gears.

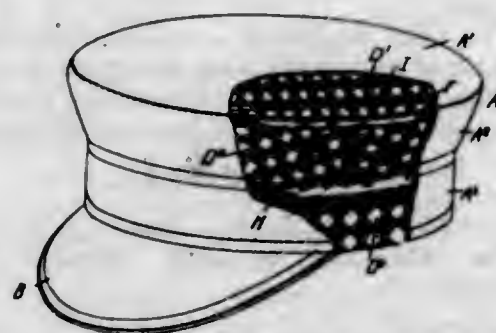
3. Drive mechanism for motor vehicles, comprising an axle provided with a bracket of somewhat U-form, spaced parts of said bracket having bearings therein, a sleeve composed of sections, each provided with a journal member, and said journal members being mounted in the bearings of the spaced parts of the bracket, a wheel shaft mounted in the sleeve for rotation, a wheel secured to one end of said shaft for rotation therewith, a driving element carried by the other end of the shaft, and means for operating said driving element.

1,077,795. STARTING-VALVE FOR INTERNAL-COMBUSTION ENGINES. HANS THEODOR BRUNS, Nuremberg, Germany. Filed Dec. 23, 1909. Serial No. 534,587. (Cl. 123—181.)



In internal combustion engines the combination with a valve for admitting compressed air to the engine cylinder for starting purposes, adapted to be subjected to the pressure of compressed air, and an operating piston for said valve, of a spring bearing against that side of the piston opposite to the side on which it is subjected to the pressure of compressed air, and a separate compensating piston having a smaller area than the said operating piston and placed intermediate between said operating piston and said valve.

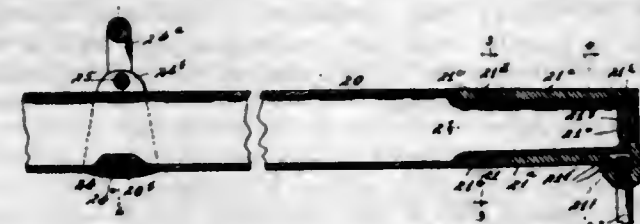
1,077,796. CANE FRAME FOR CAPS AND HATS. JOSEPH BUCHALTER, New York, N. Y. Filed Sept. 28, 1912. Serial No. 722,936. (Cl. 2—106.)



1. A cap or the like, comprising a cap body and a reinforcing frame over which the said body is stretched, the body being made of a textile fabric and the reinforcing frame being made of cane, the reinforcing frame comprising a top provided with an overlapping edge having a binding, and a crown frame provided at its upper edge with a binding fitting against the said top edge binding, and fastening means for fastening the said bindings together.

2. A cap or the like, comprising a cap body and a reinforcing frame over which the said body is stretched, the cap body being made of a textile fabric and having a top and an annular side connected with the top, the said reinforcing frame being made of cane and comprising a top and a side made in upper and lower sections, and a lining interposed between the lower section of the said cane frame side and the lower portion of the said cap body side.

1,077,797. DRAFT APPLIANCE. JOHN A. BUCHANAN, Pittsburgh, Pa. Filed Jan. 28, 1913. Serial No. 744,755. (Cl. 21—78.)



1. In a draft appliance, a metallic tubular bar endless in cross-section and flattened to provide major and minor axes cross-sectionally, said bar having longitudinal channels opposing each other and extending inwardly from the end of the bar and located at the extremities of the major axis, and fittings carried by said bar and extending into said channels.

2. In a draft appliance, a metallic tubular bar endless in cross-section and flattened to provide major and minor axes cross-sectionally, said bar having longitudinal channels opposing each other and extending inwardly from the end of the bar and located at the extremities of the major axis, the channels terminating short of the longitudinal center of the bar, and fittings carried by said bar and extending into said channels.

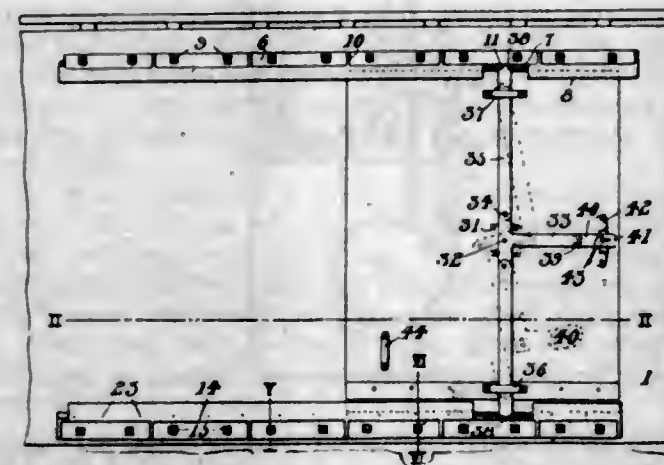
3. In a draft appliance, a metallic tubular bar endless in cross-section and flattened to provide major and minor axes cross-sectionally, said bar having longitudinal channels opposing each other and extending inwardly from the end of the bar and located at the extremities of the major axis, an end fitting having legs extending into and fitting said channels, and means for securing the legs within the channels.

4. In a draft appliance, a metallic tubular bar endless in cross-section and flattened to provide major and minor axes cross-sectionally, said bar having longitudinal channels opposing each other and extending inwardly from the end of the bar and located at the extremities of the major axis, an end fitting having legs extending into and fitting said channels, and a band for securing the legs within the channels.

5. In a draft appliance, a metallic tubular bar endless in cross-section and flattened to provide major and minor axes cross-sectionally, said bar having longitudinal channels opposing each other and extending inwardly from the end of the bar and located at the extremities of the major axis, an end fitting bridging the open end of the bar and having legs seated in the channels, said bridge portion having an inwardly extending web adapted to support the channel walls.

[Claims 6 to 9 not printed in the Gazette.]

1,077,798. DOOR FOR BOX-CARS. ROBERT LEWIS BURGON, Sharpsburg, Pa. Filed Jan. 24, 1912. Serial No. 673,111. (Cl. 20—23.)



A door sill for cars comprising a base plate of a length greater than the length of the door opening, one por-

tion of said plate positioned at and adapted to extend into the door opening and of greater width than the remaining portion, a vertically disposed flange extending throughout the length of the plate along the outer edge thereof and terminating at the rear edge of said wider portion of said plate, a vertically disposed flange extending along the inner edge of said wider portion of said plate and terminating at one end of the inner edge of the narrow portion of said plate, said latter flange being angular in cross section and having its upper portion projecting rearwardly with respect to said wider portion of the plate, a depending apertured securing flange integral with the lower face of said plate and disposed at the longitudinal center of said wider portion, said plate having its upper face provided throughout with transversely extending recesses, rollers mounted in said recesses, means connected with the vertical flanges for maintaining the rollers in position, that end of said inner vertical flange terminating in the inner edge of the narrow part of said plate being spaced from said outer vertical flange to provide a passage when shifting the door from the wider portion on to another portion of the plate.

1,077,799. VEHICLE-WHEEL. ALVIE R. BURKETT, Manns Choice, Pa. Filed Dec. 7, 1912. Serial No. 735,566. (Cl. 152—10.)

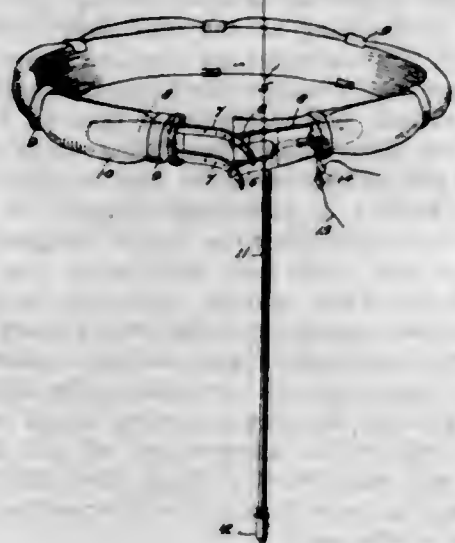


In combination a rim provided with an integral clencher at one side thereof, an inner tube mounted upon said rim, an outer shoe inclosing said inner tube and overlapped by said clencher, a flat annular member positioned against the other side of said rim and provided with an inwardly extending clencher overlapping said outer shoe, a tread shoe surrounding said outer shoe, circular side plates one arranged at one side of said rim and the other against said member, and means extending transversely of the rim, plates and flat annular member for securing them together.

1,077,800. LIFE-BELT. THOMAS B. BUTTERS, New York, N. Y. Filed May 14, 1912. Serial No. 607,232. (Cl. 9—17.)

In a life belt, the combination with a flat belt of flexible material having straps secured to one end thereof and buckles secured to straps secured to the opposite end thereof whereby the belt may be adjustably supported upon a person, and a plurality of loops disposed at spaced intervals upon the belt and extending from the outside surface thereof; of a flexible, elastic waterproof bag U-shaped in cross section and of a length to extend substantially from one end of the belt to the other, said bag having its flat side disposed against the belt and its curved side disposed outwardly and supported by the loops provided upon the belt, and having an elastic tube suitably secured at one end thereof for inflating the bag, said tube having a mouth piece and check valve whereby the air may be forced into said bag and confined, said belt having an

opening adapted for admitting said tube whereby the tube may be disposed around the body of a person within the



belt, and means for securing the ends of the bag to the said loops.

1,077,801. HOUSE-NUMBER. JOHN W. CARLSON, Salt Lake City, Utah. Filed Feb. 10, 1912. Serial No. 676,699. (Cl. 40-132.)



In a house number, the combination with a casing having the front open, of flanges formed at the front ends of the top and bottom sides of the casing and constituting a track extending longitudinally of the casing, a stop flange formed at one end of the casing by continuing the end of the casing beyond the front edge of the said track, a slide operable on the said track, number bearing panes supported in the said slide, a bearing formed by bending a portion of the slide upon itself, and a handled locking member journaled in the said bearing and adapted for locking the said slide on the said casing.

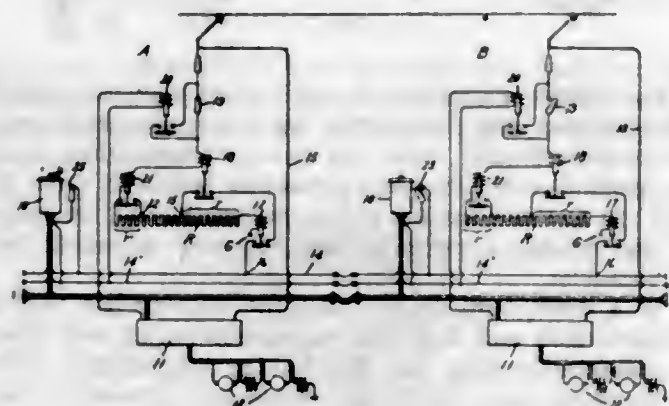
1,077,802. MOTOR-CONTROL SYSTEM. FRANK E. CASE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 16, 1912. Serial No. 709,657. (Cl. 172-179.)

1. In a train control system, a main motor controller on each motor car, a trolley connection to said main controller, a resistance connected from trolley to ground independently of the main controller, a master controller supplied from an intermediate point on said resistance, and an electromagnetic switch having its energizing winding in series with said resistance for controlling said supply.

2. In a train control system, a master controller and a main controller on each motor car, a trolley connection to said main controller, a resistance connected from trolley to ground independently of the main controller, a bus line between the cars for the master controller supplied from an intermediate point on said resistance, and an electromagnetic switch having its energizing winding in series with said resistance for controlling said supply.

3. In a train control system, a master controller and a main controller on each motor car, a trolley connection to each main controller, a resistance on each car connected from trolley to ground independently of the main controller, an electromagnetic switch controlled by each master controller for controlling the connection between the trolley and resistance, a manually operated switch in parallel with each electromagnetic switch, and a bus line between the cars connected to an intermediate point on said resistances.

tion to each main controller, a resistance on each car connected from trolley to ground independently of the main controller, an electromagnetic switch controlled by each master controller for controlling the connection between the trolley and resistance, a manually operated switch in parallel with each electromagnetic switch, and a bus line between the cars connected to an intermediate point on said resistances.

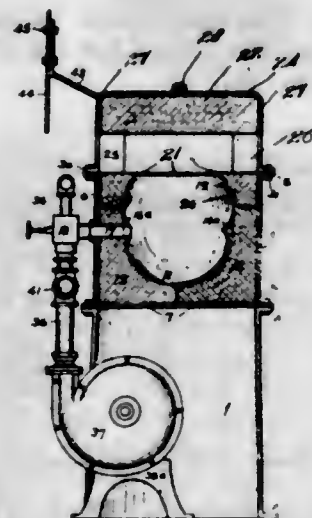


4. In a train control system, a master controller and a main controller on each motor car, a trolley connection to each main controller, a resistance on each car connected from trolley to ground independently of the main controller, a bus line between the cars connected to an intermediate point on said resistances for supplying the master controller, means controlled by the master controller on each car for controlling the connection between the trolley and resistance on said car, and a manually operated switch on each car for rendering the controlling means ineffective on said car.

5. In a train control system, a master controller and a main motor controller on each motor car, a trolley connection to each main controller, a resistance on each car connected from trolley to ground independently of the main controller, a bus line between the cars connected to an intermediate point on said resistance for supplying the master controller, an electromagnetic switch controlled by each master controller for controlling the connection between the trolley and resistance, and a switch on each car controlling the connection from the bus line to the master controller and said electromagnetic switch.

[Claims 6 to 10 not printed in the Gazette.]

1,077,803. OIL-FORGE FOR DRILL-STEEL. WILLIS W. CASE, Jr., Denver, Colo. Filed May 1, 1913. Serial No. 764,911. (Cl. 158-1.)



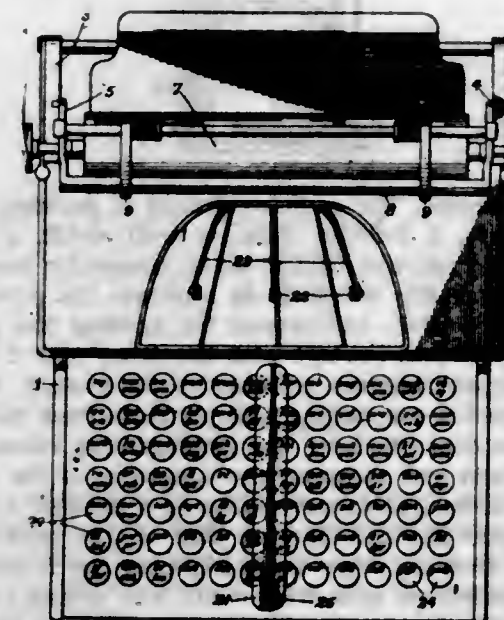
1. In an oil forge, the combination of a fire pot, having a bowl shaped bottom, curving upwardly and merging into oppositely disposed projections forming means for baffling and causing the flame and heated gases to swirl

around within said fire pot, one of said projections having a flame opening therethrough; and a fuel burner discharging through said flame opening into contact with the baffling projection opposite thereto, substantially as described.

2. In an oil forge, the combination of a fire pot forming a flame chamber and having an internal wall curving upwardly and inwardly at its upper edge, providing an inwardly overhanging ledge extending around the top of said flame chamber; a baffling projection formed on one side face of said chamber; and a fuel burner on the opposite side of said chamber and discharging against said baffling projection, substantially as described.

3. In an oil forge, the combination of a fire pot forming a flame chamber and having a bowl shaped bottom portion, and an upwardly and inwardly curved upper portion forming an internal deflecting ledge extending around the top of said flame chamber; a pair of oppositely disposed baffling members projecting inwardly and forming substantially pyramidal continuations of the central portion of said chamber; a fuel burner discharging, through a flame opening extending through one of said baffling members, against said opposed baffling member; and a top for said forge, an opening being provided between said top and said flame chamber, for inserting the work to be forged, substantially as described.

1,077,804. TYPE-WRITER. FRANCIS CHADWICK CLARK, Kansas City, Kans. Filed Oct. 23, 1912. Serial No. 727,365. (Cl. 197-98.)



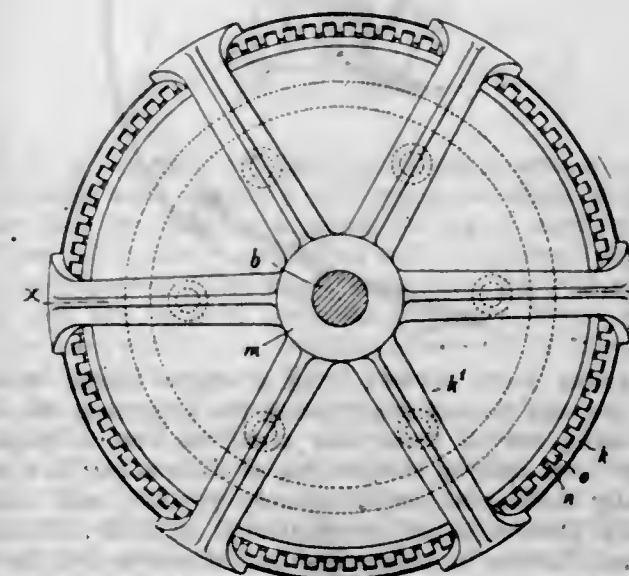
1. In a typewriter, a keyboard, a shift bar extending from front to rear of said keyboard, vertical arms carrying said shift bar, rock arms to which the vertical arms are operably connected, a rock shaft upon which said rock arms are rigidly mounted, a third rock arm mounted upon said rock shaft, a bell-crank controlled by the last-mentioned rock arm, said bell-crank having an inclined upper portion, a rock frame controlled by the inclined upper portion of said bell-crank, and a platen mounted in said rock-frame.

2. In a typewriter, a keyboard, a space bar extending from front to rear of said keyboard, upwardly-extending arms carrying said space bar, rock-arms to which said upwardly-extending arms are operably connected, a rock-shaft upon which said rock-arms are rigidly mounted, and a third rock-arm mounted upon said rock-shaft and adapted to control the carriage escapement of the typewriter.

3. In a typewriter, a double key-board comprising right and left hand divisions, a space-bar extending from front to rear of said key-board and disposed between the two divisions, upwardly-extending arms carrying said space

bar, rock-arms to which said upwardly-extending arms are operably connected, a rock-shaft upon which said rock-arms are rigidly mounted, a third rock-arm mounted upon said rock-shaft and adapted to control the carriage escapement of the typewriter, a shift-bar arranged beside the space-bar, upwardly-extending arms carrying said shift-bar, rock-arms to which the last-mentioned upwardly-extending arms are operably connected, a rock-shaft upon which the last-mentioned rock-arms are rigidly-mounted, a third rock-arm mounted upon the last-mentioned rock-shaft, a platen, and means controlled by the last-mentioned rock-arm for shifting said platen vertically.

1,077,805. MAGNETIC CLUTCH. ARTHUR THOMAS COLLIER, St. Albans, England, assignor of one-third to James Dangerfield, London, England. Filed Nov. 7, 1912. Serial No. 730,038. (Cl. 172-284.)



1. A magnetic clutch, one member of which comprises an electromagnet having concentric pole-pieces arranged on the surface of a figure of revolution, and the other member of which comprises a carrier and a plurality of narrow armature-bars movably supported by said carrier with their longitudinal axes lying transversely to the direction of motion of the polar faces of the electromagnet, each of said armatures being adapted to come into contact with both poles of the electromagnet.

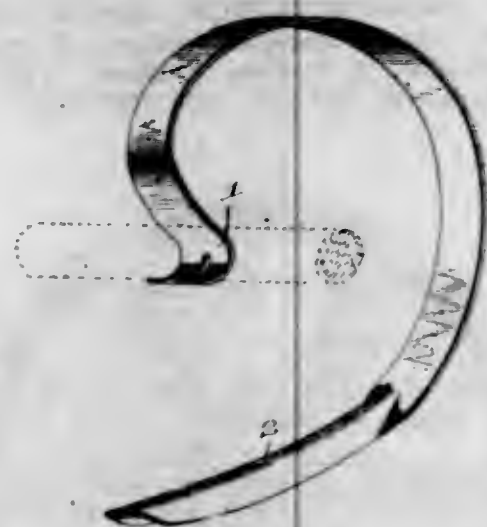
2. A magnetic clutch, one member of which comprises an electromagnet having its pole-pieces arranged on the surface of a figure of revolution, and the other member of which comprises a carrier, and a plurality of armature-bars movably supported by said carrier with their longitudinal axes lying transversely to the direction of motion of the polar faces of the electromagnet, each armature-bar having surfaces adapted to come into direct contact with both of the pole-pieces of the electromagnet, in such a manner that the driving force is transmitted from one member of the clutch to the other through said surfaces.

3. A magnetic clutch, one member of which comprises an electromagnet having its pole-pieces arranged on the surface of a figure of revolution, and the other member of which comprises a carrier, provided with guide-teeth, and a plurality of armature-bars slidable in the spaces between said guide-teeth toward and away from the pole-pieces of said electromagnet.

4. A magnetic clutch, one member of which comprises an electromagnet having its pole-pieces arranged on the surface of a figure of revolution, and the other member of which comprises a carrier, a plurality of armature-bars arranged with their longitudinal axes transverse to the direction of motion of the polar faces of said electromagnet and pins engaging with slots for supporting said armature-bars on said carrier so as to be movable toward and away from the pole-pieces of said electromagnet.

5. A magnetic clutch, one member of which comprises an electromagnet having its pole-pieces arranged on the surface of a figure of revolution, and the other member of which comprises a carrier, a plurality of armatures of small mass mounted on said carrier so as to be movable toward and away from the pole-pieces of said electromagnet and a spring adapted to hold said armatures against the polar surfaces of the electromagnet.
[Claims 6 to 9 not printed in the Gazette.]

1,077,806. SPRING HARROW-TOOTH. EDWARD T. COLLINGS, Phoenix, Ariz. Filed Aug. 1, 1912. Serial No. 712,736. (Cl. 55-36.)



A harrow tooth formed from a single length of flat metal, one end thereof constituting the attaching end, the metal being curved from said attaching end to form a resilient body portion terminating at its free end in a substantially horizontal earth-engaging portion, said earth-engaging portion being substantially straight longitudinally and having its side edges bent downwardly, the extreme end of said earth-engaging portion being rounded.

1,077,807. BOWLING-ALLEY. HERBERT F. COOK and CARL C. HILDRETH, Lake Mills, Iowa. Filed Oct. 31, 1912. Serial No. 728,815. (Cl. 46-62.)



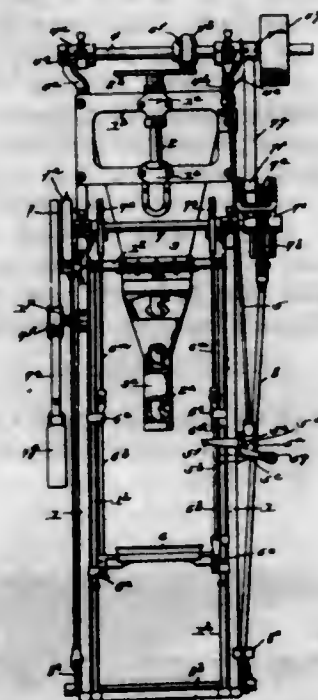
1. A bowling alley having side rails that flare or diverge at the rear end of the alley, and travelling targets arranged to move past the flaring rear end of said alley.
2. A bowling alley having side rails that are parallel throughout their main portions but flare at their rear ends, said alley being open at both ends and the said rails having elastic cushions applied to their inner edges, and targets arranged at the flaring rear end of said alley.
3. A bowling alley having side rails that are parallel throughout their main portions but flare at their rear ends, said alley being open at both ends and the said rails having elastic cushions applied to the inner edges of their parallel and flaring portions, and travelling targets arranged to move past the flaring rear end of said alley.

1,077,808. PACKER. JOHN B. CORNWALL, Moline, Ill., assignor to Barnard and Leas Manufacturing Company, Moline, Ill., a Corporation of Illinois. Filed Oct. 10, 1912. Serial No. 724,996. (Cl. 100-56.)

1. In a packing machine, the combination of a packer shaft, a frictional disk thereon, a pulley adjustable

axially of and coöperating with said disk for operating said shaft, means for moving the pulley edgewise to or away from the disk, and means for holding the periphery of said pulley in engagement with the disk during the packing operation; with a movable package supporting platform and devices controlled by the platform for releasing the holding means to stop the operation of the shaft when a package is filled.

2. In a packer, the combination of a packing tube, a packing shaft, a friction disk on said shaft, a driving shaft, a pulley on said driving shaft adapted to have its periphery engage the disk, means for moving the driving shaft bodily laterally away from the disk to normally separate the pulley edgewise from the disk; and means for holding the disk and pulley in contact.



3. In a packer, the combination of a packing tube, a packing shaft, a friction disk on said shaft, a driving shaft, a pulley on said driving shaft, means for moving the driving shaft bodily laterally to separate the pulley edgewise from the disk, and means for holding the shaft to retain the pulley in contact with the disk; with a movable platform supporting the package to be packed, a rotary shaft, means for suspending said platform from said shaft, and devices controlled by the platform for releasing the holding means and stopping the operation of the shaft.

4. In a packer, the combination of a hopper, a packing tube, a packer shaft, a friction disk on the packer shaft, a laterally movable drive shaft adjacent the friction disk, a friction pulley on said drive shaft, and means for bodily moving said drive shaft laterally to separate the pulley edgewise from the disk, and means for moving said shaft bodily laterally to bring the pulley into contact with the disk.

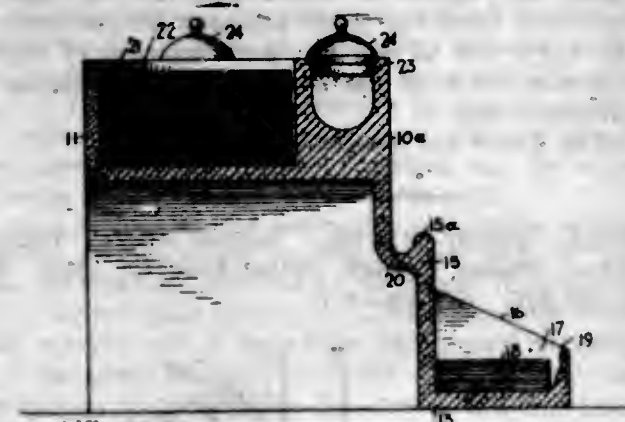
5. In a packer, the combination of a hopper, a packing tube, a packer shaft, a friction disk on the packer shaft, a laterally movable drive shaft adjacent the friction disk, an adjustable friction pulley on said drive shaft, a spring for moving said drive shaft bodily laterally to separate the pulley edgewise from the disk, and a catch lever and connections for moving said shaft bodily laterally to bring and hold the pulley in contact with the disk.

[Claims 6 to 17 not printed in the Gazette.]

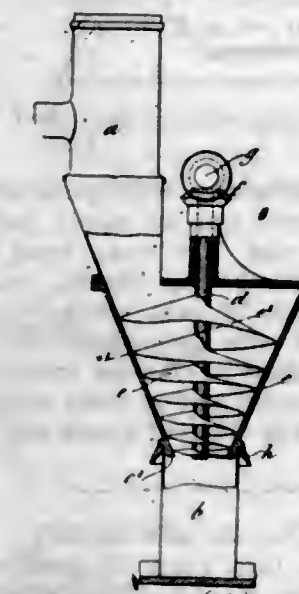
1,077,809. SANITARY HOLDER FOR BARBERS' CHECKS AND ACCESSORIES. FRANK J. COX, Dodge City, Kan. Filed Feb. 18, 1913. Serial No. 749,118. (Cl. 132-11.)

A holder for barbers' checks and accessories, consisting of a body having a front extension at the bottom, constituting a check holder, said check holder having a front wall and a back wall rising higher than the front wall, and partitions extending from the front to the back and

having rearwardly and upwardly inclined upper edges, the pockets being depressed below the front wall of the extension, and the inner surface at the front of each pocket inclining upwardly and rearwardly.



1,077,810. APPARATUS FOR FILLING AND PACKING MATERIALS INTO RECEPTACLES. ROSS VERNON CRAIGS, Gainsborough, England, assignor to Richard Harvey Wright, Durham, N. C. Filed June 29, 1911. Serial No. 636,036. (Cl. 100-56.)



In an apparatus for packing powdery materials into receptacles, the combination of a conical casing having an inlet to receive the material and having an outlet toward its apex provided with means for positioning and forming a tight joint with a receptacle, and a conical screw revolvable within the casing, the periphery of the screw coöperating with the walls of the casing, the screw presenting conical pockets toward said outlet, the walls of the pockets being generated concentrically with the axis of the screw and operating to compact the material and to press the same into a receptacle coöperative with the outlet of the casing.

1,077,811. INTERNAL-COMBUSTION MOTOR. JASPER F. CULLIN, Clinton, Mich. Filed June 21, 1912. Serial No. 705,066. (Cl. 123-66.)

1. In a two-cycle internal combustion motor, a cylinder, a cylinder head having a cylindrical extension projecting down into the cylinder, a piston having an outwardly projecting valve sleeve embracing said cylindrical extension, the cylinder and valve sleeve being provided with registering inlet and exhaust ports, and an auxiliary scavenging and charging piston working in the main piston.

2. In a two-cycle internal combustion motor, a cylinder, a cylinder head having a cylindrical extension projecting down into the cylinder, a piston having an outwardly projecting valve sleeve embracing said cylindrical extension, the cylinder and valve sleeve being provided with register-

ing inlet and exhaust ports, an auxiliary piston working in the main piston, and a check valve carried by said auxiliary piston.



3. In a two-cycle internal combustion motor, a cylinder, a cylinder head having a cylindrical extension projecting down into the cylinder, a piston having an outwardly projecting valve sleeve embracing said cylindrical extension, the cylinder and valve sleeve being provided with registering inlet and exhaust ports, an auxiliary piston working in the main piston and actuated independently thereof, and a check valve in the auxiliary piston.

4. In a two-cycle internal combustion motor, a cylinder, a cylinder head having a cylindrical extension projecting down into the cylinder, a piston having an outwardly projecting valve sleeve embracing said cylindrical extension, the cylinder and valve sleeve being provided with registering inlet and exhaust ports, an auxiliary piston working in the main piston, and an outwardly opening check valve in the auxiliary piston.

5. In a two-cycle internal combustion motor, a cylinder, a cylinder head having a cylindrical extension projecting down into the cylinder, a piston having an outwardly projecting valve sleeve embracing said cylindrical extension, the cylinder and valve sleeve being provided with registering inlet and exhaust ports, an auxiliary piston working in the main piston, and an outwardly opening spring seated check valve in the auxiliary piston.

[Claims 6 to 10 not printed in the Gazette.]

1,077,812. HAMMER CONSTRUCTION. HENRY E. DUNBYSHIRE, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Nov. 1, 1911. Serial No. 657,938. (Cl. 78-36.)

1. The combination in a hammer of a ram; oppositely placed side frames having guides for the ram and each having a substantially vertical clamping face; an anvil between the lower parts of the side frames; with bolts extending clear of the anvil and connecting said side frames.

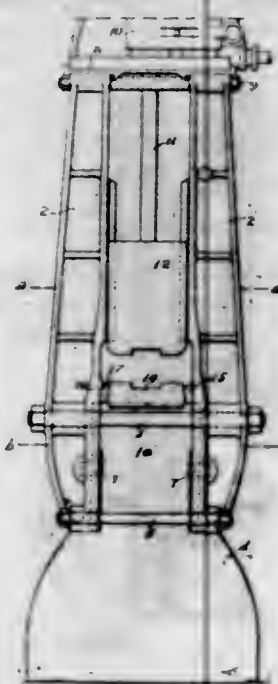
2. The combination in a hammer of a ram; an anvil; side frames having guides for the ram and formed with substantially vertical joints between them and the anvil; and bolts connecting said parts.

3. The combination in a hammer of a ram; side frames having guiding means for the ram; an anvil formed to have substantially vertical joints with the anvil; and bolts engaging said frames on opposite sides of the anvil in positions to reinforce the lateral strength of the latter.

4. The combination in a hammer of a ram; oppositely placed side frames having means for guiding the ram; an anvil; and means passing through said frames for holding said parts together, the joints between the anvil and the frames being substantially vertical.

5. The combination in a hammer of a ram; side frames having guides for the ram; an anvil between the lower

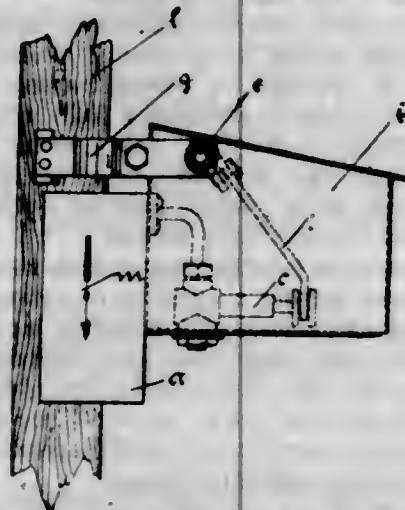
parts of the frames, said anvil and frames being made in a plurality of parts having at least one vertical joint; with



bolts extending clear of the anvil and tying said side frames together.

[Claims 6 to 13 not printed in the Gazette.]

1,077,813. AUTOMATIC LUBRICATOR. MAXIMILIAN DEUTSCHER, Heidelberg, Germany. Filed July 29, 1912. Serial No. 711,988. (Cl. 184-21.)



1. The combination with a guide rail for an elevator, of a lubricant container adapted to be reciprocated along said guide rail, means for discharging the lubricant from the container upon the guide rail, and an oscillatory device frictionally engaging said guide rail for actuating said discharging means.

2. The combination with a guide rail for an elevator, of a lubricant container adapted to be reciprocated along said guide rail, means for discharging the lubricant from the container upon the guide rail, an oscillatory device frictionally engaging said guide rail for actuating said discharging means, and means whereby the movement of said oscillatory device is limited in both directions to prevent the portion thereof which frictionally engages the guide rail from leaving the latter.

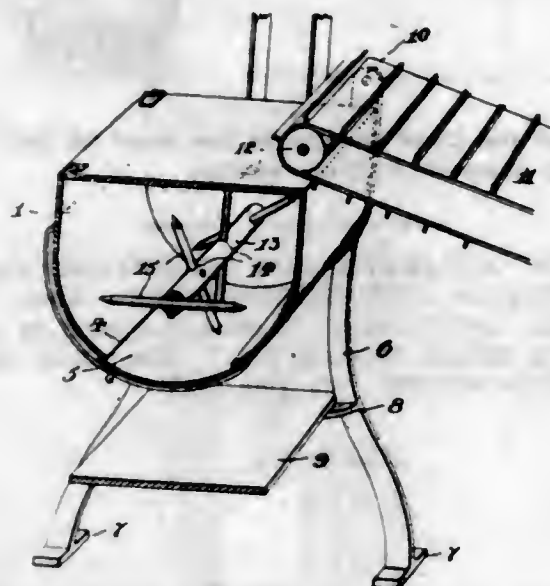
3. The combination with a guide rail for an elevator, of a lubricant container adapted to be reciprocated along said guide rail, a pump for discharging the lubricant from the container upon the guide rail, an oscillatory device frictionally engaging said guide rail for actuating said pump, and means whereby the stroke of the latter is limited to prevent the portion of said oscillatory device which frictionally engages the guide rail from leaving the latter.

4. The combination with a guide rail for an elevator, of a lubricant container adapted to be reciprocated along said guide rail, means for discharging the lubricant from the container upon the guide rail, and an oscillatory device having a resilient portion frictionally engaging the guide rail for actuating said discharging means.

5. The combination with a guide rail for an elevator, of a lubricant container adapted to be reciprocated along said guide rail, means for discharging the lubricant from the container upon the guide rail, and an oscillatory device having a pair of resilient arms frictionally engaging the opposite sides of the guide rail for actuating said discharging means.

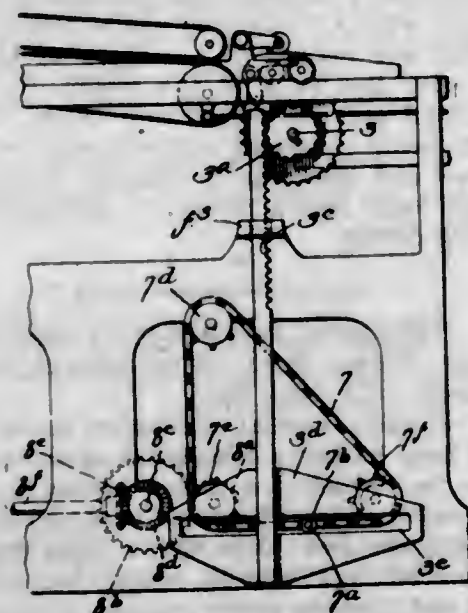
[Claims 6 to 8 not printed in the Gazette.]

1,077,814. FEED-MIXER. ROBERT HENRY DRISCOLL, Aylmer, Quebec, Canada. Filed June 12, 1912. Serial No. 703,325. (Cl. 99-2.)



A feed mixer comprising a semi-cylindrical casing having a removable cover and an outlet through the bottom opposite the open top and closed by a sliding door, means for distributing during feeding, a shaft journaled in the ends of said casing, means for driving said shaft, and rods pointed at the ends and inserted through the shaft at various angles and distances in relation to one another and forming stirrers adapted to catch the ingredients in different places and conditions and mix them.

1,077,815. MECHANICAL MOVEMENT. MICHAEL ANDREW DROITCOUR, Oak Park, Ill., assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Feb. 24, 1911, Serial No. 610,543. Divided and this application filed June 15, 1911. Serial No. 633,431. (Cl. 74-14.)



1. In a mechanical movement for converting rotary into irregular reciprocatory movement, an endless carrier, means for causing the carrier to travel in an irregular path, a member movable in a plane parallel with that of the carrier, and means on the carrier engaging the mem-

ber whereby the latter is reciprocated with different speeds on its alternate strokes when the carrier is traversing its path.

2. In a mechanical movement, an endless carrier, means for guiding the carrier in an endless angular path, and a reciprocatory yoke movable in a plane parallel with the plane of the carrier, and a device on and movable with the carrier and engaging said yoke whereby the latter is reciprocated with different speeds on its alternate strokes as the carrier is traversing its path.

3. In a mechanical movement for converting rotary into irregular reciprocatory movement, an endless carrier, means for causing the carrier to travel in an irregular path, a slotted yoke moving in a plane parallel with that of the carrier, and a device on the carrier engaging the slot of the yoke whereby the latter is reciprocated and at times caused to dwell when the carrier is traversed.

4. In combination, an oscillatory shaft, a gear on said shaft, a reciprocating rack bar engaging said gear, and a slotted yoke on said rack bar; with an endless carrier beside said bar, means for guiding the carrier in an angular path, and a device on said carrier engaging the slot in the yoke to reciprocate the latter.

5. In combination, an oscillatory shaft, a gear on said shaft, a reciprocating rack bar engaging said gear, and a slotted yoke on said rack bar; with an endless carrier beside said bar, a triangularly arranged set of pulleys supporting said carrier, and a device on said carrier engaging the slot in the yoke to reciprocate the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,077,816. TRAIN-ORDER-DELIVERING DEVICE. THOMAS E. DUNBAR, Lakeland, Fla. Filed Mar. 19, 1913. Serial No. 755,405. (Cl. 105-231.)



1. A train order delivering device including means for holding a train order, and a shield located above the said means and forming a hood for protecting the same, said hood being mounted independently of the train order delivering means to permit the independent removal of the latter.

2. A train order delivering device including means for holding a train order, and a shield located above the said means and forming a hood for protecting the same and movable laterally so as not to interfere with the removal of the said means.

3. A train order delivering device including means for holding a train order, a horizontal pivot, and a shield hung from the said pivot and located above the said means and having spaced sides forming a hood, said shield being adapted to swing on the said pivot so as not to interfere with the removal of the said means.

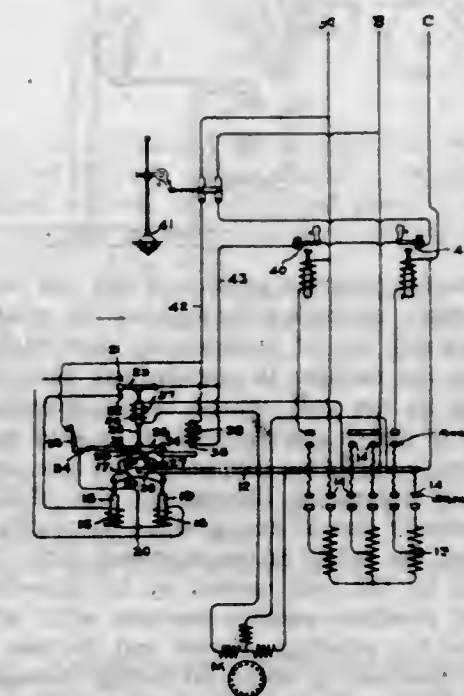
4. A train order delivering device including a relatively fixed support, a horizontal pivot removably mounted in the said support, and a shield, composed of spaced sides and a connecting top portion and provided with spaced

upwardly projecting ears receiving the said pivot, and means for supporting a train order within the shield.

5. A train order delivering device including a pivotally mounted horizontally movable support, means detachably mounted in the said support for holding a train order, a horizontal pivot located above the plane of the said support and extending in advance of the latter, and a shield hung from the outer portion of the pivot and arranged to swing laterally, said shield having spaced sides and a connecting top portion and forming a hood for protecting the said means.

[Claims 6 to 8 not printed in the Gazette.]

1,077,817. STARTING DEVICE FOR ELECTRIC MOTORS. PARKER DUNNING, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 27, 1911. Serial No. 635,576. (Cl. 172-289.)



1. A starting device for electric motors comprising a switch member having a starting, a running and an off position and biased to the off position, and electrically controlled means for moving the member to starting position, releasing it when the current in the motor circuit reaches a predetermined value, and then moving it to running position.

2. A starting device for electric motors comprising a switch member biased to an off position between the starting and the running position, and electrically controlled means for moving the member to starting position, releasing it when the current in the motor circuit drops to a predetermined value, and then moving it to running position.

3. A starting device for electric motors comprising a switch member biased to an off position between the starting and the running position, electromagnetic means for moving the member to starting position, means controlled by the current in the motor circuit for deenergizing said electromagnetic means to allow the switch member to return to off position, and electromagnetic means arranged to be energized after the member leaves the starting position to move it to running position.

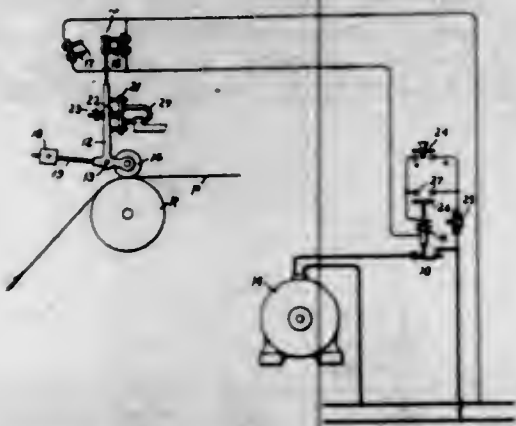
4. A starting device for electric motors comprising a transformer, a switch member having an off position between two operative positions, electromagnetic means for moving the member to one operative position to connect the motor to the line through the transformer, means controlled by the current in the motor circuit for deenergizing said electromagnetic means to allow the switch member to return to off position, and electromagnetic means arranged to be energized after the member leaves starting position to move it to running position.

5. A starting device for electric motors comprising a switch member biased to an off position between the start-

ing and the running positions, electrically controlled means for moving the member to starting position, releasing it after a predetermined interval and then moving it to running position, and means for mechanically locking the member in running position.

[Claims 6 to 12 not printed in the Gazette.]

1,077,818. DETECTOR FOR PRINTING-PRESSES OR THE LIKE. GEORGE T. EASAR, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 5, 1912. Serial No. 707,831. (Cl. 101-36.)



1. A detector for printing presses or the like comprising a movable member extending throughout the width of the paper and normally out of engagement therewith; a magnet for holding the member in engagement with the paper until overcome by the pull caused by an imperfection in the paper, and a switch contact carried by said member.

2. A detector for printing presses or the like comprising a pivoted roller extending throughout the width of the paper and normally out of engagement therewith, a magnet for holding the roller in engagement with the paper until overcome by the pull caused by an imperfection in the paper, and a switch contact movable with said roller.

3. A detector for printing presses or the like comprising a pivoted member, a roller extending throughout the width of the paper mounted at one end of said member and normally out of engagement therewith, a magnet for holding the roller in engagement with the paper until overcome by the pull caused by an imperfection in the paper, and a switch contact at the opposite end of the member.

4. A detector for printing presses or the like comprising a pivoted member having a roller at one end for engaging the paper and a contact at the other end, said member having an engaging position and a non-engaging position, and biased to the latter position, a magnet for holding the member in engaging position until overcome by the pull caused by an imperfection in the paper, and stationary contacts arranged to be engaged in each position by said moving contact.

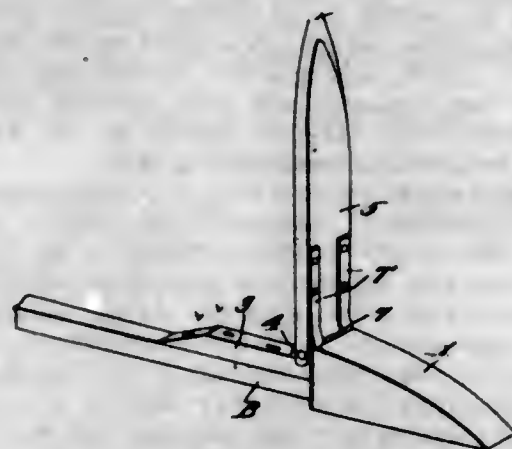
5. The combination with a printing press or the like and a motor for driving the same, of a device for controlling the motor circuit comprising a movable member extending throughout the width of the paper and biased to a position out of engagement therewith, a magnet for holding the member against the bias in a position to engage the paper until overcome by the pull caused by an imperfection in the paper, and connections whereby the motor circuit may be closed with the member in either position and will be opened when the member leaves engaging position.

[Claims 6 and 7 not printed in the Gazette.]

1,077,819. HAY-RETAINER FOR STACKERS. LEONARD ECKERT, Rancher, Mont. Filed June 2, 1913. Serial No. 771,305. (Cl. 57-53.)

1. The combination with a stacker having a toothed head, of a retaining means for each tooth, said means including a head, a tongue extending therefrom for attachment to a tooth, said head forming a stop shoulder above the tongue, a retaining finger hingedly connected to the tongue and adapted to swing downwardly thereonto, and

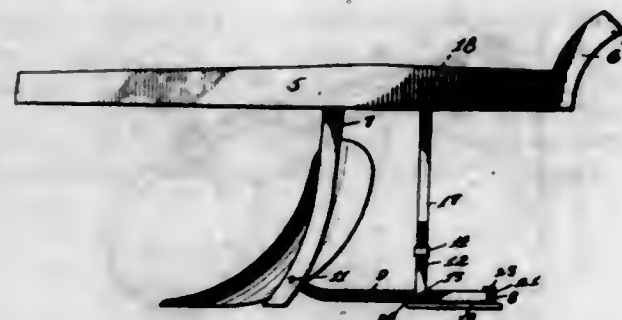
yielding means for holding the finger normally pressed toward the stop shoulder and perpendicularly to the tongue.



2. A retaining attachment for a tooth of a hay loader, comprising a tapered head, an attaching tongue extending therefrom, said head forming a shoulder at the end of the tongue, a retaining finger hingedly connected to the tongue and adapted to swing rearwardly away from the head and toward the tongue, and yielding means for holding the finger normally extended upwardly, said shoulder constituting means for limiting the upward swinging movement of the finger.

3. A retaining attachment for a finger of a hay loader, comprising a head having a finger receiving recess in the bottom thereof, an attaching tongue extending from the back end of the head, said head forming a stop shoulder at the end of the tongue, a finger hingedly connected to the tongue and adapted to swing downwardly and rearwardly toward the tongue, and yielding means upon the finger and cooperating with the shoulder for holding the finger normally elevated, said shoulder constituting means for limiting the movement of the finger in one direction.

1,077,820. PLOW. JAMES T. EDDINGS, Coolidge, Ga., assignor of one-half to Gordon T. Kight, Coolidge, Ga. Filed Dec. 30, 1912. Serial No. 739,336. (Cl. 97-26.)

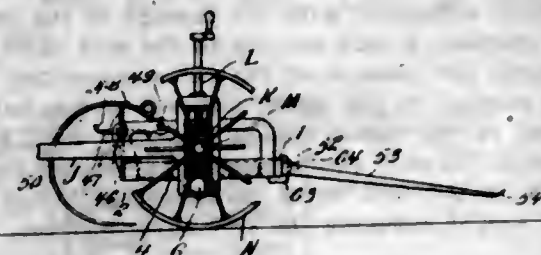


1. In a device of the character described, the combination with a plow and its standard, of a substantially horizontally extending foot piece pivoted to said standard, said foot piece comprising a pair of spaced parallel bars, a shoe mounted upon the lower side of said foot piece, said shoe having an upturned forward end which enters between said parallel bars, and a bolt traversing said foot piece and passing between said bars and having a nut threaded upon its upper end to draw the shoe toward said bars and to thereby draw the upturned forward end of said shoe toward said bars.

2. In a device of the character described, the combination with a plow, comprising a beam and a standard, of a foot piece formed of a single strip of metal and bent upon itself to form an eyelet at its bight portion, the free ends of said foot piece being pivoted to said plow beam, a shoe having an upturned forward end which enters between the portions of the foot piece, a bolt passing through the rear portion of said shoe and through said eyelet and a nut threaded upon said bolt for drawing said shoe toward said bars to thereby cause the upturned forward end of

said shoe to enter between the portions of the foot piece, whereby said shoe is secured at both ends by the tightening of the single nut.

1,077,821. HAY-RAKE AND SIDE LOADER. JEROME A. EMENHISER, Anadarko, Okla. Filed Jan. 3, 1913. Serial No. 740,046. (Cl. 56-61.)



1. In a machine of the character described, a tiltable frame carried thereby, elevated braces having brackets connected with and supported by the tiltable frame, conveying and elevating means supported by the tiltable frame and including a movable platform, a rake head supported on the elevated braces, rake teeth carried by said head, a shaft supported for rotation on the elevated braces in rear of the rake head and having radially extending arms constituting feeders, said feeders being positioned between the rake teeth and the movable platform, means for driving the feeder shaft, and a bar mounted on the front bar of the tiltable frame and having forwardly extending gathering teeth.

2. In a machine of the character described, a main frame, rotary supporting means for said frame including a bull wheel and a ground wheel, a tiltable frame supported on the main frame, elevated braces having bracket members supported on the tiltable frame, conveying and elevating means including an endless conveyor constituting a movable platform on the tiltable frame, a rake head and a feeder shaft supported on the elevated braces, said rake head having teeth curved rearwardly and downwardly in rear of the feeder shaft, and downwardly and forwardly beneath the movable platform, means for transmitting motion from the bull wheel to the feeder shaft, means for transmitting motion from the bull wheel to the conveying and feeding means, a cross bar supported detachably on the front bar of the frame, and gathering teeth connected with and extending forwardly from said bar.

3. In a machine for making and loading hay, a tiltable main frame, a tiltable auxiliary frame carried thereby, conveying and elevating means coacting with the tiltable frame and including a movable platform, a rake and a rotary feeding device for gathering loose hay and depositing the same on the movable platform at the rear thereof, and gathering teeth detachably connected to the front part of the frame for gathering hay and depositing the same on the movable platform at the front part thereof.

1,077,822. TRANSPLANTER. ERNEST E. ENGLEMAN, Roanoke, Va. Filed Feb. 19, 1913. Serial No. 749,390. (Cl. 55-68.)

1. In a transplanter, a plant-receiving tube, a pair of coacting jaws pivoted to the lower end thereof, a reciprocatory operating rod mounted longitudinally on the tube, and links pivoted to the jaws and to the rod, said links being substantially aligned transversely of the tube when the jaws are closed and assuming an angular relation when the jaws are opened.

2. In a transplanter, the combination with a plant-receiving tube, of a pair of coacting jaws pivoted to the lower end thereof and having transversely disposed cross heads at their upper ends, reciprocatory rods mounted longitudinally on the tube, sets of links pivoted to the cross heads of the jaws and to the rods, and a common actuating handle connected to both rods.

3. In a transplanter, the combination with a tube, of jaws pivoted thereto, a ring slidably mounted on the tube,

connections between the ring and jaws, and actuating means connected to the ring for reciprocating the same.

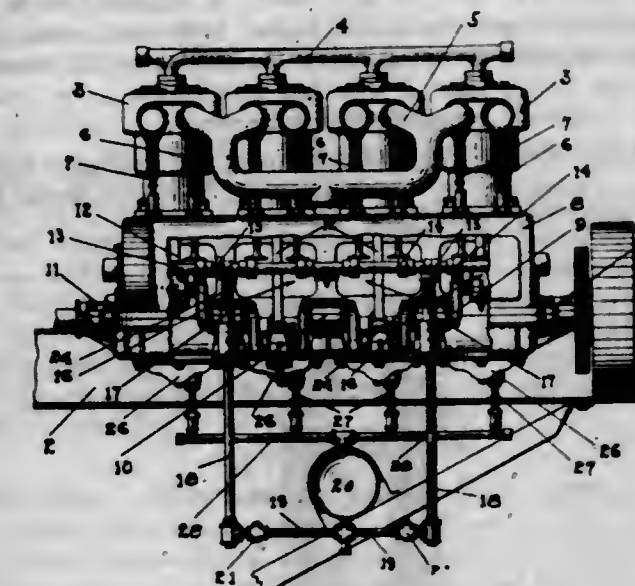


4. In a transplanter, the combination with a tube, of jaws pivoted thereto, a ring slidably mounted on the tube, connections between the ring and jaws, a hand grip, and rod connections between the ends of the hand grip and opposite sides of the ring.

5. In a transplanter, the combination with a plant-receiving tube, of jaws pivoted to the lower end thereof, a ring slidably mounted on the tube and surrounding the same, rods connected to the ring and located longitudinally on opposite sides of the tube, links connecting the jaws and rods, a fixed hand grip connected to the upper end of the tube, a sliding hand grip associated with the fixed hand grip, and connections between the ends of the sliding hand grip and the ring.

[Claims 6 and 7 not printed in the Gazette.]

1,077,823. LUBRICATING SYSTEM FOR GAS-ENGINES. JULIAN P. FARNAM, Minneapolis, Minn., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 9, 1912. Serial No. 676,527. (Cl. 184-8.)



1. The combination, with a crank case and crank shaft, of a cam shaft and a cam thereon, an oil reservoir, an overflow pipe leading from the bottom of said crank case to said reservoir and through which the oil flows by gravity back to said reservoir, a pipe communicating with the lower portion of said reservoir and having a check valve therein, a second pipe in the path of said cam and telescoping with said first named pipe and having ports in its walls within said crank case, a spring for normally holding said second-named pipe in its raised position, said

second named pipe having a check valve, the revolution of said cam shaft operating to depress said second named pipe, open its check valves and fill the pipe with oil to be sprayed therefrom upon the second engagement of said cam with said second named pipe.

2. The combination, with a gas engine crank case and a crank shaft journaled therein, of a cam shaft and cams mounted thereon, an oil reservoir disposed below the level of said crank case and having a pipe connection therewith, feed pipes projecting upwardly into said crank case and having their lower ends connected with the lower portion of said reservoir, check valves in said pipes arranged to allow the oil to flow from said reservoir and seek its level in said pipes, and spring actuated plungers mounted in said pipes and having check valves therein, said last named check valves allowing the oil to flow upwardly into said plungers upon their initial depression, the raising of said plungers closing said check valves, and the second depression of said plungers operating to discharge the oil therefrom into said crank case.

3. The combination, with a gas engine crank case and a crank shaft, of a cam shaft and cams mounted thereon, an oil reservoir arranged below the level of said crank case and having an overflow pipe connection therewith, a feed pipe connected with said crank case and with the lower portion of said reservoir, means arranged to allow the oil to flow from said reservoir and seek its level in said pipe, and a pump device operating to force the oil upwardly a predetermined distance on its initial stroke and deliver the oil to said crank case on its second stroke.

1,077,824. PENHOLDER. MAURICE E. FARRIS, Shouns, Tenn. Filed Feb. 28, 1912. Serial No. 680,471. (Cl. 120—101.)



In a pen holder, the combination with a holder body terminating at one end in spaced portions adapted to receive a pen therebetween, of a sleeve mounted to slide on the holder body, and circular lugs formed with and struck from the ends of the sleeve to extend into a reduced tapered portion in the holder body and retain the said spaced portions in clamping engagement with the said pen.

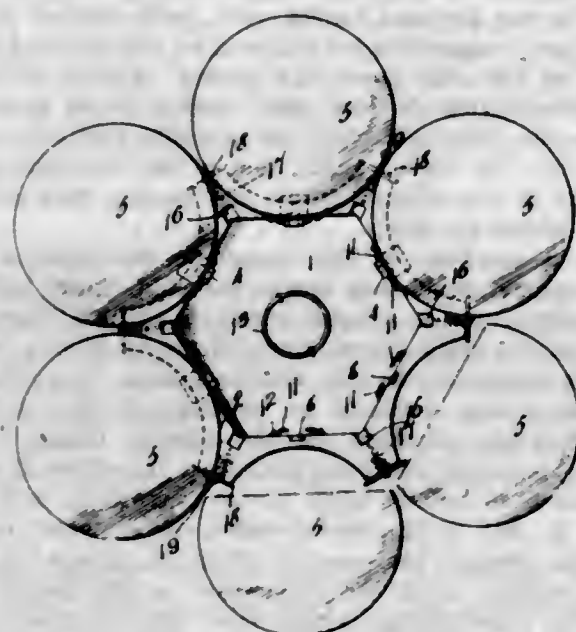
1,077,825. NON-REFILLABLE BOTTLE. EDWARD FOURNIE, Plattsburg, N. Y. Filed Sept. 6, 1912. Serial No. 718,962. (Cl. 215—63.)



In a non-refillable bottle, the combination with a bottle body, of a tubular casing depending within the neck thereof.

of, a valve supporting member rigidly carried in the said casing and provided with a passage, a valve mounted to slide in the casing and normally seating on the valve supporting member to close the said passage, a guide member formed integrally with the valve supporting member and connected thereto by a shank projecting from an edge of the valve supporting member to support the guide member in parallel relation to the under face of the valve supporting member, with a passage in the guide member in vertical alignment with the passage in the valve supporting member, a cord secured to the said valve and passing through the passage of the valve supporting member and the passage of the guide member, and a ball weight secured to the lower end of the said cord and arranged beneath the said guide member, the movement of the said valve in the said valve casing being limited by the said ball weight engaging the said guide member.

1,077,826. EXTENSION-TABLE. FRANCESCO FRISINA, Brooklyn, N. Y. Filed Feb. 15, 1913. Serial No. 748,705. (Cl. 45—9.)



1. In an extensible table, the combination of a body having a compartment, a leaf hinged to said body, said leaf adapted to swing outwardly and form an extension for the table and foldable within said compartment, guide bars mounted on the inner wall of the compartment and adapted to slidably receive the hinge.

2. In an extension table, the combination of a body having a compartment and a series of slots vertically arranged on the inner walls of the compartment, leaves hinged to said body, said leaves adapted to swing outwardly and form an extension for the table and foldable within the said compartment, lugs mounted on the hinges of the leaves and arranged within the slots, and a feed spring mounted in the compartment and arranged for contacting with the leaves.

1,077,827. PROCESS OF TREATING TUNGSTEN. CARL T. FULLER, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed May 6, 1911. Serial No. 625,617. (Cl. 148—25.)

1. The process of treating tungsten bodies which consists in gradually heating said bodies in a packing of calcium carbide to a temperature just below the softening point of the carbide.

2. The process which consists in firing tungsten bodies in a packing consisting of water reacting metallic carbide to a temperature just below the softening point of the carbide and then slowly reducing the temperature.

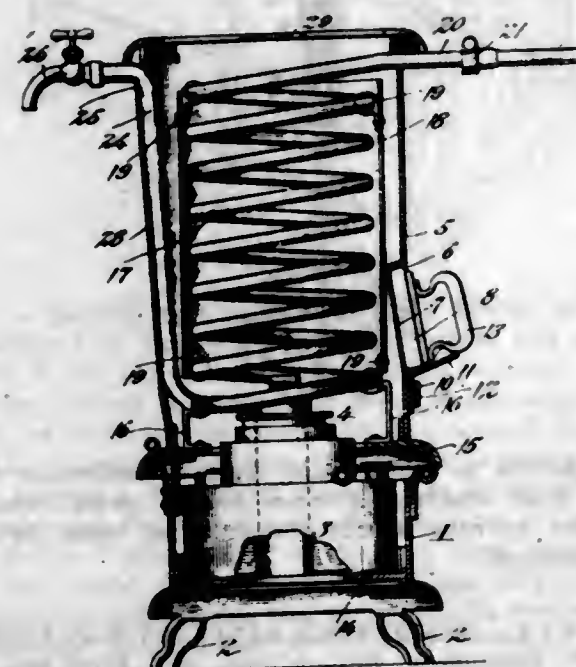
3. The process which consists in firing tungsten bodies in a packing consisting of metallic carbide.

4. The process which consists in firing articles of tungsten in a packing consisting of water-reacting carbide.

5. The process which consists in firing tungsten articles in a packing of calcium carbide.

[Claims 6 to 8 not printed in the Gazette.]

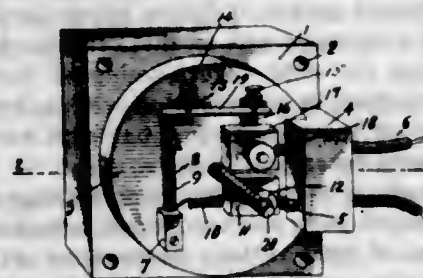
1,077,828. WATER-HEATER. JANE E. GILLESPIE, Atlanta, Ga. Filed Nov. 9, 1912. Serial No. 730,520. (Cl. 122—250.)



1. In a heater, a cylindrical base, an outside cylindrical sheet metal drum supported thereby, an inside drum, a water heating coil contained within the inside drum to which it is attached and removable through the top of the outside drum together with the inside drum, and a circular series of coil supporting brackets within the outside drum.

2. In a water heater, the combination with a drum-supporting base, and an oil font and burner contained therein, of a cylindrical drum extending upwardly from and supported upon said base, a removable inside drum having an outside diameter less than the inside diameter of the outside drum, brackets extending upwardly from and fastened to the base, and a water coil fastened to the interior of the inside drum and having its bottom convolution supported on said brackets, one end portion of said coil standing upright upon the exterior of the inside drum, and both ends of the coil extending laterally over the top of the outside drum, whereby the inside drum and attached coil are both removable through the top of the outside drum.

1,077,829. CIRCUIT-BREAKER. ANGEL GUERRA, Celaya, Mexico. Filed Sept. 11, 1912. Serial No. 719,740. (Cl. 177—347.)

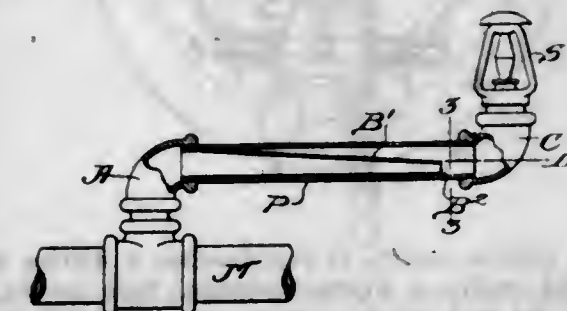


1. A circuit breaker, comprising a plurality of posts adapted to be connected to wires in an electric circuit, a thermally expansible rod, convolutions of wire on the rod, an arm secured at one end to one end of the rod and extending laterally therefrom, one end of the said wire being connected to one of the posts, the other end being connected to the said arm, an adjustable contacting screw connected to the other post and normally contacting with the said arm, and a second adjustable screw engaging

the rod between the point of attachment thereof with the said expansible element and the said first screw, whereby when current flows through the said convolutions the expansion of the said element will bring the arm out of engagement with the first screw, thereby opening the circuit.

2. A circuit breaker, comprising a base, conducting blocks on the base and to which the wires are attached, a block secured to the base, an expansible rod carried by the block, an arm secured at one end to the upper end of the rod, a wire coiled around the rod and having one end secured to one of the conducting blocks and its other end engaging the arm of the rod, a bracket secured to the base adjacent the upper end of the expansible rod and carrying a contact screw engaging the upper face of the arm of the rod, and a bracket secured to one of the conducting blocks and carrying a contact screw with which the upper face of the free end of the said arm is adapted to engage.

1,077,830. SPRINKLER ATTACHMENT. WILBERFORCE BEECHER HAMMOND, Brookline, Mass. Filed Mar. 21, 1913. Serial No. 755,823. (Cl. 169—20.)



1. In a sprinkler attachment, the combination of an offset adapted to be secured to a main water pipe, a sprinkler head at the end of said offset, and a partition in said offset with its lip at such level therein as to maintain a considerable portion of the offset free from contact with water.

2. In a sprinkler attachment, the combination of an offset, adapted to be secured to a main water pipe, a sprinkler head at the end of the offset, and a tube inside the offset, sealed to the walls of the offset at the end of the tube nearer the main pipe, and of such dimensions as to leave a space between the tube and the inner wall of the offset.

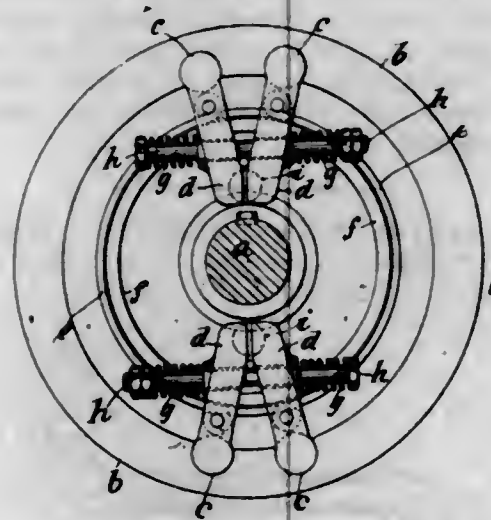
3. In a sprinkler attachment, an offset comprising a horizontal tubular member adapted to be secured to a main water pipe, a sprinkler head at the end of the offset, and a partition in said horizontal tubular member, having its lip at such level as to maintain a considerable portion of the offset free from contact with water.

4. In a sprinkler attachment, the combination of an offset adapted to be secured to a main water pipe and comprising a horizontal tubular member, a sprinkler head at the end of the offset, and a tube inside the offset, sealed to the walls of the offset at the end of the tube nearer the main pipe, and of such dimensions as to leave a space between the tube and the inner wall of the horizontal member of the offset.

1,077,831. FRICTION-CLUTCH AND THE LIKE. JAMES MITCHELL HEWITT, Manchester, and ARTHUR JAMES DRAKE, Hale, England, assignors to Saver Clutch Co., Ltd., Manchester, England. Filed Oct. 14, 1912. Serial No. 725,754. (Cl. 192—14.)

1. In a friction clutch, in combination, a driving member located inside a driven member, twin levers fulcrumed to the said driven member near its periphery and extending toward the center of the clutch, a band encircling the said driving member and with ends pivoted to the said twin levers, a spring device on the said levers for forcing them together and thereby tighten the band around the said driving member and means for forcing the said twin levers apart and thereby releasing the said band.

2. In a friction clutch, in combination, a driving member located inside a driven member, twin levers fulcrumed to the said driven member near its periphery and extending toward the center of the clutch, a band encircling the said driving member and with ends pivoted to the said twin levers, a spring device on the said levers for forcing them together and thereby tighten the band around the said driving member and means for forcing the said twin levers apart and thereby release the said band, the said spring device comprising a screw bolt passing through and springs thereon pressing against the said levers.



3. In a friction clutch, in combination, a driving member located inside a driven member, twin levers fulcrumed to the said driven member near its periphery and extending toward the center of the clutch, a band encircling the said driving member and with ends pivoted to the said twin levers, a spring device on the said levers for forcing them together and thereby tighten the band around the said driving member and means for forcing the said twin levers apart and thereby release the said band, the said means comprising a plunger mounted longitudinally movable in the said driven part and adapted to enter between the free ends of the said twin levers to force them apart.

4. In a friction clutch, in combination, a driving member located inside a driven member, a plurality of twin levers fulcrumed at diametrically opposite points to the said driven part near its periphery and longitudinally displaced in relation to each other, a plurality of bands located side by side around the said driving part with ends pivoted to the said levers respectively, spring devices on the said twin levers for forcing them together and thereby tighten the bands around the said driving member and means on the said driven part for forcing the said levers apart from each other and thereby releasing the said bands.

1,077,832. EGG-BEATER. THOMAS HOLT, Tarrytown, N. Y., assignor to The Holt-Lyon Company, Tarrytown, N. Y., a Corporation. Filed June 21, 1912. Serial No. 705,025. (Cl. 107-39.)

1. In an egg beater such as described, having a vertical shaft and means for rotating the same; a plurality of laterally-extended members having vertical shaft extensions; and a plurality of flukes pivotally mounted upon, to follow, said shaft extensions.

2. In an egg beater having a shaft and means for rotating the same; a plurality of whips laterally extended from said shaft, said whips having each a shaft extension parallel with said rotating shaft; and a plurality of flukes, each having a flat body portion and perforated tabs extending from the ends of said body portion, said shaft extensions passing through said perforations to form bearings for said flukes.

3. In an egg beater having a rotary shaft and means for rotating same; a plurality of whips extending laterally from said shaft and having a shaft extension inclined

backward at the top from the path of rotation; and a plurality of flukes, each having a flat body portion and tabs at the ends thereof extending substantially perpendicular to said flat body portion and having perforations



formed therein to engage said shaft extensions to form bearings from which said flukes loosely swing, whereby said flukes operate to lift the material being handled slightly upward.

1,077,833. REMOVABLE SANITARY HAT-LINING. ELLA V. HOUGHTON, Philadelphia, Pa. Filed Mar. 15, 1913. Serial No. 754,489. (Cl. 2-113.)

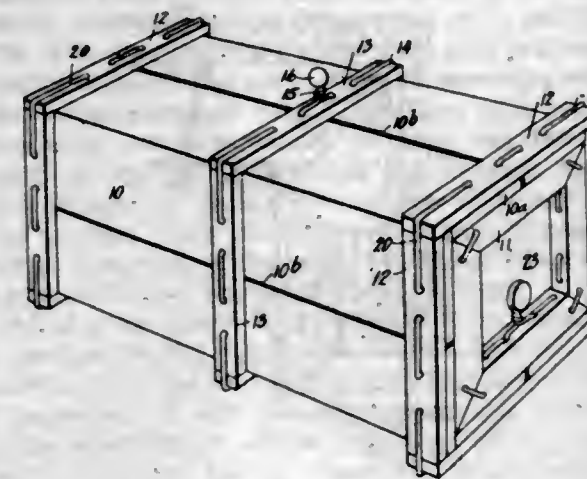


1. A removable, sanitary hat lining, comprising a plurality of superposed layers of tissue paper, said layers being superposed and connected at their lower edges; and a band or binding for said layers, adapted for mounting upon a hat structure, in combination with a hoop adapted for attachment to the crown of a hat and having a plurality of retainers to engage said band.

2. In combination, a retaining hoop having a plurality of radially-disposed internally-extended retainers; a band having a series of perforations to register with said retainers, to be held thereby in service position; and a plurality of independent, superposed linings secured in service position upon said band.

3. In combination, a retaining hoop having a plurality of radially-disposed internally-extended retainers; a band having a series of perforations to register with said retainers, to be held thereby in service position; and a plurality of independent, superposed linings secured in service position upon said band, said linings being each split to provide for engaging the same for removal from service position.

1,077,834. WOODEN PACKING-CASE. BERNARD JUSTEN, Tampa, Fla. Filed Mar. 12, 1913. Serial No. 753,726. (Cl. 217-5.)



1. A packing case composed of side boards, end frames overlapped by the ends of the side boards, end panels secured to the end frames at the inside, exterior cleats extending around the four sides over the side boards at the ends, an intermediate cleat extending around the case between the ends, said cleats crossing the joints between the side boards, a wire laced through the intermediate cleat and through the side boards, running over the corners of the cleats at the exterior of the case, wires laced through the end cleats, through the ends of the side boards and through the end frames, and wires running around the end frames and laced transversely to the lacing of the other wires through the end frames and end panels.

2. A packing case composed of side boards, end frames overlapped by the ends of the side boards, cleats extending around the case at the four sides, a wire laced through the cleats and side boards, and loops on the interior of the case through which the said laced wire is looped.

3. A packing case comprising side boards, end frames overlapped by the side boards, cleats extending around the case at each end over the ends of the side boards, and a wire laced through the said cleats, through the ends of the side boards and through the end frames.

1,077,835. PACKING PULVERULENT, GRANULAR, AND OTHER SUBSTANCES. ALBERT ANDREW KELLY, Slidcup, England. Filed May 10, 1912. Serial No. 696,481. (Cl. 99-8.)



1. A package for photographic and other substances consisting of two dish-shaped flanged sections, each formed of a single layer of air and moisture proof material, the flanges adhering together and thereby uniting said sections.

2. A package for photographic and other substances consisting of two dish-shaped flanged sections formed of single layers of tissue paper impregnated with gum lac, said flanges being caused to adhere together by the application of heat and pressure.

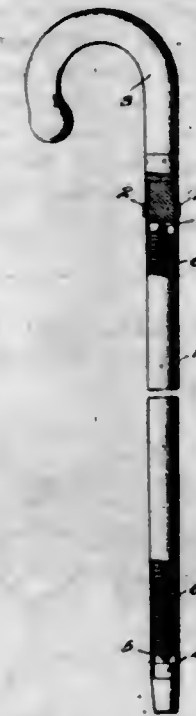
3. A package consisting of two dish-shaped flanged sections formed of single layers of air and moisture proof material; flanges on said dish-shaped sections and annular rings of stiffening material disposed upon the outside of said flanges.

4. A package consisting of two dish-shaped flanged sections formed of single layers of air and moisture proof material, said sections being united by said flanges, and means for dividing the interior of said package to form separate compartments.

5. A package consisting of two dish-shaped flanged sections formed of single layers of air and moisture proof

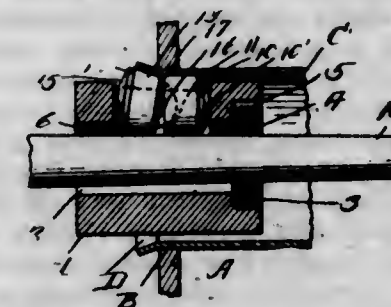
material, said sections being united by said flanges, and dividing walls in the interior of said package composed of air and moisture proof material.

1,077,836. EXERCISING-STICK. ANTON KERESZTFALVY, New York, N. Y. Filed Mar. 21, 1913. Serial No. 755,965. (Cl. 46-69.)



An exercising stick comprising a tubular body, a longitudinally extensible elastic member located in the body and secured at one end to one end of the same and substantially traversing the length of the body when in a retracted condition, and a handle connected with the other end of the member, there being means for detachably connecting the handle with the body, said handle and body when spaced from each other and while connected with each other through the medium of said member being free for universal movement with relation to each other.

1,077,837. TUBE-EXPANDER. JAMES P. KERRIGAN, Wilmington, Del. Filed May 14, 1913. Serial No. 767,602. (Cl. 153-82.)



1. In a tool for expanding a tube, the combination with a body portion adapted to be inserted within the tube, of a socket roller, a ball roller abutting against and working in the socket of the socket roller, and means for forcing the rollers against the inner wall of the tube to expand such tube.

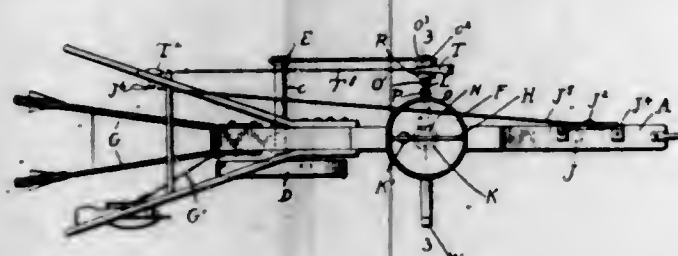
2. The combination with a body portion, of a substantially cylindrical tube expanding roller having a socket in one end thereof, a tube flanging roller provided with a beveled shoulder terminating in a ball-like section adapted to work within the socket of the expanding roller, and a tapered mandrel adapted to operate the rollers.

3. The combination with a body portion, of a roller having a cylindrical section adapted to extend within a tube, said roller having a socket in one end thereof, and a second roller having a tapered portion adapted to bear against the tube, said second roller having a ball section adapted to seat within the socket of the first mentioned roller, and means for operating the rollers.

4. In a tool for expanding a tube, the combination with a cage adapted to be inserted within the tube, said cage having a bore and slot communicating with the bore, of a socket roller member extending through the slot, a ball roller member also extending through the slot and arranged abutting end to end with the socket roller member, and means for forcing the roller members against the inner wall of the tube to expand such tube.

5. In a tool for expanding a tube, the combination with a cage having a bore and a series of slots communicating with the bore, the walls of said slots forming retaining means, of a socket roller member arranged within each slot, a ball roller member arranged within each slot and abutting end to end with the socket member in the slot, and a mandrel extending through the bore of the cage for forcing the roller members against the inner wall of the tube to expand such tube.

1,077,838. GUANO-DISTRIBUTER. HIRAM R. A. KING, Sandy Springs, S. C. Filed July 18, 1913. Serial No. 779,800. (Cl. 111-15.)



1. A guano distributor comprising a beam, an axle journaled therein, a wheel fixed to the axle, a rotatable guano receptacle upon the beam, a gear wheel fixed to said receptacle, horizontally disposed splined shafts, telescoping one within the other, a gear wheel fixed to one of said splined shafts and adapted to intermesh with the gear wheel upon said receptacle, driving connections between the axle and splined shafts, and means for moving longitudinally one of said splined shafts to throw the gear wheel thereon in mesh with the wheel upon said receptacle, as set forth.

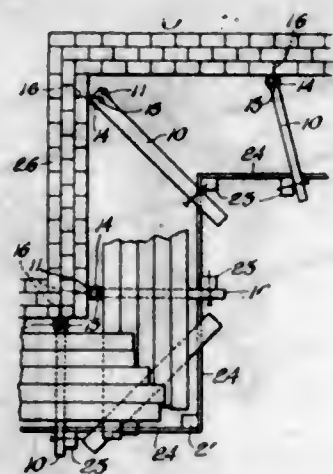
2. A guano distributor comprising a beam, an axle journaled therein, a wheel fixed to the axle, a rotatable guano receptacle upon the beam, a gear wheel fixed to said receptacle, horizontally disposed splined shafts, telescoping one within the other, a gear wheel fixed to one of said splined shafts and adapted to intermesh with the gear wheel upon said receptacle, driving connections between the axle and splined shafts, a wedge-shaped member adapted to actuate one of said splined shafts longitudinally to throw the gear wheel thereon in mesh with the gear wheel upon the receptacle, and a spring for returning the wedge-actuated shaft to its normal position, as set forth.

3. A guano distributor comprising a beam, an axle and a wheel rotating therewith, a guano receptacle upon the beam, a shaft journaled in said receptacle, a gear wheel upon said shaft, a hollow and a solid shaft telescoping each other and having splined connections, a sprocket wheel fixed to said solid shaft, connections between the same and axle for driving said sprocket wheel, a collar loosely mounted upon said solid shaft, a collar fixed to the hollow shaft, a spring interposed between said collars, a gear wheel fixed to the hollow shaft and adapted to mesh with the gear wheel upon the shaft on the receptacle, a wedge-shaped member movable intermediate said movable shaft and sprocket wheel, and a rod connected to said wedge-shaped member, as set forth.

1,077,839. PUTLOG. THOMAS H. KINGSTON, West Somerville, Mass. Filed Apr. 4, 1913. Serial No. 758,836. (Cl. 20-81.)

1. A putlog comprising in combination a floor supporting bar, a recess at one end of said floor supporting bar, a rivet extending through said recess and secured to said

floor supporting bar and an anchor plate pivoted at one end on the portion of said rivet which is within said recess.

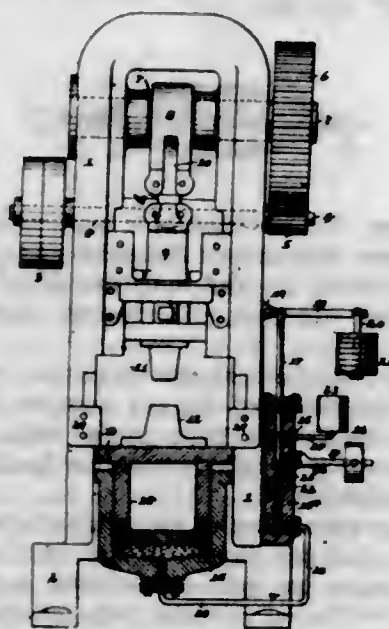


2. A putlog comprising in combination a floor supporting bar, a projection formed at one end of said floor supporting bar, a U-shaped reinforcing stirrup secured to said projection in such a manner as to leave a space between the under side of said projection and the horizontal side of said U-shaped stirrup, a rivet extending through said projection, through said space and through the horizontal side of said U-shaped stirrup with one end of an anchor plate pivoted on the portion of said rivet within said space.

3. A putlog comprising in combination a floor supporting bar, a projection formed at one end of said floor supporting bar, a U-shaped reinforcing stirrup secured to said projection in such a manner as to leave a space between the under side of said projection and the horizontal side of said stirrup, a rivet extending through said projection, through said space and through the horizontal side of said stirrup and one end of an anchor plate pivoted on the portion of said rivet within said space, the portion of said anchor plate within said space being substantially of the same height as said space.

4. A putlog comprising in combination a floor supporting bar, a recess in one end of said bar, one end of an anchor plate vertically pivoted in said recess, a rivet extending transversely through said recess and through a slot in said anchor plate.

1,077,840. PRESS. JOHN JACOB KINZNER, Wildwood, Pa. Filed Oct. 19, 1912. Serial No. 726,750. (Cl. 113-38.)



1. A geared press having a die adapted to be raised and lowered, another die for cooperating with said first-named die, a bolster plate for supporting said last-named die, a plunger connected to said plate and operating within a cylinder, and an accumulator device consisting of a cylinder connecting with said first-named cylinder and having a rod plunger therein for multiplying the pressure exerted

below said plunger to permit said bolster plate and last-named die to yield when the pressure of said first-named die becomes excessive.

2. A geared press having a die adapted to be raised and lowered, another die for cooperating with said first-named die, a bolster plate for supporting said last-named die, a plunger connected to said plate and operating within a cylinder, an accumulator device consisting of a cylinder connecting with said first-named cylinder and having a rod plunger therein for multiplying the pressure exerted below said plunger to permit said bolster plate and last-named die to yield when the pressure of said first-named die becomes excessive, and means for fixing the normal position of said bolster plate and last-named die.

3. A geared press having a die adapted to be raised and lowered, another die for cooperating with said first-named die, a bolster plate for supporting said last-named die, a plunger connected to said plate and operating within a cylinder, an accumulator device consisting of a cylinder having a rod plunger therein connected to a lever and weights on said lever at a distance from said rod plunger for multiplying the pressure exerted below said plunger to permit said bolster plate and last-named die to yield when the pressure of said first-named die becomes excessive.

4. A geared press having a die adapted to be raised and lowered, another die for cooperating with said first-named die, a bolster plate for supporting said last-named die, a plunger connected to said plate and operating within a cylinder, an accumulator device consisting of a cylinder having a rod plunger therein connected to a lever, and weights on said lever at a distance from said rod plunger for multiplying the pressure exerted below said plunger to permit said bolster plate and last-named die to yield when the pressure of said first-named die becomes excessive, and means for fixing the normal position of said bolster plate and last-named die.

5. A geared press having a die adapted to be raised and lowered, another die for cooperating with said first-named die, a bolster plate for supporting said last-named die, a plunger connected to said plate and operating within a cylinder, an accumulator device consisting of a cylinder of smaller diameter than said first-named cylinder, said last-named cylinder having a rod plunger therein connected to a lever, and weights on said lever at a distance from said rod plunger for multiplying the pressure exerted below said plunger to permit said bolster plate and last-named die to yield when the pressure of said first-named die becomes excessive.

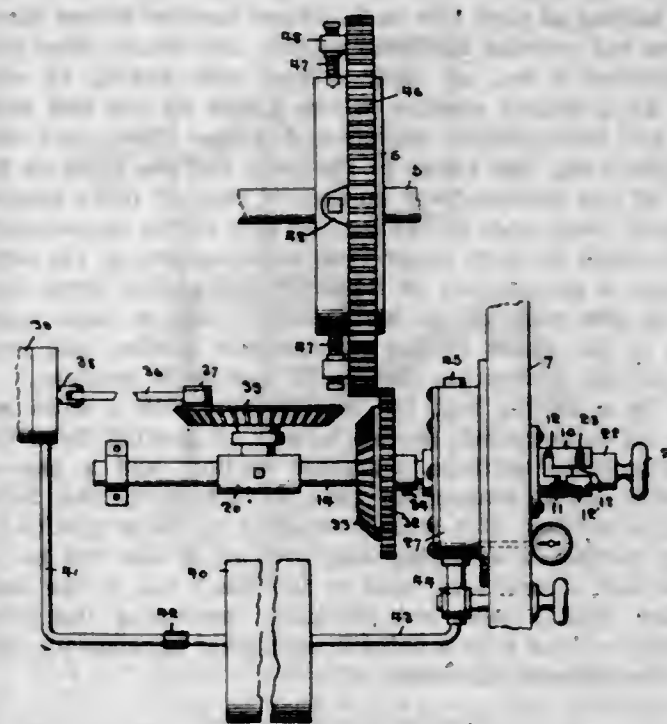
[Claim 6 not printed in the Gazette.]

1,077,841. ENGINE-STARTER. JOHN DEAM KNEEDLER, Sioux City, Iowa, assignor of one-third to Buel Couch and one-third to N. T. Hanson, Sioux City, Iowa. Filed Sept. 17, 1912. Serial No. 720,884. (Cl. 123-179.)

1. In an engine starter, the combination with a fly wheel of an engine, of a toothed gear member fitted onto the periphery of the fly wheel, a pump, a gear member having its axis stationary with respect to that of the fly wheel, a pitman operatively connecting the pump with said gear wheel, a reservoir, a pipe communicating with the pump and the reservoir, an air motor, means for establishing and interrupting communication between the reservoir and the air motor for actuating the air motor at will, and an intermediary gear member having means associated therewith for shifting it into mesh with the toothed ring and with the said first gear member or alternately with the toothed ring independently of the said first gear member.

2. In an engine starter, the combination with a fly wheel of an engine, of a toothed gear member carried by the fly wheel, an air pump, a gear wheel operatively connected with the pump for actuating the latter, a compressed air reservoir communicating with the pump and adapted to receive air therefrom, an air motor, means for establishing and interrupting communication between the air reservoir and air motor for actuating the motor at will, a longitudinally movable shaft operatively connected

with the air motor and adapted to be rotated thereby, an intermediary gear member carried by the shaft and adapted to be thrown into and out of mesh with the toothed gear wheel, said shaft having an end rotatably mounted within an apertured shifter head, means carried by the shifter head and shaft for retaining them against relative axial movement, a hollow cylindrical member in which the shifter head is rotatably mounted, said cylindrical member having a longitudinal slot and having



lateral slots at right angles to the longitudinal slot, said shifter head having a stud adapted for alternate engagement with the several slots, and a handle on the shifter head for moving it relative to the cylindrical sleeve and thereby shifting the stud from one to another of the lateral slots, for adjusting the position of the gear member on the shaft with relation to the gear member on the fly wheel.

1,077,842. DIVANETTE. SAMUEL LANES and OSIAS RUDICH, Brooklyn, N. Y. Filed Apr. 7, 1913. Serial No. 759,438. (Cl. 5-46.)



1. The herein described folding bed frame consisting of a main section mounted on legs, an intermediate section having a tongue at its inner end overlying the front leg of the main section, an outer section having a tongue at its inner end overlying the intermediate section, parallel links connecting the main section with the intermediate section, and parallel links connecting the intermediate section with the outer section, the disposition of all said links being such that the outer section may fold onto the intermediate section and the latter may fold onto the main section as described.

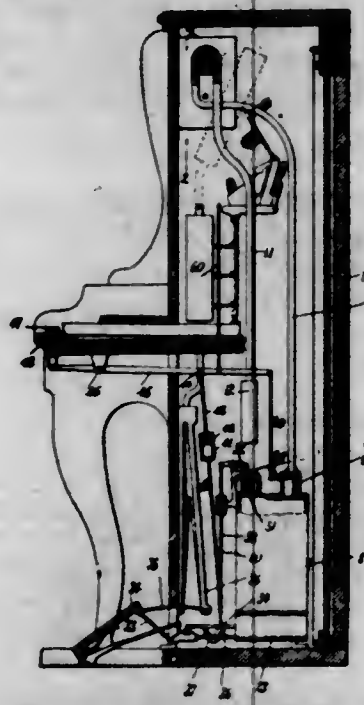
2. The herein described folding bed frame consisting of a main section mounted on legs, an intermediate section having at each side an L-shaped member whose shank at one end overlies the main section and whose other part constitutes a leg, an outer section also having at each side an L-shaped member whose shank at one end overlies the intermediate section and whose other part constitutes

a leg, side rungs in the main section, arms on the legs of the intermediate section, a pair of links pivoted at their lower ends to the leg and arm of the intermediate section and at their upper ends to the shank of the outer section, a second pair of links pivoted at their lower ends to the side rung of the main section and at their upper ends to the shank of the intermediate section, and a folding head section carried by the main section.

3. The herein described folding bed frame consisting of a main section mounted on legs, an intermediate section having at each side an L-shaped member whose shank at one end overlies the main section and whose other part constitutes a leg, an outer section also having at each side an L-shaped member whose shank at one end overlies the intermediate section and whose other part constitutes a leg, side rungs in the main section, arms on the legs of the intermediate section, a pair of links pivoted at their lower ends to the leg and arm of the intermediate section and at their upper ends to the shank of the outer section, a second pair of links pivoted at the lower ends to the side rung of the main section and at their upper ends to the shank of the intermediate section, and lever mechanism connecting said main and outer sections.

4. In a folding bed, the combination with a main section, an intermediate section, a pair of parallel links connecting these sections, an outer section, and a pair of parallel links connecting this section with the intermediate section, of a lever pivoted at its outer end to the outer section, a swinging link pivoted at one end to the inner end of said lever and at the other end to the main section, and a push rod pivotally connecting the intermediate section with a point in said lever between its ends, for the purpose set forth.

1,077,843. WIND DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. EMILE J. LUSTER, New York, N. Y. Filed Mar. 5, 1912. Serial No. 681,736. (Cl. 84-166.)



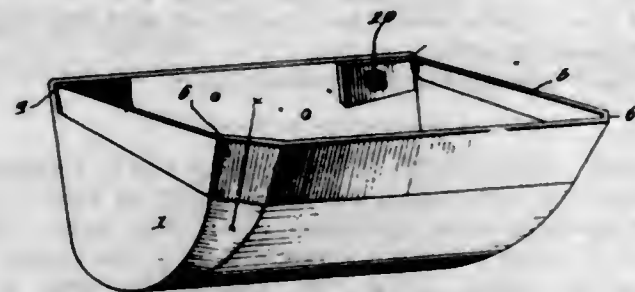
1. In a device of the character described, an air compressor, a pivotally mounted piston rod connected with the piston of said compressor, means detachably connected with said piston rod for actuating the same, a bell crank lever arranged so that one end will engage and raise said pivotally mounted piston rod when the bell crank lever is moved to one direction, a tank for receiving compressed air from said compressor, a puppet valve connected with said tank and with said bell crank lever whereby said bell crank lever is actuated for moving pivotally said piston rod when said tank has received a predetermined amount of compressed air, a valve for regulating the flow of compressed air from said tank, a manually operated lever for actuating said valve, and means connected with said manually operated lever and said bell crank lever for moving said bell crank lever in contact with said piston rod when said valve is opened.

2. In a wind device for automatic musical instruments, an air compressor, a pivotally mounted piston rod connected with the piston of said compressor, operating pedals, means connected with said pedals for moving said piston back and forth for causing a proper operation of the compressor, and means operated in said compressor for moving said piston rod pivotally whereby said piston rod is disengaged from the means connecting the same with said pedals.

3. In a wind device for automatic musical instruments, an air compressor, a pivotally mounted piston rod connected with the piston of said compressor, a hook member projecting from said piston, a slide formed with a notch for accommodating said hook member, operating pedals, means connected with said pedals and with said slide for moving said slide back and forth whereby said piston rod and said piston may be moved back and forth for causing the proper operation of the compressor, a tank for receiving the compressed air from said compressor, a puppet valve connected with said tank for relieving said tank when the pressure has reached a predetermined degree, a rod moved by said puppet valve, a pivotally mounted bell crank lever pivotally connected at one end with said rod and the opposite end arranged so as to actuate said piston rod for raising the piston rod when the puppet valve is moved whereby the piston rod is disconnected from said slide when the pressure in said tank has reached a predetermined extent.

4. In a wind device for automatic musical instruments, an air compressor, a pivotally mounted piston rod connected with the piston of said compressor, a hook member projecting from said piston rod, a slide formed with a notch for accommodating said hook member, operating pedals, means connected with said pedals for moving said slide back and forth whereby said piston rod and said piston may be moved back and forth for causing the proper operation of the compressor, and means for moving said piston rod pivotally for causing said hook member to be disengaged from said slide whereby said compressor will be disconnected from said pedals.

1,077,844. ELEVATOR-BUCKET. HUGH J. MAGUIRE, Kellogg, Idaho. Filed Jan. 26, 1912. Serial No. 673,553. Renewed July 7, 1913. Serial No. 777,800. (Cl. 193-28.)



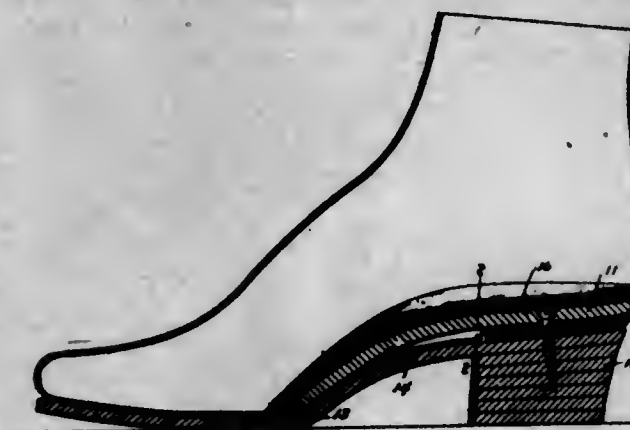
1. In combination with an elevator bucket, a renewable lip, or edge portion, therefor having a part overlapping the upper edge portion of the walls of the bucket; interlocking openings and integral projections between the overlapping parts of the lip and bucket; and other means for securing the lip to the bucket.

2. In combination an elevator bucket having spaces formed between the back and the upper edge portions of the sides, a lip detachably fitted to the upper portion of the bucket and having portions fitting against the upper part of the back and entering the spaces formed between said back and the upper portions of the sides, and securing means between the said lip and the bucket.

3. In combination an elevator bucket having the upper portion of its front and sides rabbeted and having spaces between the back and the rabbeted portions of the sides, a renewable lip having its lower portion rabbeted to fit the rabbeted portions of the front and sides of the bucket and having its end portions bent and fitted against the upper part of the back and entering the spaces formed between said back and the rabbeted portions of the sides

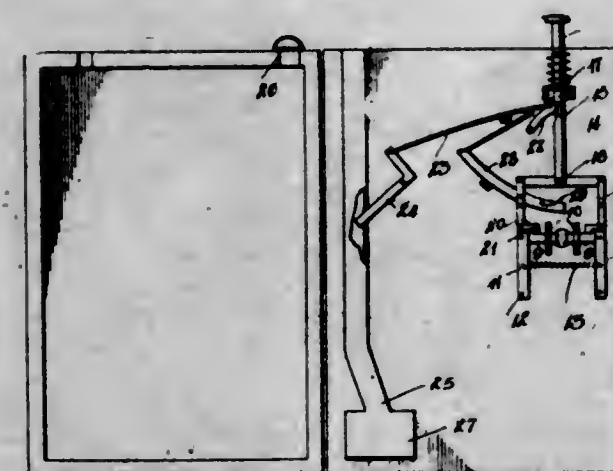
of the bucket, interlocking openings and integral projections between the front portion of the lip and the bucket, and securing means between the back of the bucket and the overlapping parts of the lip.

1,077,845. SOLE-BRIDGE. JOSEPH DAVID MANBLATT, New York, N. Y. Filed May 20, 1913. Serial No. 768,705. (Cl. 36-71.)



In a sole bridge, the combination of a light, rigid, solid wooden bridge plate extending from the heel forwardly toward the ball, a fabric cushion beneath the heel end of the plate, a screw passing through said heel end and the cushion to secure the device rigidly in position, and a fabric covering cemented to the upper surface of said plate.

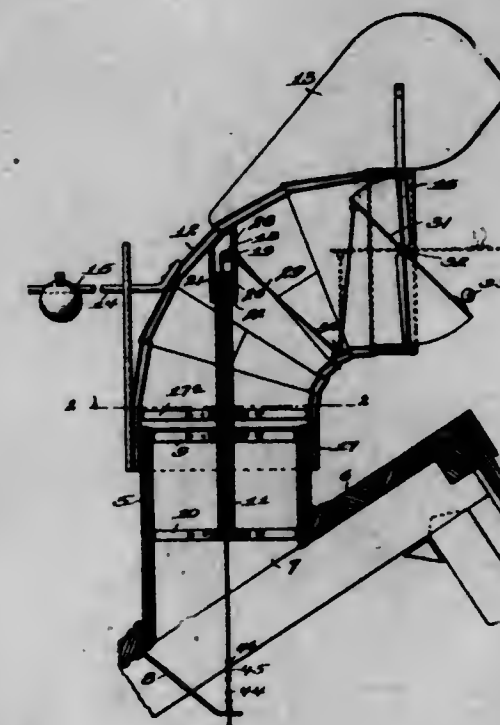
1,077,846. COIN-CONTROLLED LOCKER. OTTO MATHER, American Falls, Idaho. Filed May 8, 1912. Serial No. 695,945. (Cl. 70-73.)



1. The combination with the door of a locker, of lock mechanism, a key for operating the lock mechanism, said key being provided with a tapering or wedge-shaped portion and a transverse shoulder, a pair of oppositely arranged latches cooperating with said key, means for yieldingly urging said latches toward the key, a plunger, and connections between said plunger and the latches for moving the latches out of engagement with the key, and means for holding and releasing said plunger.

2. The combination with the door of a locker, of a key for operating the lock thereof, said key being provided with a tapering or wedge-like portion, and a shoulder at one end thereof, oppositely arranged sliding latches movable toward and away from the key, a spring for urging said latches toward the key, oppositely arranged elbow levers arranged to move the latches out of engagement with the key, a plunger connected to said levers for simultaneously operating them, and means for holding and releasing said plunger.

1,077,847. VENTILATOR. FREDERICK A. McLANE, ERNEST H. FRIEDRICH, and ROBERT B. WARNER, Holyoke, Mass. Filed May 4, 1912. Serial No. 695,192. (Cl. 98-4.)



1. In a ventilator of the class specified, the combination with a fixed tubular support, a head rotatably mounted on the said support, a tubular post rising from the support and extending upwardly into the head, the post being free of engagement relatively to the head, a hollow socket depending from the head and having the upper end of the post movably extending into the lower portion thereof, a damper mounted in the head and controlling communication of the latter with the atmosphere, and a pull-device attached to the damper and extending into and downwardly through a portion of the socket and also through the post to a point below the tubular support, an anti-frictional bearing being interposed between the upper extremity of the post and the adjacent portion of the socket.

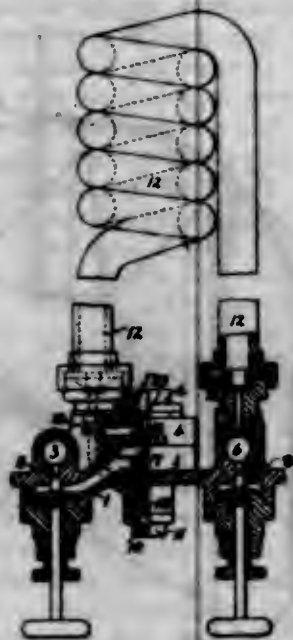
2. A ventilator of the class specified, a fixed tubular support and a head rotatably mounted on said support and having a gravitating damper in the open end thereof, combined with a tubular post rising from the support and extending upwardly into the head, a hollow socket depending from the head and loosely engaging over the upper end of the post, the tube and socket unitedly forming guide means, and a pull device extending upwardly through the post and a portion of the socket to the center of rotation of the head and projecting outwardly through the side of said socket and downwardly to and loosely engaging the lower portion of the head and thence continuing upwardly and attached to the top portion of the damper.

1,077,848. HYDROCARBON-BURNER. JOHN M. McMURTRIS and ISAIAH ROBERTSON, Glasgow, Scotland. Filed Mar. 22, 1912. Serial No. 685,559. (Cl. 158-74.)

1. A burner consisting of a nozzle having an air passage leading thereto; a second nozzle of smaller diameter than and extending into the first nozzle, said second nozzle forming a closure for the bottom of the first nozzle and having an oil passage leading into its inner end; a third nozzle having a portion of smaller diameter than and leading part way into the second nozzle; a cap surrounding the lower portion of the third nozzle and forming a trap therefor; with a steam conduit communicating with the trap.

2. A burner consisting of a nozzle having an air passage leading thereto; a second nozzle of smaller diameter than and extending into the first mentioned nozzle, said second nozzle forming a closure for the bottom of the first nozzle and having an oil passage leading into its inner end;

a third nozzle having a portion of smaller diameter than and leading part way into the second nozzle; a cap located directly below the lower portion of the third nozzle and forming a trap therefor; with a steam conduit communicating with the trap.



3. An appliance for heating and lighting purposes consisting of a supporting frame having an oil duct and a steam duct; a plurality of burners supported by said frame and each including an oil nozzle, a steam nozzle and an air nozzle; with a plurality of heating coils on said frame and each having one end in communication with the steam duct, said frame having a plurality of ducts respectively connecting the oil ducts with the oil nozzles and also having passages respectively connecting the heating coils with the steam nozzles.

1,077,849. SCREEN. TED E. McWILLIAMS, Alva, Okla. Filed June 28, 1912. Serial No. 706,489. (Cl. 156—37.)



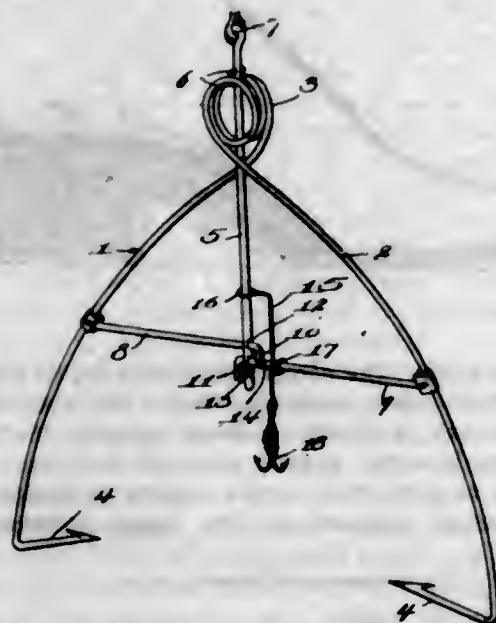
The combination with a frame, of a wire netting attached to the sides and ends of the frame, the said netting being slackened near the upper end of the frame, blocks arranged in spaced relation to each other in the slackened portion of the netting and having inwardly beveled upper surfaces offsetting and inclining the netting toward the frame contiguous to the upper end thereof, the said netting being provided with holes in its inclined portion between the points of location of the blocks, and a cleat disposed against the outer face of the netting and secured to the blocks.

1,077,850. SPRING-TRAP. ALEXANDER R. MERRAN, Hickory Flat, Miss. Filed Aug. 11, 1913. Serial No. 784,197. (Cl. 43—31.)

1. In a trap of the character specified, the combination, with a pair of cooperating jaws, and a closing spring connected therewith; of a trigger for holding the jaws in expanded position comprising a pair of members carried by said jaws for releasable engagement with each other; a supporting rod with which said jaws are en-

gaged provided with guides for said members; and a trip connected with one of said members, for releasing the same from such engagement, to spring the trap.

2. In a trap of the character specified, the combination, with a pair of cooperating jaws, and a closing spring connected therewith; of a trigger for holding the jaws in expanded position comprising a pair of members carried by said jaws for releasable engagement with each other; a supporting rod with which said jaws are engaged provided with a pair of guide openings for the extension of said members therethrough; and a trip connected with one of said members for releasing the same from such engagement, to spring the trap.



3. In a trap of the character specified, the combination, with a pair of cooperating jaws, and a closing spring connected therewith; of a trigger comprising a pair of members carried by said jaws, one of said members having an opening, and the other member having a finger for releasable engagement in said opening, to hold said jaws in expanded position; and means for releasing said finger from such engagement, to spring the trap.

4. In a trap of the character specified, the combination, with a pair of cooperating jaws, and a closing spring connected therewith; of a trigger comprising a pair of arms pivoted at their outer ends to said jaws and having their inner ends extending past each other and provided with means for releasably engaging each other, to hold said jaws in expanded position; and a trip connected with one of said arms for swinging the same in one direction, to release it from such engagement and spring the trap.

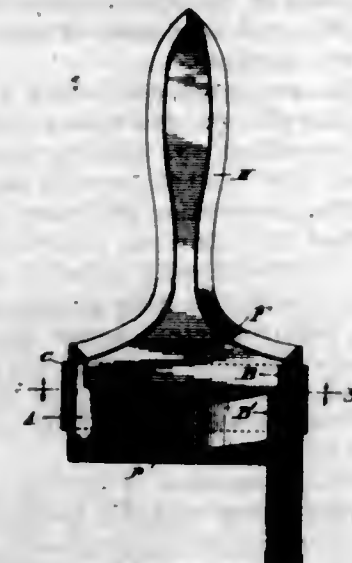
5. In a trap of the character specified, the combination, with a pair of cooperating jaws, and a closing spring connected therewith; of a trigger comprising a pair of arms pivoted at the outer ends to said jaws and having their inner ends extending past each other, one of said arms being provided adjacent its inner end with an opening, and the other arm with a finger releasably engaged therein; and a trip connected with one of said arms for swinging the same in one direction, to release said finger from such engagement and spring the trap.

[Claims 6 and 7 not printed in the Gazette.]

1,077,851. BRUSH. WILLIAM H. MILLS, Wooster, Ohio, assignor of one-half to D. J. Foss, Wooster, Ohio. Filed July 16, 1913. Serial No. 779,364. (Cl. 15—36.)

A flat brush, comprising a brush head having a plug with a concave surface, said concavity extending transversely of the brush-head and gradually increasing in depth toward the middle portion thereof from each end

of the brush-head on both sides thereof, and brush material filling the concavity of the plug, and means for



securing said material to the brush head, substantially as set forth.

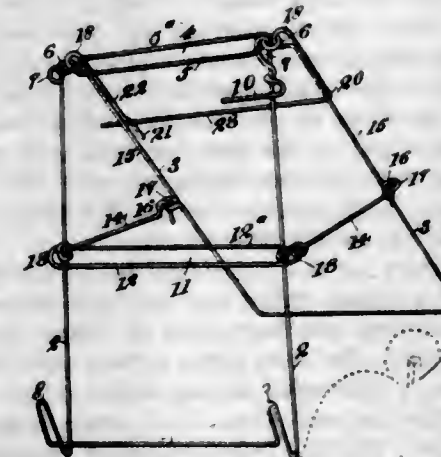
1,077,852. MILL. GEORGE W. O'BRYAN, Cambria, Va. Filed July 2, 1912. Serial No. 707,293. (Cl. 83—14.)



1. In a mill, the combination with a casing including a concave, of a shaft mounted for rotation, a revoluble crushing element mounted on the shaft, a blade secured to and extending longitudinally of one wall of the casing and cooperating with said element, and means for raising or lowering either or both ends of the blade.

2. In a mill, the combination with a casing including a concave, there being an outlet at one end of the casing, of a revoluble crushing element within the casing, one wall having intersecting slots near each end thereof, a blade upon one wall of the casing and cooperating with the crushing element, and means extending from the blade and into the slots for raising or lowering either or both ends of the blade and holding them in adjusted position.

1,077,853. NOTE-BOOK AND MANUSCRIPT HOLDER. SAMUEL C. OSBORN, San Francisco, Cal. Filed Jan. 15, 1913. Serial No. 742,172. (Cl. 120—28.)



1. A holder comprising in combination, a rectangularly shaped supporting frame, a rectangularly shaped back rest, link members formed in the upper corners of the supporting frame and back rest, a horizontally mounted member having links formed at each end with which the links of the supporting frame and back rest connect, a cross frame rigidly secured to the supporting frame, inwardly extending links formed on said frame, hook members connected with said links, and links formed on the sides of the back rest with which the hook members may interlock to secure the back rest with relation to the supporting frame.

196 O. G.—14

2. A note book and like holder consisting of two rectangular bent wire frames, loosely and foldably united at the top, one of said frames having an extension folded back upon itself, and thence extended at right angles across to the other side of the frame, and the other side having a folded down portion forming a hook member with which the crossing portion of the first member may engage.

3. A note book and like holder, consisting of two substantially rectangular bent wire frames linked together at the top, and having bracing means to retain them in a downwardly divergent position, the rearmost of said frames having its upper ends folded upon themselves and bent to form respectively a leaf retainer and an engaging hook, and the other frame having a book holding arm bent transversely at the top, and upturned folds at the bottom in which the lower end of the book is retained.

1,077,854. OINTMENT CONTAINING COLLOIDAL COMPOUNDS. CARL PAUL, Leipzig, and CONRAD AMBERGER, Erlangen, Germany, assignors to The Firm of Kalle & Company, Aktiengesellschaft, Bleibach, Germany. Filed May 12, 1913. Serial No. 767,205. (Cl. 167—9.)

1. Process for the production of preparations containing inorganic colloids, consisting in incorporating with a divalent salt of a metal of the platinum group in solution a protecting colloid, adding a carbonate of an alkali to form the colloidal lower hydroxide of the metal and removing the by-products formed in the process from the resulting preparation.

2. Process for the production of preparations containing inorganic colloids, consisting in incorporating with a divalent salt of a metal of the platinum group in solution a protecting colloid, adding a carbonate of an alkali to form the colloidal lower hydroxide of the metal, dissolving the soft mass, mixing the solution with a liquid sparingly dissolving or not dissolving the protecting colloid and separating the precipitate containing the colloid.

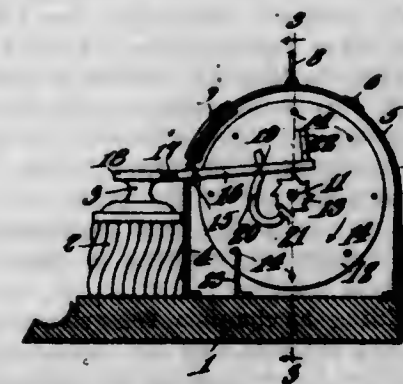
3. Process for the production of preparations containing inorganic colloids, which consists in incorporating with a divalent salt of a metal of the platinum group a protecting colloid, converting such metal into the form of a colloidal hydroxide, and removing the by-products formed in the process from the resulting product.

4. Process for the production of preparations containing inorganic colloids, which consists in incorporating with a divalent salt of a metal of the platinum group wool fat as a protecting colloid, adding a carbonate of an alkali to form the colloidal lower hydroxide of the metal, and removing the by-products formed in the process from the resulting preparation.

5. As new products, preparations consisting of a colloidal lower hydroxide of a metal of the platinum group together with a protecting colloid.

[Claims 6 to 10 not printed in the Gazette.]

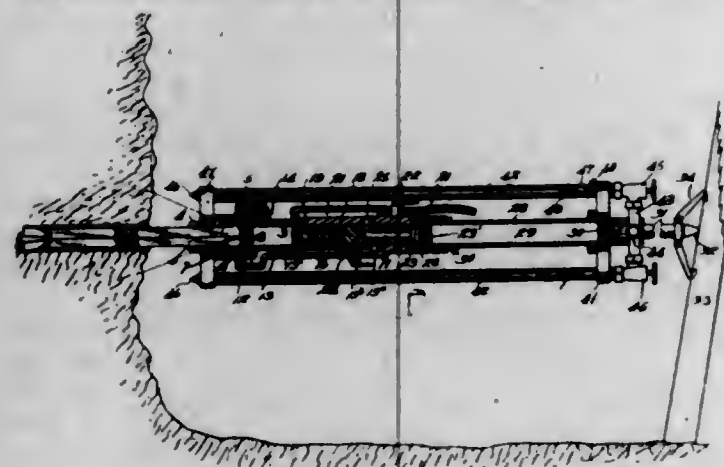
1,077,855. DISPLAY DEVICE. GEORGE W. PENNEBAKER, Albany, Oreg. Filed Aug. 20, 1912. Serial No. 716,088. (Cl. 40—28.)



The combination with a base, an ink well mounted thereon, and a resiliently elevated reciprocary pen re-

ceiving tube carried by the well, of a display device actuated by the tube due to the introduction and removal of a pen from the same, including a casing mounted upon the base, a drum mounted for rotation within the casing, a toothed ratchet wheel carried by the drum, a plurality of pins also carried by the drum and disposed concentrically to the axis of the drum, a lever pivoted intermediate of its ends in the forward wall of the casing and having its outer end operably connected to the tube of the ink well, whereby the lever is oscillated due to the rise and fall of the tube, a swingingly mounted hooked pawl pivoted upon the lever within the casing and in operable relation to engage the ratchet wheel as the tube of the ink well is depressed, and a pin carried by the extreme inner end of the lever and at right angles thereto for engagement with a pin to limit the rotation of the display drum during the depression of the tube.

1,077,856. PNEUMATIC FEED AND RETURN ROCK-DRILL. EBENEZER R. RAY, Placerville, Cal. Filed Sept. 28, 1912. Serial No. 722,873. (Cl. 121—10.)



1. The combination in a rock drilling machine, of a body portion, means for supplying compressed air to a passageway in said portion, a piston chamber in the drill body within which is reciprocable a hammer piston operable by the air pressure, a tubular extension on the drill body to which compressed air is admitted, an abutment rod having a piston fitting the tubular extension, and upon which the air reacts to force the piston-rod outwardly and the drill body forwardly so that the drilling machine may be sustained while operating with the opposite end of the drilling machine supported upon a drill in the rock, and a pneumatically operable retractor supported at one end of said extension and at the opposite end of the drill body for retracting the machine and telescoping the abutment rod.

2. In a drilling apparatus, the combination with a drill body having an air pressure passageway, of means for supplying air under pressure to said passageway, a hammer-chamber provided in the drill body, a hammer reciprocable in the drill body operative by the air admitted in the body, an abutment rod projecting from the opposite end of the drilling machine and adapted to engage a suitable support, said abutment rod having a piston movable in the contiguous portion of the drilling machine under air pressure, and a pneumatically operated mechanism for retracting the drilling machine away from the face of the rock, said retracting mechanism comprising tubular members attached to the drill body, valves for supplying air to said tubular members, and push-rods mounted in said tubular members and adapted to be projected therefrom by the force of compressed air, when admitted by the valves, the reaction of the air bringing the rods first into engagement with the rock face and subsequently reacting to force the drilling machine away from the same.

3. A rock drilling mechanism comprising a body portion having means for engaging the contiguous end of a cutting drill, means for retracting the drilling apparatus from the face of the rock, after the cutting drill has been driven in, and a pneumatically operated abutment rod acting oppositely to and coöperating with the drill to sup-

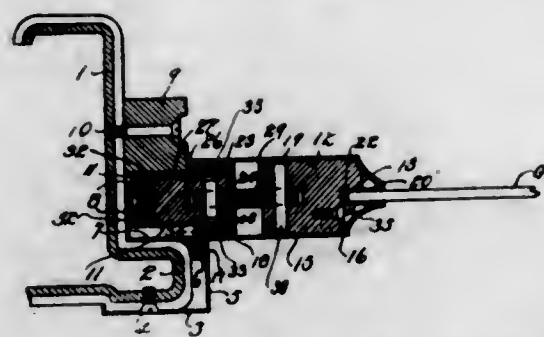
port the machine, said retracting means including cylinders having plungers projectable against the rock face for supporting the load of the mechanism at that end, and valves for controlling the admission of air into the cylinders to actuate the plungers.

4. A rock drilling mechanism comprising a body portion having means for engaging the contiguous end of a cutting drill, means for retracting the drilling apparatus from the face of the rock, after the cutting drill has been driven in, means for coupling the cutting drill body for extracting the cutting drill from the rock when the drilling apparatus is retracted, and a pneumatically operated abutment rod acting oppositely to and coöperating with the drill to support the machine, said retracting means including cylinders having plungers projectable against the rock face for supporting the load of the mechanism at that end, and valves for controlling the admission of air into the cylinders to actuate the plungers.

5. In a rock drilling machine, a cutting drill, a drill driving engine having a part engaging one end of the drill, an abutment rod engageable with a support and projecting oppositely from the engine to, and combining with, the drill to support the engine, a pair of parallel cylinders one on either side of the engine and turnably connected therewith, automatically telescoping push-rods in each cylinder having ends engageable with the rock face entered by the drill, and means for supplying air under pressure to said cylinders to project said rods against the rock and later force the machine in the opposite direction.

(Claims 6 and 7 not printed in the Gazette.)

1,077,857. CAR-WINDOW CONSTRUCTION. WILLIAM H. ROSSMAN, Altoona, Pa. Filed Jan. 30, 1913. Serial No. 745,260. (Cl. 20—68.)



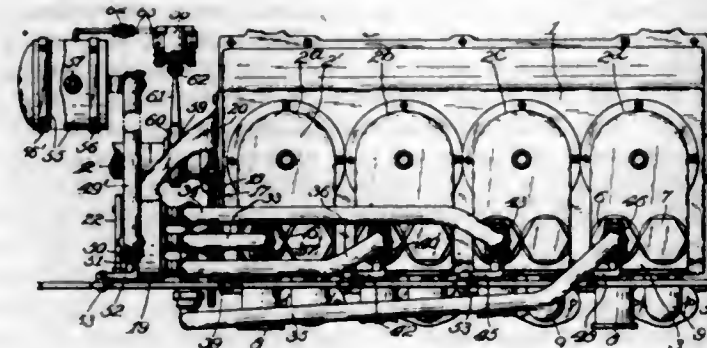
1. In a device of the character described the combination with a window frame and a sash slidable therein, of frame incasing members bent to form shoulders and having a groove, ribs also formed from said frame incasing members, facing sheets carried by the sash, a tongue formed from one of said sheets and adapted to enter the groove in the frame incasing members, turned flanges formed at the sides of the facing sheets, weather strips pivotally connected to the sash between said facing strips and provided with grooves engaging said ribs, and means carried by the said weather strips for interlocking with the flanges of the facing members.

2. In a device of the character described the combination with a window frame and a sash slidable therein, of frame incasing members bent to form shoulders and having a groove, ribs also formed from said frame incasing members, an interior facing sheet fitted to the said sash, a tongue formed from said sheet adapted to enter the groove in the frame incasing members, an intumed flange also formed at the side of the said interior sheet, an exterior facing sheet fitted to the outside of the sash, an intumed flange formed at the side of the said latter sheet weather strips having pivoted connections with the sash, incasing members fitted to the said strips and formed with grooves for receiving the ribs on the frame incasing member, and out-turned flanges formed with the strip incasing members to interlock with the flanges on the sash facing sheets.

3. In a car window construction the combination with the window frame and sash slidable therein, of facing sheets fitted to said sash and projecting therefrom form-

ing a housing, flanges intumed from the sides of said sheets, a tongue projecting from the side of one of the facing sheets, frame incasing members having a groove to receive the said tongue, ribs also formed from the latter members, a weather strip device located in the housing formed by the said facing strips and pivotally connected to the sash, an incasing member fitted to the weather strip provided with grooves to receive the said ribs, and out-turned flanges on the said latter member adapted to slidably interlock with the flanges on the facing sheets.

1,077,858. ENGINE-STARTER. GILSON W. ROTH, Jackson township, Brown county, Ind., assignor, by direct and mesne assignments, to George H. Evans, Evansville, Ind. Filed June 10, 1910. Serial No. 566,131. (Cl. 123—181.)



1. In an engine-starter, the combination of an explosion-cylinder, a crank-shaft, a piston movable in the explosion-cylinder and connected with the crank-shaft, a reservoir, an air-compressor operatively connected with the crank-shaft, a conduit connected with the air-compressor and the reservoir, a stop-valve connected with the explosion-cylinder, a conduit connected with the stop-valve, a supply-conduit connected to the reservoir and having a stop-valve therein, an operating-rod connected with the stop-valves for simultaneous operation thereof, and a main valve connected with the second-mentioned conduit and the supply-conduit and operatively connected also with the crank-shaft for controlling admission of compressed air to the explosion-cylinder on outward-strokes of the piston, with means for admitting explosion charges to the explosion-cylinder at sequential times succeeding the admission of compressed-air thereto.

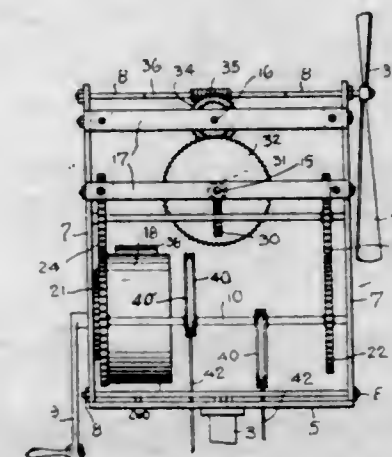
2. In an engine-starter, the combination with an explosion-cylinder, a main shaft, a piston in the explosion-cylinder connected with the main shaft, a valve-operating-shaft operatively connected with the main shaft, a frame supporting the explosion-cylinder, and means controlled by the valve-operating-shaft for admitting explosion charges to the explosion-cylinder, of a reservoir, an air-compressor connected with the reservoir, a stop-valve connected with the explosion-cylinder, a conduit connected with the stop-valve, a valve-chest connected with the conduit and provided with a valve-seat having a port therein extending to the conduit, a bracket secured to the frame and supporting the valve-chest, a rotatable shaft mounted in the valve-chest and driven by the valve-operating-shaft, a main valve in the valve-chest secured to the rotative shaft for opening or closing the port, and a supply-conduit connected with the reservoir and the valve-chest.

3. In an engine starter, the combination with a frame, a plurality of explosion-cylinders mounted on the frame, a crank-shaft mounted in the frame, pistons in the explosion-cylinders connected with the crank-shaft, and means operatively connected with the crank shaft for admitting explosion charges into the explosion-cylinders, of a reservoir, an air-compressor connected operatively with the crank-shaft, a conduit connected with the air-compressor and the reservoir, a supply-conduit connected with the reservoir, a starting-valve body connected to the supply-conduit, a valve operatively mounted in the starting valve body and having an operating-arm thereon, a plurality of stop-valve bodies connected each with a different one of the explosion cylinders, stop valves operatively

mounted in the stop-valve bodies and having each an operating arm thereon, a plurality of pipes connected each to a different one of the stop-valve bodies, a valve-chest connected with the starting-valve body and also with the plurality of pipes and having ports therefor, a bracket connected substantially with the frame and supporting the valve-chest in proximity to the frame, a valve-shaft rotative in the valve-chest, gearing operatively connecting the valve-shaft with the crank-shaft, a main valve in the valve-chest fixed to the valve-shaft for opening or closing the ports, and an operating-rod pivotally connected to all of the operating-arms.

4. In an engine starter, the combination with a frame, a plurality of explosion-cylinders mounted on the frame, a crank-shaft rotatably mounted in the frame, pistons movable in the explosion-cylinders and connected with the crank-shaft, and means operatively connected with the crank-shaft for admitting explosion charges into the explosion-cylinders, of a closed reservoir, an air-compressor operatively connected with the crank-shaft, a conduit connected with the air-compressor and the reservoir, a pressure-retaining valve in the conduit, a supply conduit connected with the reservoir, a starting-valve body connected to the supply-conduit, a valve operatively mounted in the starting-valve body and having an operating-arm thereon, an operating-rod connected to the operating-arm, a plurality of stop-valve bodies connected each with a different one of the explosion-cylinders, stop-valves movably mounted in the stop-valve bodies, a plurality of pipes connected each to a different one of the stop-valve bodies, a valve chest connected with the starting-valve body and also with the plurality of pipes and having ports therefor, a valve-shaft movable in the valve-chest, gearing operatively connecting the valve-shaft with the crank-shaft, and a main valve in the valve-chest fixed to the valve-shaft for opening or closing the ports.

1,077,859. FAN. WILLIAM A. SANDERS, Rahway, N. J. Filed Nov. 19, 1912. Serial No. 732,221. (Cl. 230—1.)



In a device of the class described, the combination with a base having an upstanding hollow standard, and a frame having a depending post loosely mounted in the standard and provided with a pin positioned transversely therethrough and having its ends projecting in opposite directions from the post below the frame and above the standard; of a drive shaft mounted transversely in the frame, a driven shaft mounted in the frame, operative connections between the drive shaft and the driven shaft, a fan mounted upon the driven shaft, a pair of grooved cam members mounted upon the drive shaft, a pair of vertical oscillating levers, means for pivoting the lower ends of the levers to the standard, straps engaged in the grooves of the cam members, arms projecting from said straps, the base of the frame being provided with openings to accommodate the levers, the upper ends of the levers being pivoted to the arms projecting from the straps, the opposite ends of the pin being loosely engaged in the oscillating levers, and means for controlling operation of the drive shaft.

1,077,860. LIQUID FOR CLEANING GLASS. HEINRICH SCHROEDER, Dusseldorf, Germany, assignor to Carl Gossweiler, Olten, Switzerland. Filed Jan. 15, 1913. Serial No. 742,213. (Cl. 134—24.5.)

1. The herein described composition of matter for cleaning glass and the like, consisting of sulfuric acid, aqueous extracts of plants containing saponin, and copper sulfate, substantially as described.

2. The herein described composition for cleaning glass or the like, consisting of sulfuric acid, quillia extract, and copper sulfate, substantially as described.

1,077,861. CORSET-STEEL. THOMAS F. SOMERS, New York, N. Y., assignor to Birdsey-Somers Company, New York, N. Y., a Corporation of New York. Filed Apr. 16, 1912. Serial No. 691,205. (Cl. 2—78.)



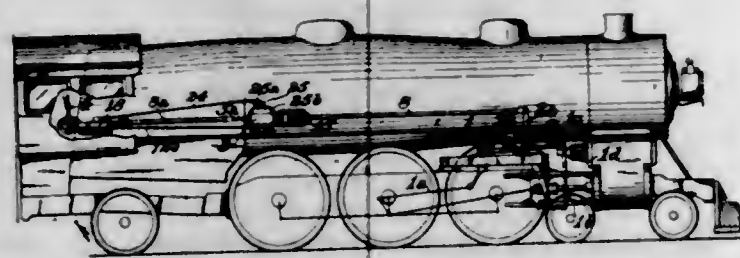
1. A spring steel for corsets comprising a flat member having a flat strengthening strip thereon throughout part of its length, and a wire coiled around said member and strip and holding said strengthening strip in place.

2. A spring steel for corsets comprising a main body portion, a longitudinal strengthening strip resting closely against said body between its ends but not rigidly secured thereto, and a wire coiled closely around said strip and body.

3. A spring steel for corsets comprising a flat member, a flat strengthening strip fitting against but not rigidly secured to said member at a point between its ends, said strip being free to move bodily a slight distance lengthwise of said flat member, and a flat wire coiled closely around said strip and member to hold said strip in place and strengthen said member.

4. A corset steel comprising the combination of a main flat body member, a flat reinforcing strip fitting against the body member and free to move a limited distance longitudinally of the same, and a flat wire coiled around the strip and member to secure the parts together, said wire having its ends wound around the body member in order to limit the movement of said strip.

1,077,862. STEAM-ENGINE VALVE-REVERSING GEAR. HAL R. STAFFORD, Plainfield, N. J., and ROBERT RENNIE, Schenectady, N. Y. Filed June 30, 1913. Serial No. 776,496. (Cl. 121—98.)



1. In a valve reversing mechanism, the combination of a fluid pressure motor, an actuating valve governing the supply and exhaust of motive fluid to and from said motor, a hand lever for manually operating said valve, a floating valve seat interposed between the actuating valve and the ports of the motor, and having ports continuously communicating with said latter ports and controlled by the actuating valve, means for imparting movement to said valve seat by the motor, and connections coupling the actuating valve and the floating valve seat, with a limited degree of movement of the former relatively to the latter.

2. In a valve reversing mechanism, the combination of a fluid pressure motor, an actuating valve governing the supply and exhaust of motive fluid to and from said motor, a hand lever for manually operating said valve, a floating valve seat interposed between the actuating valve and the ports of the motor, and having ports continuously communicating with said latter ports and controlled by

the actuating valve, means for moving said valve seat by the motor with a reduced degree of relative traverse, and connections coupling the actuating valve and the floating valve seat, with a limited degree of movement of the former relatively to the latter.

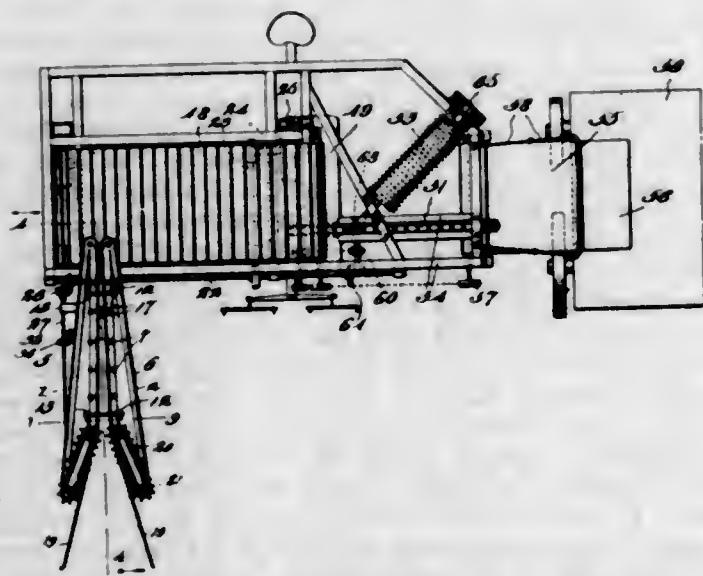
3. In a valve reversing mechanism, the combination of a fluid pressure motor, an actuating valve governing the supply and exhaust of motive fluid to and from said motor, a hand lever for manually operating said valve, a floating valve seat interposed between the actuating valve and the ports of the motor, and having ports continuously communicating with said latter ports, and controlled by the actuating valve, means for imparting movement to said valve seat by the motor, connections coupling the actuating valve and the floating valve seat, with a limited degree of movement of the former relatively to the latter, and means for adjusting said connections to vary the degree of relative movement.

4. In a valve reversing mechanism, the combination of a fluid pressure motor, an actuating valve governing the supply and exhaust of motive fluid to and from said motor, a hand lever for manually operating said valve, a floating valve seat interposed between the actuating valve and the ports of the motor and having ports continuously communicating with said latter ports and controlled by the actuating valve, a pivoted cam lever having a slotted arm actuated by the motor, connections coupling said cam lever to the floating valve seat, and connections coupling the actuating valve and the floating valve seat, with a limited degree of movement of the former relatively to the latter.

5. In a valve reversing mechanism, the combination of a fluid pressure reversing cylinder, a piston fitting therein, a piston rod fixed to said piston, a cross head thereon, a valve chest connected to the reversing cylinder, a fluid pressure supply pipe leading thereinto, an actuating valve fitted to reciprocate in said chest and govern the supply and exhaust ports of the reversing cylinder, a floating valve seat interposed between the actuating valve and the ports of the motor and having ports continuously communicating with said latter ports and controlled by the actuating valve, rocker shafts journaled in the valve chest and having arms therein coupled to the actuating valve and the floating valve seat, respectively, and arms outside the valve chest, reducing mechanism connections coupling the outer arm of the floating valve seat rocker shaft and the cross head, a longitudinally slotted link, coupling said arm and the outer arm of the actuating valve rocker shaft, a hand reverse lever, and a reach rod coupling said lever and the outer arm of the actuating valve rocker shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,077,863. BROOM-CORN HARVESTER AND SEEDER. HENRY S. THOMAS, Fargo, Okla. Filed June 27, 1912. Serial No. 706,258. (Cl. 56—134.)

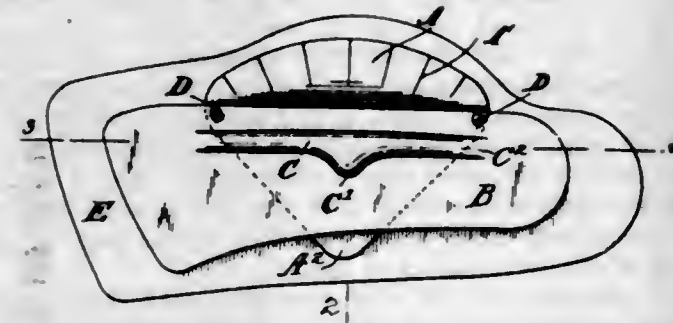


1. In a broom corn harvester and seeder, the combination of a horizontal conveyer, a rigidly-mounted frame ex-

tending over said conveyer, a swinging frame provided with a pivotally-connected portion extending over said conveyer, means for locking said pivotally-connected portion rigidly on said swinging frame, endless feed belts on said respective frames provided with vertical cooperating faces for delivering broom corn to said horizontal conveyer, and resilient connections between said frames for causing said vertical belt faces to yieldingly grip the broom corn therebetween.

2. In a broom corn harvester and seeder, the combination of a horizontal conveyer, a rigidly-mounted frame extending over said conveyer, a swinging frame provided with a pivotally-connected portion extending over said conveyer, means for locking said pivotally-connected portion rigidly on said swinging frame, endless feed belts on said respective frames provided with vertical cooperating faces for delivering broom corn to said horizontal conveyer, means for driving said belts, converging collectors for guiding broom corn between said vertical belt faces, resilient connections between said frames for causing said vertical belt faces to yieldingly grip the broom corn therebetween, and cutters spaced beneath said cooperating vertical faces of the feed belts.

1,077,864. ARCH-SUPPORT. JAMES W. ARROWSMITH, Morristown, N. J., assignor to Arrowsmith Manufacturing Company, a Corporation of New Jersey. Filed Feb. 17, 1909. Serial No. 478,461. (Cl. 36—71.)



1. The combination of a plate curved to approximate the arch of the instep and extending from the calcaneum to the anterior metatarsus, and a longitudinal rib or boss in the medial portion of said plate having an enlargement at the center extending in the direction of the outside of the foot.

2. The combination of a plate curved to approximate the arch of the instep and extending from the calcaneum to the anterior metatarsus, a longitudinal rib or boss in the medial portion of said plate having an enlargement at the center extending in the direction of the outside of the foot, and a second plate also arched to fit the instep superimposed upon the first plate having its forward and rear edges near the ends of said rib.

3. The combination of a plate curved to approximate the arch of the instep and extending from the calcaneum to the anterior metatarsus, a longitudinal rib or boss in the medial portion of said plate having an enlargement at the center extending in the direction of the outside of the foot, and a second plate also arched to fit the instep superimposed upon the first plate having its forward and rear edges near the ends of the said rib, and a connection between the two plates located between the rib and the inner edge of the first named plate.

4. The combination of a plate curved to approximate the arch of the instep and extending from the base of the heel to the ball of the foot, a second plate extending from a point forward of the base of the heel to a point short of the ball of the foot, the said first named plate being provided with a longitudinal rib or boss corresponding substantially with the width of the said second plate.

5. The combination of a plate curved to approximate the arch of the instep and extending from the base of the heel to the ball of the foot, a second plate extending from a point forward of the base of the heel to a point short of the ball of the foot, the said first named plate being provided with a longitudinal rib or boss corresponding substantially with the width of the said second plate.

[Claims 6 and 7 not printed in the Gazette.]

1,077,865. GAME APPARATUS. FRANK K. ATKINS, Philadelphia, Pa. Filed Dec. 3, 1912. Serial No. 734,702. (Cl. 46—63.)



1. A game-board, comprising a track, divided by transverse check marks into spaces, said track having a number of entrances indicated by small circles therein, on which the disks (called men) of the players may be entered, gate-ways, leading inwardly from said track, and run-ways, divided into spaces and leading to a centrally located space, designated "Goal", whereby the men may be moved by count from the entrances to the goal and a separated space for each player adjacent to the goal, each designated "Court", to which the player may send the men he may capture in playing the game.

2. A game-board comprising home-circles, being the starting points, an outer track divided into spaces, said outer track having small circles that are entrances for the players' men, an inner track, divided into spaces, gate-ways leading from the outer to the inner track, run-ways, divided into spaces, leading from the inner track to a centrally located space, designated "Goal", whereby the men may be moved progressively by count from the entrances to the goal, and separated spaces, adjacent to the goal, each designated "Court", to which the captives of the players may be sent under the rules of a game.

3. A game-board comprising home-circles, being spaces inclosed by lines drawn to a circle, in which the disks (called men) of the players are placed in starting the game; an outer track, divided into spaces, said outer track having a number of small circles or entrances, on which the men are entered, and short-cuts, and, adjacent to said short-cuts, gate-ways, and run-ways, divided into spaces, and a centrally located space designated "Goal", whereby the men may be moved by count from the entrances through the outer track, short-cuts, gate-ways and run-ways to the goal, and separated spaces contiguous to the goal, each designated "Court", designed to receive the captives of the players, and within each court one or more king's castles, in which the captives may be trapped under the rules of the game.

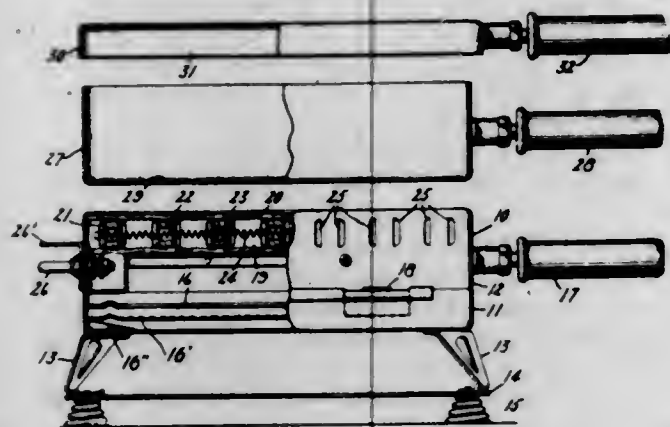
4. A game-board, comprising home-circles, being the starting points, an outer track divided into spaces, said outer track having small circles therein, some of which are entrances and the others short-cuts, gate-ways leading from the short-cuts to an inner track, said inner track being divided into spaces, a number of run-ways, divided into spaces, and leading to a large inclosed space, centrally located, designated "Goal", "Goal" and separated spaces adjacent to the goal, each designated "Court", and spaces divided off within the courts, each designated "King's castle", whereby, under the rules of a game, the men of the players may be entered and moved on the game-board, by count, to the goal, and the captives sent to court and then trapped in the king's castles.

5. A game-board comprising four home-circles, numbered 1, 2, 3, and 4 respectively; an outer track divided by transverse check marks into seventy-two spaces, and further divided by small circles into eight sections of nine spaces each, four of the small circles being entrances, and

numbered 1, 2, 3, and 4 respectively, the other four being short-cuts, and numbered 5, 6, 7, and 8 respectively; four gate-ways numbered 1, 2, 3, and 4, respectively; an inner track divided by transverse check marks into sixty spaces; four run-ways, each divided by transverse check marks into five spaces; a centrally located goal, being a large inclosed space having the words "Goal" "Goal" thereon, four separated spaces contiguous to said goal designated "Court 1", "Court 2", "Court 3", and "Court 4" respectively; and within each of said courts one or more sections divided off, each section being designated "King's castle"; twelve stars within the goal, there being three in front of each court, and a star having a circle therein in the center of the goal designated "Cortella".

[Claims 6 to 14 not printed in the Gazette.]

1,077,866. ELECTRICALLY HEATED COOKING DEVICE. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 8, 1912. Serial No. 702,472. (Cl. 219-19.)



1. In an electrically heated device, the combination of a chamber having a grid spaced from the bottom thereof, an electric resistance unit constituting a portion of the upper wall of said chamber and means for supporting articles to be heated over said heating unit.

2. In an electrically heated device, a chamber having a grid spaced from the bottom thereof, a movably mounted electric resistance heating means located over said chamber and constituting substantially the top thereof and means for supporting articles to be heated over said heating means.

3. In an electrically heated device, the combination of a broiling chamber, an electrical resistance heating unit located in the upper part of the same, a cooking vessel removably supported upon said heating unit and a rimmed cover for the said vessel.

4. In an electrically heated device, a broiling chamber having an electrical resistance heating unit located in the upper part of the same, a cooking vessel removably supported over said heating unit and a rimmed cover for said vessel removable from the same and adapted also to constitute a cooking vessel.

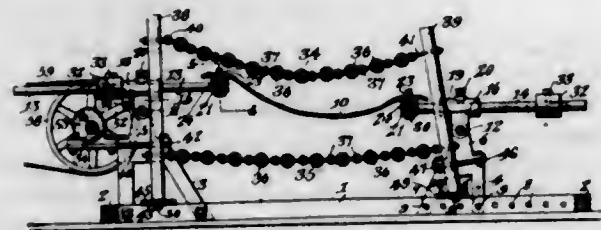
5. In an electrically heated device, a broiling chamber comprising top and bottom portions, an electrical resistance heating unit mounted in said top portion and a removable and reversible grid in the said bottom portion having means on one face thereof for spacing it from the bottom of said broiling chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,077,867. CARPET CLEANING AND RENOVATING MACHINE. BERNHARD BECKER and HENRY BARRY, Chicago, Ill., assignors, by mesne assignments, to Barry Manufacturing Company, a Corporation of Delaware. Filed Dec. 17, 1910. Serial No. 597,890. (Cl. 15-8.)

1. A machine of the class described including spaced shaking devices provided with means for holding a carpet

or rug in extended relation at spaced points, and actuating mechanism for the said devices to impart to the carpet or rug a shaking movement.



2. A machine of the class described including spaced shaking devices provided with means for holding a carpet or rug in extended relation at spaced points, means for mounting the said devices for independent movement, mechanism connected with one of the said devices for actuating the same to shake a carpet or rug, and a relatively fixed beater arranged in the path of the carpet to be struck thereby.

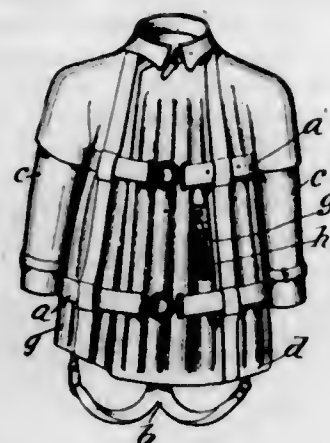
3. A machine of the class described including spaced shaking devices provided with means for holding a carpet or rug in extended relation at spaced points, means for mounting the said devices for independent movement, and relatively fixed beaters spaced apart to receive a carpet or rug between them and arranged in the path of the same to be struck thereby.

4. A machine of the class described including spaced shaking devices provided with means for holding a carpet or rug in extended relation at spaced points, means for mounting the said devices for independent movement, mechanism connected with one of the devices for actuating the same to shake a carpet or rug, the other device being provided with a counter-weight and receiving the movements of the actuating device through the carpet or rug when the same is connected with the said shaking devices, and a relatively fixed beater arranged in the path of the carpet or rug to be struck thereby.

5. A machine of the class described including spaced shaking devices provided with means for holding a carpet or rug in extended relation at spaced points, means for mounting the said devices for independent movement, actuating mechanism for imparting motion to the said devices to shake a carpet or rug when the same is connected with the said devices, and a relatively fixed beater arranged in the path of the carpet or rug to be struck thereby and composed of transverse slats connected together and spaced apart to form openings.

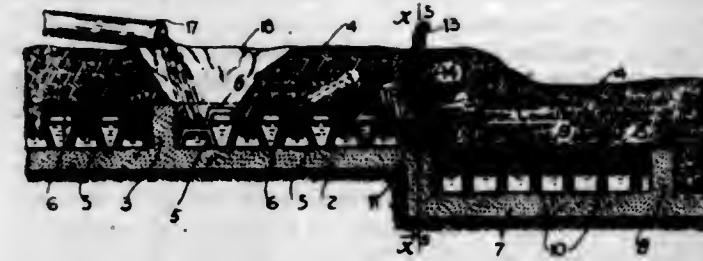
[Claims 6 to 21 not printed in the Gazette.]

1,077,868. LIFE-SAVING GARMENT AND BELT. JACOB BERMAN and ALFRED BERMAN, Manchester, England. Filed Jan. 6, 1912. Serial No. 669,848. (Cl. 9-20.)



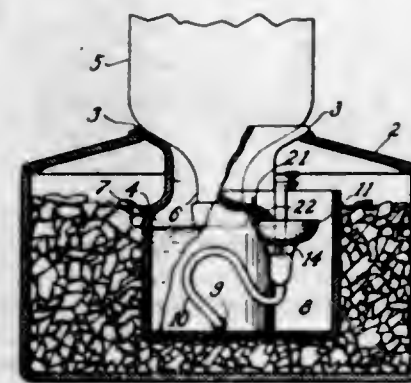
The combination in a life saving garment or belt of two thicknesses of waterproof fabric cemented together to form pockets, with a hermetically closed waterproof fabric covering inside each of the said pockets and cemented to the said two thicknesses of waterproof fabric and a filling of wadding in each of the said coverings, substantially as and for the purpose specified.

1,077,869. IRRIGATION SYSTEM. WILLIAM G. BLOSS, Los Angeles, Cal. Filed July 19, 1912. Serial No. 710,482. (Cl. 137-66.)



In an irrigation system, a subterranean floor, a soil-supporting structure resting upon said floor to form a water chamber and separate the earth from said floor over a relatively large continuous area thereof, a subterranean wall inclosing said floor, another subterranean floor at a lower level than the first named floor, a structure to form a water chamber above said lower floor, a subterranean wall inclosing said lower floor on all sides, a portion of said walls being in common, and a water gate to control the flow of water from the upper chamber to the lower chamber, said walls, being disposed at a sufficient distance below the surface of the ground to provide for the cultivation by traction propelled implements of a field having pronounced variations of surface level and embracing a series of said reservoirs.

1,077,870. LIQUID-DISPENSING APPARATUS. HORACE H. CHOATE, Gloucester, Mass. Filed May 27, 1907. Serial No. 375,809. (Cl. 225-21.)



1. An apparatus of the character described including a reservoir adapted to contain liquid at a constant level, a measuring vessel mounted so that it may tip and at such a height that its brim is above the liquid level, a flexible connection between said reservoir and vessel below the liquid level whereby the liquid may rise in the latter to the same level as in the former, and a latch normally holding said vessel upright but releasable so as to permit said vessel to tip and discharge its contents.

2. An apparatus of the character described including a reservoir, a pivotally mounted tilting measuring vessel arranged with its brim above and its body below the level of liquid in said reservoir, the pivotal axis being above the center of gravity of the vessel when empty and aside from the center of gravity when full, and a constantly open connection permitting liquid to flow from said reservoir to the vessel.

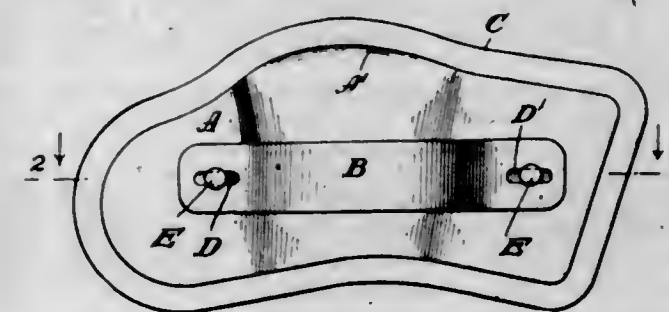
3. An apparatus of the character described including a reservoir, a pivotally mounted tilting measuring vessel arranged mainly below, but with its brim above the level of liquid in said reservoir, the center of gravity of the vessel when empty being below the pivotal axis thereof, whereby the vessel is automatically brought into upright position and the vessel being laterally enlarged above the pivot so as to shift the center of gravity to one side thereof when full, and a constantly open connection between the reservoir and vessel whereby liquid is enabled to flow from the former to the latter.

4. An apparatus of the character described including a reservoir adapted to support a container of which the only outlet is beneath its top and within said reservoir, whereby liquid is enabled to flow into the reservoir and is maintained at the level of said outlet, a measuring vessel supported approximately at the height of the liquid surface in the reservoir and having a liquid-admitting connection with said reservoir whereby the said vessel may be kept full to the level of the liquid in said reservoir, said vessel being pivoted between its upper and lower extremities, and provisions for permitting the measuring vessel to overturn and spill its contents.

5. An apparatus of the character described including a reservoir adapted to hold a constant quantity of liquid, a liquid supply arranged to discharge into said reservoir at such rate as to keep the level in the latter at a fixed height, a measuring vessel, a flexible conduit continuously in connection with said reservoir and vessel whereby the liquid in said vessel may be kept at the level of the liquid in said reservoir, means for altering the height of the measuring vessel to vary the actual quantity of liquid contained therein, and provisions by which the measuring vessel may be caused to discharge its contents, said flexible conduit enabling the connection to be maintained in all positions of the vessel.

[Claims 6 and 7 not printed in the Gazette.]

1,077,871. INSTEP-SUPPORT. WILLIAM F. CONNELL, New York, N. Y. Filed Jan. 21, 1913. Serial No. 743,239. (Cl. 36-71.)



In a device of the character described, the combination of a metallic plate curved to approximate the under surface of the instep and extending from side to side thereof, an auxiliary spring secured to the under side of said plate extending longitudinally thereof from a point near one end to a point near the opposite end and curved downwardly so that its medial portion is normally in contact with the surface upon which the support rests, and a connection between the plate and auxiliary spring arranged to permit a sliding movement of the said parts relative to each other.

1,077,872. STOKER. PAUL L. CROWE, Jersey City, N. J. Filed Oct. 1, 1907. Serial No. 395,466. (Cl. 110-44.)

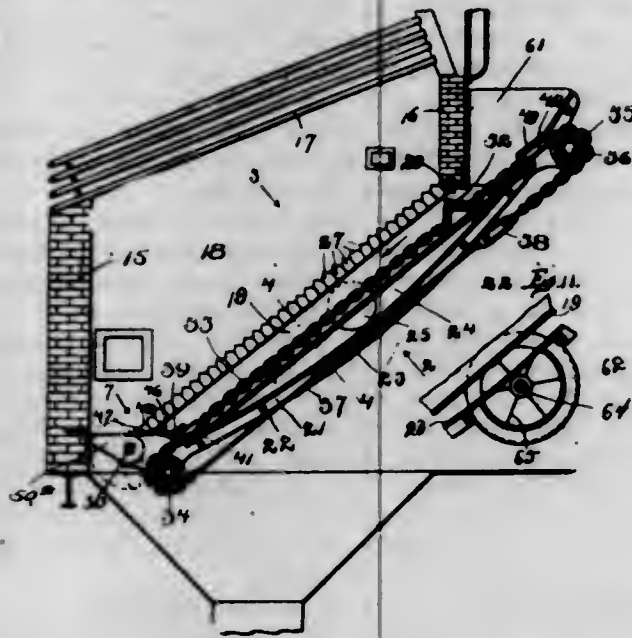
1. In a stoker, a fuel trough disposed at an inclination and having openings formed through the opposite ends thereof, a pusher movable longitudinally within the trough, means to move the pusher, and stops carried by the moving means and arranged to close the openings.

2. In a stoker, a plurality of fuel troughs provided with upwardly extending sides, plates provided with downwardly extending flanges forming with the troughs an air casing, means for connecting the flanges of adjacent plates, and means connecting the sides to provide a fuel surface above a plurality of such casing divisions.

3. In a stoker, a fuel trough disposed at an inclination and having openings formed through opposite ends thereof, a pusher movable longitudinally within the trough, a flexible cable adapted to move the pusher and extending without the trough and through the said openings, and stoppers carried by the cable adapted to close the openings.

4. In a stoker, an inclined fuel support, a shaft journaled adjacent the lower edge of the fuel support, grate frames carried by the shaft and movable therewith upon

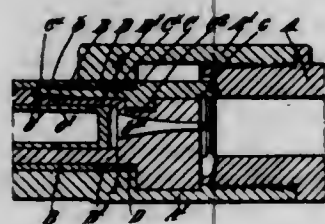
rotation thereof and arranged to receive fuel from the said inclined fuel support, and means to permit any number of frames to remain stationary while the remaining frames are actuated.



5. In a stoker, a fuel support, a squared shaft journaled adjacent the support, a plurality of grate frames mounted upon the shaft and arranged to receive fuel from the fuel support, an operating lever mounted upon each of the frames and arranged to engage the shaft, and means to facilitate the disengagement of the lever from the shaft.

(Claims 6 to 8 not printed in the Gazette.)

1,077,873. FIREARM. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed May 13, 1913. Serial No. 767,266. (Cl. 42-4.)



1. In a fire-arm, the combination with the bolt and the longitudinal extractor carried thereby, of a rearward extension of said extractor having an inclined lower surface, a hemi-spherical projection on said extractor, and a split ring arranged around the bolt and extractor, and having a recess for the reception of the hemi-spherical projection on the extractor.

2. In an automatic fire-arm, the combination with the recoiling barrel and its recoil spring, of a buffer spring composed of a helically slotted tube that surrounds the recoil spring for a portion of its length.

3. In an automatic fire-arm, the combination with the breech bolt, of a longitudinally sliding member having a slight rotary movement and serving as a hand slide for said bolt, means for imparting rotary movement to said sliding member to return it to normal position after completion of its forward movement, an angularly movable breech block coupling member carried by said sliding member and a spring for controlling the angular movement of said angularly movable member.

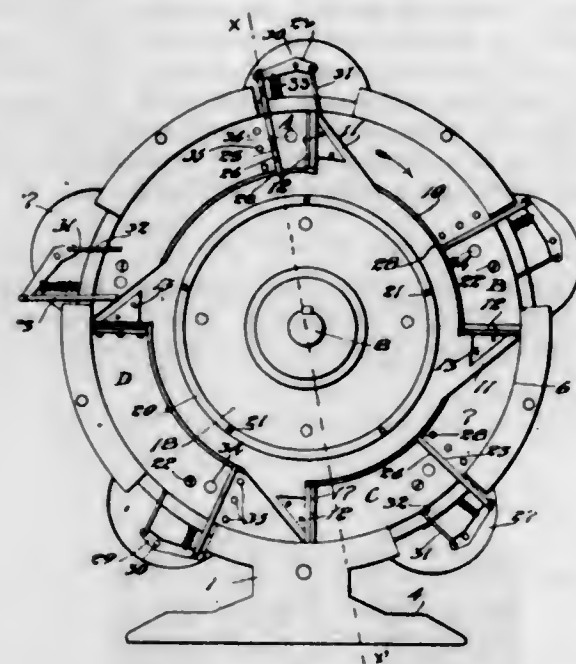
4. In an automatic fire-arm, the combination with the breech bolt, of a longitudinally sliding member having a slight rotary movement and serving as a hand slide for said bolt, means for imparting rotary movement to said sliding member to return it to normal position after completion of its forward movement, an angularly movable

member carried by said sliding member, a spring for controlling the angular movement of said angularly movable member, a lateral extension and a finger piece on said angularly movable member, and two projections on said longitudinally sliding member between which the finger piece is loosely arranged.

5. In an automatic fire-arm, the combination with the breech-bolt, of a longitudinally moving hand slide having a slight rotary movement and adapted to displace said bolt, means for imparting rotary movement to said sliding member to return it to normal position after completion of its forward movement, an angularly movable member associated with said hand slide and means for automatically moving said angularly movable member into the disengaged position as the said slide approximately reaches its forward position.

(Claims 6 to 11 not printed in the Gazette.)

1,077,874. ROTARY ENGINE. WILLIAM FRANCIS DONER, Winnipeg, Manitoba, Canada. Filed Dec. 2, 1911. Serial No. 663,568. (Cl. 123-14.)



1. The combination comprising, a suitably supported rotatable shaft, a circular disk mounted on the shaft and supplied at its edge with projecting pieces having each an inclined edge, pistons permanently secured to the projecting pieces, connected plates forming an annular piston chamber adapted to receive the pistons, such piston chamber being supplied with suitably located inlet and outlet ports and being fitted with conveniently located spark plugs, spring pressed normally closed gates passing across the piston chamber and located at set distances apart, said gates, when closed, having their inner ends and edges received within grooves formed in the side plates, pivoted bell cranks connected to the outer ends of the gates and actuating bars carried by the bell cranks and entering the piston chamber, said actuating bars being arranged to engage with the inclined edges of the projecting pieces to positively close the gates, as and for the purpose specified.

2. In a rotary engine, the combination with a suitably supported rotatable shaft, of a circular disk fixed on the shaft and having suitably spaced projecting pieces extending from the edge thereof, and pistons permanently secured to the projecting pieces, said pistons comprising each a rear cup-shaped member, a split ring fitted on to the same and extending there beyond, and having its forward edge tapered, a disk having a tapering edge engageable with the tapered edge of the ring and a flat spring connecting the disk with the cup-shaped member, as and for the purpose specified.

3. The combination comprising, a suitably supported rotatable central shaft, a disk fixed on the shaft, pistons located on the periphery of the disk and placed at suitable intervals, a pair of circular plates centered on the shaft

on either side of the disk, said plates having their peripheral edges bent in opposite directions, connected side plates forming a piston chamber and receiving the pistons and admitting the edge of the disk, said piston chamber being supplied with suitable inlet and outlet ports, spark plugs, located at suitable intervals in the wall of the piston chamber, slidable gates arranged at intervals around the piston chamber and designed to pass across the piston chamber, and means for operating the gates, as and for the purpose specified.

1,077,875. WINDOW. OLIVER M. EDWARDS, Syracuse, N. Y. Filed June 8, 1905. Serial No. 264,300. (Cl. 20-52.6.)



1. In a window the combination, substantially as set forth, of a guideway, two sashes adapted to move and be held therein, one in front of the other, and means adapted to move the sashes, one relatively to the other, into contact with the guideway and obstruct the passage of air and dirt around the edges of the sashes.

2. In a window the combination, substantially as set forth, of a guideway, two sashes adapted to move and be held therein, one in front of the other, and means adapted to move the sashes, one relatively to the other, into contact with different portions of the guideway and by such contact obstruct the passage of air and dirt around the edges of the sashes.

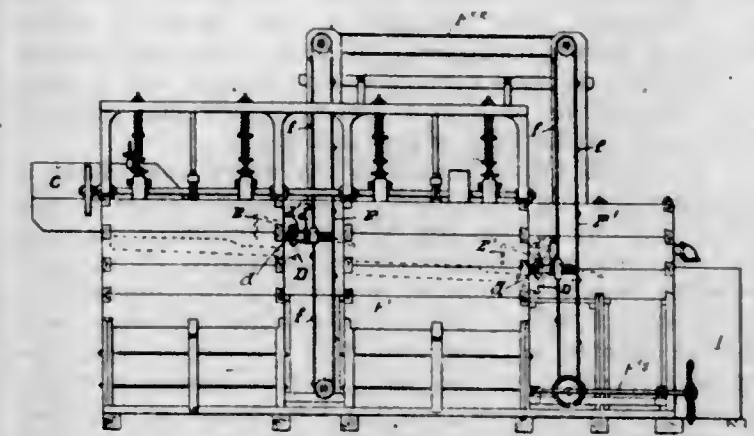
3. In a window the combination, substantially as set forth, of a guideway, two sashes adapted to move and be held therein, one in front of the other, and means connecting with the sashes and adapted to move one sash relatively to the other in the guideway to hold the sashes tightly therein.

4. In a window the combination, substantially as set forth, of a guideway, two sashes adapted to move and be held therein, one in front of the other, and wedging means connected therewith and adapted to force the sashes into contact with the guideway to obstruct the passage of air and dirt between the sashes and guideway.

5. In a window the combination, substantially as set forth, of a guideway, two sashes adapted to move and be held therein, one in front of the other, and means connected with the sashes, a portion of which is movable relatively to another portion and when moved in one direction moves one of the sashes relatively to the other to hold them in their guideway and when moved in another direction releases the sashes and leaves them substantially free to be moved in such guideway.

(Claims 6 to 44 not printed in the Gazette.)

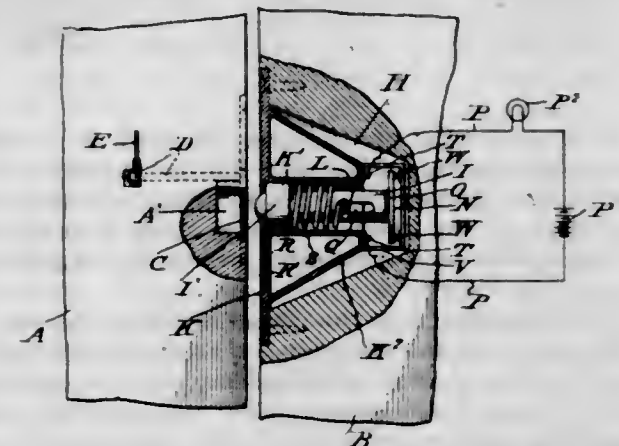
1,077,876. COAL-SEPARATOR. GUY H. ELMORE, Joplin, Mo. Filed July 7, 1905. Serial No. 268,647. (Cl. 83-58.)



1. In a coal separator, the combination of a jig having a sieve; an elevator compartment at the end of the jig; a valve adapted to deliver material from the jig sieve into the elevator compartment; a trip arm adapted to operate the valve; a sprocket chain; detachable stops carried by said chain and adapted to actuate the trip arm; and means for imparting motion to said chain.

2. In a coal separator, the combination of two separating sieves; means for directing the overflow of one sieve onto the other; an elevator compartment located between the sieves and adapted to receive the discharge of the first sieve; an elevator compartment adapted to receive the overflow from the second sieve; an elevator compartment adapted to receive the discharge from the second sieve; valves controlling the discharge from the sieves into their respective elevator compartments; trip arms adapted to operate said valves; sprocket chains having detachable stop-carrying links adapted to operate the trip arms; and a driving shaft from which both of said sprocket chains receive motion; whereby any desired ratio may be established between the periods of opening of the respective discharge valves.

1,077,877. CIRCUIT-CLOSING DEVICE FOR DOORS. WILLIAM HUBERT FITCH, Fort Worth, Tex. Filed Mar. 7, 1913. Serial No. 752,652. (Cl. 177-202.)



1. A circuit-closing apparatus for doors, comprising a spring-pressed rod adapted to be mounted within a hole in the jamb of a door and having an insulated plate at the inner end, a slide for holding the rod at its farthest inner limit against the pressure of the spring, terminals in circuit with a battery and against which terminals said plate is adapted to contact to close the circuit when the rod is released from the slide, a door having a recess therein, and a plate pivoted to the door and normally closing said recess, said plate forming an abutment surface for the spring-pressed rod, as set forth.

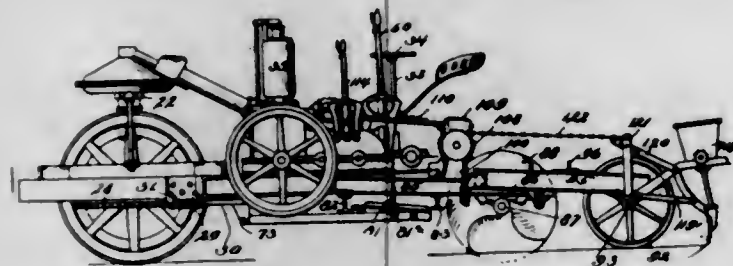
2. A circuit-closing apparatus for doors, comprising a spring-pressed rod adapted to be mounted within a hole in the jamb of a door and having an insulated plate at the

inner end, a slide for holding the rod at its farthest inner limit against the pressure of the spring, terminals in circuit with a battery and against which terminals said plate is adapted to contact to close the circuit when the rod is released from the slide, a door having a recess therein, a plate normally closing said recess and forming an abutment surface for the spring-pressed rod, a rock shaft mounted in said door and to which said plate is fixed, and a handle fixed to said rock shaft.

3. A circuit-closing apparatus for doors, comprising a spring-pressed rod adapted to be mounted within a hole in the jamb of a door and having an insulated plate at the inner end, a slide for holding the rod at its farthest inner limit against the pressure of the spring, terminals in circuit with a battery and against which terminals said plate is adapted to contact to close the circuit when the rod is released from the slide, a door having a recess therein, a plate normally closing said recess and forming an abutment surface for the spring-pressed rod, a rock shaft mounted in said door and to which said plate is fixed, said plate provided with a handle which projects beyond the edge of the door, as set forth.

4. A circuit-closing apparatus for doors, comprising, in combination with the jamb with a recess therein, a tubular shell, a spring-pressed push rod within said shell, a plate at the inner end of the push rod and insulated therefrom, terminals in circuit with a battery and light, a slide for holding said push rod at its farthest inner throw out of contact with said terminals against the pressure of the spring, a door with a recess therein, a plate pivotally mounted upon the door and adapted to normally close said recess and form an abutment surface for said rod, as set forth.

1,077,878. MOTOR-PLOW AND TRACTION-ENGINE. LOUIS T. HAGAN, Winchester, Ky., assignor to Hagan Gas Engine & Mfg. Co., Winchester, Ky., a Corporation of Kentucky. Filed Aug. 10, 1911. Serial No. 643,387. (Cl. 97—52.)



1. In an apparatus of the class described, the combination of a main section embodying traction wheels and propelling means therefor, and an auxiliary section detachably coupled to the main section to form a longitudinal extension thereof and embodying means for supporting a portion of the latter.

2. In an apparatus of the class described, the combination of a main section embodying traction wheels and propelling means therefor, an auxiliary section embodying means for supporting one end of the main section forming a longitudinal extension of the main section and having a frame, and means for detachably coupling the main section to the frame of the auxiliary section.

3. In an apparatus of the class described, the combination of a main section embodying traction wheels supporting the forward end thereof and propelling means therefor, an auxiliary section forming a longitudinal extension of the main section and embodying a frame and means for supporting the rear end of the main section, and means for detachably coupling the main section to the frame of the auxiliary section.

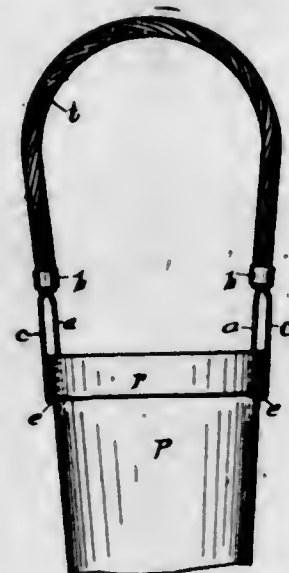
4. In an apparatus of the class described, the combination of a main section embodying traction and steering wheels arranged toward the forward end thereof and propelling means for said wheels, an auxiliary section forming a longitudinal extension of the main section and embodying means for supporting the rear end of the main section

frames for the main and auxiliary sections, and means for detachably coupling said frames of the main and auxiliary sections.

5. In an apparatus of the class described, the combination of a main section embodying traction wheels and propelling means therefor, an auxiliary section detachably coupled to the main section and supporting one end thereof, a jack carried by the main section and embodying means for supporting the latter during coupling or uncoupling of the auxiliary section, and means cooperative with the jack to movably support the main section when the auxiliary section is uncoupled therefrom.

(Claims 6 to 18 not printed in the Gazette.)

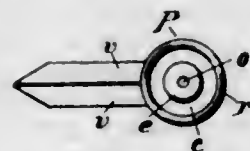
1,077,879. DETACHABLE BAIL FOR FLOWER-POTS AND LIKE ARTICLES. GEORGE B. HART, Rochester, N. Y. Filed Mar. 13, 1909. Serial No. 483,142. (Cl. 220—32.)



1. In combination with the bail for a flower pot or like article provided with separable members at its ends, a plurality of inclosing strips of comparatively light, flexible and elastic material and of substantially even length loosely twisted around the bail; means for retaining the inclosing strips in place comprising a ferrule engaging loosely over the lower ends thereof and provided with an inwardly extending annular flange at its lower end, the separable members of the bail bent over against the outside of the flanged end of the ferrule and operating to hold the same in place and with the flange thereof engaging against the ends of such inclosing strips.

2. As a means for holding in place on a bail or handle a plurality of inclosing strips of comparatively light, flexible and elastic material loosely twisted around the handle with their ends substantially even, an inclosing ferrule located at each end of the inclosing strips and provided with an inwardly extending annular flange at its lower end, the ferrule engaging loosely around the inclosing strips near their ends, the bail having a member extending through the ferrule and bent over against the flanged end thereof to hold the flange in place against the ends of such inclosing strips.

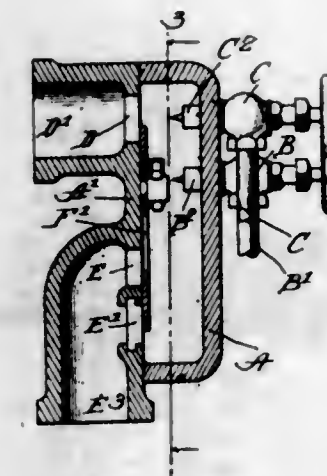
1,077,880. COMBINED TACK AND STAPLE. GEORGE B. HART, Rochester, N. Y. Filed Jan. 13, 1913. Serial No. 741,803. (Cl. 85—49.)



A device of the character described comprising independently flexible prongs adapted to be inserted through and bent down upon the opposite or rear side of the body to which the device is to be attached and a head lying

normally in a plane parallel with the prongs, the head provided with teeth extending substantially at right angles with the plane thereof and adapted to engage into the body to which the head is to be attached, the head operating to hold the prongs in attachment with the body to which the head is attached.

1,077,881. PROCESS OF MIXING FUEL FOR CARBURETERS. WILLIAM H. C. HIGGINS, JR., Laporte, Ind. Filed July 9, 1910. Serial No. 571,168. (Cl. 123—25.)



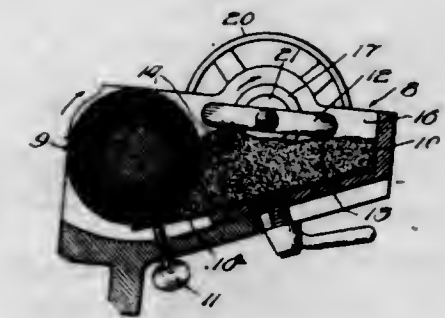
1. The process of producing for gas engines, a charge varying in character from low load to high load which consists in supplying air, liquid fuel and water in unequally varying quantities to a mixing chamber responsive to the variations in the vacuum therein, such vacuum itself responsive to the varying conditions of the engine cylinder with which such vacuum chamber is connected, and thence discharging the same to the engine, the supply of water beginning later in the cycle of operation from low load to high load and increasing after it does begin more rapidly than the feed of liquid fuel.

2. The process of producing for gas engines, a charge varying in character from low load to high load which consists in supplying air, liquid fuel and water in unequally varying quantities to a mixing chamber responsive to the variations in the vacuum therein, such vacuum itself responsive to the varying conditions of the engine cylinder with which such vacuum chamber is connected, and thence discharging the same to the engine, the supply of water beginning later in the cycle of operation from low load to high load and increasing after it does begin more rapidly than the feed of liquid fuel, until at high load they are approximately equal.

3. The process of producing for gas engines, a charge varying in character from low load to high load, which consists in supplying air, liquid fuel and water in unequally varying quantities to a vacuum mixing chamber responsive to the variations in the vacuum therein, such vacuum itself responsive but not directly to the varying conditions of the engine cylinder with which such vacuum chamber is connected, and thence discharging the same to the engine, the supply of water beginning later in the cycle of operation from low load to high load, and increasing after it does begin more rapidly than the feed of liquid fuel.

4. The process of producing for gas engines, a charge varying in character from low load to high load, which consists in supplying air, liquid fuel and water in unequally varying quantities to a vacuum mixing chamber responsive to the variations in the vacuum therein, such vacuum itself responsive but not directly to the varying conditions of the engine cylinder with which such vacuum chamber is connected, and thence discharging the same to the engine, the supply of water beginning later in the cycle of operation from low load to high load, and increasing after it does begin more rapidly than the feed of liquid fuel, until at high loads they are approximately equal.

1,077,882. INK-FOUNTAIN FOR PRINTING-PRESSES. EDWARD F. HOLZ, Chicago, Ill. Filed Apr. 21, 1913. Serial No. 762,683. (Cl. 101—74.)



1. In a device of the class described, the combination with an ink fountain and an inking roller adapted to receive ink from the same, of a rotatable device mounted within the fountain, a plurality of sidewise projecting extensions on the same adapted to agitate the ink within the fountain and to carry the same toward the inking roller, and means for rotating said member in a direction to carry said projections toward the inking roller when they are in the lower portion of their circular travel, substantially as described.

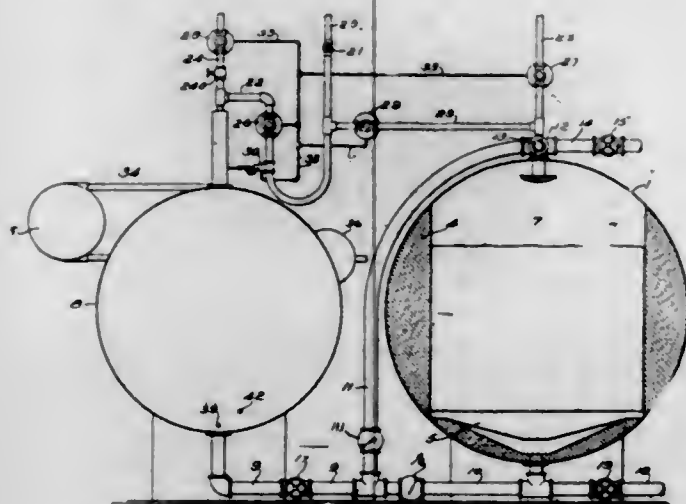
2. In a device of the class described, the combination with an ink fountain and an inking roller adapted to receive ink from the same, of a rotatable member having its axis of rotation substantially on a level with the upper portion of the inking roller, a plurality of sidewise projecting extensions on the said member adapted to break through the surface of the ink in the fountain when the member is rotated for the purpose of maintaining the ink in uniform condition throughout its mass, and means for continuously rotating said member in a direction to carry said projections toward the inking roller when they are in the lower portion of their circular travel for the purpose of continuously agitating the ink and carrying the same toward the inking roller, substantially as described.

3. In a device of the class described, the combination with an ink fountain and an inking roller adapted to receive ink from the same, of a stub shaft mounted in one wall of the fountain, a driving element mounted on the stub shaft, there being a driving socket on the inner end of the stub shaft, a socket bearing mounted in the opposite wall of the fountain and a rotatable device having one end mounted in the driving socket of the stub shaft and having its other end mounted in the socket bearing, said rotatable device having a plurality of sidewise projecting extensions adapted to carry ink contained in the fountain toward the inking roller, substantially as described.

4. In a device of the class described, the combination with an ink fountain and an inking roll adapted to receive the ink therefrom of a stub shaft carried by one wall of the fountain, a driving element mounted on the stub shaft, there being a driving socket on the inner end of the stub shaft, a threaded stud carried by the opposite wall of the fountain, and a rotatable device having one end inserted in the socket of the stub shaft and the other end inserted in the socket of the stud, said rotatable device having a plurality of sidewise projecting extensions adapted to carry ink contained in the fountain toward the inking roller, substantially as described.

5. In a device of the class described, the combination with an ink fountain and an inking roller adapted to receive ink therefrom of a stub shaft carried by one wall of the fountain, a driving element mounted on the stub shaft, there being a driving socket on the inner end of the stub shaft, a bearing carried by the opposite wall of the fountain and mounted for adjustment toward and from the stub shaft, and a rotatable device having one end mounted in the socket of the stub shaft and the other end in the adjustable bearing, said rotatable device having a plurality of sidewise projecting extensions adapted to carry ink contained in the fountain toward the inking roller, substantially as described.

1,077,883. APPARATUS FOR BLEACHING PAPER-PULP. EUGENE D. JEFFERSON, Boston, Mass. Filed Jan. 12, 1912. Serial No. 670,789. (Cl. 8-18.)



1. An apparatus for bleaching paper pulp having, in combination, a keir, a tank, a bottom pipe connecting the bottom of the keir with the bottom of the tank, a top pipe leading from the bottom pipe to the top of the keir, a vent pipe for the tank, an air supply pipe, a keir branch and a tank branch therefrom, pressure-operated valves in the vent and air pipes the valves in the tank air pipe and keir vent pipe operating by pressure to open the valves, and the valves in the keir air pipe and tank vent pipe operating by pressure to close such valves, and automatic mechanism operated by the rise and fall of liquor in the tank to operate such pressure valves to cause the opening of the keir vent pipe, the closing of the tank vent pipe, the opening of the tank air valve and the closing of the keir air valve for forcing liquor from the tank into the top of the keir and upon the fall of the level of the liquor in the tank to a predetermined level, to close the keir vent valve, open the tank vent valve, close the tank air valve and open the keir air valve, thereby forcing the liquor through the pulp back into the tank, substantially as described.

2. An apparatus for bleaching paper pulp having, in combination, a bleaching liquor tank, a bleaching keir, pipe connections between the tank and the top and bottom of the keir, air pressure supply means for blowing the contents of the tank into the top of the keir and forcing it through the material in the keir back into the tank having provision for automatically opening and closing vents in the tank and keir and closing and opening the air inlets to the tank and keir, substantially as described.

3. An apparatus for bleaching paper pulp having, in combination, a tank, a keir, pipe connections from the bottom of the tank to the top of the keir and from the bottom of the keir to the bottom of the tank, an air supply, a liquor level control, automatically-operated mechanism causing the liquor in the tank to be blown into the top of the keir and for thereafter blowing the liquor from the top of the keir through the material to be bleached back into the tank, substantially as described.

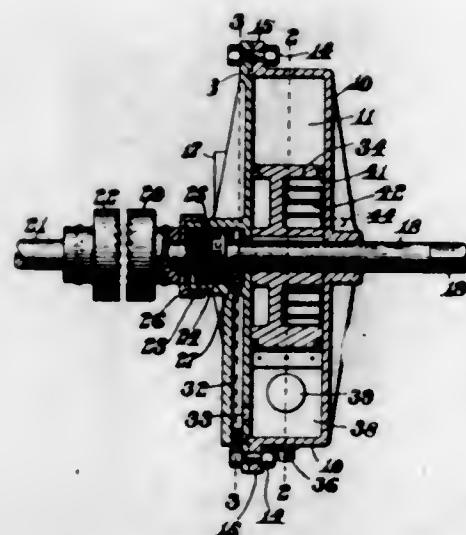
4. An apparatus for bleaching paper pulp having, in combination, a bleaching keir, a bleaching liquor tank, pipe connections from the bottom of the tank to the top of the keir and from the bottom of the keir to the tank, a compressed air supply, and means for admitting compressed air to the tank to blow the liquor from the tank into the top of the keir and for admitting compressed air into the top of the keir to force the liquor through the material in the keir back into the tank having provision for maintaining pressure in the keir while the liquor is being forced through the material in the keir, substantially as described.

5. An apparatus for bleaching paper pulp having, in combination, a bleaching keir, a bleaching liquor tank, pipe connections between the top of the keir and the bottom of the tank and the bottom of the keir and tank, a

compressed air supply, means acting automatically to alternately admit compressed air into the top of the tank for blowing the liquor from the tank into the top of the keir and into the top of the keir for forcing the liquor through the material in the keir back into the liquor tank, substantially as described.

[Claim 6 not printed in the Gazette.]

1,077,884. STARTING DEVICE FOR MOTOR-CARS. JUSTUS R. KINNEY, Dorchester, Mass. Filed May 29, 1911. Serial No. 630,537. (Cl. 123-179.)



1. In a device of the class described, the combination of two normally separated aligned shafts; coaxing devices thereon for temporarily connecting said shafts; a piston and a blade on one of said shafts; and means for applying pressure against said piston to temporarily connect said shafts and subsequently against said blade to cause a partial rotation of said shaft.

2. In a device of the class described, the combination of two normally separated aligned shafts; coaxing devices thereon for temporarily connecting said shafts; a piston and a blade on one of said shafts; means for applying pressure against said piston to temporarily connect said shafts and subsequently against said blade to cause a partial rotation of the bladed shaft; and means in the path of said blade to limit its rotary movement.

3. In a device of the class described, the combination of two normally separated aligned shafts; coaxing devices thereon for temporarily connecting said shafts; a piston and a blade on one of said shafts; means for applying pressure against said piston to temporarily connect said shafts and subsequently against said blade to cause a partial rotation of the bladed shaft; and means for reversely rotating said bladed shaft to its normal position.

4. In a device of the class described, the combination of two normally separated aligned shafts; coaxing devices thereon for temporarily connecting said shafts; a piston and a blade on one of said shafts; means for applying pressure against said piston to temporarily connect said shafts and subsequently against said blade to cause a partial rotation of said bladed shaft; and a spring for reversely rotating said bladed shaft to its normal position.

5. In a device of the class described, the combination of two aligned shafts one of which is adapted to be reciprocated; a clutch mechanism interposed between the opposed ends of said shafts; a casing; a piston therein on one of said shafts; a spring surrounding said piston shaft and acting on said piston to retain said clutch mechanism in inoperative position; means for applying pressure to the opposite face of said piston to move said piston shaft endwise and cause said clutch mechanism to connect said shaft; a radial blade on said piston shaft; and means whereby pressure may be applied to said blade for rotating said piston shaft about its axis.

[Claims 6 to 24 not printed in the Gazette.]

1,077,885. CHANGEABLE ADVERTISING-SIGN. JAMES H. LA PEARL, Glendale, Cal. Filed Oct. 22, 1912. Serial No. 727,121. (Cl. 40-76.)



1. In a sign the combination of a series of spaced rotatably mounted prisms the longitudinal faces of which are adapted to receive advertising matter; leaves hinged, one to each of said longitudinal faces, adapted to contain advertising matter and to close the spaces between said prisms providing a continuous display surface; and means for rotating said prisms, all as substantially described.

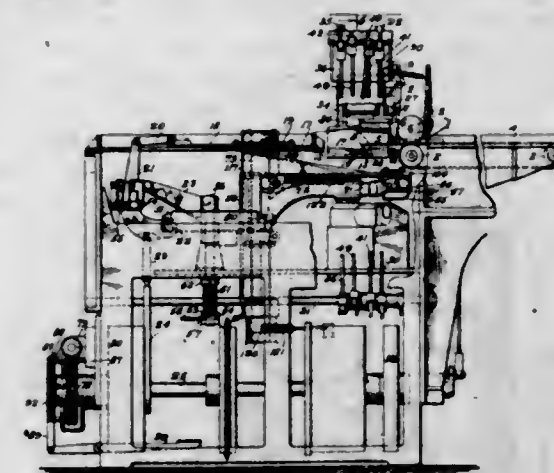
2. In a sign, the combination of an upright series of rotatably mounted spaced prisms having detachable longitudinal faces adapted to receive advertising matter; leaves, one removably hinged to each of the longitudinal edges of said prisms, said leaves being adapted to receive advertising matter and to close the spaces between said prisms after each partial rotation of said prisms; means for partially rotating said prisms at predetermined intervals; means for locking said prisms in a rigid position between partial rotations, and means for lowering said leaves immediately after the partial rotations of said prisms.

3. In a sign, the combination of an upright series of spaced prisms each having four longitudinal faces; leaves hinged to the bottom edge of the front face of each of said prisms; similar leaves hinged to the corresponding edge of each of the other longitudinal faces, each of said leaves being of sufficient width to close the space between the fronts of said prisms; means for rotatively retaining said prisms in their proper relative positions; a rotating disk having pins adapted to engage a spur gear at intervals; means for transmitting power to said rotating disk; a spur gear engaged by said pins and having concave surfaces which contact with said disk except at intervals when the pins engage said spur gear; and a drive gearing connected with each of said prisms and with said spur gearing, adapted to rotate the said prisms a portion of a turn each time the said spur gear is engaged by either of said pins; pins on the ends of said leaves; hooks adapted to engage the pins on the ends of said leaves before the said leaves fall away from the adjacent faces of said prisms; means for gradually lowering and after the leaves are released, of raising the said hooks to their upper position, all substantially as described and for the purposes set forth.

1,077,886. CIGAR-MACHINE. HARRY S. MARSH, New York, N. Y., assignor to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed July 21, 1910. Serial No. 573,013. (Cl. 131-5.)

1. A cigar machine including in combination a filler receiving chamber, means for feeding the filler tobacco over the chamber in the direction of the length of the filler to be formed, means for supporting the forward end of the filler tobacco as it is advanced, and filler severing devices.

2. A cigar machine including in combination a filler receiving chamber, means for feeding the filler tobacco over the chamber in the direction of the length of the filler to be formed, a plate for receiving the forward end of the filler, means for moving the plate with the filler as the filler advances so as to sustain the same, and filler severing devices.



3. A cigar machine including in combination a filler receiving chamber, a filler shaping mold in open communication with the chamber, a transferring and compressing plunger which transfers the filler from the chamber to the mold and compresses it therein, a wrapping mechanism, and means for causing the mold to deliver the formed and compressed filler directly to the wrapping mechanism.

4. A cigar machine including in combination a filler receiving chamber, a filler shaping mold in open communication with the chamber, a transferring and compressing plunger which transfers the filler from the chamber to the mold and compresses it therein, a wrapping mechanism, an ejecting plunger connected with the mold, means for moving the mold into delivery position directly over the wrapping mechanism, and means for operating the ejecting plunger.

5. A cigar machine including in combination a filler receiving chamber, a filler shaping and compressing mold located at one side of the chamber, a transferring and compressing plunger, means for moving the plunger across the chamber to transfer the filler to the mold and compress it therein, an ejecting plunger connected with the mold, wrapping mechanism, means for moving the mold from its receiving position to a position directly over the wrapping mechanism, and means for operating the ejecting plunger to deliver the shaped filler from the mold to the wrapping mechanism.

[Claims 6 to 15 not printed in the Gazette.]

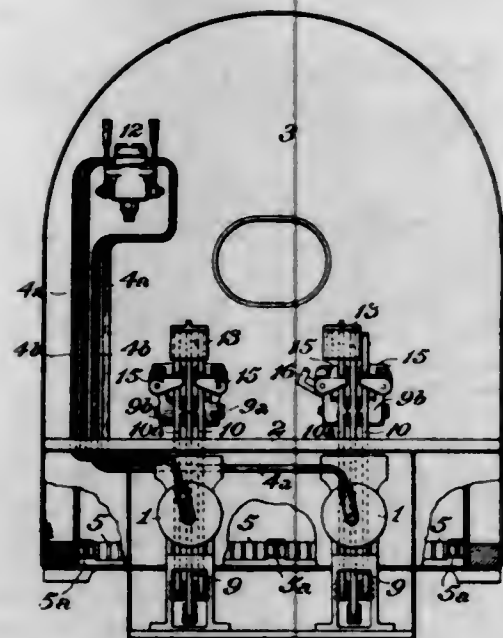
1,077,887. LOCOMOTIVE-GRATE SHAKER. FREDERICK W. MARTIN, New York, N. Y. Filed Apr. 1, 1912. Serial No. 687,654. (Cl. 126-169.)

1. The combination, with a firebox having a plurality of rocking grate bars disposed in sets, the members of each of which are coincidentally operable, of two vibratable vertical grate levers, each connected to a set of grate bars, a vibratable vertical power lever, journaled concentrically with, and adjacent to, said grate levers, means for actuating said power lever by fluid pressure, and means for detachably coupling the upper portion of the power lever to the upper portion of either or both of the grate levers.

2. The combination, with a firebox having a plurality of rocking grate bars disposed in sets, the members of each of which are coincidentally operable, of two vibratable vertical grate levers, each connected to a set of grate bars, a vibratable vertical power lever, journaled concentrically with, and adjacent to, said grate levers, means for actuating said power lever by fluid pressure, means for detachably coupling the upper portion of the power lever to the upper portion of either or both of the grate levers, and means for limiting the range of traverse of the grate levers.

3. The combination, with a firebox having a plurality of rocking grate bars disposed in sets, the members of each

of which are coincidently operable, of two vibratable vertical grate levers, each connected to a set of grate bars, a vibratable vertical power lever journaled concentrically with, and adjacent to, said grate levers, means for actuating said power lever by fluid pressure, means for detachably coupling the upper portion of the power lever to the upper portion of either or both of the grate levers, and means for preventing movement of either or both of the grate levers.

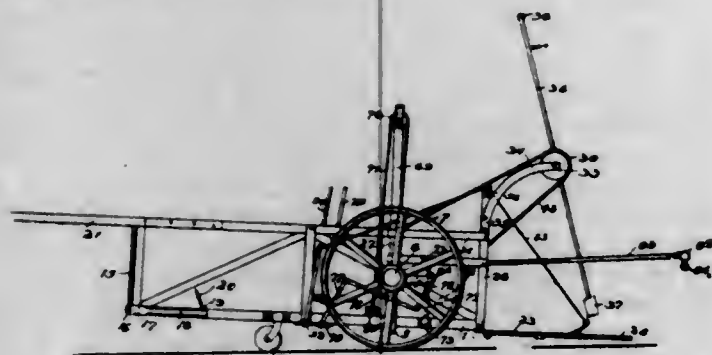


4. The combination, with a firebox having a plurality of rocking grate bars disposed in sets, the members of each of which are coincidently operable, of two vibratable vertical grate levers, each connected to a set of grate bars, a vibratable vertical power lever, journaled concentrically with, and adjacent to, said grate levers, means for actuating said power lever by fluid pressure, and an attachable and detachable coupling having sockets adapted to engage the grate levers and power lever.

5. The combination, with a firebox having a plurality of rocking grate bars disposed in sets, the members of each of which are coincidently operable, of two vertical grate levers, each connected to a set of grate bars, a vertical vibratable power lever adjacent to said grate levers, means for actuating said power lever by fluid pressure, means for detachably coupling the upper end of the power lever to either or both of the grate levers, and limiting arms pivoted to swing into the path of the grate levers and having recesses in their free ends, of length corresponding to a desired limited degree of traverse of said levers.

[Claims 6 and 7 not printed in the Gazette.]

1,077,888. SHEAF-LOADER. ALEXANDER MCLEOD, Winnipeg, Manitoba, Canada. Filed Apr. 8, 1912. Serial No. 689,334. (Cl. 214-2.)



1. The combination with a main frame adapted to be drawn along the ground, and fingers or sweeps carried by the front of the frame and adapted to pick up material off the ground, of a receiving box pivotally secured to the frame having the forward end arranged to receive material

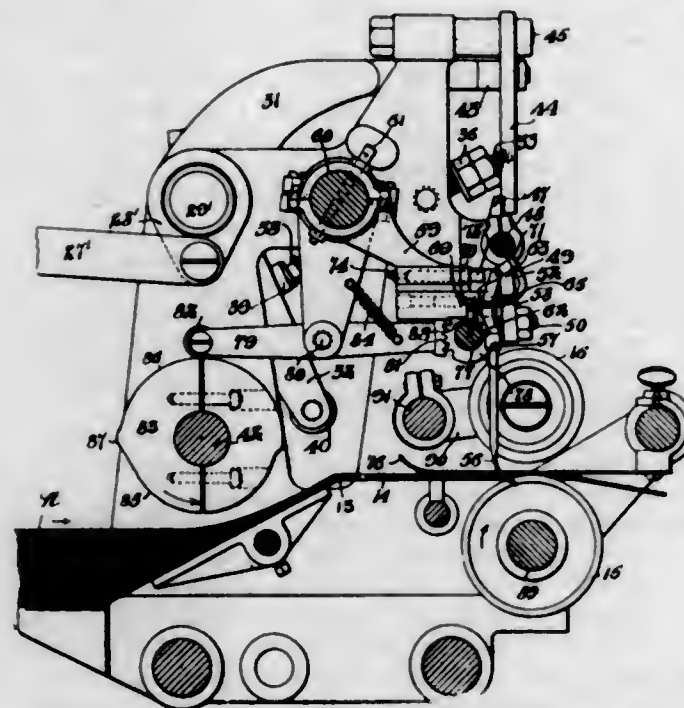
passed over the fingers, and the rear end open, and a releasable gate normally closing the rear end of the box, as and for the purpose specified.

2. The combination with a main frame mounted on suitable carriage and caster wheels and a receiving box pivotally secured to the frame and arranged to dump rearwardly, of means actuated by one of the carriage wheels for automatically dumping the box, as and for the purpose specified.

3. The combination with a main frame mounted on suitable carriage and caster wheels and a receiving box pivotally secured to the frame and arranged to dump rearwardly, of a rotatable drum adjoining one of the carriage wheels, engageable clutch members carried by the drum and the carriage wheel, means for engaging the clutch members, a pulley suspended above the frame and free of the box, and a cable secured to the drum and to the box passing over the pulley, as and for the purpose specified.

4. The combination with a normally inclined main frame mounted forwardly on carriage wheels and rearwardly on caster wheels, and a forwardly inclined receiving box carried by the frame and pivotally secured to the same, of a bracket located on the under side of the box at the front, a pivoted spring pressed catch piece carried by the frame and normally engaging the bracket thereby locking the receiving box to the frame and means controlled by a lever for releasing the catch piece from the bracket to free the box to dump, as and for the purpose specified.

1,077,889. TRIP MECHANISM FOR SHEET-FEEDERS. ROBERT B. McLAUGHLIN, Newton, Mass., assignor to United Printing Machinery Co., Boston, Mass., a Corporation of Maine. Filed May 25, 1910. Serial No. 563,270. (Cl. 101-39.)



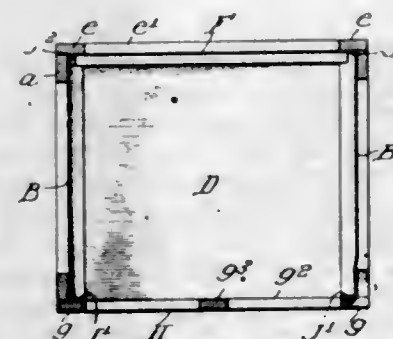
1. The combination with sheet-feeding means, means including an actuating spring for rendering said feeding means inactive, and means for restraining said spring-actuated means; of an abutment carried by said restraining means whereby the latter may be moved to release said spring-actuated means, a striker adapted to engage said abutment, a spring for throwing said striker against said abutment to move said restraining means as aforesaid, and sheet-actuated means for controlling said striker, said sheet-actuated means and said striker having coactive portions adapted to hold said striker in restraint out of contact with said abutment, said sheet-actuated means being adapted to release said striker when the latter is out of contact as aforesaid, whereby said striker is adapted to acquire momentum under the influence of said spring before engaging said abutment.

2. The combination with sheet-feeding means, of a sheet-actuated member initially occupying the path of a sheet,

means controlled by the sheet-actuated member for rendering the feeding means inactive, a yielding abutment for limiting the operative movement of said sheet-actuated member, whereby said member becomes a stop gage for the sheet, and means for further moving said member against its abutment to remove it from the path of the sheet.

3. The combination with sheet-feeding means, means including an operating spring for lifting said feeding means, and means for restraining said lifting means; of a spring, means adapted to be actuated by said spring for actuating said restraining means to release said lifting means, means for holding said actuating means in restraint, said holding means being movable by a sheet for releasing said actuating means, a double-acting member, movable in one direction for retracting said sheet-operated means from the path of the sheet, and movable in the reverse direction for moving said actuating means to its retracted position, and means for operating said double-acting member.

1,077,890. PACKING OR SHIPPING BOX. JOSEPH H. MILLS, Richmond, Ind. Filed Jan. 13, 1906. Serial No. 295,962. (Cl. 217-5.)



1. A rectangular box or case comprising side, end and bottom sections, each side and end section being composed of a skeleton wooden frame and an imperforate flat sheet of metal of substantially the same dimensions secured to the inner face thereof, and corner strips arranged at the inner corners of the box to secure the sides and ends together, and packing arranged between such corner strips and the adjacent sides and ends.

2. A rectangular box or case, comprising side, end, bottom and top sections, the top section and each side and end section being composed of a skeleton wooden frame and an imperforate flat sheet of metal secured to the inner face thereof and the sheet metal of the side and end sections projecting slightly above the top edges of the frames and inwardly thereof, and packing arranged between said projecting edges of the sheet metal and frames of said sections, whereby the box is sealed at the top when the top section is in place.

3. A box or case having sides including the vertical sides proper and the top and bottom, said vertical sides being composed of wooden frames and sheet metal secured to the inner faces of the frames and projecting slightly above and inwardly from the top edges thereof, corner pieces at the corners of the vertical sides for joining the latter together, a top composed of a wooden frame and sheet metal secured to its inner face, and a bottom composed of a wooden frame and sheet metal secured to its outer or bottom face, packing being arranged between the corner strips and the frames of the vertical sides, and between the edges of the vertical frames and the bottom, and also between said projecting edge of the sheet metal and the frames of the vertical sides at the top edges thereof, whereby the box is sealed.

1,077,891. PREPARATION CONTAINING COLLOIDAL COMPOUNDS. CARL PAAL, Leipzig, and CONRAD AMBERGER, Erlangen, Germany, assignors to The Firm of Kalle & Company, Aktiengesellschaft, Bleiblich, Germany. Original application filed May 12, 1913; Serial No. 767,205. Divided and this application filed Sept. 27, 1913. Serial No. 792,177. (Cl. 167-9.)

1. Process for the production of preparations containing inorganic colloids, consisting in incorporating a solution

of a divalent salt of a metal of the platinum group with a protecting colloid, adding a soap solution to form the colloidal soap of the metal and removing the by-products formed in the process from the resulting preparation.

2. Process for the production of preparations containing inorganic colloids, consisting in incorporating a solution of a divalent salt of a metal of the platinum group with a protecting colloid, adding a soap solution to form the colloidal soap, dissolving the soft mass, mixing the solution with a liquid sparingly dissolving or not dissolving the protecting colloid and separating the precipitate containing the colloid.

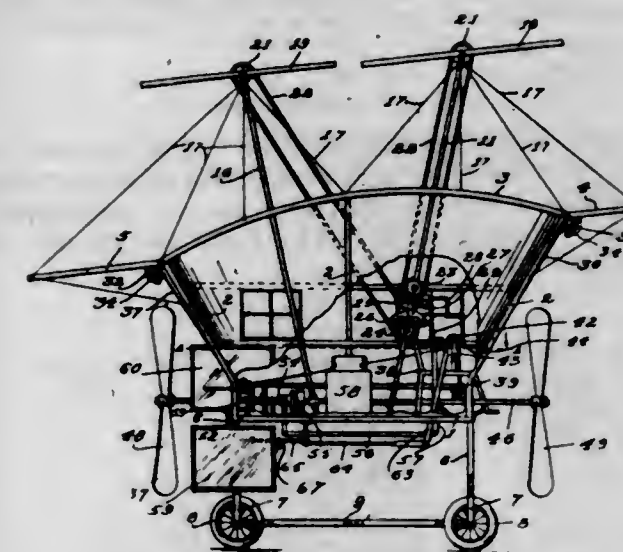
3. Process for the production of preparations containing inorganic colloids, which consists in incorporating with a solution of a divalent salt of a metal of the platinum group wool fat as a protecting colloid, adding an alkali salt of a higher fatty acid to form a colloidal soap of the metal, and removing the by-products formed in the process from the resulting preparation.

4. Process for the production of preparations containing inorganic colloids, which consists in incorporating with a solution of a divalent salt of a metal of the platinum group, a protecting colloid, converting such metal into the form of an oleate by treating with a soluble alkali oleate, and removing the by-products formed in the process from the resulting product.

5. As new products preparations containing a colloidal soap of a metal of the platinum group together with a protecting colloid.

[Claims 6 to 15 not printed in the Gazette.]

1,077,892. AEROPLANE. HEINRICH PODOLSKY, San Francisco, Cal. Filed Aug. 13, 1912. Serial No. 714,801. (Cl. 244-14.)

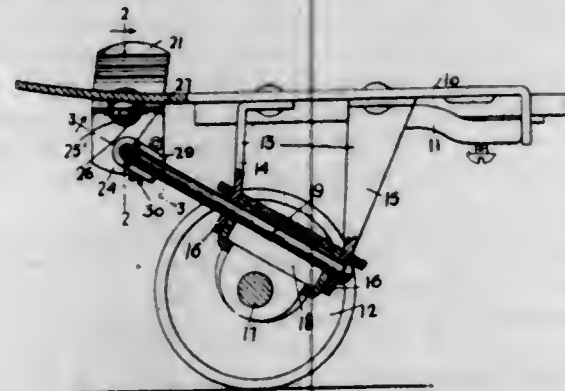


1. In an aeroplane, a frame, means carried by said frame to propel and steer the machine, a main supporting plane having a portion thereof curved and having straight portions at the front and back edges thereof, curtain rollers carried by said frame work below and adjacent the joining of the curved and straight portions of the plane, and means to pull said curtains downwardly, should the propelling apparatus fail, substantially as described.

2. In an aeroplane, a frame, a main supporting plane carried thereby, means to propel and steer said machine, two independently pivoted planes above the main plane one in front of the other, and manual means within the reach of the operator to vary the inclination of said pivoted planes independently of each other to cause the ascent or descent of the machine, substantially as described.

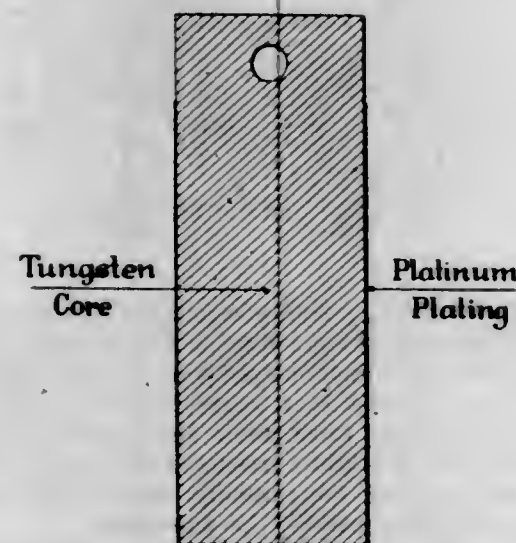
3. In an aeroplane, a frame, a main supporting plane having straight portions at its front and back edges and a curved portion connecting the two straight portions carried thereby, two shafts extending from the front to the rear of said machine, two propellers carried by each of said shafts, means to rotate said propellers, and steering planes on vertical axes adjacent and in front of each rear propeller, substantially as described.

1,077,893. SKATE-CLAMP. THOMAS SPACIE, Blue Island, Ill. Original application filed July 22, 1912, Serial No. 710,911. Divided and this application filed Dec. 28, 1912. Serial No. 739,065. (Cl. 46—51.)



1. In a roller skate, the combination of an anchor including a hinge pin, a pair of claws, a screw to operate said claws, and means connecting one end of said hinge pin with said screw, substantially as set forth.
2. In a roller skate, the combination of a sole plate, a set of rollers and means to secure the rollers to the sole plate, said securing means including a hinge pin, a pair of claws, a screw to operate said claws, said screw having a circumferential groove adapted to receive the end of said pin, and means embracing the screw and connected to the end of said pin to secure the parts in the relative positions indicated.
3. The combination with a sole plate, rollers, and means including a pivot pin for securing the rollers to the plate, of a pair of claws embracing the sole plate, a screw serving to move the claws toward and from each other, a clevis embracing the screw and held from longitudinal movement with respect thereto, and means securing the end of the aforesaid pivot pin in operative engagement with said screw and clevis.

1,077,894. ELECTRODE. ROYAL H. STEVENS, Salt Lake City, Utah, assignor to United States Smelting, Refining & Mining Company, Portland, Me., a Corporation of Maine. Filed Sept. 29, 1911. Serial No. 652,020. (Cl. 204—4.)

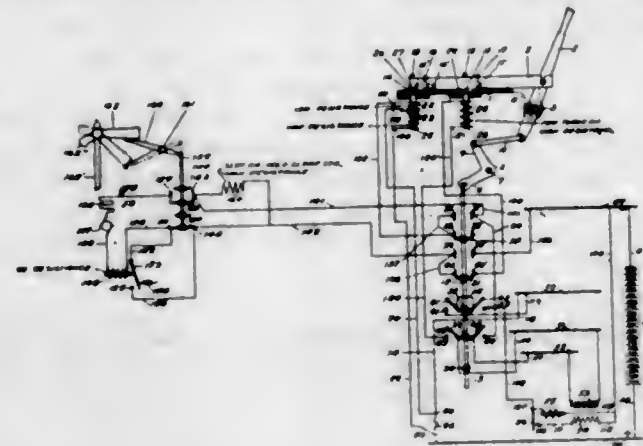


A platinum-plated tungsten electrode.

1,077,895. SYSTEM FOR ELECTRICALLY CONTROLLING AND OPERATING RAILWAY-TRAFFIC-CONTROLLING DEVICES. HERBERT B. TAYLOR, Albany, N. Y., assignor to Federal Signal Company, Albany, N. Y., a Corporation. Original application filed Aug. 12, 1910, Serial No. 576,821. Divided and this application filed Feb. 6, 1911. Serial No. 606,717. (Cl. 246—53.)

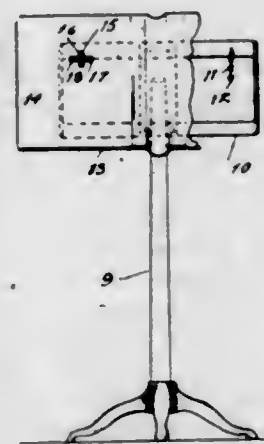
1. In a railway signal controlling system, the combination of a source of energy; a signal and electrical mechanism for moving said signal; two wires leading to the signal mechanism; means for connecting the said two wires to the source of energy to move the signal; means for including the said two wires in a circuit comprising another source of energy of higher potential than the first mentioned source, and an indication magnet in said last mentioned circuit adapted to operate only at the potential of the higher source and not at the potential of the first mentioned source, substantially as described.

2. In a railway signal controlling system, the combination of a prime source of energy; a signal; an electrically operated device for moving said signal from the stop to the proceed position; a circuit comprising two wires leading from the prime source of energy and including the said device; means controlled by the said device for interrupting the said circuit when the signal has been moved to the proceed position; a secondary source of energy of higher potential than the said prime source; means whereby the said two wires are transferred from the prime source of energy to the secondary source of energy to complete a second circuit, an indication magnet included in said second circuit, the said indication magnet being adapted to become energized at the potential of the secondary source of energy and not at that of the prime source, substantially as described.



2. In a railway signal controlling system, the combination of a prime source of energy; a signal; an electrically operated device for moving said signal from the stop to the proceed position; a circuit comprising two wires leading from the prime source of energy and including the said device; means controlled by the said device for interrupting the said circuit when the signal has been moved to the proceed position; a secondary source of energy of higher potential than the said prime source; means whereby the said two wires are transferred from the prime source of energy to the secondary source of energy to complete a second circuit, an indication magnet included in said second circuit, the said indication magnet being adapted to become energized at the potential of the secondary source of energy and not at that of the prime source, substantially as described.

1,077,896. MEANS FOR FASTENING BOOKS TO STANDS. WILLIAM TEMPLIN, Glenellyn, Ill. Filed Aug. 17, 1912. Serial No. 715,569. (Cl. 45—60.)

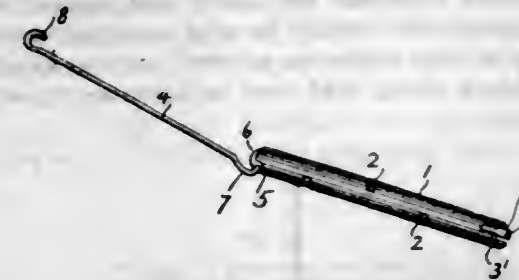


The combination of a stand having a downwardly sloping top, flexible members secured to said top, hooks or the like at the ends of said members, a book having slots through the cover thereof, and engaging devices extending across said slots for engagement with said hooks.

1,077,897. HAIR-CURLER. AUGUSTUS ALBERT WEST, Brooklyn, N. Y., and WILLIAM H. GATCHELL, Philadelphia, Pa., assignors to said William H. Gatchell. Filed June 5, 1912. Serial No. 701,750. (Cl. 132—18.)

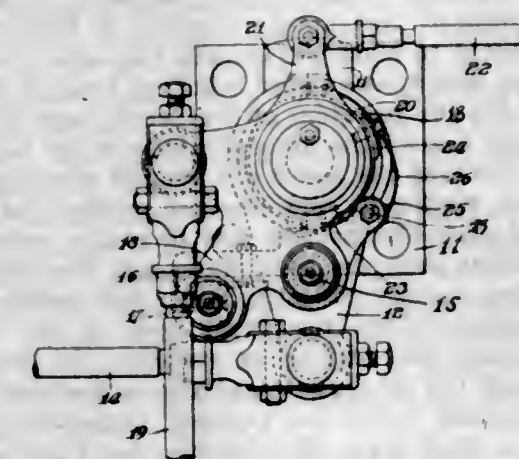
A device of the character described comprising a tubular and perforated body having a longitudinal slot at one end thereof, a flexible member pivotally engaged at one

end with said body and provided with an inwardly turned hook at its free end which is adapted to be drawn into



said slot by the arching of said pivotal member as herein specified.

1,077,898. VALVE-GEAR FOR STEAM-ENGINES. ROBERT WETHERILL, Chester, Pa., assignor to Robert Wetherill & Company, Incorporated, Chester, Pa., a Corporation of Pennsylvania. Filed May 4, 1912. Serial No. 695,051. (Cl. 121—103.)

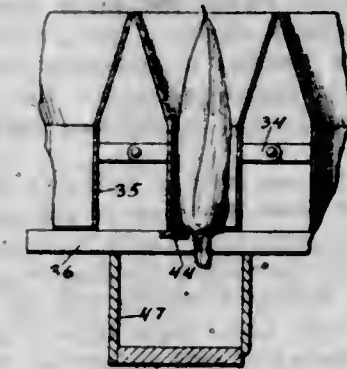


1. In a steam engine valve gear the combination of a hook block, a gravity hook adapted to engage said block, and an accelerator for said gravity hook normally out of contact therewith and adapted to engage said gravity hook just before the latter's engagement with said hook block.
2. In a steam engine valve gear the combination of a hook block, a gravity hook adapted to engage said block, and an accelerator in the form of a spring guide for said gravity hook normally out of contact therewith and adapted to engage said gravity hook just before the latter's engagement with said hook block.
3. The combination with the valve and valve stem of a steam engine, of an operating lever, a hook pivotally carried by said driving lever, means for reciprocating said latter lever, means operated by a governor for disengaging said hook from said operating lever, said governor, and a spring accelerator normally out of contact with said hook and adapted to engage it immediately before the latter's engagement with said operating lever.
4. The combination with the valve and valve stem of a steam engine, of a bracket surrounding said valve stem, a driving lever carried by said bracket, a means for reciprocating said lever, a gravity hook pivotally carried by said driving lever, an operating lever secured to said valve stem, a hook-block carried by said operating lever, a means for operating said valve stem to close the valve when said hook-block is out of engagement with said gravity hook, a means operated by a governor for causing said gravity hook to disengage said hook-block, and an accelerator normally out of contact with said hook and operative to engage said gravity hook immediately before the latter's engagement with said hook block.
5. In a valve gear, the combination of a valve stem, an operating lever connected thereto, a driving lever, means for operating said driving lever, and a clutch device on said levers adapted to engage in the forward stroke of the driving lever to open the valve and on the reverse stroke thereof to close the valve.

[Claim 6 not printed in the Gazette.]

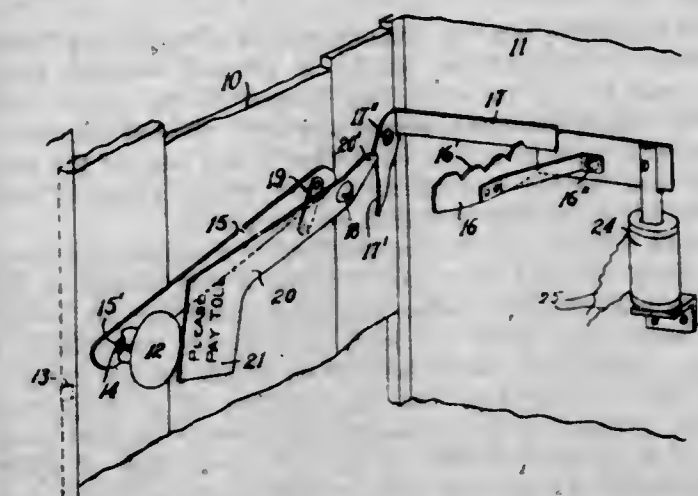
196 O. G.—15

1,077,899. FEEDING DEVICE FOR CORN-HUSKING MACHINES. ISAAC WOODRING, Waverly, Iowa. Filed May 12, 1913. Serial No. 767,226. (Cl. 146—7.)



1. In a device of the class described, a traveling conveyor, a plurality of buckets mounted thereon and designed to receive ears of corn, said buckets being open at both ends, guide bars beneath a portion of the upper part of said traveling conveyor designed to support ears of corn contained in said buckets and a blade on said guide bars designed to cut off the lower ends of said ears.
2. In a device of the class described, a traveling conveyor, a plurality of buckets mounted thereon, open at both ends, a pair of parallel guide rods under a part of the upper portion of said conveyor, designed to support ears of corn in said buckets, a blade mounted on said bars and means for varying the distance of said bars from each other.
3. In a device of the class described, a traveling conveyor, a plurality of buckets mounted thereon, open at both ends, a pair of parallel guide bars mounted beneath the upper part of said conveyor and designed to support ears of corn contained in said buckets, a cutting blade mounted on said bars, and means for feeding ears of unhusked corn, butts downward, into said buckets.

1,077,900. WARNING DEVICE FOR TELEPHONE-BOOTHES AND THE LIKE. ALTON E. AYER, Boston, Mass., assignor of one-half to John Baxter, Boston, Mass. Filed Feb. 25, 1913. Serial No. 750,523. (Cl. 40—52.)



1. The combination, with a door, a latch, and a handle operating it, of another latch arranged near the hinge of the door; means connecting the second latch operatively with the said handle; the second latch operating after the door has been released from the first mentioned latch; and a sign, movable from inconspicuous to conspicuous position, engaged with and arranged to be so moved by the operation of said connecting means.
2. The combination, with a door and a handle rotatable thereon, of a latch arranged near one edge of the door; a part arranged on the adjacent wall and adapted to be engaged by the latch; a bar projecting from and moving with the handle; a cam connection between said bar and said latch, whereby considerable movement of the bar produces but slight movement of the latch; and a sign, movable from inconspicuous to conspicuous position and connected to the end of said bar remote from the handle.

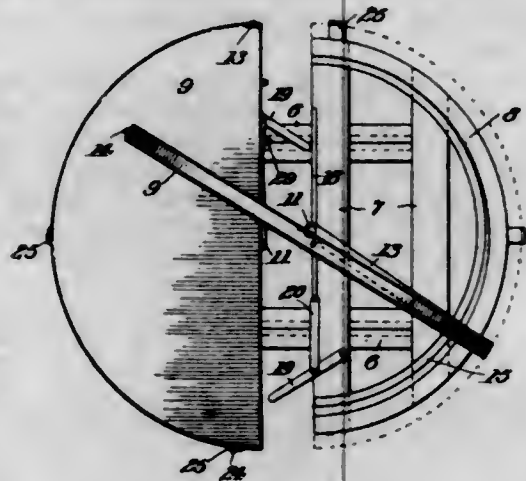
3. The combination, with a door and a handle on the door, of a latch arranged near one edge of the door; a rack arranged on the adjacent wall with a series of notches in any of which the latch may engage while the door is partially open; a bar projecting from and moving with the handle; a connection between said bar and said latch arranged to operate the latch when the handle is operated; and a movable sign controlled by said bar.

4. The combination, with a swinging door, of a latch handle arranged near the edge of the door; a part on the adjacent wall with which said latch engages to retard the opening of the door while the door is partially open; a part connecting the latch handle and the latch, movable to release the latch, and a sign, thrown into conspicuous position by movement of said connecting part.

5. The combination, with a door, and a latch holding it closed, of an auxiliary latch holding it when partly open, operating connections from the handle of the first latch to the auxiliary latch; and a sign moved by the connections that release said auxiliary latch.

[Claims 6 and 7 not printed in the Gazette.]

1,077,901. REVERSIBLE TABLE. LOUIS E. BINSFELD, Detroit, Mich., assignor of one-half to Joseph J. Treppa, Detroit, Mich. Filed Mar. 8, 1913. Serial No. 753,102. (Cl. 45—31.)



1. In a table top, the combination of a supporting frame having a semi-circular guide, a central vertical pivot mounted in the frame, a leaf hinged to the top of said pivot, and a swinging supporting arm pivoted concentrically with said pivot and connected to the edge of the leaf, said arm having a projecting part which slides in said guide when the leaf is turned on the pivot.

2. In a table top, the combination of a supporting frame a central vertical pivot pin thereon, a leaf hinged to the top of said pin and means engaging under the pin to lift the same and raise the leaf, said means comprising a wedge slidable on the frame and on which the pin rests.

3. In a table top, the combination of a supporting frame, formed in two extensible sections, a vertical pivot mounted on each section, a pair of leaves each of which is hinged at its meeting edge to each pivot, so that it may be turned with the pivot and also reversed with respect thereto, and means to lift each leaf, to clear the other leaf as it is being turned.

1,077,902. ADJUSTING-BUCKLE FOR GARMENT-SUPPORTERS. ARNOLD V. BROWN, Chicago, Ill., assignor to Kabo Corset Company, Chicago, Ill., a Corporation of Illinois. Filed June 22, 1912. Serial No. 705,234. (Cl. 24—194.)

1. An adjusting buckle for garment supporting straps comprising a fixed plate like member, the sides of said member being bent to overlie the body portion and form oppositely disposed wedge shaped channels, a movable plate like member, ears along the sides of said movable member adapted to slide within said channels, the inner lower edge of said fixed member being cut away to provide

an opening for the insertion of the fabric and said channels being widened beyond the ordinary width of the taper for a distance adjacent the lower end thereof whereby when said ears are resting in said enlarged portion the entire body of said plate-like member may be swung away from the fabric about said ears as a center, substantially as described.



2. An adjusting buckle for garment supporting straps comprising a fixed plate like member, the sides of said member being bent to overlie the body portion and forming oppositely disposed wedge-shaped channels, a movable plate like member, ears along the sides of said movable member adapted to slide within said channels, the inner lower edge of said fixed member being cut away to provide an opening for the insertion of the fabric, said channels being widened beyond the natural width of the taper for a distance adjacent the lower end thereof whereby when said ears are resting in said enlarged portion the entire body of said plate-like member may be swung away from the fabric about said ears as a center and the upper end of said sliding member extending when said member is in clamped position above the upper edge of the rigidly secured member, and serving to maintain the buckle in alignment with the fabric, substantially as described.

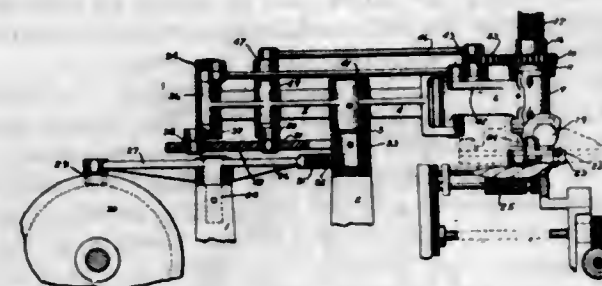
3. An adjusting buckle for garment supporting straps, comprising a fixed plate like member, the sides of said member being bent to overlie the body thereof and provide wedge shaped channels extending along the sides thereof, a movable plate like member, ears on said member arranged to slide in said channels and said channels being enlarged to a depth greater than the normal depth of the taper and greater than the width of said ears for a distance adjacent its lower end whereby when said ears are lying in said enlarged portion, the movable section can be turned at right angles to the fixed section, substantially as described.

4. An adjusting buckle for garment supporting straps comprising a fixed plate like member, the sides of said member being bent to overlie the body thereof, and provide wedge shaped channels extending along the sides thereof, a movable plate like member, ears on said member arranged to slide in said channels, said channels being enlarged to a depth beyond the natural depth of the taper and beyond the width of said ears for a distance adjacent its lower end, whereby when said ears are lying within said enlarged portion, the movable section can be turned at right angles to the fixed section and the upper end of the sliding member extending when said member is in clamped position above the upper edge of the rigidly secured member and serving to maintain the buckle in alignment with the fabric, substantially as described.

1,077,903. CIGAR-MACHINE. BERNHARD T. BURCHARDI, New York, N. Y., VICTOR E. HANSEN, Elizabeth, N. J., and HARRY S. MARSH, New York, N. Y., assignors to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed July 8, 1911. Serial No. 637,472. (Cl. 131—45.)

1. The combination with a wrapping mechanism, of a wrapper support, an operating carrier for the support including a pivoted arm on which the support is mounted, a lever for giving the support its pivotal movement, said lever being mounted on the arm, motion augmenting operating connections between the lever and the support, and means including a cam and suitable connections for operating the lever.

2. The combination with a wrapping mechanism, of a wrapper support, a carrier including a pivoted arm on which the support is pivotally mounted, a two-armed lever for giving the support its pivotal movement, said lever being mounted on the arm, motion augmenting operating connections between one end of the lever and the support, and a cam and suitable connections extending to the other end of the lever for operating the lever.



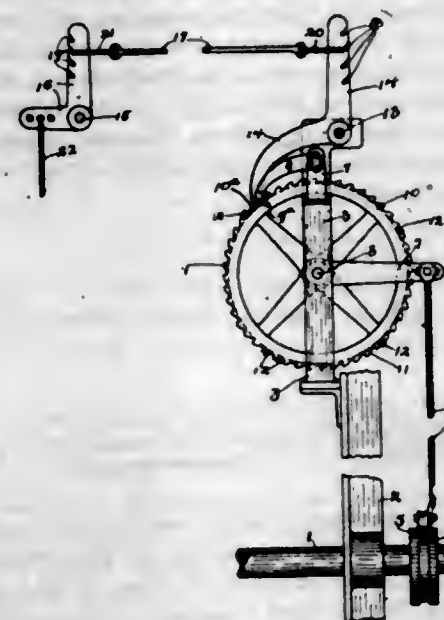
3. The combination with a wrapping mechanism, of a wrapper support, an operating carrier including a pivoted arm on which the support is pivotally mounted, a two-armed lever for giving the support its pivotal movement, said lever being mounted on the arm, a segment and gear connection between one end of the lever and the support, and a cam and suitable connections extending from the other end of the lever for operating the lever.

4. The combination with a wrapper support, of means whereby a wrapper may be supplied to the under side of said support, a wrapping mechanism to which the wrapper is delivered, means for moving the support between the wrapper supply and the wrapping mechanism, means whereby the support may be turned to bring the wrapper thereon into patching position, and means for automatically returning the support.

5. The combination with a suction wrapper support, of means whereby a wrapper may be supplied to the under side of said support, a wrapping mechanism to which the wrapper is delivered, means for moving the support between the wrapper supply and the wrapping mechanism, means whereby the support may be turned to bring the wrapper thereon into patching position, and means for automatically returning the support.

[Claims 6 to 14 not printed in the Gazette.]

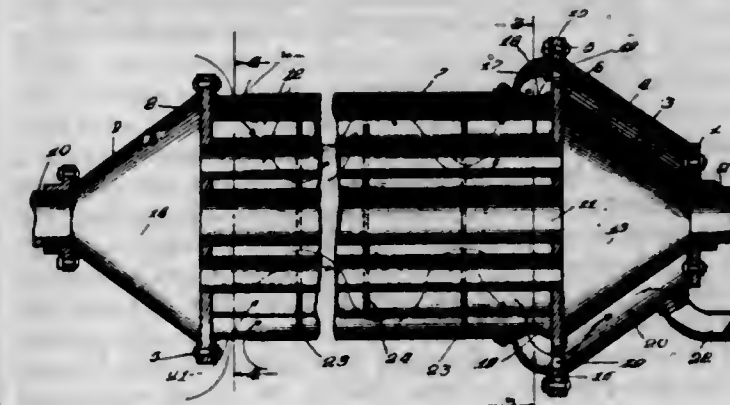
1,077,904. SHUTTLE-BOX-SELECTING MECHANISM FOR LOOMS. WALTER A. CLARK, Brantford, Ontario, Canada, assignor to Slingsby Manfg. Co. Ltd., Brantford, Ontario, Canada. Filed Nov. 14, 1907, Serial No. 402,180. Renewed Apr. 4, 1913. Serial No. 758,965. (Cl. 130—28.)



In a loom, the combination with a series of shuttle boxes and means for raising said shuttle boxes, of a rotary

drum having thereon a plurality of pins, a ratchet wheel for operating said drum, said wheel being provided with an elongated recess, a pawl adapted to engage said wheel, a series of bell crank levers arranged in proximity to said drum and adapted to be engaged by the pins on said drum, means for connecting the levers with the means for raising said shuttle boxes, means for rotating said drum independently of said ratchet and means for operating said pawl, substantially as specified.

1,077,905. AUTOMOBILE-MUFFLER. EDWARD L. DEWEY, Whiting, Ind. Filed Mar. 10, 1913. Serial No. 753,326. (Cl. 121—116.)



1. A muffler for internal combustion engines, comprising a plurality of substantially parallel tubes through which the exhaust of the engine is adapted to pass, the total cross-sectional area of the said tubes greater than the area of the exhaust pipe of the engine, and a casing housing the said plurality of tubes, there being openings leading from the interior of said casing to the outer air and to the air intake passage of the engine respectively.

2. A muffler for internal combustion engines, comprising a plurality of tubes through which the exhaust of the engine is adapted to pass, the total cross-sectional area of the said tubes greater than the area of the exhaust pipe of the engine, and a casing housing the said tubes, there being openings leading from the interior of said casing to the outer air and to the air intake passage of the engine respectively; and an air-deflecting partition within said casing transverse to said tubes.

3. A muffler for internal combustion engines, comprising a plurality of tubes through which the exhaust of the engine is adapted to pass, the total cross-sectional area of the said tubes greater than the area of the exhaust pipe of the engine, and a casing housing the said tubes, there being openings leading from the interior of said casing to the outer air and to the air intake passage of the engine respectively; and a plurality of air-deflecting partitions within said casing transverse to the said tubes.

4. A muffler for internal combustion engines, comprising a substantially cylindrical enlargement of the exhaust passage of the engine; perforated heads positioned at each end of the said enlargement; tubes mounted at their opposite ends in the perforations of the said heads, the total cross-sectional area of said tubes greater than that of the said exhaust passage; and a passage leading from one end of the cylindrical enlargement to the air-intake of the engine; there being an opening in the said substantially cylindrical enlargement in proximity to its other end.

5. A muffler for internal combustion engines, comprising a substantially cylindrical enlargement of the exhaust passage of the engine; perforated heads positioned at each end of the said enlargement; tubes mounted at their opposite ends in the perforations of the said heads, the total cross-sectional area of said tubes greater than that of the said exhaust passage; and a passage leading from one end of the cylindrical enlargement to the air-intake of the engine; there being a plurality of openings in the said substantially cylindrical enlargement in proximity to its other end.

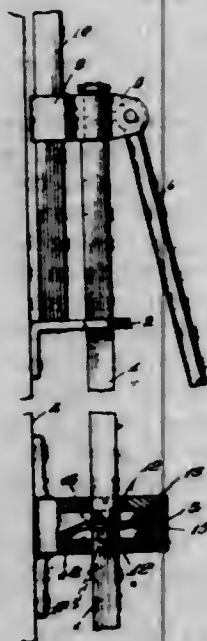
[Claims 6 to 11 not printed in the Gazette.]

1,077,906. ADJUSTABLY-MOUNTED SWIVEL-ROLLER. TRACY W. DOOLITTLE, CLIFFORD S. WINSON, and CHARLES H. VERGASON, Binghamton, N. Y. Filed Dec. 9, 1912. Serial No. 735,764. (Cl. 214-5.)



An adjustable swivel roller for loading and unloading lumber through door and window openings comprising two bars adjustably pivoted together, a hinge fixed to one bar and adapted to engage over the top of the other to hold the bars with their opposite edges flush with each other, springs fastened to the ends of the bars and having laterally extending portions which are curved, the ends of the springs adapted to frictionally engage the edges of the openings in which the apparatus is held, one of said bars having an opening, a swiveled bearing member having a shank portion resting upon the apertured bar and provided with a central aperture registering with said opening, the upper portion of said swiveled member having a recess with a tapering wall, a bracket member, a roller carried thereby, a pin passing through said bracket member and swiveled bearing and the opening in said bar, the end of said pin being threaded, and a wheel fitted to said threaded end and adapted to bear against the under surface of the bar, as set forth.

1,077,907. WINDOW-OPERATING MECHANISM. HARRY L. EICHHORN, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,847. (Cl. 16-28.)



1. In a window operating mechanism, a movable rod; means for transmitting the motion of the rod to a window to open or close the latter; and means for locking the rod against sliding; the said locking means comprising a sleeve mounted in slidable relation to the said rod, and a clutch carried by the sleeve and adapted, when tilted, to engage the rod; the sleeve and clutch being relatively rotatable, the sleeve being adapted to tilt the clutch into or out of its said engaging relation with the rod upon the said relative rotation of the clutch and sleeve.

2. In a window operating mechanism, a movable rod; means for transmitting the motion of the rod to a window to open or close the latter; and means for locking the rod against sliding; the said locking means comprising a sleeve mounted in slidable relation to the said rod, and a clutch carried by the sleeve and adapted, when tilted, to engage the rod; the sleeve and clutch being relatively rotatable, there being coacting formations upon the sleeve and clutch for tilting the clutch into or out of its said engaging relation with the rod upon the said relative rotation of the clutch and sleeve.

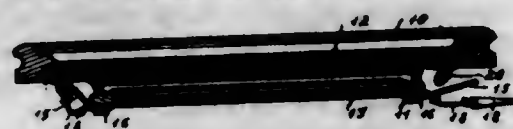
3. In a window operating mechanism, a movable rod; means for transmitting the motion of the rod to a window to open or close the latter; and means for locking the rod against sliding; the said locking means comprising a sleeve mounted in slidable relation to the said rod, and a clutch carried by the sleeve and adapted, when tilted, to engage the rod; the rod and clutch being relatively non-rotatable, but jointly rotatable with respect to the sleeve, there being coacting formations upon the sleeve and clutch for tilting the latter into or out of its said engaging relation with the rod upon the said relative rotation of the rod and clutch with respect to the sleeve.

4. In a window operating mechanism, a slidably mounted rod; means for transmitting the sliding motion of the rod to a window to open or close the latter; and means for locking the rod against sliding; the said locking means comprising a sleeve mounted in slidable relation to the rod, and a movable clutch intermediate of the rod and the sleeve; the said clutch, when in one position, permitting the rod to slide freely relative to the sleeve; the said clutch, when in another position, lockingly engaging the rod relative to the sleeve; there being coacting formations upon the sleeve and the clutch for moving the sleeve from one to the other of the said positions upon relative rotation of the clutch with respect to the sleeve.

5. A lock for a window-operating mechanism actuated by a sliding rod, comprising a clutch-carrier and a clutch rotatably mounted therein, both encircling a portion of the said rod; there being coacting formations upon the clutch and clutch-carrier for moving the same into or out of parallelism upon relative rotation thereof; the said clutch having non-slidable engagement with the said rod in only one of the said positions; and spring means tending to hold the clutch in its said non-slidable rod-engaging position.

[Claims 6 to 12 not printed in the Gazette.]

1,077,908. ADJUSTABLE DEVICE FOR UNITING FRAMES. LEMUEL E. GIBSON, Des Moines, Iowa. Filed Apr. 12, 1911. Serial No. 620,675. (Cl. 70-83.)



In combination with frames having unaligned surfaces, a device for securing the frames together comprising a pliable metallic plate pivoted upon the surface of one frame to swing in a plane parallel with the said surface and restrained against other pivotal movement with relation to said surface, said plate having a slot in longitudinal alignment with its pivot, an eye rotatably mounted upon the other frame, at the surface thereof which is out of alignment with the surface of the first mentioned frame upon which the plate is mounted, said eye adapted to pass through the slot and a wedge insertible through the eye and adapted to force the slotted end of the plate toward that surface at which the eye is mounted and to a point between and spaced from the two planes, whereby strains are simultaneously established longitudinally of the plate and the eye.

1,077,909. TOOTH-BRUSH. EDWARD C. GRUEHL, Passaic, N. J. Filed June 5, 1913. Serial No. 771,782. (Cl. 15-39.)

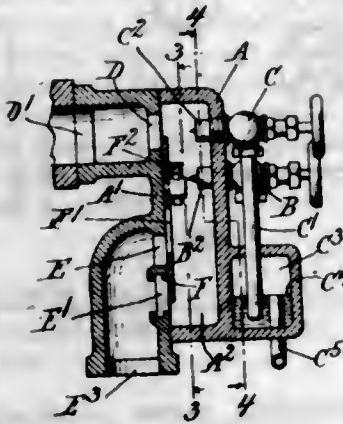


1. A brush comprising a brush portion and a projecting handle portion, said portions being divided longitudinally into independent parts capable of relative end to end reversal when not in use, and clamping devices for securing the same together in operative position.

2. A brush comprising a brush portion and a projecting handle portion, said portions being divided longitudinally

into independent parts capable of relative end to end reversal when not in use, and clamping devices carried by said parts for securing the same together in operative position.

1,077,910. CARBURETER. WILLIAM H. C. HIGGINS, Jr., Laporte, Ind. Filed Oct. 14, 1910. Serial No. 586,975. (Cl. 48-155.1.)



1. In a carbureter, a vacuum carbureting chamber having fuel and water inlets each having a nozzle opening into the carbureter chamber separate and distinct one from the other, the latter adapted to feed only after the vacuum has substantially varied from its condition of no-load, and both adapted to vary but unequally their feeds responsive to variations in the vacuum of the carbureting chamber, and an air inlet and a mixture outlet, in combination with means for simultaneously but unequally varying both of their effective areas during operation, and separate means for adjusting the effective area of one of them.

2. In a carbureter, a vacuum carbureting chamber having fuel and water inlets each having a nozzle opening into the carbureter chamber separate and distinct one from the other, the latter of larger effective area than the fuel inlet during operation and adapted to feed only after the vacuum has substantially varied from its condition at no-load, and both adapted to vary but unequally their feeds responsive to variations in the vacuum of the carbureting chamber, and an air inlet and a mixture outlet, in combination with means for simultaneously but unequally varying both of their effective areas during operation, and separate means for adjusting the effective area of one of them.

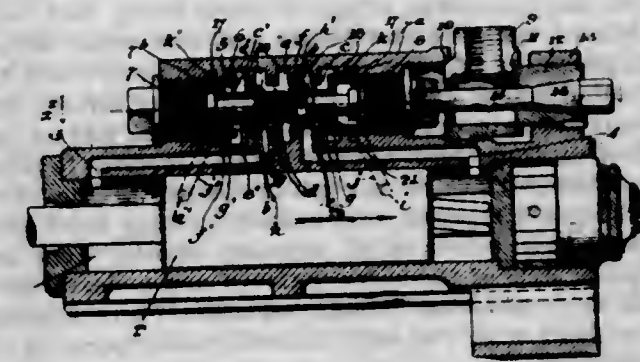
3. In a carbureter, a vacuum carbureter chamber having fuel and water inlets each having a nozzle opening into the carbureter chamber separate and distinct one from the other and adapted to vary their feeds responsive to variations in the vacuum in the carbureter chamber, the water inlet adapted to feed only after the vacuum has substantially varied from its condition of no load and after the oil has been feeding, and an air inlet and a mixture outlet in combination with means for simultaneously but unequally varying both of their effective areas during operation.

4. In a carbureter, a vacuum carbureter chamber having fuel and water inlets each having a nozzle opening into the carbureter chamber separate and distinct one from the other and adapted to vary their feeds responsive to variations in the vacuum in the carbureter chamber, means for maintaining the liquids which flow to said fuel and water inlets under different pressures, and an air inlet and a mixture outlet in combination with means for simultaneously but unequally varying their effective areas during operation.

5. In a carbureter, a vacuum carbureter chamber having fuel and water inlets, each having a nozzle opening into the carbureter chamber separate and distinct one from the other and adapted to vary their feeds responsive to variations in the vacuum in the carbureter chamber, means whereby the liquid supplies for the inlets are maintained under different heads so as to have different pressures, and an air inlet and a mixture outlet in combination with means for simultaneously but unequally varying both of their effective areas during operation.

[Claims 6 to 9 not printed in the Gazette.]

1,077,911. ROCK-DRILL. CHARLES A. HULTQUIST, Los Angeles, Cal. Filed Feb. 5, 1913. Serial No. 746,662. (Cl. 121-11.)



1. In a rock drill, a cylinder, a piston therein, a valve chamber, a valve in said chamber, said valve having plunger recesses in opposite ends, plungers in said recesses and movable with respect to the valve chamber to allow air pressure to act on the combined area of a plunger and the valve, ports between said valve and cylinder for the admission and exhaust of fluid to and from the cylinder, said ports being controlled by said valve, said valve having passages leading to the respective plunger recesses and adapted to be moved into or out of communication with the cylinder ports, said cylinder having valve ports with passages leading from the ports to the valve chamber for operating said valve, and said valve ports being opened and closed by the movement of the piston.

2. In a rock drill, a cylinder, a piston therein, a valve chamber, a valve in said chamber, said valve having a central circumferential groove and a circumferential groove on each side thereof, thereby forming two end flanges and two center flanges, the valve being formed with plunger recesses in opposite ends thereof, a plunger in each recess, the valve having passages leading from the respective plunger recesses to points on the respective surfaces of the center flanges, the cylinder having ports for the inlet and exhaust of fluid to operate the piston, said ports being controlled by said valve, said cylinder also having valve ports with passages leading from the respective ports to the opposite ends of the valve chamber, and said valve ports being located at intermediate points of the cylinder and being opened and closed by the movement of the piston.

3. In a rock drill, a cylinder, a piston therein, a valve chamber, a valve therein, ports for the inlet and exhaust of fluid to and from the cylinder to operate the piston, said ports being controlled by said valve, said valve having plunger recesses in opposite ends, plungers in said recesses and movable with respect to the valve chamber to allow air pressure to act on the combined area of a plunger and the valve, and means controlled by the movement of the piston for admitting fluid to the valve chamber at each end of the valve, and for admitting fluid to the interior of said plunger recesses.

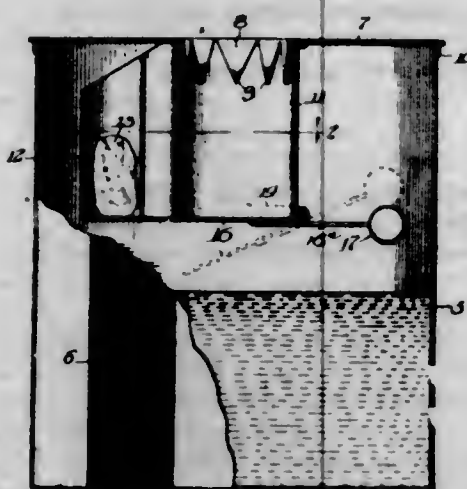
4. In a rock drill, a cylinder, a piston therein, a valve chamber, a valve therein, the cylinder having ports for the inlet and exhaust of fluid to and from the cylinder to operate the piston, said valve chamber having circumferential cylinder ports communicating with the respective latter ports and having a circumferential supply port between said cylinder ports and having circumferential exhaust ports on the outer side of the cylinder ports, said valve being formed with two end flanges and two center flanges, thereby providing a center circumferential groove and two end circumferential grooves, said valve being formed with plunger recesses in opposite ends thereof and having passages leading from the respective plunger recesses to points on the outer surface of the center flanges of the valve, and plungers in said recesses, said cylinder having valve ports at intermediate points with passages leading from said ports to the ends of the valve chamber.

5. In a rock drill, a cylinder, a piston therein, a valve chamber, a valve therein, the cylinder having ports for the

inlet and exhaust of fluid to and from the cylinder to operate the piston, said valve chamber having circumferential cylinder ports communicating with the respective latter ports and having a circumferential supply port between said cylinder ports and having circumferential exhaust ports on the outer side of the cylinder ports, said valve being formed with two end flanges and two center flanges, thereby providing a center circumferential groove and two end circumferential grooves, said valve being formed with plunger recesses in opposite ends thereof and having passages leading from the respective plunger recesses to points on the outer surface of the center flanges of the valve, plungers in said recesses, said cylinder having valve ports at intermediate points with passages leading from said ports to the ends of the valve chamber, and a sleeve lining in said valve chamber having segmental port openings which register with the said circumferential ports in the valve chamber.

[Claims 8 to 11 not printed in the Gazette.]

1,077,912. ANIMAL-TRAP. KARL E. JOHANSSON, Chicago, Ill. Filed Aug. 30, 1912. Serial No. 717,855. (Cl. 43-24.)



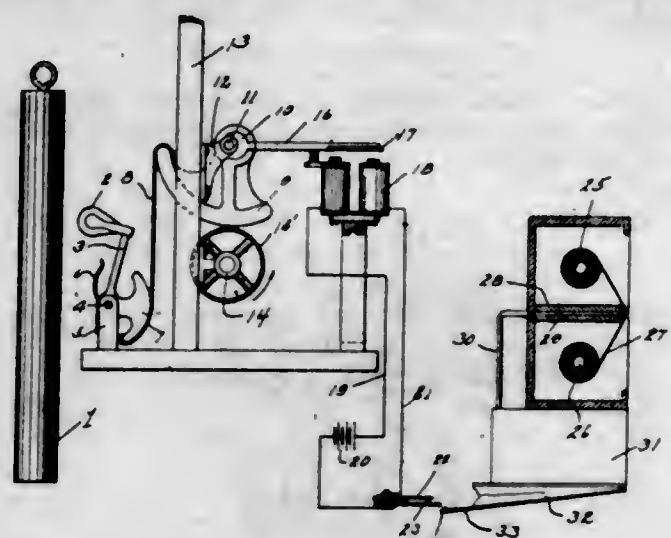
1. An animal trap consisting of a vessel, a cover closing the top of the vessel and having an entrance opening, a depending hollow entrance member secured at one of its ends around said opening and having an opening in its other end, a trap door pivotally mounted on the open end of the entrance member and adapted to open and close the same, said entrance member having integral therewith on its side a bait receptacle in communication therewith from its top to its bottom, said bait receptacle having its lower end closed and its upper end open and spaced from the cover to permit of the insertion of bait into said receptacle.

2. An animal trap including a cover for a vessel, said cover having a central opening therein and provided with downward projections at the edge of said opening, a depending hollow entrance member secured to the cover around said projections and having its free end open, said member having at its free or open end a pair of arms extended in parallelism therefrom, a single gravity actuated trap door pivotally mounted on and between said arms and adapted to open and close the free end of the entrance member, said entrance member having at its side a bait receptacle in communication therewith throughout its length, said bait receptacle having its lower end closed and its upper end open and spaced from the cover to permit of the insertion of bait into said receptacle.

1,077,913. HAMMER-ACTION FOR MUSICAL INSTRUMENTS. SARAH M. KEYTE, Oakland, Cal. Filed Oct. 8, 1912. Serial No. 724,617. (Cl. 84-176.)

1. A hammer action for musical instruments comprising in combination, a pivotally mounted striker, an eccentric provided with an armature, an actuator segment connected with said striker and adapted to be actuated by said eccentric, a constantly rotating wheel, an electrical de-

vice for actuating said armature to engage said actuator segment with the wheel, and pneumatic mechanism for



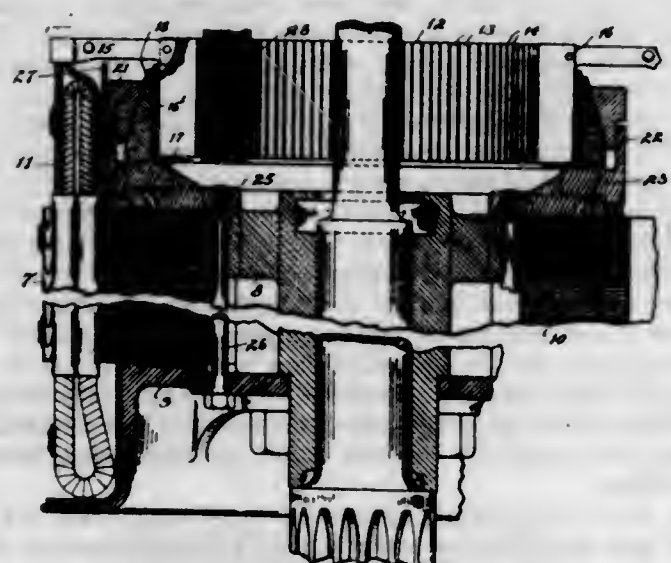
controlling said electrical device, substantially as described.

2. A hammer action for musical instruments comprising in combination, a pivotally mounted striker, an eccentric provided with an armature, an actuating segment connected with said striker and adapted to be actuated by said eccentric, a constantly rotating wheel, and an electrical device for actuating said armature to engage said actuating segment with said wheel, substantially as described.

3. A hammer action for musical instruments comprising in combination, a pivotally mounted striker, an eccentric provided with an armature, an actuating segment rotatively mounted on said eccentric and connected with said striker, a constantly rotating wheel, and electrical means for actuating said armature to engage said actuating segment with said wheel, substantially as described.

4. A hammer action for musical instruments comprising in combination, a striker, an eccentric, an actuator segment rotatively mounted on said eccentric and connected with said striker, a constantly rotating wheel, and means for turning said eccentric to engage said actuating segment with the wheel, substantially as described.

1,077,914. COMMUTATOR. RALPH E. NOBLE, Chicago, Ill. Original application filed July 2, 1910, Serial No. 570,102. Divided and this application filed Aug. 14, 1911. Serial No. 643,834. (Cl. 171-211.)



1. In a commutator, the combination of a flanged ring, a collapsible ring engaging therewith, said collapsible ring being formed of beveled segments, a second beveled ring engaging with said collapsible ring, means for adjusting said last-named ring with respect to the flanged ring in order to press the beveled segments inwardly, and an annular ring formed of contact members and intermediate insulating members, adapted to be engaged by said

collapsible ring and the parts held in position thereby, said last-named annular ring being insulated from the other ring.

2. The combination with a rotatable device comprising circularly arranged component parts, of a plurality of segmental pieces constituting a ring for encircling the device and having their lines of abutment inclined to the plane of the ring, and mechanical means for exerting a uniform inward pressure upon the said ring.

3. The combination with a rotatable device comprising circularly arranged component parts, of a plurality of tapered segmental pieces constituting a ring with a cylindrical inner surface and a conical outer surface, the lines of abutment of the segmental pieces being inclined to the plane of the ring, a collar surrounding the ring and having a corresponding conical inner surface, and means for causing axial movement of the collar upon the said ring.

1,077,915. NON-REFILLABLE BOTTLE. WLADISLAUS RAKOWSKI, Davis, W. Va. Filed Aug. 6, 1912. Serial No. 713,628. (Cl. 215-69.)



1. In a non-refillable bottle, a valve casing, a valve-seat within the casing, a valve support arranged within the casing and including a portion extending across the interior of the casing and resilient terminal portions angularly bent and projecting slidably through the casing at diametrically opposite points, and valve-leaves pivoted to the first mentioned portion of the valve support and arranged to rest at their edges upon the seat.

2. In a non-refillable bottle, a valve casing, a valve-seat within the casing, a valve support arranged within the casing and including a portion extending across the interior of the casing substantially in a plane with the valve seat, and valve-leaves pivoted to the said portion of the support and arranged to rest at their edges upon the seat.

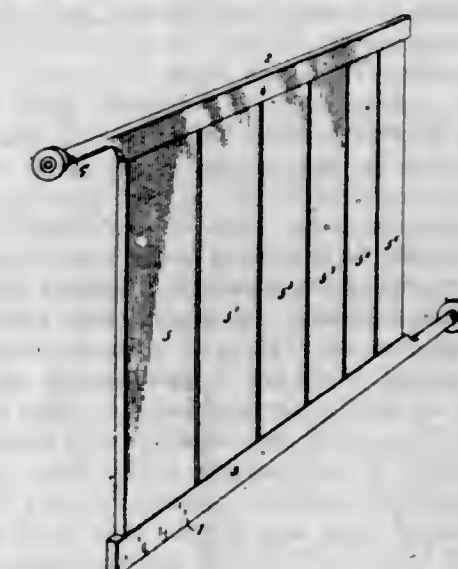
3. In a non-refillable bottle, the neck of which is formed at diametrically opposite points with sockets, a valve casing fitted within the said neck, a guard carried by the casing at the upper end thereof, a valve support formed from a single length of wire bent to form an intermediate supporting portion extending diametrically across the casing and having its end portion bent to extend downwardly and inwardly and thence laterally, the laterally extending terminals of the said support being fitted through openings located at diametrically opposite points in the wall of the valve casing and projecting into the said sockets whereby to hold the casing against displacement in the said neck and against removal therefrom, a valve seat extending around the inner side of the wall of the valve casing, and valve leaves hinged to the said intermediate supporting portion of the valve support and arranged to rest at their outer edges upon the said seat, the said leaves lying at opposite sides of the said portion of the support.

4. In a non-refillable bottle, a valve casing, a valve-seat within the casing, a valve support formed from a single

length of wire bent to form an intermediate supporting portion extending diametrically across the casing and to form resilient terminal portions extending downwardly and inwardly and thence laterally, the laterally extending portions of the said member being slidably fitted through the wall of the valve casing at diametrically opposite points, and a valve-leaf hinged to the intermediate supporting portion of the member, and arranged to rest at its edge upon the seat.

5. In a non-refillable bottle, a valve casing comprising a hollow body, a ring arranged within the said body and extending circumferentially interiorly thereof and constituting a valve seat, a valve supporting member comprising a length of wire bent to form an intermediate portion extending diametrically of the ring and having its end portions bent downwardly and inwardly and thence laterally to project slidably through the said body at diametrically opposite points and thereby form locking members designed to engage in seats in the neck of the bottle, and valve leaves hinged to the said intermediate portion of the supporting member and arranged to lie normally upon the said ring at their arcuate edges, the said leaves being substantially semicircular and lying one at each edge of the said intermediate portion of the supporting member.

1,077,916. ICE-MAKING MACHINE. THOMAS H. RAY, Dorchester, Mass. Filed Mar. 20, 1913. Serial No. 755,653. (Cl. 62-6.)



1. As an article of manufacture employed in making artificial ice, a blade header comprising a thin metallic pipe having two of its sides opposite and parallel for the formation of ice thereon, and a third side lying between the said parallel ice forming sides and having passages therethrough for a refrigerant liquid, and being adapted to be secured to, and cooperate with, a hollow metallic freezing blade.

2. In a refrigerating machine, a single, thin, hollow, metallic freezing blade; a single, thin, hollow, metallic freezing blade header, across the top of the said hollow metallic freezing blade, for withdrawing the refrigerant liquid employed from the top portion of the hollow metallic freezing blade; a single, thin, hollow, metallic freezing blade header, across the bottom of the said hollow metallic freezing blade, for feeding the refrigerant liquid upward from the bottom of the metallic freezing blade; all of the exposed surfaces of said blade and header, being designed to be entirely submerged and utilized as heat absorbing surfaces for making ice.

3. In a refrigerating machine a series of two or more separate hollow metallic freezing blades adapted to be entirely submerged in a water tank; means, whose surfaces are ice forming surfaces, designed to be below the surface of the water and connected with the top portion of each of the hollow metallic blades, for withdrawing the refrigerant liquid employed from the top portion of the blades, simultaneously; and means, whose surfaces are ice forming surfaces, across the bottom portions of the

hollow metallic freezing blades, and below the level of the water, for simultaneously feeding the refrigerant liquid upward from the bottom of the hollow metallic freezing blade; all designed to utilize for making ice substantially all of the heat absorbing surfaces of the machine, within the walls of the water tank.

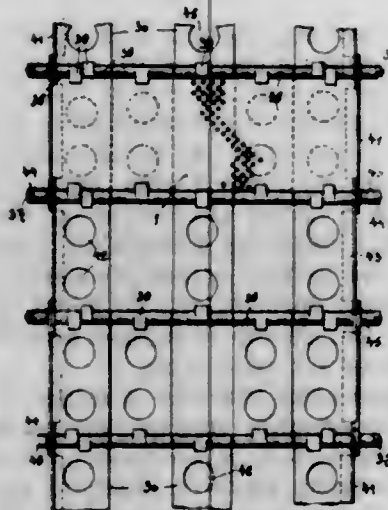
1,077,917. WINDOW-SCREEN. PER AUGUST ROSELLE, Racine, Wis. Filed Apr. 3, 1911. Serial No. 618,683. (Cl. 156—38.)



1. In a window screen, the combination with the frame which is composed of a piece of material shaped into a pair of elongated U-shaped loops disposed in planes at right angles to each other and another piece of material shaped into three U-shaped loops, two of which are disposed in a plane at right angles to the third, of auxiliary pieces of material adapted for partial insertion in two of the said U-shaped loops, part of each piece being bent back upon one side of each loop and a wire screen disposed between each of said pieces and its U-shaped loop.

2. In a window screen, the combination with the frame which is composed of a piece of material shaped into a pair of elongated U-shaped loops disposed in planes at right angles to each other and another piece of material shaped into three U-shaped loops, two of which are disposed in a plane at right angles to the third, of auxiliary pieces of material disposed partly within two of said U-shaped loops and lapped over upon one side of each of said loops and a wire screen disposed between each of said pieces and its U-shaped loop.

1,077,918. CONVEYING APPARATUS. HEINRICH SECK, Dresden, Germany. Filed Aug. 1, 1911. Serial No. 641,742. (Cl. 193—26.)



1. An endless conveyer, comprising individual supporting plates with hinges formed thereon at opposite ends, means for successively connecting a plurality of such

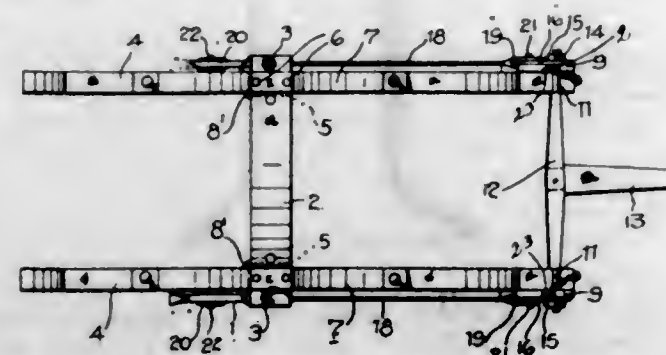
plates, tongues produced on said hinges and forming grooves together with the supporting plates, and conveyer plates adapted to be inserted into and removed from said grooves.

2. An endless conveyer comprising a plurality of individual supporting plates adapted to be successively hinged together to form an endless carrier, conveyer plates removably held in place on said supporting plates and retaining flanges secured to the longitudinal edges of the outside supporting plates.

3. An endless conveyer, comprising a plurality of individual supporting plates with hinges formed thereon at opposite ends, means for pivotally connecting said supporting plates lengthwise and sidewise to form an endless carrier, and retaining flanges secured to the longitudinal edges of the outside supporting plates with their ends overlapping each other.

4. An endless conveyer, comprising a plurality of individual supporting plates with hinges formed thereon at opposite ends, means for pivotally connecting said supporting plates lengthwise and sidewise to form an endless carrier, and retaining flanges secured to the longitudinal edges of the outside supporting plates with their ends overlapping each other, and conveyer plates removably held by said supporting plates and composed of perforated sheet metal.

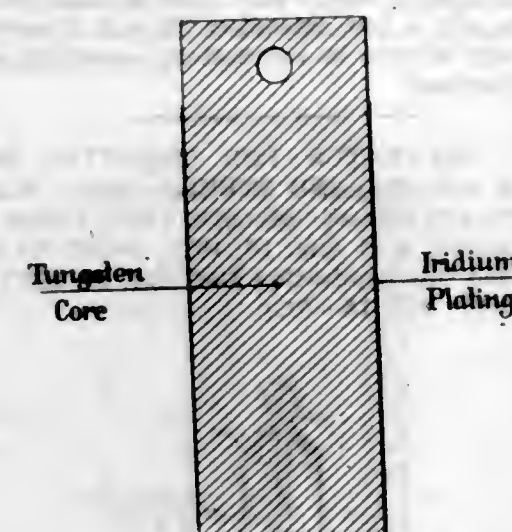
1,077,919. AUTOMATIC SLEIGH-BRAKE. HENRY M. SINES and MARTIN SINES, Farris, Wash. Filed Apr. 9, 1913. Serial No. 759,963. (Cl. 21—46.)



1. The combination with sleigh runners, means for connecting the sleigh runners, means for bracing the sleigh runners and connecting means, and a tongue; of castings carried by the sleigh runners and having elongated openings, the member at the inner end of the tongue being engaged through the elongated openings of the castings, rock levers pivoted upon the runners, connections between the upper ends of the rock levers and the extremities of the tongue member, brake arm operating rods pivoted to the lower ends of the levers, brake arms suspended from the runner connecting means, said operating rods being pivoted to the brake arms to operate the latter, means for guiding the brake arms, and means for engagement in the castings rearwardly of the tongue member to prevent operation of the levers and rods.

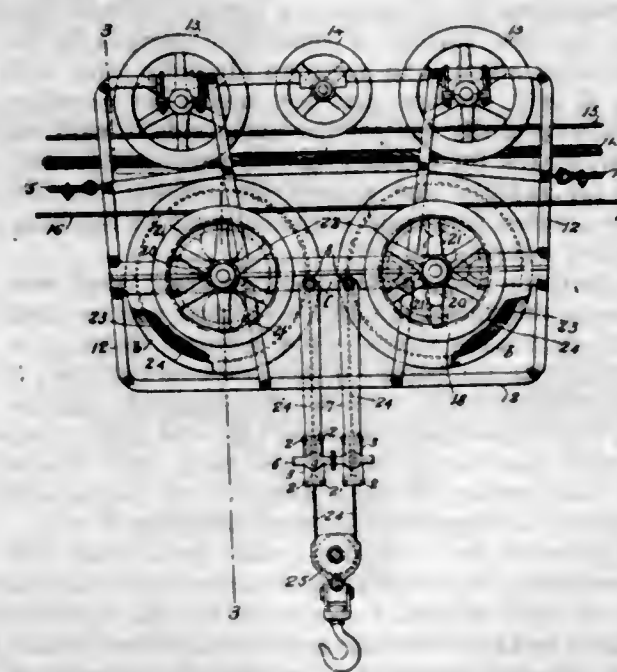
2. The combination with sleigh runners, means for connecting the sleigh runners, means for bracing the sleigh runners and connecting means, and a tongue; of castings carried by the forward ends of the sleigh runners and having elongated horizontal openings, the transverse member at the inner end of the tongue having its extremities engaged through the elongated openings of the castings, rock levers pivoted upon the outer faces of the runners, loose connections between the upper ends of the rock levers and the projecting extremities of the transverse tongue member, brake arm operating rods pivoted to the lower ends of the levers, brake arms suspended from the runner connecting member, said operating rods being pivoted to the brake arms to operate the latter, means for guiding the brake arms, and means for engagement in the castings rearwardly of the ends of the transverse tongue member to prevent operation of the levers and rods.

1,077,920. ELECTRODE. ROYAL H. STEVENS, Salt Lake City, Utah, assignor to United States Smelting, Refining & Mining Company, Portland, Me., a Corporation of Maine. Filed Jan. 27, 1913. Serial No. 744,541. (Cl. 204—4.)



1. An electrode of tungsten plated with a metal of the gold group.
 2. An electrode of tungsten plated with iridium.
 3. An electrode of tungsten plated with a non-oxidizable metal.
 4. An electrode of tungsten plated with a reagent-resisting metal.
 5. An electrode of tungsten united with and having its surface rendered conducting by means of a metal of the gold group.
- [Claims 6 to 8 not printed in the Gazette.]

1,077,921. CABLEWAY. CHARLES C. SUNDERLAND, Trenton, N. J., assignor to John A. Roebling's Sons Company, a Corporation of New Jersey. Filed Dec. 12, 1911. Serial No. 665,352. (Cl. 212—96.)



1. The combination with a way, a carriage moving thereon, hoisting drums on the carriage, and means for operating the drums, of a fall rope loop between the drums formed by a flat fall rope supported by the drums at opposite ends of the loop, the rope receiving portions of the drums being of substantially the width of the fall rope and flanged to support the rope coil.
2. The combination with a way, a carriage moving thereon, hoisting drums on the carriage, and means for operating the drums, of a fall rope loop between the drums formed by a flat fall rope supported by the drums at opposite ends of the loop, the rope receiving portions of the drums being of substantially the width of the fall

rope and flanged to support the rope coil, and guiding devices between the drums and load for preventing the twisting of the fall rope.

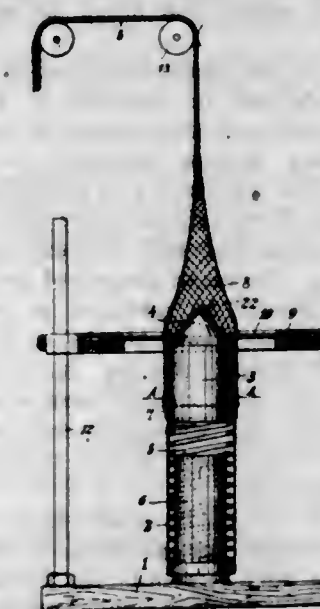
3. The combination with a way, a carriage moving thereon, hoisting drums on the carriage, and means for operating the drums, of a flat fall rope carried by the drums, the rope receiving portions of the drums being of substantially the width of the fall rope, and flanged to support the rope coil, and guiding devices between the drums and load for preventing the twisting of the fall rope, said guiding devices including separate guides for the two parts of the fall rope loop mounted to move independently of each other with the fall rope sidewise of the rope.

4. The combination with a way, a carriage moving thereon, hoisting drums on the carriage, and means for operating the drums, of a flat fall rope carried by the drums, the rope receiving portions of the drums being of substantially the width of the fall rope and flanged to support the rope coil, and guiding devices between the drums and load for preventing the twisting of the fall rope, said guiding devices including separate guides for the two parts of the fall rope loop mounted to move independently of each other with the fall rope sidewise of the rope and to rock with change of inclination of the fall rope.

5. In combination, a cableway, a carriage mounted upon the cableway, a pair of hoisting drums mounted in the carriage, a fall rope loop between the drums formed by a flat fall rope, the flanges upon said drums spaced substantially the width of the fall rope, and means to operate the drums, the ends of the fall rope being attached respectively to the drums.

[Claims 6 to 13 not printed in the Gazette.]

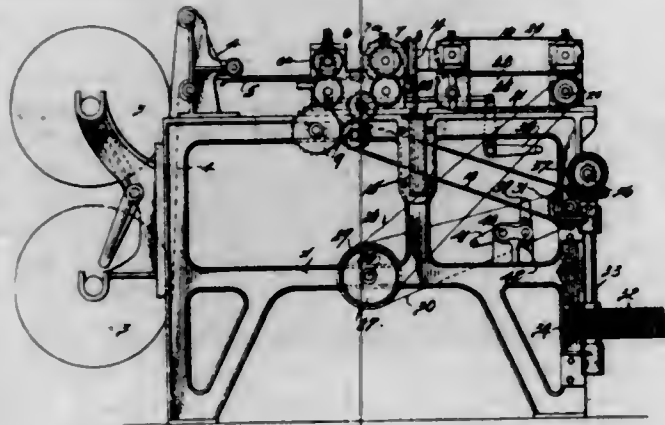
1,077,922. METHOD OF AND MEANS FOR MANUFACTURING MANTLES FOR INCANDESCENT GAS-LIGHTING. ISIDOR WEBER, Vienna, Austria-Hungary. Filed Mar. 17, 1910. Serial No. 549,867. (Cl. 67—100.)



1. A device for stitching contracted mantles for incandescent lighting, comprising an annular disk provided with serrations for holding the contracted part of the mantle in place for sewing it inside of the disk.
2. An apparatus for use in the manufacture of mantles, comprising a cylindrical mandrel, and an iris shutter mounted concentric to the upper surface of said mandrel.
3. In an apparatus of the kind described, a mandrel consisting of a sleeve, a member axially displaceable therein, and a stop, said displaceable member being tapered above and maintained in the raised position by a spring, while by the action of a contracting device it may be pressed downward as far as the stop.
4. In an apparatus of the kind described, a mandrel consisting of a sleeve, a member axially displaceable therein, and an adjustable stop, said displaceable member

being tapered above and maintained in the raised position by a spring, while by the action of a contracting device it may be pressed downward as far as the stop.

1,077,923. SHEET-DELIVERY FEED. ISAAC J. WIT-HAM and GEORGE S. WIT-HAM, Sr., Hudson Falls, N. Y., assignors to The Union Bag & Paper Company, a Corporation of New Jersey. Original application filed June 13, 1912, Serial No. 703,388. Divided and this application filed Sept. 18, 1912. Serial No. 720,917. (Cl. 164-68.)



1. In a machine of the class described in combination, a feeding device, a delivery device receiving the stock from said feeding device, and having members adapted to receive the stock therebetween, means for driving said members in the same direction so as to advance the stock, said members being arranged to converge in the direction toward which they advance the stock, and means for increasing or decreasing the speed of said members independently of the speed of said feeding device to control the moment at which the stock is projected from said delivery device.

2. In a machine of the class described in combination, a feeding device adapted to advance a web of stock, means for dividing said web into blanks, a delivery device beyond said dividing means adapted to receive the blanks, and means for varying the periodic delivery of the successive blanks from said delivery device by changing the speed of actuation of said delivery device.

3. In a machine of the class described in combination, a feeding device adapted to advance a web of stock, means for cutting said web into blanks, a delivery device comprising belts diverging at the receiving end and adapted to receive the blank therebetween when the blank is being severed from the web, and means for driving said delivery belts at a higher speed than said feeding device advances said web.

4. In a machine of the class described in combination, a feeding device, means for guiding a web of stock through said feeding device, means for cutting said web into blanks beyond said feeding device, means for driving said feeding device to advance said web at a predetermined speed, a delivery device adapted to receive the blanks of said web, means for driving said delivery device so as to advance the blank at a higher speed than said web, and means for varying the driving speed of said delivery device independently of the driving speed of said feeding device.

5. In a machine of the class described in combination, a feeding device comprising a pair of feed rollers, means for guiding a web of stock between said rollers so as to be advanced thereby, a delivery device comprising rollers, belts passing around said rollers and diverging at their end adjacent said feed rollers so as to receive the end of the web therebetween, and a severing device arranged between said belts and said feed rollers for severing said web into blanks.

[Claim 6 not printed in the Gazette.]

1,077,924. INTERCHANGEABLE WINDOW-WEIGHT. JACOB ATLAS, Vista Grande, Cal. Filed Sept. 5, 1912. Serial No. 718,882. (Cl. 16-20.)

An interchangeable window weight comprising a plurality of weighted receptacles, one nested into the next adjacent receptacle, said weight having a pyramidal top and bottom, and a bolt extending through the several receptacles and secured in the bottom receptacle, substantially as described.

1,077,925. APPARATUS FOR TREATING MOLTEN METALS, ALLOYS, AND STEELS. LOUIS MARIE VICTOR HIPPOLYTE BARADUC-MULLER, Paris, France. Original application filed Aug. 18, 1911, Serial No. 644,384. Divided and this application filed Mar. 29, 1912. Serial No. 687,009. (Cl. 75-51.)



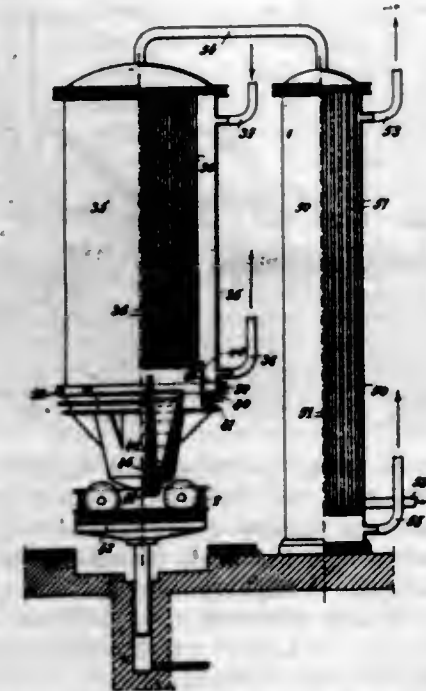
1. Apparatus for removing gases from steel and the like, comprising in combination a vertical vacuum chamber having an open bottom, a removable receptacle for the molten metal adapted to make an air-tight joint with the bottom of said vacuum chamber, means for pressing said receptacle upwardly against the under side of said vacuum chamber, means for evacuating said vacuum chamber, and means for rapidly and extensively cooling the air and gases evacuated from said chamber prior to reaching said evacuating means.

2. Apparatus for removing gases from steel and the like, comprising in combination a vertical vacuum chamber, a receptacle for the molten metal adapted to make an air-tight joint with the bottom of said vacuum chamber, means for evacuating said vacuum chamber, and means for rapidly and extensively cooling the air and gases evacuated from said chamber prior to reaching said evacuating means, said means having a capacity of cooling said air and gases to a temperature of approximately 0° C.

3. Apparatus for removing gases from steel and the like, comprising in combination a vertical vacuum chamber having an open bottom, a receptacle for the molten metal adapted to make an air-tight joint with the bottom of said vacuum chamber, means for pressing said receptacle upwardly against the under side of said vacuum chamber, means for evacuating said vacuum chamber, and means for rapidly and extensively cooling the air and gases evacuated from said chamber prior to reaching said evacuating means, said means comprising a cylinder having tubes therein for the passage of gases and adapted to contain a cooling fluid around said tubes.

4. Apparatus for removing gases from steel and the like, comprising in combination a vertical vacuum chamber having an open bottom, a removable receptacle for the molten metal adapted to make an air-tight joint with the bottom of said vacuum chamber, means for pressing said receptacle upwardly against the under side of said vacuum

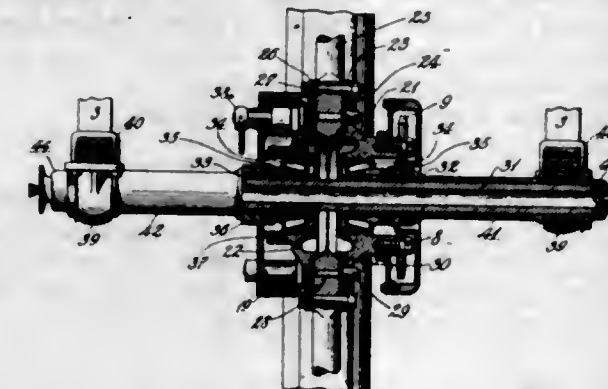
chamber, means for evacuating said vacuum chamber, means for rapidly and extensively cooling the air and gases evacuated from said chamber prior to reaching said evacuating means, said means comprising a compartment in the upper part of said vacuum chamber adapted to contain a cooling fluid, and tubes passing through said compartment through which the air and gases to be cooled are adapted to pass.



5. Apparatus for removing gases from steel and the like, comprising in combination a vertical vacuum chamber, a removable receptacle for the molten metal adapted to make an air-tight joint with the bottom of said vacuum chamber, means for evacuating said vacuum chamber, said vacuum chamber having a plastic washer-ring at its lower end and means for cooling said washer-ring and said receptacle having a circular flange adapted to fit against said washer, and means for rapidly and extensively cooling the air and gases evacuated from said chamber prior to reaching said evacuating means.

[Claims 6 to 9 not printed in the Gazette.]

1,077,926. DRIVE-WHEEL MOUNTING FOR VEHICLES. JAMES SCRIPPS BOOTH, Detroit, Mich. Filed Feb. 10, 1913. Serial No. 747,243. (Cl. 208-17.)



1. In a vehicle, the combination with a wheel and frame members adapted to be supported by said wheel at each side thereof, of opposed hub members detachably secured to the sides of the wheel, a bearing member in each hub member upon which said hub members are adapted to turn, driving mechanism applied to one of the hub members for turning the wheel, and an axle member upon which the bearing members are sleeved and held against turning, the frame members being supported upon said axle member near its ends.

2. In a vehicle, the combination with a wheel and frame members adapted to be supported by said wheel at each side thereof, of opposed hub members detachably secured to the sides of the wheel, a bearing member in each hub member upon which said hub members are adapted to

turn, driving mechanism applied to one of the hub members for turning the wheel, an axle member extending through the bearing members, means for attaching the frame members to the axle member near its ends, and spacing sleeves on the axle member between the hub members and the means for attaching the frame members to the axle member.

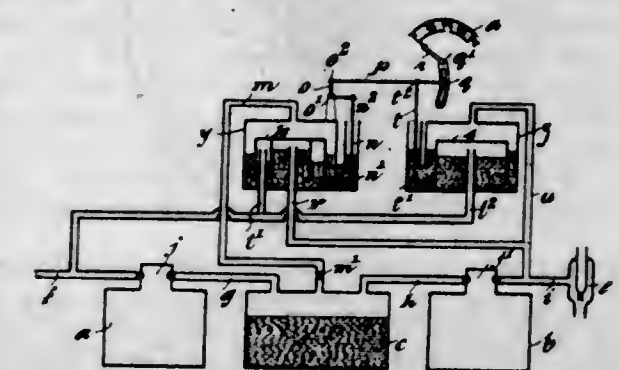
3. In a vehicle, the combination with a wheel and a frame adapted to be supported by said wheel, of opposed hub members detachably secured to the sides of the wheel, a bearing sleeve within each hub member removable there-with when the hub member is detached from the wheel, an axle member extending through both of the sleeves, means attached to said sleeves and frame for preventing rotation of said sleeves, and means attached to the ends of said axle member for supporting the frame thereon.

4. The combination of a vehicle wheel having an annular center member, opposed hub members having flanges to engage the annular center member, the flange of one of said members being formed with openings and each member formed with a seat for the annular center member to center the same thereon, means projecting from the side of the annular center member to engage the openings in said flange of the hub member, means for detachably securing the flanges of the hub members to the sides of said annular center member, a non-rotatable sleeve in each hub member, a bearing between each hub member and sleeve, a non-rotatable axle member extending through the sleeves and adapted to be moved longitudinally therethrough for disengagement therefrom, and means for holding said sleeves from turning upon the axle member.

5. In a vehicle, the combination with a wheel and a frame having members extending at each side of the wheel, opposed hub members detachably secured to the sides of the wheel, driving mechanism for turning the wheel operatively connected to one of the hub members, an axle member extending through the hub members and connected at its ends to the frame members, bearing members on the axle member within the hub members and from which said axle member is adapted to be withdrawn, said bearing members being supported by the hub members when the axle member is withdrawn, and distance members connecting the bearing members with the frame.

[Claims 6 to 8 not printed in the Gazette.]

1,077,927. AUTOMATIC GAS-ANALYZER. PERCIVAL RAYMOND BOULTON, Birmingham, England. Filed Apr. 15, 1913. Serial No. 761,277. (Cl. 23-3.)



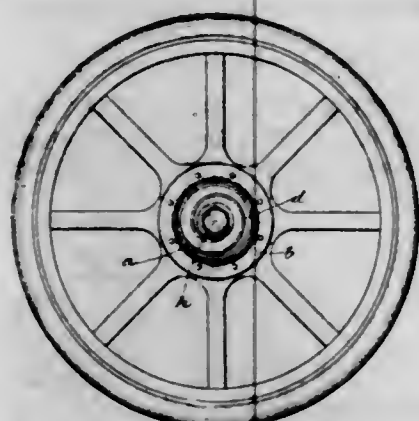
1. Apparatus for the analysis of gases, having, in combination, an absorption tank containing an absorbent, a supply conduit for conveying to said tank the gases to be analyzed, an ingress receptacle associated with such supply conduit, and through which the gases are adapted to pass before arriving at the absorption tank, an egress conduit providing for the egress of the gases from said absorption tank, a receptacle associated with said egress conduit, and through which the gases are adapted to pass after leaving the pressure tank, means for causing the gases to successively traverse the ingress receptacle, the pressure tank, and the egress receptacle, means for controlling the passage of the gases to and from the ingress receptacle, means for controlling the passage of the gases to and from the egress receptacle such last-mentioned means being adapted to operate in appropriate relationship with the controlling

means pertaining to the ingress receptacle, and means for determining the percentage of gas constituent absorbed, said means being adapted to compensate for the variations in pressure in the gas before entering the ingress receptacle and after leaving the egress receptacle.

2. Apparatus for the analysis of gases, having, in combination, an absorption tank containing an absorbent, a supply conduit for conveying to said tank the gases to be analyzed, an ingress receptacle associated with such supply conduit, and through which the gases are adapted to pass, before arriving at the absorption tank, an egress conduit providing for the egress of the gases from said absorption tank, an egress receptacle associated with said egress conduit, and through which the gases are adapted to pass after leaving the absorption tank, means for causing the gases to successively traverse the ingress receptacle, the pressure tank, and the egress receptacle, means for controlling the passage of the gases to and from the ingress receptacle, means for controlling the passage of the gases to and from the egress receptacle, such last-mentioned means being adapted to operate in appropriate relationship with the controlling means pertaining to the ingress receptacle, means for maintaining constant the difference of pressure between the gases before entering the ingress receptacle, and the gases after leaving the egress receptacle, and means for determining the percentage of gas constituent absorbed, said means being adapted to compensate for the variations in pressure in the gas before entering the ingress receptacle and after leaving the egress receptacle.

3. A gas analyzing apparatus comprising in combination, an absorption tank containing an absorbent substance, means for flowing gas through said tank, and pressure responsive mechanism connected to said tank and adapted in conjunction with said tank, to determine the percentage of gas constituent absorbed, said mechanism being adapted to compensate for the variations in pressure in the gas before entering the apparatus.

1,077,928. WHEEL-HUB. FLORENZO GAMBARINI, Chicago, Ill. Filed May 5, 1913. Serial No. 765,478. (Cl. 152-39.)

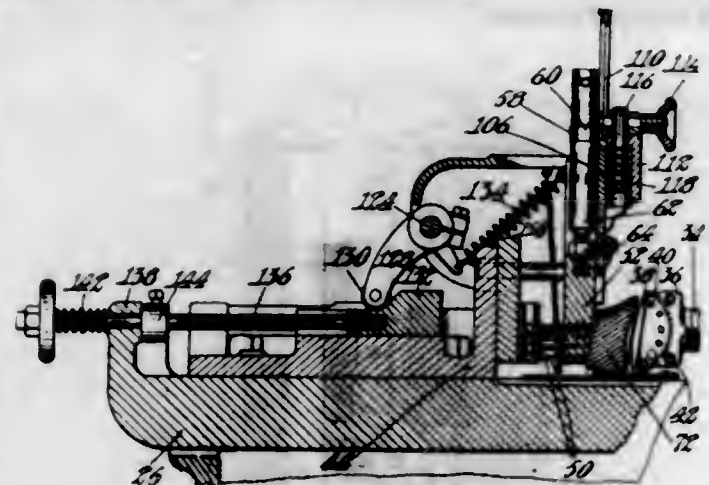


A hub for a vehicle wheel consisting of an outer cylinder adapted to be attached to the spoke-bearing portion of a wheel, an inner cylinder adapted to rotate on the axle of the wheel, a spiral spring attached at one end to said outer cylinder and at the other end to said inner cylinder, a plurality of strips of rubber disposed transversely between the convolutions of said spring, wires passing through said strips, the projecting ends of which wires are bent, and recesses formed in the edges of said spring adapted to receive the bent ends of said wires and thereby hold said strips securely in place, substantially as described.

1,077,929. HEEL-PRICKING MACHINE. JOHN E. GLIDDEN, insane, Beverly, Mass., by Sadie E. Glidden, Beverly, Mass., guardian; said Sadie E. Glidden, administratrix of said John E. Glidden, deceased, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 8, 1910. Serial No. 591,314. (Cl. 1-83.)

1. In a heel pricking machine, the combination of a yielding support adapted to receive the breast portion of a

heel, a gang of awls, means engaging the heel for positioning the rear thereof the same distance from the rearmost awl of the gang irrespective of the size of the heel, means to force the heel upon the awls, and means to apply pressure to the heel in the direction of its height while it is being stripped from the awls.



2. In a heel pricking machine, the combination of a yielding support adapted to receive the breast portion of a heel, a gang of awls, means engaging the heel for positioning the rear thereof the same distance from the rearmost awl of the gang irrespective of the size of the heel, means to force the heel upon the awls, and means to apply yielding pressure to the heel in the direction of its height while it is being stripped from the awls.

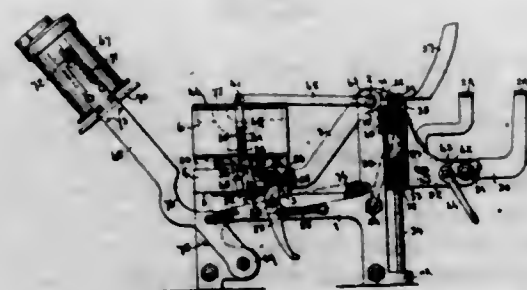
3. In a heel pricking machine, the combination of a yielding support adapted to receive the breast portion of a heel, a gang of awls, means engaging the heel for positioning the rear thereof the same distance from the rearmost awl of the gang irrespective of the size of the heel, means to force the heel upon the awls, and means to apply yielding pressure to the heel while it is being stripped from the awls.

4. In a machine of the class described, the combination of a yielding support for a heel, mechanism for moving a heel sustained upon the support into a predetermined, definite position, and means for engaging the heel and exerting pressure upon it while in said position, said mechanism being operated by said means.

5. In a heel pricking machine, the combination of a yielding breast plate adapted to sustain a heel, a movable rear fork arranged to engage the heel and move it into a predetermined position, pressing members, comprising a templet and a follower, arranged to press the heel between them, and means actuated by movement of one of said pressing members for moving the fork.

[Claims 6 to 8 not printed in the Gazette.]

1,077,930. MOLDING-MACHINE. JOHN GOW, Schenectady, N. Y., assignor of one-half to Archibald M. Loudon, Elmira, N. Y.; Horace W. Philbrook and Archibald M. Loudon, administrators of said Gow, deceased. Filed Aug. 18, 1910. Serial No. 577,822. (Cl. 22-33.)



1. A molding machine having a rock-over mold carrier and means on the carrier for fastening the pattern carrying member of a core box or flask thereon comprising two oppositely disposed flanged cross bars susceptible of movement to adjust the distance between the flanged portions thereof, in combination with interlocking means on said member adapted to be engaged by said flanges.

2. A molding machine having a rock-over mold carrier and means on the carrier for fastening the pattern carrying member of a core-box or flask thereon comprising two oppositely disposed flanged cross bars adapted to rock laterally, means for simultaneously rocking the bars in opposite directions, in combination with interlocking means on said member adapted to be engaged by the bars, and means for locking the bars against movement when so engaged.

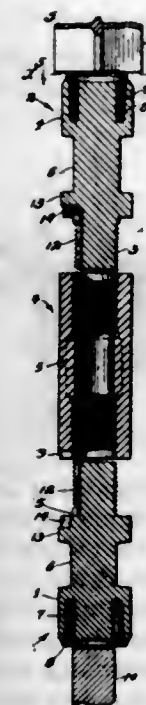
3. A molding machine having a rock-over mold carrier and means on the carrier for fastening the pattern carrying member of a core-box or flask thereon, comprising two rock bars having flanges projecting from their upper edges, a rock-shaft mounted between and parallel to said bars, links connecting the shaft to the bars in a manner to move the bars simultaneously in opposite directions, means for turning the shaft, and a locking device for fastening the shaft in different angular positions, in combination with interlocking means on said member adapted to be engaged by said flanges.

4. A molding machine having a rock-over mold carrier, in combination with a bottom-board clamp comprising a cross-bar carried between arms hinged to swing around the rock-over pivot as a center, projections on said arms extending from adjacent the cross-bar to the carrier at opposite sides of a core-box or flask when positioned thereon, pins on the ends of said projections, a snap latch on one or both sides of the carrier to engage one or both pins, and means for actuating the latch or latches to release the clamping bar when the carrier is thrown over into discharging position.

5. A molding machine having a rock-over mold carrier, in combination with a bottom-board clamp comprising a cross-bar carried between arms hinged to swing around the rock-over pivot as a center, means for fastening the bar to the carrier when in position over a core-box or flask attached to the carrier, and means for automatically releasing the bar when the carrier is thrown over into discharging position.

[Claims 6 to 11 not printed in the Gazette.]

1,077,931. SUCKER-ROD AND THE LIKE. JOHN HAHN, Los Angeles, Cal. Filed June 11, 1912. Serial No. 703,076. (Cl. 255-28.)



1. The structure set forth comprising two members of different cross-sectional areas united by a welded joint, one of said members having integral therewith a welding stub and a sleeve surrounding and spaced apart from the stub, said stub and the inside of the sleeve being welded with the other member.

2. The structure set forth comprising two members of different cross-sectional forms united by a welded joint,

one of said members having integral therewith a welding stub and a sleeve surrounding and spaced apart from the stub to form a channel to receive and hold the upset metal of the stub and other member.

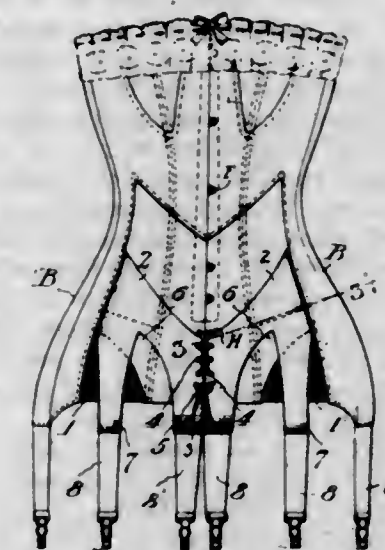
3. The structure set forth comprising two members united by a welded joint, one of said members having integral therewith an internally tapered sleeve telescoped upon a portion of the other member.

4. The structure set forth comprising two members united by a welded joint, one of said members being provided internally with a channel in which portions of the other member are welded.

5. The structure set forth comprising two members united by a welded joint, one of said members being provided with a welding stub of different cross-sectional form than the other member, and a sleeve around the stub.

[Claims 6 to 18 not printed in the Gazette.]

1,077,932. CORSET. JULIUS EDWARD HEILNER, New York, N. Y. Filed May 13, 1912. Serial No. 696,963. (Cl. 2-73.)



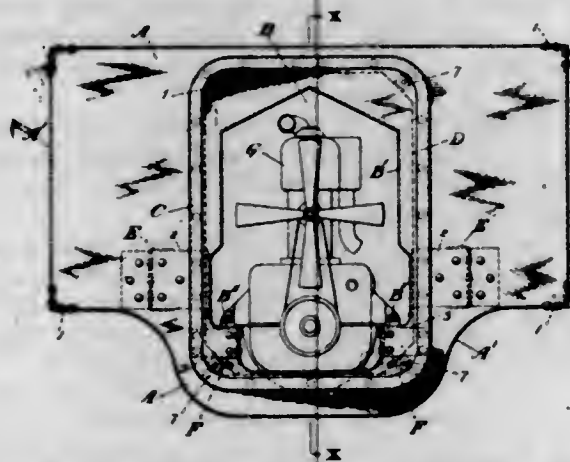
In a corset, the combination with the body members whose front meeting edges have fasteners at their upper portion and eyelets at their lower portion, and elastic gores inserted in the lower edges of said body members; of a V-shaped abdominal reducing attachment comprising two flaps whose outer ends are stitched to the members above said gores and whose inner ends are provided with eyelets registering with those in said body members, each flap being slightly longer than the corresponding corset member between the points where they are stitched and the registering eyelets, said flaps depending below said members and carrying hose supporters, and a lacing connecting the eyelets of the flaps and adapted to simultaneously connect the eyelets of said body members.

1,077,933. AUTOMOBILE. EDWARD R. HEWITT, Ringwood, N. J., assignor, by mesne assignments, to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 30, 1910. Serial No. 600,028. (Cl. 21-90.)

1. In combination in a motor vehicle, a vertical dash-board at the forward end constituting a permanent dash and rigid permanent transverse connection between the forward ends of the frame, two longitudinal frame members with their forward ends attached to the dash and extending rearwardly, and a motor adapted to be supported at the forward ends of the frame members, said dash having an opening adapted to permit the mounting and removal of said engine through the dash.

2. In combination in a motor driven vehicle, longitudinal frame members, a vertical dash-board constituting a permanent transverse connection between the forward ends of the longitudinal frame members and having an opening through which the driving motor is assembled,

a radiator and a housing for the radiator secured to the dash-board and surrounding the opening in the dash-board.



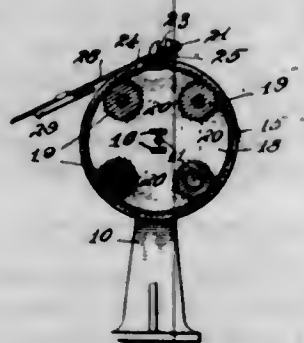
3. In combination in a motor driven vehicle, a radiator and a dash-board having an opening through which the driving motor is moved horizontally to be mounted on or removed from the vehicle, said dash-board constituting the forward cross member of said vehicle frame and surrounding and supporting the radiator.

4. In combination in an automobile, main frame members, two parallel longitudinal frame members between the main members and having a clear space extending between said members from the forward end, a transverse forward member interconnecting the forward ends of the longitudinal members and extending upward to form a permanent dash, and a motor adapted to be slid on and between said second longitudinal members, said transverse member having an opening adapted to permit the passage of the complete motor longitudinally of the vehicle to and from the supporting frame members.

5. In combination in an automobile, longitudinal frame members spaced to support lateral extensions of a motor, a motor, a transverse braced frame at the adjacent end of the vehicle extending upward to form a permanent dash and having an opening therein of a size sufficient to permit the horizontal passage of the motor, and a radiator adapted to be supported in said opening.

[Claims 6 to 8 not printed in the Gazette.]

1,077,934. RAZOR-SHARPENER. SIGMUND HONIG, New York, N. Y. Filed Oct. 18, 1912. Serial No. 726,442. (Cl. 51-16.)



1. A razor sharpener comprising a journaled spool, a plurality of sharpening means upon said spool, a blade support, a locking member adapted to engageably position said spool with said sharpening means thereon successively in operative position respecting said blade support, and means including a gear and a one-toothed pinion adapted to intermittently actuate said locking member during the continuous revolution of said spool.

2. A device of the class described, opposite side supports, a crank shaft journaled therein, a spool journaled upon said shaft, a plurality of sharpening rollers journaled in the opposite sides of said spool, means for turning each of said rollers separately upon a rotation of the shaft, a razor blade support mounted upon the top of said side supports and means for automatically positioning

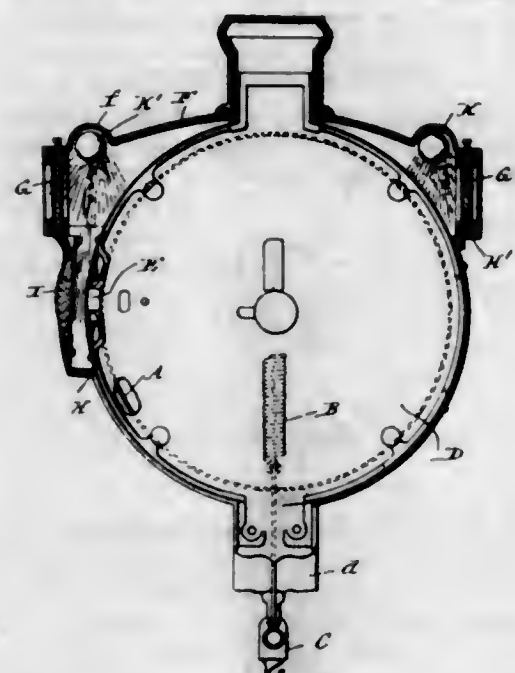
and locking successively the said rollers in operative relation to said blade support.

3. A device of the class described, opposite side supports, a crank shaft journaled therein, a spool journaled upon said shaft, a plurality of sharpening rollers journaled in the opposite sides of said spool, an internal rack secured to said shaft and gear connections between the latter and said rollers, a pivoted locking means upon one of said supports adapted to intermittently engage said spool, and means for operating said locking means.

4. A device of the class described, opposite side supports, a crank shaft journaled therein, a spool journaled upon said shaft, a plurality of sharpening rollers journaled in the opposite sides of said spool, an internal rack secured to said shaft and gear connections between the latter and said rollers, a pivoted locking means upon one of said supports adapted to intermittently engage said spool, a one toothed pinion upon the free end of said shaft, a stub shaft upon one of said supports, a gear upon said stub shaft meshing with said one toothed pinion, and means carried by said gear for engaging said locking lever.

5. A device of the class described, comprising parallel supports, a crank shaft journaled through said supports, a spool journaled upon said shaft, four sharpening rollers journaled in the opposite sides of said spool, operating means between said shaft and rollers, a blade positioning support on the parallel supports, a pivoted locking member adapted to engageably position said spool with said rollers successively in operative position respecting said blade support, and means including a gear and a one toothed pinion adapted to intermittently actuate said locking lever during the continuous revolution of said shaft.

1,077,935. COMPUTING-SCALE. JOSEPH HOPKINSON, Dayton, Ohio. Filed May 1, 1911. Serial No. 624,351. (Cl. 73-104.)



1. In an illuminated computing scale, the combination with a rotary cylindrical drum having value computations on its peripheral surface, load supporting counterbalancing mechanism for rotating the drum, and a cylindrical casing inclosing the drum and having a sight opening extending parallel with the axis of the drum with price computations on the exterior face in proximity to the sight opening, of an elongated light chamber extending parallel with and above the sight opening, said chamber forming an offset on the outer side of the casing and being open at the bottom in front of the sight opening in the casing, whereby the computations on the exterior face of the casing in proximity to the sight opening and the value computations on the exterior face of the drum at the sight opening are illuminated from the front of the scale, and a source of light located within the light chamber and above a portion of said chamber lying in front of the same, whereby

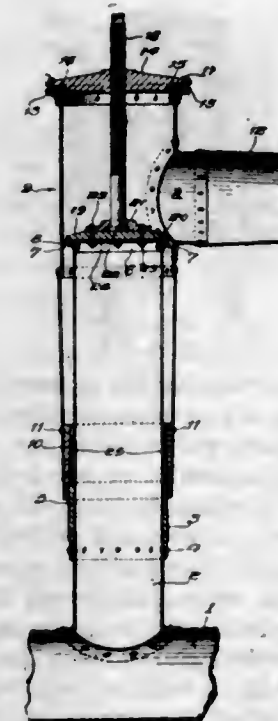
the eyes of the observer are shielded from the direct rays of the light.

2. In an illuminated scale, the combination with the rotary cylindrical drum having value computations on its exterior peripheral face, and load supporting and counterbalancing mechanism for rotating the drum, of an inclosing casing for the drum having a sight opening extending parallel with the axis of the drum, an external light chamber mounted on and forming a part of the casing, and extending parallel with and in proximity to the sight opening, there being openings for the transmission of light both toward the front and the rear sides of the lens, and a source of light located in said chamber in position to transmit its luminous rays through said openings toward the front of the lens and also back of the lens to illuminate the front faces of the casing having the price computations thereon and of the drum having the value computations thereon.

3. In an illuminated computing scale, the combination with the rotary drum having value computations thereon, load supporting and counterbalancing mechanisms for rotating the drum, and a casing surrounding the drum and having a sight opening extending parallel with the axis of the drum with price computations in proximity thereto, of a casing extension forming a chamber in front of and above said sight opening, the wall of said extension being formed in part by a lens in front of the sight opening and translucent material above the lens and a source of light located above and in front of the sight opening in the chamber, formed by the casing extension whereby the light will illuminate both the price and value computations from the front and be in part transmitted through the translucent material.

4. In an illuminated computing scale, the combination with the rotary drum having value computations thereon and load supporting and counterbalancing mechanism for rotating the drum, of a casing surrounding the drum and having an offset extending parallel with the axis of the drum to form a light chamber, a portion of the wall of said chamber being of light transmitting substance, and a portion having a sight opening therein parallel with and in proximity to the drum, and a source of light located in the chamber for illuminating the sight opening and computations exposed thereat and for being displayed through the light transmitting wall of the chamber.

1,077,936. SWIVELED IRRIGATING-HYDRANT FOR SHEET-METAL PIPES. FRANK HUDSON, Dolgeville, Cal. Filed Apr. 14, 1909. Serial No. 489,954. (Cl. 137-13.)

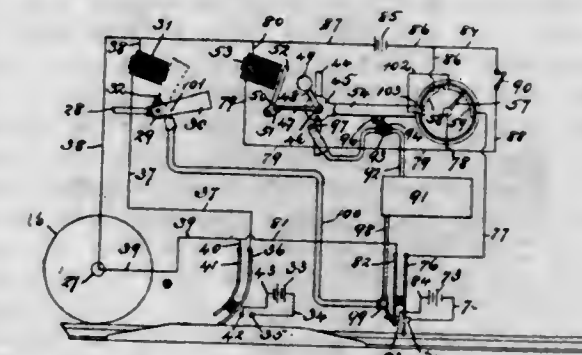


1. In a swiveled irrigating hydrant for sheet-metal pipes, a sheet-metal stand-pipe, an exteriorly screw-

threaded nipple upon the stand-pipe intermediate of its ends, a valve-seat upon the upper end of the stand-pipe, a cylinder of sheet-metal, an interiorly screw-threaded coupling member secured to the cylinder and screw-seated upon the nipple, a head for closing the cylinder, a valve-stem mounted through the head, and a valve carried by the valve-stem to engage the valve-seat and control the flow of water.

2. A hydrant comprising a sheet-metal pipe an exteriorly threaded nipple fixed thereon, a sheet-metal cylinder provided on one side with an outlet, means to close one end of the cylinder, an internally threaded sleeve fixed in the cylinder and screwed on the nipple, and a valve carried by the cylinder and adapted to close communication between the pipe and the outlet.

1,077,937. TRAIN-CONTROLLING MECHANISM. RICHARD T. JONES and FRANK T. JONES, Baltimore, Md., assignors to The Jones Safety Train Control System Company, Baltimore, Md., a Corporation of Maryland. Filed May 23, 1910. Serial No. 562,986. (Cl. 246-27.)



1. In a train controlling mechanism the combination with a wheeled vehicle having an air-brake valve, of an electro-magnet on the vehicle; a circuit also on the vehicle including the magnet for holding the air-brake valve in an inoperated position; a speed controlled switch on the vehicle governing said circuit and having a movable cover; means operated by the speed controlled switch to engage the cover while the vehicle is in motion and means operating between said cover and the valve to prevent the resetting of the latter after it has been operated while the vehicle is in motion.

2. In a train controlling mechanism the combination with a wheeled vehicle having an air-brake valve, of an electro-magnet on the vehicle; a circuit also on the vehicle including the magnet for holding the air-brake valve in an inoperated position; a speed controlled switch on the vehicle governing said circuit and having a housing; means movable between the said housing and the air-brake valve to lock the latter after it has been operated; a swinging arm carried by the speed controlled switch and a movable device carried by said housing and engaged by said swinging arm while the vehicle is in motion said movable device actuating the valve locking device.

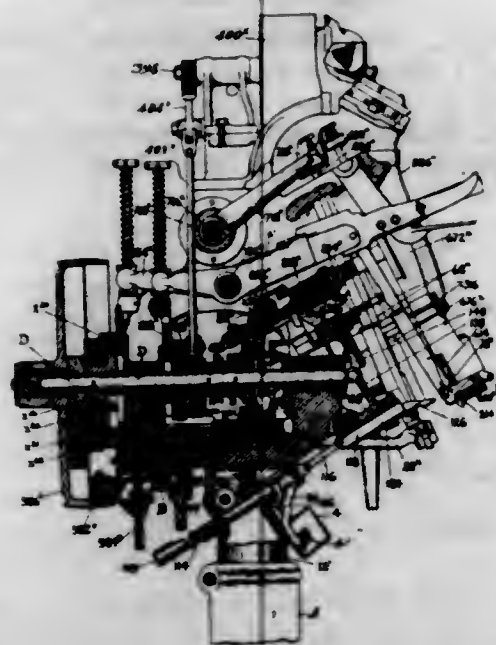
3. In a train controlling mechanism the combination with a wheeled vehicle having an air-brake valve, of an electro-magnet on the vehicle; a circuit also on the vehicle including the magnet for holding the air-brake valve in an inoperated position; a speed controlled switch governing said circuit and having a plurality of contact plates and an arm movable over said plates according to the speed of the vehicle; a second arm movable with the speed controlled switch; a movable device engaged by the said second arm and a valve-locking device actuated in one direction by said movable device.

4. In a train controlling mechanism the combination with a wheeled vehicle having an air-brake valve, of an electro-magnet on the vehicle; a circuit also on the vehicle including the magnet for holding the air-brake valve in an inoperated position; locking means for preventing the resetting of the valve after it has been operated and pneumatically-operated means for automatically resetting said valve upon releasing the locking means.

5. In a train controlling mechanism the combination with a wheeled vehicle having an air-brake valve, of an

electro-magnet on the vehicle; a circuit also on the vehicle including the magnet for holding the air-brake valve in an inoperated position; a reciprocating bolt to lock the valve in the operated position; means for preventing the release of said bolt until the vehicle is brought to a stop; pneumatic means for resetting the valve and means actuated automatically by the release movement of said bolt to control the pneumatic means and reset the said valve.

1,077,938. PULLING-OVER MACHINE. RONALD F. McFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Mar. 28, 1903, Serial No. 149,967. Renewed Jan. 19, 1912. Serial No. 672,236. (Cl. 12-4.)



1. In a machine of the class described, means for pulling an upper over a last, a heel-rest and a sole-rest, and mechanisms for automatically actuating said rests, in combination with a manually operated part normally connected with both the heel-rest and the sole-rest for moving them independently of said actuating mechanism.

2. In a pulling-over machine, means for pulling an upper over a last, a rest for the heel of the last, a rest for the sole of the last, and actuating mechanisms for said rests, each of said actuating mechanisms comprising a ratchet and a pawl movable automatically into and out of engagement with its ratchet, and means for controlling the operation of the pawls to vary the amount of movement imparted to the heel-rest and the sole-rest.

3. In a pulling-over machine, means for pulling an upper over a last, a rest for the last, said actuating mechanism comprising two shafts normally connected and adapted to be disconnected for discontinuing the movement of the rest.

4. In a pulling-over machine, means for pulling an upper over a last, a rest for the last, and mechanism for actuating the rest, said actuating mechanism comprising a cam, a shaft operatively connected therewith, a second shaft and means for adjustably connecting said two shafts whereby the position of the rest may be adjusted.

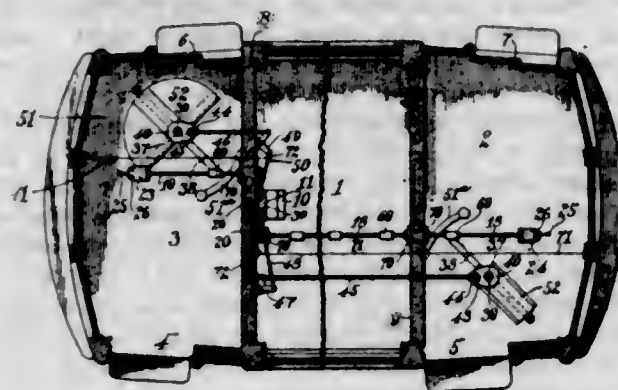
5. In a pulling-over machine, means for pulling an upper over a last, a rest for the last, automatic actuating mechanism for said rest, a manually operated lever normally connected with said actuating mechanism, and means under the control of the workman for disconnecting said lever from said actuating mechanism.

[Claims 6 to 30 not printed in the Gazette.]

1,077,939. ACTUATING MECHANISM FOR FARE-REGISTERS. JOHN F. OHMER, Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio. Filed Jan. 7, 1911. Serial No. 601,246. (Cl. 235-93.)

1. In a device of the type specified, the combination with a car provided with front and rear platforms, and provided

with a register, of front and rear turnstiles mounted on the front and rear platforms of said car, and common to said register, independently movable connections between each turnstile and said register, and means for locking either of said turnstiles.



2. In a device of the type specified, the combination with a car provided with front and rear platforms, and a register, of setting mechanism for said register, front and rear actuators common to said register mounted on said platforms, independently movable connecting means between each actuator and said register, and means for locking either of said actuators.

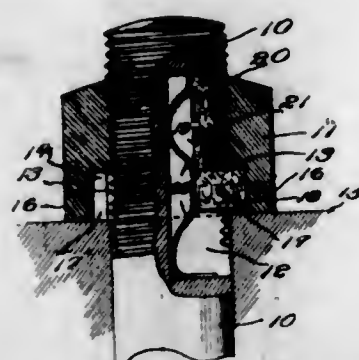
3. In a device of the type specified, a car provided with front and rear platforms, a register mounted on said car, setting means for said register, front and rear turnstiles mounted on said platforms, independently movable connecting means between each of said turnstiles and said register, and means for locking either of said turnstiles.

4. In a device of the type specified, the combination with a register located in a street car, of a plurality of turnstiles adapted to actuate said register as passengers enter the car, means for locking one or the other of said turnstiles, independently movable connections between each turnstile and said register, and auxiliary manually-operative actuating means for said register.

5. In a device of the type specified, a fare register, setting means for selecting fares to be registered, a turnstile adapted to actuate said register when a fare is selected, connecting means between said turnstile and said register, and auxiliary manually-operative actuating means for said register.

[Claims 6 to 13 not printed in the Gazette.]

1,077,940. NUT-LOCK. ANTONI ORZECZOWSKI, Stamford, Conn. Filed Jan. 15, 1913. Serial No. 742,237. (Cl. 151-9.)



1. In a lock-nut, a bolt having a longitudinal recess in its threaded portion, a nut engaging the threaded portion of the bolt and provided with an annular toothed recess in one face, a spring actuated pawl operating in said longitudinal bolt recess and engaging the teeth of the nut recess and extending beyond the recessed face of the nut, and a releasing washer bearing against the recessed face of the nut and with a radial recess registering when in one position with one of the teeth of the nut recess to receive the pawl when the same is engaged with the said spaces between two of the teeth.

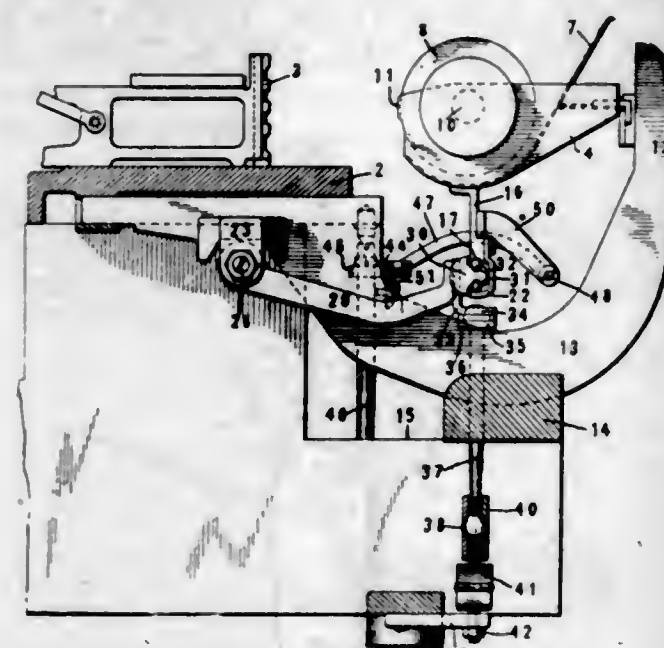
2. In a lock-nut, a bolt having a longitudinal recess in its threaded portion, a nut engaging the threaded portion of the bolt and provided with an annular toothed recess in

one face, a spring within said bolt-recess, a pawl engaged by said spring and engaging the teeth of the said nut recess one at a time, and a block engaged by said spring and overlapping said pawl and adapted to release the same from the teeth of the recess when forced inwardly.

3. In a lock-nut, a bolt having a longitudinal recess in its threaded portion, a nut engaging the threaded portion of the bolt and provided with an annular toothed recess in one face, a spring within said bolt-recess, a pawl connected to said spring and engaging the teeth of the said nut-recess one at a time, and formed with a projection at one end with the outer face of the projection inclined to the longitudinal plane of the pawl, and a block connected to said spring and engaging in said bolt-recess and provided with a projection having one inclined face corresponding to and overlapping the inclined face of the pawl projection.

4. In a lock-nut, a bolt having a longitudinal recess in its threaded portion, a nut engaging the threaded portion of the bolt and provided with an annular toothed recess in one face, a spring within said bolt-recess, a pawl connected to said spring and engaging in said nut-recess, and a releasing washer bearing against the recessed face of the nut and with a radial recess registering when in one position with one of the teeth of the nut-recess to receive the pawl when the same is engaged with said spaces between two of the teeth.

1,077,941. TYPE-WRITING MACHINE. JOSEPH ALBERT RONCHETTI, Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed June 5, 1908. Serial No. 436,752. (Cl. 197-73.)



1. In a typewriting machine, the combination with the type bars, each of which is provided with a plurality of types and a shiftable platen frame carrying the platen of an oscillating shiftable rail upon which the platen frame is mounted, and upon which it travels for letter-spacing, means engaging the central portion of said rail for shifting the platen frame, and a pair of oscillatory arms connected with either end of said rail for guiding said platen frame in its shifting movement.

2. In a typewriting machine, the combination with the type bars, each of which is provided with a plurality of types, of a pair of spaced rails connected with the platen carriage, one of which is provided with a curved bearing portion, a shiftable rail interposed between said first-named rails, balls interposed between said shiftable rail and each of said first-named rails, a rock-shaft and a pair of oscillatory arms connected with said rock-shaft and also connected with said shiftable rail.

3. In a typewriting machine, the combination with the type bars, each of which is provided with a plurality of types, of a platen carriage shiftable to carry the platen in position to receive any of said types, a pair of spaced

196 O. G.—18

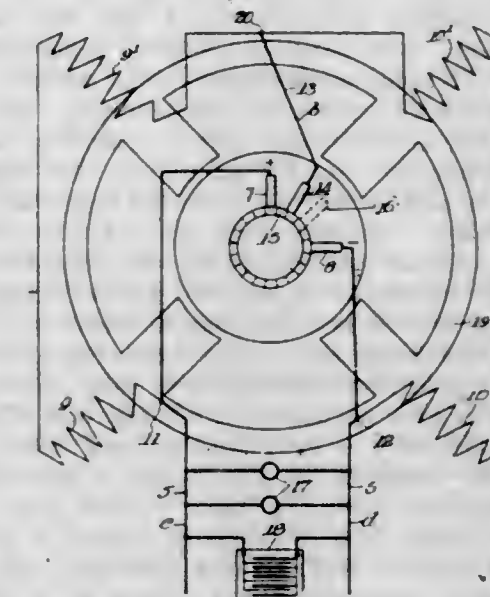
rails connected with the platen carriage and depending therefrom, one of said rails being provided with a curved bearing portion, a shiftable rail interposed between said first-mentioned rails and provided with ball runways, balls located in the runways of said shiftable rail and interposed between the same and the rails of said platen carriage, a rock-shaft and an oscillatory arm mounted upon either end of said rock-shaft and positively connected to said shiftable rail whereby an equal movement of either end of the platen carriage will be compelled when the same is shifted.

4. In a typewriting machine, the combination with the type bars, each of which is provided with a plurality of types, and a platen carriage shiftable in a direction transverse to its length for different case printing, of a pair of spaced rails depending from the platen carriage and extending longitudinally thereof, a shiftable rail interposed between said first-named rails, balls interposed between said shiftable rail and the rails upon said platen carriage, a pair of oscillatory arms, each of which is mounted upon a rock-shaft and positively connected with said shiftable rail and adapted to compel an equal movement of either end of the platen carriage when the same is shifted.

5. In a typewriting machine, the combination with the type bars, each of which is provided with a plurality of types, and a platen carriage shiftable in a direction transverse to its length for different case printing, said platen carriage being provided with a pair of spaced rails which extend longitudinally thereof, one of said rails being provided with a V-shaped ball runway and the other with a curved bearing portion, a shiftable rail interposed between the rails of said platen carriage and having oppositely disposed ball runways, balls located in the runways of said shiftable rail and interposed between the same, and the rails of said platen carriage, a pair of oscillatory arms connected with said shiftable rail, and a common pivotally mounted support for said arms whereby the latter are compelled to move in unison.

[Claims 6 to 30 not printed in the Gazette.]

1,077,942. DYNAMO-ELECTRIC MACHINE. GORDON SAYRE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed May 16, 1912. Serial No. 697,591. (Cl. 171-223.)

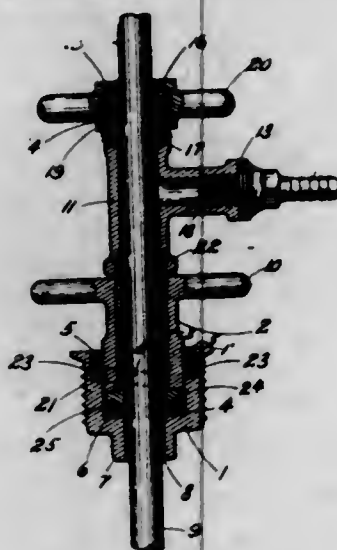


1. A constant current, self regulating dynamo-electric machine having an armature and two main brushes bearing on the commutator thereof at commutating points for a practically, undistorted field, for connection to the mains of a working circuit, and an auxiliary regulating brush fixed relatively to the main brushes during the normal operation of the machine, bearing on said commutator, at an intermediate point between said main brushes; shunt windings for field magnets of said dynamo having their terminals connected to said main brushes, and a connection between said auxiliary regulating brush and an in-

intermediate point in said field winding whereby to maintain constant current, in said main circuit, under varying speed of said armature.

2. A constant current, self regulating dynamo-electric machine having an armature and two main brushes bearing on the commutator thereof at commutating points for a practically, undistorted field, for connection to the mains of a working circuit, a normally fixed auxiliary, regulating brush capable of adjustment and to be fixed to bear on the commutator at any selected point between said main brushes, shunt windings for field magnets of said dynamo, having their terminals connected to said main brushes and a connection between said auxiliary regulating brush and an intermediate point in said field windings whereby the fixed location of said auxiliary brush will control the value of the current that will be constantly delivered in the mains.

1,077,943. LIQUID-TAPPING DEVICE. BERNARD SCHMELZER, Joliet, Ill. Filed Jan. 24, 1911. Serial No. 604,372. (Cl. 225-3.)



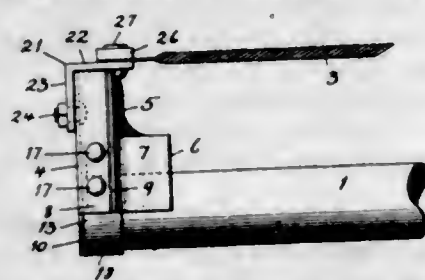
In a device of the class described, a hollow bushing provided with a reduced aperture through the bottom, said aperture forming a shoulder in said bushing and adapted to be closed by a cork or plug, said bushing being further provided with downwardly inclined slots in the interior lateral surface thereof said inclined slots having entrance slots leading upwardly from the upper end thereof, a tapping member comprising a sleeve having a flange at its lower extremity closely fitting the interior of said bushing and provided with a groove in its under surface, a connector member secured to the upper end of said sleeve and having an external flange around its lower extremity, a packing ring carried in said groove in the sleeve flange and resting on the shoulder in said bushing when in assembled relation, and a locking sleeve closely fitting around said first-named sleeve and extending between the lower end of the connector member and the flange on said first named sleeve, said locking sleeve being provided with outwardly extending lugs adapted to co-act with the slots in said bushing, and being further provided with operating handles located a relatively considerable distance above the upper end of said bushing, whereby said sleeve may be partially rotated to press said packing ring against said bushing shoulder without said handles closely approaching the chimes of a barrel in which said bushing may be carried.

1,077,944. RED-RISER. FRANCIS EUGENE SLOAN, Baltimore, Md., assignor to The O. K. Manufacturing & Stamping Company, Baltimore, Md., a Corporation of Maryland. Filed Mar. 2, 1912. Serial No. 681,199. (Cl. 5-63.)

1. A bed riser having front side and rear upright end walls and the rear end wall having an edge to bear on the upper side of a stretcher tube while the front end wall projects below said bearing edge of the rear end wall, the riser also having a supporting arm that projects later-

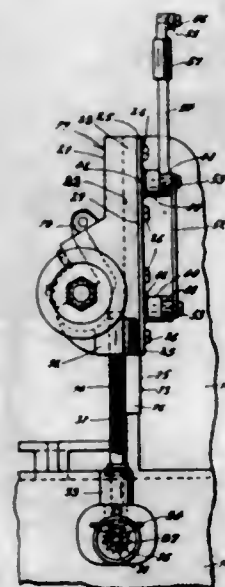
ally from one side wall in a plane between the front and rear end walls and a stirrup carried by the opposite side walls and at the inner side of the front end wall to support the under side of a stretcher tube.

2. A bed riser having front and rear upright end walls, the front wall being longer than the rear wall, and also having lapped side walls at one side, a supporting flange projecting laterally from the lapped side walls and a stirrup depending from the inner side of said lapped side walls and at the inner side of the longer front wall.



3. A bed riser having front and rear upright end walls of which the front wall is the longer and also having at one side a single side wall which connects the front and rear end walls and at the other side two lapped side walls, a supporting flange extending laterally from one of the lapped side walls and a stirrup plate having one end secured to the lapped side walls at one side and the other end secured to the single side wall at the opposite side.

1,077,945. POSITIONING MEANS FOR ADJUSTABLE SUPPORTS. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Original application filed Feb. 1, 1913, Serial No. 745,696. Divided and this application filed June 9, 1913. Serial No. 772,598. (Cl. 144-130.)



1. In combination, a supporting structure having laterally outwardly extending guides at the respective ends thereof extending up and down, each of said guides comprising opposed parallel guide-faces, and an adjustable support provided at each end thereof with a guideway having opposed walls and an end wall, said guideways opening toward each other with said guides received between said opposed walls and said end walls received outside said guides, said opposed walls provided with opposed parallel guide-faces parallel with and coöperating with said first-named opposed parallel guide-faces, and a plurality of interconnected clamping means between said opposed walls respectively comprising connecting members between said opposed walls which are perpendicular to all said opposed parallel guide-faces, and constructed and arranged for simultaneously exerting clamping stress between and perpendicular to said coöperating opposed parallel guide-faces, for the purpose described.

2. In combination, a supporting structure having laterally outwardly extending guides at the respective ends

thereof extending up and down, each of said guides comprising opposed parallel guide-faces, and an adjustable support provided at each end thereof with a guiding rabbet comprising a bottom wall and an end wall, said walls rigid with said support, and a resilient guide-plate secured to each of said end walls, said bottom wall and said resilient guide-plate provided with opposed parallel guide-faces parallel with and coöperating with said first-named opposed parallel guide-faces, and a plurality of interconnected clamping means respectively comprising connecting members between said bottom walls and resilient plates passing said laterally outwardly extending guides and perpendicular to all said opposed parallel guide-faces, and constructed and arranged for exerting clamping stress between and perpendicular to said coöperating opposed parallel guide-faces, for the purpose described.

3. In combination, a supporting structure having a laterally extending guide thereon extending up and down, said guide comprising opposed parallel guide-faces, and an adjustable support provided with a guiding rabbet comprising a bottom wall and an end wall, said walls rigid with said support, and a resilient guide-plate secured to said end wall, said bottom wall and said resilient guide-plate provided with opposed parallel guide-faces parallel with and coöperating with said first-named opposed parallel guide-faces, said bottom wall and resilient guide-plate forming opposed walls between which said guide is received, a bolt having threaded connection in one of said opposed walls and rotary and axial movement in the other of said opposed walls and located with its axis perpendicular to said coöperating opposed parallel guide-faces, an adjusting means for adjusting the clamping effect of said bolt, and a turning device for said bolt in which said bolt has axial movement, said turning device located between said adjusting means and said other of said opposed walls, and constructed and arranged for resiliently clamping said resilient guide-plate toward said bottom wall as and for the purpose described.

1,077,946. CULINARY UTENSIL. FRANK E. WALK, Allentown, Pa., assignor of one-half to Philip J. Boyle, Hazleton, Pa. Filed Oct. 9, 1911. Serial No. 653,672. (Cl. 53-7.)



1. The combination with a cooking utensil of a handle hinged thereto and having a longitudinal lip projecting beyond the hinge, said lip extending downwardly upon the utensil wall upon the handle being rocked to its outward limit of pivotal movement, and a downwardly opening hook slidably attached in upright position to the utensil wall and engageable with said lip.

2. The combination with a cooking utensil of a plate disposed on the exterior of the utensil wall and having a hinge lug projecting above said wall, a handle having hinge lugs at one end, and having an offset longitudinal lip between said hinge lugs and extending therebeyond, a pintle passed through the handle and plate hinge lugs, said lip extending downwardly along said wall upon said handle being rocked to its outer limit of pivotal movement, and a downwardly opening hook slidably attached in upright position to said plate and engageable with said lip.

3. The combination with a cooking utensil of a handle hinged at one end thereto and having a longitudinal lip projecting beyond said hinge, said lip extending downwardly along the utensil wall when the handle is rocked outwardly and being provided with an eye, and a down-

wardly opening hook having a shank slidably fitted in upright position on said wall and projecting below the utensil bottom, said hook gravitating into engagement with said eye upon said utensil being raised by said handle and locking said handle to said wall, said shank contacting with a support upon which the utensil may be placed and raising said hook from engagement with said eye whereby to release said handle.

4. The combination with a pan, of a handle pivoted thereto and having its lower end terminating in a depending portion, a longitudinal slot formed therein, a lid connected to the handle, a guide bracket secured to the pan and having a vertical slot formed therein, a detent slidably mounted in the bracket and having a hooked lug adapted to protrude through said slot, said lug being adapted to pass through the longitudinal slot of the depending portion of the handle when the slot therein is in registry with the slot of the guide bracket, said lug serving to lock the depending portion to hold the handle in its extended position when the pan is raised, the lower end of the detent being adapted to engage a support to automatically unlock the depending portion when the pan is set down so that the handle may be swung upon its pivot to position the lid upon the pan to close the same.

1,077,947. VACUUM-CLEANER. ERLE L. ABRAMES and JOE H. CONYELL, Hayward, Okla. Filed Feb. 19, 1912. Serial No. 678,617. (Cl. 13-19.)

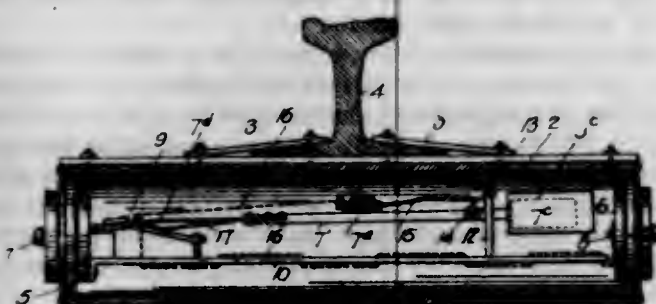


1. In a device of the class described, a main cylinder; a perforated auxiliary cylinder in the main cylinder, the auxiliary cylinder having one end open and one end closed; a gasket extended between the walls of the cylinders adjacent the open end of the auxiliary cylinder, the ends of the auxiliary cylinder being spaced from the ends of the main cylinder, there being openings in the main cylinder, beyond the ends of the auxiliary cylinder; a spiral conveyor journaled for rotation within the auxiliary cylinder; and a chute extended through the main cylinder and communicating with the interior of the auxiliary cylinder.

2. In a device of the class described, a main cylinder; a perforated auxiliary cylinder within the main cylinder, the auxiliary cylinder having one end open and one end closed; a gasket extended between the walls of the cylinders adjacent the open end of the auxiliary cylinder, there being openings in the main cylinder, adjacent the ends of the auxiliary cylinder; a discharge chute extended through the wall of the main cylinder and entering the auxiliary cylinder adjacent the closed end of the auxiliary cylinder; a spiral conveyor journaled for rotation in the auxiliary cylinder; and a shaft journaled for rotation in the discharge chute, the shaft being provided with a plurality of resilient vanes.

3. In a device of the class described, a main cylinder closed at both ends; a perforated auxiliary cylinder within the main cylinder, the auxiliary cylinder having one end open and one end closed; a gasket extended between the walls of the cylinders adjacent the open end of the auxiliary cylinder, the ends of the auxiliary cylinder being spaced apart from the ends of the main cylinder to define air chambers, and the main cylinder being provided with openings communicating with the air chambers; a shaft journaled for rotation in both ends of the main cylinder and in the closed end of the auxiliary cylinder; and a spiral conveyor carried by the shaft and located within the auxiliary cylinder.

1,077,948. CIRCUIT-CLOSING DEVICE. WILLIAM W. ALEXANDER, Denver, Colo.; Edward T. Keim, administrator of said Alexander, deceased, assignor, by mesne assignments, to The Protective Signal Manufacturing Company, a Corporation of Colorado. Filed Feb. 21, 1911. Serial No. 609,893. (Cl. 246-35.)



1. In a circuit closing instrument, two vibratory elements of different degrees of vibratility, and a contact blade on one of said elements, extending in the path of the other element, the said blade and the last mentioned element being electrically connected with opposite sides of an electric circuit.

2. In a circuit closing instrument, two vibratory elements of different degrees of vibratility, and electric contacts connected respectively with the said elements, to engage during the vibratory movement thereof.

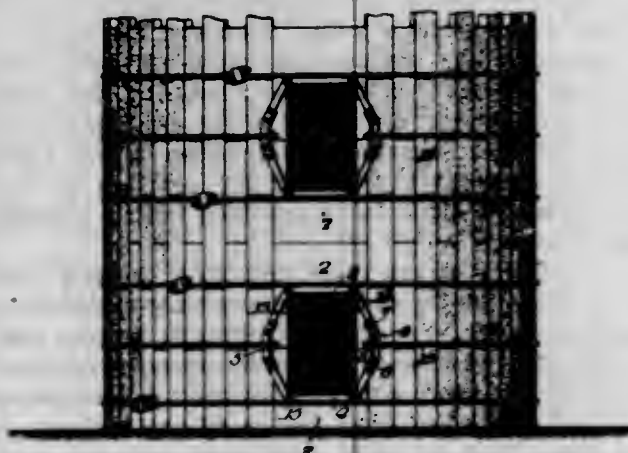
3. In a circuit closing instrument, two vibratory elements of different degrees of vibratility, an electric contact secured to one of said elements, and a contact blade connected with the other element and extending in the path of the said contact to engage therewith during movement of the said elements.

4. In a circuit closing instrument, two vibratory elements of different degrees of vibratility, each including a rigid member, a resilient member, at one end thereof, and a poise at the opposite end of the same, the two resilient members being supported at corresponding ends, to vibrate along substantially parallel lines, and normally separated electric contacts connected with the respective elements to engage during vibratory movement thereof.

5. In a circuit closing instrument, two corresponding vibratory elements, each including a rigid member, and a resilient member connected therewith at one of its ends and supported at its opposite end, oppositely disposed electric contacts connected with the respective elements, and poises of different weights secured in corresponding positions upon the said rigid members.

[Claim 6 not printed in the Gazette.]

1,077,949. SILO-REINFORCEMENT. SIGURD E. ANDERSON, Des Moines, Iowa. Filed June 16, 1913. Serial No. 773,862. (Cl. 20-14.)



1. In a silo having a door opening, a metal frame of hexagonal form adapted to seat against the silo wall and reinforced with braces positioned to lie along the edges of a door opening, and means for attaching a tightening rod to opposite edges of said frame.

2. In a silo having a door opening, a rigid metal frame adapted to completely encircle a door opening and reinforce all four of its edges, said metal frame having upstanding plates adapted for adjustable attachment to the ends of a tightening rod encircling said silo.

3. In a silo having a rectangular door opening, a rigid metal frame shaped to completely encircle said opening and reinforce it on all four of its edges, said frame having its sides extended outward for adjustable attachment to the ends of a reinforcing silo tie-rod.

4. In a silo having a rectangular door opening, a metal frame of hexagonal form reinforcing the top and bottom edges of said opening, stiffening bars crossing said frame and shaped to lie against the side edges of said opening, and upstanding plates at the opposite sides of said frame perforated to receive the ends of a tie-rod encircling the silo.

5. A reinforcing frame for silo doors comprising a pair of metal bands connected together at their ends by angle plates and bent to hexagonal outline and reinforcing bars connecting said bands to stiffen the frame, said bars being positioned to lie directly against the edges of a door opening when said frame is in position, and perforations through the upstanding edges of said angle plates for receiving and adjustably securing the ends of a silo encircling tie-rod.

[Claims 6 and 7 not printed in the Gazette.]

1,077,950. SILICIOUS MATERIAL OF LOW DENSITY. WILLIAM C. ARSEM, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 24, 1912. Serial No. 705,382. (Cl. 23-1.)

1. A new manufacture comprising a material consisting of cellular silica, in the state of a pseudomorph of intumesced alkali silicate.

2. A new manufacture comprising a material consisting of distinct frothy particles of silica, having the form of a cellular pseudomorph of intumesced silicate.

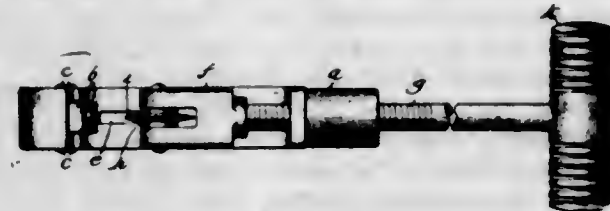
3. The process which consists in treating a puffed, or intumesced material with a substance which will react therewith to form a more refractory material having the physical form of the original intumesced material.

4. The process which consists in heating a water-containing alkali silicate to a temperature at which the water is driven off with intumescence and then treating with a reagent to convert the silicate *in situ* to a more refractory material.

5. The process which consists in heating a water-containing alkali silicate to a temperature at which the water is driven off with intumescence, then treating with dilute hydrochloric acid to convert the silicate into silicic acid having the physical form of the particles of the silicate thus treated, and finally heating to convert the silicic acid into silica.

[Claims 6 to 8 not printed in the Gazette.]

1,077,951. CUTTING IMPLEMENT. EDWARD E. BECK, Chicago, Ill., assignor to Crown Die & Tool Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1910. Serial No. 537,851. Renewed Sept. 22, 1913. Serial No. 791,248. (Cl. 81-192.)



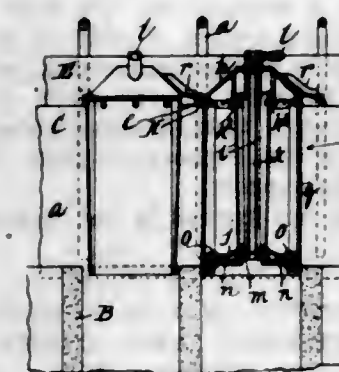
1. A pipe cutting implement comprising in combination a cutter holder, a jaw therein providing a pipe retaining surface, and a rotatable cutter wheel mounted in the holder opposing said surface, the entire severing edge of which wheel consists of a beveled portion having serrations disposed diagonally of the axis of the wheel, where-

by a pipe and its skin may be severed by a crushing action without removing substantially any of the metal of the pipe, substantially as described.

2. A pipe cutting implement comprising in combination a cutter holder having a pipe sustaining surface, and a rotatable cutter wheel lenticular in form with its sides converging to an edge, provided with diagonal serrations whereby said sides cooperate with the serrations in severing the skin and body of a pipe by a crushing as distinguished from a cutting action, substantially as described.

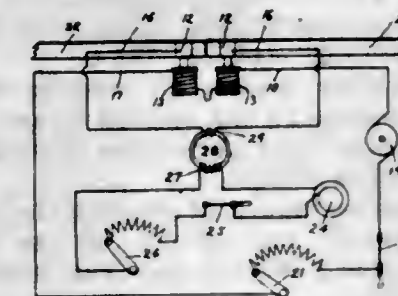
3. A pipe cutting implement comprising in combination a cutter holder provided with a shifting pipe retaining surface, and a rotatable lenticular cutter adjustably supported in the holder, the sides of which cutter converge to a serrated edge, the edges of the serrations being disposed at an oblique angle thereto, substantially as and for the purpose described.

1,077,952. CORE FOR USE IN MOLDING CONCRETE WALLS. GEORGE CLARK, Landsborough, Victoria, Australia, assignor to Alfred Henry Stanbrough, trading as Mono Situ Concrete Company, Richmond, Australia. Filed Oct. 15, 1910. Serial No. 537,254. (Cl. 25-131.)



In apparatus for molding concrete walls *in situ*, a collapsible core comprising a beveled cap piece provided with a central boss and with lugs at one end and two corners, four sides and corner pieces hinged to said cap piece, two internal stays attached to cross ribs on the latter and provided at the lower end with a slotted cross head, a central spindle extending through said boss and provided with a handle, a circular flange on the lower end of said spindle provided with four arms, studs on two of the latter engaging the respective slots in the cross head, and a series of links connecting said arms with the lower ends of the corner pieces substantially as set forth and as illustrated in the drawings.

1,077,953. METHOD OF AND APPARATUS FOR ELECTRIC WELDING. ERNEST A. FALLER, New York, N. Y., assignor to Kenneth O. Chisholm, New York, N. Y. Filed Feb. 13, 1913. Serial No. 748,163. (Cl. 219-4.)



1. The method of electric welding which consists in causing electromagnetic means to attract the abutting ends of a work piece for holding the same in position, and in supplying electric energy to said ends for heating the same to welding temperature.

2. The method of electric welding which consists in causing electromagnetic means to attract the abutting

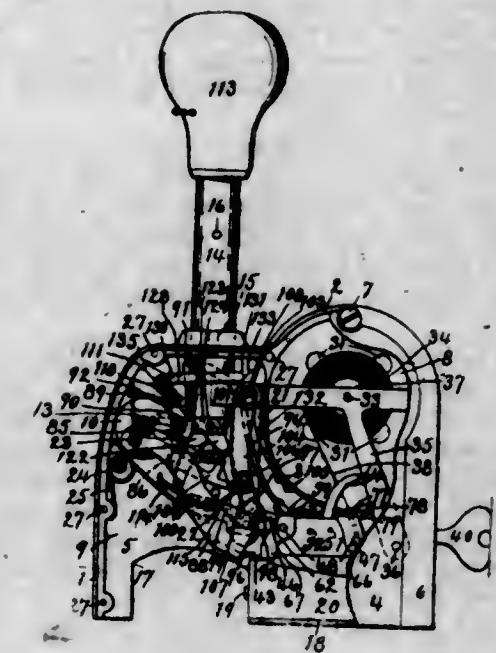
ends of a work piece for holding the same in position, and in simultaneously supplying electric energy to said ends for heating the same to welding temperature.

3. The combination with electromagnetic means adapted to attract the abutting ends of a work piece for holding the same in position, of a circuit including said ends and a source of electric energy for heating said ends to welding temperature.

4. The combination with work holding means, of an insulated member thereon, means for magnetizing said member, an extension on said member, and means for supplying electric energy to said extension for heating a work piece held thereby.

5. The combination with an upright support, of an arm carried thereon, an insulated extension on said arm, means for magnetizing said insulated extension, a pole shoe extension on said insulated extension, and means for supplying electric energy to said pole shoe extension.

1,077,954. STAMP-AFFIXER. CHARLES J. FANCHER, Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y., a Corporation of New York. Original application filed June 21, 1911. Serial No. 634,395. Divided and this application filed May 24, 1912. Serial No. 699,385. (Cl. 216-33.)



1. An affixer for flexible units from a perforated strip, comprising feeding mechanism to engage such strip and actuate it forward, transfer mechanism for such units, a presser for such units, and a plunger arranged and adapted to operate both of said mechanisms and said presser.

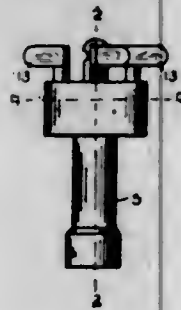
2. An affixer for flexible units from a perforated strip, comprising feeding mechanism to engage such strip and actuate it forward, transfer mechanism for such units, a presser for such units, a plunger arranged and adapted to operate both of said mechanisms and said presser, and a lock or check arranged to prevent retrograde movement on the part of said plunger between the ends of its stroke.

3. The combination, in an affixer for flexible units from a perforated strip of adhesive-coated material, with a reciprocable plunger, of means to grip and detach a unit from the strip at each downward stroke of said plunger, means to affix such detached unit at the end of such downward stroke, and means to engage such strip and actuate it forward to advance another unit to gripping position at each return stroke of said plunger.

4. The combination, in an affixer for flexible units from a perforated strip of adhesive-coated material, with a reciprocable plunger, of means to grip and detach a unit from the strip and to count the same at each downward stroke of said plunger, means to affix such detached unit at the end of such downward stroke, counter-controlling means, and means to advance another unit to gripping position and to reset said counter-controlling means at each return stroke of said plunger.

5. An affixer, for flexible units from a strip, comprising a suitable frame, a plunger mounted to reciprocate therein, a unit presser attached to the bottom of said plunger, cooperating spring-pressed gripping jaws mounted to oscillate in said frame and operatively connected with said plunger, and strip- or unit-feeding mechanism within said frame and operated by the gripping-jaw mechanism. [Claims 6 to 14 not printed in the Gazette.]

1,077,955. SAFETY GAS-BURNER. CHRIST G. FAREZ, New York, N. Y. Filed July 25, 1913. Serial No. 781,275. (Cl. 67-14.)

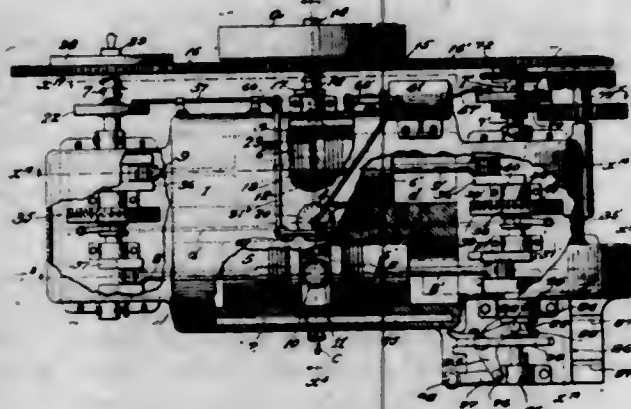


1. A gas burner comprising a body, a gas passage therethrough, a burner tip carried by said body and communicating with said passage, a plurality of valves disposed at intervals in said passage, and fan blades secured to said valves and arranged to point in different directions when the valves are open.

2. A gas burner comprising a body, a gas passage extending from bottom to top of said body, a tip carried by said body, and communicating with said passage, a plurality of valve seats in said passage, valves rotatable within said seats, and blades carried by said valves and arranged to point in different directions when the valves are open.

3. A gas burner comprising a body provided with a horizontal gas passage having a plurality of valve seats therein, one of said valve seats communicating with the supply gas, a hollow valve seated in said last named seat and adapted to communicate with the horizontal gas passage, solid valves located in the other seats in the gas passage, a burner tip in the top of the body seated in an opening communicating with the horizontal gas passage, and fan blades secured to each of the valves and arranged to point in different directions when the valves are open.

1,077,956. INTERNAL-COMBUSTION ENGINE. CHARLES H. FOX, Bakersfield, Cal. Filed Sept. 24, 1907. Serial No. 394,417. (Cl. 123-51.)



1. An internal combustion engine provided with a rotary valve at the charging port of the impulse chamber, a nozzle to supply fuel to the inside of the rotary valve, said nozzle being movable to direct the fuel onto the wall of the valve, or into the impulse chamber at the will of the operator, and means to supply compressed air to said valve.

2. An internal combustion engine provided with a hot wire igniter in the impulse chamber opposite the charging port, means to supply fuel to said port, said means being

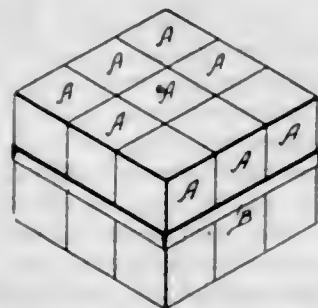
adjustable to direct fuel onto the engine walls, or onto the igniter at the will of the operator, a valve for said port, and means to supply compressed air to said valve.

3. In an internal combustion engine, two parallel cylinders, a port at the middle thereof connecting said cylinders, pairs of pistons in the cylinders, one pair of pistons operating as a pump to supply charges to the other pair of pistons, crank shafts for the pistons, a shiftable connection between one of the pump pistons and its crank shaft, and means to operate the shiftable connection to vary the compression of the charge.

4. In an internal combustion engine, two parallel cylinders, a port at the middle thereof connecting said cylinders, pairs of pistons in the cylinders, one pair of pistons operating as a pump to supply charges to the other pair of pistons, crank shafts for the pistons, a shiftable connection between one of the pump pistons and its crank shaft, a slidably mounted collar to shift the connection to vary the compression of the charge, and means to slide the collar.

5. In an internal combustion engine, two parallel cylinders, a port at the middle thereof connecting said cylinders, pairs of pistons in the cylinders, one pair of pistons operating as a pump to supply charges between the other pair of pistons, crank shafts for the pistons, a sliding connection between the crank shaft and one of the pump pistons, a shaft, a support for the shaft and shiftable relative to the pump piston, a head to rotate with the shaft and having a sliding connection with said pump piston, a collar shiftable on the shaft and adapted to slide the head relative to said pump piston, means operable by shifting the support to shift the collar, and means to shift the support. [Claims 6 to 14 not printed in the Gazette.]

1,077,957. COMPOSITION FOR RUBBING AND FINISHING VARNISHED AND OTHER SURFACES. JAMES D. GARLICK, Saginaw, Mich. Filed May 13, 1912. Serial No. 696,873. (Cl. 51-1.)



A polishing block formed of bolted pumice stone mixed with shellac dissolved in alcohol and linseed oil and molded into a block, said block being dried in the air and oven baked after drying.

1,077,958. MOLDING COMPOUND. EDWARD D. GLEASON, New York, N. Y., assignor, by mesne assignments, to New-Metals and Process Company, Long Island City, N. Y., a Corporation of New York. Filed Dec. 31, 1912. Serial No. 739,453. (Cl. 22-188.)

1. A composition capable of resisting the action of heat at 1500 degrees F., and adapted for use in a molding process containing inert pulverulent material, hydraulic cement and sodium silicate.

2. A composition capable of resisting the action of heat at 1500 degrees F., and adapted for use in a molding process containing powdered soapstone, hydraulic cement and sodium silicate.

3. The process of forming the composition described, which consists in mixing dry inert pulverulent material with dry powdered hydraulic cement, and then adding to said mixture, while agitating it, an aqueous solution of sodium silicate.

4. The process of forming the composition described, which consists in mixing eleven volumes of dry inert pulverulent material with one volume of dry powdered hy-

draulic cement, and then adding to said mixture, while agitating it, an aqueous solution containing two volumes of water and one volume of saturated solution of sodium silicate.

1,077,959. TEXTILE-FIBER NETTING. HORACE B. GREGORY and IRENE F. GREGORY, Brooklyn, N. Y., assignors, by direct and mesne assignments, of two-thirds to J. Harry Williams and one-third to John T. Williams, Baltimore, Md. Filed June 25, 1912. Serial No. 705,838. (Cl. 2-187.)



As a new and improved article of manufacture, a network fabric consisting of a single continuous pliable, soft-finished knitted braid extended back and forth in zig-zag arrangement to produce parallel strands and interconnecting looped ends all lying in a common plane, rows of similar parallel braids arranged crosswise of said strands and in registering relation upon opposite sides of the same in pairs, and lines of stitching connecting the braids of each pair with each other and with said parallel strands.

1,077,960. SPARK-PLUG. HARRY M. SPENCER, Dunmore, Pa. Filed Oct. 8, 1912. Serial No. 724,591. (Cl. 123-169.)



1. A spark plug, including a metal bushing provided upon its lower end with a sparking terminal, an insulating body sealing the lower end of the bushing and parallelly embracing the terminal to provide a single exposed face to the terminal, said exposed face being flush with the face of the insulating body, a stem mounted for rotation within the insulating body, a sparking terminal carried upon the lower end of the stem, and means for maintaining the stem and its terminal in adjusted relation with respect to the terminal of the bushing.

2. A spark plug, including a metal bushing having a plurality of sparking terminals, an insulating sleeve mounted in the bushing and terminating within and out of contact with the lower end of the bushing, a body of insulation fitted in the lower end of the bushing and about

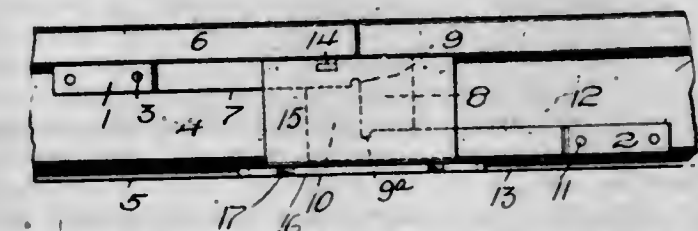
the lower end of the insulating sleeve, the lower face of said body being below the bushing and partially surrounding the terminals, whose sparking faces are exposed through the body of insulation, and a plurality of rotatable sparking terminals disposed in sparking relation to the exposed ends of the terminals of the bushing and forming a cleaning means for the lower face of the insulation body and stationary terminals when rotated.

3. A spark plug, including a metal bushing having a plurality of sparking terminals, an insulating sleeve mounted in the bushing and terminating within and out of contact with the lower end of the bushing, a body of insulation fitted within the lower end of the bushing and about the lower end of the insulating sleeve, the lower face of said body being below the bushing and partially surrounding the terminals, whose sparking faces are exposed through the body of insulation, a stem rotatably mounted within the insulating sleeve and operable from the upper end thereof, and a plurality of sparking terminals carried upon the lower end of said stem for coaction with the exposed faces of the terminals of the bushing, said stem carried terminals when rotated scraping the lower surface of the body of insulation and exposed ends of the terminals of the bushing to clean the same.

4. A spark plug, including a metal bushing having a plurality of sparking terminals, an insulating sleeve mounted in the bushing and terminating within and out of contact with the lower end of the bushing, a body of insulation fitted in the lower end of the bushing and about the lower end of the insulating sleeve, the lower face of said body being below the bushing and partially surrounding the terminals, whose sparking faces are exposed through the body of insulation, a plurality of rotatable sparking terminals disposed in sparking relation to the exposed ends of the terminals of the bushing and forming a cleaning means for the lower face of the insulation body and stationary terminals when rotated, and means for resiliently holding the rotary sparking terminals toward and in contact with the terminals of the bushing and insulating body when rotated and against the insulating body when stationary.

5. A spark plug, including a metal bushing having a plurality of sparking terminals, an insulating sleeve mounted in the bushing and terminating within and out of contact with the lower end of the bushing, a body of insulation fitted within the lower end of the bushing and about the lower end of the insulating sleeve, the lower face of said body being below the bushing and partially surrounding the terminals, whose sparking faces are exposed through the body of insulation, a stem rotatably mounted within the insulating sleeve and operable from the upper end thereof, a plurality of sparking terminals carried upon the lower end of said stem for coaction with the exposed faces of the terminals of the bushing, said stem carried terminals when rotated scraping the lower surface of the body of insulation and exposed ends of the terminals of the bushing to clean the same, and means for resiliently holding the rotary sparking terminal toward and in contact with the terminals of the bushing and insulating body when rotated and against the insulating body when stationary. [Claims 6 to 12 not printed in the Gazette.]

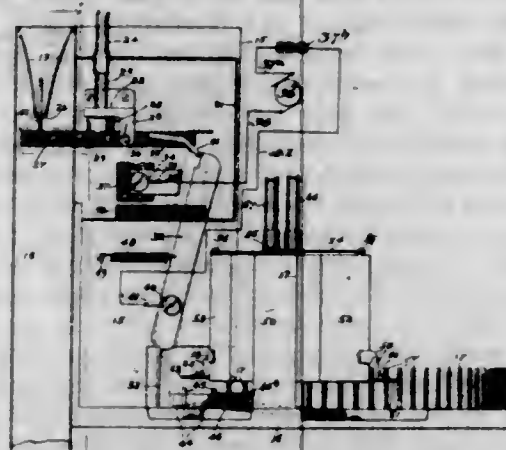
1,077,961. RAIL-FASTENER. GILES H. STONES, Pittsburgh, Pa. Filed Mar. 29, 1913. Serial No. 757,555. (Cl. 239-9.)



In a rail fastener for rail joints, the combination with rails, of upper resilient fastening members secured to the sides of the web of one of said rails, grooved and ribbed

heads carried by the outer ends of said members, said members having sockets formed in the upper edges thereof, lower members secured to the sides of the web of the other rail, and grooved and ribbed heads carried by the outer ends thereof and adapted to be engaged by the heads of said upper members to prevent longitudinal and vertical displacement of said rails.

1,077,962. COIN-OPERATED MECHANISM. PETER WIGGEN, Chicago, Ill., assignor to J. P. Seeburg Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 15, 1911. Serial No. 660,508. (Cl. 84-161.)



1. A controlling device for an automatic mechanism comprising a supporting frame, a suitably mounted rack, a double pneumatic pivoted lever mounted near said rack, means on said pneumatic and operated thereby to engage the rack by steps from one position through a series of different positions, successively operated tripping means to operate said pneumatic in one direction, means co-acting with the rack and said pneumatic and arranged to repeat the operation of the mechanism while said pneumatic is in any but its initial position, and means whereby the operation of the mechanism shall return the said pneumatic by steps to its initial position.

2. A controlling device for an automatic mechanism comprising a supporting frame, an electrically connected switch lever pivoted thereon, an electrically connected contact plate extended into the path of said lever, an electric circuit including said switch and plate, means to hold said lever out of contact with said plate and to release the same, means to force said lever into contact with said plate, and pneumatically operated means to move said lever out of contact with said plate.

3. A controlling device for an automatic mechanism comprising a supporting frame, a rack mounted thereon, a double pneumatic pivoted adjacent to said rack, means on said pneumatic and operated thereby to engage the rack by steps from an initial position through a series of different positions, an electrically connected switch lever pivoted mounted on the supporting frame, an electrically connected contact plate extended into the path of said lever, an electric circuit including said switch and plate tripping means to hold said lever out of contact with said plate and to release the same whereby successive movements thereof will operate said pneumatic in one direction, means to force the switch lever into contact with the contact plate, means arranged to repeat the operation of the mechanism while said pneumatic is in any but its initial position, and means whereby the operation of the mechanism shall return the said pneumatic by steps to its initial position.

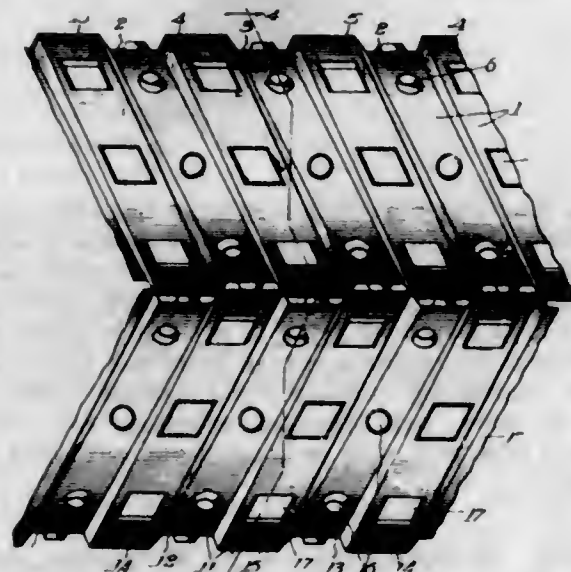
4. A controlling device for an automatic mechanism comprising a supporting frame, an electrically connected switch member pivoted mounted thereon, an electrically connected contact plate extended in the path of said lever, an electric circuit including said switch and plate means to hold said lever out of contact with said plate and to release the same, means to force said lever into contact with said plate, and pneumatically operated means controlled by the holding and releasing means for the switch lever to move said lever out of contact with the contact plate.

5. A controlling device for an automatic mechanism comprising a supporting frame, a bracket mounted thereon,

a spring actuated tripping lever pivotedly mounted on said bracket, a dog pivotedly connected to the tripping lever, an electrically-connected and spring-actuated switch lever pivotedly mounted on the supporting frame and extended at one of its ends to engage the dog on the trip lever, an electrically connected contact plate extended into the path of the switch lever, an electric circuit including said switch lever and said plate and pneumatically operated means controlled by the tripping lever arranged to repeat the operation of the mechanism one time for each movement of the trip lever, and finally to move the switch lever out of contact with the contact plate.

[Claims 6 to 8 not printed in the Gazette.]

1,077,963. CORN-HARVESTING MACHINE. WILLIAM SEWARD BAIRD, Urbana, Ill., assignor to Baird Corn Husker Co., Champaign, Ill., a Corporation of South Dakota. Filed Oct. 14, 1911. Serial No. 654,533. (Cl. 56-113.)



1. In a device of the kind described, the combination of a pair of parallel spirally grooved rolls, each roll provided with projecting lugs in the grooves and spaced from the side walls thereof, and with recesses in the ridges, the lugs in each roll positioned to mate with the recesses in the other roll, and means for rotating said rolls in opposite directions.

2. In a device of the kind described, the combination of a pair of parallel spirally grooved rolls, each roll provided with projecting lugs in the grooves and with recesses in the ridges, said recesses being formed intermediate the side edges of the ridges, the lugs in each roll positioned to mate with the recesses in the other roll and means for rotating said rolls in opposite directions.

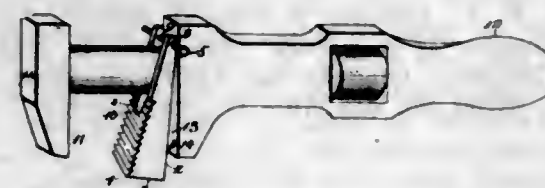
3. In a device of the kind described, the combination of a pair of parallel spirally grooved rolls, each roll provided with projecting lugs in the grooves, and with rectangular shaped recesses in the ridges, the lugs in each roll positioned to mate with the recesses in the other roll, and means for rotating said rolls in opposite directions.

4. In a device of the kind described, the combination of a pair of parallel spirally grooved rolls, each roll provided with tapering projecting lugs in the grooves and spaced from the side walls thereof, and with rectangular shaped recesses in the ridges, said recesses being intermediate the side edges thereof, the lugs in each roll positioned to mate with the recesses in the other roll and means for rotating said rolls in opposite directions.

5. In a device of the kind described, the combination of a pair of rotatable rolls, each roll provided with two spirally extending grooves, the grooves of one roll extending in the opposite directions to the grooves of the other roll, means for supporting said rolls with the ridges of one roll in the grooves of the opposite roll each roll provided with projecting lugs in the grooves and spaced from the side walls thereof, and with recesses in the ridges, the lugs in each roll positioned to mate with the recesses in the other roll, and means for rotating said rolls in opposite directions.

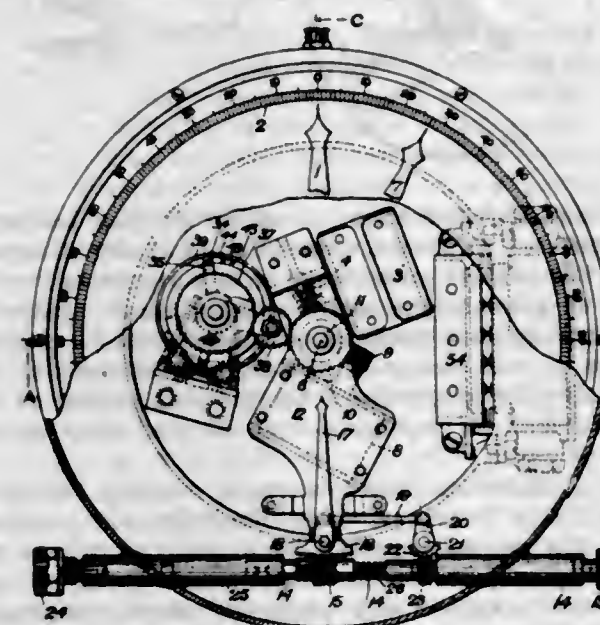
[Claim 6 not printed in the Gazette.]

1,077,964. PIPE-WRENCH ATTACHMENT FOR MONKEY-WRENCHES. CARL NICHOLAS NOLK, Palo Alto, Cal. Filed Nov. 25, 1910. Serial No. 594,150. (Cl. 81-180.)



A pipe wrench attachment for monkey wrenches comprising a block having a cut out portion forming two legs adapted to engage the sides of a monkey wrench shank, and having a back face provided with a chamber, a spring in and extending from said chamber, a front face inclined toward the top of said back face having teeth, and a pin passing through holes in said legs located at a point which leaves a space between the bottom of said cut out portion and the bottom of said shank.

1,077,965. NAVAL FIRE-CONTROL APPARATUS. ARTHUR H. POLLEN, London, and HAROLD ISHERWOOD, York, England. Filed Jan. 27, 1913. Serial No. 744,550. (Cl. 177-351.)



1. In apparatus for controlling gun fire on board ship, mechanism for enabling selection of a target to be made and for insuring that the target observed shall be that at which the guns are firing, comprising a dial graduated to port and to starboard, a pointer mounted pivotally and reading on said dial the bearing of said target, a second pointer mounted pivotally and reading on said dial the bearing of a gun turret, means controlled by a range finder whereby said target-bearing pointer has a motion identical with that of the range finder, and means controlled by a gun turret whereby said turret-bearing pointer has a motion equal to the angle between the axis of the telescopic sight on the gun and the axis of the gun in azimuth, means for indicating when said pointers are coincident, and means for correcting for the different positions of a plurality of gun turrets relatively to the fire control station.

of the telescopic sight on the gun and the axis of the gun in azimuth.

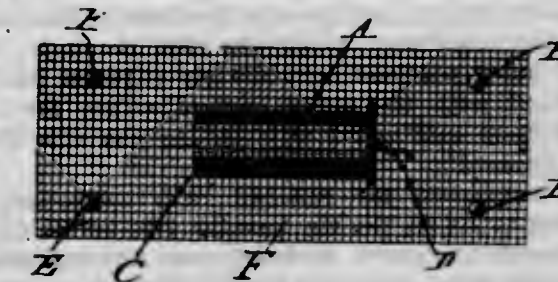
3. In apparatus for controlling gun fire on board ship, mechanism for enabling the selection of a target to be made and for insuring that the target observed shall be that at which the guns are firing, comprising a dial graduated to port and to starboard, a pointer mounted pivotally and reading on said dial the bearing of said target, a second pointer mounted pivotally and reading on said dial the bearing of a gun turret, means controlled by a range finder whereby said target-bearing pointer has a motion identical with that of the range finder, means controlled by a gun turret whereby said turret-bearing pointer has a motion identical with that of the gun turret, means for superposing on the motion of said turret-bearing pointer a motion equal to the angle between the axis of the telescopic sight on the gun and the axis of the gun in azimuth, and means for indicating when said pointers are coincident.

4. In apparatus for controlling gun fire on board ship, mechanism for enabling the selection of a target to be made and for insuring that the target observed shall be that at which the guns are firing, comprising a dial graduated to port and to starboard, a pointer mounted pivotally and reading on said dial the bearing of said target, a second pointer mounted pivotally and reading on said dial the bearing of a gun turret, means controlled by a range finder whereby said target-bearing pointer has a motion identical with that of the range finder, means controlled by a gun turret whereby said turret-bearing pointer has a motion identical with that of the gun turret, means for superposing on the motion of said turret-bearing pointer a motion equal to the angle between the axis of the telescopic sight on the gun and the axis of the gun in azimuth, means for indicating when said pointers are coincident, and means for correcting for the different positions of a plurality of gun turrets relatively to the fire control station.

5. In apparatus for controlling gun fire on board ship, mechanism for enabling the selection of a target to be made and for insuring that the target observed shall be that at which the guns are firing, comprising a dial graduated to port and to starboard, a pointer mounted pivotally and reading on said dial the bearing of said target, a second pointer mounted pivotally and reading on said dial the bearing of a gun turret, an electrical receiving mechanism controlled by a range finder for driving said target bearing pointer a distance identical with the extent of training of the range finder, means controlled by a gun turret whereby said turret-bearing pointer has a motion identical with that of the gun turret, means for superposing on the motion of said turret-bearing pointer a motion equal to the angle between the axis of the telescopic sight on the gun and the axis of the gun in azimuth, means for indicating when said pointers are coincident, and means for correcting for the different positions of a plurality of gun turrets relatively to the fire control station.

[Claims 6 to 12 not printed in the Gazette.]

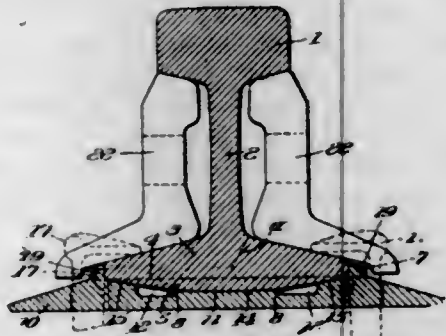
1,077,966. FIRE-ALARM. WILLIAM A. FRETWELL, Wilson, N. C. Filed Apr. 19, 1913. Serial No. 762,307. (Cl. 102-12.)



A cartridge having its front end closed by a plastic, such as putty, wax, plaster of Paris or concrete dough, and enclosed in a woven wire receptacle, as a fire alarm, as shown.

REISSUES.

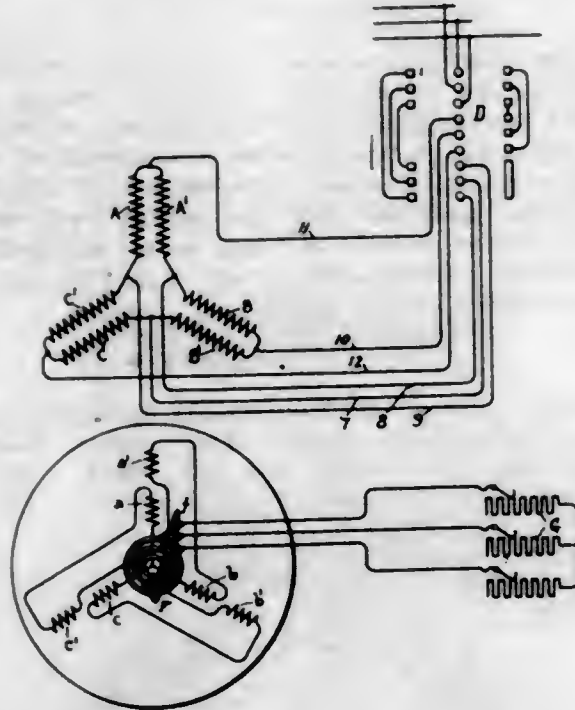
13,637. COMBINED RAILROAD-RAIL AND RAIL-BASE PLATE. FRANKLIN E. ABBOTT, Buffalo, N. Y. Filed June 19, 1909. Serial No. 503,260. Original No. 857,781, dated June 25, 1907, Serial No. 335,955. (Cl. 238-2.)



1. A combined rail and rail base plate, comprising a rail having a comparatively wide base convex on its lower face, and a base plate provided with a counterpart rail seat.
2. A combined rail and rail base comprising a rail having a comparatively wide base convex on its lower face, and a base plate provided with a counterpart rail seat and with longitudinal grooves in said seat.
3. A combined railroad rail and rail base plate, comprising a rail having a comparatively wide base convex on its bottom, and a base plate having a counterpart seat provided with longitudinal grooves and having ribs at the sides of the seat to contact with the edges of the rail base.
4. A combined railroad rail and rail base plate, comprising a rail having a comparatively wide base convex on its bottom, and a base plate having a counterpart seat and provided on one edge with a rib overhanging the edge of the base.
5. The combination with a railroad rail having a flange convex on its lower face, of a base plate having its upper surface concave to fit and receive said convex flange and having on one side a shoulder to engage with the edge of the rail flange and only with the flange near its edge.
6. A base-plate for railroad rails, comprising a flat base adapted to rest flat on the tie and parallel ribs upwardly extending from the upper surface of the base to receive between them the rail flange and to engage with the edges, one of said ribs being curved to overhang the flange edge, said ribs being arranged inwardly of the base plate outer edges leaving outer portions of the base plate outwardly extending beyond the ribs, the upper surfaces of said outer portions being beveled from the base of the ribs outwardly and downwardly to comparatively a thin edge.
7. A base-plate for railroad rails, comprising a flat base adapted to rest flat on the tie and parallel ribs upwardly extending from the upper surface of the base to receive between them the rail flange and to engage with the edges, one of said ribs being curved to overhang the flange edge, said ribs being arranged inwardly of the base plate outer edges leaving outer portions of the base plate outwardly extending beyond the ribs, the upper surfaces of said outer portions, immediately adjacent to the ribs, being level with the upper surface within the ribs, but beveled from said point adjacent to the ribs outwardly and downwardly.
8. A base-plate for railroad rails comprising a flat, thin base to sit on the tie, parallel ribs on its upper surface spaced to receive between them the rail-flange, one of said ribs being curved to overhang the flange, the upper surface of said base between the ribs being provided with longitudinal grooves extending from end to end and respectively adjacent one of the flanges, the base in the grooves being imperforate, the portion of the base between

the grooves being continuous to engage with the rail base, and the base-plate being formed with spike holes outside of the grooves.

13,638. INDUCTION-MOTOR. KARL A. PAULY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 3, 1913. Serial No. 793,265. Original No. 1,067,270, dated July 15, 1913, Serial No. 618,179. (Cl. 172-274.)



1. In an induction motor, a stator winding having its coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding, each phase of which comprises a plurality of groups of coils connected in a plurality of circuits, each of said circuits comprising a plurality of groups of coils in series displaced from each other so that their voltages are out of phase, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.
2. In an induction motor, a stator winding having the coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding, each phase of which comprises a plurality of groups of coils connected in a plurality of circuits, each of said circuits comprising a plurality of groups of coils in series displaced from each other so that their voltages are out of phase, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.
3. In an induction motor, a stator winding having its coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding, each phase of which comprises a plurality of groups of coils, each group in each phase being connected in a series circuit with a group in a different phase.
4. In an induction motor, a stator winding having its coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding, each phase of which comprises a plurality of groups of coils connected in a plurality of circuits, each group in each phase being connected in a series circuit with a group in a different phase, collector rings to which the terminals of the rotor circuits are connected, and a resistance connected to said collector rings.
5. In an induction motor, a stator winding having coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding having groups of coils in each phase

connected in a plurality of circuits, each of said circuits comprising groups of coils having different phase relations with different numbers of poles in the stator winding.

6. In an induction motor, a three phase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, and a three phase rotor winding, the coils of the three phases being displaced from each other 120 electrical degrees for the smaller number of poles, and 240 electrical degrees for the larger number of poles, the coils being connected in three circuits, each circuit comprising coils of two phases, the coils of one phase being reversely connected relative to the coils of the other phase in the same circuit.

7. In an induction motor, a three phase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, and a three phase rotor winding, the coils of the three phases being displaced from each other 120 electrical degrees for the smaller number of poles, and 240 electrical degrees for the larger number of poles, the coils being connected in three circuits, each circuit comprising coils of two phases, the coils of one phase being reversely connected relative to the coils of the other phase in the same circuit, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.

8. In an induction motor, a stator winding having its coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, and a polyphase rotor winding, each phase of which comprises a plurality of groups of coils connected in a plurality of circuits, each of said circuits comprising a plurality of groups of coils in series displaced from each other so that their voltages are out of phase, the amount of such displacement being such that the voltages of the groups are more nearly in series than in opposition for one connection of the primary winding.

9. In an induction motor, a stator winding having its coils connected in groups, connections for said groups for varying the relative connections of said groups to vary the number of poles in the stator winding, a polyphase rotor winding, each phase of which comprises a plurality of groups of coils connected in a plurality of circuits, each of said circuits comprising a plurality of groups of coils in series displaced from each other so that their voltages are out of phase, the amount of such displacement being such that the voltages of the groups are more nearly in series than in opposition for one connection of the primary winding, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.

10. In an induction motor, a polyphase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, and a polyphase rotor winding having its coils connected in a plurality of circuits, each circuit comprising coils of two phases.

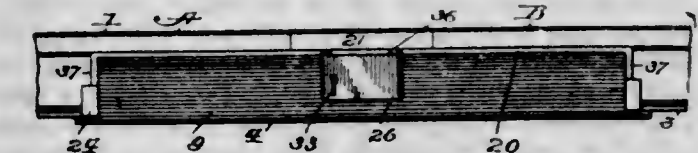
11. In an induction motor, a polyphase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, a polyphase rotor winding having its coils connected in a plurality of circuits, each circuit comprising coils of two phases, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.

12. In an induction motor, a polyphase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, and a rotor wind-

ing having its coils connected in a plurality of circuits, each circuit comprising coils of two phases, the coils of one phase being reversely connected relative to the coils of the other phase in the same circuit.

13. In an induction motor, a polyphase stator winding, connections for changing the speed of said motor by reversing the relative direction of current flowing in one half of each phase of the stator winding to vary the number of poles in the ratio of two to one, a rotor winding having its coils connected in a plurality of circuits, each circuit comprising coils of two phases, the coils of one phase being reversely connected relative to the coils of the other phase in the same circuit, collector rings to which the terminals of the rotor circuits are connected, and a starting resistance connected to said collector rings.

13,639. RAIL-JOINT. GILBERT W. WARNER, Kenmore, Ohio. Filed May 21, 1913. Serial No. 769,123. Original No. 1,035,282, dated Aug. 13, 1912, Serial No. 697,328. (Cl. 239-3.)



1. In a rail joint, the combination with rails having the heads thereof at the confronting ends of said rails cut away, of a rail chair supporting the confronting ends of said rails, a splice bar formed integral with said chair and bracing the inner edges of said rails, said splice bar having pockets formed therein, a brace carried by the outer edge of said chair, a longitudinal rib carried by the inner side of said brace and provided with seats, bolts having the ends thereof arranged in the seats of said brace and in the pockets of said splice bar and extending through the webs of said rails, a slotted detachable splice bar engaging the outer sides of said rails, a projection mounted in said cut away ends of the rails, a wedge interposed between said detachable splice bar and said brace, and a locking mechanism arranged within said brace and engaging said wedge for retaining said wedge between said splice bar and said brace.
2. In a rail joint, the combination with rails having the heads thereof cut away at the confronting ends of said rails, of a chair adapted to support said rails, a splice bar formed integral therewith and bracing the inner sides of said rails, said splice bar having pockets formed therein, a longitudinal brace carried by the outer edge of said chair and having the inner side thereof provided with seats, bolts extending through said rails and having the ends thereof arranged in the pockets of said splice bar and in the seats of said brace, a slotted detachable splice bar engaging the outer sides of said rails, a projection carried by said detachable splice bar and extending into the cut away portions of the heads of said rails, a tapering wedge arranged between said detachable splice bar and said brace, a locking mechanism carried by said brace for locking said wedge in position, and a closure plate carried by said detachable splice bar and extending over said brace.
3. In a rail joint, the combination with rails having the heads thereof at the confronting ends cut away, of a chair supporting said rails, a splice bar formed integral with said chair, a brace carried by the outer edge of said chair, bolts extending through said rails and having the ends thereof held by said splice bar and said brace, a detachable splice bar arranged between said brace and the outer sides of said rails, a projection carried by said splice bar and extending into the cut away portions of the heads of said rails, a wedge arranged between said splice bar and said brace, a key actuated locking mechanism associated with said brace and adapted to lock said wedge between said brace and said detachable splice bar, and a closure plate carried by said detachable splice bar and extending over said brace and closing the space between said brace and said detachable splice bar.

4. In a rail joint, the combination with the abutting ends of railroad rails, of a rail chair embodying a trough-shaped member with two upwardly projecting side walls formed integral therewith, one of said side walls engaging one side of said rails and provided with pockets, the opposite side wall of said chair spaced from the rail and provided on its inner face with seats, having vertically-inclined side walls, stiffening double-headed bolts extending through suitable apertures in the webs of said rails and provided with heads at one end to engage in said pockets and having wedge-shaped heads at the opposite end to engage the vertically-inclined walls of said seats, a movable splice bar positioned between said spaced wall and the sides of said rails and provided with a longitudinally-extending wedge-shaped opening, a wedge engaging the wall of said chair and positioned in said opening and arranged when shifted to force said detachable splice bar against said rails, and locking means engaging said wedge for retaining it against movement.

5. In a rail joint, the combination with the abutting ends of railroad rails having the heads thereof cut away to form a lateral recess, of a rail chair comprising a trough-shaped member provided with a pair of upwardly-extending walls one of which is arranged to engage the side faces of the ends of said rails and constitute a splice bar, said wall further provided with pockets, the opposite wall of said bar spaced from said rails, removable bolts extending between said walls through the webs of said rails for stiffening the chair, a movable splice bar positioned between one of the walls of said chair and the sides of said rails, said splice bar provided with a longitudinally-extending wedge-shaped opening, and further provided with an upwardly-extending projection arranged to fill said recess, a longitudinally-shiftable wedge mounted in the opening in said splice bar and engaging one of the walls of said chair, and means for locking said wedge against movement.

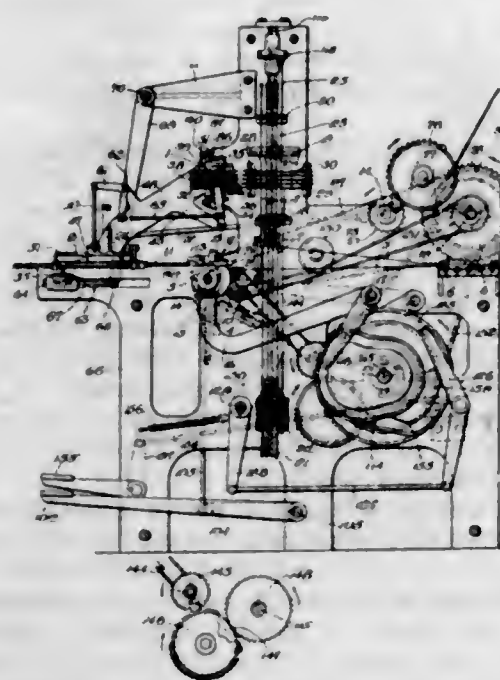
6. In a rail joint, the combination with the abutting ends of railroad rails, of a chair comprising a trough-shaped structure with two upwardly-extending walls one of which is adapted to engage the lateral faces of said rails and constitute a fixed spliced bar, having T-shaped recesses, the side walls of which are vertically-inclined to form seats, double-headed bolts extending from the fixed spaced bar through suitable apertures in the webs of the rails and with the heads at one end of the bolts wedge-shaped to engage said seats for stiffening said rail chair, a movable splice bar interposed between the spaced wall of said chair and the sides of said rails and provided with means to receive a longitudinally-shiftable wedge, and a wedge mounted for longitudinally-shifting and engaging said wall for forcing said movable splice bar against the sides of said rails.

7. In a rail joint, the combination with the abutting ends of railroad rails, of a rail chair comprising a trough-shaped structure having two upwardly-extending walls one of which is adapted to engage the lateral face of said rails and constitute a fixed splice bar, the other wall spaced from said rails, one of said walls provided with pockets and the other wall with T-shaped recesses constituting seats, the seats being in transverse alignment with the pockets, the openings communicating with said pockets being elongated, a plurality of double-headed bolts the end of each of which is provided with an elongated head to pass through said openings into said pockets and interlock behind the walls thereof, the opposite end of each of said bolts being wedge-shaped to effect a wedging action when placed in said seats, a movable splice bar interposed between said spaced wall and the sides of said rails and engaging the latter and provided with a longitudinally-extending opening, and a longitudinally-shiftable wedge engaging said spaced wall and movable splice bar for forcing the latter against the sides of said rails for holding them against lateral movement, and means for locking said wedge against shifting.

8. In a rail joint, the combination with the abutting ends of railroad rails, having the heads thereof cut away to form a recess when abutted, of a rail chair comprising a trough-shaped structure having two upwardly-extending

walls one of which is adapted to engage the sides of said rails and forming a fixed splice bar, the other wall spaced from said rails, said spaced wall provided with a chamber formed therein, a movable splice bar interposed between said spaced wall and the sides of said rails and engaging the latter, said splice bar provided with a projection to fill said recess, said splice bar arranged to extend over the space between said spaced wall and said rails for constituting a closure device therefor, said movable splice bar provided with a longitudinally-extending opening, a longitudinally-shiftable wedge in said opening arranged when shifted to force said splice bar against said rails for holding them against lateral movement and a locking device arranged in said chamber and engaging said wedge for holding the latter against longitudinal shifting.

13,640. MACHINE FOR SELECTING, SPOOLING, SHEARING, AND DRAWING IN YARN FOR AXMINSTER LOOMS. THOMAS P. WALSH, Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Filed Sept. 26, 1913. Serial No. 792,069. Original No. 1,069,914, dated Aug. 12, 1913, Serial No. 559,129. (Cl. 139-94.)



1. In a machine of the kind described, the combination with means for delivering a supply of yarns, and means for supporting a tube frame in position to be provided with a complement of yarns from said supply, of selecting mechanism for selecting from said yarns the desired complement thereof required for the tubes of said tube frame, and means for drawing-in the selected yarns one at a time into the respective tubes of said tube frame.

2. In a machine of the kind described, the combination with yarn-selecting mechanism, of means for drawing in the selected yarns one at a time, and means for thereafter winding said yarns on a spool.

3. In a machine of the kind described, the combination with pattern-selective means for selecting one yarn at a time, a general source of said yarn supply, and means for supporting a tube frame and its tubes in position for the selected yarns to be drawn into said tubes, of means for drawing-in each yarn as selected.

4. In a machine of the kind described, the combination with yarn-selective mechanism, including governing means for determining the yarns to be selected, of step by step drawing-in mechanism to draw-in one yarn at a time, and means to support a series of tubes in position to receive said yarns.

5. In a machine of the kind described, a general source of yarn supply, and yarn-selective mechanism for choosing certain yarns from among the general supply of yarns, combined with drawing-in mechanism under the control of said selective mechanism, and means for supporting the tubes in position to receive the selected yarns.

6. In a machine of the kind described, the combination with step by step yarn-selective mechanism, of drawing-in mechanism, and means connected with the latter for preventing said selective mechanism from being operated at a second step position before the drawing-in mechanism has operated.

7. In a machine of the kind described, the combination with a general source of yarn supply, step by step yarn selective mechanism for choosing certain yarns from among said general supply of yarns and means for holding the tubes of a tube frame in position for the chosen yarns to be drawn through said tubes, of step by step drawing-in mechanism, and operating connections between said two step by step mechanisms containing means for effecting their step by step movements in unison.

8. In a machine of the kind described, the combination with a general source of yarn supply, step by step yarn selective mechanism for choosing certain yarns from among said general supply of yarns one at a time successively across the machine and means for holding the tubes of a tube frame in position for the chosen yarns to be drawn through said tubes, of drawing-in mechanism for drawing in one yarn at a time in the corresponding tube, the afore-said mechanisms including means for advancing the drawing-in mechanism step by step to draw in the yarns successively across the machine.

9. In a machine of the kind described, a source of general yarn supply from which a complement of yarn is to be selected, means to support the tubes of a tube frame in position for the selected yarns to be drawn into said tubes, and yarn-selective mechanism, including controlling means for selecting a desired complement of said yarns, combined with a single drawing-in device for drawing all the selected yarns through said tubes, means to move said device into position to cooperate with the successive yarns, one at a time, and means to reciprocate said device with relation to each yarn.

10. In a machine of the kind described, the combination with a source of general delivery, yarn-selective mechanism for choosing certain yarns from among the general supply of yarns, of means to support a tube frame in position to receive the selected yarns, a drawing-in hook, and operating means for giving said hook a drawing-in movement through said tubes in succession.

11. In a machine of the kind described, the combination with means to support a tube frame, of means to draw-in the yarns through said tube frame one at a time, and means for thereafter winding the drawn-in yarns.

12. In a machine of the kind described, the combination with means for supporting a tube frame, and means for holding the yarns in alignment with said tubes, of means to draw-in the yarns one at a time through the successive tubes, and means for thereafter winding the yarns.

13. In a machine of the kind described, the combination with winding and supporting means for a spool on which yarns are to be wound, and means for delivering the said yarns to be wound on said spool, of means for supporting the tubes of a tube frame, and means for drawing-in the yarns one at a time into the tubes of the tube frame.

14. A machine of the kind described, comprising yarn-selecting mechanism, winding mechanism, and automatic means to move the selected yarns one at a time to said winding mechanism.

15. A machine of the kind described, comprising yarn-selecting mechanism, winding mechanism, means to move the selected yarns one at a time to said winding mechanism, and automatic means for severing the yarns when wound.

16. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles normally held in down position, selective means for releasing a selected heddle, means for individually raising each heddle as selected, to hold the selected yarn in raised position, winding mechanism, and means to move the selected yarns one at a time to said winding mechanism.

17. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles normally held in down position, selective means for releasing

a selected heddle, means for individually raising each heddle as selected, to hold the selected yarn in raised position, means to support a tube frame, and means to draw-in the selected yarns through said tube frame one at a time.

18. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles normally held in down position, selective means for releasing a selected heddle, means for individually raising the selected heddles, to hold the selected yarns in raised position, and means to positively force downward the raised heddles to normal position, combined with winding mechanism, and mechanism to move the selected yarns to said winding mechanism while the heddles are in raised position.

19. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles normally held in down position, selective means for releasing a selected heddle, means for individually raising the selected heddles, to hold the selected yarns in raised position, means to positively force downward the raised heddles to normal position, means to support a tube frame, and mechanism for drawing-in the selected yarns through said tube frame while the heddles are in raised position.

20. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles each provided with locking means for locking it in down position, selective means for unlocking a selected heddle, and means for individually raising the selected heddles, to hold the selected yarns in raised position, combined with winding mechanism, and mechanism to move the selected yarns to said winding mechanism while the heddles are in raised position.

21. A machine of the kind described, comprising yarn-selective mechanism, including vertically movable heddles each provided with locking means for locking it in down position, selective means for unlocking a selected heddle, and means for individually raising the selected heddles, to hold the selected yarns in raised position, combined with means to support a tube frame, and mechanism for drawing-in the selected yarns through said tube frame while the heddles are in raised position.

22. A machine of the kind described, comprising yarn-selective mechanism, including a step by step actuator, a drawing-in device carried by and actuated step by step by said actuator, and means for giving said drawing-in device a drawing-in movement in each step by step position.

23. In a machine of the kind described, means to support a tube frame, a drawing-in hook, means to move said hook step by step to draw-in the yarns one at a time through the successive tubes of the tube frame, actuating means for reciprocating said drawing-in hook, and means for rocking the hook from tube-occupying position into yarn-engaging position for facilitating the passage of the same through the tube.

24. A machine of the kind described, comprising a drawing-in hook mounted for longitudinal movement, a continuously reciprocating actuator for moving said hook, and means under the control of the operator for connecting said hook with said actuator to be actuated thereby.

25. In a machine of the kind described, means for supporting a spool and tube frame in position to be supplied with a complement of yarns, drawing-in mechanism, winding mechanism, and means to lower said spool and tube frame entirely below said mechanisms to permit the removal of the spool and tube frame together.

26. In a machine of the kind described, a yarn-severing device, means to support a tube frame and a spool above said device in position to receive a complement of yarns, drawing-in mechanism to draw said yarns through the tubes of said tube frame, winding mechanism to wind the yarns on the spool, and means to lower said supporting means with said spool and tube frame in position for said severing mechanism to sever the yarns in proper relation to the tube frame.

27. In a machine of the kind described, means to support a supply of yarns, means to support a spool and tube frame to receive yarns from said supply, yarn straightening and aligning mechanism, yarn-severing mechanism,

and means for moving the spool and tube frame with their support into position for said straightening and aligning mechanism to engage the yarns thereof prior to the severing of said yarns.

28. In a machine of the kind described, means to support a spool and tube frame, means to deliver yarns through the tubes of said tube frame and onto said spool, winding mechanism to wind the yarns on the spool, severing means, and mechanism for lowering said spool and tube frame with their support and raising said severing mechanism to sever the yarns of the lowered spool and tube frame.

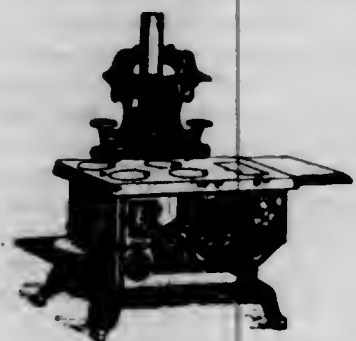
DESIGNS.

44,831. STOVE. CHARLES A. BAILEY, Cromwell, Conn., assignor to The J. & E. Stevens Company, Cromwell, Conn., a Corporation of Connecticut. Filed Sept. 3, 1913. Serial No. 788,003. Term of patent 7 years.



The ornamental design for a stove, as shown.

44,832. STOVE. CHARLES A. BAILEY, Cromwell, Conn., assignor to The J. & E. Stevens Company, Cromwell, Conn., a Corporation of Connecticut. Filed Sept. 3, 1913. Serial No. 788,004. Term of patent 7 years.



The ornamental design for a stove, as shown.

44,833. STOVE. CHARLES A. BAILEY, Cromwell, Conn., assignor to The J. & E. Stevens Company, Cromwell, Conn., a Corporation of Connecticut. Filed Sept. 3, 1913. Serial No. 788,005. Term of patent 7 years.



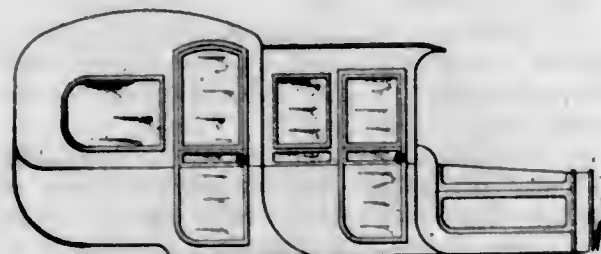
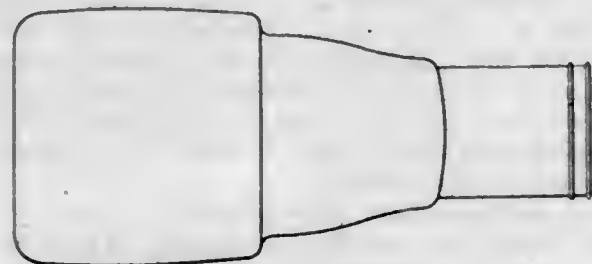
The ornamental design for a stove, as shown.

44,834. NAIL-SET. EDWIN ALLEN BARDWELL, Shelburne Falls, Mass. Filed Sept. 8, 1913. Serial No. 788,760. Term of patent 7 years.



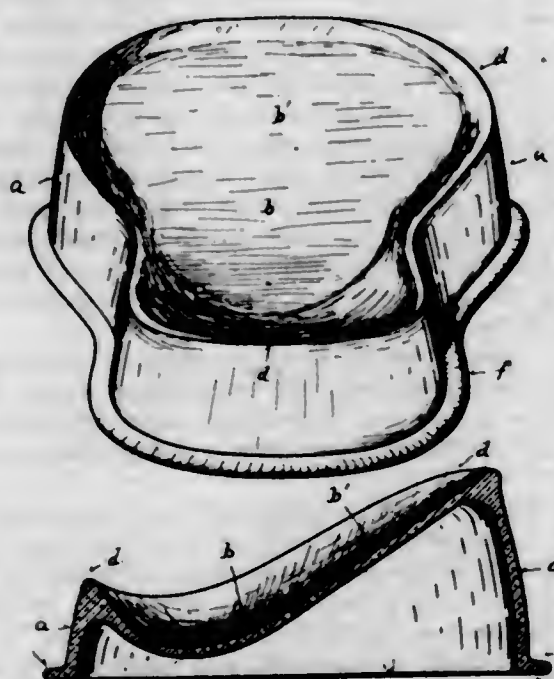
The ornamental design for a nail set, as shown.

44,835. AUTOMOBILE-BODY. EDWARD H. BINNS, Littleburgh, Pa. Filed Sept. 4, 1913. Serial No. 788,161. Term of patent 14 years.



The ornamental design for a vehicle body as shown.

44,836. CHANGE-TRAY. EDWARD BRUNIOFF, Cincinnati, Ohio. Filed Feb. 10, 1913. Serial No. 747,568. Term of patent 7 years.



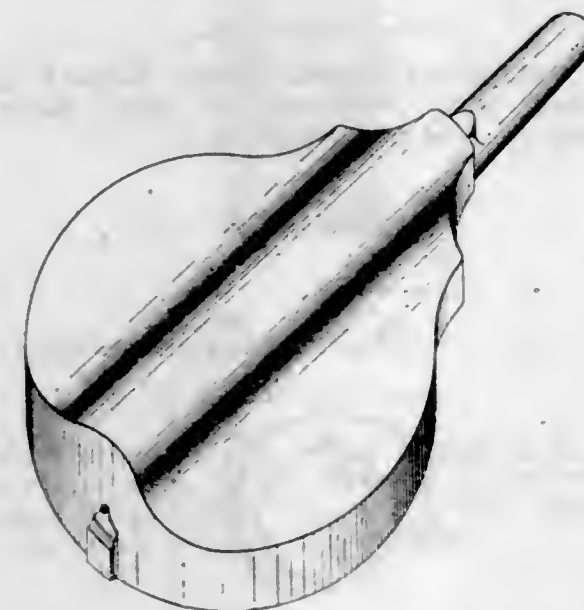
The ornamental design for change tray as shown and described.

44,837. LIFTING-JACK STANDARD. JOHN H. BURKHOLDER, Ashland, Ohio. Filed Dec. 8, 1911. Serial No. 664,666. Term of patent 7 years.



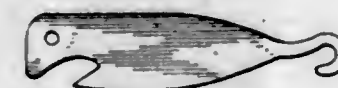
The ornamental design for a lifting jack standard, substantially as shown.

44,838. MANDOLIN-BODY. DAVID L. DAY, Revere, Mass., assignor to The Vega Company, Boston, Mass., a Corporation of Massachusetts. Filed June 13, 1913. Serial No. 773,555. Term of patent 14 years.



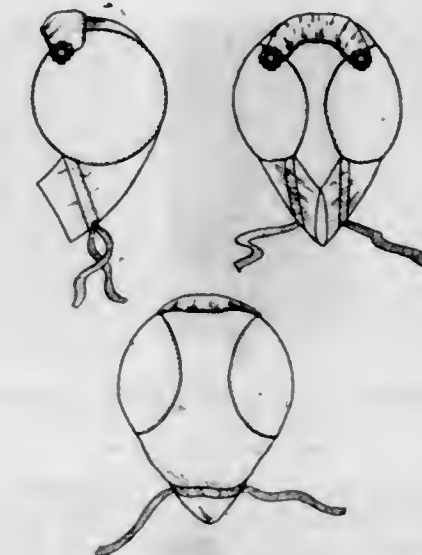
The ornamental design for a mandolin body, as shown.

44,839. BOTTLE-OPENER AND BUTTON-HOOK. RALPH H. FOSTER, Jersey City, N. J. Filed Jan. 15, 1913. Serial No. 742,285. Term of patent 7 years.



The ornamental design for a bottle opener and button hook, as shown.

44,840. BATHING-CAP. EDWIN A. GUINZBURG, New York, N. Y. Filed June 5, 1913. Serial No. 772,006. Term of patent 7 years.



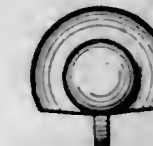
The ornamental design for a bathing cap as shown.

44,841. BUTTON. JOHN H. HAWLEY, New York, N. Y. Filed Sept. 24, 1913. Serial No. 791,658. Term of patent 3½ years.



The ornamental design for a button, substantially as shown.

44,842. BUTTON. JOHN H. HAWLEY, New York, N. Y. Filed Sept. 24, 1913. Serial No. 791,659. Term of patent 3½ years.



The ornamental design for a button, substantially as shown.

44,843. HANGER FOR LIGHT-REFLECTING BOWLS. CHARLES ERNEST JONES, Chicago, Ill. Filed July 28, 1913. Serial No. 781,660. Term of patent 3½ years.



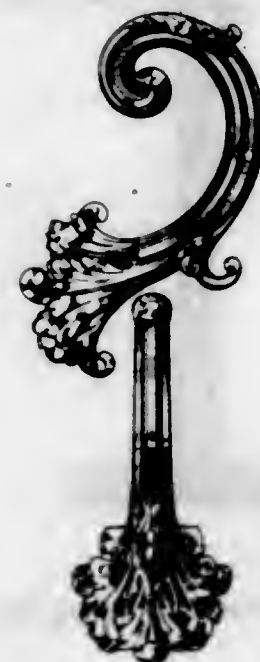
The ornamental design for a hanger for light reflecting bowls as shown.

44,844. HANGER FOR LIGHT-REFLECTING BOWLS. CHARLES ERNEST JONES, Chicago, Ill. Filed July 28, 1913. Serial No. 781,661. Term of patent 3½ years.



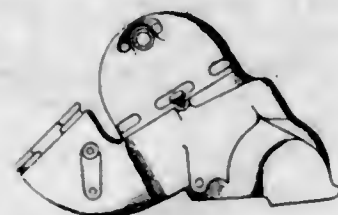
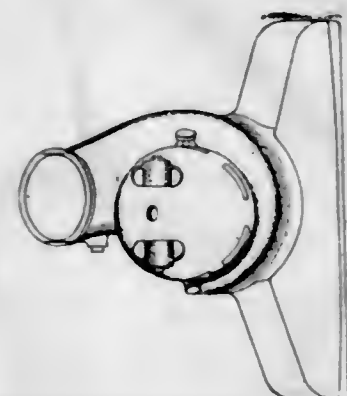
The ornamental design for a hanger for light reflecting bowls as shown.

44,845. HANGER FOR LIGHT-REFLECTING BOWLS. CHARLES ERNEST JONES, Chicago, Ill. Filed July 28, 1913. Serial No. 781,662. Term of patent 3½ years.



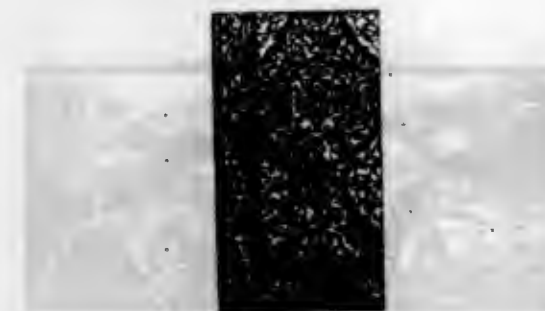
The ornamental design for a hanger for light reflecting bowls as shown.

44,846. VACUUM-CLEANER CASING. JAMES B. KIRBY, Cleveland, Ohio. Filed Sept. 15, 1913. Serial No. 789,899. Term of patent 14 years.



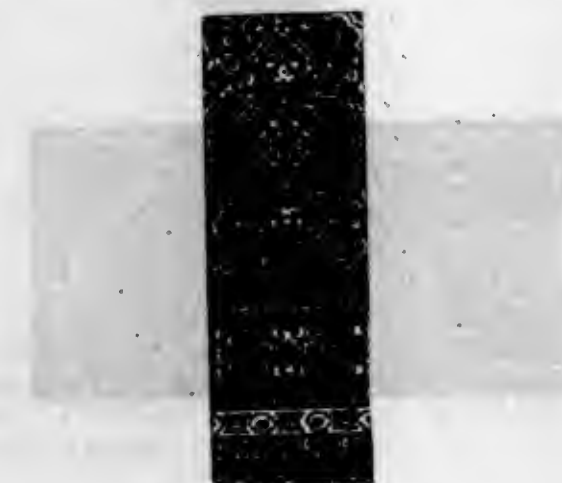
The ornamental design for a vacuum cleaner casing, as shown.

44,847. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,229. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,848. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,230. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,849. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,231. Term of patent 7 years.



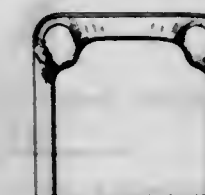
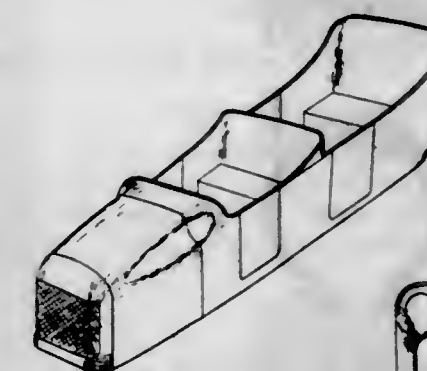
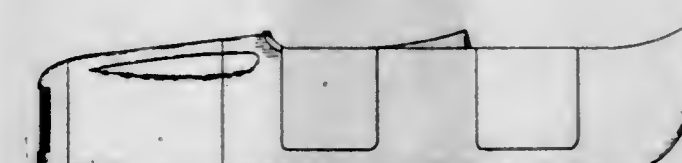
The ornamental design for a carpet, as shown.

44,850. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,232. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,851. AUTOMOBILE-BODY. THEODORE H. MILLINGTON, Detroit, Mich., assignor of one-half to Detroit Body Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 21, 1913. Serial No. 786,039. Term of patent 14 years.



The ornamental design for an automobile body, as shown.

44,852. CARPET. JOHN B. MOFFAT, Bronxville, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,213. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,853. RUG. JOHN B. MOFFAT, Bronxville, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,214. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,854. VEHICLE-TIRE. WILLIAM D. MORRIS, Youngstown, Ohio. Filed July 19, 1913. Serial No. 780,078. Term of patent 14 years.



The ornamental design for a vehicle tire as shown.

44,855. VEHICLE-TIRE. WILLIAM D. MORRIS, Youngstown, Ohio. Filed July 19, 1913. Serial No. 780,077. Term of patent 14 years.



The ornamental design for a vehicle tire as shown.

44,856. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 4, 1913. Serial No. 793,485. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,857. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 4, 1913. Serial No. 793,486. Term of patent 7 years.



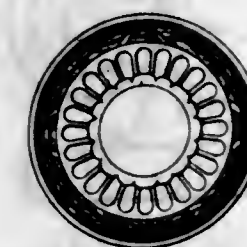
The ornamental design for a rug, as shown.

44,858. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 4, 1913. Serial No. 793,487. Term of patent 7 years.



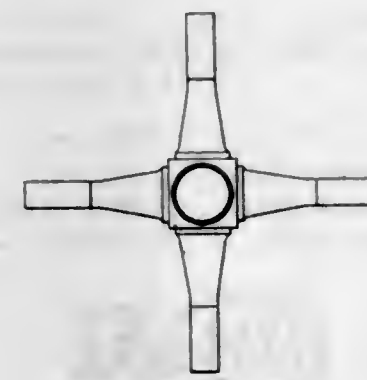
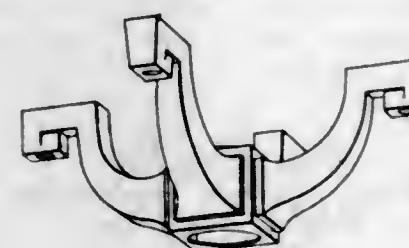
The ornamental design for a rug, as shown.

44,859. PEDESTAL. HARRY O. RASTETTER, Canton, Ohio, assignor to The Union Metal Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 2, 1913. Serial No. 787,808. Term of patent 7 years.



The ornamental design for a pedestal substantially as shown.

44,860. HEAD FOR LAMP-STANDARDS. HARRY O. RASTETTER, Canton, Ohio, assignor to The Union Metal Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 2, 1913. Serial No. 787,809. Term of patent 7 years.



The ornamental design for a head for a lamp standard substantially as shown.

44,861. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,210. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,862. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,220. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,863. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,221. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,864. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,217. Term of patent 7 years.



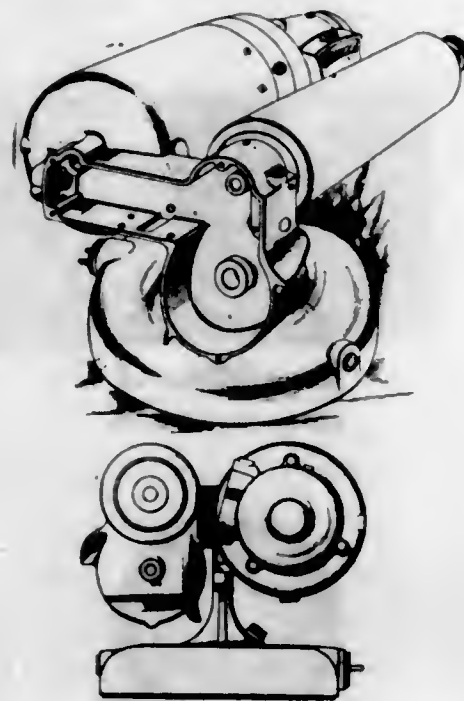
The ornamental design for a rug, as shown.

44,865. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 27, 1913. Serial No. 792,218. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,866. TALKING-MACHINE FRAME. CLINTON E. WOODS, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Aug. 30, 1913. Serial No. 787,553. Term of patent 14 years.



The ornamental design for a talking machine frame, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 4, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 55,401. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEO. P. BRAUN CO., Chicago, Ill. Filed Mar. 29, 1911.

**GOLDEN
GLOW**

Particular description of goods.—Oleomargarin.
Claims use since Dec. 1, 1910.

Ser. No. 58,329. (CLASS 39. CLOTHING.) COLONIAL SHIRT COMPANY, New York, N. Y. Filed Aug. 22, 1911.

Colonial

Particular description of goods.—Men's Dress, Negligée, and Work Shirts.
Claims use since Sept. 1, 1910.

Ser. No. 62,960. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE G. PIEL COMPANY, New York and Long Island City, N. Y. Filed Apr. 18, 1912.

G.P.C.

Particular description of goods.—Mechanically-Driven Horns for Automobiles, Boats, and Aeroplanes.
Claims use since May 1, 1911.

Ser. No. 63,717. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RE-NU MFG. CO., Philadelphia, Pa. Filed May 22, 1912.

Re-NU

Particular description of goods.—A Cleansing-Powder Designed to be Dissolved in Water and Used as a Wash for False Hair.
Claims use since Dec. 18, 1911.

Ser. No. 66,473. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN CONSUMERS' ASSOCIATION OF NEW YORK, INC., New York, N. Y. Filed Oct. 23, 1912.



Particular description of goods.—Fruit Preserves in Cans or Jars, Coffee in Beans or Ground, Tea, Sugar in Lumps, Granulated, or Powdered, Wheat-Flour, Bread, Fresh, Condensed, and Evaporated Milk, Cream, Butter, Eggs, Cheese, Spices, Crackers, Rice, Indian Meal, Cornmeal, Sago, Pickles, Starch for Cooking and Laundry Purposes, and Fresh, Canned, and Dried Fruits.
Claims use since Oct. 2, 1912.

Ser. No. 67,720. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. V. PEIRSON & CO., Newark, N. Y. Filed Jan. 4, 1913.

PRAIRIE

PRIDE

Particular description of goods.—Wheat-Flour.
Claims use since June 10, 1912.

Ser. No. 67,853. (CLASS 43. THREAD AND YARN.)
PEERLESS SPOOL SILK CO., New York, N. Y. Filed Jan.
11, 1913.



Particular description of goods.—Spool-Silk and Mer-
cerized Thread.
Claims use since Nov. 11, 1912.

Ser. No. 68,490. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) WAYNE COUNTY DRIERS & PACK-
ERS FRUIT COMPANY, Rochester, N. Y. Filed Feb. 10,
1913.



Particular description of goods.—Dried Fruits.
Claims use since the fall of 1908.

Ser. No. 69,108. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) MELLO BREAKFAST WHEAT COM-
PANY, Minneapolis, Minn. Filed Mar. 17, 1913.

MELLO

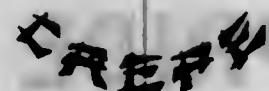
Particular description of goods.—Wheat Breakfast Food.
Claims use since Mar. 6, 1913.

Ser. No. 69,271. (CLASS 6. CHEMICALS, MEDICINES,
AND PHARMACEUTICAL PREPARATIONS.) GEORGE
C. WILSON, Tyrone, Pa. Filed Mar. 22, 1913.

CLOVERINE

Particular description of goods.—Cold-Cream, Perfumes,
and Face-Powder.
Claims use since Sept. 8, 1896.

Ser. No. 69,321. (CLASS 42. KNITTED, NETTED, AND
TEXTILE FABRICS.) B. HART & BRO., San Francisco,
Cal. Filed Mar. 25, 1913.



No claim being made to the word "Crepe."
Particular description of goods.—Cotton Dress Goods
in the Piece.
Claims use since Nov. 15, 1912.

Ser. No. 70,149. (CLASS 6. CHEMICALS, MEDICINES,
AND PHARMACEUTICAL PREPARATIONS.) FARB-
WERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-
the-Main, Germany. Filed May 1, 1913.

TUMENOL

Particular description of goods.—A Preparation for Re-
ducing Inflammation of the Skin and Promoting Granula-
tions.
Claims use since 1894.

Ser. No. 70,150. (CLASS 6. CHEMICALS, MEDICINES,
AND PHARMACEUTICAL PREPARATIONS.) FARB-
WERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-
the-Main, Germany. Filed May 1, 1913.

Nykantin

Particular description of goods.—Antiseptic Chemical
Substances in Liquid or Paste Form, Used as Preserva-
tive, and Sanitary Paints or Dressings for Wood, Stone-
work, Brickwork, and Metal.
Claims use since Feb. 4, 1913.

Ser. No. 70,266. (CLASS 28. JEWELRY AND PRE-
CIOUS-METAL WARE.) CHARLES F. NESLER, Newark,
N. J. Filed May 6, 1913.



The trade-mark shown herein is always displayed in red.
Particular description of goods.—Ear-Rings.
Claims use since 1898.

Ser. No. 70,456. (CLASS 6. CHEMICALS, MEDICINES,
AND PHARMACEUTICAL PREPARATIONS.) ABRA-
HAM MILTON SHIFFER, Philadelphia, Pa. Filed May 16,
1913.

CADOL

Particular description of goods.—External Remedies for
Skin Diseases.
Claims use since Oct. 10, 1908.

Ser. No. 70,500. (CLASS 40. FANCY GOODS, FURNISH-
INGS, AND NOTIONS.) GEO. AMANN NOVELTY COM-
PANY, New York, N. Y. Filed May 19, 1913.



Particular description of goods.—Belts for Personal
Wear.
Claims use since Mar. 19, 1913.

[Vol. 196. No. 1.]

Ser. No. 70,528. (CLASS 39. CLOTHING.) MISSOULA
MERCANTILE COMPANY, Missoula, Mont. Filed May 21,
1913.



Applicant disclaims all printed matter on the drawing
except the word "Premier."
Particular description of goods.—Suits and Overcoats
for Men and Boys.
Claims use since September, 1904.

Ser. No. 70,820. (CLASS 45. BEVERAGES, NON-ALCO-
HOLIC.) GEORGE BENEDICT, Philadelphia, Pa. Filed
June 2, 1913.

Crambambulee

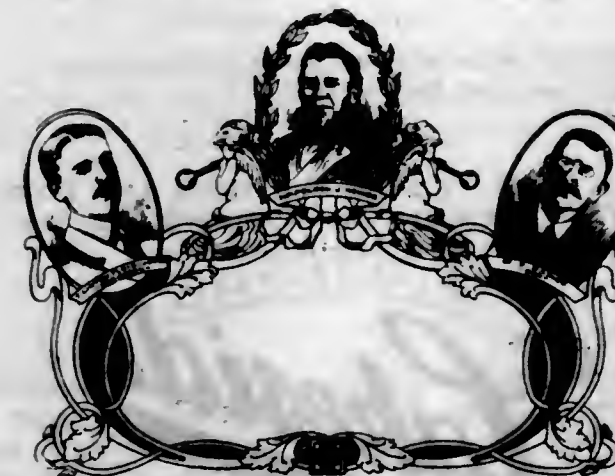
Particular description of goods.—A Non-Alcoholic Bev-
erage Composed of Carbonated Water and Combined Fruit
Flavor.
Claims use since April, 1913.

Ser. No. 70,863. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) STROHMMEYER & ARPE COMPANY,
New York, N. Y. Filed June 4, 1913.

"KING GEORGE" BRAND

No claim being made to the exclusive right to use the
word "Brand."
Particular description of goods.—Canned Vegetables,
Canned Fruits, and Canned Fish.
Claims use since February, 1913.

Ser. No. 71,128. (CLASS 36. MUSICAL INSTRUMENTS
AND SUPPLIES.) W. P. HAINES & COMPANY, New
York, N. Y. Filed June 16, 1913.



The portraits shown being of Napoleon J. Haines, de-
ceased, W. P. Haines, and T. Linton Floyd Jones.
Particular description of goods.—Pianos and Player-
Pianos.
Claims use since about Apr. 1, 1913.

[Vol. 196. No. 1.]

Ser. No. 71,391. (CLASS 29. BROOMS, BRUSHES, AND
DUSTERS.) UNITED BRUSH MANUFACTORIES, New
York, N. Y. Filed June 26, 1913.

CELLEO

Particular description of goods.—Bath-Brushes, Shav-
ing-Brushes, Toilet-Brushes, and Paint-Brushes.
Claims use since Apr. 5, 1911.

Ser. No. 71,451. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) MAY CUSHMAN RICE, Chicago, Ill.
Filed June 30, 1913.



Particular description of goods.—A Health-Food Bis-
cuit.
Claims use since May 1, 1912.

Ser. No. 71,483. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY,
Kansas City, Mo. Filed July 2, 1913.

KIDDO

Particular description of goods.—Popcorn and Candles.
Claims use since May 17, 1913.

Ser. No. 71,533. (CLASS 46. FOODS AND INGREDI-
ENTS OF FOODS.) THE DUNLOP MILLING COMPANY,
Clarksville, Tenn. Filed July 5, 1913.



Particular description of goods.—Self-Rising Wheat-
Flour.
Claims use since Jan. 15, 1913.

Ser. No. 71,590. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LARRY J. TOADVINE, Salisbury, Md. Filed July 7, 1913.



The representation of cantaloups in said drawing being hereby disclaimed.
Particular description of goods.—Cantaloups.
Claims use since Jan. 1, 1913.

Ser. No. 71,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAMES HEERIN COMPANY, Cincinnati, Ohio. Filed July 10, 1913.

KIN-HEE

Particular description of goods.—Coffee.
Claims use since August, 1907.

Ser. No. 71,644. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ORIN EDWARD SPOONER, Boston, Mass. Filed July 10, 1913.

**THE
YOU SAY**

Particular description of goods.—Oranges, Pineapples, Lemons, Limes, and Grape-Fruit.
Claims use since 1911.

Ser. No. 71,721. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AVISTON MILLING CO., Aviston, Ill. Filed July 16, 1913.

COURTESY

Particular description of goods.—Wheat-Flour.
Claims use since June 10, 1913.

Ser. No. 71,722. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AVISTON MILLING CO., Aviston, Ill. Filed July 16, 1913.

**HOBBY
HORSE**

Particular description of goods.—Wheat-Flour.
Claims use since June 10, 1913.

Ser. No. 71,723. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AVISTON MILLING CO., Aviston, Ill. Filed July 16, 1913.

PIPE ORGAN

Particular description of goods.—Wheat-Flour.
Claims use since June 10, 1913.

Ser. No. 71,728. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BENNETT MILLING CO., Geneva, Ill. Filed July 16, 1913.

YEAR ROUND

Particular description of goods.—Self-Rising Pancake-Flour.
Claims use since Nov. 18, 1904.

Ser. No. 71,755. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. & A. LEAMAN, New York, N. Y. Filed July 16, 1913.

TEMPTATION

Particular description of goods.—Wheat-Flour.
Claims use since Mar. 1, 1890.

Ser. No. 71,760. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LAKESIDE BISCUIT COMPANY, Toledo, Ohio. Filed July 16, 1913.

Lakeside

Particular description of goods.—Graham Crackers.
Claims use since January, 1902.

[Vol. 196. No. 1.]

Ser. No. 71,762. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEWISBURG CONDENSED MILK COMPANY, Lewisburg, Pa., and New York, N. Y. Filed July 16, 1913.

Marvel
LVC

Particular description of goods.—Condensed Milk and Evaporated Milk.
Claims use since Apr. 1, 1913.

Ser. No. 71,768. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OCOEE CITRUS GROWERS' ASSOCIATION, Ocoee, Fla. Filed July 16, 1913.



Particular description of goods.—Oranges and Grape-Fruit.
Claims use since November, 1909.

Ser. No. 71,770. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PORTLAND MILLING CO., Portland, Mich. Filed July 16, 1913.

WAYSIDE INN

Particular description of goods.—Wheat-Flour.
Claims use since June 5, 1913.

Ser. No. 71,785. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) D. & L. SLADE COMPANY, Boston, Mass. Filed July 16, 1913. Under ten-year proviso.

SLADE'S

Particular description of goods.—Flavoring Extracts for Foods, Mustard, Mustard-Seed, Turmeric, Cloves, Whole Mixed Spice, Pimento, Caraway-Seed, Celery-Seed, Onion and Salt Seasoning, Poultry-Seasoning, Paprika, Curry-Powder, Sago, Whole Pepper, Cayenne Pepper, White Pepper, Jamaica Ginger, Pure African Ginger, Mace, Marjoram, Savory, Thyme, Sage, Cinnamon, Allspice, Nutmeg, Celery-Salt, Tapioca, Potato-Flour, and Rice-Flour.
Claims use since 1847.

[Vol. 196. No. 1.]

Ser. No. 71,799. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) R. C. WILLIAMS & Co., New York, N. Y. Filed July 16, 1913.

Lusitania

Particular description of goods.—Canned Salmon and Canned Lobster.
Claims use since June 10, 1910.

Ser. No. 71,800. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALKER BROS., Orlando, Fla. Filed July 16, 1913.



Particular description of goods.—Oranges and Grape-Fruit.
Claims use since Apr. 30, 1913.

Ser. No. 71,801. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WORDEN GROCER COMPANY, Grand Rapids, Mich. Filed July 16, 1913.

NEDROW

Particular description of goods.—Blended Coffee.
Claims use since Mar. 7, 1913.

Ser. No. 71,808. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELPA MANUFACTURING COMPANY, Charlotte and Maxton, N. C. Filed July 17, 1913.

COTSEDA

Particular description of goods.—Feedstuff for Animals.
Claims use since Sept. 1, 1912.

Ser. No. 71,961. (CLASS 39: CLOTHING.) BRONSTON BROS. & Co., New York, N. Y. Filed July 25, 1913.

Indestructo

Particular description of goods.—Straw Hats.
Claims use since June 14, 1913.

Ser. No. 71,987. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE GRAPE-OLA COMPANY, New York, N. Y. Filed July 28, 1913.

Grape-ola

Particular description of goods.—A Grape Drink.
Claims use since Oct. 1, 1912.

Ser. No. 72,052. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SERVICE STORES Co., New York, N. Y. Filed July 30, 1913.



The words "Service Stores Co." being hereby expressly disclaimed.

Particular description of goods.—Butter, Eggs, Poultry, Tea, Coffee, and Spices.
Claims use since Sept. 1, 1912.

Ser. No. 72,206. (CLASS 7. CORDAGE.) GIBSON'S LIMITED, Vancouver, Canada. Filed Aug. 7, 1913.

GORILLA

The trade-mark consists of the arbitrarily-selected word "Gorilla."

Particular description of goods.—Wire Rope and Cables.
Claims use since Jan. 1, 1913.

Ser. No. 72,206. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK W. GENT, Providence, R. I. Filed Aug. 7, 1913.



Particular description of goods.—Hair-Restorer.
Claims use since July 10, 1913.

Ser. No. 72,208. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MERCHANT TAILORS CO-OPERATIVE SOCIETY, New York, N. Y. Filed Aug. 7, 1913.



Particular description of goods.—Woolens, Worsteds, Silks, Cottons, and Linens in the Piece.
Claims use since June 7, 1913.

Ser. No. 72,418. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PERMUTIT COMPANY, New York, N. Y. Filed Aug. 19, 1913.

PERMUTIT

Particular description of goods.—Water Purifying and Treating Materials.
Claims use since on or about Feb. 1, 1911.

Ser. No. 72,509. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MOSES B. BLUM, Baltimore, Md. Filed Aug. 25, 1913.



Consisting of a facsimile of the signature of the applicant and a portrait of himself.
Particular description of goods.—Massage-Cream.
Claims use since Aug. 7, 1913.

Ser. No. 72,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMMETT POWERS, Denver, Colo. Filed Aug. 29, 1913.



Particular description of goods.—Face-Powder.
Claims use since Aug. 4, 1913.

Ser. No. 72,739. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) REGINA FEATHER COMPANY, New York, N. Y. Filed Sept. 8, 1913.



The exclusive use of the representation of the feathers not being claimed.
Particular description of goods.—Feathers.
Claims use since October, 1910.

Ser. No. 72,772. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES SABO, McDonald, Pa. Filed Sept. 10, 1913.



Particular description of goods.—A Preparation for the Treatment of Scalds, Burns, Blisters, and Bruises.
Claims use since July 1, 1913.

Ser. No. 72,851. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) UNITED CIGAR STORES Co., Jersey City, N. J. Filed Sept. 13, 1913.



No claim of exclusive ownership being made to the word "Soda."
Particular description of goods.—Soda-Water, Syrups, and Fruit-Juices.
Claims use since Aug. 30, 1913.

Ser. No. 72,867. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SAGINAW PLATE GLASS COMPANY, Saginaw, Mich. Filed Sept. 15, 1913.



Particular description of goods.—Salt.
Claims use since Aug. 18, 1913.

Ser. No. 72,918. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HYNESON, WESTCOTT & COMPANY, Baltimore, Md. Filed Sept. 17, 1913.

ALAYA

Particular description of goods.—Skin-Cream.
Claims use since Aug. 5, 1913.

Ser. No. 72,972. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE R. M. HOLLINGSHEAD CO., Camden, N. J. Filed Sept. 20, 1913.

WHIZZ

Particular description of goods.—Insecticide.
Claims use since Feb. 21, 1911.

Ser. No. 73,014. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 23, 1913.

IRON CITY

Particular description of goods.—Beer, Ale, and Porter.
Claims use since Dec. 2, 1889.

Ser. No. 73,081. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES A. SPIKE, Seattle, Wash. Filed Sept. 28, 1913.

IBRO

Particular description of goods.—Inhalants for Nasal and Bronchial Affections.
Claims use since June 13, 1913.

Ser. No. 73,109. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THEODORE KAHN, Jennings, La. Filed Sept. 29, 1913.

SHIRDOWN

Particular description of goods.—Garment-Weights.
Claims use since Aug. 15, 1913.

Ser. No. 73,120. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa. Filed Sept. 29, 1913.

ALTHOSE

Particular description of goods.—An Expectorant Pharmaceutical Compound.
Claims use since Sept. 20, 1913.

Ser. No. 73,130. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOLDBERG, BOWEN & Co., San Francisco, Cal. Filed Sept. 30, 1913.

GOLDEN STATE

Particular description of goods.—Baking-Powder.
Claims use since Sept. 1, 1913.

Ser. No. 73,159. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED STATES WHIP COMPANY, Westfield, Mass. Filed Oct. 1, 1913.



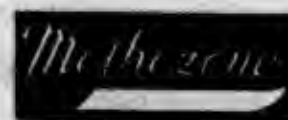
Particular description of goods.—Insecticide-Oil.
Claims use since or about the month of May, 1913.

Ser. No. 73,279. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) N. Y. INTERNATIONAL CHEMICAL CO. INC., New York, N. Y. Filed Oct. 8, 1913.

EKRISTOL

Particular description of goods.—Ointments.
Claims use since Oct. 1, 1913.

Ser. No. 73,301. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LEWY CHEMICAL CO., New York, N. Y. Filed Oct. 10, 1913.



Particular description of goods.—Moth and Insect Preventives and Disinfectants.
Claims use since July 7, 1913.

Ser. No. 73,303. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT LANSFORD SELF, Hornbeck, La. Filed Oct. 10, 1913.



The trade-mark consists of my portrait.
Particular description of goods.—A Preventive for Venereal Diseases, (Gonorrhea and Syphilis.)
Claims use since about Aug. 1, 1913.

[Vol. 196. No. 1.]

TRADE-MARKS

REGISTERED NOVEMBER 4, 1913.

94,043. SUPPLEMENTAL SPRINGS FOR AUTOMOBILES. ACME TORSION SPRING CO., Boston, Mass. Filed August 4, 1913. Serial No. 72,147. PUBLISHED AUGUST 26, 1913.

94,044. BLEND WHISKY. ADAMS, TAYLOR & Co., Boston, Mass. Filed April 7, 1913. Serial No. 69,629. PUBLISHED SEPTEMBER 2, 1913.

94,045. CHROMOS, RELIEFS AND PICTORIAL POSTCARDS, CALENDAR MOUNTS, POSTERS, AND BOX-COVERS. ALBRECHT & MEISTER AKTIENGESELLSCHAFT, Berlin-Reinickendorf-Ost, Germany. Filed May 27, 1912. Serial No. 63,838. PUBLISHED JUNE 17, 1913.

94,046. LIQUID FILLER FOR PNEUMATIC TIRES. AMERICAN MANUFACTURING AND DISTRIBUTING COMPANY, Louisville, Ky. Filed May 21, 1913. Serial No. 70,524. PUBLISHED SEPTEMBER 2, 1913.

94,047. CERTAIN NAMED STEEL AND PLAIN FURNITURE. ART METAL CONSTRUCTION CO., Jamestown, N. Y. Filed September 27, 1912. Serial No. 66,008. PUBLISHED AUGUST 26, 1913.

94,048. TRUCKS. ART METAL CONSTRUCTION CO., Jamestown, N. Y. Filed March 14, 1913. Serial No. 69,017. PUBLISHED AUGUST 26, 1913.

94,049. SAFES. ART METAL CONSTRUCTION CO., Jamestown, N. Y. Filed March 14, 1913. Serial No. 69,019. PUBLISHED AUGUST 26, 1913.

94,050. IMITATION ASTRAKHANS. JOSEPH BENN & SONS, INC., Greystone, R. I., and New York, N. Y. Filed May 8, 1913. Serial No. 70,260. PUBLISHED SEPTEMBER 2, 1913.

94,051. HAIR-NETS, SILK CHIFFONS, AND NETTINGS. GEO. BORGFELDT & Co., New York, N. Y. Filed July 19, 1913. Serial No. 71,852. PUBLISHED SEPTEMBER 2, 1913.

94,052. MEDICINE FOR BLOOD DISEASES. FRANK XAVER BRAUN, Scranton, Pa. Filed May 9, 1913. Serial No. 70,309. PUBLISHED SEPTEMBER 2, 1913.

94,053. METAL-POLISH. THE BRITIZE COMPANY, San Francisco, Cal. Filed October 23, 1912. Serial No. 66,477. PUBLISHED AUGUST 26, 1913.

94,054. CERTAIN KIND OF HOSE, BELTING, RUBBER PACKING, AND RUBBER JAR-RINGS. J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed July 22, 1913. Serial No. 71,881. PUBLISHED AUGUST 26, 1913.

94,055. CAR-WHEELS. BUFFALO CAR WHEEL FDY. CO., Buffalo, N. Y. Filed April 18, 1913. Serial No. 69,885. PUBLISHED AUGUST 26, 1913.

94,056. STRAIGHT WHISKY. THE J. & G. BUTLER CO., Columbus, Ohio. Filed August 4, 1913. Serial No. 72,148. PUBLISHED SEPTEMBER 9, 1913.

94,057. OILED CLOTHING. J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed June 12, 1913. Serial No. 71,060. PUBLISHED SEPTEMBER 9, 1913.

94,058. OILED CLOTHING. J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed June 12, 1913. Serial No. 71,061. PUBLISHED SEPTEMBER 9, 1913.

94,059. OILED CLOTHING. J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed July 3, 1913. Serial No. 71,509. PUBLISHED SEPTEMBER 9, 1913.

94,060. SPARK-PLUGS. CHAMPION IGNITION CO., Flint, Mich. Filed July 24, 1913. Serial No. 71,936. PUBLISHED SEPTEMBER 2, 1913.

94,061. REMEDIES FOR THE TREATMENT OF GOUT AND RHEUMATISM. CHEMISCHE FABRIK AUF ACTIEN (FORM. E. SCHERING), Berlin, Germany. Filed June 10, 1913. Serial No. 70,995. PUBLISHED SEPTEMBER 2, 1913.

94,062. LAXATIVE PREPARATIONS. CHEMISCHE FABRIK HELFENBERG A. G. FORM. EUGEN DIETRICH, Helfenberg, near Dresden, Germany. Filed April 1, 1913. Serial No. 69,507. PUBLISHED SEPTEMBER 2, 1913.

94,063. CARPETS. COCHRANE MANUFACTURING CO., Dedham and East Dedham, Mass. Filed June 20, 1913. Serial No. 71,208. PUBLISHED SEPTEMBER 9, 1913.

94,064. CARPETS. COCHRANE MANUFACTURING CO., Dedham and East Dedham, Mass. Filed June 20, 1913. Serial No. 71,209. PUBLISHED SEPTEMBER 9, 1913.

94,065. ICE-MAKING MACHINES. COLOMBIER FILS ET CIE., Paris, France. Filed May 10, 1913. Serial No. 70,342. PUBLISHED AUGUST 12, 1913.

94,066. FLYING-MACHINES AND CERTAIN NAMED PARTS THEREOF. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany. Filed July 11, 1913. Serial No. 71,648. PUBLISHED AUGUST 26, 1913.

94,067. MANICURE-FILES, CUTICLE-KNIVES, CORN-KNIVES, MANICURE-BUFFERS, CUTICLE-SCISSORS, AND NAIL-SCISSORS. J. C. DOWD & Co., New York, N. Y. Filed July 15, 1913. Serial No. 71,704. PUBLISHED SEPTEMBER 9, 1913.

94,068. MIRRORS, MIRROR-FRAMES, AND PICTURE-FRAMES. J. C. DOWD & Co., New York, N. Y. Filed July 15, 1913. Serial No. 71,705. PUBLISHED AUGUST 12, 1913.

94,069. HAIR-BRUSHES, NAIL-BRUSHES, TOILET-BRUSHES, CLOTH-BRUSHES, AND HAT-BRUSHES. J. C. DOWD & Co., New York, N. Y. Filed July 15, 1913. Serial No. 71,706. PUBLISHED AUGUST 26, 1913.

94,070. CERTAIN NAMED CHEMICAL AND MEDICINAL COMPOUNDS. THE DRUG PRODUCTS CO., INC., New York, N. Y. Filed June 12, 1913. Serial No. 71,063. PUBLISHED SEPTEMBER 2, 1913.

94,071. REMEDY FOR ERYSIPELAS. ALBERT W. EIDMANN, Cando, N. D. Filed May 7, 1913. Serial No. 70,276. PUBLISHED SEPTEMBER 2, 1913.

- 94,072. DRESS-FORMS. ELLANAM DRESS FORM CO., Brooklyn and New York, N. Y.
Filed July 16, 1913. Serial No. 71,745. PUBLISHED SEPTEMBER 2, 1913.
- 94,073. AUTOMOBILES, TRUCKS, AND AUTOTRUCKS. FALLS MACHINE COMPANY, Sheboygan Falls, Wis.
Filed January 27, 1912. Serial No. 61,091. PUBLISHED SEPTEMBER 2, 1913.
- 94,074. TURPENTINE. GLOBE NAVAL STORES COMPANY, Atmore, Ala.
Filed July 31, 1913. Serial No. 72,061. PUBLISHED SEPTEMBER 2, 1913.
- 94,075. HARD-RUBBER BATTERY-JARS. THE B. F. GOODRICH COMPANY, New York, N. Y., and Akron, Ohio.
Filed June 17, 1913. Serial No. 71,149. PUBLISHED SEPTEMBER 2, 1913.
- 94,076. METAL WASHING DEVICE TO BE PLACED INSIDE WASHBOILERS. STANLEY GORSKI, Philadelphia, Pa.
Filed June 26, 1913. Serial No. 71,377. PUBLISHED AUGUST 26, 1913.
- 94,077. WOOD-PULP. M. GOTTFREY & SON, New York, N. Y.
Filed July 1, 1913. Serial No. 71,457. PUBLISHED SEPTEMBER 2, 1913.
- 94,078. DENTAL RUBBER. PERCIVAL A. GOULD, Gibsonburg, Ohio.
Filed April 30, 1913. Serial No. 70,132. PUBLISHED SEPTEMBER 2, 1913.
- 94,079. REMEDY-FOR DROPSY. JESSE B. GREEN, Sader, Tex.
Filed July 15, 1912. Serial No. 64,724. PUBLISHED SEPTEMBER 2, 1913.
- 94,080. SANITARY NAPKIN. CHARLES H. HANSELER, Philadelphia, Pa.
Filed July 10, 1913. Serial No. 71,636. PUBLISHED SEPTEMBER 2, 1913.
- 94,081. CERTAIN NAMED HARD-RUBBER COMBS. HANOVER VULCANITE CO., New York, N. Y.
Filed July 2, 1913. Serial No. 71,481. PUBLISHED SEPTEMBER 2, 1913.
- 94,082. TOOTH-PICKS. ALEXANDER HERZ, New York, N. Y.
Filed May 9, 1913. Serial No. 70,317. PUBLISHED AUGUST 26, 1913.
- 94,083. BRICK. HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo.
Filed May 2, 1913. Serial No. 70,179. PUBLISHED AUGUST 26, 1913.
- 94,084. WATER-FILTERS. HYGEIA FILTER COMPANY, Detroit, Mich.
Filed May 31, 1913. Serial No. 70,786. PUBLISHED AUGUST 26, 1913.
- 94,085. SAD-IRONS, TAILORS' IRONS, AND PRESSING-IRONS. ILLINOIS IRON & BOLT CO., Carpentersville, Ill.
Filed June 10, 1913. Serial No. 71,000. PUBLISHED AUGUST 26, 1913.
- 94,086. BATTERIES. T. B. JONES, Athens, Tex.
Filed August 8, 1913. Serial No. 72,227. PUBLISHED SEPTEMBER 2, 1913.
- 94,087. VENTILATORS. LEWIS A. KARLSON, Minneapolis, Minn.
Filed June 7, 1913. Serial No. 70,958. PUBLISHED SEPTEMBER 2, 1913.
- 94,088. BUILDING-PAPERS, SATURATING-FELT, AND DEADENING-FELT. PERRY KINGSTON, Little Falls, N. Y.
Filed May 3, 1913. Serial No. 70,208. PUBLISHED AUGUST 26, 1913.
- 94,089. BAKING-POWDER, GLOSS-STARCH, AND BAKING-SODA. KLAUBER WANGENHEIM CO., San Diego, Cal.
Filed June 23, 1913. Serial No. 71,303. PUBLISHED SEPTEMBER 2, 1913.
- 94,090. CERTAIN PRINTED AND ILLUSTRATED MATTER. MAX KRAUSE, Berlin, Germany.
Filed May 24, 1912. Serial No. 63,774. PUBLISHED AUGUST 26, 1913.
- 94,091. CERTAIN NAMED SURGICAL GOODS. LEE TIRE & RUBBER CO., Whitmarsh township, Montgomery county, Pa.
Filed February 24, 1913. Serial No. 68,693. PUBLISHED AUGUST 26, 1913.
- 94,092. CERTAIN NAMED SURGICAL GOODS. LEE TIRE & RUBBER CO., Whitmarsh township, Montgomery county, Pa.
Filed February 24, 1913. Serial No. 68,694. PUBLISHED AUGUST 26, 1913.
- 94,093. CLEANER FOR CERTAIN HOUSEHOLD GOODS, CLOTHES, COTTON AND WOOLEN GOODS. LIGHTNING RUG-NEWER CO., Keokuk, Iowa.
Filed January 4, 1913. Serial No. 67,714. PUBLISHED AUGUST 26, 1913.
- 94,094. COTTON PIECE GOODS. LORRAINE MFG. CO., Pawtucket, R. I.
Filed July 16, 1913. Serial No. 71,761. PUBLISHED SEPTEMBER 2, 1913.
- 94,095. LIME. LOUISVILLE CEMENT COMPANY, Louisville, Ky.
Filed May 19, 1913. Serial No. 70,492. PUBLISHED AUGUST 26, 1913.
- 94,096. SPOON FISHING-BAIT. WILLIAM T. J. LOWE, Buffalo, N. Y.
Filed July 15, 1913. Serial No. 71,715. PUBLISHED AUGUST 26, 1913.
- 94,097. BLOOD-PURIFIER. LYON BLOOD PURIFIER COMPANY, Atlanta, Ga.
Filed June 1, 1912. Serial No. 63,934. PUBLISHED SEPTEMBER 2, 1913.
- 94,098. LACES, SHAWLS, AND SCARFS. MACHENBACH IMPORTING CO., New York, N. Y.
Filed July 19, 1913. Serial No. 71,862. PUBLISHED SEPTEMBER 2, 1913.
- 94,099. RUBBER PIPE-COUPPLING RINGS, PISTON-PACKING, SHEET-PACKING, PUMP-VALVES, STEAM-HOSE, AND OIL-HOSE. THE MANHATTAN RUBBER MFG. CO., Passaic, N. J.
Filed January 13, 1913. Serial No. 67,899. PUBLISHED MAY 27, 1913.
- 94,100. LIQUID PREPARATION FOR TREATING PNEUMATIC TIRES. NATHANIEL H. MOORE, Omaha, Nebr.
Filed April 15, 1913. Serial No. 69,800. PUBLISHED SEPTEMBER 2, 1913.
- 94,101. RUBBER VEHICLE-TIRES. MORGAN & WRIGHT, Detroit, Mich.
Filed July 24, 1913. Serial No. 71,955. PUBLISHED SEPTEMBER 2, 1913.
- 94,102. CERTAIN NAMED WHEELS FOR POLISHING PURPOSES. MUNNING-LOEB CO., Matawan, N. J.
Filed November 18, 1912. Serial No. 68,990. PUBLISHED AUGUST 26, 1913.
- 94,103. HYDRATED LIME. THE NATIONAL LIME & STONE CO., Carey, Ohio.
Filed October 8, 1912. Serial No. 66,193. PUBLISHED AUGUST 26, 1913.
- 94,104. SMELLING-SALTS, FACE-ROUGE, LIQUID COMPLEXION-POWDER, AND COMPLEXION-CREAM. NEW YORK & BOSTON DRUG COMPANY, New York, N. Y.
Filed December 14, 1912. Serial No. 67,399. PUBLISHED SEPTEMBER 2, 1913.
- 94,105. POISON FOR SQUIRRELS. MANUEL J. NUNES, Niles, Cal.
Filed October 3, 1911. Serial No. 58,980. PUBLISHED SEPTEMBER 2, 1913.
- 94,106. LEATHER SHOES. O'CONNOR SHOE CO., Chicago, Ill.
Filed January 13, 1913. Serial No. 67,902. PUBLISHED MARCH 11, 1913.

- 94,107. MIRRORS, MIRROR-FRAMES, AND PICTURE-FRAMES. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed January 11, 1913. Serial No. 67,852. PUBLISHED JUNE 17, 1913.
- 94,108. TOILET-COMBS, PINCUSHIONS, AND BUTTON-HOOKS. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed April 2, 1913. Serial No. 69,538. PUBLISHED JUNE 3, 1913.
- 94,109. HAIR-BRUSHES, NAIL-BRUSHES, TOILET-BRUSHES, CLOTH-BRUSHES, AND HAT-BRUSHES. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed April 7, 1913. Serial No. 69,640. PUBLISHED JUNE 10, 1913.
- 94,110. MANICURE-FILES, CUTICLE-KNIVES AND CORN-KNIVES, AND MANICURE-BUFFERS. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed May 17, 1913. Serial No. 70,474. PUBLISHED JUNE 17, 1913.
- 94,111. CERTAIN NAMED BELTING, LEATHER FILLET, AND RUBBER HOSE, STEAM-PACKING AND SHEET-PACKING. PAGE BELTING COMPANY, Concord, N. H.
Filed August 31, 1911. Serial No. 58,491. PUBLISHED SEPTEMBER 24, 1912.
- 94,112. PRIMER AND FILLER FOR FIRST COATING ALL SURFACES. PATTON PAINT COMPANY, Milwaukee, Wis.
Filed July 24, 1913. Serial No. 71,956. PUBLISHED SEPTEMBER 2, 1913.
- 94,113. CARD GAMES OTHER THAN ORDINARY PLAYING-CARDS. ALLEN L. PECKHAM, Chicago, Ill.
Filed July 28, 1913. Serial No. 72,012. PUBLISHED AUGUST 26, 1913.
- 94,114. COTTON-BATTING. ROCK RIVER COTTON CO., Janesville, Wis.
Filed May 27, 1913. Serial No. 70,698. PUBLISHED SEPTEMBER 2, 1913.
- 94,115. BRANDY. VYE ROGEE & MONNET, Cognac, France.
Filed August 15, 1913. Serial No. 72,368. PUBLISHED SEPTEMBER 9, 1913.
- 94,116. FERTILIZER. WM. J. RYAN, Philadelphia, Pa.
Filed June 28, 1913. Serial No. 71,429. PUBLISHED SEPTEMBER 2, 1913.
- 94,117. CERTAIN NAMED TOBACCO PRODUCTS. RESHID SADI, New York, N. Y.
Filed April 25, 1913. Serial No. 70,066. PUBLISHED AUGUST 26, 1913.
- 94,118. CIGARS. W. SCHNEIDER WHOLESALE WINE & LIQUOR CO., St. Louis, Mo.
Filed June 3, 1911. Serial No. 56,808. PUBLISHED AUGUST 26, 1913.
- 94,119. CERTAIN NAMED CLOTHING. EDWARD J. SCHREMP, Utica, N. Y.
Filed June 19, 1912. Serial No. 64,278. PUBLISHED SEPTEMBER 2, 1913.
- 94,120. CERTAIN NAMED SPORTING-BALLS. "SEMPERIT" OESTERREICHISCH-AMERIKANISCHE GUMMIWERKE AKTIENGESELLSCHAFT, Vienna, Austria-Hungary.
Filed May 1, 1913. Serial No. 70,162. PUBLISHED AUGUST 26, 1913.
- 94,121. BELTS FOR PERSONAL WEAR, SUSPENDERS, AND GARTERS. SIDNEY SUSPENDER COMPANY, Providence, R. I., and Attleboro, Mass.
Filed July 11, 1913. Serial No. 71,664. PUBLISHED SEPTEMBER 2, 1913.
- 94,122. ELECTRICAL CONNECTORS AND BINDING-POSTS. A. KELLOGG SLOAN, Brooklyn, N. Y.
Filed July 25, 1913. Serial No. 71,979. PUBLISHED SEPTEMBER 2, 1913.
- 94,123. SOLUTION FOR WATERPROOFING AND HARDENING CONCRETE. L. SONNEBORN SONS, INC., New York, N. Y.
Filed July 2, 1913. Serial No. 71,491. PUBLISHED AUGUST 26, 1913.
- 94,124. RAZOR-SHARPENING POMADE. SOTTILE & KORSOEN, Edgewater, N. J.
Filed July 14, 1913. Serial No. 71,695. PUBLISHED AUGUST 26, 1913.
- 94,125. GLASS INCANDESCENT-ELECTRIC-LAMP REFLECTORS. STRAIGHT FILAMENT LAMP COMPANY, New York, N. Y., and Philadelphia, Pa.
Filed November 13, 1912. Serial No. 66,891. PUBLISHED AUGUST 26, 1913.
- 94,126. CONCRETE CONSTRUCTIONS, STREET AND SIDEWALK PAVING, AND WALLS. ROBERT C. STUBBS, Dallas, Tex.
Filed September 28, 1912. Serial No. 66,032. PUBLISHED AUGUST 26, 1913.
- 94,127. CLARETS AND BORDEAUX WINES. SYNDICAT DES GRANDS CRUS CLASSES DU MEDOC, Bordeaux, France.
Filed May 21, 1913. Serial No. 70,548. PUBLISHED SEPTEMBER 2, 1913.
- 94,128. BENCHES, STOOLS, CABINETS, TABLES, AND CHAIRS. TONK MANUFACTURING COMPANY, Chicago, Ill.
Filed October 21, 1912. Serial No. 66,432. PUBLISHED AUGUST 26, 1913.
- 94,129. MALINES, CHIFFONS, AND NET GOODS. THE TOURAINE CO., New Hartford, Conn., and New York, N. Y.
Filed June 11, 1913. Serial No. 71,029. PUBLISHED SEPTEMBER 2, 1913.
- 94,130. APPLE-JUICE, CIDER, SODA-WATER, EXTRACT ROOT-BEER, MINERAL WATERS, AND ROOT-BEER. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,264. PUBLISHED SEPTEMBER 9, 1913.
- 94,131. LOCK-WASHERS. UNIVERSAL LOCK-WASHER CO., New York, N. Y.
Filed July 24, 1913. Serial No. 71,959. PUBLISHED SEPTEMBER 2, 1913.
- 94,132. ELASTIC WHEEL-TIRES. VACUMIT-GESELLSCHAFT M. B. H., Vienna, Austria-Hungary.
Filed May 23, 1912. Serial No. 63,751. PUBLISHED SEPTEMBER 2, 1913.
- 94,133. REVOLVING DOORS. VAN KANNEL REVOLVING DOOR COMPANY, New York, N. Y.
Filed June 27, 1913. Serial No. 71,414. PUBLISHED AUGUST 26, 1913.
- 94,134. ILLUMINATING-OILS. WADHAMS OIL COMPANY, Milwaukee, Wis.
Filed October 29, 1909. Serial No. 45,615. PUBLISHED DECEMBER 13, 1910.
- 94,135. ASPHALT-MASTIC. WARREN CHEMICAL & MANUFACTURING COMPANY, New York, N. Y.
Filed March 6, 1913. Serial No. 68,879. PUBLISHED AUGUST 26, 1913.
- 94,136. CANNED SALMON. WARREN PACKING COMPANY, Portland, Ore.
Filed December 6, 1912. Serial No. 67,271. PUBLISHED AUGUST 26, 1913.
- 94,137. FOOT-POWDER. HARRY WECHSLER, Brooklyn, N. Y.
Filed June 13, 1913. Serial No. 71,095. PUBLISHED SEPTEMBER 2, 1913.
- 94,138. TOOTH-POWDER. F. M. WELLS, Montreal, Quebec, Canada.
Filed April 9, 1912. Serial No. 62,795. PUBLISHED AUGUST 20, 1912.

94,139. ARTIFICIAL STONE. WETTERWALD & PFISTER COMPANY, New York, N. Y.
Filed June 10, 1913. Serial No. 71,010. PUBLISHED AUGUST 26, 1913.

94,140. ENAMEL. THE A. WILHELM COMPANY, Reading, Pa.
Filed August 7, 1913. Serial No. 72,215. PUBLISHED SEPTEMBER 2, 1913.

94,141. SOAP POWDERS. MILLARD F. WINDSOR, Buffalo, N. Y.
Filed July 11, 1911. Serial No. 57,577. PUBLISHED SEPTEMBER 24, 1912.

94,142. MONTHLY PERIODICAL. W. A. YOUNG, Toronto, Ontario, Canada.
Filed March 27, 1913. Serial No. 69,384. PUBLISHED AUGUST 26, 1913.

LABELS

REGISTERED NOVEMBER 4, 1913.

- 17,312.—Title: "BETSON'S PLASTIC." (For Fire-Brick.) ADAMS & JEWELL, Rome, N. Y. Filed September 23, 1913.
- 17,313.—Title: "AMERICAN LEAGUE." (For Whisky.) WILHELM ALBRECHT, Boston, Mass. Filed October 16, 1913.
- 17,314.—Title: "TALCUM POWDER." (For Powdered Talc.) AMERICAN TALC COMPANY, Phoenix, Ariz., and Boston, Mass. Filed October 3, 1910.
- 17,315.—Title: "ATLANTIS BRAND SALMON PINK." (For Salmon.) ARMOUR AND COMPANY, Chicago, Ill. Filed September 20, 1913.
- 17,316.—Title: "TITAN BRAND SALMON CHUM." (For Salmon.) ARMOUR AND COMPANY, Chicago, Ill. Filed September 20, 1913.
- 17,317.—Title: "ARMOUR'S SALMON ALASKA RED." (For Salmon.) ARMOUR AND COMPANY, Chicago, Ill. Filed September 20, 1913.
- 17,318.—Title: "MEDIUM RED SALMON." (For Salmon.) ARMOUR AND COMPANY, Chicago, Ill. Filed September 20, 1913.
- 17,319.—Title: "BOHEMIAN." (For Tomatoes with Purée.) BAYSIDE CANNING CO., Alviso, Cal. Filed September 3, 1912.
- 17,320.—Title: "THE BEATSALL STOVE POLISH." (For Stove-Polish.) BEATSALL POLISH COMPANY, Chicago, Ill. Filed October 1, 1913.
- 17,321.—Title: "PAN-DANDY." (For Bread.) ALBERT G. BRANDSTETTER, New York, N. Y. Filed August 28, 1913.
- 17,322.—Title: "H. A. DOWLING'S NU BUCK." (For Cigars.) HUBERT A. DOWLING, St. Albans, Vt. Filed October 3, 1913.
- 17,323.—Title: "FRESH FROM THE FARM." (For Eggs.) M. E. AND W. A. FLINT, Montclair, N. J. Filed May 6, 1911.
- 17,324.—Title: "PRO-PHY-LAC-TIC TOOTH BRUSH." (For Tooth-Brushes.) FLORENCE MFG. CO., Northampton, Mass. Filed September 29, 1913.
- 17,325.—Title: "VARIED SWEETS." (For Varied Sweets.) GEO. HAAS & SONS, San Francisco, Cal. Filed May 13, 1913.
- 17,326.—Title: "VIOLET SEC TOILET WATER." (For Toilet Water.) RICHARD HUDNUT, New York, N. Y. Filed September 17, 1912.
- 17,327.—Title: "CRÈME VIOLET SEC A DRY CREAM FOR THE SKIN." (For a Crème Violet Sec.) RICHARD HUDNUT, New York, N. Y. Filed September 17, 1912.
- 17,328.—Title: "LAIRD'S G W L BLUSH OF YOUTH HARMLESS—NATURAL COLOR FOR THE CHEEKS AND LIPS." (For a Coloring for the Cheeks and Lips.) GEORGE W. LAIRD, Cliffside, N. J. Filed August 14, 1913.
- 17,329.—Title: "WUNDER SHINE VARNISH." (For Varnish.) LION VARNISH COMPANY, New York, N. Y. Filed October 16, 1913.
- 17,330.—Title: "THREE IN ONE, CUSHION, ARCH, INNER SOLE." (For Innersoles.) THE GEORGE G. LONDON MANUFACTURING COMPANY, Lynn, Mass. Filed September 11, 1913.
- 17,331.—Title: "KIDDIE KLOTH." (For Cotton Wash-Fabric Piece Goods.) JAMES MCKENBRICK, New York, N. Y. Filed September 26, 1913.
- 17,332.—Title: "PEE-CHEE CLEANER FOR GOLD AND SILVERWARE." (For a Cleaner.) PEE-CHEE CLEANER MFG. CO., Cleveland, Ohio. Filed October 2, 1913.
- 17,333.—Title: "MINCED RAZOR CLAMS TILLAMOOK HEAD BRAND." (For Canned Clams.) BESSIE E. ROBINSON & QUINCY V. ROBINSON, Warrenton, Oreg. Filed August 25, 1913.
- 17,334.—Title: "MILK MAID." (For Bread.) THOMAS W. RUSSELL, Utica, N. Y. Filed October 7, 1913.
- 17,335.—Title: "SEIBERT MAGIC FLY KILLER." (For an Insecticide.) HERMAN E. SEIBERT, St. Paul, Minn. Filed August 30, 1913.
- 17,336.—Title: "FLORANGEBUD." (For Toilet Soap.) SLOAT BROS. COMPANY, Inc., Jacksonville, Fla. Filed September 17, 1913.
- 17,337.—Title: "YOU NEED A BISCUIT, WHY NOT GET THE BEST IN." (For a Biscuit.) ADAM A. TUMP, Milwaukee, Wis. Filed October 9, 1913.
- 17,338.—Title: "PERFECTION CEDAR OIL DUSTER AND POLISHER." (For an Oil Duster and Polisher.) GEORGE M. URIE, Kansas City, Mo. Filed September 15, 1913.
- 17,339.—Title: "MOUNT SPOKANE." (For Beer.) WESTERN BOTTLING COMPANY, Spokane, Wash. Filed July 5, 1913.
- 17,340.—Title: "MOUNT SPOKANE." (For Beer.) WESTERN BOTTLING COMPANY, Spokane, Wash. Filed July 5, 1913.

PRINTS

REGISTERED NOVEMBER 4, 1913.

- 3,405.—Title: "THANK COLGATE & CO." (For Shaving-Powder, Shaving-Stick, and Shaving-Cream.) COLGATE & CO., New York, N. Y. Filed October 18, 1913.
- 3,406.—Title: "ON TO STAY." (For Eyeglasses.) ISAAC M. KURTIS, New York, N. Y. Filed August 20, 1913.
- 3,407.—Title: "MILK MAID." (For Bread.) THOMAS W. RUSSELL, Utica, N. Y. Filed October 7, 1913.
- 3,408.—Title: "SHREDDED WHEAT BISCUIT WITH PEACHES OR OTHER FRUIT." (For Shredded Wheat.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed September 5, 1913.
- 3,409.—Title: "DELICIOUS FOR ANY MEAL." (For Shredded Wheat.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed September 5, 1913.
- 3,410.—Title: "SHREDDED WHEAT BISCUIT." (For Shredded Wheat.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed September 5, 1913.
- 3,411.—Title: "A COMPLETE NOURISHING MEAL." (For Shredded Wheat.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed September 5, 1913.
- 3,412.—Title: "SUN PROOF W. H. W." (For Serge Suits.) WM. H. WANAMAKER, Jr., Philadelphia, Pa. Filed September 25, 1913.
- 3,413.—Title: "FASHIONED FOR A BAREFOOT BOY." (For Lawn-Mowers.) THE WHITMAN & BARNES MFG. CO., Akron, Ohio. Filed October 3, 1913.

DECISIONS

OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

IN RE FORWARD.

Decided October 24, 1913.

DESIGNS—PETITION FOR EXTENSION OF TERM—MAY BE ENTERED ANY TIME BEFORE ALLOWANCE.

An amended petition in an application for a design patent asking that the patent be granted for one of the longer terms provided by the statute will be entered if accompanied by the additional fee and presented before the allowance of the application.

ON PETITION.

DESIGN FOR A DIFFUSION-DISK.

Mr. George H. Strong for the applicant.

EWING, Commissioner:

The applicant in his petition filed with the application asked for the issuance of a patent for three and one-half years, and paid the fee provided by law for a patent for this term.

After the application had been acted upon several times by the Patent Office and found to be allowable, if certain objections were overcome, the applicant forwarded an amendment purporting to comply with the requirements of the Examiner and accompanied it by an amended petition, duly signed by him, asking that the patent be granted for the term of fourteen years and inclosing a check for the difference between the fee originally paid and the fee required by law for a fourteen-year patent.

The Examiner raises the question whether the amended petition should be accepted.

The provisions of the statute are as follows:

SEC. 4931. Patents for designs may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

SEC. 4934. The following shall be the rates for patent fees:

On filing each original application for patent, except in design cases, fifteen dollars.

In design cases; for three years and six months, ten dollars; for seven years, fifteen dollars; for fourteen years, thirty dollars.

Rule 80 is substantially in the language of section 4931 of the Revised Statutes.

The question here presented was first raised under

[Vol. 186.

the act of Mar. 2, 1861, section 11, which was as follows:

• • • The Commissioner, on due proceedings had, may grant a patent therefor, as in the case now of application for a patent, for the term of three and one half years, or for the term of seven years, or for the term of fourteen years, as the said applicant may elect in his application: *Provided*, That the fee to be paid in such application shall be for the term of three years and six months, ten dollars, for seven years, fifteen dollars, and for fourteen years, thirty dollars.

Commissioner Fisher held that—

this language contemplates an election to be made by the applicant, at the time of his application, of the term for which he desires his patent to issue, and the payment of a fee corresponding to that election. (*Ex parte Mayo*, C. D., 1870, 14.)

Under the present act it was held in two cases where the application had already been acted upon by the Examiner that the election of the applicant could not be changed. (*Ex parte Haley*, C. D., 1888, 137; 44 O. G., 1399; *ex parte Kinnear*, C. D., 1890, 54; 51 O. G., 156.)

In spite of these decisions I find that the practice has grown up of permitting amendments to petitions for design patents changing and enlarging the term and paying additional fees, provided they are submitted before any examination has been made by the Office. No decision or general order having been published, I quote some correspondence with the Chief Clerk, as follows:

NEW YORK, July 22, 1910.

Honorable Commissioner of Patents, Washington, D. C.

SIR: I inclose herewith, amendments of the petitions in eight applications for design patents, which amendments will have the effect to make the term of these patents seven years instead of three and one half years, and I inclose herewith, my check for \$40.00, covering the supplemental fee for the increased period of these patents.

The cases referred to are as follows:

Elliot, Number 565,418.

Spring, Number 569,238.

Reith, Number 569,240.

Merry, Number 569,245.

Sauer, Number 571,514.

Moffat, Number 571,520.

Forrester, Number 571,521.

Spring, Number 571,522.

Respectfully,

FREDERICK I. ALLEN.

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

Washington, D. C., July 23, 1910.

Hon. F. I. ALLEN,

No. 2 Rector St., New York, N. Y.

SIR: The Office is in receipt of your letter of the 22nd instant, transmitting your check for \$40, with amendments to the petitions in eight certain applications enumerated in your letter.

No. 1.]

The Acting Commissioner directs me to say in reply thereto, that there appears to be no legal reason why an applicant for a design patent, having complied with the requirements of the law as to the filing of his application and the payment of the fee therein, should not be permitted to extend the period for which protection is asked over that originally requested. However, it is held that such request for a change in the term of the design patent must be made before the first consideration of the merits of the case.

An examination of the applications mentioned in your letter shows that the application of Elliot, Serial No. 565,418, received an action by the Examiner on the 5th instant, in consequence of which, and in accordance with the ruling of the Acting Commissioner, the petition cannot be amended. There are administrative reasons for this holding, inasmuch as during the first six months of the present year, there were filed 253 applications for design patent for the term of 7 years, a fee of \$15 being paid in each case, and during the same six months, 175 applications for design patent for 14 years, a fee of \$30 being paid in each case. Were it permissible to change the term of a design patent after consideration of the application on its merits, it will be seen that in a short while all applications for design patents would be filed with a request that such patents issue for the term of 3½ years, the minimum fee for design patents being paid in all of these cases.

The amendments offered in the applications of Spring, Serial No. 569,238, Reith, Serial No. 569,240, Merry, Serial No. 569,245, Sauer, Serial No. 571,514, Moffat, Serial No. 571,520, Forrester, Serial No. 571,521, and Spring, Serial No. 571,522, will be entered in the cases to which they relate, changing the term asked for from 3½ to 7 years, and the additional fees will be credited therein. The balance of \$5 cannot be applied, but will be held to your credit.

Very respectfully,

W. F. WOOLARD,
Chief Clerk.

As I am unable to see any ground in the statute for drawing a distinction between the cases discussed and the practice which has grown up, I find it necessary to overrule *ex parte Haley* and *ex parte Kinnear*, *supra*, the decisions in which were rendered under the present act, or to put a stop to the practice indicated in the letters quoted.

In the absence of any plain prohibition of the statute I think that the petition here presented ought to be entered. The consideration which led to the exclusion of the Elliot application in the above correspondence does not commend itself to my judgment. The fee which the statute provides for searches in patents of utility is only fifteen dollars, and the minimum charge of ten dollars for a short-term design patent is ample to cover the search and the cost of issuing the patent. The fee is, in fact, so large that it deters designers from taking the benefit of the act in many instances. It is therefore, I think, peculiarly proper that the statute should be liberally construed.

It seems to me clear that under the provisions of the statute the applicant may change his election in the manner indicated in the present case at any time prior to the allowance of the application.

The statute provides for the payment of a single fee, and therefore if applicant were permitted to change his election after the case had been sent to issue and was in process of printing the Office might be put to expense and inconvenience. The propriety of permitting changes at such a stage of the application is not presented in this case.

It should be noted also that a request from an applicant to reduce the term and demand back a part of the fee paid would be affected by other provisions of the law than those quoted.

Ex parte Haley and *ex parte Kinnear* are overruled.

The petition will be entered.

[Vol. 196.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

WESTINGHOUSE MACH. CO. *et al.* v. GENERAL ELECTRIC CO. *et al.*

Decided June 14, 1913.

PATENTS—RIGHT TO PATENT—USE OF INVENTION IN FOREIGN COUNTRY.

Under Revised Statutes, section 4923, (U. S. Comp. St., 1901, p. 3396,) which expressly provides that a patent shall not be held to be void on account of the invention or discovery or any part thereof having been known or used in a foreign country before the patentee's invention or discovery thereof if it had not been patented or described in a printed publication, for the purpose of defeating a patent application a previous reduction to practice of the invention in a foreign country is a nullity unless it was patented or described in a printed publication.

STATEMENT OF THE CASE.

This cause comes here upon appeal from a decree of the District Court, Northern District of New York dismissing a bill in equity. The bill was brought under section 4915, United States Revised Statutes, (U. S. Comp. St., 1901, p. 3392,) which provides that whenever a patent on application is refused either by the Commissioner of Patents or by the Court of Appeals of District of Columbia, upon appeal from the Commissioner, the applicant may have remedy by bill in equity, and that in such suit the court may adjudge that such applicant is entitled to receive a patent for his invention.

The opinion of Judge Ray in the District Court will be found in 199 Fed., 907; that of the Court of Appeals of the District of Columbia in *De Kando v. Armstrong*, (169 O. G., 1185; 37 App. D. C., 314.)

Messrs. Gifford & Bull (Mr. J. Edgar Bull of counsel) for the appellants.

Mr. Charles Neave (Mr. Albert G. Davis and Mr. A. A. Buck of counsel) for the appellees.

Before LACOMBE, COXE, and NOYES, Circuit Judges. LACOMBE, Cir. J.:

This case grows out of an interference in the Patent Office entitled *De Kando v. Armstrong*, which was decided adversely to De Kando and his assignee, the Westinghouse Machine Company. The interference was between an application of De Kando filed July 3, 1906, and a patent to defendant Armstrong, No. 811,758, dated February 6, 1906, on an application filed June 28, 1905.

There is controversy as to some of the important facts, but in view of the disposition we make of this cause we shall state them as they are found by the Court of Appeals, District of Columbia, and by the district judge, with some additional statements of them which complainant claims are established by the proof. In thus restating them it must be understood that we have not examined into the conflicting evidence or reached our own conclusions as to whether the testimony supports the findings of fact; our view of the law making it unnecessary for us to do so.

Quoting from the opinion below the facts there found are:

(1) That De Kando actually made his invention in a foreign country and reduced it to actual practice and put it in actual use, prior to the spring of 1904 on the Valtellina Railway in Italy.

(2) It was therefore an invention which could be and was seen, understood, and known to be practical. There was not only the patentable conception, but the idea of means, and means.

No. 1.]

(3) That on March, 1904, Waterman went from the United States to Europe and met De Kando at Budapest, where the details of the invention were explained to him, and then, proceeding to Italy, Waterman saw the invention in actual use. In addition De Kando then furnished Waterman with an elaborate written description of the invention.

(4) It appears from the evidence that Waterman was learned and skilled and fully capable of fully understanding and that he did understand the invention.

(5) Waterman therefore "knew" that the invention had been conceived and actually made and reduced to actual and successful practice.

(6) That Waterman not only brought the information he had gained in Europe with him to the United States, when he arrived May 5, 1904, but also the said written description of such invention and notes which he had made relating to such invention while in Europe.

(7) That Waterman made a written report as to this invention to Stillwell June 7, 1904, and during the year following he described same in the United States to a number of electrical engineers of standing, all capable of understanding same, and June 19, 1905, Waterman explained the invention to the American Institute of Electrical Engineers in the United States.

(8) Prior to 1901 or 1902 Armstrong had conceived the same invention and in June, 1906, he filed his application for a patent. There is no claim or pretense that Armstrong exercised reasonable diligence, or any diligence, or that he made any effort whatever to reduce his invention to practice prior to filing his application for a patent.

Defendants, it may be noted, especially controvert the findings 3, as to what Waterman saw in Italy, and 8, as to the date of Armstrong's conception and the measure of his diligence. Waterman was an eminent electrician who went abroad to inform himself as to De Kando's invention on behalf of parties here who contemplated buying it. The testimony warrants a further finding of fact which complainant suggests, viz., that:

(9) The knowledge of De Kando's invention and its use abroad was communicated by De Kando to Waterman for the specific purpose of introducing such knowledge into the United States and of having the invention put into use in the United States.

Whatever other questions there are in the case, and many have been argued, it is manifest that the fundamental and crucial one is whether upon the facts shown Armstrong was entitled to the grant of his patent; it not being disputed that his invention and De Kando's are substantially the same, nor that the invention of each was made independently of any knowledge of the other's. If Armstrong's patent was properly issued, that ends the cause. The question thus presented involves the construction of two sections of the United States Revised Statutes, which have been frequently before the courts:

SEC. 4886. Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent therefor.

SEC. 4923. Whenever it appears that a patentee, at the time of making his application for the patent, believed himself to be the original and first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, before his invention or discovery thereof, if it had not been patented or described in a printed publication. (U. S. Comp. St., 1901, pp. 3382, 3396.)

The proposition of law for which complainants contend is that De Kando's date of invention in this country is May, 1904, when Waterman, arriving here with knowledge of the completed invention, disclosed that knowledge to others here skilled in the art capable of understanding the same. That by reason of his knowledge and disclosures to others

[Vol. 196.

in this country prior to June 28, 1905, the invention was "known" in the legal sense in this country before Armstrong's application was filed. This proposition has been discussed at great length in the opinions of the two judicial tribunals which have had to do with this case; we are inclined to affirm on the opinion of the Court of Appeals of the District of Columbia, which, in substance, holds that, for the purpose of defeating a patent application, reduction to practice in a foreign country is a nullity unless the invention is patented or described in a printed publication.

If section 4886 stood alone, we might be inclined to the conclusion that upon this record Armstrong was not entitled to a patent because although, prior to his date, his art or machine had not been used here, it was known by others in this country. A machine is certainly knowable when its various component parts are brought together and, coöperating with each other, function successfully. De Kando's device was knowable in this sense when it was installed in Italy. It would become known to any competent person who examined it, saw what its component parts were and what function it performed. Waterman, upon the facts as found above, acquired that knowledge and he carried his knowledge with him wherever he went. When he was here he was a person in this country by whom the De Kando device was known. And when he imparted his knowledge to others here they also became persons in this country by whom the De Kando device was known. Considering this section only, it might seem to make little difference where the knowable machine be located, provided the persons who knew it are themselves in this country.

But the patent law is contained in many sections, and they must be construed together to get at the precise code which they set forth. Section 4886 states generally the conditions which must exist in order to entitle an inventor to the grant of a patent. Section 4923 deals specifically with the effect of knowledge and use in a foreign country, and it makes no distinction whether such use is made or such knowledge is acquired by persons who, after using the thing or acquiring the knowledge, remain abroad or come here. This section (4923) provides that the patent taken out by an applicant for the same thing here shall not be void on account of such knowledge or use unless the invention had been patented or described in a printed publication. As we construe this section, reduction to practice in a foreign country can never operate to destroy a patent applied for here, however widely known such reduction to practice may be, either among foreigners or among persons living here, unless the invention be patented or described in a printed publication. To that extent section 4923 qualifies the language of section 4886, which without such qualification might well lead to a different result.

The decree is affirmed, with costs.

ADJUDICATED PATENTS.

(U. S. D. C.) The Borsch patent, No. 637,444, for eyeglasses, Held valid and infringed. *Kryptok Co. v. Stead Lens Co.*, 207 Fed. Rep., 85.

No. 1.]

(U. S. D. C.) The Rollman patent, No. 686,139, for a cherry-stoner, *Held* not anticipated, valid, and infringed. *Rollman Mfg. Co. v. Universal Hardware Works*, 207 Fed. Rep., 97.

(U. S. D. C.) The Borsch, Jr., patent, No. 876,933, for eyeglasses, *Held* valid and infringed. *Kryptok Co. v. Stead Lens Co.*, 207 Fed. Rep., 85.

(U. S. C. C. A.) A judgment affirmed, based on the verdict of a jury finding the Henney patent, No. 974,789, for an ozonizer, valid and infringed. *New York Cent. & H. R. R. Co. v. Henney*, 207 Fed. Rep., 78.

(U. S. C. C. A.) The Archer patent, No. 999,478, for a machine for peeling potatoes, *Held* void for lack of invention. *Archer v. Imperial Mach. Co.*, 207 Fed. Rep., 81.

(U. S. D. C.) The Bryan patent, No. 1,008,694, for a spring contracting and removing device for use as an automobile-tool, claims 2 and 3 *Held* valid and infringed and claims 1, 4, and 7 valid, but not infringed. *Schwab v. Morgan*, 207 Fed. Rep., 107.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Fred Ippich & Treffinger, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the L. Bugz Carriage Company, of Dallas City, Ill., for registration of a trade-mark and trade-mark registered May 23, 1893, No. 23,106, to Fred Ippich & Treffinger, of 400 East Seventy-third street, New York, N. Y., and a notice of such declaration sent by registered mail to Fred Ippich & Treffinger at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Fred Ippich & Treffinger, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Black Manufacturing Company, 632 First avenue south, Seattle, Wash., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, Providence, R. I., and a notice of such declaration sent by registered mail to said Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 13, 1913.

Pacific Soap & Chemical Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Lantz Bros. & Co., corner of Hanover, Lake, and Lloyd streets, Buffalo, N. Y., for registration of a trade-mark and trade-marks Nos. 20,685 and 20,234, registered February 9, 1892, and October 20, 1891, respectively, to the Pacific Soap & Chemical Co., of Tacoma, Wash., and a notice of such declaration sent by registered mail to the Pacific Soap & Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Pacific Soap & Chemical Co., its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

[Vol. 196. No. 1.]

Changes in Classification.

(ORDER NO. 2,077.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 24, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 23, Chemicals, (Division VI,) establish subclass—

30. *Miscellaneous*,
the patents therein being taken from class 73, Measuring Instruments, subclass 79, Lactometers, hereinafter abolished, and subclass 51, Testing machines.

In class 73, Measuring Instruments, (Division XXXVI,) abolish the following subclasses:

Dry measurers—	Liquid measurers—
Closures—	Regulable—
132. Independent,	Transferrers—
133. Interacting,	157. Interacting,
134. Transfer measure—	158. Union transferrer
135. Pivoted—	Transferrers—
136. Vertical axis.	159. Commounted,
79. Lactometers.	160. Independent—
153. Liquid measurers—	161. Pumps,
154. Pumps—	162. Interacting,
155. Rotary,	163. Transferring measure,
Regulable—	164. Union transferrer.
Transferrers—	
156. Independent,	

The patents formerly contained in these subclasses have been placed in class 221, Dispensing, subclass 95, Predetermined bulk, and the subclasses thereunder, hereinafter established, with the exception of those contained in subclass 79, Lactometers, which have been placed in class 23, Chemicals, subclass 30, Miscellaneous, hereinafter established, and subclass 3, Apparatus.

(Note.—In connection with the above changes in class 73, Measuring Instruments, it will be noted that the subtitle of "Dry measurers" still controls subclasses 131, Bulk-controlled, and 137, Weight-controlled.)

In class 221, Dispensing Cans, (Division XXXII,) change the title of the class to—

221.—DISPENSING,

and establish the following subclasses:

Predetermined bulk—	Predetermined bulk—
95. Predetermined bulk—	Stationary trap chamber—
97. Dipping operation,	ber—
102. Force discharge—	112. Two non-rigidly connected cut-offs—
103. Variable,	113. Variable,
101. Meter actuated cut-off,	116. Unitary rotary two-way cut-off—
96. Proportional,	117. Variable,
99. Pump supply—	114. Unitary sliding two-way cut-off—
100. Variable,	115. Variable,
Rotary trap chamber—	98. Tipping operation.
108. Axial feed—	
109. Variable,	
106. Radial feed—	
107. Variable,	
104. Sliding trap chamber—	
105. Variable,	
Stationary trap chamber—	
110. Two independent cut-offs—	
111. Variable,	

The patents contained in these subclasses have been taken from class 73, Measuring Instruments, subclasses under "Dry measurers" and under "Liquid measurers," hereinafter abolished, and class 225, Dispensing Beverages, subclass 33, Soda-water apparatus, Syrup-cocks, Measuring, hereinafter abolished, and constitute a miscellaneous group covering means arranged for withdrawing a predetermined bulk of fluent material from a source of supply.

In class 225, Dispensing Beverages, (Division XXXII,) abolish subclass—

Soda-water apparatus—
Syrup-cocks—
33. Measuring.

The patents formerly contained in this subclass have been placed in class 221, Dispensing, appropriate subclasses under subclass 95 Predetermined bulk, hereinafter established.

THOMAS EWING,
Commissioner.

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 196—No. 2.

TUESDAY, NOVEMBER 11, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF NOVEMBER 11, 1913.....	279
DISCLAIMER.....	279
PATENT NO. 1,023,889—ADVERSE DECISION OF EXAMINER OF INTERFERENCES.....	279
BRIEFS IN APPEALED CASES.....	280
APPLICATIONS UNDER EXAMINATION.....	281
PATENTS GRANTED.....	500
REISSUES.....	505
DESIGNS.....	509
TRADE-MARKS—REGISTRATION APPLIED FOR.....	521
TRADE-MARKS—REGISTERED.....	521
LABELS AND PRINTS.....	None.
COMMISSIONER'S DECISIONS—	
Ex parte Mitchell.....	525
DECISIONS OF THE U. S. COURTS—	
Stevenson v. Shalcross et al. Shalcross et al. v. Stevenson.....	525
ADJUDICATED PATENTS.....	527
INTERFERENCE NOTICES.....	527
PANAMA-PACIFIC INTERNATIONAL EXPOSITION.....	528

ISSUE OF NOVEMBER 11, 1913.

Patents.....	636—No. 1,077,967 to No. 1,078,602, inclusive.
Designs.....	14—No. 44,667 to No. 44,880, inclusive.
Trade-Marks.....	91—No. 94,143 to No. 94,233, inclusive.
Labels.....	None.
Prints.....	None.
Reissues.....	7—No. 13,641 to No. 13,647, inclusive.
Total.....	746

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	2	2	North Carolina.....	1	
Arizona.....			North Dakota.....	28	4
Arkansas.....	33	5	Ohio.....	6	
California.....	8	1	Oklahoma.....	3	
Colorado.....	24	2	Oregon.....	3	
Connecticut.....	2		Pennsylvania.....	64	5
Delaware.....	4		Rhode Island.....	5	2
Florida.....	1	1	South Carolina.....	1	
Georgia.....	3		South Dakota.....	3	
Idaho.....	58	8	Tennessee.....	3	
Illinois.....	22	2	Texas.....	11	1
Indiana.....	12		Utah.....	6	
Iowa.....	8		Vermont.....		
Kansas.....	5		Virginia.....	15	1
Kentucky.....	4	2	Washington.....	2	
Louisiana.....	4	1	West Virginia.....	10	1
Maine.....	4		Wisconsin.....	10	
Maryland.....	30	6	Wyoming.....		
Massachusetts.....	16	1			
Michigan.....	10	1	Alaska, District of.....		
Minnesota.....	2		Canal Zone.....		
Mississippi.....	32	1	District of Columbia.....	3	
Missouri.....	1		Hawaii Territory.....		
Montana.....	7		Philippine Islands.....		
Nebraska.....	2		Porto Rico.....		
Nevada.....	4		U. S. Army.....	1	
New Hampshire.....	28	4	U. S. Navy.....		
New Jersey.....	1		Total to residents of the United States.....	567	80
New Mexico.....	88	28			
New York.....					

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....			Mexico.....	2	
Austria-Hungary.....	6		Netherlands.....	1	
Belgium.....	1		Newfoundland.....		
Bermuda.....			New South Wales.....		
Brazil.....			New Zealand.....		
British West Indies.....	12	1	Norway.....		
Canada.....			Quebec.....		
China.....			Roumania.....		
Colombia.....			Scotland.....		
Costa Rica.....			South Australia.....		
Cuba.....			Spain.....		
Denmark.....			Sweden.....	2	
Dutch East India.....			Switzerland.....	1	2
England.....	23		Transvaal, South Africa.....		
France.....	8	2	Uruguay.....	1	
Germany.....	23	4	Victoria.....		
Guatemala.....			Wales.....	1	
India.....	1	1	Total to residents of foreign countries.....	83	11
Italy.....					
Japan.....		1			

Disclaimer.

1,034,540.—*Samuel M. Vaucaln*, Philadelphia, Pa. SUPERHEATER. Patent dated August 6, 1912. Disclaimer filed October 31, 1913, by the assignee, *Locomotive Superheater Company*, a Corporation of Delaware.

Enters this disclaimer—

"To claims 7 and 8, reading as follows:

"7. A superheater unit comprising a plurality of pipes to receive the saturated steam, a single return pipe, and a union connecting the saturated steam pipes with the return pipe.

"8. In a superheater for steam boilers, the combination of a header having a chamber for saturated steam and a chamber for superheated steam, a superheater unit comprising a plurality of pipes communicating with the saturated steam chamber of the header, a single return pipe communicating with the superheated steam chamber of the header, and a union connecting the saturated steam pipes with the return pipe."

Patent No. 1,023,889—Adverse Decision of Examiner of Interferences.

On October 10, 1903, a decision was rendered that Albert F. Staples was not the first inventor of the subject-matter covered by claims 1 and 3 of his Patent No. 1,023,889, and no appeal having been taken within the time allowed such decision has become final.

Briefs in Appealed Cases.

All briefs filed in this Office should have conspicuously printed thereon a statement designating the particular tribunal of the Patent Office to which the brief is addressed.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 8, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 3	Aug. 26	758
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Frames; Store-Service; Tobacco.	July 10	Sept. 4	678
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Oct. 9	Oct. 27	234
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Sept. 18	Aug. 29	773
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 29	Aug. 30	588
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 21	Aug. 21	787
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 26	Sept. 10	1017
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 23	Sept. 10	1073
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 12	Oct. 2	668
235	10. Carriages and Wagons.	July 14	Dec. 2	1213
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 26	Oct. 1	361
222	12. Elevators; Journal-Boxes, Pulleys, and Shafts; Lubrication; Machine Elements.	June 26	July 2	1504
329	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 22	Aug. 27	731
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornammenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 5	Oct. 9	518
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Apr. 25	Aug. 11	1560
100	16. Radiant Energy; Telegraphy; Telephony.	June 25	Aug. 20	519
303	17. Matrix-Making; Paper Manufacture; Printing; Type-Bar Making.	Sept. 8	Oct. 2	312
227	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Aug. 12	Oct. 1	240
234	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 21	Aug. 27	724

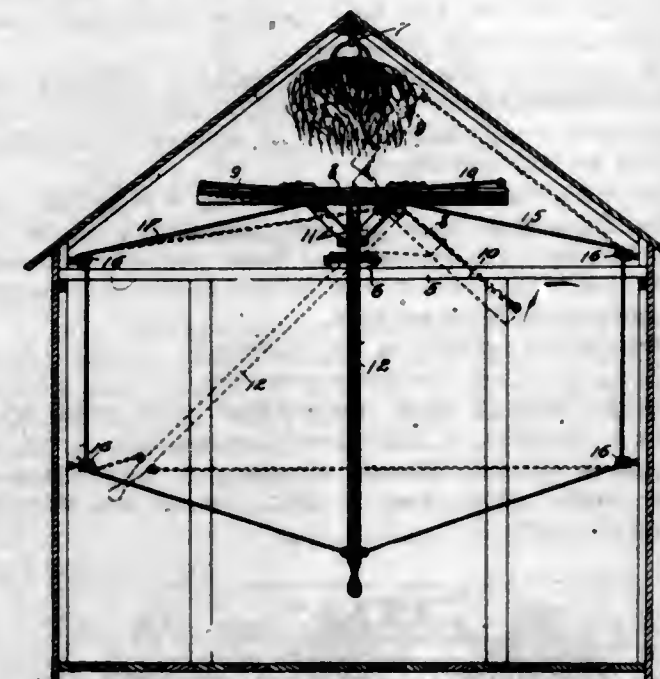
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	Sept. 25	Sept. 27	284
112	21. Brakes and Gears; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	June 27	Aug. 4	673
240	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 28	Sept. 2	435
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 13	Sept. 12	533
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Sept. 6	Sept. 11	580
315	25. Butchering; Mills; Thrashing; Vegetable Cutters and Crushers.	Sept. 15	Oct. 10	280
106	26. Electricity; Generation; Motive Power.	June 3	July 28	644
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 6	Sept. 16	526
65	28. Internal-Combustion Engines.	Aug. 19	Sept. 10	742
147	29. Coopering; Fire-Escapes; Ladders; Ropes; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	June 23	June 17	762
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Aug. 20	Oct. 23	243
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Grease.	July 16	Aug. 20	454
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	July 2	Aug. 16	500
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 8	Aug. 29	443
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Aug. 26	Sept. 2	476
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	July 24	Oct. 6	867
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Aug. 8	Aug. 15	1033
107	37. Electric Lamps; Electricity, Conductors; Electricity, General Applications.	Apr. 4	June 27	1006
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Aug. 20	1026
321	39. Water Distribution.	Aug. 6	Aug. 27	532
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 16	Sept. 11	1009
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Sept. 16	Sept. 9	529
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	May 23	June 16	973
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Sept. 26	Sept. 25	278
Oldest new case, Apr. 4; oldest amended, June 16.				
Total number of applications awaiting action..... 20,150				
161	TRADE-MARKS, DEVICES, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 13	Oct. 6	1043
	Designs.....	Sept. 27	Oct. 7	220
	Labels and Prints.....	Oct. 30	Oct. 24	42

PATENTS

GRANTED NOVEMBER 11, 1913.

1,077,967. HAY-SCATTERER. PEDER J. ANDERSON, Stoughton, Wis. Filed May 14, 1913. Serial No. 767,690. (Cl. 214—2.)



1. In combination, a support, a platform hinged to said support to tilt to each side thereof, said platform consisting of a plurality of sections hinged together, and means for tilting the platform.

2. In a device of the character described, a platform mounted to tilt to either side of its support, said platform embodying a central section and two end sections hinged thereto, and means for tilting the platform.

3. In a device of the character described, a platform mounted to tilt to either side of its support and consisting of a central section and two end sections hinged thereto, means for tilting the platform, and means operating one of the end sections of the platform as the latter is tilted.

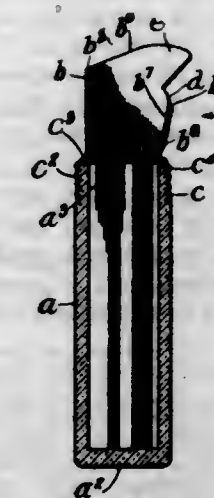
4. In a device of the character described, a platform support, a platform hinged thereto to tilt to either side of the support and embodying a central section and two end sections hinged to the central section, an operating lever connected with the platform, and cables connected to the lever and the hinged end sections whereby one or the other of said sections is operated as the platform is tilted.

5. In a device of the character described, a platform mounted to tilt to each side of its support and having hinged end sections, an operating lever for tilting the platform, and connections with the lever and hinged sections whereby one or the other is operated as the platform is tilted.

1,077,968. COIN-PACKAGING DEVICE. PRESSLEY E. BISLAND, New York, N. Y., assignor to Abbott Coin Counter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 31, 1913. Serial No. 745,359. (Cl. 133—1.)

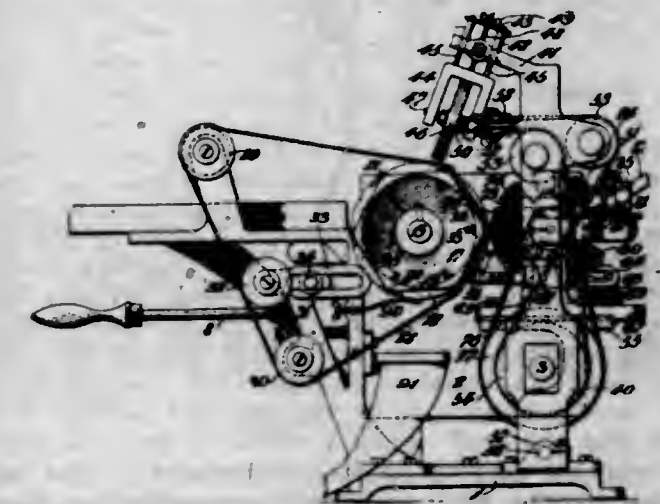
1. A device of the class described comprising a tube closed at one end and open at the other, said tube being provided with a head comprising front, and back walls and opposite side walls, the front and back walls being

approximately parallel and the other opposite side walls being funnel-shaped in form, said head being provided with a neck, and a supplemental neck secured thereto and to the open end of said tube, and the front side of said head being cut out transversely thereof to form a transverse recess at the opposite ends of which are projecting ears.



2. A device of the class described comprising a tube closed at one end and open at the other and provided with a head which is funnel-shaped in form in transverse section in one direction and the greatest diameter of which is much greater than the diameter of said tube, said head being provided with a neck to which is secured a supplemental neck which is secured to the open end of said tube, one side of said head being cut out transversely to form a transverse recess at the opposite ends of which are outwardly directed ears.

1,077,969. MACHINE FOR GRINDING STEEL PENS. CHARLES H. BOUGHTON, Camden, N. J. Filed Oct. 3, 1912. Serial No. 723,664. (Cl. 51—10.)



1. In a machine for grinding pens, a continuous carrier provided with means for supporting the pens to be ground, means for actuating such carrier, a grinding device having means for actuating it transversely to said carrier and supported to engage the pens on the same, and a grinding device having means for actuating it in a plane parallel to said carrier and for drawing it toward the same.

2. In a machine for grinding pens, a feeding-wheel formed with a circular portion and a polygonal portion, pen supports secured in the periphery of said wheel and at the angles of the polygonal portion of the same, an endless band fitting upon the circular portion of the wheel, means for driving such band, and a grinding device having means for actuating it and supported to engage the pens upon said supports.

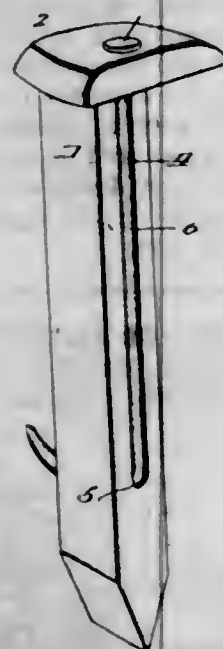
3. In a machine for grinding pens, a feeding-wheel formed with a circular portion and a polygonal portion, pen-supports secured in the periphery of said wheel and at the angles of the polygonal portion of the same and formed with cut-away ends, an endless band fitting upon the circular portion of the wheel, means for driving such band, and a grinding device having means for actuating it and supported to engage the pens upon the supports and at points registering with the cut-away portions of the same.

4. In a machine for grinding pens, a feeding-wheel having a circular portion and a polygonal portion and formed with transverse recesses in its periphery at the angles of the polygonal portion, pen-supports adapted to fit in said recesses and each formed with a beveled side, clamping-plates adapted to fit in said recesses and each formed with a beveled edge to fit against said beveled sides, and screws through said plates to secure them in said recesses.

5. In a machine for grinding pens, a feeding-wheel provided with rounded pen-supports upon its periphery, a swinging support, a grinding-disk journaled in said support, yielding means for drawing said support and disk toward said feeding-wheel, and a guard-finger upon said support and adapted to bear against the periphery of said feeding-wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,077,970. RAILROAD-SPIKE. GEORGE M. BROX and HOWARD S. KNIGHT, Milford, Nebr. Filed Mar. 11, 1912. Serial No. 682,881. (Cl. 85-23.)

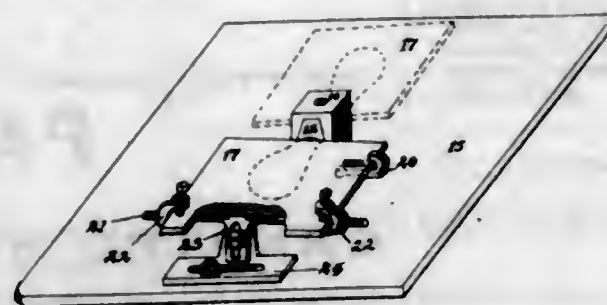


As a new article of manufacture, a spike comprising a shank and a head integral with and extending laterally beyond one side of the shank; the shank having a transverse bore at an intermediate point in its length and also having a vertical groove in its said side, of even depth throughout its length, extending from one end of the bore to the under side of the extended portion of the head, and the head having a vertically disposed bore in its extended portion, entirely surrounded by the metal of said portion and aligned and communicating directly with the vertical groove of the shank.

1,077,971. ADJUSTABLE SECTIONAL MOLD. FREDERICK W. BULL, New London, Conn. Filed Oct. 19, 1912. Serial No. 726,721. (Cl. 22-113.)

1. A mold for propellers, comprising a separable hub-section, adjustable blade sections, and means for supporting the said blade sections.

2. A mold for propellers, comprising a hub section, adjustable blade sections, and intermediate fillet sections.



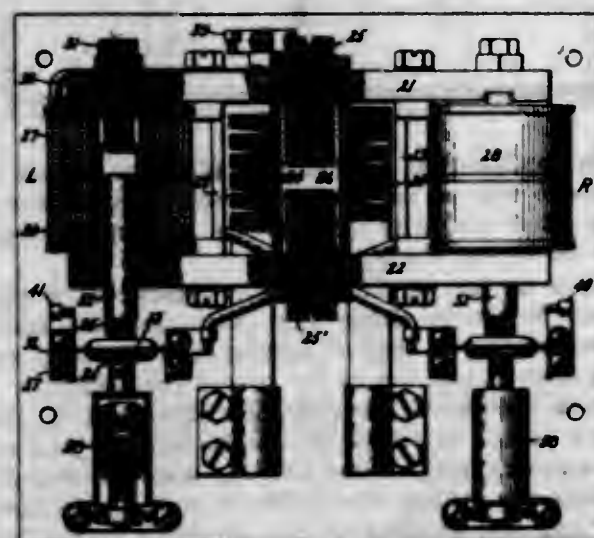
3. A mold for propellers, comprising a separable hub section, adjustable blade sections, means for supporting said blade sections, and fillet sections intermediate said hub section and blade sections.

4. A mold for propellers, comprising a separable hub section, blade sections including adjustable drags, means for supporting said drags, and fillet sections intermediate said hub section and drags.

5. A mold for propellers, comprising a separable hub section, adjustable blade sections, and fillet sections between the said hub section and blade sections; the said hub section being formed with lateral openings to receive and support the fillet sections.

[Claim 6 not printed in the Gazette.]

1,077,972. RELAY FOR TWO-WIRE NOTCHING SYSTEMS. EUGENE R. CARICHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 9, 1911. Serial No. 643,086. (Cl. 172-179.)



1. A system of motor control comprising a relay having magnetic plungers controlling circuits, coils for lifting said plungers, dash-pots for retarding their descent, a magnetic structure including said plungers, and a series coil with cores connected with said structure for setting up a flux in said structure.

2. A system of motor control comprising a relay having magnetic plungers controlling circuits, coils for lifting said plungers, dash-pots for retarding their descent, a magnetic structure including said plungers and in which their descent increases an air gap, and a series coil for setting up a flux in said structure.

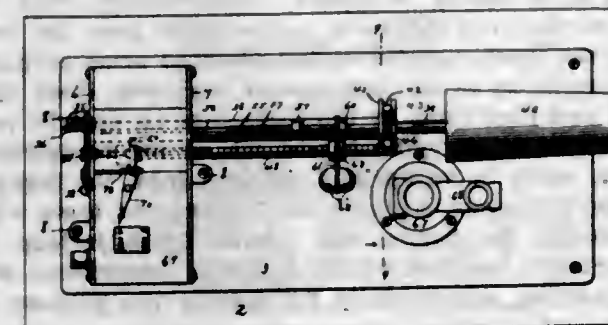
3. A system of motor control comprising a relay having two bars of magnetic material, relay coils between said bars, bushings for the spools of said coils, composed in part of magnetic material, magnetic circuit controlling plungers working in said bushings, means for retarding the descent of said plungers, and a series coil between said bars with cores connected with said bars.

4. A relay comprising two bars of magnetic material, cores tapped into said bars, a series coil concentric with said cores, relay coils between said bars, bushings for said coils whose upper portions only are magnetic, and circuit controlling plungers of magnetic material entering the lower part of said relay coils.

5. A relay comprising two bars of magnetic material, cores tapped into said bars, a series coil concentric with said cores, relay coils between said bars, bushings for said coils whose upper portions only are magnetic, circuit controlling plungers of magnetic material entering the lower part of said relay coils, and adjustable stops entering the upper part of said relay coils.

[Claim 6 not printed in the Gazette.]

1,077,973. PHONOGRAPH. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, Newark, N. J., a Corporation of New Jersey. Filed Nov. 17, 1910. Serial No. 592,818. (Cl. 181-6.)



1. In a phonograph, the combination of a motor gear train, with a sliding record driving shaft and a record feeding shaft, means for detachably connecting said shafts together to cause the feeding shaft to feed the driving shaft in the direction of its axis, a stationary carrier tube in which said driving shaft is mounted to slide, and means connected with said motor gear train for changing the relative speed of said feeding shaft with respect to said driving shaft.

2. In a phonograph, the combination with a motor gear train, a record driving shaft driven from said gear train, a stationary carrier tube in which said driving shaft is mounted to slide, a record feeding shaft lying parallel to said driving shaft, a broad faced gear upon said feeding shaft, a sliding shaft having a gear thereon in constant mesh with said broad faced gear, and capable of alternately meshing with gears in said train having different rates of rotation.

3. In a phonograph, the combination of a motor gear train, a record mandrel, a record mandrel shaft upon which said mandrel is mounted, a stationary carrier tube in which said mandrel shaft is longitudinally slidable, a pair of spaced supporting plates secured upon the free end of said tube, a gear located between said plates and splined to said mandrel shaft, and driving connections between said gear and the motor gear train.

4. In a phonograph, the combination of a motor gear train, a longitudinally slidable record mandrel shaft driven from an intermediate gear of said train, a stationary carrier tube in which said record mandrel shaft may both rotate and slide, a screw feed shaft capable of being driven from either one of two gears in said train and a detachable connection between said mandrel shaft and said feed screw shaft whereby said mandrel shaft may be longitudinally fed at different relative rates of travel.

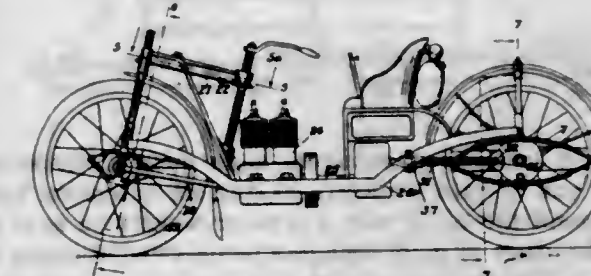
5. In a phonograph, the combination of a motor gear train with a record driving shaft and a record feeding shaft, a stationary carrier tube in which said driving shaft is mounted to slide and which supports one end of said feed shaft, with means for relatively increasing the rotation of said feeding shaft with respect to said driving shaft, and means for governing the rate of rotation of said record driving shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,077,974. MOTOR-CYCLE. JOHN J. CHAPIN, Detroit, Mich. Filed July 17, 1911. Serial No. 638,832. (Cl. 21-00.)

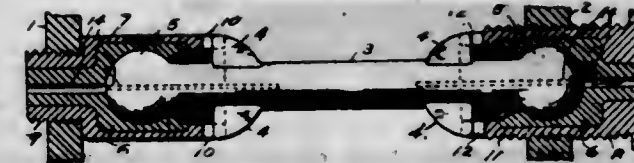
1. In a frame for motor vehicles, the combination with a pair of frame bars, of a yoke attached to said frame

bars, a pair of springs supporting the frame bars and yoke, a fork slidable vertically in said yoke, a wheel straddled by the yoke and fork, an axle upon which the wheel turns, the said axle being connected with the springs so that the latter act as a yielding medium between the axle and the frame bars and a radius rod attached to a frame bar and connecting with the axle, substantially as described.



2. In a frame for motor vehicles, the combination of a pair of frame bars, a yoke having its ends attached to the ends of the frame bars, a fork reciprocable through said yoke, a wheel straddled by the yoke and fork, a pair of elliptical springs, one on each side of the wheel and supporting at the center of its upper half the ends of the frame bar and yoke, an axle upon which the wheel turns, a driving gear housing rotatively mounted upon the axle and connected to the end of one of the tines of the fork and a tie plate connected to the end of the other tine and to the axle, the said lower halves of the elliptical springs being connected one to the driving gear housing and the other to the tie plate, substantially as described.

1,077,975. FIRE-BOX STAY-BOLT FOR LOCOMOTIVE AND OTHER BOILERS. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 13, 1911. Serial No. 654,510. (Cl. 85-1.5.)



1. A stay-bolt having a body portion, a screw threaded connecting member at each end, and a cast metal portion between each connecting member and the body portion for connecting the body portion to the connecting members; substantially as described.

2. A stay-bolt having a connecting member secured to each end, said connecting members having spherical sockets, and cast metal heads within said sockets and on the ends of the stay-bolts for connecting the bolt to the socket members; substantially as described.

3. A stay-bolt having screw-threaded connecting members secured to both ends by ball and socket joints, each of said connecting members having slots in their adjacent ends and radially extending fins on the bolt registering with said slots; substantially as described.

4. A stay-bolt having connecting members at each end, said connecting members having sockets, flanges on the ends of the bolt within the sockets, and cast metal surrounding the ends of the bolt within the sockets for securing the bolt to the connecting members; substantially as described.

1,077,976. COUNTERBALANCED STAIR. OTTO C. FOSSELMAN, Maywood, Ill. Filed Feb. 16, 1912. Serial No. 678,093. (Cl. 227-5.)

1. A stair comprising stringers hung upon a horizontal pivot rod, a counterweight applied to but one of said stringers, the other of said stringers being twisted about its own axis, a torsion rod secured and confined to said last-named stringer and trends secured between said stringers.

2. A stair comprising stringers hung upon a horizontal pivot rod, a counterweight applied to but one of said stringers, the other of said stringers being twisted about its own axis, and treads secured between said stringers, the twist in the unweighted stringer tending to impel said counterweighted stringer downwardly.



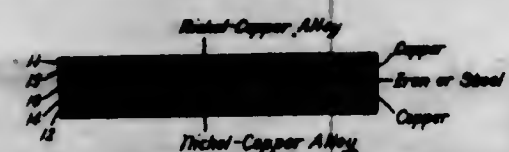
3. A stair comprising stringers hung upon a horizontal pivot rod, one of said stringers having an extension rearwardly beyond the pivot rod, a counter weight on said extension, the other of said stringers being twisted about its own axis, a torsion rod secured and confined to said last-named stringer and treads secured between said stringers, the twist in said unweighted stringer acting to maintain the stringers in substantial parallel relation.

4. A stair comprising stringers hung upon a horizontal pivot rod, a counterweight applied to but one of said stringers, and treads secured between the stringers, the normal position of the weighted stringer with the treads attached being planar and the normal position of the unweighted stringer being twisted or warped.

5. The process of aligning the stringers in a counter-balanced stair in which but one stringer is counter-weighted, which consists in twisting the unweighted stringer.

[Claim 6 not printed in the Gazette.]

1,077,977. COMPOSITE METAL. TRUMAN S. FULLER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 29, 1913. Serial No. 744,867. (Cl. 20—181.)

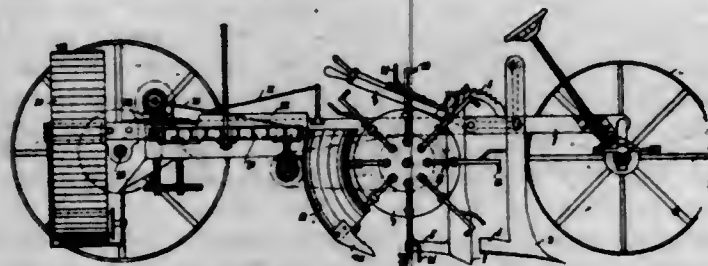


1. A composite metal body comprising a layer consisting mainly of iron and a layer of an alloy of nickel and copper in which nickel predominates, the said layers being intimately united by a cupreous film or layer.

2. A composite metal body comprising a layer of steel, a layer of an alloy of nickel and copper in which nickel predominates and an intermediate cupreous layer or film, the said layers being intimately joined.

3. A composite metal body comprising a plate of ferrous metal having a sheet of nickel-copper alloy united to each side thereof by a layer of copper.

1,077,978. BEET-HARVESTING MACHINE. WILHELM HASTER, Siegen, Germany. Filed Mar. 14, 1913. Serial No. 754,309. (Cl. 55—108.)



1. A beet harvesting machine comprising a wheeled frame, a vertically adjustable share held in said frame so as to break up the soil, a revolving gripper arranged behind said share so as to pick up the beets, a guide-plate on said share adapted to move the beets away from the gripper path to prevent the gripper arms from getting entangled in the leaves, another guide-plate adapted to guide

the beets back into the gripper path in position for being caught by the arms, a pair of coacting conveying bands, means for transferring the beets from the gripper to said conveying bands, means for righting the beets and clearing them of earth before they are delivered to said conveying bands, a cutting wheel for heading the beets while held between the conveying bands, and means for adjusting the beets relative to the cutter according to their thickness, substantially as and for the purpose set forth.

2. A beet harvesting machine, comprising a wheeled frame, a vertical adjustable share held by said frame so as to break up the soil, a revolving gripper arranged behind said share, said gripper having forked arms adapted to pick up the beets with their forks, means for guiding the beets to the forks without the latter being entangled with the leaves, a casing arranged concentrically with the gripper so that the forks are compelled to pass the beets through the same, pivoted spring-actuated arms arranged in said casing so as to abut against the beets, clear them of earth and turn them in the forks into an upright position, a pair of conveying bands, means for transferring the beets, while in an upright position, from the forks to the conveying bands, a cutter for heading the beets while held between the bands, and means for adjusting the beets vertically relative to the cutter in accordance with their thickness, substantially as and for the purpose set forth.

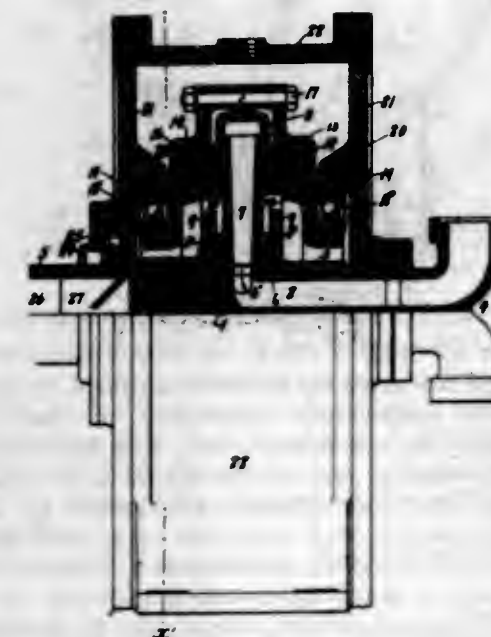
3. A beet harvesting machine, comprising a wheeled frame, a vertically adjustable share held by said frame so as to break up the soil, a revolving gripper arranged behind said share, said gripper having forked arms adapted to pick up the beets with their forks, means for guiding the beets to the forks without the latter being entangled in the leaves, a casing arranged concentrically with the gripper so that the forks are compelled to pass the beets through the same, pivoted spring-actuated arms arranged in said casing so as to abut against the beets, clear them of earth and turn them in the forks into an upright position, a pair of co-acting conveying bands, a wedge arranged in the casing so as to engage the beets and guide them, while in a vertical position, from the forks into connection with the conveying bands, brushes arranged on said wedge for cleaning the beets, a cutter for heading the beets while held between the bands, and means for adjusting the beets relative to the cutter in accordance with their thickness, substantially as and for the purpose set forth.

4. A beet harvesting machine, comprising a wheeled frame, a vertically adjustable share held by said frame so as to break up the soil, a revolving gripper arranged behind said share, said gripper having forked arms adapted to pick up the beets with their forks, means for guiding the beets to the forks without the latter being entangled in the leaves, a casing arranged concentrically with the gripper so that the forks are compelled to pass the beets through the same, pivoted spring-actuated arms arranged in said casing so as to abut against the beets, clear them of earth and turn them in the fork into an upright position, a pair of plates arranged so as to project into the casing and mesh with the forks, a wedge arranged in the casing so as to guide the beets from the forks to the plates, a pair of coacting conveying bands having studs adapted to take through slots in the plates so as to carry the beets with them, a cutter for heading the beets while held between the bands, and means for adjusting the beets relative to the cutter in accordance with their thickness, substantially as and for the purpose set forth.

5. A beet harvesting machine, comprising a wheeled frame, a share held in said frame so as to break up the soil, a gripper arranged behind said share so as to pick up the beets, a pair of coacting conveying bands guided on vertically disposed rollers, means for transferring the beets from the gripper to the conveying bands, means for clearing the beets of earth and righting them before they are transferred to the bands, spring-actuated rollers arranged so as to clamp the inner stretches of the bands against the tapering sides of the beets and urge them upward, a pair of levers connected to said clamp rollers, a toggle-joint controlled by said levers, a pivoted arm held

by the toggle-joint so as to bear against the heads of the beets and adjust the latter vertically as the position of the clamp rollers is varied by the thickness of such beets, a cutter arranged so as to head the beets after the latter have been thus adjusted, and a pair of wires stretched over and along the conveying bands in an inclined position so as to engage the leaves of the beets and raise them out of contact with the cutter.

1,077,979. PUMP AND MOTOR. HENRY SELBY HELE-SHAW and FRANCIS LEIGH MARTINEAU, London, England. Filed Apr. 7, 1911. Serial No. 619,609. (Cl. 103—44.)



1. A pump or motor comprising a central valve provided with ports for the influx and efflux of fluid to and from the cylinders, cylinders rotatable about the said valve, pistons associated with the cylinders, a rotatable liquid tight stroke controlling drum inclosing the pistons and outer ends of the cylinders, circular cam paths in either side of said drum and devices carried on either side of said pistons operating without definite attachment in said cam paths substantially as specified.

2. A pump or motor comprising a central valve, cylinders rotatable about said valve, pistons operating in said cylinders, a rotatable liquid tight stroke controlling drum inclosing the pistons and outer ends of the cylinders, devices carried by the pistons coöperating without attachment with said drum and means for supplying lubricant to the interior of said drum wherein said lubricant is maintained by centrifugal force and serves to effect and maintain lubrication substantially as specified.

3. A pump or motor comprising a central valve, cylinders rotatable about said valve, pistons operating in said cylinders, an eccentrically situated liquid tight rotatable stroke controlling drum inclosing the pistons and outer ends of said cylinders and adapted to contain lubricating oil, cam paths in either side of said drum, and devices carried by the pistons operating without definite attachment in said cam paths substantially as specified.

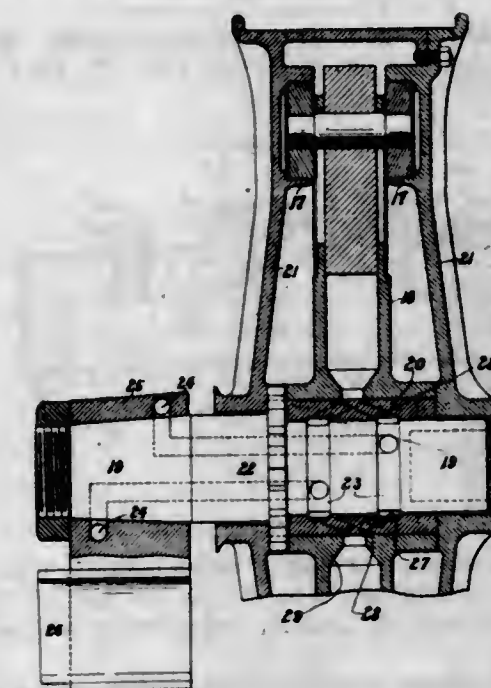
4. A pump or motor comprising a central valve, cylinders rotatable about said valve, pistons operating in said cylinders, a rotatable liquid tight stroke controlling drum inclosing the pistons and outer ends of the cylinders and adapted to contain lubricating oil, cam paths in the walls of said drum, devices carried by the pistons operating without definite attachment in said cam paths and means for varying the eccentricity of the drum substantially as specified.

5. A pump or motor comprising a central valve, cylinders rotatable about said valve, pistons operating in said cylinders, a stroke controlling liquid tight drum inclosing the pistons and outer ends of said cylinders and adapted to contain lubricating oil, bearings carrying said drum, an empty casing in the side walls of which said bearings are

slidably mounted and means for sliding said bearings and consequently said drum to vary the stroke of the pump or motor substantially as specified.

[Claims 6 to 15 not printed in the Gazette.]

1,077,980. HYDRAULIC TRANSMISSION APPARATUS. HENRY SELBY HELE-SHAW, London, England. Filed May 20, 1911. Serial No. 628,512. (Cl. 138—3.)



1. Hydraulic transmission apparatus comprising a central spindle, suction and delivery passages in said spindle, a pump supplying liquid to said delivery passage and receiving liquid from said suction passage, a cylinder structure contained within the rim of a motor wheel, pistons reciprocating in the cylinders, cam paths on either side of the cylinders and pistons, devices carried by the pistons coöperating with the cam paths and an outer revolving rim surrounding the cylinders and pistons substantially as specified.

2. Hydraulic transmission apparatus comprising a central spindle having liquid suction and delivery passages, a pump supplying liquid to the delivery passage and receiving liquid from the suction passages, a cylinder structure contained within the rim of a motor wheel, means for distributing the liquid from the pump to and from the cylinders through the delivery and suction passages of the axle, pistons reciprocating in the cylinders, cam paths on either side of the cylinders and pistons rotatable relative to said cylinders and pistons, devices carried by the pistons coöperating in the cam paths and an outer revolving rim surrounding the cylinders and pistons substantially as specified.

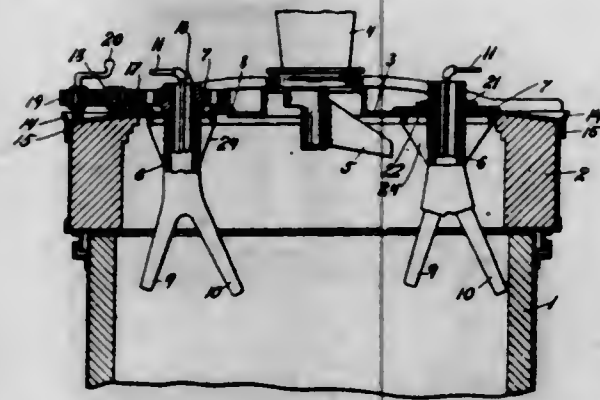
3. Hydraulic transmission apparatus comprising a fixed central spindle having passages for the influx and efflux of liquid to and from the cylinders, means for supplying pressure liquid to the influx passage, a fixed cylinder body having radial cylinders, a rotatable sleeve valve interposed between the central spindle and the cylinders, pistons reciprocating in the cylinders, a cam path rotatable in company with the sleeve valve, and devices carried by the pistons coöperating in the cam path substantially as specified.

4. Hydraulic transmission apparatus comprising a fixed central spindle having passages for the influx and efflux of liquid to and from the cylinders, means for supplying pressure liquid to the influx passage, a fixed cylinder body having radial cylinders, a rotatable sleeve valve interposed between the central spindle and the cylinders, pistons reciprocating in the cylinders, cam paths on either side of the cylinders and pistons rotatable in company with the sleeve valve, and devices carried by the pistons coöperating in the cam paths substantially as specified.

5. Hydraulic transmission apparatus comprising a central valve, means for supplying pressure liquid to said

valve, cylinders disposed radially relative to the valve, means for distributing liquid to and from said cylinders, pistons reciprocating in said cylinders, cam paths having a curvature constructed to give for any number of cylinders a uniform rate of revolution of the hydraulic motor for a uniform supply and discharge of the working liquid, and devices carried by the pistons cooperating in the cam paths, substantially as specified.

1,077,981. STIRRER FOR GAS-PRODUCERS. JAMES A. HERRICK, Newark, N. J. Filed Jan. 31, 1913. Serial No. 745,328. (Cl. 48-85.2.)

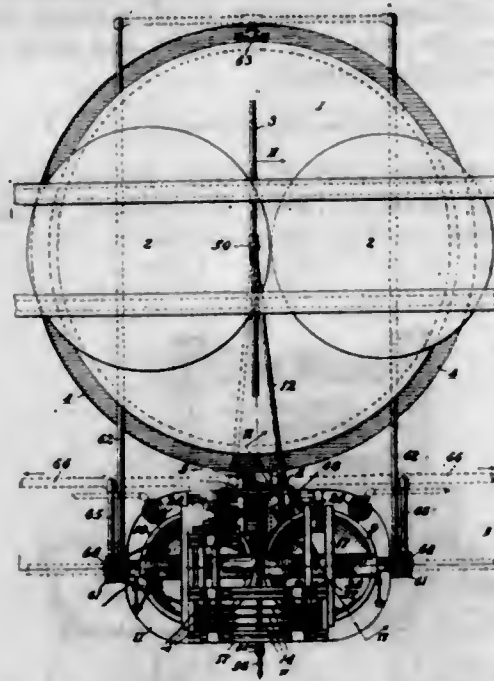


1. A gas producer having a cover portion, and a stirring member depending from the cover portion into the producer, said stirring member being bodily shiftable laterally.
2. A gas producer having a cover portion, and a stirring member depending from the cover into the producer and bodily movable vertically and horizontally with respect to the producer.
3. A gas producer having an opening in its cover portion, and a bifurcated stirring member adapted to be inserted through said opening and having a flanged part to rest upon the cover portion about the opening, said opening in the cover portion being of a size to permit of the bodily withdrawal therethrough of the bifurcated stirring member.
4. A gas producer having an opening in its cover portion, a stirring member bifurcated at one end and having a flanged part intermediate its ends adapted to rest upon the cover portion about the opening, and poker-actuating means detachably connected to the other end of the stirring member.
5. A gas producer having an opening in its cover and a stirring member of such a size that it is insertible and withdrawable through said opening, said stirring member being bifurcated at one end and having intermediate its ends a horizontal flange adapted to rest upon the cover about said opening, said horizontal flange having a depending annular flange and webs joining said depending flange with the stem of said stirring member, the other end of the stirring member beyond the horizontal flange being provided with means for actuating the stirring member.

1,077,982. APPARATUS FOR APPLYING ABRASIVES TO GRINDING-MACHINES. HALBERT K. HITCHCOCK, Tarentum, Pa. Filed May 17, 1912. Serial No. 697,863. (Cl. 51-11.)

1. Apparatus for applying abrading material to grinding and smoothing mechanism, comprising in combination, grinding mechanism, a plurality of movable grading vessels, and means arranged to bring said vessels successively into position to receive the abrading material and liquid coming from the grinding mechanism and to bring said vessels successively into position to discharge to the grinding mechanism.
2. Apparatus for applying abrading material to grinding and smoothing mechanism, comprising in combination, grinding mechanism, a pair of grading vessels, and means arranged to bring said vessels successively into position to receive the abrading material and liquid from the grinding mechanism and to discharge to the grinding mechanism,

said means being so arranged that when one of said vessels is in position to discharge to the grinding mechanism the other vessel is in position to receive the abrading material and liquid coming from the grinding mechanism.



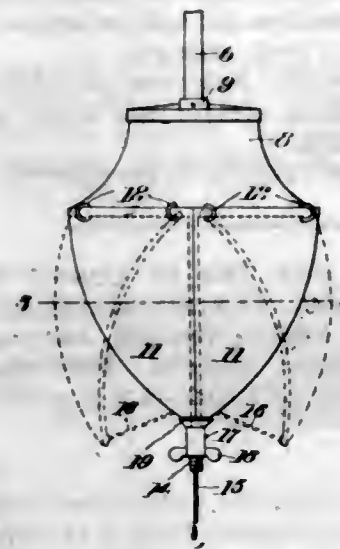
3. Apparatus for applying abrading material to grinding and smoothing mechanism, comprising in combination, grinding mechanism, a grading vessel, and mechanism for lowering said vessel to receive the abrading material and liquid coming from the grinding mechanism by gravity flow therinto and for then elevating said grading vessel to discharge to the grinding mechanism by gravity flow.
4. Apparatus for applying abrading material to grinding and smoothing mechanism, comprising in combination grinding mechanism, a pair of grading vessels mounted for vertical movement and connected so that when one is elevated the other is lowered, and mechanism for alternately reversing the positions of said grading vessels, the one in position to receive the abrading mixture coming from the grinding mechanism and the other to discharge to the grinding mechanism.
5. Apparatus for applying abrading material to grinding and smoothing mechanism, comprising in combination, grinding mechanism, a pair of grading vessels mounted for up and down movement, a conduit for conducting the abrading mixture from the grinding mechanism, an elevated conduit for conducting the abrading mixture to the grinding mechanism, and mechanism arranged to alternately raise and lower said grading vessels in succession to bring the lowermost one into position to receive the abrading mixture from the first named conduit and the elevated one of said vessels into position to discharge to the elevated conduit.

[Claims 6 to 19 not printed in the Gazette.]

1,077,983. LIGHTING-FIXTURE. WILLIAM P. HORN, Mount Vernon, N. Y. Filed June 3, 1913. Serial No. 771,447. (Cl. 240-100.)

1. A lighting fixture comprising a frame and a stem depending therefrom, a plurality of globe sections hinged at their upper ends to the frame and adapted to swing to open or closed position, and means extending from the stem and connected to the sections to draw the lower ends together, to close the globe.
2. A lighting fixture comprising a frame, a plurality of globe sections hinged at their upper ends to the frame and adapted to swing to open or closed position, and a pull cord having branches connected to the respective sections to draw the same together, to close the globe.
3. A lighting fixture comprising a top frame, a stem supported below the same, a plurality of globe sections hinged at their upper ends to said frame, and adapted to swing toward or from each other, and a clamping device mounted on the stem and movable to engage the lower ends of the sections and hold the same in closed position.

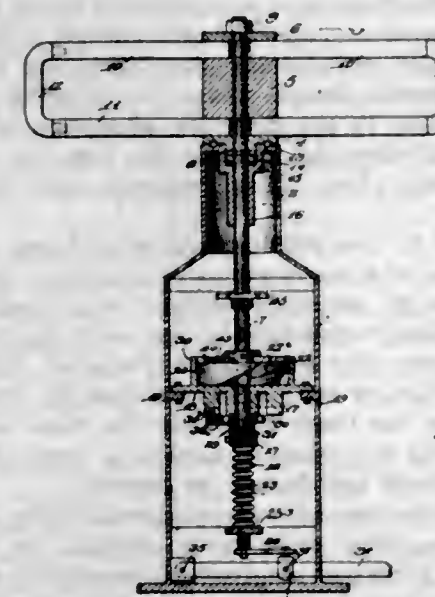
4. A lighting fixture comprising a top frame, a tubular stem supported below the same, a plurality of globe sections hinged at their upper ends to the frame, to swing toward or from each other, and a cord extending through the stem and connected to the respective sections to draw the same together.



5. A lighting fixture comprising a top frame, a threaded stem supported below the same, a plurality of globe sections hinged at their upper ends to the frame, to swing to or from each other, a clamping sleeve screwed on the stem and engageable with the lower ends of the sections to hold the same in closed position, and means extending through the stem and connected to the sections to draw them together.

[Claims 6 and 7 not printed in the Gazette.]

1,077,984. TURNSTILE. ANSON W. IRWIN, Rochester, N. Y. Filed Oct. 6, 1911. Serial No. 653,112. (Cl. 39-99.)

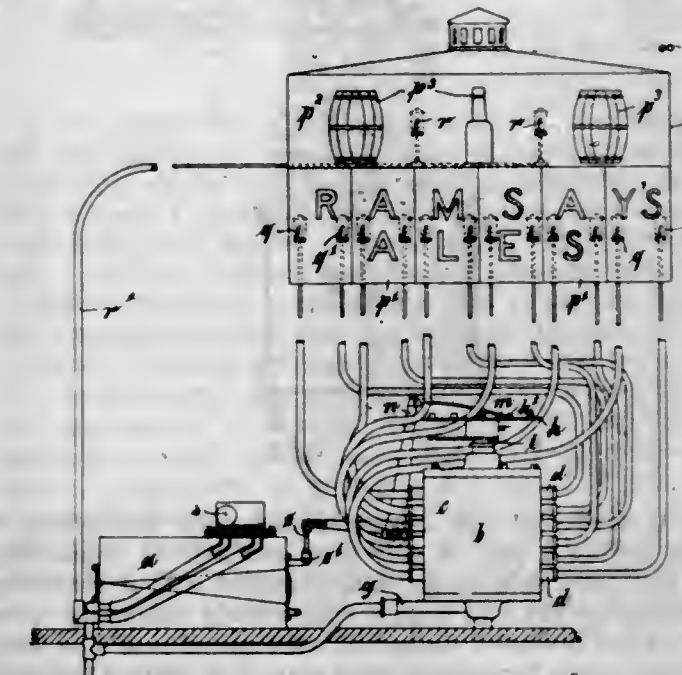


1. In a turnstile, the combination with a turnstile standard, of a head having a shaft turning in the standard, said head comprising a member secured to the shaft, a member fitting on the shaft, arms having their ends between said members, and means cooperating with the shaft for clamping said members on the arms.
2. In a turnstile, a head comprising two members, arms having portions lying between the members, and means for clamping said members on the arms.
3. In a turnstile, a head comprising three members, U-shaped arms having their ends secured between said members, and means for clamping said members on the arms.
4. In a turnstile, the combination with a standard, of a head comprising a shaft turning in the standard, three members fitted to the shaft, one being rigidly secured thereto, U-shaped arms having their ends secured between said members, and means cooperating with the shaft for clamping said members on the arms.

5. In a turnstile, the combination with a hollow standard having a bearing sleeve at the top thereof, of a head resting upon the upper end of the standard and having a shaft turning with and depending therefrom through the bearing sleeve into the standard, a plate supported in the standard and having the shaft turning therein, and a collar on the shaft below the plate to take up end thrust in the shaft.

[Claims 6 to 16 not printed in the Gazette.]

1,077,985. GAS-FLASH-LIGHT ADVERTISING DEVICE. THOMAS JACKSON, London, England, assignor to himself, and Allan Ramsay, Chesham, England. Filed Dec. 14, 1912. Serial No. 736,697. (Cl. 67-111.)

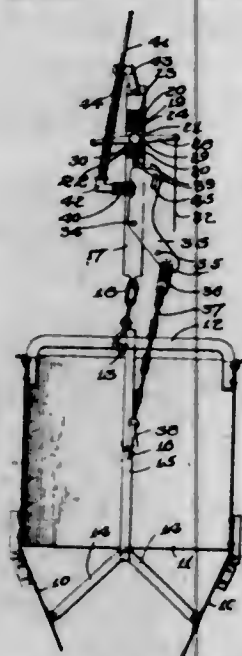


A rotary valve arrangement for gas flash light apparatus comprising a circular casing, a series of ports in the walls thereof for supplying gas to a series of burners, a series of circular elements of ring formation adapted to form a cylindrical structure, a port or ports formed in each element adapted to co-act with one of the series of ports in said casing, a shaft adapted to rotate in said casing and means for adjustably carrying said elements upon said shaft so that periodic flashing of the burners can be varied at will to suit varying circumstances substantially as described.

1,077,986. BUCKET-DUMPING DEVICE. JAMES WILLIAM JOHNSTON, Lockport, N. Y., assignor of one-half to Thomas A. Lowe, Lockport, N. Y. Filed Oct. 5, 1912. Serial No. 724,125. (Cl. 57-13.)

1. A dump bucket comprising a body portion, bottom plates hinged to said body portion, a handle, a vertical supporting bar, links pivotally connecting said supporting bar with said bottom plates, a frame, a plate pivotally carried by said frame, a cable connecting said frame with said handle, a rod pivotally connected with said plate to the opposite side of its pivot point from the cable carried thereby, an arm extending from said frame to guide said rod, a spring mounted upon said rod and abutting against said arm to normally hold said shaft in a raised position, and a latch carried by said frame and engaging said plate to releasably hold the same in a raised or lowered position.
2. A bucket having a handle, bottom plates hinged to said bucket, a frame connected with the handle of said bucket, a plate pivotally mounted in said frame, a supporting bar, links pivotally connecting said supporting bar with the bottom plates of said bucket, flexible means connecting one end of said plate with said supporting bar, resilient means for normally holding said plate in a position to hold said supporting bar in a raised position, and a latch carried by said frame and adapted to engage the ends of said plate for releasably holding said plate in a desired position.

3. A device of the character described comprising a frame, a plate pivotally mounted in said frame, an arm extending from one end portion of said plate, a guiding arm extending from one end of said frame, a rod pivotally connected with the arm of said plate and passing through said guiding arm, a spring carried by said rod and bearing against said guiding arm to hold said plate in a desired position, and a latch carried by said frame and adapted to engage said plate to normally prevent pivotal movement of said plate.



4. A device of the character described comprising a frame having a pair of side bars and a block connecting said side bars, said block being provided with a vertically extending pocket and with a transversely extending opening, a plate pivotally connected with one of said side bars, resilient means for holding said plate in a desired position, a latch slidably mounted in said pocket, a spring in said pocket for normally holding said latch in a position to engage said plate to prevent pivotal movement thereof, and a lever pivotally mounted in the opening of said block and passing through said latch to move said latch to release said plate.

5. A device of the character described comprising a frame having side bars and a block connecting said side bars, an angle plate pivotally mounted upon one of said side bars and provided with teeth in each end, resilient means for holding said plate in a desired position, a latch carried by said block and normally engaging said plate to prevent pivotal movement thereof, and means for raising said latch out of engagement with said plate.

[Claims 6 and 7 not printed in the Gazette.]

1,077,987. EMBROIDERY-HOOP. RUDOLPH H. KEAGY, Canton, Ohio. Filed Sept. 2, 1910. Serial No. 580,216. (Cl. 45—24.)



An embroidery hoop comprising a pair of telescopic rings each formed of sheet metal, said rings being embossed circumferentially at regular spaced intervals to form smooth incompressible projections on the operative face or faces, substantially as described.

1,077,988. ACETYLATION OF MONOCHLORHYDROCARBONS. WALTER E. MASLAND, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Oct. 19, 1912. Serial No. 726,803. (Cl. 23—24.)

1. The process which comprises acetylating a halogen derivative of hydrocarbon by an acetate and acetic acid of from 70% to 99% strength.

2. The process which comprises acetylating a chlorhydrocarbon by an acetate and acetic acid of from 70% to 99% strength.

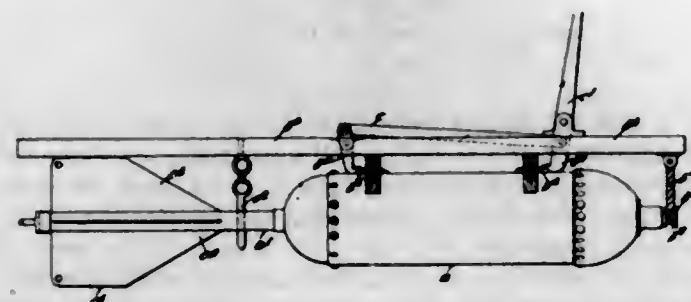
3. The process which comprises acetylating a chlorpentane by an acetate and acetic acid of from 70% to 99% strength.

4. The process which comprises acetylating a halogen derivative of hydrocarbon by sodium acetate and acetic acid of from 70% to 99% strength.

5. The process which comprises acetylating a chlorhydrocarbon by sodium acetate and acetic acid of from 70% to 99% strength.

[Claims 6 and 7 not printed in the Gazette.]

1,077,989. BOMB FOR USE IN CONNECTION WITH AEROPLANES OR FLYING-MACHINES. HIRAM STEVENS MAXIM, London, England, assignor to Vickers Limited, Westminster, England. Filed Mar. 25, 1912. Serial No. 686,001. (Cl. 102—2.)



1. In a bomb for use with aeroplanes or flying machines the combination of a main explosive charge, a detonating charge, means for securing the bomb with its axial line in the direction of motion of the machine and means whereby the bomb is caused to assume a vertical attitude after being released and during its descent.

2. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge, means for maintaining the detonating charge remote from the main charge, means for securing the bomb with its axial line in the direction of motion of the machine and a tail piece for causing the bomb to assume a vertical attitude after being released and during its descent.

3. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge adapted to gravitate toward said main charge, means for normally maintaining the said charges apart, hooks for securing the bomb with its axial line in the direction of motion of the machine, means for disengaging said hooks from the bomb to release the same and a tail piece for causing the bomb to assume a vertical attitude after being released and during its descent.

4. In a bomb for use with aeroplanes or flying machines, the combination of a main body portion, an explosive charge therein, a central longitudinal passage in said main body portion, a hollow extension on said main body portion, a detonating charge contained in said hollow extension, a pin for retaining said detonating charge in a position remote from the main charge until the bomb is liberated, hooks for securing the bomb with its axial line in the direction of motion of the machine, means for disengaging said hooks from the bomb to release the same, a firing pin in suitable relationship to the main charge and a tail piece whereby the bomb is caused to assume a vertical attitude after being released and during its descent.

5. In a bomb for use with aeroplanes or flying machines, the combination of a main body portion, an explosive charge therein, a central longitudinal passage in said main body portion, a hollow extension on said main body portion, a detonating charge contained in said hollow extension and capable of traversing the same, a pin for retaining said detonating charge in a position remote from the main charge until the bomb is liberated, catches for secur-

ing the bomb with its axial line in the direction of motion of the machine, mechanism for disengaging said catches from the bomb, a firing pin at the fore end of the bomb, means for retaining said pin in the inoperative position and a tail piece for causing the bomb to assume a vertical attitude after being released and during its descent.

1,077,990. BOMB FOR USE WITH AEROPLANES AND OTHER FLYING-MACHINES. HIRAM STEVENS MAXIM, London, England, assignor to Vickers Limited, Westminster, England. Filed Mar. 25, 1912. Serial No. 686,002. (Cl. 102—2.)



1. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge, and an impacting part located at a predetermined distance in advance of the bomb and operatively connected with the detonating charge, whereby the main charge is exploded at a predetermined distance above or from the ground, object or target after impact with the latter of the said impacting part.

2. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge, means for retarding the motion of the bomb during its descent, and an impacting part located at a predetermined distance in advance of the bomb and operatively connected with the detonating charge, whereby the main charge is exploded at a predetermined distance above or from the ground, object or target after impact with the latter of said impacting part.

3. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge, a parachute for retarding the motion of the bomb during its descent, and an impacting part located at a predetermined distance in advance of the bomb and operatively connected with the detonating charge, whereby the main charge is exploded at a predetermined distance above or from the ground, object or target after impact with the latter of the said impacting part.

4. In a bomb for use with aeroplanes or flying machines, the combination of a main explosive charge, a detonating charge capable of moving relatively to the main charge, and a pilot device for exploding said charges at a predetermined distance above or from the ground, object or target.

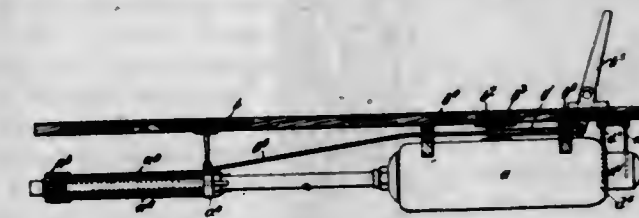
5. In a bomb for use with aeroplanes or flying machines, the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute for retarding the motion of the bomb during its descent and a pilot device for exploding said charges at a predetermined distance above or from the ground, object or target.

[Claims 6 to 12 not printed in the Gazette.]

1,077,991. FLYING-MACHINE BOMB. HIRAM STEVENS MAXIM, Streatham, London, England, assignor to Vickers Limited, Westminster, England. Original application filed Mar. 25, 1912, Serial No. 686,002. Divided and this application filed Feb. 18, 1913. Serial No. 749,289. (Cl. 102—2.)

1. In a bomb for use with aeroplanes or flying machines the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge into the operative position during the descent of the bomb, a parachute for retarding the motion of the bomb during its descent, a pilot device adapted to precede the bomb and an instantaneous or quick action fuse leading from said pilot device to the detonating charge.

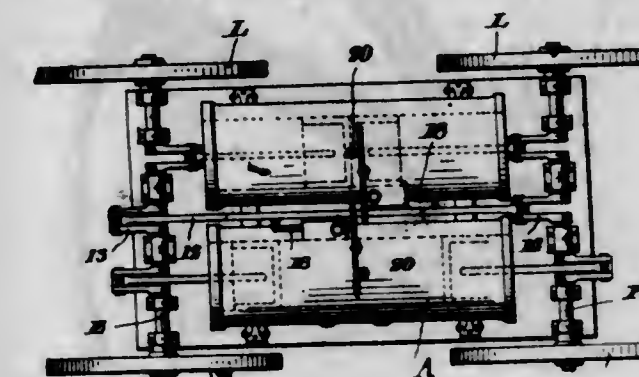
2. In a bomb for use with aeroplanes and flying machines the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute for retarding the motion of the bomb during its descent, a pilot device adapted to precede the bomb, an instantaneous or quick action fuse connected to the detonating charge and a firing means carried by said pilot device and adapted to ignite said fuse so as to explode the detonating and main charges.



3. In a bomb for use with aeroplanes or flying machines the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute for retarding the motion of the bomb during its descent, a firing device which when the bomb is released assumes a position in advance thereof and an instantaneous or quick action fuse extending between the detonating charge and the firing device and the continuity of which is interrupted until the bomb is released.

4. In a bomb for use with aeroplanes or flying machines the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute for retarding the motion of the bomb during its descent, a pilot device provided with a spring controlled firing pin, a bi-part instantaneous or quick action fuse extending between the detonating charge and the pilot device, a coupling for the two parts of said fuse and means for breaking the continuity of the fuse until the bomb is released.

1,077,992. INTERNAL-COMBUSTION ENGINE. JOHN JAMES McLEAN, Moose Jaw, Saskatchewan, Canada. Filed Apr. 4, 1913. Serial No. 758,963. (Cl. 123—51.)

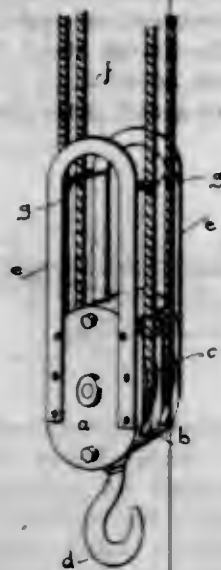


An internal combustion engine comprising cylinders open at both ends, two pistons in each of the cylinders movable from the center to opposite ends, two crank shafts, rods connecting the crank shafts with the pistons, means for supporting the crank shafts, a link, cranks on the crank shafts connected to the link and feeding pumps operatively connected to the link.

1,077,993. TACKLE-BLOCK. JAMES T. McMILLAN, Detroit, Mich. Filed May 24, 1913. Serial No. 769,577. (Cl. 57—34.)

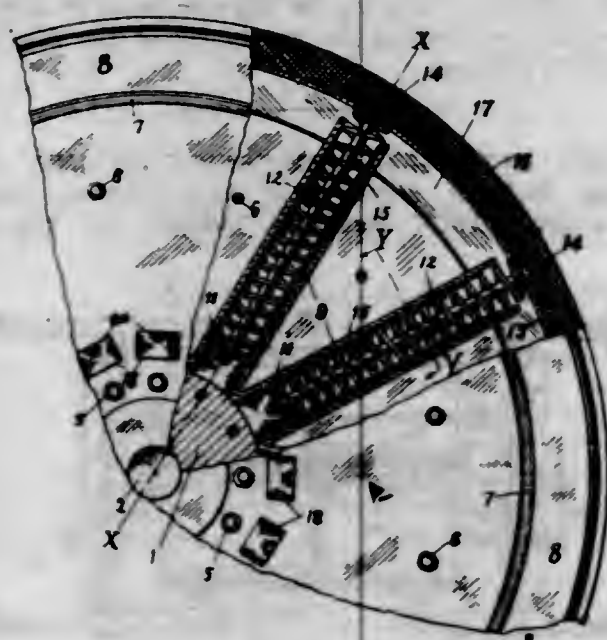
1. The combination with a tackle-block, provided with one or more sheaves, of a guide for each line passing over the tackle block, the guide being attached to the tackle-block and held in fixed relation therewith, each guide being sufficiently spaced from the block to exert a guiding influence upon the line at a somewhat spaced point from the tackle block so as to resist the tendency of the block to tip over and to reduce the liability of the block to twist the lines, substantially as described.

2. The combination of a tackle-block provided with one or more sheaves, of a bar for each line passing over the tackle-block screwed to the side of the tackle-block and extending beyond the block to a somewhat spaced point,



each bar being provided at such point with a guiding eye through which the line passes, whereby the tendency of the block to tip is resisted by the guides and the liability of twisting the lines is considerably reduced, substantially as described.

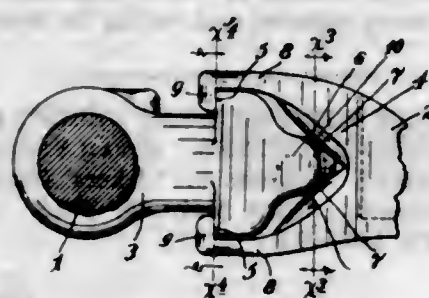
1,077,904. VEHICLE-WHEEL. WILLIAM A. MILAM, Dallas, Tex. Filed July 30, 1912. Serial No. 712,222. (Cl. 152-48.)



1. In a resilient wheel, a hub member, spoke members radiating from the hub member, springs mounted in the spoke members, a support in which the spoke members are disposed, annular yieldable members carried by the support on each side of the outer ends of the spoke members, a resilient annular band embracing the peripheries of the yieldable members and bearing on the outer ends of the springs and confined in the peripheral portion of the support, a connection between the spoke members and the resilient band, and a tread member surrounding the band circumferentially.

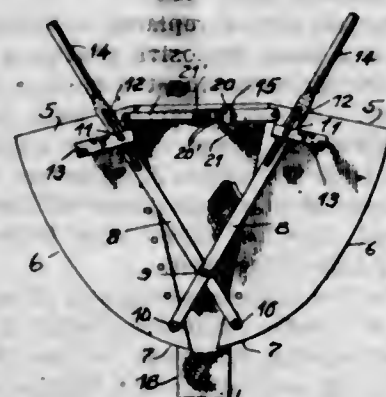
2. In a resilient vehicle wheel, a hub member, side plates in which the hub member is concentrically disposed, an annular channel formed at the outer peripheral portion of each plate, spoke members disposed between the side plates, springs mounted in the spoke members, cushion rings mounted in the channels on each side of the spoke members, an annular resilient metal band received by the channels and circumferentially embracing the cushion rings, and a tread member surrounding the metal band circumferentially and embracing the same within the channels.

1,077,995. BED-RAIL JOINT. EINAR J. OLSEN, Minneapolis, Minn., assignor of one-fourth to George Groschen, Minneapolis, Minn. Filed Mar. 29, 1911. Serial No. 617,545. (Cl. 5-55.)



The combination with a bed post and a bed rail, of inner and outer coupling heads, one on said post and the other on said rail, one of said coupling heads having a centrally located, horizontally flaring crotch and laterally spaced, inwardly projecting and vertically extended bearing flanges, said crotch having a pair of opposite, inwardly bulged bearing surfaces, and the other of said heads having a rib and being provided, on each side of said rib, with vertically extended bearing lugs that are engageable with the bearing flanges of the first noted head, said rib having bearing surfaces engageable only with the bulged bearing surfaces of said crotch and tending to draw the bearing flanges of the first noted head downward and onto the bearing lugs of the other of said heads, under increased load on said rail.

1,077,996. STOP FOR DITCHES. JAMES H. PATRICK, Pony, Mont., assignor, by direct and mesne assignments, of one-fourth to Jasper O. Jordan, Renova, Mont., and one-fourth to R. G. Hixson and one-fourth to C. M. Covert, Piedmont, Mont. Filed Dec. 16, 1912. Serial No. 737,046. (Cl. 137-66.)



1. In a water stop for ditches, a pair of plates having their outer edges inwardly curved to the bottom of the inner edges to form a resultant central point at the bottom of said plates, a flexible web connecting the plates, and means for spreading said plates.

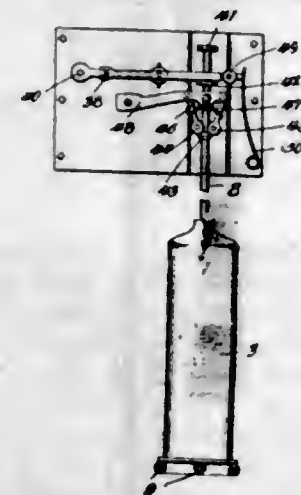
2. In a water stop for ditches, a pair of plates, a flexible wall having downwardly converging side edges secured at said edges to the inner sides of the respective plates, and means connected to the plates for spreading the same and stretching the web.

3. In a water stop for ditches, a pair of plates, a flexible web connecting the plates, and a pair of crossed hand levers pivotally connected adjacent their lower ends and having their extreme lower ends fulcrumed to the inner portions of the respective plates, the upper portions of the levers beyond their pivotal connection having pin and slot connections with the upper portions of the respective plates, whereby upon outward movement of the levers the upper portions of the plates will be spread farther than the lower portions.

4. In a water stop for ditches, a pair of plates having their outer edges inwardly curved to the bottom of the inner edges to form a resultant central point at the bottom of said plates, a flexible web connecting the plates, and means for spreading said plates.

5. In a water stop for ditches, a pair of plates having their outer edges inwardly curved to the bottom of the inner edges to form a resultant central point at the bottom of said plates, a flexible web having downwardly converging side edges secured at said edges to the inner sides of the respective plates.

1,077,997. AIR LIFT-PUMP. THEODORE PETERS, Ferdinand, Ind. Filed Feb. 7, 1913. Serial No. 746,849. (Cl. 103-8.)



1. An air lift pump including a compressed air container, a pair of water cylinders having inwardly opened flap valves at their lower ends, a discharge spout communicant with the said cylinders, a float carried within one of said cylinders and adapted for vertical movement in accordance with the rise and fall of water within said cylinder, a valve housing carried by said cylinders, said housing being divided into an exhaust chamber, a compressed air intake chamber, and a valve controlled chamber, each of said water cylinders being communicant with the said exhaust and intake chambers, a plurality of valve plugs mounted in operative relation to the exhaust and intake ports and means carried within the housing and automatically controlled by the said float for opening the intake port of the float cylinder and at the same time opening the exhaust port of the other cylinder and simultaneously with this operation closing the intake of the last mentioned cylinder and closing the exhaust port of the said float cylinder.

2. An air lift pump including a pair of water cylinders having inwardly opening flap valves in their lower ends, a discharge spout communicant with the said cylinders, a float mounted within one of said cylinders for vertical movement with the rise and fall of the water within the intake cylinder, a valve housing carried by said cylinder, said housing being provided with exhaust and intake chambers, a pipe carried by each cylinder, each of said pipes being individually communicant with both the exhaust and intake chamber, a plurality of valve plugs mounted for engagement with the said exhaust and intake openings of said cylinder pipes and means for automatically controlling the operation of said valve plugs, said means including a valve spindle rotatably mounted within the said housing, a pair of valve arms keyed to the said spindle, one of said arms being disposed in the exhaust chamber, the other of said arms being mounted within the intake cylinder, the said valve plugs being carried by the said valve arms, a pivotally mounted lever arm carried within the casing and operatively connected to the said valve spindle and means carried by the said float and adapted for engagement with the said pivotally mounted arm for automatically controlling the rotation of the valve spindle and consequent movement of the valve plugs.

3. An air lift pump including a pair of water cylinders, a discharge spout communicant with the said cylinders and means for automatically effecting the air intake and exhaust of one cylinder in alternate relation to the air intake and exhaust of the other cylinder, said means in-

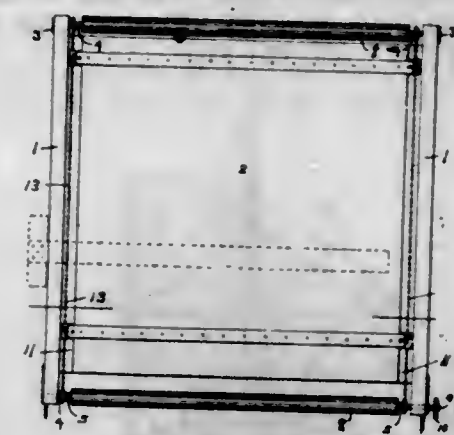
cluding a plurality of valve plugs, a rotatably mounted valve spindle, a plurality of valve arms whereon are mounted the said valve plugs, an operating arm keyed to said valve spindle and pivotally connected to a lever arm carried within the chamber, a pair of co-acting pivotally mounted spring controlled retaining rollers carried by said lever arm, a float mounted for vertical movement within one of the said cylinders with the rise and fall of the water within the cylinder, an upwardly projecting trip rod carried by said float, a pair of spaced lever arm engaging collars mounted on said trip rod and a roller engaging collar secured to said trip rod for preventing the upward-movement of the float beyond a fixed point until the water pressure within the float cylinder has reached a predetermined point.

4. An air lift pump comprising in combination, a pair of water cylinders communicating with a source of supply of water, each cylinder having an air pressure intake and an exhaust, rocking levers mounted upon a single pivot and one lever being provided with means for controlling the air intakes and the other lever being provided with means for controlling the air exhausts, and a float in one cylinder for rocking said levers to alternately close air exhausts and intakes of said cylinder, substantially as described.

5. An air lift pump comprising in combination, a pair of water cylinders communicating with a source of supply of water and each having an air intake and exhaust, rocking levers mounted upon a single pivot and one lever having means for controlling the exhausts and the other lever having means for controlling the intakes, a spring controlled arm for rocking said levers, and a float in one of said cylinders for rocking said arm, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,077,998. DRAFTING-TABLE. CARL W. PURKEY, Detroit, Mich. Filed Feb. 10, 1913. Serial No. 747,284. (Cl. 33-15.)



1. In a drafting table, the combination of a flat structure, rollers and chain wheels mounted adjacent the ends of the flat structure, a pair of chains extending around said chain wheels, and adjustable paper holders extending across the board and connected to the chains.

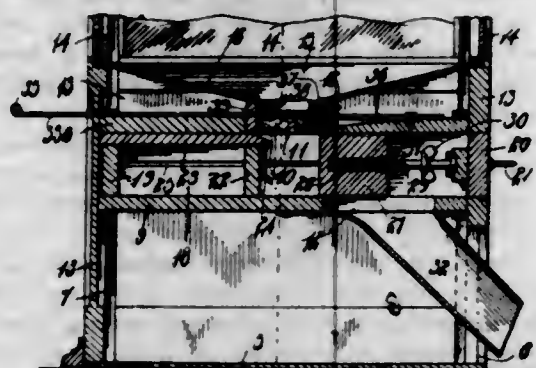
2. In a drafting table, the combination of parallel side members and a board extending between them, rollers and chain wheels mounted adjacent the ends of the side members, a pair of chains extending around said chain wheels, and two paper holders each formed of two thin plates extending across the board and connected to the chains.

3. In a drafting table, the combination of parallel side members and a board extending between them, rollers and chain wheels mounted adjacent the ends of the side members, a pair of chains extending around said chain wheels, and two paper holders extending across the board and connected to the chains, each formed of two thin strips of metal, one of the strips having perforations and the other strip formed with teeth extending into said perforations.

4. In a drafting table, the combination of grooved parallel side members and a board extending between them, a roller mounted adjacent one of the ends of the board and having a chain wheel at each end, a second

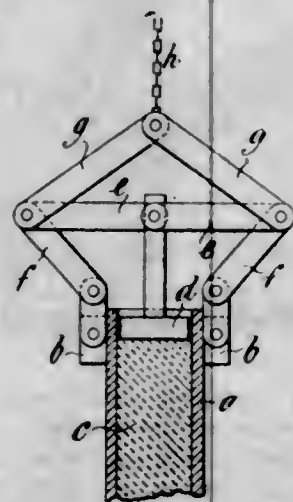
roller adjustably mounted adjacent the other end of the board and having a chain wheel at each end, chains extending around said wheels parallel to each other and to the side members, and paper holders extending across the board and adjustably secured at their ends to said chains.

1,077,999. MEASURING-CABINET. FORREST P. REES, Huntington, Ind. Filed Dec. 27, 1912. Serial No. 738,905. (Cl. 73-134.)



A measuring cabinet including a top, a base, inclosing walls, horizontal partitions formed with offset openings, a hopper supported above the upper partition and communicating with the opening thereof, packing strips secured within the opening of the hopper, a measuring device slidably mounted between the partitions, said device comprising a bottomless drawer having a transverse partition centrally secured to the side walls thereof, a top secured to the rear portions of the side walls, a block slidably mounted within the forward portion of the drawer, a screw having one end rotatably mounted in the front wall of the drawer, the threaded end of the screw being engaged in the block, and an operating means carried by the screw between the block and said front wall.

1,078,000. CONCRETE PILE. THOMAS WILLIAM RIDLEY, Middlesbrough, England. Filed Apr. 19, 1913. Serial No. 762,362. (Cl. 72-81.)



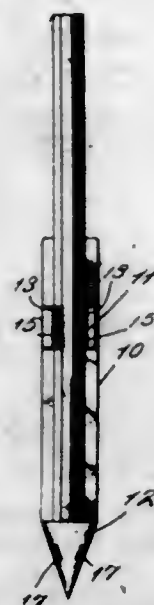
1. The combination with a preparatory pile of a rammer, a lifting chain and toggle link connections between the chain, the pile and the rammer, whereby the rammer is operated when the chain is raised before the pile is lifted.

2. The combination with a preparatory pile of a rammer, a lifting chain, toggle link connections between the chain and the pile, and toggle link connections between the rammer and said first mentioned links, whereby the rammer is operated when the chain is raised before the pile is lifted.

3. The combination with a preparatory pile of a rammer, a lifting chain, expansible and contractible toggle link connections between the chain and the pile, and expansible and contractible toggle link connections between the rammer and said first mentioned links, whereby the rammer is operated when the chain is raised before the pile is lifted.

4. The combination of a preparatory pile, a rammer, a lifting chain, two pairs of links the links of each pair being pivoted together at one end while their other ends are pivoted respectively to the preparatory pile and the lifting chain, and a third pair of links their ends being pivoted to the rammer and to the pivots connecting the links of the first pairs.

1,078,001. PEN AND PENCIL HOLDER. FREDERICK W. SCHNEEMAN, New York, N. Y. Filed Feb. 8, 1911. Serial No. 607,248. (Cl. 24-10.)



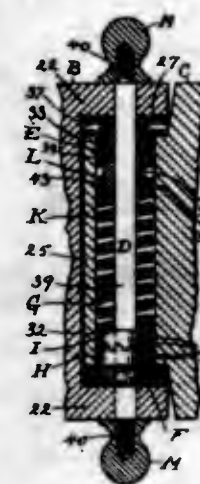
1. As an improved article of manufacture, a sheet metal blank for an integral pencil clip and point protector to be attached to apparel, comprising an elongated body portion having oppositely extended arms adapted to be bent forwardly to form a pencil holding means, the body having at one end spaced from the arms a lateral extension in the form of the segment of a disk having its center on the medial line of the body portion, the outer radial edge thereof forming an end edge of the blank and being adapted to be bent inwardly over the blank with said outer edge abutting the edge portion of the blank opposite the base of the extension to form a conical pocket, a plurality of pairs of slits being formed in the extension, the material between the slits of each pair extending radially of the center of the segment and being adapted to be pressed upwardly in the form of a bow and to form point fenders and pencil supports within the pocket.

2. A device of the class described, comprising an elongated body of sheet metal having integral spring arms formed at opposite sides and shaped to clasp a pencil, an integral extension at one side of the body at one end, bent inwardly thereover to form a conical pocket, the extension having pairs of slits therein and the material between the slits of each pair being bowed inwardly to form pencil supports and extending in the mean direction of respective elements of the conic surface of the pocket and being uniformly spaced from the apex thereof, and support means for the device.

1,078,002. HINGE. FREDERICK SCHREY, New Rochelle, N. Y. Filed Sept. 18, 1911. Serial No. 649,973. (Cl. 16-111.)

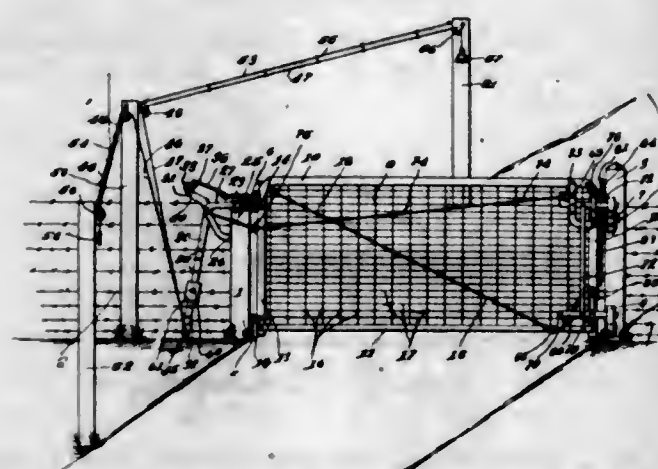
1. A hinge comprising a pair of leaves connected together by a joint comprising a pair of jaws held in engagement by a spring, means of adjustment of the said spring comprising a pair of adjusting members respectively an inner member and an outer member engaged one with the other by a screw thread, the outer of the said adjusting members accessible and having means for being turned for purpose of adjustment, and the inner of the said adjusting members provided with means for preventing rotative motion thereof and permitting of movement axially in response to a turning movement of the said outer ad-

justing member comprising a square shaft engaged with an axial hole in the said inner adjusting member.



2. A hinge comprising a leaf having a pair of end knuckles provided with square holes in axial alignment and a square shaft rigidly secured therein, and a second leaf provided with an intermediate knuckle having an axial chamber surrounding the said shaft, and separated at one end from one of the said end knuckles by an annular adjusting head, a pair of locking members having coacting jaws at the other end of the said chamber, one being fixed to the said intermediate knuckle and free to turn on the said shaft, and the other free to turn in the said chamber and a fit for and free to slide along the said shaft, a sliding adjusting member having a hole fitting and surrounding the said shaft, and provided with screw thread engagement with the said adjusting head, and a spring surrounding the said shaft and engaged by its ends with the said other locking member on one end and the said sliding adjusting member on the other end.

1,078,003. GATE. CLEO F. SCHURR, St. George, Kans. Filed May 10, 1913. Serial No. 766,794. (Cl. 39-14.)



1. In combination with a swinging gate provided at its hinged end with a segment plate provided with a segmental slot including a shoulder at each end, and a mechanism including a device working idly in said slot upon the initial actuation of said mechanism, said mechanism including a gravity actuating member to cause said device to engage one or the other of said shoulders to open the gate, and a latch mechanism on the gate having connections with said mechanism and adapted to be actuated upon the initial actuation of said mechanism.

2. In combination with a swinging gate provided at its hinged end with a segment plate provided with a segmental slot including a shoulder at each end, and a mechanism including a device working idly in said slot upon the initial actuation of said mechanism, said mechanism including a gravity actuating member to cause said device to engage one or the other of said shoulders to open the gate, and a latch mechanism on the gate having connections with said mechanism and adapted to be actuated

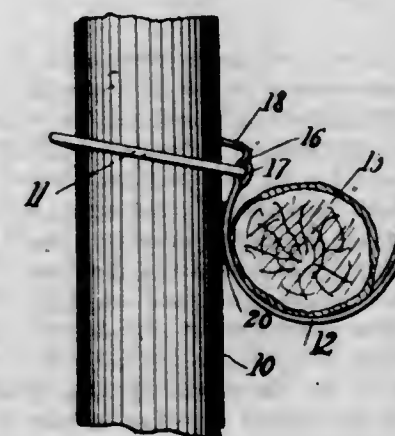
upon the initial actuation of said mechanism, and means for holding the latch mechanism actuated while the gate is open.

3. In combination with a swinging gate provided at its hinged end with a segment plate provided with a segmental slot including a shoulder at each end, and a mechanism including a device working idly in said slot upon the initial actuation of said mechanism, said mechanism including a gravity actuating member to cause said device to engage one or the other of said shoulders to open the gate, and a latch mechanism on the gate having connections with said mechanism and adapted to be actuated upon the initial actuation of said mechanism, and means for holding the latch mechanism actuated while the gate is open, and an element upon the latch post to trip said last named means to release the latch mechanism as the gate reaches the closed position.

4. In combination with a swinging gate provided at its hinged end with a segment plate provided with a segmental slot including a shoulder at each end, and a mechanism including a device working idly in said slot upon the initial actuation of said mechanism, said mechanism including a gravity actuating member to cause said device to engage one or the other of said shoulders to open the gate, and means whereby said gravity actuating member can be adjusted to increase or decrease the swinging action of the gate upon opening the same.

5. In combination with a swinging gate provided at its hinged end with a segment plate provided with a segmental slot including a shoulder at each end, and a mechanism including a device working idly in said slot upon the initial actuation of said mechanism, said mechanism including a gravity actuating member to cause said device to engage one or the other of said shoulders to open the gate, and means whereby said gravity actuating member can be adjusted to increase or decrease the swinging action of the gate upon opening the same, and a latch mechanism on the gate having connections with said mechanism and adapted to be actuated by the initial actuation of said first mechanism.

1,078,004. TREE-PROP. WINFRED P. SHEPHERD, Riverside, Cal., assignor to Geo. D. Parker, Riverside, Cal. Filed Feb. 16, 1912. Serial No. 678,064. (Cl. 47-31.)



1. In a device of the class described, the combination with an anchor yoke formed of wire comprising a bight portion and arms adapted to embrace a pole, the ends of the arms being recurved to form pole engaging spurs; of a sheet metal bracket hook having a loop portion formed therein at one end and engaged revolvably with the bight of said yoke, the hook being so formed as to present a cam portion toward a pole engaged with the yoke, for embedding said spurs in the pole under application of weight to the hook.

2. In an adjustable bracket for tree props, the combination with a wire anchor yoke adapted for engagement with a prop and having a rectilinear bight, of a sheet metal limb engaging hook having a rounded central portion adapted to engage a limb for support thereof without abrasion, and having longitudinal slits adjacent one

end, parts of the metal of the hook intermediately of and laterally adjacent the slits being respectively bowed outwardly and inwardly, the said bight being engaged through the slits and held revolvably between the opposed bowed portions of the hook.

3. A device of the class described comprising a pole engaging yoke adapted for free sliding movement over a pole, and a limb supporting bracket element pivoted thereon and adapted to lie within the yoke at times, said bracket being formed for nesting in a similar one with the yokes in superposed relation therearound.

4. A device of the class described comprising a pole engaging yoke adapted to slidably embrace a pole and having inwardly directed spurs adapted to engage a pole therewithin when forced thereagainst, a bracket hook pivoted on the yoke opposite the spurs and in the direction of their points, said hook having a cam portion adapted to engage a pole under application of weight to the hook to draw upon the yoke to embed the spurs in the pole, and tooth elements on the cam portion directed toward the pivot whereby the yoke will be forced into diagonal position on the pole.

1,078,005. WATERING-CAN. STEPHEN CHAMBERS SKANKS, Toronto, Ontario, Canada. Filed Dec. 23, 1912. Serial No. 738,313. (Cl. 137-62.)

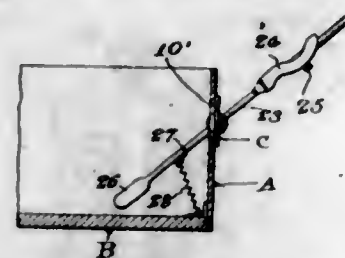


In a device of the character described, in combination, a can, trunnions secured to the can, a pole formed in sections, each section having at one end a socket and being at its other end adapted to be received by the corresponding socket of another section secured thereto by a pin, a forked portion at the end of said pole, said forked portion terminating at its forked ends in hinged caps adapted to form in their closed position journals for receiving the aforesaid trunnions, and each of said caps being provided at its side remote from the hinge, with a spring having an orifice adapted to engage with a pin on the forked portion of the pole, said spring being adapted to lock the cap in its closed position, a pin secured to the lower portion of the can, said pin being adapted to engage with a pin secured to the inner side of the forked portion of the pole, and act as a stop, limiting the pivotal movement of said can on its trunnions, a cord secured to the bottom of the can and adapted to extend downwardly along the side of the pole and also adapted to control the pivotal motion of said can.

1,078,006. WHIP-SOCKET. WILLIAM F. SKEEN and HARLEY L. MCNICOL, Hillsboro, Ohio. Filed May 28, 1912. Serial No. 700,277. (Cl. 21-129.)

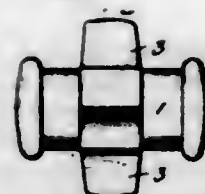
A whip socket comprising a plate provided with means for securing same to a vehicle body and having an opening therein, a member rotatably mounted in said opening on a fixed axis and having an opening therein, and a rod pivotally mounted on a fixed pivot in the opening of said

member for movement in a plane at right angles to the direction of rotation of the member, said rod having its



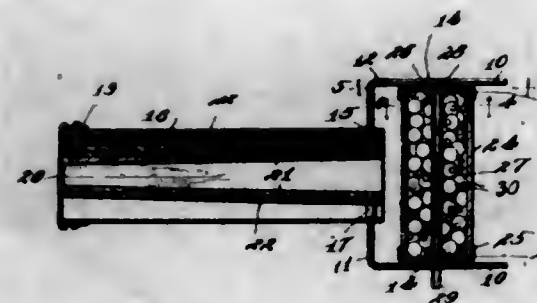
ends disposed in opposite sides of the plate and terminating respectively in a whip socket and a gripping handle.

1,078,007. TIE FOR CONCRETE MOLDS OR FORMS. OTTOMAR STANGE, Aspinwall, Pa. Filed May 20, 1912. Serial No. 700,504. (Cl. 85-32.)



A coupling adapted to be embedded in a plastic wall during the erection of the same comprising a body provided with a longitudinal bore threaded at its ends, the intermediate portion of the periphery of the body consisting of a continuous series of angularly disposed faces, the ends of the body being circular in elevation and of greater diameter than the said intermediate portion of the body, whereby the threaded end portions of the coupling are strengthened, the body being provided at the opposite sides of its intermediate portion and between the said end portions with radially disposed wings extending beyond the diameter of the end portions, said wings being relatively broad and thin and having their broad sides disposed longitudinally of the body and their thin sides transversely thereof.

1,078,008. KALEIDOSCOPE. TURNEY G. STOUGH, Jeanette, Pa. Filed Dec. 23, 1912. Serial No. 738,221. (Cl. 88-15.)



1. In a kaleidoscope, revolvable mirrors, and a transparent revolvable object-holder, the axes of rotation of the object-holder being at right angles to the axis of rotation of the mirrors.

2. In a kaleidoscope, an observation tube, and an object holder, said holder being rotatable on its own axis, the axis of rotation extending at substantially right angles to the axis of the tube.

3. An object-holder for kaleidoscopes comprising a transparent open-ended cylinder rotatable on its own axis, end caps for closing the ends of the cylinder, and a support passing through the end caps and cylinder and rotatable with the end caps.

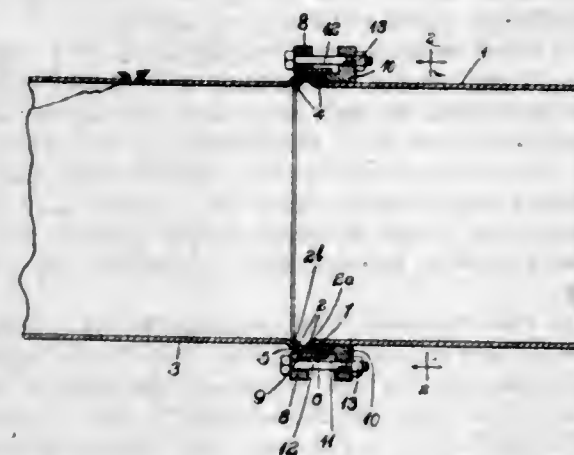
4. In a kaleidoscope, a supporting frame, an observation tube rotatably-mounted in the frame, mirrors carried by said tube and rotatable therewith, and a rotatable object-holder mounted in the frame, the tube and object-holder being rotatable on axes at right angles to each other.

5. In a kaleidoscope, a supporting frame having parallel walls and a connecting wall at right angles to the parallel walls, mirrors revolvably-mounted in the connecting wall,

and an object-holder revolvably-mounted in the parallel walls, the axes of the mirrors and the object holder being angular to each other.

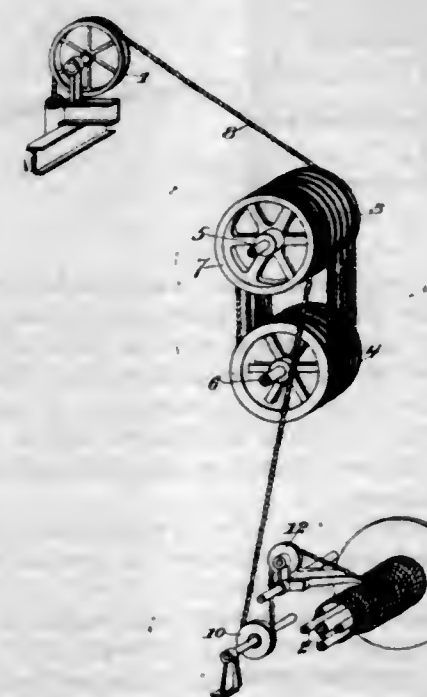
[Claims 6 to 9 not printed in the Gazette.]

1,078,009. PIPE-COUPLING. JAMES HALL TAYLOR, Chicago, Ill. Filed Nov. 22, 1909. Serial No. 529,275. (Cl. 137-28.)



In a pipe coupling, in combination, a pipe section enlarged at the end to form an oblique shoulder and a socket of otherwise uniform diameter, a second pipe section having a V-shaped bead at the end thereof and having this end disposed in said socket so that one face of said bead will lie against said oblique shoulder, a clamping member disposed on the outside of said last-named section and extending into said socket in alignment with said bead, the face of the entering portion of said clamping member and the other face of said bead being of substantially the same width measured at right angles to the axis of the pipe, and means for mechanically connecting said clamping member to said first-named section.

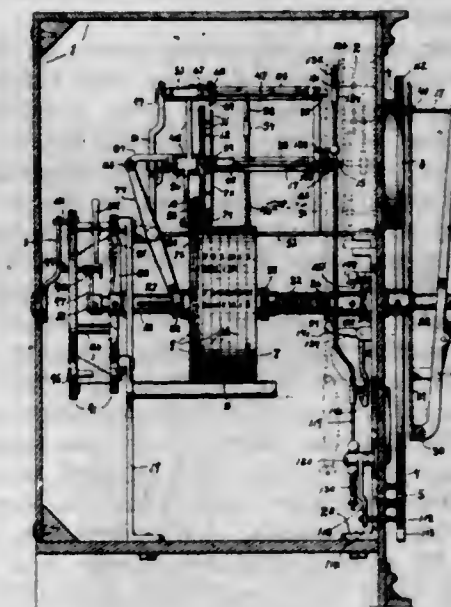
1,078,010. ROPE-LAYING MACHINE. WILLIAM L. TOBEY, Winthrop, Mass. Filed Mar. 21, 1911. Serial No. 615,941. (Cl. 28-21.)



In a rope laying machine, a tension device located between the laying head and the receiving drum for the finished rope, consisting of two multiple sheaves mounted on parallel axes to receive a plurality of coils of rope, each coil surrounding both sheaves, combined with a capstan connected and rotatable with one of said sheaves, said capstan having a tapered rope-receiving surface, to receive one or more coils of rope after the rope leaves the other sheave.

196 O. G.—20

1,078,011. TIME-RECORDING MACHINE. CHARLES E. TOMLINSON, Syracuse, N. Y., assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed May 10, 1911. Serial No. 626,224. (Cl. 234-46.)



1. In a time recorder, a printing couple including a support for a record receiving element, and an imprint making element, one member of the couple having movement relative to the other for determining the position of the imprint on the record receiving element, and one member having relative movement toward the other for making the imprint, a manual, non-clock controlled mechanical means actuated by the manual for effecting the first-named relative movement, a second manual, and means operated by the second manual for effecting the second-named relative movement, the first-named means controlling the operation of the second-named means, substantially as and for the purpose described.

2. In a time recorder, a printing couple including a support for a record receiving element, and an imprint making element, one member of the couple having movement relative to the other for determining the position of the imprint, and one member having relative movement toward the other for making the imprint, a manual, means operated by the manual for effecting the first-named relative movement, a second manual, and means operated by the second manual for effecting the second-named relative movement, the last-named means being normally out of actuating position, and means associated with the first-named means for moving the second-named means into actuating position, substantially as and for the purpose specified.

3. In a time recorder, a printing couple including a support for a record receiving element, and an imprint making element, one member of the couple having movement relative to the other for determining the position of the imprint and one member having relative movement toward the other for making the imprint, a manual, means operated by the manual for effecting the first-named relative movement, a second manual, means operated by the second manual for effecting the second-named relative movement, the last-named means being normally out of actuating position, and means associated with the first-named means for moving the second-named means into actuating position at the end of the positioning movement, substantially as and for the purpose set forth.

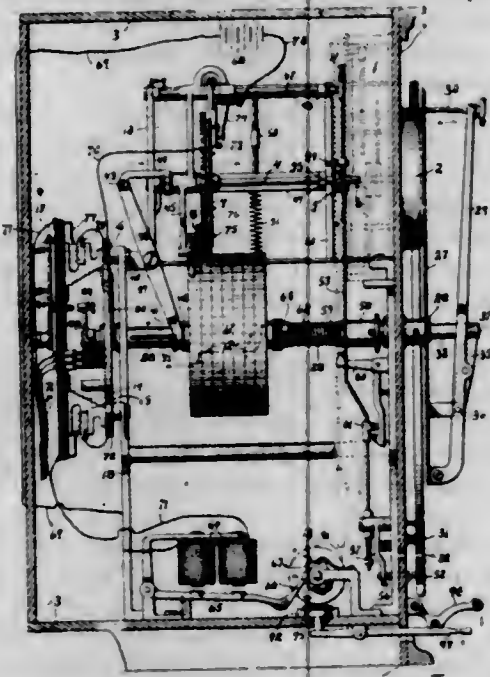
4. In a time recorder, a printing couple including a support for a record receiving element, and an imprint making element, the members of the couple having relative movement in one direction for bringing a desired space on the record receiving element and the imprint making element into registration and having movement in a second direction for bringing a desired section of said space and the imprint making element into registration and in a third direction for bringing the imprint making element and the record receiving element in contact with each other, a handle and associated mechanisms for effect-

ing the first two relative movements, a second handle and associated mechanisms for effecting the third relative movement, and means for preventing effective operation of said second handle and associated mechanism until after the completion of the positioning movements by the first handle and associated mechanisms, substantially as and for the purpose described.

5. In a time recorder, a printing couple including a support for a record receiving element, and a type carrying element, the support and the type carrying element having relative movement in one direction for bringing a desired space on the record receiving element into registration with the type carrying element, and having movement in a second direction for bringing a desired section of said space into registration with the type carrying element, and a third direction for bringing the type carrying element into contact with the record receiving element for making an impression thereon, a handle and associated mechanisms for effecting the first two relative movements, a second handle and associated mechanisms for effecting the third relative movement, means for preventing effective operation of said second handle and associated mechanism until after the completion of the positioning movements, and means for preventing the return of said first-named handle and associated mechanism to their initial positions until after the operation of the said second-named handle and associated mechanism, substantially as and for the purpose specified.

[Claims 6 to 77 not printed in the Gazette.]

1,078,012. TIME-RECORDER. CHARLES E. TOMLINSON, Syracuse, N. Y., assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Feb. 20, 1912. Serial No. 678,824. (Cl. 234-46.)



1. In a time recorder, the combination of a time actuated element, elapsed time computing means comprising members individual to the workman, and means for selecting and connecting the member of any one workman into and out of operative relation with the time actuated element, the last-mentioned means comprising a circular series of parts paired respectively with said members, and means arranged coaxially with said parts for selecting and shifting the same, substantially as and for the purpose described.

2. In a time recorder, the combination of a time actuated element, elapsed time computing means comprising members individual to the workman, and controlled by the first-mentioned element, parts arranged in circular series and paired with said members and operable to connect said members into, or disconnect the same out of, operative relation with the time actuated element, said parts being shiftable radially relatively to their axis, and means arranged coaxially with said series of parts and being ro-

tatable and shiftable axially to select and operate a predetermined part, substantially as and for the purpose specified.

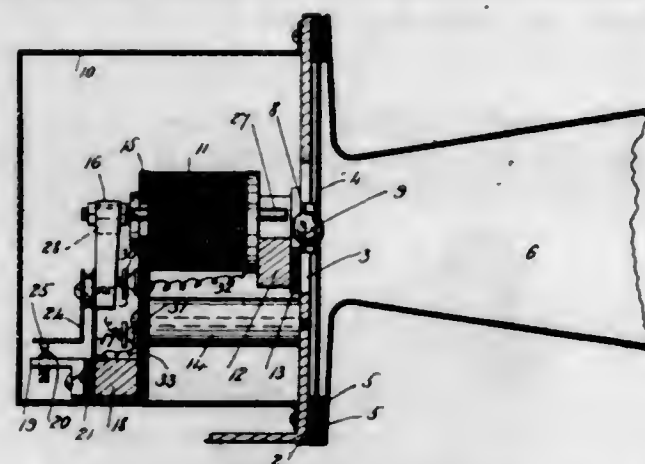
3. In a time recorder, the combination of a time actuated element, an elapsed time computing means comprising electrically operated members individual to each workman, an electric circuit having branches connected respectively to the electrically operated members, circuit opening and closing devices in the branches respectively, means common to all of said devices for selecting a predetermined device and opening or closing the same, substantially as and for the purpose set forth.

4. In a time recorder, the combination of an elapsed time computing means comprising electrically operated members individual to each workman, an electric circuit having branches connected respectively to the electrically operated members, circuit opening and closing devices in the branches respectively, means for opening and closing said devices, and a time operated circuit closer in the main line of such circuit, substantially as and for the purpose described.

5. In a time recorder, the combination of an elapsed time computing means comprising electrically operated members individual to the workman, an electric circuit having branches connected respectively to the electrically operated members, circuit opening and closing devices located in the branches respectively and arranged in circular series, and means arranged concentric with the circular series of devices and movable about its axis to select a predetermined device and movable axially to open or close the selected device, substantially as and for the purpose set forth.

[Claims 6 to 20 not printed in the Gazette.]

1,078,013. ELECTRIC HORN. CHARLES F. TOWNSEN, Mitchell, S. D. Filed Feb. 25, 1913. Serial No. 750,604. (Cl. 177-7.)



1. In an electric horn, the combination, with a diaphragm provided with a hole, and a bracket secured to the diaphragm and also provided with a hole; of a ball arranged between the diaphragm and bracket with its opposite side portions projecting through their holes, a taper bar, and electric operating mechanism which causes the taper bar to strike endwise on the ball and thereby vibrate the diaphragm.

2. In an electric horn, the combination, with a diaphragm provided with a hole, and a bracket secured to the diaphragm and also provided with a hole; of a ball arranged between the diaphragm and bracket with its opposite side portions projecting through their holes, an electro-magnet provided with an armature having a slot, and a taper bar secured in the slot and adjustable to different positions therein with respect to the ball and adapted to strike endwise upon the ball.

3. In an electric horn, the combination, with a diaphragm, of a stationary support for the diaphragm, an electro-magnet secured to the said support, an insulated leaf spring secured to said support, an armature carried by the leaf spring and free to vibrate, a taper bar carried by the armature and operating to vibrate the diaphragm, a stationary insulated contact-piece secured to

the said support, and an angle-shaped contact-spring having one end portion secured to the armature and having its other end portion arranged opposite the stationary contact-piece.

1,078,014. ART OF TREATING COAL-GASES. CHARLES G. TURTS, Syracuse, N. Y., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of Pennsylvania. Filed Apr. 19, 1912. Serial No. 691,977. (Cl. 23-21.)

1. The process of treating coal gases to separate and recover their constituents of value, which consists in first removing the fixed ammonia salts in solution and the heavier tar constituents without absorption of the free ammonia, then freeing the gas from tar and converting the free ammonia into ammonium sulfate and subsequently removing the naphthalene in crystalline form.

2. The process of treating coal gases to separate and recover their constituents of value which consists in first washing the gas with water in such excess and at such temperature as to remove the fixed ammonia salts in solution with a portion of the tar without absorption of the free ammonia or decomposition of naphthalene, then completing the separation of the tar from the gas and converting the free ammonia into ammonium sulfate while maintaining a temperature above that at which naphthalene will deposit and subsequently removing the naphthalene from the gas in crystalline form.

3. The process of treating coal gases to separate and recover their constituents of value which consists in first removing the fixed ammonia salts in solution with a portion of the tar without absorption of the free ammonia, then completing the separation of the tar from the gas and converting the free ammonia into ammonium sulfate, meanwhile keeping the gas at such temperature as to prevent the deposition of naphthalene and subsequently removing the naphthalene from the gas by washing the gas with a cold liquid in which naphthalene is insoluble or only slightly soluble.

4. The process of treating coal gases to separate and recover their constituents of value which consists in first washing the gas with excess of water at a temperature of approximately from 60° C. to 70° C. so as to remove the fixed ammonia salts in solution with a portion of the tar without absorption of the free ammonia, then completing the separation of the tar from the gas and converting the free ammonia into ammonium sulfate without material change of temperature and subsequently removing the naphthalene from the gas by washing the gas with a cold liquid in which naphthalene is insoluble or only slightly soluble.

5. The process of treating coal gases to separate and recover their constituents of value which consists in removing the tar and ammonia from the gas at temperatures above that at which the naphthalene will solidify, and then cooling the gas in the presence of a liquid in which naphthalene is insoluble or only slightly soluble, whereby the naphthalene is washed out in crystalline form.

[Claims 6 to 10 not printed in the Gazette.]

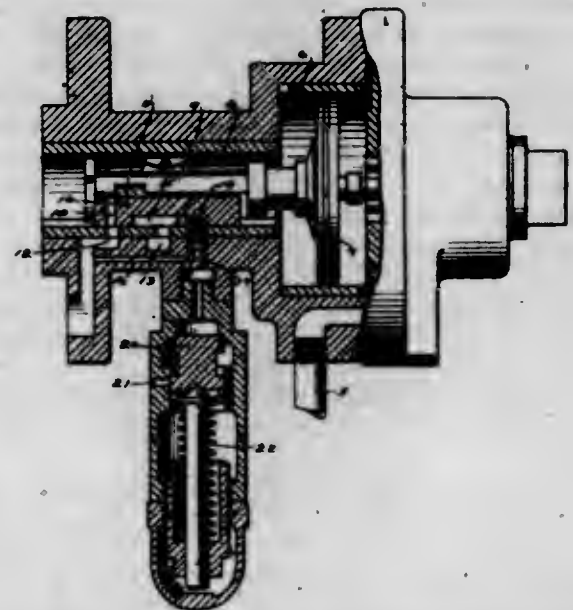
1,078,015. HIGH-SPEED BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1907. Serial No. 369,027. (Cl. 188-1.)

1. In a fluid pressure brake, the combination with a blow down valve for the brake cylinder, of a piston operated by variations in train pipe pressure and a valve operated by said piston for directly controlling the outlet from the brake cylinder through the blow down valve.

2. In a fluid pressure brake, the combination with a blow down valve for the brake cylinder, of a valve device subject to variations in train pipe pressure for controlling the outlet from the brake cylinder through the blow down valve and adapted to open said outlet in service applications and to substantially close or restrict the same in emergency applications.

3. In a fluid pressure brake, the combination with a

blow down valve for the brake cylinder, of a triple valve device for controlling the supply of air to the brake cylinder comprising a piston and a valve operated by said piston for directly controlling the outlet from the brake cylinder through the blow down valve.

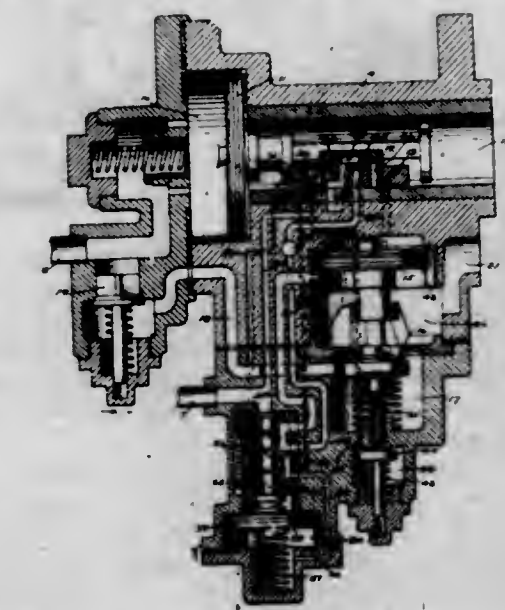


4. In a fluid pressure brake, the combination with a blow down valve for the brake cylinder, of a triple valve device having means for opening communication from the brake cylinder to the blow down valve in service position, and to substantially close or restrict such communication in emergency position.

5. In a fluid pressure brake, the combination with a brake cylinder having a low pressure blow down valve and a high pressure blow down valve, of means operated by variations in the train pipe pressure for controlling the outlet from the brake cylinder through the low pressure blow down valve.

[Claims 6 to 13 not printed in the Gazette.]

1,078,016. HIGH-PRESSURE EMERGENCY-BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 27, 1907. Serial No. 408,258. (Cl. 188-15.)



1. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, additional source of fluid pressure, brake cylinder, and a valve device operating upon a sudden reduction in train pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder, of means operating upon equalization of auxiliary reservoir and brake cylinder pressures for opening communication from said additional source of fluid pressure to the brake cylinder.

2. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, additional source of fluid pressure, brake cylinder, and a valve device for supplying air from the auxiliary reservoir to the brake cylinder in an emergency application of the brakes, of means operating upon equalization of auxiliary reservoir pressure into the brake cylinder for opening communication from said additional source of fluid pressure to the brake cylinder.

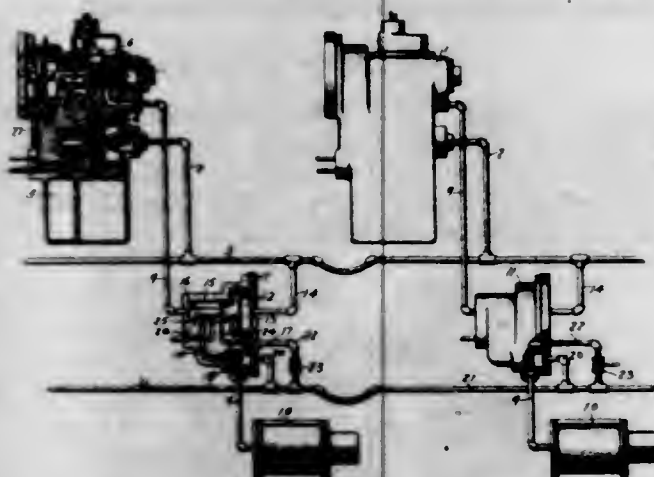
3. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and supplemental reservoir, of means for controlling a supply port from the supplemental reservoir to the brake cylinder and an emergency piston for governing the outlet from said supplemental reservoir supply port to the brake cylinder.

4. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and supplemental reservoir, of means for controlling the admission of air from the supplemental reservoir to a passage for supplying air to the brake cylinder and an emergency piston operating upon a sudden reduction in train pipe pressure for governing communication from said passage to the brake cylinder.

5. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, brake cylinder, supplemental reservoir, and a valve device for governing the supply of air from the auxiliary reservoir to the brake cylinder, of means for controlling communication from the supplemental reservoir to a brake cylinder supply port and an emergency piston operating upon equalization of auxiliary reservoir and brake cylinder pressures for opening the outlet from said supply port to the brake cylinder.

[Claims 6 to 30 not printed in the Gazette.]

1,078,017. FLUID-PRESSURE-BRAKE DEVICE FOR DOUBLE-HEADING. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 16, 1910. Serial No. 561,677. (Cl. 188-1.)



1. In a fluid pressure brake, the combination with a train pipe, of a valve mechanism adapted to be operated both by a reduction in train pipe pressure and by other means for supplying air from a source of pressure to brake cylinders on a plurality of vehicles, and means for preventing loss of fluid from said brake cylinders upon a parting of the train.

2. In a fluid pressure brake, the combination with a train pipe, of a pipe line, a valve mechanism on one vehicle adapted to be operated both by a reduction in train pipe pressure and by other means for supplying fluid through said pipe line to a brake cylinder on another vehicle, and means for preventing loss of fluid from the brake cylinder upon breakage of said pipe line.

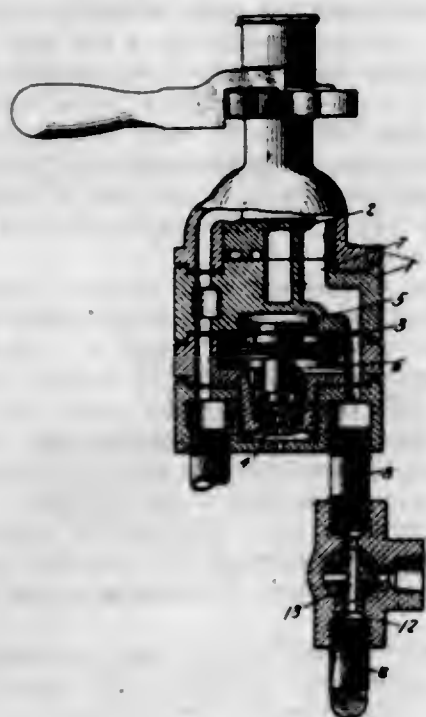
3. In a fluid pressure brake, the combination with a train pipe, of a pipe line, a valve mechanism on one vehicle adapted to be operated both by a reduction in train pipe pressure and by other means for supplying fluid through said pipe line to a brake cylinder on another vehicle, and means operating upon a parting of the train for supplying fluid to said brake cylinder and for preventing loss of fluid through said pipe line.

4. In a fluid pressure brake, the combination with two or more power units connected up in a train, a fluid pressure brake equipment on each unit having a valve for supplying air to the brake cylinder, a movable abutment subject to the opposing pressures of the brake cylinder and an application chamber, and means for supplying air to said application chamber, of means controlled from one power unit for supplying air from said power unit to the brake cylinders on all the power units.

5. In a fluid pressure brake, the combination with two or more power units connected up in a train, a fluid pressure brake equipment on each unit having a valve for supplying air to the brake cylinder, a movable abutment subject to the opposing pressures of the brake cylinder and an application chamber, and manually operated means for supplying air to said application chamber either by a reduction in train pipe pressure or directly, of means operating upon manipulation of the manually operated means on one power unit for supplying air from said power unit to the brake cylinders on all the power units.

[Claims 6 to 11 not printed in the Gazette.]

1,078,018. FLUID-PRESSURE-BRAKE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 9, 1911. Serial No. 626,105. (Cl. 188-1.)

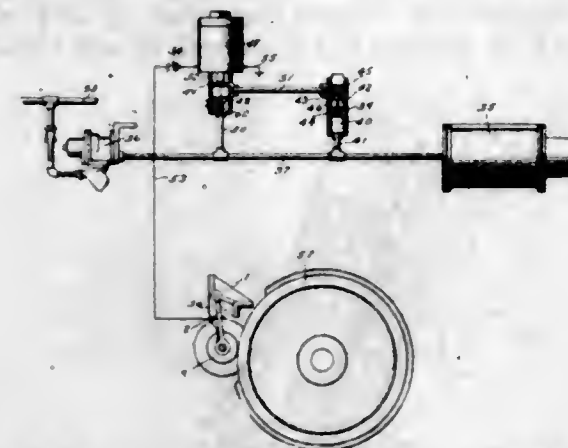


1. In a fluid pressure brake, the combination with a train pipe and a brake valve for supplying air to the train pipe, of a cock in the train pipe connection to the brake valve having ports for establishing communication from the brake valve to the train pipe in one position and adapted to cut off the train pipe from the brake valve in another position and connect the brake valve side of the train pipe with the atmosphere.

2. In a fluid pressure brake, the combination with a train pipe and a branch pipe, of a brake valve for supplying fluid through the branch pipe to the train pipe and provided with an equalizing discharge valve, and a cock in said branch pipe having an open position for connecting the brake valve with the train pipe and a closed position in which the train pipe is cut off and the brake valve side of the train pipe is connected to the atmosphere.

3. In a fluid pressure brake, the combination with a train pipe and a branch pipe, of a brake valve having a running position for supplying fluid through the branch pipe to the train pipe and a cock in said branch pipe having an open position for connecting the brake valve to the train pipe and a closed position in which the train pipe is cut off and the brake valve side of the train pipe is connected to the atmosphere.

1,078,019. SPEED-CONTROLLED BRAKE-RELEASE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 6, 1911. Serial No. 631,650. (Cl. 188-72.)



1. In a vehicle brake apparatus, the combination with a mechanism for applying the brakes, of means adapted upon a reduction in speed of the vehicle to a predetermined low rate immediately preceding a stop for suddenly relieving the braking pressure.

2. In a fluid pressure brake apparatus, the combination with a valve device having a large port for releasing air from the brake cylinder, of a speed governed device operated by a rotating part of the car and at a predetermined low rate of speed thereof but before said part ceases to rotate for suddenly effecting the operation of said valve device to thereby quickly relieve the braking pressure.

3. In a fluid pressure brake apparatus, the combination with a brake cylinder, of a valve for controlling the release of air from the brake cylinder, a piston for operating said valve, an electrically controlled valve mechanism adapted to normally supply fluid to said piston while the brakes are applied, and a speed governed device adapted at a predetermined rate of speed to operate said electrically controlled valve mechanism and release fluid from said piston.

4. In a fluid pressure brake apparatus, the combination with a brake cylinder, of a valve for controlling the release of air from the brake cylinder, a piston for operating said valve, an electrically controlled valve mechanism adapted to normally supply fluid to said piston while the brakes are applied, and a speed governed device for controlling the circuit of said electrically controlled valve mechanism and adapted at a certain low rate of speed to open the circuit and cause said valve mechanism to vent air from said piston.

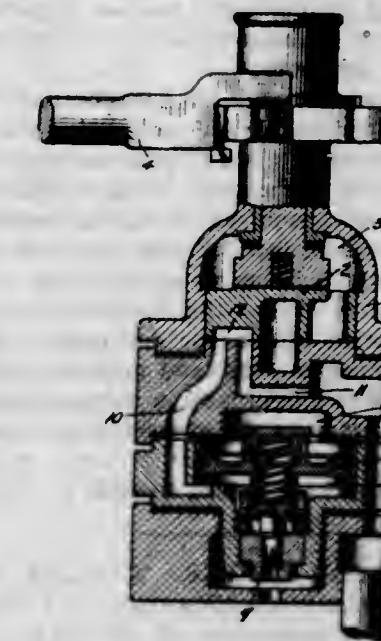
1,078,020. BRAKE-VALVE DEVICE. WALTER V. TURNER and WILLIAM M. CADY, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 6, 1911. Serial No. 631,651. (Cl. 188-7.)

1. In a fluid pressure brake, the combination with a train pipe, of a brake valve provided with an equalizing discharge valve mechanism and having a position for closing communication from the train pipe to said equalizing discharge valve mechanism.

2. In a fluid pressure brake, the combination with a train pipe, of a brake valve and an equalizing discharge valve mechanism operated according to the opposing pressures of the train pipe and the equalizing reservoir for controlling the discharge of air from the train pipe, said brake valve having a position for cutting off communication from the train pipe to the equalizing discharge valve mechanism.

3. In a fluid pressure brake, the combination with a train pipe, of a brake valve and an equalizing discharge valve mechanism operated according to the opposing pressures of the train pipe and the equalizing reservoir for controlling the discharge of air from the train pipe, said brake valve having means for establishing communication from the train pipe to said equalizing discharge

valve mechanism and having a position in which said communication is closed.

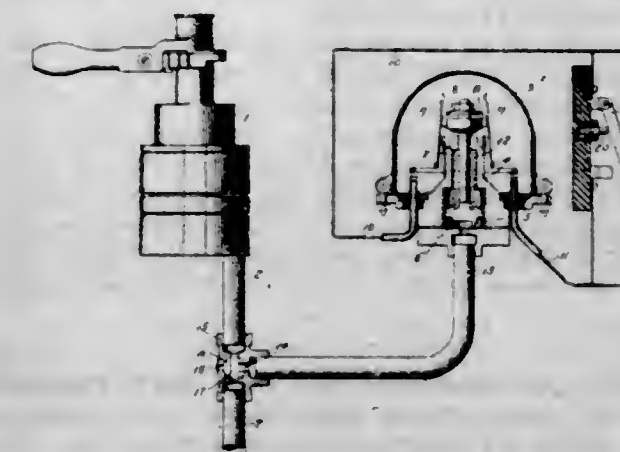


4. In a fluid pressure brake, the combination with a train pipe, of a valve for controlling the discharge of air from the train pipe, a piston for operating said valve, and a manually operated valve for establishing communication from the train pipe to said piston both in service application and service lap positions and having a position for closing said communication.

5. In a fluid pressure brake, the combination with a train pipe, of a valve for controlling the discharge of air from the train pipe, a piston subject to the opposing pressures of an equalizing reservoir and the train pipe for operating said valve, and a manually operated valve having a port for supplying fluid to the train pipe and adapted to establish communication from the train pipe to the train pipe side of said piston and having a position for closing said communication.

[Claims 6 to 9 not printed in the Gazette.]

1,078,021. AUTOMATIC BRAKE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 1, 1911. Serial No. 636,547. (Cl. 188-4.)



1. In a fluid pressure brake, the combination with a train pipe, of a device for controlling the power for operating the vehicle, said device being adapted to cut off the power upon a predetermined reduction in train pipe pressure, and a self-opening switch adapted to be manually closed for supplying power to the vehicle.

2. In a fluid pressure brake, the combination with a train pipe, of an electric switch device operating upon a predetermined reduction in train pipe pressure for opening the circuit for supplying current to operate the vehicle, and a self-opening switch adapted to close said circuit when manually operated.

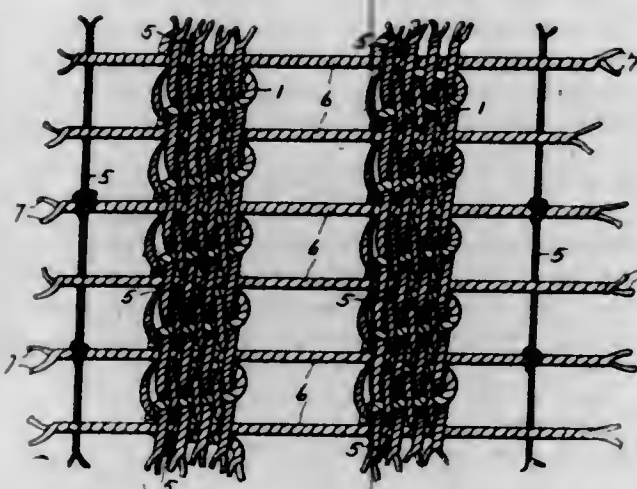
3. In a fluid pressure brake, the combination with a train pipe, of an electric switch for controlling the supply of current to the car motors, a piston subject to train pipe pressure for operating said switch, and an automatically opening switch adapted to be manually operated for supplying current to the car motors.

4. In a fluid pressure brake, the combination with a train pipe, of an electric switch for controlling the supply circuit of the car motors, a piston operating upon a predetermined reduction in train pipe pressure for opening said switch, and a switch subject to spring pressure for normally maintaining same in open position, and adapted to be actuated manually for closing said circuit.

5. In a fluid pressure brake, the combination with a train pipe, of an electric switch for controlling the supply of current to the car motors, and a piston operating upon a predetermined increase and a predetermined reduction in train pipe pressure for respectively closing and opening said switch.

[Claims 6 to 11 not printed in the Gazette.]

1,078,022. FLY-NET FOR HORSES. WALTER E. WAHRA, Milwaukee, Wis., assignor to Milwaukee Net Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 16, 1912. Serial No. 684,160. (Cl. 54—81.)



1. In a fly net for horses, the combination with sets of longitudinally extending bars of fabric and a set of transverse bar-connecting cords crossing the bars of fabric and secured thereto, of a series of longitudinally disposed retaining cords each extending between the strands of the transverse cords, some of said retaining cords being secured to the respective bars between the transverse cords, substantially as described.

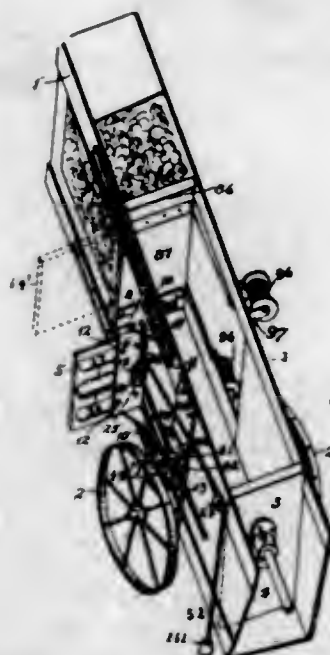
2. In a fly net for horses, the combination with sets of longitudinally extending bars of fabric and a set of transverse bar-connecting cords crossing the bars of fabric and secured thereto, of a series of longitudinally disposed retaining cords each extending between the strands of the transverse cords, some of said retaining cords being secured to the respective bars between the transverse cords, and other of said retaining cords extending parallel to the bars in the spaces between the bars, substantially as described.

1,078,023. AUTOMATIC TIER FOR HAY-PRESSES. ISAAC E. WARD, Mount Hope, Kans. Filed Dec. 26, 1911. Serial No. 667,876. (Cl. 100—20.)

1. In an automatic bale tier for hay presses, a baler, V shaped tracks affixed to said baler, a carriage movably mounted upon said tracks, means for intermittently moving said carriage upon said tracks and means for returning said carriage to its normal position, a fingered rack, an incline on the free end of two of said fingers and means for reciprocally moving said rack in said carriage.

2. In an automatic bale tier for hay presses, a baler, V shaped tracks affixed to said baler, a carriage movably mounted upon said tracks, means for intermittently moving said carriage upon said tracks and means for returning said carriage to its normal position, a fingered rack,

an incline on the free end of one finger, cogs on two of said fingers and means for reciprocally moving said rack in said carriage, a spur wheel revolvably mounted in said carriage, internal cogs in said wheel, blank spaces between said cogs, an outward spring pressed pivoted dog in the rim of said wheel and means to engage said dog to impart an intermittent rotative movement to said wheel, and a pinion to continue the movement of said wheel for a time.



3. In an automatic bale tier for hay presses, a carriage movably upon tracks affixed to said baler, a fingered rack movably mounted in said carriage and means for reciprocally and intermittently moving said rack, and a spur wheel mounted to rotate in said carriage simultaneously with the movement of said rack, a power shaft having pinions thereon and means for rotating said shaft means to shift the end of the shaft to engage the pinions with the aforesaid rack and spur-wheel and pinions in said carriage actuated by said wheel to operate a wire twister.

4. In an automatic bale tier for hay presses, a carriage movably mounted upon tracks affixed to said baler, a fingered rack movably mounted in said carriage and means for reciprocally and intermittently moving said rack, a spur-wheel mounted to rotate in said carriage simultaneously with the movement of said rack, a power shaft having pinions thereon and means for rotating said shaft, means to shift the end of the shaft to engage the pinions with the aforesaid rack and spur-wheel and pinions in said carriage actuated by said wheel to operate wire twisters, and means on said fingers for grasping the wire and means for twisting the end of the baling wire together when drawn taut around the bale.

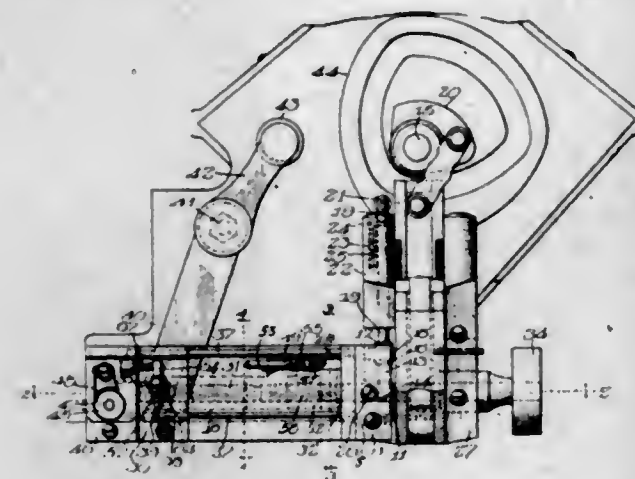
5. In an automatic bale tier for hay presses, a carriage movably mounted on said press, V shaped tracks affixed to said press, a bar having fingers and a spur-wheel, mounted in said carriage, means operated by the spur-wheel for grasping and twisting the ends of the baling wire together, hooks affixed to said fingers, notches in said hooks to catch the wire and means to send the hooks after the wire, a lateral pin for guiding the free end of the wire after being cut off.

[Claims 6 to 10 not printed in the Gazette.]

1,078,024. FEEDING MECHANISM FOR WIRE-STITCHING MACHINES. HENRY WEBER, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 18, 1911. Serial No. 655,349. (Cl. 140—130.)

1. In a machine for the purpose described, the combination of a wire feed dog for gripping and feeding the wire, a pivot element about which the dog is movable, yielding means carried by the dog and frictionally engaging the pivot element and tending normally to move the dog into operating position to grip the wire, said means also operating on the pivot to hold the dog in an inoperative position, means for moving the dog into an inoperative

position, and means for moving the dog into an operating position.



2. In a machine for the purpose described, the combination of a wire feed dog for gripping and feeding the wire, a pivot element about which the dog is movable, yielding means carried by the dog and frictionally engaging the pivot element and tending normally to move the dog into operating position to grip the wire, said means also operating on the pivot to hold the dog in an inoperative position, spaced stops between which the dog is movable to respectively move the latter into and out of operating position, and means for moving the dog into and out of engagement with the stops.

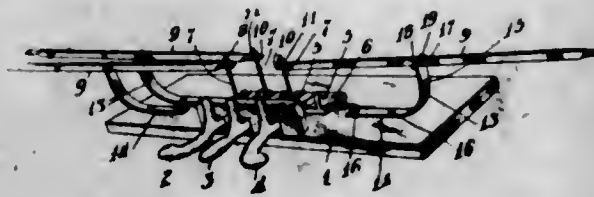
3. A gripping dog for wire stitching machines or the like embodying a wire support, a dog cooperating therewith, a pivot element for the dog and about which the dog is movable, said element having a shouldered portion, and elastic means carried by the dog and cooperating with the said shouldered portion to normally move the dog to grip the wire, said elastic means also cooperating with another portion of the pivot element to hold the dog in an inoperative position.

4. A gripping dog for wire stitching machines or the like embodying a wire support, a dog cooperating therewith, a pivot element for the dog and about which the dog is movable, said element having a shouldered portion, and elastic means carried by the dog and cooperating with the said shouldered portion to normally move the dog to grip the wire, said elastic means also cooperating with another portion of the pivot element to yieldingly hold the dog in an inoperative position.

5. The combination with a wire feeding and gripping dog mounted for reciprocation, of a pivot therefor, a yielding friction element arranged to operate against said pivot and normally force said dog into a gripping position, said yielding friction element likewise adapted to retain said dog in a non-gripping position, and means located at the terminals of the path of movement of said dog for placing the said dog in a gripping or non-gripping position as the case may be.

[Claims 6 to 23 not printed in the Gazette.]

1,078,025. PIANO-PEDAL. STANLEY W. WIDNEY, Chicago, Ill. Filed Apr. 1, 1912. Serial No. 687,827. (Cl. 84—24.)



1. In a pedal action for pianos, the combination with a pivotally mounted pedal, of a pedal bar connected thereto, a spring support for said pedal bar, and means for gripping and deflecting said spring when the end of the pedal bar connected with the pedal is depressed comprising

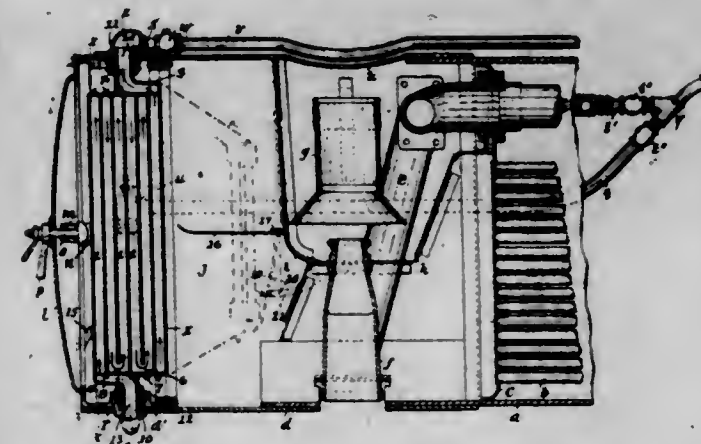
ing a pair of members projecting laterally from the pedal bar and offset both vertically and horizontally and engaging opposite sides of the free end of the spring support.

2. In a pedal action for pianos, the combination with a substantially horizontal pedal bar, a pivotally mounted pedal, and means connecting one end of the pedal bar with the pedal, of a fulcrum spring rigidly secured at one end and provided at its other end with confining ears to snugly embrace the pedal bar and prevent lateral movement between these parts, and members projecting laterally from the upper and lower parts of the pedal bar to engage opposite sides of said confining ears to deflect the fulcrum spring and prevent longitudinal movement of the bar with relation to the spring.

3. In a pedal action for pianos, the combination with a pivotally mounted pedal, of a pedal bar connected thereto having an uninterrupted lower edge, a spring fulcrum rigidly secured at one end and provided at its other end with confining ears to snugly embrace the pedal bar, and members projecting laterally from the upper and lower sides of the pedal bar to engage opposite sides of said confining ears in different horizontal planes.

4. In a pedal action for pianos, the combination with a pivotally mounted pedal, of a pedal bar consisting of a flat metal bar having its lower edge unbroken, a fulcrum spring secured at its lower end and provided at its upper end with confining ears to snugly embrace the sides of the pedal bar, members projecting laterally from the sides of the pedal bar adjacent the upper and lower edges thereof to engage opposite sides of said confining ears in different horizontal planes, and means connecting the pedal bar and pedal.

1,078,026. FEED-WATER HEATER. DAVID T. WILLIAMS, Paterson, N. J., assignor of one-half to Frank L. Connable, Wilmington, Del. Filed Nov. 14, 1912. Serial No. 731,294. (Cl. 122—423.)



1. In combination, with a smoke-box having an opening in the outer end thereof, a feed-water heater pivotally arranged in the smoke-box and having its pivoting axis extending transversely of the smoke-box and substantially coincident with a line extending centrally through the heater.

2. In combination, with a smoke-box having an opening in the outer end thereof, a feed-water heater pivotally arranged in the smoke-box and having its pivoting axis extending transversely of the smoke-box and substantially coincident with the balance-axis of the heater.

3. In combination, with a smoke-box having an opening in the outer end thereof, a feed-water heater pivotally arranged in the smoke-box and having its transverse area approximating the transverse area of the smoke-box and its front-to-rear thickness appreciably less than said area of the smoke-box, the pivoting axis of the heater extending transversely of the smoke-box and substantially coincident with a line extending centrally through the heater.

4. In combination, with a smoke-box having an opening in the outer end thereof, a feed-water heater pivotally arranged in the smoke-box and having its transverse area approximating the transverse area of the smoke-box and

its front-to-rear thickness appreciably less than said area of the smoke-box, the pivoting axis of the heater extending transversely of the smoke-box and substantially coincident with the balance-axis of the heater.

5. In a feed-water heating system, a feed-water heater having an inlet and an outlet arranged at opposite points thereof and substantially symmetrical portions projecting laterally with reference to a straight line connecting said inlet and outlet and each having a tortuous water-conducting branch communicating at one end with the inlet and at the other with the outlet.

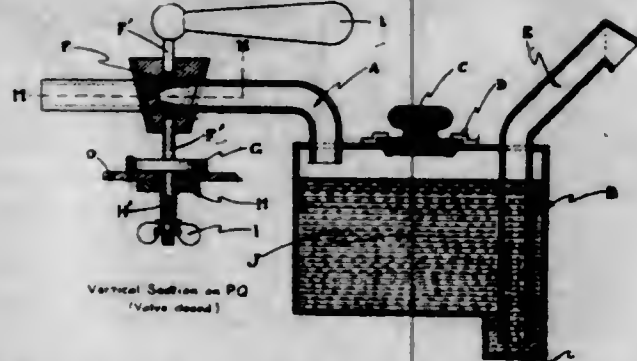
[Claims 6 to 9 not printed in the Gazette.]

1,078,027. CHILD'S PLAYHOUSE. LORENZO T. YODER, Pittsburgh, Pa. Filed Jan. 28, 1912. Serial No. 673,551. Renewed May 14, 1913. Serial No. 767,721. (Cl. 46-371.)



In a children's play-house, a vertical front frame, a vertical end frame abutting the front edge of the middle frame and making an angle therewith, a corner block fitting the meeting angle between the lower ends of the frames, metal strips secured to the corner block and having each a horizontal flange parallel with the sides of the said angle, and spaced from and lying opposite to the edges of the block, and a metal strip secured to the bottom of each frame and having a flange lying between the adjacent corner block and the corresponding flange secured to the said block.

1,078,028. LIQUID-DISPENSING DEVICE. HAROLD ROSCOE ZEAMANS, New York, N. Y. Filed Apr. 28, 1911. Serial No. 623,942. (Cl. 225-35.)

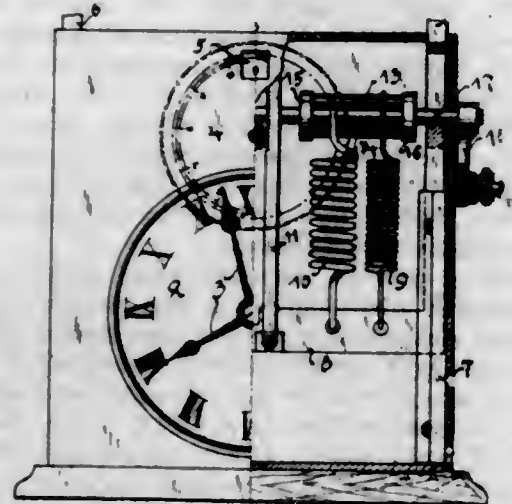


1. In a device of the kind described; a receptacle adapted to contain a liquid to be dispensed in prescribed quantities; a dispensing outlet from said receptacle; means for directing a fluid pressure for ejecting said liquid through said dispensing outlet; automatically operating means for controlling the duration of time during which said pressure is effective whereby the quantity of liquid dispensed is determined, said automatically operating controlling means being independent of said liquid and removed therefrom, and comprising a valve through which said fluid pressure passes into said receptacle; means for moving said valve to close said passage; and means independent of said valve, adjustable for permitting said valve closing means to close said valve with a relatively fast or a relatively slow closing movement.

2. In a device of the kind described; a receptacle adapted to contain a liquid to be dispensed in prescribed quantities; a dispensing outlet from said receptacle; means for directing a fluid pressure for ejecting said liquid through said dispensing outlet; automatically operating means for controlling the duration of time during which said pressure is effective whereby the quantity of liquid dispensed is determined, said automatically operating controlling means comprising a valve through which said fluid

pressure passes into said receptacle, said valve having a spindle extending axially therefrom and projecting loosely through a relatively fixed plate; means for moving said valve to close said passage, comprising a coil spring disposed upon one side of said plate having one of its ends fixed to said plate and having its other end fixed to said spindle and serving to retain said spindle against longitudinal movement through said plate; and means adjustable for permitting said valve closing means to close said valve with a relatively fast or a relatively slow closing movement, comprising a friction member mounted upon said spindle to rotate therewith, but being free to move longitudinally thereof, adapted to frictionally engage the opposite surface of said fixed plate; a spring; and an adjustable nut carried upon said spindle adapted to tension said last mentioned spring for adjusting the degree of frictional contact between said friction member and the contacting surface of said fixed member.

1,078,029. BALANCE. ERWIN ZIMPEL, Glogau, Germany. Filed Oct. 2, 1912. Serial No. 723,558. (Cl. 73-46.)



An improved balance for household use comprising in combination with the casing having a window in its front wall and a window in its top wall, said balances being adapted for weighing lighter and heavier objects, an indicating scale for the weight of the lighter objects mounted behind the window in the front wall, a hoop with the indicating scale for the heavier weights mounted under the window of the top wall, two pairs of springs one for the heavier weight and one for the lighter weight, vertical guide-rods of the usual weighing, a traverse connecting the lower ends of said vertical rods to which the lower ends of said springs are attached, two racks connected with said traverse, a horizontal hollow shaft of the indicating hoop, a horizontal shaft of the indicating scale for the lower weight mounted in said hollow shaft, a toothed wheel upon each of said hollow shafts engaging with the corresponding rack, a hand-lever mounted upon the side wall of the casing so that it can be moved to two extreme positions a shaft of said hand lever, two bridges eccentrically keyed upon said shaft, two rods fixed in the ends of said bridges adapted to engage with the upper ends of said springs and an eccentric keyed upon said shaft for bringing one of the racks into engagement with its corresponding toothed wheel when the other rack is thrown out of gear according to the position of said hand-lever and a time-keeper in the lower part of the casing, substantially as described and shown and for the purpose set forth.

1,078,030. FIRE-EXTINGUISHING FLUID. JONAS W. AYLSWORTH, East Orange, N. J., assignor of one-half to Frank L. Dyer, Montclair, N. J. Filed Jan. 23, 1913. Serial No. 743,843. (Cl. 23-5.)

1. A flame extinguishing compound comprising a liquid the boiling point of which is lower than that at which gasoline begins to boil, together with a liquid the boiling point of which is higher than that of gasoline, both liquids being miscible with gasoline, and both, when sufficiently

heated by being applied to a fire, evolving vapors to constitute a flame-extinguishing atmosphere above and around the seat of combustion.

2. A flame extinguishing compound comprising a chlorin derivative of a hydro-carbon having a boiling point lower than 60° C., compounded with a body having a boiling point higher than 60° C., said derivative and body, when applied to a fire, both evolving vapors to constitute a flame extinguishing atmosphere above and around the seat of combustion.

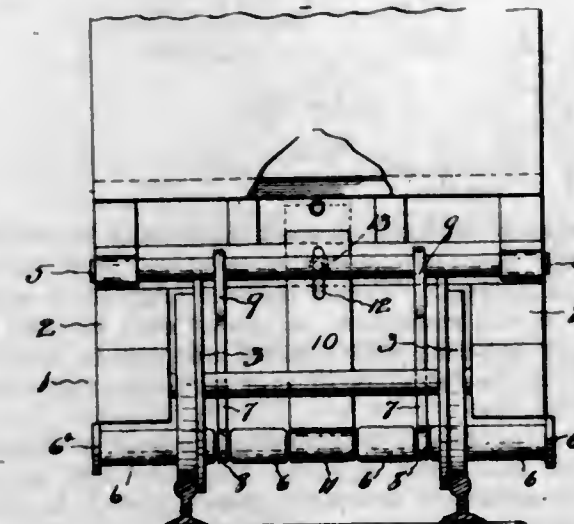
3. A flame-extinguishing compound comprising di-chloro-methane and carbon-tetra-chlorid.

4. A flame-extinguishing compound comprising a chlorin derivative of a hydro-carbon having a boiling point lower than that of gasoline, said derivative being miscible with gasoline, and carbon-tetra-chlorid.

5. A flame-extinguishing compound comprising di-chloro-methane, carbon-tetra-chlorid, and a perchlorinated organic radical having a boiling-point much higher than that of the carbon-tetra-chlorid.

[Claims 6 to 11 not printed in the Gazette.]

1,078,031. DEVICE FOR BRAKING RAILWAY-CARS. JOSIAH W. BODIE, Greenwood, S. C. Filed Sept. 12, 1912. Serial No. 719,992. (Cl. 188-81.)



1. In a device of the character set forth, rollers, an air-brake pipe, slidable plates designed to cut said pipe, and means for operatively connecting the rollers and slidable plates, substantially as shown and described.

2. In a device of the character set forth, an air-pipe, rods, rollers, means for suspending said rollers from said rods, slidable plates connected to said rollers and designed to cut the air-brake pipe and release the air, substantially as shown and described.

3. In a device of the character set forth, an air-brake pipe, rods, rollers suspended from said rods by means of slidable hangers, slidable plates connected to and operated by said rollers designed to release the air in the air-brake pipe, substantially as shown and described.

4. In a device of the character set forth, an air-brake pipe, rods, rollers suspended from said rods by means of vertically slidable hangers, and vertically slidable plates with cutting edges designed to cut the air-brake pipes and release the air therefrom, substantially as shown and described.

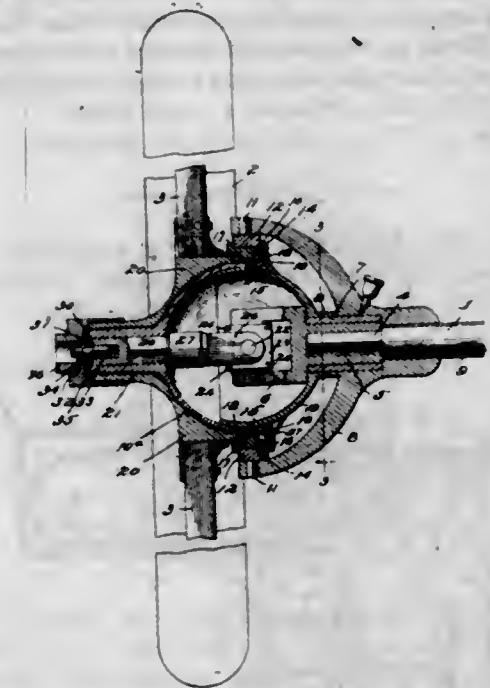
5. In a device of the character set forth, an air-brake pipe, rods, rollers having grooves and suspended from said rods by means of slidable hangers which loosely engage said grooves, and slidable plates having cutting edges loosely mounted on said rollers, substantially as shown and described.

[Claim 6 not printed in the Gazette.]

1,078,032. AXLE-DRIVE. HARRY M. BOYD, Creston, Iowa. Filed Sept. 11, 1912. Serial No. 719,724. (Cl. 21-90.)

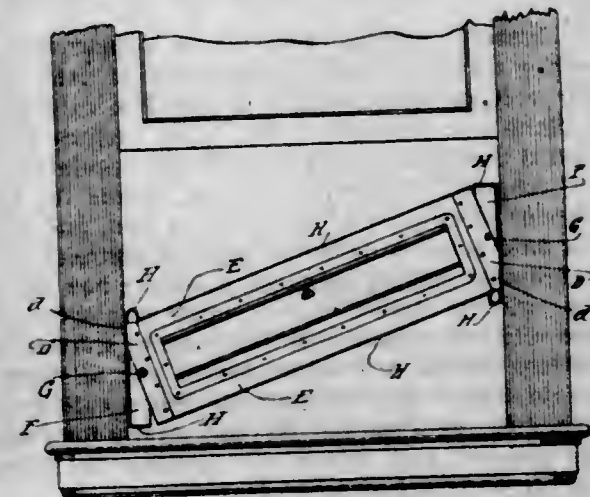
1. An axle drive comprising a globe composed of two members, one of said members being mounted partially

within the other, a universal joint within said globe, one of the members of said universal joint being connected to an axle, and the other member connected to a wheel, a ball bearing ring mounted on one of the members of the globe, a steering knuckle band mounted on said ring, and a yoke connected to the axle and pivotally attached to the steering knuckle band.



2. In a device of the character described, a front axle having squared ends, a universal joint connected to each of said ends, a globe for inclosing said universal joint, said globe being composed of two members, one being movably mounted within the other, a ball bearing ring mounted upon one of the members of said globe, a steering knuckle band mounted on one of the members of said globe, and a leather cover or flap for preventing dust and dirt from entering the bearing of the ring.

1,078,033. ADJUSTABLE VENTILATOR-FRAME. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Apr. 19, 1912. Serial No. 691,901. (Cl. 98-31.)



1. A window ventilator frame provided with means including a pivoted end portion for permitting the ventilator to be tilted up at one end thereof while in the sash grooves of the window.

2. A window ventilator frame provided with means including two pivoted end portions for permitting the ventilator to be tilted up at one end thereof while in the sash grooves of the window.

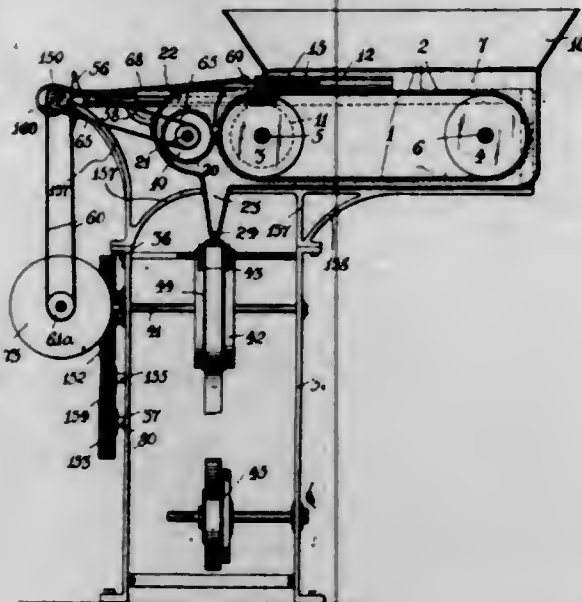
3. A window ventilator frame provided with means including a pivoted end portion for permitting the ventilator to be tilted up at one end thereof while in the sash grooves of the window, the said frame having one corner thereof cut off at an angle to permit the said end portion to assume a position at an angle to the frame.

4. A window ventilator frame provided with means including two pivoted end portions for permitting the ventilator to be tilted up at one end thereof while in the sash grooves of the window, the said frame having two diametrically opposite corners thereof cut off at angles to permit said end portions to assume positions at angles to the frame.

5. A window ventilator frame provided with means including a pivoted end portion for permitting the ventilator to be tilted up at one end thereof while in the sash grooves of the window, said end portion being free to tilt in one direction only, relative to said frame.

[Claims 6 to 12 not printed in the Gazette.]

1,078,034. CIGARETTE-MAKING MACHINE. CANAAN DE CAZEN, Montreal, Quebec, Canada. Filed Feb. 2, 1911. Serial No. 606,173. (Cl. 131-43.)



1. In a cigarette making machine, an endless carrier suitably driven, a sliding element disposed in a parallel plane and adjacent to the upper surface of said carrier toward the delivery end thereof, for regulating the quantity of tobacco delivered therefrom, means for clearing said carrier of tobacco at the delivery end, and means for forming the cigarette.

2. In a cigarette making machine, a hopper box, an endless carrier forming a moving platform in said box, a horizontally reciprocating element disposed in said box in a parallel plane and adjacent to the upper surface of said carrier toward the delivery end thereof, for regulating the quantity of tobacco delivered therefrom, means for clearing said carrier of tobacco at the delivery end, and means for forming said tobacco delivered into cigarettes.

3. In a cigarette making machine, a hopper box, an endless carrier suitably driven and forming a moving platform within said box, a comb in the form of a frame having cross strips on the underside thereof and slidably arranged in said hopper box immediately above said endless carrier toward the delivery end thereof, means for reciprocating said comb, and means for forming the tobacco delivered from said carrier into cigarettes.

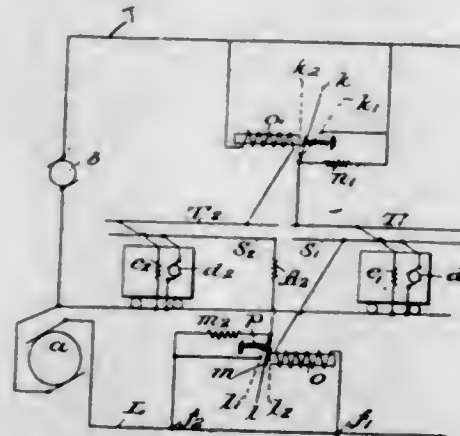
4. In a cigarette making machine, a hopper box, an endless carrier suitably driven and supported in said hopper box and forming a moving platform therein to receive the tobacco and having a plurality of picks extending outwardly therefrom in a forward direction, a comb formed of a frame having crossed strips on the under side thereof hinged to fold forwardly, means for reciprocating said frame immediately above said endless carrier toward the delivery end thereof and directly above said picks, and means for forming the tobacco delivered from said carrier into cigarettes.

5. In a cigarette making machine, a hopper box, an endless carrier in said hopper box suitably driven and forming a moving platform therein to receive the tobacco, a comb having a frame back and cross strip teeth hinged to

the under side of said back and folding to said frame only in one direction, slide-ways arranged in said hopper box for said comb immediately above said carrier adjacent to the delivery end thereof, a lever pivotally secured to the outer end of said comb, means connected with said lever for reciprocating said comb, a rotary brush journaled adjacent to the delivery end of said carrier, and brushing the tobacco therefrom, and means for forming said tobacco into cigarettes.

[Claims 6 to 27 not printed in the Gazette.]

1,078,035. AUTOMATIC ELECTRIC DESPATCH SYSTEM. JULES DESCHAMPS, Paris, France. Original application filed Jan. 26, 1912, Serial No. 673,511. Divided and this application filed Oct. 28, 1912. Serial No. 728,253. (Cl. 191-15.)



1. An electric despatch system comprising in combination electric cars, two mutually insulated feed sections therefor, an automatic circuit modifier adapted to modify the motor circuit conditions on one of said sections and a circuit for affecting said modifier adapted to be closed through a car on the other of said sections, substantially as described.

2. An electric despatch system comprising in combination electric cars, two mutually insulated feed sections therefor, an automatic circuit modifier adapted to modify the energizing circuit of a motor on one of said sections, and a circuit for affecting said modifier adapted to be closed through a car on the other of said sections, substantially as described.

3. An electric despatch system comprising in combination electric cars, two mutually insulated feed sections therefor, an automatic circuit modifier adapted to modify the armature circuit of a motor on one of said sections, and a circuit for affecting said modifier adapted to be closed through a motor on the other of said sections, substantially as described.

4. An electric despatch system comprising in combination electric cars, two mutually insulated feed sections therefor, an automatic circuit modifier adapted to modify the field magnet circuit of a motor on one of said sections, and a circuit for affecting said modifier adapted to be closed through a motor on the other of said sections, substantially as described.

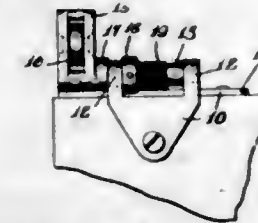
5. An electric despatch system comprising in combination electric cars, separate main leads for the field magnets and armatures of the car motors respectively, a pair of sectional wires for a leading car, a separate pair of sectional wires for a following car, an automatic circuit modifier controlling the circuit conditions of one of said following car wires, and electrical means for governing said circuit modifier in circuit with one of said leading car wires, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,078,036. SASH-HOLDER. OLIVER M. EDWARDS, Syracuse, N. Y. Filed July 25, 1912. Serial No. 711,440. (Cl. 16-54.)

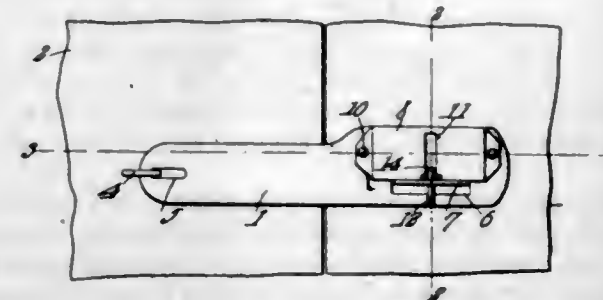
A window sash holder comprising a support adapted to be secured to the window sash and having bearings spaced

apart, a rock shaft journaled in the bearings and projecting beyond one of the bearings, the projecting portion thereof being provided with a rock arm having means for coacting with the frame for the window sash, the rock arm having a collar associated therewith for engaging the outer face of the contiguous bearing, a collar on the



rock shaft arranged to engage the inner face of the same bearing, and a spring coiled about the rock shaft between the bearings and being connected at one end to the last-mentioned collar and bearing at its other end against the support, substantially as and for the purpose described.

1,078,037. HASP-FASTENER. DARNEY LIPSCOMB ERVIN, Columbus, Miss. Filed Jan. 9, 1913. Serial No. 741,064. (Cl. 70-83.)



1. In a hasp latch the combination with a suitable plate, of a catch staple extending through a slot therein, a catch member for rotation and translation upon said plate adapted to engage said catch staple.

2. In a hasp latch the combination with a suitable plate, of a catch staple extending through a slot therein, an elbow catch member for rotation and translation upon said plate and adapted to engage said staple.

3. In a hasp latch the combination with a suitable plate, of a catch staple extending through a slot therein, an elbow catch member, said catch member provided with trunnions extending outwardly therefrom, means for mounting said catch member upon said plate for rotation and translation, said catch member adapted to engage said staple.

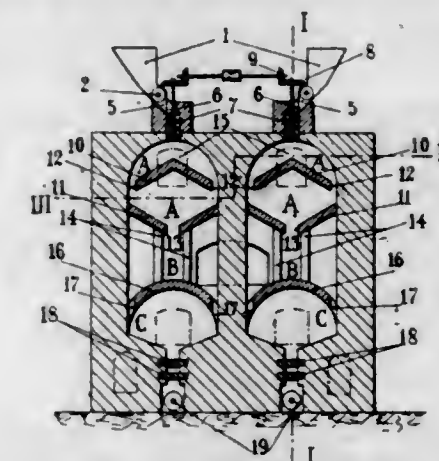
4. In a hasp latch the combination with a suitable plate provided with a slot therein, a catch staple extending through said slot, an elbow catch member provided with trunnions extending therefrom, means for rotatably mounting said catch member upon said plate, means for allowing said catch member to shift transversely of said plate, said catch member adapted to engage said staple.

5. In a device of the class described, a plate provided with a slotted aperture adjacent one end thereof, a bell crank catch member provided with trunnions extending therefrom, said catch member provided with lugs extending therefrom adjacent one end thereof, means for mounting said catch member upon said plate, said catch member adapted to rotate in a limited manner upon said trunnions, said catch lugs adapted to limit said rotation, said lugs adapted to impart a translatory motion to said catch member, said catch member adapted to engage a staple extending through said plate slotted aperture.

1,078,038. FURNACE IN WHICH INDUSTRIAL RESIDUES ARE BURNED. LOUIS FÉLIZAT, Salon, France. Filed Apr. 19, 1911. Serial No. 622,022. (Cl. 202-3.)

1. A furnace for carbonizing waste materials such as nut-shells, saw dust and the like comprising an upper combustion chamber, a lower cooling chamber and an

intermediate carbonizing chamber, said combustion chamber being provided with conveyer means feeding waste material thereto and having an air supply inlet, slabs or plates between the two first-named chambers downwardly and inwardly inclined down which the material feeds from the first to the second chamber, a waste gas discharge outlet in the side wall of the carbonizing chamber, an arched floor separating the carbonizing and cooling chambers having discharge openings into the latter chamber and conveyer means for withdrawing the charred material from the last-named chamber.



2. A furnace for carbonizing waste material such as nut-shells, saw-dust and the like, comprising an upper combustion chamber, a lower cooling chamber, and an intermediate carbonizing chamber; said combustion chamber being provided with conveyer means feeding waste material thereto, an air supply inlet and means retarding the passage of material therethrough; slabs or plates between the two first-named chambers downwardly and inwardly inclined down which the material feeds from the first to the second chamber, a waste gas discharge outlet in the side wall of the carbonizing chamber, an arched floor separating the carbonizing and cooling chambers having discharge openings into the latter chamber and conveyer means for withdrawing the charred material from the last-named chamber.

3. A furnace for carbonizing waste materials such as nut-shells, saw-dust and the like, comprising a plurality of superimposed chambers, the upper of said chambers being a combustion chamber adapted to effect partial combustion of the waste materials and having an air inlet and provided with means for feeding said materials into the chamber, a carbonizing chamber below, said first chamber receiving the partially burned materials and hot products of combustion therefrom, slabs or plates between said chambers downwardly and inwardly inclined down which the materials feed from the first to the second chamber, and a quenching chamber for receiving and discharging the charcoal.

1,078,039. BRAKE-SHOE. WILLIAM C. FISHER, Middletown, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn. Filed July 17, 1912. Serial No. 709,032. (Cl. 188-29.)



1. A brake shoe comprising a woven sheet of asbestos folded back and forth upon itself forming a plurality of superimposed plies, the said plies being united at their intermediate portions and free between their edges at the end portions.

2. A brake shoe comprising a plurality of superimposed plies of woven fabric, said plies being united at their intermediate portions and free between their edges at the end portions.

3. A brake shoe comprising a sheet of woven fabric folded longitudinally back and forth upon itself forming a plurality of superimposed plies, said plies being rigidly secured together in their intermediate portions and free between their edges at the end portions.

4. A brake shoe comprising a woven sheet of asbestos folded longitudinally back and forth upon itself, forming a plurality of superimposed plies united in their intermediate portions and free between their edges at the end portions, said fabric layers containing hardening material.

5. The combination with a brake shoe head, of a shoe comprising a plurality of superimposed plies of woven asbestos containing hardening material, said plies being united in their intermediate portions and free between their edges at the ends, the ends of the shoe extending over the ends of the heads, and fastening devices securing said ends of the shoe upon said head.

[Claims 6 to 12 not printed in the Gazette.]

1,078,040. BRAKE-SHOE. WILLIAM C. FISHER, Middletown, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn. Filed Aug. 14, 1912. Serial No. 715,055. (Cl. 188-29.)



1. A brake shoe comprising a plurality of superimposed plies of woven fabric secured together, each of said plies having free portions at the side edges.

2. A brake shoe comprising a plurality of superimposed plies of woven fabric secured together and containing hardening material, the side portions of the several plies being free.

3. A brake shoe comprising superimposed plies of woven fabric secured together and containing hardening material, the side portions of said plies being free, said plies being free, said plies being free, said plies being free.

4. The combination with a brake head, of a shoe comprising superimposed woven plies of asbestos secured together and containing hardening material, the side portions of said plies being free and extending over the side edges of the head, and fastening means for securing the shoe to the head.

1,078,041. BRAKE-SHOE. WILLIAM C. FISHER, Middletown, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn. Filed Aug. 14, 1912. Serial No. 715,057. (Cl. 188-29.)

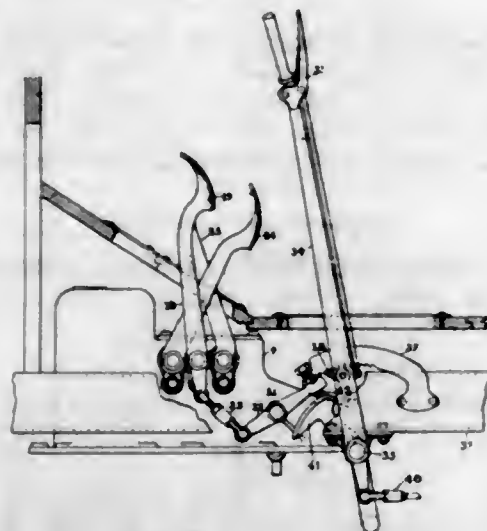


1. The combination with a brake shoe head having a concave face conforming to the wheel and provided at the opposite ends of the concave face with rearwardly projecting offsets, of a shoe comprising superimposed plies of woven fabric united into a hardened compact mass, the body of the shoe being shaped to conform to the shape of the concavity in the head, and provided with end portions adapted to overlie the projecting offsets on the head, and

means for securing the offset ends of the shoe to the offset ends of the head.

2. A wearing member for a brake shoe, composed of a plurality of superimposed plies of woven fabric containing a hardening material, the said wearing member being shaped into a compact mass to conform to the curvature of the wheel and provided at its ends with offsets for its attachment to the brake shoe head.

1,078,042. AUTOMOBILE CONTROL MECHANISM. HENRY FORD, Detroit, Mich. Filed Dec. 4, 1909. Serial No. 531,286. (Cl. 74-34.)



1. The combination in an automobile of a main shaft, a transmission shaft, a clutch for coupling the shafts together and a variable speed planetary transmission mechanism adapted to connect the shafts, with controlling means for throwing the clutch in and out, the controlling means being also adapted to hold the clutch released when the mechanism connecting the shafts is operative and to hold the mechanism in inoperative position when the clutch is engaged.

2. The combination in an automobile of a main shaft, a transmission shaft, a clutch for coupling the shafts together, and a variable speed planetary transmission mechanism adapted to connect the shafts with means for locking any one of the change speed members of the transmission mechanism in operative position, and means for operating the clutch and means adapted to automatically hold the clutch released when the change speed mechanism is operative and to hold the latter inoperative when the clutch is engaged.

3. The combination in an automobile of a main shaft, a transmission shaft, a self-closing clutch for coupling the shafts, and a variable speed transmission mechanism adapted to connect the shafts with control members each adapted to hold one of the change speed members of the transmission mechanism in operative position and means adapted to positively release the clutch when the transmission mechanism is operatively connecting the shafts.

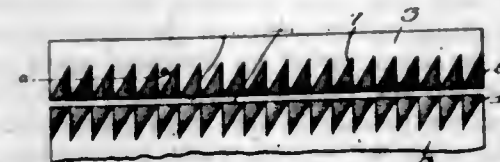
4. The combination in an automobile of a main shaft, a transmission shaft, a self-closing clutch for coupling the shafts, and a variable speed transmission mechanism adapted to connect the shafts, with control members each adapted to lock one of the change speed members of the transmission mechanism in operative position, a lever adapted to positively lock the clutch when in one position, and connections between the change-speed control members and lever adapted to hold the transmission mechanism in neutral position when the clutch is engaged and to hold the clutch in released position when the transmission mechanism is operatively connecting the shafts.

5. The combination in an automobile of a main shaft, a transmission shaft, a clutch for coupling the shafts, means for throwing the clutch in and out of gear, and a variable speed transmission mechanism adapted to connect the shafts, with a member for holding a change speed member of the transmission mechanism in operative position, a lever controlling the clutch throwing means, and

connections between the said locking member and clutch lever adapted to hold the clutch released when the mechanism is operating and to hold the mechanism inoperative when the clutch is engaged.

[Claims 6 to 15 not printed in the Gazette.]

1,078,043. WELT FOR FOOTWEAR. JOHN G. GERBER, Rochester, N. Y. Filed Apr. 29, 1913. Serial No. 764,335. (Cl. 36-78.)



1. A welt strip having tongues projecting from one edge thereof, said tongues decreasing in width toward their free ends and having opposite faces beveled near opposite edges and the beveled faces of each tongue overlapping the opposed beveled faces of proximate tongues to the free ends of the latter.

2. A welt strip having tongues projecting from one edge thereof, said tongues gradually decreasing in width and in thickness toward their free ends and each tongue overlapping the proximate tongues to the free ends of the latter.

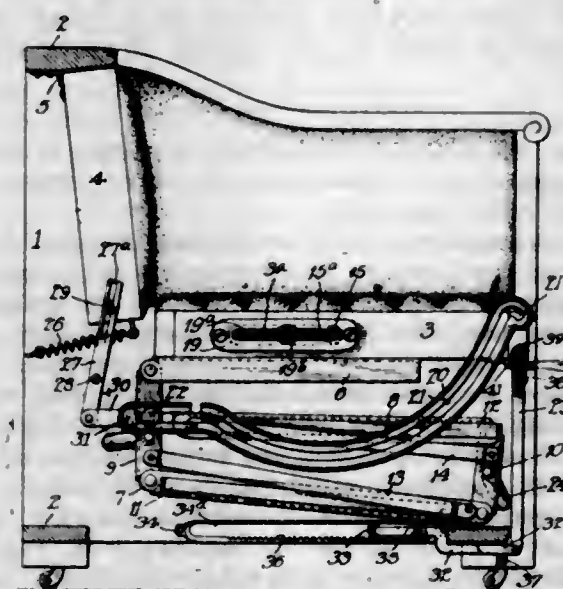
3. A welt strip having tongues projecting from one edge thereof, each of said tongues decreasing in width toward its free end and having beveled portions on opposite faces, parallel with the opposite edges of the tongue and each tongue overlapping the proximate tongues to the free ends of the latter.

4. A welt strip having overlapping tongues projecting from one edge thereof, each of said tongues having an edge perpendicular to the length of the welt and an edge at an oblique angle to the length of the welt and each of said tongues being beveled on opposite faces parallel with the side edges.

5. A welt strip having overlapping tongues projecting from one edge thereof, each of said tongues having an edge perpendicular to the length of the welt and an edge at an oblique angle to the length of the welt and each of said tongues being beveled on opposite faces parallel with the side edges, the beveled portions being as wide as the outer or free edge of the tongue so that the latter has a knife or feather edge.

[Claims 6 and 7 not printed in the Gazette.]

1,078,044. BED DAVENPORT OR COUCH. SAMUEL GOLDSTEIN, Chicago, Ill., assignor of one-fourth to Isadore Goldstein, one-fourth to Abe Goldstein, and one-fourth to Meyer Goldstein, Chicago, Ill. Filed Feb. 17, 1913. Serial No. 748,982. (Cl. 5-50.)



1. In furniture of the class described, the combination of end frames having stationary curved tracks on the inner

sides thereof, a seat mounted to rotate in the frames, and a bed spring made in folding sections, one of which is secured to the seat and another of which has portions cooperating with the tracks and movable therein.

2. In furniture of the class described, the combination of end frames having stationary curved tracks on the inner sides thereof, a seat mounted to rotate in the frames, and a bed spring made in folding sections, one of which is secured to the seat and another of which has portions cooperating with the tracks and movable therein, one end of the tracks having sockets to retain said portions.

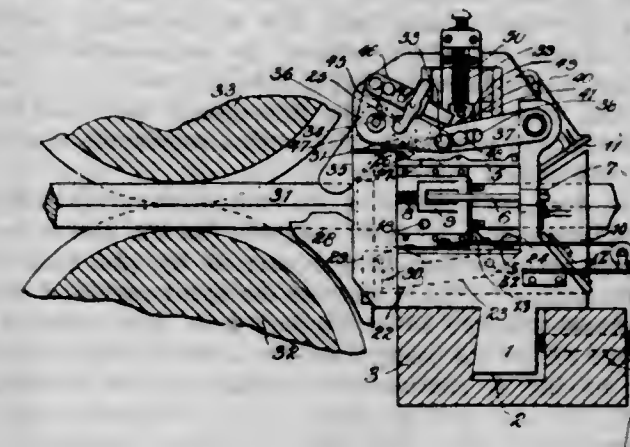
3. In furniture of the class described, the combination of end frames having stationary curved tracks on the inner sides thereof, a seat mounted to rotate in the frames, and also to slide horizontally therein, and a bed spring made in folding sections, one of which is secured to the seat and another of which has portions cooperating with the tracks.

4. In furniture of the class described, the combination of end frames having stationary curved tracks on the inner sides thereof, a seat mounted to rotate in the frames, a bed spring made in folding sections, one of which is secured to the seat and pins on another of such sections and adapted to cooperate with the tracks.

5. In furniture of the class described, the combination of end frames having stationary curved tracks on the inner sides thereof, a seat mounted to rotate in the frames, stationary pins projecting inwardly from the end frames, the opposite ends of the seat having slots to receive the pins, and a bed spring made in folding sections, one of which is secured to the seat and another of which has portions cooperating with the tracks.

[Claims 6 to 23 not printed in the Gazette.]

1,078,045. AUTOMATIC GUIDE-BOX FOR IRON AND STEEL ROLLING MILLS. DAVID MORGAN GRIFFITHS, Merthyr, Wales. Filed Jan. 19, 1912. Serial No. 672,124. (Cl. 80-51.)



1. In a rolling mill, a traveling guide box for feeding bars to the rolls, adjustable guide blocks carried thereby and means actuated by the passage of the bar through the guide for tightening the said blocks on the said bar.

2. In a rolling mill, a traveling guide box for feeding bars to the rolls, adjustable guide blocks carried thereby and a lever actuated by the passage of the bar through the guide for tightening the said blocks on the said bar.

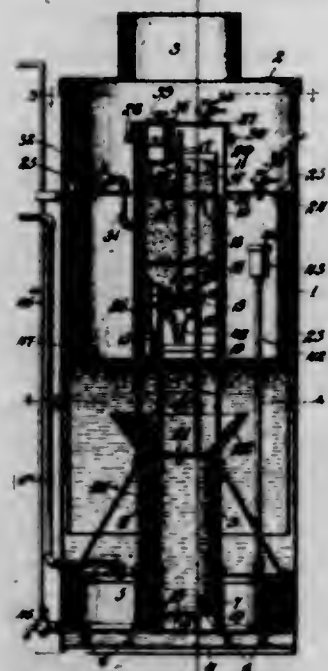
3. In a rolling mill, a traveling guide box for feeding bars to the rolls, adjustable guide blocks carried thereby, a vertical wedge for laterally tightening said blocks on the bar, a lever geared to the said wedge and means for automatically operating said lever upon the passage of the bar through the guide.

4. In a rolling mill, means for feeding bars to the rolls comprising an outer casing, a traveling guide box mounted therein, adjustable guide blocks carried by the box, a wedge in operative relation to one of the blocks, a lever carried by the casing in the path of a bar to be rolled, a shaft mounted in said casing, means for connecting the lever to the shaft, connections between the shaft and the wedge, means for disconnecting the shaft from the wedge, and an automatic catch for locking the guide box at one limit of its travel.

5. In a rolling mill, a guide box for the bar to be rolled mounted for movement with the bar in the direction of and during the travel of the bar to the rolls.

[Claims 6 and 7 not printed in the Gazette.]

1,078,046. ACETYLENE-GAS GENERATOR. WILBUR HAYNE, Ottawa, Ill. Filed Mar. 4, 1912. Serial No. 681,585. (Cl. 48-57.)



1. An acetylene generator comprising a closed casing adapted to contain a body of water, a gas bell in the casing and of a size and axial length to seal in the body of water when in the casing, another bell fast and interior to the first-named bell and of less axial length within the limits of the first named bell, and a stationary carbide reservoir wholly contained within the second-named bell in position to discharge directly into the body of water forming the water seal for the first-named bell, and the second named bell being provided with a removable top for access to the carbide reservoir.

2. In an acetylene generator, an elongated upright cage, a receptacle for spent carbide adapted to the lower end of the cage, a directing funnel carried by the cage in operative relation to the receptacle for spent carbide, a carbide receptacle adapted to be supported by the upper end of the cage above the receptacle for spent carbide, and a gas bell having a centralized chamber in surrounding relation to the cage and provided with a removable cover, said centralized chamber inclosing the carbide receptacle.

3. An acetylene generator comprising a suitable casing with an interior upright cage, a receptacle for spent carbide adapted to be lodged in the lower end of the cage, a receptacle for unused carbide adapted to be supported at the upper end of the cage, above the receptacle for spent carbide, a funnel or deflector carried by the cage in position to direct spent carbide into the receptacle therefor, a controlling valve or gate for the carbide receptacle, and a gas bell within the main casing and provided with a centralized chamber in surrounding relation to the carbide receptacle, said chamber being provided with a removable cap in position to operate the valve or gate of the carbide receptacle.

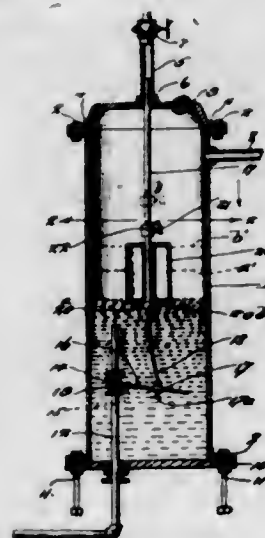
4. An acetylene generator comprising a suitable casing with an interior upright cage, a receptacle for spent carbide adapted to be lodged in the lower end of the cage, a receptacle for unused carbide adapted to be supported at the upper end of the cage above the receptacle for spent carbide, a funnel or deflector carried by the cage in position to direct spent carbide into the receptacle therefor, a controlling valve or gate for the carbide receptacle, a gas bell within the main casing and provided with a centralized chamber in surrounding relation to the carbide receptacle, said chamber being provided with a removable cap in position to operate the valve or gate of the carbide receptacle, the inner chamber of the gas bell having valved communi-

cating means with the interior of the gas bell and both the gas bell and interior chamber thereof having valved means for communication with the exterior of each.

5. In an acetylene generator, a gas bell provided with a centralized chamber having a readily removable cover member and extending into the bell toward the lower end thereof for a distance less than the length of the bell, a carbide container lodged within the centralized chamber and removable through the covered end thereof, a stationary support for the carbide container independent of the bell, a receptacle for spent carbide in line with the carbide receptacle and removable through the centralized chamber, and a funnel intermediate of the carbide container and receptacle for spent carbide for directing spent carbide into said receptacle, the funnel being of a size to permit the removal of the receptacle for spent carbide therethrough and having a spread at the wider end greater than the diameter of the centralized chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,078,047. STEAM-TRAP. EDWARD F. JONES, St. Joseph, Mo. Filed Jan. 15, 1913. Serial No. 742,114. (Cl. 137-103.)



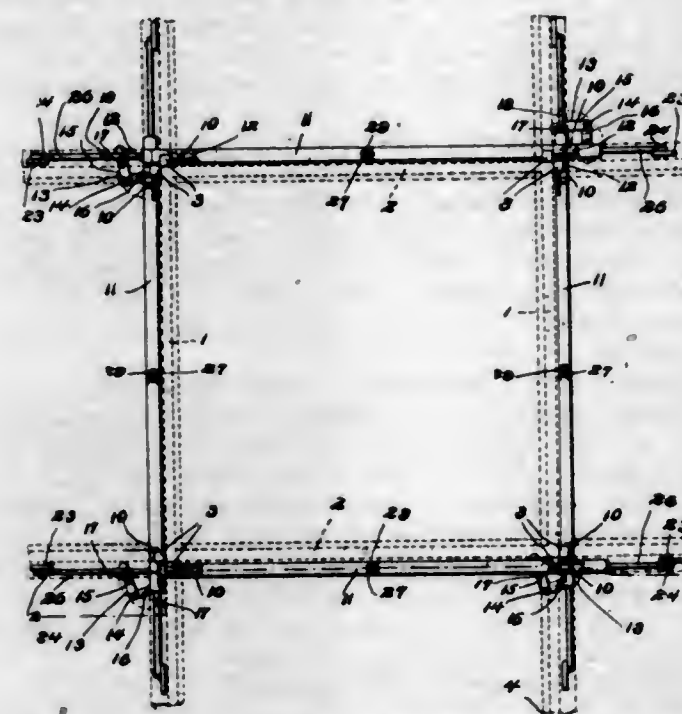
In a steam trap, a cylinder having a steam inlet and provided with an outlet pipe having a valve, said valve having an arm movable therewith, a nipple tube including an air cock connected to the cylinder, a rod movable in said cylinder with its upper portion slidable in the nipple tube and having a lower flexible end, a collar mounted on said arm to which the lower extremity of said flexible end is pivotally connected, said collar adapted to be adjusted in different positions to vary the throw of the valve including a device for holding the same adjusted; a float slidable on said rod, a collar on said rod above its flexible end and fixed below the float, a second collar arranged adjustably on said rod above the float and with which adjustable collar said float contacts when raised by the accumulation of water in the cylinder to move the rod vertically.

1,078,048. RAILROAD-CROSSING. CHARLES F. KELLY, Philadelphia, Pa. Filed Dec. 14, 1912. Serial No. 736,693. (Cl. 104-117.)

1. The combination with a railroad crossing having openings at the juncture of its crossing rails, vertically movable blocks in said openings adapted to bridge the gap between the rails, horizontally positioned bars below the blocks, wedges on said bars adapted to move the blocks vertically, said wedges having straight upper portions upon which the blocks rest when in an elevated position, and means for moving said bars in both directions, substantially as described.

2. The combination with a railroad crossing having openings at the juncture of its crossing rails, vertically movable blocks in said openings adapted to bridge the gap between the rails, horizontally positioned bars below the blocks, wedges on said bars adapted to move the blocks vertically, said wedges having straight upper portions

upon which the blocks rest when in an elevated position, lugs on the rails having openings therein, pins on the blocks in said openings in the lugs, and means for moving said bars in both directions, substantially as described.



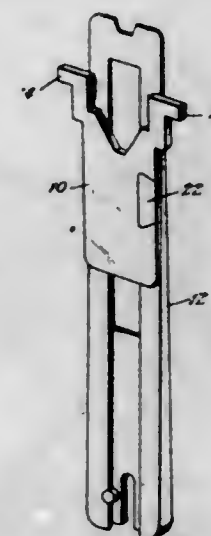
3. The combination with a railroad crossing having openings at the juncture of its crossing rails, vertically movable blocks in said openings adapted to bridge the gap between the rails, horizontally positioned bars below the blocks, wedges on said bars adapted to move the blocks vertically, said wedges having straight upper portions upon which the blocks rest when in an elevated position, other bars below the first-mentioned bars, levers fulcrumed between their ends and connecting the respective sets of upper and lower bars, whereby the movement of the latter in one direction causes the movement of the former in the opposite direction, means compelling the lower set of bars to move simultaneously, and means operated by a car for moving said bars, substantially as described.

4. The combination with a railroad crossing having openings at the juncture of its crossing rails, vertically movable blocks in said openings adapted to bridge the gap between the rails, horizontally positioned bars below the blocks, wedges on said bars adapted to move the blocks vertically, said wedges having straight upper portions upon which the blocks rest when in an elevated position, lugs on the rails having openings therein, pins on the blocks in said openings in the lugs, other bars below the first-mentioned bars, levers fulcrumed between their ends and connecting the respective sets of upper and lower bars, whereby the movement of the latter in one direction causes the movement of the former in the opposite direction, means compelling the lower set of bars to move simultaneously, and means operated by a car for moving said bars, substantially as described.

5. The combination with a railroad crossing having openings at the juncture of its crossing rails, vertically movable blocks in said openings adapted to bridge the gap between the rails, horizontally positioned bars below the blocks, wedges on said bars adapted to move the blocks vertically, said wedges having straight upper portions upon which the blocks rest when in an elevated position, other bars below the first-mentioned bars, levers fulcrumed between their ends and connecting the respective sets of upper and lower bars, whereby the movement of the latter in one direction causes the movement of the former in the opposite direction, means compelling the lower set of bars to move simultaneously, bell-crank-levers pivotally connected to the rails and connected to the last-mentioned levers, and pins projecting through the treads of the rails and engaging said last-mentioned bell-crank-levers whereby the depression of said pins causes the movement of said blocks, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,078,049. SPACE-BAND FOR LINOTYPE-MACHINES. THOMAS H. KNAPP, Chicago, Ill. Filed Apr. 23, 1913. Serial No. 763,116. (Cl. 199-4.)



1. A space band, for insertion between two matrices containing type dies, in which the body of the space band is made of strong wear resisting material, there being inserted at the point where, in the use of the device, the space band comes in contact with the die of the adjacent matrix, a piece of material to which type metal does not readily adhere.

2. A space band comprising a "sleeve" and a "wedge" therefor, the space band being made of material selected for its strength and wear resisting qualities, said sleeve being provided with a relatively small insert of material to which type metal does not ordinarily readily adhere, said insert being located in the sleeve at that point where, in the ordinary use of the space band, type metal would adhere.

3. In a device of the class described, a space band comprising the sleeve 10 and the wedge 12 operatively connected thereto, said sleeve 10 being provided in the edge where, in its use, it is normally contacted by type metal, with an insert 22 of a material to which type metal does not readily adhere, all of the parts being arranged and disposed as shown and described for the purposes set forth.

4. A space band for insertion between two matrices containing type dies, in which the body of the space band is made of strong wear resisting material, there being inserted at a point where in the use of the device the space band comes in contact with the die of the adjacent matrix, a piece of brass or copper, for the purposes set forth.

1,078,050. BUFFING-MACHINE. ELMER E. LANE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 7, 1913. Serial No. 752,752. (Cl. 51-17.)

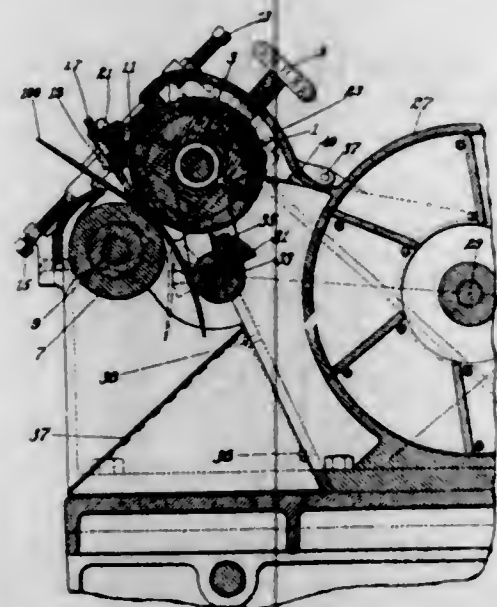
1. A machine of the class described having, in combination, a buffing roll, means for feeding stock to said roll, and means for vibrating the stock after it has passed said roll.

2. A machine of the class described having, in combination, a buffing member for acting upon stock, means for feeding the stock to said member, and means for removing the dust generated by the buffing operation, said last named means including a movable member for jarring the stock to raise the dust from its surface.

3. A machine of the class described having, in combination, means for feeding stock to said roll, and means for removing the dust generated by the buffing operation, said last named means including a member for beating the stock to raise the dust from its surface.

4. A machine of the class described having, in combination, a buffing member, means for feeding stock to said member, means for drawing a current of air past said member and feeding means, and means for beating the buffed portion of the stock to raise the dust into position to be swept away by said current.

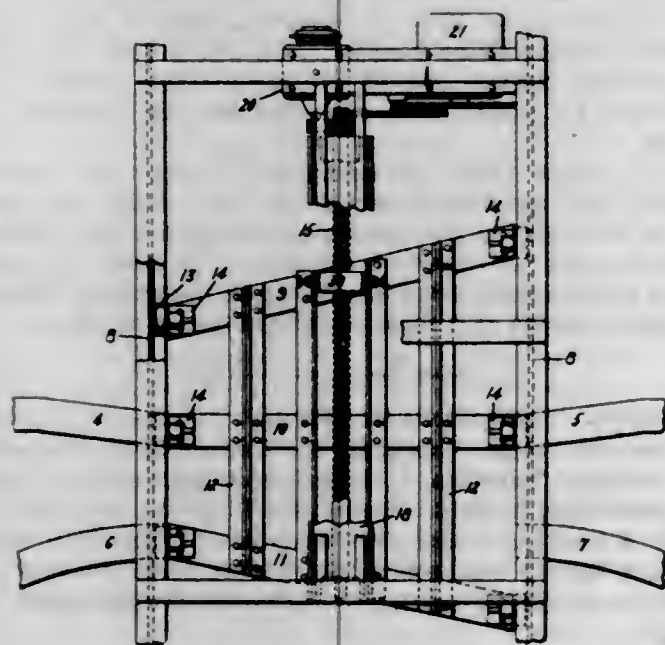
5. A machine of the class described, having, in combination, a buffing roll, means for feeding stock to said roll, means for drawing a current of air past said roll,



and means for striking the stock and brushing the dust therefrom, said last named means including a brush formed as a portion of a cylinder.

[Claims 6 to 9 not printed in the Gazette.]

1,078,031. GLIDING SWITCH FOR OVERHEAD MONORAIL TRAMWAYS. SAM H. LIBBY, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed Oct. 21, 1912. Serial No. 728,870. (Cl. 104—180.)



1. The combination with the four stub ends of two monorail tramways, of a gliding switch for connecting them, said switch comprising three rail sections, and means for sliding them transversely into four different connecting positions, the middle section being perpendicular to the line of movement of said switch for connecting in two of said positions directly opposite ends of one or the other of said tramways, and the other two sections being oblique to said line of movement for respectively connecting one end of one tramway with the diagonally opposite end of the other.

2. The combination with the four stub ends of two monorail tramways, of a gliding switch for connecting them in four different positions, an electric motor for operating said switch, a limit switch for stopping said

motor in any one of four positions, and means whereby said motor can be started from points adjacent to said stub ends.

3. The combination with the four stub ends of two monorail tramways, of a gliding switch for connecting them in four different positions, an electric motor for operating said switch, and a rotary limit switch for said motor having a snap action and capable of operating in either direction.

4. The combination with the four stub ends of two monorail tramways, of a gliding switch for connecting them in four different positions, an electric motor for operating switch, a rotary limit switch for said motor which comprises a contact carrying drum, ratchet wheels secured thereto, a driving disk adjacent to each wheel, a spring engaged by one of said disks and wheels, and means for tripping the ratchet wheels.

5. The combination with the four stub ends of two monorail tramways, of a gliding switch for connecting them in four different positions, an electric motor for operating said switch, a rotary limit switch for said motor which comprises a contact carrying drum, ratchet wheels secured thereto, a driving disk adjacent to each wheel, a spring engaged by one of said disks and wheels, and means for tripping the ratchet wheels comprising a detent pawl engaging with each ratchet wheel and lifters on said disks for disengaging said pawls.

[Claim 6 not printed in the Gazette.]

1,078,052. TIRE-BOLTING MACHINE. MATTHEW T. LONG, Helena, Okla., assignor to The Helena Manufacturing Company, a Corporation. Filed Apr. 28, 1910, Serial No. 558,217. Renewed July 27, 1912. Serial No. 711,919. (Cl. 81—56.)



1. A machine of the character specified having a vertically movable sleeve, a guide for said sleeve, a stud shaft having a collar surrounding said sleeve, a set screw extending through said collar for adjusting said stud shaft on said sleeve, a lever pivotally connected with said sleeve, and a weight adjustably mounted upon said lever for counterpoising the weight of said stud shaft and the work carried thereby.

2. A machine of the character specified having a wrench, a movable nut feeder, and a clamping device for cooperating with the wrench, said clamping device limiting the movement of said nut feeder.

3. A machine of the character specified having a work support, a work table, a wrench on the table, a swinging nut feeder substantially in line with said wrench when in feeding position, and a clamp adapted to cooperate with said wrench.

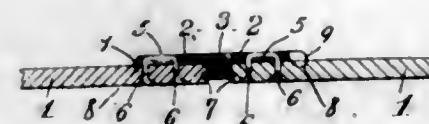
4. A machine of the character specified having a work support, a work table, a wrench mounted on said table, a

swinging nut feeder, a clamp cooperating with said wrench, and gage means mounted adjacent to said wrench, and limiting the movement of said nut feeder.

5. A machine of the character specified having a work support, means for adjusting said support, means for counter-balancing said support, a work table, a rotary wrench on the table, a plug removably and yieldingly mounted in said wrench, means for rotating said wrench, a swinging nut feeder, a gravity actuated device for holding said nut feeder in operative or inoperative position, an eccentric washer for limiting the swing of said nut feeder, a vertically adjustable clamping member for cooperating with the wrench, and a foot lever for operating said clamping member.

[Claims 6 to 16 not printed in the Gazette.]

1,078,053. BELT-FASTENER. WILLIAM F. MARRESFORD, Brooklyn, N. Y. Filed Dec. 13, 1912. Serial No. 736,483. (Cl. 24—33.)



1. A belt fastener comprising a flat plate serving as a joining member and having a plurality of sets of holes of predetermined spacing, the respective holes of each set lying longitudinally of the belt, and U-shaped staples passing through said sets of holes of said plate and piercing the belt at longitudinally separated points.

2. A belt fastener comprising two hinged flat plates serving as joining members, each plate being provided with a plurality of sets of holes of predetermined spacing, the respective holes of each set lying longitudinally of the belt, and staples having a plurality of prongs connected by an integral bridge of a length equal to the spacing between the extreme holes of each set, said staples passing through the holes of said plate and piercing the belt at longitudinally separated points, the ends of the prongs being adapted to be clenched on the under side of said belt into the fiber in a direction longitudinally of the belt and toward the adjacent ends of the belt.

3. A belt fastener comprising a flat plate having a plurality of sets of holes of predetermined spacing, each set of holes being disposed longitudinally of the belt, the portions of the plate lying in a line between the holes of each set being sunk below the face of the plate, and staples passing through said sets of holes and piercing the belt at longitudinally separated points, the bridge portions of said staples being disposed in said sunk portions of the plate.

4. A belt fastener comprising a plate having a plurality of series of longitudinally arranged apertures adapted for the insertion of longitudinally arranged staples and a plurality of knuckles at one end of said plate, said knuckles having aligned apertures adapted to receive a pintle, certain of said knuckles having aligning flat faces adapted to engage the end of the belt and thereby gage the positioning of the fastener plate on the belt.

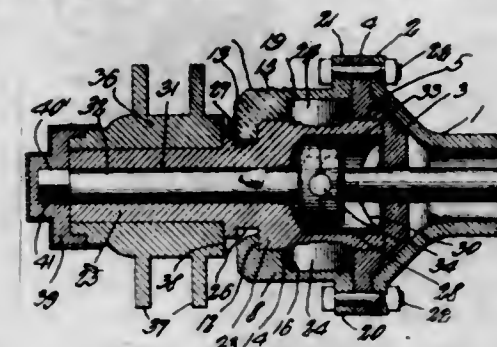
5. A joining member of a belt fastener comprising a plate having a plurality of series of longitudinally arranged apertures adapted for the insertion of longitudinally arranged staples, a plurality of knuckles having aligned apertures adapted to receive a pintle, certain of said knuckles having aligning faces to engage the end of the belt, and a projection adapted to be forced into the belt for maintaining the alignment of the plate.

1,078,054. AXLE STEERING-KNUCKLE. FRANK F. MARSH, Antigo, Wis. Filed Dec. 17, 1912. Serial No. 737,290. (Cl. 21—90.)

1. In a power transmitting steering knuckle, the combination of a housing comprising a back plate and two front members, said housing forming a central journal box with relatively smaller journal boxes at the ends there-

196 O. G.—21

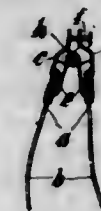
of; an axle-trunnion-spindle member journaled within said housing and adapted to rotate about the axis of the axle and the trunnions, said member being provided with a bore extending transversely of said axle and communicating with a longitudinal bore in said spindle, a shaft within said axial bore, a shaft within said spindle bore and connected to the aforementioned shaft by a universal joint.



2. In a power transmitting steering knuckle the combination of, a housing formed with a back plate formed with an outstanding flange, front housing members formed with cylindrical bores therein and having flanges outstanding therefrom, adapted to be held to said plate flange, an axle journaled within said housing and adapted to turn about its longitudinal axis, trunnions formed concentric with and at the ends of said axle, a spindle positioned centrally and extending radially from said axle, said spindle provided with a longitudinal bore communicating with a relatively larger bore provided transversely of said axle.

3. In a power transmitting steering knuckle, a housing formed with a back plate and with an outstanding flange, front housing members formed with a cylindrical bore therein and formed with an outstanding flange adapted to be held to said plate flange, an axle journaled within said housing and adapted to turn about its longitudinal axis, trunnions formed concentric with and at the ends of said axle, a spindle positioned centrally and extending radially from said axle, said spindle being provided with a longitudinal bore communicating with a relatively larger bore provided transversely of said axle, a shaft extending through said back housing plate, a shaft journaled within said spindle longitudinal bore, said shafts being connected by a universal joint.

1,078,055. DEVICE FOR USE IN DRESSING THE HAIR. ANTON MASLE, Laibach, Austria-Hungary. Filed Jan. 6, 1912. Serial No. 669,739. (Cl. 132—16.)



1. In a device for dressing the hair, the combination of two combs, a hinge each member of which is provided with a clip, a comb carried by each clip, spring means for normally pressing the combs apart, and means for limiting the extent to which they can be separated under the influence of the spring substantially as described.

2. In a device for dressing the hair the combination of two combs, a bent spring device for connecting the combs at the back and normally tending to separate the said combs and screw means limiting the extent to which they can be separated and thus regulating the opening between them substantially as described.

1,078,056. TRICYCLE PROPELLING MECHANISM. PATRICK A. MCCARTY, Honesdale, Pa. Filed July 1, 1912. Serial No. 707,013. (Cl. 208—30.)

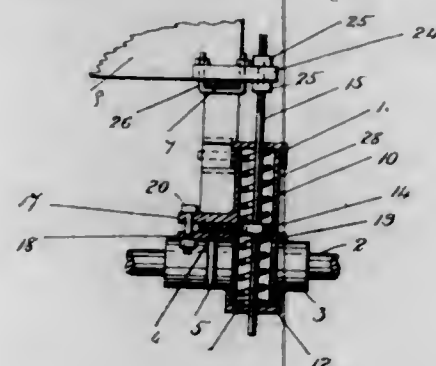
In a propelling mechanism, unions of the frame of a tricycle, bushings threaded in the unions, an axle having

a central portion rectangular in cross section, a drive wheel upon the rectangular portion, the axle having cylindrical extensions mounted in the bushings, ball bearings between the ends of the hub of the wheel and the



bushings, the extensions having other extensions rectangular in cross section, arms secured upon the latter rectangular extensions, and pedal connections connected to the arms.

1,078,057. VEHICLE-SPRING. HENRY J. MITCHELL, Elkhart, Ind. Filed May 19, 1913. Serial No. 768,476. (Cl. 21-105.)



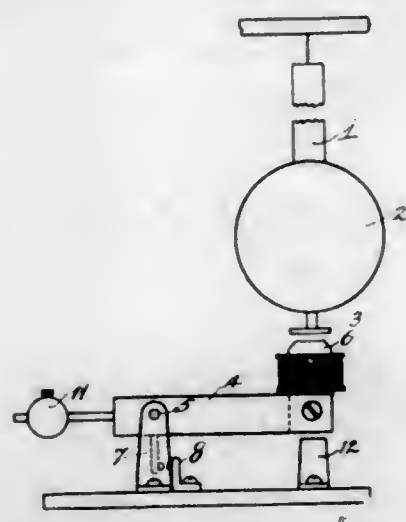
1. The combination, with a car body, a car axle, and a leaf spring which supports the body from the axle; of a cylinder provided with a laterally projecting lug at its middle part which bears on one surface of the spring, a plate which bears on the other surface of the spring and having an eye which is slidable on the cylinder, a clamping bolt engaging with the said plate and lug, a piston slidable in the cylinder and provided with a piston-rod which is operatively connected with the car body, and springs arranged between the piston and the ends of the cylinder.

2. The combination, with a car body, a car axle, and a pair of leaf springs which support the body from the axle; of a cylinder provided with a laterally projecting lug at its middle part which rests on the middle part of the lower leaf spring to one side of the axle, a plate arranged under the lower leaf spring and provided with an eye which is slidable on the cylinder, a clamping bolt engaging with the said plate and lug, a piston slidable in the cylinder and provided with a piston-rod having a screwthreaded portion at its upper end, springs arranged between the piston and the ends of the cylinder, a plate secured to the upper leaf spring and having a hole which is slidable over the screwthreaded end portion of the piston-rod, and fastening nuts screwed on the said screwthreaded portion on each side of the last said plate.

1,078,058. TIMING DEVICE. CHARLES R. MOORE, La Fayette, Ind. Filed Nov. 27, 1912. Serial No. 733,817. (Cl. 58-30.)

1. A motion maintaining apparatus including a pendulum; an armature carried by the pendulum; a swingingly mounted permanent magnet provided with a soft iron polar extension or extensions that cooperate with the armature to pull the pendulum; an electro-magnet winding in partial demagnetizing relation with said polar extension or extensions; and an energizing circuit including

the electro-magnet winding and a switch which is operated by the permanent magnet to close the circuit when the permanent magnet is moved at its portion where the electro-magnet winding is provided, upon the sufficiently close approach of the armature toward the permanent magnet sufficiently to reduce the pull of the permanent magnet upon the pendulum armature during a limited portion of the pendulum motion whereby the pendulum may continue in the direction in which it is pulled by the permanent magnet.



2. A motion maintaining apparatus including a pendulum; an armature carried by the pendulum; a swingingly mounted permanent magnet cooperating with the armature to pull the pendulum; an electro-magnet winding in differential relation with the permanent magnet; and an energizing circuit including the electro-magnet winding and a switch which is operated by the permanent magnet to close the circuit when the permanent magnet is moved at its portion where the electro-magnet winding is provided, upon the sufficiently close approach of the armature toward the permanent magnet sufficiently to reduce the pull of the permanent magnet upon the pendulum armature during a limited portion of the pendulum motion whereby the pendulum may continue in the direction in which it is pulled by the permanent magnet.

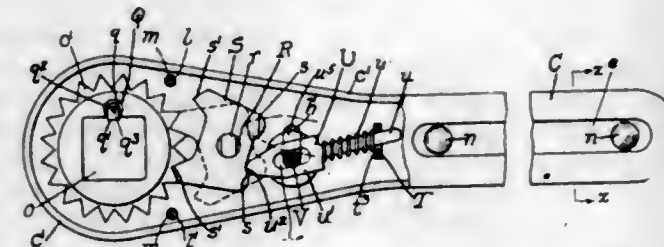
3. A motion maintaining apparatus including a pendulum; an armature carried by the pendulum; two differentially related magnets, one cooperating with the armature to pull the pendulum and the other, which is an electro-magnet, serving to counteract the effect of the first to reduce the pull upon the armature during a limited portion of the pendulum motion, the magnet that pulls the armature being movably mounted; and an energizing circuit for the electro-magnet which includes a switch which is closed by the movably mounted magnet when moved upon the sufficiently close approach of the armature thereto.

4. A motion maintaining apparatus including a pendulum; an armature carried by the pendulum; two differentially related magnets, one cooperating with the armature to pull the pendulum and the other, which is an electro-magnet, serving to counteract the effect of the first to reduce the pull upon the armature during a limited portion of the pendulum motion; and an energizing circuit for the electro-magnet which includes a switch which is closed by the pendulum pulling magnet in cooperation with the pendulum when it has approached the pulling magnet sufficiently close.

5. A motion maintaining apparatus including a pendulum; an armature carried by the pendulum; two differentially related magnets, one cooperating with the armature to pull the pendulum and the other, which is an electro-magnet, serving to counteract the effect of the first to reduce the pull upon the armature during a limited portion of the pendulum motion; and an energizing circuit for the electro-magnet which includes a switch governed by the pendulum and closed thereby when it has sufficiently approached the pendulum pulling magnet.

[Claims 6 to 12 not printed in the Gazette.]

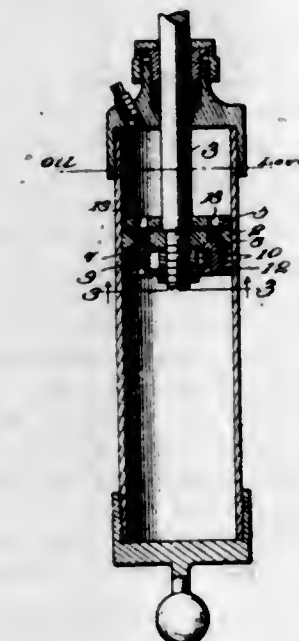
1,078,059. WRENCH. FRANK MOSSBERG, Attleboro, Mass., assignor to Frank Mossberg Company, a Corporation of Rhode Island. Filed Oct. 19, 1912. Serial No. 726,760. Renewed Oct. 1, 1913. Serial No. 792,875. (Cl. 81-63.)



1. In a ratchet wrench, a head portion having a rigid handle, a ratchet head rotatably mounted in bearings in said head portion and having socket opening and peripheral teeth, a pawl pivotally mounted in the head portion for rocking movement and having interspaced shoulders, a bodily movable lever having a longitudinal slot, a spring around the shank of said lever, a guide for said shank against which said spring has a bearing, the head portion being provided with transverse openings and transverse depressed portions opposite thereto and a pin passed loosely through said openings and through the longitudinal slot of the lever and having heads disposed in said depressions for transversely vibrating said lever.

2. In a ratchet wrench, a hand portion having a rigid handle, a ratchet head rotatably mounted in bearings in said head portion and having socket opening and peripheral teeth, a pawl pivotally mounted in the head portion for rocking movement and having interspaced shoulders, a bodily movable lever having a longitudinal slot, a spring around the shank of said lever, a guide for said shank against which said spring has a bearing, the head portion being provided with transverse openings and a pin passed loosely through said openings and through the longitudinal slot of the lever, and washers on said pin upon opposite sides of said lever.

1,078,060. SHOCK-ABSORBER. EDMUND W. NEWMAN, Ashland, Va. Filed Sept. 14, 1912. Serial No. 720,343. (Cl. 21-105.)



1. In a shock absorber, the combination with a liquid-containing cylinder, of a piston therein, said piston having a plurality of ports and valve mechanism for closing said ports when the piston is moved relatively upward, a valve-controlled passage between opposite sides of said piston, and valve mechanism for controlling said passage comprising valves and springs of different tensions for holding said valves to their respective seats.

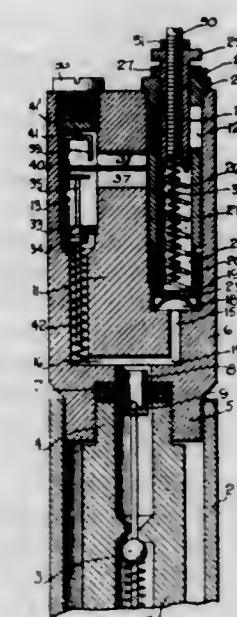
2. In a shock absorber, the combination with a liquid-containing cylinder, of a piston in said cylinder having a plurality of ports through which liquid is designed to pass

when there is a relative movement in one direction between the piston and the cylinder, a valve for closing such ports when said parts are moved in the opposite direction, a plurality of valves carried by said piston for closing ports therein during the first mentioned movement, and springs varying in tension for holding said valves to their seats, one or all of said valves being unseated during said opposite movement.

3. In a shock absorber, the combination with a liquid-containing cylinder, of a piston therein, said piston having a plurality of ports for the passage of liquid when the piston is moved downward, said piston also having ports which are closed during such downward movement, valve-mechanism for closing the first mentioned ports when the piston is moved upwardly, valves carried by said piston for so closing said second ports, and springs differing in tension for normally holding said valves to their seats.

4. In a shock absorber, the combination with a liquid-containing cylinder, of a piston therein, said piston having a plurality of ports for the passage of liquid when the piston is moved downward, said piston also having ports which are closed during such downward movement, a valve for closing the first mentioned ports during the upward movement of the piston, said valve having openings coincident with the second mentioned ports, and spring-held valves normally closing the second mentioned ports and designed to be unseated only when the piston is moved upwardly.

1,078,061. ALARM FOR PNEUMATIC TIRES. JOSEPH B. POLO, Clear Lake, S. D. Filed Apr. 26, 1913. Serial No. 763,861. (Cl. 116-1.)



1. A device of the class described comprising a cylindrical member having a plurality of parallel longitudinal bores and adapted for engagement upon the valve stem of the pneumatic tire, means carried by the cylindrical member for retaining the valve in the valve stem in open position and allowing air from the stem to enter the lower end of the cylindrical member, one of the bores having communication at its lower end with the lower end of the cylindrical member, the second bore also having communication with the lower end of the cylindrical member, said cylindrical member having an air passage connecting the second bore with the third bore, a slidable thimble within the first bore, a normally closed valve within the second bore, means for retaining the thimble in normal position, the third bore having an air escape opening and a plate adjacent said opening, the thimble being adapted to be moved in one direction upon an increase of air pressure in the stem, means for moving the thimble in the opposite direction upon a decrease of the air pressure within the stem, and means carried by the thimble for opening the valve in the second bore to allow air to pass the valve, travel through the air passage to the third bore, and past the plate and escape to the atmosphere through the air

escape opening in the third bore and thereby give an audible signal upon movement of the thimble in either direction.

2. A device of the class described comprising a solid cylindrical member having an open end adapted for engagement upon a valve stem, means carried by the solid cylindrical member for retaining the valve of the valve stem in open position to allow the air from the same to enter the open end of the cylindrical member, a bore within said cylindrical member and having communication with the open end of the same, a second bore within the cylindrical member and having communication with the open end of the same, a third bore within the cylindrical member and having an air escape opening, a plate adjacent said opening, an air passage from the second bore to the third bore, a valve within the second bore, means for resiliently retaining the valve in closed position, a slidable thimble within the first bore, a diaphragm within the first bore and engaged against the thimble, said diaphragm being normally expanded by the air from the valve stem, adjustable means engaged with the thimble and adapted to force the same downwardly upon decrease of the pressure within the valve stem, the diaphragm being adapted to force the thimble upon increase of the pressure within the valve stem, and means carried by the thimble and extending into the second bore for opening the valve in said second bore and allowing air to pass the same to reach the air passage connecting the second and third bores upon movement of the thimble beyond a predetermined distance in either direction.

3. An alarm for pneumatic tires comprising a cylindrical member having an air chamber in one end, means for securing the cylindrical member to the valve stem and pneumatic tire, means carried by the cylindrical member for retaining the valve of the stem in open position, and allowing air to travel from said stem to the air chamber of the cylindrical member, said cylindrical member having a central portion and a plurality of longitudinal bores around the central portion, connections between the inner end of one of the bores and the air chamber, connections between the corresponding end of another of said bores, and the air chamber, connections between the lower end of the third bore and the upper end of the second bore, means for closing the outer ends of said bores, a diaphragm in the lower end of the first bore, a slidable thimble within the first bore, means for resiliently retaining the thimble in engagement with the diaphragm, a valve within the second bore, the central portion of the cylindrical member being provided with a transverse opening a spaced distance from the outer end of said member, the third bore being provided with an air escape opening in its outer wall, a plate within the third bore and positioned adjacent the air escape opening, and means carried by the thimble and extending through the transverse opening in the central portion of the cylindrical member and into the second bore to open the valve in the second bore and allow air to travel past the valve, to the third bore and past the plate and escape to the atmosphere by means of the air escape opening and thereby give an alarm upon a change of the air pressure beyond a predetermined point.

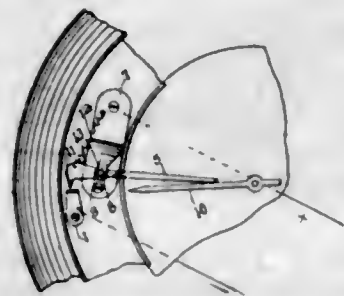
1,078,062. TREATMENT OR RENOVATION OF FOUNDRY-SAND. ANDREW POULSON, Farnworth, Widnes, England. Filed June 2, 1913. Serial No. 771,260. (Cl. 22-217.)

A process for the treatment or renovation of foundry sand which consists in adding to the sand equal parts by weight of sulfate of alumina, sulfate of magnesia and water.

1,078,063. THERMOSTATIC FIRE-ALARM. JOSEPH RANCOURT, St. Benoit, Quebec, Canada. Filed May 3, 1913. Serial No. 765,181. (Cl. 177-311.)

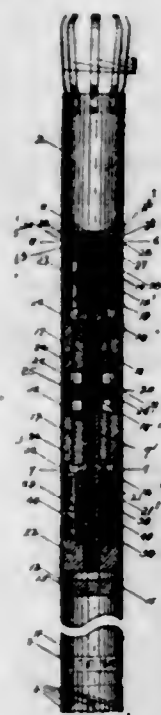
In combination in a device of the character described, an electrical circuit, a needle, a fixed plate connected to one side of the circuit; a flat fixed plate connected to other side of the circuit; an arched plate integral with

the flat plate, a regulating screw threaded through the arched plate, a shaft having its ends mounted in needle point bearings in the said screw and the flat plate, an arm secured on the shaft and having its inner end bent downwardly and its outer end provided with a point adapted to engage the first mentioned fixed plate as it



is rotated by the action of the needle on its inner downwardly bent end and thus close the circuit; a tension spring having one end connected to the outer end of the arm and the other end connected to the flat fixed plate, so as to keep the circuit normally open; and a pin adapted to engage the outer end of the arm so as to limit its motion away from the first fixed plate.

1,078,064. WELL-DRILLING MACHINE. ED RAND, Charleston, W. Va. Filed Oct. 28, 1912. Serial No. 728,163. (Cl. 255-4.)



1. In an apparatus for drilling wells and the like, the combination of a casing, a rotatable shaft mounted therein, cutting means secured to said shaft, an electric motor in said casing to rotate said shaft, a body of fluid in said casing, and means for transmitting the pressure external to said casing to said body of fluid.

2. In an apparatus for drilling wells and the like, the combination of a casing, a rotatable shaft mounted therein, cutting means secured to said shaft, an induction motor in said casing to rotate said shaft, said motor comprising a stator secured to said casing and a rotor secured to said shaft, means in said casing to retain a body of fluid having free circulation around said motor, and means for transmitting the pressure external to said casing to said body of fluid.

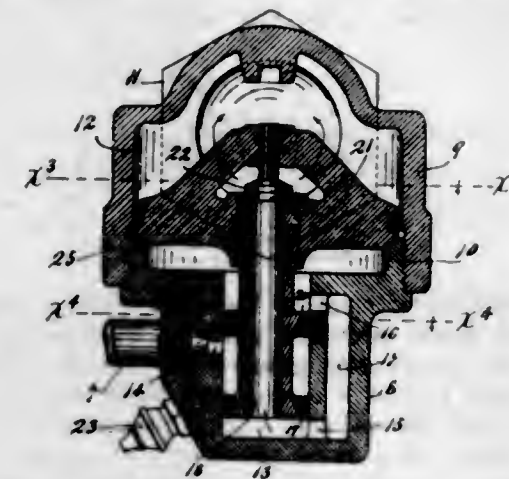
3. In an apparatus for drilling wells and the like, the combination of a casing, a rotatable shaft mounted therein, cutting means secured to said shaft, a motor in said casing to rotate said shaft, means to retain a body of fluid in said casing, and yielding pressure-transmitting means in connection with the casing to equalize the external pressure and the pressure of said fluid.

4. In an apparatus for drilling wells and the like, the combination of a casing, a rotatable shaft mounted therein, cutting means secured to said shaft, a motor in said casing to rotate said shaft, means to retain a body of fluid in said casing, and means to equalize the external pressure and the pressure of said fluid.

5. In an apparatus for drilling wells and the like, the combination of a casing, a rotatable shaft journaled therein, cutting means secured thereto, a central passage in said shaft to conduct circulating fluid to said cutting means, means actuated by said shaft to establish the flow of liquid through said shaft and to the cutting means, and a motor in said casing to rotate said shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,078,065. DRIFTING-VALVE FOR LOCOMOTIVES. JOSEPH SANDY, Minneapolis, Minn. Filed Aug. 17, 1910. Serial No. 577,651. (Cl. 121-14.)



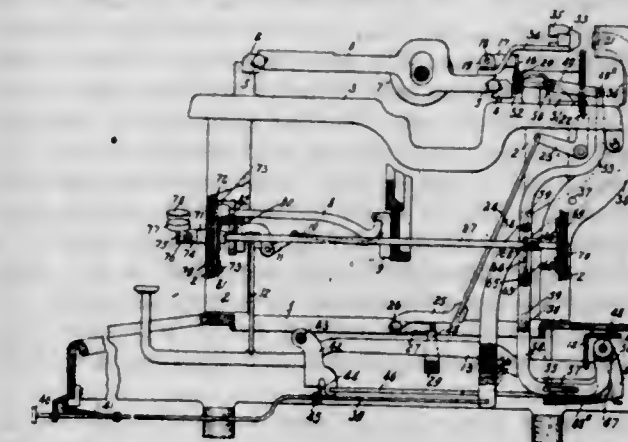
1. In a locomotive, auxiliary steam supply conduits connecting the boiler to the steam chests, independently of the throttle controlled normal steam supply connections, and differential valve casings and cooperating differential valves interposed in said auxiliary steam supply conduits, said valves having their large ends subject to steam chest pressure and having a balanced portion normally closing said auxiliary conduit but arranged to be moved into a position to open up said auxiliary conduits, by suction or partial vacuum produced in the cylinder and steam chest and acting on the large ends of said differential valves, when the engine is drifting.

2. In a locomotive, auxiliary steam supply conduits connecting the boiler to the steam chests, independently of the throttle controlled normal steam supply connections, and differential valve casings and cooperating differential valves interposed in said auxiliary steam supply conduits, said valves having their large ends subject to steam chest pressure and having a balanced portion normally closing said auxiliary conduit but arranged to be moved into a position to open up said auxiliary conduits, by suction or partial vacuum produced in the cylinder and steam chest and acting on the large ends of said differential valves, when the engine is drifting, the said differential valves having axial passages therethrough, equipped with check valves and constituting parts of said auxiliary steam supply conduits, which check valves are mounted in said differential valves.

1,078,066. TYPE-WRITING MACHINE. GEORGE A. SMITH, Iliou, N. Y., assignor to Remington Typewriter Company, Iliou, N. Y., a Corporation of New York. Filed July 24, 1912. Serial No. 780,897. (Cl. 197-176.)

1. In a typewriting machine, the combination of tabulating mechanism comprising a key, carriage releasing devices comprising a two-part link, the two parts of said link being arranged so as to afford relative movement between them, and key operated means effective on said two-part link for at will operatively connecting and disconnecting the link parts and throwing said releasing devices into and out of the control of the tabulator key.

2. In a typewriting machine, the combination of key controlled tabulating mechanism effective to arrest the carriage at predetermined points in either direction of its travel, carriage releasing devices comprising a two-part link, the two parts of said link being slidably connected, and key operated means effective on said two-part link for at will throwing said releasing devices into and out of the control of a tabulator key.



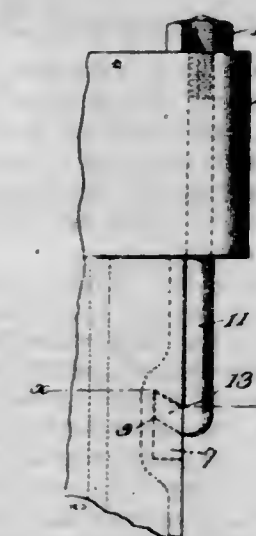
3. In a typewriting machine, the combination of key controlled tabulating mechanism, carriage releasing devices comprising a two-part link, the two parts of said link being connected by a screw and slot connection, and key operated means effective on said two-part link for at will throwing said releasing devices into and out of the control of a tabulator key.

4. In a typewriting machine, the combination of key controlled denominational tabulating mechanism effective to arrest the carriage at predetermined points in either direction of its travel, carriage releasing devices comprising a two-part link one of the link parts being provided with a plurality of slots and the other link part being provided with a plurality of headed shouldered screws cooperative with said slots, and key operated means effective on said two-part link for at will throwing said releasing devices into and out of the control of all of the tabulator keys.

5. In a typewriting machine, the combination of a key controlled tabulating mechanism, carriage releasing devices comprising a two-part link, the two parts of said link being relatively movable, and key controlled means for at will maintaining the link parts in set relationship with each other during tabulating operations.

[Claims 6 to 17 not printed in the Gazette.]

1,078,067. CLAMPING DEVICE. FRED K. SHAFFER, Sedalia, Mo. Filed May 20, 1912. Serial No. 698,604. (Cl. 123-198.)



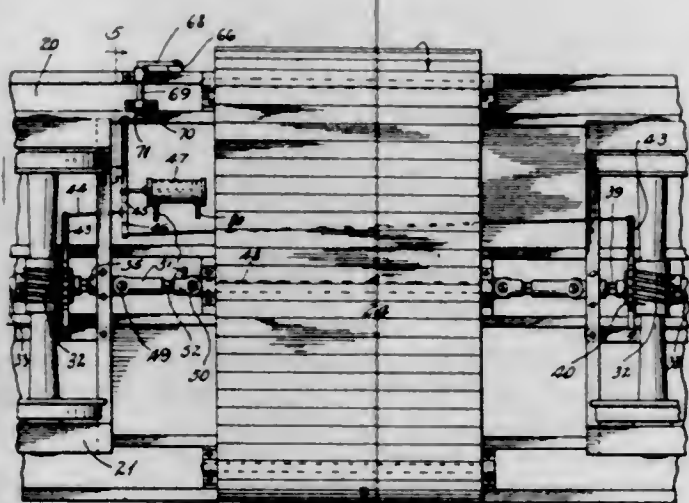
1. A clamping device comprising a member having a recess therein with an inner wall which is curved in the arc of a circle, said recess gradually diminishing in depth outwardly to one end where it meets the surface of said member, a locking recess formed with an undercut up-

per wall and communicating with the curved recess, a second member, and a bolt passing through said second member and having an upwardly bent end to enter the locking recess and threaded at its other end to receive a nut, said bolt being in axial alignment with the center of curvature of the first-mentioned recess.

2. In a device of the class described, a cylinder provided with a spaced wall having therein a plurality of curved recesses and other recesses communicating therewith and arranged at an angle to the first-named recesses and provided with upwardly and inwardly inclined upper walls, a cylinder head on said cylinder provided with a plurality of perforations, bolts having their lower ends upturned and provided with upper inclined surfaces to fit the inclined walls of the second-named recesses and their outer extremities curved to fit the curvature of the first-named recesses, the shanks of said bolts being adapted to enter said perforations, and nuts threaded to the outer ends of said bolts and arranged to have bearing on the cylinder head to draw the bent ends of the bolts in said vertical recesses, whereby the cylinder and its head are firmly clamped together.

3. A clamping device comprising a member having an arc-shaped recess therein having its greatest depth at the center and gradually diminishing in depth to its ends, a locking recess communicating with the first recess and having an inclined upper wall, a second member adapted to be clamped to the first member and provided with a bore, and a bolt occupying said bore and having one end bent at an acute angle to enter the locking recess and its opposite end threaded to receive a nut, the bolt being adapted for movement first longitudinally to disengage its bent end from the locking recess and then axially to carry said end out of the arc-shaped recess in unclamping said members.

1,078,068. RAILROAD-CAR. OSCAR SIGISMUND, Los Angeles, Cal. Filed Apr. 6, 1912. Serial No. 688,945. (Cl. 105—185.)



1. A car construction, comprising end and side walls, an endless conveyor mounted adjacent the lower portions of said walls, said conveyor forming the floor of said car when said conveyor is at rest, and mechanism operated by the moving car for moving said conveyor to discharge material carried by said car, and fluid pressure means for controlling said movement.

2. A load discharging car having a central opening in its floor, a transversely moving traveling floor made up of lapping plates, chains for supporting the same, sprocket wheels supporting said chains, and mechanism for operating said floor in conjunction with the movement of the car.

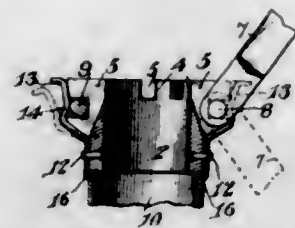
3. A load discharging car comprising a body portion having a centrally depressed bottom portion, a transversely arranged traveling floor adapted to receive the weight of the material in the car, said floor being made up of lapping bars, sprocket chains carrying said bars and having shouldered end to end engagement with each other, whereby the upper lap of the floor will be prevented from sagging, sprocket wheels engaging said chains, and mechanism connected with the axes of the car for imparting movement to said floor.

4. A car having a load supporting endless floor, wheels for supporting the same, shafting for driving said wheels, a worm gear mounted on said shafting, worms upon the axes of the car wheels for actuating said worm gear, and clutches for effectively connecting the worm gears with said shafting, whereby the endless floor will be caused to move in discharging the load from the car.

5. A load discharging car having a load supporting traveling floor and a pivoted door, means for actuating the traveling floor, bolts for latching the door in locked position, means for withdrawing said latches when the door is traveling, a pressure system for operating the parts in unlatching the door and operating the said traveling floor, and means for controlling the direction of pressure into said mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,078,069. UMBRELLA RIB AND SOCKET. FRANK WILLIAM SIMONS, Vallejo, Cal. Filed Jan. 13, 1913. Serial No. 741,851. (Cl. 135—30.)



A rib connecting member for umbrellas comprising a sleeve, said sleeve provided with an overhanging flange having a circumferential groove, ribs provided with pins fitting in said groove, a casing positioned upon the outer portion of said sleeve, said casing provided with a plurality of fingers, each finger provided with a bowed portion intermediate its ends, said bowed portions resting within said groove and bearing upon said pins of said ribs, whereby different sized pins may be accommodated and held firmly within said groove and said bowed portions also holding said casing upon said sleeve independently of secondary securing means but in such a manner as to allow said casing to be easily detached from said sleeve by drawing downwardly on said casing.

1,078,070. PONTIANAK COMPOUND AND METHOD OF PREPARING SAME. GRAY STAUNTON, Chicago, Ill., assignor, by mesne assignments, to William S. Potwin, Chicago, Ill. Filed June 10, 1907. Serial No. 378,300. (Cl. 106—23.)

1. As a new article of manufacture, a vulcanizable rubber substitute comprising a plastic compound of coagulated, sulfurized pontianak and oil, substantially as described.

2. As a new article of manufacture, a vulcanizable rubber substitute comprising a plastic compound of coagulated, sulfurized pontianak and oil and lime, substantially as described.

3. The process of preparing a plastic rubber substitute, which consists in liquefying crude pontianak in a hot bath of suitable oil, and reacting on the liquefied pontianak and oil with sulfur, substantially as described.

4. The process of preparing a plastic rubber substitute which consists in supplying a hot bath of suitable oil with additions of crude pontianak, lime and sulfur and, after union is completed, cooling and solidifying the product, substantially as described.

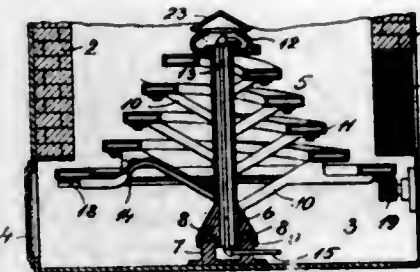
5. As a new article of manufacture, the insulator material consisting of a coagulated, sulfurized compound of pontianak and oil in vulcanized union with sulfur and a suitable filler, substantially as described.

[Claim 6 not printed in the Gazette.]

1,078,071. GRATE. GODFREY M. S. TAIT, Washington, D. C. Filed Nov. 4, 1912. Serial No. 729,482. (Cl. 126—182.)

1. A grate comprising a conical body consisting of spiral overlapping steps with intervening spaces for the escape of

ash into the space surrounded by the grate, such grate being broad at the base and narrow at the top in combination with means for producing relative rotary motion between such grate and material to be supported thereon.



2. A grate comprising a conical body consisting of spiral overlapping steps with intervening spaces for the escape of ash into the space surrounded by the grate, such grate being broad at the base and narrow at the top, the several steps overlapping one another to an extent corresponding to the angle of repose of the material to be supported in combination with means for producing relative rotary motion between such grate and material to be supported thereon.

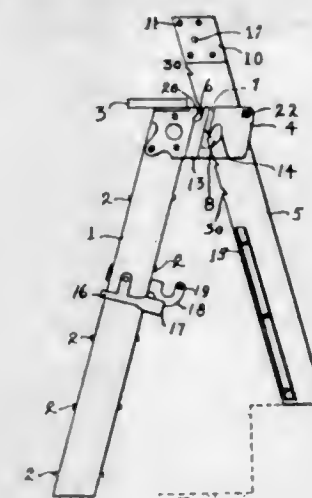
3. A grate comprising a conical body consisting of spiral overlapping steps with intervening spaces for the escape of ash into the space surrounded by the grate, such grate being broad at the base and narrow at the top, and means rotatably supporting said grate.

4. A grate comprising a conical body consisting of spiral overlapping steps with intervening spaces for the escape of ash into the space surrounded by the grate, such grate being broad at the base and narrow at the top, the several steps overlapping one another to an extent corresponding to the angle of repose of the material to be supported, and means rotatably supporting said grate.

5. A grate comprising a central mast, arms projecting therefrom and a spiral grate-body supported on said arms, and winding from the bottom upward and toward the center, the several turns of such body overlapping one another and separated from one another by spaces for the escape of ash from the outside of the grate into the space surrounded by the grate.

[Claims 6 to 9 not printed in the Gazette.]

1,078,072. COMBINATION STEP-LADDER. AUGUST O. TANNENBERG, Oakland, Cal. Filed Oct. 25, 1911. Serial No. 658,705. (Cl. 228—19.)



1. In a step ladder, two ladder members, each having a set of steps, two oppositely placed slotted brackets secured at the top of one member, two oppositely placed plates each having two lugs thereon which cooperate with the two slotted brackets to prevent the two ladder members from separating more than a given angle, the lugs being removable from said brackets when the two ladder members are substantially parallel with each other, as described.

2. In a step ladder, two ladder members each having a series of steps, two oppositely placed slotted brackets se-

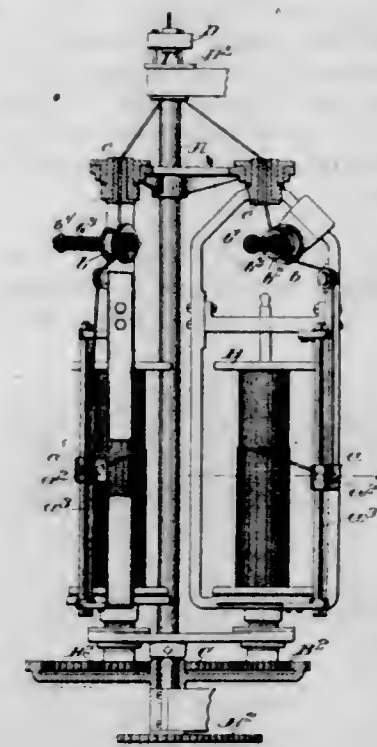
cured at the top of one of said members, lugs at the top of the other member, a guide on each side of one of said members, said guides being adapted to pass through said brackets at two different angles, and means to hold the two ladder members in several different heights relative to each other, as described.

3. In a step ladder, two ladder members each having a series of steps, two oppositely placed slotted brackets at the top of one of said members, two oppositely placed plates each having lugs thereon at the top of the other ladder member, guides on the side of the second member, means to hold said members in any desired longitudinal adjustment when lying in substantially the same plane, and means whereby the two members may be secured in a plurality of adjustments when lying at an acute angle to each other, as described.

4. In a step ladder, two ladder members each having a set of steps, oppositely placed slotted brackets secured at the top of one of said members, oppositely placed plates secured at the top of the other members, lugs on the latter plates to hinge the second member to the brackets secured to the first member, and to prevent the two members from being separated more than a given angle, the second member having notches to permit the two ladder members to be placed in varying relative longitudinal adjustments when lying at an acute angle to each other, as described.

5. In a step ladder, two ladder members, brackets secured at the top of one member, plates secured at the top of the other member, lugs carried by said plates to hinge the two members together, the second members having notches whereby the two members may be secured in a number of different adjustments when the lugs are disengaged and the two ladder members are lying at an acute angle to each other, as described.

1,078,073. ROPE-LAYING MACHINE. WILLIAM L. TOBEY, Winthrop, Mass. Filed Oct. 31, 1910. Serial No. 589,909. (Cl. 28—21.)

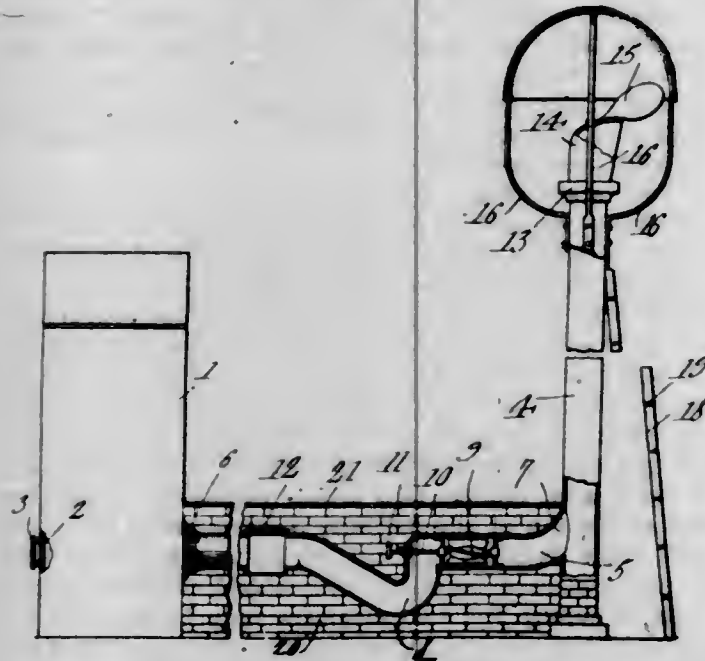


1. In a rope-laying machine, the combination of a layer-head; a filer; rotatable bobbin-holders carried by said filer; freely rotatable bobbins in said bobbin-holders; a strand leader being longitudinally movable on a guide parallel to the axis of the bobbin; a strand-guide at the top of each bobbin-holder through which the strand passes to the layer-head; and a tension device located between said strand-holder and said strand-guide.

2. In a rope-laying machine, the combination of a layer-head; a filer; rotatable bobbin-holders carried by said filer; freely rotatable bobbins in said bobbin-holders; a strand leader carried by each bobbin-holder, said leader being longitudinally movable on a guide parallel to the

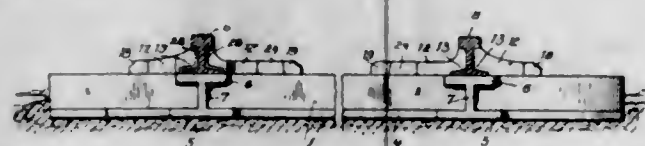
axis of the bobbin; a strand-guide at the top of each bobbin-holder through which the strand passes to the layer-head; a tension sheave located between said strand-leader and said strand-guide; and an adjustable brake coöperating with said sheave to regulate the tension.

1,078,074. MOTOR. JAMES VINSON, Tunnel Hill, Ill. Filed Apr. 13, 1912. Serial No. 690,625. (Cl. 253-2.)



The combination with an air receiving casing, an upwardly extending air shaft, a flue connecting the casing with the lower portion of the shaft, a rotor within the flue, of arms fixedly connected to the air shaft and extending upwardly therefrom, an imperforate semi-spherical dome-like shield supported by the arms and over the air shaft, a hood mounted for rotation upon the upper end of the air shaft and below the shield, and a vane carried by the hood and located under and projecting into the semi-spherical shield and in the path of a direct current of air passing between the air shaft and the shield, to hold the outlet of the hood out of the wind, said shield constituting means for creating a whirling action of a portion of the air current passing under the shield.

1,078,075. RAIL-TIE. JOHN D. WARRELL, Deweyville, Tex. Filed Mar. 8, 1913. Serial No. 753,025. (Cl. 238-5.)

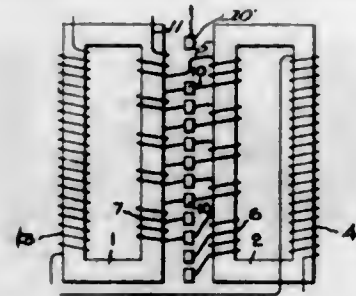


The combination of a rail tie having longitudinal slots therein, rail holding clamps having central depending lugs slidably disposed in said slots, said slots having enlarged portions at their inner ends, transversely extending stops arranged beyond the outer ends of said slots, one of said clamps adapted to bear against one of said stops, a rail seated on said tie between said slots and engaging the last mentioned clamp, the other of said clamps being spaced from the other of said stops and bearing against said rail, and a wedge member disposed between the last mentioned clamp and stop to maintain said clamps in engagement with the rail, as and for the purpose described.

1,078,076. POTENTIAL-REGULATOR. WILHELM WELSCH, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 5, 1912. Serial No. 669,634. (Cl. 171-110.)

1. A potential regulator including a plurality of core sections, a winding divided into groups connected in series,

a plurality of the groups being located on each core section, and contact members connected between the groups.

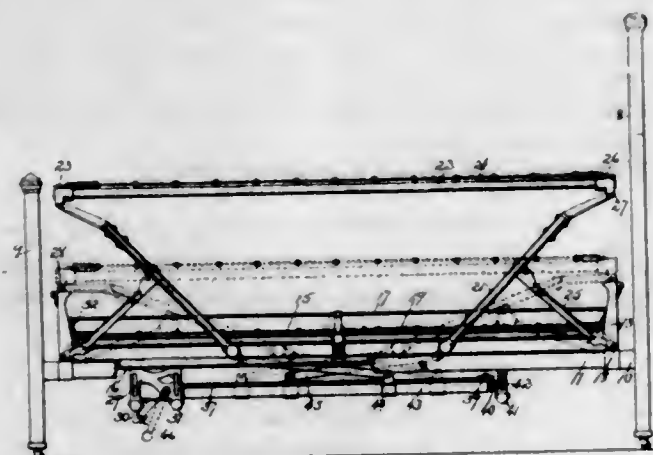


2. A potential regulator including a plurality of core sections, a winding divided into groups connected in series, a plurality of the groups being located on each core section and the first two groups being located on different core sections, and contact members between the groups.

3. A potential regulator including a plurality of core sections, a winding divided into groups connected in series, the groups being located alternately on the core sections with a plurality of groups on each core section, and contact members between the groups.

4. A potential regulator including two core sections, a winding divided into groups connected in series, the groups being located alternately on the core sections with a plurality of groups on each core section, and contact members between the groups.

1,078,077. BED. HARRY B. ARNOLD, New Britain, Conn., assignor to The National Spring Bed Company, New Britain, Conn., a Corporation of Connecticut. Filed June 23, 1913. Serial No. 775,216. (Cl. 5-60.)



1. A bed including a stationary bed frame with head and foot ends, a movable bed frame adapted to be raised to an elevated position, uprights pivotally connecting the stationary and movable bed frames, said uprights being disposed lengthwise of said bed frames when the movable frame is in its lowest position, and means for actuating the uprights.

2. A stationary bed frame including head and foot ends connected by side rails, a movable bed frame adapted to be raised to an elevated position, uprights connecting said bed frames, said uprights being pivotally connected to a frame at one end and slidably connected to a frame at the opposite end, and disposed lengthwise of the side rails when the movable bed section is in a lowered position, and means for actuating the uprights.

3. A bed including a stationary bed frame having side rails, a movable bed frame adapted to be raised to an elevated position, an elevating frame connected at its ends to the two bed frames, said elevating frame including a cross bar slidably engaging one of the bed frames and an upright pivotally connected to the other frame, and means for operating the elevating frame.

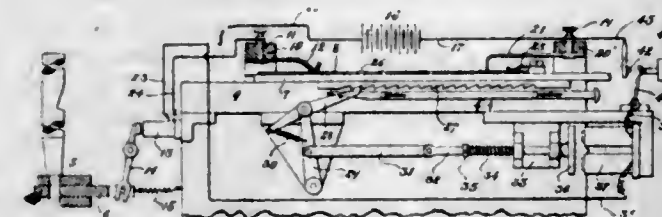
4. A bed including a stationary bed frame having side rails, a movable bed frame adapted to be raised to an ele-

vated position, and an elevating frame including a cross bar held in slidable engagement with the side bars of the stationary frame and movable lengthwise thereof, said elevating frame having an upright pivotally connected to the movable bed frame, and means for operating the elevating frame.

5. A bed including a stationary bed frame having guide rails extending lengthwise thereof on each side, a movable bed frame adapted to be raised to an elevated position, an elevating frame including a cross bar extending between the guide rails on each side of the stationary frame, said elevating frame including branches pivotally connected at their ends to the movable bed frame, and means for operating the elevating frame.

[Claims 6 to 16 not printed in the Gazette.]

1,078,078. COMBINATION ORGAN STOP-ACTION. JOHN T. AUSTIN, Hartford, Conn., assignor to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed Nov. 14, 1912. Serial No. 731,266. (Cl. 84-54.)



1. The combination of a substantially flat carrier having a conducting portion, a flat perforated sheet of insulated material fitted flatwise against and removably mounted on said carrier, means for advancing said carrier, a plurality of stops, magnets for operating the stops, a source of energy, electrical connections between the source of energy and the magnets including said conducting portion, and circuit closers supported independently of the carrier and automatically projectable through the perforations in said sheet and into engagement with said conducting portion on the movement of the carrier.

2. The combination of a travelling approximately flat metallic carrier, a perforated sheet fitted flatwise against and removably mounted upon said carrier, said sheet being of insulating material, a plurality of stops, magnets for operating said stops, a source of electrical energy, circuit-connections between said source of energy and the magnets, including said carrier, and yieldable circuit closers supported independently of the carrier, and automatically projectable through the perforations in said sheet, on the movement of said carrier.

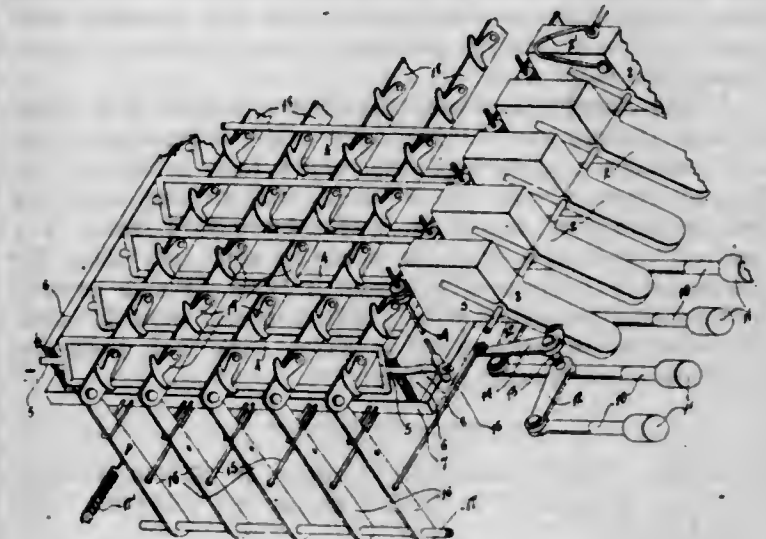
3. The combination of a carrier having a conducting portion, a perforated sheet of insulated material removably fitted against the conducting portion of said carrier, means for moving said carrier to thereby change the position of said sheet, a plurality of stops, magnets for operating the stops, a source of energy, electric connections between the source of energy and the magnets, including said conducting portion, and circuit closers supported independently of the carrier, and automatically projectable through the perforations in said sheet and into engagement with said conducting portion, on the movement of said carrier.

1,078,079. COMBINATION ORGAN STOP-ACTION. JOHN T. AUSTIN, Hartford, Conn., assignor to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed Jan. 17, 1913. Serial No. 742,604. (Cl. 84-54.)

1. The combination of organ stop operating mechanism, and a movably mounted member provided with a shiftable part located to be set by said mechanism into position to actuate said mechanism.

2. The combination of organ stop operating mechanism and a movably mounted member provided with a shiftable part located to be set into a plurality of positions by said

organ stop operating mechanism and adapted when in each of said positions to shift said organ stop operating mechanism on the movement of said movably mounted member.



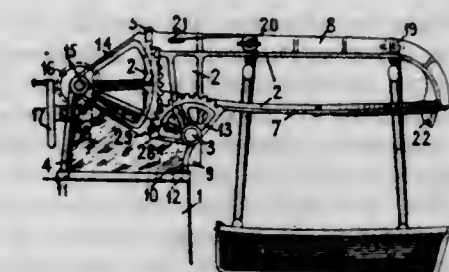
3. The combination of organ stop operating mechanism, means located to be set by said mechanism into position to actuate said mechanism, and means for moving said means to cause the action of said mechanism.

4. The combination of organ stop operating mechanism having operative and inoperative positions, a movable member, and an actuating element for said organ stop operating mechanism supported by said movable member and located to be set into position to shift said mechanism from inoperative into operative position, by said mechanism when the same is in operative position.

5. The combination of a plurality of organ stop operating mechanisms, a plurality of movably mounted members each coöperative with said mechanism and a series of pivotally-mounted actuating-elements on the respective movably-mounted members each settable into two separate positions in one of which it is adapted to move an adjacent mechanism from operative to inoperative position, and in the other of which it is adapted to move said mechanism from inoperative to operative position on the movement of the movably-mounted member carrying the same.

[Claims 6 to 12 not printed in the Gazette.]

1,078,080. DAVIT. PIETER LAGAAY AZ, Rotterdam, Netherlands. Filed June 20, 1912. Serial No. 704,854. (Cl. 9-22.)



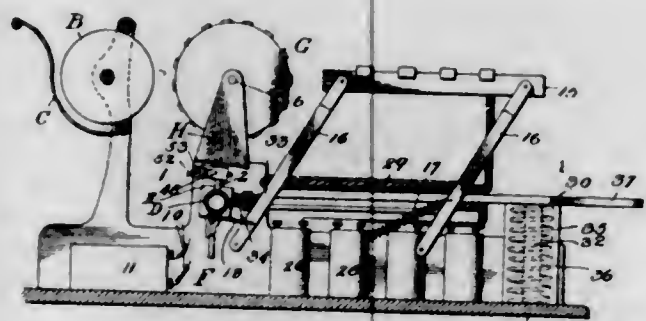
1. In a davit device, a normally vertically positioned frame pivoted to the deck of a ship, means for securing a life boat to said frame with its longitudinal axis extending at right angles with respect to the deck of the ship and having its keel facing outward, and means for lowering said frame into a horizontal position, said first mentioned means serving to lower said boat from said frame when the latter is in its horizontal position.

2. In a davit device, a normally vertically positioned frame pivoted to the deck of a ship, means for securing a life boat to said frame with its longitudinal axis extending at right angles with respect to the deck of the ship and having its keel facing outward, and means for lowering said frame into a horizontal position, and means positively holding said frame in its horizontal position, said first mentioned means serving to lower said boat from said frame when the latter is in its horizontal position.

3. In a davit device, a pivoted frame comprising a bifurcated member and a central member, releasable means for securing a life-boat, to the central member and between the bifurcated members, means for lowering said frame into a horizontal position and means for lowering said boat from said central member, with its stem or stern toward the ship.

4. The combination with the deck of a ship of a frame pivoted thereto and comprising two side members, a central member, a projecting arm, and a foot, a life-boat arranged between said side members and resting with one end on said arm, means for maintaining said frame in a vertical position, a stop for engaging said arm when the frame is in horizontal position, a band passing around said boat and attached to said side members when in vertical position and means for lowering said boat when the frame is in horizontal position.

1,078,081. TYPE-WRITER. GEORGE B. BAKER, Duluth, Minn. Filed Oct. 3, 1912. Serial No. 723,768. (Cl. 197-12.)



1. In a typewriting machine, the combination of a type-wheel carrying printing characters, a shaft supporting the said wheel and upon which the wheel is freely rotatable, means for rotating the wheel upon its shaft, and selecting mechanism for arresting the type-wheel independently of the operation of the means for rotating the type-wheel, with the desired character in printing position.

2. In a typewriting machine, the combination of a type-wheel carrying printing characters, a support upon which the said wheel is freely rotatable, means for turning the type-wheel comprising a rotor supported adjacent to the type-wheel and freely rotatable independently thereof, and selecting mechanism for arresting the type-wheel with the desired character in printing position without stopping the rotor.

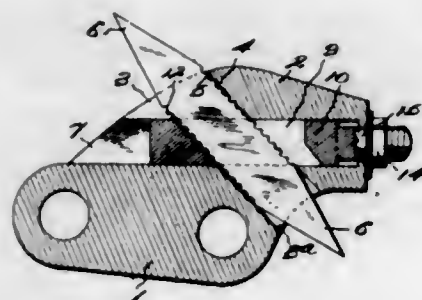
3. In a typewriting machine, the combination of a type-wheel carrying printing characters, a support upon which the said wheel is freely rotatable, means for driving the type-wheel comprising a rotor supported upon the same shaft as the type-wheel and free to rotate independently thereof, connections between the rotor and type-wheel by which the latter is driven when free to turn but permitting the type-wheel to be arrested without stopping the rotor, and selecting mechanism for arresting the key-wheel with the desired character in printing position.

4. In a typewriting machine, the combination of a type-wheel carrying printing characters, comprising a hollow shell, a support upon which the type-wheel is supported so as to be free to rotate, means arranged within the said type-wheel for rotating it, and selecting mechanism for arresting the type-wheel without arresting the means which rotate it, with the desired character in printing position.

5. In a typewriting machine, the combination of a hollow type-wheel provided with printing characters and freely rotatable upon its support, a driving motor for the type-wheel arranged within the latter and freely rotatable independently thereof, and selecting mechanism for arresting the type-wheel independently of the operation of its motor, with the desired character in printing position.

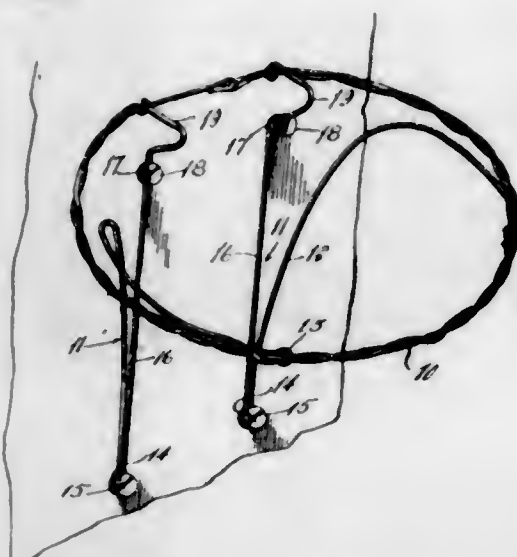
[Claims 6 to 16 not printed in the Gazette.]

1,078,082. CUTTING-BIT FOR CHAINS OF MINING-MACHINES. CHARLES N. BARTON, Harrisburg, Ill., assignor of one-half to James B. Blackman, Harrisburg, Ill. Filed Feb. 10, 1913. Serial No. 747,397. (Cl. 125-14.)



The combination of a chain link having a lug formed with a key-way of rectangular cross section passing through the body of the lug, and in the lengthwise direction thereof, and an intersecting and longitudinally disposed slot of rectangular cross section; said keyway provided on a portion of one wall thereof with a plurality of corrugations; a block of rectangular design slidably mounted in said longitudinal slot of rectangular cross section, and provided with a key-way adapted to register with the key-way in the lug; the wall of the key-way of the slidable block opposite the corrugations of the first named key-way being provided with corrugations; a bit fitting within said registering key-ways and projecting at either end beyond the lug and link, said bit having a pair of opposite walls thereof formed with corrugations adapted to engage with the corrugations of said key-ways; and a device for clamping said slidable block to secure the bit in position.

1,078,083. BAG-HOLDER. ORRIN E. BLOOD, East Las Vegas, N. Mex. Filed Apr. 17, 1913. Serial No. 761,790. (Cl. 83-26.)

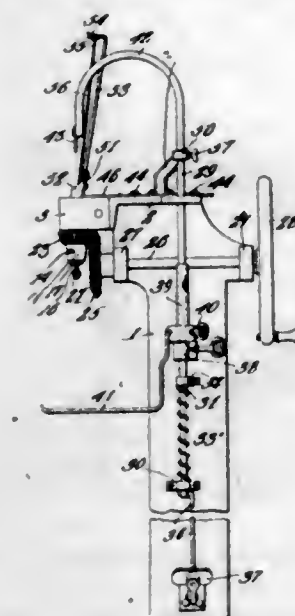


A bag holder formed of a single piece of wire, comprising a hoop, V-shaped supporting brackets each including an arm secured to a suitable support, said arm having an outwardly curved hook portion on the upper end which is secured to the said hoop, the other arm of the bracket extending upwardly and outwardly from the support and being secured to the hoop, the hoop being spaced from the support by the hooks.

1,078,084. TIRE-BOLTING MACHINE. GEORGE W. BONHAM, Helena, Okla., assignor to Helena Manufacturing Company, Helena, Okla., a Corporation. Filed Nov. 21, 1911. Serial No. 661,582. (Cl. 81-56.)

1. A bolting machine including a wrench mounted for rotation, nut holding means, slidable bolt holding means, and mechanism operated by the bolt holding means for shifting the nut holding means into and out of position above the wrench.

2. A bolting machine including a wrench, a movable nut holder, a movable bolt engaging element, and means operated by said element when moved into engagement with a bolt, for shifting the nut holder away from the wrench.



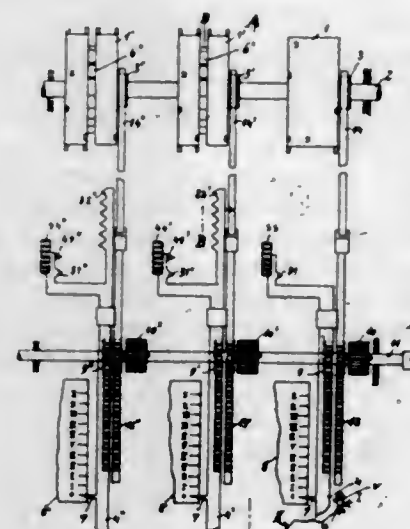
3. A bolting machine including a wrench, a bolt engaging element overhanging the wrench, a nut holder normally mounted above the wrench and opening thereinto, means for shifting the bolt engaging element toward the wrench, and means operated by said element during such movement for shifting the nut holder away from the wrench.

4. A bolting machine including a wrench, a nut holder, means for shifting the nut holder into and out of register with the wrench, and a bolt engaging element movable toward the wrench during the movement of the holder away from the wrench and in timed relation thereto.

5. A bolting machine including a wrench, a yieldingly supported operating member, a bolt engaging element carried by said member and overhanging the wrench, a slidable nut holder normally registering with the wrench, co-operating means upon the operating member and the nut holder for shifting the nut holder into and out of register with the wrench during the upward and downward movements respectively of the bolt engaging element, and a wheel supporting device movable with said operating member.

[Claims 6 to 8 not printed in the Gazette.]

1,078,085. SUBTRACTING DEVICE FOR CHANGE-GIVING APPARATUS. SIEGMUND CHIGER, Berlin, Germany. Filed Feb. 18, 1913. Serial No. 749,171. (Cl. 133-2.)



1. A subtracting device for change-giving apparatus comprising in combination a drum corresponding to the

units of the minuend and arranged with its initial position at zero; drums corresponding respectively to the tens and hundreds of the minuend and arranged with their initial positions shifted backward by one division from the zero position; operating members adapted to be first set in accordance with the subtrahend and thereafter in accordance with the minuend; and supplementary actuating mechanism adapted after the operating members have been set in accordance with the minuend to act upon the drums and cause same to be moved forward by one division, substantially as set forth.

2. A subtracting device for change-giving apparatus comprising in combination a drum corresponding to the units of the minuend and arranged with its initial position at zero; drums corresponding respectively to the tens and hundreds of the minuend and arranged with their initial positions shifted backward one tenth of a revolution from the zero position; operating members adapted to be first set in accordance with the subtrahend and thereafter in accordance with the minuend; and supplementary actuating mechanism adapted after the operating members have been set in accordance with the minuend to act upon the drums and cause same to be moved forward one tenth of a revolution, substantially as set forth.

3. A subtracting device for change-giving apparatus comprising in combination a drum corresponding to the units of the minuend and arranged with its initial position at zero; drums corresponding respectively to the tens and hundreds of the minuend and arranged with their initial positions shifted backward one tenth of a revolution from the zero position; operating members adapted to be first set in accordance with the subtrahend and thereafter in accordance with the minuend; and means for throwing said actuating mechanism into and out of gear, substantially as set forth.

4. A subtracting device for change-giving apparatus comprising in combination a drum corresponding to the units of the minuend and arranged with its initial position at zero; drums corresponding respectively to the tens and hundreds of the minuend and arranged with their initial positions shifted backward one tenth of a revolution from the zero position; a slide to each drum, an operating member adapted to move over each slide and to be first set in accordance with the subtrahend and thereafter with the minuend, and an auxiliary actuating device for throwing each drum out of action when the operating member corresponding thereto has been moved within the first nine tenths of its scale and for throwing said drum into action when the slide is moved over the remaining tenth of its scale, substantially as set forth.

5. A subtracting device for change-giving apparatus comprising in combination a drum corresponding to the units of the minuend and arranged with its initial position at zero; drums corresponding respectively to the tens and hundreds of the minuend and arranged with their initial positions shifted backward one tenth of a revolution from the zero position; a slide to each drum; an operating member adapted to move over each slide and to be first set in accordance with the subtrahend and thereafter with the minuend; a supplementary actuating device for each drum adapted after the operating member corresponding thereto has been set in accordance with the minuend to act upon its drum and cause same to be moved forward one tenth of a revolution; and means whereby on any of the operating members being moved to the end of its scale, the actuating mechanism of the drum corresponding to the next higher figure is thrown out of operation, substantially as set forth.

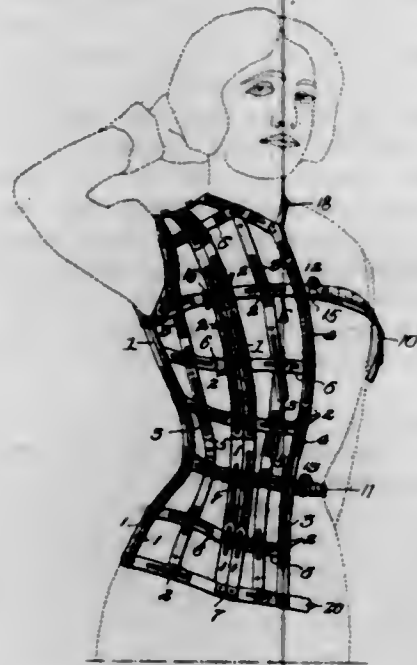
[Claims 6 to 10 not printed in the Gazette.]

1,078,086. ART OF DEVULCANIZING RUBBER. DAVID A. CUTLER, Mount Vernon, N. Y. Filed Jan. 24, 1912. Serial No. 673,057. (Cl. 18-52.)

1. The process of treating vulcanized rubber goods which consists in subjecting the same to a bath containing zinc chloride and oil of pine of between .88 and .90 specific gravity.

2. The process of treating vulcanized rubber goods which consists in subjecting the same to a bath containing zinc chloride and oil of pine of between about .93 to .95 specific gravity.

1,078,087. PATTERN FOR DRAFTING AND FITTING GARMENTS. LOUIS S. D'ORSOGNA and PIETRO CANE, Coney Island, N. Y., assignors to Nicholas d'Orsogna, Brooklyn, N. Y. Filed June 28, 1911. Serial No. 635,842. (Cl. 223-16.)



1. Pattern drafting apparatus comprising a flexible sectional frame consisting of a plurality of independent separable pattern sections, each of said sections being made up of a plurality of adjustable flexible sectional strips disposed substantially at right angles to each other and adapted to conform to portions of the body to be fitted, means for retaining the adjustable sectional strips in their extended and contracted positions, means carried by the marginal edges of the pattern sections for detachably connecting the latter together, and a plurality of body encircling tapes adapted to draw said pattern sections to the body.

2. In pattern drafting apparatus comprising a plurality of sectional frames made up of sectional strips adjustably connected together and adapted to fit over the human frame and conform to the contour or curvature of the same, said strips being slit with clamping members adapted to said slits the combination of longitudinally adjustable strips forming the marginal edges of said frames, supplemental longitudinal strips disposed substantially intermediate said marginal strips, adjustable cross strips disposed substantially at right angles with respect to said supplemental median strips and the marginal strips, all of said strips being flexible and adjustable in varying degree with respect to each other to permit expansion and contraction in their length whereby they may follow the contour of that portion of the body over which they are placed, the clamping means for securing said strips in their adjusted positions being held against rotative movement when tightened and loosened means for detachably connecting the marginal edges of the several sectional frames and a body encircling tape to draw said sections to the body.

3. A tailor's pattern harness comprising separate sections corresponding in skeleton to the pieces of the garment to be made and having means for connecting and disconnecting them, said sections being formed of tapes of comparatively stiff though flexible material, each section comprising vertical members and extensible transverse members which are adjustable up and down and connect said vertical members at different heights, said transverse members being formed of overlapping tapes slidably connected with each other, and clamps for securing said members at any desired adjustment up and down

or horizontally, in combination with continuous body encircling tapes adapted to draw said members against the body.

1,078,088. HOSE-CLAMP. CHARLES ELBERT EDWARDS, Rockville Center, N. Y. Filed Aug. 7, 1912. Serial No. 713,757. (Cl. 137-28.)



1. A hose clamp comprising a band assuming a number of concentric overlapping convolutions, a carrier embodying sides and an end piece, one end of the band being connected to the said end piece, the band extending between the said sides, a rotatable element mounted in the carrier and in engagement with the other end of the band, turning of the said element placing the band under tension, and means carried by the said element and adapted to engage the hose for preventing movement of the said element after the band has been placed in such tightened condition.

2. A hose clamp comprising a band, a carrier embodying spaced sides with a connecting piece between them, one end of the band being in engagement with the said connecting piece, an element rotatably mounted in the said sides, the other end of the band being connected with the element, a handle carried by the element and movable transversely thereof, turning of the element placing the band under tension, the handle being then adapted for engagement with a hose in order to prevent a return movement of the said element.

3. The combination of a hose, a carrier composed of side members bearing in tangential relation on the hose and connected by a bar disposed in the same plane with the edges of the said members engaging the hose, a spindle mounted on the side members and spaced from the said bar, and a band having one end engaged with the bar and extending therefrom around the hose and through the carrier between the bar and spindle, and again around the hose with its other end connected with the spindle.

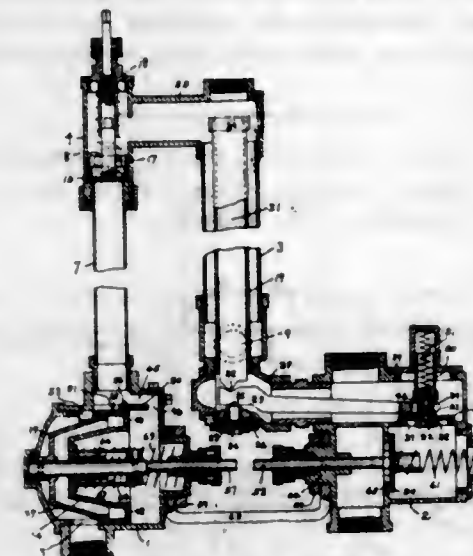
4. A device of the class described comprising a carrier consisting of spaced members and a bar connecting the members together, a spindle rotatably mounted on the said members and spaced from the said bar, and a band having one end engaged with the bar and extending through the carrier between the side members thereof, and between the bar and spindle and connected with the latter.

1,078,089. GAS-CONTROL VALVE FOR WATER-HEATERS. HENRY EISENACH and WILLIAM F. SMITH, Detroit, Mich. Filed July 8, 1912. Serial No. 708,395. (Cl. 126-351.)

1. A controlling device for water heaters, comprising a water-valve body, a water-valve slidable therein, a piston slidable in said water-valve, a piston-rod connected to the piston, a gas-valve body and a valve therein movable from its seat by said piston-rod, a spring to return the piston to normal position, and a spring mounted on and operable by the piston-rod to move the water-valve to normal position.

2. A controlling device for water heaters comprising a water chamber, a piston-rod slidable therein and operable by the water passing through the water chamber, a fuel-valve body, a fuel-valve therein adapted to be opened by said piston-rod, means for closing said fuel-valve, a second fuel-valve within the fuel-valve body and held on its seat by its own weight and the pressure of the fuel, a lever pivoted adjacent said second fuel-valve, and a spring

connecting the lever and valve whereby the valve will be lifted when the upward pull of the spring overcomes the weight of the valve and pressure of the gas.



3. A controlling device for water heaters comprising a water chamber, a piston slidable therein and operable by the water passing through said water chamber, a piston-rod connected thereto, a fuel-valve body, a fuel-valve therein adapted to be opened by said piston-rod and normally held closed by the pressure of the fuel, a cylindrical water-valve mounted concentric with said piston and provided with ports in its face to permit the flow of water through said water chamber, and a spring between the valve and piston rod to move said valve to prevent the flow of water through said chamber.

4. A controlling device for water heaters comprising a water-valve body having a cylindrical bore, a cylindrical valve slidable therein provided with a web having openings to permit the passage of water through the same, a piston slidably mounted within the cylindrical portion of said valve, a piston-rod connected thereto, a gas-valve body, a gas-valve therein adapted to be opened by said piston-rod, said water-valve having ports in its cylindrical portion to permit the passage of water through said water-valve body, a spring for moving said water-valve outward to prevent the flow of water through said water-valve body, and a spring to seat said fuel-valve.

5. A controlling device for water heaters comprising a water-valve body having inlet and outlet ports, a valve slidable therein and formed by a cylindrical portion provided with ports adapted to register with inlet and outlet ports of the valve-body and a web provided with passages to permit water to flow through the same, a piston-rod slidably mounted in said valve, a piston mounted on the outer end of said rod and slidable within the cylindrical portion of said valve, a fuel-valve body, a fuel-valve mounted therein and adapted to be moved from its seat by means of said piston-rod, and a spring to return said fuel-valve to its seat.

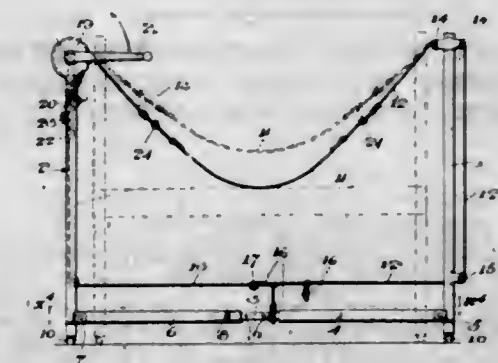
[Claims 6 to 10 not printed in the Gazette.]

1,078,090. INVALID-ELEVATOR. HARRY FOSS, Santa Maria, Cal. Filed Jan. 9, 1913. Serial No. 741,111. (Cl. 5-44.)

1. An invalid elevator comprising standards adjustable toward and from each other and adapted to be placed on each side of a bed, a band adapted to pass under the patient, cables connected to opposite ends of said band, and extending to the respective standards, said cables being connected together, and means mounted solely on one of said standards for drawing said cables in opposite directions from the band to lift the band and patient.

2. An invalid elevator comprising standards adapted to be placed on each side of a bed, a band adapted to pass under the patient, cables connected to opposite ends of said band, and extending to the respective standards, said cables being connected together, and means on one of said standards for drawing said cables in opposite directions from the band to lift the band and patient, a tele-

scope connection between said standards below the bed, said connection comprising two members each of which is pivoted to its associated standard, and means for detachably holding said members together.

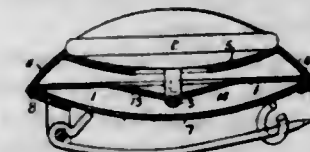


3. An invalid elevator comprising two standards adjustable toward and from each other and adapted to stand on opposite sides of a bed, casters supporting the standards, a flexible band adapted to be arranged under the patient, said band being connected with both of said standards, and means mounted solely on one of said standards for lifting both ends of said band to elevate the patient.

4. An invalid elevator comprising standards, a band adapted to be arranged under the patient, cables connected to opposite ends of said band, sheaves on the upper end of one of said standards and at an intermediate part of said standard, a reel at the upper end of the other standard, and a sheave at an intermediate point of the latter standard, a hook on said reel, one of said cables being looped over said hook and passing over the sheaves on the associated standard, the other of said cables passing over the sheaves on the other standard, said cables being connected together below the bed, and a crank for turning the reel.

5. An invalid elevator comprising standards, a band adapted to be arranged under the patient, cables connected to opposite ends of said band, sheaves on the upper end of one of said standards and at an intermediate part of said standard, a reel at the upper end of the other standard, and a sheave at an intermediate point of the latter standard, a hook on said reel, one of said cables being looped over said hook and passing over the sheaves on the associated standard, the other of said cables passing over the sheaves on the other standard, said cables being connected together below the bed, a crank for turning the reel, means for locking said crank from rotation, and means for adjustably connecting together the lower ends of said cables.

1,078,091. BUTTON-HOLDING DEVICE. WALTER FRANCIS GAUNT, Birmingham, England. Filed Sept. 6, 1911. Serial No. 647,942. (Cl. 63-29.)

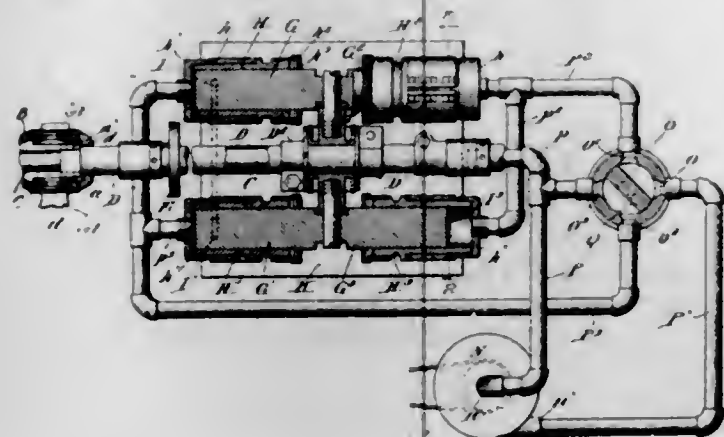


1. In a button holding device, in combination, a recessed mount having a centrally disposed opening therein said mount being secured to a back plate, said mount or plate having a fastening thereon for securing the complete device to an article of apparel, a flat gripping plate between said mount and back plate, said gripping plate slit in H formation, forming two tongues adapted to receive and grip between them the loop shank of a button and prevent said button turning in the recess of the mount.

2. In a button holding device, in combination, a recessed mount having a centrally disposed opening therein a back plate adapted to be received by said mount, said back plate having a fastening thereon for securing it to an article of apparel, a flat gripping plate secured to said back plate slit in H formation, said slits forming two

tongues adapted to receive and grip between them the shank of a button mounted in the recess of the said mount, said gripping means forming the means of connection between the mount and the back plate.

1,078,092. HYDRAULIC CONTROLLING MEANS FOR PROPELLERS. WILLIAM L. GILE, Ludington, Mich. Filed Aug. 17, 1910. Serial No. 577,686. (Cl. 138-2.)



1. In combination, a member to be moved, two pistons connected to said member, cylinders in which said pistons are mounted, each of said cylinders having an inlet port and an outlet port, a pump, a controlling valve, and pipes connecting the said ports and the valve to the pump, said pipes being adapted to be filled with a liquid, and said controlling valve having a position wherein it connects one of said inlet ports to the discharge side of the pump and simultaneously connects the corresponding outlet port and the other inlet port to the suction side of the pump.

2. In combination, a member to be moved, two pistons connected to said member, cylinders in which said pistons are mounted, each of said cylinders having an inlet port and an outlet port, a pump, a controlling valve and pipes connecting said ports and the valve to the pump, said pipes being adapted to be filled with a liquid, and said controlling valve having positions wherein it connects either of said inlet ports to the discharge side of the pump and simultaneously connects the corresponding outlet port and the other inlet port to the suction side of the pump.

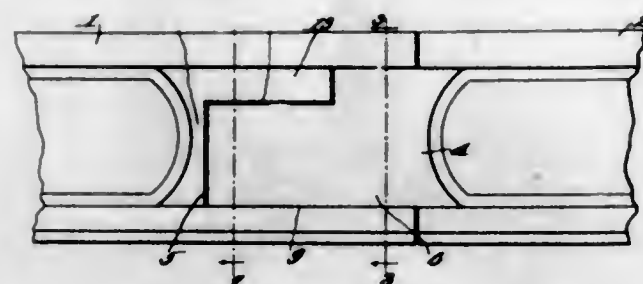
3. In combination, a member to be moved, two pistons connected to said member, cylinders in which said pistons are mounted, each of said cylinders having an inlet port and an outlet port, a pump, a controlling valve, and pipes connecting said ports and said valve to the pump, said pipes being adapted to be filled with a liquid, said controlling valve having positions wherein it connects either of said inlet ports to the discharge side of the pump and simultaneously connects the corresponding outlet port and the other inlet port to the suction side of the pump, said valve also having a position wherein it connects all of said ports both to the suction side of the pump and to the discharge side of the pump.

4. In combination, a member to be moved, two pistons connected to said member, cylinders in which said pistons are mounted, each of said cylinders having an inlet port and an outlet port, a pump, a controlling valve, pipes extending from the suction side and the discharge side of the pump to said valve and to said ports, said pipes being adapted to be filled with a liquid, said controlling valve having a position wherein it connects one of said inlet ports to the discharge side of the pump and simultaneously connects the corresponding outlet port and the other inlet port to the suction side of the pump, and said valve also having a position wherein it connects all of said inlet ports both to the suction side of the pump and to the discharge side of the pump.

5. In combination, an element to be moved, a piston member connected to the aforesaid element and having two opposed piston faces, a cylinder apparatus in which said piston is movably mounted, said cylinder apparatus having an inlet port and an outlet port on the same side of each of said piston faces, a pump, a controlling valve,

and pipes connecting the said ports and the valve to the pump, said pipes being adapted to be filled with a liquid, and said controlling valve having a position wherein it connects one of said inlet ports to the discharge side of the pump and simultaneously connects the corresponding outlet port and the other inlet port to the suction side of the pump.

1,078,093. RAIL-JOINT. FRANK K. GOODRICH and GRAFTON WEST, Coalton, Ohio. Filed Apr. 1, 1913. Serial No. 758,280. (Cl. 239-8.)



1. A rail joint wherein one web is thickened and recessed at one side and wherein the other web has an extension to fit into the recess, the first mentioned rail having a lip depending from its tread and the extension having a portion to swing in back of the lip, and the recess and extension having portions adapted to interlock when the said portion is swung in back of the lip, to restrain the rails from separating longitudinally.

2. A rail joint wherein the web of one rail is thickened and recessed at one side and wherein the web of the other rail has an extension to fit into the recess, the first mentioned rail having a lip depending from its tread and the extension having a portion to swing in back of the lip, and the first mentioned web and extension having an interlocking rib and groove, respectively.

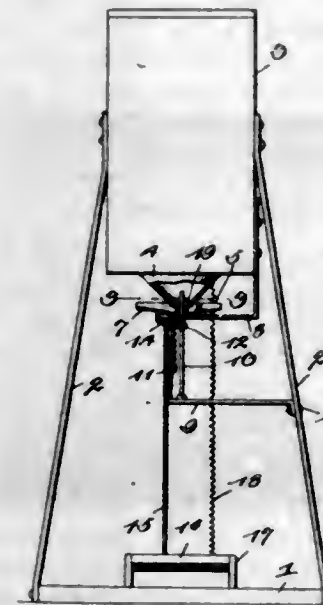
3. A rail joint wherein the web of one rail is thickened and recessed at one side and wherein the other web has an extension to fit into the recess, the first mentioned rail having a lip depending from its tread and the extension having a portion to swing in back of the lip, the first mentioned web having a longitudinal rib along the upright wall of the recess, the extension having a longitudinal groove along its inner side to receive the rib, the rib being provided with a notch, and the extension having a lug within the groove to engage the notch.

4. A rail joint wherein the web of one rail is thickened and recessed at one side and wherein the other web has an extension to fit into the recess, the first mentioned rail having a lip depending from its tread and extending from end of the recess to a point short of the end of the rail, the extension being cut away to receive the lip and to provide a portion to swing in back of the lip, the first mentioned web having a longitudinal rib along the upright wall of the recess adjoining the base flange, the rib extending to the end of the rail and being provided with a notch adjoining the end of the rail, the extension being provided with a longitudinal groove in its inner side adjoining its bottom and adapted to receive the rib, and the extension being provided with a lug within the groove adjoining the end of the respective rail to engage with the said notch.

5. A rail joint wherein the web of one rail is thickened and recessed at one side and wherein the other web has an extension to fit into the recess, the first mentioned rail having a lip depending from its tread, the extension being cut away to receive the lip and to provide a portion to swing in back of the lip, the first mentioned web having a longitudinal rib along the upright wall of the recess and adjoining the base flange, the extension being provided with a longitudinal groove in its inner side and adjoining its bottom to receive the rib, the bottom of the recess being inclined from the base flange of the respective rail toward the rib, the bottom of the extension being inclined from its outer side toward the groove, the upright wall of the recess being inclined from the rib to the tread of the respective rail, the inner side of the extension being

inclined from the groove to the top of the extension, the rib being provided with a notch, and the extension being provided with a lug within the groove to engage the notch.

1,078,094. POULTRY-FEEDER. MAX H. HINKLE, Blackhawk, Colo., assignor of one-half to George E. Fritz, Blackhawk, Colo. Filed Feb. 28, 1912. Serial No. 680,457. (Cl. 119-70.)



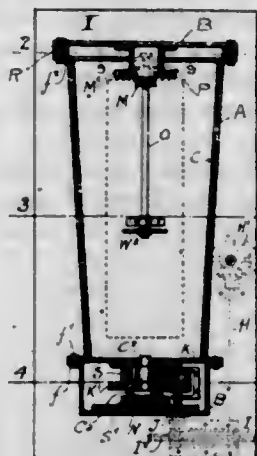
1. A poultry feeder-comprising a base, standards secured thereto, a hopper mounted on said standards, said hopper having an opening in the lower end thereof, a distributor rotatably mounted beneath the opening in said hopper, a vertical shaft having its upper end keyed to the distributor, a pinion carried by said shaft, a gear wheel adapted to mesh with said pinion, a lug formed on the outer periphery of said gear wheel, a rod having one end connected to said lug, a lever pivotally mounted on the base to which the other end of said rod is connected, whereby the weight of a fowl on the outer end of the lever will rotate the distributor in one direction, a coil spring having one end secured to the hopper and the other end secured to said lever to rotate the distributor in the opposite direction, and means arranged in the path of said lug to limit the movement of the gear wheel in either direction, as and for the purpose described.

2. A poultry feeder comprising a base, standards secured to the base, a hopper mounted upon the standards having an opening in the lower end thereof, an angular bracket secured to one side of the hopper and having its horizontal portion disposed beneath the hopper, a distributor mounted on said horizontal portion of the bracket, a second angular bracket having one end of its horizontal portion secured to one of said standards and having the upper end of the upright portion thereof secured to the free end of the horizontal portion of the first bracket, a gear wheel mounted on the upright portion of the second bracket, a vertical shaft having its lower end mounted in the horizontal portion of the second bracket and having its upper end disposed through the first bracket and into said hopper, a pinion on said shaft and meshing with the gear wheel, said shaft being keyed to the distributor to rotate the same, a lug formed on the periphery of the gear wheel, a rod having one end connected to said lug, a lever pivotally mounted on the base to which the other end of said rod is connected, and means for normally maintaining said lever in raised position, the upright portion of said second bracket being disposed in the path of said lug whereby rotation of said gear wheel is limited in either direction.

1,078,095. DOOR FOR SHIPS' BULKHEADS. WILLIAM HOUGHTON, Bath, Me. Filed Oct. 3, 1912. Serial No. 723,767. (Cl. 114-117.)

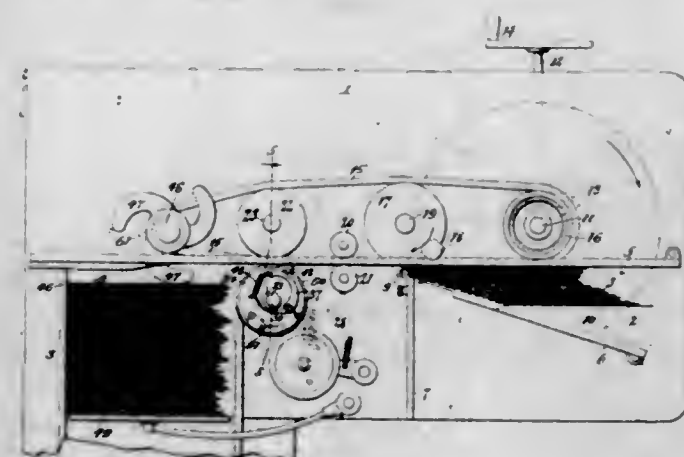
1. In a tapering cylindrical door casing and door, mechanism for raising the door out of frictional contact with

its casing, comprising the combination of a lifting screw and pivot upon which the door turns, a shoulder on the body of the said screw for supporting the door when raised, a circular nut on the floor of the casing, held in frictional contact to prevent revolving, and the said nut with its screw free to revolve in one direction for adjusting the door opening, a socket mounted on the underside of the door internally fitted with a ring having tapering slots in the form of recesses, one roller in each recess so arranged that said rollers will be thrown out of frictional contact with the sides of the recess and the body of the screw by the movement of the said screw through the medium of the operating wheels on either side of the bulkhead for raising the door, said rollers only being in action when lowering the screw and door together, for rotating the door to bring the opening in the door opposite either opening in the casing.



2. In a tapering cylindrical door casing and door, mechanism for both raising and rotating the door through the medium of the same operating wheels on either side of the bulkhead, a socket on the underside of the door internally fitted with a ring having tapering slots in the form of recesses into which rollers are positioned so arranged that said rollers will be brought into engagement by frictional contact, put into action by the movement of the screw that is journaled in the said sockets, said rollers freed when the screw is revolved in the opposite direction to permit raising the door without rotating it, a socket on the floor of the casing, arranged internally similar to the socket on the underside of door, a nut on the screw in the said socket in engagement with said rollers so that the door may be raised for rotating to bring its opening opposite either opening in the casing.

1,078,096. MAIL-MARKING MACHINE. FRED C. IELFIELD, Silver Creek, N. Y., assignor to Columbia Postal Supply Company, Silver Creek, N. Y., a Corporation of New York. Filed Mar. 1, 1912. Serial No. 680,937. (Cl. 101-82.)



1. A mail marking machine comprising a printing wheel, a normally stationary stop, a stop lever pivoted on said wheel and adapted to engage said stop, and a trip lever pivoted on said stop lever and adapted to be engaged by a letter to be marked.

2. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop shoulder, a stop lever pivoted on the printing wheel adapted to engage said stop shoulder, and a trip lever pivoted on the stop lever and adapted to be engaged by a letter to be marked.

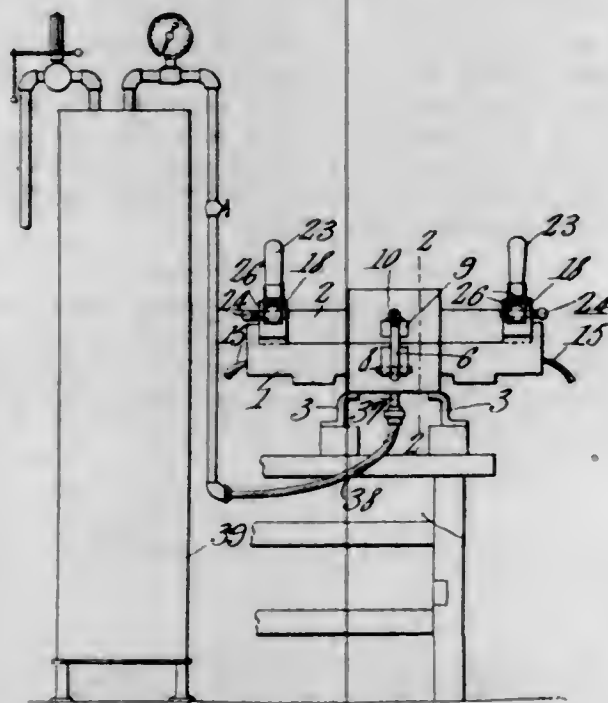
3. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop shoulder, a stop lever pivoted on the printing wheel and provided on one of its arms with a catch adapted to engage said stop shoulder, and a trip lever pivoted on the other arm of said stop lever and adapted to be engaged by a letter to be marked.

4. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop shoulder, a stop lever pivoted on the printing wheel and provided on one of its arms with a catch adapted to engage said stop shoulder, a trip lever pivoted on the other arm of said stop lever and provided with a laterally projecting finger adapted to be engaged by a letter to be marked.

5. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop shoulder, a stop lever pivoted on the printing wheel and provided on one of its arms with a catch adapted to engage said stop shoulder, a trip lever pivoted on the other arm of said stop lever and provided with a laterally projecting finger adapted to be engaged by a letter to be marked, a spring for holding the stop lever yieldingly in engagement with said stop shoulder, a spring for holding the trip lever yieldingly in the letter path, and a stop for limiting the movement of said trip lever under the action of the spring engaging the same.

[Claims 6 to 8 not printed in the Gazette.]

1,078,097. APPARATUS AND METHOD FOR SPLICING RUBBER TUBING. FRANKLIN WILLIAM KREMER, Rutherford, N. J. Filed July 19, 1910. Serial No. 572,725. (Cl. 18-35.)



1. A step in the manufacture of inner tubes which consists in splicing the ends of the tube, securing the inflating valve and patch in position choking the tube on opposite sides of the patch, inflating the tube between the choked portion and vulcanizing the inflated portion.

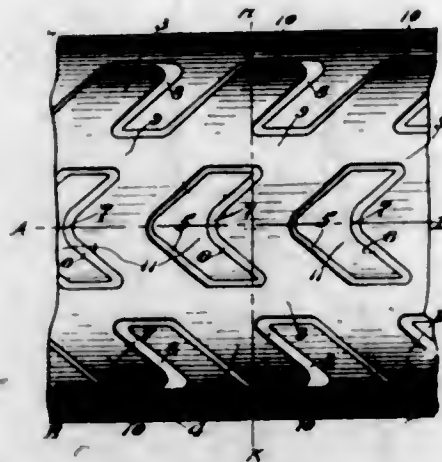
2. A vulcanizing apparatus comprising an inflating chamber, means for choking a rubber tube at the ends of the chamber, a heating chamber around the inflating chamber, cooling means adjacent the choking means, and means for inflating that portion of the tube which is in the inflating chamber.

3. A method of splicing rubber tubing which consists in fitting together the ends of the tubing to be spliced,

choking the tubing on opposite sides of the point to be spliced, inflating the tube between the choked portions thereof, and vulcanizing the inflated portion of the tube.

4. Apparatus for vulcanizing rubber tubes, provided with an inflation chamber; means for choking the tube transversely at the ends of said chamber; and a heating chamber surrounding the inflation chamber.

1,078,098. ANTISKID-TIRE. FRANKLIN W. KREMER, Carlstadt, N. J. Filed Apr. 27, 1912. Serial No. 693,609. (Cl. 152-14.)



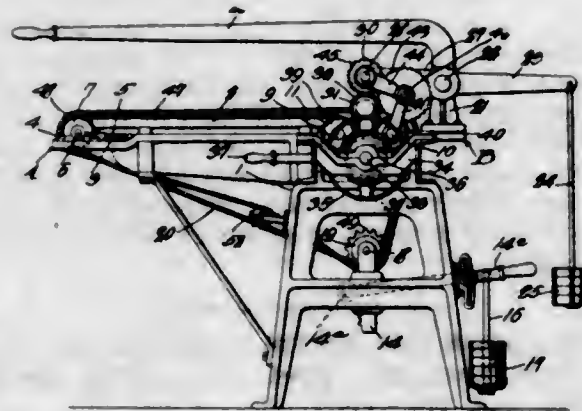
1. In a device of the class described, a tire member having continuous, V-shaped ribs provided with oppositely slanting interior and exterior faces, the interior faces having a maximum pitch adjacent the apex of the rib, the exterior faces having a minimum pitch adjacent the apex of the rib.

2. A tire having approximately V-shaped ribs on the tread thereof, and longitudinal ribs on opposite sides of the median line of the tread and connecting the V-shaped ribs at points about midway between their apices and their outer ends, said ribs serving to define vacuum chambers at the center of the tread, said chambers having V-shaped forward and rear walls and inclined venting extensions.

3. A tire having vacuum chambers along the median line of the tread and arranged within the normal bearing surface of the tire, said chambers having V-shaped forward and rear walls arranged in parallelism with each other, and forming inclined venting extensions for said chambers, said V-shaped walls having their apices at substantially the median line of the tread.

4. A tire having vacuum chambers along the median line of the tread and arranged within the normal bearing surface of the tire, said chambers having V-shaped forward and rear walls arranged in parallelism with each other, and forming inclined venting extensions for said chambers, said V-shaped walls having their apices at substantially the median line of the tread, the outer walls of the vacuum chambers being parallel with the median line of the tread.

1,078,099. MACHINE FOR FORMING RUBBER TUBES. FRANKLIN W. KREMER, Carlstadt, N. J. Filed May 24, 1912. Serial No. 699,495. (Cl. 154-10.)



1. A rubber tube forming machine having a yielding carrier formed with a bight, a mandrel floating in the

bight of the carrier and supported solely thereby, means for driving the carrier, and means, independent of the carrier, for holding the mandrel in the bight and driving it at the same surface speed as the carrier.

2. A rubber tube forming machine having a porous and yielding carrier formed with a bight, an impervious mandrel floating in the bight of said carrier and supported solely thereby, means for driving the carrier, and means, independent of the carrier, for holding said mandrel in said bight and driving it at the same surface speed as the carrier.

3. A rubber tube forming machine having spaced rollers, a yielding carrier movable over said rollers and having a bight therebetween, a mandrel floating in said bight and supported by said carrier, a third roller movable into and out of contact with said mandrel for holding it in said bight and driving it at the same surface speed as said carrier, and means for driving all of said rollers at the same speed.

4. A rubber tube forming machine having a table, a pair of spaced carrier rollers adjacent said table, a yielding carrier movable over said table and said rollers and having a bight between said rollers, a mandrel floating in said bight and supported solely by said carrier, and a flexible-faced driving roller, movable into and out of contact with said mandrel for holding the same in said bight, and driving it at the same surface speed as said carrier, means for adjusting the tension of said carrier, and means for driving said carrier rollers and said driving roller at the same surface speed.

5. A rubber tube forming machine comprising a table, a forward carrier roller in advance of the table, spaced rearward carrier rollers in rear of the table, a lower carrier roller, a yielding and porous carrier extending around all of said rollers and across said table, and having a bight between said rearward spaced carrier rollers, a mandrel floating in said bight and supported solely by said carrier on the lower portion only of its circumference, a soft-faced driving roller for holding said mandrel in said bight and driving it at the same surface speed as said carrier, mechanism for moving said soft-faced roller into and out of engagement with said mandrel, means for varying the pressure of said soft-faced roller on said mandrel, means for adjusting the tension of said carrier, and means for driving all of said carrier rollers and said driving roller at the same surface speed.

1,078,100. ARTIFICIAL STONE OR LIKE COMPOSITION. JOHANN SECUNDUS KRUSE, London, England. Filed May 27, 1911. Serial No. 629,921. (Cl. 106-29.)

1. A composition of matter consisting of three parts of magnesium oxid of approximate density 1.7 four parts of a cold aqueous saturated solution of magnesium chlorid and one part of a 25% alcoholic solution of shellac; as and for the purpose set forth.

2. An artificial stone or like composition comprising the following substances in the proportions specified, viz:—three parts of calcined magnesium oxid of an approximate density 1.7; about four parts of a cold aqueous saturated solution of magnesium chlorid and about one part of a 25% alcoholic solution of a resinous body; as set forth.

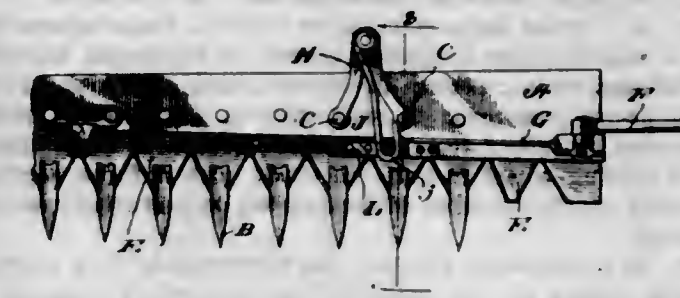
3. An artificial stone or like composition including the following substances in substantially the ratios (by weight) specified, viz:—magnesium oxid (MgO) of apparent density about 1.7, 15 parts, magnesium chlorid (MgCl₂) 6 parts and a resinous body 1 part.

4. An artificial stone or like composition including the following substances in substantially the ratios (by weight) specified, viz:—magnesium oxid (MgO) of apparent density about 1.7, 15 parts, magnesium chlorid (MgCl₂) 6 parts and shellac 1 part.

5. An artificial stone composition containing the following substances in substantially the proportions specified, viz:—hydrated oxychlorid of magnesium and a resinate of magnesia in about the proportion 20 to 1 by weight.

196 O. G.—22

1,078,101. CUTTING APPARATUS FOR HARVESTING MACHINES. CHARLES H. KUGLER, Cozad, Nebr. Filed Nov. 15, 1912. Serial No. 731,589. (Cl. 56-44.)

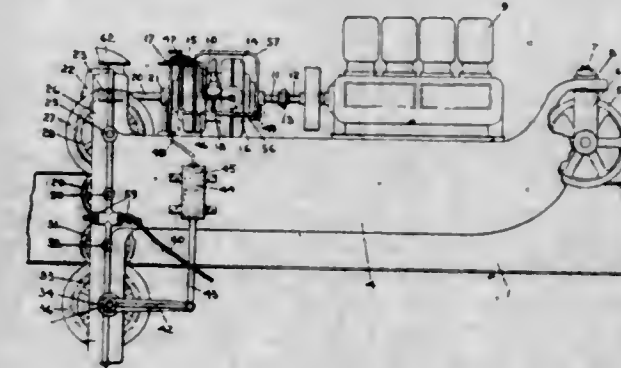


1. The combination of the finger-bar, the guard fingers bolted thereto, the cutters, a V-shaped bracket secured to the finger-bar by two of the bolts which attach the guard fingers thereto, a pin projecting upwardly from the cutters and a spring having a coiled portion with a vertical axis and the lower end of which is held against turning on the outer end of the bracket and which has also a hooked portion at its front end engaging the pin on the cutters.

2. The combination with the finger-bar, of the guard fingers bolted thereto, a V-shaped bracket secured to the finger-bar by two of the bolts which attach the guard fingers thereto, the cutters, a pin projecting upwardly from the cutters, a pin projecting upwardly from the rear end of the V-shaped bracket, and a spring coiled around said vertical pin on the bracket having its inner end held against turning and having a hooked portion engaging the pin on the cutters.

3. The combination of the finger-bar, the guard fingers bolted thereto, the cutters, the cutter head attached thereto, a V-shaped bracket secured to the finger bar by two of the bolts which attach the guard fingers thereto, a bar (L) secured to the cutters and having a raised portion which overlaps the inner end of the cutter head, a pin projecting upwardly from the bar L, a sleeve carried thereby and a spring having a coiled portion with a vertical axis attached to the bracket and the lower coil of which is held from turning when the cutters are reciprocated and which spring has also a hooked portion engaging the sleeve carried by the bar L.

1,078,102. TRACTOR. CHARLES M. MANLY, Brooklyn, N. Y. Filed Mar. 13, 1911. Serial No. 614,130. (Cl. 105-220.)



1. In a track supported power vehicle, the combination of a vehicle frame a power generator, a driving wheel movable relatively to said frame, means for transmitting the power from the generator to the driving wheel and means operated by power from said power generator for moving the driving wheel relatively to said frame to grip the track which it engages, substantially as described.

2. In a mono-rail tractor, the combination of a frame, supporting wheels therefor, means for driving one of said wheels comprising an internal combustion engine and a variable speed hydraulic gear interposed between said engine and driving wheel, and a non-supporting wheel adapted to engage the rail to hold the tractor on the rail, substantially as described.

3. In a mono-rail tractor, the combination of a frame, supporting wheels therefor, a non-supporting wheel adapt-

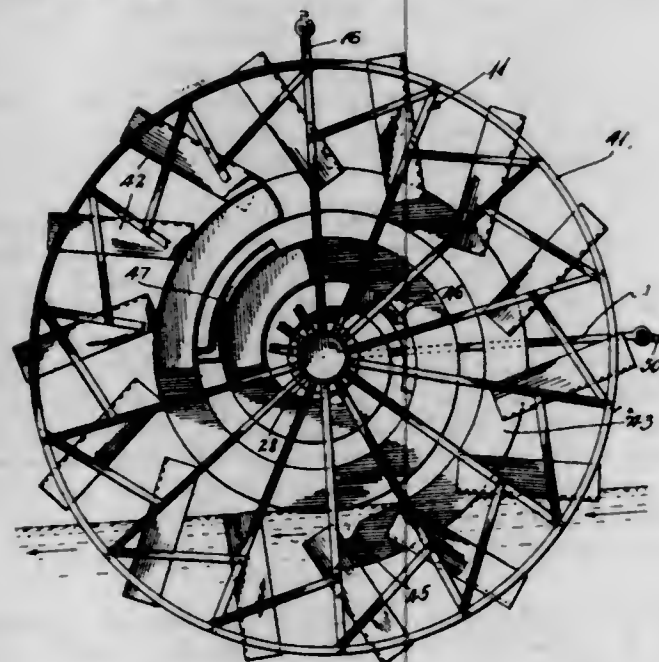
ed to engage the rail to hold the tractor on the rail means for driving said non-supporting wheel, and means actuated by said driving means for pressing said non-supporting wheel against said track, substantially as described.

4. In a track supported power vehicle, the combination of a vehicle frame, a power generator supported thereby, a driving wheel, means for transmitting the power from said power generator to said driving wheel, and means operated by power from said power generator for causing said driving wheel to grip its track with a force varying directly as the tractive effort exerted, substantially as described.

5. In a mono-rail tractor, the combination of a driving wheel, means for driving said wheel, a wheel adapted to engage under the rail and means operated by said driving means for forcing said last mentioned wheel against the rail with a force varying directly as the tractive effort exerted, substantially as described.

(Claims 6 to 19 not printed in the Gazette.)

1,078,103. WATER-RAISING WHEEL. JAMES O. MCINTOSH, Callente, Nev. Filed Apr. 3, 1912, Serial No. 688,150. Renewed Apr. 1, 1913. Serial No. 758,260. (Cl. 103—69.)



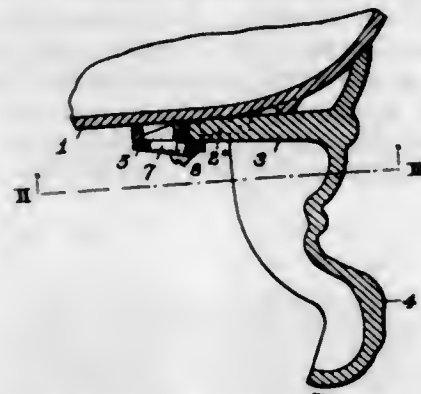
1. A water wheel for streams, comprising a paddle member a tube bearing member, means for supporting the same, spiral tubes mounted in said tube bearing member having open outer ends adapted to scoop up water from the stream, and vent pipes apertured at right angles in one turn of said spiral tubes, passing to and extending along the next outer spiral turn and having a vent opening on its outer end, opening in the direction of progression adapted to release air entrapped in said spiral tubes.

2. A water wheel construction, comprising paddle wheels and water taking tubes carried thereby, a hollow shaft adapted to receive water from the said tubes, a laterally adjustable arm supported at one end in a pivoted frame, a stationary frame provided with means adapted to support the other end of said arm, links connecting the shaft of the paddle wheel to said arm, and means for moving said arm in the direction of its axis to permit adjustment of the wheel to variations of water level.

1,078,104. FOOT ATTACHMENT. WILLIAM C. MCKINNEY, Toronto, Ontario, Canada, assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 8, 1913. Serial No. 753,111. (Cl. 4—27.)

1. The combination of a cast-metal article provided on its outer surface with lugs forming a tapered recess, a supporting member provided with a tongue adapted to fit into said recess and to extend beyond the ends of said lugs, a slotted stop element adjustably secured to the end

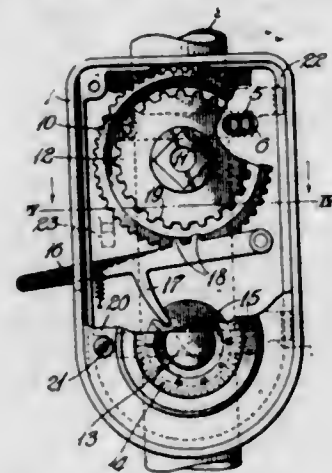
of said tongue and provided with wings abutting against the ends of said lugs, and a securing member extending through said slot and engaging said tongue.



2. The combination of a cast metal article provided on its outer surface with lugs forming a tapered recess, a supporting member provided with a tongue adapted to fit into said recess, a slot-provided stop element adjustably secured to said tongue and having surfaces abutting against the ends of said lugs, and a bolt extending through said slot and engaging said tongue, the stop-abutting ends of said lugs and the lug-engaging surfaces of said stop being beveled, whereby a tightening of said bolt draws said tongue within said recess.

3. The combination of a cast-metal article provided on its outer surface with protrusions forming a tapered recess, a supporting member provided with a tongue adapted to fit into said recess, a slot-providing stop element adjustably secured to said tongue and abutting against said protrusions, and a bolt extending through said slot and engaging said tongue, the thickness of said stop adjacent to said slot diminishing rearwardly of said supporting member.

1,078,105. AUTOMOBILE-LOCK. WARREN G. McNAB, Wyandotte, and ROBERT J. McCLEERY, Detroit, Mich. Filed Jan. 13, 1913. Serial No. 741,730. (Cl. 70—90.)



1. A lock for automobiles including a casing, a pinion in the casing, a stop wheel driven positively by the pinion, a latch in the casing, a permutation lock mechanism in the casing adapted to hold the latch in engagement with the stop wheel when the mechanism is set, a gear adapted to mesh with the pinion and to be secured to turn with the rotating member of the steering gear, a cover on the casing, and means adapted to lock the cover to the casing when the latch is in engagement with the stop wheel.

2. A lock for automobiles comprising a casing, means for securing the casing in position accessible from the interior of the casing only, a pinion in the casing, a stop wheel positively driven by the pinion, a latch adapted to lock with the stop wheel, permutation lock mechanism adapted to hold the latch in engagement with the stop wheel when set, a gear adapted to be secured to the rotating member of a steering mechanism in mesh with the pinion, and a cover for the casing that is locked in position by the latch when the latter engages the stop wheel.

3. A lock for automobiles comprising a casing, means accessible within the casing only for securing the latter

In position, a pinion journaled in the casing, a gear adapted to be secured to the rotatable member of an automobile steering gear in mesh through a slot in the casing with the pinion, a stop wheel secured to turn in unison with the pinion in the casing, a latch swinging in the casing having a detent member adapted to engage and lock the stop wheel, permutation lock mechanism adapted to hold the latch detent locked with the stop wheel when the permutation mechanism is set, a removable cover for the casing, and means that locks the cover in position when the latch is held engaged with the stop wheel.

1,078,106. HARMONIC RELAY. KEMPSTER B. MILLER, Chicago, Ill., assignor to McMeen & Miller, Chicago, Ill., (Samuel G. McMeen and Kempster B. Miller,) a Partnership. Filed July 17, 1909. Serial No. 508,096. (Cl. 178—304.)



1. A relay; a vibratory member therefor; circuit-controlling contacts vibrating with said vibratory member, adapted to be held continuously in one condition of circuit control while said member is in vibration and continuously in another condition of circuit control while said member is at rest.

2. A relay; a vibratory member therefor; circuit-closing contacts vibrating with said vibratory member, said contacts being held closed while said member is in vibration and open while said member is at rest.

3. In a relay, a vibrating reed; a pair of contacts carried by said reed, said contacts being electrically connected while said reed is vibrating and disconnected when said reed is at rest.

4. In a harmonic relay, a tuned reed armature therefor; a pair of contacts carried by said tuned reed armature, said contacts being insulated from each other while said tuned reed armature is at rest and continuously electrically connected while said tuned reed armature is in vibration.

5. In a harmonic relay, a tuned reed armature therefor; a pair of contacts controlled by said tuned reed armature, said contacts being insulated from each other while said tuned reed armature is at rest and continuously electrically connected while said tuned reed armature is in vibration.

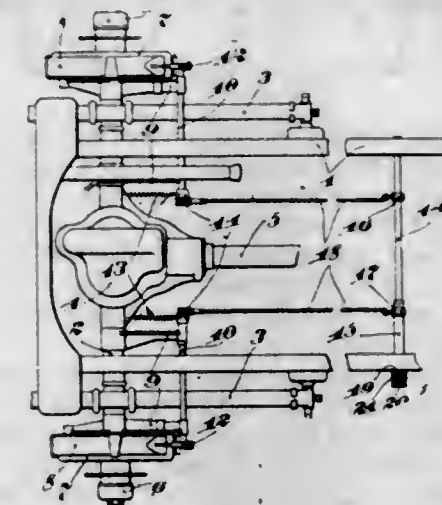
(Claims 6 to 13 not printed in the Gazette.)

1,078,107. BRAKE-ACTUATING MECHANISM. THEODORE N. NYGREN, Minneapolis, Minn. Filed Apr. 7, 1913. Serial No. 759,324. (Cl. 21—10.)

1. The combination with a vehicle having a differential drive, and independent brakes cooperating with the two traction wheels, of a brake lever, independent brake actuating connections, a clutch operative, at will, to simultaneously connect the said two brake actuating connections to said lever, or to connect either thereof to said lever, leaving the other free, means for locking said brake lever in different adjustments, and a common controller for actuating said clutch and said lever locking means, substantially as described.

2. The combination with a vehicle having a differential drive, and independent brakes cooperating with the two

traction wheels, of a brake lever, independent brake connections, a clutch operative, at will, to simultaneously connect the said two brake actuating connections to said lever, or to connect either thereof to said lever, leaving the other free, means for locking said brake lever in different adjustments, a common controller for actuating said clutch and said lever locking means, and automatic means for returning said common controller to a normal position, substantially as described.



3. The combination with a vehicle, having a differential drive and independent brakes cooperating with the two traction wheels, of two rock shafts yieldingly held in normal position, independent brake connections to said shafts, a brake lever, a clutch operative, at will, to simultaneously connect said lever to said two shafts, or to connect the same to either thereof, leaving the other free, means for locking said lever in different adjustments, a common controller for actuating said clutch and said lever locking means, and automatic means for returning said controller to normal position, substantially as described.

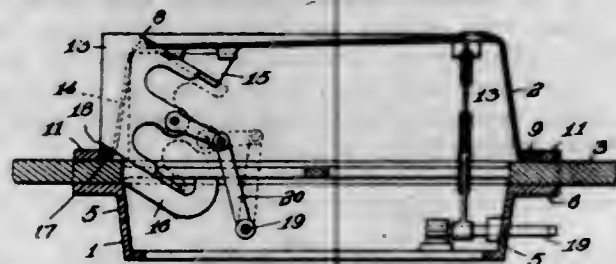
4. The combination with a vehicle having a differential drive, and independent brakes cooperating with the two traction wheels, of two rock shafts yieldingly held in normal positions and having arms, independent brake connections to said shafts, a brake lever, a lock mounted on said lever, pawl and ratchet devices for locking said lever in different adjustments, a controller rod mounted on said lever and operative, at will, to release said pawl and ratchet devices, or to actuate said lock, to simultaneously connect said brake lever to said two arms or to connect the same to either thereof, leaving the other free, and automatic means for returning said rod to a normal position, substantially as described.

5. The combination with a vehicle having a differential drive, and independent brakes cooperating with the two traction wheels, two rock shafts yieldingly held in normal positions and having arms, independent brake connections to said shafts, a brake lever loosely mounted between said arms, a ratchet bar on said vehicle, a pawl mounted on said lever for cooperation with said ratchet bar, a lock bolt slidably mounted in said lever, a controller rod mounted in said lever, and operative, at will, to move said pawl out of engagement with said ratchet bar, or to move said bolt into locking engagement with said arms or either thereof, leaving the other free, and means, including a cam pin and cooperating cam groove, for returning said rod to a normal position, substantially as described.

1,078,108. MOLD-FORMER. JOHN C. REED, Pittsburgh, Pa., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 29, 1912. Serial No. 717,746. (Cl. 22—163.)

1. In a mold former for bath tubs having integral outstanding partition wings, the combination of a tub body-pattern having a slot in the side thereof extending from the bottom to the rim, a plate movable through said slot and when in outward position forming a partition-wing molding-member, and a plate-like projection extending out-

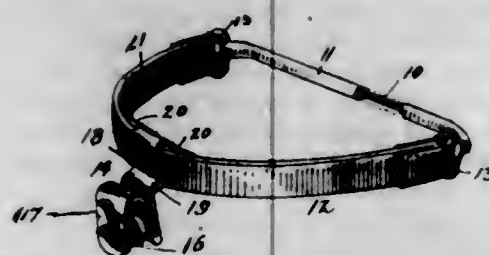
wardly from the rim portion of the tub pattern adjacent to said slot, said projection being adapted to form a portion of a partition wing mold pocket.



2. In a mold former for bath tubs having outstanding partition wings, the combination with a pattern supporting frame, of a tub body pattern having a slot in its side extending from the bottom to the rim, a plate movable through said slot, and a pair of guideways for said plate one secured to said frame and one to said body pattern, said plate forming when in outward position a partition wing molding member.

3. In a mold former for bath tubs having integral outstanding partition wings, the combination of a tub body pattern provided with a slot in its side extending from the bottom to a point adjacent to the outer edge of the rim of such pattern, the uncut portion of said rim adjacent to said slot rigidly uniting the portion of said pattern adjacent thereto, a member movable through said slot, and when in outward position forming a partition-wing molding-member extending from the plane of the bottom of the body pattern to a point beneath the rim thereof, and a supplemental molding-member adapted to form the wing pocket from the end of said movable member to the adjacent side of said rim when said movable member is in outward position.

1,078,109. RETAINER FOR OVERSHOES AND RUBBERS. VESTAL REYNOLDS, Marion, Ind. Filed Nov. 21, 1912. Serial No. 732,755. (Cl. 36-8.)



1. A retainer for overshoes, comprising a clamp adapted to grip the upper edge of an overshoe at the heel, said clamp having a shoulder adapted to engage the inner shoe above the upper edge of the heel stiffener, and means for attaching said clamp to the inner shoe.

2. A retainer for overshoes, comprising a clamp adapted to grip the upper edge of an overshoe at the heel, said clamp having a shoulder adapted to engage the inner shoe above the upper edge of the heel stiffener, and means for attaching said clamp to the inner shoe, comprising a strip, and a heel-engaging cross bar to which the strip is attached.

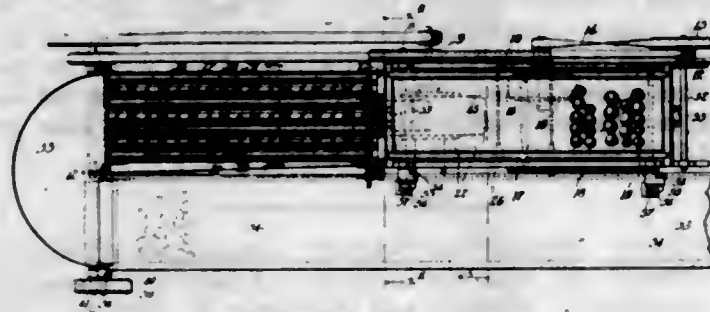
3. A retainer for overshoes, comprising a shoe-engaging strap, and an overshoe engaging clamp having a shank attached to said strap, said shank having an outwardly extending shoulder to engage the inner shoe above the upper edge of the heel stiffener.

1,078,110. FRUIT-DRIER. GEORGE T. STAMM, Upland, Cal. Filed Jan. 28, 1913. Serial No. 744,766. (Cl. 34-1.)

1. In a fruit drier, an absorbent element, and means for imparting a continuous rolling movement of the fruit over said absorbent element.

2. In a fruit drier, an absorbent element, means for imparting a continuous rolling movement to the fruit longitudinally of the said absorbent element, and means for causing the fruit to roll laterally on the absorbent element.

3. In a fruit drier, an absorbent element, means for imparting a continuous rolling movement of the fruit over the absorbent element, and means for rocking the absorbent element transversely to cause a transverse rolling movement of the fruit.

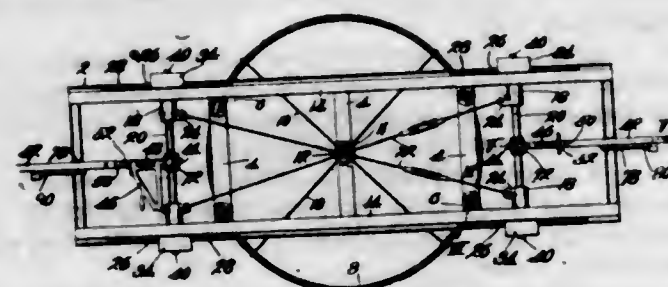


4. In a fruit drier, an absorbent element, means for supporting said element at different points to cause the absorbent element to sag between such points and form transverse depressions adapted to receive fruit, and means for moving said supporting means along the absorbent element to cause a progression of the said depressions in the absorbent element and cause the fruit which lies in said depressions to roll along on the absorbent element in the traveling depressions therein.

5. In a fruit drier, an absorbent sheet, a series of rollers under the sheet supporting the same, with depressions between the rollers, said depressions adapted to receive the fruit, and means for moving said rollers along said sheet to cause a progression of the depressions and thereby roll the fruit along the sheet.

[Claims 6 to 15 not printed in the Gazette.]

1,078,111. VEHICLE-JACK. McELMER STEWART, Kansas City, Mo. Filed June 21, 1913. Serial No. 775,063. (Cl. 104-19.)



1. In a vehicle jack, a track mounted to turn about a vertical axis, a vehicle supporting frame carried by said track, and means adapted to be operated by a vehicle moving over said frame for imparting vertical movement to said frame to jack said vehicle.

2. In a vehicle jack, a track, a vehicle supporting frame above said track and provided with rotary elements eccentrically mounted thereon and adapted to travel on said track, and means adapted to be engaged by a vehicle moving over said frame to move the frame and rotate said elements, whereby said frame will be lifted to jack the vehicle.

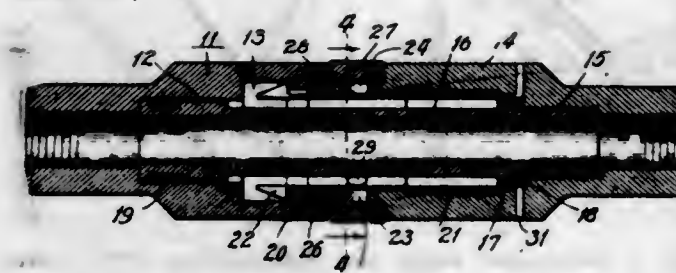
3. In a vehicle jack, a track provided with a set of racks, a vehicle supporting frame above said track and provided with a set of gears eccentrically mounted thereon and adapted to travel on said track and engage said racks, and means adapted to be engaged by a vehicle moving over said frame to move the frame and rotate said elements, whereby said frame will be lifted to jack the vehicle.

4. In a vehicle jack, a track provided with a locking mechanism, a vehicle supporting frame above said track and provided with a set of rotary elements eccentrically mounted thereon and adapted to travel on said track, and means adapted to be engaged by a vehicle moving over said frame to move the frame and rotate said elements whereby the frame will be lifted to jack the vehicle, said means being provided with a catch for engaging said locking mechanism for locking the jack in raised position.

5. In a vehicle jack, a track, a vehicle supporting frame above said track, means interposed between said track and frame for lifting the frame upon longitudinal movement thereof, and vertically adjustable elements mounted on said frame for engagement with the axles of the vehicle.

[Claims 6 to 10 not printed in the Gazette.]

1,078,112. HOSE-COUPLING. SAMUEL STORM, Mattoon, Ill. Filed June 21, 1912. Serial No. 705,065. (Cl. 137-28.)



1. In a device of the class described, two tubular members to be coupled together, one member having a cylindrical interior seat, the other member having a small tubular extension with a packing band around its end adapted to engage said seat, leaf springs carried by the member with the tubular extension and positioned around the same, said leaf springs having outwardly turned hooks, an in-turned flange on the other member adapted to be engaged by said hooks, a rotatable ring on one of the members, and inwardly projecting beveled studs carried by the ring and adapted to engage the said leaf springs.

2. In a device of the class described, two tubular members to be coupled together, the opposed parts of said members being enlarged and one of them having a smaller concentric tubular projection adapted to enter the other and make a tight joint therewith, leaf springs carried within one of said members and projecting therefrom and adapted to enter the other member, said leaf springs having hooks on their ends, a flange on the other member adapted to be engaged by said hooks, a rotatable ring on one of the members, and inward projections with beveled ends carried by the ring and adapted to engage the said leaf springs.

3. In a device of the class described, the member 11 with the seat 12, the member 14 with the tubular extension 16 engaging the seat 12, the spring hooks 21 carried by the member 14, the flange 20 carried by the member 11, and the unlocking ring 27.

4. In a device of the class described, two tubular members adapted to be coupled together with a tight fit, said members being enlarged around the fitting parts so as to form an annular chamber, spring hooks within said annular chamber carried by one member and projecting into the other member, a flange on the other member engaged by the ends of said hooks, and a ring carrying cams to positively disengage said hooks.

1,078,113. FLUSHING-VALVE. JOHN L. WILLIAMS, Los Angeles, Cal. Filed June 3, 1912. Serial No. 701,441. (Cl. 137-93.)

1. In a flushing valve, a vertical outer barrel having a water inlet at its upper end and a water outlet at its lower end, an inner barrel within the outer barrel and having no communication therewith, a valve in the outer barrel for controlling the passage of water therethrough, mechanism within the inner barrel having an operative connection with said valve for controlling the movement of the valve, said connection extending through the upper end of the inner barrel, oil within said inner barrel for co-operating with the mechanism therein and for lubricating the same, and means between said upper water inlet and said connection for preventing water which enters the inlet from flowing down along the connection and entering the inner barrel.

2. A flushing valve comprising a vertical outer barrel having a water inlet at its upper end and a water outlet at its lower end, an inner barrel, a valve in the outer barrel for controlling the passage of water therethrough, a socket on said valve projecting a substantial distance upwardly therefrom, mechanism within the inner barrel having an extension through the upper end of the inner barrel projecting into said socket for raising the same and controlling the lowering movement of the same, and oil within the inner barrel co-operating with said mechanism.



3. A flushing valve comprising an outer barrel having water inlet and outlet, an inner barrel within the outer barrel, a valve in the outer barrel for controlling the passage of water therethrough, a plunger in the inner barrel, a guide on said inner barrel projecting a substantial distance above the same, a stem on said plunger extending through said guide, a socket inclosing said guide and stem and having an operative engagement therewith, a valve carried by the lower end of the socket, a piston within the inner barrel provided with valve means regulating the upward and downward movements of the plunger, and oil in the inner barrel for co-operating with the mechanism therein.

4. An outer barrel provided with a water inlet and outlet, an inner barrel within the outer barrel, a large valve in the outer barrel for controlling the passage of water therethrough, a small valve for controlling the passage of water through the large valve, a socket extending above the small valve, a guide on the inner barrel extending above the same, a plunger within the inner barrel, a stem on the plunger projecting through the guide, a socket over the guide and operated by the stem, and sliding within the first socket, a flange on the second socket for lifting the large valve, a piston within the inner barrel with valve means for regulating the movement of the plunger, and oil in the inner barrel for co-operating with the parts therein.

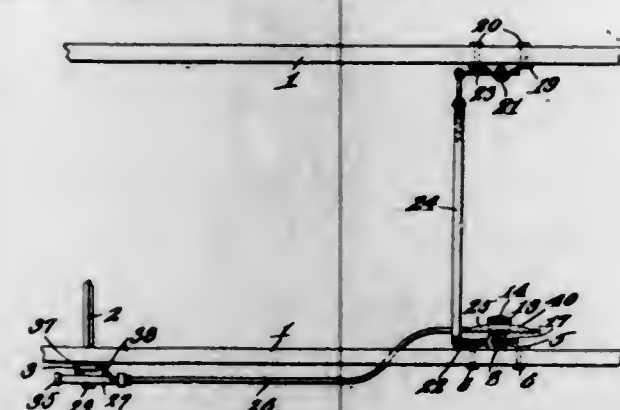
5. An outer barrel provided with a water inlet and outlet, an inner barrel within the outer barrel, a large valve in the outer barrel for controlling the passage of water therethrough, a small valve for controlling the passage of water through the large valve, a socket extending above the small valve, a guide on the inner barrel extending above the same, a plunger within the inner barrel, a stem on the plunger projecting through the guide, a socket over the guide and operated by the stem, and sliding within the first socket, a flange on the second socket for lifting the large valve, a valve on the lower end of the plunger, a piston within the inner barrel having ports adapted to be closed by said latter valve, a short stem on the plunger projecting through the floating piston, means on the short stem limiting the movement of the piston thereon, and oil in the inner barrel co-operating with the parts therein.

[Claims 6 and 7 not printed in the Gazette.]

1,078,114. SOLDER FOR ALUMINIUM. CHARLES WILL-MOTT, Smethwick, England. Filed Aug. 30, 1912. Serial No. 717,843. (Cl. 75-1.)

A solder for aluminium composed of a mixture of tin and bismuth in the proportion of approximately 86% tin to 14% of bismuth.

1,078,115. LAMP-OPERATING MECHANISM. LEO J. WOGENSTAHL, San Antonio, Tex. Filed May 6, 1913. Serial No. 765,834. (Cl. 240-62.)



1. In a lamp shifting mechanism, the combination of a steering gear mechanism, a lamp carrying spindle, a spur gear wheel rigidly secured thereto and mounted eccentrically thereof, a rack bar adapted to engage the spur gear wheel, means connecting the said steering gear with the said rack bar for the positive motion of the latter by and with the former, the outer edge of said rack bar being formed as a curve representing the rectilinear development of the curvature of the periphery of said spur gear taken with respect to its eccentric axis, and a roller the axis thereof fixed with respect to the axis of the spur gear and adapted to continuously contact with the outer edge of said rack bar.

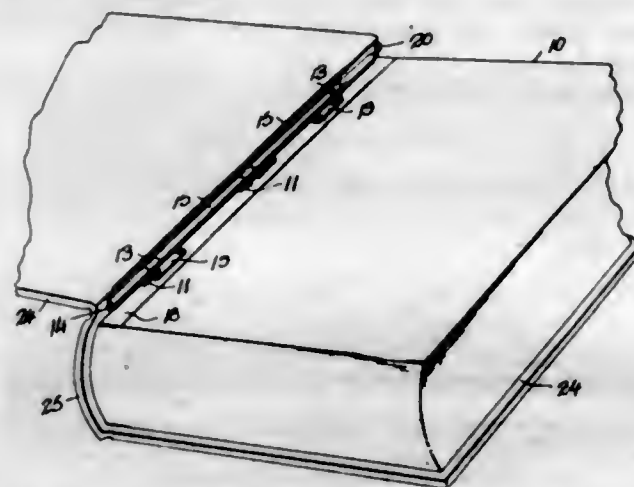
2. In a lamp operating mechanism, the combination of a spindle adapted to support a lamp, a spur gear wheel rigidly secured thereto and mounted eccentrically thereof, a casing with a roller therein, a rack bar disposed within said casing engaging said roller and adapted to mesh with and positively drive said spur gear wheel, and the outer edge of said rack bar adapted to conform with the eccentricity of said gear wheel to maintain the same in contact with said roller and to mesh with said gear wheel.

3. In a lamp rotating mechanism, the combination of a base plate adapted to be rigidly secured to a vehicle frame, a spindle journaled for rotation therein, said spindle adapted to rigidly support a lamp, a casing formed integral with the said base plate and extending therefrom, a roller disposed within said casing, a spur gear rigidly secured to said spindle and of varying radii, a rack bar adapted to mesh with and actuate said spur gear, and said rack bar provided with an outer edge adapted to continuously engage said roller to thereby hold said rack bar and spur gear in mesh, and means for actuating said rack bar simultaneously with the shifting of the vehicle wheels.

4. The combination with a vehicle frame, of base plates rigidly secured thereto, spindles rotatably supported thereby, and adapted to support lamps, outstanding arms rigidly secured to the spindles and a link connection therebetween for the simultaneous rotation of said spindles, one of said spindles provided with an eccentrically mounted spur gear secured thereto, and a rack bar adapted to mesh with said spur gear, means for holding the same in contact therewith, and means for resiliently connecting said rack bar with the steering gear mechanism.

5. The combination with a vehicle frame, of base plates rigidly secured thereto, spindles rotatably supported thereby and adapted to support lamps, outstanding arms rigidly secured to the spindles and a link connection therebetween for the simultaneous rotation of said spindles, one of said spindles provided with an eccentrically mounted spur gear secured thereto, and a rack bar adapted to mesh with said spur gear, and means for resiliently connecting said rack bar with the steering gear mechanism.

1,078,116. LOOSE-LEAF BOOK. ERNEST P. A. WOLF, New York, N. Y. Filed Sept. 9, 1912. Serial No. 719,270. (Cl. 129-4.)



1. In a loose leaf book, the combination with leaves having slots at one edge, of side boards and a back, tubular bearings on each side board, rods for the bearings, and flexible strips arranged in pairs in each slot and the strips of each pair being respectively attached to an opposite bearing rod.

2. In a loose leaf book, the combination with leaves having slots at their rear edges, of a back plate and side boards, resilient strips arranged in pairs adapted to enter the slots and each having an eye at opposite ends from each other, a rod connected with each side board and passing through the eyes of the strips on its side, and means, connected with the leaves, for locking same beneath a certain point on the resilient strips.

3. In a loose leaf book, the combination with leaves having slots at the edge, of a back strip and side boards, tubular bearings in connection therewith, spring strips adapted to enter the leaf slots and having perforations and eyes, rods with threaded stems adapted to pass through the bearings and eyes, a nut for the stem of the rods to insert or remove them, and hooks on the outer fly leaf and adapted to enter the perforations.

4. In a loose leaf book, the combination with leaves having slots at the edge, of a back strip comprising a plate with tubular bearings, side boards, spring strips adapted to enter the leaf slots and having eyes and perforations, rods adapted to pass through the eyes and bearings, fly leaves with metal strips having slots to correspond with the slots of the leaves, and hooks pivoted on the metal strips on the outer fly leaf and adapted to engage the perforations of the spring strip.

5. In a loose leaf book, the combination with leaves having slots at the edge, of a back strip comprising a sheet metal plate with tubular bearings and clenching edges, back boards, flies carried by the clenching edges and adapted to be pasted to the back boards, perforated spring strips carried by the tubular bearings and adapted to enter the leaf slots, metal strips on the outer leaves, and hooks on one of the metal strips to pass into the perforations and retain the leaves.

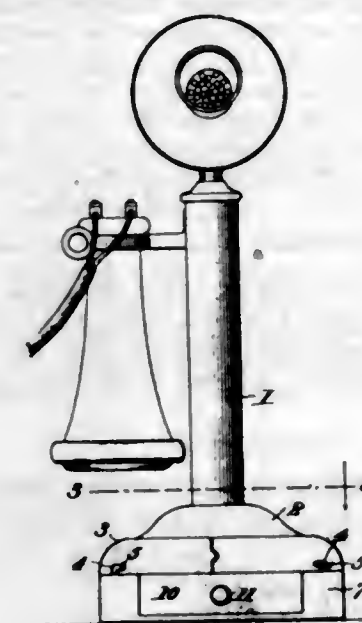
1,078,117. ATTACHMENT FOR TELEPHONE INSTRUMENTS. WILLIARD WOOD, San Francisco, Cal. Filed July 3, 1912. Serial No. 707,622. (Cl. 211-7.)

1. An attachment for desk telephone instruments comprising a cabinet, said cabinet containing a drawer provided with a pad and pencil, a ring adapted to fit over the base of a telephone instrument, and means for securing said cabinet to the ring and to the instrument.

2. An attachment for desk telephone instruments comprising a circular cabinet containing a drawer, said cabinet being provided with upstanding resilient fingers having lugs secured thereto, and a plate provided with slots for engaging said lugs, for the purpose of securing the cabinet to the instrument.

3. As an article of manufacture, an attachment for telephones comprising a band which conforms in shape with the exterior of the lower portion of the base of a tele-

phone, a circular cabinet having an open top, means which project above the upper edge of the cabinet to engage with the band, and a drawer associated with the cabinet.

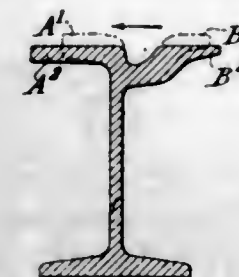


4. In a device of the character set forth, a band which is adapted to be placed over the base of a telephone, a circular cabinet having means for engagement with the band to associate the cabinet with the telephone and with upward projecting studs attached to the cabinet to engage the bottom of the base of the telephone, and a drawer maintained in movable engagement with the cabinet.

5. A supplemental base for telephones comprising a circular cabinet having upward projecting fingers, a band which is adapted to encircle the lower portion of the base of the telephone and with which the fingers engage to hold the parts associated with the telephone, and a drawer associated with the cabinet.

[Claim 6 not printed in the Gazette.]

1,078,118. PROCESS OF ALTERING ELONGATED STEEL SHAPES. JAMES E. YORK, New York, N. Y., assignor to York Rolling Process Company, a Corporation of New York. Filed Oct. 21, 1903. Serial No. 177,989. (Cl. 80-65.)



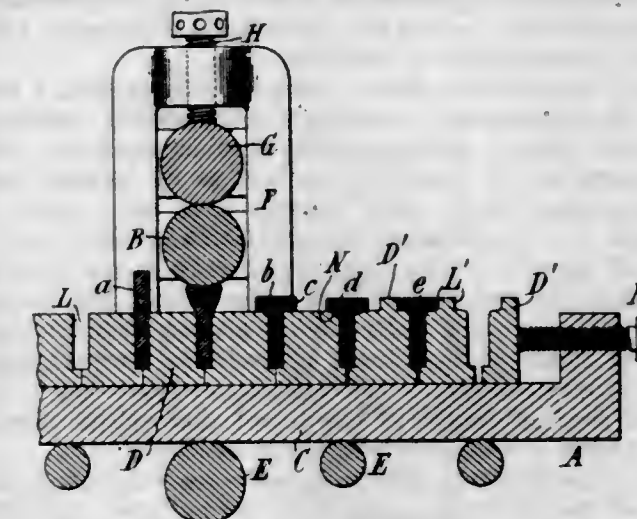
1. The process of altering an elongated steel shape having portions extending angularly to each other, which consists in holding one of said portions partially sunk within a groove in a support, and rolling the other projecting portion transversely to the plane of the sunk portion and to the length of the shape to spread it laterally over the support beyond said groove.

2. The process of altering an elongated steel shape having portions extending angularly to each other, which consists in holding one of said portions fixed relatively to its support, and rolling the other transversely to the plane of the first and to the length of the shape.

3. The process of altering an elongated steel shape having a head and a web, which consists in rolling such head in a direction transverse to the plane of the web.

4. The process of altering an elongated steel shape, having a head and web, which consists in holding it on a support having a groove receiving said web, and rolling down the head transversely upon such support.

1,078,119. PROCESS OF ROLLING INGOTS. JAMES E. YORK, New York, N. Y. Filed July 14, 1906. Serial No. 326,211. (Cl. 80-65.)

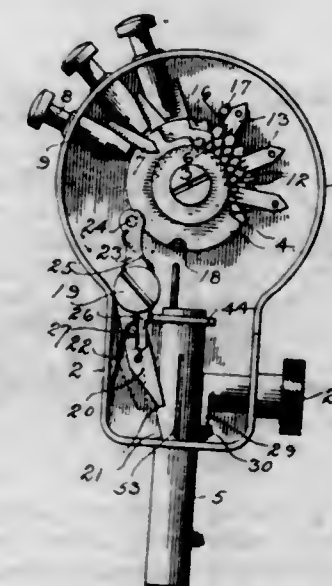


1. The process of treating an ingot or bloom, which consists in holding it in a support with its sides engaged by said support and in a position in which its edge extends above said support and subjecting the exposed edge of it to a succession of transverse rolling operations by a roll supported above and out of contact with said support sufficient to roll it out into a flange extending laterally beyond the body and resting on said support.

2. The process of treating an ingot or bloom, which consists in subjecting it to transverse rolling to upset the metal and form a flange and then reducing the flanged shape thus formed by longitudinal rolling.

3. The process of treating a cast ingot which consists in rolling an edge of it transversely to points beyond the body of the ingot so as to form a flange and under sufficient pressure to upset the metal and compact the flange so as to form a lateral grain therein.

1,078,120. PERMUTATION-LOCK. BERNARD H. ZIEHLER, Dayton, Ohio. Filed Sept. 21, 1912. Serial No. 721,606. (Cl. 70-54.)



1. In a permutation lock, a movable locking bolt, a plurality of independently adjustable permutation tumblers, a detent adapted to engage the bolt to maintain it in its locked position, and interengaging means between the detent and permutation disks, whereby the detent may be disengaged from the bolt only when the disks have been adjusted to predetermined relative positions, substantially as specified.

2. In a permutation lock, a movable locking bolt, a plurality of independently adjustable permutation tumblers, a detent spring pressed into engagement with the bolt and adapted to maintain the bolt in its locking position, a retracting spring of greater tension than that of the de-

tent spring adapted to cause the withdrawal of the detent, said retracting spring being normally effective and means to render the retracting spring effective upon the adjustment of the permutation tumblers to predetermined positions thereby causing the detent to be disengaged from the bolt, substantially as specified.

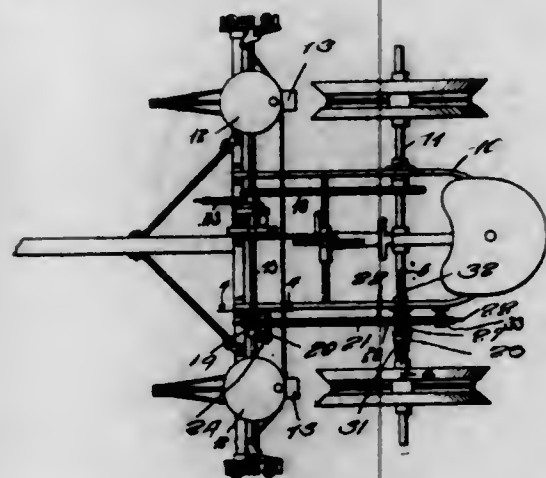
3. In a permutation lock, a movable locking bolt, a plurality of independently adjustable permutation tumblers, a pivoted detent spring pressed into engagement with the locking bolt to maintain the bolt in its locking position, a pivoted lever which engages with said detent to withdraw the detent upon the oscillation of the lever, a spring of greater tension than the detent spring tending to oscillate the lever to withdraw the detent, the oscillation of the lever being limited by the permutation tumblers until the tumblers have been adjusted to predetermined positions whereupon the spring will oscillate the lever to cause the withdrawal of the detent against the tension of the detent spring, substantially as specified.

4. In a permutation lock, a movable locking bolt, a plurality of independently adjustable permutation tumblers controlling the movement of the bolt, adjustable stops carried by the permutation tumblers and adapted to be engaged therewith in different positions to vary the movement of the tumblers necessary to release the bolt, the superposed tumblers being recessed to expose to view the positions of engagement of the adjustable stops with the tumblers beneath, substantially as specified.

5. In a permutation lock, a movable locking bolt, a plurality of independently adjustable permutation tumblers controlling the movement of the bolt, adjustable stops carried by the permutation tumblers and adapted to be engaged therewith in different positions to vary the movement of the tumblers necessary to release the bolt, a portion of each succeeding tumbler being extended beyond the periphery of the preceding tumbler to expose to view the indicated positions of engagement of the adjustable stops with the tumblers, substantially as specified.

[Claims 6 to 17 not printed in the Gazette.]

1,078,121. PLANTER. ALBERT W. ASMUSSEN, Treynor, Iowa. Filed July 31, 1912. Serial No. 712,526. (Cl. 111-46.)

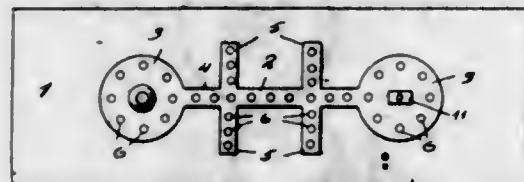


In a planter, an actuating shaft, a rocking rod, a loose gear on said shaft, a chain drive actuating said gear, a normally rearwardly inclined yoke straddling said gear and having the legs loosely mounted on said rod, a crank arm on said rod, a link connected at the upper end to one of the legs of said yoke and connected at the lower end to said crank arm, and spaced fingers on said chain drive adapted to engage with and carry said yoke upwardly whereby to lift said link and rock said rod.

1,078,122. COMBINED HAWK AND TROWEL. HENRY O. BEAN, Coldwater, Kans. Filed Feb. 6, 1912. Serial No. 675,741. (Cl. 72-136.)

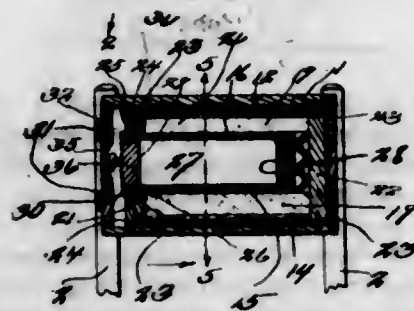
A combined hawk and trowel, comprising a relatively long substantially rectangular plate permanently curved in cross-section, disks rigidly secured upon the concave surface of the plate near and spaced from the ends thereof

and having outwardly extending lugs formed integral therewith, each lug being formed rectangular in horizontal cross-section and provided with a central screw-threaded opening, an integral handle formed entirely of wood and having a socket formed in one end thereof to



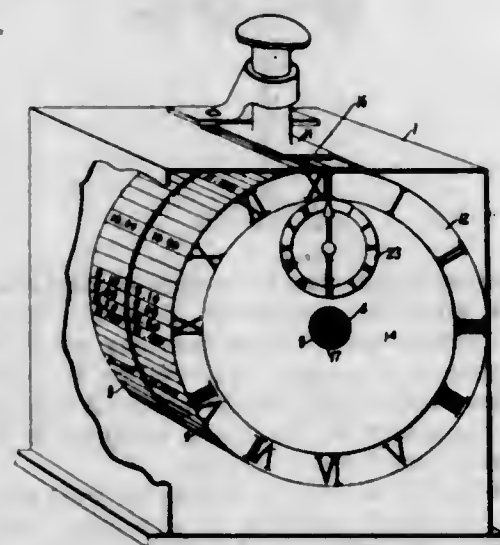
receive the lug, the handle being provided with a longitudinal opening formed therethrough, and a bolt extending through the longitudinal opening and having its inner end screw-threaded to engage within the screw-threaded end of the lug.

1,078,123. FIREPROOF SAFE FOR CABINETS. JOHN BOOTH, Peru, Ind. Filed Dec. 16, 1911. Serial No. 666,124. (Cl. 100-2.)



In a fireproof safe, a metallic box comprising upper, lower and side walls, and end pieces to which said walls are secured, a fireproof box constructed of asbestos smaller in size than the metallic box but conforming to the contour thereof and fitting in said metallic box and spaced apart therefrom, one of the end pieces of the metallic box having an opening registering with the fireproof box, a sheet of asbestos material arranged zig-zag between the fireproof box and the metallic box, a drawer in the fireproof box and provided with a combination lock.

1,078,124. TIME-RECORDER. HENRY W. BROWN, Westport, Conn. Filed Oct. 1, 1910. Serial No. 584,933. (Cl. 234-57.)



1. In an apparatus of the character described, in combination, a horizontal shaft, a vertically arranged wheel secured thereto, and provided with a series of printing numbers comprising zero adapted to indicate intervals of time, and a weighted indicator fixed to the wheel to yieldingly maintain the zero in elevated position.

2. In an apparatus of the character described, in combination, a stamp, independent rotatable platens comprising time printing characters adapted to pass beneath said stamp, one of said platens comprising a visible clock dial,

means to rotate the clock dial platen in accordance with the lapse of time, an arm connected to the other platen and comprising an indicator to coöperate with the figures of the dial to show the relative position of the platens.

3. In an apparatus of the character described, in combination, a clock, a movable clock dial surrounding the clock, connections between the clock movement and the movable dial to drive the dial in accordance with the rate of the clock, a wheel having time printing characters corresponding to the figures of the movable dial and connected to move synchronously with said dial.

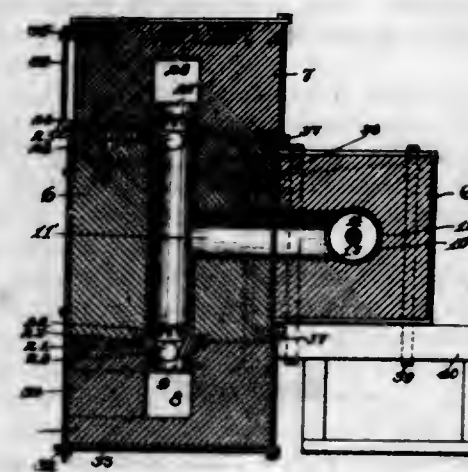
4. In an apparatus of the character described, in combination, a wheel provided with a series of printing characters around its axis, means adapted to yieldingly hold the wheel in a predetermined position and serving as a handle to move the wheel to set the characters in printing position, and means to print from said characters.

1,078,125. CELLULAR DRYING APPARATUS. AUGUST BÜTTNER, Uerdingen, Germany. Filed May 9, 1912. Serial No. 696,230. (Cl. 34-6.)



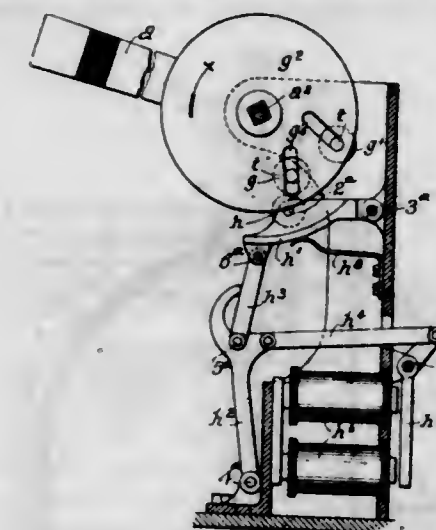
A cellular drying cylinder in which the current of heated air moves in the same direction as the material to be dried, comprising in combination with the cylinder, continuous cells of any convenient cross section, a certain number of additional partitions in the cells of the middle part of the cylinder and further additional partitions in the cells of the end part of the cylinder, substantially as described and shown and for the purpose set forth.

1,078,126. MINE-PUMP. LEWIS CHADWICK, Nelsonville, Ohio. Filed Dec. 4, 1912. Serial No. 734,932. (Cl. 103-76.)



A wooden mine pump formed of three superimposed blocks, the lowermost of said blocks being channeled to form an intake passage, the intermediate one of said blocks having a pair of separated vertical channels formed therethrough, intake valves comprising valve blocks having horizontal flanges which are clamped between the lower and the intermediate sections and across said vertical channels, discharge valves comprising separate blocks having transverse flanges clamped between the intermediate and the uppermost section and across said vertical channels and the uppermost of said blocks being channeled to form a discharge passage.

1,078,127. RAILWAY-SIGNAL. JOHN P. COLEMAN, New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1909. Serial No. 490,630. (Cl. 246-34.)



1. In combination, a pivotal signal device biased to one position of indication; means for moving it to another position of indication; and a mechanism for holding the signal device in the position to which it has been moved, comprising a roller mounted to move with the signal device and to have movements relatively thereto in a line tangential to a circle described about the pivotal point, an electromagnet, and a movable member controlled by the electromagnet and adapted to engage the roller.

2. In combination, a pivotal signal device biased to one position of indication; means for moving it to another position of indication; and a mechanism for holding the signal device in the position to which it has been moved, comprising a roller mounted to move with the signal device and to have movements relatively thereto in a line tangential to a circle described about the pivotal point, an electromagnet, a movable member, and mechanism interposed between the electromagnet and the movable member and controlled by the electromagnet for holding the movable member in engagement with the roller.

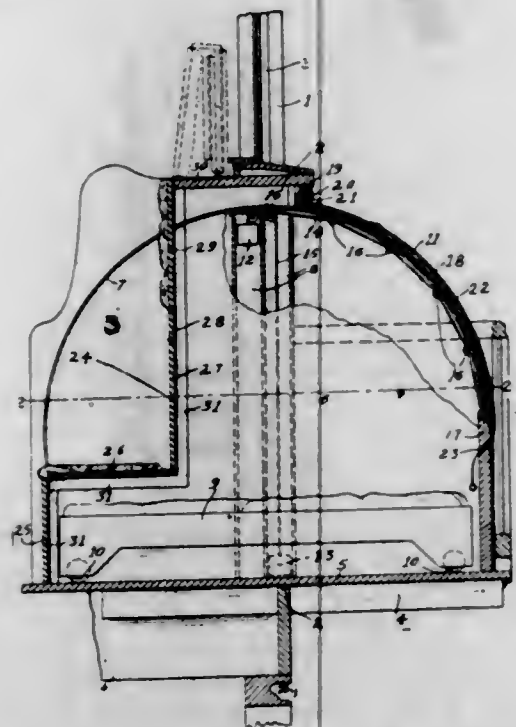
3. In combination, a signal device biased to one position of indication; means for moving it to another position of indication; and mechanism for holding the signal device in the position to which it has been moved, comprising two parallel oscillating disks movable with the signal device, oppositely arranged slots in said disks, the said slots being tangential to a circle described about the center of oscillation of the disks, a roller mounted in said slots, a movable member adapted to engage with the said roller, and an electromagnet for holding the said movable member in position for engagement with the roller.

4. In combination, a pivotal signal device biased to one position of indication; means for moving it to other positions of indication; and a mechanism for holding the signal device in the positions to which it has been moved, comprising a roller for each position to which the signal device is to be moved, each of said rollers being mounted to move with the signal device and to have movements relatively thereto in lines tangential to a circle described about the pivotal point, a movable member adapted to engage with the rollers, and mechanism including an electromagnet for holding the movable member in position for engagement.

5. In combination, a pivotal signal device biased to one position of indication; means for moving it to another position of indication; and a holding mechanism comprising an electromagnet, a movable member, mechanism interposed between the two and controlled by the electromagnet for holding the movable member rigid in one position, a rotatable member moving with the signal device, a member carried by said rotatable member and mounted for movement relative thereto, the said relative movement being out of and into position for engagement with the first movable member during a movement of the signal device away from its biased position.

[Claims 6 to 9 not printed in the Gazette.]

1,078,128. BED-CANOPY. JOHN CONANT, Oakland, Cal., assignor, by direct and mesne assignments, to Co-Ran Bed Company, Oakland, Cal., a Corporation of Arizona. Filed Dec. 22, 1911. Serial No. 867,291. (Cl. 20—1.11.)



1. In combination with a floor of a house, and a main wall thereof spaced from the floor to form a porch opening, walls at the ends of said opening extending transversely to the house wall, the floor being extended outside the house wall, a parapet on the outer edge of the floor, a support on said floor within the house, a movable partition closing the opening between the top of said support and the main wall, a hood, means for movably supporting and guiding the hood such that one side of the hood rests in its open position upon said support and the opposite side thereof in its closed position upon said parapet.

2. The combination of the outside wall of a living room and a floor, said wall having a porch opening extending upwardly from said wall, a shutter in the form of a part cylinder having its axis substantially parallel to said wall adapted to occupy either an inner or an outer position with relation to said wall and adapted in either of said positions to close said room to the outer air, and a folding seat adapted when said shutter is in its outer position to extend into the space occupied by the shutter when in its inner position and adapted to cut off said shutter from the interior of said room.

3. A transformable retiring compartment adapted to be supported by the floor of a living room and to occupy a porch opening in the wall of such room comprising in combination, a pair of side walls, a shutter mounted on said side walls, a ledge extending between said walls above the level of the path of said shutter, a parapet extending between said side walls at one side thereof, cleats fastened to the inner surface of said walls lying in the path of said shutter and extending from a point in said path toward said parapet, and a foldable partition hinged to said ledge, said partition being adapted to rest against said cleats and to serve as a seat, said shutter being adapted to occupy two positions in one of which it rests against said parapet and in the other of which it rests against said cleats.

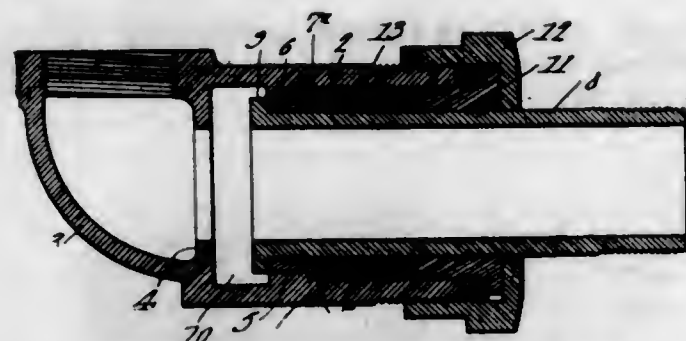
4. A transformable sleeping compartment comprising in combination, a pair of side walls, a ledge connecting said side walls, a shutter supported by said side walls and adapted to occupy a position on either side of said ledge, and a parapet adapted to support the edge of said shutter in one of its positions, and a waterproof coverlet adapted to close the opening between said ledge and said parapet when said shutter is removed from said parapet.

5. A transformable sleeping compartment comprising in combination, a pair of side walls, a ledge connecting said

side walls, a parapet extending between said walls, there being an opening between said ledge and said parapet, a shutter supported by said side walls adapted to occupy either one of two positions in one of which it closes said opening and in the other of which said opening is uncovered, a lattice-like member extending above the path of said shutter disposed between said parapet and said ledge, and a substantially waterproof coverlet supported by said ledge on the edge thereof adjacent said opening, said coverlet being adapted to fold up or to be extended over said opening.

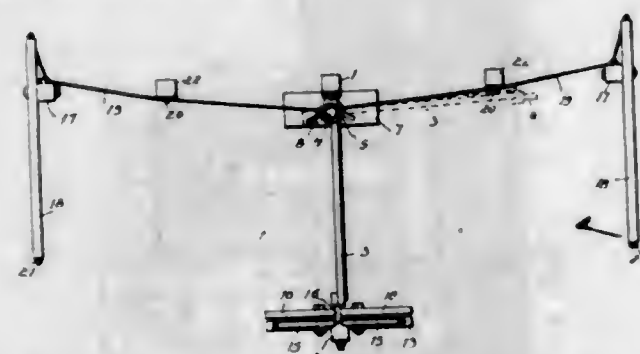
[Claim 6 not printed in the Gazette.]

1,078,129. JOINT FOR TRAIN-PIPE CONNECTIONS. JOHN ARTHUR CORRIGAN, St. Paul, and ELIAS M. MORTIMER, Minneapolis, Minn. Filed May 29, 1913. Serial No. 770,731. (Cl. 137—34.)



In a joint of the class specified, a female member having an internal flange and an elbow at one end, and an internal collar spaced slightly from the flange, a ring threaded into the said collar and having a flange seated against one side of the collar, a flanged gland fitting into the other end of the female member, a male member passing snugly through the gland and ring and having an exterior flange at its end movable between the first mentioned flange and ring and seatable against the ring, the flange of the male member being of less diameter than the opening provided by the collar, the adjoining faces of the last mentioned flange and ring being ground, packing disposed around the male member between the said ring and gland, and a socket nut threaded over the last mentioned end of the female member and snugly embracing the male member to force the gland inwardly.

1,078,130. GATE. SAM A. CRAIG, El Paso, Tex. Filed Nov. 23, 1912. Serial No. 733,169. (Cl. 39—14.)



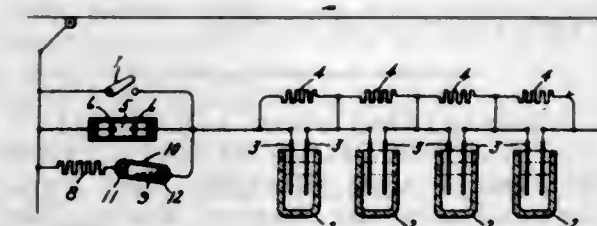
1. The combination with a hinge post; of a gate, upper and lower pintles carried on the vertical bar at the hinging end of said gate and extending in vertical alignment therewith, means engaging said upper pintle to loosely hinge the same to said hinging post, a stationary plate mounted at the base of said hinge post and provided with an arcuate groove in the upper face thereof, the bottom of said groove being undulated and adapted to receive the lower pintle thereon, and means for manually moving said lower pintle in the groove from both sides of the hinge post.

2. The combination with a hinge post, an outer gate post spaced therefrom, and a pair of stop posts spaced on opposite sides of said hinge post and in alignment with the latter; of a gate, upper and lower pintles car-

ried on the vertical bar at the hinging end of said gate and extending in vertical alignment therewith, means engaging said upper pintle to loosely hinge the same to said hinge post, a stationary plate mounted at the base of said hinge post and provided with an arcuate groove in the upper face thereof, said groove having an undulated bottom surface receiving the lower pintle thereon, flexible connecting means engaged with said lower pintle and loosely engaged with said stop posts, and means in engagement with the ends of said flexible connecting means to move said lower pintle in the aforesaid groove, whereby said gate will be swung to various positions.

3. The combination with a hinge post; of a gate, upper and lower pintles carried on the vertical bar at the hinging end of said gate and extending in vertical alignment therewith, an eye secured to the upper end of the hinge post and loosely receiving the upper pintle therein, a stationary plate mounted at the base of said hinge post and provided with an arcuate groove in the upper face thereof receiving the lower pintle therein, the bottom of said groove being undulated and terminating at the ends in cavities, and means in engagement with said lower pintle for manually moving the same in said groove, whereby to swing said gate to its various positions.

1,078,131. PROTECTIVE DEVICE FOR STREET-CARS. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 7, 1912. Serial No. 702,223. (Cl. 175—30.)



1. In a protective device for translating devices, the combination of a discharge path comprising an electrolytic condenser and a spark gap in series, and means responsive to movement of said translating device for temporarily eliminating said spark gap.

2. In a protective device mounted for bodily movement, the combination with a discharge path comprising an electrolytic condenser and a spark gap in series therewith, of a shunt circuit around said spark gap, and means responsive to bodily movement of said protective device for closing said shunt circuit.

3. In a protective device mounted for bodily movement, the combination with a discharge path comprising an electrolytic condenser and a spark gap in series therewith, of means responsive to variations in the bodily movement of said protective device for eliminating said spark gap during said variation.

4. In a protective device mounted for bodily movement, the combination with a discharge path comprising an electrolytic condenser and a spark gap in series therewith, of a shunt circuit around said spark gap, and means for automatically holding said shunt circuit closed during a variation in the speed of movement of said protective device.

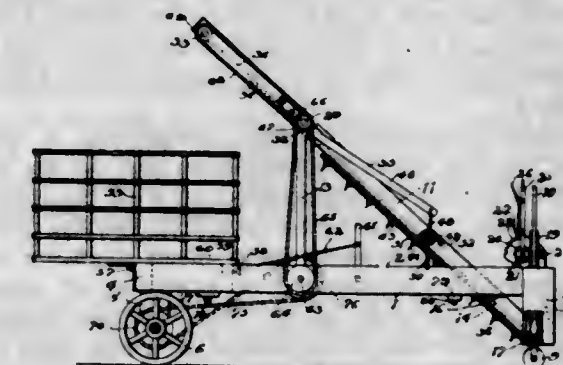
5. In a protective device mounted for bodily movement, the combination with a discharge path comprising an electrolytic condenser and a spark gap in series therewith, of a normally open shunt circuit around the spark gap, and a member freely movable by its momentum into position to momentarily close said shunt circuit.

[Claims 6 to 12 not printed in the Gazette.]

1,078,132. SHEAF-LOADER. HERBERT HUNTINGDON DAVISON, Winnipeg, Manitoba, Canada. Filed July 8, 1912. Serial No. 708,226. (Cl. 193—18.)

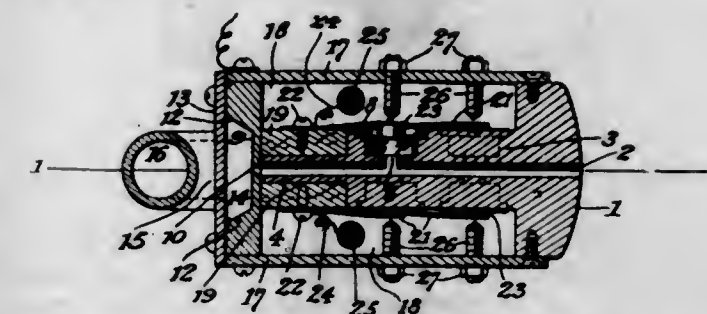
In a sheaf loader, the combination comprising a main frame having an open forward end, traction wheels sup-

porting the main frame rearwardly, standards secured to the forward ends of the main frame and provided with arched slots, caster wheels supporting the standards, an inclined endless conveyor mounted on the frame and having pivoted upper and lower ends, the lower end of the



conveyor being guided in the slots aforesaid, means for adjusting the upper end of the conveyor, means for adjusting the position of the lower end of the conveyor in the slots, means for driving the conveyor, and means for taking up any slack appearing therein when in the adjusted positions, as and for the purpose specified.

1,078,133. PNEUMATO-ELECTRIC TRACKER-BAR FOR MUSICAL INSTRUMENTS. CHARLES W. DORRICOFF, Philadelphia, Pa., assignor to Electrelle Company, Sumnerdale, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 4, 1912. Serial No. 729,509. (Cl. 84—229.)



1. In a pneumato-electric tracker, a tracker-bar having the usual tracker-ducts, a plurality of pneumatics, one communicating with each duct, an air chamber in which said pneumatics are exposed, said chamber having no communication with the tracker ducts, cooperating electrical contacts in said chamber some of which are adapted to be actuated by said pneumatics, a bleed chamber, and vent or bleed passages leading from the tracker ducts into said bleed chamber.

2. In a pneumato-electric tracker, a tracker-bar having the usual tracker-ducts, a plurality of diaphragm pneumatics, one communicating with each duct, an air chamber in which the said diaphragm pneumatics are exposed, said chamber having no communication with the tracker ducts, electric contact fingers in said chamber adapted to be actuated by said pneumatics, electric contact members with which said fingers cooperate, a bleed chamber carried by the tracker and vent or bleed passages leading from the tracker ducts into said bleed chamber.

3. A pneumato-electric tracker comprising a tracker-bar having a web extending from the rear wall thereof, said bar and web having tracker ducts extending there-through, each duct having a lateral opening terminating in an enlarged recess covered by a flexible diaphragm, a chamber having no communication with the tracker ducts, electrical contact members arranged within said chamber and adapted to be brought into electrical connection by the bulging or lateral movement of the diaphragms from pneumatic action, a separate bleed-chamber forming a part of the tracker structure, and vent or bleed passages leading from the tracker-ducts into said bleed-chamber.

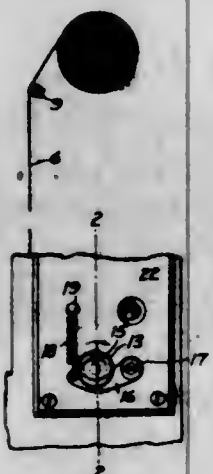
4. A pneumato-electric tracker comprising a hollow-member having the usual tracker ducts and an air chamber therein, said ducts having no communication with the

chamber, a plurality of movable contact members mounted within the said chamber, pneumatics for actuating said contact members, said pneumatics being located within the tracker and having communication with said ducts, a plurality of fixed contacts projecting through an outer wall of the tracker, said contacts being adjustably mounted for coaction with the said movable contact members, a bleed chamber forming a part of the tracker structure, and vent or bleed passages leading from the tracker ducts into said bleed chamber.

5. A pneumato-electric tracker comprising a hollow member having the usual tracker ducts, and an air chamber, said ducts having no communication with the chamber, a bleed chamber having bleed openings leading therein from the said tracker ducts, said bleed chamber being separate from the air chamber, a plurality of movable contact members located within the said air chamber, pneumatics for actuating said contact members, said pneumatics being located within the tracker and having communication with said ducts, a plurality of fixed contact pins projecting through an outer wall of the tracker into the said air chamber for coaction with the movable contact members, and means for adjustably supporting said fixed contact pins.

[Claims 6 and 7 not printed in the Gazette.]

1,078,134. SPRING-ADJUSTING MECHANISM. FAR-
NUM F. DORSEY, Rochester, N. Y., assignor to Seneca
Camera Manufacturing Company, Rochester, N. Y.
Filed Mar. 13, 1912. Serial No. 683,637. (Cl. 74-13.)



1. Spring-adjusting mechanism having, in combination with a spring, a manually-rotatable member connected with the spring to adjust the tension thereof, and detent-mechanism comprising a part rotative with the manually-rotatable member, and a non-rotatable part coöperating with the rotary part, one of said parts having a cam-surface and one of said parts being spring-pressed to maintain the parts in engagement with a force sufficient to normally prevent rotation of the manually-operable member, said cam-surface being formed to have a repressive action on the spring-pressed part in both directions of rotation of the manually-operable member, so that said member may be turned forcibly in either direction to increase or diminish the tension of the spring.

2. Spring-adjusting mechanism having, in combination with a spring, a manually-rotatable member connected with the spring to adjust the tension thereof, and detent-mechanism comprising a cam rotative with the manually-operable member, and a non-rotatable part having a surface engaging the cam-surface, one of said parts being spring-pressed with a force sufficient to hold the cam normally against rotation, and one of said parts having a plurality of uniformly spaced projections, on its operative surface, formed to have a repressive action, on the spring-pressed part, in either direction of rotation of the cam, whereby a regularly fluctuating resistance to rotation of the manually-operable member in both directions is produced, while said member may be forcibly rotated in either direction to increase or diminish the tension of the spring.

3. Spring-adjusting mechanism having, in combination with a spring, a manually-rotatable member connected with the spring to adjust the tension thereof, and detent-mechanism normally retaining said member in adjusted position, said mechanism comprising a cam rotative with said member, and a resiliently-yielding part coöperating with the cam, the cam having a high point which engages said part with increased force so as to cause the manually-rotatable member to come to rest normally after a predetermined degree of rotation.

4. Spring-adjusting mechanism having, in combination with a spring, a manually-rotatable member connected with the spring to adjust the tension thereof, and detent-mechanism for retaining said member against rotation, said mechanism comprising a cam rotative with said member, and a resiliently-yielding arm coöperating with the cam, the cam having a high point which engages the arm, to swing it, nearer to the center of movement of the arm in one direction of rotation of the cam than in the other direction of rotation, whereby rotation of the cam is resisted more strongly in one direction than in the other.

5. Spring-adjusting mechanism having, in combination with a spring, a manually-rotatable member connected with the spring to adjust the tension thereof, and detent-mechanism normally retaining said member against rotation, said mechanism comprising a substantially elliptical cam rotative with said member, a detent-arm pivoted on an axis parallel with the axis of the cam and having one side in engagement with the cam, and a second spring connected with the arm and forcing it into such engagement.

[Claim 6 not printed in the Gazette.]

1,078,135. PREPARATION FROM ALKALI SALTS OF
THE 3,3'-DIAMINO-4,4'-DIOXYARSENOBENZENE
AND PROCESS OF MAKING SAME. PAUL EHRLICH,
Frankfort-on-the-Main, and BAPTIST REUTER, Höchst-
on-the-Main, Germany, assignors to Farbwerke vorm.
Meister Lucius & Brüning, Höchst-on-the-Main, Ger-
many, a Corporation of Germany. Filed Nov. 15, 1912.
Serial No. 731,612. (Cl. 167-7.)

1. As new products, mixtures of alkali salts of the 3,3'-diamino-4,4'-dioxyarsenobenzene with a reducing agent, being yellow powders, readily soluble in water with alkaline reaction, scarcely soluble in alcohol, their solutions separating diaminodioxyarsenobenzene on pouring them into diluted hydrochloric acid and then adding sodium carbonate.

2. As a new product, a mixture of the sodium salt of 3,3'-diamino-4,4'-dioxyarsenobenzene with sodium formaldehyde sulfoxylate, being a yellow powder, readily soluble in water with alkaline reaction, scarcely soluble in alcohol, its solution separating diaminodioxyarsenobenzene on pouring it into diluted hydrochloric acid and then adding sodium carbonate.

3. The process of preparing a mixture of alkali salts of arsenophenols and sulfoxylates, which consists in precipitating the mixture from a solution of said compounds.

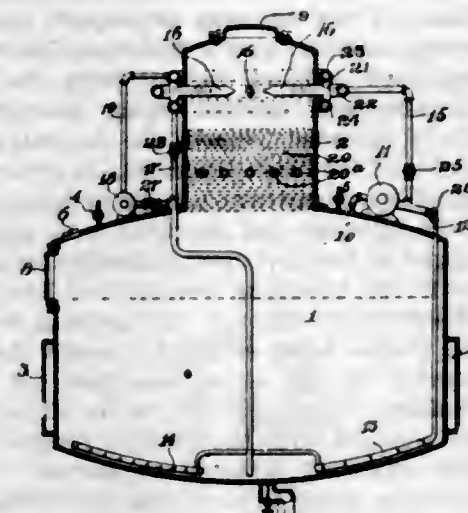
4. The process of preparing a mixture of alkali salts of 3,3'-diamino-4,4'-dioxyarsenobenzene and sodium formaldehyde sulfoxylate, which consists in precipitating the mixture from a solution of said compounds.

1,078,136. PROCESS OF HYDROGENATING OIL MIX-
TURES AND THE LIKE. CARLETON ELLIS, Montclair,
N. J. Filed Sept. 10, 1912. Serial No. 719,541. (Cl.
99-13.)

1. The process of hydrogenating composite fatty material and the like which comprises diluting a substantially neutral oil with a substantially neutral oil and in subjecting the mixture to hydrogen in the presence of a catalyst.

2. The process of hydrogenating composite fatty material and the like which comprises diluting an acid oil with a substantially neutral oil and in subjecting the mixture to a hydrogen-containing gas in the presence of a catalyst.

3. The process of hydrogenating composite fatty material and the like which comprises diluting a substantially catalyst-toxic oil with a substantially neutral oil and in subjecting the mixture to a hydrogen-containing gas in the presence of a catalyst.

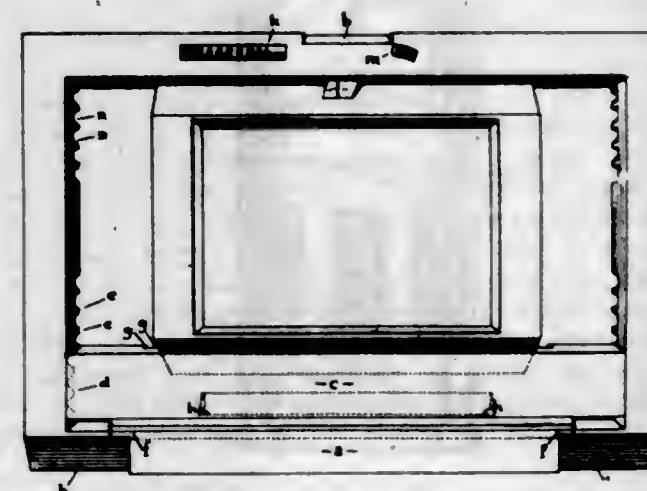


4. The process of hydrogenating composite fatty material and the like which comprises diluting a substantially catalyst-toxic oil with a substantially neutral oil and in subjecting the mixture to a hydrogen-containing gas under pressure in the presence of a catalyst.

5. The process of hydrogenating composite fatty material and the like which comprises the sub-process of prior to hydrogenation diluting an oil-containing material inhibiting catalyst activity with another oil substantially free from inhibiting bodies.

[Claim 6 not printed in the Gazette.]

1,078,137. PLATEN-PRESS CHASE-LOCK. ARTHUR S.
FOREMAN, St. Paul, Minn. Filed Mar. 27, 1913. Serial
No. 757,149. (Cl. 101-25.)



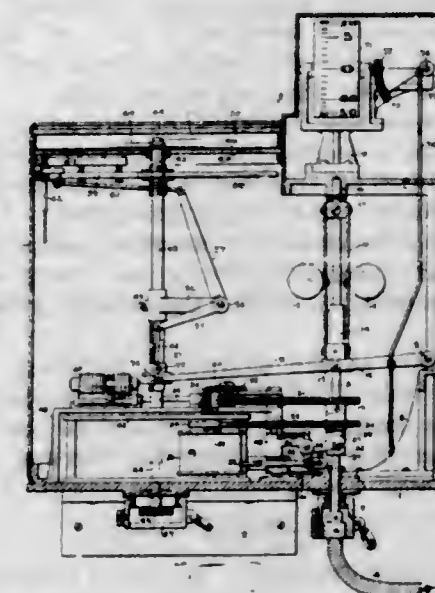
1. A platen press chase lock, comprising a rigid frame mortised to engage the locking device of the press, a semi-circular locking device actuated by a spiral spring, contained in the frame central of its upper side, and a lower cross bar adjustably engaged in notches in the sides of the frame, substantially as described.

2. In a platen press chase lock, the combination of a rigid frame, mortised to engage the locking device of the press, having a series of V-shaped notches in its vertical sides, covered by approximately one-half the structure of said sides, beveled along its lower inner edge to engage the beveled edge of a platen press chase, and containing a recess central of its upper side in which is contained a semi-circular locking device actuated by a spiral spring to engage the beveled edge of a platen press chase, and a lower cross bar, beveled on its upper and lower edges to engage the beveled edge of varying sizes of platen press chases, and adjustably secured in the V-shaped notches in

the vertical sides of the frame, and reversible; all substantially as described, for the purpose specified.

3. In a platen press chase lock, the combination of a rigid frame, mortised to engage the locking device of the press, having a series of V-shaped notches in its vertical sides, covered by approximately one-half the structure of said sides, beveled along its lower inner edge to engage the beveled edge of a platen press chase, and containing a recess central of its upper side, in which is contained a semi-circular shaped locking device actuated by a spiral spring to engage the beveled edge of a platen press chase, and a cross bar, adjustably secured in the V-shaped notches in the sides of the frame; all substantially as described, for the purpose specified.

1,078,138. RECORDING MECHANISM. ROBERT FRICK,
Chicago, Ill. Filed Jan. 19, 1909. Serial No. 473,190.
(Cl. 234-1.)



1. In automatic recorders, a recording surface, a timing device and a recording mechanism controlled thereby, a speed indicator, connections therefrom to said recorder, and erasing means adapted to move over the recording surface in advance of the recorder whereby the recording surface is automatically and simultaneously prepared for a new record.

2. In automatic recorders, a driving connection, a timing device, a recording mechanism adapted to move radially so as to form a record through visible marks produced on the recording surface without changing the characteristics of the surface itself, a recording surface, and an erasing device moving slightly in advance of the recorder the same being adapted to automatically remove a previously formed record without disturbing the recording surface.

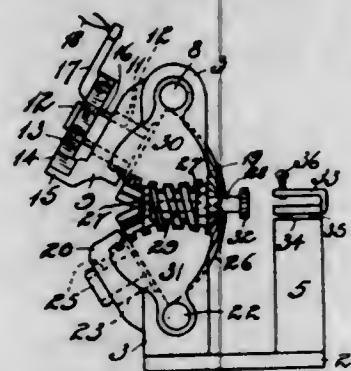
3. In recording mechanism, the combination of a recording mechanism and an erasing device, adapted to operate adjacent each other with means for producing a movement of said recording mechanism perpendicular to the direction of movement of the erasing device.

4. In recording mechanisms, the combination of a recording support, means for imparting thereto continuous unidirectional movement, a rotatable and radially movable recorder carried thereby, means for imparting a variable to and fro movement thereto while said recorder is held adjacent to a recording surface, and means for automatically and simultaneously preparing said surface in advance of the recorder.

5. In automatic recorders, a suitable continuous recording surface, means for forming visible marks thereon through the deposit of colored particles, means for erasing such particles from said surface thus restoring the same to its original state, and means for coordinating the recording and erasing operations as to time and sequence.

[Claims 6 to 14 not printed in the Gazette.]

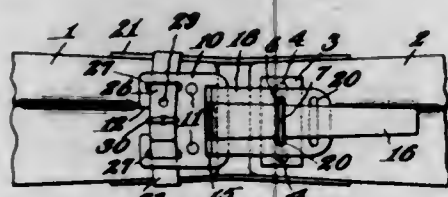
1,078,139. SAW-SETTING MACHINE. FREDERIC GALPIN, near Williamsfield, Ill. Filed Mar. 17, 1913. Serial No. 754,826. (Cl. 78-59.)



1. In a saw-setting machine, a toothed oval wheel tapering substantially to a point, each tooth thereof provided with a longitudinal channel in its top, and means cooperating therewith whereby saw-teeth may be set.
2. In a saw-setting machine, a pair of toothed oval wheels in mesh, means for rotating them, and means for advancing both while they are so rotating.
3. In a saw-setting machine, a pair of toothed oval wheels in mesh, a worm, and means interposed between said wheels and worm whereby said wheels may be simultaneously tilted on their longitudinal axes.
4. A device of the character described comprising a pair of toothed oval wheels in mesh, a saw-clamp, and means for raising, lowering, or tilting said clamp with reference to said wheels.
5. In a device of the character described, a pair of toothed oval wheels adapted each to tilt longitudinally and one of them to impart rotary movement to the other, and means for imparting such movements thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,078,140. HORSE-COLLAR. WILLIAM PETER GELABERT, Fulton, Mo. Filed Feb. 26, 1913. Serial No. 750,900. (Cl. 54-21.)



1. In a device of the class described, a collar; an attaching member on one end of the collar; means for detachably uniting the attaching member with the other end of the collar; a pad applied to the first specified end of the collar; a tie connected to the pad and extended across the attaching member; a fastening device connecting the tie with the attaching member; the attaching member having a tongue extending beneath the fastening device.
2. In a device of the class described, a collar; an attaching member on one end of the collar; means for detachably uniting the attaching member with the other end of the collar; a pad applied to the first specified end of the collar; the pad being provided with openings; a tie, the intermediate portion of which is located between the pad and the first specified end of the collar; the ends of the tie being extended outwardly through the openings in the pad and being extended beneath the attaching member, there being openings in the attaching member, through which openings the ends of the tie are outwardly extended, the ends of the tie being overlapped upon the top of the attaching member and a fastening device connecting the overlapped ends of the tie with the attaching member.
3. In a device of the class described, a collar; an attaching member on one end of the collar; means for detachably uniting the attaching member with the other end of the collar; a pad applied to the first specified end of the collar, the pad being provided with openings; a

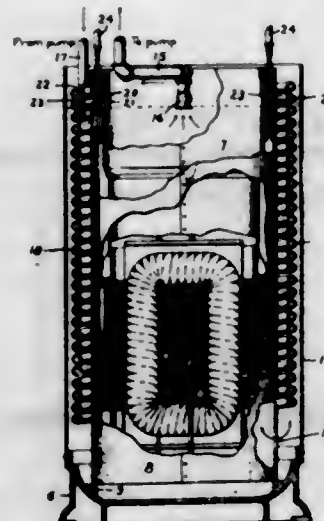
tie, the intermediate portion of which is located between the pad and the first specified end of the collar, the ends of the tie being extended outwardly through the openings in the pad and being extended beneath the attaching member, there being openings in the attaching member, through which openings the ends of the tie are outwardly extended, the ends of the tie being overlapped upon the top of the attaching member, and a fastening device connecting the overlapped ends of the tie with the attaching member; the attaching member being provided with a tongue which is extended beneath the fastening device.

4. In a device of the class described, an attaching member provided with an opening; a holding tongue pivotally mounted in the opening and provided with an aperture; a keeper engaged in the aperture; a flexible locking tongue engaged beneath the attaching member and having its free end extended outwardly through the opening, the free end of the locking tongue being engaged through the keeper.

5. In a device of the class described, an attaching member; a holding tongue pivoted to the attaching member; a keeper engaged with the holding tongue; a flexible locking tongue extended through the keeper, one end of the locking tongue lying adjacent the attaching member, the attaching member being provided with a lip extended beneath the locking tongue; and a fastening device connected with the locking tongue and with the attaching member; the lip constituting an abutment for the fastening device.

[Claim 6 not printed in the Gazette.]

1,078,141. OIL-COOLED TRANSFORMER. FRANK C. GREEN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Continuation of application Serial No. 539,647, filed Jan. 24, 1910. This application filed Apr. 23, 1910, Serial No. 557,244. Renewed Oct. 2, 1912. Serial No. 723,588. (Cl. 171-124.)



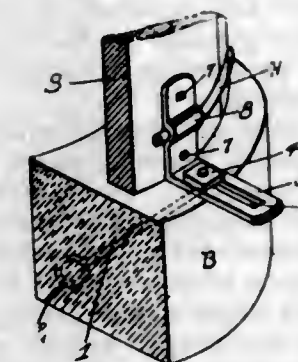
1. The combination with a transformer, of a tank having an outer compartment and an inner compartment, the latter containing the transformer liquid in said compartments, and means for producing a circulation of liquid from one compartment to the other.
2. The combination with a transformer, of a tank having an outer cooling compartment and an inner compartment containing the transformer liquid in said compartments, and means for transferring liquid from the top of the inner compartment to the outer one.
3. The combination with a transformer having a core and windings, of a casing surrounding the core and windings, a tank surrounding said casing and forming a cooling compartment between them, liquid in the casing and the compartment, a cooling coil in said compartment, and means for transferring liquid from inside the casing to the cooling compartment.
4. The combination with a transformer, of a casing surrounding the same, a tank surrounding said casing and forming between them a compartment, oil in the cas-

ing and the compartment, a cooling coil in said compartment, and a pump for sucking oil from the casing and delivering it into the compartment.

5. The combination with a transformer, of a casing surrounding the same and having openings at its lower end; a tank surrounding said casing, oil in the casing and the space between the casing and the tank, a cooling coil in the space between the casing and the tank, and means for transferring oil from the casing to said space.

[Claims 6 to 21 not printed in the Gazette.]

1,078,142. ANCHORING DEVICE. CHARLES HAMANN, Stewartville, Mo. Filed Mar. 31, 1913. Serial No. 758,076. (Cl. 72-105.)

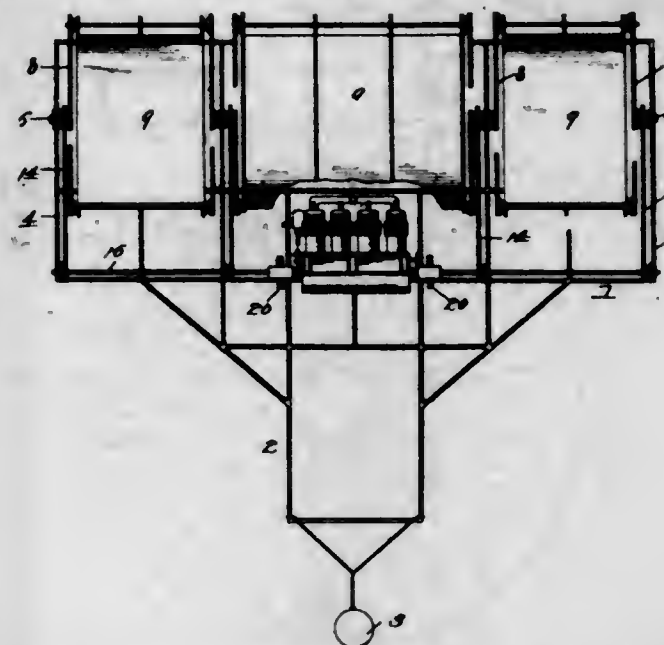


1. An anchoring device comprising a bolt adapted to be embedded in a concrete base and having one end threaded and bent to project from the base, an adjustable member comprising an angular plate, one arm of which has a longitudinal slot therein to receive the threaded projecting end of said anchoring bolt and the other arm being adapted to engage the structure to be anchored and having an offset to fit over hoops or bands on the structure anchored, means to rigidly fasten said adjustable member to the structure, and a clamping nut engaged with the threaded end of said anchoring bolt.
2. In an anchoring device of the character described, an anchoring member comprising a bolt adapted to be embedded in a concrete base and having on one end an eye and having its opposite end threaded and bent at an angle to project perpendicularly from the top of the base, an adjustable member comprising a right angular plate, the lower portion or arm of which has formed therein a longitudinal slot adapted to receive the threaded projecting end of said anchoring bolt, the opposite or upper arm of said plate being adapted to engage the structure to be anchored and having therein an offset bent to fit over the hoops or bands of said structure, bolts to rigidly fasten said adjustable member to the structure, and a clamping nut engaged with the threaded upper end of said anchoring bolt and adapted to clamp the slotted portion of said plate into adjustable engagement with the top of the concrete base of the structure.

1,078,143. FLYING-MACHINE. WILLIAM S. HULL, Jackson, Miss. Filed May 2, 1912. Serial No. 694,771. (Cl. 244-11.)

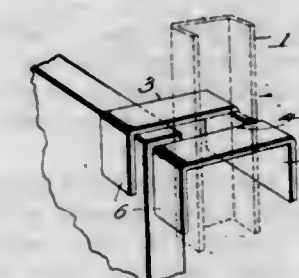
1. In a flying machine, the combination with a frame, having forward and rear extensions, of crank shafts mounted in said extensions, driving shafts, a driving connection between said crank shafts and driving shafts, a power plant for driving said driving shafts, and planes having the respective ends connected to the crank arms of said shaft, one end of each plane being pivotally connected and the other pivotally and slidably connected to the respective cranks.
2. In a flying machine, the combination with a frame having a depending aviator's cage, crank shafts arranged in pairs at the front and rear of said frame, lifting and sustaining planes pivotally connected to the rear crank shafts and pivotally and slidably connected to the front shafts, sprockets carried by said shafts, drive shafts arranged centrally of said machine, sprockets carried by

said drive shaft, sprocket chains passing over said sprockets, meshing gears carried by said drive shaft, and a driving pinion meshing with said meshing gears.



3. In a flying machine, the combination with a frame, crank shafts arranged in pairs at the front and rear of said frame, lifting and sustaining planes pivotally connected to the rear crank shafts, said planes having slotted slide bars for pivotally and slidably connecting the planes to the front crank shafts.

1,078,144. MEANS FOR SUPPORTING PLASTER-BOARDS IN PARTITION CONSTRUCTION. MARVIN H. JESTER, Denver, Colo., assignor to The M. H. Jester Investment Company, a Corporation of Colorado. Filed Oct. 14, 1912. Serial No. 725,709. (Cl. 72-115.)



1. In a supporting device for plaster-boards, a stud, and a clamping-plate comprising a horizontal portion and right-angle end portions adapted to secure plaster-boards to said stud, said horizontal portion and one of said end portions being slotted to permit said clamping-plate to straddle the stud.
 2. In a supporting device for plaster-boards, a stud, and a clamping-plate comprising a horizontal portion and right angle end portions divided and bent to form oppositely projecting fingers adapted to secure the plaster-boards to said stud, said horizontal portion and one of said end portions being slotted to permit said clamping-plate to straddle the stud.
- 1,078,145. COMBINED DRAWING INSTRUMENT, BOOK-MARK, AND PAPER-CUTTER. HAROLD JOHNSON, Brooklyn, N. Y. Filed Aug. 6, 1912. Serial No. 713,656. (Cl. 73-150.)
1. In a device for the purposes set forth, the combination of a main member having a bead formed along one edge, and an indicator fitting around and close to the member and having interlocking heads, one of said heads engaging under the free edge of the bead and the other head being folded over and around the bead.
 2. In a device for the purposes set forth, the combination of a main member having a bead formed along one edge, and an indicator consisting of a pair of tongues disposed against the opposite sides of the said member and connected by a reduced neck at one side edge of the said

member, and interlocking heads formed at the opposite ends of the said tongues, one of said heads engaging under the free edge of the bead and the other head being doubled over and around the bead.

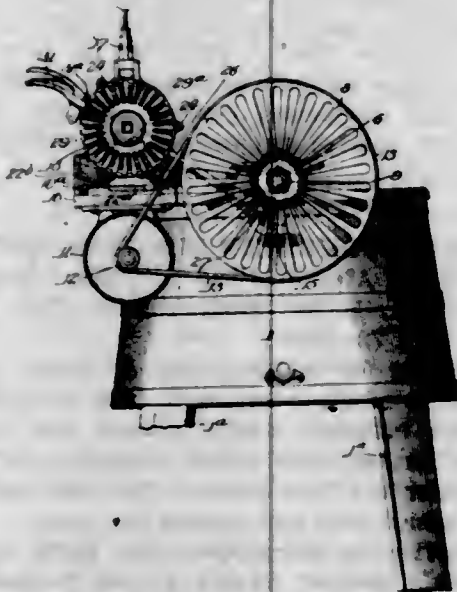


3. In a device for the purposes set forth, the combination of a main member having a bead formed along one edge, and an indicator consisting of tongues fitting transversely against the opposite sides of the said member, a reduced neck connecting said tongues at one edge of the said member, a head at the opposite end of one of the tongues engaging under the free edge of the bead and having a tooth struck up therefrom, and a head at the opposite end of the other tongue doubled over and around the bead and having interlocking engagement with the said tooth.

4. In a device for the purposes set forth, the combination of main members each provided at one end with a bead adapted to fit against an edge of the other member, and a clip carried by the end of one member and engaging the other member.

5. In a device for the purposes set forth, the combination of main members, a clip carried by the end of one member adapted to engage the other member, and a U-shaped clasp fitted upon said clip and carrying a stud adapted to pass through the clip and the two members.

1,078,146. GEARING. JOHN D. A. JOHNSON, Omaha, Nebr. Filed Aug. 28, 1911. Serial No. 646,404. (Cl. 74-50.)



1. The combination of a driving wheel rotatable in a fixed plane and reversing driving connections comprising

two rotatable members having the same axis of rotation, and a shiftable device always in operative engagement with said driving wheel and adapted to be placed in engagement with one or the other of said members to connect the wheel with one or the other thereof, said device being pivoted at one end in the axis of rotation of the wheel.

2. The combination of a driving wheel rotatable in a fixed plane and reversing driving connections comprising two rotatable members having the same axis of rotation, and a shiftable device always in operative engagement with said driving wheel and adapted to be placed in engagement with one or the other of said members to connect the wheel with one or the other thereof, said device comprising a shaft pivoted at one end in the axis of rotation of said wheel, a pinion mounted on the shaft intermediate its length and arranged to cooperate with the wheel, and a wheel mounted on the shaft near the other end thereof and arranged to cooperate with one or the other of such members.

3. The combination of a driving member rotatable in a fixed plane and having a bearing shaft, reversing driving connections comprising two driven members arranged to rotate on the same axis, a bearing bracket pivoted on said shaft, and a shiftable device supported by said bracket and adapted to swing at its outer end in substantially the line of said axis of rotation, said device being in constant engagement with said driving member and adapted to be placed into engagement with one or the other of said driven members.

4. In a washing machine, the combination of a driving gear rotatable in a fixed plane, and reversing driving connections comprising two members and a shiftable device including a rotatable member adapted to cooperate with one or the other of said members, a shaft on which said member is mounted and which is pivoted in the line of the axis of rotation of said gear, and a pinion secured to said shaft and in mesh with the gear at all times.

5. The combination of a driving member in the form of a bevel gear, a driving shaft, therefor, reversing driving connections comprising two opposed gears mounted to rotate on a common axis, and a shiftable device adapted to operate between the bevel gear and one or the other of the two opposed gears and comprising a driven shaft inclined to the driving shaft and pivoted thereto at its inner end, a bevel pinion mounted on the driven shaft toward its inner end and adapted to mesh with the bevel gear, and a gear mounted on the driven shaft toward its outer end and adapted to mesh with one or the other of the two opposed gears.

[Claims 6 to 14 not printed in the Gazette.]

1,078,147. NAIL MAKING AND DRIVING MACHINE. LAWRENCE E. JOHNSON, Winthrop, Mass., assignor to Julius Garst, Worcester, Mass. Filed Nov. 8, 1912. Serial No. 730,488. (Cl. 1-29.)

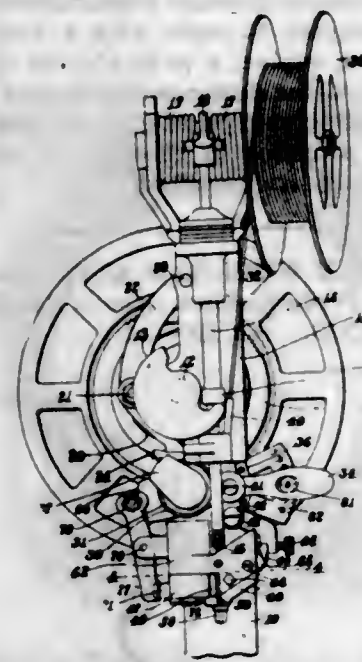
1. In a machine of the class described, the combination of wire feeding mechanism; slabbing mechanism for removing stock from one side of the wire fed, manually controlled means for severing from said wire nails of different lengths; and manually operated means for varying the position of the wire relative to said slabbing mechanism so that the points of all the nails cut thereby will correspond.

2. In a machine of the class described, the combination of a slabbing mechanism for removing stock from one side of a wire; mechanism for feeding wire to said slabbing mechanism; and manually controlled means for inclining the wire thus fed prior to the slabbing operation.

3. In a machine of the class described, the combination of a slabbing mechanism for removing stock from one side of a wire; mechanism adapted to be adjusted to feed predetermined lengths of wire to said slabbing mechanism; and manually controlled means for insuring the removal of the same amount of stock from the extreme end of said wire for all lengths of nail.

4. In a machine of the class described, the combination of wire feeding mechanism; means for inclining the end

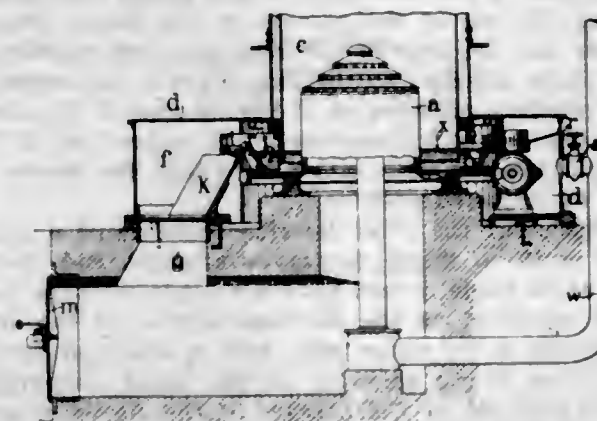
of said wire; and means for cutting stock from one side of the inclined portion and severing a length from said wire to form a headed nail.



5. In a machine of the class described, the combination of wire feeding mechanism; manually controlled means for varying the inclination of the end of said wire for various lengths of nails; and means for cutting stock from one side of the inclined portion and simultaneously severing a length from said wire to form a headed nail.

[Claims 6 to 29 not printed in the Gazette.]

1,078,148. WATER SEAL FOR GAS-PRODUCERS WORKING WITH HIGH-PRESSURE BLAST. ANTON VON KERPELY, Vienna, Austria-Hungary. Filed Dec. 21, 1912. Serial No. 737,974. (Cl. 48-06.)



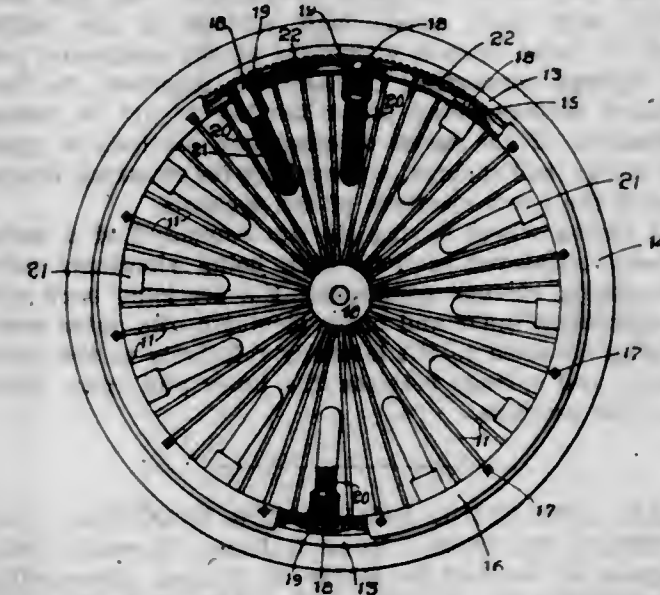
In a gas producer, a grate therein, a blast pipe for introducing air under pressure to said grate, a rotary ash-pan carrying said grate surrounding the lower end of the shaft and extending above the same, a water seal for the shaft in said pan, a stationary gas-tight casing forming an annular chamber surrounding the pan and lower end of the shaft and having a gas tight connection with the latter, a pipe connecting the blast pipe and chamber, a damper in the connecting pipe to balance the gas or blast pressure exercised on the water within the shaft, said casing forming an air-tight discharge chamber communicating with said annular chamber, means for discharging ashes into the discharge chamber, and means for withdrawing ashes from the latter.

1,078,149. RESILIENT WHEEL. HAROLD KIRKBY, Middletown, Conn. Filed Apr. 15, 1913. Serial No. 761,222. (Cl. 152-37.)

1. A resilient wheel comprising a trough-shaped felly, a trough-shaped floating rim having free movement therein, a plurality of externally flanged and externally threaded bushings extending inwardly through apertures

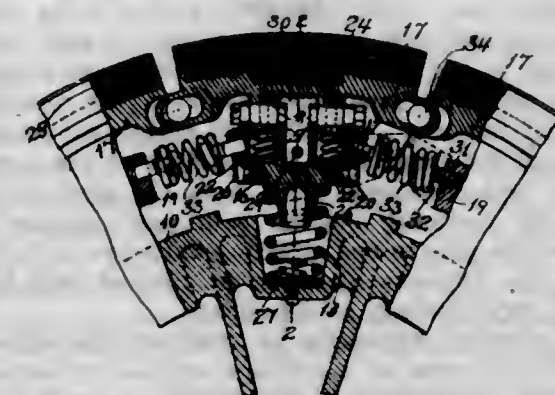
196 O. G.—23

in the bottom of the felly, a holder of the same internal diameter as the bushings having an enlarged internally screw threaded end engaging the inner end of each bushing securing the same firmly to the felly, plungers carried in the holders and bushings engaging the floating rim and springs between the bottom of the plungers and bottom of the holders.



2. A resilient wheel comprising a trough-shaped felly, a trough-shaped floating rim having free movement therein provided with a plurality of transverse depressions upon the under side thereof, a plurality of externally flanged and externally threaded bushings extending inwardly through apertures in the bottom of the felly, a holder of the same internal diameter as the bushings having an enlarged internally screw threaded end engaging the inner end of each bushing securing the same firmly to the felly, and spring pressed plungers carried in the holders and bushings engaging the floating rim, and springs between the bottom of the plungers and bottom of the holders, said plungers having rounded ends and normally arranged with each plunger in engagement with the lowest point of each depression to prevent creeping of the rim in traveling or when brakes are applied.

1,078,150. SPRING-WHEEL. HERBERT C. KNIGHT, Portland, Me. Filed July 6, 1911. Serial No. 637,160. (Cl. 152-8.)



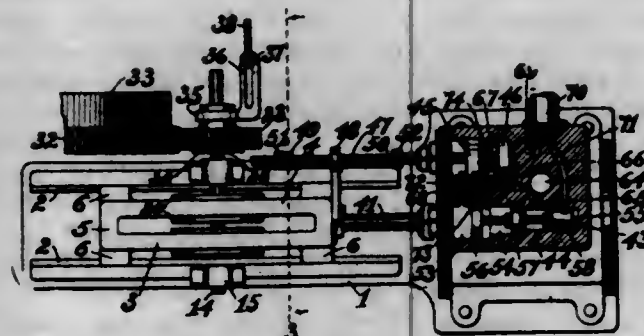
1. A vehicle wheel having a rigid rim provided with radial pockets, and an outer yielding rim composed of a series of spaced sections each having a transverse opening, the rigid rim having transverse pins passing through said openings, the openings being larger than the pins to permit the sections to move radially and toward and from each other, said sections having slot and pin connections with each other, load springs in the radial pockets to resist inward movement of the sections, and springs connecting the sections together, the last mentioned springs being under tension to act to reduce the diameter of the series of sections in opposition to the load springs.

2. A vehicle wheel having a rigid rim provided with radial pockets, and an outer yielding rim composed of a series of spaced sections each having a transverse open-

ing, the rigid rim having transverse pins passing through said openings, the openings being larger than the pins to permit the sections to move radially and toward and from each other, said sections comprising inner and outer members pivotally connected, the pivots being substantially at a right angle to the said transverse pins whereby the outer members can tilt laterally relatively to the inner members, the outer members having slot and pin connections with each other, load springs in the radial pockets to resist inward movement of the compound sections, springs connecting the sections together, the last mentioned springs being under tension to act to reduce the diameter of the series of compound sections in opposition to the load springs, and springs for resisting lateral tilting of the outer members of the sections.

3. A spring wheel having its rim composed of a series of loosely connected sections each being yieldingly movable radially, springs connecting the sections, each section comprising inner and outer members, the outer members being mounted to tilt laterally relatively to the inner members, and springs between the inner and outer members of the sections.

1,078,151. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. BURT I. LAMB, Norwalk, Ohio, assignor of one-half to Harry R. Mason, Monroeville, Ohio. Filed Oct. 23, 1912. Serial No. 727,461. (Cl. 123-179.)



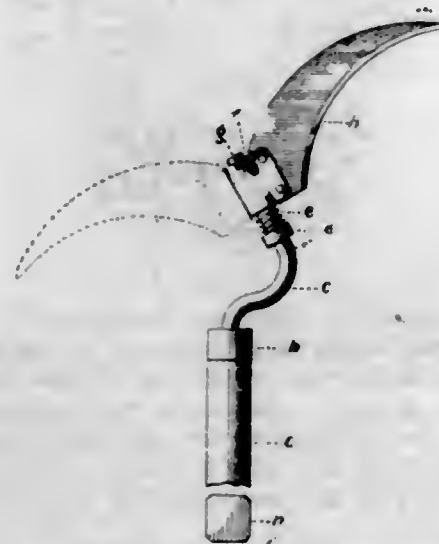
1. In a starting device for an internal-combustion engine, the combination of a carriage, means for imparting a reciprocating movement to the carriage, a shaft, means for rotating the shaft in one direction from the reciprocating movement of the carriage, a driving gear loosely mounted on the shaft and adapted to mesh with a gear fixed to the crank shaft of the engine, a disk keyed to the first mentioned shaft, the driving gear being cupped out from one side and loosely mounted on said disk, a pawl pivoted to the outer face of said disk and normally resting on the first mentioned shaft, a pin projecting from the driving gear, and a coiled spring connected to the pawl and the outer face of said disk at the opposite side of the first mentioned shaft from the pivot point of the pawl for normally holding said pawl against said pin to drive the gear in one direction but allow it to freely revolve in the opposite direction in case of back-fire of the engine, substantially as described.

2. In a starting device for an internal-combustion engine, the combination of a carriage, means for imparting a reciprocating movement to the carriage, a rack carried by the carriage, a shaft, a disk fixed to the shaft, the disk being provided with recesses in its periphery, a gear ring loosely mounted on the disk and in engagement with said rack, rollers in the recesses of said disk for causing the gear ring to rotate said disk when the gear ring is revolved in one direction, a gear loosely mounted on said shaft and adapted to mesh with a gear fixed to the crank shaft of the engine, a second disk keyed to said shaft, a pawl pivoted to the second disk, a pin projecting from the first mentioned gear, and a spring for normally holding said pawl against said pin to drive the gear in one direction but allow it to freely revolve in the opposite direction in case of back-fire of the engine, substantially as described.

3. In a starting device for an internal-combustion engine, the combination of a carriage, means for imparting

a reciprocating movement to the carriage, a shaft, means for continuously rotating the shaft in one direction from the reciprocating movement of the carriage, a disk feather keyed to said shaft for rotating the same but permitting longitudinal movement thereon, a gear loosely mounted on said disk and adapted to mesh with a gear fixed to the crank shaft of the engine, a pawl pivoted to said disk, a pin projecting from the first mentioned gear, and a spring for normally holding said pawl against said pin to drive the gear in one direction in case of the back-fire of the engine, substantially as described.

1,078,152. SICKLE WITH SAW ATTACHMENT. IRVIN T. LE BARON, Fredericktown, Mo. Filed Sept. 8, 1910. Serial No. 581,153. (Cl. 30-11.)



1. A device of the class described comprising a handle provided with a shank having a straight end portion inclined at an angle to said handle, a blade carrying sleeve revolvably mounted on the straight portion of the shank and provided in its outer edge with a series of four or more notches, a pin screwing in the shank and engageable with any one of the notches of the sleeve, whereby the latter may be held in different adjusted positions, a cutting blade attached to the sleeve and a coil spring to exert a constant pressure on the inner end of the sleeve, whereby any one of the notches in the sleeve may be held in engaged relation with said pin to hold the sleeve and blade in an adjusted position.

2. A device of the class described comprising a handle provided with a shank having a straight end portion inclined at an angle to said handle, a blade carrying sleeve revolvably mounted on the inclined portion of the shank and provided in its outer edge with a series of four or more notches, a pin screwing in the shank and engageable with any one of the notches of the sleeve, whereby the latter may be held in different adjusted positions, a cutting blade attached to the sleeve and a coil spring to exert a constant pressure on the inner end of the sleeve, whereby any one of the notches in the sleeve may be held in engaged relation with said pin to hold the sleeve and blade in an adjusted position, and a shoulder on the straight portion of the shank forming a bearing or seat for the inner ends of the coil spring.

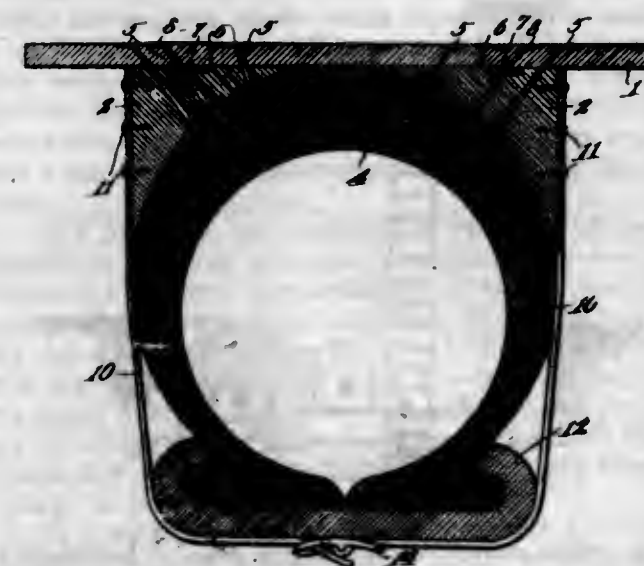
1,078,153. TREAD FOR TIRES. JOHN FRANCIS LE BARON, Chardon, Ohio. Filed Mar. 27, 1913. Serial No. 757,241. (Cl. 152-17.)

1. An auxiliary tread for a vehicle wheel comprising a plurality of slats; circumferentially spaced wheel engaging brace blocks assembled with certain of the slats only; and a connection between all of the slats.

2. An auxiliary tread for a vehicle wheel comprising a plurality of slats; pairs of circumferentially spaced wheel engaging brace blocks assembled with certain of the slats only; and wheel engaging means connected with the blocks of each pair independently of the slats.

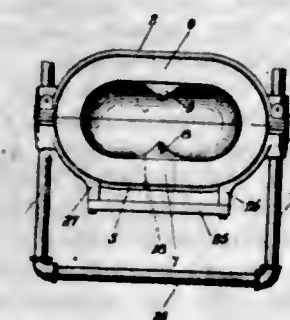
3. An auxiliary tread for a vehicle wheel, comprising a plurality of slats; wheel-engaging braces mounted on cer-

tain of the slats; a flexible element extended transversely of the slats and located between the braces and the slats; and securing elements uniting the braces, the flexible element, and the brace carrying slats.



4. An auxiliary tread for a vehicle wheel, comprising wheel-engaging braces, each having a recess in its tread portion; a flexible element located in the recesses; and slats, certain of which are secured to the flexible element, others of which are secured to the braces to hold the flexible element in the recesses.

1,078,154. OIL-BURNING FORGE. JOHN GEORGE LEYNER, Denver, Colo., assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Nov. 5, 1912. Serial No. 729,596. (Cl. 158-1.)



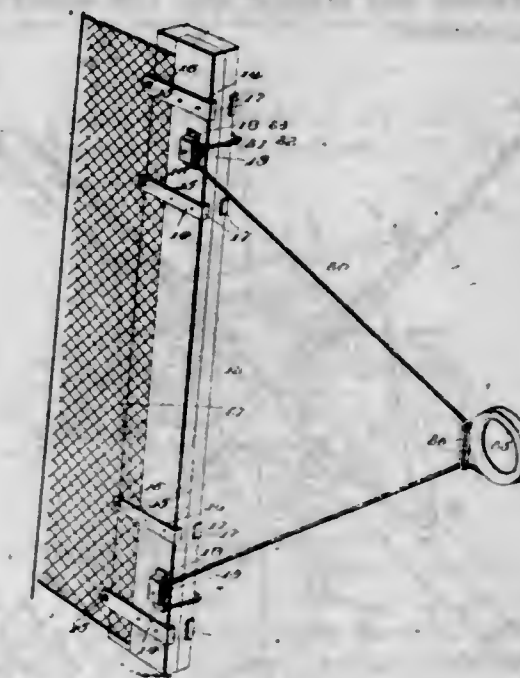
1. In an oil burning forge, an elongated combustion chamber having rounded ends, a vertical ridge on one of the side walls of the chamber, a second vertical ridge on the opposite side wall, having an aperture therethrough, and a fuel burner adapted to direct its flame through said aperture against the opposite ridge.

2. In an oil burning forge, a combustion chamber having its interior in the shape of a pair of intersecting cylinders with projecting ridges on opposite sides of the chamber, an aperture through one of said projecting ridges, and a burner arranged to direct its flame through said aperture on to the edge of the opposite ridge said ridge serving to divide the flame.

1,078,155. WIRE-FENCE CLAMP. CHARLES J. LIVERING, Eddyville, Ky. Filed Nov. 30, 1910. Serial No. 594,891. Renewed Apr. 15, 1913. Serial No. 761,356. (Cl. 30-53.)

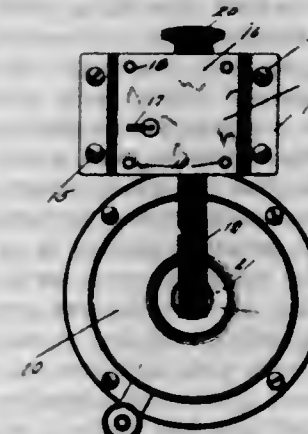
A fence clamp comprising a base strip having a fixed jaw at one edge, a detachable jaw carried by the base strip at its opposite edge, registering hinge straps carried upon the jaws and the base strip, one of the straps having a tongue at one end and the opposite strap having an eye at one end detachably receiving the tongue, pulley blocks carried in longitudinally spaced relation against the detachable jaw, and a looped draft cable passing through

the pulley blocks and having its ends engaging across the forward edges of the jaws and having its extremities



attached to the fixed jaw whereby the jaws are closed upon the tightening of the cable.

1,078,156. SWITCH-BOX LOCK. FELIX M. E. LOCHER, Oakland, Cal. Filed Nov. 15, 1912. Serial No. 731,565. (Cl. 70-8.)



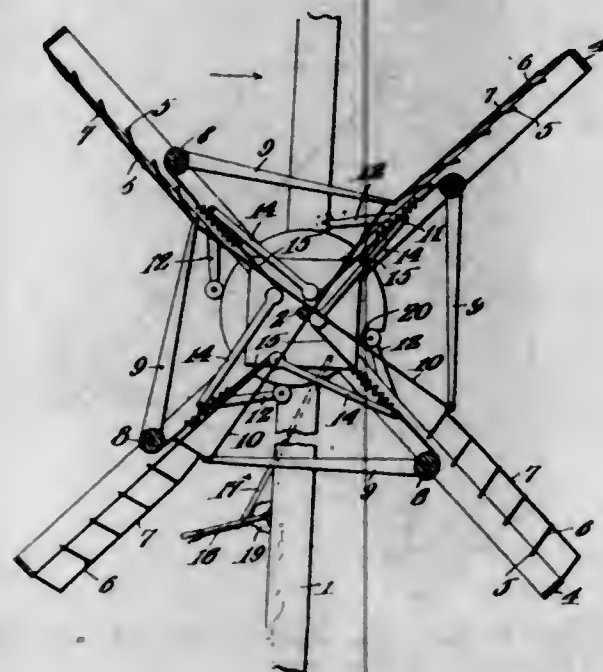
The combination with electrically actuated mechanism having a switch box permanently secured thereto, said switch box being provided with a switch plug opening, of a closure for said opening consisting of a casing permanently secured to said switch box, said casing being provided with means manually slidable to close said switch plug opening, and with a lock operating automatically to lock said closure in its closed position, said lock being operated only by a removable key to release said closure, and a spring mounted in said casing to automatically retract said closure whenever said lock is unlocked.

1,078,157. WIND-WHEEL OR PROPELLER. WILLIAM R. MARTIN, Idaho Falls, Idaho. Filed Oct. 25, 1912. Serial No. 727,803. (Cl. 170-25.)

1. A wheel of the class described including radially disposed series of wings, flexible connections between the wings of each series, a stationary cam, pivotally mounted arms for actuating the respective series of wings, connections between opposed arms of the wheel, means engaging and shiftable by the cam, and yielding devices operated by the respective means for actuating the respective arms and shifting the wings.

2. A wheel of the class described including radial series of feathering wings, a pivoted arm connected to each series, a connection between every two opposed arms, a stationary cam, and means engaging and movable upon the cam for successively swinging each arm outwardly to

open the wings adjacent thereto and to pull, through its connection, upon the opposed arm, thereby to close the wings adjacent said opposed arm, said means including a yielding element.



3. A wheel of the class described including radial series of feathering wings, a pivoted arm connected to each series, a connection between every two opposed arms, a stationary cam, a shaft mounted for rotation adjacent each series of wings, an arm upon the shaft and bearing against the cam, a second arm upon each shaft, and a yielding connection between said last named arm and the adjacent pivoted arm, said cam, arms and connections operating to successively swing each pivoted arm outwardly to open the wings adjacent thereto and to pull, through the connections between the arms, upon the opposed pivoted arm to close the wings adjacent thereto.

4. A wheel of the class described including radially disposed frames, a series of wings carried by each frame, connections between the wings of each series, an arm pivotally mounted within each frame and connected to the wings in the next adjoining frame, a stationary cam, a connection between each arm and the opposed arm, and means carried by each frame and engaging and movable upon the cam for actuating the arms in adjacent frames, through their connections, to close the wings in the frame of said cam engaging means, said means including a yielding element.

5. A wheel of the class described including connected frames mounted for rotation about a common axis, a series of wings mounted within each frame, connections between the wings of each series, arms pivotally mounted within the frames, connections between opposed arms, shafts journaled within the frames, arms movable therewith, yielding connections between said last named arms and the adjacent pivoted arms, a stationary cam, and arms extending from the shafts and bearing on the cam.

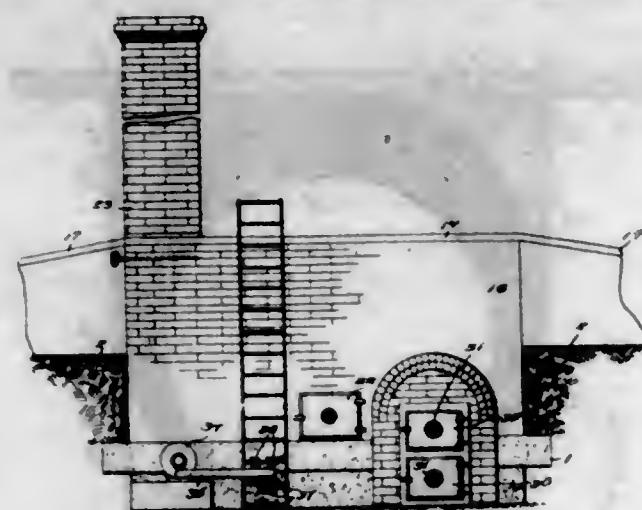
[Claim 6 not printed in the Gazette.]

1,078,158. REFUSE-BURNER. WILLIAM MCCANSE, Hobart, Okla., assignor to Burn-All Incinerator Company (Incorporated), Frederick, Okla. Filed June 4, 1912. Serial No. 701,647. (Cl. 110-8.)

1. A refuse burner comprising a combustion chamber, a retaining wall inclosing the combustion chamber and spaced therefrom, a deck supported by said retaining wall, an air space being provided below the deck and between the combustion chamber and the retaining wall, a plurality of vents in the said deck communicating with the air space, and a hopper disposed in the said deck and leading into the combustion chamber.

2. A refuse burner comprising a combustion chamber having an opening in its top, a key ring fitted in said opening and having an upwardly projecting annular flange, a deck supported over the combustion chamber, a hopper

mounted in the said deck and fitting within the flange of the key ring, and a cover fitting within the said key ring, and a cover for said hopper.

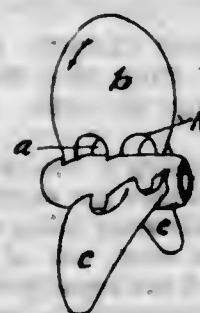


3. A refuse burner comprising a base, a hemispherical combustion chamber erected on the base, a stack leading from the chamber at the side thereof, a fire chamber opening into the said combustion chamber at a point diametrically opposite the stack, a conduit extending through the base and opening upwardly into the combustion chamber through the floor of the same at the center thereof, and means for delivering an air blast through the said conduit.

4. A refuse burner comprising a base, an arched combustion chamber erected thereon, a stack leading laterally from said chamber, a fire chamber opening laterally into the said combustion chamber at a point diametrically opposite the stack, conduits extending through the base below the floor of the combustion chamber, one of said conduits opening into the fire chamber at the rear thereof and in the direction of the combustion chamber and the other conduit opening upwardly into the combustion chamber through the floor thereof, and means for creating an air blast through the said conduits.

5. A refuse burner comprising a base, a hemispherical combustion chamber erected thereon, a retaining wall spaced from the combustion chamber and inclosing the same on all sides, a heat-retaining cushion between the retaining wall and the combustion chamber and extending around and over the combustion chamber, a feeding opening at the apex of the combustion chamber, a fire chamber opening laterally into the combustion chamber substantially at the floor level thereof, a stack leading laterally from the combustion chamber substantially at the floor level thereof, a conduit extending through the base and opening upwardly through the floor of the combustion chamber at the center thereof, a second conduit extending through the base and opening through the side of the fire chamber adjacent the rear end thereof and in the direction of the combustion chamber, and means common to both conduits for sending an air blast there-through.

1,078,159. PROPELLER. ADOLF E. MUELLER, Louisville, Ky. Filed Aug. 27, 1912. Serial No. 717,404. (Cl. 170-171.)



1. In a marine propeller, the combination of a boss and a plurality of blades symmetrically arranged thereon, each blade having a propelling face of uniform pitch from tip

to base, each blade being provided adjacent to the boss with a rearwardly inclined channel running through the blade.

2. In a marine propeller, the combination of a boss and a plurality of blades of uniform pitch symmetrically arranged thereon, the blades being of such width that they do not overlap as viewed from the end of the boss, each blade being provided with a channel running through it adjacent to the boss, the channel being inclined sharply rearwardly, the channel extending from the boss not more than a quarter of the blade length toward the tip of the blade.

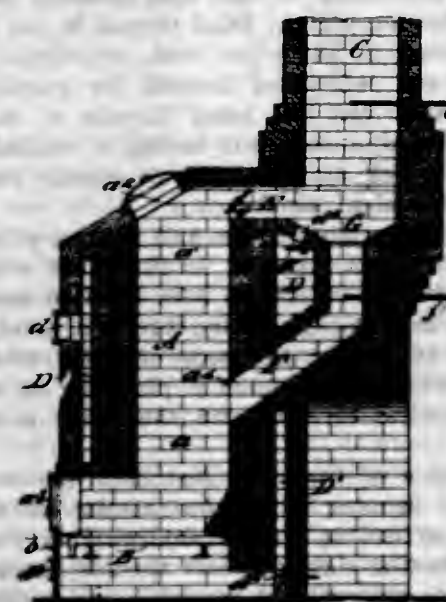
3. In a propeller, the combination of a boss of moderate diameter, a plurality of blades of uniform, true screw, and relatively high pitch symmetrically arranged thereon, the blades being of such width that they do not overlap when view from the end of the boss, each blade being pierced by a channel adjoining the boss and directed rearwardly at a small angle to the base pitch angle of the propelling face of the blade, the blade bases connected with the boss at each side of the channel being approximately triangular in shape to give ample mechanical strength.

4. In a marine propeller, the combination of a boss of moderate diameter, a plurality of blades of uniform true screw pitch symmetrically arranged thereon, each blade adjacent to the boss being pierced by a channel, the axis of which is directed sharply to the rear, the channel extending radially from the boss not more than a quarter of the radial length of the blade, the base portions of the blade adjacent to the aperture having impelling faces following the true screw contour of the whole blade surface, reverse faces rounded off to make sharp entering and leaving edges, other faces substantially parallel to the channel axis, whereby these base portions have a substantially triangular form to provide ample mechanical strength and free water-cutting capacity.

5. A propeller comprising a boss and a plurality of blades of uniform true-screw pitch thereon, each blade having a channel rearwardly directed passing through it at the boss and extending outward from the boss not more than one-fourth of the blade length.

[Claim 6 not printed in the Gazette.]

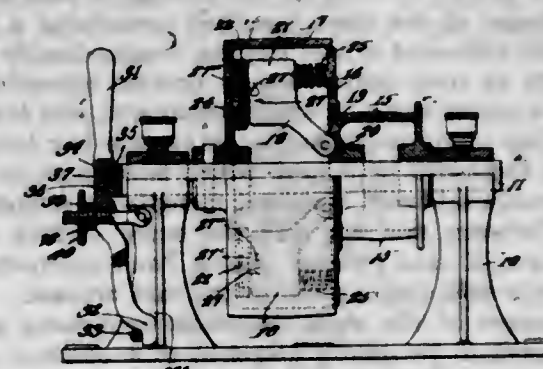
1,078,160. COMBUSTION APPARATUS AND GAS-PRODUCER. GLENN H. NILES, St. Louis, Mo. Filed Feb. 15, 1908. Serial No. 416,035. (Cl. 110-24.)



A combustion apparatus comprising a generator chamber having a lower combustion zone and an upper carbonization zone, a top charging doorway, a grate at the bottom of the generator chamber, an ash pit, a mixing chamber above, and separate from, the generator chamber, an upper horizontal flue leading from the upper carbonization zone to the mixing chamber, a lower flue having a lower upwardly inclined portion and a vertical portion and leading from the lower combustion zone to the said mixing chamber, an air supply chamber within the wall

of the apparatus, in front of the generator chamber and discharging through an upwardly inclined port into said mixing chamber, and a lower air duct at the rear of the generator chamber leading to the ash pit.

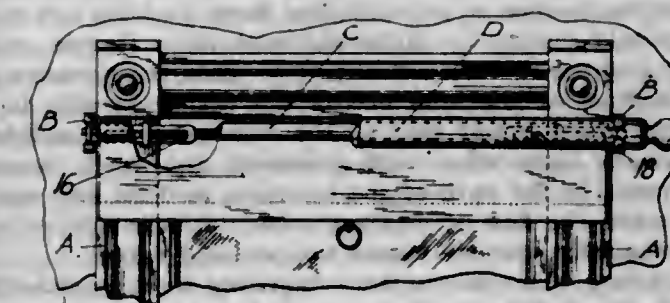
1,078,161. SPEED-GOVERNING PULLEY. FRED E. PARKER, Lansing, Mich. Filed May 31, 1912. Serial No. 700,724. (Cl. 74-45.)



1. A speed governor comprising a shaft, suitable supports for said shaft, a pulley fixedly mounted on said shaft and provided with an annular housing, a pulley loosely mounted on said shaft and provided with an annular extension, said loose pulley being held from shifting longitudinally of said shaft by contacting with said shaft support, weighted members pivotally supported by said extension, said members being resiliently spaced from said extension and adapted to contact with said annular housing, said members being adapted to be acted on by centrifugal force in opposition to said resilient spacing means, a lever adapted to shift said shaft to thereby increase the effect of said resilient spacing means, and means for holding said shifting lever in any desired position.

2. A speed governor comprising a shaft, a pulley fixedly mounted on said shaft and formed with an annular housing, a pulley loosely mounted on said shaft and formed with an annular flange extension, said extension adapted to fit within said annular housing, suitable supports for said shaft, said loose pulley being held from shifting longitudinally of said shaft by contacting with said shaft supports, weighted members pivotally supported by said extension, said members being resiliently spaced from said extension and adapted to contact with the vertical flanged face of said fixed pulley adjacent the outer portion thereof, a friction shoe pivotally secured to said weighted members, said shoe mounted eccentric of said vertical flange of said fixed pulley and adapted to frictionally engage the outer portion thereof, a lever pivotally secured to one of said shaft supports and adapted to contact with said shaft to shift the latter to thereby increase the effect of said resilient spacing means, and means for holding said shifting lever in any desired position.

1,078,162. SHADE AND CURTAIN HANGER. JAMES N. PARRAHM, Denver, Colo., assignor of one-half to John McKinstry, Denver, Colo. Filed Nov. 1, 1912. Serial No. 728,983. (Cl. 156-24.)



1. A hanger of the class described comprising an element adapted to be rigidly attached to a window-casing, and a bracket adapted for the support of a curtain-pole and a shade-roller, reversibly secured upon the said element.

2. A hanger of the class described comprising a clamping element, and a bracket secured thereto, the said element being composed of two lapping, longitudinally aligned, plates bent at their outer ends to provide opposite jaws, one of said plates having a longitudinal slot and the other plate having at its inner end, a transverse bar connected therewith by a neck which is adapted to be inserted through said slot, and a band embracing said plates and composed of a strip whose ends are bent inwardly, one of said plates having notches for the passage of said ends.

3. A hanger of the class described comprising a clamping element composed of two lapping, longitudinally aligned plates bent at their outer ends to provide opposite jaws, one of said plates having a longitudinal slot, and the other plate having at its inner end, a transverse bar integrally connected therewith by a neck which is adapted to be inserted through said slot, a bracket including a slotted plate disposed between said bar and the outer surface of the slotted plate of said element, and a band embracing the plates of the said element and of the said bracket.

4. A hanger of the class described comprising an element adapted to be rigidly attached to a window casing, and a bracket connected with said element and composed of a body portion and an end-portion bent at an angle thereto and having at its end, two reversely curved, resilient arms adapted to receive a curtain pole between them.

5. A hanger of the class described comprising an element adapted to be rigidly attached to a window casing, and a bracket connected with said element and composed of a body portion and an end-portion bent at an angle thereto and having at its end, two reversely curved, resilient arms adapted to receive a curtain pole between them, and in its upper edge, a slot to receive an end of the spindle of a curtain roller.

1,078,163. SAFETY DEVICE FOR GAS-SUPPLY APPARATUS. GERMAIN FRÉDÉRIC PICOT, Paris, France. Filed Dec. 18, 1911. Serial No. 666,543. (Cl. 137-4.)



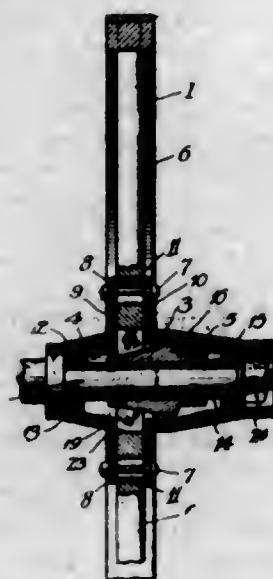
1. Safety valve mechanism comprising a casing through which the medium to be controlled flows, an inlet and outlet in said casing, a counter-balanced valve therein, said valve adapted to automatically close when the pressure of the medium at the inlet end of the casing exceeds to a predetermined extent that at the outlet end but adapted to remain open when said pressures are equal, and means interposed in the path of the incoming medium and operable when the flow of medium ceases to close said valve.

2. Safety valve mechanism comprising a casing through which the medium to be controlled flows, an inlet and outlet in said casing, a counter-balanced valve therein, said valve adapted to automatically close when the pressure of the medium at the inlet end of the casing exceeds to a predetermined extent that at the outlet end but adapted to remain open when said pressures are equal, means interposed in the path of the incoming medium and operable when the flow of medium ceases to close said valve, and manually operable means to open said valve.

3. Safety valve mechanism comprising a casing through which the medium to be controlled flows, an inlet and outlet in said casing, a counter-balanced valve therein, said valve adapted to automatically close when the pressure of the medium at the inlet end of the casing exceeds to a predetermined extent that at the outlet end but adapted to remain open when said pressures are equal, a

pivotal element in the casing having engagement with said valve and normally tending, to close the same, said element disposed in the path of the incoming medium the pressure of which holds said element in a position that permits said valve to remain open, said element adapted to automatically operate when the flow of the medium ceases to close said valve, and manually operable means to open said valve.

1,078,164. VEHICLE-WHEEL. TONY POSS, Aurora, Ill. Filed Feb. 12, 1913. Serial No. 747,904. (Cl. 21-31.)



1. In a device of the class described, the combination with a conical member having an exterior thread and an axial passage extending through said member, the walls of said passage having a right hand thread in one end and a left hand thread in the other end, cylindrical members having right and left hand threads for respectively engaging said right and left hand threads of said conical member, an expansion nut having a conical aperture the walls of which are threaded to engage the exterior thread of said conical member, and means for preventing relative rotation between said conical member and said cylindrical members.

2. In a device of the class described, the combination with a conical member having an exterior thread and an axial passage extending through said member, the walls of said passage having a right hand thread in one end and a left hand thread in the other end, cylindrical members having right and left hand threads for respectively engaging said right and left hand threads of said conical member and an expansion nut having a conical aperture the walls of which are threaded to engage the exterior thread of said conical member.

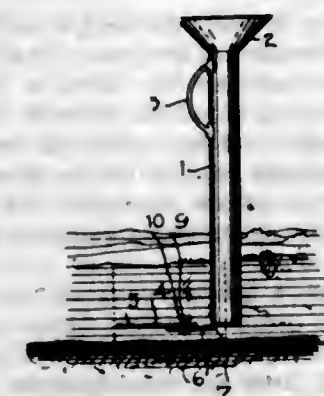
3. A wheel comprising a rim and spokes, a hollow hub formed in two parts clamped to the inner ends of said spokes, an inwardly extending tube fixed to each of said parts, said tubes being oppositely threaded, a conical member threaded to receive the ends of said tubes, and an expansible device consisting of a plurality of sectors between said conical member and the inner ends of said spokes.

4. In a device of the class described, the combination with a conical member having an exterior thread and an axial passage extending through said member, the walls of said passage having right and left threads, threaded cylindrical members respectively engaging the right and left threads of said walls, and an expansion nut having a conical aperture the walls of which are threaded to engage the exterior thread of said conical member.

1,078,165. POTATO-DROPPER. CLARENCE J. PRIEST, Wellsboro, Pa. Filed Feb. 8, 1913. Serial No. 747,119. (Cl. 111-20.)

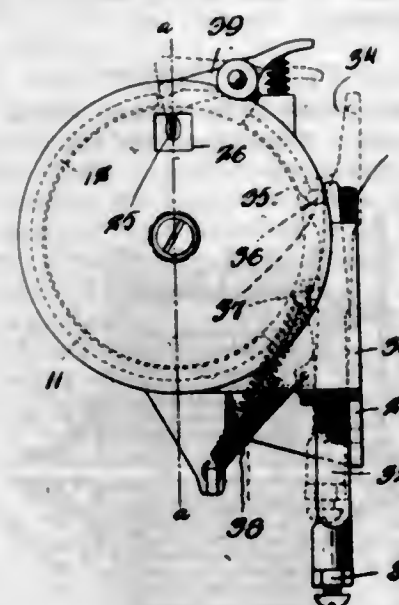
A device of the class described including a tubular body having a funnel shaped mouth at one end thereof, a handle carried by the body and arranged adjacent the mouth,

a sectional gage member, one of said sections being provided with an upwardly turned end, which is disposed at right angles, said upwardly turned end being arranged within the lower end of the body and rigidly secured thereto, a second section slidably mounted upon the first



section, said sections being provided with aligned elongated slots, a bolt movable within said slots and a winged head mounted upon one end of said bolt whereby the same may be manipulated to hold the sections in various adjusted positions.

1,078,166. REGISTER. WILLIAM C. PRITCHARD, Lancaster, Pa., assignor to National Store Specialty Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1912. Serial No. 713,805. (Cl. 235-118.)

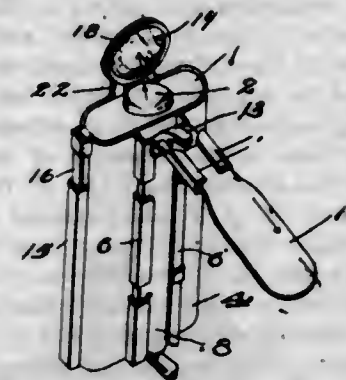


1. A register providing a casing, a drum plate pivoted for rotation within said casing, an inwardly extending flange on said plate, ratchet teeth on said flange, a dial secured on said drum plate between it and one side of the casing, said dial provided with graduations which show through an opening in said casing, a stop on said flange, a pin on said casing in the path of said stop, a spring within the casing for holding the stop against said pin, extensions on said casing, said extensions forming a guide, an operating rod slidably mounted in said guide, the upper end of said rod having one face beveled, a finger on said rod for engagement with said ratchet teeth to rotate said drum plate against the action of the spring, and means on the casing to cooperate with the beveled face of the rod whereby the latter on its upward movement is thrown out of engagement with the teeth to allow the drum to be returned to its initial position.

2. A register providing a casing, a drum element pivoted for rotation therein, ratchet teeth on said element, graduations on said element adapted to show through an opening in the casing, a spring adapted to normally hold the drum element against rotation, extensions on said casing forming a guide, an operating rod slidably mounted in said guide, the upper end of said rod being beveled, a finger on the rod for engagement with said ratchet teeth to rotate said drum against the action of the spring, means on the casing to cooperate with the beveled face of the rod

whereby the latter on its upward movement is thrown out of engagement with the teeth to allow the drum to be returned to its initial position, and means for normally holding said rod in lowered position, said means comprising a downwardly extending lug on said casing, and a spring adapted to be secured at one end to said lug and at the opposite end to said rod.

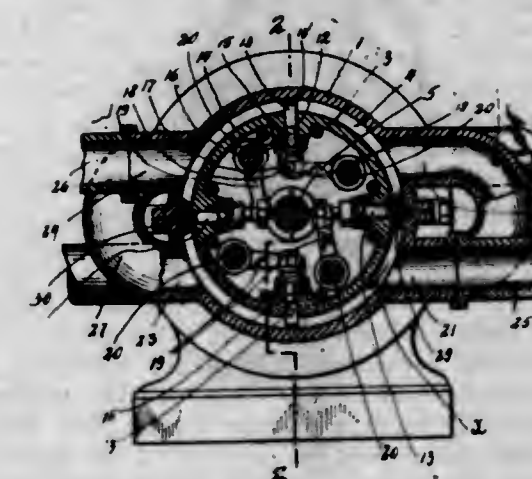
1,078,167. PROJECTING-LAMP. JAMES H. ROBBETT, Albany, Oreg. Filed Dec. 30, 1912. Serial No. 739,270. (Cl. 128-43.)



1. A lamp casing comprising an integral metal piece bent to shape having an open side with angular flanges and straps extended across the opening to receive and retain a spatula holder, and integral spring tongues opposite the open side of the casing adapted to retain a reflecting mirror stem.

2. The combination with a lamp of a casing having an open slot and angular flanges bounding said slot, straps extended across said slot and flush with the body of the casing, and a spatula holder including a blade incased between said flanges and straps.

1,078,168. ROTARY MOTOR. THEODOR RUHLMANN, New York, N. Y. Filed Apr. 19, 1912. Serial No. 691,979. (Cl. 123-16.)



1. In a rotary motor, a cylinder divided longitudinally into a plurality of compartments of different length, in each compartment a rotary piston, forming an annular chamber between itself and the said cylinder, all pistons being rigidly connected, partitions in each compartment dividing the annular chamber thereof into two tightly separated halves, a plurality of retractable members for each piston projecting through said annular space and bearing tightly against the inner circumference of the cylinder, one end compartment having an admission opening for each half of its annular chamber, the other end compartment having a discharge opening for each half of its annular chamber and the lower and the upper halves of the different compartments being alternately connected to communicate with one another and cam operated means in each of said rotary pistons operatively connected to said members.

2. In a rotary motor, a cylinder divided longitudinally into a plurality of compartments of different lengths, in

each compartment a rotary piston, forming an annular chamber between itself and the said cylinder, all pistons being rigidly connected, partitions in each compartment dividing the annular chamber thereof into two tightly separated halves, a plurality of retractable members for each piston projecting through said annular chamber and bearing tightly against the inner circumference of the cylinder, said members in all compartments being arranged at corresponding points, and cam controlled means for periodically operating said members and arranged in each of said rotary pistons, one end compartment having an admission opening for each half of its annular chamber, the other end compartment having a discharge opening for each half of its annular chamber and the lower and the upper halves of the different compartments being alternately connected to communicate with one another.

3. In a rotary explosion motor, a cylinder divided longitudinally into three compartments, of which the intermediate one is the smallest and one of the end compartments the largest, in each compartment a rotary piston forming an annular chamber between itself and the cylinder, all pistons being rigidly connected, partitions in each compartment dividing the annular chamber thereof into two tightly separated halves, a plurality of retractable members for each piston projecting through said annular chamber and bearing tightly against the inner circumference of the cylinder, said members in all three compartments being arranged at corresponding points, and cam controlled means for periodically operating said members and arranged in each of said rotary pistons, the next largest end compartment having an admission opening for each half of its annular chamber, the largest end compartment having a discharge opening for each half of its annular chamber and all compartments being connected to communicate with one another.

1,078,169. CARBURETER. JOHN SCHREIBER, St. Louis, Mo. Filed July 11, 1912. Serial No. 708,904. (Cl. 48-155.2.)



1. In a carbureter, a float-chamber, a nozzle leading therefrom, a screw-valve for the nozzle, a float-controlled reciprocating rotatable valve-stem, and means on the nozzle-valve and valve-stem for turning the nozzle-valve upon rotation of the valve-stem.

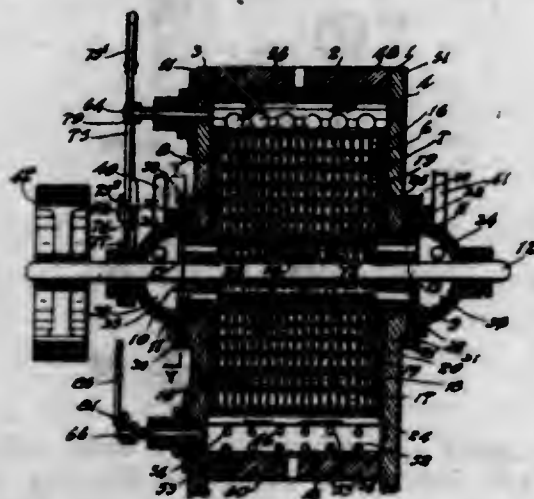
2. In a carbureter, a float-chamber, a central nozzle leading therefrom, a member secured to the float-chamber and spaced therefrom, and forming a circumferential air-intake therewith, a flanged tubular air-valve support in said member enveloping the nozzle and spaced from the latter, an air valve on said flange, a spring seat enveloping the support, a compression spring encompassing the support and resting on the seat, a washer ring loosely enveloping the support and resting on the spring, suitable connections between the spring seat and valve, operating loosely through the flange of the valve support, a forked bell-crank lever pivoted to the flange and bearing with one end against the washer ring, a screw stem mounted on the carbureter wall and engaging the opposite end of the

bell-crank lever, whereby the tension of the spring may be adjusted, a mixing chamber above the valve-seat or flange communicating with the chamber of the valve-support, and a throttle valve at the outlet from the mixing chamber, the parts operating substantially as and for the purpose set forth.

3. In a carbureter, a float chamber, a hollow air valve above the same, a nozzle leading from the float chamber and discharging through the air valve, a tension spring coupled to the air-valve, a bell-crank lever for controlling the spring, a screw-stem for actuating the lever, a head on the stem, a hollow shield carried by the stem, a socket, a locking spring in the socket engaging the head of the stem, the walls of the shield being graduated for the purpose set forth.

4. In a carbureter, a mixing chamber, a tubular valve support having an upper annular flange serving as a valve seat, an air valve resting on said seat, a float chamber, a nozzle leading from the float-chamber and discharging into the chamber of the valve-support, a ledge around the nozzle for supporting the base of the valve support, a suitable conical formation on the support for directing the currents from the nozzle into the chamber of the support, bolts secured to the valve and passing loosely through the annular seat, a channel ring surrounding the support and secured to the bolts, a washer ring loosely encompassing the support, a compression spring coiled about the support and engaging the channel ring and washer ring, and means under the control of the operator for shifting the position of the washer ring whereby the tension of the spring controlling the air-valve may be adjusted.

1,078,170. ROTARY ENGINE. JAMES SHAW, Dauphin, Manitoba, Canada. Filed Feb. 28, 1913. Serial No. 751,224. (Cl. 121-60.)



1. The combination comprising a stator, a pair of similar opposed end plates rotatably mounted within the stator, a centrally disposed drive shaft carried by the end plates, there being exhaust slots in the end plates adjoining the shaft, a perforated tube surrounding the shafts and between the end plates, said tube inclosing an exhaust chamber communicating with the exhaust slots, a plurality of similar spaced disks mounted on the tube and permanently secured to the end plates, the openings appearing between the disks communicating through the perforations in the tube with the exhaust chamber and means for admitting live steam between the disks at the circumference thereof, as and for the purpose specified.

2. The combination comprising a stator or inclosing casing, an opposing pair of circular end plates located in the casing at opposite sides thereof, a drive shaft passing centrally through the end plates and keyed to the same, there being exhaust slots in the end plates adjoining the shaft, a perforated tube located between the disks and surrounding the shaft, said tube forming an exhaust chamber communicating continuously with the exhaust slots, a plurality of similar spaced disks mounted on the tube and contacting frictionally with the inner wall of the casing, the spaces between the disks communicating

through the perforations in the tube with the exhaust chamber and a plurality of valves carried by the casing and disposed around the circumference of the disks, said valves being designed to admit live steam between the disks in a direction tangential to the disks, as and for the purpose specified.

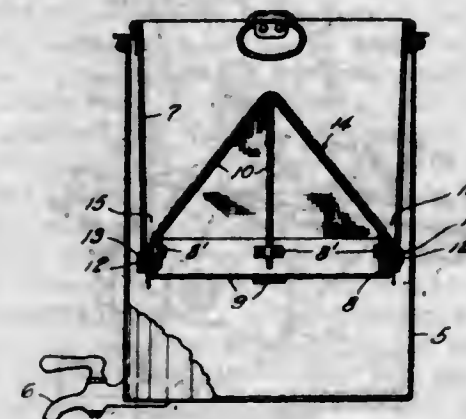
3. The combination comprising a stator or inclosing casing, an opposing pair of circular end plates located in the casing at opposite sides thereof, a drive shaft passing centrally through the end plates and keyed to the same, there being exhaust slots in the end plates adjoining the shaft, a perforated tube located between the disks and surrounding the shaft, said tube forming an exhaust chamber communicating continuously with the exhaust slots, a plurality of similar disks mounted on the tube, sets of spacing bars interposed between the disks and arranged concentric with the shaft, the bars in each set having the ends spaced apart to provide openings, and a plurality of valves disposed around the circumference of the disks designed to admit live steam between the disks and in a direction tangential to the same, as and for the purpose specified.

4. In a rotary engine, a rotor comprising a centrally disposed shaft, a pair of similar opposing end plates keyed on the shaft and provided with exhaust slots adjoining the shaft, a perforated tube between the plates and surrounding the shaft, said tube forming a central exhaust chamber communicating with the exhaust slots and a plurality of spaced circular disks mounted on the tube between the end plates and having the spaces between the disks communicating through the perforations in the tube with the exhaust chamber, as and for the purpose specified.

5. In a rotary engine, a rotor comprising a centrally disposed shaft, a pair of similar opposing end plates keyed on the shaft and provided with exhaust slots adjoining the shaft, a perforated tube between the plates and surrounding the shaft, said tube forming a central exhaust chamber communicating with the exhaust slots, a plurality of spaced corrugated disks mounted on the tube between the end plates and having the space between the disks communicating through the perforations in the tube with the exhaust chamber, as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,078,171. COFFEE-URN. JOHN N. SHAW, Seattle, Wash. Filed Nov. 25, 1912. Serial No. 733,300. (Cl. 53-3.)



1. The combination with a beverage receptacle and a shell recessed adjacent its lower end adapted to be inserted therein, of a frame adapted to be supported by said shell, said frame comprising a relatively narrow band having inwardly directed struck-out portions, transversely arranged A-shaped arms supported at their base in said struck-out portions, means carried by said frame extending into said recesses for supporting the same and a strainer cloth supported by said frame.

2. The combination with a beverage receptacle, of a shell adapted to be inserted within said receptacle, said shell having L-shaped recesses arranged adjacent the lower edge thereof, a frame adapted to be supported by said shell,

said frame comprising a relatively narrow band having inwardly directed struck-out portions, transversely arranged A-shaped arms supported at their base in said struck-out portions, braces arranged across the bottom of said band and extending beyond the edge thereof to provide lugs, said lugs adapted to be received within said L-shaped recesses, and a strainer cover for said frame.

1,078,172. ELECTRIC CONTACT AND INDICATOR. RALPH T. SMITH, Reno, Nev. Filed Dec. 18, 1912. Serial No. 737,568. (Cl. 173-334.)



1. The combination with a socket having a lining of conductive material, of a plug electrically connected to said lining, a contact within the inner end of the socket, a second contact carried by the plug and electrically connected to the first named contact, a movably supported contact within the socket, means for electrically connecting said movably supported contact and the lining to an appliance, and a lamp plug insertible into the lining for engaging the movable contact and forcing it against the other contact in the socket.

2. The combination with a socket having a conductive material therein for engagement by the plug of a standard lamp, of a plug electrically connected to said material, a contact carried by the last named plug, normally spaced fixed and movable contacts within the inner end of the socket, an electrical connection between one of said contacts and the contact in the last named plug, means for electrically connecting the other one of the contacts in the socket and the material in said socket to an appliance, the movably supported contact being adapted to be engaged by the lamp plug and forced thereby against the fixed contact in the socket.

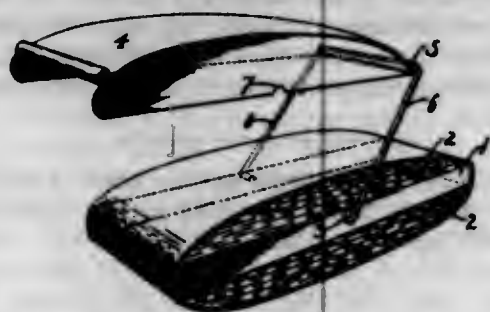
3. The combination with a socket having a lining of conductive material for engagement by the plug of a standard lamp, of a plug electrically connected to said lining, a contact within the inner end of the socket, a second contact carried by the plug and electrically connected to the first named contact, a movably supported contact within the socket and adapted to be engaged by the lamp plug and forced thereby against the other contact in the socket, and means for electrically connecting the movably supported contact and the lining to an appliance.

4. The combination with a plug for engaging a lamp socket, and separate conductors carried by the plug, of a lamp plug receiving socket in circuit with one of said conductors, and normally spaced contacts in circuit with the other conductor, one of said contacts being adapted to be engaged by a contact of the lamp plug and to be shifted thereby against the other contact to complete a circuit through the lamp and through the conductors.

1,078,173. SHOE-POLISHING DEVICE. THERON A. SMITH and LOUIS T. SMITH, San Jose, Cal. Filed Feb. 5, 1913. Serial No. 746,343. (Cl. 15-16.)

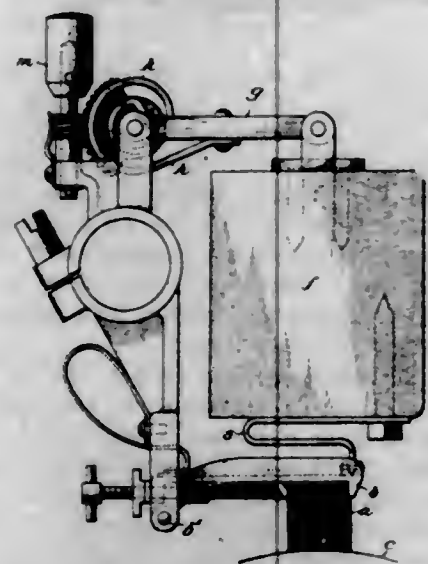
In a shoe-polishing device of the character described, the combination of a body portion having polishing pads attached thereto having a hole in approximately the center of each of the narrow sides of said body portion, a

casing having a cylindrical tube fastened to one end thereof and a notch in the lower edge of each side thereof, and a pivotal member formed to operate in said cylindrical



tube and having extensions fitting in said holes in said body portion to pivotally connect the body portion of the casing, substantially as shown and described.

1,078,174. BRUSH-HOLDER FOR DYNAMOS. CHARLES H. SMOOT, Chicago, Ill., assignor, by mesne assignments, to Rateau Battu Smoot Company, a Corporation of New York. Filed Dec. 14, 1906, Serial No. 347,826. Renewed May 6, 1913. Serial No. 785,907. (Cl. 171-210.)



1. The combination with a high speed rotary collector, of a contact brush of slight inertia bearing thereon, a mass of relatively great inertia, and a stiff spring having a great change of force under slight movement, acting between said inertia mass and said brush, said weight exerting pressure upon said brush through said spring.

2. The combination with a high speed rotary collector, of a brush of slight inertia bearing thereon, a yieldingly-supported inertia weight and a compression spring of great stiffness and strength acting between said inertia weight and said brush, said weight exerting pressure upon said brush through said spring.

3. The combination with a rotary collector, of a contact brush of slight inertia bearing thereon, an inertia weight, a compression spring of great stiffness and strength interposed between said inertia weight and said brush, a rigid support and a spring connecting said inertia weight with said rigid support.

4. The combination with a high speed rotary collector, of a rigid brush holder support, a contact brush bearing upon said collector, and a moving system comprising an inertia weight, a stiff compression spring acting between the inertia weight and the brush, and a spring acting between the inertia weight and the support.

5. The combination with a high speed rotary collector, of a rigid brush holder support, a contact brush bearing upon said collector, and a moving system comprising an inertia weight, a stiff compression spring acting between the inertia weight and the brush, and a spring acting between the inertia weight and the support, said moving

system being proportioned and adjusted to have a natural period of vibration not in harmony with the frequency of revolution of the collector.

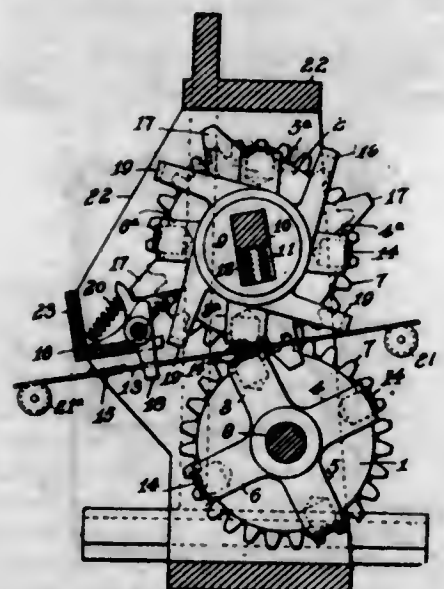
[Claims 6 and 7 not printed in the Gazette.]

1,078,175. CREAM-DIPPER. GEORGE W. SPLAINE, Boston, Mass. Filed Oct. 24, 1910. Serial No. 588,787. (Cl. 73-62.)



In a device of the character specified, a container graduated to indicate the volume of that portion of a certain receptacle above the horizontal plane fixed by the lower end of the container when the latter is inserted into the receptacle to any depth, said container being adapted to remove liquid from said receptacle.

1,078,176. WIRE-WIPING APPARATUS. LAWRENCE CARR STEELE, Beaver, Pa. Filed Feb. 2, 1912. Serial No. 674,981. (Cl. 91-59.4.)



1. In a wire-wiping apparatus, the combination of a rotatably mounted member having a plurality of pad-holders and a corresponding number of abutments secured thereto, and a pivotally mounted finger having one arm held yieldingly in the path of said abutments to engage therewith and a second arm extending in the path of an advancing length of wire, said second finger arm being adapted to be engaged and moved by a splice in such wire.

2. In a wire-wiping apparatus, the combination of a pair of rotatably mounted disks, means for coordinate rotation of said disks, a series of pad-holders secured to each of said disks and arranged thereon to cooperate in pairs, and means for holding said disks against rotation,

said holding-means adapted to be rendered ineffective by a splice on an advancing length of wire, substantially as described.

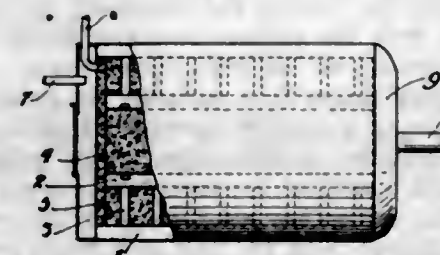
3. In a wire-wiping apparatus the combination of a pair of disks each provided with a series of wiping pad-holders effective successively to wipe an advancing length of wire, the said disks rotatable by the advance of such wire to bring successive pad-holders to wiping position, a finger lying in the path of such wire and normally holding the said disk against rotation and in wire wiping position, the said finger adapted to be rendered ineffective by the advance of a splice in such wire to hold the said disk against rotation, substantially as described.

4. In a wire-wiping apparatus, the combination of a pair of rotatably mounted disks, means for coordinate rotation of said disks, and a series of pad holders secured to each of the said disks and arranged thereon to cooperate in successive pairs to wipe an advancing length of wire, one of the said disks being yieldingly mounted to move transversely of the line of advance of such wire, and means for holding said disks against rotation while cooperating pairs of pad-holders are wiping a continuous length of wire, substantially as described.

5. In a wire-wiping apparatus, the combination of a pair of rotatably mounted disks each provided with a series of pad-holders and with interlocking teeth, a series of abutments secured to one of the said disks, and a finger adapted to engage successively the said abutments, and thereby hold said disks against rotation, substantially as described.

[Claim 6 not printed in the Gazette.]

1,078,177. BOILER. ADOLFO MARTINEZ URISTA, Mexico, Mexico. Filed Feb. 17, 1912. Serial No. 678,248. (Cl. 122-4.)



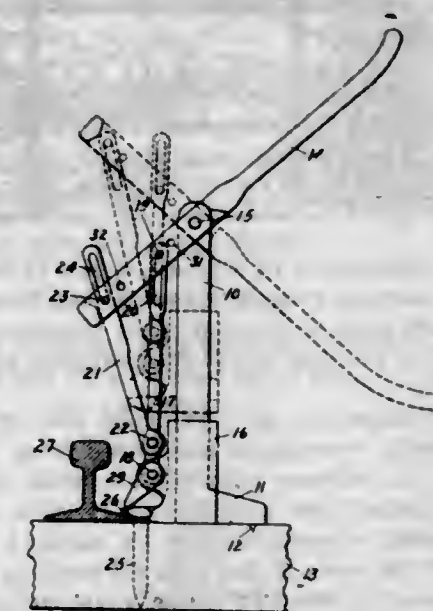
1. A boiler having a fire screen, and an air chamber in advance of the same at its front end, and a collecting chamber at its rear end; in combination with a pipe leading into said fire screen for supplying oil thereto; a pipe leading into said air chamber, for supplying air under pressure to that chamber for admixture with the oil in said fire screen; and a suction pipe leading from said collecting chamber, for drawing the mixture of oil and air through the boiler.

2. A boiler provided at its front end with a fire screen comprising a pair of spaced, perforated plates and a filling or refractory material therebetween, and with an air chamber in advance of said fire screen, and at its rear end with a collecting chamber; in combination with a pipe, leading into the space between said plates, for supplying oil to said fire screen; a pipe leading into said air chamber, for supplying air under pressure to that chamber, for admixture with the oil in said fire screen; and a suction pipe leading from said collecting chamber, for drawing the mixture of oil and air through the boiler.

1,078,178. SPIKE-PULLING JACK. HARRY EZRA WADSWORTH, Vancouver, Wash. Filed Dec. 11, 1912. Serial No. 736,213. (Cl. 145-37.)

1. In a device for extracting spikes, bolts or the like the combination with a standard, of a sleeve provided with a claw slidably mounted upon the standard, a lever pivoted to the standard, said lever being provided with a pair of pins arranged at different distances from the pivot of the

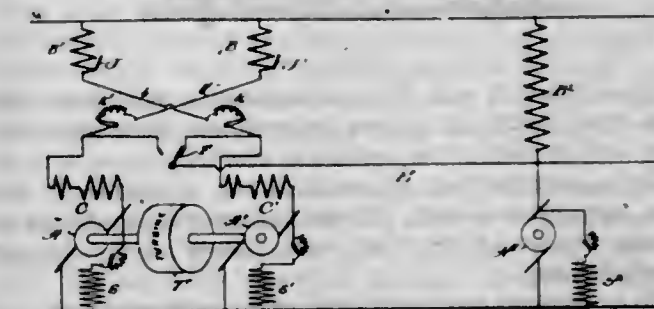
lever, a pair of links provided with slots in one end, one of said pins extending through the slot in one link and the other through the slot in the other link, and means for connecting the opposite ends of the links to the sleeve.



2. In a device for extracting spikes, bolts or the like the combination with a standard, of a sleeve provided with a claw slidably mounted upon the standard, a lever pivoted to the standard, said lever being provided with a pair of pins arranged at different distances from the pivot of the lever, a pair of links provided with slots in one end, one of said pins extending through the slot in one link and the other through the slot in the other link, the opposite end of one of said links being pivoted to the other link and the opposite end of the last-mentioned link being connected to the sleeve.

3. In a device for extracting spikes, bolts or the like the combination with a claw slidably mounted, a pair of ears carried by the claw, a link pivoted to the ears at one end, operating means to which the other end of the link is connected, and a U-shaped dog pivoted to the ears by the pivot pin of the link, said dog being adapted to cooperate with the claw and engage a bolt or the like to be drawn.

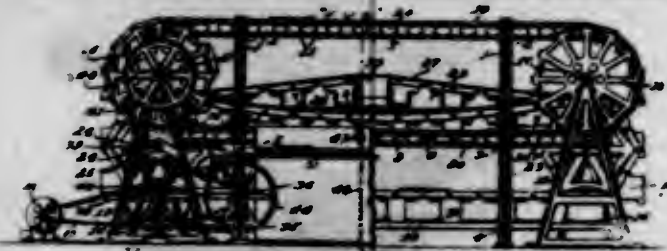
1,078,179. ELECTRIC GENERATING SYSTEM. HENRY H. WAIR, Chicago, Ill. Filed Oct. 7, 1906. Serial No. 521,448. (Cl. 171-224.)



1. In an electric generating system, the combination with a prime mover, of two generators mechanically connected together and electrically connected to the same load, each of said generators being provided with a compensating series winding and a compounding series winding, said latter winding of each machine being electrically connected in series with the other machine.

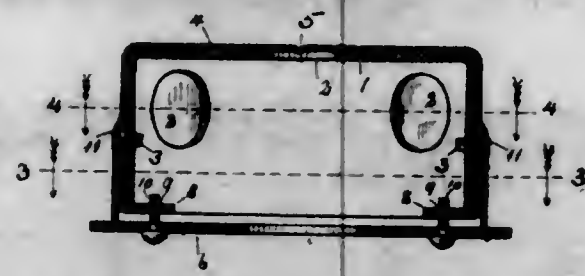
2. In an electric generating system, the combination with a plurality of generators connected in parallel, each generator being provided with series compensating windings and series compounding windings, said compensating windings of each machine being connected in series with its own armature, and said compounding windings of each machine being connected in series with the armature of another of said generators.

1,078,180. CANDY-PACKING MACHINE. EDWIN A. WASSERMAN, San Francisco, Cal. Filed Nov. 25, 1912. Serial No. 733,264. (Cl. 193-2.)



1. The combination of a frame, a pair of endless carriers supported thereby, receptacles suspended from the carriers, and means to move a series of other receptacles into a position adjacent the side of the first carriers and receptacles, as set forth.
2. The combination of a frame, a pair of carriers supported thereby, receptacles suspended from the carriers, a second set of carriers adjacent the first carriers, receptacles suspended from said second carriers, and means to tilt the second receptacles into an inclined position adjacent one of the runs of the first carriers, as set forth.
3. The combination of a frame, carriers supported thereby, receptacles suspended from the carriers, a second set of carriers adjacent the lower run of the first carriers, receptacles suspended from the second carriers, and means whereby one of said second carriers and one end of certain of the receptacles suspended therefrom are raised to incline the receptacles, as set forth.
4. The combination of a frame, carriers supported thereby, receptacles suspended therefrom, a second set of carriers adjacent the lower run of the first carriers, receptacles, suspended from the second carriers, means to incline the receptacles when on the upper run of their carriers, and means to control the two sets of carriers from a position near the middle of the lower run of the first set of carriers, as set forth.

1,078,181. BOX FOR ELECTRIC CONDUITS. HOWARD J. WHITE, San Francisco, Cal. Filed Oct. 6, 1910. Serial No. 585,078. (Cl. 247-5.)

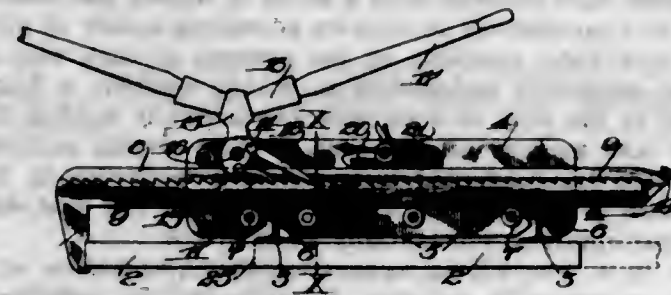


1. In a conduit box, in combination, a perforate shell and an imperforate shell, the imperforate shell being outside of and inclosing the perforate shell.
2. In a conduit box, in combination, a perforate shell and an imperforate shell, the imperforate surrounding the perforate shell and provided with punch marks opposite its perforations.
3. In a conduit box, in combination an inner and outer shell, a cover for said shells, means to secure said cover to said shells consisting of metallic strips located between said shells, the ends of which are turned inwardly, said inner shell provided with holes in the side thereof engaging one end of said strips and means on the cover engaging the opposite ends.

1,078,182. DEVICE FOR REMOVING AND REPLACING RAILROAD-TIES. WILLIAM S. A. WILDER, Anderson, Cal. Filed Apr. 9, 1913. Serial No. 759,845. (Cl. 104-16.)

1. The combination in a railroad tie removing and replacing device of a pair of interspaced plate members secured with relation to each other, a bar slidably mounted between the plates, a downwardly projecting jaw formed on the end of the bar adapted to engage with the end of a

tie, means for securing the plate members on the rails of the track, means for moving the bar between the plates, and means for clearing the path in front of the new tie.



2. The combination in a railroad tie removing and replacing device of a pair of interspaced plate members secured with relation to each other, guide rollers journaled in said plates, a ratchet bar mounted between said rollers, a downwardly projecting jaw formed on the end of the bar adapted to engage with the end of a tie, means for moving the ratchet bar between the rollers, means for preventing the complete removal of the ratchet bar from the plates and rollers, and means for securing the plate members on the rails of the track.
3. The combination in a railroad tie removing and replacing device of a pair of interspaced plate members secured with relation to each other, guide rollers journaled in said plates, a ratchet bar mounted between said rollers, a downwardly projecting jaw formed on the end of the bar adapted to engage with the end of a tie, a lever pivotally mounted between the plates, a pair of pawl members pivotally mounted in said lever adapted to engage with the ratchet bar, means for rocking the lever and connected pawls to move the ratchet bar, means for preventing the complete removal of the ratchet bar from the plates and rollers, means for lifting and retaining the pawls out of engagement with the ratchet bar, and means for securing the plate members on the rails of the track.
4. The combination in a railroad tie removing and replacing device of a pair of interspaced plate members secured with relation to each other, guide rollers journaled in said plates, a ratchet bar mounted between said rollers, a downwardly projecting jaw formed on the end of the bar adapted to engage with the end of a tie, a lever pivotally mounted between the plates, a pair of pawl members pivotally mounted in said lever adapted to engage with the ratchet bar, means for rocking the lever and connected pawls to move the ratchet bar, a hook formed on the opposite end of the ratchet bar, a spring-actuated pawl pivotally mounted between the plates adapted to engage with the hook member to prevent the complete removal of the ratchet bar from between the plates and rollers, a lever connected with one of the ratchet bar actuating pawls adapted to lift the pawls out of engagement with the ratchet bar, a catch for holding the lever in the released position, and depressions formed in the lower edges of the plate members adapted to straddle the rails and secure the plates in position when it is desired to remove and replace a tie.
5. The combination in a railroad tie removing and replacing device of a pair of interspaced plate members secured with relation to each other, guide rollers journaled in said plates, a ratchet bar mounted between said rollers, a downwardly projecting jaw formed on the end of the bar adapted to engage with the end of a tie, a lever pivotally mounted between the plates, a pair of pawl members pivotally mounted in said lever adapted to engage with the ratchet bar, means for rocking the lever and connected pawls to move the ratchet bar, a hook formed on the opposite end of the ratchet bar, a spring-actuated pawl pivotally mounted between the plates adapted to engage with the hook member to prevent the complete removal of the ratchet bar from between the plates and rollers, a lever connected with one of the ratchet bar actuating pawls adapted to lift the pawls out of engagement with the ratchet bar, a catch for holding the lever in the released position, depressions formed in the lower edges of the plate

members adapted to straddle the rails and secure the plates in position when it is desired to remove and replace a tie, and a plow member adapted to be secured on the end of the new tie that is being replaced to clear the path for said tie.

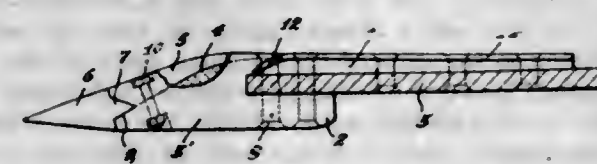
[Claim 6 not printed in the Gazette.]

1,078,183. CLOTHES-POUNDER. BEN H. WILSON, Portland, Oreg. Filed Dec. 11, 1912. Serial No. 736,201. (Cl. 68-5.)



1. A clothes pounder, comprising similar conical bodies, one occupying a position within the other, the inner one having a rod extension at its apex and the outer one having a tubular socket extension at its apex, a tubular handle portion engaging the said rod extension and the said tubular socket extension together with means for locking the same in such positions.
2. A clothes pounder, comprising similar conical bodies one occupying a position within the other, a handle separately joined to the apex of each of said conical bodies, means for holding each conical body in separate rigid relation to such handle and means for separately releasing each therefrom.

1,078,184. TOOTH FOR EXCAVATOR BUCKETS OR SHOVELS. MICHEL J. WOZNACK, Seattle, Wash. Filed Dec. 29, 1911. Serial No. 688,513. (Cl. 37-16.)



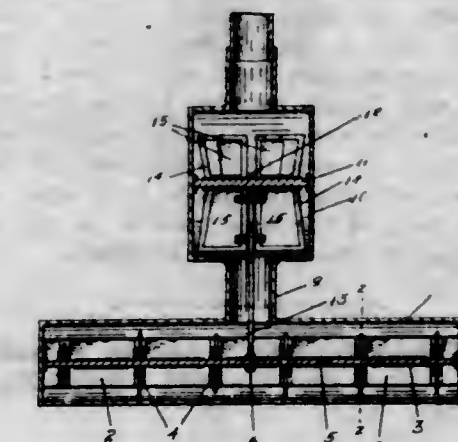
1. In an excavator shovel or the like, in combination with a plurality of teeth having shanks and arms spaced for reception of one edge portion of the shovel wall therebetween, supplemental wall sections for said shovel fixed to the shanks of said teeth and extending across the space therebetween over the upper face of the shovel wall to guard against lodgment of the excavated material between the teeth shanks, and securing means for said teeth passing through the shanks thereof and said shovel wall.
2. A tooth of the character described having a shank and an arm spaced to normally receive therebetween one edge portion of the shovel wall, and an extension fixed to said shank and projecting from the side thereof to normally overlie the wall of the shovel and form a supplemental wall therefor adapted to guard against lodgment of the material between adjacent teeth.
3. In an excavator shovel or the like, in combination with a plurality of teeth having shanks secured along one edge portion of the shovel wall, side extensions on the shanks of said teeth disposed substantially in the plane of the upper faces of such tooth-shanks and providing supplemental wall sections for the upper faces of the shovel extending entirely across the spaces between said tooth-shanks.
4. In an excavator shovel or the like, in combination with a plurality of teeth having shanks secured along one

edge portion of the shovel wall, side extensions on the shanks of said teeth disposed substantially in the plane of the upper faces of such tooth-shanks and providing supplemental wall sections for the upper faces of the shovel extending entirely across the spaces between said tooth-shanks, the forward portions of the upper faces of said side extensions being inclined downwardly in a forward direction.

5. A tooth of the character described having a shank adapted to be secured to the bottom wall of an excavator bucket, and a side extension on the shank of said tooth having its forward end portion directed downwardly, for the purpose specified.

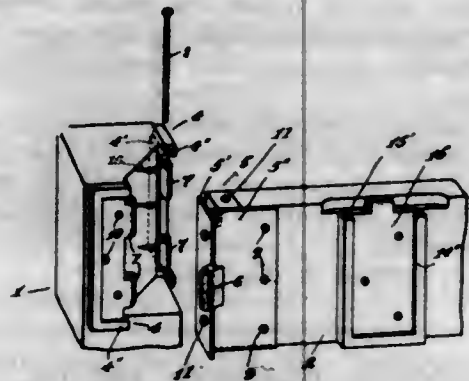
[Claim 6 not printed in the Gazette.]

1,078,185. VACUUM CLEANING DEVICE. ALFRED BEST, Salt Lake City, Utah. Filed Dec. 6, 1912. Serial No. 735,334. (Cl. 15-60.)



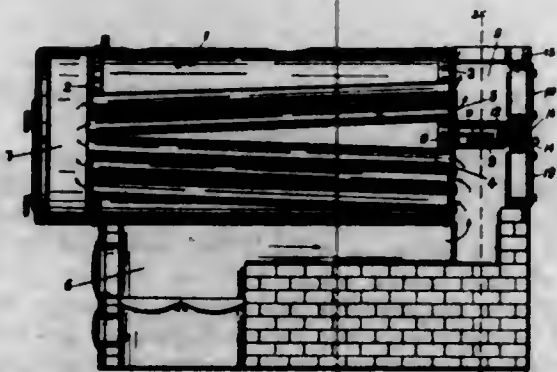
1. In a device of the class described the combination of suction means and of a casing attached thereto, having open aligned longitudinal slots in the base of one portion; a horizontal shaft mounted in said casing above said slots; flexible whip members fastened in said shaft adjacent said open slots; a wind wheel mounted in another portion of said casing adapted to be rotated by air currents, induced by said suction means, through said casing; and means connecting said wind wheel and said horizontal shaft whereby the motion of said wind wheel will be imparted to said horizontal shaft.
2. In combination with the suction means of a vacuum cleaner; of a casing having open longitudinal and transverse slots in the base of one portion thereof; a shaft horizontally mounted in said casing above said open slots; flexible whip members radially secured in said shaft in alignment with said slots; and means to rotate said shaft whereby the free ends of said whip members will be moved through said slots.
3. A device of the class described consisting of an inverted T-shaped casing having aligned longitudinal slots and alternate transverse slots in the base thereof; a shaft horizontally mounted therein; flexible whip members radially secured in said shaft above said transverse slots; and means to rotate said shaft whereby the free ends of said whip members will be moved longitudinally in said transverse slots.
4. A device of the class described consisting of an inverted T-shaped casing having aligned longitudinal slots and alternate transverse slots in the base thereof; a shaft horizontally mounted therein; flexible whip members radially secured in said shaft above said transverse slots; and means to rotate said shaft whereby the free ends of said whip members will be moved longitudinally in said transverse slots, said means consisting of a wind wheel mounted on a counter shaft in said casing; a pulley on each of said shafts; and a belt connecting said pulleys whereby the motion of said wind wheel is imparted to said first mentioned shaft.

1,078,186. FASTENING FOR KNOCKDOWN FURNITURE AND THE LIKE. FRANK E. CARTIER, Winslow, Wash. Filed Nov. 21, 1912. Serial No. 732,706. (Cl. 45-48.)



In a device of the character described, the combination with separate parts of furniture or the like to be connected, a fastening for said parts comprising male and female members, the male member having a hollow portion provided with a flange receivable by the female member and a removable side wall formed at one end with an eye, said female member having an eye adapted to register with the eye of the male member, and means insertible through the eyes of the members for locking the latter together, said removable side wall being reinforced by the hollow body of the male member on any movement tending to separate the aforesaid members.

1,078,187. STEAM-BOILER. ALFRED CATCHPOLE, Geneva, N. Y. Filed Oct. 21, 1912. Serial No. 727,078. (Cl. 122-75.)



1. In a steam boiler, the combination of a shell having heads on the opposite ends thereof and smoke boxes at each end of the boiler, an upper and lower set of flues extending between said heads of the boiler, said lower set of flues being inclined upwardly toward the front of the boiler, said boiler having a large water space between the bottom and the front end of said flues, said upper set of flues being inclined upwardly toward the rear of the boiler, a partition arranged across the head of the boiler at the rear and extending outwardly therefrom, said partition separating the lower part of the smoke box from the upper part of the smoke box, said partition being composed of water tubes arranged in a single row, said tubes being connected to the head between the upper and lower sets of flues and being placed practically in contact with each other and forming practically a solid partition.

2. In a steam boiler, the combination of a shell having heads on the opposite ends thereof, a smoke box at each end of the boiler, a partition of water tubes extending horizontally across the smoke box at the rear end of the boiler, and a damper at one end of said partition.

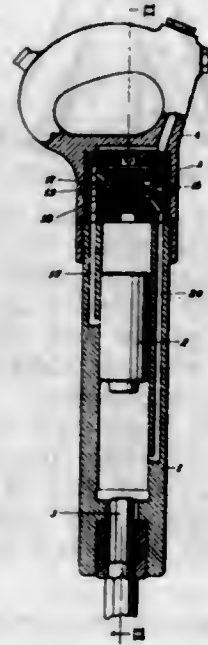
3. In a steam boiler having a head and a smoke box, adjacent thereto, a series of water tubes extending from said head into said smoke box and opening into the interior of the boiler, said tubes being arranged in a single row and being placed adjacent to each other so as to form a practically close partition between the upper and lower part of the smoke box.

4. In a steam boiler, the combination of a head, a series of water tubes connected to and extending through said head, each of said tubes having a cylindrical body, a shoulder at one end thereof and a reduced neck on said shoulder, said necks extending through the head and holding said tubes in a substantially solid partition.

5. A water tube for a boiler having a cylindrical body, a shoulder at one end thereof and a reduced neck on said shoulder, a partition extending through said neck and part way into the body of the tube.

[Claims 6 to 8 not printed in the Gazette.]

1,078,188. PERCUSSIVE TOOL. WILLIAM CLEMENT, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed May 31, 1912. Serial No. 700,621. Renewed May 10, 1913. Serial No. 766,800. (Cl. 121-20.)



1. In a percussive tool, a cylinder, its piston, a valve comprising a body and a flange thereon, a valve cylinder having a bore for the valve body and a chamber therearound for the valve flange, ports in the ends of the bore leading to the ends of the cylinder, ports in the faces of the flange chamber leading to points at a distance from the ends of the cylinder, said cylinder end ports arranged to be alternately opened and closed by the ends of the valve and said flange chamber ports to be alternately opened and closed by the faces of the flange, the area of each of said flange faces exposed to pressure from the cylinder when covering its flange chamber port being approximately equivalent to the area of the opposed valve piston end, inlet passages leading to the valve cylinder ends and an exhaust passage leading from said exhaust chamber.

2. In a percussive tool, a cylinder, a valve chest having a bore and a chamber therearound, a valve having a body fitting said bore and reciprocating therein and a flange reciprocating in said chamber, exhaust passages from the cylinder controlled by the faces of said flange, and inlet passages controlled by the ends of said valve body, said inlet passages also serving to convey compression from the cylinder to throw the valve.

3. In a percussive tool, a cylinder, a valve chest having a bore and a chamber therearound, a valve having a body fitting said bore and reciprocating therein and a flange reciprocating in said chamber, exhaust passages from the cylinder controlled by the faces of said flange, and inlet passages controlled by the ends of said valve body.

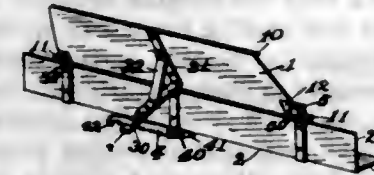
4. In a percussive tool, a cylinder, a valve chest having a bore and a chamber therearound, a valve having a body fitting said bore and reciprocating therein and a flange on said body reciprocating in said chamber, the ends of the valve body and the faces of said flange forming two sets of fluid passage controlling faces, inlet passages to said cylinder controlled by one of said sets of faces, and

exhaust passages from said cylinder controlled by the other of said sets of faces, said inlet passages also serving to convey compression from said cylinder to throw said valve.

5. In a percussive tool, a cylinder, a valve chest having a bore and a chamber therearound, a valve having a body fitting said bore and reciprocating therein and a flange on said body reciprocating in said chamber, the ends of the valve body and the faces of said flange forming two sets of fluid passage controlling faces, inlet passages to said cylinder controlled by one of said sets of faces, and exhaust passages from said cylinder controlled by the other of said sets of faces.

[Claims 6 and 7 not printed in the Gazette.]

1,078,189. FIREPLACE-DAMPER. PAUL A. DELSING, Seattle, Wash. Filed May 5, 1913. Serial No. 765,703. (Cl. 126-288.)



1. A fire place damper comprising a damper plate having pivot bearing members substantially in line with one side edge, complementary bearing members secured to the outer wall of the throat and above the lintel level, a controlling arm secured to the damper plate centrally of its length and extending downward to below the lintel level, a holding bar pivoted beneath the lintel and having a short end extending outward from its pivot for operative engagement and having a longer toothed end extending backward from its pivot and with its toothed edge engaging by gravity the controlling arm of the damper plate.

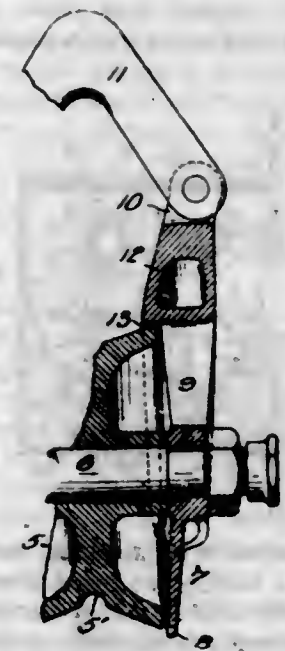
2. In a fire place damper, in combination, a lintel-supporting bar, pivot bearing members secured to said lintel-supporting bar and extending upward back of the lintel to locate their bearings well above the lintel and next the outer wall of the throat, a damper plate having pivots on one edge fitting within said bearings, a controlling bar secured to said damper plate centrally of its length and extending downward to a point below the lintel, the lower end of said controlling bar being slit, and a holding bar pivoted at the under edge of the lintel and extending through the slot in the controlling bar, the under edge of said holding bar being toothed to engage and hold the controlling bar when the same is pushed back.

3. In a fire place damper, in combination, a lintel-supporting bar of angle cross section having one flange extending upward along the inner wall of the arch, the said bar being of a length to extend beyond the sides of the fire place opening, pivot bearing members secured to said bar with their bearings well above the lintel and at the lateral edges of the fire place throat, a damper plate having end pivots in line with one side edge and adapted to be carried by said pivot bearing members, a controlling bar extending downwardly from the pivot edge of the damper plate and centrally of its length, a locking or holding bar pivoted upon the lintel-supporting bar and having a toothed edge engaging by gravity the controlling bar to hold it in adjusted position.

1,078,190. PULLEY-BLOCK. GERALD FRINK, Seattle, Wash. Filed June 5, 1911. Serial No. 631,335. (Cl. 57-34.)

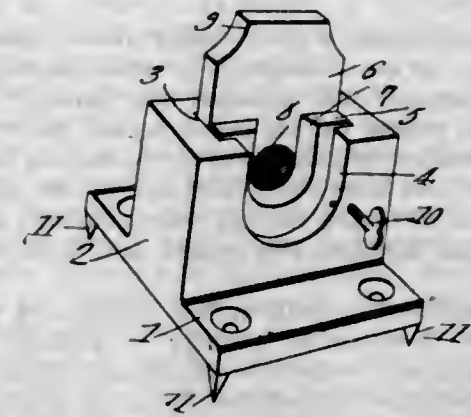
In a block of the character described, the combination with a sheave, a pin for the sheave, and a shell to which the pin is secured, said shell comprising two members of a substantially circular shape and completely covering the outer peripheral edges of the sheave and each of which is formed with a tubular rim portion extending from above the pin and connected thereto by bridge-pieces extending above and below said pin, said tubular portion being of relatively large diameter and increasing at the upper end thereof, the inner edges of each shell upon the

lower side being recessed, the outer edges or rims of the sheaves lying within and being housed by said recesses.



and the portion of the shell extending below the pin formed of a single thickness.

1,078,191. CABLE-CUTTER. JOHN E. GILCHRIST, South Bend, Wash. Filed May 8, 1913. Serial No. 766,434. (Cl. 164-47.)



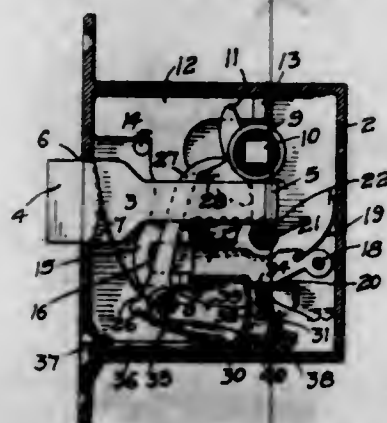
A cutting device embodying a base having an upstanding socket of rectangular cross section, and a pair of overlapping cutter blades fitting snugly in the socket, one cutter blade seating on the base and having an upper U-shaped notch terminating below the top of the socket, the other cutter blade having a lower U-shaped notch complementing the aforesaid notch and having an upper portion to receive the blow of a suitable implement, the sides of the socket having upwardly opening recesses, complementing and larger in proportions than the said notches.

1,078,192. LOCK. ISAAC ST. CLAIR GOLDMAN, deceased, Los Angeles, Cal., by Ella E. Goldman, executrix, Los Angeles, Cal., assignor of one-half to L. S. Hackney, St. Paul, Minn. Filed June 6, 1912. Serial No. 702,017. (Cl. 70-75.)

1. The combination, with a casing and a sliding latch or bolt, of a plate having means for engaging and retracting said latch, a series of tumblers arranged to normally prevent movement of said plate, a rotating knob barrel, means actuated by the rotation of said barrel for moving a key into engagement with said tumblers to actuate them and release said plate and simultaneously move said plate and retract said latch.

2. The combination, with a casing and a locking latch or bolt therefor, of a sliding plate having means to engage and retract said latch and provided with a recess therein, a series of tumblers normally out of alignment with said recess, a rotating knob barrel, a bell crank having a key socket to receive a key, said barrel having means to engage

said bell crank and oscillate it during the initial movement of said barrel to move the key into engagement with said tumblers and align them with said recess, said barrel also having means to engage said plate subsequent to the movement of said bell crank and actuate it to retract said latch.



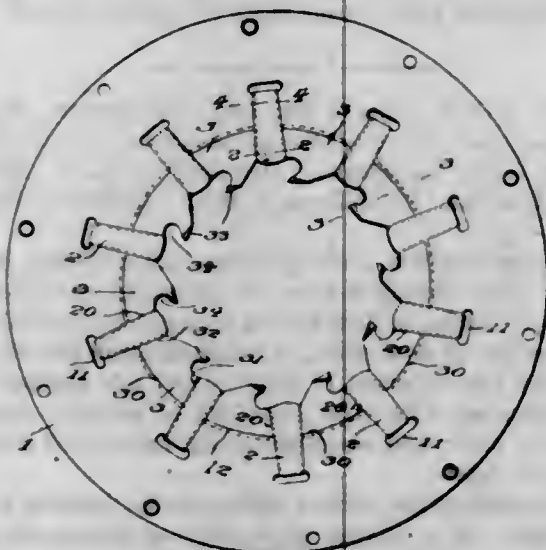
3. The combination, with a casing and a locking latch or bolt therefor, of a sliding, recessed plate having means to engage and retract said latch, a series of tumblers normally out of alignment with said recess and locking said plate against retraction, a rotating knob barrel having a wing thereon, an oscillating bell crank having one arm arranged to contact with said wing, the other arm of said bell crank having a key socket therein adapted to receive a key, the initial rotation of said knob barrel oscillating said bell crank and moving the key into engagement with said tumblers to align them with one another and with said recess, and means for actuating said plate to retract said latch.

4. The combination, with a casing and a locking latch therefor, of a series of tumblers pivoted therein, a plate arranged to support said tumblers and having a series of holes therein, means having a key socket therein, means normally locked by said tumblers for retracting said latch, a knob barrel and mechanism actuated by the rotation of said barrel for thrusting the key wards through said holes to actuate said tumblers and release said latch retracting means.

5. The combination, with a lock casing and a locking latch or bolt therefor, of a series of pivoted tumblers, means having a key socket therein, means normally locked by said tumblers for retracting said latch, a knob barrel, and mechanism actuated by the rotation of said barrel for moving the key into engagement with said tumblers and releasing said latch retracting means.

[Claims 6 and 7 not printed in the Gazette.]

1,078,193. ROTARY CUTTING-OFF SAW AND THE LIKE. GEORGE GORTON, Racine, Wis. Filed Oct. 25, 1912. Serial No. 727,749. (Cl. 29—105.)



1. A saw having a central work receiving opening and a series of blocks surrounding said opening and provided with cutting points projecting thereinto and intervening

keys abutting against said blocks and locking the same to said saw against lateral deflection and to rotate therewith, whereby a ring of abutting thrust sustaining elements is formed.

2. A saw having an annular series of radial uniformly spaced pockets and intervening edges, a series of blocks provided with cutting points, said blocks being fitted to the saw edges between said pockets, and keys fitting said pockets and intervening between, abutting and locking said blocks.

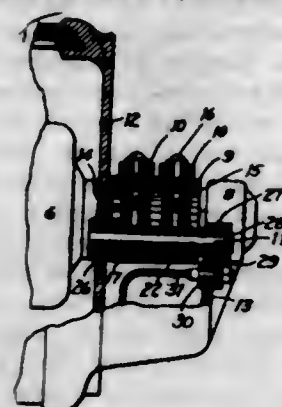
3. A blade having a central work receiving opening, removable uniformly spaced blocks arranged around said opening and fitted to the blade edge, said blocks provided with cutting points within said opening, and means locking said blocks to the blade.

4. A holder having a central work receiving opening and an annular series of abutting thrust sustaining elements removably locked to said holder and arranged around said opening and consisting of blocks provided with cutting points and keys intervening between and abutting against the blocks and locking the blocks to the holder.

5. A holder having a central work-receiving opening and radially arranged key sockets uniformly spaced around said opening, a series of removable blocks fitting the holder between said sockets and having cutter points in said opening, said keys fitting said sockets and intervening between, abutting and locking said blocks.

[Claims 6 to 16 not printed in the Gazette.]

1,078,194. BRUSH-HOLDER FOR ELECTRIC MOTORS OR GENERATORS. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 29, 1912. Serial No. 734,139. (Cl. 171—210.)

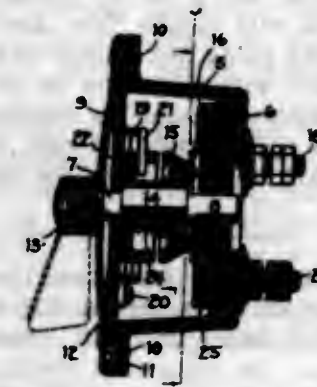


In an electric motor or generator, the combination, with a frame-member thereof, of an insulating-bushing therein, a rod mounted loosely in said bushing, a brush-holder supported by the said rod, a rigid arm fixed to and projecting laterally from the rod, and a binding-post connecting said arm and said frame-member, but insulated from the latter, the binding-post normally fixing the arm against movement, and the arm acting both as means to prevent movement of the rod in said bushing, and as an electrical connection between the rod and the binding-post.

1,078,195. ELECTRIC SWITCH. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, a Corporation of New York. Filed Jan. 20, 1913. Serial No. 743,167. (Cl. 177—10.)

1. An electric-switch having, in combination, a casing provided, at the rear, with a plurality of fixed contact-members and intermediate insulating-material lying substantially in the same plane, a shaft normal to said plane and having front and rear bearing-portions and an intermediate non-circular portion, a cross-bar removably fixed near the front of the casing and providing a front-bearing for the shaft, two rotatable members perforated to fit the non-circular portion of the shaft, whereby they are caused to rotate with the shaft but are free to move longitudinally thereon, a compression-spring between said rotatable members tending to force them apart, one of the rotatable members being thus pressed against the cross-bar while

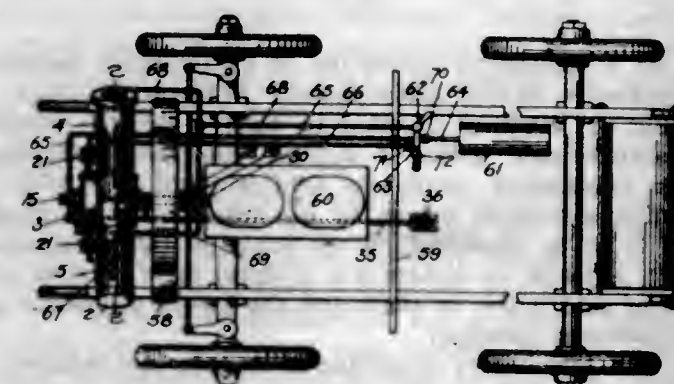
the other is forced toward the fixed contact-members, contact-fingers carried by the latter rotatable member and adapted to cooperate with the fixed contact-members, a spring connected with the other of said rotatable members and tending normally to rotate the shaft in one direction, and manually-operable means for rotating the shaft in the opposite direction.



2. An electric-switch having, in combination, a casing provided with front and rear bearings, one of said bearings formed in a cross-bar removably fixed to the front of the casing, a shaft mounted in said bearings and having an intermediate non-circular portion, a rotatable member surrounding the shaft and having a non-circular opening corresponding to the non-circular portion thereof, said member having forwardly-projecting stop-lugs adapted to cooperate with the cross-bar, contact-fingers actuated by the shaft, fixed contact-members, within the casing, adapted to cooperate with the contact-fingers, and a spring coiled about said rotatable member and fixed, at one end, to said member and, at the opposite end, to a fixed part of the switch, said spring tending to rotate the shaft and the contact-fingers in one direction, and manually-operable means for rotating the shaft in the opposite direction, said rotation being limited in both directions by the engagement of the stop-lugs with the cross-bar.

3. An electric-switch having, in combination, a rotary shaft, a movable contact-member carried by and rotatable with the shaft and comprising three radiating contact-fingers electrically connected together, and three fixed contact-members adapted to cooperate with said fingers, respectively, when the shaft and the movable contact-member are rotated, the fixed contact-members being arranged at unequal angular distances from the corresponding contact-fingers, whereby the fingers, by a single continuous rotary movement of the shaft, act first to connect two of the fixed contact-members and then to engage the third fixed contact-member and connect it with at least one of the first two fixed contact-members.

1,078,196. STARTING DEVICE FOR EXPLOSIVE-ENGINES. RICHARD E. HAMMOND and STANTON W. FORSMAN, Colorado Springs, Colo.; Mary Elizabeth Hammond residuary legatee of the estate of said Richard E. Hammond, deceased. Filed Dec. 5, 1910. Serial No. 595,660. (Cl. 123—179.)



1. A starting mechanism for explosive engines, comprising a rotary device adapted to be impelled by fluid pressure, correlative members constructed to join said device and a rotary part of the engine for cooperation, a

196 O. G.—24

contrivance for bringing said members in operative connection, a device for actuating said contrivance by fluid pressure, and auxiliary means to actuate the same by mechanical action.

2. A starting mechanism for explosive engines comprising a cylinder, a piston having a reciprocating movement therein, a rack connected with said piston, a rotary shaft, a gear loosely mounted thereon in operative engagement with said rack, a clutch on said shaft for the transmission of the rotary motion of the gear in one direction, correlative means for joining said shaft and rotary part of the engine for cooperation, and means for admitting motive fluid to the said piston.

3. A starting mechanism for explosive engines comprising in combination, a reservoir for motive fluid, a rotary device adapted to be impelled by fluid pressure, correlative members for joining said device and a rotary part of the engine for cooperation, means for bringing said device in communication with said reservoir, means for bringing said members in operative connection, and a mechanism for supplying motive fluid to the reservoir and adapted to be actuated by a decrease in density of the fluid contained in said reservoir.

4. A starting mechanism for explosive engines comprising in combination, a reservoir for motive fluid, a rotary device adapted to be impelled by fluid pressure, a pump operatively associated with said device in communication with the reservoir, correlative members for joining said device and a rotary part of the engine for cooperation, a contrivance impelled by fluid pressure, for bringing said members in operative connection, means for admitting motive fluid of the reservoir to the said device and to the said contrivance, and means for actuating the latter automatically by a decrease in density of the fluid in the reservoir, whereby said members are brought in operative connection for actuation of the pump.

5. A starting mechanism for explosive engines comprising in combination, a reservoir for motive fluid, a rotary device adapted to be impelled by fluid pressure, a pump operatively associated with said device in communication with the reservoir, correlative members for joining said device and a rotary part of the engine for cooperation, a contrivance, impelled by fluid pressure, for bringing said members in operative connection, means for admitting motive fluid of the reservoir to the said device and to the said contrivance, means adapted to actuate the latter automatically by a decrease in density of the fluid in the reservoir whereby said members are brought in operative connection for actuation of the pump, and to automatically disengage said members by a subsequent increase in the density of the said fluid.

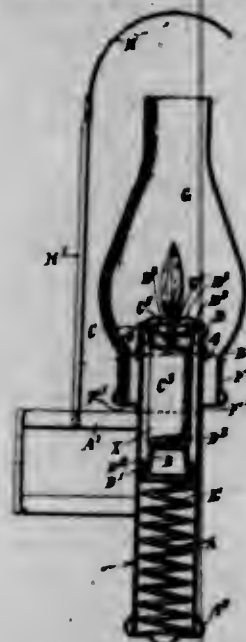
[Claims 6 to 10 not printed in the Gazette.]

1,078,197. CANDLE-LAMP. PERCY HAUSER and ALBERT G. McLAUGHLIN, Altoona, Pa. Filed June 24, 1911. Serial No. 635,147. (Cl. 67—27.)

1. A candle lamp comprising in combination a candle tube provided at its upper end with an apertured stop for the upper end of an inserted candle and above said stop with a collecting trough surrounding the aperture in said stop, said aperture being of less diameter than the body of the candle and having the candle wick projecting through it, and a spring pressed follower mounted in the candle tube and formed with an upper end face adapted to engage said stop at the margin of said aperture when not held out of contact therewith by the body of an inserted candle.

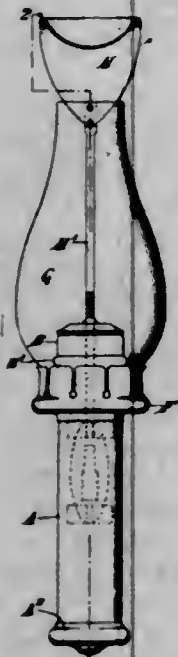
2. A candle lamp comprising in combination a candle tube provided at its upper end with a stop for the upper end of an inserted candle, said stop being formed with an aperture of less diameter than the body of the candle through which the candle wick projects and being provided with a depending circular flange smaller in diameter than the surrounding candle tube and surrounding said aperture and forming a guide snugly receiving the upper end of an inserted candle, and a spring pressed follower mounted in the candle tube and comprising a body portion in the form of an inverted cup adapted to enter said

guide and have its upper end face seated against said stop at the margin of said aperture when not held out of contact therewith by the body of an inserted candle, said follower comprising also a lower guide portion engaging the wall of the candle tube and being formed with a collecting trough surrounding the base of said body portion and registering with said depending flange.



3. In a candle lamp the combination of a candle tube comprising a body portion and a telescoping member detachably secured to the upper end thereof and formed with a conical and apertured upper end, an annular candle stop member secured to said end member at the base of said conical end portion, a depending cylindrical flange secured to said candle stop and surrounding said aperture and forming a guide adapted to snugly receive the upper end of the candle inserted in the lamp, the internal diameter of said tube being greater, and the diameter of said aperture being less, than the diameter of the inserted candle, and a spring pressed follower mounted in said candle tube and comprising a body portion in the form of an inverted cup adapted to enter said guide and engage said stop at the margin of said aperture when not held out of contact therewith by the body of an inserted candle, said follower having a guide portion engaging the inner wall of the candle tube and a trough formed at the base of said body portion.

1,078,198. CANDLE-LAMP. PERCY HAUSER and ALBERT G. McLAUGHLIN, Altoona, Pa. Filed Sept. 18, 1912. Serial No. 720,946. (Cl. 67-27.)



A candle lamp, comprising in combination a candle tube provided at its upper end with a stop for the upper

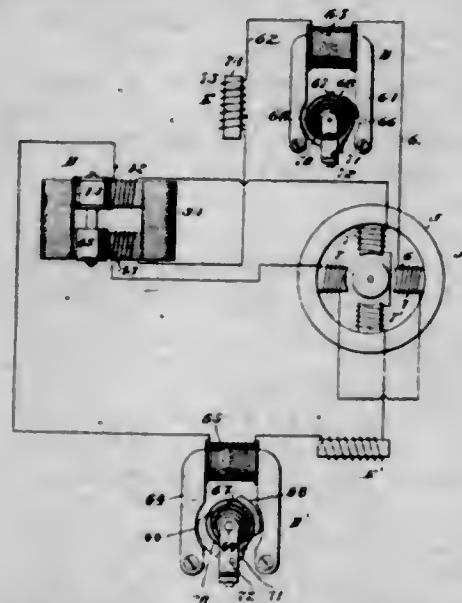
end of an inserted candle, said stop being formed by a disk-like body extending across the tube and formed with a central aperture and being provided with a depending cylindrical guide surrounding said aperture and adapted to snugly receive the upper end of the inserted candle, the internal diameter of said tube being greater, and the diameter of said aperture being less than the diameter of the inserted candle, and a spring pressed cup-shaped follower mounted in said candle tube, and adapted to surround said tubular guide and engage said disk when not held out of contact with the latter by an inserted candle, said guide and follower being so relatively proportioned that a clearance space exists between the lower end of said guide and said follower when the latter engages said disk.

1,078,199. METHOD OF EXTRACTING MANGANESE FROM ITS ORES. FRIEDRICH HEUSLER, Dillenburg, Germany. Filed Mar. 19, 1912. Serial No. 684,911. (Cl. 75-85.)

1. The hereindescribed method of extracting metallic manganese from its ores which consists in first preliminarily calcining a portion of the manganese ore at a red heat, then proportionately mixing together a quantity of the calcined ore with a quantity of crude uncalcined ore, and subsequently subjecting this mixture to a reducing process.

2. The hereindescribed method of extracting metallic manganese from its ores which consists in first preliminarily calcining a portion of the manganese ore at a red heat, then proportionately mixing together a quantity of the calcined ore with a quantity of crude uncalcined ore, and subsequently subjecting this mixture to a reducing process in the presence of a flux and a carboniferous agent.

1,078,200. ELECTROMAGNETIC TACHOMETER. NEVIL MONAGH HOPKINS, Washington, D. C., assignor, by means assignments, to The Electric Tachometer Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 1, 1912. Serial No. 712,738. (Cl. 78-123.)



1. In a tachometer consisting of an indicator member, a speed-scale having comparatively uniform divisions, a winding or windings adapted to receive electric current and actuate said indicator member, and means for supplying alternating current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured; a reactance in the tachometer circuit, adjusted to maintain a uniform ratio between the speed of said wheel or shaft and the torque impressed on said indicator member.

2. In a tachometer consisting of an indicator member, a winding or windings adapted to receive electric current and actuate said indicator member, and means for supplying alternating electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured; an adjustable re-

actance in the tachometer circuit, adapted to compensate temperature-changes of resistance therein, without varying the ohmic circuit-resistance.

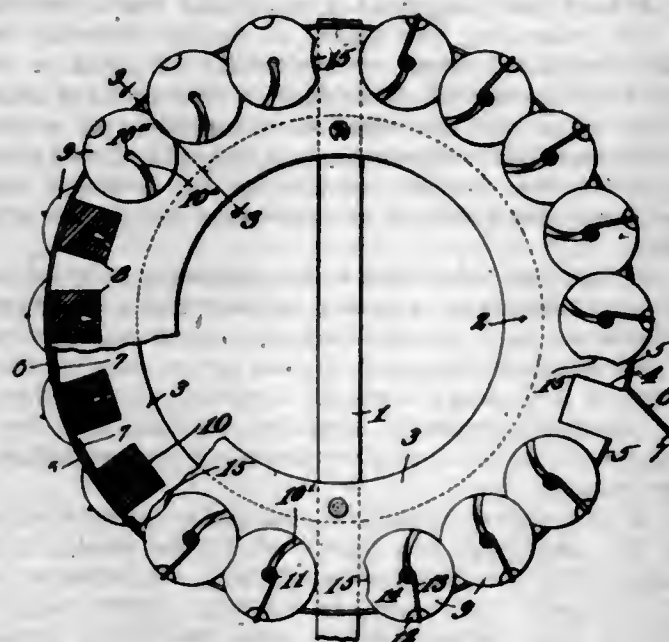
3. In a tachometer consisting of an indicator member, a winding or windings adapted to receive electric current and actuate said indicator member, and means for supplying alternating electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured; an adjustable reactance in the tachometer circuit, and a thermostat controlling said reactance.

4. In a tachometer consisting of an indicator member, a winding or windings adapted to receive electric current and actuate said indicator member, and means for supplying alternating electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured; a plurality of adjustable reactances in the tachometer circuit or circuits, at points subject to different temperature-conditions, adapted to compensate temperature-changes of resistance without varying the ohmic circuit-resistance.

5. In a tachometer consisting of an indicator member, a winding or windings adapted to receive electric current and actuate said indicator member, and means for supplying alternating electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured; a plurality of adjustable reactances in the tachometer circuit or circuits, and a thermostat controlling one of said reactances.

[Claims 6 to 15 not printed in the Gazette.]

1,078,201. SUPPORT FOR TELEGRAPH AND TELEPHONE WIRES. HENRY LEVID HOYBOOK, Tyler, Tex. Filed Feb. 1, 1912. Serial No. 674,815. (Cl. 173-321.)



1. A line wire carrying insulator support, including two disks, the peripheral edges of which are provided with angular slots arranged in aligned pairs, bridging pieces connecting the disks at their peripheries and at the portions of the edges between the slots, and closures for the spaces between the bridging pieces to seal the outer ends of the pockets formed by the aligned pairs of slots and the space between the bridging pieces.

2. A line wire carrying insulator support, including two disks, the peripheral edges of which are provided with angular slots arranged in aligned pairs, bridging pieces connecting the disks at their peripheries and at the portions of the edges between the slots, and a flexible tongue extending from one edge of each bridging member and disposed to engage the opposite edge to seal the space between the bridging members and form a closure for the receptacle formed by the aligned pairs of slots of the disks and the space between the bridging pieces.

3. A line wire carrying insulator support, including two disks, the peripheral edges of which are provided with an-

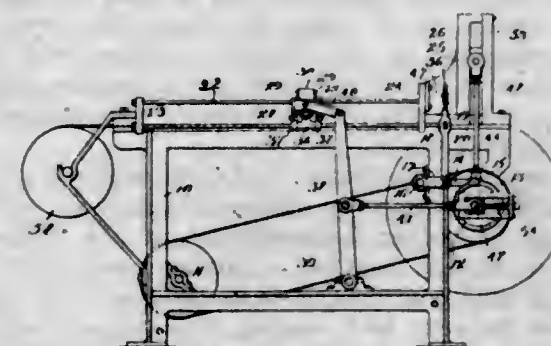
gular slots arranged in aligned pairs, bridging pieces connecting the disks at their peripheries and at the portions of the edges between the slots, and a flexible tongue extending from one edge of each bridging piece and disposed to engage the opposite edge to seal the space between the bridging members and form a closure for the receptacle formed by the aligned pairs of slots of the disks and the space between the bridging pieces, the free terminal of said closure being tapered for introduction between the disks and within the bridging piece.

4. An insulator support, including two disks, the peripheral edges of which are provided with angular slots arranged in aligned pairs, bridging pieces connected to the peripheral edges of the disks and each having a yieldable free terminal disposed to fit between the disks and form a closure for aligned pairs of recesses, said closure when in such sealing position being in substantially the same circumferential line as the peripheries of the disk.

5. A line wire supporting device, comprising an annular member provided with a plurality of peripherally disposed outwardly opening angular pockets, a line wire carrying member insertible through the opening of each pocket, and means connected to the annular member for retaining the line wire carrying member in its pocket.

[Claim 6 not printed in the Gazette.]

1,078,202. MACHINE FOR FEEDING AND CUTTING CLOTH, PAPER, OR OTHER MATERIAL. JOSEPH KEAGY, Coshocton, Ohio. Filed Apr. 4, 1912. Serial No. 688,388. (Cl. 164-48.)



1. In a machine for feeding and cutting sheets or strips of material, a framework, a carriage extending transversely thereacross, means for intermittently reciprocating said carriage longitudinally of the machine, a guide rod arranged at each side of the machine for supporting said carriage, and also constituting a guide for guiding said carriage in its longitudinal reciprocating movement; a rock shaft arranged at each side of the machine and parallel to said guide rods, a sleeve journaled upon the said rock shaft to rock or swing therewith when the latter is rocked, upper and lower gripper jaws between which the material to be fed is led, a crank arm connected to said sleeve and arranged to operate said clamp jaws to open and close them with respect to each other at the limits of the longitudinal reciprocations of the feed carriage, and means for periodically rocking said rock shaft.

2. In a machine for feeding and cutting sheets or strips of material, a framework, a guide rod arranged at each side of the framework and extending longitudinally thereof, a carriage extending transversely across the machine and engaging said guide rods to move therealong, a depending bracket supported by each end of the carriage, a sleeve journaled in each depending bracket, a crank arm on said sleeve, a rock shaft along which said sleeve moves, and having connections therewith whereby when said rock shaft is rocked said sleeve is also rocked, clamping jaws mounted on said carriage, connections between said crank arm and jaws whereby when said rock shaft is rocked, said jaws are moved apart or closed upon each other, means for intermittently reciprocating said carriage along said guide rod, and means for coöperatively rocking said rock shaft intermittently.

3. In a machine for feeding and cutting sheets or strips of material, a framework, a guide rod arranged at each side thereof and extending longitudinally of the machine.

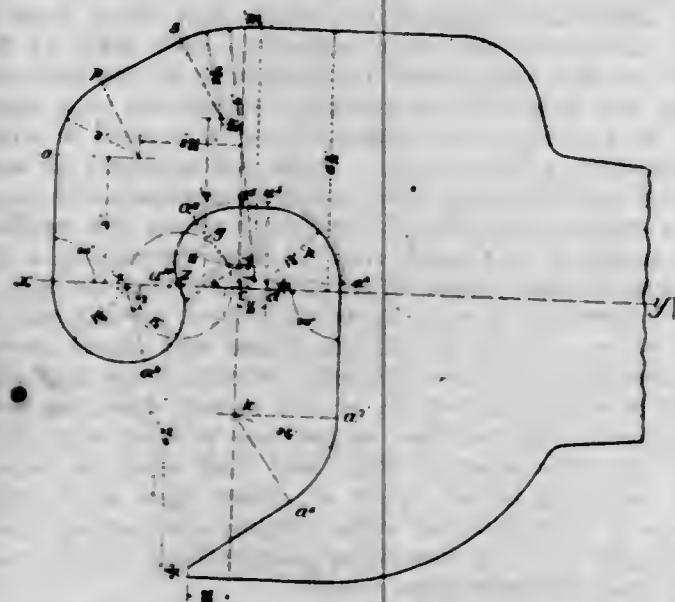
a carriage having castings at each end thereof arranged to be supported and to be guided by said guide rod, and having seats, transversely extending bars received at their ends in said seats, clamping jaws carried by said clamp bars, and presented toward each other and disposed so as to permit the material to be fed to pass between them, a depending bracket carried by each casting, a sleeve journaled at its ends in said bracket and having a crank arm, a spline shaft over and upon which said sleeve moves and having connection therewith whereby when said rock shaft is rocked said sleeve is also rocked, a bracket connected to one of said transverse clamp bars and arranged to be engaged by said crank arm, whereby when said crank arm is rocked said clamp bar is raised or lowered, means for intermittently reciprocating said carriage along said guide rods and means for coöperatingly rocking said rock shaft.

4. In a machine for feeding and cutting sheets or strips of material, a framework, a guide rod arranged on each side thereof and extending longitudinally of the same, castings at opposite sides of the machine, said castings mounted to be supported upon and to slide along said guide rods, and having seats therein, transversely extending bars seated at their ends in said seats, clamp jaws carried by said transverse bars and arranged and so disposed as to permit the material to be fed to pass between them, a casting connected to the ends of one of said bars, a sleeve having a crank arm coöperating with a cam surface on said last mentioned casting, a rock shaft upon which said sleeve is carried and slides, said crank arm being in vertical line with the axis of said rock shaft when in position to release the clamp jaws and out of such vertical line when the clamp bar is raised to clamp the jaws together, whereby, in its clamped relation said bar is locked, means for intermittently reciprocating said carriage along said guide rod, and means for coöperatingly rocking said rock shaft.

5. In a machine for feeding and cutting sheets or strips of material, a framework, guides arranged at each side thereof and extending longitudinally of the frame, and including a rocking member, a carriage connected at its ends to said guides, gripper jaws mounted on said carriage, connections between said rocking member and said jaws to relatively move the latter, a rock shaft extending transversely of the machine frame, and having rock levers at each end thereof, links connecting said rock levers to the ends of said carriage and means for rocking said levers intermittently.

[Claims 6 to 11 not printed in the Gazette.]

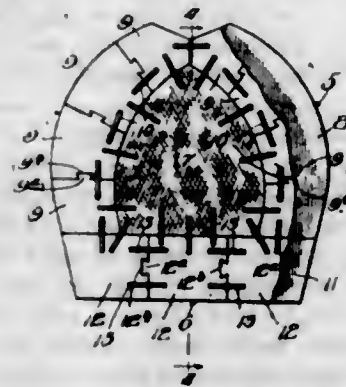
1,078,203. CAR-COUPLING. HARRY T. KRAKAU, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 30, 1911. Serial No. 618,016. (Cl. 213—65.)



A car coupler of the vertical plane type having the buffing face of its head and the buffing face of its knuckle

substantially parallel with each other and substantially at right angles to the longitudinal axis of the coupler shank, the buffing face of the head being at a distance from the pulling face of its knuckle sufficient to permit an interlocked coupler to angle vertically therewith, the contour line connecting the buffing face of its head and pulling face of its knuckle being comprised of two arcs having spaced-apart centers, said arcs being connected by an intermediate line, one of said arcs merging into the flat face of the coupler head and the other arc merging into a reverse curve forming part of the pulling face of the knuckle.

1,078,204. HOOFF-PAD. ANDRU LARSEN, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,002. (Cl. 168—26.)



1. A hoof pad comprising a rim and center member, said rim member embracing two layers of flexible material, one of said layers consisting of a series of sections, which meet each other edge to edge, and the other of said layers extending over a plurality of said sections, said layers being permanently connected with each other.

2. A hoof pad comprising a rim and a center member, said rim embracing two layers of flexible material, one of said layers consisting of a plurality of pieces or sections, which meet each other edge to edge and are joined to each other, and the other layer consisting of a piece of flexible material extending over a plurality of said pieces or sections, the sections constituting the sectional layer being permanently united to each other and to the other layer.

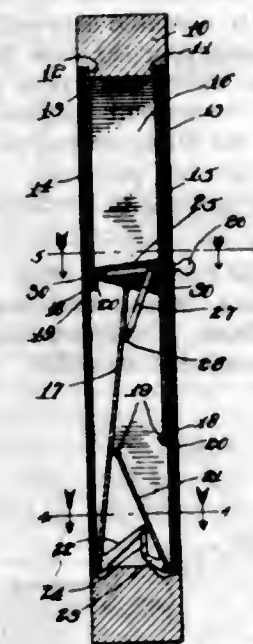
3. A hoof pad comprising a rim consisting of two laterally curved members, a center member and a transverse heel member, each of said laterally curved members and the heel member consisting of two layers, one of which consists of a plurality of pieces or sections arranged with their meeting margins in abutting relation; said layers being joined to each other by fastening means extending therethrough.

4. A hoof pad comprising a rim and a center member, said rim embracing two layers of flexible material, one of said layers consisting of a plurality of pieces or sections arranged edge to edge in abutting relation and provided on their meeting edges with interfitting tongues and notches, said layers being joined to each other by connecting means extending through said layers.

1,078,205. COMBINATION STORM-SASH AND VENTILATOR. HENRY C. MARKOWSKI and HARRY B. WITKOWSKI, Grand Rapids, Mich. Filed June 1, 1912. Serial No. 701,100. (Cl. 98—31.)

1. A window comprising a frame, stationary plates mounted in the upper portion of said frame and forming an air pocket between said plates, a baffle plate mounted in said frame beneath one of said first mentioned plates and pivotally connected at its lower edge with said frame, a guiding plate mounted in said frame beneath the remaining one of said first mentioned plates and having its lower edge portion pivotally connected with said frame, and means for swinging the upper portions of said last mentioned plates into the space between said stationary plates whereby air striking said baffle plate will be guided up into the space between said first mentioned plates and will then pass downwardly between said baffle plate and

the inner one of said first mentioned plates and be guided out beneath the inner one of said first mentioned plates by said guiding plate.



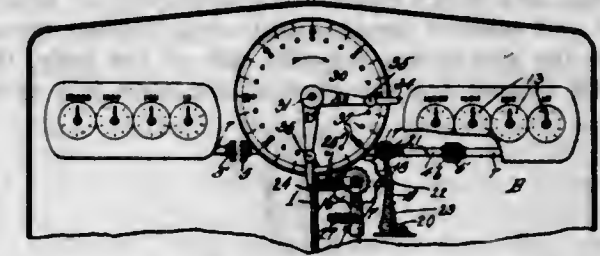
2. A window comprising a frame, stationary plates mounted in the upper portion of said frame in spaced relation, one of said stationary plates being of greater length than the remaining one, movable plates pivotally mounted at their lower edges to said frame beneath said stationary plates and adapted to close the space beneath said stationary plates, and means for swinging the upper portions of said movable plates into the space between said stationary plates.

3. A window comprising a casing, stationary plates mounted in said casing in spaced relation, one of said stationary plates being of greater length than the remaining one, movable plates mounted in said casing beneath said stationary plates and pivotally connected at their lower edge portions, means for swinging one of said movable plates from a closed position into the space between said stationary plates, and means connecting said movable plates whereby the moving of one of said movable plates from a closed to an open position will cause the remaining movable plate to be moved from a closed position into the space between said stationary plates.

4. A window comprising a frame, stationary plates mounted in the upper portion of said frame in spaced relation, a baffle plate mounted in said frame beneath one of said stationary plates and pivotally connected at its lower edge portion with said frame, a guiding plate mounted in said frame beneath the remaining one of said stationary plates and pivotally connected at its lower edge portion with said frame, inclined arms extending from the lower end portions of said movable plates, a link pivotally connecting the arms of said movable plates whereby the moving of one of said movable plates from a closed to an open position will cause the remaining movable plate to be moved from a closed to an open position, and means for moving said first mentioned movable plate from a closed to an open position.

5. A window comprising a frame, stationary plates mounted in the upper portion of said frame in spaced relation, a baffle plate pivotally mounted in the lower portion of said frame beneath one of said stationary plates, a guiding plate pivotally mounted in the lower portion of said frame beneath the remaining stationary plate, a shaft mounted in said frame between said stationary plates and adjacent the lower edge of the outer one, a screen mounted upon said shaft and resting upon the upper edge of said baffle plate when said baffle plate is in an open position, a lever, an arm connecting said lever with said baffle plate for swinging the same into the space between said stationary plates, arms extending from said movable plates, and a link connecting the arms of said movable plates.

1,078,206. ELECTRIC METER. JOSEPH MATER, Seattle, Wash. Filed May 13, 1912. Serial No. 696,854. (Cl. 171—268.)

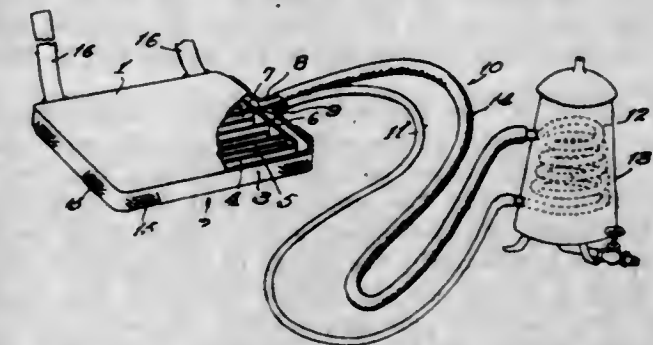


1. The combination with a meter of two registering devices, a shaft rotated by said meter and slidable longitudinally to operatively engage one or the other of said registers, a spring-pressed lever tending to urge said shaft in one direction, a cam-wheel adapted at each alternate partial rotation to move said lever in the opposite direction, a ratchet rigidly connected to said cam-wheel, a pivoted arm provided with a pawl arranged to actuate said ratchet wheel, a spring tending to maintain said arm in its forward position, a dial provided with divisional spaces denoting the hours, clockwork for rotating said dial and means adjustable upon the dial to engage and move said arm whereby the cam wheel is actuated to shift said shaft.

2. The combination with a meter, of two registering devices, an operating shaft for each registering device, an axially movable shaft for alternately engaging the first named shafts, a spring-pressed member for normally holding in engagement the axially movable shaft and one register operating shaft, a dial, operating members carried by the dial, and means interposed between the operating members and spring-pressed member for axially moving said second named shaft.

3. The combination with a meter, of two registering devices, an axially movable shaft for alternately engaging each registering device, a spring-pressed arm for normally holding the shaft in engagement with one registering device, a dial, operating fingers carried by said dial, a cam interposed between said arm and fingers, pawl and ratchet mechanism for rotating said cam, an arm for supporting said pawl adapted to be engaged by said fingers, said cam upon its periphery having alternate notches of different depth for shifting the spring-pressed arm.

1,078,207. HOT AND COLD WATER APPLICATOR. THOMAS MICHAEL, Los Angeles, Cal. Filed Dec. 8, 1910. Serial No. 596,368. (Cl. 128—39.)

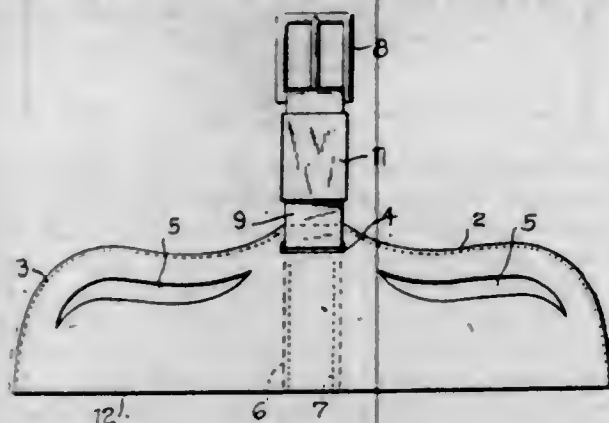


An applicator comprising side walls, inclosing edge walls, partition walls joined at one of their ends to an edge wall and spaced apart at their opposite ends from a second edge wall, other partition walls alternating with the first partition walls and having one of their ends spaced apart from said first edge wall, another partition wall across the other ends of said alternating partition walls and spaced apart from said second edge wall, there being an inlet and outlet in said second edge wall, and a partition wall joined to said last partition wall and separating the inlet and outlet.

1,078,208. STAY. JESSE DAVID MILLER, Hampton, Va. Filed July 24, 1912. Serial No. 711,364. (Cl. 54—20.)

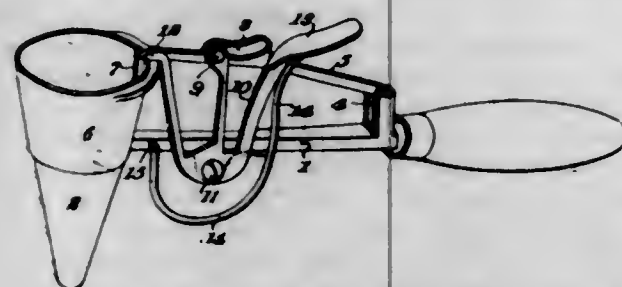
In a device of the character described, the combination with an elongated body portion, formed centrally of its

ends and adjacent its upper edge with a longitudinal strap receiving slot, said body portion being adapted for engagement along its lower longitudinal edge to a breeching strap, of a strap extending transversely of said body portion and secured thereto, said strap passing upwardly through the slot to the opposite side of the body, thence upwardly beyond the top edge of the body and provided



at its central portion with a buckle, the end of said strap extending downwardly from said buckle and thence up through the slot and the extreme end of said strap being removably arranged between the main body of the strap and the upper edge of the body portion, and a boxing encircling said strap at a point adjacent the upper edge of the body portion so that the extreme end of the strap will be held by friction against accidental displacement.

1,078,209. ICE-CREAM-CONE FILLER. RASMUS NIELSEN, Troy, N. Y. Filed June 16, 1909. Serial No. 502,822. (Cl. 107-48.)



1. A device of the character described, comprising a handle, a cone holder consisting of upper and lower sections, the lower section extending below the upper section, the said upper and lower sections forming a cone of substantially the length of the frangible cone being filled, and means on the handle for telescoping the sections and elevating the frangible cone above the upper one of said sections.

2. A device of the character described, comprising a handle, a cone holder at the end of the handle, said cone holder comprising upper and lower sections, the lower section fitting within the upper section and extending below the latter, the said upper and lower sections forming a cone of substantially the length of the frangible cone being filled, a device on the handle engaging the upper edge of the frangible cone for holding the latter in the cone holder during the dipping operation, and means for telescoping the sections to force a frangible cone above the upper section.

3. A device of the character described, comprising a handle, a cone holder mounted at the end of the handle and including telescoping sections, means for guiding the two sections toward and from each other, a lever for collapsing the cone holder sections to force a cone above the edge of the upper section, said lever having a projection which overlies the edge of the upper cone holder section to hold the cone in position, and means for holding the lever in normal position.

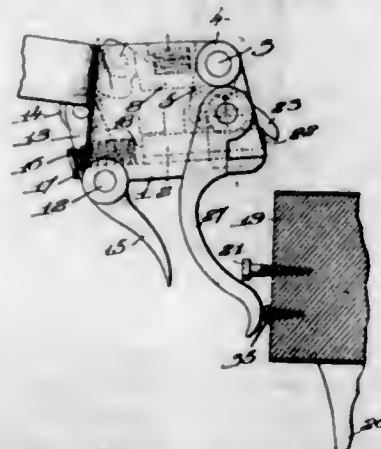
4. A device of the character described, comprising a handle, a cone holder at the end of the handle and including two telescoping sections, one of said sections being mounted on a pivotally mounted arm carried by the handle, a trigger lever for operating the arm to collapse the sec-

tions to force a cone above the upper section, and means for returning the sections to normal position.

5. A device of the character described, comprising a handle, a cone holder at the end of the handle and including two telescoping sections, one of said sections being mounted on a pivotally mounted arm carried by the handle, a trigger lever for operating the arm to collapse the sections to force a cone above the upper section, said lever having an extension to prevent displacement of the cone in the holder during the filling operation and means for returning the lever to normal position.

[Claims 6 to 8 not printed in the Gazette.]

1,078,210. THREAD-PARTER FOR LOOMS. JONAS NORTHROP, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 9, 1911. Serial No. 648,539. (Cl. 139-85.)



1. In a loom, the combination of a jaw temple and a thread parter, means for opening and closing the jaws of the temple for releasing and clamping the cloth, means for causing the thread parter to part the thread adjacent the selvage of the cloth while the jaws of the temple are clamped upon the cloth, and means for adjusting the time of action of said cutter more or less in advance of the jaw releasing movement.

2. In a loom, the combination of a jaw temple, means for opening the jaws of the temple as the lay moves forward and permitting them to close again prior to backward movement of the lay, a thread parter, and means for actuating the thread parter to sever a thread end adjacent the cloth selvage while the temple jaws are closed upon and hold the fabric stationary.

3. In a loom, the combination of a jaw temple and a thread parter mounted adjacent one edge of the temple, means for opening and closing the jaws of the temple for releasing and clamping the cloth, and means for actuating the thread parter to part the thread adjacent the selvage of the cloth while the jaws of the temple are clamped upon and hold the cloth.

4. In a loom, the combination of a jaw temple, means for opening and closing the jaws of the temple for releasing and clamping the cloth, a thread parter carried by one of the jaws of the temple adjacent the edge thereof, and means for actuating the thread parter to part a thread adjacent the cloth selvage prior to the releasing movement of the jaws and while the jaws of the temple hold the fabric in fixed position.

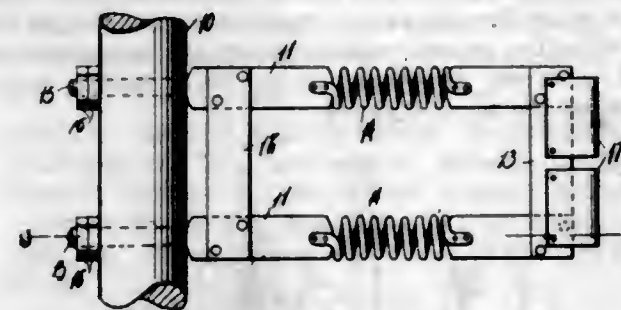
5. In a loom, the combination of a jaw temple, a thread parter carried thereby and comprising two members, means acting normally to hold said members in thread engaging position and maintain their parting edges in lateral cooperating relation, and means acting upon the jaw temple to cause the jaws to clamp and hold the fabric from which the thread projects during the action of the thread parter.

[Claims 6 to 8 not printed in the Gazette.]

1,078,211. HOG-SCRAPER. ANDREW G. OLSON and ARTHUR A. BOBERG, St. Joseph, Mo. Filed Aug. 12, 1913. Serial No. 784,383. (Cl. 17-11.)

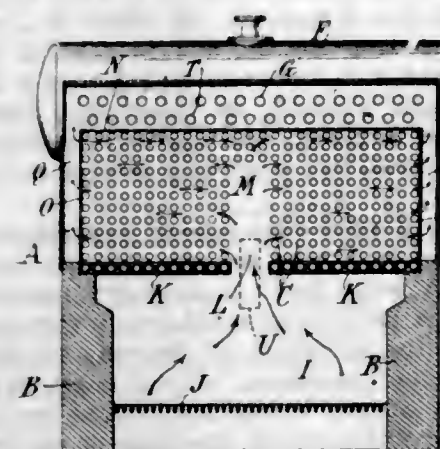
1. A beater for hog scraping machines including the combination with a beater shaft, of a pair of parallel bars

each having an intermediate portion consisting of a helical spring, a cross bar connecting the outer ends of said bar, and scraper blades secured to said cross bar.



2. A beater for hog scraping machines including the combination with a beater shaft, of a pair of parallel bars each having an intermediate portion consisting of a helical spring, cross bars connecting said parallel bars, stems formed on said parallel bars and engaged through openings in said shaft, retaining nuts on said stems, and curved scraper blades carried by one of said cross bars.

1,078,212. BOILER. THOMAS T. PARKER, New York, N. Y. Filed May 28, 1913. Serial No. 770,394. (Cl. 122-299.)



1. A water tube boiler having a combustion chamber, a series of substantially horizontal water tubes arranged above said combustion chamber, a supplemental combustion chamber over said combustion chamber, and a passage leading directly from said combustion chamber to said supplemental combustion chamber, said supplemental combustion chamber being bounded on at least two sides by said tubes.

2. A water tube boiler having a combustion chamber, a series of substantially horizontal water tubes arranged above said combustion chamber, a supplemental combustion chamber over said combustion chamber, a passage leading directly from said combustion chamber to said supplemental combustion chamber, said supplemental combustion chamber being bounded on at least two sides by said tubes, and means for directing the products of combustion laterally through said series of tubes.

3. A water tube boiler having a combustion chamber, a series of substantially horizontal water tubes arranged above said combustion chamber, a supplemental combustion chamber over said combustion chamber, a passage leading directly from said combustion chamber to said supplemental combustion chamber, said supplemental combustion chamber being bounded on at least two sides by said tubes, and a wall at the top of said combustion chamber adapted to direct the products of combustion through said passage into said supplemental combustion chamber.

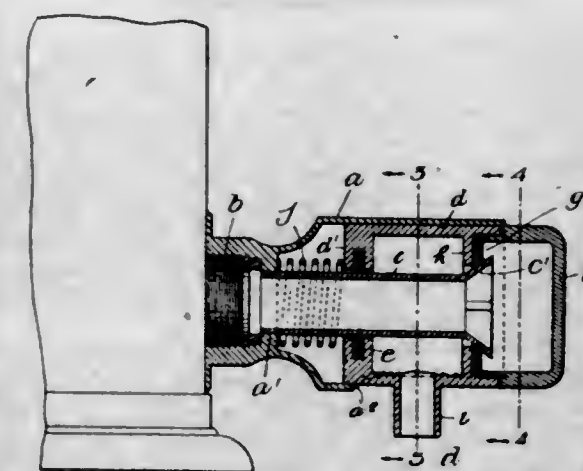
4. A water tube boiler having a combustion chamber, a series of substantially horizontal water tubes arranged above said combustion chamber, a supplemental combustion chamber over said combustion chamber, a passage leading directly from said combustion chamber to said supplemental combustion chamber, said supplemental combustion chamber being bounded on at least two sides by

said tubes, a wall at the top of said combustion chamber adapted to direct the products of combustion through said passage into said supplemental combustion chamber, and a wall above said series of tubes to prevent direct upward escape of said products of combustion.

5. A water tube boiler having a combustion chamber, a series of substantially horizontal water tubes arranged above said combustion chamber, a supplemental combustion chamber over said combustion chamber, a passage leading directly from said combustion chamber to said supplemental combustion chamber, said supplemental combustion chamber being bounded on at least two sides by said tubes, a wall separating said tubes from said combustion chamber and directing the products of combustion into said supplemental combustion chamber through said passage, a wall above said tubes, and preventing upward escape of products of combustion, and means for controlling lateral flow of said products of combustion.

[Claims 6 to 16 not printed in the Gazette.]

1,078,213. WATER-COOLER FAUCET. WILLIAM E. PATNAUDE, Haverhill, Mass., assignor of one-half to William C. Coleston, Haverhill, Mass. Filed Jan. 27, 1912. Serial No. 673,747. (Cl. 137-4.)



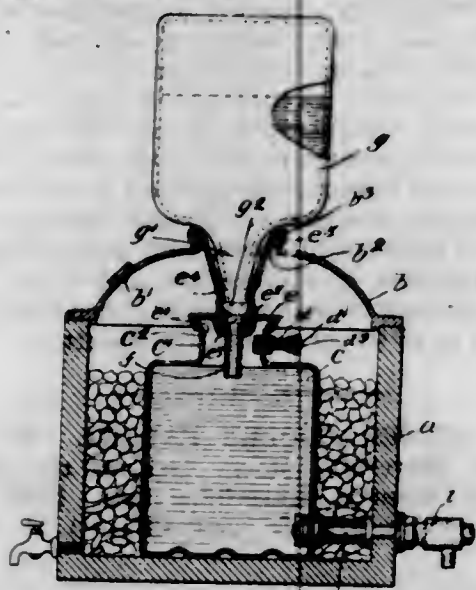
1. A faucet comprising a tubular outer casing having an inlet port at one end and open at the opposite end, an open-ended tubular stem rigidly mounted at one end within said casing and opening to said port, said stem having an exteriorly disposed annular valve on its opposite end, a tubular inner casing slidably mounted in the open end of said outer casing and having its outer end closed to provide a chamber, and its inner end open and slidably mounted on said stem, a side discharge port, and a valve seat between said discharge port and said chamber disposed to engage said valve, substantially as described.

2. A faucet comprising a tubular outer casing having an inlet port at one end and open at the opposite end, an open ended tubular stem rigidly mounted at one end within said casing and opening to said port, said stem having an exteriorly disposed annular valve on its opposite end, a tubular inner casing extending into said outer casing from its outer end and having its inner end open and slidably mounted on said stem, and its outer end closed and providing a chamber, a side discharge port, and a valve-seat between said discharge port and said chamber disposed to engage said valve, substantially as described.

3. A faucet comprising a tubular outer casing having an inlet port at one end and open at the opposite end, an open ended tubular stem rigidly mounted at one end within said casing and opening to said port, said stem having an exteriorly disposed annular valve on its opposite end, a tubular inner casing slidably fitted in the open end of said outer casing and having its outer end closed to provide a chamber and its inner end open and fitted to slide on said stem, a side discharge port and a valve-seat between said discharge port and said chamber disposed to engage said valve and limit the outward movement of said inner casing at a point at which its

outer end projects some distance beyond the end of said outer casing, substantially as described.

1,078,214. WATER-COOLER. WILLIAM E. PATNAUDE, Haverhill, Mass., assignor of one-half to William C. Colston, Haverhill, Mass. Filed Apr. 8, 1912. Serial No. 690,200. (Cl. 62-13.)



1. A water cooler comprising an ice receptacle having a cover provided with an opening, a water container arranged in said receptacle and having a top opening, a tubular receiver for the neck of a bottle arranged to connect said openings and having a seat therein to receive the end portion of the bottle neck to make a tight connection therewith, a sealing tube having a tight connection with said seat and depending into said container, and means to admit air to the container about said sealing tube, substantially as described.

2. A water-cooler comprising a water container having a top opening, a closure for said opening having an aperture therethrough, a sealing tube connected to said closure and depending into the container, an upwardly extending funnel having a tight connection with said closure and adapted to receive the neck of an inverted bottle, to make a tight connection therewith, and means to admit air to the container above the lower end of said tube, substantially as described.

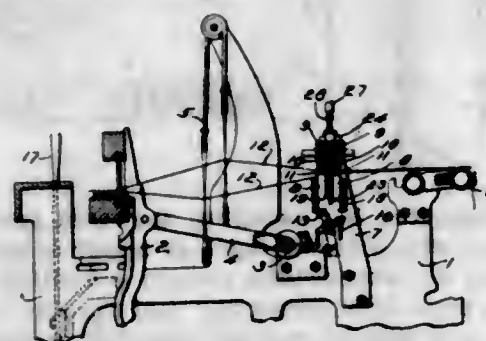
3. A water-cooler comprising a water container having a top opening, a closure for said opening having an aperture therethrough, a funnel of elastic material having a tight connection with said aperture, a sealing tube having a tight connection with the aperture of said closure and depending into said container, an inverted bottle having its neck seated in said funnel, and means to admit air to the container about said tube, substantially as described.

4. A water-cooler comprising an ice-receptacle having a cover provided with a central opening, a water container arranged in said receptacle and having a top opening, a closure for said opening having an aperture therethrough, a funnel of elastic material having a tight connection with said aperture and extending through the opening of said cover and supported by the sides thereof, a sealing tube having a tight connection with the aperture of said closure and depending into said container, an inverted bottle having its neck seated in said funnel and resting against the sides of the cover opening, and means to admit air to the container about the sealing tube, substantially as described.

1,078,215. WARP-STOP-MOTION ATTACHMENT. GEORGE PATTERSON, Manchester, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 14, 1913. Serial No. 760,884. (Cl. 139-92.)

1. In a loom, the combination of a warp stop motion comprising a vibrating feeler, and a manually operable finger projecting at the rear of the loom for engagement by the attendant and adapted to be moved into the path of and to arrest movement of the feeler.

2. In a loom, the combination of a warp stop motion comprising a vibrating feeler, a series of drop devices normally held out of the path of the feeler, and adapted to arrest movement of the feeler upon abnormal condition of a warp thread, and a finger projecting at the rear of the loom for manual operation by the attendant and adapted to arrest movement of the feeler during normal condition of the warp threads.



3. In a loom, the combination of a warp stop motion, a finger extending at the rear of the loom in position to be engaged by the attendant and mounted for cooperation therewith, means for normally maintaining said finger in inoperative position and permitting it to be manually moved into operative position to stop the loom through the warp stop motion.

4. In a loom, the combination of a warp stop motion, a finger, means for supporting the finger in position adjacent the warp stop motion, and in position to be engaged and operated by the loom tender, and a spring for holding the finger normally in inoperative position and permitting it to be moved into operative position by the loom tender to cause the warp stop motion to operate to stop the loom.

5. In a loom, a warp stop motion comprising drop devices and a vibrating feeler for stopping the loom on the occurrence of a warp fault, a manually operable finger extending from a point adjacent the warp stop motion for engagement by the attendant at the rear of the loom, a guide for directing movement of the finger toward and from the path of the feeler, and means for normally maintaining the finger out of the path of the feeler and permitting it to be manually moved by the attendant at the rear of the loom into the path of the feeler to cause loom stoppage in the absence of a warp fault.

1,078,216. STEAM-BOILER. EDWARD W. PRATT, Chicago, Ill., assignor, by direct and mesne assignments, to himself, and to Michael O'Connor, Missouri Valley, Iowa, trustees. Filed July 23, 1912. Serial No. 711,015. (Cl. 122-500.)



In a boiler, a fire-box comprising spaced sheets having a door opening therethrough, each of said sheets having a flange formed around its door opening, said flanges being fastened together, the inner or door sheet being swelled

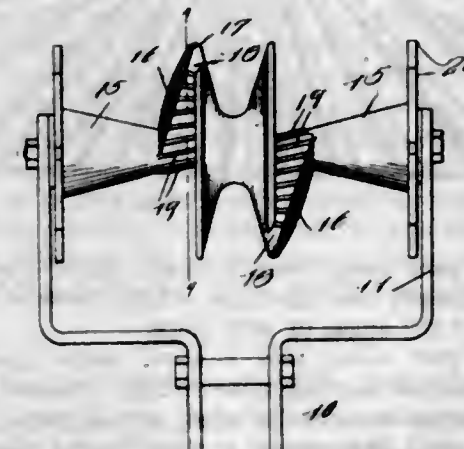
around its door opening, and stay bolts connecting said sheets, said stay bolts being connected to the outer sheet nearer the door opening than they are to the inner sheet, and being connected to the inner sheet approximately at the base of said swelling, and whereby they spread apart in a direction considered toward the inner sheet.

1,078,217. LADY'S UNDERWEAR. HARRY G. G. QUERNS, Philadelphia, Pa., assignor to himself, Alexander R. Querns, Thomas D. Querns, and James J. Querns, doing business under the firm-name Querns Bros., Philadelphia, Pa. Filed Nov. 8, 1909. Serial No. 526,501. (Cl. 2-41.)



The combination with a vest having a body of knit fabric; of an interior carrier edging comprising a series of bars adapted to receive a ribbon, said carrier edging being attached at its lower edge to the body of the vest and extending substantially across the entire front portion thereof; a drawing ribbon inserted in said carrier edging; and a shield edge consisting of a strip of relatively inelastic woven fabric extending entirely across the front portion of the vest and secured at its lower edge to the vest in front of said carrier edging; said shield edging being free at its upper edge and extending above said carrier edging to conceal the same.

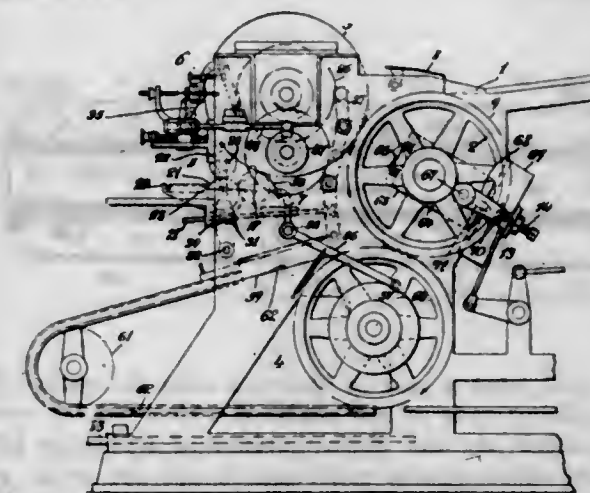
1,078,218. TROLLEY. EUGENE REDDICK and JOHN P. NOL, Hackensack, N. J. Filed Apr. 11, 1912. Serial No. 690,049. (Cl. 191-75.)



A trolley comprising a harp, a wire engaging member rotatably mounted thereon, said member comprising a central grooved wheel portion, smooth faced conical guide members on each side of the wheel portion, the apices of the conical guides being connected to the wheel portion, a cam enlargement on each flange of the wheel portion and arranged in diametrically opposite positions, each of said enlargements having an inner face inclined toward the flange of the wheel portion, transverse corrugations on the said faces, said faces gradually narrowing toward the outer peripheries of the flanges of the wheel portion, the flanges of the wheel portion being removed at the outer

ends of the enlargements to permit entrance of the trolley wire between the flanges of the wheel portion, and toothed wheels at the outer ends of the wire engaging members.

1,078,219. ROTARY INTAGLIO-PRINTING MACHINE. DAVID JOHN SCOTT and WALTER CHARLES SCOTT, Plainfield, N. J., assignors to Isabella Scott and David J. Scott, Plainfield, N. J., executors of Walter Scott, deceased. Filed Dec. 24, 1910. Serial No. 599,109. (Cl. 101-104.)



1. In a rotary intaglio printing machine, a form cylinder, an intaglio plate on said cylinder extending over a distance less than the entire surface of the cylinder, means for supplying ink to said plate, means for wiping said plate after inking the same, and an auxiliary wiping mechanism for wiping the tail end of the plate only.

2. In a rotary intaglio printing machine, a form cylinder, an intaglio plate on said cylinder extending over a distance less than the entire surface of the cylinder, means for clamping said plate onto the cylinder located below the surface of the same, causing the tail end of the plate to extend below the surface, means for applying ink to said plate, means for wiping that part of the plate which is on the circumference of the cylinder, and an auxiliary wiping mechanism for wiping the depressed tail end of the plate only.

3. A printing machine comprising: an impression cylinder, a plate cylinder located in front of the impression cylinder and somewhat higher than the latter, a delivery mechanism arranged in front of the impression cylinder, and below the latter and underneath the plate cylinder, an inking apparatus for the plate cylinder disposed below the plate cylinder, above the delivery mechanism and in front of the impression cylinder, a wiping mechanism for the plate cylinder located in front of the latter and above the inking apparatus, and an auxiliary wiping mechanism for the plate cylinder located below the latter, above the delivery mechanism and between the impression cylinder and inking apparatus.

4. A sheet fed rotary intaglio printing machine comprising: an impression cylinder making one revolution to each impression, a plate cylinder also making one revolution to each impression, an intaglio plate covering a portion of the plate cylinder only, inking means for inking the plate after each impression, means for moving said inking means toward and away from the plate cylinder once to each revolution so as not to contact that portion of the plate cylinder not occupied by the plate, means for wiping the plate after each inking and before the next impression, and means for moving said wiping means toward and away from the plate cylinder once to each revolution so as not to contact that portion of the plate cylinder not occupied by the plate.

5. A sheet fed rotary intaglio printing machine comprising: a plate cylinder making one revolution to each impression, an intaglio printing plate covering a portion of the plate cylinder only, inking means for inking the plate after each impression, means for moving the said inking means toward and away from the plate cylinder once to each revolution so as not to contact that portion of the cylinder not occupied by the plate, a doctor blade for wiping the plate after each inking and before the next impression, means for moving said doctor blade toward

and away from the plate cylinder once to each revolution so as not to contact with that portion of the plate cylinder not occupied by the plate, and an impression cylinder coacting with the plate cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,078,220. RAIL-JOINT. EDWIN E. SLICK, Westmont borough, Pa. Filed Mar. 13, 1913. Serial No. 753,921. (Cl. 239—3.)



1. In a rail joint, a pair of abutting rails the outer sides of the adjoining ends of the heads of which are cut away, an outer splice bar the upper portion of which is fitted therein and substantially conforms to the cut away portions of the original sections of said rail heads, the said upper portion tapering gradually from its ends to the end portions of the splice bar.

2. In a rail joint, a pair of abutting rails the outer sides of the heads of the adjoining ends of which are cut away, an outer splice bar the end portions of which are fitted in the outer fishing angles of said rails, the intermediate portion of which bar fits into said cut away portions of said rail heads and substantially conforms to the original or uncut sections thereof, said intermediate portion tapering gradually to the said end portion.

3. In a rail joint, a pair of abutting rails the outer sides of the adjoining ends of which are cut away, an outer splice bar the intermediate portion of which is mounted in said cuts and tapers gradually therefrom to the ends of the bar, the wheel contact surfaces formed by said joint being not substantially less than that of the uncut rail heads, nor substantially wider than the groove in a limit worn car wheel.

4. In a rail joint, a pair of abutting rails the outer sides of the heads of the adjoining ends of which are cut away, the ends of said cuts merging gradually into the outer lateral surfaces of the rail heads, an outer splice bar the upper portion of which is mounted within said cuts sloping gradually therefrom to the ends of the bar, the upper or tread surface formed thereby conforming substantially in surface to that of the original rail, the width of the tread at said point being not substantially less than that of the original uncut rail, nor substantially greater than the groove in a limit worn car wheel.

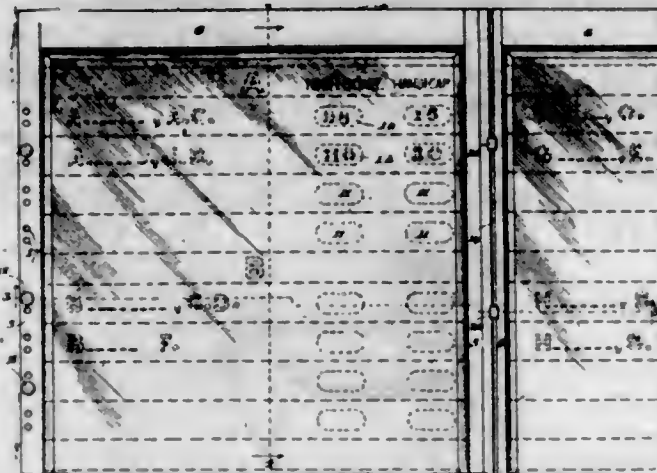
5. A rail joint comprising a pair of abutting aligned rails, the outer parts of the adjoining ends of the rail heads being cut away, each of said cuts merging gradually from the rail ends to the outer lateral surface of the rail head, an outer splice bar, the upper portion of which fits within said cut away portions and substantially conforms to the original section of the same and slopes gradually therefrom to the ends of the bar.

[Claims 6 to 11 not printed in the Gazette.]

1,078,221. DIRECTORY AND SCORE-BOARD. ADOLPH SPIELMANN, Chicago, Ill., assignor to The Tablet & Ticket Company, Chicago, Ill., a Corporation of Illinois. Filed May 17, 1909. Serial No. 496,676. (Cl. 40—63.)

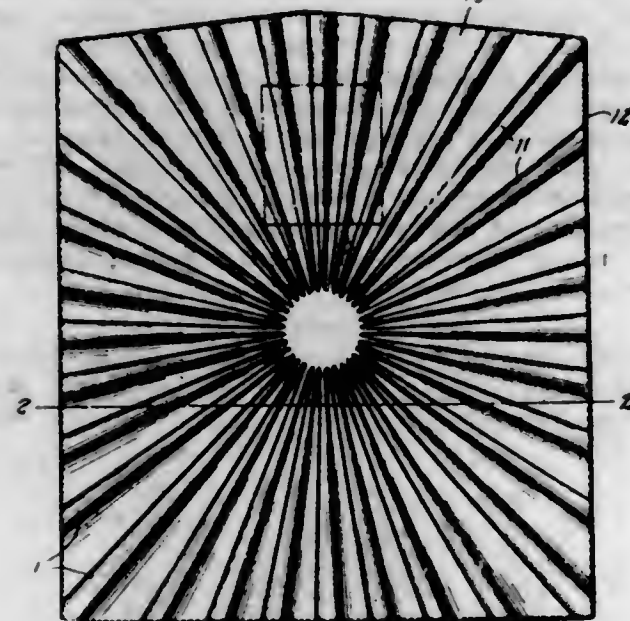
1. A directory comprising a frame, a plurality of independently movable name plates arranged in said frame, one of said name plates being provided with an insert receiving aperture extending entirely through the plate, and a removable data-bearing insert fitted in said aperture to lie flush with the face of the name plate.

2. A directory comprising a frame, a plurality of independently removable name plates arranged in said frame, each of said name plates having an insert-receiving recess



forming a seat for a removable insert, and a data-bearing insert of substantially the same thickness as the name plate removably fitted in said recess.

1,078,222. RAILWAY-CAR END CONSTRUCTION. VICTOR M. SUMMA, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 14, 1913. Serial No. 741,997. (Cl. 105—192.)



1. A car part comprising a sheet metal plate having radially arranged corrugations which become gradually wider toward the edges of said plate.

2. A car part comprising a sheet metal plate having radially arranged corrugations which become gradually wider and deeper toward the edges of said plate.

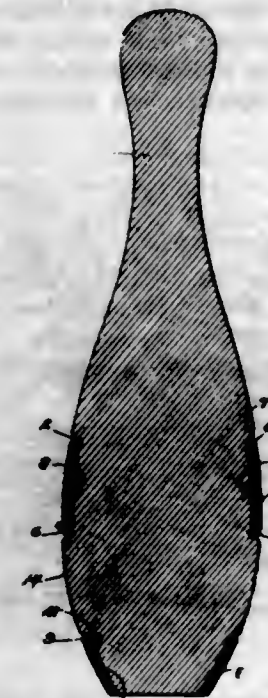
3. A car part comprising a sheet metal plate having radially arranged corrugations which start adjacent to the center of the plate and become gradually wider and deeper toward the edges of said plate.

4. A car body part comprising a dished sheet metal plate having radially arranged corrugations.

5. As a new article of manufacture, a car end comprising a metal plate having radially arranged corrugations which become gradually deeper toward the edges of said plate.

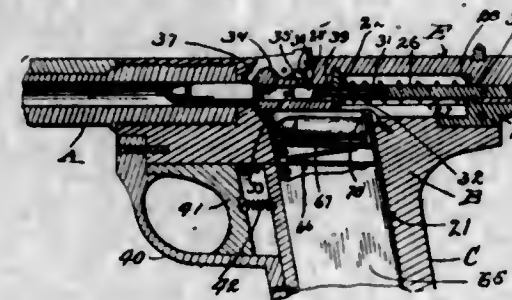
[Claims 6 to 16 not printed in the Gazette.]

1,078,223. TENPIN. CHARLES SUSS, Rochester, N. Y. Filed June 22, 1909. Serial No. 503,655. (Cl. 46—66.)



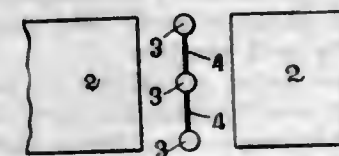
In a ten pin, a body portion provided with an annular groove, and a collar of elastic material located within the groove, the outer edges of the collar and of the walls of the groove being chamfered, forming a shallow annular channel, for preventing the chipping of the body portion.

1,078,224. RECOIL-OPERATED FIREARM. JOHN A. TAYLOR, Picabo, Idaho, assignor of one-half to John H. Carpenter, Picabo, Idaho. Filed Nov. 5, 1912. Serial No. 729,680. (Cl. 42—3.)



In an automatic firearm, the combination of a receiver, a breech block slidable in the receiver, said block having a hollow interior opening through its side walls and bottom, a partition dividing the interior of the block into front and rear chambers, a longitudinal rod in the rear chamber having in its forward end an opening coinciding with an opening through the partition, a firing pin slidable in said openings, spring means constantly tending to move said pin to firing position, a lateral projection on said pin extending through the side wall of the block, and a sear on the receiver for engaging said projection during counter recoil to move the firing pin to retracted position.

1,078,225. ELECTRICAL WELDING OF SHEET METAL. ELIHU THOMSON, Swampscott, Mass., assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 21, 1909. Serial No. 523,766. (Cl. 219—10.)

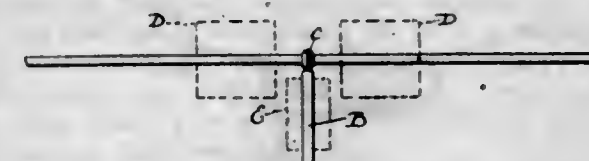


1. A string of contact pieces for electric spot welding, each said piece being adapted to localize the electric heat-

ing and area of each spot weld to the desired extent in the surface of the welded pieces and the members of said string being connected to one another by comparatively narrow spacing connections adapted to predetermine the spacing of the spots of welded union.

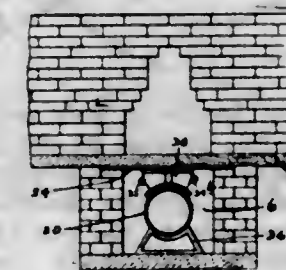
2. A string of electric contacts for electric spot welding consisting of pieces of sheet metal joined by comparatively narrow sheet metal spacing connections integral with them, said connections being of length to predetermine the spacing of the spots of welded union.

1,078,226. METHOD OF WELDING. ROLAND DAVIS THOMSON, Swampscott, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 12, 1911. Serial No. 626,747. (Cl. 219—10.)



The herein described method of welding the end of one piece of stock at an angle to the side of another, consisting in subjecting the latter to end pressure and heating current to form a welding projection on the side thereof and at the same time welding the first-named piece to the other by said welding projection.

1,078,227. BURNER. JOHN T. UNDERWOOD, Detroit, Mich., assignor to Underwood Engineering Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 28, 1913. Serial No. 751,203. (Cl. 158—99.)



1. In a burner for kilns and ovens, the combination with the floor of the oven having a series of openings, of a gas passage beneath said floor, an air-pipe extending longitudinally of said passage and having a series of openings along its top, and a series of saddles mounted to slide on said air-pipe and extending up to the floor of the kiln and provided with passages to permit the flow of air, and with plates to cut off the flow of both gas and air.

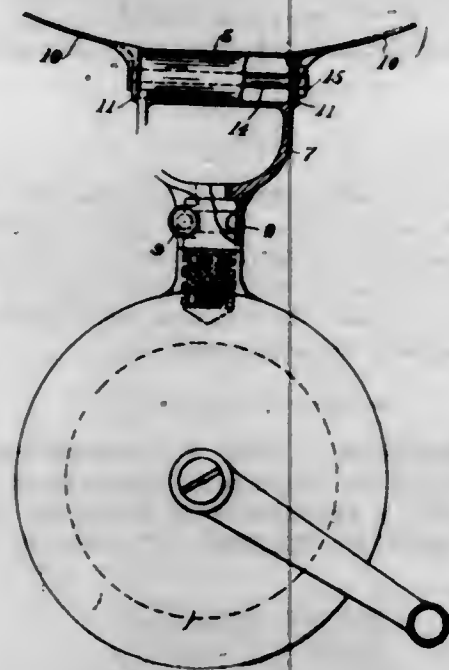
2. In a burner for kilns and ovens, the combination with the floor of the oven having a series of openings, of a passage beneath the floor connecting to a source of fuel gas, an air-pipe extending longitudinally of said passage and having a series of openings along its top, a series of curved plates slidably mounted on said pipe, a group of saddles secured to each plate and formed to close said openings in said floor but to permit the flow of both gas and air through said openings when shifted to proper position.

3. In a burner for kilns and ovens, the combination with the floor of the oven having a series of openings, of a gas passage beneath said floor, an air-pipe extending longitudinally of said passage and having a series of openings along its top, and a series of saddles mounted to slide on said air-pipe and extending up to the floor of the oven and provided with passages to permit the flow of air, and with plates to cut off the flow of both gas and air, said plates having notches to permit the flow of gas.

4. In a burner for kilns and ovens, the combination of a gas-conductor and metal plates covering it, a layer of

refractory material covering the metal plates, said plates and refractory material having a series of openings, a longitudinal pipe in said conductor and having openings which are just below the openings in said plates, a series of saddles slidable on said pipe and having passages to connect the openings in the pipe with those in the plates and laterally extending flanges of such size that the holes in the plates may be covered thereby, which flanges are notched to permit the flow of gas from the conductor through the holes in the plates, means to unite the saddles into groups, and means to slide the saddles along the pipe to open or close the openings in the pipe and plates.

1,078,228. IMPLEMENT-HANDLE. EDWIN L. UPSON, Brooklyn, N. Y., and HENRY W. FLEISTER, Westfield, N. J., assignors to Henry B. Newhall, Plainfield, N. J. Filed Nov. 21, 1912. Serial No. 732,657. (Cl. 145-66.)



1. In an implement handle, a body portion comprising a bar and a ball portion secured to the ends of the bar, and a pair of wings each detachably secured to one end of said bar projecting in opposite directions and extending substantially transverse to the plane of the ball.

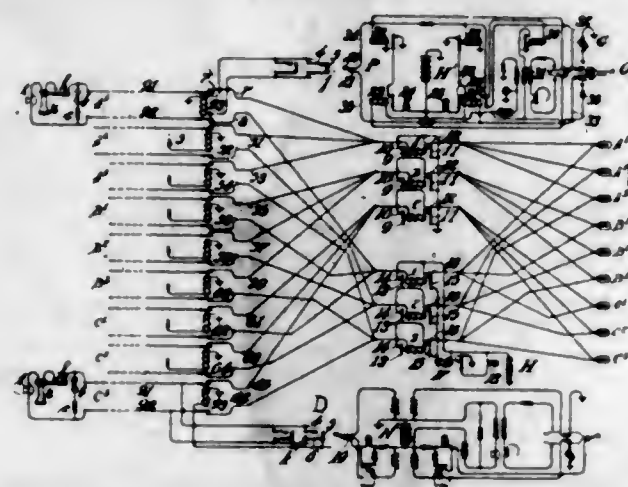
2. In an implement handle, a body portion comprising a hollow bar and a ball secured to the ends of the bar, a pair of wings having apertured lug portions, and a securing device engaging said lug portions and passing through the hollow bar, whereby the wings are secured at the respective ends of the bar extending in opposite directions and lying substantially transverse to the plane of the ball.

3. In an implement handle, a body portion comprising a hollow bar and a ball portion secured to the ends of the bar, a pair of wings each having an apertured lug, each lug having on the outer face a socket portion arranged to receive the extremity of the hollow bar, and a bolt passing through the hollow bar and engaging by its extremities the apertured lug portions of the wings to detachably secure them to the ends of the bars extending in opposite directions and located transverse to the plane of the ball.

1,078,229. SIGNALING SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Sept. 4, 1906. Serial No. 333,148. (Cl. 179-58.)

1. A signaling system comprising a plurality of primary controlling circuits, a signal transmitting device for each circuit, signal receiving devices each common to a portion only of said circuits, signal indicators controlled by said receiving devices, and means for preventing a false operation of said indicators when any plurality of said transmitting devices are operated at substantially the same time.

2. A signaling system comprising a plurality of primary controlling circuits, a signal transmitting device for each circuit, signal receiving devices each common to a portion only of said circuits, signal indicators controlled by said receiving devices, and means for preventing a false operation of said indicators when all of said transmitting devices are operated at substantially the same time.

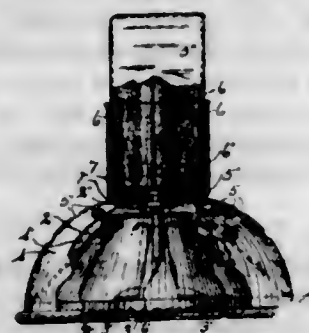


3. A signaling system comprising a plurality of primary controlling circuits, a signal transmitting device for each circuit, signal receiving devices each common to a portion only of said circuits, signal indicators controlled by said receiving devices, and means whereby any two of said transmitting devices may be operated at substantially the same time without causing the simultaneous operation of any of said indicators.

4. A signaling system comprising a plurality of primary controlling circuits, a signal transmitting device for each circuit, signal receiving devices each common to a portion only of said circuits, signal indicators controlled by said receiving devices, and means whereby signals may be transmitted from any two of said circuits at substantially the same time without causing the simultaneous operation of a plurality of indicators.

5. A signaling system comprising a plurality of primary controlling circuits, a signal transmitting device for each circuit, signal receiving devices each common to a portion only of said circuits, signal indicators controlled by said receiving devices, and means whereby signals may be transmitted from any two of said circuits at substantially the same time and the operation of the indicators to be so delayed as to cause them to operate successively. (Claims 6 to 47 not printed in the Gazette.)

1,078,230. DENTAL COTTON-HOLDER. SAMUEL L. WHITRIGHT, Waterbury, Conn. Filed Sept. 5, 1913. Serial No. 788,207. (Cl. 32-5.)



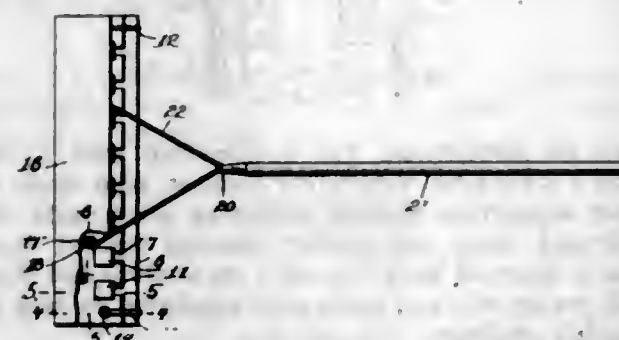
1. A dental-cotton holder comprising an interior dome; a perforated mantle overhanging and substantially housing said dome; and means whereby said mantle and said dome are frictionally held together.

2. A dental-cotton holder comprising an interior dome; a perforated mantle overhanging and substantially housing said dome, and having a stem freely depending therein; and a keeper, the latter situated within said dome, and adapted to engage and frictionally exert a holding force on said stem.

3. A dental-cotton holder comprising an interior dome; a perforated mantle overhanging and substantially housing said dome, said mantle surmounted by a waste-receptacle saddle, and having a stem tying said saddle thereto, and freely depending within the dome aforementioned; and a keeper, the latter situated within said dome and adapted to engage and frictionally exert a holding force on said stem.

4. A dental-cotton holder comprising an interior dome; a perforated mantle overhanging and substantially housing said dome, said mantle surmounted by a waste-receptacle saddle affording a plurality of upstanding clip-members, and having a stem tying said saddle thereto, and freely depending within the dome aforementioned; and a keeper, the latter situated within said dome and adapted to engage and frictionally exert a holding force on said stem.

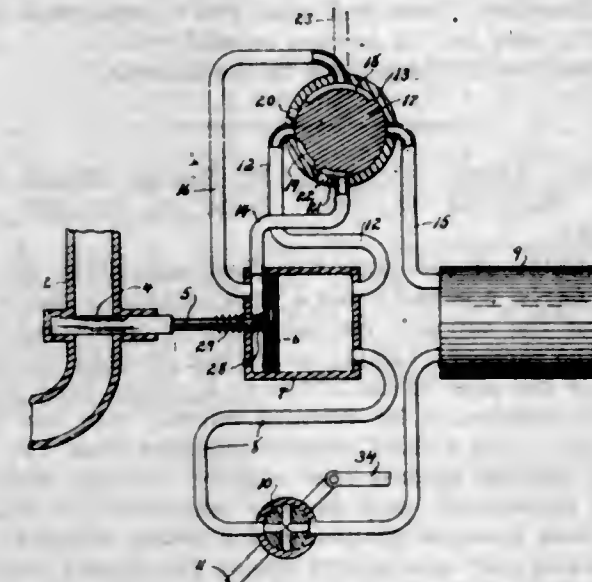
1,078,231. RAKE. THOMAS WHITTED and EDDIE GREAN WHITTED, Narcoossee, Fla. Filed Sept. 10, 1912. Serial No. 719,609. (Cl. 55-10.)



1. A rake comprising a pair of holding plates, each being provided on one side edge with a plurality of spaced recesses, a plurality of rake teeth each having a reduced shank and an enlarged head, the plates being disposed in lapped relation so that the recesses coact to form sockets for the shanks of the teeth, means for holding the plates in relation and a handle secured to the plates.

2. A rake comprising a pair of holding plates, each being provided on one side with a plurality of spaced squared recesses, a plurality of rake teeth, each having a squared shank and an enlarged head, the plates being disposed in lapped relation so that the recesses coact to form square sockets for the shanks of the teeth, clips each having a hook at one end engaging over the side edges of the plates, and an attaching eye at the other end, securing means passed through the eye and through the plates, and a handle secured to the plates.

1,078,232. SUPPLEMENTAL CONTROL FOR MOTIVE POWER. CHARLES A. WILLARD, Madison, Conn. Filed Dec. 19, 1912. Serial No. 737,740. (Cl. 246-59.)

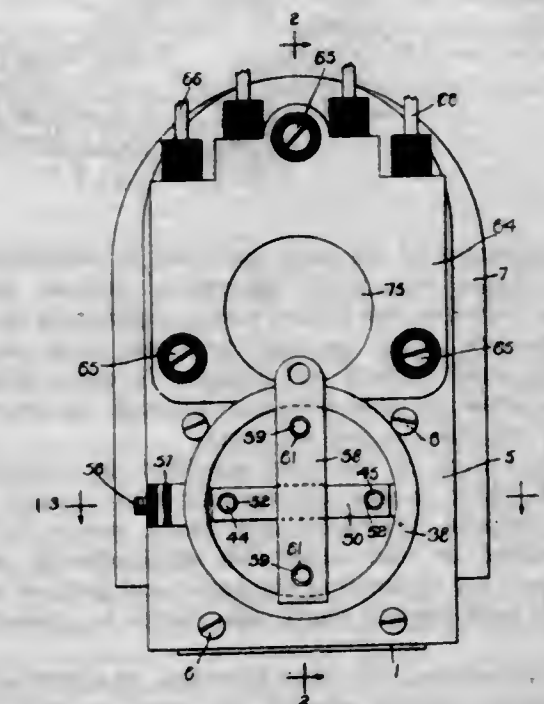


1. The herein described supplemental control for motive power comprising a piston chamber, a piston therein,

power control mechanism connected with said piston, a compressed air reservoir, valve controlled connections between the forward end of the piston chamber and reservoir, resetting connections between the reservoir and the rear end of said piston chamber, a resetting valve in said connection between the rear end of the piston chamber and the air reservoir, said valve having an externally arranged lever adapted to turn said valve, a channelled closure adapted to open and close the said connections, and vent pipes connected with the forward and rear ends of the piston chamber and adapted to be opened or closed by the said resetting valve.

2. In a motor, the combination with a steam pipe from the boiler to the engine, of a supplemental throttle valve in said pipe, a piston chamber, a piston therein, connection between said piston and supplemental throttle valve, a compressed air reservoir, valve controlled connection between the forward end of the piston chamber and the air reservoir, connections between the reservoir and the rear end of said piston chamber, a resetting valve in said connections and adapted to open or close said connections, vent pipes opening from the forward and rear ends of said piston chamber and adapted to be opened or closed by said resetting valve.

1,078,233. INTERRUPTER FOR IGNITION-DYNAMOS. HOWARD H. WIXON, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 4, 1910, Serial No. 547,190. Divided and this application filed Sept. 6, 1910. Serial No. 580,717. (Cl. 123-166.)



1. An interrupter for magneto generators comprising, in combination, a support, two pairs of normally closed contacts carried by said support, one contact of each pair being fixed and the other movable, and a rotatable member having oppositely disposed engaging surfaces for actuating said movable contacts respectively to open them one after the other in quick succession.

2. An interrupter for magneto generators comprising, in combination, a casing, two pairs of normally closed contacts symmetrically mounted in said casing, one contact of each pair being fixed and the other movable, and a rotatable arm associated with said contacts, said arm being pivoted intermediate between its ends and provided with engaging surfaces disposed at different distances from the axis of rotation for actuating said movable contacts one after the other in quick succession.

3. An interrupter for magneto generators comprising, in combination, a casing, two pairs of normally closed contacts symmetrically mounted in said casing, one contact of each pair being fixed and the other movable, and a rotatable arm associated with said contacts, said arm being pivoted intermediate between its ends and provided with

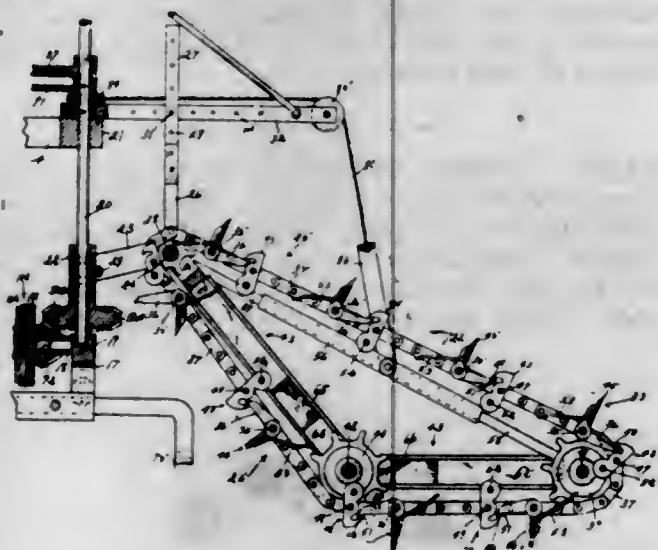
rollers of different size for actuating said movable contacts one after the other in quick succession.

4. In an ignition system, a circuit provided with two pairs of interrupter contacts connected in parallel, and means for actuating said contacts simultaneously but to open in quick succession to cyclically interrupt the circuit, first by one pair of contacts and then by the other.

5. In an ignition system, a circuit provided with a plurality of interrupter switches connected in parallel, and means for actuating said switches at different intervals to cause cyclical interruptions of the circuit by said switches in succession and closure in the reverse order.

[Claims 6 to 13 not printed in the Gazette.]

1,078,234. DIGGING OR EXCAVATING APPARATUS. JOSEPH E. WYCKOFF, Los Angeles, Cal., assignor to Wyckoff Excavating and Ditching Company, a Corporation of California. Filed Apr. 18, 1912. Serial No. 691,555. (Cl. 37-24.)



1. In apparatus of the class specified, in combination, a shaft, a frame connected therewith, endless carriers adapted to travel on the frame, scrapers pivotally mounted on the carriers, arms on said scrapers, dogs pivotally mounted on said carriers and adapted to coast with said arms, and arms on said scrapers adapted to coast with said shaft for the purpose set forth.

2. In apparatus of the class specified, in combination, an upright shaft, means for turning said upright shaft, a frame, scrapers carried on said frame, means including a bar mounted on and adjustable longitudinally of said upright shaft for connecting the inner end portion of said frame with said upright shaft, and means to operate said scrapers.

3. In apparatus of the class specified, in combination, a frame, endless carriers adapted to travel on said frame, scrapers mounted on said carriers, means to operate the scrapers, guides on said frame, and a trough having the upper end portion thereof pivotally connected with said frame and having the lower end portion thereof movably connected with said guides.

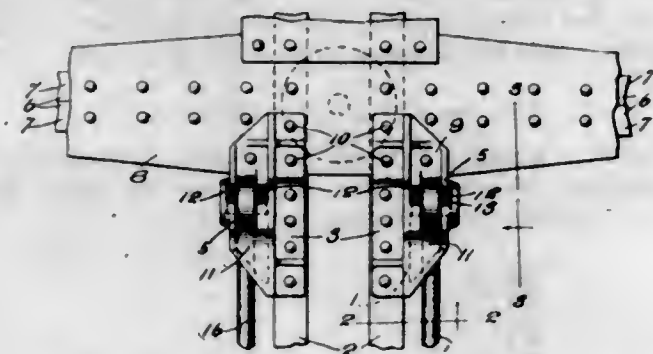
4. In apparatus of the class specified, the combination of a frame, a horizontal shaft extending longitudinally of the frame, an upright shaft at the rear end of the frame, coaxing bevel gearing on the horizontal and upright shafts, a bar mounted on and adjustable longitudinally of the upright shaft, arms on the bar, a shaft mounted on the arms and operatively connected with the bevel gearing, a frame having the inner end portion thereof pivotally mounted on the last shaft, scrapers carried on the last frame and operatively connected with the last shaft, and adjustable means for supporting the last shaft, substantially as described.

5. In apparatus of the class specified, the combination of an upright shaft, means for turning said upright shaft, a bar mounted on and adjustable longitudinally of the upright shaft, a shaft carried by said bar, a frame having one end portion thereof pivotally mounted on the last

shaft, scrapers carried by the frame, means to operate the scrapers, and adjustable means for supporting the last shaft, substantially as described.

[Claim 6 not printed in the Gazette.]

1,078,235. TRUSS-ROD ANCHOR. JOHN MCE. AMES, Dongan Hills, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed Mar. 18, 1910, Serial No. 550,243. Divided and this application filed Aug. 26, 1911. Serial No. 646,252. (Cl. 105-76.)



1. In an underframe, the combination with a center sill and a transverse supporting member, of a cover plate for said supporting member extending across said center sill, flanged truss rod anchor castings riveted through angularly disposed flanges to said cover plate and directly to said center sill, and truss rods supported in said truss rod anchor castings.

2. In an underframe, the combination with a center sill and a bolster, of a cover plate for said bolster extending across said center sill, flanged truss rod anchor castings lapping and connected to said cover plate and directly to said center sill, and truss rods supported in said seats and removable without destructive effort.

3. In an underframe, the combination with a longitudinal sill and a bolster, of means connecting said sill and bolster, said connecting means being formed with a flanged extension provided with an open pocket forming a truss rod seat, and a truss rod held in said seat and removable therefrom without destructive effort.

4. In an underframe, the combination with a longitudinal sill and a bolster, of a connecting casting therefor provided with open pockets at one side of said sill and a truss rod having an enlarged head, a pin disposed in and extending through said head, said pin seated in said pockets and freely removable therefrom without destructive effort.

5. In an underframe, the combination with flanged longitudinal sills and a transverse supporting member, of a flanged casting overlapping and connecting said sill and member, said connecting means being formed with an open pocket forming a truss rod seat, and a removable truss rod held in said seat by tension on said rod.

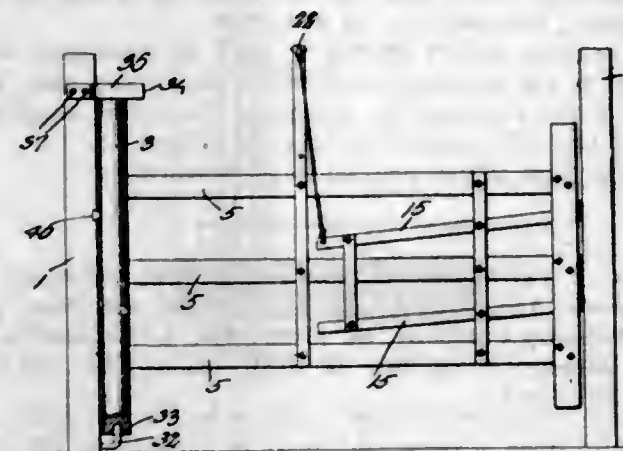
[Claims 6 to 38 not printed in the Gazette.]

1,078,236. GATE. CLIFFORD M. BAKER, Mason City, Iowa. Filed Oct. 15, 1912. Serial No. 725,958. (Cl. 39-16.)

1. A device of the class described comprising as constituent parts, a support and a rack secured to the upper portion of the support, the rack having teeth projecting toward the support; a gate; means for pivoting the lower portion of the gate to the support; a pinion fixed to the gate and meshing in its forward portion into the teeth of the rack; and a fixed member mounted upon the support and bearing against that edge of the gate which is adjacent the support, said member constituting means for holding said forward portion of the pinion meshed with the rack and also constituting means for spacing the rear portion of the pinion from one of said constituent parts.

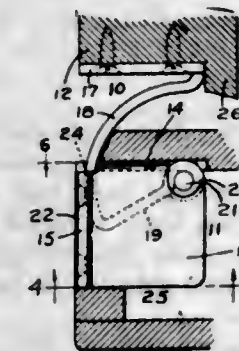
2. In a device of the class described, a support; a frame secured to the support and provided between its ends with

a rack; a gate; and a pinion on the gate, the pinion meshing into the rack, the pinion having an enlarged tooth adapted to engage the rack to limit the swinging movement of the gate and to prevent those teeth of the pinion which have a working mesh with the rack from striking the ends of the frame.



ment of the gate and to prevent those teeth of the pinion which have a working mesh with the rack from striking the ends of the frame.

1,078,237. CONCEALED HINGE. ELI N. BALDWIN, JR., Stratford, Conn. Filed Nov. 21, 1912. Serial No. 732,669. (Cl. 16-5.)



1. A hinge of the character described consisting of a jamb member having a base plate and a door member comprising a carrying arm passing through the base plate and adapted to swing wholly within the face line of the jamb member.

2. A hinge of the character described consisting of a jamb member having a base plate and a door member comprising an attaching plate, a carrying arm, and an attaching arm pivoted to the base plate, said carrying arm passing through the jamb member wholly within the face line of said member.

3. A hinge of the character described consisting of a jamb member having a base plate and a door member comprising an attaching plate, a carrying arm, an attaching arm pivoted to the base plate, said carrying arm passing through the jamb member wholly within the face line of the jamb member, and an outer plate adapted to cover the jamb member.

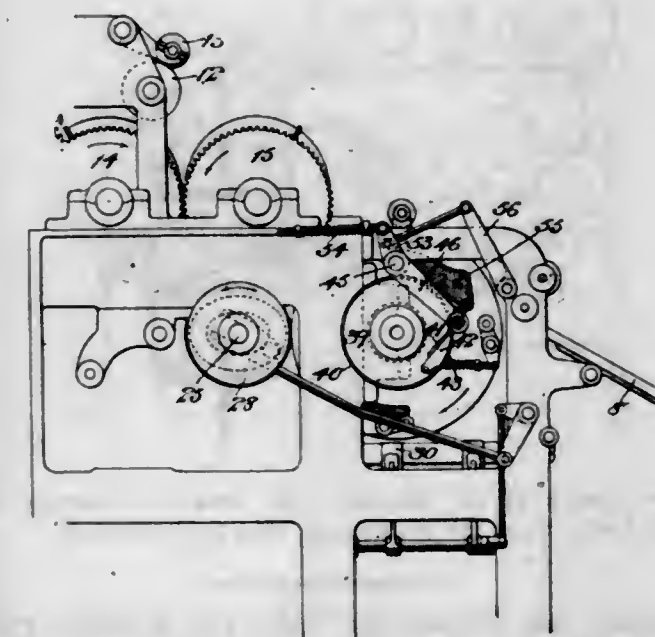
4. A hinge of the character described comprising a jamb member having a base plate with a slot, and a door member comprising an arc-shaped carrying arm lying in said slot and adapted to swing wholly within the face line of the jamb member and an attaching arm pivoted to the jamb member.

5. A hinge of the character described comprising a jamb member provided with a slot, a door member comprising an arc-shaped carrying arm lying in said slot and an attaching arm pivoted to the jamb member, and a plate covering the face of the jamb member under which the carrying arm moves.

1,078,238. SHEET-DELIVERY MECHANISM FOR PRINTING-MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 16, 1911. Serial No. 614,794. (Cl. 101-29.)

1. A sheet delivery mechanism including a rotary cylinder arranged to automatically receive the sheets at one

point, a sheet receiving table, means for causing the cylinder to regularly deliver the sheets thereto, an inspection table and means for causing the cylinder to deliver sheets thereto, when so desired.



2. A sheet delivery mechanism including a rotary cylinder arranged to automatically receive the sheets at one point, a sheet receiving table, means for causing the cylinder to regularly deliver the sheets thereto, an inspection table and manually controlled means for causing the cylinder to deliver sheets thereto, when so desired.

3. A sheet delivery mechanism including a rotary cylinder arranged to automatically receive the sheets at one point, a sheet receiving table, means for causing the cylinder to regularly deliver the sheets thereto, a sheet inspection table located intermediate the regular sheet receiving and delivery points of the cylinder and means for causing the cylinder to deliver sheets on to said inspection table, when so desired.

4. A sheet delivery mechanism including a rotary cylinder arranged to automatically receive the sheets at one point, a sheet receiving table, and means for causing the cylinder to regularly deliver the sheets thereto, an inspection table located intermediate the receiving and delivery points of said cylinder and manually controlled means for causing the cylinder to deliver sheets on to the inspection table, when so desired.

5. A sheet delivery mechanism including a rotary cylinder, its grippers, means for opening the grippers at predetermined receiving and delivery points, and independent means for opening the grippers at another predetermined delivery point including a gripper operating cam and a manually controlled lever for moving the cam into its operative position.

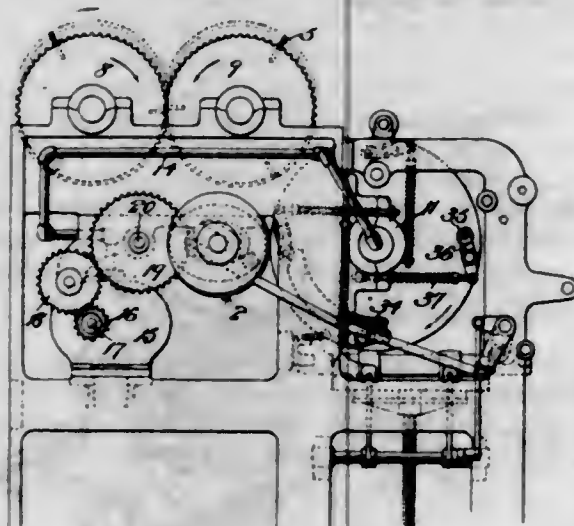
[Claims 6 to 9 not printed in the Gazette.]

1,078,239. SHEET-DELIVERY MECHANISM FOR PRINTING-MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 16, 1911. Serial No. 614,795. (Cl. 101-29.)

1. A sheet delivery mechanism including a rotary hollow cylinder arranged to deliver the sheets at a predetermined point, said cylinder having slots through its walls, and a stationary device located within the cylinder arranged to direct a blast of air through said walls against the back edges of the sheets for blowing the same away from the cylinder as the sheets are delivered.

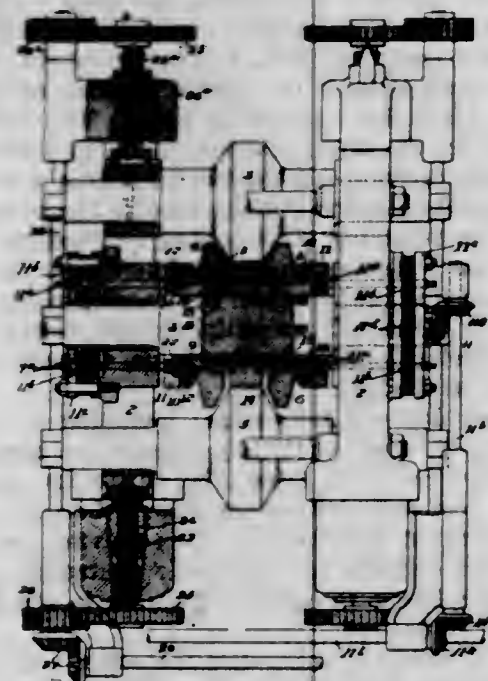
2. A sheet delivery mechanism including a rotary hollow cylinder arranged to deliver the sheets at a predetermined point, said cylinder having a plurality of sets of grippers around its periphery and a plurality of slots

through the walls of the cylinder between said sets of grippers and a stationary device arranged to direct suc-



cessive blasts of air through said slots for blowing the sheets away from the cylinder as they are delivered.

1,078,240. ROLLING-MILL. GEORGE H. BARBOUR, Pittsburgh, Pa. Filed Nov. 13, 1909. Serial No. 527,818. (Cl. 80—58.)



1. A metal shaping device, having a pair of housings, rolls mounted in said housings, a collar mounted on one of the rolls and adjustable longitudinally with relation thereto, said collar being arranged to form a part of the pass, and collar adjusting mechanism on the housing; substantially as described.

2. In a rolling mill for rolling flanged shapes, comprising a pair of housings, a plurality of rolls mounted in the housings, collars adjustably mounted on one of said rolls, said collars being arranged to form parts of the flange grooves of the pass, and collar adjusting mechanism, mounted in the housing and arranged to adjust the collars irrespective of the rolls; substantially as described.

3. In a mill for rolling flanged shapes, comprising a pair of housings, three rolls mounted in said housings, collars adjustably mounted on the central roll, said collars being arranged to form a portion of the flange grooves of the pass, and a collar adjusting mechanism mounted on said housings for moving the collars toward and from each other to vary the width of the flange groove passes; substantially as described.

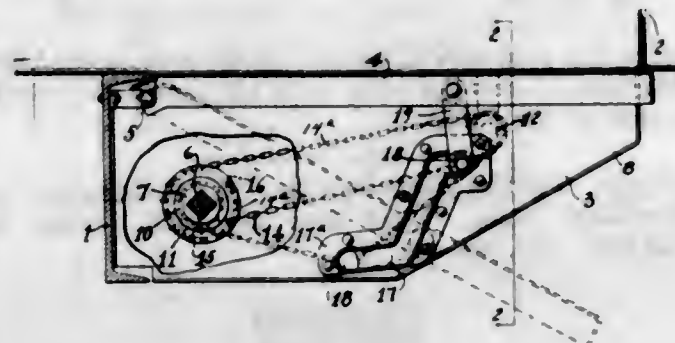
4. In a rolling mill for rolling flanged shapes, comprising a pair of housings, three rolls journaled in said housings, a collar adjustably mounted on the central roll,

said collar being arranged to form a portion of both of the flange passes between adjacent rolls, and collar adjusting mechanism on the frame for adjusting the collar longitudinally along said roll to vary the width of the flange pass; substantially as described.

5. A rolling device having a pair of housings, rolls mounted in the housings, a collar on one of the rolls, and means on the housings for adjusting the collar longitudinally of the roll; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,078,241. DOOR-OPERATING DEVICE. DONALD S. BARROWS, Paterson, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 6, 1911. Serial No. 637,205. (Cl. 105—14.)



1. In a door operating device, the combination comprising a car frame, a door, an operating shaft, a guide formed on said car frame, a lifting link, one end of which engages said door said link being adapted to travel on said guide, a pair of chain wheels fixed to said operating shaft, and a chain engaging said wheels and being connected for moving said lifting link.

2. In a door operating device, the combination comprising a car frame, a door, an operating shaft, a guide formed on said car frame, a lifting link engaging said door, and adapted to be directed by said guide, a pair of chain wheels fixed to said operating shaft, a chain fixed by one of its ends to one of said wheels and having its other end wound upon and fixed to the other of said wheels.

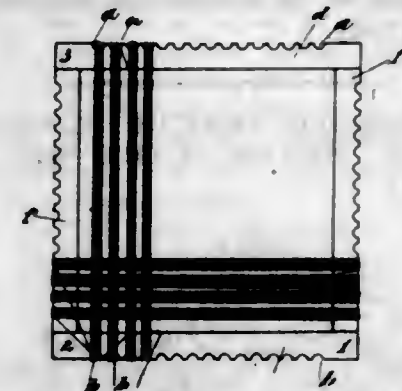
3. In a door operating device, the combination comprising a car frame, a door, an operating shaft, a guide formed on said car frame, a lifting link engaging said door, and adapted to be directed by said guide, a pair of chain wheels fixed to said operating shaft, a chain fixed by one of its ends to one of said wheels and having its other end wound upon and fixed to the other of said wheels, said chain being connected intermediate its ends for moving said lifting link along said guide.

4. In a door operating device, the combination comprising a car frame, a door, an operating shaft, a guide formed on said car frame, a lifting link engaging said door and having one of its ends adapted to be directed by said guide, a pair of chain wheels of different diameters fixed to said operating shaft, a chain fixed by one of its ends to the smaller of said wheels and having its other end fixed to the larger of said wheels and being connected intermediate its ends for moving said lifting link along said guide.

5. In a door operating device, the combination comprising a car frame, a door, an operating shaft, a guide formed on said car frame, a lifting link engaging said door and having one of its ends adapted to be directed by said guide, a pair of chain wheels fixed to said operating shaft, a chain fixed by one of its ends to one of said wheels and having its other end fixed to the other of said wheels and being connected intermediate its ends for moving said lifting link along said guide, and an idler wheel for said chain, a part of said guide being removed from the path of said chain when the door is in closed position and means for providing additional free length of chain as said lifting link is moved toward one end of said guide.

[Claims 6 to 20 not printed in the Gazette.]

1,078,242. METHOD OF MAKING DISH-MATS. ELLA R. BARTHOLOMEW, Springfield, Ohio. Filed Jan. 22, 1913. Serial No. 743,608. (Cl. 66—4.)



1. The method of weaving hot dish mats by winding a plurality of strands of thread forming a band of threads around an open frame, the thread passing from the top of the frame and over the edges and around the bottom thereof and thereafter forming a similar band of threads in a similar way adjacent to the first strand, but spaced apart therefrom, continuously winding around said frame and then turning the frame, maintaining same in substantially the same horizontal plane, and continuing the winding of the threads for another series of bands, extending over and encircling the first bands, and thereafter turning the frame a second time and repeating the first operation, thereby forming the last mentioned series of bands of threads by a final winding operation, then uniting the strands at the point of intersection thereof and severing said strands at the edges of the frame, substantially as specified.

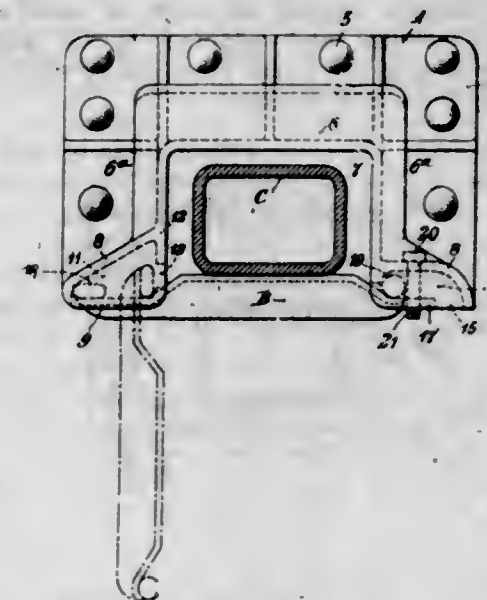
2. The method of weaving dish mats by winding continuously a plurality of strands of thread around an open frame to form a series of bands, the bands extending over the edges of the frame and being spaced apart, a strand of thread passing around one of the frame pieces in going from one band to a succeeding band and thereafter winding a second series of bands of thread also around the open frame, the bands extending over the edges of the frame and encircling the first bands of thread and thereafter winding a third series of bands of thread around the open frame and extending over the edges as in the preceding operation, whereby the second series of bands of thread will lie between the first and last series, then uniting the strands at the point of intersection thereof and severing said strands at the edges of the frame, substantially as specified.

3. The method of weaving mats by winding continuously a strand of thread around an open frame and within substantially semi-circular shaped notches formed at the extreme edges of the frame to form a series of bands, corresponding with the number of notches, the bands extending over the edges of the frame and being spaced apart by the notches spaced evenly apart in the edges of the frame and thereafter winding a second series of bands of thread also around the open frame and within the notches formed on another edge of the frame, the second bands encircling the first bands of thread and thereafter repeating the winding operation to form a third series of bands of thread thereby encircling the first and second series, then uniting the strands at the point of intersection thereof and severing said strands at the edges of the frame, substantially as specified.

4. The method of weaving mats by employing an endless thread and first winding a series of loops, the strands of the loops being superimposed one above the other and leaving an open space between every pair of loops, and thereafter forming another series of loops from said endless band, said second series extending transversely to the first series and likewise formed with one strand of each loop superimposed upon the other strand of the same loop and likewise leaving open spaces between each pair of loops, and thereafter uniting the superimposed strands at the point of intersection thereof and finally severing said strands at the edges of the respective loops for the purpose specified.

196 O. G.—25

1,078,243. CARRY-IRON. PAUL BATEMAN, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 26, 1912. Serial No. 738,695. (Cl. 213—42.)



1. A striking casting having a plurality of brackets provided with shelves spaced longitudinally and transversely relative to each other, a carry iron fitting between and supported on certain of said shelves so as to be pivotally movable toward operative position and having laterally extending integral lugs projecting from each end thereof serving as pivot supports on some of said spaced shelves, said casting having portions overhanging said lugs to prevent vertical movement of said iron.

2. A striking casting having a plurality of shelves spaced longitudinally and transversely relative to each other, a carry iron fitting between and supported on certain of said shelves so as to be pivotally and slidably movable to operative position and having laterally extending integral lugs projecting from each end thereof resting on a plurality of said shelves, said casting having portions overhanging said lugs to prevent vertical movement of said iron, and a removable pin carried by the casting exteriorly of the iron to prevent transverse movement thereof in one direction.

3. A striking casting having a shelf and a wall meeting to form an angle, said shelf having an opening there-through, a carry iron adapted to swing into said opening and having lateral lugs supported by said shelf, and means maintaining one end of the iron in the angle.

4. A striking casting having transversely spaced recesses facing each other, in combination with a carry iron having integral laterally extending opposite end portions disposed in said recesses when in coupler supporting position, and a removable locking member exteriorly of the carry iron adapted to maintain said carry iron in supporting position, said carry iron being adapted to swing to inoperative position while it is supported at one end only.

5. A striking casting having spaced parallel shelves, a carry iron adapted to be supported in coupler supporting position on said shelves and to drop away from coupler supporting position, said carry iron having laterally extending lugs supported by said shelves, and walls connecting opposite ends of said shelves, the walls being adapted to restrict longitudinal movement of said carry iron in one direction.

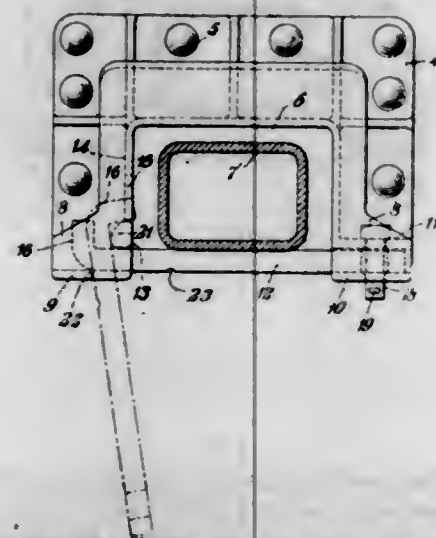
[Claims 6 to 14 not printed in the Gazette.]

1,078,244. CARRY-IRON. PAUL BATEMAN, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 26, 1912. Serial No. 738,696. (Cl. 213—42.)

1. The combination with a coupler, of a dead block having aligned shelves, a carry iron having a laterally projecting head said carry iron resting directly on and being supported in coupler-carrying position solely by said shelves, and means formed on the dead block adapted

to engage the head to maintain the iron connected with the block when the iron is dropped away from said coupler.

2. The combination with spaced supports forming a coupler space therebetween, a coupler positioned in said space, a carry iron pivoted to one of said supports, and in one position resting on both of said supports to carry the coupler and adapted to be withdrawn longitudinally of said carry iron from one of said supports to swing away from said coupler.



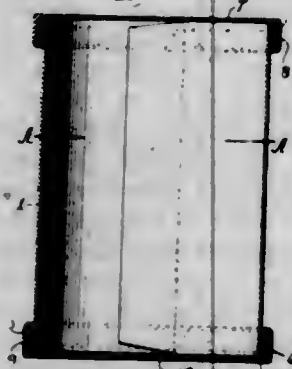
3. The combination with spaced supports, a carry iron supported by and adapted in one position to bridge the space between said supports, said carry iron being provided with a notch intermediate its end portions adapted to retard sliding movement of said carry iron when dropping into inoperative position.

4. A carry iron having a body portion terminating in a hooked end adapted to act as a support when the iron is in a dropped position in combination with a dead block having a shoulder adapted to engage said hooked end in said dropped position.

5. The combination with a supporting shelf, of a carry iron slidable horizontally on said shelf and adapted to rock thereon to inoperative position, said bar having a means on the underside thereof adapted to be engaged by the shelf to retard sliding movement of said bar.

[Claims 6 and 7 not printed in the Gazette.]

1,078,245. KNOCKDOWN PACKAGE. GEORGE S. BOWMAN, Lebanon, Pa. Filed Feb. 19, 1913. Serial No. 749,298. (Cl. 220—58.)

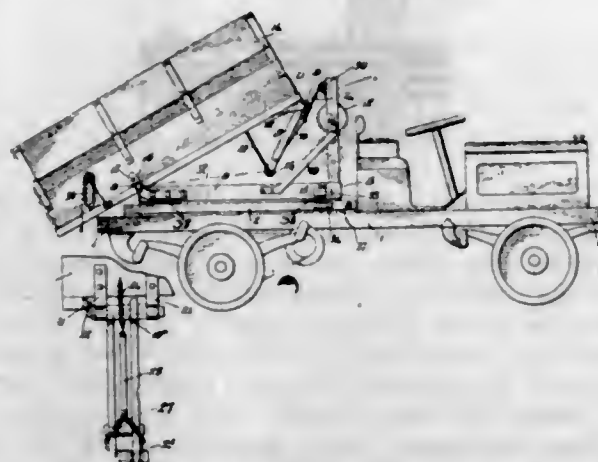


1. In a package, in combination, a metallic body constructed from a flat sheet of metal the ends of which are bent over outwardly to form channels and which is adapted to be bent to a cylindrical form, and heads constructed of sheet metal the peripheries of which are bent first downwardly and then interiorly upward to form a tongue which is cut and adapted, upon the turning of said head, to enter and occupy the channel formed by the bent over end of said body while the outer downwardly bent part of said heads surrounds the outwardly bent over ends of said body.

2. The combination in a package, of a body the ends of which are furnished with an outwardly downwardly bent projecting interrupted rim and a head furnished with a downwardly extending rim bent up inwardly to form a

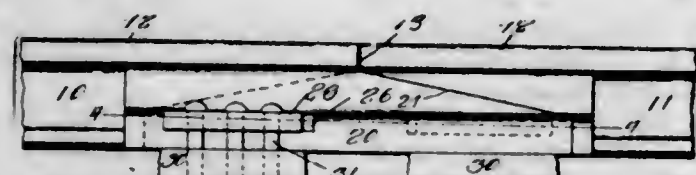
tongue which is interrupted and adapted upon the turning of the head to interlock with the rim on said body, the downwardly bent part of said rim on said head surrounding the outer side of the downwardly projecting interrupted rim on said body.

1,078,246. DUMPING-VEHICLE. LAWRENCE BRUDER, Covington, Ky. Filed Apr. 10, 1912. Serial No. 689,884. (Cl. 21—20.)



In combination with an automobile truck, a rotatable frame thereon, having an upwardly extending portion at its foreend, a series of shafts mounted thereon, a series of gear wheels on said shafts, a drum at the top of said vertical extension on said frame, retaining arms at the rear end of said rotatable frame adapted to retain a body in position on said frame, lifting arms at the foreend of said body adapted to extend under said body, a link arm fastened at the end of said lifting arms, a flexible connection at the end of said link arm adapted to wind on said drum on the rotatable frame, and tracks on said rotatable frame adapted to be engaged by said lifting arms to cause said lifting arms to fold under said body when the body is lowered, substantially as and for the purposes set forth.

1,078,247. RAIL-JOINT. CLARENCE H. BRUNNER, Brooklyn, N. Y. Filed Mar. 29, 1913. Serial No. 757,597. (Cl. 239—3.)



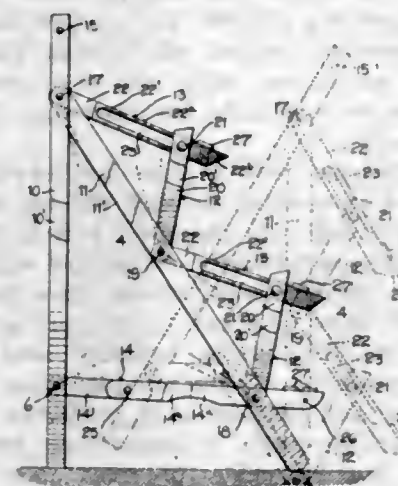
1. A rail joint including abutting rail ends, each rail end being formed with a tongue projecting beyond the ball of the rail and fitting in a recess disposed in rear of the ball of the mating rail, a lug formed on the inner side of each tongue projecting through and beyond a slot formed in the inner wall of the recess of the mating rail, and securing spikes passed through said tongue.

2. In a rail joint, abutting rail ends, each rail end having the ball severed to the web, and having the web thickened in advance and in rear of said ball, one side of said thickened web being cut away to produce a tongue in advance of said ball and a recess in rear of said ball end, a slot being formed in the inner longitudinal wall of said recess, a lug formed on the inner wall of said tongue in the plane of said slot, the tongue of one rail snugly fitting in the recess of the mating rail, and the lug of one rail projecting through the slot of the mating rail, said lugs projecting from opposite sides of said abutting rail ends, and securing spikes passed through said lugs.

1,078,248. FOLDING FLORAL-DISPLAY RACK. JAMES A. BUCHNER, Maquoketa, Iowa. Filed July 26, 1913. Serial No. 781,306. (Cl. 211—14.)

1. In a folding display rack, a pair of substantially vertical standards, a pair of inclined supporting beams, a

forwardly and downwardly inclined shelf member, a pivot member connecting the standards and pivotally connected to an end respectively of the inclined supporting beams and shelf member, said shelf member being provided with a longitudinal slot, and a forwardly and upwardly inclined yoke pivotally connected to the inclined supporting beams and engaged with the slot of said shelf member and adapted to slide rearward therein, so that the said inclined shelves may be swung downwardly and folded with the supporting beams and yoke into such relation that they lie in a common plane.



2. The combination in a folding display rack, of a pair of substantially vertical standards, a pair of inclined supporting beams having their upper ends pivoted to the standards, a hinge-jointed member pivotally connected to the lower portion of the standards and to the lower portion of the inclined supporting beams, a plurality of forwardly and downwardly inclined shelf members pivotally connected to the supporting beams, and a forwardly and upwardly inclined yoke member movably connected to each of the inclined supporting beams and to each shelf member for supporting the latter so that the shelf members may be folded in the same plane with the standards and with said supporting beams, said hinge-jointed member being adapted to be folded approximately in the same plane of the supporting beams and to allow the supporting standards to be swung approximately into the same common plane therewith.

1,078,249. SHOW-CASE. JOHN ALEXANDER BURNS, Mexico, Mexico, assignor of three-tenths to David Bloch, Mexico, Mexico. Filed Mar. 29, 1912. Serial No. 687,261. (Cl. 211—27.)



1. In a show case, a top and a bottom rigidly interconnected, sides and ends normally inclosing the space between said top and bottom, said sides and ends not being connected with said top and bottom, means for moving said sides and ends away from said top, leaving a portion of said space uninclosed and means for moving said top and bottom in a direction opposite to the direction of motion of said sides and ends, so as to increase the uninclosed portion of said space.

2. In a show case, a top and a bottom rigidly interconnected, sides and ends normally inclosing the space between said top and bottom, said sides and ends not being connected with said top and bottom, means for moving said sides and ends away from said top, leaving a portion of said space uninclosed and means for moving said top and bottom in a direction opposite to the direction of

motion of said sides and ends, simultaneously with said movement of said sides, so as to increase the uninclosed portion of said space.

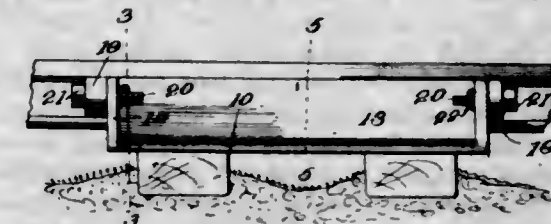
3. In a show case, a top and a bottom rigidly interconnected, sides and ends normally inclosing the space between said top and bottom, said sides and ends not being connected with said top and bottom, means for moving said sides and ends away from said top, leaving a portion of said space uninclosed, and means for moving said top and bottom in a direction opposite to the direction of motion of said sides and ends, and sufficiently far to entirely clear said space from said sides, permitting free access to the contents of said show case laterally.

4. In a show case, a top and a bottom rigidly interconnected, sides and ends normally inclosing the space between said top and bottom, said sides and ends not being connected with said top and bottom, means for moving said sides and ends away from said top, leaving a portion of said space uninclosed, and means for moving said top and bottom in a direction opposite to the direction of motion of said sides and ends, simultaneously with said movement of said sides, and sufficiently far to entirely clear said space from said sides, permitting free access to the contents of said show case laterally.

5. In a show case, a top and a bottom rigidly interconnected, sides and ends normally inclosing the space between said top and bottom, said sides and ends not being connected with said top and bottom, means for simultaneously moving said top and bottom and said sides in opposite directions sufficiently to leave said space entirely uninclosed laterally.

[Claims 6 to 15 not printed in the Gazette.]

1,078,250. RAIL-CHAIR. WILLIAM J. BURTLE, Louisville, Ky. Filed Apr. 4, 1913. Serial No. 758,924. (Cl. 239—6.)



1. A rail joint comprising a chair which includes a base and longitudinally extending webs, the inner face of one of the webs being formed with a groove which is tapered adjacent the terminals of the web, and wedges disposed to enter the groove from opposite ends, the wedges overlapping and contacting with the meeting ends of the rails which are received between the webs.

2. A rail joint comprising a chair which includes a base and longitudinally extending webs between which the meeting ends of the rails are received, one of the webs being formed with a longitudinally extending groove which is curved transversely adjacent the ends of the web and which is deeper adjacent said ends than at its central portion, wedge members flattened adjacent their smaller terminals and rounded adjacent their larger terminals, said wedge members entering the groove of the web from opposite ends, and means for locking said wedge members to the chair.

3. A rail joint comprising a chair which includes a base and longitudinally extending webs between which the meeting ends of the rails are received, one of the webs being formed with a longitudinally extending groove which is curved transversely adjacent the ends of the web and which is deeper adjacent said ends than at its central portion, wedge members flattened adjacent their smaller terminals and rounded adjacent their larger terminals, the wedge members entering the groove from opposite ends, said wedge members being provided with extensions, and bolts passing through said extensions and means formed integral with the chair, whereby the wedge members are supported against movement with respect to the chair.

1,078,251. SHOE-LAST. JOHN S. BUSKY, Sr., New York, N. Y. Filed Apr. 1, 1912. Serial No. 687,664. (Cl. 12-141.)



1. The combination with a shoe last having a hollow foot portion, of a bottom plate provided upon the lower face of the foot portion and having a peripherally corrugated edge extending beyond the foot portion, said bottom plate having a plurality of spaced slots adjacent to its corrugated edge, a plurality of stretching plates movably held within the foot portion, a plurality of pins provided upon each of the stretching plates and adapted to be projected through the slots of the bottom plate, means adapted to force the stretching plates simultaneously toward the bottom plate, whereby the pins of said stretching plates will be projected through the slots of the bottom plate for fastening the vamp of a shoe upon the last, and means adapted to move the stretching plates simultaneously in a direction toward the center of the bottom plate whereby the vamp of the shoe may be stretched upon the last.

2. The combination with a shoe last having a hollow foot portion, of a bottom plate provided upon the lower face of the foot portion and having a peripherally corrugated edge extending beyond the foot portion, said bottom plate having a plurality of spaced slots adjacent to its corrugated edge, a plurality of stretching plates movably held within the foot portion, a plurality of pins provided upon each of the stretching plates and adapted to be projected through the slots of the bottom plate, a supporting plate movable within the foot portion, guides provided upon the stretching plates and cooperating with the supporting plate for guiding the stretching plates when moved, means adapted to force the supporting plate so as to move the stretching plates simultaneously toward the bottom plate whereby the pins of said stretching plates will be projected through the slots of the bottom plate for fastening the vamp of a shoe upon the last, and means adapted to move the stretching plates simultaneously in a direction toward the center of the bottom plate whereby the vamp of the shoe may be stretched upon the last.

3. The combination with a shoe last having a hollow foot portion and an opening through the top thereof, of a bottom plate upon the lower face of the foot portion having a peripherally corrugated edge extending beyond the foot portion and a plurality of spaced slots adjacent to the corrugated edge, a plurality of stretching plates movably held within the foot portion, a plurality of pins provided upon each of the stretching plates and adapted to be projected through the slots of the bottom plate, a supporting plate movable within the foot portion, guides provided upon the stretching plates and cooperating with the supporting plate for guiding the stretching plates when moved, means adapted to force the supporting plate so as to move the stretching plates simultaneously toward the bottom plate whereby the pins of said stretching plates will be projected through the slots of the bottom plate for fastening the vamp of a shoe upon the last, means adapted to move the stretching plates simultaneously in a direction toward the center of the bottom plate whereby the vamp may be stretched upon the last, and means adapted to rigidly hold an insole or the like upon the bottom plate so as to be stitched to the vamp.

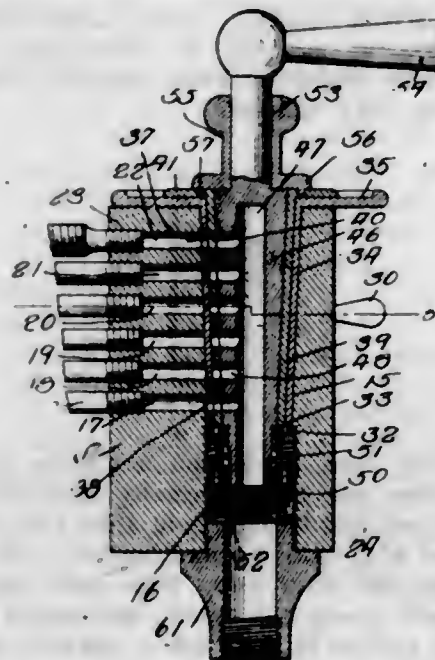
4. The combination with a shoe last having a hollow foot portion and an opening through the top thereof, of a bottom plate provided upon the lower face of the foot portion and having a peripherally corrugated edge extending beyond the foot portion, said bottom plate having a plurality of spaced slots adjacent to its corrugated edge, a

plurality of stretching plates movably held within the foot portion, a plurality of pins provided upon each of the stretching plates and adapted to be projected through the slots of the bottom plate, a supporting plate movable within the foot portion, guides provided upon the stretching plates and cooperating with the supporting plate for guiding the stretching plates when moved, a boss fastened upon the supporting plate, said boss having an exteriorly threaded portion extending toward the opening at the top of the last, an interiorly threaded cap rotatably held upon the threaded portion of the boss, and means adapted to rotate the cap to move the boss for forcing the supporting plate so as to move the stretching plates simultaneously toward the bottom plate whereby the pins of said stretching plates will be projected through the slots of the bottom plate for fastening the vamp of a shoe upon the last.

5. The combination with a shoe last having a hollow foot portion and an opening through the top thereof, of a bottom plate provided upon the lower face of the foot portion and having a peripherally corrugated edge extending beyond the foot portion, said bottom plate having a plurality of spaced slots adjacent to its corrugated edge, a plurality of stretching plates movably held within the foot portion, a plurality of pins provided upon each of the stretching plates and adapted to be projected through the slots of the bottom plate, a supporting plate movable within the foot portion, guides provided upon the stretching plates and cooperating with the supporting plate for guiding the stretching plates when moved, a boss fastened upon the supporting plate, said boss having an exteriorly threaded portion extending toward the opening at the top of the last, an interiorly threaded cap rotatably held upon the threaded portion of the boss and revoluble in the said top opening, means adapted to rotate the cap to move the stretching plates simultaneously toward the bottom plate whereby the pins of said stretching plates will be projected through the slots of the bottom plate for fastening the vamp of a shoe upon the last, and means adapted to move the stretching plates simultaneously in a direction toward the center of the bottom plate whereby the vamp may be stretched upon the last.

[Claims 6 to 12 not printed in the Gazette.]

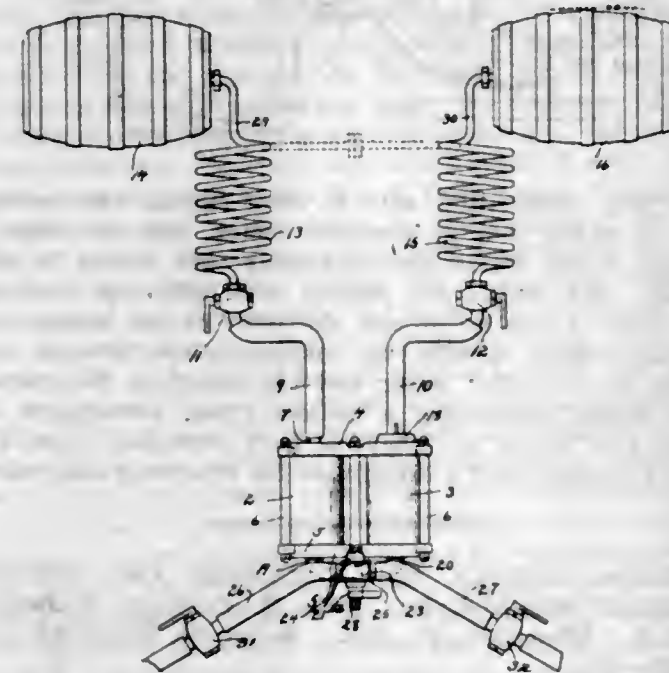
1,078,252. FAUCET. WALTER CACKO, Elizabeth, N. J. Filed Apr. 12, 1913. Serial No. 760,698. (Cl. 137-26.)



A faucet of the class described comprising a body having a longitudinal passage therethrough and a plurality of transverse passages communicating at one end with the longitudinal passage and adapted for connection at their other ends respectively with separate liquid supplies, a valve plug rotatably mounted in said passage and provided with a longitudinal recess and a plurality of ports communicating with the recess and adapted for simul-

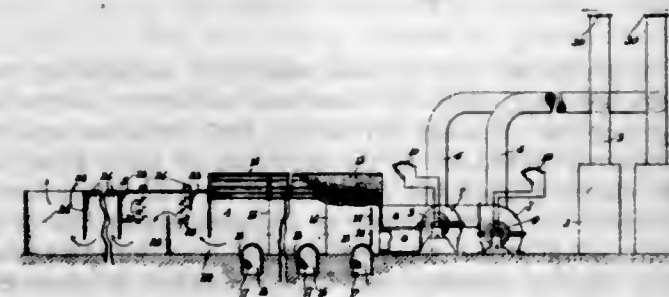
taneous registration with the transverse passages of the body respectively, and a tubular member rotatably mounted in the passage of the body between the latter and the plug, said member being provided with a plurality of ports adapted during the rotation of the member to simultaneously establish communication between a given transverse passage of the body and certain of the other transverse passages of said body with corresponding ports of the plug.

1,078,253. PIPE-CLEANER. JAMES D. CARRY and BENARD GOLDENTHAL, New Haven, Conn. Filed Dec. 16, 1912. Serial No. 737,014. (Cl. 225-12.)



A pipe cleaner comprising two glass cylinders, plates at the opposite ends of said cylinders, said plates connected together whereby the ends of the cylinders are tightly closed; the plates at one end formed with outlets and adapted to be coupled with the pipes to be cleaned, the plates at the opposite ends formed with inlets, a valve connected with said inlets and controlling the opening into either cylinder, a T, opening into said valve, air and water pipes respectively connected with opposite ends of said T, and means controlled by said valve for allowing the escape of the contents from either cylinder.

1,078,254. PROCESS OF AND APPARATUS FOR PRODUCING DRAFT IN CEMENT-KILNS AND SEPARATING DUST FROM THE WASTE GASES OF SUCH KILNS. ROLLA C. CARPENTER, Ithaca, N. Y., and THOMAS J. FLEMING, Los Angeles, Cal.; said Carpenter assignor to said Fleming. Filed June 3, 1912. Serial No. 701,395. (Cl. 75-30.)



1. The herein described method of separating dust from the hot waste gases of cement kilns which comprises producing a dust laden current of gases under normal cement kiln conditions, reducing greatly the velocity and temperature of such gases without interfering with such normal conditions and effecting a primary separation therefrom a major portion of the dust by gravity action, and then separating substantially all of the remaining dust from the cooled and partly purified gas by washing.

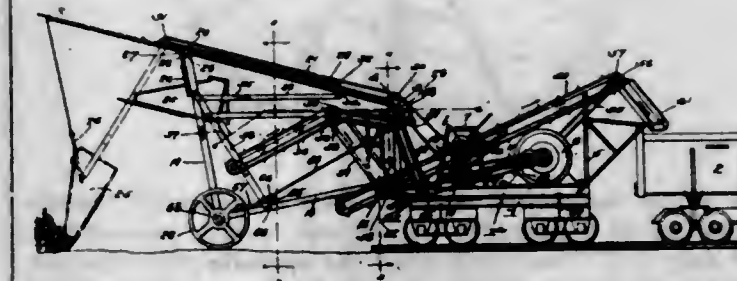
2. The herein described method of producing draft in cement kilns and separating dust from the waste gases of such kilns, which consists in withdrawing the waste gases laden with dust from the kiln by a suction regulated to preserve normal draft conditions in said kiln and forcing such gases into a relatively spacious container, and therein spreading out the gases and cooling them and thereby greatly reducing their velocity and effecting a separation of the dust from such gases by gravity action.

3. The herein described method of producing draft in cement kilns and separating dust from the waste gases of such kilns, which consists in withdrawing the waste gases laden with dust from the kiln by suction, forcing such gases into a relatively spacious container, and therein spreading out the gases and cooling them and thereby greatly reducing their velocity, whereby a primary separation of the major portion of the dust from such gases by gravity action is effected and then separating substantially all of the remaining dust from the cooled gases by washing.

4. The combination with a cement kiln, of a dust separator, and draft producing means arranged to withdraw by suction dust laden gases from the off-take of said kiln and to discharge the same into said dust separator, said dust separator comprising means for spreading out the dust laden gases discharged thereinto and for effecting a dry separation of the dust therefrom by gravity.

5. The combination with a cement kiln, of a dust separator, and draft producing means arranged to withdraw by suction dust laden gases from the off-take of said kiln and to discharge the same into said dust separator, said dust separator comprising means for spreading out and for cooling the dust laden gases discharged thereinto and for effecting a primary dry separation of the dust therefrom by gravity, and also comprising means for effecting a further separation of the dust from the cooled gases by washing.

1,078,255. MINE-SHOVEL. JOHN CABROTT CARTMILL, Lead, S. D. Filed Oct. 5, 1912. Serial No. 724,141. (Cl. 37-16.)



1. The combination with a truck, of a frame mounted upon two front wheels, cog wheels mounted upon the truck, rack bars carried by the said frame and adapted to work upon said cog wheels, a shovel carried by said frame, means mounted upon the truck for controlling said shovel, and means carried by the frame and operable from the truck for steering the wheels of the frame.

2. A device of the kind described comprising a truck, a steerable frame, the rear end of which is loosely mounted upon and movable longitudinally with respect to the truck, guides carried by said frame, a beam slidable in said guides, a shovel suspended from said beam and means mounted upon the truck for regulating movement of the beam and rise and fall of the shovel.

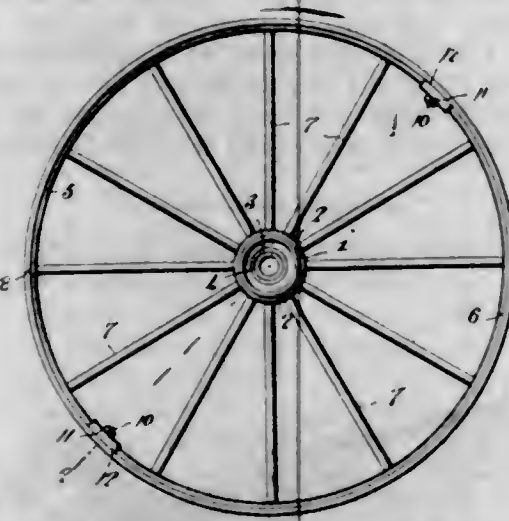
3. The combination with a truck, a frame having its rear end movably mounted upon the truck, wheels supporting the front portion of said frame, a shovel supported from said frame, a conveyor arranged in said frame and adapted to receive material from said shovel, a second conveyor carried by and to one side of the truck, and adapted to receive material from the first mentioned conveyor, a chute adapted to discharge material from the second conveyor into a suitable car, and means mounted upon the truck for operating said shovel.

4. A device of the kind described comprising a steerable frame, a truck supporting the rear end of said frame, the frame being movable longitudinally with respect to

said truck, guides carried by said frame, a beam slidable between said guides, a pulley arranged at the front ends of said guides, a second pulley arranged at the rear ends of the guides, a drum mounted upon the truck, a cable having one end secured to the drum, said cable passing over said pulleys and thence rearwardly from the first mentioned pulley to the rear end of the beam, and being secured to said rear end, a shovel, a second drum upon the truck, a cable having one end secured to said second mentioned drum and the other end secured to the shovel and a pulley secured to the forward portion of the beam, the last mentioned cable running over said pulley.

5. A device of the kind described comprising a truck, a frame, said frame comprising rack bars, cog wheels mounted upon the truck, the rack bars of the frames resting upon said wheels, wheels supporting the front end of the frame, guides carried by the frames, a beam slidably mounted in said guides, a shovel suspended from the forward portion of said beam, a brace secured to the rear portion of the beam pivotally connected to the shovel, drums upon the truck, and cables connected respectively to said drums and to said beam and shovel.

1,078,256. VEHICLE-WHEEL. JAMES P. CHAMPION, Chipley, Ga., assignor of one-third to Jessie H. Champion and one-third to James E. Champion, Chipley, Ga. Filed Aug. 21, 1912. Serial No. 716,260. (Cl. 21—169.)



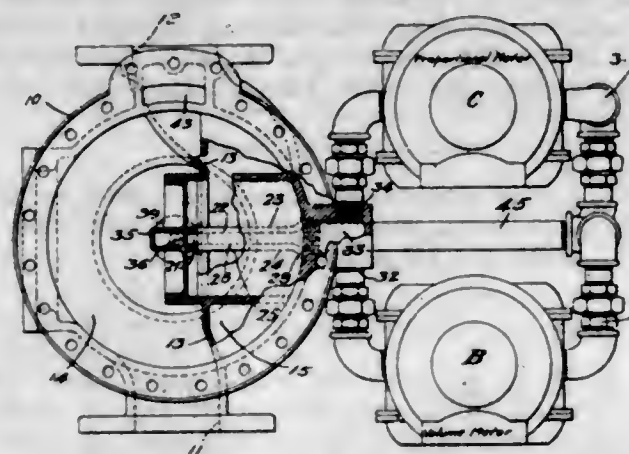
A wheel comprising a hub, a felly connected thereto consisting of a plurality of sections, a tire surrounding said felly and extending beyond the opposite sides thereof, a flat wedge horizontally arranged between the ends of said sections for expanding the felly and having a central opening therein, a clip arranged over and entirely inclosing said wedge and having out-turned ends embracing the opposite sides of the felly to prevent lateral displacement of the wedge and felly sections, said clip engaging the inner surface of the tire and being arranged wholly between the marginal edges of the same, and a bolt passing through said tire, wedge, and clip.

1,078,257. METER. HORACE CHRISMAN, Edgewood Park, Pa., assignor to Pittsburg Meter Company, a Corporation of Pennsylvania. Filed Sept. 27, 1910. Serial No. 584,007. (Cl. 73—16.)

1. The combination of a casing, a proportional meter, pipes leading from the casing to the inlet and outlet of said proportional meter, a volume meter, pipes leading from the inlet and outlet of the volume meter to the casing, independent chambers for the respective meters in the casing, a rectangular slide valve for closing communication between the outlet of one meter and the outlet of the casing and simultaneously opening communication between the inlet of the other meter and the inlet of the casing, and means for operating said valve.

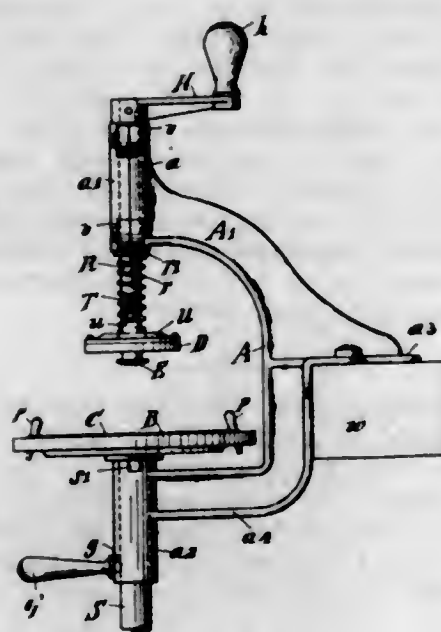
2. The combination of a casing having a ported partition, a volume meter, pipes connecting said volume meter to said casing, a proportional meter, pipes connecting said

proportional meter to said casing, a hollow rectangular valve for determining the exposed port areas in the casing, said valve having a rectangular port above a hollow portion.



3. The combination with a valve casing, two meters, one of which is a proportional meter, and the other a volume meter, means for connecting said meters to said casing, and means for closing communication between the inlet of one meter and the inlet of the casing and simultaneously opening up communication between the outlet of the other meter and the outlet of the casing, said means comprising a hollow valve, rectangular in form, and having a transverse port extending above the hollow portion, and a diaphragm for operating said valve.

1,078,258. DEVICE FOR CLEANING AND TRUING EMERY-WHEELS, &c. FRED M. COURSER, Rochester, N. Y. Filed Dec. 27, 1912. Serial No. 738,902. (Cl. 125—6.)



1. A device for the purpose described comprising, two cooperating and relatively rotatable elements; means for supporting the elements permitting their relative rotation and relative movement in the direction of their axes, one of the elements provided with means for removably securing thereto the emery wheel to be treated and the other element adapted to receive, support and suitably conform a flexible cleaning and truing member in operative relation to the wheel to be treated on the first element and a flexible and removable cleaning and truing member adapted to be supported and conformed thereon in operative relation to the wheel to be treated; yieldable means for forcing one of said elements axially toward the other and a stop for limiting the movement of the elements relatively toward each other under the influence of such forcing means, the parts so conformed and cooperating that when the elements are forced toward each other with an emery wheel on one of them and a truing and

cleaning member on the other, in the process of treating the wheel, the effort exerted by such forcing means tends to force the wheel to be treated into engagement with the truing and cleaning member.

2. A device for the purpose described comprising, two cooperating and relatively rotatable elements; means for supporting the elements permitting their relative rotation and relative movement in the direction of their axes, one of the elements provided with means for removably securing thereto the emery wheel to be treated and the other element adapted to receive, support and suitably conform a flexible cleaning and truing member in operative relation to the wheel to be treated on the first element and a flexible and removable cleaning and truing member adapted to be supported and conformed thereon in operative relation to the wheel to be treated; yieldable means for forcing one of said elements axially toward the other and a stop for limiting the movement of the elements relatively toward each other under the influence of such forcing means, the parts so conformed and cooperating that when the elements are forced toward each other with an emery wheel on one of them and a truing and cleaning member on the other, in the process of treating the wheel, the effort exerted by such forcing means tends to force the wheel to be treated into engagement with the truing and cleaning member and means for releasably holding the elements in relative adjustment with the effort exerted by such forcing means tending to force the wheel to be treated against the truing and cleaning member.

3. A device for the purpose described comprising, two cooperating and relatively rotatable elements; means for supporting the elements permitting their relative rotation and relative movement in the direction of their axes, one of the elements provided with means for removably securing thereto either concentrically or eccentrically, as desired, the emery wheel to be treated and the other element adapted to receive, support and suitably conform a flexible cleaning and truing member in operative relation to the wheel to be treated on the first element and a flexible and removable cleaning and truing member adapted to be supported and conformed thereon in operative relation to the wheel to be treated; yieldable means for forcing one of said elements axially toward the other and a stop for limiting the movement of the elements relatively toward each other under the influence of such forcing means, the parts so conformed and cooperating that when the elements are forced toward each other with an emery wheel on one of them and a truing and cleaning member on the other, in the process of treating the wheel, the effort exerted by such forcing means tends to force the wheel to be treated into engagement with the truing and cleaning member.

4. A device for the purpose described comprising, two cooperating and relatively rotatable elements; means for supporting the elements permitting their relative rotation and relative movement in the direction of their axes, one of the elements provided with means for removably securing thereto either concentrically or eccentrically, as desired, the emery wheel to be treated and the other element adapted to receive, support and suitably conform a flexible cleaning and truing member in operative relation to the wheel to be treated on the first element and a flexible and removable cleaning and truing member adapted to be supported and conformed thereon in operative relation to the wheel to be treated; yieldable means for forcing one of said elements axially toward the other and a stop for limiting the movement of the elements relatively toward each other under the influence of such forcing means, the parts so conformed and cooperating that when the elements are forced toward each other with an emery wheel on one of them and a truing and cleaning member on the other, in the process of treating the wheel, the effort exerted by such forcing means tends to force the wheel to be treated into engagement with the truing and cleaning member and means for releasably holding the elements in relative adjustment with the effort exerted by such forcing means tending to force the wheel to be treated against the truing and cleaning member.

1,078,259. TARGET-PRACTICE APPARATUS. HENRY H. CUMMINGS, Newton, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 26, 1909. Serial No. 485,977. (Cl. 124—15.5.)



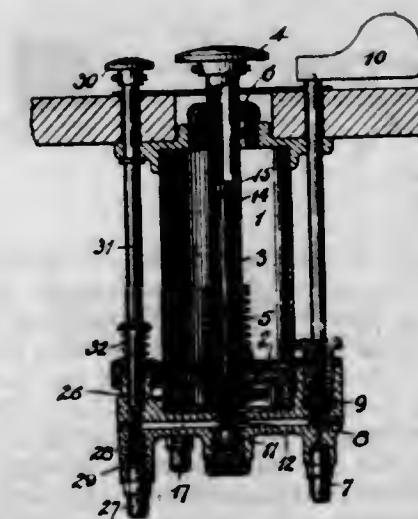
1. In a target practice apparatus, the combination with a retaining tube adapted to be inserted within the bore of a firearm, of a marker rod having an enlarged marking head, a spring normally retracting the rod within the tube, and a sleeve or thimble in the forward end of the tube, said head in its normal position being retracted within said sleeve and seated against a contracted portion thereof.

2. In an aim recording attachment for a fire arm, the combination with a marking device adapted to be inserted in the bore of a fire arm, of a target holder, a support for said holder, one or more pockets formed in the end thereof to receive the parts of said marking device, and means within said pockets to hold said parts in place.

3. In a target practice apparatus, an aim recording attachment comprising a marker rod, and a guiding member adapted to guide said rod, said guiding member having a flange larger than the barrel of the firearm and adapted to be inserted in the muzzle thereof.

4. In a target practice apparatus, an aim recording attachment comprising a marking rod, a separate striking rod, a guiding member adapted to guide said marker rod, said guiding member having a flange larger than the barrel of the fire arm and adapted to be inserted in the muzzle thereof.

1,078,260. GAS-ENGINE STARTER. CHARLES H. CUNO, Meriden, Conn. Filed Jan. 27, 1913. Serial No. 744,287. (Cl. 123—187.5.)



1. In a gas engine starter, a measuring cylinder, a piston therein, means for yieldingly checking the receding movement thereof, a gas inlet leading into said cylinder in front of said piston for admitting gas under pressure, a valve for said inlet, with means for positively closing said valve by the action of the piston, and a manually operable means for permitting said piston to be advanced to expel the gas therein.

2. In a gas engine starter, a measuring cylinder, a piston therein, means for yieldingly checking the receding movement thereof, a gas inlet leading into said measuring cylinder in front of said piston for admitting gas under pressure, an outwardly opening valve therefor, with means for closing said valve by the action of the piston and holding the same closed by the external gas pressure against the same until the piston is advanced, and means associated with the piston for unseating said valve when said piston is advanced, and with means for manually advancing said piston.

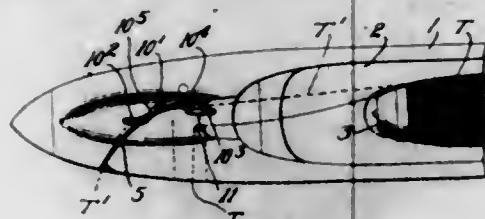
3. In a gas engine starter, a measuring cylinder, a piston therein, adjustable means for yieldingly checking the receding movement thereof, a gas inlet leading into said cylinder in front of said piston for admitting gas under pressure, a valve for said inlet, with means for positively closing said valve by the action of the piston, and a manually operable means for permitting said piston to be advanced to expel the gas therein.

4. In a gas engine starter, a measuring cylinder, a piston therein, means for yieldingly checking the receding movement thereof, a gas inlet leading into said cylinder in front of said piston for admitting gas under pressure, a valve for said inlet, with means for positively closing said valve by the action of the piston, a manually operable means for permitting said piston to be advanced to expel the gas therein, and a gas distributing means associated with said measuring cylinder, said distributing means including a valved passage having two outwardly opening valves therein.

5. In a gas engine starter, a measuring cylinder, a piston therein, means for yieldingly checking the receding movement thereof, a gas inlet leading into said cylinder in front of said piston for admitting gas under pressure, a valve for said inlet, with means for positively closing said valve by the action of the piston, a manually operable means for permitting said piston to be advanced to expel the gas therein, and a gas distributing means associated with said measuring cylinder, said distributing means including a valved passage having two outwardly opening valves therein, one valve being mechanically opened by the movement of the other valve.

[Claims 6 and 7 not printed in the Gazette.]

1,078,261. SHUTTLE. EUSENE H. DAUDLIN, Fall River, Mass., assignor to himself and Jean B. Daudlin, Fall River, Mass. Filed Oct. 23, 1912. Serial No. 727,301. (Cl. 139-46.)



1. In a shuttle of the class described, having a transverse delivery eye and a threading passage with an exposed upper edge and an oppositely extending underlying portion, a threading bar disposed across said exposed edge and extending from the delivery side of the receiving end of the threading passage at the rear of the delivery eye to the opposite side of said passage forward of said eye.

2. In a shuttle of the class described having a delivery eye and a threading passage leading thereto, a thread guide set transversely to the plane of entry of the thread into said passage and adapted to form a loop in said thread during said entry, said guide having surfaces having a directive tendency toward said delivery eye.

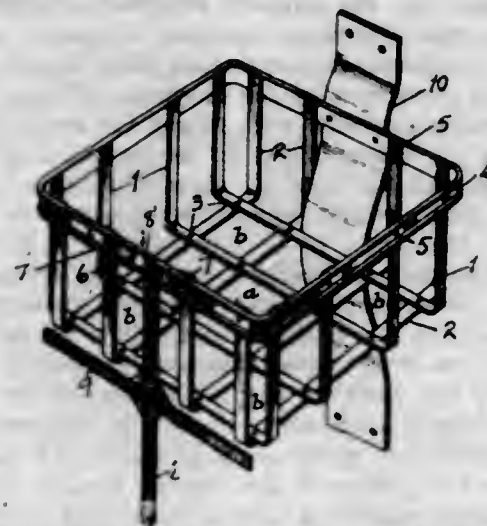
3. A guard for the threading slot of a shuttle consisting of a bar, means for supporting it transversely of the slot, said bar comprising a central bowed portion and substantially straight portions connecting the ends of said bar with said supporting means, said bowed portion being slightly tilted up.

4. In combination with a shuttle of the class described, a guard for the threading slot, comprising an overlapping section having a rearwardly inclined guiding edge on one side and transversely disposed barring edges on the opposite side.

5. In combination with a shuttle of the class described a transverse guard for the threading slot thereof consisting of a bar having downturned ends lodged in the shuttle, said bar having a central bowed portion overlying said slot in general parallelism therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,078,262. BASKET FOR BOTTLE-CONVEYERS. JOSEPH W. DAWSON, St. Louis, Mo., assignor to Barry-Wehmiller Machinery Company, St. Louis, Mo., a Corporation. Filed June 24, 1912. Serial No. 705,461. (Cl. 220-111.)

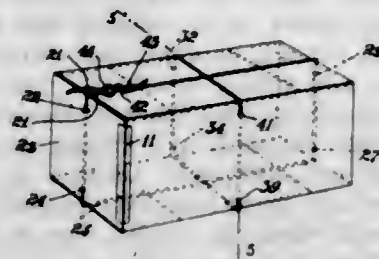


1. A bottle carrying basket comprising a bottom having a central bottle receiving aperture and also provided with bottle receiving apertures smaller than said central aperture, and a division device fitted to said basket above said bottom, the said division device having arms adapted to divide the basket into bottle receiving compartments which register with the said smaller bottle receiving apertures, and the division device being movable to permit the introduction of a large bottle into said central bottle receiving aperture.

2. A bottle carrying basket comprising a bottom having bottle receiving apertures, one of which is located at the center of said bottom, and a division device hinged to said basket above said bottom, said division device being in the form of a cross adapted to divide the basket into four bottle receiving compartments registering with four of said apertures, and the said division device being movable to a suspended position exterior of the basket to permit the introduction of a bottle into the aperture at the center of said bottom.

3. A bottle carrying basket, comprising a top rim formed of channel iron, a pivot member connecting the ends of the channel iron in said top rim, the said pivot member being seated between the flanges of the channel iron to serve as a stiffener, an apertured bottom supported by said top rim, and a division device permanently and loosely fitted to said pivot member movable from a suspended position exterior of the basket to a horizontal position at the top of the basket to subdivide the latter into a plurality of compartments.

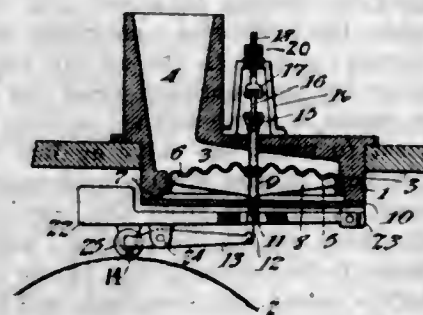
1,078,263. PACKAGE. JAMES F. DIXON, Kansas City, Mo., assignor to Irving Hill, Lawrence, Kans. Filed June 6, 1911. Serial No. 631,660. (Cl. 220-46.)



In combination, a box or carton formed from a single substantially parallelogrammatic blank, slit and scored and capable of being so folded as to bring two of the edges thereof together, leaving the folded blank substantially flat but adapted to be opened readily into a rectangular form, means for securing said meeting edges together, extensions being formed by said slits at both ends of each of the four sides of said rectangular form, said extensions being adapted to be folded inwardly and overlap to form a closed top and a closed bottom, and a tape rove through openings on said blank when in its flat condition, passing through each side of said rectangular form and

adapted for use to reinforce all four edges of both said top and said bottom and secure said top and bottom in their closed positions.

1,078,264. PHONOGRAPHIC RECORDING OR REPRODUCING APPARATUS. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 16, 1907. Serial No. 362,597. (Cl. 181-10.)



1. A phonographic recording or reproducing apparatus employing in combination a casing, a vibrating piston freely mounted in said casing and adapted to impart sound vibrations to the static column of air therein, a stylus lever connected at one end to said piston, a stylus at the other end of the lever, and a tension device connected with the piston for imposing an elastic pressure between the stylus and the record or recording surface, and for maintaining the connections between the piston and stylus lever under tension, substantially as and for the purposes set forth.

2. A phonographic recording or reproducing apparatus employing in combination a casing, a vibrating piston freely mounted therein, a stylus lever mounted below the casing, a connection between the piston and one end of the stylus lever, a stylus at the other end of the stylus lever and a tension device above the piston for imposing an upwardly acting elastic tension thereon, substantially as and for the purposes set forth.

3. A phonographic recording or reproducing apparatus employing in combination a casing, a vibrating piston freely mounted therein, a stylus lever mounted below the casing, a connection between the piston and one end of the stylus lever, a stylus at the other end of the stylus lever, a tension device above the piston for imposing an upwardly acting elastic tension thereon, and means for adjusting the tension device, substantially as and for the purposes set forth.

4. In a phonographic recording or reproducing apparatus, the combination of a casing, a vibrating piston freely mounted therein, a stylus lever below the casing, a metal spring connecting the piston with the stylus lever and a tension device above the piston for exerting an upwardly acting elastic tension thereon, substantially as and for the purposes set forth.

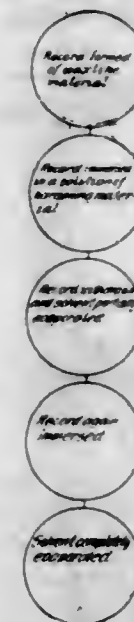
5. In a phonographic recording or reproducing device, the combination with a casing, a vibrating piston freely mounted therein, an elastic tension device above the piston for exerting upward stress thereon, a stylus lever having a curved end mounted below the casing and a connection between the curved end of the stylus lever and the piston, substantially as and for the purposes set forth.

[Claims 6 to 13 not printed in the Gazette.]

1,078,265. PROCESS OF MAKING PHONOGRAPH-RECORDS. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 14, 1908. Serial No. 457,593. (Cl. 181-17.)

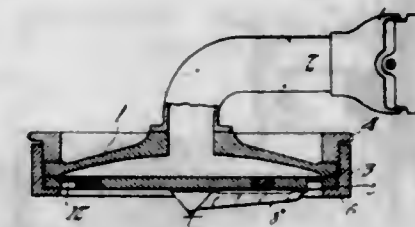
1. The process of imparting a surface hardening to a phonograph record of wax-like material having vertical sound undulations on the outer surface thereof, which consists in immersing the record in a solution of organic material, withdrawing the same from the solution and partially evaporating the solvent therefrom, then again im-

mersing the same in said solution, withdrawing the same, and completely evaporating the solvent therefrom to produce on the record surface thereof a film containing on its outer surface a replica of the record underneath, substantially as set forth.



2. The process of imparting a surface hardening to a phonograph record of wax-like material having vertical sound undulations on the outer surface thereof, which consists in immersing the record in a solution of organic material, withdrawing the same from the solution and partially evaporating the solvent therefrom, then again immersing the same in said solution, withdrawing the same, and rotating the same to completely evaporate the solvent therefrom and to produce on the record surface thereof a film containing on its outer surface a replica of the record underneath, substantially as set forth.

1,078,266. SOUND-BOX. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 5, 1911. Serial No. 619,012. (Cl. 181-10.)



1. A diaphragm for sound boxes having a plurality of weights uniformly distributed over the same and loosely supported thereby, substantially as described.

2. A diaphragm for sound boxes provided with a plurality of independent weighting pellets uniformly distributed over the same, substantially as described.

3. A diaphragm for sound boxes, having a plurality of pockets distributed over the same, and a weight supported in each pocket, substantially as described.

4. A diaphragm for sound boxes, having a plurality of pockets distributed over the same, and a weight loosely supported in each pocket, substantially as described.

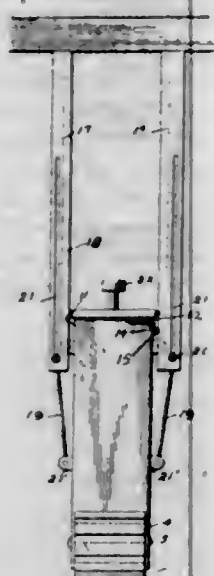
5. A diaphragm for sound boxes, having a plurality of open pockets distributed over the same, a weight loosely supported in each pocket, and means for covering the pockets, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,078,267. AUTOMATIC HOG-GREASER. STILLMAN B. EDWARDS, Villisca, Iowa, assignor of one-half to Samuel H. Coleman, Montgomery county, Iowa. Filed Sept. 13, 1912. Serial No. 720,156. (Cl. 119-157.)

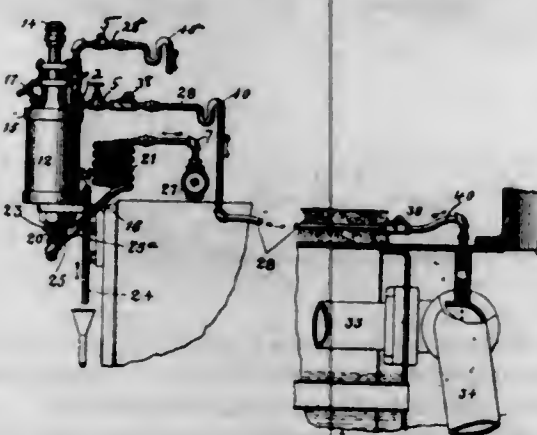
A device of the character specified comprising a vertically movable casing, a transversely grooved roller revo-

lubly mounted in and projecting through the lower end of the casing, a hinged cover at the top of the casing, a weight slidably mounted in the casing to force the grease downward into contact with the grooved roller, a plunger connected with the weight and working through the cover and means for slidably mounting the casing and associated parts in place, said means comprising a pair of



vertical laterally spaced supports provided in their inner edges with vertical grooves and with vertical slots disposed at right angles to said grooves, lateral ears extending from opposite side walls of the casing and working in said grooves and guide links connected at their lower ends to the casing and provided at their upper ends with right angularly bent portions working in the slots of the supports.

1,078,268. LUBRICATOR. WILLIAM J. FAUL, New York, N. Y., assignor to William J. Paul Co., New York, N. Y., a Corporation of New York. Filed June 11, 1904, Serial No. 212,182. Renewed Apr. 18, 1913. Serial No. 762,095. (Cl. 184—39.)



1. A steam engine lubricator comprising the combination of an oil-cup, a piston fitted therein; a conduit from one end of the oil-cup into the steam chamber of the engine; a check valve in the conduit; a trap in the conduit between the valve and the steam chamber of the engine; a steam generator, a condenser, a conduit connecting it with the steam generator, a conduit connecting the condenser with the other end of the oil-cup, and means for reducing, at a point, the cross-sectional area of the conduit between the condenser and the oil-cup, substantially as herein shown and described.

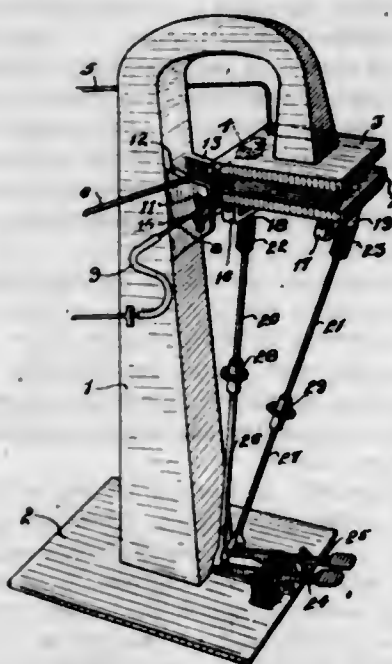
2. A steam engine lubricator, comprising the combination of an oil-cup, a piston fitted therein; a conduit from the oil-cup into the steam chamber of the engine; a check valve and a trap in the conduit, the trap being located between the valve and the steam chamber of the engine, and means, operatively connected with the lubricator, for driving the lubricant from the oil-cup through the said conduit, substantially as herein shown and described.

3. A lubricator for feeding the lubricant into the steam chamber of an engine, comprising an oil-cup, a piston fitted therein and a conduit from one end of the oil-cup, above the piston, to the steam chamber; a check valve and an oil-trap in the conduit; a condenser and a conduit from the condenser to the other end of the oil-cup, underneath the piston; a device for reducing the cross-sectional area of the conduit at a point between the condenser and the oil-cup, and a conduit from the condenser to a supply of steam, substantially as herein shown and described, and for the purposes herein set forth.

4. A lubricator for feeding lubricant into the dry-pipe of a steam engine, the lubricator comprising an oil-cup, a piston fitted therein; a port in the oil-cup above the piston and a conduit for the lubricant from the port to the dry-pipe of the engine, a valve and an oil-trap in the conduit, a spring, set to press the valve against the flow of the lubricant; a port in the oil-cup underneath the piston; a condenser, a conduit from the port to the condenser, a needle valve, set in the conduit; and a conduit from the condenser to the steam boiler of the engine, substantially as herein shown and described, and for the purposes herein set forth.

5. A lubricator for continuously feeding lubricant into working cylinders of a steam engine, the lubricator comprising an oil-cup, a piston fitted therein, a port on one end of the oil-cup, a conduit from the port to the steam chamber, a check valve and an oil-trap in the conduit, the trap being located between a check valve and the delivery end of the conduit; a port on the other end of the oil-cup; a condenser and a conduit from the port to the condenser, a conduit from the condenser to the boiler of the engine, and of means for reducing, at a point, the cross-sectional area of the conduit from the port to the condenser; substantially as herein shown and described and for the purposes herein set forth.

1,078,269. APPARATUS FOR IRONING GARMENTS. HERMAN B. FERGUSON, Pittsburgh, Pa. Filed Mar. 14, 1913. Serial No. 754,275. (Cl. 68—9.)



1. Apparatus for ironing garments comprising a fixed plate, a movable plate mounted for movement toward and from the fixed plate and for oscillation about a point adjacent one end, means for heating one of the plates, means for moving the end of the oscillatory plate toward the fixed plate to grip the end of the garment leaving the other end of such plate separated from the fixed plate, and means for moving such other end toward the fixed plate while maintaining the first mentioned end of the oscillatory plate in gripping position.

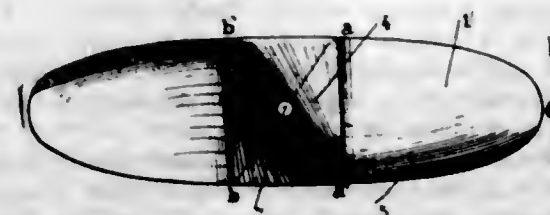
2. Apparatus for ironing garments, comprising lower and upper flat presser plates, means for heating one of the plates, and means whereby one of the plates is caused to move toward the other at one end and at an angle to

the other plate, to grip the end of the garment to permit it to be pulled straight, the ends of the plates opposite to the gripping ends being left separated to permit such straightening operation preliminary to the final pressing operation.

3. Apparatus for ironing garments, comprising a lower presser plate and upper plate, means for heating one plate, and mechanism for causing one of the plates to approach the other in two movements, the first movement bringing two opposing ends of the plates into gripping engagement with the end of the garment while the other ends of the plates are left separated to permit the garment to be pulled straight, and the second movement bringing the separated ends of the plates into pressing engagement with the garment, while the first mentioned ends are maintained in gripping engagement with the garment.

4. Apparatus for ironing garments, comprising a pair of relatively movable opposing presser plates mounted to permit first a relative movement of approach with one plate inclined toward the other so that the garment is first gripped at one end between the ends of the plates and second a movement bringing the plates into substantial parallelism and close together to press the entire garment, and operating devices giving the said relative movements and maintaining the gripping ends of the plates in gripping position while the plates are being brought into substantial parallelism.

1,078,270. SCREW-PROPELLER. ANTOINE PADOUE FILIPPI, Paris, France. Filed Mar. 24, 1911. Serial No. 616,712. (Cl. 170—159.)



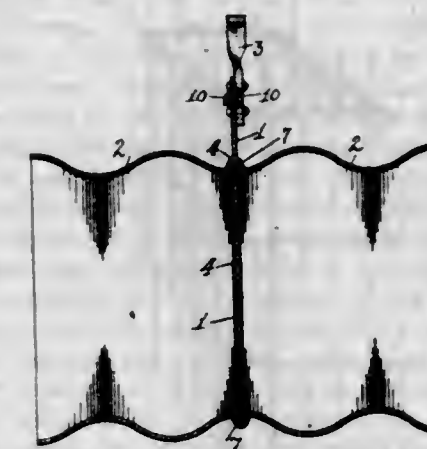
A screw propeller comprising a plurality of blades, in each of which the pitch increases from the hub to the end, and from the leading edge to the trailing edge, the front face of each blade being provided with an inclined surface adjacent its trailing edge and adjacent the hub of the propeller, the rear face of each blade being provided with an inclined surface adjacent the hub of the propeller, the planes of said inclined surfaces intersecting one another and passing through the shaft of the propeller, such diverging surfaces forming suitable angles with the blades.

1,078,271. SLIDE-GATE. RAYMOND CHARLES FORCE and STANLEY BURNE, Los Angeles, Cal., assignors to California Corrugated Culvert Company, Oakland, Cal., a Corporation of California. Filed Nov. 27, 1912. Serial No. 733,811. (Cl. 137—5.)

1. In a slide-gate for pipes, the combination of a circumferentially corrugated pipe having in the plane of one of its internal ridges a circumferential groove exposed to the interior of the pipe, said pipe being formed with a cross slot in an arc of the circumference of said groove; and a slide adapted to fit and move in said slot to traverse the cross sectional area of the pipe's interior and to seat itself in the circumferential groove.

2. In a slide-gate for pipes, the combination of a circumferentially corrugated pipe having a circumferential exterior offset independent of the normal corrugations of said pipe and formed with a groove on its inner face exposed to the interior of the pipe, said offset being made in the cross section of the pipe of lesser diameter whereby its grooved inner face lies in the plane of an interior ridge of one of the normal corrugations of the pipe, and said pipe having a cross slot made through its offset in an arc of its circumference, and a slide adapted to fit and

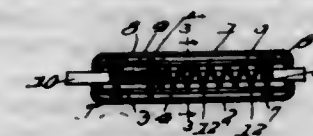
move in said slot to traverse the cross-sectional area of the pipe's interior and to seat itself in the interior groove of the offset.



3. In a slide-gate for pipes, the combination of a pipe having a circumferential exterior offset formed with a groove on its inner face exposed to the interior of the pipe, said pipe having a cross slot made through its offset in an arc of its circumference, and a slide adapted to fit and move in said slot to traverse the cross-sectional area of the pipe's interior and to seat itself in the interior groove of the offset, said slide having a flange projecting from its side adapted to grip the upturned edge of the offset to press the slot wall against the slide when the latter is closed.

4. In a slide-gate for pipes, the combination of a pipe having a circumferential exterior offset formed with a groove on its inner face exposed to the interior of the pipe, said pipe having a cross slot made through its offset in an arc of its circumference, and a slide adapted to fit and move in said slot to traverse the cross-sectional area of the pipe's interior and to seat itself in the interior groove of the offset, said slide having a pair of flanges projecting one from one side and the other from the other side adapted to grip the upturned edges of the offset to press the slot walls against the slide when the latter is closed.

1,078,272. BRACELET. THEODORE W. FOSTER, Providence, R. I. Filed Dec. 26, 1912. Serial No. 738,630. (Cl. 59—82.)



1. A bracelet unit consisting of trough shaped outer members, a plate on the interior of each member, tubular posts having heads, the posts being passed through openings provided therefor in one of the plates to cause the heads of the posts to be disposed between the inner face of said plate and the inner face of the member that carries said plate, pins having heads, the pins being passed through openings provided therefor in the other plate to cause the heads of the pins to be disposed between the inner face of the said other plate and the inner face of the member that carries the last named plate, the edges of the members being rolled over onto the respective plates thereof, and the pins of one plate being received in the tubular posts of the other plate.

2. A bracelet unit consisting of trough-shaped outer elements, a plate-like inner element on the interior of each outer element, headed pins carried by one inner element and headed tubular posts carried by the other inner element, the heads of the posts and pins being disposed between the inner faces of the inner and outer elements, and means to rigidly connect said elements to clamp the heads of the pins and posts rigidly between the inner and outer elements, the pins being received in the posts.

1,078,273. FIREPROOF WALL. WILLIAM GERRHETS and CHARLES R. BALLNER, New York, N. Y. Filed July 27, 1912. Serial No. 711,858. (Cl. 72-42.)



1. A wall structure composed of a single thickness of thin building blocks combined with visible dowels on the outer portions of the wall and arranged exteriorly of the joints between the blocks of the respective courses and bridging the joints between the courses of the blocks, and with visible anchoring means engaging between the blocks of the respective courses and holding the dowels to the blocks.

2. A wall structure composed of a single thickness of superposed thin building blocks, combined with visible dowels on the outer portions of the wall and at both faces thereof and bridging the joints between the courses of the blocks, and with anchors in the joints between the courses of the blocks and having projecting parts engaging the visible dowels, each anchor engaging dowels at both faces of the wall.

3. A wall structure comprising building blocks having grooved outer surfaces, combined with dowels in the grooves and bridging the joints between the courses of the blocks, and with anchors in the joints between the courses of the blocks and having visible projecting parts engaging the dowels.

4. A wall structure comprising building blocks, combined with visible dowels on the outer portions of the wall and at both faces thereof and bridging the joints between the courses of the blocks, and with anchors in the joints between the courses of the blocks and bridging the joints between adjacent blocks in the respective courses and having projecting parts engaging the visible dowels, each anchor engaging dowels at both faces of the wall.

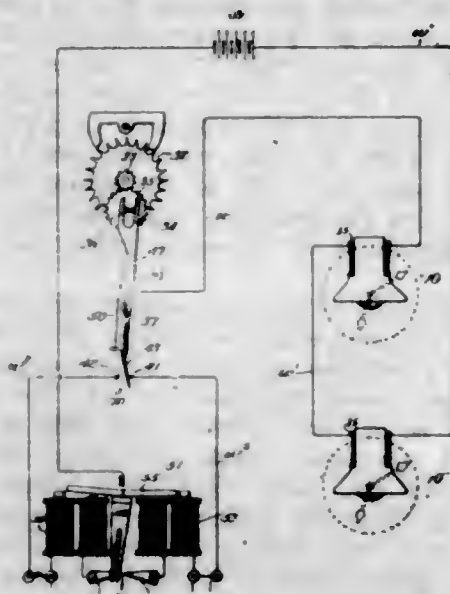
5. A wall structure comprising building blocks having grooves within their edges along the joints between the courses of the blocks, combined with visible dowels on the outer portions of the blocks and bridging the joints between the courses of the blocks, and with anchors in the grooves in the joints between the courses of the blocks and having visible projecting parts engaging the visible dowels. [Claims 6 to 9 not printed in the Gazette.]

1,078,274. ELECTRIC CLOCK. HARLEIGH GILLETTE, Chicago, Ill. Filed Oct. 21, 1912. Serial No. 728,890. (Cl. 58-24.)

1. In combination with a master-clock and a secondary electric clock having an electromagnet and an armature-driven minutes-wheel, an electric circuit containing said electromagnet, a double electric-contact device. In said circuit actuated by the master-clock to operate said secondary clock, and a double electric cut-out device having its own electromagnets in the circuit, actuated by each operation of said contact-device to open the circuit.

2. In combination with a master-clock and a secondary electric clock having an electromagnet and an armature-driven minutes-wheel, an electric circuit containing said electromagnet, a double electric-contact device in the circuit, comprising opposing contact-points and a contact-

making pivotal device working in opposite directions between them by successive complete rotations of the master-clock seconds-wheel to close the circuit by each movement of said device and operate said secondary clock, and a double electric cut-out device having its own electromagnets in the circuit, actuated by each operation of said contact-device to open the circuit.



3. In combination with a master-clock having a seconds-wheel, and a secondary electric clock having an electromagnet and an armature-driven minutes-wheel, an electric circuit containing said electromagnet, an eccentric stud driven by said seconds-wheel about a central axis to make a half-revolution in each complete rotation of the seconds-wheel, a double electric contact-device in the circuit having a pivotal bifurcated switch-arm embracing said stud, and a double electric cut-out device having its own electromagnets in the circuit actuated to open the latter by each throw of said arm.

4. In combination with a master-clock having a seconds-wheel carrying concentrically a pinion, and a secondary electric clock having an electromagnet and an armature-driven minutes-wheel, an electric circuit containing said electromagnet, a toothed wheel of twice the diameter of and meshing with said pinion and carrying an eccentric stud, a double electric-contact device in the circuit, having a pivotal bifurcated switch-arm embracing said stud, and a double electric cut-out device having its own electromagnets in the circuit actuated to open the latter by each throw of said arm.

5. In combination with a master-clock having a seconds-wheel, and a secondary electric clock having an electromagnet and an armature-driven minutes-wheel, an electric circuit containing said electromagnet, an eccentric stud driven by said seconds-wheel about an axis to make a half-revolution in each complete rotation of the seconds-wheel, a double electric-contact device in the circuit, comprising a pair of opposing contact-points, a pivotal bifurcated switch-arm embracing said stud, and a contact-making spring-snapped head pivotally connected with said arm to work between the contact-points and close the circuit by each movement of said arm, and a double electric cut-out device having its own electromagnets in the circuit actuated to open the latter by each throw of said arm. [Claims 6 to 9 not printed in the Gazette.]

1,078,275. FIRE-DOOR FOR ELEVATOR-SHAFTS, &c. MILLARD GILMORE, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1913. Serial No. 754,748. (Cl. 189-45.)

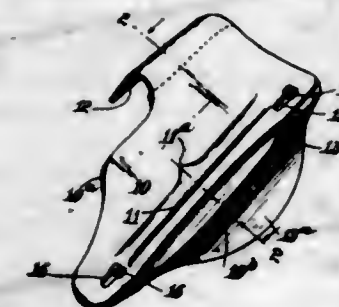
In a construction of the character set forth, a guide comprising three metal bars, each of said bars comprising sections separated by a space, the spaces bearing a staggered relation to each other, bolt-and-slot connections joining the bar-sections together, thus providing an expansion joint, and means associated therewith for normally re-

stricting the movement of said bars with relation to each other, said means adapted to cease its restricting action



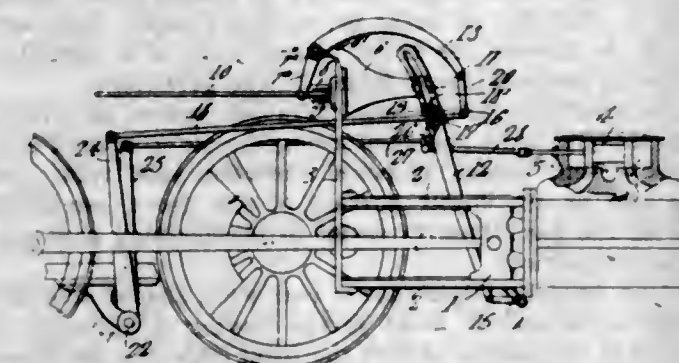
when a dangerous rise in temperature occurs, and thus permit longitudinal expansion of the bars.

1,078,276. INSTEP-ARCH SUPPORT. MOSES GOODSIDE, New York, N. Y. Filed Aug. 3, 1912. Serial No. 713,069. (Cl. 36-71.)



An instep arch-support, embodying therein a reinforced base plate having one of its longer edges curved upwardly and its opposite longer edge substantially ogee-shaped, an arm at said ogee-shaped edge bent at substantially a right angle to the normal plane of the base plate, a sole plate adjustably supported on said base plate, said sole plate having one of its edges ogee-shaped to register with the ogee-shaped edge of the base plate and its opposite edge upwardly curved, and means for securing said plates in relatively adjusted position.

1,078,277. VALVE-GEAR. ADELBERT E. HALL, Bay City West, Mich. Filed Jan. 27, 1911. Serial No. 605,943. (Cl. 121-98.)



1. The combination with an engine frame, the pistons, the cross heads and the cylinders, of a valve gear, including a pair of brackets one to each cylinder, a lever pivoted to each bracket and having its lower end operably connected to its respective cross head, a bell-crank lever pivoted to each bracket, a rod operably connected to the bell-crank lever, coacting means carried by said rod and one end of the bell-crank lever whereby the range of movement of the rod may be varied and whereby said rod is operably connected for operation from the first lever, and a valve operably connected to said rod, the throw of said valve being controlled by the position of the rod relatively to the first lever.

2. The combination with an engine frame, the pistons, the cross heads and the cylinders, of a valve for each cylinder, a bracket carried by the frame, one to each valve, a lever provided with a slotted upper end having its lower end operably connected to its respective cross head, two bell-crank levers, one pivoted to each bracket intermediate of its ends, a rod operably connected to one end of each of the bell-crank levers and slidably connected intermediate of its ends to the slotted end of the first lever, a pair of bars journaled transversely of the engine frame, an arm carried at one end of each bar and operably connected to its respective rod, another arm carried at the opposite end of each of the said bars, and means for operably connecting the last mentioned arms to the valve.

3. The combination of an engine frame, the pistons, the cross heads and the cylinders, of a valve for each cylinder, a bracket carried by the frame, one to each valve, a bell-crank lever mounted in each bracket, a lever link having its lower end operably connected to its respective cross head, the upper end of said lever being pivotally connected to its respective bracket for reciprocatory movement, the upper end of said lever being provided with an arc-shaped slot therethrough, a block slidably mounted in said slot, a rod connected to said block and having one end operably connected to its respective bell-crank lever, a bar journaled transversely of the frame, said bar being provided with an upstanding arm and one end operably connected to its respective last mentioned rod, a second arm carried by the bar at its opposite end, and means for operably connecting the last arm to the valve.

4. The combination with an engine frame, the pistons, the cross heads and the cylinders, of a valve for each cylinder, a bracket carried by the frame, one to each valve, a bell-crank lever mounted in each bracket, a lever link having its lower end operably connected to its respective cross head, the upper end of said lever being pivotally connected to its respective bracket for reciprocatory movement, the upper end of said lever being provided with an arc-shaped slot therethrough, a block slidably mounted in said slot, a rod connected to said block and having one end operably connected to its respective bell-crank lever, a bar journaled transversely of the frame, said bar being provided with an upstanding arm at one end operably connected to the last mentioned rod, a second arm carried by the bar at its opposite end, a link pivotally connected to the lever link near the upper end thereof, a rod connecting the upper end of the last mentioned arm of the bar with said last mentioned link, and another rod connecting the link to the valve.

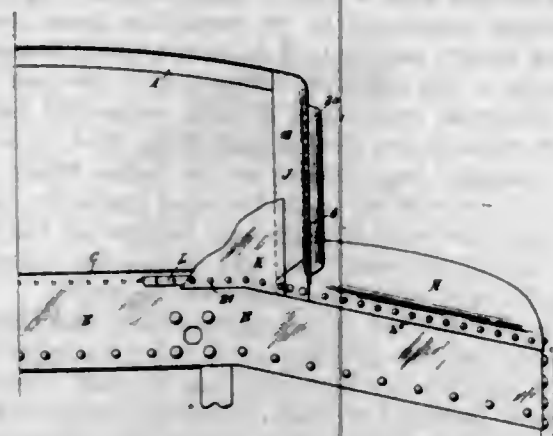
5. A valve gear, including a frame, a reciprocatory cross head, mounted in the frame, a reciprocatory valve, a bracket carried by the frame, a lever having a slot in its upper end connected at such slotted end to the bracket for swinging movement and having its lower end operably connected to the cross head, a block slidably mounted in the slotted end of the lever, a rod connected intermediate of its ends to said block, a bell-crank lever connected to the bracket and having one end operably connected to one end of the rod, manually operated means for actuating the bell-crank lever to slide the block within the slot of the slotted lever, and means for operably connecting said rod to the valve to control the throw of the valve. [Claims 6 and 7 not printed in the Gazette.]

1,078,278. HOOD PANEL-CASTING. AUGUST W. L. HARTBAUER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 14, 1912. Serial No. 715,095. (Cl. 102-5.)

1. The combination of an end plate, a panel casting overlapping and affixed to the outer face of said end plate, a filler mounted on the outer face of said end plate having its outer surface flush with the outer surface of said casting, and an upper deck roof sheet affixed to said casting and filler.

2. The combination of a fascia plate and an end plate, a single curved lower deck hood roof sheet overlapping said plates and affixed thereto, a hood panel casting over-

lapping said roof sheet, an upper deck roof sheet overlapping said panel and means fastening said members together.



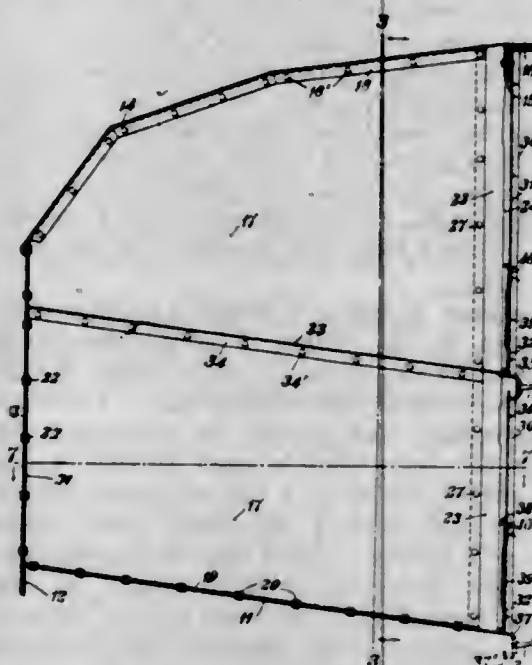
3. The combination of a lower deck roof sheet and a lower deck hood roof sheet, a single panel casting uniting and overlapping said roof sheets.

4. The combination of a lower deck roof sheet and a lower deck hood roof sheet, a single panel casting uniting said roof sheets in position and a bracing rib or angle reinforcing said panel.

5. The combination with a fascia plate and an end plate, of a single curved lower deck hood roof sheet overlapping said plate and affixed thereto, and having an upstanding flange with a side and rear face adapted to be lapped by a hood-panel casting.

[Claim 6 not printed in the Gazette.]

1,078,279. METALLIC FILING-CABINET. AUGUST W. L. HARTBAUER, Chicago, Ill., and LEVI C. SPARKS, St. Louis, Mo., assignors to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 17, 1912. Serial No. 720,887. (Cl. 211—36.)



1. A metallic filing cabinet comprising a downwardly and forwardly inclined bottom, a rear wall and side partitions riveted to said bottom forming an open front compartment, contiguous sliding fronts, said partitions having transversely extended front portions, and means cooperating therewith to form passageways for the adjacent vertical edges of said fronts.

2. A metallic filing cabinet comprising a downwardly and forwardly inclined bottom, a rear wall and side partitions riveted to said bottom forming an open front compartment, contiguous sliding fronts, said partitions having transversely extended front portions, means cooperating therewith to form passageways for the adjacent vertical edges of said fronts, and means maintaining said fronts in raised position.

3. In a filing cabinet, a slidable pressed front plate for said cabinet, said plate having in bent bracing flanges, and

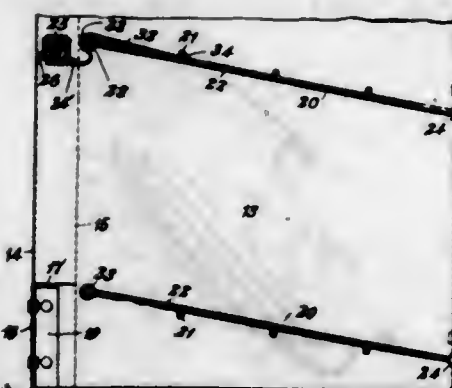
partitions having oppositely bent flanges forming channels in which said bracing flanges are received.

4. In a railroad car, a filing cabinet including a longitudinal angle, a transverse partition depending from said angle, said partition having a vertical recess adapted to coact with a similar recess in an adjacent partition to afford means for guiding a slidable front closing plate for said cabinet.

5. In a filing cabinet, a sheet forming a partition and offset to form a shoulder, a second sheet having a shoulder disposed in alignment with said partition shoulder, means connecting said sheets and having a pair of oppositely disposed wings, each wing coacting with one of said shoulders to form a channelway for a sliding front.

[Claim 6 not printed in the Gazette.]

1,078,280. METALLIC LETTER-CASE. AUGUST W. L. HARTBAUER, Chicago, Ill., and LEVI C. SPARKS, St. Louis, Mo., assignors to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 17, 1912. Serial No. 720,888. (Cl. 211—36.)



1. In a letter case, the combination of a rear wall, spaced side partitions riveted to said walls, a plurality of angularly disposed rods disposed between said partitions and in advance of the rear wall and forming the deck, a longitudinally extending tube outlining the front of the deck, the rods at one end being received in said tube, and pressed cups into which the other ends of said rods are sealed.

2. In a metallic letter case comprising a rear wall, spaced side partitions riveted to said wall, said partitions having beaded front edges and an L shaped front facing having a plurality of kerfs in one leg thereof, each kerf adapted to receive the front beaded edge of a partition.

3. In a metallic letter case comprising a rear wall, spaced side partitions riveted to said wall, said partitions having beaded front edges and an L shaped front facing having a plurality of kerfs in one leg thereof, each kerf adapted to receive the front beaded edge of a partition, and means fastening said facing to the partition.

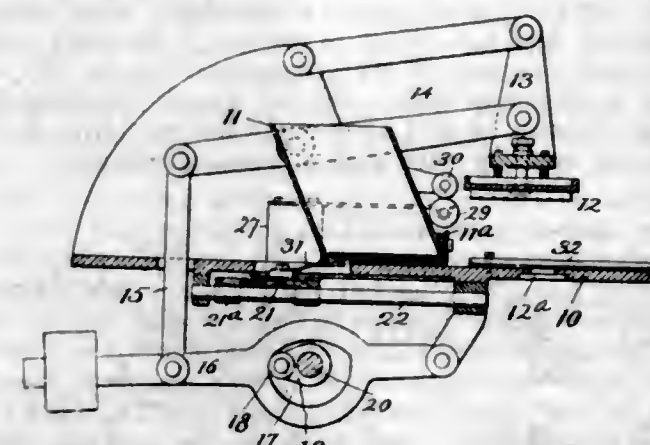
4. In a metallic letter case, including spaced partitions, means integral with and reinforcing the outer edge of each partition, and means disposed between said reinforced edges and at the lower portion of the front reinforced edges of the partitions to assist in maintaining said partitions in position.

5. In a metallic letter case, a rear wall, spaced side partitions, an L-shaped front facing having a plurality of kerfs, each adapted to receive the front edge of a partition, and means securing said facing to the partition.

1,078,281. FEEDING DEVICE FOR PRINTING-MACHINES. WALTER HAY, Seville, Ohio, assignor to The Postalgraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Dec. 29, 1910, Serial No. 599,932. Divided and this application filed Feb. 9, 1911. Serial No. 607,596. (Cl. 101—39.)

1. In a printing machine, a bed frame, a printing member, a receptacle for containing blanks to be printed, and feeding mechanism for automatically feeding the blanks, one at a time, from the bottom of the receptacle to printing position, said mechanism comprising a pusher adapted

to engage the lowermost of said blanks, and means for reciprocating the same, said pusher comprising a resilient member fixed at one end, and provided at its free end with a yielding gage tongue adapted to bear against the lower face of the blank being fed, and with a shoulder adapted to engage the rear edge of such blank, said shoulder being of a depth less than the thickness of the blanks.



2. In a printing machine, a bed, a movable printing member, a receptacle adapted to contain blanks to be printed, means for automatically feeding the blanks one at a time from the receptacle to printing position, comprising a reciprocating slide arranged beneath the bed, and a pusher projecting upwardly through the bed, said pusher having a yieldable portion adapted to engage the rear edge of the lowermost blank in the receptacle, and a resilient gage tongue projecting forwardly beyond said portion and adapted to engage the underside of the lowermost blank so as to prevent said portion from engaging more than one blank at a time.

3. In a printing machine, a bed frame, a movable printing member, a receptacle adapted to contain blanks to be printed, means for feeding the blanks from the receptacle to printing position, and means for guiding the blanks, such means comprising a horizontal table of the same width as said blanks, and a guide strip disposed adjacent each edge of said table, the inner edge of each of said strips being grooved so as to provide a vertical wall with which the edges of said blanks may engage, and a horizontally projecting portion overhanging said table, said strips being loosely supported at their outer edge upon said bed frame, whereby said overhanging portion tends to bear upon the upper surface of the blanks on said table, and thus yieldingly maintain them in proper position.

4. In a printing machine, a bed, a movable printing member, a receptacle adapted to contain blanks upon which printing impressions are to be made, mechanism for feeding the blanks from the receptacle to printing position, and means for guiding the blanks, comprising a pair of parallel guide bars loosely supported on the bed on their outside edges only and provided with portions extending downward beneath the surface over which the blanks move and with portions which overhang the edges of the blanks.

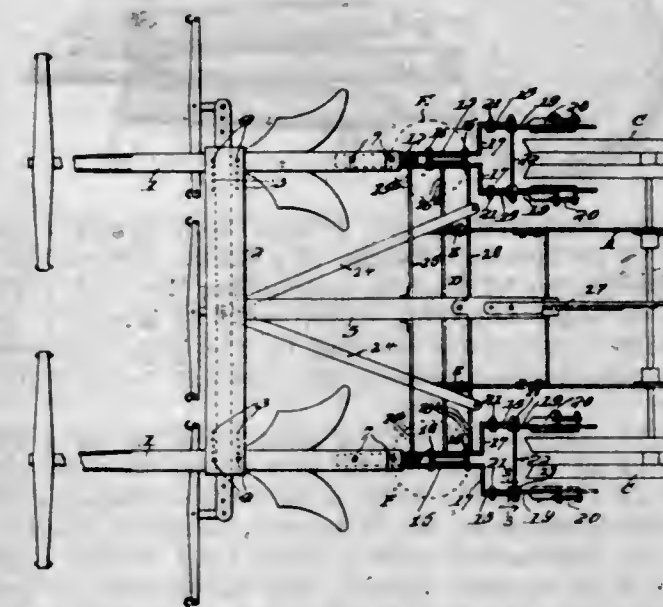
5. In a printing machine, a bed, a movable printing member, a receptacle adapted to contain blanks upon which printing impressions are to be made, mechanism for feeding the blanks from the receptacle to printing position, and means for guiding the blanks comprising a pair of parallel guide bars having on their inner sides longitudinally extending grooves forming upright guide members for the edges of the blanks, and inwardly extending portions which overhang the blanks, and means loosely and pivotally connecting said guide bars to the bed so that the former may tip inwardly by gravity and the overhanging portions thereof may bear upon the blanks.

[Claim 6 not printed in the Gazette.]

1,078,282. TWO-ROW COTTON AND CORN PLANTER. JOHN B. HENEFIELD and EDWARD I. HENEFIELD, San Antonio, Tex. Filed Apr. 4, 1911. Serial No. 618,918. (Cl. 111—6.)

1. In a planter, the combination of a frame, wheels for supporting the frame, two seed separating and depositing

mechanisms secured to the frame in a manner to permit transverse adjustment, two forward extending poles secured to the frame in alignment respectively with the seed separating and depositing mechanisms and transversely adjustable therewith, a cross bar extending transversely between the two poles in advance of the frame and connected near its ends to the poles in a manner to permit the transverse adjustment of the poles, means for attaching two or more draft animals to the planter and to the forward ends of the poles, each pole being between two animals, two plows respectively arranged directly in front of the seed separating and depositing mechanisms and below the poles, the plows being transversely adjustable with the seed separating and depositing mechanisms and with the poles, and means for connecting each plow directly to the corresponding pole.



2. In a planter, the combination of a frame, wheels for supporting the frame, two seed separating and depositing mechanisms secured to the frame, two parallel poles adapted to be secured to the frame in alignment respectively with the seed separating and depositing mechanisms, means independent of the frame for connecting the two poles together to normally hold them in fixed relationship to each other, means for attaching two or more draft animals to the planter and to the forward ends of the poles, each pole being between two animals, two plows adapted to be respectively positioned directly in front of the seed separating and depositing mechanisms and below the poles, and means adapted for directly connecting the plows to the corresponding poles when the poles are attached to the frame.

3. In a planter, the combination of a frame, wheels for supporting the frame, two seed separating and depositing mechanisms secured to the frame, two forward extending poles secured to the frame in alignment respectively with the seed separating and depositing mechanisms, means for attaching two or more draft animals to the planter and to the forward ends of the poles, each pole being between two animals, two plows respectively arranged directly in front of the seed separating and depositing mechanisms and below the poles, and means for connecting each plow directly to the corresponding pole.

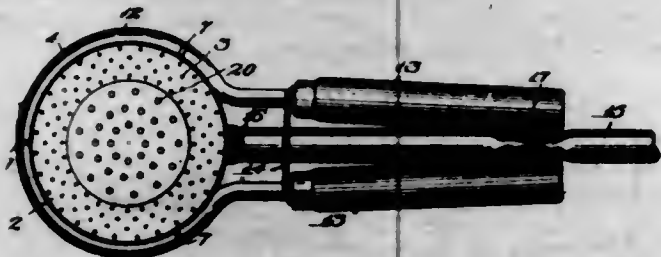
4. In a planter, the combination of a frame, wheels for supporting the frame, two seed separating and depositing mechanisms secured to the frame, two forward extending poles secured to the frame in alignment respectively with the seed separating and depositing mechanisms, means for attaching two or more draft animals to the planter and to the forward ends of the poles, each pole being between two animals, two plows respectively arranged directly in front of the seed separating and depositing mechanisms and below the poles, and means for connecting each plow directly to the corresponding pole in a manner to permit vertical adjustment.

5. In a planter the combination of a frame, wheels for supporting the frame, two seed separating and depositing mechanisms secured to the frame, two forward extending poles secured to the frame in alignment respectively with the seed separating and depositing mechanisms, means for

attaching draft animals to the planter and to the forward ends of the poles, at least one animal being positioned at the outer side of each pole, two plows respectively arranged directly in front of the seed separating and depositing mechanisms and below the poles, and means for connecting each plow directly to the corresponding pole.

[Claims 6 to 20 not printed in the Gazette.]

1,078,283. TOILET IMPLEMENT. FREDERICK O. HILF, Irondequoit, N. Y., assignor to F. O. Hilfer Co., Syracuse, N. Y., a Corporation of New York. Filed Apr. 7, 1911. Serial No. 619,518. (Cl. 4—26.)



1. The combination with a spray head having a plurality of jet openings therein, of a holder composed of a continuous strip of material surrounding the head, a plurality of clips connecting it therewith at intervals, and a tubular non-abrasive covering for the holder composed of sections arranged between the clips and constituting a buffer.

2. The combination with a spray head having a plurality of jet openings therein, of a holder therefor composed of a continuous strip of material surrounding the head and terminating in end portions forming a handle.

3. The combination with a spray head having a plurality of jet openings therein, of a handle therefor composed of a pair of relatively movable members directly connected thereto and a flexible supply element delivering to the head extending between said members and adapted to be compressed thereby.

4. The combination with a spray head having a plurality of jet openings therein, of a handle therefor composed of a pair of relatively movable substantially parallel members directly connected thereto, a flexible supply pipe extending longitudinally between the members and delivering to the head and jaw faces on the members adapted, when the latter are pressed together, to pinch the supply pipe and cut off the flow therethrough.

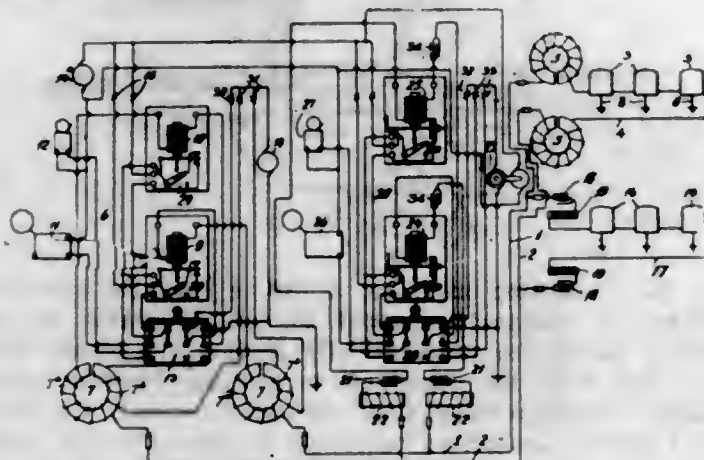
5. The combination with a spray head having a plurality of jet openings therein, of a holder composed of a strip of wire surrounding the head and means for connecting the parts together comprising a plurality of clips having apertures through which the wire passes and hooked portions engaging the rim of the head.

[Claims 6 to 8 not printed in the Gazette.]

1,078,284. MULTIPLEX-TELEGRAPH SYSTEM. JOSEPH F. D. HOGE, New York, N. Y., assignor to American District Telegraph Company, a Corporation of New Jersey. Filed Apr. 11, 1910. Serial No. 554,868. (Cl. 178—51.)

1. A multiplex telegraph system comprising in combination a line conductor, a direct current generator, a constantly operating alternating current generator adapted to supply alternating current of definite and substantially constant frequency, a direct current transmitter, direct current receiving means, inductive resistance interposed between said direct current transmitting and receiving means and said conductor, and proportioned with reference to the alternating current to substantially exclude such alternating current from the direct current transmitting and receiving means, an alternating current transmitter and alternating current receiving means, and condensers and inductive resistances interposed between said alternating current transmitting and receiving means and said conductor, and proportioned with respect to the alternating current to pass said alternating current freely but

to substantially exclude the influence of the direct current from the alternating current transmitting and receiving means, and alternating current transmitting and receiving means and alternating current generator and their corresponding condensers and inductive resistances, connected across the circuit comprising the said line conductor and the direct current transmitting and receiving means, generator and inductive resistances, said alternating current receiving means comprising a relay having a vibratory armature tuned to vibrate in harmony with the current reversals of the alternating current and arranged to cooperate with a contact located substantially at a nodal point of said armature when the latter is vibrating in harmony with such alternating current.



2. A multiplex telegraph system comprising in combination a line conductor, a plurality of constantly operating alternating current generators each adapted to supply alternating current of definite and substantially constant frequency, the frequencies of said generators being different with respect to one another, a corresponding plurality of alternating current transmitting and receiving means, and condensers and inductive resistance, each set of transmitting and receiving means proportioned to pass freely alternating current of the frequency pertaining to that transmitting and receiving means but to positively exclude alternating currents of different frequencies, each such receiving means comprising a relay having a vibratory armature tuned to vibrate in harmony with the corresponding alternating current and arranged to cooperate with a contact located substantially at a nodal point of said armature when the latter is vibrating in harmony with such alternating current.

3. A multiplex telegraph system comprising in combination a line conductor, a plurality of constantly operating alternating current generators each adapted to supply alternating current of definite and substantially constant frequency, the frequencies of said generators being different with respect to one another, a corresponding plurality of alternating current transmitting and receiving means, comprising condensers and inductive resistance, which are proportioned, for each set of transmitting and receiving means, to pass freely alternating current of the frequency pertaining to that transmitting and receiving means but to positively exclude alternating currents of different frequencies, each such receiving means comprising a relay having a vibratory armature tuned to vibrate in harmony with the corresponding alternating current and arranged to cooperate with a contact located substantially at a nodal point of said armature when the latter is vibrating in harmony with such alternating current.

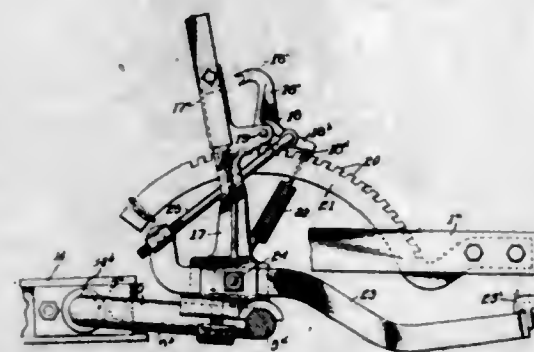
4. A multiplex telegraph system comprising in combination a line conductor, a plurality of alternating current generators of different frequencies respectively, each adapted to supply alternating current of a definite and substantially constant frequency, a plurality of alternating current transmitting and receiving means, a condenser and inductive resistance interposed between each such transmitting means and said conductor, and proportioned with reference to the alternating current frequency corresponding to that transmitter and receiver to pass freely alternating current of that frequency, but to substantially exclude alternating currents of different frequency, and

a condenser and inductive resistance interposed between each receiving means and said conductor and proportioned with reference to the alternating current to which that receiving means is to respond, to pass freely alternating current of the corresponding frequencies but to substantially exclude alternating currents of different frequencies, each such receiving means comprising a relay having a vibratory armature tuned to vibrate in harmony with the alternating current of the corresponding frequency and arranged to cooperate with a contact located substantially at a nodal point of said armature when the latter is vibrating in harmony with its corresponding alternating current.

5. A multiplex telegraph system comprising in combination a direct current signaling system and an alternating current signaling system, said two systems comprising a common line conductor, the alternating current system comprising a source of supply of alternating current of definite and substantially constant frequency, and comprising also isolating means proportioned to substantially isolate such alternating current system from the direct current, but to transmit the alternating current freely, the direct current system comprising a source of supply of direct current and isolating means proportioned to substantially isolate such direct current system from the alternating current, both the direct system and the alternating current system comprising large ohmic resistance proportioned to make the line impedance due to resistance, the controlling factor of the total line impedance.

[Claims 6 to 11 not printed in the Gazette.]

1,078,285. PLOW-ADJUSTING MECHANISM. HARRY A. HUNTOON, Fort Madison, Iowa, assignor to Fort Madison Plow Company, a Corporation of Iowa. Filed May 1, 1913. Serial No. 764,793. (Cl. 97—58.)



1. In a wheeled plow, the combination of a frame, a plow sustained thereby and movable up and down, a foot-lever for raising the plow, a second foot-lever for lowering the plow, a latch on one of said foot-levers for locking the same in position, and a connection between said latch and the other foot-lever.

2. In a wheeled plow, the combination of a frame, an axle movably mounted therein, a plow connected with said axle, a foot-lever connected with the axle for rocking the same to lower the plow, a second foot-lever connected with the axle for rocking the same to raise the plow, a latch on one of said levers to hold the same in its adjusted position, and a connection between the said latch and other lever.

3. In a wheeled plow, the combination of a frame, a plow mounted therein and movable up and down, a foot-lever for raising the plow, a second foot-lever for lowering the plow, a locking latch on the last-mentioned foot-lever for locking the lever in position, and a connection between said latch and the other lever.

4. In a wheeled plow, the combination of a wheeled frame, a swinging ball mounted therein, a plow connected with the ball, a foot-lever connected with the ball, a latch on the lever to lock the same in position, and a second foot-lever also connected with the ball and movable to a limited extent relatively thereto and connected with the latch.

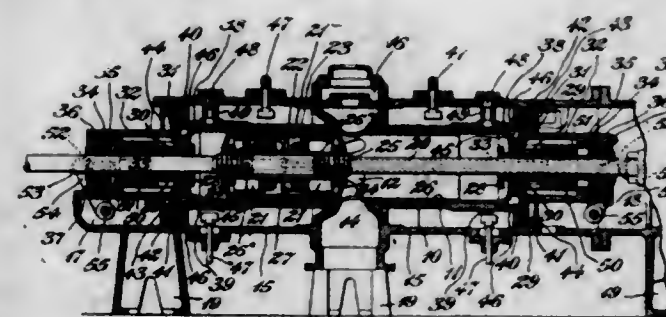
5. In a wheeled plow, the combination of a frame, a swinging ball mounted therein, a plow connected with the ball, a lever connected with the ball, a foot operated

196 O. G.—26

latch connected with the lever to hold the same in position, and a second lever connected with the ball and connected also with said latch.

[Claims 6 and 7 not printed in the Gazette.]

1,078,286. GAS-ENGINE. LOUIS ILLMER, JR., Cincinnati, Ohio, assignor to Illmer Gas Engine Company, a Corporation of Delaware. Filed Apr. 4, 1907. Serial No. 366,289. (Cl. 123—188.)



1. In an engine valve gear the combination of a puppet valve, a toggle linkage for actuating the valve comprising a pivoted toggle arm and a link, means for oscillating the toggle linkage, the aligned position of the toggle arm and the link being intermediate the two dead center positions of the toggle arm, and means for forcing the valve shut by the movement of the toggle from one of its dead center positions to its aligned position.

2. In an engine valve gear the combination of a puppet valve, a toggle linkage for actuating the valve comprising a pivoted toggle arm and a link, means for oscillating the toggle linkage, the aligned position of the toggle arm and the link being intermediate the two dead center positions of the toggle arm, means for forcing the valve open by the movement of the toggle arm from its aligned position to one of its dead center positions and for forcing the valve shut by the return movement to its aligned position.

3. In an engine valve gear the combination of a puppet valve, a toggle linkage for actuating the valve comprising a pivoted toggle arm and a link, means for oscillating the toggle linkage, the aligned position of the toggle arm with the toggle link being intermediate the two dead center positions of the toggle arm, means for forcing the valve open by the movement of the toggle arm from its aligned position to one of its dead center positions and for forcing the valve shut by the return movement to its aligned position, and means maintaining the valve on its seat during the movement of the toggle arm to and from its opposite dead center position.

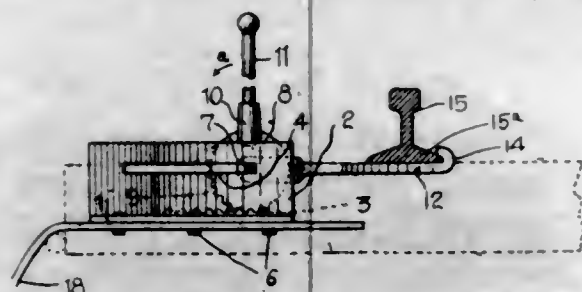
4. In an engine valve gear the combination of a puppet valve surrounding the piston rod, a rock shaft in operative connection with the valve, a toggle linkage for actuating the rock shaft comprising a pivoted toggle arm and a link, means for oscillating the toggle linkage, the aligned position of the toggle arm and the link being intermediate the two dead center positions of the toggle arm, means for forcing the valve open by the movement of the toggle arm from its aligned position to one of its dead center positions and for forcing the valve shut by the return movement to its aligned position and means maintaining the valve on its seat during the movement of the toggle arm to and from its opposite dead center position.

5. In an engine valve gear the combination of a puppet valve, a rock shaft, a valve rocker fixed to the rock shaft and in operative connection with the valve, a shaft arm fixed to the rock shaft, a toggle linkage comprising a pivoted toggle arm and a link, a link arm loosely mounted on the rock shaft and articulated to the free end of the toggle link, means for oscillating the toggle arm, the aligned position of the arm and link being intermediate the two dead center positions of the toggle arm, means locking the shaft arm to the link arm whereby to force open the valve by the movement of the toggle arm from its aligned position to one of its dead center positions and to force the valve shut by the return to its aligned position, and means for disengaging the locking device during the

movement of the toggle arm to and from its opposite dead center positions.

[Claims 6 to 10 not printed in the Gazette.]

1,078,287. RAILROAD APPLIANCE. WILLIAM R. ISAACS, Thompsonville, Ill., assignor to one-half to Thomas G. Puckett, Thompsonville, Ill. Filed Aug. 27, 1913. Serial No. 786,947. (Cl. 104-16.)



1. A device of the character described comprising a base member provided with a rack, a shaft carried by the base member and capable of adjustment relatively thereto, a disk mounted on the shaft and provided with a segmental rack adapted to engage the rack of the base, means for rotating the disk, and track engaging means carried by the shaft.

2. A device of the character described, comprising a base member having a rack, side plates carried by the base and provided with elongated openings, a shaft mounted within the elongated openings of the side plates, a disk fixed to the shaft and having a segmental rack adapted to engage the rack of the base member, means for rotating the disk, and a track engaging device carried by the shaft.

3. A device of the character described comprising a base having a rack, a shaft carried by the base and capable of adjustment relatively thereto, a disk carried by the shaft and provided with a segmental rack adapted to engage the rack of the base, track engaging means carried by the shaft and straddling the disk, and means for rotating the disk.

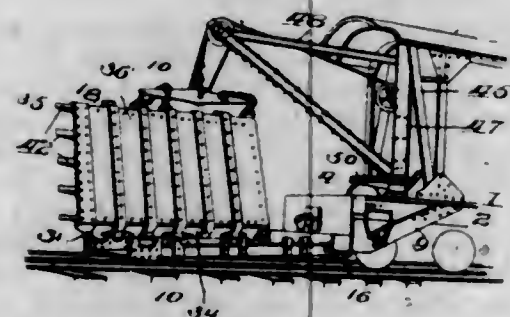
1,078,288. PROCESS OF TREATING YEAST. ERNST JACOBY, Munich, Germany, assignor to Diamalt Aktien-Gesellschaft, Munich, Germany, a Corporation of Germany. Filed Dec. 10, 1912. Serial No. 735,897. (Cl. 99-10.)

1. The herein described process of treating yeast, which consists in adding to moist yeast nonpoisonous persalts adapted to preserve the yeast and increase its fermentative properties.

2. The herein described process of treating yeast, which consists in adding persalts having an alkaline reaction to moist yeast.

3. The herein described process of treating yeast, which consists in adding percarbonate of sodium to moist yeast.

1,078,289. RAILROAD SCOOP-CAR. LUCIUS E. JOHNSON, Roanoke, Va. Filed June 20, 1912. Serial No. 706,708. (Cl. 37-41.)



1. In combination, a scoop-supporting plate adapted to be hinged to the end of a car, a scoop, and means for moving the scoop along either side to the supporting plate.

2. In combination, a scoop-supporting plate adapted to be hinged to the end of a car, a scoop, means for removably hinging the scoop along one side to the supporting plate, and means for securing the scoop along its opposite side to the supporting plate.

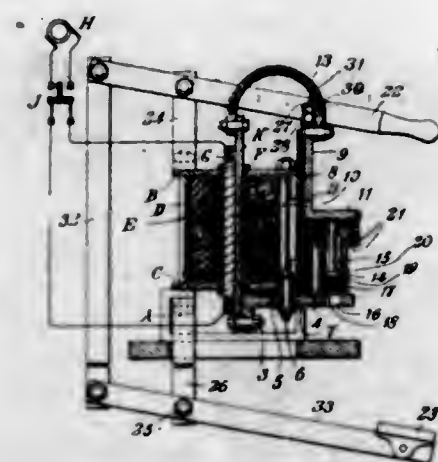
3. In combination, a car, a scoop-supporting plate connected thereto by a hinge having a transverse pintle, and a scoop connected to the supporting plate by hinges having longitudinal pintles.

4. In combination, a car, a scoop-supporting plate connected thereto by a hinge having a transverse pintle, and a scoop connected to the supporting plate on either side by hinges having longitudinal pintles.

5. In combination, a car, a scoop-supporting plate connected thereto by a hinge having a transverse pintle, and a scoop connected to the supporting plate on both sides by hinges having removable longitudinal pintles.

[Claims 6 to 15 not printed in the Gazette.]

1,078,290. ELECTRIC RIVET-FURNACE. WILLIAM S. JOHNSON and JOHN W. SHEFFER, Berwick, Pa., assignors to The American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 27, 1913. Serial No. 744,522. (Cl. 219-11.)



1. In an electric furnace for heating rivets, the combination including a heating chamber formed with a bottom forming an electrode and adapted to receive the head of the rivet, and a movable electrode adapted to be brought into engagement with the end of the rivet opposite the head to complete the circuit through the same.

2. In an electric furnace for heating metal articles, in combination an open top heating chamber adapted to contain one end of the article to be heated, said receptacle having an adjustable bottom portion constituting an electrode adapted to contact with said article and vary the proportion of the article within and the portion of the article extending from the receptacle.

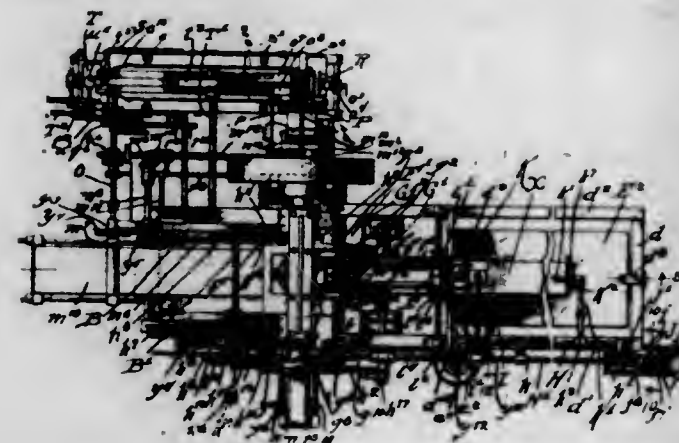
3. An electric furnace including a receptacle having a removable and adjustable member therein adapted to support the article to be heated and constituting an electrode, and a second movable electrode adapted to contact with the top of the article.

4. An electric furnace, including a heating chamber adapted to contain a portion of the article to be heated, an adjustable base supporting means for the article to be heated, and electrodes exteriorly of said receptacle one of which is adapted to be brought into electrical contact with said article to complete a heating circuit there-through.

5. In an electric furnace adapted to heat rivets, an electrode including a heating chamber and a die in said chamber adapted to fit the head of the rivet, whereby a maximum area of contact is afforded between the electrode and the head of the rivet in said chamber.

[Claims 6 to 18 not printed in the Gazette.]

1,078,291. AUTOMATIC CARD CUTTING, COUNTING, AND PACKAGING MACHINE. JOHN N. KANE and GEORGE C. BAUMAN, Chicago, Ill.; said Kane assignor to Moser Paper Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1909. Serial No. 531,110. (Cl. 93-93.)



1. A machine of the class described embracing cutting mechanism, mechanism for automatically feeding the stock thereto, mechanism for counting the product, for receiving and stacking the product, mechanism for elevating said member, means for removing the stacked product when said member is elevated, and mechanism for binding the product in packs.

2. A machine of the class described embracing a cutting mechanism, a counting mechanism, a member for assembling the counted product in stacks of uniform number, mechanism for elevating said member, means for removing the stacked product when said member is elevated, and automatic means for wrapping the stacked product in packs.

3. In a machine of the class described a card cutting die, mechanism for automatically feeding the stock thereto from a bulk supply, a counting mechanism for the cards, means operated from the counting mechanism for assembling the cards in stacks of uniform number, a chute for receiving the stacked cards, means for delivering a strip of binding material in front of the chute, means for delivering the stacked cards to the chute, and a wrapping mechanism for wrapping the stacks in separate packs while in said chute.

4. In a machine of the class described a card cutting machine, mechanism for counting the cards as cut, mechanism controlled by the counting mechanism for assembling the cards in stacks of uniform number, a chute for receiving the stacked cards, means for delivering a strip of binding material in front of the chute, means for delivering the stacked cards to the chute, and mechanism for wrapping said stacks in separate packs.

5. A machine of the class described embracing a cutting mechanism, a wrapping mechanism, an automatic feed mechanism for elevating a bulk supply of card stock, and discharging the same sheet by sheet to the cutting mechanism, mechanism for counting the cards as cut, intermittently operating mechanism acting to assemble the counted cards in stacks of uniform number, mechanism for conveying each stack of cards to the wrapping mechanism comprising co-acting movable members for engaging the pack therebetween, mechanism for releasing one of said members to permit the stack passing into the wrapping mechanism and means for automatically returning said member to normal after passage of the stack.

[Claims 6 to 39 not printed in the Gazette.]

1,078,292. PAPER-MAKING MACHINE. GEORGE D. KILBERRY, Worcester, Mass. Filed June 21, 1912. Serial No. 704,945. (Cl. 92-38.)

1. In a paper making machine comprising a plurality of units, the combination with one of said units, of a power shaft, a belt in operative relation thereto, means for shifting the position of the shaft in one direction, and other means for shifting the position of the shaft in another direction, to vary the tension of the belt.

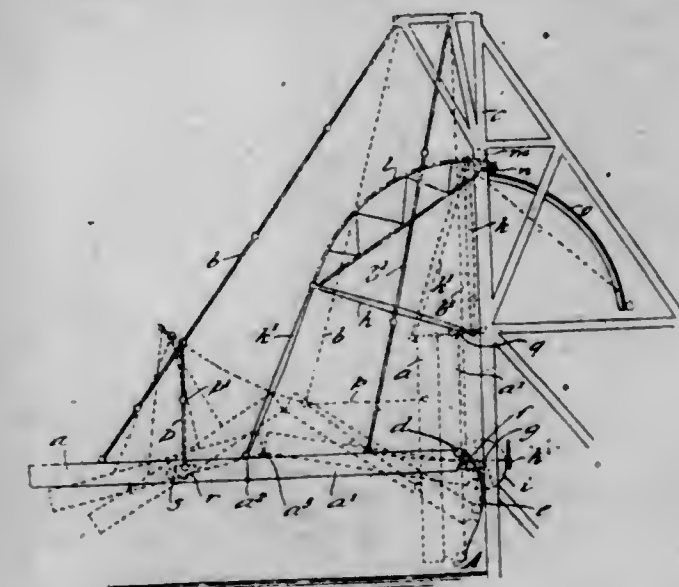
2. In a paper making machine comprising a plurality of units, the combination with one of said units, of a power shaft, two belts in operative relation thereto, said belts moving in different directions, manual means for shifting the position of said shaft back and forth in one plane, and other means for shifting the position of the shaft up and down in a transverse plane to thereby vary the tension of the belts.



3. In a paper making machine comprising a plurality of units, the combination with one of said units, of a power shaft, a movable frame in which said shaft is mounted, a loose belt between the unit and the power shaft, and an idler pulley, swingingly mounted upon said movable frame, for tightening said belt to thereby cause the unit to be driven.

4. In a paper making machine comprising a plurality of units, the combination with one of said units having a shaft, a pulley thereon, of a power shaft, a horizontally slidable frame in which the power shaft is mounted, means for adjusting the position of the power shaft relative to said frame in vertical directions, a driving belt running to said power shaft from one direction, a loose connecting belt running from the pulley on the power shaft to the pulley on the unit shaft in another direction; an idler pulley arranged to engage with said loose belt, said idler pulley being swingingly mounted in the slidable frame, a hand lever near the unit, and connections between said lever and the idler pulley whereby the position of said idler pulley may be shifted at will to start or stop the unit.

1,078,293. DRAWBRIDGE. BRADFORD LESLIE, London, England. Filed Jan. 24, 1912. Serial No. 673,102. (Cl. 14-37.)



1. A folding drawbridge comprising an abutment, pillars on the abutment, an inner leaf having its inner end resting against but separate from the abutment, and an outer leaf hinged to the outer end of the inner leaf, the said leaves being suspended from the said pillars without other pivotal attachment to the abutment and at points intermediate of their ends, in a manner to allow them to turn about their points of suspension.

2. A folding drawbridge comprising an abutment, pillars on the abutment, an inner leaf having its inner end resting against but separate from the abutment, and an outer leaf hinged to the outer end of the inner leaf, the said leaves being suspended from said pillars without other pivotal attachment to the abutment, the points of suspension being intermediate of the ends of the leaves.

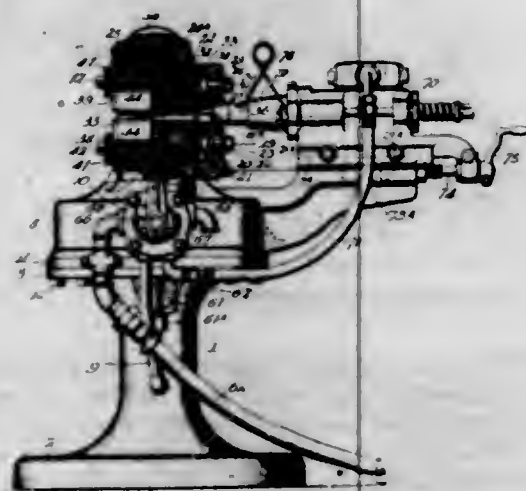
and in such positions that the portions of the leaves external to the said points partially balance the portions between the points.

3. A folding drawbridge comprising two leaves, each hinged to the other at one end, an abutment, pillars on the abutment, chains suspending the outer leaf from the said pillars and chains suspending the inner leaf from the said pillars, the points of attachment of the said chains to the said leaves being so located that the portions of the leaves external to the points partially balance the portions between the points, means for locking the said leaves in extended end to end position, means for releasing the said means, means for applying power to fold the bridge and means for reducing the effective length of the chains suspending the outer leaf correspondingly as the leaf folds against the inner leaf.

4. A folding drawbridge comprising two leaves, each hinged to the other at one end, an abutment, pillars on the abutment, chains suspending the outer leaf from the said pillars and chains suspending the inner leaf from the said pillars, the points of attachment of the said chains to the said leaves being so located that the portions of the leaves external to the points partially balance the portions between the points, means for locking the said leaves in extended end to end position, means for releasing the said means, means for applying power to fold the bridge, and struts pivoted at one end to the chains suspending the outer leaf and attached at the other ends to points in the outer leaf between the points of attachment of its suspending chains and the hinged end of the leaf.

5. A folding drawbridge comprising two leaves, each hinged to the other at one end, an abutment, pillars on the abutment, chains suspending the outer leaf from the said pillars and chains suspending the inner leaf from the said pillars, the points of attachment of the said chains to the said leaves being so located that the portions of the leaves external to the points partially balance the portions between the points, means for locking the said leaves in extended end to end position, means for releasing the said means, means for applying power to fold the bridge, and folding struts pivoted at one end to the chains suspending the outer leaf and attached at the other ends to points in the outer leaf between the points of attachment of its suspending chains and the hinged end of the leaf.

1,078,294. DRILL-SHARPENING MACHINE. JOHN GEORGE LEYNER, Denver, Colo., assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Apr. 1, 1912. Serial No. 687,847. (Cl. 76-5.)



1. In a drill-forming machine, a supporting base, a cylinder mounted on said base, an actuating fluid controlling valve on said cylinder, said cylinder and base being also provided with two cylindrical bores of different diameters, the larger of which is in said cylinder, a piston head of two diameters fitting reciprocally the two bores of said cylinder, the larger portion of which is in the bore of said cylinder, said base being provided with suitable actuating fluid inlet and exhaust ports to the opposite ends of said piston head from said throttle

valve, an anvil portion mounted on said cylinder, and a hammer block connected to the piston head of said cylinder and arranged above said anvil to strike reciprocal blows against said anvil, said different diameters of the piston head and cylinder and said actuating fluid ports being so relatively arranged that said hammer block is raised by the upward movement of the smaller diameter of said piston head and is lowered by the downward stroke of the larger diameter of said piston head, whereby said hammer block is caused to strike hammer striking blows against said anvil.

2. In a drill-forming machine, a supporting base, a cylinder mounted on said base, said base and cylinder being provided with piston bores of two different diameters, a piston head having opposite end portions of different areas and fitting reciprocally in the bores of said base and cylinder, means including a controlling valve for reciprocating said piston head, an anvil portion on top of said cylinder, vertically arranged slideways in said anvil portion, guide rods secured at one end to said piston head and extending slidably through said slideways, a hammer block secured vertically above and over said piston head to said guide rods and arranged to strike vertical reciprocating blows against said anvil, the opposing faces of said anvil and hammer block being provided with die jaws arranged to register opposite to each other upon the downward movement of said hammer block.

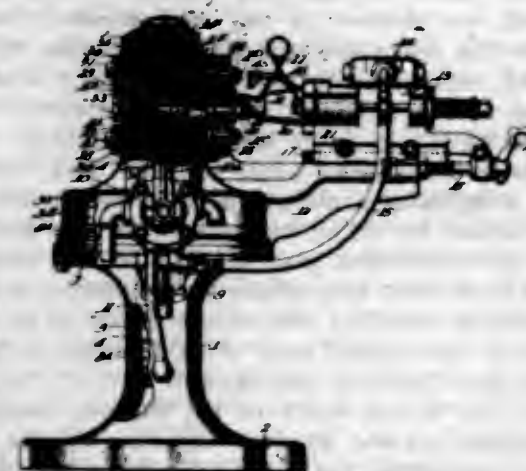
3. In a drill-forming machine, the combination of a supporting base provided with a cylindrical piston bore, a cylinder mounted on said base provided with a cylinder bore that is arranged concentric to the bore in said base and is of much larger area, a piston head comprising a disk portion fitting the larger bore in said cylinder, and a stem portion fitting the bore in said base, said base and cylinder being provided with suitable air inlet and exhaust ports, an anvil portion on said cylinder, a pair of bolts connected to opposite sides of the disk portion of said piston head and extending slidably upward through said anvil, a hammer block secured to the upper ends of said bolts above said anvil and arranged to be vertically reciprocated to and from said anvil in operative hammer blow striking forging relation thereto, and a throttle valve connected to the inlet and exhaust ports of said base and cylinder, and arranged to operatively admit compressed air to them.

4. In a drill-forming machine, the combination of the base, the cylinder mounted on said base, said base being provided with a small piston bore, and said cylinder being provided with a piston bore of much larger diameter than the piston bore of said base, a piston head of two different diameters fitting reciprocally in the piston bores of said cylinder and base, said base and cylinder being provided with actuating fluid inlet and exhaust ports connecting operatively to said piston bores to reciprocate said piston head, an actuating fluid receiving and controlling throttle valve arranged on said cylinder and operatively connected to said cylinder inlet and exhaust ports to control the reciprocal movements thereof, a forging anvil portion on top of said cylinder, guideway apertures through said anvil portion and the top of said cylinder into its piston bore, bolts secured in said piston head and extending slidably through said guideways, a packing medium connected to said bolts for preventing leakage of actuating fluid past said bolts through said guideways from said piston bore, and a hammer block secured to the ends of said bolts that project from said cylinder and anvil and arranged and adapted to be impinged against said anvil in unison with and by the reciprocal strokes of said piston head in said cylinder and base.

5. In a drill-forming machine, a lower member having an inner chamber of two diameters, a stationary anvil-member mounted on said lower member, a hammer block mounted over said anvil-member, a piston comprising a cylindrical lower portion fitting within the chamber along its portion of smaller diameter and a disk-shaped head within the portion of said chamber of greater diameter, connections between said hammer-block and said piston, and means for controlling the supply of fluid under pressure to the opposite ends of said piston.

[Claims 6 to 9 not printed in the Gazette.]

1,078,295. DIE FOR DRILL-MAKING MACHINES. JOHN GEORGE LEYNER, Denver, Colo. Original application filed Mar. 25, 1912. Serial No. 686,133. Divided and this application filed Apr. 13, 1912. Serial No. 690,595. (Cl. 76-5.)



1. In a multiple part die, the combination of an anvil, a reciprocating hammer block, and a dolly engine, with a pair of shanking end forming die-carriers removably secured in said anvil and hammer block, a pair of bushing jaws removably fixed in said carriers, a pair of upsetting jaws reciprocally mounted against accidental displacement in said carriers, and a shank end former and a dolly arranged to cooperate with said carriers to form a shank end on a drill bit adapted to fit the chuck of the rock drilling engine in which it is used.

2. In a multiple part die for die-formed forgings making machines, a set of shanking die-carriers adapted for drill steel and provided with an axial aperture, a pair of shanking dies in said die-carriers, upsetting plunger dies in said die-carriers, a dolly arranged to upset the shank end of a drill bit and form a collar thereon, means including a pair of finishing and sizing dies in said die-carriers for reducing this collar portion to oppositely arranged lug portions and then to size and finish said lugs and shank end portions, and a second dolly to maintain the axial aperture to the shank end of said drill steel.

3. Multiple part die-carriers for drill sharpening and die-formed forgings making machines, adapted to work drill steel and forge various articles, provided with an axial aperture, a set of shanking dies, a pair of upsetting plunger reciprocating dies and an upsetting dolly arranged to upset the shank end of the hollow drill steel and form a collar portion thereon, roughing, sizing and finishing die surfaces for changing said collar portion to a pair of oppositely arranged lug portions, and a shank end former provided with an axially positioned projecting lug adapted to extend into and flaringly enlarge the axial aperture of said drill steel.

4. In a multiple part die, a set of die-carriers comprising a pair of half part members provided with a bushing die having a roughing, finishing, and lug and shank and sizing dies, a pair of shank and upsetting and plunger die jaws reciprocally mounted in said carriers, a shank end former dolly fitting in said upsetting and plunger dies, a dolly engine, an upsetting dolly reciprocated by said dolly driving engine for driving said upsetting and plunger dies, and a stop arm arranged to gage the extent of movement of one of said pair of upsetting and plunger die jaws.

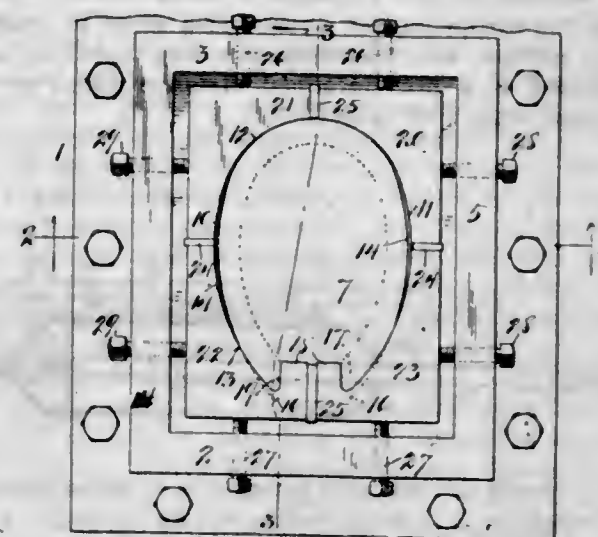
5. In a drill-making machine, die-carriers comprising hollow, elongated members having inwardly projecting die-retaining ribs along the direction of their length.

[Claims 6 to 10 not printed in the Gazette.]

1,078,296. APPARATUS FOR MANUFACTURING HORSESHOES. HANS K. LORENTZEN, New York, N. Y., assignor to David Irwin Garretson, New York, N. Y. Filed Jan. 31, 1912. Serial No. 674,551. (Cl. 59-60.)

1. A die having an opening through which a horse shoe is adapted to be passed, said opening being defined by slanting side walls for the purpose set forth, and a space-

ing block adapted to cooperate with the heel portions of the shoe for the purpose of preventing a buckling of the shoe while the latter is reduced in its lateral dimensions by the inclined walls.



2. A die for the purpose set forth comprising a plurality of separable die members, spacers for the said die members adapted to retain the die members in spaced relation, said die members having an opening for the passage therethrough of a horse shoe, said opening being shaped at one end to conform to the contour of a horse shoe and having inclined side walls for the purpose of reducing the lateral dimension of the shoe as the same is forced therethrough, and means for preventing a buckling of the shoe as it is forced through the die, and means for firmly holding the die members together.

3. A die for the purpose set forth, comprising a bed having a rectangular flange forming a die pocket, a die arranged in said pocket and consisting of members 20, 21, and 22, 23, said members 22 and 23 having separating blocks 18, separators for spacing said die members, one of which is adapted to separate the members 18, said die members having an opening for the passage therethrough of a horse shoe, the walls of said opening being inclined for the purpose set forth, said incline extending from points near the front of the shoe to points near the ends thereof, and of gradual increasing extent between said points.

1,078,297. COMBINATION SOLE-PLATE AND RAILROAD-TIE. GOTTFRIED HEINRICH JACOB MAAS, Berlin-Steglitz, Germany. Filed Sept. 18, 1912. Serial No. 721,067. (Cl. 238-5.)

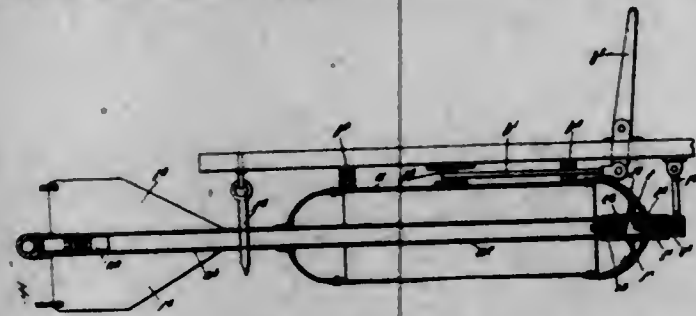


Combination of the sole plate with the railroad tie, the tie having an imperforate top under and near the seat of the sole plate and ribs with slots, the sole plate having keys at the outside edges; the said slots and keys making possible the connection of the sole plate with the tie and permitting the elimination of holes in the tie and of small iron fittings.

1,078,298. BOMB FOR USE WITH AEROPLANES AND OTHER FLYING-MACHINES. HIRAM STEVENS MAXIM, Streatham, London, England, assignor to Vickers Limited, Westminster, England. Original application filed Mar. 25, 1912. Serial No. 686,002. Divided and this application filed July 14, 1913. Serial No. 778,852. (Cl. 102-2.)

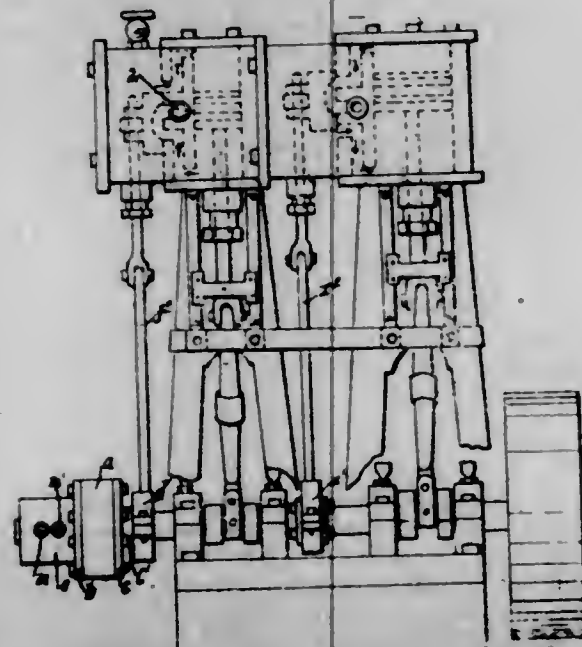
1. In a bomb for use with aeroplanes or flying machines, the combination of a main charge of high explosive, a detonating charge, and a charge of black powder which is fired by the initial impact of the bomb so as to cause the detonating and main charges to be exploded at a predetermined distance above or from the ground, object or target.

2. In a bomb for use with aeroplanes or flying machines, the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute for retarding the motion of the bomb during its descent and a charge of black powder which is fired by the initial impact of the bomb so as to cause the same to rebound and the detonating and main charges to be exploded at a predetermined distance above or from the ground, object or target.



3. In a bomb for use with aeroplanes or flying machines, the combination of a main charge of high explosive, a detonating charge capable of moving relatively to the main charge, a parachute which becomes operative when the bomb is released and which is adapted to retain the detonating charge in the inoperative position until such release is effected, and a charge of black powder which is fired by the initial impact of the bomb so as to cause the same to rebound and the detonating and main charges to be exploded at a predetermined distance above or from the ground, object or target.

1,078,299. REVERSING-GEAR FOR MULTIPLE-EXPANSION STEAM-ENGINES. JOSEPH G. MAXWELL, Brooklyn, N. Y. Filed Oct. 25, 1912. Serial No. 727,746. (Cl. 121-97.)



1. In a reversing gear for multiple expansion steam engines the combination of a high pressure eccentric, means for reversing same eccentric comprising a cylinder mounted on the shaft of said engine and adapted to rotate with the same, a pair of cylinder heads on said cylinder, a short sleeve cast in one piece with one of said cylinder heads and adapted to engage the high pressure eccentric, means for rotatably shifting said cylinder through an angle of about 120° with relation to the shaft comprising a fixed piston and a partition within said cylinder means for admitting steam to the cylinder on either side of the piston so as to bring the formerly disengaged wall of said partition into contact with the formerly disengaged wall of the piston, means for preventing shock in the contact comprising a steam cushion formed by the reduction of the exhaust port thus restricting the escape of the steam from the space in the cylinder and a self reversing low pressure eccentric substantially as described.

2. In a reversing gear for multiple expansion steam engines the combination of a high pressure eccentric means for reversing said eccentric comprising a cylinder mounted on the shaft of said engine and adapted to rotate with the same, a pair of cylinder heads on said cylinder, sleeves cast upon said cylinder heads means for attaching one of the sleeves to the high pressure eccentric, a cover on the other sleeve means for making said cover steam-tight, means for introducing steam to said second sleeve and means embodied in the sleeve for conducting said steam to the cylinder means for rotatably shifting said cylinder through an angle of 120° with relation to the shaft comprising a piston and a partition within said cylinder, means for fixing said piston to said shaft, comprising a pin extending into said piston and adapted to engage in said shaft and means for admitting said steam to the cylinder on either side of the piston so as to bring the formerly disengaged wall of said partition into contact with the formerly disengaged wall of the piston, means for preventing shock in the contact comprising a steam cushion formed by the reduction of the exhaust port thus restricting the escape of the steam from the space in the cylinder and a self reversing low pressure eccentric substantially as described.

3. In a reversing gear for multiple expansion steam engines the combination of a high pressure eccentric means for reversing said eccentric comprising a cylinder mounted on the shaft of said engine and adapted to rotate with the same, a pair of cylinder heads on said cylinder sleeves cast upon said cylinder heads means for attaching one of said sleeves to the high pressure eccentric, means for introducing steam to said cylinder through the second sleeve comprising a pair of parallel grooves in said sleeve ports in said grooves, said ports connecting with passages leading to the cylinder, a cover for said second sleeve, means embodied in the sleeve for insulating said grooves, means for introducing steam to either of said grooves and connecting the other with the exhaust, means for rotatably shifting said cylinder through an angle of 120° with relation to the shaft comprising a piston and a partition within said cylinder, means for fixing said piston to said shaft comprising a pin extending into said piston and adapted to engage in said shaft, said passages entering the cylinder on either side of the piston so as to bring the formerly disengaged wall of said partition into contact with the formerly disengaged wall of the piston, means for preventing shock in the contact comprising a steam cushion formed by the reduction of the exhaust port thus restricting the escape of the steam from the space in the cylinder and a self reversing low pressure eccentric substantially as described.

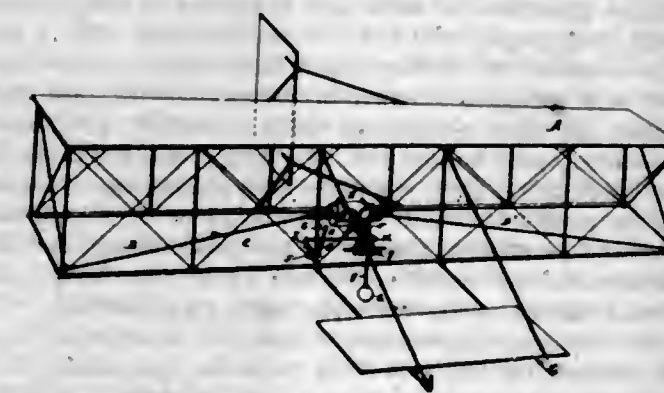
4. In a reversing gear for multiple expansion steam engines the combination of a high pressure eccentric, means for reversing said eccentric comprising a cylinder mounted on the shaft of said engine and adapted to rotate with the same, a pair of cylinder heads on said cylinder sleeves cast upon said cylinder heads means for attaching one of said sleeves to the high pressure eccentric, means for introducing steam to said cylinder through the second sleeve comprising a pair of parallel grooves in said sleeve ports in said grooves said ports connecting with passages leading to the cylinder, a cover for said second sleeve, means embodied in the sleeve for insulating said grooves, means for introducing steam to either of said grooves, and connecting the other with the exhaust comprising a steam chest, means for introducing steam thereto, a valve and a valve seat within said steam chest, a port extending through said valve and steam groove diametrically opposite said port and extending slightly past the center of contact face thereof, a pair of diametrically opposite inlet ports and a centrally located exhaust port in the valve seat, said exhaust port being smaller than said inlet ports, means for connecting said inlet ports with the grooves, means for connecting the port in said valve with one of the inlet ports in which case said steam groove connects the second with the exhaust port, means for rotatably shifting said cylinder through an angle of 120° with relation to the shaft comprising a piston and a partition within said cylinder, means for fixing said piston to said shaft

shaft comprising a pin extending into said piston, and adapted to engage in said shaft, said passages entering the cylinder on either side of the piston so as to bring the formerly disengaged wall of said partition into contact with the formerly disengaged wall of the piston, means for preventing shock in the contact comprising a steam cushion formed by the reduction of the exhaust port thus restricting the escape of the steam from the space in the cylinder, and a self reversing low pressure eccentric substantially as described.

5. In a reversing gear for multiple expansion steam engines the combination of a high pressure eccentric, means for reversing said eccentric comprising a cylinder mounted on the shaft of said engine and adapted to rotate with the same, a pair of cylinder heads on said cylinder sleeve cast upon said cylinder heads means for attaching one of said sleeves to the high pressure eccentric, means for introducing steam to said cylinder through the second sleeve comprising a pair of parallel grooves in said sleeve ports in said grooves said ports connecting with passages leading to the cylinder, a cover for said second sleeve, means embodied in the sleeve for insulating said grooves, means for introducing steam to either of said grooves, and connecting the other with the exhaust comprising a steam chest, means for introducing steam thereto, a valve and a valve seat within said steam chest, a port extending through said valve and steam groove diametrically opposite said port and extending slightly past the center of contact face thereof, a pair of diametrically opposite inlet ports and a centrally located exhaust port in the valve seat, said exhaust port being smaller than said inlet ports, means for connecting said inlet ports with the grooves, means for connecting the port in said valve with one of the inlet ports in which case said steam groove connects the second with the exhaust port, means for rotatably shifting said cylinder through an angle of 120° with relation to the shaft comprising a piston and a partition within said cylinder, means for fixing said piston to said shaft comprising a pin extending into said piston, and adapted to engage in said shaft, said passages entering the cylinder on either side of the piston so as to bring the formerly disengaged wall of said partition into contact with the formerly disengaged wall of the piston, means for preventing shock in the contact comprising a steam cushion formed by the reduction of the exhaust port thus restricting the escape of the steam from the space in the cylinder, means for making the low pressure eccentric self reversing comprising a groove extending through 120° in the shaft-bearing face of said low pressure eccentric a key formed on said shaft and normally adapted to engage said eccentric and swing free through said groove to 120° when the engine is reversed and means for holding said eccentric from longitudinal movement on the shaft comprising a pair of plates bolted to said eccentric and adapted to engage the ends of said key.

[Claims 6 to 12 not printed in the Gazette.]

1,078,300. APPARATUS FOR CONTROLLING AEROPLANES. JAMES A. MOORE, Detroit, Mich. Filed Dec. 30, 1910. Serial No. 600,068. (Cl. 244-29.)



1. In an aeroplane having means for adjusting its position, a cylinder mounted on said aeroplane, a piston in said cylinder, means for connecting said piston with said adjusting means, a measuring chamber, a source of supply of air under pressure, means for connecting said measur-

ing chamber with the source of air supply and disconnecting the same and with one end or the other of said cylinder when disconnected from the source of air supply, for the purpose described.

2. In an aeroplane having means for adjusting its position, a cylinder mounted on said aeroplane, a piston in said cylinder, means for connecting said piston with said adjusting means, a measuring chamber, a source of supply of air under pressure, means for connecting said measuring chamber with the source of air supply and disconnecting the same and with one end or the other of said cylinder when disconnected from the source of air supply, a second measuring chamber, and means for connecting and disconnecting said second measuring chamber with the opposite end of said cylinder to that to which the first mentioned measuring chamber is connected, and with the outer air when disconnected from said cylinder, for the purpose described.

3. In an aeroplane having means for adjusting its position, a cylinder mounted on said aeroplane, a piston in said cylinder, means for connecting said piston with said adjusting means, a measuring chamber, a source of supply of air under pressure, and means for connecting and disconnecting said measuring chamber with the source of air supply and with one end or the other of said cylinder when disconnected from the source of air supply, a second measuring chamber, and means for connecting and disconnecting said second measuring chamber with the opposite end of said cylinder to that to which the first mentioned measuring chamber is connected, and with the outer air when disconnected from said cylinder, and a weighted lever adapted to control the admission and exit of air to and from said measuring chambers, for the purpose described.

4. In an aeroplane, the combination of means for adjusting the position of said plane, a cylinder, a piston therein, said piston being operatively connected to said adjusting means, a conduit for compressed air leading to said cylinder, a measuring chamber and a valve in said conduit and forming a part thereof, said valve consisting of a rotatable piece having a plurality of peripheral ports, a casing surrounding said piece and forming a part of said conduit, an aperture in said casing communicating with a passage leading to a source of compressed air, two other apertures in said casing communicating with parts of said conduit leading to opposite ends of said cylinder, said ports communicating with said measuring chamber, and adapted to register with said apertures one at a time, the arrangement being such that said measuring chamber shall receive air when one of said ports registers with the aperture communicating with a source of compressed air, and shall deliver air when registering with one of the other apertures.

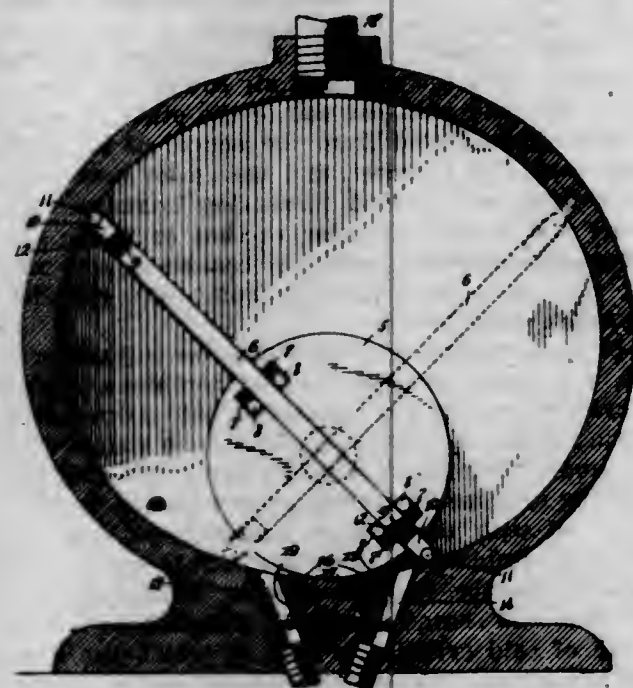
5. In an aeroplane, the combination of means for adjusting the position of said plane, a cylinder, a piston therein, said piston being operatively connected with said adjusting means, a conduit for compressed air leading to said cylinder, a valve in said conduit and forming a part thereof said valve consisting of a rotatable piece having a measuring chamber therein, a plurality of ports extending through the wall of said chamber, a casing surrounding said piece and forming a part of said conduit and having apertures therein adapted to register with said ports one at a time, and communicating severally with passages leading to the source of compressed air and to the ends of said cylinder, the arrangement being such that said measuring chamber shall receive air when one of said parts registers with the aperture communicating with a source of compressed air and shall deliver air when registering with one of the other apertures.

[Claims 6 and 7 not printed in the Gazette.]

1,078,301. ROTARY ENGINE. THEOPHILUS W. MOORE, deceased, Alachua, Fla., by Theodore V. Moore, administrator, Miami, Fla., assignor of one-half to Junius M. Horner, Asheville, N. C. Filed Jan. 12, 1910. Serial No. 537,596. (Cl. 121-72.)

1. In a rotary engine, a casing having an elliptical cavity, a revoluble cylindrical head mounted in the lower

portion of the casing to contact at its lower portion with said casing, the head being slotted and of a diameter approximately equal to one-half of the shorter diameter of the elliptical cavity of the casing, and a piston sliding in the slot of the head and having in each end a sliding and spring pressed packing member.



2. A rotary engine, comprising two casings, each having an elliptical cavity, a shaft journaled in the opposing heads of the casings, a transmission pulley on the shaft, heads on the ends of the shaft within the casings, the heads being slotted and of a diameter approximately equal to one-half of the shorter diameter of the cavity of the casing, the slots of the heads being at right angles to each other, a piston sliding in the slot of each head and having a sliding and spring pressed packing member in each end thereof, and means controlled from said shaft for admitting the motive agent alternately to the said casings.

3. A rotary engine, comprising two spaced casings having elliptical cavities and each provided with passages in its bottom, a shaft having its ends mounted in the casings and provided within said casing with heads contacting with the lower portions of said casings, each head being provided with a slot, the slots being at right angles to each other, a piston sliding in the slot of each head, a pulley on the shaft between the casings, a manually controlled valve for controlling the passages of each casing, a main supply pipe, a pipe connecting each valve with the supply pipe, a valve in each of the said pipes, and means for operating the last named valves from the shaft, said means being so arranged that the admission to one of the casings will take place intermediate the admission to the other casing.

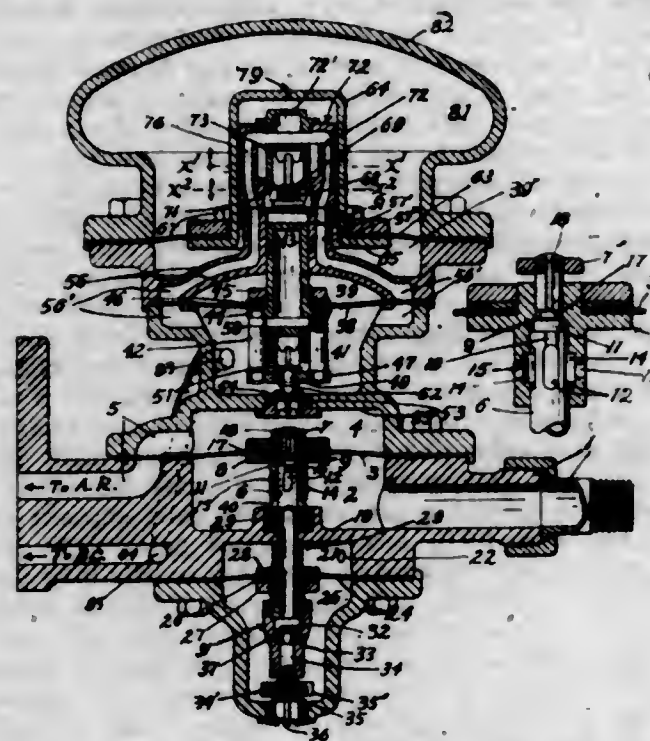
1,078,302. CLOTH-LAYING MACHINE. SIMON MORITZ, St. Louis, Mo. Filed Dec. 20, 1912. Serial No. 737,881. (Cl. 223—3.)



In a machine of the class described, the combination with a table having track rails on its edges, of a truck, a cloth laying roller journaled in said truck, a member arranged to slide on said truck, means for adjusting the position of the member on said truck, a cloth supporting frame pivotally mounted on the sliding member, a gage

plate adjustably mounted on the truck immediately over one end of the cloth laying roller, and a latch on the sliding member for engaging and holding the cloth supporting frame.

1,078,303. TRIPLE VALVE FOR AIR-BRAKES. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed Nov. 27, 1911. Serial No. 662,769. (Cl. 188—15.)



1. In a triple valve, a casing provided with a chamber in communication with the train pipe and a chamber in communication with the auxiliary reservoir, a movable abutment separating said chambers, there being a charging passage to permit air to pass through said abutment to charge the auxiliary reservoir, and a valve to control the flow of air through said passage, said valve being adapted to hold the auxiliary reservoir pressure to the maximum charge during service applications of the brakes and being operated by movements of said abutment.

2. In a triple valve, a main train pipe chamber, an equalizing chamber in communication with the brake cylinder during service braking, a movable hollow rod which forms a conduit between said chambers, means operated by variations of train pipe pressure to open and close communication between said chambers through said rod, a chamber in communication with the auxiliary reservoir, a movable abutment having auxiliary reservoir pressure on one side and train pipe pressure on the other side, and a valve at one end of said hollow rod to control communication through said rod between said auxiliary reservoir chamber and train pipe chamber.

3. In a triple valve, a casing containing a train pipe chamber and an auxiliary reservoir chamber, a diaphragm forming a partition between said chambers, a head carried by said diaphragm, said head being provided with a passage to conduct air through said diaphragm, a valve seat within said passage, a valve to cooperate with said seat, a hollow rod upon which said valve is formed, an equalizing chamber, said hollow rod affording communication between said train pipe chamber and equalizing chamber, and stop means to limit the movement of said rod, said stop means permitting the train pipe pressure against said diaphragm to move said valve seat away from said valve to permit escape of air from the train pipe chamber.

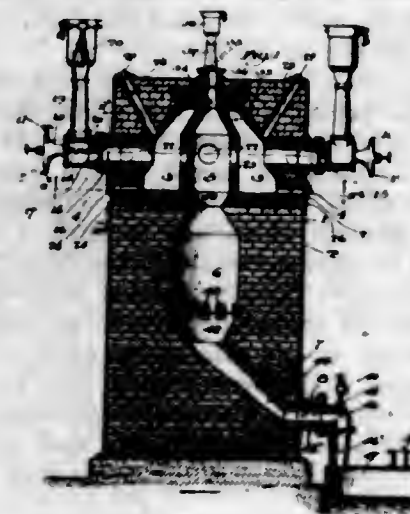
4. In braking apparatus, a movable emergency abutment exposed on one side to a chamber containing train pipe pressure and on the other side to a chamber containing brake cylinder pressure, there being an inlet to admit auxiliary reservoir pressure to said chamber containing brake cylinder pressure, means operated by said abutment to open and close said inlet, a supplemental emergency

passage to supply additional train pipe air for the brake cylinder, a valve to control the flow of air through said passage, a supplemental emergency abutment, a dome surrounding said valve, said dome being carried by said abutment, and a valve-operating rod carried by said dome and operatively connected with said valve, said abutment remaining inoperative during reductions of train pipe pressure for service applications of the brakes and operating said valve during more sudden reductions of the train pipe pressure.

5. In braking apparatus, a movable emergency abutment exposed on one side to a chamber containing train pipe pressure and on the other side to a chamber containing brake cylinder pressure, there being an inlet to admit auxiliary reservoir pressure to said chamber containing brake cylinder pressure, means operated by said abutment to open and close said inlet, a supplemental emergency passage to supply additional train pipe air for the brake cylinder, a valve to control the flow of air through said passage, a supplemental emergency abutment, a dome surrounding said valve, said dome being carried by said abutment, and a valve-operating rod carried by said dome and operatively connected with said valve, one side of said abutment being exposed to train pipe pressure, and a closed chamber on the other side of said abutment, there being a leakage passage affording communication between air under train pipe pressure and the air in said closed chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,078,304. PROCESS OF PRODUCING GAS. JOSHUA J. NIX and FRANK C. NIX, Alhambra, Cal., assignors to Jno. A. Merrill, Los Angeles, Cal. Filed Sept. 25, 1912. Serial No. 722,360. (Cl. 48—74.)

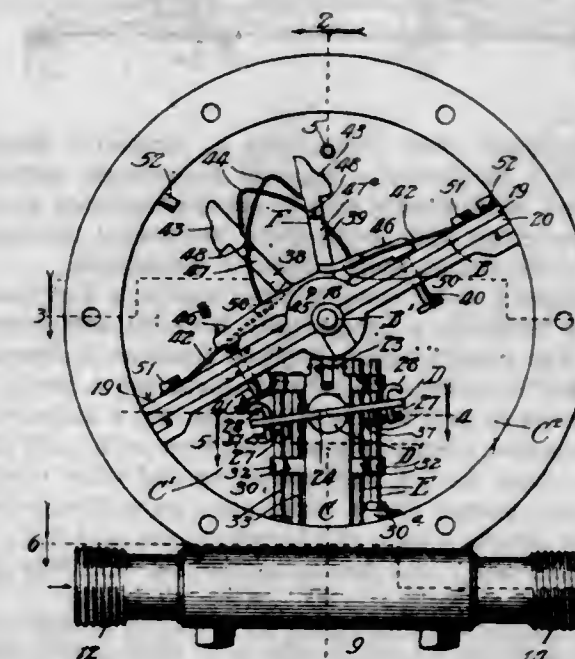


1. The process of producing gas, which consists in producing a jet of atomized liquid hydrocarbon by means of steam, directing jets of air under pressure and steam, at high velocity, at an acute angle into said jet of atomized liquid hydrocarbon, so as to cause the atomized jets of air and steam to forcibly impinge on the jet of atomized hydrocarbon and produce a further atomization and mixture of the hydrocarbon, air and steam, causing the resulting mixture of air, steam and hydrocarbon to burn under a condition of pressure above atmospheric pressure and withdrawing the resulting gases from the place of combustion.

2. The process of producing gas, which consists in producing a jet of atomized liquid hydrocarbon by means of steam, directing jets of air under pressure and steam at high velocity at an acute angle into said jet of atomized liquid hydrocarbon, so as to cause the atomized jets of air and steam to forcibly impinge on the jet of atomized hydrocarbon and produce further atomization and mixture of the hydrocarbon, air and steam, causing the resulting mixture of air, steam and hydrocarbon to burn under a condition of pressure above atmospheric pressure, and withdrawing the resulting gases from the place of combustion, directing into the resulting gases jets of

steam and air at high velocity to produce a further combustion and withdrawing gases resulting from said further combustion.

1,078,305. MOTOR OR ENGINE. HARLEY A. OGLE, Chicago, Ill., assignor to Taylor E. Daniels, Chicago, Ill. Filed June 7, 1911. Serial No. 631,686. (Cl. 138—1.)



1. In a machine of the character set forth, the combination of a casing, a stationary abutment in said casing and extending from one wall thereof to near the center, a vibratory member having a hub-portion engaging said abutment, admission valves and outlet valves located on opposite sides of said abutment, a vibratory actuating member for said valves, and means carried by said first-named vibratory member and adapted to actuate said second-named vibratory member.

2. In a machine of the character set forth, the combination of a casing provided with a substantially radial internal wall, an inlet valve and an outlet valve located on each side of said wall, a valve-actuating member having a pivot journaled in said wall, a vibratory piston having a hub-portion making a fluid-tight joint with said wall, and means carried by said piston and adapted to actuate the valve-actuating member.

3. In a machine of the character set forth, the combination of a casing, a substantially radial internal wall therein, admission and outlet valves for the chambers separated by said wall, a vibratory yoke adapted to actuate said valves, a vibratory piston having a hub-portion bearing on said wall, tappet-levers mounted on said piston, springs for said tappet-levers, and means carried by the casing and adapted to actuate said tappet-levers.

4. In a machine of the character set forth, the combination of a casing, a substantially radial internal wall therein, admission and outlet valves for the chambers separated by said wall, a vibratory yoke adapted to actuate said valves, a vibratory piston having a hub-portion bearing on said wall, tappet-levers mounted on said piston, springs for said tappet-levers, plungers extending through the arms of said piston and adapted to actuate said yoke, and means carried by the casing and adapted to actuate said tappet-levers.

5. In a machine of the character set forth, the combination of a casing provided with a substantially radial internal wall, admission and outlet valves for the chambers flanking said wall, a vibratory member adapted to actuate said valves, a vibratory piston having a hub-portion bearing on said wall, members projecting through said piston and adapted to actuate said first-named vibratory member, a pair of tappet-levers moving with said piston, springs for said tappet-levers and means in the casing adapted to actuate said tappet-levers.

[Claims 6 to 9 not printed in the Gazette.]

1,078,306. VESTIBULE-HOOD. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 28, 1912. Serial No. 706,389. (Cl. 108-5.)



1. A platform hood comprising a vertically disposed framework, a horizontally disposed framework connected thereto, and downwardly and forwardly inclined bracing means connecting said vertical and horizontal framework at points remote from their points of connection.

2. A platform hood comprising a vestibule end post, a framework including a horizontally disposed anti-telescoping plate, and a horizontally disposed framework connected thereto, said horizontal framework including a ramp carline connected to said vestibule end post and a horizontally disposed channel connecting said end post with said plate.

3. A car body having side plates, an end plate connecting said side plates, and a truss plate extending beneath fastened to and forming a reinforcement for said end plate, vestibule end posts and means connecting said end posts and said truss plate.

4. A car hood frame including an outlining frame, means bracing said frame, horizontally and vertically inclined means adapted to brace the lower portion of the front edge of said outlining frame to the rear portion of said outlining frame.

5. In the reinforcement of car hoods, including a vestibule end post, a deck girder, a vertical channel cross tie disposed adjacent the top of said deck girder and a downwardly and inwardly inclined brace connecting the end portion of said cross tie with said end post, whereby strains on said post will be transmitted to said cross tie.

[Claims 6 to 16 not printed in the Gazette.]

1,078,307. NON-CONDUCTING MATERIAL AND PROCESS OF MAKING SAME. THOMAS B. PARKISON, Muncie, Ind., assignor to Union Fibre Company, Winona, Minn., a Corporation of Minnesota. Continuation of application Serial No. 461,942, filed Nov. 10, 1908. This application filed July 31, 1909. Serial No. 510,670. (Cl. 106-18.)

1. The method of producing a waterproof insulating composition consisting of subjecting mineral wool to the action of smoke of burning petroleum during the process of manufacturing the wool, and combining with the wool so treated a binder, and a fiber of greater tensile strength than mineral wool.

2. The method of producing a waterproof insulating composition consisting of subjecting mineral wool to the action of smoke of burning petroleum during the process of manufacturing the wool, and combining with the wool so treated a binder, and a waterproofing liquid.

3. The method of producing a waterproof insulating composition consisting of subjecting mineral wool to the action of smoke of burning petroleum during the process of manufacturing the wool, and combining with the wool so treated a binder, a fiber of greater tensile strength than mineral wool, and a waterproofing liquid.

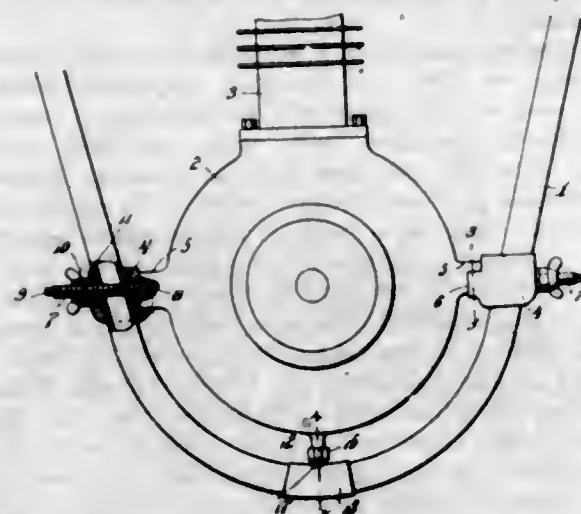
4. The method of producing an insulating composition which consists in coating mineral wool with a hydrocarbon during the process of manufacture by subjecting the same to the action of smoke of burning petroleum, then commingling therewith flax fiber and a binder, and shaping and drying the composition.

5. The method of producing a waterproof composition, which consists in coating with a hydrocarbon oil mineral wool fiber during the process of manufacturing the latter by subjecting the same to the action of smoke of burning petroleum, combining therewith another fiber and paper

pump, and finally molding the commingled mass and drying the same.

[Claims 6 to 12 not printed in the Gazette.]

1,078,308. MOTOR-CYCLE ENGINE-SUPPORT. EUGENE C. PFLEIDER, West Orange, N. J. Filed Mar. 19, 1912. Serial No. 684,774. (Cl. 21-90.)



1. In a motor cycle, the combination with the machine frame, of a motor provided with trunnions, trunnion seats on said frame having an open side to admit the trunnions, bolts on the frame movable into and out of engagement with the trunnions, and means for locking the motor in fixed relation to the frame.

2. In a motor cycle, the combination with the machine frame, of a motor provided with trunnions, trunnion seats on said frame having open sides to admit the trunnions, bolts on the frame movable into and out of engagement with the trunnions, and a threaded union for locking the motor in fixed relation to the frame.

3. In a motor cycle, the combination with the machine frame, of a motor provided with trunnions, trunnion seats on said frame having open sides to admit the trunnions, and means for locking the motor to the frame embodying a rotatable union and a threaded extension adapted to be engaged by said union and forming a direct connection between the motor and the motor cycle frame.

4. In a motor cycle, the combination with the machine frame and motor, of trunnions on one of said elements, trunnion seats open at one side on the other element permitting the motor to be swung on a fore and aft axis without removal from the machine frame, and means for retaining the trunnions in their seats and releasing the same to admit of the removal of the motor from the frame.

1,078,309. UNDERFRAME. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 24, 1912. Serial No. 711,312. (Cl. 105-76.)



1. The combination of draft sills positioned apart a distance to accommodate therebetween a regulation sized draft gear and a commercial channel section bridging a space between said sills less than the distance between other parts of said draft sills.

2. The combination of a pair of draft sills spaced apart a preset distance, a rolled commercial flanged section of preset width having a horizontal web portion which is disposed between and secured to said sills, said sills being offset in horizontal lines to fit said section.

3. The combination of a pair of draft sills spaced apart a preset distance, a rolled commercial flanged section of preset width having a horizontal web portion which is

disposed between said sills, said sills offset for a portion of their length to fit said section and being secured to its flanges.

4. The combination of draft sills spaced apart a regulation distance, a standard rolled section positioned between said sills, said section having horizontal web and vertical flanges, said sills being distorted to fit the flanges of said section.

5. The combination of draft sills spaced apart a regulation distance, a horizontally disposed member with vertical flanges positioned between said sills and contacting therewith, portions of the webs of each of said sills being displaced to fit said member.

[Claims 6 to 24 not printed in the Gazette.]

1,078,310. UNDERFRAME. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 14, 1912. Serial No. 715,030. (Cl. 105-76.)



1. In an underframe for railroad cars, a sill comprising a cast tension member and a compression member formed of a plurality of rolled commercial sections and transverse members supported by said sill.

2. In an underframe for railroad cars, a sill comprising a cast tension member and a compression member composed of assembled rolled commercial sections and transverse members supported by said sill.

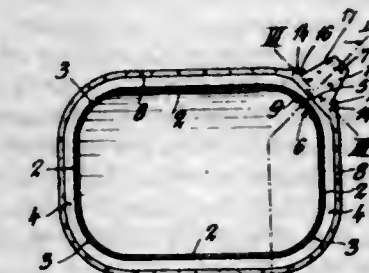
3. In an underframe for railroad cars, a sill comprising a cast tension member and a compression member composed of a plurality of rolled commercial sections and transverse projections extending from the cast tension member and transverse members carried by said projections.

4. In an underframe for railway cars, a compound center sill comprising a cast tension member and a compression member composed of a plurality of rolled sections, said compression member being fixed to and supported by said tension member and transverse members supported by said center sill.

5. In an underframe for railway cars, a center sill comprising a tension member of cast metal and a hollow rolled metal compression member and transverse members supported by said center sill.

[Claims 6 to 35 not printed in the Gazette.]

1,078,311. OPENING DEVICE FOR SHEET-METAL CANS. PAUL SCHOLZ, Bergen, Norway. Filed Dec. 31, 1912. Serial No. 739,443. (Cl. 220-65.)

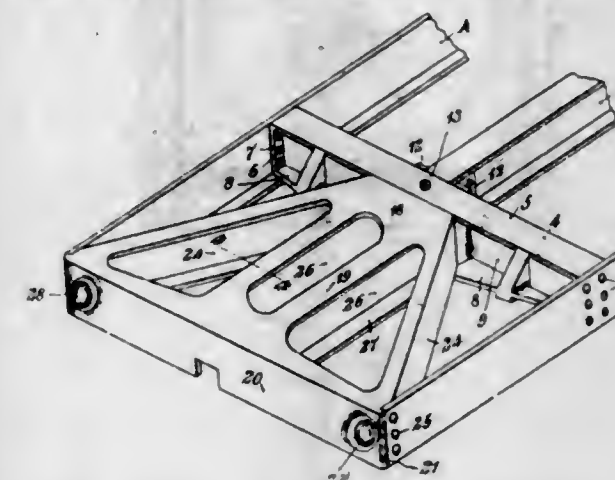


1. A receptacle comprising a body portion having a flattened corner a closure therefor having a depressed central portion provided with a flattened surface at its corner contiguous to the flattened corner of said body, said closure also having a folding rim provided with a straight surface and with an opening tongue-forming extension at its flattened corner.

2. A receptacle comprising a body portion having a flattened corner, a closure therefor having a depressed central portion provided with a flattened surface at its corner

contiguous to the flattened corner of said body, said closure also having an opening tongue-forming extension at its flattened corner, the depressed portion of said closure having weakening lines therein.

1,078,312. CAST END FRAME. GEORGE W. SCOTT, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 19, 1912. Serial No. 732,330. (Cl. 105-76.)



1. The combination of a bolster, in the form of an I-beam, a single member constituting integrally combined draft sills connected to the web of said bolster and extending in alignment with a portion of the bolster web, and forming with the flanges and web of said bolster a rear housing for draft gear elements.

2. The combination of a bolster, in the general form of an I-beam, including a vertical web having a portion offset from the plane thereof to form a housing for a draft gear member, a center sill abutting said housing, and a king pin extending through the flanges of said bolster and within said housing in advance of said center sill.

3. An integral car bolster comprising an I-beam having an offset web portion, with top and bottom flanges, the lower flange being wider than the upper flange, a side bearing bracket disposed in the angle between the web and lower flange, and draft sills in connected contact with said offset web portion.

4. In a car underframe, side sills and a center sill, two members disposed between said side sills and in advance of said center sill, one of said members being a combined end sill and draft sill, and the other, a bolster fastened to and disposed between said draft sills and center sill, portions of the web of the bolster being disposed in alignment with the draft sills.

5. In an underframe, a bolster formed with a web portion provided with an angular offset vertical portion and draft sills connected with said bolster, the draft sills extending in alignment with a portion of the bolster web.

[Claims 6 to 8 not printed in the Gazette.]

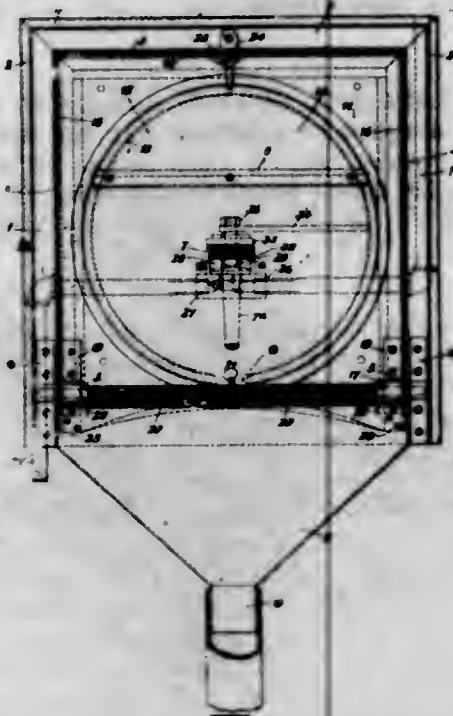
1,078,313. PROCESS FOR THE MANUFACTURE OF ALUMINIUM NITRID. OTTOKAR SERPEK, Paris, France, assignor to Société Générale des Nitrures, Paris, France. Filed May 7, 1912. Serial No. 695,721. (Cl. 23-13.)

The process for the manufacture of aluminium nitrid, which consists in heating at temperatures above approximately 1300 degrees C. a mixture of carbon and aluminium material in a current of nitrogen with free hydrogen.

1,078,314. FOLDING LAVATORY. GEORGE E. SEYMOUR, New Albany, Ind., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 6, 1913. Serial No. 752,417. (Cl. 4-1.)

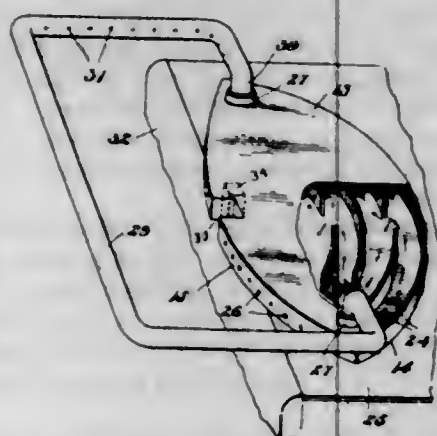
In a device of the class described, a recessed wall bracket frame having a rectangular recess, a basin having a substantially rectangular flange closable within said recess, a faucet within the recess of the bracket frame, a stop on

the frame, an extension on said rim engageable with said stop within the recess of the bracket frame, a slop hopper



and spring hinges for said basin having portions engageable with said hopper.

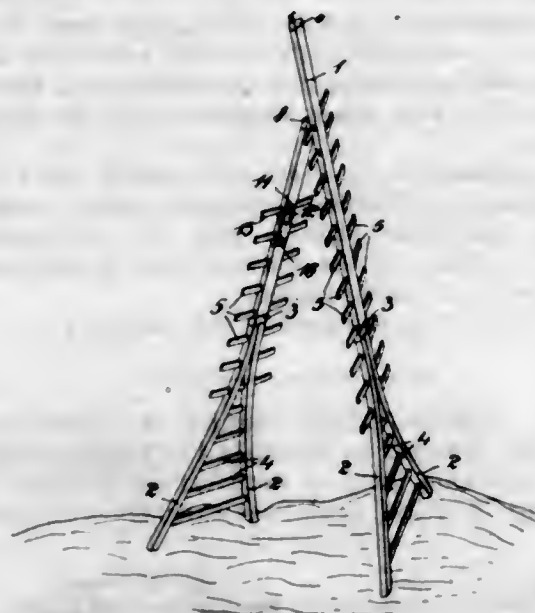
1,078,315. STOVE. WILLIAM E. SHORE, Toronto, Ontario, Canada, assignor of forty one-hundredths to John Franey and twenty one-hundredths to Jane C. Franey, Toronto, Canada. Filed Dec. 28, 1912. Serial No. 739,045. (Cl. 126-15.)



1. In an attachment for stoves, the combination with the oven, of a flat hollow casing adapted to be secured to the top plate of the oven and having an opening at the rear communicating with an opening in said oven plate, and a plurality of narrow passages formed between walls extending from the top to bottom, said narrow passages forming superheating chambers for the air rising from the interior of the oven, said casing also having a centrally arranged indent in its front side adapted to straddle the center post of the stove and the inner walls within the casing directing the expanded air in equal volume to each side of said indent delivering the superheated air over the top of the fire pot in a horizontal direction to insure the mixing of the superheated air with the gases of combustion.

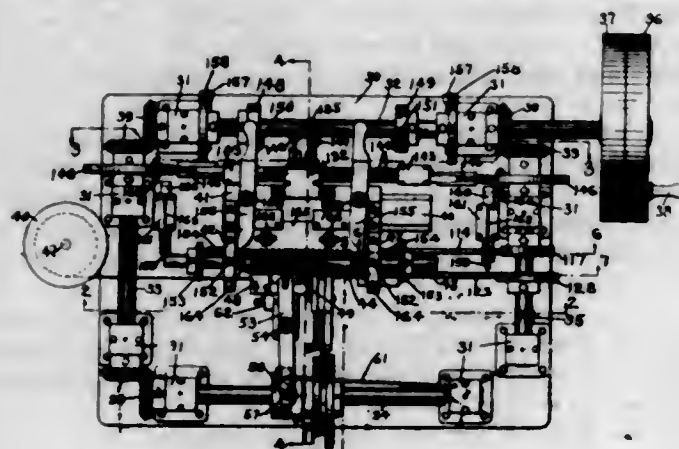
2. In a stove, the combination with the fire box and oven, of a casing secured to the top of said oven and having an inlet in the bottom communicating with an opening in the top of the oven and also having openings above the level of the inlet adapted to direct the superheated air into said fire box over the fire, and a tubular member leading from the top of said casing and extending around the top of the fire box and having holes therein adapted to direct the superheated air into the fire box over the fire.

1,078,316. LADDER. OTTO SIEGEL, Schlauwe, Germany. Filed Dec. 18, 1911. Serial No. 666,480. (Cl. 228-18.)



A combination ladder comprising a plurality of ladders, each of said ladders having revoluble hinge knuckles, one at its top and one at a part intermediate its ends, and means to pivotally connect the hinge knuckle at the top of one of said ladders with either one of the hinge knuckles of another ladder.

1,078,317. LINK-MESH MACHINE. HARRY W. SMITH and CHARLES G. SMITH, Pawtucket, R. I., assignors to Nickerson Art Metal Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed May 13, 1911. Serial No. 626,954. (Cl. 140-3.)



1. In a machine of the character described, a support for a substantially flat web of link mesh fabric, means for feeding and cutting the wire and subsequently forming links of the cut portions and connecting them to meshes of the fabric, and means for automatically shifting the web relatively to the point of formation of the links.

2. In a machine of the character described, a support for a substantially flat vertically disposed web of link mesh fabric, means for forming independent links and connecting them to the lower edge of the fabric, means for causing relative movement of the forming means and the fabric support, and means for reversing the direction of relative movement.

3. In a machine of the character described, link forming tools, a carrier for a flat vertically disposed web of link mesh fabric movable transversely of the link forming tools, means for moving said carrier step by step a distance equal to the diameter of the links, and means for actuating the carrier at the end of a row of links a distance equal to one-half of the diameter of a link.

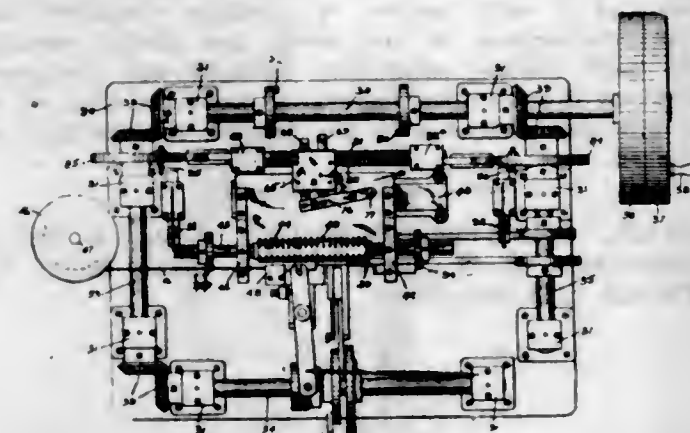
4. In a machine of the character described, a support for a flat web of link mesh fabric, means for successively connecting links to the edge of the fabric, means for causing relative movement of the said support and link-apply-

ing means step by step a distance equal to the diameter of a link, and means for causing a relative movement of said parts a distance equal to half the diameter of a link, the last-mentioned means being arranged to operate after the last link of each row has been applied.

5. In a machine of the character described, a support for a web of link mesh fabric mounted so as to be free to be moved to a limited extent transversely of the fabric, means for successively connecting links to the edge of the fabric, means for causing relative movement of the said support and link-applying means step by step a distance equal to the diameter of a link, means for moving the support transversely of the fabric a distance equal to half the diameter of a link after the last link of each row has been applied, and means for moving the support to advance the fabric in the direction of its length after each row of links has been applied.

[Claims 6 to 53 not printed in the Gazette.]

1,078,318. LINK-MESH MACHINE. HARRY W. SMITH and CHARLES G. SMITH, Providence, R. I., assignors to Nickerson Art Metal Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 5, 1913. Serial No. 759,179. (Cl. 140-3.)



1. In a machine of the character described, a support for a web of link mesh fabric, ratchet means for actuating said support to shift the fabric step by step, means for reversing the feeding action of said mechanism, and means in said actuating means for feeding said support but half a step in the feeding direction at the beginning of each return travel.

2. In a machine of the character described, a support for a web of link mesh fabric, ratchet bars, means for reciprocating said bars in opposite directions for actuating said support, means for reversing the feeding action of said bars, and means for controlling the action of said bars whereby the support is fed but half a step at the beginning of each return travel.

3. In a machine of the character described, a support for a web of link mesh fabric, ratchet bars, means for reciprocating said bars in opposite directions for actuating said support, means for reversing the feeding action of said bars whereby the support is fed but half a step at the beginning of each return travel.

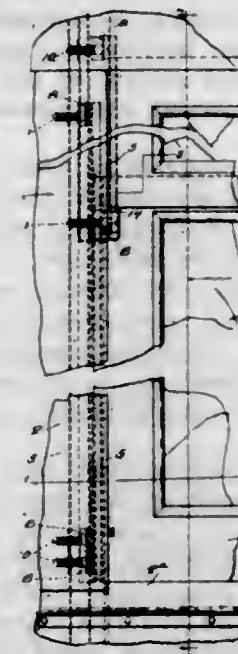
4. In a machine of the character described, a support for a web of link mesh fabric, a carriage on which said support is mounted, ratchet bars, cams for reciprocating said bars in opposite directions, pawls carried by said carriage for engaging said ratchet bar, means for controlling said pawls whereby the feeding action of said bars is reversed, and means for positioning said bars for feeding said support but half a step at the beginning of each return travel.

5. In a machine of the character described, a support for a web of link mesh fabric, a carriage on which said support is mounted, ratchet bars, cams for reciprocating said bars in opposite directions, pawls carried by said carriage for engaging said ratchet bars, cam actuated reciprocating controller bars for controlling said pawls whereby the feeding action of said rack bars is reversed, and means for positioning said bars for feeding said sup-

port but half a step at the beginning of each return travel.

[Claims 6 to 19 not printed in the Gazette.]

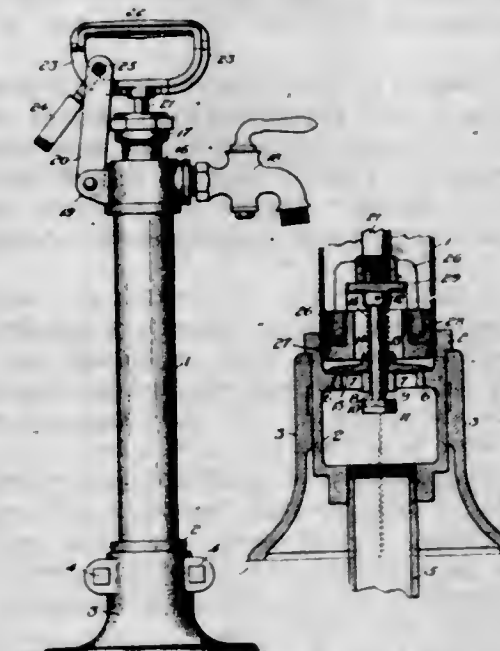
1,078,319. CAR-WINDOW. LEVI CLIFTON SPARKS and AUGUST WILLIAM LOUIS HARTRAUER, St. Louis, Mo., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 30, 1911. Serial No. 652,177. (Cl. 189-73.)



1. The combination with a window frame and a sash, of a guide for said sash adjustable laterally of the edge of the same, said guide including a part disposed in the path of and projecting beneath the bottom of said sash to support the same.

2. The combination with a window frame and a sash, of a guide for said sash adjustable laterally of the edge of the same, and sash supporting means engageable beneath the bottom of the sash and movable with said guide outside the vertical edge of the sash to permit the withdrawal of the sash from the frame.

1,078,320. PUMP. JAMES M. STRATTON, Salem, Ohio, assignor to The Deming Company, Salem, Ohio, a Corporation of Ohio. Filed Apr. 16, 1913. Serial No. 761,509. (Cl. 103-60.)



1. In a valve mechanism for pumps the combination with a lower valve provided with a drain port there-through, of a spring seated auxiliary valve normally closing said port, an auxiliary valve stem projecting loosely through said drain port, and means under control of the

pump plunger rod for depressing said auxiliary valve stem and unseating its valve when occasion requires.

2. In a valve mechanism for pumps the combination with a lower valve provided with a drain port there-through, of an auxiliary spring seated vent valve normally closing the underside of said port, an auxiliary valve stem projecting upward through said port, and a plunger rod adapted to depress said stem to open the vent valve.

3. In a valve mechanism for pumps the combination with a plunger valve and a lower pump valve the latter provided with a drain port there-through, of an auxiliary vent valve normally closing the underside of said port, an auxiliary valve stem projecting upward through said port, and means under control of the pump plunger rod for simultaneously opening said plunger valve and vent valve.

4. In a pump the combination with a suitable cylinder, of a plunger rod, a plunger cage affixed to said rod, suitable packing between said cage and cylinder, a valve seat and plunger valve within said cage, a lower pump valve and valve seat, a drain port through said lower valve and seat, an auxiliary vent valve normally closing said drain ports having a stem projecting upward therethrough and adapted to be depressed by an abnormal thrust of the pump plunger rod to simultaneously unseat said plunger valve and vent valve.

5. In a pump the combination with a cylinder and a vertically movable plunger rod having a spade handle slotted at its ends, of a locking bar pivotally mounted upon said cylinder having an eye at one end adapted to be projected through one of said handle slots, and a suitable lock for engaging the eye aforesaid to removably retain said bar and handle in locked relation.

1,078,321. CAR-DOOR-OPERATING DEVICE. VICTOR M. SUMMA, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 3, 1912. Serial No. 707,637. (Cl. 105-14.)



1. In a car, in combination with the frame of a car, a pivoted door, a shaft pivotally mounted adjacent the door bearing against and supporting said door and sliding mechanism carried by said door, whereby said shaft revolving in opposite directions, moves the door in opposite directions.

2. In a dumping car, the combination of a side tension angle having a door supporting loop secured thereto, a pivoted door, a bracket fastened to the underside of said door, a locking bar slidably mounted in said bracket, and adapted to project beyond the adjacent end of the door into said loop, and a rockable shaft in constant engagement with the loop.

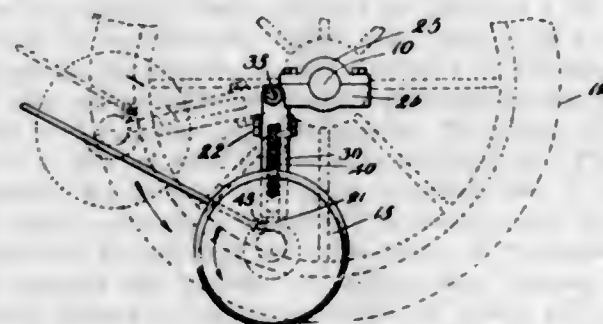
3. In a dumping car, the combination of a side tension angle having a loop secured thereto, a pivoted door, a bracket fastened to said door, a locking bar slidably mounted in said bracket, and adapted to project beyond the adjacent end of the door into said loop and means beneath said door to actuate said locking bar.

4. In a dumping car, the combination of a side tension angle having a loop secured thereto, a pivoted door, a bracket fastened to said door, a locking bar slidably mounted in said bracket, and adapted to project beyond the adjacent end of the door into said loop and a swinging shaft actuating said locking bar.

5. In a dumping car, a hinged door, a slidable bolt having an outer edge adapted to project from an edge of said door and having the inner end bent into a loop and door actuating means engaging said loop thereby to actuate the bolt.

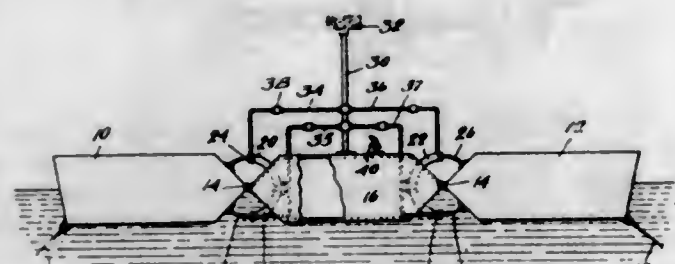
[Claims 6 to 18 not printed in the Gazette.]

1,078,322. ANTISKIDDING DEVICE. THEODORE B. THOMAS, Quincy, Mass. Filed Feb. 12, 1913. Serial No. 747,879. (Cl. 21-90.)



In an anti-skidding device, a ground-engaging device consisting of a disk having a stub-axle, a supporting-arm having an offset lower end-portion through which said stub-axle extends and which serves as a bearing therefor, a clevis to which the upper end of the supporting-arm is pivotally connected, a clamp to which said clevis is pivotally connected, a slotted guiding and supporting-member for said supporting-arm and a clamp to which the upper end of said member is pivotally connected, the pivotal connections of the clevis and slotted member with their clamps permitting forward and backward movement of the supporting-arm to move the disk out of and into engagement with the ground, substantially as described.

1,078,323. WAVE-MOTION MOTOR. LYMAN A. TRULL, Manchester, N. H. Filed Dec. 5, 1912. Serial No. 735,027. (Cl. 253-9.)



1. A wave motor, comprising a floating tank, a float movably connected therewith, and oppositely-acting fluid compressors arranged between and operatively connected to the float and tank.

2. A wave motor, comprising a floating tank, a float having hinged connection therewith, and oppositely-acting fluid compressors arranged between said tank and float, the operative elements of each compressor being connected respectively to the tank and to the float.

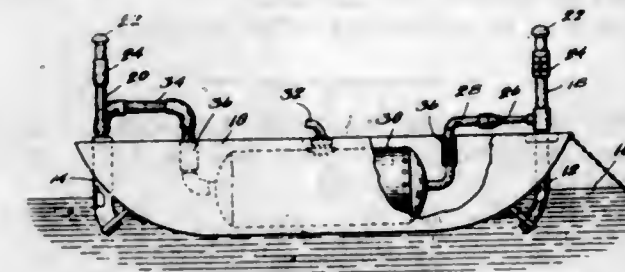
3. A wave motor, comprising a floating tank, a float having hinged connection therewith, and oppositely-acting fluid compressors arranged between said tank and float, each of said compressors including a cylinder carried by and opening within the tank and a piston and rod therefor carried by the float.

4. A wave motor, comprising a floating tank, a float movably connected therewith, oppositely-acting fluid compressors arranged between and operatively connected to the float and tank, and an air supply for said compressors opening above the motor.

5. A wave motor, including a tank, one end of the tank having inclined meeting surfaces, a cylinder secured to one of said surfaces and projecting therebeyond, a float having one end formed to provide inclined meeting surfaces, means movably connecting the tank and float on the line of juncture of their respective end surfaces, and a piston rod operative within the cylinder and carried by one of the inclined end surfaces of the tank.

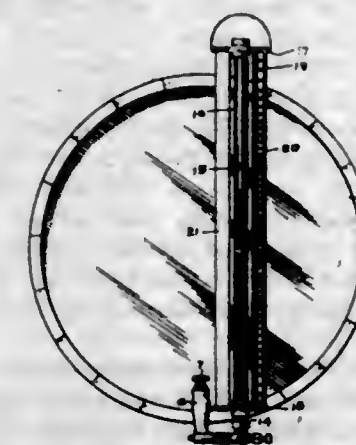
[Claim 6 not printed in the Gazette.]

1,078,324. WAVE-MOTOR. LYMAN A. TRULL, Manchester, N. H. Filed Dec. 23, 1912. Serial No. 738,204. (Cl. 230-9.)



A wave motor comprising a float, one or more tubular structures mounted above at one or more edges of said float, said tubular structures having their lower open ends at all times beneath the normal water line of the float, the said open ends being arranged to maintain their edge plane at an angle other than a right angle to the water line when below the water level and in parallelism with said water line when adjacent the water line.

1,078,325. FAUCET. ELI W. VICKREY, Indianapolis, Ind. Filed Dec. 13, 1912. Serial No. 738,511. (Cl. 73-54.)



1. The combination of a liquid-holding container, a faucet, a vertical glass tube, and a conduit connecting the interior of the container with that of the tube at the bottom of the latter, said conduit passing from the point of communication of said tube to the inlet of the faucet without communicating with the discharge conduit of the faucet.

2. The combination of a liquid-holding container, a faucet, a vertical glass tube, a conduit connecting the interior of the container with that of the tube at the bottom of the latter, said conduit passing from the point of communication of said tube to the inlet of the faucet without communicating with the discharge conduit of the faucet, and a scale to indicate the liquid contents of the container by the height of the liquid in the tube.

3. A liquid-holding container having a discharge opening, a faucet in said discharge opening having two compartments separate from each other but both communicating with the interior of the container, a vertical glass tube, one of said compartments discharging through the faucet, and means connecting the other compartment with the lower end of the glass tube.

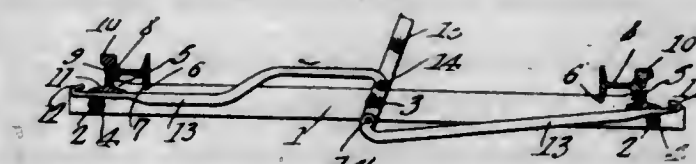
4. A liquid-holding container having a discharge opening, a faucet in said discharge opening having two compartments separate from each other but both communicating with the interior of the container, a vertical glass tube, one of said compartments discharging through the faucet, means connecting the other compartment with the lower end of the glass tube, and a scale to indicate the liquid contents of the container by the height of the liquid in the tube.

1,078,326. METAL TIE AND RAIL-FASTENER. ALONZO ZIMMERMAN, Ansted, W. Va. Filed Aug. 5, 1913. Serial No. 783,133. (Cl. 238-5.)

1. A rail tie and fastener, including two longitudinal plates, the rail bearing portions of which are provided with means to receive the inner edges of the bases of two

rails, two slidable rods each having a hooked terminal to embrace the outer edge of a rail base, and a lever pivoted between the plates and connected to the inner ends of the rods for operating the rods.

2. A rail tie and fastener, including two longitudinal plates, the rail bearing portions of which are provided with means to receive the inner edges of the bases of two rails, two slidable rods, each having a hooked terminal to embrace the outer edge of a rail base, a lever pivoted between the plates and connected to the inner ends of the rods for operating the rods, and means for holding the outer ends of the longitudinal plates spaced, said means also constituting a guiding means for the free ends of the rods.



3. A rail tie and fastener, including two longitudinal plates, the rail bearing portions of which are provided with means to receive the inner edges of the bases of two rails, two slidable rods each having a hooked terminal to embrace the outer edge of a rail base, a lever pivoted between the plates and connected to the inner ends of the rods for operating the rods, and two extension rail receiving means disposed one to each rod to coact with the main rails and the hooked terminals to be held to the tie.

4. A rail tie and fastener, including two longitudinal plates, the rail bearing portions of which are provided with means to receive the inner edges of the bases of two rails, two slidable rods, each having a hooked terminal to embrace the outer edge of a rail base, a lever pivoted between the plates and connected to the inner ends of the rods for operating the rods, means for holding the outer ends of the longitudinal plates spaced, said means also constituting a guiding means for the free ends of the rods, and two extension rail receiving means disposed one to each rod to coact with the main rails and the hooked terminals to be held to the tie.

1,078,327. COTTON-PICKING MACHINE. JOHN F. APPEBY, Beaver county, Okla., assignor to Dixie Cotton Picker Company, Redfield, S. D., a Corporation of South Dakota. Filed July 23, 1908. Serial No. 444,909. Renewed May 27, 1913. Serial No. 770,279. (Cl. 56-118.)



1. A cotton picking machine having picking fingers and shelving running sufficiently close to the ground to underlie the branches of cotton plants, spaces being provided in the shelving within which the picking fingers are adapted to be received.

2. A cotton picking machine having picking fingers and two shelves running sufficiently close to the ground to underlie branches of cotton plants, said shelves being supported upon opposite sides of the machine and sufficiently separated to permit entry of the stalks or trunks of cotton plants between the shelves, spaces being provided in the shelves within which the picking fingers are adapted to be received.

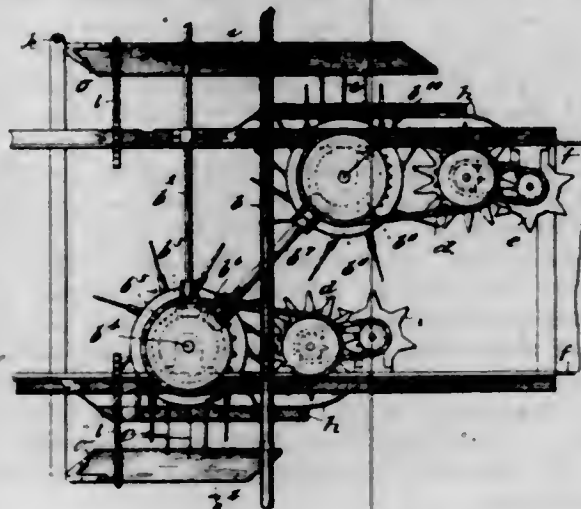
3. A cotton picking machine including picking fingers that travel bodily in vertical planes parallel with the direction of travel of the machine and having shelving running sufficiently close to the ground to underlie branches of cotton plants.

4. A cotton picking machine including picking fingers that travel bodily in vertical planes parallel with the direction of travel of the machine and having two shelves running sufficiently close to the ground to underlie branches of cotton plants, said shelves being supported upon opposite sides of the machine and sufficiently separated to permit entry of the stalks or trunks of cotton plants between the shelves.

5. A cotton picking machine having a channel within which cotton plant portions may be received, and cotton picking mechanism including picking fingers adapted to extend substantially across said channel to pick cotton from the plant portions interposed between the walls of said channel, the wall of the channel opposite the bases of the fingers being cut away to receive the free ends of the fingers.

[Claims 6 to 39 not printed in the Gazette.]

1,078,328. COTTON-PICKING MACHINE. JOHN F. APPLEBY, Beaver county, Okla., assignor to Dixie Cotton Picker Company, Redfield, S. D., a Corporation of South Dakota. Filed Aug. 3, 1908, Serial No. 446,831. Renewed July 8, 1912. Serial No. 708,818. (Cl. 56—118.)



1. A cotton picking machine having a cotton plant-receiving channel whose walls flank a row of cotton plants that the channel is adapted to receive, and cotton picking mechanism including fingers that are projected substantially from one side of said channel to the other, the wall of the channel opposite the bases of the fingers being recessed to receive the free ends of said fingers.

2. A cotton picking machine having a cotton plant-receiving channel whose walls flank a row of cotton plant portions that the channel is adapted to receive, cotton picking mechanism including fingers that are projected substantially from one side of said channel to the other, and means whereby one of the channel walls may be moved toward and from the other channel wall during the operation of the machine to press the cotton plant portions between the channel walls.

3. A cotton picking machine having a cotton plant-receiving channel whose walls flank a row of cotton plant portions that the channel is adapted to receive, cotton picking mechanism including fingers that are projected substantially from one side of said channel to the other, the wall of the channel opposite the bases of the fingers being recessed to receive the free ends of said fingers, and means whereby the space intervening between the channel walls may be adjusted.

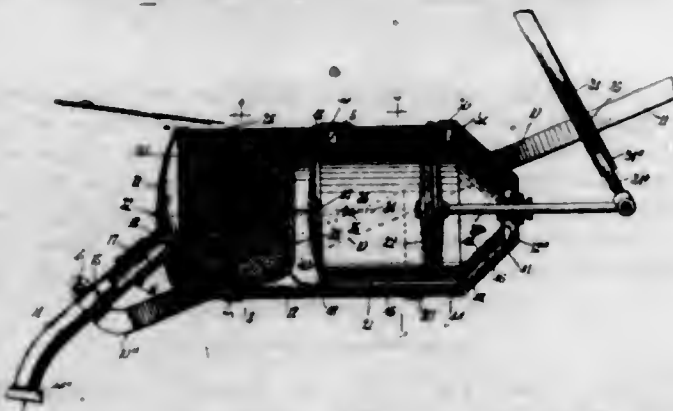
4. A cotton picking machine having a cotton plant-receiving channel whose walls flank a row of cotton plant portions that the channel is adapted to receive, cotton picking mechanism including fingers that are projected substantially from one side of said channel to the other, and means whereby the space intervening between the channel walls may be automatically adjusted.

5. A cotton picking machine having a cotton plant-receiving channel whose walls flank a row of cotton plant portions that the channel is adapted to receive, cotton picking mechanism including fingers that are projected substantially from one side of said channel to the other,

the wall of the channel opposite the bases of the fingers being recessed to receive the free ends of said fingers, and means whereby the space intervening between the channel walls may be automatically adjusted.

[Claims 6 to 66 not printed in the Gazette.]

1,078,329. PUMP FOR VACUUM-CLEANERS. IRVING BARKER, Springfield, Ill. Filed Feb. 28, 1912. Serial No. 680,440. (Cl. 230—27.)



1. In a vacuum cleaner, a frame, a shell on said frame, a pump arranged in connection with said shell and comprising a reciprocating piston and piston rod, a lever fulcrumed on the frame having operative connection with the said piston rod, a belt to be worn by the operator, and a connection between the belt and the lever.

2. In a vacuum cleaner, a frame, a shell on said frame, a pump arranged in connection with said shell and comprising a reciprocating piston and piston rod, a lever fulcrumed on the frame and having operative connection with the said piston rod, a connecting rod connected with said lever, and means for harnessing said rod to an operator.

3. In a vacuum cleaner, the combination of the following elements: a frame, a shell removably resting on said frame, means detachably holding the shell to the frame, a pump operating in the shell, a cover removably attached to the shell at the front end, said cover having an inlet leading to the interior of the shell, and a cover-retaining member carried by the frame to swing thereon over the cover and against the latter when the shell and cover are in place.

4. In a vacuum cleaner, the combination of a shell having an air inlet, a pump cylinder, a piston operating in the cylinder, the said cylinder being spaced from the shell at the sides and rear end forming a surrounding chamber and a communicating rear end chamber, the surrounding chamber having free communication with the air inlet of the shell, a valved inlet communicating with the inlet of the shell and leading to the interior of the pump cylinder, in front of the piston, a valved inlet-opening leading from the mentioned rear end space to the interior of the pump cylinder at the back of the piston, and valved discharge openings from the pump cylinder at the front and back of the piston.

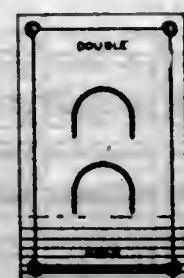
5. In a vacuum cleaner, the combination of a frame having a rearwardly extending rigid handle, a pump cylinder supported on said frame, a piston operating in said cylinder, a piston rod therefor, a forwardly extending lever crossing the said handle and fulcrumed thereon, one end of the lever having operative connection with the piston rod, a body belt worn by an operator, and a holding connection between the belt and the lever at the end of the latter opposite that to which the piston rod is connected.

[Claim 6 not printed in the Gazette.]

1,078,330. CARD GAME. JOHN P. BRAVENS, Burlington Junction, Mo. Filed Jan. 14, 1913. Serial No. 742,006. (Cl. 46—25.)

1. A deck of cards for use in playing a card game of croquet, including a plurality of suits and a plurality of like cards in each suit, sundry of said suits comprising cards which display thereon pictorial representations of

a portion of a croquet field and are adapted to indicate, when played, the relative position of the player's counter on said field.

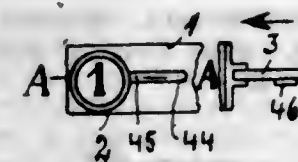


2. A deck of cards designed for use in playing a card game of croquet, including a plurality of suits, each suit containing a plurality of like cards, and the cards in sundry of said suits displaying thereon pictorial representations of a portion of a croquet field, and the cards of other suits displaying thereon a particular position of a croquet ball on said field, all of the cards being adapted to indicate, when played, the position of the player's counter on said field.

3. A deck of cards for use in playing a card game of croquet, including a plurality of suits of cards, the suits containing a plurality of like cards, the cards of sundry of said suits displaying thereon pictorial representations of a portion of a croquet field, the cards of another suit displaying thereon the pictorial representation of a ball's position on said field and the cards of another suit displaying thereon means for indicating that the player of said cards has the privileges of "stake roquet" at the time such card is played.

4. A deck of cards for use in playing a card game of croquet, including a plurality of suits, each suit comprising a plurality of like cards, the cards of one of said suits displaying thereon the pictorial representation of two wickets, the cards of another set having the representation of a single wicket, the cards of another set displaying the pictorial representation of a wicket and a ball in position thereat, the cards of another set displaying the representation of two croquet balls in contact, the cards of another set displaying the representation of a stake, and the cards of the remaining set displaying the means which will indicate that the player of such cards has the privilege of "stake roquet."

1,078,331. DEVICE FOR COUPLING THE COIN-EJECTORS IN CHANGE-GIVING APPARATUS. SIGMUND CHIGER, Berlin, Germany. Filed Feb. 18, 1913. Serial No. 749,170. (Cl. 133—2.)



1. A device for coupling coin-ejectors for change-giving apparatus comprising in combination a push-bar, a coin-ejector, a coupling member for connecting said ejector to said push-bar, a supporting lever, a coupling lever mounted on said supporting lever, means for causing said coupling lever to actuate said coupling member, and means for moving said ejector into inoperative position and for preventing said coupling-lever from being brought into action, substantially as set forth.

2. A device for coupling coin-ejectors for change-giving apparatus comprising in combination a push-bar, a coin-ejector, a coupling member for connecting said ejector to said push-bar, a pivotally mounted supporting lever, a coupling lever mounted on said supporting lever, a pivotally mounted member which serves to retain the coupling lever in operative position and an actuating member

196 O. G.—27

adapted to engage said coupling lever and to cause same to actuate said coupling member, substantially as set forth.

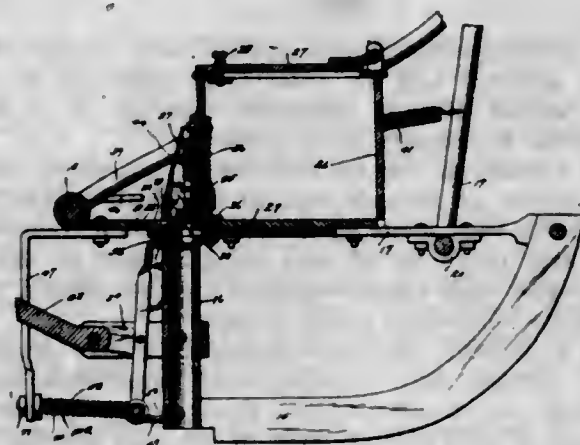
3. A device for coupling coin-ejectors for change-giving apparatus comprising in combination a push-bar, a coin-ejector, a coupling member for connecting said ejector to said push-bar, a pivotally mounted supporting lever, a coupling lever mounted thereon, a pivotally mounted member which serves in one position to retain said coupling lever in operative position, means for moving the coin-ejector backward when same is empty, and means comprising a double-armed lever mounted on said ejector and arranged to move said pivotally mounted member into a position which renders the coupling lever inoperative, substantially as set forth.

4. A device for coupling coin-ejectors for change-giving apparatus comprising in combination a coin-ejector means for moving said coin-ejector into the discharge position, a coupling member for connecting said ejector to said actuating means, a pivotally mounted supporting lever, a coupling lever mounted thereon, adapted to actuate said coupling member and an oscillating frame adapted to assume two positions, one position serving to retain coupling lever in operative position and the other to allow of said lever being moved out of operative position, substantially as set forth.

5. A device for coupling coin-ejectors for change-giving apparatus comprising in combination a push-bar, a coin-ejector, a coupling member for connecting said ejector to said push-bar, a pivotally mounted supporting lever, a coupling lever mounted on said supporting lever, a pivotally mounted member which serves to retain said coupling lever in operative position, a slot or recess in said pivotally mounted member, means for giving a backward movement to the ejector when same is empty, and a lever mounted on said ejector and adapted on said backward movement to cause said slot in said pivotally mounted member to be moved into the path of said coupling lever, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

1,078,332. CORN-REPLANTING MACHINE. JOE J. CHOLICK, Lakefield, Minn. Filed Aug. 2, 1912. Serial No. 712,943. (Cl. 111—27.)



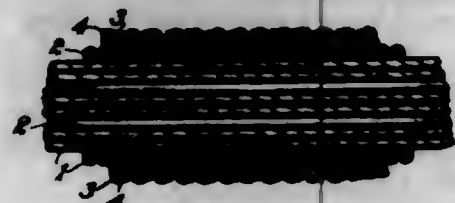
1. In a device of the class described, a planter shoe, a corn dropper tube at the rear end thereof, a corn box on said shoe, a dropper plate in said box, means for pivotally mounting said shoe at two points on the cultivator frame in such manner that said shoe may be swung downwardly and forwardly from its normal position, means for closing the lower end of said tube, and means whereby the downward and forward movement of said shoe operates said dropper plate and moves said closing means to position for opening said tube.

2. In a device of the class described, a planter shoe, a corn dropper tube at the rear end thereof, a corn box mounted on said shoe above said tube, the dropper plate slidably mounted in said box, rods pivoted to said shoe near the forward end thereof, and designed to be pivotally mounted on the cultivator frame, a bar secured to said

tube and extending rearwardly therefrom, a lever pivoted to said bar and designed to be pivoted between its ends on the cultivator frame, means for yieldingly holding said device normally in position with said first named rods inclined from the cultivator frame downwardly and rearwardly, a rod pivoted to one of said first named rods at a point below its upper end and operatively connected with said dropper plate, said parts being so arranged that when the shoe is swung downwardly and forwardly the dropper plate is operated by said last named rod.

3. In a device of the class described, a planter shoe, a corn dropper tube at the rear end thereof, a corn box mounted on said shoe above said tube, a dropper plate slidably mounted in said box, rods pivoted to said shoe near the forward end thereof, and designed to be pivotally mounted on the cultivator frame, a bar secured to said tube, and extending rearwardly therefrom, a lever pivoted to said bar and designed to be pivoted between its ends on the cultivator frame, means for yieldingly holding said device normally in position with said first named rods inclined from the cultivator frame downwardly and rearwardly, a rod pivoted to one of said first named rods at a point below its upper end and operatively connected with said dropper plate, a bar pivotally mounted and having an extension arranged in one position of the movement of said bar to close said tube, an arm mounted on said dropper plate, and operatively connected with said last named bar, said parts being so constructed and arranged that the downward and forward swing of said shoe slides said dropper plate rearwardly and moves said closing device rearwardly when the shoe has reached its lowermost position.

1,078,333. PACKING. ALBERT L. COLE, Auburndale, Mass., assignor to Frank C. Parmenter, Gloucester, Mass. Filed Aug. 3, 1909. Serial No. 511,030. (Cl. 121-107.)



1. A packing comprising a central body or core of any suitable material and an outer body made up of transversely wound strands cemented together by a rubber composition vulcanized under pressure.

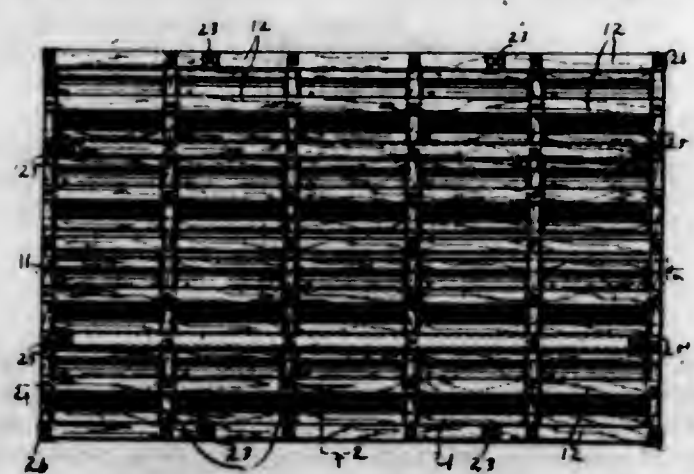
2. In a packing, the combination of a central body or core composed of strands laid in substantial parallelism and an outer body made up of strands wound transversely around said core; all of said strands both in the core and the outer body being cemented together with a rubber composition vulcanized under pressure.

3. In a packing, the combination of a core or central body of strands laid in substantial parallelism and an outer body of strands wound transversely around said core; each of said strands both in the core and the outer body being composed of fibrous material enveloped in metal, and all of said strands being cemented together with a rubber composition vulcanized under pressure.

4. The herein described method of making packing consisting in forming a core of a plurality of strands of any suitable material interspersed with strands of rubber composition, winding about said core alternate strands of any suitable material and rubber composition in one or more layers, then vulcanizing said rubber composition under pressure to cement all the strands both in the core and the outer body into a flexible homogeneous mass.

5. The herein described method of making packing consisting in forming the packing from a plurality of strands of suitable material interspersed with strands of rubber composition and then vulcanizing the rubber composition under pressure to cement all the strands of the packing together into a flexible homogeneous mass.

1,078,334. LIFE-RAFT. CHARLES W. COOK, Milwaukee, Wis. Filed Jan. 16, 1913. Serial No. 742,320. (Cl. 9-11.)



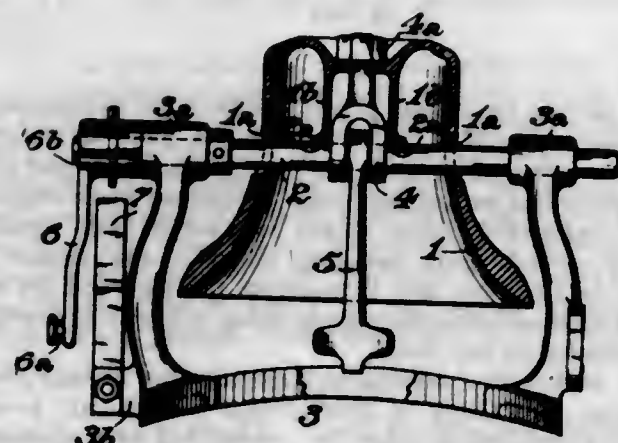
1. A life raft, comprising float members, frame sections having the float members positioned between them, hinged bolts with removable pivotal pins connecting the frame sections together whereby the removal of the pivotal pins from some of the connecting bolts permits one frame section to swing upon its hinge connections with the other frame section to release the float members.

2. A life raft, comprising float members, frame sections having the float members positioned between them, hinged bolt members secured to the frame sections and provided with interfitting eyes and removable rods passing through the interfitting eyes of the bolt members to hold the frame sections together.

3. A life raft, comprising rectangular frame sections formed of parallel lengthwise slats secured to parallel crosswise carlines, some of the slats being on the outer side of the carlines and other slats being on the inner side of the carlines, cylindrical float members positioned between the frame sections with their ends fitting between the carlines, and their sides bearing against the outer slats and positioned between pairs of the inner slats, the inner slats of each pair being spaced apart a distance less than the diameter of the float members to confine the float members between the frame sections as well as to prevent their lateral movement, and removable means for connecting the frame sections together.

4. A life raft, comprising a pair of frame sections, float members positioned between the frame sections, hinged bolt members connected to the frame sections and having interfitting eyes, rods passing through the interfitting eyes of hinged bolt members to hold the frame sections together, rings on the bolt members of one frame section, and a life line passing through said rings.

1,078,335. LOCOMOTIVE-BELL. EDMUND M. CRAWFORD, Schenectady, N. Y. Filed June 30, 1913. Serial No. 776,491. (Cl. 116-40.)



1. The combination of a bell stand, a transversely perforated bell, a supporting shaft journaled in said stand and extending through the bell, a connection extending

in the inside of the bell and securing it to the supporting shaft, a clapper journaled on said shaft, and means for oscillating said shaft.

2. The combination of a bell stand, a transversely perforated bell, a supporting shaft journaled in said stand and extending through the bell, a connection extending in the inside of the bell and securing it to the supporting shaft, a clapper journaled on said shaft, means for oscillating said shaft, and means for limiting the degree of oscillation of said shaft.

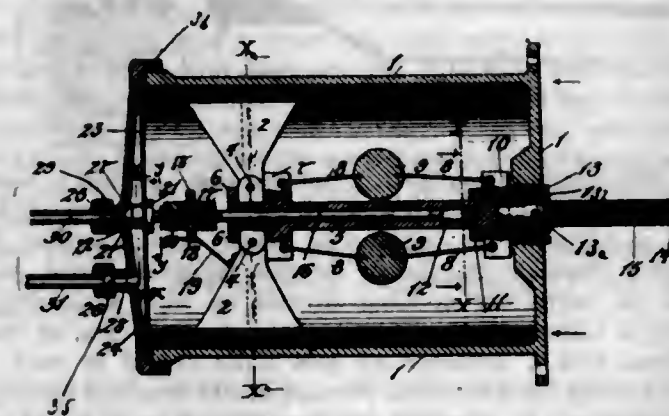
3. The combination of a bell stand, a transversely perforated bell, a supporting shaft journaled in said stand and extending through the bell, a bolt having a lower eye fitting on said shaft and attached at its top to the bell, a clapper journaled on said shaft, and means for oscillating said shaft.

4. The combination of a bell stand, a transversely perforated bell having a central recess in its top, a supporting shaft journaled in the bell stand and extending through the bell, a bolt having a lower eye fitting on said shaft and attached at its top to the bell, a lug extending from the top of the bell and engaging a recess in said shaft, a clapper journaled on said shaft, and means for oscillating said shaft.

5. The combination of a bell stand, a transversely perforated bell, a supporting shaft journaled in said stand and extending through the bell, a bolt having a lower eye fitting on said shaft and attached at its top to the bell, a lug extending from the top of the bell and engaging a recess in said shaft, a clapper journaled on said shaft, and means for oscillating said shaft.

[Claim 6 not printed in the Gazette.]

1,078,336. SPEED-GOVERNOR. THEODORE DOUGLAS, Scarborough, N. Y. Filed May 4, 1912. Serial No. 695,296. (Cl. 121-112.)



1. A valve mechanism comprising a valve chamber, a valve inclosed within said chamber, a movable wall for said valve chamber having an operative connection with said valve, and governor controlled operating mechanism for moving said wall.

2. In combination, a casing, a valve chamber at one end of the casing comprising a movable wall, a valve inclosed in said chamber, a governor controlled operating mechanism within said casing and separated from the valve chamber by the movable wall.

3. In combination, a casing, a valve chamber at one end of the casing comprising a flexible diaphragm forming one wall of said chamber, a valve inclosed in said chamber, a governor controlled operating mechanism within said casing and separated from the valve chamber by the flexible diaphragm.

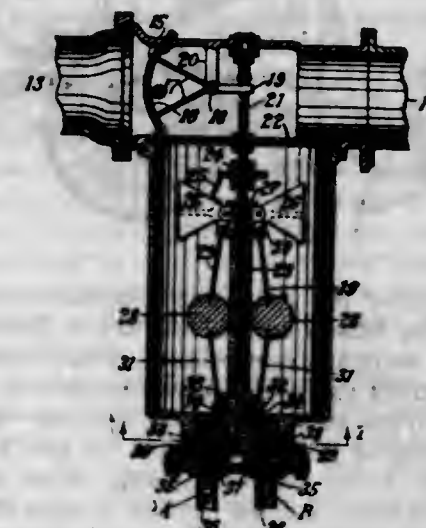
4. A valve mechanism comprising a valve chamber having a movable wall, a valve inclosed within said chamber, connections between said movable wall and the valve, normally disconnected mechanism between said movable wall and a rotating element, and means controlled by the rotating element for connecting said actuating mechanism to operate the movable wall and to close the valve when the speed of the rotating element exceeds a predetermined maximum speed.

5. In combination, a casing, a valve chamber external to the casing and comprising a movable wall, a valve in-

closed in said chamber, a governor-controlled operating mechanism within said casing and separated from the valve chamber by the movable wall.

[Claim 6 not printed in the Gazette.]

1,078,337. POWER-VEHICLE GOVERNOR. THEODORE DOUGLAS, Scarborough, N. Y. Filed Oct. 21, 1912. Serial No. 726,968. (Cl. 121-112.)



1. In combination, a motor, a rotary load element driven by said motor, means for controlling the supply of fluid or fuel to said motor, and independently operating driving connections between both the motor and the rotary load element and the means for controlling the fluid or fuel supply.

2. In combination, a motor, a rotary load element driven by said motor, a governor controlling the speed of said motor, and independently operating driving connections between said motor and governor and said rotary load element and governor.

3. In combination, a gas engine, a rotary load element driven by said gas engine, a governor, means operated by the governor for regulating the fuel supply to said gas engine, and independently operating driving connections between said gas engine and the governor and the rotary load element and the governor.

4. In combination, a gas engine, a vehicle propelled by said engine, a fuel supply regulator, independently operating connections between the engine and said fuel supply regulator, and a moving part of the vehicle and said fuel supply regulator, and means for automatically coupling that one of the connections which may be rotating at the greater speed.

5. In combination, a gas engine, a vehicle propelled by said engine, a fuel supply regulator, means normally disconnected for operating said fuel supply regulator, and independently operating driving connections between a part of said engine and a wheel of the moving vehicle for connecting said operating means of the fuel supply regulator.

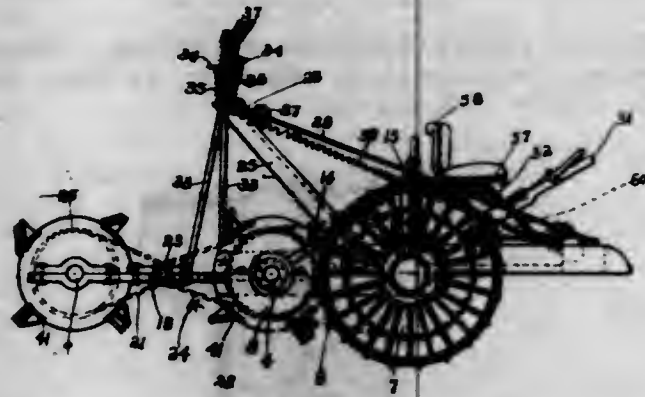
[Claims 6 and 7 not printed in the Gazette.]

1,078,338. ROTARY WEEDER. JAMES KIRKWOOD DOWNIE, Wawanesa, Manitoba, Canada. Filed Nov. 29, 1912. Serial No. 734,028. (Cl. 55-85.)

1. A machine of the character described comprising, an axle, supporting wheels carried thereby, a main frame mounted on said axle, arms extending rearwardly from said axle, a rotary drum mounted in said arms, means for driving said drum, a suspension frame carried by said main frame, rods connected to said arms and passed through said suspension frame, and yielding connections between said rods and said suspension frame.

2. A machine of the character described comprising, an axle, supporting wheels carried thereby, a main frame mounted on said axle, arms extending rearwardly from said axle, a rotary drum mounted in said arms, means for driving said drum, a suspension frame carried by said main

frame, rods connected to said arms and passed through said suspension frame, yielding connections between said rods and said suspension frame, and means for adjusting said yielding connections.



3. A machine of the character described comprising, a supporting axle, wheels carried thereby, a frame mounted on said axle, rearwardly extending arms carried by said axle, a rearwardly extending intermediate arm carried on said axle, a drum shaft journaled in each of the outer arms, a connecting shaft journaled in the intermediate arm, universal joints connecting said drum shafts with said connecting shaft, a drum carried by each of said drum shafts, a pair of arms journaled on said connecting shaft, a drum journaled therein, means for driving the aforesaid drum shafts from said axle, and means for driving the last named drum from the aforesaid connecting shaft.

4. A machine of the character described comprising, a supporting axle, wheels carried thereby, a frame mounted on said axle, rearwardly extending arms carried by said axle, a rearwardly extending intermediate arm carried on said axle, a drum shaft journaled in each of the outer arms, a connecting shaft journaled in the intermediate arm, universal joints connecting said drum shafts with said connecting shaft, a drum carried by each of said drum shafts, a pair of arms journaled on said connecting shaft, a drum journaled therein, yielding connections between said suspension frame and each of said arms, means for driving the aforesaid drum shafts from said axle, and means for driving the last named drum from the aforesaid connecting shaft.

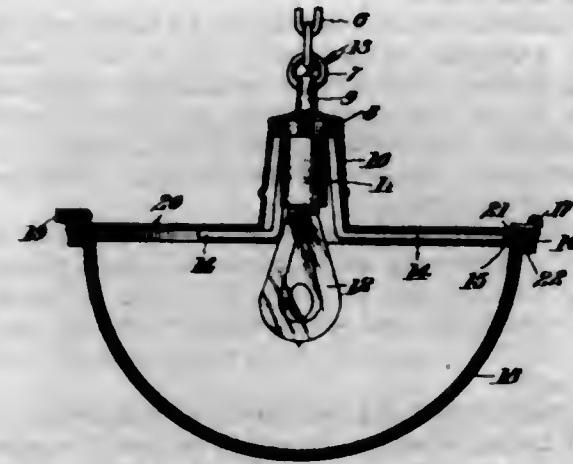
5. A machine of the character described comprising, a supporting axle, wheels carried thereby, a frame mounted on said axle, rearwardly extending arms carried by said axle, a rearwardly extending intermediate arm carried on said axle, a drum shaft journaled in each of the outer arms, a connecting shaft journaled in the intermediate arm, universal joints connecting said drum shafts with said connecting shaft, a drum carried by each of said drum shafts, a pair of arms journaled on said connecting shaft, a drum journaled therein, a suspension frame, yielding connections between said suspension frame and each of said arms, means for adjusting said suspension frame, means for securing said frame in adjusted position, means for driving the aforesaid drum shaft from said axle, and means for driving the last named drum from the aforesaid connecting shaft.

1,078,339. LIGHTING-FIXTURE. FLORENZ M. EGAN, New York, N. Y. Filed May 22, 1913. Serial No. 769,342. (Cl. 240-91.)

1. A lighting fixture comprising a hanging device, a bell thereon, arms extending within said bell to connection with said device, a lamp socket connected to said device within the bell, and a shade holder supported by said arms, and extending around the bell and adapted to hold a shade under the arms and the lamp, said shade holder being movable from the arms, with the shade, to permit access to the lamp socket and the interior of the shade.

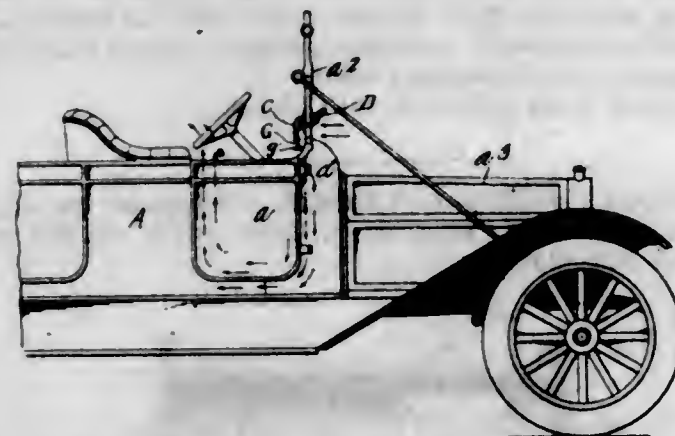
2. A lighting fixture comprising a suspended block, arms projecting therefrom, a bell inclosing the block and the inner ends of the arms, a lamp socket attached to the block, within the bell, a ring attached to the outer

ends of the arms, a shade holding ring hinged to said ring, and a glass cover located over the arms and resting



on said first mentioned ring and having a central opening in which the lower end of the bell fits.

1,078,340. VENTILATOR FOR VEHICLES. DAVID FERGUSON and JAMES R. WAY, Buffalo, N. Y., assignors to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Filed Sept. 23, 1911. Serial No. 650,864. (Cl. 21-148.)



1. The combination with a vehicle body having a dash, of a wind shield projecting above said dash and provided with a transparent pane, said wind shield having an opening through the lower portion thereof above said dash, an outwardly opening shutter on said wind shield which is adjustable to regulate the effective area of said opening, and a deflector on said wind shield in rear of said opening by which the current of air entering through said opening is directed downwardly into the vehicle body in rear of the dash, substantially as set forth.

2. The combination with a vehicle body closed at the sides and having a dash and a ventilator opening at the upper portion of the dash, of an outwardly opening shutter for said opening arranged to be adjusted to different positions, and a deflector arranged in rear of said opening by which the current of air entering through said opening is directed downwardly into the vehicle body in rear of the dash, substantially as set forth.

3. The combination with a vehicle body having a dash and provided adjacent to the upper portion thereof with a ventilator opening, of an outwardly opening shutter for said ventilator opening, and operating means for said shutter located at the inner side of said dash, said shutter being adjustable to a position in which it inclines inwardly toward one edge of said opening for directing air into the opening, substantially as set forth.

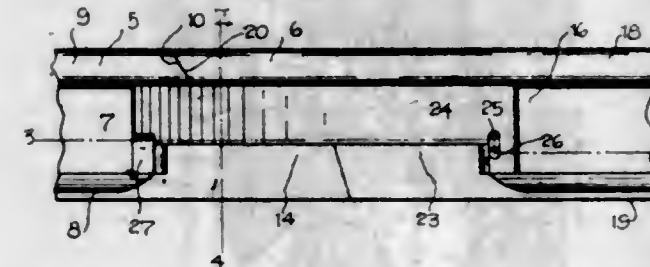
4. The combination with a vehicle body having a dash and provided adjacent to the upper portion thereof with a ventilator opening, of a shutter for said opening which is movable to a position in which it extends upwardly and forwardly from the upper edge of said opening for directing air into the opening, said shutter being adjustable to different positions, substantially as set forth.

5. The combination with a vehicle body having a dash and provided adjacent to the upper portion thereof with a ventilator opening, of a shutter for said opening which

is hinged at the upper edge of said opening to swing outwardly and upwardly to an upwardly inclined position for directing air into said opening, a deflector located in rear of said opening by which the air entering through said opening is directed downwardly into the vehicle body, and operating means for said shutter, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

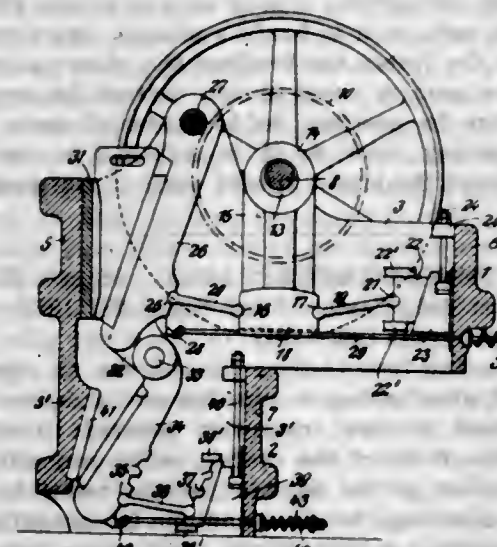
1,078,341. RAIL-JOINT. PAUL T. FIEHLER, Gordonville, Mo. Filed May 17, 1913. Serial No. 768,371. (Cl. 239-8.)



1. A rail joint comprising the meeting ends of a pair of rails, the base flanges of said rails being provided with upstanding flanges on their free longitudinal edges, locking plates slidably disposed between said upstanding flanges and the webs of said rails, a stop formed on one end of each of said locking plates for engagement with the inner ends of the respective upstanding flanges on one of said rails, the other ends of said locking plates each being formed with a vertical slot, and pins slidably disposed in the respective slots, said pins engaging the inner ends of the respective upstanding flanges of the other rail, for the purpose specified.

2. A rail joint comprising the meeting ends of a pair of rails, said rails each being provided with a longitudinal flange spaced apart from the rail web, a locking plate adapted to be slid between the rail web and the flange and being provided with means for preventing movement longitudinally of the rail in one direction, said locking plate being provided with a vertical slot, and means seated in the vertical slot and adapted to be alternatively moved therein out of and into engagement with the flange of one of said rail ends, for allowing or preventing movement of the locking plate longitudinally of the rail in one direction.

1,078,342. CRUSHER. EDUARD FRIEDRICH, Leipzig-Plagwitz, Germany. Filed May 8, 1912. Serial No. 695,922. (Cl. 83-53.)



1. In a crusher, the combination with a pair of upper jaws and a pair of lower jaws adapted to receive the material being crushed from the upper pair, of a fulcrum for one of the jaws of the upper pair located at the upper end thereof, a fulcrum for one of the jaws of the lower pair located at the lower end thereof, and means, com-

mon to said fulcrumed upper and lower jaws, acting on the lower end of the upper jaw and the upper end of the lower jaw to impart rocking movement thereto.

2. In a crusher, the combination with upper stationary and movable jaws, and lower stationary and movable jaws adapted to receive the material being crushed from the upper jaws, of common means acting on the lower end of the upper jaw and on the upper end of the lower jaw to reciprocate said upper and lower movable jaws toward and away from the stationary jaws cooperating therewith, and means to adjust said movable jaws relatively to the stationary jaws cooperating therewith.

3. In a crusher, the combination with upper stationary and movable jaws, and lower stationary and movable jaws adapted to receive the material from the upper jaws, of a fulcrum for the upper end of the upper movable jaw, a fulcrum plate pivoted to a stationary part of the crusher and having a pivotal connection with the lower end of the lower movable jaw, and common operating means connected with the upper end of the lower movable jaw and with the lower end of the upper movable jaw, to impart motion to said jaws.

4. In a crusher the combination with a pair of upper jaws, and means to impart reciprocating movement to said jaws relatively to each other, of a pair of lower jaws both inclined from the vertical toward the same side thereof and adapted to receive material being crushed from the upper jaws, and means to impart crushing movement to said lower jaws relatively to each other.

5. In a crusher, the combination with upper and lower stationary jaws, of an upper movable jaw fulcrumed at its upper end and cooperating with said upper stationary jaw, a lower movable jaw fulcrumed at its lower end and cooperating with said lower stationary jaw, a pivotal connection between the upper end of the lower movable jaw and the lower end of the upper movable jaw, and means for actuating said movable jaws.

[Claims 6 to 12 not printed in the Gazette.]

1,078,343. THERAPEUTIC APPARATUS. ANDREA FUMO, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,137. (Cl. 174-89.)



1. A therapeutic apparatus comprising a casing, a partition wall dividing the casing transversely into end compartments, the upper compartment being adapted to receive a liquid and being provided with an outlet therefor, a base adapted to fit within the otherwise open end of the lower compartment, a battery secured to the said base, an induction coil also secured to the said base, electrical connections from the terminals of the said battery to the terminals of the primary of the induction coil, a

contact plate associated with the base and adapted to bear against said transverse partition wall, a contact plate secured in and insulated from the said casing, a contact also associated with the said base and adapted when the same is in its normal position to bear against the last aforesaid contact plate, and electrical connections from the terminals of the secondary coil to the said contact plates.

2. A therapeutic apparatus comprising a casing, a partition wall dividing the casing transversely into end compartments, the upper compartment being adapted to receive a liquid and being provided with an outlet therefor, a base adapted to fit within the otherwise open end of the lower compartment, a battery secured to the said base, an induction coil also secured to the said base, electrical connections from the terminals of the said battery to the terminals of the primary of the induction coil, a contact plate associated with the base and adapted to bear against said transverse partition wall, a contact plate secured in and insulated from the said casing, a contact also associated with the said base and adapted when the same is in its normal position to bear against the last aforesaid contact plate, electrical connections from the terminals of the secondary coil to the said contact plates, and a contact in the circuit between the secondary of the induction coil and the said contact plate secured in and insulated from the casing.

1,078,344. BROODER. JAMES A. GARDNER, Northshade, Mich. Filed July 22, 1912. Serial No. 710,950. (Cl. 119—33.)



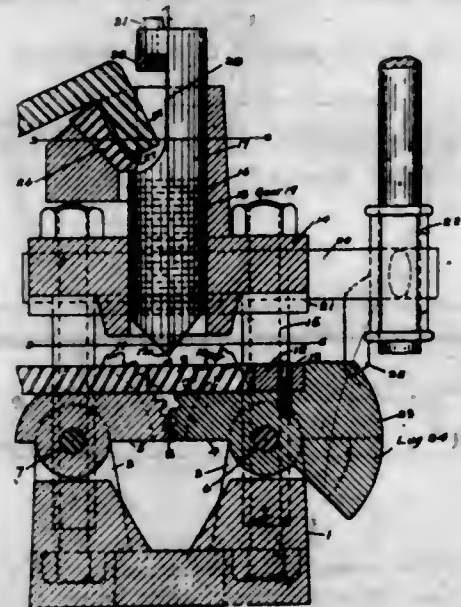
1. In a brooder, the combination of a hover chamber having an opening to serve for ventilation and as the entrance for chicks, with a movable hover member or cover for the chicks arranged in said chamber to permit the backs of the chicks therebeneath to come in light contact with it and having means connected therewith for closing or decreasing said opening on raising of said hover member or cover and for enlarging said opening on lowering of said hover member or cover.

2. In a brooder, the combination of a hover chamber having an opening to serve for ventilation and as the entrance for chicks, with a vertically swingable hover member or cover for the chicks arranged in said chamber to permit the backs of the chicks therebeneath to come in light contact with it and having means connected therewith for closing or decreasing said opening on raising of said hover member or cover for the chicks.

3. In a brooder, the combination of a hover chamber having an entrance opening, with a movable hover member or cover for the chicks located in said chamber and arranged to permit the backs of the chicks therebeneath to come in light contact with it and having means connected therewith for closing or decreasing said opening on raising of said hover member or cover and for enlarging said opening on the lowering of said hover member or cover.

4. In a brooder, the combination of a hover chamber having an entrance opening, with a vertically swingable hover member or cover for the chicks arranged in said chamber to permit the backs of the chicks therebeneath to come in light contact with it and having means connected therewith for closing or decreasing said opening on raising of said hover member or cover.

1,078,345. HEEL-CALK-FORMING MACHINE. MYRON L. GARDNER, Erie, Pa., assignor to Erie Toe Calk Machine Company, Erie, Pa., a Copartnership composed of Myron L. Gardner and Harry E. Wetherald. Filed Mar. 23, 1912. Serial No. 685,765. (Cl. 59—85.)



1. In a heel calk forming machine, the combination of bending levers extending toward each other from their pivots and having a working surface arranged initially above the pivots; a plunger for operating upon a shoe upon said surface; and a stop on one of said levers for upsetting the material of the heel as the heel is bent.

2. In a heel calk forming machine, the combination of two bending levers; pivotal mountings for said levers, said levers extending from the mountings toward each other; a gear connection between said levers; slots in the face of said levers having their bottoms forming a plane initially above the pivots and forming a working surface for the heel of a shoe; a stop for operating on the heel to upset it as it is bent; and a plunger operating on the heel of the shoe for bending the calk.

3. In a heel calk forming machine, the combination of a base; levers pivotally mounted on said base and extending toward each other, the said levers having a working surface above their pivots; a stop on one of the levers; a frame above the base and secured thereto; a plunger carried by said frame and adapted to operate upon the heel of a shoe arranged upon the bending levers to bend the same; and a lever for actuating the plunger.

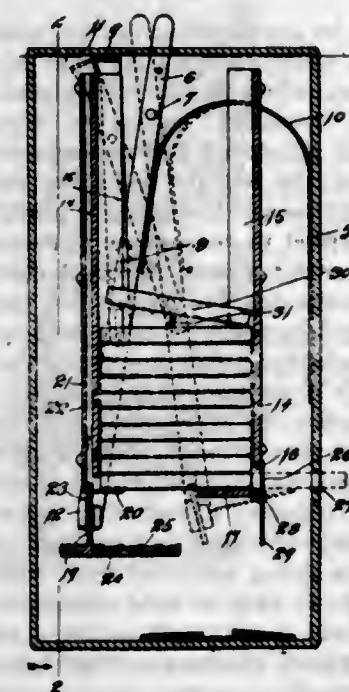
4. In a heel calk forming machine, the combination of a base; forming levers pivoted on the base and extending toward each other and having a working surface extending above the pivots; a stop on one of the levers for upsetting the calk as it is bent; a plunger operating upon a shoe upon the levers for bending the same; a lever for actuating the plunger; and a cam carried by one of the forming levers in position to be operated upon by the plunger actuating lever as it is returned to its initial position to start the levers toward their initial position.

1,078,346. VENDING-RECEPTACLE. HARRY H. GOLDSTEIN, Hartford, Conn. Filed Sept. 28, 1912. Serial No. 722,786. (Cl. 194—75.)

1. In a vending receptacle, a case having an opening at its front and also having a coin slot and a delivery opening in its wall, a door removably secured to close the opening in the front of the casing, walls projecting from the inner surface of the door in parallel relation, two of which form a package receiver and one in connection with the third forming a coin chute, said chute being positioned, when the door is in place, to underlie the coin slot and one of said walls having an opening to register with said delivery opening when the door is in position, means for supporting articles in the package receiver, and means for ejecting articles therefrom.

2. In a vending receptacle, a casing having an opening at its front and also having a coin slot and a de-

livery opening in its walls, a door removably secured to close the opening in the front of the casing, walls projecting from the inner face of the door in parallel relation, two forming the walls of a package receiver and the third in connection with one of the other walls forming a coin chute positioned, when the door is in place, underneath the coin slot, one of said walls having an egress opening registering, when the door is in position, with said delivery opening, means for supporting articles in the chute, and a lever having a coin receiving slot located, in the normal position of the lever, directly underneath said coin chute.



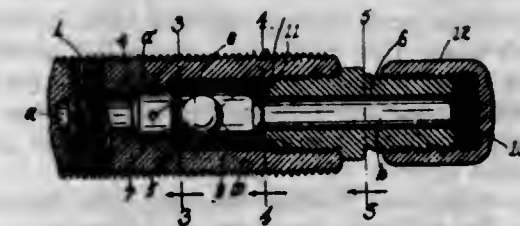
3. In a vending receptacle, a casing having an opening at its front and also having a coin slot and a delivery opening, a vending lever pivotally mounted at the back of the casing, a guard operatively connected with the vending lever to close said slot, a door to close the opening in the front of the casing, walls projecting from the door in parallel relation, two of which form a package receiver and the third in connection with one of the other two forming a coin chute positioned, when the door is in place, directly underneath the coin slot and directly overlying the vending lever, another of said walls having an egress opening registering with said delivery opening, means for securing the door in position, and means for operating the lever.

4. In a vending receptacle, a casing having an opening at its front and also having a coin slot and a delivery opening in its walls, a door removably secured to close the opening in the front of the casing, a vending lever pivotally mounted on the inside of the back wall of the casing, a coin receiving foot projecting from said lever, walls projecting from said door in parallel relation forming a package receiver and one of said walls in connection with another forming a coin slot with its mouth located under said coin slot and its discharge end over said coin receiving foot, one of said walls having an opening registering with the delivery opening in the casing, means for securing the door in place, and means for operating the lever.

5. In a vending receptacle, a casing having an opening at its front and also having a coin slot and a delivery opening in its walls, a door removably secured to close the opening in the front of the casing, a vending lever pivotally mounted on the inside of the back wall of the casing and projecting through the end thereof to swing on a plane parallel with the plane of said cover, a coin receiving foot projecting from said lever, walls projecting from said door in parallel relation, forming a package receiver and one of said walls in connection with another forming a coin chute with its mouth located under said coin slot and its discharge end over said coin foot, one of said walls having an opening registering with the

delivery opening in the casing, means for securing the door in place, and means for operating the lever.
[Claims 6 to 12 not printed in the Gazette.]

1,078,347. VALVE-STEM AND CHECK-VALVE THEREFOR. CYRUS A. HAAS, St. Louis, Mo. Filed Mar. 6, 1911. Serial No. 612,461. Cl. 152—12.)



1. In combination with a tubular valve-housing, a perforated abutment at one end thereof, a perforated gasket at the opposite end, a bushing interposed between the abutment and gasket, the end of the bushing engaging the gasket being provided with an inner annular recess forming a wall for engaging the periphery of the gasket and a supporting shoulder for engaging the face of the gasket.

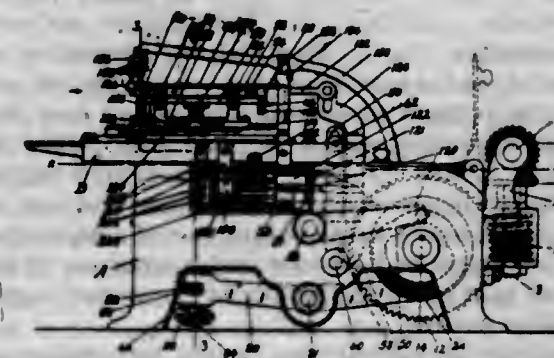
2. In combination with a tubular valve-housing, a perforated abutment at one end thereof, a perforated gasket at the opposite end, and a bushing in the housing encompassing the gasket and provided with an annular shoulder for supporting said gasket.

3. In combination with a tubular valve-housing, a perforated abutment at one end thereof, a perforated compressible gasket at the opposite end, a bushing in the housing encompassing the gasket and provided with an annular shoulder forming a support for the gasket, and a valve within the bushing operating between the abutment and gasket.

4. An automobile-tire valve-stem provided with a passage-way having an enlargement within the stem, a shoulder at the base of said enlargement, a perforated valve-check or abutment bearing against said shoulder, a hollow bushing within said enlargement having one end engaging the abutment, the opposite end of the bushing being provided with an inner shoulder, a compressible perforated gasket serving as a valve-seat encompassed by the bushing and engaging said shoulder, a hollow valve-cap-carrying member screwed into the valve-stem, and forcing the gasket against the shoulder of the bushing, and a ball valve confined within the bushing between the abutment and valve-seat.

5. In combination with a cylindrical bushing having an inner formation at one end serving as a support, a perforated abutment engaging the opposite end of the bushing, an annular compressible gasket within the bushing engaging said support, and a perforated member for forcing and compressing the gasket against the support aforesaid.
[Claims 6 and 7 not printed in the Gazette.]

1,078,348. SLITTING AND FOLDING MACHINE. HERBERT W. HANAN and JOSEPH H. GATES, New York, N. Y., assignors, by mesne assignments, to Boston Machine Works Company, a Corporation of Massachusetts. Filed Jan. 31, 1903, Serial No. 141,314. Renewed Dec. 21, 1912. Serial No. 738,079. (Cl. 12—54.)



1. In a cutting and folding machine, a folder and a cutter, in combination with means for moving the cutter

toward the folder to cut the work and then reversely away from the folder, and means for moving the folder across the path of the cutter for folding the work.

2. A slitting and folding machine having, in combination, a folder; a cutter arranged to be moved toward the folder to cut the work and then to be moved away from the work; and means for moving the folder first in the path of the cutter and then laterally across said path for folding the work.

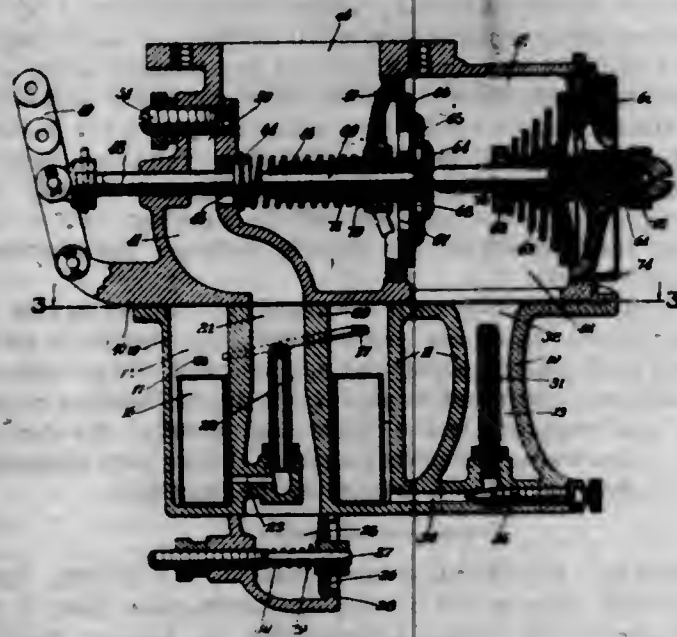
3. In a cutting and folding machine, the combination with a work-supporting table, of means for holding the work on the table, means for cutting the edge portion of the work, and means for folding the edge portion of the work over said holding means and subsequently pressing the folded edge against the work.

4. In a cutting and folding machine, the combination with means for holding the work, of means for cutting the edge portion of the work, means for folding the edge of the work over the holding means, the holding means being stationary during said folding operation; and means for withdrawing the holding means, the folder being arranged to press the folded edge against the body of the work after the holding means is withdrawn.

5. A slitting and folding machine having, in combination, a work-supporting table; a clamp arranged to clamp the work on the table; a slitting device arranged for making a slit in the edge of the work; a folding device arranged for movement to lift the slitted edge on both sides of the slit concurrently and for further movement to fold the slitted edge over on the body of the work; means for actuating the clamp to unclamp the work; and actuating mechanisms for said parts.

[Claims 6 to 53 not printed in the Gazette.]

1,078,349. CARBURETING DEVICE. JOHN J. HAWK-HURST and EDWARD F. NICOLAI, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,412. (Cl. 48—155.2.)



1. A multiple jet carbureting device, comprising: a plurality of casings provided with suitable inlets and outlets and forming independent carbureting chambers; a fuel jet in each of said chambers; means to supply liquid fuel thereto; means to admit air to the respective carbureters; means controlling the outlets from the respective carbureters, one of said means including a plurality of controlling members adapted to successively present new areas of outlet; and actuating means for said controlling means, the actuating means for the respective controlling means being normally independent of each other and one of the same being adapted to first operate one of said controlling means a predetermined amount and thereupon to engage the other of said actuating means to successively open the corresponding outlets.

2. A multiple jet carbureting device, comprising: a plurality of casings provided with suitable inlets and outlets and forming independent carbureting chambers; a fuel

jet in each of said chambers; means to supply liquid fuel thereto; means to admit air to the respective carbureters; means to admit an additional supply of air to one of said carbureters as required; means controlling the outlets from the respective carbureters, one of said means including a plurality of controlling members adapted to successively present new areas of outlet; and actuating means for the respective controlling means, the actuating means for the respective controlling means being normally independent of each other and one of the same being adapted to first operate one of said controlling means a predetermined amount and thereupon to engage the other of said actuating means to successively open the corresponding outlets.

3. A multiple jet carbureting device, comprising: a plurality of casings provided with suitable inlets and outlets and forming independent carbureting chambers; a fuel jet in each of said chambers; means to supply liquid fuel thereto; means to admit air to the respective carbureters; means controlling the outlets from the respective carbureters, one of said means including a plurality of controlling members adapted to successively present new areas of outlet; and actuating means for said controlling means, the actuating means for the respective controlling means being normally independent of each other and the first of the same being adapted to first operate the corresponding controlling means a predetermined amount and thereupon to engage the other of said actuating means to successively operate the plurality of controlling members.

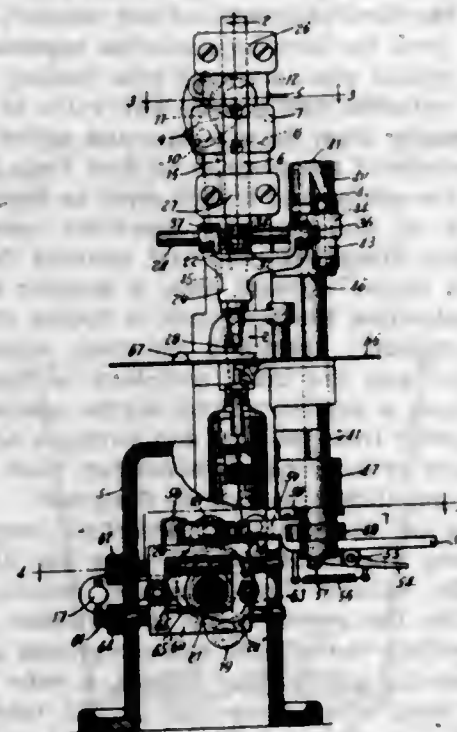
4. A carbureting device comprising: a plurality of casings providing a primary carbureting chamber and a secondary carbureting chamber independent thereof, the respective chambers being provided with suitable inlets and outlets; a fuel jet in each of said chambers; a float chamber to supply liquid fuel to said primary jet and chamber, and means affording communication between said float chamber and the said secondary jet and carbureter; means to admit air about the respective jets; means to admit air above said secondary jet; a valve controlling the flow of gaseous mixture from the primary carbureter; a plurality of valves controlling the flow of gaseous mixture from the secondary carbureter to provide a successively increasing area of outlet from the same; means to open said primary carbureter valve; and means connected with said secondary carbureter valves adapted to be successively engaged by the said primary carbureter valve when the same is opened a predetermined amount.

5. A carbureting device comprising: a plurality of casings containing a primary carbureting device and a secondary carbureting device independent thereof and adapted to discharge into a common outlet; and means controlling the discharge from said carbureting devices into the common outlet, including a valve controlling the discharge from the primary carbureting device; a plurality of superimposed valves controlling the discharge from said secondary carbureting device; all of said controlling valves lying in the same longitudinal axis; a stem extending from the outermost valve of said secondary carbureter valves and terminating at a predetermined distance from said primary carbureter valve to be engaged thereby when the same is moved toward said stem; sleeves extending from the other of said plurality of valves, surrounding said stem and terminating successively at predetermined distances from the end of said stem to be engaged upon the further movement of the primary carbureting valve toward the said stem; and resilient means acting against said plurality of valves.

1,078,350. FEED MECHANISM FOR LACING-HOOK-SETTING MACHINES. ARTHUR R. HAVENER, Waltham, Mass., assignor to American Lacing Hook Co., a Corporation of New Jersey. Filed May 22, 1913. Serial No. 769,135. (Cl. 164—88.)

1. A lacing hook setting machine having, in combination, a work holder, a vertically movable slide, mechanism adapted to impart a reciprocatory motion to said slide, a pair of horizontally disposed guide rods fast to the lower end of said slide and on opposite sides thereof, respectively,

a horizontally movable holder mounted to slide on said guide rods, mechanism adapted to impart a reciprocatory motion to said holder, a punch fast to said holder and means adapted to cooperate with said punch to punch a hole in an upper on said work holder, whereby said upper may be punched and fed along said work holder.

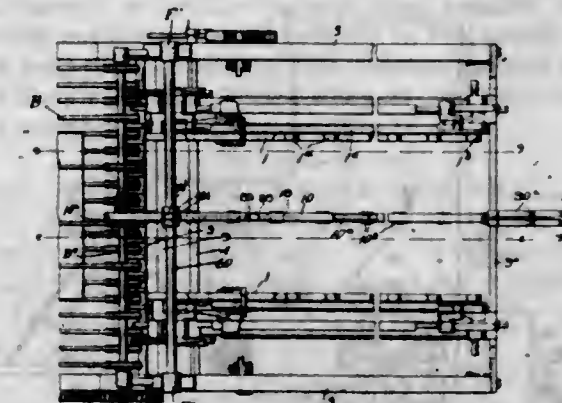


2. A lacing hook setting machine having, in combination, a work holder, a vertically movable slide, mechanism adapted to impart a reciprocatory motion to said slide, a pair of horizontally disposed guide rods fast to the lower end of said slide and on opposite sides thereof, respectively, a horizontally movable holder mounted to slide on said guide rods, a vertical shaft, mechanism adapted to impart a rocking movement to said shaft, an arm fast to the upper end thereof and means connecting said arm to said holder intermediate said guide rods, a punch fast to said holder and means adapted to cooperate with said punch to punch a hole in an upper on said work holder, whereby said upper may be punched and fed along said work holder.

3. A lacing hook setting machine having, in combination, a work holder, a vertically movable slide, mechanism adapted to impart a reciprocatory motion to said slide, a pair of horizontally disposed guide rods fast to the lower end of said slide and on opposite sides thereof, respectively, a horizontally movable holder mounted to slide on said guide rods, vertical shaft, an arm fast to the lower end of said shaft with index graduations thereon and mechanism, including a link, adjustably fastened to said arm, said mechanism adapted to impart a rocking movement to said shaft, an index fast to said link adjacent to said graduations, an arm fast to the upper end of said shaft, means connecting said arm to said holder intermediate said guide rods, a punch fast to said holder and means adapted to cooperate with said punch to punch a hole in an upper on said work holder, whereby said upper may be punched and fed along said work holder.

4. A lacing hook setting machine having, in combination, a work holder, a vertically movable slide, mechanism adapted to impart a reciprocatory motion to said slide, a pair of horizontally disposed guide rods fast to the lower end of said slide and on opposite sides thereof, respectively, with their longitudinal median lines lying substantially in the same horizontal plane, a horizontally movable holder mounted to slide on said guide rods, mechanism adapted to impart a reciprocatory motion to said holder, a punch fast to said holder and means adapted to cooperate with said punch to punch a hole in an upper on said work holder, whereby said upper may be punched and fed along said work holder.

1,078,351. SHEET-DELIVERY APPARATUS. CARL HENDERSON, Oak Park, Ill., assignor to Miehle Printing Press and Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 17, 1910. Serial No. 587,564. (Cl. 101—29.)



1. Sheet delivery mechanism for printing presses, adapted to simultaneously deliver two side by side sheets, comprising three parallel pairs of opposed endless carriers adapted to engage only the outer and inner side edges of the sheets; means to cause the parallel runs of the carriers in each pair to separate and release the edges of the sheets lying therebetween; and means for moving the lower outermost carriers from beneath the sheets to permit them to drop.

2. Sheet delivery mechanism, comprising two outer pairs and one intermediate pair of co-acting endless carriers adapted to engage only the outer and inner edges of side by side sheets; means for causing the parallel runs of the carriers in each pair to positively bite the side edges of the adjacent sheet; means for separating the carriers to release the sheet; and means for moving the lower outermost carriers from beneath the sheets to drop the latter.

3. Apparatus for delivering two sheets side by side embodying pairs of directly opposing endless carrier tapes located at each side of each sheet and gripping the proximate edges thereof only, such tapes traveling in the direction of the feed; means for causing the tapes to release the sheets at the proper time, means for arresting the released sheets at the point of deposit; and means for moving the lower outermost tapes from beneath the sheets to drop the latter.

4. Delivery mechanism for printing presses adapted to deliver two sheets side by side; comprising pairs of endless tapes arranged at opposite sides of the path of the pair of sheets and adapted to engage the outermost edges of such sheets; an intermediate pair of endless tapes adapted to engage the inner edges of both sheets, means for separating the tapes in each pair to allow the sheets to drop therefrom; means adapted to engage the tails of the sheets, and arrest them at the dropping point, and means for moving the lower outermost tapes from beneath the released sheets.

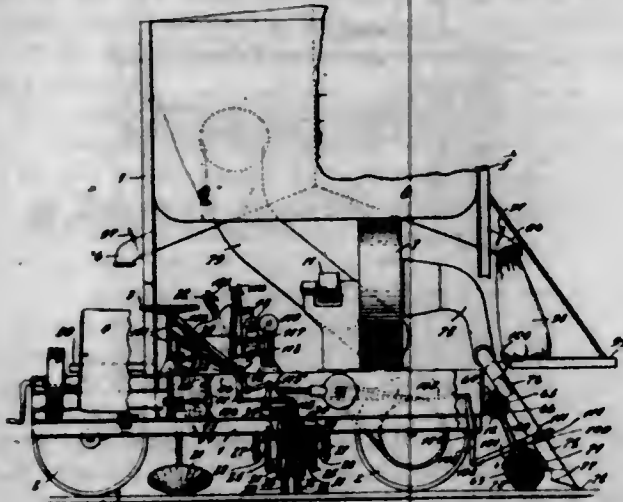
5. In combination with side carriers adapted to engage the outer margins of sheets, of an intermediate carrier adapted to engage the inner margins of the sheets and comprising an upper bar, a detachable lower bar, carriers on said bars, and means for separating the bars.

[Claims 6 to 10 not printed in the Gazette.]

1,078,352. STREET-CLEANER. LEE ALFRED HERTY, Perth Amboy, N. J., assignor of one-third to George W. Tyrrell and one-third to Frederick Carr, Perth Amboy, N. J. Filed Oct. 31, 1910. Serial No. 590,022. (Cl. 15—17.)

1. A street cleaning mechanism comprising a dirt loosening brush, a frame, pivoted members for supporting said brush whereby the latter may be dragged along by said frame, driving mechanism for said brush, a flexibly mounted suction mouth having the opening thereof disposed adjacent and to the rear of said brush, means for simultaneously elevating both the brush and the suction

mouth above the surface of the street when desired, both said suction mouth and brush being adapted to swing rearwardly and upwardly upon encountering an obstruction in the street, said suction mouth being further movable rearwardly and upwardly independently of the brush.

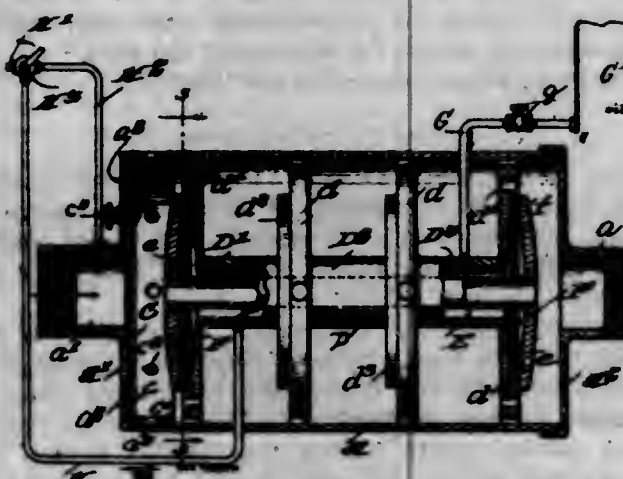


2. A street cleaning machine comprising a frame, a rotatable dirt loosening brush, means pivotally mounted on the frame for pivotally connecting said brush thereto, means for rotating said brush, a plurality of flexibly mounted suction mouths supported independently of each other and having their inlets to the rear of and adjacent to said brush and mechanism for raising said brush and suction mouths, said suction mouths being further raisable independently of each other and of said brush when one of said mouths encounters an obstruction in the street during the progress of the machine therethrough.

3. A street cleaning mechanism comprising a dirt loosening brush, a frame, pivoted members for supporting said brush whereby the latter may be dragged along by said frame, driving mechanism for said brush, a flexibly mounted suction mouth having the opening thereof disposed adjacent said brush, means for simultaneously elevating both the brush and the suction mouth above the surface of the street when desired, both said suction mouth and brush being adapted to swing rearwardly and upwardly upon encountering an obstruction in the street, said suction mouth being further movable rearwardly and upwardly independently of the brush.

4. A street cleaning machine comprising a frame, a dirt loosening brush connected to said frame, means for rotating said brush, a plurality of flexibly mounted suction mouths supported independently of each other, and mechanism for raising said brush and suction mouths, said suction mouths being further raisable independently of each other and of said brush when one of said mouths encounters an obstruction in the street during the progress of the machine therethrough.

1,078,353. COMBINED MUFFLER AND OIL-GAS PRODUCER. ALFRED OLIN HISCOCK, Palatka, Fla. Filed Feb. 8, 1913. Serial No. 747,108. (Cl. 48—102.)



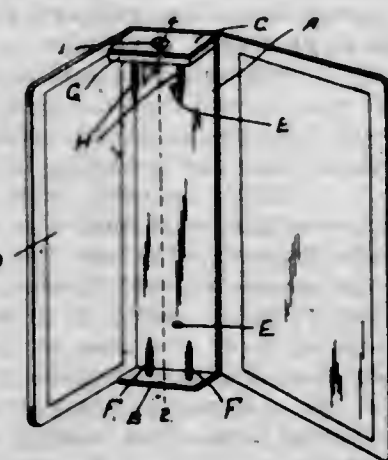
1. In a device of the character described, a cylinder having apertures at one end and tubes extending from its

opposite ends for connection with the exhaust pipe of an internal combustion engine, an apertured disk rotatable on the cylinder end adjacent the said apertures and adapted to control the same, a closed tubular core within said cylinder and having outstanding apertured and abutting flanges, the inner adjacent faces of which flanges are cut away to form compartments therebetween, reticulated diaphragms mounted within the compartments, an intake pipe leading into the core adjacent one end thereof, an outlet pipe leading from the core adjacent its opposite end, an engine vapor supply pipe, a branch pipe leading therefrom into the said cylinder, and a three-way valve at the junction of the engine pipe, branch pipe and outlet pipe and adapted to permit of the passage of fluid from the outlet pipe through the engine and branch pipes as desired.

2. A device of the character described comprising a cylinder having apertured ends and adapted for attachment with an engine exhaust pipe, a member forming a valve and controlling the apertures, a hollow closed core within the cylinder, apertured members extending between the core and the inner periphery of the cylinder whereby to form a muffler, valved engine connections extending outwardly from the core and having a branch pipe leading into the cylinder and a valved fuel inlet pipe leading into the core, all for the purpose described.

3. A device of the character described comprising a cylinder having apertured ends, a tube for attachment with an engine exhaust pipe, a member forming a valve and controlling the apertures of the cylinder, a hollow tubular core within the cylinder and comprising a plurality of sections having outstanding flanges, a tube extending through the core, disks removable on the tube to close the ends of the core and to hold the several sections thereof tightly together, valved engine connections leading outwardly from the core and having a branch pipe extending into the cylinder, and a valved fuel inlet pipe leading inwardly through the cylinder and into the core all for the purpose described.

1,078,354. TEMPORARY BINDER. JOHN S. JENSEN, Chicago, Ill. Filed May 5, 1913. Serial No. 765,531. (Cl. 129—40.)



1. In a device of the character described, the combination with a back strip, of a book-holding prong permanently fixed at one end thereof, a plate provided with a similar prong, and means for removably securing said plate to the other end of said back strip.

2. In a device of the character described, the combination with a back strip formed at one end with an intumed flange, of a book-holding prong fixed to said flange, a plate provided with a similar prong, and means for rigidly but removably securing said plate to the other end of said back strip so that it stands at right angles thereto.

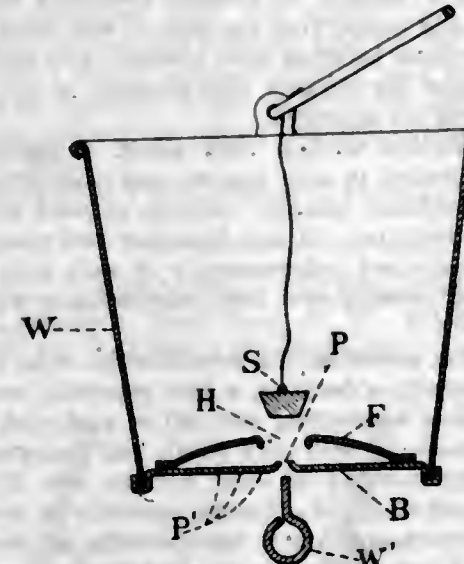
3. In a device of the character described, the combination with a back strip formed at each end with an intumed flange, of a book-holding prong fixed to one of said flanges, a plate provided with a similar prong, and means for securing said plate to the flange at the other end of said back strip.

4. In a device of the character described, the combination with a back strip formed at each end with an intumed flange of a book-holding prong fixed to one of said flanges,

a plate provided with a similar prong, and means for rigidly securing said plate against the inside of the flange at the other end of said back strip.

5. In a device of the character described, the combination with a cover, of a back strip secured thereto and formed at opposite ends with intumed flanges, a pair of book-holding prongs fixed to one of said flanges, a plate provided with a pair of similar prongs, and means for securing said plate to the inside of the flange at the other end of said back strip.

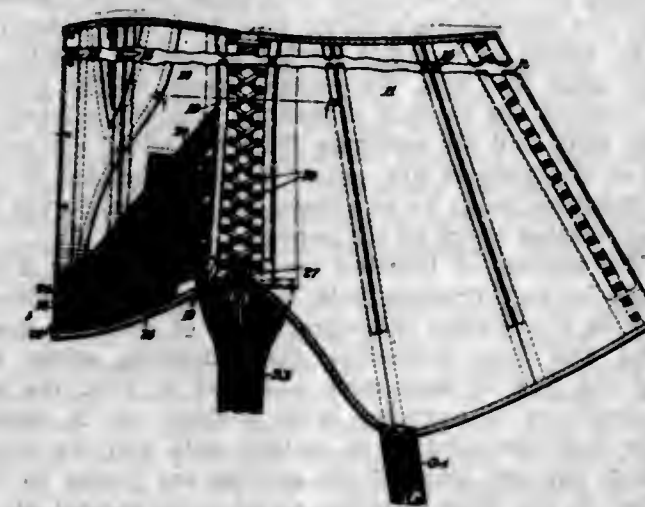
1,078,355. SHOWER-BATH PAIL. RALPH E. JONES, U. S. Army. Filed Oct. 7, 1912. Serial No. 724,377. (Cl. 4—26.)



1. A device of the character described, comprising a bucket having its bottom provided with a plurality of perforations, a false bottom above said perforated bottom and having an outlet opening and a buoyant valve seated in said opening from above and adapted to be released by means inserted through the perforated bottom and to rise by its buoyancy from the discharge opening, substantially as set forth.

2. A portable shower bath device herein described comprising a bucket having a perforated bottom, a false bottom in concavo-convex form above the perforated bottom and provided at its crown with an outlet opening, and a buoyant valve seating in said opening from above, substantially as set forth.

1,078,356. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed June 25, 1913. Serial No. 775,634. (Cl. 2—73.)

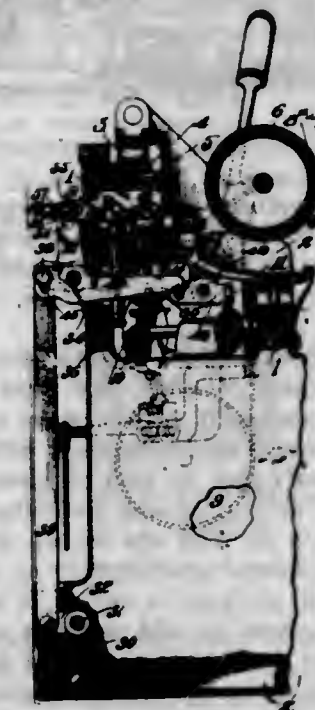


1. In an apparel corset, a corset body half comprising a front section, a back section, an adjustable extension member connecting the said front and back sections, and tension means attached to the said adjustable extension member for maintaining the same properly in position.

2. In an apparel corset, a corset body half comprising a front section, a back section divided from the

front section on a line extending from the lower edge to the top edge of the corset body half, a loop member secured to the adjacent edges of the sections of the corset body half, means for adjusting the relative positions of the adjacent edges of the said sections of the corset body half and the extent to which the said loop member is open, and a hose supporter device secured to the lower edge of the said loop member so that the tenalon applied through the said hose supporter device when in use, will maintain the loop member properly in position.

1,078,357. TABULATING MECHANISM. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor to Dalton Adding Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 6, 1911. Serial No. 612,710. (Cl. 197—179.)



1. In a tabulating mechanism, the combination of a series of column stops movable into and out of operative position, springs pressing said stops in one direction, means for moving said stops to operative position, a latch device holding said stops in operative position, and a lever operable to move and disengage said latch device from said stops to release said stops.

2. In a tabulating machine, the combination of a series of column stops movable individually into operative position, springs pressing said stops toward idle position, means for latching said stops in operative position, and means for moving said latching means effectively to release all stops latched thereby.

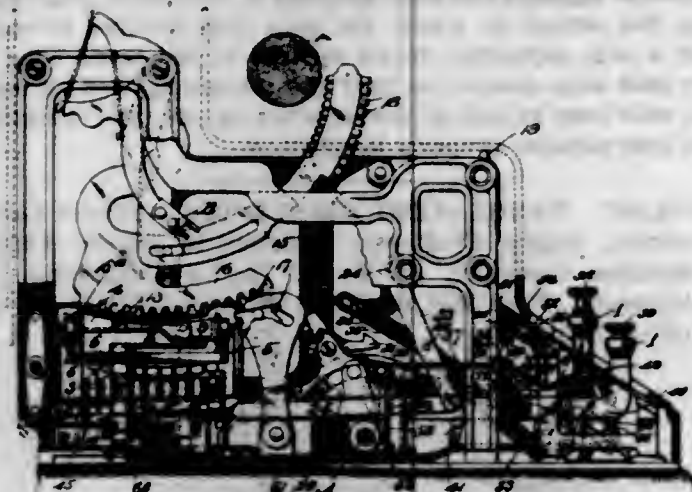
3. In a tabulating mechanism, the combination of a series of column stops movable into and out of operative position and spring-pressed to inoperative position, means for holding said stops against the spring pressure thereon, and a lever for releasing all of said stops at a single operation.

4. In a tabulating mechanism, the combination with the carriage, the frame, and an escapement mechanism for said carriage, of an abutment, a series of column stops, springs pressing said stops toward idle position, means for latching said stops in operative position, means for disconnecting said escapement mechanism and adjusting said abutment in position to be engaged by said stops and a lever operable to move said latching means and release all of said stops.

5. In a tabulating mechanism, the combination of a support, stop pins mounted in said support, springs pressing said pins in one direction, manipulative means for moving said stops in opposition to said springs, and a latch device effective to hold any number of said pins in opposition to said springs, said latch device being movable by said pins when said pins move in opposition to said springs.

[Claims 6 to 32 not printed in the Gazette.]

1,078,358. **ADDING-MACHINE.** HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor to Dalton Adding Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 6, 1911. Serial No. 612,723. (Cl. 235—60.)



1. In an adding machine, the combination with a movable carriage, and means for setting up or representing numbers in said carriage, of an item register movable in unison with said carriage, and registering devices in said item register effecting a visible registration of the numbers set up or represented in said carriage, substantially as specified.

2. In an adding machine, a carriage, escapement mechanism for moving said carriage, and keys operable to set up or represent numbers in said carriage and to cause said escapement to operate, in combination with an item registering carriage controlled by said escapement mechanism, and a registering device in said last-named carriage indicating the numbers as they are set up or represented in said first-named carriage substantially as described.

3. In an adding machine, a series of keys, a carriage, and registering devices in said carriage effecting a visual registration of the numbers represented by the keys operated, in combination with another carriage controlling said first-named carriage and a platen for holding paper to receive records of said numbers, substantially as specified.

4. In an adding machine, a series of numeral keys, a carriage, a second carriage controlling said first-named carriage, mechanism for moving said carriages when said numeral keys are operated, mechanism in said first-named carriage indicating visually the numbers represented by the keys operated, mechanism for recording said numbers after said carriages have been moved, and mechanism for restoring said carriage and the registering devices to idle position after operation, substantially as described.

5. In an adding machine, a carriage, keys, registering devices in one of said carriages, and connections whereby said keys will operate said registering devices effectively to produce a visible registration of numbers represented by the keys operated, in combination with mechanism for recording said numbers respectively, after said numbers have been registered, substantially as specified.

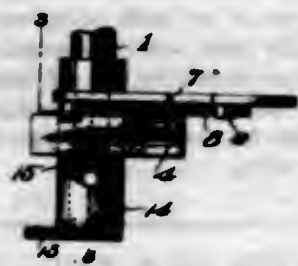
[Claims 6 to 32 not printed in the Gazette.]

1,078,359. **ADDING AND RECORDING MACHINE.** HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor to Dalton Adding Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed June 15, 1912. Serial No. 703,783. (Cl. 235—60.)

1. The combination with a rock shaft, a hub or bushing journaled in a bearing and supporting one end of said rock shaft, and an arm rigid with said rock shaft, of engaging connections between said bushing and said arm whereby said bushing may rock said shaft, a handle, and means for holding said handle on said bushing, substantially as specified.

2. The combination with a rock shaft, and an arm rigid on said shaft, of a support in which one end of said shaft is revolubly mounted, a bearing in which said support is

mounted, means on said support engaging with said arm, and a handle for rocking said support in one direction, substantially as specified.



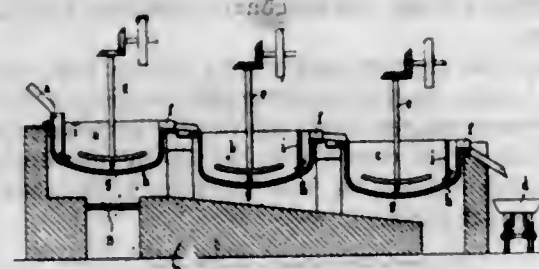
3. The combination with a rock shaft, and an arm rigid on said shaft, of a bearing, an element revolubly mounted in said bearing and supporting one end of said rock shaft, engaging connections between said element and said arm, and manual means for rocking said element in one direction, substantially as specified.

4. The combination with a rock shaft, a bearing, a hub revolubly mounted in said bearing and supporting said rock shaft, connections whereby rocking of said hub will rock said shaft positively in one direction and permitting said hub to be returned independently of said rock shaft, and a handle for rocking said hub, substantially as specified.

5. In an adding machine, the combination with a main operating rock shaft, a bearing, a hub revolubly mounted in said bearing and supporting one end of said rock shaft, said hub being loose on said rock shaft, and engaging connections whereby rocking of said hub in one direction will also rock said shaft, of a handle operable to rock said hub in one direction positively, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

1,078,360. **PROCESS OF TREATING ORES.** ERICH LANGGUTH, Neerpelt, Belgium. Filed Feb. 10, 1912. Serial No. 670,869. (Cl. 75—17.)



1. The process of treating ore containing silver which consists in first treating said ore with zinc chlorid, then extracting the silver by means of a metal having a greater affinity for chlorin than silver has, and then extracting lead by means of a metal having a greater affinity for chlorin than lead has, the several stages of the process being carried out in such a manner that the mixture of molten salts and ore resulting from the silver extracting stage of the process are caused to flow together in the same direction so as to be present all together during the lead extracting stage of the process.

2. The process of treating ore containing silver which consists in first treating said ore with a metal chlorid extracting a relatively large proportion of silver by means of lead and then extracting the remaining silver and finally the lead by successive additions of zinc, the several stages of the process being carried out in such a manner that the mixture of molten salts and ore resulting from any one stage of the process are caused to flow together in the same direction so as to be present all together during the next succeeding stage of the process.

3. The process of treating an ore containing silver which consists in first treating said ore with zinc chlorid, then extracting the silver by means of a limited quantity of a metal having a greater affinity for chlorin than silver has, in proportions approximating that required to satisfy the chlorin combined with the silver, and then extracting

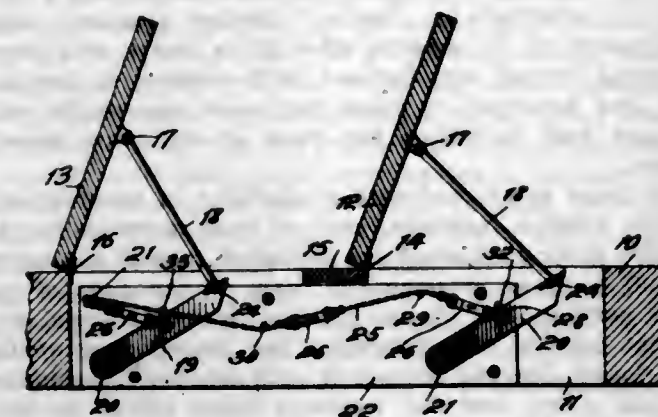
the lead by means of a metal having a greater affinity for chlorin than lead has, substantially as and for the purpose described.

4. The process of treating an ore containing silver and lead, which consists in first treating said ore with zinc chlorid, then extracting the major portion of the silver by means of a small amount of lead, then extracting the remaining silver by means of a small amount of zinc and finally extracting the entire amount of lead by means of a suitable amount of zinc.

5. The process of treating an ore containing silver, which consists in first treating said ore with zinc chlorid, then extracting the major part of the silver from the molten mass by means of a limited quantity of a metal having a greater affinity for chlorin than silver has, in proportions approximating that required to satisfy the chlorin combined with the silver, then extracting the remaining silver and a small part of the lead by the addition of a small amount of zinc, and finally extracting the major portion of the lead by the addition of zinc in sufficient amount to reduce the entire lead content of the molten mass.

[Claims 6 to 8 not printed in the Gazette.]

1,078,361. **FIRE-DOOR SAFETY DEVICE.** THOMAS H. LAWRENCE, New York, N. Y. Filed Apr. 29, 1913. Serial No. 764,419. (Cl. 187—50.)



1. The combination of a support having an opening, a movable member adapted to close said opening, a pivoted supporting device having a lateral projection provided with a recess on its upper face, a rod pivotally held to said member and having its end normally seated in said recess, and means for normally holding said supporting device against movement, said means including a fusible member which when subjected to heat will permit said movable member to move automatically and close said opening.

2. The combination of a support having an opening, a movable member adapted to close said opening, a pivoted supporting device having a lateral projection provided with a recess on its upper face, a rod pivotally held to said member and having its end normally seated in said recess, and a flexible connection attached to said supporting device, said flexible connection including a fusible member which when subjected to heat will permit said movable member to move automatically and close said opening.

3. The combination of a support having an opening, a plurality of doors adapted to close said opening, separate pivoted supporting devices for the respective doors, each supporting device having a projection provided with a recess on its upper face, rods pivotally held to the respective doors and each having its end normally seated in the recess of the corresponding supporting device, a flexible connection attached to the supporting devices, said flexible connection including a fusible member which when subjected to heat will permit the doors to move automatically and close said opening, and stops for limiting the movement of said supporting devices in one direction, whereby they are both normally held in position to retain the ends of the rods in the recesses.

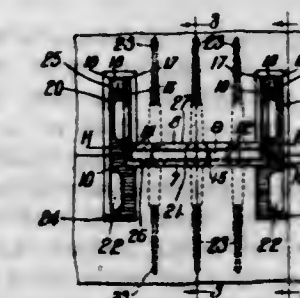
1,078,362. **LADY'S VEIL-HOLDER.** EMMA HILL LEONARD, Chelsea, London, England, assignor of one-half to Blanche Mary Spera, Chelsea, England. Filed Nov. 18, 1912. Serial No. 731,962. (Cl. 24—248.)



1. In a veil holder, the combination of a pair of hollow rings, two semi-circular members passing through each of said rings, a catch arranged at one end of each of said members, and a hinge pin engaged by the other end thereof so that said rings may be capable of being opened and securely closed.

2. In a veil holder the combination of a pair of hollow rings, two semi-circular members passing through each of said rings, a knob arranged at one end of each of said members and a hinge pin engaged by the other end thereof so that said rings may be capable of being opened and securely closed.

1,078,363. **HINGE.** PAUL LISICKE, Boston, Mass. Filed Nov. 25, 1912. Serial No. 733,336. (Cl. 16—105.)



1. A hinge comprising two leaves pivotally united along their sides, one of said leaves embodying lips at opposite ends thereof respectively, disposed obliquely to the face of said leaf and extending outwardly longitudinally thereof, and the other of said leaves embodying lips at opposite ends thereof respectively, disposed obliquely to the face of said leaf and extending inwardly longitudinally thereof to engage said outwardly extending lips and limit the pivotal movements of said leaves relatively to each other.

2. A hinge comprising two parallelly arranged leaves pivoted together, one of said leaves embodying a laterally disposed member extending in the direction of the other of said leaves, a lip at the extremity of said member radially arranged relatively to the axis of the pivot of said hinge, said lip extending outwardly from said lateral member longitudinally of said axis, the other of said leaves embodying a laterally disposed member extending away from said first named leaf to a point beyond the extremity of said first mentioned lateral member, thence around the end of said first mentioned member and backwardly toward and beyond said first named leaf, and a lip at the extremity of said second mentioned member, said lip being radially arranged relatively to said axis and extending inwardly longitudinally of said axis and adapted to engage the lip on said other leaf to limit the pivotal movements of said leaves relatively to each other.

1,078,364. **BREATHING APPLIANCE.** WILLIAM LONGWAY, Gary, Ind. Filed Aug. 15, 1913. Serial No. 784,949. (Cl. 128—42.)

1. A breathing appliance comprising a flexible tapering tube-like body, the upper end of which is enlarged and shaped to fit over the face of the user and to form a vizor, means in the tube to hold it to an open position when in use, said means comprising annular rings suitably spaced apart and of progressively decreasing diameter and secured to the tube, said rings and the tubing portions between the rings being adapted for telescopically inter-

engaging, and the upper ring being of a size to accommodate the folding of the vizer portion down into and upon the upper one of the rings, and means for holding the parts to their folded condition.



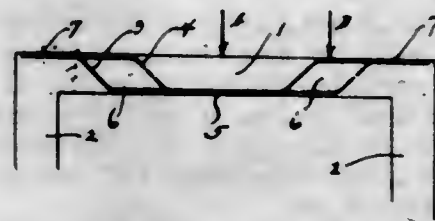
2. A breathing appliance comprising a flexible tapering tube-like body, the upper end of which is enlarged and shaped to fit over the face of the user and to form a vizer, means in the tube to hold it to an open position when in use, said means comprising annular rings suitably spaced apart and of progressively decreasing diameter and secured to the tube, said rings and the tubing portions between the rings being adapted for telescopically interengaging, the upper ring being of a size to accommodate the folding of the vizer portion down into and upon the upper one of the rings, means for holding the parts to their folded condition, the said means comprising a flexible band loop secured at its ends to the opposite edges of the vizer portion of the body, said band being adapted for being twisted across the said folded package, as set forth.

3. A breathing appliance comprising a vizer having means for causing it to fit air-tight over the face of the user, a flexible tapering air tube, rings of progressively decreasing diameter secured at intervals within the tube, the said rings and their intervening tube portions being adapted for telescopically folding within each other, stitching through the tube that passes over and under the rings, and insulating tapes wound around the tubing and the said stitching.

4. A breathing appliance comprising a body formed of a flexible material and including a vizer having means for fitting it air-tight over the face of the user, and a tapering air-tube pendent from the vizer, a series of rings fitted at intervals on the inside of the tube, means for securing the rings to the tube, the said rings being of progressively decreasing diameters, the upper ring and the eye portions of the vizer being relatively such that the said eye portions of the vizer can be folded side by side within the upper ring, the tube and the other rings being adapted for telescopically engaging each other and the upper ring and means secured to the vizer and comprising an elastic band for snapping over the tube, the rings and the vizer when the several parts are folded together.

5. A breathing appliance comprising a flexible tapering tube-like body, the upper end of which is enlarged and shaped to fit over the face of the user and to form a vizer, means in the tube to hold it to the open position when in use, the said means comprising annularly corrugated rings suitably spaced apart and of progressively decreasing diameter, means for securing the rings to the tube, said means including a pliable tape wound around the canvas at a point over the corrugated rings, the said rings and the tube portions between the rings being adapted for telescopically interengaging with each other.

1,078,365. BEAM. DANIEL B. LUTEN, Indianapolis, Ind. Filed Nov. 28, 1910. Serial No. 594,482. (Cl. 72-61.)



1. A beam reinforced with embedded tension members, each of said members having a middle portion adjacent the unloaded face of the beam, and a diagonal portion crossing the beam at each end of the middle portion with end portions of unequal length following the loaded face of the beam closely near each end, said reinforcing members being similarly formed but reversely embedded in pairs so that the diagonals cross the beam at different distances from the middle of the span.

2. A beam reinforced with similar embedded tension members, each of said members having a middle portion adjacent the unloaded face of the beam, and a diagonal portion crossing the beam at each end of the middle portion, the two ends of each member being at different distances from the middle portion and some of said reinforcing members being reversed with respect to others of said members, so that the diagonals cross the beam at different distances from the middle of the span.

3. A reinforcing for concrete beams, comprising a plurality of substantially identical tension members, each non-symmetrical on opposite sides of its center, said members being turned end for end with respect to one another, and arranged to cross the beam diagonally near each end and to follow one face of the beam closely between.

4. A beam reinforced with a plurality of substantially identical tension members, each of such members having a middle portion adjacent the unloaded face of the beam, diagonal portions crossing the beam at the ends of the middle portion, and an end portion extending from each diagonal portion and following the loaded face of the beam closely, one end portion of each member being longer than the other, and the members being placed so that their ends are all in substantial alignment transversely of the members and some of the members are turned end-for-end with respect to the others.

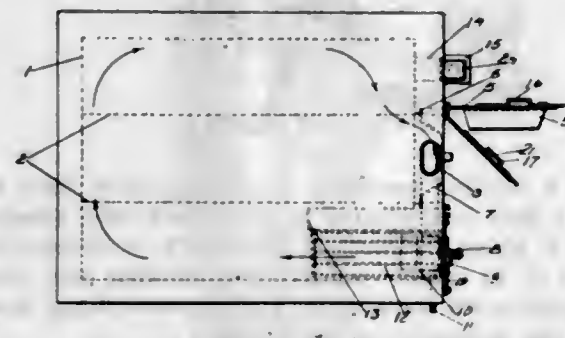
1,078,366. FILTER. PETER E. MALMSTROM, New York, N. Y. Filed July 23, 1912. Serial No. 711,043. (Cl. 210-15.)



A filter consisting of a container, a porous body of filtering material, means for leading liquid to be filtered into the container, a nozzle to which the liquid is supplied, the nozzle having an expanded outlet adjacent the

surface of the filtering material and means supporting the nozzle so that it can move toward and from the filtering material, resilient means tending to maintain the nozzle outlet immediately adjacent the surface of the filtering material whereby the liquid to be filtered is caused to flow in a film over the surface of the filtering material and clean the surface, the pressure of the resilient member serving to regulate the flow and tending to maintain the velocity of flow constant as the supply varies.

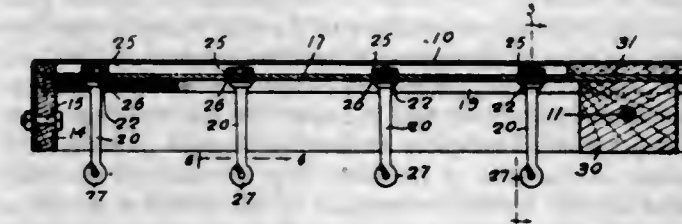
1,078,367. BAKING-OVEN. JAMES MCADAMS, Portland, Oreg. Filed Feb. 5, 1912, Serial No. 675,498. Renewed Sept. 22, 1913. Serial No. 791,246. (Cl. 107-55.)



1. A baking oven comprising top, bottom and side walls, a baking chamber in the upper portion thereof, a fire box disposed at the front of the oven at one side and communicating at its rear with the baking chamber, a flue leading from the latter at the front end thereof, a door to said baking chamber, having a horizontal projection on its inner face, which, in closed position, is adapted to fit against and close the lower end of the flue leading therefrom, and a supplemental door for closing said chamber having side portions to close against jambs at the inner face of the wall, while the body thereof is curved outwardly to encompass the opening of said flue, for producing a draft from the fire box through said chamber.

2. A portable oven comprising top, bottom and side walls, a baking chamber therein having a window in its wall, a closure for said window comprising a door having two members united along one edge, at right angles to each other and hinged by their united edges in said window, and a lamp fixed to the inner face of the outer member, whereby, when the outer member is closed the chamber will be illuminated, and when the lamp is swung outwardly to illuminate the surrounding space the inner member will close the opening.

1,078,368. LINE-INSULATOR. OTTO C. MEUSEBACH, San Antonio, Tex. Filed Dec. 24, 1912. Serial No. 738,427. (Cl. 173-28.)

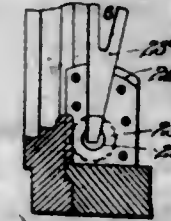


1. A device of the character described, comprising a box-like member open at its bottom and closed at its top, a metallic angle plate located within said box-like member and provided with a hole, an insulating member engaging said angle plate and extending through said hole, and an insulating pin engaging said insulating member and provided with a stem secured to said insulating member.

2. A device of the character described, comprising a metallic box-like member open at its bottom, a metallic angle plate located within said box-like member and provided with holes, an insulator pin provided with a

shoulder disposed adjacent to said angle plate and further provided with a stem extending through one of said holes, an insulating member engaging said shoulder of said pin and also engaging the adjacent portion of said angle plate, and a sleeve of insulating material encircling said stem and extending through the adjacent holes in said angle plate.

1,078,369. SLIDING WINDOW. HERMANN NIKOLAUS, Vienna, Austria-Hungary. Filed Mar. 28, 1911. Serial No. 617,438. (Cl. 20-42.)



1. In a sliding window, the combination with a sliding counterweighted sash, of an inner grooved guide for the lower sash composed of two rectilinear portions forming an obtuse angle, an outer grooved guide joining said inner grooved guide, a lower guide pin on the sash, an open topped pivot bearing for said guide pin located at the junction of the inner and outer guides, and a rotatable pivot bearing plate having a recess in which the lower guide pin enters when the sash is lowered, said bearing plate being adapted to lock the sash temporarily in position.

2. In a sliding window, a grooved guide, a window sash having a guide pin working in the grooved guide, means for permitting the sash to tilt, and rotatable means disposed at the bottom of the grooved guide to lock the sash against upward movement when the latter is tilted said rotatable means being concentric with the guide pin.

3. In a sliding window, a grooved guide, a sash having a guide pin working in the grooved guide, and a rotatable slotted disk disposed in the grooved guide for engagement with the guide pin to lock the sash against upward movement.

4. In a sliding window, a window casing provided with vertically grooved guides, a window sash in the casing having guide pins traversing the grooved guides, locking plates located adjacent to the bottom of the grooved guides and provided with slots extending inwardly from the periphery of said plates toward their centers, said slots being normally in communication with the grooved guides to receive the guide pins of the sash when the latter is lowered, and means for actuating the locking plates when the sash is tilted to move the slots in the plates out of communication with the grooved guides for locking the sashes against upward movement.

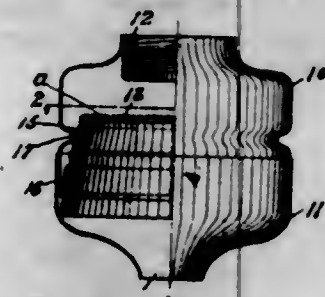
5. In a sliding window, an outer grooved guide, an inner grooved guide parallel with the outer grooved guide for a portion of its length and connected to the outer guide at the bottom thereof by a branch guide, a lower sash having a guide pin working in the inner and branch grooved guides, means permitting the sash to swing inwardly on the guide pin as a pivot, and a rotatable disk disposed at the bottom of the outer grooved guide and provided with a slot to receive the guide pin of the sash when the latter is in its lower position.

[Claims 6 and 7 not printed in the Gazette.]

1,078,370. TAP-FILTER. WILLIAM J. O'CONNOR, New York, N. Y. Filed Aug. 13, 1912. Serial No. 714,778. (Cl. 210-6.)

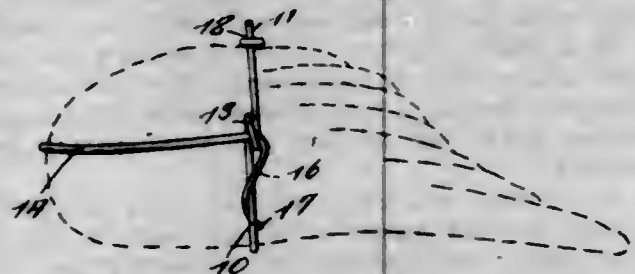
1. A filter comprising in combination a casing formed of upper and lower separable telescoping sections of sheet metal, the upper section having an inlet formed by a threaded socket piece and the lower section having an outlet opening, a support for filtering material formed of sheet metal and having upwardly and inwardly tapering side walls and open ends and adapted to rest within and against the lower casing section and to extend upward

within the upper casing section and having means at its upper end for sustaining the filtering material, and a holding band formed to slip over the support to hold a sheet of filtering material stretched over the upper edge of the support, the upper casing section being formed to engage the filtering material on the support to make a substantially water-tight joint between the support and the side of the upper casing section.



2. A filter comprising in combination a casing having a separable lower portion, a support for filtering material open at its upper end and extending upward from the lower portion of the casing, and an inwardly extending shoulder on the casing wall in position to engage sheet filtering material extending over the top of the support and about the sides thereof when the casing is closed and the support pressed upward in the casing to stretch the filtering material over the top of the support and hold it against the sides of the support and to make a substantially water-tight joint between the support and the casing.

1,078,371. WING ATTACHMENT. JOHN M. COLESEY, Green Pond, Ala. Filed Dec. 19, 1912. Serial No. 737,730. (Cl. 119-97.)



A fetter for a bird's wing comprising a loop of wire embracing the wing transversely and having eyes formed on each side thereof, means for holding the ends of the loop closed, a second loop of wire embracing the wing longitudinally from the pylon of the wing, one end of the wire of the second loop being pivotally connected to one of the eyes of the first loop, the other end of the wire of the second loop being passed through the other eye, and a hook on the last-named end for engagement with one side of the first loop adjacent the last-named eye.

1,078,372. VENDING-MACHINE. JAMES W. PATTERSON, Bronxville, N. Y., assignor to Auto-Sales Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Filed Nov. 30, 1908. Serial No. 465,167. (Cl. 211-8.)

1. In a vending machine the combination with a housing, a door pivotally connected to said housing at its bottom, and means carried by said door to control its movement, of a goods receptacle pivotally connected at its bottom to the said door.

2. In a vending machine, the combination with a housing, of a door having front, side, top and bottom walls and pivotally connected to said housing at its bottom edge, means carried by said door and controlling the motion of said door, a receptacle consisting of a back piece, two side pieces, and bottom piece, the bottom piece of the receptacle being pivotally connected with the bottom of the door.

3. In a vending machine, the combination with a movable door consisting of front, side and top and bottom

walls, of a housing consisting of a back piece, two side pieces, and top and bottom pieces, the side pieces of the door being made to fit closely against the sides of the housing, the bottom piece of the door being pivotally connected with the bottom part of the housing permitting the upper end of the door to swing fore and aft, and a mechanism inclosed in the door to control the motion of the swinging door substantially as described.



4. In a vending machine, the combination with a housing, of a door constructed to fit within said housing and having a hinge connection therewith, a receptacle constructed to fit snugly within said housing and having a hinge joint with said door, and a controlling means to control the movement of said door.

5. In a vending machine, the combination with a housing, a door constructed to fit within said housing and having a hinge joint therewith, of a receptacle constructed to fit snugly with said housing and having a hinge joint with said door, a controlling means to control the movement of said door, and means to swing the receptacle on its hinge joint relatively to the door and housing.

[Claim 6 not printed in the Gazette.]

1,078,373. RAILWAY-CAR. HENRY PEARSON, Springfield, Mass. Filed Aug. 16, 1911. Serial No. 644,398. (Cl. 105-201.)



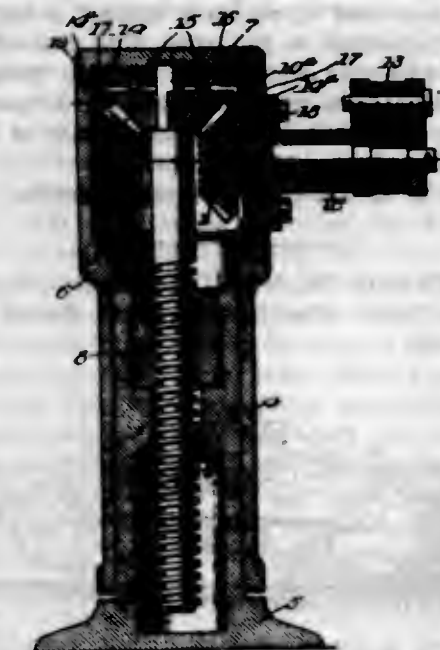
1. In a railway car body, in combination, metal plate sections adapted to form the car side wall and having window openings therein, posts adjoining the inner sides of the plate sections adjacent the vertical margins of the window openings, said posts having flanges parallel with the plane of the side of the car, the vertical margins of the window openings being inwardly return bent around said flanges to form, in conjunction with said flanged posts window stops, and said plate sections having their portion at the lower borders of the window openings inwardly bent and marginally upturned to form strengthening ribs.

2. In a railway car body, in combination, metal plate sections to form the car side wall having window openings therein, having their opposite vertical edges adjoined and united, and posts adjoining the inner side of the plate sections adjacent the vertical margins of the window openings and having vertically extending flanges parallel with the plane of the side of the car,—the portions of the plate sections at the vertical margins of the window openings being inwardly return bent around said flanges to form window stops while the transverse faces of the posts form window guides.

3. In a railway car body, in combination, the sill and upper longitudinal plate beam, metal plate sections to form the car side wall having window openings therein, having their opposed vertical edges adjoined and united, and posts adjoining the inner sides of the plate sections adjacent the vertical margins of the window openings and having flanges parallel with the plane of the side of the car,—the portions of the plate sections at the vertical margins of the window openings being inwardly return bent around said flanges to form, in conjunction

with such flanged posts, window stops, and said plate sections having their portions at the lower borders of the window openings inwardly bent and marginally upturned to form strengthening ribs, and having their upper edges angularly turned to form flanges, adjoined and fastened to the plate beam, while their lower portions adjoin the outer side of the car sill and are fastened thereto.

1,078,374. LIFTING-JACK. EDWARD R. PENROSE, Logansport, Ind., assignor to Buda Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1913. Serial No. 754,774. (Cl. 57-44.)



1. In a lifting jack, the combination of a standard and a member movable thereon, a screw for said movable member provided with a gear, an annular member interposed between said gear and said movable member, and means carried by said annular member adapted to engage with the teeth of the gear for synchroal movement of the said member and gear in the one direction, the said means permitting the gear to have free and independent movement in the other direction.

2. In a lifting jack, the combination of a standard and a movable member thereon, a screw for said movable member and provided with an actuating gear, an annular member between said gear and said movable member in frictional contact with the latter, and a pawl carried by the said annular member adapted to engage with the teeth of the gear whereby the said gear and annular member have similar movement in one direction, but permitting independent movement of the gear in the other direction.

3. In a lifting jack, the combination of a standard having a member movable thereon, a screw for said movable member, a gear mounted on the screw, and an annular plate between the movable member and gear provided with a depending portion terminating below the upper face of the gear, and means interposed between said depending portion and gear adapted to engage the teeth of the latter for synchronous movement in one direction, but permitting the gear to have independent movement in another direction, substantially as described.

4. In a lifting jack, a standard and a movable member thereon, a screw and nut for raising and lowering the movable member, means for rotating said screw comprising a pair of gears having relatively different sized teeth widths, an annular plate interposed between the screw and the movable member, and a pawl carried by the annular member and adapted to connect it with the gear having the greater width of teeth for similar rotation of these members when lowering the jack, the excess in teeth width of the last mentioned gear permitting a continuous connection between the gear teeth and the annular plate irrespective of any position taken up by the pawl.

5. A lifting jack comprising in combination a standard, a shell movably mounted on the standard, a screw threaded into the standard for lowering and raising the shell,

196 O. G.—28

a bevel gear on the screw having teeth extending from face to face of the gear, an annular plate interposed between the gear and the shell, a pawl carried by the plate having a ratchet engagement with the teeth adjacent the largest diametered face of the gear, and a second bevel gear for turning the first gear engaging the teeth of the first gear adjacent the smaller diametered face thereof.

1,078,375. FARM-GATE. RALPH E. PORTER, Parker, Ind. Filed Oct. 31, 1910, Serial No. 589,833. Renewed Apr. 25, 1913. Serial No. 763,692. (Cl. 39-10.)



1. A fence closure including a fence main-post, a fence end-post having successively arranged recesses therein, a sub-post hingedly connected to the fence main-post and having successively arranged notches therein, a gate-frame having its end connected to and capable of being raised and lowered on said sub-post, a check bar, a lock bar, yieldable means to hold the check bar and lock bar normally to extended position to engage the said notches and recesses respectively, a device having connection with said means that when actuated to raise the gate may retract the check bar and lock bar.

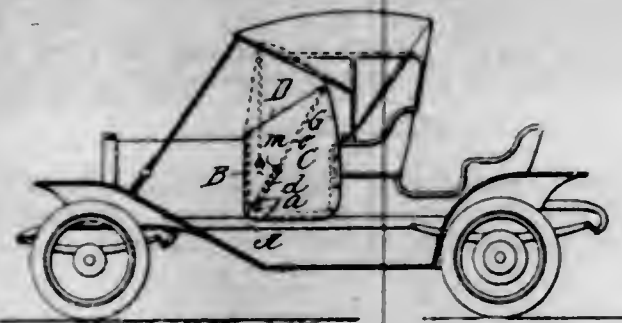
2. A fence closure including a fence main-post, a fence end-post having successively arranged recesses therein, a sub-post hingedly connected to the main fence-post and having successively arranged notches therein, a gate-frame having its end connected to and capable of being raised and lowered on said sub-post, a check bar and a lock bar carried movably underneath one of the rails of the gate frame, an offset in the ends of the check bar and the lock bar to engage the end uprights of the gate frame, a spring to press the check bar and lock bar outwardly, lift levers having their ends connected with the inner ends of the check bar and lock bar and having their handles arranged to occupy a position slightly below one of the rails of the gate frame.

3. A farm gate, comprising a sub post having a series of notches therein, a gate frame connected to and adapted to be raised and lowered on said sub post, a check bar carried loosely on the gate frame to engage the notches, a lock bar carried loosely on said gate frame and having its end to project beyond the forward end of the gate frame, an offset in the check bar and lock bar to engage the end uprights of the gate frame, a spring to urge the check bar and the lock bar apart from each other, means that when actuated to raise the gate may retract the check bar and lock bar.

4. A farm gate comprising spaced longitudinal rails, uprights, two bars slidably disposed underneath one of the rails, and having their ends to project beyond the ends of the gate, an offset near the outer end of each bar to engage the end upright and prevent movement outwardly of the bar, a spring to urge said bars to the extended position, lift levers fulcrumed on the rail underneath said bars and having their ends loosely connected to the inner ends of the said bars and their handles to occupy a position adjacent to the lower edge of the said rail.

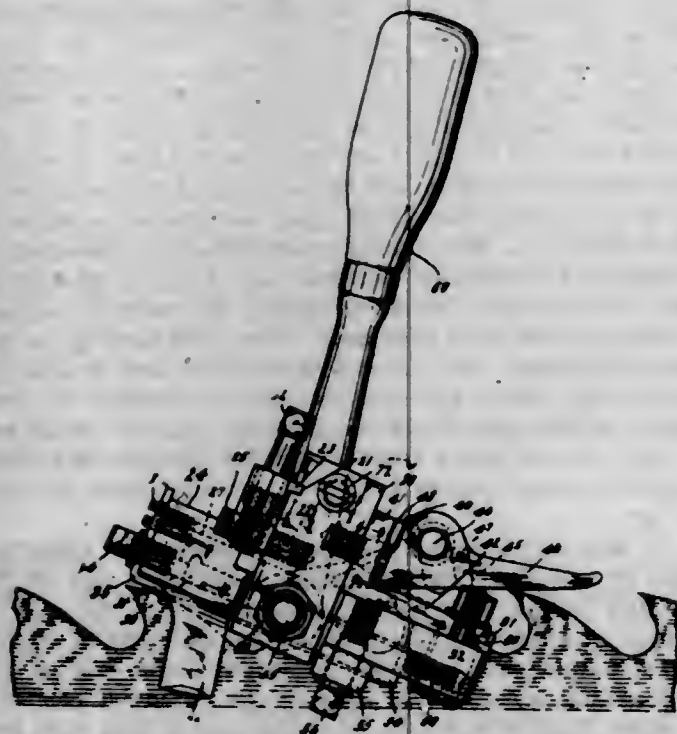
5. A farm gate, comprising a sub-post having successively arranged notches therein, a gate frame having its end connected to and capable of being raised and lowered on said sub post, a bar carried movably underneath one of the rails of the gate frame, an offset in the end of the bar to engage the end upright of the gate frame, a spring to press the bar outwardly, a lift lever having connection with said bar and fulcrumed so that when operated the bar will be extended, and provided with a handle disposed at position adjacent the lower edge of one of the rails substantially as described.

1,078,376. WIND-SHIELD FOR AUTOMOBILES. ALPHONSE U. FREMONT, Springfield, Mass. Filed Jan. 14, 1911. Serial No. 602,659. (Cl. 21-148.)



The combination with the body of a vehicle having a dash-board, of a pair of brackets secured at opposite sides of the body near the base of the dash-board and each comprising a barrel member formed with a bore therein opening to the upper end thereof, and having upwardly extending opposing ear lugs, and said barrel having a catch bolt and a bolt-projecting spring therein, a pair of tubular sections provided with circular edged hinge members disposed between said ear lugs, and pivoted thereto, having edge portions thereof adjacent the pivot provided with catch notches, and said tubular sections having their upper end portions longitudinally split, externally tapered and screw threaded and having constricting nuts thereon, further sections telescopically engaged in the pivoted sections and having a cross member uniting their upper end portions, and a storm shield of flexible material extending from the upper edge of the dash-board to, and connected with, said section-uniting cross member.

1,078,377. SWAGE-SHAPER. JOHN F. PRIBNOW, Mellen, Wis. Filed Oct. 31, 1912. Serial No. 728,786. (Cl. 76-49.)



1. A swage shaper, comprising a shaper body, a pair of shaper jaws pivotally mounted therein to cooperate with opposite sides of a swaged saw tooth, a tooth gage holder mounted on said shaper body and freely slidable thereon transversely of the plane of the saw tooth, and a tooth gage carried by said tooth gage holder for preventing distortion of the tooth by the action of the shaper jaws.

2. A swage shaper, comprising a shaper body, a pair of shaper jaws mounted therein and movable relatively to each other, and a tooth gage movably mounted on the shaper body so that it can move relatively thereto to accommodate itself to the relative movement between the shaper jaws.

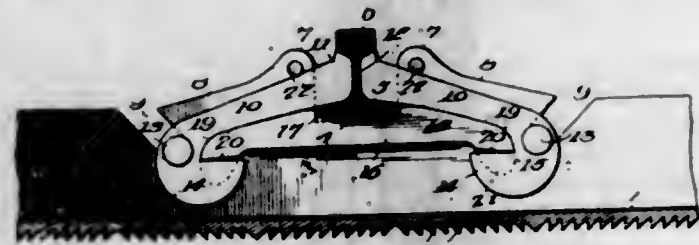
3. A swage shaper, comprising a shaper body, a pair of shaper jaws mounted therein and movable relatively to each other, a tooth gage movably mounted on the shaper body so that it can move relatively thereto to accommodate itself to the relative movement between the shaper jaws, and means for independently moving said shaper jaws relatively to said shaper body.

4. A swage shaper, comprising a shaper body, two shaper jaws mounted thereon, and a tooth gage also mounted thereon, said two shaper jaws and said tooth gage each being removable independently of the other two and said two shaper jaws being also removable as a unit independently of the tooth gage.

5. A swage shaper, comprising a shaper body, a tooth gage holder mounted on one side thereof, a unitary shaper jaw bracket mounted on the other side thereof, said tooth gage holder and said shaper jaw bracket being independently removable from said shaper body, a tooth gage carried by said tooth gage holder, and a pair of shaper jaws carried by said shaper jaw bracket.

[Claims 6 to 12 not printed in the Gazette.]

1,078,378. CLAMPING DEVICE. JOSEPH W. REESE, Salt Lake City, Utah. Filed Apr. 24, 1913. Serial No. 763,308. (Cl. 238-4.)



1. In combination with the rails, a tie of channel shape having its side walls extended upwardly at the points where the rails cross the tie, each of the said extensions having a notch for receiving the rail and having an opening at each side of the notch near the top thereof and having a recess at each side of the extension, each of the said recesses inclining inwardly and downwardly, a rail seat arranged between the side walls of the tie, said seat having its upper face flattened at the center thereof to form a seat for the rail base flange, said seat being arched longitudinally and having at each end on its under face a plurality of depending lugs, a pair of gripping jaws, each of the said jaws having oppositely extending journal pins at its outer end for engaging the recesses at one side of the rail, the inner end of each jaw being shaped to fit the upper face of the base flange, the web, and the under face of the tread of the rail, each of the said jaws having at its outer end an inward extension fitting beneath the adjacent end of the rail seat, each extension having openings in its upper face for receiving the lugs of the seat, and locking pins engaging the openings at each side of the notch above the inner ends of the clamping jaws.

2. In combination with the rails, a tie of channel shape having oppositely arranged pairs of notches in its side walls near the ends thereof for receiving the rails, a rail seat arranged between the side walls of the tie at each end thereof for receiving the rail, said seat being arched longitudinally and having depending lugs at each end thereof and a pair of gripping jaws for the rail at each seat, each of the said jaws engaging the web and base of the rail at its inner end and having an inward extension at its outer end upon which the adjacent end of the rail seat rests, each extension having recesses for receiving the lugs of the seat, each of the said gripping jaws having oppositely extending journal pins at the junction of the extension therewith and the side walls of the tie having notches for receiving the journal pins, said notches inclining inwardly toward the rail at their lower ends, the side walls of the tie having registering openings at each side of each rail above the adjacent gripping jaw, and a pin engaging each pair of openings for holding the jaw in place.

3. In combination with the rails, a tie of channel shape having oppositely arranged pairs of notches in its side

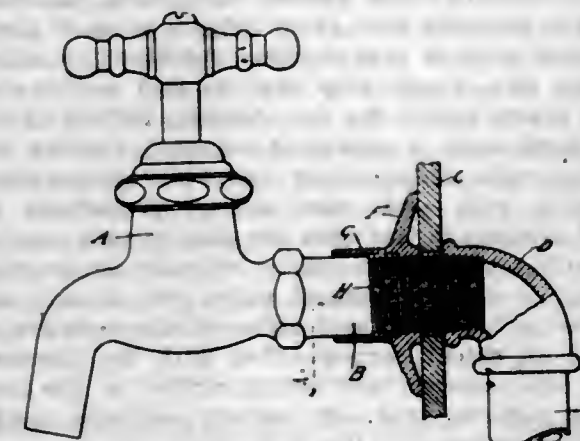
walls near the ends thereof for receiving the rail, a rail seat arranged between the side walls of the tie at each end thereof for receiving the rail, said seat being arched longitudinally and having depending lugs at each end thereof and a pair of gripping jaws for the rail at each seat, each of the said jaws engaging the rail at its inner end and having an inward extension at its outer end upon which the adjacent end of the rail seat rests, each extension having recesses for receiving the lugs of the seat, each of the said gripping jaws having oppositely extending journal pins at the junction of the extension therewith, and the side walls of the tie having notches for receiving the journal pins, said notches inclining inwardly toward the rail at their lower ends, and means adjacent to the rail for preventing upward movement of the jaws.

4. In combination with the rails, a tie of channel shape having oppositely arranged pairs of notches in its side walls near the ends thereof for receiving the rails, a rail seat arranged between the side walls of the tie at each end thereof for receiving the rail, said seat being arched longitudinally and having depending lugs at each end thereof and a pair of gripping jaws for the rail at each seat, each of the said jaws engaging the rail at its inner end and having an inward extension at its outer end upon which the adjacent end of the rail seat rests, each extension having recesses for receiving the lugs of the seat, each of the said jaws having a detachable pivotal engagement with the tie near the junction of the extension with the jaw, and releasable means engaging each jaw adjacent to the rail for preventing upward movement of the jaw.

5. In combination with the rails, a tie of channel shape having oppositely arranged pairs of notches in its side walls near the ends thereof for receiving the rail, a rail seat arranged between the side walls of the tie at each end thereof for receiving the rail, a gripping jaw at each side of each rail for engaging the web and base of the rail, each jaw having a detachable pivotal connection with the tie at its outer end and having an extension at the said outer end upon which the adjacent end of the rail seat rests, and releasable means engaging the inner end of each jaw to prevent upward movement thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,078,379. FAUCET ATTACHMENT. JOSEPH REGAR, Cleveland, Ohio, assignor to The Regar Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 24, 1910. Serial No. 568,647. (Cl. 137-4.)



1. The combination, in a faucet cock or bib, of a shank having a tapered male thread at the end portion of the shank and a straight male thread on an intermediate portion and a collar having a straight threaded opening adapted to coact with the straight threads on the shank, the straight threads on the shank extending for a considerably greater distance than the threads on the collar, whereby the collar may stand on the straight thread of the shank in advance of the rear end of such thread, and a cylindrical flange on the forward side of the collar adapted to extend over the threads on the shank in front of the engaging portion of the collar, irrespective of the position of the collar on such threads.

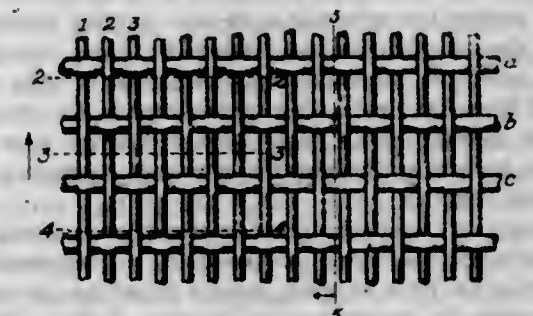
2. The combination, with a faucet, bib or cock having a shank provided near the end with a tapered male thread

and on an intermediate portion with a straight male thread of a number of turns, a collar screw threaded on the straight thread and adapted to stand with its rear face in front of the beginning of the straight thread; and having a forwardly projecting cylindrical flange adapted to surround and hide the straight threads in front of the threaded engagement of the collar, irrespective of the position of the collar on the straight thread, the tapered thread being adapted to occupy and firmly seat in a standard female fitting at the rear of a lavatory back or wall, the collar being adapted to simultaneously abut the front face of such back or wall.

3. The combination, with a faucet, cock or bib having a shank provided with external threads, the threads adjacent to the end of the shank being tapered and the threads on the intermediate portion of the shank being straight, a collar screw threaded on the straight thread and having a forwardly extending flange adapted to hide the straight threads in front of the engagement of the collar, said straight threads at the rear of the collar engagement being adapted to occupy an opening in a lavatory back or wall when the collar engages the front of such back or wall and the tapered thread occupies a standard female fitting abutting the rear of such back or wall.

4. The combination of a faucet, cock or bib having a shank provided with a tapered male thread adjacent to its end, a straight male thread on an intermediate portion of the shank, and a collar having a threaded engagement with the straight thread and adapted to occupy an intermediate position thereon, said collar being provided with a forwardly extending cylindrical flange adapted to overhang and cover the straight threads in front of the threaded engagement of the collar and overhang also an unthreaded portion of the shank, said straight threads at the rear of the collar being adapted to extend into a lavatory back or wall of substantial thickness, which is clamped between the collar, and a standard female member pipe fitting embracing the tapered threads and abutting the rear face of such back or wall.

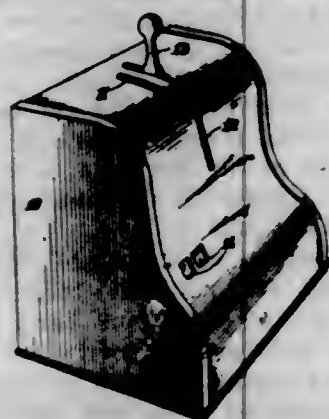
1,078,380. METHOD OF FORMING WOVEN-WIRE FABRICS. MORLEY PUNSHON REYNOLDS, Cleveland, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 23, 1912. Serial No. 738,133. (Cl. 140-3.)



1. The herein-described method of forming a metallic screen fabric having warp and weft wires of different degrees of hardness, comprising the steps of forming the fabric from high carbon warp and low carbon metal weft wires of substantially the same degree of softness, compressing the fabric to press the wires into each other to interlock the same, and then subjecting the fabric to heat treatment to temper the same, thereby giving different degrees of hardness to the warp and weft wires composing it.

2. The herein-described method of forming a metallic screen fabric having warp and weft wires of different degrees of hardness and with the weft wires larger than the warp wires, comprising the steps of forming the fabric from high carbon warp and low carbon metal weft wires of substantially the same degree of softness, compressing the fabric to press the wires into each other to interlock the same, and then subjecting the fabric to heat treatment to temper the same, thereby giving different degrees of hardness to the warp and weft wires composing it.

1,078,381. COIN-ACTUATED MECHANISM. EMANUEL RICHTER, Chicago, Ill. Filed Aug. 13, 1912. Serial No. 714,769. (Cl. 235-100.)



1. A device of the character described, embodying therein a slidably mounted coin carrier adapted to receive coins of different denominations and depressible to an extent corresponding to the denomination of a coin delivered thereto, means for temporarily retaining said coin carrier in the position to which it may be depressed by a coin delivered thereto, differentially operative mechanism operable to an extent dependent upon the denomination of a coin delivered to said coin carrier, selective mechanism adapted to assist in the actuation of said differentially operative mechanism, and means for rotating said coin carrier to move the same into operative relation with said selective mechanism, whereby said coin carrier is released from said retaining means and in its movement from the latter to the selective mechanism the coin serves to retain the carrier in depressed position.

2. A device of the character described embodying therein a slidably mounted coin carrier adapted to receive coins of different denominations and depressible to an extent corresponding to the denomination of a coin delivered thereto, means for temporarily retaining said coin carrier in the position to which it may be depressed by a coin delivered thereto, differentially operative mechanism operable to an extent dependent upon the denomination of a coin delivered to said coin carrier, selective mechanism adapted to assist in the actuation of said differentially operative mechanism, means depressible with said coin carrier for operatively engaging said selective mechanism, and means for rotating said coin carrier to move the engaging means depressible therewith into engagement with said selective mechanism, whereby said coin carrier is released from said retaining means and in the movement of the coin carrier away from said retaining means said coin serves to retain the carrier and said engaging means in depressed position.

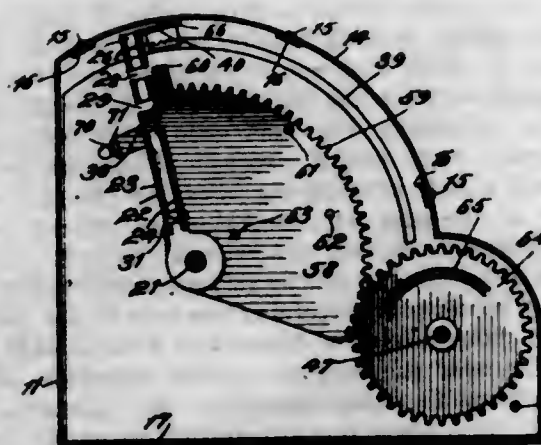
3. A device of the character described, embodying therein differentially operative mechanism, a depressible rotatably mounted coin carrier, means whereby an inserted coin cooperates in retaining said carrier depressed during part of its rotary travel, selective mechanism embodying a loosely pivoted disk having graduated slots therein corresponding to the several coins adapted to be delivered to the coin carrier, means governed by said selective mechanism for actuating said differentially operative mechanism to an extent dependent upon the denomination of the coin delivered to said carrier.

4. A device of the character described, embodying therein differentially operative mechanism, a depressible rotatably mounted coin carrier adapted to receive coins of different denominations, means whereby an inserted coin cooperates in retaining said carrier depressed during part of its rotary travel, a pivoted dog movable with said depressible coin carrier, selective mechanism adapted to be engaged by said dog at a point dependent upon the denomination of the coin delivered to said coin carrier, said selective mechanism comprising a loosely pivoted disk having graduated slots therein, and means for actuating said differentially operative mechanism to an extent dependent upon the point at which said dog engages said selective mechanism.

5. A device of the character described, embodying therein differentially operative mechanism, a depressible coin carrier, a pivoted dog movable with and slidable on said coin carrier and provided with a projecting toe, selective mechanism comprising a disk having slots adapted to be engaged by said toe, and means for operating said differentially operative mechanism to an extent governed by the position of the slot engaged by said toe.

[Claims 6 to 23 not printed in the Gazette.]

1,078,382. COIN-ACTUATED MECHANISM. EMANUEL RICHTER, Chicago, Ill. Filed Sept. 14, 1912. Serial No. 720,307. (Cl. 235-100.)



1. Coin actuated mechanism, embodying therein a rotatably mounted coin carrier comprising parallel side walls and one edge wall, there being a series of graduated transverse slots in said carrier extending inwardly from the edge wall, a coin stop fixed to said carrier and projecting across one of the slots therein, differentially operative mechanism, a rotatably mounted toothed segment engaging said differentially operative mechanism and concentric with said coin carrier, projections carried by said segment in line with the slots in said coin carrier, and means for rotating said carrier whereby an inserted coin will engage a predetermined projection on said segment and cause actuation of said differentially operative mechanism to an extent corresponding with the denomination of the coin inserted.

2. Coin actuated mechanism, embodying therein a rotatably mounted coin carrier comprising parallel side walls and one edge wall, there being a series of graduated transverse slots in said carrier extending inwardly from the edge wall, a coin stop fixed to said carrier and projecting across one of the slots therein, differentially operative mechanism, a rotatably mounted toothed segment engaging said differentially operative mechanism and concentric with said coin carrier, projections carried by said segment in line with the slots in said coin carrier, means for rotating said carrier whereby an inserted coin will engage a predetermined projection on said segment and cause actuation of said differentially operative mechanism to an extent corresponding with the denomination of the coin inserted, and means carried by the coin carrier for engaging said differentially operative mechanism to prevent excess operation thereof.

3. Coin actuated mechanism, embodying therein a rotatably mounted coin carrier comprising parallel side walls and one edge wall, there being a series of adjacent graduated transverse slots in said carrier near its upper end and a single slot in said carrier near its lower end, all of said slots extending inwardly from the edge wall of said carrier, a coin stop fixed to said carrier and extending across the lower slot in said upper series intermediate the ends of said slot, a coin stop for the single slot near the lower end of the carrier, differentially operative mechanism, a toothed segment engaging said differentially operative mechanism and provided with a series of projections in line with the slots in the coin carrier, and means for rotating said carrier whereby a coin inserted therein will engage a predetermined projection on said segment and

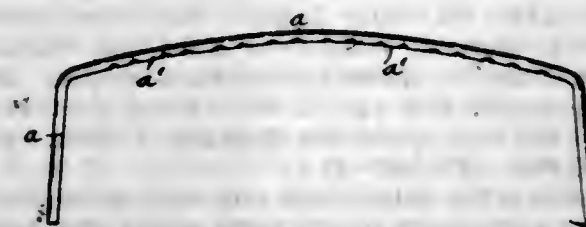
cause actuation of said differentially operative mechanism to an extent corresponding with the denomination of the coin inserted.

4. Coin actuated mechanism, embodying therein an exterior casing comprising lateral parallel walls and a top wall having a coin admission slot therein, a supporting frame within said casing and comprising parallel vertical walls one thereof being provided with an elongated slot substantially at right angles to the coin admission slot in the exterior casing, a coin carrier rotatably mounted in said supporting frame and having an open upper end normally in alignment with said coin admission slot, said coin carrier comprising parallel walls open at the side facing the frame wall having an elongated slot therein, there being a series of graduated transverse slots in said coin carrier, a coin stop formed on said coin carrier and projecting across one of the slots therein, differentially operative mechanism, a toothed segment concentric with said coin carrier and engaging said differentially operative mechanism, projections carried by said segment in line with the slots in the coin carrier, and means for rotating said carrier whereby upon rotation in one direction an inserted coin will engage a predetermined projection on said segment and cause actuation of the differentially operative mechanism to an extent corresponding with the denomination of the coin inserted, and upon rotation of said carrier in the reverse direction the inserted coin will fall by gravity out of the open side of said carrier through the elongated slot in the frame wall.

5. Coin actuated mechanism, embodying therein an exterior casing comprising lateral parallel walls and a top wall having a coin admission slot therein, a supporting frame within said casing and comprising parallel vertical walls one thereof being provided with an elongated slot substantially at right angles to the coin admission slot in the exterior casing, a coin carrier rotatably mounted in said supporting frame and having an open upper end normally in alignment with said coin admission slot, said coin carrier comprising parallel walls open at the side facing the frame wall having an elongated slot therein, there being a series of graduated transverse slots in said coin carrier, a coin stop formed on said coin carrier and projecting across one of the slots therein, differentially operative mechanism, a toothed segment concentric with said coin carrier and engaging said differentially operative mechanism, projections carried by said segment in line with the slots in the coin carrier, means for rotating said carrier whereby upon rotation in one direction an inserted coin will engage a predetermined projection on said segment and cause actuation of the differentially operative mechanism to an extent corresponding with the denomination of the coin inserted, and upon rotation of said carrier in the reverse direction the inserted coin will fall by gravity out of the open side of said carrier through the elongated slot in the frame wall, and cooperating means carried, respectively, by the coin carrier and one wall of said supporting frame for preventing reverse rotation of said coin carrier until the latter has reached the end of its rotary travel in either direction.

[Claim 6 not printed in the Gazette.]

1,078,383. INLAY FOR BAG-FRAMES. JACOB RITTMER, New York, N. Y. Filed Mar. 8, 1913. Serial No. 752,911. (Cl. 150-29.)



A bag frame inlay comprising a folded metallic strip approximately U-shaped in cross section and having indentations in its sidewalls extending inward from its outer edges, the indentations of one side facing those of the opposite side and being in staggered relation thereto, the

inner indented faces of the sidewalls serving as the gripping surfaces, between which the edge of the bag is held in an undulating line.

1,078,384. PNEUMATIC HAMMER. GEORGE LAWSON ROBERTSON, Philadelphia, Pa., assignor of one-half to Charles Mitchell, Philadelphia, Pa. Filed July 11, 1913. Serial No. 778,469. (Cl. 121-20.)



1. In a pneumatic hammer, the combination with a barrel, and a reciprocating plunger in the barrel, of a valve box secured to the barrel, a reciprocating valve in the box through which the plunger moves, said valve and box constructed to form an annular air space adjacent the forward end of the valve, and said air space always maintained in communication with the outside air, said valve having two annular opposed pressure surfaces of different areas, and fluid passages in the barrel and box controlled by the plunger for regulating the pressure against one of the surfaces to compel the valve to reverse as the plunger nears the ends of its stroke, substantially as described.

2. In a pneumatic hammer, the combination with a barrel, and a reciprocating plunger in the barrel, of a valve box secured to the barrel, a reciprocating valve in the box through which the plunger moves, said valve and box constructed to form an annular air space adjacent the forward end of the valve, and said air space always maintained in communication with the outside air, said valve having two annular opposed pressure surfaces of different areas, and fluid passages in the barrel and box controlled by the plunger for regulating the pressure against one of the surfaces to compel the valve to reverse as the plunger nears the ends of its stroke, and said valve having ports therein registering with the passages in the box, and controlling the flow of fluid to operate the plunger, substantially as described.

3. In a pneumatic hammer, the combination with a barrel, and a reciprocating plunger in the barrel, of a valve box secured to the barrel, a reciprocating valve in the box through which the plunger moves, said valve and box constructed to form an annular air space adjacent the forward end of the valve, and said air space always maintained in communication with the outside air, said valve having two annular opposed pressure surfaces of different areas, fluid passages in the barrel and box controlled by the plunger for regulating the pressure against one of the surfaces to compel the valve to reverse as the plunger nears the ends of its stroke, the smaller of said surfaces always in communication with the live fluid, and the larger of said surfaces in communication with the live fluid during a portion only of the stroke of the plunger, substantially as described.

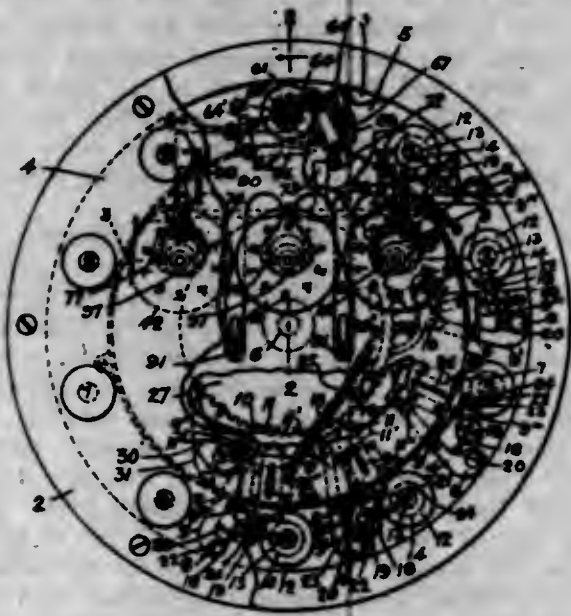
4. In a pneumatic hammer, the combination with a barrel, and a reciprocating plunger in the barrel, of a valve box secured to the barrel, a reciprocating valve in the box through which the plunger moves, said valve and box constructed to form an annular air space adjacent the forward end of the valve, and said air space always maintained in communication with the outside air, said valve having two annular opposed pressure surfaces of different areas, fluid passages in the barrel and box controlled by the plunger for regulating the pressure against one of the surfaces to compel the valve to reverse as the plunger nears the ends of its stroke, and said valve having ports therein registering with the passages in the box and controlling the flow of fluid to operate the plunger, the smaller of said surfaces always in communication with

the live fluid, and the larger of said surfaces in communication with the live fluid during a portion only of the stroke of the plunger, substantially as described.

5. In a pneumatic hammer, the combination with a barrel, and a reciprocating plunger in the barrel, of a valve box secured to the barrel, a reciprocating valve in the box through which the plunger moves, said valve and box constructed to form an annular air space adjacent the forward end of the valve, and said air space always maintained in communication with the outside air, said valve having two annular opposed pressure surfaces of different areas, fluid passages in the barrel and box controlled by the plunger for regulating the pressure against one of the surfaces to compel the valve to reverse as the plunger nears the ends of its stroke, said opposed surfaces formed by an annular flange at one end of an annular enlargement on the valve, the other end of said annular enlargement always in communication with the atmosphere, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,078,385. POCKET ADDING MACHINE. PAUL E. SAHRENDT, Brooklyn, N. Y. Filed Dec. 10, 1912. Serial No. 735,890. (Cl. 235-75.)



1. In a pocket adding machine, the combination of adding mechanism including a plurality of dials, a master gear for controlling the movements thereof and means for rotating said gear and comprising a rotary disk, a series of pivotally connected levers, a series of keys corresponding in number with the number of levers and rocking devices supported in position to be operated by the keys for shifting said levers thereby to rotate the disk.

2. In a pocket adding machine, the combination of adding mechanism including a plurality of dials, a master gear for controlling the movements thereof and means for rotating said gear and comprising a rotary disk, a series of pivotally connected levers, a series of keys corresponding in number with the number of levers and rocking devices supported in position to be operated by the keys for shifting said levers thereby to rotate the disk, the organization being such that each lever will be shifted a distance different from all of its companion levers.

3. In a pocket adding machine, the combination of adding mechanism including a plurality of dials, a master gear for controlling the movements thereof and means for rotating said gear and comprising a rotary disk, a series of pivotally connected levers, a series of keys corresponding in number with the number of levers, rocking devices supported in position to be operated by the keys for shifting said levers thereby to rotate the disk and a detent actuated by each of the keys for engaging said master gear.

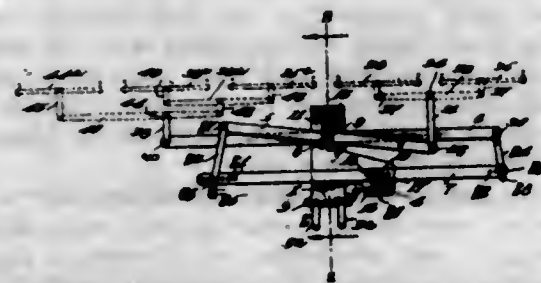
4. In a pocket adding machine, the combination of adding mechanism including a plurality of dials, a master gear for controlling the movements thereof and means for rotating said gear and comprising a rotary disk, a

series of pivotally connected levers, a series of keys corresponding in number with the number of levers, rocking devices supported in position to be operated by the keys for shifting said levers thereby to rotate the disk and a detent actuated by each of the keys for engaging said master gear, the organization being such that each lever will be shifted a distance different from all of its companion levers.

5. In a pocket adding machine, the combination of adding mechanism including a plurality of dials and means for controlling the movements thereof and including a rotary disk, a series of pivotally connected levers co-operating with said disk, a series of keys corresponding in number with the number of levers and rocking devices in position to be operated by the keys for shifting said levers thereby to rotate the disk.

[Claims 6 to 24 not printed in the Gazette.]

1,078,386. DRAFT-EQUALIZER. EDWARD R. SPELLMAN, Walla Walla, Wash. Filed May 1, 1913. Serial No. 764,817. (Cl. 21-76.)



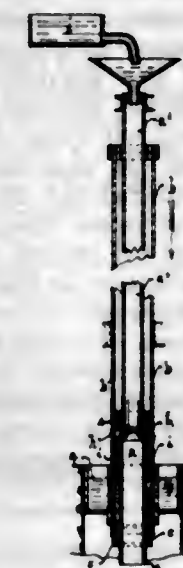
1. An equalizer comprising a plate for connection with the plow, said plate having a lateral extension at the side adjacent to the plow, a bar pivoted to the extension intermediate the ends of the bar, a pair of bars pivoted to the plate intermediate the ends of the bars on a common axis, one of the said bars being of greater length and the said bar being connected to the first named bar at the end adjacent to the extension, the shorter bar being connected to the first named bar at the opposite end from the extension, a double-tree connected to the free end of the shorter bar, and a bar connected to the free end of the longer bar, said last named bar having a swingle-tree at its outer end and a double-tree at its inner end and being connected to the longer bar at a point one-third its length from the inner end.

2. An equalizer comprising a plate for connection with the plow, upper and lower bars pivoted on a common axis intermediate their ends to the plate, the upper bar being of lesser length, a third bar arranged behind the first named bars and pivoted to the plate laterally with respect to the connection of the first named bars, a connection between the end of the longer bar adjacent to the connection of the last named bar and the adjacent end of the said last named bar, a connection between the opposite end of the shorter bar and the adjacent end of the last named bar, the free ends of the first named bar having links connected therewith for engagement by draft apparatus, the link at the free end of the longer bar being adapted for connection with a draft bar intermediate the ends thereof, and lateral with respect to the center thereof.

1,078,387. APPARATUS FOR LINING TUBES WITH LEAD, TIN, OR THE LIKE. PAUL THEUERKORN, Chemnitz, Germany, assignor to Mann and Willkomm, Aktiengesellschaft, Heidenau, Dresden, Germany. Original application filed Apr. 3, 1911, Serial No. 618,679. Divided and this application filed Aug. 4, 1911. Serial No. 642,405. (Cl. 207-11.)

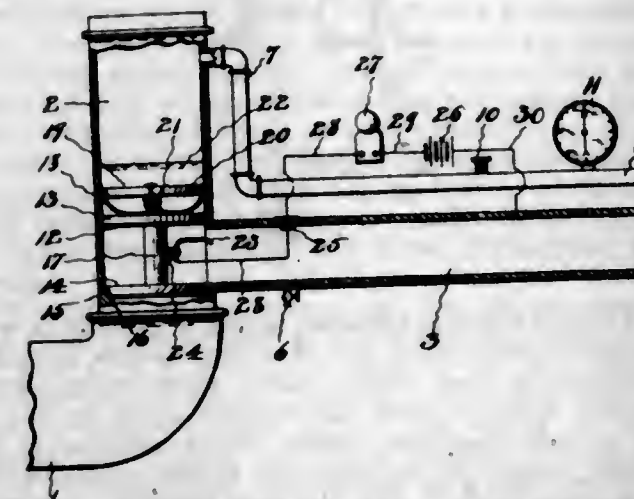
1. Apparatus for lining tubes with lead, tin or the like comprising a stationary core, a metal supply pipe forming a continuation of said core and formed with perforations at the part where it is connected to the said core, a collar adapted to slide in a fluid tight manner over said core and to fit a tube to be lined, and a stationary water jacket through which a tube to be lined can slide.

2. Apparatus for lining tubes with lead, tin or the like comprising a stationary core the upper end of which is coned, a metal supply pipe forming a continuation of said core and formed with downwardly inclined perforations at



the part where it is connected to the said core, a collar adapted to slide in a fluid tight manner over said core and to fit a tube to be lined, and a stationary water jacket through which a tube to be lined can slide.

1,078,388. AUTOMATIC FIRE-EXTINGUISHING APPARATUS. LANSING VAN AUKEN, Watervliet, N. Y. Filed Oct. 5, 1912. Serial No. 724,075. (Cl. 169-23.)



1. In an automatic fire extinguishing apparatus, water distributing pipes, an air chamber, air supply pipes, a valve in said air chamber controlling the supply of water to the water distributing pipes, an expansible member and an expanding member therefor on said valve and means normally forcing them apart, substantially as described.

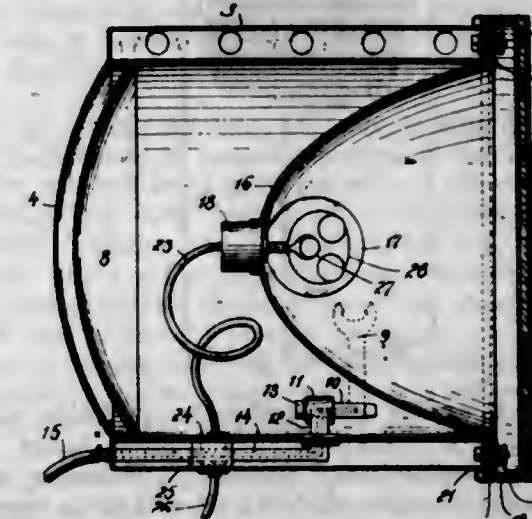
2. In an automatic fire extinguishing apparatus, water distributing pipes, an air chamber, air supply pipes, a valve in said air chamber controlling the supply of water to the water distributing pipes, an expansible member and an expanding member therefor and compressible means normally forcing them apart, substantially as described.

3. In an automatic fire extinguishing apparatus, water distributing pipes, an air chamber, air supply pipes, a valve in said air chamber, a head on said valve, an expansible member and an expanding member therefor on said head, means normally forcing them apart and another head on said valve controlling the supply of water to the water distributing pipes, substantially as described.

4. In an automatic fire extinguishing apparatus, water distributing pipes, an air chamber, pipes independent of the water distributing pipes having outlets sealed by fusible material and communicating with the air chamber and adapting air to be supplied to and exhausted from said air chamber, a valve having upper and lower heads, the lower head controlling the supply of water to the distributing pipes and the upper head located in the air chamber, a

resilient washer on said upper head, a plate for expanding said washer and resilient means interposed between the washer and plate, allowing the said plate to be moved toward said washer to clamp the valve to the air chamber and automatically moving said plate from said washer when released from pressure and releasing the valve, substantially as described.

1,078,389. LAMP. HORACE RUSS VAN VLECK, Montclair, N. J. Filed June 3, 1913. Serial No. 771,384. (Cl. 240-37.)



1. A lamp comprising the combination of a casing, a reflector therein, a burner mounted in front of the reflector, connections to the burner, a second reflector removably mounted within the casing in front of the first reflector, means for supporting an electric lamp in front of the second reflector and wires leading to said lamp, substantially as set forth.

2. A lamp comprising the combination of a casing, a reflector therein, a burner mounted in front of the reflector, connections to the burner, a second reflector removably mounted within the casing in front of the first reflector, a socket secured to the second reflector, an electric lamp mounted in the socket and wires leading to the socket, substantially as set forth.

3. A lamp comprising the combination of a casing, a reflector therein, a burner in front of the reflector, means for supporting and carrying gas to the burner arranged to permit movement of the burner to operative and inoperative positions, a second reflector removably mounted in the casing in front of the first reflector, means for supporting an electric lamp in front of the second reflector and wires leading to said lamp, substantially as set forth.

4. A lamp comprising the combination of a casing, a reflector therein, a burner in front of the reflector, means for supporting and carrying gas to the burner arranged to permit movement of the burner to operative and inoperative positions, a second reflector removably mounted in the casing in front of the first reflector, a socket secured to the second reflector, an electric lamp mounted in the socket and wires leading to the socket, substantially as set forth.

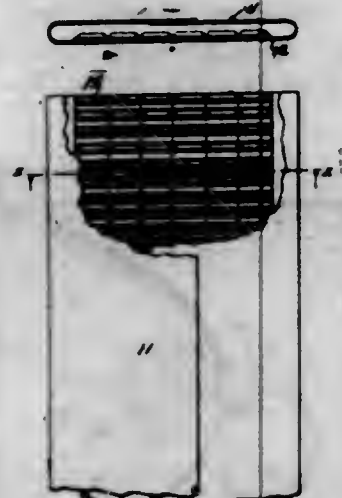
5. A lamp comprising the combination of a casing, a reflector therein, a second reflector, means for detachably mounting the second reflector within the casing in front of the first reflector, a burner mounted upon the casing in front of the first reflector and projecting into space occupied by the removable second reflector, said burner being movable to inoperative position to permit inserting the second reflector, and an electric lamp mounted in co-operative relation to the second reflector, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,078,390. FURNITURE PACKING-PAD. CHARLES A. WAKEMAN, Oshkosh, Wis., assignor of one-half to William Dichmann, Oshkosh, Wis. Filed May 13, 1912. Serial No. 696,931. (Cl. 154-55.)

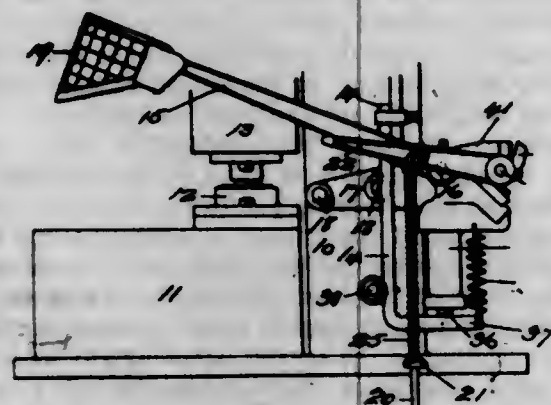
1. A packing pad comprising a transversely corrugated and longitudinally scored heavy paper strip, a pliable

paper strip folded about the corrugated strip the same being lap-seamed and secured at its edges to form a tubular jacket, and means adhesively securing the corrugated strip to the smooth side only of said tubular jacket whereby the detached seamed side thereof is free to play, the detached side being adapted to come in direct contact with the article to be packed.



2. As a new article of manufacture a pliable packing pad comprising a transversely corrugated heavy paper strip the corrugations being scored longitudinally at frequent intervals to cause pliability of said strip longitudinally whereby it is capable of being folded about an article transversely to conform to the shape of said article, a light pliable paper strip folded about the corrugated strip to form a tubular enveloping jacket therefor having longitudinally disposed lapped edges, adhesive means securing the juxtaposed high faces of the corrugated strip to the uninterrupted longitudinal face of the enveloping jacket, and adhesive means securing the lapped edges of the jacket together, the lapped edge face of the jacket being free from the adjacent face of the corrugated strip.

1,078,301. SAFETY MECHANISM FOR STAMPING PRESSES AND THE LIKE. ANTHONY F. WALLBILICH, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 28, 1913. Serial No. 781,846. (Cl. 164—107.)



1. A safety mechanism for stamping presses and the like, comprising a control rod for the operating mechanism of the press, a lever under the control of the operator to cause the actuation of the control rod and a drop guard adapted to be raised by said lever but to drop by its own gravity when the lever is moved.

2. A safety mechanism for stamping presses and the like, comprising a control rod for the operating mechanism of the press, a fluid-pressure means to actuate the control rod, a lever controlling said fluid pressure means and a safety guard governed by the movement of said lever.

3. A safety mechanism for stamping presses and the like, comprising a control rod for the operating mechanism of the press, a fluid-pressure means to actuate the control rod, a lever controlling said fluid pressure means and a drop guard adapted to be raised by the lever but

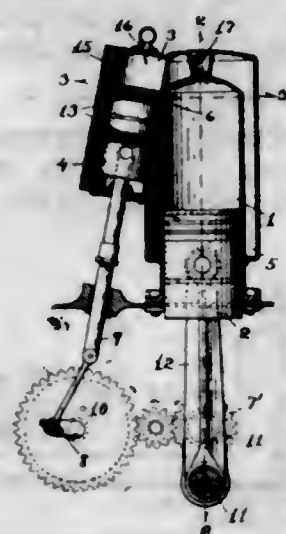
to drop by its own gravity, when the lever is moved for the actuation of the fluid pressure means.

4. A safety mechanism for stamping presses and the like, comprising a control rod for the operating mechanism of the press, a lever under the control of the operator to govern the actuation of the control rod, a safety guard raised by the upward movement of the lever but adapted to drop by its own gravity when the lever is lowered, and a locking device whereby the lever is locked against moving the control rod while the gate is up.

5. A safety mechanism for stamping presses and the like, comprising a control rod for the operating mechanism of the press, a lever under control of the operator to govern the actuation of the control rod, a safety guard raised by the upward movement of the lever, but adapted to drop by its own gravity when the lever is lowered, and interlocking devices between the guard and lever, whereby the lever is locked against moving the control rod while the guard is up, and the guard is locked down when the lever is in position for the press operation.

[Claims 6 and 7 not printed in the Gazette.]

1,078,302. INTERNAL-COMBUSTION ENGINE. ALBERT V. WALDO, Degraft, Ohio. Filed June 13, 1912. Serial No. 703,542. (Cl. 123—188.)

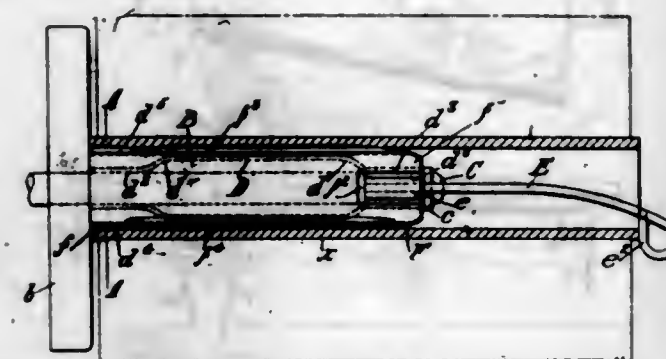


1. In an internal combustion engine, a cylinder, a working piston therein, inlet and exhaust chambers having intermediately of their length lateral ports communicating with said cylinder, inlet and exhaust ports in the end walls of said chambers, piston valves working in said chambers, means for operating one of said valves to draw the explosive mixture into the inlet chamber, to uncover the lateral port thereof upon the charging stroke of the working piston and to close said port upon the other strokes thereof, and means for operating the other of said valves to uncover the lateral port of the exhaust chamber upon the exhaust stroke of the working piston, to close said port during the other strokes of said piston and to clear the exhaust chamber of the burnt gases, said valves having respectively at one end substantial contact with the entire end walls of said chambers at the beginning of the intake and end of the exhaust stroke.

2. In an internal combustion engine, a working cylinder, a piston therein, cylindrical inlet and exhaust chambers axially inclined with relation to and having a water jacket space between the same and said working cylinder, said chambers having intermediately of their length short lateral ports measured at the center in length by the thickness of the cylinder wall and communicating with the upper portion of said cylinder, inlet and exhaust ports in the end walls of said chambers, piston valves in said chambers, means for operating one of said valves to draw the explosive mixture into the inlet chamber, to uncover the lateral port thereof upon the charging stroke of the working piston and to close said port upon the other strokes thereof, and means for operating the other of said valves to uncover the lateral port of the exhaust chamber upon the exhaust stroke of the working piston, to close said port upon the other strokes of said

piston and to clear the exhaust chamber of the burnt gases, said valves having respectively at one end substantial contact with the entire end walls of said chambers at the beginning of the intake and end of the exhaust strokes.

1,078,303. HOLDER FOR COP-TUBES, BOBBINS, SPOOLS, OR THE LIKE. SIMON W. WARDWELL and CARL A. BRINK, Providence, R. I., assignors to Wardwell Braiding Machine Company, Portland, Me., a Corporation of Maine. Filed Mar. 27, 1912. Serial No. 686,519. (Cl. 242—130.)



1. In a holder for cop-tubes, bobbins, spools or the like, the combination with a spindle, of a split-sleeve mounted on the spindle with one of its longitudinally-extending edges formed to engage the interior surface of the cop tube to secure the latter rotatively with the holder, said sleeve adapted to be expanded by the pressure of the tube against its edge during rotation of the holder to force said edge into firmer engagement with the tube.

2. In a holder for cop-tubes, bobbins, spools or the like, the combination with a spindle formed with a longitudinal slot, of a longitudinally-split sleeve mounted on the spindle with one of the edges of its split portion bent radially inward and engaging the slot in the spindle to secure it rotatively therewith, and the opposite edge of the split portion bent radially outward to engage the interior of the cop-tube, said sleeve so arranged as to adapt it to expand radially through pressure against its outwardly-bent edge to force said edge into firmer engagement with the tube.

3. In a holder for cop-tubes or the like, the combination with a spindle formed with a longitudinal slot and an annular groove, of a split-sleeve mounted on said spindle and having projections bent radially inward to engage the slot and groove, said sleeve formed with one of the edges of its split portion bent radially outward and so arranged that the pressure of the tube against said edge during rotation acts to expand the sleeve to force the edge to indent the interior of the tube.

1,078,304. IRONING-MACHINE. FREDERICK E. WARREN, Bridgeport, Conn., assignor to The King Machine Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 21, 1912. Serial No. 721,592. (Cl. 68—9.)



1. In an ironing machine, the combination of a support for the material to be ironed; an iron normally resting thereon; a rod connected to said iron; means for reciprocating said rod and thereby causing the iron to traverse the material to be ironed; and means lying in the path of movement of the rod and coacting with the same to automatically raise the rod and consequently the iron at the end of each outward and rearward stroke.

2. In an ironing machine, the combination of a support for the material to be ironed; an iron normally resting

thereon; a rod connected to said iron; means for reciprocating said rod and thereby causing the iron to traverse the material to be ironed; and means lying below, disconnected from and coacting directly with and upon said rod to automatically raise the same and, consequently the iron, at the end of each outward and rearward stroke.

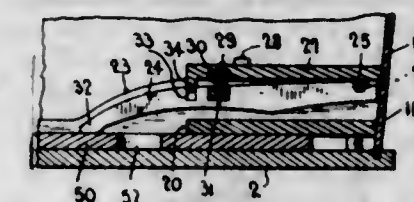
3. In an ironing machine, the combination of a support for the material to be ironed; an iron normally resting thereon; a rod connected to said iron; means for reciprocating said rod and thereby causing the iron to traverse the goods; a downwardly-extending projection upon the rod adjacent each end thereof; and means underlying the rod and adapted to coact with said downwardly-extending projections to automatically elevate the rod, and consequently the iron, at the end of each outward and rearward stroke.

4. In an ironing machine, the combination of a support for the material to be ironed; an iron; a rod connected to said iron, the rod being provided with a cut-away portion intermediate its ends; means for reciprocating said rod and thereby causing the iron to traverse the material to be ironed; and a roller underlying the rod and adapted to contact with the rod where it is of full depth, adjacent its ends, and to thereby elevate the same.

5. In an ironing machine, the combination of a support for the material to be ironed; an iron; a rod connected at its outer end to said iron and provided on its under face with a cut-away portion having inclined ends; a support contacting with the under face of the rod; and means for imparting endwise motion to said rod, whereby at the completion of each forward and backward stroke of the rod the inclined portions will come in contact with the support and pass over the same, bringing the full-depth portions of the rod over the support, whereby the rod, and consequently the iron, will be elevated.

[Claim 6 not printed in the Gazette.]

1,078,305. CORN AND PEA PLANTER. GEORGE E. WATSON, Hickory Point, Tenn. Filed Aug. 5, 1912. Serial No. 713,441. (Cl. 111—8.)

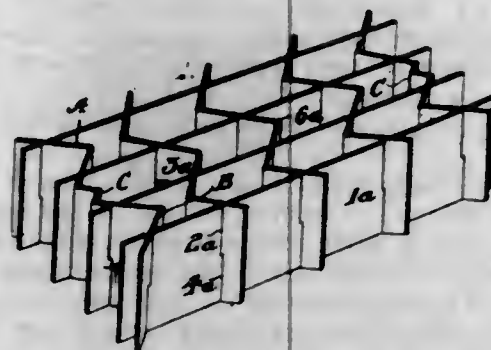


1. In a seed dropper, the combination with the seed-dropping plate having a circular series of openings, the seed box having an outlet through its bottom over which said openings pass and a false bottom overlying the plate and having an arcuate slot under which said openings pass, and means for rotating the plate; of spaced ribs on the false bottom at the outlet end of said slot having aligned notches in their upper edges, a finger lying between said ribs and having a cross pin pivotally mounted in said notches and a transverse notch in its upper edge near its free end, a cover plate secured across the rib and having a depending lip adapted to engage the notch in said finger, the plate closing the notches in said rib, and an expansive spring between said plate and finger and throwing the tip of the latter through said arcuate slot and into contact with the seed plate.

2. In a seed dropper, the combination with the seed-dropping plate having a circular series of openings, the seed box having an outlet through its bottom over which said openings are adapted to pass, and means for rotating said plate; of a false bottom within the box overlying the plate and having an arcuate slot under which said openings pass, ribs rising from the false bottom at the outlet end of said slot and producing a channel between them, a finger pivoted between said ribs and having a transverse notch and a socket in its upper face, a cover plate secured across the ribs and having a socket in its lower face above that in the finger, an expansive spring whose extremities are mounted in said sockets, and a lip

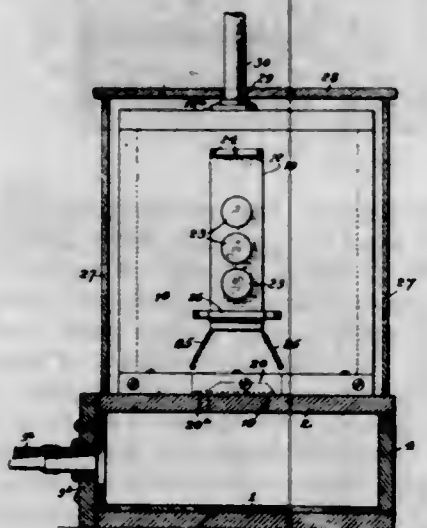
depending from the cover plate and engaging the transverse notch in the finger, the inner end of the latter being formed into a tip projecting normally through said slot and into contact with the seed plate.

1,078,396. CELLULAR MEMBER FOR EGG-CASES. CHARLES W. WISE, Pittsburgh, Pa. Filed Mar. 17, 1913. Serial No. 754,906. (Cl. 217-33.)



A cellular member comprising a series of slotted longitudinal walls and a series of slotted transverse walls interlocking with the longitudinal walls, said transverse walls having folds between said longitudinal walls whereby said longitudinal walls can be collapsed into parallelism with respect to each other, the folds of the outer walls of said series of transverse walls extending inwardly in opposite directions with respect to each other, the intermediate portion of the outer transverse walls of said series being provided with double folds, the double folds of one outer transverse wall being oppositely disposed with respect to the double fold of the other outer transverse walls, said double folds providing means to prevent the transverse walls from protruding beyond the longitudinal walls when the member is collapsed.

1,078,397. PNEUMATIC CLEANING MACHINE. MORRIS S. WRIGHT, Worcester, Mass. Filed June 4, 1910. Serial No. 565,075. (Cl. 230-36.)



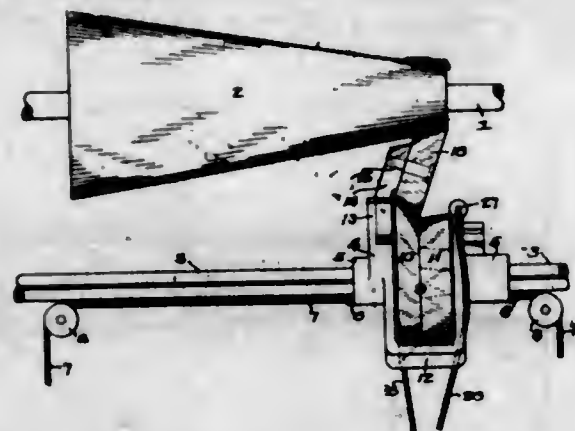
1. In a vacuum creating bellows and in combination, a bellows board having a plurality of exhaust ports therein, a flexible strip secured at one end to the board and extending over the openings, and a plurality of coiled springs attached to the corners of the opposite end of the strip tending to yieldingly stretch the strip and maintain it in position over the openings.

2. In a vacuum creating bellows and in combination, a bellows board having a plurality of exhaust ports therein, a flexible strip secured at one end to the board and extending over the openings, and a plurality of diagonally arranged coiled springs attached to the corners of the opposite end of the strip tending to yieldingly stretch the strip and maintain it in position over the openings.

3. In a vacuum creating bellows, and in combination a bellows board having a plurality of openings, and a flexible strip placed over the openings, one end of the strip being

permanently secured to the board, a cross guide for the opposite end of the strip, and coiled springs secured to the corners of the free end of the strip and to the board for maintaining the strip in a taut condition.

1,078,398. VARIABLE-SPEED GEAR. JAMES YOCOM, Philadelphia, Pa. Filed Feb. 24, 1913. Serial No. 750,360. (Cl. 74-26.)



1. The combination of a driving shaft; a cone thereon; a driven shaft having a keyway therein; a cone wheel mounted on the last mentioned shaft and having a key adapted to the keyway in the driven shaft; a carrier mounted on the shaft; a bracket on the carrier; and a cone wheel on the bracket bearing against the cone wheel splined to the driven shaft and arranged to bear against the cone on the driving shaft.

2. The combination of a driving shaft; a cone thereon; a driven shaft; a conical wheel so mounted on the shaft that it will turn therewith and slide thereon; a carrier for shifting the wheel on the shaft; a bracket yieldingly mounted on the carrier and having a stud; and a cone wheel mounted on the stud and bearing against the cone wheel on the driven shaft and arranged to bear against the cone on the driving shaft.

3. The combination in a change speed reverse gear, of a shaft having a cone thereon; a second shaft; a double faced cone wheel splined thereto; a carrier mounted on said last mentioned shaft for shifting the double faced cone wheel longitudinally thereon; two brackets on the carrier; a conical wheel mounted on one bracket and bearing against one of the faces of the double faced cone wheel and arranged to bear against the driving cone, the other bracket having two wheels, one bearing against the other and one of said wheels bearing against the other face of the double cone wheel and the other wheel arranged to bear against the cone on the first mentioned shaft.

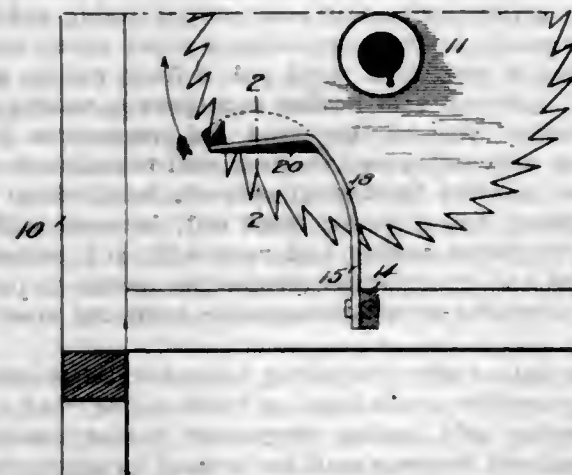
4. The combination of a driving shaft; a cone thereon; a driven shaft; a double faced wheel mounted on the driven shaft so as to slide thereon but turn therewith; a carrier mounted on the shaft and arranged to shift the said wheel longitudinally thereon; a bracket yieldingly mounted on the carrier; a wheel mounted on the bracket and bearing against one face of the wheel on the driven shaft and arranged to bear against the cone; a second bracket yieldingly mounted on the carrier and having two wheels thereon, said wheels being in contact, one of said wheels bearing against the other face of the wheel on the driven shaft, the other wheel being arranged to bear against the cone when the carrier is shifted.

5. The combination of a driving shaft; a cone thereon; a driven shaft; a double faced conical wheel mounted thereon, the faces being at different angles; a carrier arranged to slide on the shaft and extending on each side of the double faced wheel; two undercut guideways in the carrier; bearings shaped to fit the undercut ways; a spring back of each bearing tending to force the bearing out from the shaft; a single beveled friction wheel on one bearing arranged to bear directly against the cone and one face of the double faced wheel; two conical friction wheels carried by the other bearing, one of said wheels bearing directly against the other face of the

double faced wheel carried by the bearing, said latter wheel bearing directly against the cone; and means for rocking the carrier so as to bring either one or the other set of wheels in to the driving position.

[Claims 6 to 8 not printed in the Gazette.]

1,078,399. GIN-SAW CLEANER. JAMES P. YOUNG, Hackleburg, Ala. Filed Mar. 19, 1912. Serial No. 684,673. (Cl. 13-15.)



1. A gin-saw cleaner comprising a pair of blades extending horizontally on opposite sides of the saw, and one in advance of the other, and inclined transversely and downward toward the saw.

2. A gin-saw cleaner comprising a shank which is slotted to straddle the saw, the two branches of the shank formed by the slot terminating in horizontal blades located respectively on opposite sides of the saw, and inclined transversely and downward toward the same, one of the blades being in advance of the other.

1,078,400. TYPE. WILLIAM R. ALLEN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 6, 1912. Serial No. 729,742. (Cl. 101-174.)



1. A type adapted to seat on a drum and interlock with type in a contiguous line, such type having its opposite sides formed in two planes, one of which is parallel with the central plane of the type itself and the other of which is parallel with the central plane of the type in such contiguous line, the side surfaces being located one above another measuring from the foot of the type to its face.

2. A type of the character described adapted to be mounted on a drum and having its side surfaces formed of ribs and recesses alternately one above another, the ribs being parallel with the central plane of the type, and the recesses being parallel with the central plane of a similarly type mounted in a contiguous line on the same drum.

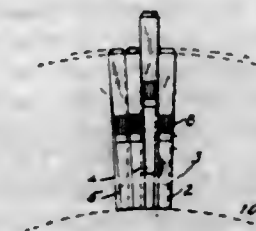
3. A type having a character on one end and having its opposite sides formed of sections one above the other, some of said sections being parallel with the central plane of the type and others of said sections parallel with the central plane of a similarly formed adjacent type standing at an angle to the type first mentioned.

4. A type having a character on its edge and having its side formed of alternate ribs and recesses located one above the other, the ribs having their surfaces parallel with the central plane of the type and the recesses being inclined with reference to such plane.

5. A type of the character described, wherein the sides are broken up into ribs and recesses one above the other, the ribs having their surfaces parallel with the central plane of the type, and the recesses being formed by surfaces which incline from the planes of the ribs toward the central plane of the type.

[Claims 6 to 15 not printed in the Gazette.]

1,078,401. TYPE-BAR. WILLIAM R. ALLEN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 6, 1912. Serial No. 729,743. (Cl. 199-2.)



1. A type body adapted to seat on a drum and having its opposite sides each formed in two planes, one of which is parallel with the central plane of the body and the other of which is parallel with the central plane of an adjacent body on said drum.

2. A type body of the character described having suitable character or characters on one edge and having its sides formed in sections, one section having its surface parallel with the central plane of the body and the adjacent section having its surface inclined inwardly.

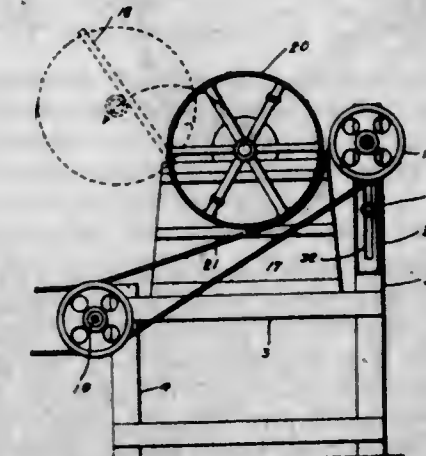
3. A type body having characters on one edge and having the opposite sides formed of sections, some of which are parallel with the central plane of the type body and others of which are parallel with the central plane of a similarly formed adjacent body standing at an angle to the body first mentioned.

4. A type body made of a single piece of metal having a character on its edge and having its sides formed of alternate ribs and grooves to present portions which have their surface parallel with the central plane and portions which are inclined, the inclined portions on one side coming opposite the parallel portions on the opposite side.

5. A type body having a character on its edge and having its sides formed of alternate ribs and grooves to present portions which have their surface parallel with the central plane and portions which are inclined, the inclined portions on one side being different in number from the inclined portions on the opposite side.

[Claims 6 to 22 not printed in the Gazette.]

1,078,402. DRIVING MECHANISM. ALPHEUS W. ALTORFER, Roadoke, Ill., assignor to Power Washing Machine Co., Peoria, Ill., a Corporation of Illinois. Filed Dec. 3, 1912. Serial No. 734,688. (Cl. 74-21.)



1. In a machine of the character described, a machine support, a driving shaft, a machine mounted on said support, an operating means for said machine movably mounted thereon and including a shaft and a driving

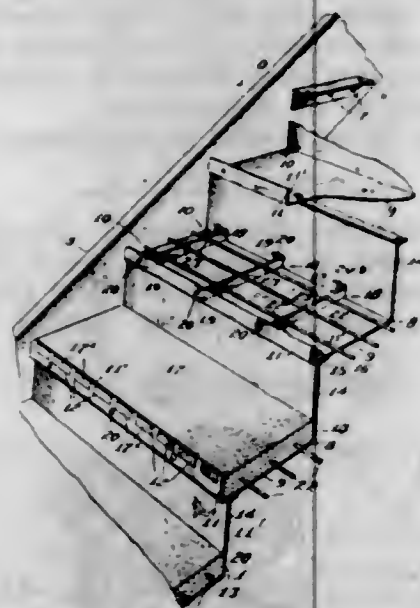
member, a belt adapted to be driven by the driving shaft and arranged to have a frictional contact with said driving member, and an idler wheel for said belt.

2. In a machine of the character described, a machine support, a driving shaft, a belt adapted to be driven by said shaft, idler wheels for said belt, supports for said idler wheels, a machine mounted on said machine support and having a movable element, an operating means for said machine mounted on said element and including a shaft and a wheel thereon having a frictional engaging surface, said wheel when said element is in one position, arranged to have a frictional engagement with said belt and when in another position to be out of frictional engagement with said belt.

3. In a machine of the character described, a machine support, a driving shaft suitably journaled on said support, two wheels on said shaft, one for receiving power from a suitable source for operating said shaft and the other adapted to drive a belt, a belt arranged to be operated from said shaft, an idler wheel for said belt, a support for said idler wheel, a machine mounted on said machine support, an operating means on said machine, said operating means including a wheel adapted to have a frictional engaging relation with said belt, and supporting means on the machine for the operating means thereof, said supporting means adapted to be raised and lowered for moving said wheel out of and into engaging relation with said belt.

4. In a machine of the character described, a machine support, a driving shaft extending longitudinally of said support and suitably journaled thereon, a driving member on said shaft, a belt adapted to be driven by said driving member and extending transversely of said support, an idler wheel suitably mounted on said machine support around which said belt travels, a machine mounted on said machine support and provided with an operating means including a shaft and a wheel thereon, having a frictional engaging surface, said wheel arranged to be driven by said belt, and supporting means on said machine for the shaft and wheel of the operating means thereof, said supporting means being movable to adapt a connection and disconnection of said wheel with said belt.

1,078,403. FIREPROOF STAIR. DAVID A. ANDERSON, Chicago, Ill. Filed Feb. 27, 1911. Serial No. 611,015. (Cl. 72-96.)



1. In a stair structure, the combination with a stringer providing horizontal ledges, sheet metal foundation members carried by said ledges providing in an integral structure a tread-bed, a nosing upturned from one edge of said tread-bed, a riser upturned from the opposite edge of said tread-bed, and a rearwardly extending flange turned back from the free edge of the riser; means, below the edge of the nosing and above the level of the tread bed, secured to and connecting said nosing and riser for mutual strengthening and bracing effect upon said nosing and riser; means securing the rearwardly turned flange of each tread mem-

ber to the under side of the tread-bed portion of the member next above, and a body of plastic material constituting the tread proper and confined by the nosing and riser and reinforced by the bracing means of the nosing and riser.

2. A stair structure comprising foundation members each providing a tread bed having a front nosing and a rear wall bent upwardly therefrom, transverse bracing connections extending between and securely attached to said nosing and rear walls at points above the bends between the bed and the nosing and riser respectively, said nosing and riser being provided at such points with means for such attachment, and a plastic tread body embedding said braces for partial support by said vertical nosing and riser.

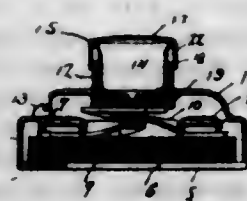
3. In a stair, a step comprising a sheet metal foundation formed to provide a tread bed, a front nosing, and a rear wall opposing said nosing, each bent upwardly from the respective edge of the tread bed, transverse braces connecting said nosing and the rear wall to maintain them in vertical position by mutual support, longitudinal reinforcing means, and a plastic tread body between said vertically maintained nosing and rear wall and embedding said braces and longitudinal reinforcing means to provide one of a plurality of interchangeable units for stair construction.

4. In a stair, a step comprising a sheet metal foundation formed to provide a tread bed, a front nosing, and a rear wall opposing said nosing, transverse braces connecting said nosing and the rear wall for mutual strengthening of said vertical nosing and wall, longitudinal reinforcing rods carried by the transverse braces and, through the agency of said braces, by said vertical walls and a plastic tread body bounded by said bed, nosing and riser and embedding the said braces and rods for support jointly by said bed and, through said rods and braces, by nosing and riser.

5. In a stair, the combination of a foundation member providing a nosing at the front, a rear vertical wall, bracing means between the nosing and rear wall connected to the nosing below its free upper edge, said nosing being perforated along its upper edge, and a tread body of plastic material embedding said bracing means and filling said perforations whereby the nosing is braced by the embedded bracing means below its upper edge, and at its upper edge is intimately associated with the plastic material which is reinforced by, and which embeds, said bracing means, to form a complete interchangeable stair unit.

[Claim 6 not printed in the Gazette.]

1,078,404. ELECTRIC SWITCH. CHARLES E. AVERY, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, New York, N. Y., a Corporation of New York. Filed Apr. 15, 1913. Serial No. 761,266. (Cl. 177-10.)



1. In a push switch, a push button comprising a cup-shaped body, a hood secured over the open end thereof and provided with a skirt spaced from the body of the cup, in combination with a perforated insulating disk, and claws struck from the bottom of said cup-shaped body and engaging within the perforation of the disk, for the purpose described.

2. In a push switch, a push button comprising a cup-shaped body of sheet metal outwardly flared at its open end, a hood overlying said open end of the cup-shaped body and secured to the outwardly flared portion thereof, said hood having a downwardly projecting skirt spaced from the body of the cup, in combination with a disk of insulating material centrally perforated and undercut, and claws struck downward from said cup-shaped body and spread outwardly beneath the edge of said undercut central perforation to engage said disk, substantially as described.

1,078,405. GOGGLES. NELSON M. BAKER, Southbridge, Mass. Filed Mar. 17, 1913. Serial No. 754,705. (Cl. 88-41.)



1. A folding goggle comprising lenses, an arm attached to each lens, a flattened horizontal portion in the arm forming a pivot seat, a bridge pivoted to the arm, a curved portion in the arm exterior of the pivot seat and a guard on the end of the curved portion, the guard being adapted to fold under the bridge.

2. A folding goggle comprising lenses, an arm attached to each lens, a flattened portion in the arm forming a pivot seat, a bridge pivoted to the arm, an elongated curved portion in the arm, said portion extending outwardly, then rearwardly and downwardly and then inwardly therefrom, and a guard fastened on the end thereof.

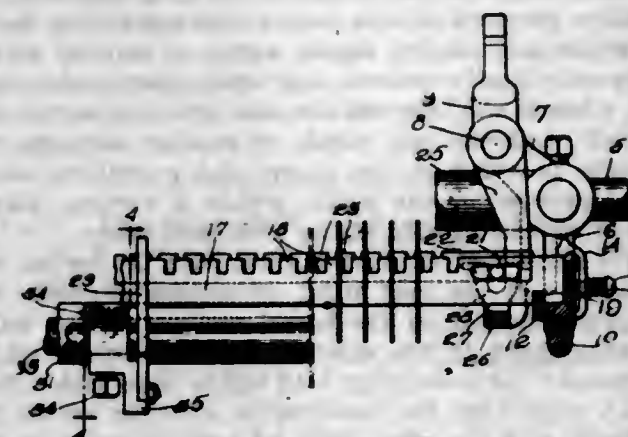
3. In a folding goggle in combination with a pair of lenses, a bridge pivoted thereto, a guard rigidly connected to each of the lenses and adapted to fold immediately under and in the same vertical plane with the bridge.

4. A folding goggle comprising lenses, a bridge, frames for the lenses pivoted to the bridge and a guard rigidly fastened to each frame and adapted to fit under the bridge when the goggles are folded.

5. In a folding goggle, a pair of lenses, a rigid bridge pivoted thereto, an arm connected to each of the lenses, said arm having a pivot seat therein for the bridge, a curved elongated portion extending from the arm and carrying a guard on the end thereof, said guard being so placed that it folds immediately under and in the same vertical plane with the bridge.

[Claim 6 not printed in the Gazette.]

1,078,406. STOP-MOTION FOR LOOMS. WILLIAM HENRY BAKER, Montreal, Quebec, Canada. Filed Mar. 10, 1913. Serial No. 753,314. (Cl. 139-92.)



1. A stop motion of the nature described comprising a supporting bar having a series of parallel seats and a holding bar extending transversely across the side openings of said seats, a series of guide bars seated in said seats and having notches engaged with said holding bar, and a keeper hingedly mounted on said supporting bar and adapted to hold said guide bars in engagement with said holding bar.

2. A stop motion of the nature described comprising a supporting bar having a series of parallel seats and a holding bar extending transversely across the side openings of said seats, and a series of guide bars seated in said seats and having notches engaged with said holding bar.

3. A stop motion of the nature described comprising a supporting bar formed of cast metal and having a series of seats and having a holding bar or strip of steel having inturnd ends cast into the body of said supporting bar, and a series of guide bars seated in the seats of said supporting bar and engaged with said holding bar.

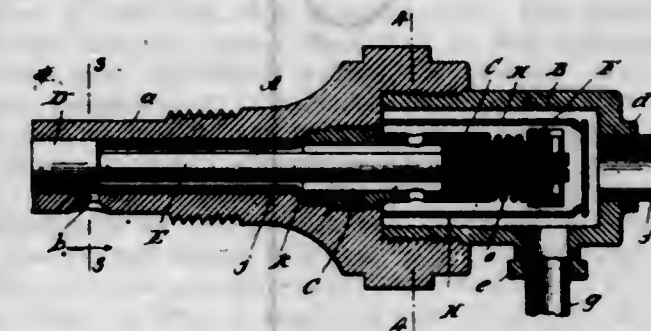
4. A stop motion of the nature described comprising a series of guide bars, a warp support rod, and a two piece

center brace for said guide bars pivotally mounted on said warp support rod.

5. A stop motion of the nature described comprising a series of guide bars, a warp support rod, a brace for said guide bars pivotally mounted on said rod, and a collar mounted on said arm and having an offset arm secured to said brace whereby said collar is spaced from said brace.

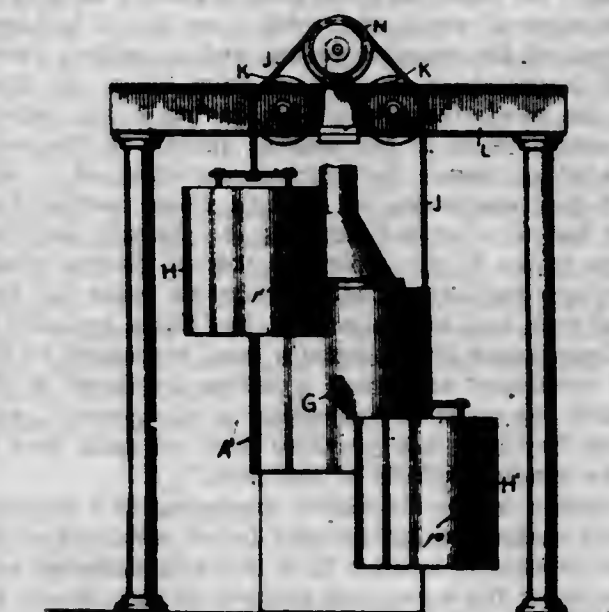
[Claims 6 to 9 not printed in the Gazette.]

1,078,407. LUBRICATING APPARATUS. CHARLES S. BAYIER, New York, N. Y. Filed Mar. 16, 1911. Serial No. 614,832. (Cl. 184-56.)



In a lubricating valve, the combination of a casing, a resistance valve therein, a valve stem E thereof, a lining J in said casing around said valve stem and adapted to form a constricted passage for lubricant, a ported sleeve C communicating with said lining J, and a filter H adapted to filter the lubricant before it enters said ported sleeve C, substantially as described.

1,078,408. APPARATUS FOR REFINING LEAD. JOSEPH FRANKLIN BEATTIE, Hammond, Ind. Filed Apr. 1, 1913. Serial No. 758,173. (Cl. 75-59.)

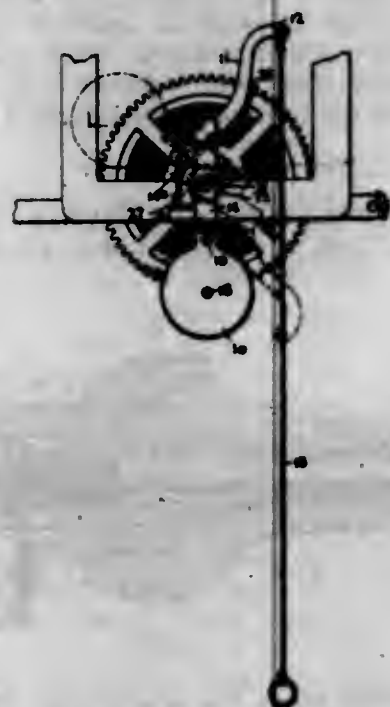


1. An apparatus for refining lead, comprising two stationary crystallizers, two movable kettles, and means for moving the kettles alternately into receiving position relative to one crystallizer and into transferring position relative to the other crystallizer.

2. An apparatus for refining lead, comprising two spaced and fixed crystallizers, a pair of transferring kettles arranged between the said crystallizers, and means to alternately raise and lower the said kettles, one into receiving position relative to one crystallizer and the other into transferring position relative to the other crystallizer.

3. An apparatus for refining lead, comprising two spaced and fixed crystallizers, a pair of transferring kettles arranged between the said crystallizers, an overhead frame to support a drum, a cable on the said drum and having the ends connected with the said kettles to raise one while lowering the other, and driving means for rotating the drum alternately in opposite directions.

1,078,409. CLOCK WINDING DEVICE. CLARENCE THEOPHILUS BERNHARDT, Salisbury, N. C. Filed Dec. 20, 1912. Serial No. 737,850. (Cl. 58-46.)



1. A winding means for clocks, consisting of a self-contained unit bodily attachable to the spindle of a clock-winding barrel behind the clock dial, said unit comprising a vertically-extending frame having a depending weight at its lower end, and a laterally offset arm at its upper end, the free end of the arm having means for the attachment of a pull string at a point to permit the pull string to drop clear at one side of the lower end of the frame, said frame between the weighted lower end and the laterally deflected arm at the upper end being open and presenting spaced cheek pieces having lateral arms at the side opposite the deflected upper arm, a gravity pawl of U-shape, the arms of which are freely hung in the last-mentioned arms of the winding frame, and a ratchet pinion journaled in the cheek pieces at a point below the arms carrying the pawl, the said pinion having a hub formed with an axial bore to fit the winding spindle of the clock.

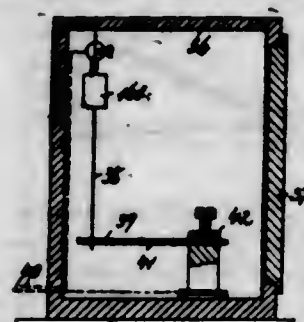
2. A winding means for clocks, consisting of a self-contained unit comprising an upright frame weighted at its lower end to counter-balance it, a laterally deflected arm of the frame at the upper end thereof, having means for receiving a pull string, additional arms below the first mentioned arm, and at the side of the frame opposite to said first-mentioned arm, a gravity pawl suspended in the said last mentioned arms, and a pinion journaled in the said frame below the point of suspension of the gravity pawl, said pinion having a hub provided with an axial bore to receive the winding spindle of the clock.

3. A winding means for clocks, consisting of a self-contained unit comprising an upright frame weighted at its lower end to counter-balance it, a laterally deflected arm of the frame at the upper end thereof, having means for receiving a pull string, additional arms below the first mentioned arm, and at the side of the frame opposite to said first-mentioned arm, a gravity pawl suspended in the said last-mentioned arms, and a stop for limiting the outward movement of the pawl in a direction away from the pendulous frame, the stop being carried by said frame and movable with the latter.

1,078,410. ALARM, SIGNALING, AND CONTROLLING DEVICE. EMIL HEINRICH BOCK, Berlin, Germany, assignor to Alfred Richter, Charlottenburg, Germany. Original application filed Oct. 17, 1911, Serial No. 655,163. Divided and this application filed Nov. 9, 1912. Serial No. 730,307. (Cl. 177-202.)

1. In a device of the class described, in combination, an elastically suspended weight, a needle of light mass secured thereto and depending therefrom, and an electrical contact member positioned adjacent the lower end of said

needle, said needle being adapted to vibrate relatively to said member whereby it will move into and out of contact therewith to make and break an electric circuit.



2. In a device of the class described, in combination, an elastically suspended weight, a needle of light mass secured thereto and depending therefrom, and an electrical contact member positioned adjacent the lower end of said needle, said needle being adapted to vibrate relatively to said member whereby it will move into and out of contact therewith to make and break an electric circuit, said member being adjustable with respect to said needle.

1,078,411. SIGHT FOR GUNS. OLOF BOECKER, Berlin-Wilmersdorf, Germany. Filed May 16, 1912. Serial No. 697,616. (Cl. 42-82.)



1. In a small arm the combination with the barrel, the front sight, and the rear sight, of rocking supports for said sights provided on the barrel and permitting automatic adjustment of the sights within a vertical plane, and means to rigidly connect said sights with each other.

2. In a small arm, the combination with the barrel, the front sight, and the rear sight, of rocking supports for said sights provided on the barrel and permitting automatic adjustment of the sights within a vertical plane, and a rod connecting said sights with each other.

3. In a small arm, the combination with the barrel, the front sight, and the rear sight, of rocking supports for said sights provided on the barrel and permitting automatic adjustment of the sights within a vertical plane, and a tubular rod connecting said sights with each other.

4. In a small arm, the combination with the barrel, the front sight, and the rear sight, of rocking supports for said sights provided on the barrel and permitting automatic adjustment of the sights within a vertical plane, and a rod located below the barrel and connecting said sights with each other.

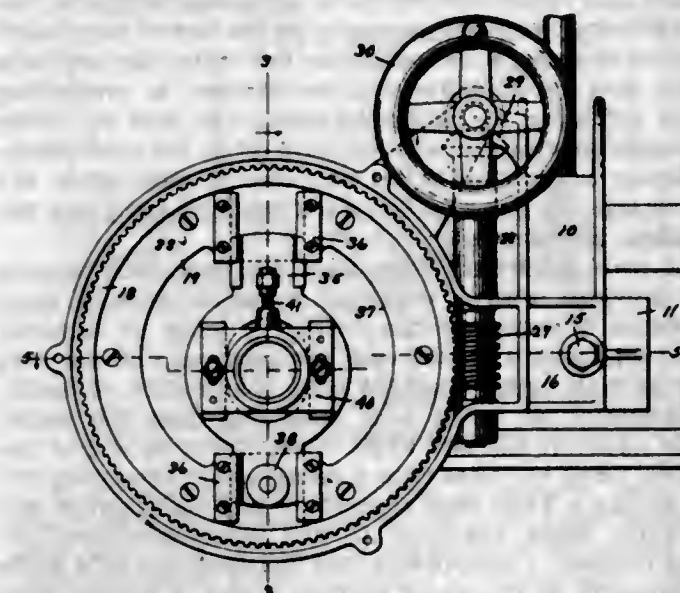
5. In a small arm, the combination with the barrel, the front sight, and the rear sight, of rocking supports for said sights provided on the barrel and permitting automatic adjustment of the sights within a vertical plane, a rod located below the barrel and connecting the sights with each other, and a weight secured to said rod.

[Claims 6 to 19 not printed in the Gazette.]

1,078,412. BLOWPIPE APPARATUS. WORTHY C. BUCKNAM, Jersey City, N. J., assignor to Davis-Bournonville Company, New York, N. Y., a Corporation of New York. Filed Jan. 23, 1913. Serial No. 743,768. (Cl. 75-90.)

1. The combination of a movable part having jet-delivering means, a guide adapted to confine said jet-de-

livering means to a circuitous non-circular path, and a driver mounted to rotate in fixed relation to a fixed axis for propelling said member along said guide.



2. Means for cutting non-circular openings in metal, comprising a suitable stationary support, a rotary member journaled thereon, a track or cam determining the outline of the opening, and gas-cutting means moved around by said rotary member under the guidance of the cam.

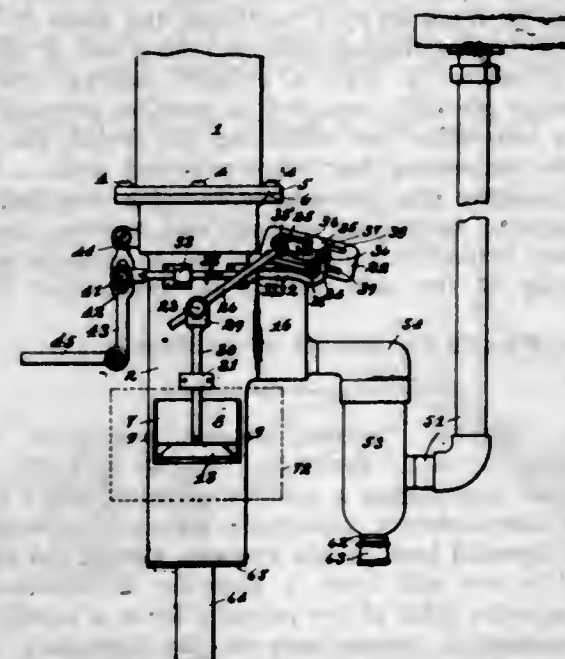
3. The combination of a rotary member mounted to rotate in fixed relation to a fixed axis, a stationary cam, and a torch support connected movably to said member and guided by said cam.

4. An apparatus of the character described, comprising a suitable stationary support, a guide, a member journaled on the support to rotate relatively to said guide, a part mounted on said rotary member and having a contact portion to travel along said guide so as to be moved thereby relatively to said rotary member as the latter turns, and jet-delivering means on said part.

5. The combination of a rotary driver, a cam, a part connected movably to said driver and having a contact portion to travel on said cam, and jet-delivering means on said part and spaced from the contact portion thereof, whereby the jet-delivering means is caused to travel in a predetermined path differing both from the outline of the cam and from the circular movement of the driver.

[Claims 6 to 27 not printed in the Gazette.]

1,078,413. CARBURETER. WILLIAM A. CAHILL, Syracuse, N. Y. Filed Aug. 12, 1908. Serial No. 448,155. (Cl. 48-154.1.)



1. In a carbureter of an explosive-engine, the combination of a vertically movable air-inlet valve opened by

suction and adapted to close by gravitation, a liquid-inlet valve, mechanism connecting said valve so as to cause the two valves to open and close simultaneously, and manually operated adjusting means connected to the said mechanism whereby the latter causes the liquid-inlet valve to close and allows the air inlet valve to operate independently of the liquid-inlet valve as set forth.

2. In a carbureter, the combination of an upright casing having a direct air-passage provided with an inlet-port, a tubular-valve movable longitudinally in the passage and opened by suction and adapted to close automatically, a liquid-feed connected to the casing, a valve controlling the feed of liquid, mechanism connecting the latter valve with the tubular valve whereby the two valves are adapted to open and close simultaneously, and manually operated adjusting means connected to said mechanism whereby said mechanism allows the air-inlet valve to operate independently of the other valve as set forth.

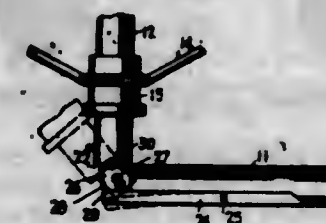
3. In a carbureter, the combination of an upright casing having a direct air-passage provided with an inlet-port, an automatically closing tubular valve movable longitudinally in the passage and controlled by suction for opening and closing said port, a liquid-inlet nozzle extending into the passage above the air-inlet port, a valve controlling the feed of liquid through the nozzle, mechanism connecting the liquid-inlet valve to the tubular-valve whereby said valves are adapted to open and close simultaneously, and adjusting means connected to the said mechanism for causing the latter to allow the liquid-inlet valve to close and the air-inlet valve to operate independently of the liquid-inlet valve as set forth.

4. In a carbureter, the combination of a casing having a main air-passage and an auxiliary air-passage and provided with a single inlet-port for the two passages, and provided with a liquid-inlet opening, a valve controlled by suction for opening and closing said port, a valve for regulating the feed of liquid through said opening, mechanism connecting the liquid-feed valve to the air-valve, and manually operated adjusting means connected to said mechanism for causing said mechanism to allow the liquid-feed valve to close independently of the air-valve.

5. In a carbureter, the combination of an upright casing having main and auxiliary air-passages and provided with one inlet-port for both passages, and provided with a liquid-inlet opening, a vertically movable valve lifted by suction to open the air-inlet port and adapted to drop automatically for closing the port, liquid-supply means communicating with said inlet-opening, a valve for controlling the feed of liquid, mechanism connecting the liquid-feed valve to the air-valve, and manually operated means connected to said mechanism whereby the latter allows the liquid feed valve to close independently of the air-valve as set forth.

[Claims 6 to 14 not printed in the Gazette.]

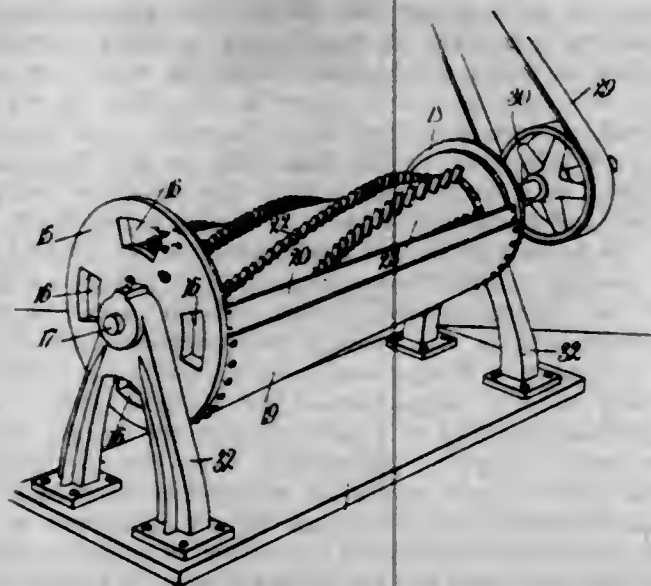
1,078,414. UMBRELLA. MARIO CARRAU, Montevideo, Uruguay. Filed Apr. 21, 1913. Serial No. 762,565. (Cl. 135-46.)



An umbrella rod formed of pivoted sections comprising a handle section, a tip section, and an intermediate section, there being on one section at each joint a plate spring disposed parallel with the said section, and the terminals of each of the adjacent sections presenting flat faces at right angles to each other, the one face being disposed longitudinally of the section and the other face transversely, to be engaged by said spring when the sections are turned on their pivots, the said adjacent sections furthermore presenting each a transverse shoulder parallel with the transverse flat face and normal to the

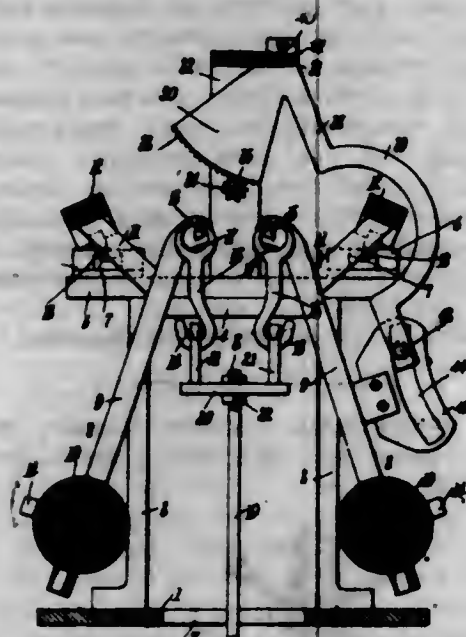
longitudinal flat face, said shoulder being adapted to bear against the end of the said plate spring when the sections are in alignment, there being a clearance recess concaved transversely of the section and directly adjacent to the said shoulder.

1,078,415. WOOD-GROUNDING MACHINE. HERMAN S. CHALFANT, Ballston Spa, N. Y. Filed Sept. 28, 1911. Serial No. 651,762. (Cl. 83-75.)



In a wood grinding machine of the character described, a rotary cylinder having a frusto-conical shape formed of half-sections structurally united, said cylinder being provided with a series of parallel undercut grooves extending around same; a plurality of abrasive teeth having holding extensions to pass under the overhang of said grooves; and means for rigidly securing said teeth in said grooves.

1,078,416. SCALE. ISRAEL CHARET, New York, N. Y. Filed Dec. 28, 1911. Serial No. 668,283. (Cl. 73-29.)



1. A scale head comprising bearings, each bearing being provided with a V-shaped recess, a movable lever comprising a major portion having a mass of material secured adjacent its outer end, the inner end of the said major portion being provided with knife-edge supports, an offset arm extending from the major portion, the outer end of the arm being provided with knife-edges, these said knife-edges engaging in the before-mentioned V-shaped recesses, a link engaging the knife-edge supports on the major portion, indicating mechanism, and a connecting bar for actuating the indicating mechanism and in slidable engagement with the said movable lever whereby swinging of the lever is transmitted to the indicating mechanism.

2. A scale head comprising bearings, each bearing being provided with a V-shaped recess, a movable lever having a

mass of material secured adjacent its outer end, the other end of the lever being provided with knife-edge supports, an offset arm extending from the lever, the outer end of the said arm being provided with knife-edge supports, the said knife-edge supports engaging in the before mentioned V-shaped recesses, a link engaging the knife-edge supports on the said lever, indicating mechanism, a connecting bar for actuating the said mechanism, the said bar being in movable engagement with the said lever, the said engaging means comprising a pin and slot so that when the lever swings the bar will be moved thereby, actuating the indicating mechanism.

3. A scale head comprising fixed bearings, each bearing being provided with a V-shaped recess, a movable lever comprising a major portion having a mass of material secured adjacent its outer end, the inner end of the said major portion being provided with a plurality of knife-edge supports, an offset arm extending from the major portion adjacent the said knife edges, the outer end of the said arm being provided with a transversely extending element having a knife edge support at each end thereof, the said knife edges engaging in the before-mentioned V-shaped recesses, a suspending link engaging the said knife edge supports on the major portion, a dial, a pointer moving over the dial, a spindle on which the pointer is mounted, a pinion on the spindle, a sector pivotally mounted in position and having a rack thereon, the rack engaging the pinion, together with a connecting bar actuating the said sector and in slidable engagement with the said major portion whereby swinging of the said portion is transmitted to the pointer.

4. A scale head comprising fixed bearings, each bearing being provided with a V-shaped recess, a movable lever comprising a major portion having a mass of material secured adjacent its outer end, the inner end of the said major portion being provided with a plurality of knife-edge supports, an offset arm extending from the major portion adjacent the said knife edges, the outer end of the said arm being provided with a transversely extending element having a knife edge support at each end thereof, the said knife edges engaging in the before-mentioned V-shaped recesses, a suspending link engaging the said knife edge supports on the major portion, a dial, a pointer moving over the dial, a spindle on which the pointer is mounted, a pinion on the spindle, a sector pivotally mounted in position and having a rack thereon, the rack engaging the pinion, a connecting bar actuating the rack, the other end of the bar being provided with a transversely extending pin, a fixed element provided with a slot secured to the said major portion, the said transversely extending pin engaging in the said slot whereby swinging of the said portion is transmitted to the pointer.

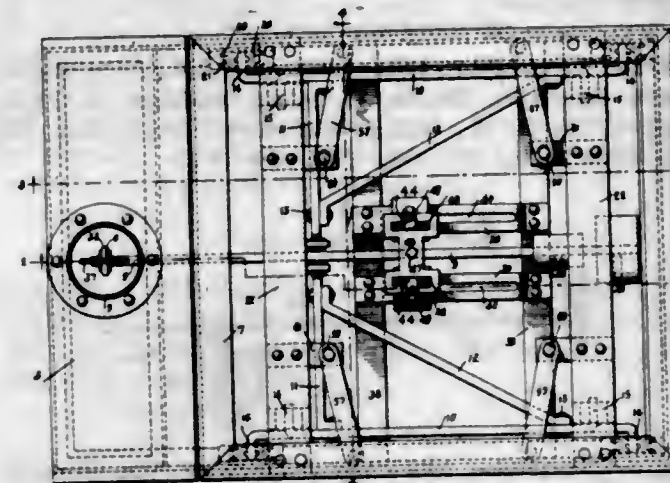
5. A scale head comprising a lever having an offset arm therefrom, the outer end of the lever having a mass of material secured thereto, the other end of the lever being adapted to be actuated by a platform, the mass of material and the lever swinging about the outer end of the said arm as a center, a dial, a pointer moving over the dial, a sector pivotally mounted in position actuating the pointer, a connecting bar actuating the sector, the outer end of the connecting bar being provided with a transversely extending pin, the said lever being provided with a fixed element having an arcuate slot therein, the said transversely extending pin engaging in the said slot whereby swinging of the said portion is transmitted to the pointer.

[Claims 6 to 10 not printed in the Gazette.]

1,078,417. SCALE. ISRAEL CHARET, New York, N. Y. Filed Aug. 15, 1912. Serial No. 715,185. (Cl. 73-121.)

1. A scale comprising a base, a primary lever, a plurality of independently adjustable supports between the lever and the said base, means whereby a draft rod may be connected to the said lever, a plurality of secondary levers on opposite sides of the primary lever, a plurality of pivotal supporting means between the secondary levers and the base, pivotal mounting means between the secondary levers and the said primary lever and positioned between one end of the said lever and the said supporting

means, a platform, and a plurality of pivotal supporting means between the platform and the said secondary levers.



2. A scale comprising a base, a primary lever, a plurality of independently adjustable knife edges between the said lever and the base, a plurality of secondary levers, each secondary lever comprising a framework, a plurality of knife edges carried by each secondary lever and engaging the said base, a platform, a plurality of knife edges between the platform and each of the said secondary levers, and a plurality of knife edges between the said secondary levers and the said primary lever.

3. A scale comprising a base, a primary lever pivotally carried thereby, the pivotal mounting comprising a plurality of independently adjustable knife edges, the said primary lever being provided with means whereby it may be connected to a draft rod, the said primary lever being also provided with a mass of material adjustably mounted in position, the said pivotal mounting of the lever being intermediate the point of application of the draft rod and the said mass of material, a plurality of independent secondary levers, knife edges between the secondary levers and the base, and other knife edges between the secondary levers and the primary lever and engaging the primary lever between the pivotal mounting thereof and the point of application of the said draft rod.

4. The improved means for adjustably mounting a lever in position in the base of a scale, comprising an element extending to opposite sides of the lever and adjustably secured thereto, a plurality of supports carried by the base, a plurality of U-shaped frames carried by the said element, the said frames being provided with knife edges engaging the said supports, each of the supports in each of the frames carrying the knife edges being independently adjustable.

5. A scale comprising a base, a primary lever, adjustable knife edges for supporting the lever on the base, secondary levers, knife edges for supporting the secondary levers on the base, a platform, knife edges for supporting the platform on the said secondary levers, and knife edges between the said secondary levers and the said ordinary lever.

[Claims 6 to 9 not printed in the Gazette.]

1,078,418. WHIFFLETREE-HOOK. HARRY C. COLGLAZIER, Larned, Kans. Filed July 22, 1913. Serial No. 780,441. (Cl. 21-79.)



1. A whiffletree hook, comprising a shank wedge-shaped in section, and a head having oppositely extending ends or prongs parallel with the shank.

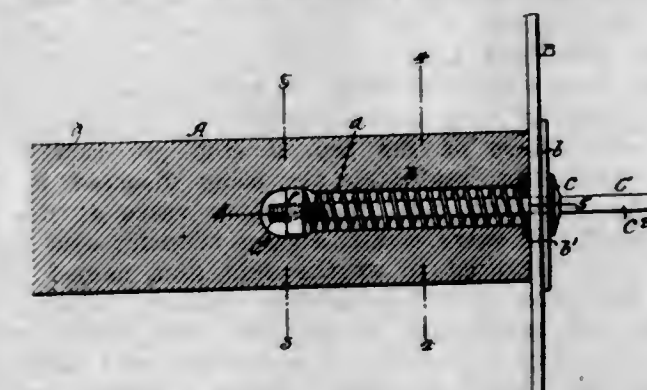
196 O. G.—29

2. A whiffletree hook adapted to engage the opening of the usual cockeye of a tug, comprising a shank, and a head having oppositely extending ends or prongs parallel with the shank, the distance between the outer edges of the shank and the head being slightly less than the length of the opening of the cockeye.

3. A whiffletree hook adapted to engage the usual cockeye of a harness tug, comprising a shank having a wedge-shaped outer side, and a head having oppositely extending prongs, the distance across the hook from the outer side of the shank to the opposite outer side of the head being slightly less than the length of the cockeye.

4. A whiffletree hook adapted to engage the usual cockeye of a harness tug, comprising a shank having a wedge-shaped outer side, and a head having oppositely extending prongs, the outer contour of the head conforming substantially to the larger end of the opening of the cockeye.

1,078,419. MEANS FOR SECURING HEADS TO SPOOLS. WILLIAM CRONIN, Philadelphia, Pa. Filed Jan. 19, 1911. Serial No. 603,527. (Cl. 242-124.)



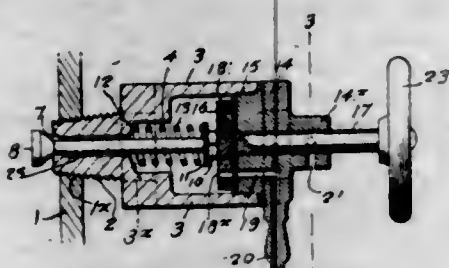
1. The combination in a spool, of a body portion having a longitudinal opening in one end thereof; a nut located at the inner end of the opening and prevented from turning in the spool; a disk head adapted to rest against the end of the body portion and having an opening; a threaded spindle having a flange bearing against the disk head, the spindle extending through the head and engaging the nut; and a coiled spring mounted between the nut and the disk head, whereby longitudinal stress is placed upon the spindle increasing the frictional bearing of the spindle in the nut and preventing the accidental loosening of the head, yet allowing the spindle to be removed, when necessary, without disturbing the nut.

2. The combination in a spool, of a body portion having a longitudinal opening in each end; a transverse opening communicating with the end of each longitudinal opening; a nut fitting snugly in the transverse opening in line with the longitudinal opening and prevented from turning therein by the walls of the opening; a permanent block inserted in the transverse opening so as to close said opening; a disk head resting against each end of the body portion; a threaded spindle adapted to each longitudinal opening and extending through the disk head and having a flange bearing against the outer surface of the disk head, the screw thread of the spindle meshing with the thread of the nut, the spindle extending beyond the head of the spool; and a coiled spring surrounding each spindle, one end of the coiled spring bearing against the nut and the other bearing against the disk head so that on turning the spindle to draw the disk head against the end of the body of the spool, the spring will be compressed and will exert sufficient pressure to prevent accidental turning of the disk head and the spindle.

1,078,420. WATER-GAGE COCK. DAVID DAVIES, Salt Lake City, Utah. Filed Dec. 20, 1912. Serial No. 787,854. (Cl. 136-3.)

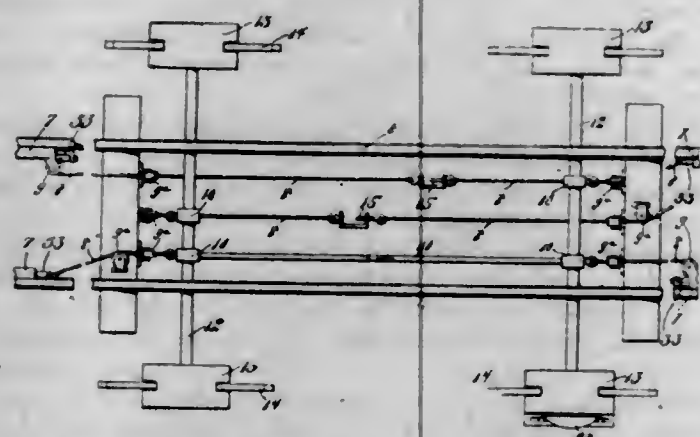
1. The combination with a boiler, of a gage cock comprising a valve casing arranged to be screwed into the wall of the boiler, a cap for said valve casing, a valve arranged to seat against said cap, an auxiliary valve at the

inner end of said valve casing, a valve stem for said auxiliary valve arranged to engage said first named valve when the latter is in its operative position, a spring for holding the valve stem against said first named valve, said cap being provided with a conduit, and said first named valve being provided with an opening arranged to register with said conduit, and means carried by said cap for rotating said valve to bring said opening and said conduit into registration.



2. The combination with a boiler, of a gage cock comprising a valve casing arranged to be screwed into the walls of the boiler, a cap for said valve casing having a central bore, and a slot extending laterally from said central bore, a valve arranged to seat against the cap, a valve stem for said valve arranged to extend through the central bore of the cap, a stop pin carried by said valve stem, said stop pin being disposed in the laterally extending slot, an auxiliary valve at the inner end of said valve casing, a valve stem for said auxiliary valve arranged to engage said first named valve when the latter is in its operative position, a spring for holding the valve stem against said first named valve, said cap being provided with a conduit, and said first named valve being provided with an opening arranged to register with said conduit, and a handle for turning the valve stem of the first named valve.

1,078,421. AUTOMATIC GATE FOR RAILWAY-CROSSINGS. FRANK K. DEKAN and AUGUST GLAUBER, Lorain, Ohio. Filed Mar. 11, 1913. Serial No. 753,603. (Cl. 39—35.)

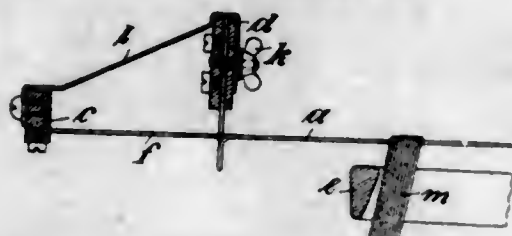


1. In an automatic railway gate, the combination of a tilting gate bar, a shaft, operating connections between the shaft and the gate bar, trip levers beside the track rails, at opposite sides of the crossing, slides mounted for lengthwise movement beside the rails, and having recesses into which the levers project, to shift the same when the levers are operated, and cable connections between the slides and the shaft.

2. In an automatic railway gate, the combination of a tilting gate bar, a rock shaft extending across the railway track, operating connections between the shaft and the gate bar, casings located beside the track rails on opposite sides of the crossing, a series of trip levers mounted in said casings and projecting in position to be struck by wheels on the track, slides mounted for lengthwise movement in the boxes and having recesses into which the levers project, said recesses being shaped to permit the levers to swing in one direction without operating the

slides, and to shift the slides when swung in the other direction, and cable connections between the slides and the rock shaft.

1,078,422. LINE SETTING AND CASTING MACHINE. JULIUS DORNETH, Berlin, Germany, assignor to Typograph G. M. B. H., Berlin, Germany. Filed Mar. 27, 1913. Serial No. 757,138. (Cl. 199—8.)



1. In a line setting and casting machine, the combination with the matrix bars having open eyes for suspension of the same, of elongated guide members adapted to have the matrix bars with their eyes suspended therefrom and each having a downwardly bent portion, and an upwardly extending portion, a supporting means for the upwardly bent ends of the guide members, and an interchanging frame comprising a plurality of elongated matrix carriers adapted to be brought with the matrix carriers in engagement with the bent portions of the guide members and into positions for receiving the matrix bars therefrom.

2. In a line setting and casting machine, the combination with the matrix bars having open eyes for suspension of the same, of elongated guide members adapted to have the matrix bars with their eyes suspended therefrom and each having a downwardly bent portion which is bent laterally and upward again, a support for the upwardly bent ends of the guide members above the main portions of the guide members, and an interchanging frame comprising a plurality of elongated matrix carriers and adapted to be brought with the matrix carriers in engagement with the bent portions of the guide members and into positions for receiving the matrix bars therefrom.

3. In a line setting and casting machine, the combination with the matrix bars having open eyes for suspension of the same, of a frame comprising elongated guide members adapted to have the matrix bars with their eyes suspended therefrom and each having a downwardly bent portion located below the rear end of the frame and bent laterally and upward again to the rear end of the frame and supported above the main portions of the guide members, and an interchanging frame adapted to be mounted at the rear of the frame carrying the guide members and comprising a plurality of elongated matrix carriers and adapted to be brought with the matrix carriers in engagement with the bent portions of the guide members and into positions for receiving the matrix bars therefrom.

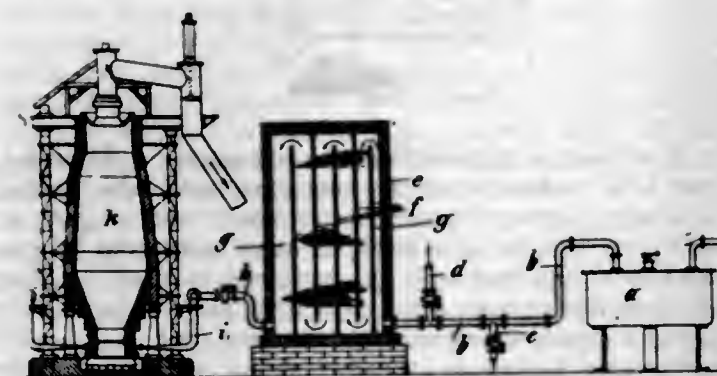
4. In a line setting and casting machine, the combination with the matrix bars having open eyes for suspension of the same, of elongated guide members adapted to have the matrix bars with their eyes suspended therefrom and each having a downwardly bent portion reduced in thickness to correspond to the openings of the eyes of the matrix bars, said guide members being then bent laterally and upwardly, a support for the upper ends of said guide members above the main portions of said members, and an interchanging frame comprising a plurality of elongated matrix carriers and adapted to be brought with the matrix carriers in engagement with the bent portions of the guide members and into positions for receiving the matrix bars therefrom.

5. In a line setting and casting machine, the combination with the matrix bars having open eyes for suspension of the same, of a frame comprising elongated guide members adapted to have the matrix bars with their eyes suspended therefrom and each having a downwardly bent portion reduced in thickness to correspond to the openings of the eyes of the matrix bars, and located below the rear end of the frame and bent laterally and upwardly again at a point below the reduced portion to the rear end of the

frame, a support for said upwardly extending ends of the guide members above the main portions of said members, and an interchanging frame adapted to be mounted at the rear of the frame carrying the guide members and comprising a plurality of elongated matrix carriers and adapted to be brought with the matrix carriers in engagement with the bent portions of the guide members and into positions for receiving the matrix bars therefrom.

[Claim 6 not printed in the Gazette.]

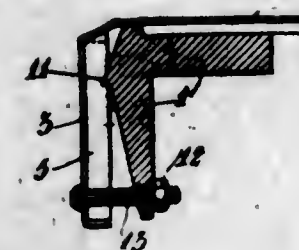
1,078,423. APPARATUS FOR OBTAINING NITROGEN FROM THE ATMOSPHERE. OTTO FRANK and OSKAR FINCKE, Berlin, Germany. Filed Feb. 10, 1912. Serial No. 676,845. (Cl. 23—10.)



1. An apparatus for obtaining nitrogen from the atmosphere, comprising a compressed air receptacle, an air tight receptacle, lined with copper, copper baffle plates mounted in the air tight receptacle, a body of copper supported in the receptacle, a pipe communicating with the boiler and the receptacle, a valve in the pipe, a steam inlet pipe communicating with the aforesaid pipe, a valve in the steam pipe, a furnace, a pipe communicating with the furnace and the receptacle and a valve in the latter pipe.

2. An apparatus for obtaining nitrogen from the atmosphere comprising a compressed air receptacle, a pair of air tight receptacles, each receptacle having a plurality of copper baffle plates mounted therein, a body of copper supported in each receptacle, a pipe communication leading from the boiler, branch pipes extending from said latter pipe and communicating with the pair of receptacles, a valve in each branch, a steam inlet pipe communicating with the pipe leading from the boiler, a valve in said steam pipe, a furnace, a pipe leading from the furnace, branch pipes leading from the latter pipe and communicating with the receptacles, and a valve in each of the latter branch pipes.

1,078,424. MEANS FOR STRETCHING A RESONANT PLATE OVER A FRAME. FRIDOLF FRANKEL, Stockholm, Sweden. Filed July 18, 1912. Serial No. 710,298. (Cl. 84—30.)

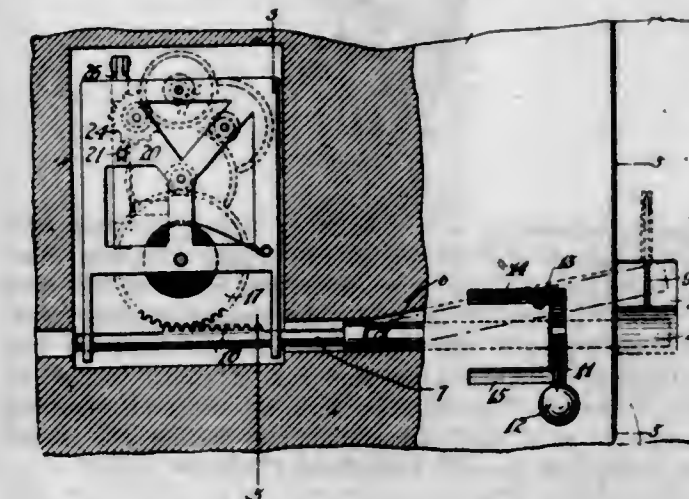


1. The combination of a resonant plate, a frame, a plurality of stretching levers fastened to the edges of the plate, means for attaching the stretching levers movably to the frame, and means for moving the stretching levers so as to stretch the plate.

2. The combination of a resonant plate, a frame, stretching levers fastened to the edges of the plate and fulcrumed on the frame, said resonant plate being fastened to the stretching levers, and means for moving the stretching levers so as to stretch the plate.

3. The combination of a resonant plate, a frame provided with an edge, stretching levers fastened to the edges of the plate and fulcrumed on the edge of the frame, said resonant plate being fastened to the stretching levers, and a screw passing through each stretching lever and the frame adapted to move the stretching lever so as to stretch the plate.

1,078,425. LOCK. ANDREW S. FRANKS, New York, N. Y. Filed Aug. 6, 1913. Serial No. 783,262. (Cl. 70—50.)



1. In a lock of the class described, a reciprocating bar formed with a rack, a pivotally mounted bolt connected with said bar, an operating pin connected with said bar and designed to swing the said bar, a gear wheel meshing with said rack when swung to a predetermined position by said pin, a motor for actuating said gear wheel, and a magnetically operated member for setting in motion said motor.

2. In a lock of the class described, a reciprocating bar formed with a rack, a bolt pivotally connected to one end of said bar, means arranged on said bolt for partially rotating the same and said rack, a gear wheel meshing with said rack when the rack is turned to a predetermined position, a motor for operating said gear wheel, a stop for holding said motor against operation, and a magnetically actuated means for moving said last-mentioned means.

3. In a lock of the class described, a bolt, a bar formed with a rack connected with said bolt, a gear wheel meshing with said rack, a motor for operating said gear wheel, a stop arranged to normally prevent the operation of said motor, a reciprocating bar carrying said stop, a pivotally mounted lever engaging said reciprocating bar, and a magnetic armature on one end of said lever adapted to be attracted by a magnet held in proximity thereto whereby said motor is released and said gear wheel is operated for withdrawing said bar.

4. In a lock of the class described, a bolt, a bar formed with a rack connected with said bolt, a gear wheel meshing with said rack, a motor for actuating said gear wheel, a stop for normally preventing the actuating of said motor, a pivotally mounted lever designed to move said stop so as to release said motor, a magnetically-operated pin designed to be moved into the path of movement of said lever and preventing such movement and thereby locking said lever against operation, and an armature arranged on said lever designed to be attracted by a magnet placed adjacent thereto when said pin is withdrawn.

1,078,426. PIPE-WRENCH. GEORGE M. GEALY, Grove City, Pa., assignor to Gealy Wrench and Manufacturing Company, Grove City, Pa., a Corporation of Pennsylvania. Filed Sept. 21, 1912. Serial No. 721,644. (Cl. 81—69.)

A pipe wrench comprising a pair of jaw plates having the outer portions thereof offset with respect to the inner portions, said offset portions having their outer edge notched to provide a jaw, the offsetting of said plates forming shoulders, an enlargement integral with the

inner face of each of said plates and flush with the shoulder of its respective plate, a hook-shaped support integral with the inner face of each of said plates and with one side of said enlargement and each having a portion flush with the shoulder of its respective plate, said supports of less thickness than said enlargements, said enlargements abutting against each other and provided with aligning openings and constituting means for spacing said plates, each of said plates at its inner portion formed with a lon-



gitudinally extending slot, means extending through said aligning openings and stay-bolts for fixedly securing these latter together, a cam lever mounted between the said bolts, means extending through said slots for loosely connecting the levers to the plates, said lever having its cam end provided with an apertured ear, a chain formed of pivoted links and having the link at one end pivotally connected to said ear, and said chain having the pivots at the outer end thereof projecting from the links.

1,078,427. PROCESS OF TREATING TOBACCO-SCRAP. CHRISTIAN FRIEDRICH GLOYSTEIN, Henderson, Ky., assignor to American Nicotine Company, Henderson, Ky., a Corporation of Kentucky. Filed Apr. 8, 1912. Serial No. 689,414. (Cl. 187-4.)

1. The process of treating tobacco scrap which consists in mixing therewith a soda solution, evaporating the solution from the wet material in a vacuum drier and condensing the vapors to permit the recovery of the nicotine contained therein, whereby the tobacco material while yielding its nicotine, is recovered dry and in substantially its original condition as to its valuable fertilizer properties, substantially as described.

2. The process of treating tobacco scrap which consists in mixing therewith to a point not materially in excess of saturation, a soda solution, evaporating the solution from the wet material and condensing the vapors to permit the recovery of the nicotine contained therein, whereby the tobacco material, while yielding its nicotine, is recovered dry and in substantially its original condition as to its valuable fertilizer properties, substantially as described.

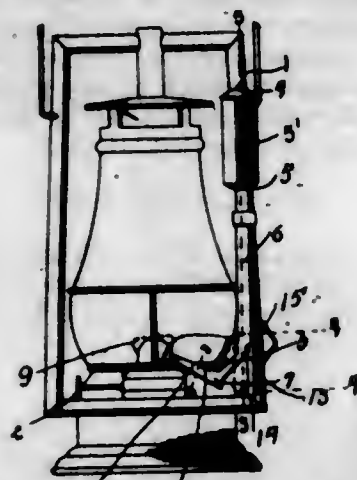
3. The process of treating tobacco scrap which consists in mixing therewith to a point not materially in excess of saturation, a soda solution in the proportions of about 3 parts by weight of solution to 2 parts by weight of scrap, drying the mixture and condensing the vapors given off during drying so that the nicotine carried off therewith may be recovered, while the tobacco material is recovered in substantially its original condition as to its valuable fertilizer properties, as described.

4. The process of treating tobacco scrap which consists in mixing therewith to a point not materially in excess of saturation, a 1½% to 2% soda solution in the proportions of about 3 parts by weight of solution to 2 parts by weight of scrap, drying the mixture and condensing the vapors given off during drying so that the nicotine carried off therewith may be recovered, while the tobacco material is recovered in substantially its original condition as to its valuable fertilizer properties, as described.

1,078,428. LIGHTING DEVICE. GEORGE C. GOODER, Stanton, Mich. Filed Feb. 21, 1913. Serial No. 749,903. (Cl. 67-11.)

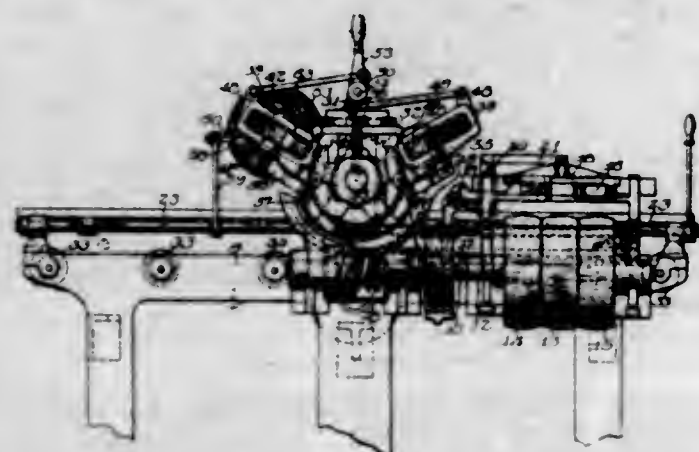
1. A lighting device for lanterns comprising a feed tube, a pair of bars formed upon the lower end of the tube, an igniting tube supported by the bars and adapted to be positioned adjacent the lantern wick, a match receptacle

pivotally connected to the lower end of the feed tube, whereby when the same is forced toward the igniting tube the match will enter said tube and be ignited.



2. A device for lighting lanterns comprising a magazine, a feed tube leading from the magazine, said tube having a cut-away portion formed in its lower end, a pair of downwardly spaced and inclined arms connected to the lower end of the feed tube, an upwardly inclined igniting tube connected to said arms, said igniting tube having its upper end arranged adjacent the lantern wick, and a cut-away portion formed in its lower end, a match receptacle pivotally connected to the lower end of the feed tube and adapted to receive a match therefrom when swung outwardly, whereby a match is adapted to swing from the cut-away portion in the feed tube to the cutaway portion in the igniting tube so that when the receptacle is forced inwardly the match will be ignited by the igniting tube.

1,078,429. MATRIX-FORMING MACHINE. SAMUEL G. GOSS, Glencoe, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 18, 1911. Serial No. 668,177. (Cl. 198-3.)



1. In a matrix-forming machine, the combination of a reciprocable bed adapted to hold a chase of type, a rotary impression cylinder adapted to co-act with said bed in pressing a matrix upon said type, a blanket passing partially around said impression cylinder, a drum about which one end of said blanket is wound adapted to be rotated by contact through said blanket with said cylinder, and a second drum about which the other end of said blanket is wound in the reverse direction adapted to be rotated by its contact through said blanket with said cylinder.

2. In a matrix-forming machine, the combination of a reciprocable bed adapted to hold a chase of type, a rotary impression cylinder adapted to co-act with said bed in pressing a matrix upon said type, a blanket passing partially around said impression cylinder, a drum about which one end of said blanket is wound, said drum with the blanket thereon being yieldingly pressed against said impression cylinder whereby it is rotated thereby, and a second drum about which the other end of said blanket is wound in the reverse direction, said second-named drum with the blanket thereon being also yieldingly pressed

against said impression cylinder whereby it is rotated thereby.

3. In a matrix-forming machine, the combination of a reciprocable bed adapted to hold a chase of type, a rotary impression cylinder adapted to co-act with said bed in pressing a matrix upon said type, blanket-carrying means frictionally operated from said impression cylinder adapted to reciprocate a portion of a blanket back and forth with said bed, and means for disengaging the friction devices from the cylinder during a single movement of said bed in one direction, whereby said blanket may be shifted relative to said bed so that a fresh portion of the blanket may be reciprocated in contact with the bed.

4. In a matrix-forming machine, the combination of a reciprocable bed adapted to hold a chase of type, a rotary impression cylinder adapted to co-act with said bed in pressing a matrix upon said type, blanket-carrying means adapted to reciprocate a portion of a blanket back and forth with said bed, and means for rendering inoperative said blanket-reciprocating means during a single movement of said bed in the reverse direction a fresh portion of said blanket is moved into position for use.

5. In a matrix-forming machine, the combination of a reciprocable bed adapted to hold a chase of type, a rotary impression cylinder adapted to co-act with said bed in pressing a matrix upon said type, blanket-carrying means adapted to reciprocate a portion of a blanket back and forth with said bed, a lever by a stroke of which in one direction said blanket-reciprocating means is thrown out of operation, a spring-actuated catch adapted to hold said blanket-reciprocating means out of operative position, and means for automatically throwing off said catch upon the movement of said bed in one direction.

(Claims 6 to 14 not printed in the Gazette.)

1,078,430. RESILIENT WHEEL FOR MOTOR-CARS AND THE LIKE. JOHN ELPHINSTONE GRAHAM, Battersea Park, and GEORGE WALLACE, London, England. Filed Sept. 30, 1912. Serial No. 723,230. (Cl. 152-10.)



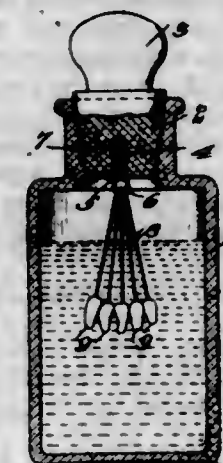
1. A tire for vehicle wheels comprising a pair of side plates secured to the wheel rim, and providing a trough therewith, a tube located within said trough, a plurality of blocks supported by said tube, a band overlying said blocks, a plurality of tread blocks mounted on said band, a pair of side plates engaging with said tread blocks and the band and securing all of said blocks and said band in spaced relation, and a tread band mounted upon and secured to said tread blocks.

2. A tire for vehicle wheels comprising a pair of side plates secured to the wheel rim and providing a trough therewith, an inflatable tube located within said trough, a band overlying the tube and having its side edges disposed between the tube and the side plates, a plurality of blocks mounted on said band, means securing said blocks in spaced relation, a band overlying said blocks, a plurality of tread blocks overlying the second named band, a pair of side plates engaging with said tread blocks, the second named band and secured to the first named side plates, and a tread band mounted on said tread blocks.

1,078,431. SANITARY HOLDER FOR SHADE-GUIDES. GARRETT L. GRIER and FRANK L. GRIER, Milford, Del. Filed Jan. 21, 1913. Serial No. 743,332. (Cl. 35-12.)

1. In a sanitary holder for shade guides, a receptacle for containing water, a series of shade guides, and means for

suspending said shade guides in the water in said receptacle, said suspending means constituting a common handle for said shade guides.



2. In a sanitary shade guide holder, a receptacle for containing water, a series of shade guides, means for pivotally securing said shade guides together, means for suspending said pivotal means to permit the immersion of the shade guides in the water in the receptacle, and a closure for said receptacle adapted to surmount said shade guides when the latter are immersed in water.

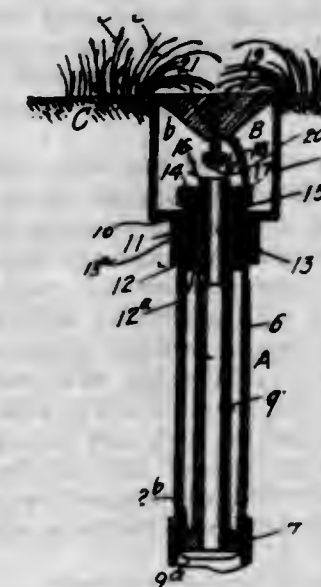
3. In a sanitary shade guide holder, a covered receptacle for containing water, a series of shade guides pivotally secured together, means for suspending said shade guides in the water, in said covered receptacle, and a common handle for the series of shade guides, said common handle also serving as a closure for the receptacle.

4. A sanitary shade guide holder comprising a receptacle for containing water, a plurality of strips pivotally secured together and bearing cement samples at their lower ends, and a stopper for said receptacle, the pivotal support of said strips being secured to said stopper.

5. A sanitary shade guide holder comprising a receptacle for containing water, a plurality of strips bearing cement samples at their lower ends, a ring for suspending the said strips, a stem secured to said ring, a stopper for the mouth of said receptacle provided with a bore on its under side adapted to receive said stem, and means for retaining said stem within the bore.

(Claim 6 not printed in the Gazette.)

1,078,432. LAWN-SPRINKLING DEVICE. JOHN S. HADEN, Huntington Park, Cal., assignor of one-half to Frederick H. Johnson, South Pasadena, Cal. Filed June 13, 1911. Serial No. 632,967. (Cl. 137-65.)

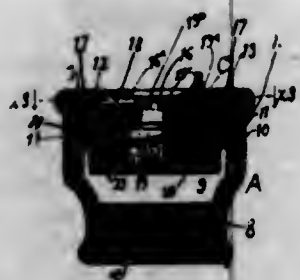


1. A device of the character described, comprising a tubular body, a tubular casing having a depending nipple with and within which the upper end of the tubular body has threaded connection, a second nipple providing a valve seat and having threaded connection with said first-named nipple above the upper end of said tubular body, and a

tubular stem slidable within said second nipple and having a valve head formed to coact with said valve seat.

2. A device of the character described, comprising a tubular body, a tubular casing having a depending nipple with and within which the upper end of the tubular body has threaded connection, a second nipple providing a valve seat and having threaded connection with said first-named nipple above the upper end of said tubular body, and a tubular stem slidable within said second nipple and having a valve head formed to coact with said valve seat; said tubular stem being provided at its upper end with a water directing portion normally chambered within the tubular casing.

1,078,433. SPRINKLER. JOHN S. HADDEN, Huntington Park, and FREDERICK H. JOHNSON, South Pasadena, Cal. Filed Aug. 22, 1912. Serial No. 716,525. (Cl. 137-86.)



1. A device of the character described, comprising a casing provided with a discharge opening, a member within the casing adjustable toward and away from the discharge opening, said member having spaced peripheral flanges threaded to the casing, and a peripheral helical passage being provided in the adjustable member between the flanges, through which passage water may be passed to said discharge opening.

2. A device of the character described, comprising a casing provided with a discharge opening, a member within the casing adjustable toward and away from the discharge opening, said member having spaced peripheral flanges threaded to the casing, and a helical passage being provided in the adjustable member between the flanges, through which passage water may be passed to said discharge opening; and means for varying the amount of water traversing said passage.

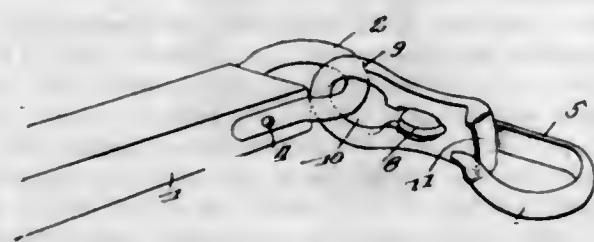
3. A device of the character described, comprising a casing, a tubular body threaded into the casing and provided with a head having a discharge opening, and a member threaded within the tubular body and adjustable toward and away from the discharge opening and comprising a cylindrical body provided with projecting helical spaced walls producing helical passages through which water may be passed to said discharge opening said passages having spaced outlet openings; in combination with a shutter rotatable upon said cylindrical body and having vanes adapted to partly or wholly close or entirely clear said outlet openings.

4. A device of the character described, comprising a casing, a tubular body threaded into the casing and provided with a head having a discharge opening, and a member threaded with the tubular body and adjustable toward and away from the discharge opening and comprising a cylindrical body provided with projecting helical spaced walls producing helical passages through which water may be passed to said discharge opening said passages having spaced outlet openings; in combination with a shutter rotatable upon said cylindrical body and having vanes adapted to partly or wholly close or entirely clear said outlet openings, said cylindrical body terminating in a truncated conical portion presented to said discharge opening.

1,078,434. WHIFFLETREE-HOOK. OTTAR BERG HAGA, Seattle, Wash., assignor of one-half to John Vathe, Seattle, Wash. Filed May 1, 1913. Serial No. 764,786. (Cl. 24-242.)

1. A whiffle-tree hook comprising a plate having a slot extending longitudinally thereof, said slot being restricted

intermediate the ends thereof, the portion of the slot on one side of the restriction being of greater width than the portion on the other end, and a hook comprising a shank having at one end a hook and at the other a lateral lug for passing through the slot of the plate, said lug being of a width to pass the restricted portion of the slot and having a head of greater width than the narrow portion of the slot to prevent lateral movement of the hook when the lug is in the said narrow portion, the plate having a lateral flange extending toward the bill of the hook for engagement by a trace or tug to prevent disengagement of the said trace or tug from the hook.



2. A whiffle-tree hook comprising a plate having a longitudinal slot and adapted to engage a whiffle-tree, said slot being restricted in width intermediate its end and the portion on one side of the restriction being of greater width than the portion on the other side, and a hook for engagement by a trace or tug, said hook having a lateral lug extending through the slot and of a width to pass the restricted portion of the slot, the lug having a head on the opposite side of the plate of greater width than the narrow portion of the slot to prevent lateral movement of the hook, said plate having means at its outer end for preventing disengagement of the trace or tug from the hook.

3. A whiffle-tree hook comprising a plate having a longitudinal slot, a hook for engagement by a trace, said hook having a lateral lug extending through the slot of the plate and provided with a head on the opposite side of the plate from the hook, said slot being restricted intermediate its ends and being of less width at one end than at the other, said extension being of a width to pass the restricted portion of the slot, said portion of lesser width being enlarged adjacent to the restricted portion to permit the hook to rock laterally with respect to the plate within limits, the bill of the hook overlying the opposite face of the plate at the outer end thereof, and the plate having a lateral flange extending toward the bill.

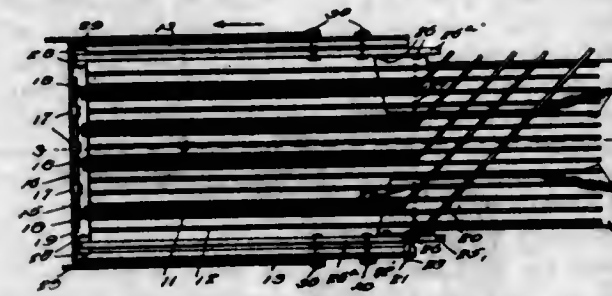
4. A whiffle-tree hook comprising a plate having a longitudinal slot, a hook for engagement by a trace, said hook having a lateral lug extending through the slot of the plate and provided with a head on the opposite side of the plate from the hook, said slot being restricted intermediate its ends and being of less width at one end than at the other, said extension being of a width to pass the restricted portion of the slot, said portion of lesser width being enlarged adjacent to the restricted portion to permit the hook to rock laterally with respect to the plate within limits, and means on the plate for preventing disengagement of a trace or tug.

5. A whiffle-tree hook, comprising a plate having a longitudinal slot, said slot being restricted intermediate its ends and being of greater width on one side of the restriction than on the other side, a hook comprising a shank and a bill, the shank extending on one face of the plate and the bill on the opposite face, said shank having a lateral lug extending through the slot and provided with a head on the opposite face of the plate from the shank of greater width than the narrow portion of the slot, the lug being of a width to pass the restriction, said plate having a lateral flange extending toward the bill at the end adjacent to the narrow portion of the slot.

1,078,435. POTATO-DIGGER. THOMAS E. HALE, Caribou, Me. Filed Oct. 26, 1912. Serial No. 728,015. (Cl. 55-54.)

1. The combination with a potato digger including a frame, of a plurality of potato top tines having laterally extending end portions, a common support to which the

tines are secured, and means detachably connecting the common support with the frame.



2. The combination with a potato digger comprising a frame, of a plurality of potato top tines provided with laterally extending end portions, a transverse bar attached to the opposite ends of the tines, and securing elements connected with the frame to detachably hold the transverse bar in place upon the frame.

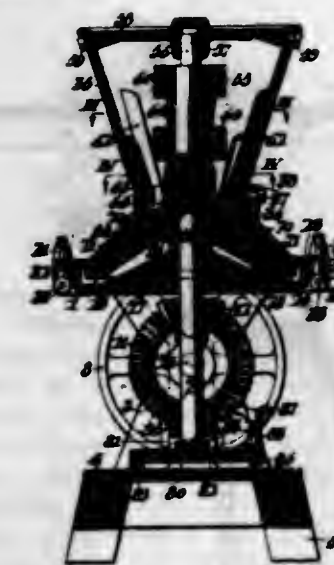
3. The combination with the frame of a potato digger, of a plurality of potato top tines provided with laterally extending end portions, a transverse bar connected with the opposite ends of the potato top tines, downwardly bent tongues connected with the frame and adapted to receive the transverse bar therebelow, and upstanding blocks connected with the frame and provided with recesses to receive the tines, whereby the tines are securely held in place upon the frame and may be detached therefrom, for the purpose specified.

4. The combination with a transverse bar, of a plurality of potato top tines secured thereto and provided with laterally extending portions, and readily detachable means to connect the transverse bar with the machine upon which the tines are mounted, whereby the tines may be reversed so that their laterally extending end portions will deliver the tops to opposite sides of the machine.

5. The combination with the frame of a potato digger, of a transverse bar, a plurality of tines provided with laterally extending end portions and connected at their opposite ends with the transverse bar, means for detachably connecting the transverse bar with the transverse portion of the frame, a potato top tine to cooperate with the first named tines, and means whereby the potato top tine may be detachably connected with either of the longitudinal portions of the frame.

[Claims 6 to 9 not printed in the Gazette.]

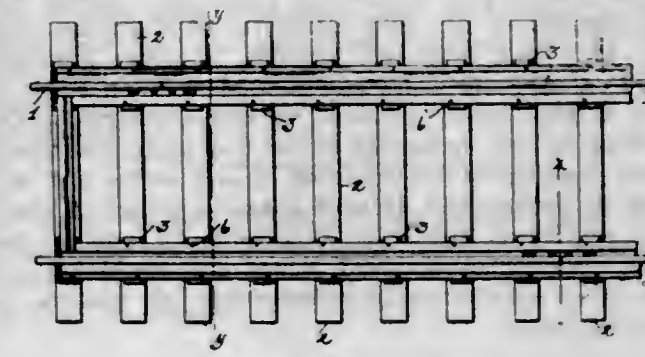
1,078,436. DRUG-MILL. EDWARD H. HANCE, Philadelphia, Pa., assignor to Hance Brothers & White, Philadelphia, Pa., a Copartnership composed of Edward H. Hance and Anthony M. Hance. Filed Dec. 1, 1908. Serial No. 465,567. (Cl. 83-13.)



In a conical plate drug mill, the combination of a hopper provided with its inner surface with vertically extending ribs of varying lengths, the longer ribs alternating with the shorter ribs, and extending above the same, a bell connected with the hopper, a cone located in the bell and extending into the hopper, said cone and bell having

oppositely disposed serrations, and said cone having cutting blades cooperating with said longer and shorter ribs at their lower ends, and a separate crushing member located above said cone, and mounted to rotate in axial relation with said cone and hopper, said crushing member having means co-acting initially with the longer ribs, and subsequently with the shorter and longer ribs, as the material to be crushed passes down the hopper.

1,078,437. STEAM OR ELECTRICAL STREET-RAILWAY GRADE-CROSSING. MARTIN EMMETT HARRISON, Parnassus, and HENRY D. MCCUTCHEON, Pittsburgh, Pa. Filed Feb. 8, 1913. Serial No. 746,992. (Cl. 104-14.)

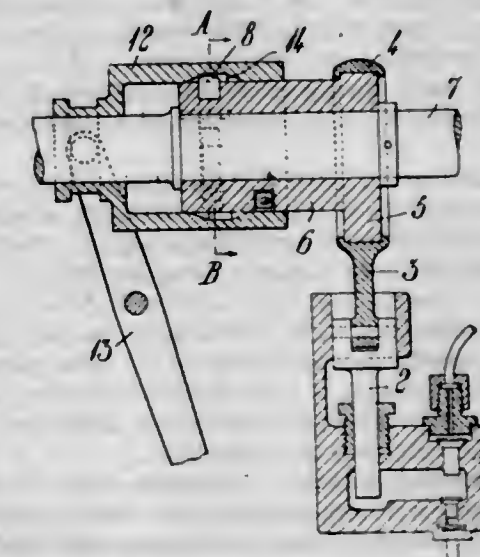


1. In a railroad crossing, an outside guard rail and an inside guard rail each of channel form, said guard rails disposed edge-wise with their webs adjacent to and their open or channel sides away from the rail, and a supporting flange projecting from the web of the inside guard rail intermediate the upper and lower edges of said web.

2. In a railway crossing such as described, a channel-shaped outside guard rail and a channel-shaped inside guard rail, said guard rails disposed on opposite sides of a railway rail with their webs adjacent to the rail and the open or channel side away from the rail, and a supporting flange located between the upper and lower edges of the web of the inside guard rail, said flange having a cut away portion, for the purpose described.

3. In a railway crossing, a channel-shaped outside guard rail and a channel-shaped inside guard rail, said rails disposed on opposite sides of a railway rail with their channel sides open, and a tread member carried by the inside guard rail and having a supporting flange.

1,078,438. FUEL-PUMP FOR INTERNAL-COMBUSTION ENGINES. KNUT JONAS ELIAS HESSELMAN, Stockholm, Sweden. Filed Mar. 29, 1913. Serial No. 757,581. (Cl. 123-139.)



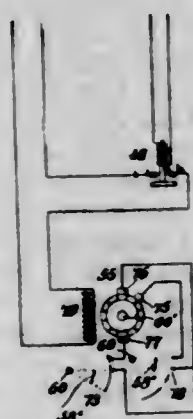
1. The combination with a fuel pump for internal combustion engines of the kind set forth, of a driving shaft, means for transmitting motion to the fuel pump, two

clutching devices serving to connect said driving shaft and said means for imparting motion to the fuel pump, each of said clutching devices being capable to act only in one direction of rotation of said shaft, and means for putting either of said clutching devices into and at the same time the other out of operative position, substantially as and for the purpose set forth.

2. The combination with a fuel pump for internal combustion engines of the kind set forth, of a driving shaft formed with two tooth-like notches, a sleeve rotatably mounted on the said shaft, means for imparting motion from said sleeve to the fuel pump, two pawls pivotally mounted in said sleeve and each adapted to engage one of said notches, and means for putting either of said pawls into and at the same time the other out of operative position, substantially as and for the purpose set forth.

3. The combination with a fuel pump for internal combustion engines of the kind set forth, of a driving shaft formed with two tooth-like notches, a sleeve rotatably mounted on the said shaft and formed with an eccentric portion, a ring loosely mounted on said eccentric portion and having an arm connected to the fuel pump, two spring actuated pawls pivotally mounted in said sleeve and each adapted to engage one of said notches, a second sleeve capable of being displaced longitudinally and formed with an annular groove, and means for displacing said second sleeve longitudinally, substantially as and for the purpose set forth.

1,078,430. REPULSION-MOTOR-CONTROL SYSTEM. CHARLES B. HOFFMANN, Cincinnati, Ohio. Filed June 19, 1911. Serial No. 634,065. (Cl. 172-237.)



1. The combination with a repulsion motor; of means to control the circuit of one of the elements of said motor; and means controlled by the movement of the rotor of said motor to vary the electrical connections of the other of said elements to hold the rotor in predetermined position.

2. The combination with a repulsion motor; of means to control the circuit of one of the elements of said motor; and means controlled by the movement of the rotor of said motor to vary the electrical connections of the short-circuited element to hold the rotor in predetermined position.

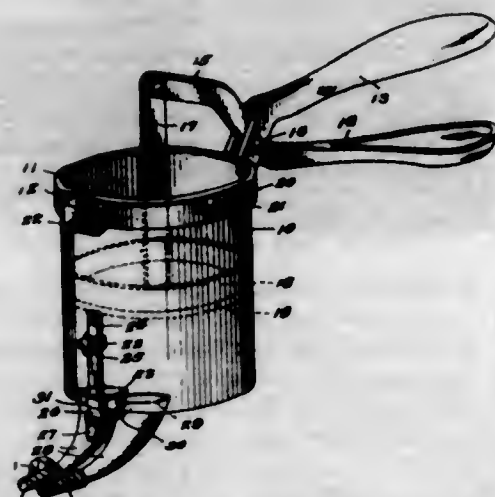
3. The combination with a repulsion motor; of means to control the circuit of one of the elements of said motor and means controlled by the movement of the rotor of said motor to open the short-circuited element of said motor.

4. The combination with a repulsion motor; of means to open the short-circuited element of said motor; and means to short-circuit a predetermined number of coils of the said short-circuited element to hold the rotor of the motor in predetermined position.

5. The combination with a repulsion motor; of means to open the short-circuited element of said motor; a normally open auxiliary circuit connected with said short-circuited element; and means operated by the movement of the rotor of said motor to close the said auxiliary circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,078,440. PUTTY-DISPENSING DEVICE. MAURICE I. JACOBS, Brooklyn, N. Y. Filed Mar. 1, 1913. Serial No. 751,593. (Cl. 18-3.5.)



1. In a putty dispenser, a container, spouts adjustably secured thereto, means for maintaining said spouts in any desired adjustment and an adjustable supporting means carried by said container.

2. In a putty dispenser, a container, adjustable spouts carried thereby, means for maintaining said spouts in any desired adjustment, a supporting means carried by said container, an operating means detachably carried by said container.

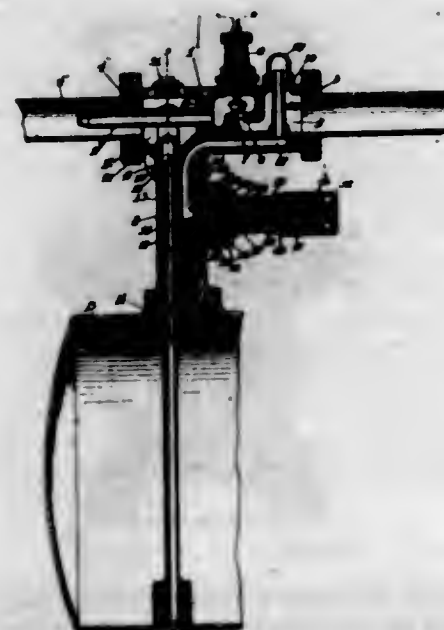
3. In a putty dispenser, a container, distributing spouts adjustably secured thereto, adjustable supporting means carried by said container, a follower in said container and means for operating said follower.

4. In a putty dispenser, a container, distributing spouts adjustably secured thereto, adjustable supporting means carried by said container, a follower in said container, a ring detachably secured to said container, a handle formed on said ring and a coacting handle fulcrumed thereto for operating said follower.

5. In a putty dispenser, a container, spouts adjustably secured thereto, an adjustable support for said container, a follower in said container, handles detachably secured to said container and one of said handles operating the follower in its movement with respect to the other of said handles.

[Claims 6 and 7 not printed in the Gazette.]

1,078,441. AUTOMATIC REGULATOR FOR GASOLINE-BURNERS. FRANCIS A. JOHNSON, Kansas City, Mo. Filed Dec. 17, 1912. Serial No. 737,323. (Cl. 158-50.1.)



1. An automatic regulator for gasoline burners, comprising a hollow body having an air inlet chamber, and an air passage leading from the chamber, an interiorly

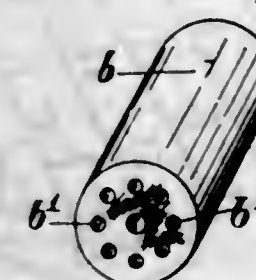
positioned air nozzle spaced from the wall of the body to form a gasoline chamber, said nozzle communicating with said air passage; an adjustable air valve controlling said passage between the air inlet chamber and nozzle, a neck provided with a gasoline supply passage leading to said gasoline chamber, an air duct leading from the air inlet chamber through said neck, a self-regulating air pressure valve interposed in said air duct, and an air inlet tube protecting the receiving end of the air duct.

2. An automatic regulator for gasoline burners, comprising a hollow body having an air inlet chamber, and an air passage leading from the chamber, an interiorly positioned air nozzle spaced from the wall of the body to form a gasoline chamber, said nozzle communicating with said air passage; an adjustable air valve controlling said passage between the air inlet chamber and nozzle, a neck provided with a gasoline supply passage leading to said gasoline chamber, an air duct leading from the air inlet chamber through said neck, a self-regulating air pressure valve interposed in said air duct, an air inlet tube protecting the receiving end of the air duct, and a dome-shaped cap extending over said tube.

3. An automatic regulator for gasoline burners, comprising a hollow body having an air inlet chamber, and an air passage leading from the chamber, an interiorly positioned air nozzle spaced from the wall of the body to form a gasoline chamber, said nozzle communicating with said air passage; an adjustable air valve controlling said passage between the air inlet chamber and nozzle, a neck provided with a gasoline supply passage leading to said gasoline chamber, a check valve controlling said passage, an air duct leading from the air inlet chamber through said neck, and a self-regulating air pressure valve interposed in said air duct.

4. An automatic regulator for gasoline burners, comprising a hollow body having an air inlet chamber and an air passage leading from the chamber, an interiorly positioned air nozzle spaced from the wall of the body to form a gasoline chamber, said nozzle communicating with said air passage; an adjustable air valve controlling said passage between the air inlet chamber and nozzle, a neck provided with a gasoline supply passage leading to said gasoline chamber, an adjustable needle valve controlling the flow of gasoline from said passage to the said gasoline chamber, an air duct leading from the air inlet chamber through said neck, and a self-regulating air pressure valve interposed in said air duct.

1,078,442. BLASTING. THOMAS JOHNSON, Dudley, England. Filed Nov. 25, 1911. Serial No. 662,485. (Cl. 102-5.)



1. In a tamping or stemming plug composed of argillaceous shale, forming the primer plug with longitudinal passages substantially as and for the purpose specified.

2. A stemming or tamping plug for blasting openings formed of a solid shaped mass of homogeneous material adapted to soften when wet, and to subsequently set hard, said plug being provided with openings, substantially as and for the purpose set forth.

3. A tamping plug formed by grinding argillaceous shale, molding the same, and drying the molded plug.

1,078,443. DRESS-SHIELD. LULU LOUISE JUST, La Salle, Ill. Filed Sept. 25, 1912. Serial No. 722,250. (Cl. 2-34.)

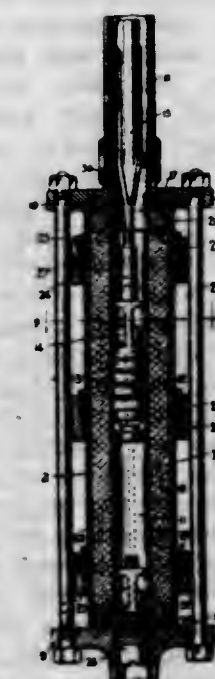
A dress shield, comprising a moisture-proof body piece having opposite sides united to form a curved ridge to

extend around the arm of the wearer; a loose outer piece to cover said body piece, said outer piece having a pocket opening to register with said curved ridge; and a pad having a straight folded upper edge the ends whereof ex-



tend between said body piece and said outer piece, the folded edge of said pad being exposed and protruding above said curved ridge, said pad being longer than the pocket opening of said outer piece, to be retained in position thereby.

1,078,444. PUMP WORKING BARREL. JOHN FRANKLIN KILBURN, El Paso, Tex., assignor of one-half to George E. Wallace, El Paso, Tex. Filed Feb. 27, 1913. Serial No. 750,985. (Cl. 103-59.)

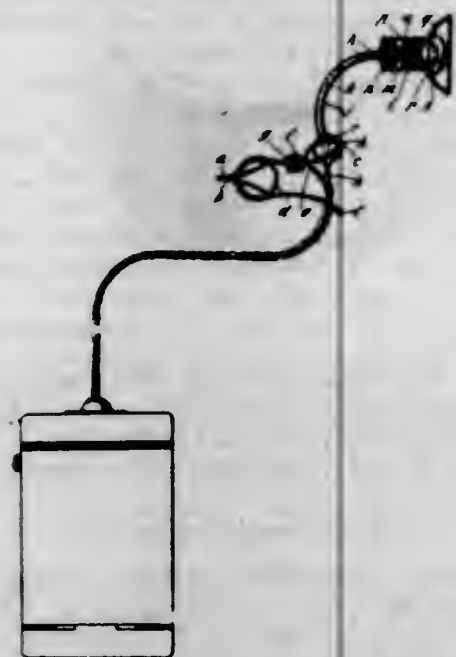


1. In a working barrel for pumps, the combination of a cylinder, a pair of heads having hubs bearing against the respective ends of the cylinder, a shell longer than the cylinder and surrounding the cylinder and said hubs, plastic packing between the shell and hubs and the cylinder, means to grip the shell around the cylinder, and means to draw the heads toward each other into binding contact with the ends of the cylinder, substantially as set forth.

2. In a working barrel for pumps, the combination of a cylinder, a shell surrounding the cylinder, and means to secure the shell detachably in position, said securing means comprising a pair of rings, one of said rings being split and provided with an external thread and the other ring being rigid and provided with an internal thread for cooperation with the external thread aforesaid, substantially as set forth.

3. In a working barrel for pumps, the combination of a cylinder, a shell surrounding the cylinder, and means to secure the shell detachably in position, said securing means comprising a pair of rings, one of said rings being tapered and having smooth ends and also having an external thread between such smooth ends, and the other ring being provided with an internal thread cooperating with said external thread of the other ring, substantially as set forth.

1,078,445. PORTABLE ELECTRIC READING-LAMP. SAMUEL JOSEPH LEVI, THOMAS ARCHER ROSE, and ALFRED HENRY ROSE, London, England. Filed Apr. 16, 1913. Serial No. 761,496. (Cl. 240—59.)



1. A portable electric lamp adapted to be clamped to various articles, comprising a lamp bracket, a lamp on said bracket, a spring clamp having two spring-pressed members, a handle on each of said members, a ball and socket joint connecting said lamp bracket with one of said members, the ball of said joint being mounted on said lamp bracket and adapted to seat in an aperture formed in one of said handles, and an apertured leaf spring secured to said handle and adapted to hold said ball in the first-named aperture.

2. A portable electric lamp adapted to be clamped to various articles, comprising a tubular lamp bracket, a screwed socket on said bracket, a lamp in said socket, said lamp having a pair of terminals in electric connection with the filament of said lamp, one of said terminals being centrally arranged at the base of said lamp and the other consisting of a screwed sleeve adapted to be screwed into said socket and to make electrical connection therewith, a spring clamp having two spring-pressed members, a handle on each of said members, a ball and socket joint connecting said tubular lamp bracket with one of said members, the ball of said joint being provided with oppositely arranged apertures through which said tubular lamp bracket passes and in which said bracket is secured and said ball being adapted to seat in an aperture formed in one of said handles, an apertured leaf spring secured to said handle and adapted to hold said ball in the first-named aperture, a pair of electric conductors, one of which passes through said tubular lamp bracket and terminates in a head adjacent the central terminal of said lamp and the other of which is electrically connected with said screwed socket, said pair of electric conductors being in electrical connection with a source of electrical energy.

1,078,446. COLLAPSIBLE CORE-BAR. ALBERT H. LEWIS, New Comerstown, Ohio, assignor of one-third to Charles R. Starker and one-third to Charles C. Starker, New Comerstown, Ohio. Filed June 3, 1913. Serial No. 771,469. (Cl. 22—173.)

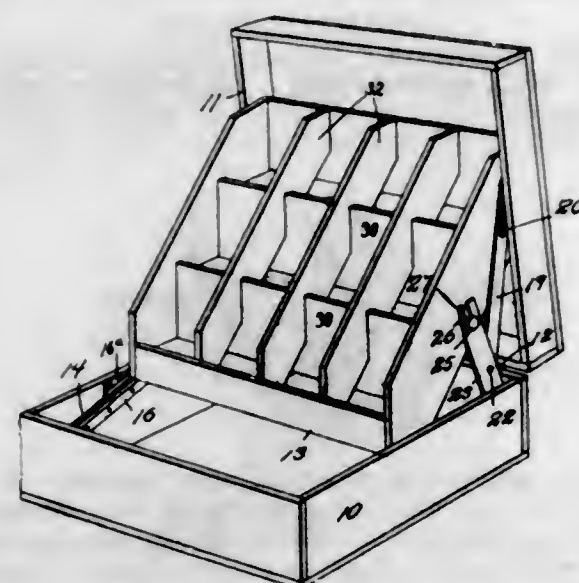
1. The combination with a body having opposite downwardly-tapered sections and opposite upwardly-tapered sections, one pair of sections being movable with respect to the other, of a stem disposed within the group of body sections, movable latches carried by said stem and arranged to hold one pair of body sections against movement, collars movable on the stem in the direction of the length thereof and connected with said pair of sections, means for moving the latches and the collars in the order named, and means connecting the other pair of body sections with the stem.

2. The combination with a body comprising opposite downwardly-tapered sections and opposite upwardly tapered sections alternating with the downwardly tapered sections, one pair of sections being movable with respect to the other, of a stem disposed within the group of sections, sleeves movable endwise on the stem and normally resting on supports carried thereby, said sleeves having lower and upper flanges, and the upper sleeve having diametrically opposite slots registered with a diametrical



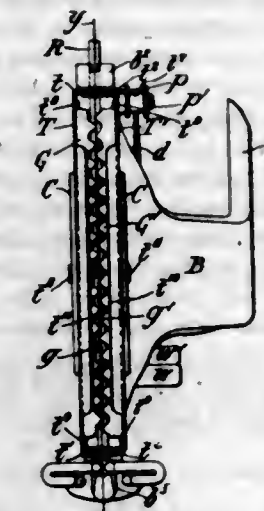
slot in the stem, links connecting the lower flanges of the sleeves with opposite body sections, swinging latches connected with the stem and bearing against the inner sides of the other body sections, collars movable on the sleeves, connections between the collars, devices carried by and movable vertically independently of the upper collar and connected with the latches, resilient latches fixed to the stem and movably arranged in the slots of the stem and upper sleeve and having heads disposed above the upper sleeve.

1,078,447. DISPLAY-CASE. HOWARD N. LINES, Sabetha, Kans. Filed Aug. 3, 1912. Serial No. 713,097. (Cl. 206—45.)



A display case, comprising a body, a hinged cover thereon, and a separate tray, links having at one end a slot and pin connection with the said cover, levers pivoted between their ends to the opposite ends of said links, the said levers being pivoted at one end to the body, the opposite ends of the levers having slots extending through the extreme ends thereof, and pins extending through said slots into the tray, the body having guide slots at the forward end inclining upwardly and rearwardly, and laterally projecting pins on the front end of the tray, near the bottom, the pins being movable in the said guide slots.

1,078,448. TENSION DEVICE. WILLIAM MARCROFT, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed May 22, 1912. Serial No. 699,002. (Cl. 242—153.)



1. In a tension-device, the combination with two tension-plates arranged to press upon the yarn running between them, of rectangular grid-members of vitreous material secured to the inner faces of the tension-plates and arranged to present opposite bearing surfaces to the yarn.

2. In a tension-device, the combination with two tension-plates arranged to press upon the yarn running between them, of grid-members constructed of vitreous material and formed with transverse ribs projecting from their opposed faces and means to secure said grids to the inner faces of the tension-plates.

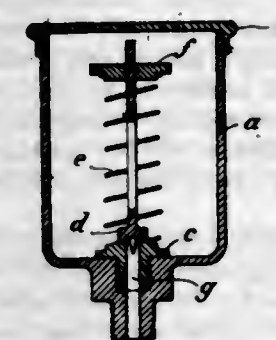
3. In a tension-member for tension-devices, the combination with a plate T having portions folded over along its edges, and a grid G adapted to lie against the face of the plate with its edges engaged by the folded portions of the latter to hold it in position thereon.

4. In a tension-member for tension-devices, the combination with a plate T having abutments t^1 , t^2 along its top and bottom edges and a folded strip t^{10} along its outer edge, of a grid G adapted to be held against the face of the plate with its upper and lower edges engaging the abutments t^1 , t^2 , and its outer edge lying under the strip t^{10} , and means to secure the grid in position on the plate.

5. In a tension-member for tension-devices, the combination with a plate T having portions of its top and bottom edges folded over to form abutments t^1 , t^2 , and a portion t^{10} of its outer edge folded over at an angle to its face, of a grid G adapted to be held on the plate with its top and bottom edges engaging the abutments t^1 , t^2 and its outer edge lying under the folded portion t^{10} , and a spring clamp arranged to secure the rear edge of the grid to the plate.

[Claims 6 to 8 not printed in the Gazette.]

1,078,449. LUBRICATING DEVICE. HEINRICH MARTIN, Laibach, Austria-Hungary. Filed Jan. 2, 1913. Serial No. 739,744. (Cl. 184—69.)



A lubricating device comprising a cup provided with a valve seat, a valve formed to uniformly engage said seat and provided with an upright stem, a weight mounted adjacent the upper end of the stem and a helical spring

having an end secured to the valve seat and an end secured to the weight and tending to seat the valve, the valve being displaced from its seat by the concussions of the machine to which the lubricating device is applied and the weight causing the displacements of said valve to be of oscillatory character and proportionate to the force of the concussions.

1,078,450. CARTRIDGE-CARRIER. PAUL D. MCCLINTOCK, Clearwater, Kans. Filed Aug. 5, 1912. Serial No. 713,499. (Cl. 42—49.)



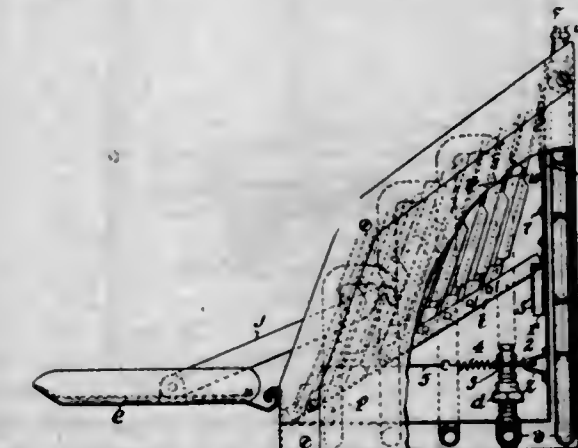
A cartridge carrier comprising a tube formed from spring metal, said tube being closed at one end and slotted at the other end to form spring fingers, a projection on the interior of one spring finger for the purpose specified, and means on said carrier for attaching it to a weapon all substantially as set forth in the annexed specification.

1,078,451. SELF-CLEANING CURRYCOMB. JAMES J. MINICH, Blessing, Tex. Filed Nov. 16, 1912. Serial No. 731,730. (Cl. 119—88.)



A self-cleaning curry comb comprising a rigid fork, U-shaped members arranged in spaced parallel relation and having their medial portions fixed to the said fork and forming comb teeth, a flat scraper plate having slots receiving the U-shaped members, an inverted U-shaped bail straddling the fork and having its ends extended beyond the U-shaped members and fixed to the plate, a resilient member arranged above the said fork and loosely connected to the ball and movable toward and away from the fork, the said ball being of a size to permit the movement of the plate outwardly to the ends of the comb teeth, and a handle united with the fork and the resilient arm, the longer edges of the slot being struck out to project outwardly in convergent relation to each other at an angle to the comb teeth.

1,078,452. BILL-FILE. WILLIAM MOLENAAR, Paterson, N. J. Filed Mar. 8, 1912. Serial No. 682,345. (Cl. 48—2.)



1. The combination of an inclined support t , a series of upstanding bill holder members attached thereto, a case receiving said support and having a back, the upper end

of said support resting against said back and said case limiting forward movement of the support, and a clip pivoted to said back on an axis substantially perpendicular thereto and normally standing upright and having its lower end releasably holding the upper end of said support to said back and its other end projecting upwardly above said series of bill-holder members and serving as a means to turn the clip on its pivot out of engagement with the support, substantially as described.

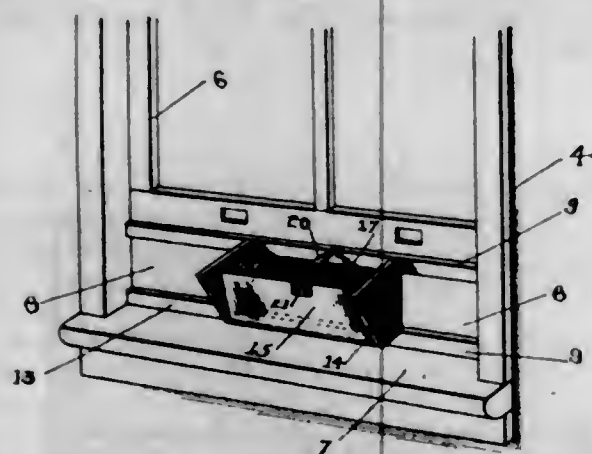
2. The combination of a series of upstanding bill-holder members arranged face to face and pivoted on parallel axes in their lower portions, means for supporting said series of bill-holder members, said means limiting backward pivotal movement thereof, a substantially U-shaped yoke having its extremities projecting forwardly and respectively attached to the side portions of the foremost bill-holder at a point above its pivot, and elastic means, connecting said yoke with a part of the supporting means back of said bill-holder members, normally exerting a pull on said yoke toward said part of the supporting means, substantially as described.

3. The combination of a case closed at the bottom, back and sides and open forwardly and a cover member pivoted on a horizontal axis at the front side of and to the case, the case and cover member having interlocking hinge portions and the cover member being slidable longitudinally of its axis of movement on the hinge member of the case into separated relation to the latter, substantially as described.

4. The combination, with a suitable support, substantially flat forward and rear bill holder members pivoted therein face to face and each formed of sheet material, a spur projecting forwardly from the rear bill holder member to pierce and thereby hold against movement in their own planes the bills to be filed, the forward bill holder member having rearwardly projecting lateral gages preventing sidewise movement of a bill placed between them, and elastic means normally holding the front bill holder member pressed back against the rear bill holder member, substantially as described.

5. The combination, with a suitable support, substantially flat forward and rear bill holder members pivoted therein face to face and each formed of sheet material, horizontal gaging means for the lower edge of the bill to be filed projecting from one of said members toward the other, the forward bill holder member having rearwardly projecting lateral gages preventing sidewise movement of said bill when placed between said members, and elastic means normally holding the front bill holder member pressed back against the rear bill holder member, substantially as described.

1,078,453. WINDOW-VENTILATOR. ADAM B. MOON, Mercer, Pa. Filed Dec. 4, 1912. Serial No. 734,997. (Cl. 98—3.)

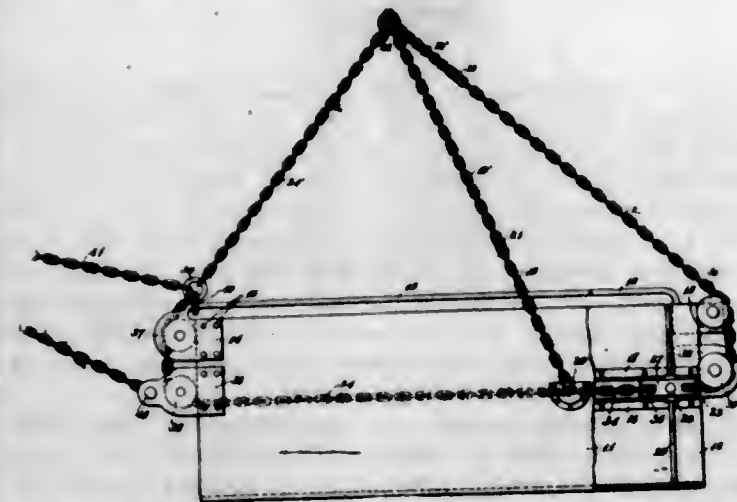


1. A ventilating device, comprising a partition board having an opening therethrough and adapted to be inserted beneath a window sash, a hood attached to the rear of said board, a screen section covering the rear of said opening, members secured to the front of said board and flanking the opening therein, a deflecting mem-

ber pivotally connected between said members, and a screen member hingedly connected to the rear of said deflecting member.

2. A ventilating device, comprising a partition board having an opening therethrough and adapted to be inserted beneath a window sash, a hood attached to the rear of said board, a screen section covering the rear of said opening, members secured to the front of said board and flanking the opening therein, a deflecting member pivotally connected between said members, a screen member hingedly connected to the rear of said deflecting member, and means connecting said deflecting member with said board whereby the deflecting member may be adjusted at varying angles thereto, for the purpose set forth.

1,078,454. SELF-CLEANING DRAG-SCRAPER BUCKET. MATHEW H. MORSE, Algiers, La. Filed June 17, 1913. Serial No. 774,164. (Cl. 37—54.)



1. In a device of the character set forth, the combination of a bucket including a bottom and side walls, guiding means extending along said walls, a scraper co-operating with said guiding means and movable over the bottom of the bucket longitudinally thereof, draft means to cause the bucket to fill, hanger means to support the main portion of the bucket and its load, and a bridle connected to the scraper both in the front and the rear thereof, said bridle being guided over the ends of the bucket and connected to the hanger mechanism.

2. In a device of the character set forth, the combination of a bucket, brackets at the ends of the bucket, a scraper extending transversely of the bucket and movable longitudinally therein from one end of the bucket to the other, chains attached to the scraper and extending thence over the brackets at the ends of the bucket, hanger mechanism secured to the bucket adjacent one end thereof, said chains being connected to the hanger mechanism above the brackets, and draft means for the end of the bucket opposite said hanger mechanism, a portion of said draft means being connected to the scraper chains.

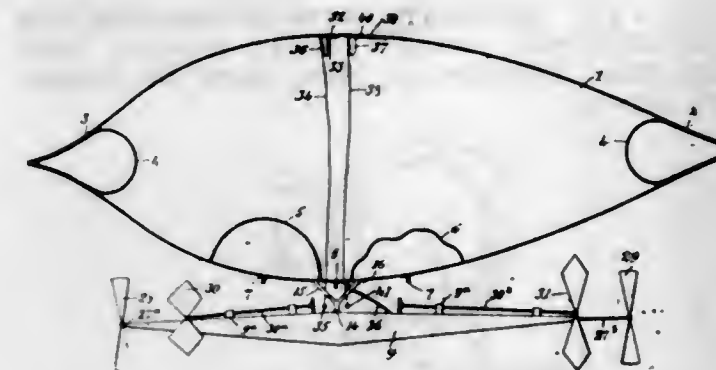
3. In a device of the character set forth, the combination of a bucket, a scraper extending across the interior of the bucket and movable from one end thereof to the other, a guide rail secured to the top of the bucket and extending parallel thereto, main supporting devices for the bucket connected adjacent one end thereof, draft means for the opposite end of the bucket, a bridle including flexible devices connected to the front and rear portions of the scraper and extending thence to the ends of the bucket and thence to the supporting devices, and a link connected to the bridle and slidable along said guide rail.

4. In a device of the class set forth, the combination of a bucket, self-acting scraping means within the bucket, supporting devices for the bucket attached adjacent one end thereof, guide means extending along the top of the bucket, flexible connections extending from the front and the rear of the scraping means, thence over the ends of the bucket and thence to the supporting devices, and a slide associated with the guiding means and connected to said flexible devices whereby, when the bucket is sup-

ported upon the supporting devices, said slide will move along said guiding means and cause the operation of the scraping devices.

5. In a self-cleaning excavator bucket, the combination of a substantially rectangular bucket proper having a bottom and side walls, a scraper within the bucket and conforming to the space between the side walls, antifriction devices journaled upon the ends of the side walls, chains connected to the front and rear portions of the scraper and extending thence over and around said antifriction devices, guiding means secured along the upper edges of the side walls, slides movable along said guiding means, certain of said chains being connected to said slides, supporting devices connected adjacent one end of the bucket, said chains being connected above the bucket to the supporting devices whereby, when the bucket tilts with respect to the supporting devices, said chains will cause the reciprocation of the scraper over the bottom of the bucket, and draft means connected to the bucket.

1,078,455. AIRSHIP. CARL EDGAR MYERS, Frankfort, N. Y. Filed Apr. 8, 1908. Serial No. 425,942. (Cl. 244—6.)



1. An airship having a gas bag tapered at each end, and provided with non-collapsible heads likewise tapered to points, and of spherical form at the inner parts, said heads serving to brace and reinforce said gas bag at the extremities, and forming stiffeners for the wall of the gas bag near the ends thereof.

2. In an airship a gas bag, a body carried thereby, and an aeroplane rudder carried by said body and rotatable into a plurality of positions, said rudder being freely movable bodily in the direction of the length of its axis of rotation to affect gravitationally the equilibrium of the airship.

3. In an airship a gas bag, a body supported thereby, shafts carried by said body, one at each side of the center of balance of the airship, said shafts being rotatable and being freely movable bodily in the directions of their lengths to affect gravitationally the equilibrium of the ship, said shafts having means permitting their manipulation, and aeroplane rudders rigidly connected with said shafts.

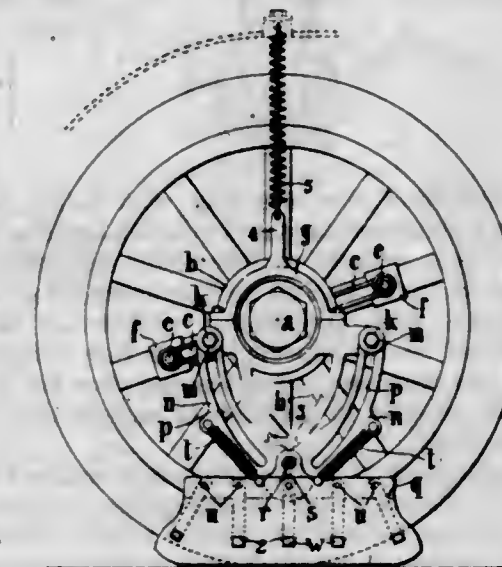
1,078,456. MUD-GUARD. CHARLES HILLYARD NICHOLS, Wolverton, England. Filed Oct. 31, 1912. Serial No. 728,922. (Cl. 21—23.)

1. A wheel-fender comprising a member revolvably attached to the wheel, means for yieldingly maintaining said member in a position of rest, a frame mounted for oscillation on said member, a guard mounted on said frame for independent oscillation thereabout, and means to bring said guard to rest after oscillation has been set up therein.

2. A wheel fender comprising a wheel-attaching member, a second member revolvably mounted over said first-named member and having arms projecting therefrom, pivots carried by the arms, a frame having slots therein engaging over said pivots whereby said frame is mounted to oscillate about either pivot, and a guard depending from said frame.

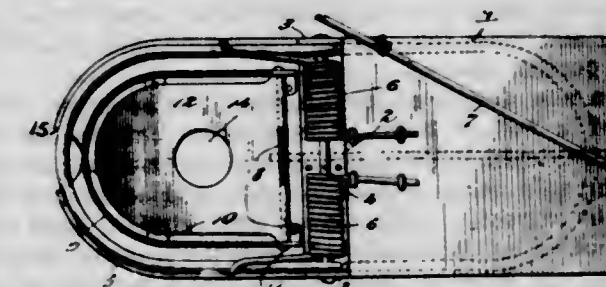
3. A wheel fender comprising a wheel-attaching member, a second member revolvably mounted over said first-

named member and having arms projecting therefrom, pivots on said arms, a frame having slots therein engaging over said pivots whereby said frame is mounted to oscillate about either pivot, a guard pivoted on said frame, and a spring arranged between said frame and said guard to either side of the pivot.



4. A wheel fender comprising a wheel-attaching member, a second member revolvably mounted over said first-named member and having a plurality of arms radiating therefrom, two of said arms being diametrically opposed and of unequal length, pivots projecting from said arms, a frame having arcuate slots therein engaging over said pivots whereby said frame is mounted to oscillate about either pivot, a guard pivotally hung from said frame, springs arranged between said frame and said guard to either side of the pivot, and a spring arranged between the remaining arm on said second-named member and the vehicle body.

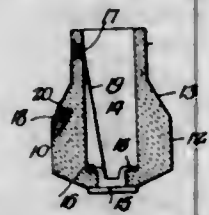
1,078,457. ANIMAL-TRAP. FRANCIS M. NOLDER, West-boro, Ohio. Filed Apr. 8, 1913. Serial No. 759,736. (Cl. 43—21.)



1. An animal trap comprising a base, a spring actuated jaw of substantially U form mounted upon the base, means for holding the jaw set against the tension of its operating spring and including a locking lever, a platform and catch, a breaker rim comprising a strip bent into substantially U form and having apertured lugs and having its end portions apertured, said breaker rim being arranged upon the base intermediate of the jaw and platform, means for securing the breaker rim to the platform through the instrumentality of the apertured lugs, and other means for pivotally connecting the trigger to the rear ends of the breaker rim.

2. An animal trap comprising a base, a plate secured to the base and having upstanding apertured ears, a U shaped jaw, a rod pivotally connecting the jaw to the upstanding ears of the plate, a helical spring mounted upon the rod and engaging the jaw and base, a U shaped breaker rim having its upper edge toothed and secured to the base, a trigger comprising a platform and upstanding catch arranged within the breaker rim and pivoted thereto, and a locking lever pivotally connected to the base and adapted to extend over the jaw when the trap is set and engage the catch to hold the jaw against the tension of the spring arranged to co-operate therewith.

1,078,458. FUSE-PLUG. HENRY T. PAISTE, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 8, 1911. Serial No. 864,157. (Cl. 175-277.)



1. The combination in a fuse plug, of a hollow body; a terminal and a structure having a contact surface on said body; with a fuse capsule of insulating material removably mounted in the body and having an inclined surface formed to co-act with the contact surface on the said body; a terminal on the capsule; and a fuse permanently connected to the terminal and extending over the inclined surface of the capsule in position to engage the contact surface of the body.

2. The combination in a fuse plug of a hollow body; a cap thereon; a threaded shell extending into the body and having an inclined surface; a capsule loosely mounted in the shell and having a terminal with a fuse permanently connected to the terminal and having a portion on the outer surface of the capsule in position to engage the inclined surface of the shell.

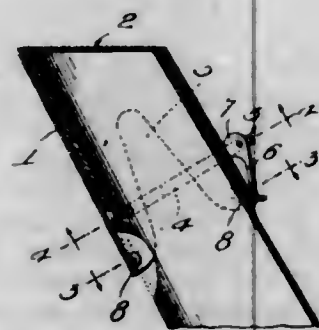
3. The combination in a fuse plug of a hollow body having a terminal and a contact surface; a fuse capsule of insulating material loosely mounted in the body and having an inclined surface; a terminal and a conductor carried by the capsule and permanently connected together; said conductor extending over the inclined portion of the capsule in position to engage the contact surface of the body and including a part designed to fuse at a predetermined temperature.

4. As a new article of manufacture, a fuse capsule consisting of a hollow body of insulating material open at one end and having a single exterior contact at the other end; with a conductor including a fuse permanently connected to the end contact and extending through the hollow portion of the capsule, said fuse passing through the wall of the capsule at a point spaced away from the open end and from the outside surface of said capsule to the side portion thereof.

5. As a new article of manufacture, a fuse capsule consisting of a hollow body of insulating material in the form of two cylindrical sections and an inclined section connecting said other sections; a terminal contact at one end of the capsule; with a fuse connected to said contact extending longitudinally through the capsule, through an opening in the side thereof and over a portion of the inclined exterior surface of the capsule.

[Claims 6 to 11 not printed in the Gazette.]

1,078,459. STRAINER. JOSEPH H. PITSCHMAN, Fresno, Cal. Filed Jan. 23, 1913. Serial No. 743,828. (Cl. 53-3.)



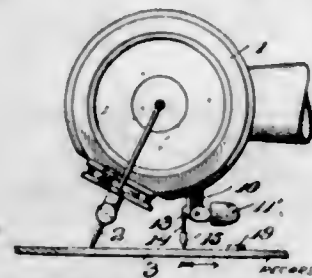
1. A device of the character set forth comprising a member adapted to have a telescopic engagement with the spout of a receptacle and having in its inner end oppositely disposed V-shaped notches forming resilient lips, a strainer at the outer end of the member, a yoke encircling one of said lips and having its ends attached to the oppo-

site lip, and a cam lever on said yoke, whereby said lips may be compressed and brought into locked engagement with said spout.

2. A strainer comprising a tubular body having a notched inner end, a screen on the outer end thereof, a clamping yoke pivoted to the inner portion of said body below the notches therein, a clamping lever pivoted between the outer ends of the yoke and having an eccentric head adapted to be turned downwardly into engagement with the adjacent side of the strainer whereby the notched end thereof is drawn into tight frictional engagement with the spout of a container.

3. A strainer comprising a tubular body having a notched inner end, a screen on the outer end thereof, friction pads secured to the inner surface of the inner notched ends of the strainer body, a clamping yoke pivotally secured at its inner end to the opposite sides of the strainer adjacent to the lower edges of the notches therein, a clamping lever pivoted in the outer portion of said yoke, an eccentric head on said lever adapted to be engaged thereby with the adjacent side of the body of the strainer whereby the notched end of said body is drawn into tight frictional engagement with the spout of a container.

1,078,460. AUTOMATIC STOP MECHANISM FOR GRAMOPHONES. MINARD ARTHUR POSSONS, Cleveland, Ohio. Filed Oct. 22, 1909. Serial No. 524,021. (Cl. 181-3.)



1. The combination with a reproducer comprising a needle and a record, of means carried by the reproducer for automatically frictionally engaging the record and raising the needle and stopping the record.

2. The combination with a reproducer and a record, means carried by the reproducer for raising the needle from the record and stopping the record and a projection carried by the record and adapted to trip said means.

3. The combination with a reproducer and a record, means carried by the reproducer for engaging the record and raising the reproducer and stopping the record, and a projection carried by the record and adapted to trip said means.

4. The combination with a reproducer and a record, means carried by the reproducer for automatically engaging the record and first raising the needle from the record and then stopping the rotation of the record.

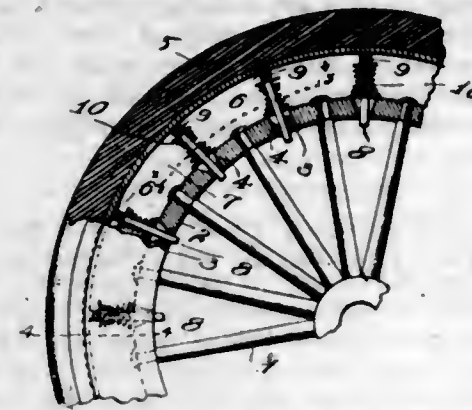
5. The combination with a reproducer and a record, a pivoted member carried by the reproducer and normally held in a horizontal position, and a lug carried by the record and adapted to trip said member to allow it to drop on the record and raise the needle from the record and stop the machine.

[Claims 6 to 16 not printed in the Gazette.]

1,078,461. WHEEL. MITCHELL D. PAICH, Miami, Fla. Filed Jan. 19, 1912. Serial No. 672,262. (Cl. 152-37.)

In a wheel, the combination with an inner rim having openings therethrough with parallel side walls and front and rear walls diverging toward the top and bottom of the openings, said openings constituting bearings of uniform width axially of the wheel, and in the plane thereof increasing in width toward each end from the center thereof, thereby permitting backward and forward and reciprocal movements only, of a stub rod, of an outer rim, lugs extending inwardly from said outer rim, detachable flanges extending from the outer rim to the inner rim and overlapping the inner rim, a T-shaped stub rod between said lugs of the outer rim, a bolt passing through said side flanges,

said stub rod and said lugs and constituting a common connecting member, and a coil spring secured around said stub rod with one end seated on the inner rim and the



other end seated on the T-head of the stub rod; the free end of said stub rod projecting through and adapted to reciprocate and rock in the bearings in the inner rim.

1,078,462. MEASURING-WHEEL. FREDERICK W. RAPSON, Bad Axe, Mich. Filed Nov. 11, 1912. Serial No. 730,768. (Cl. 73-36.)

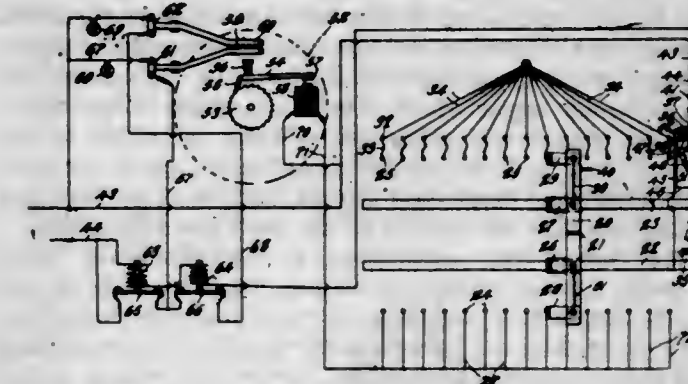


A measuring wheel comprising a handle having a bifurcated end, a wheel supporting shaft engaged with said bifurcated end of the handle and having on one end an enlarged head and its opposite end threaded and projecting beyond one side of the handle, a gage wheel revolvably mounted on said shaft adjacent to the headed end thereof, a clamping sleeve arranged on the threaded end of the shaft and engaged with one arm of said bifurcated end of the handle, a clamping nut having a threaded engagement with the threaded end of the shaft, and an operative engagement with the outer end of said clamping sleeve, and a pointer loosely mounted on said shaft between the inner end of said clamping sleeve and the hub of the wheel whereby when said clamping sleeve is forced inwardly by said nut, said pointer will be clamped between the inner end of the sleeve and the hub of the wheel and thereby fastened in its adjusted position.

1,078,463. MINE-SHOT-FIRING SYSTEM. GRANT I. RAWSON, St. Louis, Mo. Filed May 4, 1909. Serial No. 493,792. (Cl. 175-115.)

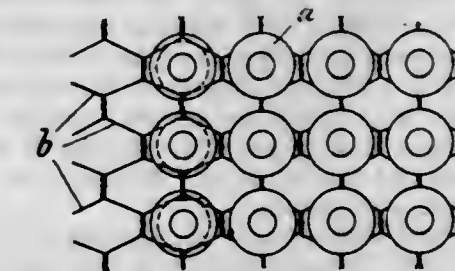
In a machine of the class described, a casing, a series of contacts arranged on the casing and disposed longitudinally thereof and spaced apart, a contact bar mounted on the casing longitudinally thereof adjacent to said contacts, a second series of contacts arranged on the casing and disposed longitudinally thereof and spaced, a second contact bar on the casing arranged longitudinally thereof adjacent to said last contacts, a carriage adapted to travel longitudinally of said casing and including a carrier strip disposed transversely of the casing, contact fingers ar-

ranged on said strip and depending therefrom and spaced apart, connections between said fingers, said connections serving to establish electrical connection between said first-mentioned bar and contacts and said second bar and contacts, to lug on said strip, an electric circuit including said



contact bars, a switch controlling said circuit and disposed in the path of movement of said lug whereby the circuit may be broken when the carriage has reached the end of its path of movement, and means for moving said carriage longitudinally of said casing.

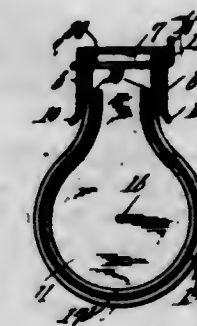
1,078,464. CARRIER FOR PLASTER-WORK. OTTO RECHNITZ, Cottbus, Germany. Filed Mar. 22, 1910. Serial No. 550,946. (Cl. 72-116.)



1. A composite lathing comprising a plurality of hardened and completed mortar carrying insert bodies of earthen material provided with undercut portions, and a net work having mesh openings exceeding in size the greatest cross sections of said bodies from the undercut portion to the other, the portions of the net work forming the mesh openings engaging relative minute points of the undercut portions of said bodies, leaving the remaining undercut portions free.

2. A composite lathing comprising a plurality of hardened and completed mortar carrying insert bodies made of earthenware material and of circular formation, the peripheral portions of said bodies being undercut, and a net work having mesh openings of polygonal form, the portions of the net work forming said mesh openings engaging the undercut parts of said body at relatively minute parts.

1,078,465. FLY-TRAP. CHAUNCEY W. REYNOLDS, Colorado City, Colo. Filed Sept. 26, 1912. Serial No. 722,543. (Cl. 43-22.)



1. An insect trap embodying a channel-shaped member, heads having inturned marginal flanges and having reduced extensions fitting in the ends of the said member, means for securing the extensions to the said member, and a reticulated sheet bent to form a casing having its ends

fitting within the flanges of the heads and having its edges spaced apart and fitting within the flanges of the channel-shaped member to provide constricted inlets between the edges of the casing and the edges of the channel-shaped member.

2. An insect trap embodying a channel-shaped back, heads having extensions fitting into the ends of the back, the heads and extensions having inwardly projecting flanges, a meshed wire fabric bent to conform to the heads and having its ends engaging the heads, the edges of the fabric projecting within and being spaced from the edges of the flanges of the back to provide constricted inlets between the edges and the fabric and flanges, and securing members engaging through the flanges of the back and extensions.

3. An insect trap embodying a channel-shaped back, two heads having extensions fitting into the ends of the back, the heads and extensions having inwardly projecting flanges along their edges, means for securing the extensions to the back, a meshed wire fabric curved to conform to the heads and fitting at its ends within the flanges of the heads so that the edges project within and are spaced from the edges of the flanges of the back to provide constricted inlets between the edges and the fabric and flanges, and a stay rod connecting the heads.

4. An insect trap embodying a channel-shaped back having the edges of its flanges outturned and having apertures in the ends of its flanges, two heads having extensions fitting into the ends of the back, the heads and extensions having inwardly projecting flanges along their edges and the flanges having apertures in their ends registering with the aforesaid apertures, so that the respective sets of apertures may be engaged over suitable supporting brackets, a meshed wire fabric bent to conform to the heads and fitting at its ends within the flanges of the heads so that the edges project within and are spaced from the edges of the flanges of the back to provide constricted inlets between the edges and the fabric and flanges, and an axial stay rod connecting the heads.

5. An insect trap embodying a channel-shaped back having the edges of its flanges outturned and having apertures in the ends of its flanges, two circular heads having extensions fitting into the ends of the back, the heads and extensions having inwardly projecting flanges along their edges and the flanges having apertures in their ends registering with the aforesaid apertures, so that the respective sets of apertures may be engaged over suitable supporting brackets, a meshed wire fabric curved to conform to the heads and fitting at its ends within the flanges of the heads, the edges projecting within and spaced from the edges of the flanges of the back to provide constricted inlets between the edges and the fabric and flanges, an axial stay rod connecting the heads, and ribs secured on the exterior and interior of the fabric at intervals along its length with the ends projecting into the flanges of the back.

1,078,466. SELF-ADJUSTING SHADE-ROLLER. ARTHUR ROSE, Newark, N. J. Filed Mar. 5, 1913. Serial No. 752,238. (Cl. 156-24.)

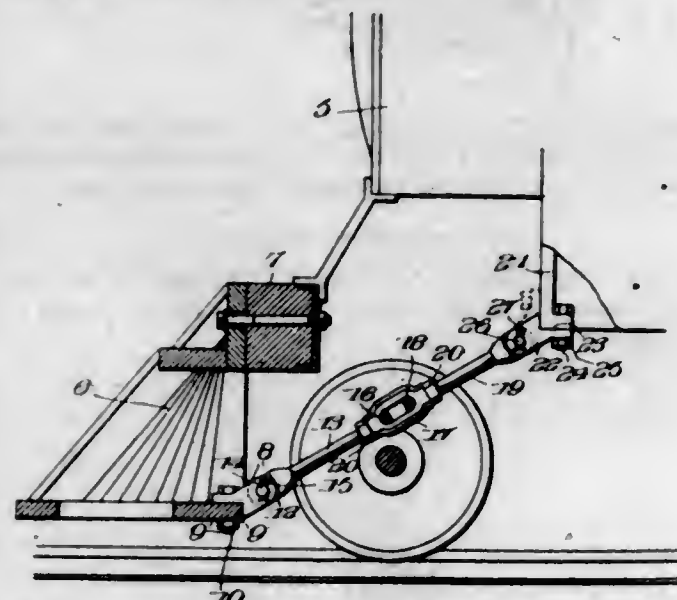


1. In combination with a shade roller of the character described, comprising a rotatable roller recessed at one end, a nonrotative spindle extending into the said recess, a coiled spring encircling the said spindle, a spear attached thereto containing a lug or small L shaped projection formed integral therewith on its outer extremity and at right angles with the said spear.

2. In combination with a shade roller of the character described, comprising a rotatable roller recessed at one end, a nonrotative spindle extending into the said recess, a coiled spring encircling the said spindle, a spear attached thereto containing a lug or small L shaped projection

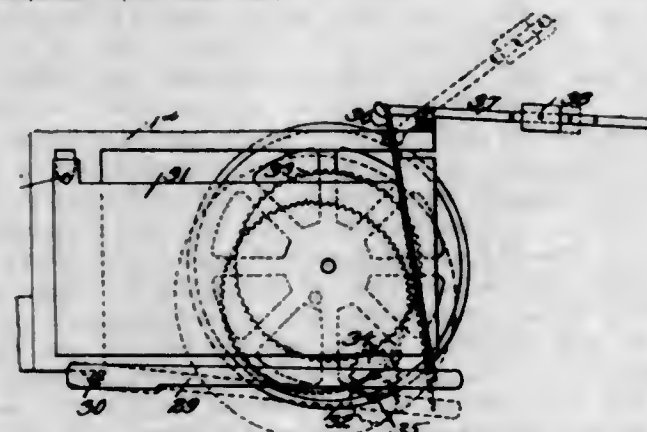
formed integral therewith on its outer extremity and at right angles with the said spear, a metal sleeve with a flange attached thereto rigidly inserted in the opposite end of the roller, a stud pin slidably mounted in the said sleeve containing a head, two sides of which are slightly flattened, a collar or washer driven upon the said pin leaving a space between it and the head of the said pin for engaging with its bracket, all substantially as shown and described.

1,078,467. ADJUSTABLE PILOT. JOHN M. SLEDGE, Marshall, Tex. Filed July 10, 1912. Serial No. 708,675. (Cl. 105-251.)



The combination with a locomotive, of a pilot connected thereto, a shoe formed with an angular recess to engage said pilot, a bracket secured to the locomotive, a shoe formed to cooperate with said bracket, said shoes being interchangeable, connecting rods pivotally mounted in the respective shoes, and a turn buckle engaging the adjacent ends of said rods for adjusting said rods longitudinally with respect to each other.

1,078,468. HAY-HARVESTING MACHINE. CLARENCE A. SUMWALT, Sterling, Kans. Filed June 28, 1912. Serial No. 706,437. Renewed Oct. 9, 1913. Serial No. 794,325. (Cl. 214-1.)



1. In a machine of the class described, the combination of a frame adapted to be propelled over a field, a conveyer mounted on said frame and adapted for bodily movement toward and from the ground, and means connected with the conveyer and operable by depression of the latter under the weight of a load to impart movement to said conveyer.

2. In a machine of the class described, the combination of a frame adapted to be propelled over a field, a conveyer mounted on said frame and adapted for bodily movement toward and from the ground, means connected with the conveyer and operable by depression of the latter under the weight of a load to impart movement to said conveyer, and counterbalance means connected with the conveyer to maintain the last mentioned means normally inoperative.

3. In a machine of the class described, the combination of a support adapted to be propelled over the ground, a

conveyer mounted on said support and comprising a frame adapted to swing toward and from the ground, counterbalance means normally holding said frame in a predetermined position, means for depositing material upon the conveyer, and means connected with the conveyer and operative when the load upon the conveyer depresses the latter to thereby impart movement to the conveyer.

4. In a machine of the class described, the combination of a support adapted to be propelled over the ground, a conveyer mounted on said support and comprising a frame adapted to swing toward and from the ground, counterbalance means normally holding said frame in a predetermined position, means for depositing material upon the conveyer, driving mechanism connected with the conveyer to impart movement to the same, and means permitting movement of said driving mechanism into operative contact with the ground to cause operation of said mechanism.

5. In a machine of the class described, the combination of a support adapted to be propelled over the ground, a conveyer mounted on said support and comprising a frame adapted to swing toward and from the ground, counterbalance means normally holding said frame in a predetermined position, means for depositing material upon the conveyer, and driving mechanism connected with the conveyer and adapted for swinging movement corresponding to that of the conveyer, said driving mechanism including driving wheels adapted upon contact with the ground to operate and impart movement to the conveyer.

[Claims 6 to 8 not printed in the Gazette.]

1,078,469. VACUUM CLEANING APPARATUS. CHARLES SWANN, Gravesend, England, assignor of one-third to Charles F. Townsend and one-third to Sydney Elliott Page, London, England. Filed Apr. 22, 1912. Serial No. 692,248. (Cl. 230-13.)



1. The combination in an ejector for suction producing apparatus, of a pipe having a passage adjacent to a suction nozzle, with a disk provided with a series of openings around its central area, and a truncated conical attachment having an expanding followed by a contracting surface extending into the said passage so as to interpose its expanding surface opposite and immediately adjoining the disk openings, substantially as set forth.

2. In an injector for suction producing apparatus, the combination of a pipe having a passage adjacent to a suction nozzle, with a disk in the said passage provided with a series of segmental openings around its central area, a conical surface attached thereto of double truncated character, and splayed projections at intervals on the larger diameter of the conical surface located opposite the disk openings, substantially as and for the purpose set forth.

1,078,470. BINDER. CHARLES EUGENE SWIFT, Danville, Ill. Filed Dec. 5, 1912. Serial No. 735,042. (Cl. 129-24.)

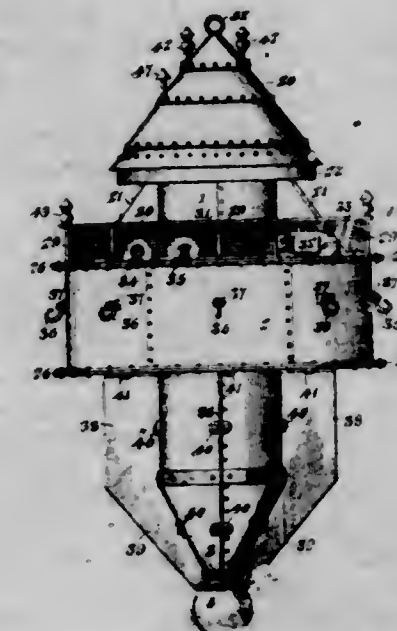


In a binder, the combination with a back, covers flexibly connected with the back, and a rigid flat base strip secured to the inner face of the back; of holding means on said base strip for loose leaves, said means comprising divided, arched, impaling posts, one section of each of which is immovably secured to the base strip at the back edge thereof, a rockable rod to which the mating section of

198 O. G.—30

each post is connected, to be rocked toward or from the fixed section, the base strip having a longitudinally ranging concavity therein at the upper side thereof, at the front edge; and springs secured at one end of each to the base strip on the upper side of the latter, and ranging forwardly, the rockable sections of the impaling posts having extensions at their lower ends disposed beneath the springs, and the base strip having in the upper side thereof depressions for said extensions complementary to the longitudinal concavity.

1,078,471. LIFE-BOAT. WILLIAM J. TEKIPPE, New Hampton, Iowa. Filed Jan. 13, 1913. Serial No. 741,869. (Cl. 9-4.)



1. A life boat including a shell open at the top to permit the entrance of passengers, a support mounted within and extending above the shell, and a hood carried by the projecting portion of the support and arranged above and forming a cover for the shell and spaced from the latter to form a protected entrance to the said shell.

2. A life boat including a shell, a support mounted within and extending above the shell open at the top, and a substantially conical hood carried by the projecting portion of the support and arranged above and forming a cover for the shell, the bottom of the hood being of greater diameter than the top of the shell and having a depending portion extending below the plane of the said top of the shell to form a protected entrance.

3. A life boat including a shell, a support consisting of a ladder mounted within the shell and extending above the top thereof, and a hood mounted on the support at the upper end thereof and arranged in spaced relation with and forming a cover for the shell.

4. A life boat including a shell provided with a vertical series of compartments, a support consisting of a ladder and extending through the said compartments and projecting above the shell, and a hood mounted upon the said support and arranged in spaced relation with the upper end of the shell.

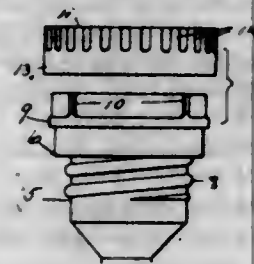
5. A life boat including a shell provided with a plurality of partitions dividing the shell into a vertical series of compartments and having aligned openings, and a support consisting of a ladder mounted within the shell and extending through the said openings and projecting above the shell, and a hood carried by the projecting portion of the support and forming a cover for the shell.

[Claims 6 to 8 not printed in the Gazette.]

1,078,472. FUSE-PLUG. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 25, 1912. Serial No. 733,513. (Cl. 175-277.)

1. A fuse plug, comprising a head portion provided with longitudinal ribs and a cap with a depending flange

having longitudinal channels to engage said ribs whereby relative rotary displacement of said cap and head is prevented, together with means for preventing endwise separation of said parts.



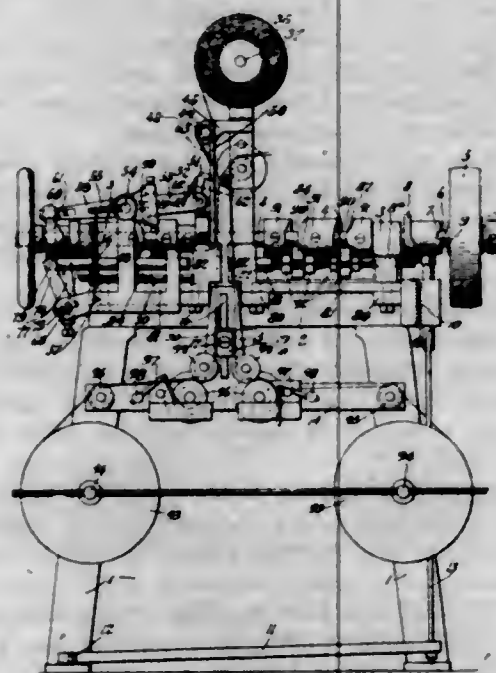
2. A fuse plug, comprising a head portion provided with longitudinal ribs on its external periphery and a cap with a depending peripheral flange having longitudinal channels to engage said ribs whereby relative rotary displacement of said cap and head is prevented, together with means for preventing endwise separation of said parts.

3. A fuse plug comprising a head portion provided with peripheral flange and longitudinal ribs extending upward therefrom, in combination with a cap having a depending peripheral flange having longitudinal channels in its upper portion to engage said ribs whereby relative rotary displacement of said parts is prevented, the lower portion of said flange being turned under said peripheral flange on the head to prevent endwise separation of the parts, substantially as described.

4. In a fuse plug of the type described, a cap having a peripheral flange crimped in its upper portion to form a series of channels for the purpose described and a plain cylindrical lower portion, the edge of which is adapted to be turned inwardly, substantially as described.

5. In a fuse plug of the type described, a head portion having a peripheral flange and ribs extending upwardly therefrom for the purpose described.

1,078,473. MACHINE FOR APPLYING PATCHES AND FASTENERS TO ENVELOPS. MATTHEW VIERENGEL, Brooklyn, N. Y. Filed May 14, 1912. Serial No. 697,202. (Cl. 1—12.)



1. In a device of the character described, the combination with a relatively adjustable envelop support and chute for fasteners, of an anvil, and means for reciprocating said anvil transversely to said chute, said anvil being adjustably connected to said reciprocating means to adapt said anvil to maintain its relative arrangement with respect to said chute for different relative adjustments between said supports and chute.

2. In a device of the character described, the combina-

tion with a support and a chute for fasteners, said support and chute being capable of relative adjustment, of a slide reciprocally mounted on said support to traverse the lower end of said chute, and an anvil adjustably connected to said slide.

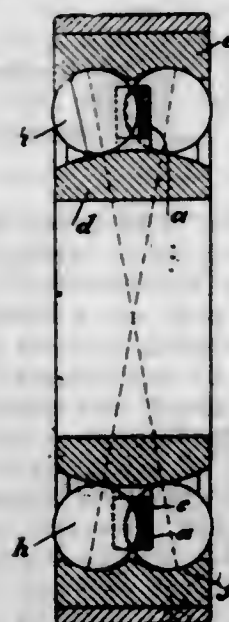
3. In a device of the character described, a horn adapted to receive a clasp envelop with its flap extended, an anvil reciprocally mounted on said horn, said anvil being provided with spur receiving recesses and a flat spur-clenching table, and a stamping head reciprocable to and from said anvil and comprising a spur deflecting portion and a spur-setting portion.

4. In a device of the character described, a horn adapted to receive a clasp envelop with its flap extended, an anvil reciprocally mounted on said horn, said anvil being provided with spur receiving recesses, and a flat spur-clenching table and a stamping head reciprocable to and from said anvil and comprising a spur deflecting portion and a spur-setting portion, said anvil being provided with resilient means for separating the envelop from the anvil when the stamping pressure is removed.

5. In a device of the character described, the combination of an anvil provided with spur deflecting recesses and a spur clenching table, a resilient finger constructed and arranged to displace a fastener to withdraw the spurs from said recesses, means for moving said anvil to bring said clenching table behind or beneath said spurs, and a stamping head arranged to set said spurs.

[Claims 6 to 9 not printed in the Gazette.]

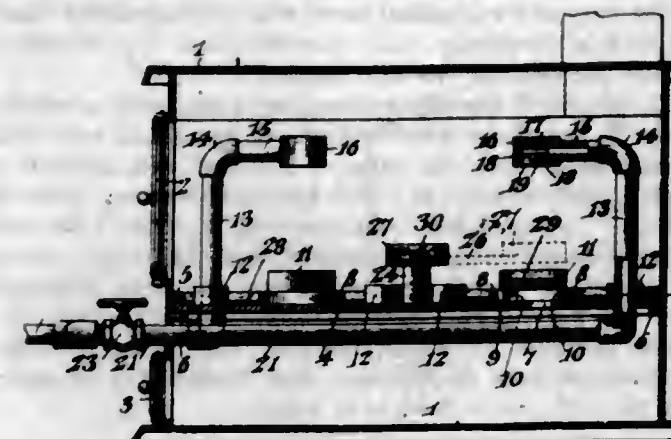
1,078,474. BALL-BEARING. JOSEF VORRABER, Frankfurt-on-the-Oder, Germany, assignor to Märkische Maschinenbauanstalt "Teutonia," Gesellschaft mit beschränkter Haftung, Frankfurt-on-the-Oder, Germany. Filed May 28, 1913. Serial No. 770,447. (Cl. 64—59.)



1. In a ball bearing, the combination with two sets of balls, of an inner and outer bearing member, one of said members having a spherical bearing surface, and the other one having two circumferential spherical grooves corresponding to the diameter of the balls, and an intermediate ring placed between the sets of balls and having spherical cavities corresponding to the diameter of the balls, at least two diametrically opposite cavities at one side of the intermediate member being extended to the circumference of the intermediate ring which is adjacent to the spherical bearing surface.

2. In a ball bearing, the combination with two sets of balls, of an inner and outer bearing member, the inner one of said members having a spherical bearing surface and the outer one having two circumferential grooves corresponding to the diameter of the balls, and an intermediate ring placed between the sets of balls and having spherical cavities corresponding to the diameter of the balls, at least two diametrically opposite cavities at one side of the intermediate member being extended to the inner circumference of the intermediate ring.

1,078,475. OIL-BURNER. FREDERICK L. WEEHAN, Portland, Me. Filed Apr. 25, 1913. Serial No. 763,583. (Cl. 158—63.)



1. An oil burner comprising a basic member having passages therethrough with surrounding upstanding flanges, cups each provided with feet individual thereto and shaped to engage the basic member to support the cup in elevated relation to a respective passage and within the space defined by the flange about said passage, and burner heads in elevated relation to the cups.

2. An oil burner comprising a basic member having passages therethrough with surrounding upstanding flanges, cups supported by the basic member in elevated relation to the passages and within the space defined by the flanges, and burner heads in elevated relation to the cups and provided with supports in the form of conduits rising from the basic member, the burner heads being provided with fuel passages having flaring mouths directed toward the cups.

3. The combination with a stove, of an oil burner tray adapted to be housed in the fire box of the stove and of a size to substantially separate the space above the tray from the space beneath it, said tray having passages therethrough and also provided with flanges in spaced surrounding relation to the passages and upstanding from the tray, pipes upstanding from the tray adjacent the passages and each carrying a burner head in elevated relation to the tray above the respective passage therethrough, and a cup for each passage having feet adapted to rest on the tray within the margin of the respective flange and above the opening through the tray and in position to receive fuel from the burner head.

4. The combination with a stove, of an oil burner tray adapted to be housed in the fire box of the stove and of a size to substantially separate the space above the tray from the space beneath it, said tray having passages therethrough and also provided with flanges in spaced surrounding relation to the passages and upstanding from the tray, pipes upstanding from the tray adjacent the passages and each carrying a burner head in elevated relation to the tray above the respective passage therethrough, a cup for each passage having feet adapted to rest on the tray within the margin of the respective flange and above the opening through the tray and in position to receive fuel from the burner head, and a swinging arm mounted on the tray and terminating in a cup and having a range of travel to move beneath either burner head in spaced relation thereto and in elevated spaced relation to the corresponding one of the first-named cups.

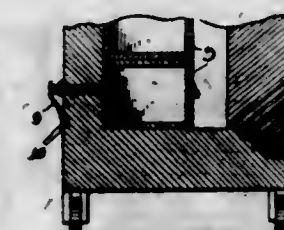
5. An oil burner provided with a plurality of burner heads, and a lighting member intermediately of and lower than the burner heads, said lighting member comprising a receptacle for fuel, and an arm at one end carrying the lighting member and at the other end provided with a mounting constructed to permit the movement of the lighting member to a position beneath and in operative relation to either of the burner heads, at will.

[Claims 6 and 7 not printed in the Gazette.]

1,078,476. BURGLAR-ALARM. OTTO WIGGERS, Hooper, Utah. Filed Mar. 8, 1913. Serial No. 752,982. (Cl. 177—202.)

In a device of the kind described in combination with a safe provided with a transverse opening and provided with an article upon its inner portion, a plurality of in-

ulated members supported adjacent said opening, contact plates mounted upon said insulated members and provided with contact posts, a spring carried by said safe, a laterally extending plunger carried by said spring and slidably mounted within said opening, a transversely ex-



tending contact bar carried by said plunger, said spring normally exerting inward pressure upon said plunger, said contact bar adapted to engage said contact plates for closing the circuit for giving an alarm when the article contained in the safe is removed from the inner end of said plunger.

1,078,477. MEANS FOR IMPROVING THE STABILITY OF AEROPLANES. HENRY SEDDON WILDEBLOOD, Lucknow, India. Filed Apr. 17, 1911. Serial No. 621,641. (Cl. 244—29.)



1. In an aeroplane, the combination with a frame, and a supporting plane carried by said frame, of stabilizing planes secured at their outer edges along the side rails of the frame to swing inwardly of said frame at each side thereof, and means for limiting said stabilizing planes to swing within an acute angle with reference to the plane of said frame.

2. In an aeroplane, the combination with a frame, and a supporting plane mounted at the forward portion of said frame, of stabilizing planes merging rearwardly from said supporting plane at each side thereof, having their outer edges secured to the side rails of said frame, and leaving the inner edges free whereby said planes may describe an acute angle to either side of the plane of said frame.

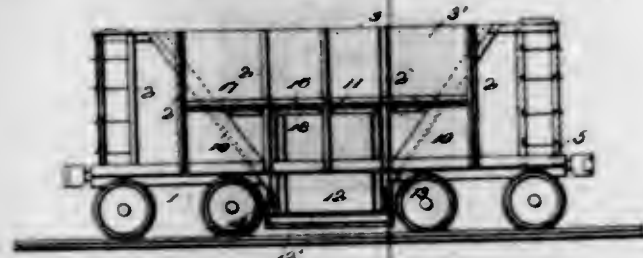
3. In an aeroplane, the combination with a frame, and a supporting plane carried by said frame, of automatic-adjusting stabilizing planes mounted at their outer edges along the side rails of the frame to swing within an acute angle to either side of the plane of said frame, the windward plane adapted to adjust itself to lie in the side stream line and have no vertical component, the leeward plane presenting an angle of incidence to the stream line and resolving the force of the latter into a vertical component adapted to assist in righting the aeroplane.

4. In an aeroplane, the combination with a frame, and a supporting plane carried by said frame, of means for assisting to return said aeroplane from a condition of tilt produced by lateral air currents comprising a windward and a leeward plane, each secured at its outer longitudinal edge along the side rails of the frame to swing within said frame, said windward plane adapted to adjust itself to lie in the stream line and have no vertical component, said leeward plane presenting an angle of incidence to the stream line and resolving the force of the latter into a vertical component adapted to assist in righting the aeroplane, and means for limiting said stabilizing planes to swing within an acute angle with reference to the plane of the frame.

1,078,478. HOPPER-BOTTOM DUMP-CAR. HJALMAR ZAHL, Duluth, Minn., assignor, by direct and mesne assignments, of three-eighths to Charles S. Olson and one-eighth to Henry Gujer, Duluth, Minn. Filed Sept. 30, 1911. Serial No. 652,219. (Cl. 105—185.)

1. A hopper car comprising a central girder, extending the full length of the car, two side girders extending the

full length of the car in a horizontal line therewith, a hopper supported by the girders and having its ends extending a suitable distance below the same and a bottom having side portions adapted to form a portion of the side of the car when the bottom is open.



2. A hopper car comprising a supporting frame, a hopper supported by the frame and having its ends extending considerably below the frame, a bottom pivoted to the hopper above the supporting frame and having a portion thereof adapted to form a portion of the sides of the car when the bottom is open.

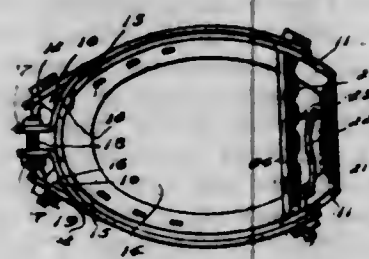
3. A car of the character described, comprising a hopper, hinged side walls forming the bottom of the hopper, a rack-bar flexibly connected to said hinged side walls, a pawl engaging said rack, a dog engaging the rack and holding the same, means for operating the pawl for moving the rack, and means for raising the pawl and simultaneously raising the dog out of engagement with the rack.

4. A car of the character described comprising a hopper, hinged bottom sections, a rack-bar, a flexible connection between the hinged bottom sections and the rack-bar, a pawl engaging the rack-bar, a dog engaging the rack bar and having one end extending over the pawl and provided with an opening, a link connected to the pawl and extending through the opening in the extended end of the dog, and means for operating said link whereby the raising of the pawl releases the dog.

5. A car of the character described, comprising a hopper, hinged bottom sections, a rack bar, a flexible connection between the hinged bottom sections and rack bar, an oscillating member, a pawl carried by said oscillating member and engaging the rack bar, a dog engaging the rack bar and having its free outer end extending above the free outer end of the pawl and provided with an opening, a link pivotally connected to the free outer end of the pawl and extending through the opening in the dog and a crank connected to the said link whereby the upward movement of the link releases the pawl from the rack and the continued upward movement thereof raises the dog out of engagement of the rack, substantially as shown and described.

[Claims 6 to 9 not printed in the Gazette.]

1,078,479. OVERSHOE FOR ANIMALS. QUERIN ZUBER, Mount Vernon, N. Y. Filed Mar. 18, 1913. Serial No. 755,219. (Cl. 168-1.)



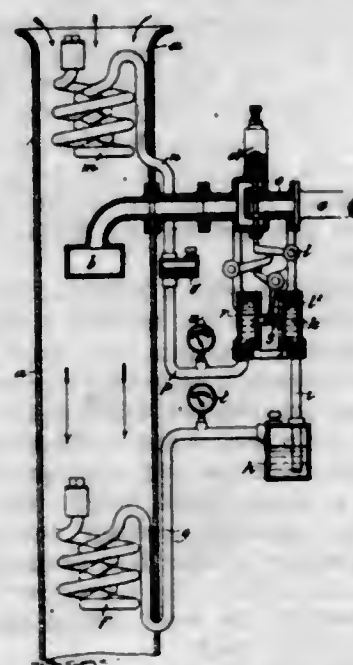
1. A device of the class described comprising a pair of outwardly bowed separable side bars, front and rear cross tie bolts connecting the same, a resilient base section removably held between the side bars and resting upon the tie bolts, toe and heel calks carried by the side bars, and clamping means integrally formed with the rear ends of the side bars and extending forwardly and upwardly therefrom.

2. A device of the class described comprising a pair of outwardly bowed separable side bars, front and rear cross tie bolts connecting the same, a resilient base section re-

movably held between the side bars and resting upon the tie bolts, toe and heel calks carried by the side bars, clamping means integrally formed with the rear ends of the side bars and extending forwardly and upwardly therefrom, and a forwardly and upwardly bent flap formed at the rear end edge of the said section.

3. A device of the class described comprising a pair of outwardly bowed separable side bars, front and rear cross tie bolts connecting the same, a resilient base section removably held between the side bars and resting upon the tie bolts, toe and heel calks carried by the side bars, clamping means integrally formed with the rear ends of the side bars and extending forwardly and upwardly therefrom, a forwardly and upwardly bent flap formed at the rear end edge of the said section, and means connected with the side bars at the rear ends thereof for adjusting the same with relation to each other.

1,078,480. APPARATUS FOR REGULATING THE SUPPLY OF STEAM TO GAS-PRODUCERS. CHARLES HENRY THOMAS ALSTON, county of Chester, and PERCIVAL TURNER HOUSTON, London, England. Filed June 28, 1913. Serial No. 776,414. (Cl. 236-6.)

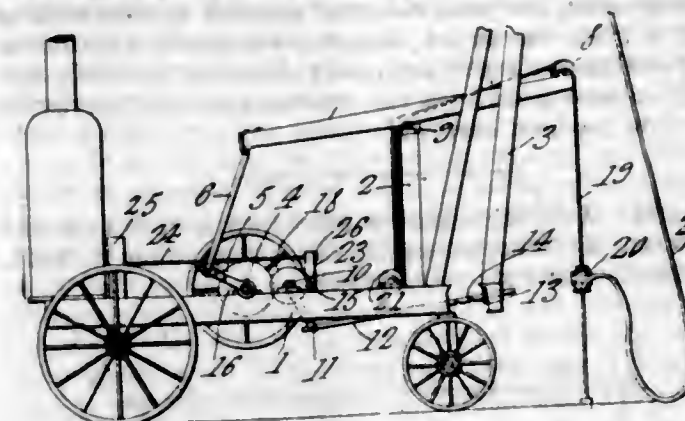


1. In apparatus for regulating the supply of steam to gas producers, the combination with a draft tube having an air inlet, a steam nozzle arranged to discharge steam into said tube, and a single valve controlling the supply of steam to said nozzle, of a pair of thermostats, one operative to close said steam supply valve and influenced by the steam discharged into said tube by the steam nozzle, and the other operative to open the steam supply valve and influenced by the temperature of said air entering said tube.

2. In apparatus of the character described, the combination with a draft tube having an air inlet, a steam nozzle discharging into said tube, and a valve controlling the supply of steam to said nozzle, of a pair of coils, one subject to the thermal influence of the steam from said nozzle, and the other coil subject to the thermal influence of the air entering said tube, said coils containing expansible fluids responsive to temperature variations of said coils, and means for opening and closing the steam supply valve governed by the fluids for the respective coils acting in opposition thereon.

3. In apparatus of the character described, the combination with a draft tube having an air inlet, a steam nozzle discharging into said tube, and a valve controlling the supply of steam to said nozzle, of a pair of coils arranged in said tube at opposite sides of the steam supply nozzle, said coils containing expansible fluids, a pair of diaphragm chambers connected to the respective coils, diaphragms in said chambers arranged in opposed relation, means rigidly connecting said diaphragms, and mechanism attached to the diaphragm connecting means and operative to govern the steam supply valve.

1,078,481. DRILL-RIG. LEWIS WORTHINGTON APPLEMAN, Carl Junction, Mo. Filed Nov. 17, 1910. Serial No. 592,978. (Cl. 255-11.)



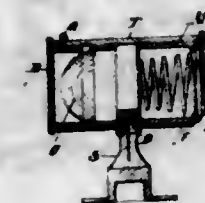
1. In a drill rig, the combination of a platform, a shaft extending transversely thereof, bearings disposed upon said platform, one of said bearings directly supporting one end of said shaft, a winding drum secured to said shaft adjacent the just mentioned end, a stub shaft rotatably mounted in the other of said bearings and provided with a bore extending partially therethrough, the said bore being formed eccentrically with respect to the axis of said stub shaft, the bore of the said stub shaft receiving therein the other end of the first mentioned shaft, and a lever formed integral with the outer extremity of said stub shaft adapted to oscillate the same, to thereby shift one end of the first mentioned shaft, a driving friction disk, a brake shoe, a friction disk secured to the said first mentioned shaft and adapted to contact with the said driving friction disk and the said brake shoe, a samson post secured to said platform, a walking beam supported thereabove, a cable wound upon said drum and extending over said walking beam adapted to reciprocate a drill by the movement of said walking beam.

2. In a drill rig, the combination of a platform, a samson post secured thereto and extending upwardly therefrom, a rod pivotally secured to the upper end of said samson post, a walking beam with spaced side walls fulcrumed upon said rod, a pulley rotatably mounted upon said pivoted rod disposed between the side walls of said walking beam, a pulley rotatably secured to the outer extremity of said walking beam, a driven shaft extending transversely of said platform and beyond the edges of the same, a crank arm rigidly secured to one extremity of said shaft, and a pitman connecting the said crank arm and the inner extremity of said walking beam, the said walking beam extending at an angle to the longitudinal axis of the said platform to bring the inner end of the same directly above said crank arm, a second shaft extending parallel to the first mentioned shaft and provided with a winding drum adjacent one end thereof, a friction disk adjacent the other end of said second mentioned shaft, a stub shaft mounted for rotation and provided with a bore extending partially therethrough, said bore formed eccentric with respect to the axis of said stub shaft, said bore adapted to receive therein the end of said second mentioned shaft adjacent the friction disk, a lever rigidly secured to the outer extremity of said stub shaft and adapted to rotate the same to thereby shift the end of said second mentioned shaft, a friction disk rigidly secured to the first mentioned shaft, a brake shoe secured to said platform, said friction disk mounted upon the second mentioned shaft adapted to be moved into contact with said friction disk and with said brake shoe, and a cable wound upon said drum and extending over the said samson post pulley and the walking beam pulley and secured to a drill adapted to reciprocate the same by a movement of said walking beam, and a notched lever secured to said stub shaft lever adapted to hold the same in any desired position.

1,078,482. PHOTOGRAPHIC EXPOSURE-METER. PAUL BOUCHER, Paris, France. Filed June 3, 1912. Serial No. 701,247. (Cl. 95-10.)

1. In a photographic exposure meter the combination of a tube, a cap located at one end of the tube, an object

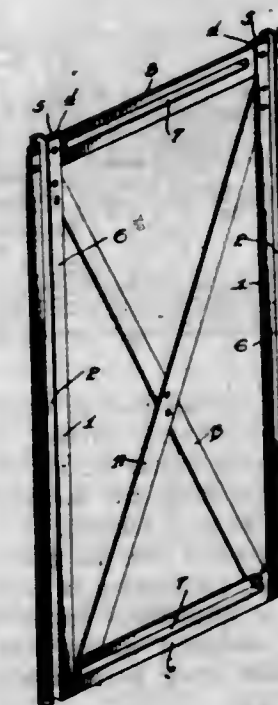
glass in said tube, a magazine adapted to carry layers of sensitive paper and located at the end of the tube opposite to the cap, a spring within the magazine to press the sensitive paper into operative position, a perforated inner end on the magazine tinted for comparison with the darkened sensitive paper, and a support for the tube.



2. In a photographic exposure meter the combination of a tube, a cap located at one end of the tube, an object glass in said tube, a magazine adapted to carry layers of sensitive paper and rotatable in the end of the tube opposite to the cap, a spring within the magazine to press the sensitive paper into operative position, a perforated inner end on the magazine tinted for comparison with the darkened sensitive paper, and a support for the tube.

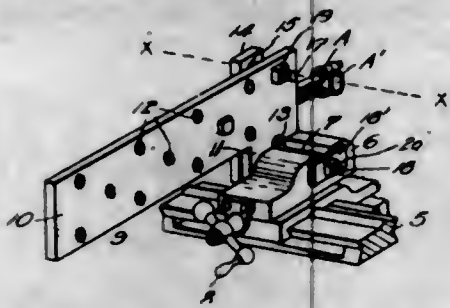
3. In a photographic exposure meter the combination of a tube, a sighting projection on the outside of the tube, a cap located at one end of the tube, an object glass in said tube, a magazine adapted to carry layers of sensitive paper and rotatable in the end of the tube opposite to the cap, a spring within the magazine to press the sensitive paper into operative position, a perforated inner end on the magazine tinted for comparison with the darkened sensitive paper, a notched rim on the outer end of the magazine for aligning with the sighting projection, and a support for the tube.

1,078,483. SCREEN-DOOR. MARY BOWERS, Angora, Nebr. Filed Jan. 8, 1913. Serial No. 740,847. (Cl. 156-14.)



A screen door comprising a frame including identical side bars grooved throughout their length and each having inwardly extending flanges, end bars interposed between the side bars and having their ends overlying the flanges of the side bars, the said end bars having grooves formed therein and arranged longitudinally thereof and terminating within the flanges of the side bars, a single strip of foraminous material overlying the frame and having portions extending into the grooves of the side and end bars, fastening strips embedded in the grooves in the side and end bars, and adapted to secure the said material therein, and corner plates overlying the side and end bars and secured thereto, whereby to confine the strips in the grooves and also to seal the joints between the cloth and the respective side and end bars.

1,078,484. WORK-HOLDER FOR LATHES. ARTHUR G. BRUNTON, Centralia, Wash., assignor of one-half to Walter J. Woods, Seattle, Wash. Filed Nov. 25, 1912. Serial No. 733,297. (Cl. 77-63.)

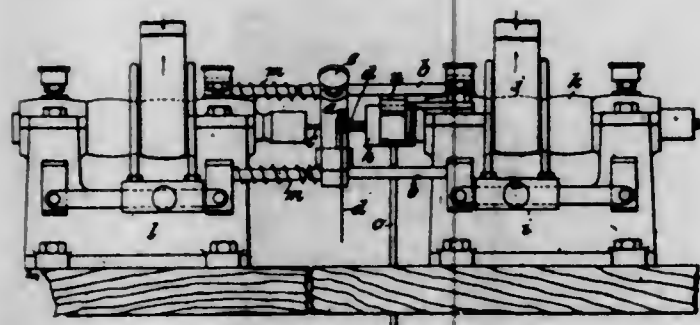


1. The combination with the slide rest of a lathe, of a work-holder comprising a plate provided with a plurality of apertures, a stirrup plate, and bolts extending through both of said plates for clamping work therebetween, one of said bolts also serving for rigidly securing the work holder to the slide rest of the lathe.

2. The combination with the slide rest of a lathe; of a work holder comprising an apertured plate, a second plate, a nutted bolt extending through said slide rest and both of the plates, whereby the work holder is rigidly secured to said slide rest, and a bolt acting supplementary to the aforesaid bolt whereby work may be clamped between said plates.

3. The combination with the slotted slide-rest of a lathe, of a work holder comprising an L-shaped plate having a slot in one of the limbs thereof, a bolt extending through the slots of the slide rest and said plate for adjustably securing the latter to said slide-rest, and means for clamping work to the plate.

1,078,485. APPARATUS FOR COILING STEEL AND OTHER WIRE OR METAL. SYDNEY CHARLES CADDY, Keynsham, near Bristol, England. Filed Jan. 16, 1911. Serial No. 602,881. (Cl. 153-67.)



1. In a machine for coiling steel or other wire or metal, the combination of a sliding carrier, a pair of dies mounted therein, and a mandrel on which the wire being coiled is pressed by said dies, and means for causing the dies to clamp the coil as it is formed.

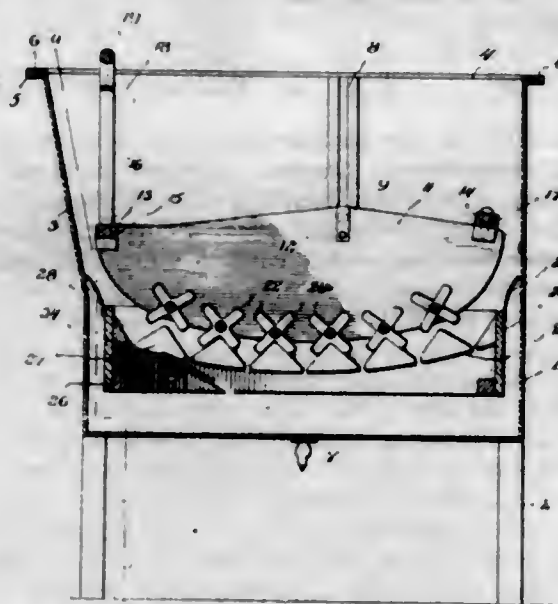
2. A coiling machine for use in the coiling of steel or other wire or metal, comprising in combination a sliding carrier, a pair of adjustably mounted dies held in said carrier, and a mandrel along which said carrier moves, one of said dies being perforated for the passage of the wire being coiled.

3. A coiling machine for use in the coiling of steel or other wire or metal, comprising in combination a pair of driven heads, a rotating mandrel driven by one of said heads, a chuck provided on the other of said heads for gripping the wire or coil, a plurality of bars mounted parallel with said mandrel, a die carrier which traverses said rotating mandrel as the wire is coiled guided by said bars, manual means for periodically and momentarily releasing the grip on said coiled wire, and means on said guide rods for insuring the return of said die carrier to its initial position upon the opening of said chuck and the release of said coiled wire.

4. A coiling machine for use in the coiling of steel or other wire or metal, comprising in combination a pair of driven heads, a rotating mandrel driven by one of said

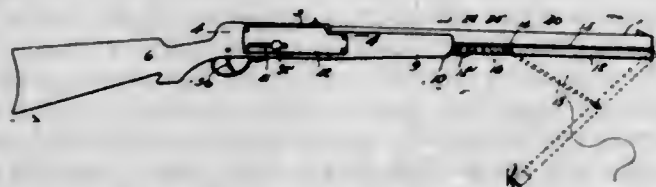
heads, a spring-controlled automatic chuck for gripping the wire or coil, a plurality of bars mounted parallel with the said mandrel, a die carrier guided by the said bars and traversing the said rotating mandrel as the wire is coiled, a brake device for engaging the chuck, and means for operating the brake device for releasing the wire, and means on said guide rods for returning the die carrier to the initial position thereof.

1,078,486. WASHING-MACHINE. LEWIS A. CURTIS and EDWARD H. HALL, Alameda, Cal. Filed June 8, 1912. Serial No. 702,535. (Cl. 68-20.)



The herein described washing machine comprising a tank or body, a float in the tank or body having a concave upper side, and rubbing elements forming its concave upper side, and a rubber mounted in the tank or body above the float for oscillation and also for vertical movement with and independently of the float, the said rubber comprising end members and rollers connecting the said end members mounted for revolution and formed with radial blades, the said rollers being arranged in a curve and forming a convex body for the rubber, the pivotal axis of the rubber being to one side of the center thereof and causing the pressure of the rollers of the rubber on the rubbing elements of the float to be progressively increased as the float descends.

1,078,487. AIR-GUN. ARTHUR V. DICKEY, Seattle, Wash., assignor of one-half to William M. Sheffield, Seattle, Wash. Filed Oct. 28, 1912. Serial No. 728,179. (Cl. 124-8.)



1. In an air-gun, the combination of a rotary bullet-feeding element arranged to carry a bullet from the magazine to the rear end of the gun barrel, a hammer block and connections with the feeding element movable longitudinally of the gun for effecting the rotary movement of said element into bullet-receiving position, and a spring for rotating the element into position for discharging the bullet.

2. In an air-gun, the combination of a hammer-block, a main spring therefor, a rotary bullet-feeding element, a spring tending to rotate said element for carrying a bullet from the magazine to the rear end of the gun barrel, and means for effecting the rotary movement of said element into bullet-receiving position and likewise serving to move the hammer-block in opposition to said main spring.

3. In an air-gun, the combination of a rotary bullet feed element provided with an aperture in which a bullet is

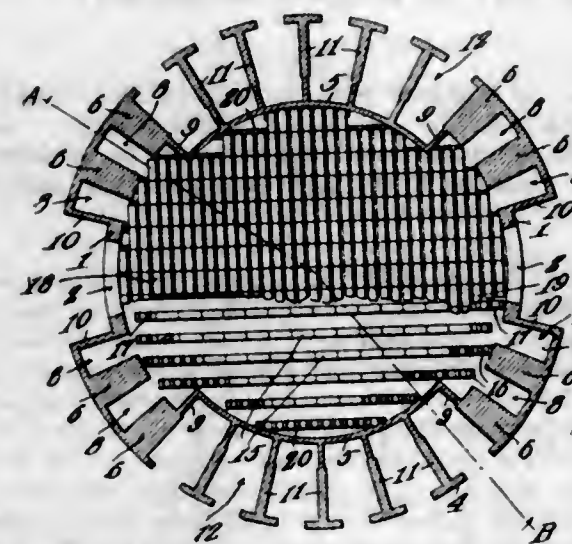
conveyed from the magazine to the rear of the barrel, a spring operatively connected to said element, a spring-pressed valve, a spring-pressed hammer-block for actuating said valve, a detent, means for moving said block into position to be engaged by said detent and also serving in cooperation with said spring to operate the aforesaid bullet feed element, and trigger actuated means for releasing said detent from the hammer-block.

4. In an air-gun, the combination of a rotary bullet feed element, a spring pressed valve, a spring-pressed hammer-block, a detent, means for moving said block into position to be engaged by said detent and also serving to rotate the aforesaid element into position to receive a bullet from the magazine, a spring for actuating said element to convey the bullet into firing position, and means for releasing said detent from the hammer-block whereby a quantity of air is supplied to the rear of the bullet for discharging the same.

5. In an air-gun, the combination with the magazine and the barrel, of a non-rotatable plug having an opening disposed in alignment with the barrel-bore, a sleeve mounted for rotary movement on said plug and provided with apertures disposed at diametrically opposite sides thereof, one of said apertures serving as a receptacle in which a bullet is conveyed from the magazine into firing position, and a hammer block and connections with the sleeve for effecting movement of the latter into bullet-receiving position.

[Claims 6 to 9 not printed in the Gazette.]

1,078,488. KILN. AMOS C. DILLER, near Bluffton, Ohio. Filed Nov. 20, 1911. Serial No. 661,377. (Cl. 25-145.)

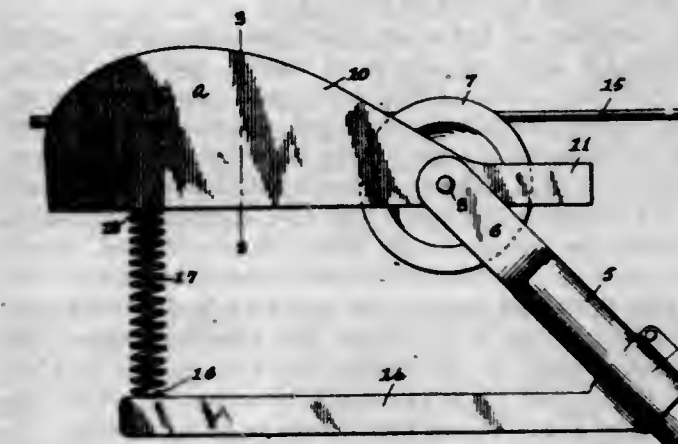


A kiln comprising oppositely disposed sets of radial walls and a pier adjacent each end of both sets, the upper edges of the pliers and walls lying in a common plane; a main wall supported by the pliers and the radial walls, intermediate the inner and outer ends of the pliers and radial walls; oppositely disposed inner walls extending unbrokenly between the inner ends of the pliers, the radial walls having upwardly prolonged portions lying between the inner walls and the main wall and dividing the space between each inner wall and the main wall into a plurality of bag flues; and stacks supported by the pliers, each inner wall constituting an unbroken baffle extending between the stacks.

1,078,489. TROLLEY-GUARD. PHILIP DRAGAN, CHARLES D. GEORGE, and RAYMOND J. PALMERIO, Philadelphia, Pa. Filed Mar. 9, 1912. Serial No. 682,612. (Cl. 191-78.)

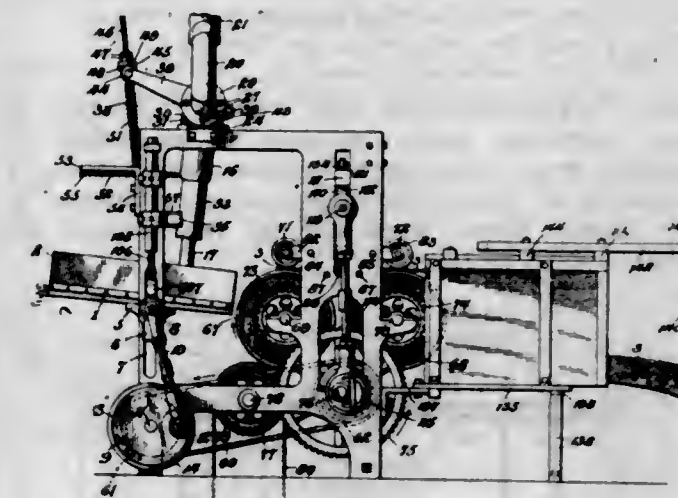
The combination with a trolley wheel, of a trolley guard movably mounted on the wheel pivot near its front end said guard comprising spaced parallel plates connected at their lower edges by a bottom plate extending from a point to the rear of the pivotal support of the guard to the rear end thereof, the upper edges of the plates extending when the guard is in position from a point above the trolley pivot toward a point in coincidence with the

trolley wire as it leaves the trolley wheel, the upper edges rearwardly beyond said point being of arcuate formation and arranged throughout their lengths above the trolley wire when in normal position, the maximum height of said side plates being relatively remote from the trolley



wheel, an arm adjustably connected to the trolley pole and projecting in spaced parallel relation with the lower edge of the guard when the latter is in normal position, and a spring interposed between said arm and bottom plate of the guard.

1,078,490. VENEER BRANDING OR PRINTING PRESS. ORIN C. FENLASON, Hoquiam, Wash. Filed Feb. 21, 1908. Serial No. 417,167. (Cl. 101-24.)



1. A veneer branding machine including continuously operating veneer carrying mechanism, a table arranged to receive the veneer, an oscillatory feeding device arranged to swing from the table to the carrying mechanism to feed the veneer to the latter, means for branding a distinguishing mark or impression on the veneer, separate means independent of the branding means for clamping the veneer at the face thereof to arrest the movement of the veneer through the machine and to hold the said veneer while the impression or distinguishing mark is being applied to the same.

2. A machine of the class described including continuously operating veneer carrying mechanism, means for holding a stack of sheets of veneer, a feeding device movable backwardly and forwardly between the stack and the veneer carrying mechanism to feed the sheets to the latter, means for branding an impression or distinguishing mark on the veneer while the same is in the carrying mechanism, separate means independent of the branding means for clamping the veneer at the face thereof to arrest the movement of the veneer to hold the latter while the distinguishing mark or impression is being applied without stopping the carrying mechanism.

3. A machine of the class described comprising means for holding a stack of sheets of veneer, veneer carrying mechanism including a lower continuously rotating member, and an upper idler member for holding the veneer in contact with the continuously rotating member, a feeding device movable backwardly and forwardly between the stack and the carrying mechanism for feeding the veneer

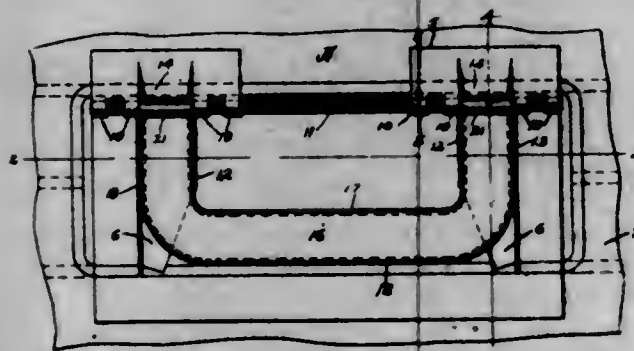
between the said members thereof, means for applying a distinguishing mark or impression on the veneer, and separate means for clamping the veneer at the face thereof to arrest the progress of the veneer to hold the same without stopping the carrying mechanism while the impression or mark is being applied to the veneer.

4. A machine of the class described comprising means for holding a stack of sheets of veneer, carrying mechanism including lower front and rear continuously operating wheels, and front and rear upper gravity acting wheels for maintaining the veneer in contact with the continuously rotating wheels, a feeding device movable back and forth between the stack and the carrying mechanism for feeding the veneer to the front wheels thereof, means located between the front and rear wheels and movable toward and from the veneer for applying a distinguishing mark or impression to the same, and yieldable means carried by the mark or impression applying means and arranged to operate in advance of the same to clamp the veneer while the mark or impression is being applied.

5. A machine of the class described comprising means for holding a stack of sheets of veneer, continuously operating carrying mechanism including upper and lower front and rear wheels, a feeding device movable back and forth between the stack and the carrying mechanism for feeding the sheets of veneer between the front wheels, means located between the front and rear wheels of the carrying mechanism for applying a distinguishing mark or impression to the sheets of veneer, and separate means for clamping the veneer at the face thereof to hold the same stationary without stopping the carrying mechanism while the mark or impression is being applied to the veneer.

[Claims 6 to 51 not printed in the Gazette.]

1,078,491. DROP-HANDLE FOR BOXES. SAMUEL B. FIELD, Holbrook, Mass., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine, and three-fourths to William H. Doble, Quincy, Mass. Filed Mar. 20, 1913. Serial No. 755,607. (Cl. 16—10.)



1. A drop handle for a box or the like comprising a bearing plate formed with a plurality of knuckle bearings, a handle portion having two arms each curled at the end to form a bearing which fits into an interval between knuckle portions of the bearing plate, the knuckle portions of the bearing plate being integral with the body of the plate and struck up therefrom, each of said bearings comprising two struck up portions projecting from one face of the plate at a distance apart from each other, the intermediate portions between said two struck up portions being struck up in the opposite direction, and a hinge pin which passes through said knuckles of the bearing plate and bearings of the handle.

2. A drop handle for a box or the like comprising a bearing plate formed with a plurality of knuckle bearings struck up from the plate and integral therewith, a handle portion having two arms each curled at the end to form a bearing which fits into an interval between the bearing portions of said plate, and a hinge pin which passes through said bearing portions of the plate and handle, said bearing plate being formed with pressed out portions which project outwardly from the face of the plate beyond the bearings and form stops which are adapted to engage the upper face of the handle to limit the upward turning thereof.

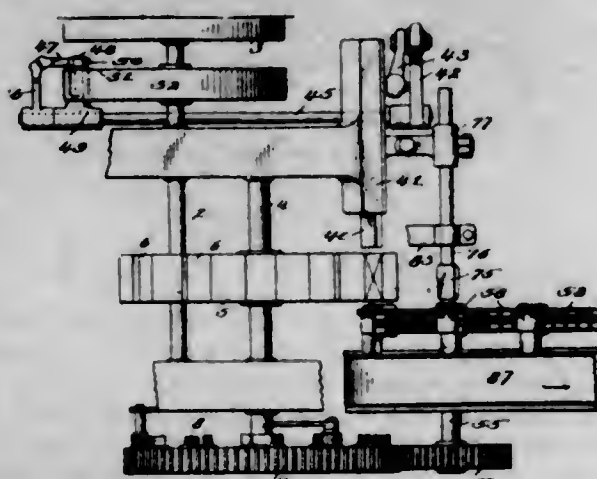
3. A drop handle for a box or the like comprising a bearing plate formed with a plurality of knuckle portions integral therewith, a handle portion having two arms each curled at the end to form a bearing which fits into an interval between knuckle portions of the bearing plate, said bearing portions of the handle being curled from the back upward and then over toward the front, and a hinge pin which passes through the upper portions of the plate and of the handle.

4. A drop handle for a box or the like comprising a bearing plate formed with a plurality of knuckle portions integral therewith, a handle portion having two arms each curled at the end to form a bearing which fits into an interval between knuckle portions of the bearing plate, said bearing portions of the handle each being curled from the back upward and over toward the front, a hinge pin which passes through the bearing portions of the plate and of the handle, said bearing plate being formed with portions pressed outwardly toward the front which project outwardly beyond the face of the bearing plate and are adapted to engage the upper face of the handle when the handle is lifted to a horizontal position.

5. A drop handle for a box or the like comprising a bearing plate formed with a plurality of pairs of parallel slits, the intermediate portion between each pair of parallel slits being bulged out in one direction and the portions at the outer sides of said slits being bulged out in the opposite direction to form bearings integral with the plate, a handle portion having arms curled at each end to form bearings which fit into intervals between two of the said plate bearings and a hinge pin which passes through said bearings of the plate and the bearings of the handle portion.

[Claims 6 to 9 not printed in the Gazette.]

1,078,492. MACHINE FOR INTRODUCING CHARGES OF MATERIAL INTO RECEPTACLES. LOUIS FISCHER, Philadelphia, Pa., assignor to Richard H. Wright, Durham, N. C. Filed May 15, 1912. Serial No. 697,589. (Cl. 93—6.)



1. A device for introducing charges or packets into receptacles comprising a body having a bore containing relatively movable members to enter and cooperate with the mouth of a receptacle, said members being normally collapsed and having rounded ends to enter the mouth of the receptacle and expandible against the walls of the bore of said body as abutments to permit passage of the charge or packet between them and into the receptacle.

2. A device for introducing charges or packets into receptacles embodying opposed relatively movable members having yieldable attached ends and rigid free ends adapted to project into the mouth of a receptacle and having marginal longitudinally extending flanges and means for pushing a charge or packet between said members and into a receptacle positioned to receive the same.

3. A device for introducing charges or packets into receptacles comprising a body, a pair of opposed members having yieldable ends fixed to said body and free ends adapted to form a space between them for the passage of the charge or packet and to project into the mouth of a

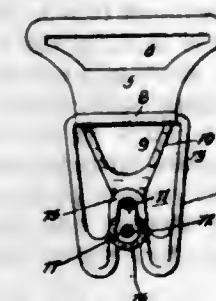
receptacle, said members also having marginal longitudinally extending flanges, and means for pushing a charge or packet through the passage between said members and into the receptacle.

4. A device for introducing charges or packets into receptacles comprising a body, a pair of relatively movable convergently related members having resilient attaching ends fixed to said body and receptacle-receiving ends adapted to project into the mouth of a receptacle and having marginal longitudinally extending flanges which taper toward the receptacle-receiving end thereof, and means for causing the passage of a charge or packet between said members to expand the latter into gripping engagement with the receptacle.

5. A device for introducing charges or packets into receptacles comprising a pair of relatively movable convergently related members adapted to project into the mouth of a receptacle and having marginal turned longitudinally extending flanges, and also means for limiting the relative expanding movement of said members, and means for causing the passage of a charge or packet between said members to expand the latter into gripping engagement with the receptacle and to form a guide to insure the correct entrance of the charge or packet into the receptacle.

[Claims 6 to 17 not printed in the Gazette.]

1,078,493. HOSE-SUPPORTER CLASP. LEONARD S. FLORSHEIM, Chicago, Ill. Filed July 17, 1908. Serial No. 444,018. (Cl. 24—246.)



A hose supporter clasp, comprising a slotted clamping member and an attaching plate to which these members are secured, the slotted clamping member being formed of a single piece of metal of rectangular frame-like configuration, having its lower rail bent inward to form a slot, a web-portion at the lower end of the slotted clamping member providing a wide, continuous, relatively unyielding surface at this point, said slotted clamping member being pivotally secured to the lower end of the attaching plate, said headed clamping member being formed of a single piece of metal of triangular configuration terminating in a downwardly depending tongue having its lower end offset and provided with a relatively large button of yielding material constituting a head, said headed clamping member being of a size at its offset portion to pass through the slot, the lower face of the button overlying the edges of the slot and resting against that portion of the slotted clamping member having the web, said headed clamping member being pivoted to the attaching plate at a point intermediate the ends of the plate and upon the opposite side of the plate to which the slotted clamping member is attached, substantially as described.

1,078,494. BEAD-CHAIN. WILLIAM J. GAGNON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 27, 1913. Serial No. 770,260. (Cl. 59—80.)



A bead chain consisting of hollow balls with connecting dumb-bell links of tubular material, with substantially closed shanks.

1,078,495. PROCESS OF RECOVERING ALKALIS FROM SILICATE ROCKS. SOMA GELLER, Budapest, Austria-Hungary, assignor of one-half to Anton Hambloch, Andernach, Germany. Filed Jan. 3, 1912. Serial No. 689,278. (Cl. 23—22.)

1. A process of recovering alkalis from silicate rocks consisting in heating the silicates with lime and a sulfate and in treating the heated mass with vapors of ammonium carbonate under high pressure.

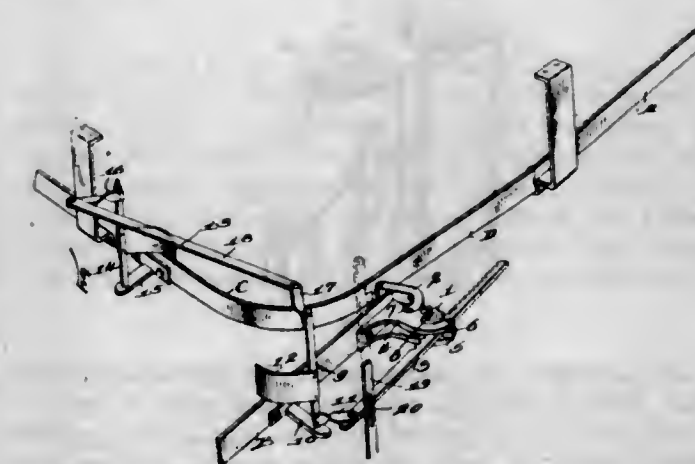
2. A process for recovering alkalis from silicate rocks consisting in heating the silicates with lime-stone and a sulfate and in treating the heated mass with vapors of ammonium carbonate under high pressure.

1,078,496. METHOD OF RECOVERING ALKALIS FROM SILICATES. SOMA GELLER, Budapest, Austria-Hungary, assignor of one-half to Anton Hambloch, Andernach, Germany. Original application filed Jan. 3, 1912, Serial No. 689,278. Divided and this application filed Jan. 20, 1913. Serial No. 743,158. (Cl. 23—22.)

1. A process of recovering alkalis from silicates consisting in heating the silicate rocks with lime and a sulfate, in treating the heated mass with carbon dioxide under high pressure and in separating the constituents of the treated mass.

2. A process of recovering alkalis from silicate rocks consisting in heating the silicates with lime-stone and a sulfate, in treating the heated mass with carbon dioxide under high pressure and in separating the constituents of the treated mass.

1,078,497. SWITCH. WILLIAM W. GROFF, South Omaha, Nebr. Filed June 21, 1913. Serial No. 775,126. (Cl. 104—180.)



1. The combination with a main rail, angularly disposed rails in relation thereto, and a switch tongue to connect said main rail and either of the angularly disposed rails, of a rotatable part, a link connecting the rotatable part and the switch tongue, a slidable part to operate the rotatable part, a rock shaft to operate the slidable part, and agencies in relation to each of said angularly disposed rails to operate said rock shaft and including arms to alternately project across said respective angularly disposed rails.

2. The combination with a main rail, angularly disposed rails in relation thereto, and a switch tongue to connect said main rail and either of the angularly disposed rails, of a rock shaft, agencies in relation to each of said angularly disposed rails to operate said rock shaft and including arms to alternately project across said respective angularly disposed rails, and operative connections between said rock shaft and said switch tongue to move the latter in accordance with the movements of said shaft.

3. The combination with a main rail, angularly disposed rails in relation thereto, and a switch tongue to connect said main rail and either of the angularly disposed rails, of a rock shaft located adjacent one of said angularly disposed rails and having an arm to project across the same and also a second projecting arm, an arm to project across the other angularly disposed rail, a link

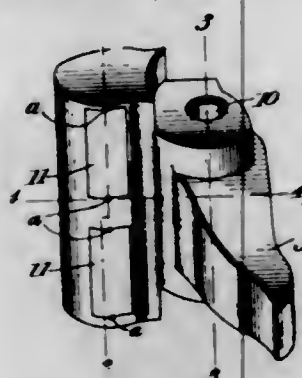
connecting said last-named arm and said second arm on said rock shaft, and operative connections between said rock shaft and said switch tongue to move the latter in accordance with the movements of said shaft.

4. The combination with a main rail, angularly disposed rails in relation thereto and a switch tongue to connect the main rail and either of the angularly disposed rails, of a rock shaft, agencies in relation to each of said angularly disposed rails to operate said rock shaft and including arms to alternately project across said respective angularly disposed rails, a pinion, a link connecting said pinion and said switch tongue, a rack bar for operating said pinion, and an arm on said rock shaft to which said rack bar is connected.

5. The combination with a main rail, angularly disposed rails in relation thereto, and a switch tongue to connect said main rail and either of the angularly disposed rails, of a rock shaft located adjacent one of said angularly disposed rails and having an arm to project across the same and also a second projecting arm, an arm to project across the other angularly disposed rail, a link connecting said last named arm and said second arm on said rock shaft, a pinion, a link connecting said pinion and said switch tongue, a rack bar for operating said pinion, and an arm on said rock shaft to which said rack bar is connected.

(Claims 6 to 12 not printed in the Gazette.)

1,078,498. CAR-COUPLING KNUCKLE. BENJAMIN F. HAUGH, Anderson, Ind. Original applications filed Aug. 11, 1910, Serial Nos. 576,711 and 576,712. Divided and this application filed Mar. 14, 1912. Serial No. 683,825. (Cl. 213-65.)



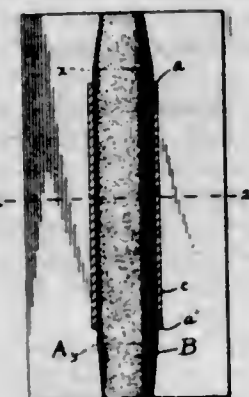
1. As an article of manufacture, a knuckle for car-couplers formed with its pin hole lined with a tube of self-hardening metal secured therein during the process of casting with its ends overhung by said casting, and with the wearing face of its "ear" armed on the draft line with wearing plates also composed of self-hardening metal secured in place during the process of casting and with their edges completely surrounded and embedded in the cast metal and interlocked therewith, substantially as set forth.

2. As an article of manufacture, a car-coupling knuckle formed of cast metal with hardened metal plates inserted in the face of its "ear" on the draft line and secured therein during the process of casting by embedding said plates in the cast metal, and having a pin hole also lined with a tube of hardened metal formed therein during the process of casting and embedded in the cast metal, substantially as set forth.

1,078,499. METHOD OF CASTING CAR-COUPLING KNUCKLES. BENJAMIN F. HAUGH, Anderson, Ind. Filed Aug. 11, 1910, Serial No. 576,711. Renewed Sept. 9, 1913. Serial No. 788,935. (Cl. 22-206.)

1. The method of casting knuckles for car couplings which consists in first forming a core for the pivot bearing by placing a tubular lining in the core box, then forming said core principally within said lining, but extending outside each end thereof, then placing said core carrying said lining within the knuckle mold, then pouring the molten

metal into said mold around said core, then allowing the casting to cool, and then removing said core, substantially as set forth.

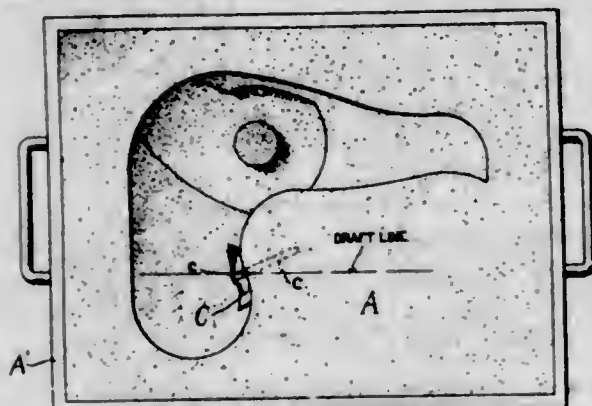


2. The method of casting knuckles for car couplings which consists in embedding a metal lining for the pivot bearing within the core box used for forming the pivot bearing core, forming said core within said lining in said core box, and with ends projecting beyond the ends of said lining, removing said core increased by said lining from said core box and placing the same in the knuckle mold, pouring the molten metal into said knuckle mold around the core, allowing the same to cool, then removing said knuckle, and then removing the core from the pivot bearing in said knuckle, substantially as set forth.

3. The method of casting car coupling knuckles consisting in taking a metal lining having the characteristics that permit it to self-harden while cooling and closing the ends thereof, placing the closed-end tube in a knuckle mold, then pouring the metal that is to form the knuckle in the mold around the closed tube, gradually cooling the poured metal to slowly cool the closed tube within the knuckle and enable it to self-harden while in the knuckle metal, and finally removing the closure from the ends of the hardened tube, whereby a straight smooth passage will be formed by the self-hardened tube without machine work or drilling and the same be ready to receive the pivot pin of the knuckle.

4. The method of casting car coupling knuckles consisting in taking a metal lining and placing a core filling therein with the ends of the core projecting beyond the ends of the tube but leaving the outer and end surfaces of the tube exposed, placing the closed tube in a mold, pouring molten metal in the mold around the exposed outer and end surfaces of the closed tube so as to retain the tube in place, allowing the casting to cool, and finally opening the tube by removing the filling from the straight smooth inner surface, whereby the knuckle will be provided with a straight smooth passage ready to receive the pivot pin upon the cooling of the metal.

1,078,500. METHOD OF CASTING KNUCKLES FOR CAR-COUPPLINGS. BENJAMIN F. HAUGH, Anderson, Ind. Filed Aug. 11, 1910, Serial No. 576,712. Renewed Sept. 9, 1913. Serial No. 788,936. (Cl. 22-206.)



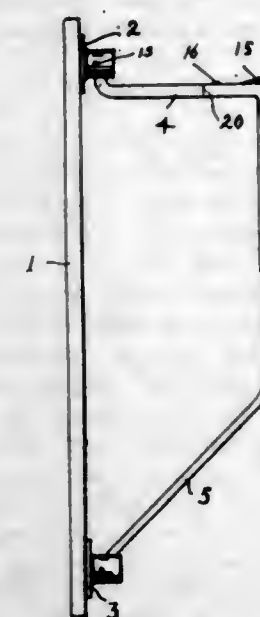
1. The method of casting car coupler knuckles having insert wearing plates, which consists in forming on the pattern marking points directly on the center or draft line of the face of the knuckle, forming notches in the

ends of the wearing plates to be inserted on their center lines, securing said plates in the mold by anchor pins inserted into sand at the points so marked by the pattern and engaging with the notches in said plates, and then pouring the molten metal into said mold, substantially as set forth.

2. The method of casting car coupler knuckles having hardened insert plates, which consists in forming a pattern with marking points on the mold to determine the line of draft securing said insert plates to said mold by anchor devices inserted in the points so marked and engaging with said plates, and pouring the molten metal into said mold surrounding said insert plates so secured therein, and then cutting the projecting ends of said anchor devices from the face of the knuckle after being formed, substantially as set forth.

3. The method of casting car coupler knuckles with hardened insert plates in its wearing face comprising fixing by the form of the mold the position of said insert plates in the mold on the draft line of the knuckle and securing them by anchor pins engaging both with said plates and with the mold within the lines of its ends then pouring the metal to surround the edges of said plates, substantially as set forth.

1,078,501. TOWEL-RETAINER. THEODORE HEINS and EDWARD R. GALLAND, San Francisco, Cal. Filed July 24, 1912. Serial No. 711,348. (Cl. 45-32.)



1. A towel retainer comprising a support, brackets carried thereby, a towel supporting rod having a horizontal portion and a downwardly extending portion, means to lock said rod to the brackets and to permit said rod to be turned about an axis parallel to the support and passing through the brackets, and means to loosely retain the towels upon the substantially horizontal portion of the rod, substantially as described.

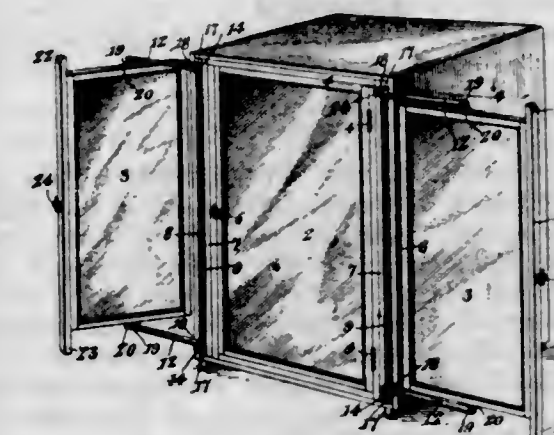
2. In a towel retainer, a support, two brackets carried thereby, a jointed rod supported by said brackets and movable about an axis and passing through both of said brackets, means to lock the ends of the rod to the brackets, and a spring catch carried upon the upper portion of the rod to loosely retain towels placed thereon, substantially as described.

1,078,502. WARDROBE. OSCAR HERRMANN, New York, N. Y. Filed Sept. 12, 1912. Serial No. 720,030. (Cl. 45-99.)

1. A device of the class described having a central fixed mirror and provided at opposite sides with inwardly ex-

tending vertical pockets, horizontal guides arranged at the top and bottom of the pockets, slides mounted in the guides, horizontally swinging arms pivotally connected to the slides and adapted to be carried into and out of the said pockets by the slides, and pivoted mirrors carried by the arms and movable into and out of the said pockets.

2. A device of the class described having a central fixed mirror and provided at opposite sides thereof with inwardly extending vertical pockets, horizontal guides arranged at the top and bottom of the pockets, slides including upper and lower slidable pieces having projections extending into the guides, and a vertical bar having its terminals piercing the said slidable pieces and projecting into the guides and cooperating with the said projections to slidably interlock the said pieces with the guides, horizontally swinging arms pivotally connected to the slides and adapted to be carried into and out of the said pockets, and pivoted mirrors carried by the said arms and movable into and out of the said pockets.

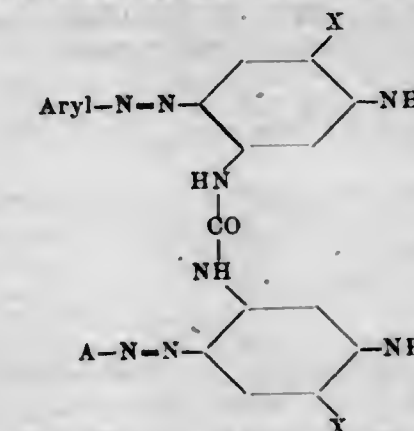


3. A device of the class described including a cabinet or frame having an inwardly extending vertical pocket, horizontal guides arranged at the top and bottom of the pocket, slides mounted in the guides, horizontally swinging arms pivotally connected to the slides and adapted to be carried into and out of the said pocket by the slides, and a mirror pivoted at its top and bottom to and carried by the arms and movable into and out of the said pocket.

1,078,503. DIAZOTIZABLE DISAZO DYES FOR COTTON. WILHELM HERZBERG, Wilmersdorf, and WERNER LANGE, Treptow, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Oct. 21, 1912. Serial No. 727,013. (Cl. 8-1.)

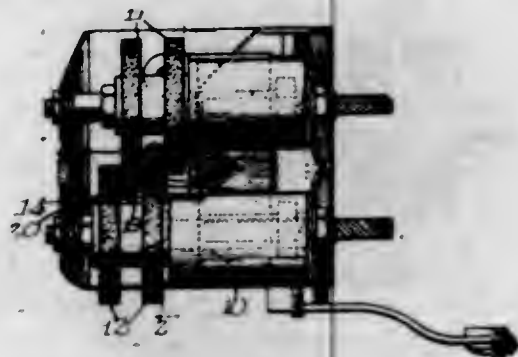
1. The herein-described process for the manufacture of diazotizable disazo dyes for cotton by combining one molecular proportion of a symmetrical 3,3'-diaminodiphenylurea of the benzene-series with one molecular proportion of each of two different diazo compounds of which one is derived from a basic amine, the other from an amino-acid.

2. The herein-described new disazo-dyes of the formula:



where X represents a univalent radical and A the residue of an aromatic acid, as pulverized dry sodium salts being

3. The combination of a rotatable circular knife grinder having vertical guide bars arranged in a plane at an angle to the plane of the grinder, and a scissors grinding attachment slidable over the top of said guide bars and having a projecting portion to engage the top of one of the bars to prevent the attachment from sliding downwardly and to position the lower edge thereof with respect to the grinding member.

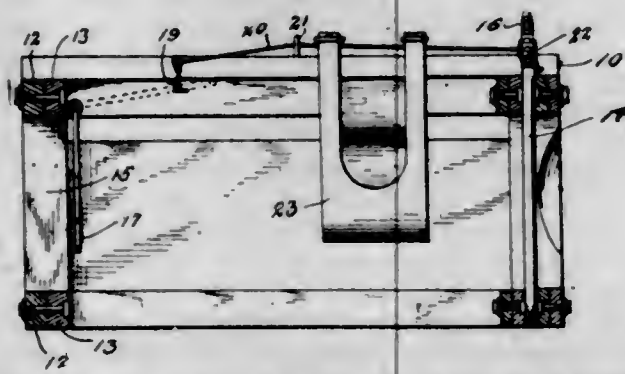


4. The combination of a rotatable circular knife grinder having vertical guide bars arranged in a plane at an angle to the plane of the grinder, and a scissors grinding attachment supported by said bars at the top thereof, and having an abutment portion extending over the said grinder at right angles thereto.

5. A scissors grinder attachment for a grinding machine consisting of a metal clip with spaced grooves for connection with spaced bars.

[Claims 6 to 12 not printed in the Gazette.]

1,078,509. ADJUSTABLE HOG-TRAP. GEORGE M. LOWE, Ridgeway, Mo. Filed Mar. 31, 1913. Serial No. 757,961. (Cl. 119-99.)



A hog trap comprising a bottomless structure consisting of a pair of sections adjustable toward and away from each other, both ends of the trap being open, a swinging gate at one end of the trap, a pivoted stanchion bar, means for holding the gate in elevated position to permit an animal to enter the trap, and connections between the stanchion bar and the holding means whereby when the stanchion bar is moved out of clamping position the gate will be permitted to fall and prevent the animal backing from the trap.

1,078,510. CONCRETE-REINFORCEMENT. DANIEL B. LUTEN, Indianapolis, Ind. Filed Sept. 25, 1908. Serial No. 336,157. (Cl. 72-122.)



1. A reinforcing unit for beams supported on columns, comprising a plurality of longitudinal members for embedment in the beam, said longitudinal members being spaced transversely and connected by members determining said spacing, the ends of some of said longitudinal members being vertically displaced upward, with the ends of said upwardly displaced members returned to substantial parallelism with the undisplaced members and then bent

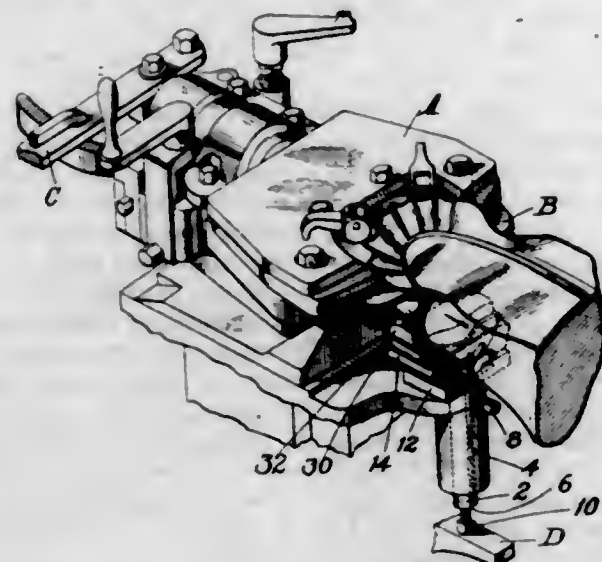
downward and crossing the plane of the undisplaced members and extending below the plane of the bottom of the beam for embedment in the supporting columns.

2. A reinforcing unit to be embedded in beams and supporting columns of concrete, said unit having a main portion for embedment in the beam, the ends of which main portion have a greater vertical height than its middle and also have downward extensions which extend below the bottom plane of the main portion and of the beam for embedment in the supporting columns.

3. A reinforcement unit intended for beams supported on columns, comprising a plurality of longitudinal members connected by other members arranged transversely of the unit, certain of said longitudinal members being vertically displaced upward at points varying in distance from the middle of the unit and thereafter brought into substantial parallelism with the undisplaced members, the ends of upwardly displaced members being down turned and crossing the plane of the undisplaced members of the members and extending below the plane of the bottom of the beam for embedment in the supporting columns.

4. A reinforced plastic structure comprising vertical supporting members, connecting members resting on said supporting members, and reinforcing members extending through low regions in the connecting members at intermediate portions in the length of the latter, deflected thence upward to extend through higher regions in the connecting members adjacent the supporting members, and deflected thence downward below the plane of the connecting members into the supporting members, the said downwardly extending parts of a reinforcing member lying in those portions of the supporting members farthest from the connecting member in which the main portion of said reinforcing member lies, whereby the reinforcing members extending into a supporting member from the connecting members on opposite sides thereof cross each other.

1,078,511. WORK-SUPPORT. ALBERT A. MACLEOD, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 19, 1912. Serial No. 715,895. (Cl. 12-127.)



1. In a machine of the class described, the combination of a toe post, a block mounted on the post, a segmental box mounted for movement in said block, and a pad in the box to engage and support the toe portion of a shoe.

2. In a machine of the class described, a toe post, a block on the post having a recess therein formed as a segment of a cylinder, and a cylindrical segment adapted to fit freely in said block and having an approximately straight side by which to support a shoe toe.

3. A device of the class described, having in combination, a block hollowed as a segment of a cylinder, a segment-shaped box adapted to fit said hollow, and a block of resilient material seated in said box, and adapted to support the toe of a shoe.

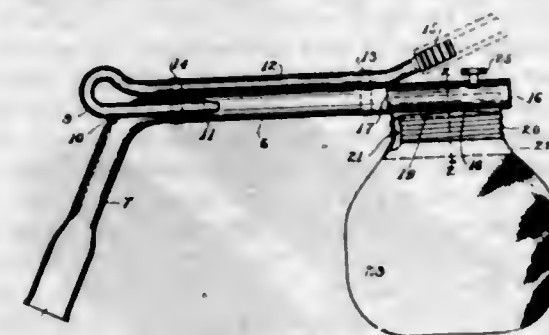
4. A device of the class described having, in combination, a toe post, a block mounted thereon for movement

longitudinally of a shoe, resilient means for holding the block centrally over the post, and a segmental pad mounted with its curved side lowermost to move freely in said block transversely of the shoe.

5. A device of the class described having, in combination, a toe post, a block thereon, a segmental box mounted in said block for free sliding movement on its cylindrical surface, a resilient pad mounted in said box, a pin passing through the pad and box to secure them together, and through slots in the block, said slots permitting movement of the pad and box relatively to the block.

[Claim 6 not printed in the Gazette.]

1,078,512. PNEUMATIC AGITATOR AND CLEANER. ALBERT W. MILLS, West Orange, N. J. Filed Oct. 2, 1912. Serial No. 723,470. (Cl. 15-60.)



1. A pneumatic agitator and cleaner comprising debris-disposal means, a tube having an open end and a port in said tube adjacent to its opposite end and communicating with said disposal means, a rotatable tubular valve at said opposite end fitting in, and communicating with, said tube by one open end, a head in said valve closing its outer end, a port being formed in said valve adapted by rotation thereof to be registered with and separated from the port in said tube, and an air ejector in said tube adapted to discharge toward said valve and to be connected with a compressed air supply.

2. A pneumatic agitator and cleaner comprising debris-disposal means, a tube having an open end and a port in said tube adjacent to its opposite end and communicating with said disposal means, a rotatable tubular valve at said opposite end and fitting in, and communicating with, said tube by one open end, a head in said valve closing its outer end, a port being formed in said valve adapted by rotation thereof to be registered with and separated from the port in said tube, a compressed air pipe attached to said tube, a hose nipple on said pipe, an air ejector connected therewith located within said tube and adapted to discharge toward said valve, a threaded union enveloping the discharge port in said tube for attaching said disposal means, and, comprised in the latter, a union nut and dirt bag.

3. A pneumatic agitator and cleaner comprising debris-disposal means, a tube having an open end and a port in said tube adjacent to its opposite end and communicating with said disposal means, a circumferential slot being formed in said tube, a rotatable tubular valve at said opposite end fitting in, and communicating with, said tube by one open end, a head in said valve closing its outer end, a valve-stem extending through said slot, a port being formed in said valve adapted by rotation thereof to be registered with and separated from the port in said tube, and an air ejector in said tube adapted to discharge toward said valve and to be connected with a compressed air supply.

1,078,513. FOUNTAIN-PEN. GEORGE S. PARKER, Janesville, Wis. Filed July 8, 1911. Serial No. 637,555. (Cl. 120-46.)

1. A fountain pen comprising a tubular casing, a flexible ink reservoir extending lengthwise of the pen in said casing, a presser bar extending along said reservoir, and a removable spring collar frictionally retaining itself within said casing by its tendency to expand and having a part

extending lengthwise of the pen beyond the plane of the collar and to which said presser bar is secured whereby the presser bar and collar may be inserted and removed together.



2. A fountain pen comprising an outer tubular casing, an inner tubular casing, a flexible ink reservoir extending lengthwise of the pen in said inner casing, a presser bar extending lengthwise of the pen along the reservoir, a tongue connected to the presser bar and extending lengthwise of the pen, and a spring support for said tongue yieldable therewith.

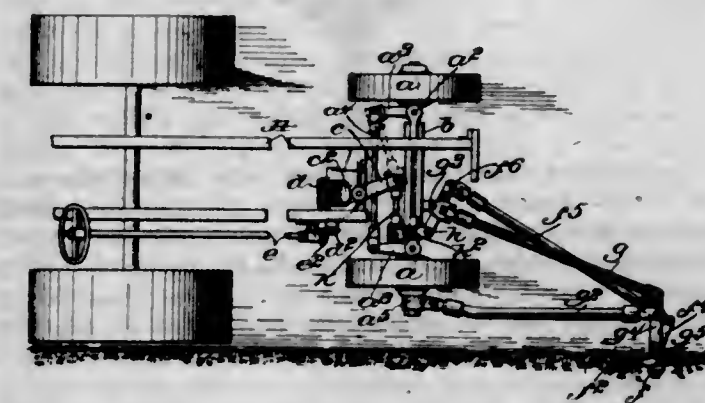
3. A fountain pen comprising an outer tubular casing having a displaceable part, an inner tubular casing in said outer casing and having an open end and a slot, a flexible ink reservoir extending lengthwise in said inner casing, a removable spring collar frictionally retained within said inner casing and having a tongue extending lengthwise of the pen in said slot, and a presser bar carried by said tongue and extending lengthwise of the pen along the reservoir.

4. A fountain pen comprising a tubular casing, a flexible ink reservoir extending lengthwise of the pen within the casing, a presser bar extending lengthwise of the pen along the said reservoir, and a piece of sheet metal bent to conform to the bore of said casing but having its ends separated and acting outwardly frictionally against the same to retain itself removably and yieldably in place, said collar having a tongue extending lengthwise of the pen and secured to the presser bar so that said bar, tongue and collar will move downward together on the application of pressure and will spring back when the pressure is removed and so that said parts will be removable and replaceable together.

5. A fountain pen comprising a tubular casing, a flexible ink reservoir extending lengthwise of the pen in said casing, a plurality of collars frictionally retained within said casing and having a common tongue extending lengthwise of the pen, and a presser bar carried by said tongue and extending lengthwise of the pen along the reservoir.

[Claims 6 to 8 not printed in the Gazette.]

1,078,514. STEERING-GEAR. HARLEIGH PARKHURST, Walpole, N. H. Filed Feb. 6, 1911. Serial No. 606,745. (Cl. 21-114.)



1. In a steering gear for traction engines, the combination with the steering wheels mounted on vertically pivoted knuckles; of a guide wheel projecting forward beyond the steering wheels; a frame for said guide wheel having a pivotal connection with the frame of the traction engine, and another pivotal connection with one of said pivoted knuckles; and means for turning said guide wheel on a substantially vertical axis in the frame for said guide wheel.

2. In a steering gear for traction engines, the combination with the steering wheels mounted on vertically pivoted knuckles; of a guide wheel; a frame for said guide wheel, a part of which is pivotally connected to the front

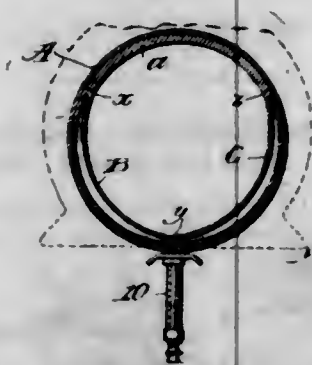
of the traction engine frame; and a link forming another part of said frame for the guide wheel, said link being pivotally connected with an axial projection from one of the steering wheels.

3. In a steering gear for traction engines, the combination with the steering wheels mounted on vertically pivoted knuckles; of a guide wheel projecting forwardly beyond said steering wheels and being adapted to bear laterally against a guiding surface; a frame for said guide wheel; universal joints connecting part of said frame with the front of the traction engine frame; a link forming another part of said frame; and a pivotal connection between said link and an axial projection from one of the steering wheels.

4. In a steering gear for traction engines, the combination with steering wheels mounted on vertically pivoted knuckles; of a guide wheel projecting forward of the engine wheels; a triangular frame for said guide wheel a part of which is pivotally connected to the traction engine frame; a link forming another part of said frame, and also constituting a connection between said frame and an axial projection from one of the engine steering wheels; and means for turning said guide wheel in a direction transverse to its axis to a position out of alignment with the engine wheels.

5. In a steering gear for traction engines, the combination with the main steering wheels of the traction engine, mounted on knuckles; of a triangular steering frame one member of which is pivoted to the front of the engine frame; a guide wheel mounted on a vertical axis at the end of said steering frame; an elbow lever on the engine frame; a link connecting the knuckle of the guide wheel to said elbow lever; an arm connected to the elbow lever; a steering rod geared to said arm; and a link forming the other member of the triangular steering frame, and constituting the means for connecting the said frame to the hub of one of the main steering wheels.

1,078,515. INNER TUBES FOR PNEUMATIC TIRES. ALFRED RAYMOND and ALBERT RAYMOND, Washington, D. C. Filed Sept. 25, 1913. Serial No. 791,829. (Cl. 152-22.)



1. An inner tube for pneumatic tires comprising a series of air chambers, some of which are contained within the wall surrounding the other chamber, the inner chambers being complete tubes secured to the inner wall of the outer chamber for substantially one half of their circumferences, and an air supply means adapted to discharge into each of said chambers successively, substantially as set forth.

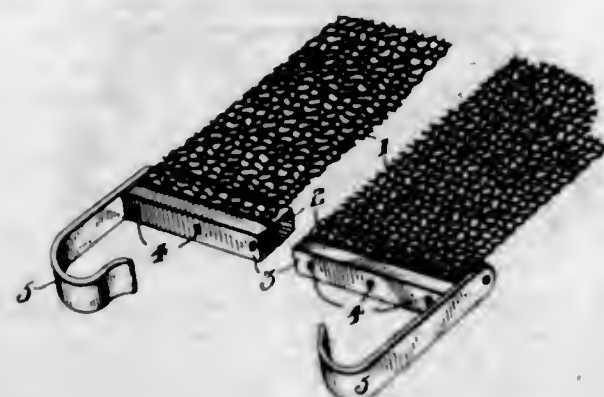
2. A multiple chamber inner tube structure for pneumatic tires comprising a series of tubes adapted for successive use, one tube surrounding the other tubes, and the inner tubes secured to the walls of the surrounding tube for a distance approximately equal to their respective diameters, substantially as set forth.

3. A multiple chamber inner tube structure for pneumatic tires comprising a series of tubes one of which surrounds the others, the inner tubes being secured edge to edge and with that portion of their faces adjacent to the outer tube secured to the inner face thereof, said outer tube being formed with a thickened portion in the space between the edges of the inner tubes adjacent to the tread of the tire, substantially as set forth.

4. An inner tube structure for pneumatic tires comprising a series of tubes one of which surrounds the others, said outside tube having a thickened portion and its inner walls having a series of tubes attached thereto edge to edge between the edges of said thickened portion, and means for inflating said tubes successively, substantially as set forth.

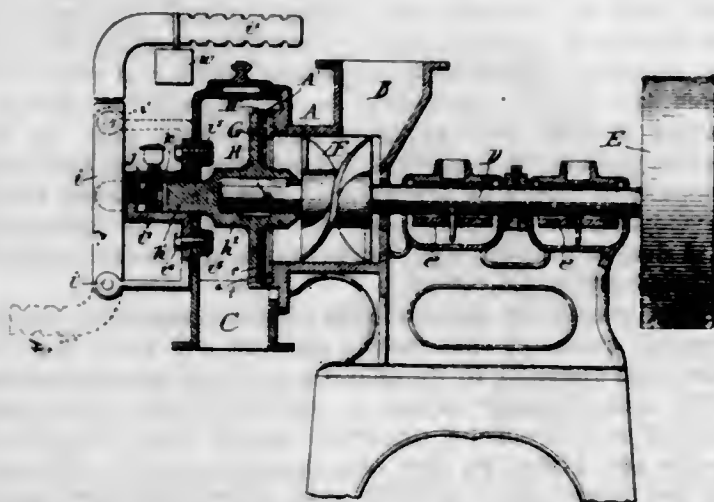
5. An inner tube structure for pneumatic tires comprising a series of tubes contained within a surrounding tube and attached to the inner wall of said surrounding tube, said surrounding tube being provided with thickened portions between the adjacent edges of said inner tubes, and means for inflating said several tubes successively, substantially as set forth.

1,078,516. BED-SPRING. KISS RICHEY, McKees Rocks, Pa. Filed Aug. 5, 1913. Serial No. 783,165. (Cl. 5-67.)



In a bed spring, clamping heads, each head comprising bars, screws connecting said bars and clamping said bars upon the ends of said spring, and hook-shaped members connected to the ends of one of said bars and adapted to engage the posts of a bed frame for holding said spring thereon.

1,078,517. GRINDING-MILL. MARION EUGENE ROZELLE, Chambersburg, Pa. Filed Nov. 2, 1911. Serial No. 658,192. (Cl. 83-8.)



1. In a grinding mill, the combination of opposing stock retaining surfaces, peripheral flanges and radial ribs associated with said surfaces, and means to force the stock between said surfaces radially toward said flanges which retain a body of the stock and cause it to compact on said surfaces, said ribs adapted to anchor the body of compacted stock to the said surfaces thereby forming grinding units composed of the stock itself.

2. In a grinding mill, the combination of opposing stock retaining surfaces, peripheral flanges and radial ribs associated with said surfaces, and means to force the stock between said surfaces radially toward said flanges which retain a body of the stock and cause it to compact on said surfaces, said ribs being less advanced than said flanges and adapted to anchor the body of compacted stock to the

said surfaces thereby forming grinding units composed of the stock itself.

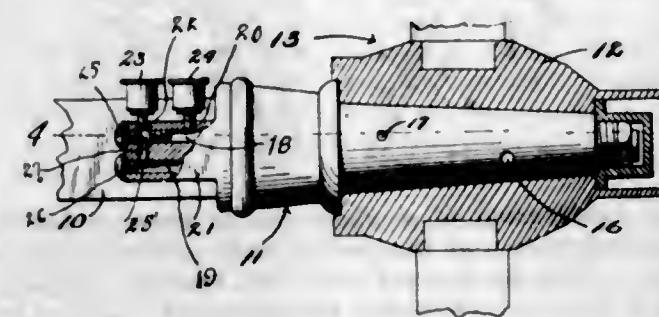
3. In a grinding mill, a casing provided with a stationary stock anchoring surface, a rotary stock anchoring surface opposing the same, annular flanges carried by said surfaces and operative to confine and rigidly anchor a portion of the stock in bodies on said surfaces, means to feed the stock to be ground between said bodies, and means urging one of said stock anchoring surfaces toward the other.

4. In a grinding mill, the combination of a rotary disk having peripheral flanges and radial ribs to anchor the stock and retain it thereon in a body or layer, means to press the stock against said disk, and means associated with said casing to retain a portion of the stock forced toward said disk and to present it in a body or layer to the body or layer on the disk.

5. In a grinding mill, the combination of a casing having a stock anchoring surface disposed in a plane perpendicular to the longitudinal axis of the casing, and a rotary disk-like member journaled in the casing and having a stock anchoring surface opposing that of the casing, said stock anchoring surfaces having peripheral flanges and radial ribs, and means to force stock between said surfaces and radially toward said flanges which confine the stock and cause it to compact on said surfaces, the bodies of compacted stock being anchored to the surfaces by means of said radial ribs.

[Claims 6 to 12 not printed in the Gazette.]

1,078,518. WAGON-SKEIN. WILLIAM J. SHELTON, JESSE SHELTON, and HARRISON B. SHELTON, Troy, Kans. Filed Nov. 19, 1912. Serial No. 732,340. (Cl. 64-27.)



An axle skein having an integrally cast longitudinally formed rib in the interior thereof, said rib having longitudinal oil channels of different lengths, said channels opening outwardly through the skein at points adjacent their outer ends, said rib having a rearward extension provided with threaded openings, oil cups carried in the openings, the channels opening through the rear end of said extension, a plug in the rear of one of the channels, the channels being connected by a passage, and a valve in the rear end of the other channel, one of said cups being disposed to deliver oil through said passage into the second channel, said valve preventing oil from each of the cups entering the other channel.

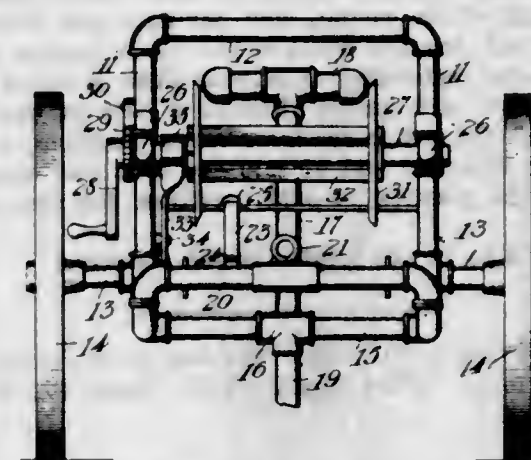
1,078,519. WIRE-HANDLING APPARATUS. WILLIAM W. STEINER, Wellman, Iowa. Filed Aug. 8, 1911. Serial No. 643,019. (Cl. 242-90.)

1. An apparatus for handling barbed wire comprising a truck, bearings mounted on said truck, a reel shaft mounted in said bearings, a reel on said shaft, means for operating said shaft, a pivoted angle brake bar carrying a brake shoe on one end engaging the reel shaft, and a pawl on its other end, and a notched bar with which said pawl is adapted to engage for holding said brake in the desired adjustment, substantially as set forth.

2. An apparatus for handling wire comprising a frame made of pipe and consisting of longitudinally extending side bars, transversely extending horizontal end bars, centrally located uprights, a transverse top bar connecting said uprights, suitable fittings connecting said several parts, an axle extending through fittings on said uprights,

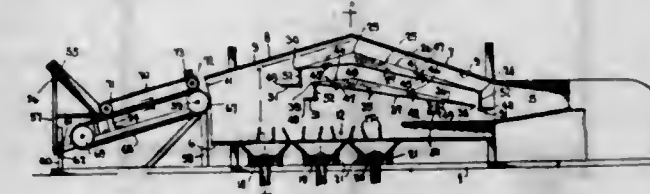
198 O. G.—31

wheels on said axle, a central fitting on the front horizontal bar, a handle extending forward from said central fitting, a supporting leg extending down from said central fitting, a sliding guide on the rear horizontal bar, a lever connected to said sliding guide through a pivoted link,



open-top bearings mounted on said uprights, a reel shaft in said bearings, a reel on said shaft, a crank on said shaft, a ratchet and pawl for holding said shaft against the strain of the work, and means for holding said shaft under a frictional brake, substantially as set forth.

1,078,520. ORE-SEPARATOR. FRITZ OSCAR STROMBORG, Seattle, Wash. Filed Feb. 6, 1913. Serial No. 746,591. (Cl. 83-54.)



1. In a dry separator, the combination with a fixed horizontal casing having openings at its extremities and in its bottom, and hoppers beneath the latter, of feeding mechanism for tossing the material to be treated into the rear end of the casing, means for adjusting the angle at which said material is delivered, and means for delivering a blast of air into the opening in the front end of the casing.

2. In a dry separator, the combination with a fixed horizontal casing having openings in its bottom, hoppers beneath the openings, and means for adjusting the position of the mouths of said hoppers; of feeding mechanism for tossing the material to be treated into the rear end of the casing, means for adjusting the angle at which said material is delivered, means for delivering a blast of air within the casing and toward said material, and means for varying the size and shape of the channel through which said blast flows, for the purpose set forth.

3. In a dry separator, the combination with the casing having a series of hoppers communicating with its bottom at different points; of means for delivering a blast of air into the front end of said casing, mechanism for cutting said blast into strata, means for tossing the material to be treated into the rear end of said casing on a line directed across the mouths of the hoppers and toward said air-strata, and means for adjusting the position of said mechanism to vary the angle of this line to said strata.

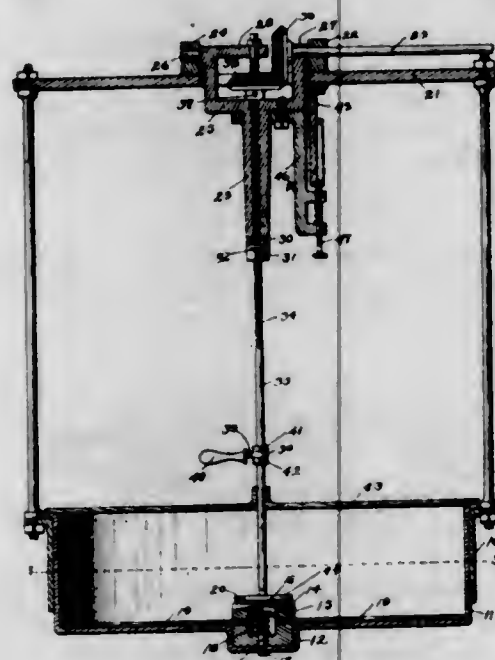
4. In a dry separator, the combination with the casing having a series of hoppers communicating with its bottom at different points; of means for delivering a blast of air into the front end of said casing, means for cutting said blast into strata, and mechanism for feeding the material to be treated into the rear end of said casing comprising a pair of endless aprons whose contiguous sides contact with each other and move toward said casing, rollers supporting said aprons, that supporting the uppermost being mounted in spring bearings, a light

framework supporting all such bearings, and means for adjusting the angle of the framework to the direction of said strata of air.

5. In a dry separator, the combination with a casing of a plurality of partitions standing within said casing in approximate parallelism with each other and with the top wall of the casing, each having a slot through it near each end, the side walls of the casing having upright rows of holes registering with said slots, a series of eye bolts whereof each passes through a pair of said holes and through the slot in the intervening partition, a thumb nut on the threaded end of said eye bolt, and means for adjusting the position of said partition, for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,078,521. CORN-POPPER. REUBEN O. STUTSMAN, Des Moines, Iowa. Filed May 2, 1910. Serial No. 558,941. (Cl. 53-4.)



1. In a device of the class described, the combination of a pan, a stirrer block rotatably mounted in the bottom of the pan and stirrer arms carried thereby, a rotatable shaft supported above the pan and capable of movement toward and from said stirrer block, means for detachably connecting said shaft with the stirrer block whereby the rotation of the shaft will turn the block with it, for the purposes stated.

2. In device of the class described, the combination of a pan having a central depression in its bottom, a stirrer block rotatably mounted in said depression, straight flexible stirrer arms fixed to the block and in position close to the bottom of the pan, means for yieldingly holding the stirrer block downwardly, a rotatable shaft above the pan and capable of movement toward and from the block, and means for detachably connecting it with the block.

3. In a device of the class described, the combination of a pan, a stirrer block rotatably centrally mounted on the bottom of the pan, a bolt extended through the block and through the pan, a spring on said bolt, to yieldingly hold the block toward the pan, stirrer arms carried by the block, a shaft mounted above the block and capable of movement toward and away from the block, and means for detachably connecting the shaft and the block whereby the rotation of the shaft will turn the block with it.

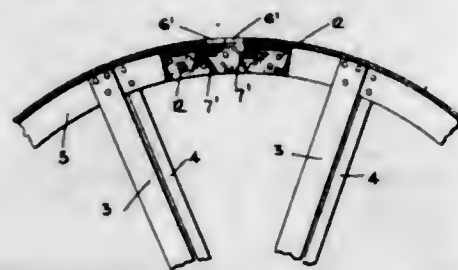
4. A device of the class described, comprising a pan having a central circular depression in its bottom, a stirrer block rotatably mounted in said depression and extended above the bottom of the pan, said block having a recess at its central portion and two lugs at its top, a headed bolt extended downwardly through the recess in the block and through the lower part of said block and the bottom of the pan and having a nut at its lower end, a head on the upper end of said bolt, a spring interposed

between the said head and the block to yieldingly hold the block downwardly, two straight flexible stirrer arms fixed to the block and designed to stand close to the bottom of the pan, a vertically movable rotatable shaft above the pan, and a cross bar on said shaft to engage the lugs on top of the block, for the purposes stated.

5. A device of the class described, comprising a pan, a stirring device mounted within the pan, a shaft slidingly mounted above the pan capable of vertical movement, means for rotating the shaft when in any position of its vertical movement, a supporting bearing for said shaft fixed against longitudinal movement with relation to said shaft having a vertically arranged slot at its lower end and a transverse slot at the top of the vertically arranged slot, a collar rotatably mounted on the shaft, below said upper means for preventing longitudinal movement of the collar on the shaft, said collar being provided with an arm extended outwardly, and a handle on said arm, said parts being so arranged that when the shaft is moved upwardly the arm will enter the vertical slot in the bearing and the handle may then be turned laterally so that the arm will enter the transverse slot and thus support the shaft in an elevated position, and means for detachably connecting the lower end of the shaft with the stirring device.

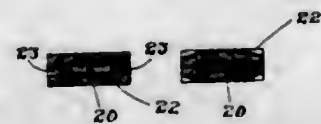
[Claims 6 to 8 not printed in the Gazette.]

1,078,522. METALLIC WHEEL. SAMUEL HENRY SUMMERS, Winnipeg, Manitoba, Canada. Filed June 26, 1912. Serial No. 705,993. (Cl. 21-170.)



The combination of a wheel rim of inverted U-shape in cross section and having its ends provided with recesses to form an opening and with inwardly projecting integral members extending from the end walls of said recesses, and an inverted U-shaped brace having an opening therein and arranged within the rim with the inwardly projecting members of said rim extending through the opening thereof, and fastening means passing through the side members of the rim and brace.

1,078,523. KNIFE-SWITCH BLADE. ALEXANDER K. SUTHERLAND, Plainville, Conn., assignor to The Trumbull Electric Manufacturing Company, Plainville, Conn., a Corporation of Connecticut. Filed Jan. 10, 1913. Serial No. 741,239. (Cl. 175-282.)

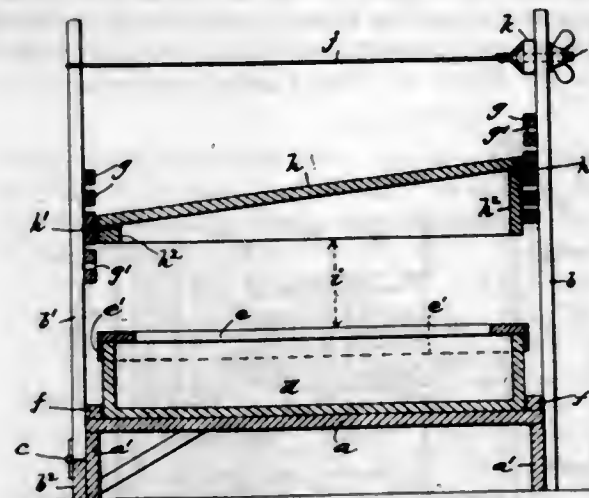


A knife switch blade comprising a blade provided near its handle end with recesses and an attaching piece having a longitudinal slot in which the blade is seated, the parts being secured together by swaging the ends of the metal of the attaching piece on each side of the slot into the recesses.

1,078,524. FEED-TROUGH FOR POULTRY. RAYMOND C. SUTTON, North Attleboro, Mass. Filed Mar. 14, 1913. Serial No. 754,360. (Cl. 119-81.)

1. A feed trough for poultry consisting of a base; a feed box supported thereby; upright posts projecting vertically from each end of said base, the posts at one end being hinged so as to be capable of swinging backward

away from said base, and means for securing said posts in position, substantially as described.



2. A feed trough for poultry consisting of a base; a feed box supported thereby; upright posts projecting vertically from each end of said base, the posts at one end being fixed and those at the other end being hinged to said base, said posts having transversely fixed thereon a plurality of spaced strips; a roof adapted to cover said feed box by engagement in the several spaces between said spaced strips, and a plurality of wires arranged in a horizontal plane between and fixed to said posts above said roof, substantially as set forth.

3. A feed trough for poultry consisting of a base; a feed box supported thereby; upright posts projecting vertically from each end of said base, the posts at one end being hinged so as to be capable of swinging backward away from said base; a plurality of wires uniting the upper portion of said hinged posts with the upper portion of the posts at the opposite end of said trough; and bolts connected with said wires and passing through the posts at one end of said trough and operating to adjust the tension of said wires, substantially as set forth.

1,078,525. REFRACTORY MATERIAL. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Apr. 26, 1912. Serial No. 693,496. (Cl. 75-113.)

1. Refractory material, comprising a layer of dense silicon carbide and a layer of porous silicon carbide of relatively high thermal resistivity.

2. Refractory material, comprising a layer of dense silicon carbide, and a contiguous layer of porous silicon carbide of low apparent density and high thermal resistivity.

3. A refractory structure consisting of a layer of silicon carbide of high refractability and mechanical strength, and of low thermal resistivity, and a contiguous layer of silicon carbide of porous structure, low apparent density and high thermal resistivity.

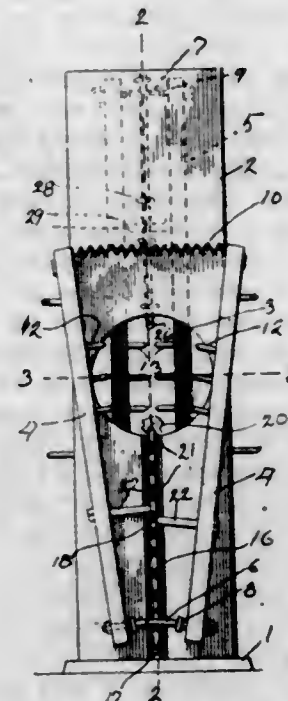
4. A refractory furnace lining having an exposed working face of silicon carbide of high refractability and low thermal resistivity, thermally insulated by silicon carbide of low apparent density and high thermal resistivity.

1,078,526. TRAP FOR RATS, GOPHERS, AND SIMILAR SMALL GAME. ELZA K. VAN CUREN, Baidartown, Cal., assignor to Mary S. Van Curen, Santa Monica, Cal. Filed July 17, 1912. Serial No. 709,981. (Cl. 43-23.)

1. In a trap, a base, an upright secured to said base and having an opening therein to receive the animal's head, pairs of arms pivotally secured to opposite sides of said upright and having spikes secured thereto opposite the opening aforesaid, and a separate trigger for each pair of arms, each of said triggers having a portion thereof extended through the opening aforesaid and adapted to receive a bait.

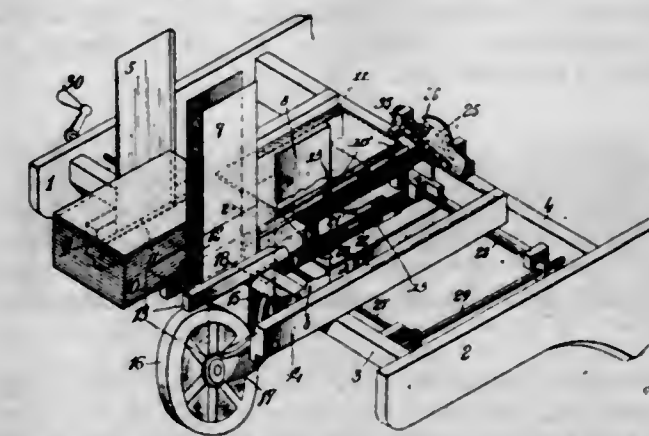
2. A trap comprising a base, an upright mounted on said base and having an opening therein to receive the

animal's head, pairs of arms pivotally secured to the two sides of said upright and having spikes secured thereto opposite the opening aforesaid, springs connecting the arms in pairs and normally tending to move said arms toward one another, flexible rods having one of their



terminals secured to said upright, said rods having offset portions intermediate of the ends thereof and the free terminal of each rod bent at a right angle to the secured portion of the rod and adapted to receive a bait, said extended terminals of the rods extending through the opening aforesaid in opposite directions, and pins secured to said arms and adapted to engage said offset portions of the rods when said rods are in a set position.

1,078,527. CASE-MAKING MACHINE. WILLIAM S. VETTER, New York, N. Y., assignor to one-half to John J. Barber, Brooklyn, N. Y. Filed May 18, 1912. Serial No. 698,209. (Cl. 11-2.)



1. A case-making machine, comprising the combination of a plurality of pairs of guide-bars for guiding cover boards, said guide-bars being arranged side by side, means for adjusting said guide-bars relative to one another, cutting means disposed transverse to said pairs of guide-bars, means to feed a continuous strip of paper from a given point through said cutting means and to a position adjacent certain of said guide-bars to provide the back lining strip of the case, and a plurality of guiding elements for controlling the displacement of the back lining strip laterally relative to said certain guide-bars, said plurality of guiding elements being stationary with respect to said certain guide-bars and disposed intermediate said given point and said cutting means.

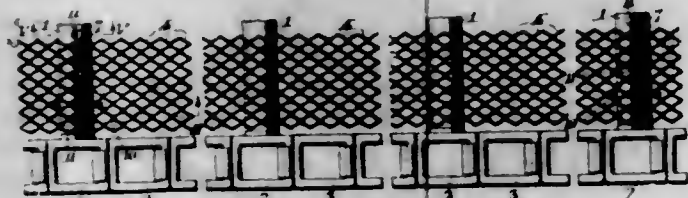
2. A case-making machine, comprising the combination of a plurality of pairs of guide-bars for guiding cover boards, said guide-bars being arranged side by side, means for adjusting said guide-bars relative to one another, cutting means disposed transverse to said pairs of guide-bars, means to feed a continuous strip of paper from a given

point through said cutting means and to a position adjacent certain of said guide-bars to provide the back lining strip of the case, and a plurality of guiding elements for controlling the displacement of the back lining strip laterally relative to said certain guide-bars, said plurality of guiding elements being individually and stationarily carried by said certain guide-bars and disposed intermediate said given point and said cutting means.

3. A case making machine, comprising the combination of a plurality of pairs of guide-bars for guiding cover boards, said guide-bars being arranged side by side, means for adjusting said guide-bars relative to one another, cutting means disposed transverse to said pairs of guide-bars, means to feed a continuous strip of paper from a given point through said cutting means and to a position adjacent certain of said guide-bars to provide the back lining strip of the case, a plurality of oppositely facing guiding elements for controlling the displacement of the back lining strip laterally relative to said certain guide-bars, each of said plurality of guiding elements comprising two guiding flanges stationary with respect to said certain guide-bars and disposed intermediate said given point and said cutting means, and means for adjusting the guiding flanges of each guiding element with respect to one another.

4. A case-making machine, comprising the combination of a plurality of pairs of guide-bars for guiding cover boards, said guide-bars being arranged side by side, means for adjusting said guide-bars relative to one another, cutting means disposed transverse to said pairs of guide-bars, means to feed a continuous strip of paper from a given point through said cutting means and to a position adjacent certain of said guide-bars to provide the back lining strip of the case, a plurality of oppositely facing guiding elements for controlling the displacement of the back lining strip laterally relative to said guide-bars, said guiding elements being individually carried by said certain guide-bars, each of said guiding elements comprising two guiding flanges and disposed intermediate said given point and cutting means, and means for adjusting said guiding flanges of each guiding element with respect to one another.

1,078,528. CONVEYER FOR DRIERS. THOMAS ALLSOP, Philadelphia, Pa., assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 1, 1912. Serial No. 706,898. (Cl. 193-26.)



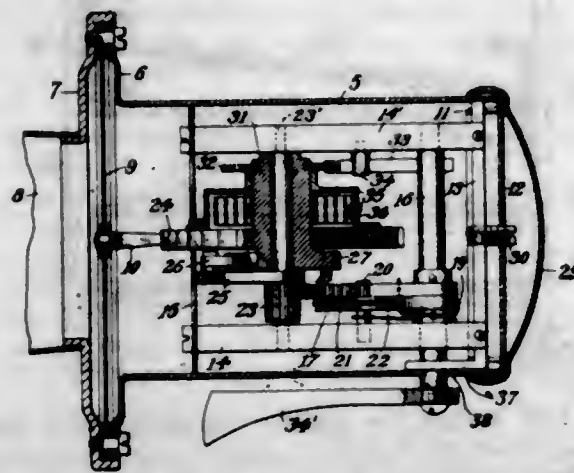
A conveyer including parallel endless chains, cross pieces spacing the same, an apron resting on said cross pieces, a locking bar connecting the adjacent ends of said apron, and means for attaching the bar to a cross piece, said means comprising eye-bolts having their eyes engaged with said bar and their shanks engaged with said cross bar.

1,078,529. MECHANICAL HORN. EMANUEL AUFIERO, Brooklyn, N. Y. Filed Feb. 28, 1913. Serial No. 751,297. (Cl. 116-1.)

1. In a signaling apparatus of the class described, in combination, a diaphragm, a shaft, a sleeve loosely mounted on said shaft, a diaphragm displacing member free to rotate at all times supported by said sleeve and adapted for independent rotary movement, resilient means connecting said sleeve and said actuating member, and oscillating means actuated by the shaft and acting on the sleeve for the purpose described.

2. In a signaling apparatus of the class described, in combination, a diaphragm, a shaft adapted to be rotated backward and forward, a sleeve loosely mounted on said

shaft, a diaphragm actuating member free to rotate at all times supported by said sleeve and adapted for independent rotary movement, resilient means connecting said sleeve and said actuating member, and means actuated by the backward and forward revolving shaft for imparting motion to the sleeve for the purpose described.



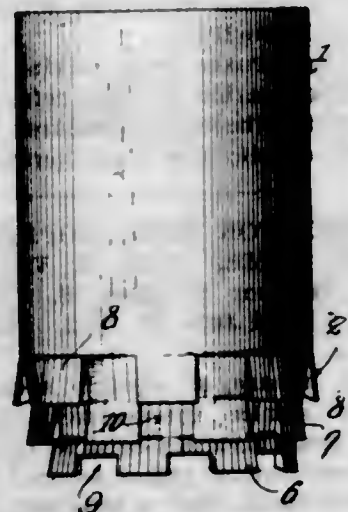
3. In a signaling apparatus of the class described, in combination, a diaphragm, a rotary shaft, a sleeve loosely mounted on said shaft, a ratchet fixed to said sleeve, a diaphragm displacing member free to rotate at all times loosely mounted on said sleeve, a resilient member connecting said sleeve and said displacing member, and means actuated by said rotary shaft acting on the ratchet to effect rotation of the sleeve for the purpose described.

4. In a signaling apparatus of the class described, in combination, a diaphragm, a shaft, a pinion fastened to said shaft, a sleeve loosely mounted on said shaft, a driving ratchet secured to said sleeve, diaphragm actuating means free to rotate at all times supported by said sleeve and adapted for independent rotary movement, a resilient member connecting said sleeve and said actuating means, a second shaft, a sector fastened thereto and engaging the pinion, an arm fastened to the last named shaft and means operating on said arm for rotating the last named shaft and sector for the purpose described.

5. In a signaling device, the combination of an elastic diaphragm, a shaft, a ratchet loosely mounted thereon, a toothed member free to rotate at all times for vibrating the diaphragm loosely mounted on the same shaft, a resilient element connecting said ratchet and said toothed member, and an oscillating pawl carried by said shaft for driving said ratchet in one direction only for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

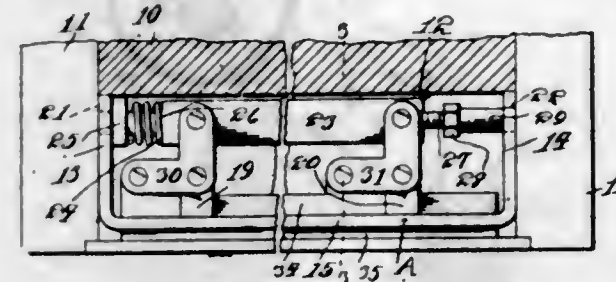
1,078,530. WELL-CASING SHOE. REUBEN C. BAKER, Coalinga, Cal., assignor to Baker Casing Shoe Co., a Corporation of California. Filed Nov. 4, 1912. Serial No. 729,185. (Cl. 166-9.)



1. A well boring tool provided at its lower end with superposed sets of spaced cutters, the cutters of each upper set being located above the openings between the cutters of the next lower set.

2. A well boring tool provided at its lower end with superposed sets of spaced cutters, the cutters of each upper set being located above the openings between the cutters of the next lower set, the cutters of each set being disposed in a circle, the diameters of the circles increasing in the direction of the top of the tool.

1,078,531. WEATHER-STRIP. FREDRICK W. BAXENDALE, Streator, Ill., assignor of one-half to Walter E. Baxendale, Streator, Ill. Filed June 26, 1912. Serial No. 706,099. (Cl. 20-68.)



As an article of manufacture, a weather strip comprising a U-shaped body plate, one side of the bight thereof being provided with pairs of slits and the portion between each pair being bent upwardly to provide lugs, a plate, the bight portion of the body plate being longitudinally slitted to receive the second plate, angle levers pivoted at their angle portions to the lugs and pivoted to the second plate a bar having reduced ends loosely passed through the arms of the body plate, the levers being pivoted also to said bar and an expansile spring disposed about one reduced end and bearing against the main end and against the arm of the plate.

1,078,532. FOUNDRY-RIDDLE. EDWARD WELLS BEACH, Waterbury, Conn. Filed Aug. 14, 1913. Serial No. 784,660. (Cl. 83-60.)



1. In a foundry riddle, a mesh disk, a sheet metal wall having an outwardly and downwardly bent fold gripping the edge of said mesh disk, a ring surrounding said downwardly bent fold, the said wall being bent under the lower edge of said fold and curled upon said ring to provide a wide and smooth hand hold and to prevent the loosening of said fold, substantially as described.

2. In a foundry riddle, a mesh disk, a sheet metal wall having an outwardly and downwardly bent fold gripping the edge of said mesh disk, the said wall being bent under the lower edge of said fold to provide a wide and smooth hand hold, substantially as described.

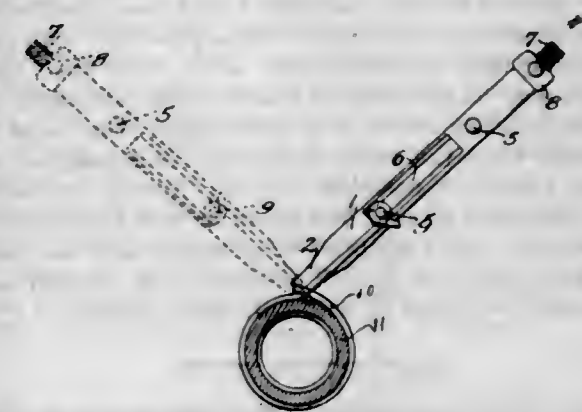
3. In a foundry riddle, a mesh disk, and a sheet metal wall having an outwardly and downwardly bent fold gripping the edge of said mesh disk, the lower edge of said wall being turned about the lower edge of said fold to retain the same, substantially as described.

4. In a foundry riddle, a mesh disk, a sheet metal wall having an outwardly and downwardly bent fold about the lower edge of which the lower edge of the said wall is turned, the said wall above said mesh disk being provided with trues forming corrugations imparting to the upper portion of said wall a stiffness corresponding to the stiffness of the folded lower projecting part, substantially as described.

5. In a foundry riddle, the combination with a mesh disk of a cylindrical sheet metal supporting wall therefor having corrugations inclined to its axis, substantially as described.

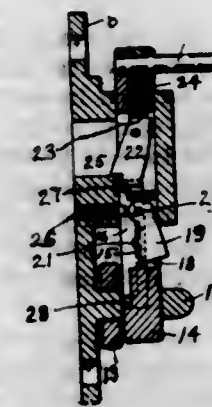
[Claim 6 not printed in the Gazette.]

1,078,533. CLAMPING DEVICE. ROMEO A. BRAUDETTE, Chippewa Falls, Wis. Filed Feb. 7, 1913. Serial No. 746,799. (Cl. 81-9.3.)



A tool of the class described comprising a hollow body portion having diametrically opposing longitudinal slots formed intermediate its length, a stretching rod movable within the hollow body portion, laterally projecting wire engaging arms carried by the stretching rod and extending through the slots aforesaid, the arms cooperating with the slots to guide the stretching rod, and an adjusting nut threaded upon the stretching rod and having its bearing against the body portion to move said rod longitudinally of the body portion.

1,078,534. SEAL-HASP. ERNEST R. BURNS, Seattle, Wash. Filed Feb. 10, 1913. Serial No. 747,451. (Cl. 70-23.)

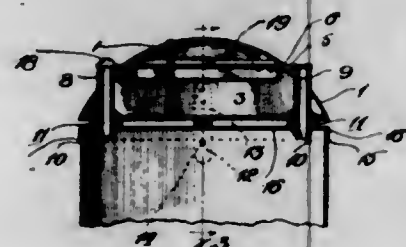


1. In a seal-hasp of the class described, the combination with a bolt-shaft barrel which is associated with a supporting base plate, of a bolt-shaft socket, a bolt-shaft adapted to be moved in a lengthwise direction within said bolt-shaft barrel to cause it to enter and withdraw from said bolt-shaft socket said bolt-shaft being provided with a longitudinal slot, a pawl which is provided with a tongue that projects from one of its edges and which is pivotally disposed within said longitudinal slot in said bolt-shaft, a hole in said bolt-shaft disposed to extend therethrough from side to side with its axis at right angles with said longitudinal slot and to register with the path of said tongue of said pawl, and sealing means adapted to be disposed in said hole normally to maintain said pawl in a position wherein a portion of it will project outwardly from said longitudinal slot in said bolt-shaft whereby said bolt-shaft may not be withdrawn from said bolt-shaft socket without causing said pawl to mutilate said seal.

2. In a seal-hasp of the class described, the combination with a bolt-shaft provided with recesses extending longitudinally therein, of a pawl pivotally disposed within one of said recesses, retractile means associated with said pawl and said bolt-shaft and disposed to adapt it to cause said pawl normally to project for a suitable distance outwardly from said bolt-shaft, another pawl pivotally disposed within another of said recesses, and sealing means associated with said last named pawl and said bolt-shaft whereby such last named pawl may be caused normally to project outwardly from said bolt-shaft.

3. In a seal-hasp of the class described, the combination with a suitably supported bolt-shaft barrel, of a bolt-shaft socket, a hasp-strap adapted to be locked on said bolt-shaft socket, a bolt-shaft adapted to be moved in said bolt-shaft barrel to cause it to lock and unlock said hasp-strap on said bolt-shaft socket said bolt-shaft being provided with pawls pivotally disposed in association with it so that one of said pawls may be actuated to sustain said bolt-shaft in an uppermost position where it is disengaged from said bolt-shaft socket while the other of said pawls is adapted to be caused to assume a position whereby it may prevent an upward movement of said bolt-shaft in said bolt-shaft barrel and sealing means adapted to maintain said last named pawl in such position as will prevent said upward movement of said bolt-shaft in said bolt-shaft barrel.

1,078,535. PERFORATING ATTACHMENT FOR CANS. GEORGE BUTTRESS, Los Angeles, Cal., assignor of one-third to J. D. Blush, one-third to George F. Shields, and one-third to L. A. Wurts, Los Angeles, Cal. Filed Aug. 1, 1911, Serial No. 641,839. Renewed Apr. 3, 1913. Serial No. 758,713. (Cl. 221-18.)



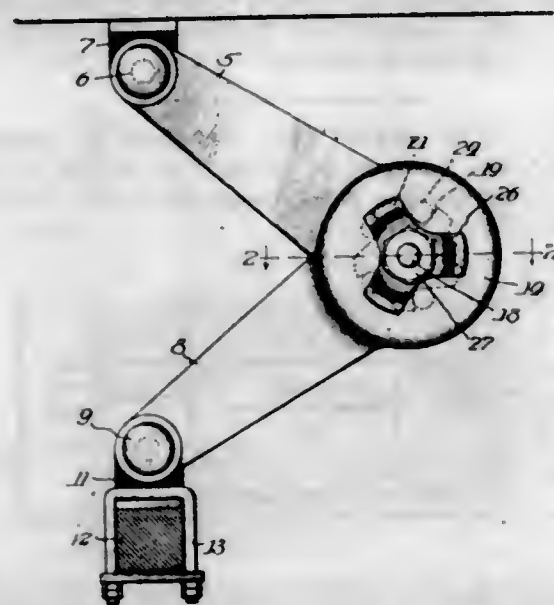
1. An attachment for cans and the like comprising a housing, a reinforcing member in said housing, a plurality of hollow perforators secured in said member and extending above said housing, compressible washers on said perforators, a bar pivoted in said housing and laterally movable to cover or uncover said perforators, to seal the same, means to hold said bar normally in contact with the ends of said perforators, and a plurality of resilient members on said housing arranged to engage a can cover to hold said housing on a can.

2. An attachment for cans and the like comprising a housing having a plurality of tapering slots, a reinforcing member in said housing, a plurality of hollow perforating tubes secured in said housing, a plurality of hollow reinforcing member, and above said housing, compressible washers on said tubes, a bar pivoted in said housing and extending through the slots therein to cover the openings in said tubes, a spring to normally hold said bar over the openings in said tubes, and a plurality of resilient tangs on said housing, said tangs being provided with detents to engage the edge of a can cover and hold said housing thereon.

3. The combination with a housing having a plurality of tapering slots and a reinforcing member, of a plurality of perforating tubes fastened to said housing and said member, said tubes being provided with compressible washers to form a seal at the point of perforation, a laterally movable bar pivoted in said housing and operating in said slots to cover and uncover the openings in said tubes, a spring to hold said bar wedged on the ends of said tubes, and a plurality of resilient prehensile tangs on said housing provided with means to engage a can cover.

4. The combination with a housing having a plurality of tapering slots, of a reinforcing member in said housing, a plurality of hollow tubes in said reinforcing member and extending above said housing, said tubes having perforating ends, compressible washers on said tubes and adjacent to the ends thereof to form a seal at the point of perforation, a spring actuated means extending through said slots to normally hold said tubes closed, said means being provided with a knob to control the opening of said tubes, and prehensile resilient members on said housing to engage a can top and hold said housing thereon.

1,078,536. SHOCK-ABSORBER. AUGUSTINE CAMFORINI, Chicago, Ill. Filed May 7, 1913. Serial No. 766,002. (Cl. 21-105.)



1. In a shock absorber, the combination of a pair of oppositely disposed friction members, a pair of friction cones arranged to frictionally engage said members, an element disposed between said friction cones and arranged concentrically therewith, said element being provided with a plurality of inclined surfaces and a centrally disposed peripheral flange projecting between the adjacent edges of said friction members, rollers carried by said central element in coöperative relation with said inclined surfaces, and means for yieldingly urging said rollers into position to establish a frictional connection between said surfaces and said cones.

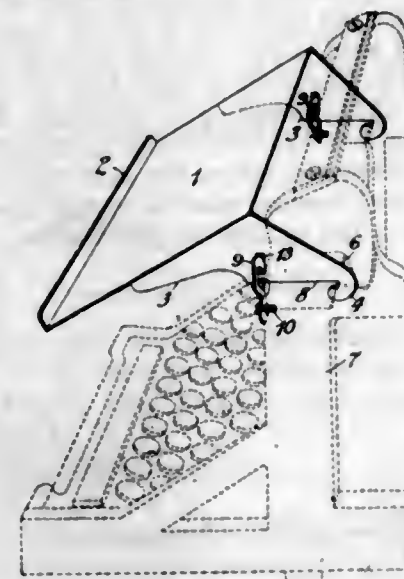
2. In a shock absorber, the combination of a pair of parallel arms terminating in oppositely disposed friction surfaces, a central arm terminating in a head located between and concentrically with said friction surfaces, friction devices interposed between the ends of said head and said friction surfaces, said devices having external friction faces engaging with said friction surfaces and inner walls surrounding the ends of said head, said head being provided with a plurality of inclined surfaces opposed to said inner walls of the friction devices, and rollers carried by said head in coöperative relation with said inclined surfaces to establish a frictional connection between said head and said frictional devices.

3. In a shock absorber, the combination of a pair of oppositely disposed friction members, friction cones arranged to frictionally engage said members, an element disposed between said cones and concentrically therewith, said element being provided with a plurality of inclined surfaces, rollers carried by said element in coöperative relation with said inclined surfaces, and means for yieldingly urging said rollers into position to establish a frictional connection between said surfaces and said cones.

4. In a shock absorber, the combination of a pair of oppositely disposed friction members, friction cones arranged to frictionally engage said members, an element disposed between said friction cones and pivoted concentrically with said cones and friction members, said element being provided with a plurality of inclined surfaces and centrally disposed peripheral flanges projecting radially between the adjacent edges of said friction members, and rollers carried by said central element in coöperative relation with said inclined surfaces to establish a frictional connection between said surfaces and said cones.

5. In a shock absorber, the combination of a pair of oppositely disposed friction members, a pair of friction cones arranged to frictionally engage said members, an element disposed between said friction cones and arranged concentrically therewith, said element being provided with a plurality of inclined surfaces, and rollers carried by said central element in coöperative relation with said inclined surfaces to establish a frictional connection between said surfaces and said cones.

1,078,537. TYPE-WRITING MACHINE. CORNELIUS B. CORCORAN, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 6, 1913. Serial No. 788,363. (Cl. 197-105.)



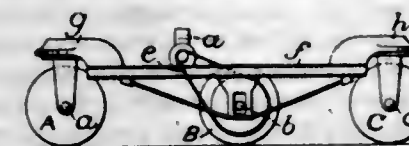
1. The combination of a typewriting machine, a plate or screen extending over the keyboard, brackets on said plate with openings therein, and latches pivoted to the machine frame and having tongues to enter said openings and thereby lock the plate to the machine.

2. The combination of a typewriter, a keyboard screen comprising a plate having at each end a rearwardly extending member provided with a hook, and latches pivoted to the machine frame and coöperating with said hooks to lock the plate against movement in any direction.

3. The combination with a typewriting machine, of a screen comprising a plate having brackets secured thereto, hooks on said brackets, and pivoted latches, each formed with an arc-shaped tongue to enter an opening in the bracket.

4. The combination with a typewriting machine, of an attachment therefor comprising a plate provided with downwardly extending bracket arms formed with openings therein, and latches pivoted to the machine frame, each comprising a radial arm and an arc-shaped tongue at the outer end of the arm adapted to enter one of said openings.

1,078,538. ROAD-ROLLER. ROOKES EVELYN BELL, CROMPTON and ERNEST THOMAS JAMES TAPP, London, England. Filed July 17, 1913. Serial No. 779,615. (Cl. 94-4.)



1. Rolling apparatus for producing true surfaces on roadways and for other purposes, comprising a body carrying more than two axles, said axles being arranged at unequal distances apart, and rollers mounted upon said axles.

2. Rolling apparatus for producing true surfaces on roadways and for other purposes, comprising a body carrying more than two axles, said axles being arranged at unequal distances apart, some of said axles being capable of vertical displacement in a downward direction relatively to said body and being limited in regard to vertical displacement in an upward direction, and rollers mounted upon said axles.

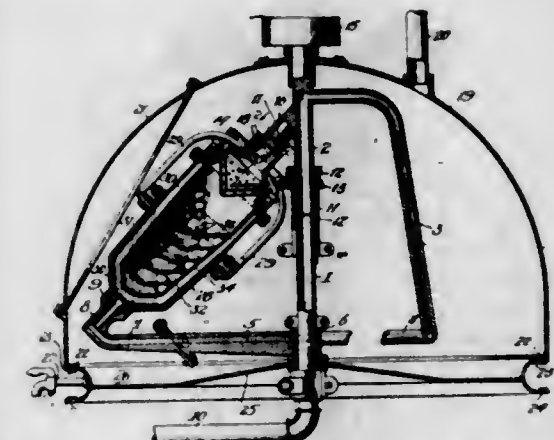
3. Rolling apparatus for producing true surfaces on roadways and for other purposes, comprising a body carrying more than two axles, said axles being arranged at unequal distances apart, some of said axles being capable of vertical displacement in a downward direction relatively to said body and being limited in regard to vertical

displacement in an upward direction, some of said axles being fixed in regard to vertical movement relatively to said body, and rollers mounted upon said axles.

4. Rolling apparatus for producing true surfaces upon roadways and for other purposes, comprising a body carrying more than two axles, said axles being arranged at unequal distances apart, rollers mounted upon said axles, and means to incline some of said rollers to cause said rolling apparatus to produce curved or banked surfaces.

5. Rolling apparatus for producing true surfaces upon roadways and for other purposes, comprising a body carrying more than two axles, said axles being arranged at unequal distances apart, rollers mounted upon said axles, and means to incline the endmost rollers to cause said rolling apparatus to produce curved and banked surfaces. [Claims 6 to 8 not printed in the Gazette.]

1,078,539. ROTARY ENGINE. ROBERT J. DAVIDSON, Chicago, Ill. Filed Mar. 4, 1910. Serial No. 547,350. (Cl. 121-59.)



1. A rotary engine including a tubular shaft formed in abutting rotating and non-rotating sections; an engine element inclined with respect to said tubular shaft; a lower support rotatable about the axis of the tubular shaft and provided with a bearing for the lower end of said engine element; a bearing for the upper end of said engine element carried by the rotatable section of the tubular shaft; a track about the axis of the tubular shaft in gear connection with the engine element; and means for affording passage for fluid through both sections of the tubular shaft and between the same and the engine element.

2. A rotary engine including a rotatable tubular shaft element; an engine element inclined with respect to said tubular shaft element; a lower support rotatable about the axis of the tubular shaft element and provided with a bearing for the lower end of said engine element; a bearing for the upper end of said engine element carried by said tubular shaft element; a track about the axis of the tubular shaft element and in gear connection with the engine element; and means for affording passage for fluid through the bore of said tubular shaft element and between the same and the lower end of the engine element.

3. An engine including a casing; a second casing with a space intervening between it and the first casing, a spiral way being provided within the second casing in communication at one end with the space intervening between the two casings and at the other end with the exterior of the casings; liquid within the two casings; and means for effecting passage of fluid between the space between the two casings and the exterior of the engine, the spiral wall within the inner casing permitting communication between the central portion of this casing and the peripheral portions of this casing.

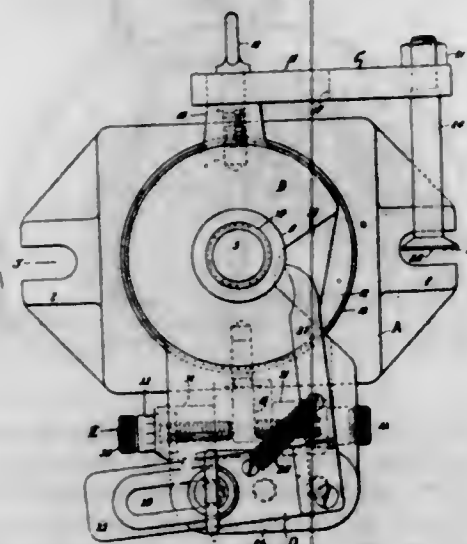
4. An engine including a casing; a second casing with a space intervening between it and the first casing, a spiral way being provided within the second casing in communication at one end with the space intervening between the two casings and at the other end with the exterior of the casings; liquid within the two casings; and means for effecting passage of fluid between the space between the two casings and the exterior of the engine, the spiral wall within the inner casing being discontinued at the cen-

tral portion of the inner casing, thereby affording a longitudinal channel through the inner casing with which the spiral way is in communication.

5. An engine including a casing; a second casing with a space intervening between it and the first casing, an inclined spiral way being provided within the second casing in communication at one end with the space intervening between the two casings and at the other end with the exterior of the casings; liquid within the two casings; and means for effecting passage of fluid between the space between the two casings and the exterior of the engine, the spiral wall within the inner casing permitting communication between the central portion of this casing and the peripheral portions of this casing.

[Claims 6 to 16 not printed in the Gazette.]

1,078,540. GEAR-CUTTER GRINDER. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Oakley, Ohio, a Corporation of Ohio. Filed May 27, 1913. Serial No. 770,172. (Cl. 51-7.)



1. A mechanism of the nature disclosed combining a base adapted to be secured to a machine and having an uprising cutter supporting post, a member pivoted about said post, an element providing a flat face in coincidence with an axial plane of said post, and a part carried by said member adapted to be contacted with the backs of the successive teeth of a cutter mounted on said post to bring each point of contact into the same definite relation with said member.

2. A mechanism of the nature disclosed combining a base member, an overlying member pivoted thereto, means for supporting a cutter in coaxial relation with said pivoted member, an element carried by said pivoted member and providing a gage surface in coincidence with a plane passing through the axis of said pivoted member, and a stop device adjustably and pivotally carried by said pivot member adapted successively to bring similar points in the backs of the teeth of the cutter into the same relation with the pivoted member.

3. A mechanism of the nature disclosed combining a base, a member swiveled thereto, means for supporting a cutter in coaxial relation with the pivot of said member, adjusting means for locking said member in a predetermined angular relation with said base, and a pivotal stop adjustably supported by said member adapted to coact with the backs of the teeth of a cutter at a fixed distance from the center thereof to bring the points of contact successively into definite relation with said member and swing aside to permit the teeth to be brought into grinding position by merely rotating said cutter.

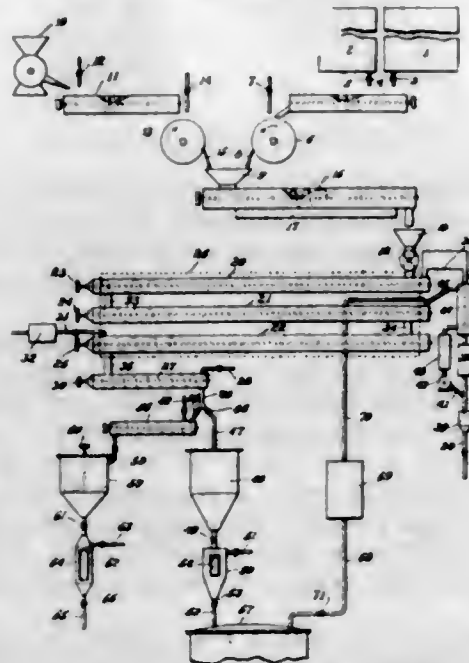
4. A mechanism of the nature disclosed combining a base, a member swiveled thereto, an element carried by one of said parts and providing a gage surface in coincidence with an axial plane of said member, means for indicating a normal angular relation between said base and member and for locking the same in any angular relation therewith, and a stop device adjustably carried by

said swiveled member adapted to abut the back side of each tooth in succession at a fixed distance from the axis of said cutter.

5. A mechanism of the nature disclosed combining a base adapted to be secured to a machine and having an uprising cutter-supporting post, a member pivoted about said post, an element providing a flat face co-planar with the axis of said post, a part carried by said pivoted member adapted to be contacted with the backs of the successive teeth of a cutter mounted on said post to bring each point of contact into the same definite relation with said member, and adjustable means for determining the angular position of said member relative to said base.

[Claims 6 to 8 not printed in the Gazette.]

1,078,541. PROCESS OF MAKING CATALYTIC MATERIAL. CARLETON ELLIS, Montclair, N. J. Filed Jan. 24, 1913. Serial No. 743,909. (Cl. 23-28.)



1. The process of making catalytic material by reduction which comprises progressively advancing a body of unreduced material through a zone maintained under reducing conditions while free of catalyzer toxins, whereby a pyrophoric catalyzer body is produced, and in transferring same to a body of oil without deleterious contact with air.

2. The process of making catalytic material by reduction in hydrogen which comprises progressively advancing a body of unreduced material through a heated zone containing hydrogen while maintaining reducing conditions, whereby a pyrophoric catalytic body is produced, and in incorporating the latter with oily material to seal such body from the air prior to actual use as catalytic material.

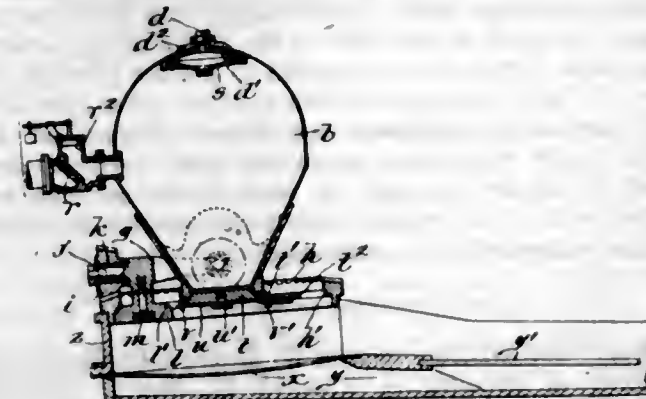
3. The process of making catalytic material by reduction in hydrogen which comprises progressively advancing with agitation a body of unreduced material containing a reducible metallic derivative, through a heated reducing zone free from catalyzer poisons, whereby a pyrophoric catalyzer body is produced, and in transferring same to a body of oil without deleterious contact with air.

4. The process of making catalytic material by reduction in hydrogen which comprises progressively advancing with agitation a body of unreduced material containing a reducible metallic derivative, through a zone of a hydrogen containing gas heated to a reducing temperature and free from catalyzer poisons, whereby a pyrophoric catalyzer body is produced, and in transferring same to a body of oil without deleterious contact with air.

5. The process of making catalytic material by reduction through the aid of a reducing gas or vapor which comprises progressively advancing with agitation a body of unreduced catalyzer raw material containing a reducible metallic derivative, through a zone of said reducing gas or vapor heated to a reducing temperature; and in maintaining said zone free from catalyzer poisons, whereby a

pyrophoric catalyzer body is produced, and in transferring same to a body of oil without deleterious contact with air. [Claims 6 to 10 not printed in the Gazette.]

1,078,542. VACUUM-DREDGER. LAWRENCE B. GRAY, Boston, Mass., assignor to Hydraulic Vacuum Dredging Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 29, 1910. Serial No. 579,411. Renewed Aug. 25, 1911. Serial No. 646,035. (Cl. 37-44.)



1. In a vacuum apparatus of the character described, the combination of a vacuum chamber having an outlet at its bottom, an induction pipe connected to said vacuum chamber, and means supporting the vacuum chamber so that it may rotate about its own axis and tilt in directions perpendicular to its axis, consisting of trunnions projecting laterally from the receiver near its lower end, toothed rolls journaled on said trunnions, whereby tilting of the receiver is permitted without materially shifting the location of its outlet, and a circular toothed support on which said rolls rest, the teeth of the rolls and support being in mesh and retaining the chamber in proper engagement with the support, while permitting revolution about its axis.

2. A vacuum dredging apparatus comprising a chamber having an outlet at its bottom, a pipe leading outwardly and downwardly from said chamber, pipes for conducting steam and water to said chamber, a fixed horizontal support for the chamber surrounding the bottom thereof and having the form of a bevel gear with teeth on its upper side, trunnions projecting from opposite sides of the chamber, rolls in the form of bevel pinions rotatably mounted on said trunnions and resting on and meshing with the teeth of said support, whereby the chamber is supported in a manner permitting rotation about an upright axis and tilting about the axis of the trunnions, a connecting member or yoke journaled on the trunnions and an intermediate roll pivoted to said connecting member and resting on the support.

3. In a vacuum dredger, a receiver having an outlet at its bottom, a gate hingedly connected to the receiver at one side of such outlet and movable to close and open the same, a handle secured to the gate and extending beyond the hinge, and a latch pivotally mounted upon the gate and operable to engage portions of the receiver on opposite sides of the gate when the latter is closed to hold and crowd the latter shut, independently of the hinge, and having a hand grip parallel and close to the said handle, when closed.

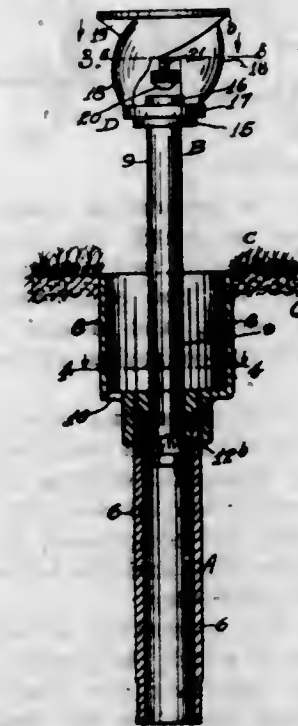
4. In a vacuum apparatus of the character described, a vacuum chamber having a spherically curved portion, an inlet fitting consisting of a disk shaped to fit against the inside of the wall of the chamber and having a tubular part passing through said wall, and a perforated disk having a screw threaded engagement at its periphery with the first-named disk, whereby it may be removed for cleaning the interior of the sprinkler.

5. In a vacuum dredging apparatus of the character described, a vacuum chamber having a spherically curved wall, a conduit for admitting fluid to the chamber passing through the wall thereof, having a spherically convex enlargement on its inner end fitting the inside of the wall, and having a threaded flange on its periphery, means for

securing the conduit in place, consisting of a cap or nut threaded upon the conduit outside of the chamber wall and shaped with a spherical concavity to fit against the wall, and a sprinkler disk threaded at its periphery and detachably screwed into said flange.

[Claim 6 not printed in the Gazette.]

1,078,543. LAWN-SPRINKLING DEVICE. JOHN S. HADDEN, Huntington Park, Cal., assignor of one-half to Frederick H. Johnson, South Pasadena, Cal. Original application filed June 13, 1911, Serial No. 632,967. Divided and this application filed Oct. 19, 1911. Serial No. 655,584. (Cl. 137-57.)



1. In a device of the character described, a member comprising a tubular stem, and a water directing portion rotatively mounted upon said stem in position to receive water traversing said stem; said water directing portion being provided with an adjustable device disposed above said tubular stem.

2. In a device of the character described, a member comprising a tubular stem, and a water directing portion rotatively mounted upon said stem in position to receive water traversing said stem; said water directing portion being provided with an adjustable device disposed above said tubular stem; there being a conical crown above said adjustable device.

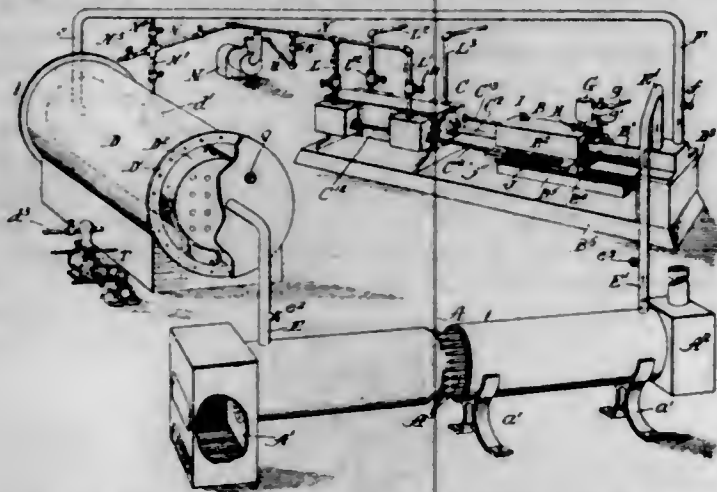
3. In a device of the character described, a member comprising a tubular stem, and a water directing portion rotatively mounted upon said stem in position to receive water traversing said stem; said water directing portion being provided with an adjustable device disposed above said tubular stem, there being a conical crown above said adjustable device and a curved blade disposed beneath said conical crown.

4. In a device of the character described, a tubular stem provided at its upper end with a bearing device, a plurality of curved blades rotatively mounted upon said bearing device laterally of the orifice of said tubular stem and provided with a conical crown into which the upper ends of said blades merge; said blades being formed with transverse curvature adjacent to their outer edge portions; and an adjustable conical head disposed intermediate of said blades and above the orifice of said tubular stem.

1,078,544. PROCESS OF MAKING BRIQUETS. OTTO KIRPE, Osnabrück, Germany. Filed Aug. 5, 1913. Serial No. 782,751. (Cl. 75-73.)

The process of making briquets composed in the main of fine ores or body material which consists in mixing said body material with a percentage of filter dust, briquetting the mixture and treating the briquets formed of said mixture with steam under pressure.

1,078,545. APPARATUS FOR GENERATING STEAM. GEORGE MARSHALL, Fremont, Nebr. Filed May 10, 1913. Serial No. 766,840. (Cl. 122—82.)

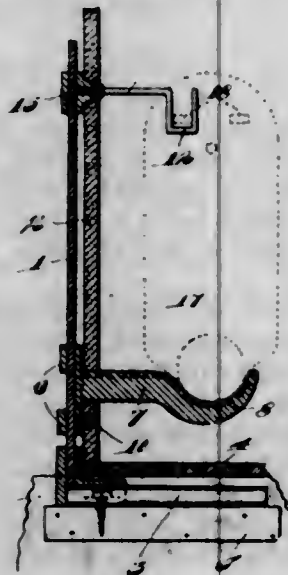


1. An apparatus for generating steam, comprising a heater, a compressor to which the heated air is conveyed, means for operating said compressor, a boiler, means for conveying the hot compressed air from the compressor to the boiler, and means connecting said boiler with the heater for conveying air from the boiler to the heater.

2. An apparatus for generating steam, comprising a heater to which air is admitted, a compressor receiving hot air from the heater, means for driving the compressor, a boiler, its shell, a connection between the compressor and the shell for supplying hot compressed air thereto, and a connection between the shell and the heater for conveying air from the shell to the heater.

3. An apparatus for generating steam, comprising a heater, a compressor to which the heated air is conveyed, a steam engine for operating the compressor, a steam boiler for starting and operating the steam engine until the apparatus is supplied with compressed air, means for connecting the starting boiler with the engine and for disconnecting it therefrom, a boiler, its shell, means for conveying the hot compressed air from the compressor to the boiler shell, and means connecting said shell with the heater for conveying air from the shell to the heater.

1,078,546. RADIATOR. DANIEL J. MCCARTY and HARRY B. MCGINNIS, Chicago, Ill. Filed Aug. 5, 1912. Serial No. 713,357. (Cl. 248—36.)



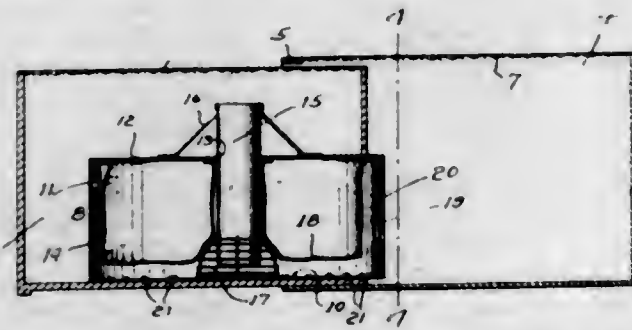
1. The combination with a radiator, of a supporting member inclosed in a wall of a building; an arm on said member projecting through said wall and adapted to engage and support the lower portion of said radiator; and another arm on said member projecting through said wall and adapted to engage and support the upper portion of said radiator, substantially as described.

2. The combination with a radiator, of a pair of supporting members inclosed in a wall of a building; yokes

connecting said supporting members and also inclosed in the wall of the building; an arm on each of said members adapted to engage and support the lower portion of said radiator; and another arm on each of said members adapted to engage and support the upper portion of said radiator, substantially as described.

3. The combination with a radiator formed of separate units having distancing lugs between the upper portions thereof; a pair of supporting members each comprising a vertical arm inclosed in the wall of a building and a horizontal arm inclosed in the floor of a building; a support for said horizontal arms; yokes connecting said vertical arms and inclosed in the wall of the building; adjustable arms on said vertical arms adapted to project through the wall of the building and provided at their outer ends with hooks adapted to embrace the lower portion of the radiator; and adjustable arms on said vertical arms adapted to project through the wall of the building and provided at their outer ends with hooks adapted to engage said lugs, substantially as described.

1,078,547. BROODER. JAMES W. MORRIS, Oakland, Cal., assignor of one-half to Richard W. Sweet, Oakland, Cal. Filed Apr. 18, 1912. Serial No. 691,624. (Cl. 119—33.)



1. In a brooder, a hover including two telescopic portions, one having a bottom and the other a top, said portions being disposed to permit ingress of air to within the hover, and means for snugly engaging the chicks within the hover.

2. In a brooder, a hover including two cylindrical shells adapted to telescope and rotate one with respect to the other, and one having a bottom and the other a top, said shells being disposed to permit ingress of air to within the hover and having openings in the walls thereof adapted to register with each other, and means providing for egress of air from within said shells.

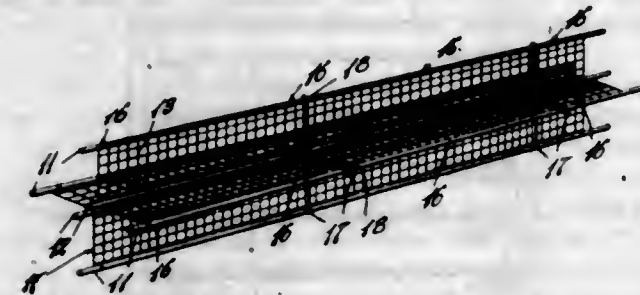
3. In a brooder, a hover comprising in combination, a cylindrical shell provided with a bottom, a second cylindrical shell provided with a top adapted to telescope said first mentioned cylindrical shell with a space therebetween and having a plurality of recesses at its lower margin, said cylindrical shells having openings adapted to register and permit access to and from the same, a stack carried by said first mentioned shell concentric therewith, a guard about said stack, and a blanket carried by said second mentioned shell.

4. In a brooder, a hover comprising in combination, a cylindrical shell provided with a bottom, a second cylindrical shell provided with a top, adapted to telescope said first mentioned cylindrical shell with a space therebetween and having a plurality of recesses in its lower margin, a guard carried by the said bottom of said first mentioned shell concentric therewith, and a stack carried by said second mentioned shell concentric therewith and adapted to telescope with said guard.

5. In a brooder, a hover comprising in combination, a cylindrical shell provided with a bottom, a second cylindrical shell provided with a top, adapted to telescope said first mentioned cylindrical shell with a space therebetween and having a plurality of recesses in its lower margin, a stack carried by said second mentioned shell concentric therewith, and a blanket carried by said second mentioned shell.

[Claim 6 not printed in the Gazette.]

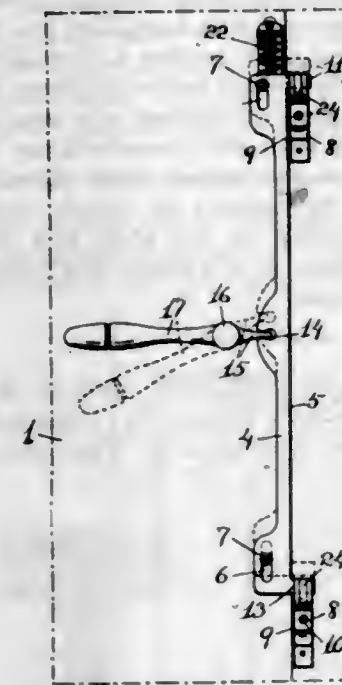
1,078,548. REINFORCED-CEMENT POLE. WILLIAM S. MORRIS, St. Louis, Mo., assignor of forty one-hundredths to John Caesar, St. Louis, Mo. Filed July 29, 1912. Serial No. 712,174. (Cl. 72—85.)



1. A reinforce for cement poles which are cruciform in cross section, comprising a pair of rods which are arranged to be embedded in the body of the pole, and rods which are arranged to be embedded in the wings of the pole, crossed stay-rods connecting the first mentioned rods for holding said rods parallel, and a pair of reinforcing elements formed of hardware cloth, each having their margins secured to a pair of the rods arranged to be embedded in the wings of the pole and their central portions secured to the rods arranged to be embedded in the body of the pole.

2. A reinforce for cement pole cruciform in cross section, comprising a pair of sections of hardware cloth arranged to be extended the length of a pole and L-shape in cross section, a pair of rods extended the length of the sections of hardware cloth and arranged to be engaged by the central portions of said sections of cloth, a rod at the free margin of each of said sections of cloth, means for securing said sections of cloth to said rods, and rigid reinforcing elements for holding said rods in parallelism.

1,078,549. DOOR-FASTENER. SILAS NORTHEY, Waterloo, Iowa. Filed Apr. 17, 1913. Serial No. 761,744. (Cl. 70—44.)



1. A door fastener, comprising a reciprocatory latch bar having a slot and a central open-end recess, a securing pin working in said slot, a straight vertical keeper having its inner edge in approximately contiguous relation to the outer edge of said bar and being provided with an open-top notch, said latch bar having a short straight lug in the plane of the bar engaging the notch of said keeper and an operating lever having a work arm in the plane of the lever engaging the open-end notch of the latch bar.

2. A door fastener, comprising a reciprocatory latch bar having slots at its upper and lower ends and a central open-end recess, securing pins working in said slots,

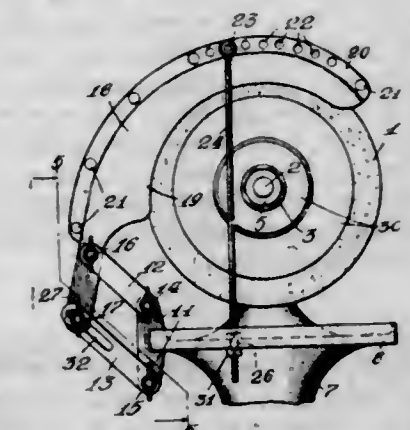
straight vertical keepers having their inner edges in approximately contiguous relation to the outer edge of the latch bar and being provided with upper open-top notches, said latch bar having at its upper and lower ends short straight lugs in the plane of the bar engaging the notches of said keepers, an operating lever having a work arm in the plane of the lever engaging the open-end notch of the latch bar, and a spring in line with the latch bar.

1,078,550. BURGLAR-ALARM. EDWARD OGLE, Dallas, Tex. Filed Apr. 18, 1912. Serial No. 691,687. (Cl. 177—202.)



In a burglar alarm, the combination with a window frame, of a sash adapted to undergo vertical adjustment in said frame, channels being formed upon the sides of the frame to receive the lateral edges of the sash, a pair of vertical metallic strips mounted in one of said channels, an electrical circuit containing said strips, an alarm signal included in the electrical circuit, a source of electromotive force included in the circuit, a block formed within one of said channels upon that extremity of the sash adapted to have contact with the sill, and an arch member straddling said block having resilient legs adapted to bear respectively upon said strips when the sash has been slightly shifted from its closed position.

1,078,551. GRINDING-MACHINE. EDWARD O. PARTRIDGE, Chicago, Ill. Filed Jan. 17, 1913. Serial No. 742,563. (Cl. 51—7.)



1. In a grinder, a shaft; an abrasive wheel mounted thereon; a support for the shaft; a guard-hood adapted to partially cover the wheel; and link members connecting the guard-hood with the said support, one of the said link members being adjustable as to its point of engagement with the guard-hood, and also adjustable as to the distance between its points of engagement with both the guard-hood and the said support.

2. In a grinder, a shaft; an abrasive wheel mounted thereon; a support for the shaft; an inflexible guard-hood adapted to partially cover the wheel; and link members connecting the guard-hood with the said support, one of the said link members being adjustable as to its point of engagement with the guard-hood.

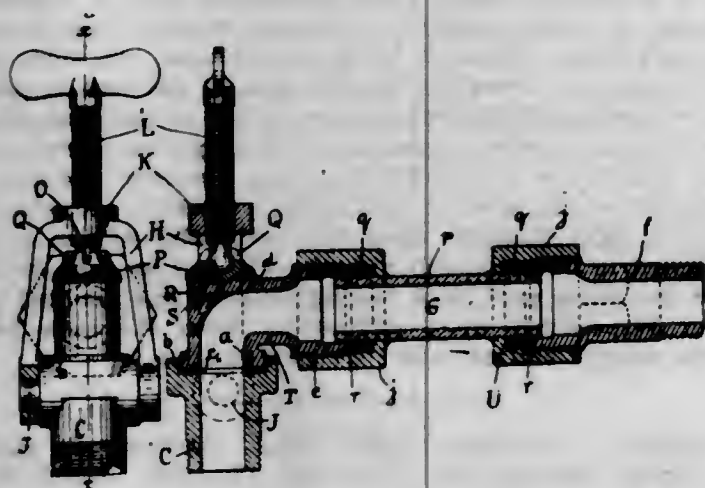
3. In a grinder, a shaft; an abrasive wheel mounted thereon; an inflexible guard-hood adapted to partially cover the wheel, and a pair of substantially parallel links pivotally connecting one end of the guard-hood with the said support, the said links being joined to the guard-hood at vertically separated points.

4. In a grinder, a shaft; an abrasive wheel mounted thereon; a support for the shaft; a guard-hood adapted to partially cover the periphery and sides of the wheel; and a plurality of links pivotally connecting one end of the guard-hood with the said support; the said links being disposed substantially vertically of each other, and being adjustable with respect to the said support transversely of the hood.

5. In a grinder, a shaft; an abrasive wheel mounted thereon; a support for the shaft; a guard-hood adapted to partially house the periphery and sides of the wheel; and a link supporting the guard-hood, the said link being pivotally connected at its opposite ends to one end of the guard-hood and to the support respectively; the guard-hood being adjustable with respect to the said link in a direction parallel to the said shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,078,552. VACUUM AND WATER CONNECTIONS. CLARENCE G. PATTERSON, Berkeley, Cal., assignor to The Butters Patent Vacuum Filter Company, Inc., a Corporation of Nevada. Filed Oct. 29, 1908, Serial No. 460,089. Renewed Nov. 5, 1912. Serial No. 729,657. (Cl. 137-28.)

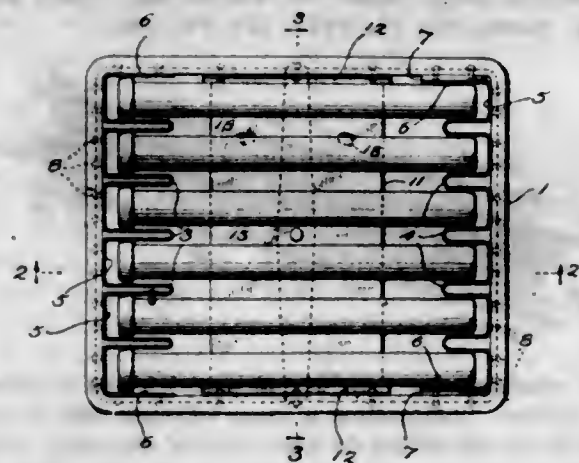


In combination with a pipe connection, of interchangeable connections therefor comprising a female union adapted to be connected to said pipe connection and provided with a swinging pivoted bridle, a screw carried by said bridle, a male union for making one connection adapted to be secured to the female union by the said screw, said male union being provided with a gage glass, and another male union for making another connection interchangeable with the first said male union.

1,078,553. BOBBIN-MAGAZINE FOR DOFFERS. BURT A. PETERSON, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Dec. 2, 1910. Serial No. 595,230. (Cl. 118-13.)

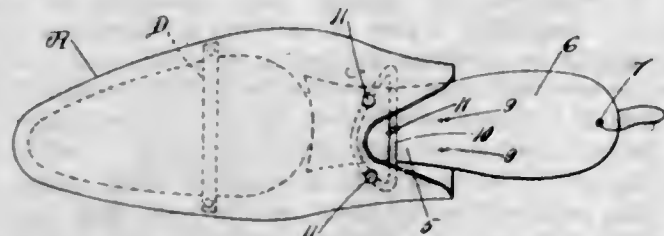
A bobbin magazine for doffers comprising two opposite walls suitably secured together, each of said walls being of sheet metal, and each having partition-forming folds therein, the folds upon one wall being spaced apart at distances corresponding to the diameter of a bobbin butt and

the folds upon the opposite wall being spaced apart at distances corresponding to the diameter of a bobbin tip, said



folds providing between them continuous spaces adapted to receive tiers of bobbins.

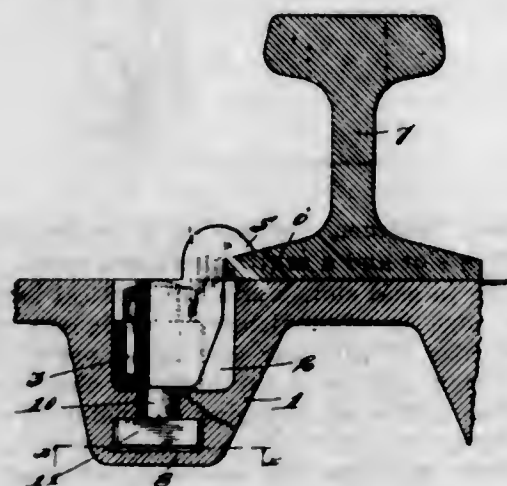
1,078,554. SHOE-FORM. CHARLES S. PIERCE, Brockton, Mass. Filed Apr. 1, 1909. Serial No. 487,152. (Cl. 12-128.)



1. A hollow shoe form having a fore part portion consisting of a shell of molded material adapted to fit the fore part of a boot or shoe and having in its interior a single non-contractible endless ring shaped to conform substantially with the cross-sectional interior contour of the shoe in the instep portion thereof, and contacting substantially throughout with the top, sides, and bottom and secured to the sides and bottom of the shoe form.

2. A hollow shoe form having a fore part portion consisting of a shell of molded material adapted to fit the fore part of a boot or shoe, an endless wire ring shaped to conform substantially with the cross-sectional interior of the instep portion near the highest part thereof and contacting substantially throughout its length with the interior top, sides and bottom of the shell and means whereby said band is secured to the sides and bottom and shank portion of said forms.

1,078,555. RAIL-FASTENING. GEORGE W. ROEMER and CHARLES PRIESTER, Chicago, Ill., assignors of one-third to Peter Slipchen, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,330. (Cl. 238-4.)



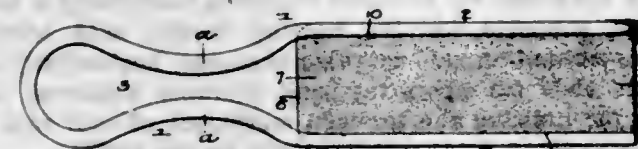
1. The combination with a rail tie having upper and lower communicating recesses therein, of a perforated block seated in said upper recess and provided at each

side with an integral upwardly projecting fastening member formed integral therewith adapted for engagement with a rail flange; a bolt passing through said block perforation and having its head anchored in said lower recess; a shoulder formed on said tie adapted for limiting the rotation of said head in the said recess, substantially as described.

2. The combination with a rail tie having upper and lower communicating recesses, of a perforated block seated in said upper recess; and having an integral upwardly projecting fastening member formed thereon and adapted for engagement over said rail flange; a bolt arranged for location in said block perforation and having its lower portion anchored in said lower recess; and a shoulder formed on said tie projecting into said lower recess, adapted for limiting the rotation of said bolt in said block, substantially as described.

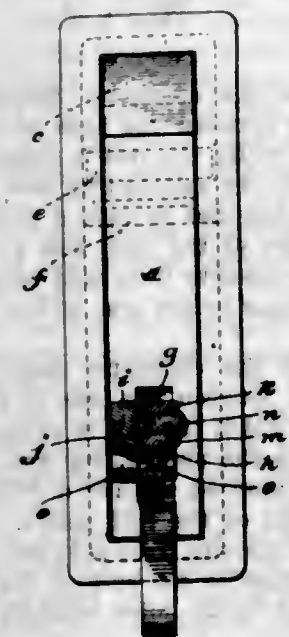
3. The combination with a rail tie having a recess therein, of a perforated block fitting into said recess and provided at each side with an upwardly projecting fastening member formed integrally therewith and adapted to engage over a rail flange; a bolt anchored in said recess below said block and passing through said block; and a nut on said bolt engaging the top of said block and contained within said recess, substantially as described.

1,078,556. BRUSH. GEORGE L. ROGERS, Philadelphia, Pa., assignor to Henry Disston & Sons File Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 12, 1913. Serial No. 773,323. (Cl. 15-32.)



In a brush, the combination of a handle made from a single piece of sheet metal bent into shape to form a handhold and two spring arms, each of said arms having two returned flanges bent so as to form a dovetailed groove in each arm; two brush blocks each having a longitudinal groove in each side, the arms being disconnected at the end opposite the handle so that the two blocks can be forced into the space between the two arms and the flanges entering the grooves in the blocks.

1,078,557. CAR-DOOR SEAL. JAMES W. RUMSEY and WILLIAM H. SHEASBY, Chicago, Ill. Filed Feb. 25, 1913. Serial No. 750,534. (Cl. 70-23.)



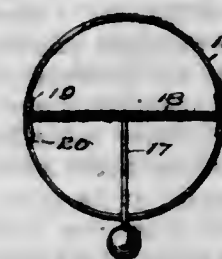
1. In a car door sealing means, a stationary member on the door, a movable locking and unlocking member mounted on the door, a pair of lugs one mounted on each of said members, said lugs lying side by side when the door is locked, one of said lugs having an anvil face and

the other of said lugs being provided with a hole or passage registering with said face, and a sealing rivet of soft metal having a spreadable inner end and a projecting outer end, said projecting end being provided with a seal receiving disk.

2. In a car door sealing means, a stationary member on the door, a movable locking and unlocking member mounted on the door, a pair of lugs one mounted on each of said members, said lugs lying side by side when the door is locked, one of said lugs having an anvil face and the other of said lugs being provided with a hole or passage registering with said face, and a sealing rivet of soft metal having a spreadable inner end and a headed outer end, the headed end consisting of a disk adapted to fit against the adjacent face of the lug and a projecting knob.

3. In a device of the class set forth, a stationary member carried by the door and carrying a rigid lug having a passage formed through it, a movable locking member carried by the door and having an anvil face adapted to lie across one end of said hole and a shearing edge lying close to the opposite face of said lug and adapted to sweep the face of said lug, and a soft metal sealing rivet adapted to be driven into said passage against said anvil face, the inner end of the rivet being adapted to be spread to lock the rivet in the hole and the outer end of the rivet being adapted to project beyond the shearing face of the lug.

1,078,558. GRATING DEVICE. ALFRED JOHN CHARLES SCHWARTZ, Chicago, Ill. Filed July 8, 1911. Serial No. 637,430. (Cl. 146-9.)



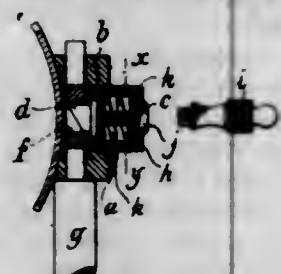
1. The combination with a rotatable member, of a bar of twisted wire extending transversely of one end thereof and having its ends outwardly turned, ears projecting from the side of the rotatable member and bent over the outwardly turned ends of the said bar and securing the same, a strand of the twisted wire bar being extended axially to the said rotatable member to form the trunnion proper, and the said ears being bent to engage and secure the bent ends of the strands.

2. The combination with a rotatable member provided at one end at diametrically opposite points with pairs of spaced ears, of a trunnion for the member comprising a length of wire extending diametrically across the said end of the member and having its ends bent at an angle, a length of wire twisted about the first mentioned length and having one end bent at an angle and its other end terminating at a point substantially midway between the ends of the first mentioned length, and a length of wire twisted about the first mentioned length and having one end bent at an angle, the last mentioned length of wire, at a point substantially midway between the ends of the first mentioned length, being bent to extend axially with respect to the rotatable member to constitute the trunnion proper.

1,078,559. LOCK FOR VEHICLE AND OTHER LAMPS. FREDERICK WILLIAM SEABROOK, Fulham, London, England. Filed July 10, 1912. Serial No. 708,596. (Cl. 248-30.)

The improved means for securing vehicle and other lamps to their supports consisting of the lamp support, a bracket on the lamp adapted to fit over said support, a recess in said support, a recessed chamber in the inner wall of said bracket coinciding with the recess in the lamp support, a spring pressed catch in said chamber, a screwed stem on said catch projecting outward through a hole in said bracket, a key screwed with a thread adapted to

mate with said screwed spindle on the catch, a shoulder on said key adapted to bear against the bracket at the outer end of said hole, said key being adapted to screw on



to the screwed spindle of the catch and thereby withdraw the latter from engagement with the lamp support and permit of the removal of the lamp from the support.

1,078,560. INTERNAL-GRINDING-WHEEL BEARING. HARRY T. SHEARER, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed Oct. 11, 1910, Serial No. 586,579. Renewed Sept. 29, 1913. Serial No. 792,481. (Cl. 51-4.)



1. The combination with an internal grinding fixture for grinding machines, of the base, a sleeve adjustably held in said base on a screw-threaded thimble, means for holding said thimble, means for clamping said sleeve rigidly in said base, a bushing mounted in the outer end of said sleeve, said bushing and sleeve being formed with engaging tapered faces, a grinding wheel spindle mounted within said sleeve and journaled at its outer end in said bushing, and at its inner end extending through said thimble, and the grinding wheel mounted on the outer end of said spindle, substantially as set forth.

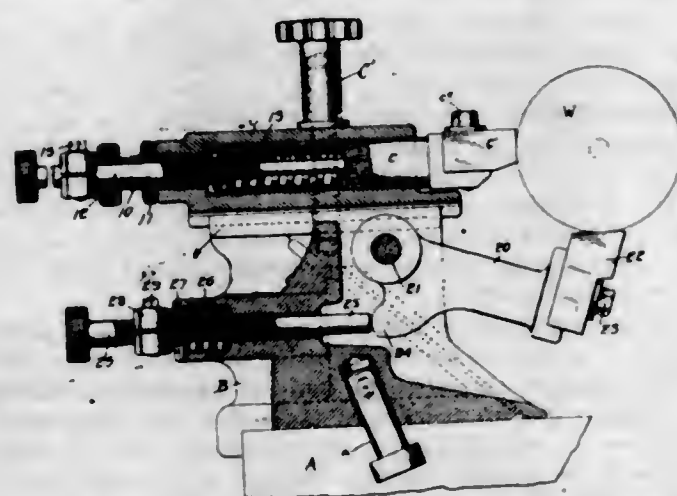
2. The combination in an internal grinding fixture for grinding machines, of a bearing supporting sleeve with a thimble screw-threaded into its inner end, means for locking said thimble, means for clamping said sleeve, a bushing mounted in the outer end of said sleeve by a tapered engagement, a grinding wheel spindle mounted within said sleeve with its outer end journaled in said bushing, a grinding wheel mounted on the outer end of said spindle with its base bearing against the outer end of said bushing, and a distance tube between the inner end of said bushing and the adjacent end of said thimble, substantially as set forth.

1,078,561. WORK-REST FOR GRINDING-MACHINES. HARRY T. SHEARER, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa., a Corporation. Filed Aug. 8, 1911, Serial No. 643,025. Renewed Sept. 29, 1913. Serial No. 792,482. (Cl. 51-4.)

1. A work-rest for grinding machines comprising blocks mounted on movable supports, said movable supports, screw-rods for adjusting said movable supports to keep said blocks in contact with the work, an adjustable transverse arm on said screw-rods, and a strike located adjacent and in the path of said arm to limit the forward adjustment of said screw rods at a predetermined point, substantially as set forth.

2. A work-rest for grinding machines comprising a frame, movable supports carrying bearing blocks adapted to bear against the sides of the work opposite the thrust of the grinding wheel, screw-rods for operating said movable supports, a transverse arm mounted on each of said screw-rods, means for adjusting each transverse arm, a strike located in an adjacent part alongside each of said screw-rods and adapted to contact with its arm and limit the movement of the rod at a predetermined point, substantially as set forth.

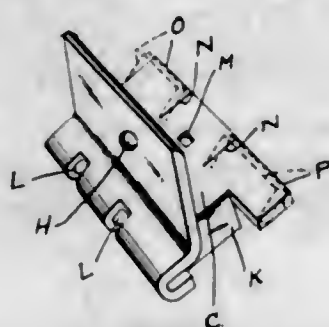
3. A work-rest for grinding machines comprising a base, movable parts carrying bearing blocks mounted on said base, screw-rods for adjusting said movable parts to carry the bearing blocks in relation to the work, and means for limiting the forward adjustment of said screw-rods at a predetermined point, substantially as set forth.



4. A work-rest for grinding machines comprising a base, movable parts carrying bearing blocks adapted to bear against the sides of the work, screw-rods for operating said movable parts, transverse arms adjustably mounted on said screw-rods, strikes located normally in the path of said arms, and means for holding said strikes out of the path of said arms, substantially as set forth.

5. A work-rest for grinding machines comprising a base, movable supports for the bearing blocks, said bearing blocks mounted on said movable supports, horizontally adjustable rods for operating said movable supports, and means for limiting the forward movement of said rods at a predetermined point, substantially as set forth.

1,078,562. ANTICREEPER. EDGAR M. SMITH, New York, N. Y., assignor to Otto R. Barnett, Chicago, Ill. Filed Jan. 20, 1913. Serial No. 743,094. (Cl. 238-2.)



1. A device of the character described comprising a plate intervening between the base of the rail and one of the cross ties on which the rail is supported, a web adapted to be bolted to the upstanding web of the rail, means providing a jaw adapted to take a frictional grip on one of the base flanges of the rail, and a lug or lugs at the edge of the plate opposite from said web which are bent up to a position oblique to the rest of the plate, for the purpose specified.

2. A device of the character described comprising a plate intervening between the base of the rail and one of the cross ties on which the rail is supported, a web adapted to be bolted to the upstanding web of the rail, means providing a jaw adapted to take a frictional grip on one of the base flanges of the rail, and a lug or lugs at the edge of the plate opposite from said web which are bent up to a position oblique to the rest of the plate, said device being formed with spike holes whereby it may be spiked to the track.

3. A device of the character described comprising a plate intervening between the base of the rail and one of the cross ties on which the rail is supported, a web adapted to be bolted to the upstanding web of the rail, means providing a jaw adapted to take a frictional grip on one

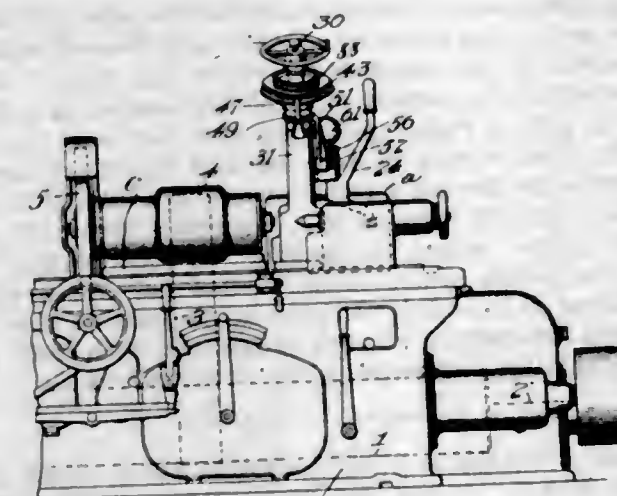
of the base flanges of the rail, a lug or lugs at the edge of the plate opposite from said web which are bent up to a position oblique to the rest of the plate, and a depending flange in position to abut against the tie.

4. A device of the character described comprising a plate intervening between the base of the rail and one of the cross ties on which the rail is supported, a web adapted to be bolted to the upstanding web of the rail, means providing a jaw adapted to take a frictional grip on one of the base flanges of the rail, a lug or lugs at the edge of the plate opposite from said web which are bent up to a position oblique to the rest of the plate, and a depending flange in position to abut against the tie, said device being formed with spike holes whereby it may be spiked to the tie.

5. A device of the character described consisting of a single sheet of metal bent so as to form a jaw for one edge of the base of a rail, a plate extending under the base of the rail and projecting beyond the other edge thereof, and an upstanding web adapted to be bolted to the vertical web of the rail, one of the transverse edges of the device being formed with slits and the metal between the slits bent down so as to provide a depending tie-abutting flange.

[Claim 6 not printed in the Gazette.]

1,078,563. GRINDING-MACHINE. ULRICH STEINER, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa., a Corporation. Filed July 26, 1912. Serial No. 711,701. (Cl. 51-4.)



1. In a grinding machine the combination of a frame, work supporting mechanism, a grinding wheel carriage, operating mechanism for said parts, a grinding wheel mounted upon said grinding wheel carriage, and means for automatically feeding the grinding wheel to the work comprising gearing operated by the reversal of the carriage, means for regulating the amount of feed at each reversal, means for limiting the feed at a predetermined point to secure the size of finished work desired, and means for varying the position of said limiting means embodying a worm connection to the worm whereof is pivoted and adapted to be swung out of said connection when desired, substantially as set forth.

2. In a grinding machine the combination of work holding mechanism, grinding mechanism, means for automatically feeding the grinding wheel to the work operated by the carriage operating mechanism at each reversal of the carriage to feed the grinding wheel a predetermined distance, means for rendering said feed mechanism inactive at a predetermined point, and means for varying and determining the limit of feed embodying a worm wheel adjustment, said worm being mounted on a pivot and normally held in engagement by a spring which spring also serves as an indicator to determine the amount of adjustment, substantially as set forth.

3. In a grinding machine an automatic feed mechanism for the grinding wheel comprising means for limiting the feed at a predetermined point which includes adjusting mechanism for varying said point, said adjusting mecha-

nism comprising a worm wheel and an adjusting worm engaging therewith, said worm formed with engaging notches in its periphery spaced apart to determine certain degrees of adjustment, and a spring arranged to normally hold said worm in engagement with said worm wheel and formed to engage said notches, substantially as set forth.

4. In a grinding machine an automatic feed mechanism for the grinding wheel connected to be operated from the carriage operating mechanism, an operating shaft, a circular ratchet on said operating shaft, a reciprocating pawl for operating said ratchet step by step, an interference plate mounted to be adjusted on said circular ratchet and adapted to cover a portion of the teeth thereof, means for adjusting said interference plate to limit the operation of said pawl, said adjusting means including a worm mounted on said interference plate and engaging with a worm wheel formed on said ratchet, said worm being mounted on a pivot and formed with notches in its periphery, and a spring mounted alongside the handle of said worm and arranged to normally hold the same in engagement and formed with a point for engaging said notches, substantially as set forth.

5. In a grinding machine an automatic feed mechanism for the grinding wheel comprising an operating shaft geared to feed said grinding wheel to and from the work, a circular ratchet on said operating shaft, a reciprocating plunger adapted to be operated at each reversal of the carriage, a pivoted angle lever having a segmental ratchet on one end engaging with a ratchet carried by said plunger, and a segmental ratchet on its other end engaging with a ratchet on a sleeve, said sleeve mounted to oscillate on said operating shaft and having a radial arm extending adjacent to the edge of said circular ratchet, a pawl pivoted on said radial arm adapted to engage said circular ratchet, and a dog positioned adjacent to said pawl to throw the same out of engagement with said ratchet at a fixed point in its forward movement, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,078,564. CHEWING-GUM. JOSEPH M. TRIMBLE, Memphis, Tenn., assignor to one-half to William K. Burton, Memphis, Tenn. Filed Jan. 4, 1912. Serial No. 669,488. (Cl. 127-4.)

1. Chewing gum comprising as its base deodorized asphalt prepared by boiling with an appropriate deodorizing agent, substantially as set forth.

2. Chewing gum comprising as a base asphalt prepared by boiling in an infusive agent combined with a flavoring extract, substantially as set forth.

3. The process of manufacturing chewing gum comprising treating normally unpalatable asphalt by boiling in a deodorizing infusion having a flavoring extract and combining with other ingredients, substantially as set forth.

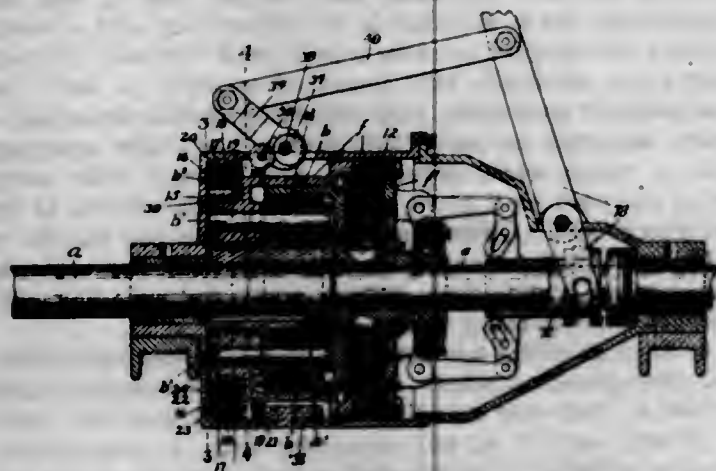
4. The process of treating normally unpalatable asphalt by boiling the asphalt in a deodorizing and taste destroying agent.

1,078,565. GEARING. HENRY A. TUTTLE, Taunton, Mass., assignor to Evans Stamping & Plating Company, Taunton, Mass., a Corporation of Massachusetts. Filed May 26, 1911. Serial No. 629,595. (Cl. 74-34.)

1. In a reversing-gearing, the combination with a driving-shaft and a driven-shaft, gears connected respectively with said shafts, pinions engaging said gears, a rotatable carrier for said pinions, which is movable axially, and a clutch to connect the carrier with the driven-shaft which is operated when said carrier is moved axially, of brake-mechanism to arrest and permit rotation of said carrier involving brake-members movable axially into and out of engagement, one or more of said members being non-rotatable, and one or more of said members being slidably connected with said carrier, permitting axial movement thereof and also relative axial movement of the carrier, and means for moving said brake-members axially, substantially as described.

2. In a reversing-gearing, the combination with a driving-shaft and a driven-shaft, gears connected respectively

with said shafts, pinions engaging said gears, and a rotatable carrier for said pinions, of brake-mechanism to arrest and permit rotation of said carrier involving brake-members movable axially into and out of engagement with each other, and a fixed brake-member into and out of engagement with which the endmost brake-member is movable, one or more of said movable members being non-rotatable and one or more of said movable members being slidably connected with said carrier, and means for moving said movable brake-members axially, substantially as described.



3. In a reversing-gearing, the combination with a driving-shaft and a driven-shaft, gears connected respectively with said shafts, pinions engaging said gears, and a rotatable carrier for said pinions, of friction-plates movable axially into and out of engagement with each other, and a fixed friction-plate, one or more of said movable friction-plates being non-rotatable, and one or more of said movable friction-plates being slidably connected with said carrier, and means for sliding said plates in a direction toward the fixed friction-plate to engage each other and the endmost plate to engage said fixed friction-plate, substantially as described.

4. In a reversing-gearing, the combination of two shafts, gears connected respectively with said shafts, pinions engaging said gears, a rotatable carrier bearing said pinions, clutch-mechanism to connect said carrier with one of said shafts for forward drive, brake-mechanism to arrest said carrier for reverse drive involving friction plates movable axially into and out of engagement with each other, one or more of said plates being non-rotatable and one or more of said plates being slidably connected with the carrier, a stationary member having a friction surface to limit axial movements of said plates in one direction, and means to move said plates axially toward said limiting member for engagement and to permit movement thereof in the opposite direction for disengagement, substantially as described.

5. In a reversing-gearing, the combination with a driving-shaft and a driven-shaft, gears connected respectively with said shafts, pinions engaging said gears, a rotatable carrier for said pinions, of a stationary protecting shell inclosing the gearing having an end wall formed with a friction face and axially movable friction-plates connected respectively with said shell and with said carrier, and means for moving said plates axially into and out of engagement with each other and the endmost plate into and out of engagement with said end wall to arrest and permit rotation of the carrier, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,078,566. GUIDING ATTACHMENT FOR SEINES. NICKLIO VUKASOVICH, New Orleans, La. Filed Feb. 7, 1912. Serial No. 676,117. (Cl. 43—9.)

1. In a device for the purpose described, a stake or pole, a pair of rollers, a support for the rollers extending from near one end of the pole to the other end thereof, said support being carried by the pole and movable on an axis parallel with the longitudinal axis of the pole, the pair of rollers being carried by the support near one end thereof, one of the rollers being in relatively fixed relation to the support and the other movable toward and from the first named roller in the direction of the length of the support,

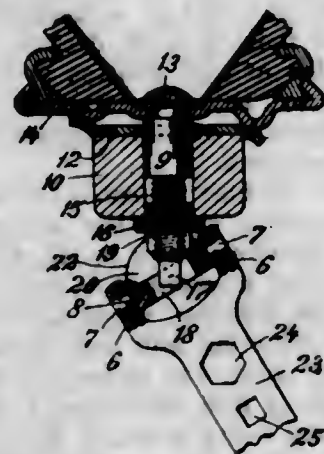
and means carried by the support and accessible at the end of the pole remote from the support for adjusting the movable roller.



2. In a device for the purpose described, a stake or pole, pairs of rollers on opposite sides of the stake or pole, one roller of each pair being movable relative to the other in the direction of the length of the pole, supporting means for each pair of rollers carried by the pole on a respective side thereof and movable on an axis substantially parallel with the longitudinal axis of the pole, each support extending from a point adjacent one end of the pole to a point adjacent the other end thereof and carrying the rollers near one end, and means for each movable roller of a pair of rollers also carried by the support and accessible at the end of the support remote from that carrying the rollers for adjusting the roller of the pair to which the said means is individual.

3. A device for the purpose described comprising a stake or pole, supporting members near the ends thereof, rockable bars carried by the supporting members and movable about axes substantially parallel with the longitudinal axis of the stake or pole, a roller carried by each bar near one end thereof, a rod carried by each bar and capable of moving longitudinally thereof, a roller carried by each rod in substantially parallel relation to a companion one of the first named rollers, means for locking the rods to the bars when the rollers are in close relation one to the other, and means for locking the bars to the pole to hold the rollers in outstanding relation to the pole with their axes in substantially a diametric plane of the pole.

1,078,567. WRENCH FOR DEMOUNTABLE RIMS AND THE LIKE. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed June 10, 1912. Serial No. 702,858. (Cl. 81—53.)



1. A wrench comprising a shank and means for rotating the same, and a member for engaging the article to be turned, said member being pivoted directly to the shank to turn about an axis substantially at right angles thereto, said member being capable of tilting upon the article to be rotated while in engagement therewith, in a plane

passing through the axis of the pivotal connection between said member and the shank and through the axis of rotation of the article to be turned.

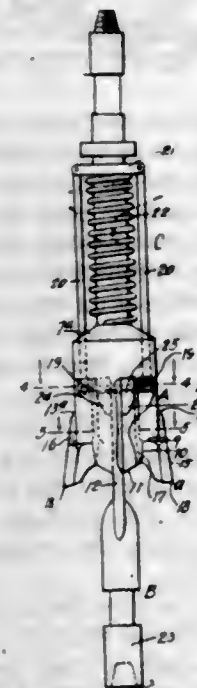
2. A wrench comprising a shank and means for rotating the same, said shank terminating in a fork, and a member for engaging the article to be rotated pivoted between the arms of said fork, said member having a convexly curved bearing surface.

3. A socket wrench comprising a shank and means for rotating the same, and a socket member pivoted to the end of said shank to turn about an axis substantially at right angles to the shank, said socket member having an elongated socket therein adapted to engage the nut or bolt to be turned between its sides, but to permit tilting of the socket member upon the nut or bolt in a plane passing through the axis of rotation of the nut or bolt.

4. A socket wrench comprising a shank and means for rotating the same, said shank terminating in a fork, and a socket member pivoted between the arms of said fork, said socket member having an elongated socket therein, the outer edges of the side walls of said member being convexly curved.

5. A socket wrench comprising a shank and means for rotating the same, said shank terminating in a fork, and a socket member pivoted between the arms of said fork, said socket member having two superimposed elongated sockets therein, the outer of which is the larger, the outer edges of the side walls of the socket member being convexly curved.

1,078,568. UNDERREAMER. WILLIAM W. WILSON, Los Angeles, Cal. Filed June 19, 1911. Serial No. 633,911. (Cl. 255—75.)



1. An under-reamer comprising a body provided at its lower end with a chamber and with a downwardly projecting tool-carrying shank extending vertically through-out said chamber, said body having opposed faces each of which comprises an upper portion slightly inclined toward the shank and a lower portion increasingly inclined toward the shank, and bits mounted to traverse the respective opposed faces each with an inner face in contact therewith; said bits having shanks disposed in said chamber; and means pivotally suspending the bits at the upper ends of the shanks.

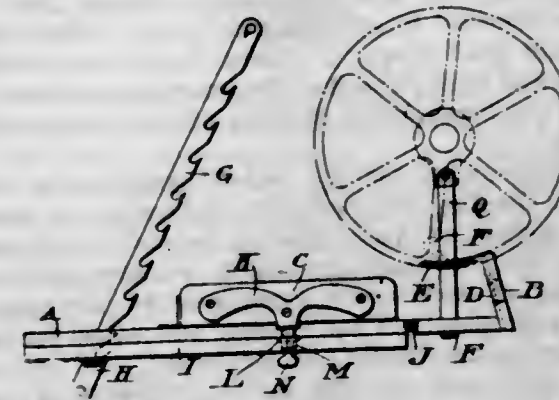
2. An underreamer comprising a body provided at its lower end with a chamber, said body being provided at the lower end of said chamber with two sets of faces at each side, each of said sets of faces having relatively inclined upper and lower portions, bits mounted within said chamber to move pivotally therein and being confined in said chamber to such movement, said bits co-acting each with two sets of said relatively inclined faces at one side of said chamber, means pivotally suspending the bits for movement within the chamber, and a tool-carrying shank

196 O. G.—32

spanning the chamber and ranging throughout the same vertically between the two sets of inclined faces and the co-acting bit at one side of the chamber and the corresponding sets of inclined faces and bit at the other side of the chamber; the means of pivotal suspension of said bits being at the respective sides of the upper end of said shank and clear thereof.

3. An underreamer comprising a body provided at its lower end with a chamber, said body being provided at the lower end of said chamber with two sets of faces at each side, each of said sets of faces having relatively inclined upper and lower portions, bits mounted within said chamber to move pivotally therein and being confined in said chamber to such movement, said bits co-acting each with two sets of said relatively inclined faces at one side of said chamber, means pivotally suspending the bits for movement within the chamber, and a tool-carrying shank spanning the chamber and ranging throughout the same vertically between the two sets of inclined faces and the co-acting bit at one side of the chamber and the corresponding sets of inclined faces and bit at the other side of the chamber; the means of pivotal suspension of said bits being at the respective sides of the upper end of said shank and clear thereof; and downwardly tapering blocks disposed at the respective sides of the upper end of the shank and with which the bits contact at their upper ends.

1,078,569. SHEET DELIVERY AND STACKER. GEORGE ACKERMAN, Salt Lake City, Utah, assignor of one-third to Frederick Charles Bush, Salt Lake City, Utah. Filed Sept. 10, 1912. Serial No. 719,653. (Cl. 101—31.)



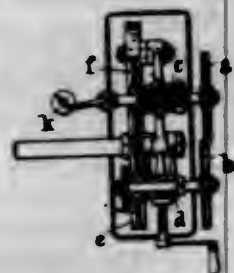
1. In a device of the class described the combination of a U-shaped table support detachably secured to the frame of a printing press; a section of a table superimposed on said support; another portion of said table hinged thereto; regulators to adjust one edge of the last mentioned section of said table; a finger board secured to and inclined over a portion of said first mentioned section of the table; finger members secured to said board adapted to engage the printed sheet on one of its edges before it is released and guide said sheet in its fall; and side guides adjustable on said table.

2. In a device of the class described the combination of a U-shaped table support secured to the frame of a printing press; a table section superimposed thereon; another portion of said table hinged thereto; regulators engaging therewith to adjust the height of one edge of said table; a finger board secured to and inclined toward said table; fingers secured to said board; side and front guides on said table adapted to direct a sheet of printed matter on to said table; and a cam to release said sheet from the reel of the printing press when it is engaged by said fingers.

1,078,570. GRINDING OF TOOTHED WHEELS, MILLING-CUTTERS, AND THE LIKE. ALBERT AICHELE, Baden, Switzerland. Filed Dec. 15, 1911. Serial No. 665,895. (Cl. 51—7.)

1. An apparatus for the mutual grinding of toothed wheels or the like, comprising axles for the wheels, independent supports for each axle and means for varying and fixing the distance between said axles and arranged

to contact with one another, a driving wheel in contact with one of said friction wheels and an intermediate idle wheel contacting with the other of said friction wheels and said driving wheel together with means for longitudinally moving the wheel axes; as set forth.



2. An apparatus for the mutual grinding of toothed wheels or the like, comprising in combination axes, friction disks mounted with the wheels to be ground on said axes, a friction driving wheel arranged in contact with one of said friction disks, a standard for the axle of one friction disk and for the axle of the driving wheel, a bell crank lever, said lever carrying the other friction disk and being mounted on the axle of the driving wheel, a screwed rod connecting said standard and said lever with hand means for rotating said rod, a further lever pivoted in said standard, a friction disk mounted on said lever and a spring connecting this lever with the standard; as set forth.

3. An apparatus for the mutual grinding of toothed wheels or the like, comprising pivoted standards with means for determining their distance apart, axes carrying wheels to be ground mounted in said standards, gear wheels mounted on said axes and a driving wheel with axle also mounted in said standards and contacting with one of said gear wheels, a rotary device connecting said driving wheel with the other of said wheels and means for effecting the longitudinal shifting of the wheel axes; as set forth.

4. An apparatus for the mutual grinding of toothed wheels or the like comprising in combination at least two toothed wheels of such relative hardness and relative diameter that substantially equal volumes of material are ground off each wheel, mountings for the wheels adjustable with respect to one another and means for driving each wheel independently; as set forth.

5. An apparatus for the mutual grinding of toothed wheels or the like comprising in combination two shafts, driving means mounted thereon and intermeshing and comprising at least two toothed wheels of such relative hardness and relative diameter that substantially equal degrees of abrasion occur per tooth on each wheel, together with means for changing the relative position of the wheels to be ground with respect to their driving device; as set forth.

1,078,571. SHOE. DE ROY AUSTIN, Omaha, Neb. Filed Jan. 16, 1912. Serial No. 671,530. (Cl. 36—44.)



1. In a shoe having an upper, a welt, a leather insole and an insole passing through and securing together the upper, the welt and all parts of the composite insole, a sheet of fibrous resilient material disposed above the leather insole and having a lip extending between the upper and the margin of the leather insole, the insole passing through said lip.

2. In a shoe, a composite insole comprising a sheet of leather, a sheet of fibrous resilient material disposed over the leather sheet and having a marginal lip inclosing the edges of the leather sheet, and a lining secured over the top of the fibrous resilient sheet, an upper, a welt, and

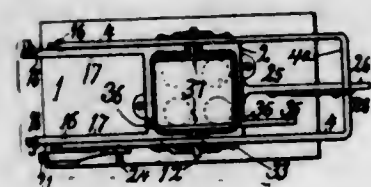
an insole passing through and securing together the upper, the welt and all parts of the composite insole.

3. In a shoe, an upper, a welt, an insole, and an insole passing through and securing them together, the insole comprising a sheet of leather, a sheet of felt disposed over the same and having the edges of the toe and shank portions thereof split to form two lips, the lower lip being turned down around the edges of the leather sheet and being traversed by the insole, and a lining-piece disposed over the felt sheet and having its marginal portion secured to the upper lip thereof.

4. In a shoe, an upper, a leather insole, a felt insole disposed over the leather insole and having marginal portions extending down around the edges of the leather insole, a covering secured over the felt insole, and a seam passing through the adjoining portions of the felt insole, the leather insole and the upper to secure them together.

5. In a shoe, an upper, a welt, a leather insole, a felt insole secured over the leather insole, an insole passing through and securing together the welt, the upper, and the toe and shank portions of the leather and felt insoles, and tap-nails extending through the leather insole only and having their inner ends covered by the felt insole.

1,078,572. APPARATUS FOR BAKING PASTRY CONES. ANDREW M. CARLSEN, St. Paul, Minn., assignor, by mesne assignments, to Standard Cone Company, St. Paul, Minn., a Corporation of Minnesota. Filed Feb. 19, 1910. Serial No. 544,863. (Cl. 107—66.)



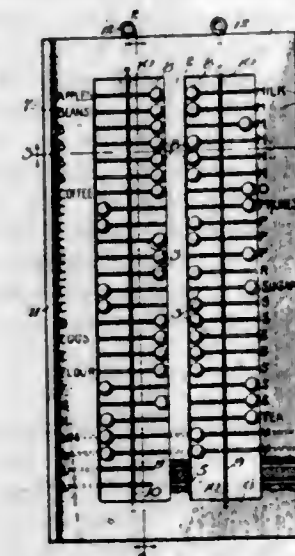
1. In a device of the kind described, the combination of a supporting base and open journal bearings thereon, two plates one equipped with molds and the other with cores adapted to go into the molds, both plates having semi-cylindrical journal members adapted when the plates are brought together to form cylindrical split journals in the bearings, the journal members on the core-equipped plate having at their outer ends cylindrical extensions in axial line with the split journals; two eyes permanently encircling said end extensions, a lever mounted on the base and operatively connected with said eyes and having portions arranged to press upon the split journals and thereby hold the plates together during the baking process, and automatic catching means for holding the lever in said pressing position, and means for applying heat to the plates.

2. In a device of the kind described, the combination of a base, a stove casing secured thereon and having in its upper edges two opposite open journal bearings, and transversely to a line through said journal bearings arms extending from the rear side of the casing, and one arm extending from the front side of the casing, a pair of baking irons having each a pair of journal members forming when brought together split journals resting in the bearings; a lever fulcrumed to the rear arms of the casing and means on the front arm for engaging the lever and holding it in pressing contact upon the split journals, and hangers carried by the lever and permanently journaled to the ends of the journal members of one of the baking irons.

3. In a device of the kind described, the combination of a base, a stove casing mounted thereon and having in its upper edges two opposite open journal bearings, and transversely to a line through said bearings two arms extending from the rear side of the casing, and one arm upon the front side of the casing, a pair of baking irons having split journals rotatable in said bearings; a lever fulcrumed to the rear arms of the casing, an automatically engaging catch on one of the rear arms arranged to engage and hold the lever in a raised position; means on the lever for pressing upon the two split journals, and means on the

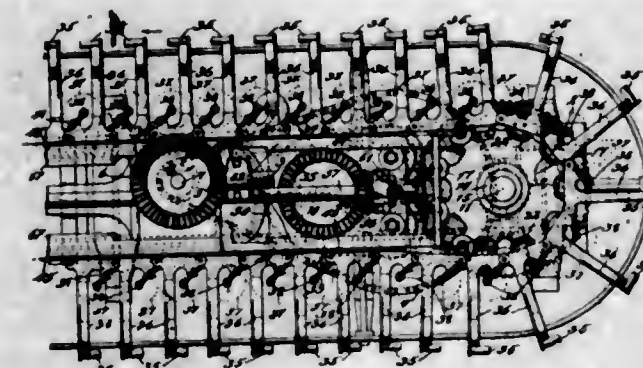
lever permanently journaled to the journal members of one of the baking irons to lift it in level position from the other baking iron, the latter iron having catches and the stove casing having means for said catches to engage for the purpose set forth; and means on the front arm of the stove casing adapted to automatically engage the lever and hold it in pressing contact with the split journals.

1,078,573. INDICATOR. LUCIUS A. COCK, Chicago, Ill. Filed Dec. 23, 1911. Serial No. 667,553. (Cl. 116—50.)



An indicator comprising a suitable frame having an opening therein, indicia adjacent said opening, a plurality of shallow channels on each side of said opening the channels on one side of said opening aligning with the respective channels on the opposite side thereof, a plurality of parallel guide-wires separate from each other and extended across said opening and seated in said channels, a marker carried by and slidable on each guide-wire within said opening, a covering-plate secured to the face of said frame and retaining the ends of said guide-wires in said channels, and a straight independent wire arranged transversely to and adjacent said guide-wires and having an offset near each end to hold the same out of contact with the guide-wires and to resist the movements of said markers from one end to the other of said guide-wires.

1,078,574. SPOOLER. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Dec. 26, 1907. Serial No. 408,111. (Cl. 242—44.)



1. A textile machine comprising means for giving a spool a travelling movement; and means for rotating said spool comprising a belt running in a direction opposite to the direction of travel of the spool and operatively engaging said spool.

2. A textile machine comprising means for giving a spool a travelling movement; and a belt running in a direction opposite to the direction of travel of the spool, and arranged to contact said spool.

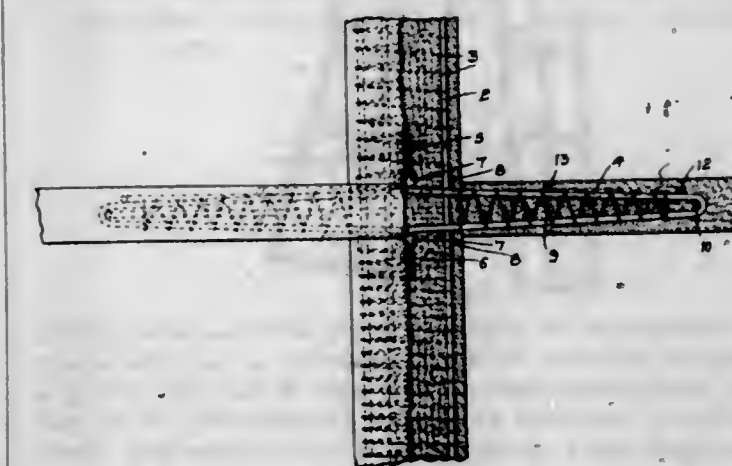
3. A textile machine comprising an endless continuously driven belt; and means for moving an endless series of thread containers in a direction opposite to the direction of movement of said belt and in driving engagement with said belt.

4. A spooler comprising means for moving a spool in an endless path; means for rotating the spool; and an endless guide for the thread being wound on said spool.

5. A spool-and-bobbin carrier comprising an endless chain, each link of said chain being arranged to support a bobbin and a spool.

[Claims 6 to 35 not printed in the Gazette.]

1,078,575. REINFORCED-CONCRETE BUILDING. WILLIAM PIERCE COWLES, Minneapolis, Minn., assignor of one-half to Scott F. Evans, Minneapolis, Minn. Filed Nov. 26, 1910. Serial No. 594,381. (Cl. 72—15.)



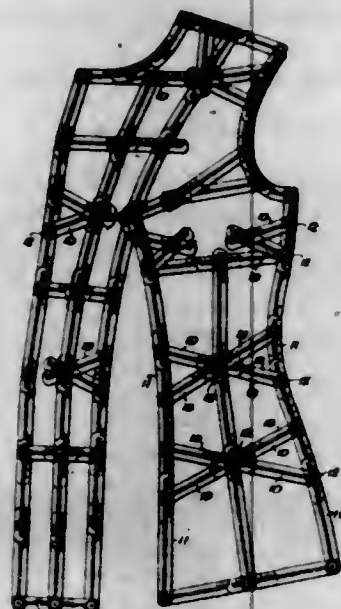
1. In a reinforced concrete building structure, the combination with reinforced concrete columns and a floor slab of concrete supported thereby, of a series of closely spaced U-shaped brackets arranged in vertical planes, and extending in a radial direction from each of the column centers into the floor slab, the inner free ends of the brackets being bent to extend longitudinally of the columns and located substantially in the center of the columns, means for engaging the bent ends of the brackets for holding the same together, vertically extending column rods located in each column adjacent the outer face thereof, and rings surrounding said column rods and located above and below the members of the brackets.

2. In a reinforced concrete building structure, the combination with reinforced concrete columns and a floor slab of concrete supported thereby, of a series of closely spaced U-shaped brackets arranged in vertical planes, and extending in a radial direction from each of the column centers into the floor slab, the inner free ends of the brackets being bent to extend longitudinally of the columns, and located substantially in the center of the columns, means for engaging the bent ends of the brackets for holding the same together, vertically extending column rods located in each column adjacent the outer face thereof, rings surrounding said column rods and located above and below the members of the brackets, and a plurality of buckling rings arranged concentrically of said columns, and located between the upper and lower members of the brackets.

3. In a reinforced concrete building structure, the combination with reinforced concrete columns and a floor slab of concrete supported thereby, of a series of closely spaced U-shaped brackets arranged in vertical planes, and extending in a radial direction from each of the column centers into the floor slab, the inner free ends of the brackets being bent to extend longitudinally of the columns, and located substantially in the center of the columns, means for engaging the bent ends of the brackets for holding the same together, vertically extending column rods located in each column adjacent the outer face thereof, rings surrounding said column rods and located above and below the members of the brackets, a plurality of buckling rings arranged concentrically of said columns

and located between the upper and lower members of the brackets, and suitable wires wound about the members of the brackets for forming shear loops.

1,078,576. PATTERN FOR DRAFTING GARMENTS. LOUIS S. D'ORSOGNA and PIERRO CANE, Philadelphia, Pa. Filed Dec. 10, 1909. Serial No. 532,471. (Cl. 223—2.)



In apparatus for preparing cloth sections subsequently connected together to form garments or pattern sheets from which such cloth sections may be cut, comprising a plurality of sectional adjustably jointed strips to fit over the human figure and conform to the contour and curvature of the same, the combination of marginal elements made up of a plurality of longitudinally adjustable pieces, clamping devices for securing said pieces together, bars diagonally disposed with respect to said adjustable marginal pieces and connected thereto by the clamping devices for said pieces, said bars serving to hold the marginal pieces in position after an expansion or contraction in the length of said marginal pieces to cause the same to follow the contour of that portion of the body over which they are placed, a plurality of sections of pieces adjustably connected together and disposed substantially midway of the marginal pieces, said mid strip forming an anchorage for said diagonal bars whereby the marginal sectional pieces connected to the same may be held in their adjusted positions with respect to said mid strip, and means for clamping the diagonal bars to said mid strip.

1,078,577. TELEPHONE-BRACKET. FARNHAM FOX, New York, N. Y. Filed July 1, 1909. Serial No. 505,480. (Cl. 248—8.)

1. In a device of the class described, a hollow supporting arm comprising opposed members in sliding engagement with each other and a link joint at each end between said parts, an expanding frictional device within said arm interposed between said members and acting with constant friction upon the movement of said members in either direction with relation to each other, in combination with a spring actuated by the movement of said parts past one another.

2. In a device of the character described, a hollow supporting arm comprising opposed members having their meeting edges interlocked in sliding engagement, in combination with a pressure device arranged within said hollow arm and tending constantly to force said members apart whereby the friction between the interlocked edges thereof is increased for the purpose specified.

3. In a device of the character described, a hollow supporting arm comprising opposed members having their meeting edges interlocked in sliding engagement, in combination with a friction device arranged within said arm and comprising a spring-pressed friction element supported by one part and bearing constantly against the other part to hold the parts in the adjusted position of the arm.

4. In a device of the character described, a hollow supporting arm comprising opposed members having their meeting edges interlocked in sliding engagement, a return spring tending to maintain said parts in predetermined relation to each other, a yoke piece fast with one of said arm members and engaging one end of the spring, in combination with a friction device extending between said arm members and arranged within said yoke and serving by its engagement with the latter to limit the longitudinal displacement of said arm members with relation to each other.



5. In a device of the character described, a supporting arm comprising parts slidably connected together, a link joint at each end between said parts, a friction member interposed between said parts and a carrier therefor, means for securing said carrier on one member, in combination with a yoke embracing said carrier and moving with the other member of said arm, said yoke being of sufficient length to permit limited longitudinal movement of said carrier within the same, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,078,578. WELDING-TORCH. JOSEPH C. GEHRING, JR., and RICHARD D. CONRAD, Pittsburgh, Pa. Filed Aug. 11, 1913. Serial No. 784,059. (Cl. 158—109.)



1. In a torch, a head, a tube communicating with said head for the supply of gas thereto, a casing surrounding said tube and forming the handle of said torch, a movable grasp-collar mounted on said casing, a valve controlling the supply of gas to said tube, and connecting means between said valve and said collar whereby the adjustment of said valve is effected by the movement of said collar on said casing.

2. In a torch, a head, a tube communicating with said head for the supply of gas thereto, a casing surrounding said tube and forming the handle of said torch, a movable grasp-collar mounted on said casing, a valve controlling the supply of gas to said tube and opening against pressure, and connecting means between said valve and said collar whereby the adjustment of said valve is effected by the movement of said collar on said casing.

3. In a torch, a head, a tube communicating with said head for the supply of gas thereto, a casing surrounding said tube and forming the handle of said torch, a valve controlling the supply of gas to said tube, a member mounted in said casing and sliding longitudinally therein and operatively connected with said valve to control

the same, a rotary grasp-collar mounted on said casing, and means whereby when said collar is rotated longitudinal movement is imparted to said member.

4. In a torch, a head, a tube communicating with said head for the supply of gas thereto, a casing surrounding said tube and forming the handle of said torch, a plunger valve opening against pressure and controlling the supply of gas to said tube, a member mounted in said casing and sliding longitudinally therein, and operatively connected with said valve, a rotary grasp-collar mounted on said casing, and means whereby the rotation of said collar imparts longitudinal motion to said member.

5. In a torch, a head, a tube communicating with said head for the supply of gas thereto, a casing surrounding said tube and forming the handle of said torch, said casing being provided with a longitudinal slot, a rotary grasp-collar mounted on said casing and provided with an oblique slot intersecting said first slot, a valve controlling the supply of gas to said tube, a member slidably mounted in said casing and operatively connected with said valve to control the latter, and a stud projecting from said member and engaging both of said slots.

[Claims 6 to 11 not printed in the Gazette.]

1,078,579. DEMOUNTABLE RIM. JOSEPH M. GILBERT, Mount Vernon, N. Y., assignor, by mesne assignments, of one-half to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fourth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fourth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed Sept. 15, 1910. Serial No. 582,121. Renewed Apr. 23, 1913. Serial No. 763,180. (Cl. 152—21.)



1. The combination of a tire carrying rim comprising two sections movable relatively to each other, means for securing said sections together in a single structure against relative movement in an axial direction and against relative rotative movement in one direction and locking means resilient in a circumferential direction for preventing relative rotative movement of said rim sections in the opposite direction.

2. The combination of a tire carrying rim comprising two sections movable relatively to each other, means for securing said sections together in a single structure and locking means on one of said sections for preventing said relative movement, said locking means comprising two members mounted to slide on each other in a circumferential direction.

3. The combination of a tire carrying rim comprising two sections movable relatively to each other, means for securing said sections together in a single structure, locking means on one of said sections for preventing said relative movement, said locking means comprising two members movable toward and from each other and a spring for normally pressing said members away from each other.

4. A lock for split demountable tire carrying rims comprising one member having a lug adapted for connection with a rim section, and provided with apertures, rods slidably mounted in said apertures and a second member rigidly secured to said rods.

5. A lock for split demountable tire carrying rims comprising one member having a lug adapted for connection with a rim section, and provided with apertures, rods slidably mounted in said apertures and a second member rigidly secured to said rods, and means on said rods for limiting the movement thereof in one direction.

[Claim 6 not printed in the Gazette.]

1,078,580. PROCESS FOR EXTRACTING GLYCERIN FROM VINASSES. GASTON PHILIPPE GUIGNARD, Melun, and HENRI LOUIS ADOLPHE MARIE WATRIGANT, Lille, France. Filed Sept. 7, 1912. Serial No. 719,140. (Cl. 87—4.)

A process for extracting glycerin from vinasses which comprises desiccating the vinasses, washing the residue with liquid in which glycerin is insoluble under the conditions of the operation, but capable of dissolving substances which would dissolve in amyl alcohol together with the glycerin, then washing the residue of these washings in hot amyl alcohol to dissolve the glycerin alone, and then cooling the amyl alcohol to separate the glycerin therefrom.

1,078,581. SHEET-METAL WHEEL. FELIX B. HOEN and ADAM WAGNER, Cedar Falls, Iowa, assignors to Wagner Manufacturing Company, Cedar Falls, Iowa, a Corporation. Filed June 15, 1911. Serial No. 633,243. (Cl. 21—69.)



1. A sheet metal wheel consisting of two complementary halves or sections which comprise each a hub portion, spoke members with spaces between and a tread portion, the walls of the hub portions forming an annular hub chamber, fastening devices passing through the two wheel sections near the outer periphery thereof, a spider arranged in the hub chamber to hold the hub portions spaced apart, said spider consisting of an inner ring and a complete outer ring connected together to present two annular bearing surfaces to the walls of the chamber, there being apertures provided between the two rings, a bushing extending through the hub openings within the spider, and fastening devices passing through the hub portions and the apertures in the spider for rigidly clamping the hub portions against the spider.

2. A sheet metal wheel consisting of two complementary halves or sections which comprise each a hub portion, spoke members and a tread portion, the walls of the hub portions forming an annular chamber, fastening devices passing through the two wheel sections near the outer periphery thereof, a spider arranged in the hub chamber to hold the hub portions spaced apart, said spider consisting of an inner ring and an outer ring connected together to present two annular bearing surfaces to the walls of the hub chamber, there being apertures provided between the two rings, a bushing extending through said spider, retaining caps on the outside of the hub portions which engage the ends of the bushing and clamp it in place, said caps being provided with openings in axial alignment with said bushing, and fastening devices passing through said caps, said hub portions and the apertures in the spider for rigidly clamping the hub portions against the spider and securing the caps in place against the ends of the bushing.

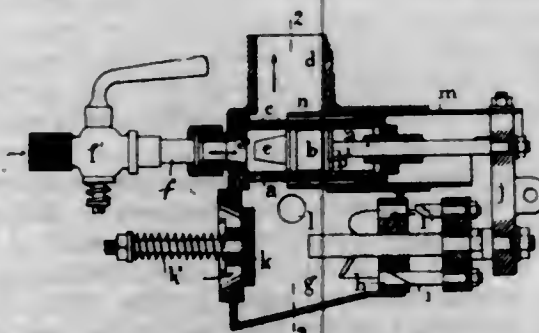
3. In a sheet metal wheel consisting of two complementary halves or sections and comprising each a hub portion, spoke members and a tread portion, the walls of the hub portions being substantially parallel and forming an annular hub chamber, fastening devices passing through the sections near the outer periphery thereof, an apertured spacing member arranged between the parallel walls of the hub chamber and presenting considerable bearing surface to said walls, a bushing extending through the hub openings, retaining caps for said bushing, and fastening devices passing through said hub portions and the apertures in said spacing member to clamp the hub portions rigidly against the spacing member and to clamp said caps against said bushing.

4. In a sheet metal wheel consisting of two complementary halves or sections and comprising each a hub portion, spoke members and a tread portion, the walls of the hub portions being substantially parallel and forming an annular hub chamber, fastening devices passing through the sections near the outer periphery thereof, an apertured spacing member arranged between the parallel walls of the hub chamber and presenting two annular bearing surfaces to said walls, a bushing extending through the hub openings, retaining caps on the outside of the hub portions for engaging the ends of the bushing, said caps being provided with openings in axial alignment with said bushing, and fastening devices passing through said caps, said hub portions, and the apertures in the spacing member for rigidly clamping the hub portions against the spacing member and clamping the caps in place against the ends of the bushing.

5. A sheet metal wheel consisting of two complementary halves or sections which comprise each a hub portion, spoke members and a tread portion, the walls of the hub portions forming an annular hub chamber, said walls being provided with shaft openings and annular recesses extending around said openings, fastening devices passing through the two wheel sections near the outer periphery thereof, a spider arranged in the hub chamber to hold the hub portions spaced apart, said spider consisting of an inner ring and an outer ring connected together to present two annular bearing surfaces to the walls of the hub chamber, there being apertures provided between the two rings, the inner ring extending at its ends into said recesses, a bushing extending through the hub openings, and fastening devices passing through the hub portions and the apertures in the spider for rigidly clamping the hub portions against the spider.

[Claim 6 not printed in the Gazette.]

1,078,582. CARBURETER. PAUL PIERRE LOUIS JAUGEY, Paris, France. Filed Dec. 6, 1910. Serial No. 595,953. (Cl. 48—155.)



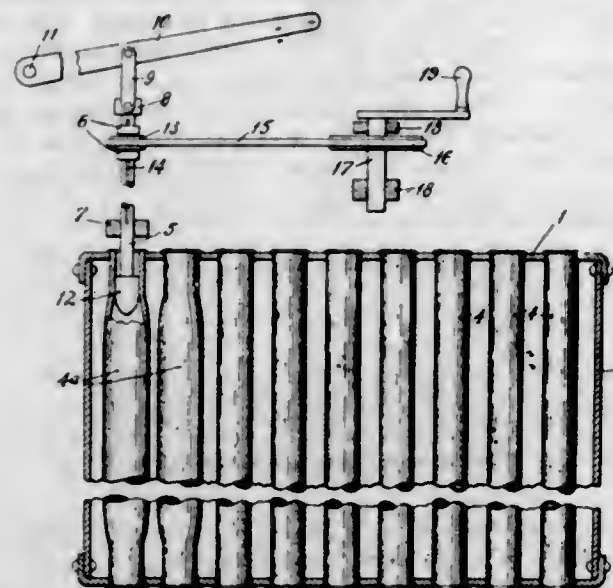
1. In a carbureter, an oil feed cylinder with lateral spray outlets in combination with a piston valve working in said feed cylinder and serving upon the sudden opening of the outlets to create a temporary depression in said feed cylinder whereby the escape of oil therefrom is temporarily diminished, together with a needle valve moving with said piston and controlling the admission of petrol to the feed cylinder, for the purpose described.

2. In a carbureter, an oil feed cylinder with lateral spray outlets in combination with a piston valve working in said feed cylinder and serving upon the sudden opening of the outlets to create a temporary depression in said

feed cylinder whereby the escape of oil therefrom is temporarily diminished, together with a needle valve moving with said piston and controlling the admission of petrol to the feed cylinder, the spray apertures in the feed cylinder being spaced longitudinally apart sufficient distance to permit the control of the flow of petrol to the cylinder by the longitudinal movement of the piston and needle valve when running at low speed, without uncovering additional spray apertures, substantially as described.

3. A carbureter having a feed cylinder with longitudinally arranged spray apertures, a piston valve controlling the latter, an inlet aperture opening to the feed cylinder, and a needle valve moving with the piston to control the admission of oil through said aperture to the cylinder, in combination with an air inlet and a valve moving with said piston to control the air supply, the spray apertures in said feed cylinder being spaced apart sufficient distance to permit the flow of petrol to the feed cylinder and the admission of air to the carbureter to be increased or diminished without opening additional spray apertures or throttling those open while running at low speed, substantially as described.

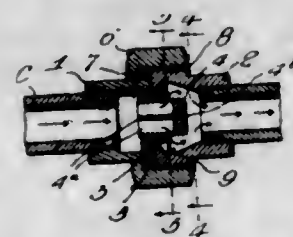
1,078,583. PROCESS OF HARDENING COPPER BOILER-TUBES. PHILIP D. JOHNSON, Chicago, Ill. Filed July 17, 1912. Serial No. 710,086. (Cl. 29—148.)



1. The process of restoring burned boiler tubes which consists in expanding the ends of the burned tubes to make tight joints in the heads of the boiler, collapsing the burned tubes by the application of pressure in the boiler, and restoring the tubes to circular cross-section and hardening them by means of a rotating spinning tool passing through them.

2. The process of repairing a tubular boiler *in situ* which consists in first subjecting the tubes to pressure to cause them to collapse, and then restoring the tubes to circular cross-section and manipulating them by passing a rotating tool through them.

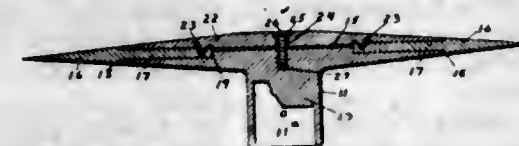
1,078,584. GAS MIXER AND REGULATOR. WILLIAM S. JONES, Meadville, Pa. Filed Nov. 11, 1912. Serial No. 730,726. (Cl. 158—120.)



A gas regulator comprising two coupling members internally threaded at one end for engagement with adjacent pipe sections, one of said members having one end

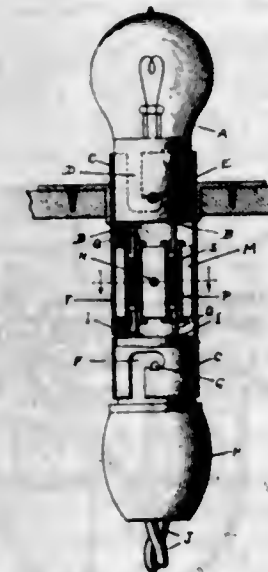
reduced and offset to form a shoulder, said reduced end being interiorly threaded, an annular laterally extending flange at the base of said reduced portion, the other coupling member having an enlarged exteriorly threaded end and adapted to abut the shoulder on the reduced end of the first mentioned coupling member, the enlarged end of said coupling member being recessed to form a gas expansion chamber, a screw plug adjustable in the reduced end of said first mentioned coupling member and slotted longitudinally for a greater portion of its length, said plug discharging into said expansion chamber, and a coupling nut having an internal flange at one end for engagement with the flange of said first mentioned coupling member and interiorly threaded for engagement with the exterior threads on the enlargement of the other coupling member.

1,078,585. PICK. DELMAR D. KELTNER, Des Moines, Iowa. Filed Feb. 24, 1913. Serial No. 751,145. (Cl. 125—19.)



A pick comprising a head having a socket for a handle, opposite lateral extensions provided with longitudinal sockets, said head being provided in its side opposite said first named socket with a recess communicating with the inner ends of said sockets, removable points, each comprising a body having a point and a shank of smaller diameter than said body, designed to be received in one of said sockets and provided with a notch in its side near its inner end, a locking cap received within said recess and provided with downwardly extending lugs for engaging the notches in said point shanks and drawing the removable points inwardly, and means for detachably securing said cap to said head.

1,078,586. SOCKET FOR ELECTRIC LAMPS. GEORGE C. KNAUFF, Chicago, Ill. Filed Apr. 22, 1912. Serial No. 692,282. (Cl. 173—328.)



1. A lamp socket including a casing having interlocking engagement at its opposite ends respectively with the terminals of a lamp and of a source of current; an insulating body mounted within the casing and comprising a plurality of parts, the said parts recessed on their adjoining surfaces longitudinal of the casing; contact members housed within the said recesses, each thereof extending beyond the opposite ends of the insulating body and adapted to carry current from the said source of current to the said lamp; each of said contact members having enlarged ends adapted to engage the ends of the in-

insulating body to prevent longitudinal displacement of the said member with respect to the insulating body.

2. A lamp socket including a casing having interlocking engagement at its opposite ends respectively with the terminals of a lamp and of a wire-carrying plug; an insulating body mounted within the casing and comprising a pair of semi-cylindrical parts, each of said parts having a pair of semi-cylindrical recesses upon the surface contiguous to the other part, the said recesses aligning when the parts of the insulating body are mounted within the casing to form cylindrical bores longitudinal of the casing; and a substantially cylindrical current-carrying member partially housed within each of said bores and extending beyond the ends thereof, each of said members having a pair of spring-actuated plungers mounted therein, the tips of the plungers projecting from the opposite ends of the said member into contact with the said lamp and plug respectively; there being formations upon each current-carrying member engaging portions of the said semi-cylindrical body parts to prevent longitudinal displacement of the said member with respect to the said insulating body.

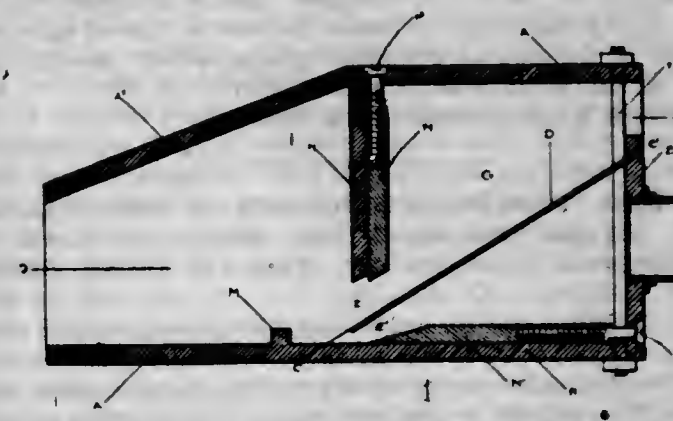
1,078,587. FOLDABLE SCREEN-SUPPORTING FRAME. JACOB B. LYNCH, Logansport, Ind. Filed Dec. 12, 1912. Serial No. 736,449. (Cl. 45—75.)



1. A support of the character described comprising a blank of sheet metal bent into the form of a flat casing, a tongue projecting from one end of the casing comprising a neck and a plate of substantially the form of the cross section of the casing, and a series of frame members having pivot ends at substantially right angles to the bodies of said members, said pivots being seated in the casing side by side and the bodies of the frame members projecting laterally therefrom, the plate of the tongue being bent at a right angle to the tongue and parallel with the end of the casing and holding the pivots in position in the casing.

2. In a support of the character described, a casing formed from a blank of sheet metal having an elliptical element thereon, said elliptical element being turned at right angles to the main body of the blank, said blank having two opposite edge portions curved around one of said elliptical elements so as to form a flat tubular casing having one end closed, said blank having a second elliptical element bent into parallel relation to the first said elliptical element and in spaced relation to the open end of the casing, so that several pivots may be fitted into and secured within the casing substantially as specified.

1,078,588. GAS-BURNER. CLAYTON B. MCELWAIN, Tulsa, Okla., assignor of one-half to R. E. Markham, Tulsa, Okla. Filed Aug. 30, 1911. Serial No. 646,865. Renewed Sept. 29, 1913. Serial No. 792,480. (Cl. 158—99.)



1. A gas burner having a hollow body, a wall extending within said body and spaced from one portion thereof

thereby providing a space between the end of the wall and body and forming an air and gas mixing chamber on one side thereof and a fuel receiving chamber on the opposite side thereof, said latter chamber having a partition dividing the same into a gas receiving chamber and an air receiving chamber and dividing the space between the wall and body into an opening or passage for air and an opening or passage for gas, means to supply air to the air chamber, means to supply gas to the gas chamber, and an abutment in the mixing chamber against which the air and gas strike, substantially as described.

2. A gas burner having a hollow body made in separable sections, means securing said sections together, a wall extending within said body from one of said sections and spaced from one portion of the body thereby providing a space between the end of the wall and body and forming an air and gas mixing chamber on one side thereof and a fuel receiving chamber on the opposite side thereof, said latter chamber having a removable partition dividing the same into a gas receiving chamber and an air receiving chamber and dividing the space between the wall and body into a passage for air and a passage for gas, means to supply air to the air chamber, means to supply gas to the gas chamber, an abutment formed on one of said sections in the mixing chamber against which the air and gas strike, substantially as described.

3. A gas burner having a hollow body, a wall extending within said body and spaced from one portion thereof thereby providing a space between the end of the wall and body and forming an air and gas mixing chamber on one side thereof and a fuel receiving chamber on the opposite side thereof, said latter chamber having a partition dividing the same into a gas receiving chamber and an air receiving chamber and dividing the space between the wall and body into an opening or passage for air and an opening or passage for gas, means to supply air to the air chamber, means to supply gas to the gas chamber, sliding means to regulate the extent of said air opening, and an abutment in the mixing chamber against which the air and gas strike, substantially as described.

4. A gas burner having a hollow body provided with a fuel receiving chamber, an inclined partition in said chamber dividing the same into an air receiving chamber and a gas receiving chamber, said fuel receiving chamber provided with an opening divided by said partition into openings or passages for the outflow of air and gas and means to regulate the extent of each of said openings adjustable relative to said partition, means to supply air to the air chamber, and means to supply gas to the gas chamber, substantially as described.

5. A gas burner having a hollow body made in separable sections, means securing said sections together, a wall integral with one of said sections extending within said body and spaced from one portion thereof thereby providing a space between the end of the wall and body and forming an air and gas mixing chamber on one side thereof and a fuel receiving chamber on the opposite side thereof, said latter chamber having a removable partition plate dividing the same into a gas receiving chamber and an air receiving chamber and dividing the space between the wall and body into a passage for air and a passage for gas, said plate secured between the body sections, means to supply air to the air chamber, means to supply gas to the gas chamber, and a raised portion on one of said sections in the mixing chamber against which the air and gas strike, substantially as described.

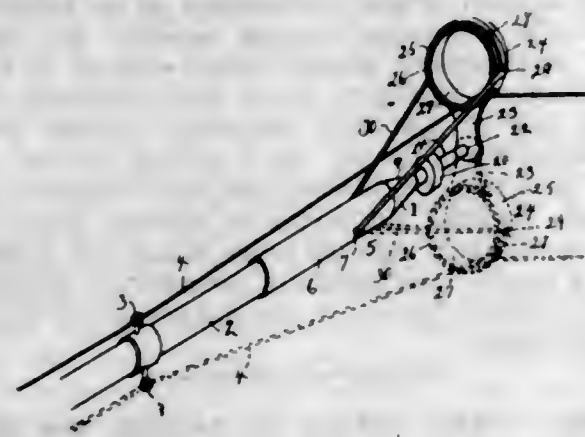
[Claim 6 not printed in the Gazette.]

1,078,589. FISHING-ROD TIP END OR TOP. CHARLES C. MEYER, Philadelphia, Pa., assignor to Lewis A. Thompson, St. Davids, Del. Filed Feb. 3, 1913. Serial No. 745,989. (Cl. 43-16.)

1. A fishing rod tip end or top, comprising a guide ring, means for adjustably attaching said guide ring to the fishing rod and a brace swingingly carried by said means and pivoted to the guide ring whereby said guide ring may be adjusted to different positions.

2. In a fishing rod tip end or top, a sleeve, a guide

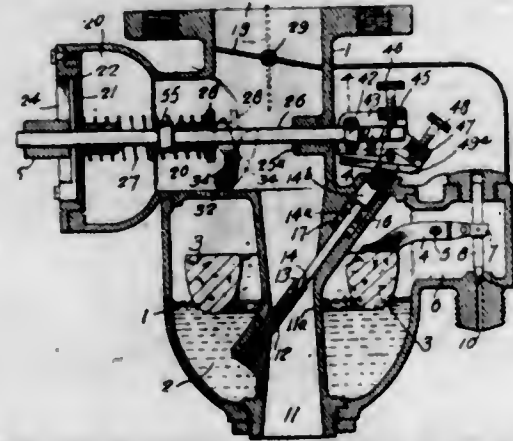
ring, a brace swingingly mounted in the sleeve and pivoted to the guide ring and means slidably mounted in the sleeve adapted to engage the guide ring for holding the same in an upright position.



3. In a fishing rod tip end or top, a sleeve having openings therein, a nipple having a central longitudinal opening, said nipple being reduced in size to form a neck, said neck having a chamber cut therefrom forming a pair of oppositely disposed arms, a cap having a transverse opening therein and provided with a projection, said cap being carried by the nipple, the projection lying between the arms, the transverse opening in said cap aligning with the openings in the sleeve, a pin provided with a head and having one end threaded, slidably mounted in the nipple, a thumb piece mounted upon said pin, a guide ring consisting of a metallic ring provided with a rib having an arm depending therefrom in which is formed a threaded opening, pivot pins carried by the metallic ring and an agate or other suitable composition ring, said agate or other suitable composition ring being mounted in the first named ring, a brace passing through the openings in the sleeve, and cap, and having its end pivoted to the guide ring in an upright position, said guide ring being so attached to the brace that it may be swung to either of two sides of the rod, or folded back on the rod when not in use, thus protecting it from injury.

4. In a fishing rod tip end or top, a sleeve having openings therein, a nipple having a central longitudinal opening, said nipple being reduced in size to form a neck, said neck having a chamber cut therefrom forming a pair of oppositely disposed arms, a cap having a transverse opening therein and provided with a projection, said cap being carried by the nipple, the projection lying between the arms, the transverse opening in said cap aligning with the openings in the sleeve, a pin provided with a head and having one end threaded, slidably mounted in the nipple, a thumb piece mounted upon said pin, a guide ring consisting of a metallic ring provided with a rib having an arm depending therefrom in which is formed a threaded opening, pivot pins carried by the metallic ring and an agate or other suitable composition ring, said agate or other suitable composition ring being mounted in the first named ring, a brace passing through the openings in the sleeve, and cap, and having its end pivoted to the guide ring in an upright position, said guide ring being so attached to the brace that it may be swung to either of two sides of the rod, or folded back on the rod when not in use, thus protecting it from injury.

1,078,590. CARBURETER. WELLINGTON W. MUIR, Baltimore, Md., assignor to Muir Company, Incorporated, Baltimore, Md., a Corporation of Delaware. Filed June 14, 1912. Serial No. 703,630. (Cl. 48-154.1.)



1. In a carbureter, a main air passage having a restricted portion, a fuel inlet terminating near said restricted portion, a valve for said fuel inlet, a valve stem for said valve, a cam member arranged to be engaged by the end of said valve stem, means for holding the stem in operative relation with the cam, an auxiliary air inlet opening, a valve for said air inlet opening, a rod connected with said last named valve, an outlet passage for the explosive gases, a throttle in said outlet, means for operating the throttle, a spring for normally holding the valve of

the auxiliary air inlet closed, and means operated by the throttle opening mechanism for decreasing the tension of the spring, said cam member being carried by said rod.

2. In a carbureter, a main air passage having a restricted portion, a fuel inlet terminating near said restricted portion, a valve for said fuel inlet, a valve stem for said valve, a cam member arranged to be engaged by the end of said valve stem, means for holding the stem in operative relation with the cam, an auxiliary air inlet opening, a valve for said air inlet opening, a rod connected with said last named valve, an outlet passage for the explosive gases, a throttle in said outlet, means for operating the throttle, a spring for normally holding the valve of the auxiliary air inlet closed, means operated by the throttle opening mechanism for decreasing the tension of the spring, said means comprising an arc-shaped cam member secured to the throttle shaft, a rock shaft, an arm secured to said rock shaft, another arm carried by said rock shaft, a slidable collar on said rod arranged to be engaged by the second arm, one end of the spring for the auxiliary air inlet being arranged to bear on said slidable collar, said first named cam being mounted on said rod.

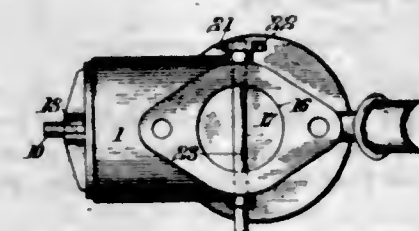
3. In a carbureter, a main air passage, an auxiliary air passage, a fuel inlet in said main air passage, a valve for said auxiliary air passage, a valve for said fuel inlet, means connected with the valve in said auxiliary air passage for controlling the movement of the valve in said fuel inlet, a spring tending to hold the valve of the auxiliary air passage closed, a throttle, means for operating said throttle, and means controlled by the throttle operating means for varying the tension of said spring.

4. In a carbureter, a main air passage, an auxiliary air passage, a fuel inlet in said main air passage, a valve for said auxiliary air passage, a valve for said fuel inlet, means connected with the valve in said auxiliary air passage for controlling the movement of the valve in said fuel inlet, a spring tending to hold the valve of the auxiliary air passage closed, a throttle, means for operating said throttle, means controlled by the throttle operating means for varying the tension of said spring, said means comprising a cam member secured to the throttle shaft, an arm arranged to be engaged by said cam member, a rock shaft secured to said arm, and another arm carried by said rock shaft and engaging the spring at the end thereof remote from the valve to control its tension.

5. In a carbureter, a main air passage, an auxiliary air passage, a fuel inlet in said main air passage, a valve for said auxiliary air passage, a valve for said fuel inlet, means connected with the valve in said auxiliary air passage for controlling the movement of the valve in said fuel inlet, a spring tending to hold the valve of the auxiliary air passage closed, a throttle, means for operating said throttle, means controlled by the throttle operating means for varying the tension of said spring, said means comprising a cam member secured to the throttle shaft, an arm arranged to be engaged by said cam member, a rock shaft secured to said arm, an arm carried by said rock shaft, and a slidable member arranged to be engaged by said arm, a guide for said member, said spring being arranged to bear on said slidable member.

[Claims 6 to 11 not printed in the Gazette.]

1,078,591. CARBURETER. WELLINGTON W. MUIR, Baltimore, Md., assignor to Muir Company, Incorporated, Baltimore, Md., a Corporation of Delaware. Filed Feb. 19, 1913. Serial No. 749,391. (Cl. 48-154.1.)



1. In a constant level carbureter, a constant air opening, a fuel nozzle therein, a needle valve for controlling the

flow of gasoline at the nozzle, an auxiliary air valve opening inward, each valve having a stem disposed in the direction of the motion of that valve, the lines of motion of the two stems intersecting, a cam carried by the auxiliary air valve stem, a follower on the fuel valve spindle, and means for adjusting the effective length of the fuel valve stem, i.e., the distance between the seating surface of the valve and the follower.

2. In a constant level carbureter, a main air opening, a fuel nozzle therein, a needle valve for controlling the flow of gasoline at the nozzle, an auxiliary air valve opened by the suction, each valve having a stem extending in the direction of motion of that valve, the directions of the two stems intersecting, two cooperating members consisting of a cam and follower, one being rigidly connected to the auxiliary air valve stem, the other being carried by the fuel valve stem, and means for adjusting the effective length of the fuel valve spindle.

3. In a constant level carbureter, a main air opening, a fuel nozzle, a needle valve for controlling the flow of gasoline, an auxiliary air valve, each valve having a stem extending in the direction of motion of that valve, the directions of the two stems intersecting, opening inward, a constant tension, non-adjustable spring tending to maintain the auxiliary air valve closed, two cooperating members consisting of a cam and a follower, one being rigidly secured to the auxiliary air valve stem, and the other to the fuel valve stem.

4. In a carbureter, a main air opening, a fuel nozzle, a needle valve for controlling the flow of gasoline, an auxiliary air valve opening inward, each valve having a stem extending in the direction of motion of that valve, the directions of the two stems intersecting, a constant tension, non-adjustable spring tending to maintain the auxiliary air valve closed, two cooperating members consisting of a cam and follower, one being rigidly secured to the auxiliary air valve stem, and the other to the fuel valve stem, and means for adjusting the effective length of the fuel valve spindle.

5. In a constant level carbureter, a constant air opening, a fuel nozzle, a fuel valve for controlling the flow of gasoline, an auxiliary air valve opened by the suction, two cooperating members consisting of a cam and follower, one being rigidly connected to the auxiliary air valve spindle and the other to the fuel valve spindle, and means for adjusting the effective length of the fuel valve spindle in the form of a sliding block carrying the said member, a screw for determining the position of the block and a resilient member for maintaining the block in contact with the screw.

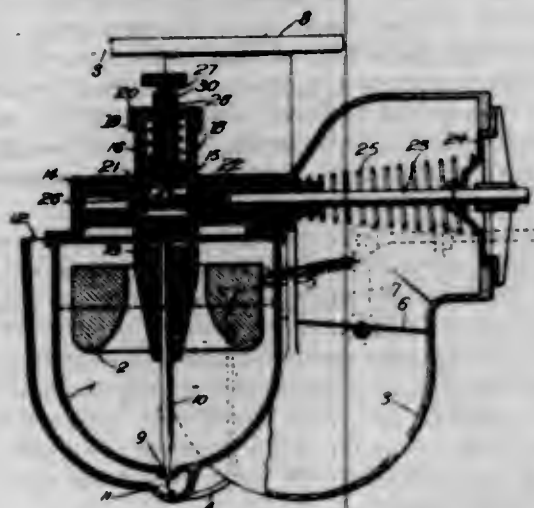
[Claims 6 to 10 not printed in the Gazette.]

1,078,592. CARBURETER. WELLINGTON W. MUIR, Baltimore, Md., assignor to Muir Company, Incorporated, Baltimore, Md., a Corporation of Delaware. Filed Apr. 22, 1913. Serial No. 762,951. (Cl. 48-154.1.)

1. A carbureter consisting of means for maintaining a constant head of liquid fuel, a carbureting passage, a U-shaped passage, one leg of the U from the base to the top being enlarged, the other being of reduced cross-section, a nozzle at the end of the reduced portion and in the carbureting passage, the carbureting passage leading to the inlet port of the engine and open at one end to admit air, a throttle in the passage so placed that the nozzle is between the throttle and the engine port, and a gravity feed for dropping fuel into the enlarged portion of the U-shaped passage being such as to eliminate any perceptible vacuum therein or effect of such vacuum on the flow of the fuel.

2. A carbureter consisting of a carbureting passage, a U-shaped passage, one leg of the U from the base to the top being enlarged, the other being of reduced cross-section, a nozzle at the end of the reduced portion and in the carbureting passage, the carbureting passage leading to the inlet port of the engine and open at one end to admit

air, a throttle in the passage so placed that the nozzle is between the throttle and the engine port, a gravity feed for dropping fuel into the enlarged portion of the U-shaped passage, the size of the enlarged portion of the U-shaped passage being such as to eliminate any perceptible vacuum therein or effect of such vacuum on the flow of the fuel, a fuel valve and means for controlling the position of the valve consisting of an air float in the passage leading to the inlet port of the engine, and means for communicating the motion of the float to the fuel valve.



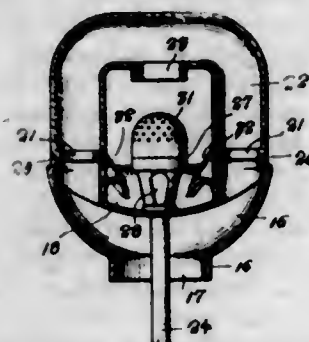
3. A carburetor consisting of means for maintaining a constant head of liquid fuel, a carbureting passage, a U-shaped passage, one leg of the U from the base to the top being enlarged, the other being of reduced cross-section, a nozzle at the end of the reduced portion and in the carbureting passage, the carbureting passage leading to the inlet port of the engine and open at one end to admit air, a throttle in the passage so placed that the nozzle is between the throttle and the engine port, a gravity feed for dropping fuel into the enlarged portion of the U-shaped passage, the size of the enlarged portion of the U-shaped passage being such as to eliminate any perceptible vacuum therein or effect of such vacuum on the flow of the fuel, a fuel valve controlling the gravity feed, a follower thereon, an air float in the passage leading to the engine port, and a cam rigidly connected to the float to be engaged by the follower on the valve and means for maintaining the level of the fuel well above the bottom of the U-shaped passage.

4. A carburetor consisting of means for maintaining a constant head of liquid fuel, a carbureting passage, a U-shaped passage, one leg of the U from the base to the top being enlarged, the other being of reduced cross-section, a nozzle at the end of the reduced portion and in the carbureting passage, the carbureting passage leading to the inlet port of the engine and open at one end to admit air, a throttle in the passage so placed that the nozzle is between the throttle and the engine port, a gravity feed for dropping fuel into the enlarged portion of the U-shaped passage, the size of the enlarged portion of the U-shaped passage being such as to eliminate any perceptible vacuum therein or effect of such vacuum on the flow of the fuel, a fuel valve controlling the gravity feed, an air float in the passage leading to the supply port of the engine, means rigidly connected to the float and means whereby the motion of the float in a modified form is communicated to the fuel valve.

5. In a constant level carburetor, an air passage, a throttle, a fuel nozzle in the air passage between the throttle and the supply port of the engine, a suction passage leading to the nozzle and open at its opposite end to the outside air, the open end being enlarged and a gravity feed for feeding gasoline into the enlarged portion of the passage, the remainder of the passage being so reduced that the vacuum in the enlarged portion of the passage is negligible and the air pressure at the point where the fuel is fed is substantially equal to that of the outside air.

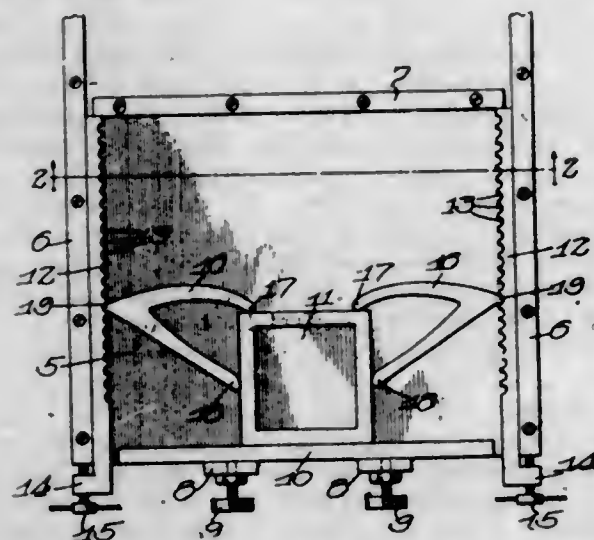
[Claims 6 to 8 not printed in the Gazette.]

1,078,593. HYDROCARBON-BURNER. JOHN W. PORTER, Ferguson, Mo., assignor of one-fourth to Henry W. Hamilton, St. Louis, Mo., and one-half to Ferdinand C. Bretsnyder, St. Louis, Mo. Filed Apr. 8, 1913. Serial No. 759,745. (Cl. 158-53.)



A hydrocarbon burner of the class described comprising a hollow body having an air inlet opening in its bottom and also having a dish portion in its top to form a pan, a burner proper detachably connected with the body and rising above the pan, an air tube supported by and detachable from the body for communication therewith and having a discharge opening at a point elevated above the burner and pan, means located at opposite sides of the burner proper for distributing air from the body to points between the pan and the discharge opening of the air tube, and means for supplying fuel to the burner proper.

1,078,594. CHASE-LOCK. ALFRED H. WADEWITZ, Racine, Wis. Filed Jan. 23, 1913. Serial No. 743,792. (Cl. 101-25.)



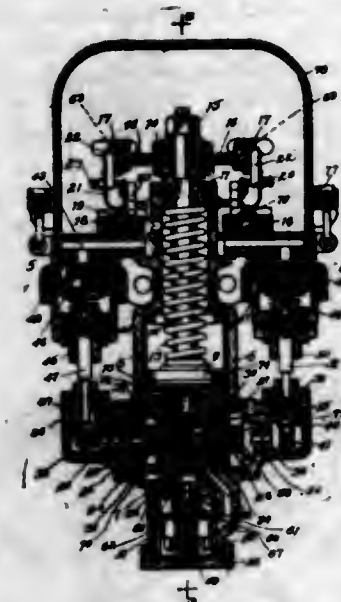
1. The combination with the flat bed of a printing press having spaced parallel side bars fixed to and rising from said bed, and notched bars arranged against the inner sides of said parallel side bars and resting upon said bed; of clamping dogs resting upon said bed and adapted and arranged so as to adjustably engage the said notched bars and the inner end and sides of a type chase, substantially as described.

2. The combination with the flat bed of a printing press having spaced parallel side bars fixed to and rising from said bed, and notched bars arranged against the inner edges of said side bars and supported upon the bed, of clamping dogs adapted to engage both the end and sides of a type chase and adjustably engaging the notched bars, and means on the outer side of said type chase to secure the same upon the flat bed.

1,078,595. PNEUMATIC GOVERNOR. BURTON S. AIKMAN, Chicago, Ill., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed July 31, 1911. Serial No. 641,603. (Cl. 175-308.)

1. In a pneumatic governor, a pair of contacts, means for separating said contacts, an air inlet, a blow jet before said contacts, and a valve controlling said inlet for

first admitting air to said blow jet and then to said separating means.



2. In a pneumatic governor, a pair of contacts, pneumatically operated means for operating said contacts, a valve alternately operated upon high and low pressure, an air inlet, a blow jet before said contacts, and a second valve controlled by the action of the first named valve for admitting air to said blow jet and then to said pneumatically operated means.

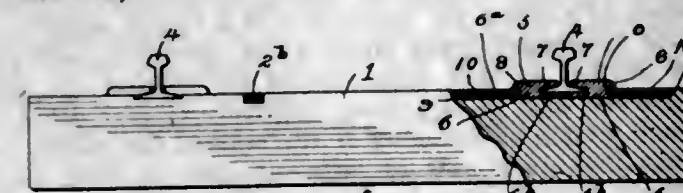
3. In a pneumatic governor, a pair of contacts, pneumatically operated means for operating said contacts, a valve, a high pressure element and a low pressure element controlling the movement of said valve, an air inlet, a blow jet before said contacts, and a second valve initially controlled by said first named valve, for admitting air to said blow out jet and then to said pneumatically operated means.

4. In a pneumatic governor, a pair of contacts, pneumatically operated means for operating said contacts, a valve, an air passage controlled by said valve, a high pressure element and a low pressure element controlling the movement of said valve, an air inlet for said air passage, a nozzle before said contacts, and a second valve initially controlled by the action of said first named valve, for connecting the air inlet first with said nozzle and then with said air passage.

5. In a pneumatic governor, a pair of contacts, an operating piston for operating said contacts, an air inlet to the piston chamber, an atmosphere connection for the piston chamber, a piston member comprising two connected pistons one larger than the other, means for the admission of air between said pistons, a valve controlling the chamber on the forward side of each piston subject to pneumatic pressure for controlling said valves, said piston member carrying a valve for connecting the main piston chamber with either the air passage or the atmosphere connection.

[Claims 6 and 7 not printed in the Gazette.]

1,078,596. RAILROAD-TIE. COLIN ALLERTON, West Homestead, Pa. Filed July 5, 1911, Serial No. 636,985. Renewed Aug. 16, 1913. Serial No. 785,123. (Cl. 238-4.)



1. A railroad tie having a longitudinal recess therein, two shoes, each shoe being formed at opposite sides with spaced outwardly-extending portions whereby recesses are provided, said shoes having their bases fitted in said longitudinal recess and receiving the flanges of a rail

in the recesses of one side, metallic slabs fitted in the ends of said longitudinal recess and each jamming one shoe against said rail, and a metallic slab fitted in each end of said longitudinal recess and in the other recess of the adjacent shoe, said last-named slabs each overlying one of the first-named slabs and jamming the shoe against the rail.

2. A metallic railroad tie having a longitudinal recess, said recess formed at diagonally-opposite ends with transverse extensions opening into the sides of said tie, two metallic shoes each formed at one side with a flange-receiving part, a flat base formed on each shoe being fitted in said recess, said bases forming a seat for a rail when said shoes engage the flanges of said rail, metallic slabs fitted at the ends of said recess and resting on the bottom thereof, said slabs jamming the bases of said shoes to cause them to hold the rail, each of said shoes formed with a recess, and slabs overlying said first-named slabs and fitted in said longitudinal recess and in the recesses of said shoes, said first and second-named slabs being of uniform width with said longitudinal recess and arranged to jam said shoes against the rail.

1,078,597. HOLDER FOR HIGH-TENSION ELECTRODES. ARTHUR R. DARLING, Indianapolis, Ind., assignor to Edwards Instrument Company, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 6, 1913. Serial No. 740,272. (Cl. 174-89.)



1. A holder for high tension electrodes, comprising inner and outer members of insulating material separated by a space filled with fluid under comparatively high pressure as compared with the pressure in the electrode, the inner member being open at one end to receive a high tension electrode, a socket located within the inner member and spaced from the ends thereof, and a conductor leading from said socket through the opposite end of the inner member from that which receives the high tension electrode.

2. A holder for high tension electrodes, comprising inner and outer members of insulating material separated by a space, the inner member being open at one end to receive a high tension electrode, a socket located within the inner member and spaced from the ends thereof, and a conductor leading from said socket through the opposite end of the inner member from that which receives the high tension electrode.

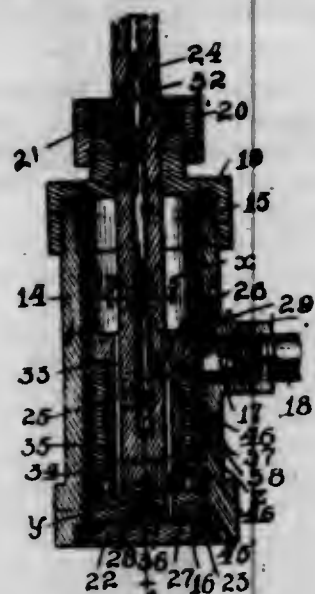
3. A holder for high tension electrodes, comprising inner and outer members of insulating material separated by a space filled with fluid under comparatively high pressure as compared with the pressure in the electrode, the inner member being open at one end to receive a high tension electrode, a socket located within the inner member, and a conductor leading from said socket through the opposite end of the inner member from that which receives the high tension electrode.

4. A holder for high tension electrodes, comprising inner and outer members of insulating material separated by a space, the inner member being open at one end to receive a high tension electrode, a socket located within the inner member, and a conductor leading from said socket through the opposite end of the inner member from that which receives the high tension electrode.

5. A holder for high tension electrodes, comprising inner and outer members of insulating material separated by a space, the inner member being open at one end to receive a high tension electrode, a socket located within the inner member, and a conductor for connecting said socket to a high tension source.

[Claims 6 to 12 not printed in the Gazette.]

1,078,598. PNEUMATIC MOTOR. THOMAS A. DELANEY, Chicago, Ill., assignor to Hills-McCanna Co., a Corporation of Illinois. Filed Jan. 11, 1912. Serial No. 670,541. (Cl. 121-45.)



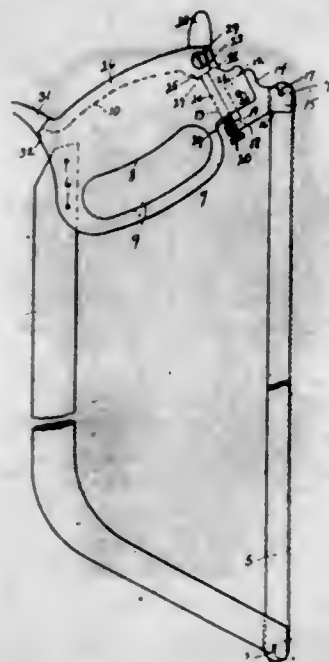
A device of the class described, comprising a cylinder having a single inlet in the side thereof, a cylinder head on each end thereof, a longitudinally bored piston rod extending through one of said heads and into said cylinder, a piston provided with an exhaust passage communicating with said bore in said piston rod, a piston head on each end of said piston, an induction passage extending through each piston head and into the piston, separate induction and exhaust ports communicating with said passages, a cylindrical valve adapted to slide between the piston heads and provided with inlet passages adapted to communicate with the respective induction ports in the induction passages and operating in conjunction with said cylinder heads momentarily to cut off the ingress of the compressed air to said cylinder, and a channel adapted to communicate with the respective exhaust ports in the induction passages to permit the exhaust of air through the passages in the piston and piston rod.

1,078,599. SAW-HANDLE. HARRY B. GARMAN, Detroit, Mich., assignor of one-half to Roy Wilson, Detroit, Mich. Filed Jan. 30, 1913. Serial No. 745,217. (Cl. 145-33.)

1. A saw handle, a body portion, a bell crank lever pivoted to the body portion, said bell crank lever having means to receive the end of a saw blade, a cam lever pivoted to the body and seating therein, and a sliding pin for transmitting motion from the cam lever to the bell crank lever.

2. A saw handle consisting of a body portion provided with a hand hole, an operating lever chamber, a bell crank cavity and a pin opening, a bell crank lever having means to receive the end of a saw pivoted in the bell crank cavity, an operating or cam lever pivoted in the lever chamber and a pin mounted in the pin opening for transmitting

motion from the operating or cam lever to the bell crank lever.



3. A saw handle consisting of a body portion provided with a hand hole, an operating lever chamber, a bell crank cavity and a pin opening, a bell crank lever having a bifurcated arm with a notch therein to receive a pin carried by a saw blade, a second arm having a threaded opening therein, and another arm having a rivet opening therein, said bell crank lever being mounted in the bell crank cavity, a rivet for pivoting said bell crank lever in position, a set screw mounted in the threaded opening in one of the arms of the bell crank lever, an operating lever pivoted in the lever chamber and a sliding pin mounted in the pin opening, cooperating with the operating lever and the set screw for transmitting motion from said operating lever to the bell crank lever.

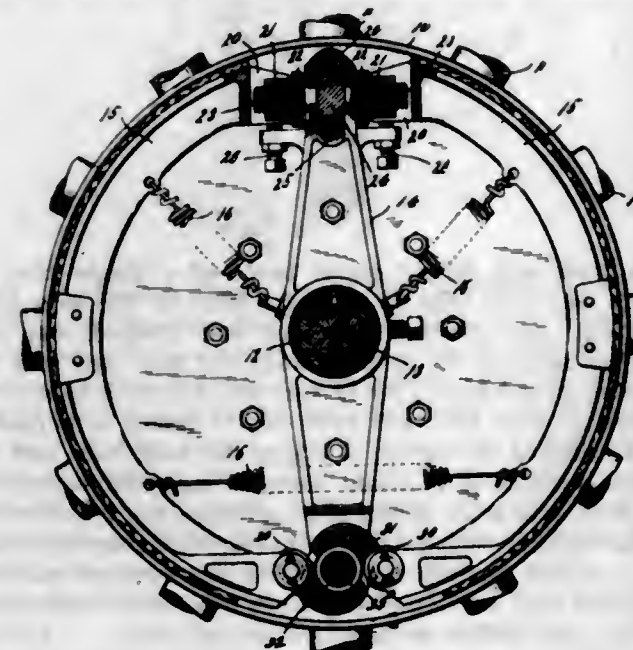
4. A saw handle consisting of a body portion provided with a hand hole, an operating lever chamber, a bell crank cavity and a pin opening, a bell crank lever having a bifurcated arm with a notch therein to receive a pin carried by a saw blade, a second arm having a threaded opening therein, and another arm having a rivet opening therein, said bell crank lever being mounted in the bell crank cavity, a rivet for pivoting said bell crank lever in position, a set screw mounted in the threaded opening in one of the arms of the bell crank lever, an operating lever having an extension formed at each end thereof, the extension formed with the free end of the lever being greater in size at its base than the body of the lever thereby producing a shoulder which cooperates with the handle body, said lever being pivoted in the lever chamber, a cam having a high and low face formed with the operating lever and a rectilinearly sliding pin mounted in the pin opening cooperating with the cam and the set screw for transmitting motion from the operating lever to the bell crank lever.

1,078,600. BRAKE. HOWARD C. MARION, Indianapolis, Ind., assignor to Nurdyke & Marmon Company, Indianapolis, Ind., a Corporation of Indiana. Filed Aug. 1, 1912. Serial No. 712,719. (Cl. 21-8.)

1. An internal expanding brake, comprising the combination of a drum for connection to a rotary member, a pair of arc-shaped brake shoes which cooperate with the inner surface of said drum, means for moving one pair of adjacent ends of said shoes relatively to each other to produce setting or releasing of the brakes, and means for moving the other pair of adjacent ends of said shoes relatively to each other for adjusting the braking effect of the movement produced by the first named means, said second pair of adjacent ends having a shiftable abutting bearing on their adjusting means so that they may move thereon transversely of the adjustment provided thereby when the shoes are moved by the first named means.

2. An internal expanding brake, comprising the com-

bination of a drum for connection to a rotary member, a stationary frame, a pair of arc-shaped brake shoes cooperating with the inner surface of said drum and carried by said frame, a cam carried by said frame and acting on one pair of adjacent ends of said brake shoes to move the latter relatively to each other to set and release the brakes, and means carried by said frame and cooperating with the other pair of adjacent ends of said brake shoes to move them relatively to each other to vary the braking effect produced by a predetermined movement of said cam, said second pair of adjacent ends having a shiftable abutting bearing on their adjusting means so that they may move thereon transversely of the adjustment provided thereby when the shoes are moved by the first named means.



3. An internal expanding brake, comprising the combination of a drum for connection to a rotary member, a pair of arc-shaped brake shoes cooperating with the inner surface of said drum, means cooperating with one pair of ends of said brake shoes to move them relatively to each other to set and release the brakes, a pair of members against which the other pair of ends of said brake shoes bear, means for moving said members relatively to each other, and means for adjusting toward and from the brake drum in a direction transverse to the relative movement between said two members the ends of the brake shoes which cooperate with said members.

4. An internal expanding brake, comprising the combination of a drum for connection to a rotary member, a pair of arc-shaped brake shoes cooperating with the inner surface of said drum, means cooperating with one pair of ends of said brake shoes to move them relatively to each other to set and release the brakes, a pair of members against which the other pair of ends of said brake shoes bear, means for moving said members relatively to each other, and means for adjusting across said members toward and from the brake drum the cooperating ends of the brake shoes.

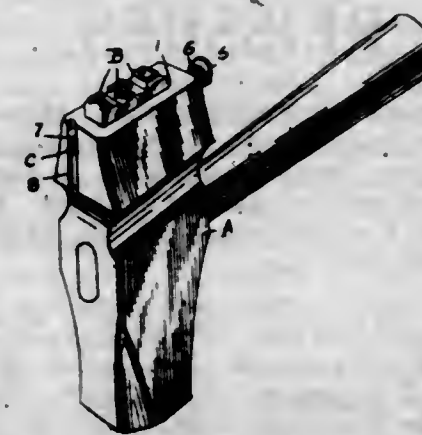
5. An internal expanding brake, comprising the combination of a drum for connection to a rotary member, a pair of arc-shaped brake shoes cooperating with the inner surface of said drum, means cooperating with one pair of ends of said brake shoes to move them relatively to each other to set and release the brakes, a pair of members against which the other pair of ends of said brake shoes bear, and means for moving said members relatively to each other, said members and said brake shoes having a shiftable abutting engagement with each other.

[Claims 6 to 11 not printed in the Gazette.]

1,078,601. DIE. JAMES H. MATTHEWS, Pittsburgh, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 12, 1913. Serial No. 766,932. (Cl. 101-169.)

1. The combination of a die provided with a type-slot, type adapted to be set in said slot and provided with lock-

ing grooves, a bar mounted to rock in said die and provided with a cam adapted to engage said locking grooves and hold said type in said slot, and resilient means whereby said bar is automatically locked in its position wherein said cam engages said grooves.

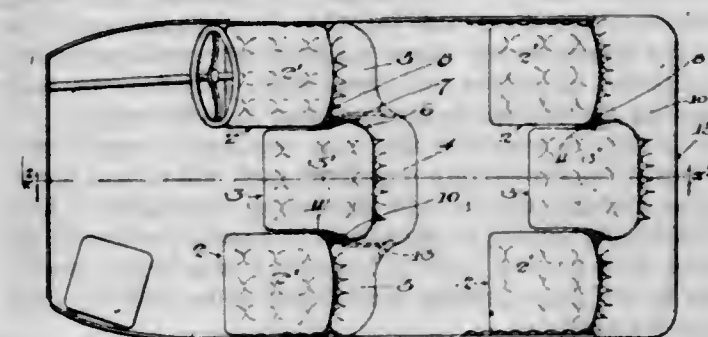


2. The combination of a die provided with a type-slot in the face thereof and a locking seat in one end, type adapted to be set in said slot and provided with grooves, a rocking bar mounted in said die and having a cam portion adapted to engage said grooves to secure said type in place when said bar is rocked into proper position, and resilient means for holding the end of said bar in said seat and preventing its accidental rotation when said bar is in its locking position.

3. The combination of a die provided with a type-slot in the face thereof and a locking seat in one end, type adapted to be set in said slot and provided with grooves, a rocking bar mounted in said die and having an angular protruding end, said bar being provided with a cam portion adapted to engage said grooves and lock said type in said type-slot, when said bar is rocked into proper position, and resilient means for holding the angular end of said bar in said locking seat when said bar is in its locking position.

4. The combination of a die provided with a type-slot, type adapted to be set in said slot and provided with locking grooves, a bar mounted in said die and capable of rocking and longitudinal movements, said bar being provided with a cam which, when said bar is rocked into its proper position, engages said grooves and locks said type in said slot, and resilient means for holding said bar stationary when in its type-locking position.

1,078,602. AUTOMOBILE SEAT CONSTRUCTION. FRANKLIN J. MORGAN, Los Angeles, Cal. Filed Oct. 9, 1912. Serial No. 724,558. (Cl. 21-42.)



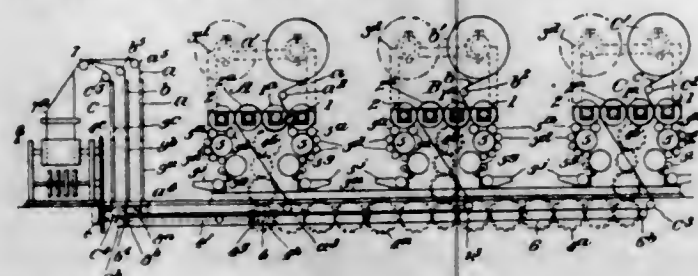
1. A seat construction for motor cars comprising two end seats and a middle seat between the end seats, backs for the seats, the backs of the end seats being narrower than the end seats and the inner corners of said backs being offset toward the sides, thereby giving additional width for the back portion of the middle seat, the rear part of said middle seat being wider and extending into said space.

2. A seat construction for motor cars comprising two side seats and a middle seat between the side seats projecting farther back than the side seats, said seats being

arranged in substantially parallel relation, the back portion of the middle seat being wider than the front part of the middle seat and extending laterally behind the side seats.

REISSUES.

13,641. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,982. Original No. 1,054,493, dated Feb. 25, 1913, Serial No. 587,278. (Cl. 101—124.)



1. In combination, a plurality of parallel perfecting mechanisms arranged side by side but spaced apart so that the operator may pass between adjacent perfecting mechanisms, the plate and impression cylinders in each perfecting mechanism being arranged in substantially the same plane with the plate cylinders outermost; a web roll supported above each perfecting mechanism, and guides for directing a web from each roll downwardly through the adjacent perfecting mechanism; with a pair of folding mechanisms at one end of the machine, guides whereby the printed webs may be directed beneath said printing mechanism to said folding mechanisms, tapes supporting the webs passing below the perfecting mechanisms to the folder; means for slitting the webs, and means whereby the slit webs may be directed to one, or both, of the folding mechanisms.

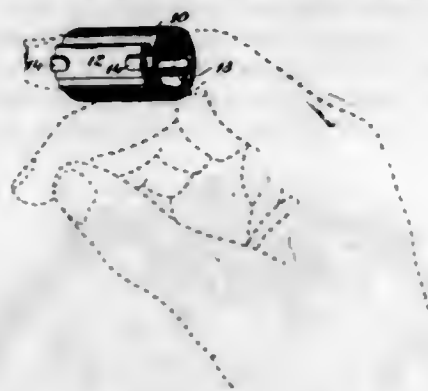
2. In combination, a plurality of parallel perfecting mechanisms arranged side by side but spaced apart so that the operator may pass between adjacent perfecting mechanisms, the plate and impression cylinders in each perfecting mechanism being arranged in substantially the same plane; a web roll for each perfecting mechanism, and guides for directing a web from each roll downwardly to the related perfecting mechanism; with folding mechanisms, guides whereby the printed webs may be directed beneath said printing mechanisms to said folding mechanisms; means for slitting the webs, and means whereby the slit webs may be directed to the same or different folding mechanisms.

3. In combination, a plurality of parallel perfecting mechanisms arranged side by side but spaced apart so that the operator may pass between adjacent perfecting mechanisms, the plate and impression cylinders in each perfecting mechanism being arranged in substantially the same plane; a web roll for each perfecting mechanism, and guides for directing a web from each roll to and downwardly through the related perfecting mechanism; with a plurality of folding mechanisms, and guides whereby the printed webs may be directed beneath said printing mechanisms to the same folding mechanism or to different folding mechanisms.

4. In combination, a series of parallel perfecting mechanisms arranged side by side but spaced apart so that the operator may pass between adjacent perfecting mechanisms, the plate and impression cylinders in each perfecting mechanism being arranged in substantially the same plane and with the plate cylinders outermost; a web roll supported above each perfecting mechanism, and guides for directing a web from each roll downwardly through the adjacent perfecting mechanism; with a folding mechanism at one end of the machine, guides whereby the printed webs may be directed beneath the series of perfecting mechanisms toward said folding mechanism, and guides for directing the webs upwardly beside and be-

tween the folder and the adjacent printing mechanism and then downwardly to the folder, substantially as described.

13,642. FRUIT AND FLOWER CUTTER. CHARLES FREDERICK BILLAU, Cedar Rapids, Iowa. Filed Oct. 8, 1913. Serial No. 794,171. Original No. 1,068,848, dated July 29, 1913, Serial No. 713,573. (Cl. 30—24.)



1. A fruit and flower cutter made of a single piece of resilient material, lugs on opposite sides of the said piece of material and spaced from one end thereof, the said end being adapted to be bent adjacent the lugs and the lugs being also adapted to be bent toward each other into engagement with the said bent end, whereby a pocket is formed adapted to receive a blade, the said lugs and the said end portion of the said piece of material being provided with a number of openings adapted for registration, the said openings being adapted to receive elements against which the rear portion of the blade may engage, whereby the cutting edge portion of the blade is removed sufficiently from the said pocket to be available for use.

2. A cutting device of the character described, comprising a tubular body of resilient material having the form of a spiral and adapted to fit the finger of the user, the said body having an exterior cutter on one convolution, and an interiorly projecting stop on another of the convolutions, and so disposed relatively to the cutter that the cutting action generated by the finger on the cutter re-acts on the finger through the said stop, to wind the spiral on the finger.

3. A cutting device of the character described, comprising a tubular spiral body of resilient material adapted to fit the finger of the user, and provided with an exterior cutter, together with means to cause a winding of the spiral on the finger in response to a cutting pressure on the cutter, said means consisting of an interiorly projecting stop adapted to engage the finger in position to resist turning action.

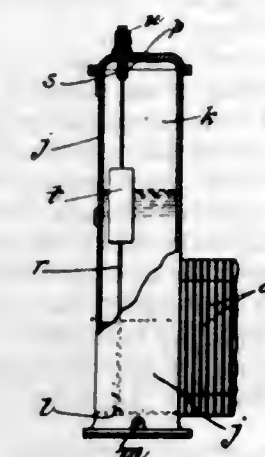
4. A cutting device of the character described, comprising a tubular body of resilient material adapted to fit the finger of the user, said body being in the form of a spiral presenting inner and outer convolutions, there being an exterior cutter on the outer convolution, near one end, and an interiorly projecting stop on the inner convolution near the opposite end of the spiral, the stop being adapted to engage the finger and cause the cutting force to wind the spiral.

5. A cutting device of the character described, comprising a tubular body adapted to fit the finger of the user, the said body having an exterior cutter, and an interiorly projecting finger-engaging stop, the body being in the form of a spiral convolution between the said cutter and stop to cause the resistance of the stop to the cutting action to effect the winding of the spiral.

13,643. ELECTROLYTIC DEVICE FOR GENERATING OXYGEN AND HYDROGEN. RENÉ MORITZ, Wasquehal, France, assignor to L. Heller & Son, New York, N. Y., a Firm. Filed Sept. 24, 1912. Serial No. 722,130. Original No. 981,102, dated Jan. 10, 1911, Serial No. 518,194. (Cl. 204—5.)

1. An electrolytic apparatus of the character described embodying therein an electrode, means forming two in-

dependent isolated ducts communicating respectively with opposite sides of said electrode, said means being projected from the exterior of said electrodes and distanced one from the other whereby a leakage of gas from one to the other is prevented, and means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said electrode.



2. An electrolytic apparatus of the character described embodying therein an electrode comprising a frame, a plate carried within and closing said frame, two isolated lugs or extensions having ducts therethrough projecting from the top of said frame and distanced one from the other, said frame having independent non-communicating channels leading from said ducts respectively to opposite sides of said plate, and means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said plate.

3. An electrolytic apparatus of the character described embodying a plurality of electrodes arranged in series, each being provided with means forming two independent isolated ducts communicating respectively with opposite sides of said electrode, said means being exposed exteriorly of said electrode and distanced one from the other whereby a leakage of gas from one duct to the other is prevented, and with means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said electrode, means spacing said electrodes apart, a diaphragm held by said means between contiguous electrodes, and means packing said means respectively.

4. An electrolytic apparatus of the character described embodying therein a plurality of electrodes arranged in series, each comprising a frame whereby contiguous electrodes are spaced apart, a plate carried within and closing said frame, two isolated lugs or extensions having a duct therethrough, projecting from the top of said frame and distanced one from the other, said frame having independent non-communicating channels leading from said ducts respectively to opposite sides of said plate, and means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said plate, a diaphragm held by said frame between contiguous plates, and means packing said lugs or extensions about said ducts and said means delivering electrolytic fluid about said plate.

5. An electrolytic apparatus of the character described embodying therein an electrode comprising a frame, a plate carried within and closing said frame, a metallic screen carried by said frame upon the face of said plate, two isolated lugs or extensions having ducts therethrough projecting from the top of said frame, said frame having independent non-communicating channels leading from said ducts respectively to opposite sides of said plate, and means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said plate.

6. An electrolytic apparatus of the character described embodying therein an electrode comprising a frame, a plate having corrugated faces carried within and closing said frame, a metallic screen carried by said frame upon the face of said plate, two isolated lugs or extensions

having ducts therethrough projecting from the top of said frame, said frame having independent non-communicating channels leading from said ducts respectively to opposite sides of said plate, and means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said plate.

7. An electrolytic apparatus of the character described embodying a plurality of electrodes arranged in series, each being provided with means forming two independent isolated ducts communicating respectively with opposite sides of said electrode, said means being exposed exteriorly of said electrode whereby a leakage of gas from one duct to the other is prevented, and with means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said electrode, means spacing said electrodes apart, a diaphragm consisting of two absorbent sheets with an interposed part held by said means between contiguous electrodes, and means packing said means forming said isolated ducts, and delivering electrolytic fluid about said electrode respectively.

8. An electrolytic apparatus of the character described embodying an electrode provided at the top with extensions having each a duct and channels placing the ducts in the said extensions in communication with opposite sides of the electrode, and the electrode also having at the bottom an extension provided with a channel in communication with both sides of the electrode.

9. An electrolytic apparatus of the character described embodying electrodes, extensions on said electrodes provided with holes adapted to form ducts when the extensions are joined together, means for joining together the extensions independently of the joint between the electrodes, a settling tank containing the electrolyte for the electrodes, and means for draining off impurities from said tank.

10. An electrolytic apparatus of the character described embodying a plurality of electrodes arranged in series, each being provided with means forming two independent isolated ducts communicating respectively with opposite sides of said electrode, said means being exposed exteriorly of said electrode whereby a leakage of gas from one duct to the other is prevented, and with means whereby an electrolytic fluid is delivered adjacent to the bottom, and caused to circulate about both sides, of said electrode, means spacing said electrodes apart, a diaphragm held by said means between contiguous electrodes, means packing said means respectively, and automatically acting pressure regulating means whereby the pressure on both sides of each diaphragm is equalized.

11. An electrolytic apparatus of the character described embodying electrodes, extensions on said electrodes provided with holes adapted to form a continuous duct when the extensions are joined together, channels connecting one duct to one side of each of the electrodes, and the other duct to the other side of each of the electrodes respectively, a tank containing electrolyte, means to connect each of the electrode-extension ducts to one of the chambers, a relief valve and a float in each chamber, and means for connecting the valves with the floats whereby a change in the level of the fluid electrolyte in either of said chambers will vent that chamber.

13,644. CLAMP. MILLARD S. ROBINSON, Donora, Pa. Filed Apr. 30, 1913. Serial No. 764,715. Original No. 1,010,075, dated Nov. 28, 1911, Serial No. 634,944. (Cl. 24—134.)

1. A clamp comprising a pair of cylindrical independent clamping jaws each provided on its inner face with two sets of circumferentially extending ribs, the ribs of each set arranged in parallelism and staggered with respect to the ribs of the other set, the ribs of one set curving toward one side of the jaw and the ribs of the other set curving against the opposite end of the jaw, said jaws being superposed with respect to each other, one of said jaws formed with a pair of laterally extending

pins and the other of said jaws having a transversely extending opening, a clamping member having a central integral lever extension for connection with a pulling element and a pair of hook-shaped arms engaging with said pins for maintaining the jaws in superposed relation, and means extending through said opening for pivotally connecting the clamping member to that jaw having the opening.



2. A clamp consisting of oppositely arranged gripping jaws and a tightening lever therefor having arms arranged diagonally along the sides thereof and pivotally engaging diagonally opposite end portions of each jaw and having a centrally disposed lever extension deflected from the general direction of the lever arms.

3. A clamp consisting of oppositely arranged gripping jaws and a tightening lever therefor having integral side arm members arranged diagonally along the sides thereof and pivotally engaging diagonally opposite end portions of each jaw at each side thereof and having a centrally disposed lever extension deflected from the general direction of the lever arms.

4. A clamp consisting of oppositely arranged gripping jaws and a tightening lever therefor having integral side arm members arranged diagonally along the sides thereof and pivotally engaging diagonally opposite end portions of each jaw at each side thereof and having a lever extension arranged at an angle to the longitudinal center of the jaws and provided with a clearance opening at its inner side adjacent one of the gripping jaws.

5. A clamp consisting of oppositely arranged gripping jaws and a tightening lever therefor having side members arranged diagonally along the sides thereof and pivotally engaging diagonally opposite end portions of each jaw at each side thereof and having a single common lever extension disposed in the same general direction of the arms but deflected inwardly toward the jaws rearwardly thereof and provided with a connecting terminal for a tension member.

6. In a clamp, the combination of oppositely arranged gripping jaws each having side pivotal bearings at one end portion diagonally disposed with relation to the bearings of the other, and a tightening yoke lever having side arms provided with corresponding bearing portions engaging said pivotal bearings and a centrally disposed inwardly deflected actuating arm.

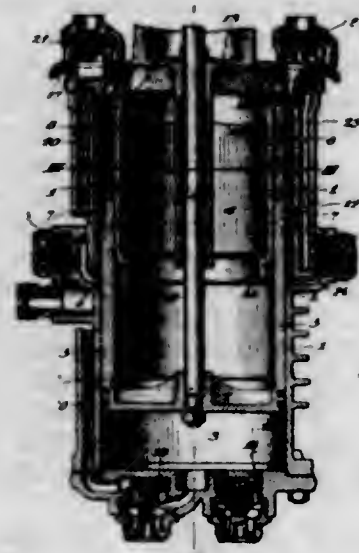
7. In a clamp, the combination of oppositely arranged gripping jaws each having side pivotal bearings at one end portion diagonally disposed with relation to the bearings of the other, and a tightening yoke lever having side arms provided with corresponding bearing portions engaging said pivotal bearings and an extended actuating arm disposed substantially in the direction of the side arms, but deflected inwardly thereof toward the adjacent jaw and provided with a clearance recess for the rounded end portion of said jaw.

8. In a clamp, the combination of oppositely arranged gripping jaws each having side pivotal bearings at one end portion diagonally disposed with relation to the bearings of the other, and a tightening yoke lever having side arms provided with corresponding bearing portions engaging said pivotal bearings and an integral extended centrally arranged actuating arm disposed substantially in the longitudinal direction of the side arms, but deflected inwardly thereof toward the adjacent jaw and provided with a clearance recess for the rounded end portion of said jaw, and provided with an attaching terminal for a pulling member.

9. In a clamp, the combination of oppositely arranged gripping jaws provided on their inner faces with series of alternating inclined ribs and each having side pivotal bearings at one end portion diagonally disposed with relation to the bearings of the other, and a tightening yoke lever having side arms provided with corresponding bearing portions engaging said pivotal bearings and an integral extended actuating arm deflected inwardly toward the central line of the jaws.

10. The combination with a cable or the like, of oppositely arranged gripping jaws engaging the cable substantially equidistantly at each side, one of said jaws having oppositely arranged pivotal bearings at one end portion, the other of said jaws having similar bearings at its end portion diagonally opposite thereto, a tightening yoke lever having side arms disposed diagonally across the sides of said jaws and pivotally engaging said bearings at each side and having an integral inwardly deflected rearwardly extending arm, and a pulling member connected to the terminal of said arm and disposed substantially in parallelism with the cable.

13,645. AIR-COMPRESSOR. LOUIS G. STONE, London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 19, 1913. Serial No. 790,659. Original No. 1,070,929, dated Aug. 19, 1913, Serial No. 550,602. (Cl. 230—32.)



1. A fluid compressor comprising a casing having a main piston chamber and an annular chamber, a piston provided with a main piston head adapted to operate in the main chamber and an annular piston head adapted to operate in the annular chamber, an inlet valve for the main piston chamber, an outlet valve and an inlet valve for controlling a passage from the main chamber to the annular chamber, and an outlet valve for controlling the outflow of fluid from the annular chamber.

2. A three stage fluid compressor comprising a casing having a main piston chamber and an annular chamber, a piston provided with a main piston head adapted to compress fluid in the main chamber and an annular piston head adapted to compress fluid in the annular chamber and also in a second annular chamber formed by the piston, an inlet controlling valve for the main piston chamber, an outlet valve therefor and an inlet valve for the first annular chamber for controlling a passage from the main to said annular chamber, an outlet valve and an inlet valve for controlling a passage from said annular chamber to said second annular chamber, and an outlet valve for said second annular chamber.

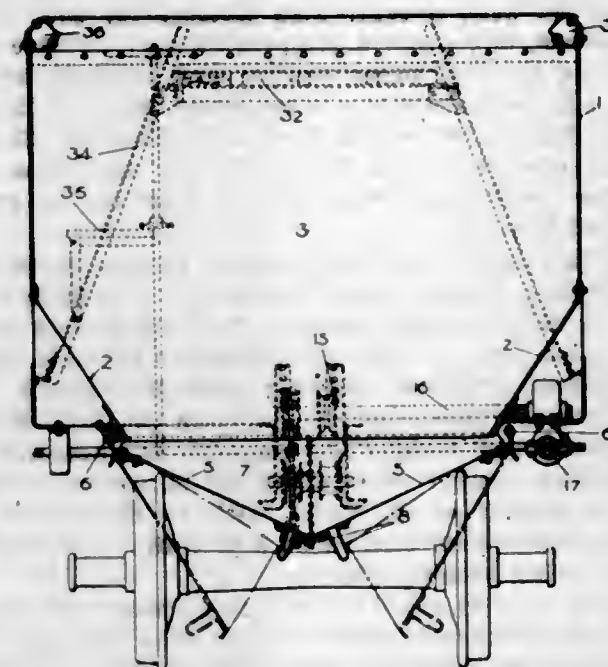
3. A three stage compressor comprising a casing having a main piston chamber and an annular piston chamber, a piston provided with a main piston head adapted to operate in the main piston chamber and an annular piston head adapted to operate in said annular piston chamber, said annular piston head being adapted to form a second annular piston chamber, and valve means for controlling the flow of fluid into said main piston chamber, from

said main chamber to the first annular chamber, and from said annular chamber to said second annular chamber.

4. A fluid compressor comprising a casing having a main piston chamber and an annular piston chamber, a piston provided with a main piston head adapted to operate in the main piston chamber and an annular piston head adapted to operate in the annular piston chamber, said piston and casing forming an interior chamber on one side of the main piston head having free communication with the atmosphere, to permit inflow and outflow of air to said chamber upon movement of the piston, thereby effecting a cooling action on the compressor parts.

5. A fluid compressor comprising a casing having a main piston chamber and an annular piston chamber, a piston provided with a main piston head adapted to operate in the main piston chamber and an annular piston head adapted to operate in the annular piston chamber, an interior chamber formed by the piston and the inner wall of said annular piston chamber, said interior chamber being in free communication with the atmosphere thereby causing the movement of the piston to effect inflow and outflow of air to and from said interior chamber for thereby cooling said annular chamber.

13,646. RAILWAY-CAR. EDGAR W. SUMMERS, Pittsburgh, Pa., assignor to Summers Steel Car Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1910. Serial No. 547,362. Original No. 918,098, dated Apr. 13, 1909, Serial No. 454,244. (Cl. 105—185.)



1. A railway car comprising in combination, a body provided with sloping end floor plates and having a discharge opening in its bottom, a pair of doors hinged longitudinally of the car, said doors being provided with upwardly projecting end portions forming when the doors are closed extensions of the sloping end floor plates.

2. A railway car comprising in combination, a body provided with sloping end floor plates and with a discharge opening in its bottom, a pair of doors hinged longitudinally of the car at or near the car sides and extending inwardly toward the center of the car and opening outwardly and downwardly, said doors being provided with upwardly projecting end portions forming when the doors are closed extensions of the sloping end floor plates.

3. A railway car comprising in combination, a body provided with sloping end floor plates and a discharge opening in its bottom, a pair of doors hinged longitudinally of the car and having a length greater than the space between the inner truck wheels, said doors being provided with upwardly projecting end portions forming when the doors are closed extensions of the end floor plates.

4. A railway car comprising in combination, a body provided with sloping end floor plates and with a discharge opening in its bottom, a pair of doors hinged longitudinally of the car and having a length greater than the space between the truck wheels, said doors being provided

196 O. G.—33

with upwardly projecting end portions forming when the doors are closed extensions of the sloping end floor plates, said doors being hinged at or near the car sides and extending inwardly toward the center of the car and opening outwardly and downwardly, a portion of the doors passing between the inner truck wheels.

5. A railway car comprising in combination, a hopper body having sloping end floor plates and having a large bottom discharge opening and no center sills, a body bolster, draft beams extending inwardly from the car ends beyond the body bolsters, and a connecting member affixed to the sloping end floor plates and to a side face of a draft beam inside the body bolster and lying in a plane parallel to said side face.

6. A railway car comprising in combination, a hopper body having sloping end floor plates and a large central discharge opening and no center sills, body bolsters, draft sills extending inwardly from the car end beyond the body bolsters, and connecting members on the draft sills riveted to the sloping end floor plates in such position as to put the rivets in shear.

7. A hopper car provided with longitudinal doors hinged at their outer edges and closing toward the center of the car, a door closing shaft at each end of the car, connections therefrom to the ends of the doors, a longitudinal shaft connecting said door closing shafts, and a transverse operating shaft extending from side to side of the car and geared to said longitudinal shaft.

8. A hopper car provided with longitudinal doors, a transverse door closing shaft at each end of the car, connections from said shaft to the ends of the doors, a worm wheel on each of said transverse shafts, a longitudinal shaft, worms thereon meshing with said worm wheels, a transverse operating shaft extending out to both sides of the car, and gearing connecting said transverse operating shaft and said longitudinal shaft.

9. A hopper car having the end of its body located inside of the end or end sill, an elevated platform at the end of the body, and a ladder leading up to said platform.

10. A metallic railway car having body side plates and a top chord for said side plates of substantially diamond shape in cross section.

11. A metallic railway car having side plates with their upper edges bent to form a hollow chord of substantially diamond shape in cross section.

12. A door for a dump car located beneath the hopper opening and having wall-forming portions extending upwardly to the hopper when the door is closed.

13. A door for a dump car located beneath the hopper opening and inclined when closed and having wall-forming end portions extending upwardly to the hopper when the door is closed.

14. Doors for a dump car closing together below the plane of the hopper opening and having upwardly extending portions forming walls for the door-closed space.

15. Oppositely inclined doors for a dump car located beneath the hopper opening and having wall-forming end portions extending upwardly to the hopper when the doors are closed.

16. Oppositely inclined doors for a dump car beneath the hopper opening and meeting at their lowermost edges when the doors are closed, the doors having wall-forming end portions extending upwardly to the hopper.

17. A door for a dump car located beneath the hopper opening, the inner portion of the door being shorter than said opening, the door having end portions extending upwardly and outwardly to opposite edges of the hopper opening when the door is closed.

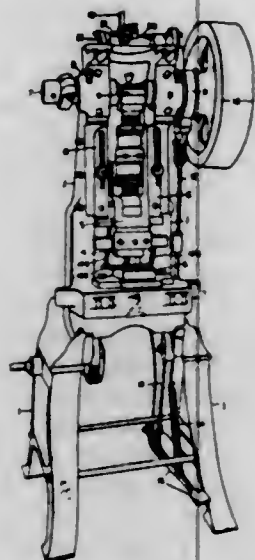
18. A door for a dump car located beneath the hopper opening, the inner portion of the door being shorter than said opening and increasing in length toward the outer portion of the door, the door having end portions extending upwardly and outwardly to opposite edges of the hopper opening when the door is closed.

19. Oppositely inclined doors for a dump car beneath the hopper opening and meeting at their inner edges when closed, the doors at their inner edges being shorter than the hopper opening, the doors having end portions extending upwardly and outwardly to opposite edges of the hopper opening when the doors are closed.

20. Oppositely inclined doors for a dump car beneath the hopper opening and meeting at their inner edges when closed, the doors at their inner edges being shorter than the hopper opening and increasing in length toward their outer edges, the doors having wall-forming end portions extending upwardly and outwardly to opposite edges of the hopper opening when the doors are closed.

21. A door for a dump car inclined when closed with its higher portion intersecting the plane of the hopper opening and its lowest portion beneath said plane, the door having upwardly extending wall-forming end portions whose top edges conform to the contour of those portions of the hopper adjacent said edges when the door is closed.

13,647. SAFETY-GUARD FOR POWER-PRESSES.
JAMES WRIGHT, Hamilton, Ontario, Canada, assignor of three-eighths to William Simpson Stacey, Hamilton, Ontario, Canada. Filed Oct. 9, 1913. Serial No. 794,355. Original No. 1,067,632, dated July 15, 1913, Serial No. 710,640. (Cl. 164-107.)



1. In a safety guard for stamping presses, the combination with a driving member of the press, of a brake element, a guard element, and means for causing said brake element to engage said driving member of the press when said guard element encounters an obstruction.

2. In a safety guard for stamping presses, the combination with a driving member of the press, of a toothed brake member, a guard element, and means for causing said toothed brake member to engage said driving member of the press when said guard element encounters an obstruction.

3. In a safety guard for stamping presses, the combination with a driving member of the press, of a brake element, a guard element, means for causing said brake element to engage said driving member of the press when said guard element encounters an obstruction, said brake member comprising a plurality of radially disposed members, and a connecting strap for all of said radially disposed members, whereby all of said radially disposed members are moved simultaneously to and from operative position.

4. In a safety guard for stamping presses, the combination with a driving member of the press, of a brake element, a guard element, means for causing said brake element to engage said driving member of the press when said guard element encounters an obstruction, said brake element comprising a plurality of radially disposed spring actuated plungers, and a strap through which all of said plungers pass.

5. In a safety guard for stamping presses, the combination with a driving member of the press, of a brake element, a guard element, means for causing said brake element to engage said driving member of the press when said guard element encounters an obstruction, said brake element comprising a plurality of radially disposed spring actuated plungers, and a strap through which all of said plungers loosely pass.

6. In a safety guard for stamping presses, the combination with a driving member of the press, of a brake element, a guard element, means for causing said brake element to engage said driving member of the press when said guard element encounters an obstruction, said brake element comprising an arcuate member, a plurality of radially disposed plungers passing through said arcuate member, springs for forcing said plungers inwardly, and a strap through which all of said plungers pass.

7. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a press driving element upon which said braking mechanism acts, a controlling member for said braking mechanism, and a guard carrying element movable bodily with the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment.

8. In a safety guard for stamping presses, the combination with a movable press member, of a restraining mechanism, a press driving element upon which said restraining mechanism acts, a controlling member for said restraining mechanism, and a guard carrying element movable bodily with the movable press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction.

9. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a press driving element upon which said braking mechanism acts, a controlling member for said braking mechanism, and a guard carrying element movable bodily with the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction, said braking mechanism comprising a plurality of radially disposed members.

10. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a press driving element upon which said braking mechanism acts, a controlling member for said braking mechanism, a guard carrying element movable bodily with the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction, said braking mechanism comprising a plurality of radially disposed spring pressed members.

11. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a press driving element upon which said braking mechanism acts, a controlling member for said braking mechanism, and a guard carrying element movable bodily with the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction, said braking mechanism comprising a plurality of radially disposed toothed plungers.

12. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a press driving element upon which said braking mechanism acts, a controlling member for said braking mechanism, a guard carrying element movable bodily with the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction, said braking mechanism comprising a plurality of radially disposed spring pressed members, and a common actuating member for all of said plungers.

13. In a safety guard for stamping presses, the combination with a movable press member, of a braking mechanism, a controlling member for said braking mechanism, a press driving element upon which said braking mechanism acts, a guard carrying element movable bodily with

the movable press member and pivotally mounted upon said press member and engaging and actuating said controlling member when tilted out of normal alignment by the contact of the guard with an obstruction, said braking mechanism comprising a plurality of radially disposed toothed plungers, and a common actuating member for all of said plungers.

14. In a safety guard for stamping presses, a restraining brake comprising an arcuate member, a plurality of radially disposed brake elements, means for actuating said elements in one direction, a press actuated member for actuating said elements in the opposite direction and against the tension of said means.

15. In a safety guard for stamping presses, a restraining brake mechanism comprising an arcuate member, a plurality of radially disposed spring pressed plungers mounted therein, a common actuating strap for all of said plungers, cranks arranged adjacent each end of said strap and arranged when actuated to move said strap against the tension of said springs, and a member for actuating said cranks simultaneously.

16. In a safety guard for stamping presses, a restraining brake mechanism comprising an arcuate member, a plurality of radially disposed spring pressed plungers mounted therein, a common actuating strap for all of said plungers, cranks arranged adjacent each end of said strap and arranged when actuated to move said strap against the tension of said springs, a member for actuating said cranks simultaneously, a guard carrying element bodily movable with and pivoted upon the press plunger, and means for actuating said cranks when said guard carrying element is swung out of normal alignment by contact with an obstruction.

17. In a device of the character described, the combination with a vertically movable press plunger, of a rod pivotally mounted thereon and bodily movable therewith, a guard element carried by said rod, a restraining brake, an actuating member for said brake through which said rod travels, the tilting of said rod upon its pivotal point when the guard strikes an obstruction serving to move said brake actuating member.

18. In a device of the character described, the combination with a press and its vertically movable tool carrying member, of a guard carrying rod pivotally mounted upon said plunger and bodily movable therewith, a guard carried by said guard carrying rod, a restraining brake mechanism, an operating member for said brake mechanism, said guard carrying rod traveling in a cut out portion of said operating member, and a projection carried by said rod and adapted to engage and actuate said brake controlling member when the guard carrying rod is tilted upon its pivot.

19. In a device of the character described, the combination with a restraining brake, of a controlling member therefor, a guard carrying rod passing through said controlling member and movable in a cut out portion thereof, a block pivotally mounted upon the press plunger and through which said guard carrying member passes, and a guard carried by said guard carrying member.

20. In a device of the character described, the combination with a restraining brake, of a controlling member therefor, a guard carrying rod passing through said controlling member and movable in a cut out portion thereof, a block pivotally mounted upon the press plunger and through which said guard carrying member passes, and a guard carried by said guard carrying member, said guard lying substantially at right angles to the guard carrying member.

21. In a device of the character described, the combination with a restraining brake, of a guard carrying rod pivotally mounted upon the press plunger and bodily movable therewith, a guard carried by said guard carrying rod, a controlling member for the brake mechanism, an anti-friction roller carried by said controlling member and bearing against the guard carrying rod, a fixed member, a lever pivotally mounted thereon, an anti-friction

roller carried by said lever bearing upon the guard carrying rod, and a spring connection between said lever and said guard carrying rod.

22. In a device of the character described, the combination with a restraining brake mechanism of a shaft mounted upon a fixed portion of the press frame, a horizontally disposed controlling member, an arm carried by said shaft to which one end of said controlling member is pivoted, and means actuated by said shaft for controlling the brake mechanism.

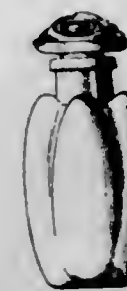
23. In a device of the character described, the combination with a restraining brake mechanism, of a shaft mounted upon a fixed portion of the press frame, a horizontally disposed controlling member, an arm carried by said shaft to which one end of said controlling member is pivoted, means actuated by said shaft for controlling the brake mechanism, a guard carrying rod, a guard carried by said rod, and means carried by said rod for actuating said controlling member when said rod is tilted out of vertical alignment.

24. In a device of the character described, the combination with a restraining mechanism, of a shaft mounted upon a fixed portion of the press frame, a horizontally disposed controlling member, an arm carried by said shaft to which one end of said controlling member is pivoted, means actuated by said shaft for controlling the brake mechanism, a guard carrying rod, a guard carried by said rod, and means carried by said rod for actuating said controlling member when said rod is tilted out of vertical alignment, said rod being pivotally mounted upon and traveling with the press plunger.

25. In a device of the character described, the combination with a stamping press, of a vertically movable guard, and a fixed member arranged in such position that the stock must be handled therebeneath and so keep the fingers of the operator out of the path of said guard.

DESIGNS.

44,867. BOTTLE. ANST. ALEXANDER and ARNOLD M. STEINBERG, Paris, Tenn. Filed Aug. 27, 1913. Serial No. 787,032. Term of patent 7 years.



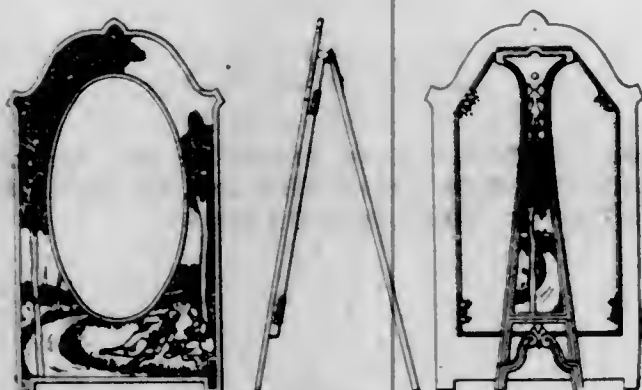
The ornamental design for a bottle, as shown.

44,868. GLASS GOBLET OR SIMILAR ARTICLE. ARTHUR J. BENNETT, Cambridge, Ohio. Filed Sept. 3, 1913. Serial No. 788,006. Term of patent 7 years.



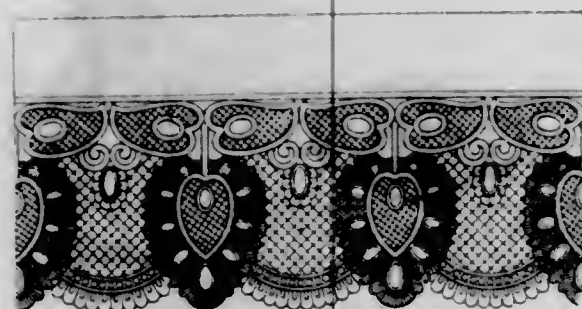
The ornamental design for a glass goblet or similar article, as shown.

44,869. PICTURE-FRAME. ALFRED J. FLAUDER, Bridgeport, Conn. Filed Sept. 26, 1913. Serial No. 792,062. Term of patent 3½ years.



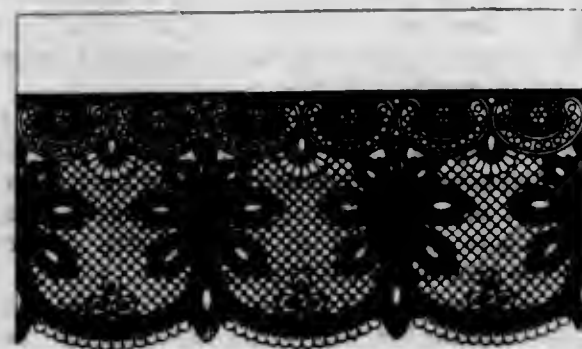
The ornamental design for a picture frame as shown.

44,870. BOX-STRIP. ROBERT GAIR, New York, N. Y. Filed Sept. 24, 1913. Serial No. 791,655. Term of patent 7 years.



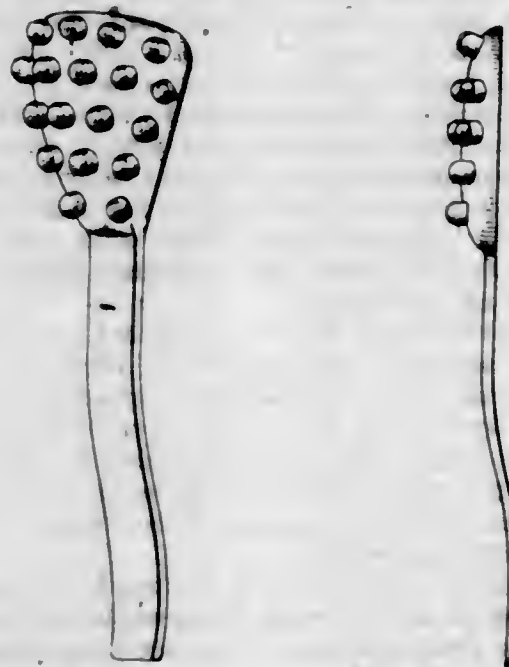
The ornamental design for a box strip, as shown.

44,871. BOX-STRIP. ROBERT GAIR, New York, N. Y. Filed Sept. 24, 1913. Serial No. 791,656. Term of patent 7 years.



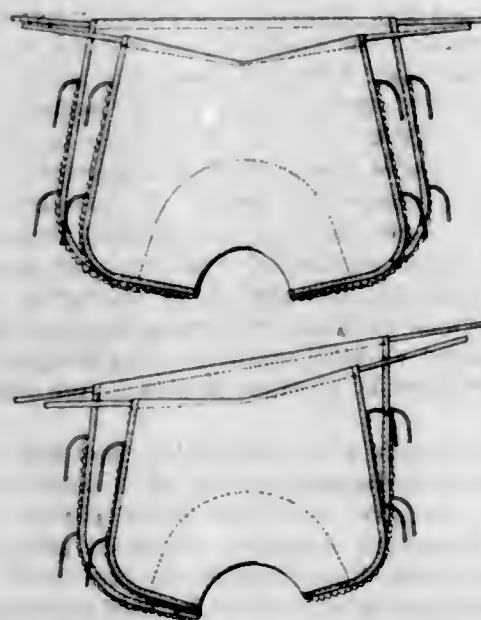
The ornamental design for a box strip, as shown.

44,872. LATHER-RUBBER. GREGOR W. GILL, Manokin, Md. Filed June 19, 1913. Serial No. 774,693. Term of patent 14 years.



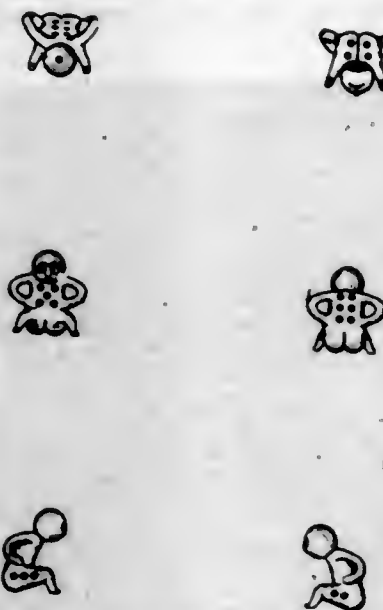
The ornamental design for a lather rubber, as shown.

44,873. UNDERGARMENT. VICTOR GUINZBURG, New York, N. Y., assignor to I. B. Kleinert Rubber Company, New York, N. Y., a Corporation of New York. Filed Sept. 5, 1913. Serial No. 788,358. Term of patent 14 years.



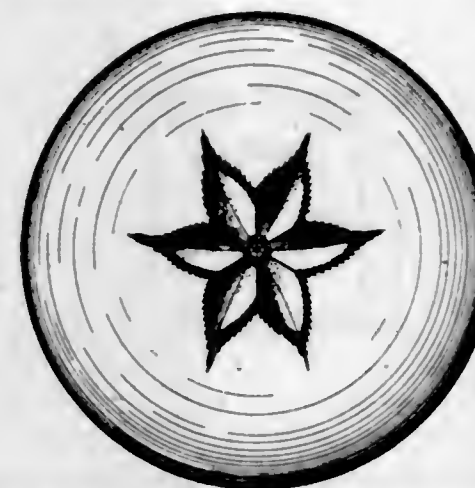
The ornamental design for an undergarment as shown.

44,874. DIE. JOSHUA MERRILL, Dedham, Mass. Filed Aug. 11, 1913. Serial No. 784,264. Term of patent 7 years.



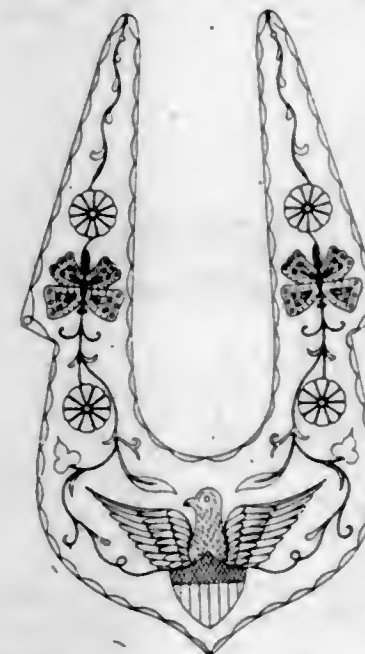
The ornamental design for a die, as shown.

44,875. CUT-GLASS VESSEL. FREDERICK L. MORECROFT, Syracuse, N. Y. Filed May 27, 1912. Serial No. 700,124. Term of patent 3½ years.



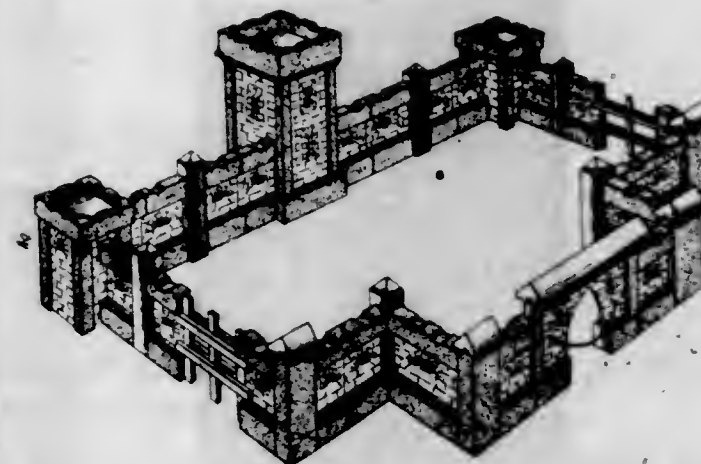
The ornamental design for a cut glass vessel having a superficial surface ornamentation, as shown.

44,876. EMBROIDERED COLLAR. NAJEEB NAJA, New York, N. Y. Filed June 28, 1913. Serial No. 776,435. Term of patent 3½ years.



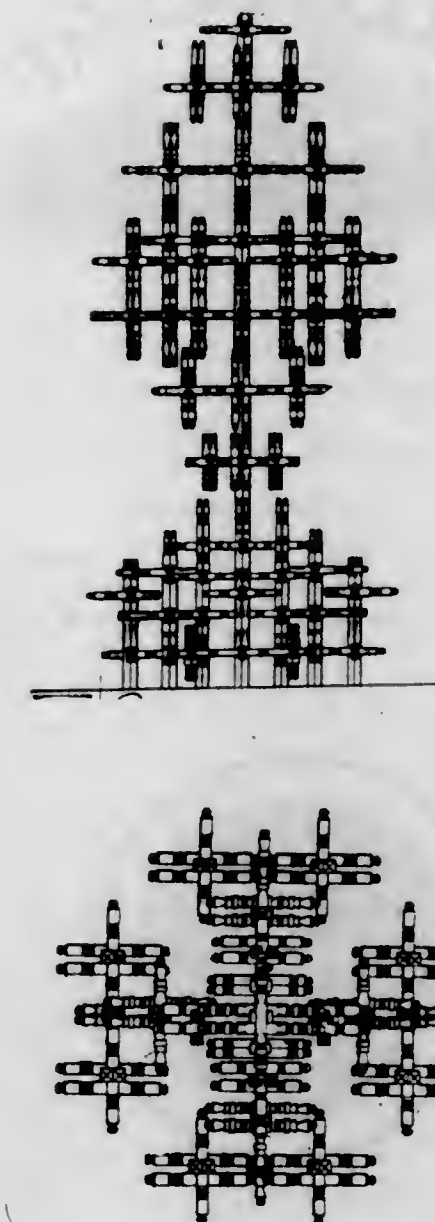
The ornamental design for an embroidered collar as shown and described.

44,877. TOY CASTLE. OTTO C. SCHWARZ, New Chicago, Ind. Filed Sept. 22, 1913. Serial No. 791,284. Term of patent 7 years.



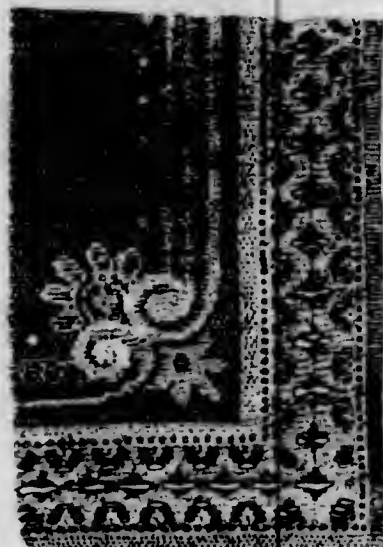
The ornamental design for a toy castle, as shown.

44,878. CHRISTMAS TREE. JOE SVEDA, Corbin, British Columbia, Canada. Filed Jan. 16, 1913. Serial No. 742,486. Term of patent 3½ years.



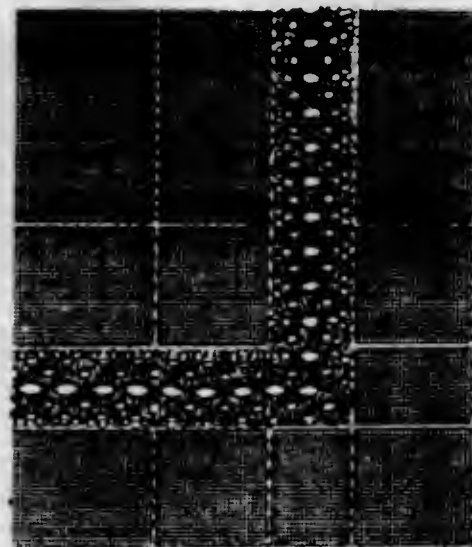
The ornamental design for a Christmas tree, as shown.

44,879. LACE CURTAIN. JAMES WATERFIELD, Philadelphia, Pa., assignor to Quaker Lace Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 6, 1913. Serial No. 788,480. Term of patent 7 years.



The ornamental design for a lace curtain, as shown.

44,880. LACE CURTAIN. JAMES WATERFIELD, Philadelphia, Pa., assignor to Quaker Lace Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1913. Serial No. 788,974. Term of patent 7 years.



The ornamental design for a lace curtain, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 11, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 45,209. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) POND'S EXTRACT COMPANY, New York, N. Y. Filed Oct. 9, 1909.



The border being printed in blue and the center in buff. No claim is made herein for the use of the words "Pond's Extract Company's."

Particular description of goods.—Cold-Cream.
Claims use since July, 1907.

Ser. No. 45,210. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) POND'S EXTRACT COMPANY, New York, N. Y. Filed Oct. 9, 1909.



The border being printed in brown and the center in buff. No claim is made herein for the use of the words "Pond's Extract Company's."

Particular description of goods.—Face-Cream.
Claims use since July, 1907.

Ser. No. 49,396. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILHELM HENNING CO., Chicago, Ill. Filed Apr. 30, 1910.



Particular description of goods.—Olives, Prepared Mustard, and Tomato Catsup.
Claims use since about Nov. 25, 1909.

Ser. No. 60,047. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE REPRODUCTION CO., New York and Brooklyn, N. Y. Filed Dec. 2, 1911.



Particular description of goods.—Felt Pennants.
Claims use since Nov. 1, 1911.

Ser. No. 61,601. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BURMONT SPECIALTY COMPANY, Fernwood, Pa. Filed Feb. 19, 1912.

TEXAS ★ SALUTE

The bands are red, the star is blue. No claim is made to the words "Texas" and "Salute."
Particular description of goods.—Hand-Torpedoes.
Claims use since July, 1907.

Ser. No. 62,009. (CLASS 39. CLOTHING.) AETNA HOSIERY COMPANY, Worcester, Mass. Filed Mar. 7, 1912.

Euryman

Particular description of goods.—Hosiery.
Claims use since the early part of March, 1910.

Ser. No. 62,042. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SILVERBERG IMPORT Co., New York, N. Y. Filed Mar. 8, 1912.

ANNETTE

Particular description of goods.—Hair-Nets.
Claims use since June 15, 1910.

Ser. No. 62,908. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOME BAKING COMPANY, Toledo, Ohio. Filed Apr. 15, 1912.



The picture being fanciful, no claim being made for the printed matter thereon.
Particular description of goods.—Bread.
Claims use since Oct. 15, 1909.

Ser. No. 64,700. (CLASS 2. RECEPTACLES.) AMERICAN BANK NOTE COMPANY, New York, N. Y. Filed July 13, 1912.



The words and figures "American Bank Note Company 1793-1879" being disclaimed.
Particular description of goods.—Containers of Its Products.
Claims use since Apr. 26, 1858.

Ser. No. 64,922. (CLASS 37. PAPER AND STATIONERY.) THE SMEAD MANUFACTURING COMPANY, Hastings, Minn. Filed July 25, 1912.



The representation of an envelop forms no part of the mark.
Particular description of goods.—Bandless Expanding Envelops.
Claims use since on or about the 1st of July, 1910.

Ser. No. 65,168. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ARISTA MILLS COMPANY, Winston-Salem, N. C. Filed Aug. 9, 1912.



Particular description of goods.—Cotton Piece Goods.
Claims use since July 1, 1912.

[Vol. 186. No. 2.]

Ser. No. 65,221. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ARISTA MILLS COMPANY, Winston-Salem, N. C. Filed Aug. 12, 1912.



Particular description of goods.—Cotton Piece Goods.
Claims use since May 15, 1912.

Ser. No. 65,514. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE METALLIC PACKING & MANUFACTURING CO., Elyria, Ohio. Filed Aug. 30, 1912.

NO-IF

Particular description of goods.—Automatic Engine-Stops, Stuffing-Boxes, Speed Governing and Regulating Devices, Water-Alarms, Water-Columns, Steam and Oil Separators.
Claims use since July 3, 1912.

Ser. No. 65,941. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISIDOR SHAPIRO, New York, N. Y. Filed Sept. 23, 1912.

"Orraph"

Particular description of goods.—Complexion-Cream, Complexion-Powder, Tooth-Wash, Hair-Tonic, Liniment, Regulating-Tablets for the Bowels, Preparations for the Treatment of Headache and Corns, and General Tonic.
Claims use since Sept. 1, 1912.

Ser. No. 65,978. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WINE COCA MANUFACTURING COMPANY, Atlanta, Ga. Filed Sept. 25, 1912.

Wineco

Particular description of goods.—Soda-Fountain Syrup.
Claims use since Sept. 2, 1912.

[Vol. 186. No. 2.]

Ser. No. 66,158. (CLASS 10. FERTILIZERS.) THE CUMBERLAND FERTILIZER Co., Cartersville, Ga. Filed Oct. 5, 1912.

BLACK HAWK



Particular description of goods.—Fertilizer.
Claims use since the year 1904.

Ser. No. 66,721. (CLASS 15. OILS AND GREASES.) VACUUM OIL COMPANY, Rochester, N. Y. Filed Nov. 6, 1912.



Particular description of goods.—Naphtha, Gasolene, and Benzin.
Claims use since Apr. 13, 1911.

Ser. No. 67,072. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PRESERVATIVE MANUFACTURING CO., Brooklyn, N. Y. Filed Nov. 23, 1912.

PRESCO

Particular description of goods.—Food-Preservatives, Antiseptics, Disinfectants, Germicides, Boller Compounds, and Food-Colors.
Claims use since October, 1910.

Ser. No. 68,556. (CLASS 39. CLOTHING.) J. & J. CASH, LIMITED, Coventry, England. Filed Feb. 15, 1913.



No claim is made to the exclusive use of the words "Trade Mark."

Particular description of goods.—Bath-Gloves and Ladies' Knickers, Combinations, Night-Dresses, Camisoles, Bodices, Spencers, Underskirts, Slips, Chemises, Vests, Drawers, and Children's Chemises, Petticoats, Combinations, Knickers, Drawers, and Night-Dresses, All of Textile Material.
Claims use since 1912.

[Vol. 186. No. 2.]

Ser. No. 69,238. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RAMSDELL DRUG COMPANY, New York, N. Y. Filed Mar. 21, 1913.

328

Particular description of goods.—Toilet Cologne.
Claims use since 1893.

Ser. No. 69,241. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RAMSDELL DRUG COMPANY, New York, N. Y. Filed Mar. 21, 1913.

OLIVE CREAM

No claim being made to the exclusive use of the word "Cream."
Particular description of goods.—Cold-Cream.
Claims use since March, 1909.

Ser. No. 69,414. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CHRISTIAN CO., New York, N. Y. Filed Mar. 29, 1913.

Vieno

Particular description of goods.—Cereal Breakfast Foods, Prepared Foods for Infants and Invalids, and Bran-Meal.
Claims use since November, 1912.

Ser. No. 69,723. (CLASS 2. RECEPTACLES.) FORT PITT BEDDING COMPANY, Pittsburgh, Pa. Filed Apr. 11, 1913.

"SANI-SEAL"

Particular description of goods.—Pillow-Containers.
Claims use since about Dec. 16, 1912.

Ser. No. 69,797. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) GROVER G. GAMMILL, Ashdown, Ark. Filed Apr. 15, 1913.

SNOMO

Particular description of goods.—Explosive Powder.
Claims use since Feb. 5, 1913.

Ser. No. 69,904. (CLASS 2. RECEPTACLES.) ROYAL RIVER MANUFACTURING CO., Yarmouth, Me., and New York, N. Y. Filed Apr. 18, 1913. Under ten-year proviso.

MONROE

Particular description of goods.—Cotton Bags.
Claims use since Jan. 10, 1891.

Ser. No. 69,926. (CLASS 39. CLOTHING.) THE STORK COMPANY, Boston, Mass. Filed Apr. 19, 1913.



Particular description of goods.—Hosiery; Stockings, Socks, Half-Hose, Knit Wearing-Apparel for Infants and Children, Knit Outer Garments, and Knit Undergarments; All for Personal Body-Wear.
Claims use since Nov. 26, 1906.

Ser. No. 70,371. (CLASS 39. CLOTHING.) HOOD RUBBER CO., Watertown, Mass. Filed May 12, 1913.



Particular description of goods.—Rubber Boots and Shoes, Rubber Overshoes, and Rubber-Soled Canvas Shoes.
Claims use since Apr. 1, 1913.

Ser. No. 70,627. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE NATIONAL DRUGGISTS MANUFACTURING COMPANY, Oak Harbor, Ohio. Filed May 24, 1913.

Blue-ray

Particular description of goods.—Toilet Cream, Dental Cream, Foot-Powder, a Preparation for the Treatment of Corns, Skin-Patcher or Liquid Court-Plaster, Toothache-Drops, Liniments for Man and Beast, Quick-Healing Salve, Kidney-Plaster, Pain-Plaster, Cholera-Balm and Diarrhea Preparation, Golden-Oil Compound for External or Internal Use, Cold and Cough Treatment, Cough-Syrup, Laxative Pepsin Syrup Compound, Baby-Syrup, Headache and Pain Pills, Kidney-Pills, Liver-Pills, Quinin-Compound Tablets, Laxatives, Blood Prescription, System-Tonic and Appetizer, Herb Tea for the Liver, Kidneys, and Blood, Healing-Powder for Horses and Cattle, Worm-Powder

[Vol. 196. No. 2.]

for Horses and Colts, Dip-Spray Disinfectant Compound, Stock Mixture, Extra-Strong Condition-Powder for Horses and Cattle, Cough and Heave Powder for Horses, Stock-Tonic, Fly-Free Compound for Horses and Cattle, Poultry-Powder, and Lice-Powder.

Claims use since June 18, 1912.

Ser. No. 70,735. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUCHARD, S. A., Serrières, Switzerland. Filed May 28, 1913.



Particular description of goods.—Chocolat Fondant.
Claims use since Jan. 1, 1912.

Ser. No. 70,825. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK G. DORT, Keene, N. H. Filed June 2, 1913.

RHUEFRAN

Particular description of goods.—A Preparation for the Treatment of Rheumatism.
Claims use since May 1, 1913.

Ser. No. 71,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADVANCE MILL AND ELEVATOR COMPANY, Carrollton, Ill. Filed June 12, 1913.



BOB WHITE

Particular description of goods.—Wheat-Flour and Cornmeal.
Claims use since 1886.

[Vol. 196. No. 2.]

Ser. No. 71,161. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) J. & J. CASH, LIMITED, Coventry, England, and New York, N. Y. Filed June 18, 1913. Under ten-year proviso.

CASH'S

Consists of the name "Cash's."
Particular description of goods.—Frillings, Ribbon Badges, Woven Cotton and Silk Labels, Woven Names and Initials.
Claims use since 1896.

Ser. No. 71,333. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn. Filed June 24, 1913.

QT

Particular description of goods.—Electric-Lamp Sockets.
Claims use since June 14, 1913.

Ser. No. 71,349. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BALLARD & BALLARD CO., Louisville, Ky. Filed June 25, 1913.



The name "Ballard's" and the words "Kentucky Farm Feed" are not claimed as features of the mark.
Particular description of goods.—Mill Feed Commonly Called Brown Middlings or Shorts.
Claims use since the 1st day of May, 1913.

Ser. No. 71,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. KOREF & COMPANY, New York, N. Y. Filed June 26, 1913.

VIVO

Particular description of goods.—An Emulsion of Port-Wine and Olive-Oil.
Claims use since Jan. 1, 1913.

Ser. No. 71,392. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) UNITED BRUSH MANUFACTORIES, New York, N. Y. Filed June 28, 1913.



The exclusive use of the words "Set in Rubber" not being claimed.

Particular description of goods.—Paint-Brushes, Shaving-Brushes, Bath-Brushes, and Varnish-Brushes. Claims use since Feb. 1, 1893.

Ser. No. 71,415. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) PAUL M. WENZEL, Philadelphia, Pa. Filed June 27, 1913.



Particular description of goods.—A Chemical Dental Preparation for Filling and Treating Root-Canals. Claims use since about November, 1906.

Ser. No. 71,464. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) BARNETT SAMUEL & SONS, LTD., London, England. Filed July 1, 1913.



Particular description of goods.—Pianofortes, Piano-Players, and Automatic Pianos. Claims use since Jan. 1, 1912.

Ser. No. 71,487. (CLASS 39. CLOTHING.) THE PROTOCON COMPANY, INCORPORATED, New York, N. Y. Filed July 2, 1913.



Particular description of goods.—Hats, Corsets, Gloves, Outer Suits, Dresses, Boots and Shoes, Collars and Cuffs, and Stockings.

Claims use since the 10th day of June, 1913.

Ser. No. 71,496. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 3, 1913.

18000 RANGE

Particular description of goods.—Cotton Piece Goods. Claims use since May 23, 1904.

Ser. No. 71,498. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 3, 1913.



Particular description of goods.—Cotton Piece Goods. Claims use since Jan. 1, 1879.

Ser. No. 71,502. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 3, 1913. Under ten-year proviso.



Particular description of goods.—Cotton Piece Goods. Claims use since Jan. 1, 1887.

Ser. No. 71,512. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GERVAISE GRAHAM, Chicago, Ill. Filed July 3, 1913.



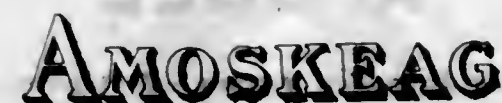
Consisting of a facsimile signature of the applicant and the portrait of Gervaise Graham.

Particular description of goods.—A Skin-Tonic, a Complexion-Cream, a Face-Bleach, a Skin-Lotion, a Face-Powder, a Hair-Tonic, a Liquid Face-Powder, a Hair-Dye, a Massage-Cream, a Tooth-Paste, a Hair-Colorative, an Antiseptic Tonic or Wash for Inflamed or Sore Eyes, Preparations for Removing from the Face Discolorations—Such as Sunburn, Freckles, and a Muddy or Sallow Color—and for the Treatment of Dandruff and Oily Skin, and a Lotion for the Hands.

Claims use since December, 1887.

[Vol. 190. No. 2.]

Ser. No. 71,527. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 5, 1913. Under ten-year proviso.



Particular description of goods.—Cotton Piece Goods. Claims use since the year 1831.

Ser. No. 71,625. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STYERS MERCANTILE CO., Greensburg, Ind. Filed July 9, 1913.



The word "Horse" and the pictorial representation of a horse form no part of the trade-mark. Particular description of goods.—A Stock-Tonic. Claims use since Aug. 15, 1912.

Ser. No. 71,679. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDMUND BRANOWER, New York, N. Y. Filed July 14, 1913.



The representation of the faces being entirely fanciful, the exclusive use of the word "Smilax" not being claimed. Particular description of goods.—Laxative Candy. Claims use since about June 1, 1913.

Ser. No. 71,709. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARR W. GLYDE, Minburn, Iowa. Filed July 15, 1913.



Particular description of goods.—Remedy for Diseases of Poultry. Claims use since April, 1913.

[Vol. 186. No. 2.]

Ser. No. 71,742. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) DRIGGS-SHAWBURY ORDNANCE CORPORATION, Sharon, Pa. Filed July 16, 1913.



Particular description of goods.—Motor-Trucks. Claims use since April, 1912.

Ser. No. 71,815. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POWELL'S, New York, N. Y. Filed July 17, 1913.



Particular description of goods.—Candy. Claims use since 1901.

Ser. No. 72,000. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GEORGE WM. BRADY, Chicago, Ill. Filed July 28, 1913.



No claim being made to the words "X-Ray Plates." Particular description of goods.—Photographic Films and Plates. Claims use since Apr. 14, 1913.

Ser. No. 72,114. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NAUMKEAG STEAM COTTON CO., Salem, Mass. Filed Aug. 1, 1913.



Particular description of goods.—Sheets and Pillow-Cases. Claims use since January, 1905.

Ser. No. 72,143. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FANNY L. MAJER, Spokane, Wash. Filed Aug. 2, 1913.



Particular description of goods.—Buttons and Fringes. Claims use since July 1, 1906.

Ser. No. 72,152. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS CO., St. Louis, Mo. Filed Aug. 4, 1913.



Particular description of goods.—Negligée and Dress Shirts.
Claims use since about Apr. 1, 1913.

Ser. No. 72,171. (CLASS 39. CLOTHING.) SIDNEY ROSENSTEIN & Co., New York, N. Y. Filed Aug. 5, 1913.

**SURETY
GUARANTEED
SHIRT**

No claim being made to the exclusive appropriation of the words "Guaranteed Shirt."
Particular description of goods.—Negligée and Work Shirts.
Claims use since July 1, 1913.

Ser. No. 72,302. (CLASS 39. CLOTHING.) BOSTON RUBBER SHOE COMPANY, Malden, Mass. Filed Aug. 12, 1913.

VETO

Particular description of goods.—Rubber Boots and Shoes.
Claims use since Sept. 13, 1890.

Ser. No. 72,311. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. WERTHEIMER & CIE., Paris, France. Filed Aug. 12, 1913.



In the trade-mark upon a golden background the words "Ashes of Roses" and a vase appear in white, said vase holding a red rose with green leaves. No claim is made to the exclusive right to the use of the words "Copyrighted Bourjois, Paris (France)."

Particular description of goods.—Perfumes, Face-Paints, and Rouges.
Claims use since August, 1912.

Ser. No. 72,349. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) EVETTE ET SCHAEFFER, Paris, France. Filed Aug. 15, 1913.

APOGEE

Particular description of goods.—Mouthpieces for Clarinets, Saxophones, Hautboys, Bagpipes, Bassoons, and Sarrusophones.
Claims use since Mar. 1, 1912.

Ser. No. 72,350. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) EVETTE ET SCHAEFFER, Paris, France. Filed Aug. 15, 1913.



Particular description of goods.—Mouthpieces for Clarinets, Saxophones, Hautboys, Bagpipes, Bassoons, and Sarrusophones.
Claims use since Mar. 1, 1912.

Ser. No. 72,440. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) KAMPFE BROS., New York, N. Y. Filed Aug. 20, 1913.

KAMBRO

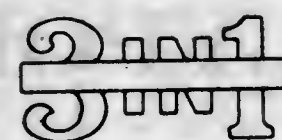
Particular description of goods.—Shaving-Brushes.
Claims use since on or about July 1, 1913.

Ser. No. 72,441. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JAMES T. LAUGHLIN, Boise, Idaho. Filed Aug. 20, 1913.

ElSta

Particular description of goods.—Eyeglasses and Spectacle and Eyeglass Mountings, Frames, Ends, Bridges, Straps, Springs, Eyes, Studs, Hapdles, Guards, Flinger-Grips, Nuts, Temples, Screws, and Fronts.
Claims use since Aug. 1, 1912.

Ser. No. 72,445. (CLASS 39. CLOTHING.) NEW ERA MANUFACTURING CO., St. Louis, Mo. Filed Aug. 20, 1913.



Particular description of goods.—Negligée Shirts.
Claims use since Mar. 5, 1913.

Ser. No. 72,537. (CLASS 39. CLOTHING.) SULLOWAY MILLS, Franklin, N. H. Filed Aug. 26, 1913.



A medallion representation of the head of Franklin and the words "Well Done is Better Than Well Said," together with the word "Franklin."
Particular description of goods.—Hosiery.
Claims use since Mar. 15, 1893.

Ser. No. 72,538. (CLASS 39. CLOTHING.) SULLOWAY MILLS, Franklin, N. H. Filed Aug. 26, 1913.



A medallion representation of the head of Franklin and the words "Well Done is Better Than Well Said."
Particular description of goods.—Hosiery.
Claims use since Mar. 15, 1893.

Ser. No. 72,546. (CLASS 39. CLOTHING.) BOB & BASKIND, New York, N. Y. Filed Aug. 27, 1913.

SILKOLETTE

Particular description of goods.—Dress and Negligée Shirts.
Claims use since July 3, 1913.

Ser. No. 72,581. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DANIELS & TULLIS, Tioga, La. Filed Aug. 29, 1913.

DANTUL

Particular description of goods.—A Liniment.
Claims use since Mar. 15, 1913.

Ser. No. 72,634. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) RICHARDS-WILCOX MFG. CO., Aurora, Ill. Filed Sept. 2, 1913. Under ten-year proviso.

AURORA

Particular description of goods.—Door-Hangers.
Claims use since January, 1892.

Ser. No. 72,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TOCH BROTHERS, New York, N. Y. Filed Sept. 2, 1913.

TOXEMENT

Particular description of goods.—A Colloidal Double Resinate and Silicate of Calcium and Aluminum Used as a Waterproofing Medium for Cement and Concrete.
Claims use since Jan. 26, 1907.

Ser. No. 72,676. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE M. PENNOCK, New York, N. Y. Filed Sept. 4, 1913.

St. Cosmo

The word "St. Cosmo."
Particular description of goods.—A Foot-Salve.
Claims use since July 23, 1913.

Ser. No. 72,742. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ERNEST GABLER & BRO., New York, N. Y. Filed Sept. 9, 1913. Under ten-year proviso.

GABLER

Particular description of goods.—Pianos.
Claims use since Feb. 24, 1883.

Ser. No. 72,764. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRANKLIN PROCESS COMPANY, Providence, R. I. Filed Sept. 10, 1913.



Particular description of goods.—Dyeing-Machines.
Claims use since Jan. 6, 1913.

Ser. No. 72,826. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUSCH & Co., New York, N. Y. Filed Sept. 12, 1913.

BLACK PRINCE

The words "Black Prince."
Particular description of goods.—Velvet Ribbon.
Claims use since Nov. 15, 1912.

Ser. No. 72,829. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. WERTHEIMER & Cie, Paris, France. Filed Sept. 12, 1913.



The trade-mark shows upon a golden seal with a border consisting of two annular rings of different shades of violet a black and golden vase containing the representation of violets and leaves in natural colors and the words "Ashes of Violet" printed in black with violet shading.

Particular description of goods.—All Kinds of Perfumes, Face-Paints, and Rouges.
Claims use since May, 1913.

Ser. No. 72,833. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAMBRIA DRUG & MFG. Co., Pittsburgh, Pa. Filed Sept. 13, 1913.



Particular description of goods.—Medicinal Candy Cathartic or Laxative Blood-Purifying Tablets.
Claims use since Jan. 1, 1913.

Ser. No. 72,862. (CLASS 39. CLOTHING.) C. M. PHIPPS, INC., New York, N. Y. Filed Sept. 15, 1913.



The word "Hats" being hereby specifically disclaimed.
Particular description of goods.—Hats.
Claims use since May 1, 1913.

[Vol. 196. No. 2.]

Ser. No. 72,873. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ARCADE MANUFACTURING COMPANY, Freeport, Ill. Filed Sept. 16, 1913.

CHAMPION

Particular description of goods.—Cork-Pullers.
Claims use since 1896.

Ser. No. 72,876. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVIS & Co., New York, N. Y. Filed Sept. 16, 1913.

FOUNTAIN BRAND

The word "Brand" is hereby specifically disclaimed.
Particular description of goods.—Bathing-Soda.
Claims use since July 1, 1913.

Ser. No. 72,882. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) M. EWING FOX & Co., New York, N. Y. Filed Sept. 16, 1913. Under ten-year proviso.

CALCITINE

Particular description of goods.—Water-Paint.
Claims use since 1880.

Ser. No. 72,913. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN VENEZIANI COMPANY, Jersey City, N. J. Filed Sept. 17, 1913.

LAMORAVIA

Particular description of goods.—Paints for Ships' Bottoms.
Claims use since 1908.

Ser. No. 72,919. (CLASS 39. CLOTHING.) LIEBMAN-PHILIPSON Co., Chicago, Ill. Filed Sept. 17, 1913.

L.P.C.

Particular description of goods.—Men's, Youths', and Boys' Coats, Vests, Trousers, and Overcoats.
Claims use since Jan. 1, 1908.

Ser. No. 72,951. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Sept. 19, 1913.

ADJUSTA

Particular description of goods.—Hair-Nets.
Claims use since about July 15, 1913.

Ser. No. 72,982. (CLASS 39. CLOTHING.) SELZ, SCHWAB & Co., Chicago, Ill. Filed Sept. 20, 1913.



No claim is made to the words "Selz Chicago" and to the initials "U. S. A."

Particular description of goods.—Men's, Women's, Misses', Children's, Boys', Youths', and Infants' Leather, Canvas, Velvet, and Satin Boots and Shoes.
Claims use since before Aug. 28, 1913.

Ser. No. 73,005. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE FIBERLOID COMPANY, Indian Orchard, Mass., and New York, N. Y. Filed Sept. 23, 1913.

PHOTOLOID

Particular description of goods.—Sensitized Photographic Media or Sheets.
Claims use since about the first part of December, 1912.

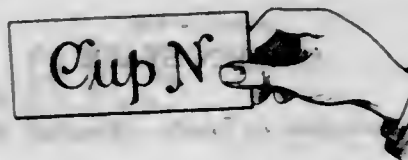
Ser. No. 73,025. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) M. EWING FOX & Co., New York, N. Y. Filed Sept. 24, 1913.

WHITENITE

Particular description of goods.—Calcimine or Water-Paint.
Claims use since July 15, 1913.

196 O. G.—34

Ser. No. 73,026. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ERNST KOEPPEN, New York, N. Y. Filed Sept. 24, 1913.



Particular description of goods.—Cleaning-Machines, Polishing-Machines, Cleaning and Polishing Machines, and Knife Cleaning and Polishing Machines.
Claims use since Sept. 3, 1913.

Ser. No. 73,063. (CLASS 39. CLOTHING.) THE SAFE-KEEP POCKET HOSIERY COMPANY, Philadelphia, Pa. Filed Sept. 25, 1913.

SAFE KEEP

Particular description of goods.—Women's Stockings.
Claims use since Aug. 14, 1913.

Ser. No. 73,068. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHAIN BELT COMPANY, Milwaukee, Wis. Filed Sept. 26, 1913.

CHABELCO

Particular description of goods.—Chain Belt Used for Power Transmitting and Conveying Purposes.
Claims use since Jan. 1, 1912.

Ser. No. 73,080. (CLASS 39. CLOTHING.) SIMON PERELSTINE, Pittsburgh, Pa. Filed Sept. 26, 1913. Under ten-year proviso.

The Carter Shoe

Particular description of goods.—Boots, Shoes, Slippers, Made of Leather, Rubber, Cloth, and Canvas.
Claims use since Jan. 1, 1894.

Ser. No. 73,099. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHERO-COLA Co., Columbus, Ga. Filed Sept. 29, 1913.

Chero

Particular description of goods.—A Non-Intoxicating Carbonated Beverage and Syrup for Making the Same.
Claims use since July, 1911.

Ser. No. 73,102. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EMPORIA MACHINE Co., Inc., Emporia, Va. Filed Sept. 29, 1913.

CHAMPION.

Particular description of goods.—Flows.
Claims use since March, 1911.

[Vol. 196. No. 2.]

Ser. No. 73,129. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) GOLDBERG, BOWEN & Co., San Francisco, Cal. Filed Sept. 30, 1913.

PRIDE OF THE
GOLDEN STATE

Particular description of goods.—Blended Whisky, Gin, and Brandy.
Claims use since Sept. 1, 1913.

Ser. No. 73,193. (CLASS 39. CLOTHING.) SAXONY KNITTING MILLS, Needham, Mass. Filed Oct. 3, 1913.



Particular description of goods.—Knit Goods—Namely, Shirts, Bands, Hose, Drawers, Sleeping-Garments, Sweaters, Toques, Leggings, Caps, Mittens, Sacks, Lap-Pads, and Bath-Aprons.
Claims use since about July 1, 1913.

Ser. No. 73,240. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM REETZ, Chicago, Ill. Filed Oct. 6, 1913.

KNOX

Particular description of goods.—Mufflers.
Claims use since June, 1913.

Ser. No. 73,255. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KEYSTONE STEEL & WIRE COMPANY, South Bartonville, Ill. Filed Oct. 7, 1913.

ARROW

Particular description of goods.—Barbed Wire.
Claims use since about Feb. 1, 1905.

Ser. No. 73,280. (CLASS 39. CLOTHING.) SHAPIRO Bros., New York, N. Y. Filed Oct. 8, 1913.

SIMPLEX

Particular description of goods.—Ladies', Misses', Juniors', and Children's Dresses.
Claims use since Sept. 27, 1913.

Ser. No. 73,317. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOSEPH W. SCHLOSS, New York, N. Y. Filed Oct. 11, 1913.

AERONETTE

Particular description of goods.—Featherbone.
Claims use since Oct. 4, 1913.

Ser. No. 73,354. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BRINLY-HARDY COMPANY, Louisville, Ky. Filed Oct. 14, 1913.

RASTUS

Particular description of goods.—Cultivators.
Claims use since the 15th day of December, 1907.

Ser. No. 73,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSFHA B. SAWYER, Beaumont, Tex. Filed Oct. 14, 1913.

VIS-TO-CIDE

Particular description of goods.—Insecticide, Deodorizer, and Disinfectant.
Claims use since June, 1910.

Ser. No. 73,364. (CLASS 20. LINOLEUM AND OILED CLOTH.) ARMSTRONG CORK COMPANY, Pittsburgh, Pa. Filed Oct. 15, 1913.



Particular description of goods.—Linoleum.
Claims use since January, 1909.

Ser. No. 73,391. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NOBLE & WESTBROOK MANUFACTURING COMPANY, Hartford, Conn. Filed Oct. 15, 1913. Under ten-year proviso.

DWIGHT SLATE

Particular description of goods.—Marking-Machines.
Claims use since as early as the year 1876.

Ser. No. 73,407. (CLASS 39. CLOTHING.) WAYNE KNITTING MILLS, Fort Wayne, Ind. Filed Oct. 15, 1913.

Waynew

Particular description of goods.—Men's, Women's, and Children's Silk and Lisle Hose.
Claims use since Sept. 3, 1913.

TRADE-MARKS

REGISTERED NOVEMBER 11, 1913.

94,143. WRITING FLUIDS. ACID PROOF INK Co., Inc., New York, N. Y.
Filed August 1, 1913. Serial No. 72,094. PUBLISHED SEPTEMBER 9, 1913.

94,144. WHEAT-FLOUR. THE ACME MILLING COMPANY, Aurora, Ind.
Filed August 1, 1912. Serial No. 65,041. PUBLISHED MARCH 25, 1913.

94,145. CERTAIN NAMED MUSICAL INSTRUMENTS AND MUSIC-SHEETS THEREFOR. AEOLIAN COMPANY, Meriden, Conn.; Garwood, N. J., and New York, N. Y.
Filed March 18, 1913. Serial No. 69,148. PUBLISHED SEPTEMBER 9, 1913.

94,146. OLIVE-OIL. FRANCESCO ALBANO, New York, N. Y.
Filed March 13, 1913. Serial No. 68,984. PUBLISHED SEPTEMBER 2, 1913.

94,147. OLIVE-OIL. FRANCESCO ALBANO, New York, N. Y.
Filed March 13, 1913. Serial No. 68,985. PUBLISHED SEPTEMBER 2, 1913.

94,148. COPPER WIRE. THE AMERICAN BRASS COMPANY, Waterbury, Conn.
Filed August 14, 1913. Serial No. 72,327. PUBLISHED SEPTEMBER 9, 1913.

94,149. FELT IN THE PIECE. AMERICAN FELT COMPANY, Boston, Mass.
Filed June 28, 1913. Serial No. 71,420. PUBLISHED SEPTEMBER 9, 1913.

94,150. PREPARED SHELLAC. ANGELO BROTHERS LIMITED, Calcutta, India.
Filed February 12, 1912. Serial No. 61,420. PUBLISHED SEPTEMBER 16, 1913.

94,151. BELT-DRESSINGS. ANIMOIL MANUFACTURING COMPANY, Philadelphia, Pa.
Filed March 15, 1913. Serial No. 69,044. PUBLISHED SEPTEMBER 9, 1913.

94,152. WOOD-SAWS, METAL-SAWS, CONE AND CORN KNIVES, AND TROWELS. E. C. ATKINS & COMPANY, Indianapolis, Ind.
Filed August 1, 1913. Serial No. 72,092. PUBLISHED SEPTEMBER 9, 1913.

94,153. ALIMENTARY PASTE PRODUCTS. THE ATLANTIC MACARONI Co., Long Island City, N. Y.
Filed June 12, 1913. Serial No. 71,032. PUBLISHED SEPTEMBER 2, 1913.

94,154. ALIMENTARY PASTE PRODUCTS. THE ATLANTIC MACARONI Co., Long Island City, N. Y.
Filed June 12, 1913. Serial No. 71,033. PUBLISHED SEPTEMBER 2, 1913.

94,155. ALIMENTARY PASTE PRODUCTS. THE ATLANTIC MACARONI Co., Long Island City, N. Y.
Filed June 12, 1913. Serial No. 71,036. PUBLISHED SEPTEMBER 2, 1913.

94,156. ALIMENTARY PASTE PRODUCTS. THE ATLANTIC MACARONI Co., Long Island City, N. Y.
Filed June 12, 1913. Serial No. 71,037. PUBLISHED SEPTEMBER 2, 1913.

94,157. MACARONI. THE ATLANTIC MACARONI Co., Long Island City, N. Y.
Filed June 12, 1913. Serial No. 71,038. PUBLISHED SEPTEMBER 2, 1913.

94,158. PERFORATED MUSIC-SHEETS FOR SELF-PLAYING INSTRUMENTS. BENNETT & WHITE INC., Newark, N. J.
Filed August 2, 1913. Serial No. 72,125. PUBLISHED SEPTEMBER 9, 1913.

94,159. KIDNEY-PILLS. THE BOLE DRUG COMPANY, Winnipeg, Manitoba, Canada.
Filed June 18, 1913. Serial No. 71,160. PUBLISHED SEPTEMBER 9, 1913.

94,160. CIGARETTES. BLUE PETER CIGARETTE Co., Inc., New York, N. Y.
Filed May 28, 1913. Serial No. 70,710. PUBLISHED SEPTEMBER 9, 1913.

94,161. CERTAIN KIND OF HOSE, BELTING, PACKING, AND JAR-RINGS. J. W. BUCKLEY RUBBER Co., New York, N. Y.
Filed July 8, 1913. Serial No. 71,594. PUBLISHED SEPTEMBER 9, 1913.

94,162. DRIED FRUITS. CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal.
Filed June 16, 1913. Serial No. 71,119. PUBLISHED SEPTEMBER 2, 1913.

94,163. CHOCOLATE-FLAVORED FILLING IN PASTE FORM. WILLIAM R. CATHCART, New York, N. Y.
Filed June 3, 1913. Serial No. 70,841. PUBLISHED SEPTEMBER 2, 1913.

94,164. LIQUID POLISH. WILLIAM CHAMBERS & SON, Buffalo, N. Y.
Filed July 15, 1913. Serial No. 71,701. PUBLISHED SEPTEMBER 9, 1913.

94,165. INDEX-TABS, LOOSE-LEAF BINDERS, RECORD-BOOKS, AND DOCKETS. CHICAGO SHIPPING & RECEIPT BOOK Co., Chicago, Ill.
Filed February 12, 1913. Serial No. 68,528. PUBLISHED SEPTEMBER 9, 1913.

94,166. REMEDY FOR CERTAIN NAMED AILMENTS. JOSEPH B. COLLIE, Malvern, Ark.
Filed August 14, 1912. Serial No. 65,267. PUBLISHED MAY 6, 1913.

94,167. BATH-TUB, BASIN, AND CLOSET FITTINGS, SUPPLY-PIPES, AND METALLIC VALVES. DETROIT SANITARY SUPPLY COMPANY, Detroit, Mich.
Filed July 16, 1913. Serial No. 71,739. PUBLISHED SEPTEMBER 9, 1913.

94,168. NEWSPAPERS. THE EDITOR & PUBLISHER Co., New York, N. Y.
Filed June 5, 1913. Serial No. 70,876. PUBLISHED SEPTEMBER 9, 1913.

94,169. CERTAIN ELECTRIC-LIGHTING APPLIANCES AND ACCESSORIES THEREFOR. EHRLICH & GRAETZ, Berlin, Germany.
Filed February 19, 1913. Serial No. 68,618. PUBLISHED SEPTEMBER 9, 1913.

94,170. CERTAIN ELECTRIC-LIGHTING APPLIANCES AND ACCESSORIES THEREFOR. EHRLICH & GRAETZ, Berlin, Germany.
Filed February 19, 1913. Serial No. 68,619. PUBLISHED SEPTEMBER 9, 1913.

94,171. STARCH FOR TEXTILE-MILL USAGE. EUSTIS, PENNOCK & Co., Boston, Mass.
Filed June 20, 1913. Serial No. 71,212. PUBLISHED SEPTEMBER 9, 1913.

94,172. STARCH FOR TEXTILE-MILL USAGE. EUSTIS, PENNOCK & Co., Boston, Mass. Filed June 20, 1913. Serial No. 71,213. PUBLISHED SEPTEMBER 9, 1913.

94,173. WHEAT-FLOUR. JOHN FRANK, Jacksonville, Ill. Filed April 17, 1913. Serial No. 69,852. PUBLISHED SEPTEMBER 9, 1913.

94,174. CERTAIN NAMED FOODS. THE R. T. FRENCH COMPANY, Rochester, N. Y. Filed June 24, 1910. Serial No. 50,562. PUBLISHED SEPTEMBER 2, 1913.

94,175. OLIVE-OIL. C. GIACONA & Co., New Orleans, La. Filed July 10, 1912. Serial No. 64,712. PUBLISHED SEPTEMBER 9, 1913.

94,176. PLUMBAGO FOR FOUNDRY PURPOSES AND FOR THE MANUFACTURE OF CRUCIBLES. GRAPHITES MASKAR SOCIÉTÉ ANONYME, Paris, France. Filed May 16, 1913. Serial No. 70,447. PUBLISHED SEPTEMBER 9, 1913.

94,177. BABBITT AND ANTIFRICTION METALS. GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill. Filed May 6, 1912. Serial No. 63,364. PUBLISHED SEPTEMBER 9, 1913.

94,178. AFTER-DINNER CONFECTION. HALL & RUCKEL, New York, N. Y. Filed June 4, 1913. Serial No. 70,857. PUBLISHED SEPTEMBER 9, 1913.

94,179. CARBON-PAPER FOR DUPLICATING PURPOSES. EGOON HASSINGER, Paris, France. Filed July 15, 1913. Serial No. 71,710. PUBLISHED SEPTEMBER 9, 1913.

94,180. CERTAIN NAMED CUTLERY AND MACHINERY. J. A. HENCKELS, Solingen, Germany. Filed July 11, 1910. Serial No. 50,788. PUBLISHED SEPTEMBER 16, 1913.

94,181. GLASS REFLECTORS AND SHADES. HOLOPHANE GLASS COMPANY, New York, N. Y. Filed June 6, 1910. Serial No. 50,145. PUBLISHED SEPTEMBER 9, 1913.

94,182. ALIMENTARY PASTE PRODUCTS IN MACARONI, SPAGHETTI, VERMICELLI, AND NOODLES. ARTHUR S. HOYT CO., New York, N. Y. Filed April 9, 1913. Serial No. 69,677. PUBLISHED SEPTEMBER 9, 1913.

94,183. CERTAIN NAMED OPTICAL GOODS, BAROMETERS, AND PHOTOGRAPHIC CAMERAS. HENRY KAHN & Co., San Francisco, Cal. Filed November 27, 1912. Serial No. 67,158. PUBLISHED SEPTEMBER 9, 1913.

94,184. LINIMENT. JOHN KLEMAX, Fairchild, Wis. Filed August 1, 1913. Serial No. 72,112. PUBLISHED SEPTEMBER 9, 1913.

94,185. SOLE-LEATHER, CUT SOLE-LEATHER, HARNES-LEATHER, AND SKIRTING-LEATHER. KRIEG TANNING COMPANY, San Francisco, Cal. Filed April 23, 1913. Serial No. 70,015. PUBLISHED SEPTEMBER 9, 1913.

94,186. EVAPORATED MILK. LAWTON, JORDAN & Co., Macon, Ga. Filed May 28, 1913. Serial No. 70,722. PUBLISHED SEPTEMBER 9, 1913.

94,187. CANNED SALMON. LINDENBERGER PACKING CO., Inc., Seattle, Wash. Filed July 11, 1911. Serial No. 57,575. PUBLISHED SEPTEMBER 9, 1913.

94,188. PHOTOGRAPHIC PLATES AND FILMS, AND KINEMATOGRAPH-FILMS MADE OF ACETYL CELLULOSE. HAIGASUN BARSAM MANISSADJIAN, Basel, Switzerland; Marguerite Mathilde Manissadjian, inheritress of said Haigasun Barsam Manissadjian, deceased, assignor to Society of Chemical Industry in Basle, of Basel, Switzerland, a Corporation of Switzerland. Filed April 25, 1912. Serial No. 63,128. PUBLISHED SEPTEMBER 9, 1913.

94,189. VARNISH-STAIN. THE MARIETTA PAINT & COLOR CO., Marietta, Ohio. Filed July 16, 1913. Serial No. 71,764. PUBLISHED SEPTEMBER 9, 1913.

94,190. MEDICINAL FOOD. Y. T. MATZOON COMPANY, Chicago, Ill. Filed May 22, 1913. Serial No. 70,559. PUBLISHED SEPTEMBER 2, 1913.

94,191. TOILET WATERS AND PERFUMES. MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913. Serial No. 71,382. PUBLISHED SEPTEMBER 9, 1913.

94,192. TOILET WATERS AND PERFUMES. MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913. Serial No. 71,383. PUBLISHED SEPTEMBER 9, 1913.

94,193. TOILET WATERS AND PERFUMES. MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913. Serial No. 71,384. PUBLISHED SEPTEMBER 9, 1913.

94,194. CERTAIN NAMED MACHINES, CUTLERY, AND TOOLS. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913. Serial No. 72,075. PUBLISHED SEPTEMBER 9, 1913.

94,195. TOILET-PAPER. ASAHEL U. MORSE, Kansas City, Mo. Filed November 22, 1912. Serial No. 67,057. PUBLISHED SEPTEMBER 9, 1913.

94,196. PIPES, TUBES, AND CASINGS. NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed May 1, 1913. Serial No. 70,157. PUBLISHED SEPTEMBER 2, 1913.

94,197. PREPARATION OF OILS AND GREASES FOR RENEWAL OF VARNISH SURFACES. J. S. NICHOLAS & SON POLISH CO., Oakland, Cal. Filed July 22, 1913. Serial No. 71,888. PUBLISHED SEPTEMBER 9, 1913.

94,198. FLOOR-COVERINGS OF WATERPROOFED FIBROUS MATERIALS. PALSTRA MANUFACTURING COMPANY, Philadelphia, Pa., and New York, N. Y. Filed July 11, 1913. Serial No. 71,663. PUBLISHED AUGUST 12, 1913.

94,199. CERTAIN NAMED PRECIOUS-METAL PINS, TIE-CLASPS, LINK-BUTTONS, AND BRACELETS. E. A. POTTER COMPANY, Providence, R. I. Filed May 31, 1913. Serial No. 70,800. PUBLISHED SEPTEMBER 9, 1913.

94,200. WHEAT-FLOUR. POTTER & WRIGHTINGTON, Boston, Mass. Filed June 9, 1913. Serial No. 70,983. PUBLISHED SEPTEMBER 2, 1913.

94,201. MILK. QUAKER CITY DAIRIES, Philadelphia, Pa. Filed January 25, 1913. Serial No. 68,125. PUBLISHED APRIL 29, 1913.

94,202. JEWELRY FOR PERSONAL WEAR. JOSEPH ROSENBLATT, Providence, R. I. Filed June 11, 1913. Serial No. 71,025. PUBLISHED SEPTEMBER 9, 1913.

94,203. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., Inc., New Hartford, N. Y. Filed May 21, 1913. Serial No. 70,546. PUBLISHED SEPTEMBER 9, 1913.

94,204. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., Inc., New Hartford, N. Y. Filed July 7, 1913. Serial No. 71,572. PUBLISHED SEPTEMBER 9, 1913.

94,205. CANDY. SCHANDLER & LIND CO., Philadelphia, Pa. Filed April 18, 1913. Serial No. 69,905. PUBLISHED SEPTEMBER 9, 1913.

94,206. INSECTICIDES. SCHWENGER & WOOD, Schenectady, N. Y. Filed July 5, 1913. Serial No. 71,544. PUBLISHED SEPTEMBER 9, 1913.

94,207. BLENDED COFFEE. WILLIAM S. SCULL COMPANY, Camden, N. J. Filed June 6, 1913. Serial No. 70,914. PUBLISHED SEPTEMBER 2, 1913.

94,208. CANNED SARDINES. SEACOAST CANNING COMPANY, Eastport, Me. Filed May 7, 1913. Serial No. 70,283. PUBLISHED SEPTEMBER 9, 1913.

94,209. GOGGLES. THE SEISS MANUFACTURING COMPANY, Toledo, Ohio. Filed June 11, 1913. Serial No. 71,026. PUBLISHED SEPTEMBER 9, 1913.

94,210. VEGETABLE DIGESTIVE ENZYME. YENJO SHOTEN, Tokyo, Japan. Filed March 11, 1911. Serial No. 55,013. PUBLISHED MAY 14, 1912.

94,211. BAKING-POWDER. D. & L. SLADE COMPANY, Boston and Revere, Mass. Filed July 16, 1913. Serial No. 71,783. PUBLISHED SEPTEMBER 9, 1913.

94,212. NAPHTHA. STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed July 31, 1913. Serial No. 72,088. PUBLISHED SEPTEMBER 9, 1913.

94,213. NEWSPAPER-SECTION PUBLISHED PERIODICALLY. STAR COMPANY, New York, N. Y. Filed August 1, 1913. Serial No. 72,115. PUBLISHED SEPTEMBER 9, 1913.

94,214. NEWSPAPER-SECTION PUBLISHED PERIODICALLY. STAR COMPANY, New York, N. Y. Filed August 1, 1913. Serial No. 72,116. PUBLISHED SEPTEMBER 9, 1913.

94,215. NEWSPAPER-SECTION PUBLISHED PERIODICALLY. STAR COMPANY, New York, N. Y. Filed August 1, 1913. Serial No. 72,117. PUBLISHED SEPTEMBER 9, 1913.

94,216. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS. STAUFFER, ESHLEMAN & CO., LTD., New Orleans, La. Filed February 17, 1913. Serial No. 68,586. PUBLISHED SEPTEMBER 9, 1913.

94,217. GELATIN, ICE-CREAM POWDER, COCOA POWDER, AND FLAVORING EXTRACTS FOR FOODS. CHARLES J. STEVENOT, New York, N. Y. Filed May 24, 1913. Serial No. 70,635. PUBLISHED SEPTEMBER 9, 1913.

94,218. MONTHLY PUBLICATION. STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed March 8, 1913. Serial No. 68,926. PUBLISHED AUGUST 26, 1913.

94,219. DEPILATORIES. STONE, TIMLOW & COMPANY, INCORPORATED, Boston, Mass. Filed June 17, 1913. Serial No. 71,154. PUBLISHED SEPTEMBER 9, 1913.

94,220. HOSE-PIPES AND TUBING, TIRES, CASINGS, AND TUBES, AND BELTING COMPOSED OF CERTAIN NAMED FABRICS. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed May 19, 1913. Serial No. 70,497. PUBLISHED SEPTEMBER 9, 1913.

94,221. MILK-CHOCOLATE. SUCHARD, S. A., Serrières, Switzerland. Filed May 28, 1913. Serial No. 70,736. PUBLISHED SEPTEMBER 9, 1913.

94,222. SMOKING-TOBACCO. THE SURBRUG COMPANY, Hoboken, N. J. Filed May 22, 1913. Serial No. 70,563. PUBLISHED SEPTEMBER 9, 1913.

94,223. LAXATIVE AND LIVER-TONIC AND FOR DISORDERS ARISING FROM A DISORDERED LIVER. W. D. TAYLOR & Co., Bessemer, Ala. Filed June 12, 1913. Serial No. 71,079. PUBLISHED SEPTEMBER 9, 1913.

94,224. TURPENTINE. TAYLOR, LOWENSTEIN & CO., Mobile, Ala. Filed July 3, 1913. Serial No. 71,520. PUBLISHED SEPTEMBER 9, 1913.

94,225. GELATIN. TOMLINSON (INC.), Syracuse, N. Y. Filed August 14, 1912. Serial No. 65,259. PUBLISHED SEPTEMBER 2, 1913.

94,226. RUBBER BANDS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed July 14, 1913. Serial No. 71,696. PUBLISHED SEPTEMBER 9, 1913.

94,227. AXLE-GREASE, BICYCLE-OIL, AND MACHINE-OIL. C. C. TRUAX & COMPANY, Toledo, Ohio. Filed August 9, 1913. Serial No. 72,263. PUBLISHED SEPTEMBER 9, 1913.

94,228. CARBON-REMOVER, ENGINE-CLEANSER, AND SOLVENT. U. S. INDUSTRIAL ALCOHOL CO., New York, N. Y. Filed April 28, 1913. Serial No. 70,106. PUBLISHED SEPTEMBER 9, 1913.

94,229. FLOOR-WAX AND FLOOR-POLISHING MATERIAL. MARGARET ANGELA WALSH, El Paso, Tex. Filed August 8, 1913. Serial No. 72,236. PUBLISHED SEPTEMBER 9, 1913.

94,230. BAKING-POWDER. MICHAEL WARREN, San Francisco, Cal. Filed September 26, 1912. Serial No. 65,985. PUBLISHED SEPTEMBER 9, 1913.

94,231. ARTIFICIAL-STONE PRESSES AND PARTS THEREOF. PAUL WERNICKE, Ellenburg, Germany. Filed August 4, 1913. Serial No. 72,164. PUBLISHED SEPTEMBER 9, 1913.

94,232. HAIR-REMOVERS AND DEPILATORY PREPARATIONS. WHIZZ MANUFACTURING CO., Chicago, Ill. Filed July 7, 1913. Serial No. 71,591. PUBLISHED SEPTEMBER 9, 1913.

94,233. IGNITERS OF THE FRICTION OR ABRASIVE TYPE AND ACCESSORIES. WRIGHT MANUFACTURING COMPANY, Newark, N. J. Filed August 17, 1912. Serial No. 65,321. PUBLISHED SEPTEMBER 9, 1913.

DECISIONS

OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE MITCHELL.

Decided October 28, 1913.

1. APPLICATION—ELECTION MAY BE MADE BY ORIGINAL PRESENTATION OF CLAIMS.

Where an applicant presented claims for a street-sweeping device and also claims which the Examiner rejected as aggregations of a specific scraper and a specific sweeping device and after such rejection presented specific claims to the scraper, *Held* that if the Examiner was of the opinion that the scraper and sweeper constituted divisible inventions he properly required the cancellation of the latter claims.

2. SAME—SAME—REQUIREMENT FOR CANCELATION—APPEAL.

Where the Examiner required that certain claims be canceled on the ground that the applicant had elected to prosecute a divisible invention, *Held* that the Examiner's action is reviewable in the first instance by the Examiners-in-Chief.

ON PETITION.

STREET-SWEEPING MACHINE.

Mr. G. Y. Thorpe for the applicant.

Ewing, Commissioner:

This is a petition that the Examiner be directed to withdraw his requirement for cancellation and either act upon the merits of claims 6 to 9, inclusive, or enter a requirement for a division.

In the first action on the case the Examiner rejected certain claims on references in the class of street-sweepers, allowed other claims, and rejected claims 8 to 12 as aggregations of a specific scraper and a specific sweeping device.

After some prosecution applicant amended the claims held to be aggregations by eliminating therefrom all reference to the sweeping mechanism. The Examiner then required the cancellation of those claims on the ground that they constituted a different invention from the sweeping mechanism and that by the presentation of his original claims applicant had elected to prosecute the latter.

Applicant contends that he has made no election, since he always had in the case claims which include the scraping mechanism.

An election can be made by an original presentation of claims as well as after requirement for division. (*Ex parte Maddux*, 106 O. G., 764.) If the Examiner was of the opinion that claims 6 to 9 cover a different invention from that covered by original claims 1 and 2, his requirement for can-

[Vol. 196.

culation of the former was proper. (*Ex parte Weaver*, 176 O. G., 751.)

Whether, as a matter of fact, the inventions covered by these two sets of claims are divisible is a question to be passed upon in the first instance by the Examiners-in-Chief. (See decisions cited in *ex parte Weaver, supra*.)

The petition is denied.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Third Circuit.

STEVENSON v. SHALCROSS et al. SHALCROSS et al. v. STEVENSON.

Decided March 22, 1913.

205 FED. REP., 286.

1. PATENTS—VALIDITY—DOOR-FRAME.

The Stevenson patent, No. 817,199, for a door-frame, the distinctive feature of which is an angle-iron brace connecting the lower ends of the side jambs, to be embedded in a concrete floor, is void for lack of patentable invention.

2. SAME—VALIDITY AND INFRINGEMENT—DOOR MECHANISM FOR COLD-STORAGE ROOMS.

The Stevenson patent, No. 812,377, for door-frames and mechanism for air-tight compartments, consisting of devices relating to the doors and shutters of cold-storage rooms having an overhead trolley to carry the load in and out of the room, *Held* void for lack of invention as to claims 1, 2, 3, and 7 and not infringed as to claims 4 and 5.

Mr. Henry N. Paul, Jr., and *Mr. Jos. C. Fraley* for the complainant.

Mr. James L. Norris, Jr., (*Mr. John P. Croasdale* of counsel) for the defendants.

Before GRAY and BUFFINGTON, Circuit Judges, and RELLSTAR, District Judge.

BUFFINGTON, *Cir. J.*:

In the court below, Stevenson, the grantee of two patents capable of conjoint use, charged the defendants Shalcross with infringement thereof. On final hearing the court held and decreed the first patent, viz., No. 817,199, granted April 10, 1906, for a door-frame, void. Whereupon Stevenson appealed. It also held and decreed claims 4 and 5 of the second patent, No. 812,377, granted February 13, 1906,

for improvements in door frames, doors, and adjunctive mechanism for air-tight compartments,

No. 2.]

valid and infringed, and that claims 1, 2, 3, and 7 were invalid. Whereupon the Shalcrosses appeared.

(1) Turning to the first patent, we note that it—has for its object the firm bracing of the lower ends of the door jambs and the providing for a substantial threshold to be formed integrally with the concrete floor.

The means suggested for accomplishing this purpose consist of—

a door frame having the jambs thereof connected to one another at their lower ends by one or more bars, preferably angle-irons, adapted to be embedded in and covered by a concrete floor.

Stated in simple terms, the disclosure, for which the patentee claims a monopoly, was the bracing of the lower ends of door-jambs by angle-iron. Does this involve patentable novelty, or was it one of those clever expedients which naturally follow the development and needs of the industry to which it pertains? The court below was of opinion the device lacked patentability, and we have reached the same conclusion. Sinking in the ground a transverse anchor-block to keep a fence-post in line, and of a ground sill to keep the sides of a gate-frame true, are common expedients. Examples thereof may be seen in fence and gate patents. When it was desired to use a brace in concrete, there was no more patentable novelty in the conjoint use of concrete and steel than there was in other forms of construction work. Indeed, we think the language of the patentee himself in his testimony has very happily, if unconsciously, accorded his device its just measure, when, in giving an account of its origin, he said:

Owing to puzzling difficulties arising when installing some doors of the same size and kind, in the same building, prior to that time, I decided to adopt this expedient of angle-irons connecting the lower ends to avoid those troubles, and the expedient was very satisfactory.

In other words, when the difficulty was appreciated, its solution was at hand in the shape of a very simple mechanical expedient.

(2) The other patent, No. 812,377, concerns storage-chambers provided with a suspended rail on which a grooved wheel carrying the load for storage travels. For obvious mechanical reasons the horizontal swing of the door prevents the use of a slit in such door for the suspended track-rail. It was therefore customary in the prior art to provide a small opening above the door in which the track was located and the grooved wheel ran. This opening was provided with a small door or shutter hung on hinges from the top and provided with a narrow slit for the track-rail, and was adapted to swing out and up. These two doors were connected by a cord, which, without entering into details, it suffices to say so operated that when the large door was opened it pulled the small door open and up. As the tension on the cord was released by the closing of the large door, the small door dropped by gravity. Such devices were all shown in the Armour door, which the court found, and rightly so, antedated the patent. On this general form of construction the patentee sought, *inter alia*, to improve by the device embodied in the third claim, by—

having the shutter project downwardly into the port, so that it is overlapped by the upper edge of the door.

[Vol. 196.

As to this obviously merely mechanical expedient, we agree with the court below that—the overlapping lip was so old and well known that no invention was required to employ it here.

His other device is thus described in the specification:

This invention relates to doors for air-tight apartments, and more particularly to those used for cold storage apartments, and has for its object the facility of entrance and exit from such apartments with the least duration of opening of the door and the facility of introducing and removing objects by a trolley and suspended railway with a prompt opening and air-tight closing of the door and facility of adjusting the door frame to any imperfections in the form of the door.

The general means for carrying it out are disclosed as follows:

To this end this invention consists in an improved construction of adjustable door frame and doors fitting thereto and to the suspended rail and positively connected means of opening said doors and closing them, as hereinafter described.

The means disclosed are described in the fourth claim as—

actuating mechanism, substantially as set forth, operatively connecting said shutter with said door, whereby the shutter is positively opened and closed by the movement of the door in opening and closing,

and in claim 5 as—

a positive means of opening and closing said shutter from the motion of the door, and arranged to close shutter before closing the door and to open the door before opening the shutter.

In other words, the device interposed between the door and the shutter so positively connected the two that—

from start to finish of opening or closing the apartment, this intermediate mechanism alone controlled and actuated the shutter, and from its structure was constrained so to do by the movement of the door.

In other words, the shutter made no move that was not caused by the intermediate mechanism, and the door exerted no control over the shutter save through such intermediate mechanism; or, to put it in another way, this mechanism interposed between the door and the shutter made of the two a composite unitary operative structure, operatively dominated by the opening or closing of the door.

This is stated in the specification, where, substituting names for letters, the patentee in effect says: The remaining part of the slot 26 is in a circumferential direction, so that the small door is only operated at such time relatively to the large door as to always close the small door before the upper part of the large door contacts with the lower end or lip of the small door and to move the large door clear of the small door before the latter commences to open. Comparing this advance, which we assume for present purposes involved invention with the prior Armour structure, it will be seen that each of the two, when the large door is opened, constrain the opening of the small door by, to use the phraseology of claim 4, an—

actuating mechanism . . . operatively connecting said shutter with said door, whereby the shutter is positively opened—

by the movement of the door in opening. But here the resemblance ended, for when it came to closing the door the cord of the Armour device was not an actuating mechanism operatively connecting shutter and door, whereby the former is positively closed by the movement of the latter in closing.

No. 2.]

It follows, therefore, that in providing an intermediate connecting mechanism of such a character that the motion of the large door, working through such intermediate mechanism, compelled the final and therefore the effective closure of the small door, the patentee disclosed the advance wherein the patentability of his device must lie. That such an advance involved invention, we will, for present purposes, assume; but it will be obvious that the field for advance in that regard was narrow, and the claims must be so construed as not to prevent other inventors from accomplishing final and effective closure by other means. And this, it strikes us, is what the defendant has done. It is true that, in common with Armour and the patentee, he has a connecting mechanism, intermediate the door and shutter, of such character that when the door is opened the shutter opens perforce. But it is equally true that, when it comes to the final and effective closure of the shutter, such final closure is, just as in Armour, effected, not by the connecting mechanism, but by the direct engagement of the large door. Before this final, culminating act of closure, the defendants' intermediate machinery is no longer affected by the closing of the door. Physically and functionally, therefore, such actuating mechanism as the defendant employs is not, in the words of the claim—actuating mechanism . . . operatively connecting said shutter with said door, whereby the shutter is positively closed by the movement of the door in closing.

We are not moved by anything appearing in this record to hold the court below made an undue use of discretion in refusing the withdrawal from issue of claims 1 and 2.

It therefore follows, from the views set forth in the foregoing opinion, that in so far as the decree below adjudged the two claims of Patent No. 817,199, and claims 1, 2, 3, and 7 of Patent No. 812,377, were invalid, the same must be affirmed, and in so far as the said decree held claims 4 and 5 of Patent No. 812,377 were infringed, the decree must be reversed, and the case remanded, with directions to enter a decree dismissing the bill, with costs in this court and the court below.

ADJUDICATED PATENTS.

(U. S. D. C.) The Goodwin patent, No. 610,861, for a photographic-film support to be used in connection with roller-cameras, *Held* valid and infringed as to claims 1, 6, 8, 10, and 12. *Goodwin Film & Camera Co. v. Eastman Kodak Co.*, 207 Fed. Rep., 351.

(U. S. C. C. A.) The Garland and Garland patent, No. 611,900, for a process of treating and enamelling metal surfaces, *Held* valid and infringed. *Safety Armorite Conduit Co. v. Mark*, 207 Fed. Rep., 346.

(U. S. D. C.) The Barrell patent, No. 636,482, for a drier-felt for paper-machines, *Held* valid and infringed. *Barrell v. Fitchburg Duck Mills*, 207 Fed. Rep., 371.

[Vol. 196.

(U. S. D. C.) The Valvona patent, No. 701,776, for a mold for making biscuit cups used for holding ice-cream, *Held* valid, but not infringed. *Valvona-Marchiony Co. v. Perella*, 207 Fed. Rep., 377.

(U. S. D. C.) The Valvona patent, No. 701,776, for a mold for making biscuit cups used for holding ice-cream, *Held* infringed. *Valvona-Marchiony Co. v. Marchiony*, 207 Fed. Rep., 380.

(U. S. C. C.) The Valvona patent, No. 701,776, for a mold for making biscuit cups used for holding ice-cream, *Held* valid and infringed. *Valvona-Marchiony Co. v. Louisville Cone Co.*, 207 Fed. Rep., 374.

(U. S. D. C.) The Cobb patent, No. 1,009,474, for a machine for making solder-hemmed caps for cans, claims 46 and 58 *Held* valid and infringed. *Lang v. Twitckell-Champlin Co.*, 207 Fed. Rep., 363.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 7, 1913.

Frank C. McMullen, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Aktiebolaget Rotator, of 33 Storgatan, Sodertelje, Sweden, for registration of a trade-mark and Trade-Mark No. 74,099, registered June 15, 1909, to Frank C. McMullen, of 37 Kenble street, Boston, Mass., and a notice of such declaration sent by registered mail to Frank C. McMullen at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank C. McMullen, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Joseph Wassmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Voigt Brewery Co., of 203-213 Grand River avenue, Detroit, Mich., for registration of a trade-mark and Trade-Mark No. 13,648, registered September 7, 1886, to Joseph Wassmer, of New York, N. Y., and a notice of such declaration sent by registered mail to Joseph Wassmer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Joseph Wassmer, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Katherine Culver, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of J. C. Ayer Company, of 176 Middle street, Lowell, Mass., for registration of a trade-mark and Trade-Mark No. 68,514, registered April 14, 1908, to Katherine Culver, of West Jordan, Utah, and a notice of such declaration sent by registered mail to Katherine Culver at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Katherine Culver, her assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

No. 2.]

office undeliverable, notice is hereby given that unless the said Katherine Culver, her assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 31, 1913.

Louise H. Gordon, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Fountain Chemical Company, 208 North Liberty street, Baltimore, Md., for registration of a trade-mark and trade-mark registered May 22, 1888, No. 15,491, to Louise H. Gordon, 212 Columbus avenue, Boston, Mass., and a notice of such declaration sent by registered mail to said Louise H. Gordon at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Louise H. Gordon, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Fred Ippich & Treflinger, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The L. Burg Carriage Company, of Dallas City, Ill., for registration of a trade-mark and trade-mark registered May 23, 1893, No. 23,106, to Fred Ippich & Treflinger, of 400 East Seventy-third street, New York, N. Y., and a notice of such declaration sent by registered mail to Fred Ippich & Treflinger at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Fred Ippich & Treflinger, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Black Manufacturing Company, 532 First avenue south, Seattle, Wash., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, Providence, R. I., and a notice of such declaration sent by registered mail to said Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

Panama-Pacific International Exposition.

An act providing for the free importation of articles intended for foreign buildings and exhibits at the Panama-Pacific International Exposition, and for the protection of foreign exhibitors.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all articles that shall be imported from foreign countries for the purpose of exhibition, and articles and material imported solely for use in constructing, installing, and

maintaining foreign buildings and exhibits at the Panama-Pacific International Exposition upon which there shall be a tariff or customs duty shall be admitted free of the payment of duty, customs fees, or charges, under such regulations as the Secretary of the Treasury shall prescribe; but it shall be lawful at any time during the exposition to sell for delivery at the discretion of the exposition company any goods or property imported for and actually on exhibition in the exposition buildings or grounds, subject to such regulations for the security of the revenue and for the collection of import duties as the Secretary of the Treasury may prescribe: *Provided*, That all such articles when sold or withdrawn for consumption or use in the United States shall be subject to the duty, if any, imposed upon such articles by the revenue laws in force at the date of withdrawal; and on such articles as shall have suffered diminution or deterioration from incidental handling and necessary exposure the duty, if paid, shall be assessed according to the appraised value at the time of withdrawal for consumption or use, and the penalties prescribed by law shall be enforced against any person guilty of illegal sale, use, or withdrawal.

Sec. 2. That the Librarian of Congress and the Commissioner of Patents are hereby authorized and directed to establish a branch office under the direction of the Register of Copyrights and the Commissioner of Patents at the Panama-Pacific International Exposition, in suitable quarters to be furnished free of charge by the Panama-Pacific International Exposition Company, said office to be established not later than July first, nineteen hundred and fourteen, and maintained until the close of said exposition; and the proprietor of any certificate of registration, copyright, trade-mark, or patent issued by any foreign Government protecting any pattern, model, design, copyright, trade-mark, or manufactured article imported for exhibition and exhibited at said Panama-Pacific International Exposition may, upon presentation of satisfactory proof of such proprietorship, obtain without charge a certificate from said branch office, which shall be legal evidence of such proprietorship; and said branch office shall keep a register of all certificates of registration, trade-mark, or patent, and a register of all certificates of copyright issued, which shall be open to public inspection.

At the close of said Panama-Pacific International Exposition the register of certificates of registration, trade-mark, or patent shall be deposited in the United States Patent Office at Washington, District of Columbia, and the register of certificates of copyright shall be deposited in the Copyright Office of the Library of Congress at Washington, District of Columbia.

Sec. 3. That it shall be unlawful for any person without authority of the proprietor thereof to copy, imitate, reproduce, or republish any pattern, model, design, trade-mark, copyright, or manufactured article protected by the laws of any foreign country by registration, copyright, patent, or otherwise, which shall be imported for exhibition at the Panama-Pacific International Exposition, and there exhibited; and any person who shall infringe the rights protected under this act shall be liable—

(a) To an injunction restraining such infringement;

(b) To pay to the proprietor such damages as the proprietor may have suffered due to the infringement, as well as all the profits which the infringer may have made from such infringement, and in proving profits the plaintiff shall be required to prove sales only and the defendant shall be required to prove every element of cost which he claims, or in lieu of actual damages and profits such damages as to the court shall appear to be just;

(c) To deliver up on oath, to be impounded during the pendency of the action, upon such terms and conditions as the court may prescribe, all articles alleged to infringe the rights herein protected;

(d) To deliver up on oath for destruction all the infringing articles, as well as all means and devices for making such infringing articles.

Sec. 4. That any person who wilfully and for profit shall infringe any right protected under this act, or who shall knowingly and wilfully aid or abet such infringement, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by imprisonment for not exceeding one year or by a fine of not less than \$100 nor more than \$1,000, or both, in the discretion of the court.

Sec. 5. That sections twenty-five, twenty-six, twenty-seven, thirty-four, thirty-five, thirty-six, thirty-seven, thirty-eight, thirty-nine, and forty of the Copyright Act approved March fourth, nineteen hundred and nine, are hereby made applicable to civil actions authorized to be brought under the provisions of this act.

Sec. 6. That the rights protected under the provisions of this act shall begin on the date of the arrival of the pattern, model, design, copyrighted article, trade-mark, or manufactured article so imported for exhibition within the grounds of the Panama-Pacific International Exposition of San Francisco, and shall continue for a period of three years from the date of the closing of said exposition.

Approved, September 18, 1913.

[Vol. 196. No. 2.]

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 196—No. 3.

TUESDAY, NOVEMBER 18, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF NOVEMBER 18, 1913.....	529
PUBLICATION OF ADVERSE DECISIONS.....	529
PATENT No. 1,058,782—ADVERSE DECISION IN INTERFERENCE.....	529
TRADE-MARKS.....	530
APPLICATIONS UNDER EXAMINATION.....	531
PATENTS GRANTED.....	531
REISSUES.....	778
DESIGNS.....	783
TRADE-MARKS—REGISTRATION APPLIED FOR.....	789
TRADE-MARKS—REGISTERED.....	801
LABELS AND PRINTS.....	802
COMMISSIONER'S DECISIONS—	
Stier v. Marburg Brothers.....	803
Ex parte Huntley.....	803
Stoddard v. Malms v. Peterson and Peterson.....	804
DECISIONS OF THE U. S. COURTS—	
In re The Excelsior Shoe Company.....	805
ADJUDICATED PATENTS.....	805
CHANGES IN CLASSIFICATION.....	806
INTERFERENCE NOTICES.....	806

ISSUE OF NOVEMBER 18, 1913.

Patents.....	716—No. 1,078,603 to No. 1,079,318, inclusive.
Designs.....	29—No. 44,881 to No. 44,909, inclusive.
Trade-Marks.....	27—No. 94,234 to No. 94,260, inclusive.
Labels.....	27—No. 17,341 to No. 17,367, inclusive.
Prints.....	14—No. 3,414 to No. 3,427, inclusive.
Reissues.....	4—No. 13,648 to No. 13,651, inclusive.

Total..... 817

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	2	.....	North Carolina.....	2	2
Arizona.....	.....	.....	North Dakota.....	4	.....
Arkansas.....	5	.....	Ohio.....	44	5
California.....	30	7	Oklahoma.....	5	.....
Colorado.....	6	.....	Oregon.....	2	.....
Connecticut.....	18	1	Pennsylvania.....	58	6
Delaware.....	.....	.....	Rhode Island.....	11	.....
Florida.....	1	1	South Carolina.....	3	.....
Georgia.....	2	1	South Dakota.....	2	1
Idaho.....	1	.....	Tennessee.....	8	.....
Illinois.....	84	4	Texas.....	12	3
Indiana.....	17	2	Utah.....	1	.....
Iowa.....	16	.....	Vermont.....	4	.....
Kansas.....	11	1	Virginia.....	3	.....
Kentucky.....	2	.....	Washington.....	9	.....
Louisiana.....	2	.....	West Virginia.....	3	.....
Maine.....	.....	.....	Wisconsin.....	14	1
Maryland.....	9	1	Wyoming.....	1	.....
Massachusetts.....	44	6			
Michigan.....	15	3	Alaska, District of.....	.....	.....
Minnesota.....	8	4	Canal Zone.....	.....	.....
Mississippi.....	2	.....	District of Columbia.....	.....	.....
Missouri.....	29	1	Hawaii Territory.....	.....	.....
Montana.....	3	.....	Philippine Islands.....	.....	.....
Nebraska.....	3	1	Porto Rico.....	.....	.....
Nevada.....	.....	.....	U. S. Army.....	.....	.....
New Hampshire.....	1	.....	U. S. Navy.....	.....	.....
New Jersey.....	26	1			
New Mexico.....	.....	.....	Total to residents of the United States.....	653	64
New York.....	122	12			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....	1	.....	Netherlands.....	.....	.....
Austria-Hungary.....	3	.....	Newfoundland.....	.....	.....
Belgium.....	.....	.....	New South Wales.....	1	.....
British India.....	.....	.....	New Zealand.....	2	.....
Brazil.....	.....	.....	Norway.....	1	.....
British West Indies.....	.....	.....	Portugal.....	.....	.....
Canada.....	11	.....	Queensland.....	.....	.....
Cape Colony.....	.....	.....	Roumania.....	.....	.....
Chile.....	.....	.....	Russia.....	2	.....
Costa Rica.....	.....	.....	Scotland.....	1	.....
Cuba.....	3	.....	South Australia.....	.....	.....
Dominican Republic.....	24	2	Spain.....	.....	.....
England.....	6	1	Sweden.....	1	.....
France.....	31	1	Switzerland.....	.....	.....
Germany.....	.....	.....	Transvaal, South Africa.....	.....	.....
India.....	.....	.....	Victoria.....	1	.....
Ireland.....	1	.....	Wales.....	.....	.....
Italy.....	1	.....	Total to residents of foreign countries.....	92	4
Japan.....	.....	.....	
Mexico.....	2	.....		

Publication of Adverse Decisions.

(ORDER No. 2,079.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1913.

Where the claims of a patent are affected by adverse decision or concession of priority as the result of an interference, a notice as to the patented claims thus affected will be published in the OFFICIAL GAZETTE after final decision in the proceedings.

The Docket Clerk will furnish the Chief of the Issue and Gazette Division with proper information for publication in each case so decided.

THOMAS EWING,
Commissioner of Patents.

Patent No. 1,058,782—Adverse Decision in Interference.

On October 18, 1913, a decision was rendered that Franklin H. Burr was not the first inventor of the subject-matter covered by claims 5, 6, 7, 8, 9, 10, 11, 12, and 13 of his Patent No. 1,058,782, and no appeal having been taken within the time allowed such decision has become final.

Trade-Marks.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 18, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 4	Aug. 26	790
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 10	Sept. 4	726
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Oct. 10	Oct. 27	281
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	July 18	Sept. 2	848
167	5. Bookbinding; Harvesters; Jewellery; Music.	July 29	Sept. 2	661
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 21	Aug. 23	833
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 27	Sept. 13	1080
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 24	Sept. 10	1093
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 12	Oct. 2	763
235	10. Carriages and Wagons.	July 21	Sept. 2	1259
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 4	Oct. 4	420
222	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 3	July 11	1637
329	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 26	Aug. 27	766
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 5	Oct. 10	550
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 2	Aug. 15	1626
109	16. Radiant Energy; Telegraphy; Telephony.	June 25	Aug. 20	533
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Oct. 8	Oct. 8	373
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Aug. 12	Oct. 3	277
238	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 25	Sept. 19	758

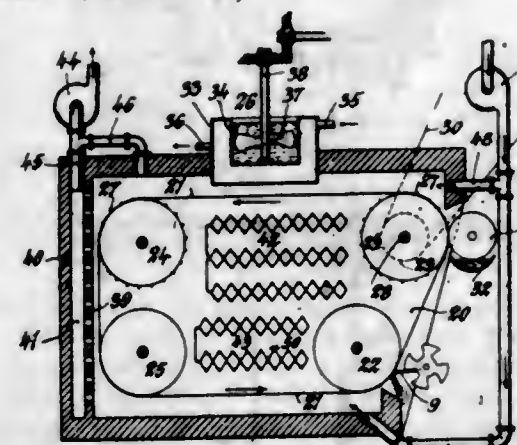
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 25	Sept. 29	322
112	21. Brakes and Gears; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	June 27	Aug. 4	729
240	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 30	Sept. 4	496
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 13	Sept. 15	597
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Sept. 6	Sept. 11	678
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Sept. 19	Oct. 10	326
106	26. Electricity; Generation; Motive Power.	June 16	July 30	699
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 10	Sept. 20	555
65	28. Internal-Combustion Engines.	Aug. 19	Sept. 12	829
147	29. Coopering; Fire-Escapes; Ladders; Rooks; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	June 23	June 17	851
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Aug. 27	Oct. 23	312
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils, Oils, Fats, and Glue.	Aug. 1	Aug. 25	492
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	July 2	Oct. 4	542
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Cans.	Aug. 29	Aug. 30	543
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Sept. 3	Sept. 6	520
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	July 24	Oct. 8	938
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Aug. 17	Aug. 26	1065
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 4	June 27	1043
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Aug. 20	1080
321	39. Water Distribution.	Aug. 6	Sept. 5	594
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 18	Sept. 20	1214
125	41. Railway Draft Appliances; Re-entrant Tires and Wheels.	Sept. 16	Sept. 9	611
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	May 23	June 16	1064
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Sept. 27	Sept. 25	329
Oldest new case, Apr. 4; oldest amended, June 16.				
Total number of applications awaiting action.....				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 13	Oct. 16	1157
	Designs.....	Sept. 27	Oct. 25	188
	Labels and Prints.....	Nov. 7	Nov. 1	82

PATENTS

GRANTED NOVEMBER 18, 1913.

1,078,603. MACHINERY FOR DRYING MILK AND SIMILAR FOOD. JENS OLE ANTONIO AMUNDSEN, Stavanger, Norway. Filed Apr. 30, 1912. Serial No. 694,249. (Cl. 127-9.)



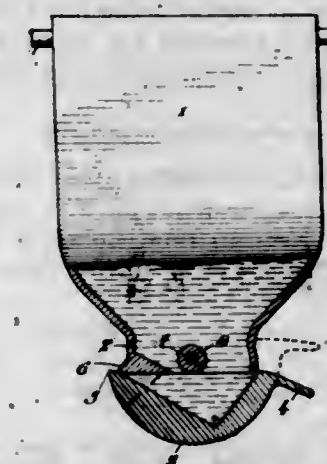
1. In an apparatus for drying fluid substances, etc., the combination of a drying chamber having a large opening in the front end thereof, an endless metal band passing into said chamber and partially closing said opening, means for feeding fluid to the ingoing portion of the band, means for scraping off the dried product from the outcoming portion of the band, pipes for blowing in superheated air at the front part of the chamber in parallel-current direction to the ingoing portion of the band, pipes for blowing in superheated air at the front part of the chamber in counter-current direction to the outcoming portion of the band, and outlet pipes for withdrawing the moist air from the rear end of the chamber.

2. In an apparatus for drying fluid substances, etc., the combination of a drying chamber having a large opening in the front end thereof, and double wall in the rear end thereof, the inner one of said walls being perforated, an endless metal band passing into said chamber and partially closing said opening, means for feeding fluid to the ingoing portion of the band, means for scraping off the dried product from the outcoming portion of the band, pipes for blowing in superheated air at the front part of the chamber in parallel-current direction to the ingoing portion of the band, pipes for blowing in superheated air at the front part of the chamber in counter-current direction to the outcoming portion of the band, and outlet pipes for withdrawing the moist air from the rear end of the chamber, one outlet pipe being inserted into the space between the double rear wall parts of the chamber, and another outlet pipe being inserted through the top wall of the chamber near its rear end.

3. In an apparatus for drying fluid substances, etc., the combination of a drying chamber having a large opening in the front end thereof, an endless metal band passing into said chamber and partially closing said opening, rollers for supporting the band, two of which are located in the said large opening, so as to provide between them a freely locating straight portion of the band, means for feeding milk to the said straight band portion near its ingoing portion; means for scraping off the dried product from the straight band portion near its outcoming portion, pipes for blowing in superheated air at the front part of the chamber in parallel-current direction to the ingoing portion of the band, pipes for blowing in superheated air at the front part of the chamber in counter-current direction to the outcoming portion of the band, and outlet pipes for withdrawing the moist air from the rear end of the chamber.

4. In an apparatus for drying fluid substances, etc., the combination of a drying chamber having a large opening in the front end thereof, and a double wall in the rear end thereof, the inner one of said walls being perforated, an endless metal band passing into said chamber and partially closing said opening, rollers for supporting the band, two of which are located in the said large opening, so as to provide between them a freely locating straight portion of the band, means for feeding milk to the said straight band portion near its ingoing portion, means for scraping off the dried product from the straight band portion near its outcoming portion, pipes for blowing in superheated air at the front part of the chamber in parallel-current direction to the ingoing portion of the band, pipes for blowing superheated air at the front part of the chamber in counter-current direction to the outcoming portion of the band, and outlet pipes for withdrawing the moist air from the rear end of the chamber, one outlet pipe being inserted into the space between the double rear wall parts of the chamber, and another outlet pipe being inserted through the top wall of the chamber near its rear end.

1,078,604. SANITARY RECEPTACLE. WARREN A. BALL, Salem, Ohio. Filed Sept. 19, 1911. Serial No. 650,274. (Cl. 221-94.)



1. The combination with a portable sanitary receptacle which has a reduced extension and is open only at the end of said extension, of a releasing cup having side walls which are pivoted to the side walls of said extensions, the releasing cup conforming in shape to the extension which it closely overlies on all sides and being constructed and proportioned to project from its pivot in a normal position wherein it closes the outer end of said extension against the escape of the liquid contents of said receptacle.

2. The combination with a portable sanitary receptacle which has a reduced extension and is open only at the end of said extension, the latter having a projecting lip, of a releasing cup having side walls which are pivoted to the side walls of said extension and having also a spout lying adjacent the lip, and a projecting handle at the end thereof opposite the spout, the releasing cup conforming in shape to the extension which it closely overlies on all sides and being arranged to project from its pivot in a normal position of stable equilibrium wherein it closes the outer end of said extension against the escape of the liquid contents of said receptacle.

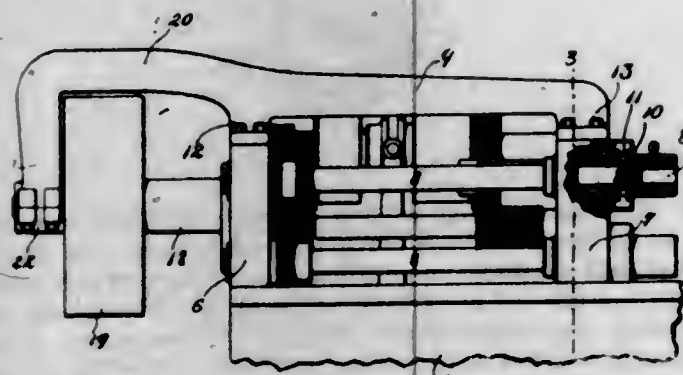
1,078,605. GUY-CLAMP. JASPER BLACKBURN, Kirkwood, Mo. Filed Jan. 2, 1912. Serial No. 668,806. (Cl. 24—136.)



1. In a guy clamp, the combination with a socket having an integral anchor hook, and transversely aligning pin seats, one of the seats being a marginal depression in one wall of the socket and the other seat being a slot in the opposite wall of the socket and extended lengthwise of the socket, of a wedge-shaped block arranged to be embraced by said socket and adapted to be inclosed in a loop in a cable, there being an opening formed through said block, of a pin arranged to be inserted through said opening and held in place by engagement with said seats to retain the wedge-shaped block in a non-clamping position relative to the socket, and a guide carried by the block and traversing the slot to hold the block in alignment with the socket.

2. In a guy clamp, the combination with a wedge-shaped block and a socket to embrace the block, each having openings therethrough, of a tapering pin arranged to be extended through the openings in the block and socket, and means carried by the tapering pin to hold it in place in the block and socket, substantially as shown and for the purposes stated.

1,078,606. BEARING MECHANISM. ROBERT S. BROWN, New Britain, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a Corporation of Connecticut. Filed July 5, 1912. Serial No. 707,658. (Cl. 29—38.)

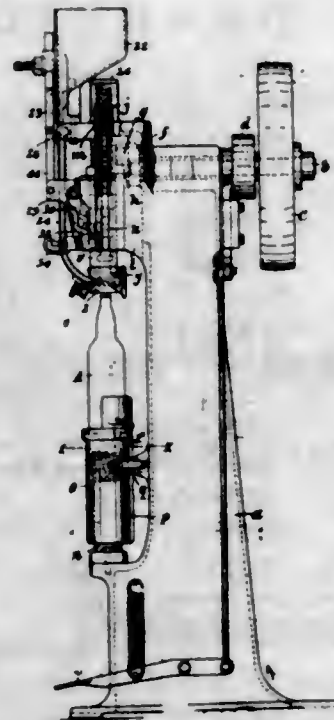


The combination of a bed, supports rigid with and rising from the bed, a spindle sustained by the supports, a shaft carried by the outer support, and a bridge member tying together the two supports and provided with a bearing portion for said shaft.

1,078,607. BOTTLE-SEALING MACHINE. AMOS CALLESON, Brooklyn, N. Y., assignor to Benjamin Adrance, Brooklyn, N. Y. Filed Jan. 24, 1912. Serial No. 673,170. (Cl. 113—114.)

1. A sealing mechanism including, in combination, a container-thrust-assuming member movable thrustwise and having means to receive the impact of the container,

another thrust-assuming member, a detent interlocking said members together and opposing thrust-movement of the first member relatively to the second member, said detent being movable, and normally impelled, into unlocking relation to said members, and a container-actuated controlling member normally opposing but movable to allow unlocking movement of the detent and also having means to receive the impact of the container, substantially as described.



2. A sealing mechanism including, in combination, a container-thrust-assuming and sealing member movable thrustwise, another thrust-assuming member, a detent interlocking said members together and opposing thrust-movement of the first member relatively to the second member, said detent being movable, and normally impelled, into unlocking relation to said members, and a container-actuated controlling member normally opposing but movable to allow unlocking movement of the detent, substantially as described.

3. In combination, a container-thrust-assuming member movable thrustwise, a controlling member movable thrustwise substantially longitudinally of the thrust-line of the first member, another thrust-assuming member, a detent movable in the first member crosswise of said thrust-line into opposed relation to one and unopposed relation to the other of the second and third members and vice versa, said detent and the second member having co-engageable surfaces one of which is oblique to the thrust-line and said detent and the third member having co-engageable surfaces one of which is likewise oblique to said thrust-line and said oblique surfaces being disposed at an angle to each other, substantially as described.

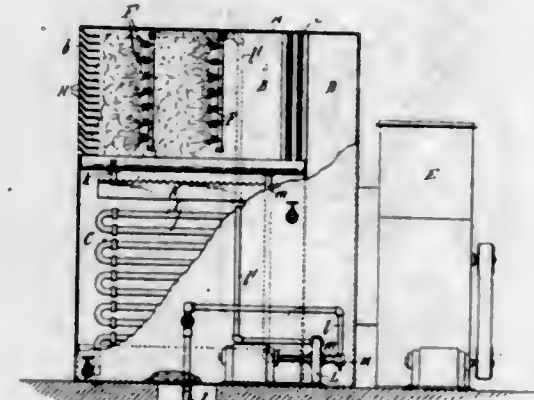
4. In combination, a thrust-assuming member, a container-thrust-assuming member movable thrustwise in the first member and having a bore extending longitudinally of its thrust-line, a controlling member arranged and movable longitudinally in and guided by said bore, and a detent movable in the second member crosswise of said thrust-line into opposed relation to the first member and unopposed relation to the controlling member and vice versa, said detent and said first member having co-engageable surfaces one of which is oblique to the thrust-line and said detent and the third member having co-engageable surfaces one of which is likewise oblique to said thrust-line and said oblique surfaces being disposed at an angle to each other, substantially as described.

5. In combination, a container-thrust-assuming member movable thrustwise, another thrust-assuming member, a detent movable in the first member crosswise of its thrust-line into opposed relation to the second member, said detent and second member having co-engageable surfaces one of which is oblique to said thrust line, and a controlling member having wiping contact with and holding the detent in opposed relation to said second member

and movable independently of the first member longitudinally of the thrust-line out of holding relation to said detent, substantially as described.

(Claims 6 to 15 not printed in the Gazette.)

1,078,608. AIR-COOLING APPARATUS. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed Jan. 19, 1912. Serial No. 672,152. (Cl. 62—22.)



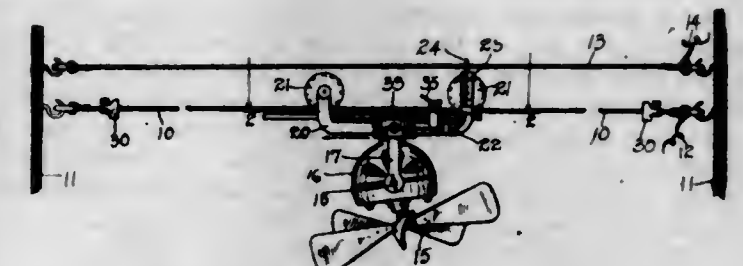
1. In apparatus for cooling air, the combination of a casing divided by a transverse partition into an upper spray chamber through which the air passes and a lower liquid cooling chamber through which the air does not pass, means for causing air to flow through said spray chamber, means for spraying liquid into said spray chamber to cool the air, liquid cooling coils in said cooling chamber, distributing troughs located above said cooling coils for distributing liquid over said coils, said partition forming a collecting basin for the liquid sprayed into said spray chamber and the condensed moisture, pipes extending from the bottom of said spray chamber, the ends of said pipes being immersed in the water in said distributing troughs whereby a water seal is formed between said spray and cooling chambers to prevent the passage of heat from one to the other, and means for returning the cooled liquid from said cooling chamber to said spraying means, substantially as set forth.

2. In apparatus for cooling air, the combination of a casing having a vertical partition dividing off a portion of the casing at one end thereof, and a horizontal partition dividing the part of the casing at one side of said vertical partition into upper and lower chambers, the end wall of said upper chamber having an air inlet formed therein, the opposite end of said upper chamber opening into the space divided off by said vertical partition, spray devices located in said upper chamber, liquid cooling coils located in the chamber below said horizontal partition, connections from the bottom of said upper chamber to the upper portion of said lower chamber, whereby the spray liquid flows by gravity from said upper chamber downwardly over said cooling coils, means for returning the cooled liquid from said cooling chamber to said spray devices, a fan located adjacent to said casing, and a connection from the suction side of said fan to the lower end of the part of said casing divided off by said vertical partition, substantially as set forth.

3. In apparatus for cooling air, the combination of a casing having a horizontal partition therein extending part way across the casing and dividing the same into upper and lower chambers, the front wall of said casing above said partition being open and having baffle plates mounted therein, a vertical partition mounted in said casing and extending up to the rear edge of said horizontal partition, said vertical partition shutting off said lower chamber from a vertical air space at the end of said casing, an eliminator comprising upright eliminator plates mounted at the rear end of said upper chamber and between the same and said vertical air space, spray pipes having spray heads in said upper chamber arranged to discharge toward the baffle plates at the front of said chamber, liquid cooling coils mounted in said lower chamber, connections from the bottom of said upper chamber to

the upper portion of said lower chamber, whereby the spray liquid flows by gravity from said upper chamber downwardly over said cooling coils, means for returning the cooled liquid from said lower chamber to said spray pipes, and an air outlet at the lower portion of said vertical air space, substantially as set forth.

1,078,609. TRAVELING FAN. CARLTON CHANEY, Glenwood, Ind. Filed Nov. 7, 1912. Serial No. 729,961 (Cl. 230—1.)



1. The combination of a horizontal track, and an electric fan mechanism adapted to travel thereon and having a fan arranged to maintain the fan at an inclination from a horizontal position, whereby the fan will cause the fan mechanism to travel on the track.

2. The combination of a horizontal track, an electric fan, means adapted to travel on the track and support the fan, and means for maintaining the fan at an inclination from a horizontal position, whereby the fan will propel itself on the track.

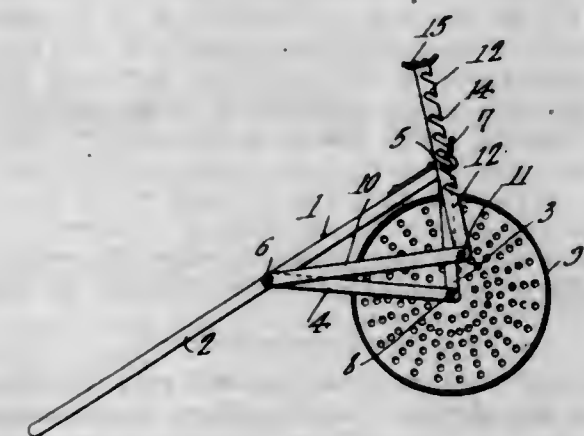
3. The combination of a horizontal track, a traveling hanger thereon, an electric fan flexibly suspended from said hanger, and means for adjusting the fan at an inclination from a horizontal position.

4. The combination of a single horizontal track, a hanger to travel thereon, an electric motor centrally suspended from the hanger, a single fan driven by said motor, and means for clamping the motor to the hanger for maintaining the fan at an inclination from a horizontal position.

5. The combination of a single horizontal track, a hanger to travel thereon yoke-shaped at its lower end, an electric motor mounted in said yoke, a fan driven by said motor, and a clamp for clamping the motor to the yoke so as to maintain the fan at an inclination from a horizontal position.

(Claims 6 to 13 not printed in the Gazette.)

1,078,610. WAGON-JACK. GEORGE L. CHITWOOD, Conway Springs, Kans. Filed Mar. 14, 1913. Serial No. 754,319. (Cl. 57—43.)



1. A wagon jack comprising a support; a frame pivoted to the support; a standard engaged intermediate its ends with the support; and a link connecting the lower end of the standard with the frame.

2. A wagon jack comprising a support; a frame pivoted to the support; a standard; a link connecting the lower end of the standard with the frame; and interengaging elements upon the standard and the frame to provide for a vertical, step-by-step adjustment of the standard.

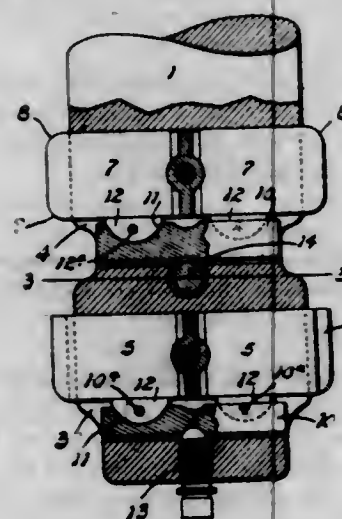
3. A wagon jack comprising a frame; a wheel journaled for rotation in the frame and located at one end of the frame; a standard; interengaging elements upon the standard and the frame; and a link connecting the lower end of the standard with the frame.

4. A wagon jack comprising a lever; an upright located adjacent one end of the lever; a wheel journaled at the lower end of the upright; a projection outstanding from the lever adjacent the point of juncture between the upright and the lever; a standard having means for engaging the projection; and means for connecting the standard with the lever.

5. A wagon jack comprising a lever; an upright located adjacent one end of the lever; a pin connecting the upright with the lever; a brace; a securing element connecting the brace with the lever; a shaft connecting the brace with the upright; a wheel journaled for rotation on the shaft; a link pivotally mounted upon the securing element; a standard pivoted to the link; and means upon the standard for engagement, adjustably, with the pin.

[Claim 6 not printed in the Gazette.]

1,078,611. BORING-TOOL. EMERY E. DAVIS, St. Louis, Mo., assignor to Matthews-Davis Tool Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Dec. 16, 1910, Serial No. 597,687. Divided and this application filed July 10, 1911. Serial No. 637,846. (Cl. 77-58.)



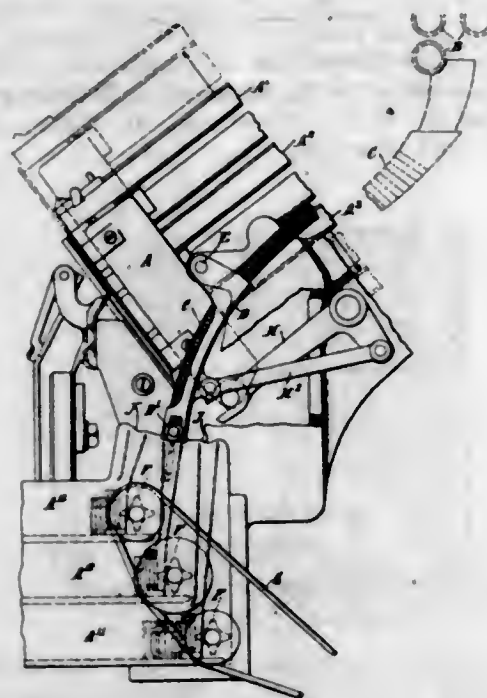
In a boring tool, a slotted body, a pair of cutters adjustably positioned in the slot in said body, a block positioned in the slot below said cutters, which block is provided in its top with a pair of recesses having curved bottoms, gibs mounted in said recesses, which gibs have curved under faces adapted to engage the curved bottoms of the recesses, and which gibs project a substantial distance beyond the face of the block so as to engage the undersides of the cutters independently of said block, said gibs being provided with transverse apertures, pins having their ends seated in the block to the sides of the recesses therein, which pins pass through the apertures in the gibs, said apertures being substantially larger in diameter than said pins, and a screw seated in the body and bearing against the underside of the block for forcing the same toward the cutters to cause the outer face of the gibs to engage the adjacent faces of the cutters.

1,078,612. PI-STACKING DEVICE FOR TYPOGRAPHICAL MACHINES. NORMAN DODGE, East Orange, N. J., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 7, 1911. Serial No. 653,443. (Cl. 190-7.)

1. In a typographical machine, the combination of a plurality of movable magazines, a corresponding plurality of adjustable pi-stacking devices, and connections whereby the movement of the magazines effects the adjustment of the pi-stacking devices.

2. In a typographical machine, the combination of a plurality of movable magazines, a corresponding plurality

of movable pi-sticks or receptacles, and connections whereby the movement of the magazines effects the movement of the said sticks or receptacles.



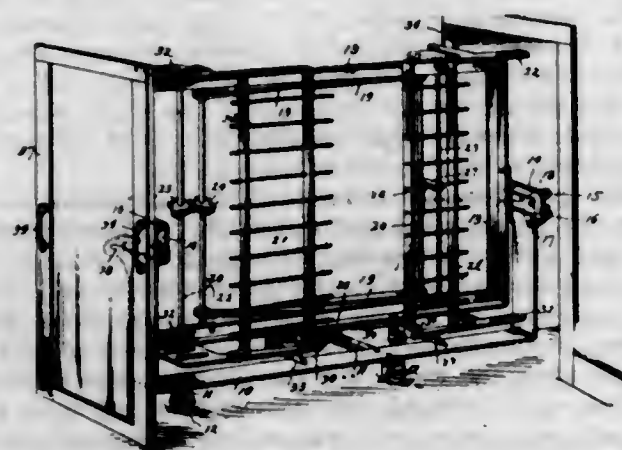
3. In a typographical machine, the combination of a plurality of movable magazines, a plurality of adjustable pi-stacking devices, and connections whereby the movement of any selected magazine to operative position effects the similar adjustment of the corresponding pi-stacking devices.

4. In a typographical machine, the combination of a plurality of magazines, a corresponding plurality of adjustable pi-stacking devices, and means whereby a selected magazine may be brought into operative relation to the other parts and a corresponding pi-stacking device simultaneously adjusted.

5. In a typographical machine, the combination of a plurality of magazines, and a corresponding plurality of adjustable pi-stacking devices, comprising a plurality of pi-sticks or receptacles and a common means for delivering the type or matrices thereto, with means whereby a selected magazine may be brought into operative relation to the other parts and simultaneously the corresponding stick or receptacle connected to the common delivering means.

[Claims 6 and 7 not printed in the Gazette.]

1,078,613. FOLDING BED. ROBERT F. CORNEIL, San Diego, Cal. Filed Jan. 7, 1913. Serial No. 740,659. (Cl. 5-9.)

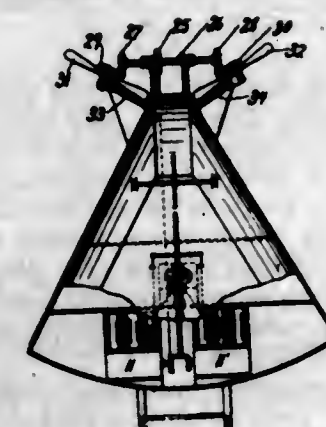


1. The combination of a supporting frame having vertical members, a bed frame pivotally attached thereto, the pivotal connection being above the center of gravity of the bed when in a horizontal position for use, said pivotal connection comprising for each vertical member a pair of separated studs, and a slot in the vertical member.

2. The combination of a supporting and transporting frame having vertical members, a bed frame pivotally attached thereto, a head board pivoted to said bed frame, a foot board pivoted to said bed frame, supporting legs pivoted to the bed frame, and operative connections between the head board and one set of legs and the foot board and the other set of legs.

3. The combination of a supporting and transporting frame having vertical members, a bed frame pivotally attached thereto, a head board pivoted to said bed frame, a foot board pivoted to said bed frame, supporting legs pivoted to the bed frame, and operative connections between the head board and one set of legs and the foot board and the other set of legs, the head board and foot board, respectively, having side plates situated to engage and confine bed clothes.

1,078,614. AERONAUTICAL APPARATUS. ADOLF DONATH, New York, N. Y. Filed Dec. 11, 1912. Serial No. 736,070. (Cl. 244-6.)



1. In an apparatus of the class described, a body portion comprising an outer casing, separate gas containers within the upper portion of said outer casing, a power plant located centrally within the lower part of said outer casing and controlling means within reach of the operator at the forward part of the lower portion of said outer casing, said outer casing of substantially triangular cross section, and propellers at the top of said apparatus upon axes substantially parallel with the outer walls thereof, and means in combination with said power plant for driving said propellers.

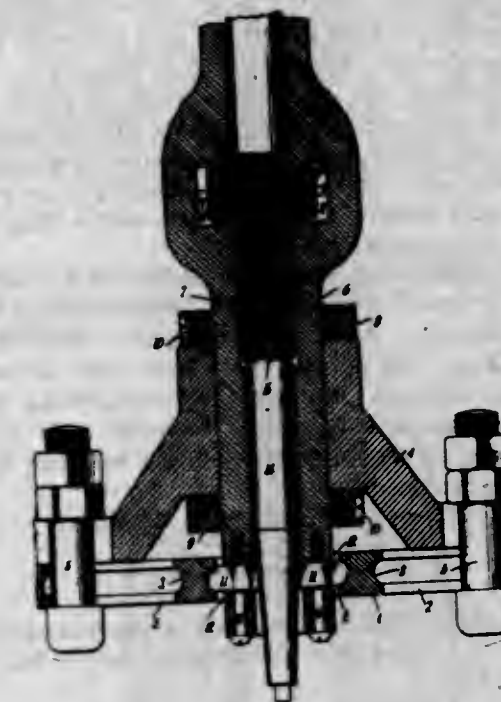
2. In an apparatus of the class described, a body portion comprising an outer casing, separate gas containers within the upper portion of said outer casing, a power plant located centrally within the lower part of said outer casing and controlling means within reach of the operator at the forward part of the lower portion of said outer casing, said outer casing of substantially triangular cross section, propellers at the top of said apparatus upon axes substantially parallel with the outer walls thereof, means in combination with said power plant for driving said propellers, and a propeller at the stern of said apparatus in combination with steering and elevating means therefor.

1,078,615. JOINTING APPARATUS FOR BOILER-TUBES. SAMUEL AUSTIN DUGAN, Gorgona, Canal Zone. Filed Mar. 27, 1912. Serial No. 686,602. (Cl. 77-76.)

1. Jointing apparatus for boiler tubes, comprising a hollow shaft, radially extensible cutters carried by said shaft, a spindle mounted in said hollow shaft and having a tapered section to engage the inner ends of said cutters and move the same outward, said spindle having screw threads thereon, an adjusting nut carried by said spindle and engaging said threads and located in a recess in said hollow shaft to control the position of said spindle with respect to the said shaft to move the cutters outward, and means for mounting said shaft in operative relation with respect to a perforated tube sheet, whereby when the shaft is turned a groove can be cut in the walls of the perforations of said tube sheet.

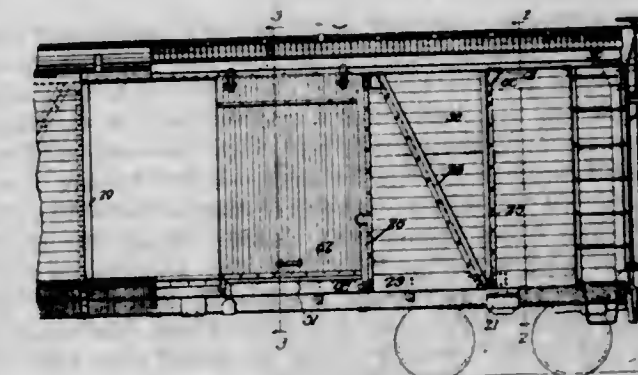
2. Jointing apparatus for boiler tubes, comprising a shaft, laterally-extending cutters carried by said shaft,

means for mounting said shaft, said mounting means forming a bearing, collars on said shaft to prevent longitudinal movement thereof with respect to said bearing, and means for securing said mounting means to a perforated tube sheet, so that the said cutters can form grooves in the edges of the perforations in said sheet.



3. Jointing apparatus for boiler tubes, comprising a base, means for securing said base to a tube sheet having apertures therein, said base having a bearing, a shaft mounted therein, radially-extending cutters carried by said shaft and adapted to extend into the apertures, a spindle engaging said cutters to move them outward, said spindle having screw-threads thereon, and an adjusting nut carried by said spindle to engage said threads to control the position of said spindle with respect to the shaft to control the outward movement of said cutters, whereby when the shaft is turned a groove can be cut in the walls of the apertures.

1,078,616. BOX-CAR. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 18, 1912. Serial No. 732,061. (Cl. 105-192.)



1. In a railway-car, the combination of a steel-skeleton composed of under-framing, side-posts, end and side plates, corner-posts, said end and side-plates being of Z-bar construction, means for attaching the projecting flanges of said end and side plates at their ends, a single sheathing applied interiorly of said steel-skeleton, and a roof-structure, substantially as described.

2. In a railway-car, the combination of a steel-skeleton composed of under-framing, verticals, diagonals, end-posts, end and side-plates, all said verticals, diagonals and plates being of Z-bar construction, a flange of the Z-bar side and end plates projecting outwardly in such manner as to provide means for attachment to said verticals, a roof-structure, and a single interior sheathing, substantially as described.

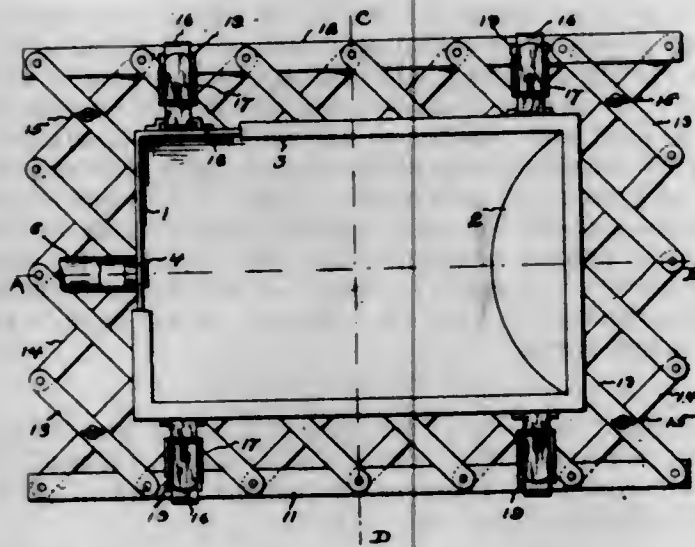
3. In a railway-car, the combination of a steel-skeleton composed of under-framing, verticals, diagonals, end-posts, end and side-plates, the upper ends of all said verticals, diagonals, and end-posts terminating below the lower edge of said end and side-plates, slotted connecting-plates therefor, a single interior sheathing, bolts passed through said sheathing and the slots in said plates whereby relative movement between said sheathing and plates is permitted, and a roof-structure, substantially as described.

4. In a railway-car, the combination of a steel-skeleton composed of under-framing Z-bar side and end-posts, Z-bar top-plates, the upper ends of said posts terminating short of the lower edge of said plates, angle-plates connecting said posts and sills, a roof-structure, and a single interior sheathing, substantially as described.

5. In a railway-car, the combination of a steel-skeleton composed of under-framing, said under-framing including angular side-sills, Z-bar vertical posts secured to said side-sills, Z-bar top-plates, the upper ends of said posts terminating beneath the outwardly-projecting flange of said plates, connecting-means between said posts and plates, a roof-structure, and a single interior sheathing, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,078,617. BED-TUB. ELIZABETH A. M. GALLAGHER, New York, N. Y. Filed Nov. 27, 1912. Serial No. 733,838. (Cl. 4—27.)



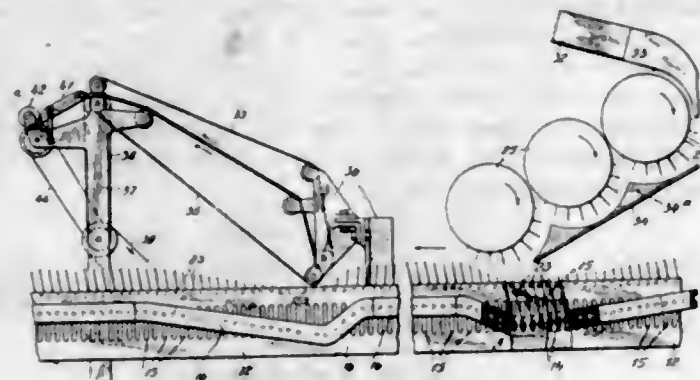
1. The combination with a rigid tub substantially semi-circular in cross section; of a separable folding or collapsible base member to support the same, of greater width than said tub, and upon which said tub may be rolled, and when in its upright position rest with the bottom thereof upon said base member, said base member having several members, all of which move in substantially the same plane while being opened and closed; means for holding said base member in an open position; and means for securing said tub in an upright position upon said base member, said means being upon each side of said tub, connected at one end to the tub and at the other end to a part upon the base member adjacent to the outer edge thereof when said base member is in a locked open position.

2. In a device of the character described, the combination with a rigid tub; of a folding or collapsible base member to support the same and upon which rests the bottom of said tub; comprising parallel side bars, cross bars connecting said side bars, pivoted at their outer ends to one of said cross bars, and together at the inner ends, all of said bars moving in substantially the same plane while being opened or closed.

3. In a device of the character described, the combination with a rigid tub; of a folding or collapsible base member to support the same and upon which rests the bottom of said tub, comprising substantially parallel side bars, cross bars connecting said side bars, pivoted at their outer ends to one of said cross bars, and together at the inner ends, all of said bars moving in substantially

the same plane while being opened or closed; and a member upon each side of said tub separably securing the same to said side bars.

1,078,618. COMBING-MACHINE. JOHN GOOD, New York, N. Y. Filed Feb. 27, 1911, Serial No. 611,114. Renewed May 14, 1913. Serial No. 767,719. (Cl. 19—24.)



1. In a combing machine, a moving grid, a plurality of combing pins moving therewith, and means for imparting to said pins simultaneously with such movement two other movements, viz. a substantially endwise movement relatively through the grid and an angular movement.

2. In a combing machine, an endless train of upright combing pins, an endless moving grid through which such pins may project to engage the fiber, and means for producing relative movement between the grid and pins to doff the fiber from the latter.

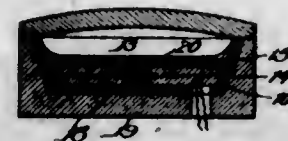
3. A combing machine comprising a flat and substantially horizontal grid forming a fiber table and means for moving the same, a train of upright combing pins projecting through the grid into the fiber thereon, and means for moving the pins relatively to the table to doff the fiber therefrom.

4. A combing machine comprising an extended flat fiber table and means for driving it, a train of pins projecting through the table, and means for feeding fiber to the projecting pins, in combination with means for producing relative movement between the pins and the table to free the pins from the fiber thereon and means for discharging such freed fiber from the table.

5. In a combing machine, a fiber table, a moving train of gill bars having combing pins projecting through the table, and means for feeding fiber to the projecting pins, said gill-bars having dogs in the form of crank arms and provided with a guideway coöperating with said dogs to maintain the rake of the pins during the movement of the train.

[Claims 6 to 31 not printed in the Gazette.]

1,078,619. ELECTRIC FURNACE. ALBERT E. GREENE, Chicago, Ill. Filed Jan. 23, 1911. Serial No. 604,014. (Cl. 204—64.)



1. In an electric furnace, the combination with a furnace chamber, of a transformer having a primary and a secondary coil both constituting resistors and arranged in proximity to said chamber, whereby heat generated in said primary and secondary coils is conducted to the charge in the furnace chamber.

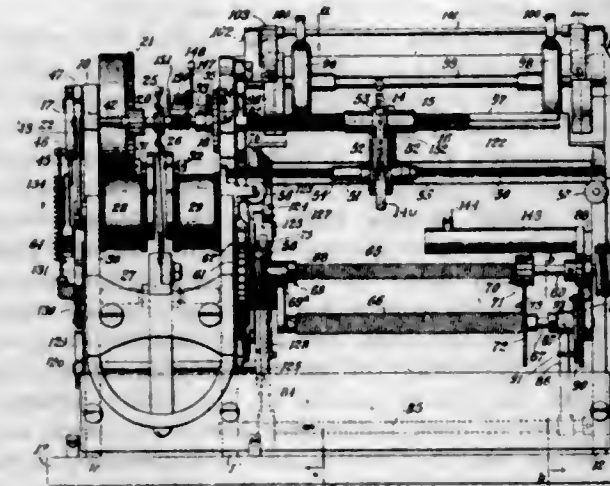
2. In an electric furnace, the combination with a furnace chamber, of electric resistors constituting the primary circuit for an alternating electric current flow, electrical resistors arranged in inductive relation to said primary circuit and thereby constituting the secondary circuit, said electrical resistors being arranged in proximity to said furnace chamber; whereby heat developed in said resistors is transformed to the charge in said furnace.

3. In an electric furnace, the combination with a furnace chamber, of a primary winding having its turns embedded in the walls of said chamber and distributed in parallel relation to the interior surface of said chamber, a magnetic core encircled by said primary winding, and a secondary winding likewise embedded in the walls of said chamber in parallel relation to the interior surface of said chamber.

4. In an electric furnace, the combination with a furnace chamber, of a primary winding having its turns embedded in the bottom wall of said chamber, and a metallic core likewise embedded in the bottom wall of said furnace and having a central, vertical portion concentric of the coils of said primary winding and a plate-shaped upper portion, said plate-shaped portion likewise constituting a secondary circuit.

5. In an electric furnace, the combination with a furnace chamber, of a primary winding having its turns embedded in the bottom wall of said chamber, of a secondary consisting of an upper part 15 and a lower part 16, said parts 15 and 16 likewise constituting a magnetic circuit.

1,078,620. PRINTING-TELEGRAPH RECEIVER. GEORGE S. HILTZ, New York, N. Y., assignor to The Stock Quotation Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 21, 1912. Serial No. 685,145. (Cl. 178—142.)



1. In a printing telegraph receiver, in combination, type wheel setting means including an actuating electromagnet; a circuit therefor; mechanism for taking impressions from the type wheel including an overloaded electromagnet in said circuit; and a power electromagnet in the same circuit and operatively connected with the said mechanism.

2. In a printing telegraph receiver, in combination, type wheel setting means, including an electromagnet; mechanism for taking impressions from the type wheel and mechanism for effecting the letter spacing, including an overloaded electromagnet in circuit with the first named magnet; and a power electromagnet in circuit with the first named and operatively connected with the said mechanisms.

3. In a printing telegraph receiver, in combination, type wheel setting means, including an electromagnet energizable by current of either polarity; printing mechanism, including an overloaded electromagnet energizable by current of either polarity; a power electromagnet having a relatively large time-constant and energizable by current of either polarity; and a single energizing circuit for all said electromagnets.

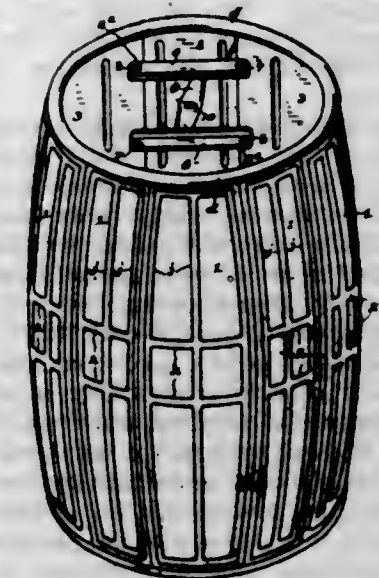
4. In a printing telegraph receiver, in combination, a type wheel; means for rotating the type wheel step by step, including an electromagnetic escapement operating on current of alternating polarity; printing mechanism, including an overloaded electromagnet energizable by current of either polarity; a power electromagnet of relatively large time constant and energizable by current of either polarity; and a single energizing circuit for all the electromagnetic instrumentalities.

5. In a printing telegraph receiver, in combination, a type wheel; means for setting the same to bring a de-

sired character to the impression point; mechanism for shifting the type wheel from an initial position to effect the letter spacing; mechanism for returning the type wheel to its initial position; an overloaded electromagnet associated with said mechanisms to actuate the same; a power electromagnet of relatively large time constant in circuit with the first named magnet; paper feed-mechanism to effect the line spacing; an actuating electromagnet therefor, and normally out of circuit with the first two named electromagnets; and means for cutting the last named magnet into circuit with the first two when the type wheel returning mechanism is actuated.

[Claims 6 to 19 not printed in the Gazette.]

1,078,621. KNOCKDOWN METAL BARREL. HENRY A. HOUSE, Bridgeport, Conn. Filed Jan. 6, 1910. Serial No. 536,728. (Cl. 220—4.)



1. A hoopless metallic bilge barrel comprising duplicate staves having their longitudinal edges provided with grooves and projections that extend longitudinally of said edges, the grooves and projections of adjoining staves being adapted to be interlocked by relative longitudinal movements of the staves, and heads engaging the ends of the staves.

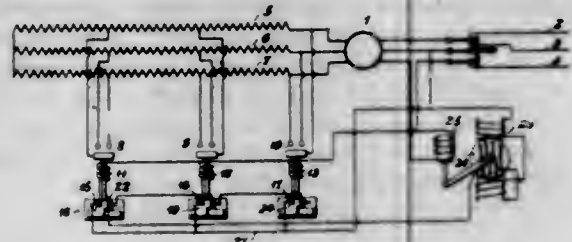
2. A hoopless metallic knockdown bilge barrel comprising duplicate staves having their longitudinal edges shaped for interlocking engagement with adjoining staves, said staves being provided with external integral outwardly projecting ribs that parallel the longitudinal edges of the staves and prevent the joined portions of the staves contacting with the surface upon which the barrel rests, and means for closing the ends of the barrel.

3. A hoopless metallic knockdown bilge barrel comprising duplicate staves detachably connected at their longitudinal edges, each stave having outwardly projecting external integral ribs arranged in parallel relation to and adapted to shield the points of connection of the staves, said staves being provided with centrally disposed transversely extending external bearing ribs, and means for closing the ends of the barrel.

4. A hoopless metallic knockdown bilge barrel comprising duplicate staves having their longitudinal edges provided with return bends forming grooves and projections that extend longitudinally of said edges, said grooves being open at their ends to permit adjoining staves to be interlocked by aligning the grooves and projections thereof and relatively moving the staves longitudinally, and closing means adapted to engage the ends of the staves.

5. A hoopless metallic knockdown bilge barrel comprising duplicate staves adapted for interengagement at their longitudinal edges by relative longitudinal movement of the staves, said staves having their ends outwardly curved to provide continuous chimes when the staves are assembled, and heads provided with flanges shaped complementally to and adapted for interlocking engagement with said chimes to retain the staves assembled.

1,078,622. SYSTEM OF CONTROL. HENRY D. JAMES, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 19, 1910. Serial No. 582,657. (Cl. 172-289.)



1. A system of control comprising a circuit, a plurality of separately actuated switches, coils governing the operation thereof, interlocking switches actuated by the aforesaid switches and severally controlling the circuits of the coils of the next succeeding switches, a voltage-generating device in series with the said coils, and means actuated in response to variations in the current traversing said circuit for governing the operation of the voltage-generating device.

2. A system of control comprising a circuit, a plurality of separately actuated switches, coils governing the operation thereof, interlocking switches actuated by the aforesaid switches and severally controlling the circuits of the coils of the next succeeding switches, a voltage-generating device in series with the said coils, and means for causing the voltage-generating device to diminish the voltage applied to the said coils when the current traversing the said circuit exceeds a predetermined amount.

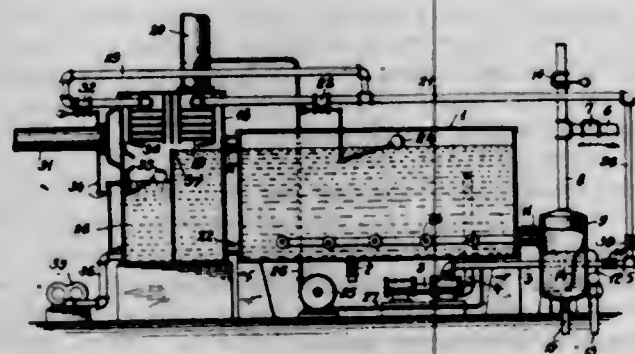
3. A system of control comprising a main circuit, a plurality of separately actuated switches, coils governing the operation thereof, means for applying a voltage to the circuit of said coils, a voltage-generating device in series with the coils, and means for causing the voltage-generating device to apply a counter voltage to the circuit of said coils when the current traversing the main circuit exceeds a predetermined amount.

4. A system of control comprising a main circuit, a plurality of separately actuated switches, coils governing the operation thereof, means for applying a voltage to the circuit of said coils, and means for applying an opposing voltage to the circuit of said coils when the current traversing the main circuit exceeds a predetermined amount.

5. A system of control comprising a main circuit, a plurality of separately actuated switches, coils governing the operation thereof, an actuating and a retaining circuit therefor, a voltage-generating device in series with the actuating circuit, and means for causing the voltage generator to oppose the voltage of the actuating circuit when the current traversing the main circuit exceeds a predetermined amount.

[Claims 6 to 9 not printed in the Gazette.]

1,078,623. WATER-HEATING APPARATUS. JOHN C. JONES, JOSEPH W. GAMBLE, and HORACE E. SIBSON, Philadelphia, Pa., assignors to Harrison Safety Boiler Works, Philadelphia, Pa., a Copartnership of Pennsylvania. Filed Oct. 15, 1909. Serial No. 522,742. (Cl. 62-31.)



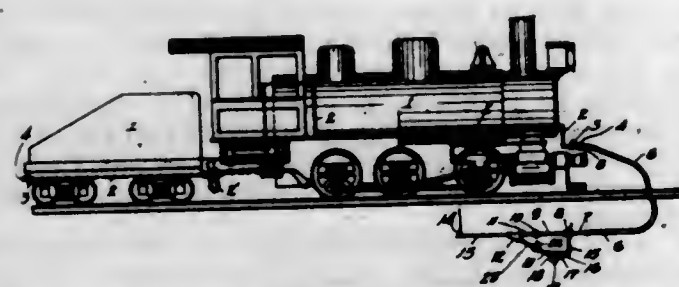
1. The combination of a chamber, a pipe connected thereto adapted for connection to a boiler so that the

contents of the boiler may be discharged into said chamber, means for withdrawing the water from the bottom of said chamber, a tank, a pipe connecting the upper part of said chamber with the lower part of said tank for carrying steam from the chamber to the tank, a heater having a water-chamber in the lower portion thereof, a connection between said heater at a point above the water-chamber therein and the upper portion of said tank, a pipe for supplying water to said heater, a valve in said pipe, a float within said tank controlling said valve, a connection between the water chamber within said heater and said tank, a pipe for withdrawing water from said tank, and means independent of said pipe for maintaining a circulation of the water from said tank through said heater, substantially as set forth.

2. The combination of a tank, means for supplying steam to said tank at a plurality of distributed points in the lower portion thereof, an open feed-water heater having a plurality of trays therein and a water-chamber in the lower portion thereof, a water-supply pipe connected to the heater for supplying water to said trays, a valve in said pipe, a float in said tank controlling said valve, a steam connection from the upper portion of said tank to said heater at a point in the heater above the water-chamber thereof, a connection from the water chamber of the heater to the tank, means for withdrawing water from the tank, and means for maintaining a circulation of water from the lower portion of the tank through the heater, substantially as set forth.

3. The combination of a tank, means for supplying steam to said tank at a plurality of distributed points in the lower portion thereof, an open feed-water heater having a plurality of trays therein and a water-chamber in the lower portion thereof, a water-supply pipe connected to the heater for supplying water to said trays, a valve in said pipe, a float in said tank controlling said valve, a steam connection from the upper portion of said tank to said heater at a point in the heater above the water-chamber thereof, a connection from the water chamber of the heater to the tank, means for withdrawing water from the tank, means for maintaining a circulation of water from the lower portion of the tank through the heater, a second open feed-water heater, a steam supply and a water supply thereto, and a connection between the two heaters for carrying surplus steam in one of the heaters into the other, substantially as set forth.

1,078,624. LOCOMOTIVE ATTACHMENT. WILLIAM A. JONES, Sharon, and WILLIAM A. MINEHAN, Sharpsville, Pa. Filed Dec. 19, 1910. Serial No. 598,207. (Cl. 104-153.)



1. In a locomotive attachment, the combination of apparatus for directing live steam against a frozen switch, with apparatus for siphoning water away from the switch levers, and means for rendering either apparatus inoperative during the operation of the other.

2. In a locomotive attachment, the combination of direct piping for throwing live steam against a frozen switch, with a by-pass on said piping for siphoning water, and means for cutting off the steam from the direct piping and sending it through the siphoning by-pass, as and for the purpose set forth.

3. In a locomotive attachment, the combination of direct piping, a by-pass leading from said piping adjacent to its end and reconnected with the piping toward the other end, siphoning apparatus located on the by-pass intermediate its ends, and means for closing either the by-

pass or the piping adjacent the rear end of the latter, as and for the purpose set forth.

4. In a locomotive attachment, the combination of direct piping, a by-pass in said piping, siphoning apparatus located in said by-pass, and a three way valve located in the rear union of the piping and by-pass, as and for the purpose set forth.

5. In combination, a railway locomotive, pipes leading from the boiler and terminating at a plurality of points on the engine and tender, hand valves adjacent the termini of said pipes, an attachment comprising straight piping having a by-pass thereon, siphoning apparatus located in the by-pass, a steam hose connected to the piping, means for coupling the hose to a pipe terminus, and means on the attachment for directing steam through either the straight piping or the by-pass.

[Claims 6 to 8 not printed in the Gazette.]

1,078,625. GAS-REGULATOR. PETER KELLER, Chicago, Ill. Filed May 16, 1912. Serial No. 697,625. (Cl. 67-119.)



1. In a gas check, a casing, an upwardly tapered shell having an opening in the apex thereof within the said casing, a foraminous partition placed transversely within said casing above said shell to form a valve chamber and an inverted cup-shaped float in said chamber placed over said shell and having a flat top with an internal depending member to ride on the apex of said shell and close said opening.

2. In a gas check, a casing, an upwardly tapered shell having an opening in the apex thereof within the said casing, a foraminous partition placed transversely within said casing to form a valve chamber and an inverted cup-shaped float in said chamber placed over said shell and having a depression in the top forming an internal depending member to ride on the apex of said shell and close said opening.

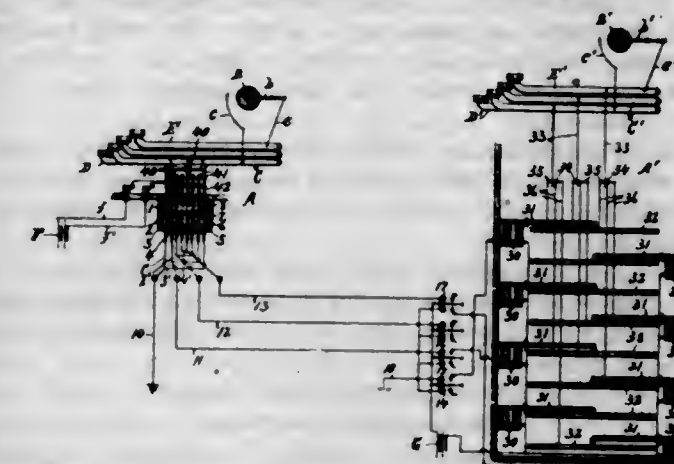
3. In a gas pressure regulator; the combination with a hollow casing, having an outlet opening in the head of a transverse foraminous partition forming a retaining chamber below said head, a packing for said chamber of steel or other metallic shavings, an upwardly tapered shell having an opening in the apex thereof secured in the lower part of said casing to form a valve chamber below said partition, and an inverted cup-shaped float placed over said shell and having a substantially flat top and an internally depending member to ride on the apex of said tapered shell and obstruct the opening thereof.

1,078,626. ELECTRICALLY-OPERATED DUPLICATE TYPE-WRITING MACHINE. BLAINE KELLEY, Syracuse, N. Y. Filed Jan. 7, 1910. Serial No. 536,902. (Cl. 178-54.)

1. In an electrical selective system, a system of transmitter keys, a relatively smaller number of circuit closers, a less number of line circuits, each connected to a plurality of circuit closers, separate selective devices actuated by said keys and each selecting and operating a different combination of circuit closers, for impressing current upon the corresponding line circuits, and separate translating devices brought into action by the closing of such circuits.

2. In an electrical selective system, a plurality of receiving devices, separate actuators therefor and each having an independent movement irrespective of its re-

ceiving device, separate electrical devices, connected to the actuators, a plurality of transmitting devices, and electrical means brought into action by the operation of any one of the transmitting devices for selecting and simultaneously energizing the combination of electrical devices which are connected to the same actuator.



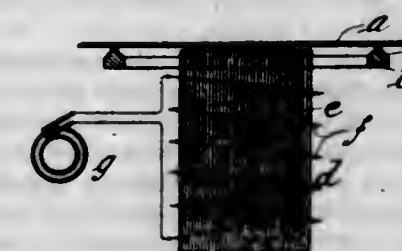
3. In an electrical selective system, a transmitter key board and a duplicate receiver key board, each receiver key having a supporting member, separate tiltable actuators fulcrumed on said supports, separate electrical devices, each connected to a plurality of actuators, and electrical means brought into action by the operation of each of the transmitting keys for energizing a combination of said electrical devices which are connected to one of the actuators.

4. In an electrical selective system, a transmitter and a receiver, a tiltable actuator and fulcrum therefor connected to the receiver, separate electrical devices connected to the actuator at different points around the fulcrum whereby when all of the electrical devices are energized simultaneously the actuator will be moved bodily to actuate the receiver and when a less number than all of said devices are energized the actuator will be simply tilted on its fulcrum without operating said receiver, and electrical means brought into action by the operation of the transmitter for energizing said electrical devices simultaneously.

5. In an electrical selective system, a plurality of transmitters and corresponding receivers, separate sets of electrical devices for operating the receivers, one set for each receiver, a relatively small number of polarized relays having normally open circuits in which said electrical devices are connected, a smaller number of line circuits in which the polarized relays are connected in series, one at least of said relays being operated by a current of negative polarity, circuit closers connected to the line circuits, and separate devices actuated by the transmitters for operating different combinations or sets of circuit closers, one of the circuit closers of each set being connected in the negative side of the main line circuit.

[Claims 6 to 9 not printed in the Gazette.]

1,078,627. MUSICAL INSTRUMENT. JOHN F. KELLY, Pittsfield, Mass. Filed Apr. 20, 1911. Serial No. 624,237. (Cl. 177-7.)



1. In a device to produce a musical tone, the combination of a vibrating member, rigid means in direct contact with and secured thereto and positioned to coincide with a nodal line of the member, and means to vibrate

the member, whereby said member may vibrate about the rigid means as a support.

2. In combination, a sonorous member which is capable of producing a single tone, said member comprising a single, slitted plate, means to definitely position a nodal line in the plate, and devices to vibrate the plate.

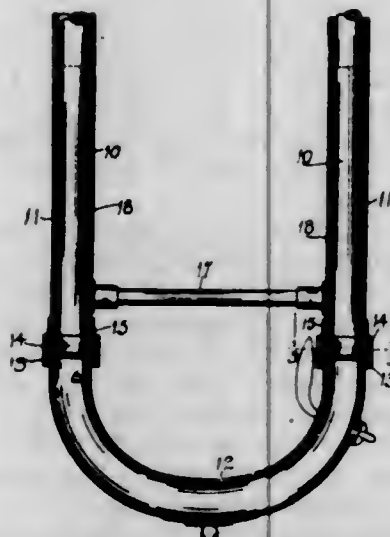
3. In combination, a magnetizable sonorous member which is capable of producing a single tone, said member comprising a slitted plate, means to definitely position a nodal line in the plate, and electromagnetic devices to vibrate the plate.

4. A sound-producing device, comprising a slitted vibratory member, rigid means secured to said member to define the principal nodal line in said member, and means to vibrate the member.

5. An electromagnetic sound producing device comprising a magnetizable plate, a ring attached to the plate and coinciding with a nodal line, and magnetic means to vibrate the plate.

[Claims 6 to 8 not printed in the Gazette.]

1,078,628. TROMBONE. CHARLES J. KIEFER, Indianapolis, Ind. Filed Jan. 20, 1913. Serial No. 743,172. (Cl. 84—8.)



1. A trombone including slides, outer casings adapted to telescope on said slides, a bow, and threaded couplings for removably securing the ends of said bow to the outer ends of the outer casings.

2. A trombone including slides, outer casings adapted to telescope on said slides, a sleeve secured around the outer end of each outer casing and which is externally threaded, a bow with an outwardly extending flange at each end, and a coupling with an inward flange to engage the flange on the bow and internally threaded to screw on said sleeve for making a tight but removable joint between the bow and each outer casing.

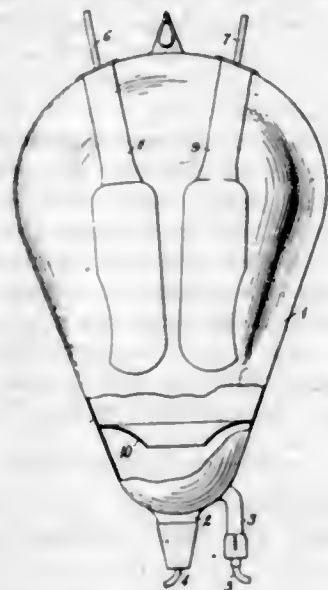
3. A trombone including slides, outer casings adapted to telescope on said slides, a bow separable from said outer casings, means for removably securing the bow to the outer ends of the outer casings, and a brace connecting the outer ends of the two outer casings near the bow.

1,078,629. MERCURY-VAPOR RECTIFIER. JOSEPH W. LEWIS, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 18, 1909. Serial No. 523,122. (Cl. 176—44.)

1. In vapor electric apparatus, the combination with a glass tube or bulb having a conducting liquid disposed in one end, of a relatively thin, fragile glass partition of funnel shape, for confining the liquid to a small section of the bulb or tube during shipment, having an opening through which the vaporized liquid may pass freely to start the operation of the apparatus and adapted to be fractured by the continued operation of the apparatus.

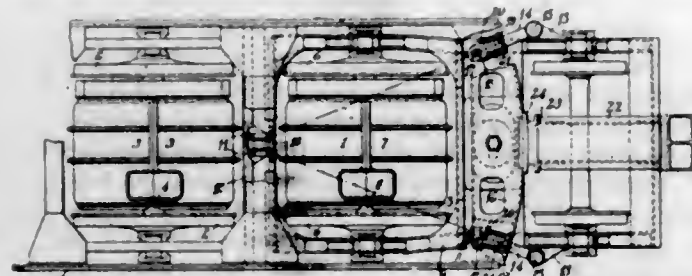
2. In vapor electric apparatus, the combination with a glass tube or bulb having protuberances at one end and a conducting liquid disposed in the protuberances, of a relatively thin, fragile glass partition of funnel shape,

for confining the liquid to a small section of the bulb or tube during shipment, having an opening through which



the vaporized liquid may pass freely to start the operation of the apparatus and adapted to be fractured by the continued operation of the apparatus.

1,078,630. LOCOMOTIVE. MYLES MAHONEY, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 20, 1911. Serial No. 615,536. (Cl. 105—259.)



1. A locomotive comprising two four-wheel, motor-equipped trucks and two independent radius bars interposed between said trucks and provided with yielding connections to obviate bumping strains.

2. A locomotive comprising a plurality of motor-equipped trucks, and independent radius bars interposed between said trucks and provided with yielding resilient means to relieve them from longitudinal compression strains.

3. In a locomotive, the combination with a motor-equipped main truck and a motor-equipped radial truck, of interposed short radius bars, and means for permitting circumferential movement of the radial truck about a point in the main truck that is remote from said radius bars.

4. In a locomotive, the combination with a main truck, of a radial truck and means carried by the main truck for laterally restraining relative movement of the radial truck in a predetermined lateral plane, and radius bars connecting the two trucks, the extended center lines of which intersect at the point of side restraint.

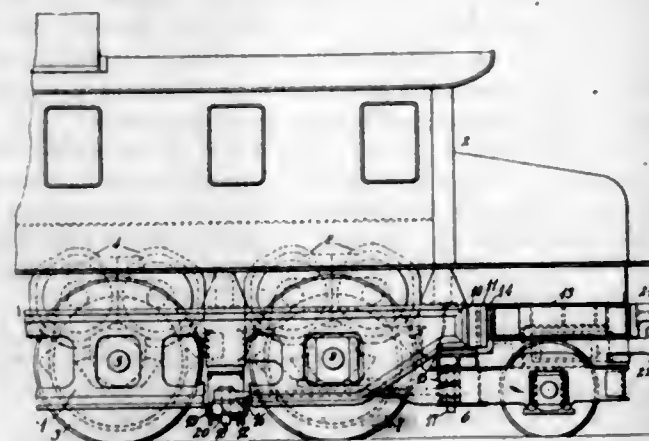
5. In a locomotive, the combination with a main truck, of a radial truck and means carried by the main truck for laterally restricting relative movement of the radial truck in a predetermined lateral plane, and radius bars connecting the two trucks and provided with lost motion connections to one of them.

[Claims 6 to 9 not printed in the Gazette.]

1,078,631. RAILWAY-LOCOMOTIVE. MYLES MAHONEY, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 20, 1911. Serial No. 615,537. (Cl. 105—259.)

1. In a locomotive, the combination with a main truck having a rigid wheel base and a propelling motor, of a

four-wheel end truck having a propelling motor, a radius bar or frame pivotally connected to said main truck, and means for relieving said radius bar or frame from longitudinal compression strains.



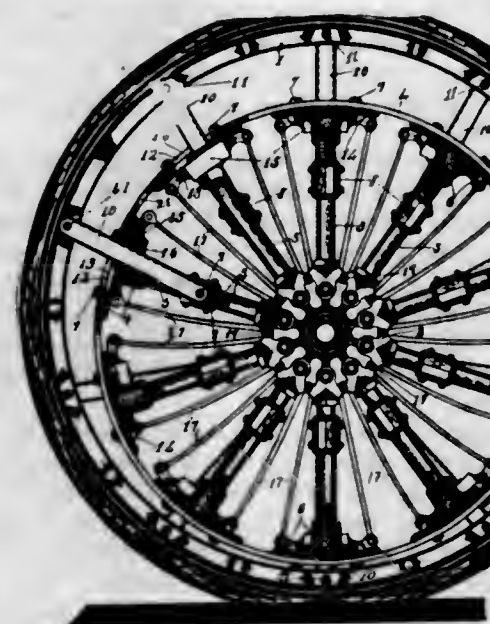
2. In a locomotive, the combination with a main truck having a rigid wheel base and a propeller motor, of a four-wheel end truck having a propelling motor, a radius bar or frame pivotally connected to said main truck and having also a lost-motion connection therewith, and means for positively limiting the lost motion between the main truck frame and the end truck frame.

3. In a locomotive, the combination with a main truck having a rigid wheel base and a convex bearing block at the end of its frame, of a four-wheel end truck having a concave bearing block on its frame to engage the convex bearing block of the main truck frame, and a radius bar or frame interposed between cross bars of the two truck frames and having a single lost-motion connection with the main truck frame.

4. In a locomotive, the combination with a motor-equipped main truck having side frames and a cross beam having an automatically adjustable center block, of a motor-equipped end truck, and a radius bar or frame pivotally connected to said end truck and to the center block of the main truck.

5. In a locomotive, the combination with a motor-equipped main truck having an end bearing block, of a motor-equipped end truck having an end bearing block to engage the main truck bearing block, and a radius bar interposed between said trucks and having a lost-motion connection with one of them.

1,078,632. SPRING-WHEEL. VINCENZO MANCINI, Schenectady, N. Y. Filed Aug. 26, 1912. Serial No. 716,971. (Cl. 152—28.)



1. A spring-wheel comprising a central body, a rim encircling said central body, slide-members severally having a connection with said rim, and a pivotal connection with said body capable of movement toward and from the center thereof, rocker-slideways for the respective slide-

members mounted in connection with said central body with freedom for limited reciprocating movement in a plane at right angles to the axis of the wheel, and spring-members acting through said slide-members to yieldingly maintain the rim concentric with the axis of the wheel.

2. A spring wheel comprising a central body, a rim encircling said central body, slide-members severally having a connection with said rim, and a pivotal connection with said body capable of movement toward and from the center thereof, rocker-slideways for the respective slide-members mounted in connection with said central body with freedom for limited reciprocating movement in a plane at right angles to the axis of the wheel, and spring-members opposed to said reciprocating movement of said rocker-slideways.

3. A spring-wheel comprising a central body, a rim encircling said central body, slide-members severally having a connection with said rim, and a pivotal connection with said body capable of movement toward and from the center thereof, rocker-slideways for the respective slide-members mounted in connection with said central body with freedom for limited reciprocating movement in a plane at right angles to the axis of the wheel, and resilient rods rigidly connected at their inner ends to said central body and having their outer ends connected with the respective rocker-slideways.

4. A spring-wheel comprising a central body, a rim encircling said central body, slide-members severally having a connection with said rim and a pivotal connection with said body capable of movement toward and from the center thereof, rocker-slideways for the respective slide-members mounted in connection with said central body with freedom for limited reciprocating movement in a plane at right angles to the axis of the wheel, resilient rods rigidly connected at their inner ends to said central body and having their outer ends connected with the respective rocker-slideways, and coil-springs opposed to inward movement of the respective slide-members.

5. In a spring-wheel and in combination an outer rim, an inner rim; a hub; rigid spoke connections between said hub and inner rim; blocks slidably guided by the respective spokes; resilient rods rigidly connected at their inner ends to said hub; rocker-slideways, each connected with the outer end of a plurality of said resilient rods with freedom for limited reciprocating movement in a plane at right angles to the axis of the wheel; and slide-members movable through the respective rocker-slideways and pivotally connected at their outer ends to the outer rim and at their inner ends to the respective slide-blocks.

[Claim 6 not printed in the Gazette.]

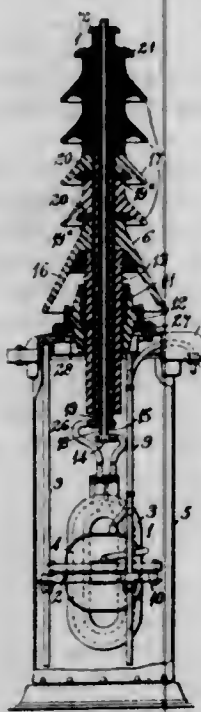
1,078,633. INSULATOR. JESSE E. MATEER, Wilkesburg, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 8, 1908. Serial No. 447,497. (Cl. 171—124.)

1. An insulating structure comprising a tube, a series of overhanging skirts fitted upon said tube and cemented thereto and an external metal cap or crown, combined with a conductor that extends through said tube and is connected to said cap or crown having an overhanging skirt.

2. An insulated lead structure for electrical apparatus comprising concentric conductors, an interposed insulating tube, and a segmental sleeve or bushing of inorganic weather-proof insulating material composed of a series of overhanging skirts, and metal caps or crowns electrically separated from each other and severally connected to the concentric conductors.

3. In electrical apparatus, the combination with an inclosing casing having a cover and flexible conducting leads within the casing, of concentric conductors, an interposed insulating tube, an insulating bushing composed of an insulating sleeve secured to the cover member and a series of overhanging insulating skirts mounted on said sleeve above the cover, and caps or crowns of conducting material that overhang the insulating skirts and are severally connected to the concentric conductors.

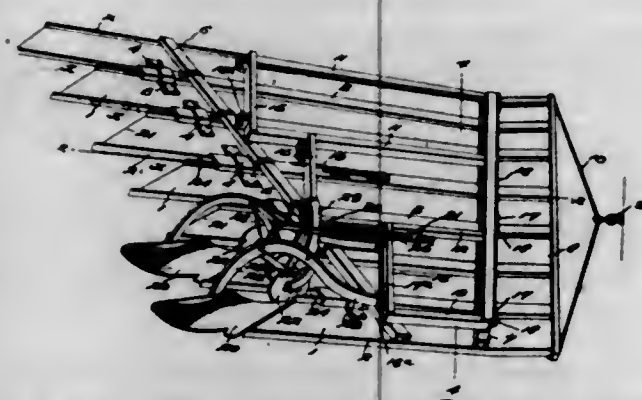
4. In electrical apparatus, the combination with an inclosing casing having a cover and conducting leads supported thereby, of an insulating bushing structure comprising concentric insulating sleeves extending through the cover and secured thereto, insulating tubes within the sleeves, a plurality of insulating skirts mounted upon the tubes and forming a continuation of the sleeves and a metal cap overhanging the skirts and connected to one of the leads.



5. In electrical apparatus, the combination with an inclosing casing having a cover, of a pair of concentric conductors extending outwardly through the cover, an insulating tube interposed between said conductors, an insulating tube surrounding the outer conductor, relatively short insulating sleeves encircling and supporting the tubes and conductors and secured to the cover, and a plurality of insulating skirts mounted upon the tubes to form a continuation of the sleeves and overhang the joints between the adjacent parts.

[Claims 6 and 7 not printed in the Gazette.]

1,078,634. CULTIVATOR. SAMUEL B. MCCORMICK, Otterbein, Ind. Filed Feb. 10, 1913. Serial No. 747,550. (Cl. 97—67.)



1. The combination with a cultivator of an earth compressing stage associated therewith and adapted to be dragged across and in contact with the ground with the cultivator in the cultivating operation, substantially as described.

2. The combination with a cultivator of an earth compressing stage connected to the cultivator and adapted to be dragged across and in contact with the ground in advance of the cultivator in the cultivating operation, substantially as described.

3. The combination with a cultivator of an earth compressing stage supporting the cultivator and adapted to be dragged across and in contact with the ground in advance of the cultivator; and means for elevating the

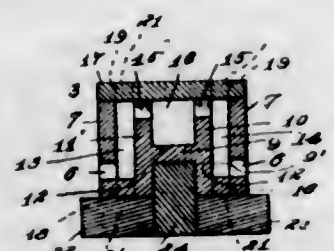
cultivator to regulate the earth working depth thereof, substantially as described.

4. The combination with a cultivator of an earth compressing stage; a frame removably mounted on the stage; a cultivator connected to said frame and supported by the stage; said stage adapted to be dragged across and in contact with the ground in advance of the cultivator; and means for elevating the cultivator to regulate the earth working depth thereof, substantially as described.

5. The combination with a cultivator of an earth compressing stage; a frame removably mounted on the stage; a cultivator hingedly connected to said frame and located to work the earth at the rear of said stage; said stage adapted to be dragged across and in contact with the ground in advance of the cultivator; and a lever connected to the cultivator and fulcrumed on the stage; and means for elevating the cultivator to regulate the earth working depth thereof, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,078,635. IRRIGATING-CONDUIT. ISAAC B. NAYLOR, New York, N. Y. Filed Oct. 18, 1912. Serial No. 726,554. (Cl. 137—65.)



1. An irrigating conduit comprising a section having side walls and an upwardly extending bottom portion spaced from and cooperating with said walls to form lateral channels, said bottom portion further having upwardly extending walls to provide a main water pipe, ports establishing communication between said main water pipe and the respective lateral channels and exit ports at the bottom of said lateral channels.

2. An irrigation conduit made up of a series of sections, parallel partitions in each section extending lengthwise thereof and dividing the sections into a main water pipe and water seal channels on the respective sides of said pipe, ports between the channels and water pipe, openings in the bottom of each channel near the respective ends of each section, binders fitted in the respective channels and extending across the joint between adjacent sections, and having lugs extending from the lower face thereof constructed to enter the openings in the bottom of the channels, said binders also having lugs extending from their upper face, and a cover for said sections having openings into which the lugs on the upper face of the binders project.

3. An irrigation conduit comprising side walls and a base, a longitudinally extending groove in the outer face of the base, the lateral walls of the groove being continued upward to the plane of the top of the side walls thereby forming a central pipe and channels on the respective sides of said pipe extending in the direction of the length of the conduit, ports between said channels and pipe, and ports leading from said channels through the said side walls.

4. An irrigation conduit made up of a series of sections, each section having side walls and a base, a longitudinally extending groove in the outer face of the base, the lateral walls of the groove being continued upward to the plane of the top of the side walls thereby forming a central pipe and channels on the respective sides of said pipe extending in the direction of the length of the conduit, ports between said channels and pipe, ports leading from said channels through the said side walls, and means locking said sections at their adjacent ends.

5. An irrigation conduit made up of a series of sections, each section comprising side walls and a base, a longitudinally extending groove in the outer face of the base,

the lateral walls of the groove being continued upward to the plane of the top of the side walls thereby forming a central pipe and channels on the respective sides of said pipe extending in the direction of the length of the conduit, ports between said channels and pipe and ports leading from said channels through the said side walls, means locking said sections at their adjacent ends, and an inverted T anchoring base, the stem of which is positioned in said groove.

[Claims 6 and 7 not printed in the Gazette.]

1,078,636. IRRIGATING-CONDUIT. ISAAC B. NAYLOR, New York, N. Y. Filed Nov. 23, 1912. Serial No. 733,170. (Cl. 137—65.)



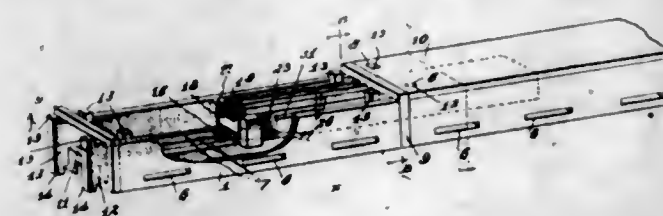
1. An irrigating conduit comprising a base member having a groove in its under face and channels in its upper face, ribs between said channels, and a main water pipe having rabbets constructed to receive said ribs.

2. An irrigating conduit comprising a base member having a groove in its under face, and channels in its upper face, ribs between said channels, a main water pipe having rabbets constructed to receive said ribs, and a covering closing said channels at the top.

3. A rectangular irrigating conduit comprising a base having side walls with rabbeted upper edges, one end of said conduit being rabbeted, and the other end provided with an extending tongue, a groove in the under face of the base and exit ports in the side walls, ribs arranged in pairs, said pairs being spaced an equal distance apart on said base, and a main water pipe of rectangular cross section having rabbets formed in the lower edges thereof and spaced relative to and constructed to receive said ribs, a cover for the conduit, and overflow ports leading from said pipe into said base.

4. In a rectangular irrigating conduit the combination with a series of base members formed with interlocking abutting ends and having channels formed therein at each side thereof, ribs arranged in pairs and spaced from each other and positioned between said channels, exit ports in the outer side walls of said channels, of a series of rectangular main water pipe sections laid in and breaking joint with said base members, and having their lower corner edges provided with rabbets spaced to receive the ribs on the base members, overflow ports leading from the main water pipe into the channels of the base member, and a cover for said channels.

1,078,637. CONDUIT FOR IRRIGATION. ISAAC B. NAYLOR, New York, N. Y. Filed Nov. 23, 1912. Serial No. 733,171. (Cl. 137—65.)



1. An irrigating conduit comprising a base member in sections, and a water pipe in sections in said base member, said base member and pipe being spaced to form water seal channels therebetween, said pipe sections breaking joint with the base sections, respective binders between the abutting ends of the base sections of the same width and height as the base sections, each binder having an opening therethrough of a size to permit the water pipe to pass therethrough, locking members extending from each side of said binder into the respective water channels, an abutment between the adjacent ends of the respective

water pipe sections closing the ends of said sections, an overflow port through said abutment near its top establishing communication between adjacent water pipe sections.

2. An irrigating conduit comprising a base member in sections, and a water pipe in sections in said base member, said base member and pipe being spaced to form water seal channels therebetween, and said pipe sections breaking joint with the base sections, respective binders between the abutting ends of the base sections of the same width and height as the base sections, each binder having an opening therethrough of a size to permit the water pipe to pass therethrough, locking members extending from each side of said binder into the respective water channels, an abutment between the adjacent ends of the respective water pipe sections closing the ends of said sections, an overflow port through said abutment near its top establishing communication between adjacent water pipe sections, and end walls on said abutment extending into said water seal channels.

3. An irrigating conduit comprising a base member in sections, and a water pipe in sections in said base member, said base member and pipe being spaced to form water seal channels therebetween, said pipe sections breaking joint with the base sections, respective binders between the abutting ends of the base sections of the same width and height as the base sections, each binder having an opening therethrough of a size to permit the water pipe to pass therethrough, locking members extending from each side of said binder into the respective water channels, an abutment between the adjacent ends of the respective water pipe sections closing the ends of said sections, an overflow port through said abutment near its top establishing communication between adjacent water pipe sections and a filler section in each channel under and interlocked with said abutment.

4. An irrigating conduit comprising a base member, ribs on the inner face of the bottom of said member, a main water pipe having ribs on its under face constructed to interlock with the ribs on the base member, ribs on the upper face of said pipe, said base member and pipe being spaced to form water seal channels therebetween, ports between said channels and said pipe and exit ports leading from the bottom of said channels, a cover, ribs depending from the under face of said cover constructed to interlock with the ribs on the upper face of the said pipe, and other ribs depending from the under face of said cover and constructed to depend in the said channels.

5. In an irrigation conduit made up of sections, a binder adapted to be interposed between successive sections and comprising a band having an inverted U shaped bottom, locking members extending at right angles from each side of said band and provided with lugs extending from their upper and lower edges.

1,078,638. LOCOMOTIVE-TENDER FRAME. HARRY M. PFLAGER, St. Louis, Mo. Filed Jan. 4, 1913. Serial No. 740,186. (Cl. 100—17.)



1. In a locomotive tender a tank and an underframe upon which the tank is mounted which underframe constitutes a part of the tank.

2. A locomotive tender comprising a tank, an underframe therefor, which underframe is located above the bottom plate of the tank.

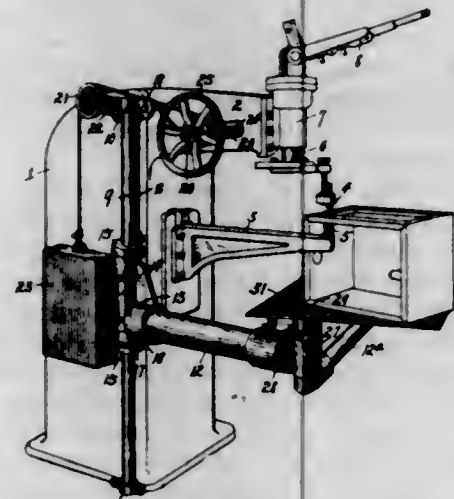
3. A locomotive tender comprising a tank and an underframe therefor, the side and end walls of which combined with the side and end walls of the tank form a water compartment.

4. In a locomotive tender, an underframe, a tank bottom plate applied to the underside thereof, and tank walls fixed to the side and end sills of the underframe.

5. In a locomotive tender, an underframe, the bottom of which is closed to form a series of water compartments within said underframe, and tank walls fixed to and extending upwardly from the side and end sills of the underframe.

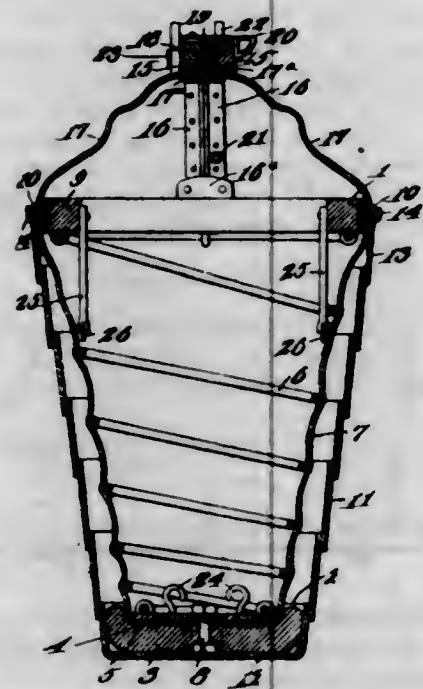
[Claims 6 to 28 not printed in the Gazette.]

1,078,639. WORK-TABLE FOR ELECTRIC WELDING-MACHINES. ROBERT CLARK PIERCE, Cincinnati, Ohio, assignor to The Toledo Electric Welder Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 13, 1912. Serial No. 736,630. (Cl. 248-6.)



In an adjustable work table, a bearing comprising a bearing sleeve, collars secured to the ends on the said sleeve, a supporting rod located within the said sleeve, and means connected to one of the said collars for moving the said sleeve with respect to the said supporting rod, the other of the said collars having a ball-bearing, a bracket bearing located between the said collars and having an adjustable arm, a table supported by the said arm.

1,078,640. LIFE-SAVING APPARATUS. WILLIAM PINCHES, Kalpmont, Pa. Filed June 5, 1913. Serial No. 771,928. (Cl. 9-17.)



1. In a device of the character described, an annulus, a base, a bag connected at its ends to the annulus and base, and a coiled spring having its end convolutions secured to the annulus and base, the coil being disposed within the bag.

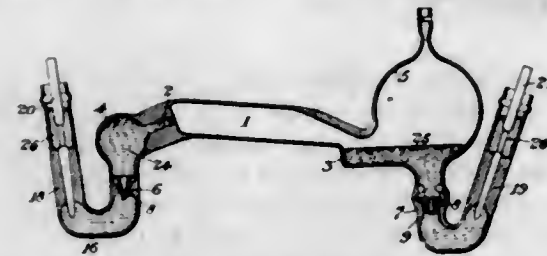
2. In a device of the character described, an annulus, a base, a flexible bag secured at its ends to the annulus and base, a coiled spring having its end convolutions secured to the annulus and base and being disposed within

the bag, and an outer telescopic shell attached to the annulus and inclosing the bag and base.

3. In a device of the character described, an annulus, a base, a flexible bag attached at its ends to the annulus and base, a coiled spring terminally secured to the annulus and base, and means for attaching the base to the annulus when the device is folded.

4. In a device of the character described, an annulus having a circumferential groove, a base, a band fitting in the said groove, a bag attached to the base and clamped between the said band and groove, and an outer telescopic shell inclosing the bag and base, the band having members engaging the upper section of the shell.

1,078,641. MERCURY-VAPOR APPARATUS. JOSEPH C. POLE, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Co., Hoboken, N. J., a Corporation of New Jersey. Filed Feb. 1, 1912. Serial No. 674,708. (Cl. 76-44.)



1. The combination with a closed vessel having fragile walls, of a fluid in said vessel, and means for preventing shock by reason of the shifting of the position of the fluid, such means consisting of a conical valve in said vessel, a seat for said valve limiting its movement in one direction and a positive stop for the said valve limiting its movement in the opposite direction.

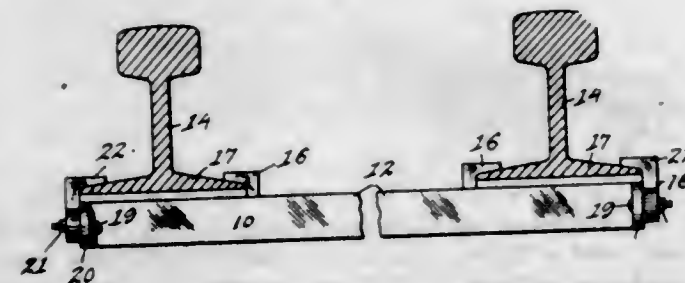
2. The combination with a closed container having fragile walls, of a body of mercury in said container, and a valve having positive limits of movement in opposite directions in the path of the mercury.

3. The combination with an exhausted tube or container having a restricted portion, mercury within said tube and a valve permanently seated within said restriction and having a limit of motion away from its seat.

4. The combination with an exhausted tube or container having a restricted portion, mercury within said tube and a valve permanently seated within said restriction and having a limit of motion away from its seat, the valve being lighter than mercury.

5. The combination with an exhausted tube or container having a restricted portion, mercury within said tube and a valve permanently seated within said restriction and having a limit of motion away from its seat, the valve being lighter than mercury and being provided with an opening at its smaller end.

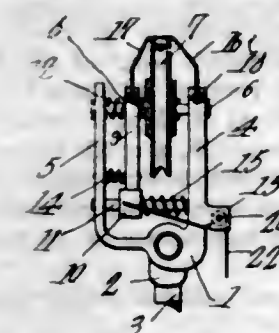
1,078,642. RAILWAY-TIE AND FASTENER. FRANK PONGRATZ, Warrens, Wis. Filed Feb. 6, 1913. Serial No. 746,542. (Cl. 238-5.)



The combination with a pair of railway rails, of a rail tie and fastener comprising a channel bar open at each end, a pair of rail supporting blocks positioned within said channel bar and extending above the side walls thereof, retaining plates extending transversely across the interior of the channel bar and fitted within vertical slots formed in the side walls thereof, laterally projecting flanges formed upon said retaining plates and adapted to en-

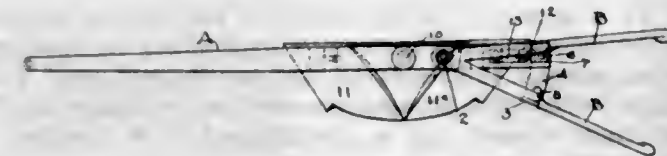
gage the inner base flanges of the rails to hold said rails in engagement with the blocks, apertured ears projecting laterally from adjacent the ends of said channel bar, end plates apertured adjacent their extremities, means passing through said apertures for securing the end plates in position, and inwardly projecting flanges formed upon said last mentioned plates for engagement with the outer base flanges of the rails.

1,078,643. TROLLEY-WHEEL. JOSEPH SCOTT RANDOLPH, Glencoe, Ohio. Filed Jan. 16, 1913. Serial No. 742,511. (Cl. 191-80.)



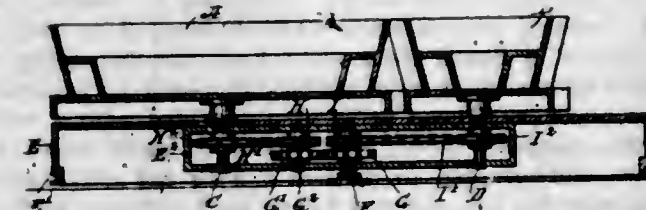
In a device of the class described, a support; a trolley wheel journaled on the support; a lever fulcrumed upon the support and provided with a jaw overhanging the trolley wheel; separate resilient means for restraining the swinging movement of the lever in opposite directions; and means under the control of an operator for swinging the jaw laterally with respect to the trolley wheel, against the action of one of said resilient means.

1,078,644. PLOW. EDWARD SEIDLER, Nowlin, S. D. Filed Aug. 22, 1912. Serial No. 716,429. (Cl. 97-27.)



A plow of the class described comprising a beam, a pair of oppositely directed plow shares pivotally supported on one end of said beam, a spring pressed pin carried by said beam in position to interlock with said plow shares and hold the same in reversed positions, a handle pivotally supported on the end of said beam adjacent to said plow shares, and a spring pressed pin carried by said beam and interlocking with said handle to hold the same in angularly adjusted positions.

1,078,645. ROUNDABOUT. NICHOLAS J. SHAMROY, New York, N. Y. Filed Mar. 31, 1909. Serial No. 486,879. (Cl. 46-27.)



1. An amusement apparatus comprising a rotatable support, a fixed shaft at the axis of the support, shafts spaced radially from the fixed shaft, a car oval in shape and contracted transversely at its longitudinal center secured by its center to each shaft, and connections between the shafts of the cars and the fixed shaft for rotating said cars in opposite directions when the support is rotated, for the purpose specified.

2. An amusement apparatus comprising a rotatable support, a fixed shaft at the axis of the support, shafts

196 O. G.—36

spaced radially from the fixed shaft, a car secured to each shaft, and connection between the shafts of the cars and the fixed shaft for rotating said cars in opposite directions when the support is rotated, for the purpose specified.

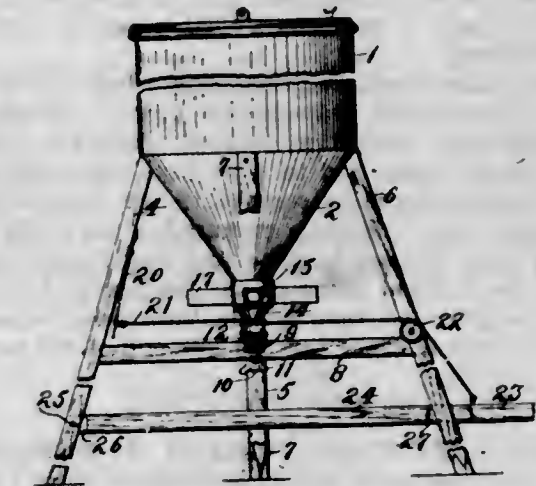
3. An amusement apparatus, comprising a plurality of rotatable shafts, a car having seats on each of said shafts, an operating means, a connection between said means and one shaft for imparting an epicycloidal movement to the seats of the car thereon, and a connection between said means and the other shaft for imparting a hypocycloidal movement to the seats of the car thereon.

4. An amusement apparatus, comprising a shaft, a frame on the shaft, a plurality of shafts journaled in the frame, cars having seats supported by the last named shafts, a connection between the first named shaft and one of the last named shafts for imparting an epicycloidal movement to the seats of the car thereon, and a connection between the first named shaft and the other of the last named shafts for imparting a hypocycloidal movement to the seats of the car thereon.

5. An amusement apparatus comprising a car, a rotatable support to which the car is connected, means for rotating the support and a connection between the rotating means and the support for imparting bodily movement to the car and support around the rotating means, said car being of substantially elliptical shape and provided with marginal seats, whereby to cause the occupants of the seats to move in a path eccentric to the path of movement of the car.

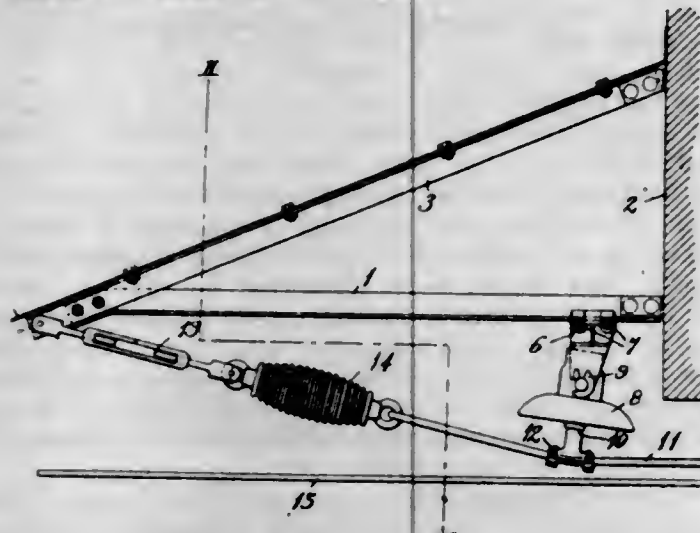
[Claim 6 not printed in the Gazette.]

1,078,646. POULTRY-FEEDER. CLARK LEROY TAWNEY, Barberton, Ohio. Filed Jan. 22, 1912. Serial No. 672,632. (Cl. 119-70.)



A poultry feeder comprising in combination a feed tank provided with a discharge opening at its lower end, supporting legs for said tank, a cross-bar supported by said legs and provided at its median portion with a vertical aperture, a threaded pin in said aperture and adapted to constitute a pivot, a locking nut and a thumb nut mounted on the threaded portion of said pin and arranged respectively on the upper and lower faces of said cross-bar for holding said pin in an adjusted position vertically with respect to said tank, a roller having a concave outer face pivotally mounted on said pin, a receptacle mounted on said roller below the opening in said tank and capable of vertical adjustment with respect to said tank through the medium of said pin, said receptacle provided with a horizontal radially-extending discharge tube, a spring secured to one of said supporting legs, a pulley supported on one of said legs, a lever similarly mounted, and a flexible member extending from the free end of said spring around said roller and said pulley and connected at its opposite end with the oscillatory end of said lever, whereby when said lever is oscillated said flexible member is caused to rotate said roller and receptacle to widely distribute the feed from said radial tube.

1,078,647. ANCHOR STRUCTURE FOR OVERHEAD LINES. THEODORE VARNEY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 13, 1909. Serial No. 522,478. (Cl. 191-40.)

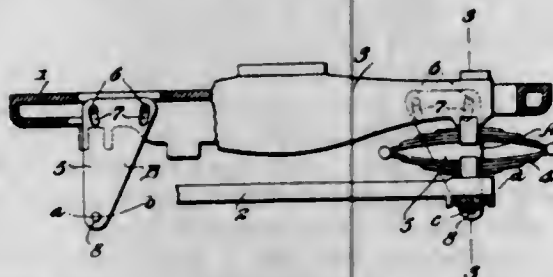


1. An anchor structure for electric lines comprising a substantially horizontal arm or bracket, a clamp pivotally suspended and electrically insulated from said arm or bracket, a wire or cable grasped by said clamp and disposed substantially in the central vertical plane of the arm or bracket, and insulating and tension-adjusting means interposed between the end of the wire or cable and the end of the arm or bracket.

2. An anchor structure comprising a substantially horizontal arm or bracket, a clevis adjustably secured thereto, an insulated clamp pivotally suspended by the clevis, a wire or cable grasped by the clamp and disposed substantially in the central vertical plane of the arm or bracket, and a strain insulator and turn buckle interposed between the end of the wire or cable and the end of the arm or bracket.

3. An anchor structure comprising a bracket which consists of a horizontal beam and a pair of angularly disposed braces the respective ends of which are secured to one end of the beam and to a vertical supporting wall, a clevis bracket adjustably secured to the horizontal beam, an insulated clamp pivotally mounted in the clevis bracket, a wire or cable secured in the clamp and disposed substantially in the vertical plane of the horizontal beam, and a strain insulator and turn buckle interposed between the end of the wire or cable and the free end of the bracket.

1,078,648. CAR-TRUCK. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 4, 1913. Serial No. 740,194. (Cl. 105-243.)



1. In car truck construction, swing hangers each having three points of pivotal connection, the same being arranged so as to cause said swing hangers to produce high initial resistance to lateral movement of the supported car body and to cause said car body when moved laterally to travel in a curved path and to also rotate about an imaginary axis.

2. In a car truck, a truck frame, a bolster, swing hangers for supporting the bolster from the truck frame, which swing hangers are each provided with three points of pivotal connection, the same being arranged to cause said swing hangers to resist normal lateral thrusts of the car

body supported by the bolster and to elevate one end of the bolster in advance of the other when abnormal transverse thrusts of the supported car body are transmitted to the bolster.

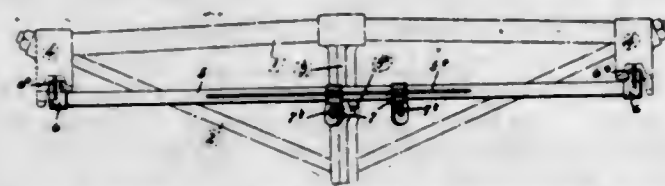
3. In truck construction, a bolster, swing hangers supporting the bolster from the truck frame, which swing hangers are each provided with three points of pivotal connection, the same being arranged so as to cause said swing hangers to produce initial resistance to lateral thrusts of the supported car body and to elevate one end of the bolster in advance of the other when said bolster is moved transversely with respect to the truck frame.

4. In truck construction, a truck frame, a bolster, swing hangers for supporting the bolster from the truck frame, each of which swing hangers has three points of pivotal connection, the lowermost point of pivotal connection being substantially in vertical alignment with the outer one of the two upper points of pivotal connection.

5. In truck construction, a truck frame, a bolster, swing hangers supporting the bolster from the truck frame, which swing hangers have three points of pivotal connection, two of which are normally in substantial vertical alignment.

[Claims 6 and 7 not printed in the Gazette.]

1,078,649. GAGE FOR BRAKE-BEAMS. CHARLES H. WILLIAMS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 4, 1911. Serial No. 663,894. (Cl. 33-180.)



1. In a gage for brake beams, a supporting member, gage heads supported thereon, a gage plate on said supporting member intermediate said heads, said gage plate being provided with an aperture running obliquely to said supporting member, and a pin adapted to be inserted in said aperture.

2. A gage for brake beams comprising the combination of a supporting member, gage heads mounted thereon, each of said gage heads having a plurality of contact points disposed in a predetermined relationship, and a plate on said supporting member intermediate said gage heads, said plate being provided with an aperture running in a predetermined angular relationship to said supporting member, and a pin adapted to be inserted in said aperture.

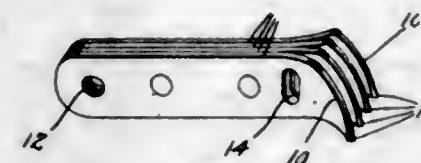
3. In a gage for brake beams, a supporting member, gage heads supported thereon and spaced apart from each other, said gage heads having projections thereon provided with lateral gage faces, and adapted to engage in the shoe key lugs of brake heads and contact points on said heads spaced apart from said projections and adapted to engage the outer walls of the shoe key lugs.

4. A gage for brake beams comprising in combination a head provided with a hook member adapted to engage a key slot of a brake head, said hook member being provided with an inner gage surface disposed in a predetermined plane, said head being also provided with a contact surface disposed facing the plane of said inner gage surface and adapted to cooperate with the outer surface of the shoe-key lug engaged by the hook member, said head being further provided with a second contact surface disposed facing the plane of the inner gage face and adapted to cooperate with a second key lug, a second head similar to said head, said heads being disposed with their hook members extending in the same direction and means for supporting said heads apart from each other.

5. A gage for brake beams comprising a supporting member and gage heads supported by said supporting member apart from each other, each of said gage heads comprising a body portion having a lower contact point and an upper contact point, and a hook like projection adapted to cooperate with said upper contact point to engage a

shoe key lug of a brake head to support the gage head in a fixed position thereon, the corresponding portions of the gage heads being aligned with each other on lines parallel to the supporting member.

1,078,650. SHREDDING-HAMMER. MILTON F. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 31, 1913. Serial No. 771,107. (Cl. 83-11.)

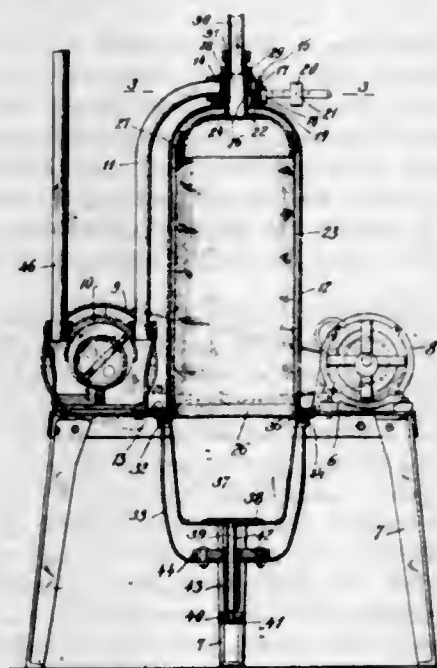


1. A shredding hammer consisting of a plurality of knife-like shredding elements separated at their operating ends, and conjoined in a common shank portion, certain of said shredding elements being provided with apertures for the purpose described.

2. A shredding hammer comprising a shank portion divided at one end into a plurality of operating members disposed apart from one another, each of said operating members being provided with an aperture communicating with the space intermediate it and its adjacent operating members.

3. In combination with a rotary shaft and a concave, a shredding hammer mounted upon the shaft and adapted to cooperate with the concave, said shredding hammer comprising a plurality of thin shredding members conjoined in a common shank portion and having their minimum width equal to the width of said shank portion, said operating members being provided with apertures communicating with the spaces between them.

1,078,651. VACUUM CLEANING APPARATUS. THOMAS J. WINANS and DANIEL M. WINANS, Binghamton, N. Y., assignors to The Winans Machine Company, Binghamton, N. Y., a Corporation of New York. Filed July 5, 1912. Serial No. 707,605. (Cl. 83-47.)



1. A vacuum cleaning apparatus comprising a support having an opening therein, a collector mounted on the support over said opening, a ball secured to the under side of the support and depending therefrom, a spring supported by the ball, a receiver pressed upwardly by the spring against the under side of the support in alignment with said opening, and means for depressing the receiver against the tension of the spring, substantially as set forth.

2. In a vacuum cleaning apparatus, a support having an opening therein, a collector mounted on the support

over said opening, a ball depending from the support below the collector, a tube carried by the ball, a plunger entering the tube, a receiver supported on the upper end of the plunger, a spring in the tube acting on the plunger to raise the same and thus hold the receiver against the under side of the support under said opening therein, and a lever connected to the plunger for depressing the same, substantially as set forth.

3. In a vacuum cleaning apparatus, a support, a cylindrical can mounted over an opening therein, a tubular member at the upper end of the can and communicating therewith, an outlet pipe connected to said member, a cylindrical strainer made of fabric mounted within the can, open at its lower end and having its lower end secured to the can, a metallic cap within the can to which the upper end of the strainer is secured, a tubular extension on said cap extending upwardly through said member and spaced from the interior wall of the member below said pipe, an inlet pipe connected to said tubular extension, and a receiver mounted below the support in alignment with said opening, substantially as set forth.

4. In a vacuum cleaning apparatus, a support, a cylindrical can mounted over an opening therein, a tubular member at the upper end of the can and communicating therewith, a pipe leading to said member, a cylindrical strainer made of fabric mounted within the can, open at its lower end and having its lower end secured to the can, a metallic cap within the can to which the upper end of the strainer is secured, a tubular extension on said cap of less exterior diameter than the interior diameter of said tubular member and extending upwardly through said member, a nut on said extension engaging said member, and a dust-receiver mounted below the support in alignment with said opening, substantially as set forth.

5. In a vacuum cleaning apparatus, a support, a cylindrical can mounted over an opening therein, a tubular member at the upper end of the can and communicating therewith, an outlet pipe connected to said member, a cylindrical strainer made of fabric mounted within the can, open at its lower end and having its lower end secured to the can, a metallic cap within the can to which the upper end of the strainer is secured, a tubular extension on said cap extending upwardly through said member and spaced from the walls of the member below said pipe, an inlet pipe connected to said tubular member, a valve controlling an opening in said member, and a dust-receiver mounted below the support in alignment with said opening, substantially as set forth.

1,078,652. TOP LIFT. SIDNEY W. WINSLOW, Orleans, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 15, 1912. Serial No. 731,550. (Cl. 36-34.)



1. As a new article of manufacture, a top lift adapted for attachment to heels of boots or shoes having a recess in its heel contacting face substantially in the slugging line and of less depth than the thickness of the top lift, to receive stock displaced in the slugging operation.

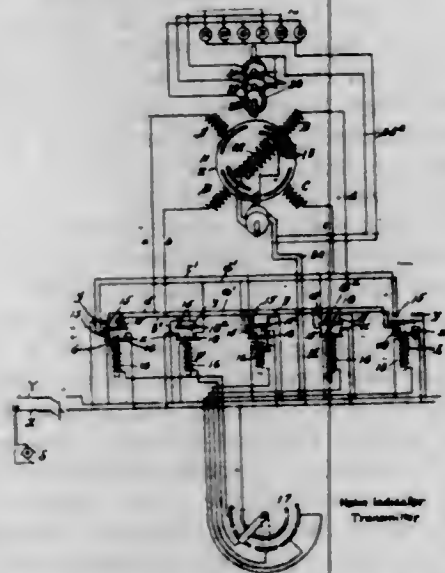
2. As a new article of manufacture, a top lift for heels of boots or shoes having a groove in its inner or flesh side so formed and located as to afford relief for the stock displaced during the slugging operation.

3. As a new article of manufacture, a top lift for heels of boots or shoes having in its flesh side a U-shaped groove located substantially in the slugging line to receive stock displaced by slugs, the groove terminating at a substantial distance from the breast edge of the lift.

4. As a new article of manufacture, a top lift for heels of boots or shoes having a U-shaped beveled margin on its grain side and a corresponding U-shaped groove in its flesh side.

5. As a new article of manufacture, a top lift for heels of boots or shoes having a slug receiving margin beveled on the grain side and provided in the flesh side with a recess to receive stock displaced by the slugs.
[Claims 6 to 10 not printed in the Gazette.]

1,078,653. SHIP'S TELEGRAPH. FRANK W. WOOD, New York, N. Y., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,832. (Cl. 177-337.)



1. A ship's telegraph comprising a semaphore on a mast, an electric motor, the poles of which may be energized in different combinations to give the semaphore a series of different positions, a source of power, electrically operated switches each arranged to connect said poles to said source of power in a different combination, and a controller for individually energizing said switches in accordance with changes in the course of a ship.

2. A ship's telegraph comprising a semaphore on a mast, an electric motor, the poles of which may be energized in different combinations to give the semaphore a series of different positions, electrically operated switches each arranged to connect certain of said poles to a source of power in a different combination, and a controller for operating said switches consecutively in accordance with changes in the course of a ship.

3. A ship's telegraph comprising a semaphore on a mast, an electric motor, the poles of which may be energized in different combinations to give the semaphore a series of different positions, a source of electric power, electrically operated switches each arranged to connect said poles to said source of power in a different combination, a controller for independently energizing said switches in accordance with changes in the course of a ship, series of lights of different colors mounted on the semaphore, and connected to the source of electric power, and switches connected between the source of power and the lights adapted to be automatically closed to illuminate the lights of a predetermined color depending upon the position of the semaphore with relation to a fixed point.

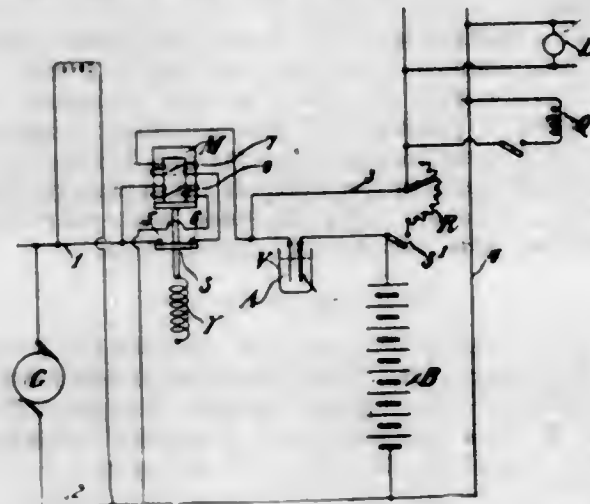
4. A ship's telegraph comprising a semaphore, an electric motor for operating said semaphore to move the same to definite positions to and from a normal "amidships" position, a series of switches each controlling the flow of current through said motor in a different direction, there being a plurality of paths for said current through the motor, whereby the closing of any switch will cause said motor and semaphore to turn to a position distinctive from that assumed on closing any other switch, electric means for controlling said switches, three groups each consisting of a plurality of lamps mounted on said semaphore, means controlled by the movement of the motor for lighting and maintaining lighted one of said groups of lamps when the semaphore is in "amidships" position, said means extinguishing said "amidships" light and lighting one or the other of the remaining groups

when the semaphore is to one side or the other of "amidships" position.

5. A ship's telegraph comprising a semaphore, an electric motor for operating said semaphore to move the same to definite positions to and from a normal "amidships" position, a series of switches each controlling the flow of current through said motor in a different direction, there being a plurality of paths for said current through the motor, whereby the closing of any switch will cause said motor and semaphore to turn to a position distinctive from that assumed on the closing of any other switch, electric means for controlling said switches, three groups each comprising a plurality of lamps mounted on said semaphore, means for lighting one group of said lamps when said semaphore is in "amidships" position, means for lighting and maintaining lighted another group of lamps when said semaphore is in either of two definite positions on one side of said "amidships" position, means for lighting the third group of lamps when said semaphore is in either of two positions on the other side of "amidships" position, and means for controlling said semaphore operating means.

[Claims 6 and 7 not printed in the Gazette.]

1,078,654. ELECTRICAL SYSTEM OF DISTRIBUTION. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Filed Sept. 29, 1911. Serial No. 651,941. (Cl. 171-314.)



1. In combination, a direct current source of varying voltage, a consumption circuit connected to the source, a storage battery connected to said circuit and of voltage normally lower than that of the source, and an electrolytic valve connected between the battery and the circuit in the direction to oppose the flow of charging current from the source but to permit the flow of discharge current between the battery and the circuit upon interruption of the source.

2. In combination, a direct current circuit of varying voltage, a storage battery connected thereto, an electrolytic valve connected between the battery and the circuit in the direction to oppose the flow of charging current but permit the flow of discharge current between the battery and the circuit, and a circuit in parallel with the electrolytic valve containing appropriate resistance for charging the battery from the first named circuit.

3. In combination, an electric circuit, a variable voltage source connected thereto, consumption apparatus supplied therefrom, a storage battery connected to the circuit, an electrolytic valve interposed between the battery and the circuit in the direction to oppose the flow of charging current but permit the flow of discharge current between the battery and the circuit, and an automatic switch actuated by discharge current from the battery, and adapted to disconnect the source from the circuit.

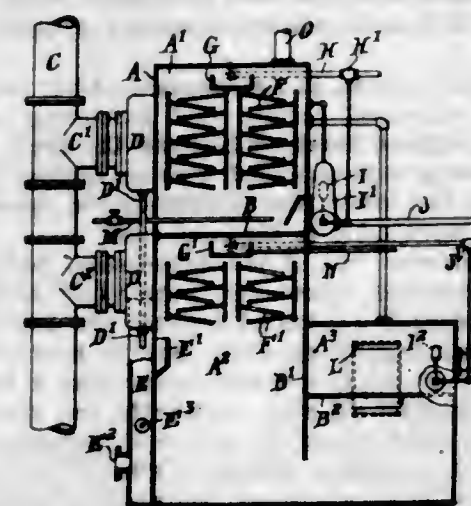
4. In combination, an electric circuit, a variable voltage source connected thereto, consumption apparatus supplied therefrom, a storage battery connected to the circuit, an electrolytic valve interposed between the battery and the circuit in the direction to oppose the flow of charging current but permit the flow of discharge current between the battery and the circuit, and an automatic switch

actuated by discharge current from the battery and adapted to disconnect the source and a part of the consumption apparatus from the circuit.

5. In combination, an electric circuit, a variable voltage source connected thereto, consumption apparatus supplied therefrom, a storage battery connected to the circuit, an electrolytic valve interposed between the battery and the circuit in the direction to oppose the flow of charging current but permit the flow of discharge current between the battery and the circuit, and an automatic switch adapted to disconnect the source from the circuit.

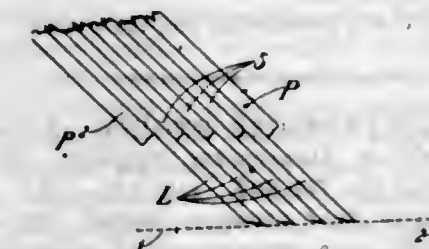
[Claim 6 not printed in the Gazette.]

1,078,655. METHOD OF WATER PURIFICATION. WILLIAM T. ALLIGER and JOSEPH W. GAMBLE, Philadelphia, Pa., and GEORGE H. GIBSON, Montclair, N. J., assignors to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., as firm of Harrison Safety Boiler Works, Philadelphia, Pa. Filed July 15, 1911. Serial No. 638,617. (Cl. 210-1.)



The method of heating and purifying water in an open feed water heater, which consists in so relatively supplying the water to be heated and steam for heating the water that the latter is heated and mechanically agitated to an extent sufficient to break up the bicarbonates in solution in the water and to drive off the free and liberated carbon dioxide and thereafter admixing with the water a chemical reagent adapted to react with the non-carbonate impurities contained in the water and again agitating the water while supplying heat thereto to further the reaction between said reagent and the impurities contained in the water under conditions permitting the free escape of gases liberated from the water.

1,078,656. LAMINATED CONTACT-BRUSH. CORNELIUS AMBRUSTER, Roslyn, Pa. Filed Mar. 7, 1912. Serial No. 682,164. (Cl. 171-210.)

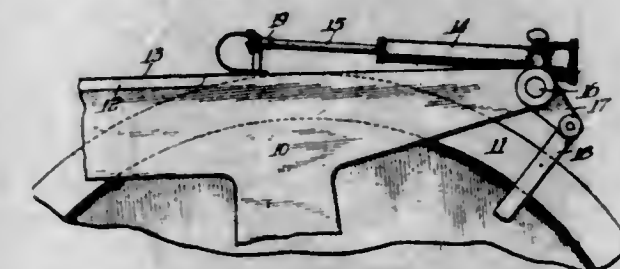


A contact brush consisting of laminations of which portions project and are free for deflection and have their ends beveled with the points and heels normally in two parallel planes respectively.

1,078,657. PAPER-GUIDE FOR PRESSES. LEOPOLD BAKKE, Chicago, Ill. Filed Jan. 15, 1912. Serial No. 671,284. Renewed Sept. 5, 1913. Serial No. 788,322. (Cl. 101-38.)

1. In a device of the class described, the combination with a sheet-stop plate adapted to be moved into and out

of engagement with an under guide or surface, of a spring guide secured at one end relative to said stop plate and having the other end movable relatively thereto and from the under guide and extending substantially parallel thereto for a considerable distance in advance of the stop plate, and means for adjusting the exact distance the under surface of the spring guide shall be above the upper surface of the under guide at a point directly below the bottom of the stop plate, said means engaging the spring guide at said point.



2. In a device of the class described, the combination with a sheet-stop plate adapted to be moved into and out of engagement with an under guide or surface, of a spring guide secured at one end relative to said stop plate and having the other end movable relatively thereto and from the under guide and extending substantially parallel thereto for a considerable distance in advance of the stop plate, a member movable to and from the bottom of the stop plate and adapted to engage the upper surface of the spring guide immediately adjacent said bottom, and means for moving said member and securing it in any desired position of adjustment.

3. In a device of the class described, the combination with a sheet-stop plate adapted to be moved into and out of engagement with an under guide or surface, of a spring guide secured at one end relative to said stop plate and having the other end movable relatively thereto to and from the under guide, a member carried by the stop plate and guided thereon and movable to and from the bottom of the stop plate, and adapted to engage the upper surface of the spring guide adjacent said bottom, and means for moving said member and securing it in any desired position of adjustment.

4. In a device of the class described, the combination with a stop-plate member having an apertured offset upper end, of a parallel adjusting plate adapted to slide vertically thereon and having an offset end, a screw journaled to turn in the apertured offset end, and threaded through the offset end of the adjusting plate, and a spring guide secured at one end relative to the stop-plate member and having the other end movable relatively thereto to and from the under guide and engaged by the bottom of the adjusting-plate member.

5. In a device of the class described, the combination with a supporting plate, of a stop plate carried thereby, said plates adapted to be moved to bring the under side of the stop plate into and out of engagement with an under guide or surface, of a spring guide secured at one end relative to the supporting plate and having the other end movable relatively thereto to and from the under guide, an adjusting plate sliding on the stop plate, a screw journaled in the supporting plate and threaded through the adjusting plate, and means for locking the screw in any desired position of adjustment.

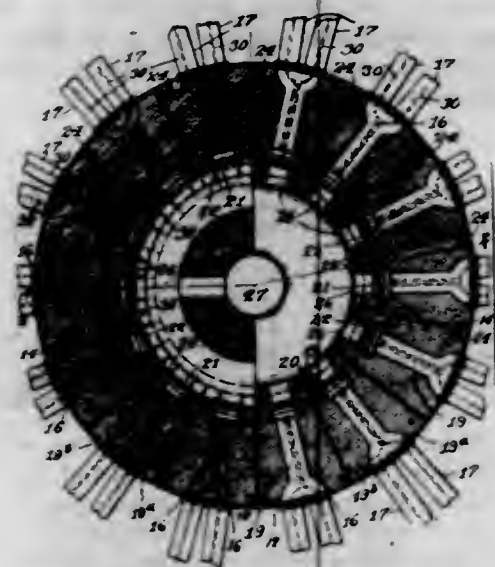
[Claims 6 to 8 not printed in the Gazette.]

1,078,658. COMBINED CRIB AND INTAKE. WILLIAM D. BARBER, Chicago, Ill. Filed June 5, 1913. Serial No. 771,940. (Cl. 61-1.)

1. A combined crib and intake, comprising a pair of spaced shells, means for maintaining them in proper relative position, the space intermediate of said shells being provided with a bottom so as to provide a water-tight inclosure between the shells, both shells being provided with ports in proximity to the lower edges thereof.

2. A combined crib and intake, comprising a pair of concentrically arranged spaced shells, means for maintaining said shells in proper relative position, the space

intermediate of the shells being provided with a bottom at a distance removed from the lower edges of said shells so as to provide a water-tight inclosure between the shells, both shells being provided with radially arranged ports in proximity to and above the bottom, and conduits or intake pipes communicating with said ports.



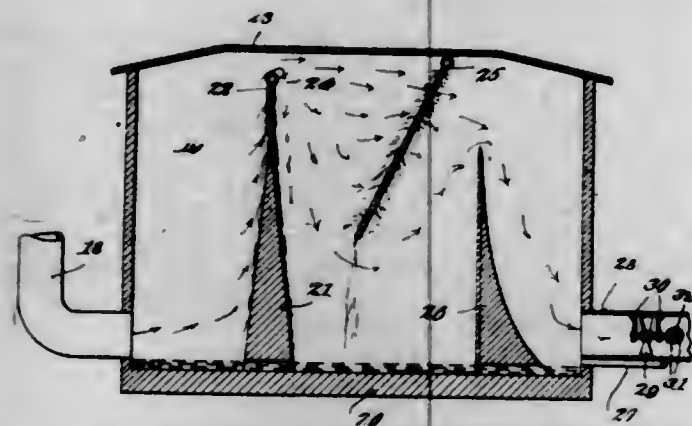
3. A combined crib and intake, comprising a pair of spaced shells, the space intermediate of said shells being provided with a bottom at a distance removed from the lower edges of the shells, and a series of ports arranged in aligned position in the inner and outer shell.

4. A combined crib and intake, comprising a pair of spaced shells, the space intermediate of said shells being provided with a bottom so as to form a water-tight inclosure between the shells, and a series of inlets extending from the outer shell to the space within the inner shell.

5. A combined crib and intake, comprising a pair of spaced shells, the space intermediate of said shells being provided with a bottom at a distance removed from the lower edges thereof so as to form a water-tight inclosure between the shells, a series of intake openings arranged in both of said shells whereby communication from without the outer shell may be established with the space within the inner shell, and means for extracting water from beneath said bottom.

[Claims 6 to 20 not printed in the Gazette.]

1,078,659. SMOKE-CLEANING DEVICE. CHARLES E. BARRY, Baltimore, Md. Filed Oct. 23, 1912. Serial No. 727,305. (Cl. 110—183.)

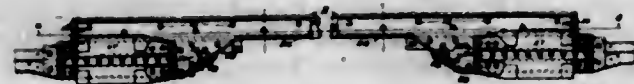


1. A device of the character described, comprising a chamber, a smoke inlet and outlet near the bottom at opposite sides of said chamber, a wedge-shaped baffle projecting upward from the bottom of said chamber, a pipe to supply water to the sides of said baffle, said pipe being positioned adjacent the top edge of said baffle leaving a smoke passage between it and the top of the chamber, a second baffle in said chamber, and means for producing a water baffle between the above mentioned baffles.

2. A device of the character described, comprising a chamber, a smoke inlet and outlet near the bottom at op-

posite sides of said chamber, a wedge-shaped baffle projecting upward from the bottom of said chamber, a pipe to supply water to the sides of said baffle, said pipe being positioned adjacent the top edge of said baffle leaving a smoke passage between it and the top of said chamber, and means between the wedge-shaped baffle and the outlet for producing a spray from the top to the bottom of said chamber.

1,078,660. SILL FOR RAILWAY-CARS. RICHARD W. BURNETT and HENRY H. VAUGHAN, Montreal, Quebec, Canada. Filed Sept. 27, 1912. Serial No. 722,689. (Cl. 105—76.)



1. In a railway car, draft rigging, a car body and means of eccentrically transferring thereto excessive shocks received by the draft rigging, said means comprising Z-bar center-sills and draft-sills secured thereto and extending below the center-sills, the said draft-sills being each provided with a flanged portion arranged obliquely of the center-sills.

2. In a railway car, in combination, Z-bar center sills, draft sills connected thereto and extending below the same, draft rigging mounted between the draft sills, the draft sills being each provided with an oblique flange extended along the lower rear portion of the same, and upwardly and rearwardly to the center sill.

3. In a railway car, Z-bar center-sills, body-bolsters, draft-sills extended below the center-sills and secured thereto, draft rigging mounted between the draft-sills, and means of transferring excessive shocks received by the draft rigging to the center-sills comprising a flange provided on each draft-sill and rearwardly and upwardly extended to the plane of the upper face of the adjacent body-bolster and thence along the center-sills.

4. In a railway car, Z-bar center-sills, body-bolsters, draft-sills extended below the center-sills and secured thereto, draft rigging mounted between the draft-sills, the said draft-sills each comprising a flat plate provided with an angle iron secured along its length to the adjacent center-sill and the said angle iron abutting at its rear end against the body-bolster, each of said draft-sills having a flange along its lower rear portion obliquely extended upwardly and rearwardly to the adjacent center-sill.

5. In a railway car, Z-bar center sills, body-bolsters, draft-sills extended below the center-sills and secured thereto, draft rigging mounted between the draft-sills, the said draft-sills each comprising a flat plate provided with an angle iron secured along its length to the adjacent center-sill and abutting at its rear end against the body-bolster and the said draft sills being each also provided with a longitudinal reinforcing angle iron along its lower edge, each of said draft-sills having an oblique flange along its lower rear portion extended upwardly and rearwardly to the adjacent center-sill.

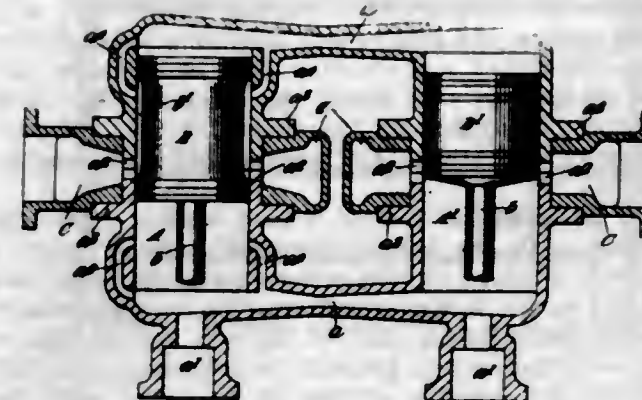
[Claims 6 and 7 not printed in the Gazette.]

1,078,661. FLUID-PRESSURE ENGINE. ALAN ERNEST LEOPRIC CHORLTON, Manchester, England. Filed June 25, 1912. Serial No. 705,697. (Cl. 121—23.)

1. In a valveless fluid pressure engine, two cylinders placed side by side, open communicating passages between both ends of the cylinders, inlet ports midway of one cylinder, exhaust ports midway of the second cylinder and a double acting piston in each cylinder, one of the said pistons being given a lead with respect to the other.

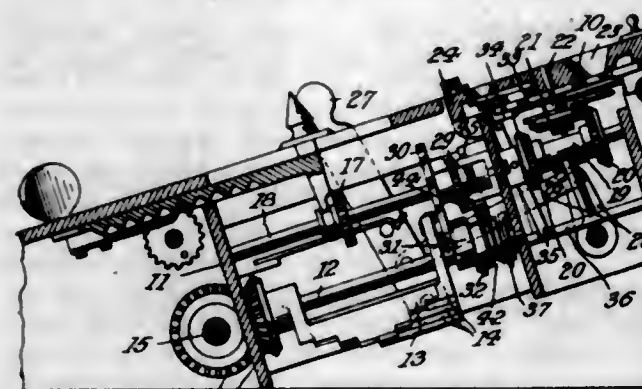
2. In a valveless steam engine, communicating admission and exhaust cylinders placed side by side, central inlet and exhaust ports for the said cylinders, steam by-pass channels at each end of the admission cylinder, a double acting exhaust piston and a double acting admission piston having a steam channel adapted to afford communication between the inlet port and the said by-pass at the end of a stroke.

3. In a valveless steam engine, communicating admission and exhaust cylinders placed side by side, central inlet and exhaust ports for the said cylinders, steam by-pass channels at each end of the admission cylinder, a



double acting exhaust piston and a double acting admission piston the body of which is reduced to form an annular surrounding steam space in communication with the inlet port and adapted to open the inlet to the said by-pass at the end of a stroke.

1,078,662. TRANSFER MECHANISM FOR CALCULATING-MACHINES. HENRY W. CLEMENT, Rutland, Vt. Filed Jan. 16, 1913. Serial No. 742,346. (Cl. 235—133.)



1. In a device of the character described, a rotatable shaft, a hub slidable thereon and carrying a transfer finger, said hub being provided with a cylindrical section and with a circumferential groove that gradually merges into said cylindrical section, a spring-influenced retaining member that normally engages the cylindrical hub section, and means for shifting the hub on the shaft to bring said member into engagement with the hub-groove.

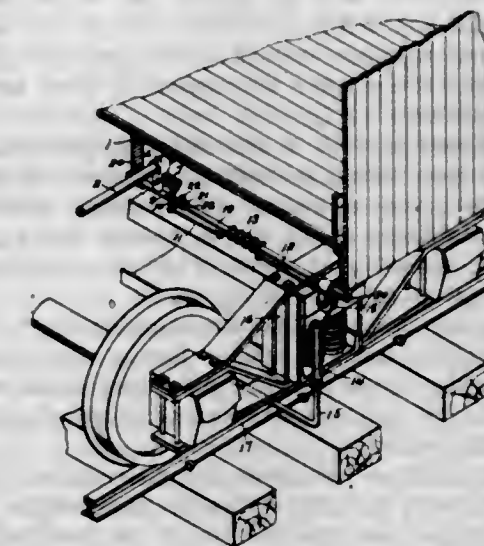
2. In a device of the character described, a spring-influenced retaining member, an inclined rotatable shaft, a hub slidable thereon and carrying a transfer finger, said hub being provided with a cylindrical section and with a circumferential groove that gradually merges into said cylindrical section, means for shifting the hub on the shaft to its lowermost position, the weight of the hub causing the latter to retain such lowermost position whereby the cylindrical hub section is maintained in engagement with the retaining member, and means for raising the hub on the shaft against its weight to bring the grooved hub-section into engagement with the retaining member.

3. In a device of the character described, a spring-influenced retaining member having a chamfered end, an inclined rotatable shaft, a hub slidable thereon and carrying a transfer finger, said hub being provided with a cylindrical section and with a circumferential groove having an inclined side wall and gradually merging into said cylindrical section, means for shifting the hub on the shaft to its lowermost position, the weight of the hub causing the latter to retain such lowermost position whereby the cylindrical hub section is maintained in engagement with the retaining member, and means for raising the hub on the shaft against its weight to bring the grooved hub section into engagement with the retaining member, the engagement between the chamfered end of said member

and the inclined groove-wall assisting the raising means in the movement of the hub.

4. In a device of the character described, a spring-influenced retaining member having a chamfered end, an inclined rotatable shaft, a hub slidable thereon and carrying a transfer finger, said hub being provided with a cylindrical section and with a circumferential groove having an inclined side wall and gradually merging into said cylindrical section, a cam surface on the hub, a stationary pin adapted to be engaged by said surface to shift the hub on the shaft to its lowermost position, the weight of the hub causing the latter to retain such lowermost position whereby the cylindrical hub section is maintained in engagement with the retaining member, means for raising the hub on the shaft against its weight to bring the grooved hub section into engagement with the retaining member, the engagement between the chamfered end of said member and the inclined groove-wall assisting the raising means in the movement of the hub.

1,078,663. SAFETY APPLIANCE FOR AIR-BRAKE MECHANISMS. WILLIAM M. CRANDALL, Stillwell, Kans. Filed June 20, 1912. Serial No. 704,758. (Cl. 188—2.)

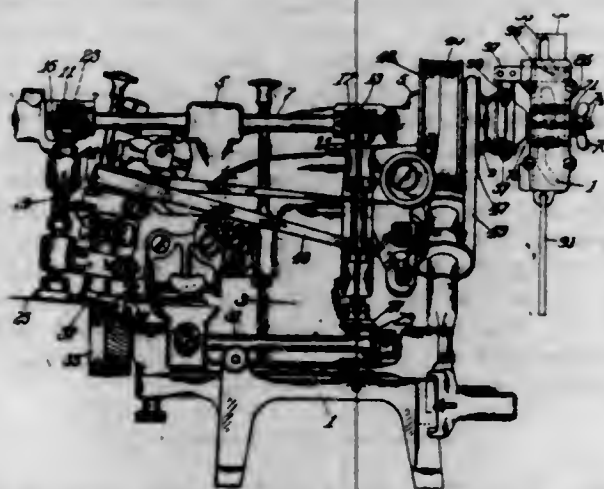


1. In a safety appliance for air brake mechanisms, the combination with a car having a truck and a body carried by the truck, of a train pipe mechanism carried by the body and including a controlling valve, a lever pivoted to the truck and normally held in an inoperative position when the truck is on the track and movable to an operative position when the truck leaves the track, a swinging support carried by the body and swinging about an axis at right angles to the length of the body, a second lever for actuating the controlling valve, and a flexible device connecting the two levers and mounted on said swinging support for operating the second lever when the first lever is moved to the operative position.

2. In a safety appliance for air brake mechanisms, the combination with a car, of a train pipe mechanism carried by the car and including a controlling valve, a transverse bar carried by the car, a lever for actuating the said valve, a second lever pivoted to the car so as to be adapted to swing forwardly and backwardly, a pulley mechanism pivoted to said bar, and a flexible device passing over said pulley mechanism and supported thereby and connected to said levers for operating the first lever when the second lever is swung, said flexible device including a coil spring supported by said bar.

3. In a safety appliance for air brake mechanisms, the combination with a car, of a train pipe mechanism including a controlling valve, a transverse bar carried by the car, a lever for actuating said valve, a second lever normally inactive, but adapted to be swung forwardly or backwardly when the car leaves the track, said second lever being pivoted to the car on an axis parallel with said bar, a pulley mechanism pivotally but not longitudinally movable on said bar, and a flexible connecting mechanism attached to said two levers and supported by said pulley mechanism.

1,078,664. TRANSMITTING DEVICE. EUGENE F. DAYENPORT, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 11, 1909. Serial No. 495,335. (Cl. 69—16.)



1. The combination with a plurality of instrumentalities for acting upon stock of a belt for actuating one of said instrumentalities and a clutch for actuating the other, of a single manually controlled means for shifting said belt and one member of said clutch successively and for accomplishing the reverse movement of these elements in the reverse order.

2. The combination with a plurality of instrumentalities for acting upon stock, a shaft for driving one of said instrumentalities, and a pulley for driving another of said instrumentalities, of a single means for applying power to said pulley and shaft and for varying the speed of rotation of said shaft.

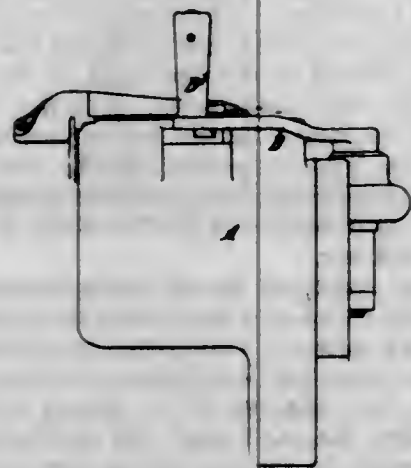
3. A skiving machine having in combination a knife, feeding mechanism and a single means for applying power successively to said knife and feeding mechanism and for varying at will the amount of power applied to said feeding mechanism.

4. A skiving machine having in combination a feed roll acting to feed stock, a knife acting to skive stock so fed and a single means for applying power to the knife and roll successively.

5. A skiving machine having in combination a feed roll acting to feed stock, a knife acting to skive stock so fed, and a single means for applying power to the knife, for applying power to the roll, and for varying the rate at which the roll feeds the stock.

[Claims 6 to 11 not printed in the Gazette.]

1,078,665. HANG-FIRE DEVICE FOR BREECH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Jan. 10, 1910. Serial No. 537,155. (Cl. 89—24.)



1. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever, of a catch situated on the breech actuating lever and adapted to engage in a pocket formed in the gun, a contrivance

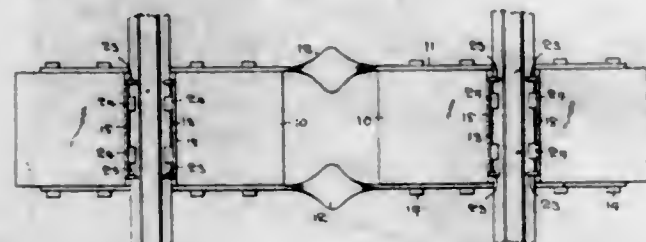
affixed to a non-recoiling part of the gun, and a projection on said catch adapted to cooperate with said contrivance so that the catch is retained in its pocket until the gun has recoiled after firing.

2. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever, of a catch situated on the said breech actuating lever, a contrivance affixed to a non-recoiling part of the gun, and a device on the gun with which the catch is adapted to engage, said contrivance on the runout of the gun positively moving the catch out of engagement with said device.

3. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever of a spring catch situated on the breech actuating lever and adapted to engage in a pocket formed in the gun, a horn affixed to a non-recoiling part of the gun and having an inclined nose, and means adapted to cooperate with said horn so that the catch is retained in its pocket until the gun has recoiled.

4. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever, of a spring catch situated within the handle of the breech actuating lever, a device on the gun with which said catch is adapted to engage, a horn affixed to a non-recoiling part of the gun and having an inclined nose, and a pawl attached to said spring catch, said pawl cooperating with the said horn to retain the catch in engagement with the aforesaid device until the gun has recoiled.

1,078,666. RAILROAD-TIE. JAMES PETER DONOVAN, Georgetown, Ky. Filed Jan. 23, 1913. Serial No. 743,813. (Cl. 238—5.)



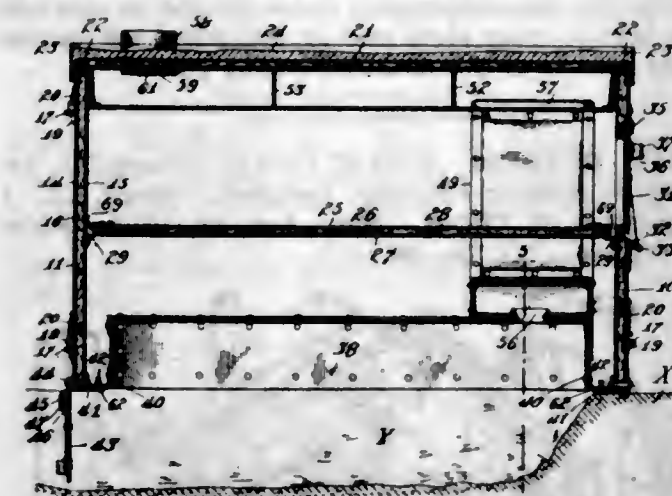
1. In a railroad tie, a concrete base member, a rail seat provided with depending apertured members and tongues adapted to be bent into contact with a rail flange, and anchoring means engaging the apertures, said depending members and anchoring means being embedded within the concrete base member.

2. In a railroad tie, a concrete base member, a rail seat providing substantially vertical side members, tongues thereon adapted to be bent into contact with a rail flange, apertured members depending vertically from said side portions, anchoring means engaging the apertures, said anchoring means and depending members being embedded within the concrete base.

3. In a railroad tie, a concrete base member, a rail seat providing substantially vertical side portions adapted to embrace edges of a rail flange, tongues stamped in said side portion and adapted to be bent inwardly to engage said rail flange, apertured members depending vertically from said side portions and integral therewith, and bent rods adapted to engage said apertured members, said members and rods being embedded in the concrete base.

4. In a railroad tie, a concrete base, a rail seat having a horizontal bottom embedded in the concrete, substantially vertical side walls integral with said bottom and adapted to embrace the edges of a rail flange, tongues stamped in said side walls and adapted to be bent from their lower ends to engage said rail flange, apertured members stamped from the bottom between the side walls and depending vertically therefrom, and embedded in the concrete, and rods engaging opposite depending members, the portions of the rods underlying said bottom being bent downwardly and embedded in the concrete, said side walls provided with openings, whereby an instrument may be inserted for bracing said side walls while said tongues are being bent inwardly.

1,078,667. BAKE-OVEN. JOHN FAULDS, Oak Park, Ill., assignor of one-half to John I. Marshall, Chicago, Ill. Filed Mar. 8, 1912. Serial No. 682,400. (Cl. 107—62.)



1. In a bake oven in combination, a bottomless rectangular casing, the walls and roof of the casing being each formed from a single rigid slab and the roof slab being chambered, a shelf detachably supported upon the said wall slabs and dividing the chamber of the casing into upper and lower compartments and constituting a hearth, a cover for a fire box chamber located below the said hearth and a flue pipe detachably connected at its opposite ends to the said cover and roof slab respectively and leading from the said fire box chamber, through an opening in the said hearth to the chamber of the roof slab.

2. In combination, a bake chamber having a charging door at one side, a fire box and means for concentrating the heat from the fire box about that part of the bake chamber adjacent the said charging door comprising a smoke flue leading from the said fire box entirely about the bake chamber adjacent the side having the charging door and along that part of the bake chamber remote from the charging door at the top only.

3. In a bake oven in combination, a bottomless casing having vertical side walls and a roof, a ledge having an upstanding flange at its outer edge extending horizontally across the inside face of each of two opposite side walls, a hearth supported by the said ledges, the corresponding edges of the hearth being provided with downturned flanges which are hooked over the upturned flanges of the ledges whereby the hearth prevents bulging of the said vertical walls of the casing and a fire box located below the hearth.

4. In combination, a bake chamber having a charging door at one side, a fire box and means for concentrating the heat from the fire about that part of the bake chamber adjacent the said charging door comprising a smoke flue leading from the fire box entirely about the bake chamber adjacent the side having the charging door the said smoke flue being of less width than the width of the bake chamber.

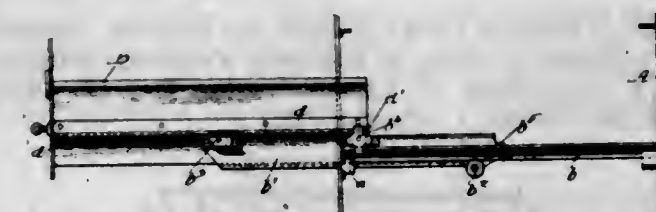
5. In a bake oven, in combination, a rectangular casing, a shelf dividing the chamber of the casing into upper and lower compartments, a charging door in one side of the casing above the shelf, a fire-box located below the shelf, and means for concentrating the heat from the fire-box about that part of the upper compartment adjacent the said charging door comprising a pair of flues of less width than the width of the casing leading from the fire-box upwardly at opposite ends of the casing adjacent that side of the same having the charging door and thence in opposite directions across the top of the said upper compartment adjacent the same side of the casing to a juncture.

[Claim 6 not printed in the Gazette.]

1,078,668. FILING-CABINET. JOHN A. FRASER, Benton Harbor, Mich., assignor to Metal Sectional Furniture Company, Portland, Me., a Corporation. Filed Aug. 6, 1909. Serial No. 511,478. (Cl. 45—77.)

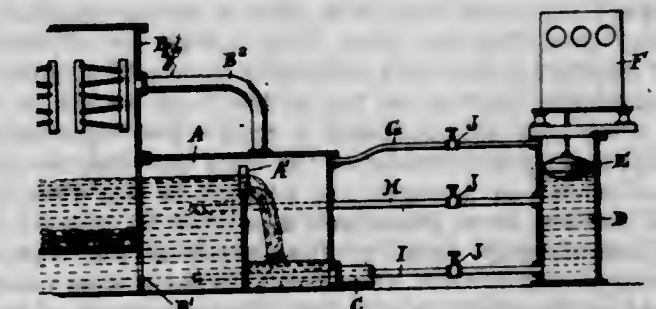
1. In a filing cabinet, the combination with a case provided with a drawer, of a drawer support comprising paral-

lel flanged tracks secured to the opposite sides of said case, upper and under bearing faces provided on said flanged tracks, drawer tracks secured to said drawer, upper and under bearing faces provided on said drawer tracks, slides consisting of angle irons positioned to embrace the lower side corners of said drawers, said slides provided on their under sides near their inner ends with rollers adapted to engage the under face of said flanged tracks, other rollers mounted upon the outer side of said slides near their outer ends, each of said last named rollers being adapted to engage simultaneously the said drawer tracks and the said flanged tracks, means for preventing the downward tilting of the drawer with reference to the slides consisting of a bracketed arm attached to said slides adapted to engage the upper face of the said drawer tracks and means for preventing the lateral movement of the said slides.



2. In a filing cabinet, the combination with a case provided with a drawer, of a drawer support comprising parallel flanged tracks secured to the opposite sides of said case, upper and under bearing faces provided on said flanged tracks, drawer tracks secured to said drawer, upper and under bearing faces provided on said drawer tracks, slides consisting of angle irons positioned to embrace the lower side corners of said drawers, slides provided on their under sides near their inner ends with flanged rollers adapted to embrace the under face of said flanged tracks, other rollers mounted on the outer side of said slides and being adapted to engage simultaneously the said drawer tracks and the said flanged tracks, channel forming flanges provided on the under face of the said drawer tracks, being designed to embrace the said other rollers and being adapted by coacting with the said flanged rollers to prevent the lateral movement of the said slides, and stops for limiting the outer movement of the slides with reference to the flanged tracks and stops for limiting the outer movement of the drawer with reference to the slides.

1,078,669. MEASURING APPARATUS. JOSEPH W. GAMBLE, Philadelphia, Pa., assignor to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., as Firm of Harrison Safety Boiler Works, Philadelphia, Pa. Filed Feb. 20, 1913. Serial No. 749,664. (Cl. 73—167.)



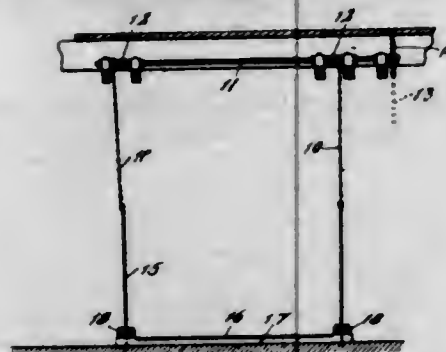
1. Liquid measuring apparatus comprising in combination, a weir chamber having an inlet compartment and a weir over which liquid may flow out of said inlet chamber, a measuring tank having a measuring compartment, conduit means connecting said compartments for equalizing the liquid levels therein, and other conduit means connecting said weir chamber and tank for equalizing the temperatures therein.

2. Liquid measuring apparatus comprising in combination, a weir chamber having an inlet compartment and a weir over which liquid may flow out of said inlet chamber, a measuring tank having a measuring compartment, two pipe connections between said compartments one

opening to each compartment at levels below those respectively at which the other pipe connection opens thereto and each opening to each compartment at a level below the liquid level normally prevailing therein.

3. Liquid measuring apparatus comprising in combination, a closed weir chamber and a weir therein dividing said weir chamber into inlet and outlet compartments, a closed measuring tank having a measuring compartment, two pipe connections between said inlet compartment and said measuring compartment one opening to each compartment at levels below those respectively at which the other pipe connection opens thereto, and each opening to each of said compartments at a level below the liquid level normally prevailing therein, and a vapor equalizing connection between said weir chamber and measuring tank opening to each above the liquid level normally prevailing therein.

1,078,670. WAGON-DUMP. JOHN H. GILMAN, Ottawa, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Filed Mar. 7, 1910. Serial No. 547,902. (Cl. 214-12.)



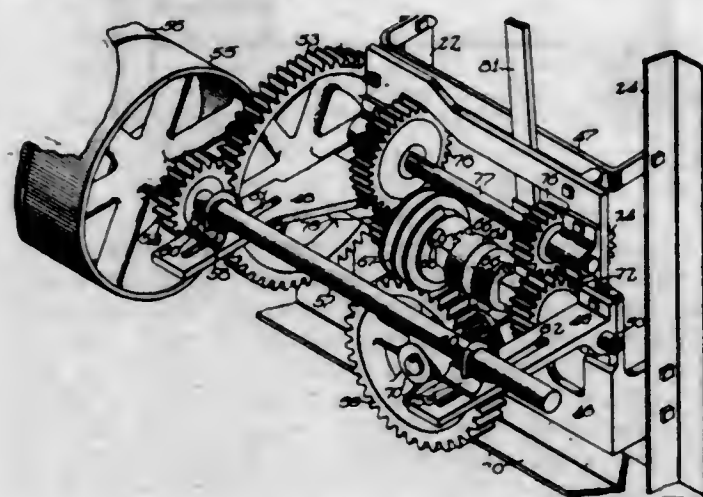
1. In a wagon dump, the combination with a framework, of a pair of flexible members suspended therefrom at a considerable height, means for winding up said members, rigid balls suspended from said members at or above the level of the top of the front wheels of a wagon when they are unwound, a rigid wheel-supporting frame connecting the bottoms of the balls and upon which the front wheels of a wagon are adapted to rest, and a pair of tie rods of a length substantially equal to the length of the wheel-supporting frame pivoted at one end to the frame and at the other ends to the framework toward where the rear wheels of the wagon rest, said flexible members and tie rods constituting the only connections between the framework and the wheel-supporting frame and its balls, substantially as and for the purpose described.

2. In a wagon dump, the combination with a framework having bottom side pieces substantially of the length of a wagon, a bottom cross piece at the rear end, side frames, and a top cross piece at the top of the side frames and toward the front end, of a pair of flexible members suspended from the top cross piece, means for winding up said members, rigid balls suspended from said members at or above the level of the top of the front wheels of a wagon when they are unwound, a rigid wheel-supporting frame connecting the bottoms of the balls and upon which the front wheels of a wagon are adapted to rest directly beneath the top cross piece, and a pair of tie rods of a length substantially equal to the length of the wheel-supporting frame pivoted at one end to the bottom cross piece and at the other ends to the adjacent corners of the wheel-supporting frame.

3. In a portable wagon dump, the combination with a frame having bottom side pieces adapted to be folded at the middle and when extended substantially of the length of a wagon, a bottom cross piece at the rear end, side frames at the front end, a top cross piece at the top of the side frames, and detachable brace rods extending from the rear ends of the side pieces toward the tops of the side frames and connected thereto, of a pair of flexible members suspended from the top cross piece, means for winding up said members, rigid balls suspended from said members at or above the level of the top of the front wheels of a wagon when they are unwound, a rigid wheel-

supporting frame connecting the bottom of the balls and upon which the front wheels are adapted to rest, and a pair of tie rods of a length substantially equal to the length of the wheel-supporting frame pivoted at one end to the bottom cross piece and at the other end to the adjacent corners of the wheel-supporting frame.

1,078,671. GEARING. JOHN H. GILMAN, Ottawa, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Filed Jan. 25, 1912. Serial No. 673,468. (Cl. 74-59.)



1. In a device of the class described, the combination with a framework, of a driven shaft associated therewith, gearing for driving said shaft in both directions, a drive shaft for said gearing rotating in one direction, a gear wheel secured to said drive shaft, a pinion meshing with said wheel, a drive pulley secured to rotate with the pinion, and adjustable bearings for said pulley and pinion.

2. In a device of the class described, the combination with a framework, of a driven shaft associated therewith, gearing for driving said shaft in both directions, a drive shaft for said gearing rotating in one direction, a gear wheel secured to said drive shaft, a pinion meshing with said wheel, a drive pulley secured to rotate with the pinion, a frame casting attached to the framework, slotted brackets attached to the frame casting, blocks and clips adjustably secured in the slots of the brackets, and a stationary shaft held by the clips upon the blocks and upon which the pulley and pinion are journaled.

3. In a device of the class described, the combination with a drive shaft, of a clutch sleeve splined thereon, a clutch pinion loose on said shaft, a combined worm and clutch pinion also loose on said shaft, a countershaft, two pinions secured thereon, one meshing with the combined clutch and worm pinion, an idle pinion interposed between the other of the two pinions and the clutch pinion, a worm wheel meshing with the worm, a shaft on which the worm wheel is secured, a sprocket wheel on the shaft, a sprocket chain coöperating with the wheel, a shifting lever coöperating with the clutch sleeve, and a stop member on the chain engaging the shifting lever.

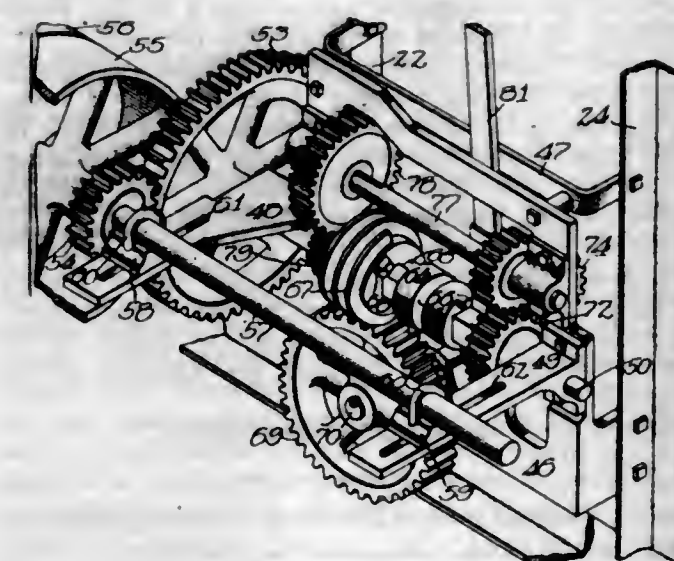
4. In a device of the class described, the combination with a drive shaft, of a clutch sleeve splined thereon, a clutch pinion loose on said shaft, a combined worm and clutch pinion also loose on said shaft, a countershaft, two pinions secured thereon, one meshing with the combined clutch and worm pinion, an idle pinion interposed between the other of the two pinions and the clutch pinion, a worm wheel meshing with the worm, a shaft on which the worm wheel is secured, a sprocket wheel on the shaft, a sprocket chain coöperating with the wheel, a shifting lever coöperating with the clutch sleeve, a stop member on the chain engaging the shifting lever, and a member connected to said chain and moving therewith.

5. In a device of the class described, the combination with a drive shaft, of a clutch sleeve splined thereon, a clutch pinion loose on said shaft, a combined worm and clutch pinion also loose on said shaft, a countershaft, two pinions secured thereon, one meshing with the combined clutch and worm pinion, an idle pinion interposed between

the other of the two pinions and the clutch pinion, a worm wheel meshing with the worm, a shaft on which the worm wheel is mounted, and means for shifting the clutch sleeve.

[Claim 6 not printed in the Gazette.]

1,078,672. WAGON-DUMP. JOHN H. GILMAN, Chicago, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Original application filed Jan. 25, 1912, Serial No. 673,468. Divided and this application filed May 18, 1912. Serial No. 698,143. (Cl. 214-12.)



1. In a wagon dump, the combination with a pair of inclined end frames, of cross pieces at the top, tie rods at the bottom, vertical guide bars within the end frames, rigid connections between the end frames and the guide bars, a lifting frame, eyes secured to the lifting frame and embracing the guide bars, pulleys journaled above the guide bars, chains connected to the ends of the lifting frame and passing over the pulleys, one of said chains extending across the dump adjacent the cross pieces, driving means associated with an end frame, gearing driven by said means, and connections between said chains and gearing, for the purpose described.

2. In a wagon dump, the combination with a pair of inclined end frames, of cross pieces at the top, tie rods at the bottom, vertical guide bars within the end frames, rigid connections between the end frames and the guide bars, a lifting frame, eyes secured to the lifting frame and embracing the guide bars, pulleys journaled above the guide bars, chains connected to the ends of the lifting frame and passing over the pulleys, driving means associated with an end frame, gearing driven by said means, a yoke connected to the other ends of the chains, a rod connected to the yoke, a sprocket chain connected to the rod, and a sprocket wheel engaged by the sprocket chain and driven by the gearing.

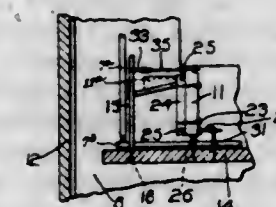
3. In a wagon dump, the combination with the bottom bars 20 and 21, inclined bars 22 and 24, 23 and 25, cross pieces 26 and 27 connecting the top of the inclined bars, tie rods 28 and 29 connecting the bars 20 and 21, vertical guide bars 42 connected with the side frames by the angular pieces 44 and 45, a lifting frame 35 having downwardly extending channels 38 embracing the tie rods 28 and 29 when the frame is down, eyes 41 and 43 secured to the lifting frame and embracing the guide bars 42, pulleys, 30, 31 and 32 journaled in the frame above the guide bars 42, chains 33 and 34 connected to the ends of the lifting frame and extending over the pulleys, driving means associated with an end frame, gearing driven by said means, and connections between the chains 33 and 34 and said gearing.

4. In a wagon dump, the combination with a framework, of hoisting mechanism associated therewith, driving means, gearing driven thereby, reversing mechanism in said gearing, a sprocket chain, sprocket wheels with which the chain coöperates, one of said sprocket wheels

being secured in the gearing, connections between one side of the chain and the hoisting mechanism, a tripping member carried by the other side of the chain, and connections between said tripping member and the reversing mechanism for automatically stopping the hoisting mechanism at the limit of its movement in either direction.

5. In a wagon dump, the combination with a framework having the cross piece 86 therein, of hoisting mechanism associated therewith, driving means, gearing driven thereby, reversing mechanism in said gearing, a sprocket wheel 71 in said gearing, a sprocket wheel 89 journaled in the yoke 90 carried by the threaded rod 91 passing through an aperture in the cross piece 86, a nut coöperating with the threaded rod to regulate the position of the sprocket wheel 89, the sprocket chain 88 connecting the wheels 71 and 89, a rod 37 connected to one side of the sprocket chain 88 and to the hoisting mechanism and passing through an aperture in the cross piece 86, a tripping mechanism including a tripping rod 85 extending through an aperture in the cross piece 86, a stop 87 secured on the rod 85, and an eye 94 carried by the other side of the chain 88 and embracing the rod 85, for the purpose described.

1,078,673. AUTOMATICALLY-OPERATED PIANO. AXEL G. GULBRANSEN, Chicago, Ill., assignor to Gulbransen-Dickinson Company, Chicago, Ill., a Corporation of Illinois. Filed May 3, 1910. Serial No. 559,125. (Cl. 84-233.)



1. In an automatically playing piano, in combination, a framework, a channel board, means for supporting said board by securing it at its ends to the piano framework, screw threaded posts intermediate its ends for adjusting the position of the board, bifurcated posts on the framework through which said first named posts may pass, and nuts on said first named posts associated with said second named posts.

2. In an automatically playing piano, in combination, a channel board carrying pneumatic action mechanisms for association with the hammers of the piano, a screw-threaded rod pivoted upon an axis substantially parallel to the board stationary relative to the piano framework, said board having an opening to receive said rod, and a nut on said rod on each side of said board.

3. In an automatically playing piano, in combination, a framework, cleats secured to the side pieces of the framework, a plurality of adjustable flat-headed screws secured in the bed of the framework between said side pieces, and a channel board with a flat bottom resting face to face upon the heads of said screws, said board being secured to said cleats.

4. In an automatically playing piano, in combination, a plurality of adjustable screws secured in the piano framework, a channel board resting on said screws so as to be capable of movement thereon, a screw-threaded rod, secured thereto and extending forwardly therefrom, a member rigid with the framework and having a notch therein through which said rod passes, and a nut on said rod on each side of said members.

5. In an automatically playing piano, in combination, a channel board, a screw-threaded rod extending therefrom, a member rigid with the piano casing and having a notch through which said rod passes, a nut on said rod on each side of said member, a screw-threaded rod pivoted upon an axis stationary relative to the piano framework, said board having a notch to receive said rod, and a nut on said rod on each side of said board.

[Claims 6 and 7 not printed in the Gazette.]

1,078,674. SAND VALVE OR STRAINER. ALEXANDER HAMILL, Baltimore, Md. Filed Feb. 24, 1913. Serial No. 750,402. (Cl. 210-18.)

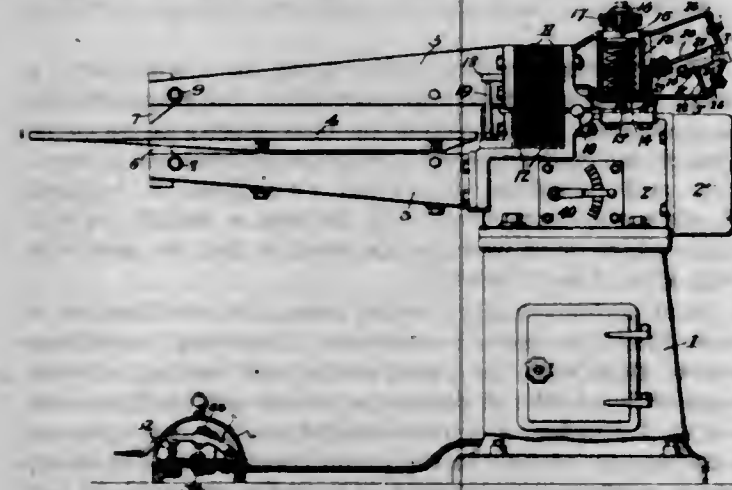


1. A valve of the class described comprising a tubular base, a flange around its upper end, a cross bar within the flange, a stud rising from the center of said bar, a series of spaced disks each consisting of a ring above said flange and a cross bar within the ring having a central aperture, an uppermost disk consisting of a normally convex central portion pierced with an aperture and a marginal inclined flange wider than said rings, means for spacing the disks, lugs depending in pairs from the edges of said cross bars, the lowermost pair engaging the cross bar of the body flange, the next pair above engaging the cross bar of the lowermost disk, and so on, and means for clamping the uppermost disk upon the others and all of them in position around said stud.

2. A valve of the character described comprising a tubular base, a flange around its upper end, a cross bar within the flange, a stud rising from the center of said bar, a series of disks each consisting of a ring above said flange and a cross bar within the ring having a central aperture, an uppermost disk consisting of a central portion pierced with an aperture and a marginal inclined flange, detents projecting from each cross bar and ring out of register with those in the next similar elements, lugs depending in pairs from the edges of said cross bars, the lowermost pair engaging the cross bar of the body flange, the next pair above engaging the cross bar of the lowermost disk, and so on, and means for clamping the uppermost disk upon the others and all of them in position around said stud.

3. A valve of the character described comprising a tubular base, a flange around its upper end, a cross bar within the flange, a threaded stud rising from the center of said bar, a series of spaced disks each consisting of a ring above said flange and a cross bar within the ring having a central aperture, an uppermost disk consisting of a normally convex central portion pierced with an aperture and a marginal inclined flange wider than said rings, means for spacing the disks, means for preventing the rotation of one disk upon another around said stud, the uppermost disk having a projection rising therefrom adjacent its aperture, and a nut threaded onto the upper end of said stud and held in place by said projection.

1,078,675. ELECTRICAL WELDING APPARATUS. JOHN ALLEN HEANY, Washington, D. C. Filed July 28, 1913. Serial No. 781,596. (Cl. 219-4.)



1. Electric welding apparatus comprising relatively movable arms carrying welding electrodes, electro-mag-

netic means to effect the relative movement for the welding operation, and a timing device to determine the duration of the welding current.

2. Electric welding apparatus comprising relatively movable arms carrying welding electrodes, electro-magnetic means to effect the relative movement for the welding operation, mechanical means to oppose the action of said electro-magnetic means to any desired extent, and a timing device to determine the duration of the welding current.

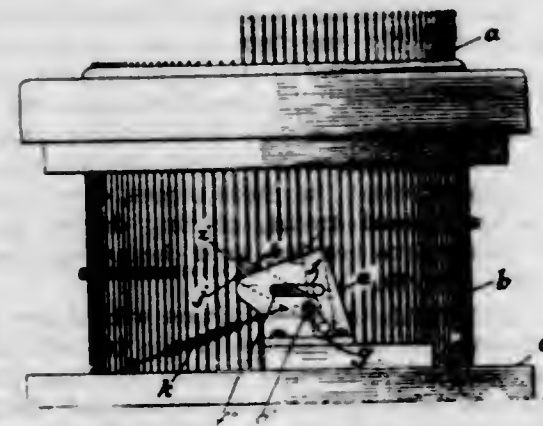
3. Electric welding apparatus comprising relatively movable arms carrying welding electrodes, electro-magnetic means to effect the relative movement for the welding operation, a regulable spring device to oppose the action of said electro-magnetic means, and a timing device to determine the duration of the welding current.

4. Electric welding apparatus comprising relatively movable arms carrying welding electrodes, and a transformer having sections of its core associated with the respective arms whereby energization of the transformer will cause the core sections to approach each other to effect the welding operation.

5. Electric welding apparatus comprising relatively movable arms carrying welding electrodes, means to effect the relative movement of said arms for the welding operation, and a timing device actuated by the impact of the relatively moving arms to regulate the duration of the welding current.

[Claims 6 to 14 not printed in the Gazette.]

1,078,676. NEEDLE-PICKER FOR CIRCULAR-KNITTING MACHINES. HAROLD E. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1912. Serial No. 704,027. (Cl. 66-21.)



1. An automatic picker for knitting machines comprising a unitary movable piece having at one end a cam face normally located in the path of travel of the needles to be elevated and extending at substantially a right angle to said path of travel, two pins on the movable piece located at different distances from its cam face, and a frame having two slots respectively engaging the two pins and adapted to cooperate therewith to swing the movable pieces toward a vertical position while simultaneously changing the angle of the cam to permit the needle to readily disengage therefrom.

2. An automatic picker for knitting machines comprising a unitary movable piece having a cam face located in the path of travel of the needles to be elevated, and adapted to be engaged and operated thereby, a frame, two guiding elements on the movable piece, and two guiding elements on the frame respectively engaging the two guiding elements on the movable piece and cooperating to permit the cam face to be turned toward the horizontal and moved a given distance in the direction of rotation of the needles and a relatively shorter distance vertically, thereby allowing the level of the engaging needle to be lifted at an easy angle.

3. An automatic picker for knitting machines comprising a unitary movable piece having a needle engaging face normally located in the path of travel of the needles and at such an angle thereto as to be moved by the needle in

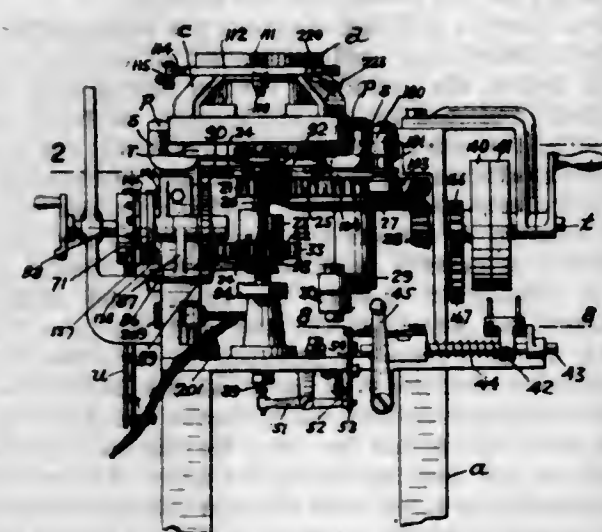
advance, a frame, two guiding elements on the movable piece located at different distances from its needle engaging face and two guiding elements on the frame respectively cooperating therewith and adapted in said movement of the movable piece, to cause the movable piece to turn during its bodily movement by the engaging needle, whereby the engaging face of the movable piece is moved toward the horizontal at the same time that it is moved upward on a relatively slight incline.

4. An automatic picker for knitting machines comprising a cam having a cam face adapted to engage the first of a series of needles and adapted to be moved thereby in the direction of movement of the needles, a frame having a plurality of guiding slots, and pins on the cam engaging the slots respectively and cooperating therewith to turn the cam to change the angle of the cam face and permit the easy disengagement of the needles.

5. An automatic picker for knitting machines comprising a cam having a cam face adapted to engage the first of a series of needles and adapted to be moved thereby in the direction of movement of the needles, a frame having a plurality of guiding slots, and pins on the cam engaging said slots, one of the slots being located relatively near the cam face and extending in an approximately horizontal direction, and the other of the slots being located at a greater distance from the cam face and extending downwardly and rearwardly, whereby the combined action of the slots will move the lower part of the cam downwardly and the upper end upwardly as the cam moves with the needle, thus causing the cam face to move upwardly in a direction at a relatively small angle to the horizontal.

[Claims 6 to 10 not printed in the Gazette.]

1,078,677. CIRCULAR-KNITTING MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 17, 1912. Serial No. 697,861. (Cl. 66-24.)



1. In a circular knitting machine, the combination with the cam cylinder and sinker head, a driving external gear in driving engagement with the cam cylinder, a driving internal gear, means for driving said driving gears in unison, a gear in driving engagement with the sinker head, and a pinion on the shaft of the last-named gear, in driving engagement with the driving internal gear.

2. In a circular knitting machine, the combination with the cam cylinder and sinker head and gears carried respectively thereby, of a ring, a driving shaft connected with the ring, an external gear on the ring in driving engagement with the cam cylinder gear, a pinion, an internal gear on the ring in driving engagement with the pinion, and a gear on the pinion shaft in driving engagement with the sinker head gear.

3. In a circular knitting machine, the combination with the cam cylinder and sinker head and gears carried respectively thereby, of a driving gear in driving engagement with the cam cylinder gear, a driving internal gear, a driven gear in driving engagement with the sinker head gear, a pinion on the shaft of said driven gear, in driv-

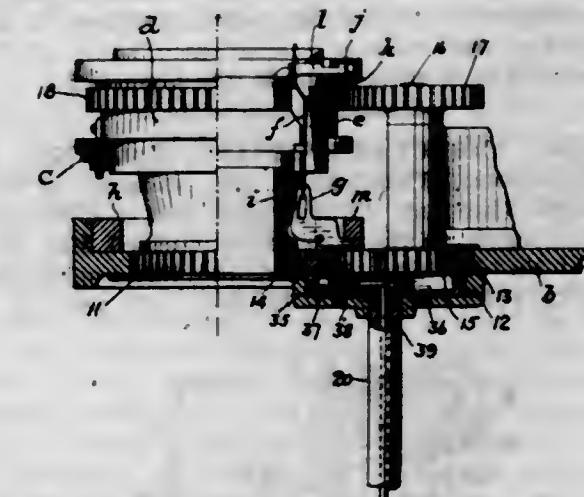
ing engagement with the driving internal gear, means for driving said driving gears in unison, the ratios of the intermeshing gears being so proportioned as to impart equal angular speeds of rotation to the two first-named gears, whereby the cam cylinder and sinker head will revolve as if secured together while the latter will be driven by an indirect drive and the momentum of the driving parts substantially reduced.

4. In a circular knitting machine, the combination with the cam cylinder and sinker head, of a driving external gear in driving engagement with the cam cylinder, a driving internal gear, a gear in driving engagement with the sinker head, and a pinion on the shaft of the last-named gear, in driving engagement with the driving internal gear, a driving shaft, and a yielding driving connection between the shaft and both driving gears adapted to be rendered inoperative upon predetermined resistance to rotation of said driving gears.

5. In a circular knitting machine, the combination with a rotatable cylinder and a gear carried thereby, of a casing, a ring whose lower part rotates in the casing, an external gear on the part of the ring projecting above the casing, in driving engagement with the cam cylinder gear, a driving shaft extending through the wall of the casing, and a yielding driving connection within the casing and between the shaft and the ring adapted to be rendered inoperative upon predetermined resistance to rotation of the cylinder.

[Claims 6 to 41 not printed in the Gazette.]

1,078,678. STOP-MOTION FOR CIRCULAR-KNITTING MACHINES. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed May 17, 1912, Serial No. 697,861. Divided and this application filed Oct. 29, 1912. Serial No. 728,363. (Cl. 66-7.)



1. In a circular knitting machine, the combination with a rotatable cylinder, of a driving shaft, a driven shaft, driving connections between the two shafts, mechanism to stop the rotation of the driving shaft, a rod extending axially within the driven shaft, connections between the rod and the stop mechanism, and normally operative yielding driving connections between the driven shaft and the rotatable cylinder adapted to be retracted and rendered inoperative by resistance to rotation of the cylinder and effect a longitudinal movement of said rod.

2. In a circular knitting machine, the combination with a rotatable cylinder, of a rotatable member in driving engagement with the cylinder, a driven shaft on the axis of the rotatable member, a driving shaft, driving connections between the two shafts, mechanism to stop the rotation of the driving shaft, normally operative driving connections between the driven shaft and said rotatable member adapted to be rendered inoperative to drive by resistance to rotation of the cylinder and said rotatable member, and normally inoperative means carried by the driven shaft and adapted to actuate the stop-mechanism and to be operated by said yielding driving connections when the latter are rendered inoperative to drive.

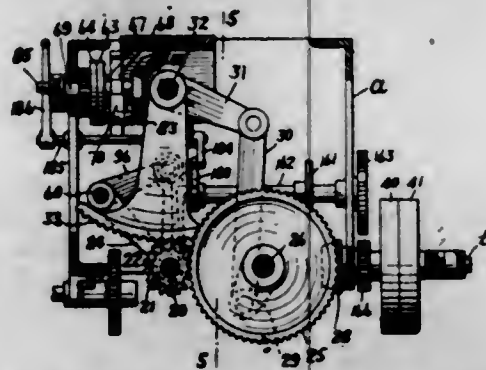
3. In a circular knitting machine, the combination with a rotatable cylinder and a gear carried thereby, of a gear in driving engagement with the first gear, a driven shaft, a spider carried by the shaft, means carried by the spider in yielding driving engagement with the second gear, a driving shaft, driving connections between the two shafts, mechanism to stop the rotation of the driving shaft, means holding said stop mechanism from action and normally engaging said yielding driving means but adapted, when the yielding driving means is actuated by resistance to rotation of the gears, to be operated by the yielding driving means to dictate the operation of said stop mechanism.

4. In a circular knitting machine, the combination with a rotatable cylinder, of a driving shaft, a driven shaft, driving connections between the two shafts, mechanism to stop the rotation of the driving shaft, normally operative driving connections between the driven shaft and the rotatable cylinder including a spring-pressed latch adapted to be retracted and thus render inoperative to drive by resistance to rotation of the cylinder, a rod carried by the driven shaft and having a beveled face in constant engagement with a beveled face on said latch whereby upon the retraction of said latch the rod will be moved longitudinally, and connections between said rod and the stop mechanism adapted to render the latter operative in the said actuation of said rod.

5. In a circular knitting machine, the combination with a rotatable cylinder, of a rotatable member in driving engagement with the cylinder, a driven shaft on the axis of the rotatable member, a driving shaft, driving connections between the two shafts, mechanism to stop the rotation of the driving shaft, a rod extending axially within the driven shaft, and a spring pressed latch having beveled faces engaging respectively a beveled driving face on said rotatable member and a beveled driving face on the rod whereby said latch will be retracted and actuate said rod under given resistance to rotation of said rotatable member, and connections between said rod and the stop mechanism adapted to render the latter operative in the said actuation of said rod.

[Claims 6 to 8 not printed in the Gazette.]

1,078,679. CIRCULAR-KNITTING MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed May 17, 1912, Serial No. 697,861. Divided and this application filed Oct. 29, 1912. Serial No. 728,364. (Cl. 66—7.)



1. In a circular knitting machine, the combination with the cam cylinder and needle cylinder, of driving connections to one of the cylinders, rotary mechanism and oscillatory mechanism, control mechanism, shifting means governed by the control mechanism to connect the driving connections alternately with the rotary mechanism and oscillatory mechanism, pawl and ratchet mechanism, means actuated by the control mechanism to place the pawl and ratchet mechanism into operative relation with the driving shaft, means actuated by the driving shaft to operate the rotary mechanism and oscillatory mechanism, the control mechanism and the pawl and ratchet mechanism, mechanism to stop the rotation of the driving shaft, and means controlled by the pawl and ratchet mechanism to operate the stop mechanism.

2. In a circular knitting machine, the combination with the cam cylinder and needle cylinder, of driving connections to one of the cylinders, rotary mechanism and oscillatory mechanism, control mechanism, shifting means governed by the control mechanism to connect the driving connections alternately with the rotary mechanism and oscillatory mechanism, pawl and ratchet mechanism, means actuated by the control mechanism to place the pawl and ratchet mechanism into operative relation with the driving shaft, means actuated by the driving shaft to operate the rotary mechanism and oscillatory mechanism, the control mechanism and the pawl and ratchet mechanism, mechanism to stop the rotation of the driving shaft, means controlled by the pawl and ratchet mechanism to operate the stop mechanism, mechanism to move certain needles out of operative relation with the cam cylinder, and means actuated by the pawl and ratchet mechanism to operate said needle actuating mechanism.

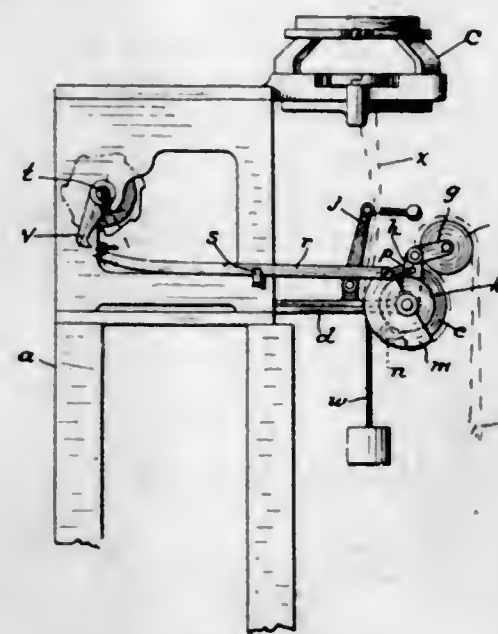
3. In a circular knitting machine, the combination with the cam cylinder and needle cylinder, of driving connections to one of the cylinders, rotary mechanism and oscillatory mechanism, control mechanism, shifting means governed by the control mechanism to connect the driving connections alternately with the rotary mechanism and oscillatory mechanism, pawl and ratchet mechanism, means actuated by the control mechanism to place the pawl and ratchet mechanism into operative relation with the driving shaft, means actuated by the driving shaft to operate the rotary mechanism and oscillatory mechanism, the control mechanism and the pawl and ratchet mechanism, mechanism to stop the rotation of the driving shaft, mechanism actuated by the shifting means to move certain needles out of operative relation with the cam cylinder, and means actuated by the pawl and ratchet mechanism to operate the needle actuating mechanism independently, whereby the pawl and ratchet mechanism may be operated from the driving shaft, after a given shift from oscillation to rotation, to effect the automatic stoppage of the machine after a predetermined number of courses of circular knitting and permit the leveling of the needles.

4. In a circular knitting machine, the combination with the cam cylinder and needle cylinder, of driving connections to one of the cylinders, control mechanism, rotary mechanism and oscillatory mechanism, shifting means governed by the control mechanism to connect the driving connections alternately with the rotary mechanism and oscillatory mechanism, a ratchet having a number of teeth, a pawl adapted to actuate the ratchet when the latter is turned into a certain position, a driving shaft, means actuated thereby to operate the rotary and oscillatory mechanism, the control mechanism and the pawl, means actuated by the control mechanism to turn the ratchet into operative relation with the pawl, mechanism to stop the rotation of the driving shaft, means controlled by the ratchet wheel to operate the stop mechanism, mechanism actuated by the shifting means to move certain needles out of operative relation with the cam cylinder, and means turning with the ratchet to operate the last named mechanism independently, whereby the ratchet may be brought into operative relation with the pawl after a given shift from oscillation to rotation, the machine automatically stopped after a predetermined number of courses of circular knitting, and the needles then automatically leveled.

5. In a circular knitting machine, the combination with the cam cylinder and the needle cylinder, of driving connections to one of the cylinders, rotary mechanism and oscillatory mechanism, control mechanism, shifting means governed by the control mechanism to connect the driving connections alternately with the rotary mechanism and oscillatory mechanism, an arm carried by the shifting means, a stud movable in said arm, a lever connected with the stud, a spring between the stud and the arm, means connected with and operated by the lever to move certain needles out of operative relation with the cam cylinder, a driving shaft, means actuated by the driving shaft to operate the rotary mechanism and oscillatory mechanism and the control mechanism, mechanism independent of the shifting means to operate the lever, connections between

the driving shaft and the last named mechanism adapted to operate the lever, and means actuated by the control mechanism to render said connections operative.
[Claims 6 to 10 not printed in the Gazette.]

1,078,680. TAKE-UP MOTION FOR CIRCULAR-KNITTING MACHINES. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed May 17, 1912, Serial No. 697,861. Divided and this application filed Oct. 29, 1912. Serial No. 728,365. (Cl. 66—9.)

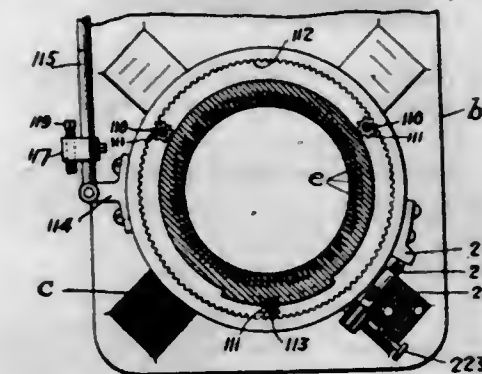


1. In a circular knitting machine, the combination with the knitting mechanism and a winder adapted to feed the knitted fabric from the knitting mechanism; said winder including a take-up roller, a weighted member, and pawl and ratchet mechanism between said member and roller; a reciprocating kicker arm and means to operate the same, and a rod disconnected from the kicker arm and connected with said member and normally out of operative relation with said kicker arm but adapted, as the weighted member turns in the feeding of the fabric, to be shifted by said weighted member into operative relation with the kicker arm, whereby the latter actuates the rod and restores the weighted member to its starting position.

2. In a circular knitting machine, the combination with the knitting mechanism and a winder adapted to feed the knitted fabric from the knitting mechanism; said winder including a take-up roller, a weighted member turnable on the axis of the roller and pawl and ratchet mechanism between said member and roller; a rod connected with said member, a reciprocating kicker arm disconnected from said rod and means to operate the same, and a fulcrum engaging said rod and causing the end thereof to be elevated as the member turns until the rod is brought into position to be engaged by the kicker arm in one of its reciprocations, thereby permitting the kicker arm to actuate the rod and restore the weighted member to its starting position.

3. In a circular knitting machine, the combination with the knitting mechanism and a winder adapted to feed the knitted fabric from the knitting mechanism; said winder including a take-up roller, a ratchet fast on the axis of the roller, a pawl on the weighted member engaging said ratchet, whereby the weighted member, through the medium of the pawl and ratchet, turns the take-up roller as the fabric feeds; a reciprocating kicker arm and means to actuate it, a rod pivoted at one end on the weighted member and fulcrumed between its ends and having a notched free end, whereby as the pivoted end of the rod is depressed during the feeding action of the weighted member its notched free end rises until it is brought into operative relation with the kicker arm.

1,078,681. CIRCULAR-KNITTING MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed May 17, 1912, Serial No. 697,861. Divided and this application filed Feb. 14, 1913. Serial No. 748,281. (Cl. 66—21.)



1. In a circular knitting machine, the combination with the needle cylinder and cam cylinder, one of which is non-rotatable, of a support, pinions rotatable on their axes but not bodily rotatable, said pinions having threaded shafts and being interposed between the non-rotatable cylinder and the support, the threaded shafts engaging one of the last named members at points located on different radii of the non-rotatable cylinder, a gear engaging the pinions, and means to actuate the gear thereby turning all the pinions on their axes and effecting a vertical movement of the non-rotatable cylinder.

2. In a circular knitting machine, the combination with the needle cylinder and cam cylinder, of a support, a plurality of pinions having threaded shafts engaging the support, one of said cylinders having projections resting on the axes of the pinions, a gear engaging the pinions, and means to actuate the gear thereby turning all the pinions and effecting a vertical bodily movement of the last named cylinder.

3. In a circular knitting machine, the combination with the needle cylinder and cam cylinder, of a support, a plurality of pinions interposed between the support and one of the cylinders and having threaded shafts engaging one of the last named members, a rotatable gear engaging all the pinions, whereby when the gear is turned the last named cylinder is raised or lowered, and complementary members, one fixed and the other on the gear, adapted to abut one against the other and limit the downward movement of the vertically movable cylinder, one of said complementary members being adjustable to vary the limit of downward movement of the vertically movable cylinder.

4. In a circular knitting machine, the combination with the needle cylinder and cam cylinder, of a support, a plurality of pinions interposed between the support and one of the cylinders and having threaded shafts engaging one of the last named members, a rotatable gear engaging all the pinions, whereby when the gear is turned the last named cylinder is raised or lowered and a device connected with and adapted to actuate the gear.

5. In a circular knitting machine, the combination with the needle cylinder and cam cylinder, of a plurality of devices, located on different radii of the cylinders, connected with and adapted to be actuated to move vertically one of said cylinders, and means for simultaneously and uniformly operating all of said devices, said devices being each operable, independently of each other and of said operating means, to vertically move the part of the cylinder connected therewith, whereby said adjustable cylinder may be either leveled by the differential adjustment of said devices or raised or lowered bodily by their simultaneous operation.

1,078,682. PAPER BAG. EMIL JAGENBERG, Dusseldorf, Germany. Filed Dec. 31, 1912. Serial No. 739,525. (Cl. 150—1.)

A paper bag formed of a compound paper web, said web being composed of an outer open meshed sheet of woven paper threads and of an inner sheet of crape paper, said

sheets being pasted to each other throughout their contiguous faces to form said compound paper web, the crape



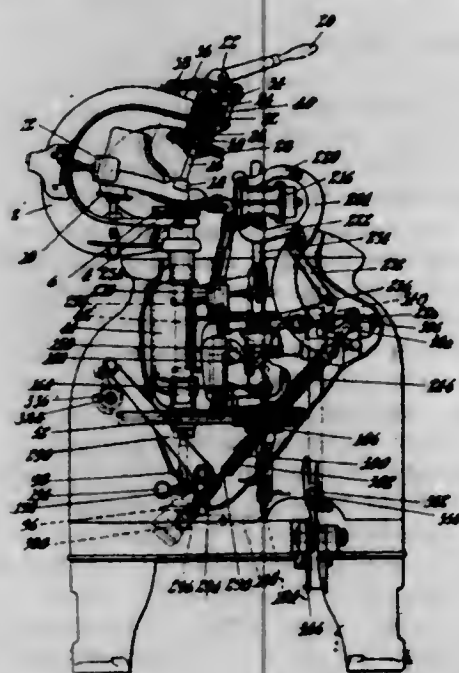
sheet constituting an extensible lining for yieldably closing the interstices of the woven paper sheet.

1,078,683. HAT-PIN GUARD. GEORGE H. JUDIA, Cisco, Tex. Filed May 2, 1911. Serial No. 624,634. (Cl. 24-155.)



In a hat pin guard, an elongated body having an inwardly contracted entrance at one end terminating in a chamber within the body and said chamber having an opening through one side of the body, said body having an elongated tapered recess communicating with the chamber in opposed alignment with the entrance thereof, said body also having an elongated channel extending laterally from the bottom of its chamber, and a spring member having an aperture associated with the body entrance and the aligned recess and projecting through the body chamber and chamber opening and terminating in an aperture head exteriorly of the body, said spring member being bent at an angle and having its inner extremity projecting from the chamber into the channel in which it is secured.

1,078,684. MACHINE FOR OPERATING ON SHOES. FRANK B. KBALL, JOSEPH GOLDBOURN, and ARTHUR E. JERRAM, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 3, 1909. Serial No. 505,826. (Cl. 12-77.)



1. A machine of the class described, comprising in combination, a work support, a tool, means for producing such relative movement of the work and tool that the tool will operate along a predetermined path, means for predetermining the limiting points of said operation, and means for effecting a transfer of said limiting points relatively to the work while maintaining substantially constant the extent of said operation.

2. A machine in which a tool is caused to operate along a contour of a shoe, comprising means for predetermining the limiting point of said operation on each side of the shoe, and means for effecting simultaneously a relative adjustment of said points for right and left shoes.

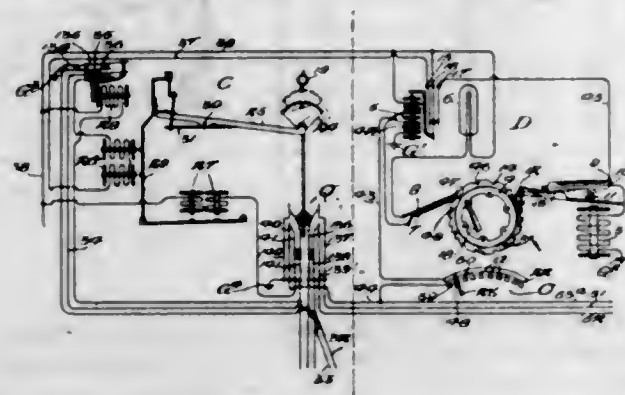
3. A machine in which a tool is caused to operate along a contour of a shoe, comprising means for reversing the operation of said machine at two predetermined points in said contour, and means for simultaneously shifting said points of reversal in opposite directions.

4. A machine in which a tool is caused to operate along a predetermined contour of a shoe, comprising automatic mechanism for reversing such operation at two predetermined points in said contour, and means whereby said points of reversal may be shifted simultaneously to accommodate either right or left shoes.

5. A machine in which a tool is caused to operate along a predetermined contour of a shoe, comprising in combination means for causing the tool to operate over said contour a plurality of times, means for adjusting the limiting point of said operation on each side of the shoe, and means for simultaneously shifting the limiting points to facilitate operation on either right or left shoes.

(Claims 6 to 53 not printed in the Gazette.)

1,078,685. TELEPHONE-EXCHANGE TRUNKING SYSTEM. ALEXANDER E. KEITH, Hinsdale, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 21, 1908. Serial No. 444,649. (Cl. 179-18.)



1. In a telephone system, a set of trunk-lines, a set of terminals corresponding to said trunk-lines, a wiper mounted to engage said terminals, mechanism for causing said wiper to have a back and forth motion and step-by-step movement over said terminals in both directions of motion thereof, and means for including said trunk lines in talking circuits.

2. In a telephone system, a set of trunk-lines, a series of terminals corresponding to said trunk-lines, a wiper adjacent said terminals, means for moving said wiper back and forth over said terminals, and means for causing said wiper to stop on idle terminals corresponding to trunk-lines in each direction of motion thereof.

3. In a telephone system, a set of trunk-lines, a set of terminals corresponding to said trunk-lines, a wiper adjacent said terminals, mechanism for moving the wiper from one terminal to another, adapted to give the wiper a variable number of steps between terminals, but a uniform distance of travel from one terminal to another, and means for including said trunk lines in talking circuits.

4. In a telephone system, a set of trunk-lines, a series of terminals corresponding to said trunk-lines, a wiper adjacent said terminals, a shaft upon which said wiper is mounted, an arm carried by said shaft and pivoted thereon to swing about an axis at right-angles to that of the shaft, a ratchet wheel engaging the free end of said arm to move the same in a circle, a pawl for actuating said ratchet wheel, and means for varying the number of teeth on the ratchet wheel engaged by said pawl in actuating the same to move the wiper from one terminal to another.

5. In a telephone system, a set of trunk-lines, terminals corresponding to said trunk-lines, a shaft provided with a wiper adapted to engage said terminals, an arm pivoted on said shaft to swing about an axis at right-angles to the axis of the shaft, a ratchet wheel engaging the free end of said arm to move the same in a circle, and to thereby move the said wiper back and forth over said terminals, a pawl engaging said ratchet wheel to actuate the same, a notched wheel rotating with the said ratchet wheel, pro-

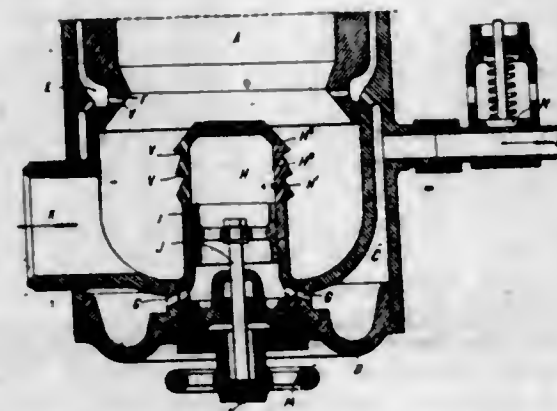
vided with notches at irregular intervals in the periphery thereof, a magnet for operating said pawl, and means including circuit contacts engaging the periphery of said notched wheel to control the action of said magnet and pawl, whereby the distance of travel of said wiper from one terminal to another is uniform throughout the length of movement thereof, but whereby the wiper is given a variable number of steps between different terminals.

(Claims 6 to 36 not printed in the Gazette.)

1,078,686. PROCESS FOR THE PRODUCTION OF HYDROGEN. HOWARD LANE, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfurt-on-the-Main, Germany, a Corporation of Germany. Original application filed June 16, 1910, Serial No. 572,411. Divided and this application filed Dec. 9, 1911. Serial No. 664,809. (Cl. 48-198.)

The process of producing hydrogen in a heated retort, which consists in deoxidizing a metal oxid within said retort by means of a reducing gas, in then oxidizing the deoxidized metal by means of steam, and in then introducing a blast of oxygen in the form of air into the retort and then again deoxidizing the oxidized metal by means of the reducing gas as described.

1,078,687. SELF-PROPELLING TORPEDO. CHARLES LEMALE, Paris, France. Filed Dec. 30, 1912. Serial No. 739,305. (Cl. 60-33.)



1. The combination with a generator, of means to admit fluid thereto comprising a chamber projecting into said generator and provided with a series of openings, and means to control the quantity of fluid passing through said openings without changing the velocity thereof.

2. The combination with a torpedo generator, of means to admit water thereto, said means provided with a series of openings through which the water passes to the generator, and means cooperating with said openings to control the quantity of water passing therethrough without changing the velocity thereof.

3. The combination with a generator, of means to admit water thereto comprising a chamber projecting into the generator and provided with a series of openings through which the water flows to said generator, and a valve slidably mounted in said chamber to control said openings.

4. The combination with a generator, of means to admit jets of water thereto, and projections associated with the walls of said generator and located in the path of said jets to diffuse and break up said jets of water.

5. The combination with a generator, of means to admit water thereto, comprising a chamber projecting into the generator, said chamber provided with a series of openings through which the water passes to the generator, said chamber also provided with projections against which the water issuing from said jets impinges.

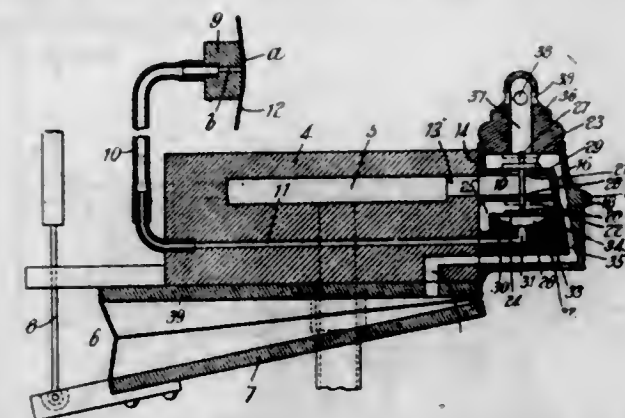
(Claim 6 not printed in the Gazette.)

1,078,688. PNEUMATIC ACTION FOR MUSICAL INSTRUMENTS. CALISTO J. MONFREDINI, Boston, Mass. Filed Apr. 4, 1913. Serial No. 758,817. (Cl. 84-178.)

1. A pneumatic action for musical instruments having, in combination, a suction chest, a tracker-board, a valve

196 O. G.—37

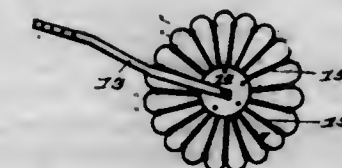
shell detachably secured to said chest comprising a chamber communicating with said suction chest, and two ports leading from said suction chamber substantially in opposite directions, valves for said ports respectively, and a diaphragm adapted to be moved by the passage of air through said tracker boards to operate said valves to close one and open the other of said ports.



2. A pneumatic action for musical instruments having, in combination, a suction chest, a bellows, a tracker board, a valve shell detachably secured to said chest comprising two ports opening into said chest, one of said ports being connected by a channel extending through said shell to said bellows, the other of said ports being connected by passages extending through said shell to said tracker board, a valve for each of said ports respectively, and a diaphragm arranged within said shell adapted to be moved in one direction by the admission of air through the port connected with said tracker board to close that port and open the port connected with said bellows, said diaphragm adapted to be moved in the opposite direction by the cutting off of the supply of air from said tracker board, to move said valve in the opposite direction.

3. A pneumatic action for musical instruments embodying, in its construction, a valve shell having a chamber open at one side thereof, the wall of said chamber opposite said opening inclining inwardly from the bottom of said chamber upwardly, and a diaphragm supporting member detachably arranged within said chamber, the inner side of said support engaging said inclined wall and the outer side of said support aligning with the open side of said shell, whereby said member may be retained in its proper position.

1,078,689. REVOLVING CLOD-FENDER. HUGH H. MUNSON, Truro, Iowa. Filed Jan. 27, 1913. Serial No. 744,374. (Cl. 97-13.)

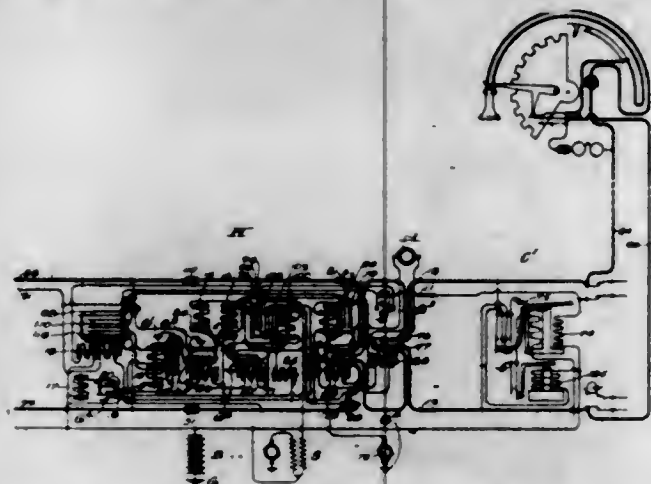


A clod fender consisting of a hub, a series of spaced radial spokes secured to the hub, and means to connect the spokes and to form a tread for the fender consisting of an element formed separate from the spokes which element is formed to have a plurality of U-shaped parts which latter are connected to each other and at their points of connection are secured to the spokes, the U-shaped parts bridging the spaces between adjacent spokes, whereby the wheel has a scalloped tread.

1,078,690. AUTOMATIC TELEPHONE SYSTEM. FRANK NEWFORTH, Jr., Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 17, 1912. Serial No. 671,092. (Cl. 179-18.)

1. In a telephone system, a calling and a called subscriber's line, a line relay individual to each line, means for extending a connection between the calling and the called subscriber's lines, means for disconnecting said

relay from the called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.



2. In a telephone system, a calling and a called subscriber's line, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means for extending a connection between the calling and the called subscribers' lines, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.

3. In a telephone system, a calling and a called subscriber's line, a line relay individual to each line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, means for disconnecting said relay from its line when said line is a called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.

4. In a telephone system, a calling and a called subscriber's line, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.

5. In a telephone system, a calling and a called subscriber's line, means including an automatic connector switch for establishing a connection between said lines, a side switch in said connector switch having a plurality of operative positions, means for moving said side switch into its final position after the impulses for the last digit of the called number have been transmitted, and means for completing the connection between the calling and the called lines at a predetermined interval after the side switch has passed to its final position.

[Claims 6 to 34 not printed in the Gazette.]

1,078,691. VEGETABLE GLUE. FRANK G. PERKINS, deceased, Lansdale, Pa., by Gertrude S. Perkins, executrix, South Bend, Ind., assignor to Perkins Glue Company, a Corporation of Pennsylvania. Filed Mar. 16, 1912. Serial No. 684,297. (Cl. 87-17.)

1. The process of making a base for wood glue, which consists in taking a carbohydrate the viscosity of which, when dissolved in about 3 parts of water and caustic soda, is too great to produce a satisfactory glue, and mixing therewith a carbohydrate, the relative viscosity, cohesiveness and adhesiveness of which when so dissolved in the same manner, is unsatisfactory for glue, in proportions such that the relative viscosity, cohesiveness and adhe-

siveness of the resulting mixture when so dissolved in the same manner, are properly proportioned to produce a semi-fluid glue suitable for gluing up veneers.

2. The process of making a base for wood glue, which consists in taking two or more starchy carbohydrates, one or more of which, when dissolved in about 3 parts of water and caustic soda, has a viscosity greater than that desired in the final glue, and one or more of which, when so dissolved in the same manner, has a viscosity less than that desired in the finished glue, and mixing said carbohydrates in proportions approximately inverse to the relative differences in viscosity said carbohydrates have when so dissolved in the same manner, from the desired resulting viscosity of the mixture when so dissolved in the same manner, to produce a semi-fluid glue suitable for gluing up wood veneers.

3. The process of making a base for glue, which consists in taking a plurality of starchy carbohydrates, one or more of which, when dissolved in about 3 parts of water and caustic soda, has a viscosity greater than that desired in the resulting glue, and one or more of which carbohydrates, when so dissolved, has a viscosity less than that desired in the finished glue, and a relative viscosity, cohesiveness and adhesiveness which is unsatisfactory for woodwork, and mixing said carbohydrates in proportions to produce a semi-fluid glue capable of being applied by machinery and suitable for gluing up veneers.

4. The process of making wood glue, which consists in taking a plurality of starchy carbohydrates, one or more of which, when dissolved in about 3 parts of water and caustic soda, has a relative viscosity greater than that desired in the final glue, and one or more of which, when so dissolved in the same manner, has a relative viscosity, adhesiveness and cohesiveness unsatisfactory for gluing up veneers, and mixing said carbohydrates in proportions such that, when so dissolved in the same manner, the resulting product will have a relative viscosity, cohesiveness and adhesiveness suitable for gluing up veneers, and then dissolving the mixture in about 3 parts of water or less and caustic, to form a semi-fluid glue capable of being applied by machinery.

5. A wood glue base, consisting of a mechanical mixture of different carbohydrates, one or more of which, dissolved in about 3 parts of water and caustic soda, has a viscosity greater than that desired in the final glue, and one or more of which when so dissolved in the same manner, has a relative viscosity, adhesiveness and cohesiveness unsatisfactory for gluing up wood veneers, the proportions of said carbohydrates being such that the relative viscosity, cohesiveness and adhesiveness of the resulting mixture, when so dissolved in the same manner, is suitable for gluing up veneers.

[Claims 6 to 14 not printed in the Gazette.]

1,078,692. PROCESS FOR MAKING GLUE. FRANK G. PERKINS, deceased, Lansdale, Pa., by Gertrude S. Perkins, executrix, South Bend, Ind., assignor to Perkins Glue Company, a Corporation of Pennsylvania. Filed Mar. 16, 1912. Serial No. 684,298. (Cl. 87-17.)

1. The improved process of making glue, which consists in suspending cassava carbohydrate in water and then adding, with substantially continuous stirring, a solution of caustic alkali with such slowness that tumefying or bursting of the carbohydrate as a whole is avoided during a substantial part of the first stages of the treatment, to proportion the viscosity, cohesiveness and adhesiveness of the resulting glue, so that upon the continued addition of the caustic, and during the last stages thereof, the batch passes over into a semi-fluid glue capable of being applied by machinery, the total amount of water in the glue being about 4 parts or less by weight of dry carbohydrate.

2. The improved process of making vegetable glue which consists in suspending a suitable vegetable carbohydrate in water, and then treating the batch with such an amount of a solvent of cellulose, as caustic alkali, that tumefying or bursting of the carbohydrate as a whole is avoided, and such that the viscosity, cohesiveness and adhesiveness of

the resulting glue is so proportioned as to make it suitable to glue up veneers, and then adding more solvent of cellulose to the batch until the batch passes over into a semi-fluid glue capable of being applied by machinery, and suitable for gluing up veneers.

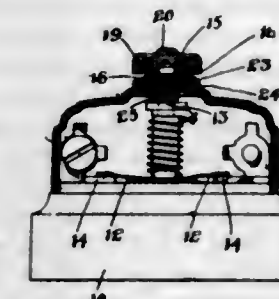
3. The improved process of making a wood glue, which consists in suspending a starchy carbohydrate in water, then agitating or stirring the batch and adding caustic alkali in such an amount that tumefying or bursting of the carbohydrate as a whole is avoided, and such that the viscosity, cohesiveness and adhesiveness of the resulting glue is so proportioned as to make it suitable to glue up veneers, and then agitating or stirring the batch and adding more caustic until it passes over into a semi-fluid glue capable of being applied by machinery, and having an adhesiveness substantially as great as good animal glue.

4. The improved process of making a wood glue, which consists in suspending a starchy carbohydrate in water, then agitating or stirring the batch and adding caustic alkali in such an amount that tumefying or bursting of the carbohydrate as a whole is avoided, and such that the viscosity, cohesiveness and adhesiveness of the resulting glue is so proportioned as to make it suitable to glue up veneers, and then agitating or stirring the batch and adding more caustic until it passes over into a semi-fluid glue capable of being applied by machinery, and suitable for gluing up wood veneers, the total amount of water used being about 4 parts or less by weight of dry carbohydrate.

5. The improved process of making vegetable glue, which consists in suspending a suitable vegetable carbohydrate in water, heating the batch to about 100° Fahrenheit or more, and then treating the batch with such a quantity of a solvent of cellulose, as caustic alkali, that tumefying or bursting of the carbohydrate as a whole is avoided, and such that the viscosity, cohesiveness and adhesiveness of the resulting glue is so proportioned as to make it suitable to glue up veneers, and then adding more of the solvent of cellulose to the batch until the batch passes over into a semi-fluid glue capable of being applied by machinery, and suitable to glue up wood veneers.

[Claims 6 to 10 not printed in the Gazette.]

1,078,693. LOCK ATTACHMENT FOR SNAP SWITCHES. CLARENCE D. PLATT, Bridgeport, Conn. Filed Feb. 12, 1913. Serial No. 747,913. (Cl. 175-289.)



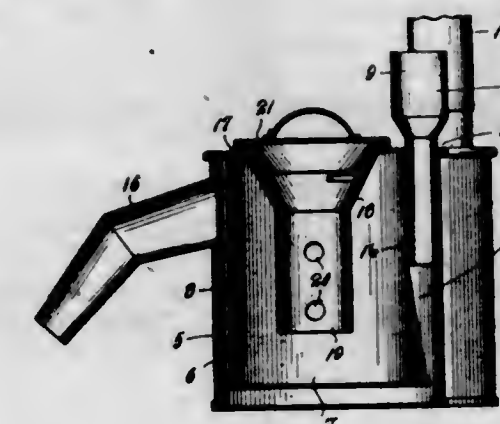
1. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly inclined surface surrounding said center.

2. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly inclined surface surrounding said center, and a flange surrounding the edge of said member and projecting beyond said outer face.

3. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly in-

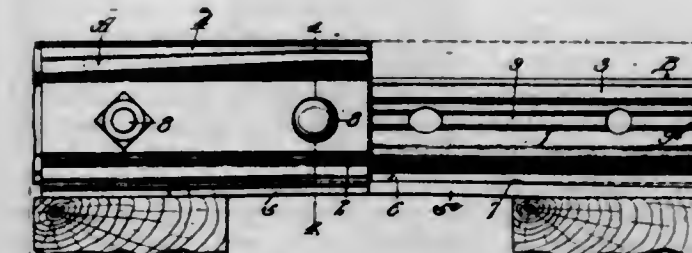
clined surface surrounding said center, and a guard member loosely mounted adjacent said operating member and having an edge portion surrounding the edge of said operating member and projecting beyond the outer face thereof.

1,078,694. WATER-HEATER. LEE RAMSEY, Columbus, Tex. Filed May 11, 1912. Serial No. 696,736. (Cl. 126-344.)



A water heater comprising an outer casing, a fire pot fixed to and depending within the casing from the top thereof to a point spaced from the bottom of the same and being of a size less than the interior diameter of the casing to provide a continuous water space about the side and bottom of the pot, the top of the casing being provided with an aperture communicating with the water space, said pot being provided with a seat, a delivery spout projecting from the casing and communicating with the water space, a filling tube having a contracted portion inserted in the aperture in the top of the casing and slidably engaged in the seat in the wall of said pot and adapted to admit water to the water space, the top of the said casing being further provided with an opening for communication with the tank, a perforated draft member removably inserted through the last-named opening and projected into the pot, an outturned flange formed on the outer end of the draft member and resting upon the top of the casing, and a flue nipple passed through the top of the casing and communicating with the tank.

1,078,695. RAIL-JOINT. HARRY F. ROACH, St. Louis, Mo. Filed Apr. 13, 1912. Serial No. 690,620. (Cl. 239-6.)



1. A rail-joint comprising members that are arranged on opposite sides of the rails, and cooperating rail-supporting portions on said members which are so designed that the rails can deflect downwardly slightly at the ends of the joint when a load passes over the joint.

2. A rail-joint comprising members that are arranged on opposite sides of the rails, and cooperating rail-supporting portions on said members having approximately flat surfaces at the center of the joint on which the terminals of the rails bear.

3. A rail-joint comprising members arranged on opposite sides of the rails and provided with cooperating rail-supporting portions that have flat rail-bearing surfaces at approximately the center of the joint, and independent rail-bearing surfaces which incline downwardly in opposite directions from said central rail-bearing surfaces.

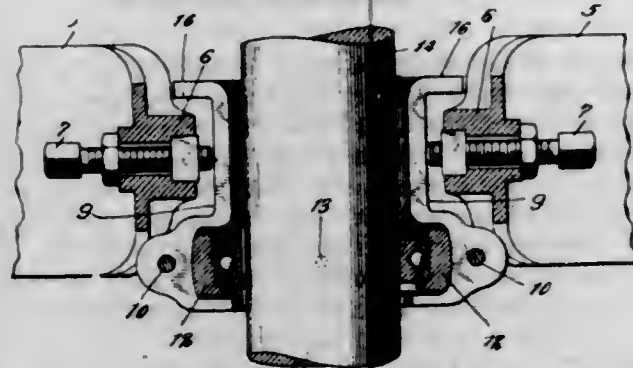
4. A rail-joint comprising members that are arranged on opposite sides of the rails, cooperating rail-supporting

portions on said members arranged in the same horizontal plane and each being provided with a rail-bearing surface at approximately the center of the joint on which the terminals of the rails rest, and independent downwardly inclined rail-bearing surfaces which are normally spaced away from the rails.

5. A rail-joint comprising members arranged on opposite sides of the rails and provided with cooperating rail-supporting portions which have rail-bearing surfaces on which the terminals of the rails rest, and independent rail-bearing surfaces that are normally spaced away from the rails but which are engaged by the rails when a load passes over the joint, and means on said members which bears upon the base flanges of the rails and holds them down upon the rail-bearing surfaces at the center of the joint.

[Claims 6 to 30 not printed in the Gazette.]

1,078,696. HANGER-BOX. WINFIELD S. ROGERS, Bantam, Conn. Filed Oct. 12, 1911. Serial No. 654,417. (Cl. 64—14.)



1. The combination with a shafting hanger, of a removable bearing box having a portion rigidly secured in said hanger, and an outrigger portion having a substantially spherical concave seat for oscillatorily supporting a shaft bearing ring, said concave seat lying wholly at one side of said hanger, the outrigger portion being of greater diameter than the portion secured in said hanger.

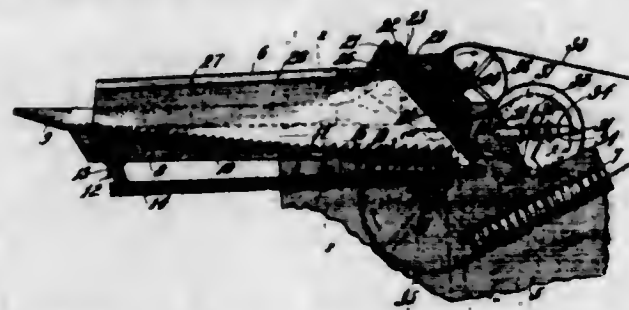
2. A bearing box having a tubular portion adapted to surround the shaft and having an outwardly extending flange at one end thereof and a channeled end portion of greater diameter than said bracket portion at the other end thereof, the bottom of said channel being concaved to form a substantially spherical seat for a bearing ring.

3. A bearing box longitudinally divided into halves, each of which comprises a sleeve portion having flat side walls and an outwardly extending flange at one end thereof and an outwardly extending ring portion at the other end thereof, said ring portion having an interior channel therein concaved to form a substantially spherical seat for an oscillating bearing.

4. A longitudinally divided bearing box comprising two sections adapted to be secured together and formed to thereby provide a cylindrical bore, each section being enlarged at one end so that when the two sections are joined, said enlarged portions will register, the bore formed by said enlarged portions being of substantially spherical contour and greater in diameter than the main bore of the bearing box, each side of the bearing box having shoulders formed thereon and the box having bosses located on its upper and lower outer surfaces, said bosses and said shoulders being adapted to be engaged by means to rigidly secure said bearing box within a hanger.

5. A longitudinally divided bearing box comprising two sections adapted to be secured together, said sections comprising supporting bracket portions adapted to register to form a tubular bore and enlarged portions at one end of said bracket portions, said enlarged portions each having a semicircular concave channel in the inner surface thereof, said channel portions registering to form a substantially spherical concave bearing ring seat of greater diameter than the diameter of the bore of the remainder of the bearing box.

1,078,697. SELF-FEEDER. AUGUST ROSENTHAL, West Allis, Wis. Filed Mar. 31, 1911. Serial No. 618,098. (Cl. 130—1.)



1. A self feeder, comprising a two-part oscillating table for initially moving material, an oscillating member positioned above the oscillating table for engaging and retarding a portion of the material moved therebeneath, and another member positioned to engage the material passed between the oscillating table and the oscillating member and to further move said material.

2. A self feeder, comprising a two-part oscillating table for initially moving material, an oscillating hood positioned above the oscillating table for engaging and retarding a portion of the material moved therebeneath, said hood provided with material engaging teeth, and another member positioned to engage the material passed between the oscillating table and the hood and to further move said material.

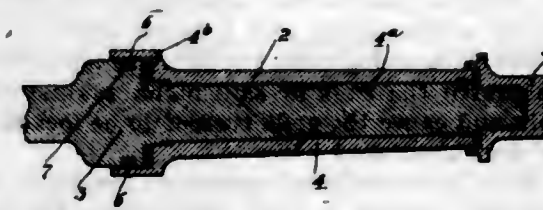
3. A self feeder, comprising a frame having side members, a ball extending transversely across the frame, a rock shaft extending across the frame, a rock lever carried by the rock shaft, a slotted bottom portion pivotally supported on the ball at one end and on the rock lever at its other end, said bottom portion provided with toothed plates, a cranked shaft extending across the frame, a bar pivotally connected to the rock lever and to the cranked shaft for oscillating the bottom portion in a direction opposite to the oscillation of the bar, said bar provided with a toothed member which extends through the slot of the bottom portion, another cranked shaft extending across the frame, links pivotally connected to opposite sides of the frame, a hood pivotally connected to the links and to the last mentioned cranked shaft and provided with toothed portions and with a band cutter, and a beater positioned adjacent to the hood and adapted to further move the material moved by the bottom portion.

4. A self feeder, comprising a frame having side members spaced a distance apart, a ball extending transversely across the frame, a rock shaft extending transversely across the frame, rock levers carried by the rock shaft, a slotted bottom portion positioned between the side members and pivotally supported at one end on the loop of the ball and at its other end on the upper ends of the rock levers, said bottom portion provided with upstanding toothed plates positioned on opposite sides of the slots, a cranked shaft extending transversely across the frame, bars pivotally connected at one end to the lower ends of the rock levers and at their other ends to the cranked portion of the cranked shaft for oscillating the bottom portion in a direction opposite to the direction of oscillation of the bars, said bars provided with toothed plates which extend through the slots of the bottom portion, another cranked shaft extending transversely across the frame, links pivotally connected to the opposite sides of frame, and a hood pivotally connected to the links and to the last mentioned cranked shaft and provided with toothed portions and with a band cutter.

5. A self feeder, comprising a frame having an oscillating bottom material moving portion provided with an elongated slot, an oscillating member provided with a toothed member which extends through the elongated slot, said bottom portion and toothed member constructed to be oscillated in opposite directions with relation to each other, and an oscillating hood positioned above the bottom portion and provided with teeth adapted to engage and retard a portion of the material moved by the bottom portion and the oscillating member.

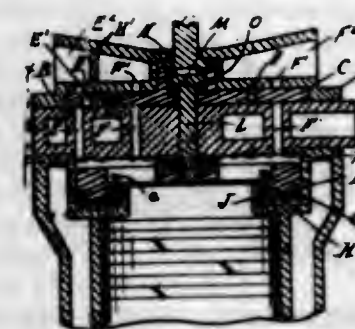
[Claim 6 not printed in the Gazette.]

1,078,698. AXLE. DANIEL RYERSON, Moline, Ill., assignor to Velle Carriage Company, a Corporation of Illinois. Filed Dec. 7, 1912. Serial No. 735,386. (Cl. 21—2.)



In combination with an axle member provided with a circumferential groove, a yielding-formed metallic packing-ring seated in the groove and projecting beyond the adjacent surfaces of the axle member and normally out of frictional contact with that surface of the groove which is parallel with the axis of the axle member, and an axle box surrounding the axle member, said ring having a normal peripheral diameter greater than that of the surrounding surface of the box whereby the latter has its interior closely fitting the projecting portion of the packing-ring.

1,078,699. ROTARY VALVE FOR EXPLOSION-ENGINES. FREDERICK G. SCHENK, Detroit, Mich. Filed June 10, 1912. Serial No. 702,677. (Cl. 123—190.)



1. The combination with a ported seat and a disk valve controlling said ported seat, of an annular member having an area substantially equal to the port area of said seat, exposed to a pressure opposed to that on said valve, an annular recessed member with which said annular member is engaged to shield the opposite side thereof, and a tie between said annular member and said valve for transmitting the opposed stresses from one to the other.

2. The combination with a ported seat of a disk valve for controlling said ported seat, an annular member having an area substantially equal to the port area of said seat, exposed to gasous pressure in opposite direction to that upon said valve, a thrust bearing for opposing the movement of said valve from its seat, and a tie between said thrust bearing and said annular member.

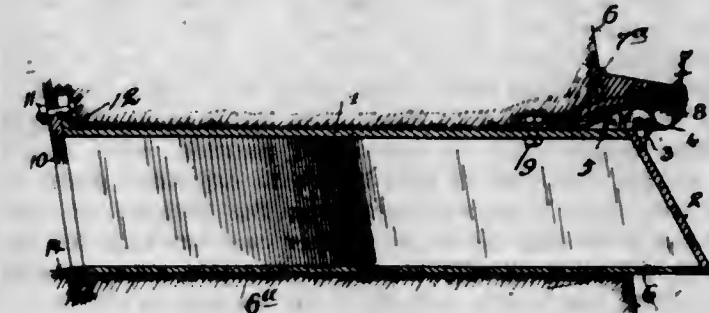
3. The combination with an engine cylinder having an annular recess in the upper portion thereof, of an annular member engaging said recess, a ported head for said cylinder, a rotary disk valve seated on the outer face of said ported head, the area of said disk exposed through the ported head being substantially equal to the exposed area of said annular member, and a tie member passing axially through said head and connecting said valve and annular member.

4. The combination with an engine cylinder of a ported head for said cylinder, a rotary disk valve seated upon the outer face of said head, a tie member engaging said valve and passing axially through said head, an annular member, having a spider connection with said tie member, engaging an annular recess in said cylinder and exposing an area substantially equal to the port area of said head, to a pressure opposed to that against said valve whereby the valve is balanced.

5. The combination with a ported seat and a rotary disk valve engaging said seat, of a non-rotating member exposed to a pressure opposed to that against said valve and balancing same.

[Claims 6 to 10 not printed in the Gazette.]

1,078,700. WATER-ESCAPE OR SCUPPER. GEORGE W. SCHODDE, New York, N. Y., assignor to Fanny J. Meyer, New York, N. Y. Filed May 24, 1912. Serial No. 769,549. (Cl. 61—9.)



1. A water-escape comprising a hollow casing having a valve at one end thereof and provided with a hood overlying the valve to protect the same from matter dropping from above.

2. A water-escape comprising a casing having a valve at its outer end hinged upon the casing at the upper portion of the valve, said casing having a hood above the hinge and projecting outwardly thereover.

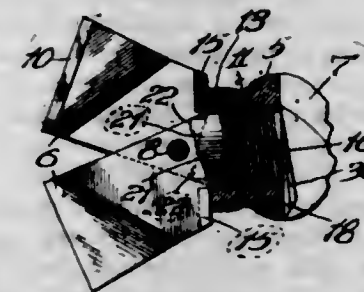
3. A water-escape comprising a hollow casing having a valve at one end thereof and provided with a hood overlying the valve to protect the same from matter dropping from above, said hood having an upper surface inclining downwardly and outwardly.

4. A water-escape comprising a hollow casing having a valve at one end thereof and provided with a hood overlying the valve to protect the same from matter dropping from above, said hood having an upper surface inclining downwardly and outwardly from a central point in opposite directions.

5. A water-escape comprising a casing having a valve hinged at the outer end thereof, and a hood above the hinge extending outwardly over the same and having side webs inclosing the hinge.

[Claims 6 to 9 not printed in the Gazette.]

1,078,701. APPARATUS FOR DRILLING HOLES. SAMUEL T. SKREX, Sandoval, Ill., assignor of one-sixth to Cary S. Heaton, one-sixth to Henry C. Worcester, and one-sixth to George M. Wyatt, Roodhouse, Ill. Filed Sept. 25, 1911. Serial No. 651,094. (Cl. 255—76.)



1. In a device of the character described, the combination with a drill rod having a stud at its lower end, said stud being provided with cam surfaces, of a sleeve threaded to said stud, said sleeve being slotted, and blades pivotally mounted within the slots in said sleeve and in operative engagement with said cam surfaces.

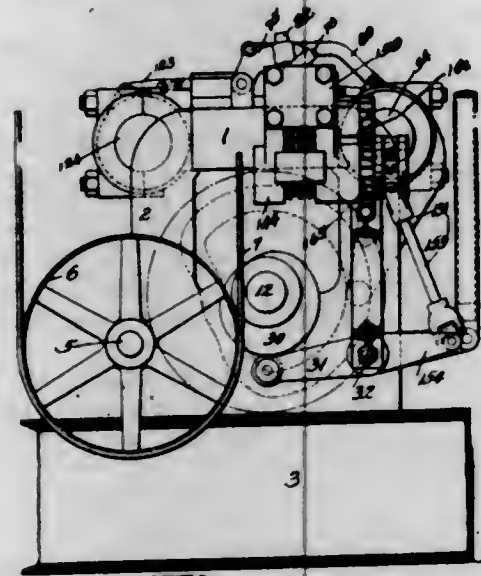
2. In a device of the character described, the combination of a drill rod, with a sleeve oscillatably mounted on the lower end of said drill rod, said sleeve being provided with oppositely disposed slots, a pivot mounted in said sleeve transversely to said slots, and blades movable within said slots about said pivot, said drill rod being provided with cam surfaces formed on its end for moving said blades.

3. In a device of the character described, the combination with a sleeve with oppositely disposed slots, of a pivot mounted therein transversely to said slots, blades oscillatable on said pivot within said slots, and a stud projecting through said sleeve, said stud being provided with recesses adapted to receive the inside corners of said cutters, respectively, in contracted position, with facets

for seating the ends of said blades in expanded position, and with cam surfaces connecting the bottoms of said recesses with said facets.

4. In a device of the character described, the combination with a sleeve with oppositely disposed slots, of a pivot mounted therein transversely to said slots, blades oscillatable on said pivot within said slots, and a stud projecting through said sleeve, said stud being provided with recesses adapted to receive the inside corners of said cutters, respectively, in contracted position, with facets for seating the ends of said blades in expanded position, and with cam surfaces connecting the bottoms of said recesses with said facets, and other cam surfaces for engaging the ends of said blades on opposite sides of said pivot from the inside corners of the respective blades.

1,078,702. WIRE-FABRIC MACHINE. BENJAMIN L. SOMMER, Peoria, Ill., executor of Joseph W. Sommer, deceased, assignor to Keystone Steel and Wire Company, South Bartonville, Ill., a Corporation of Illinois. Filed July 12, 1907. Serial No. 383,522. (Cl. 140—11.)



1. In a wire fence machine, the combination of a stationary die-receiving member, provided with transverse wire grooves, and with a plurality of semi-circular die-seats disposed upon opposite sides and parallel with one of said grooves, a block movable toward and from said member and provided with a longitudinal opening, and a punch movable through the opening in said block and having its free end provided with a concave seat.

2. In a wire fence machine, the combination of a stationary die-receiving member, provided with transverse wire grooves and with a plurality of semi-circular die-seats disposed upon opposite sides and parallel with one of said grooves, a block movable toward and from said member, provided with a longitudinal opening central of said block and a slotted opening in said block, a punch movable through the opening in said block, and an anvil normally extending down into the slot of said block and capable of being raised when the punch moves in the block.

3. In a wire fence machine, the combination of a stationary die-receiving member, provided with transverse wire grooves, and with a plurality of semi-circular die-seats disposed upon opposite sides and parallel with one of said grooves, a block movable toward and from said member, provided with a central longitudinal opening having beveled side walls, and a slot extending into said block, a punch movable through the block and shaped to conform to the opening therein and having in its free end a concave seat, and an anvil normally extending down into the slot of the block, provided with a slotted end, and capable of being raised when the punch moves in the block.

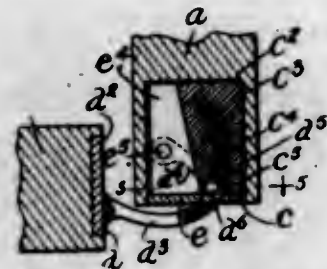
4. In a wire fence machine, the combination of a stationary die-receiving member provided with transverse wire grooves and a pair of concave die-seats parallel with one of said grooves, means for passing the bodies of strands and stay wires across and in front of the grooves

of the member, a slidably supported block capable of forcing the wires aforesaid into the grooves of the member, means for feeding a wire blank across one end of the block, means for severing said blank as the block moves toward the member, means for bending the blank during the movement of the block, and a punch movable in the block, capable of engaging with the blank to move it to the member and force the ends of said blank against the die seats therein and cause the ends thereof to be locked about one of said first mentioned wires.

5. In a wire fence machine, means for feeding a strand wire, means for feeding a stay wire across the strand, means for feeding a wire blank from which a lock may be severed, a movable part for severing the lock from the blank and during its movement bend the lock, a stationary part adapted to receive the strand and stay wires, and a reciprocal member adapted to engage the lock and force it across the juncture of the stay and strand, and through the engagement of the ends of the lock with the stationary part said ends will be locked about one of said first mentioned wires.

[Claims 6 to 112 not printed in the Gazette.]

1,078,703. HINGE. CHARLES J. SOSS and HENRY SOSS, New York, N. Y., assignors of one-third to Samuel Soss, New York, N. Y. Filed Mar. 1, 1913. Serial No. 751,397. (Cl. 16—105.)



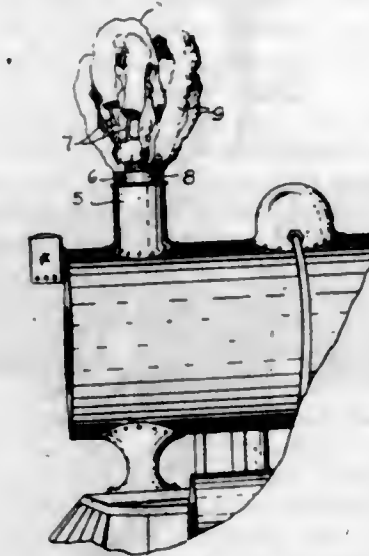
1. A hinge comprising a closed casing adapted to be countersunk in a door frame and provided with a face opening, a part adapted to be secured to a door, and a part adapted to be secured to said casing and to close the face opening therein, said last named part being provided with members which extend into said casing, and the part which is adapted to be secured to the door being provided with a curved arm movable through the part which is secured to said casing and said arm being provided with a radial angular portion pivoted between said members, said casing and said arm being provided with guides which hold said arm against vertical or sagging movement.

2. A hinge comprising a part adapted to be secured to a door frame, a part adapted to be secured to a door, and a part detachably secured to the part adapted to be secured to the door frame, said last named part being provided with members which extend into the part which is adapted to be secured to the door frame, and the part which is adapted to be secured to the door being provided with a curved arm movable through the part which is secured to the door frame, and which is provided with a radial angular portion pivoted between said members, the part which is adapted to be secured to the door frame and said arm being provided with interlocking guides which hold said arm against vertical or sagging movement.

3. A hinge comprising a part adapted to be secured to a door frame, a part adapted to be secured to a door, and a part detachably secured to the part adapted to be secured to the door frame, said last named part being provided with members which extend into the part which is adapted to be secured to the door frame, and the part which is adapted to be secured to the door being provided with a curved arm movable through the part which is secured to the door frame, and which is provided with a radial angular portion pivoted between said members, the part which is adapted to be secured to the door frame and said arm being provided with interlocking guides which hold said arm against

vertical or sagging movement, consisting of pins connected with one of said parts and curved surfaces in the other and over or around which said pins are movable.

1,078,704. ACCESSORY FOR TOYS. JOHN C. SPROULL, Pittsburgh, Pa. Filed Nov. 30, 1912. Serial No. 734,359. (Cl. 46—48.)



1. An accessory for toy locomotives comprising a base structure, a plug to which said base structure is secured, said plug being adapted for insertion into the top of the smoke stack, and cotton tufts secured to said base structure.

2. An accessory for toy locomotives comprising a base structure, a plug to which one end of the base structure is secured, said plug being adapted for insertion into the top of the smoke stack, and smoke representing means mounted on the base structure.

3. An accessory for toy locomotives comprising an attaching plug for insertion in the locomotive stack, a plurality of members carried by said plug, and smoke representing means carried by each of said members.

4. An accessory for toy locomotives comprising a base structure consisting of a plurality of wires, a plug in which the extremities of said wires are secured adapted for insertion into the smoke stack, and smoke representing means attached to said wires.

5. An accessory for toy locomotives comprising a base structure consisting of a plurality of wires, a plug in which the extremities of said wires are secured adapted for insertion into the smoke stack, and a plurality of cotton tufts attached to said wires.

[Claim 6 not printed in the Gazette.]

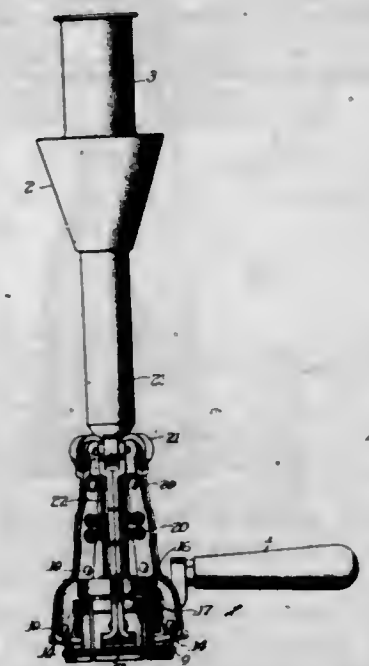
1,078,705. APPARATUS FOR MODIFYING THE SIZE OF FASTENING ELEMENTS. OLOF N. TEVANDER and ARTHUR MANIERRE, Chicago, Ill. Filed Jan. 14, 1911. Serial No. 602,674. (Cl. 113—4.)

1. Apparatus for modifying the size of fastening elements including means for holding a fastening element that is to have its size modified; mechanism serving to operate upon the aforesaid means to cause said means to modify the size of the fastening element; and a magazine for holding fastening elements and to which magazine the fastening element holding means has access in order to engage and hold a fastening element.

2. Apparatus for modifying the size of fastening elements including means for holding a fastening element that is to have its size modified; mechanism serving to operate upon the aforesaid means to cause said means to modify the size of the fastening element; and a container for fastening elements and coöperatively related to the aforesaid means to supply fastening elements thereto, said container permitting the entry therein of the articles to which the fastening element is thereat to be applied.

3. Apparatus for modifying the size of fastening elements including means for holding a fastening element

that is to have its size modified; mechanism serving to operate upon the aforesaid means to cause said means to modify the size of the fastening element; a container for fastening elements and coöperatively related to the aforesaid means to supply fastening elements thereto, said container permitting the entry therein of the articles to which the fastening element is thereat to be applied; and means for forcing the discharge of fastening elements from said container.



4. Apparatus for modifying the size of fastening rings including relatively movable jaws for engaging the rings and modifying their size; mechanism for operating the jaws to cause action thereof upon the rings; and a container for fastening rings and coöperatively related to the aforesaid means to supply fastening rings thereto, said container permitting the entry therein of the articles to which the fastening element is thereat to be applied.

5. Apparatus for modifying the size of fastening rings including relatively movable jaws for engaging the rings and modifying their size; mechanism for operating the jaws to cause action thereof upon the rings; a container for fastening rings and coöperatively related to the aforesaid means to supply fastening rings thereto; said container permitting the entry therein of the articles to which the fastening element is thereat to be applied, and means for forcing the discharge of fastening rings from said container.

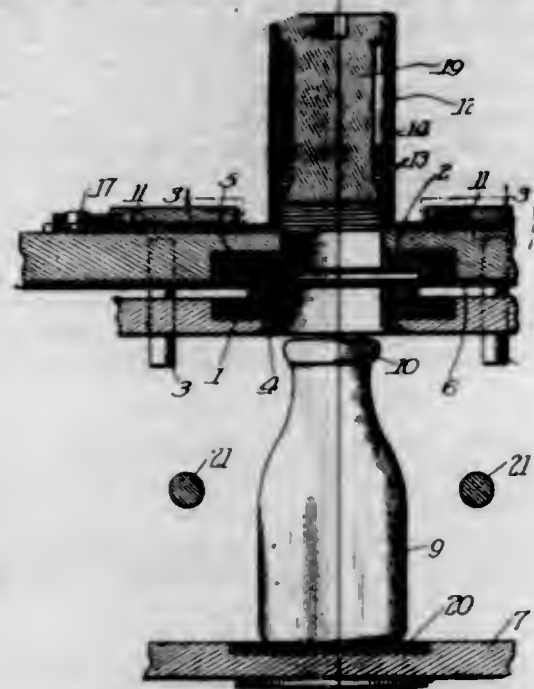
[Claims 6 to 10 not printed in the Gazette.]

1,078,706. MACHINE FOR APPLYING CLOSURES TO RECEPTACLES. OLOF N. TEVANDER and ARTHUR MANIERRE, Chicago, Ill. Filed Feb. 13, 1911. Serial No. 608,353. (Cl. 113—4.)

1. A closure applying machine including a receptacle support and stop relatively movable toward and from each other, there being means for forming the edge portion of a closure sheet, when interposed between the receptacle and stop, into a skirt upon the mutual approach of the receptacle support and stop; a fastening ring support for holding a fastening ring in position to enable the skirt of the closure and the portion of the receptacle surrounded thereby to enter and be surrounded by the fastening ring; and jaws relatively movable in the plane of the ring for fastening the same and the skirt of the closure surrounded by the ring against the receptacle.

2. A closure applying machine including a receptacle support and a fastening ring support relatively movable toward and from each other, there being means for forming the edge portion of a closure sheet, when interposed between the receptacle and fastening ring support, into a skirt upon the mutual approach of the receptacle support and fastening ring support, whereby the skirted portion of the closure is passed into the ring held by the ring support; and jaws relatively movable in the plane

of the ring for fastening the same and the skirt of the closure surrounded by the ring against the receptacle.



3. A closure applying machine including a receptacle support and a fastening ring support relatively movable toward and from each other, whereby the skirted portion of a skirted closure which has been applied to the receptacle may enter a fastening ring held by said ring support; and jaws relatively movable in the plane of the ring for fastening the same and the skirt of the closure surrounded by the ring against the receptacle.

4. A closure applying machine including a receptacle support and stop relatively movable toward and from each other, there being means for forming the edge portion of a closure sheet, when interposed between the receptacle and stop, into a skirt upon the mutual approach of the receptacle support and stop; a fastening ring support for holding a fastening ring in position to enable the skirt of the closure and the portion of the receptacle surrounded thereby to enter and be surrounded by the fastening ring; and means for pressing the fastening ring and the skirt of the closure surrounded thereby into engagement with the portion of the receptacle surrounded by the closure skirt and fastening ring.

5. A closure applying machine including a receptacle support and a fastening ring support relatively movable toward and from each other, there being means for forming the edge portion of a closure sheet, when interposed between the receptacle and fastening ring support, into a skirt upon the mutual approach of the receptacle support and fastening ring support, whereby the skirted portion of the closure is passed into the ring held by the ring support; and means for pressing the fastening ring and the skirt of the closure surrounded thereby into engagement with the portion of the receptacle surrounded by the closure skirt and fastening ring.

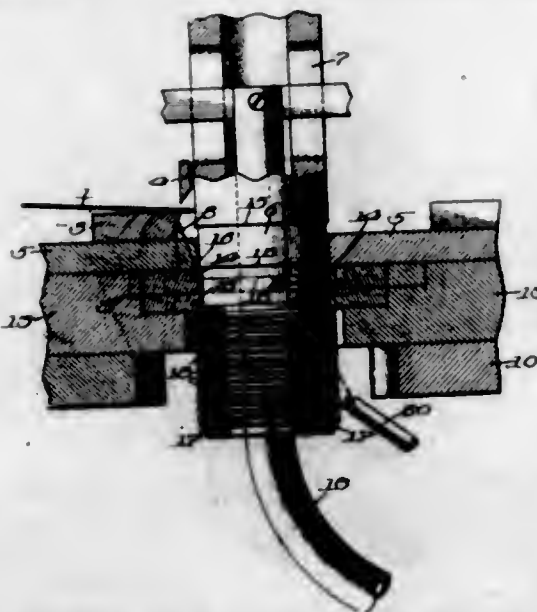
[Claim 6 not printed in the Gazette.]

1,078,707. BAND-MAKING MACHINE. OLOF N. TE-
VANDER, Chicago, Ill., assignor of one-half to Arthur
Manierre, Chicago, Ill. Filed July 31, 1911. Serial
No. 641,648. (Cl. 113—43.)

1. A band making machine having facility for positioning strips that are to be formed into bands and including unitary mechanism having a forming portion movable transversely of the plane in which the strip to be operated upon is positioned, thereby to operate upon the face of the strip; means cooperating with the forming portion to curl the strip and thereby effect the approach of the strip ends into the approximate dimension of the band; and means for curling the partially formed band to cause the material to be curled in cross section.

2. A band making machine including unitary mechanism having relatively movable jaws operating upon a face of a

strip for effecting the approach of the strip ends and bending such strip into the approximate dimensions of the band; a forming body between the jaws and co-operating with the jaws to bend strip material into the approximate dimensions of the band; and mechanism for curling the material of the band after its dimensions have been approximated to cause said material to be curled in cross section.



3. A band making machine including unitary mechanism having one set of relatively movable jaws; a forming body between the jaws and cooperating with the jaws to bend strip material into the approximate dimensions of the band; a second set of relatively movable jaws having recesses into which the material of the partially formed band may be pressed to cause said material to be curled in cross section; and means for pressing the partially formed band into said recesses of the second set of jaws.

4. A band making machine having relatively movable jaws; a forming body between the jaws and cooperating with the jaws to bend strip material into the approximate dimensions of the band; an element for receiving the partially formed band and shaping it so as to curl the material thereof in cross section; and means for removing the band, when partially formed, from between the aforesaid jaws and forcing it into engagement with the element that curls the band.

5. A band making machine having a set of relatively movable jaws; a forming body between the jaws and co-operating with the jaws to bend strip material into the approximate dimensions of the band; a second set of relatively movable jaws recessed to cause the partially formed band to curl in cross section when said band is forced into the recessed portions of the second set of jaws; and means for removing the partially formed band from between the first set of jaws and forcing it into the recessed portions of the second set of jaws.

[Claims 6 to 11 not printed in the Gazette.]

1,078,708. ARCH-SUPPORTER. JOHN P. THOMAS, Chicago, Ill. Filed June 6, 1912. Serial No. 701,986 (Cl. 36-71.)



1. A removable arch supporter, comprising a composite cushion comprising a foundation-piece of firm smooth leather intermedialate in pliability and stiffness between ordinary sole leather and ordinary shoe-upper leather having a heel portion formed to substantially fit the heel area of a shoe, a front end portion wide enough to be

stantially occupy the sole area across the ball or widest part of the shoe, an outwardly curved portion between the heel and front portions and at the inner side of the arch, forming when in position in the shoe an upturned wing-like arch support, a plurality of layers of softer and more flexible material of successively smaller areas below the first mentioned layer and united therewith by impaling means extending through the central portions only of the several layers, soft permanently elastic cushioning material below said previously described layers, and a covering of very soft leather having its margins joined in the margins of the main layer and fully inclosing the other layers.

2. In a removable arch supporter, the combination with a composite pad comprising a foundation piece of firm smooth leather having a heel portion formed to substantially fit the heel area of a shoe, a front end portion wide enough to substantially occupy the sole area across the ball of the shoe, an outwardly and upwardly curved portion between the heel and front portions and at the inner side of the arch, a plurality of layers of thinner and more flexible leather of successively smaller area below said foundation piece and united thereto by means extending through the central portions only of the several layers, of a plurality of permanently elastic layers of flannel-like material below said previously described layers, and a covering of very soft leather having its margins joined to the margins of the foundation piece to fully inclose the other layers, said permanently elastic layers being free from positive connection with each other and with the other layers and the covering and thus free to expand and contract and to shift locally to adapt the supporter to the foot.

1,078,709. FIFTH-WHEEL. JOSEPH VILLIGER and EDWARD J. SCHIERER, Metamora, Ill. Filed Aug. 25, 1913. Serial No. 786,525. (Cl. 21-24.)



1. The combination with an axle and a part adapted to turn relatively thereto, of a member carried in the part and adapted to swing relatively to the same in a horizontal plane, and adapted for a rocking movement thereon.

2. The combination of an axle including a plate secured thereon, a second plate rotatably mounted on the first, a member including a bolster, associated with the second described plate and adapted to rotate relatively thereto and rock thereon vertically, and means carried by the member and said second described plate to hold said member and plate in connected relation.

3. The combination with an axle and a bearing plate and a plate rotatably mounted upon said bearing plate, of a member seated in the second described plate and adapted to rotate thereon and rock vertically with respect thereto, and means carried by the said second described plate and adapted to engage and limit the vertical rocking movement of the member.

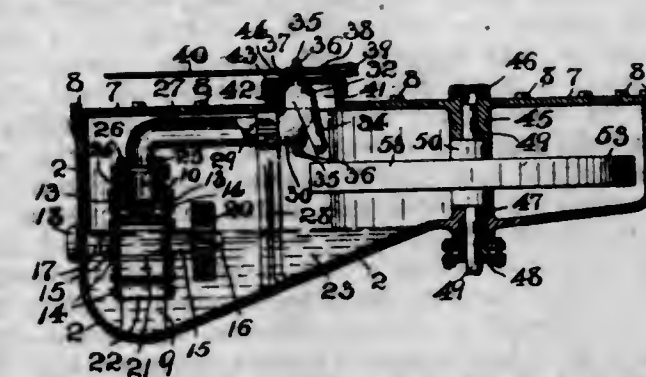
4. The combination of an axle and a bearing plate fixed relatively thereto, a second plate rotatably mounted upon the first, a member rotatably mounted by the second described plate and adapted to rock vertically thereon and including a projecting part, and a projecting part on the second described plate to engage that of said member in extremes of the rocking movement of the latter.

5. The combination of an axle and a bearing plate fixed relatively thereto, a second plate rotatably mounted upon the first, means to prevent the movement of the same

relatively other than the said rotary movement, the said second plate including a substantially flat upper surface for its greater portion and having an annular depression outside of and surrounding the flat portion, a member adapted to rock relatively to the second plate, and also having a flat under surface for its greater portion bearing upon that of the plate and having a beveled annular surface surrounding said portion and formed at an opposite angle to that of the second described plate, and means to hold the plate and the member in connected relation and permit vertical rocking movement of the two relatively.

[Claims 6 to 8 not printed in the Gazette.]

1,078,710. MEANS FOR TRANSMITTING POWER.
MAX W. WEIR, Newark, N. J. Filed Oct. 3, 1910. Se-
rial No. 584,988. (Cl. 138—18.)



1. In a means for transmitting power, the combination with a casing adapted to contain a liquid, said casing being provided with a cover-member, a bearing arranged in said cover-member, and a bearing arranged in the bottom of said casing, said bearing being provided on the exterior side of the casing with a stuffing-box, a shaft journaled in said bearings and projecting through said stuffing-box, a liquid motor-wheel mounted on said shaft within the casing, said liquid motor-wheel comprising a hub, radially arranged drive-buckets, a band or rim connecting the free ends of said buckets, a pump mounted on pedestals arranged within said casing and adapted to be supplied by said body of liquid, and means connected with said pump for directing a stream of liquid discharged thereby against the said liquid motor-wheel to rotate the same in a forward or reverse direction, substantially as and for the purposes set forth.

2. In a means for transmitting power, the combination with a casing adapted to contain a liquid, said casing being provided with a cover-member, a bearing arranged in said cover-member, and a bearing arranged in the bottom of said casing, said bearing being provided on the exterior side of the casing with a stuffing-box, a shaft journaled in said bearings and projecting through said stuffing-box, a liquid motor-wheel mounted on said shaft within the casing, said liquid motor-wheel comprising a hub, radially arranged drive-buckets, a band or rim connecting the free ends of said buckets, a pump mounted on pedestals arranged within said casing and adapted to be supplied by said body of liquid, and means connected with said pump for directing a stream of liquid discharged thereby against the said liquid motor-wheel to rotate the same in a forward or reverse direction, said means comprising a liquid supply-pipe or conduit connected with the outlet of said pump, and an oscillating nozzle secured upon the free end of said liquid-supply pipe or conduit, adapted to direct the stream of liquid flowing therefrom against the said liquid motor-wheel, substantially as and for the purposes set forth.

3. In a means for transmitting power, the combination with a casing adapted to contain a liquid, said casing being provided with a cover-member, a bearing arranged in said cover-member, and a bearing arranged in the bottom of said casing, said bearing being provided on the exterior side of the casing with a stuffing-box, a shaft journaled in said bearings and projecting through said stuffing-box, a liquid motor-wheel mounted on said shaft within the casing, said liquid motor-wheel comprising a

hub, radially arranged drive-buckets, a band or rim connecting the free ends of said buckets, a pump mounted on pedestals arranged within said casing and adapted to be supplied by said body of liquid, and means connected with said pump for directing a stream of liquid discharged thereby against the said liquid motor-wheel to rotate the same in a forward or reverse direction, said means comprising a liquid supply pipe or conduit connected with the outlet of said pump, and an oscillating nozzle secured upon the free end of said liquid-supply pipe or conduit, adapted to direct the stream of liquid flowing therefrom against the said liquid motor-wheel, and means for oscillating or turning said oscillating nozzle, substantially as and for the purposes set forth.

4. In a means for transmitting power, the combination with a casing adapted to contain a liquid, said casing being provided with a cover-member, a bearing arranged in said cover-member, and a bearing arranged in the bottom of said casing, said bearing being provided on the exterior side of the casing with a stuffing-box, a shaft journaled in said bearings and projecting through said stuffing-box, a liquid motor-wheel mounted on said shaft within the casing, said liquid motor-wheel comprising a hub, radially arranged drive-buckets, a band or rim connecting the free ends of said buckets, a pump mounted on pedestals arranged within said casing and adapted to be supplied by said body of liquid, and means connected with said pump for directing a stream of liquid discharged thereby against the said liquid motor-wheel to rotate the same in a forward or reverse direction, said means comprising a liquid supply pipe or conduit connected with the outlet of said pump, and an oscillating nozzle secured upon the free end of said liquid-supply pipe or conduit, adapted to direct the stream of liquid flowing therefrom against the said liquid motor-wheel, and means for oscillating or turning said oscillating nozzle, substantially as and for the purposes set forth.

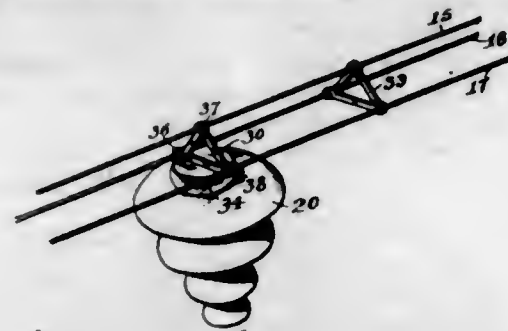
5. In a means for transmitting power, the combination with a casing adapted to contain a liquid, said casing being provided with a cover-member, a bearing arranged in said cover-member, and a bearing arranged in the bottom of said casing, said bearing being provided on the exterior side of the casing with a stuffing-box, a shaft journaled in said bearings and projecting through said stuffing-box, a liquid motor-wheel mounted on said shaft within the casing, said liquid motor-wheel comprising a hub, radially arranged drive-buckets, a band or rim connecting the free ends of said buckets, a pump mounted on pedestals arranged within said casing and adapted to be supplied by said body of liquid, and means connected with said pump for directing a stream of liquid discharged thereby against the said liquid motor-wheel to rotate the same in a forward or reverse direction, said means comprising a liquid supply pipe connected with the outlet of said pump, an air-chamber and an oscillating nozzle secured upon the free end of said pipe, adapted to direct the stream of liquid flowing therethrough against the said liquid motor-wheel, substantially as and for the purposes set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,078,711. SYSTEM OF ELECTRICAL TRANSMISSION. JOHN B. WHITEHEAD, Baltimore, Md. Filed Sept. 15, 1910. Serial No. 582,223. (Cl. 153—97.)

1. A high potential transmission system, comprising a circuit having a plurality of legs, at least one of which is made up of a plurality of separated equipotential conductor strands mounted in substantially symmetrical formation about a longitudinal axis, the distance between the several strands of a leg being less than the distance

between the several legs of the circuit, whereby the point at which breakdown of insulation occurs is raised above that which it would be for a single strand conductor of a cross-sectional area equal to that of the said plurality of strands, substantially as described.

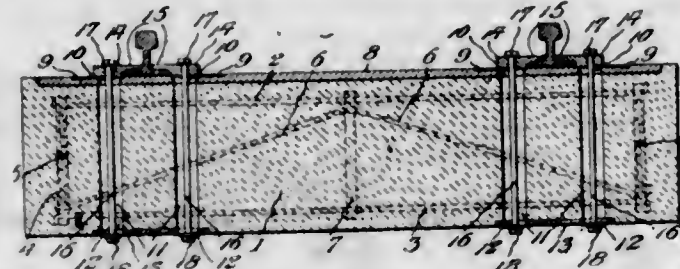


2. A high potential transmission system, comprising a circuit having a plurality of legs, each of which is made up of a plurality of separated equipotential conductor strands mounted in substantially symmetrical formation about a longitudinal axis, the distance between the several strands of a leg being less than the distance between the several legs of the circuit, whereby the point at which breakdown of insulation occurs is raised above that which it would be for a single strand conductor of a cross-sectional area equal to that of the said plurality of strands, substantially as described.

3. A high potential transmission system, comprising a circuit having a plurality of legs, each of which is made up of a plurality of separated equipotential conductor strands mounted in substantially symmetrical formation about a longitudinal axis, the said legs being so disposed with relation to each other that a line drawn from the axis of the system to the axes of the individual legs will be perpendicular to a side of the symmetrical figure into which each of said legs is divided, whereby the point at which breakdown of insulation occurs is raised above that which it would be for a single strand conductor of a cross-sectional area equal to that of the said plurality of strands.

4. A high potential transmission system, comprising a circuit having a plurality of legs, at least one of which is made up of a plurality of separated equipotential conductor strands mounted in substantially symmetrical formation about a longitudinal axis, the distance between the several strands of a leg being less than the distance between the several legs of the circuit, whereby the point at which breakdown of insulation occurs is raised above that which it would be for a single strand conductor of a cross-sectional area equal to that of the said plurality of strands, and means comprising a plurality of conducting brackets located at intervals along said multiple strand conductors, holding said conductors spaced apart and connecting the same in multiple at intervals.

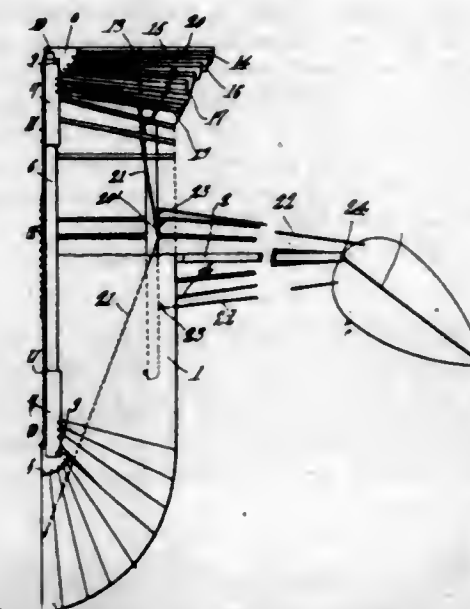
1,078,712. REINFORCED-CONCRETE RAILWAY-TIE. FRANKLIN A. WILSON, Hagerman, Idaho. Filed Mar. 2, 1912. Serial No. 681,054. (Cl. 238—3.)



A railroad tie of the class described, comprising a plastic body and a metal frame embedded therein including two upper parallel longitudinal reinforcing rods, two lower parallel reinforcing rods, said rods located near the four longitudinal edges of said body, two vertical end bars connected to the ends of said upper and lower rods, diagonally arranged cross rods disposed in sets of two having their ends secured to the ends of said vertical end bars, two centrally disposed vertical truss bars each being se-

cured to an upper and lower reinforcing rod, and two bent bracing rods arranged between the said upper and lower reinforcing rods having their intermediate portions held within openings of said truss bars and their ends secured to the lower portions of said end bars, as in the manner set forth.

1,078,713. AEROPLANE. BRUTUS BROOKS, Martin, Tenn. Filed Oct. 11, 1912. Serial No. 725,334. (Cl. 244—29.)



1. In an aeroplane the combination with a sustaining plane, of interfitting rearwardly extending sections pivotally mounted at their front ends and cooperating to form balancing wings, spring connections between the sections of each wing, and yielding means connecting the wings for holding the wings normally spaced apart and extended to active positions.

2. In an aeroplane the combination with a sustaining plane, of balancing wings at the sides of the sustaining plane and each made up of a series of interfitting sections pivotally mounted at their front ends, spring means for holding the wings normally extended, and spring connections between the sections of the wings and completely housed by said sections.

3. In an aeroplane the combination with a sustaining plane, of balancing wings at the sides of the sustaining plane, each wing consisting of a group of interfitting rearwardly extending sections pivotally mounted at their front ends, a pivoted member, a second group of interfitting rearwardly extending sections pivotally connected at their front ends to said member, connections between all of the sections of the wings, and spring means for holding the wings normally extended.

4. In an aeroplane the combination with a sustaining plane, of balancing wings connected to the sides thereof and made up of interfitting sections normally spread apart, said sections being mounted to nest together when subjected to excessive air resistance.

5. An aeroplane including a sustaining plane, an extensible wing at each side thereof, said wing being made up of rearwardly extending sections pivotally mounted at their front ends, spacing devices housed between the sections and adapted to yield to permit the wings to nest when subjected to excessive air resistance.

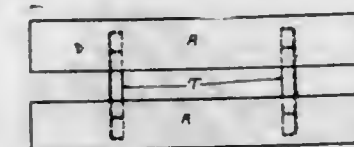
[Claims 6 and 7 not printed in the Gazette.]

1,078,714. CONCRETE-BUILDING-BLOCK CONSTRUCTION. BENJAMIN BROWNSTEIN, Ellwood City, Pa. Filed June 21, 1912. Serial No. 705,113. (Cl. 72—44.)

1. A tie for building blocks comprising a plate having openings therein, a flange located upon the perimeter of said plate and flanges surrounding each of said openings, the flanges adapted to anchor the tie in the material of the blocks as well as to stiffen the tie.

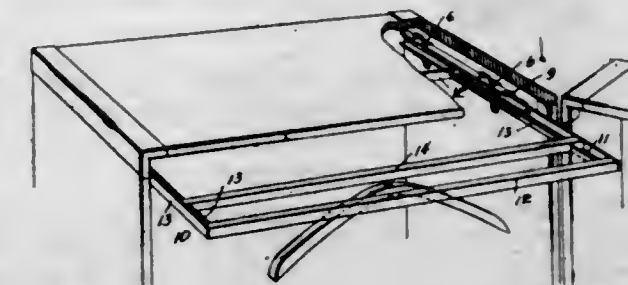
2. A tie for spaced slab building blocks comprising a plate having openings therein, a flange upon the perimeter of the plate and a flange surrounding each of said open-

ings, said flanges projecting from alternate sides of the plate, said flanges and openings serving to interlock said tie with the material of the slab.



3. A tie for building blocks comprising a plate bent at an angle and having openings, a flange upon the perimeter of the tie, flanges surrounding each of said openings, said flanges and openings adapted to anchor the tie in the material of the blocks.

1,078,715. WARDROBE-TRUNK. MOSES CHERRY, Jr., Larchmont Manor, N. Y. Filed Mar. 13, 1913. Serial No. 753,992. (Cl. 211—16.)



1. In a wardrobe trunk, a combination of U-shaped guide members secured to the trunk and having an upper front end turned up, with a clothes support carriage frame comprising L-shaped members adapted to reciprocate in said guides; and hangers normally engaging with their extremities said L-shaped members and the upper side of said U guides.

2. In a wardrobe trunk, a combination of U-shaped guide members secured to the trunk and having an upper front end turned up, with a clothes support frame comprising L-shaped members adapted to reciprocate in said guides and having a longitudinal projecting portion on the horizontal side and a clothes hanger having grooves engaging said projections on said L member and normally engaging with its ends between said U guides and said L members.

3. In a wardrobe trunk, a combination of U-shaped guide members secured to the trunk and having an upper front end turned up, with a clothes support frame comprising L-shaped members adapted to reciprocate in said guides and having a longitudinal projecting portion on the horizontal side projecting outside of said U-shaped guides; and a clothes hanger having projections of said L members and normally having the upper and lower surfaces of its ends engaged by said L-shaped members and said U-shaped members.

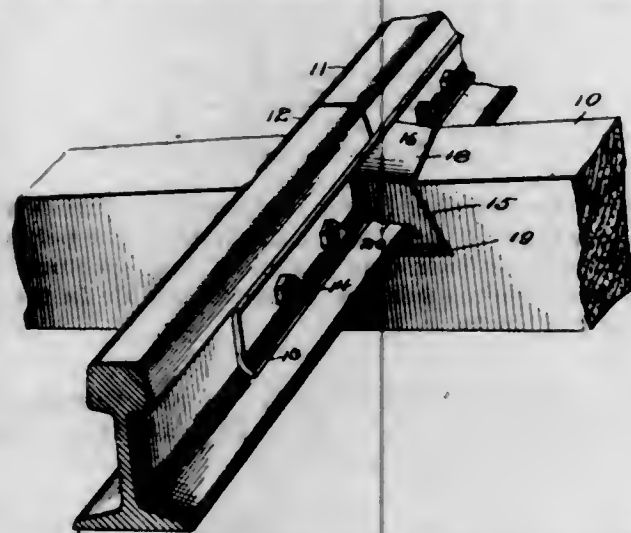
1,078,716. RAIL-JOINT. WILLIAM G. CHIPLEY, Atlanta, Ga. Filed Mar. 11, 1912. Serial No. 683,011. (Cl. 239—6.)

1. In a device of the class described, a cross tie provided with a transverse recess for the reception of the ends of adjoining rails, means for connecting the ends of the rails, means for securing the rails within the recess, and devices secured to the connecting means for retaining the securing means in position.

2. In a device of the class described, a cross tie provided with a transverse recess for receiving the ends of adjoining rails, fish plates for connecting the ends of the rails, means for wedging the rails and plates within the recess of the tie, and locking devices engaging the plates and wedging means for preventing the creeping of the rails.

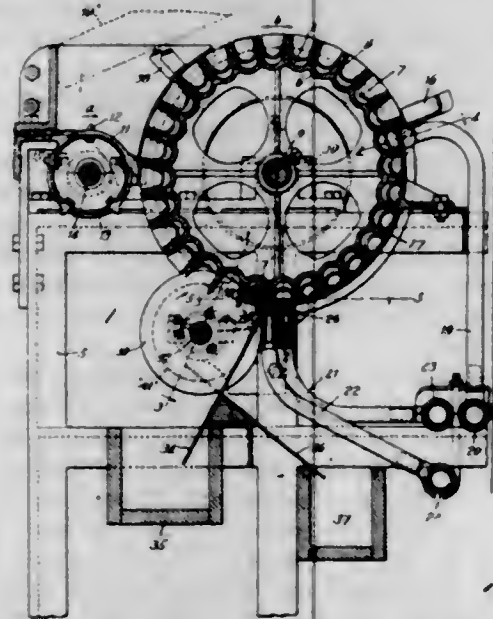
3. In a device of the class described a cross tie provided with a transverse recess tapering from one side of the tie to the other side and having undercut walls, said recess being adapted for receiving the ends of adjoining rails,

fish plates for connecting the ends of the rails, tapered blocks for wedging the rails and plates within the recess of the tie, plates engaging the plates first mentioned



and the ends of the blocks, and means for securing said plates to the fish plates for retaining the blocks in a fixed position.

1,078,717. MACHINE FOR CUTTING OFF THE HEADS AND TAILS OF FISH. FRANCIS D. CLEVELAND, Winchester, Mass., assignor to William Underwood Company, Boston, Mass., a Corporation of Massachusetts. Original application filed July 23, 1910, Serial No. 573,515. Divided and this application filed Jan. 6, 1913. Serial No. 740,281. (Cl. 17-10.)



1. A machine of the class described including an endless series of channeled holding devices, cutting elements adjacent the paths of the ends of said devices, and oppositely disposed means for directing jets of fluid under pressure into said holding devices successively at points between the centers and the ends of said holding devices, and at an angle to the length of said holding devices and to each other.

2. The combination, with a conveyer including channeled holding devices, of nozzles for directing jets of fluid under pressure into said holding devices successively at points between the centers and ends of each channel and at an angle to the length of said holding devices and to each other, separate cutting elements between the centers and ends of said channels for engaging the contents of said channels when shifted by said jets and means for maintaining the channels closed during the reception of said jets.

3. The combination, with a conveyer including a series of parallel longitudinally channeled holding devices, of oppositely disposed nozzles adjacent the ends of said devices for directing jets of fluid under pressure into said holding devices between the centers and the ends thereof, in opposite directions respectively and at an angle to the

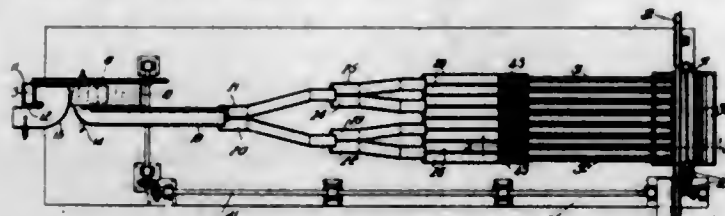
length of said holding devices, and cutting means adjacent the ends of said holding devices.

4. The combination, with a conveyer including holding devices having transversely extending channels, of nozzles for directing jets of fluid in opposite directions respectively into said channels successively at points between the centers and the ends of said channels and at an angle to the length of said holding devices, means for maintaining the channels closed during the discharge of the jets thereinto and cutting devices adjacent the ends of said channels.

5. The combination, with a conveyer including channeled holding devices, of nozzles for directing jets of fluid under pressure into said holding devices successively at points between the centers and the ends of said holding devices and at an angle to the length of said holding devices and to each other and separate cutting elements for engaging the contents of said channels subsequent to the direction of said jets into said channels.

[Claims 6 to 17 not printed in the Gazette.]

1,078,718. MACHINE FOR HANDLING AND CUTTING FISH. FRANCIS D. CLEVELAND, Winchester, Mass., assignor to William Underwood Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 16, 1913. Serial No. 761,425. (Cl. 17-10.)



1. A machine of the class described having, in combination, means adapted to guide fish suspended by their gills, said means including a pair of parallelly arranged members, and means for severing the heads from the bodies while said fish are in said suspended position.

2. A machine of the class described having, in combination, means adapted to guide fish suspended by their gills, said means including a pair of inclined parallelly arranged members, and means for severing the heads from the bodies of said fish during their passage along said guiding members.

3. A machine of the class described having, in combination, a pair of parallelly arranged members adapted to guide fish suspended by their gills, and a cutter adapted to move transversely of the upper edges of said members to sever the heads of said fish from their bodies during their passage along said members.

4. A machine of the class described having, in combination, means adapted to guide fish suspended by their gills, said means including a pair of parallelly arranged members, instrumentalities for subdividing a mass of fish into fractional portions thereof and delivering said fish end on between said parallelly arranged members, and a cutter arranged to move transversely of said members adapted to sever the heads from the bodies of said fish during their passage along said members.

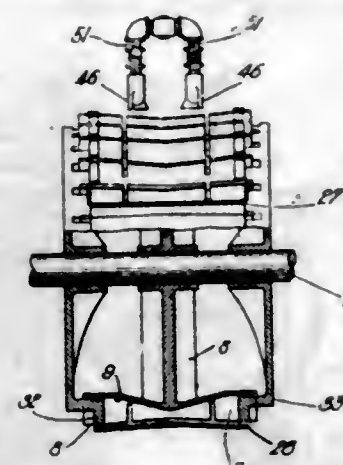
5. A machine of the class described having, in combination, means adapted to guide fish suspended by their gills, said means including a pair of inclined parallelly arranged members, and a cutter arranged to move transversely of said members adapted to sever the heads from the bodies of said fish during their passage along said members.

[Claims 6 to 13 not printed in the Gazette.]

1,078,719. FISH-CUTTING MACHINE. FRANCIS D. CLEVELAND, Winchester, Mass., assignor to William Underwood Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 16, 1913. Serial No. 761,426. (Cl. 193-1.)

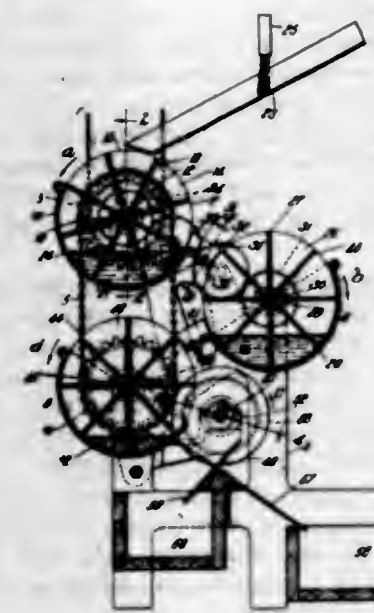
1. A carrier, movable in a given direction, with pockets therein extending transversely thereof and of the direction of movement of said carrier, the bottoms of said pockets being convex.

2. A carrier, movable in a given direction, with pockets therein extending transversely thereof and of the direction of movement of said carrier, the bottoms of said pockets being convex, with the highest point of said bottoms substantially midway between the ends thereof.



3. A carrier, movable in a given direction, with pockets therein extending transversely thereof and of the direction of movement of said carrier, the bottoms of said pockets being convex and a convex shield adjacent to the periphery of said carrier and extending downwardly therebeneath, the inner face of said shield being convex transversely thereof.

1,078,720. METHOD OF POSITIONING FISH. FRANCIS D. CLEVELAND, Winchester, Mass., assignor to William Underwood Company, Boston, Mass., a Corporation of Massachusetts. Filed July 3, 1913. Serial No. 777,189. (Cl. 17-10.)



1. The method of positioning fish which consists in pushing them sidewise through a body of liquid.

2. The method of positioning fish which consists in pushing them sidewise through a body of liquid between a pair of gages, whereby said fish will move toward said gages in the direction in which their heads may be pointed.

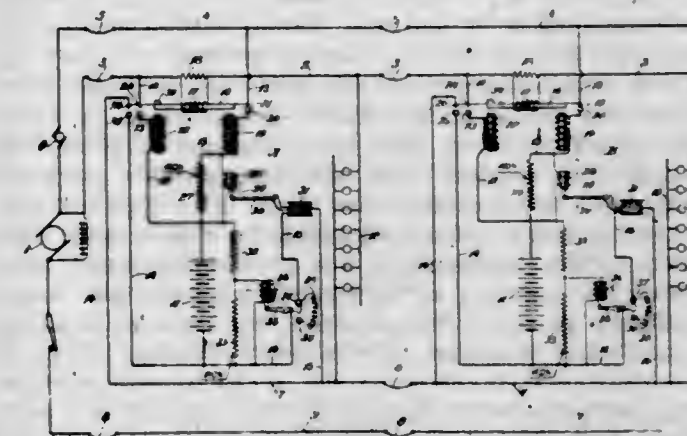
3. The method of positioning fish which consists in pushing them sidewise through a body of liquid and out of said body of liquid onto a receptacle therefor.

4. The method of positioning and cutting fish which consists in pushing them sidewise through a body of liquid and subsequently against suitable cutting means, whereby their heads and tails may be severed from their bodies.

1,078,721. ELECTRICAL SYSTEM OF DISTRIBUTION. GORHAM CROSBY, New York, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Oct. 8, 1908. Serial No. 456,757. (Cl. 171-313.)

1. The combination of a generator, a circuit fed thereby, a battery connected across said circuit, a resistance

in series with said battery, said resistance being markedly variable with certain current changes therein, and means responsive to current changes in said resistance for regulating the battery current.



2. The combination of a generator, a circuit fed thereby, a battery connected across said circuit, a resistance arranged to carry a current responsive to changes in the battery current, said resistance being markedly variable with certain current changes therein, and means responsive to variations in the electrical condition of said resistance for varying the battery current.

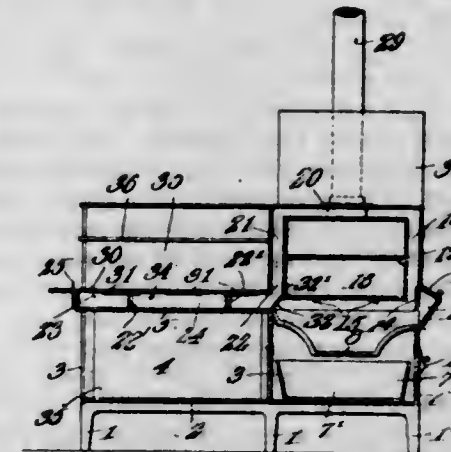
3. The combination of a circuit, a battery connected across said circuit, a conductor arranged to carry a current responsive to changes in the battery current, said conductor having a resistance which is markedly variable with certain current changes therein, and means responsive to voltage changes across said conductor for regulating the battery current.

4. The combination of a circuit, a battery connected across said circuit, a conductor in series with said battery, said conductor having a resistance which is markedly variable with certain changes of current therein, and means responsive to changes in the electrical condition of said conductor for varying the battery current.

5. The combination of a generator, a circuit fed thereby, a battery connected across said circuit, an iron resistance arranged to carry a current responsive to changes in the battery current, and means responsive to voltage changes across said resistance for varying the battery current.

[Claims 6 to 31 not printed in the Gazette.]

1,078,722. COOKING-RANGE. JAMES EDWARD DANIEL, Texarkana, Tex. Filed Sept. 13, 1911. Serial No. 649,093. (Cl. 126-18.)



1. A cooking range, having a base, a vertically disposed main compartment at one side thereof having superposed ash-pit, firebox and oven compartments, an oven in the heat passages, a flue in communication with the rear top from the walls of the main compartment, a vertical partition dividing the space at one side of the oven into two vertical heat passages, another partition dividing the space above the oven into forward and rear heat passages which communicate respectively with the two vertical heat passages, a flue in communication with the rear top heat passage, and a lid compartment divided longitudinally into forward and rear communicating chambers, the for-

ward chamber being in communication with the lower end of the forward vertical heat passage while the rear chamber is in communication with the lower end of the rear vertical heat passage.

2. A cooking range, having a base, a vertically disposed main compartment at one side thereof having superposed ash-pit, fire-box and oven compartments, an oven in the oven compartments spaced from two opposite sides and the top walls of the main compartment, a vertical partition dividing the space at one side of the oven into two vertical heat passages, another partition dividing the space above the oven into forward and rear heat passages which communicate respectively with the two vertical passages, a flue in communication with the rear top passage, a lid compartment divided longitudinally by an apertured partition into forward and rear communicating chambers, the forward chamber being in communication with the lower end of the forward vertical passage while the rear chamber is in communication with the lower end of the rear vertical passage, and a damper mounted in the partition between the chambers of the lid compartment for controlling the passage of the products of combustion through the aperture of the partition and the lid compartment.

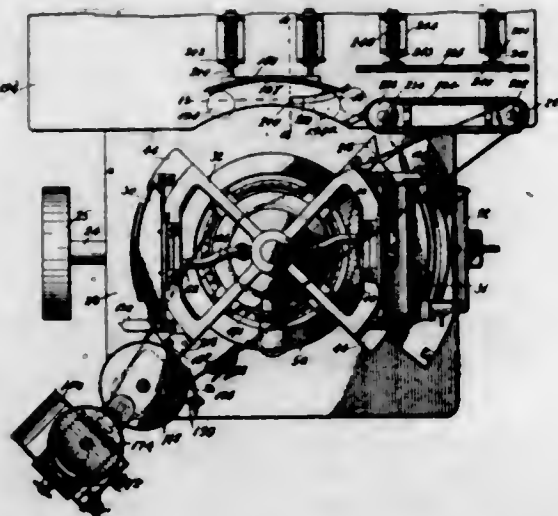
3. A cooking range, having a base, a vertically disposed main compartment at one side thereof having superposed ash-pit, fire-box and oven compartments, an oven disposed in the oven compartment and spaced at opposite sides and the top from the walls of the main compartment, a vertical partition dividing the space at one side of the oven into two vertical heat passages, another partition dividing the space above the oven into two heat passages, the same being in communication respectively with the front and rear vertical passages, a flue in communication with the rear top passage, a lid compartment divided longitudinally into front and rear communicating chambers, the front chamber being in communication with the lower end of the front vertical passage of the oven compartment while the rear chamber is in communication with the lower end of the rear vertical passage of the oven compartment, and a damper at the junction between the upper portion of the fire-box, the front vertical passage of the oven compartment and the front chamber of the lid compartment to control direct communication of the fire-box with the front chamber of the lid compartment.

4. A cooking range, having a base, a vertically disposed main compartment at one side thereof having superposed aligned ash-pit, fire-box, and oven compartments, an oven disposed in the oven compartment and spaced at opposite sides and the top from the walls of the main compartment, a vertical partition dividing the space at one side of the oven into two vertical heat passages, another partition dividing the space above the oven into two heat passages, the same being in communication respectively with the front and rear vertical passages, a flue in communication with the rear top passage, a longitudinally disposed lid compartment divided longitudinally into front and rear communicating chambers, the front chamber being in communication with the lower end of the front vertical passage of the oven compartment while the rear chamber is in communication with the lower end of the rear vertical passage of the oven compartment, a damper at the junction between the upper portion of the fire-box, the front vertical passage of the oven compartment and the front chamber of the lid compartment to control direct communication of the fire-box with the front chamber of the lid compartment, and a damper at the divisional line between the chambers of the lid compartment for controlling the passage of the products of combustion through the lid compartment.

1,078,723. LABELING-MACHINE. FRANK DODGE, Boston, Mass., assignor to Frederic R. Sawyer, Malden, Mass., and Arthur E. Coffin, Newton, Mass. Filed Feb. 25, 1913. Serial No. 750,547. (Cl. 216—55.)

1. In a labeling machine, the combination of a label-holder adapted to hold a stack of labels, a label-conveyor adapted to remove the labels one at a time from said holder, means for applying paste to said label, a support

for the article to be labeled, means for engaging the article and cooperating with said conveyor to enable the latter to affix the label to the article, means for wiping the labels after they are affixed, and an oscillatory member projecting through said support for engaging the articles and feeding them to the wiping means.



2. In a labeling machine, the combination of a label-holder arranged for oscillatory motion, a normally vertical label-conveyor arranged to be tilted into operative relation with said holder and movable therewith to remove a label therefrom, means comprising a spring for returning said conveyor to normal position, means for applying paste to the label, and means cooperating with said conveyor whereby the label is affixed to an article.

3. In a labeling machine, the combination of a label-holder arranged for oscillatory motion, a plurality of label-conveyers arranged to be swung one at a time into operative relation with said holder to remove a label therefrom, means for causing the conveyor and holder to travel together while the label is being removed, means for swinging the conveyor into upright position, means for returning the holder to normal position, means for applying paste to said label, and means cooperating with said conveyor to enable the latter to apply the label to an article.

4. In a labeling machine, the combination of a pivotally mounted dog adapted to engage a container, means for raising the dog, and means comprising a cam for moving said dog laterally to move the container along.

5. In a labeling machine, the combination of a platform upon which a container may rest, said platform being provided with a slot, a lever provided with a dog adapted to be projected through said slot, and an inclined surface adapted to be engaged by said lever, whereby when said lever is turned in one direction said dog is projected through said slot in a position to engage a container and move it over said platform.

[Claims 6 to 8 not printed in the Gazette.]

1,078,724. RAILROAD JOINT-CROSSING. GEORGE DUPES, Knoxville, Tenn. Filed Apr. 22, 1913. Serial No. 762,962. (Cl. 104—19.)

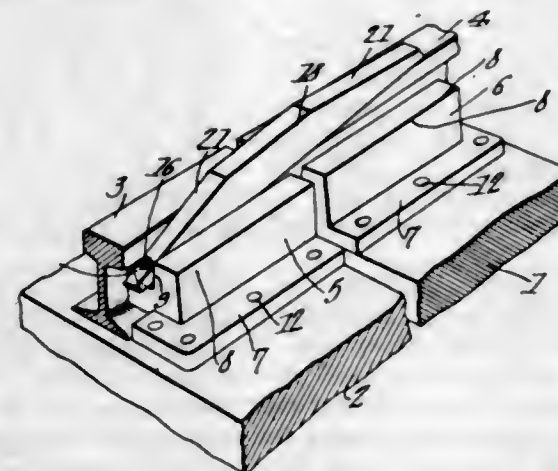
1. In a device of the class described, a pair of guides having side faces inclined with respect to the vertical; and a vertically movable tongue cooperating with the side faces of the guides.

2. In a device of the class described, a pair of guides; a vertically movable tongue cooperating with the side faces of the guides; and rail sections located at the sides of the guides, the rail sections being supported independently of the guides.

3. In a device of the class described, a pair of guides; and a vertically movable tongue cooperating with the guides, one end of the tongue being beveled upon its upper edge.

4. In a device of the class described, a pair of guides; a tongue pivoted to one guide and adapted to cooperate with the side faces of both guides; and a spring interposed between the tongue and one guide.

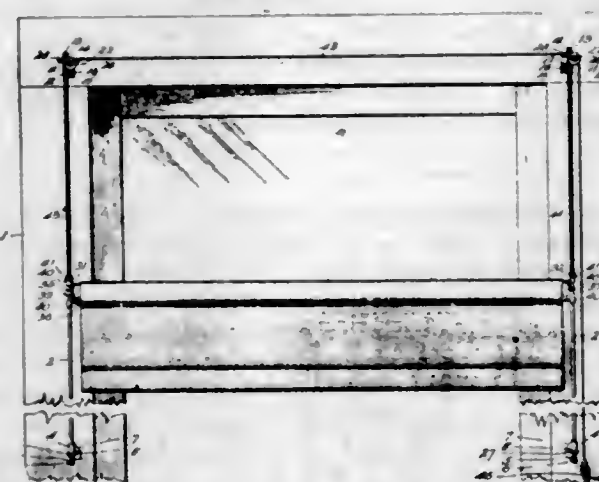
5. In a device of the class described, a pair of guides; a tongue pivoted to one guide and beveled upon its upper



edge, adjacent both ends; and resilient means for elevating the tongue.

[Claim 6 not printed in the Gazette.]

1,078,725. SHADE-ROLLER ADJUSTER. JOHN C. EBERLE, Denver, Colo. Filed Nov. 27, 1912. Serial No. 733,803. (Cl. 156—27.)



1. In a device as specified, the combination with a window frame, of upper and lower brackets on the opposite sides of the frame, having aligned sleeve portions, headed rods supported at their opposite ends in said sleeve portions, their lower ends being threaded and provided with nuts which are screwed against the ends of the adjacent sleeve portions, plates clamped between the heads of said rods and the ends of the sleeve portions of the said upper brackets, pulleys mounted in said plates, brackets slidably mounted on the rods, a shade roller supported in said brackets, and cords attached to said roller brackets and passed up over the pulleys above, one of said cords being also passed to and over the opposite pulley, and means for attaching the cords to hold the roller at the desired point of adjustment.

2. In a device as specified, the combination with a window frame, of upper and lower brackets on opposite sides of the same, having aligned sleeve portions, headed rods supported at their opposite ends in said sleeve portions, plates interposed between the heads of said rods and the adjacent sleeves of said upper brackets, slotted portions on said plates engaging the edges of said upper brackets to prevent axial turning of said plates, and nuts on the lower ends of said rods engaging the adjacent sleeves, by which the heads of the rods are clamped upon the plates, pulleys mounted in the plates, brackets having sleeve portions in sliding engagement with the rods, a shade roller mounted in said brackets, and a cord the ends of which are connected to said brackets and passed up over the rollers above them, one member of said cord being also passed over the roller opposite its own, in order to be operated simultaneously with the cord thereon, a single cord attached to the looped end of the first cord, and a cleat to which the latter cord is attached.

3. In a shade roller adjuster as specified, the combination with parallel headed slide rods, brackets slidably mounted thereon, a shade roller supported by said brackets, and means for securing said rods to opposite sides of a window frame, comprising upper and lower brackets having vertically aligned tubular portions for receiving the opposite ends of the rods, and portions for receiving securing screws, of plates having rod receiving apertures, which are interposed between the heads of said rods and the adjacent tubular portions of the upper brackets, slotted right angled members on said plates which straddle the outer edges of said brackets, to prevent axial rotation of the plates, pulleys mounted in said plates, and cords connected to the shade roller brackets, one of which extends up and over the nearest pulley, while the other is arranged likewise, and is also passed to and over the opposite pulley to be operated simultaneously with the first cord.

4. In a device as specified, the combination with parallel slide rods, supports at opposite ends thereof, roller supporting brackets slidably mounted on the rods, and cords attached to said brackets, of reversible brackets at the upper ends of the rods, and pulleys mounted in the brackets, said cords being passed up over the pulleys, and one of said cords being also passed over the opposite pulley to be operated simultaneously with the cord thereon.

1,078,726. GAS-BURNER. EDWIN H. FISHER, Pittsburgh, Pa., assignor to Scientific Materials Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 30, 1912. Serial No. 674,250. (Cl. 158—112.)



1. In a gas burner, the combination of a cylindrical body member having an elongated opening interposed between the ends thereof, a flange surrounding said opening, a ledge extending around the interior of said opening, and a metallic grid or grating adapted to seat on said ledge within said flange and having a thickness equal to the depth of said flange, substantially as set forth.

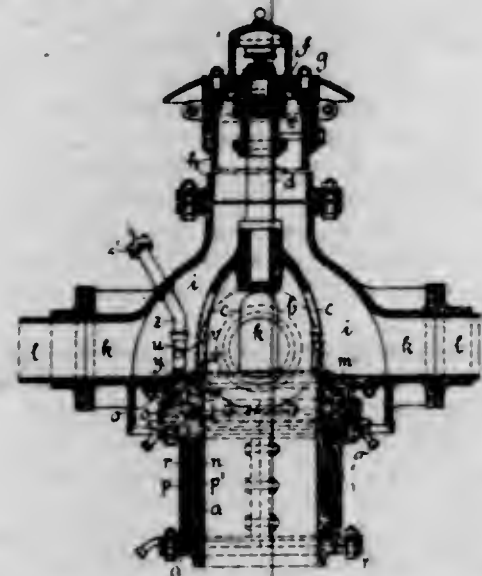
2. In a gas burner, the combination of a tubular body member having an elongated opening interposed between the ends thereof, means for supplying gas and means for supplying air to said body, a flange surrounding said opening, a ledge extending entirely around the interior of said opening, and a grid or grating of substantially the same depth as said flange adapted to rest on said ledge within said flange, substantially as set forth.

3. In a gas burner, the combination of a tubular body member having an elongated opening, a flange surrounding said opening, a ledge extending entirely around the interior of said opening, a grid or grating adapted to rest on said ledge within said flange, said tubular body having a closed and an open end, means for supplying air, and means for supplying gas to said tubular body through said open end, substantially as set forth.

1,078,727. ROTARY SPRINKLER. EUGEN GEIGER, Karlsruhe, Germany. Filed Dec. 23, 1912. Serial No. 738,299. (Cl. 137—87.)

1. In a rotary sprinkler the combination of a stand pipe, a rotary body mounted thereon, radial sprinkler tubes fixed to said rotary body, two downwardly projecting concentric ring members provided on the base of said rotary body, a cylinder surrounding said stand pipe, and spaced therefrom to form an annular chamber, an annular groove provided in the top of said cylinder, said annular chamber and groove being filled partly with mercury and partly with glycerin, said ring members projecting freely into said annular chamber and groove respectively, a ball bearing provided between said cylinder and the inner of said ring members and substantially above the mercury contained in said annular chamber, a tubular member

mounted on the base of said rotary body and provided with a branch, and an air chamber provided below the base of said rotary body and between said ring members, said tubular member and branch being in communication with said air chamber and with the inner part of said annular chamber respectively.



2. In a rotary sprinkler the combination of a stand pipe, a rotary body mounted thereon, radial sprinkler tubes fixed to said rotary body, two downwardly projecting concentric ring members provided on the base of said rotary body, a cylinder surrounding said stand pipe, and spaced therefrom to form an annular chamber, an annular groove provided in the top of said cylinder, said annular chamber and groove being filled partly with mercury and partly with glycerin, said ring members projecting freely into said annular chamber and groove respectively, a ball bearing provided between said cylinder and the inner of said ring members and substantially above the mercury contained in said annular chamber, a tubular member mounted on the base of said rotary body and provided with a branch, and an air chamber provided below the base of said rotary body and between said ring members, said tubular member being in communication with said air chamber and with the exterior of the outer of said ring members projecting into said annular groove, and said branch being in communication with the inner part of said annular chamber.

3. In a rotary sprinkler the combination of a stand pipe, a rotary body mounted thereon, radial sprinkler tubes fixed to said rotary body, two downwardly projecting concentric ring members provided on the base of said rotary body, a cylinder surrounding said stand pipe, and spaced therefrom to form an annular chamber, an annular groove provided in the top of said cylinder, said annular chamber and groove being filled partly with mercury and partly with glycerin, said ring members projecting freely into said annular chamber and groove respectively, a ball bearing provided between said cylinder and the inner of said ring members and substantially above the mercury contained in said annular chamber, a tubular member mounted on the base of said rotary body and provided with a branch, an air chamber provided below the base of said rotary body and between said ring members, said tubular member and branch being in communication with said air chamber and with the inner part of said annular chamber respectively, and a pipe leading from said tubular member upward through the walls of said rotary body.

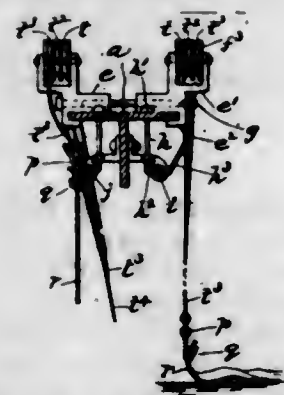
4. In a rotary sprinkler the combination of a stand pipe, a rotary body mounted thereon, radial sprinkler tubes fixed to said rotary body, two downwardly projecting concentric ring members provided on the base of said rotary body, a cylinder surrounding said stand pipe and spaced therefrom to form an annular chamber, an annular groove provided in the top of said cylinder, said annular chamber and groove being filled partly with mercury and partly with glycerin, said ring members projecting freely into said annular chamber and groove respectively, a ball bearing provided between said cylinder and the inner of

said ring members and substantially above the mercury contained in said annular chamber, a tubular member mounted on the base of said rotary body, and provided with a branch, an air chamber provided below the base of said rotary body and between said ring members, said tubular member being in communication with said air chamber and with the exterior of the outer of said ring members projecting into said annular groove, and said branch being in communication with the inner part of said annular chamber, and a pipe leading from said tubular member upward through the walls of said rotary body.

5. In a rotary sprinkler the combination of a stand pipe, a rotary body mounted thereon, radial sprinkler tubes fixed to said rotary body, two downwardly projecting ring members provided on the base of said rotary body, a cylinder surrounding said stand pipe, and spaced therefrom to form an annular chamber, an annular groove provided in the top of said cylinder, said annular chamber and groove being filled partly with mercury and partly with glycerin, said ring members projecting freely into said annular chamber and groove respectively, a ball bearing provided between said cylinder and the inner of said ring members and substantially above the mercury contained in said annular chamber, a tubular member mounted on the base of said rotary body and provided with a branch, an air chamber provided below the base of said rotary body and between said ring members, a boring provided in the base of said rotary body and connecting said tubular member with said air chamber, and a passage also provided in said base and connecting said branch with the inner part of said annular chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,078,728. MERCHANDISE-DISPLAY RACK. JOHN GRAY, Central Falls, R. I. Filed May 1, 1913. Serial No. 764,844. (Cl. 211-22.)

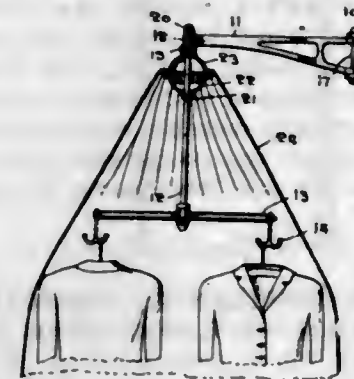


1. In a merchandise display rack, in combination with a horizontal T-shaped swinging arm, a series of hooks carried by the top flange of said arm and having their free end portions inclined outwardly from the central web of the latter; a series of rollers carried by said arm, each roller provided with one or more grooves, and the inner grooves of said rollers being in a plane inwardly of the free ends of said hooks; a rug-supporting-bar having cable connections from the grooved rollers to operate in lifting said bar over the free ends of and within said hooks, and operating means carried by said arm to simultaneously turn the hooks and allow the said bar to descend to a lowermost position.

2. In a merchandise display rack, in combination with a horizontal T-shaped swinging arm, brackets arranged in pairs upon the top flange of said arm and each bracket carrying a grooved pulley; means to clamp each pair of brackets transverse of and to said arm; hook members journaled in the top flange of said arm and having their free portions bent to incline outwardly from the central web of said arm; independent rug-supporting-bars, each bar having cable connections from the pulleys of said brackets to operate in lifting either bar over the free ends of and within said hook members, and operating means carried at each side of said arm to simultaneously turn said hook members and allow either bar to descend to the floor level.

3. In a merchandise display rack, in combination with a horizontal T-shaped swinging arm, a series of equi-spaced grooved rollers carried by said arm; hook members loosely mounted in the top flange of said arm and having their free portion arranged to incline outwardly from the central web of the said arm; a slidable shaft carried at each side of said arm, each shaft having slotted openings to receive the bottoms of said hook members; a rug-supporting-bar having cable connections from the rollers to operate in lifting said bar to pass upon the inclines of the hook members and to enter the same; a bell crank lever mounted on said arm and having a pull-wire connection to operate in imparting an outer movement to said shaft in turning the hook members and allow the said bar to descend to the floor level.

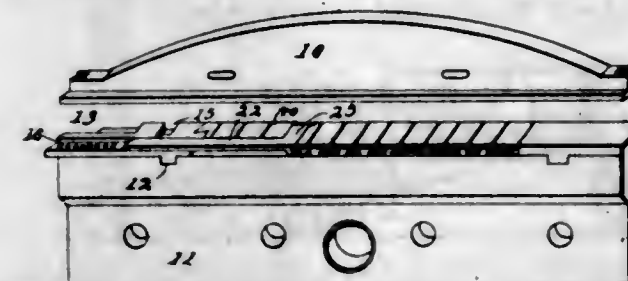
1,078,729. COMBINED CLOTHING HANGER AND PROTECTOR. LEONORE C. HILL, Bethesda, Md. Filed Jan. 7, 1913. Serial No. 740,609. (Cl. 45-37.)



1. A clothes hanger and protector consisting of a cover, a clamping member comprising a pair of hollow hemispherical elements between which the upper edge of said cover is adapted to be inserted when folded into plaits, sufficient room being provided between and within said clamping members for the plaited edge of said cover, a ring form hanger member having depending hooks thereon, a connection between said clamping members and said hanging member comprising a vertical rod passing through said clamping members, and means on said rod for actuating said clamping members toward each other to grasp the edge of said cover.

2. In a clothes hanger and protector, a hanger member in the form of a ring having depending hooks thereon, a cover clamp above the hanger member, and means including flexible members for connecting the hanger member to the cover clamping member, said cover clamping member consisting of a pair of hollow hemispherical elements into which the upper edge of said cover is adapted to be inserted by folding the latter into plaits, so that sufficient room is provided within the clamping member for the plaited edge of said cover, whereby said cover and flexible element are adapted to be collapsed for reducing the space occupied by the clothes hanger and protector, substantially as specified.

1,078,730. ADJUSTABLE LINER. JAMES F. HOSSEY, Washington, D. C. Filed Nov. 21, 1912. Serial No. 732,671. (Cl. 199-13.)



1. In a device of the class described, a liner constant, means to fix the constant in a given relation to a mold, there being a channel formed in the constant longitudi-

196 O. G.—38

nally thereof spaced from said fixing means, and opening on the inner end of the constant, said channel extending longitudinally beyond the said fixing means, a spacer adapted to form one end of the mold space and having an arm thereon adjustable longitudinally in the channel, and means to secure the spacer at any point of its adjustment.

2. In a device of the class described, a liner constant element having means thereon to fix it in a given relation to a mold, and having an edge adapted to be exposed through the front of the mold, a longitudinal channel formed in said edge opening on the inner end of the constant and open throughout its length on said edge, a spacer having an arm longitudinally adjustable in said channel freely for lateral movement therefrom and means to secure the arm in adjusted positions against longitudinal and free for lateral movement, said spacer having a head portion having a mold face adapted to form one end of the mold space.

3. In a device of the class described, a liner comprising a constant element adapted to be engaged in fixed relation to a mold at one end, and having an edge portion adapted to be exposed through the front of the mold, a longitudinal channel being formed in said edge portion open throughout on said edge, and opening also on the inner end of the constant, a spacer element adapted to form one end of the mold space, having an arm adjustable longitudinally in the channel, means to hold the arm releasably in adjusted position freely for lateral movement of the arm from the channel, said constant and spacer being shaped to interlock with a plastic filling therebetween under compression between mold base and top to prevent pivotal movement of the spacer, and for non-engaging relation therewith when relieved from coengagement of the mold parts.

4. In a device of the class described, a liner comprising a constant element adapted to be engaged in fixed position at one end of a mold, an adjustable head piece adapted to form the adjacent end of the mold space, the constant element having a longitudinal channel therein open on the inner end of the constant and throughout its length on the front of the liner, and a head piece adapted to form one end of the mold and having an arm pivoted for adjustment longitudinally of the channel and for lateral movement out of the channel at times, said constant and head being adapted to interlock with a plastic filling intervening against pivotal movement of the head with respect to the constant.

5. A device of the class described comprising a constant element adapted for fixed engagement in one end of a mold of the class described and having a channel therein adapted to extend longitudinally of the mold and to open on the front side thereof, a series of longitudinally spaced recesses being formed therein opening on the channel, a spacer element comprising a head piece adapted to close one end of the mold space and having an arm adjustable longitudinally in the channel means on the arm to engage the recesses against longitudinal movement of the arm in the channel, adapted to permit lateral disengagement of the arm, opposed portions of the head and constant element having irregularities therein so disposed that when a plastic material is admitted therebetween and has become set, the liner elements will be held against relative lateral movement when clamped between the top and bottom elements of the mold, the sides of the liner elements abutting the plastic being beveled toward a common side, so that when free from the mold the filling may fall therefrom.

[Claims 6 to 8 not printed in the Gazette.]

1,078,731. SHAFT ATTACHMENT. JAMES THOMAS JONES, Brookwood, Ala. Filed Oct. 12, 1912. Serial No. 725,470. (Cl. 21-36.)

In combination with a vehicle shaft having a bow and a brace spanning the bow, of a bolt extending through the brace and through the bow and having a nut thereon, an externally threaded sleeve around the bolt, and an internally threaded collar fitted on the sleeve, said collar

being in contact with the bow, and said sleeve being in contact with the brace, so that the collar may be rotated upon the sleeve for increasing the distance between the



medial portion of the bow and the medial portion of the brace when the nut is loosened, substantially as described and shown.

1,078,732. COLLAR-BUTTON. JAMES F. KELHER, Independence, Mo. Filed Dec. 4, 1911. Serial No. 663,800. (Cl. 24-98.)



A button composed of a body having a major bore of uniform diameter throughout and having a pair of opposite shoulders at one end and having its opposite end flared outwardly to form a circular flange, a back plate having its peripheral edge rolled over said flange, a head having a shank of equal diameter throughout that is received in the bore and having an abutment formed on its inner end, a circular concavo-convex spring formed of a plate of metal having a central opening to receive said shank and having its rear face engaging said abutment, the peripheral edge of the spring plate being beveled and conformably engaging the flared flange at points substantially central of the length thereof, the inner face of said head being concaved to receive said shoulders, said shoulders being spaced from the shank of the head so as to receive the rear end of the head in one position of the latter, the concave face of said spring plate facing the flared end of the body.

1,078,733. TAG AND GUARD THEREFOR. MONROE KOHN, Chicago, Ill. Filed Dec. 27, 1910. Serial No. 599,316. (Cl. 40-2.)

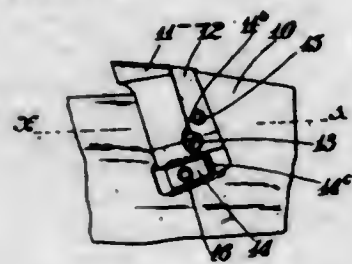


A metal bag member having an opening extending inwardly through one edge, said member having a second opening at one side of the aforesaid opening, the metal of the tag being split between said openings so as to allow a ring to be introduced into the said second opening by passing it through the first opening while the split portion of the tag is spread apart and then be closed again to lock the ring in the second opening, and a guard for said first opening, the metal of the tag adjacent to said openings being adapted to be bent so as to close the passage between the openings and leave the first mentioned opening open from the edge of the tag.

1,078,734. DETACHABLE SAW-TOOTH. ANDREW KRIEGER, Columbus, Ohio. Filed Apr. 11, 1913. Serial No. 760,435. (Cl. 143-153.)

1. In combination with a recessed saw body, a tooth having a shank constructed to engage one edge of said recess, means for securing said tooth in position circumferentially with reference to the saw body and a wedging device in said recess movable transversely with reference to the saw body and engaged with said shank to

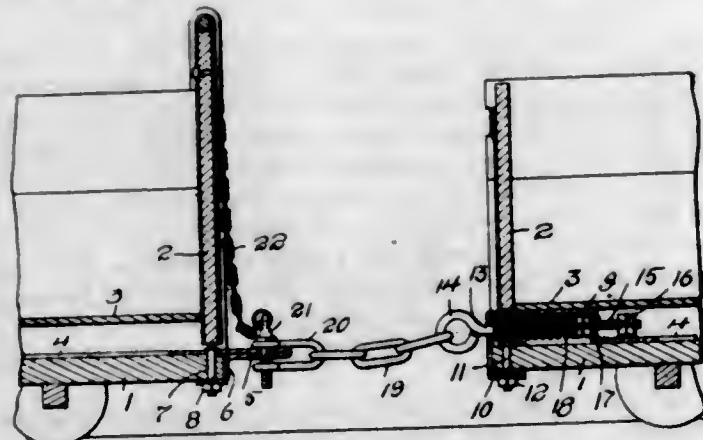
fix the tooth in any position within limits radially with reference to the saw body.



2. In combination with a recessed saw body, a tooth having a shank constructed to engage one edge of said recess, means for securing said tooth in position circumferentially with reference to the saw body, a wedging device in said recess transversely movable with reference to and engaged with said shank to fix the position of the tooth radially with reference to the saw body, and means to press the metal of the tooth against the metal of the transversely movable wedge.

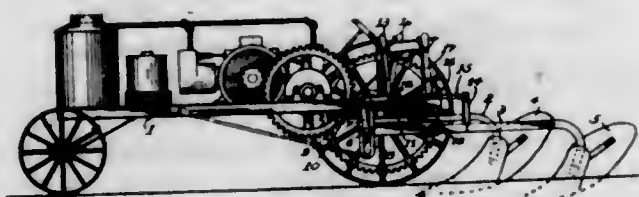
3. In combination with a recessed saw body, a tooth having a shank constructed to engage one edge of said recess, and a parallel wedge engaging the shank of the tooth and the opposite edge of said recess, a wedging device in said recess transversely movable with reference to and engaged with said shank and its parallel wedging device, and means for securing said three parts in fixed relation to each other.

1,078,735. DRAFT APPLIANCE. ANDRO KRIVONYAK, Saltburg, Pa. Filed Dec. 7, 1912. Serial No. 735,570. (Cl. 213-42.)



A draft appliance comprising a longitudinally extending bar having one end bent to provide an inverted yoke having its top disposed above the plane of the bar, the outer arm of said yoke, being of greater length than the inner arm, and depending below the plane of the bar and having its lower end bent inwardly to engage the under face of the end of a car, said arms provided with aligning openings above the plane of the bar, a spring controlled draft bolt extending through said openings and having its outer end provided with an eye and its inner end with a stop to limit the outward movement of the bolt, and said bar having its other end constructed to receive means for coupling a car thereto.

1,078,736. ADJUSTABLE TOOL-HITCH FOR TRACTORS. HARRY W. LEAVITT, Paris, Mo. Filed Apr. 27, 1913. Serial No. 762,613. (Cl. 97-60.)



A tool-hitch for a tractor, comprising a pair of spaced plows, located side by side transversely of a tractor and rigidly connected, said plows having their beams connected to a transversely-tiltable bar, said bar having its

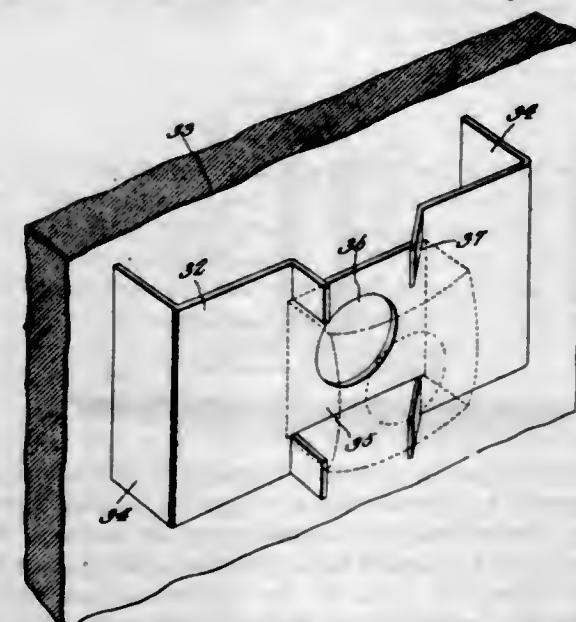
ends vertically and slidably mounted in the frame of said tractor, and means for transversely tilting said bar and plows, comprising hand-levers fulcrumed on opposite sides of the tractor-frame, means for holding said levers releasably in adjusted positions, and linking means between the said levers and opposite ends of said tiltable bar, adapted to act with the said hand-levers when either lever is actuated separately to tilt the plows in desired directions transversely.

1,078,737. NON-REFILLABLE BOTTLE. JOHN LETORA, Tuolumne, Cal. Filed May 10, 1911. Serial No. 626,265. (Cl. 215-106.)



A bottle having a neck and a cork or stopper receiving portion therein provided with an outwardly extending shoulder and the neck being extended upwardly from said shoulder in surrounding relation with the stopper at the outer margin of said shoulder, said neck having an interior groove at its juncture with said shoulder portion for weakening the neck connection with said shoulder portions and forming a holding shoulder for a molded material covering the stopper and extending up into the neck above said shoulder portion, said neck having slots extending downwardly therein toward but not to said molded material, and the neck having an exterior groove below said shoulder portion but extending upwardly toward said shoulder portion whereby interior and exterior weakening portions are provided to afford a breaking line, substantially as described.

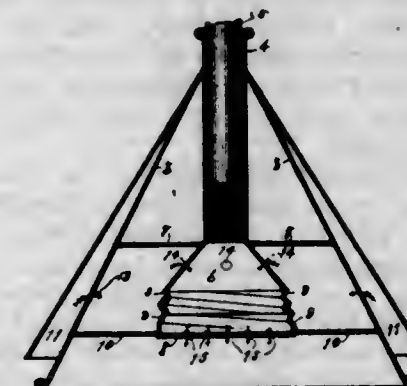
1,078,738. NUT-LOCK. WILLIAM F. LUDWICK, Beaumont, Kans., assignor of one-half to Charles G. Miller, Enid, Okla. Filed Jan. 4, 1913. Serial No. 740,243. (Cl. 151-53.)



A nut lock comprising a plate having angularly disposed, projecting, supporting flanges at its ends and provided in its side edges with slits defining a reduced neck, there being a locking tongue upstanding from the plate at one end of each slit, the plate having a bolt receiving opening lo-

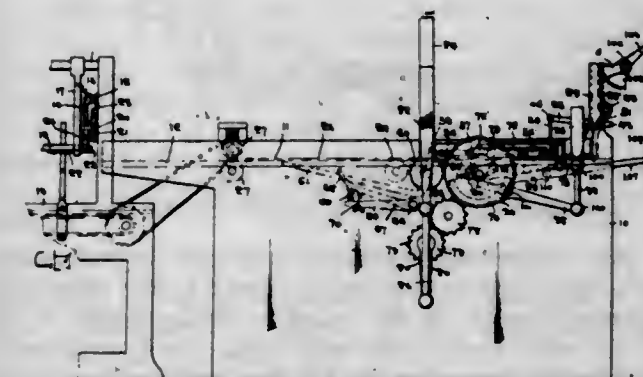
cated in the neck and between the tongues, the plate being continuous along its longitudinal center, saving for the bolt receiving opening.

1,078,739. CLOTHES-POUNDER. WILLIAM MACDONALD, Winnipeg, Manitoba, Canada. Filed Oct. 14, 1912. Serial No. 725,718. (Cl. 68-5.)



A clothes pounder comprising a conical body or shell, a centrally disposed tube extending thereinto, a screw threaded soap receptacle at the end of said tube, a horizontally disposed imperforate partition above the soap receptacle dividing the interior of the cone into two parts, a cover for said soap receptacle, a circular flange surrounding and attached to said cover and extending to the wall of said cone, said cover being screw threaded for engagement with the threads on said receptacle, whereby said flange is held in peripheral contact with said shell, conduits extending upward from near the bottom of said conical shell, and communicating with the interior of said cone between the partition therein and the flange around said cover, and openings in said soap receptacle and the cover therefor, whereby uninterrupted circulation is permitted through said conduits, the interior of said cone, said soap receptacle and said cover.

1,078,740. METAL-SHEET-FOLDING MACHINE. ERASTUS M. MAXWELL and JAMES F. MAXWELL, Cardinal, Va. Filed Sept. 7, 1912. Serial No. 719,184. (Cl. 153-15.)



1. In a metal sheet folding machine, a frame, a table supported by the frame and adapted to support a sheet of metal, means for determining the desired position of the metal sheet on the table, means for swinging one half of the sheet and folding it upon the other half thereof, retaining means engaging with the medial portion of the sheet for holding the last said half upon the table while the first said half is being folded thereon, means for pressing the first said half into parallel relation with the second said half and means for releasing the engagement of said retaining means while the pressing means is operating.

2. In a metal sheet folding machine, a frame, a table supported by the frame and adapted to support a metal sheet, means for swinging one half of the sheet and folding it upon the other half, means for retaining the last said half of the sheet in fixed relation to the table while the first said half is being folded thereupon, a presser bar pivotally connected to the table and standing normally in vertical position and adapted to be swung into horizontal position upon the metal sheet, and means associated

with the first said means for actuating the presser bar and thereby pressing the folded sheet upon the table.

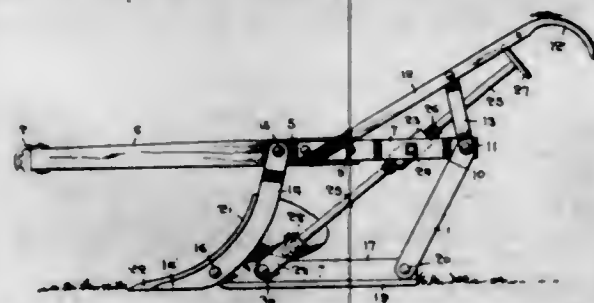
3. In a metal sheet folding machine, a frame, a table supported by the frame and adapted to support the metal sheet, means for swinging one half of the metal sheet and folding it upon the other half thereof, folder fingers for retaining the second said half in fixed position while the first said half is being folded thereon, means for withdrawing the folder fingers out of operative position after the sheet is folded, means coacting with the first said means for temporarily retaining the sheet in folded position after the fingers have been withdrawn, and means for pressing the folded sheet upon the table while being thus held in folded position.

4. In a metal sheet folding machine, a frame, a table supported by the frame and adapted to support a metal sheet, means for swinging an edge of the sheet into proximity with its opposite edge, means for retaining the middle portion of the sheet in fixed position while said edges are being brought into proximity, a stop on the table, means for pushing said edges of the sheet against the stop for bringing them into registration, a clamp for holding said edges of the sheet in registration after the pushing means has ceased to operate, and means for pressing said middle portion upon the table and thereby bringing the halves of the plate into parallel and contiguous relation while being held by the clamp.

5. In a metal sheet folding machine, a frame, a table supported by the frame, means for moving a sheet of metal horizontally on the table, a folder mechanism whereby the sheet is folded and pressed upon the table, a driver member, said folder mechanism including a main shaft, a clutch associated with the main shaft and the driver member, means for temporarily retaining the clutch out of operative position, and means set in motion by contact with the horizontally moving sheet for actuating the clutch retaining means and thereby allowing the clutch to be moved into operative position.

[Claims 6 to 8 not printed in the Gazette.]

1,078,741. PLOW. JAMES C. MCRAE, JR., Dunbar, S. C. Filed Oct. 12, 1912. Serial No. 725,469. (Cl. 97-26.)



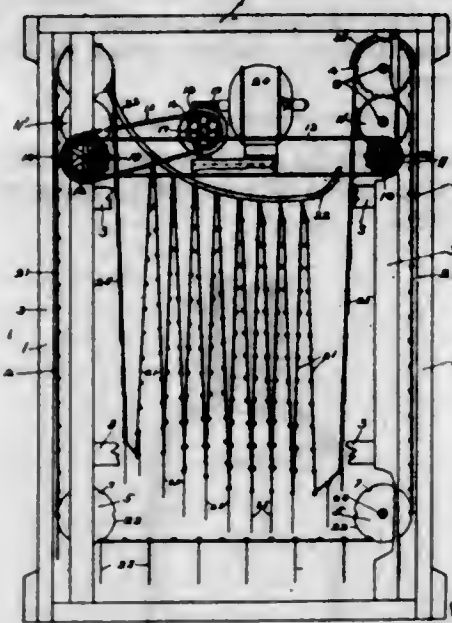
1. A plow comprising a beam, a standard pivoted thereto, a plow point thereon, a shoe pivoted to the standard, an extension carried by the beam, a link pivoted at its ends to the shoe and to the extension, a nut swingingly supported on the extension, and a threaded shaft operable through the nut and having pivot connection with the shoe.

2. A plow comprising a standard, a plow point thereon, a beam movably connected to the standard, a shoe pivoted to the standard, extensions carried by the beam, a link pivoted to the rear ends of the extensions and the rear end of the shoe, a nut swingingly supported between the extensions, a threaded shaft operable through the nut, and a member pivotally connecting the shaft to the shoe.

1,078,742. ADVERTISING DEVICE. JOHN W. MEVIS, Lowell, Mass. Filed Oct. 19, 1908. Serial No. 458,422. (Cl. 40-100.)

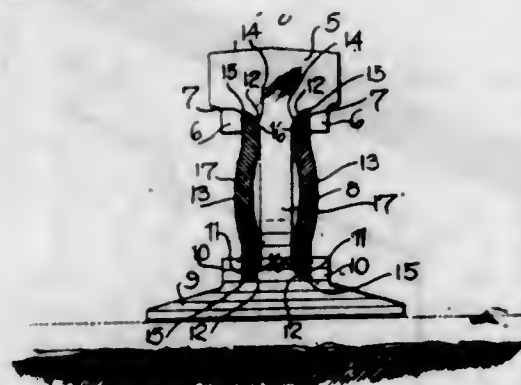
1. In a device of the class described, a frame, wheels journaled in said frame and provided with peripheral grooves and transverse notches, an endless conveyor for displaying the matter to be exhibited, said conveyor being formed of a plurality of suspending rods and links connecting said rods, said links having oppositely-projecting

eyes extending in the plane of the conveyor for receiving said suspending rods and to provide bearings therefor, the rods and links being received by the notches and grooves, respectively, of said wheels during the operation of said conveyor, and means for actuating said conveyor.



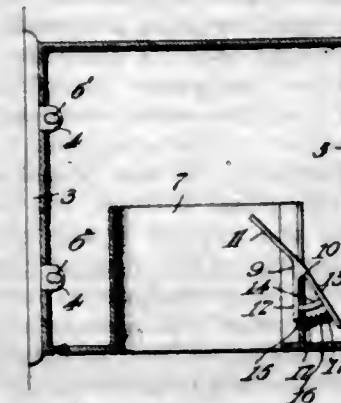
2. In a device of the class described, a frame, wheels journaled in said frame adjacent to its upper portion and at the front and back thereof, each of said wheels being provided with a peripheral groove and transverse notches, said wheels being arranged in pairs at the front and back of said frame, a driving shaft associated with each pair of said wheels and geared thereto, connections between said shafts for actuating the latter in unison, driving means connected to one of said shafts, an endless conveyor for displaying the matter to be exhibited, said conveyor being formed of a plurality of suspending rods and links connecting said rods, the rods and links being received by the notches and grooves, respectively, of said wheels during the operation of said conveyor, and inclined guides arranged at the upper portion of said frame, one end of said guides being positioned in immediate proximity to the wheels at one side of the casing, whereby to receive certain of the suspending rods as they leave said wheels to loop the conveyor during its transit through the casing, the other ends of said guides being arranged in a lower plane than the aforesaid ends to cause the looped portions of the conveyor to gravitate upon said guides.

1,078,743. RAILWAY-RAIL JOINT. WARREN J. MOREHOUSE, Ashabula, Ohio. Filed July 2, 1913. Serial No. 777,078. (Cl. 239-9.)



The combination in a railway rail joint, of two adjacent rail ends each having an upper flange depending from its head and a lower flange extending up from the base flange of the rail, said upper and lower flanges being spaced apart from the respective webs of the rail ends and being in parallel relation with said web, and a fish plate of springy material and being bowed outwardly and having its upper and lower edges seated between the rail web and the respective upper and lower flanges and held in frictional engagement with said rail ends by the spring action of the bowed portion.

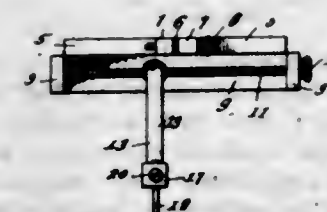
1,078,744. MILK-BOTTLE HOLDER. RAYMOND H. NEFF, Pittsburgh, Pa. Filed Feb. 19, 1913. Serial No. 749,520. (Cl. 232-42.)



1. A milk bottle holder including a casing, a guide tube projecting upwardly from the bottom of the casing and opening through the bottom of the casing so as to receive the beaded neck of a milk bottle, said guide tube having a channel in one side thereof, a detent mounted within the channel and formed with a forked base, one of the arms of the forked base projecting within the channel while the opposite arm thereof is arranged upon the exterior of the guide tube, a segmental guide rod connecting the arms of the forked base of the detent and passing through the base of the channel, and a spring normally holding the detent in operative position for engagement with the beaded neck of a milk bottle to prevent withdrawal thereof from the casing.

2. A milk bottle holder including a casing, a guide tube opening through the bottom of the casing and projecting upwardly therefrom upon the interior of the casing, said guide tube having a longitudinal channel in one side thereof and the back of the channel being formed with a pivot edge, a detent formed with a forked base which straddles and rests upon the said pivot edge, a segmental guide rod connecting the forked arms of the base of the detent and passing through the back of the channel so as to direct the detent in its swinging movement, and a spring acting upon one of the forked arms for holding the detent normally in position to engage the beaded neck of a milk bottle and prevent withdrawal thereof from the guide tube.

1,078,745. ATTACHMENT FOR LATHES. WALTER S. NORTON, Lubbock, Tex. Filed Sept. 4, 1912. Serial No. 718,556. (Cl. 82-24.)



1. In a device of the class described, a bracket provided with a plurality of walls arranged at an angle to each other and with lugs extending at an angle to said walls, one of said walls provided with an elongated slot, the other of said walls provided with attaching means, a screw rod mounted in said lugs, a tool-supporting bracket mounted on said rod, and means on said latter bracket entering said slot.

2. In a device of the class described, a bracket having an elongated slot and provided with a wall split to provide lugs and a socket between the lugs, a clamp member passing through said lugs, lugs arranged at an angle to said wall, a screw rod mounted in said latter lugs, a tool-supporting bracket mounted on said rod, and means on said rod entering said slot.

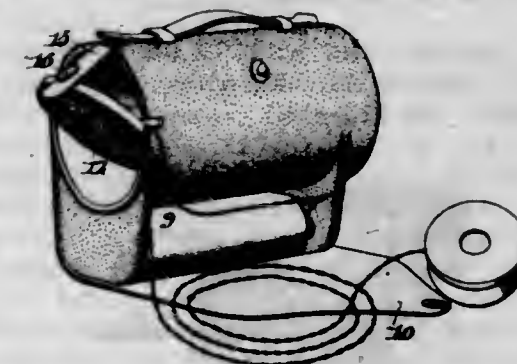
3. In a device of the class described, a bracket provided with an elongated slot, attaching means provided on said bracket, a screw rod for said bracket, a tool-supporting bracket mounted on said rod, means on said latter bracket extending through said slot provided with screw threads beyond the slot, and a nut engaging said screw threads.

4. In a device of the class described, a bracket having a wall and end pieces arranged at an angle to said wall, a screw rod mounted in said end pieces, attaching means provided on said bracket, said wall provided with an elongated slot, a bracket, an angle arm entering said slot and having another arm, and a tool supported from said another arm.

5. In a device of the class described, a bracket having a side wall provided with an elongated slot, end pieces arranged at an angle to said wall, a screw rod mounted in said end pieces, attaching lugs provided on said bracket, clamping means for said lugs, an angle bracket mounted on said screw rod provided with a portion extending through said elongated slot and receiving a nut beyond the slot, and a tool removably supported from the other arm of said angle bracket.

[Claim 6 not printed in the Gazette.]

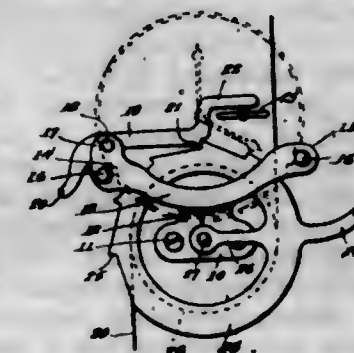
1,078,746. AMPLIFYING-CASE FOR MICROTELEPHONES. WILLIAM B. OLIVER, Collingswood, N. J. Filed Sept. 30, 1910. Serial No. 584,633. (Cl. 179-107.)



1. A microtelephone provided with a case containing receptacles for the functional parts of the microtelephone including a special receptacle for the transmitter, and an amplifying chamber in such position in the case that the transmitter when inserted in its receptacle is in proper coincidence with the amplifying chamber; electrical connections between said functional parts; and means whereby all such functional parts are removable from said case without disturbance of their electric connections or functions.

2. In a portable microtelephone, the combination with a receptacle fitted with a transmitter and an amplifying chamber; a shutter fitted within, but large enough to completely close the mouth of the amplifying chamber, said shutter being pivoted within the amplifying chamber on a transverse axis, whereby said shutter may be adjusted when opened to vary the aperture and to regulate the extent to which the amplifying chamber magnifies the sound waves.

1,078,747. DAMPER-OPERATING DEVICE. CHARLES D. PATERSON, Worcester, Mass. Filed Oct. 29, 1912. Serial No. 728,495. (Cl. 161-8.)

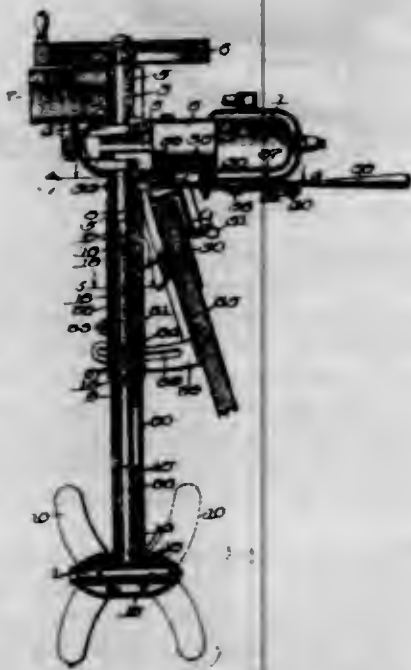


1. A damper operating device including a drum, teeth arranged on the periphery of one of the drum flanges, a plurality of cables carried by said drum the one end of each of which is in engagement therewith and the opposite end in engagement with the damper, a clock supporting bracket pivotally engaged with said drum, lever pivotally mounted on said brackets, a tooth formed on said lever and approximately midway the ends thereof

for engagement with the teeth of said drum, one of the ends of said lever being offset and engaged with an alarm key of a clock, whereby to disengage said tooth from said drum, and means carried by said drum for facilitating the rotation thereof for winding said cables thereon.

2. A damper operating device including a drum, teeth arranged on the periphery of one of the drum flanges, cables, the one end of each of which is in engagement with said drum and the opposite in engagement with the damper, a clock supporting bracket pivotally mounted on said drum, said bracket comprising a substantially semi-circular plate, a pin carried adjacent each end of said plate for engagement with the periphery of the clock, and a portion depending from the intermediate portion of said plate for engagement with said drum, a lever pivotally mounted on said bracket, a tooth formed on said lever approximately midway the ends thereof for engagement with the teeth of said drum, one of the ends of said lever being offset for engagement with the alarm key of the clock, and a handle extending laterally from said drum for facilitating the operation thereof for the purpose specified.

1,078,748. PROPELLING ENGINE OR MOTOR. JAMES H. POAGE, Chicago, Ill. Filed Dec. 19, 1912. Serial No. 737,687. (Cl. 115—18.)



1. Boat propelling equipment including a propeller; a motor for driving the same; mechanism for bodily reversing the position of the propeller to cause it to reverse the direction in which it is driving a boat; a handle for effecting this adjustment of the propeller; motion increasing means interposed between the handle and propeller to increase the angular bodily movement of the propeller with respect to the angular movement of the handle; a mounting permitting the motor and propeller to be swung; and a mounting for the handle causing the handle to accompany the motor when swung upon its mounting.

2. Boat propelling equipment including a propeller; a motor for driving the same; mechanism for bodily reversing the position of the propeller to cause it to reverse the direction in which it is to drive a boat; a handle for effecting this adjustment of the propeller; motion increasing means interposed between the handle and propeller to increase the angular bodily movement of the propeller with respect to the angular movement of the handle, said motion increasing means including a pinion moving with the propeller and a segmental gear meshing with the pinion and moved by the handle; a mounting permitting the motor and propeller to be swung; and a mounting for the handle causing the handle to accompany the motor when swung upon its mounting.

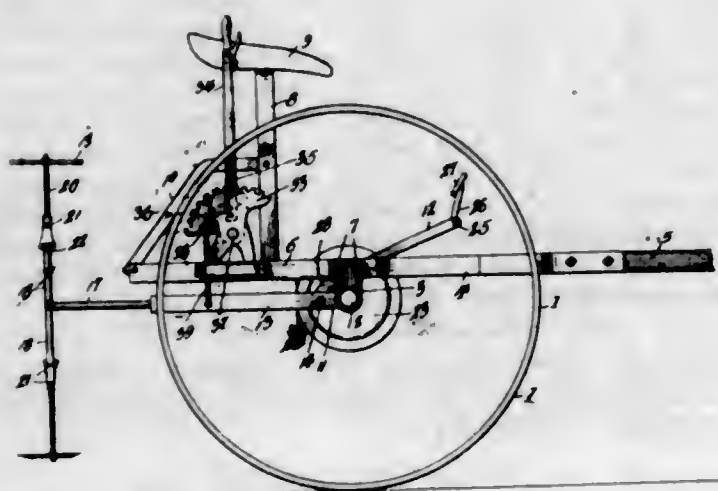
3. Boat propelling equipment including a propeller; a motor for driving the same; mechanism for bodily changing the position of the propeller; a handle for effecting this adjustment of the propeller; motion increasing means

interposed between the handle and propeller to increase the angular bodily movement of the propeller with respect to the angular movement of the handle; a mounting permitting the motor and propeller to be swung; and a mounting for the handle causing the handle to accompany the motor when swung upon its mounting.

4. Boat propelling equipment including a propeller; a motor for driving the same; mechanism for bodily changing the position of the propeller; a handle for effecting this adjustment of the propeller; motion increasing means interposed between the handle and propeller to increase the angular bodily movement of the propeller with respect to the angular movement of the handle, said motion increasing means including a pinion moving with the propeller and a segmental gear meshing with the pinion and moved by the handle; a mounting permitting the motor and propeller to be swung; and a mounting for the handle causing the handle to accompany the motor when swung upon its mounting.

5. Boat propelling equipment including a propeller; a support for the propeller; a motor provided with a downwardly extending sleeve through which the motor shaft passes, said motor shaft being in driving connection with the propeller; a second sleeve in driving connection with said propeller support and inwardly contracted at its upper end where it incloses the aforesaid sleeve and there has bearing engagement with said sleeve; and mechanism for turning the second sleeve upon the first thereby to turn the propeller support and bodily shift the propeller.

1,078,749. COTTON-CHOPPER. HASKELL PRUETT, Reed, Okla. Filed Oct. 15, 1912. Serial No. 725,854. (Cl. 97—46.)

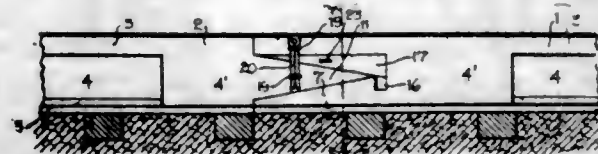


1. In a device of the class described, a shaft, a frame pivotally mounted on said shaft having side members, cross members, and a cross rod, a rotatable chopper having a rod, said cross members connecting said side members and slidably supporting said chopper rod, an enlargement on said chopper rod intermediate said cross members, a return spring intermediate said enlargement and one of said cross members, a gear wheel carried by said chopper rod beyond the cross members, a gear wheel on said shaft in mesh with the gear wheel on said chopper rod, a lever pivoted on said cross rod operable to disengage the gears, and a rod connected to said lever and said enlargement.

2. In a device of the class described, wheels, a rod or axle therefor having a gear wheel thereon, a main frame mounted from said axle having side bars, a second frame having side bars, cross-bars and a cross rod, brackets loosely mounted on said axle, said side bars of said second frame mounted intermediate said side bars of the main frame and fastened to said brackets, a cotton chopper member having a shaft, said shaft being slidably mounted on said cross bars, an enlargement on said chopper rod mounted intermediate said bars, a spring surrounding said chopper rod bearing against one of said bars and against said enlargement, a gear wheel on said chopper rod in mesh with said gear wheel on the axle, a lever pivoted on said cross rod, a connecting rod pivoted

to said lever and connected to said enlargement, a toothed member on one of said side bars of said main frame, a lever device pivoted to said toothed member by means of an elongated pivot member, an angle arm on said pivot member, and a connecting member from one of the side bars of said second frame to said angle arm, pivoted to said angle arm.

1,078,750. RAIL-JOINT. JOHN REINHART, Early, Iowa. Filed June 4, 1913. Serial No. 771,755. (Cl. 239—8.)



1. A rail joint comprising a pair of rails the meeting ends of which are formed with enlarged webs, the enlarged web of one of said rails being provided with a longitudinal channel in one side thereof, an upstanding rib formed on one of the base flanges of said rail, said rib forming one wall of said channel, the enlarged web of the other rail being provided with an extension, said extension being formed with a depending flange, the projection of the last mentioned rail engaging in said channel of the first mentioned rail, the depending flange of said projection being disposed between said upstanding rib and the web of the first mentioned rail, and means for maintaining said projection within said channel, as and for the purpose described.

2. A rail joint comprising the meeting ends of a pair of rails, the web of one of said rails having a longitudinal channel formed in one side thereof, one of the base flanges of said rail having an upstanding rib forming the outer wall of said channel, said rib having a recess therein at its juncture with the web of said rail, the web of the other rail having a longitudinal projection, the extremity of said projection having a lug for engagement in the recess in said rib, and means for maintaining said lug in engagement with said recess, as and for the purpose described.

3. A rail joint comprising the meeting ends of a pair of rails, the web of one of said rails having a longitudinal channel formed in one side thereof, an upstanding rib formed on one of the rail flanges of said rail, said rib forming one wall of said channel and being provided with a recess in its upper edge at its juncture with the web of said rail, the other rail having a projection extending longitudinally from toward the web thereof, the free extremity of said projection having a lug for engagement with the recess in said rib, the upper face of said projection being inclined whereby a recess is formed between the upper face of the projection and the lower face of the tread of the other rail, a wedge disposed in the last mentioned recess, and means for maintaining said wedge within said recess, as and for the purpose described.

4. A rail joint comprising the meeting ends of a pair of rails, the web of one of said rails being formed with a longitudinal channel in one side thereof, said rail having one of its base flanges provided with an upstanding rib, said rib forming one wall of the channel and being provided in its upper face with a recess, the other rail having a projection extending longitudinally from its web, said projection being undercut on one side thereof to provide a depending flange, said projection engaging in the channel in the first mentioned rail, the flange of said projection being disposed between the web of the first mentioned rail and the upstanding rib, the first mentioned rail having an opening in its base at the inner end of the channel, the flange of said projection being provided with a laterally extending lug for engagement in the recess in said rib, the flange of said projection also having a depending lug for engagement in the opening in the base of the first mentioned rail, a wedge disposed in said last mentioned recess, and means for preventing accidental disengagement of said wedge from its recess, as and for the purpose described.

1,078,751. ELECTRICAL CONNECTOR AND PROCESS OF MAKING SAME. OWEN A. ROGERS, Berlin, Germany, assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 27, 1910. Serial No. 589,403. (Cl. 29—148.)



1. The process of securing members together, which consists in providing one of said members with a socket having openings therein, inserting the other member in said socket, and compressing the members to form a groove in the socket member, the metal displaced from said groove forming a groove in said inserted member, and the metal displaced by forming the groove in said inserted member being forced out through the openings in said socket member.

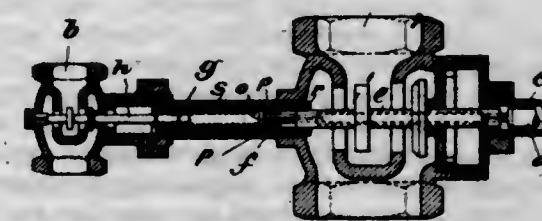
2. The process of securing members together which consists in providing one of said members with a socket having openings, inserting the other member in said socket, and compressing both members into firm contact, thereby forming a groove on the socket member, the metal displaced from said groove on the socket member forming a groove in said inserted member, the metal displaced by forming the groove on said inserted member being forced into the openings on the socket member, and the metal around the outside of said openings on the socket member being squeezed together to close said opening.

3. As an article of manufacture, a member provided with a socket and an opening, a member inserted in said socket, both members having grooves therein, the groove on the inserted member formed by the displaced metal of the groove on the socket member, and the metal displaced by the formation of the groove on the inserted member entering the opening of the socket member.

4. As an article of manufacture, a member provided with a socket and openings, another member inserted in said socket, a groove in said members, the displaced material formed by the groove in the socket member forming the groove on the inserted member, and the metal displaced by the formation of the groove on the inserted member entering the openings of the socket member, and the outside of said openings being closed.

5. The process of securing members together, which consists in providing one of said members with a socket having an opening therein, inserting the other member in said socket, and compressing the members to form a groove in the socket member, the metal displaced from said groove forming a groove in said inserted member, and the metal displaced by forming the groove in said inserted member being forced through the opening in said socket member.

1,078,752. TEMPERATURE-CONTROLLER. MAX SCHULZ, Oldenburg, Germany. Filed May 23, 1912. Serial No. 699,255. (Cl. 238—5.)



1. In an apparatus for automatically and consecutively controlling two valves from one thermostat or equivalent device, the combination with the two valves and a thermostatically operated member, of a spring connection from said member to one valve, and a lost motion connection from said member to the other valve.

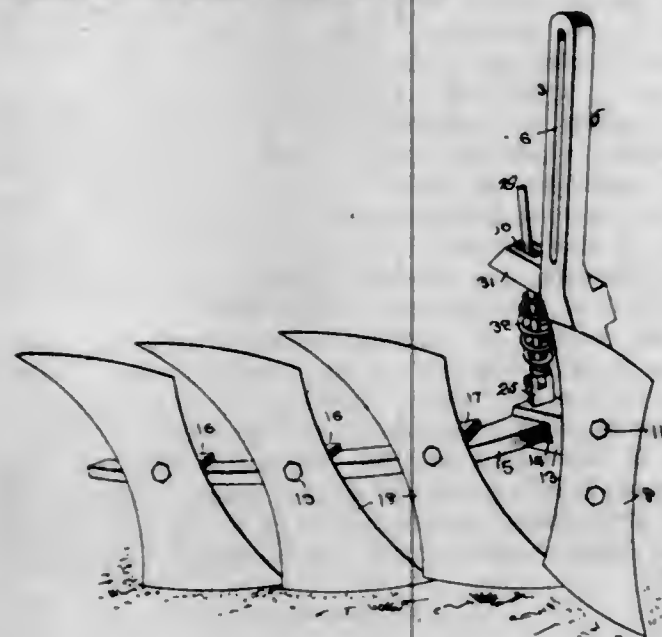
2. In an apparatus for automatically and consecutively controlling two valves from one thermostat or equivalent

device, the combination with the two valves and a thermostatically operated member, of a spring connection from said member to one valve, and a lost motion connection from said member to the other valve, the slack of the lost motion connection being equal to the travel of the valve having the spring connection.

3. In an apparatus for automatically and consecutively controlling first the supply of live steam and afterward the supply of exhaust steam to a steam heating apparatus, the combination of a live steam valve and an exhaust steam valve having a common axis for their valve spindles, the spindle of the exhaust steam valve being hollow and that of the live steam valve passing through it, the live steam valve spindle having a spring controlled telescoping section, and, when both valves are fully open, projecting beyond the end of the other spindle a distance equal to the full travel of the live steam valve.

4. In an apparatus for automatically and consecutively controlling first the supply of live steam and afterward the supply of exhaust steam to a steam heating apparatus, the combination of a live steam valve and an exhaust steam valve having a common axis for their valve spindles, the spindle of the exhaust steam valve being hollow and that of the live steam valve passing through it, the live steam valve spindle having a spring controlled telescoping section, and, when both valves are fully open, projecting beyond the end of the other spindle a distance equal to the full travel of the live steam valve, together with a thermostatically controlled member movable in line with the common axis of the two valve spindles, and adapted to engage their outer ends.

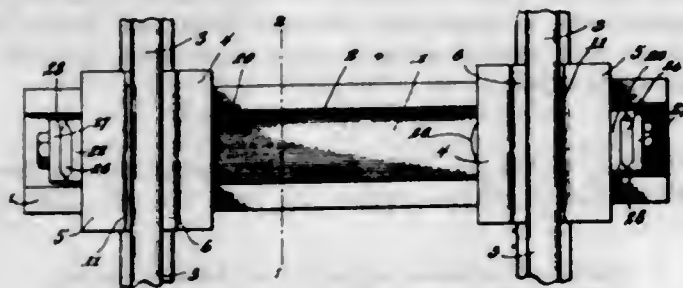
1,078,753. PLOW-COMB. JOHN J. SPECHT and WILLIAM J. WACHSMUTH, Kallispell, Mont. Filed Dec. 12, 1912. Serial No. 736,259. (Cl. 97-44.)



1. A combing attachment for a plow, consisting of a shank, constructed for attachment to a plow, a blade-supporting arm carried by the shank, brackets supported by the arm and formed with depending and forwardly inclined apertured blade-supporting elements, apertured combing blades, securing bolts for retaining the combing blades on the blade-supporting brackets, said securing bolts each comprising a head of polygonal cross section and a shank of polygonal cross section, and the apertures of the combing blades and the supporting brackets being formed to snugly receive said bolts for retaining the blades in either of their several adjusted positions.

2. In a combing attachment for a plow, a supporting arm, constructed for attachment to a plow, combing blades, apertured supporting brackets for the combing blades, said supporting brackets being secured on said supporting arm, and means for normally securing the blades in rotatable position on the supporting brackets and allowing them to be rotated into different positions of adjustment.

1,078,754. RAILROAD-TIE. CLARENCE B. STEBBINS, Wichita, Kans. Filed Feb. 21, 1913. Serial No. 749,889. (Cl. 238-5.)



1. In combination with a rail-road tie comprising a tubular body having a longitudinal slot upon one face thereof, of a rail chair composed of two independent sections, a lower portion formed integrally with one of said sections adapted to extend transversely to the upper portion of said section, the said lower portion adapted to fit within the hollow of said tie, a lower portion formed integral with the other of said sections adapted to surround the said tie, means carried by said section for fastening the rail in place thereupon and means for fastening said chair upon the tie.

2. In combination with a rail-road tie comprising a tubular body having a longitudinal slot upon one face thereof, of a rail chair composed of two independent sections, a lower portion formed integrally with and extending transversely to the upper portion of one of said chair sections, said lower portion adapted to fit within the hollow of said tie, means carried by the upper portion of said chair section adapted to engage one face of the rail, a lower portion formed integrally with the other of said chair sections adapted to surround the said tie, means carried by the upper portion of the said other section adapted to engage the opposite face of the rail, and a pair of transversely extending bolts carried by the said chair sections for fastening said sections upon the tie.

3. In combination with a rail-road tie composed of a tubular body having a longitudinal slot upon one face thereof and an opening in the base thereof, of a rail chair composed of two independent chair sections, a lower portion formed integrally with and extending transversely to the upper portion of one of said chair sections, said lower portion adapted to fit within the hollow of said tie, a flange formed integral with the upper portion of said chair section adapted to engage one face of the rail, a second flange formed integral with the said upper portion and parallel with the said first mentioned flange adapted to engage cut out portions formed within the other of said sections, a lower portion formed integrally with the upper portion of the other of the said chair sections adapted to surround the said tie, the said upper portion having a flange formed integrally therewith adapted to engage the opposite face of the said rail, the two rail engaging flanges adapted to fasten the rail in place upon the chair and means including a clamping member extending through the said elongated aperture and engaging one of said chair sections for fastening the chair in proper place upon the tie.

4. In combination with a rail-road tie comprising a tubular body having a longitudinal slot upon one face thereof, an elongated aperture in the base thereof, of a rail chair composed of two independent chair sections, a lower portion formed integrally with and extending transversely to the upper portion of one of said chair sections, the said lower portion slidably mounted within the hollow of said tie and extending through a longitudinal slot upon the top face thereof, a flange formed integral with the upper portion of said chair section adapted to engage one face of the rail, the extremities of the said upper portion adapted to rest upon the upper face of the tie, a second flange formed integral with the said upper portion and extending parallel to the said first mentioned flange, the said second mentioned flange adapted to fit within cut out portions formed within the lower portion of the other chair section, the said lower portion of the other chair section formed integrally with the said upper portion and

adapted to surround the said tie, a flange formed integrally with the said upper portion adapted to engage the opposite face of the rail, the said two rail engaging flanges fastening the rail in place upon the chair, a clamping member carried by the said tie, one end of which is fitted within the said elongated aperture, the said clamping member adapted to limit the sliding movement of the said chair, and means including transversely extending bolts adapted to be engaged by the said chair for fastening the same in place upon the tie, as and for the purpose set forth.

5. In combination with a rail-road tie comprising a tubular body having a longitudinal slot upon one face thereof and an elongated aperture within the base thereof, of a rail chair composed of two independent chair sections, a lower portion formed integrally with the upper portion of one of said sections, said lower portion having an opening formed therein through which the said tie extends, said lower portion being further provided with cut out portions upon one face thereof, a flange formed integrally with the upper portion of said chair section adapted to engage one face of the rail, a lower portion formed integrally with and extending transversely to the upper portion of the other of said chair sections, the said lower portion of the other chair section adapted to fit within the hollow of said tie through the opening within the said first mentioned lower portion, a flange formed integrally with the upper portion of said second mentioned chair section adapted to engage the opposite face of the said rail, the said two rail engaging flanges adapted to fasten the rail in place upon the chair, a second flange formed integral with the upper portion of said second mentioned chair section extending parallel with the said rail engaging flange, the said second mentioned flange adapted to fit within the said cut out portions of the lower portion of the said first mentioned chair section, a clamping member disposed upon one face of said chair, the lower extremity of the said member adapted to fit within the said elongated aperture whereby movement of the chair is limited, vertically extending flanges formed integrally with and upon one face of said clamping member, a washer member provided with vertically extending flanges adapted to engage the flanges of the said clamping member, a plug interposed between the said clamping member and the said washer member whereby rotation of one member independent of the other is prevented, and means including a pair of transversely extending bolts, carried by the said chair for fastening the same upon the tie, as and for the purpose set forth.

1,078,755. REVERSIBLE SIDE BALLAST-UNLOADING PLOW FOR CARS. JOHN SUGGITT, Minneapolis, Minn. Filed Feb. 10, 1913. Serial No. 747,335. (Cl. 214-10.)



1. In a plow for unloading cars, the combination with a reversible runner arranged to travel close to either side of a car, and a rearwardly diverging scraper blade secured to said runner and having operative upper and lower edges, said plow being operative, when turned one side up, to deliver material to one side of a car and, when turned the other side up, to deliver material to the other side of said car.

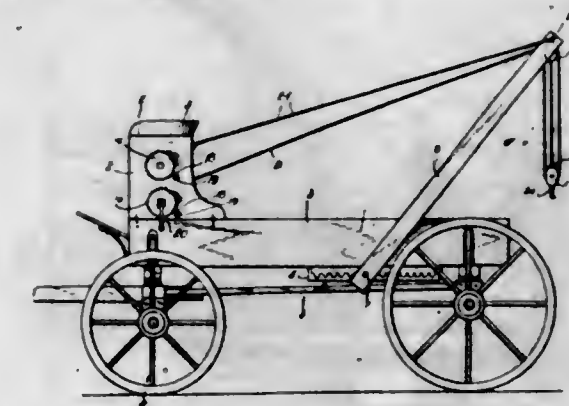
2. In a plow for unloading cars, the combination with upper and lower runners having inwardly curved front ends, arranged to travel close to either side of a car, a rearwardly diverging scraper blade secured to said runners, said scraper blade being formed concave in cross section, said plow being operative, when turned one side up, to deliver material to one side of a car and, when turned the other side up, to deliver material to the other side of said car.

3. In a plow for unloading cars, the combination with upper and lower runners having inwardly curved front

ends, arranged to travel close to either side of a car, a rearwardly diverging scraper blade secured to said runners, said scraper blade being formed concave in cross section, and reinforcing irons secured to the longitudinal edges of said scraper blade, said plow being operative, when turned one side up, to deliver material to one side of a car and, when turned the other side up, to deliver material to the other side of said car.

4. In a plow for unloading cars, the combination with upper and lower runners having inwardly curved front ends, arranged to travel close to either side of a car, a rearwardly diverging scraper blade secured to said runners, said scraper blade being formed concave in cross section, struts connecting said upper and lower runners and said scraper blade, and reinforcing irons secured to the longitudinal edges of said scraper blade, said plow being operative, when turned one side up to deliver material to one side of a car and, when turned the other side up, to deliver material to the other side of said car.

1,078,756. HOISTING DEVICE. JERRY A. VAUGHN, Montello, Wis. Filed Feb. 13, 1913. Serial No. 748,210. (Cl. 212-8.)



1. In a hoisting device, the combination of a supporting structure, parallel rack bars mounted in the same plane upon the said structure, upwardly extending beams longitudinally adjustable and pivoted to swing vertically upon said bars, and means including a pair of drums carried by the said structure and connected to the said beams for swinging the latter into adjusted position, as and for the purpose set forth.

2. In a hoisting device, the combination of a supporting structure, a pair of parallel oppositely disposed rack bars mounted in the same plane upon said structure, beams longitudinally adjustable and pivoted to swing vertically upon said bars, a pair of drums mounted for rotation upon the said structure, and means including a plurality of ropes and pulleys for connecting the said beams to one of the said drums for operating the former as and for the purpose set forth.

3. In a hoisting device, the combination of a supporting structure, a pair of parallel oppositely disposed rack bars mounted in the same plane upon said structure, a pair of upwardly extending parallel beams mounted for longitudinal adjustment and pivoted to swing vertically upon said bars, a pair of rotatable drums mounted upon said structure, means for rotating said drums, and means including a plurality of ropes and pulleys connecting the said drums and the said beams for operating the latter, as and for the purpose set forth.

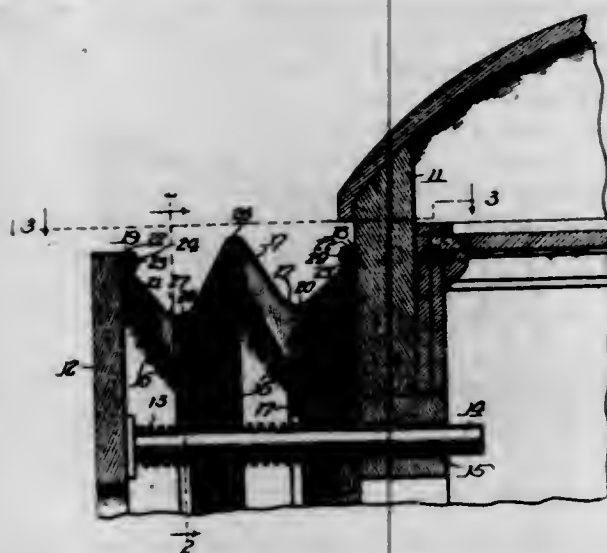
4. In a hoisting device, the combination of a supporting structure, a pair of parallel oppositely disposed rack bars mounted in the same plane upon said structure, a pair of upwardly extending parallel beams mounted upon said bars, the lower extremities of the said beams connected by a rod fitted within the notches of said rack bars, a pair of rotatable drums mounted upon said structure, means for rotating said drums, and means including a plurality of ropes and pulleys connecting said drums to the said beams for operating the latter, as and for the purpose set forth.

5. In a hoisting device, the combination of a supporting structure, a pair of parallel oppositely disposed rack bars mounted in the same plane upon the under face of the

said structure, a pair of parallel upwardly extending beams mounted upon said rack bars, a transversely extending rod connecting the lower extremities of the said beams and fitting within the notches of the said rack bars for adjustably mounting the beams thereupon, a pair of rotatable drums mounted upon said structure, a plurality of gears carried by said drums for imparting movement from one to the other thereof, means for rotating said drums and means including a plurality of ropes and pulleys connecting the said drums to the said beams for swinging the latter upon the said transversely extending bar, the said bar acting as a fulcrum therefor, as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,078,757. HOOD FOR CAR-DIAPHRAGMS. EDWARD E. WHITMORE, Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 10, 1913. Serial No. 747,326. (Cl. 105-61.)



1. The combination with a car diaphragm, of a hood disposed thereabove in spaced relation thereto, the hood having transversely extending grooves, and the outer terminal portions downturned toward the diaphragm, substantially as described.

2. The combination with a car diaphragm, of a hood secured thereabove to the car end and face plate, the hood having transversely extending grooves with rounded bottoms and downwardly inclined toward the sides, the outer terminal portions downturned toward the diaphragm, substantially as described.

3. The combination with a car diaphragm, of a hood disposed thereabove, the hood having transversely extending grooves and downwardly inclined toward the sides, the outer terminal portions provided between the grooves with darts whereby to deflect the same downwardly along the side walls of the diaphragm and prevent the entrance of the elements thereunder, substantially as described.

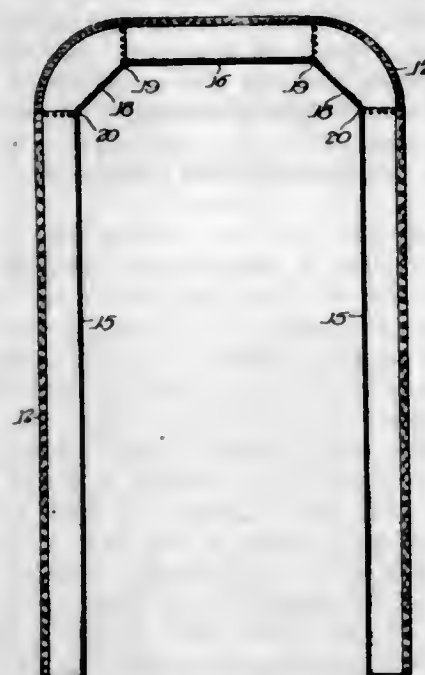
4. The combination with a car diaphragm, of a hood secured thereabove to the car end and face plate, the hood having transversely extending grooves with rounded bottoms and downwardly inclined toward the sides, the outer terminal portions provided between the grooves with darts whereby to deflect the same downwardly along the side walls of the diaphragm and prevent the entrance of the elements thereunder, substantially as described.

1,078,758. CAR-DIAPHRAGM. EDWARD E. WHITMORE, Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed May 12, 1913. Serial No. 766,926. (Cl. 105-61.)

1. In a car vestibule diaphragm of the accordion type, a section comprising side and top strips longitudinally folded to a U-cross section, and shoulder pieces of a similar cross-section connecting the side and top strips at the corners, substantially as described.

2. In a car vestibule diaphragm of the accordion type, a section comprising side and top strips longitudinally

folded to a U-cross section, and one piece shoulder strips of a similar cross-section connecting the side and top strips at the corners, substantially as described.



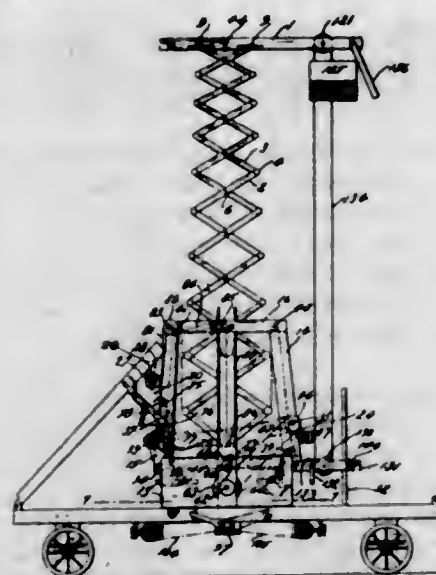
3. A car vestibule diaphragm of the accordion type, each section comprising side and top strips and diagonal shoulder pieces all longitudinally folded to a U-cross section, the shoulder pieces joining the top with the side strips without intermediate overlapping joints and the bottom of the shoulder-U extending in a substantially straight line between the points of junction with the top and side strips, substantially as described.

4. A car vestibule diaphragm of the accordion type, each section comprising side and top strips and diagonal shoulder pieces all longitudinally folded to a U-cross section, the shoulder pieces joining the top with the side strips without intermediate overlapping joints and the bottom of the shoulder-U extending in a substantially straight line between the points of junction with the top and side strips, and at a pitch of substantially 45°, substantially as described.

5. A car vestibule diaphragm of the accordion type, each section comprising two side strips and a single top strip and two diagonal shoulder pieces all longitudinally folded to a U-cross section, the shoulder pieces joining the top with the side strips without intermediate overlapping joints, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

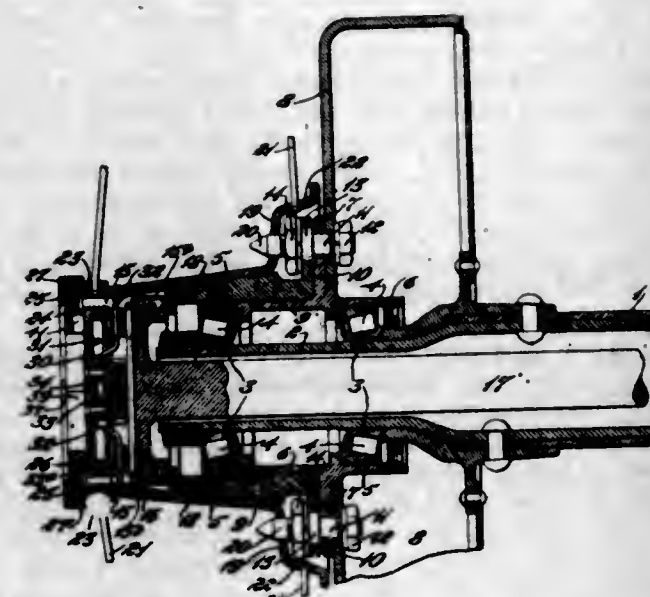
1,078,759. FIRE-ESCAPE. AREND WICHERTJES, Chicago, Ill. Filed Sept. 23, 1912. Serial No. 721,996. (Cl. 228-28.)



A fire escape comprising a platform at one end, a base at the other, an extensible lazy tong composed of a plurality of links each pivoted at its end and at its mid-

die to some other link in the series, a pair of chains each secured at one end to said platform, a pair of drums to which the other ends of said chains are secured, each of said chains being passed successively over the pivot at the lower end of a link, the pivot at the upper end of the same link and the pivot at the upper end of that link next higher in the series than the first-mentioned link, means for operating said drum and thereby extending the lazy tongs, and a spring-actuated take-up cooperating with those ends of said chain secured upon said platform.

1,078,760. VEHICLE-WHEEL. HERBERT W. ALDEN, Detroit, Mich., assignor to The Timken-Detroit Axle Company, Detroit, Mich., a Corporation of Ohio. Filed Jan. 10, 1913. Serial No. 741,244. (Cl. 21-31.)



1. In a vehicle wheel, a permanent hub member, a demountable hub member on said permanent hub member, a securing nut screwed on said permanent hub member and engaging said demountable hub member so as to retain the latter in place, and a locking device carried by said securing nut and movable longitudinally thereof, said nut and locking device being relatively arranged and adapted for releasable interlocking engagement, said locking device having a longitudinal slidable engagement with said permanent hub member.

2. In a vehicle wheel, a permanent hub member, a demountable hub member on said permanent hub member, a securing nut screwed on said permanent hub member and engaging said demountable hub member so as to retain the latter in place, a locking device carried by said securing nut and movable longitudinally thereof, said nut and locking device being relatively arranged and adapted for releasable interlocking engagement, said locking device having a longitudinal slidable engagement with said permanent hub member, and resilient means for holding said locking device normally in interlocking engagement with said nut.

3. In a vehicle wheel, a permanent inner hub member, a demountable outer hub member sleeved over said permanent hub member, releasable clutch means for holding said members from rotating independently of each other, a securing nut swiveled on said demountable hub member and screwed on said permanent hub member, and a locking device carried by said nut and movable longitudinally thereof, said nut and locking device being relatively arranged and adapted for interlocking engagement, said locking device having a longitudinal slidable engagement with said permanent hub member.

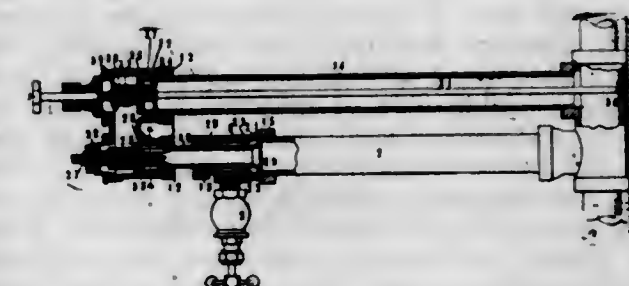
4. In a vehicle wheel, a permanent inner hub member, a demountable outer hub member sleeved over said permanent hub member, a securing nut screwed on said permanent hub member and engaging said demountable hub member so as to retain the latter in place, said securing nut having a central opening therein and annularly arranged clutch portions in the region of said opening, a locking element carried by said nut in the region of said

opening and having clutch portions adapted to engage the clutch portions of the nut, said locking element being movable longitudinally of said nut and having a longitudinal slidable engagement with said permanent hub member, and resilient means for holding said locking element normally in interlocking engagement with said nut.

5. In a vehicle wheel, a permanent inner hub member, a demountable outer hub member sleeved over said permanent hub member, a securing nut screwed on said permanent hub member and engaging said demountable hub member so as to retain the latter in place, said nut having a central circular opening, a circular locking plate fitted detachably in said opening, the contiguous edges of said nut and locking plate being relatively arranged for interlocking engagement so that said nut and plate are held from rotation independently of each other, means for movably supporting said locking plate on said nut, a spring cooperating with said nut and locking plate for holding the latter in interlocking engagement with the former, and means on said locking plate for effecting a longitudinally slidable engagement with said permanent hub member.

[Claims 6 to 8 not printed in the Gazette.]

1,078,761. HEATING SYSTEM. ELMER E. ALBEE, Arlington, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 5, 1907. Serial No. 387,171. (Cl. 237-12.)



1. In a heating system, in combination, a radiating system, a feed conduit leading thereinto, a source of steam supply for said feed conduit, a discharge conduit leading from said radiating system and normally discharging freely into the atmosphere, an injector member carried by said discharge conduit and extending within said feed conduit, and forming a communication between the feed and discharge conduits, a portion of said injector member constituting with said feed conduit a valve, the differential expansion or contraction between said feed and discharge conduits operating to open and close said valve, means for adjusting said injector member whereby steam will be freely admitted into the radiating system, a valve between the discharge and feed conduits, and a valve for closing said discharge conduit, adapted to be automatically opened and closed by the contraction and expansion of said discharge conduit to regulate the discharge from the radiating system in accordance with the internal heat conditions of the system.

2. In a steam heating system, in combination, a circuit of pipes provided with a steam inlet and an opening discharging to the atmosphere, a manually operated valve for said circuit for controlling the flow of air from the discharge opening to the steam inlet, automatic valve mechanism responsive to the changes of the temperature conditions within the system for governing the ingress of steam through said inlet and the egress of water of condensation through said discharge opening, and manually operated means for adjusting said valve mechanism to convert the system into a high pressure or low pressure system at will.

3. In a heating system, the combination with a radiating system open at both ends to the atmosphere, of injecting means adjacent the ends of said system, a valve associated with the injecting means adapted to be operated by the relative expansion of the feed and discharge connections of the radiating system, a valve for closing the discharge end of said radiating system to the atmos-

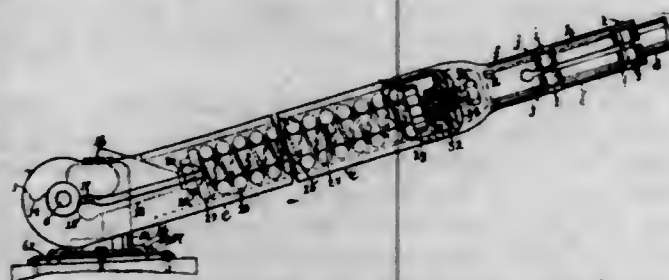
phere having a stem fixed at one end relatively to the discharge conduit, the relative expansion of said stem and said discharge conduit automatically operating said second-mentioned valve to regulate the discharge from said system in accordance with the internal heat conditions of the system, and manually operated means for closing communication to the atmosphere at the feed end.

4. In a heating system, in combination, a radiating system, feed and discharge connections therefor open to the atmosphere, an injector member associated with a source of steam supply within the feed connection of said radiating system, said injector member being positioned and forming a communicating means between the discharge and feed connections and acting as a valve for controlling the injection of a fluid therein adapted to be operated by a differential expansion or contraction of said feed and discharge connection, means for permanently opening said valve and closing communication with the atmosphere whereby steam will be freely admitted into said system, a valve for opening or closing said discharge connection to the atmosphere, and means connected therewith and located within the discharge connection adapted through a differential expansion or contraction with said discharge connection to open and close said last mentioned valve in accordance with the internal heat conditions of the radiating system.

5. In a heating system, in combination, a radiating system, feed and discharge connections therefor having different coefficients of expansion, said feed and discharge connections being open to the atmosphere, an injector member associated with a source of steam supply connected with said discharge connection and communicating with said feed connection of the radiating system, a valve mechanism constituted in part by said injector member controlling the admission of steam therein adapted to be operated by the differential expansion or contraction of said feed and discharge connections, a second valve for closing said discharge connection to the atmosphere, means located within the discharge connection and connected with said second-mentioned valve adapted through differential expansion or contraction with said discharge connection to open or close said second-mentioned valve in accordance with the internal heat conditions of the radiating system, a third valve between said discharge and feed conduits, and means for adjusting said valve mechanism to such position as will admit of a free flow of steam only into said radiating system whereby the system may be changed from high to low pressure at will.

[Claims 6 to 8 not printed in the Gazette.]

1,078,762. TROLLEY-POLE SUPPORT. JOHAN M. ANDERSEN, Boston, Mass., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed June 21, 1909. Serial No. 503,278. (Cl. 191—70.)



1. In an apparatus of the class described, in combination, a supporting base having a hollow upright, a bearing member fitted into the upper end of said upright, a cap or head fitted over said upright and provided with a bearing member which coöperates with the bearing member of the hollow upright to form a pivot upon which the said cap or head turns in a substantially horizontal direction, a trolley pole holder having forks or arms pivotally secured to said cap or head to turn in a substantially vertical direction, arms on said head having curved cavities or sockets on opposite sides of the pivot for said holder, a coiled spring within the holder, a bearing for

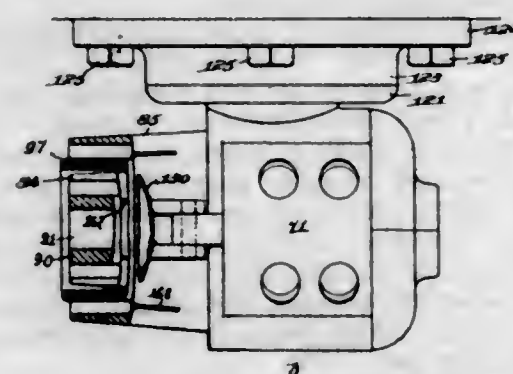
the outer end of said spring and a forked device having fingers coöperating with the cavities or sockets in said arms and acted upon by said spring to turn one of said fingers in its coöperating socket as the trolley pole holder is turned on its pivot, substantially as described.

2. In an apparatus of the class described, in combination, a base, a hollow upright erected thereon, a bearing member within and supported by the upper end of said hollow upright, a cap or head fitted over said upright and provided with a bearing member which coöperates with the bearing member of the hollow upright to form a pivot upon which the said cap or head turns in a substantially horizontal direction, a trolley pole holder pivoted to said cap or head to turn in a substantially vertical plane, and means movable with said holder to turn it on its pivot to elevate the outer end of said holder, substantially as described.

3. In an apparatus of the class described, in combination, a trolley pole holder pivoted to move in a substantially vertical plane, a head to which said holder is pivoted, arms attached to said head and having recesses or sockets on opposite sides of the pivot for said holder, a forked device provided with arms having fingers coöperating with said recesses to turn therein simultaneously with the movement of the trolley pole holder on its pivot, and a spring interposed between said forked device and said holder and coöperating with both, substantially as described.

4. In an apparatus of the class described, in combination, a trolley pole holder pivoted to move in a substantially vertical plane, a head to which said holder is pivoted having sockets on opposite sides of the pivot for said holder, a spring interposed between the free end of said holder and the pivot for the same and substantially in line with said holder and having a fixed abutment for its upper end, and a rocking device forming a rigid connection between the lower end of said spring and said head and having arms capable of a rocking engagement with the sockets in said head, substantially as described.

1,078,763. ELECTRICAL CONNECTION. JOHAN M. ANDERSEN, Boston, Mass., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Mar. 23, 1912. Serial No. 685,806. (Cl. 173—332.)



1. In an electrical connection of the class described, in combination, a socket member provided with a metal casing having cylindrical contact members nested one within the other and separated from each other, means for insulating said members from each other and from said casing, a female guiding member located within the nested contact members, and a plug member provided with a metal casing having cylindrical contact members nested one within the other, and separated from each other, means for insulating said plug contact members from each other and from said casing, and a male guiding member located within the nested contact members of said plug member and coöperating with the female guiding member of said socket member, substantially as described.

2. In an electrical connection of the class described, in combination, a socket member provided with a metal casing having cylindrical contact members slitted longi-

tudinally and nested one within the other, and separated from each other, a guiding member located within the nested contact members, and a plug member provided with a metal casing having cylindrical contact members split longitudinally and nested one within the other, the cylindrical contact members of said plug member having external diameters slightly larger than the internal diameters of the cylindrical contact members of said socket member, means for insulating the contact members of said plug member from each other and from the metal casing of said plug member, and a guiding member located within the cylindrical contact members of said plug member and coöperating with the guiding member of said socket member, substantially as described.

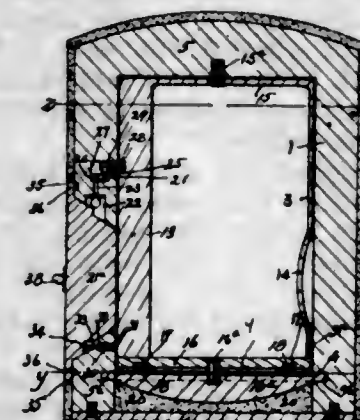
3. In an electrical connection of the class described, in combination, a socket member provided with a substantially cylindrical contact member, and with a substantially central guiding member located within said contact member, and a plug member provided with a substantially cylindrical contact member, and with a substantially central guiding member located within the contact member thereof to engage the guiding member of the socket member, one of said guiding members being extended beyond the contact member within which it is located to engage the coöperating guiding member before the contact members of the plug and socket members are engaged with each other, substantially as described.

4. In an electrical connection of the class described, in combination, a socket member provided with a plurality of contact members nested one within the other and insulated from each other, and with a substantially central guiding member located within said nested contact members, and a plug member provided with a plurality of contact members nested one within the other and insulated from each other and coöperating with the contact members of the socket member, and having a substantially central guiding member located within the nested contact members thereof and coöperating with the guiding member of the socket member, substantially as described.

5. In an electrical connection of the class described, in combination, a metal casing provided with a partition wall having a hub extended from it, cylindrical contact members having heads from which extend terminal arms, said contact members being nested together, with the terminal arm of the inner contact member extended through an opening in the outer contact member, means for insulating said contact members from each other and from said casing, and a guiding member extended through said contact members and through said hub, and means to secure said guiding member to said casing, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,078,764. SAFE. NEY ANGOOD, Rockport, Wash., assignor of one-half to Walter S. Prickett, Sldnaw, Mich. Filed Mar. 3, 1913. Serial No. 751,825. (Cl. 109—1.)



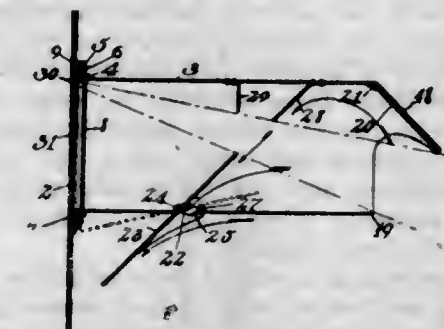
1. The combination in a safe, of an outer hollow, circular member, having its walls and top integral with each other and an internal annular groove near its lower edge and an annularly flanged bottom, the flange of which bottom is adapted to enter the said internal groove, a circular bottom above said flanged bottom and in spaced relation thereto, anti-friction means between said bot-

oms, a hollow circular member fixed to said circular bottom and centrally pivoted between the said flanged bottom and the top of said outer member, and a door in each of said members and in a common horizontal plane with each other.

2. The combination in a safe, of an outer hollow, circular member which has its walls and top integral with each other, and an internal annular groove near its lower edge, a normally divided bottom and a flange thereon which is adapted to be positioned within the annular groove in the outer member, whereby spaces are left in the horizontal plane of the said bottom and between the parts thereof, for the reception of molten metal.

3. The combination in a safe, of an outer hollow, circular member having its walls and top integral with each other, and an internal annular groove near its lower edge, a normally divided bottom and a flange thereon adapted to be inserted into the said annular groove whereby a space is left between the parts of the said bottom and into which molten metal may be poured to join the said parts together, a circular bottom above the said divided bottom and anti-friction balls between the said bottoms, a hollow circular inner member fixed to said circular bottom and which is centrally pivoted within the said outer member and upon a common axis therewith.

1,078,765. WINDOW-SHIELD. DANIEL O. N. BALDWIN, Cleveland, Ohio. Filed Feb. 28, 1910. Serial No. 546,335. (Cl. 40—5.)



1. In a device of the character specified, the combination of an adjustable casing having at its front end a downwardly deflected apron and having at its rear end a frame adapted to bear against and partially cover the surface to which the device is to be applied, and a pane of transparent material at the rear of said casing and at the front of said frame, whereby an air space will be provided between said frame and the surface to which said device is applied.

2. The combination, with a transparent member, of a protecting device therefor, said device comprising a casing having at its rear end a frame adapted to be applied to said member, and a pane of transparent material carried by the rear portion of said casing and separated from said member by an air space enclosed by said frame, and means for mounting said casing so as to be adjustable to different positions over said transparent member.

3. In a device of the character specified, the combination of a casing having at its rear end a frame, a gasket of yielding material applied to the rear surface of said frame, and means coöperating with said frame for securing the device in operative relation to the surface with which it is to be used.

4. The combination, with a frame, of a member of transparent material supported thereby, said frame having a vertical slot and a rod extending parallel with said slot, a protecting device comprising a casing, a lateral projection at the inner end of said casing, said projection being provided with a sleeve for said rod, a bolt connected to said projection and extending through said slot, and an adjusting nut on said bolt on the inner side of said slot.

5. In a device of the character set forth, the combination of a casing having at its rear end a pane of transparent material and having its upper front end deflected downwardly to form an apron, and a plate projecting downwardly from the bottom wall of said casing intermediate between the front and rear of said wall.

[Claims 6 to 19 not printed in the Gazette.]

1,078,766. SPRING TERMINAL CLIP. CARL BARR, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,093. (Cl. 173-259.)



1. A clip comprising two oppositely-disposed and normally-separated members, each of said members being V-shaped and being provided at its apex with a recess formed by cutting out a ribbon, which said ribbon is also V-shaped, its apex projecting in a direction opposite to the apex of said member, both ends of said ribbon being secured to said member, the V-shaped apex of one of said members being adapted to project into the recess thus formed on the opposite member, and to engage the projecting V-shaped ribbon upon said opposite member, the V-shaped apex on one member and the V-shaped ribbon upon the other member being adapted to grasp a wire or similar article between them.

2. A clip comprising two oppositely-disposed and normally-separated members, each of said members being V-shaped and having a ribbon stamped out of each, which said ribbon is secured at both ends to the member out of which it is formed, each of said ribbons extending in a direction opposite to the adjoining portion of the member of which said ribbon is formed, the projecting ribbon upon one of said members being adapted to enter the recess formed by cutting out the ribbon upon the other of said members and to engage said other ribbon, the ribbon upon one of said members and the main body portion of the other of said members being adapted to grasp a wire or similar article between them.

3. A clip comprising a pair of body members in spring-like relation to each other, each of said members having a V-shaped portion formed out of the body of said member, said V-shaped portions being secured at both ends to the members out of which they are respectively formed, one of said V-shaped portions being adapted to project into the recess formed by the other of said V-shaped portions, said V-shaped portions being adapted one to receive the other, one of said V-shaped portions and the main body of said member being adapted to grasp a wire or similar article between them.

1,078,767. CAR-SEAT. FREDERICK BENNETT, Ravenswood, N. Y., assignor to Walker & Bennett Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 18, 1909, Serial No. 502,904. Renewed Apr. 7, 1913. Serial No. 759,372. (Cl. 155-2.)

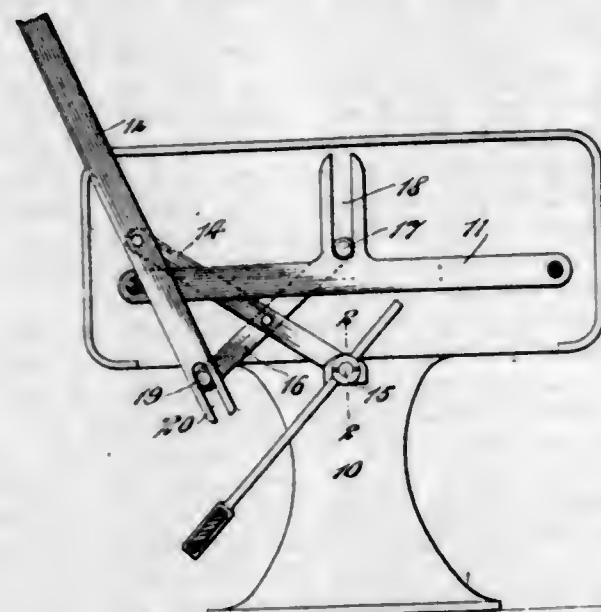
1. In a shiftable car-seat, the combination with a seat mechanism a part of which moves in one direction, of an adjustable foot rest a part of which is juxtaposed to said part of the seat mechanism and adapted to move reversely and an actuator acting between said parts and movable longitudinally of the seat to drive the latter reversely to the former.

2. In a shiftable car-seat, the combination with a seat mechanism, a link connected thereto and having a stationary axis about which it may swing, a foot rest having a part movable about said axis as a center and an actuator concentric with said axis for moving said foot rest reversely to said seat mechanism.

3. In a shiftable car-seat, the combination with a seat mechanism, a link connected thereto and having a stationary axis about which it may swing, a foot rest having a part movable about said axis as a center and a cammed sleeve concentric with said axis for moving said foot rest reversely to said seat mechanism.

4. In a shiftable car-seat, the combination with a seat mechanism, a link connected thereto and having a stationary axis about which it may swing, a foot rest having a part movable about said axis as a center and a cammed

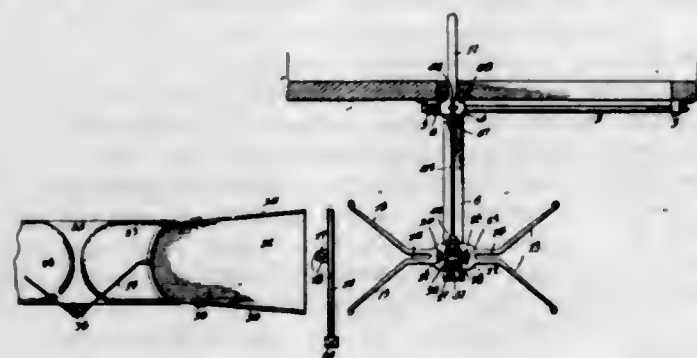
sleeve movable longitudinally of said axis concentric with said axis for moving said foot rest reversely to said seat mechanism.



5. In a shiftable car seat, the combination with the seat mechanism, a part of which moves in one direction, of an adjustable foot rest a part of which is juxtaposed to said part of the seat mechanism and adapted to move reversely thereto and an actuator sliding past said two parts and driving the latter reversely to the former.

[Claims 6 to 10 not printed in the Gazette.]

1,078,768. MAIL-BAG-HANDLING APPARATUS. HENRY F. BRUNKENHOEFER, Galveston, Tex. Filed Mar. 27, 1913. Serial No. 757,190. (Cl. 105-231.)



1. In a handling apparatus, a projecting member, a support member slidable thereon, a shifting member for said support member, an arm on said shifting member, said support provided with a slot receiving said arm, a guide member, said guide member provided with an elongated slot through which said shifting member passes.

2. In handling apparatus, a support member, a slidable lock member thereon provided with teeth, a gear member provided with teeth in mesh with said teeth, and means engageable with said gear member to shift the same and accordingly the lock member.

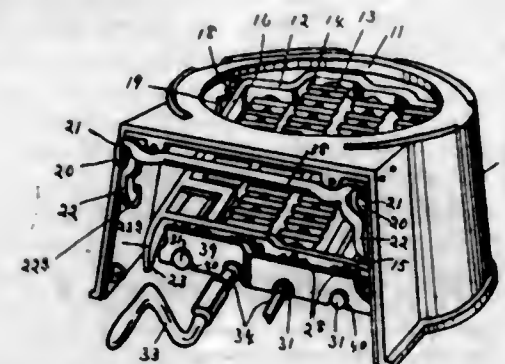
3. In handling apparatus, a support member provided with a slot, a slidable lock member mounted to extend over said slot, teeth on said lock member, a gear member having teeth in mesh with said teeth, an arm on said gear member, a return spring operatively connected to said arm, in combination with a striker member engageable by said arm.

4. A mail bag handling apparatus including a projecting member comprising an arm having a reinforcing rod formed longitudinally thereon, a bag supporting member conforming to the configuration of said projecting member and slidably arranged therewith, means for operating said supporting member on said projecting member, a gear plate slidably mounted on said support, a gear member meshing with said plate, and a handle carried by said gear member for the purpose specified.

5. A mail bag handling apparatus including a bar, a hub rotatably and slidably arranged on said bar, an arm radiating from said hub, a longitudinally extending rib formed on said arm, a bag supporting member slidably arranged on said arm, a pull member, the one end of which is pivotally engaged with said supporting member for operating the latter, arms formed on the opposite end of said pull member, outwardly diverging arms formed on said support, said support member provided with a pair of openings one of which is arranged on each side of said arms, a rack bar slidably mounted on said support member over said openings, the opposite ends of said bar being smooth and adapted for engagement with the mail bag, a segmental gear meshing with said rack bar, and a handle associated with said gear for facilitating the operation thereof.

[Claim 6 not printed in the Gazette.]

1,078,769. GRATE. GEORGE E. CAMP, Utica, N. Y., assignor to International Heater Company, Utica, N. Y., a Corporation of New York. Filed June 12, 1912. Serial No. 703,105. (Cl. 126-181.)



1. A grate frame having rear bearings and open-sided front bearings, grate bars having their rear journals mounted in said rear bearings and their front journals inserted in said front bearings through the open sides thereof, each grate bar having forward of its front journal two shoulders spaced apart with an annular groove therebetween, and a plate having recesses extending upwardly from its lower edge and adapted to be lowered over said grate bars and have said recesses fit into said grooves and retain said bars in their bearings and be retained on said bars by said adjacent shoulders.

2. A casing, a grate frame movably mounted therein and having rear bearings and open-sided front bearings, grate bars having their rear journals mounted in said rear bearings and their front journals inserted in said front bearings through the open sides thereof, each grate bar having forward of its front journal two shoulders spaced apart with an annular groove therebetween, and a plate having recesses extending upwardly from its lower edge and adapted to be lowered over said grate bars when the grate frame is in lowered position and have said recesses fit into said grooves and retain said bars in their bearings and be retained from longitudinal movement on said bars by said adjacent shoulders and locked from upward movement from said grate bars when the frame is in normal position by said casing.

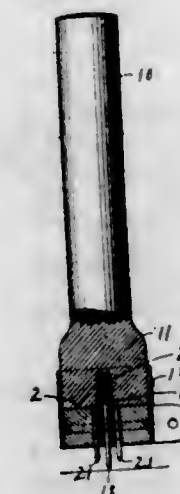
3. A casing, a grate frame pivotally and removably mounted therein and having rear bearings and open-sided front bearings, grate bars having their rear journals mounted in said rear bearings through the open sides thereof, each grate bar having forward of its front journal two shoulders spaced apart with an annular groove therebetween, and a plate having recesses extending upwardly from its lower edge and adapted to be lowered over said grate bars when the frame is in lowered position and having said recesses fit into said grooves and retain said bars in their bearings and be retained from longitudinal movement on said bars by said adjacent shoulders and retained from upward movement thereon by said casing when the frame is in raised position.

4. A grate frame having rear bearings and open-sided front bearings, grate bars having their rear journals mounted in said rear bearings and their front journals in-

serted in said front bearings through the open sides thereof, each grate bar having forward of its front journal two shoulders spaced apart with an annular groove therebetween, a plate having recesses extending upwardly from its lower edge and adapted to be lowered over said grate bars and have said recesses fit into said grooves and retain said bars in their bearings and be retained on said bars by its weight and from longitudinal movement thereon by said adjacent shoulder and gear wheels mounted on the inner shoulder of said grate bars and held from longitudinal movement thereon by the front bearings of said grate frame and said recessed plate.

5. A casing, a grate frame pivotally mounted therein and having rear bearings and open-sided front bearings, grate bars having their rear journals mounted in said rear bearings and their front journals inserted in said front bearings through the open sides thereof; each grate bar having forward of its front journal two shoulders spaced apart with an annular groove therebetween, a plate having recesses extending upwardly from its lower edge and adapted to be lowered over said grate bars when the grate frame is in lowered position and have said recesses fit into said grooves and retain said bars in their bearings and be retained from longitudinal movement on said bars by said adjacent shoulders and kept from upward movement thereon by the casing when the grate frame is in raised position and gear wheels upon the said inner shoulder of said grate bars and held from longitudinal movement thereon by the front bearings of the grate frame and said recessed plate.

1,078,770. CENTERING-PUNCH. OSCAR CHRISTENSON, Milwaukee, Wis. Filed Apr. 12, 1913. Serial No. 760,640. (Cl. 81-1.)



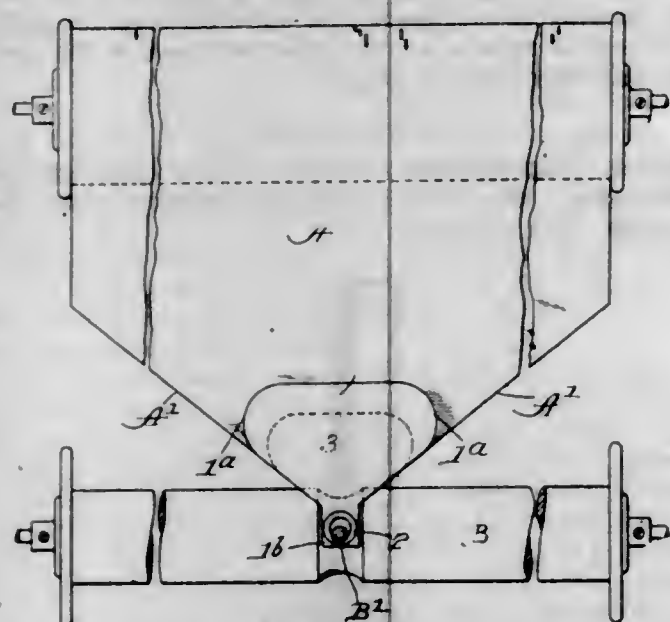
1. A centering punch, comprising a punch body, a center pin thereon, said punch body having punch pin seats positioned around the center pin equi-distant therefrom with radial openings leading thereto, punch pins fitting in the punch pin seats, clamping blocks slidably mounted in the radial openings and bearing against the punch pins, and a clamping member surrounding the punch body and engaging the clamping blocks for forcing them against the punch pins.

2. A centering punch, comprising a punch body, a centering pin thereon, there being a plurality of series of grooves in the punch body forming punch pin seats around the center pin with the respective punch pin seats of each series at different distances from the center pin and the corresponding punch pin seats of the several series equi-distant from the center pin, there being radial openings in the punch body leading to the respective series of punch pin seats, punch pins fitting in corresponding punch pin seats of the several series, clamping blocks slidably mounted in the radial openings, and a clamping member surrounding the punch body and engaging the clamping blocks for forcing them against the punch pins.

3. A centering punch, comprising a shank having a punch head at its end, a clamping belt secured to the punch head having a free portion forming an annular clamp, a clamping screw connecting the ends of the free

portion of the clamping belt, a centerpiece fitting within the clamping belt and bearing against the end of the punch head, a center pin slidably mounted through an opening in the center of the centerpiece and having a head on its end extending into an opening in the punch head, a spring in said opening of the punch head bearing on the head of the center pin for forcing the center pin outwardly, there being radial openings in the center piece containing stepped grooves forming series of punch pin seats, the respective punch pin seats of each series being spaced at different distances from the center pin and the corresponding punch pin seats of the several series being equi-distant from the center pin, clamping blocks fitting within the radial openings and bearing against the punch head and engaged by the clamping belt, punch pins fitting in corresponding punch pin seats of the several series of punch pin seats and clamped in place by the clamping blocks and engaging the end of the punch head, there being an annular groove around the centerpiece and the clamping blocks, and a spring retaining band within the annular groove.

1,078,771. NOTE-SHEET TERMINAL. ERNEST G. CLARK, De Kalb, Ill., assignor to Melville Clark Plano Company, Chicago, Ill., a Corporation of Illinois. Filed May 18, 1911. Serial No. 628,078. (Cl. 84-162.)



1. In combination with a perforated note sheet, a terminal tab therefor comprising two leaves of fabric having the form of isosceles triangles, each with a lug projecting from the apex angle of the triangle, and an attaching device carried by said lugs, the mutually facing surfaces of the two leaves being secured to the opposite faces of the note sheet, and the note sheet having its edges near its terminal portion slanted in line with the respective sides of the triangular tabs which include the aforesaid apex angle.

2. In combination with a perforated note sheet, a terminal tab therefor comprising two leaves of fabric having the form of isosceles triangles, each with a lug projecting from the apex angle of the triangle, and each having the other two corners of the triangle rounded off in smooth curves blending into the sides and base of the triangle, the mutually facing surfaces of the two leaves being secured to the opposite faces of the note sheet, said note sheet having its lateral edges near its terminal portion slanted in line with the respective sides of the tabs which include the apex angle, and an attaching device carried by the lugs.

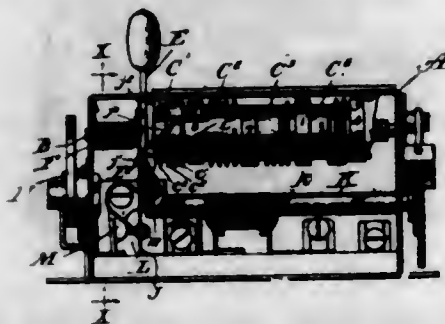
3. In combination with a perforated note sheet, a terminal tab therefor, comprising two leaves of fabric having the form of isosceles triangles, each with a lug projecting from the apex angle of the triangle, and an attaching device carried by said lugs, said note sheet having the lateral edges near its terminal portion slanted in line with the respective sides of the tabs which include the apex angle, and one of the leaves being of less area than the other and having that portion of its margin which is directly oppo-

site the lug lying within the margin of the other leaf, the mutually facing surfaces of the two leaves being secured to the opposite faces of the note sheet.

4. In combination with a perforated note sheet, a terminal tab therefor, comprising two leaves of fabric secured, respectively, to the opposite faces of the note sheet and each having a lug projecting longitudinally from the end of the note sheet, and an eyelet in said lugs securing them together and adapted to serve for attaching the end of the note sheet to the driving roll of a player mechanism.

5. A device for the purpose indicated, comprising two leaves of fabric having each a lug projecting from one side, an eyelet in the lugs securing the leaves together, one of the leaves being of less area than the other and having that portion of its margin which is directly opposite the lug lying within the margin of the other leaf, and the mutually facing surfaces of the two leaves being gummed for securing them respectively to opposite sides of a sheet which may be interposed between them.

1,078,772. CALL-REGISTER. HENRY P. CLAUSEN and WILLIAM T. CURTIS, Chicago, Ill., assignors to Samuel C. Scotten, trustee, Chicago, Ill. Filed Mar. 15, 1910. Serial No. 549,482. (Cl. 235-92.)



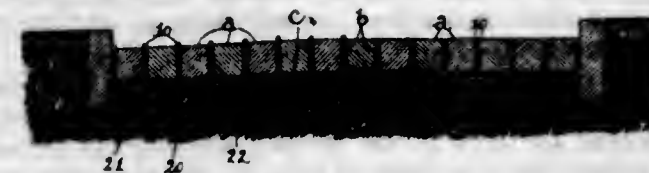
1. In combination, a registering device, a traveling contact, a series of contacts associated with said device and adapted to cooperate with said traveling contact to produce an indication of the condition of the device, manually controlled mechanism for moving said device step by step, and means for locking said mechanism against return to its normal position without completing the actuation of the device just before the changing of the condition of the contacts associated with said device.

2. In combination, a registering device, an operating lever, connections between said operating lever and said device for moving said device step by step, a contact arranged to be moved past said device, a contact carried by said device in position to be engaged by the aforesaid contact in one position of said device and to be out of the path of said contact in the succeeding position of said device, and means for locking said lever so as to prevent it from returning to the starting point without completing its working stroke just before the contact on said device is carried out of the path of the cooperating contact.

3. In combination, a registering device, a signal-controlling device including a resilient contact-maker, an operating member for said device, an arm on said member for acting upon said contact-maker after the completion of the working stroke of said member so that the contact member is deflected and then released so as to allow the said contact member to vibrate, and means on said contact-maker for engaging with said arm so as to lock said member against return movement after it has passed a predetermined point in its working stroke until after it has completed that stroke.

4. In combination, a registering device, a signal-controlling device including a resilient contact-maker, an operating lever for said device, an arm projecting from said lever adjacent to said contact-maker, said contact maker having separated oppositely-inclined portions which serve to deflect it to one side of the arm or the other depending upon the direction in which said arm approaches, and said contact-maker having a shoulder in position to move beneath said arm and prevent return motion of the lever when the lever is actuated so as to partially shift said registering device.

1,078,773. STREET AND ROAD CONSTRUCTION. JAMES M. COGROVE, Malden, Mass. Filed June 16, 1913. Serial No. 773,816. (Cl. 94-1.)



1. In a construction of the character described, a wearing surface composed of a plurality of blocks and strips composed of silicious material and asphalt interposed between said blocks and having their upper ends overlapping the same, substantially as described.

2. In a construction of the character described, a wearing surface composed of a plurality of blocks arranged in rows, a layer of silicious and yielding material upon which the blocks in a row are laid, and members of silicious and adhesive material interposed between adjacent blocks and having their upper ends overlapping the upper surfaces of said blocks.

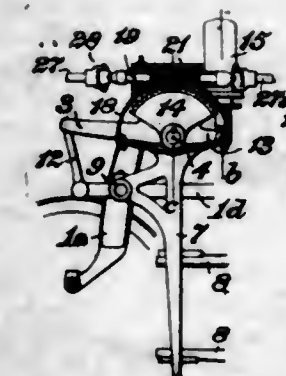
3. In a construction of the character described, a wearing surface composed of blocks, and yielding forms in which said blocks are located, said forms overlapping the said blocks and being united at their upper edges which overlap the blocks, substantially as described.

4. In a construction of the character described, a wearing surface composed of blocks, and forms in which said blocks are located, said forms being composed of side members of yielding and adhesive material united at their upper edges and separated at the lower portions of their side edges, substantially as described.

5. In a construction of the character described, a wearing surface composed of rigid members, and preformed yielding and adhesive members interposed between said rigid members and having their upper ends overlapping said rigid members to lock the latter in fixed position.

[Claims 6 and 7 not printed in the Gazette.]

1,078,774. STEAM-ENGINE VALVE-REVERSING GEAR. WILLIAM DALTON, Schenectady, N. Y. Filed Aug. 21, 1913. Serial No. 785,875. (Cl. 121-98.)



1. In a valve reversing gear, the combination of a reverse shaft, a motor coupled thereto, a gear fixed thereon, a manually operable gear meshing with the reverse shaft gear, and means for rotating said manually operable gear as a pilot for controlling the movements of the reverse shaft in adjustments of the reversing gear.

2. In a valve reversing gear, the combination of a reverse shaft, a motor coupled thereto, a gear fixed thereon, a manually operable gear meshing with the reverse shaft gear, and means for rotating said manually operable gear as a pilot for controlling the movements of the reverse shaft in adjustments of the reversing gear and for coincidentally governing the operation of the motor.

3. In a valve reversing gear, the combination of a reverse shaft, a motor coupled thereto, a gear fixed thereon, a manually operable gear meshing with the reverse shaft gear, means for rotating said manually operable gear as a pilot for controlling the movements of the reverse shaft in adjustments of the reversing gear and for

196 O. G.—39

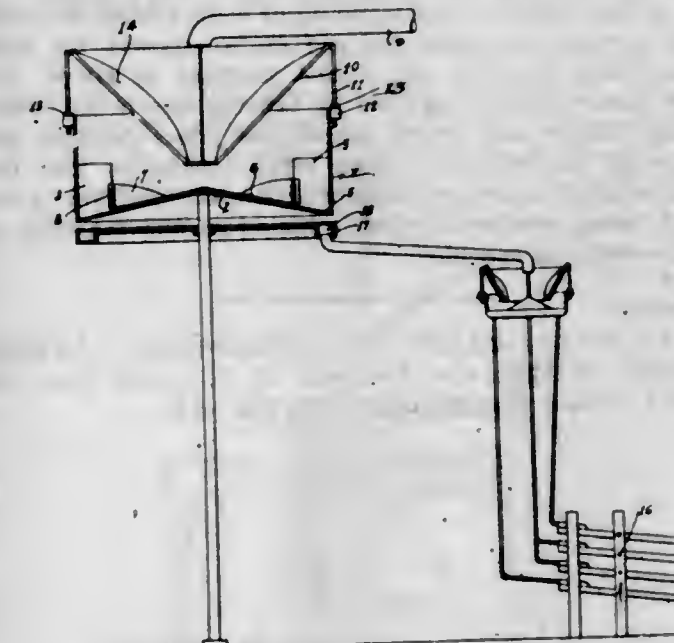
coincidentally governing the operation of the motor, and means for locking said controlling and governing means.

4. In a valve reversing gear, the combination of a reverse shaft, a fluid pressure motor coupled thereto, a source of fluid pressure supply, a valve controlling the supply and exhaust of motive fluid from said source to and from the motor, a gear fixed on the reverse shaft, a manually operable gear meshing with the reverse shaft gear, and means for rotating said manually operable gear as a pilot for controlling the movements of the reverse shaft in adjustments of the reversing gear and for coincidentally actuating the supply and exhaust valve of the motor.

5. In a valve reversing gear, the combination of a reverse shaft, a fluid pressure motor coupled thereto, a source of fluid pressure supply, a valve controlling the supply and exhaust of motive fluid from said source to and from the motor, a gear fixed on the reverse shaft, a manually operable gear meshing with the reverse shaft gear, means for rotating said manually operable gear as a pilot for controlling the movements of the reverse shaft in adjustments of the reversing gear and for coincidentally actuating the supply and exhaust valve of the motor, and an indicator, operated by said rotating and actuating means, for indicating the desired adjusted position of the reverse shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,078,775. PULP-DISTRIBUTER. WILTON E. DARROW, Sutter Creek, Cal. Filed May 5, 1913. Serial No. 765,524. (Cl. 73-21.)

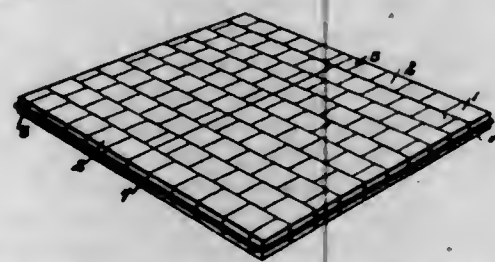


1. A device of the character described comprising a receptacle having a conical bottom, a plurality of inwardly projecting vanes in said receptacle, a false bottom in said receptacle, said false bottom having vanes equally spaced and curved to unite with and form extensions of a number of said first named vanes, as described.

2. A device of the character described comprising a receptacle having a conical bottom, inwardly projecting vanes in said receptacle, a false bottom in said receptacle, said false bottom having a plurality of equally spaced vanes adapted to unite with and form extensions of a part of said first named vanes, said false bottom having also a shut off wall adapted to separate said false bottom from a plurality of compartments formed by said first named vanes and to divide the pulp equally to the other compartments.

3. A device of the character described comprising a receptacle, said receptacle being divided into equal compartments by inwardly projecting vanes, a false bottom in said receptacle divided into equal spaced compartments adapted to register with part of the compartments in said receptacle, said false bottom having a division wall adapted to separate part of its compartments from part of the compartments in said receptacle, as described.

1,078,776. FLOORING. JOHN C. DUNTON, Grand Rapids, Mich. Filed Jan. 2, 1912. Serial No. 668,805. (Cl. 20—75.)

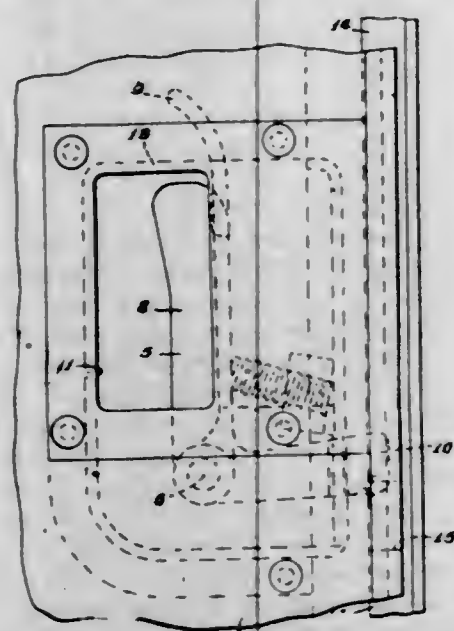


1. A floor construction made up of wood blocks with the grain vertical, and with the end grain exposed, the said blocks being disposed and joined together in strips with layers of veneer therebetween, the strips being coupled together by tapered dovetailed longitudinal tongue and groove joints, and with a layer of veneer on the grooved side of said strips through which said groove is formed and which is divided thereby, the joints between the blocks on the adjacent strips being broken to join the parts securely and overcome distortion, as specified.

2. A floor construction made up of wood blocks with the grain vertical and with the end grain exposed, the said blocks being disposed and joined together in strips with layers of veneer therebetween, the strips being coupled together by dovetailed longitudinal tongue and groove joints, and with a layer of veneer on the grooved side of the strips through which said groove is formed and which is divided thereby, the joints between the blocks on the adjacent strips being broken to join the parts securely and overcome distortion, as specified.

3. A floor construction made up of wood blocks with the grain vertical and with the end grain exposed, the said blocks being disposed and joined together in strips, the strips being coupled together by tapered dovetailed longitudinal tongue and groove joints, the joints between the blocks on the adjacent strips being broken to join the parts securely and overcome distortion, the position of the blocks being retained by the wedging of the tapering of the dovetail, as specified.

1,078,777. RAILWAY-CAR-TRAP-DOOR LATCH. OLIVER M. EDWARDS, Syracuse, N. Y. Filed June 12, 1912. Serial No. 703,207. (Cl. 105—84.)



1. The combination of a hinged, railway car trap door movable into vertical and horizontal positions, and means for locking the door in its vertical and horizontal positions comprising a movable member carried by the door and arranged to be operated from either side of the door, said member having latch portions operated thereby and exposed on the opposite sides of the door, substantially as and for the purpose described.

2. The combination of a hinged, railway car trap door movable into vertical and horizontal positions, and means

for locking the door in its vertical and horizontal positions comprising mechanism including a member movable in a direction substantially parallel to the general plane of the door and having handles exposed at, and operable from, both sides of the door, substantially as and for the purpose specified.

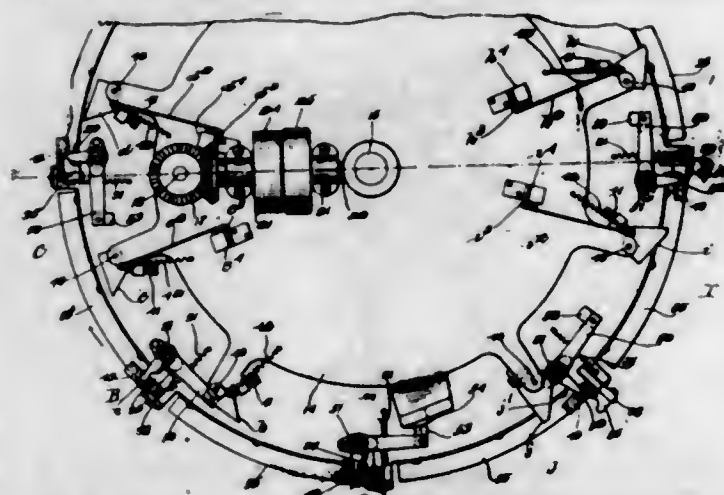
3. The combination of a hinged, railway car trap door movable into vertical and horizontal positions, and means for locking the door in its vertical and horizontal positions comprising a member carried by the door and movable in a direction substantially parallel to the general plane of the door, and having handles and latches exposed on opposite faces of the door, substantially as and for the purpose set forth.

4. The combination of a hinged, railway car trap door movable into vertical and horizontal positions and having a slot opening through its opposite faces, a housing arranged on the reverse side of the door in such position that the slot opens thereinto, and means for locking the door in vertical and horizontal positions comprising a member supported within the housing and having a handle and a latch portion exposed through the slot beneath the floor surface of the door and also having a handle and a latch portion extending through the housing and exposed on the reverse side of the door, substantially as and for the purpose described.

5. The combination of a hinged, railway car trap door movable into vertical and horizontal positions, and having a slot opening through its opposite faces, a housing carried on the reverse side of the door in such position that the slot opens thereinto, the housing being also formed with a passage in one of its edge walls, and latch mechanism comprising a lever arm located in the housing and movable in a direction substantially parallel to the general plane of the door and including a handle exposed through the slot and a handle extending through the passage, substantially as and for the purpose specified.

(Claims 6 and 7 not printed in the Gazette.)

1,078,778. MACHINE FOR GAGING AND DISTRIBUTING ARTICLES OF DIFFERENT THICKNESSES. LESTER L. D. ELDERKIN, Boston, Mass. Filed Feb. 3, 1910. Serial No. 541,778. (Cl. 83—92.)



1. A machine of the character described comprising feelers for engaging one side of a piece of work at a plurality of points, means for engaging the opposite side of the work in coactive relation with said feelers, and means for effecting separation of said feelers and said coating means, said means being controlled through the medium of the feeler or feelers nearest said coating means.

2. A machine of the character described comprising feelers for engaging one side of the work at a plurality of points, a jaw for engaging the opposite side of the work, and means for retracting all of said feelers, said means being controlled through the medium of one of said feelers.

3. A machine of the character described comprising a carrier, caliper jaws carried by said carrier, a detector, means for transmitting movement from one of said jaws to said detector to position the detector, and a series of

actuators for opening said jaws, each of said actuators being arranged to be operatively moved by said detector upon movement of the carrier.

4. A machine of the character described comprising a carrier, a plurality of sets of caliper jaws carried by said carrier, a plurality of detectors, one for each set of said jaws, means for transmitting movement from said jaws to said detectors to position said detectors, and a series of movable members arranged to be engaged and moved singly by any one of said detectors, each of said movable members being adapted to coact with said detectors to open said jaws completely.

5. A machine of the character described comprising a carrier, a plurality of sets of caliper jaws carried by said carrier, a plurality of detectors, one for each set of said jaws, means for transmitting movement from the jaws of each set to the detector of each set to position said detectors, a series of movable members adapted to be severally moved by and to severally move said detectors, said movable members being adapted to open said jaws completely at points corresponding to the location of the several movable members, and means for adjusting said movable members to vary their range of coaction with said detectors.

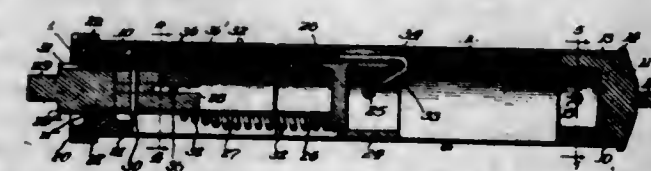
(Claims 6 to 15 not printed in the Gazette.)

1,078,779. PROCESS FOR THE TREATMENT AND SEPARATION OF COMPLEX SULFID ORES. TOMOD REINERT FORLAND, Broken Hill, New South Wales, Australia. Filed Mar. 27, 1913. Serial No. 757,250. (Cl. 75—17.)

1. A method of chloridizing sulfid ores, of zinc, lead, iron, copper, nickel, arsenic, silver and the like, which comprises treating said ore with chlorine gas, at a temperature at which said metals, with the exception of silver, are converted into chlorides, and certain of said chlorides are volatilized, and chlorid of sulfur is formed and volatilized; passing said volatilized chlorides, together with any remaining chlorine and chlorid of sulfur, and other gases into contact with a further amount of said ore, at a temperature at which the chlorid of sulfur will attack said metal sulfides, and form chlorides of said metals except silver, and free sulfur and at which temperature certain only of said chlorides are volatile.

2. A method of producing halogen compounds from sulfid ores of zinc, lead, iron, copper, nickel, arsenic, silver and the like, which comprises treating said ore with a halogen reagent in the form of a gas, at a temperature at which said metals, except silver, are converted into halogen compounds and certain of said compounds are volatilized, and a halogen compound of sulfur is formed and volatilized; passing said volatilized halogen compounds of sulfur and metals, together with any unchanged halogen reagent remaining, and other gases present, into contact with a further amount of sulfid ore, at a temperature at which the sulfid-halogen compound and free halogen will attack said sulfid ore, and form halogen compounds of said metals except silver, and free sulfur, at which temperature certain only of said metal-halogen compounds are volatile.

1,078,780. WINDOW-SASH BALANCE. WILLIAM H. FORSYTH and EDWARD E. WHITMORE, Chicago, Ill., assignors to Curtain Supply Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 5, 1912. Serial No. 669,664. (Cl. 16—148.)



1. In a sash-balance, the combination of a hollow slotted metallic roller, an end-member having a barrel portion fitting within an end of said roller, said end-member having an opening registering with said slot, and a bolt

in said opening and slot, whereby said end-member is removably and longitudinally adjustably secured to said tube, substantially as described.

2. In a sash-balance, the combination of a metallic roller having an angular slot therein, and a chain having an end detachably fastened in said slot, substantially as described.

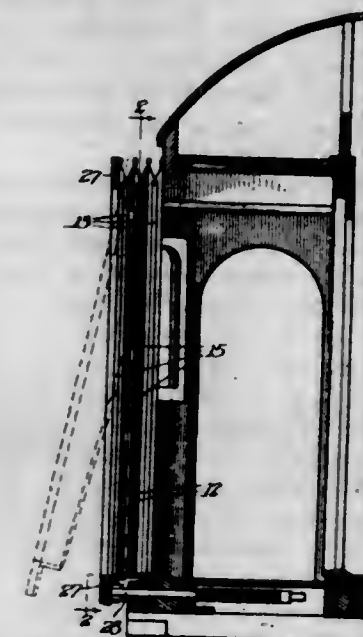
3. In a sash-balance, the combination of a hollow metallic roller having an angular key-hole slot in the wall thereof, and a chain having an end-member, said end-member engaging said slot with a portion of the member inside the roller, substantially as described.

4. In a sash-balance, the combination of a hollow metallic roller having an angular slot through the wall thereof, said slot having enlarged and restricted portions, and a chain having an undercut end adapted to be fastened to said roller by fitting in the restricted section of said slot, said end being of such size and form as to be capable of introduction into and withdrawal from said slot through the enlarged portion thereof, substantially as described.

5. In a sash-balance, the combination of a hollow metallic roller having an angular slot therein, one portion of the slot extending longitudinally of the roller and the other peripherally thereof, said slot having an enlarged portion at the terminus of the longitudinal portion, a chain, and an end-member thereon, said end-member comprising a stem and a head, said head being adapted to enter the enlarged portion of said slot and to fasten said chain to said roller by engagement with the inner surface of said tube adjacent to the smaller portion of said slot, substantially as described.

(Claims 6 to 8 not printed in the Gazette.)

1,078,781. AUTOMATICALLY-OPENING CAR-DIAPHRAGM. WILLIAM H. FORSYTH, Chicago, Ill., assignor to The Curtain Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1913. Serial No. 755,573. (Cl. 105—81.)



1. A car vestibule diaphragm, each leg of which includes separable portions, and fastening means for holding together the separable portions of each leg, said fastening means being separable only by force applied in a direction substantially lengthwise of the leg, substantially as described.

2. A car vestibule diaphragm, each leg of which includes separable portions, and fastening means for holding together the separable portions of each leg, said fastening means being separable only by force applied in a direction upwardly and substantially lengthwise of the slit between the portions, substantially as described.

3. A car vestibule diaphragm, each leg of which includes separable portions, and fastening means for holding together the separable portions of each leg, said fastening means being separable only by force applied up-

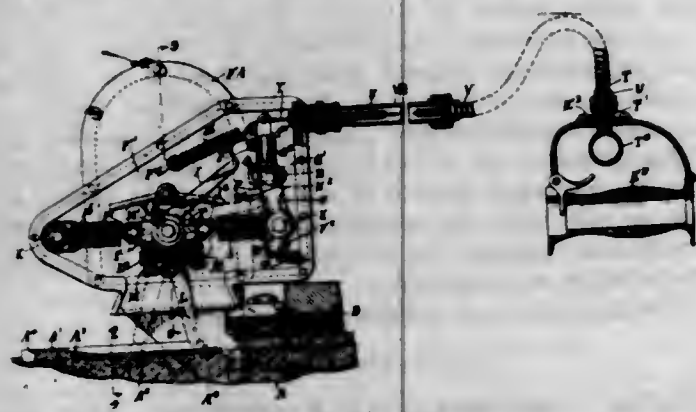
wardly and outwardly in a substantially vertical plane, substantially as described.

4. A car vestibule diaphragm, each leg of which includes separable portions, and fastening means for holding together the separable portions of each leg, said fastening means being separable by force applied in a plane including the slit and not in a plane at right angles thereto, substantially as described.

5. A car vestibule diaphragm for a single car, each leg of which includes portions separable upon a substantially vertical plane, and fastening means for holding together the separable portions of each leg, said fastening means adapted to be automatically released only on tilting of that face plate to which the diaphragm is attached, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,078,782. ELECTRICAL GUN FIRING MECHANISM. ISMAEL F. GALINDEZ, Buenos Aires, Argentina. Filed Dec. 7, 1912. Serial No. 735,394. (Cl. 89—28.)



1. In combination with a gun and its recoil mounting, of electrical firing mechanism for the gun comprising a dynamo-electric machine, a rotatable armature, spring actuating mechanism connected to said armature and tending to hold the latter in one position, and means actuated by the movement of the gun in its mounting following its discharge for giving a partial turn to said armature to move the latter from said one position into a second position, and means for releasably locking said armature in said second position.

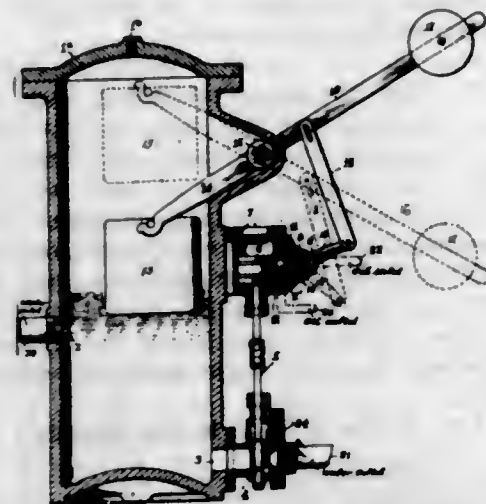
2. In combination with a gun and its recoil mounting of electrical firing mechanism for the gun comprising a dynamo-electric machine of the magneto type, a rotatable armature, spring actuating mechanism connected to said armature and tending to hold the latter in one position, and means actuated by the movement of the gun in its mounting following its discharge for giving a partial turn to said armature to move the latter from said one position into a second position, and means for releasably locking said armature in said second position, said dynamo-electric machine being adapted to generate its maximum electromotive force during the movement of said armature from said second position into said one position.

1,078,783. STEAM-TRAP AND SYSTEM FOR DRAINING WATER OF CONDENSATION FROM STEAM-COILS. PAUL H. GRIMM, Glen Cove, N. Y. Filed Nov. 25, 1912. Serial No. 733,561. (Cl. 137—103.)

1. A steam trap comprising a receptacle having an inlet and an outlet, a valve controlling said outlet, a float in said receptacle, a motor cylinder exterior of said receptacle and receiving motive fluid independently of said trap, a valve for said motor cylinder, a piston in said cylinder, an exterior rod connecting said piston with the outlet valve, and a lever exterior of said receptacle connected with said float and valve for the motor cylinder for controlling said motive fluid into said cylinder and operation of the outlet valve.

2. A steam trap comprising a receptacle having an inlet and an outlet, a slide valve controlling said outlet and forced against its seat by the pressure and fluid within the

receptacle, a float in said receptacle, a motor cylinder exterior of said receptacle and receiving and exhausting motive fluid independently of said trap, a valve for said motor cylinder, a piston in said cylinder, a rod exterior of said receptacle connecting said slide valve with the piston, and a lever exterior of the receptacle connected with said float and valve for the motor cylinder for controlling the inlet and exhaust of the motive fluid into the motor cylinder and operation of the outlet valve.

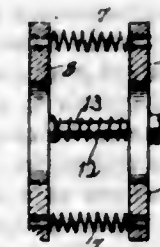


3. A steam trap comprising a receptacle having an inlet and an outlet, a vertical slide valve controlling said outlet and forced against its seat by the pressure and fluid within the receptacle, a float in said receptacle, a motor cylinder exterior of and independent of said receptacle and having combined motive and lubricating fluid inlet and outlet, a valve for said motor cylinder, a piston in said cylinder, a rod exterior of said receptacle connecting said slide valve with the piston, and a lever exterior of the receptacle connected with said float and valve for the motor cylinder for controlling the inlet and exhaust of the motive fluid into the motor cylinder and operation of the outlet valve.

4. A system for the automatic draining of water of condensation from a series of heating coils comprising a series of traps, each of said traps having a water inlet and outlet and a valve controlling said outlet, a motor cylinder for each trap for actuating the outlet valve and having a fluid pressure inlet and exhaust independent of the trap and pressure within the same, a series of pipes each of which forms a connection between the outlet of a heating coil and the inlet of the trap for said coil, a series of drain pipes so distributed that the outlet of each of the traps is connected with a receiving or storage tank by one of said drain pipes, a source of combined motive and lubricating fluid supply, a fluid pressure pump having its inlet connected with said fluid supply, a series of fluid pressure pipes so arranged that the inlet of each of the motor cylinders is connected by one of said pipes with the exhaust of the pressure pump, and a series of pipes so disposed as to connect the exhaust of each of the motor cylinders with the source of motive fluid supply.

5. A system for the automatic draining of water of condensation from a series of heating coils comprising a storage tank, a series of traps, each of said traps having a water inlet and outlet and a valve controlling said outlet, a motor cylinder for each trap for actuating the outlet valve and having a fluid pressure inlet and exhaust independent of the trap and pressure within the same, a series of pipes each of which forms a connection between the outlet of a heating coil and the inlet of the trap for said coil, a series of drain pipes so distributed that the outlet of each of the traps is connected with a storage tank by one of said drain pipes, a source of combined motive and lubricating fluid supply, a fluid pressure pump having its inlet connected with said fluid supply, a series of fluid pressure pipes so arranged that the inlet of each of the motor cylinders is connected by one of said pipes with the exhaust of the pressure pump, and a series of pipes so disposed as to connect the exhaust of each of the motor cylinders with the source of the motive fluid.

1,078,784. ATTACHMENT FOR STUFFING-BOXES. EDWARD P. GRISHAM, St. Louis, Mo. Filed Feb. 3, 1912. Serial No. 675,180. (Cl. 121—109.)



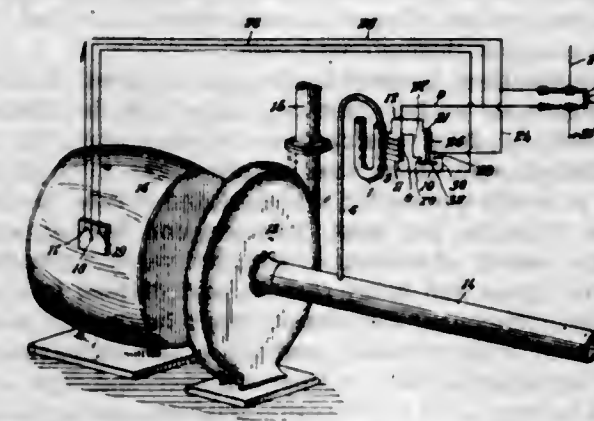
1. In packing and in combination, a stuffing box packing in said box, a gland projecting in said box and against said packing, adjustable means yieldingly pressing said gland against said packing, and adjustable guarding means associated with said first means for limiting the pressing movement of said first means.

2. In packing and in combination, a stuffing box adapted to receive packing, a gland in said box, yielding means bearing against said gland whereby to compress said packing, and limiting means connected to said yielding means whereby to limit the compression of said packing.

3. An attachment for stuffing boxes comprising guide rods for securing to a stuffing box, a plate adjustably mounted upon the outer ends of said rods, springs surrounding said rods and bearing at one end against said plate and at their opposite ends against the gland of said stuffing box, a guard plate slidably mounted on said rods between said gland and said springs, studs projecting from said guard plate and engaging slidably through said first plate, and heads adjustably mounted upon the outer ends of said studs and adapted for engagement against the outer face of said plate to limit the expansion of said springs.

4. An attachment for stuffing boxes comprising a pair of rods adapted for securing to a stuffing box, a pair of plates slidably mounted on said rods between said plates for yieldably holding the same apart, adjustable nuts carried on the outer ends of the rods and adapted to bear against the outer one of said plates whereby to yieldably hold the inner plate against the gland of said stuffing box, and means carried by said plates for limiting the separating movement of the same.

1,078,785. AUTOMATIC RHEOSTAT. HENRY M. GROSSMAN and JOHN WYNN, Jr., Canton, Ohio. Filed Mar. 25, 1912. Serial No. 685,972. (Cl. 219—48.)



A rheostat comprising in combination with a main circuit, resistance arranged in said circuit, a series of spaced contacts tapped into said resistance at intervals, a conducting liquid, means forming constant electrical connection between said liquid and said circuit at one side of said resistance, means for pneumatically actuating said liquid to bring the same into successive contact with said contacts and electrically operable means connected with the last contact of said series for closing a shunt circuit around said resistance and liquid when said liquid contacts with said last contact.

1,078,786. AUTOMOBILE DOOR-HINGE. FRANK HANBA and ROBERT GLADFELTER, Detroit, Mich. Filed Mar. 20, 1913. Serial No. 757,505. (Cl. 16—5.)

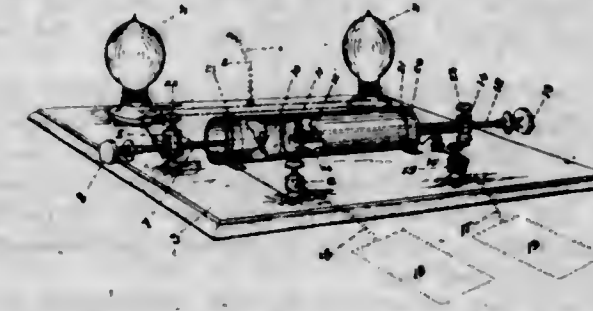


1. In a hinge, the combination of a casing having upper and lower sides and adapted to be secured to a door casing, an arm rigidly secured to a door to swing into and out of said casing, a link pivoted at one end to the casing intermediate its ends to swing therein and pivotally attached at its opposite end to the inner end of the arm, a link pivoted at one end to the casing adjacent to the open end thereof to swing outwardly through said end and pivoted at its opposite end to the arm intermediate the ends of said arm, said arm and links fitting within the casing between the upper and lower sides thereof and said links forming the sole pivotal connection between said arm and casing.

2. In a hinge the combination of a hinge casing adapted to be secured within a mortise in a frame of a door casing, a curved arm rigidly secured to a door and projecting into said hinge casing when the door is in closed position, links pivotally attached at one end to the free end of said arm at the upper and lower sides thereof and pivotally secured at their opposite ends within the hinge casing, links pivotally attached at one end to the upper and lower sides of the arm intermediate the ends of said arm and pivotally secured within the hinge casing at their opposite ends, said links being adapted to swing within the hinge casing in contact with the upper and lower walls of said casing.

3. In a hinge, the combination with a door, and a casing, of a curved arm having one end thereof rigidly connected to said door, a link pivotally mounted in said casing and pivotally connected to the outer end of said arm, and means pivotally mounted in said casing and connected to said arm intermediate the ends thereof to cause the door end of said arm to swing in an arc to and from said casing.

1,078,787. MEDICAL ELECTRIC-CURRENT REGULATOR. ANDREW J. HOENES, Murray, Utah. Filed Oct. 21, 1912. Serial No. 727,041. (Cl. 219—50.)



1. A resistance element comprising a sponge moistened with a conducting fluid.

2. A resistance element comprising a sponge moistened with water.

3. An electric current regulator comprising a non-conductive tube, a rod extending into the tube and removable therefrom, a compressible resistance element in the tube, said element being carried by the rod and removable therewith from the tube, a support for the rod on the outside of the tube, said support having a recess in which the rod removably seats, and means for locking the rod in said recess.

4. An electric current regulator comprising a non-conductive tube, electrodes in the tube, one of which electrodes is movable toward and from the other, an operating rod connected to the movable electrode, and resilient

means for normally holding the movable electrode retracted.

5. An electric current regulator comprising a non-conductive tube, electrodes in the tube, one of which electrodes is movable toward and from the other, an operating rod connected to the movable electrode, and a spring electrically connected to the movable electrode and normally holding said electrode retracted.

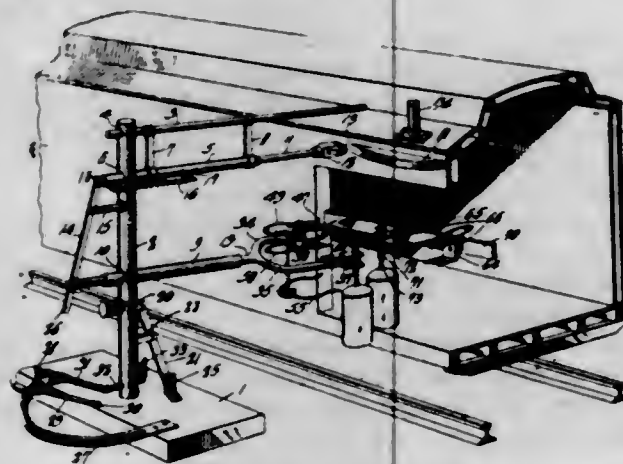
1,078,788. GALVANIC CELL. MORDECH L. KAPLAN, Brooklyn, N. Y. Filed June 2, 1913. Serial No. 771,289. (Cl. 204—38.)

1. A galvanic cell of the Leclanché type containing as a depolarizing agent dihydrated manganese peroxid characterized by consisting of a fine dense powder of grayish blue color.

2. A process of obtaining dihydrated manganese peroxid for use as a depolarizing agent in a galvanic cell comprising oxidizing manganese carbonate by the action of a diluted aqueous solution of an oxidizing agent.

3. A process of obtaining dihydrated manganese peroxid for use as a depolarizing agent in a galvanic cell comprising oxidizing manganese carbonate by a diluted aqueous solution of permanganate.

1,078,789. MAIL-BAG-TRANSFER DEVICE. AUGUSTUS F. KRAUSER, New York, N. Y. Filed Mar. 27, 1913. Serial No. 757,152. (Cl. 105—231.)



1. In a mail bag transfer device the combination of, a standard, arms secured thereto, means secured to one of said arms for delivering and receiving mail bags; means secured to a car for delivering and receiving the said mail bags and means secured to said car for contacting with the other one of said arms to thereby transfer the said mail bags.

2. In a mail bag transfer device the combination of, a standard, arms secured thereto, means secured to one of said arms for delivering and receiving mail bags; means secured to a car for delivering and receiving the said mail bags and means secured to said car for contacting with the other one of said arms to thereby simultaneously transfer the said mail bags.

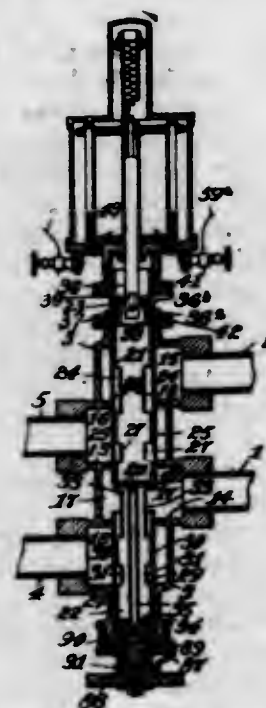
3. In a mail bag transfer device the combination of, a rotatable standard, an arm secured to the standard, near the top thereof, casings extended horizontally therefrom, arms adapted to fit within said casings and connected by a lever, means secured to one of said arms for delivering and securing mail bags; means secured to a car for delivering and receiving the said mail bags, and means secured to said car for contacting with the other arms to thereby transfer the said mail bags.

4. In a mail bag transfer device the combination of a rotatable standard, means for setting it against rotation until released, an arm secured to said standard near the top thereof, casings extended horizontally therefrom, arms adapted to fit within said casings and connected by a lever, means secured to one of said arms for delivering and receiving the mail bags, and means secured to a car for contacting with the other arms to thereby transfer the said mail bags.

5. In a mail bag transfer device the combination of, a rotatable standard, and arm secured near the top thereof, casings extended horizontally therefrom, arms adapted to fit within said casings and connected by a fulcrumed lever, means for setting the said standard against rotation, comprising, a stop secured to the base of said standard, an arm secured to said standard and a lever fulcrumed thereto, and pivoted to its upper end to a second arm provided with a tension spring; means secured to one of the arms adapted to fit within the casing for delivering and receiving mail bags; means secured to a car for delivering and receiving the said mail bags and means secured to said car for contacting with the other arms to thereby transfer the said mail bags.

[Claims 6 to 16 not printed in the Gazette.]

1,078,790. FLUID-MIXTURE REGULATOR. GEORGE MACHLET, Jr., Elizabeth, N. J. Original application filed Aug. 1, 1906, Serial No. 328,697. Divided and this application filed May 12, 1908. Serial No. 432,341. (Cl. 48—180.)



1. In combination, a chest provided with an inlet and an outlet for air and also provided with an inlet and an outlet for gas, a hollow valve extending through said chest and having ports between the air inlet and outlet and also having ports between the gas inlet and outlet, means for moving said valve, and means confined in said chest and having a shell form and fitting said valve and provided with ports and cooperating with said valve to control the flow of air and gas through said chest.

2. In combination, a chest having an air inlet chamber and a separate air outlet chamber, and a tube in communication with the inlet chamber and having ports in the outlet chamber, said chest also having a gas inlet chamber and a separate gas outlet chamber, and a tube in communication with the gas inlet chamber, and having ports in the gas outlet chamber, a tubular valve extending through said tubes and fitted thereto, and divided into air and gas compartments, one compartment having an opening in said air inlet chamber, and the other compartment having an opening in said gas inlet chamber, and said compartments having ports to cooperate with the ports in said tubes to control the flow of gas and air through the chest, and means for operating said valve.

3. A fluid mixer comprising, in combination, a chest; a tubular valve extending through said chest; means dividing said valve into uncommunicating compartments for different gases or fluids; means for operating said valve; said chest having means for separately admitting the different fluids; said valve having ports or openings and said chest also having ports or openings to cooperate with those in said valve, for regulating the volume of fluids flowing through said valve; said ports and openings proportioned to permit the flow of a larger volume of one

fluid than of the other, and constructed so that at the different positions to which the valve may be opened or closed, the areas of the openings formed by the adjustment of the valve will maintain substantially the same proportion one to the other; whereby a uniformity of proportions of the different fluids is secured in the mixture during fluctuations of the volume thereof delivered.

4. In combination, a chest divided transversely into an air inlet compartment, an air outlet compartment, a gas inlet compartment, and a gas outlet compartment, a tube opening into one of the air compartments and having a port in the other air compartment, a tube opening into one of the gas compartments and having a port in the other gas compartment, a tubular valve extending through said tubes and fitted thereto and divided into an air compartment and a gas compartment and provided with a port in juxtaposition to said air port, and also provided with a port in juxtaposition to said gas port, said tube also having in its air compartment an opening for the passage of air, and in its gas compartment an opening for the passage of gas, and means for operating said valve to open and close its ports simultaneously.

5. A fluid mixer comprising, in combination, a chest, a tubular valve extending through said chest; means dividing said valve into uncommunicating compartments for different gases or fluids; means for operating said valve; said chest having means for separately admitting the different fluids; said valve having ports or openings and said chest also having ports or openings to cooperate with those in said valve, for regulating the volume of fluids flowing through said valve; said ports and openings proportioned to permit the flow of a larger volume of one fluid than of the other, and constructed so that at the different positions to which the valve may be opened or closed, the areas of the openings formed by the adjustment of the valve will maintain substantially the same proportion one to the other; whereby a uniformity of proportions of the different fluids is secured in the mixture during fluctuations of the volume thereof delivered, and adjustable means cooperating with said valve for regulating the proportions of the fluids composing the mixture.

[Claims 6 to 25 not printed in the Gazette.]

1,078,791. SOLDERING-STICK. LUDWIG MAES, Bonn, Germany, assignor to Kupper's Metallwerke Gesellschaft mit beschränkter Haftung, Bonn, Germany. Filed Feb. 2, 1907. Serial No. 355,502. (Cl. 113—110.)

1. A soldering stick consisting of a casing of soft solder with a filling of a paste-like soft solder material which contains metallic soft solder in a finely divided state, said filling combining with the casing to close the casing and confine the filling upon removal of the soldering heat.

2. A soldering stick consisting of a casing of soft solder with a filling of a paste-like soft solder material which in itself is melted more rapidly than the surrounding casing, said filling consisting of dust-like soft solder, a de-oxidizing agent and a vehicle, said filling combining with the casing to close the casing and confine the filling upon removal of the soldering heat.

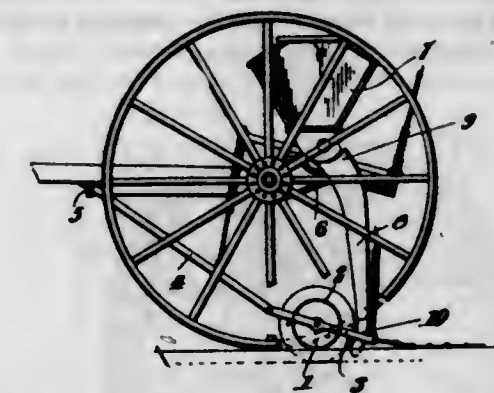
3. A soldering stick consisting of a casing of soft solder with a filling of a paste-like soft solder material which in itself is melted more rapidly than the casing which surrounds it and consists of dust-like soft solder, a de-oxidizing agent, and an agglutinant, said filling combining with the casing to close the casing and confine the filling upon removal of the soldering heat.

4. A soldering stick having a case composed of soft solder, and a filling of finely comminuted soft solder mixed to a paste with a liquid deoxidizing agent and an agglutinant, said filling combining with the casing to close the casing and confine the filling upon removal of the soldering heat.

5. A soldering stick having a case composed of soft solder and a filling of finely comminuted soft solder mixed to a paste with salamoniac and glycerin, said filling combining with the casing to close the casing and confine the filling upon removal of the soldering heat.

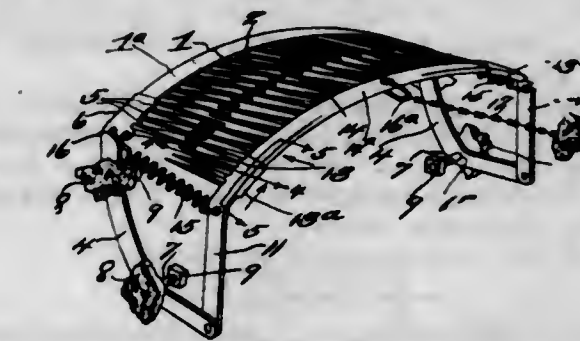
[Claims 6 to 11 not printed in the Gazette.]

1,078,792. AGRICULTURAL IMPLEMENT. JOHN D. MARTENS, Swift Current, Saskatchewan, Canada. Filed Aug. 10, 1912. Serial No. 714,441. (Cl. 111—11.)



In a seeder the combination with a disk of a seed chute behind the disk having forwardly curved upper and lower extremities and a seed receptacle above the chute, said upper extremity of the seed chute being pivotally connected to the bottom of the seed receptacle and communicating therewith, and a frame extending around the disk and pivotally connected thereto.

1,078,793. LADY'S HAT-FASTENER. SAMUEL C. MAY, Modesto, Cal. Filed Nov. 13, 1912. Serial No. 731,205. (Cl. 132—25.)



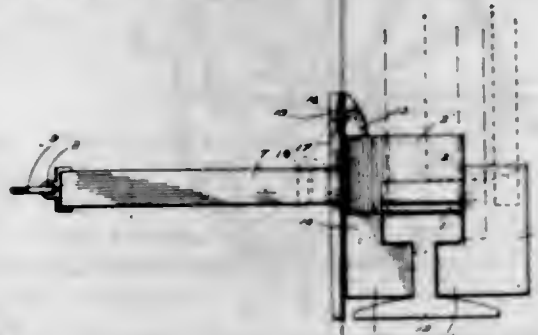
In combination, a pair of slightly curved combs with the teeth opposed and adapted to intermesh, one of said combs constituting a stationary jaw, while the other comb constitutes a movable jaw, downwardly and rearwardly extending arms, their upper and forward ends terminating in plates extending substantially laterally and toward one another engaging the body of the stationary comb jaw and having fingers extending about and underlying the body of the stationary comb jaw, said fingers arranged between the teeth of the stationary comb jaw, one edge of each plate of each arm having a flange underlying the body of the stationary comb jaw, downwardly extending links having their lower ends pivoted to the rear lower ends of said arms, the upper ends of said links terminating in plates extending substantially laterally and toward one another and engaging the body of the movable comb jaw, one edge of each plate of each link having a flange underlapping the body of the movable comb jaw, while the opposite edge of each plate of each link is provided with fingers extending between the teeth of the movable comb jaw and underlying the body thereof, spring connections between the links and said arms, and a device constituting means whereby the movable comb jaw may be opened.

1,078,794. DERAILER. HARRY E. MCGINNIS, Cincinnati, Ohio. Filed Nov. 27, 1911. Serial No. 662,676. (Cl. 104—127.)

1. A device consisting of a member having opposing tapered beveled inclined edges and an opening therethrough, a locking member adapted to pass through said opening, said locking member having a series of openings therein and a key adapted to enter one of the openings in said locking member.

2. A device consisting of a member having opposing tapered beveled inclined edges and an opening therethrough,

a locking member adapted to pass through said opening, said locking member having a series of openings therein, a key adapted to enter one of the openings in said locking member, said first opening being above the surface of a rail and said locking member being adapted to extend transversely above said rail.



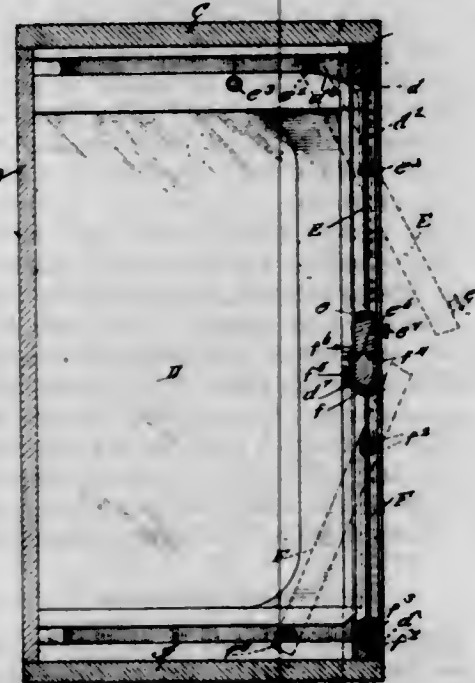
3. A derailer having opposing tapered beveled edges inclining toward one another and extending across a rail, said derailer having a transverse opening between said edges and a locking member adapted to pass through said opening above a rail.

4. A derailing device consisting of a pair of track engaging members, one of said members having a head thereon adapted to throw a car from a track, said head tapering to one side thereof, and having its ends beveled, one of said members having a slot therein and the other of said members having an arm adapted to slide through said slot whereby said derailer may be fitted to tracks of varying widths, said arm having a series of openings therein, and a key adapted to enter said openings whereby said members will be held in fixed relation.

5. A derailer consisting of a member adapted to seat upon a rail having opposing inclined wheel engaging edges, said edges being curved, said member having a jaw depending therefrom to engage the side of a rail, said member having an opening therein.

[Claims 6 to 8 not printed in the Gazette.]

1,078,795. DISAPPEARING-DOOR CONSTRUCTION FOR CASES. FREDERICK E. MEINEL, Chicago, Ill., assignor to Illinois Show Case Works, Chicago, Ill., a Corporation of Illinois. Filed July 24, 1911. Serial No. 640,096. (Cl. 45-37.)



1. In a disappearing door construction for show cases, a door composed of upper and lower sections, the lower edge of the upper section adapted to engage the upper edge of the lower section, means for mounting the upper section to swing and slide upward and assume a horizontal position below the top of the case, means for mounting the lower section to swing and slide downward and assume a horizontal position above the bottom of the case, and

means requiring a slight upward movement of the lower section for the initial opening thereof whereby the lower door section cannot be opened until after the upper door section is partially opened.

2. In a disappearing door construction for show cases, a door composed of upper and lower sections, the lower edge of the upper section adapted to engage the upper edge of the lower section, means for mounting the upper section to swing and slide upward and assume a horizontal position below the top of the case, and means for mounting the lower section to swing and slide downward and assume a horizontal position above the bottom of the case, the said means comprising rolls on the ends of the sections, and upper and lower L-shaped grooves on the case, said grooves serving as ways in which said rolls travel when the door is opened and closed, each groove receiving two of said rolls spaced such a distance apart that one roll is moving in one direction in one part of the L-shaped groove at the same time the other roll is moving in a direction at right angles thereto in the other part of the same groove, the elbows of the lower L-shaped grooves being so formed that the lower door section can not be opened until after the upper section is partially opened.

3. In a disappearing door construction for show cases, a movable door for the front of the case, a pair of separated projections for each end of said doors, an L-shaped groove in the case for each pair of projections, one projection of each pair movable in one direction in one part of the said groove while the other projection of the same pair is moving in a direction at right angles thereto in the other part of the same groove, and one of said projections of each pair being adapted to rest in the elbow portions of said grooves to keep the door in closed position, each said elbow portion being formed with a seat in which the projection rests for this purpose, whereby the door must be raised slightly, in the plane thereof, before moving inward at its lower edge.

4. In a disappearing door construction for show cases, a door for the front of the case, a pair of separated projections for each end of said door, a groove or way on the case for each pair of projections, and a spring secured in the groove for engaging one of said projections when the door is closed, whereby the door is yieldingly held in closed position.

5. In a disappearing door construction for show cases, upper and lower door sections, means whereby the two sections swing and slide in opening and closing, and a seat for the lower section, serving to hold the lower section against swinging motion, the upper section engaging the lower section to hold the latter in said seat, the said seat preventing the lower section from moving inward at its lower edge until after the upper section is partially opened.

[Claims 6 to 11 not printed in the Gazette.]

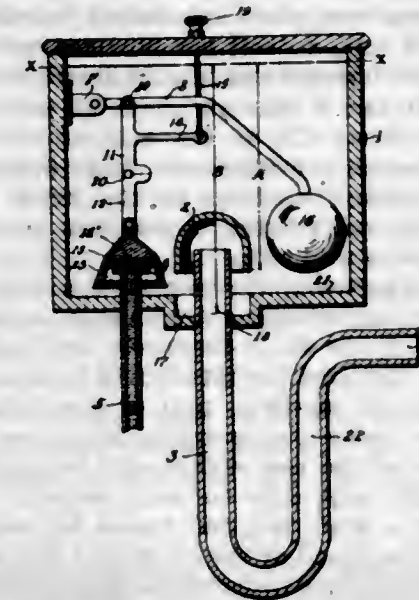
1,078,796. FLUSH-TANK. HARMON DE LEON MOISE, Sumter, S. C. Filed Jan. 27, 1912. Serial No. 673,849. (Cl. 4-5.)

1. In a flushing device, the combination with a tank provided with a water supply, a normally closed controlling valve for the water supply, a lever pivotally mounted in the tank and having a pivotal link connection with the valve, an arm projecting from the link connection, manually operated means engaging the arm and adapted to distort the link connection to open the valve, and means for causing the lever to automatically restore the link connection to normal position to close the valve.

2. In a flushing device, the combination with a tank provided with a water supply, of a normally closed controlling valve for the water supply, a lever fulcrumed in the tank, a link pivotally connected to said lever, a link pivotally connected to the free end of the aforesaid link and to the said valve, manually operated means for distorting said link connection to open said valve, and a combined float and weight carried by the lever for automatically restoring the linked connection to normal position to close the valve.

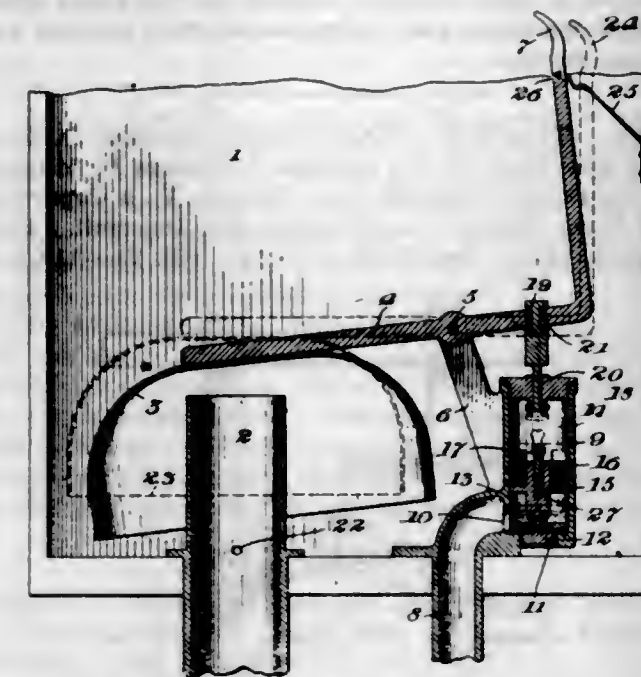
3. In a normally empty flush tank, an inlet valve, a lever fulcrumed in said tank, a link pivotally connected to

said lever, a link pivotally connected to the aforesaid link and engaging said valve, manually operated means for dis-



torting said links to unseat said valve, and a combined weight and float carried by the lever for automatically restoring said link connection to reseat said valve.

1,078,797. FLUSHING APPARATUS. HARMON DE LEON MOISE, Sumter, S. C. Filed Aug. 6, 1912. Serial No. 713,668. (Cl. 4-5.)



1. In a flush tank, a liquid supply, a valve therefor, an auxiliary valve for causing said valve to operate, manual means for opening said auxiliary valve, detent means engaging said manual means to hold said valve open and means for automatically releasing said detent and reseating said auxiliary valve.

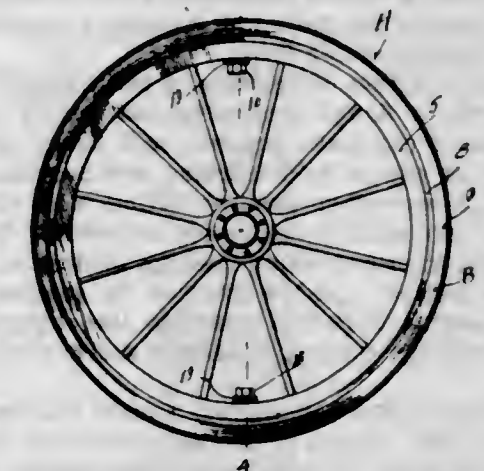
2. In a flush tank, a liquid supply, a valve therefor, an auxiliary valve for causing said valve to operate, means for opening said auxiliary valve, detent means for holding said valve open and means, actuated by the discharge of water from the tank, for automatically releasing said detent and closing said auxiliary valve.

3. In a flush tank, a liquid supply, a valve therefor, means for unseating said valve to fill the tank, a detent engaging said means to retain the same in a tank filling position and mechanism, operated by the discharge of water from the tank, for releasing said detent and closing the supply.

1,078,798. SECTIONAL RIM. SIDNEY S. MORRIS, Waretown, N. Y. Filed Sept. 6, 1912. Serial No. 719,032. (Cl. 152-21.)

The combination with a wheel having a felly formed with a plurality of openings, a sectional rim comprising

inner and outer superimposed sections, positioned on said felly, the inner section being formed with a plurality of openings registering with the openings of said felly, the outer section having its inner face formed with a circumferential groove registering with the openings of said inner section, bushings engaged through the registering openings of the felly and the inner section, bushings engaged



in the inner ends of the openings in the felly, bolts operating in said bushings and movable into and out of the circumferential groove of the outer section, said outer section being formed with a slot extending transversely thereof and opening through its inner edge, and a stud projecting from the inner section and engaged within the slot of the outer section for locking said section against relative axial rotation.

1,078,799. SAFE CONSTRUCTION. MOSES MOSLER, Cincinnati, and CARL BARTELS, Hamilton, Ohio, assignors to The Mosler Safe Company of New York. Filed Apr. 24, 1913. Serial No. 763,251. (Cl. 109-1.)



1. Safe-construction comprising, a main member flanged at its rear to form a rear recess, projections from the rear face thereof provided with hooking members having forwardly presenting faces, lugs projecting inwardly from said flanges and having forwardly presenting faces, a secondary member to be secured to and parallel with the main member and form a rear wall for said recess, projections from the front face of the secondary member provided with hooking members having hooking members to engage the hooking members of the main member, projections from the front face of the secondary member to engage the lugs on the flanges of the main member, means for limiting the movement of the secondary member toward the main member, and a locking device to maintain the engagement between the hooks of the secondary member and the hooks and lugs of the main member, combined substantially as set forth.

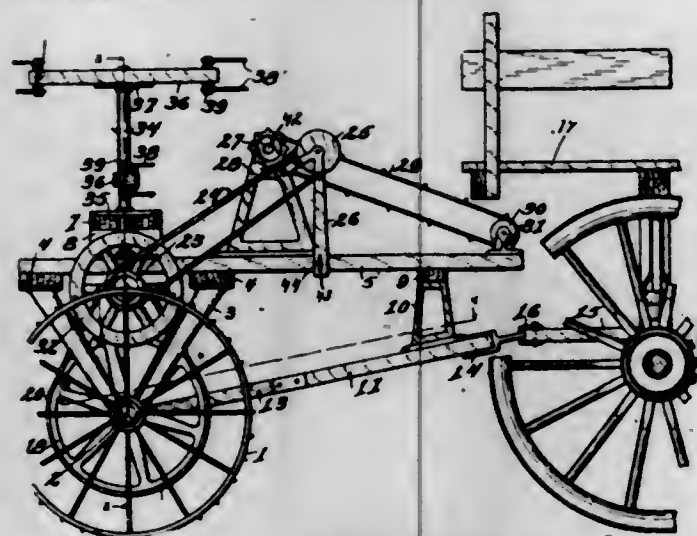
2. Safe-construction comprising, a main member of rectangular form, a flange projecting rearwardly from the four margins of the main member, said flange being rela-

tively lower at one of said margins, a secondary member to be secured to the rear of the flanged main member and adapted to be margined by the flange of the main member except at the relatively lower margin, intermembering hooking devices at the rear of the main member and at the front of the secondary member, means for limiting the movement of the secondary member toward the main member, and a locking device to maintain the engagement between the hooks of the main and secondary members, combined substantially as set forth.

3. Safe-construction comprising, a main member of rectangular form, a flange projecting rearwardly from the four margins of the main member, said flange being relatively lower at one of said margins and provided with a rear rabbet, a secondary member fitting said rabbet and forming the rear wall of the recess formed by the flanged main member, intermembering hooking devices at the rear of the main member and the front of the secondary member, and a locking device to maintain the engagement between the hooking devices, combined substantially as set forth.

4. Safe-construction comprising, a main door-member of rectangular form, flanges projecting rearwardly from two of the side margins of said main door-member and provided at their rear with internal rabbets, a secondary door-member adapted to fit and slide endwise in said rabbets, intermembering hooking devices at the rear of the main member and at the front of the secondary member, locking means to maintain the engagement between the hooking devices, a flange upon the third margin of the main door-member to be engaged by one end of the secondary member when the hooks are in engagement, and a relatively lower flange upon the fourth margin of the main door-member to engage the front of the secondary door-member, combined substantially as set forth.

1,078,800. STRAW-SPREADER. JAMES H. MOTT, Battle Creek, Mich. Filed Dec. 10, 1912. Serial No. 735,898. (Cl. 111—40.)



1. In a straw spreader, the combination with a frame of carrying and driving wheels, an axle driven thereby, frame supports having bearings for said axle, a draft bar provided with a bearing for said axle, the front end of said frame being mounted on said draft bar, a conveyor mounted on said frame, a pair of fork shafts disposed in a vertical position at the rear of said conveyor, a driven shaft mounted on said frame above said axle and below said fork shafts, driving connections for said fork shaft and driven shaft, and driving connections from said driven shaft to said conveyor.

2. In a straw spreader, the combination with a frame, of carrying and driving wheels, an axle driven thereby, the rear end of said frame being mounted on said axle, a draft bar provided with bearings for said axle, the forward end of said frame being mounted on said draft bar, a conveyor mounted on said frame, a pair of vertically disposed fork shafts having arms thereon provided with forks at their ends, a driven shaft mounted on said frame above said axle, driving connections from said driven shaft to said axle, gears connecting said fork shafts to said

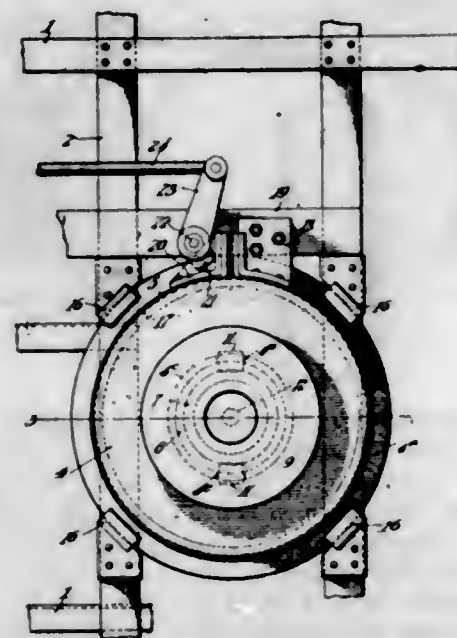
driven shaft, and driving connections from said driven shaft to said conveyor.

3. In a straw spreader, the combination with the carrying and driving wheels, of an axle driven thereby, a frame mounted on said axle, a draft bar provided with bearings for said axle, the forward end of said frame being mounted on said draft bar, a conveyor mounted on said frame, shafts disposed vertically at the rear of said conveyor having arms thereon provided with forks disposed to coact with said conveyor and act on the straw above and below the same, and driving connections for said conveyor and shafts to said axle.

4. In a straw spreader, the combination with a frame, carrying and driving wheels, a driven axle, a conveyor arranged on said frame in a forwardly inclined position, spreading forks mounted for rotation in horizontal planes at the rear of said conveyor, part of the forks rotating in planes above and a part rotating in planes below the horizontal plane of the rear end of said conveyor, driving connections from said axle to said conveyor and said spreading forks, a draft bar, and means for coupling said draft bar to the rear end of the reach of a wagon whereby the forward end of said conveyor is supported under the rear end of the wagon body.

5. In a straw spreader, the combination with the carrying and driving wheels, of an axle driven thereby, a frame mounted on said axle, a draft bar provided with bearings for said axle, the forward end of said frame being mounted on said draft bar, a conveyor mounted on said frame, shafts disposed vertically at the rear of said conveyor having arms thereon provided with forks disposed to coact with said conveyor and act on the straw above and below the same, and driving connections for said conveyor and shafts.

1,078,801. TRACTOR CONNECTION. GEORGE D. MUNSING, New York, N. Y., assignor to George D. Munsing and Charles E. Ingersoll, New York, N. Y., a Copartnership doing business as Munsing and Ingersoll. Filed Aug. 13, 1912. Serial No. 714,817. (Cl. 21—114.)



1. A connection mechanism between a vehicle and a tractor, comprising a stationary ring on the tractor, a ring rotatable with respect thereto, means connected to the vehicle and cooperating with the rotatable ring to permit universal movement, and friction brake mechanism to control the rotation of the latter ring.

2. A connection mechanism between a vehicle and a tractor, comprising a ring on the tractor, a casting having a bottom flange cooperating with the ring, a spherical socket on said casting having lateral slots extending below its horizontal diameter and a vertical central opening, a spherical bearing connected to the vehicle having lateral diametrical lugs arranged to lie in said slots, a bolt passing through the opening, a spherical washer on the bolt to cover the opening and brake mechanism to control the rotation of the casting.

3. A connection mechanism between a vehicle and a tractor, comprising a ring secured to the tractor, a ring supported thereon and having a rack, a pinion arranged to gear with the rack and a brake to control the rotation of the pinion and rack.

4. A connection mechanism between a vehicle and a tractor, comprising a ring secured to the tractor, a rotatable ring cooperating therewith; rollers between the rings, brackets to hold the rotatable ring in operative position, said rotatable ring having a rack extending over a portion of its surface, a pinion projecting between the rings and gearing with the rack, a shaft on which said pinion is mounted, a brake wheel on said shaft, and a brake band cooperating with the wheel.

1,078,802. ADJUSTABLE HORSE-COLLAR ATTACHMENT. MARTIN NILSSON, Marlon, Nebr. Filed Mar. 29, 1913. Serial No. 757,834. (Cl. 54—21.)

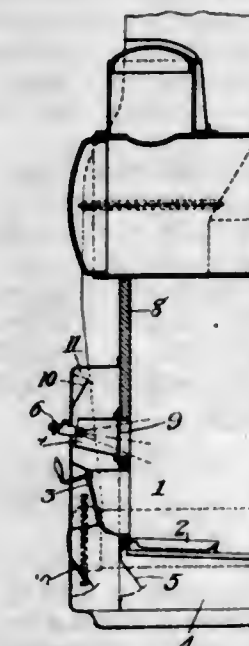


1. In combination, a collar having a section severed from the lower bend thereof, plates, one secured to each severed end of the collar, one of the plates having a loop, and a link latch having a ball and socket connection to the other plate and insertible through the loop, said loop having adjoining lugs, said link latch having upon opposite faces notches, any two opposite notches being adapted to engage said lug, for adjustably connecting the severed ends of the collar.

2. In combination, a collar having a section severed from the lower bend thereof, plates, one secured to each severed end of the collar, one of the plates having a loop, and a link latch having a ball and socket connection to the other plate and insertible through the loop, said link latch having notches to engage a part of the loop for adjustably connecting the severed ends of the collar.

3. In combination, a collar having a section severed from the lower bend thereof, plates, one secured to each severed end of the collar, one of the plates having a loop, and a link latch having a flexible connection with the other plate and insertible through the loop, said link latch having notches to receive an integral part of the loop for adjustably connecting the severed ends of the collar.

1,078,803. BOILER-FURNACE. AUGUSTIN NORMAND, Le Havre, France. Filed Nov. 11, 1909. Serial No. 527,429. (Cl. 110—22.)



An oil burner adapted to be used in connection with furnaces, comprising an atomizer, a sleeve-like air supply,

ing nipple cooperating with said atomizer adapted to communicate with the interior of a furnace, adjustable shutters at the point of communication, a casing inclosing the nipple and the ejector end of the atomizer, adjustable means in said casing for admitting air to the nipple, and means for operating the said shutters.

1,078,804. BANANA-STAND. HARVEY F. ROYSE, Perrysville, Ind. Filed Dec. 28, 1912. Serial No. 739,161. (Cl. 211—24.)



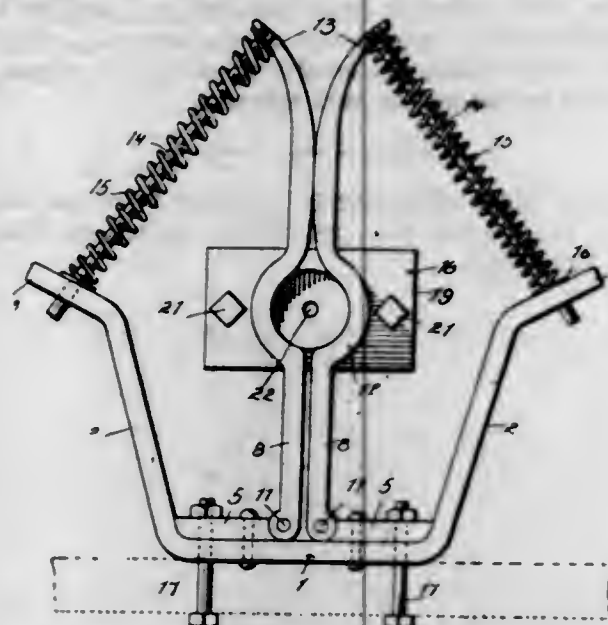
1. A display stand including a vertically disposed straight rear standard and a pair of vertically disposed forward standards, all of said standards being symmetrically spaced apart, the upper end portions of the forward standards being bent rearwardly and outwardly and then inwardly and secured by their free ends to opposite sides of the rear standard adjacent its upper end, hoop sections secured by their ends to the rear faces of the forward standards and bearing by their intermediate portions against the rear edge of the rear standard, said hoop sections being bent inwardly adjacent the rear standard to bear against the sides thereof, fastening devices passed through said inward portions and through the rear standard to secure the hoop sections in place, a drip pan mounted between the standards, and a forwardly directed hook carried by the upper end of the rear standard.

2. A display stand including a straight vertically disposed rear standard and a pair of vertically disposed forward standards, all of said standards being symmetrically spaced apart, hoop sections secured by their ends to the forward standards and by their intermediate portions to the rear standards and lying in spaced horizontal planes, an inclined hoop section above the previously-mentioned hoop sections formed by bending the upper end portions of the forward standards rearwardly and outwardly and then inwardly and securing same to the rear standard adjacent its upper end, and a forwardly directed hook carried by the upper end of the rear standard and extending in central position with respect to the three standards.

1,078,805. IMPLEMENT-HOLDER. GOTTLIEB F. SCHAHL, Mount Pulaski, Ill. Filed Nov. 16, 1912. Serial No. 731,834. (Cl. 24—254.)

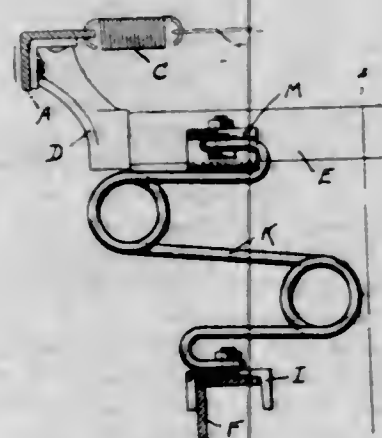
1. A holder of the character described comprising a base plate, the opposite ends of said base plate extending outwardly and forwardly, the extremities of said base plate being offset in opposite directions, said extremities being apertured, forwardly extending gripping arms pivotally connected to said base plate intermediate of its ends, guide rods pivotally connected to the free extremities of said gripping arms, said guide rods being slidably disposed through the apertures in the extremities of said base plate, and means disposed on said guide rods for

normally holding the gripping arms in closed position, as and for the purpose described.



2. A holder of the character described comprising a base plate, the opposite ends of said base plate extending outwardly and forwardly, the extremities of said base plate being offset in opposite directions, said extremities being apertured, forwardly extending gripping arms pivotally connected to said base plate, said gripping arms extending beyond the opposite ends of said base plate, guide rods pivotally connected to the free extremities of said gripping arms, said guide rods extending rearwardly and outwardly and being slidably disposed through the apertures in the opposite ends of said base plate, and means disposed on said guide rods for normally holding the gripping arms in closed position, as and for the purpose described.

1,078,806. SPRING-BED. ALBERT SCHEIBLE, Chicago, Ill. Filed Nov. 19, 1912. Serial No. 732,224. (Cl. 5-63.)



1. A holder for a bed-bottom frame having side rails, comprising a member adapted to engage a side rail of the bed-bottom, a second member adapted to be stepped on a portion of a bedstead, and a pair of springs interposed between the said members and disposed at opposite sides of the said side rail when the holder is in service.

2. In a bed construction including a slat, a bed-bottom, and a plurality of manually detachable spring members interposed therebetween, each of the said spring members including a spring having at its opposite ends channeled sockets adapted to engage the slat and the bed-bottom respectively, the said sockets extending transversely of each other.

3. A holder for a bed-bottom frame having a side rail, comprising a pair of socket members adapted respectively to engage the said side rail and a portion of a bedstead, and a pair of springs interposed between the said members, the said springs connected at one end to opposite ends of one of the said socket members, the said socket members extending transversely of each other.

4. A bed construction including a slat and a bed-bottom stiffener; and a spring member interposed therebetween; the said spring member including a pair of sockets secured to opposite ends of a pair of springs; the sockets upon each spring member being adapted to engage the slat and the stiffener respectively.

1,078,807. MANUFACTURE OF MEAT-LIKE CONSERVES. FRANZ SMOLKA, Vienna, Austria-Hungary. Filed Feb. 15, 1912. Serial No. 677,666. (Cl. 99-11.)

1. The herein described process of manufacturing meat-like conserves from an albuminous extract and a suitable carbo-hydrate comprising heating the material until it becomes pasty, finely dividing the material, mixing it with fat, and subjecting the mixture to further treatment as in the manufacture of sausage or meat conserves.

2. The herein described process of manufacturing meat-like conserves from an albuminous extract and an amy-laceous substance, comprising heating the material until it becomes pasty, finely dividing the material, and mixing fat with said finely divided material.

3. The herein described process of manufacturing meat-like conserves from an albuminous extract and starch, comprising heating and drying the material, finely dividing the dry material, mixing it with fat, and subjecting the mixture to further treatment as in the manufacture of sausage or meat conserves.

4. The herein described process of manufacturing meat-like conserves from an albuminous extract and a suitable carbo-hydrate comprising heating and drying the material, finely dividing the dry material, and mixing the finely divided material with fat and vegetable fibers from which all odorous and soluble matter has been removed, for the purpose described.

1,078,808. COW-TAIL HOLDER. CLAYTON W. STEGNER, Nerstrand, Minn. Filed Sept. 12, 1912. Serial No. 720,033. (Cl. 119-105.)



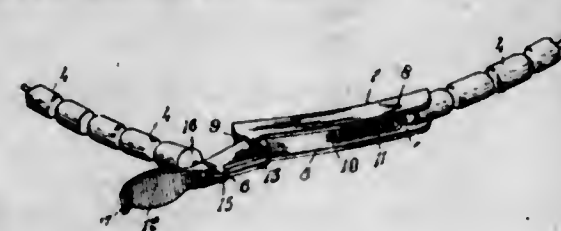
1. A cow tail holder comprising oppositely and outwardly curved plates, means for connecting the inner ends of the plates, an adjustable strap having its opposite ends secured upon the plate connecting means, said plates having teeth formed upon their inner faces at their ends and along their longitudinal edges to receive the threaded portion of a cow's tail, and clamping means extending through the plates between their central portions and their inner ends for drawing said plates toward one another.

2. A cow tail holder comprising a pair of plates flared toward their outer ends, said plates having co-acting teeth formed upon their inner faces at their flared ends, a limb encircling strap having its opposite ends secured between the inner ends of said plates, the flared ends of the plates being normally spaced apart, and means extending through the plates forwardly of the ends of the strap for drawing together the flared ends of said plates.

1,078,809. EMBROIDERY-HOOP. ARVINE N. THOMAS, Canton, Ohio. Filed Oct. 5, 1912. Serial No. 724,149. (Cl. 45-24.)

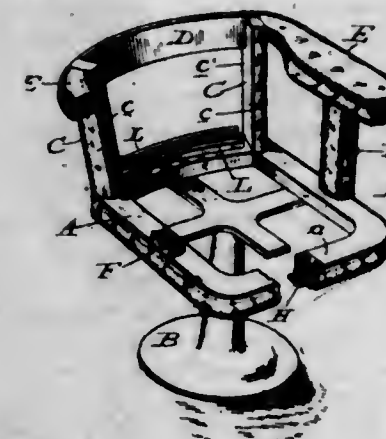
1. For an embroidery hoop, in combination with an outer ring having spaced ends, a take-up device comprising a housing formed from a single piece of sheet metal and comprising a body portion curved to conform to the curvature of the ring, and spaced flanges extending outwardly from said body, a spring-attaching hook formed on

said housing by stamping from the body portion thereof an integral tang extending outwardly between said flanges, an extensible coil spring arranged between said flanges, having one end connected to said hook and the other end connected to one of the ends of said outer ring at one end of said housing, a take-up lever formed from a single piece of sheet metal and comprising a thumb portion and integral, spaced arms pivotally connected to the flanges of said housing at the other end thereof, said lever provided with means for the attachment of the other end of said ring and said other end of said ring extending between said flanges and arms and connected to said ring connecting means intermediate the ends of said lever, said lever being adapted to pivotally move to throw said thumb portion outwardly and away from said flanges to move said ring attaching means away from said coil spring and to move over toward and down upon said flanges to move said ring attaching means toward said coil spring, whereby to move the spaced ends of said ring away from and toward each other, and said thumb portion, when the same engages said flanges, adapted to overlie said spring.



2. For an embroidery hoop, in combination with an outer ring having spaced ends, a take-up device comprising a housing formed from a single piece of sheet metal, and comprising a body portion curved to conform to the curvature of the ring, and spaced flanges extending outwardly from said body, an extensible spring arranged intermediate said flanges and its inner end connected to said housing, the outer end of said spring connected to one end of said ring at one end of the housing, a take-up lever comprising a thumb portion and integral, spaced arms pivotally connected at their free ends to said housing at its other end, the other end of said ring extending between said arms and connected to said lever intermediate its ends, the thumb portion of said lever adapted to move away from said housing into extended position to increase the space between the ends of said ring and toward said housing and into engagement with said flanges to decrease said space, said thumb portion terminating at its free end in a narrowed, turned down portion, said thumb portion, when engaging said flanges, adapted to overlie said spring, and said turned down portion adapted to extend between said flanges beyond the outer end of said spring.

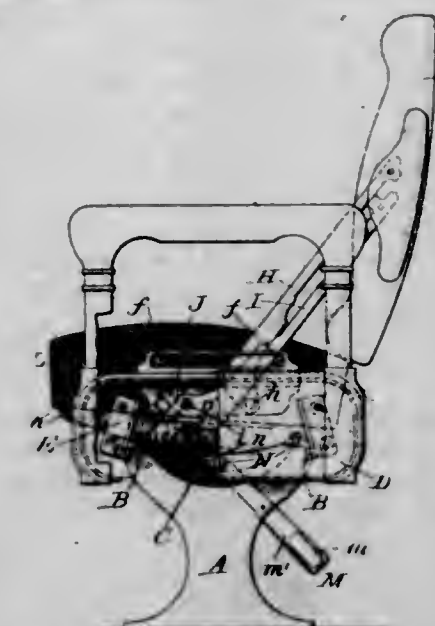
1,078,810. CHAIR. CLARENCE A. VAN DERVEER, Michigan City, Ind., assignor, by mesne assignments, to Midland Chair & Seating Company, Michigan City, Ind., a Corporation. Filed Apr. 10, 1911. Serial No. 620,066. (Cl. 155-3.)



A chair, comprising a frame having rear posts rectangular in cross section with a space between them narrower at the front than at the rear, a cross-piece connecting the upper ends of the posts at their rear edges,

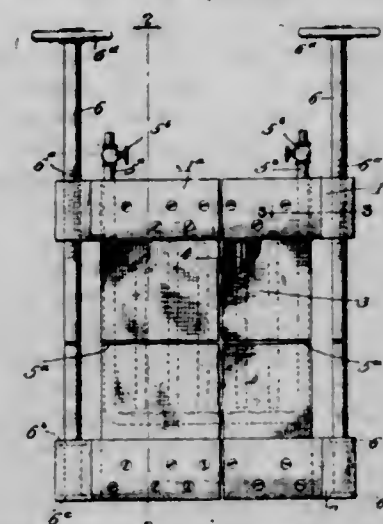
horizontally arranged cleats between the lower ends of the posts, and a back comprising side pieces fitting snugly between the rear posts of the chair in front of the cross-piece connecting the upper ends of the posts and having a cross-piece at the bottom engaging the cleats.

1,078,811. CAR-SEAT. CLARENCE A. VAN DERVEER, Michigan City, Ind., assignor, by mesne assignments, to Midland Chair & Seating Company, Michigan City, Ind., a Corporation. Filed May 24, 1911. Serial No. 629,161. (Cl. 155-2.)



A car seat, comprising pedestals, sills connected therewith, end plates connected with the sills, bridges supported on and secured to the sills, a rock-shaft mounted in bearings in the bridges, a foot-rest carried by the rock-shaft, a seat cushion, rockers supporting the cushion and resting on the sills, an arm on the rock-shaft inside the end plates of the frame and provided with a stud engaging a slot in one of the rockers, a back, back-supporting levers pivotally connected therewith and with the end plates of the frame, and a stud on one of the levers engaging a vertical slot in one of the rockers, and which causes the rockers to shift to change the inclination of the seat and to shift the foot-rest.

1,078,812. FILTER-LEAF. CHARLES L. VAN FOSSEN, Hastings-upon-Hudson, N. Y., assignor to N. Y. Sanitation-Filtration Co., New York, N. Y., a Corporation of New York. Filed June 10, 1913. Serial No. 772,900. (Cl. 210-16.)



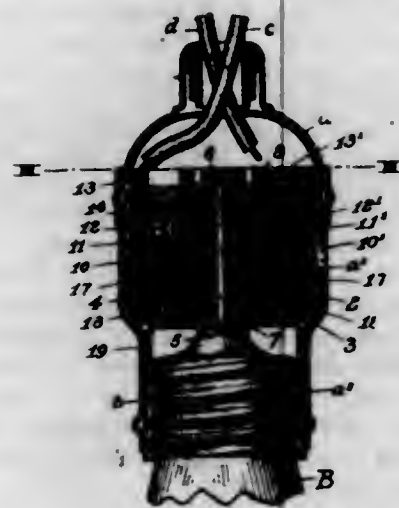
1. In combination with a filter leaf comprising a hollow bag formed of a filtering medium, means for separating the walls of such bag, and means for withdrawing liquid from the interior of such leaf; with adjusting devices exterior to the bag and not penetrating the walls thereof, whereby the tension of the filtering medium can be varied, substantially as described.

2. A filter leaf comprising upper and lower bars, walls of flexible filtering material connected to and between said bars, and adjusting means located wholly exterior to said leaf and not penetrating the walls thereof, whereby the bars may be relatively shifted toward or from each other to vary the tension of said filtering material.

3. A filter leaf comprising upper and lower bars, walls of flexible filtering material connected to and between said bars; strips interposed between the said walls, and means for withdrawing liquid from the interior of said leaf; with adjusting means exterior to the said leaf and not penetrating the walls thereof whereby the bars may be adjusted toward or from each other to vary the tension of said walls, substantially as described.

4. A filter leaf comprising upper and lower bars, an imperforate bag of flexible filtering material connected to and between said bars, means interposed between the walls of the bag for distending the same, and means for withdrawing liquid from the interior of said bag; with adjusting means exterior to the bag and engaging said bars whereby the bars can be separated or approached and the bag walls tensioned or relaxed, said adjusting means not penetrating the walls of the bag.

1,078,813. LAMP-SOCKET. CLARENCE A. VETTER, Pittsburgh, Pa., assignor, by mesne assignments, to Best Electric Company, a Corporation of Delaware. Filed Sept. 24, 1912. Serial No. 722,150. (Cl. 173—356.)



1. The combination of a lamp-carrying part, a terminal wire-carrying part, a swivel connection, spring-actuated pins on one of said parts, and shoulders on the other part, said pins and shoulders cooperating to jam or lock the lamp against removal.

2. A lamp socket consisting of a base provided with a central swiveling stem and a laterally arranged spring-actuated locking abutment each forming conducting members, terminal wire connections in circuit therewith, a relatively rotatable lamp supporting base swiveled on said stem having a spirally threaded lamp receiving shell on its inner portion co-acting with said spring-actuated locking abutment, and means connecting the lamp receiving shell with the locking ring, substantially as set forth.

3. A lamp socket consisting of a base provided with a central swiveling stem and a laterally arranged spring-actuated locking abutment each forming conducting members, terminal wire connections in circuit therewith, a relatively rotatable lamp supporting base swiveled on said stem having a spirally threaded lamp receiving shell on its outer portion and a locking ring on its inner portion composed of segmental shouldered insulating sections and alternating conducting sections forming therewith spirally inclined bearing faces, and means connecting the lamp receiving shell with the conducting sections, substantially as set forth.

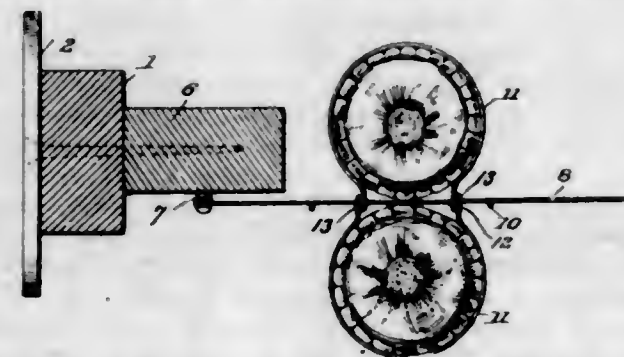
4. A lamp socket consisting of a base provided with a central swiveling stem and a laterally arranged spring-actuated locking abutment each forming conducting members, terminal wire connections in circuit therewith, a

relatively rotatable lamp supporting base swiveled on said stem having a spirally threaded lamp receiving shell on its outer portion and a shouldered locking ring on its inner portion co-acting with said spring-actuated locking abutment for arresting the lamp receiving shell against rotation upon screwing a lamp thereinto and for permitting free rotation of the tightly inserted lamp and shell in the opposite direction, and means connecting the lamp receiving shell with the locking ring, substantially as set forth.

5. In a lamp socket, the combination of a base portion having binding post connections for current supply wires, a central swivel pin in circuit with one of said connections, a spring actuated stud abutment and mounting therefor in circuit with the other of said connections, a relatively rotatable base swiveled on said pin, the pin extending therethrough and providing a central lamp contact, and a shouldered conducting ring and a lamp socket secured on the inner side of said rotatable base and connected to each other adapted to engage said abutment and offer resistance to effect tight insertion of a lamp in the direction of screwing into the socket and to permit free reversal of the lamp and socket in reverse direction, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,078,814. CORN-RACK. FRANK P. WEST, Orting, Wash. Filed May 4, 1912. Serial No. 695,196. (Cl. 34—26.)



A drying rack comprising a frame, said frame including horizontal strands, vertical strands intersecting the horizontal strands, ear-supporting members pivotally mounted on the horizontal strands, said ear-supporting members being disposed in pairs and consisting of substantially circular ear-embracing portions and being terminally looped to embrace the strands, the ear-supporting members of each pair being disposed with their looped terminals in contact, the ear-supporting portion of one of the members extending on one side of the horizontal strand and the ear-supporting portion of the other member extending on the other side of the horizontal strand whereby the ears which are supported come in contact and maintain themselves in vertical position.

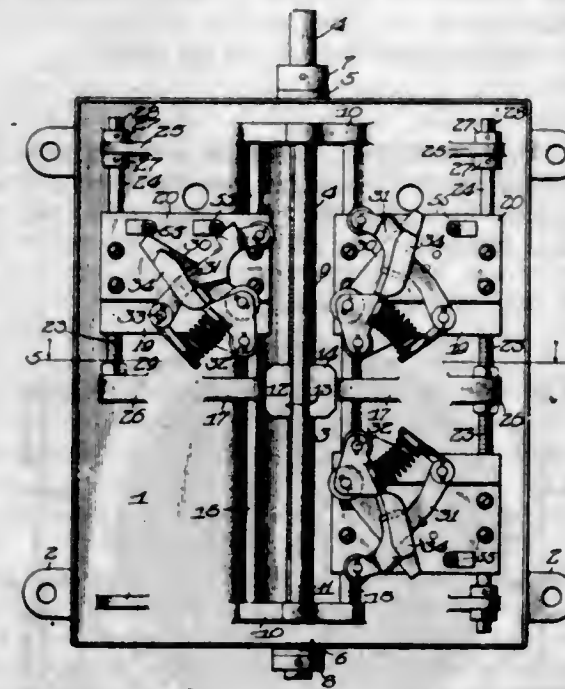
1,078,815. LIMIT-SWITCH. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 27, 1908. Serial No. 450,571. (Cl. 172—152.)

1. In combination, a switch tending to stand in one position, a latching member for holding said switch in another position, and a traveling member adapted to engage and move said latching member to release said switch, said latching member, when actuated by said traveling member, being adapted to move out of the path thereof.

2. In combination, a pivoted switch tending to stand in one position, a traveling member adapted, when moved in one direction, to engage and move said switch to another position, and an independently pivoted latching member adapted to automatically engage said switch when moved by said traveling member, said traveling member adapted, when moved in an opposite direction, to actuate said latching member to release said switch.

3. In combination, a pivoted switch tending to stand in one position, a traveling member adapted, when moved in one direction, to engage and move said switch to an-

other position, and an independently pivoted latching member adapted to automatically engage said switch when moved by said traveling member, said traveling member adapted, when moved in an opposite direction, to actuate said latching member to release said switch, said switch and said latching member being adapted, when actuated by said traveling member to move out of the path thereof.

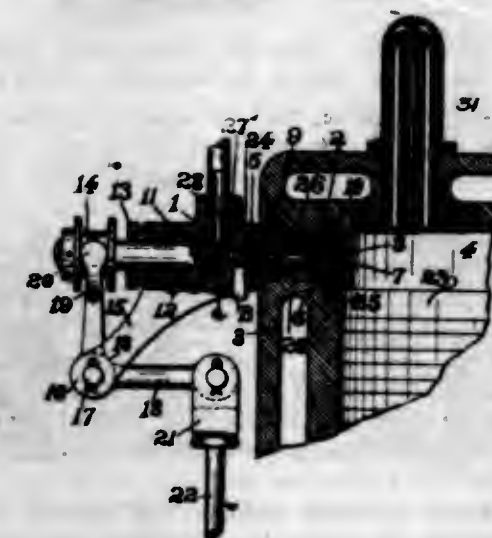


4. In combination, a pivoted switch, a traveling member, said switch tending to stand in a position to project into the path of said traveling member and adapted to be moved thereby into another position, and an independently pivoted latching member for holding said switch in the position to which it is moved by said traveling member, said latching member being adapted to be engaged and moved by said traveling member to release said switch, said switch and said latching member being movable alternately out of and into the path of said traveling member.

5. In combination, a switch tending to stand in one position, means for holding said switch in another position, and a relatively slow moving member adapted, when in one position, to actuate said means to release said switch and when in another position to return said switch to its former position.

[Claims 6 to 33 not printed in the Gazette.]

1,078,816. ATOMIZING AND MIXING VALVE. WILSON D. CRAIG WRIGHT, Philadelphia, Pa., assignor of one-half to Joseph Wright, Philadelphia, Pa. Filed June 3, 1912. Serial No. 701,123. (Cl. 158—74.)



1. In a device of the character described, a valve body having an outlet passage and having a hydro-carbon intake

passage, a water intake passage, and an air intake passage, a movable valve member slidably arranged within said valve body, said valve member being provided with a mixing chamber having a hydrocarbon inlet passage, a water inlet passage and an air inlet passage which when registered with the corresponding intake passages of said valve body permit the entering streams of fuel elements to impinge upon each other within said mixing chamber, and said valve member being further provided at its head with a plurality of spray-ducts radiating from said mixing chamber and adapted to communicate with said outlet passage of said valve body.

2. In a device of the character described, a valve body having an outlet passage and having a hydrocarbon intake passage, a water intake passage, and an air intake passage, a movable valve member slidably arranged within said valve body, said valve member being provided with a mixing chamber having a hydrocarbon inlet passage, a water inlet passage and an air inlet passage which when registered with the corresponding intake passages of said valve body permit the entering streams of fuel elements to impinge upon each other within said mixing chamber, and said valve member being further provided at its head with a plurality of spray ducts radiating from said mixing chamber and adapted to communicate with said outlet passage of said valve body and means connected with said valve body for closing said spray ducts when said valve member is in its closed position.

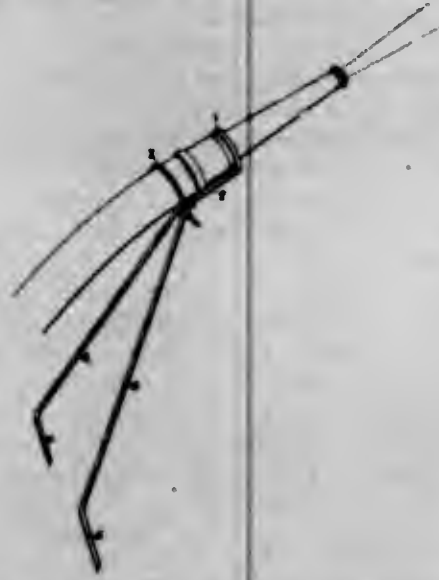
3. In a device of the character described, a valve body having a longitudinal chamber provided with a restricted outlet passage, said valve-body being further provided with a hydrocarbon intake passage, a water intake passage, and an air intake passage, a movable valve member slidably arranged within said longitudinal chamber of said valve body, said valve member having a longitudinally extending mixing chamber, a conical head at one end of said valve-member, a conical seat at the end of said longitudinal chamber of said valve-body adjacent to said restricted outlet thereof, said conical head having a plurality of radially disposed spray-ducts communicating with said mixing chamber of said valve-member, said valve-member being further provided with a hydrocarbon inlet passage, a water inlet passage and an air inlet passage communicating with said mixing chamber and adapted to be registered with said respective intake passages of said valve-body, and means for longitudinally moving said valve-member to register its inlet passages with said intake passages of said valve-body and also to open its spray ducts in communication with said outlet passage of said valve-body.

4. In a device of the character described, a valve body provided with radiating intake passages and an outlet passage, a movable valve-member provided with a mixing chamber having radiating inlet passages adapted to be brought in registration with said intake passages of said valve body, a head formed on said valve-member, a plurality of spray ducts in the head of said valve-member, a seat formed in said valve-body for receiving said head of said valve member so as to close said spray-ducts against communication with said outlet passage of said valve body, and means for slidably reciprocating said valve-member within said valve-body.

1,078,817. HOSE-NOZZLE HOLDER. HERBERT AUSTIN, San Antonio, Tex. Filed Mar. 15, 1913. Serial No. 754,523. (Cl. 248—29.)

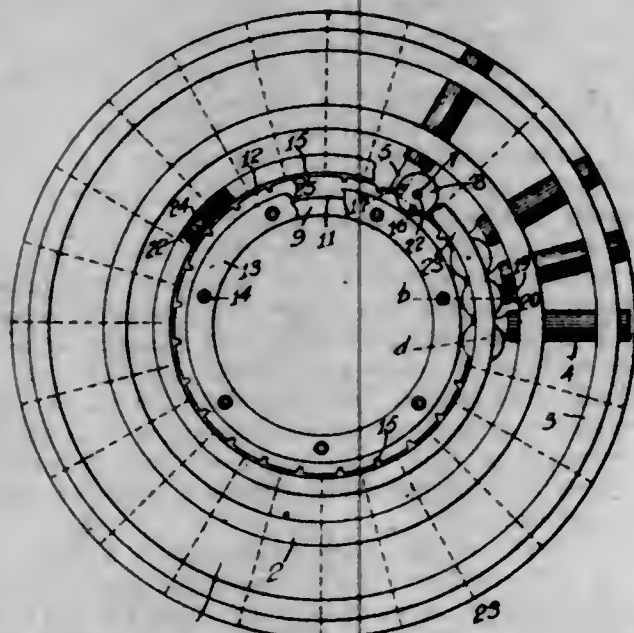
A hose nozzle holder of the character described comprising a body portion with an upright ring at the front end thereof, said ring standing at right angles to the body portion, this body portion adapted at all times to occupy the same position of the nozzle in all its changes of direction, said body portion being provided with an upright ring at the front end for the reception of the nozzle point, a clip at the rear of the body portion for the reception of the hose, or nozzle, and to secure the same therein and two legs angularly divergent backward along the line of the hose, angularly divergent downward and angularly

divergent from each other and from the rear end of the body portion and rigidly fixed thereto, with feet on the



ends of said legs, said feet pointing toward and angularly divergent toward the front of the device.

1,078,818. SAFE-BOLTWORK. CARL BARTELS, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Filed June 20, 1913. Serial No. 774,739. (Cl. 109-3.)



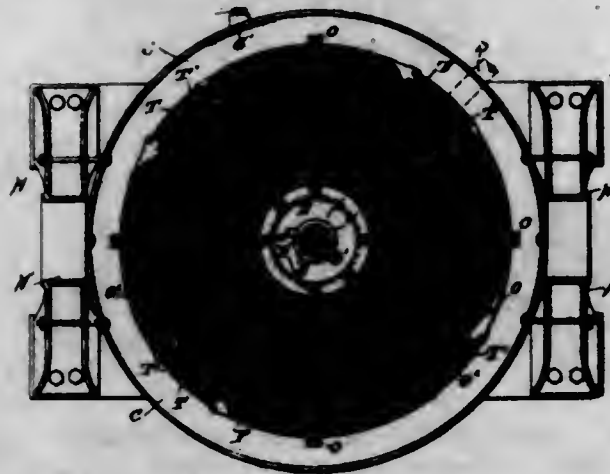
1. Safe bolt-work comprising, a series of studs projecting rearwardly from the door, a buttonhead on the rear end of each stud, a keeper-piece disposed at the rear of the series of studs and having in its front face a buttonhole to engage each stud, a locking device to prevent the shifting of the keeper-piece along the series of studs, and bolt-operating mechanism mounted on said studs, combined substantially as set forth.

2. Safe bolt work comprising, a circular back-plate, bolt-rings concentrically disposed at the rear face of the back-plate, bolts adapted to slide radially through the bolt-rings, a circular actuating member mounted for movement at the rear of the back-plate concentric with the bolt-rings, a circular series of studs projecting rearwardly from the back-plate, mechanism mounted for rotary motion on the studs and operatively connected with the bolts and with the actuating member, a buttonhead on the rear end of each stud, a keeper-ring provided in its front portion with a buttonhole in engagement with each of said buttonheads, and a locking device to prevent the angular motion of the keeper-ring, combined substantially as set forth.

3. Safe bolt-work comprising, a circular back-plate, bolt-rings concentrically disposed at the rear face of the back-plate, bolts adapted to slide radially through the bolt-rings, a circular actuating member mounted for movement at the

rear of the back-plate concentric with the bolt-rings, a circular series of studs projecting rearwardly from the back-plate, mechanism mounted for rotary motion on the studs and operatively connected with the bolts and with the actuating member, a buttonhead on the rear end of each stud, a keeper-ring provided in its front portion with a buttonhole in engagement with each of said buttonheads, and a screw entering the keeper-ring edgewise and having its point in engagement with one of the buttonheads when the buttonheads are in active keeping position in the button-holes, combined substantially as set forth.

1,078,819. CENTRIFUGAL SCREEN AND CLASSIFIER. CHRIST BARTHOLOMAI, Los Angeles, Cal. Filed Nov. 30, 1908, Serial No. 465,029. Renewed Aug. 19, 1913. Serial No. 785,597. (Cl. 83-56.)

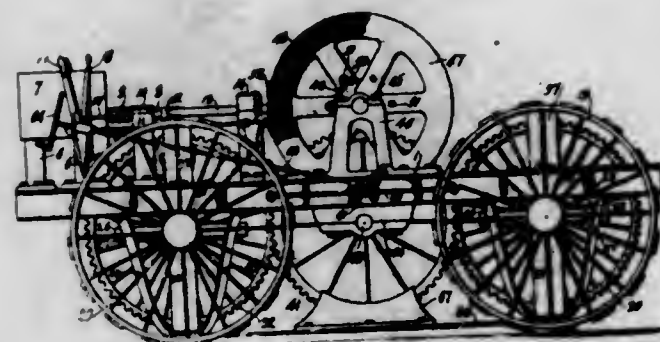


1. A machine of the kind described, comprising a frame, a revolvable shaft mounted vertically on the frame, a hopper, a centrifugal rim carried by the shaft, a screen arranged on said rim, a distributor provided with convolute blades arranged on the screen, said distributor being provided with removable screens at the junction of the ribs with the rim.

2. A machine of the kind described, comprising a hopper, a revolvable screen mounted in the hopper, a distributor arranged over said screen, comprising a plurality of convolute blades, and an outer rim, said rim being provided with removable screen sections at the junction of the ribs with the same.

3. In a machine of the kind described, the combination with a revolvable screen of a distributor arranged on said screen, comprising a central receiving hopper and an outer rim connected with said hopper by convolute blades forming compartments, each compartment being provided with a screen covered outlet, and a plurality of said blades each being provided with a removable gate.

1,078,820. TRACTOR. EDMOND BELLEMAIRE, Peoria, Ill. Filed Sept. 19, 1910. Serial No. 582,756. (Cl. 21-114.)



1. In a tractor, a frame, composed of spaced longitudinal beams having oppositely bent portions adjacent wheel carrying points, conforming substantially to the angles at which the wheels are turned, axles located near the opposite ends of the beams, driving wheels on the ends of the axles, wheel plates carried by the said axles, connected

tions between the beams with which the wheel plates have a pivotal relation, and a common driving means for each axle.

2. In a tractor, a frame, front and rear oscillatory axles, a gear wheel on each axle, a driving gear wheel in mesh with the gear wheels on the axles, a pair of bevel gear wheels adapted to alternately impart power to said driving wheel, a power wheel adapted to be thrown into operative relation with either of said bevel gear wheels, and means for controlling said power wheel.

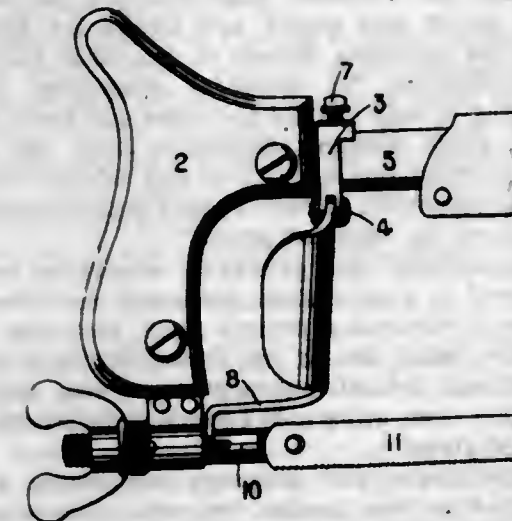
3. In a tractor, a frame, front and rear oscillatory axles, a gear wheel on each axle, a driving gear wheel in mesh with said gear wheels, a pinion in mesh with said driving wheel, a pair of oppositely disposed bevel gear wheels connected to operate in unison with said pinion, and means for alternately operating said bevel gear wheels, for the purpose of driving said driving wheel in reverse directions.

4. In a tractor, a frame, front and rear oscillatory axles, a gear wheel on each axle, a driving gear wheel in mesh with said gear wheels, a pinion in mesh with said driving wheel, a pair of oppositely disposed bevel gear wheels connected to operate in unison with said pinion, a power shaft capable of being oscillated so as to move one end from side to side, and a bevel pinion on the swingable end of said shaft, said pinion adapted to be alternately thrown into mesh with either of said bevel gear wheels.

5. In a tractor, a frame, front and rear pivoted axles, a gear wheel on each axle, said wheels having convex toothed peripheries, an interposed driving gear wheel in mesh with said gear wheels, said driving gear having a concave toothed periphery, reversible gearing for operating said driving gear wheel in opposite directions, and power devices for turning the axles.

(Claims 6 to 8 not printed in the Gazette.)

1,078,821. HAND-GUARD FOR STEEL HACKSAWS. LEONARD CLOUGH BIGGS, Dunedin, New Zealand. Filed July 1, 1913. Serial No. 776,871. (Cl. 145-35.)



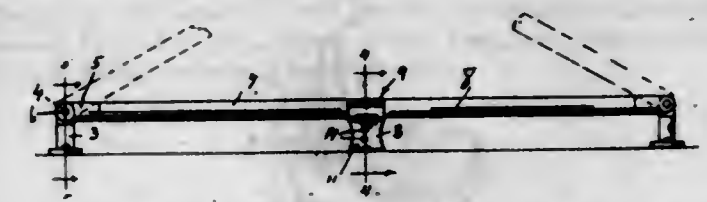
1. A handguard for steel hack saws comprising a shield, means for connecting the top edge of said shield to the saw-back, and means for connecting the bottom edge of said shield to the saw-blade supporting rod.

2. A handguard for steel hack saws comprising a shield, a slotted lug connected to the top edge of said shield and fixed to the saw-back, and a rearward notched extension to the bottom edge of said shield adapted to rest on the saw-blade supporting rod.

3. A handguard for steel hack saws comprising a curved shield, a slotted lug detachably connected to the top edge of said shield by a screw passing through holes in said lug and said shield, said lug embracing and sliding on the saw-back, means for clamping said lug on said saw-back in desired position and a rearwardly extending tongue on the bottom of said shield, having a downwardly turned end, said end being notched and adapted to rest on the saw blade supporting rod.

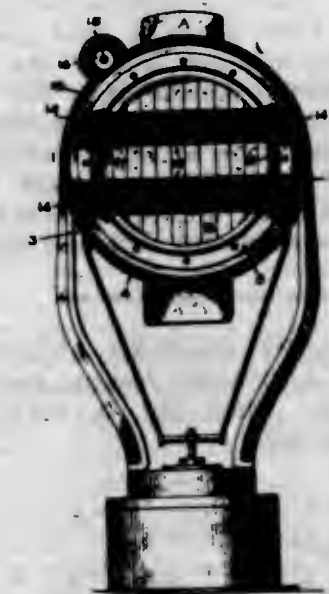
196 O. G.—40

1,078,822. CURTAIN-ROD. CLAUD V. BOND, Los Angeles, Cal. Filed Nov. 9, 1912. Serial No. 730,404. (Cl. 156-22.)



A curtain rod comprising attaching plates, posts extending from the attaching plates, members hinged to the posts, extension pieces connected to the members, and a central bracket; said posts, members and extension pieces being round and of the same diameter and the hinged ends of the posts and members being rounded so that a curtain may slide over the joint, and said extension pieces being adapted to butt together at their meeting ends and said bracket being adapted to support said meeting ends.

1,078,823. METHOD OF AND MEANS FOR GIVING SIGNALS. THOMAS BROADBENT and JAMES MATES, Schenectady, N. Y. Filed Sept. 23, 1912. Serial No. 721,944. (Cl. 240-46.)



1. The combination with a searchlight projector, of means for cutting off the rays of light in certain parallel transverse zones of the beam from said projector, and means for causing a rotation on its axis of the resulting banded beam.

2. The combination with a searchlight projector, of parallel shadow bars placed across its face and means for rotating on its longitudinal axis the banded beam of light thus produced.

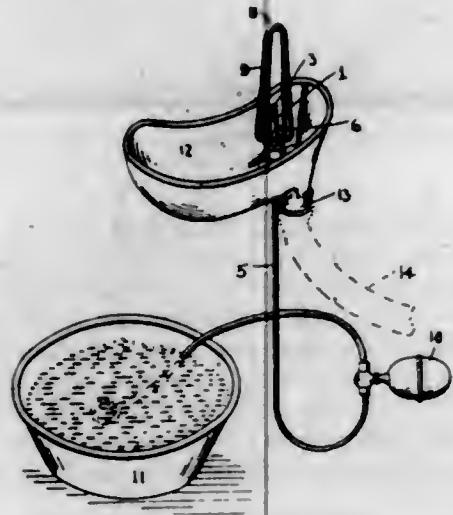
3. The combination with a searchlight projector, of an annular gear supported by the front frame and lying in a plane perpendicular to the axis of the beam of light emitted by said projector, parallel shadow bars secured to said gear and extending across the face of said projector in a plane transverse to said beam of light, and means for revolving said gear and bars in their own plane.

4. The combination with a searchlight projector, of an annular gear supported by the front frame and lying in a plane perpendicular to the axis of the beam of light emitted by said projector, parallel shadow bars detachably secured to said gear and extending across the face of said projector in a plane transverse to said beam of light, and means for revolving said gear and bars in their own plane.

5. The combination with a searchlight projector, of an annular gear supported by the front frame of said projector, posts projecting from said gear, parallel shadow bars detachably secured to said posts, and means for revolving said gear.

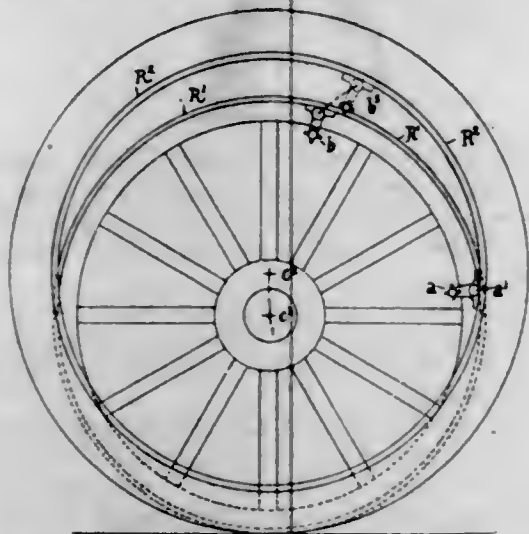
(Claims 6 and 7 not printed in the Gazette.)

1,078,824. VAGINAL SYRINGE. LOUIS SIDNEY BROWER, Black Rock, Ark. Filed Feb. 13, 1913. Serial No. 748,238. (Cl. 128—25.)



A syringe of the character described comprising a nozzle having thereon a radially projecting apertured flange and an enlargement below the latter, a dilator comprising a series of tapered wire loops arranged one within the other and having their inner ends rigidly secured in the apertured flange of the nozzle, a tube receiving enlargement on the outer end of the nozzle, a fluid conducting tube connected with said enlarged end of the nozzle, said nozzle being considerably shorter than the wires of the dilator, a shield adapted to receive said nozzle and dilator and to closely fit the parts to which the syringe is applied whereby the fluid discharged from the parts is caught, a discharge spout formed on said shield and a fluid conducting tube connected with said spout.

1,078,825. AUXILIARY RAISING AND CENTERING VEHICLE-RIM. ALEXANDRE JOSEPH ADOLPHE BRUT, St. Denis, France. Filed Dec. 9, 1912. Serial No. 735,797. (Cl. 152—23.)



1. A device for automatically raising and centering a vehicle wheel, comprising an auxiliary rim, a clamping member mounted on said auxiliary rim having means for engaging the rim of the wheel to be raised at the point where said wheel and auxiliary rims overlap, a supporting member carried by the rim of the wheel to be raised and having means for engaging the auxiliary rim for locking the rims together after the wheel has been centered.

2. A device for raising and centering a vehicle wheel, comprising an auxiliary rim provided with a pivoted member having means for engaging the wheel to be raised at the point where the wheel and auxiliary rims overlap.

3. A device for automatically raising and centering a vehicle wheel, comprising an auxiliary rim provided with an inflated tire, a member carried by said auxiliary rim

and provided with a cheek for engaging the rim of the wheel to be raised.

4. A device for automatically raising and centering a vehicle rim, comprising an auxiliary rim provided with an inflated tire, a member carried by said auxiliary rim and provided with a cheek for engaging the rim of the wheel to be raised, and means carried by the rim of the wheel to be raised for locking said rim to said auxiliary rim.

5. A device for automatically raising and centering a vehicle wheel, comprising an auxiliary rim provided with a clamping member having a bearing therein, a rod mounted to slide in said bearing and provided on one end with a cheek for engaging the rim of the wheel to be raised, the other end of said rod being threaded, and a tightening nut engaged with the threaded end of said rod for drawing said cheek into engagement with said wheel rim.

1,078,826. GARMENT ATTACHMENT. JACKSON W. BRUTON, Guthrie, Mo. Filed Mar. 12, 1912. Serial No. 683,309. (Cl. 2—151.)



1. An attachment for garments comprising an outer plate having a longitudinally extending holding socket and adapted to bear externally of a garment, an inner plate adapted to bear against the inner side of a garment, a fastening device including a U-shaped wire body at its intermediate portion engaging said socket and with the end portions extending through the plates, and means for detachably securing the end portions of the inner plate.

2. An attachment for garments comprising coacting plates adapted to bear against the outer and inner sides of a garment, fastening devices extending through said plates, means for yieldably engaging said fastening devices with one of said plates, and means for detachably connecting the fastening devices to the other plate.

3. An attachment for garments comprising coacting plates adapted to bear against the outer and inner sides of a garment, guide members extending from one of said plates and through the other plate and guiding the same, and a spring connected to each of said guide members and bearing against the adjacent plate.

4. An attachment for garments comprising coacting plates adapted to bear against the outer and inner sides of a garment, fastening devices each including a coil spring bearing upon one of the plates and with one terminal of the coil extending through the plates, and means for detachably connecting said extending terminals to the other of said plates.

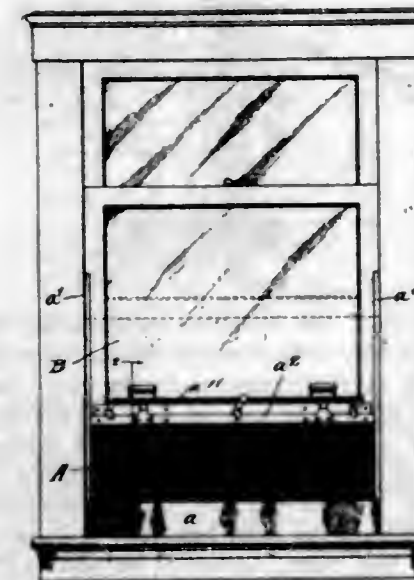
5. An attachment for garments comprising coacting plates adapted to bear against the outer and inner sides of a garment, guide members extending from one of the plates and slidable through the other plate, a coil spring connected by its outer helix to each of said guide members and bearing by its inner helix against the adjacent plates.

[Claim 6 not printed in the Gazette.]

1,078,827. WINDOW-SCREEN. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Jan. 25, 1912. Serial No. 673,387. (Cl. 156—39.)

1. In combination with a window sash, a screen, means for connecting the screen with the sash, mechanism on the sash for removably locking the screen in place, said means comprising a strip of compressible material on the sash, a series of projections along said strip, and a strip on the screen for engaging said compressible strip, provided with openings for said projections.

2. In combination with a window sash, a screen, means for connecting the screen with the sash, mechanism on the sash for removably locking the screen in place, said means comprising a strip of compressible material on the sash, a series of projections along said strip, and a strip on the screen for engaging said compressible strip, provided with openings for said projections, said mechanism comprising devices on the sash for compressing the two strips together to make a tight joint and keep the projections in the openings.



3. In combination with a window sash, a screen, means for connecting the screen with the sash, and mechanism on the sash for removably locking the screen in place on said means, non-yieldingly held in locking engagement therewith, a metal strip by which said mechanism is removably mounted on the sash.

4. In combination with a window sash, a screen, means for connecting the screen with the sash, mechanism on the sash for removably locking the screen in place, including a metal strip by which said mechanism is removably mounted on the sash, and means for making a tight joint held in place by said strip.

5. In combination with a window sash, a screen, means for connecting the screen with the sash, mechanism on the sash for removably locking the screen in place, said means comprising studs on the sash, and a strip on the screen provided with openings for said studs, the said mechanism comprising levers pivoted on the sash and adapted to move over the said strip.

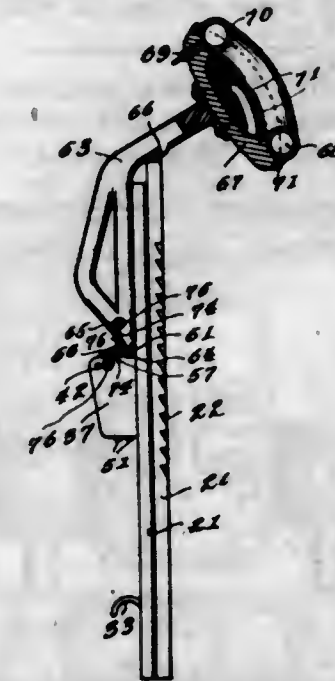
[Claims 6 to 16 not printed in the Gazette.]

1,078,828. BARBER'S-CHAIR HEAD-REST. HENRY E. CAMPBELL, Bridgewater, Iowa. Filed Apr. 18, 1911. Serial No. 621,753. (Cl. 155—10.)

1. The combination with the grooved back of a barber's chair, of a runner having a rack slidably held within said groove, a resilient detent within said groove arranged for co-action with said rack, said runner having a lengthwise running slot with a bolt socket, a plate slidably held within said slot having a bolt head, a spring actuated bolt slidably secured to said head for co-action with said bolt socket, a trip carried by said head and connected to said bolt, a bracket pivotally secured to said head, a spring to normally force said bracket in one direction, a head rest secured to said bracket, said bracket arranged at times to contact with said trip, and a spring actuated pawl carried by said runner, said pawl in one position engaging said bracket, as and for the purpose set forth.

2. The combination with the grooved back of a barber's chair, of a runner having a rack slidably held within said groove, a resilient detent within said groove arranged for co-action with said rack, flanges to secure said runner, said runner having a bolt socket between said flanges, a plate slidably held between said flanges having a bolt head, a bolt slidably held to said bolt head for co-action with said bolt socket, a spring to normally force said bolt out-

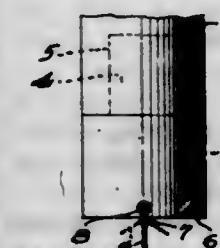
ward, a trip carried by said head and connected to said bolt, a bracket pivotally secured to said head, a spring to normally force the bracket in one direction, a head rest secured to said bracket, said bracket arranged at times to contact with said trip, and a spring actuated pawl carried by said runner to engage said bracket.



3. The combination with the grooved back of a barber's chair, of a runner having a rack slidably held within said groove, a resilient detent within said groove arranged for co-action with said rack, flanges secured lengthwise to said runner, a plate slidably held below said flanges having a bolt head, a bolt slidably secured to said head arranged for contact with the bottom of said back groove, a spring to normally force said bolt outward, a trip carried by said bolt head, a trunnion secured to said bolt head, a curved head rest carrying bracket pivotally secured to said bolt head having a trunnion, a spring secured to said trunnions to normally force said bracket in one direction, said bracket contacting at times with said trip, and means to latch said bracket to said runner.

4. The combination with the grooved back of a barber's chair, of a runner slidably held within the groove of said back, a resilient detent within said groove arranged for co-action with said rack said runner having lengthwise running flanges with a bolt socket between said flanges, a plate slidably held below said flanges with a bolt head, the said bolt head having a groove within its outer edge, a trip pivotally held within said groove, a spring actuated bolt secured to said head, said trip being connected to said bolt, a bracket pivotally secured to said bolt head, a spring interposed between said bracket and bolt head to force said bracket in one direction, and a pawl to latch said bracket to said runner, said runner and bracket being adapted to be carried below the upper edge of said grooved back, said bolt arranged at times to engage within said bolt socket.

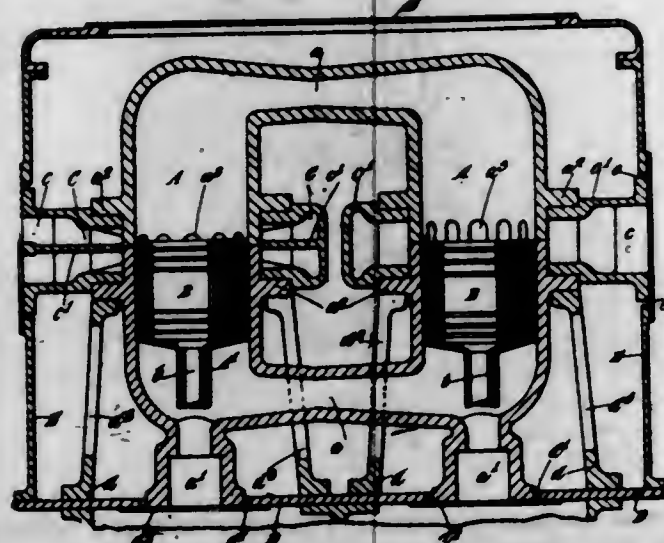
1,078,829. DIE FOR FORMING DENTAL BACKINGS. DELOS H. CARPENTER, Minneapolis, Minn. Filed Apr. 29, 1913. Serial No. 764,325. (Cl. 113—39.)



1. A one-piece die member comprising a head having a flat die face provided with a slot extending transversely thereof in said face and an aligning groove, substantially circular in cross-section, communicating with said slot, said slot and groove having open ends.

2. A one-piece die member comprising a head having a die face and a groove, substantially circular in cross section, extending across the face of the die from side to side and open at each end, said die also having a slot in its face provided with substantially parallel side walls and communicating with said groove and also open at each end, said slot and groove aligning one with the other.

1,078,830. FLUID-PRESSURE ENGINE. ALAN ERNEST LEOFRIC CHORLTON, Manchester, England. Filed June 25, 1912. Serial No. 705,690. (Cl. 123-193.)



1. A fluid pressure engine with two communicating cylinders side by side, comprising two U-shaped single walled tubes each constituting one half of both cylinders and also a connecting passage, and means for connecting the said U-tubes together at their edges.

2. In a fluid pressure engine with two communicating cylinders side by side, two U-shaped single walled tubes, an annular flange set back from each end of both tubes, means for connecting the said U-tubes together by their flanges to form the two cylinders and connecting passages, and annular inlet and exhaust boxes in the channels formed by the said flanges.

3. In a fluid pressure engine with two communicating cylinders side by side, two U-shaped single walled tubes, an annular flange set back from each end of both tubes, means for connecting the said U tubes together by their flanges to form the two cylinders and connecting passages, and annular inlet and exhaust boxes in the channels formed by the said flanges, the inlet box having a horizontal partition separating the said box into air and fuel admission chambers.

4. A fluid pressure engine with two communicating cylinders side by side, comprising two U-shaped single walled tubes each constituting one half of both cylinders and also a connecting passage, means for connecting the said U tubes together at their edges, and a removable inclosing tank.

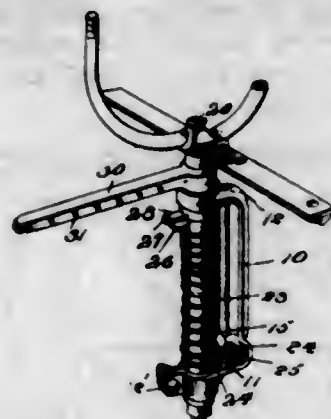
5. A fluid pressure engine with two communicating cylinders side by side, comprising two U-shaped single walled tubes each constituting one half of both cylinders and also a connecting passage, means for connecting the said U tubes together at their edges, a tank, and means for supporting the cylinders removably within the tank at about the middle of the cylinders.

[Claims 6 to 8 not printed in the Gazette.]

1,078,831. ADJUSTABLE LAMP-BRACKET FOR AUTOMOBILES. EDWARD C. CLAPP, York, N. Y. Filed Oct. 25, 1912. Serial No. 727,814. (Cl. 240-62.)

1. A lamp bracket for vehicles comprising a member secured to the vehicle, said member being formed with extensions disposed at right angles to its body portion, an adjustable clamp carried by one of said extensions, a bearing embraced by said clamp, a standard supported for rotation by said extensions, a spring embracing the standard intermediate the extensions, one terminal of the

spring being connected to said bearing, a collar mounted on the standard, the other terminal of said spring being connected to the collar, and an operative connection between said standard and the steering mechanism of the vehicle, said standard constituting a lamp support.



2. A lamp bracket for vehicles comprising a member secured to the vehicle, said member being formed with extensions disposed at right angles to its body portion, an adjustable clamp carried by one of said extensions, a bearing embraced by said clamp, a standard supported for rotation by said extensions, a spring embracing the standard intermediate the extensions, one terminal of the spring being connected to said bearing, a collar mounted on the standard, the other terminal of said spring being connected to the collar, an operative connection between said standard and the steering mechanism of the vehicle, said standard constituting a lamp support, and means for regulating the degree of movement of the standard.

3. A lamp bracket for vehicles comprising a member secured to the vehicle, said member being formed with extensions disposed at right angles to its body portion, an adjustable clamp carried by one of said extensions, a bearing embraced by said clamp, a standard supported for rotation by said extensions, a spring embracing the standard intermediate the extensions, one terminal of said spring being connected to said bearing, a collar mounted on the standard, the other terminal of said spring being connected to the collar, and an arm mounted on the standard and having an adjustable connection with the steering mechanism of the vehicle, whereby the degree of movement of the standard may be regulated.

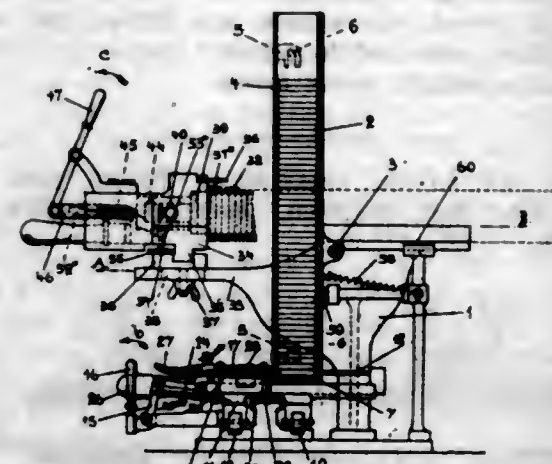
4. A lamp bracket for vehicles comprising a member supported by the vehicle, said member being formed with extensions disposed in vertical alignment, a bearing adjustably mounted in one of said extensions, a standard supported for rotation by said extension, said standard passing through said bearing and projecting through the other extension, a spring embracing said standard, one terminal of said spring being connected to said bearing, the other terminal of said spring being connected to the standard, the standard constituting a lamp support, and an operative connection between said standard and the steering mechanism of the vehicle.

5. A lamp bracket for vehicles comprising a member supported by the vehicle, said member being formed with extensions, disposed in vertical alignment, a bearing adjustably mounted in one of said extensions, a standard supported for rotation by said extension, said standard passing through said bearing and projecting through the other extension, a spring embracing said standard, one terminal of said spring being connected to said bearing, the other terminal of said spring being connected to the standard, the standard constituting a lamp support, and an adjustable connection between said standard and the steering mechanism of the vehicle.

1,078,832. TYPE SETTING AND DISTRIBUTING MACHINE. CARL COLLIN, Offenbach-on-the-Main, Germany. Filed Apr. 1, 1912. Serial No. 687,814. (Cl. 101-130.)

1. In a type setting and distributing machine, the combination of a transversely movable carriage for setting

type, a transversely movable carriage for distributing type and a movable type magazine having a plurality of type channels in the same plane adapted to be positioned so as to cooperate with either of said carriages as desired.



2. In a type setting and distributing machine, the combination of a carriage transversely movable for setting type, a carriage transversely movable for distributing type and a movable rectangular type magazine pivotally mounted on an axis parallel to the paths of movement of said carriages and adapted to be moved into cooperative relation with either of said carriages.

3. In a type setting and distributing machine, the combination of a carriage for setting type, a carriage for distributing type, a type magazine provided with a plurality of type channels and pivots adapting said magazine to be turned about an axis extending transversely of said channels for bringing said magazine into cooperative relation with either of said carriages.

4. In a type setting and distributing machine, the combination of a carriage for setting type, a carriage for distributing type, a type magazine provided with a plurality of type channels, and pivots adapting said magazine to be turned about an axis extending transversely of said channels, whereby said magazine may be turned so that said channels stand in a vertical position to cooperate with said type setting carriage, or in an approximately horizontal position to cooperate with said distributing carriage.

5. In a type setting and distributing machine, the combination of a transversely movable carriage for setting type, a transversely movable carriage for distributing type, a movable type magazine having a plurality of type channels in the same plane adapted to be positioned so as to cooperate with either of said carriages and means adapted to hold said magazine in either position.

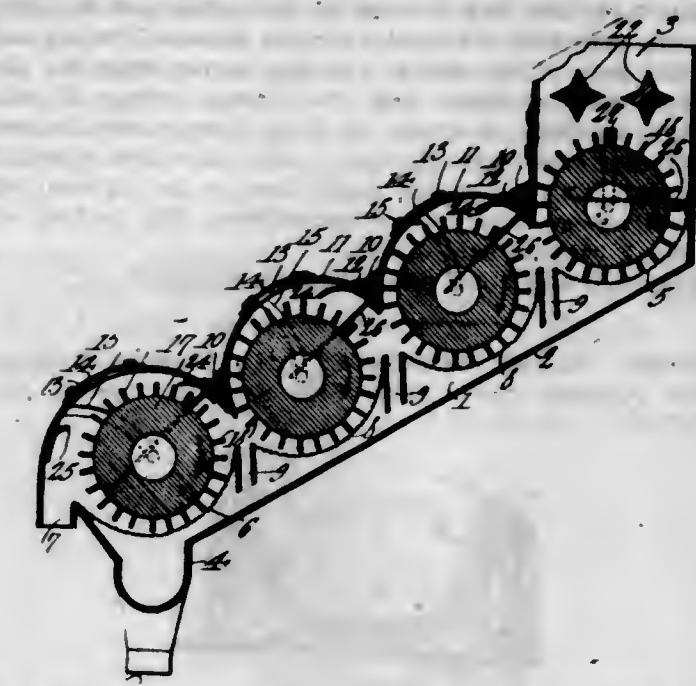
[Claims 6 to 16 not printed in the Gazette.]

1,078,833. MACHINE FOR CLEANING AND FEEDING COTTON. CAS W. COOK, Mathis, Tex. Filed Sept. 28, 1912. Serial No. 722,905. (Cl. 13-12.)

1. A cotton cleaner and feeder including a casing having a trough at one end and a bottom inclined downwardly to the trough, there being a cotton outlet adjacent the trough, concave screens located above the inclined bottom and the trough, there being outlet passages between the screens and discharging onto the inclined bottom, toothed drums mounted for rotation above the screens, curved deflectors overhanging portions of the respective drums, and a cotton retarding element supported above the outlet for engaging cotton upon one of the drums.

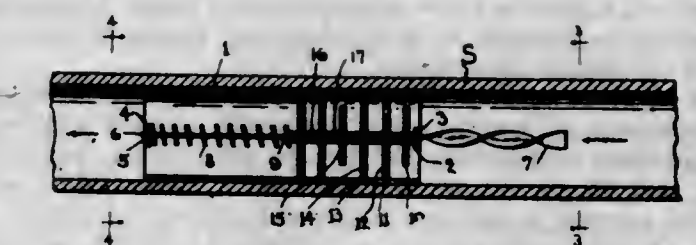
2. A cotton cleaner and feeder including a casing having a trough at one end and a bottom inclined downwardly to the trough, there being a cotton outlet adjacent the trough, concave screens located above the inclined bottom and the trough, there being outlet passages between the screens and discharging onto the inclined bottom, toothed drums mounted for rotation above the screens, curved deflectors overhanging portions of the respective

drums, a cotton retarding element supported above the outlet for engaging cotton upon one of the drums, and a closure upon the casing and above each drum, said closures being separably movable.



closure upon the casing and above each drum, said closures being separably movable.

1,078,834. GASEOUS-FUEL MIXER. THOMAS COOK, Indiana, Pa. Filed Feb. 27, 1913. Serial No. 751,036. (Cl. 48-180.)



1. A mixer for the purpose set forth consisting of a tubular casing through which passes the fluid to be mixed, a shank movably disposed along the axis of said casing, yielding means bearing it normally toward the inlet of the fluid, means for imparting rotation to the shank when moved in either direction, and agitating devices carried by said shank.

2. A mixer for the purpose set forth consisting of a tubular casing through which passes the fluid to be mixed, a shank movably disposed longitudinally in said casing, yielding means for bearing it normally toward the inlet of the fluid and simultaneously imparting rotation to it, a group of disks disposed upon said shank and provided with holes of various sizes, imperforate spreaders also strung upon the shank and forming part of said group, and spacing collars fast around the shank between the various disks.

3. In a mixer of the class described, the combination with a tubular casing having bridges across its extremities, one pierced with a slot and the other with a hole; of a shank having a pin at one end movably mounted within said hole and a twist at the other end movably engaging said slot, and agitating devices carried by said shank between its pin end and its twist end.

4. In a mixer of the class described, the combination with a tubular casing having bridges across its extremities, one pierced with a slot and the other with a hole; of a shank having a pin at one end movably mounted within said hole and a twist at the other end movably engaging said slot, a shoulder formed between the pin end and the body of said shank, a spring surrounding the pin between said shoulder and the bridge having the hole through its body, and an agitator mounted on the shank between its pin end and its twisted end.

5. In a mixer of the class described, the combination with a tubular casing having bridges across its extremi-

ties, one pierced with a slot and the other with a hole; of a shank having a pin at one end movably mounted within said hole and a twist at the other end movably engaging said slot, a shoulder formed between the pin end and the body of the shank, a spring surrounding the pin between said shoulder and the bridge having a hole through its body, a group of disks having perforations of different sizes through their bodies and slots through their centers strung on the shank between its pin end and its twisted end, and collars surrounding this portion of the shank between said disks.

[Claims 6 and 7 not printed in the Gazette.]

1,078,835. FLUME CONSTRUCTION. CHARLES V. CRAIG, Los Angeles, Cal. Filed Feb. 8, 1913. Serial No. 747,088. (Cl. 61—5.)



1. A flume construction comprising a flume, a flexible suspension means connected to said flume, and supports for said suspension means.

2. A flume construction, comprising a flume having sides, a flexible suspension means connected to said sides, and means to adjustably support said flexible suspension means.

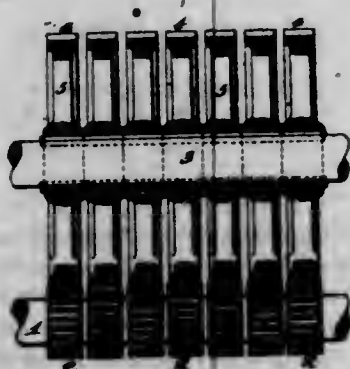
3. A flume construction, comprising a flume formed of concrete, a flexible cable supporting said flume, adjustable connections secured to said cable, and means to support said adjustable connections.

4. A flume construction, comprising a metallic webbing, a plurality of flexible cables connected to said webbing, supporting connections secured to said cables, supports for said supporting connections, and a cementitious material secured to said webbing and inclosing the same.

5. A flume construction, comprising a metallic netting, a pair of flexible cables, means to connect said netting to said cables, supporting rods secured to said cables, supports for said supporting rods, and a cementitious material secured to said netting and cables and inclosing the same.

[Claim 6 not printed in the Gazette.]

1,078,836. GEARING. CHARLES G. CURTIS, New York, N. Y. Filed Nov. 23, 1909. Serial No. 529,512. (Cl. 74—7.)



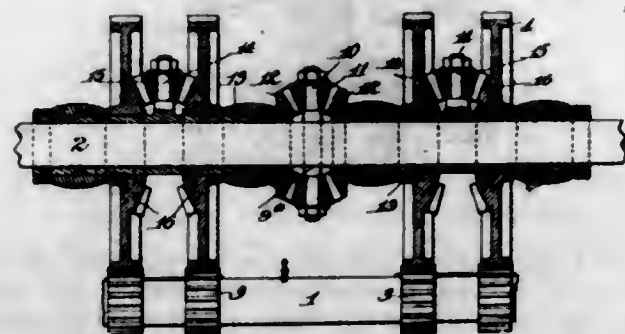
1. In a gearing for transmitting heavy loads, the combination with two shafts, of several pairs of intermeshing tooth gears mounted on such shafts and transmitting motion from one shaft to the other, there being embodied in the construction unchecked elastic means permitting the relative circumferential self-adjustment of the several pairs of gears to distribute the load and having sufficient strength to carry the load, substantially as set forth.

2. In a gearing for transmitting heavy loads, the combination of a number of intermeshing tooth gears, the teeth of which are supported by elastic means yielding in the direction of the stress, substantially as set forth.

3. In a gearing for transmitting heavy loads, the combination of a number of intermeshing tooth gears, a sufficient number of such gears having yielding elastic spokes to distribute the load, substantially as set forth.

4. In a gearing for transmitting heavy loads and for reducing speed, the combination of a number of driving pinions and driven gear wheels, said driven gear wheels being provided with yielding elastic spokes to distribute the load, substantially as set forth.

1,078,837. GEARING. CHARLES G. CURTIS, New York, N. Y. Filed Nov. 23, 1909. Serial No. 529,513. (Cl. 74—34.)



1. In a gearing for transmitting heavy loads, the combination with two shafts, of four or more pairs of intermeshing tooth gears mounted on said shafts and transmitting motion from one shaft to the other and means enabling relative circumferential self-adjustment of the several pairs of gears to distribute the load, substantially as set forth.

2. In a gearing for transmitting heavy loads, the combination with two shafts, of four or more pairs of intermeshing tooth gears transmitting motion from one shaft to the other and equalizing devices enabling relative circumferential self-adjustment of the several pairs of gears to distribute the load, substantially as set forth.

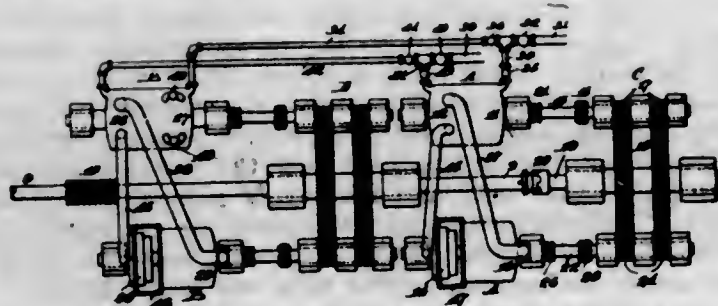
3. The combination with two shafts, multiple gears on each shaft meshing with the gears on the other shaft, and an equalizing device on each shaft enabling relative circumferential self-adjustment of the gears to distribute the load, substantially as set forth.

4. The combination of eight or more pairs of gears and two shafts connected by said gears in multiple, of means for substantially equalizing the load between the several pairs of gears, substantially as set forth.

5. The combination with a shaft, of four gears mounted loosely thereon, primary equalizers connecting adjoining gears, a secondary equalizer connecting the primary equalizers and means for connecting the secondary equalizers with the shaft, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,078,838. STEAM PRIME MOVER FOR MARINE PROPULSION. CHARLES G. CURTIS, New York, N. Y. Filed Mar. 27, 1912. Serial No. 686,510. (Cl. 121—58.)



1. In a steam prime mover for marine propulsion, the combination with a propeller shaft, of a plurality of sets of high and low pressure steam turbine elements connected with said shaft by speed-reducing gearing involving a separate pinion for each of the turbine elements, and steam connections producing a parallel steam flow through said turbine sets, substantially as set forth.

2. In a steam prime mover for marine propulsion, the combination with a propeller shaft, of a plurality of sets of high and low pressure steam turbine elements connected with said shaft by speed-reducing gearing involving a separate pinion for each of the turbine elements, and means for uncoupling one or more of the turbine sets from the propeller shaft, substantially as set forth.

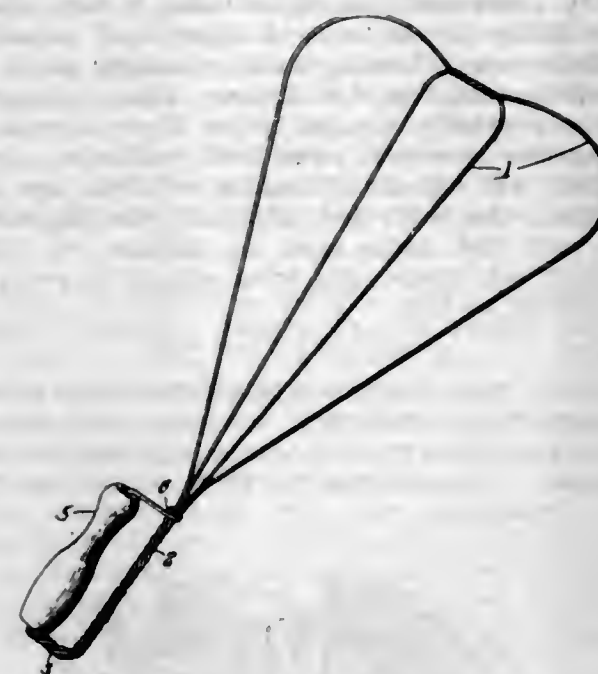
3. In a steam prime mover for marine propulsion, the combination with a propeller shaft, of two sets of high and low pressure steam turbine elements connected with said shaft by speed-reducing gearing involving a separate pinion for each turbine element, steam connections producing a parallel steam flow through the two turbine sets and means for uncoupling one of the turbine sets from the propeller shaft, substantially as set forth.

4. In a steam prime mover for marine propulsion, the combination with a propeller shaft, of a plurality of speed-reducing gears, each consisting of a gear wheel and a plurality of pinions, and a plurality of steam elements connected with the separate pinions of each speed-reducing gear, substantially as set forth.

5. In a steam prime mover for marine propulsion, the combination with a propeller shaft, of a plurality of sets of high and low pressure steam turbine elements, and separate speed-reducing gears connecting the turbine elements of each set with the shaft, involving a separate pinion for each turbine element, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,078,839. CARPET-BEATER. ELMER L. DENNIS, Rockford, Ill., assignor to Andrews Wire & Iron Works, Rockford, Ill., a Corporation of Illinois. Filed Mar. 18, 1913. Serial No. 755,160. (Cl. 15—8.)



1. A carpet beater comprising a beater wing formed of wire, ends of the wire being twisted to form a shank, the shank bent upon itself to form an offset support which is parallelly opposite the shank portion, a handle mounted upon said offset, and one of the ends of said wire extending through the handle and being fastened to the shank body, and a remaining end terminating within the handle body and being fixedly secured therewith.

2. A carpet beater comprising a beater wing formed of intertwined wires, the ends of the wires being twisted to form a shank lying in the same plane with said beater wing, the shank being bent upon itself to form an offset handle-support, a handle mounted upon the handle-support, and one of the wires extending through the handle being bent toward the shank and fastened fixedly thereto, the remaining wire ends terminating within the handle body and being fixedly secured therewith.

3. A carpet beater comprising a beater wing formed of intertwined wires, ends of the wires being joined and twisted into a shank portion, the shank portion being bent upon itself and forming an offset handle-support parallel

with the shank portion, a handle having a longitudinal opening extending from its rear end to a point within the handle body, said twisted handle-support located in said opening with certain of its wire ends extending beyond said terminating point of the opening and being fixedly engaged in the handle body, and means connecting the forward end of the handle and the twisted shank portion to hold said forward end in a fixed relation therewith.

1,078,840. COMBINED FRICTION AND POSITIVE CLUTCH. HENRY DRUSCHEL, Columbia, Pa. Filed Aug. 6, 1912. Serial No. 713,521. (Cl. 192—4.)



1. In a clutch of the character described, the combination with a shaft, a pulley mounted to turn loosely on the shaft, and having openings therein, a fixed ring on the pulley concentric with the shaft, a collar keyed to the shaft, perforated lugs on the collar, an integral web on the collar, a split ring fixed to the web and located within the first-mentioned ring, levers pivoted between their ends to the ends of said split ring, a member movable longitudinally on the shaft, means on said member adapted to spread the free ends of the levers apart, and expand the split ring when said movable member is moved toward the pulley, and pins on said movable member adapted to be projected through the perforated lugs and into the openings in the pulley, substantially as described.

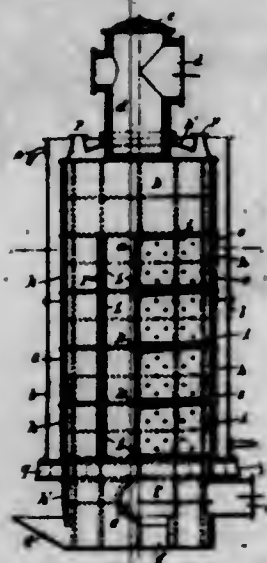
2. In a clutch of the character described, the combination with a shaft, a pulley mounted to turn loosely on the shaft and having openings therein, a fixed ring on the pulley concentric with the shaft, a collar keyed to the shaft, perforated lugs on the collar, an integral web on the collar, a split ring fixed to the web and located within the first-mentioned ring, levers pivoted between their ends to the ends of said split ring, a member movable longitudinally on the shaft, and a double wedge fixed to said member and movable between the free ends of the levers, whereby the split ring is expanded into frictional engagement with the first-mentioned ring, and pins on said movable member projected through the perforated lugs and into the openings in the pulley when said movable member is moved toward the pulley, substantially as described.

3. A clutch of the character described, comprising a rotary member having a circular series of openings therein, a collar having a circular series of openings therein, a longitudinally movable sleeve, pins carried by the sleeve and adapted to be projected through both of said series of openings to positively lock the rotary member and the collar together, a ring on the rotary member, a split ring inside of the ring on the rotary member, frictioned segments on the outer face of the split ring, levers connected to the ends of the split ring, and a double wedge fixed to the sleeve and adapted to move between the levers to expand the split sleeve and permit the same to contract, substantially as described.

4. A clutch of the character described, comprising a rotary member having a circular series of openings therein, a collar having a circular series of openings therein, a

longitudinally movable sleeve, pins carried by the sleeve and adapted to be projected through both of said series of openings to positively lock the rotary member and the collar together, a ring on the rotary member, a split ring inside of the ring on the rotary member, frictioned segments on the outer face of the split ring, levers connected to the ends of the split ring, and a double wedge fixed to the sleeve and adapted to move between the levers to expand the split ring and permit the same to contract, said double wedge having pointed ends, and a restricted intermediate portion, and the levers having cut out portions receiving the double wedge when the pins are projected through both series of openings, substantially as described.

1,078,841. GAS-COOLER. GEORG ESCHHELLMANN and ALBERT HARMUTH, St. Petersburg, Russia, assignors to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Aug. 29, 1911. Serial No. 646,613. (Cl. 23-1.)



1. A cooling apparatus comprising superposed sections, each section comprising an outer casing and hollow partitions walls within said casing and dividing the latter into a plurality of separated compartments, the compartments of each section being in communication with the corresponding compartments of adjoining sections and the hollow portions of said partition walls being in communication with the exterior of the casing.

2. A cooling apparatus comprising a gas conducting tower having partitions each partition being composed of lead and comprising walls and cross stays extending between said walls to hold them in separated relation, the space between said walls being in communication with the exterior of the tower.

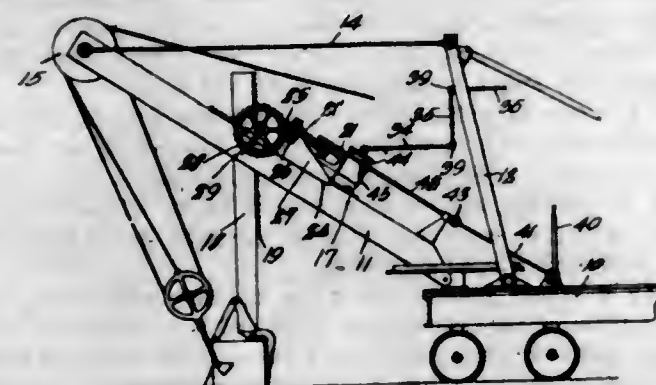
3. A cooling apparatus comprising a vessel, a cooling jacket therefor and a hollow plate within said vessel, the hollow portion of said plate being in communication with said jacket and the upper wall of said hollow portion being inclined upwardly outward.

4. A cooling apparatus comprising a gas-conducting tower having partitions comprising a series of hollow cooling blocks and a cooling jacket surrounding said tower and being in communication with the hollows of said partition blocks.

1,078,842. EXCAVATOR. JESSE L. FAIRBANKS, Marion, Ohio. Filed Aug. 24, 1911. Serial No. 645,721. (Cl. 37-16.)

1. An excavator including a boom, a rack thereon, a dipper arm, a rack upon the arm, a carriage slidable longitudinally along the boom, a gear supported on the carriage and meshing with the boom rack, a gear on the carriage and meshing with the arm rack to support the arm, said gears being revoluble together about a common axis to simultaneously raise or lower the arm and actuate the carriage, and power driven means movable with the carriage for actuating the gears.

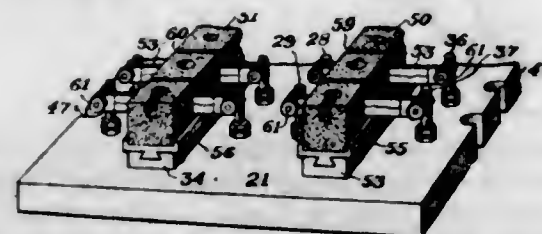
2. An excavator including a boom, a rack thereon, a dipper arm, a rack upon the arm, a carriage slidable longitudinally along the boom, a gear supported on the carriage and meshing with the boom rack, a gear on the carriage and meshing with the arm rack to support the arm, said gears being revoluble together about a common axis to simultaneously raise or lower the arm and actuate the carriage, means engaging the shaft and slidably engaged by the arm for holding the arm rack in mesh with its gear, and power driven means movable with the carriage for actuating the gears.



3. An excavator including a boom, racks thereon, a carriage slidably engaging the racks, a dipper arm, racks thereon, a shaft journaled on the carriage, gears upon the shaft and meshing with the constituting pivots for the arm racks, means extending between the arm racks and their gears and engaging the shaft for holding the racks and gears in mesh, gears upon the shaft and meshing with the boom racks, and power driven means upon the carriage for actuating all of the gears simultaneously.

4. An excavator including a boom, a rack extending longitudinally of the boom, a dipper arm, a rack upon the dipper arm, a carriage slidably mounted on the boom, a shaft journaled on the carriage, means engaging the shaft and slidably engaged by the arm for holding the arm against movement away from the shaft, a gear on the shaft and constantly meshing with the arm rack, a gear upon the shaft and constantly meshing with the boom rack, and means upon the carriage for actuating the shaft, said dipper arm being adapted to swing about the shaft as an axis.

1,078,843. PROTECTED-CABLE-TERMINAL BOX FOR TELEPHONE SYSTEMS. THOMAS BENJAMIN FARMER, Baltimore, Md. Filed Nov. 22, 1909. Serial No. 529,499. Renewed Feb. 19, 1913. Serial No. 749,532. (Cl. 175-215.)



1. In a protective device, a plurality of terminals in opposed pairs, a carbon ground strip extending between opposite terminals of the respective pairs and rising above the plane of their heads, and inclosed fuse links connecting the pairs through slots in the carbon strip, each inclosure fitting tightly in its slot, and provided with small central openings to form air gaps between the fuse wire and the carbon faces, whereby abnormal line potentials may be discharged, but destructive arcing between the terminals is prevented, substantially as described.

2. A protective device comprising a pair of terminals with an insulating base, a carbon block between the terminals in position to intercept all direct lines of arcing, a transverse slot in said block, and connecting means between the terminals comprising a flat mica inclosure adapted to fit closely within the slot in the carbon block, conducting caps on the inclosure, and a fuse wire with-

in the same connecting the caps, said inclosure being provided with an opening of circumscribed area intermediate of its ends to expose the fuse wire in contiguity to but out of contact with the carbon block, substantially as described.

1,078,844. ARTIFICIAL TOOTH. EVERETT B. FEWELL, Madison, Ind. Filed Oct. 26, 1912. Serial No. 727,907. (Cl. 32-9.)



1. An artificial tooth having a metal backing, provided with a depression having a recessed portion at one end, a detachable facing for the backing having an abutment for fitting the recessed portion and held against movement in one direction thereby, and means for engaging the backing and facing to lock the facing to the backing.

2. An artificial tooth having a metal backing provided with a depression having a recessed upper portion and an inclined lower portion forming a biting end, a sheet of metal lining the depression and adjacent face of the backing, a facing having an abutment for fitting co-extensively upon the lining, and coacting means carried by the lining and facing for locking the facing to the backing.

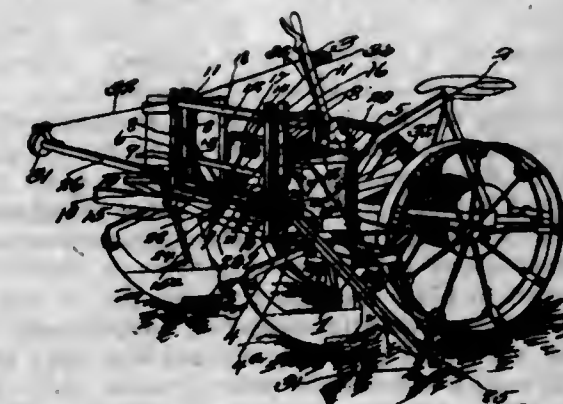
3. An artificial tooth having a metal backing provided with a depression having a recessed upper portion and an inclined lower portion forming a biting end, a sheet of metal lining the depression and adjacent face of the backing, a facing having an abutment for fitting co-extensively upon the lining, a sleeve carried by the lining and engaging a portion of the biting end of the backing, said facing being provided with a socket for the reception of the sleeve, and a pin insertible through the sleeve into the socket for securing the facing to the lining and backing.

1,078,845. ARTIFICIAL STONE AND PROCESS OF MAKING SAME. ALBERT FRAASS, Berlin, Germany. Filed Mar. 23, 1911. Serial No. 616,302. (Cl. 106-29.)

1. The process of making artificial stone which consists in mixing asbestos and talc with magnesium chloride, forming an emulsion by adding an oleaginous substance, adding a filler to this emulsion and then adding burnt magnesite.

2. An artificial stone comprising a coherent, homogeneous mass composed of asbestos, talc, a filling substance and an oleaginous substance, thoroughly saturated with basic magnesium chloride, the particles of all of these ingredients being firmly bound and thoroughly mixed together.

1,078,846. SHIFTING GUIDE FOR CORN-PLANTERS. WILLIAM J. GOSNAY, Elizabeth, Ill. Filed July 26, 1913. Serial No. 781,309. (Cl. 111-24.)



1. In combination with a corn planter frame including an operating lever, a supplemental frame carried by the corn planter frame having oppositely arranged guides,

anti-frictional rollers in said guide, a shiftable guide bar engaging said rollers, said shiftable guide bar comprising an intermediate section and two end sections pivoted to the intermediate section, either of said end sections adapted to engage the soil, by which the corn planter may be guided with relation to a mark in the soil, and connections between the end sections and the operating lever, whereby as the operating lever is manipulated to raise the corn planter one or the other of the end sections is correspondingly raised.

2. In combination with a corn planter frame including an operating lever, a supplemental frame carried by the corn planter frame having oppositely arranged guides, anti-frictional rollers in said guide, a shiftable guide bar engaging said rollers, said shiftable guide bar comprising an intermediate section and two end sections pivoted to the intermediate section, either of said end sections adapted to engage the soil, by which the corn planter may be guided with relation to a mark in the soil, and connections between the end sections and the operating lever, whereby as the operating lever is manipulated to raise the corn planter one or the other of the end sections is correspondingly raised, said supplemental frame having swivelly mounted pulleys at its upper end with which said connections engage, said supplemental frame having a supporting bar, and an arm carried by the intermediate section of the sectional guide bar supported upon the supporting bar for shifting the sectional guide bar.

1,078,847. GRAIN-SAMPLER. WILHELM GRAUENFELS and JOSEF H. GRAUENFELS, Bucharest, Roumania, and DAVID GRAUENFELS, Brassó, Austria-Hungary. Filed Oct. 30, 1911. Serial No. 657,611. (Cl. 83-15.)

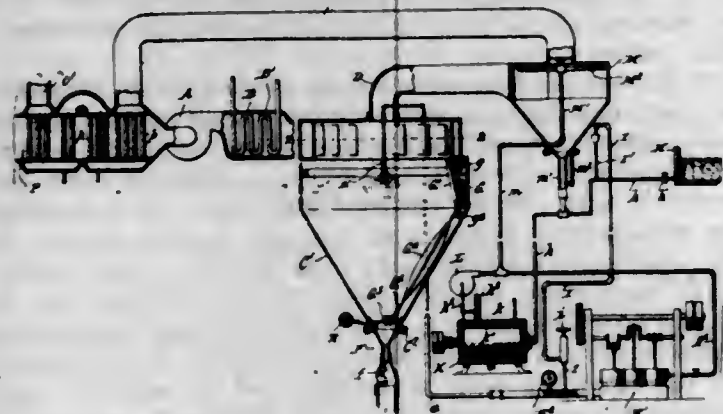


A grain sampler formed of end and intermediate inner and outer sections rotatable upon each other and having registering openings therein, said inner sections having transverse partitions with inclined upper faces, coupling means for detachably connecting the adjacent ends of said sections, means for rotating said inner and outer sections relative to each other, and means for locking said inner and outer sections in fixed position relative to each other.

1,078,848. APPARATUS FOR DESICCATING LIQUIDS. CHESTER E. GRAY, Eureka, and AAGE JENSEN, Oakland, Cal. Filed Dec. 27, 1911. Serial No. 668,182. (Cl. 99-5.)

1. An apparatus for recovering the constituent solids of liquids, embodying a desiccating chamber having a converging bottom with a discharge therein for desiccated material, means for introducing heated air tangentially into said chamber and withdrawing the same centrally, whereby cyclonic currents are set up in the chamber, and means for atomizing the liquid into the chamber at a point remote from its side walls and in proximity to the air exit.

2. An apparatus for removing the constituent solids of liquids, embodying a desiccating chamber, means for introducing heated air tangentially into said chamber and withdrawing the same centrally, whereby cyclonic currents of air are set up in the chamber, and means for atomizing the liquid into the vortex in proximity to and in a direction away from the air exit from the chamber.



3. An apparatus for recovering the constituent solids of liquids, embodying a desiccating chamber having side walls converging toward the bottom, means for introducing heated air tangentially into the upper portion of said chamber and for withdrawing the air centrally from the upper portion of the chamber, whereby cyclonic currents are set up in the chamber, a discharge duct for the collected solid material at the bottom of the chamber, and a downwardly directed atomizing nozzle located in the upper portion of the chamber at a point remote from the walls of the chamber, whereby the atomized material is forced to traverse the air currents before coming in contact with the walls of the chamber.

4. An apparatus for recovering the constituent solids of liquids, embodying a desiccating chamber having a circularly disposed air duct at its upper end with tangentially arranged air inlet openings between said duct and chamber, means for forcing heated air into said duct and chamber whereby cyclonic currents are set up in the chamber, an air discharge duct arranged centrally of the upper portion of the chamber, a discharge duct for the solid matter at the bottom of the chamber, and means for atomizing liquid into the upper portion of the chamber.

5. An apparatus for recovering the constituent solids of liquids, embodying a desiccating chamber having tangentially arranged air inlets and a centrally arranged air discharge at the top and a discharge for the solid matter at the bottom, an air heating means in communication with the tangential air inlets, an atomizing nozzle within the chamber below the air discharge and remote from the side walls of the chamber, and movable means within the chamber for dislodging accumulations of material on the walls.

[Claims 6 to 12 not printed in the Gazette.]

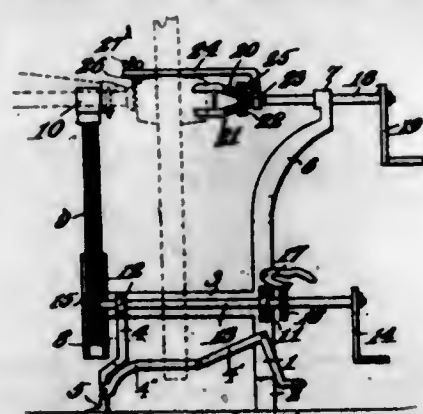
1,078,849. HEEL-TRIMMER. RUPERT L. GREENLEAF, Brockton, Mass., assignor of one-half to Frank A. Carlson, Brockton, Mass. Filed Jan. 2, 1913. Serial No. 739,842. (Cl. 12—88.)



The combination with a shield, and an edge cutter, of a rand cutter interposed between the said edge cutter and the shield and having spaced spurs bearing against the shield, the edge of the rand cutter between the said spurs being spaced from the edge of the shield, and the lower face of the rand cutter being concave to provide a clear-

ance space between the same and the shield and means for clamping the rand cutter between the shield and the edge cutter.

1,078,850. COMBINED JACK AND WRENCH. ROBERT HENRY GREGORY, Cleburne, Tex. Filed Jan. 11, 1913. Serial No. 741,600. (Cl. 57—15.)



1. In a wheel removing device the combination of a frame, means mounted thereon for raising a carriage wheel axle, a shaft journaled to the upper extremity of the frame, means secured to the shaft whereby the same may be manually rotated, nut engaging means mounted at the remote end of said shaft adapted to engage the nut of a carriage wheel axle for the removal thereof, a horizontal rod pivotally and slidably supported at the upper extremity of the frame and adapted to extend through the spokes of a carriage wheel, and a clamp secured to the remote end of said horizontal rod adapted to engage a wagon wheel hub, to hold the same in a suspended condition.

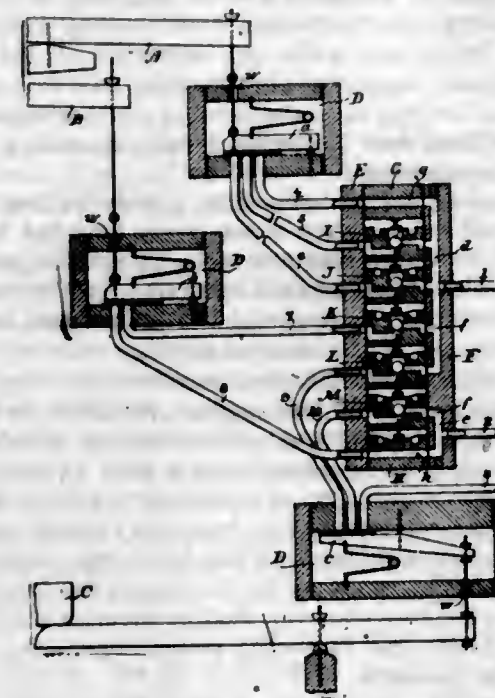
2. In a wheel removing device, the combination of a frame, means mounted thereon for raising a carriage wheel axle, a shaft journaled to the upper extremity of said frame, a crank handle mounted at one end of said shaft, a nut engaging means mounted at the other end thereof, a collar slidably mounted upon said shaft, a horizontal rod pivotally secured to said collar, said rod provided with an aperture at the outer end thereof, a latch extending through said aperture and adapted to engage a wagon wheel hub.

3. In a device of the class described, a frame comprising a vertical member with outstanding feet, a cross bar extending therefrom, a leg pivotally secured to the outer end of said cross bar and forming the third support for said frame, means for maintaining said pivoted leg in a raised position, said cross bar adapted to be inserted through the spokes of a wheel with the said pivoted leg in a raised position, means for lowering the said leg, a shaft mounted at the upper end of said vertical member, a crank handle carried by said shaft, a collar rotatably and slidably mounted upon said shaft, an L-shaped rod pivoted to said collar, said rod adapted to extend through the wheel spokes and to engage the inner portion of the wheel hub, to thereby maintain the wheel in a suspended position when removed from its axle spindle.

1,078,851. ORGAN-COUPLER. WILLIAM E. HASKELL, Brattleboro, Vt., assignor to Estey Organ Company, Brattleboro, Vt., a Corporation of Vermont. Filed Sept. 9, 1911. Serial No. 648,555. (Cl. 84—126.)

1. A coupling bar for organs having, in combination, a recessed coupling channel extending along the upper face thereof with depressed grooves along both sides of its central raised bottom; a plurality of valve chambers; an air-tight fabric glued upon the raised central bottom of said channel above said valve-chambers; a flexible diaphragm glued in place and covering the top of said coupling channel; a laterally extending stop-passage communicating with said coupling channel and open at one face of the bar; a reduced air passage below each of said valve chambers supplying a valve-seat; a steel ball check-valve located in each of said valve chambers and fitting said valve seat; a plunger opening and air vent extending from

each air passage in line with its valve to the lower face of the bar; a duct extending from each air passage and open at one side of the bar; and a second duct extending from each of said valve chambers and open at the other side of said bar, each of said ducts having an enlarged mouth at the side of the bar.



2. A coupling bar for organs having, in combination, a coupling channel extending along the upper face thereof; a plurality of valve chambers; an air-tight fabric at the bottom of said channel above said valve-chambers; a flexible diaphragm covering the top of said coupling channel; a laterally extending stop-passage communicating with said coupling channel and open at one face of the bar; a reduced air passage below each of said valve chambers supplying a valve-seat; a check-valve located in each of said valve chambers and fitting said valve seat; a plunger opening and air vent extending from each air passage in line with its valve to the lower face of the bar; a duct extending from each air passage and open at one side of the bar; and a second duct extending from each of said valve chambers and open at the other side of said bar.

3. A coupling bar for organs having, in combination, a coupling channel extending along the upper face thereof; a plurality of valve chambers; an air-tight fabric at the bottom of said channel above said valve-chambers; a flexible diaphragm covering the top of said coupling channel; a stop-passage communicating with said coupling channel; a reduced air passage below each of said valve chambers supplying a valve-seat; a check-valve located in each of said valve chambers and fitting said valve seat; and ducts extending from each air passage and from each valve chamber.

4. A coupling bar for organs having, in combination, a plurality of valve chambers; a check-valve located in each of said valve chambers; a duct extending from below each valve and open at one side of the bar; and a second duct extending from above each valve and open at the other side of said bar, each of said ducts having an enlarged mouth at the side of the bar.

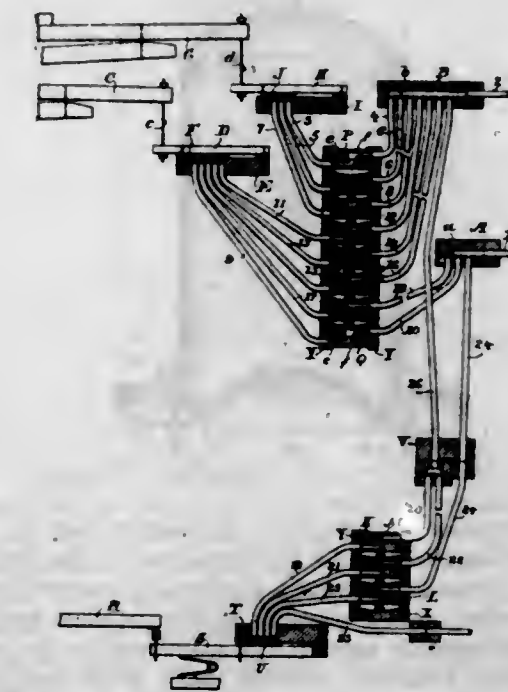
5. A coupling bar for organs having, in combination, a recessed coupling channel extending along the upper face thereof with depressed grooves along both sides of its central raised bottom; a plurality of valve chambers; an air-tight fabric upon the raised central bottom of said channel above said valve-chambers; and a flexible diaphragm covering the top of said coupling channel; and a stop-passage communicating with said coupling channel.

[Claims 6 to 29 not printed in the Gazette.]

1,078,852. ORGAN-COUPLER. WILLIAM E. HASKELL, Brattleboro, Vt., assignor to Estey Organ Company, Brattleboro, Vt., a Corporation of Vermont. Filed Sept. 29, 1911. Serial No. 651,943. (Cl. 84—126.)

1. A structural element or unit for an organ coupler, comprising two lengthwise extending rails fastened to-

gether, the lower rail having lateral ducts extending from its outer face to the middle of said rail, a vertical valve-seat passage communicating with the inner end of said duct and extending to the upper surface of said lower rail, and forming a valve seat at said surface, and a hole at the bottom of said rail communicating with said passage for the reception of a mechanical actuator; the upper of said rails having lateral ducts extending from one outer side face to the middle thereof, valve chambers at the middle communicating with said lateral ducts and open at the bottom surface of said rail above said valve-seat passages in the lower rail, a longitudinally extending channel in the top surface of said upper rail, and a stop port communicating with said channel; ball valves located in said respective valve chambers; and a flexible diaphragm covering said stop channel and adapted to control the ball actuators of a similar element located above.



2. A structural element or unit for an organ coupler, comprising two lengthwise extending rails fastened together, the lower rail having lateral ducts extending from its outer face to its middle, a vertical valve-seat passage communicating with the inner end of said duct and extending to the upper surface of said lower rail and forming a valve seat at said surface, and a hole at the bottom of said rail communicating with said passage for the reception of a mechanical actuator; the upper of said rails having lateral ducts extending from one outer side face to the middle thereof, valve chambers at the middle communicating with said lateral ducts and open at the bottom surface of said rail above said valve-seat passages in the lower rail, a longitudinally extending channel in the top surface of said upper rail, and a stop port communicating with said channel at its bottom; steel ball valves located in said respective valve chambers; and a flexible diaphragm covering said stop channel and adapted to control the ball actuators of a similar element located above.

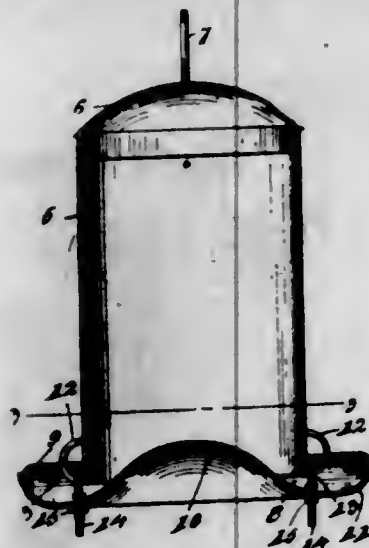
3. A structural element or unit for an organ coupler, comprising two lengthwise extending rails fastened together, each rail having ducts, and the ducts of the two rails communicating with each other at the meeting faces of the rails and there forming valve-chambers and valve seats, a longitudinally extending channel in the outer surface of one of said rails, a stop-port communicating with said channel, valves located in said valve chambers, and a flexible diaphragm covering said stop channel and adapted to control the valve actuators of a similar element located above.

4. An organ coupler having sounding channels each normally closed by a check-valve and containing air under pressure, and stop-controlled means to move said check-valves to remove them from their seats so as to open said channels, in combination with key-controlled valves also normally closing said sounding channels and adapted when opened to vent said channels to the atmosphere.

5. An organ coupler having sounding channels, each normally closed by a check valve and containing air under pressure, and stop-controlled means to move said check valves to remove them from their seats so as to open said channels, in combination with means also normally closing said sounding channels and adapted when moved to vent said channels to the atmosphere, and a direct sounding channel in its action wholly independent of the sounding channels of the coupler.

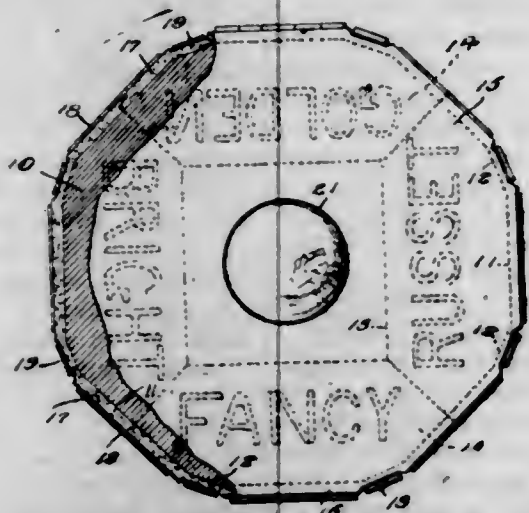
[Claim 6 not printed in the Gazette.]

1,078,853. POULTRY-FEEDER. GEORGE WASHINGTON HEATH, Stonington, Conn. Filed Nov. 23, 1912. Serial No. 733,157. (Cl. 119-53.)



A poultry feeder comprising a hopper open at one end, a plate arranged beneath the open end of the hopper and having a central upwardly projecting portion extending into the same, loops secured to the hopper wall at diametrically opposite points and adjacent to its open end, bolts loosely disposed through said plate and provided with eyes upon one of their ends engaged upon said loops, and nuts threaded upon said bolts to secure said plate in an adjusted position with relation to the lower open end of the hopper.

1,078,854. STAMPING DEVICE. DON J. HIGGINBOTHAM, Rialto, Fla. Filed Jan. 2, 1913. Serial No. 739,784. (Cl. 101-58.)



1. A stamping device comprising a body having an encompassing channel, an endless member of flexible material engaging in said channel and having printing characters thereon, clamping members bearing over the flexible member between the printing characters, and fastening devices operating through the clamping members.

2. A stamping device comprising a body having an encompassing channel formed into a plurality of relatively long flat faces and relatively short connecting flat faces, an endless member of flexible material engaging in said channel and having printing characters thereon opposite

the longer flat faces, clamping members bearing over the flexible member opposite the short flat faces, and fastening devices operating through the clamping members.

3. A stamping device comprising a body having an encompassing channel formed into a plurality of relatively long flat faces and relatively short connecting flat faces, an endless member of flexible material engaging in said channel and having printing characters thereon opposite the longer flat faces and with the material of the endless member reduced opposite the shorter flat faces, clamping members bearing over the flexible member opposite the reduced portions, and fastening devices operating through the clamping members.

4. A stamping device comprising a body having its margin formed into a plurality of relatively long flat faces and relatively short connecting flat faces, an endless member of flexible material engaging said flat faces and having printing characters thereon opposite the longer flat faces and with the material of the endless member reduced opposite the shorter flat faces, clamping members bearing over the flexible member opposite the reduced portions, and fastening devices operating through the clamping members.

5. A stamping device comprising a body having its margin formed into a plurality of relatively long flat faces and relatively short connecting flat faces, an endless member of flexible material engaging said flat faces and having printing characters thereon opposite the longer flat faces, clamping members bearing over the flexible member opposite the shorter flat faces, and fastening devices operating through the clamping members.

1,078,855. SAW-SETTING MACHINE. WILLIAM JOHN HOLMES, Toronto, Ontario, Canada. Filed Nov. 25, 1912. Serial No. 733,314. (Cl. 76-58.)



1. In a saw setting machine, the combination with the saw holding mechanism, of means for feeding the saw tooth by tooth through such holding means comprising a drive shaft, a disk carried by said shaft, a horizontally movable frame having a projection thereon, horizontal rollers carried by said disk adapted to strike against said projection and move said frame, means for returning said frame to its normal position, a spring pressed pawl carried by said frame adapted to engage the teeth on said saw, and means for automatically setting each tooth in alternate directions, as and for the purpose specified.

2. In a saw setting machine, the combination with a saw holding device, of means for feeding the saw tooth by tooth through the saw holding device, a vertically movable setting plunger, and means for imparting vertical movement thereto to set the saw teeth in alternate directions comprising a slotted end on said setting means, a drive shaft, a disk carried by said shaft, a boss on the inner face of said disk, a pin extending eccentrically from said boss, and a roller carried by said pin, adapted to move in the slotted end of said setting means, as and for the purpose specified.

3. In a saw setting machine, the combination with the saw holding device, of means for feeding the saw tooth by tooth through the saw holding device, a vertically movable setting device designed to set each tooth in alternate directions, and means for operating such setting device comprising a slotted end on said setting means, a drive shaft, a disk carried by said shaft, a boss on the inner face of said disk, a pin extending eccentrically from said boss and a roller carried by said pin, adapted to move in the slotted end of said setting means, as and for the purpose specified.

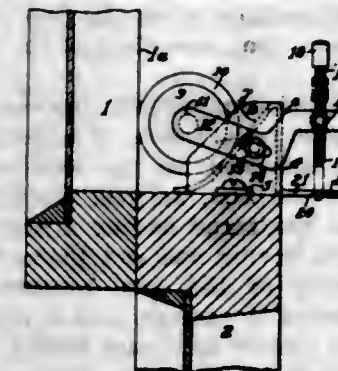
4. In a saw setting device, the combination with the main frame, of a holding device comprising a horizontally

divided arm extending above and below the saw and designed to grip the upper and lower surface thereof, means for feeding the saw tooth by tooth between the gripping portions of the arm, vertically operated means for setting the teeth and means for operating such setting means comprising a slotted end on said setting means, a drive shaft, a disk carried by said shaft, a boss on the inner face of said disk, a pin extending eccentrically from said boss, and a roller carried by said pin, adapted to move in the slotted end of said setting means, as and for the purpose specified.

5. In a saw setting device, the combination with the main frame, of a holding device comprising a horizontally divided arm extending above and below the saw and designed to grip the upper and lower surfaces thereof, means for feeding the saw tooth by tooth between the gripping portions of the arm, a vertically movable reciprocating plunger having tooth setting faces designed to be brought alternately into engagement with each alternate tooth to set them in opposite direction, and means for imparting vertical reciprocating movement to the plunger comprising a slotted end on said setting means, a drive shaft, a disk carried by said shaft, a boss on the inner face of said disk, a pin extending eccentrically from said boss, and a roller carried by said pin, adapted to move in the slotted end of said setting means, as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,078,856. SASH-HOLDER. JOHN HOLTZMAN, New York, N. Y., assignor of one-half to Julius Sarg, New York, N. Y. Filed May 13, 1913. Serial No. 767,278. (Cl. 16-54.)



1. In a window sash holder, the combination with a base on one of the sashes, and a roller adaptable to cooperate with said base to prevent relative movement of the sashes, of a lever for releasing said roller, a nut pivoted to said lever, a screw threading through said nut, a fixed member having an opening and a tapped opening, said screw adaptable to engage said opening to maintain said lever to hold the roller in locked position, and said screw adaptable to thread within said tapped opening to maintain said lever to hold the roller in inoperative position.

2. In a window sash holder, the combination with a base on one of the sashes, and a roller adaptable to cooperate with said base to prevent relative movement of the sashes, of means to positively maintain said roller locked in inoperative state.

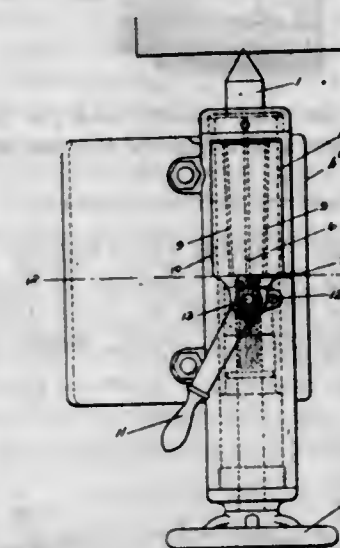
3. In a window sash holder, the combination with a base on one of the sashes, and a roller adaptable to cooperate with said base to prevent relative movement of the sashes, of a lever for releasing said roller, a nut pivoted to said lever, a screw threading through said nut, a fixed member having an opening, and said screw adaptable to engage said opening to maintain said lever set to hold the roller in locked position.

4. In a window sash holder, the combination with a base on one of the sashes, and a roller adaptable to cooperate with said base to prevent relative movement of the sashes, of a lever for releasing said roller, a nut pivoted to said lever, a screw threading through said nut, a fixed member having a tapped opening, and said screw adaptable to thread within said opening to lock said lever to maintain the roller set in inoperative position.

5. In a window sash holder, the combination with a base on one of the sashes, and a roller adaptable to cooperate with said base to prevent relative movement of the sashes, of a lever for releasing said roller, a nut pivoted to said lever, a screw threading said nut, a fixed member, and said screw adaptable to engage said member to maintain said lever set to hold the roller in locked position.

[Claims 6 to 13 not printed in the Gazette.]

1,078,857. TAIL-FOOT FOR LATHES. BYRON D. JACKSON, Erie, Pa., assignor to Modern Tool Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 7, 1912. Serial No. 730,098. (Cl. 82-31.)



1. In a tail-foot for lathes, the combination of a spindle; a spindle carrying bearing split longitudinally and having lugs along the line of separation, said lugs forming a longitudinally extending wedge; a clamp plate arranged over the lugs having wedge surfaces engaging the wedge surfaces on the lugs; means for forcing the clamp plate longitudinally; and means for moving the spindle longitudinally.

2. In a tail-foot for lathes, the combination of a spindle; a spindle carrying bearing split longitudinally and having dove-tail lugs along the line of separation, said dove-tail lugs forming a longitudinally extending wedge; a clamp plate arranged over the lugs having wedge surfaces engaging the wedge surfaces on the lugs; means for forcing the clamp plate longitudinally; and means for moving the spindle longitudinally.

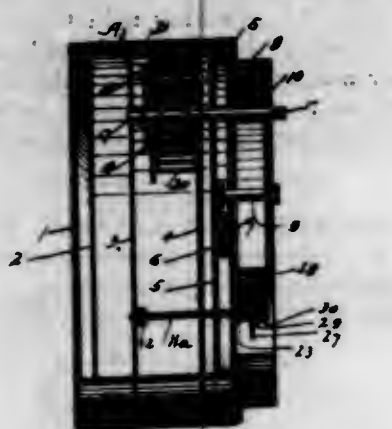
3. In a tail-foot for lathes, the combination of a spindle; a spindle carrying bearing split longitudinally and having lugs along the line of separation; said lugs forming a longitudinally extending wedge; a clamp plate arranged over the lugs having wedge surfaces engaging the wedge surfaces on the lugs; and a lever pivotally mounted on the spindle carrying bearing for operating the clamp plate.

4. In a tail-foot for lathes, the combination of a spindle; a spindle carrying bearing split longitudinally through a part of its surface and having a transverse slot extending from the longitudinal separation, said bearing being provided with lugs extending along the line of separation, said lugs forming a longitudinally extending wedge; a clamp plate arranged over the lugs having wedge surfaces engaging the wedge surfaces on the lugs; means for forcing the clamp plate longitudinally; and means for moving the spindle longitudinally.

1,078,858. ALARM-CLOCK. GEORGE KERN, Peru, Ill., assignor to Western Clock Co., La Salle, Ill., a Corporation of Illinois. Filed Oct. 21, 1912. Serial No. 726,978. (Cl. 58-16.)

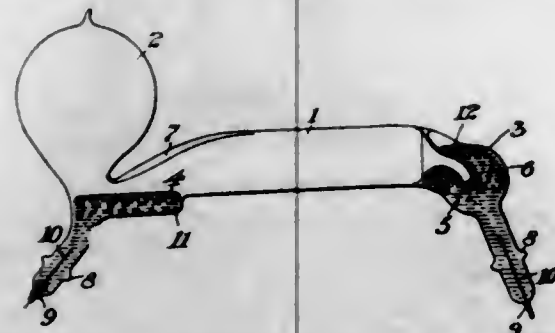
An alarm clock including a cylindrical shell, an alarm actuating mechanism therein, and a back thereto, a flat bottomed, resonant, cup shaped shell affixed to said bottom, concentrically therewith, a similar smaller resonant shell within said first named shell, and arranged eccen-

trically therewith, a hammer shaft actuated by said alarm mechanism, said shaft extending into said first named



shell between its inner wall thereof and the outer wall of said smaller shell, and a hammer on the end of said shaft.

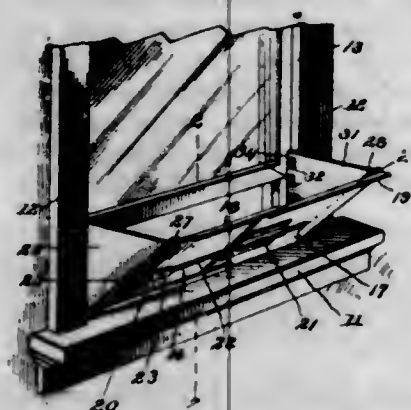
1,078,859. MERCURY-VAPOR APPARATUS. FREDERICK G. KEYES, Boston, Mass., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Feb. 11, 1913. Serial No. 747,587. (Cl. 176-42.)



1. A vapor electric apparatus comprising a tubular portion, an anode of mercury at one end thereof, a condensing chamber in the neighborhood of and draining into said anode, a cathode at the other end of said tubular portion, a cooling chamber at said cathode and a funnel shaped diaphragm between said cathode chamber and said tubular portion, said funnel shaped piece having its small end dipping under the surface of said cathode.

2. In a vapor electric apparatus having a plurality of liquid electrodes, means for maintaining the normal quantity of electrode material at an electrode, said means comprising a funnel shaped diaphragm traversed by the normal current flow, an active electrode surface within said funnel shaped diaphragm and means for producing a graduated rise of temperature along said funnel shaped diaphragm.

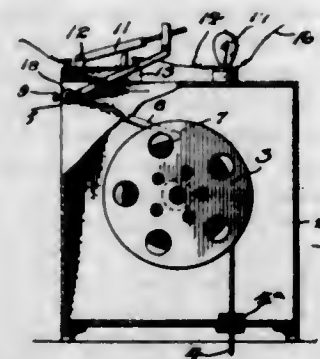
1,078,860. WINDOW-VENTILATOR. JOSEPH S. KINKEAD, Traer, Iowa. Filed Dec. 28, 1911. Serial No. 668,221. (Cl. 98-31.)



In a device of the class described, body members slidably disposed with respect to each other, said members having their upper edges offset and disposed to overlap

whereby the members are guided in their sliding movement, the lower edge of one of the members being turned over to embrace the lower edge of the other member, a housing mounted upon one of said members at its transverse center, a rod connected at one end to the other member and slidably engaging in said housing, end members hingedly connected respectively to said body members, and means for coupling said end members to a window.

1,078,861. FILM-SIGNAL FOR MOVING-PICTURE MACHINES. ARTHUR F. KOCH, Decatur, Ill. Filed Sept. 5, 1912. Serial No. 718,770. (Cl. 242-57.)



1. In a moving picture apparatus, the combination with a magazine and a film reel mounted therein, of a shaft entering the magazine, an arm on the shaft, the free end of said arm resting upon the film on the reel, an arm projecting from the exterior end of the shaft, a signal, a switch in normally open circuit with said signal, said arm on the exterior end of the shaft engaging said switch to move it to a closed position when the film contacting arm moves inward upon the unreeling of a predetermined amount of the film.

2. In a moving picture apparatus, the combination with a magazine and a film reel therein, of a shaft entering the magazine, an arm mounted on the shaft and having a roller resting upon the film, an arm projecting from the exterior end of the shaft and having a slotted extremity, an electrical switch having one end thereof connected to the slotted extremity of the arm, contacts with which said switch is adapted to engage, and a signal connected in a normally open circuit with said switch and contacts.

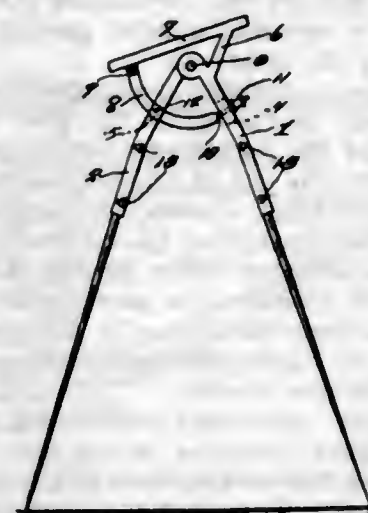
3. In a moving picture apparatus, the combination with a magazine and a film reel therein, of a shaft entering the magazine, an arm mounted on the shaft and having a roller resting upon the film, an arm projecting from the exterior end of the shaft and having a slotted extremity, an electrical switch having one end thereof connected to the slotted extremity of the arm, contacts with which said switch is adapted to engage, and a signal connected in a normally open circuit with said switch and contacts, said arm on the exterior of the shaft being adjustable with relation to the shaft.

4. In a moving picture apparatus the combination with a film reel, of an arm pivotally supported at one end and at its other end resting upon the film, a circuit closing device operatively connected to said arm and moving therewith, an electric signal and circuit therefor, the circuit closing device being adapted to close the circuit through the signal upon a predetermined movement of the free end of the arm toward the axis of the film reel.

1,078,862. COMBINATION COMPASSES AND MARKING-GAGE. NELSON L. KUNKEL, Utica, N. Y. Filed Feb. 18, 1913. Serial No. 749,095. (Cl. 33-42.)

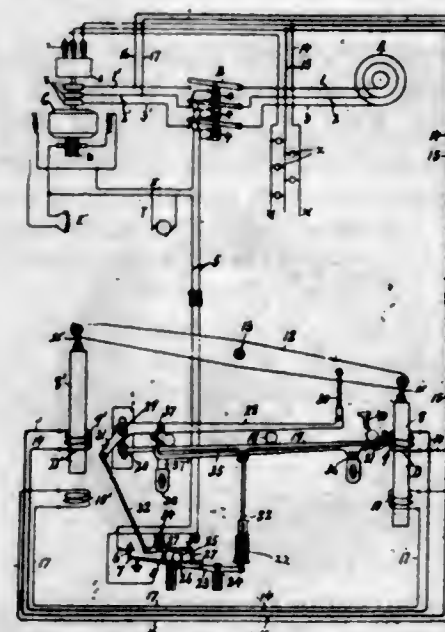
1. In combination with a rule, a pair of callipers comprising a pair of legs pivotally connected and provided with opposing lugs between which said rule is arranged, and connections between said legs including means whereby the legs are held in such positions as to clamp the lugs against the rule, said connections including a bar adapted to slide against a strip of lumber, and said rule extending transversely over said bar, whereby said strip of lumber may be marked.

2. In combination with a rule, a pair of callipers comprising a pair of legs pivotally connected and provided with opposing lugs, between which said rule is adapted to be clamped, said callipers having a bar adapted to slide



against the edge of a piece of lumber, and said rule extending transversely over said bar, whereby a pencil may be disposed adjacent the extreme end of the rule, in order that a desired portion of the lumber may be gaged and then marked.

1,078,863. AUTOMATIC SYNCHRONIZER. RICHARD C. LEAKE, Lakeland, N. Y., assignor of one-half to Simon B. Storer, Syracuse, N. Y. Filed Aug. 10, 1908. Serial No. 447,780. (Cl. 171-118.)



1. In a synchronizer for rotary electric machines, an electric switch connected in circuit with said machines, a switch operating circuit and a circuit closer connected therewith, a tiltable inclined support 28, a rolling member upon said support, means actuated by variations in the relative instantaneous voltage values of said machines for controlling the movement of the inclined support and the rolling member therealong and means movable by said actuated means adapted for contact with said rolling member for controlling the action of the circuit closer.

2. In a synchronizer for rotary electric machines, an electric switch connected in circuit with said machines, a switch operating circuit and a circuit closer positioned therein, a tiltable support 28 and a rolling member adapted for movement therealong, means controlled by the change in the relative number of alternations per minute of said machines, and means movable by said controlled means adapted through engagement with said rolling member for controlling the action of the circuit closer.

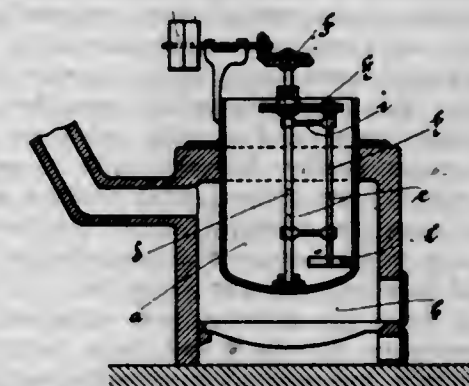
3. In a synchronizer for rotary electric machines, a normally open electric switch connected in circuit with said machines, electrical operating means for said switch, a

circuit closer connected in circuit with said means, a tiltable inclined support 28 and a rolling member adapted for movement therealong, electrically operated means controlled by the change in the relative voltage values and number of alternations per minute of said machines adapted for controlling the tilting of the inclined support and the movement of the rolling member thereon, and means movable by said electrically operated means adapted to contact said rolling member for controlling the action of the circuit closer.

4. In an automatic synchronizer for rotary electric machines, an electric circuit connecting the said machines, a switch in said circuit, an electrical operating circuit for said switch, a circuit closer in said operating circuit, an electrically operated means connected in the first named circuit controlled by the change in the relative voltage values and number of alternations per minute of the said machines, an inclined support and a rolling member movable therealong and a means carried by said electrically operated means and adapted for contacting said rolling means for controlling the action of the circuit closer.

5. In an automatic synchronizer for rotary electric machines, an electrically operated switch in circuit with said machines, a circuit closer in circuit with said switch, an inclined support 28, a rolling member mounted for movement upon said support, electrically operated means connected in circuit with said machines, contacting means movable by said operated means and adapted upon engagement by said rolling member in the path of movement thereof for operating the circuit closer.

1,078,864. PROCESS OF MANUFACTURING LUTE, PUTTY, AND THE LIKE. CARL FERDINAND LJUNGBERG, Gottenborg, Sweden. Filed Jan. 28, 1911. Serial No. 605,279. (Cl. 106-8.)

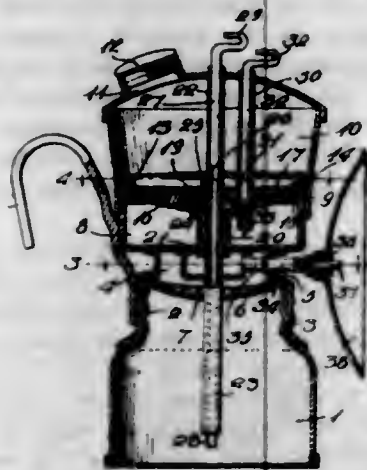


The herein described process of manufacturing lute, putty and the like, which consists in boiling flour in water, adding boiled linseed oil and ground chalk to the boiling mixture, and continuing the boiling of the whole for one to three hours and increasing the temperature of the whole during the boiling thereof.

1,078,865. ACETYLENE-GAS LAMP. PAUL WERNER LOHMANN, Worthington, W. Va., assignor to The Lohmann-Hold Manufacturing Company, Inc., Pittsburgh, Pa. Filed Jan. 9, 1913. Serial No. 741,127. (Cl. 48-23.)

1. The herein described acetylene generating lamp comprising a base forming a main generating chamber and having a reduced and threaded neck, the main gas chamber having a threaded socket engaging said neck, a supplemental gas chamber located within the main gas chamber, separate outlet pipes leading from said chambers to a common burner, a supplemental generating chamber, whose bottom wall forms the top of said gas chambers, a water reservoir having a threaded connection with said generating chamber, a pipe leading from the latter into the supplemental gas chamber, a water pipe leading from the reservoir through said gas pipe and throughout both gas chambers into the main chamber, a second water pipe leading from the reservoir into the supplemental chamber,

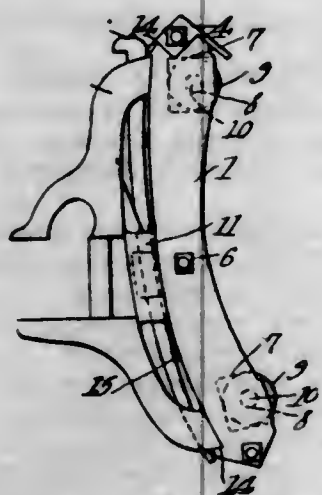
and means for controlling the flow of water through said pipes.



2. An acetylene lamp of the character described comprising a water reservoir, a supplemental gas generating chamber having its upper end attached thereto, a gas conducting tube secured in said supplemental gas generating chamber and opening through the bottom thereof, a supplemental gas receiving chamber secured to the bottom of said supplemental generating chamber over the lower end of said tube, a threaded socket secured to the bottom of said supplemental generating chamber, a main gas generating chamber having a reduced threaded neck adapted to be screwed into said socket, independent water conducting tubes connecting the reservoir with said main and supplemental gas generating chambers, valves to control the discharge of water through said tubes, main and supplemental gas conducting pipes connected respectively with said main and supplemental gas receiving chambers, and a burner tip having independent gas passages connected respectively with the outer ends of said pipes.

3. An acetylene gas generating lamp comprising a water reservoir, main and supplemental gas generating chambers connected with said reservoir, separate gas receiving chambers connected with said generating chambers, a main water conducting tube formed in upper and lower separable sections, the upper section being secured to said water reservoir, a packet joint between said sections, a controlling valve for said tube, a supplemental water conducting tube arranged in said reservoir and connected at its lower end with said supplemental gas generator, a controlling valve for this tube, gas filtering pads arranged between said gas generating chambers and their respective gas receiving chambers, independent gas conducting pipes connected with said gas receiving chambers, and a burner tip having independent connections with said pipes.

1,078,866. BRAKE-SHOE. WILLIAM ALONZO LOVELL, Osm, Ark. Filed June 8, 1913. Serial No. 772,160. (Cl. 188—69.)



1. A brake shoe comprising a body; an antifriction element carried by the body and projecting beyond the working face of the body; and a scraper secured to the body and overhanging the antifriction element.

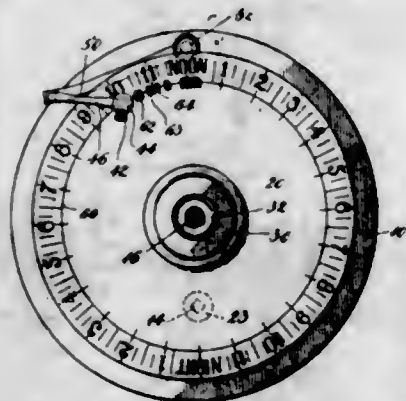
2. A brake shoe comprising a body; an antifriction element carried by the body and projecting beyond the working face of the body; a scraper resting on one end of the body and overhanging the antifriction element, the scraper being provided with an ear overlapping one side face of the body; and a securing member passing through the ear and entering the body.

3. A brake shoe comprising abutting members; an antifrictional element journaled in the said members and projecting beyond the working face of the brake shoe; a scraper applied to one end of the said members and overhanging the antifriction element, the scraper being provided with an ear overlapping the side face of one of said members; and a securing device passing through the ear and through both members, the securing device constituting means for holding the scraper in place, and constituting also means for holding the said members together to retain the antifriction element.

4. A brake shoe comprising cooperating members; an antifriction element journaled in the said members and projecting beyond the working face of the shoe; the said members being provided upon their rear faces with angularly formed wings disposed transversely of the said members and spaced from the rear faces of the said members; a hanger; and a key extended longitudinally of the shoe and engaged with the hanger, the key being engaged beneath the wings.

5. A brake shoe made up of two blocks having their longitudinal edges in abutment; means for holding the blocks together; the blocks being provided upon their working faces and at their meeting edges with cooperating openings defining a recess; and an anti-friction element located in the recess and terminally journaled in the blocks.

1,078,867. VIBRATION-RECORDER. WALTER E. MCGRAW, Malden, Mass., assignor to Boston Clock Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 2, 1912. Serial No. 723,565. (Cl. 234—1.)



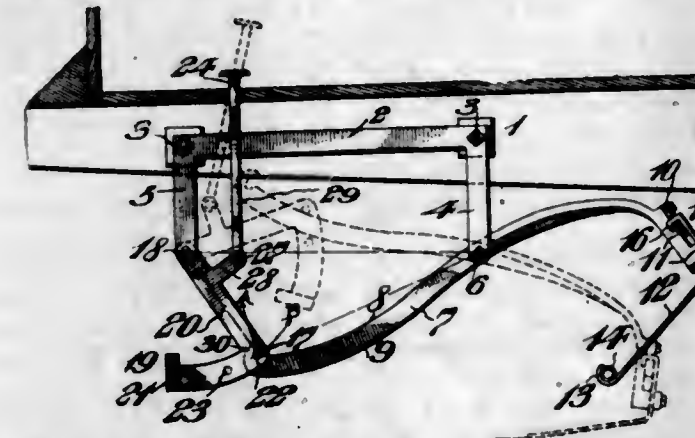
In a vibration recorder, the combination of a clock mechanism having a center arbor and a front and rear plate, a plate rotatable with said arbor adapted to carry a record sheet, a rock shaft rotatably mounted in said front and rear plates above the clock mechanism, a pendulum depending from said shaft outside of the rear plate, an arm affixed to said shaft and movable outside of said front plate, and a marker carried by said arm adapted to move over said sheet, whereby at each oscillation of said pendulum said marker is moved in a plane substantially parallel to said record sheet to produce a substantially radial mark thereon, substantially as described.

1,078,868. CAR-FENDER. JOHN A. MACMAHON, Philadelphia, Pa. Filed Feb. 3, 1910. Serial No. 541,803. (Cl. 105—130.)

1. In a device of the character stated, a guard, a plurality of arms secured to said guard and pivotally mounted on a car frame, one of said arms having a recess therein, a trip pivotally secured adjacent said guard arms, and a pin fixedly mounted on said trip and co-acting in normal position with said recess to form a lock.

2. In a device of the character stated, a guard, a plurality of arms secured to said guard and pivotally mounted

ed on a car frame, each of said arms having a recess therein, a trip pivotally secured adjacent said arms, and pins fixedly mounted on said trip and co-acting in normal position with said recesses to form locks.



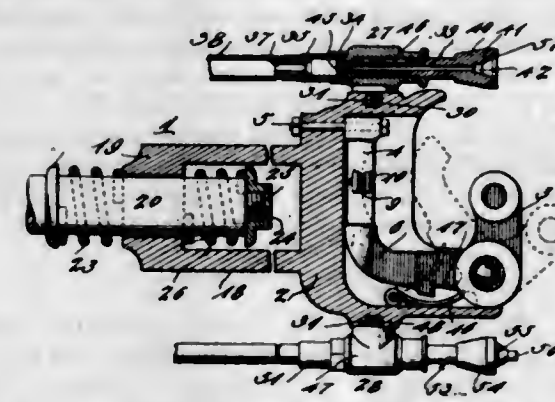
3. In a device of the character stated, a guard, a plurality of arms secured to said guard, and pivotally mounted upon a car frame, each of said arms having a recess therein, a cam face formed on each arm, a trip pivotally secured adjacent said arms, pins on said trip co-acting in normal position with said recesses to form locks, and means carried by said trip for engagement with said cam face.

4. In a device of the character stated, a guard, arms secured to said guard and pivotally mounted on a car frame, one of said arms having a recess therein, a trip pivotally secured adjacent said guard arms, a pin on said trip co-acting in normal position with said recess to form a lock, and means to lock said guard in its tripped position.

5. In a device of the character stated, a guard, arms secured to said guard and pivotally mounted on a car frame, one of said arms having a recess therein, a trip pivotally secured adjacent said guard arms, a pin on said trip co-acting in normal position with said recesses to form locks, a lever secured to said trip, and means on said lever to lock said guard in its tripped position.

[Claim 6 not printed in the Gazette.]

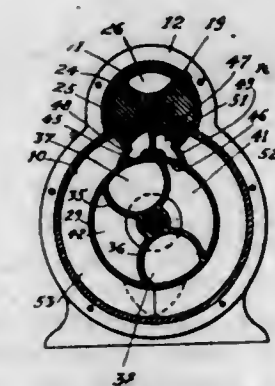
1,078,869. AUTOMATIC AIR-VALVE CAR-COUPLING. GEORGE E. MUTH, Mansfield, Ohio, assignor to Frank Albert Voegelé, Mansfield, Ohio. Filed Mar. 28, 1912. Serial No. 686,917. (Cl. 213—40.)



In a car coupler, the combination with the coupling heads having aligned threaded sockets in their opposite sides; of coupling members comprising casings each having on one side a threaded stud adapted to be screwed into one of said sockets whereby the casing is pivotally connected at its mid-length to the head to turn in a vertical plane, the casing being externally threaded at its rear end and having a bore whose rear extremity is flared to form a valve seat, a pipe coupling inclosing said rear extremity and internally threaded to engage the threads above mentioned, a valve member having a tubular shank slidably engaging the bore of said casing, the walls of said shank being provided with lateral ports near its rear end and internally threaded at its rear extremity, and a cone-shaped valve adapted to engage said seat and having a threaded stem engaging the threads within said shank.

196 O. G.—41

1,078,870. DEVICE FOR PUMPING AIR OR OTHER FLUID. GUSTAF W. NYQUIST, Minneapolis, Minn. Filed Sept. 18, 1912. Serial No. 720,984. (Cl. 230—30.)



1. A centrifugal pump comprising a casing formed with a central cylindrical chamber, a hollow cylinder of less diameter than said chamber rotatably mounted therein, one of the bearings of said cylinder comprising a tubular member in communication with the outer atmosphere, said casing also providing an outlet chamber at the other end of and of substantially the same diameter as the hollow cylinder, a system of partitions dividing the hollow cylinder into two pairs of oppositely positioned passages, one of said pairs of passages having direct communication with the inlet opening only and the other pair of passages having direct communication with the outlet chamber only, a partition about the hollow cylinder dividing the annular space between the walls of the same and the casing into two separated compartments, openings being provided from one of each of said pairs of passages into each of said compartments, said sets of openings being at opposite ends and sides of the hollow cylinder, and locking wings on the cylinder between said respective pairs of openings.

2. A centrifugal pump comprising a casing formed with a central cylindrical chamber, a hollow cylinder of less diameter than said chamber rotatably mounted therein, an inlet opening to the hollow cylinder at one end thereof, said casing also providing an outlet chamber at the other end of and of substantially the same diameter as the hollow cylinder, a system of partitions dividing the hollow cylinder into two pairs of oppositely positioned passages, one of said pairs of passages having direct communication with the inlet opening only and the other pair of passages having direct communication with the outlet chamber only, a partition about the hollow cylinder dividing the annular space between the walls of the same and the casing into two separated compartments, openings being provided from one of each of said pairs of passages into each of said compartments, said sets of openings being at opposite ends and sides of the hollow cylinder, and locking wings on the cylinder between said respective pairs of openings.

3. A centrifugal pump comprising a tubular chamber, a rotary member within said chamber having the walls thereof spaced from the walls of the chamber and being provided with separated intake and outflow passages having ports communicating with the space between the rotating member and the chamber, a centrifugal member of less diameter than the first named rotary member having a portion thereof extending into the aforesaid space and engaging with its periphery the periphery of the first named rotating member, means for rotating the two members at uniform speeds, a wing device on the first named rotating member located between the openings into the passages therein and extending outwardly into engagement with the inner wall of the chamber, said second rotating member having a semi-circular cavity for receiving and permitting the passage of the wing member, and a pair of short curved lips extending from the outside of said openings toward the outer edge of said wing member for entering said cavity before and after the passage of the wing member and engaging the outer edges only of said cavity.

1,078,871. PLOW. LEWIS H. OLSON, Melville, Saskatchewan, Canada, assignor of one-half to Martin Erickson, Galesburg, N. D. Filed June 4, 1913. Serial No. 771,892. (Cl. 97-89.)



1. In a plow, a plow beam composed of a front section by which the plow is drawn, a rearwardly spring-pressed member mounted on the section and having a limited slidable movement in longitudinal direction of the section, a rear beam section pivotally secured to the rear end of the front section to tilt on a horizontal transverse axis thereon, and having a longitudinal play at said pivot joint, the front end of said rear section being adapted for engagement with the spring-pressed member, to prevent premature tilting of the rear section, and one or more springs arranged to resist rearward movement of the rear section.

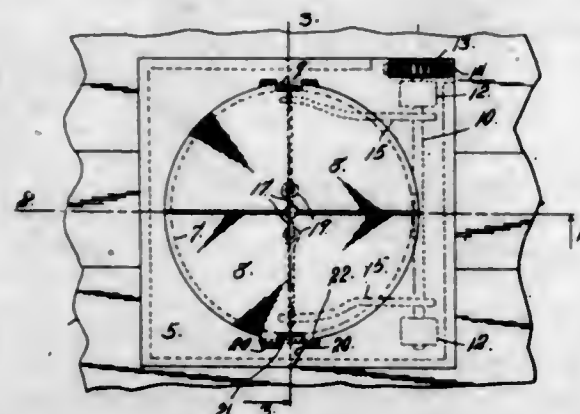
2. In a plow, a plow beam composed of a front section by which the plow is drawn, a rearwardly spring-pressed member mounted on the section and having a limited slidable movement in longitudinal direction of the section, a rear beam section pivotally secured to the rear end of the front section to tilt on a horizontal transverse axis thereon and having a longitudinal play at said pivot joint, the front end of said rear section being adapted for engagement with the spring-pressed member, to prevent premature tilting of the rear section, and springs arranged to resist rearward movement of the rear section, and a mechanism connected with said springs, for automatically increasing the tension of the springs, when the rear section slides rearwardly.

3. In a plow, a plow beam composed of a front section by which the plow is to be drawn, a rearwardly spring-pressed member mounted on the section and having a limited sliding movement in longitudinal direction of the section, a rear beam section pivotally secured in the rear end of the front section and carrying at its rear end a plow, the front end of said rear section having a notch adapted to receive the spring-pressed member, and above said notch a cam adapted to press the spring-pressed member forward when the rear section is returning from a tilted to a normal position, and means for pulling the spring-pressed member forward from the notch, and comparatively strong springs connecting the beam sections together, said sections having a longitudinal play in relation to each other.

4. In a plow, the combination with a rearwardly bifurcated front beam section having near its middle and also near its rear end a longitudinal slot in each side, a rear beam section having trunnions extending outward through said rear slots and provided with fixed collars which aid in preventing spreading of the bifurcated portion, said rear section also having in its front end a notch and an incline above the notch, a forked block slidable in the front beam section, a pivot extending through the forked portion of the block and having its ends projected outward through the slots near the middle of the beam section, and provided with means outside the beam section for preventing of spreading of the bifurcation, a roller mounted on the pivot within the fork and adapted to engage in the notch of the rear section and lock the latter against premature tilting, a spring arranged to press the forked block rearwardly as far as the slots for the pivot will permit, a manually operated self-locking lever mounted in the front part of the front section and having a rod connecting it with the block; a two-armed lever fulcrumed upon each side of the rear part of the front section, a pulling coil spring connecting one end of said lever

with the collar on the trunnion, and a rod pivotally connecting the other end of the lever with one of the said collars.

1,078,872. CAR-CUSPIDOR. WILLIAM F. PABST, Denver, Colo., assignor of one-third to William G. Steenbock, Denver, Colo. Filed Apr. 7, 1913. Serial No. 759,305. (Cl. 4-39.)



1. A floor cuspidor, comprising a plate adapted to be set into the floor, so that its upper surface shall be flush with the floor surface, the said plate having an opening, lids hinged to the plate and normally closing said opening, a rock spindle journaled on the plate, an operative connection between said spindle and the said lids for opening the latter when the spindle is rotated, and means connected with the spindle and extending above the floor for actuating the spindle to open the lids, substantially as described.

2. A car cuspidor, comprising a plate adapted to be set into the floor, and provided with a circular opening, semi-circular lids hinged to the plate and arranged to open in opposite directions, a rock spindle journaled on the plate and located beneath the latter, cranks made fast to the said spindle, links connecting the inner extremities of the cranks with the lids, and a device connected with the spindle and extending above the floor, to facilitate the opening of the lids, substantially as described.

3. The combination with a suitable support, of a plate set into said support and flush with the top thereof, the said plate having a circular opening, semi-circular lids arranged to close said opening, the lids being hinged to the plate to open in opposite directions, a rock spindle journaled in lugs extending downwardly from the lower surface of the plate, crank arms made fast at one extremity of the spindle, their opposite extremities projecting into the space below the lids, links connecting the last named extremities of the cranks with the lids near the free edges of the latter, and a toothed wheel fast on the rock spindle, and a portion of whose periphery extends above the surface of the plate to facilitate the rotation of the spindle for lid opening purposes, substantially as described.

1,078,873. SUBSTANCE FOR TREATMENT OF TUBERCULOSIS AND PROCESS OF MAKING SAID SUBSTANCE. BENJAMIN S. PASCHALL, Seattle, Wash. Filed Oct. 12, 1912. Serial No. 725,439. (Cl. 167-7.)

1. The method substantially as herein described of preparing a substance for the treatment of tuberculosis, which consists in saponifying the waxes and fats contained in tubercle bacilli, the soap so obtained being capable when injected into animals or man of producing a lipolytic ferment in the tissues, which ferment will in turn dissolve a sufficient portion of the waxy protective substances elaborated by tubercle bacilli, so that the micro-organism itself is destroyed.

2. The method substantially as herein described of preparing a substance for the treatment of tuberculosis, which comprises saponifying the unextracted wax and fats contained in tubercle bacilli.

3. The method substantially as herein described of preparing a substance for the treatment of tuberculosis,

which comprises saponifying the unextracted wax and fats contained in tubercle bacilli, purifying the insoluble fatty acids obtained as a result of the saponification and dissolving said fatty acids in a suitable solvent capable of converting said fatty acids into compounds soluble in water and suitable for injection into man.

4. The method substantially as herein described of preparing a substance for the treatment of tuberculosis, which comprises drying and pulverizing tubercle bacilli, saponifying the mass with a suitable re-agent, filtering the mixture so obtained to remove the proteids and other injurious substances, evaporating the filtrate, and dissolving the residue in a suitable solvent.

5. The method substantially as herein described of preparing a substance for the treatment of tuberculosis, which comprises drying and pulverizing tubercle bacilli, saponifying the mass with a suitable re-agent, filtering the mixture so obtained to remove the proteids and other injurious substances, evaporating the filtrate, dissolving the residue in a suitable solvent, cooling the resulting soap solution, precipitating the insoluble fatty acids with a suitable acid, filtering and washing the precipitate, redissolving and cooling the soap solution, and again precipitating with a suitable acid and repeating the process of redissolving and reprecipitating with an acid until the insoluble fatty acids are purified and dissolving the precipitated fatty acids with a suitable solvent.

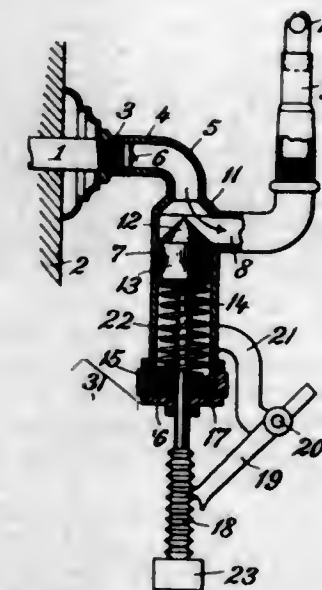
[Claims 6 to 21 not printed in the Gazette.]

1,078,874. SILO. FORD B. POTTER, Tampico, Ill. Filed Mar. 25, 1912. Serial No. 686,039. (Cl. 20-1.4.)



In a silo having a vertical opening in one side thereof and a plurality of door sections adapted to close the same, a door-locking means for each of said sections comprising a bar pivotally supported centrally of the door and having outwardly projecting ends serving as handles therefor; arms pivotally attached to said bar, and adapted to be forced outwardly upon the action thereof, so as to engage the sides of said openings; a staple-catch pivoted to the outer end of one of said handles, and adapted to engage one of said arms, to lock said bar and arms in operative position; means for holding said bar in adjustable position with reference to the door; and means for holding said arms outwardly in operative position.

1,078,875. GAS-COCK. ADRIAN R. PYLE, Dobbs Ferry, N. Y. Filed June 18, 1912. Serial No. 704,264. (Cl. 137-4.)

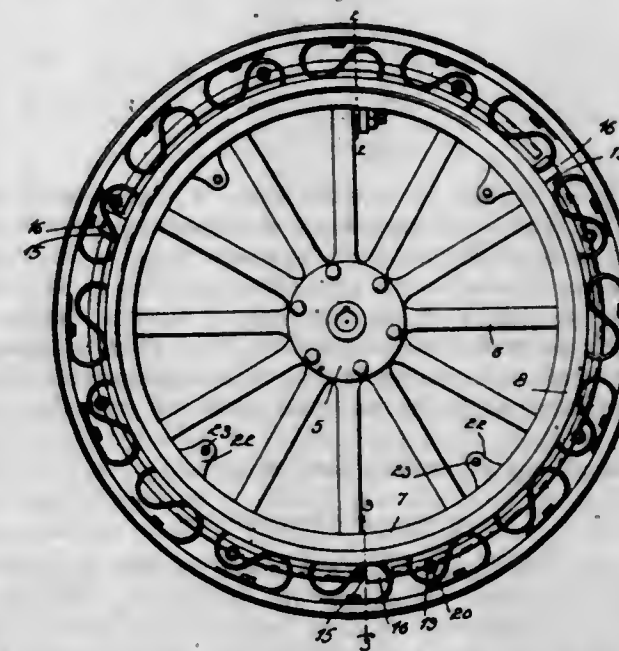


1. A gas cock comprising a reciprocating valve, means normally tending to close said valve, a serrated stem

attached to the valve head, and means for locking the valve open in a plurality of positions, including an arm pivoted to a fixed member and having a claw on one end adapted to engage said stem.

2. A gas cock comprising a reciprocating valve, means normally tending to close said valve, a serrated stem on said valve, and means engaging said stem for locking the valve open in a plurality of positions, said means including an arm pivoted to a fixed member and having a claw on one end adapted to engage said stem, the center of gravity of said arm lying between the claw and the point at which the arm is pivoted.

1,078,876. METALLIC WHEEL-TIRE. CHARLES QUINTUS, Garner, Iowa. Filed Jan. 6, 1913. Serial No. 740,569. (Cl. 152-38.)



1. The combination with a vehicle wheel, of a metal tire having flanges extending upon opposite sides of the wheel felly, one of said flanges being provided upon its inner face with an annular rib having a plurality of spaced notches therein, cushioning means arranged between the wheel felly and the tire, and lugs mounted upon the felly and extending into said spaced notches to limit the circumferential movement of the tire with relation to the wheel felly.

2. The combination with a vehicle wheel, of a metallic tire having flanges movable upon opposite sides of the wheel felly, the inner face of each of said flanges being provided with an annular rib, a metal rim on the wheel felly having its edges inwardly flanged, said annular ribs being normally disposed in spaced concentric relation to said rim flanges, a plurality of cushioning springs arranged between said metal rim and the tire, said ribs being adapted to engage the rim and limit the compression of said springs, the ribs upon one of the tire flanges being provided with recesses, and lugs mounted upon said metal rim disposed in said recesses to limit the circumferential movement of the tire with relation to the wheel felly.

1,078,877. DYNAMO-ELECTRIC MACHINE. HOWARD H. RALSTON, Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Mar. 1, 1905. Serial No. 247,905. (Cl. 171-253.)

1. In combination, a plurality of commutator leads, having spacing members of insulating material between them, each of said spacing members comprising a portion projecting through alternate leads and portions projecting from opposite sides thereof.

2. A dynamo electric machine having leads connecting the commutator segments and the armature coils, certain of said leads having openings therethrough, supporting studs in the openings in said leads, and spacing blocks of insulating material on said studs.

3. As an article of manufacture, a commutator lead having an opening therethrough, a supporting stud in the opening, and a spacing member on said stud.

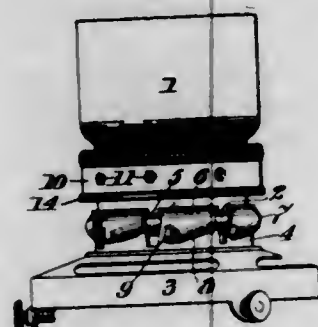


4. As an article of manufacture, a commutator lead having an opening therethrough, a supporting stud in said opening and projecting from opposite sides of said lead, and spacing blocks on the projecting portions of said stud.

5. As an article of manufacture, a spacing device for commutator leads, which consists of a stud adapted to pass through an opening in the lead, and spacing blocks of insulating material on said stud at opposite ends thereof.

[Claim 6 not printed in the Gazette.]

1,078,878. DETACHABLE SHADE-HOLDER FOR ELECTRIC LAMPS. PATRICK H. ROBINSON, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 4, 1913. Serial No. 771,643. (Cl. 240-114.)



1. A detachable shade-holder for electric lamps, having a collar divided into spring segments by slits, each of said segments having an inclined portion and all of them adapted to be sprung into engagement with the lamp parts, and a clamping ring connected with said collar and having projections adapted to cooperate with the inclined portions of the segments to bind the collar about the lamp parts.

2. The combination of a part having a circumferential bead, and a part to be detachably connected thereto having a spring collar provided with beads to engage the circumferential bead, the beads on the collar being of wedge form and a clamping ring encircling said collar and provided with bosses to cooperate with the wedge form beads to force and retain the collar in engagement with said circumferential bead.

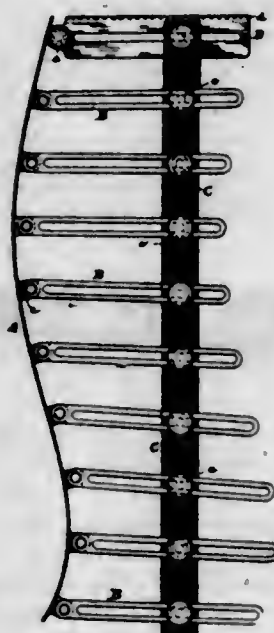
3. The combination of a socket shell having a circumferential bead, a shade-holder having a collar divided into segments by longitudinal slits, each segment having a circumferential bead complementary to the bead on the shell, and a clamping ring encircling said collar and having bosses arranged eccentrically with relation to the beads on the segments to engage the beads on the segments and thereby force the segments into binding engagement with the bead on the shell.

4. The combination of a socket shell having a circumferential bead, a shade-holder having a collar divided into segments by longitudinal slits, each segment having a circumferential bead adapted to engage the shell's bead and having its bottom inclining or tapering downwardly, and a clamping ring encircling said collar and having bosses camming the tapered portions of the beads on the segments of the collar.

5. The combination with a socket shell having a circumferential bead, of a shade-holder having a collar divided into segments by longitudinal slits, each segment having a circumferential bead of wedge form and adapted to engage the bead on the shell, and provided with a stop lug, and a clamping ring encircling said collar and having bosses to force the segments into binding engagement with the bead on the shell and having its movement limited by the stop lugs.

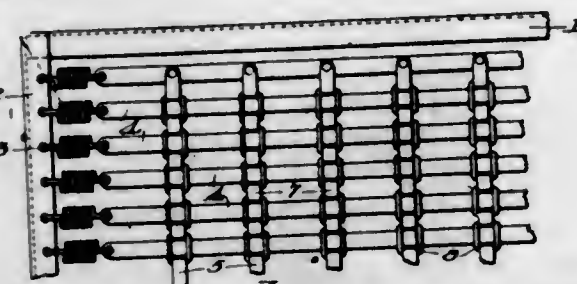
[Claims 6 to 8 not printed in the Gazette.]

1,078,879. FLEXIBLE TEMPLET. THOMAS A. ROY, Dorchester, and JOHN H. HINDLEY, Malden, Mass., assignors of one-third to James Price, Malden, Mass. Filed Nov. 4, 1912. Serial No. 729,493. (Cl. 33-2.)



In a flexible templet, the combination of a flexible bar, a rigid bar, a multiplicity of adjusting bars pivoted to said flexible bar and slidably attachable to said rigid bar, and a right angle bar adjustably connected to said rigid bar to form therewith a square or a bevel substantially as described.

1,078,880. BED FABRIC. SAMUEL RUSNAK, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,786. (Cl. 5-39.)

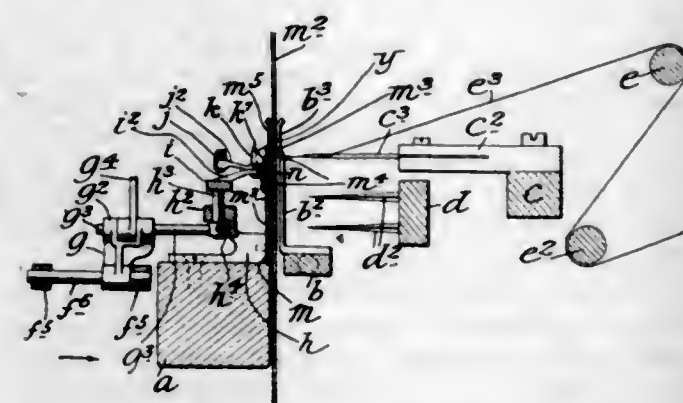


1. In a bed fabric the combination of longitudinal strips, stay pieces placed transversely thereof and provided with off-sets, and locking members adapted to fit over the off-sets and form inclosed spaces between said members and the underside of said off-sets within which said longitudinal strips are slidably received.

2. In a bed fabric the combination of longitudinal strips, stay pieces placed transversely thereof and provided with off-sets, and flat locking members adapted to fit over the off-sets and form inclosed spaces between said members and the underside of said off-sets within which said longitudinal strips are slidably received.

3. In a bed fabric the combination of a multiplicity of longitudinal strips, elastic end supporting means for said strips, stay strips placed transversely of the longitudinal strips and provided with off-sets corresponding in number to the longitudinal strips crossed thereby, separate locking members adapted to fit over the off-sets and form inclosed spaces between said members and the underside of said off-sets wherein said longitudinal strips are slidably received, and means for attaching the ends of the transverse strips to the outermost longitudinal strips.

1,078,881. EMBROIDERING-MACHINE. BASIL SANER, West New York, N. J. Filed Oct. 1, 1912. Serial No. 723,317. (Cl. 112-7.)



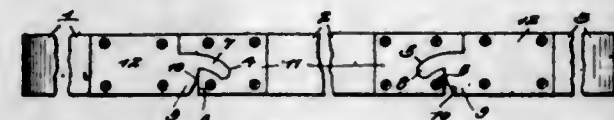
1. An embroidering machine provided with the usual thread needles, an apertured cloth plate through which said needles are movable, vertically movable and rotatable loopers secured adjacent to the side of said plate opposite said needles, and pulling devices mounted between said loopers and said plate and operating in connection with the needles and loopers to form embroidery stitches with one thread.

2. An embroidery machine provided with the usual thread needles, borer needles and presser fingers, an apertured cloth plate in connection with which the presser fingers operate, longitudinally reciprocating bars mounted adjacent to said cloth plate and on the side thereof opposite said needles, and loop former devices connected with said bars and operating in connection with the thread needles for forming embroidery stitches with one thread.

3. An embroidering machine provided with the usual thread needles, borer needles, and presser fingers, an apertured cloth plate supported adjacent to said fingers and in connection with which they operated, vertically movable loopers supported adjacent to the side of said plate opposite the thread needles and having a vertical and rotary movement, and a finger bar mounted between said loopers and said plate and longitudinally movable and provided with fingers having lateral extensions.

4. In an embroidering machine, a longitudinally reciprocating finger bar provided with fingers having lateral extensions, and loopers supported adjacent to said bar and having a rotary and vertical movement, said loopers being provided with vertical fingers at the bottoms of which are shoulders between which are vertical recesses.

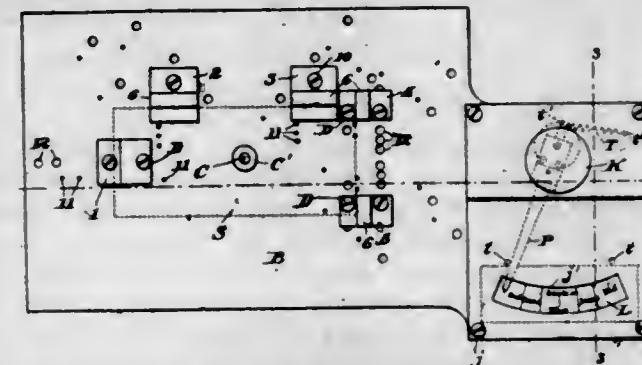
1,078,882. IRONING-TABLE. JAMES H. SCOTT, San Diego, Cal. Filed Oct. 26, 1912. Serial No. 727,996. (Cl. 68-10.)



An ironing board consisting of a trio of sections, one of which is provided with downwardly curved slots in the ends thereof, said last mentioned section being also cut away at its ends from the lower face upward to said slots, downwardly curved projections formed on the ends of the

remaining sections and adapted to enter the slots of the aforesaid section, and integral solid portions formed on the under faces of said tongues at their junctions with the last mentioned sections, said solid portions having the outer faces thereof beveled and adapted to be received in the cut-away portions of the first mentioned section.

1,078,883. MACHINE FOR CLASSIFYING TILES. GEORGE A. STANBERRY, Zanesville, Ohio, assignor to American Encaustic Tiling Company, Limited, New York, N. Y., a Corporation of New York. Filed Apr. 5, 1905. Serial No. 254,004. (Cl. 33-172.)



1. In a machine for detecting the warpage in the plane surfaces of tiles and for classifying said tiles, the combination of an index mechanism including a part graduated to denote the classes into which the warped tiles are to be assorted and a pointer movable relative to said graduated part, a tile rest embodying a plurality of members upon the faces of which the tile is to be positioned, an actuating member the tile engaging face of which is normally in the same plane as the tile engaging faces of the members composing said rest, said actuating member being movable relative to the tile rest members, and means for communicating the movement of said actuating member to the pointer of said index mechanism, the members composing said tile rest being positioned in the same horizontal plane and said members being shiftable relative to each other and to the actuating member for the purpose of positioning said members to receive tiles which vary in size.

2. In a machine for detecting the warpage in the plane surfaces of tiles and for classifying said tiles, the combination of an index mechanism including a part graduated to denote the classes into which the warped tiles are to be assorted and a pointer movable relative to said graduated part, a tile rest embodying a plurality of members upon the faces of which the tile is to be positioned, a slidable actuating member the tile engaging end of which is normally in the same plane as the tile engaging faces of the members composing said tile rest, said actuating member being slidable in a direction at right angles to the plane of the tile engaging faces of said members composing the tile rest, and means for communicating the movement of the actuating member to the pointer of the index mechanism, said members of the tile rest being individually secured in a fixed position and each member being movable in a horizontal direction relative to the other members of said tile rest whereby said members are capable of supporting tiles which vary in size and of accurately positioning said tiles relative to the actuating member.

3. In a device for classifying tiles, an index mechanism provided with a dial which is graduated to denote the classes into which tiles are to be assorted, an actuator member adapted to be operated by an irregularity in the surface of a tile under test, said actuator member cooperating with said index mechanism, and work supporting means in a predetermined standard relation to the actuator member, said work supporting means comprising a plurality of members which are shiftable toward or from the actuator member, whereby tiles of varying sizes may be tested on the machine.

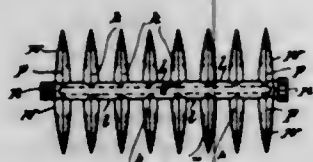
4. In a device for classifying tiles, an index mechanism provided with a dial which is graduated to denote the classes into which tiles are to be assorted, an actuator

member adapted to be operated by an irregularity in the surface of a tile under test, said actuator member co-operating with said index mechanism, and a plurality of work supporting members, said members being shiftable individually and toward or from the actuator member for the purpose of supporting tiles of different sizes in position for engagement with said actuator member.

5. In a device for classifying tiles, an actuator member adapted to be operated by an irregularity in the surface of a tile, a plurality of work supporting members adjustable to different positions relative to said actuator member, whereby tiles of different sizes may be held in predetermined positions relative to the actuator member, and means operated by the actuator member for denoting the classes into which the various tiles are to be assorted.

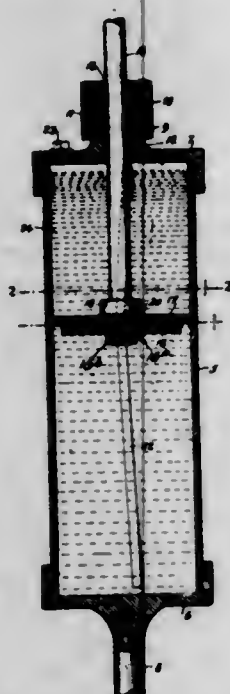
[Claims 6 to 20 not printed in the Gazette.]

1,078,884. RADIATOR MADE OF WROUGHT-IRON. HEINRICH STEFFEN, Tonndorf-Lohe, near Altrahlstedt, near Hamburg, Germany. Filed Mar. 8, 1913. Serial No. 752,838. (Cl. 237-18.)



A radiator comprising two opposed wrought iron sections, each section being composed of a plurality of V-shaped webs and intermediate straight longitudinal upright walls integral with said webs, the webs extending at their top and bottom at a distance beyond the walls and being here provided with inwardly projecting substantially quadrantal extensions, and upper and lower capping tubes that extend longitudinally over the wrought iron sections, said capping tubes being partly cut out to overlap the ends of the walls and being provided with a plurality of notches accommodating the quadrantal extensions.

1,078,885. SHOCK-ABSORBER. JOHN B. THOMAS, Lakewood, N. J. Filed Aug. 9, 1912. Serial No. 714,147. (Cl. 21-105.)

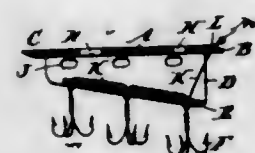


1. A shock absorber comprising a cylinder, a piston therein provided with ports, said cylinder and piston being arranged to reciprocate relatively to each other from a normal point, a valve plate rotatably mounted on said piston and having ports movable into and out of registry with the ports of said piston, said valve plate being further provided with a peripheral notch, a fluid in said cylinder to flow through said ports from one side of said

piston to the other, and an internal rib extending lengthwise of the cylinder and projecting into said peripheral notch, said rib having two portions of different sweep extending from said normal point whereby said valve plate is rotated at different speeds at opposite sides of said normal point as the piston and cylinder are reciprocated, whereby said ports are opened and closed and the resistance to the flow of the fluid from one side of the piston to the other is increased or diminished.

2. A shock absorber comprising a cylinder, a piston movable therein provided with radially extending curved slots, a valve plate rotatably mounted on said piston and having radially extending slots movable into and out of registry with the slots of said piston, said valve plate being further provided with diametrically opposite peripheral notches, a fluid in said cylinder adapted to flow through said slots from one side of said piston to the other and internal ribs extending lengthwise of said cylinder and projecting into said peripheral notches, said ribs each having two portions of different sweep extending from a given point whereby said valve plate is rotated at different speeds as the piston moves beyond said given point and the slots are opened and closed to increase or diminish the flow of the fluid from one side of the piston to the other.

1,078,886. ARTIFICIAL BAIT. HENRY S. WELLES, New York, N. Y. Filed July 30, 1912. Serial No. 712,276. (Cl. 43-30.)



1. The floating bait described consisting of a top portion of less gravity than water and having a continuous flat upper surface, a plane beneath said top, carried by the latter and arranged at an inclination thereto, and means for ballasting such bait.

2. The floating bait described consisting of a top portion of less gravity than water and having a continuous flat upper surface, sides depending from said top, an inclined plane supported by and between said sides, and means for ballasting said bait.

3. The floating bait described consisting of a top portion of less gravity than water and having a continuous flat upper surface, sides depending from said top, and a plane between said sides, and arranged at an inclination to said flat top, the whole forming a box-like structure open at the front.

4. The floating bait described consisting of a top portion of less gravity than water and having a continuous flat upper surface, sides depending from said top, and an inclined plane between said sides, the whole forming a box-like structure substantially rectangular in cross-section open at the front, said top having an opening therein.

5. The floating bait described consisting of a top portion of less gravity than water, sides depending from said top, and an inclined plane between said sides, the whole forming a box-like structure substantially rectangular in cross-section open at the front, said top and sides having openings therein.

[Claims 6 to 11 not printed in the Gazette.]

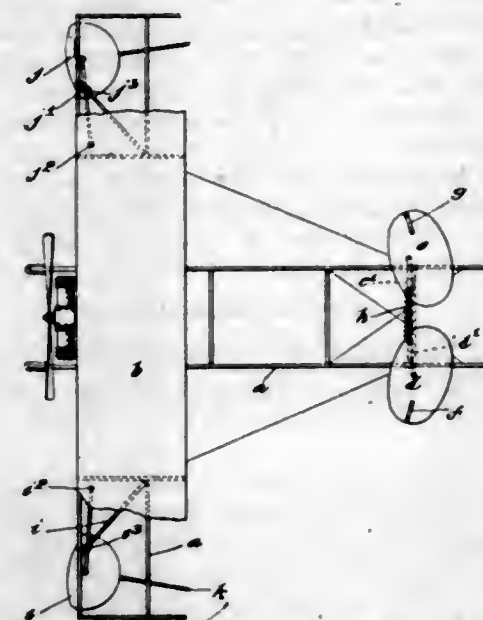
1,078,887. METHOD OF MANUFACTURING DOUBLE SUPERPHOSPHATE. THOMAS LEOPOLD WILLSON and MAXIMILIAN MATTHEUS HAFF, Ottawa, Ontario, Canada; said Haff assignor to said Willson. Filed June 23, 1913. Serial No. 775,436. (Cl. 71-7.)

1. The herein described method of manufacturing superphosphates which comprises adding pyro-phosphoric acid to natural phosphate rock.

2. As a new article of manufacture, normally dry double superphosphate.

3. As a new article of manufacture, normally dry and set double superphosphates.

1,078,888. AUTOMATIC STABILIZER FOR AEROPLANES. THEODORE WINDEL, Brooklyn, N. Y. Filed Oct. 8, 1912. Serial No. 724,524. (Cl. 244-29.)



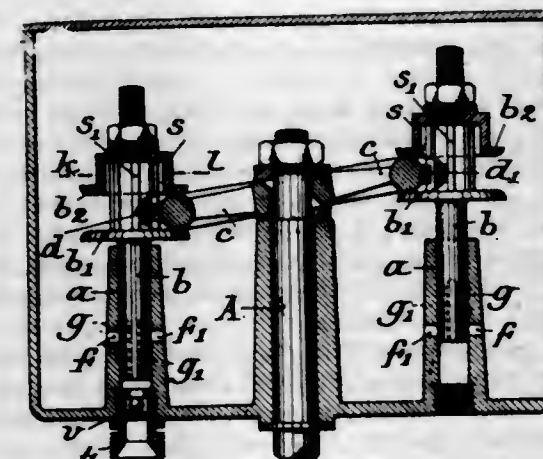
1. An aeroplane having a pair of elevator members, pivoted supports for said members arranged obliquely at opposite equal angles, a pressure influenced projection on each of said members to turn the latter, and means yieldingly restraining said members.

2. An aeroplane having a pair of elevator members, pivoted supports for said members arranged obliquely at opposite equal angles, a pressure influenced projection on each of said members to turn the latter, and means yieldingly connecting said members.

3. In an aeroplane, a supporting plane, an independently movable balance plane near one end thereof, said balance plane having a pressure plate extending at right angles therefrom, and a pivotal support for said balance plane, said support lying at an upwardly inward inclination with respect to the supporting plane.

4. In an aeroplane, a supporting plane, a pair of balance planes disposed near opposite ends thereof, a rearward, vertical, pressure plate extending at right angles from each of said balance planes, and pivoted supports for said balance planes arranged obliquely at opposite equal angles, the inclination of said supports being upwardly inward with respect to the supporting plane.

1,078,889. PUMP FOR LUBRICATING SYSTEMS. EUGEN WOERNER, Cannstatt, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Sept. 12, 1910. Serial No. 581,479. (Cl. 103-77.)



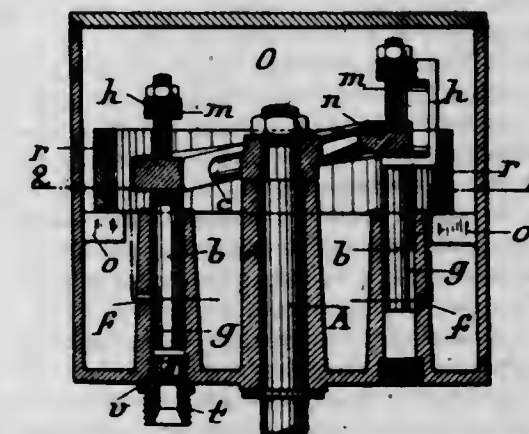
1. Force pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein, pistons within said cylinders and containing oil ducts each arranged in a straight line longitudinally of its piston, and mechanism common to all of the pumps for reciprocating the pistons, said pistons and said mechanism having cooperative means whereby each piston is given step-by-step rotary movements in the same direction to

bring the oil duct therein into register with the respective oil passage when the piston is being reciprocated in one direction and out of register when the piston is being reciprocated in the other direction; substantially as described.

2. Force-pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein and arranged concentrically about a common center, pistons within said cylinders and containing oil ducts, an inclined disk mounted for rotation about said common center and engaging the pistons to reciprocate them, and means whereby the rotation of the inclined disk imparts periodic rotary movements to the pistons to bring the oil ducts therein into register with the oil passages when the pistons are moving in one direction and out of register with said passages when the pistons are moving in the other direction; substantially as described.

3. Force-pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein and arranged concentrically about a common center, pistons within said cylinders and containing oil ducts, an inclined disk mounted for rotation about said common center and engaging the pistons to reciprocate them, projections on the periphery of said disk, and cogs engaged by said projections and connected to the pistons to impart periodic rotary movements thereto to bring the oil ducts therein into register with the oil passages when the pistons are moving in one direction and out of register with said passages when the pistons are moving in the opposite direction; substantially as described.

1,078,890. PUMP FOR LUBRICATING SYSTEMS. EUGEN WOERNER, Cannstatt, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Original application filed Sept. 12, 1910, Serial No. 581,479. Divided and this application filed Oct. 3, 1911. Serial No. 652,519. (Cl. 103-77.)



1. A force pump for lubricating systems having a cylinder provided with an oil passage therein, a piston containing and oil duct, and mechanism for reciprocating the piston within the cylinder and for imparting to the piston an oscillating movement in such manner that starting from an initial closed position the oil duct is brought into and out of register with the oil passage during one stroke of the piston and then is further removed from the registering position and returned to the initial closed position during the return stroke of the pump.

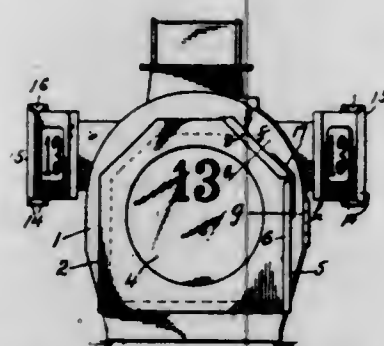
2. Force pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein and arranged about a common center, pistons in said cylinders and containing oil ducts, yokes at the upper ends of said pistons, an inclined disk mounted for rotating eccentrically with respect to said common center and spanned by said yokes, the rotation of the inclined disk imparting to the pistons a reciprocating movement and a rotating movement, and means cooperative with said yokes for imparting a return rotation to the pistons.

3. Force-pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein and arranged about a common center, pistons within said cylinders and containing oil ducts, yokes at the upper ends of said pistons, an inclined disk mounted for rotation

eccentrically with respect to said common center and spanned by said yokes, and means for swinging said yokes to impart oscillating movements to said pistons to bring the oil ducts into register with the oil passages when the pistons are moving in one direction and out of register with said passages when the pistons are moving in the opposite direction.

4. Force-pump mechanism for lubricating systems comprising a plurality of cylinders having oil passages therein and arranged about a common center, pistons within said cylinders and containing oil ducts, yokes at the upper ends of said pistons, an inclined disk mounted for rotating eccentrically with respect to said common center and spanned by said yokes, and a ring loosely enveloping said yokes, whereby rotation of the inclined disk imparts oscillating movement to said pistons to bring the oil ducts into register with the oil passages when the pistons are moving in one direction and out of register with said passages when the pistons are moving in the opposite direction.

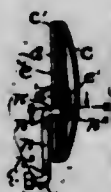
1,078,891. HEADLIGHT. BURT YOAKUM, Kansas City, Kans. Filed July 25, 1913. Serial No. 781,178. (Cl. 240—111.)



1. In a headlight, a casing for holding a pane of glass, provided at one side edge with a slot for receiving the pane, and provided at the opposite side edge and at the bottom with grooves disposed in the same plane as said slot, for receiving the pane inserted through said slot, and an upwardly removable slidable closure having means for interlocking with said casing for closing said slot and retaining the pane inserted in said groove, the closure having at its upper end a lip which, in the closed position, rests upon the casing and supports the closure.

2. In a headlight, a casing for holding a pane of glass provided at one side edge with a slot, the casing at opposite sides of said slot having flanges extending vertically and at right angles outwardly, the casing at its other side edge and at its bottom being provided with grooves disposed in the same plane as said slot, for receiving and supporting a pane inserted into said slot, and an upwardly removable closure slidable on said flanges and having two oppositely disposed grooves adapted to receive said flanges, the closure at its upper end having a lip which, in the closed position, rests upon the casing, closes the top of the slot and supports the closure.

1,078,892. NON-SEPARABLE LINK CUFF-BUTTON. CHARLES H. ALLEN and CHARLES J. CALLAHAN, Attleboro, Mass. Filed May 18, 1911. Serial No. 627,961. (Cl. 24—102.)



In a link cuff button, a pair of button heads each comprising a back plate, a dished cap or front plate having an inwardly flanged edge serving as securing means for the back plate, and an oval-shaped resilient disk mounted within the cap plate in back of the back plate, said disk

having a T-shaped recess and the back-plate having a slot registering with said recess and disposed at right angles to the head of the recess, both the slot and the recess being eccentric to the center of the button head, a link having T-shaped ends disposed to project in opposite directions with respect to the plane of the body of the link, said T-shaped ends of the link extending through the slots in the back plates and lying within the recesses in the resilient disks and shoulders at the ends of the body portion of the link which engage the back plates of the button heads and act as stops for limiting the movement of the latter, the link having a curved edge to reduce the width of the link intermediate its ends.

1,078,893. PROCESS OF PRODUCING TANNIN AND THE PRODUCT. CHARLES FRANCIS ALLEN, New Brighton, N. Y. Filed Jan. 5, 1912. Serial No. 669,559. (Cl. 167—4.)

1. As a new composition of matter, pecan nut shell tannin possessing the herein described characteristics, practically free from acids and free from the woody constituents of the shells and giving reactions under various tests, such as follows; with iron alum, a green precipitate; sodium nitrate, a pink precipitate; cupric sulfate, no change in color; cupric sulfate followed by ammonia, a decided blue; ferrous sulfate, a black precipitate; ferric sulfate, a greenish black precipitate; stannous chlorid and concentrated hydrochloric acid, a yellowish color; sodium sulfite, no change in color; concentrated sulfuric acid, a precipitate, on standing; ferric acetate, a dark black precipitate; cupric acetate, a brown precipitate; cupric acetate, addition of ammonium carbonate, a blue precipitate; all substantially as set forth.

2. As a new composition of matter, a liquid manufactured from pecan nut shells, water and alcohol, possessing the herein described characteristics, practically free from acids and free from the woody constituents of the shells and giving reactions under various tests, such as follows; with iron alum, a green precipitate; sodium nitrate, a pink precipitate; cupric sulfate no change in color; cupric sulfate followed by ammonia, a decided blue; ferrous sulfate, a black precipitate; ferric sulfate, a greenish black precipitate; stannous chlorid and concentrated hydrochloric acid, a yellowish color; sodium sulfite, no change in color; concentrated sulfuric acid, a precipitate, on standing; ferric acetate, a dark black precipitate; cupric acetate, a brown precipitate; cupric acetate, addition of ammonium carbonate, a blue precipitate; all substantially as set forth.

3. As a new composition of matter, a tannin manufactured from pecan nut shells, water and alcohol, possessing the herein described characteristics, practically free from acids and free from the woody constituents of the shells and giving reactions under various tests, such as follows; with iron alum, a green precipitate; sodium nitrate, a pink precipitate; cupric sulfate, no change in color; cupric sulfate followed by ammonia, a decided blue; ferrous sulfate, a black precipitate; ferric sulfate, a greenish black precipitate; stannous chlorid and concentrated hydrochloric acid, a yellowish color; sodium sulfite, no change in color; concentrated sulfuric acid, a precipitate, on standing; ferric acetate, a dark black precipitate; cupric acetate, a brown precipitate; cupric acetate, addition of ammonium carbonate, a blue precipitate; all substantially as set forth.

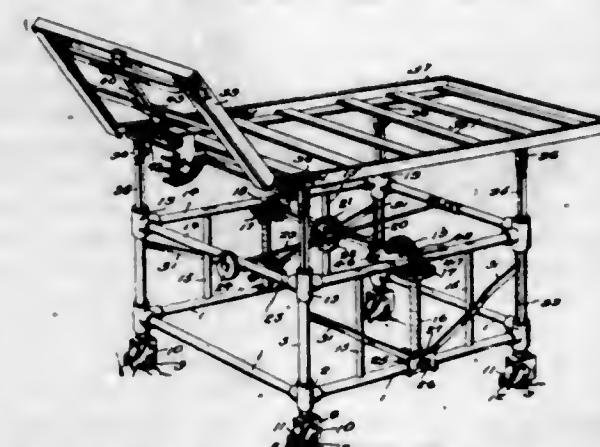
4. As a new composition of matter, a tannin manufactured from pecan nut shells and possessing the following characteristics in its liquid form, as a solid extract and as a powdered extract, practically free from acids and free from the woody constituents of the shells and giving reactions under various tests, such as follows; with iron alum, a green precipitate, sodium nitrate, a pink precipitate; cupric sulfate, no change in color; cupric sulfate followed by ammonia, a decided blue; ferrous sulfate, a black precipitate; ferric sulfate, a greenish precipitate; stannous chlorid and concentrated hydrochloric acid, a yellowish color; sodium sulfite, no change in color; concentrated sulfuric acid, a precipitate, on standing;

ferric acetate, a dark black precipitate; cupric acetate, a brown precipitate; cupric acetate, addition of ammonium carbonate, a blue precipitate; all substantially as set forth.

5. The process of producing a tannin solution possessing the herein described characteristics, which consists in comminuting pecan nut shells, mixing them with water at about the boiling point, allowing the mixture to stand, separating the liquid part, placing the other part in a percolator, adding alcohol and the previously separated liquid and drawing off the percolations, all substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,078,894. SURGEON'S OPERATING-TABLE. ARCHIE P. ASHBY and WILLIAM ALLEN, Virginia Beach, Va. Filed Dec. 4, 1912. Serial No. 734,946. (Cl. 45—50.)



1. An operating table comprising a main frame consisting of upper and lower side and end bars, a transverse shaft journaled in the side bars, a longitudinal driving shaft supported by the end bars, operating means upon the driving shaft, gearing connecting the two shafts, worms journaled in and extending between the upper and lower side bars, gearing connecting the transverse shaft with said worms, nut fitted upon said worms, a stretcher frame mounted on the main frame, and lifting levers fulcrumed at fixed points on the main frame and having their outer ends connected with the stretcher frame and their inner ends slidably connected with the said nuts.

2. An operating table comprising a main frame, worms on said frame having beveled gears at their upper ends, a stretcher frame mounted on the main frame, connections between said stretcher frame and the said worms whereby to raise or lower the stretcher frame, a transverse shaft mounted upon the main frame, means on the main frame for rotating said shaft, a fixed beveled gear at one end of said shaft meshing with the beveled gear on the adjacent worm, a beveled gear slidably fitted upon the opposite end of the shaft, means for holding said beveled gear normally in mesh with the beveled gear on the adjacent worm, and means for moving said beveled gear away from the said worm.

3. In an operating table, the combination of a main frame, a worm therein, a stretcher frame mounted on the main frame, connections between the worm and the stretcher frame for raising and lowering the same, a beveled gear on said worm, a transverse shaft in the main frame, means for rotating said shaft, a gear slidable on said shaft normally meshing with the gear on the worm, a lever fulcrumed upon the main frame, and a pusher arm projecting laterally from said lever and bearing against the outer face of the gear on the transverse shaft.

4. In an operating table, the combination of a main frame, a stretcher frame mounted thereon, a worm in the main frame, means for rotating said worm, a nut fitted on said worm, a pin projecting from said nut, a cap fitted over the nut and supporting the outer end of said pin, and levers fulcrumed on the main frame and pivotally connected with the stretcher frame and having their inner ends provided with longitudinal slots engaging the said pins.

5. In an operating table, the combination of a main frame, a stretcher frame mounted thereon, a hoisting

screw on the main frame connected with the stretcher frame, a pinion on said screw, a driving shaft, a pinion slidably mounted on the said shaft, a spring holding said pinion normally in mesh with the pinion on the hoisting screw, a lever on the main frame acting on said slidable pinion in opposition to the spring, and a stop in the path of said lever.

1,078,895. PLUG FOR WELL-CASINGS. REUBEN C. BAKER, Coalinga, Cal. Filed Nov. 20, 1911. Serial No. 661,207. (Cl. 166—13.)



1. In a plug for well casings, a body adapted to pass down the well casing, and expansible means carried thereby and adapted to fit slidably and compressibly in the casing so as to expand and engage the lower end of the casing, when the body reaches the lower end of the casing.

2. In a plug for well casings, a plug body adapted to pass down a well casing, and a spreader carried thereby and adapted to fit slidably and compressibly in the casing so as to expand and engage the lower end of the casing when the body reaches the lower end of the casing.

3. In a plug for well casings, a body adapted to pass down the well casing, and an expansible split ring carried thereby and adapted to fit slidably and compressibly in the casing so as to expand and engage the lower end of the casing, when the body reaches the lower end of the casing.

4. In a plug for well casings, a hollow body adapted to pass down a well casing and provided with means for engaging the casing, a valve for the said body, and means for closing the said valve on the body being engaged to the well casing.

5. In a plug for well casings, a hollow body adapted to pass down a well casing and provided with means to engage the casing, a stem slidable through the body and a valve secured on the lower end of the stem adapted to close the passage through the said body.

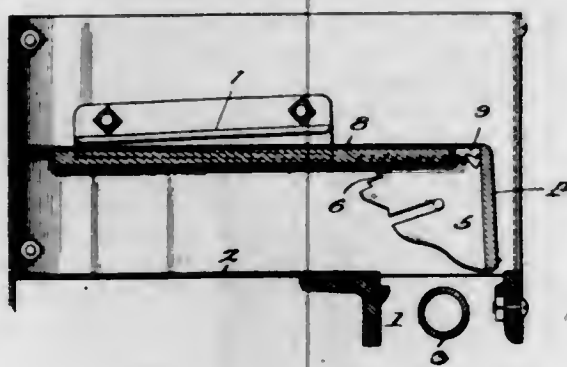
[Claims 6 to 17 not printed in the Gazette.]

1,078,896. COMBINED COAL AND GAS RANGE. PAUL BECKER, Cleveland, Ohio, assignor to Max M. Koch, Cleveland, Ohio. Filed Jan. 22, 1913. Serial No. 743,529. (Cl. 126—36.)

1. In a combined coal and gas range, an oven, a chamber extending downwardly from the forward portion of the oven bottom, a gas burner in said chamber, guideways on the side walls of the oven; said guideways being gradually increased in height toward the forward end of the oven, a closure plate for the chamber, mounted in the oven to swing and move vertically and having a segmental rack, and a deflector spaced above the oven bottom and movable rectilinearly and vertically in the guideways and having a rack intermeshed with the segmental rack of the closure plate.

2. In a combined coal and gas range, an oven, a chamber extending downwardly from the forward portion of

the oven bottom, a gas burner in said chamber, guideways on the side walls of the oven; said guideways being gradually increased in height toward the forward end of the oven, a movable closure plate for the chamber, a deflector movable rectilinearly and vertically in the guideways, and a connection between the deflector and the closure plate for moving the latter by the former.



3. In a combined coal and gas range, an oven, a chamber extending downwardly from the forward portion of the oven bottom, a gas burner in said chamber, guideways on the side walls of the oven, a movable closure plate for the chamber, a deflector movable forwardly and rearwardly in the guideways, and a connection between the deflector and the closure plate for moving the latter by the former.

4. In a combined coal and gas range, the combination of an oven, a burner chamber extending downwardly from the bottom thereof, a gas burner in said chamber, a movable deflector spaced above the oven bottom, a movable closure plate constructed and arranged in one position to close the chamber and in another position to close the space between the oven bottom and the deflector, and a connection intermediate the deflector and the closure plate, whereby movement of one will be attended by movement of the other.

5. In a combined coal and gas range, the combination of an oven, a burner chamber extending downwardly from the bottom thereof, a gas burner in said chamber, a movable deflector spaced above the oven bottom, a movable closure plate constructed and arranged in one position to close the chamber and in another position to close the space between the oven bottom and the deflector, a rack on the deflector, and a segmental rack on the closure plate and intermeshed with the rack on the deflector.

[Claims 6 to 8 not printed in the Gazette.]

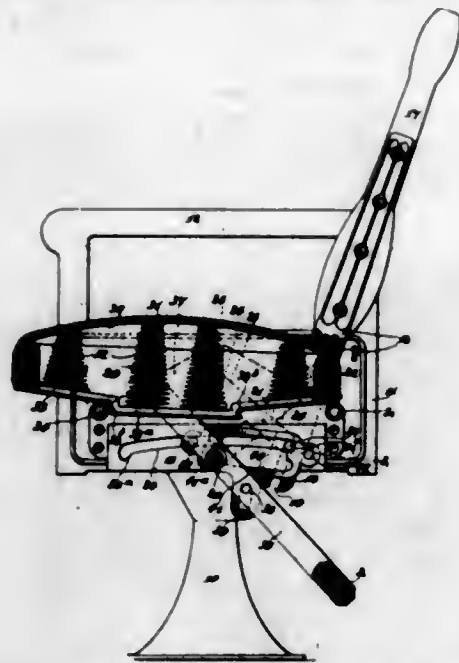
1,078,897. CAR-SEAT. FREDERICK BENNETT, Ravenswood, N. Y., assignor to Walker & Bennett Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 24, 1908, Serial No. 454,599. Renewed Apr. 14, 1913. Serial No. 761,049. (Cl. 155-2.)

1. A car seat having a frame plate with upper and lower sections separated by a slot, a back, an arm projecting from the same into the slot, a swinging link to which the arm is pivoted and a guide link pivoted on the swinging link one end of the guide link having sliding engagement with the arm and the other end of the link being vertically guided on the upper section of the frame plate.

2. A car seat having a frame plate with upper and lower sections divided by a slot, a back and arm the latter projecting down from the back through the slot, the upper section of the frame plate having a vertical slot, a pivoted link to which the arm is pivoted, a guide link pivoted on the first named link intermediate its ends, one end of the guide link having sliding engagement with the arm and the other end of the guide link being vertically guided in the slot of the upper section of the frame plate.

3. A car seat having a frame plate with upper and lower sections divided by a slot, a back and arm, the latter projecting down from the back through the slot, the lower section of the frame plate having a horizontal slot and the upper section of the frame plate a vertical slot, a pivoted link to which the arm is pivoted, a guide link pivoted on

the first named link intermediate its ends, one end of the guide link having a pin running in the slot in the lower section of the frame plate and having sliding engagement with the arm and the other end of the guide link being vertically guided in the slot of the upper section of the frame plate, a shifting cushion, a foot rest, a lever one end of which is connected to the foot rest and the other end with the cushion and a traveler connected with said lever and engaged by said pin to move the traveler in unison with the movement of the back.



4. A car seat having a frame plate with upper and lower sections divided by a slot, a back and arm the latter projecting down from the back through the slot the upper section of the frame plate having a vertical slot and the lower section of the frame plate having a horizontal slot, a pivoted link to which the arm is pivoted, a guide link pivoted on the first named link intermediate its ends, one end of the guide link having a pin running in the slot in the lower section of the frame plate and having sliding engagement with the arm and the other end of the guide link being vertically guided in the slot of the upper section of the frame plate, a foot rest, a shifting cushion, a lever intermediately fulcrumed, one end of the lever connected with the foot rest and the other end with the cushion and a traveler having pins running in the slot in the lower section of the frame plate, the traveler connected with the lever and engaged by said pin to move the traveler in unison with the movement of the back.

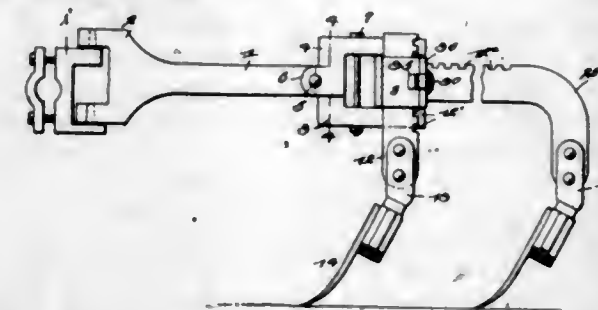
5. A car seat having a frame plate with upper and lower sections divided by a slot, a back and arm the latter projecting down from the back through the slot, the lower section of the frame plate having a horizontal slot and the upper section of the frame plate a vertical slot, a pivoted link to which the arm is pivoted, a guide link pivoted on the first named link intermediate its ends, one end of the guide link having a pin running in the slot in the lower section of the frame plate and such pin having sliding engagement with the arm and the other end of the guide link being vertically guided in the slot of the upper section of the frame plate, a foot rest, a shifting cushion, a lever intermediately fulcrumed, one end of the lever connected with the foot rest and the other end with the cushion and a traveler having pins running in the slots in the lower section of the frame plate to sustain the traveler, the traveler being connected with the lever and having a seat therein to receive the said pin, whereby to actuate the traveler.

[Claims 6 to 15 not printed in the Gazette.]

1,078,898. CULTIVATOR. JOHN B. BONNEAU, JR., Mill-sap, Tex. Filed Aug. 12, 1912. Serial No. 714,668. (Cl. 97-10.)

1. A device of the character described comprising a beam, a cross head secured intermediate of its ends to said beam, said cross head being formed with horizontal

and vertical slots, notched plow shanks disposed in said slots, said cross head being formed with longitudinal slots communicating with said first mentioned slots, and spring latches pivotally connected to said cross head, each of said latches being adapted to fit in one of the longitudinal slots and engage the notched edges of the plow shanks, as and for the purpose described.



2. A device of the character described comprising a beam, a cross head secured intermediate of its ends to said beam, said cross head being formed with slots, plow shanks disposed in said slots, said cross head being formed with longitudinal slots communicating with said first mentioned slots, and spring latches pivotally secured to said cross head, each of said latches having an inwardly projecting flange adapted to fit in one of the longitudinal slots and engage the notched end of one of the plow shanks, as and for the purpose described.

3. The combination with a gang beam and notched plow shanks, of a cultivator crosshead formed with transverse slots to receive the plow shanks and having longitudinal slots communicating with said transverse slots and spring latches each pivotally secured at its inner end to the cross head and each provided with an inwardly projecting flange, said flange being adapted to fit within one of the longitudinal slots and engage the notched edge of one of the plow shanks, the latches being removably secured at their free ends to the ends of the cross head.

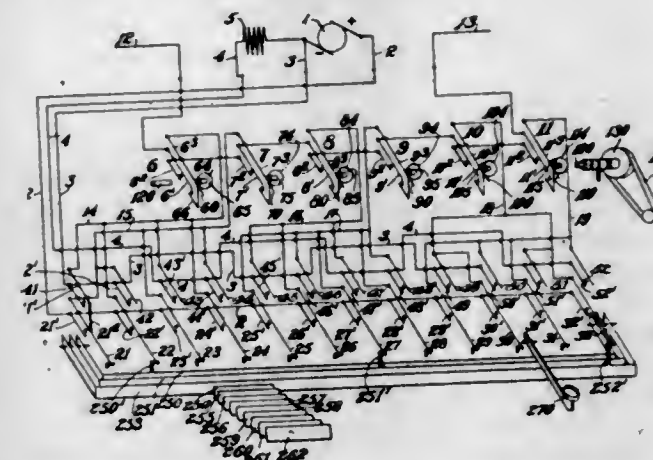
4. A device of the character described comprising a beam, a cross head secured to said beam, notched plow shanks, said cross head being formed with transverse slots to receive said plow shanks, the cross head being also formed with longitudinal slots communicating with said transverse slots, and spring latches having longitudinal inwardly projecting flanges adapted to extend within said longitudinal slots and engage said notched shanks, to hold said shanks within the transverse slots, as and for the purpose described.

5. A device of the class described comprising a beam, a cross head secured intermediate of its ends to said beam, horizontal slots formed in said beam on one side of its pivotal point, vertical slots formed in said beam on the other side of its pivotal point, plow shanks disposed within said slots, said cross head being also formed with longitudinal slots communicating with said vertical and horizontal slots, and spring latches pivotally secured to said cross head and adapted to extend within said longitudinal slots to engage said notched shanks, to hold said shanks within said vertical and horizontal slots, as and for the purpose described.

1,078,899. SELECTIVE TELEGRAPH SYSTEM. ELMER A. BURLINGAME, Boston, Mass., assignor to Burlingame Telegraphing Typewriter Company, Boston, Mass., a Corporation of Washington. Filed Jan. 6, 1910. Serial No. 536,616. (Cl. 178-69.)

1. In a selective system a north and south line, a source of electrical energy for said lines, a pair of lines connected to opposite terminals of said source of energy, a third line from said source of energy, a resistance in said third line, a pair of oppositely connected line closers, a group of switch pairs, said group having one contact of one switch of each pair in circuit with one of said pair of lines and the other contacts of said switches alternately in circuit with one each of said pair of line closers, and said group having one contact of one switch of each of the other pairs connected in twos alternately with one

or the other of said pair of lines and said resistance line, and the other to said oppositely connected line closer, means for actuating said line closer and means for actuating the switch pairs in selection to send to line successive plural characteristic impulses.



2. In a selective system a north and south line, a source of electrical energy for said lines, a pair of lines connected to opposite terminals of said source of energy, a third line from said source of energy, a resistance in said third line, three pairs of oppositely connected line closers, three groups of switch pairs, each of said groups having one contact of one switch of each pair in circuit with one of said pair of lines and the other contact of said switches alternately in circuit with one or the other of said pairs of line closers, and each of said groups having one contact of one switch of each of the other pairs connected in twos alternately with either one or the other of said pair of lines and said resistance line, and the other of said switches to said oppositely connected line closers alternately, means for successively actuating said line closers and means for actuating one switch pair of one or more groups in characteristic selection to send to line successive plural characteristic impulses.

3. In a selective system a north and south line, a source of electrical energy for said lines, a pair of lines connected to opposite terminals of said source of energy, a third line from said source of energy, a resistance in said third line, three pairs of oppositely connected line closers, three groups of switch pairs, means for successively actuating said line closers and means for actuating one switch pair of one or more groups in characteristic selection to send to line successive plural characteristic impulses.

4. In a selective system, a line, a source of electrical energy, a resistance, a plurality of oppositely connected line closers connected in pairs, a plurality of groups of switches, means for actuating one switch of one or more groups to connect said source of energy either directly or through said resistance and means for successively actuating said line closers in pairs to send to line successive plural characteristic impulses.

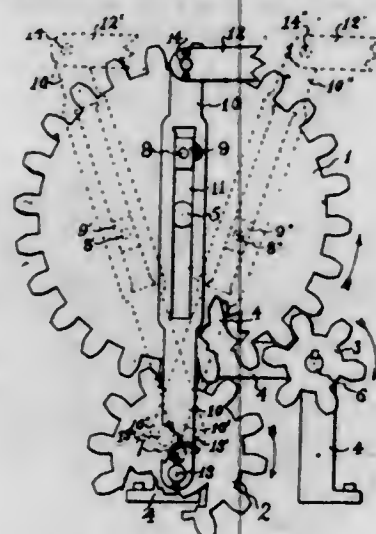
5. In a selective system, a line, a source of electrical energy for said line, a resistance, two conductors connected respectively to the positive and negative terminals of said source, a third conductor connected to said resistance and to one of said terminals of said source, a plurality of switches having switch elements connected to each of said conductors and arranged in pairs and adapted as one or more pairs to be selectively closed by a plurality of keys, a plurality of interconnected line closers and connected in pairs to said pairs of switches, the extreme terminals of said line closers being connected to said line, and means for actuating said line closers in pairs in succession.

[Claims 6 to 17 not printed in the Gazette.]

1,078,900. MECHANICAL MOVEMENT. JOHN H. BURFEE and EUGENE T. HOSKINS, Bellingham, Wash. Filed Jan. 22, 1909. Serial No. 473,772. (Cl. 74-5.)

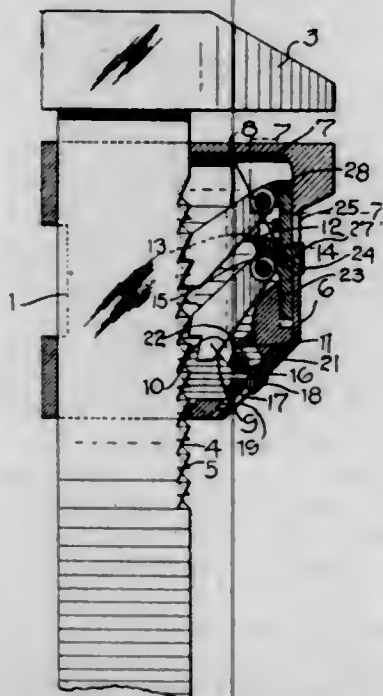
1. A mechanical movement comprising spaced long and short cranks, means for driving said cranks simultaneously and with the short crank operating two revolutions to one revolution of the long crank, a link pivoted to the short

crank, and means slidably connecting said link with said long crank, whereby one end portion of said link will swing on and be directed by said long crank.



2. A mechanical movement comprising two gears in mesh, one of which gears has twice the number of teeth of the other, crank pins on said gears, means for driving said gears, and a link pivoted on the crank pin of the smaller gear and slidably and swingingly connected with the crank pin of the other gear, said crank pins being arranged to be in line with one another and with said link when the latter extends across the axes of said gears.

1,078,901. WRENCH. JOHN EDWARD CARTMILL, Roseville, W. Va. Filed Mar. 17, 1913. Serial No. 754,988. (Cl. 81-139.)



1. A wrench including a shank having a stationary jaw formed at one end, said shank having two sets of opposed teeth arranged upon one side thereof, said jaw being provided with a cavity, a pair of pivoted pawls arranged within said cavity and adapted to alternately engage one set of teeth and a third pivoted pawl arranged within the cavity and adapted to engage the other set of teeth whereby the movable jaw is securely held against movement in either direction and means for releasing said pawls.

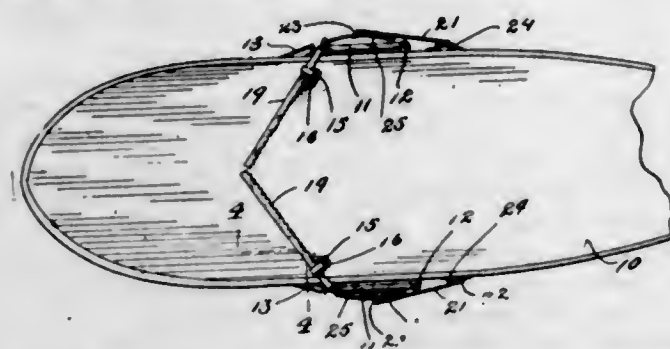
2. A wrench including a shank having a stationary jaw at one end, said shank having two sets of opposed teeth formed upon one face thereof, a movable jaw slidably upon the shank and having a cavity formed therein, a pair of spring held pivoted pawls arranged in one side of the cavity and adapted to alternately engage one set of teeth, a third spring held pivoted pawl adapted to normally engage the other set of teeth whereby the jaw is held against movement in either direction, and means for releasing said pawls.

3. A wrench including a shank having a stationary jaw at one end, said shank having two sets of opposed teeth formed upon one face thereof, a movable jaw slidably mounted upon said shank and having a cavity in one side thereof, a pair of pivoted pawls arranged in one side of the casing and adapted to alternately engage one set of teeth, a coil spring having one of its ends engaging the intermediate portion of one of the pawls and its other end engaging with the outer end of the other pawl, whereby said pawls will be normally held in engagement with the teeth, a third spring held pivoted pawl mounted in the cavity upon the opposite side thereof and adapted to normally engage the other set of teeth whereby the movable jaw will be held against movement in either direction, and means for releasing said pawls.

4. A wrench including a shank having a stationary jaw at one end, said shank being provided upon one face with two sets of opposed teeth, a movable jaw slidably mounted upon the shank and provided at one side with a cavity, a pair of spring held pawls adapted to alternately engage one set of teeth, a third spring held pawl mounted in the cavity and adapted to engage the second set of teeth to hold said jaw against movement, and sliding plates mounted within said cavity and adapted to engage the outer ends of said pawls to release the same and permit the movable jaw to move in either direction.

5. A wrench including a shank having a stationary jaw at one end, said shank being provided upon one face with two sets of opposed teeth, a movable jaw slidably mounted upon the shank and having a cavity at one side thereof, spring held pivoted pawls mounted within one side of the cavity and adapted to alternately engage one set of teeth, a third pawl arranged within the cavity and adapted to normally engage the second set of teeth, said pawls being provided with outwardly projecting ends, sliding plates mounted within the cavity and adapted to engage said outwardly projecting ends to release the pawls from engagement with the teeth to permit the movable jaw to be moved in either direction, and finger holds formed upon said plates and adapted to project out through one side of the movable jaw whereby the plates may be readily manipulated to release the pawls.

1,078,902. VESSEL EMERGENCY-BRAKE. SAMUEL S. CENTOFANT, Smiths Basin, N. Y. Filed Sept. 13, 1912. Serial No. 720,286. (Cl. 114-145.)

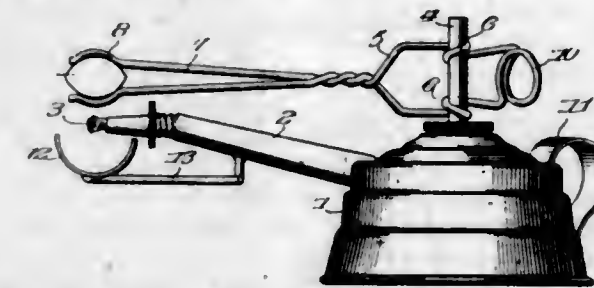


In a brake mechanism for vessels, the combination of a hull, a leaf pivotally mounted on the side of the hull with its axis of rotation disposed vertically with respect to the hull, means for swinging said leaf to positions against and at an angle to the hull and means for bracing the leaf when the latter is disposed substantially at right angles to the hull, said means comprising an arcuate rod disposed transversely of the leaf and having its terminals secured thereto, a U-shaped bracket secured to the hull and disposed longitudinally of the latter, and a brace rod having its terminals slidably engaged with the arcuate rod and bracket respectively.

1,078,903. SEALING-TORCH. BARNEY T. CORNETT, Showns, Tenn., assignor to Maurice E. Farris, Showns, Tenn. Filed May 11, 1912. Serial No. 696,737. (Cl. 120-116.)

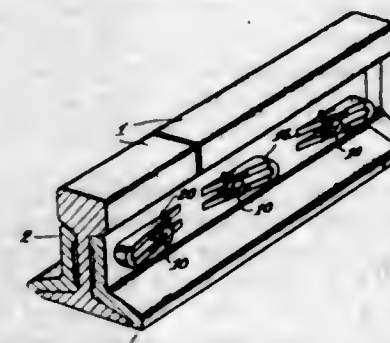
1. A sealing torch, comprising an oil font, a burner, a sealing wax carrier pivotally mounted on the font to

adapt the wax to be swung toward and away from the burner, and a drip trough arranged under the path of the wax, and supported by the burner.



2. A sealing torch comprising an oil font, a finger loop on said font, a burner, a sealing wax carrier pivotally mounted on the font to swing toward and away from the burner on a vertical axis, and a finger loop on said carrier for use conjointly with the first-named finger loop.

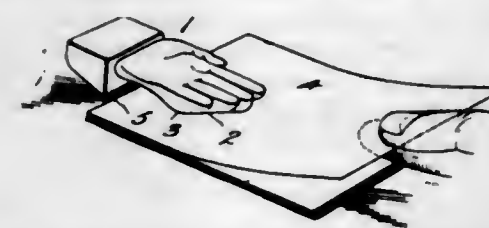
1,078,904. RAIL-JOINT FASTENING AND THE LIKE. JOHN M. DORSEY, Ellensburg, Wash. Filed Mar. 11, 1913. Serial No. 753,521. (Cl. 239-11.)



1. In combination with a bolt having one end portion provided with a reduced portion having converging faces extending to terminal shoulders, and a bifurcated wedge straddling the reduced portion of the bolt and bearing against the terminal shoulders thereof, said wedge being retained from disengagement with the terminal shoulders by coöperation with the converging faces of the bolt.

2. A device of the character described comprising a bolt having one end portion provided with converging faces extending to terminal shoulders, the inner faces of the shoulders being serrated, and a wedge member straddling the bolt and provided with serrations for engagement with the serrated faces of the shoulders of the bolt, said wedge member being retained from disengagement with the serrated shoulders by coöperation with the converging faces of the bolt.

1,078,905. PAPER-WEIGHT. JAMES E. DRAKE, New York, N. Y. Filed Dec. 3, 1912. Serial No. 734,784. (Cl. 120-82.)

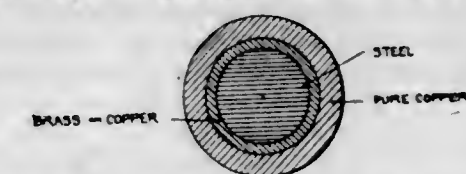


A paper weight made up of two portions, one of which is cone-shaped on its lower surface and the other formed with an inclined bearing surface and with a cutaway neck joining it to the cone-shaped surface.

1,078,906. PROCESS OF PRODUCING CLAD METALS. BYRON E. ELDRED, Bronxville, N. Y. Filed Dec. 15, 1908, Serial No. 467,657. Renewed Apr. 21, 1913. Serial No. 762,664. (Cl. 29-188.)

1. The process of producing clad metals which comprises coating a relatively stiff metal core with a softer

metal, placing said core in a relatively cool condition within a heated and expanded shell of a high-melting, ductile non-ferrous metal, and heating to cause said core to expand against said shell and produce a union.



2. The process of producing clad metals which comprises coating a relatively stiff metal core with a softer metal, placing said core in a relatively cool condition within a heated and expanded copper shell, and heating to cause said core to expand against said shell and produce a union.

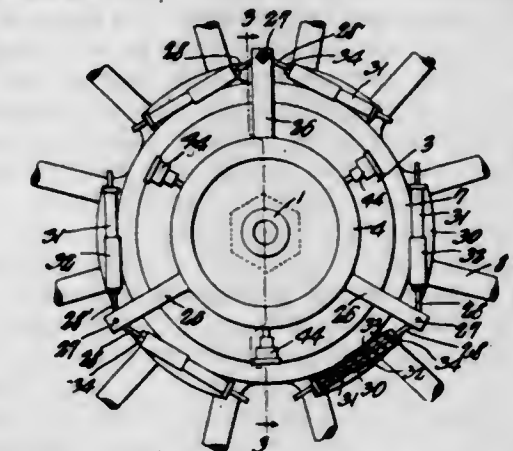
3. The process of producing clad metals which comprises coating a ferrous metal core with a softer metal, placing said core in a relatively cool condition within a heated and expanded shell of a high-melting, ductile non-ferrous metal and heating to cause said core to expand against said shell and produce a union.

4. The process of producing clad metals which comprises coating a ferrous metal core with brass, placing said core in a relatively cool condition within a heated and expanded copper shell and heating to cause said core to expand against said shell and produce a union.

5. The process of producing clad metals which comprises coating a relatively stiff metal core with a softer metal and a layer of a steam furnishing fusible flux, placing said core in a relatively cool condition within a heated and expanded shell of a ductile, high-melting, non-ferrous metal and heating to cause said core to expand against said shell and produce a union.

[Claims 6 to 14 not printed in the Gazette.]

1,078,907. VEHICLE-WHEEL. FLEM S. ELLIS, Hannibal, Mo. Filed Oct. 25, 1912. Serial No. 727,810. (Cl. 152-45.)

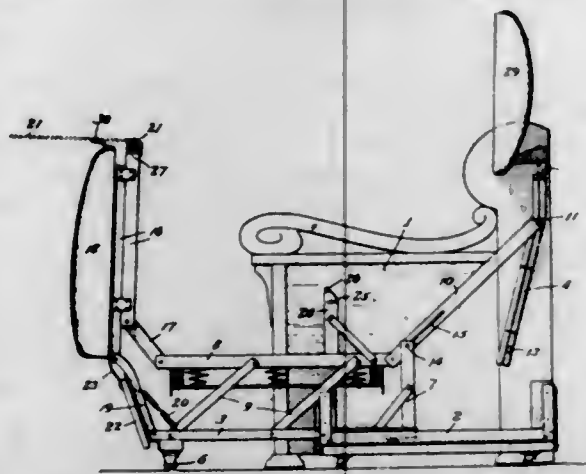


A vehicle wheel, including a hub, a spoke carrying annulus thereabout, a resilient support between the hub and annulus, and means for connecting the hub and annulus for simultaneous rotation, including a plurality of radially disposed arms carried by the hub, a plurality of spaced plates carried by the annulus, one to each radial arm, each plate having an apertured rod guiding lug at its end remote from the arm, a plurality of pairs of rods, one pair being pivotally connected to the outer end of each radial arm and having their free ends threaded through the apertured lugs of the respective pairs of plates, two telescopic sleeves surrounding each rod, the end of one sleeve bearing against the lug of its plate, a nut upon the rod adjacent the connection of the rod to the radial arm for limiting the movement of the other sleeve, and a spring surrounding each rod and incased within the sleeve.

1,078,908. FOLDING BED. GEORGE FISCHRUPP, Chicago, Ill. Filed Feb. 20, 1913. Serial No. 749,578. (Cl. 5-51.)

1. In a folding bed of the character set forth, the combination of a main frame, a supporting member having

horizontal movement in said frame, a central bed member connected to said supporting member by a series of radius links, a front bed member connected to said supporting member by radius links and to the central bed member by an intermediate bed section, a rear bed member pivoted at its front end to the central bed member, and means for imposing vertical motion on the rear end of said rear bed member.



2. In a folding bed of the character set forth, the combination of a main frame, a supporting member having horizontal movement in said frame, a central bed member connected to said supporting member by a series of radius links, a front bed member connected to said supporting member by radius links and to the central bed member by an intermediate bed section, a rear bed member pivoted at its front end to the central bed member, and means for imposing vertical motion on the rear end of said rear bed member, the same comprising an upright guide secured to the main frame and guiding means on said bed member engaging said guide.

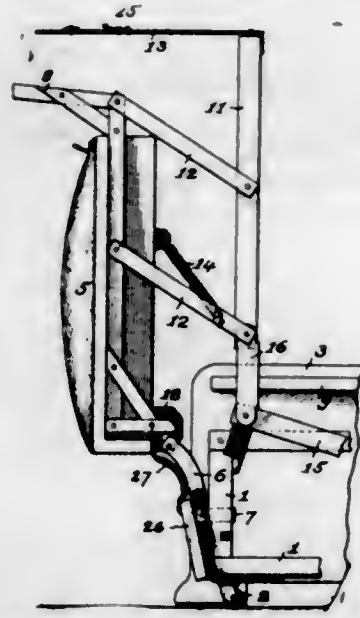
3. In a folding bed of the character set forth, the combination of a main frame, a supporting member having horizontal movement in said frame, a central bed member connected to said supporting member by a series of radius links, a front bed member connected to said supporting member by radius links and to the central bed member by an intermediate bed section, a rear bed member pivoted at its front end to the central bed member, means for imposing vertical motion on the rear end of said rear bed member, and a latch mechanism for locking said front and central bed members in their folded condition.

4. In a folding bed of the character set forth, the combination of a main frame, a supporting member having horizontal movement in said frame, a central bed member connected to said supporting member by a series of radius links, a front bed member connected to said supporting member by radius links and to the central bed member by an intermediate bed section, a rear bed member pivoted at its front end to the central bed member, means for imposing vertical motion on the rear end of said rear bed member, and a latch mechanism for locking said front and central bed members in their folded condition, the same comprising side standards on the central bed member having their upper ends outwardly inclined and provided with bolt receiving orifices, and spring actuated bolts carried by said front bed member and adapted to engage said bolt receiving orifices.

5. In a folding bed of the character set forth, the combination of a main frame, a supporting member having horizontal movement in said frame, a central bed member connected to said supporting member by a series of radius links, a front bed member connected to said supporting member by radius links and to the central bed member by an intermediate bed section, a rear bed member pivoted at its front end to the central bed member, means for imposing vertical motion on the rear end of said rear bed member, and means for effecting a pivotal and sliding engagement between the supporting member aforesaid and the rear bed member at a point to the rear of the pivotal connection between the rear and central bed members.

[Claims 6 to 15 not printed in the Gazette.]

1,078,909. FOLDING BED. GEORGE FISCHRUPE, Chicago, Ill. Filed May 5, 1913. Serial No. 765,480. (Cl. 5-51.)



1. In a folding bed, the combination of a main frame, a reversible seat member hinged thereto and provided with a supporting leg, and a bed member connected to said seat member by a plurality of radius links of uniform lengths and adapted to have a walk over adjustment past said seat member upon said links.

2. In a folding bed, the combination of a main frame, a reversible seat member hinged thereto and provided with a supporting leg, a bed member connected to said seat member by a plurality of radius links of uniform lengths and adapted to have a "walk over" adjustment past said seat member upon said links, and a tension spring associated with the seat member and one of said links.

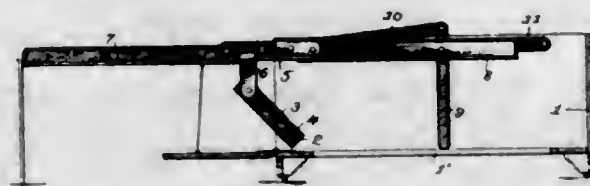
3. In a folding bed, the combination of a main frame, a reversible seat member hinged thereto and provided with a supporting leg, a bed member connected to said seat member by a plurality of radius links and adapted to have a "walk over" adjustment past said seat member upon said links, and a supporting leg attached to an end of said bed member.

4. In a folding bed, the combination of a main frame, a reversible seat member hinged thereto and provided with a supporting leg, a bed member comprising a series of sections pivotally connected end to end, a plurality of radius links connecting one of said bed sections to said seat member and imposing on said bed section a "walk over" movement past the seat member, and a knee piece carried by another bed section and adapted to have abutment on said seat member.

5. In a folding bed, the combination of a main frame, a reversible seat member hinged thereto and provided with a supporting leg, a bed member comprising a front, intermediate, central and rear section pivotally connected end to end, a plurality of radius links connecting the front bed section to said seat member and imposing on said front section a walk over movement past the seat member, and a knee piece carried by the central bed section and adapted to have abutment on said seat member.

[Claims 6 to 12 not printed in the Gazette.]

1,078,910. FOLDING BED. GEORGE FISCHRUPE, Chicago, Ill. Filed Dec. 13, 1909, Serial No. 532,791. Renewed May 7, 1913. Serial No. 766,207. (Cl. 5-51.)



1. In a folding bed, the combination of a main housing, pivot members attached to said housing, intermediate links

pivotally connected to said pivot members, counterpart marginal frame members pivoted to the respective ends of said intermediate links, and means intermediate of said links and the housing for imparting an upward movement to the frame members and intermediate links in an opening movement of the parts, the same comprising pull bars, levers and horizontal guiding means on the main housing, substantially as set forth.

2. In a folding bed, the combination of a main housing, pivot members attached to said housing, intermediate links formed with lateral arms for pivotal connection with said pivot members, counterpart marginal frame members pivoted to the respective ends of said intermediate links, and means intermediate of said links and the housing for imparting an upward movement to the frame members and intermediate links in an opening movement of the parts, the same comprising pull bars, levers and horizontal guiding means on the main housing, substantially as set forth.

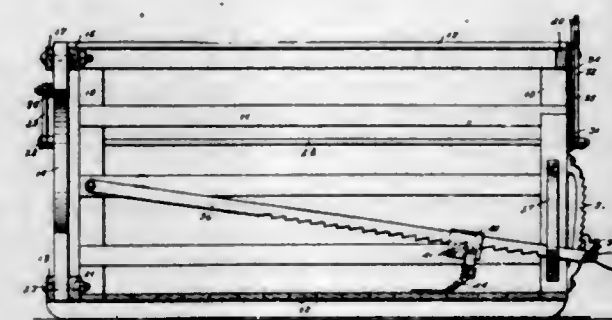
3. In a folding bed, the combination of a main housing, a rail disposed longitudinally between the end walls of said housing and provided with upright end members, intermediate links formed with lateral arms for pivotal connection with said end members, counterpart marginal frame members pivoted to the respective ends of said intermediate links, and means intermediate of said links and the housing for imparting an upward movement to the frame members and intermediate links in an opening movement of the parts, the same comprising pull bars, levers and horizontal guiding means on the main housing, substantially as set forth.

4. In a folding bed, the combination of a main housing, short upright members pivoted at their lower ends to said housing, intermediate links pivoted to said upright members, counterpart marginal frame members pivoted to the respective ends of said intermediate links, and means intermediate of said links and the housing for imparting an upward movement to the frame members and intermediate links in an opening movement of the parts, the same comprising pull bars, levers and horizontal guiding means on the main housing, substantially as set forth.

5. In a folding bed, the combination of a main housing, short upright members pivoted at their lower ends to said housing, intermediate links formed with lateral arms for pivotal connection with said upright members, counterpart marginal frame members pivoted to the respective ends of said intermediate links, and means intermediate of said links and the housing for imparting an upward movement to the frame members and intermediate links in an opening movement of the parts, the same comprising pull bars, levers and horizontal guiding means on the main housing, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,078,911. HOG-TRAP. HARRY S. FLEAGLE, Farrar, Iowa. Filed June 12, 1911. Serial No. 632,767. (Cl. 119-99.)



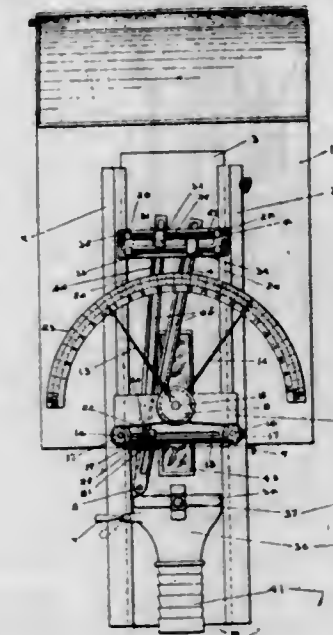
1. In a device of the class described, a frame comprising side members, front members, one of said front members being capable of movement for securing the neck of an animal between said front members, levers pivoted on each side of the machine near the front end of said device at points above the bottom of said device, means for adjustably securing the rear ends of either of said levers in

various positions of their upward and downward movement for raising or lowering one leg or side of the animal independent of the other leg or side.

2. In a device of the class described, a frame comprising side members, front members, one of said front members being capable of movement for securing the neck of an animal between said front members, levers pivoted on each side of the machine near the front end of said device at points above the bottom of said device, means for adjustably securing the rear ends of either of said levers in various positions of their upward and downward movement for raising or lowering one leg or side of the animal independent of the other leg or side, means slidably mounted on each of said levers capable of being locked to prevent rearward movement thereof and means for securing the leg of an animal to each of said last named means.

3. In a device of the class described, a frame comprising side members, front members, one of said front members being capable of movement for securing the neck of an animal between said front members, levers pivoted on each side of the machine near the front end of said device at points above the bottom of said device, means for adjustably securing the rear ends of either of said levers in various positions of their upward and downward movement for raising or lowering one leg or side of the animal independently of the other leg or side, said levers being capable of control from the rear of the machine.

1,078,912. COMPUTING-BIN. DAVID S. FLEMING and EARL JONES, Estacada, Oreg. Filed Jan. 23, 1913. Serial No. 743,725. (Cl. 73-132.)



1. A machine for dispensing goods in bulk comprising a chute, a closure slidably positioned therein, a pointer mounted centrally on said closure, a scale conforming to the path of said pointer and means operatively connected with said closure for moving the pointer to indicate the market price of the goods contained in the chute at any given position of the closure.

2. A machine for dispensing goods in bulk comprising a bin, a chute leading therefrom, a hopper slidably positioned in said chute, a pointer mounted centrally on said closure, a scale conforming to the path of said pointer and means operatively connected with said pointer for causing it to indicate the market price of the goods contained in the chute at any given position of the hopper.

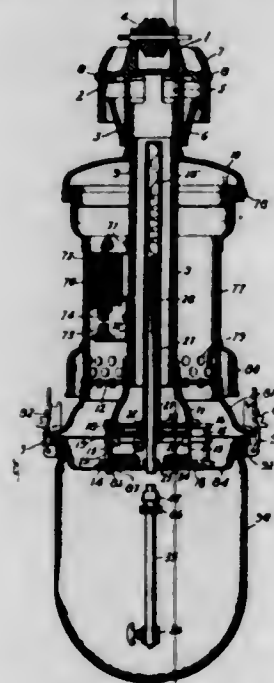
3. A machine for dispensing goods in bulk comprising a bin, a chute leading therefrom, a hopper slidably positioned in said chute, pointers mounted centrally on said closure, scales conforming to the path of said pointers and means operatively connected with said hopper for moving said pointer to indicate the market price and the weight of the goods contained in the chute at any given position of the hopper.

4. A machine for dispensing goods in bulk, comprising a bin having an outlet in its lower end, guide ways fixed upon the front of the bin and extending below it, a plate mounted to slide in the guide ways, a chute uniting the guide ways and extending beneath the bin to encompass the outlet opening, a closed hopper secured to the lower end of the plate and slidably fitted into said chute to form a bottom therefor, and means operatively connected with the plate for indicating the amount of goods in the chute at any given position of the hopper.

5. A machine for dispensing goods in bulk, comprising a bin having an outlet in its lower end, guide ways fixed upon the front of the bin and extending below it, a plate mounted to slide in the guide ways, a chute uniting the guide ways and extending beneath the bin to encompass the outlet opening, a closed hopper secured to the lower end of the plate and slidably fitted into said chute to form a bottom therefor, an index pivotally mounted on the bin and means upon the plate for operating the index so as to show the value of goods contained in the chute.

[Claims 6 to 9 not printed in the Gazette.]

1,078,913. ARC-LAMP. RICHARD FLEMING and CROMWELL A. B. HALVORSON, JR., Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Mar. 6, 1905. Serial No. 248,549. (Cl. 176-52.)



1. In an arc lamp, a draft tube, a chambered member in open communication therewith, inlet passages formed in said chamber and terminating in a contracted annular nozzle, an electrode, and means for supporting it with its arcing end adjacent the end of said nozzle.

2. In an arc lamp, a pair of electrodes in alignment with each other, means for maintaining an arc between adjacent ends of said electrodes, and means for creating a draft extending by the arcing end of each electrode toward the opposite electrode.

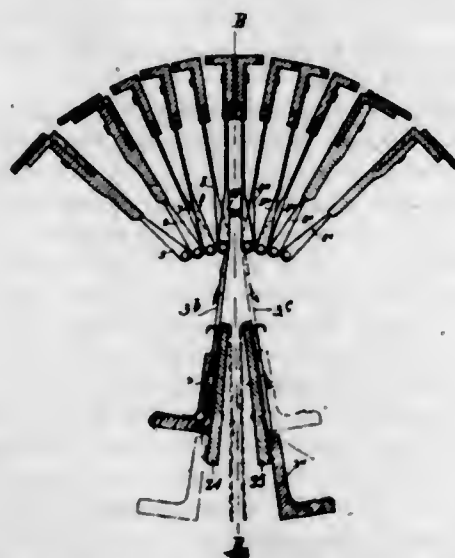
3. In an arc lamp, a pair of electrode surfaces between which an arc extends, one of said electrode surfaces being located above the other, and means for creating an air draft passing downward about the upper surface.

4. In an arc lamp, a central draft tube forming the backbone of the arc lamp structure, an electrode located in said draft tube and having its arcing end adjacent the lower end thereof, a second electrode in alignment with and below the first electrode, and means for creating a draft passing downward by the lower end of the upper electrode.

5. In an arc lamp, a draft tube or chimney through which gases heated in the lamp pass upward, an upper electrode having its arcing surface adjacent the lower end of the draft tube, and an air inlet passage surrounding the arcing end of said electrode for conveying air or gas downward by the arcing end of said electrode.

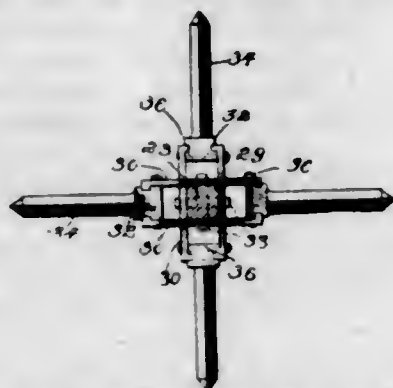
[Claims 6 to 26 not printed in the Gazette.]

1,078,914. DOUBLE-RIB-WARP-KNITTING MACHINE. OTTO GÄBEL, Apolda, Germany, assignor to The Firm of Hugo Burkhardt, Apolda, Germany. Filed Feb. 10, 1913. Serial No. 747,356. (Cl. 66-33.)



In a double-rib warp knitting machine the combination with two rows of needles placed opposite each other, of warp guides arranged in pairs so that the ends of the guides belonging to a pair lie side by side in a single row, for the purpose set forth.

1,078,915. HARROW. ALFRED L. GARLOUGH, St. Paul, Minn. Filed May 6, 1913. Serial No. 765,953. (Cl. 55-94.)



1. A harrow attachment comprising a supporting member, resilient plates mounted thereon, and teeth secured between the plates and spaced from the supporting member.

2. A harrow attachment comprising a supporting member having a portion which is non-circular in transverse section, resilient plates mounted upon said portion of the shaft, and teeth carried between the ends of the plates and spaced from the supporting member.

3. A harrow attachment comprising a supporting member, pins passing through the same, resilient plates having elongated slots which receive the ends of said pins, and teeth carried between the plates and spaced from the supporting member.

4. A harrow attachment comprising a supporting member, resilient plates mounted upon the supporting member and having intumed ends, and teeth having in their sides recesses which receive the intumed ends of the plates.

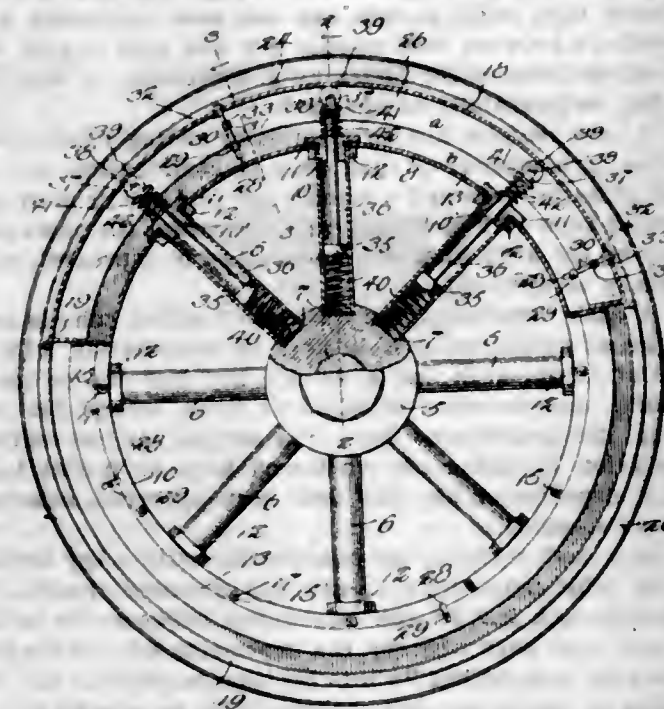
5. A harrow attachment comprising a supporting member, pins passing through the supporting member, resilient plates having elongated slots which receive the end portions of the pins, said plates having intumed ends, teeth having in their sides recesses which receive the intumed ends of the plates, and bolts passing transversely through the plates and teeth.

[Claims 6 and 7 not printed in the Gazette.]

1,078,916. VEHICLE-WHEEL. JOSEPH R. GERARD, Parsons, Kans. Filed Nov. 30, 1910. Serial No. 594,850. (Cl. 152-48.)

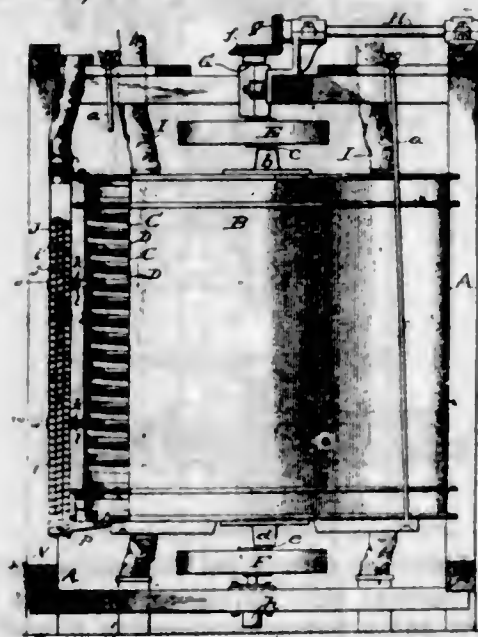
A spring wheel including a hub, a rim made up of telescopically arranged annular members having contact walls,

one of said members being formed with aligned slots, a pin rotatably mounted in the aligned slots and underlying the adjacent edge of the other member, arms projecting from the relatively outer member, a rod projecting cen-



trally from the pin and pivotally connected to the arm, a rigid connection between one of the annular members and the hub and means slidably mounted in said rigid connection for exerting radial pressure between the hub and the remaining annular member.

1,078,917. BOLTING, SIFTING, AND GRADING MACHINE. WILLIAM D. GRAY and JOHN G. HINTZ, JR., Milwaukee, Wis., assignors, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 1, 1897. Serial No. 621,504. (Cl. 83-38.)



1. In a bolting, sifting or grading machine, the combination with a circular sieve or sieves, inclined from the receiving to the delivery end, of means for imparting a gyratory motion thereto in a horizontal plane, a circular helical elevator movable in a circular path with said sieve and serving to elevate cleaning material from a lower to a higher level in the machine through the motion given said material by such horizontal gyratory movement.

2. In combination with a circular helical sieve, means for bodily moving the same in a circular path in a horizontal plane, and an elevating device attached to and movable with the sieve, and consisting of a circular helical conducting channel adapted to take cleaning material from the tail or lower end of the sieve and to return the same continuously to the head or upper end thereof, through the motion imparted to the sieve and to the device.

3. In combination with a circular helical sieve and with means for imparting a gyratory motion thereto in a hori-

196 O. G.—42

zontal plane, granular cleaning material placed upon the sieve to clear its meshes, and a circular helical elevator extending from a lower part of the sieve toward its head or upper part thereof and movable with the sieve and serving by reason of such motion to return the cleaning material from said lower to said higher point.

4. In combination with a circular helical sieve, a casing, a trunk or pipe extending from a higher to a lower part of said casing and communicating with spaces above and below the sieve, an inclined helical plate or strip within said trunk or pipe, and means for bodily moving the sieve and trunk horizontally in a substantially circular path, whereby cleaning material placed upon the sieve and delivered by it to the lower part of said trunk may be elevated through said trunk and delivered again upon the sieve.

5. In combination with a helical sieve winding in one direction from a higher to a lower level and with a casing therefor, a pipe extending from said lower toward said upper part of said sieve, a fixed plate winding horizontally within said pipe from its lower end to a point at or near its top in a direction the reverse of that in which the sieve winds, branch pipes connecting the said pipe with the sieve casing at or near the upper and lower ends of said pipe, and means for horizontally moving said sieve and pipe in a substantially circular path.

[Claims 6 to 17 not printed in the Gazette.]

1,078,918. PROCESS FOR RENDERING STERILIZED WATER TASTELESS AND ODORLESS. REINHOLD GRÜTER, Charlottenburg, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 10, 1913. Serial No. 747,520. (Cl. 99-1.)

1. Process of rendering water, sterilized by treatment with a halogen, tasteless and odorless, which process consists in treating water sterilized in this manner with a peroxid compound which liberates oxygen in the presence of water, substantially as described.

2. Process of rendering water, sterilized by treatment with a salt of a hypohalogenous acid, tasteless and odorless, which process consists in treating water sterilized in this manner with a peroxid compound which liberates oxygen in the presence of water, substantially as described.

3. Process of rendering water, sterilized by treatment with a halogen, tasteless and odorless, which process consists in treating water sterilized in this manner with hydrogen peroxid, substantially as described.

4. Process of rendering water, sterilized by treatment with a salt of hypohalogenous acid, tasteless and odorless, which process consists in treating water sterilized in this manner with hydrogen peroxid, substantially as described.

5. Process of rendering water, sterilized by treatment with a halogen, tasteless and odorless, which process consists in treating water sterilized in this manner with a peroxid which liberates oxygen in the presence of water, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

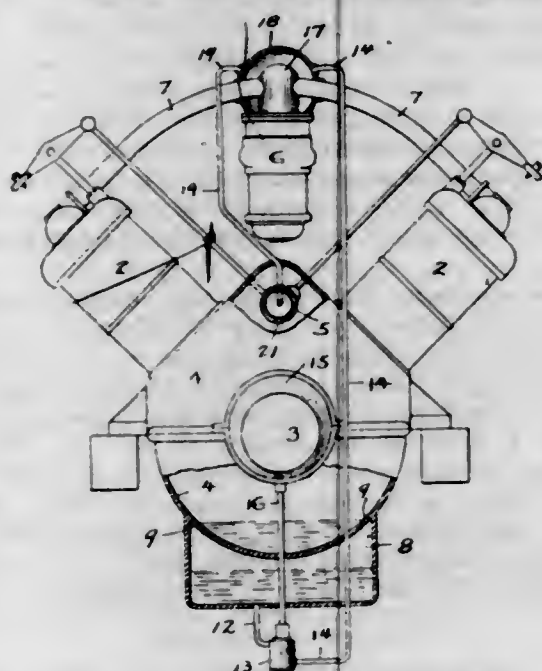
1,078,919. INTERNAL-COMBUSTION ENGINE. ELBERT J. HALL, West Berkeley, Cal. Filed June 13, 1911. Serial No. 632,919. (Cl. 123-122.)

1. The combination with an internal combustion engine having an oiling system and a carburetor of a closed conductor connected at both ends with the engine and extending into close relation to said carburetor and means operated by the engine for circulating the oil through said conductor.

2. The combination with an internal combustion engine having an oiling system, and a carburetor, of a pump operative by the engine connected to said oiling system, a casing surrounding the carburetor, a conductor extending from the pump into said casing, and a second conductor extending from the casing back to the oiling system.

3. The combination with an internal combustion engine and a carburetor partly surrounded by a fluid tight casing,

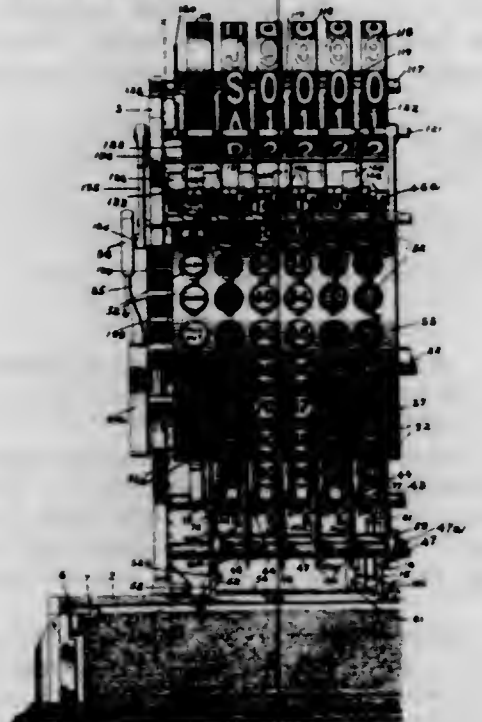
of a lubricating oil reservoir on the crank case of the engine adapted to receive oil from said crank case, a conductor connecting said reservoir with the casing surrounding the carbureter, a pump in said conductor arranged to be operated by the engine, and a conductor for conducting the oil from the carbureter casing to the engine.



4. The combination with an internal combustion engine having a hollow apertured cam-shaft and a carbureter having a casing surrounding the same, of a means for forcing the lubricating oil from the crank case of the engine through the casing surrounding the carbureter and into the hollow cam-shaft.

5. The combination with an internal combustion engine having an oiling system and a carbureter, of a pump connected to said oiling system adapted to be operated by the engine, a conductor extending from the pump to the carbureter and adapted to convey the oil into thermal contact with the carbureter and a conductor for returning the oil to the engine.

1,078,920. CASH-REGISTER. HENRY S. HALLWOOD, Columbus, Ohio, assignor, by mesne assignments, to The Hallwood Cash Register Company, Columbus, Ohio, a Corporation of Ohio. Filed Nov. 4, 1899. Serial No. 735,748. (Cl. 235-2.)



1. In a cash register, the combination with a series of adding wheels and a series of numbered or value keys, of a series of initial keys, department keys, and a no-sale key and locking means under the control of the value keys whereby the no-sale key cannot be operated if a value key has first been depressed.

2. In a cash register, the combination with a key frame, sets of depressible value and department keys, therein and a no-sale key comprised in said set of department keys, of a locking device which prevents the depression of said department keys until a cash key has been depressed and connections between said no-sale key and said locking device which releases the latter by a depression of said no-sale key, substantially as specified.

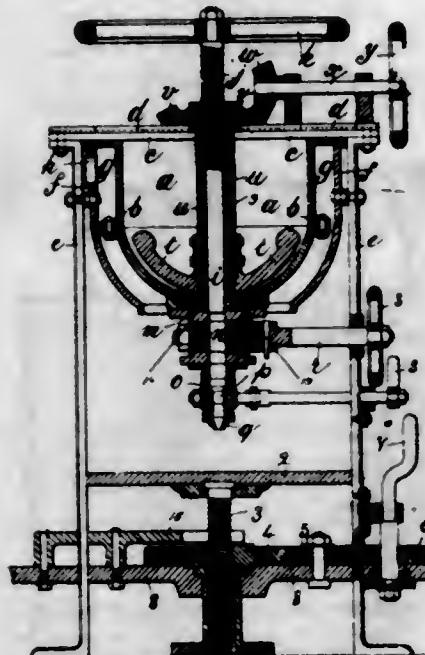
3. A cash register having a series of adding wheels, and a series of numbered or cash keys in combination with a series of initial keys and a no-sale key and one or more department keys with locking means to prevent the operation of any of the keys when the no-sale key is depressed, substantially as specified.

4. A cash register having a series of adding wheels and a series of numbered or cash keys in combination with a series of initial keys and a no-sale key and one or more normally undepressible department keys, means for unlocking the department keys and means for preventing registration by either the numbered keys or initial keys until a department key has first been operated, substantially as specified.

5. In a cash register, the combination with a key frame, sets of value keys and a no-sale key mounted therein, of a movable lock bar 98 and mechanism between the latter and said cash keys whereby the depression of a value key moves said locking bar 98 into position to prevent the depression of the no-sale key, substantially as specified.

[Claims 6 to 65 not printed in the Gazette.]

1,078,921. APPARATUS FOR MELTING, COMPRESSING, AND FORCING METAL OR ALLOYS INTO MOLDS. WILLIAM GEORGE HANNA, Jr., Manchester, England. Filed Dec. 7, 1912. Serial No. 735,395. (Cl. 22-67.)



1. The combination, with a pot for molten metal provided with a vertical tube having an outlet at the bottom of the pot and a passage connecting it with the interior of the pot, of two valves arranged one above the other and connected to the said outlet, a plunger slidable in the said tube and closing the said passage when depressed, and means for supporting a mold under the said valves.

2. The combination, with a pot for molten metal provided with a vertical tube having an outlet at the bottom and a passage connecting it with the interior of the pot, of a plug-valve secured to the said outlet and having a plug hole of the same diameter as the said tube, an outlet valve secured below the said plug-valve, a plunger slidable in the said tube and plug hole and closing the said passage when depressed, and means for supporting a mold under the outlet valve.

3. The combination, with a pot for molten metal provided with a vertical tube having an outlet at the bottom of the pot and a passage connecting it with the interior of the pot, of two valves arranged one above the other and connected to the said outlet, a plunger slidable in the

said tube and closing the said passage when depressed, a mixing device journaled on the said tube inside the pot, and means for supporting a mold under the said valves.

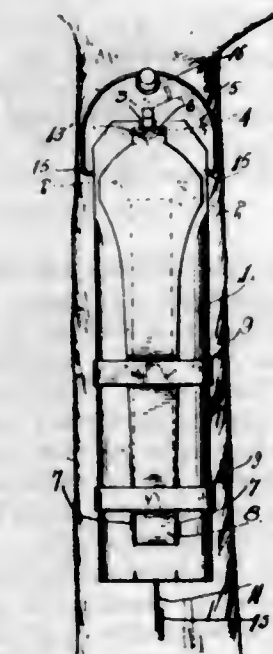
1,078,922. LIGHTNING-ARRESTER. JAMES OLIVER HOLTON, Springfield, Mo. Filed July 30, 1912. Serial No. 712,292. (Cl. 175-30.)



1. In a lightning arrester, the combination of a support of insulating material, arrester members mounted thereon and upstanding therefrom, said arrester members having upwardly converging walls and being spaced apart, and the material of the support between the arrester members being formed into trough shape at the base of the arrester members, with the walls of the trough converging downwardly.

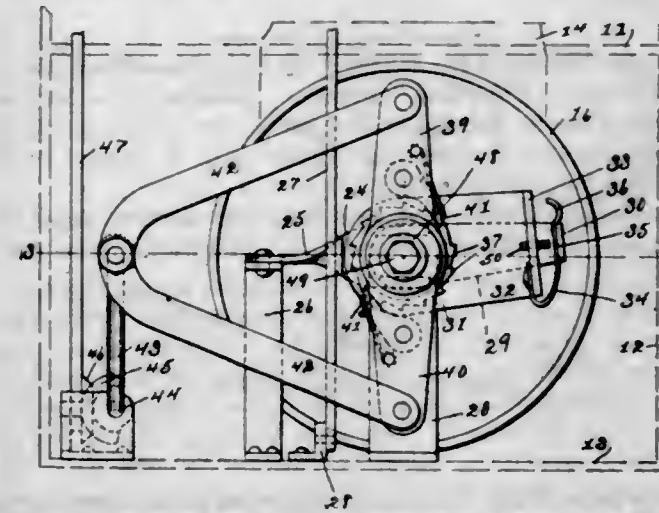
2. In a lightning arrester, the combination of a base of insulating material having grooves, a casing connected to said base and having internally disposed ribs extending toward the base, and arrester members having their lower portions extending into and sustained by engagement with the grooves of the base, each of said arrester members being formed at its upper portion with a groove receiving one of the ribs of the casing, the several arrester members being juxtaposed for high tension discharge across the intervening air gap.

1,078,923. FIREARM. FRED J. HUPF, Spalding, Mich. Filed July 15, 1912. Serial No. 709,591. (Cl. 43-21.)



In a fire arm of the class described consisting of a barrel member, the outer surface of which is provided with a recess, a strike plate having its lower end mounted in the recess, bands encircling the barrel member for holding said plate in the recess, one of said bands being provided with a sleeve, a slot formed in the upper end of the member, a trigger pivotally mounted in the slot, the outer end of which is provided with a notch for engaging the upper end of the strike plate, a rod extending longitudinally of the barrel member and slidable in the sleeve, said rod having its upper end pivotally connected to the trigger, a hook formed upon the lower end of the rod for securing a bait thereto, said rod being operable to oscillate the trigger to release the strike plate to ignite the charges contained in the barrel member.

1,078,924. STARTING DEVICE. WILLIS JOHNSTON, Schenectady, N. Y. Filed Aug. 17, 1911. Serial No. 644,489. (Cl. 123-185.)



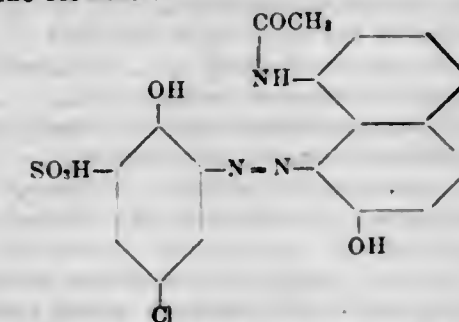
1. A motor starting device including a rotor; a shaft concentric with and detachably connected to said rotor; a radial arm on said shaft; an actuating rotatable part including an arm adjacent said shaft arm; means for rotating said part in one direction and for preventing its rotation in the opposite direction; and a spring secured to one of said arms and bearing against the other arm for rotatably connecting them, said spring being so constructed and fitted as to break the rotative connection between said arms when said shaft arm is reversely rotated.

2. A motor starting device including a rotor; a shaft concentric with said rotor; manually engageable and automatically disengageable means for connecting said rotor and said shaft; a radial arm on said shaft; an actuating rotatable part including an arm adjacent said shaft arm; means for rotating said part in one direction and for preventing its rotation in the opposite direction; and a resiliently detachable connection between said arms so constructed and fitted that the rotation of said actuating part in one direction is communicated to said shaft, and that the rotation of said shaft arm in the opposite direction acts to break said connection.

1,078,925. BLACK MORDANT MONOAZO DYESTUFF. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 6, 1912. Serial No. 735,262. (Cl. 8-1.)

1. The herein described new mordant mono-azo dyestuffs of the following graphically represented structure $R-N=N-R'$ where R is the radical of an ortho-phenol-sulfonic acid and R' the radical of an acetyl-1-amino-7-naphthol, which are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in hot water generally with a violet coloration; yielding upon reduction with stannous chlorid and hydrochloric acid a 2-amino-phenol-sulfonic acid and 1,8-diamino-7-naphthol; dyeing wool in violet shades which after being chromed change into fast bluish-black to greenish-black shades and dyeing wool in one bath in the presence of a chrome mordant, substantially as described.

2. The herein described new azo dyestuff having most probably the formula:

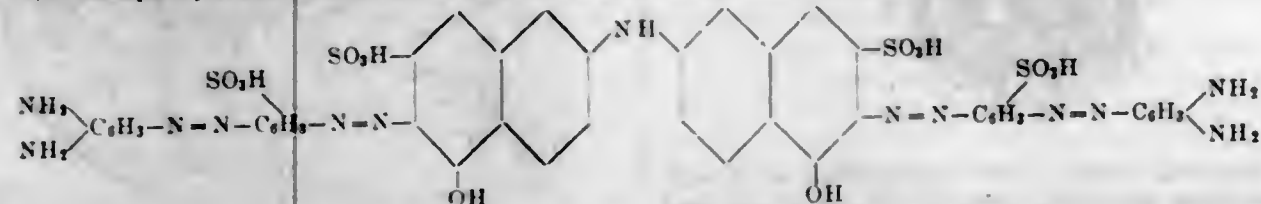


which is after being dried and pulverized in the shape of its sodium salt a brownish-black powder soluble in hot water with a violet coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 2-amino-1-phenol-

4-chloro-6-sulfonic acid and 1,8-diamino-7-naphthol; dyeing wool in violet shades which after being chromed change into a blue-black fast to light and fulling, substantially as described.

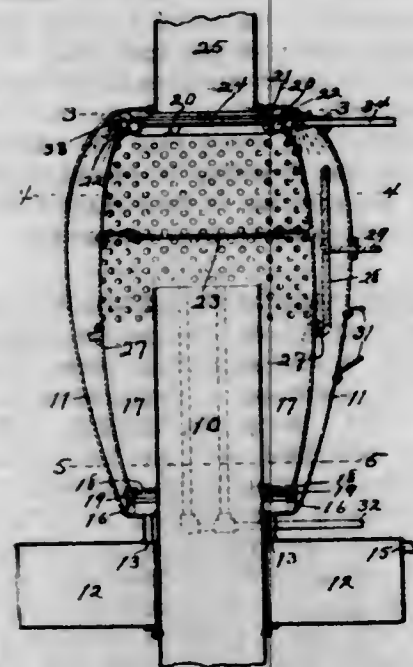
1,078,926. BLUE AZO DYES. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 1, 1913. Serial No. 758,208. (Cl. 8-1.)

1. The herein described new dyestuffs derived from the 5,5-dioxy-2,2-dinaphthylamin-7,7-disulfonic acid, para-



which is after being dried and pulverized in the shape of its sodium salt a brownish-black powder soluble in water with a blue and in concentrated sulfuric acid (66° BÉ.) with a greenish-blue coloration; yielding upon treatment with stannous chlorid and hydrochloric acid 6,6-diamino-5,5-dioxy-2,2-dinaphthylamin-7,7-disulfonic acid, para-phenylenediamin-sulfonic acid and triaminobenzene; and dyeing cotton blue, after treatment with diazotized para-nitranilin black shades, substantially as described.

1,078,927. SMOKE-CONSUMING MECHANISM. DELMAR D. KETNER, Des Moines, Iowa. Filed Oct. 14, 1912. Serial No. 725,561. (Cl. 110-142.)



1. A smoke consuming apparatus, comprising a reticulated bowl mounted for rotation in the path of travel of and adapted to receive products of combustion, spraying means superposed relative to said bowl, igniting means arranged contiguous to said bowl, and a receiving tank adapted to take drainage from said bowl.

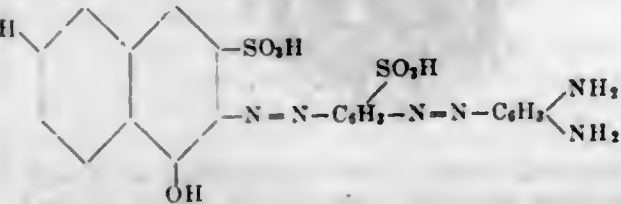
2. A smoke consuming apparatus, comprising a reticulated bowl mounted for rotation in the path of travel of and adapted to receive products of combustion, a baffle plate transversely of said bowl, spraying means superposed relative to said bowl, drainage means beneath said bowl, and igniting means contiguous to said bowl.

3. A smoke consuming apparatus comprising a reticulated bowl mounted for rotation in the path of travel of and adapted to receive products of combustion, a baffle plate transversely of said bowl, spraying means superposed relative to said bowl, drainage means beneath said bowl, igniting means contiguous to said bowl, and a casing inclosing said elements.

4. In a device of the class described, a smoke stack, a bowl provided with openings in the upper portion of its

phenylenediamin-sulfonic acid and an azo dyestuff component, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid para-phenylenediamin-sulfonic acid, 6,6-diamino-5,5-dioxy-2,2-dinaphthylamin-7,7-disulfonic acid and an amin; and dyeing cotton generally blue bright, after treatment with diazotized para-nitranilin black shades, substantially as described.

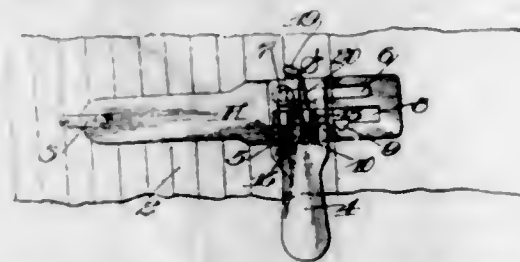
2. The herein described new dyestuff having in a free state most probably the formula:



side walls and with a comparatively larger opening in its upper end receiving the upper end of said stack and extending above and below said upper end, means for imparting rotary motion to said bowl, means for injecting fresh air into smoke passing from said stack into said bowl, a casing receiving and spaced from the side walls of said bowl, and means for spraying water between said bowl and said casing.

5. In a device of the class described, a smoke stack, means for simultaneously mingling fresh air with and imparting rotary motion to the smoke emerging from said stack, a discharge passage spaced above said stack, and means for spraying liquid into the particles of smoke driven outward by centrifugal motion.

1,078,928. CAR-DOOR HASP. JOHN T. KEMPER and CHARLES W. KEMPER, Garberville, Cal. Filed Mar. 22, 1913. Serial No. 756,153. (Cl. 70-83.)



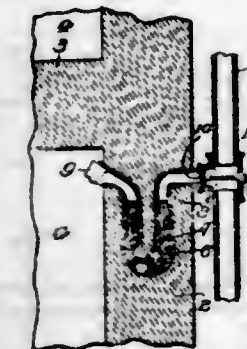
1. In a door hasp, the combination of a hasp plate, a longitudinal slot formed in the plate, a pivot pin slidably mounted in said slot, a locking lever pivotally and slidably mounted on said pin, a secondary longitudinal slot formed on the hasp plate, serrations formed in the lower edge of the slot, a stationary locking bolt with which said slot is adapted to register, means on the bolt adapted to interlock with the serrations in the slot, and a slot on the locking lever adapted to be brought into locking engagement with the locking bolt.

2. In a door hasp, the combination of a hasp plate, a longitudinal slot formed in the plate, a pivot pin slidably mounted in said slot, a locking lever pivotally and slidably mounted on said pin, a secondary longitudinal slot formed on the hasp plate, serrations formed in the lower edge of the slot, a stationary locking bolt with which said slot is adapted to register, means on the bolt adapted to interlock with the serrations in the slot, a slot on the locking lever adapted to be brought into locking engagement with the locking bolt, and means for locking the locking lever on the locking bolt.

3. In a door hasp, the combination of a hasp plate, a longitudinal slot formed in the plate, a pivot pin slidably mounted in said slot, a locking lever pivotally and slidably mounted on said pin, a secondary longitudinal slot formed on the hasp plate, serrations formed in the lower edge of the slot, a stationary locking bolt with which said slot is adapted to register, a downwardly extending lug on the bolt adapted to interlock with one or another of the

serrations formed in the slot, a head formed on the bolt, a slot in the locking lever adapted to be brought into locking engagement with the head on the bolt, and means for locking the lever against disengagement with the head of the bolt.

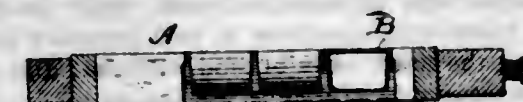
1,078,929. BURIAL DEVICE. DAVID D. LANDIS, Oberlin, Ohio, assignor of one-third to Samuel S. Bricker and one-third to Barney B. Bricker, Philadelphia, Pa. Filed July 20, 1912. Serial No. 710,536. (Cl. 72-7.)



1. In a burial device, a hollow receptacle providing a cell and provided with a trap forming an outlet for said cell, and a seal in said trap, said seal being formed of material that will solidify after a period of operation and form a permanent closure for said trap.

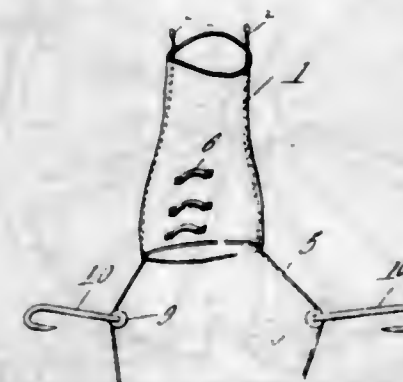
2. In a burial device, a receptacle provided with a trap forming an outlet for said receptacle, and a seal in said trap, said seal including finely divided solid material and liquid material that will eventually form with said solid material a permanent solid closure for said trap.

1,078,930. LINOTYPE-MOLD. FRED HARRIS LYND, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 18, 1911. Serial No. 603,209. (Cl. 199-13.)



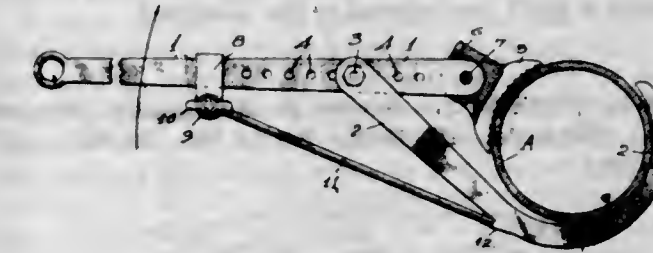
The combination of a linotype mold having a mold slot through it from front to rear, combined with a hollow core immovably held within said mold slot, said core having thin flexible imperforate walls.

1,078,931. FIRE-ESCAPE. THOMAS CRUTCHER MARSHALL, Marshall, Mo. Filed Feb. 19, 1912. Serial No. 678,504. (Cl. 227-7.)



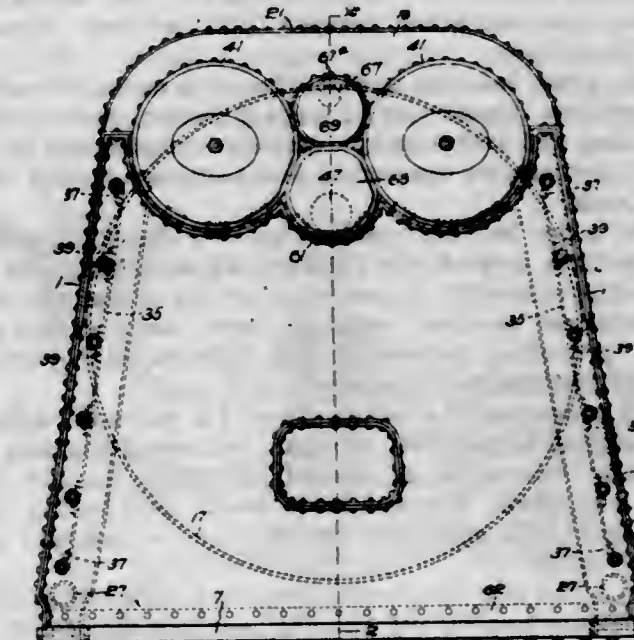
A fire escape including a flexible tube, diametrically opposed ropes secured within the tube and extending longitudinally thereof, the lower ends of the ropes extending beyond the outlet end of the tube and diverging downwardly from said end for engaging anchoring means, said diverging portions constituting means for holding the lower portion of the tube substantially flat and vertical when the ropes are drawn taut, the upper end portion of each rope being forked, and means upon the terminals of each fork for engaging a supporting structure.

1,078,932. PIPE-TONGS. JAMES T. MARTIN, Fellows, Cal. Filed Feb. 15, 1913. Serial No. 749,723. (Cl. 81-91.)



A pipe tong comprising a lever having a plurality of apertures therein; a serrated member pivotally secured to one end of the lever and adapted to engage the surface of a pipe when the lever to which it is secured is turned in one direction and to release the said pipe when the lever is turned in the opposite direction; a hook having a lug on the back portion thereof, pivotally secured to one of the apertures in the lever and adapted to hold a pipe against the serrations of the serrated member when the lever is turned in one direction only; a clamp slidably mounted upon the shank of the lever; means for securing the clamp to the lever; and means secured to the clamp and adapted to engage the lug on the back portion of the hook and to move the said hook around a pipe when the lever is turned in the opposite direction.

1,078,933. FIRE-BOX CONSTRUCTION. JAMES M. McCLELLON, Everett, Mass. Filed Dec. 26, 1911. Serial No. 667,841. (Cl. 122-58.)



1. In a fire-box, the combination of a crown comprising a plurality of complete drums having adjacent sides flattened and assembled to maintain their fire-exposed surfaces covered with water until lowered nearly to the bottoms of said surfaces, and means providing communication between said drums through said flattened sides.

2. In a fire-box, the combination of a crown comprising a plurality of drums formed and assembled for contact with one another beneath the center of one of said drums to reduce the under fire exposed surface thereof.

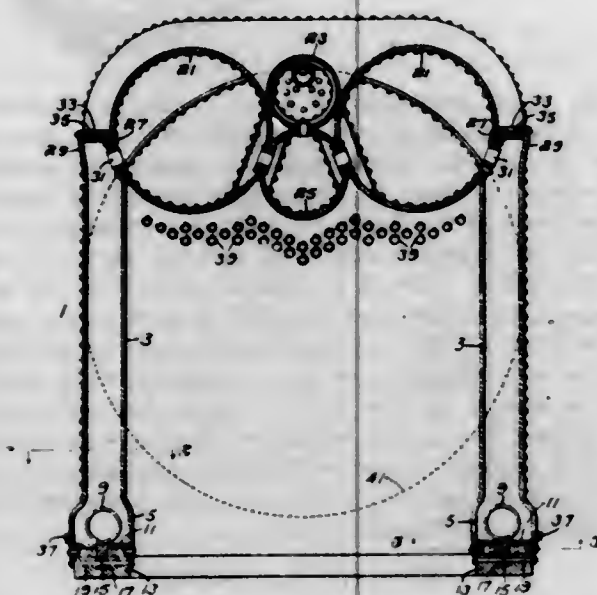
3. In a fire-box, the combination of a crown comprising a plurality of drums having flattened adjoining sides extending beneath the center of one of said drums to reduce the fire exposed surface thereof and delay the uncovering of said surface until the water is nearly exhausted therefrom.

4. In a fire-box, the combination of a crown comprising a plurality of drums including side drums and an intermediate drum located a substantial distance beneath the centers of said side drums to reduce the fire exposed surfaces of said drums.

5. In a fire-box, the combination of a crown comprising a plurality of drums including side drums and a smaller intermediate drum contacting with sides of said drums beneath their centers.

[Claims 6 to 27 not printed in the Gazette.]

1,078,934. FIRE-BOX. JAMES M. McCLELLON, Everett, Mass. Filed Dec. 16, 1912. Serial No. 736,897. (Cl. 122—58.)



1. In a fire box, the combination of a series of upright wall sections respectively circular, self-sustaining and individually expandible transversely of the series, means to secure said sections in assembled relation; and means permitting communication between said sections adjacent their lower ends.

2. In a fire box, the combination of a series of upright wall sections respectively of large diameter, circular, self-sustaining and individually expandible transversely of the series; and nipples connecting said sections adjacent their lower ends.

3. In a fire box, the combination of a series of upright wall sections respectively circular, self-sustaining and individually expandible transversely of the series and having flattened portions adjacent their lower ends; and means providing communication between said sections through said flattened portions.

4. In a fire box, the combination of a series of upright wall sections respectively circular, self-sustaining and individually expandible transversely of the series and provided with heads adjacent their lower ends having flattened contacting surfaces; and means to secure said sections together.

5. In a fire box, the combination of a series of upright wall sections respectively circular, self-sustaining and individually expandible transversely of the series; means closing the lower ends of said sections; and a foundation member, said means and foundation member being formed for interlocking engagement.

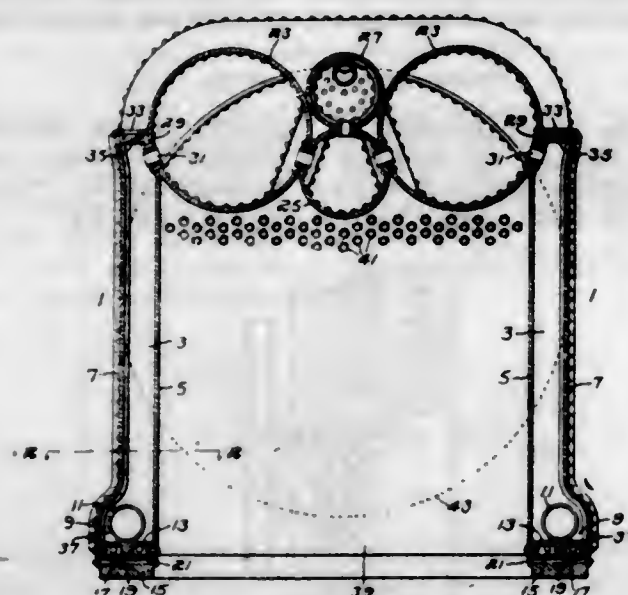
[Claims 6 to 20 not printed in the Gazette.]

1,078,935. FIRE-BOX. JAMES M. McCLELLON, Everett, Mass. Filed Feb. 3, 1913. Serial No. 745,895. (Cl. 122—58.)

1. In a fire-box, the combination of a series of upright, hollow wall sections, each comprising outer and inner channels having overlapping flanges secured together, the inner channels having circular arc portions, facing the interior of the fire-box, self-sustaining and expandible transversely of the section; and means to secure said sections in assembled relation.

2. In a fire-box, the combination of a series of upright wall sections, each comprising outer and inner channels having overlapping flanges secured together, the inner channel having a circular arc portion facing the interior of the fire-box, self-sustaining and expandible transversely

of the section; and means at the upper and lower ends of said sections for securing them in assembled relation.



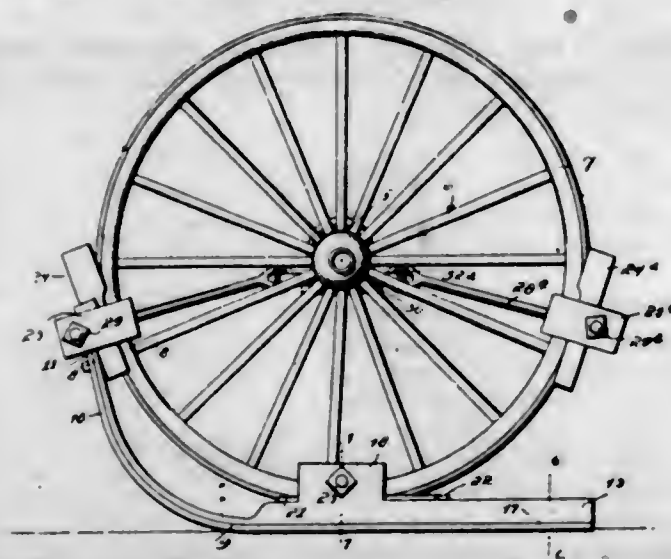
3. In a fire-box, the combination of a series of upright wall sections comprising outer and inner channels having flanges secured together, the flanges of said inner channels being extended to provide flattened contacting walls for the sections, said flattened walls being apertured and nipped together to permit circulation from one section to another.

4. In a fire-box, the combination of a series of upright wall sections comprising inner and outer channels having flanges riveted together, said inner channels having the lower ends of their flanges extended to provide contacting walls of substantial extent; nipples expanded in registering apertures in said walls; and means to secure the upper and lower ends of the sections together.

5. In a fire-box, the combination of a series of upright wall sections comprising outer and inner channels having flanges secured together, the flanges of said inner channels being enlarged and flattened adjacent their lower ends; nipples in registering apertures in said flattened portions; cups closing the lower ends of said sections; and foundation means secured to said cups.

[Claims 6 to 22 not printed in the Gazette.]

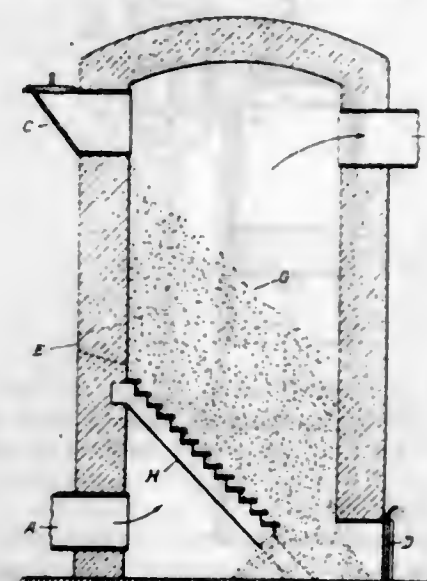
1,078,936. SLEIGH-RUNNER. GEORGE C. MCGAUGHY, Canadian, Tex. Filed May 14, 1912. Serial No. 697,216. (Cl. 21—96.)



The combination with a vehicle wheel and a runner, of a clamp for attaching the front end of the runner to said wheel comprising a pair of angle iron members positioned upon and forming a channel which receives the wheel rim, said angle irons bearing upon the wheel tire, a U-shaped member straddling the inner side of the wheel rim and having the legs projecting on the sides of and beyond said angle iron, and a bolt passed through the extremities of the legs of said U-shaped member outside of

said runner and serving to clamp the runner to said angle irons, said bolt being bent abruptly on the inner side of said wheel and having terminal attaching means for engagement with the wheel axle.

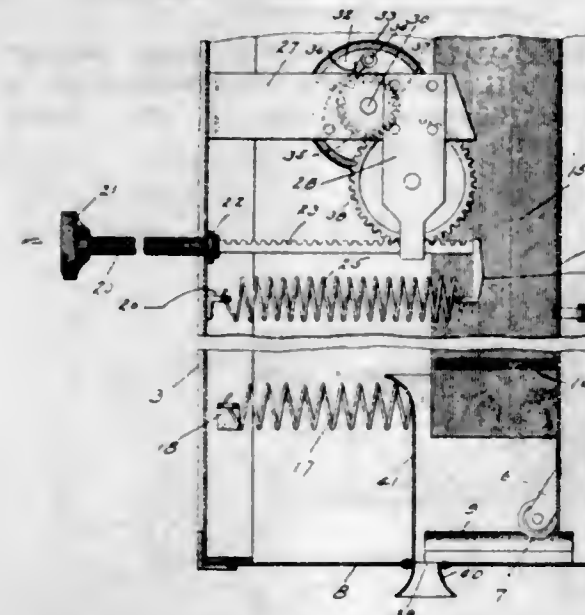
1,078,937. PURIFICATION OF GASES CONTAINING SULFUR DIOXID. RUDOLPH MESSEL, London, England, assignor, by mesne assignments, to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1910. Serial No. 557,644. (Cl. 23—1.)



1. The process of purifying gases containing sulfur dioxide from sulfuric acid by passing the said gases over a reducing agent at a temperature above 300° C. and below that at which the reducing agent used will reduce sulfur dioxide to free sulfur.

2. The process of purifying gases containing sulfur dioxide from sulfuric acid by passing the said gases over granulated gas coke at a temperature over 300° C. and below that at which the gas coke will reduce sulfur dioxide to free sulfur.

1,078,938. TOWEL-DISPENSER. ELLIS D. MILLER, Berkeley, Cal. Filed Dec. 6, 1912. Serial No. 735,300. (Cl. 211—29.)



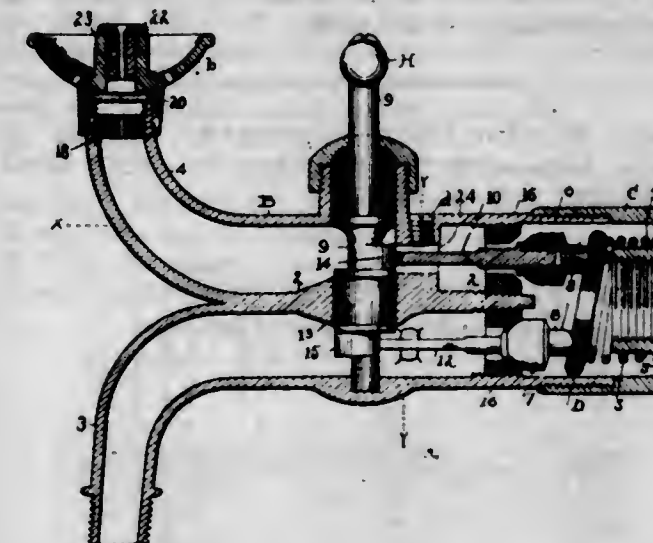
1. In a device of the class described, the combination with a casing, a movable back positioned within said casing, a plurality of track portions carried by said casing, said back provided with a plurality of rollers adapted to ride upon said track portion whereby said back may move back and forth within said casing, spring means carried by said casing and attached to said back for normally urging said back toward the front of the casing, said back adapted to carry a pad, rotating feeding means adapted to engage said pad, and reciprocating means carried by said

casing and adapted to engage said rotating feeding means for operating the same, said pad normally resting against said feeding means whereby portions of said pad are dispensed from the casing when so desired.

2. In a device of the class described, the combination with a casing, a movable back carried within said casing, said casing provided with a door upon its front side, rotating feeding mechanism carried by said door, reciprocating means carried by said door and adapted to rotate said feeding mechanism whereby portions of the pad carried by said movable back may be dispensed from said casing, said feeding mechanism and reciprocating members capable of being swung out upon said door from engagement with said pad whereby a new pad may be placed upon said back when so desired.

3. In a device of the class described, the combination with a casing, a movable back positioned within said casing, said back adapted to carry a paper pad of towels, a door carried by the front side of said casing, a supporting arm provided with a depending bracket carried by said door, a shaft carried by said supporting arm and secondary bracket means, a feeding roller loosely mounted on said shaft, a pawl mounted upon one end of said feeding roller, a ratchet wheel and an auxiliary gear mounted upon said shaft, a primary gear carried by said depending bracket, a rod carried by said door and provided with a rack portion, said rack portion adapted to rotate said gears, whereby said feeding roller will be rotated for dispensing a towel from said casing, said rack provided with a depending arm, and a spring carried by said depending arm and said door for normally holding said rod and rack in a contracted position whereby after a towel has been partially dispensed from the casing the same may be entirely removed therefrom without rotating said gears.

1,078,939. COMBINATION-FAUCET. WILLIAM H. MILLER, JOHN E. MILLER, and WILLIAM H. ORGEL, Cleveland, Ohio. Filed Aug. 3, 1912. Serial No. 718,114. (Cl. 137—26.)



1. A faucet body having delivery spouts and a passage through said faucet corresponding to each spout, a valve for each passage and a free disk shaped member bearing against said valves, a spring bearing against said member and tending to close the valves and a coupling on the faucet body having an annular bearing and seat for said spring.

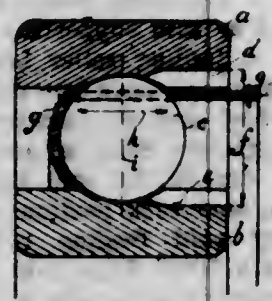
2. In a faucet, a body having a single intake passage and separate discharge spouts, a plurality of valves and a single valve stem to operate the same, a pressure-equalizing member bearing against said valves and a spring bearing against said member and tending to press said valves to their seats.

3. A combination faucet having upturned and downturned spouts respectively, a valve for each spout and a spring pressed member bearing against and tending to close said valves, in combination with a rotatable hand controlled shaft having cams operatively engaging the said valves.

4. A combination faucet having a plurality of passages through the same, a valve for each passage having a stem, a shaft provided with cams adapted to engage said stems, a free rocking member behind said valves and a spring bearing against said member.

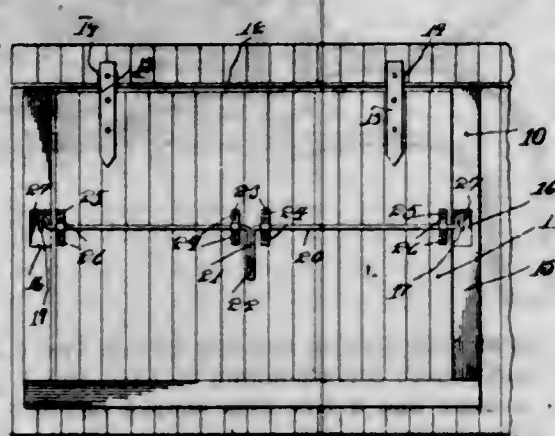
5. A combination faucet having a diaphragm lengthwise at its center horizontally, and oppositely directed delivery spots from opposite sides of said diaphragm at its front, a valve corresponding to each spot having a suitable guide stem at its front and a projection on its rear, a rotatable shaft having oppositely disposed cams engaging said stems, a free rocking member bearing against said projections and a spring bearing against said member.

1,078,940. BALL-BEARING. JOHANN MODLER, Schweinfurt, Germany. Filed Sept. 18, 1911. Serial No. 649,780. (Cl. 64—59.)



In a ball-bearing, the combination of an inner and outer ring having ball races in their adjoining surfaces, a one-piece separator inclosing the balls on both side faces, grooves in the slots of such raceways adapted to be brought into register to permit the insertion of the balls into the raceways, the space between the bottom of said grooves when brought into register being equal, for a portion of the distance toward the ball races, to the diameter of the ball plus the thickness of the cage, said grooves entering the raceways at a point above the bottom of the raceway, substantially as set forth.

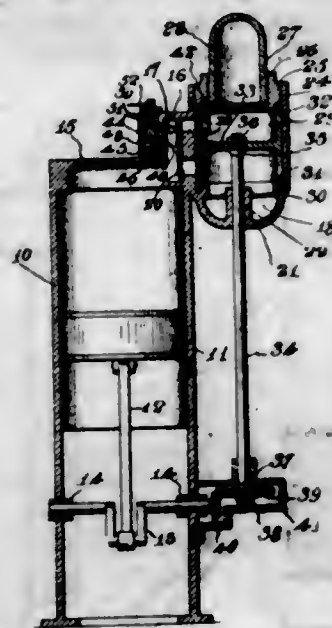
1,078,941. SLIDING-DOOR FASTENER. GEORGE M. MONSON, Ambrose, N. D. Filed Apr. 17, 1912. Serial No. 691,306. (Cl. 70—102.)



The combination with a door frame and the jambs thereof, said jambs being provided with recesses opening through their mutually adjacent faces and through their outer faces, of hooks engaged in the rear walls of the recesses and having downwardly turned ends, a door mounted for sliding movement into and out of position to lie over the space between the jambs, a transverse series of aligning brackets secured against the outer face of the door, and a bar pivotally mounted in the brackets and having its central portion bent to form a crank, lying between certain of the brackets, the end portions of the bar being bent to extend over the side edges of the door and having their extremities turned outwardly, said crank being movable to bring the end portion of the bar into

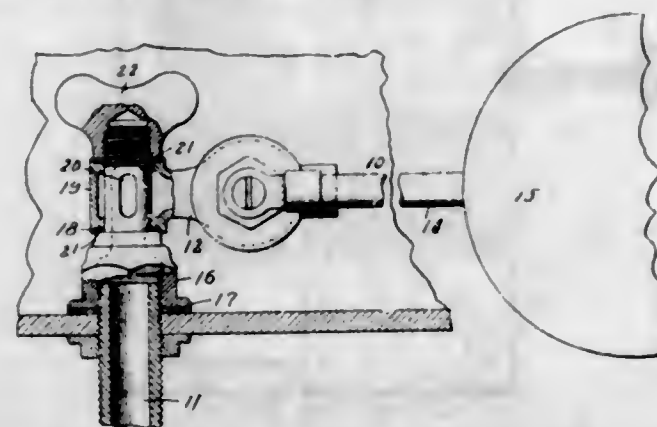
the recesses or out of the recesses, said ends of the door being adapted to engage the hooks and force the bar against the jambs.

1,078,942. VALVE STRUCTURE FOR INTERNAL-COMBUSTION ENGINES. MARSHALL E. MOREL, Sheridan, Ill. Filed Mar. 14, 1912. Serial No. 683,787. (Cl. 123—190.)



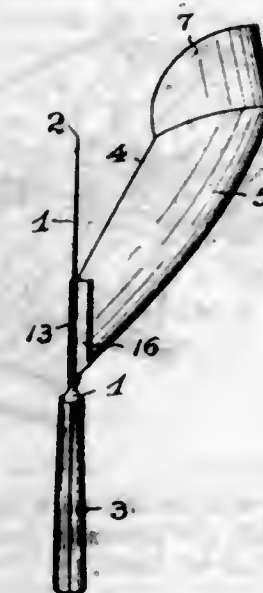
In a gas engine the combination with a cylinder having an extension at its upper end forming a valve casing communicating with the cylinder by means of vertically spaced inlet and exhaust ports, said valve chamber having an inwardly directed annular flange near its lower end with an upwardly directed extension, a plug in the upper end of the chamber with a downwardly directed flange, a rotary valve in the casing and having its upper and lower ends respectively engaged against the lower flange and the plug, the upwardly directed extension and the downwardly directed flange retaining the valve in proper position, said valve having a central horizontal partition and upper and lower ports for registration at times with the ports in the cylinder, an inlet pipe secured in the plug, an outlet opening at the lower end of the chamber, a piston in the cylinder, and connections between the valve and piston.

1,078,943. FLOAT-VALVE. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed Mar. 28, 1911. Serial No. 617,611. (Cl. 137—104.)



The combination with a tank, of a supply pipe therefor, the end of which projects through the bottom thereof, a straight hollow stud located within the tank and detachably connected to the end of the supply pipe, a valve casing detachably connected to and swiveled upon said stud and in continuous communication with the supply pipe through said stud, means for holding said valve casing in place upon the stud, a valve carried by said swiveled casing and operating in a line substantially at right angles to the axis of said stud, and a float connected to the stem of said valve, substantially as described.

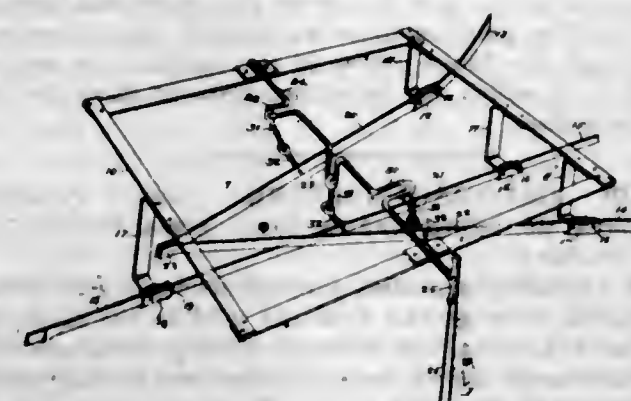
1,078,944. PLASTERER'S OR PAINTER'S SCRAPING-PAN. PETER E. MURPHY, Newark, N. J. Filed Aug. 26, 1910. Serial No. 579,142. (Cl. 72—137.)



1. A receiving pan for the use of plasterers or painters, consisting of a scoop-shaped body provided at its one extremity with a blade-receiving or holding socket comprising a wall-portion or member conforming to the shape of a blade of a scraping tool, the scoop-shaped portion of the pan extending rearwardly and slightly outwardly from the plane of the blade of the scraping tool, so as to provide a belled portion which inclines away from the said blade, said belled portion being also provided at its outer extremity with an inwardly extending flange-like catching element, a hinged closure connected with said scoop-shaped body at one side of the said blade-receiving or holding socket, and means connected with said hinged closure for bringing the same in its closed or holding relation over said receiving or holding socket, substantially as and for the purposes set forth.

2. A receiving pan for the use of plasterers or painters, consisting of a scoop-shaped body provided at its one extremity with a blade-receiving or holding socket, and a hinged closure connected with said scoop-shaped body at one side of the said blade-receiving or holding socket, said wall-portion being formed at one edge with a curved portion, and the said closure being provided with a spring-like latch-portion adapted to be sprung over the curved portion of said wall-portion and in separable engagement therewith, so as to lock said closure in place, substantially as and for the purposes set forth.

1,078,945. OVERHEAD SWITCH. CHRISTOPHER K. MURRAY, Oshkosh, Wis. Filed Feb. 23, 1912. Serial No. 679,357. (Cl. 104—180.)



1. A switch consisting of a frame, a plurality of hangers supported by and near one end of the frame, a hanger supported by and near the other end of the frame, track rails supported with one of their ends at the lower portion of each of said hangers, a switch member loosely mounted near the lower end of each of the first named hangers and extended at their other ends to near the last named hanger, and means to raise and lower each of said switch

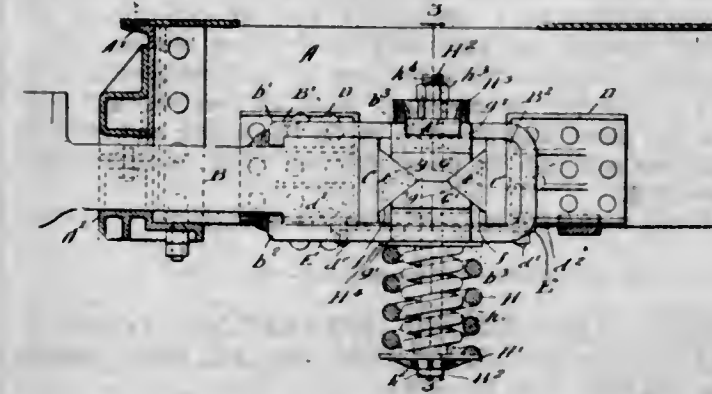
members one at a time and to bring and maintain their free ends when lowered in line with the rail which has one of its ends located at the lower portion of the last named hanger.

2. A switch consisting of a frame, a plurality of hangers supported by and near one end of the frame, a hanger supported by and near the other end of the frame, track rails supported at one of their ends on the lower portion of each of said first named hangers, a main track rail supported at one of its ends on the lower portion of the last named hanger, a switch member loosely mounted on the lower portion of each of the first named hangers and extended at their other ends to near the last named hanger, and means to raise and lower each of said switch members one at a time and to bring and maintain their free ends when lowered in line with the main track.

3. A switch consisting of a frame, a plurality of hangers supported by and near one end of the frame and each having on its lower portion a horizontally disposed channeled part, a hanger supported by and near the other end of the frame and having on its lower portion a horizontally disposed channeled part, track rails supported at one of their ends in the channeled parts of each of said first named hangers, a main track rail supported at one of its ends in the channeled part of the last named hanger, a switch member loosely mounted in each of the channeled parts of the first named hangers and extended at their other ends to near the last named hanger and adapted to fit in the channeled part of said hanger, and means to raise and lower the free end of each of said switch members and to cause them to fit in the channeled part of the hanger which supports the main track rail.

4. An overhead switch consisting of a frame, at least three depending hangers supported by and near one end of said frame, a single depending hanger supported by and near the other end of the frame, track rails supported at one of their ends on the lower portion of each of said first named hangers, a section of the main track rail supported at one of its ends on the lower portion of the last named hanger, a switch member loosely mounted on the lower portion of each of the first named hangers and extended at their free ends to near the last named hanger, a shaft transversely journaled on the frame and having at least three cranks extended therefrom at angles to one another, a connection uniting each of said cranks to one of said switch members, and means to rock the shaft.

1,078,946. FRICTION DRAFT-RIGGING. CHARLES J. NASH, Chicago, Ill., assignor, by means assignments, to William H. Miner, Chicago, Ill. Filed Apr. 26, 1909. Serial No. 492,184. (Cl. 213—64.)



1. In a friction draft rigging, the combination with a draw-bar, draft yoke, draft members and front and rear followers contacting with the draw-bar and draft yoke, a pair of longitudinally movable oppositely faced friction wedges contacting with the followers and extending transversely through the draft yoke, upper and lower friction blocks extending transversely through the draft yoke and having inclined friction faces in frictional engagement with the inclined friction faces of said wedges, an upright spring acting at its inner end against one of said friction blocks, and a central connecting rod having a spring seat at one end and extending through the friction blocks and the draft yoke, and a cap plate interposed between the

other end of said connecting rod and one of the friction blocks, substantially as specified.

2. In a friction draft rigging, the combination with a draw-bar, draft yoke, draft members and front and rear followers, contacting with the draw-bar and draft yoke, a pair of longitudinally movable oppositely faced friction wedges contacting with the followers and extending transversely through the draft yoke, upper and lower friction blocks extending transversely through the draft yoke and having inclined friction faces in frictional engagement with the inclined friction faces of said wedges, an upright spring acting at its inner end against one of the friction blocks, and a central connecting rod having a spring seat at its outer end and extending through the friction blocks, the spring and the draft yoke, and removable guide bars or plates secured to the draft members and supporting the followers, and a cap plate interposed between the upper end of said connecting rod and the upper friction block, substantially as specified.

3. In a friction draft rigging, the combination with a draw-bar, draft yoke, draft members and front and rear followers contacting with the draw-bar and draft yoke, a pair of longitudinally movable oppositely faced friction wedges contacting with the followers and extending transversely through the draft yoke, upper and lower friction blocks extending transversely through the draft yoke and having inclined friction faces in frictional engagement with the inclined friction faces of said wedges, an upright spring acting at its inner end against one of the friction blocks, and a central connecting rod having a spring seat at its outer end and extending through the friction blocks and the draft yoke and separately formed from the said blocks, said upper and lower friction blocks having on their outer faces parallel ribs fitting astride the upper and lower members of the draft yoke, each of said upper and lower friction blocks being removable from the yoke without disconnecting the yoke and draw-bar, and a cap plate interposed between the upper end of said connecting rod and the upper friction block, substantially as specified.

4. In a friction draft rigging, the combination with a draw-bar, draft yoke and followers, of oppositely facing friction wedges extending through the draft yoke, and upper and lower friction blocks frictionally engaging said wedges, and an upright spring acting against one of the friction blocks and a connecting rod for the spring extending through the yoke, and a cap plate interposed between the upper end of said connecting rod and the upper friction block, substantially as specified.

5. In a friction draft rigging, the combination with a draw-bar, draft yoke and followers, of oppositely facing friction wedges extending through the draft yoke, and upper and lower friction blocks frictionally engaging said wedges, and an upright spring acting against one of the friction blocks and a connecting rod for the spring extending through the yoke and the friction blocks, and a spring seat plate at the outer end of said connecting rod, said yoke having longitudinal slots to receive said rod, and a cap plate interposed between the upper end of said connecting rod and the upper friction block, substantially as specified.

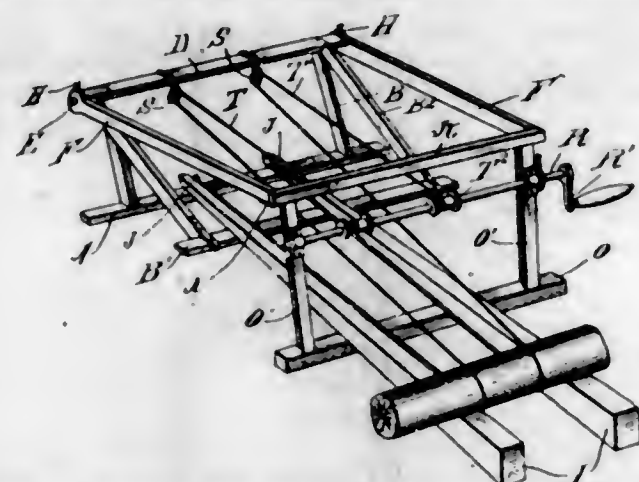
[Claims 6 and 7 not printed in the Gazette.]

1,078,947. LOG-DECKING APPARATUS. JAMES T. O'HARA, Lowellville, N. Y. Filed Aug. 13, 1912. Serial No. 714,858. (Cl. 57—18.)

1. An apparatus for skidding logs comprising a rack with a cross-piece at the top, a base with supporting posts for said cross-piece, a swinging ball-shaped member hinged to said cross-piece, pulleys fastened to the latter, track beams adapted to hold said swinging rack at its lowest limit, cables fastened to said track beams and passing about said pulleys, said cables adapted to engage and cause a log to roll upon the track beams, as set forth.

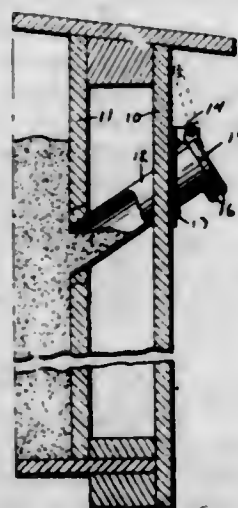
2. An apparatus for skidding logs comprising a rack with a cross-piece at the top, a base with supporting posts for said cross-piece, a swinging ball-shaped member hinged to said cross-piece, pulleys fastened to the latter, track beams adapted to hold said swinging rack at its

lowest limit, cables fastened to the ends of said track beams and designed to extend about a log upon the beams and passing over said pulleys, a second rack, a rock shaft



journaled therein, said second rack having arms projecting therefrom which are pivotally connected to the ends of said cross-piece, as set forth.

1,078,948. INSPECTION DEVICE FOR GRAIN-CARS. BENJAMIN F. OWENS, Rockwell City, Iowa. Filed Jan. 20, 1913. Serial No. 743,203. (Cl. 105—15.)



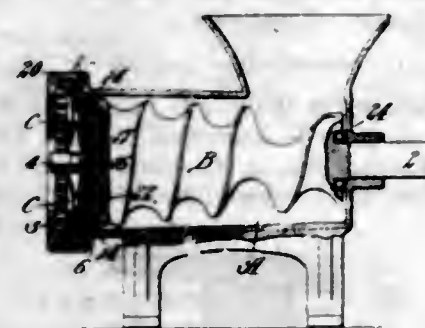
An inspection device for grain cars, comprising a tubular body portion open at both ends, an attaching plate formed integral with the tube at a point spaced apart from the upper end of the tube, said attaching plate being so positioned on the tube that when the attaching plate is in a vertical position the body of the tube will be inclined at an angle of about fifty degrees relative to the plate, a hinge member formed on top of the plate, a cover hinged to said hinge member and designed, in one position, to stand at approximately right angles to the longitudinal axis of the tube and cover the upper end thereof, and in another position to swing slightly past a vertical line through the hinge center to rest against the side of the object to which the attaching plate is fixed, for the purposes stated.

1,078,949. GRINDING-MACHINE. JOSEPH PAVELKA, St. Louis, Mo. Filed May 15, 1913. Serial No. 767,771. (Cl. 17—20.)

1. In a grinding machine, a screw conveyor for forcing the material to be ground from the inlet to the discharge end of said machine, and revoluble cutting disks mounted on the discharge end of said conveyor and having shearing engagement therewith.

2. In a grinding machine, a screw conveyor for feeding material to be ground from the inlet to the discharge end of the machine, and circular disintegrating devices arranged in the discharge end of said machine and having shearing engagement therewith, and which are adapted to revolve about the axis of said conveyor and also about their own axes, the direction of rotation of said conveyor and said disintegrating devices being the same.

3. In a grinding machine, a rotatably mounted member that conveys the material to be ground from the inlet to the discharge end of the machine, and revoluble spool-shaped cutting devices mounted on the discharge end of said member, said cutting devices being so arranged that they will rotate in the same direction as said member.

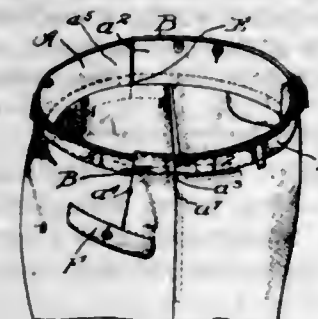


4. In a grinding machine, a perforated discharge plate, a conveyer for conveying material to said discharge plate, and a plurality of disintegrating devices arranged between the end of said conveyer and said plate, each of said devices comprising a pair of circular knives, one of said knives bearing against the end of said conveyer and the other bearing against said plate.

5. In a grinding machine, a rotatable conveyer provided with a supporting shaft at the discharge end thereof, a gear-wheel loosely mounted on said shaft, a plurality of pinions provided with short shafts that are mounted in the discharge end of said conveyer and that mesh with said gear-wheel, cutting devices that are connected to said short shafts, and a housing that completely covers said gear wheel and pinions.

[Claims 6 to 14 not printed in the Gazette.]

1,078,950. WAISTBAND FOR GARMENTS. ADOLPHUS G. PEINE, Chicago, Ill., assignor to Alfred Decker, Abraham Cohn, and Adolphus G. Peine, doing business under the firm-name of Alfred Decker & Cohn, Chicago, Ill. Filed Apr. 29, 1912. Serial No. 693,854. (Cl. 2—143.)



1. A waistband for garments, comprising a band made in sections, an adjustable connection between said sections, adapted to be adjusted to fix the size of the waistband, said connection comprising a buckle and strap at each side of said band, respectively fixed to different sections thereof, permitting the sections to be disconnected from each other and a tunnel strap for each side of the band, covering the said connection, adapted also to hold a belt in place.

2. A waistband for garments, comprising a band made in sections, non-elastic connections between said sections, means whereby said sections may be adjusted to fix the size of the waistband, by which the adjacent ends of the sections may be drawn together to tighten the band, or separated to enlarge the band, and belt straps overlying the said connections, concealing the ends of the sections without interfering with the adjustment of said means.

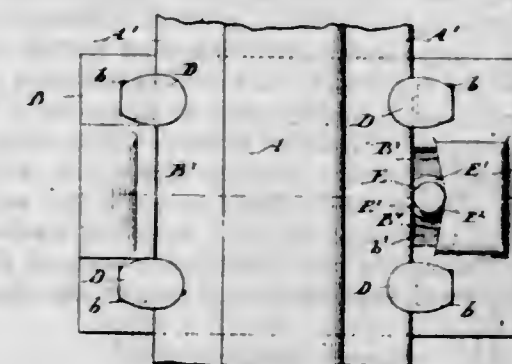
3. A waistband for garments, comprising a band made in sections, separable connections between said sections, adapted to be adjusted to fix the size of the waistband, and belt straps overlying the said connections, each strap being attached at its upper end to only one of said sections, permitting adjustment of the adjacent sections by said connections.

4. A waistband for garments, comprising means of adjustment for the band, fixed thereto, and tunnel straps disposed over said means, covering the adjustable portions of the band, whereby said straps have the double function of concealing said adjustable portions and holding a belt in place, which straps are attached to the band at the upper ends thereof.

5. A waistband for garments, comprising a band made in sections, an adjustable connection between said sections, adapted to be adjusted to fix the size of the waistband, said connection comprising a buckle and strap at each side of said band, respectively fixed to different sections thereof, permitting the sections to be disconnected from each other, and a tunnel strap for each side of the band, covering the said connection, adapted also to hold a belt in place, each buckle being disposed immediately in front of the adjacent tunnel strap.

[Claim 6 not printed in the Gazette.]

1,078,951. ANTICREEPING DEVICE FOR RAILWAY-RAILS. EDMUND B. POWERS, New York, N. Y., assignor to Empire Railway Appliance Corporation, a Corporation of New York. Filed Sept. 12, 1911. Serial No. 648,961. (Cl. 238—2.)



1. An anti-creeper for railway rails comprising a plate adapted to be interposed between a tie and a rail and provided on its upper side with an abutment and a recess on the inner side of said abutment, and a clamping member arranged in said recess and between said abutment and rail and adapted to be rolled on said abutment by the movement of the latter.

2. In a device of the character set forth, a tie-plate adapted to support a rail, means for holding said rail upon said plate, a lug on said plate having an inclined face adjacent to such rail, and a rotatable member in the angular space between said inclined face and rail and engaging the base-flange of the rail.

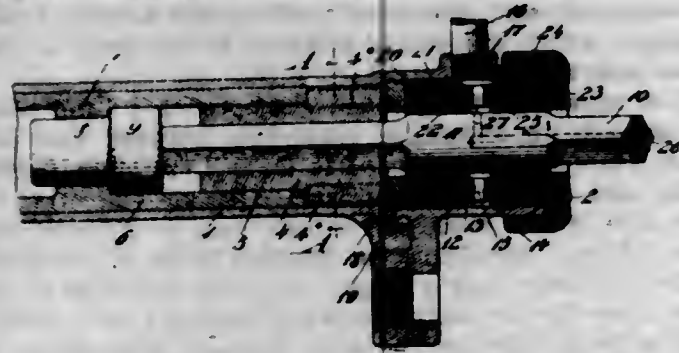
3. In a device of the character set forth, a tie-plate adapted to support a rail, an abutment for the outer face of the base-flange of such rail, a lug on said plate, having an inclined face adjacent to the inner face of such base-flange, and a rotatable member in the angular space between said inner face and inclined face and adapted to engage said inclined faces and the inner face of the base-flange of the rail.

4. In a device of the character set forth, a tie-plate adapted to support a rail, an abutment for the outer face of the base-flange of such rail, a lug on said plate, having an inclined face adjacent to the inner face of such base-flange, a cylindrical roller in the angular space between said inner face and inclined face and adapted to engage said inner and inclined faces, and means for holding said roller against vertical movement.

5. In a device of the character set forth, a tie-plate adapted to support a rail, an abutment for the outer face of the base-flange of such rail, a lug on said plate, having an inclined face adjacent to the inner face of such base-flange, a cylindrical roller in the angular space between said inner face and inclined face and adapted to engage said inner and inclined faces, a flange on said roller, and means engaged with said flange for holding said roller against vertical movement.

[Claims 6 to 10 not printed in the Gazette.]

1,078,952. HAMMER-DRILL. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 6, 1909. Serial No. 476,499. (Cl. 121-20.)



1. In combination, a cylinder, a chuck therein, a front head, a tube mounted within the cylinder and having a pressure fluid feeding chamber therein and a pressure fluid feeding passage therefor, a hollow drill steel having a cylindrical portion within said chamber, and having a passage connecting its bore with said chamber, cup washers interposed between the said tube and cylindrical portion of the drill steel and elastic rings interposed between the outer and inner ends of the said tube, and the front head and outer end of the chuck, respectively.

2. In combination, a cylinder, a chuck rotatably mounted therein, a front head, a tube mounted within the cylinder and having a pressure fluid feeding chamber therein and a pressure fluid feeding passage therefor, a hollow drill steel having a cylindrical portion within said chamber and having a passage connecting its bore with said chamber, cup washers interposed between the said tube and cylindrical portion of the drill steel and elastic rings interposed between the outer and inner ends of the said tube, and the front head and outer end of the chuck, respectively.

1,078,953. HAMMER-DRILL. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 6, 1909. Serial No. 476,500. (Cl. 121-10.)

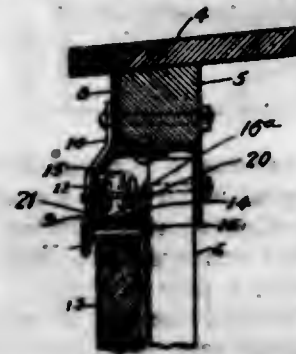


1. In combination, a cylinder, a chuck, a hollow front head, a hollow drill steel having a cylindrical portion at the outer end of the chuck, a tube within the front head spaced from said cylindrical portion of the drill steel to form a pressure fluid feeding chamber, means for feeding pressure fluid to said chamber, said drill steel having a passage connecting its bore with said chamber, the said tube having a circumferential groove in open communication with the pressure fluid feeding means and with the said pressure fluid feeding chamber, cup washers interposed between the ends of the said tube and the cylindrical portion of the drill steel to form fluid tight packings for the pressure fluid feeding chamber, and elastic rings interposed between the outer and inner ends of said tube and the front head and outer end of the cylinder, respectively.

2. In combination, a cylinder, a chuck rotatably mounted therein, a hollow front head, a hollow drill steel having a cylindrical portion at the outer end of the chuck, a tube within the front head spaced from said cylindrical portion of the drill steel to form a pressure fluid feeding chamber, means for feeding pressure fluid to said chamber, said drill steel having a passage connecting its bore with said chamber, the said tube having a circum-

ferential groove in open communication with the pressure fluid feeding means and with the said pressure fluid feeding chamber, cup washers interposed between the ends of the said tube and the cylindrical portion of the drill steel to form fluid tight packings for the pressure fluid feeding chamber, and elastic rings interposed between the outer and inner ends of said tube and the front head and outer end of the cylinder, respectively.

1,078,954. CAR-DOOR HANGER. CHARLES W. PRICE, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,935. (Cl. 16-7.)

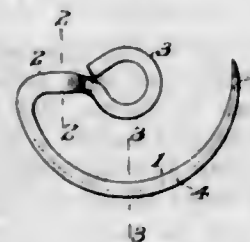


1. In a car door hanger, a suitable support, in combination with an integral track member provided with a vertical securing flange intermediate its width, a shoulder at one side of said flange, a guide flange depending below said shoulder, and a horizontal tread portion projecting from the opposite side of said vertical flange.

2. In a car door hanger, a suitable support, in combination with an integral track member provided with a vertical securing flange intermediate its width, a shoulder at one side of said flange, a guide flange depending below said shoulder, and a flat tread portion terminating in a guide bead projecting from the opposite side of said vertical flange.

3. In a car door hanger, the combination of a supporting hood member and a track member secured to and depending within the supporting hood, said track member being formed as an integer and comprising a vertical flange intermediate its horizontal width, a horizontal tread portion formed with a guide, and an outer shoulder terminating in a vertically depending door guiding flange.

1,078,955. NEEDLE. JOHN R. REYNOLDS, Hartford, Conn., assignor to The Smyth Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 23, 1908. Serial No. 468,905. (Cl. 112-11.)

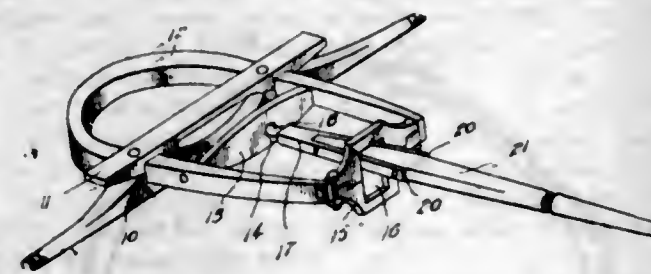


A curved needle for book sewing machines comprising a curved body portion and a straight shank extending toward the curved body portion and formed integrally therewith, the shank including the bend which connects it to the body portion being of increased size as compared with the body portion, the shank and body portion being flattened.

1,078,956. WAGON-TONGUE. ELYZ RIGGS, Monongalia county, W. Va. Filed May 28, 1913. Serial No. 770,471. (Cl. 21-29.)

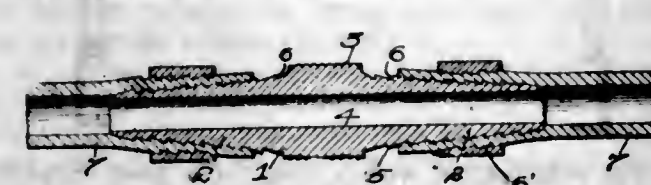
The combination with the hound of a vehicle, of a pivotally mounted transverse brace carried thereby, a block pivotally carried by the hound and formed with a vertically arranged elongated opening, a bifurcated member rotatably carried by the said brace, a draft pole secured

between the bifurcated member, said bifurcated member and pole extending through the opening of said block.



and arranged for vertical sliding movement and rotary movement therein.

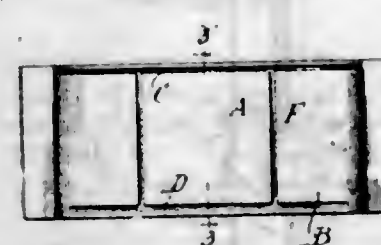
1,078,957. CLAMP-RING FOR HOSE-COUPPLINGS. DAVID RINALDO, San Jose, Cal. Filed Dec. 20, 1909. Serial No. 534,234. (Cl. 137-28.)



1. In combination with two hose ends, a tubular coupling member having an enlarged central portion and tapering therefrom to both ends, said tapering portions entering said hose ends, and having angular threads, one face of the thread being substantially at right angles to the axis of the coupling, and the other making a very acute angle therewith and inclined outwardly to the center of the coupling and rings around said hose ends wholly detached from said coupling member, each ring being of less taper than the coupling member, and having an internal thread of like pitch with the thread of the coupling member.

2. In combination with a hose end, a tubular coupling member having an enlarged portion and tapering therefrom to the end, said tapering portion entering said hose end, and having angular threads, one face of the thread being substantially at right angles to the axis of the coupling, and the other making a very acute angle therewith and inclined outwardly to said enlarged portion, and a ring around said hose end, wholly detached from said coupling member, of less taper than the coupling member, and having an internal thread of like pitch with the thread of the coupling member.

1,078,958. METHOD OF BENDING AND DRAWING SHEET METAL. NORMAN A. ROBERTSON, New York, N. Y. Filed May 8, 1912. Serial No. 695,881. (Cl. 113-51.)



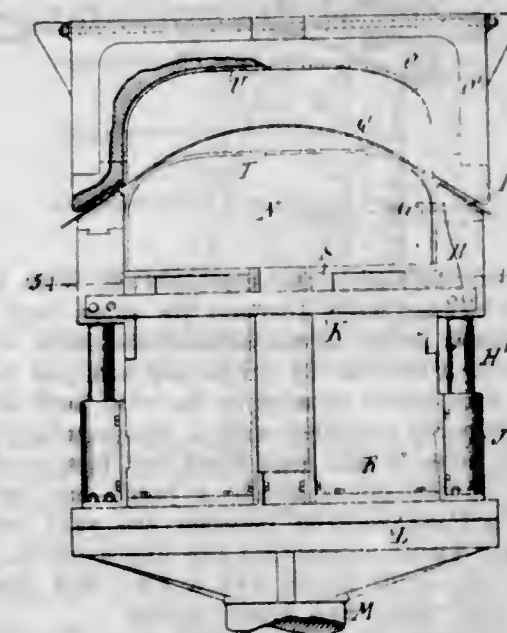
1. The method of bending and drawing sheet metal to make parts of vehicle bodies or the like which are curved in two directions and are formed with stiffening ribs, which method consists in pressing a blank between a punch and a die shaped to perform the desired drawing and bending operations and to stamp the stiffening ribs all at one operation, holding the blank at two opposite sides, and leaving it free at the other two sides.

2. The method of bending and drawing sheet metal to make parts of vehicle bodies or the like, which consists in holding two opposite ends of a blank and drawing it over a suitably shaped punch, to cause it to fit the shape of said punch, and thereafter pressing it between said punch and a die of suitable shape, releasing its ends sufficiently to permit them to move with the punch.

3. The method of bending and drawing sheet metal to make, in a single operation, parts of vehicle bodies or the like which are curved in two directions, which consists in yieldingly gripping two opposite sides of the blank while leaving it free at the other two sides, and drawing it to the desired shape by stretching it over a punch having a face of the required contour, and thereby drawing the metal unequally between its gripped edges to bring it into conformity with such contour.

4. The method of bending and drawing sheet metal to make, in a single operation, parts of vehicle bodies or the like which are curved in two directions, which consists in yieldingly gripping two opposite sides of the blank while leaving it free at the other two sides, and drawing it to the desired shape by stretching it over a punch having a face of the required contour, and thereby drawing the metal unequally between its gripped edges to bring it into conformity with such contour, and finally squeezing the sheet between said punch and a die conformed thereto.

1,078,959. APPARATUS FOR BENDING AND DRAWING SHEET METAL. NORMAN A. ROBERTSON, New York, N. Y. Original application filed May 8, 1912. Serial No. 695,881. Divided and this application filed Sept. 23, 1912. Serial No. 721,957. (Cl. 113-46.)



1. An apparatus for bending and drawing sheet metal to make parts of vehicle bodies or the like, which are curved in two planes transverse to each other, comprising grippers adapted to hold two opposite sides of the blank and to leave it free at the other two sides, a punch located between said grippers, said punch having its face curved both in planes parallel to the sides which are held and in planes perpendicular thereto, and a die against which the intermediate part of the blank may be pressed by said punch, said die and punch being also formed with registering ribs and grooves respectively to form stiffening ribs on the blank.

2. An apparatus for bending and drawing sheet metal to make parts of vehicle bodies or the like, comprising an upper pair of grippers P and a lower pair of grippers G, said grippers adapted to hold two opposite sides of the blank and having their faces inclined downward toward the outer side so as to provide for a downward incline of the extending ends of the blank, and means for bending and drawing the portion of the blank between the grippers at opposite sides.

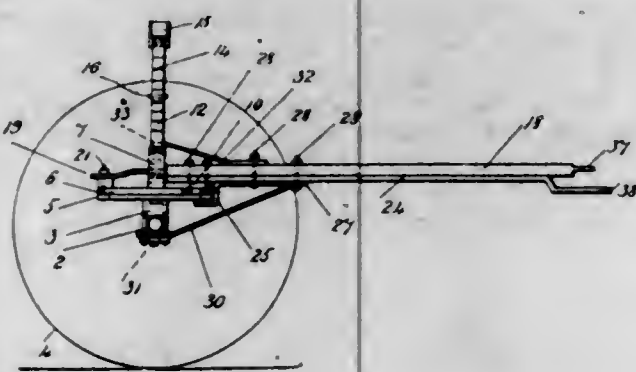
3. An apparatus for bending and drawing sheet metal, comprising grippers, a punch and hydraulic devices carried by said punch for pressing and holding said grippers into engagement with the work as the punch is advanced, said punch being adapted to engage and withdraw said grippers near the end of its retractile movement.

4. An apparatus for bending and drawing sheet metal, comprising grippers G adapted to engage and bear against the work on an angle tending to press said grippers inward, and a punch located between said grippers in position to resist the inward thrust thereof.

5. An apparatus for bending and drawing sheet metal, comprising grippers adapted to yieldingly hold two opposite sides of the blank while leaving it free at the other two sides, and a punch located between said grippers, said punch having its face curved both in planes parallel to the sides which are gripped and in planes perpendicular thereto, and movable relatively to the grippers to a final position projecting beyond them, the grippers adapted to hold the blank with sufficient force to draw the sheet metal into conformity with the curved face of the punch while permitting the blank to feed between the gripping surfaces as it is drawn by the punch, such feed being unequal at different points along the gripped sides of the blank.

[Claims 6 and 7 not printed in the Gazette.]

1,078,960. RUNNING-GEAR. FELIX LOUIS ROTH, New Orleans, La. Filed May 27, 1913. Serial No. 770,157. (Cl. 21—39.)



1. In a running gear, the combination, with a hollow head block having holes through its sides, and a cover plate connected to the lower side of the head block and provided with a rearwardly projecting arm; of the upper circle of a fifth wheel secured to the said head block and arm, a main perch provided with a tongue which projects through the holes in the head block and is secured to the front part of the upper circle, a perch bar having its front end portion secured between the said perch and arm, a lower circle supporting the upper circle, an axle secured to the lower circle, and a king bolt operatively connecting the upper and lower circles.

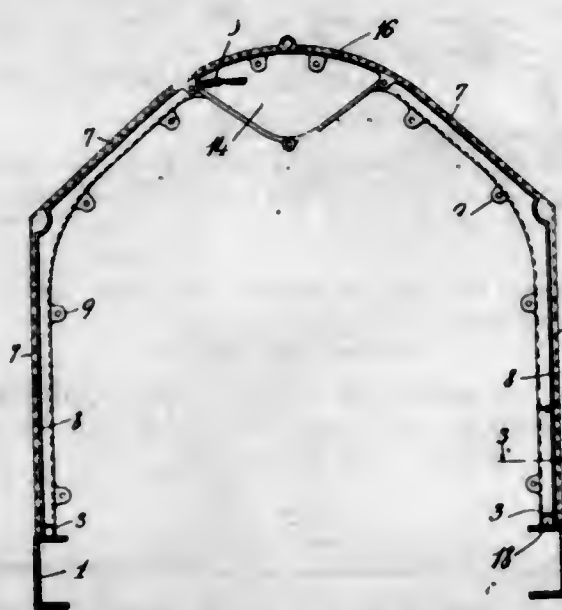
2. In a running gear, the combination, with a hollow head block having holes through its sides, and a cover plate connected to the lower side of the head block and provided with a rearwardly projecting arm; of the upper circle of a fifth wheel secured to the said head block and arm, a main perch provided with a tongue which projects through the holes in the head block and is secured to the front part of the upper circle, a perch bar having its front end portion secured between the said perch and arm, a lower circle supporting the upper circle, a guide engaging with the rear portions of the two circles and having its front end secured to the said arm and its rear end secured to the said perch bar, an axle secured to the lower circle, and a king bolt operatively connecting the upper and lower circles.

3. In a running gear, the combination, with a head block, and an arm projecting rearwardly therefrom; of the upper circle of a fifth wheel secured to the head block and arm, a main perch provided with a front end portion which extends crosswise of the head block and is secured to the front part of the upper circle, a perch bar having its front end portion secured between the said perch and arm, a lower circle supporting the upper circle, an axle secured to the lower circle, and a king bolt operatively connecting the upper and lower circles.

1,078,961. HOOD-CORNICE FOR AUTOMOBILES. ALBERT E. SCHAAF, Poughkeepsie, N. Y., assignor to F. I. A. T., a Corporation of New York. Filed Jan. 28, 1913. Serial No. 744,629. (Cl. 21—90.)

1. An arched hood cornice comprising means for attachment to the dash or similar support, a channeled por-

tion constituting a wire conduit, an outlet box connected to said conduit, and a hood supporting flange.



2. The combination with a dash, of a hood supporting cornice attached thereto, said cornice being arched and having a channeled portion constituting a wire conduit formed therein and closed by said dash.

3. The combination with a dash, of an arched cornice attached thereto comprising an outlet chamber, and a channeled side portion constituting a wire conduit communicating with said chamber, and a hood supporting flange carried by said cornice.

4. The combination with a dash, of an arched cornice strip carried thereby, and having a channel constituting a wire conduit in the side next the dash, and on the opposite side a hood supporting flange.

5. The combination with a dash, of an arched cornice strip comprising a channeled portion adjacent the dash constituting a wire conduit, said conduit opening into an enlarged outlet fitting chamber at the apex portion, and a removable cover plate for inclosing said chamber.

[Claims 6 to 9 not printed in the Gazette.]

1,078,962. STILT. GUSTAVE SCHMID, Chicago, Ill. Filed Jan. 29, 1913. Serial No. 744,934. (Cl. 46—33.)



1. A device of the character described comprising a base, rack-bars rising therefrom, a shaft, pinions fast on the shaft and in mesh with the rack-bars, a support for the shaft slidable on the rack-bars, a foot rest carried by the support, and means for locking the shaft against rotation in either direction, said means being operable to release the shaft.

2. A device of the character described comprising a base, rack-bars rising therefrom, housings slidable on the rack-bars, a foot rest supported between the housings,

a shaft carried by the housings, pinions fast on the shaft within the housings and in mesh with the rack-bars, and means for locking the shaft against rotation in either direction, said means being operable to release the shaft.

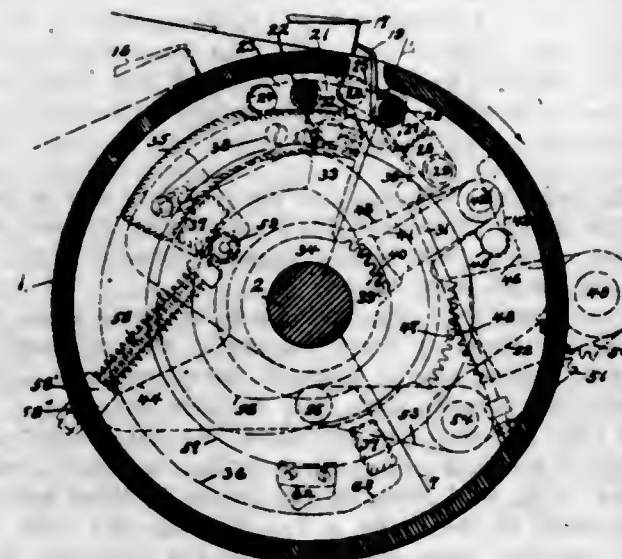
3. A device of the character described comprising a base, rack-bars rising therefrom, a shaft, pinions fast on the shaft and in mesh with the rack-bars, a support for the shaft slidable on the rack-bars, a foot rest carried by the support, bars rising from the support and having leg fastening means, and means for locking the shaft against rotation in either direction, said means being operable to release the shaft.

4. A device of the character described comprising a base, rack-bars rising therefrom, a shaft, pinions fast on the shaft and in mesh with the rack-bars, a support for the shaft slidable on the rack-bars, a foot rest carried by the support, bars rising from the support, a bowed plate connecting said bars, a strap carried by the bars adjacent to the bowed plate, and means for locking the shaft against rotation in either direction, said means being operable to release the shaft.

5. A device of the character described comprising a base, rack-bars rising therefrom, a shaft, pinions fast on the shaft and in mesh with the rack-bars, a support for the shaft slidable on the rack-bars, a foot rest carried by the support, leg securing means carried by the support, and means for locking the shaft against rotation in either direction, said means being operable to release the shaft.

[Claims 6 to 12 not printed in the Gazette.]

1,078,963. ROTARY SHEET-PRINTING MACHINE. EDWARD P. SHELDON, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Feb. 5, 1910. Serial No. 542,180. (Cl. 101—36.)



1. The combination with the sheet carrying cylinder of a printing couple, of means for delivering sheets from different sources to the same sheet carrying surface on the cylinder at different but closely adjacent points, sheet taking devices on the cylinder, and means for causing said devices to take the sheets at said points.

2. The combination with the sheet carrying cylinder of a printing couple, of means for delivering sheets from different sources to the same sheet carrying surface on the cylinder at different but closely adjacent points, grippers on the cylinder, operating devices therefor, and means for effecting the operation of said devices to cause the grippers to take the sheets at said points.

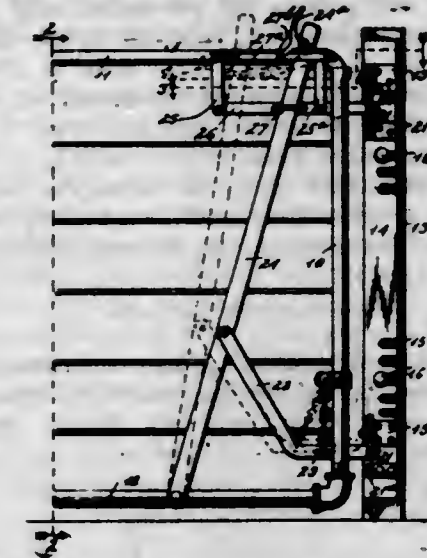
3. The combination with the sheet carrying cylinder of a printing couple, of means for delivering sheets from different sources to the same sheet carrying surface on the cylinder at different but closely adjacent points, grippers on the cylinder, means including an actuator for operating the grippers, and means for causing the actuator to operate the grippers to take the sheets at said points.

4. The combination with a rotary printing couple, of means for delivering sheets in succession from different

sources to one of the cylinders at different but closely adjacent points, a single set of sheet taking devices, and means for operating the sheet taking devices to cause them to take the sheets at one point on one revolution of the cylinder, and at the other points on the succeeding revolutions of the cylinder.

5. The combination with a rotary printing couple, of means for delivering sheets in succession from different sources to one of the cylinders at different but closely adjacent points, a single set of sheet taking grippers, and means for operating the sheet taking grippers to cause them to take the sheets at one point on one revolution of the cylinder, and at the other points on the succeeding revolutions of the cylinder.

1,078,964. GATE-LATCH. FRANK SLATTERY, Perry, Iowa. Filed June 17, 1912. Serial No. 704,433. (Cl. 70—28.)



1. In a device of the class described, a swinging gate, a lever pivoted at its lower end to the said gate near the free end thereof and extending normally upwardly and forwardly, parallel arms pivoted to said gate on each side of said lever and extending downwardly, a substantially horizontal bar pivoted to said arms, means for securing said lever to said bar to permit said bar and lever to move in unison, a post, an automatic latch device on said post, and said bar being designed to engage said latch device when said gate is closed, and means for limiting the rearward movement of said lever.

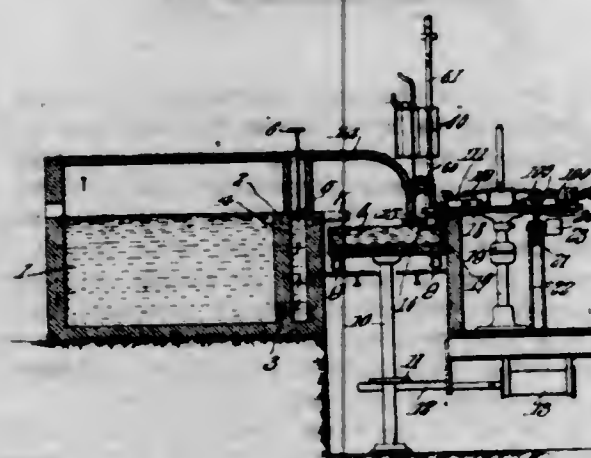
2. In a device of the class described, the combination of a swinging gate with a lever pivoted at its lower end to the said gate near the free end thereof and extending normally upwardly and forwardly, a post, automatic latch devices on said post, parallel arms pivoted to said gate in the front and rear of said lever, a substantially horizontal bar pivoted to said arms, said bar being designed to engage one of said latch devices when said gate is closed, an arm pivoted near the lower end of said lever, a forward extension thereon designed to engage the other of said latch devices means for limiting the rearward movement of said lever past the point where its weight tends to draw it forward, and to limit its forward movement.

3. In a device of the class described, the combination of a swinging gate with a lever pivoted at its lower end to the said gate near the free end thereof and extending normally upwardly and forwardly, a post, automatic latch devices on said post, parallel arms pivoted to said gate in the front and rear of said lever, a substantially horizontal bar pivoted to said arms, said bar being designed to engage one of said latch devices when said gate is closed, means arranged to limit the rearward movement of said lever past the point where its weight tends to draw it forward, an arm pivoted near the lower end of said lever, a forward extension thereon designed to engage the other of said latch devices, and a chain secured to said gate and said extension to support the latter.

4. In a device of the class described, the combination of a swinging gate having an upright member at its free end with a lever pivoted at its lower end to the said gate near the free end thereof and extending normally upwardly and forwardly, a post, automatic latch devices on said post, parallel arms pivoted to said gate in the front and rear of said lever, a substantially horizontal bar pivoted to said arms, said bar being designed to engage one of said latch devices when said gate is closed, an arm pivoted near the lower end of said lever, a forward extension thereon designed to engage the other of said latch devices, said parallel arms being arranged to limit the rearward movement of said lever past the point where its weight tends to draw it forward and to limit its forward movement, said horizontal bar and said arms being slidably mounted in slots in said upright member.

5. In a device of the class described, the combination of a swinging gate, with a lever pivoted at its lower end to the said gate near the free end thereof and extending normally upwardly and forwardly, a post, an automatic latch device on said post, a bar pivoted to said lever and extended forwardly therefrom, said bar being designed to engage said latch device when said gate is closed, and means for limiting the rearward movement of said lever past the point where its weight tends to draw it forward, said means comprising a guide loop on said gate, said loop being constructed with a notch in its upper surface, and a pawl pivoted to said lever and designed to enter said notch when said lever is at the forward position of its movement.

1,078,965. GLASS-MACHINE. LEWIS STEELMAN, Millville, N. J., assignor of one-half to T. C. Wheaton Co., Millville, N. J. Filed June 25, 1910. Serial No. 568,881. (Cl. 49—5.)



1. A glass machine having a movable pot, a movable table, a pair of hollow depending members projecting below the surface of the glass metal in the pot, a plurality of pairs of blank molds mounted on the table and adapted to be depressed through said hollow depending members in the glass metal, means for simultaneously sucking gathers of glass into two of said blank molds, means for cutting off the gathers of glass at the lower ends of the blank molds, finishing molds, means for transferring the gathers of glass from the blank to a pair of finishing molds, means for blowing said gathers in said finishing molds, and means for simultaneously opening a pair of finishing molds to permit the completed articles to be removed therefrom.

2. A glass machine including a revoluble table, a series of blank molds thereon, a series of finishing molds upon the table, each finishing mold being interposed between two blank molds, and means for simultaneously filling two of the blank molds, simultaneously drawing the batches from said filled molds, simultaneously depositing the batches in the finishing molds, and simultaneously closing the finishing molds upon the batches.

3. A glass machine including a revoluble table, a series of blank molds thereon, a series of finishing molds upon the table, each finishing mold being interposed between

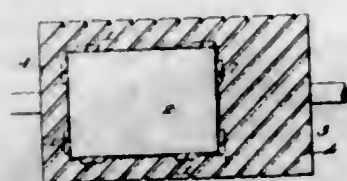
two blank molds, and means for simultaneously filling two of the blank molds, simultaneously drawing the batches from said filling molds, simultaneously depositing the batches in the finishing molds, and simultaneously closing the finishing molds upon the batches, all of said molds being equidistant from the axis of rotation of the table.

4. A glass machine including an outlet ring, a table, means for intermittently rotating the same, a yieldingly supported mold movable with the table and to a position of rest over the ring, there being opposed suction passages within the mold and extending longitudinally therein, and means for depressing the mold, while at rest, against the action of its supporting means and into the ring, creating a suction through the passages, and then releasing the mold supporting means to raise the mold.

5. A glass machine including a rotary table, means for intermittently operating it, a yieldingly supported blank mold upon and movable with the table, a yieldingly supported core, means for lowering the core into the mold, a cross head, a pressure operated piston for lowering and raising the cross head to lower and release the mold, a hollow rod extending from the piston, means for directing air under pressure into the rod, means for directing air from the rod to the flow hole formed by the core, means for creating a suction through the mold and into the cross head, a neck ring movable with the cross head, means for rotating the rod, and means operated by the rod when rotated for actuating the ring.

[Claims 6 to 10 not printed in the Gazette.]

1,078,966. END AND SIDE CLIP. WARD B. STORY, New York, N. Y. Filed Jan. 20, 1912. Serial No. 672,376. (Cl. 101—169.)



1. An end and side clip having a head, and a stem, said stem being formed of limbs integrally formed with the head, and a bolt which engages directly with the limbs and forces them apart.

2. An end and side clip having a head, and a stem, said stem being formed of limbs integrally formed with the head, said limbs having inclined inner surfaces and a bolt engaging directly with said inclined surfaces.

3. A side and end clip having a flat head adapted to lie against the bed and engage with the plate, and a threaded stem, said stem having limbs, inclined surfaces on the inside of the limbs, a hole through the head, and a bolt engaging with the hole and the threaded stem, also with the inclined surfaces.

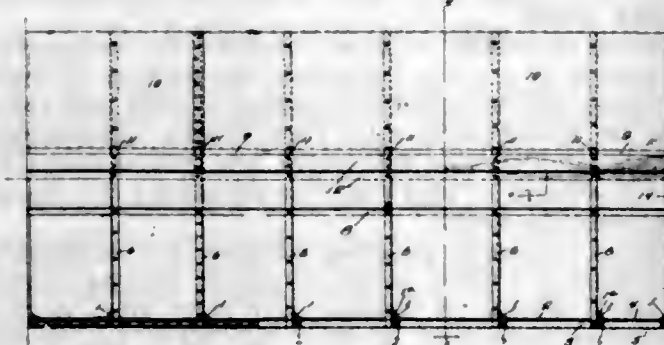
4. A side and end clip having a flat head, an integral stem, said stem lying at an angle to the head, integral limbs on the stem, and a plurality of expanding bolts engaging with the limbs.

1,078,967. CAR-ROOF. VICTOR M. SUMMA, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 18, 1911. Serial No. 655,311. (Cl. 108—5.)

1. A car roof structure comprising a pair of roof plates extending longitudinally of the roof and being spaced upon opposite sides of the median line thereof, having upstanding substantially vertical flanges along their adjacent edges, a roof plate extending throughout the length of said first mentioned plates formed with flanges disposed parallel with the flanges of said first mentioned plates and fixed thereto, and an angled purlin containing one of said flanges.

2. A car roof structure comprising carlines, a pair of spaced roof plates extending substantially from end to end of the car in close proximity to said carlines and hav-

ing marginal flanges extending throughout their length, a channel-shaped roof plate extending throughout the length of said first roof plates, said channel plate being spaced vertically above said carlines and connected to the carlines and to said spaced plates, angles fastened to said roof plates to strengthen the connection between said roof plates and channel plates, and running board supporting brackets connected with said angles.



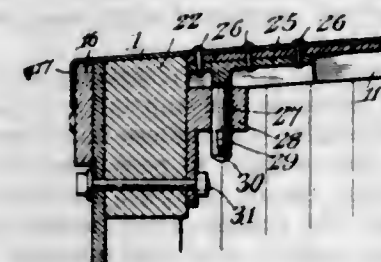
3. A car roof structure comprising a pair of side roof plates extending longitudinally of the roof and being spaced apart, having upstanding substantially vertical flanges along one of their edges, a central roof plate extending the length of said first mentioned plates formed with pendant flanges lapping the vertical sides of said first mentioned flanges, and spaced purlins each having angled portions containing a flange of the side and a depending flange of the central roof plate.

4. A car roof structure comprising a pair of transversely spaced roof plates extending substantially from end to end of the car having marginal flanges extending throughout their length and an interposed upwardly extending channel shaped roof plate extending throughout the length of said first roof plates said interposed channel having flanges fastened to and lapping the flanges of said first plates for strengthening said first plates, and intersecting rolled sections connected to said flanges, said rolled sections and said lapping flanges being adapted to stiffen the same and to support saddles for running boards.

5. In a car structure, the combination comprising carlines, spaced purlins, a pair of spaced roof plates secured directly to said carlines and having right-angularly disposed upstanding flanges extending throughout the length of said purlins and being fixed thereto, and a second roof plate of inverted channel shape spaced vertically above said carlines and having oppositely disposed depending flanges extending substantially the length of said first flanges and being fixed thereto and to the purlins, said inverted channel-shaped plate extending longitudinally beyond the pair of spaced plates and there being curved downwardly to provide a protected ventilating passage.

[Claims 6 to 22 not printed in the Gazette.]

1,078,968. STEEL ROOF FOR FREIGHT-CARS. WILSON E. SYMONS, Chicago, Ill. Filed Sept. 14, 1910. Serial No. 582,084. (Cl. 105—78.)



1. The combination with a box car body, a roof therefor removable from the box car body to convert the same into an open top car, and detachable carlines secured to and removable with the roof, of supporting brackets secured to the car body at opposite sides thereof adjacent to the top and supporting the ends of the carlines and receiving the fastening means of the same and permitting the detachment and removal of the roof, said brackets being constructed to receive and support transverse rods for

196 O. G.—43

supporting temporary running boards when the roof with its carlines is removed.

2. The combination with a box car body, a roof therefor removable from the body to convert the same into an open top car, and detachable carlines secured to and removable with the roof, of supporting brackets secured to the car body at opposite sides thereof adjacent to the top and supporting the ends of the carlines and having openings to receive the fastening means of the same and permitting the detachment and removal of the roof, said openings also being adapted to receive rods for supporting a temporary running board when the roof is removed.

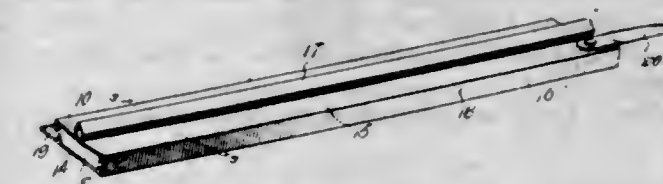
3. The combination with a freight car body, of brackets secured to the inner faces of the sides of the car body adjacent to the top of the car, carlines extending across the car body and terminating at the inner faces of the sides of the car and supported at their ends by the said brackets, a roof secured to the carlines and extending beyond the same and provided at its edges with flanges fitted against the outside of the body, and fastening means for detachably securing the carlines to the brackets for permitting the removal of the roof and the carlines as a unit.

4. The combination with a freight car body, of brackets secured to the sides of the car body adjacent to the top of the car, a roof including carlines supported at their ends by the said brackets, and pins piercing the brackets and having heads secured to the carlines, and tapered keys engaging the pins and the brackets and detachably securing the former in the latter and permitting the removal of the roof with its carlines as a unit.

5. The combination with a freight car body, of brackets secured to the sides of the body adjacent to the top of the car, a detachable roof including channel carlines extending across the car and having their terminals supported upon the upper edges of the brackets, pins provided with heads fitting the channels of the carlines and engaging the brackets, and means for detachably securing the pins in the brackets.

[Claims 6 to 19 not printed in the Gazette.]

1,078,969. COMBINATION RULER AND BLOTTER. HENRY J. TAYLOR, Boston, Mass. Filed Jan. 23, 1912. Serial No. 672,837. (Cl. 120—2.)



1. As a new article of manufacture, a combined ruler and blotter comprising a body formed of a single piece of material having upwardly inclined sides forming a container and adapted to receive a blotter inclosing the said container, a ruler plate formed of a single piece of material bent to provide downwardly inclined sides and adapted to slidably receive the said body to form a cover for the container and secure the ends of the blotter between the inclined sides of the body and the inclined sides of the ruler plate, and a handle formed integrally with the ruler plate by striking upwardly a medial longitudinal portion thereof, the said handle extending longitudinally to the said plate and throughout its entire length.

2. As a new article of manufacture, a combined ruler and blotter comprising a body formed of a single piece of material constituting a container and adapted to receive a blotter in closing the container, with the edges of the blotter projecting upwardly adjacent the sides of the container, a ruler plate formed of a single piece of material and adapted to slidably receive the said body to form a cover for the container, with the longitudinal edges of the blotter interposed between the sides of the said container and the said cover, a handle formed integrally with the ruler plate and extending longitudinally thereto, and an integral graduated plate projecting horizontally from one side of the said cover and extending longitudinally thereto throughout its entire length.

1,078,970. METAL SHEET-PILING. WALTER B. TEMPLETON, Chicago, Ill. Filed Dec. 15, 1911. Serial No. 866,022. (Cl. 61-52.)



1. A wall composed of a plurality of units, each unit being formed from a sheet of metal doubled on itself, said unit having an expansible interlocking portion on one edge and a substantially non-contractible interlocking portion on the opposite edge, the non-contractible edge being shaped to conform to the interior of the expansible edge, whereby a substantially water-tight joint is provided without the addition of packing material, substantially as described.

2. A wall composed of a plurality of units, each unit being formed from a sheet of metal doubled on itself, said unit having an expansible interlocking portion on one edge and a substantially non-contractible interlocking portion on the opposite edge, the non-contractible edge being shaped to conform to and completely fill the expansible edge when the units are interlocked, substantially as described.

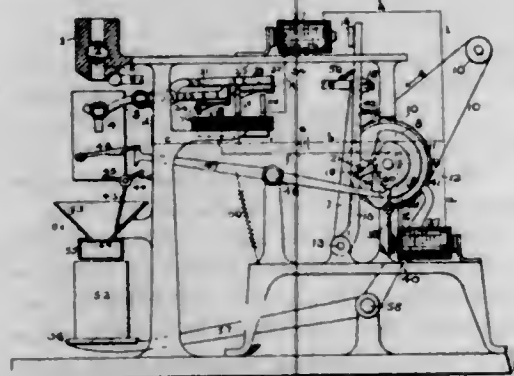
3. A wall composed of a plurality of units, each unit being formed from a sheet of metal doubled on itself, said unit having an expansible interlocking portion on one edge and a substantially non-contractible interlocking portion on the opposite edge, the non-contractible edge being shaped to cause a slight separation of the folded sides when the units are interlocked, substantially as described.

4. Interlocking metal sheet piling composed of piling units integrally formed of a metal plate, said plate being bent and doubled to form expansible interlocking members on opposite side edges of a double connecting web member, the interfitting interlocking members of adjacent piling units enlarging to expand and tighten the contacting surfaces thereof in interlocking engagement.

5. Interlocking metal sheet piling composed of piling units integrally formed of a metal plate, said plate being bent and doubled upon itself to form hollow expansible interlocking members on opposite edges of a double connecting web member, the interfitting interlocking members of each adjacent piling unit interfitting and expanding to tighten the contacting surfaces thereof in interlocking engagement.

[Claims 6 to 10 not printed in the Gazette.]

1,078,971. AUTOMATIC WEIGHING-MACHINE. EDWARD G. THOMAS, Boston, Mass., assignor, by mesne assignments, to Automatic Weighing Machine Company, New York, N. Y., a Corporation of New York. Filed Aug. 28, 1897. Serial No. 649,893. (Cl. 73-101.)



1. In an automatic weighing machine, the combination with a scale, of a valve, means constantly tending to close said valve, means for holding the valve from closing, power-driven mechanism for opening said valve, means operative with the initial movement of the scale to release and permit a partial closing of said valve, and means operative with a subsequent movement of said scale to permit the final closing of said valve.

2. In an automatic weighing machine, the combination with a scale, of a valve, and power-operated mechanism for opening the same, means constantly tending to close said valve, means for holding said valve from being closed by said closing means, means for arresting the closing movement of said valve prior to its final closing, means operative with the initial movement of said scale for permitting said closing movement, and means operative with the final movement of said scale for releasing said valve-arresting means.

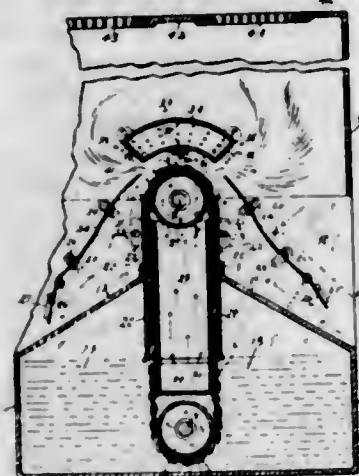
3. In an automatic weighing machine, the combination with a scale of a valve controlling the delivery of material thereto, means constantly tending to close said valve, means for holding said valve from closing, power-driven mechanism for opening said valve, and means controlled by the movement of said scale for permitting the closing of said valve in steps.

4. In an automatic weighing machine, the combination with a scale of a valve, means constantly tending to close said valve, means for holding said valve from closing, power-driven means for opening said valve, and electrically controlled releasing devices, operative with the movements of said scale for permitting the closing of said valve in steps.

5. In an automatic weighing machine, the combination with a scale of a valve, means constantly tending to close the same, power-operated means for opening the valve, valve-controlling devices arranged to hold said valve in its full stream and drip stream positions respectively, and means operative with successive movements of the scale for causing said valve-controlling devices to release the valve.

[Claims 6 to 15 not printed in the Gazette.]

1,078,972. REVOLVING-ENDLESS-BAND OIL-BURNER. JUSTIN KAY TOLES, San Francisco, Cal. Filed Jan. 31, 1913. Serial No. 745,494. (Cl. 67-64.)



1. The combination of an oil reservoir, said reservoir provided with an opening, substantially vertical plates arranged at said opening, an endless band arranged between the plates and adapted to pass through the opening in the reservoir, means adapted to supply air for combustion through the endless band, and means including a motor operatively connected with said endless band and adapted to revolve the same.

2. The combination of an oil reservoir, said reservoir provided with an opening, substantially vertical plates arranged at said opening, an endless band arranged between the plates and adapted to pass through the opening in the reservoir, means adapted to supply air for combustion through the endless band, means operatively connected with the endless band and adapted to revolve the same, and a heated air supply chamber arranged adjacent to the top part of the endless band.

3. The combination of a casing, an oil reservoir therein, said reservoir provided with an opening, substantially vertical plates arranged between the sides of said casing, an endless band arranged between the vertical plates and adapted to pass through the opening in the reservoir, means operatively connected with the endless band and adapted to revolve the same, a heated air supply chamber arranged adjacent to the top of the endless band.

and wing-plates adjustably mounted on the sides of the casing, substantially as set forth.

4. The combination of a casing, an oil reservoir therein, said reservoir provided with an opening, substantially vertical plates arranged between the sides of said casing, an endless band arranged between the vertical plates and adapted to pass through the opening in the reservoir, means operatively connected with the endless band and adapted to revolve the same, and wing-plates adjustably mounted on the sides of the casing, substantially as set forth.

5. The combination of a casing, an oil reservoir therein, said reservoir provided with an opening, adjustable substantially vertical plates arranged between the sides of said casing, an endless band arranged between the vertical plates and adapted to pass through the opening in the reservoir, means operatively connected with the endless band and adapted to revolve the same, a heated air supply chamber arranged adjacent to the top of the endless band, wing-plates adjustably mounted on the sides of the casing, and hinged gates on the wing-plates, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,078,973. MOUNTING FOR SPECTACLES AND EYE-GLASSES. CHARLES J. TROPPMAN, Chicago, Ill., assignor to F. A. Hardy and Company, a Corporation of Illinois. Filed May 27, 1911. Serial No. 629,894. (Cl. 88-41.)



1. A mounting for spectacles or eyeglasses comprising a strip, nose guards upon either end of said strip, and means for attaching lenses comprising one end of a lens strap and an ear extending laterally upon both sides of said strip from points intermediate its ends.

2. A mounting for spectacles or eyeglasses comprising a straight strip of metal, the central portion whereof is bent into a bridge with forwardly opening loops on each side, the strip being then looped backwardly and the extreme ends looped forwardly, lens attaching means projecting from the ends of the bridge loops, and nose guards carried upon the extreme ends of the strip.

3. A mounting for spectacles or eyeglasses comprising a bridge piece the ends of which are curved forwardly, then inwardly, and then backwardly to form loops, lens attaching means extending outwardly from the forwardly extending portion of said loops, and the inner ends of said loops being bent inwardly and forwardly and provided with nose guards.

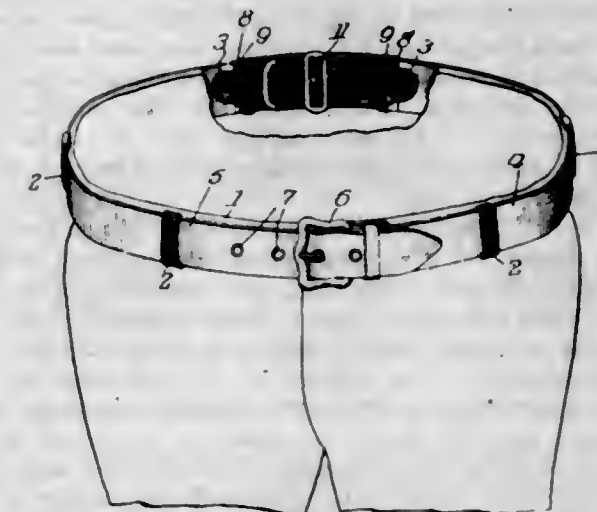
1,078,974. TROUSERS-BELT. ALFRED K. WANDER and RICHARD DALMAR, Chicago, Ill. Filed Oct. 19, 1912. Serial No. 726,651. (Cl. 241-10.)

1. A trousers-belt comprising a central, elastic back-section and leather sections secured to the ends of said back-section, said back-section being provided with a pair of button-engaging loops adapted to engage with the usual pair of buttons provided upon the rear of the waistband of trousers, and the two leather sections being provided with means for securing their outer ends together.

2. A trousers-belt comprising two leather sections provided with means for securing their outer ends together and each provided at its inner end with a metallic loop of approximately the width of said leather section, an adjustable elastic band threaded through said loops and constituting the central, back-section of the belt, and a pair of metallic button-engaging loops loosely threaded on the inner section of said elastic band.

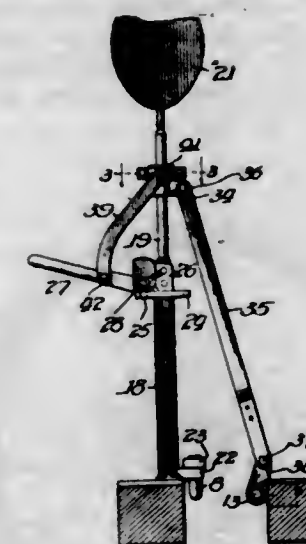
3. The combination in a trousers belt, of leather sections provided with usual means for holding the outer ends together, metallic loops, one at the rear end of each leather section, an adjustable elastic band threaded through said

loops, said elastic band constituting the rear or back section of the belt, and means for attaching the elastic band



to the rear suspender buttons of the trousers, substantially as and for the purpose specified.

1,078,975. SWITCH-OPERATING MECHANISM. WILLIAM E. WESSINGER, Duluth, Minn. Filed Feb. 12, 1913. Serial No. 747,885. (Cl. 104-25.)



1. In a switch operating mechanism, the combination of a switch stand, a target rod mounted thereon, a switch operating rod arranged to be reciprocated by said target rod, a lock operating shaft, a member slidably mounted on said target rod above said switch stand, a link connecting said member with said shaft, and means for imparting a sliding movement to said member on said target rod whereby to operate said shaft.

2. In a switch operating mechanism, the combination of a rotatable target rod, a switch operating rod connected therewith to be operated upon rotation of the target rod, a switch lock operating shaft, a member slidably and rotatably mounted on said target rod, a link connecting said member with said shaft, a handle for rotating said target rod, and swivel connections between said handle and said member whereby the member may be raised and lowered by means of the handle without partaking of the rotary movement of the target rod.

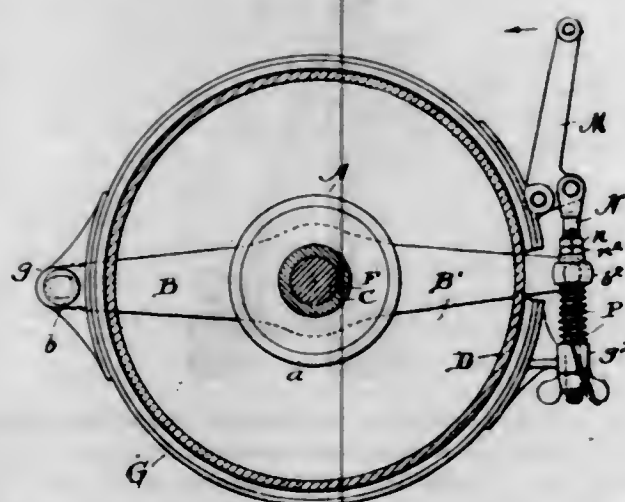
3. In a switch operating mechanism, the combination of a rotatable target rod, mechanism connected therewith for operating a switch upon rotation of said rod, a switch lock operating shaft, a slidable member loosely embracing said target rod, a handle arranged to operate said target rod and pivotally mounted to swing in a vertical plane, a collar embracing said member, a link connecting said collar with said handle whereby said collar and member may be moved up and down on the target rod by means of the handle, said collar permitting turning movement of the handle to operate the target rod without turning said member, and a link connecting said member with said lock operating shaft whereby said shaft will be rocked upon movement of the member.

4. In a switch operating mechanism, the combination of a rotatable target rod, a switch lock operating shaft, a member slidably mounted on said rod, a link connecting said member with said shaft, an operating handle connected with said target rod for rotating the same and pivotally mounted to swing up and down, and means connecting said handle and said member whereby said member will be moved up and down synchronously with the handle but will not be affected by rotary movement of the handle to operate the target rod.

5. In a switch operating mechanism, the combination of a rotary target rod, a switch lock operating shaft, a member slidable on said target rod and connected with said shaft to rock the shaft upon sliding movement on said target rod, a collar loosely embracing said member and movable angularly with respect to said member but immovable longitudinally thereof, a handle connected with said target rod and pivoted to swing in a vertical plane, and a plurality of links connected at each end with said handle and said collar, whereby upon movement of the handle in a horizontal plane to operate the target rod the collar will turn on said member and upon movement of said handle in a vertical plane said member will be moved along the target rod to operate said shaft.

[Claim 6 not printed in the Gazette.]

1,078,976. AUTOMOBILE WHEEL-BRAKE. ROLLIN H. WHITE, Cleveland, Ohio, assignor to The White Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Oct. 9, 1908, Serial No. 456,856. Divided and this application filed Dec. 8, 1911. Serial No. 664,565. (Cl. 21—8.)



1. The combination of a rotatable wheel having a cylindrical brake drum, of a split brake band which embraces said brake drum, means supporting said brake band at a point about equi-distant from its ends, a fixed loop adjacent to the ends of said brake band, an operating lever pivoted to the brake band near the end thereof which is above said loop, a link which is pivoted to said lever and extends downward therefrom through said loop and is connected with the brake band near the end thereof which is below said loop, a spring acting on said lower end of the brake band to move it down, and a shoulder on the link above said loop to limit said downward movement.

2. The combination of a non-rotating member, having oppositely extended horizontal arms and a cylindrical portion, a wheel which is rotatably mounted on said cylindrical portion and has a cylindrical brake drum, a split brake band which embraces said drum and is connected near its middle with one of said arms by means which permit a substantially horizontal sliding movement of said brake band, a loop carried by the other fixed horizontal arm adjacent to the split in said band, an operating lever pivoted to the upper part of said brake band near its end, a link which is pivotally connected with said lever and extends loosely down through said loop and is connected with the lower part of the brake band near its end, a spring embracing said link and compressed between the loop and the lower end of the brake band, and a shoulder on said link above said loop.

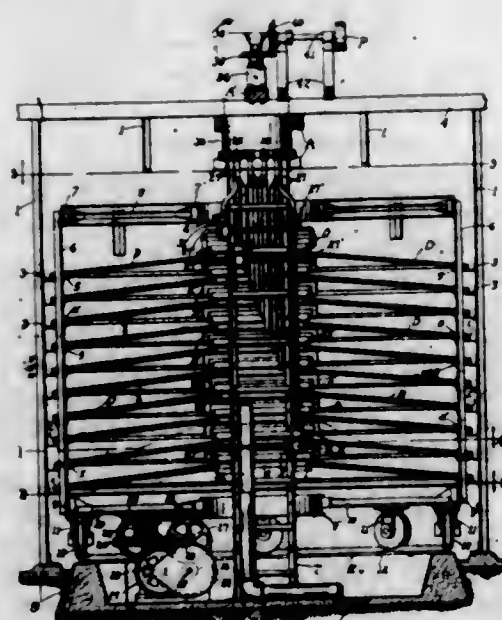
3. The combination of a non-rotating member, a rotatable wheel hub carrying a cylindrical brake drum, a stud secured to said non-rotatable member, a split brake band embracing said brake drum and having about midway between its ends an outwardly projecting boss in which is a horizontal slot through which said stud passed, a bell crank lever pivoted to the upper part of said brake band near the end thereof, a loop fixed to said non-rotatable member, a link pivoted to said bell crank lever and extending downward therefrom through said loop and through a boss on the lower part of the brake band near the end thereof, an adjustable nut upon said link above said loop, a compressed coil spring between said loop and boss, and a nut screwed onto the lower end of said link engaging with said boss.

4. A brake mechanism comprising a shaft, a brake drum thereon, a pair of brake arms each of which has a fixed pivotal connection at one end and is provided with a brake shoe adapted to engage said drum, an actuating lever pivotally connected with one of said arms, a link pivotally connected at one end with said lever and its other end having an adjustable pivotal connection with the other of said arms, a fixed abutment, a spring inclosing said link and engaging said abutment and adapted to move one of said brake arms away from said drum, and an adjustable stop on said link adapted to engage said abutment and cause the other of said arms to move away from said drum.

5. A brake comprising an element adapted to rotate with the wheel, oppositely disposed brake elements adapted to contact with said rotatory element, said brake elements being held from rotatory movement, an abutment located adjacent to the meeting ends of said brake elements, a lever pivoted to the meeting end portion of one of said brake elements, a link member pivotally connecting said lever and the meeting end portion of the opposite brake element, and resilient means acting against said abutment and said last mentioned brake element, whereby said other brake element is moved into contact with said rotatory element before said resiliently opposed brake element when said lever is moved in the direction to set the brake and said resiliently opposed brake element is the first to move out of contact with said rotatory element on the reverse stroke of said lever.

[Claims 6 to 9 not printed in the Gazette.]

1,078,977. MULTIPLE-DECK CONCENTRATOR. ALBERT E. WIGGIN, Anaconda, Mont., assignor of one-third to Ulysses A. Garred and one-third to Frederick Laist, Anaconda, Mont. Filed Apr. 7, 1913. Serial No. 750,466. (Cl. 53—87.)



1. A multiple-deck concentrator comprising a series of columns disposed about a fixed vertical axis, suitable formations disposed in superposed horizontal planes on said columns, concentrating decks located in the space within the columns and supported at their outer edges on said formations, the several decks having openings collectively

forming a central well through the decks, the concentrating surfaces of the decks sloping outwardly and downwardly toward the supporting formations aforesaid, an outer rigid frame surrounding the decks, discharge launders on said frame for receiving the material from the decks, a tower in the well, pulp-feed launders supported from the tower above the several decks, at points adjacent the well, and means for supplying pulp to the several feed-launders.

2. A multiple-deck concentrator comprising a series of columns disposed about a fixed vertical axis, outer rings coupling the adjacent terminals of the columns, suitable upper and lower inner rings, radial braces connecting the inner rings to their adjacent outer rings, thereby forming a suitable frame, means for imparting rotation to said frame about the axis aforesaid through one of the inner rings, a circular track disposed adjacent the bottom outer ring, a series of rollers disposed at the outer portions of the bottom of the frame and traveling on said track, brackets on the columns disposed in superposed horizontal planes, suitable decks having concentrating surfaces sloping downwardly toward the brackets, and supported by the latter within the rotatable frame, the decks being provided with central aligning openings forming a well through the decks, a tower in said well, a series of pulp-feed launders supported from the tower over the inner portions of the decks, an outer rigid stationary frame, discharge launders secured thereto for receiving the discharges from the decks, and means within the well for supplying pulp to the feed-launders of the individual decks.

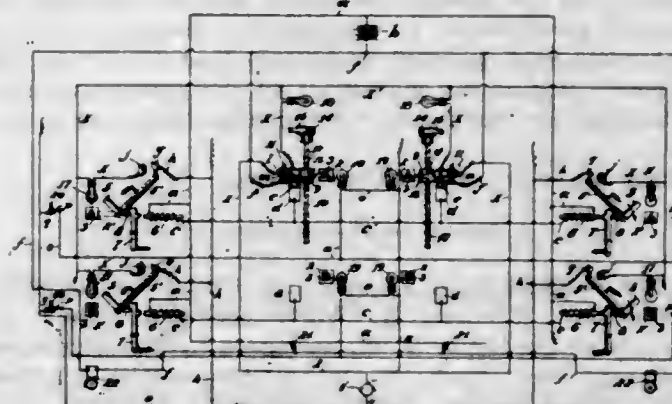
3. A multiple-deck concentrator comprising a series of columns disposed about a fixed vertical axis, outer rings coupling the adjacent terminals of the columns, suitable upper and lower inner rings, radial braces connecting the inner rings to their adjacent outer rings, thereby forming a suitable rigid frame, means for imparting rotation to said frame about the axis aforesaid through one of the inner rings, a circular track disposed below the outer bottom edge of the frame, wheels on said frame traveling on said track, a series of decks having outwardly and downwardly sloping concentrating surfaces superposed within the frame and spaced apart, means on the columns disposed in superposed horizontal planes for supporting the several decks at their outer peripheries, the decks being provided with central aligning openings collectively forming a well through the decks, a tower in the well, pulp-feed launders supported from the tower over the inner portions of the respective decks, an outer stationary frame, discharge launders secured thereto for receiving the discharges from the decks, water-pipes within the tower, branch-pipes leading therefrom through the tower and discharging over the decks, and means within the well for supplying pulp to the several pulp-feed launders.

4. In a multiple-deck concentrator, a series of columns disposed circularly about a fixed vertical axis, means for coupling the adjacent ends of the columns together, upper and lower inner rings disposed about said axis, braces leading from said rings to the adjacent ends of the columns, thereby forming a rigid frame, a series of decks superposed within the frame and having their outer edges supported by the columns, the concentrating surfaces thereof sloping outwardly and downwardly toward their points of support on the columns, the decks being provided with central aligning openings forming a well through the decks, as set forth.

5. A multiple-deck concentrator comprising a series of columns disposed about a fixed vertical axis, suitable formations disposed in superposed horizontal planes on said columns, concentrating decks located in the space within the columns and supported at their outer edges on said formations, the several decks having openings collectively forming a central well through the decks, the concentrating surfaces of the decks sloping outwardly and downwardly from said well toward the supporting formations aforesaid, pulp-feed-launders, means within the well for supporting said pulp-feed launders, and means for supplying pulp to the feed-launders.

[Claims 6 and 7 not printed in the Gazette.]

1,078,978. SIGNAL APPARATUS. CHESTER WILLIAMSON, San Francisco, Cal. Filed Oct. 5, 1912. Serial No. 724,193. (Cl. 177—339.)



1. In a signal apparatus, the combination of a plate carrying a series of names of streets or other data, a contact member adjacent to each name on the plate, a revolvable worm shaft near the series of contact members, an internally threaded sleeve on the shaft, and a wiper contact member carried on the sleeve and arranged to be moved into contact with any one of the contact members in the series by reciprocating the sleeve on the shaft.

2. In a signal apparatus, the combination of a plate carrying a series of names of streets or other data, a contact member adjacent to each name on the plate, a revolvable worm shaft near the series of contact members, an internally threaded sleeve on the shaft, a wiper contact member carried on the sleeve and arranged to be moved into contact with any one of the contact members in the series by reciprocating the sleeve on the shaft, a switch carried by the sleeve for controlling the flow of electrical current through the wiper and the contact members, an annunciator, and means whereby the closing of the switch will actuate the annunciator.

3. In a signal apparatus, the combination of a plate carrying a series of names of streets or other data, a contact member adjacent to each name on the plate, a revolvable worm shaft near the series of contact members, an internally threaded sleeve on the shaft, a wiper contact member carried on the sleeve and arranged to be moved into contact with any one of the contact members in the series by reciprocating the sleeve on the shaft, a switch carried by the sleeve for controlling the flow of electrical current through the wiper and the contact members, an annunciator, means whereby the closing of the switch will actuate the annunciator, and means controlled by the switch for automatically indicating to the switch operator when the annunciator has been operated.

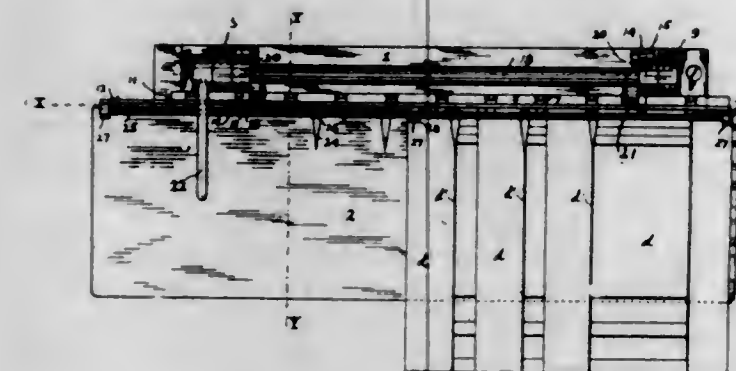
4. In a signal apparatus for street-cars and the like, the combination with a roster of streets or stations in the passengers' apartment and a similar roster near the motorman, of an indicator near each name on the last named roster, a contact member adjacent to each name on the first named roster, a wiper contact movable into electrical engagement with any one of said contact members, a switch controlling the flow of electrical current through said wiper and contact members, means whereby the closing of the switch will operate an indicator to point out a name on the motorman's roster corresponding to the name opposite the wiper and the contact member contacted thereby on the passengers' roster, an incandescent-lamp adjacent each name on the passenger roster, and switches on the motorman's roster controlling a current for lighting said lamps, whereby the passengers may be signaled when the car reaches any of the stops named on the rosters.

5. In a signal apparatus for street-cars and the like, the combination with a roster of streets or stations in the passengers' apartment and a similar roster near the motorman, of an indicator near each name on the last named roster, a contact member adjacent to each name on the first named roster, a wiper contact movable into electrical engagement with any one of said contact members, a switch controlling the flow of electrical current through said wiper and contact members, means whereby the closing

ing of the switch will operate an indicator to point out a name on the motorman's roster corresponding to the name opposite the wiper and the contact member contacted thereby on the passengers' roster, means controlled by the switch for denoting to the operator thereof when the indicator has been operated, and means controlled from the motorman's station for indicating on the passengers' roster when the car reaches any of the stops indicated on the roster.

[Claim 6 not printed in the Gazette.]

1,078,979. SETTING-UP DEVICE FOR DOCUMENT-BINDERS. WILLIAM R. WOODWARD and FRANK E. CROMPTON, Brooklyn, N. Y., assignors to The Signature Company, New York, N. Y., a Corporation of New York. Filed Jan. 31, 1913. Serial No. 745,383. (Cl. 129—1.)



1. A setting-up device for a document binder of the character described, viz., a binder having a strip base and a plurality of gripping springs secured thereto—said setting-up device comprising the following elements: a bed having a recess for said binder base; a plurality of pins in said recess, each of which is adapted to strike against the free end of one of said gripping springs; a depressor bar which is adapted to strike against said binder between said gripping springs; lockable and releasable means for operating said depressor bar to open said gripping springs; and means for indicating the position of documents and guiding said documents under said gripping springs.

2. A document binder in the form of a long, narrow, thin base, having a plurality of gripping springs mounted thereon—said base portion being provided with holes under the free ends of said springs; in combination with a setting-up device for said binder—said setting-up device comprising the following elements: a bed, having a recess for said binder base; a plurality of pins in said recess, each of which is adapted to enter one of the holes in said binder base to act against one of said gripping springs; means, lockable and releasable, for depressing the base portion of said binder, into its recess in said bed to open said gripping springs and means for indicating the position of documents and guiding said documents under said gripping springs.

3. In a setting-up device for document binders of the character described, the combination of the following elements: a bed having a recess adapted to receive the base portion of said document binder; a plurality of pins in said recess; a depressor bar having notches to receive the springs of said binder and adapted to bear on said binder between said gripping springs; lockable and releasable means for operating said depressor bar to open the gripping springs of said binder; a plurality of index fingers or pointers, which are adapted to serve the double purpose of indicating the position of documents and as guides to direct said documents under the clamping springs of said binder.

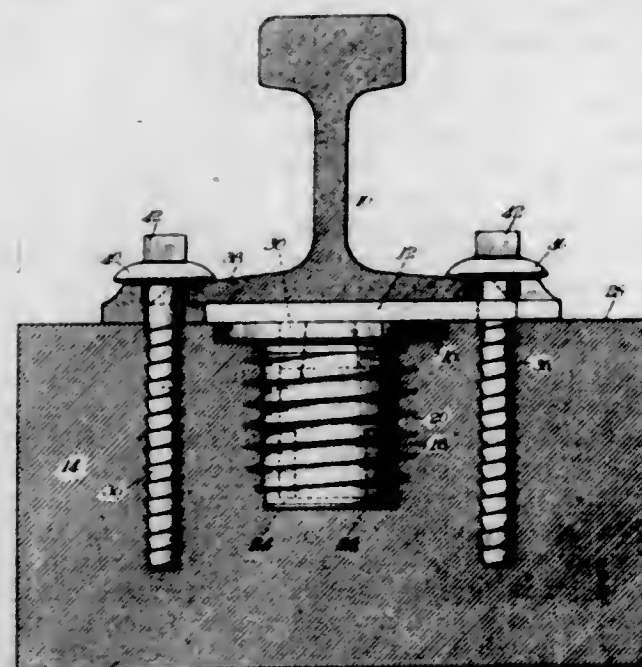
4. In a setting-up device for document binders, the combination of the following elements: a bed having a recess to receive a document binder; a plurality of pins in said recess; a notched depressor bar, the notches of which are adapted to span said pins; means for moving

said depressor bar to and from the recess in said bed—said moving means being releasably lockable when said depressor bar is in both upward and downward positions.

5. In a setting-up device for document binders, the combination of the following elements: a bed having a recess to receive a document binder; a plurality of pins in said recess; a depressor bar which is adapted to enter the recess in said bed between said pins; a plurality of index fingers or pointers secured to said depressor bar and means for moving said depressor bar to and from the recess in said bed—said moving means being releasably lockable when said depressor bar is in its upward or its downward position.

[Claims 6 to 9 not printed in the Gazette.]

1,078,980. TIE AND TIE-PLATE SUPPORT. CLEMENS W. ACKERMANN and FRANK B. ACKERMANN, Chicago, Ill. Filed Apr. 19, 1913. Serial No. 762,419. (Cl. 238—2.)



1. In a device of the class described, the combination of a tie and a rail to be attached thereto, a tie plate under the rail, a metallic foundation member inserted in the tie beneath the tie plate and supporting the same, and means for securing the rail and tie plate to the tie.

2. In a device of the class described, in combination with a rail and tie, a metallic foundation member inserted in the tie beneath the rail, a tie plate between the foundation and the rail interlocking with the foundation member to prevent lateral movement of the tie plate with reference to the foundation, and means for securing the rail and tie plate to the tie.

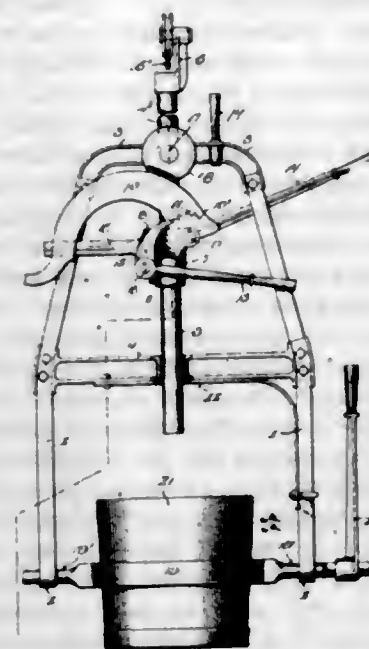
3. In a device of the class described, in combination with a tie, a hollow metallic foundation member screw threaded into the tie, a tie plate resting upon the tie and foundation member having a lug interlocking with the foundation member, a rail upon the tie plate, and means securing the rail and tie plate to the tie.

4. In a device of the class described, in combination with a tie, a hollow metallic foundation member screw threaded into the tie, a tie plate having a lug on its bottom inserted into said opening in the foundation member and lugs on the sides of its top for engagement by the rail flanges, a rail resting upon the tie plate between said lugs on the sides thereof adapted to prevent lateral movement of the tie with reference to the plate, and means securing the rail to the tie plate and tie.

5. In a device of the class described, the combination of a tie, a hollow metallic foundation member screw threaded into the tie, a tie plate having a lug on its bottom inserted into said opening in the foundation member and lugs on the sides of its top for engagement by the rail flanges, a rail resting upon the tie plate between said lugs on the sides thereof adapted to prevent lateral movement of the tie with reference to the plate, and means securing the rail to the tie plate and tie.

[Claims 6 and 7 not printed in the Gazette.]

1,078,981. PORTABLE CONTAINER. HENRY ARIENS, Brillion, Wis., assignor to Brillion Iron Works, Brillion, Wis. Filed July 2, 1913. Serial No. 776,958. (Cl. 214—14.)



1. A portable track-supported container comprising a hanger-rod, a frame in slidable engagement therewith, a supporting head-block for the frame carried by the hanger-rod, cam-actuated connecting means between the frame and head-block whereby said frame is raised and lowered relative to the hanger-rod, means for locking the cam-actuating means, and a tiltable vessel supported by the frame.

2. A portable track-supported container comprising a hanger-rod, a head-block carried thereby, a revolvable and slidable frame mounted upon the hanger-rod and supported by the head-block, an oscillatory cam-member carried by the head-block, means extending from the frame for engagement with the cam, means carried by said head-block for locking the cam in a selected position, and a vessel support having trunnions mounted in the frame.

3. A portable track-supported container comprising a hanger-rod, a head-block secured thereto, an oscillatory cam-member having a ratchet-toothed hub mounted upon the head-block, an actuating lever extending from the cam member, a dog carried by the head-block for engagement with the ratchet-toothed hub of the cam-member whereby the latter is locked in selected positions, means extending from the frame for engagement with said cam member, and a tiltable vessel supported by the frame.

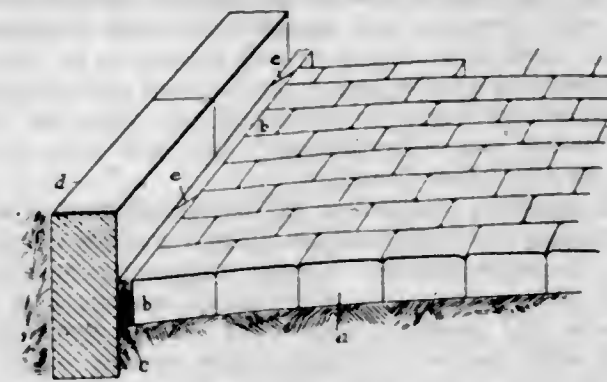
4. A portable track-supported container comprising a hanger-rod, a collar adjustably secured to the hanger-rod, a head-block loosely mounted upon the hanger-rod and engageable with the collar, an oscillatory cam carried by the head-block, the cam being provided with a ratchet-toothed hub, a dog for engagement with the hub teeth, means for actuating the cam, a frame having upper and lower apertures engageable with said hanger-rod, trunnion supports extending from the lower end of the frame, a vessel support having trunnions adapted to be fitted in the frame trunnion supports, and a roller extending from the frame engageable with the cam member.

1,078,982. STREET-PAVING. JAMES BANWELL, Cleveland, Ohio, assignor of one-third to Robert L. Beck, Cleveland, Ohio. Filed May 13, 1912. Serial No. 696,880. (Cl. 94—1.)

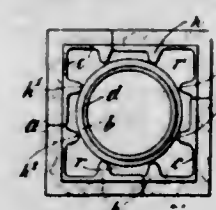
1. As a new article of manufacture and sale, a street paving strip adapted to be interposed between the curbing and paving blocks, the same consisting of asphalt molded to the desired shape and size and having a flexible reinforcing metallic core.

2. As a new article of manufacture and sale, a flat sided strip of flexible asphalt adapted to be used between the curb and the paving and having a flexible metallic core and oppositely beveled ends adapted to overlap the ends of adjacent strips.

3. A preformed expansion joint strip comprising an elongated strip of asphalt or equivalent material of substantial thickness provided with a flexible reinforcement embedded therein.

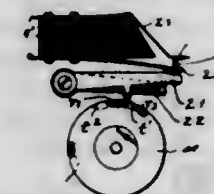


1,078,983. CHIMNEY. ERNST BANZHAF, Easton, Pa. Filed Mar. 9, 1911. Serial No. 613,468. (Cl. 98—30.)



In a chimney, the combination with a tubular flue, of a wall surrounding said flue, said wall comprising a series of superposed tiers, each tier formed of a plurality of molded blocks having projections extending toward said flue to form separate air passage-ways therewith, certain of said projections contacting with the flue to hold the same in place, and the other projections spaced from said flue to prevent heat conduction from the same.

1,078,984. SIGNALING MECHANISM. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed June 4, 1912. Serial No. 701,696. (Cl. 178—50.)



1. In signaling mechanism the combination of a signal member having two sets of teeth and notches and each set representing the same signal number, two signaling levers each coöperating with one of said sets of teeth and notches to be actuated in accordance with the signal number, and circuit controlling contacts controlled by said levers to be alternately opened and closed instantaneously.

2. In signaling mechanism the combination of a signal wheel having teeth and notches about its periphery at one side thereof and teeth and notches about its periphery on the opposite side, the teeth and notches on each side being in accordance with the signal number and the teeth and notches on one side being offset relative to the teeth and notches on the other side, two signal levers each adapted for coöperation with the teeth and notches on one side of the wheel to be vibrated in accordance with the signal number, and circuit controlling contacts controlled conjointly by said levers to alternately open and close the circuit.

3. In signaling mechanism the combination of a signal wheel composed of two concentric sections each notched in accordance with the signal number, one of said sections being angularly off-set in relation to the other section, a signal lever for each section coöperating with the teeth and notches thereof, and circuit controlling contacts conjointly controlled by said levers.

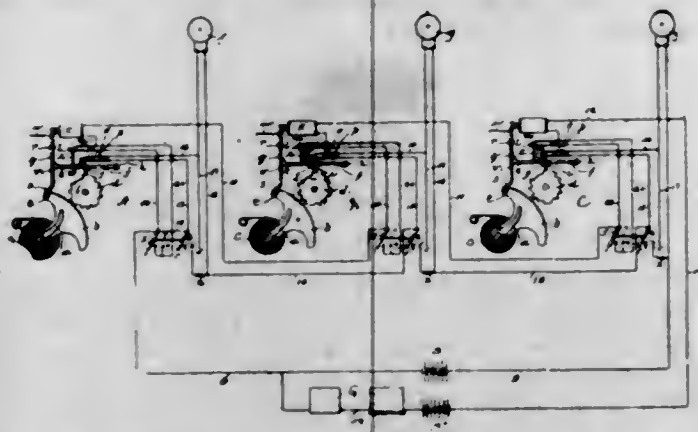
4. In signaling mechanism the combination of a signal wheel comprising two concentric sections each notched and

toothed in accordance with the signal number and one of said sections being off-set angularly relative to the other section so that the teeth of one section are opposite notches of the other section, two signal levers each coöperating with the teeth and notches of one section to be vibrated in accordance with the signal number, and circuit controlling contacts conjointly controlled by said vibrating levers to alternately and instantaneously open and close the circuit to be controlled thereby.

5. In signaling mechanism the combination of a signal wheel having teeth and notches along its periphery representing the signal number, contact springs, a transmitting member coöperating with said contact springs and with said teeth and notches, coöperation of said transmitting member with the teeth of said wheel causing closure of said springs and coöperation of said transmitting member with the notches of said wheel causing separation of said springs, both springs tending to move with said transmitting member upon coöperation of said member with the signal wheel notches, a second signal wheel having notches and teeth along its periphery to represent the signal number, a transmitting member for coöperating with the teeth and notches of said second signal wheel and for coöperating with one of said contact springs, said second transmitting member being adapted when in coöperation with teeth of the second signal wheel to block the movement of the associated contact spring upon release of the springs by the first transmitting member, and said second transmitting member serving when coöperating with notches of the second signal wheel to release its associated contact springs at a time when said contact springs are being moved toward each other by the first transmitting member.

[Claims 6 to 9 not printed in the Gazette.]

1,078,985. SIGNALING SYSTEM. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed May 6, 1912. Serial No. 695,345. Renewed July 21, 1913. Serial No. 780,368. (Cl. 178-164.)



1. In a signaling system, the combination of a general alarm circuit and a local alarm circuit, a plurality of stations, circuit controllers at each station in the general alarm and local alarm circuits, respectively, a signal formulating mechanism at each station for operating both circuit controllers, and non-interference mechanism at each station for preventing interference between signals when the signal formulating mechanisms at a number of stations are operating at the same time, the general alarm circuit controllers only being subject to the non-interference control of said mechanism, as set forth.

2. In a fire alarm system, the combination of a plurality of non-interference fire alarm signal boxes connected by two electric circuits with a central station, the signaling mechanism of each of said boxes including two circuit controllers, one in each circuit, means for operating the same to send a box number signal over each circuit, an alarm at the central station arranged in one of said circuits and subject to control of the non-interference mechanism of each signal box, an alarm associated with each box arranged in the other of said circuits and independent of the control of said non-interference mechanism, and

means at each local station for variably controlling the responsive action of the said alarm.

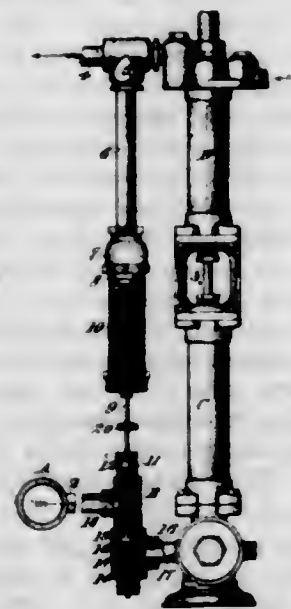
3. In a signaling system, the combination of a plurality of stations, each having signal formulating mechanism and local alarm mechanism, general alarm mechanism, circuits for connecting said various mechanisms, switch mechanism at each station adapted to adjust the circuits to cause response of all the alarms or of the local alarms only upon actuation of the signal formulating mechanism, a non-interference electro-magnet and mechanism associated therewith at each station for preventing interference between signals when the signal formulating mechanisms at a number of stations are operating at the same time, the said non-interference mechanism being connected with and adapted to exercise control over the circuit including the general alarm mechanism only.

4. In an alarm signaling system, the combination of a plurality of stations, a fire alarm signaling box of the non-interfering non-successive type at each station, two sets of contacts and a signal wheel for actuating both sets of contacts in each signal box, a main alarm circuit including in series the non-interference mechanism and one set of contacts controlled thereby at each station, a local alarm circuit including in series an alarm device and the other set of contacts at each station, said contacts being independent of the control of the non-interference mechanism, as set forth.

5. In an alarm signaling system, the combination of a plurality of stations, a non-interfering non-successive fire alarm box at each station having two sets of circuit controlling contacts and one signal wheel for operating both, a general alarm circuit including in series the non-interference mechanisms and one set of circuit controlling contacts controlled thereby at each station, a local alarm device at each station, a local alarm circuit including in series said local alarm devices and a second set of circuit controlling contacts at each station, said contacts at each station acting independently of the non-interference mechanism at said station.

[Claims 6 to 17 not printed in the Gazette.]

1,078,986. AUTOMATIC CUT-OUT MECHANISM FOR FLUID-ACTUATED DEVICES. JULIUS H. BECKER, San Francisco, Cal. Filed Jan. 21, 1913. Serial No. 743,296. (Cl. 103-92.)



1. An automatically-operated cut-off valve for fluid-conveying pipe lines, comprising an open-ended cylinder interposed on the pipe line, inlet and outlet openings formed in the open-ended cylinder connecting the pipe line with the interior of the open-ended cylinder, a pressure cylinder disposed in line with the open-ended cylinder, a piston in said pressure cylinder actuated by a spring on one side and by pressure conveyed from the discharge side of the open-ended cylinder on the other side, a piston rod extending from said piston through the open-ended cylinder, a piston secured to said rod at a point above the intake in

the open-ended cylinder, and a piston secured to the rod at a point below the discharge opening formed in the open-ended cylinder.

2. An automatic cut out mechanism for fluid actuated apparatus comprising in combination a fluid pressure pipe line, an open ended cylinder interposed in said pipe line, a piston rod reciprocably mounted in the open cylinder, a pair of balanced pistons mounted upon the rod within the cylinder, inlet and outlet openings connecting the pipe line with the interior of the cylinder, an actuating cylinder supported above the open ended cylinder into which the piston rod projects, a piston secured on the end of the rod, means for conveying fluid pressure from the discharge side of the open ended cylinder to the upper end of the cylinder, and a coil spring interposed between the lower end of the cylinder and the piston.

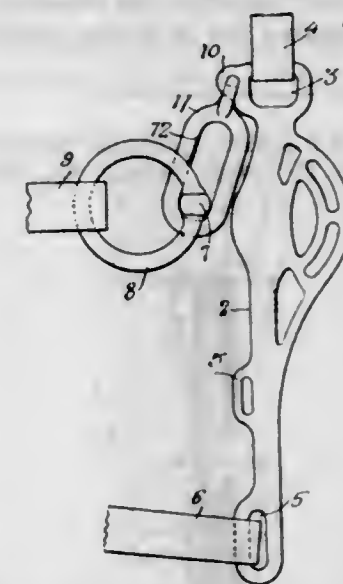
3. An automatic cut-off mechanism for fluid-actuated apparatus, comprising in combination a cylinder, a piston slidably mounted in said cylinder, a pressure chamber formed in the cylinder on one side of said piston, a coil spring interposed between the lower end of the cylinder and the other side of the piston, a piston rod secured to said piston projecting through the lower end of the cylinder, a secondary open-ended cylinder mounted below the first-named cylinder through which the piston rod projects, inlet and outlet openings formed in the open-ended cylinder connecting the interior of the cylinder with a source of fluid supply and a fluid-actuated mechanism, a piston secured to said rod at a point above the intake in the open-ended cylinder, a piston secured to the rod at a point below the discharge opening formed in the open-ended cylinder, and a pipe connecting the discharge side of the open-ended cylinder with the pressure chamber formed in the upper portion of the first-named cylinder.

4. An automatic cut-off mechanism for fluid-actuated apparatus, comprising in combination a cylinder, a piston slidably mounted in said cylinder, a pressure chamber formed in the cylinder on one side of said piston, a coil spring interposed between the lower end of the cylinder and the other side of the piston, means for adjusting the tension of the spring, a piston rod secured to said piston projecting through the lower end of the cylinder, a secondary open-ended cylinder mounted below the first-named cylinder through which the piston rod projects, inlet and outlet openings formed in the open-ended cylinder connecting the interior of the cylinder with a source of fluid supply and a fluid-actuated mechanism, a piston secured to said rod at a point above the intake in the open-ended cylinder, a piston secured to the rod at a point below the discharge opening formed in the open-ended cylinder, and a pipe connecting the discharge side of the open-ended cylinder with the pressure chamber formed in the upper portion of the first-named cylinder.

5. An automatic cut-off mechanism for fluid-actuated apparatus, comprising in combination a cylinder, a piston slidably mounted in said cylinder, a pressure chamber formed in the cylinder on one side of said piston, a coil spring interposed between the lower end of the cylinder and the other side of the piston, means for adjusting the tension of the spring, a piston rod secured to said piston projecting through the lower end of the cylinder, a secondary open-ended cylinder mounted below the first-named cylinder through which the piston rod projects, a casing surrounding the cylinder having an annular passage formed in its lower end which communicates with the interior of the cylinder through a series of perforations formed in the cylinder, an inlet opening communicating with the interior of the cylinder and the source of fluid supply, an outlet opening connected by a pipe with the fluid-actuated mechanism and the annular passage in the casing, valve means on the piston rod controlling communication between said inlet and outlet, a pipe connecting said pipe with the pressure chamber formed in the upper portion of the first-named cylinder, and manually actuated means secured on the piston rod between the upper cylinder and the open-ended cylinder by which the rod may be reciprocated.

[Claim 6 not printed in the Gazette.]

1,078,987. BRIDLE-BIT. JESSE BEERY, Pleasant Hill, Ohio, assignor to The Jesse Beery Company, Pleasant Hill, Ohio, a Corporation of Ohio. Filed Mar. 7, 1912. Serial No. 682,275. (Cl. 54-7.)



1. A bridle having a single cheek piece on each side thereof, a curb bit supported from said cheek pieces, and a snaffle bit also supported from said cheek pieces and having free movement toward and away from said curb bit.

2. The combination, with a bit having guards at its ends, of supporting links pivotally connected to the respective guards above said bit, and a second bit supported by said links normally in a position adjacent to said first-mentioned bit.

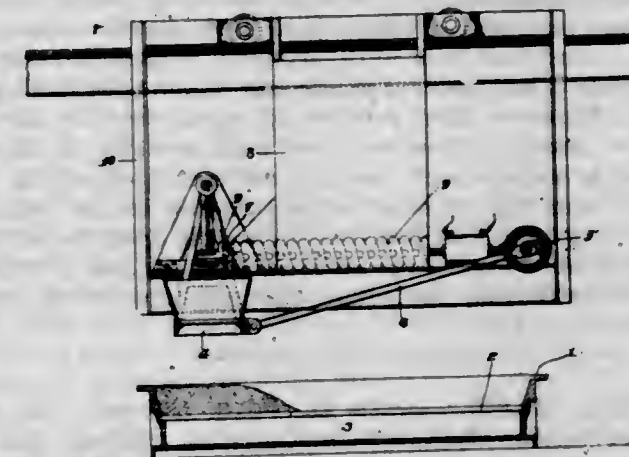
3. The combination with a bit having guards at its ends, of supporting links pivotally connected to said guards above the bit, and a second bit slidably mounted in said links.

4. The combination, with a curb bit including a bar having guards at its ends, of supporting members pivotally connected to the respective guards above the bar, and a snaffle bit carried by said supporting members.

5. The combination, with a curb bit including a bar having guards at its ends, of supporting members pivotally connected to the respective guards above the bar, and a snaffle bit carried by said supporting members and capable of vertical movement relatively thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,078,988. METHOD OF TREATING MATERIALS FOR SINTERING. QUINCY BEST and EDWIN BARNHART, Sparrows Point, Md., and JAMES B. LADD, Ardmore, Pa. Filed Jan. 31, 1913. Serial No. 745,323. (Cl. 75-17.)



1. The method of preparing material for sintering, which consists in sprinkling finely divided moist material and depositing the same directly as sprinkled on a sintering bed in a loose mass of uniform density.

2. The method of preparing material for sintering, which consists in breaking up into small parts finely divided material having a tendency to cohere and depositing

the material on a sintering bed in a loose mass of uniform density.

3. The method of preparing material for sintering, which consists in breaking up into small parts finely divided slightly coherent material and depositing the separated parts on a sintering bed in a loose mass of uniform density.

1,078,989. SAFETY-RAZOR. ACHILL BIPPART, Newark, N. J. Filed June 20, 1912. Serial No. 704,893. (Cl. 30—12.)



1. In a safety razor, the combination, with a blade-carrier having a hollow cylindrical back with elastic gripping flanges extended therefrom, and a cylindrical nut secured within the end of the back, of sloping projections upon the inner side of one of the flanges at its corners, and a razor-blade having a notch in its inner corner to clear the said nut and pressed elastically upon by the sloping projections to retain it in the carrier when inserted into the back from the front edges of the flanges.

2. In a safety razor, the combination, with a blade-carrier formed of sheet-metal with a hollow cylindrical back and gripping flanges extended from one side of the same to carry a razor-blade, of a nut secured in the end of the back having a notch in its outer end, and a handle having a screw and shoulder to engage such nut with a latch movable upon the shoulder adapted to automatically engage the notch as the shoulder approaches the face of the nut.

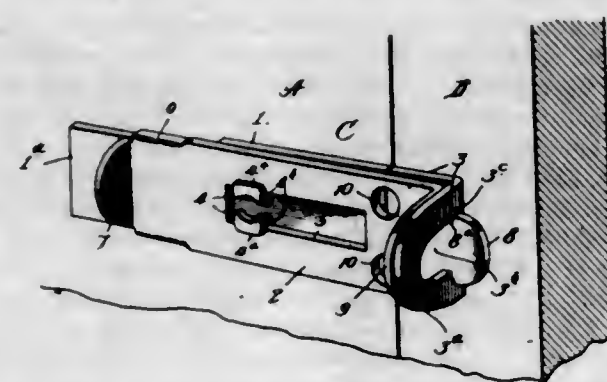
3. A safety razor, having a body comprising a comb and clamping-plate united by a loop and having opposed curves adjacent to the loop forming a cylindrical bore, a sheet-metal blade-carrier having a cylindrical back with gripping flanges to carry a razor-blade, a handle having a screw and shoulder near the end, nuts upon the body of the razor and in the end of the blade-carrier to interchangeably fit the screw upon the handle, the nut upon the blade-carrier having a notch in its outer face and a latch movable upon the shoulder to automatically engage the notch in the nut to hold the handle from rotation.

4. A safety razor having a body comprising an integral comb and clamping-plate with a nearly cylindrical bore near their junction, a sheet-metal blade-carrier having a hollow cylindrical back with gripping flanges to carry a razor-blade, a nut secured in the end of the back having a notch in its outer face, another nut upon the body of the razor, a handle having a screw and shoulder to interchangeably engage such nuts, a bolt-socket extending inwardly from the shoulder with a spring in the bottom thereof, a sliding bolt fitted to the socket upon the spring and adapted to engage the notch in the nut, and a thumb-piece for retracting the bolt to disengage the handle from the nut.

1,078,990. HASP. JAMES H. BOYE, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed July 10, 1913. Serial No. 778,288. (Cl. 70—83.)

1. A hasp of the character set forth, comprising a securing-plate provided with an outstanding projection adapted to serve as a pivot and guide, and a sliding latch-plate having an elongated slot engaging said projection and having flanges freely engaging said first-named plate thus permitting limited turning of the latch-plate about

the pivot, and affording a limited vertical movement to the free end of said plate, for the purpose set forth.



2. A hasp of the character set forth, comprising a securing-plate equipped with an outstanding projection adapted to serve as a pivot and guide, a latch-plate having a tongue on its free end and provided with an elongated slot engaging said projection, and guide-connections between said plates at another point, permitting limited pivotal movement of the latch-plate, and affording a limited vertical movement to the free end of said latch-plate, for the purpose set forth.

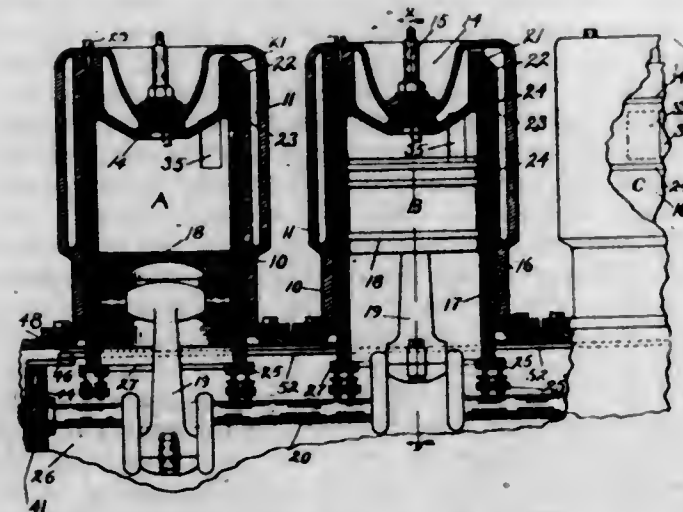
3. A device of the character set forth, comprising a keeper having an outstanding loop and a notch at the base of the loop opening, a sliding-plate having a tongue adapted to enter the loop opening and equipped with a notch to interlockingly engage said first-named notch, a supporting-plate, and guide-connections between the supporting-plate and the latch-plate enabling the plate to be reciprocated and to turn to a limited extent only in use.

4. A device of the character set forth, comprising a keeper equipped with an outstanding loop having notches at the upper and lower sides of the loop opening, a latch-plate having a tongue adapted to enter the loop opening and equipped at its upper and lower edges with notches, a supporting-plate, and guide-connections between the latch-plate and supporting-plate enabling the latch-plate to be reciprocated.

5. A device of the character set forth, comprising a supporting-plate having a pair of outstanding lugs, one of which is turned up and the other down, a latch-plate provided with an elongated slot engaging said lugs, and guide-connections between the latch-plate and the supporting-plate at another point.

[Claims 6 to 9 not printed in the Gazette.]

1,078,991. INTERNAL-COMBUSTION ENGINE. FRANKLIN B. BREMERMAN, Indianapolis, Ind. Filed Feb. 7, 1912. Serial No. 676,016. (Cl. 123—81.)



1. An internal combustion engine having more than two cylinders, a plurality of sleeves concentrically mounted in the casing of each cylinder, said casing and sleeves being provided with intake and exhaust ports, a piston in each cylinder, a common shaft for all the pistons, and two rods harmonically reciprocated from such shaft so that each rod is substantially at one end of its movement when

the other rod is at the center of its movement, each of said rods being connected to a sleeve of each cylinder to reciprocate such sleeves circumferentially to open the ports of the cylinders successively.

2. An internal combustion engine having more than two cylinders, a plurality of sleeves concentrically mounted in the casing of each cylinder, said casing and sleeves being provided with intake and exhaust ports, and corresponding ports in corresponding sleeves being of substantially the same size, a piston in each cylinder, a common shaft for all the pistons, and two rods harmonically reciprocated from such shaft so that each rod is substantially at one end of its movement when the other rod is at the center of its movement, each of said rods being connected to a sleeve of each cylinder to reciprocate such sleeves to open the ports of the cylinders successively.

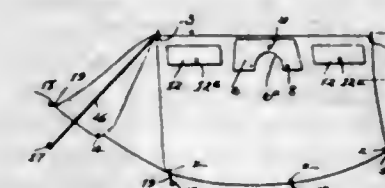
3. An internal combustion engine having more than two cylinders, each cylinder comprising a casing and two concentric sleeves circumferentially reciprocable in said casing, said casing and sleeves being provided with cooperating ports, and corresponding ports in corresponding sleeves being of substantially the same size, a crank shaft, and a pair of rods reciprocatingly driven harmonically from such crank shaft with twice the period of the latter and so that each rod is substantially at one end of its movement when the other rod is at the center of its movement, each of said rods being connected to one sleeve associated with each cylinder and the rods cooperating with the sleeves to open the ports of the various cylinders successively.

4. An internal combustion engine having more than two cylinders, each cylinder comprising a casing and two concentric sleeves reciprocable in said casing, said casing and sleeves being provided with cooperating ports, a crank shaft, and a pair of rods reciprocatingly driven harmonically from such crank shaft with twice the period of the latter and so that each rod is substantially at one end of its movement when the other rod is at the center of its movement, each of said rods being connected to one sleeve associated with each cylinder and the rods cooperating with the sleeves to open the ports of the various cylinders successively.

5. An internal combustion engine having more than two cylinders, each cylinder comprising a casing and two concentric sleeves circumferentially reciprocable in said casing, said casing and sleeves being provided with cooperating ports, and corresponding ports in corresponding sleeves being of substantially the same size, a crank shaft, and a pair of rods reciprocatingly driven harmonically from such crank shaft so that each rod is substantially at one end of its movement when the other rod is at the center of its movement, each of said rods being connected to one sleeve associated with each cylinder and the rods cooperating with the sleeves to open the ports of the various cylinders successively.

[Claims 6 to 26 not printed in the Gazette.]

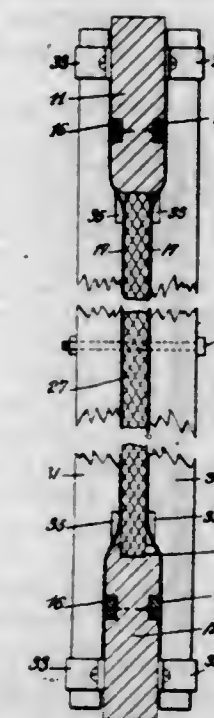
1,078,992. COMBINED CAPE, BLANKET, AND SHELTER-TENT. HARRY S. BRYAN, St. Louis, Mo. Filed Dec. 29, 1909. Serial No. 535,410. (Cl. 2—60.)



A combined cape, blanket and shelter tent comprising a body portion having neck and arm holes therein, a substantially rectangular cover for the neck hole having one longitudinal edge normally free, the said free edge having a semi-circular portion removed to conform to the neck in forming a collar thereby forming a short edge upon either side of said open portion, means for fastening the short edges of said rectangular cover in overlapping position,

means for fastening said cover flat across its hole, covers for said arm-holes of flap form, and means for fastening said last named covers flat across said arm-holes.

1,078,993. FILTER-LEAF. CHARLES BUTTERS, Oakland, Cal. Filed Sept. 25, 1912. Serial No. 722,364. (Cl. 75—86.)



1. In a suction filter leaf the combination of a frame, filtering media mounted on said frame and readily detachable therefrom, a pervious porous filler between said media adapted to limit the proximity of said media to each other, a plurality of strips detachably mounted on each face of said leaf for limiting the outward movement of said media, whereby said parts are readily demountable.

2. In a suction filter leaf the combination of a frame, filtering media mounted on said frame and readily detachable therefrom, a pervious porous filler between said media adapted to limit the proximity of said media to each other, a plurality of strips detachably mounted on each face of said leaf for limiting the outward movement of said media, whereby said parts are readily demountable to permit cleaning of said filler.

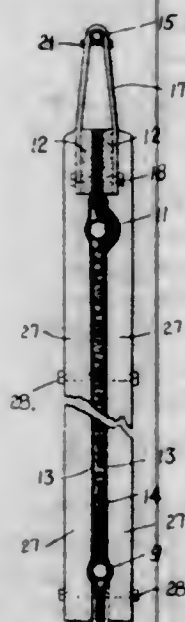
3. In a suction filter leaf the combination of a frame having grooves on both faces; filter media adapted to cover said grooves, means for securing said media in each groove, a pervious filler between said media adapted to limit the proximity of said media to each other, a pipe communicating with the interior of said leaf and a plurality of strips detachably mounted on the outside of each face of said leaf adapted to limit the outward movement of said media.

4. A filter leaf for vacuum filters and other uses, comprising an open frame having grooves for securing the filter fabric thereto, extending around the filtering area, filter fabric laid on each face of the frame and secured thereon by means of strips confining the fabric to the said grooves, one or more tubes extending through the frame between the filter fabrics and opening adjacent to the lower member of the frame, a sheet of permeable material lying between the filtering fabrics, and a series of detachable strips secured on each face of the leaf at intervals and confining the filter fabric.

5. In a suction filter leaf the combination of a frame having grooves on both faces thereof, filtering media adapted to cover said grooves, means for securing said media at all points in said grooves, a pervious filler between said media adapted to limit the proximity of said media to each other, a plurality of strips detachably mounted opposite each other on the two faces of said leaf, means on a frame member into which one end of each strip may be loosely placed and means passing through two corresponding strips and the leaf intermediate the fas-

tened end of said strips and the other end thereof whereby said strips are readily demountable and limit the outward movement of said media.

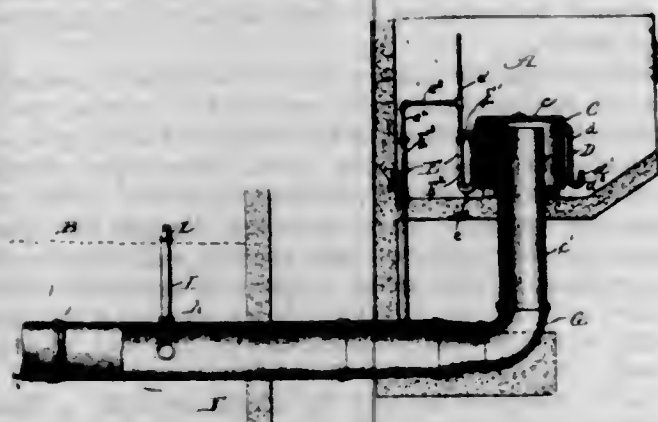
1,078,994. PROCESS OF DISLODGING SLIME CAKES FROM FILTER MEDIA. CHARLES BUTTERS, Oakland, Cal. Filed June 13, 1913. Serial No. 773,375. (Cl. 75-86.)



1. The method of dislodging cakes from filter leaves, which consists in approximately drying said cakes and subsequently flooding them.
2. The method of dislodging cakes from filter leaves, which consists in approximately drying said cakes and subsequently flooding them from above.
3. The method of dislodging slime cakes from filter leaves, which consists in sucking said cakes approximately dry and then simultaneously ceasing the suction and flooding the cakes with water.
4. The method of dislodging slime cakes from filter leaves, which consists in sucking said cakes approximately dry and then simultaneously ceasing the suction and flooding the top of the cakes with water.
5. The method of dislodging slime cakes from filter leaves, which consists in approximately drying the cakes by vacuum, relieving the vacuum and immediately flooding the cakes with water.

[Claims 6 to 13 not printed in the Gazette.]

1,078,995. SIPHON. EDWARD S. CHASE, Reading, Pa., assignor to Pacific Flush Tank Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1913. Serial No. 752,267. (Cl. 137-86.)



1. In an apparatus for the purpose stated, the combination with a receptacle and a surface to be sprayed, of a siphon for discharging the contents of said receptacle, a liquid delivery pipe connected with the lower end of the discharge limb of the siphon and forming a continuation thereof, said delivery pipe extending therefrom beneath the surface to be sprayed, and a riser communicating at its lower end with said delivery pipe and provided at

its upper end with a spray nozzle, said riser being adapted to form with said discharge limb and the intermediate portion of the delivery pipe, a seal or trap for the siphon.

2. In an apparatus for the purpose stated, the combination with a receptacle, of a siphon for discharging the contents of said receptacle, a liquid transmission pipe connected with the lower extremity of the discharge limb of the siphon and forming a continuation thereof, and a plurality of risers communicating at their lower ends with said transmission pipe and provided at their upper ends with spray nozzles; said risers being adapted to form with the said discharge limb of the siphon and the transmission pipe, a deep seal or trap for the siphon.

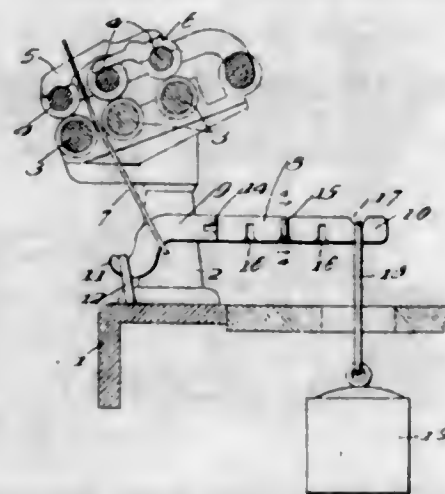
3. In an apparatus for the purpose stated, the combination with a receptacle, of a siphon for discharging the contents of said receptacle, a horizontally arranged transmission pipe connected with the lower end of the discharge limb of the siphon, and forming a continuation thereof, a plurality of risers communicating at their lower ends with said transmission pipe, said risers having an aggregate cross-sectional area not less than that of the discharge limb of the siphon and adapted to form with said discharge limb and the transmission pipe, a deep seal or trap for the siphon.

4. In an apparatus for the purpose stated, the combination with a receptacle and a surface to be sprayed, of a siphon for discharging the contents of said receptacle, a liquid transmission pipe connected with the lower end of the discharge limb of the siphon and extending therefrom beneath the level of the top of the surface to be sprayed, a plurality of risers communicating at their lower ends with said transmission pipe, and spray nozzles upon the upper ends of said risers, said risers constituting with the said discharge limb and the transmission pipe, a deep seal or trap for the siphon.

5. In an apparatus for the purpose stated, the combination with a receptacle and a surface to be sprayed, of a siphon for discharging the contents of said receptacle, a liquid transmission pipe connected with the lower end of the discharge limb of the siphon, and extending therefrom beneath the level of the top of said surface to be sprayed, a plurality of branch pipes extending laterally from said transmission pipe, and risers connected at their lower ends with said branch pipes and provided with spray nozzles at their upper ends, said risers constituting with the said discharge limb of the siphon and the transmission pipe, a deep seal or trap for the siphon.

[Claims 6 and 7 not printed in the Gazette.]

1,078,996. WEIGHT-LEVER FOR SPINNING-MACHINES. EZRA DIXON, Bristol, R. I. Filed Nov. 25, 1911. Serial No. 662,286. (Cl. 118-22.)



1. In a weight lever for spinning machines, a pair of arms, one of said arms having a series of downwardly facing notches therein, a T-shaped head on one end of said arm, and the opposite end of said arm having a notch therein to suspend a weight therefrom, the other arm having an upwardly extending hook formed on one end to

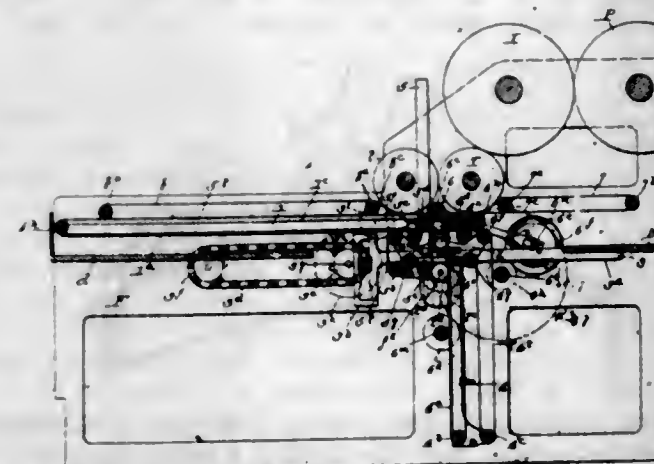
engage in one of said notches of the first mentioned arm and also having an aperture therein and a slot that is disposed longitudinally of the arm and extends on opposite sides of the aperture through the latter.

2. In a weight lever for spinning machines, a pair of arms, one of said arms having notches therein, a T-shaped head on one end of said arm, the other arm having an upwardly extending hook to engage in one of the notches of the first mentioned arm and the outer side of the latter and also having an aperture crossed by an elongated slot that extends on opposite sides of said aperture the shank of the head being received in the aperture.

3. In a device of the type set forth, a pair of arms one of the arms having a series of notches and a T-shaped head on its inner end, the other arm having an upwardly extending hook which engages the bottom edge and the outer face of the first mentioned arm, and also having an aperture crossed by a slot to receive said T-shaped head and to permit the latter to be turned to bring the shank of the head in said aperture the shank of the head being received in the aperture.

4. In a weight lever for spinning machines, a pair of arms, one of the arms having an aperture crossed by a slot and the other arm having a T-shaped head, the slot being of a length to permit the head to be passed there-through and then turned to cause the shank of the head to occupy the aperture, the head engaging the outer side of the first named arm, and means carried by the first named arm to engage the outer face of the second named arm.

1,078,997. SHEET-DELIVERY MECHANISM FOR ROTARY PRINTING-PRESSES. MICHAEL ANDREW DROIT-COUR, Oak Park, Ill., assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 2, 1911. Serial No. 611,839. (Cl. 101-31.)



1. In sheet delivery mechanism, a pair of delivery tables, a set of extensible and contractible tapes for delivering sheets to each table; a single carriage, and means thereon for extending one set of tapes over one table and simultaneously withdrawing the other set from above the other table; means for looping these tapes to compensate for the extension and contraction thereof; and means for driving either set of tapes while it is carrying a sheet outward, and for stopping the linear travel of the other set of tapes while it is being contracted.

2. In combination, a reciprocating carriage, a pair of delivery tables, rollers on said carriage adapted to be projected alternately over the said tables; stationary rollers intermediate the rollers on the carriage, oppositely movable sets of looping rollers adjacent the stationary rollers; and sets of endless tapes respectively running over one set of looping rollers one set of stationary rollers and the related roller on the carriage; so that one set of tapes is retracted from over one table while the other set of tapes is projected over the other table, and vice versa; and means for driving the set of tapes being projected and simultaneously stopping the set of tapes being retracted.

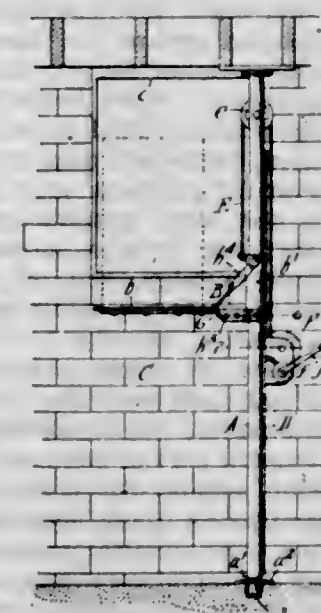
3. In combination, a reciprocating carriage, sheet receiving tables at opposite sides of said carriage; rollers on the ends of said carriage adapted to be alternately moved over the related table; a set of stationary tape guiding rollers intermediate the rollers on the carriage; a set of vertically movable looping rollers adjacent the stationary rollers; sets of tapes running over the related looping rollers, stationary rollers and carriage rollers, one set of tapes being retracted as the other set is projected; with a shifting driven roller; and means for causing the driven roller to propel the sets of tapes alternately.

4. Sheet delivery mechanism comprising opposite sheet receiving tables; a reciprocating carriage, tape rollers at the opposite ends of the carriage, sets of stationarily located tape rollers intermediate the rollers on the carriage; a set of movable looping rollers adjacent each set of stationary tape rollers; a set of tapes running over one of the rollers on the end of the carriage and the related set of stationary tape rollers and related set of looping rollers; means for reciprocating the carriage; means for simultaneously shifting the sets of looping rollers so that when one set of tapes is projected over the related table the opposite set of tapes is retracted; a driving roller located intermediate the sets of tapes; and means for causing the driving roller to alternately engage the sets of tapes so as to propel the tapes that are being projected over a table, and means for arresting the set of tapes that are being retracted.

5. In delivery mechanism, the combination of a reciprocating carriage, a reciprocating rack bar, gearing between the rack bar and carriage, adjacent sets of stationarily fixed tape rollers; a set of tape looping rollers adjacent each set of stationary tape rollers; means for reciprocating the sets of looping rollers in opposite directions; tape rollers on the opposite ends of the carriage; a set of tapes running over a tape roller on the carriage, and the related sets of stationary and looping rollers; whereby when the carriage is reciprocated the sets of tapes are alternately projected and contracted over the adjacent feed tables, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,078,998. HOISTING APPARATUS. CHARLES K. ERNST, Buffalo, N. Y. Filed Apr. 17, 1912. Serial No. 691,361. (Cl. 187-1.)

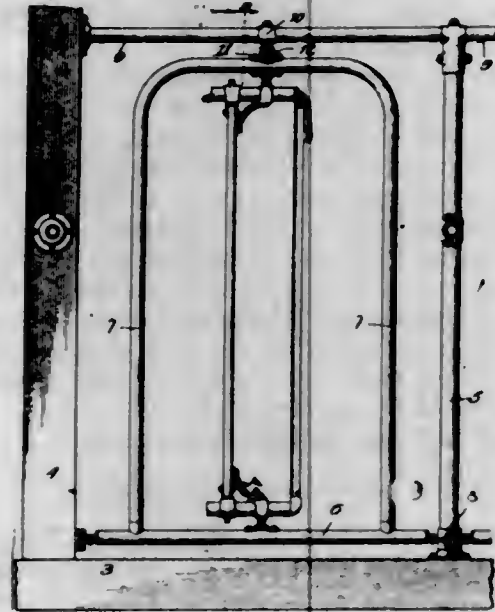


1. In a hoisting apparatus, the combination of an upright column of circular cross-section having a longitudinal rib secured to one side thereof, a sleeve which embraces said column and has an open ended slot through which said rib extends, a platform for the article to be elevated supported by said sleeve, and elevating means for said sleeve including a cable and a winding drum therefor, said drum being journaled in a frame mounted on

said rib, said rib being of sufficient depth to support said frame out of the path of said sleeve as it is moved up and down said column, substantially as set forth.

2. In a hoisting apparatus, the combination of an upright tubular column of circular cross-section having journal bearings at the upper and lower ends thereof, said column having a channel bar attached to one side thereof, said channel bar having its open side turned toward the column and being arranged longitudinally thereof, a frame having a back and side members, the back of said frame being secured against the outer face of said channel bar, a hoisting drum journaled between the sides of said frame, a sleeve slidably mounted on said column and having an open-ended slot therein, the side walls of said slot approaching the sides of said channel bar, a load supporting platform attached to said sleeve, said column having a slot formed therein near the upper end thereof, a sheave journaled in said slot, and a cable attached to said sleeve, passing over said sheave and wound on said drum, substantially as set forth.

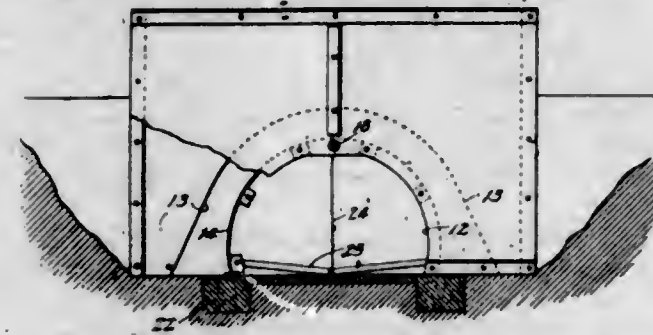
1,078,999. STALL CONSTRUCTION. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Mar. 15, 1912. Serial No. 683,997. (Cl. 119—27.)



1. In a barn equipment, the combination with fixed vertical uprights forming part of the barn structure, of a stall-end construction adapted for erection between said uprights and comprising an upper horizontal member extending between the same, vertical posts adjustably connected to said upper horizontal member, a lower horizontal member adapted to be cut into suitable lengths to extend between the fixed uprights and the vertical posts adjacent their lower ends, a stanchion secured to said lower horizontal member, and an adjustable connection between the upper end of said stanchion and said upper horizontal member, whereby said stall-end construction may be erected in spaces of varying widths between the fixed vertical uprights of the barn structure.

2. In a barn equipment, the combination with fixed vertical uprights forming part of the barn structure, of a stall-end construction adapted for erection between said uprights and comprising an upper horizontal member extending between the same, vertical posts adjustably connected to said upper horizontal member, a lower horizontal member adapted to be cut into suitable lengths to extend between the fixed uprights and the vertical posts adjacent their lower ends, an inverted U-shaped member secured at its lower ends to said lower horizontal member and adjustably connected to said upper horizontal member, and a stanchion mounted within said U-shaped member and connected at its upper end thereto and at its lower end with said lower horizontal member, whereby said stall-end construction may be erected in spaces of varying widths between the fixed vertical uprights of the barn structure.

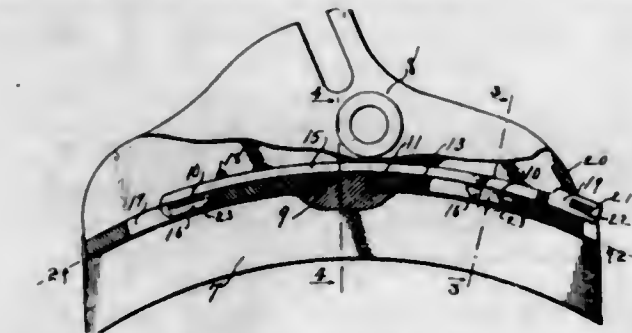
1,079,000. PORTABLE MOLD FOR CONCRETE CULVERTS. ANDREW J. FISHER, Buda, Ill., assignor to Illinois Concrete Machinery Co., Buda, Ill., a Corporation of Illinois. Filed Oct. 25, 1912. Serial No. 727,727. (Cl. 25—131.5.)



1. An integral resilient sheet metal mold form for concrete culverts, and the like, substantially semi-circular in cross-section, reinforcing angle bars attached to the edges of said form and having a side flange with the edges thereof, links pivoted to the bars above said sides, brackets attached to the interior of the form at its upper portion, a winding shaft journaled in the brackets, and a flexible connection between said shaft and the inner ends of the links.

2. In a mold for concrete culverts, and the like, a collapsible arch-form, constructed of a plurality of mutually-engaging sheet metal members, arch-shaped in cross-section and having opposite edges on which they rest, bearings carried by said members, mutually-interlocking shaft sections journaled in said bearings, and flexible connections between said shaft sections and said edges, for the purpose set forth.

1,079,001. BRAKE-SHOE AND SUPPORTING MEANS THEREFOR. JOSEPH D. GALLAGHER, Glen Ridge, N. J., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Mar. 24, 1913. Serial No. 756,306. (Cl. 188—28.)



1. The combination with a brake head having a surface adapted to contact with the back of a brake shoe, and a recess adapted to receive a thrust absorbing lug of a shoe; of a securing key having a lug engaging element adapted to engage the attaching lug of a brake shoe.

2. The combination with a brake head adapted to support a brake shoe and having a portion which contacts with the back of a shoe when the same is supported by said head, and a recess adapted to receive a thrust absorbing lug of a shoe; of a securing key having a lug engaging element located beneath the main body of the key and adapted to engage the attaching lug of the shoe.

3. The combination with a brake head adapted to support a brake shoe and having a portion which contacts with the back of a shoe when the same is supported by said head, and a centrally located recess adapted to receive a lug of a shoe; of a securing key carried by said head and having two lug engaging elements located one upon each side of said recess and between the main body of the key and the back of a shoe supported by said head, and which lug engaging elements are adapted to engage two attaching lugs of a brake shoe.

4. The combination with a brake head having two side flanges and a bottom portion connecting said flanges and adapted to contact with the back of a brake shoe, and which bottom portion is provided with a recess adapted

to receive a thrust absorbing lug of a brake shoe and with an opening into which an attaching lug of a brake shoe may extend; of a securing key located between said side flanges and provided with a lug engaging element extending into the opening aforesaid and adapted to engage the attaching lug of a brake shoe.

5. The combination with a brake head having two side flanges and a bottom portion connecting said flanges and adapted to contact with the back of a brake shoe, and which bottom portion is provided with a recess adapted to receive a thrust absorbing lug of a brake shoe and with an opening into which an attaching lug of a brake shoe may extend; of a securing key located between said side flanges and provided with a lug engaging element located within the opening aforesaid and movable into and out of engagement with the attaching lug of a brake shoe.

[Claims 6 to 18 not printed in the Gazette.]

1,079,002. IGNITER. FREDERICK W. GOERDES, Newark, N. J., assignor to American Button Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 7, 1910. Serial No. 596,022. (Cl. 67—8.)



1. In an igniter, in combination, a case, a cover therefor, and spark-producing means including a cylindrical cutting element capable of free rotation in one direction, and a block of spark-producing material carried by the cover and moved thereby across said cutting element.

2. In an igniter, in combination, a case, a cover therefor, and spark producing means including a block of spark producing alloy, a rotatable, cylindrical cutting element, means for reciprocating the one across the face of the other, and means for maintaining the cutting element stationary while the cover is opening.

3. In an igniter, in combination, a case, a cover therefor, and spark producing means including a block of spark producing material, a rotatable cutting element, and means whereby the reciprocation of the block across the cutting element causes fresh portions of said element to contact with said block.

4. In an igniter, a cutting element having teeth on the periphery thereof and a ratchet portion having teeth opposed in pitch to those of the cutting portion, a block of spark producing material in contact with said cutting portion, and a pawl engaging said ratchet portion capable of vibration about a fixed point, said pawl acting to hold said cutting element stationary during the opening of the cover.

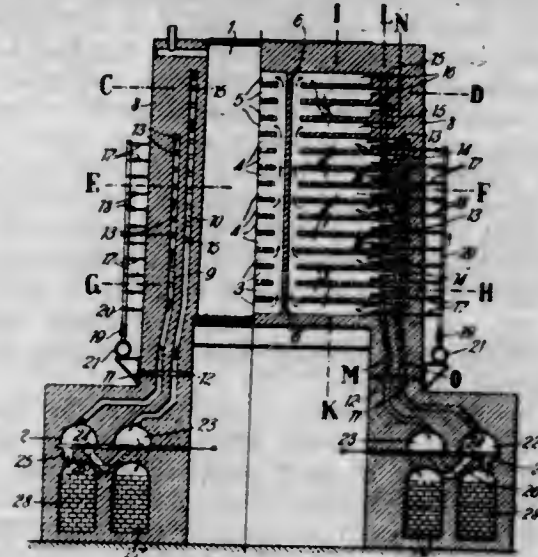
5. In an igniter having a two-part case, spark producing means including a rotatable cutting element and a ratchet for preventing its rotation when the parts of said case are separated.

[Claims 6 to 9 not printed in the Gazette.]

1,079,003. CHAMBER-OVEN. ARTHUR GOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didier, Stettin, Germany, a Corporation of Germany. Filed Aug. 30, 1912. Serial No. 717,832. (Cl. 202—9.)

1. A chamber oven having upright, upwardly tapering gasifying chambers and heating walls for said chambers,

said walls containing longitudinal heating flues arranged in groups at different levels, a conveying channel connecting like ends of all the flues of said groups, ducts for supplying fuel and air to the other ends of a lower group of flues, and off-gas ducts connected with the flues of an upper group at the ends distant from said conveying channel, whereby fresh gases will be caused to pass constantly in the same direction through the heating flues of the lower group, while the off-gases from the flues of the lower group will be caused to travel constantly in the same direction through the flues of the upper group, thus securing a thorough utilization of the combustion gases and a heating effect which in accordance with the upwardly diminishing cross-section of the gasifying chambers is greater at the lower portions of said chambers than at their upper portions, for the purpose of obtaining an even gasification or coking process.



2. A chamber oven having upright, upwardly tapering gasifying chambers and heating walls for said chambers, said walls containing longitudinal heating flues arranged in three groups at different levels, a conveying channel connecting like ends of all the flues of said three groups, ducts for supplying fuel and air to the other ends of the flues of the lower and the intermediate groups of flues, off-gas ducts connected with the flues of the intermediate and upper groups at the ends distant from the said conveying channel, and devices for controlling the alternate connection of the intermediate group of flues with the off-gas ducts or with the air and fuel supply ducts respectively, whereby the flues of the intermediate group may receive either fresh gases, or off-gases from the lower group of flues.

3. A chamber oven having gasifying chambers and heating walls for said chambers, said walls containing longitudinal heating flues arranged in groups, a conveying channel connecting the like ends of all of said flues, ducts for supplying fuel and air to the other ends of a lower group of flues, and off-gas ducts connected with the flues of an upper group at the ends distant from said conveying channel.

4. An oven having gasifying chambers and heating walls for said chambers, said walls containing longitudinal heating flues arranged in three groups at different levels, a conveying channel connecting like ends of the flues of said three groups, ducts for supplying fuel and air to the other ends of the flues of the lower and the intermediate groups, off-gas ducts connected with the flues of the intermediate and upper groups at the ends distant from the said conveying channel, and devices for controlling the connection of the intermediate group of flues with the off-gas ducts or with the air and fuel supply ducts respectively.

5. An oven having a gasifying chamber and a heating wall therefor, said wall containing a series of heating flues arranged in three groups, a conveying channel connecting like ends of all the flues of said series, ducts for supplying fuel and air to the other ends of the flues of one end group and the intermediate group, off-gas ducts connected with the flues of the intermediate group and

of the other end group at the ends distant from said conveying channel, and devices for controlling the connection of the intermediate group of flues with the off-gas ducts or with the air and fuel supply ducts respectively.

[Claim 6 not printed in the Gazette.]

1,079,004. PROCESS FOR SEPARATING MIXTURES OF LIQUIDS. ABRAM GOLODETZ, Berlin, Germany, assignor of one-half to Bernhard Benedix, Hamburg, Germany. Filed Aug. 16, 1912. Serial No. 715,491. (Cl. 196—21.)

1. The improved process of separating the components of a mixture of liquids which consists in adding to the mixture such a liquid in such quantity that it forms a binary homogeneous mixture of minimum boiling point with one of said components only, said minimum boiling point being lower than the boiling point of any of such components and lower than the boiling point of their mixture, and in thereupon fractionately distilling the whole.

2. The improved process of separating the components of a mixture of liquids which consists in adding to the mixture a liquid, which is miscible with said components so as to form a homogeneous mixture, in such quantity and such that it forms a binary homogeneous mixture of minimum boiling point with one of said components only, said minimum boiling point being lower than the boiling point of any of such components and lower than the boiling point of their mixture, and in thereupon fractionately distilling the whole.

3. The improved process of separating the two components of a binary mixture which consists in adding a third liquid thereto in such quantity and such that it forms a binary homogeneous mixture of minimum boiling point with one of said components only, said minimum boiling point being lower than the boiling point of either of said components and lower than the boiling point of their mixture, and in thereupon fractionately distilling the whole.

4. The improved process of separating the two components of a binary mixture which consists in adding a third liquid thereto miscible with both said components so as to form a homogeneous mixture, said third liquid being such that and being added in such quantity that it forms a binary homogeneous mixture of minimum boiling point with one of said components only, said minimum boiling point being lower than the boiling point of either of said components and lower than the boiling point of their mixture, and in thereupon fractionately distilling the whole.

5. The improved process of separating the two components of a binary homogeneous mixture of minimum boiling point which consists in adding a third liquid thereto in such quantity and such that it forms a binary homogeneous mixture of minimum boiling point with one of said components only and of lower boiling point than the minimum boiling point of the mixture of said components, and in thereupon fractionately distilling the whole.

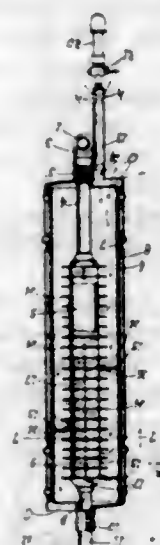
[Claim 6 not printed in the Gazette.]

1,079,005. WATER-HEATER. CYRUS A. HAAS, St. Louis, Mo. Filed Feb. 27, 1913. Serial No. 751,063. (Cl. 122—250.)

1. In combination with a boiler having intake and discharge means for a circulating medium, an outer casing surrounding the same and spaced therefrom, suitable surface-exposing formations on the outer walls of the boiler, intake and discharge openings for hot gases formed in the casing respectively at opposite ends thereof, means detachably coupled to said formations for deflecting the gases at various points of their traverse through the space around the boiler, and means for causing said gases to hug the boiler walls.

2. In combination with a boiler traversed by a circulating medium, a series of peripheral fins formed on the outer surface of the boiler walls, an outer shell or casing surrounding said boiler and spaced from the outer edges of

the fins, the ends of the casing being provided respectively with intake and discharge means for hot gases, detachable deflecting plates disposed at intervals on opposite sides of the axis of the boiler and each spanning a portion of the transverse sectional area of the space between the fins and inner wall of the shell, for the purpose set forth.



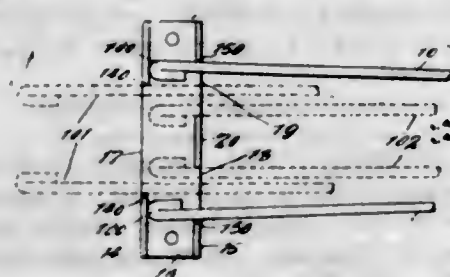
3. In combination with a boiler traversed by a circulating medium, a series of peripheral fins formed on the outer surface of the boiler walls, an outer shell or casing surrounding the boiler and spaced from the outer edges of the fins, the ends of the casing being respectively provided with intake and discharge openings for hot gases, deflecting plates disposed at intervals and detachably secured to the fins on opposite sides of the axis of the boiler, each plate spanning a portion of the transverse sectional area of the space between the fins and inner wall of the shell, for the purpose set forth.

4. In combination with a boiler traversed by a circulating medium, a series of peripheral fins disposed along the peripheral walls of the boiler, an outer casing spaced from the fins, and deflecting plates interposed between the fins and casing walls and provided with fingers adapted to span the fins whereby they are detachably secured thereto.

5. In combination with a substantially cylindrical boiler having intake and discharge means for water, a series of fins disposed along the peripheral walls thereof and spaced apart, and in planes transverse to the axis of the boiler, an outer casing or shell spaced from the fins and boiler, the opposite ends of the shell being respectively provided with diagonally opposite intake and discharge openings for hot gases, a series of substantially semi-annular transverse deflecting plates interposed at intervals on opposite sides of the axis of the boiler between the fins and inner surface of the shell wall, the contiguous ends of the plates being disposed along vertical planes slightly separated or spaced apart, and suitable vertical strips or deflectors inserted through said space and filling the gap between the fins and the inner surface of the shell wall, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,079,006. FASTENING DEVICE FOR FOLDING TABLES. ALEXANDER HAHN, New York, N. Y. Filed Nov. 14, 1912. Serial No. 731,233. (Cl. 45—11.)



1. A fastening device for a folding table comprising a pair of resilient arms for securement to a table leg, of a

box for securement to a table top and comprising a pair of flanges each of said flanges having a slot for the passage of the arms one of the slots being longer than the other and a spacing post located in position in the longer slot for guiding the arms into the shorter slot.

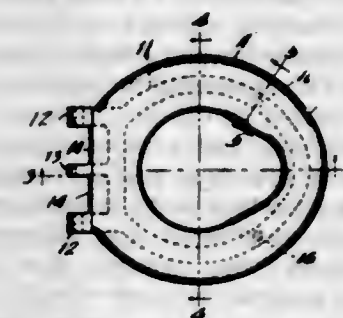
2. The combination with a table top and a leg hinged thereto of a pair of resilient arms pivotally secured to the leg, a box mounted on the table top and provided with a pair of flanges disposed transversely of the line of movement of the arms responsive to the leg movement, each of said flanges having a slot for the passage of the arms, the slot in the flange on the far side being shorter than the slot on the side next the table leg, the flange on the far side being located in position to form an abutment for the arm ends and the box to house the same when the table is open.

3. The combination with a table top and a leg hinged thereto, of a pair of resilient arms pivotally secured to the leg, a box mounted on the table top and comprising a pair of flanges disposed transversely of the line of movement of the arms, each of said flanges having a slot for the passage of the arms, the slot in the flange on the far side being shorter than the slot on the side next the table leg, a post being located centrally of such latter slot for guiding the arms into the shorter slot, the flange on the far side being located in position to form an abutment for the arm ends when the table is open.

4. The combination with a table top, a leg hinged thereto and a back stop for limiting the opening movement of the leg, of a pair of resilient arms carried by the leg and mounted on the table top, engaging faces for affording abutments to the arm ends when the leg is against its back stop, engaging faces for limiting the separating movement of the arms and for holding these under tension while in engagement with the abutments, faces for flexing the arms inwardly of the abutment engaging position, faces for flexing the arms and holding the leg folded against the table top, and faces for centering the arms upon flexure from the abutment engaging position.

5. The combination with a table top and a leg hinged thereto, of a pair of arms having a pivotal connecting portion formed from spring wire, the leg being provided with a bearing for the said pivotal connecting portion at an appreciable distance from the hinge axis and from the table top when the table is closed, abutments carried by the table top for engaging the arms and holding the table open, and for engaging the arms and flexing them one toward the other when the table is closed, and means for engaging the arms inwardly of their free ends when the table is closed for flexing the arms transversely of their general plane for holding the table open.

1,079,007. WATER-CLOSET SEAT. HERMAN M. HOELSCHER, Chicago, Ill., assignor to L. Wolff Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 3, 1912. Serial No. 723,709. (Cl. 4—13.)



1. A water closet seat of the character described, composed of rubber of an inferior grade and having a metal reinforcing member embedded therein, said seat being provided with an outer polished veneer surface of a better grade of rubber, substantially as specified.

2. A water closet seat of the character described, the main portion of which is composed of a plastic material of

196 O. G.—44

an inferior grade and having an outer, polished veneer surface of a better grade of plastic material, said seat being substantially concavo-convex in cross-section, substantially as specified.

1,079,008. DYNAMO-ELECTRIC GENERATOR. GAVAN INRIG and LEON INRIG, London, England, assignors to Robert L. Hubler and George S. Greene, Dayton, Ohio. Filed July 20, 1912. Serial No. 710,537. (Cl. 171—313.)



1. In a device of the type specified, a dynamo and the circuit thereof, a switch in said circuit, an actuator for said switch, two shiftable members adapted to engage said actuator at different speeds of rotation of the dynamo, and a governor driven by the dynamo and connected to said shiftable members.

2. In a device of the type specified, a dynamo, the circuit and shaft thereof, a switch in said circuit, two shiftable members on the shaft of the dynamo, said shaft being provided with a stop adapted to limit the movement of one of said shiftable members, an actuator for said switch adapted to be engaged by said shiftable members at different speeds of rotation of said shaft, and a governor connected to said shiftable members.

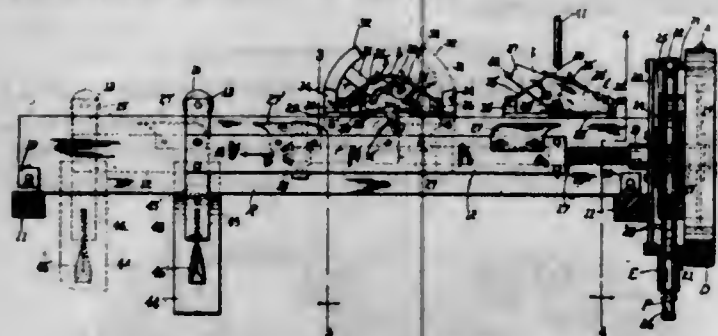
3. In a device of the type specified, a dynamo, the circuit and shaft thereof, a switch in said circuit, two shiftable annular members on the shaft of the dynamo, said shaft being also provided with a shoulder adapted to limit the movement of one of said shiftable annular members, a collar in operative relation with said switch, mounted on said shaft and adapted to be engaged by one of said shiftable members, keys attached to said collar and adapted to engage the other of said shiftable annular members, a spring between said shiftable annular members, links connecting said shiftable annular members, and governor weights carried by said links.

1,079,009. FRICTION DEVICE FOR SHUTTLES. JOHN JOHNSTON, Woonsocket, R. I. Filed Jan. 6, 1913. Serial No. 740,297. (Cl. 139—46.)



A friction device for shuttles formed of a blank of substantially rectangular contour which has a single central longitudinal slot spaced from the ends and sides of the blank, said blank being bent transversely of its center to form a pair of similar U-shaped parts which latter are connected to each other at their upper ends and a piece of felt arranged between the legs of said U-shaped parts and having a cut therein which leads downwardly from the upper end of the felt, the base ends of said U-shaped parts extending on opposite faces of the lower end of the felt.

1,079,010. SAMPLER-OPERATING DEVICE. LABAN E. JONES, Anaconda, Mont. Filed Apr. 29, 1912. Serial No. 693,994. (Cl. 172-240.)



1. In combination with an electric motor, a reciprocating member actuated thereby, reversing and timing switches in common circuit with the motor, brake mechanism for controlling the motor, means for breaking the circuit and simultaneously applying the brakes upon actuation of the reversing switch by the reciprocating member, and means for closing the circuit by the timing switch and simultaneously releasing the brakes.

2. In combination with an electric motor provided with a screw-shaft, a rail disposed parallel to the shaft, a reciprocating carriage provided with a nut traversing said shaft, a sheave on the carriage traversing the rail, tappets on the carriage, a rocking reversing cylinder switch in circuit with the motor, mounted over the rail, a spindle for the cylinder switch disposed at right angles to the path of travel of the carriage, a weighted shifting lever mounted loosely about one end of the switch spindle and adapted to be struck and oscillated by the tappets on the carriage, intermediate connections between the shifting lever and cylinder switch for rocking the latter about the axis of the spindle when the lever is struck by a tappet, and means for completing the motor circuit upon the rocking of the cylinder switch in either direction.

3. In combination with an electric motor provided with a screw-shaft, a rail disposed parallel to the shaft, a reciprocating carriage provided with a nut traversing said shaft, a sheave on the carriage traversing the rail, tappets on the carriage spaced a suitable distance apart, a rocking reversing cylinder switch provided with peripheral contacts, mounted above the rail, a spindle for the cylinder switch disposed at right angles to the path of travel of the carriage, a weighted shifting lever mounted loosely about one end of the switch spindle and provided with members adapted to be struck by the tappets and oscillated by the impact thereof, a pin on the end of the cylinder switch, the shifting lever being provided with an arcuate slot traversed by said pin, whereby the cylinder is rocked by an oscillation of the shifting lever under impact with a tappet, brushes disposed on each side of the axis of rotation of the cylinder switch for engaging the respective contacts on the switch, said brushes being in circuit with the motor, and means for completing the motor circuit through the switch upon a rocking of the latter to one of its extreme positions.

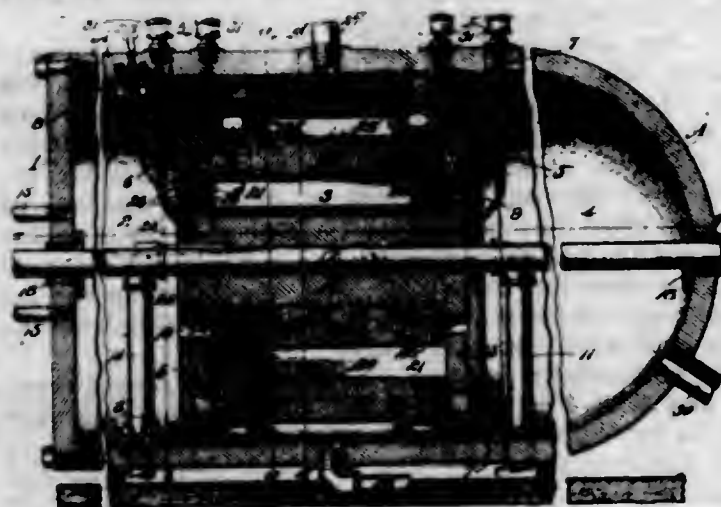
4. In combination with an electric motor, a reciprocating carriage actuated thereby, reversing and timing switches in common circuit with the motor, means on the carriage for actuating the reversing switch, a solenoid in circuit with the motor, a brake-wheel on the motor, an armature for the solenoid, a brake-shoe carried by the motor-casing, and intermediate connections between the armature and brake-shoe for actuating the latter and releasing it from the brake-wheel upon an energizing of the solenoid with a closing of the circuit by the timing switch and the running of the motor.

5. In combination with an electric motor, a reciprocating carriage actuated thereby, reversing and timing switches in common circuit with the motor, means on the carriage for actuating the reversing switch, a solenoid in circuit with the motor, a brake-wheel on the motor, a gravitating plunger-armature for the solenoid, a pair of brake-levers pivotally suspended from the motor casing, brake-shoes on the levers, a toggle-joint connecting the

lower ends of the brake-levers, the plunger-armature being connected to the hinge of the levers comprising the joint, whereby upon energizing of the solenoid with a closing of the motor circuit by the timing switch the armature is lifted and the brake-shoes withdrawn from contact with the brake-wheel, and upon breaking of the circuit the weight of the armature drives the brake-shoes firmly against the brake-wheel and stopping the motor.

[Claim 6 not printed in the Gazette.]

1,079,011. GAS GENERATOR AND COMPRESSOR. FREDERICK D. J. KAESSMANN, Coffeyville, Kans. Filed Jan. 23, 1912. Serial No. 672,989. (Cl. 60-37.)



1. A gas generator and compressor, comprising a casing, a series of plates separating said casing into a charging chamber, a cylinder chamber, and a storage chamber, cam plates within said cylinder chamber, a shaft journaled in said case and extending longitudinally through the center thereof, a cylinder carrier fast on said shaft located within said cylinder chamber, a series of cylinders formed in said carrier, a compression plate slidably mounted in each of said cylinders, rollers carried on the outer face of each of said plates arranged to contact with the inner surface of the cylinder chamber and with said cam plates, a port at each end of said cylinders, ports in said cylinders so that each cylinder will be brought into communication with the charging chamber and brought into communication with said storage chamber at each complete revolution of said shaft, and electrical means adapted to explode the carbureted air introduced in said cylinders at the instant the compression plate is driven downward by said cam plates, substantially as specified.

2. A gas generator and compressor, comprising a casing, a series of plates separating said casing into a charging chamber, a cylinder chamber, and a storage chamber, cam plates within said cylinder chamber, a shaft journaled in said case and extending longitudinally through the center thereof, a cylinder carrier fast on said shaft located within said cylinder chamber, a series of cylinders formed in said carrier, a compression plate slidably mounted in each of said cylinders, rollers carried on the outer face of each of said plates arranged to contact with the inner surface of the cylinder chamber and with said cam plates, a port at each end of said cylinders, ports in said cylinders so that each cylinder will be brought into communication with the charging chamber and brought into communication with said storage chamber at each complete revolution of said shaft, means for circulating water through said cylinder chamber for cooling said chamber, and electrical means adapted to explode the carbureted air introduced in said cylinder at the instant the compression plate is driven downward by said cam plates, substantially as specified.

3. An apparatus of the character mentioned, comprising in combination, a casing divided into three chambers, a gas supply passage entering one of said chambers, a series of cylinders located within the second of said chambers and arranged to revolve therein, a cam plate secured to the in-

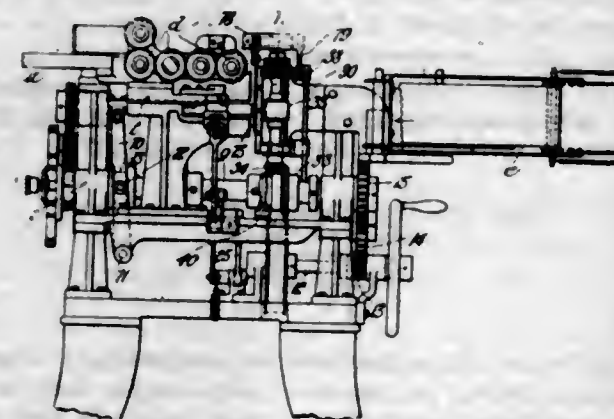
ner part of said second-named chamber, compression plates slidably mounted in each of said cylinders, rollers carried by said plates and traveling on the inner surface of said second-named chamber, a valve for establishing communication between said first-named chamber and said cylinders revolving in said second-named chamber and a valve for establishing communication between said cylinders and said third-named chamber for the purposes set forth, substantially as specified.

4. An apparatus of the character mentioned, comprising a rotary casing provided with four rectangular cylinders, one side of each cylinder being slidable radially, means for reciprocating said slidable sides, a fuel inlet passage for said cylinders, service passages for said cylinders, fresh air inlet passages for said cylinders and exhaust passages for said cylinders, valves for controlling each of said passages and electrical means for exploding the fuel introduced into said cylinders, substantially as specified.

5. An apparatus of the character mentioned, comprising a rotary casing provided with four rectangular cylinders, one side of each cylinder being slidable radially, means for reciprocating said slidable sides, a fuel inlet passage for said cylinders, service passages for said cylinders, fresh air inlet passages for said cylinders and exhaust passages for said cylinders, valves for controlling each of said passages, means for cooling said cylinder casing, and electrical means for exploding the fuel introduced into said cylinder, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

1,079,012. WRAPPING-MACHINE. HENRY J. KEMPF, Springfield, Mass., assignor to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Filed Nov. 3, 1911. Serial No. 658,314. (Cl. 93-5.)



1. A wrapping machine comprising a feeding device to feed stock to be wrapped, a second feeding device to feed a wrapping material, both feeding devices operable to feed to a common point in the machine, and means located at said common point in the machine operable to partially wrap a part of the stock, and an operative compression means arranged to substantially compress the stock which is partially wrapped, together with wrapping mechanism to complete the wrapping of the stock which has been compressed.

2. In a wrapping machine, the combination with mechanism for feeding stock, a paper feeding device to feed paper for wrapping the stock to a point opposite the point where the stock is fed, means for cutting the stock into suitable lengths to be wrapped, and means for severing the paper into suitable wrapping lengths, means for partially wrapping the stock comprising a pocket, a plunger to force the stock against the severed paper and into the pocket, rotating mechanism to intermittently rotate the pocket, a pivoted plate operable to fold one side of the paper over the stock in the pocket, a stationary means to fold the other side over the stock as the pocket rotates, rotatable jaws arranged to twist the ends of the paper and complete the wrapping of the stock, said jaws being arranged so that the ends never touch, so that the paper, as it is twisted, may slip through said jaws without tearing.

3. A wrapping machine comprising a guiding and feed-

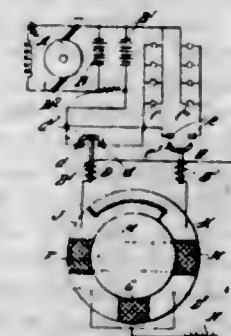
ing means for a continuous rope of stock, a severing means for severing said stock into suitable parts to be wrapped, a series of pocket forming elements, means to guide and feed a strip of material for wrapping said parts, a severing means to sever the strip into lengths suitable for wrapping, a plunger arranged to force each part of the stock against a severed strip of wrapping material and into one of said pockets, means to fold the sides of the material around the stock, means to twist the ends of the material as the stock is held in the pocket, mechanism to rotate the pocket-forming elements, an ejecting device arranged to throw the wrapped stock from a pocket comprising means to engage the twisted ends of the package, and a second ejecting device comprising means to throw from a pocket any package which the first ejecting device did not eject by engagement with the body of the package.

4. The combination in a wrapping machine, of guiding and feeding mechanism arranged to feed candy stock, a knife to cut the candy stock into suitable lengths, a series of pocket-forming elements mounted on a movable carriage, mechanism to intermittently move said carriage, a guiding means for guiding a strip of wrapping paper, means to cut said paper in suitable lengths, a slide operable to force a piece of candy stock against a piece of wrapping paper into one of the pockets, means to substantially compress the stock in the pocket where it is partially wrapped, means for folding the sides of the paper around the compressed stock, and mechanism for twisting the ends of the paper to completely wrap the candy.

5. A wrapping machine comprising in combination means for feeding thereto a continuous spongy or pliable strip of stock, a device to separate the strip into units for wrapping, mechanism to mechanically shrink each unit together with wrapping devices operable to completely wrap the separate units in their shrunken condition whereby the wrapped article will not shrink away from its wrapper, all for the purpose described.

[Claims 6 to 14 not printed in the Gazette.]

1,079,013. ELECTRIC-CIRCUIT-CONTROLLING APPARATUS FOR TRAIN-LIGHTING AND SIMILAR SYSTEMS. EDWARD HERBERT MANN LANGLEY and ERNEST WALTER PRICE, Aston, Birmingham, England, assignors to The Electric & Ordnance Accessories Company, Limited, Birmingham, England. Filed July 25, 1911. Serial No. 640,484. (Cl. 171-97.)



1. Apparatus for controlling a pair of electric circuits each including lights, comprising an electrically operated switch in each circuit, means whereby either switch when moving in response to electrical operation causes the other switch, if in its electrically operated position, to move away therefrom, a single master switch comprising conducting and non-conducting contacts and a switch arm co-operating therewith, and electrical connections between the master switch and the electrically operated switches whereby movement of the switch arm across the face of the aforesaid contacts from one position to another causes neither circuit to be closed, or one circuit only to be closed, or both circuits to be closed, according to the position assumed by the switch arm, thereby producing "no light," "half light" or "full light" effects.

2. Apparatus for controlling a pair of electric circuits, comprising an electrically operated normally closed switch in one of the circuits, an electrically operated normally open switch in the other circuit, means whereby either switch when moving in response to electrical operation

causes the other switch, if in its electrically operated position, to move back to its normal position, a source of electric current for energizing the switches, a master switch comprising conducting and non-conducting contacts and a switch arm coöperating therewith, and electrical connections between the aforesaid contacts, the electrically operated switches and the source of electric current, whereby movement of the switch arm across the face of the aforesaid contacts from one position to another causes the opening of the normally closed switch or the closing of the normally open switch, according to the position assumed by the said switch arm.

3. Apparatus for controlling a pair of electric lighting circuits, consisting in the combination with a normally closed solenoid switch in one circuit, a normally open solenoid switch in the other circuit, means for mechanically locking the switches in position when energized singly but not when energized together, and means whereby one switch when energized unlocks the other, if locked; of a master switch comprising conducting and non-conducting segmental contacts and a switch arm, a source of electric current for energizing the solenoid switches, and electrical connections between the solenoid switches, the aforesaid contacts, and the source of electric current, thereby enabling the aforesaid switch arm, in moving from one extreme position to the other, to energize first the normally closed solenoid switch, then both solenoid switches, then to deenergize both switches, then to energize both switches again, then only the normally open switch, and finally to deenergize this switch.

4. Apparatus for controlling a pair of electric lighting circuits, consisting in the combination with a normally closed solenoid switch in one circuit, a normally open solenoid switch in the other circuit, means for mechanically locking the switches in position when energized singly but not when energized together, and means whereby one switch when energized unlocks the other, if locked; of three circularly arranged non-conducting contacts, interposed conducting segmental contacts two of which overlap one another where they extend diametrically opposite to one of the said non-conducting contacts, an angularly adjustable switch arm coöperating with the contacts, a source of electric current, and electrical connections between the said source, the windings of the solenoid switches, and the aforesaid conducting segmental contacts.

5. Apparatus for controlling a pair of electric lighting circuits, consisting in the combination with a normally closed solenoid switch in one circuit, a normally open solenoid switch in the other circuit, means for mechanically locking the switches in position when energized singly but not when energized together, and means whereby one switch when energized unlocks the other, if locked; of three circularly arranged non-conducting contacts two of which are diametrically situated, two plain segmental conducting contacts extending between the two diametrically situated non-conducting contacts and the third non-conducting contact, two other segmental conducting contacts extending from the two diametrically situated non-conducting contacts and overlapping each other diametrically opposite the third non-conducting contact over an arc of greater length than that corresponding to the aforesaid third contact, an angularly adjustable switch arm extending diametrically across the contacts, a source of electric current, electrical connections between one terminal of the said source and the plain segmental conducting contacts, and between the other terminal and the windings of the solenoid switches, and electrical connections between the overlapping segmental conducting contacts and the said solenoid windings.

[Claims 6 and 7 not printed in the Gazette.]

1,079,014. METHOD OF RECORDING THE VOLUME OR SECTIONAL AREA OF CONCRETE IN PILES FORMED IN THE GROUND. JOHN MURRAY LEIGHTON, Belfast, Ireland. Filed Mar. 5, 1912. Serial No. 681,765. (Cl. 234-10.)

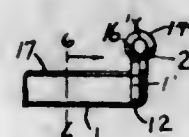
1. In the formation of concrete piles of the kind in which a tube previously introduced into the ground is filled with concrete and withdrawn leaving the concrete

in the ground, the method of indicating the sectional area of the concrete in the ground by utilizing any upward or downward movement of the concrete in the tube, during the withdrawal of the tube, to actuate an indicator whereby an indication is given of any want of uniformity in the change of the relative positions of the top of the concrete and the upwardly moving tube during the withdrawal of the latter.



2. In the formation of concrete piles of the kind in which a tube previously introduced into the ground is filled with concrete and withdrawn leaving the concrete in the ground, the method of recording the sectional area of the concrete in the ground which consists in utilizing any upward or downward movement of the concrete in the tube to move a marker on an indicator card moved at a relatively uniform rate to the rate of withdrawal of the tube so that the marker indicates or records on the card the extent of any upward or downward movement of the concrete at any or all points in the length of the piles whereby a record is obtained of the sectional area of the piles at any or all points in their length.

1,079,015. PIN. CHARLES F. MARKHAM, Providence, R. I. Filed Nov. 4, 1911. Serial No. 658,505. (Cl. 24-160.)



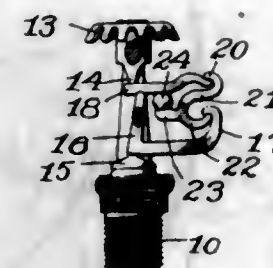
1. A pin of the character described comprising a cupped body portion having an integral joint member formed at one end, said joint member being bent over and back toward the opposite end of the body to form a loop to receive the head of a pin stem, the wall of said loop being provided with an opening through which the shank of the pin stem may extend, the free end of said joint member extending down into the cupped portion of said body, the face of the bent over portion lying against the inner face of the end wall of the cupped portion of said body.

2. A pin of the character described comprising a cupped body portion having an integral joint member formed at one end, and provided with shoulders, said joint member being bent over and back toward the opposite end of the body to form a loop to receive the head of a pin stem, the wall of said loop being provided with an opening through which the shank of the pin stem may extend, the free end of said joint member extending down into the cupped portion of said body, the face of the bent over portion lying against the inner face of the end wall of the cupped portion of said body, the edges of the side walls of said body being bent over said shoulders.

1,079,016. AUTOMATIC SPRINKLER. STEPHEN M. MARSHALL, Clinton, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, a Corporation of Massachusetts. Filed Nov. 16, 1912. Serial No. 731,871. (Cl. 160-5.)

1. In an automatic sprinkler, the combination of a frame having a nozzle, a valve for closing the nozzle, a valve

retaining device comprising levers, a fusible member, and means engaging the levers for holding the fusible member under compression, and for causing the levers to move directly away from the fusible member when released by the melting thereof.



2. In an automatic sprinkler, the combination of a frame having a nozzle, a valve for closing the nozzle, and a valve-retaining device comprising levers, a fusible member, and means movable independently of, and engaging the free ends of, the levers for holding said fusible member under compression and the levers in position until the fusible member fuses, and for then immediately releasing the fusible member and forcing said levers apart.

3. In an automatic sprinkler, the combination of a frame having a nozzle, a valve for closing the nozzle, and a valve-retaining device comprising a pair of levers, one engaging the valve and the other the frame, one of them projecting toward the other lever and forming a fulcrum between the point at which it is held by the frame and its free end, a fusible member, and means engaging the free ends of the two levers for holding said fusible member under compression and the levers in position until the fusible member fuses, and for then immediately releasing the fusible member and forcing said levers apart.

4. In an automatic sprinkler, the combination of a frame having a nozzle, a valve for closing the nozzle, a valve-retaining device comprising a pair of levers, one engaging the valve and projecting toward the other lever and forming a fulcrum for it between its ends, said other lever being engaged by the frame at a point on one side of said fulcrum, a fusible member, and means engaging the free ends of the levers for holding the fusible member under compression.

5. In an automatic sprinkler, the combination of a frame having a nozzle, a valve for closing the nozzle, a boss on the frame arranged opposite the valve, and a valve-retaining device between the boss and valve comprising a pair of levers, one engaging the valve and the other the boss, one of them having an end projecting toward the other lever and engaging it between the point at which it is held by the frame and its free end, a fusible member, and a third lever engaging the free end of the second lever and the free end of the first lever and said fusible member for holding said member under compression and the levers in position, while the sprinkler is set.

[Claims 6 to 10 not printed in the Gazette.]

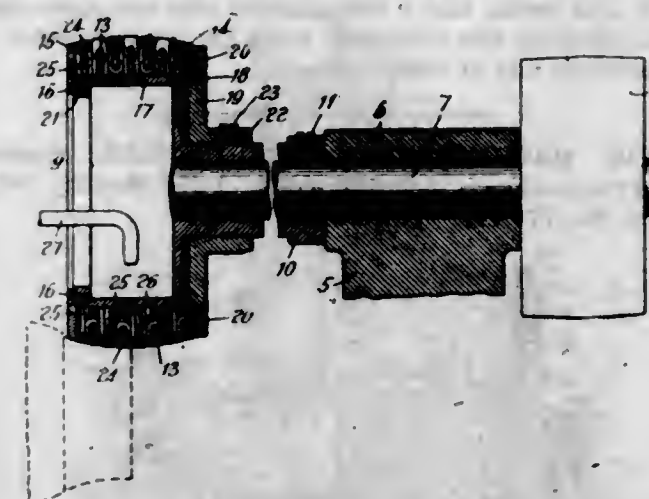
1,079,017. SECTIONAL HEEL-EDGE FINISHING AND BURNISHING TOOL. CARL A. MATSON, Lynn, Mass., assignor of one-half to Albert M. Hoyt, Swampscott, Mass. Filed Mar. 10, 1913. Serial No. 753,199. (Cl. 12-105.)

1. A rotary heel finishing and burnishing tool having, in combination, a rim consisting of a flexible helical member, a series of segmental metal blocks pivotally mounted on said helical member, adapted to rock laterally thereon and forming a yielding metallic periphery for said tool and a holder for said rim.

2. A rotary heel finishing and burnishing tool having, in combination, a rim consisting of a flexible helical member, a series of segmental metal blocks pivotally mounted on said helical member, adapted to rock laterally thereon and forming a yielding metallic periphery for said tool and a holder adapted to support said rim with said blocks substantially in contact with each other.

3. A rotary heel finishing and burnishing tool having, in combination, a rim consisting of a flexible helical mem-

ber, a series of segmental metal blocks pivotally mounted on said helical member, adapted to rock laterally thereon and forming a yielding metallic periphery for said tool and a holder for said rim embodying two flanges to which the opposite ends of said helical member are fastened.

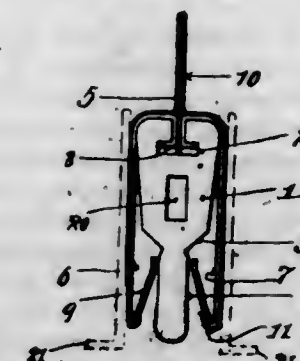


4. A rotary heel finishing and burnishing tool having, in combination, a rim consisting of a flexible helical member, a series of segmental metal blocks pivotally mounted on said helical member, adapted to rock laterally thereon and forming a yielding metallic periphery for said tool and a holder for said rim embodying a hub and two annular flanges fast thereto, the opposite ends of said helical member being fastened to said flanges.

6. A rotary heel finishing and burnishing tool having, in combination, a rim consisting of a flexible helical member, a series of segmental metal blocks pivotally mounted on said helical member, adapted to rock laterally thereon and forming a yielding metallic periphery for said tool and a holder for said rim embodying a hub with two flanges thereon, the opposite ends of said helical member being fastened to said flanges, one of said flanges being adjustable on said hub toward and away from the other of said flanges, whereby the adjacent convolutions of said helical member and the segmental blocks thereon may be held against lateral movement.

[Claim 6 not printed in the Gazette.]

1,079,018. FUSE AND FUSE-CARRIER. THOMAS E. MURRAY, New York, N. Y. Filed Apr. 30, 1913. Serial No. 764,560. (Cl. 175-273.)



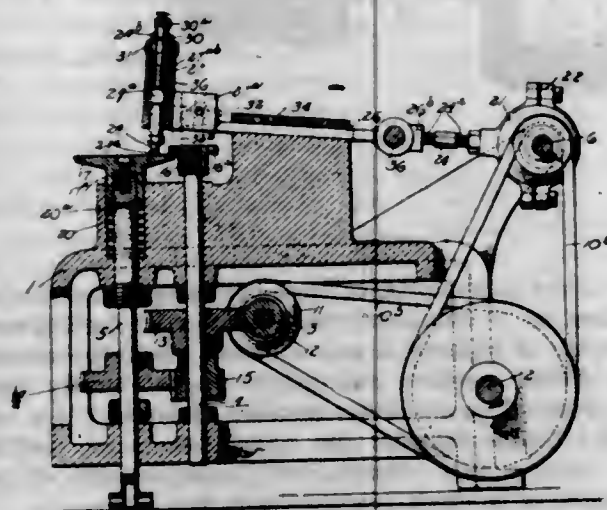
1. A carrier, separated plates of conducting material resiliently supported on opposite sides thereof, and a fuse in loop form supported on said carrier, having its loop projecting beyond one end thereof and its arms in contact with said plates.

2. A wedge-shaped carrier of insulating material, separated plates of conducting material secured to the thicker end of said wedge-shaped carrier and extending in front of the tapered faces thereof, and a fuse in loop form supported on said carrier, having its loop projecting beyond said thicker end and its arms in contact with said plates.

3. A carrier, separated plates of conducting material disposed on opposite sides thereof, a partition of insulating material projecting from one end of said carrier and disposed between said plates, and a fuse doubled over the outer edge of said partition and extending along the opposite sides of said partition and of said carrier.

4. A carrier having a recess, separated plates of conducting material, each having one end bent over and received in said recess and extending from said recess along opposite sides of said carrier, a partition of insulating material entering said carrier recess between said bent over ends of said plates, and a fuse doubled over the outer edge of said partition and extending along the opposite sides of said partition and of said carrier.

1,079,019. MACHINE FOR MAKING INSOLES. ALBERT C. OPPENHEIMER, Cincinnati, Ohio. Filed May 28, 1913. Serial No. 770,417. (Cl. 12-30.)



1. In a machine for turning up two lips previously cut in an insole, a revolvable work-table, a stationary lip-turning tool, an incliningly-supported, vibrating tool provided with a beveled lip-turning surface, means for vertically-yieldingly supporting said vibrating tool, means for varying the inclination of said vibrating tool, and a revolvable roll having its edge extending over the work-table, said roll feeding the stock and cooperating with said vibrating tool in turning up the two lips and pressing them together.

2. In a machine for turning up two lips previously cut in an insole, a revolvable work-table, a stationary lip-turning tool, a turret, a vibrating tool vertically-reciprocatingly carried by said turret, a plug seated in the upper end of said turret, a collar carried by said vibrating tool, a spring interposed between said plug and said collar, and a revolvable roll having its edge extending over the work-table, said roll feeding the stock and cooperating with said vibrating tool in turning up the two lips and pressing them together.

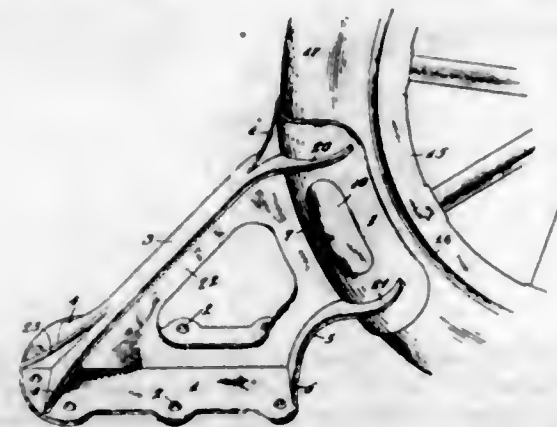
3. In a machine for turning up two lips previously cut in an insole, a revolving work-table, a stationary lip-turning tool, a vibrating tool provided with a beveled lip-turning surface, means for vertically-yieldingly supporting said vibrating tool, and a revolvable roll having its edge extending over the work-table, said roll feeding the stock and cooperating with said vibrating tool in turning up the two lips and pressing them together.

4. In a machine for turning up two lips previously cut in an insole, a revolving work-table, a stationary lip-turning tool, a vibrating tool provided with a beveled lip-turning surface, said vibrating tool being supported in an inclined position, a reciprocating plunger, a turret carrying said vibrating tool and adjustably clamped to said plunger so as to be held in any desired position of inclination with respect to said work-table, and a revolvable feed-roll having its edge extending over the work-table, and cooperating with said vibrating tool in turning up the two lips and pressing them together.

1,079,020. VEHICLE-CHOCK. WILLIAM E. PERRINE, Cleveland, Ohio, assignor of one-third to Christian Girl, Cleveland, Ohio, and one-third to Ernest W. Farr, Cleveland Heights, Ohio. Continuation of application Serial No. 541,053, filed Jan. 31, 1910. This application filed Oct. 3, 1911. Serial No. 652,607. (Cl. 21-8.)

1. A chock for vehicle wheels comprising a base adapted to be secured to the floor upon which the wheel rests, up-

wardly extending ribs or braces extending from opposite end portions of said base, and a curved trough at the upper ends of said ribs or braces adapted to receive a portion of the tire of the wheel.



2. A chock for vehicle wheels comprising a base adapted to be secured to the floor upon which the wheel rests, a curved trough supported from said base, the internal diameter of said trough being not greater than the external width of the tire of said wheel and the depth of the trough being greater than one-half the depth of the tire, the sides of the trough being formed each with a longitudinally extending aperture, each aperture having beveled or chamfered edges.

3. A chock for a vehicle wheel comprising a body having a flattened base and an upwardly inclined flattened brace or rib extending from near each end of the base and a curved trough carried by the upper ends of said ribs or braces, there being a web within and uniting the base, trough, and ribs or braces.

4. A chock for a vehicle wheel comprising a body having a flattened base and an upwardly extending inclined plate or rib near each end of the base, a curved trough carried by the upper ends of the ribs or braces, the upper ends of the ribs or braces being laterally extended to form lateral braces for the end portions of the trough.

1,079,021. ADJUSTABLE DOUBLETREE. CHARLES PETERSEN, San Francisco, Cal. Filed July 3, 1912. Serial No. 707,412. (Cl. 21-189.)



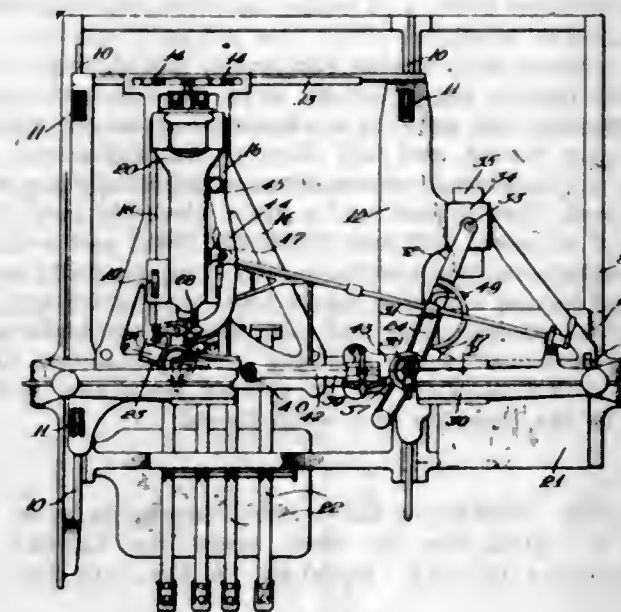
1. In combination, a pair of doubletree sections, a coupling secured to the inner end of each section and slidably engaging the other section, roller bearings carried by said couplings and engaging the edges of said sections, said couplings being adapted to abut against each other to limit the outward movement of the sections on each other, swivel-trees carried by the outer ends of said sections.

2. In combination, a pair of doubletree sections, couplings carried by the inner ends of each section and slidably bridging the other section and adapted to abut against each other, a forwardly offset end portion on one of said sections and adapted to engage the coupling of the other section, a rearwardly offset end portion on the other section and adapted to engage the remaining coupling, swivel-trees pivoted to the offset ends of the sections and having their outer ends flush with the outer ends of said sections, and plow connections carried by the outer ends of said sections.

1,079,022. PATTERN-GRADING MACHINE. CHARLES E. REED, Chicago, Ill., assignor to Charles E. Reed & Company, Chicago, Ill. Filed Oct. 25, 1912. Serial No. 727,671. (Cl. 32-5.)

1. In a machine of the character set forth, the combination of traveling model-tracing and pattern-cutting elements, pantographic mechanism connecting said elements

together, said pattern-cutting element being adjustable relative to said model-tracing element without disturbing the centers or size-settings of said pantographic mechanism, and means for securing said elements together in relatively adjusted positions, for the purpose set forth.



2. In a machine of the character set forth, the combination of traveling model-tracing and pattern-cutting elements together and adjustable for proportioning the travel of said cutting element relative to said tracing element, said pattern-cutting element being adjustable relative to said model-tracing element without disturbing the centers or size-settings of said pantographic mechanism, and means for securing said elements together in relatively adjusted positions, for the purpose set forth.

3. In a machine of the character set forth, the combination of model-tracing and pattern-forming elements, pantographic mechanism connecting said elements together, said pattern-forming element being adjustable in a path toward and away from said model-tracing element and also in a direction at an angle to said path and without disturbing the centers or size-settings of said pantographic mechanism, and means for securing said elements together in relatively adjusted positions, for the purpose set forth.

4. In a machine of the character set forth, the combination of model-tracing and pattern-forming elements, pantographic mechanism connecting said elements together and adjustable for proportioning the travel of said pattern-forming element relative to said tracing element, said pattern-forming element being adjustable in a path toward and away from said model-tracing element and also in a direction at an angle to said path and without disturbing the centers or size-settings of said pantographic mechanism, and means for securing said elements together in relatively adjusted positions, for the purpose set forth.

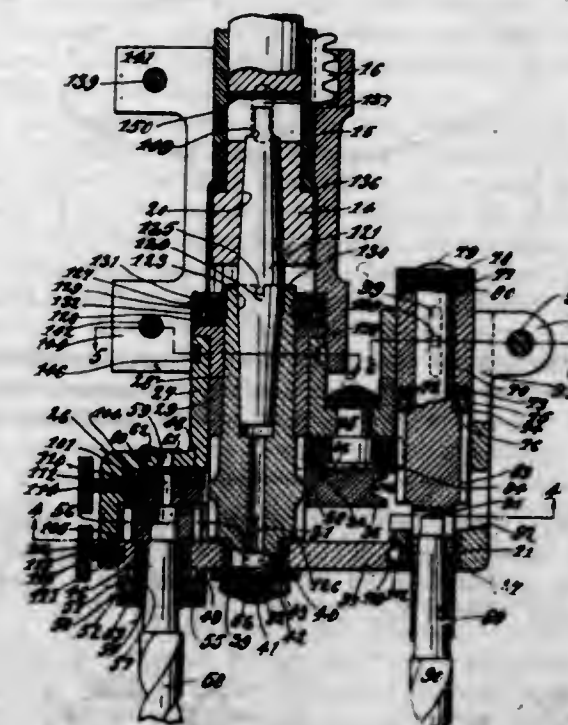
5. In a machine of the character set forth, the combination with model-tracing and pattern-forming elements, of pantographic mechanism connecting said elements together and including a bar pivoted to one of said elements and connecting said elements together, said bar being constructed and arranged to permit said pattern-forming element to be adjusted relative to said model-tracing element without changing the point on said element at which said bar is pivoted and without disturbing the centers or size-settings of the machine, and means for securing said elements together in relatively adjusted positions.

[Claims 6 to 22 not printed in the Gazette.]

1,079,023. MULTIPLE-SPINDLE DRILL-HEAD. AUGUST H. REHER, Norwood, Ohio. Filed Mar. 19, 1913. Serial No. 755,399. (Cl. 77-24.)

1. In a multiple spindle drill-head, the combination of an arbor, a pair of drill-spindles, an axially adjustable sleeve in which one of said drill-spindles is positioned lengthwise, means whereby the axial adjustment of said

sleeve is effected whereby the lengthwise relation between said drill-spindles is adjusted, means between said arbor and said drill-spindles for rotating said drill-spindles, and means whereby the lateral distance between said drill-spindles is adjusted.



2. In a multiple spindle drill-head, the combination of a frame, an arbor journaled therein, a gear on said arbor, a pair of plates adjustable about the axis of said arbor, a drill-spindle, a bearing therefor in each of said plates, a gear about said drill-spindle having operative connection with said first-named gear, and a second drill-spindle journaled in said frame, said first-named drill-spindle, plates and second-named gear simultaneously shiftable about the axis of said arbor for moving said first-named drill-spindle toward and from said second-named drill-spindle.

3. In a multiple spindle drill-head, the combination of a bell-like casing, an arbor journaled in said casing, a pair of plates about said arbor in said casing, a drill-spindle journaled in said plates, a gear on said drill-spindle between said plates, a gear between said plates and on said arbor with which said last-named gear has operative connection, and a second drill-spindle journaled in said casing outside said plates, said first-named drill-spindle, plates and first-named gear simultaneously shiftable about the axis of said arbor for moving said first-named drill-spindle toward and from said second-named drill-spindle.

4. In a multiple spindle drill-head, the combination of a casing having a plurality of substantially annular recesses of different diameters therein, a plurality of plates of different diameters received in said recesses, an arbor about which said plates are rotatable, a spindle journaled in said plates and movable therewith about said arbor, driving means between said arbor and spindle, and clamping means between said casing and plates for clamping said respective plates in said recesses.

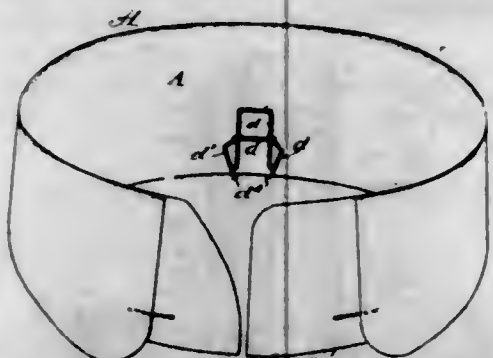
5. In a multiple spindle drill-head, the combination of a bell-like casing, an arbor journaled therein, a closing plate at the mouth of said bell-like casing, a drill-spindle journaled in said plate, a drill-spindle journaled in said casing, and trains of gearing in different planes parallel to said plate between said arbor and said respective drill-spindles, said trains of gearing located in the hollow of said bell-like casing closed by said plate.

[Claims 6 to 15 not printed in the Gazette.]

1,079,024. COLLAR-HOLDING DEVICE. WILLIAM G. ROBINSON, Battle Creek, Mich. Filed Mar. 14, 1910. Serial No. 549,369. (Cl. 24-101.)

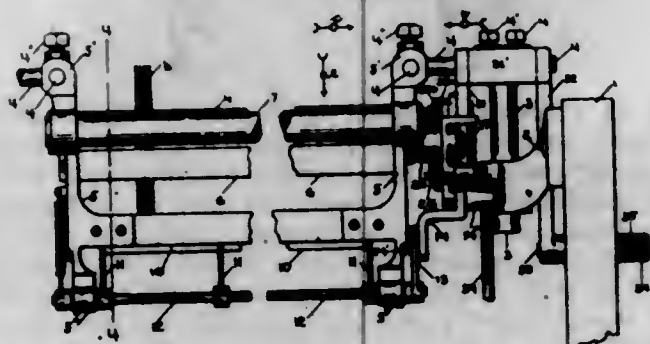
A collar holding device made of a single piece of resilient wire, with a central part folded to form a centrally disposed loop-shaped tongue, the ends of the wire being folded upwardly exterior to the tongue toward the closed end of said tongue and reversed upon themselves to con-

stitute two-part spring arms, the terminals of which are adapted to be inserted through the collar button hole, the arms at their folded parts being spaced apart a distance greater than the width of said tongue and bent in-



wardly toward the tongue to form oblique shouldered portions which are forced into holding engagement with the ends of the collar button hole by the resiliency of the wire.

1,079,025. WARP STOP-MOTION. EPPA H. BYON, Wal-
tham, Mass., assignor to Crompton & Knowles Loom
Works, a Corporation of Massachusetts. Filed Apr.
26, 1913. Serial No. 763,745. (Cl. 139-92.)



1. A warp stop motion for looms, comprising a series of drop devices supported on warp threads, and adapted to drop into the path of a vibrator bar on the breaking of a warp thread, and said vibrator bar, and a lever having a reciprocating movement, and yieldingly connected with said vibrator bar, and a lever pivotally mounted at one end adjacent said first mentioned lever, and means to connect said levers on the breaking of a warp thread, and a second lever pivotally mounted, and having a double toggle joint connection with said second mentioned lever, and connections intermediate said third mentioned lever and the stop mechanism of the loom, to stop the loom on the breaking of a warp thread.

2. A warp stop motion for looms, comprising a series of drop devices supported on warp threads, and adapted to drop into the path of a vibrator bar on the breaking of a warp thread, and said vibrator bar, and a lever having a reciprocating movement, and yieldingly connected with said vibrator bar, and two levers having a double toggle joint connection, and means to connect one of said levers with the first mentioned lever to move therewith, and on the breaking of a warp thread, and the third lever mounted on a movable pivot and connected with the stop mechanism of the loom.

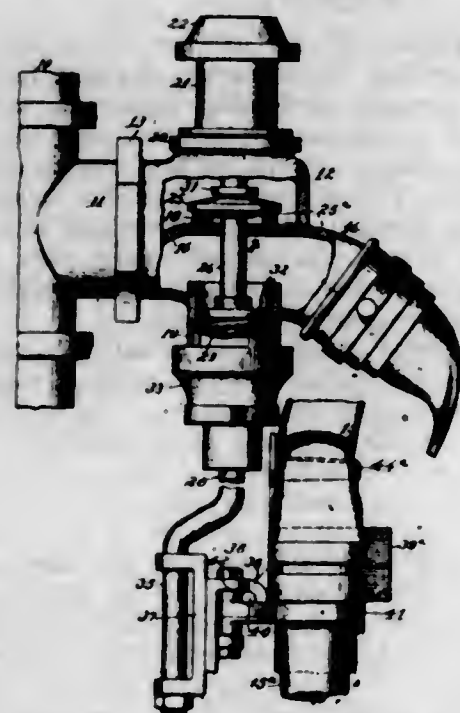
3. A warp stop motion for looms, comprising a series of drop devices supported on warp threads, and adapted to drop into the path of a vibrator bar on the breaking of a warp thread, and said vibrator bar, and a lever having a reciprocating movement, and yieldingly connected with said vibrator bar, and two levers having a double toggle joint connection, one of said levers adapted to be connected with the first mentioned lever to move therewith, and means for connecting said levers, and the third lever mounted on a movable pivot and connected with the stop mechanism of the loom.

4. A warp stop motion for looms, comprising a series of drop devices supported on warp threads, and adapted to drop into the path of a vibrator bar on the breaking of a warp thread, and said vibrator bar, and a lever having a reciprocating movement, and yieldingly connected with

said vibrator bar, and two levers having a double toggle joint connection, one of said levers adapted to be connected with the first mentioned lever to move therewith, and a latch or device for connecting said levers on the breaking of a warp thread, and yielding or give-way means for operating said latch or device, and the third lever mounted on a movable pivot and connected with the stop mechanism of the loom.

5. A warp stop motion for looms, comprising a series of drop devices supported on warp threads, and adapted to drop into the path of a vibrator bar on the breaking of a warp thread, and said vibrator bar, and a lever having a reciprocating movement, and yieldingly connected with said vibrator bar, and a lever pivotally mounted at one end adjacent said first mentioned lever and means for connecting said lever and a second lever pivotally mounted, and having a double toggle joint connection with said second mentioned lever, and connections intermediate said third mentioned lever and the stop mechanism of the loom, to act directly on the shipper lever and stop the loom on the breaking of a warp thread.

1,079,026. HOSE-RACK. MILTON SCHNAIER, New York,
N. Y. Filed Dec. 30, 1909, Serial No. 535,621. Re-
newed Oct. 10, 1913. Serial No. 794,514. (Cl. 137-31.)



1. In a hose-rack, the combination with a source of fluid supply, of a valve-casing connected with said source of supply, a valve controlling the outlet of said casing, a valve-stem, a hose attached to said outlet and supported from said valve-stem to close said valve, and means acting upon said valve to open the same upon the withdrawal of the hose, substantially as specified.

2. In a hose-rack, the combination with a source of fluid supply, a valve casing connected with said source of supply, of a valve controlling the outlet of said casing, a valve-stem, a hose support carried by said valve-stem, a hose attached to said outlet and resting on said support to close said valve, and means acting upon said valve to open the same upon the withdrawal of said hose from said support, substantially as specified.

3. In a hose-rack, the combination with a source of fluid supply, of a valve-casing connected with said source of supply, and an automatically opening valve controlling the outlet of said casing, and a stem suspended from said valve, and a hose attached to said outlet and supported by said valve-stem to maintain said valve closed, substantially as specified.

4. In a hose-rack, the combination with a source of fluid supply, of a valve-casing connected with said source of supply, a downwardly acting valve controlling the outlet of said casing, a valve-stem extending through said valve casing, means secured to and carried by the lower portion of said valve-stem for closing said valve, adapted to be en-

gaged by a line of hose, and a spring acting to raise said valve upon disengagement of said hose for use, substantially as specified.

5. In a hose-rack, the combination with a source of fluid supply, of a valve casing connected with said source of supply, a downwardly acting valve controlling the outlet of said casing, a hose attached to said outlet, valve-stem extending through said valve-casing, of a hose-support secured to the lower portion of the valve-stem and serving to close said valve, and a spring acting to raise said valve upon the removal of said hose for use, substantially as specified.

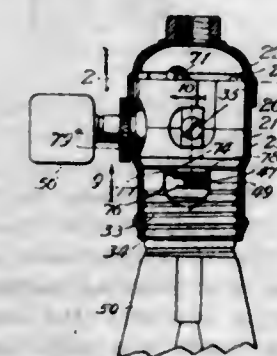
[Claims 6 to 15 not printed in the Gazette.]

1,079,027. COMBINED CIGAR CUTTER AND LIGHTER.
GEORGE H. SCHROETER, St. Louis, Mo. Filed Feb. 27,
1913. Serial No. 751,090. (Cl. 131-38.)



In a combined cigar cutter and lighter a casing or hood provided with air feeding means, and having an opening in the wall for the insertion of a cigar-tip, an actuating lever pivoted on the inner face of the wall aforesaid, and having an arm projecting through the contiguous wall of the hood, a second lever mounted pivotally on the inner face of said wall, a blade on one arm of said lever sweeping across the opening aforesaid, a link coupling the opposite arm of said blade-carrying lever to the adjacent arm of the actuating lever, a valve-casing opposite the blade-carrying lever, a spring for controlling the actuating lever, a rock-valve in the valve-casing, a pair of arms carried by the rock-valve outside the valve-casing and disposed in diametrically opposite directions, and lugs disposed in pairs on opposite sides of the axis of oscillation of the blade-carrying lever for detachably engaging the arms on said rock-valve.

1,079,028. ELECTRIC LAMP SOCKET. MORRIS
SCHWARTZ, Chicago, Ill., assignor of one-half to J.
Henry Krause, Chicago, Ill. Filed Jan. 31, 1912.
Serial No. 674,486. (Cl. 173-356.)



1. In an electric-lamp socket, the combination of its casing, a threaded lamp-engaging member rotatably mounted in said casing, a spring-pressed reciprocable-pin cooperating with said threaded member for locking it against rotation, and rotatable tumbler permutation locking means for moving said pin out of engagement with said threaded member, for the purpose set forth.

2. In an electric-lamp socket, the combination of its casing, a threaded lamp-engaging member rotatably

mounted in said casing, a movable member movable into and out of locking engagement with said lamp-engaging member for releasably locking the latter against rotation, a reciprocable member operating to control the position of said movable member, and means for controlling the position of said movable and reciprocable members comprising a plurality of relatively rotatable members provided with means cooperating with said reciprocable member for controlling the position of the latter.

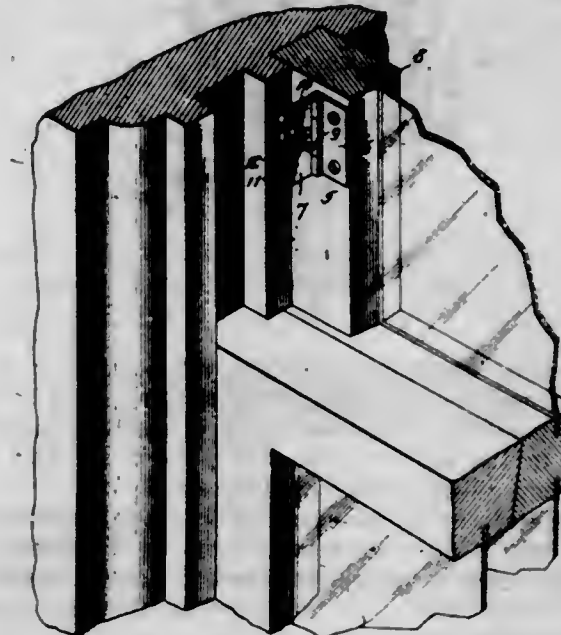
3. In an electric-lamp socket, the combination of its casing, a threaded lamp-engaging member rotatably mounted in said casing, a dog, a pin operatively engaging with said dog and movable into and out of locking engagement with said threaded member, spring-means tending to move said pin to locking position, means for controlling the position of said dog and pin comprising a pair of relatively rotatable members cooperating with said dog for controlling the position of the latter, and means for rotating one of said last-named members from the other thereof.

4. In an electric-lamp socket, the combination of its casing, a lamp-engaging member rotatably mounted in said casing, a rotatable switch-device in said casing, and permutation locking means on said switch-device for releasably locking said member against rotation.

5. In an electric-lamp socket, the combination of its casing, a lamp-engaging member rotatably mounted in said casing, a rotatable switch-device in said casing, and permutation locking means journaled on said switch device and provided thereon with an actuating member, for releasably locking said lamp-engaging member against rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,079,029. WINDOW-BURGLAR-PROOFING DEVICE.
OSBORNE H. SHEPPARD, Chicago, Ill. Filed July 21,
1913. Serial No. 780,215. (Cl. 16-18.)



1. A device of the character described, comprising a hinge having a leaf adapted to be fastened to an upper window-sash, and the other, swinging, leaf to be folded, at will, against the fastened leaf or projected at an angle thereto into the path of the lower sash, and a stop projecting transversely through the swinging leaf, for the purpose set forth.

2. A device of the character described, comprising a hinge having a leaf adapted to be fastened to an upper window-sash, and another, swinging, leaf to be folded, at will, against the fastened leaf or projected at an angle thereto into the path of the lower sash, and a removable stop passing transversely through the swinging leaf and projecting at opposite sides thereof, for the purpose set forth.

3. A device of the character described, comprising a hinge having a leaf adapted to be fastened to an upper window-sash, and another, swinging, leaf to be folded,

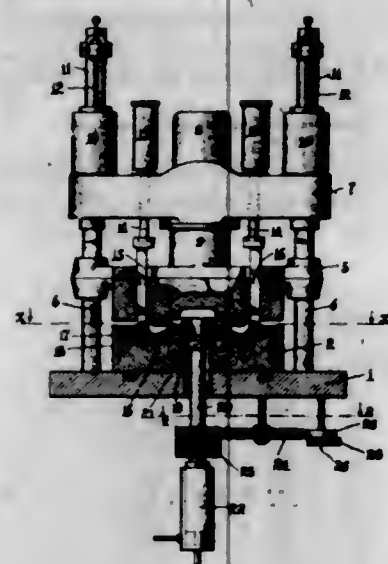
at will, against the fastened leaf or projected at an angle thereto into the path of the lower sash, and a set-screw working through the swinging leaf, for the purpose set forth.

4. A device of the character described, comprising a hinge having a leaf adapted to be fastened to an upper window-sash, and another, swinging, leaf to be folded, at will, against the fastened leaf or projected at an angle thereto into the path of the lower sash, a threaded stop working through the swinging leaf, and a lock on the swinging leaf releasably engaging the stop-thread, for the purpose set forth.

5. A device of the character described, comprising a hinge having a leaf adapted to be fastened to an upper window-sash, and another, swinging, leaf to be folded, at will, against the fastened leaf or projected at an angle thereto into the path of the lower sash, a set-screw supported on the swinging leaf to normally engage the thread of and lock the set-screw against withdrawal, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,079,030. WHEEL AND METHOD OF AND APPARATUS FOR MAKING THE SAME. JOHN SLATTERY, Chrome, N. J. Filed Mar. 9, 1911. Serial No. 613,254. (Cl. 78—80.)



1. A metal wheel comprising a hub portion, a rim portion, and means connecting same, all formed in one piece, the rim portion compressed in a direction substantially parallel to the axis of the wheel, the remainder of the wheel being substantially uncompressed.

2. A metal car wheel comprising a hub portion, a rim portion, and means connecting same, all formed in one piece, the rim portion composed of hard highly condensed forged metal, the hub portion composed of softer less condensed metal.

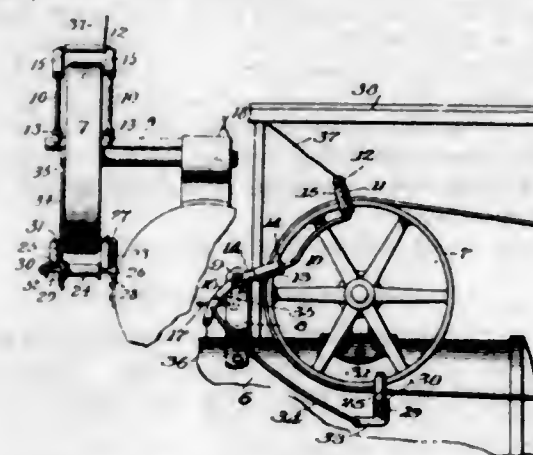
3. A process of forging metal car wheels which comprises compressing the rim portion in a direction approximately parallel to the axis of the wheel, by a succession of operations each affecting a portion only of the rim of the wheel.

4. A process of forging metal car wheels which comprises compressing the rim portion in a direction approximately parallel to the axis of the wheel, by a succession of operations each affecting a portion only of the rim of the wheel, and under conditions permitting spreading of the metal so compressed, in another direction.

5. A process of forging metal car wheels which comprises compressing the rim portion while hot, by a succession of operations each affecting a portion only of rim of the wheel, and each affecting a different portion of such rim, the wheel as a whole being permitted to contract freely during the forging, whereby the setting up of internal stresses is avoided.

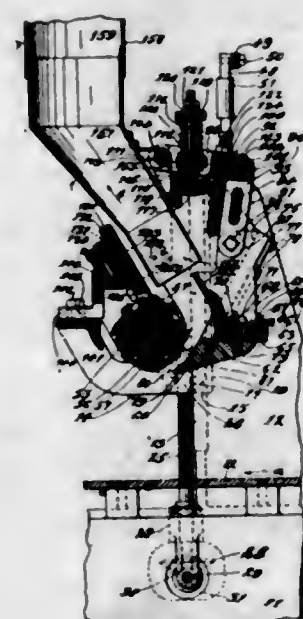
[Claims 6 to 14 not printed in the Gazette.]

1,079,031. BELT-GUIDE. JOHN T. SMITH, Oberlin, Kans., assignor of one-half to John A. Quinn, Oberlin, Kans. Filed Oct. 31, 1910. Serial No. 589,946. (Cl. 74—51.)



In combination with a belt-pulley, a guide for a belt thereon comprising a suitably supported rock-shaft, arms carrying guide-rollers swingable to and from positions on each side of the pulley contiguous to the upper run of the belt and to the rear arc of contact of the belt with the pulley, a shaft below the pulley, a swingable member thereon, a normally upright roller journaled on said member, and a connection between said rock-shaft and said swingable member whereby said normally upright roller will be swung from upright position on movement of said arms from positions contiguous to the belt.

1,079,032. WOOD-PLANING MACHINE. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Feb. 1, 1913. Serial No. 745,696. (Cl. 144—114.)



1. In a wood-planing machine, the combination with a rotary cutter-head provided with cutter-blades, of a shaving-hood having a mouth and a jointing means for the cutting edges of said cutter-blades located side by side at said cutter-head, the wall of said shaving-hood being interposed between the shavings-conducting channel in said shaving-hood and said jointing means.

2. In a wood-planing machine, the combination with an upper rotary cutter-head, of a chip-breaker therefor, a jointing attachment operable lengthwise of said cutter-head, and a shaving-hood having a mouth between said chip-breaker and jointing attachment, said mouth being removable independently of said chip-breaker and jointing attachment.

3. In a wood-planing machine, the combination with an upper rotary cutter-head provided with cutter-blades, of a chip-breaker comprising a bonnet, a shaving-hood having a mouth opening at said bonnet, means for automatic movement of said bonnet with relation to said cut-

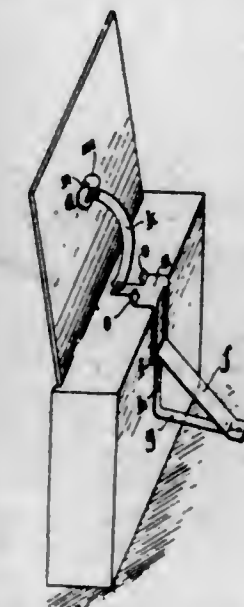
ter-head, and a jointing means for the cutting edges of said cutter-blades operable lengthwise of said cutter-head alongside said mouth.

4. In a wood-planing machine, the combination with an upper rotary cutter-head, of a shaving-hood and jointing means located and simultaneously operable at said cutter-head, said shaving-hood and jointing means being independently movable.

5. In a wood-planing machine, the combination with an upper rotary cutter-head, of a shaving-hood, and a jointing attachment located and operable side by side about the axis of rotation of said cutter-head, said shaving-hood and jointing attachment being independently movable.

[Claims 6 to 11 not printed in the Gazette.]

1,079,033. RACK OR SUPPORT. FELIX STEINHOFF, Elberfeld, Germany. Filed May 28, 1913. Serial No. 770,376. (Cl. 211—24.)



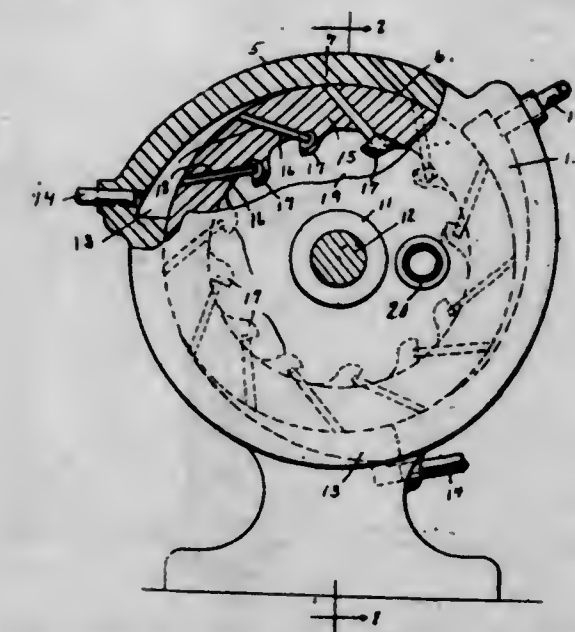
1. In a supporting device for exhibiting boxes and other articles in various positions of inclination, a bent flat guide member fitting the bottom and rear of the box provided with teeth adapted to be embedded therein and having a guide opening, in combination with an arm hinged to said member and provided with a plate having teeth adapted to be embedded in the box lid, supporting the same in open position, and a supporting bracket provided with two sides differing in length, each fitting interchangeably the said opening and adjustable therein to vary the angle of inclination of the open box.

2. In a supporting device for exhibiting boxes and other articles in various positions of inclination, a bent flat guide member fitting the bottom and rear of the box and having a guide opening in its part which is against the latter, in combination with an arm attached to said member and adapted to support the box-lid in open inclined position and a supporting bracket having two sides differing in length, interchangeably fitting said guide opening and adjustable therein for varying the inclination of the box.

3. In a supporting device for exhibiting boxes and other articles in various positions of inclination, a bent flat guide-member fitting the bottom and rear of the box and having a guide opening in its part which is against the latter, in combination with a supporting bracket having a part fitting said opening and adjustable therein to vary the inclination and means attached to said guide-member for supporting the box-cover in various positions of inclination independent of the inclination of the box.

4. A flat integral angular guide plate fitting against the rear and bottom of a box which is to be exhibited, in combination with a separate part engaging and guided by said plate and adjustable to hold said box in various positions of inclination and means attached to one of said parts for holding the box cover adjustably in various positions of inclination independent of the inclination of the box.

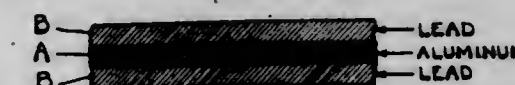
1,079,034. ROTARY ENGINE. ROBERT A. STEWART, Los Angeles, Cal. Filed Aug. 9, 1913. Serial No. 783,996. (Cl. 121—56.)



1. A rotary engine comprising an outer casing having steam chambers in the perimeter thereof and supply pipes leading into said chambers; an annular rotor mounted within said casing having semi-circular buckets formed on the inner periphery thereof and provided with a centrally disposed exhaust chamber; nozzles extending from the outer periphery of the rotor to the buckets and adapted to form connections between the buckets and the steam chambers; and an exhaust outlet from said exhaust chamber.

2. In a rotary engine, an outer casing provided with one or more steam chambers around the inner periphery; a rotor mounted within said casing and provided with a centrally disposed exhaust chamber and a series of arcuate buckets on the inner periphery thereof; connections between said buckets and steam chambers; one or more steam supply pipes communicating with said steam chambers; and one or more exhaust pipes leading from said exhaust chamber.

1,079,035. COMPOSITE METAL ARTICLE. LEWIS B. TEBBETTS, 2d, St. Louis, Mo. Filed Sept. 23, 1912. Serial No. 721,819. (Cl. 29—181.)



1. In a composite metal product, an intermediate element comprising aluminum, and outer elements of metal softer than said intermediate element; the said outer elements directly adhering to said intermediate element and unalloyed therewith.

2. In a composite metal product, an intermediate element of aluminum, and outer elements of metal softer than said intermediate element; the said outer elements directly adhering to said intermediate element and unalloyed therewith.

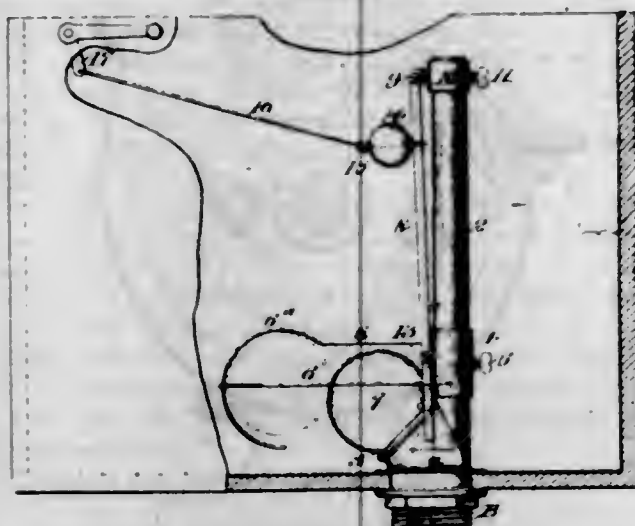
3. In a composite metal product, an intermediate element comprising aluminum, and outer elements comprising lead directly adhering to said intermediate element and unalloyed therewith.

4. In a composite metal product, an intermediate element comprising aluminum, and outer elements comprising lead and tin directly adhering to said intermediate element and unalloyed therewith.

1,079,036. FLUSH-OUT VALVE. AGOSTINO TOSCO and PAUL SALINA, San Francisco, Cal. Filed Mar. 22, 1913. Serial No. 756,125. (Cl. 4—5.)

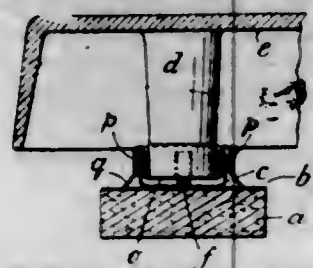
In a flushing apparatus of the character described, a tank, a vertical overflow pipe located therein and a flush-

ing discharge pipe with which said overflow pipe connects at the lower end, a valve seat connecting with the discharge pipe out of line with the overflow and at an angle of approximately forty-five degrees, a buoyant spherical valve, an open wire cage by which the valve is normally



directed upon the seat, an arm contacting with the ball, and lever connections by which the arm is actuated to throw the ball diagonally out of line with the seat, the upper member of said cage forming concave rests to retain the ball until the water level is depressed sufficiently to allow the ball to disengage and return to its seat.

1,079,037. SILENCING AND ANTICONCUSSIVE SUPPORT FOR TYPE-WRITING MACHINES AND THE LIKE. HENRY HERBERT YELF, Southsea, Portsmouth, England. Filed Aug. 29, 1912. Serial No. 717,739. (Cl. 155-33.)



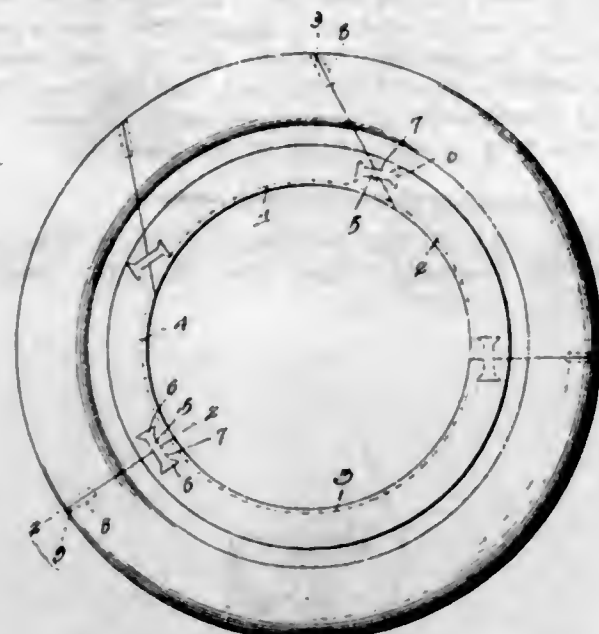
1. Silencing and anti-concussive supports for the feet of typewriting and like machines comprising a disk of shock absorbing or anti-concussive material, a cover plate permanently secured thereto, a cup supported by a surrounding wall or flange standing upon the cover plate, and a spring clip device secured to the cover plate beneath the cup having its arms bent upwardly outside of the cup and then downwardly and inwardly so that the free ends enter the cup through perforations or slots formed in the walls of the cup substantially as described.

2. An attachment for the feet of typewriting machines, comprising a pad of shock absorbing material, a cover plate fitted to said pad and co-extensive therewith, an up-standing flange member secured to the cover plate and bent upon itself to form a socket the walls of which are perforated, and spring clip member having a plurality of free foot engaging ends projecting through the opening in the socket walls.

1,079,038. COLLAPSIBLE CORE. JOHN YAMIKER, Akron, Ohio, assignor of forty-nine one-hundredths to Robert H. Fowler, Akron, Ohio. Filed Aug. 17, 1912. Serial No. 715,651. (Cl. 18-45.)

1. A collapsible core for manufacturing pneumatic tires, comprising a plurality of separable segmental sections adapted to abut against each other to produce a circular body and provided at their inner edges with enlarged flanges of rectangular form in cross section connected with the main portion of the sections by reduced neck portions, said flanges forming an annular bead when the sections are secured together, the adjoining ends of said flanges being

formed with corresponding and communicating recesses provided with enlarged ends, said recesses being transversely tapered, and I-shaped connecting members embodying elongated body portions and enlarged dove-tailed and beveled heads, said connecting members tapering transversely and being adapted to be driven into the recesses with the heads lying in the enlarged ends of the latter, thereby drawing the sections together.



2. A collapsible pneumatic tire core, comprising a plurality of separable segmental abutting sections each provided with a flange at its inner edge of rectangular form in cross section, said flange being connected with the main portion of the section by a neck portion, the adjoining ends of said flanges being formed with corresponding and communicating recesses having enlarged inner ends, said recesses being transversely tapered, I-shaped connecting members adapted to be driven into the recesses with the heads thereof lying in the enlarged inner ends of said recesses to draw the sections together, said connecting members being tapered to correspond with the recesses, and means to prevent lateral movement of the outer ends of the sections.

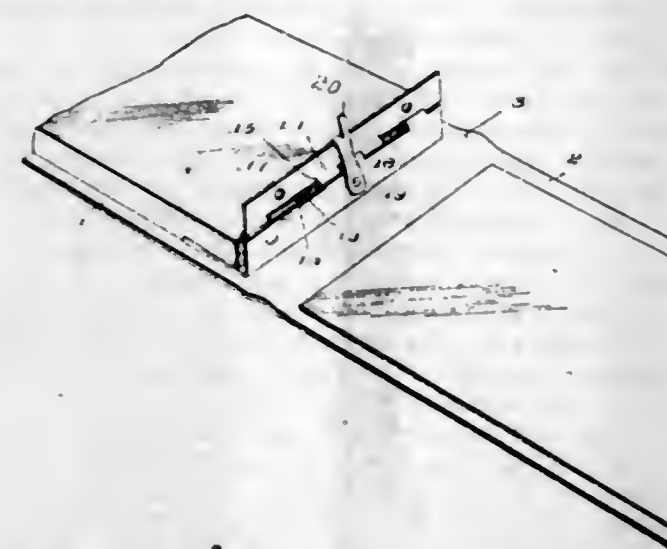
3. A collapsible core for pneumatic tires, comprising a plurality of separable abutting sections producing a circular body, each section being provided at its inner edge with an enlarged flange connected with the main portion thereof by a neck portion, the adjoining ends of said flanges being provided with corresponding and communicating recesses provided with dove-tail-shaped inner ends, said recesses being transversely tapered, I-shaped connecting members adapted to be driven into the recesses with the heads thereof lying in the enlarged inner ends of said recesses to draw the sections together, said connecting members being tapered to correspond with the recesses, and means engaged in the outer ends of the sections to prevent lateral movement of the latter.

1,079,039. LOOSE-LEAF BINDER. JONATHAN BURGESS, Marion, Ohio. Filed June 10, 1912. Serial No. 702,808. (Cl. 129-5.)

1. In a binder of the class described, a fixed member, a gripping member hinged thereto, a spring yieldably holding said gripping member in engagement with leaves disposed between the members, and an arm pivoted upon the fixed member and having a hooked finger arranged for engagement with the gripping member, whereby to hold the latter out of such engagement with the said leaves, the arm being adapted to be swung upon its pivot to lie beside the fixed member or to extend beyond the said member and in position to engage with the gripping member.

2. In a binder of the class described, a fixed member, a gripping member hinged thereto, a spring yieldably holding said gripping member in engagement with leaves disposed between the members, an arm pivoted to the

fixed member and having a finger piece at its free end, and a hooked finger located at the said free end of the arm and arranged for engagement with the gripping member, whereby to hold the latter out of such engagement with the said leaves, the arm being adapted to be swung upon its pivot to lie beside the fixed member or to extend beyond the said member and in position to engage with the gripping member.



3. In a binder of the class described, a fixed member having angularly positioned wings, one of said wings constituting an attaching means, a gripping leaf hinged to the other wing of the said fixed member, a spring yieldably holding the gripping leaf in gripping engagement with leaves disposed between the same and the attaching wing of the fixed member, and means carried by the second mentioned wing of the fixed member and engageable with the gripping leaf, whereby to hold the same out of gripping engagement with said leaves.

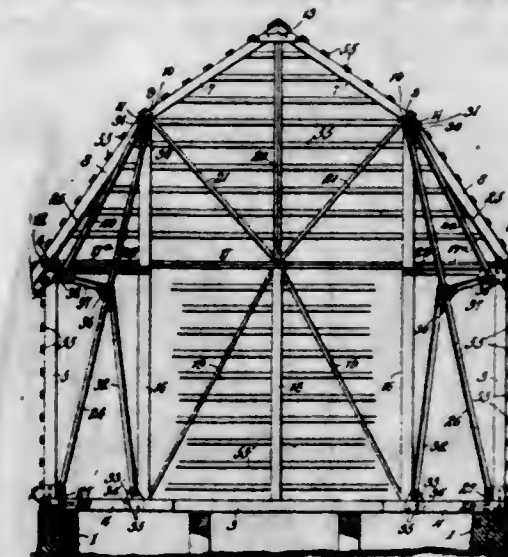
4. In a binder of the class described, a fixed member, a gripping member hinged thereto, means yieldably holding the gripping member in engagement with the leaves disposed between the members, an arm pivoted to the back of the fixed member and arranged to swing transversely thereof whereby to extend above the said member when in swung up position, the said arm being provided with a finger-piece located at its free end and with a hooked finger located at the base of the finger-piece, the said hooked finger being arranged to engage over the free edge of the hinged gripping member when the said gripping member is swung up out of engagement with the leaves and the arm is swung to extend upwardly at an angle, the hooked finger having its terminal so located that when the arm is swung to vertical position, it will disengage from the said hinged gripping member.

1,079,040. BARN. CYRUS DOLPH, Preston, Ontario, Canada. Filed Jan. 21, 1913. Serial No. 743,400. (Cl. 20-1.)

1. A structure of the class described including a post, a rafter composed of upper and lower angularly related sections, and a purlin connected with the adjacent ends of the rafter sections, and a truss comprising a main inclined truss member extending from the lower end of the post to the purlin, a lower inclined brace extending upwardly and outwardly and connected at its upper end to the main truss member at a point intermediate of the ends thereof, a strut connected with the main truss member at a point intermediate of the ends thereof and extending therefrom to the upper end of the post, and an upper inclined brace connected with the outer end of the strut and extending from the same and connected with the upper end of the main truss member at the purlin.

2. A structure of the class described including a post, inclined roof supporting means, and a truss comprising a main inclined truss member extending from the lower end of the post to a point intermediate of the ends of the inclined roof supporting means, a lower brace located at the inner side of the main truss member and connected

at its upper end with the same, a strut connected with the main truss member at a point intermediate of the ends thereof and extending to the said post, an upper inclined brace extending upwardly from the post and connected at its upper end with the main truss member at the said roof supporting means, and means for connecting the strut and the upper brace with the said post.



3. A structure of the class described including a side post, a rafter composed of upper and lower angularly related sections, and a purlin connected with the adjacent ends of the rafter sections, and a side truss comprising a main inclined truss member extending from the lower end of the side post to the purlin, an attaching plate secured to the main truss member at a point intermediate of the ends thereof and projecting inwardly and outwardly therefrom, a lower inclined brace secured at its upper end to the inner portion of the attaching plate and secured at its lower end in spaced relation with the lower end of the main truss member, an inclined bar secured to the outer portion of the said attaching plate and connected with the side post at the upper end thereof, and an upper inclined brace connected at its lower end with the upper ends of the side post and the said inclined bar and extending therefrom to the upper end of the main truss member and connected therewith at the purlin.

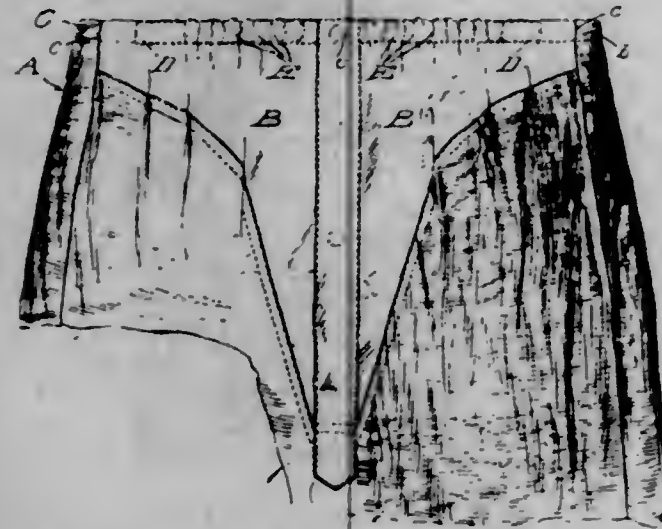
4. A structure of the class described including a side post, a rafter composed of upper and lower angularly related sections, and a purlin connected with the adjacent ends of the rafter sections, and a side truss comprising a main inclined truss member extending from the lower end of the side post to the purlin, a pendent purlin plate secured to the upper end of the main truss member and provided at the top with flanges extending in opposite directions and secured to the purlin, a lower inclined brace arranged at the inner side of the main truss member and connected at its upper end to the same at a point intermediate of the ends of the main truss member, an upper inclined brace extending from the upper end of the side post to the purlin plate and secured to the same, and a strut connected with the main truss member at a point intermediate of the ends thereof and extending outwardly from the same and connected with the upper end of the side post and with the lower end of the upper inclined brace.

5. A structure of the class described including a sill, a side post, a rafter composed of upper and lower angularly related sections, and a purlin connected with the adjacent ends of the rafter sections, and a side truss comprising inner and outer lower attaching plates spaced apart and secured to the said sill, the outer attaching plate being located at the lower end of the side post, a purlin plate secured to the purlin, a main truss member extending from the outer lower attaching plate and secured to the same, an inner inclined brace secured at its lower end to the lower inner attaching plate and connected at its upper end to the main truss member at a point intermediate of the ends thereof, an upper inclined brace extending from the upper end of the side post to the purlin plate and connected therewith, and a strut extending

outwardly from the main truss member at a point intermediate of the ends thereof and connected with the lower end of the upper inclined brace and with the upper end of the side post.

[Claims 6 to 9 not printed in the Gazette.]

1,079,041. WEARING-APPAREL. MILTON M. DRYFOOS, New York, N. Y. Filed May 31, 1913. Serial No. 770,957. (Cl. 2-42.)

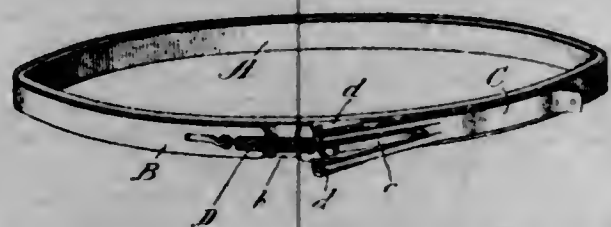


1. A skirt comprising a body portion of elastic material provided with a gusset of inelastic material having a placket opening formed therein.

2. A skirt having an elastic body portion, a waist band composed of an elastic section and an inelastic section, and a gusset of inelastic material having a placket opening formed therein.

3. A skirt comprising an elastic body portion, a waistband having an inelastic portion to which said body portion is secured, a gusset of inelastic material inserted in said body portion and forming a section of the waistband, and elastic straps stitched to the waist band section of the gusset by longitudinal lines of stitching.

1,079,042. EMBROIDERY-FRAME. GARNETT DUNCAN, Yellville, Ark. Filed Mar. 15, 1913. Serial No. 754,605. (Cl. 45-24.)



1. An embroidery frame, comprising an inner hoop, an outer divided hoop, an operating lever pivotally connected with the divided hoop on one side of the dividing line, a tongue on the lever having its inner end disposed between the outer end of the lever and its pivotal connection with the hoop, and a spring connecting the inner end of the tongue with the outer hoop on the opposite side of the dividing line.

2. An embroidery frame, comprising an inner hoop, an outer divided hoop, a lever pivotally connected with the outer hoop near the dividing line and having a spring metal tongue connected with it, a spring connected with the tongue at a point between the outer end of the lever and the pivotal connection thereof with the hoop and which is also connected with the outer hoop at a point on the opposite side of the dividing line.

1,079,043. FENCE-WIRE FASTENER FOR FENCE-POSTS. JACOB FISHER, Roann, Ind. Filed June 24, 1913. Serial No. 775,609. (Cl. 256-60.)

1. The combination with a fence post, of a vertical series of brackets, each consisting of spaced upper and

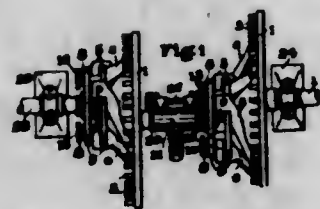
lower ears and a connecting portion fitted against the post, fastening devices securing the brackets to the post, and a vertical rod extending through the said ears and having its upper terminal portion bent to form a top loop or head, and a terminal locking portion, the latter being extended through the ears of the top bracket and adapted to be bent beneath the lower ear thereof to prevent withdrawal of the said rod.



2. The combination with a plastic post having a vertical series of horizontal openings, of nuts embedded in the post at the inner ends of the said openings, bolts engaging the nuts, a series of brackets fitted against the post and secured to the same by the bolts, said brackets being arranged to exclude air from the said openings, and a rod extending through the brackets and adapted to confine fence wires therein.

3. The combination with a plastic post having a vertical series of horizontal openings, of nuts embedded in the post at the inner ends of the said openings, a vertical series of brackets, each consisting of spaced upper and lower ears, and a connecting back portion fitted against the post and provided with a polygonal opening, bolts passing through the openings of the back portions of the brackets and having polygonal portions fitting such openings and interlocking the brackets with the bolts to enable the latter to be screwed tightly into engagement with the nuts, and means for confining fence wires between the ears of the brackets.

1,079,044. VARIABLE GEAR. THOMAS FOSTER, Christchurch, New Zealand. Filed Sept. 25, 1912. Serial No. 722,199. (Cl. 74-54.)



1. A device of the class described comprising in combination an internal gear wheel constituted by a disk having concentrically disposed upon one of its side faces a series of equidistantly disposed projections, and a pinion of variable radius adapted to co-act therewith and comprising a boss around which are pivoted a plurality of tangentially disposed arms the ends of which are adapted to engage with the teeth of the wheel each of said arms being off-set from the face of the boss and formed at its intermediate portion of approximately triangular section so as to permit of such arms overlapping one another, substantially as and for the purpose set forth.

2. In a device of the class described the combination with an internal gear wheel, of a pinion of variable radius and adapted to co-act therewith and comprising a boss around which are pivoted a plurality of tangentially dis-

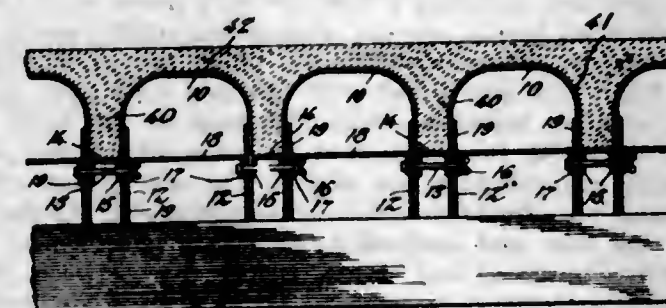
posed arms the ends of which are adapted to engage the teeth of the said wheel, each of the said arms being off-set from the face of the boss and formed at its intermediate portion of approximately triangular section so as to permit of such arms overlapping one another, substantially as and for the purpose set forth.

3. A device of the class described comprising in combination an internal gear-wheel and a pinion of variable radius adapted to co-act therewith and comprising a boss around which are pivoted a plurality of tangentially disposed arms the ends of which are adapted to engage the teeth of the said wheel, a weight carried upon the inner end of each of the said arms adapted to balance the portion of such arm extending upon the other side of the pivot and suitable cushioning means introduced between such weight and the contacting portion of the core of the boss, substantially as and for the purpose set forth.

4. A device of the class described comprising in combination an internal gear wheel and a pinion of variable radius adapted to co-act therewith comprising a boss around which are pivoted a plurality of tangentially disposed arms the ends of which are adapted to engage the teeth of the wheel, and cushioning means provided upon the portions of the arms which engage the teeth of the wheel, substantially as and for the purpose set forth.

5. A reduction gear of the class described comprising the combination with an internal gear wheel, of a pinion of variable radius and adapted to co-act therewith comprising a boss around which are pivoted a plurality of tangentially disposed arms the ends of which are adapted to engage the teeth of the said wheel and means provided upon the pivots of each of the said arms and adapted to be engaged by projections arranged upon the bearing of the pinion-shaft or other convenient fixed point at all times concentric therewith so as to turn the arms into such a position as to prevent their ends engaging prematurely with the teeth of the wheel, substantially as and for the purpose set forth.

1,079,045. FALSE WORK FOR CONCRETE CONSTRUCTIONS. CHARLES A. HAMMETT, Washington, D. C. Filed Feb. 23, 1912. Serial No. 679,537. (Cl. 25-131.5.)



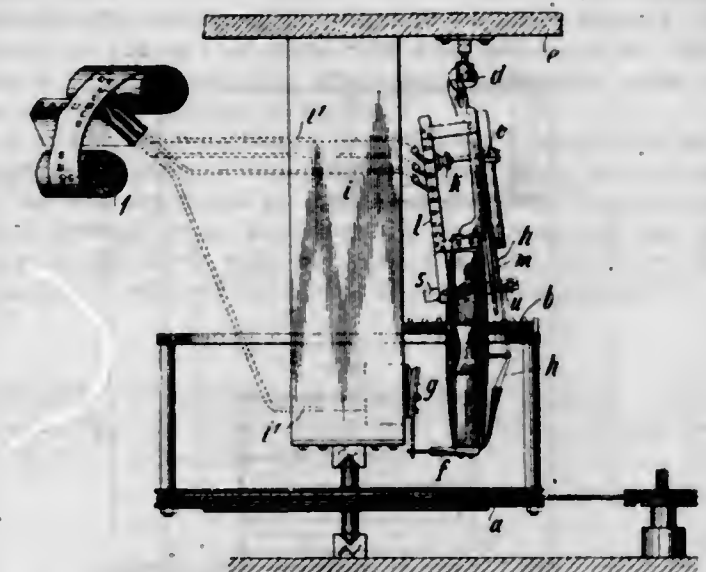
1. A false work for concrete construction comprising rows of arched sections, the sides of each section being provided with slots, fillers between adjacent sides of adjacent sections, spacer bars between the sides of each section, cover plates extending over said slots and single bolts extending through the opposed slots in each of said sections, said spacer bars, and through said fillers and adjustable cover plates.

2. A false work for concrete construction comprising rows of arched sections, the sides of each section being parallel, fillers arranged between the sides of adjacent sections, spacer bars between the respective sides of each section, and single bolts passing transversely through the fillers, adjacent sides of adjacent sections and adjacent ends of respective spacer bars.

1,079,046. MECHANICALLY-OPERATED MUSICAL STRING INSTRUMENT. GUSTAV KARL HENNIG, Wahren, Germany, assignor to The Firm of Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Filed May 27, 1909. Serial No. 498,623. (Cl. 82-223.)

1. In a mechanically operated musical instrument, an annular bow, means for rotating said bow, a number of

violins having strings and pivotally suspended from their necks in close proximity to said annular bow, a bellows for each of said violins, means actuated by said bellows to move said violins toward and from said bow, and means for controlling the air supply to said bellows according to the music to be played.



2. In a mechanically operated musical instrument, an annular bow, means for rotating said bow, a number of violins having strings and pivotally suspended from their necks in close proximity to said annular bow, a bellows for each of said violins, rods connecting the lower ends of the violins to the bellows, and means for controlling the air supply to said bellows according to the music to be played.

3. In a mechanically operated musical instrument, an annular bow, means for rotating said bow, a number of violins each having a plurality of strings and suspended from their necks in close proximity to said annular bow and each mounted to partially rotate about its longitudinal axis, means to move said violins toward and from said bow, and means to partially rotate said violins about their longitudinal axes.

4. In a mechanically operated musical instrument, an annular bow, means for rotating said bow, a number of violins each having a plurality of strings and suspended from their necks in close proximity to said annular bow and each mounted to partially rotate about its longitudinal axis, pneumatically actuated means to move said violins toward and from said bow, and pneumatically actuated means to partially rotate said violins about their longitudinal axes.

5. In a mechanically operated musical instrument, an annular bow, means for rotating said bow, a number of violins each having a plurality of strings in close proximity to said bow, a number of violin holders corresponding to said violins, horizontally arranged pins carried by said holders from which said violins are pivotally suspended at their necks, fixed supports in which said holders can rotate about vertical axes, means to partially rotate said holders about their vertical axes, and means to move said violins toward and from said bow.

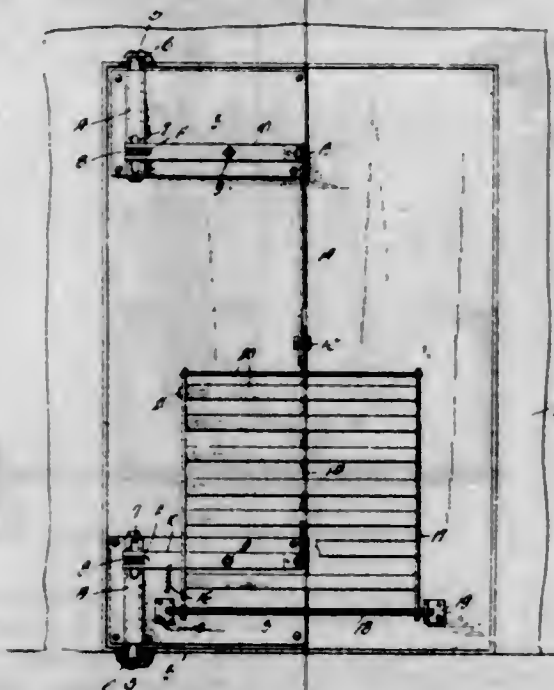
[Claims 6 to 23 not printed in the Gazette.]

1,079,047. LOCKING MECHANISM. CHARLIE P. HOFFMAN, Carrollton, Ohio. Filed Aug. 6, 1912. Serial No. 713,623. (Cl. 70-120.)

1. In locking mechanism of the class described, a bracket, a bolt slidably mounted on said bracket, a lever actuating said bolt pivoted to said bracket, a second lever pivoted to said first lever, and means to shift said second lever.

2. In locking mechanism of the class described, a plurality of slidable bolts, first levers for operating said bolts, the pivot members for said levers, second levers connected to said levers and to each other, said pivot members located intermediate said bolts and second levers, and a pivoted device operable against one of said second levers.

3. In locking mechanism of the class described, a slidable bolt member, a lever member actuating said bolt member, one of said members provided with a projection and the other of said members provided with a slot to engage said projection, a lever member pivoted to said lever, and a pivoted member operable against said lever member.



4. In locking mechanism of the class described, a slidable bolt, a housing member for said bolt, said bolt having a pin, said housing member provided with a slot for said pin, a lever, having a slot engaging said pin, a second lever connected to said lever, and a pivoted device operable against said second lever.

5. In locking mechanism of the class described, a plurality of slidable bolts, housing members for said bolts, said bolts each provided with a pin, each housing provided with a slot for said pins, a shifting lever for each bolt, each of said levers provided with a slot engaging the bolt pins, second levers pivoted together and one connected to each of said bolt shifting levers, and a movable device operable against one of said second levers.

[Claims 6 and 7 not printed in the Gazette.]

1,079,048. MECHANICAL MOVEMENT. THOMAS SIMMONS HOMANS, Brooklyn, N. Y. Filed Nov. 16, 1906. Serial No. 343,733. (Cl. 74-16.)



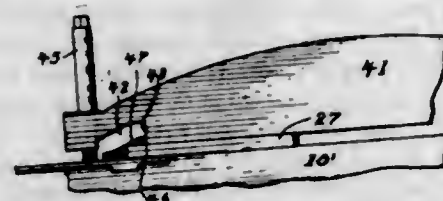
1. In combination with a notched wheel, a radially movable locking member to hold said wheel against movement, a toothed arm adapted to swing about the wheel axis and to move radially in relation thereto for the purpose of ro-

tating the wheel, and a connection between said locking and rotating members to effect the engagement of each before the disengagement of the other, whereby the wheel is kept at all times under control.

2. The combination of the notched wheel A and the arm C having an actuating tooth E, the said arm being arranged to slide and turn about the axis of the wheel to effect its positive rotation and arrest its motion, in combination with the independently guided locking tooth F to hold the wheel, and means connected with the arm C to reciprocate it.

3. The combination with a notched wheel A, the toothed and slotted arm C mounted to turn and slide about its axis and thus to actuate the wheel, the crank D connected to the arm C, the locking slide f and the link f' connecting the slide f to the arm C.

1,079,049. MOLD AND LINER. JAMES F. HOXSEY, Washington, D. C. Filed Feb. 11, 1913. Serial No. 747,616. (Cl. 199-13.)



1. A mold of the type described for slug casting machines including a base having a plane mold face and being offset at one end without the casting space, a constant element engaged in said offset having a plane face flush and aligned with said mold face, and being slidably removable from the front of the mold, a block carried by the constant at its inner side, a liner detachably engaged with the mold at the end opposite the constant, a longitudinally adjustable spacer corresponding in thickness with the liner and adapted to abut said block throughout its adjustment, and means coöperative between the constant and spacer to hold the latter against longitudinal movement and freely for lateral outward movement from the mold.

2. A mold for line casting typesetting machines of the type described including a base having a plane mold face and an offset face at one end without the casting space, a constant element engaged in said offset having a plane face flush with and aligned with the said mold face, and being slidably removable from the front of the mold, a block carried by the constant at its inner side, a liner detachably engaged with the mold at the end opposite the constant, an adjustable spacer corresponding in thickness with the liner and adapted to abut said block when in operative position, and means coöperative between the constant and spacer to hold the latter against longitudinal movement.

3. A mold of the type described including a base having a plane mold face and an offset at one end without the casting space, a constant element engaged in said offset, having a plane face flush with and aligned with the said mold face and being slidably removable from the front of the mold, a liner backing plate carried by the constant at its rear side, a liner carried by the base at the side opposite the constant, a spacer corresponding in thickness with the liner having a portion adapted to close one end of the mold and an extension projecting before and sliding against said plate, and means coöperative between the constant and spacer to hold the latter adjustably against longitudinal movement.

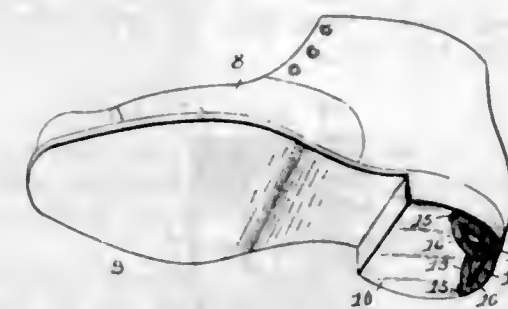
4. In a mold of the class described the combination of a base having a plane mold face and an offset face at one end outwardly of the mold space, a constant element engaged in said offset slidably for removal from the front of the mold and having a plane face flush with and aligned with the said mold face, a block carried at the rear side of the constant, a spacer having a portion adapted to form one face of the mold and an extension projected before and against said block over said plane face of the constant, and means coöperative between the constant and

the spacer to hold the spacer adjustably against longitudinal movement.

5. In a mold of the class described, the combination of a mold base having a plane mold face and an offset without the mold space at one end and a liner comprising a stationary element fitted in the offset of the base having an upper face flush with the said mold face, an adjustable member adapted to close the adjacent end of the mold space slidable over the stationary element, and means coöperative between the elements of the liner to hold the adjustable member against longitudinal movement.

[Claims 6 to 8 not printed in the Gazette.]

1,079,050. HEEL-PLATE. ERNEST HUNOLD, Providence, R. I. Filed Feb. 18, 1913. Serial No. 749,186. (Cl. 36-74.)



A stamped curved heel plate having a thick outer edge tapering to a thin inner edge, two long V shaped prongs centrally located and one short V shaped prong on each end of the plate, said V shaped prongs having a maximum thickness at their base and tapering to a minimum thickness at their ends and concavo-convex in cross section, said long central prongs being formed by integrally stamping the same out of the central body portion of the plate and inclined toward each other and the short end prongs being integrally stamped out on the ends of the plate and inclined toward each other.

1,079,051. HEEL-PLATE. ERNEST HUNOLD, Providence, R. I. Filed Apr. 21, 1913. Serial No. 762,583. (Cl. 36-74.)



1. A stamped heel plate having a rounded outer end and two converging side arms, a long pointed central prong at the base of the side arms and at right angles to the plate and a short pointed prong on the end of each side arm and at right angles to the arm, the pointed ends of the short end prongs converging.

2. A heel plate stamped from knife edge bar metal and having a semi-circular outer edge and two converging side arms, a long pointed central prong bent at right angles at the base of the side arms and a short pointed end prong on the end of each side arm and bent at right angles thereto, the pointed ends of the short end prongs converging.

3. A heel plate stamped from knife edge bar metal and having a semi-circular outer end, two converging side arms, each side arm being curved on its outer edge and straight on its inner edge, a long pointed central prong bent at right angles at the base of the side arms, and a short pointed end prong on the end of each side arm and

196 O. G.—45

bent at right angles thereto, the pointed ends of the short end prongs converging.

4. A heel plate stamped from knife edge bar metal and having a semi-circular outer end, two converging side arms, each converging side arm having a curved outer edge and a straight inner edge, a long pointed central prong bent at right angles at the base of and intermediate the converging side arms and a short pointed end prong on the end of each side arm and bent at right angles to the converging side arms, the pointed ends of the short end prongs converging.

5. A heel plate having a flat body portion and two converging side arms, a long pointed central prong at the base of the side arms and at right angles to the plate, and a short pointed prong on the end of each side arm and at right angles to the arm, the base of the side arms and the base of the long central prong being in juxtaposition.

1,079,052. PLEASURE-RAILWAY. FREDERICK INGERSOLL, Detroit, Mich. Filed Mar. 12, 1913. Serial No. 753,797. (Cl. 104-111.)



1. An amusement apparatus of the character described comprising a main railway formed of a plurality of tracks arranged in parallel relation and provided with alternate diagonal and longitudinal courses united by loops, and a supplemental course located beyond said main portion and arranged transversely of the latter, said supplemental course being connected at one end with one of said diagonal courses and at the other end with one of said longitudinal courses.

2. A pleasure railway comprising a main portion formed of a plurality of tracks arranged in parallel relation and provided with straight courses united by loops, and a supplemental course located beyond said main portion and arranged transversely of the latter, the tracks of said supplemental course being connected with the main course by loops extending in opposite directions.

3. A pleasure railway comprising a main portion formed of a plurality of tracks arranged in parallel relation and provided with straight courses united by loops, and a supplemental course located beyond said main portion and arranged transversely of the latter, the tracks of said supplemental course being connected with the main portion by loops extending in opposite directions, the tracks of said loops crossing each other.

4. A pleasure railway comprising a plurality of tracks arranged in parallel relation to provide straight courses, diagonal courses arranged between the straight courses, and loops uniting the straight and diagonal courses in alternate relation.

5. A pleasure railway comprising a plurality of tracks arranged in parallel relation to provide straight courses, diagonal courses arranged between the straight courses and crossing each other, and loops uniting the straight and diagonal courses in alternate relation.

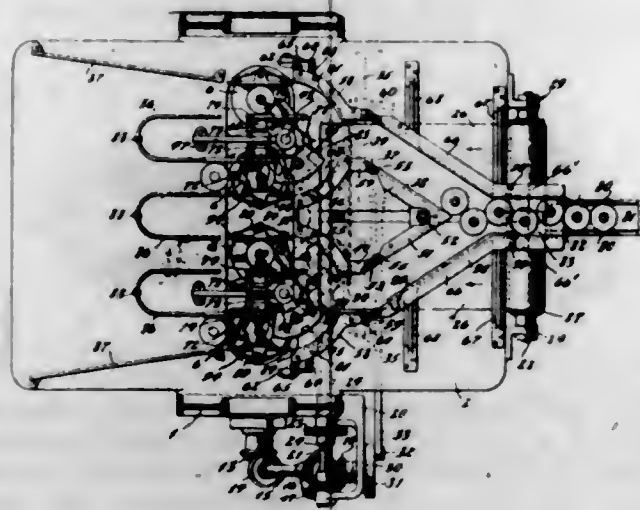
[Claim 6 not printed in the Gazette.]

1,079,053. BOTTLING APPLIANCE. JOSEPH V. IRENIUS, Newark, N. J., assignor to Imperial Stopper Company, a Corporation of Maine. Filed Nov. 22, 1911. Serial No. 661,651. (Cl. 113-2.)

1. In bottling appliances, an apparatus having a plurality of means for performing similar operations upon a

plurality of bottles substantially simultaneously, feeding mechanism for shifting bottles, delivered from a common source, into diverse paths, said paths leading toward the respective devices aforesaid, said mechanism comprising a stationary bottle apportioning stem at the juncture of two of said paths and co-acting means for advancing a series of bottles toward said apportioning stem, in combination with means for successively centering bottles, traversing the respective diverse paths, with respect to the devices corresponding to said paths.

2. The combination of a multiple-head bottling appliance with feeding mechanism for shifting bottles toward the respective heads of said appliance, said mechanism comprising an oscillatable bottle switching device, movable in one plane, and a second oscillatable bottle shifting device movable in a second plane, the first of said devices adapted to engage one bottle and the second of said devices adapted to engage another bottle approximately contiguous to that first mentioned.



3. In a feeding mechanism, the combination of a rotatable member adapted to shift articles being fed through said mechanism with means for moving said member, and a plurality of substantially juxtaposed guides, one of which is laterally movable to prevent injury to said articles by the movement of said member, another of said guides constituting a stop to limit movement of said first mentioned guide toward said member.

4. In a feeding mechanism, the combination of a rotatable member adapted to shift articles being fed through said mechanism with means for moving said member, and a plurality of substantially juxtaposed guides, one of which is laterally movable to prevent injury to said articles by the movement of said member, another of said guides constituting a stop to limit movement of said first mentioned guide toward said member, said second guide also being laterally movable under excessive pressure.

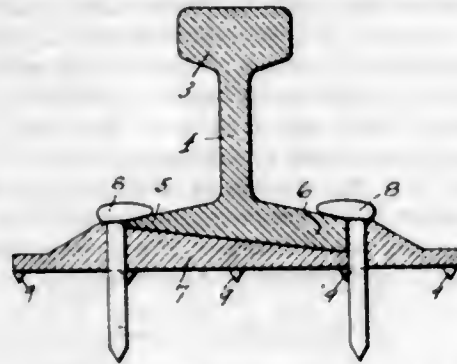
5. The combination of a multiple head bottling appliance with feeding mechanism for shifting bottles toward the respective heads of said appliance, said mechanism comprising separate elements each adapted to positively engage successive bottles substantially simultaneously, one of said elements being pivotally mounted, the axis of rotation of one of said elements being substantially at right angles to the respective axes of the heads of said bottling appliance.

[Claims 6 to 17 not printed in the Gazette.]

1,079,054. RAILWAY-RAIL. PETER NELS MADSEN, South Chicago, Ill., assignor of one-half to Leo La Reau, Chicago, Ill. Filed Apr. 17, 1913. Serial No. 761,658. (Cl. 239—14.)

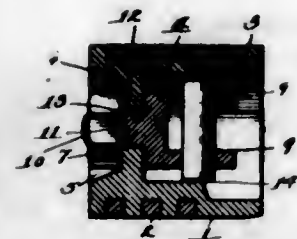
In combination, a railway rail having base flanges with vertically straight lateral edges, the lateral edge of one flange being considerably thicker than the lateral edge of the other flange and the under side of the rail being inclined downward toward the thicker edge of such rail; and a tie plate having a groove therein snugly fitting the

flanges on said rail and the inclined under side of said rail, substantially as described.



flanges on said rail and the inclined under side of said rail, substantially as described.

1,079,055. PISTON-HEAD. WILLIAM H. MCCROBY, Three Rivers, Mich. Filed Mar. 10, 1913. Serial No. 753,399. (Cl. 121—104.)



1. A hollow piston head having a clevis arranged within the same, a piston rod connecting pin carried by the clevis, said connecting pin having an interlocking connection with the piston for preventing said clevis and pin from rotating within said piston head.

2. A piston head comprising a cylindrical body having bores of different diameters at one end and a recess at its opposite end forming a partition, said partition being provided with an aperture having a longitudinal groove in its wall, a clevis provided with a shank extending through said aperture, a pin carried by said shank extending into said groove, and a nut mounted on said shank for securing said clevis in position.

3. A piston head comprising a cylindrical body having bores of different diameters at one end and a recess at its other end forming a partition, said partition being provided with an aperture, a rib formed on the wall of one of said bores, a clevis provided with a shank arranged within the aperture of said partition, a nut for securing said clevis in position, and a piston rod connecting pin carried by said clevis having a notched end to receive the rib for preventing rotation thereof.

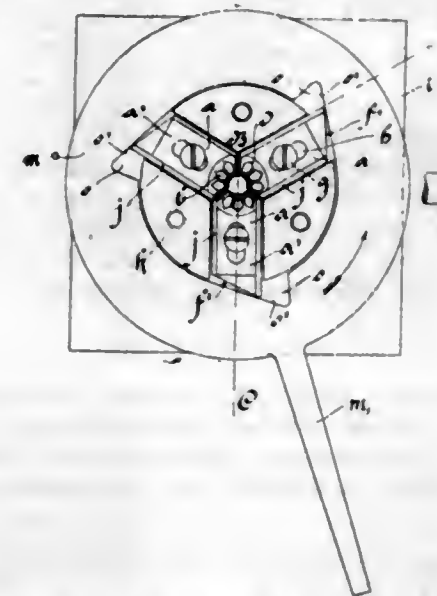
4. A piston head having bores of different diameters at one end, and a recess at its other end forming a partition, said partition being provided with an aperture having a groove in its wall, a clevis arranged within the bores of said piston having a threaded shank extending through said aperture, a pin carried by said shank extending into said groove, a nut mounted upon said shank within said recess, and a pin carried by said clevis having an interlocking connection with said piston.

5. A piston head comprising a body having a recess at one end and provided with bores of different diameters at its other end, one of said bores being provided with a longitudinal rib substantially V-shape in cross section, a clevis secured within said bore, and a connecting pin carried by said clevis provided with a notched end fitting over said rib.

1,079,056. RATAN-SCRAPER. HINRICH MEIER, Osleba-hausen, near Bremen, Germany, assignor to Stuhlrobr-fabrik Bremen, Carl Frese & Co., Burg, near Bremen, Germany. Filed Aug. 23, 1912. Serial No. 716,615. (Cl. 144—156.)

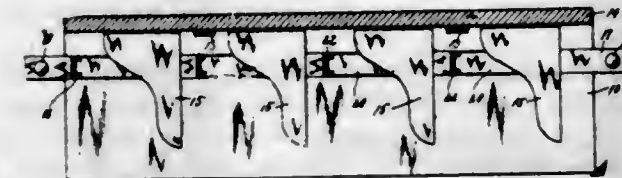
A ratan scraping and slicing tool-head consisting of radially movable scraper blocks, integral polygonal end

cutters and side cutters fast on said blocks, angular outer ends formed on said blocks, intervening guide pieces for the latter, a carrier plate for same, a turnable annulus



surrounding said blocks and cutters, and triangular recesses providing an inclined bearing surface for the angular ends of the blocks, as and for the purpose described.

1,079,057. FOLDING SHELF. SILVERE MEYER, New York, N. Y. Filed May 15, 1913. Serial No. 767,791. (Cl. 211—27.)



1. In a folding shelf, the combination with a support, of a shelf board pivotally attached thereto, a plurality of brackets hinged to said support, a bar shiftably arranged on said support, and links hinged to said brackets and said bar, whereby upon shifting of the latter said brackets are adapted to be folded upon said support or to be extended at an angle thereto to sustain when in the latter positions said shelf board.

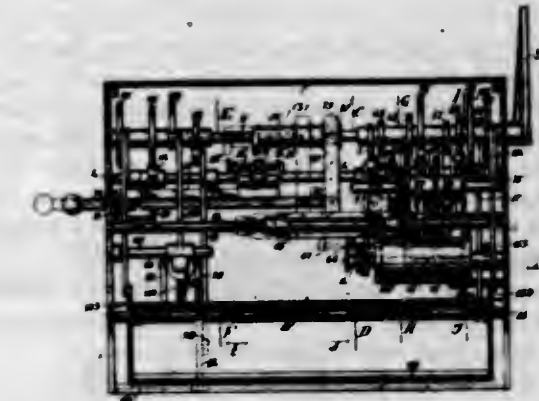
2. In a folding shelf, the combination with a support having a longitudinal groove, of a shelf board pivotally attached to said support, a plurality of brackets hinged to said support, a bar shiftably arranged in said groove, and links hinged to said brackets and said bar, whereby upon shifting of the latter said brackets are adapted to be folded upon said support or to be extended at an angle thereto to sustain when in the latter positions said shelf board.

1,079,058. MACHINE FOR AFFIXING STAMPS, LABELS, OR THE LIKE TO ENVELOPS OR THE LIKE. ISAC MICHEL and RUDOLF STEIN, Frankfurt-on-the-Main, Germany. Filed Aug. 24, 1910. Serial No. 578,621. (Cl. 216—11.)

1. In a machine for affixing sections of strips, such as stamps to envelopes, the combination of a shaft, a plurality of cams thereon, means held in engagement with and actuated by said cams for feeding, moistening, severing, affixing and registering the stamps and for discharging the stamped envelopes from the machine and for preventing the withdrawal of an envelop after the insertion of the envelop into the machine.

2. In a machine for affixing stamps to envelopes the combination of a casing provided with an aperture, a guard-flap for said aperture, a rotatable cam shaft and means controlled by said shaft for feeding, moistening, severing, and affixing the stamps, for positively discharging the stamped envelopes out of the machine, and for actuating the said guard flap to open and close said aperture.

3. In a machine for affixing stamps to envelopes the combination of, a casing provided with an entrance aperture, a guard-flap adapted to close said aperture, a cam shaft manually driven, a plurality of feeding devices for the stamps, said stamps being wound up in form of rolls, a plurality of registering devices, said feeding and registering devices being adapted to be controlled by said cam shaft and means under the control of the cam shaft for moistening, severing and affixing the stamps, for discharging the stamped envelopes, and for actuating and locking the said guard-flap.

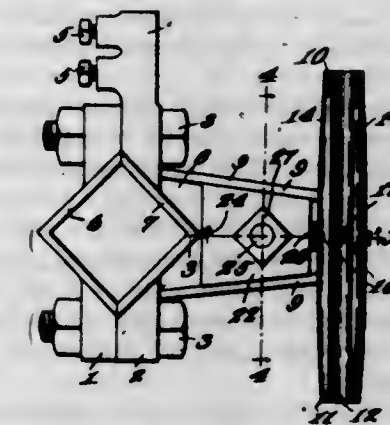


4. In a machine for affixing stamps to envelopes the combination of, a casing provided with an entrance aperture, a guard-flap for said aperture, a cam shaft manually driven, a plurality of axially slidable feed rollers and actuating mechanism under the control of said cam shaft and adapted to be coupled with only one feed roller at a time, and means controlled by the cam shaft for moistening and affixing the stamps and for actuating the guard flap to open and close said aperture.

5. In a machine for affixing stamps to envelopes the combination of, a casing, a cam shaft, mechanism under the control of said shaft, a plurality of axially slidable feed rollers for the stamps, the stamps being wound in form of rolls, actuating means for said rollers controlled by said mechanism, a plurality of registering devices for the stamps wound off their rolls, the registering devices corresponding in number to the number of the feed rollers, a means adapted to couple a registering device with the corresponding feed roller, and a moistening and an affixing device operated by said mechanism.

[Claims 6 to 16 not printed in the Gazette.]

1,079,059. TROLLEY COLLECTOR-SHOE. WILLIAM H. MILLER, Emaus, Pa. Filed July 3, 1913. Serial No. 777,240. (Cl. 191—45.)



1. In a device of the class described, a supporting structure including a socket and an outstanding arm; a collector including a shank and a shoe, the shank being mounted on the arm and being provided at its end with a notch receiving the socket; and a securing member engaging the shank and the arm.

2. In a device of the class described, a supporting structure including an outstanding arm having longitudinal flanges; a collector including a shoe, and a shank having longitudinal wings, the shank being mounted on the arm and the wings being received between the flanges; and a

bolt and nut structure connecting the shank and the arm, one member of the bolt and nut structure being engaged between the wings against rotation.

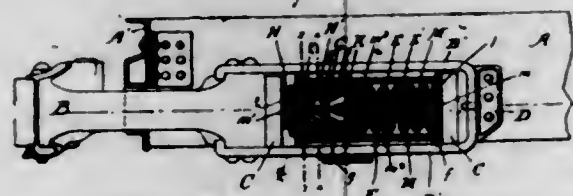
3. In a device of the class described, a supporting structure including an arm having longitudinal flanges which project beyond opposite faces of the arm; a collector including a shoe and a shank, the shank being mounted on the arm and being engaged between the flanges at one side of the arm; a washer block mounted on the arm and engaged between the flanges at the other side of the arm; and a securing element uniting the shank, the arm and the washer block.

4. In a device of the class described, a supporting structure; a collector including a shoe having spaced walls defining a tread, and a shank projecting from the shoe, the shank being mounted upon the supporting structure; a retaining device inserted into one wall of the shoe and overhanging the tread of the shoe; a washer mounted upon the arm and engaging the retaining device to hold the same in said wall; and a securing member uniting the arms, the supporting structure and the washer.

5. As an article of manufacture, a collector comprising a shank having a notch in one end and a transverse shoe secured to the other end of the shank.

[Claims 6 to 10 not printed in the Gazette.]

1,079,060. DRAFT-RIGGING. MARTIN A. O'CONNOR, Buffalo, N. Y., assignor to W. H. Miner Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1909. Serial No. 475,969. (Cl. 213—64.)



1. In a friction draft rigging, the combination with the draw-bar, spring and coating friction members, of a compound wedge having a blunt wedge member and a collapsible acute wedge member, the latter acting against the friction members to produce high cushioning capacity, and the former against the draw-bar to insure a perfect, certain and reliable release action, substantially as specified.

2. In a friction draft rigging, the combination with a draw-bar, spring and coating friction members, said spring reacting at one end against one of said friction members and at the other end against the other of said friction members to separate them, of a compound spreader device comprising a blunt faced wedge member and an acute faced segmental wedge member engaging said blunt wedge member and also engaging the friction member, substantially as specified.

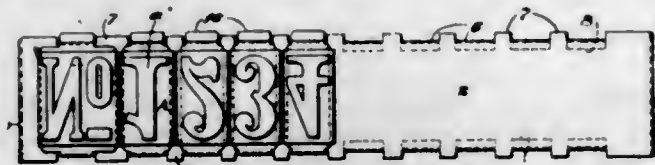
3. In a friction draft rigging, the combination with a draw-bar, spring and followers, of a longitudinally movable friction shell, a plurality of segmental friction shoes within said shell, said spring reacting at one end against the shoes and at the other end against the shell to separate them, said friction shoes having acute wedge faces, a blunt wedge member and a plurality of acute wedge members engaging said friction shoes and having blunt wedge faces engaging the wedge faces of said blunt wedge, substantially as specified.

4. In a friction draft rigging, the combination with a draw-bar, spring and followers, of a friction shell, a plurality of segmental friction shoes within the shell, each having an inner acute wedge face, a plurality of segmental wedge members, each having a plurality of external acute wedge faces, acting upon adjacent friction shoes, and an inner blunt wedge face, a pyramidal wedge having blunt wedge faces acting upon said segmental wedge members, said spring reacting at one end against the friction shell and at the other end thereof against said friction shoes, and means for holding said friction shell and said parts within it in assembled coacting relation with each other, substantially as specified.

5. In a friction draft rigging, the combination with a draw-bar, spring and followers, of a friction shell, a plurality of segmental friction shoes within the shell, each having an inner acute wedge face, a plurality of segmental wedge members, each having a plurality of external acute wedge faces, acting upon adjacent friction shoes, and an inner blunt wedge face, a pyramidal wedge having blunt wedge faces acting upon said segmental wedge members, said spring reacting at one end against the friction shell and at the other end thereof against said friction shoes and a flexible connecting rod extending between said pyramidal wedge and said friction shell to hold the parts in coacting relation with each other, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

1,079,061. STAMP. OSCAR M. PANNIER, Pittsburgh, Pa., assignor to Pannier Brothers Stamp Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 14, 1913. Serial No. 760,882. (Cl. 101—58.)



1. In a stamp, the combination of a holding handle, a resilient outwardly curved sheet metal base secured to each end of the handle and arched away therefrom provided with laterally extending integral projections and intervening recesses, and removable stamping units having clip portions for engagement therewith, substantially as set forth.

2. In a stamp, the combination of a holding handle, a resilient outwardly curved sheet metal base secured to each end of the handle and arched away therefrom provided with laterally extending integral projections and intervening recesses, and removable stamping units having terminal inwardly turned sheet metal clip portions for engagement therewith, substantially as set forth.

3. In a stamp, the combination of a holding handle, a resilient outwardly curved sheet metal base secured to each end of the handle and arched away therefrom provided with laterally extending integral projections and intervening recesses, and removable stamping units having an embedded sheet metal strip extending from one end and inwardly turned for engagement with one edge of said base and extending from the other end and inwardly turned for engagement with the other edge of said base and provided with an outwardly deflected finger terminal, substantially as set forth.

4. In a stamp, the combination of a holding handle, a resilient outwardly curved sheet metal base secured to each end of the handle and arched away therefrom provided with inwardly severed lateral tongues bent inwardly upon the base between alternating projecting spacing tongues, and removable stamping units having interfitting clip portions for engagement therewith, substantially as set forth.

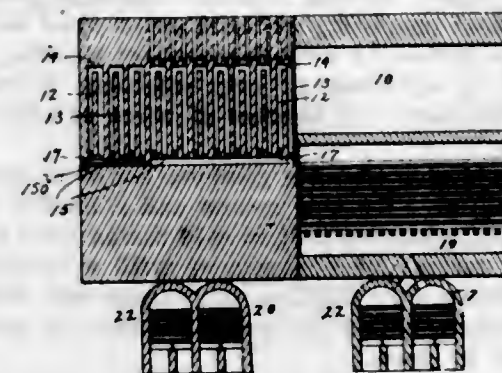
5. In a stamp, the combination of a holding handle, a resilient outwardly curved sheet metal base secured to each end of the handle and arched away therefrom provided with inwardly severed lateral tongues bent inwardly upon the base between alternating projecting spacing tongues and providing rounded bearing edges, and removable stamping units having interfitting clip portions for engagement therewith, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,079,062. COKE-OVEN. WILLIAM MONTGOMERY PERSON, Sparrows Point, Md. Filed Aug. 31, 1910. Serial No. 579,897. (Cl. 202—9.)

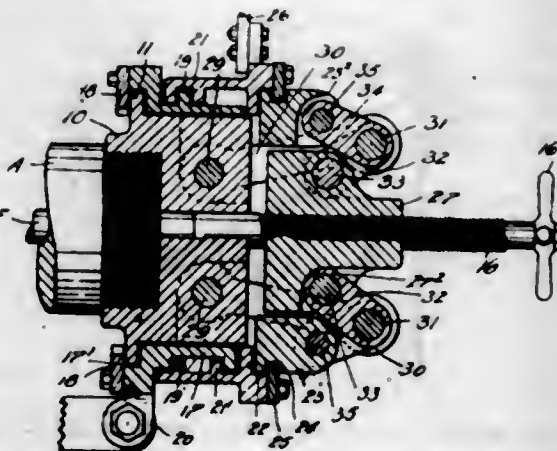
1. A coking oven having a plurality of coal-receiving chambers, combustion flues in the wall between contiguous chambers, gas burners for said combustion flues, individual regenerators connected with said combustion flues,

and a primary regenerator connected with said individual regenerators.



2. A coking oven having a plurality of coal-receiving chambers, combustion flues in the walls between contiguous chambers, gas burners for said combustion flues, individual regenerators connected with said combustion flues, a set of primary regenerators, and connections between each primary regenerator of a set and a group of individual regenerators.

1,079,063. CLUTCH-OPERATING MECHANISM. JOHN J. PETER, Seattle, Wash., assignor to Pierre Barnes, Seattle, Wash. Filed Jan. 21, 1913. Serial No. 743,306. (Cl. 192—8.)



1. In mechanism of the class described, the combination with a head secured to a shaft, a collar, and a cross-head, said collar and cross-head being connected with said head to rotate therewith but arranged for independent axial movements, of means for effecting the axial movements of said collar, and link devices connecting both the collar and the cross-head with said head whereby an axial movement imparted to said collar will cause the cross-head to be moved in a reverse axial direction.

2. In mechanism of the class described, a head rigidly secured to a shaft, a cross-head, a collar, said cross-head and collar being connected with said head to rotate in unison therewith, a sleeve provided with external screw-threads and secured against axial and rotary movements, a nut engaging said screw threads and operatively connected to the collar, and link connections between the cross-head, the collar and the head, whereby the collar, upon being moved through the instrumentality of the nut in one axial direction will cause the cross-head to be moved in a contrary direction.

3. In mechanism of the class described, the combination with a head secured to a shaft, a collar, and a cross-head, said collar and cross-head being connected with said head to rotate therewith but arranged for independent axial movements, of means for effecting the axial movements of said collar, links pivotally connected at their inner ends to the head, the cross-head and the collar and joined at their outer ends with each other in such a manner that an axial movement of the collar will cause the cross-head to be moved in a contrary direction.

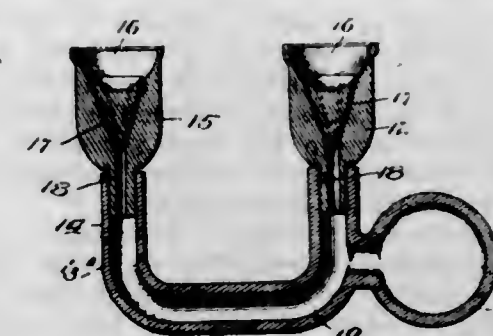
4. In mechanism of the class described, the combination with a head secured to a shaft, a collar, and a cross-head, said collar and cross-head being connected with said head

to rotate therewith but arranged for independent axial movements, of means for effecting the axial movements of said collar, links connecting said collar with the cross-head, and links connecting said head with the aforesaid links whereby axial movements imparted to said collar will render the second named links operative to actuate the first named links to impart axial movement to the cross-head.

5. In mechanism of the class described, the combination with a drum shaft, of a cross-head and a collar rotatably connected with said shaft, links connecting said cross-head with the collar, links carried by the shaft and connected with the aforesaid links, and means for effecting the axial movement of said collar whereby the last named links will serve to actuate the first named links whereby axial movement is transmitted to the cross-head.

[Claims 6 to 8 not printed in the Gazette.]

1,079,064. EYE-CUP. W. ERNEST PETERS, Denver, Colo. Filed Dec. 21, 1912. Serial No. 738,064. (Cl. 128—11.)



1. The combination with a U-shaped tubular member, one leg of which presents greater flexibility than the other member, of an air-ball communicating with the tubular member at the side possessing the greater rigidity, and eye-cups inserted into the ends of the tubular member.

2. The combination of a U-shaped tubular member, one extremity of which possesses greater flexibility than the remainder of the structure, an expansible air-ball located upon the side of the U possessing the less flexibility and communicating with the tubular member and eye-cups inserted in the extremities of the U-shaped member.

3. In an eye-cup structure, a U-shaped tubular member constructed of elastic material, one extremity of which is thinner than the remainder of the structure, and an expansible air-ball located at the side of the U, constructed of the thicker material and forming communication with the interior of such tubular member.

4. The combination with a U-shaped tubular member, of an air-ball communicating with said tubular member, eye-cups inserted in the ends of the tubular members, said eye-cups being formed at the ends with hemispherical recesses, and a plurality of ducts connecting said recesses with said tubular members, the ends of the ducts being located near the edge of said hemispherical portion and approximately tangential thereto.

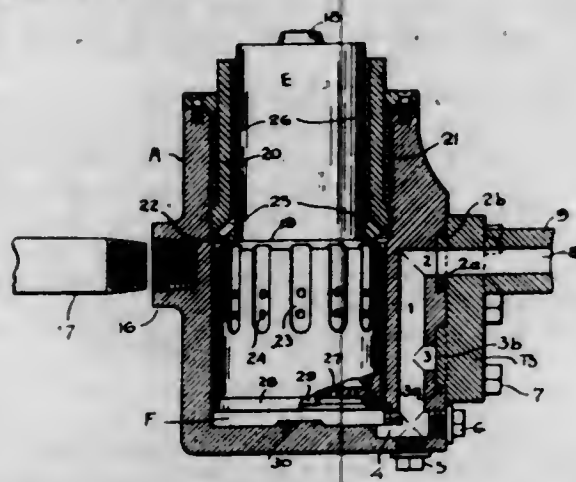
1,079,065. PIPE-PEENING MACHINE. JOHN I. PILSTON, Wyandotte, Mich. Filed Nov. 7, 1912. Serial No. 729,988. (Cl. 153—82.)

1. A pipe-expanding machine, having in combination, a support for holding a flange, a reciprocable striking tool revolvably held in said support and a hand wheel adjustable along the bearing portion of the striking tool so as to locate the circle of revolution of the striking tool by engaging with a fixed portion of the support, substantially as described.

2. In a pipe-expanding machine, a support for holding a flange provided with an aligning device comprising a pair of arms adjustable vertically on a squared shaft, aligning studs in the ends of the arms for engaging in holes of the flange rim and means for swinging the arms in upon the flange rim, substantially as described.

3. A pipe-expanding machine, having in combination, a support for a flange, a pipe-expanding tool revolvably

held in said support and adjustable radially for lengthening or shortening the expanding member, and an adjustable connection between the expanding tool and the support for further adjusting the expanding tool radially, substantially as described.



4. A pipe-expanding machine, having in combination, a support for holding a flange, a pipe-expanding tool having a bearing member revolvably held in said support, the said tool being extensible or contractible radially and connecting means between the bearing member and the tool for also extending or contracting the radial extent of the tool, substantially as described.

5. A pneumatic tool, having in combination, hammer operating mechanism, a swiveling pipe line connected therewith for furnishing the operating medium, the said pipe line being connectible with the hammer-operating mechanism at more than one point for the purpose of giving said hammer varying radii of action, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,079,066. ELECTRIC SOLDERING-IRON. MERRIT H. RICE, New Rochelle, N. Y., assignor to National Electric Utilities Corporation, New York, N. Y., a Corporation of New York. Filed May 1, 1913. Serial No. 764,767. (Cl. 219—28.)



1. A soldering iron comprising a casing having a heating unit locating means near one end, a handle with wires passing through it attached direct to said end, a heating unit located near the other end, and a tip engaging said heating unit and casing and cooperating with said locating means for securing the heating unit in position.

2. In a soldering iron, a casing having an internal projection, a heating unit therein comprising a spool having solder tip engaging means, and a soldering tip engaging said means and the casing and cooperating with

said projection for securing the heating unit in position.

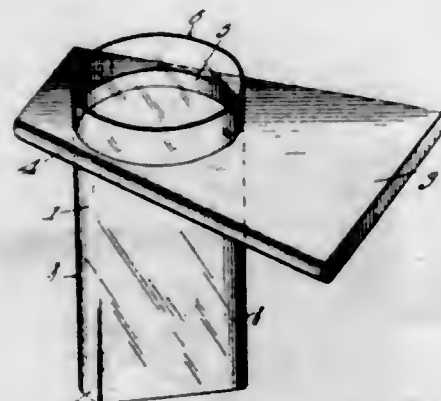
3. In a soldering iron, a heating unit comprising a shell and a contained heating element insulated therefrom, perforated heat insulating material attached at one end of said shell, a perforated retaining member therefor, and an insulating cap attached to said retaining member and provided with holes for passage of wires of said heating element.

4. In a soldering iron the combination of a casing having a heating unit locating means and a handle attached at one end, of a heating unit in said casing near the other end having means for engagement with a soldering tip, and a soldering tip engaging said means and the casing and cooperating with said locating means to secure the heating unit in place.

5. In a soldering iron the combination with a casing having means for locating a heating unit, of a heating unit provided with soldering tip engaging means at one end and with means at the other end cooperating with the locating means of the casing whereby it may be guided into position and be held against rotation, and a soldering tip attached to said tip engaging means and engaging said casing.

[Claims 6 to 9 not printed in the Gazette.]

1,079,067. SANITARY FOLDING CUP. JOSEPH V. SHAW, Denver, Colo. Filed Feb. 17, 1913. Serial No. 748,977. (Cl. 65—13.)



1. In a device of the class described, a yieldable conical cup; and a wedge shaped spreader in the cup, the spreader having an opening adapted to receive the smaller end of the cup and permit the spreader to be used as a handle for the cup.

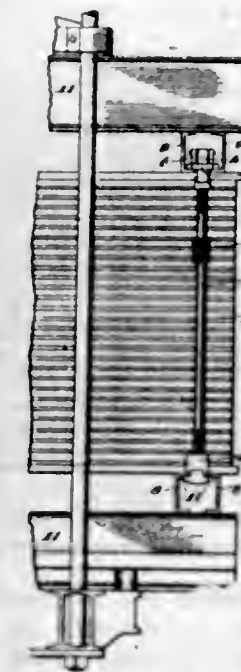
2. In a device of the class described, a yieldable conical cup; and a wedge shaped spreader in the cup; the spreader having an opening adapted to receive the smaller end of the cup and to permit the spreader to be used as a handle for the cup; the opening constituting a means for varying the slant of the side wall of the cup, thereby to vary the capacity of the cup as the cup is thrust into the opening, and the opening being of circular form, to increase the support given to the cup, as the cup is thrust into the opening.

3. In a device of the class described, a yieldable conical cup; and a wedge shaped spreader in the cup; the spreader having an opening adapted to receive the smaller end of the cup and to permit the spreader to be used as a handle for the cup; the spreader being fashioned from buoyant material, whereby when the spreader is positioned for use as a handle, the spreader will constitute also, a float, adapted to support the cup.

1,079,068. RETAINING DEVICE FOR PRESSES. HARVEY SLATER, Chicago, Ill., assignor to Charles F. Elms Engineering Works, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,850. (Cl. 144—281.)

1. The combination with the holding members of a press, of a retainer rod; and heads adjustably mounted at the respective ends of said rod adapted for engagement with said holding members, one of said heads comprising a pivotally mounted engaging member having a laterally extending free end adapted to engage the corresponding

holding member, said engaging member, when in operative position, being on dead center, with the pressure toward its pivot, substantially as described.



2. The combination with the holding members of a press, of a retainer rod; and heads adjustably mounted at the respective ends of said rod adapted for engagement with said holding members, one of said heads comprising a pivotally mounted substantially U-shaped engaging member, the ends of said member pivotally engaging said head; and laterally projecting ears at the free ends of said member for engagement with said holding members, substantially as described.

3. The combination with the holding members of a press, of a retainer rod; heads adjustably mounted at the respective ends of said rod adapted for engagement with said holding members, one of said heads comprising a body; a pivotally mounted U-shaped engaging member, the ends of said member pivotally engaging said body; and laterally projecting ears at the free end of said member for engagement with said holding member, said engaging member, when in operative position, being on dead center, the bight of said member, when the latter is in operative position, being spaced from said body, substantially as described.

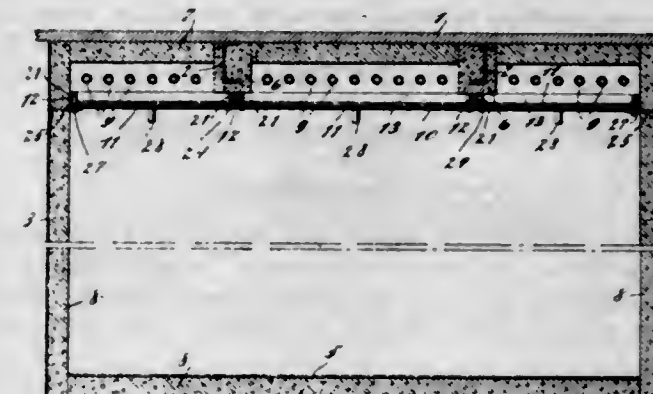
4. The combination with the holding members of a press, of a retainer rod; heads loosely threaded upon the respective ends of said rod adapted for engagement with said holding members, one of said heads comprising a body; a pivotally mounted U-shaped engaging member, the ends of said member pivotally engaging said body; and laterally projecting ears at the free end of said member for engagement with said holding member, said engaging member, when in operative position, being on dead center, the bight of said member, when the latter is in operative position, being spaced from said body, substantially as described.

1,079,069. POWDER OR EXPLOSIVE MAGAZINE FOR WAR-SHIPS. JOHN EDWIN STARR, New York, N. Y., assignor to Railway and Stationary Refrigerating Company, New York, N. Y., a Corporation of New York. Filed Sept. 3, 1912. Serial No. 718,177. (Cl. 62—11.)

1. In a magazine, in combination with the ceiling and the ceiling beams of a refrigerating conduit between the said beams and adjacent the ceiling, a pan bridging the space between the said beams, said pan having an air inlet and an air outlet at its respective ends, and having its bottom protected by heat insulation.

2. In a magazine, in combination with the ceiling and the ceiling beams of a refrigerating conduit between the said beams and adjacent the ceiling, a pan bridging the space between the said beams and making fluid-tight joint with said beams, said pan having an air inlet and an air outlet at its respective ends, and having its bottom protected by heat insulation.

3. In a magazine, in combination with the ceiling and the ceiling beams, of a refrigerating conduit between the said beams and adjacent the ceiling, a pan bridging the space between the said beams, said pan having an air inlet and an air outlet at its respective ends, and having its bottom inclined downward from the said inlet toward the said outlet and protected by heat insulation.

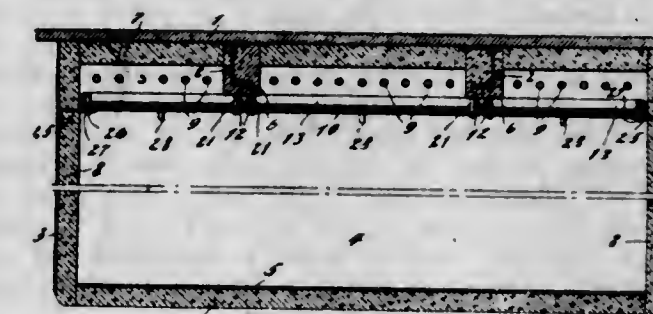


4. In a magazine, in combination with the ceiling and the ceiling beams, of a refrigerating conduit between the beams and adjacent the ceiling, a pan bridging the space between the beams and having longitudinal flanges making fluid-tight joint with said beams, said pan being provided at its respective ends with an air inlet and outlet.

5. In a magazine, in combination with the ceiling and the ceiling beams, of a refrigerating conduit between the beams and adjacent the ceiling, a pan bridging the space between the beams and having longitudinal flanges making fluid-tight joint with said beams, said pan being provided at its respective ends with an air inlet and outlet and having its bottom inclined downward from the inlet toward the outlet.

[Claims 6 to 10 not printed in the Gazette.]

1,079,070. POWDER OR EXPLOSIVE MAGAZINE FOR WAR-SHIPS. CASSIUS CLAY PALMER, New York, N. Y., assignor to Railway and Stationary Refrigerating Company, New York, N. Y., a Corporation of New York. Filed Sept. 3, 1912. Serial No. 718,181. (Cl. 62—11.)



1. In a magazine, in combination, an air duct, a refrigerating conduit in said air duct, a plurality of adjoining compartments to receive moisture from said conduit, means whereby said compartments communicate, said compartments being arranged on an incline one below another so that moisture will flow from one to the other, and a drain for the lowermost compartment.

2. In a magazine, in combination, an air duct, a refrigerating conduit in said air duct, a pan to receive moisture from said conduit, said pan having a plurality of compartments formed by partitions extending transversely of the air duct, and a drain for said compartments.

3. In a magazine, in combination, an air duct, a refrigerating conduit in said air duct, a pan to receive moisture from said conduit, said pan having a plurality of compartments in communication with each other to permit flow from one compartment to another, and a drain for said compartments.

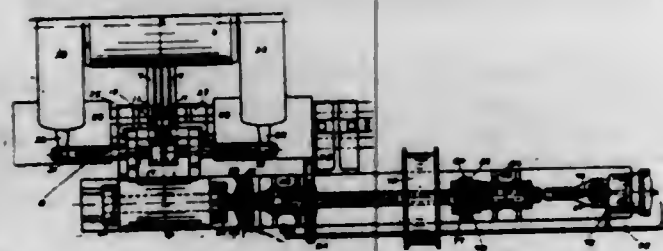
4. In a magazine, in combination, an air duct, a refrigerating conduit in said air duct, a pan to receive moisture from said conduit, said pan having an inclined bottom and

a plurality of compartments lengthwise thereof and formed by partitions extending transversely of said inclined bottom, means whereby said compartments are in communication with each other, and drain means for the pan.

5. In a magazine, in combination, an air duct, a refrigerating conduit in said air duct, a pan beneath the conduit to receive moisture from the conduit, said pan having an inclined bottom, apertured partitions extending transversely of the pan and dividing the same into a plurality of compartments, and drain means for said compartments.

[Claims 6 to 16 not printed in the Gazette.]

1,079,071. MACHINE FOR COILING METAL STRIPS. DAVID LONG SUMMEY, Waterbury, Conn., assignor to Chase Rolling Mill Co., Waterbury, Conn., a Corporation. Filed Aug. 22, 1912. Serial No. 716,452. (Cl. 242—68.)



1. In a machine for coiling metal strips, the combination with the rolls of a strip-rolling mill, of an expandible coiling-drum having a continuous, cylindrical coiling-surface and an interior strip-receiving space, means for guiding the end of the strip from the said rolls into the said space, means for separating and retiring the said guiding means to permit the strip to be piled in layers upon the drum, and a fluid-operated power-cylinder for positively expanding and contracting the drum.

2. In a machine for coiling metal strips, the combination with the rolls of a strip-rolling mill, of an expandible coiling-drum having a continuous, cylindrical coiling-surface and an interior strip-receiving space, means for guiding the end of the strip from the said rolls into the said space, means for separating and retiring the said guiding means to permit the strip to be coiled in layers upon the drum, means for expanding and contracting the drum, and independent power means for rotating the drum.

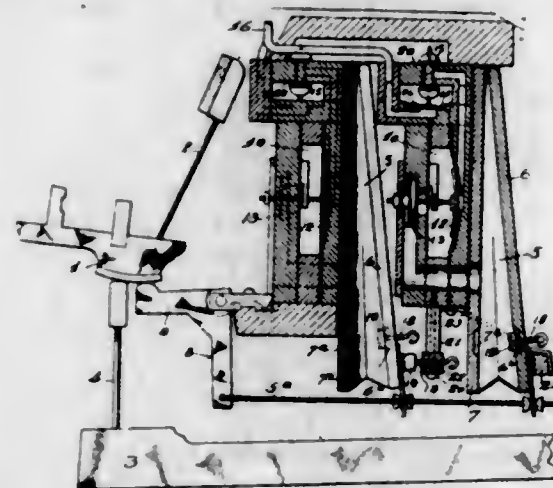
3. In a machine for coiling metal strips, the combination with the rolls of a strip-rolling mill, of an expandible coiling-drum having an interior strip-receiving space, means for guiding the end of the metal strip from the said rolls and entering it into the said space, a power cylinder connected with the drum for expanding and contracting the same, and means independent of the said power cylinder for rotating the drum.

4. In a strip-coiling machine, the combination with the rolls of a strip-rolling mill, of an expandible drum comprising body-members and closure-members constructed and organized so that when the drum is contracted, an interior strip-receiving space will be formed in it for the reception of the end of the strip and so that when the drum is expanded the said space will be closed, and the said members will form a continuous cylindrical coiling-surface, and means interposed between the said rolls and drum for guiding the strip and automatically inserting its end into the said space in the drum when the same is contracted.

5. In a machine for coiling metal strips, the combination with the rolls of a strip-rolling mill, of an expandible coiling-drum having a continuous cylindrical coiling-surface and an interior strip-receiving space, means for guiding the end of the strip from the said rolls into the said space, a fluid-operated power-cylinder, lever-connection between the said cylinder and the drum for the positive expansion and contraction thereof, and independent means for rotating the drum.

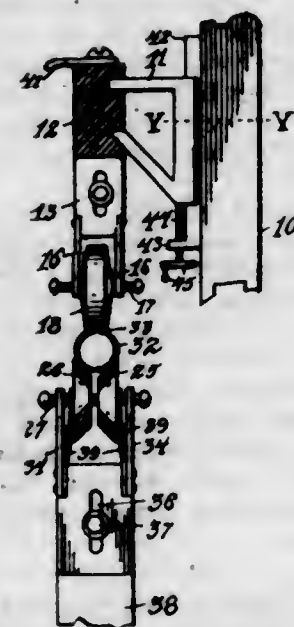
[Claims 6 to 15 not printed in the Gazette.]

1,079,072. PNEUMATIC ACTION FOR AUTOMATIC PLAYING MECHANISM. EMIL SWANSON, Steger, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Filed Jan. 8, 1913. Serial No. 740,769. (Cl. 84—178.)



In a pneumatic action for automatic playing devices, in combination with a plurality of exhaust chambers mounted one behind the other above the manual keys; power pneumatics mounted upon the vertical walls of said exhaust chambers, respectively, having their moving members hinged at the upper end; connections from the lower end of said walls for operating the sounding devices; stop bars suspended from the lower end of the forward exhaust chamber extending in front of the lower ends of the two sets of power pneumatics, respectively, and stops for the respective power pneumatics mounted on said bars.

1,079,073. ELECTRIC WELDING-MACHINE. JOHN C. SWANSON, CHARLES A. LINDEN, and CARL ALVIN CARLSON, Jamestown, N. Y. Filed Feb. 10, 1913. Serial No. 747,241. (Cl. 219—6.)



1. In an electric welding machine, a hollow wheel electrode, tubular connection to said wheel electrode admitting liquid to and taking it from said wheel electrode, and means for turning said wheel on its side to expel the air therefrom.

2. In an electric welding machine, a hollow wheel electrode, a tubular journal for said wheel having holes within the hollow thereof, tubular connection to the ends of said tubular journal, connective plates revolubly supporting said tubular journal, and pivotal attachment for said connective plates permitting said wheel electrode to be turned on its side, substantially as and for the purpose specified.

3. In an electric welding machine, a hollow wheel electrode, a tubular journal for said wheel electrode having holes admitting liquid to the interior of said wheel, and

connecting tubes attached to each end of said tubular journal by ball and socket joints to permit the free rotation and inclination of said tubular journal.

4. In an electric welding machine, a wheel electrode consisting of two hollow parts, tubular journals for said hollow parts having holes through the sides of said tubular journals to admit liquid under pressure to the interior of said hollow parts, suitable electric connection to said parts of said wheel electrode, suitable tubular connection to said tubular journal, and means for moving said hollow parts to and from one another.

5. In an electric welding machine, a hollow wheel electrode composed of two parts, a telescoping tubular journal in two parts for the two parts of the hollow wheel electrode, said parts of said journal having openings therethrough to admit liquid under pressure to the interior of both of said parts of said hollow electrode, tubular connection to the parts of said tubular journal, electric connection to said hollow wheel electrode, and resilient pressure on the exterior of said hollow parts of said wheel electrode to press said parts normally toward one another, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,079,074. BOTTLE CLOSURE OR SEAL. WILLIAM B. THOMSON, Chicago, Ill. Filed Sept. 19, 1912. Serial No. 721,165. (Cl. 215—10.)



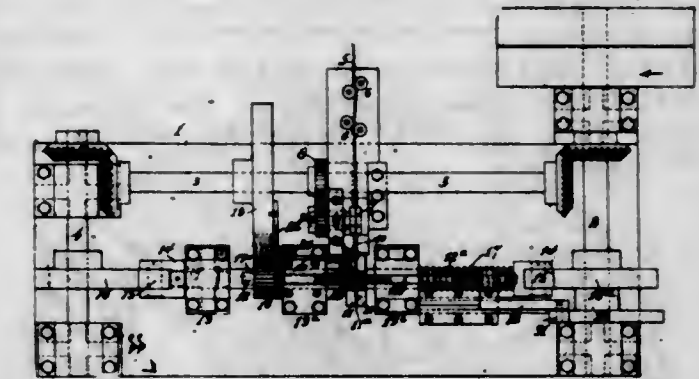
1. A bottle closure or seal comprising a disk of sealing material, and a metal disk the edges whereof are crimped so as to adapt them to engage the neck of a bottle and hold said sealing disk in position, a centrally disposed outwardly extending transverse corrugation in said metal disk, the forcing inwardly of which will push the portions of the seal opposite the ends thereof from gripping position.

2. A bottle closure or seal comprising a disk of sealing material, and a metal disk the edges whereof are crimped so as to adapt them to engage the neck of a bottle and hold said sealing disk in position, a centrally disposed outwardly extending transverse corrugation in said metal disk, the forcing inwardly of which will push the portions of the seal opposite the ends thereof from gripping position, the crimped edges of said metal disk being slit to facilitate the bending thereof.

3. A bottle closure or seal comprising a disk of sealing material, and a metal disk the edges whereof are crimped so as to adapt them to engage the neck of a bottle and hold said sealing disk in position, a centrally disposed outwardly extending transverse corrugation in said metal disk, the forcing inwardly of which will push the portions of the seal opposite the ends thereof from gripping position, the crimped edges of said metal disk being scored to facilitate the bending thereof.

4. A bottle closure or seal comprising a disk of sealing material, and a metal disk the edges whereof are crimped so as to adapt them to engage the neck of a bottle and hold said sealing disk in position, the crimped edge of said metal disk being slit at substantially diametrically opposite points, a corrugation disposed centrally of said disk so as not to extend over the lip of the bottle and so as to extend transversely to the slits so that it will strengthen said disk in normal condition, but when forced inwardly will cause the corrugations opposite the ends thereof to be pushed away from their gripping position.

1,079,075. BAG-TIE MACHINE. ERNEST TRUMAN and AUGUST TIERZ, Toledo, Ohio, assignors, by mesne assignments, to Bates Valve Bag Company, Cleveland, Ohio, a Corporation of West Virginia. Filed Oct. 18, 1911. Serial No. 655,359. (Cl. 140—88.)



1. In a wire ring forming machine, a rotatable member having a radial jaw, a stationary member having a jaw corresponding to the jaw of the rotatable member, a loop forming mechanism comprising a pair of disks adapted to clamp between their circumferential margins a suitable wire, means for actuating said disks transversely into and out of clamping relation to each other, means for rotating the disks in unison, means for moving the disks into operative relation with said several jaws, means for feeding such wire to said pair of disks, and means for revolving the rotary jaw in harmony with the movement of the disks toward and away from said jaws.

2. In a wire ring forming machine, a pair of shafts journaled in alignment and arranged to revolve and to move longitudinally in their bearings, a pair of like disks mounted upon the adjacent ends of said shafts and having in their margins corresponding radial recesses, said disks being adapted to clamp between their circumferential margins a suitable wire, means for moving said shafts and disks together to cause such twisting mechanism to enter said radial recesses, and means for actuating said twisting mechanism between the advance and the retreat of said pair of disks.

3. In a wire ring forming machine, a pair of shafts journaled in alignment and arranged to revolve and to move longitudinally in their bearings, a pair of like disks mounted upon the adjacent ends of said shafts and having in their margins corresponding radial recesses, said disks being adapted to clamp between their circumferential margins a suitable wire, means for moving said shafts and disks longitudinally into and out of clamping relation, means for rotating said two disks in harmony to loop such wire around the disks with its ends in coincidence with said radial recesses, means for connecting the meeting ends of the loop, and means for actuating the loop-forming mechanism in alternation with the means for connecting the loop-ends.

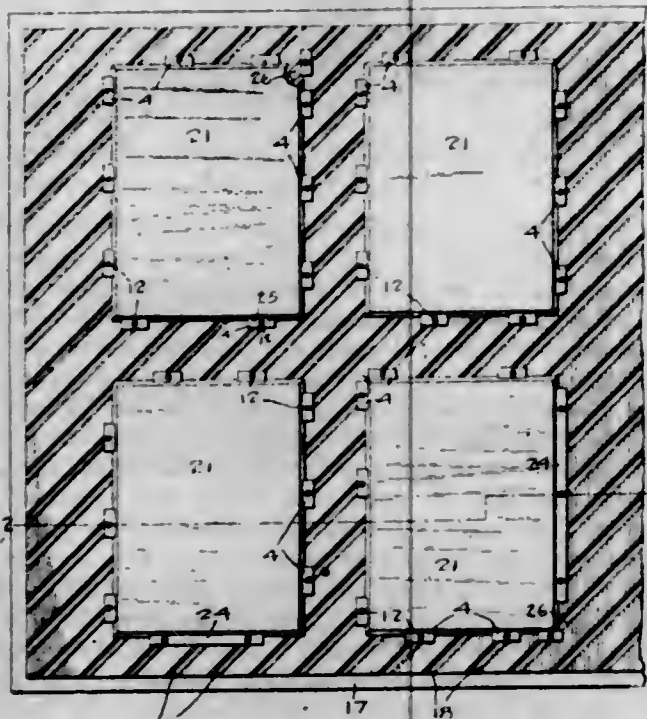
4. In a wire ring forming machine, a pair of corresponding disks arranged to clamp between their adjacent margins a suitable wire and having in their periphery corresponding radial recesses, means for feeding the wire to said disks, means for moving the disks laterally into and out of clamping relation, means for rotating the disks to form of such wire a loop having ends which coincide with such radial recesses, means for connecting the meeting ends of such loop, and devices for actuating said disks in harmony with the means for connecting said meeting ends.

5. In a wire ring forming machine, a pair of revoluble and longitudinally movable shafts journaled in alignment, means for giving said shafts an intermittent rotary motion, means for imparting longitudinal movement to said shafts, and a pair of disks mounted upon the adjacent ends of said shafts and adapted to clamp between their adjacent

circumferential margins a suitable wire, combined with means for connecting the meeting portions of a loop of wire formed around said disks, and means for actuating said connecting means in harmony with the longitudinal movement of said shafts.

[Claims 6 to 14 not printed in the Gazette.]

1,079,076. PLATE-HOLDING MEANS FOR PRINTING-MACHINES. HERMAN TUGENDER, New York, N. Y. Filed Nov. 22, 1911. Serial No. 661,768. (Cl. 101-169.)



1. A plate-holder comprising an elongated base-piece, an elongated top-piece, and means for holding the two pieces in cooperative relation, the base-piece being provided with means projecting from its top surface for limiting its movements in opposite directions.

2. A plate-holder comprising a base-piece, a top-piece, and means for holding the two pieces in cooperative relation, the base-piece having a pin on its top surface for limiting the movement of said piece in opposite directions.

3. In combination with a block having a groove with over-hanging flanges, a plate-holder having a base-piece of a form to turn freely in the groove of the block beneath the said flanges, said base-piece having means on its top surface for cooperation with the flanges of the block for limiting the movement of the base-piece in the groove in opposite circular directions.

4. A plate-holder comprising a base-piece, a top-piece, and means for holding the two pieces in cooperative relation, and means carried by the holding means for frictionally engaging the bottom surface of the base-piece for holding the two rigidly together so that one may turn the other in opposite circular directions, and means for limiting said movement.

5. In combination with a block having a groove with over-hanging flanges, a plate-holder, comprising a pair of clamping plates for engaging said flanges, one of said plates having means by which the groove in the block can be cleaned during the act of securing the holder in place.

[Claims 6 to 13 not printed in the Gazette.]

1,079,077. METHOD OF MAKING ARTIFICIAL MARBLE. JAMES B. TURNER, Chicago, Ill. Filed Dec. 13, 1912. Serial No. 736,552. (Cl. 106-45.)

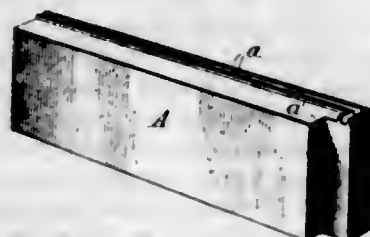
1. The method of making artificial marble which consists in forming a body from double-burned gypsum cement and then treating the surface of said body with a solution of potassium sulfate, substantially as described.

2. The method of making artificial marble which consists in forming a body from double-burned gypsum cement

and then treating the surface of said body with a saturated solution of potassium sulfate, substantially as described.

3. The method of making artificial marble which consists in forming a body from double-burned gypsum cement, then treating the surface of said body with a saturated solution of potassium sulfate, and then exposing the body to the action of air for a number of days, substantially as described.

1,079,078. BORDER-RULE. NORMAN S. VAN SANT, Philadelphia, Pa., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,597. (Cl. 101-179.)



1. A border rule provided on its edge with a printing surface to form one side of a border and turned at its end to form the corner of said border, the said rule being recessed in its side face adjacent to the turned end of the printing surface to receive the end of another slug.

2. A border rule square at one end and recessed at its other end and formed on its upper edge with a printing surface turned at right angles at the recessed end and terminating at the bottom of the recess.

1,079,079. PROCESS FOR THE PREPARATION OF METALLIC MAGNESIUM. ROGER WILLIAM WALLACE and EUGENE WASSMER, London, England. Filed Aug. 18, 1913. Serial No. 785,324. (Cl. 204-19.)

1. A process for preparing metallic magnesium which consists in electrolyzing a mixture of chlorid and sulfid of the metal in an electrolytic bath.

2. A process for preparing metallic magnesium which consists in fusing magnesium chlorid and then adding gradually magnesium sulfid to the fused salt and electrolyzing the bath.

3. A process for preparing metallic magnesium which consists in electrolyzing a mixture of chlorid and sulfid of the metal in an electrolytic bath and then introducing into the bath a suitable flux which will cause the magnesium to agglomerate so that it can be drawn off, the said flux being inert with respect to the constituents of the bath.

1,079,080. BUCKLE. WILLIAM M. WARD, St. Joseph, Mo. Filed Mar. 19, 1910. Serial No. 550,469. (Cl. 24-170.)



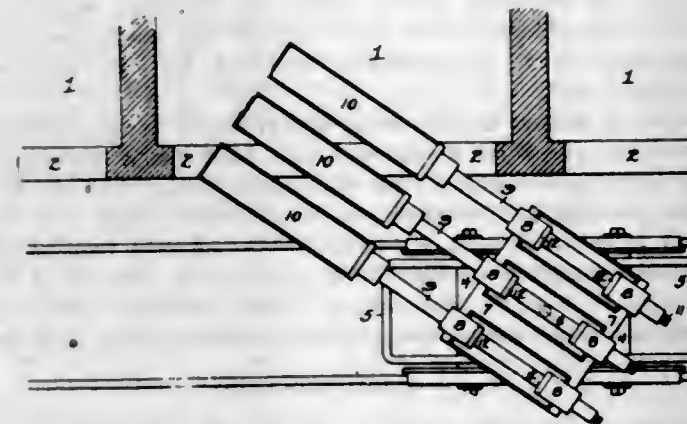
1. In a buckle, a casting comprising side portions having elongated open ended guides, each guide terminating at one end in an upwardly directed recess, a pin or rod extending between the side portions at one end thereof, said portions having shoulders, in combination with a metallic loop inserted intermediate of the shoulders and the pin or rod adapted to receive a strap, the shoulders and the pin constituting means for guiding the loop in position, a serrated cam member to engage the strap having a rearwardly extending tongue to engage under the upper portion of the loop to lock the member in position, the lower end of the loop when forced upwardly and outwardly causing the upper end of the loop to bind closely in contact with the tongue of the cam member, the cam member having a pin extending through it and having its ends po-

sitioned in the upwardly directed recesses of the guides, the cam member being removable when unlocked with regard to the loop by allowing the ends of the pin penetrating the cam member to move in the guides until they reach the open ends of the guides.

2. In a buckle, a casting comprising side portions having elongated open guides, each guide at one end terminating in an upwardly directed recess, a pin or rod extending between the side portions at one end thereof, said portions having shoulders, in combination with metallic loop inserted intermediate of the shoulders and the pin or rod adapted to receive the strap, the shoulders and the pin constituting means for guiding the loop in position, a serrated cam member to engage the strap having a lever with its end engaged under the upper portion of the loop to lock the member in position, the upper portion of the loop having a recess to receive the end of the lever, the lower end of the loop when forced upwardly and outwardly causing the recessed upper end of the loop to bind closely in contact with the lever, the cam member having a pin extending through it and having its ends positioned in the upwardly directed recesses of the guide, the cam member being removable when unlocked with regard to the loop by allowing the ends of the pin penetrating the cam member to move in the guides until they reach the open ends of the guides.

3. A buckle comprising a casting U-shaped in cross section, the sides of which are provided with guides, each open at one end, each guide at the other end having upwardly extending recesses, a cam member having a pin passing eccentrically therethrough engaging said recesses, said cam having serrations to engage a strap holding the same against the base of the casting, one end of the casting having the base cut away, a pin connecting the sides of the casting where the base is cut away, a metallic loop through which said strap extends, and a tongue forming an integral part of the cam member engaging under one end of the metallic loop, the metallic loop constituting means to hold the tongue down and the pin of the cam member in said recesses, while the tongue constitutes means to relieve pressure of the metallic loop upon the strap.

1,079,081. APPARATUS FOR CHARGING FURNACES OR OVENS. UTLEY WEDGE, Ardmore, Pa. Filed Feb. 9, 1912. Serial No. 676,606. (Cl. 214-23.)

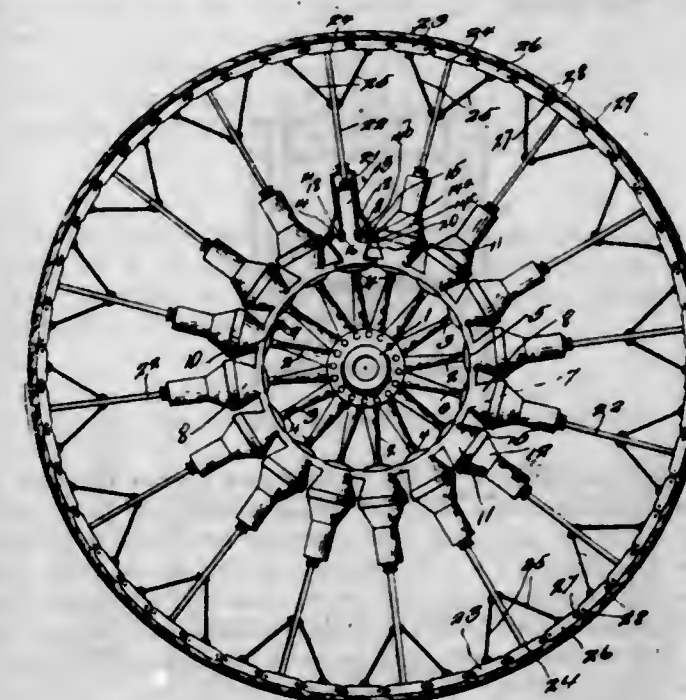


A furnace charging device consisting of a truck having thereon a pivoted turntable with bearings, longitudinally fixed shafts of one or more charging boxes mounted in said bearings, said shafts and their boxes being of such length as to reach fully into the furnace when the truck is in mid position, and the boxes being adapted to swing into or out of the furnace as the truck approaches or recedes from said mid position.

1,079,082. PNEUMATIC VEHICLE-WHEEL. JOSEPH U. WELLS, Fallen Leaf, Cal. Filed July 12, 1913. Serial No. 778,703. (Cl. 152-29.)

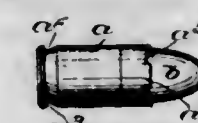
In improvements in pneumatic vehicle wheels, a circular conduit hub rim having a circular hub chamber, a plurality of cylinders connected to the hub rim and communicating with the hub chamber, each of said cylinders comprising an inner and outer section threaded together and

having interior clamping flanges, the inner section being of a frusto conical shape, while the outer sections are likewise shaped but in the opposite direction and terminating in cylindrical-shaped portions, cylindrical hollow pistons operable in the cylindrical-shaped portions of the outer sections, the inner end of each piston being open and provided with an annular clamping flange and clamping ring, a floatable webbing clamped between the clamping flanges



of said sections of each cylinder, said webbing having a central opening, the peripheral portion of which being clamped between the clamping ring and the clamping flange of each piston, a flexible wheel rim, and connecting members extending through the outer end of the cylindrical portions of the outer sections connecting said flexible wheel rim and the pistons, said floatable webbing dividing each cylinder in an air chamber and a piston chamber.

1,079,083. CARTRIDGE. JOSEPH H. WESSON, Springfield, Mass. Filed Mar. 27, 1913. Serial No. 757,075. (Cl. 102-12.)



1. A cartridge comprising a metallic shell, the open end of which is cylindrical in form; a bullet of smaller diameter inserted in said open end; and parts of the front end of the wall of the shell pressed inward to engage and hold the bullet, the remainder of the shell being left in its original shape.

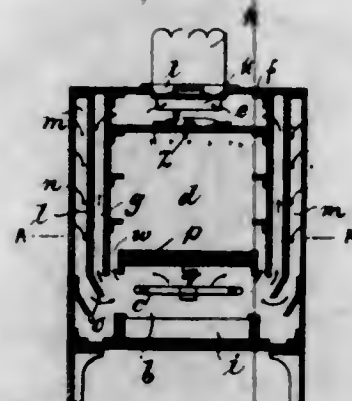
2. A cartridge comprising a cylindrical shell slit at its open end; and a bullet contained in the open end of the shell and secured in position by the material between the slits at the end, which material is bent in against the side of the bullet, the other portions of the material between the slits being of the original shape.

3. A cartridge comprising a metallic shell, the open end of which is cylindrical in form; a bullet of smaller diameter inserted in said open end; and parts of the wall of the shell separated from other parts and crimped, the remainder of the shell being left in its original shape.

1,079,084. COOKING-STOVE. WILLIAM WHITE, London, England, assignor of one-half to Frank Ellison Brown, Sydney, New South Wales, Australia. Filed Oct. 5, 1911. Serial No. 652,993. (Cl. 126-39.)

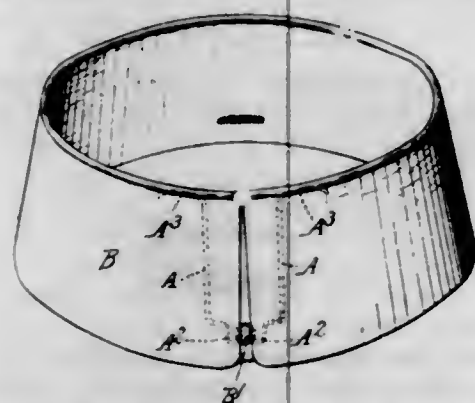
1. In combination with a burner and burner chamber, a deflector plate over said burner, an oven chamber over said deflecting plate and having its sides spaced there-

from to leave passages for hot gases into said oven chamber, an uptake flue communicating with said burner chamber and located on the side walls of said oven, a cold air down take located outside said uptake flue, the top of said oven being perforated for communication with a hot chamber above the same, said chamber being also arranged to receive the hot gases from said uptake flue and a grilling drawer located in said burner chamber and below said burner.



2. In combination with a burner and burner chamber a deflector plate over said burner, a modulator plate over said deflector plate and having its sides spaced therefrom to leave passages for hot gases into said oven chamber, an uptake flue communicating with said burner chamber and located on the side walls of said oven, a cold air down take located outside said uptake flue, the top of said oven being perforated for communication with a hot chamber above the same, said chamber being also arranged to receive the hot gases from said uptake flue, and a grilling drawer located in said burner chamber and below said burner.

1,079,085. COLLAR ATTACHMENT. CHARLES R. WHITMAN, Chicago, Ill. Filed Aug. 5, 1911. Serial No. 642,554. (Cl. 2—91.)



A supporting means for turnover collars comprising a wire U-shaped frame having normally parallel spring arms, a spring cross member connecting said arms and indented to engage the collar button, outwardly extending spring fingers projecting from the free ends of the arms in opposite directions, said fingers being substantially parallel with the fold of the collar when in position, curved at either end, and adapted to engage and underlie the fold of the collar to hold it in position.

1,079,086. PRINTING BAR OR SLUG. FERGUS F. WILSON, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 27, 1912. Serial No. 693,602. (Cl. 101—179.)



1. A tabular slug comprising a body portion formed along its edge with a plurality of predeterminedly-spaced

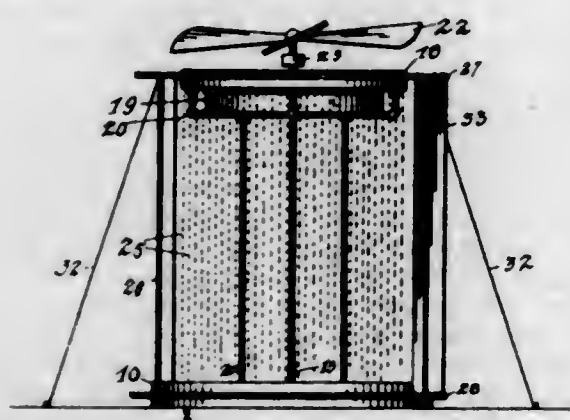
integral laterally-overhanging projections, having ruling characters thereon adapted to print inclosed spaces for other printed matter.

2. A tabular printing form comprising two complementary slugs, one formed with type characters, and the other with a plurality of overhanging projections formed with ruling characters and extending across and seated upon the type-character slug.

3. A tabular printing form comprising a main type-character slug and a separate cooperating tabular slug, the latter being formed with projections having transverse overhanging ruling characters which extend between the type characters on the former.

4. A slug formed with a body portion and an overhanging printing portion, the said overhanging portion being reinforced by an element projecting from the side of the slug and below the edge thereof.

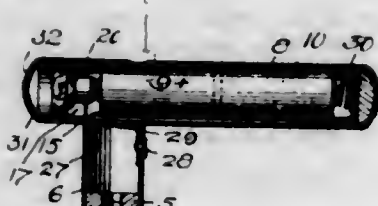
1,079,087. WATER-COOLING APPARATUS. LYDELL L. WILSON, Randolph, N. Y. Filed Jan. 20, 1913. Serial No. 742,988. (Cl. 62—2.)



1. A device of the class described comprising a tank, a plurality of tubular ring sprinklers supported on a suitable frame a spaced distance above said tank, said ring sprinklers being concentrically arranged to give a broad sprinkling surface above said tank, a central head within said ring sprinklers having radial pipe connection thereto, a supply pipe to said head, a fan rotatably mounted above said ring sprinklers and extending beyond the same to cool the dripping water, means for rotating said fan, said ring sprinklers being formed to divide the air current from said fans, substantially as and for the purpose specified.

2. In a device of the class described, a tank, a frame extending a spaced distance above said tank, concentrically arranged tubular ring sprinklers supported on said frame having perforations on their lower sides for the liquid to flow through, the upper sides of said ring sprinklers inclined toward the center to direct a portion of the air current toward said center, a fan rotatably mounted above said ring sprinklers, and means for rotating said fan.

1,079,088. FLASH-LIGHT. FRANK WYSOCKI, Chicago, Ill. Filed May 1, 1913. Serial No. 764,885. (Cl. 240—8.4.)

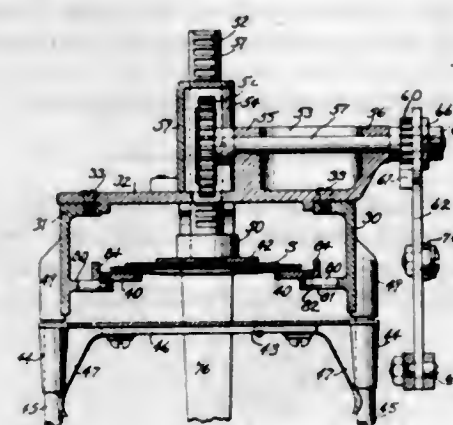


1. In a flash light, a tubular metallic handle, a battery formed of a plurality of cells arranged therein and insulated therefrom, a longitudinally extending contact strip having one end bent and interposed between one of said cells and one end of the handle, means for insulating said bent end of the contact strip from the said end of the handle, a cylindrical lamp holder arranged within the other

end of the handle and slitted to provide resilient clamping arms, a lamp engaged by said arms and electrically connected with one of said cells, said lamp holder projecting from that end of the handle in which it is mounted, a cap secured to said holder and provided with an opening, and a shiftable slide carried by the handle and capable when shifted in one direction to complete a circuit through the cells, handle, lamp holder and lamp.

2. In a flash light, a tubular metallic handle, a battery formed of a plurality of cells arranged therein and insulated therefrom, a longitudinally extending contact strip having one end bent and interposed between one of said cells and one end of the handle, means for insulating said bent end of the contact strip from the said end of the handle, a cylindrical lamp holder arranged within the other end of the handle and slitted to provide resilient clamping arms, a lamp engaged by said arms and electrically connected with one of said cells, said lamp holder projecting from that end of the handle in which it is mounted, a cap secured to said holder and provided with an opening, and a shiftable means carried by the handle and capable when shifted in one direction to complete a circuit through the cells, handle, lamp holder and lamp.

1,079,089. STACKING MECHANISM. WILLIAM R. ALLEN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 16, 1912. Serial No. 720,535. (Cl. 101—43.)



1. The combination, with means for delivering articles to be stacked, of a stacker housing having a cross-plate and side walls, a slidable table, a pair of ledges projecting inwardly from the side walls for engaging the article to be stacked, a plunger adapted to stand on the opposite side of said article from the table and be moved between the ledges, a rod extending from the plunger through the housing cross plate and carrying a rack, a gear meshing with said rack, and mechanism for rotating said gear to move the plunger past the ledges.

2. The combination, with means for delivering articles to be stacked, of a stacker frame, a pair of rods carried thereby, a table slidably engaging said rods, springs for maintaining friction between the table and rods, a pair of ledges for supporting the article to be stacked above the table, a plunger adapted to stand above said article when on the ledges and be moved between the ledges, a rod rising from the plunger and carrying a rack, a gear meshing with said rack, and mechanism for rotating said gear to move the plunger past the ledges.

3. The combination of stacker housing having side walls, a pair of separated ledges carried by said walls, each of said ledges consisting of a strip rigid with the side wall and a second strip adjustably mounted on the first and adapted to project inwardly beyond it, a plunger narrower than the space between the ledges, means for moving the plunger between the ledges and past them, and a movable receiving table on the opposite side of the ledges from the plunger.

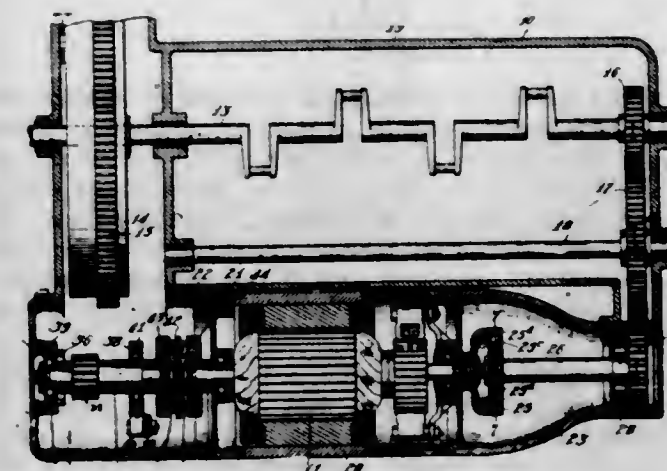
4. The combination, with means for delivering articles to be stacked, of a pair of separated ledges, a plunger narrower than the space between the ledges, means for

moving the plunger past the ledges, a table to receive the articles, and flanges carried by said ledges and projecting in a direction away from the table and forming side guides for the articles delivered to the ledges.

5. The combination, with means for delivering articles to be stacked, of a stacker housing having a top plate and side walls, a pair of ledges carried on the inner side of the side walls of said housing, a plunger having a rod extending through the top plate of the housing, means for operating the rod to move the plunger below the ledges, a pair of guide rods connected with the housing, and a receiving table slidably mounted on said guide rods.

[Claims 6 and 7 not printed in the Gazette.]

1,079,090. GEARING. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 4, 1912. Serial No. 681,536. (Cl. 74—59.)



1. The combination of a dynamo casing providing bearings for the oppositely extending shaft ends of a dynamo, an engine shaft, a dynamo shaft, manually operable means to connect said engine shaft with one end of the dynamo shaft, and automatically operable means to connect said engine shaft with the other end of the dynamo shaft.

2. The combination of a dynamo casing providing journal bearings at its ends for the oppositely extending ends of a dynamo shaft, an engine shaft, a dynamo shaft, reduction gear means adapted for connecting one end of said dynamo shaft to the engine shaft to drive the engine shaft from the dynamo shaft, gearing adapted to connect the engine shaft to the other end of the dynamo shaft to drive the latter, mechanical means to effect said reduction gear connection, and automatic means to release the reduction gear connections with the engine "picks up" and effect the other connections between the engine shaft and the dynamo shaft.

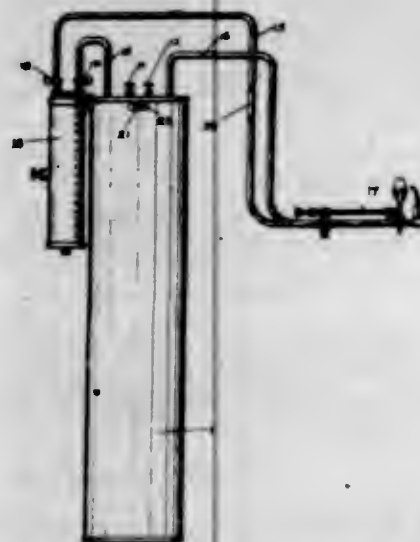
3. The combination, with a dynamo shaft, and an engine shaft, of reduction gear means manually controllable for effecting connections between one end of the dynamo shaft and the engine shaft, an extension shaft for the dynamo, gearing connections between said extension shaft and the engine shaft, and automatic clutch means for connecting said extension shaft and the dynamo shaft.

4. The combination, with a dynamo shaft and an engine shaft, of reduction gearing means manually controllable for effecting driving connection between said shafts, and other connections between said shafts including automatic clutch means operable upon rotation of the engine shaft above the speed at which it may be driven by the dynamo shaft through said reduction gearing means, to connect said dynamo shaft in driven relation to the engine shaft.

5. The combination, with a dynamo shaft, and an engine shaft, of automatic speed-responsive means to connect the dynamo shaft to be driven by the engine shaft, and means to connect said dynamo shaft to drive the engine shaft, including a manually shiftable member, and a controlling means operable by said member.

[Claims 6 to 18 not printed in the Gazette.]

1,079,091. GAS-GENERATOR. THOMAS H. ARMSTRONG, Chicago, Ill., assignor to Solomon Pearlman, Chicago, Ill. Filed July 11, 1912. Serial No. 708,771. (Cl. 23—10.)

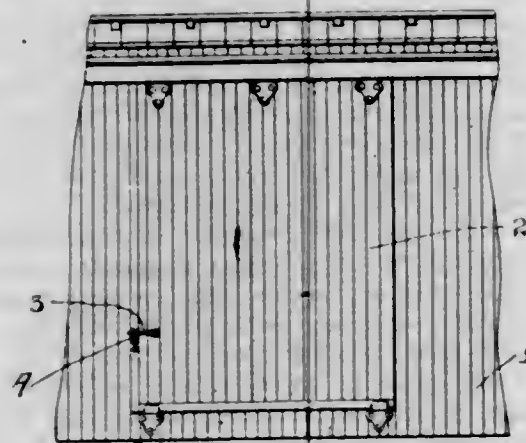


1. A gas generator comprising a vessel, a second vessel loosely arranged within said first vessel and having its lower end open; a gas outlet pipe leading from the upper end of said second vessel; a stop at the upper end of said first vessel adapted to releasably engage against the upper end of said outlet pipe for releasably locking said second vessel in position; and a foraminated container mounted within said second vessel, substantially as described.

2. A gas generator comprising a vessel; a second vessel loosely arranged within said first vessel and having its lower end open; a gas outlet pipe leading from the upper end of said second vessel; a transversely extending stop bar removably arranged in the upper end of said first vessel and adapted to limit the upward movement of said second vessel; and a foraminated container mounted within said second vessel, substantially as described.

3. A gas generator comprising a vessel; a second vessel loosely arranged within said first vessel and having its lower end open; a gas outlet pipe leading from the upper end of said second vessel, said pipe being bifurcated at its upper end; and a transversely extending rod removably secured across the upper end of said first vessel and disposed between the arms of the bifurcated end of said pipe limiting the upward movement of said second vessel and said pipe, substantially as described.

1,079,092. SEAL-LOCK. LOUIS C. ASMUSSEN, Chicago, Ill. Filed Jan. 11, 1912. Serial No. 670,585. (Cl. 70—23.)



1. A device of the class described embracing a cylindrical casing, a cylindrical notched member rotatable therein, a seal adapted to be carried thereon, a bolt adapted to slide into said notches, and means rotating the seal bearing member to destroy or insert a seal.

2. A lock of the class described embracing a rotatably grooved element, a movable grooved bolt adapted to slide

through said grooved element for certain position of the same to open the lock, said element adapted to engage said grooved bolt to lock the lock and a seal adapted to be carried on said element and destroyed as the same moves to unlocking position.

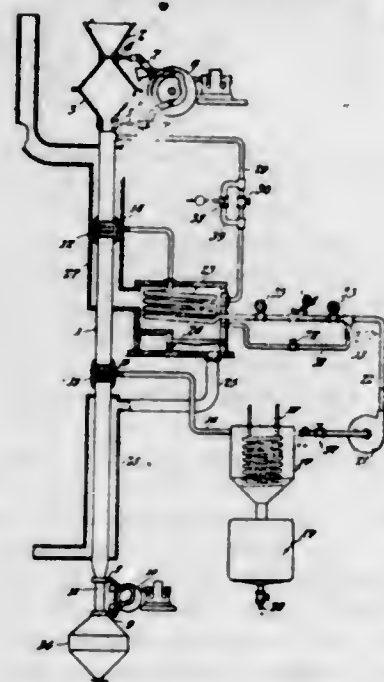
3. A device of the class described embracing a casing, a rotatable element therein, means limiting the rotation to one direction, a bolt movably connected with the casing and with said rotatable element and rigidly engaged by the latter in locking position, a sealing plate engaged on the rotatable element and carried thereby within, and inspectable through the casing and acting to resist rotation past view position, and cutters secured within the casing and acting to mutilate the seal upon further rotation.

4. A car lock of the class described embracing an apertured staple or eye bolt to receive the door hasp, a bolt adapted to engage over the hasp in said eye or staple, a rotatable element acting to rigidly lock said bolt in locking position, a numbered seal secured to, and movable with said rotatable element and acting to resist movement thereof to unlocking position, and a cutter affording a stop for said seal at locking position and acting to destroy the seal when moved past locking position.

5. A seal lock of the class described embracing a bolt and a rotatable element acting to engage the bolt in locking position, means for rotating the same, a casing inclosing said rotatable element having a seal aperture therein, a slot in said rotatable element adapted to receive one edge of a sealing plate therein, said casing acting to wrap said seal partly around the rotatable element with the rotation thereof to view position, and means holding said rotatable element from reverse rotation.

[Claims 6 to 17 not printed in the Gazette.]

1,079,093. APPARATUS FOR DISTILLING LIQUIDS AND FUSIBLE SOLIDS. JONAS W. AYLSWORTH, East Orange, and FRANK L. DYER, Montclair, N. J. Filed May 25, 1906. Serial No. 318,693. (Cl. 196—19.)



1. A distilling apparatus comprising an elongated still having means between its ends for admitting heated gases therein and means at another point between its ends for discharging the heated gases carrying the vaporized distillate therefrom, means surrounding the still for heating the still and for heating the gases before their admission into the still, substantially as set forth.

2. A distilling apparatus comprising in combination a substantially closed still, a circulation system including a portion of said still and a coil, means for maintaining a circulation of gases through said system, and means surrounding the still for heating the still and the coil, substantially as set forth.

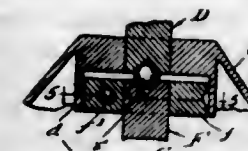
3. In a distilling apparatus, the combination with a substantially closed still, a portion of which is formed as a distilling zone, through which is maintained a circulation of uncondensed products of previous distillation, a body of loosely arranged undistillable material within the still offering interstices to permit the circulation of uncondensable products, the material to be distilled being supplied to said body, means for maintaining the circulation and a heater for heating the still and the uncondensed products before their re-admission to the distilling zone, substantially as set forth.

4. In a distilling apparatus, the combination with a substantially closed still a portion of which is formed as a distilling zone, through which is maintained a circulation of uncondensed products of previous distillation, a body of loosely arranged undistillable material within the still offering interstices to permit the circulation of uncondensable products, the material to be distilled being supplied to said body, means for maintaining the circulation, a heater for heating the still and the uncondensed products before their re-admission to the distilling zone, and a condenser interposed in the circulating path for condensing the condensable products of distillation, substantially as set forth.

5. A distilling apparatus, comprising in combination a substantially closed still through which a circulation of uncondensed products of previous distillation is maintained, means for progressing the material to be distilled through the still, so as to be acted upon by such uncondensed products, means for maintaining the circulation through the still, means for heating the still and the uncondensed products before the latter again enter the still, and means for conducting to the heater the surplus non-condensable products, substantially as set forth.

[Claims 6 to 22 not printed in the Gazette.]

1,079,094. CLUTCH. HENRY B. BABSON, Chicago, Ill. Filed Jan. 6, 1908. Serial No. 409,464. (Cl. 192—22.)



In a device of the character described, the combination with an upright rotating shaft, of a driving shaft adapted to serve as a separator shaft of a centrifugal cream separator, a ball-bearing interposed between the lower end of the first named shaft and the upper end of the driving shaft, and a friction clutch comprising a shell fixed to one of said shafts and a disk secured to the other of said shafts having an inclined race and a ball traveling therein, substantially as specified.

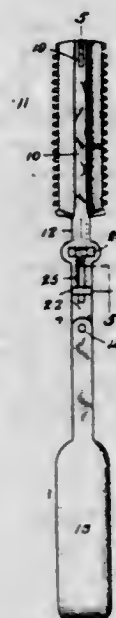
1,079,095. SAFETY-RAZOR. DANIEL BEARD, Newport, R. I. Filed Feb. 19, 1913. Serial No. 749,362. (Cl. 30—12.)

1. A safety razor comprising a blade and a springy guard therefor having integral interengaging connecting portions at one end and contacting portions at the opposite end, and extensions beyond said contacting portions, said extensions having integral interengaging connecting portions whereby said contacting portions are brought to bear against each other and whereby the guard, between said contacting portions and the first-mentioned connecting portions, is sprung away from the blade.

2. A safety razor comprising a blade and a guard adjustable longitudinally of the cutting edge, said blade and guard having cooperative portions whereby their confronting surfaces are variably spaced one from the other in consequence of adjusting the guard as aforesaid.

3. A safety razor comprising a blade and a guard having an unobstructed space between them for the passage of lather, and having cooperative connecting portions adapted to slide relatively upon each other, one of said parts

having an inclined surface engaging the other of said parts for variably spacing said parts one from the other when moved relatively as aforesaid.



4. A safety razor comprising a blade and a guard each having a shank, said blade shank having a keyhole slot and said guard shank having a flanged head adapted to slide on the blade shank in interlocked relation with said slot.

5. A safety razor comprising a blade and a springy guard, said members having cooperative portions for connecting the blade and guard and being capable of relative longitudinal movement, said portions having cooperative surfaces which are held in contact by the springiness of said guard, one of said surfaces being inclined to enable the guard to spring away from the blade in consequence of relative longitudinal movement of the blade and guard.

[Claims 6 and 7 not printed in the Gazette.]

1,079,096. DISPLAY DEVICE. RICHARD C. BEATTY, Buffalo, N. Y. Filed Jan. 2, 1912. Serial No. 669,035. (Cl. 211—24.)



1. In a display device, the combination of two panels which are arranged at an angle to each other and are provided with slits, and a shelf provided with portions adapted to enter said slits and to engage with the edges of said slits for supporting said shelf on said panels and with portions which are adapted to engage with said panels to retain said panels in their angular arrangement, substantially as set forth.

2. In a display device, the combination of two connected panels which extend at an angle to each other and are provided with connecting slits, and a shelf which is arranged in said slits and supported therein by the panels,

said shelf being adapted to support an article in front of the panels and said panels being provided with the representation of a figure holding said shelf, substantially as set forth.

3. In a display device, the combination of two connected panels which extend at an angle to each other and are provided with connecting slits, and a shelf which is arranged in said slits and is provided with portions which interlock with portions of said panels whereby said shelf is supported by said panels and retains said panels in their angular arrangement, substantially as set forth.

4. In a display device, the combination of two connected panels which extend at an angle to each other and are provided with connecting slits, and a shelf in the form of a tray which is arranged in said slits and has a raised flange which interlocks with portions of said panels whereby said shelf is supported by said panels and retains said panels in their angular arrangement, substantially as set forth.

1,079,097. DISPLAY DEVICE. RICHARD C. BEATTY, Buffalo, N. Y. Filed Apr. 22, 1912. Serial No. 692,367. (Cl. 211—24.)



1. A display device comprising two connected panels which extend at an angle to each other and which have portions which are cut away adjacent to the connected edges of said panels to form an opening crossing the connecting angle between said panels and adapted to support an article therein, said opening having edge portions which embrace the article and extend toward each other in front of the article, whereby the article is retained in the opening and holds the panels in angular relation to each other, substantially as set forth.

2. A display device comprising two connected panels which extend at an angle to each other and are provided with connecting cut away portions which form an opening crossing the connecting angle between said panels and adapted to support an article therein, said opening having edge portions against which the rear side of the article bears, and portions which overhang the upper and lower edges of the opening for holding the article therein, substantially as set forth.

1,079,098. TIE FOR BINDING SHEAVES OR THE LIKE. REINHARDT WILLY BECKERT, Ailsfeld, Germany. Filed July 31, 1912. Serial No. 712,575. (Cl. 24—128.)

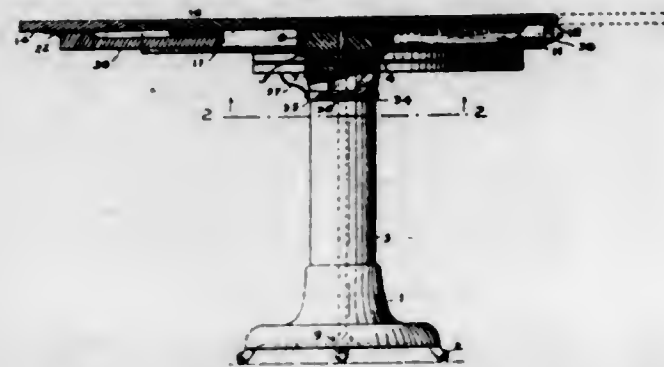


1. A tie device for binding sheaves comprising in combination with a cord, a strip doubled or folded upon itself, one folded portion being continuously flat and straight from its free end to the line of fold and forming a stiffening

base for the tie, the other folded portion being inclined away from the base for a portion of its length from the line of fold and then bent toward and having its free end in flat abutting relation with the free end of the base, both of said free ends being perforated to be attached to one end of the cord, and the inclined and bent part being longitudinally split in V-shaped form to wedgingly engage the remaining end of the cord, substantially as described.

2. A tie device for binding sheaves comprising in combination with a cord, a tie composed of a strip doubled or folded upon itself, one folded portion forming a stiffening base for the tie, the other folded portion being inclined away from the base for a portion of its length from the line of fold and then bent toward and having its free end in flat abutting relation with the free end of the base, both of said free ends being perforated for attachment to one end of the cord, and the inclined part being longitudinally split in V-shaped form to wedgingly engage the remaining or free end of the cord, substantially as described.

1,079,099. ROUND-TOP EXTENSION-TABLE. JAMES BOOKER, San Francisco, Cal., assignor of one-half to John H. Henderson, San Francisco, Cal. Filed July 1, 1912. Serial No. 706,891. (Cl. 45—112.)



1. In a round top extension table, the combination of a central standard, a hub thereon, arms radiating rigidly from said hub, a round table top supported by said arm, extension leaves having inner and outer curved edges, each leaf being hinged to the under side of the table top in a line through the ends of the inner edge of said leaf, terminal wings hinged to each extension at its ends, extension arms guided by said first-named arms for supporting alternately said leaves and wings, springs for projecting said extension arms, and latches for holding said extension arms in their retracted position, and arranged to be engaged and withdrawn by the inner edges of the leaves and wings when extended.

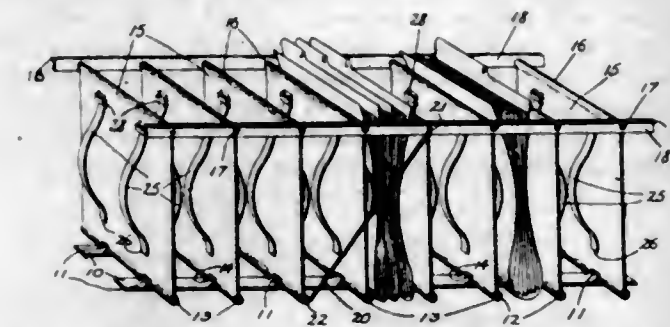
2. In a round top extension table, the combination of a central standard, a hub thereon, arms radiating rigidly from said hub, a round table top supported by said arm, extension leaves having inner and outer curved edges, each leaf being hinged to the under side of the table top in a line through the ends of the inner edge of said leaf, terminal wings hinged to each extension at its ends, extension arms guided by said first-named arms for supporting alternately said leaves and wings, springs on the under sides of said wings and leaves, adapted to be engaged by the upper sides of said extension arms when extended.

1,079,100. DOCUMENT-FILE. JOHN BOSWELL and EUGENE PEARL, New York, N. Y. Filed Apr. 14, 1913. Serial No. 761,108. (Cl. 129—16.)

1. A file comprised of base members, a plurality of plates hinged transversely thereto at their lower edges, and a pair of oppositely disposed rails pivotally attached at the upper corners of said plates in such manner as to present unobstructed openings therebetween extending the full length of said plates.

2. A file comprised of one or more base members, a plurality of plates hingedly connected transversely of said base members, rails pivotally engaging said plates exteriorly of their side edges at their upper outer corners

and means for fixedly holding said rails with respect to said base members, said holding means being pivotally engaged at each end thereof.



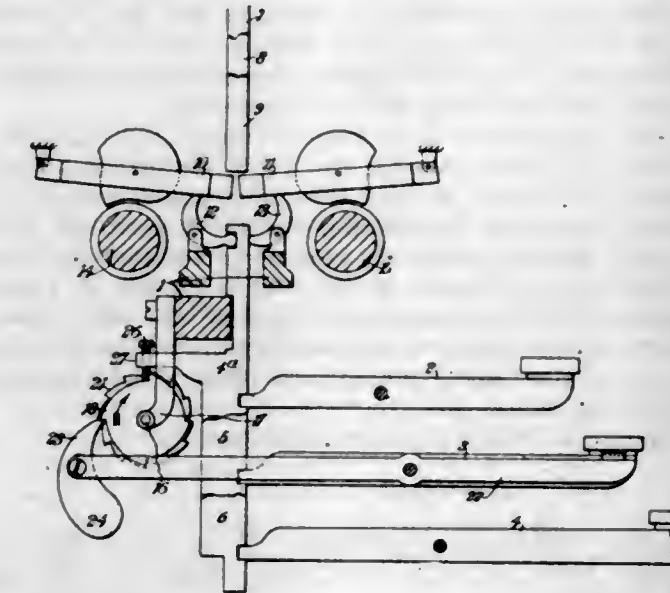
3. In a file, the combination with longitudinally disposed base members and side rails parallel therewith, of plates pivotally engaging at opposite edges with said base members and said rails respectively, elliptic springs disposed in pairs on both sides of each plate, said springs being attached at one end and struts so combined with said rails and said plates as to hold the latter in vertical position with respect to said base members or to allow the device to be collapsed.

4. In a device of the character described, in combination with supporting elements, of a plurality of plates, integrally formed loops raised on opposite sides of each plate and flat elliptical springs secured in said loops, a portion of each spring being embraced in the depression formed by the oppositely disposed loop.

5. In a file, the combination with base members, loops formed integrally therewith, a plurality of plates, said plates having beaded upper and lower edges, rods passing through the lower beadings and said loops, rails at the upper corners of said plates, said rails being perforated at intervals agreeing with said loops, rods passing through said perforations and upper beadings and struts arranged to maintain said rails in fixed relation to said plates, one end of said struts being disengageable.

[Claims 6 to 8 not printed in the Gazette.]

1,079,101. TYPOGRAPHICAL COMPOSING-MACHINE. MAX BÖTTGER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 16, 1911. Serial No. 644,410. (Cl. 199—7.)



1. In a typographical composing machine, the combination of a plurality of matrix channels equipped with matrices for the same character; a finger key for each channel acting independently of the others, the finger keys being distributed over the keyboard; matrix-releasing connection between each finger key and channel; and a special finger key controlling all the said matrix-releasing connections and channels and releasing matrices from one of them and one alone, at each depression of the key.

2. In a typographical composing machine, the combination of a plurality of matrix channels all equipped with

196 O. G.—46

matrices of the same character; an independent matrix releasing connection between each of the said channels and the keyboard; a finger key controlling all the said connections; and a switch between the said key and connections actuated by each depression of the said key and automatically selecting the connection to be actuated in respect of sequence with reference to the others and actuating it and it alone.

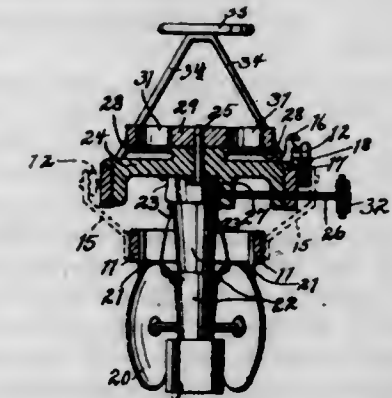
3. In a typographical composing machine, the combination with a plurality of matrix channels, independent matrix-releasing connections between them and the keyboard, and a finger key controlling all the said connections, of a rotating switch turned intermittently by the engagement at each depression of the finger key of a pawl on the latter with a ratchet wheel on the switch, and comprising for each connection, a disk having cams proportioned to the pitch of the said wheel, the disks and wheel being fast together and the cams on one disk staggered relatively to those on the other, the parts being so arranged that one releasing connection and one only is actuated at each depression of the key.

4. In a typographical composing machine, the combination of a plurality of escapement actuating devices, separate finger keys for operating said devices independently, and an additional finger key for operating said devices, one and one only at each operation of said additional key, in a definite repeating order of succession.

5. In a typographical composing machine, the combination of a plurality of power-operated escapement actuating devices, separate finger keys for controlling the actuation of said devices independently, and an additional finger key for causing their actuation, one and one only at each operation of said additional key, in a definite repeating order of succession.

[Claims 6 to 10 not printed in the Gazette.]

1,079,102. POTATO-PLANTER. ERNEST BOWKER, Cottage Grove, Wis., assignor of one-half to John E. Melish, Cottage Grove, Wis. Filed Nov. 15, 1912. Serial No. 731,496. (Cl. 111—27.)



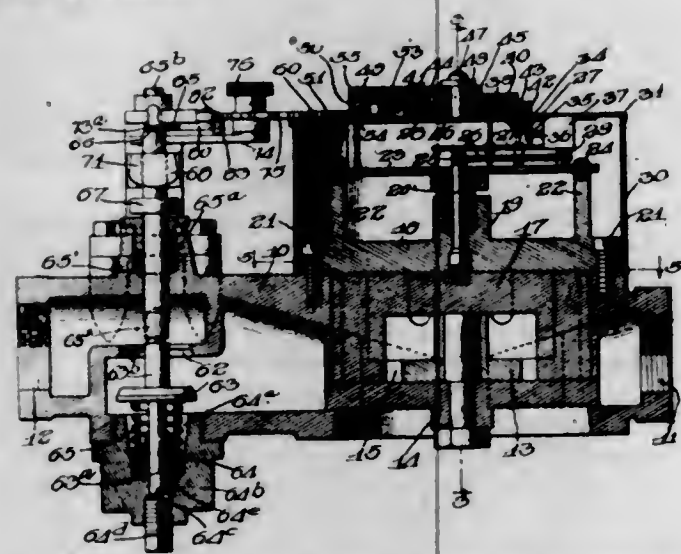
A potato planter comprising a frame; wheels supporting said frame; a disk having a perforation therein; outwardly and downwardly extending arms formed integrally with said disk and secured to the sides of said frame; a perforated dropping plate rotatably mounted on said disk; a vertical shaft journaled in said disk and carrying said dropping plate at its upper end; a horizontal shaft journaled in one arm of said disk; meshing gears on said shafts operatively connecting the latter; and an operative connection between said horizontal shaft and said wheels, substantially as described.

1,079,103. COMBINED METER AND VALVE. ALLEN A. BOWSER, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind., a Corporation of Indiana. Filed June 19, 1908. Serial No. 439,397. (Cl. 73—37.)

1. The combination of a meter, a valve controlled by the meter and having a bias toward closing, means for holding the valve open, a capacity tripping mechanism for releasing the valve when a predetermined quantity has passed the meter, said mechanism embodying an element movable

in a continuous orbit in unison with the meter, and a trip member whereby the valve will be released when said element reaches a predetermined point in its orbit, said trip member also operating to cause said element to pass said point one or more times at will without releasing the valve.

2. The combination of a meter, a valve controlled by the meter, means for holding the valve unseated, a capacity tripping mechanism for releasing the valve when a predetermined quantity has passed the meter, said mechanism embodying an element movable in a continuous orbit in unison with the meter, a trip member whereby the valve will be released when said element reaches a predetermined point in its orbit, and means for seating the valve when the latter is released.



3. The combination of a meter, a valve controlled by the meter, a stem for the valve, said stem being provided with a plurality of shoulders, means tending normally to hold the valve closed, a lever adapted to engage one of the shoulders to longitudinally shift the stem to open the valve against the tension of the last said means, a locking member adapted to engage another shoulder to hold the valve open, and means operatively related to the meter and adapted to engage and move the locking member to release the valve when the last said means reaches a predetermined point.

4. The combination of a meter, a valve controlled by the meter, a stem for the valve, said stem being provided with a plurality of shoulders, means tending normally to hold the valve closed, a lever adapted to engage one of the shoulders to open the valve against the tension of the last said means, a locking member adapted to engage another shoulder to hold the valve open, tripping mechanism including means operatively related to the meter and an element adapted to be engaged by the last said means to move the locking member when the last said means reaches a predetermined point, and means whereby the said element may be adjusted to cause the second recited means to pass said point one or more times at will without releasing the valve.

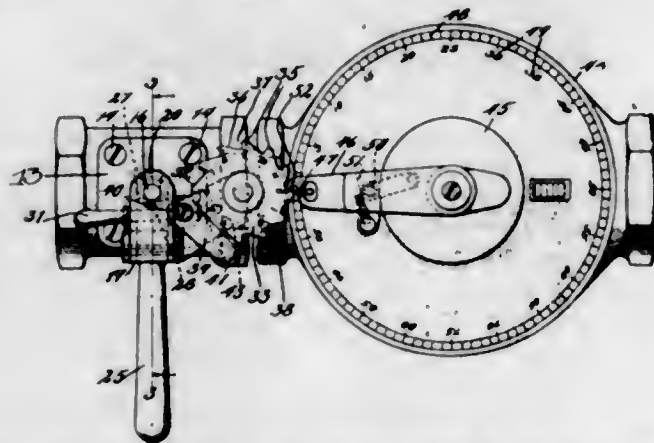
5. The combination of a meter, an indicator dial, means operatively related to the meter and adapted to be adjusted with respect to the dial to indicate a predetermined amount within a certain capacity limit, means whereby the operation of the meter will move the last said means from its adjusted position, a valve controlled by the meter and having a bias toward closing, means for holding the valve open, and means controlling the capacity limit of the meter embodying means operable by the first said means for automatically releasing the valve when the predetermined quantity has been discharged.

[Claims 6 to 26 not printed in the Gazette.]

1,079,104. VALVE. ALLEN A. BOWSER, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind., a Corporation of Indiana. Filed June 19, 1908. Serial No. 439,398. (Cl. 73—37.)

1. In a measuring valve, the combination of a casing, a valve having a bias toward closing within the casing,

liquid control means comprising tripping mechanism for releasing the valve when a predetermined amount of liquid has been discharged through the valve, said tripping mechanism embodying an element having a constant direction of motion, and means operatively related to the said element whereby the tripping mechanism will be operated to release the valve when the element reaches a predetermined point in its movement, said tripping means embodying means whereby the said element may be allowed to pass said point one or more times at will without releasing the valve.



2. The combination of a valve casing, a valve within the casing, means tending normally to seat the valve, means for locking the valve in its unseated position, means for automatically tripping the valve when a predetermined amount of fluid has been discharged, mechanism whereby the last said means may be adjusted to vary the amount discharged, and means whereby the said tripping mechanism may be operated.

3. The combination of a valve casing, a valve within the casing, means tending normally to close the valve, means for unseating the valve, means for holding the valve unseated, a tripping member, and means whereby the tripping member may be operated to release the valve, the last recited means embodying means whereby said tripping member may be moved one or more times at will without releasing the valve.

4. The combination of a valve casing, a valve within the casing, a valve stem for the valve projecting beyond the casing, means for opening the valve, means operatively related to the stem for holding the valve open, an indicator dial, means operatively related to the dial for tripping the last said means as the dial is moved to a predetermined point, means for closing the valve when released, and means whereby said dial may be moved.

5. The combination of a valve casing, a valve within the casing, a valve stem for the valve projecting beyond the casing, means for opening the valve, means operatively related to the stem for holding the valve open, an indicator dial, means operatively related to the dial for tripping the last said means as the dial is moved, to a predetermined point, and means for closing the valve when released, said tripping means embodying means whereby said dial may be moved one or more times at will without releasing the valve.

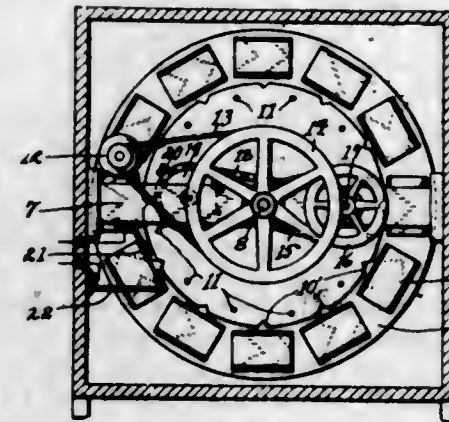
[Claims 6 to 15 not printed in the Gazette.]

1,079,105. DISPLAY-MACHINE. WILLIAM H. BROWN, Bangor, Mich. Filed Jan. 16, 1913. Serial No. 742,345. (Cl. 88—27.)

1. In a device of the kind described, the combination of an intermittently operated picture carrying disk having spaced notches therein; an electric light circuit, a switch in said electric light circuit comprising a stationary member and a movable member, the latter riding on said picture carrying disk and adapted to engage said notches to close the electric light circuit, substantially as described.

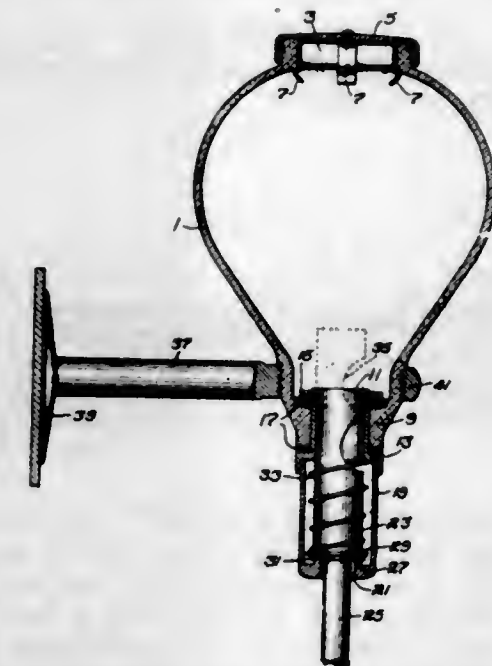
2. A device of the kind described comprising a frame; a picture carrying disk mounted in said frame and provided with spaced notches therein; a motor in said frame; an intermittent gearing connecting said motor and said

picture carrying disk; an electric light circuit; and an electric light switch in said circuit comprising a stationary member in said frame and a resilient member having one end secured to said frame and its other end riding on



said picture carrying disk engaging the notches therein, said switch being closed only when said picture carrying disk is still and said resilient member engaging said notches, substantially as described.

1,079,106. DISPENSER FOR LIQUIDS AND OTHER MATERIALS. FREDERICK R. BUSSLER, Quincy, Mass. Filed Apr. 18, 1911. Serial No. 621,765. (Cl. 73—159.)



1. A dispenser for liquids comprising, in combination, a reservoir; a normally closed substantially air-tight delivery chamber for said reservoir having an outlet; valve means for said outlet; and means for opening said valve means and for taking charges from said reservoir and carrying the same bodily successively into said chamber.

2. A dispenser for liquids comprising, in combination, a reservoir; a normally closed substantially air-tight delivery chamber for said reservoir having an outlet; valve means for said outlet; and a plunger having charge receiving means for carrying charges from said reservoir bodily into said chamber, said plunger having provision for opening said valve means.

3. A dispenser for liquids comprising, in combination, a reservoir; a normally closed substantially air-tight delivery chamber for said reservoir having an outlet; a plunger having a pocket for taking charges from said reservoir and carrying the same bodily successively into said chamber; a handle projecting through said outlet for moving said plunger in one direction; spring means for moving said plunger in an opposite direction; and valve means for said outlet controlled by said plunger.

4. A dispenser for liquids comprising, in combination, a reservoir; a delivery chamber for the latter having a normally closed discharge outlet; valve means for said

outlet; a plunger for operating said valve means and having charge receiving means normally communicating with said chamber; a handle projecting through said outlet for moving said plunger to carry said charge receiving means into communication with said reservoir; and spring means for moving said plunger to carry its charge bodily from said reservoir to said chamber, the latter forming an air-tight closure for preventing the drying and accumulation of the liquid on the plunger charge receiving means.

5. A dispenser for liquids comprising, in combination, a reservoir; a delivery chamber for the latter having a normally closed discharge outlet; valve means for said outlet, and means for controlling said valve means and for taking a charge from said reservoir and carrying the same bodily to said chamber including a plunger having a charge receiving pocket normally communicating with said chamber, the latter forming an air-tight closure for preventing the drying and accumulation of liquid on said plunger pocket.

1,079,107. ORE CONCENTRATION. GEORGE ALBERT CHAPMAN and STANLEY TUCKER, London, England, assignors to Minerals Separation Limited, London, England. Filed July 30, 1912. Serial No. 712,309. (Cl. 83—85.)

1. A process for concentrating ores, which consists in subjecting to agitation and to the action of a selective agent a pulp of an ore containing a carbonate, in the presence of a bisulfate of an alkali metal, and separating the selected portion of the ore.

2. A process for concentrating ores, which consists in subjecting to agitation and to the action of a selective agent a pulp of an ore containing a carbonate, in the presence of a sulfate of an alkali metal and sulfuric acid, and separating the selected portion of the ore.

3. A process for concentrating ores, which consists in subjecting an ore pulp to agitation and to the action of a selective agent, in the presence of a bisulfate of an alkali metal, separating the selected portion of the ore and solid residue from the liquor, and returning the liquor in closed circuit with the addition of sulfuric acid for the treatment of a further quantity of ore.

4. A process for concentrating ores, which consists in subjecting an ore pulp to agitation and to the action of a selective agent, in the presence of a sulfate of an alkali metal and sulfuric acid, separating the selected portion of the ore and solid residue from the liquor, and returning the liquor in closed circuit with the addition of sulfuric acid for the treatment of a further quantity of ore.

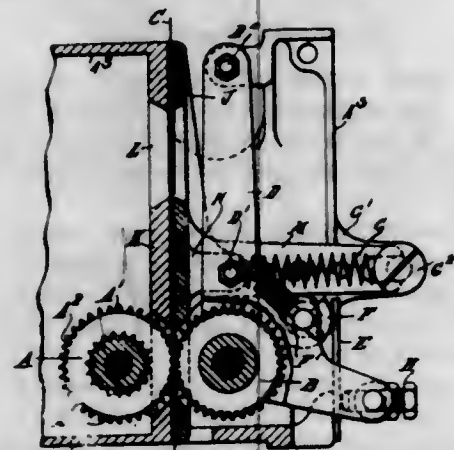
5. A process for concentrating ores, which consists in subjecting to agitation and to the action of a selective agent the pulp of an ore containing a carbonate, in the presence of a bisulfate of an alkali metal, separating the selected portion of the ore and solid residue from the liquor, and returning the liquor in closed circuit with the addition of sulfuric acid for the treatment of a further quantity of ore.

[Claims 6 to 10 not printed in the Gazette.]

1,079,108. KINEMATOGRAPH CAMERA AND PROJECTING APPARATUS. WALTER CHIPPERFIELD, Romford, England, assignor to William Edward Garforth, Pontefract, England. Filed Apr. 22, 1913. Serial No. 762,869. (Cl. 88—18.5.)

1. In apparatus employing films for taking kinematograph pictures and for projecting the same; the combination with a feed roller adapted to be driven and carried in stationary bearings in the frame of the operating mechanism and having a raised surface adapted to project through an aperture in the front wall of said frame, a swing frame pivotally mounted on said mechanism frame, a pressure roller carried in bearings in said swing frame and adapted to coact with said feed roller to feed the film; of a gate slidably and elastically connected to said swing frame and adjacent to said front wall, and means to elastically press said swing frame toward said front wall between which latter and said gate the film passes.

2. In apparatus employing films for taking kinematograph pictures and for projecting the same; the combination with a feed roller adapted to be driven and carried in stationary bearings in the frame of the operating mechanism and having a raised surface adapted to project through an aperture in the front wall of said frame, a swing frame pivotally mounted at its upper end to the mechanism frame, a pressure roller carried in bearings at the lower end of said swing frame and adapted to coact with said feed roller to feed the film; of a gate adjacent to said front wall elastically connected to said swing frame and capable of sliding forwardly and rearwardly thereon between which gate and front wall the film passes, means to elastically press said swing frame toward said front wall, and an adjustable stop at the rear of said swing frame adapted to contact with a stationary abutment to limit the said movement of said swing frame.



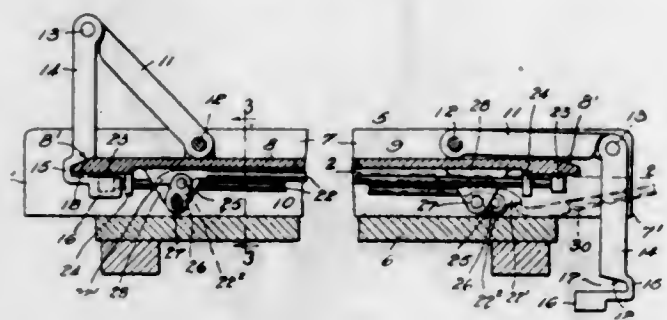
3. In apparatus employing films for taking kinematograph pictures and for projecting the same; the combination with a feed roller adapted to be driven and carried in stationary bearings in the frame of the operating mechanism and having a raised surface adapted to project through an aperture in the front wall of said frame, a swing frame pivotally mounted at its upper end to the mechanism frame, a pressure roller carried in bearings in said swing frame adapted to coact with said roller to feed the film, a rod extending between the side members of said frame, a tension spring connected at one end to said rod, a pin at the rear of said mechanism frame to which pin the other end of said spring is connected said spring tending to swing the lower end of said frame away from said front wall; of means to elastically press said swing frame toward said front wall against the action of said tension spring to allow said pressure roller carried by said swing frame to coact with said feed roller to feed the film, and a gate adjacent to said front wall elastically connected to said swing frame and adapted to move on said frame in a substantially parallel direction toward and away from said front wall between which said front wall and gate the film passes.

4. In apparatus employing films for taking kinematograph pictures and for projecting the same; the combination with a feed roller adapted to be driven and carried in stationary bearings in the frame of the operating mechanism and having a raised surface adapted to project through an aperture in the front wall of said frame, a swing frame pivotally mounted on said mechanism frame, a pressure roller carried in bearings in said swing frame and adapted to coact with said feed roller to feed the film; of a gate arranged adjacent to said front wall and slidably and elastically connected to said swing frame between which gate and said front wall the film passes, a cam rotatably carried at the rear of said swing frame, means to rotate said cam, resilient means at the rear of said frame adapted in a certain position of the cam to act upon said cam to press said swing frame toward said front wall to cause said pressure roller to coact with said feed roller to feed the film, and a tension spring reacting between said swing frame and said mechanism frame adapted to draw said swing frame in a direction away from said front wall.

5. In apparatus employing films for taking kinematograph pictures and for projecting the same; the combination with a feed roller adapted to be driven and carried in stationary bearings in the frame of the operating mechanism and having a raised surface to project through an aperture in the front wall of said frame, a swing frame pivotally mounted on said mechanism frame, a pressure roller carried in bearings in said swing frame and adapted to coact with said feed roller to feed the film; of a gate arranged adjacent to said front wall between which gate and front wall the film passes, a rearwardly extending arm on said gate having an elongated slot therein, a second rearwardly extending arm on said gate having an elongated slot therein in alignment with said slot in said first mentioned arm said second arm being bifurcated at its outer end, a rod fixed at opposite ends to the side members of said frame and passing through said slots in said arms, a pin at the rear of said mechanism frame upon which the bifurcated end of said second arm is adapted to slide, a spring connecting said pin and said rod adapted to pull said swing frame away from said wall and to cause said rod to contact with the rear ends of said slots to move said gate with said swing frame, means for elastically pressing said swing frame toward said front wall, and a pin on said second arm and a tension spring connected at opposite ends to said pin and said rod, said spring being adapted to cause said gate to move relatively to said swing frame in a direction toward said front wall.

[Claims 6 and 7 not printed in the Gazette.]

1,079,109. CAR STAKE AND BUNK. FREDERICK W. CHRISWELL, Seattle, Wash. Filed Sept. 12, 1913. Serial No. 789,660. (Cl. 105-173.)



1. The combination of a car-bunk, a stake pivotally connected from one of its ends to said bunk, a prop pivotally connected at one of its ends to the free end of said stake and adapted to seat upon the bunk in proximity to one of the ends of the latter, a rod detachably engaged with said prop and extending into proximity to the other end of the bunk, and releasable means provided at the last named end of the bunk whereby the rod is secured against endwise movement when the rod is engaged with the prop and the latter is seated upon the bunk.

2. The combination of a bunk, a car stake hingedly connected to the bunk near an end thereof, a prop hingedly connected to the free end of the stake for holding the latter in operative position when the prop is seated on the bunk, detachable means extending to within a short distance from the opposite end of the bunk from the stake for securing the prop in operative position with respect to the stake, and locking means provided at the last named end of the bunk for rendering the rod temporarily inoperative to secure the prop.

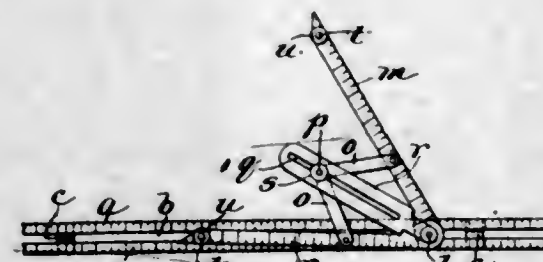
3. The combination of a bunk consisting of side members and a horizontal member arranged to afford a tunnel compartment below the latter, a stake hinged from one end to the bunk above said horizontal member, a prop hingedly connected to the other end of the stake and adapted to seat upon the last named member, and means located within said compartment and engageable with said prop whereby the latter is retained in operative position, said means being arranged to be affected from the end of the bunk remote from the stake whereby said means are rendered inoperative to hold the prop in operative position.

4. The combination with the bunk formed with side and horizontal members to provide a tunnel compartment below said horizontal member, a stake hingedly connected from one of its ends to the bunk, a prop hingedly connected to the free end of the stake and provided with a shoulder adapted to be seated upon an inclined surface formed on one end of said horizontal member, said prop being provided with an arm arranged to extend into said compartment, a rod located within said compartment and having a head detachably engaged with the prop arm, a pin rigidly secured to the bunk in proximity to the end remote from the stake, a link pivotally connected to said pin and likewise with said rod whereby the link when moved in one position will serve to secure the prop upon the bunk through the agency of said rod and when moved from such position the link will serve to actuate the rod to dislodge the prop from its seat upon the bunk.

5. In apparatus of the class described, the combination with the bunk, a stake hingedly connected thereto, and a prop arranged to seat on the bunk for supporting the free end of the stake, of a rod having at one end a head detachably engaged with said prop, and link connections between the bunk and the other end of the rod whereby the rod is caused to be automatically locked to secure the prop when the prop is brought into operative position, said rod being also arranged to be manipulated to affect said link connections whereby the same are rendered inoperative to lock the rod and thereupon serve to dislodge the prop from the bunk.

[Claim 6 not printed in the Gazette.]

1,079,110. ADJUSTABLE SQUARE AND BEVEL. FRANK G. COLE, Conway, N. H. Filed Apr. 28, 1913. Serial No. 763,946. (Cl. 33-102.)



A carpenter's instrument comprising a straight base consisting of a pair of bars spaced apart to provide a slot therebetween, said slot being open and unobstructed from end to end, and said bars being secured together by a series of yokes, an angle member mounted on said bars and adjustable lengthwise thereof, and clamping means extending through said slot adapted to secure said angle member in adjusted position.

1,079,111. DOUBLE-WALL CONSTRUCTION. JOHN E. CONZELMAN, St. Louis, Mo., assignor to Unit Construction Company, St. Louis, Mo., a Corporation of Delaware. Filed Nov. 9, 1911. Serial No. 659,298. (Cl. 72-39.)



1. In a double wall construction, a panel consisting of a double wall of slabs, each slab of one wall of said panel having extensions formed integrally with the ends thereof, said extensions being offset from opposite sides of said slab to overlap similar slabs in each panel adjacent thereto, each slab of the other wall of said panel being arranged to fit between the extensions at the sides of said panel and having flanges that fit against a face of said first-mentioned slab, thereby to leave an air-space between said walls, the exposed faces of each slab of said

other wall being substantially flush with the exposed faces of each extension adjacent thereto.

2. In a double wall construction, a panel consisting of a double wall of slabs, each slab of one wall of said panel having extensions formed integrally with the ends thereof, said extensions being offset from opposite sides of said slab to overlap similar slabs in each panel adjacent thereto, each slab of the other wall of said panel being arranged to fit between the extensions at the sides of said panel and having flanges that fit against a face of said first-mentioned slab thereby to leave an air-space between said walls, the exposed faces of each slab of said other wall being substantially flush with the exposed faces of each extension adjacent thereto, there being a space between each end of said first-mentioned slab and the end of a similar slab of each panel adjacent thereto and, also, between the inner faces of the extensions borne thereby, and a concrete filler for said last-mentioned space adapted to set integrally with the ends of the slabs and extensions surrounding same.

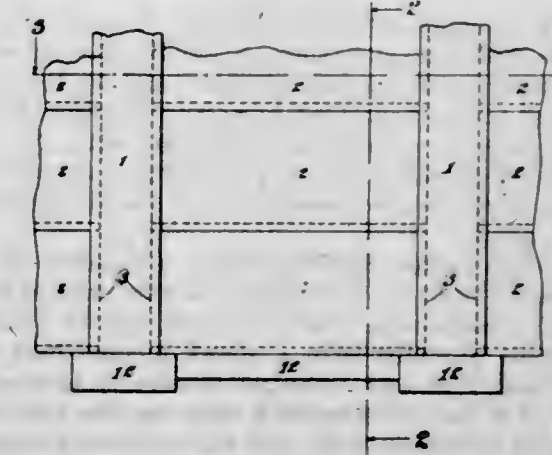
3. In a wall, a series of slabs each having an offset extension at each end, one of the extensions of each slab being located at the front face thereof and having its rear face registering in substantially the plane of the front face of said slab, and the other extension being located at the rear face thereof, and having its front face registering in substantially the plane of the rear face of said slab, the rear face of one end of one slab engaging the front face of the adjacent slab extension and the rear face of said extension engaging the front face of the slab having said extension, there being a space between the ends of said adjacent slabs, and a concrete filler in said space.

4. In a wall, a series of slabs each having an offset extension at one end, the rear face of said extension of one slab registering in substantially the plane of the front face of said slab and overlapping and engaging the front face of the adjoining end of an adjacent slab, and a second series of slabs arranged between the outer face of the end of an extension of one of the first named slabs and the inner end face of the extension of an adjacent one of said first named slabs.

5. In a wall, a series of slabs each having an offset extension at each end that project beyond the side faces thereof, said slabs being arranged so that the inner face of each extension registers in substantially the same plane throughout with, and overlaps and engages the adjacent side face of the adjacent slab, the extensions of a pair of slabs being located substantially opposite to one another and in alignment to provide a column on each of the side faces of the slabs.

[Claims 6 to 8 not printed in the Gazette.]

1,079,112. WALL CONSTRUCTION. JOHN E. CONZELMAN, Webster Groves, Mo., assignor to Unit Construction Company, St. Louis, Mo., a Corporation of Delaware. Original application filed Nov. 9, 1911, Serial No. 659,298. Divided and this application filed Aug. 7, 1912. Serial No. 713,901. (Cl. 72-16.)



1. In concrete construction, a series of superimposed slabs, each slab being composed of a pair of side members,

one of said members having vertical end flanges and reinforcing bars the ends of which bars project through the end flanges, the other member abutting said end flanges and having the said projecting ends of the bars extending thereinto whereby said bars serve to provide anchors for the second named slab.

2. In concrete construction, a pair of spaced grooved columns, a series of hollow unitary slabs each composed of a pair of members, one of said members being longer than the other member and having flanges on its inner face and at the ends thereof, the ends of the longer member extending beyond the adjacent ends of the shorter member, the respective ends of the two members extending in the grooves of the columns, the ends of the shorter member being spaced from the respective adjacent bottom walls formed by the grooves of the column to form grout receiving space.

1,079,113. DOUBLE-WALL CONSTRUCTION. JOHN E. CONZELMAN, Webster Groves, Mo., assignor to Unit Construction Company, St. Louis, Mo., a Corporation of Delaware. Original application filed Nov. 9, 1911, Serial No. 659,298. Divided and this application filed Aug. 7, 1912. Serial No. 713,902. (Cl. 72-16.)



In concrete construction, a pair of columns having grooves, an outer series of slabs arranged in superimposed order, the slabs of said outer series of slabs being formed at their abutting edges with tongue and rabbet connections, an inner series of slabs spaced from the outer series and being arranged in superimposed order, the slabs of said inner series of slabs being formed at their abutting edges with tongue and rabbet connections, the ends of the slabs of both series of slabs being arranged in the grooves of the columns, the slabs of one series having flanges at the ends thereof which flanges abut the slabs of the other series, the flanges acting to hold the outer faces of the two series of slabs in engagement with the adjacent walls formed by the grooves in the columns, the slabs of said inner series of slabs being placed in position independently of the outer series.

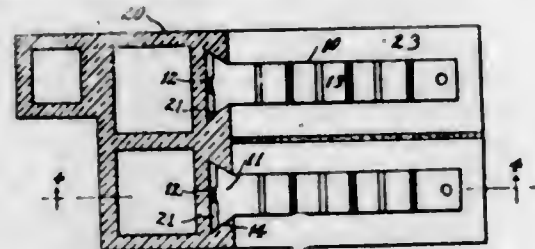
1,079,114. AGRICULTURAL IMPLEMENT. ROY E. DAVISON, Catoosa, Okla. Filed Oct. 4, 1910. Serial No. 585,273. (Cl. 55-40.)



1. In a combination tool arranged to perform raking, hoeing or spading operations; a handle having a forked end, an earth working tool pivoted between the arms of said forked end and adapted to extend laterally from said end and to lie in substantial alignment with the handle, and a raking element carried by said fork and constituting a stop to limit the movement of the earth working tool about its pivot.

2. A combination tool including a handle having a forked end, a rake bar secured to the free ends of the fork arms and maintaining them in rigid spaced relation, a tool element provided with a shank pivoted between the arms of said fork and arranged to engage said rake bar whereby said bar constitutes a stop for the tool element in adjusted positions, said tool element being capable of disposition in a plurality of operative positions, and a locking pin to hold said tool element releasably in either of said operative positions.

1,079,115. WALL-TYING DEVICE. GEORGE W. DENISON, Cleveland Heights, Ohio. Filed Apr. 11, 1913. Serial No. 760,366. (Cl. 72-103.)



1. The combination, with a member having a dovetail groove with inclined sides, of a tie bar having a head with inclined sides and a shank adapted to occupy an adjacent mortar bed, and a projection carried by the head and adapted to engage the back of the groove to press the inclines of the bar snugly against the inclines of the groove.

2. The combination, with a facing course having a dovetail groove with inclined sides, of a tie bar having a head with inclined sides, a shank adapted to occupy an adjacent mortar bed, and a tongue projecting from the head and adapted to engage the wall at the bottom of the groove and be bent against it to force the incline of the tie bar against the incline of the groove.

3. The combination, with a facing block having a dovetail groove with inclined sides, of a tie bar having a shank and a head adapted to occupy said groove, said head having inclined sides and having projecting from the face a tongue adapted to be bent and have a spring action against the base of the recess of the block to force the incline into snug engagement.

4. The combination, with a facing block having a dovetail groove with inclined sides, of a tie bar having a shank and a head adapted to occupy said groove, said head having inclined sides and having projecting from the face a tongue adapted to be bent and have a spring action against the base of the recess of the block to force the incline into snug engagement, and the shank of the tie bar being made irregular or perforated or offset to bind it to the mortar bed.

5. A tie bar made of a single integral piece of sheet metal consisting of a shank bent intermediately to provide plane portions offset from the plane of the shank, a head at one end of the shank having outwardly flaring inclined edges, and a projection extending from that edge of the head which is opposite the shank.

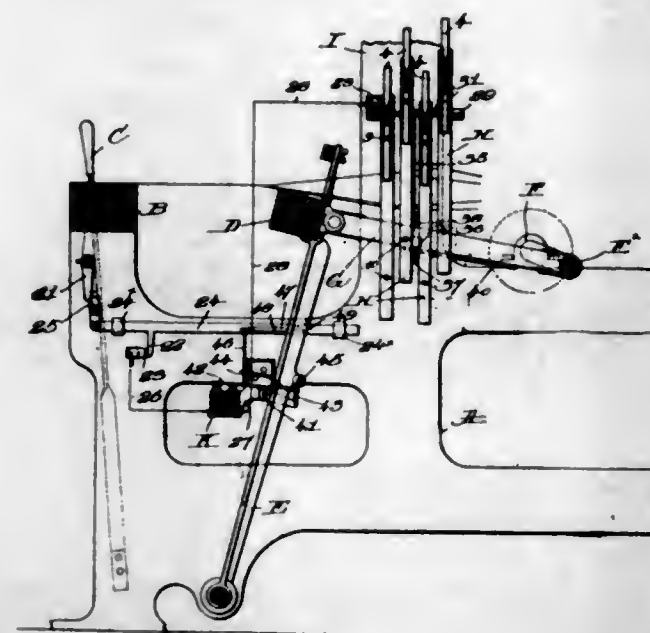
[Claim 6 not printed in the Gazette.]

1,079,116. ELECTROMECHANICAL WARP STOP-MOTION FOR LOOMS. JOHN F. DUSTIN, Fulton, N. Y. Filed Feb. 2, 1911, Serial No. 606,105. Renewed Sept. 18, 1913. Serial No. 790,570. (Cl. 130-91.)

1. In a warp stop-motion for looms, harnesses each having a series of detector-heddles, a controlling-circuit having an electro-magnet included therein, means to close said circuit by or through release of a heddle due to failure of its warp thread, an armature for said magnet, having an attached resilient presser-finger, and means to retract said armature, combined with a lay and a lay-sword, a depressor, mounted on the lay-sword and moving therewith to periodically engage the presser-finger and thereby move the armature yieldingly against the magnet poles, and means to effect loom stoppage, rendered operative when said magnet is energized and retains the armature in engagement therewith after disengagement of the depressor and said presser-finger.

2. In a warp stop-motion for looms, harnesses each having a series of detector-heddles, a controlling-circuit having an electro-magnet included therein, means to close said circuit by or through release of a heddle due to failure of its warp thread, and a spring-retracted armature for the magnet, combined with a lay and its lay-sword, a device on the latter to periodically coöperate with and move the armature against the magnet poles, and means to effect loom stoppage, including a dog operatively po-

sitioned when energization of the magnet retains the armature in engagement therewith, a normally quiescent, longitudinally movable transmitter on which said dog is pivotally mounted, and a bunter fixed on the lay-sword, to coöperate with the operatively positioned dog and move it and the transmitter in unison to effect the operation of the loom stopping means.



3. In a warp stop-motion for looms, harnesses each having a series of detector-heddles, a controlling-circuit having an electro-magnet included therein, means to close said circuit by or through release of a heddle due to failure of its warp thread, an armature for said magnet, and means to retract it, combined with a lay and lay-sword, a roll on the latter to coöperate with and move the armature against the poles of the magnet during a portion of each forward and backward beat of the lay, a shipper, and releasing means therefor, including a normally quiescent, longitudinally movable transmitter and a member pivotally mounted thereon and operatively positioned by the armature when it is maintained in engagement with the magnet by energization thereof, and a bunter on the lay-sword adapted to coöperate with such member when operatively positioned and to effect longitudinal movement of said transmitter on the backward beat of the lay after disengagement of the armature and the roll on the lay-sword.

4. In a warp stop-motion for looms, a controlling circuit to set in operation the stopping mechanism, a series of harnesses each having a series of heddles, and means to close the circuit by or through a heddle upon failure of its warp thread when a harness is in a predetermined position, combined with a lay, a pitman connected therewith, a circuit-terminal exterior to the harnesses, and means governed by the pitman to retract said terminal and open the controlling-circuit as a harness begins to move away from its predetermined position.

5. In a warp stop-motion for looms, in combination, a controlling-circuit to set in operation a stopping mechanism, a series of metallic controlling detectors slotted near their upper and lower ends, terminals normally unconnected electrically extended through the slots of the detectors and adapted to be included intermittently in the controlling-circuit, means to insulate the sides of the upper slots from the terminal extended therethrough, each detector being held by its intact warp thread from electrical engagement with one of the terminals when said terminals are included in the controlling-circuit, failure of a warp thread causing its detector to engage both terminals electrically and to connect them through the detector, and oppositely located projections on the sides of the lower slot of each detector to insure contact with the sides of the adjacent terminal upon failure of the warp thread of the detector.

[Claim 6 not printed in the Gazette.]

1,079,117. HOLLOW SHEET-METAL STRUCTURE. ALFRED J. ELLIS, Woodcliff-on-Hudson, N. J., assignor to A. J. Ellis, Inc., a Corporation of New Jersey. Filed May 4, 1911. Serial No. 625,099. (Cl. 189-53.)



1. In a metal door, stiles and rails, said stiles and rails having a plurality of flanges at the edges thereof, some of said flanges having the flanks or sides thereof substantially co-incident with the faces of the respective stiles and rails and others of said flanges, integrally connected to the corresponding flanges just mentioned, being inset within the bodies of said stiles and rails, and adapted for the reception of interlocking parts, said rails having the extremities thereof substantially Z shaped in cross section.

2. In a metal door, metal boxes forming the stiles and rails of said door, each of the stile-forming boxes having a pair of angularly disposed flanges at the inner edge of each of the sides thereof, each of said flanges having a groove therein, the respective grooves in a pair of flanges opening in two different directions, flanged stiffening members in said stiles, the respective flanges of said members being adapted for interlocking engagement with grooves of said stile flanges which open in a common direction, the rails of said door also having flanges at the ends thereof, said last mentioned flanges being adapted for interlocking engagement with the grooves in the stile flanges which open in other directions than that last mentioned.

3. In a metal door, metal boxes forming the stiles and rails of said door, each of the stile-forming boxes having a pair of angularly disposed flanges at the inner edge of each of the sides thereof, one flange of each pair extending substantially in parallelism with the sides of the stile and the other flange of each pair being disposed substantially perpendicular to the general plane of the door and extending into the body of the stile, said inwardly extending flanges being grooved, and the rails having flanges at the ends thereof adapted to enter said grooves to interlock said stiles and rails.

4. In a metal door, stile and rail forming sheet metal boxes adapted for interlocking engagement, one of said boxes opening outwardly toward an edge of the door, said box having a cover plate for the open side, said plate and box having interlocking flange and groove connections, the cover being slidably insertible into position, and an interlocking sheet metal stiffener for said cover plate.

5. In a metal door, molding and stile and rail forming sheet metal boxes adapted for interlocking engagement, one of said boxes opening outwardly toward an edge of the door, said box having a cover plate for the open side, said plate and box having interlocking flange and groove connections, and an interlocking sheet metal stiffener in engagement with some of said connections.

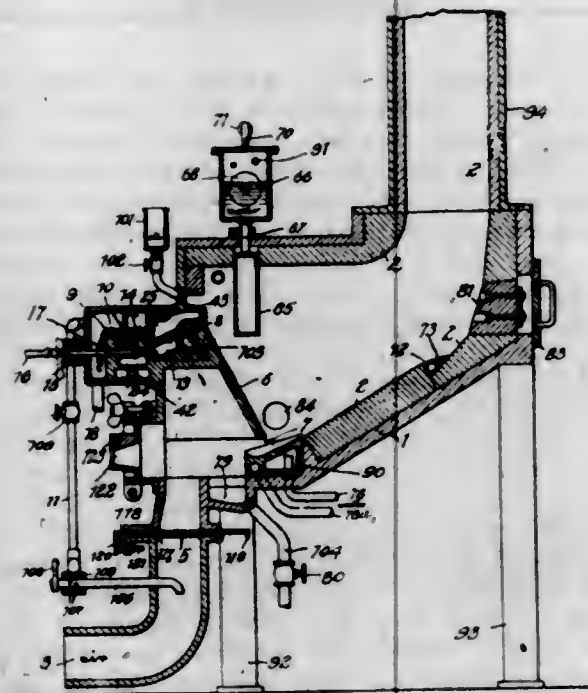
[Claims 6 to 11 not printed in the Gazette.]

1,079,118. GAS-GENERATOR. ORVILLE H. ENSIGN, Madison, Wis. Filed Apr. 30, 1908. Serial No. 430,224. (Cl. 48-74.)

1. In a gas generator, a chamber for producing the gas, means for supplying liquid fuel to such chamber, and means for directing air under pressure to such chamber, such fuel supplying means so constructed as to regulate the quantity of fuel supplied to such chamber by the direct action of the pressure in such chamber upon the fuel.

2. In a gas generator, a chamber for producing the gas, means for supplying liquid fuel to such chamber, and means for directing air under pressure into such chamber, such fuel supplying means so constructed as to control the quantity of fuel supplied to such chamber by the action upon such fuel of the difference in pressure between the air supplied and the inside of such chamber.

3. In a gas generator, a chamber for producing the gas, means for supplying liquid fuel to such chamber, means for directing air under pressure into such chamber, means for varying the pressure in the chamber relatively to the pressure of the air supply for variations in the quantity of gas produced, and means for regulating the pressure in the chamber relatively to the pressure of the air supply for a constant rate of gas production.



4. In a gas generator, a chamber for producing the gas, means for supplying liquid fuel to such chamber, a main for directing air under pressure into such chamber, and an adjustable orifice in such main, such orifice constituting means for varying the pressure in the chamber relatively to the pressure in the air main for variations in the quantity of gas produced, such orifice also constituting means for regulating the pressure in the chamber relatively to the pressure in the air main for a constant rate of gas production.

5. In a gas generator, a chamber for producing the gas, means for supplying liquid fuel to such chamber, and thermostatic controlling means for maintaining practically constant the temperature of the fuel supplied to such chamber.

[Claims 6 to 46 not printed in the Gazette.]

1,079,119. PROCESS OF TREATING MATCH-SPLINT MATERIAL. WILLIAM A. FAIRBURN, Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1913. Serial No. 739,741. (Cl. 99—12.)

1. The process of treating match splint material to impart a non-glowing property thereto, which consists in impregnating the same with an oxid of phosphorus and then exposing the material to the air.

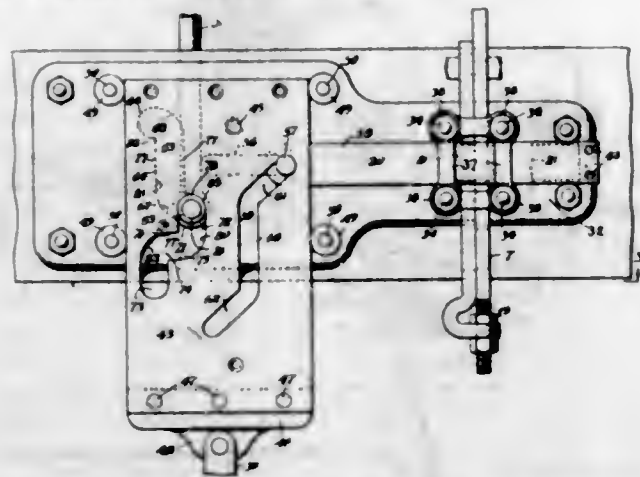
2. The process of treating match splint material to impart a non-glowing property thereto, which consists in subjecting the same to phosphorus fumes, and then exposing the material to the air.

3. The process of treating match splint material to impart a non-glowing property thereto, which consists in subjecting the same to the fumes generated by gently heating phosphorus with incomplete access of air, and then exposing the material to the air.

1,079,120. SWITCH THROWING AND LOCKING MECHANISM. AMOS R. GAMBER, Mount Joy, Pa., assignor of one-half to Ernest K. Post, Media, Pa. Filed Mar. 10, 1910. Serial No. 548,423. (Cl. 246—7.)

1. In a device of the character stated, switch points, a switch-operating rod cooperating therewith, extending at an angle with the points and provided with a projection,

a fixed guide for the projection substantially parallel with the rod, locking walls for the projection transverse to the rod and in proximity to the ends respectively of the guide, means effective by reason of movement of the projection with the points for diverting it laterally with respect to the rod length from the guide against a locking wall and a driving member movable in the direction of the length of the switch-operating rod and having abutments engaging the projection to drive it along the guide, and cooperating with the means for diverting the projection to seat the latter against a locking wall.



2. In a device of the character stated, switch points, a switch-operating rod extending transversely thereto and connected therewith, a projection from the rod, a fixed member having cooperating walls at an angle to each other, one a guiding wall extending in the direction of the length of the rod and another retaining it against movement in the direction of the length of the guiding wall, a guide at the junction of the walls, diverting the projection from the direction of the length of the guiding wall against the retaining wall and means for giving the projection movement along the guiding wall of the fixed member.

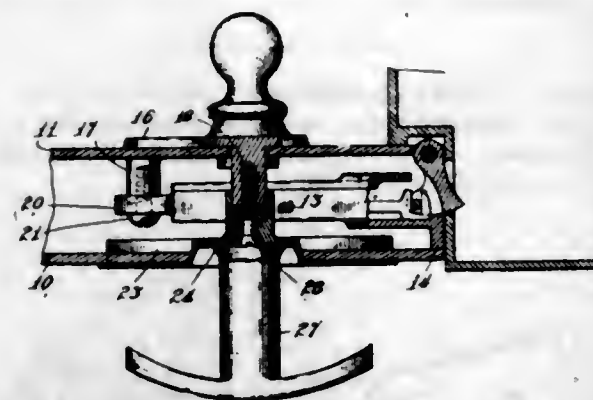
3. In a device of the character stated, switch points, a switch-operating rod connected therewith and at an angle thereto, a fixed member, cooperating parts upon the rod and fixed member, one comprising a projection and the other having a guide for the projection and a wall at an angle to the guide effective as an abutment cooperating with the projection for retaining the rod and fixed member against relative movement in the direction of the guide length and means movable substantially parallel to the rod length provided with engaging edges for freeing the projection and abutment from locking engagement, and driving the rod lengthwise of the guide.

4. In a device of the character stated, a switch, an operating rod therefor having a projection thereon, spaced guiding plates forming a guide for said rod projection guiding movement thereof parallel to the length of the rod, provided with a fixed lock therefor out of line with the guide, driving means between the plates engaging the projection to drive it within the guide and means maintained in operative relation to the guiding plates cooperating with the driving means to move the projection at an angle to the guide into engagement with the lock.

5. In a device of the character stated, a switch, a fixed member and a movable member, both slotted, the one having a major slot adapted to act as a guide for movement in a direction transverse to the switch and smaller terminal slots lateral thereto on opposite sides thereof, and the other adapted to move in a straight line transverse to the switch and having terminal slots transverse to the switch, spaced laterally substantially the same as the extent between said lateral slots, a connecting lateral slot, and a guide for the movable member, providing for its straight line movement, in combination with switch-operating means engaging the slots of both members and guiding means cooperating between the two members for causing the end of the switch-operating means to move parallel with the switch for engagement and disengagement with the lateral slots.

[Claims 6 to 20 not printed in the Gazette.]

1,079,121. DOOR. JAMES A. GIESE, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed June 7, 1912. Serial No. 702,235. (Cl. 189—46.)

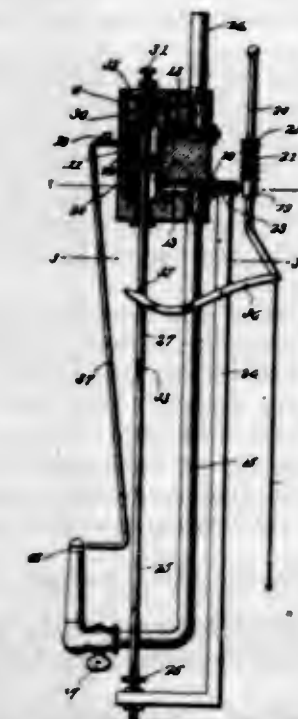


1. In combination, a hollow metal door, a latch casing housed within the door and being of less thickness than the distance between the side walls thereof, escutcheon plates applied to the door and having studs passing through the walls thereof, the inner ends of the studs being normally spaced apart from the casing, and screws securing the studs to the casing.

2. In combination, a hollow metal door, a latch casing housed within the door and being of less thickness than the distance between the side walls thereof, escutcheon plates applied to the side walls of the door and having studs passing therethrough, studs of the two plates being aligned and their inner ends being normally out of contact, screws securing such aligned studs together, and means for securing the casing to one of the plates.

3. In combination, a hollow metal door, a latch casing housed within the chamber of the door, means for securing the casing to one of the side walls of the door, the other side wall of the door being apertured to afford access to the casing, an escutcheon plate covering the aperture and flanged to overlap the margins thereof, and means for securing the escutcheon plate to the opposite wall of the door.

1,079,122. DEVICE FOR AUTOMATICALLY CUTTING OFF THE SUPPLY OF GAS TO A BURNER. CHESLEY GORDON, Los Angeles, Cal. Filed Mar. 7, 1913. Serial No. 752,700. (Cl. 67—116.)



1. In a device of the class described, the combination with a casing provided with an inlet and an outlet, of a gas supply having connection with the inlet of the casing, a pipe having connection with the outlet, a burner carried by the pipe, a stem mounted to slide in the said casing, a valve carried by the stem to normally close a passage between the inlet and the outlet, a bracket sup-

ported on the casing, a lever mounted to swing on the bracket, a pin projecting from the stem and adapted to be engaged by the said lever to actuate the stem and unseat the said valve in the said casing, and an expansion rod adjustably supported on the said bracket and projecting vertically adjacent the said burner to engage the said stem when the said rod is extended.

2. In a device of the class described, the combination with a casing provided with a valve chamber and having an inlet and an outlet, with the said casing attached to a gas supply terminating in the said inlet, of a pipe connected to the casing at the outlet thereof and depending below the casing, a burner carried by the pipe, a bracket supported on the casing, a stem slidable in the said casing and depending exteriorly thereof, a valve carried by the stem and normally closing a passage between the inlet and outlet in the said casing, an expansion rod adjustably supported on the said bracket adjacent the said burner, with the upper end of the expansion rod engaged by the lower end of the said stem, a lever mounted to swing on the said bracket, a pin projecting from the stem and adapted to be engaged by the lever when the same is actuated to move the said stem to unseat the said valve, and means for operating the said lever.

3. In a device of the class described, the combination with a casing provided with a valve chamber and having an inlet and an outlet, with the said casing attached to a gas supply terminating in the said inlet, of a pipe connected to the casing at the outlet thereof and depending below the casing, a burner carried by the pipe, a bracket supported on the casing, a stem slidable in the said casing and depending exteriorly thereof, a valve carried by the stem and normally closing a passage between the inlet and outlet in the said casing, an expansion rod adjustably supported on the said bracket, adjacent the said burner, with the upper end of the expansion rod engaged by the lower end of the said stem, a lever mounted to swing on the said bracket, a pin projecting from the stem and adapted to be engaged by the lever when the same is actuated to move the said stem to unseat the said valve, means for operating the said lever, a spring carried in the casing and engaging the stem to normally retain the valve in closed position in the casing, means for adjusting the said spring, and a pilot tube supported on the casing and depending therefrom, with the free end of the pilot tube arranged adjacent the said burner.

1,079,123. TELEGRAPHONE. JOHN H. J. HAINES, New York, N. Y. Filed Feb. 3, 1910. Serial No. 541,773. (Cl. 181—1.)



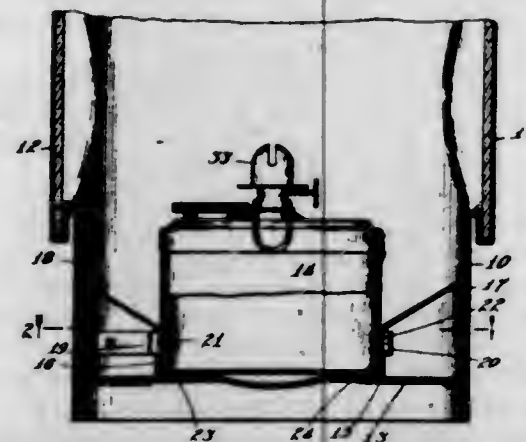
In a telegraphone, a recording medium of magnetizable material, said medium being in two separate and distinct recording parts, and means for simultaneously making substantially identical records upon both of said parts, said means including an electro-magnet having a plurality of pole pieces, one of said pole pieces adapted to cooperate with one of said parts and the other of said pole pieces, with the other of said parts.

1,079,124. LAMP. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed June 26, 1912. Serial No. 705,949. (Cl. 240—50.)

1. In a lamp, in combination, a body, a font seated in the body and having on its side wall an upwardly facing shoulder and a pair of vertical shoulders, and a spring attached to the body and bearing against the several named shoulders on the font.

2. In a lamp, in combination, a body, a font seated in the body and having its side wall indented to form an

upwardly facing shoulder and a pair of vertical shoulders, a spring attached to the body and bearing against the font and having an offset portion entering the indentation in the wall thereof.



3. In a lamp, in combination, a body, a font seated in the body and having parallel side walls with indentations therein, leaf springs attached to the body and bearing laterally against the font, the springs being bowed outward to enter the indentations.

4. In a lamp, in combination, a body, a font seated within the body, springs attached to one of the named elements and engaging vertical and horizontal shoulders on the other.

5. In a lamp, in combination, a body having a horizontal slide-way, a font adapted to enter the way and having a lateral depression, and a spring advanced detent mounted on the body and adapted to enter the depression.

1,079,125. MACHINE FOR MANUFACTURING POM-PONS. ALFRED HARVEY and HAROLD C. HARVEY, Milwaukee, Wis. Filed Dec. 17, 1912. Serial No. 737,261. (Cl. 93-79.)



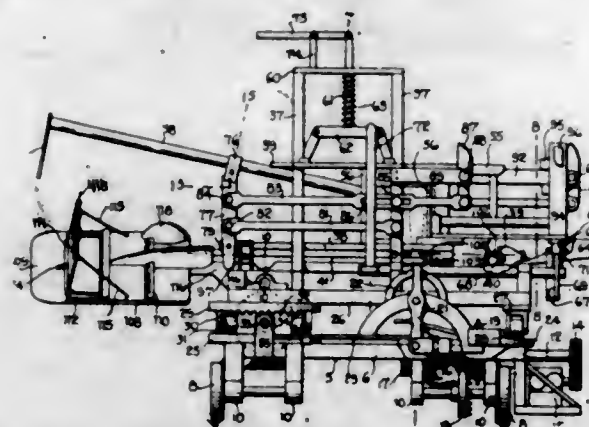
1. A machine for forming tubular ornaments comprising a strip, means for feeding the strip, means for slitting said strip adjacent to its edge, means for folding and sealing the slit edge, means for cutting the folded and sealed strip into sections, a mandrel for colling the sections, and means for securing the last coil of the section, whereby the ornament is completed.

2. A machine for forming pompons from a blank having a row of serrations adjacent to one edge comprising a rotary mandrel disposed in oblique relation to the path of feed of the blank, means for loosely folding the serrated edge of the blank upon itself, means for adhesively securing the folded edge to the body of said blank clear of its serrations, means for feeding the folded edge blank to the mandrel, blank-gripping means carried by the mandrel for engaging the forward end of said blank, means for rotating the mandrel whereby the blank is spirally wound thereon to expose the serrated end windings of said blank, and means for adhesively securing the last fold of the blank to the preceding fold.

3. A machine for forming paper pompons from a blank having a row of serrations adjacent to one edge comprising means for loosely folding the serrated edge of the blank upon itself, means for adhesively securing the folded edge clear of the serrations, means for feeding the edge folded blank, a rotary receiving mandrel for the blank, the said

blank and mandrel being obliquely disposed with relation to each other, whereby the aforesaid blank is spirally wound to expose the serrated edge in a series of coils, and means for adhesively securing the last coil of the blank to the preceding coil.

1,079,126. COKE-DRAWING APPARATUS. JOHN HAYES, Uniontown, Pa., assignor of one-fourth to James T. Whitson, Uniontown, Pa. Filed June 18, 1913. Serial No. 774,456. (Cl. 202-5.)



1. In an apparatus of the character described, a shovel, means for moving said shovel into or out of a coke oven, means for automatically tilting the shovel when the same is withdrawn from the furnace and dump the contents thereof, and additional means acting to yieldingly hold the shovel against such tilting movement and to return the shovel to its normal position.

2. In an apparatus of the character described, a longitudinally movable rack bar, a shovel attached to one end of said bar, means for actuating the rack bar to move the shovel into or out of a coke oven, means for axially turning the rack bar to dump the contents of the shovel, a bearing for said rack bar, and means tending to yieldingly hold the bearing in its normal position and prevent turning movement of the same with the rack bar.

3. In an apparatus of the character described, a shovel, a longitudinally slidable frame, a scraping blade mounted in said frame, means for moving said shovel and scraping blade together into or out of a coke oven, means for vertically moving the sliding frame to dispose the scraping blade with relation to the shovel whereby the shovel may be turned, and means for turning the shovel to dump the coke therefrom.

4. In an apparatus of the character described, a shovel mounted for transverse tilting movement, means for moving said shovel longitudinally into or out of a coke oven, a stationary element, and means on the shovel coöperating with said stationary element at the end of the longitudinal movement of the shovel when the same is withdrawn from the oven to tilt said shovel transversely and dump the contents thereof.

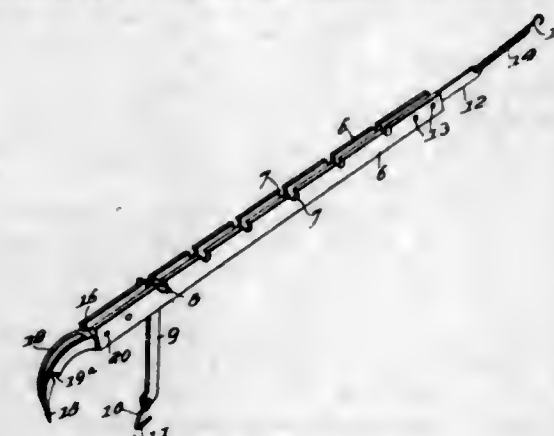
5. In an apparatus of the character described, a longitudinally movable rack bar, a shovel attached to one end of said bar, means for shifting said rack bar in opposite directions, a stationary member, and means carried by the rack bar to coöperate with said stationary member and turn the bar at the end of its longitudinal movement in one direction to dump the contents of the shovel.

[Claims 6 to 18 not printed in the Gazette.]

1,079,127. WIRE-STRETCHER. ISAAC W. HOLLAND, Midlothian, Tex. Filed June 13, 1913. Serial No. 773,395. (Cl. 39-120.)

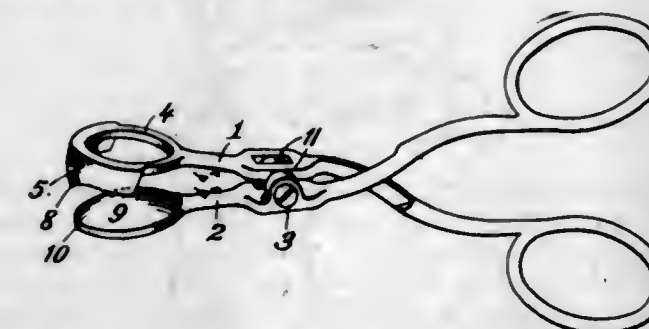
1. In a wire stretcher, a body comprising two separated bars having coinciding notches, an arm secured to the bars at one end, a hanger on the said arm, a hook having a shank, means for securing the shank to the arms, said hook having a notch therein for engaging a wire, a link having a cross pin adapted to rest in the notches of the bar, and a hook carried by the link for coöperation with the first mentioned hook.

2. In a wire stretcher, a body comprising bars with coinciding notches forming seats, a link extending between the bars, a cross pin in the link adapted to rest in the seats of the bars, a wire engaging member carried by the link, a



hanger connected to one end of the body, a grappling hook having a shank secured to the body, said hook terminating in a pointed end and having a notch intermediate its length for the reception of wire.

1,079,128. SURGICAL INSTRUMENT. CLARENCE O. S. HOWE, Montclair, N. J. Filed Feb. 20, 1913. Serial No. 749,573. (Cl. 128-28.)



1. Dental scissors for cutting away overlying membranes comprising pivotally connected members having converging end portions, one of said portions having an annular head, a cutting beak depending therefrom, and a central V-shaped point formed on the cutting edge of said beak and adapted to prevent the membrane from receding during the cutting operation, and the other portion having a spatular head adapted to coöperate in shearing engagement with the cutting edge of the other.

2. Dental scissors for cutting away overlying membranes comprising pivotally connected members having converging end portions, one of said portions having an annular head and a cutting beak depending therefrom, a double curve on the cutting edge of said beak terminating in a central V-shaped point, said point being adapted to grip the membrane and prevent its receding during the cutting operation, and the other portion having a spatular head adapted to coöperate in shearing engagement with the cutting edge of the other.

1,079,129. METHOD OF TREATING IRON. JOHN KIRBY, Pittsburgh, Pa. Filed Oct. 11, 1912. Serial No. 725,200. (Cl. 75-27.)

1. A method of increasing the tensile strength of iron consisting in feeding into a heat of muck iron about the time the cinder is partly or wholly boiled off and before the time to ball, a composition including oxid of vanadium and aluminum.

2. A method of increasing the tensile strength of iron consisting in feeding into a heat of muck iron about the time the cinder is partly or wholly boiled off and up to before the time to ball, a composition including oxid of vanadium and a reducing agent therefor.

3. A method of increasing the tensile strength of iron consisting in feeding into a heat of muck iron about the time the cinder is partly or wholly boiled off and up to be-

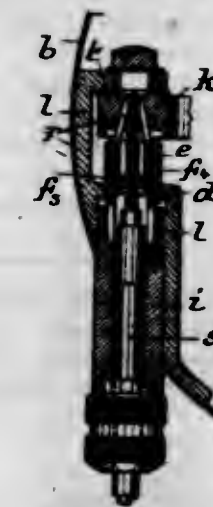
fore the time to ball, a composition including oxid of vanadium, and a reducing agent therefor, and then holding the heat to maintain the iron in a thick mucky condition.

4. A method of increasing the tensile strength of iron consisting in feeding into a heat of iron about the time the cinder is partly or wholly boiled off oxid of vanadium and aluminum.

5. A method of increasing the tensile strength of iron consisting in feeding into a heat of iron about the time the cinder is partly or wholly boiled off oxid of vanadium and aluminum, and then governing the heat to hold the iron in a thick mucky condition.

[Claim 6 not printed in the Gazette.]

1,079,130. TERMINAL CONNECTOR FOR CONCENTRIC-CONDUCTOR CABLES. FRANZ KRATZ and ROBERT WAGNER, Stuttgart, Germany, assignors to The Firm of Robert Bosch, Stuttgart, Germany. Filed May 1, 1913. Serial No. 764,745. (Cl. 173-338.)



1. The combination with a concentric conductor cable, of a terminal connector therefor comprising a conducting electrode insulated from each other for electrical connection to two insulated conductors of the cable, two abutments insulated from each other, and a conducting pressure-applying device coöperative with one of said abutments and with one of said electrodes to force the other electrode into intimate contact with the other abutment and thereby electrically connect the two conductors of the cable with the respective abutments; substantially as described.

2. The combination with a concentric conductor cable, of a terminal connector therefor comprising a conducting electrode having a split conical portion for electrical connection to the inner insulated conductor of the cable, a conducting electrode insulated from the other electrode and having a split conical portion for electrical connection to the outer conductor of the cable, an abutment having a conical seat for the conical portion of the first mentioned electrode, an abutment insulated from the other abutment, and a conducting pressure-applying device coöperating with the second mentioned abutment and having a seat coöperating with the conical portion of the second mentioned electrode to force the electrodes into intimate contact with the conductors and with the seats to thereby electrically connect the two conductors with the respective abutments; substantially as described.

3. The combination with a concentric conductor cable, of a terminal connector therefor comprising a conducting electrode for electrical connection to the inner insulated conductor of the cable, a conducting electrode insulated from the other electrode and having a split conical portion for electrical connection to the outer conductor of the cable, an abutment having a seat for the first mentioned electrode, an abutment insulated from the other abutment, and a conducting pressure-applying device coöperating with the second mentioned abutment and having a seat coöperating with the conical portion of the second mentioned electrode to force the electrodes into intimate contact with the conductors and with the seats to thereby

electrically connect the two conductors with the respective abutments; substantially as described.

4. The combination with a concentric conductor cable, of a terminal connector therefor comprising two conducting electrodes insulated from each other for electrical connection to two insulated conductors of the cable, two abutments insulated from each other, and a conducting pressure-applying device coöperative with one of said abutments and with one of said electrodes to force the other electrode into intimate contact with the other abutment and thereby electrically connect the two conductors of the cable with the respective abutments, said pressure-applying device having a central opening for the passage of the cable therethrough; substantially as described.

5. The combination with a concentric conductor cable, of a terminal connector therefor comprising two conducting electrodes adapted to be electrically connected to the insulated conductors of the cable, two abutments insulated from each other, and a conducting pressure-applying device coöperative with one of said abutments and with one of said electrodes to force the other electrode into intimate contact with the other abutment and thereby electrically connect the two conductors with the respective abutments, said electrodes being insulated from each other by an insulating member having an opening for the passage therethrough of one conductor of the cable; substantially as described.

(Claims 6 to 9 not printed in the Gazette.)

1,079,131. ADJUSTABLE SPRAY-NOZZLE. EARLE H. LAMIELL, Canton, Ohio, assignor to The H. L. Hurst Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed June 17, 1912. Serial No. 704,003. (Cl. 137—86.)



1. A spray nozzle comprising a hollow, stationary member provided with means for connection to a spraying-liquid supply pipe and provided with vortex-producing apertures and auxiliary apertures, and a movable member connected to said stationary member, said movable member provided with a hollow cap having a spring aperture, said movable member adapted for forward and backward sliding movement with relation to said stationary member and adapted to close said auxiliary apertures when in the forward position and to uncover said apertures when in the rear position.

2. A spray nozzle comprising a stationary member provided with a hollow cylindrical body and a vortex head, said vortex head provided with inclined vortex-producing apertures, and the cylindrical walls of said body provided with auxiliary apertures, and a movable member including a hollow cap slidably connected to said body and provided with a spraying aperture, said vortex-producing apertures and auxiliary apertures opening into the interior of said cap, and said movable body adapted to be slidably moved with relation to said stationary body to open and close said auxiliary apertures.

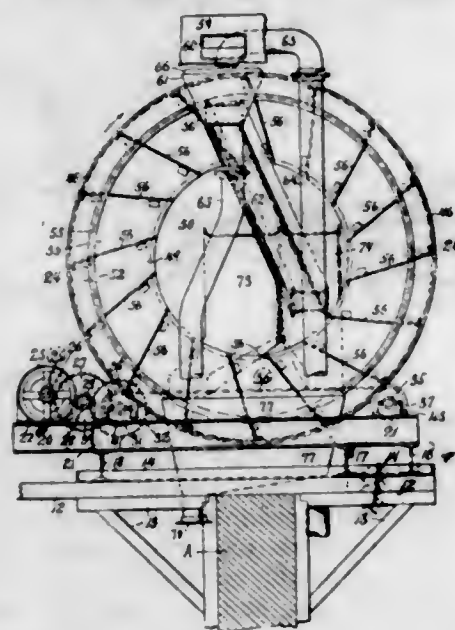
3. A spray nozzle comprising a stationary member formed of a hollow cylindrical body provided with a vortex head, said vortex head provided with inclined vortex-producing apertures and the cylindrical walls of said body provided with radially disposed auxiliary apertures, a cap retaining ring slidably mounted upon said cylindrical body and adapted for sliding movement thereon into positions to cover and to uncover said auxiliary apertures, and a hollow cap connected to said ring, inclosing said vortex head, and provided with a spraying aperture.

4. A spray nozzle comprising a stationary member formed of a hollow cylindrical body provided with a vortex head of greater diameter than said cylindrical body and extending beyond said walls to form an annular

shoulder, vortex-producing apertures in said vortex head, auxiliary apertures in the cylindrical walls of said body adjacent said annular shoulder, and a movable member comprising a cap retaining ring longitudinally slidably mounted upon said cylindrical body and a hollow cap connected to said ring, inclosing said vortex head, and provided with a spraying aperture, said cap retaining ring adapted when slidably moved into engagement with said annular shoulder to cover and close said auxiliary apertures, and adapted when slidably moved from said shoulder to uncover and open said apertures.

5. A spray nozzle comprising a hollow cylindrical member provided with a vortex head having vortex-producing apertures therein, said head of greater diameter than said cylindrical body and extending beyond the outer walls thereof to form an annular shoulder, a hollow cap connected to said cylindrical body, inclosing said vortex head, and provided with a spraying aperture, said cap of greater interior diameter than said vortex head, means for directing streams of spraying liquid into the interior of said cap to the rear of said shoulder, and means for cutting off the flow of said streams.

1,079,132. STONE WASHER AND SEPARATOR. WILLIAM LANGE, Tomkins Cove, N. Y., assignor of one-half to Calvin Tomkins, New York, N. Y. Filed Apr. 4, 1913. Serial No. 758,803. (Cl. 83—86.)



1. A stone washer and separator comprising a drum consisting of a cylinder, a front face plate having an axial exit orifice, a rear face plate having an axial entrance orifice, and non-radial screening plates secured between the front and rear face plates and extending in an inclined position between the inner wall of the cylinder and the exit orifice, feeding means, inclined delivery chutes extending into the drum and intercepting different portions of the path of materials sliding off the screening plates and means for supporting and rotating the drum.

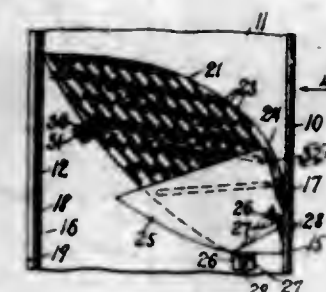
2. A stone washer and separator comprising a drum consisting of a cylinder, a front face plate having an axial exit orifice, a rear face plate having an axial entrance orifice, and non-radial screening plates secured between the front and rear face plates and extending in an inclined position between the inner wall of the cylinder and the exit orifice, feeding means extending into the entrance orifice, inclined toward the front face plate and discharging onto the lower descending screening plates and inclined delivery chutes extending into the drum and intercepting different portions of the path of materials sliding off the screening plates and means for supporting and rotating the drum.

3. A stone washer and separator comprising a drum consisting of a cylinder, a wide front face plate having an axial exit orifice, a narrow rear face plate having an axial entrance orifice, and non-radial screening plates secured between the front and rear face plates and extending in an inclined position between the inner wall of the cylinder

and the exit orifice, feeding means, inclined delivery chutes extending into the drum and intercepting different portions of the path of the materials sliding off the screening plates and means for supporting and rotating the drum.

4. A washer drum comprising a large cylinder having secured therearound a front peripheral friction band and a rear peripheral friction band, a front internal annular right angle bracket secured to the cylinder and to the front band, a rear internal annular right angle bracket secured to the cylinder and to the rear band, a wide front face plate having a restricted axial exit orifice surrounded by an annular stiffening ring and secured to the front bracket, a narrow rear face plate having a large axial entrance orifice, surrounded by an annular stiffening ring provided with a guard flange and secured to the rear bracket and non-radial screening plates secured between the front and rear face plates and inclined from the inner wall of the cylinder to the edge of the front exit orifice.

1,079,133. SCREENING-TRAY FOR STONE WASHERS AND SEPARATORS. WILLIAM LANGE, Tomkins Cove, N. Y., assignor of one-half to Calvin Tomkins, New York, N. Y. Filed July 31, 1913. Serial No. 782,243. (Cl. 83—86.)



1. A screening tray constructed with a perforated plate having a back turned lip along its inner end and an imperforate plate extending lengthwise of the perforated plate from its lower and inner edges and spaced from the perforated plate beyond said edges.

2. A screening tray constructed with a plate having transverse perforations and a back turned lip along its inner edge and an imperforate plate extending lengthwise of the perforated plate from its lower and inner edges and spaced from the perforated plate beyond said edges.

3. A screening tray constructed with a plate having transverse staggered perforations and a back turned lip along its inner edge and an imperforate plate extending lengthwise of the perforated plate from its lower and inner edges and spaced from the perforated plate beyond said edges.

4. A screening tray constructed with a plate having transverse rows of staggered slots and a back turned lip along its inner edge and an imperforate plate extending lengthwise of the perforated plate from its lower and inner edges and spaced from the perforated plate beyond said edges.

5. A screening tray constructed with a perforated plate having a back turned lip along its inner edge and longitudinal stiffening bars, and an imperforate plate extending lengthwise of the perforated plate from its lower and inner edges and spaced from the perforated plate beyond said edges.

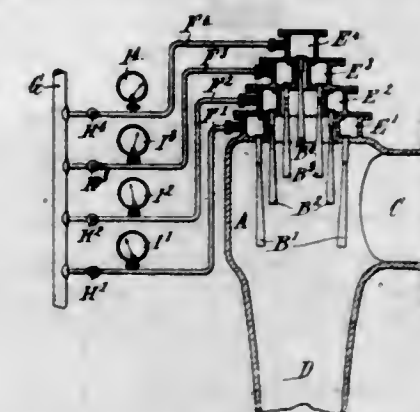
(Claims 6 to 9 not printed in the Gazette.)

1,079,134. STEAM-EJECTOR. MAURICE LEBLANC, Val sur Seine par Croissy, France, assignor to Sté. Ame. pour l'Exploitation des Procédés Westinghouse Leblanc, Paris, France. Filed Apr. 9, 1913. Serial No. 760,081. (Cl. 162—1.)

1. A steam ejector comprising a plurality of separate steam chambers, a group of nozzles secured in each steam chamber for projecting steam upon the fluid to be withdrawn, and means for supplying steam at different pressures to the several steam chambers.

2. A steam ejector comprising a plurality of coaxially arranged separate steam chambers, a separate group of

nozzles fed from each steam chamber for projecting the motive steam upon the fluid to be withdrawn, a pipe connecting each steam chamber with a main steam supply, and means in each pipe for independently controlling the supply of steam to the corresponding steam chamber.



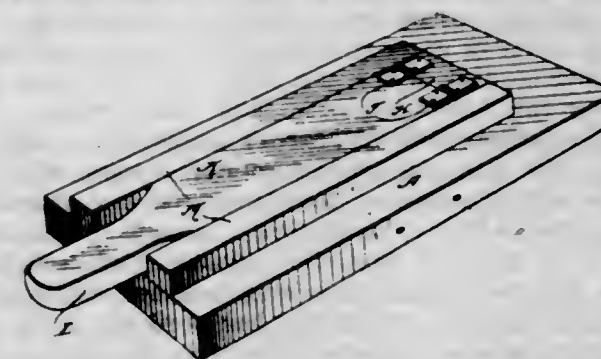
3. In a steam ejector, a plurality of coaxially arranged steam chambers, one or more coaxial rings of converging-diverging nozzles grouped in each steam chamber, the ratio

cross-section of neck
cross-section of exit orifice

of the nozzles being constant within each group but different in the different groups, steam pipes for separately supplying steam to each steam chamber, and means for varying the output of the nozzles with variation in the pressure of the medium into which they exhaust.

4. In a steam ejector, a plurality of separate steam chambers, a plurality of nozzles grouped in each steam chamber, the nozzles of one group being differently dimensioned relatively to those of another group, a separate steam pipe for supplying steam to each steam chamber, a pressure regulating valve in each steam pipe, and means for indicating the most favorable pressure of steam to supply to each group of nozzles under the various conditions of starting and running.

1,079,135. BUTTER, LARD, AND CHEESE CUTTER. HENRY ELSWORTH LOCK, Assumption, Ill. Filed May 14, 1913. Serial No. 767,534. (Cl. 31—65.)

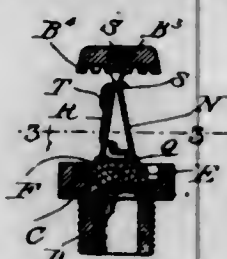


The butter, lard or cheese cutter herein shown and described, consisting of a base board provided with an opening, a cutting frame fitting in said opening and having extensions engaging the walls of said opening to dispose the frame entirely within the opening, rods passing through the base board and the extensions of the frame to secure the frame and permit its removal, a pair of longitudinal strips and a transverse connecting strip secured to the base board and forming a trough, and a presser board hinged to said transverse strip and operating in the trough to force the material through said cutting frame.

1,079,136. AUTOMATIC SPRINKLER-HEAD. EUGENE MCLEAN LONG, New York, N. Y. Filed Feb. 11, 1913. Serial No. 747,662. (Cl. 160—5.)

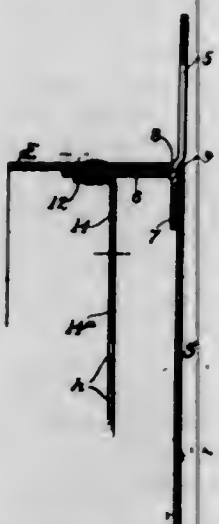
A sprinkler head comprising a shell adapted to be fastened to a water main system and provided with a deflecting portion, a disk adapted to seat upon a shoulder within said shell, a stopper engaging said disk and having

its outer surface convexed, shoes engaging said convexed surface, plates interlocking at their upper ends and engaging said shoes, a screw carried by the deflecting member and engaging one of said plates, a locking member hav-



ing one end passing through an aperture in one of the interlocking plates and engaging an angled projection of the other plate and held to the apertured plate by a fusible solder, as set forth.

1,079,137. SUIT-BOX. IRVING H. LYONS and RAUL J. GRUENBERG, San Francisco, Cal., assignors, by direct and mesne assignments, to Sanford F. Walter, San Francisco, Cal. Filed Oct. 24, 1912. Serial No. 727,494. (Cl. 206-7.)



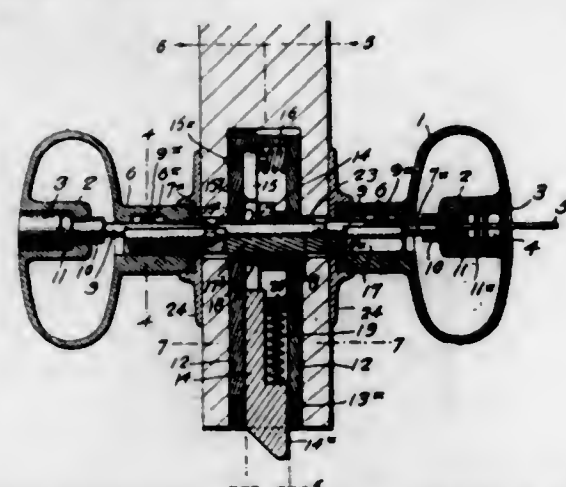
1. In a garment receptacle, the combination, with a box having an edge-member joined with the side-member, and with a primary angle-form reinforce comprising two plate-form portions secured respectively to the edge-member and side-member of the box, and extending along and reinforcing the joined edges of said box-members, of a combined reinforce and load-carrier connecting along its attaching end with the primary-reinforce plate which is secured to said edge-member, and having its said attaching end in an angle-form constituting a secondary reinforce located at a distance from the box-side, the secondary reinforce and the primary reinforce together constituting a compound reinforce of channel-bar sectional form and having its separated plate-form portions located in substantially parallel planes and in the direction of the load-carrying stress, and perpendicular to said edge-member of the box, substantially as described.

2. In a garment receptacle, the combination, with a box having an edge-member jointed with the side-member and with two jointed plate portions secured respectively to the edge-member and side-member of the box, and forming, when the box is folded up, a foldable angle-form primary reinforce along the jointed edges of said box-members, and having a bending joint adjacent thereto, of a combined reinforce and load-carrier connecting along its attaching end with the primary-reinforce plate which is secured to said edge-member, and while the box is folded up for use having its said attaching end in an angular form constituting a secondary reinforce, and located at a distance from the box-side so that on unfolding the box to a plate-form, the two said angle-form reinforce members are also unfolded to a flat form while the said attaching end is folded down against the edge member of the box.

3. In a garment receptacle, the combination, with a box having an edge-member jointed with the side-member and

having a handle-receiving slot at the joint, of the handle extending outwardly through said slot and within the box having two jointed plate portions secured respectively to the edge-member and side-member of the box, and forming, when the box is folded up, a primary angle-form reinforce along the slot; and a load-carrier having its attaching end affixed to the reinforce plate which is secured to the edge-member, and having a bending joint adjacent thereto, and while the box is folded up for use having its said attaching end in an angular form constituting a secondary reinforce, and located at a distance from the box-side so that on unfolding the box to a flat form, the two said angle-form reinforce members are also unfolded to a flat form while the load-carrier is folded down against the side member of the box.

1,079,138. DOOR-LOCK. PLEASANT FOREST MANNING, Oklahoma, Okla. Filed June 5, 1913. Serial No. 771,871. (Cl. 70-91.)



1. The combination with a door having a recess extending inwardly from one edge, and a transverse bore intersecting said recess, of a latch casing arranged to enter said recess, a slidable latch within said casing, a door knob disposed on each side of the door, each of said door knobs being provided with a central recess, a shank arranged to extend through said transverse bore and said latch casing for connecting said door knobs, a locking stem rotatably carried by said shank, each end of said locking stem being provided with a slotted head rotatably disposed in the recess of one of the door knobs, means carried by said shank for moving said latch, a locking dog disposed within the latch casing, and means carried by said locking stem for moving said locking dog into and out of engagement with said latch.

2. The combination with a door having a cylindrical bore extending inwardly from one edge and a transverse bore intersecting said cylindrical bore, of a cylindrical latch casing arranged to enter said cylindrical bore, a slidable latch disposed within said latch casing, a locking dog pivotally mounted within said latch casing and arranged to engage said latch, means for frictionally holding said dog in its shifted position, a door knob disposed on each side of said door, each of said door knobs having an inwardly extending central recess, a shank arranged to extend through said transverse bore, said shank being provided with a longitudinal groove, a locking stem disposed in the groove in said shank, a slotted head carried by each end of said locking stem, said slotted head being disposed in the central recess in said door knob, a grooved cylinder disposed in the recess in each door knob adjacent to the slotted head, said cylinders being arranged to receive a key, and means carried by said locking stem and arranged to move said locking dog.

3. The combination with a door having a cylindrical bore extending inwardly from one edge and a transverse bore intersecting said cylindrical bore, of a cylindrical latch casing arranged to enter said cylindrical bore, a slidable latch disposed within said latch casing, a locking dog pivotally mounted within said latch casing and arranged to engage said latch, means for frictionally hold-

ing said dog in its shifted position, a door knob disposed on each side of said door, each of said door knobs having an inwardly extending central recess, a shank arranged to extend through said transverse bore, said shank being provided with a longitudinal groove, a locking stem disposed in the groove in said shank, a slotted head carried by each end of said locking stem, said slotted head being disposed in the central recess in said door knob, a grooved cylinder disposed in the recess in each door knob adjacent to the slotted head, said cylinders being arranged to receive a key, a gear carried by said locking stem and arranged to move said locking dog, and means carried by said locking stem for preventing the withdrawal of each door knob from the shank when the door is locked.

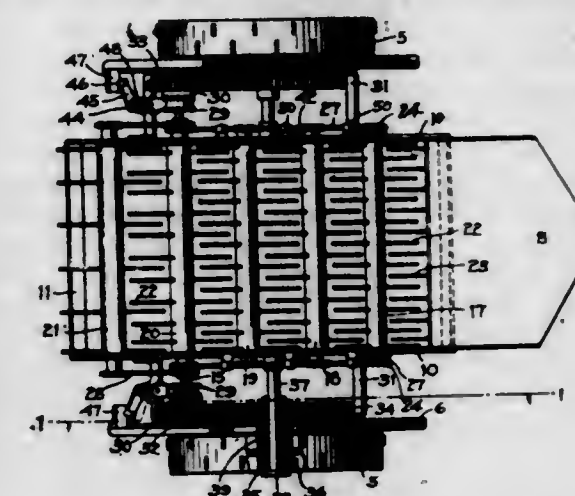
4. The combination with a door having a cylindrical bore extending inwardly from one edge and a transverse bore intersecting said cylindrical bore, of a cylindrical latch casing arranged to enter said cylindrical bore, a slidable latch disposed within said latch casing, a locking dog provided with teeth pivotally mounted within said latch casing and having a shoulder arranged to engage said latch, means for frictionally holding said dog in its shifted position, a door knob disposed on each side of said door, each of said door knobs having an inwardly extending central recess, a shank arranged to extend through said transverse bore, said shank being provided with a longitudinal groove, a locking stem disposed in the groove in said shank, a slotted head carried by each end of said locking stem, said slotted head being disposed in the central recess in said door knob, a grooved cylinder disposed in the recess in each door knob adjacent to the slotted head, said cylinders being arranged to receive a key, a gear carried by said locking stem and arranged to engage the teeth of said locking dog, and means carried by the locking stem for preventing the withdrawal of each door knob from the shank when the door is locked, said means comprising a lug on each end of the locking stem arranged to enter a recess in the door knob when the door is locked and adapted to be withdrawn from said recess when the door is unlocked.

5. The combination with a door having a cylindrical bore extending inwardly from one edge and a transverse bore intersecting said cylindrical bore, of a cylindrical latch casing arranged to enter said cylindrical bore, said cylindrical latch casing comprising a pair of hollow semi-cylindrical members provided with screw threads at one end, a latch plate having a rounded boss arranged to engage said threads for holding the latch casing members together, a slidable latch disposed within said latch casing, a locking dog provided with teeth pivotally mounted within said latch casing and having a shoulder arranged to engage said latch, means for frictionally holding said dog in its shifted position, a door knob disposed on each side of said door, each of said door knobs having an inwardly extending central recess, a shank arranged to extend through said transverse bore, said shank being provided with a longitudinal groove, a locking stem disposed in the groove in said shank, a slotted head carried by each end of said locking stem, said slotted head being disposed in the central recess in said door knob, a grooved cylinder disposed in the recess in each door knob adjacent to the slotted head, said cylinders being arranged to receive a key, and a gear carried by said locking stem and arranged to engage the teeth on the dog for moving the latter into and out of engagement with the latch.

1,079,139. AGRICULTURAL MACHINE. JAMES L. O'NEILL, Macedon, N. Y. Filed Feb. 3, 1913. Serial No. 746,010. (Cl. 55-51.)

1. In a machine for digging potatoes and the like, mechanism for conveying and separating earth and vines, said mechanism comprising a series of parallel rotatable supports provided with uniformly-spaced rows of fingers, each finger having its major portion tangential to a circle concentric with, but of greater diameter than, the support and projecting opposite to the direction of rotation of the support, and the fingers in each row being long enough

to extend to and between the tangential portions of the fingers of a row on the next support when the tangential portions of the two rows of fingers are at right-angles to each other, and means for rotating the supports at uniform speeds; the spaces between the fingers and above the supports being free and unobstructed so that the fingers constitute the sole means for supporting the material during the beating and transferring operation.



2. In a machine for digging potatoes and the like, mechanism for conveying and separating earth, vines, and tubers, said mechanism comprising a series of parallel rotatable supports provided with uniformly-spaced rows of fingers, each finger having its major portion tangential to a circle concentric with, but of greater diameter than, the support and projecting opposite to the direction of rotation of the support, and the fingers in each row being long enough to extend to and between the tangential portions of the fingers of a row on the next support when the tangential portions of the two rows of fingers are at right-angles to each other, and means for rotating the supports at uniform speeds and in the same direction, the spaces between the fingers and above the supports being free and unobstructed so that the fingers constitute the sole means for supporting the material during the beating and transferring operation, and the fingers on the rear-most support being arranged at distances twice as great as those on the other supports, so as to provide wider intervening spaces through which tubers may be dropped, while the vines are supported by the fingers and discharged in the rear of the rear-most support.

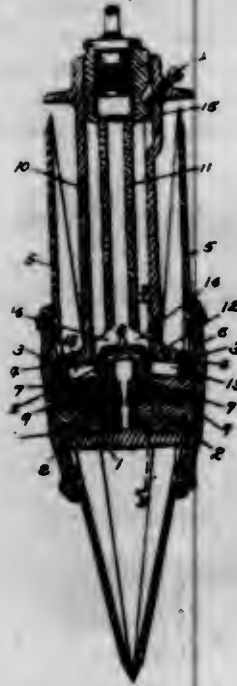
1,079,140. DOUBLE-DISK FURROW-OPENER. FRANK R. PACKHAM, Springfield, Ohio, assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 22, 1913. Serial No. 743,587. (Cl. 111-11.)

1. In a double disk furrow opener, a support, oppositely and angularly arranged bushings in said support, said bushings being laterally adjustable in said support but held from rotation therein, a pair of disks, an inwardly-extending angularly-arranged trunnion on each of said disks, said trunnions being rotatably mounted in said bushings but held from lateral movement with respect thereto so as to be movable therewith, and means for simultaneously moving said bushings toward each other.

2. In a double disk furrow opener, a support, oppositely and angularly arranged bushings in said support, said bushings being adjustable laterally in said support but held from rotation therein, disks rotatably mounted in said bushings and movable therewith, each of said bushings having a beveled face, and movable beveled projections coacting with said faces to move said bushings and disks toward each other.

3. In a double disk furrow opener, a support, oppositely and angularly arranged bushings in said support, said bushings being movable laterally in said support but held from rotation therein, disks having trunnions rotatably mounted in said bushings, plates connected with the ends of said trunnions and embracing the inner ends of said bushings to hold said trunnions therein, said bushings

having inclined faces, and adjustable inclined projections coacting with said faces to move said bushings and disks toward each other.

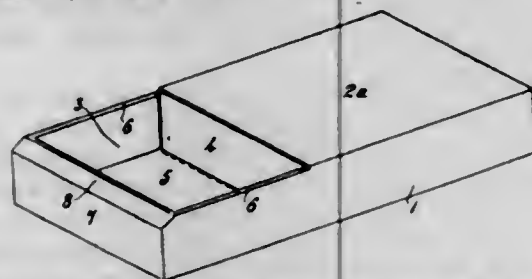


4. In a double disk furrow opener, a support, oppositely and angularly arranged bushings in said support, said bushings being movable laterally in said support but held from rotation therein, disks rotatably mounted in said bushings and movable therewith, an oil-conduit, beveled projections upon the end of said conduit, said bushings having inclined faces coacting with said beveled projections, and means for adjusting said oil-conduit whereby said bushings and disks may be moved toward each other, and held in position in said support.

5. In a double disk furrow opener, a support, oppositely and angularly arranged bushings in said support, said bushings being movable laterally in said support but held from rotation therein, disks rotatably mounted in said bushings and movable therewith, each of said bushings having an oil chamber, an adjustable oil-conduit communicating with said oil chamber, and means whereby when said conduit is adjusted, the bushings and disks will be moved toward each other.

[Claim 6 not printed in the Gazette.]

1,079,141. BOX OR RECEPTACLE FOR CONTAINING SMALL ARTICLES. EDWARD PAYSON PERKINS, Woodchester, England. Filed Feb. 4, 1913. Serial No. 746,132. (Cl. 206—1.)



1. A box, container or other receptacle for containing small articles such as pins, paper-fasteners, buttons and the like, comprising, in combination, a closed store compartment to contain a supply of articles, an open tray compartment adapted to receive a portion of the supply from the store compartment, and a door arranged between the said two compartments adapted to shut off the one from the other said door opening automatically when the box or receptacle is tilted in one direction and to close automatically when the box or receptacle is tilted in the opposite direction.

2. A box or receptacle of the kind herein described, comprising, in combination, a closed store compartment, an adjoining open tray compartment, and a door arranged between said compartments adapted to open and close by swinging, the floor and sides of the open tray compartment being thickened or constructed to project inward re-

spectively above and beyond the floor and sides of the store compartment to form abutments for the free edge and sides of the door to close against, substantially as described.

3. A box or receptacle of the kind herein described, comprising, in combination, a closed store compartment, an adjoining open tray compartment, and a door arranged between said compartments to open and close the communication between them, the end of the open tray compartment having an inwardly deflecting edge for the purpose described.

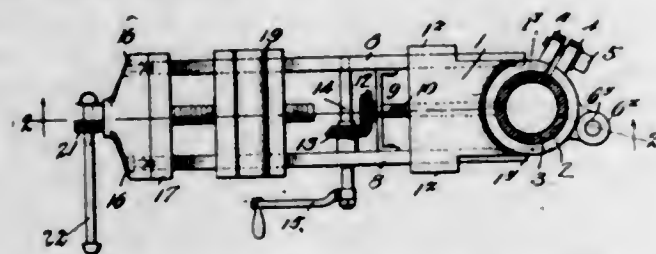
1,079,142. PROCESS FOR THE PRODUCTION OF WEATHERPROOF CARBONACEOUS FUEL OF PERMANENT SHAPE AND FOR RENDERING INNOCUOUS THE SULFUR CONTAINED IN THE COAL. EMIL POLLACSEK, Florence, Italy. Filed May 4, 1912. Serial No. 695,310. (Cl. 44—1.)

1. Process for the production of weatherproof sulfur-neutralizing fuel, which comprises mixing comminuted carbonaceous fuel with a liquid containing a blinder and lime in excess of the sulfur content of the fuel, and impregnating the mixture so obtained with ozocerite containing substances boiled with bitumen and phenols treated with a large supply of air.

2. Process for the production of weatherproof, sulfur-neutralizing fuel, which comprises mixing comminuted fuel with a liquid containing a blinder and lime in excess of the sulfur content of the fuel, drying the mixture, and impregnating the dried mixture with an ozocerite containing substance boiled with bitumen and phenols treated with a large supply of air.

3. Process such as described, which comprises mixing comminuted fuel with sulfur cellulose waste liquor and lime, and then with ozocerite containing substances boiled with bitumen and phenols treated with a strong current of air.

1,079,143. DRILLING-MACHINE ATTACHMENT. JESSE ELMER POOL, Wetumka, Okla. Filed May 19, 1913. Serial No. 768,474. (Cl. 77—63.)



1. The combination with a drilling machine standard of a bracket adjustably secured to said standard, said bracket being provided with a central threaded bore and having slots parallel with said central bore, parallel frame members disposed in said slots, a cross member secured to said parallel frame members, a screw shaft arranged to pass through said bracket and to enter said central threaded bore, a gear carried by said screw shaft, a transverse shaft rotatably mounted on said frame members, a gear on said transverse shaft arranged to mesh with said first named gear, a handle for turning said transverse shaft and a vise carried by said frame members.

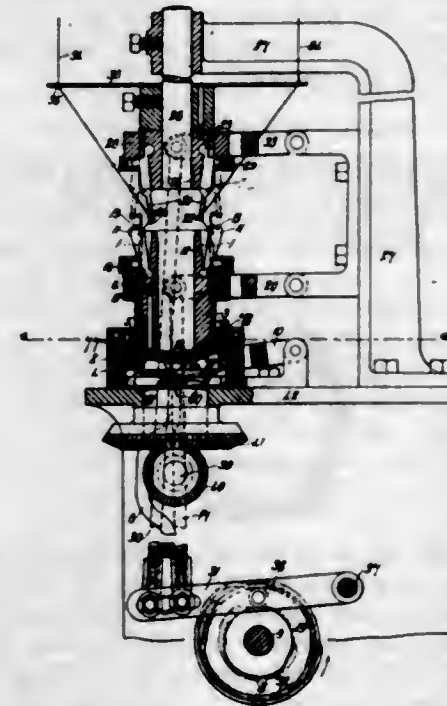
2. The combination with a drilling machine standard, of a bracket having a vertical bore arranged to receive said standard and said bracket also having a circular slot disposed at right angles to the bore and intersecting the latter, a ring disposed in the slot and encircling the standard, the outer edge of the ring being eccentric and an arm carried by the ring for rotating it around said standard thereby clamping the bracket to the standard.

1,079,144. CIRCULAR-KNITTING MACHINE. EDWARD EVERARD PRESTON, Leicester, England. Filed Jan. 13, 1912. Serial No. 671,091. (Cl. 66—33.)

1. A circular knitting machine having a series of needles all of which are simultaneously movable longitudinally for stitch forming purposes, a circular series of

needles, pattern mechanism to automatically impart to the needles an intermittent rotary movement relatively to the thread layers in a predetermined manner, means to cause certain predetermined needles of the series to form tuck stitches, pattern mechanism to automatically actuate said means to cause tucking to take place on different needles so that the tucking device may be prearranged in relation to the intermittent rotary movement of the needles, and mechanism adapted to be prearranged to automatically control i. e. put into and out of action, the automatic operating mechanism of the tucking device.

5. In a circular knitting machine the combination with a series of needles and means to move them longitudinally for stitch forming purposes, of means for intermittently rotating the needle cylinder consisting of a toothed wheel to rotate the cylinder, a pair of oppositely rotating worm cams, two oppositely operating cams, a lever, a slidable disk carried by said lever, pattern mechanism to automatically move said disk into the path of one or other of said cams whereby the lever is moved by said cam, and connecting mechanism between the lever and aforesaid toothed wheel whereby the latter is moved into gear with one of the worm cams, substantially as and for the purpose described.



2. A circular knitting machine having a series of needles all of which are simultaneously movable longitudinally for stitch forming purposes, a circular series of thread layers above and in close proximity to the hooks of the needles, means to move the thread layers radially between the needles so that each one coöperates with a needle to carry the thread to the front and back of the needles, pattern mechanism to automatically impart to the needles an intermittent rotary movement relatively to the thread layers in a predetermined manner, means to cause certain predetermined needles of the series to form tuck stitches, and pattern mechanism to automatically actuate said means to cause tucking to take place on different needles so that the tucking device may be prearranged in relation to the intermittent rotary movement of the needles for the purpose described.

3. A circular knitting machine having a series of needles all of which are simultaneously movable longitudinally for stitch forming purposes, a circular series of thread layers above and in close proximity to the hooks of the needles, means to move the thread layers radially between the needles so that each one coöperates with a needle to carry the thread to the front and back of the needles, pattern mechanism to automatically impart to the needles an intermittent rotary movement relatively to the thread layers in a predetermined manner, means to cause certain predetermined needles of the series to form tuck stitches, mechanism to automatically bring the aforesaid tucking means into and out of operation in a prearranged manner in relation to the intermittent rotary movement of the needles, and mechanism adapted to be prearranged to automatically control i. e. put into and out of action, the automatic operating mechanism of the tucking device.

4. A circular knitting machine having a series of needles all of which are simultaneously movable longitudinally for stitch forming purposes, a circular series of thread layers above and in close proximity to the hooks of the needles, means to move the thread layers radially between the needles so that each one coöperates with a needle to carry the thread to the front and back of the

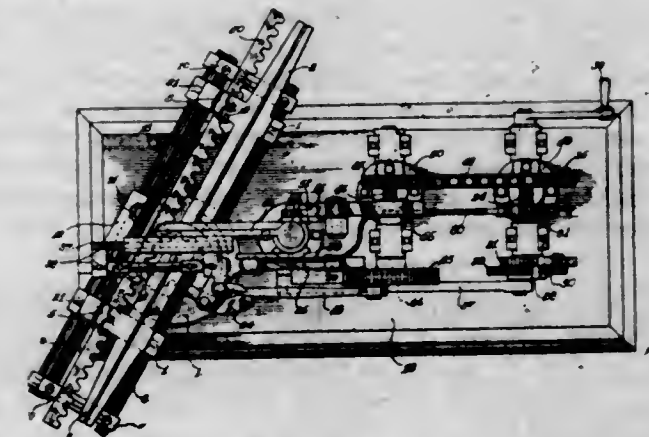
196 O. G.—47

needles, pattern mechanism to automatically impart to the needles an intermittent rotary movement relatively to the thread layers in a predetermined manner, means to cause certain predetermined needles of the series to form tuck stitches, pattern mechanism to automatically actuate said means to cause tucking to take place on different needles so that the tucking device may be prearranged in relation to the intermittent rotary movement of the needles, and mechanism adapted to be prearranged to automatically control i. e. put into and out of action, the automatic operating mechanism of the tucking device.

5. In a circular knitting machine the combination with a series of needles and means to move them longitudinally for stitch forming purposes, of means for intermittently rotating the needle cylinder consisting of a toothed wheel to rotate the cylinder, a pair of oppositely rotating worm cams, two oppositely operating cams, a lever, a slidable disk carried by said lever, pattern mechanism to automatically move said disk into the path of one or other of said cams whereby the lever is moved by said cam, and connecting mechanism between the lever and aforesaid toothed wheel whereby the latter is moved into gear with one of the worm cams, substantially as and for the purpose described.

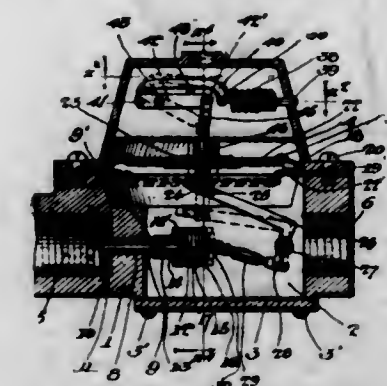
[Claims 6 to 8 not printed in the Gazette.]

1,079,145. SAW-FEEDING MECHANISM. THOMAS RICHARD, Montreal, Quebec, Canada, assignor of one-half to Aimé Bolleau, St. Raphael, Ile Bizard, Quebec, Canada. Filed Feb. 3, 1913. Serial No. 745,767. (Cl. 76—76.)



In combination with a machine of the character described slidably mounted, and slidably pivotedly adjusted saw holding means; means for securing the saw holding means in adjustment; and rack gear means for operating the slidably mounted saw holding means.

1,079,146. GAS-REGULATOR. JAMES R. RICKETTS, Los Angeles, Cal., assignor to Perfection Gas Regulator Company, Los Angeles, Cal., a Corporation of California. Filed Aug. 28, 1912. Serial No. 717,618. (Cl. 50—26.)

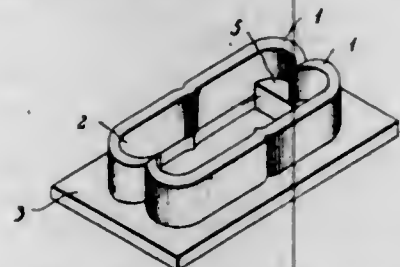


1. In a gas regulator in combination with a valve chamber, a regulating valve and a diaphragm connected to operate said valve responsively to the pressure in said valve chamber, of means for resisting the movement of said diaphragm comprising a spring, a lever having a con-

nection with said diaphragm and a member connected with said spring and pivotally connected to said lever, the line of action of said spring being substantially on a dead center with relation to the pivotal support and connections of said lever when the valve is closed.

2. In a gas regulator, a leather diaphragm, a metallic plate over the diaphragm, having a peripheral lip for retaining oil, and an abutment disk extending over and in contact with said plate and diaphragm to feed oil to the diaphragm.

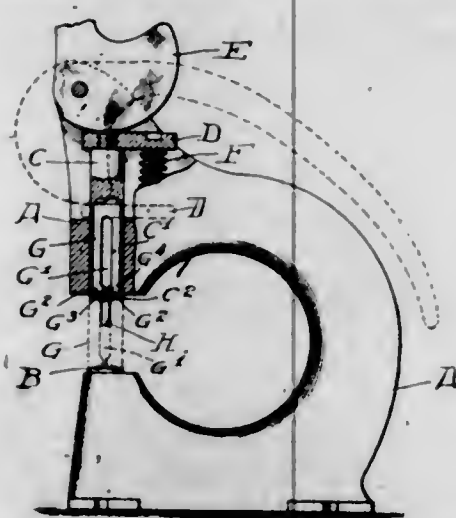
1,079,147. GRAVE-MARKER. SAMUEL B. RICKARDS, Seymour, Iowa. Filed Apr. 14, 1913. Serial No. 761,017. (Cl. 125-15.)



1. A grave marker comprising a coping formed in sections, said sections having in their ends segmental recesses, a base to support said sections of the coping, said base projecting beyond the sides and ends of the coping and having therein an opening, lugs formed on and projecting upwardly from said base in position to receive the recessed ends of said coping members whereby the latter are removably held in position on the base.

2. A grave marker comprising a coping formed of concrete and in separable sections each of which has in its opposite ends segmental recesses, a reinforced concrete base having therein an opening and adapted to receive said coping, and segmental lugs formed on and projecting upwardly from said base in position to receive the recessed ends of the coping members whereby the latter are held in position on the base.

1,079,148. MAGNETIC PICK-UP FOR RIVETING-MACHINES. DAVID C. SASSEMAN, River Forest, Ill., assignor to F. H. Smith Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 23, 1912. Serial No. 679,349. (Cl. 218-1.)



1. In a riveting machine, the combination of a frame of magnetic metal and a driver guided for movement therein, comprising a two-pole magnet consisting of a bifurcated bar with its poles disposed side by side at the driving end, and a carrier for said magnet of non-magnetic metal constituting a sheath which surrounds the poles of the magnet, the air gap between said magnet poles being less than the shortest possible path connecting them through said non-magnetic sheath.

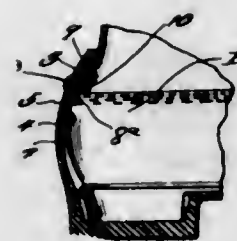
2. In a riveting machine, the combination of a frame of magnetic metal, and a driver guided for movement therein comprising a carrier of non-magnetic material, and a two-pole magnet consisting of a bifurcated bar with its

poles disposed side by side at the bifurcated end, the space between the two limbs being least in the vicinity of said poles and such magnet being secured in a socket in the end of the carrier with its poles exposed.

3. In a riveting machine, a driver comprising a carrier of non-magnetic material, and a two-pole magnet secured therein having its poles disposed side by side at the driving end, the material of the carrier extending alongside the said poles and slightly beyond them.

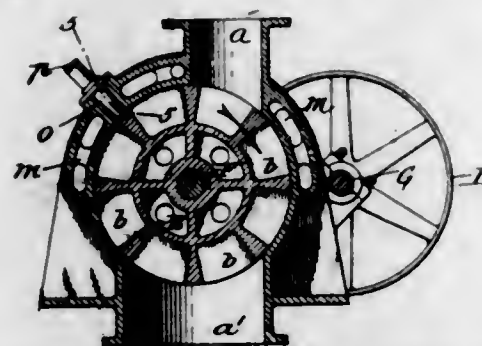
4. In a riveting machine the combination of a frame of magnetic metal and a driver guided for movement therein, comprising a carrier of non-magnetic material, and a two-pole magnet consisting of a bifurcated bar with its poles disposed side by side at the driving end, said magnet being slightly sunk in the end of the carrier to permit protrusion of the non-magnetic material thereof beyond the poles of the magnet.

1,079,149. OVERSHOE HOLDER OR CLAMP. CLAUDE R. SCHUEY, Cartersville, Ill. Filed May 29, 1913. Serial No. 770,712. (Cl. 36-8.)



In combination with an overshoe comprising inner and outer plies, a clamp holder U-shaped in contour constructed of spring steel embedded between said plies, and adapted to cause the overshoe to grip the shoe just short above the upper edge of the counter of the same to assist in preventing displacement of the overshoe, the plies being vulcanized about the holder, said clamp holder having its lower edge portion provided with a bead circular in cross section causing a bulge on the inner surface of the overshoe to engage the upper edge of the counter of the shoe to prevent downward displacement of the overshoe, the roundness of said bead constituting means to prevent excessive wear and cutting of the plies of the overshoe.

1,079,150. VACUUM-VALVE. OLIVER S. SLEEPER, Buffalo, N. Y., assignor to Buffalo Foundry & Machine Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 29, 1911. Serial No. 617,723. (Cl. 34-23.)



1. A vacuum valve comprising a cylindrical valve chamber having an inlet and an outlet one of which is adapted to be connected with a vacuum chamber, a rotatable valve plug arranged in said chamber and provided at its periphery with an annular row of outwardly opening pockets which are brought successively into register with said inlet and outlet, and a controlling device associated with said valve plug and operating to relieve the pressure of the valve plug against that side of the valve chamber against which the valve plug is drawn by the action of said exhaust device.

2. A vacuum valve comprising a cylindrical valve chamber having an inlet and an outlet one of which is adapted to be connected with a vacuum chamber, a rotatable valve plug arranged in said chamber and provided at its pe-

riphery with an annular row of outwardly opening pockets which are brought successively into register with said inlet and outlet, and a controlling device associated with said valve plug and operating to relieve the pressure of the valve plug against that side of the valve chamber against which the valve plug is drawn by the action of said exhaust device, said controlling device comprising springs arranged to resist the movement of the valve plug toward said vacuum chamber.

3. A vacuum valve comprising a cylindrical valve chamber having an inlet and an outlet one of which is adapted to be connected with a vacuum chamber, a rotatable valve plug arranged in said chamber and provided at its periphery with an annular row of outwardly opening pockets which are brought successively into register with said inlet and outlet, and a controlling device associated with said valve plug and operating to relieve the pressure of the valve plug against that side of the valve chamber against which the valve plug is drawn by the action of said exhaust device, said controlling device comprising springs arranged to resist the movement of the valve plug toward said vacuum chamber and adjusting screws for regulating the tension of said springs.

4. A vacuum valve comprising a cylindrical valve chamber having an inlet and an outlet one of which is adapted to be connected with a vacuum chamber, a rotatable valve plug arranged in said chamber and provided at its periphery with an annular row of outwardly opening pockets which are brought successively into register with said inlet and outlet, and a controlling device associated with said valve plug and operating to relieve the pressure of the valve plug against that side of the valve chamber against which the valve plug is drawn by the action of said exhaust device, said controlling device comprising springs arranged to resist the movement of valve plug toward said vacuum chamber, adjusting screws for regulating the tension of said springs and adjustable stops which limit the movement of said valve plug under the action of said springs.

5. A vacuum valve comprising a cylindrical valve chamber having an inlet and an outlet one of which is adapted to be connected with a vacuum chamber, a rotatable valve plug arranged in said chamber and provided at its periphery with an annular row of outwardly opening pockets which are brought successively into register with said inlet and outlet, a shaft on which said valve plug is mounted, bearings which are arranged on opposite sides of the valve and in which opposite ends of said shaft are journaled, guideways in which said bearings slide, springs operating to resist the movement of said bearings and associated parts toward said vacuum chamber, and adjusting screws for regulating the tension of said springs.

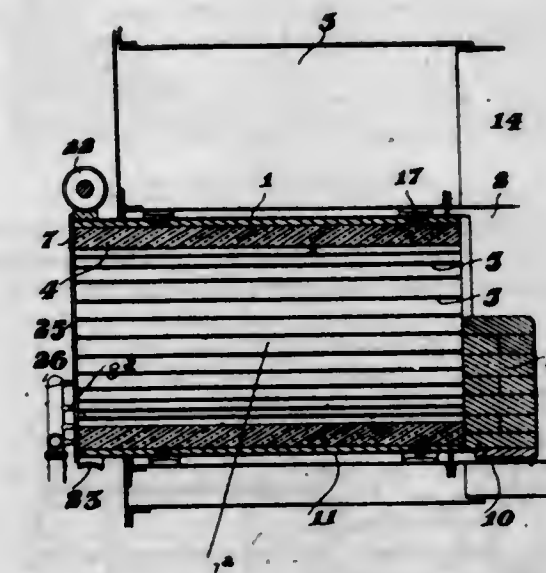
[Claims 6 and 7 not printed in the Gazette.]

1,079,151. ROTARY FURNACE OR FIRE-BOX. ALFRED SMALLWOOD, London, England. Filed Sept. 25, 1911. Serial No. 651,169. (Cl. 126-149.)

1. A combustion apparatus comprising in combination, a rotary firebox structure having an imperforate periphery and provided with longitudinally disposed channels opening substantially throughout their length to the interior of the firebox and provided with endwise opening ingress portions, and means for supplying a combustion agent to the interior of said firebox through successive endwise ingress portions and said interiorly opening channels during the rotation of said firebox structure, and means to rotate said firebox structure.

2. A combustion apparatus comprising in combination, a rotary firebox structure having an imperforate periphery and provided with longitudinally disposed channels opening substantially throughout their length to the interior of the firebox and provided with endwise opening ingress portions enlarged with respect to the cross-section of the channel, and means for supplying a combustion agent to the interior of said firebox through successive enlarged ingress portions and said interiorly opening channels during the rotation of said firebox structure, and means to rotate said firebox structure.

3. A combustion apparatus comprising in combination, a rotary firebox structure having an imperforate periphery and provided with longitudinally disposed channels opening substantially throughout their length to the interior of the box, the transverse width of the radially innermost portions of the channels being reduced with respect to the transverse width of the radially outermost portions of the channels, said channels having endwise opening ingress portions, and means for supplying a combustion agent to successive ingress portions during the rotation of said firebox structure, and means to rotate said firebox structure.

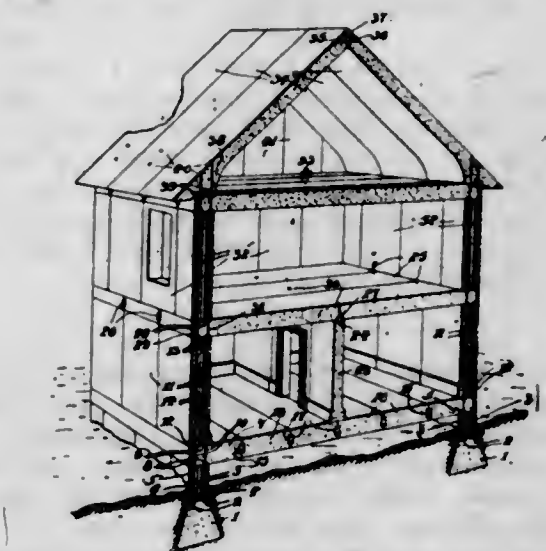


4. A combustion apparatus comprising in combination, a firebox structure having an imperforate periphery and provided with longitudinally disposed channels opening substantially throughout their length to the interior of the firebox and provided with endwise opening ingress portions, and means for supplying a combustion agent to successive ingress portions during the rotation of said firebox structure, and means to rotate said firebox structure.

5. A combustion apparatus comprising in combination, a rotary firebox structure having an imperforate periphery and provided with longitudinally disposed channels opening substantially throughout their length to the interior of the firebox, the radially outermost portions of the channels being formed of metal and the radially innermost portions of the channels being formed of a refractory material, said channels having endwise opening ingress portions, and means for supplying a combustion agent to successive ingress portions thereof during the rotation of said firebox structure, and means to rotate said firebox structure.

[Claims 6 to 8 not printed in the Gazette.]

1,079,152. CONCRETE CONSTRUCTION. ROBERT WALDEMAR STENTZEL, Montreal, Quebec, Canada. Filed June 12, 1912. Serial No. 703,302. (Cl. 72-1.)



In concrete building construction, a foundation of concrete embedded in the earth and having longitudinal joint

channels, preformed under walls of concrete in sections standing on said foundation and having corresponding joint channels, joint channels on the top thereof and pouring ducts to the lower foundation channels through the walls, a flooring of concrete in sections supported on said under walls and having longitudinal joint channels in the top and bottom of the marginal portions thereof and pouring ducts therethrough and longitudinal joint channels between the several sections, upper walls of concrete in several sections standing on said flooring and having in the top and bottom sides thereof joint channels and longitudinal pouring ducts therethrough, and between each section, longitudinal joint channels, a roof of concrete in several sections resting on the upper walls and having joint channels across said sections toward the outer ends thereof and pouring ducts leading to said joint channels, and a cement binding in all of said channels.

1,079,153. APPARATUS FOR TREATING MALT SEEDS, AND THE LIKE. LUDWIG TOPF, Erfurt, Germany. Filed Oct. 14, 1909. Serial No. 522,622. (Cl. 34-5.)

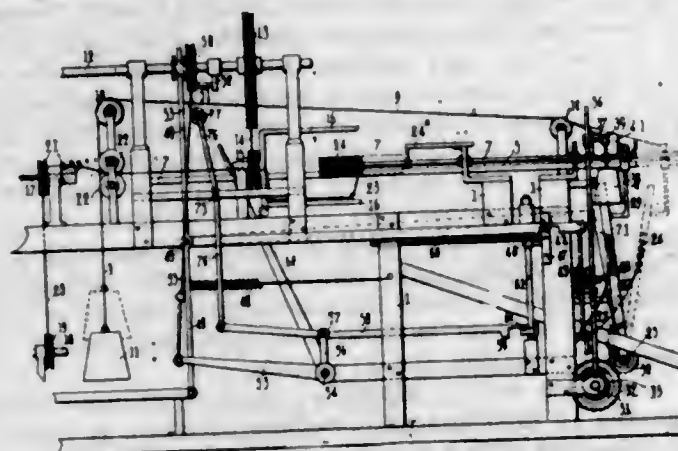


1. An apparatus of the character described, comprising a rotary drum consisting of a perforated external casing provided with pocket-like conveyers, and an inner casing having agitators pivotally mounted thereon, said pockets being so formed as to inclose portions of the material which is carried within them, and trickles slowly down in small quantities during the rotation of the drum.
2. An apparatus of the character described, comprising a rotary drum consisting of a perforated external casing provided with pocket-like conveyers, an inner casing having agitators mounted thereon, and means whereby said agitators are adjusted in predetermined positions.
3. An apparatus of the character described, including in combination, a rotary drum consisting of a perforated external casing, pocket-like conveyers carried by said external casing and extending the whole length thereof, an inner casing having agitators positioned upon its periphery and extending the entire length thereof, and means whereby the material is carried a maximum period within the pockets and then allowed to trickle slowly down in small quantities during the rotation of the drum.
4. An apparatus of the character described, comprising a rotary drum consisting of a perforated external casing provided with pocket-like conveyers, and an inner casing having agitators adjustably mounted thereon, said pockets being formed with a substantially semicircular lifting surface extending the whole length of the casing, whereby the material is contained a maximum period within them, and then allowed to slowly trickle down in small quantities through the agitators.

1,079,154. MACHINE FOR AUTOMATICALLY REMOVING THE FULL FIRNS IN SPINNING AND TWISTING FRAMES. FRITZ WATZLAWIK, Schöneberg, Germany, assignor to Berliner Jute-Spinnerei & Weberlei, Stralau, near Berlin, Germany. Filed May 10, 1910. Serial No. 560,478. (Cl. 242-41.)

1. In a machine of the character described, the combination of a rotatable flier and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for reciprocating said spindle, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, a stop for holding the cop stationary while the spindle is being withdrawn, and mechanism controlled by the spindle reciprocating means for quickly throwing into operation said means by which the spindle is withdrawn from the cop and for quickly restoring said latter means to its normal position.

2. In a machine of the character described, the combination of a rotatable flier and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for reciprocating said spindle, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, mechanism for throwing into action said intermittently moving means and for restoring said means and spindle to normal positions, and a trip device controlled by the cop reciprocating means for starting the said mechanism into operation.



2. In a machine of the character described, the combination of a rotatable flier and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for reciprocating said spindle, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, mechanism primarily operated by the flier rotating means for throwing into action said intermittently moving means and permit the return of said means and spindle to normal positions, and a trip device controlled by the cop reciprocating means for starting said mechanism into operation.

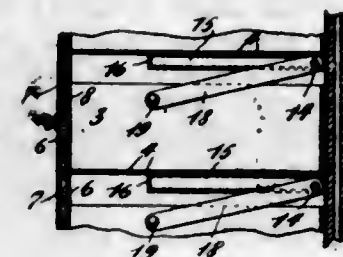
3. In a machine of the character described, the combination of a rotatable flier, and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for reciprocating said spindle, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, mechanism controlled by the cop reciprocating means for quickly throwing into operation said intermittently moving means and for quickly restoring said means and spindle to normal positions, and means for cutting the yarn between the flier and the cop after the latter has been removed from the spindle.

4. In a machine of the character described, the combination of a rotatable flier, and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, mechanism controlled by the cop reciprocating means for quickly throwing into operation said intermittently moving means and for quickly restoring said means and spindle to normal positions, and means for cutting the yarn between the flier and the cop after the latter has been removed from the spindle.

5. In a machine of the character described, the combination of a rotatable flier and means for rotating the same, a cop spindle adapted to be longitudinally reciprocated in the axial line of said flier a predetermined distance while winding a cop thereon, means for reciprocating said spindle, means for intermittently moving said spindle a greater distance to remove a wound cop therefrom, mechanism for throwing into action said intermittently moving means and restoring said means and spindle to normal positions, cutting means actuated by said mechanism, and a trip device controlled by the cop reciprocating means for starting said mechanism into operation, said cutting mechanism severing the yarn between the flier and the cop after the latter has been removed from the spindle.

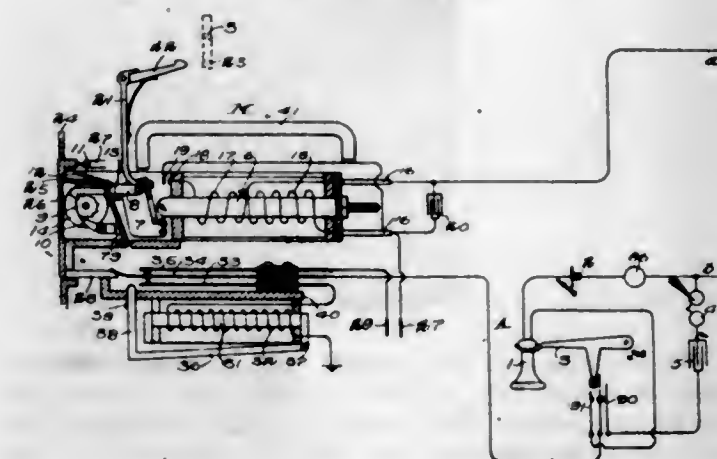
[Claims 6 to 8 not printed in the Gazette.]

1,079,155. REFRIGERATOR. WILLIAM D. ADAMS, New York, N. Y. Filed Aug. 14, 1909. Serial No. 512,831. (Cl. 45-7.)



A refrigerator having a plurality of food drawers separated by partitions provided with channels having a stop at the forward end thereof, sliding members supported in said channels, and inclined arms pivoted at one end to said sliding members and at their opposite end to the upper portion of the side of said drawers on opposite sides and at a point forward of the center thereof.

1,079,156. TELEPHONE-EXCHANGE SYSTEM. WILLIAM AITKEN, Liverpool, England. Filed June 25, 1913. Serial No. 775,706. (Cl. 179-7.)



1. In a telephone system, a subscriber's talking circuit, a call register and means controlled by said register for automatically rendering said talking circuit inoperative when said register has been operated a predetermined number of times.
2. In a telephone system, a subscriber's talking circuit, a call register adapted to register a predetermined number of calls, and means controlled by said register for rendering said talking circuit inoperative when all of said predetermined number of calls have been registered.
3. In a telephone system, a line, a call register adapted to register a predetermined number of calls, an electrically operated signal, means for operating said signal a short time before all of said calls are registered, and automatic means controlled by said register for rendering said line inoperative when all of said calls are registered.
4. In a telephone system, a subscriber's talking circuit, a call register comprising an electromagnet and a readily removable registering unit controlled by said electromagnet, said unit being adapted to register only a predetermined number of calls, and means whereby when said unit is removed said talking circuit is rendered inoperative.
5. In a telephone system, a subscriber's talking circuit, a call register comprising an electromagnet and a removable registering unit controlled by said magnet, said unit being adapted to register only a predetermined number of calls, means for rendering said talking circuit inoperative when all of said calls have been registered, and means for rendering the talking circuit inoperative when said unit is removed.

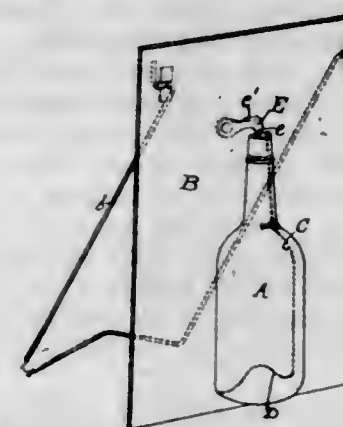
[Claims 6 to 8 not printed in the Gazette.]

1,079,157. CONVEYER-BELT. WILLIAM W. BATCHELOR, Chelsea, Mass. Filed Aug. 12, 1912. Serial No. 714,558. (Cl. 193-26.)



1. A canvas conveyer belt having pockets at its side edges constructed from the material of the belt, for the purpose set forth.
2. A canvas conveyer belt having pockets at its side edges constructed from the material of the belt, and slats having their ends held in said pockets.
3. A conveyer belt provided with a hem at each edge, each hem being provided with a series of pockets, and slats having their ends held in said pockets.
4. A canvas conveyer belt, having its edges turned over to form hems, and a zigzag sewing in each hem whereby a series of pockets is formed therein.
5. A cloth conveyer belt having its edges provided with hems, a series of oppositely disposed pockets in said hems, and slats affixed to the belt and having their ends held in said pockets.

1,079,158. DISPLAY DEVICE FOR BOTTLES AND ANALOGOUS ARTICLES. RICHARD C. BEATTY, Buffalo, N. Y. Filed May 27, 1911. Serial No. 629,849. (Cl. 211-24.)



1. A display device for bottles and analogous articles which have inwardly-extending circular depressions in their bottoms, comprising an inclined holder having an opening therein which conforms substantially to the shape of the bottle and is of less diameter than the bottle so that the latter rests against the edges of the opening and cannot be passed through said opening, the lower edge of said opening being provided with an inwardly-extending central portion which projects into the circular depression in the bottom of the bottle when the latter is placed in the holder and holds the lower portion of the bottle from movement out of said opening, and means for holding the upper end of said bottle in said opening, substantially as set forth.
2. A display device for bottles and analogous articles which have inwardly-extending circular depressions in their bottoms, comprising a holder for the bottle having an opening therein in which the bottle is adapted to be inserted and having a part which is adapted to project into the depression in the bottom of the bottle, and a prong which is pivotally secured to the holder and is adapted to be forced into the cork in the upper end of

the bottle for securing the same to the holder, the edges of said opening being so shaped as to hold the bottle against movement in the plane of the holder, and said projecting part and prong holding the bottle against movement out of said opening whereby the bottle is positively held in said opening, substantially as set forth.

1,079,159. MAN-LIFT ELEVATOR. CHARLES E. BIRD, Minneapolis, Minn. Filed May 3, 1913. Serial No. 785,219. (Cl. 187-81.)



1. The combination with overhead cable guides, of a guide cable extended across said cable guides and having vertical portions anchored at their lower ends, of a car guided by the vertical portions of said cable, a counter-weighted car supporting cable, and a bearing for said supporting cable exerting a downward pressure on the transverse upper portion of said guide cable.

2. The combination with overhead cable guides, of a guide cable extended across said cable guides and having vertical portions anchored at their lower ends, of a car guided by the vertical portions of said cable, a counter-weighted car supporting cable, a bearing for said supporting cable exerting a downward pressure on the transverse upper portion of said guide cable, and safety clutches normally held inactive by the weight of the car and its counter-weight, but operative, when released by breaking of the car supporting cable, to anchor said car to said guide cable.

3. The combination with overhead cable guides, of a guide cable extended across said cable guides and having vertical portions anchored at their lower ends, of a lever pivoted to an overhead support and having a bearing on the transverse upper portion of said guide cable, for automatically taking up the slack thereof, a cable wheel journaled to said lever, a car guided by the vertical portions of said cable guide, and a counter-weighted cable passed over said cable wheel and supporting said car.

4. The combination with overhead cable guides, of a guide cable extended across said cable guides and having vertical portions anchored at their lower ends, of a lever pivoted to an overhead support and having a bearing on the transverse upper portion of said guide cable, for automatically taking up the slack thereof, a cable wheel journaled to said lever, a car guided by the vertical portions of said cable guide, a counter-weighted cable passed over said cable wheel and supporting said car, a rock shaft having cable engaging safety clutches, the said cable being eccentrically attached to said rock shaft and normally exerting a force holding the clutches thereof for free movements on said guide cable, and means operative when the said counter-weighted cable is broken, to cause the safety clutches of said rock shaft to grip the vertical portions of said guide cable.

5. The combination with vertical guide cables and a car mounted for vertical movements thereon, of a rock shaft mounted on said car and having perforated offset arms at its ends serving as safety clutches to engage said guide cables, said rock shaft having at its intermediate portion oppositely projecting arms, a spring attached to one of said arms and to said car and tending to cause the clutches of said rock shaft to grip said guide cables, and a counter-weighted cable attached to the other of said arms and acting in opposition to said spring to normally hold the clutches of said rock shaft free for sliding movements on said guide cables.

1,079,160. APPARATUS FOR COOKING MEATS. FREDERICK BRIGGS, Washington, D. C. Filed Oct. 18, 1911. Serial No. 655,323. (Cl. 53-1.)



1. In an apparatus for cooking meat, a receptacle comprising two relatively movable sections, one of said sections being provided with means arranged to engage the other section for limiting the relative movement of the sections, one of said sections constituting a shipping can for the meat, a top for said receptacle, a plunger disposed within the receptacle, a follower disposed within the receptacle, a spring disposed between said plunger and said follower, a sleeve for supporting the follower, said sleeve being arranged to pass through the top, a handle secured to said sleeve for adjusting the position of the follower with respect to the top, a plunger rod arranged to pass through said sleeve and an adjustable nut carried by the plunger rod and arranged to engage the sleeve for limiting the movement of the plunger.

2. In an apparatus for cooking meat, a receptacle comprising two telescopic sections, one of said telescopic sections having an inwardly extending flange at its lower edge, a movable bottom arranged to engage said flange, means for limiting the movement of one of said sections relative to the other, a top for said receptacle, a plunger disposed within the receptacle and having a plunger stem, a follower disposed within the receptacle, a threaded sleeve for supporting said follower arranged to pass through the top, the stem of the plunger being arranged to extend through said sleeve, a handle for turning said sleeve to move the follower, a spring disposed between the plunger and the follower, and an adjustable thumb nut carried by the plunger rod and arranged to engage the end of the sleeve for limiting the movement of the plunger.

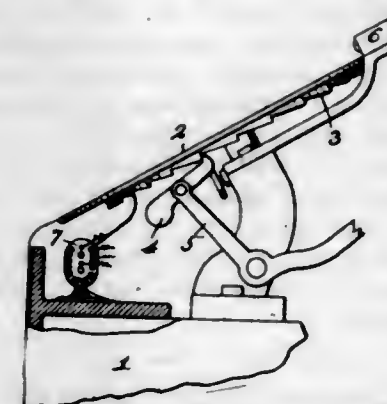
3. In an apparatus for cooking meat, a receptacle comprising a pair of tapered telescopic sections, means for limiting the telescopic movement of one section relative to the other, a top removably connected with the end of one of said sections, said top having a central opening provided with a screw thread, a threaded sleeve arranged to engage the threaded opening, a follower car-

ried by said sleeve, a plunger disposed within said receptacle, a plunger rod arranged to extend through said sleeve, and a spring disposed between said follower and said plunger for forcing said plunger away from said follower.

4. In an apparatus for cooking meat, a receptacle comprising a pair of tapered telescopic sections, a flange carried by each section and arranged to engage the flange on the other section for limiting the outward movement of the sections, a top removably connected with the end of one of said sections, said top having a central opening provided with a screw thread, a threaded sleeve arranged to engage the threaded opening, a follower carried by said sleeve, a plunger disposed within said receptacle, a plunger rod arranged to extend through said sleeve, a spring disposed between said follower and said plunger for forcing said plunger away from said follower, and means connected with said sleeve for adjusting the position of the follower with respect to the top.

5. In an apparatus for cooking meat, a receptacle comprising a pair of tapered telescopic sections, a flange carried by each section and arranged to engage the flange on the other section for limiting the outward movement of the sections, a top removably connected with the end of one of said sections, said top having a central opening provided with a screw thread, a threaded sleeve arranged to engage the threaded opening, a follower carried by said sleeve, a plunger disposed within said receptacle, a plunger rod arranged to extend through said sleeve, a spring disposed between said follower and said plunger for forcing said plunger away from said follower, means connected with said sleeve for adjusting the position of the follower with respect to the top, and an adjustable nut carried by said plunger rod for limiting the movement of the plunger.

1,079,161. PRINTING-PRESS. JULIAN BUCHER, Kansas City, Mo. Filed Apr. 25, 1912. Serial No. 693,206. (Cl. 219-19.)



Means for heating the rotary ink plate of a printing press consisting of an electric heater including two resistance coils located on the press bed at a point beneath the ink plate and at the lower front end of said plate, a source of electrical energy, a contact for each coil in electrical connection therewith, a rheostat in electrical connection with the source of energy, a switch movable from one contact to the other, and an electrical connection between the switch and rheostat.

1,079,162. WELL-DIGGER'S TOOL. PHILO D. BUNDY, Mount Vernon, Ind. Filed Mar. 25, 1912. Serial No. 685,989. (Cl. 57-9.)

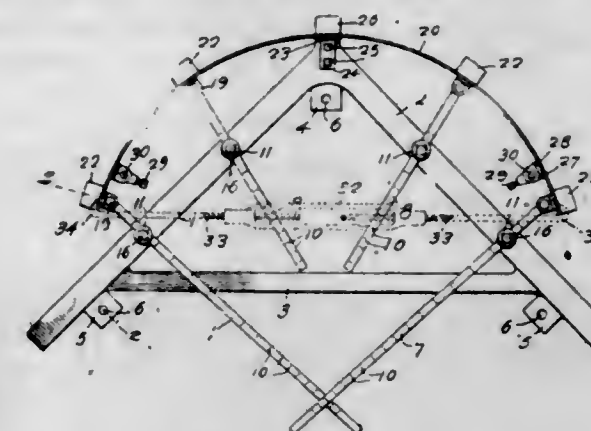
A device of the character described, having in combination, a sleeve, a coupling secured to the lower end of said sleeve, a collar extending from said coupling, a fork fixed to the lower end of said collar having a plurality of tines and a straight tang, an ear secured to said collar opposite said fork, a fork having a plurality of tines and a straight tang pivoted to said ear and arranged for co-action with said fixed fork, a yoke sliding upon and

guided by said fixed fork tang and engaging said pivoted fork tang and an operating rod guided within said sleeve



and secured at its lower end to said yoke, each of said tangs having a stop shoulder to limit the upward movement of said yoke.

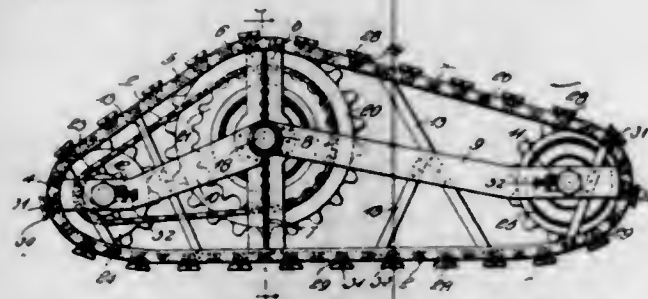
1,079,163. ADJUSTABLE HOLDER FOR LAMINATED FORMS. LEWIS R. CARROLL, Charlotte, N. C. Filed Dec. 12, 1912. Serial No. 736,321. (Cl. 144-259.)



1. A device of the character specified, comprising a flexible resilient form plate having on one face at the lower edge thereof and at its ends spaced extensions for engaging and supporting a form, an approximately V-shaped support provided at its apex with an extension engaging the lower edge of the form plate and extending beyond the same, said support having a stop at the said extension for limiting the inward movement of the form plate, posts pivoted to the arms of the support, radius rods having graduations on their upper faces pivoted at one end to the inner face of the form plate at the extensions, each post having an opening for a radius rod, and means for clamping each rod in adjusted position with respect to the post, said support being adapted to rest upon a supporting surface, and supporting rods slidably connected with the form plate at the inner side thereof and near the ends of the said plate for engaging the said surface at their lower ends to support the plate.

2. A device of the character specified, comprising a flexible resilient form plate having on one face at the lower edge thereof and at its ends spaced extensions for engaging and supporting a form, an approximately V-shaped support provided at its apex with an extension engaging the lower edge of the form plate and extending beyond the same, said support having a stop at the said extension for limiting the inward movement of the form plate, posts pivoted to the arms of the support, radius rods pivoted at one end to the inner face of the form plate at the extensions, each post having an opening for a radius rod, and means for clamping each rod in adjusted position with respect to the post.

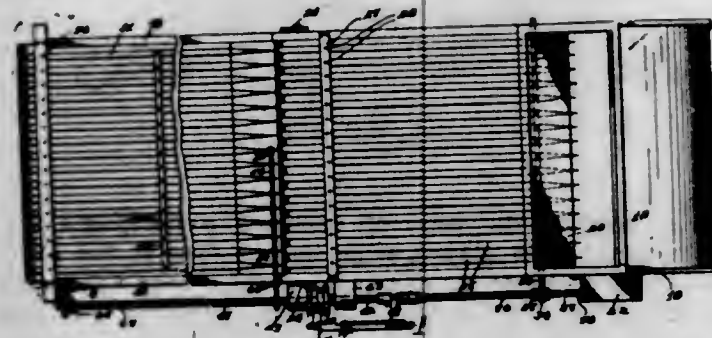
1,079,164. DOUBLE RUNNER. JESSE E. CHENETTE, Montpelier, Vt. Filed Jan. 2, 1912. Serial No. 668,986. (Cl. 21—114.)



1. In a traction device of the class described, the combination with a runner comprising two spaced channel members connected by an integral web so as to produce a peripheral groove around the runner, the web having openings at points, and sprockets whose teeth project through said openings; of a chain whose links travel in said groove and engage said teeth, and shoes each consisting of a body pivoted within the line of the chain and traveling within said groove, and transverse earth-engaging portions carried by the body and projecting laterally outward over the channel members of the runner.

2. In a traction device of the class described, the combination with a sleeve adapted to be mounted on an axle spindle, means for rotating said sleeve, a main sprocket fast on the latter, and a runner in which the sleeve is journaled; of a traction chain passing around the periphery of the runner and engaging the teeth of said sprocket, a supplemental sprocket journaled in the runner and its teeth also engaging said chain, and means for connecting the main and supplemental sprockets so that power from the former will be imparted to the latter, for the purpose set forth.

1,079,165. CONVEYER MECHANISM. JAMES CONTE, Lima, Ohio. Filed Feb. 26, 1913. Serial No. 750,828. (Cl. 91—2.)



1. In apparatus of the character described, an upstanding hopper having its lower end provided with an opening, an endless belt conveyor disposed near and below the upstanding hopper to withdraw material from the same through the opening thereof, means to effect the longitudinal travel of the endless belt conveyor, laterally spaced longitudinal shaker bars disposed above and near the endless belt conveyor and having their corresponding ends tapered and extending with the endless belt into the discharge side of the opening of the upstanding hopper, to agitate the material within the lower portion of the hopper while being supported by the longitudinally movable endless belt, and means to move the shaker bars with relation to the endless belt conveyor.

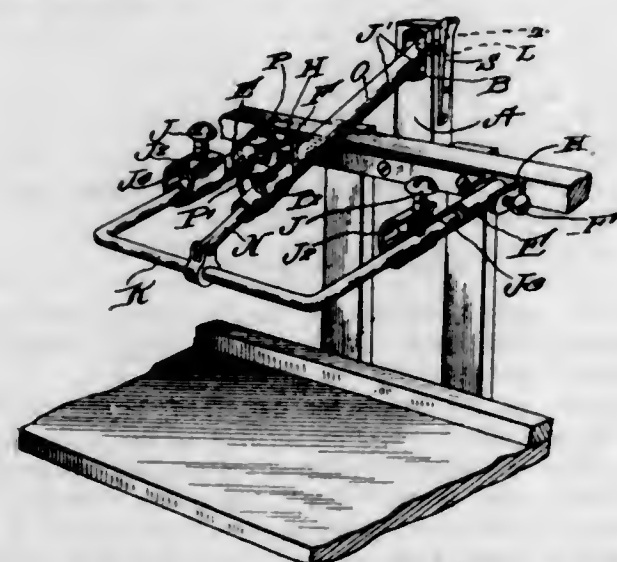
2. In apparatus of the character described, an upstanding hopper having its lower end provided with a lateral opening, an endless belt conveyor disposed below and closing the lower end of the hopper to withdraw material through the lateral opening, means to effect the longitudinal travel of the endless belt conveyor, laterally spaced longitudinal shaker bars disposed above and near the endless belt conveyor and having their corresponding ends tapered and extending into the lateral opening of the upstanding hopper to agitate the material therein, and means to swing the shaker bars with relation to the endless belt conveyor.

3. In apparatus of the character described, a hopper provided with a lateral discharge opening disposed adjacent the lower end thereof, an auxiliary endless belt conveyor operating in proximity to the lower open end of the hopper for closing the same and withdrawing material from the hopper through the lateral opening, agitating means mounted upon the auxiliary endless belt conveyor with the ends thereof extending into the lateral opening of the hopper to agitate material therein supported upon the moving endless belt, a main endless belt conveyor to receive material from the auxiliary endless belt conveyor, means to effect the longitudinal travel of the auxiliary endless belt conveyor in one direction, and means to effect the longitudinal travel of the main endless belt conveyor in the same direction and at a greater speed than the auxiliary endless belt conveyor.

4. In apparatus of the character described, a hopper provided with a lateral discharge opening, an auxiliary endless belt conveyor operating in proximity to the discharge opening for withdrawing material from the hopper therethrough, a main endless belt conveyor to receive material from the auxiliary endless belt conveyor, means to effect the longitudinal travel of the auxiliary endless belt conveyor in one direction, means to effect the longitudinal travel of the main endless belt conveyor in the same direction and at a greater speed than the auxiliary endless belt conveyor, longitudinal transversely spaced shaker bars disposed above and near the auxiliary endless belt conveyor, with corresponding ends extending into the lateral discharge opening to agitate material within the hopper which is supported upon the moving auxiliary endless belt, means to move the shaker bars transversely with relation to the same, longitudinal transversely spaced shaker bars disposed above and near the main endless belt conveyor, and means to move the second named shaker bars transversely with relation to the main endless belt conveyor.

5. In apparatus of the character described, a main endless belt conveyor, means to effect the longitudinal travel of the same, an auxiliary endless belt conveyor disposed above the main endless belt conveyor, an inclined chute disposed at the discharge end of the auxiliary endless belt conveyor to conduct material therefrom to the main endless belt conveyor, transversely spaced longitudinal shaker bars mounted upon the outer surface of the main endless belt conveyor and having corresponding ends thereof tapered and inclined upwardly to conform to the inclination of the inclined chute, means to move the shaker bars transversely with relation to the main endless belt, means to supply material to the auxiliary endless belt conveyor, and means to effect the longitudinal travel of the auxiliary endless belt conveyor.

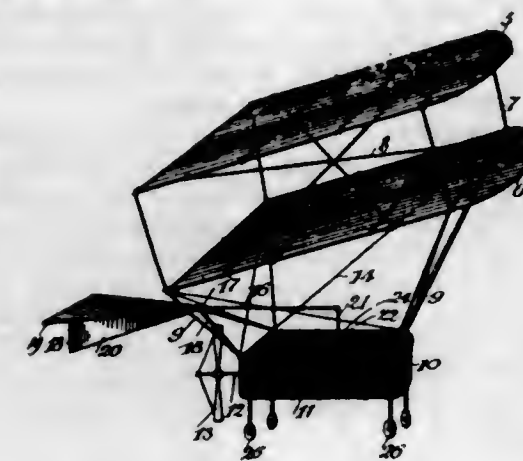
1,079,166. ATTACHMENT FOR CATTLE-STANCHIONS. ALFRED L. CRAMER, Colby, Wis. Filed May 24, 1913. Serial No. 769,748. (Cl. 119—27.)



In combination with a stanchion provided with an upright extension, a bracket fastened to the stanchion, open

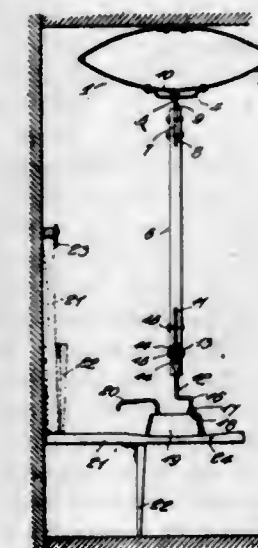
ended shells pivoted to said bracket, a ball shaped member having its arms telescoping said shells, means for holding the ends of said member in adjusted positions, a rod pivoted to said member, a shell movable through an opening in said extension of the stanchion, a pin, a spring fastened to the extension and carrying said pin, the latter designed to engage an aperture in said rod to hold the same in an adjusted position.

1,079,167. AERODROME. RUDOLPH G. DRESSLER, Coney Island, N. Y. Filed Jan. 24, 1910. Serial No. 539,677. (Cl. 244—29.)



In an aerodrome, an elongated frame, a helm, a rudder thereon, having horizontal and vertical planes, an intermediate lever slidably and pivotally connected at its rear end to said helm, a handle lever slidably and pivotally connected at its rear end to said intermediate lever, and supports to which said helm and levers are pivoted to universal joint connections, whereby the rudder may be moved in any direction.

1,079,168. IRONING DEVICE. DUNCAN J. FEELY, San Diego, Cal. Filed Oct. 25, 1912. Serial No. 727,808. (Cl. 68—9.)



An ironing device comprising a double bowed spring, the upper member of which is adapted to be secured to a support, an attaching plate having its opposite ends secured to the outer face of the lower member of said spring, whereby the body of said plate is spaced from said spring, a pressure bar having a beaded shank at one end swiveled in said attaching plate, the other end of said bar having a longitudinal slot at its free end, an iron engaging member having attaching bolts therein adapted to be slidably and adjustably engaged with the slot in said bar for adjustably securing said member to said bar, and clamping elements extending through said slotted bar end at right angles to the slot for forcing the side walls of the slot into rigid engagement with said attaching bolts.

1,079,169. SURFACE-INDICATOR. LEON FUCHS, Dayton, Ohio. Filed July 31, 1909. Serial No. 510,665. (Cl. 33—172.)



1. In a measuring instrument, two relatively rotatable supporting members movable in parallel planes about a common axis, a contact member capable of reciprocary movement carried by one of the members, a variable indicator carried by the other supporting member indicating by its degree of movement the degree of reciprocary movement of the contact member, actuating connections between the contact member and indicator, said contact member being adjustable to various radial operative positions independent of the indicator by the relative rotation of the supporting members and means for locking the supporting members one with the other, substantially as specified.

2. In a measuring instrument, two relatively rotatable supporting members movable in parallel planes about a common axis, an actuating member operated by the irregularities of the work operated upon carried by one supporting member, a variable indicator carried by the other supporting member intermediate connections between the actuating member and indicator whereby the indicator will be actuated by the movement of the actuating member to indicate the degree of irregularity of the work operated upon, said actuating member being adjustable to sundry undetermined radial positions in a common plane independent of the indicator by the relative rotation of the supporting members and means for locking the supporting members in adjusted position, substantially as specified.

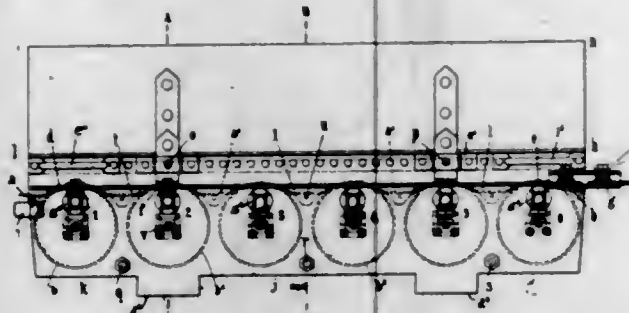
3. In a measuring instrument, a head comprising two supporting members capable of being engaged one with the other and relatively rotatable in parallel planes when disengaged one from the other, an indicator carried by one of the members, a movable member carried by the other member and adapted to be actuated by its passage over irregularities in the surface of the work operated upon, actuating connections between the movable member and the indicator whereby the indicator will disclose the relative degree of movement of the movable member due to the irregularities in the surface of the work.

4. In a measuring instrument, a head comprising two relatively rotatable sections capable of being engaged one with the other and rotatable in parallel planes when disengaged one from the other, an oscillatory indicator carried by one of the sections, a movable member capable of reciprocary movement carried by the other section and adapted to be reciprocated by the irregularities in the surface of the work over which the instrument is operated intermediate actuating connections between the said movable member and the indicator whereby a reciprocary movement of the movable member will cause a corresponding oscillatory movement of the indicator, said indicator and movable member being relatively adjustable to different operative positions in parallel planes by the relative rotation of the said head sections, substantially as specified.

5. In a measuring instrument, a head comprising two parallel sections relatively rotatable in relation to each other in parallel planes, an indicator carried by one of the sections, a revoluble gear member journaled concentric with the axis of rotation of the relative rotatable head sections, and adapted by its oscillation to actuate the indicator, a rack member capable of reciprocary movement carried by the other head section and meshing with said gear member in all positions of revoluble adjustment of the relatively rotatable head sections, and adapted by its reciprocation to oscillate the gear member to actuate the

band, said outer band being formed in sections, perforated lugs carried by the adjacent ends of the sections of the outer band, coil springs secured to the rim engaging band and having their opposite ends disposed through the perforated lugs to form hinges between the sections of the outer bands, and a tread member mounted on the outer rim.

1,079,176. SELF-ACTING CONVEYER FOR COAL AND GOAF-PACKING IN COLLIERY-INCLINES OF LOW GRADIENT. LOUIS HYVE, Dorignies, near Douai, France. Filed Oct. 15, 1912. Serial No. 725,851. (Cl. 193-1.)



1. In automatic chutes for conveying coal and the like in slightly sloping cuts, the combination of a series of closely placed rollers having their axes disposed in substantially the same plane; flat strips between said rollers and having beveled edges almost in contact with the rollers, said rollers projecting above the strips a very small distance relative to the length of the radius of the rollers; and means for at will holding certain of the rollers stationary.

2. In automatic chutes for conveying coal and the like in slightly sloping cuts, the combination of a series of closely placed rollers having their axes disposed in substantially the same plane; flat strips between said rollers and having beveled edges almost in contact with the rollers, said rollers projecting above the strips a very small distance relative to the length of the radius of the rollers; and means for at will holding certain of the rollers stationary, said means comprising slidable bolts adapted to engage the rollers.

3. In automatic chutes for conveying coal and the like in slightly sloping cuts, the combination of a series of closely placed rollers having their axes disposed in substantially the same plane; flat strips between said rollers and having beveled edges almost in contact with the rollers, said rollers projecting above the strips a very small distance relative to the length of the radius of the rollers; means for at will holding certain of the rollers stationary, said means comprising slidable bolts adapted to engage the rollers, and means for simultaneously operating a plurality of the bolts.

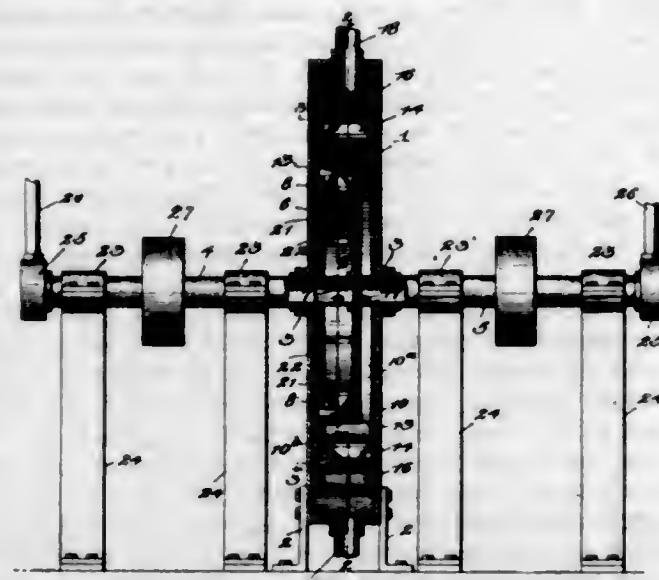
1,079,177. ROTARY ENGINE. ERNEST G. JONES and THOMAS T. PATCHEL, Cape May, N. J. Filed Apr. 11, 1913. Serial No. 760,429. (Cl. 121-60.)

1. A rotary engine including a casing, a plurality of hollow rotors mounted within the casing and formed with oppositely disposed nozzles from which opposing jets of an elastic fluid medium are adapted to issue, and means for supplying an elastic fluid medium to the interior of the hollow rotors.

2. A rotary engine including a casing, a plurality of concentric hollow rotors mounted within the casing, the said rotors being provided with nozzles which communicate with the interior thereof and the nozzles of each rotor being oppositely disposed with respect to the nozzles of another rotor so that the jets of an elastic fluid medium issuing therefrom will be directly opposed to each other, and means for supplying an elastic fluid medium to the interior of the hollow rotors.

3. A rotary engine including a casing, a plurality of concentric hollow rotors mounted within the casing, each of said rotors being provided with an annular series of

nozzles which communicate with the interior thereof and being provided with an annular series of buckets, the nozzles and buckets of each rotor bearing an opposed relation to the nozzles and buckets of another rotor, and means for supplying an elastic fluid medium to the interior of the hollow rotors.

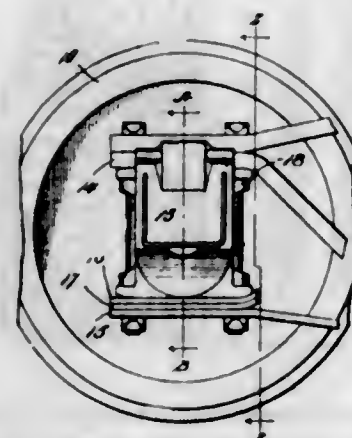


4. A rotary engine including a casing, a plurality of concentric hollow rotors mounted within the casing, each of the rotors being provided with a peripheral series of nozzles which communicates with the interior thereof and the nozzles of each rotor having an opposed relation to the nozzles of another rotor, and hollow shafts journaled within the casing and carrying the respective rotors, the said hollow shafts being in communication with the interior of the respective hollow rotors, means being provided for supplying an elastic fluid medium to the hollow shafts.

5. A rotary engine including a casing, a pair of aligned hollow shafts journaled in opposite sides of the casing, a pair of hollow rotors carried by the respective shafts and mounted within the casing, the said hollow rotors being in communication with the respective hollow shafts and being each provided with a peripheral series of inclined nozzles which have an opposed relation to the nozzles of the opposite rotor, and means for supplying an elastic fluid medium to the hollow shafts.

[Claims 6 to 11 not printed in the Gazette.]

1,079,178. CAR-TRUCK. WILLIAM F. KIESEL, Jr., Altoona, Pa. Filed Sept. 11, 1913. Serial No. 789,331. (Cl. 105-243.)

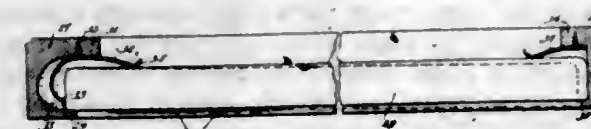


1. In a car truck, the combination with the side frame having spaced members between which the journal box is secured, of a journal box of less depth than the space between said members, and a shim adapted to fit the top or bottom of the journal box and fill the space between the box and the frame, whereby the wear of the truck wheel may be compensated for by changing the shim from one side of the journal box to the other.

2. In a car truck, the combination with the side frame having spaced members between which the journal box

is secured, of a journal box of less depth than the space between said members, and a plurality of shims adapted to be placed on the top or bottom of the journal box and fill the space between the box and the frame, whereby the wear of the truck wheel may be compensated for by changing the shims from one side of the journal box to the other.

1,079,179. CHANGEABLE-LETTER SIGN. CELIA M. KINNEY, New York, N. Y. Filed July 12, 1913. Serial No. 778,706. (Cl. 40-63.)



1. In a changeable letter sign, the combination of a pair of oppositely arranged channeled members having front flanges, a panel extending between said members and cooperating with said flanges, means in one of the members and secured thereto serving to force the panel longitudinally into interlocking engagement with the opposite member, and means secured to both of said members serving to force the panel forwardly into firm engagement with the rear faces of said flanges.

2. In a changeable letter sign, the combination of a pair of channeled members having flanges lying in the same plane and projecting toward each other, a spring member secured to one of said members and having independently movable edges constituting springs, and a panel extending from one member to the other and adapted to interlock in the rear of said flanges, one of said springs serving to force the panel longitudinally into interlocking engagement with the opposite flange, and the other of said springs serving to force the panel forwardly into engagement with the adjacent member flange.

3. In a changeable letter sign, the combination of oppositely arranged channeled members having flanges extending toward each other at the front thereof and also having rear walls extending toward each other, a panel cooperating with said members, and spring members secured to said rear walls and acting upon the ends of the panel to force the same forwardly into engaging contact with both of said flanges.

4. In a changeable letter sign, the combination of a pair of channeled members, the channel of one member being deeper than that of the other, said members having flanges at their fronts, the member having the deeper channel being provided with a shoulder adjacent its flange, a panel cooperating with both of said members, and a double spring member secured in said deeper channel, said panel being movable against the tension of one of said springs in the channel and limited in such movement by said shoulder, and the other spring serving to force the panel forwardly against the front flange.

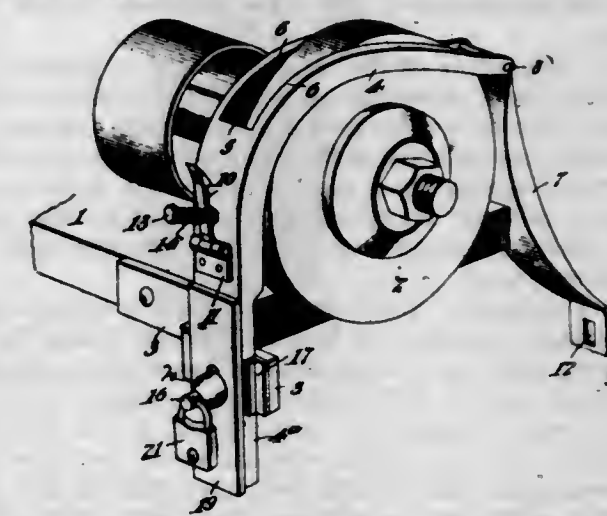
5. In a changeable letter sign, the combination of oppositely arranged channeled members having front flanges extending toward each other in the same plane, a panel in the rear of said flanges, said panel being movable longitudinally for inserting or removing the same from the members, and a spring member secured rigidly to one of said members and having two independent spring portions, one portion serving to force the panel longitudinally into engagement with the opposite member, and the other portion serving to force the panel forwardly toward said plane, and the other member being provided with a spring serving to force the adjacent end of the panel forwardly toward said plane, substantially as set forth.

1,079,180. GUARD FOR EMERY-WHEELS. CHARLES F. LANDOLT, Youngstown, Ohio, assignor of one-third to Adolf H. Schaffert and one-third to Emil Kirner, Youngstown, Ohio. Filed May 20, 1913. Serial No. 768,888. (Cl. 51-7.)

1. A guard attachment for emery wheels, including a member adapted to be arranged adjacent the exposed top

portion of the wheel, and a movable cover mounted on said member and arranged to occupy either of two positions for shielding the front or top portions of the wheel.

2. A guard for emery wheels, including a body portion adapted to extend over the wheel and having a cut-away portion through which the periphery of the wheel is exposed, a protective cover mounted upon the body portion, and fastening means for the cover.



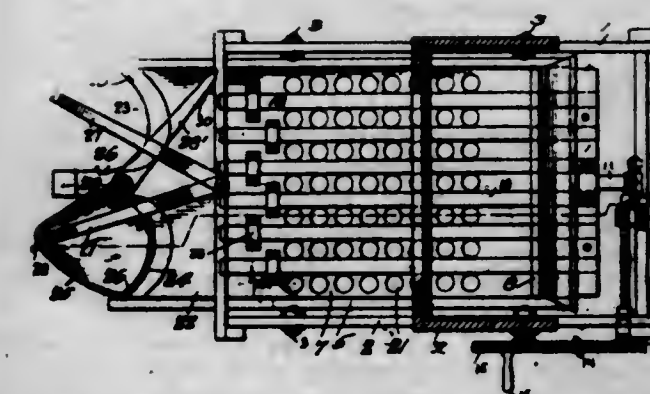
3. A guard for emery wheels, including a flanged body portion adapted to extend over the wheel and provided at an intermediate point with a slot through which the periphery of the wheel projects, a hollow cover hinged to the body portion and adapted to shield the part of the wheel which is not in use, and latch means for holding the cover in a closed position.

4. A guard for emery wheels, including a body portion adapted to extend over the wheel and formed with a slot through which the periphery of the wheels projects, a cover hinged at one end thereof to the body portion and having the opposite end thereof provided with an outwardly extending finger-piece, the said cover being adapted to shield the portion of the wheel which is not in use, a latch adapted to engage the finger-piece to hold the cover in one position, a guide pin projecting from the guard and loosely engaging the latch, and a spring mounted upon the guide pin and engaging the latch to hold the latch yieldingly in an operative position.

5. An adjustable guard for emery wheels, including the guard proper, clamping means for holding the guard proper in an adjusted position, a removable housing inclosing the clamping means, and locking means for securing the housing in place.

[Claims 6 and 7 not printed in the Gazette.]

1,079,181. POTATO-SEPARATOR. GEORGE E. LUCE, Riverhead, N. Y. Filed Apr. 8, 1913. Serial No. 759,636. (Cl. 130-32.)



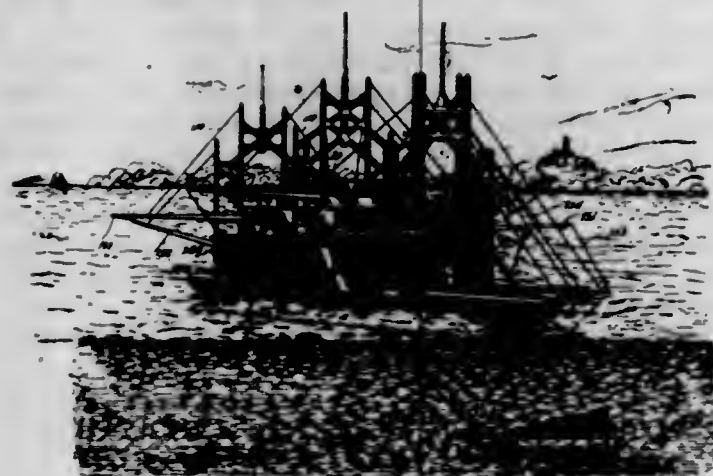
1. In a separator of the class described, a supporting frame, a sieve arranged in said supporting frame formed with a plurality of apertures, a plurality of longitudinally arranged stationary beads separating said apertures into rows whereby material passing over said sieve will be caused to move in a line over a row of apertures, and means for moving in a back and forth direction said sieve said beads remaining stationary.

2. In a separator of the class described, a supporting frame, a sieve arranged in said supporting frame, a discharge member arranged adjacent the discharge end of said sieve, said discharge member being formed with a central projection and a pair of substantial side notches, means pivotally mounted on said central projection designed to be swung from one position to the other for guiding matter from said sieve to the respective notches, and means for supporting a receptacle adjacent each of said notches.

3. In a separator of the class described, a frame, a reciprocating sieve arranged on said frame formed with a plurality of rows of apertures, a guiding loop arranged opposite the space between each row of apertures, a bar slidably fitting against said sieve in the space between said apertures, said bar projecting through said guiding loops, and a clamping member for rigidly clamping said bar against movement.

4. In a separator of the class described, a framework, a movable sieve arranged in said framework, means for reciprocating said sieve, a plurality of beads resting against said sieves, each of said beads being rectangular in cross section, means inclosing one end of each of said beads for holding the same in contact with the sieve, means secured at the opposite ends of said beads for holding the same stationary while the sieve moves back and forth, means for guiding matter to one end of said sieve, and means for directing matter passing from said sieve to a discharge point.

1,079,182. SUBMARINE CULTIVATOR AND HARVESTER. NELS A. LYBECK, Bristol, R. I. Filed Jan. 6, 1911. Serial No. 601,062. (Cl. 43—11.)



1. In a submarine cultivator and harvester, a submarine tool having a lateral extension adapted to travel on the sea bottom; a floating vessel; a cradle mounted on said vessel from which said tool is operated; a boom pivotally connected with said cradle and said tool; a conveyer mounted on said boom; and a cover for said conveyer mounted on said boom to receive water pressure for depressing the tool bearing end thereof, when the device moves forward.

2. In a submarine cultivator and harvester, embodying a floating hull, a submarine tool, a boom connecting said hull and said tool, and a conveyer mounted on said boom; a cradle pivotally mounted on said hull to support the one end of said boom; and a ballast carried by said cradle adapted to maintain the normal vertical disposition thereof.

3. In a submarine cultivator and harvester, a rocking cradle mounted on pivots disposed in line with the operating direction of said cultivator, said pivots being disposed above the median line of said cradle, and said cradle being further provided with a deck below said pivotal center to receive a ballast to maintain said section in constant vertical disposition; and a conveyer boom pivotally connected with said cradle to extend toward the sea bottom, forward of said cradle.

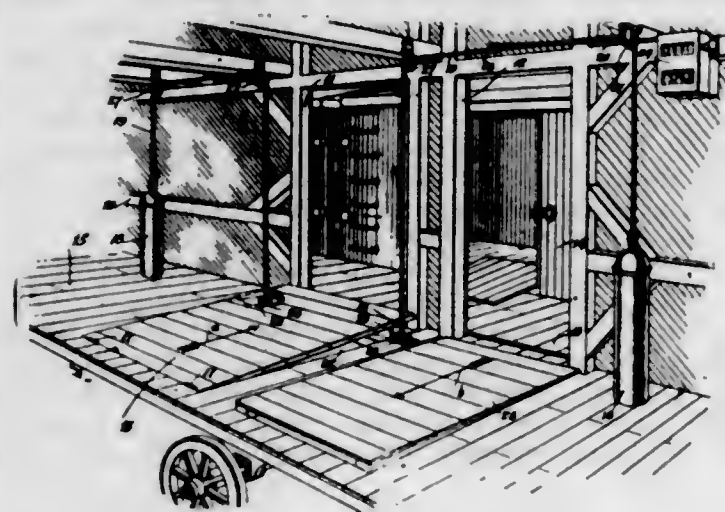
4. In a submarine cultivator and harvester, a cradle mounted on pivots disposed in line with the operating di-

rection of said cultivator, said pivots being disposed above the median line of said cradle, and said cradle being further provided with a deck below said pivotal center to receive a ballast to maintain said cradle in constant vertical disposition; a boom embodying an elevating conveyer and a gathering tool adapted to gather and deposit the product on said conveyer, said boom being attached to said cradle by pivots disposed transverse said cradle; and a system of conveyers mounted in said cradle arranged to receive from the conveyer on said boom and to distribute therefrom the product elevated thereby.

5. In a submarine cultivator and harvester, a fishing tool having an open front forwardly spread rearwardly contracted frame; an open mesh covering for the top and sides thereof; a wheel carried frame the wheels whereof being adapted to travel on the sea bottom to support the same; auxiliary rollers disposed transverse said contracted frame between said wheels to support said contracted frame intermediate said wheels; a boom pivotally connected to said wheel-carried frame and extended above the surface of the water; and a conveyer mounted on said boom to receive the catch of said contracted frame.

[Claims 6 and 7 not printed in the Gazette.]

1,079,183. PORTABLE AUTOMATIC COUNTING DEVICE. ROBERT MARSHALL McCULLOCH, Chufuentes, Cuba. Filed June 17, 1913. Serial No. 774,117. (Cl. 235—99.)

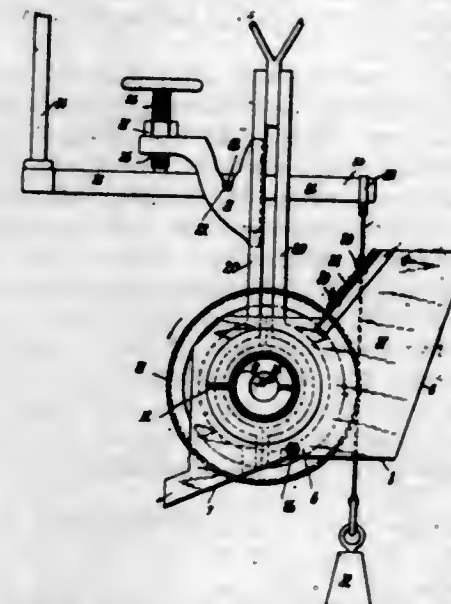


1. In a device of the character set forth, the combination with a structure having a floor, an outside platform and a side wall having a plurality of doorways providing communication between the platform and the floor, of an exit platform pivoted at its inner end to the floor, means normally supporting the outer end of the pivoted platform in an elevated position with respect to the floor and the structure platform adjacent one of the doorways, registering mechanism connected with the pivoted platform supporting means and adapted to register the successive depressions of the pivoted platform, and an entrance platform having its outer end adjacent the other doorway and in alignment with the structure platform and having its inner end elevated above the platform floor, substantially as and for the purposes set forth.

2. In a device of the character set forth, the combination of a building having a floor, a side wall having a plurality of doorways and an exterior platform, said floor having an opening therein with lateral extensions, an exit platform having its inner end flush with the floor and adapted to fill said floor opening, counterweight means connected to the outer end of the exit platform and serving to maintain the outer end thereof adjacent the exit doorway in an elevated position with respect to the floor and exterior platform, the connections between the counterweight means and platform being through a cross bar extending laterally from the outer end of the exit platform and operating through the lateral extensions of the floor opening, registering mechanism connected to the counterweight means and adapted to register each depression of the exit platform, and a return platform having its outer end adjacent the other doorway and substantially flush

with the exterior platform and having its inner end with in the building and elevated above the floor, substantially as set forth.

1,079,184. ORE FEEDER AND SAMPLER. WALTON LAKE MOREHOUSE, Madera, Mexico. Filed June 20, 1912. Serial No. 704,805. (Cl. 73—21.)



1. In an ore feeder and sampler, a hopper, a tube disposed adjacent the hopper and having an opening through its side, and an open end, an outer spiral conveyer member on the tube for engaging the material as it falls from the hopper for conveying the material to the opening through the side of the tube when the tube is rotated in one direction, and an inner spiral conveyer member in the tube for conveying the material from the opening and to the said end when the tube is rotated in the said direction.

2. In an ore feeder and sampler a hopper having an opening in its side, a tube horizontally disposed at the opening, there being an opening through the side of the tube, inner and outer spiral conveyer members on the tube and a chute at the said side of the hopper below the opening and extending from the hopper, the chute having a member spaced from the outer spiral conveyer member to limit the flow of material between the tube and the chute.

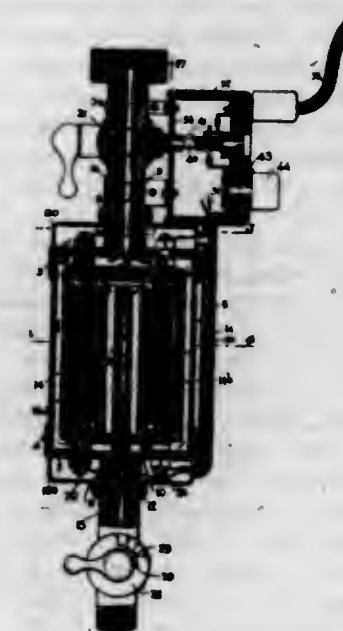
3. In an ore feeder and sampler a hopper having an opening in its side, a tube horizontally disposed at the opening, there being an opening through the side of the tube, inner and outer spiral conveyer members on the tube, a chute at the said side of the hopper below the opening, and extending from the hopper, the chute having a member spaced from the outer spiral conveyer member to limit the flow of material between the tube and the chute, and an adjustable plate secured to the hopper for limiting the flow of material from the hopper and over the tube.

4. In an ore feeder and sampler a hopper having an opening in its side, a tube horizontally disposed at the opening, there being an opening through the side of the tube, inner and outer spiral conveyer members on the tube, a chute at the said side of the hopper below the opening and extending from the hopper, the chute having a member spaced from the outer spiral conveyer member to limit the flow of material between the tube and the chute, a belt disposed around the tube, and means to pull the belt alternately in opposite directions.

1,079,185. ELECTRIC WATER-HEATER. JOSEPH POLAK, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,610. (Cl. 219—39.)

1. A heater comprising a casing having removable end flanges, one of said flanges having a fluid inlet and the second of said flanges having a fluid outlet, said inlet and outlet lying in the axis of said casing, and a plurality of concentric electrically heated elements secured to each of said flanges and projecting into said casing, said elements of one of said flanges engaging between the elements of the second of said flanges, means for controlling the fluid inlet

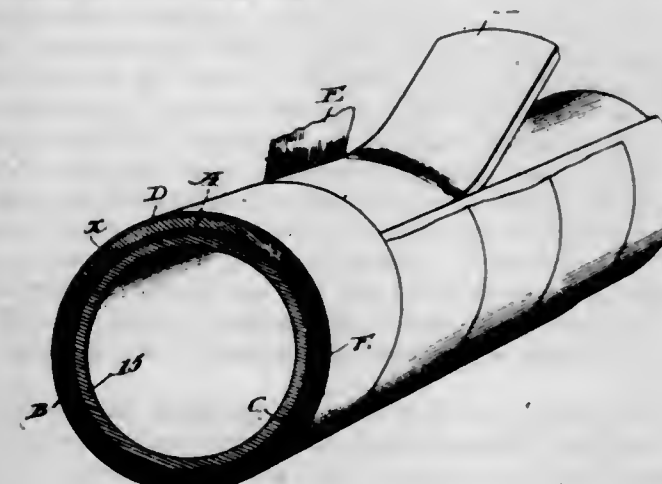
and the fluid outlet, and means for controlling the heating effect of said elements.



2. A heater comprising a casing having removable end flanges, one of said flanges having a fluid inlet and the second of said flanges having a fluid outlet, a series of concentric electrically heated elements alternately secured to said flanges and intermediate and in alignment with said inlet and outlet, said heating elements being so disposed that the fluid flowing from said inlet to said outlet is gradually heated when flowing between said elements toward the center of the casing, thereby reducing the amount of heat radiation by said casing.

3. A heater, comprising a casing having removable end flanges, one of said flanges having an inlet and the second of said flanges having an outlet; a series of concentric electrically heated elements in said casing; oppositely disposed drums connecting the alternate heating elements together and communicating therewith, each drum having means whereby it is secured to the end flange and thereby when the flange is removed from the casing the drum and the heating elements secured thereto are removed therewith; and insulating means secured to said drum adjacent said heating elements.

1,079,186. PROCESS OF MANUFACTURING MULTIPLE-CHAMBER INNER TUBES FOR PNEUMATIC TIRES. ALFRED RAYMOND and ALBERT RAYMOND, Washington, D. C. Filed Sept. 25, 1913. Serial No. 791,830. (Cl. 154—14.)



1. The process of manufacturing multiple chamber rubber tubes which consists in arranging a series of tubes on the surface of a sheet of material from which an outer tube is to be formed, inserting within said inner tubes substance of a character to prevent adhesion of the adjacent surfaces, winding the whole upon a mandrel and subjecting to heat sufficient to fuse the several parts together, substantially as set forth.

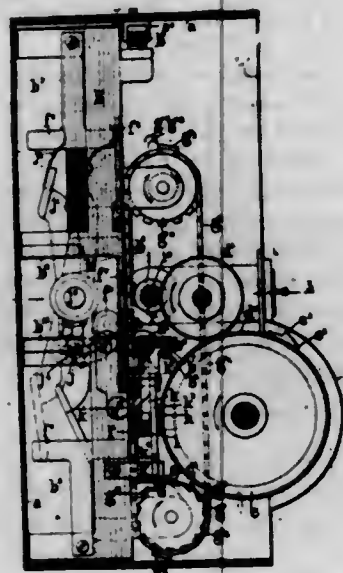
2. The process of manufacturing multiple chamber rubber tubes comprising placing a series of small tubes con-

taining cores of non-adhesive material on a sheet of material of dimensions requisite to form the large tube, placing a strip of thickening material between adjacent edges of said smaller tubes, binding the several parts upon the mandrel and subjecting the whole to heat until the several parts fuse together, substantially as set forth.

3. The process of manufacturing multiple chamber inner tubes for pneumatic tires comprising arranging a series of smaller tubes with their inner faces separated by non-adhesive substance and a sheet of material of dimensions requisite to form a large tube upon a mandrel, placing a strip of thickening material in the space between the edges of the smaller tubes, binding the whole to the mandrel, and subjecting it to heat sufficient to fuse the several parts together, substantially as set forth.

4. The process of manufacturing multiple chamber inner tubes for pneumatic tires comprising arranging a series of smaller tubes with their inner faces separated by non-adhesive substance and a sheet of material to form the large tube upon a mandrel, the ends of said sheet and the ends of said tubes being also separated by a non-adhesive substance, binding the whole to a mandrel, fusing the parts together, and then splicing the ends of the separate tubes, substantially as set forth.

1,079,187. KINEMATOGRAPHIC APPARATUS FOR TAKING AND PROJECTING VIEWS BY MEANS OF PHOTOGRAPHIC PLATES. RENÉ ACHILLE ROBIN, Paris, France. Filed Aug. 9, 1909. Serial No. 511,956. (Cl. 88-16.)



1. In a device of the character specified, means for transporting the plate carriage transversely of the objective, comprising in combination with the carriage, a rotatable cylindrical cam provided with a plurality of helicoidal grooves running in opposite directions, and connected at each end by circular grooves concentric with the axis of rotation of the cam, and means for imparting intermittent movement to the carriage, said means comprising an anchor escapement rocking upon the carriage, a plurality of racks arranged adjacent to the escapement, each arm of the escapement engaging a rack, and a roller carried by the escapement and engaging the grooves of the cam.

2. In a device of the character specified, the combination with a carriage and the cam having helicoidal grooves, of an escapement lever mounted to rock on the carriage, a roller on the lever engaging the grooves, and a plurality of oppositely arranged racks having teeth engaged by the arms of the escapement lever, the teeth of the rack having one face curved to correspond with the curve of the arms of the escapement lever, and the other face plane, whereby the carriage will remain stationary during one oscillation of the escapement lever produced by a displacement of the roller by the groove, and will be advanced during the other oscillation.

3. In a device of the character specified, the combination with the carriage and the cam having helicoidal

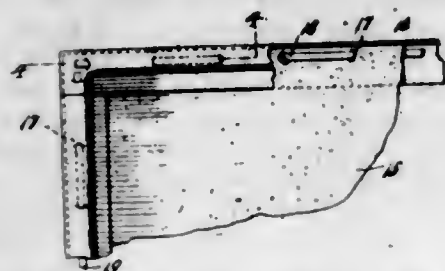
grooves, of an escapement lever mounted for oscillation on the carriage, a roller connected to the lever and engaging the grooves for swinging said lever, and a rack engaged by each arm, said racks being oppositely arranged, the teeth of the racks each having one face curved to correspond with the curve of the arm and the other plane, whereby the carriage will be advanced during the oscillation of the lever in one direction, and will be held stationary during the oscillation of the lever in the other direction.

4. In a device of the character specified, the combination with the carriage and the rotating cam having helicoidal grooves, of a roller on the carriage engaging the grooves for moving the carriage, and means in connection with the cam and roller for holding said carriage stationary at predetermined periods, said means comprising an escapement lever mounted to rock on the carriage and on which the roller is journaled, and a pair of oppositely arranged racks for engagement by the respective arms of the escapement lever, one face of each tooth of the racks being plane and the other curved, the arms being similarly curved, whereby the carriage will remain stationary during the oscillation of the lever in one direction and will be advanced during its oscillation in the other direction.

5. In a device of the character specified, the combination with the carriage and the rotating cam having helicoidal grooves, of a roller on the carriage engaging the grooves for moving the carriage, and means in connection with the cam and the roller for holding said carriage stationary at predetermined periods.

[Claims 6 to 18 not printed in the Gazette.]

1,079,188. HAND-BAG AND THE LIKE. AUGUST HEINRICH FRIEDRICH SCHLIECKER, Vinita, Okla. Filed Aug. 30, 1912. Serial No. 717,872. (Cl. 150-29.)



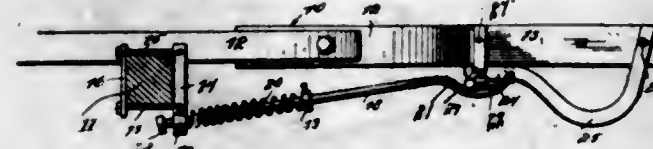
1. In combination, a bag frame formed of two co-acting members, each comprising an exterior side flange, an upper bridge integral with said flange and at right angles to the same, and an interior flange substantially parallel to said exterior flange and integral with said bridge, said inner flange having its free end offset toward said exterior flange, said offset being substantially parallel to said exterior flange and thereby forming an enlargement between said flanges near said bridge; a wire member located in said enlargement; and a bag body having a portion adapted to enter between said flanges, said portion having openings at predetermined distances from each other through which said wire member is made to pass.

2. In combination, a bag frame formed of two co-acting members, each member comprising an exterior side flange, an upper bridge integral with said flange and at right angles to the same, and an interior flange substantially parallel to said exterior flange and integral with said bridge, said inner flange having its free end offset toward said exterior flange and substantially parallel to the same, and thereby forming a shoulder in said inner flange; a wire member between said flanges above said shoulder; and a bag body having a portion adapted to enter between said flanges and having openings at predetermined distances from each other, said wire member passing through said openings in said portion and forcing the portions between the openings longitudinally against said flanges above said shoulder.

3. In combination, a bag frame formed of two co-acting members, each member comprising an exterior side flange, an upper bridge integral with said flange and at

right angles to the same, and an interior flange substantially parallel to said exterior flange and integral with said bridge, said inner flange having its free end offset toward said exterior flange and substantially parallel to same, thereby forming a shoulder in said inner flange; a wire member between said flanges above said shoulder; and a bag body having a portion adapted to enter between said flanges and having openings at predetermined distances from each other, said wire member passing through said openings in said portion and forcing the portions between the openings longitudinally against said flanges above said shoulder, said inner flange having tongues in the shoulder thereof at predetermined distances from each other adapted to engage and lock said wire member.

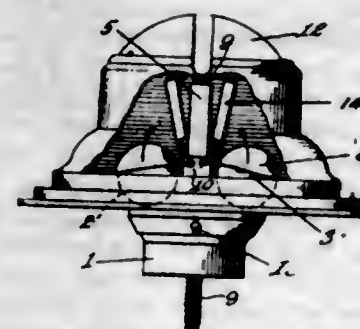
1,079,189. WAGON-TONGUE SUPPORTER. THEOPHIL H. SHAFPI, Roanoke, Ill. Filed Apr. 1, 1912. Serial No. 687,761. (Cl. 21-63.)



1. The combination with a vehicle axle and tongue of a bracket secured to the axle, a rod pivotally slidable in said bracket, a bracket pivotally secured to the tongue, pivotal connections between the rod and last named bracket, a spring for forcing the rod outwardly to support the bracket and hold the tongue up and a pivoted guide for limiting the movement of the last named bracket.

2. The combination in a device such as described, with an axle and a vehicle tongue, of a bracket secured to said axle and provided with an eye, a bracket pivotally secured to said tongue and provided with a rearwardly extending apertured and slotted arm, a supporting rod slidable in the eye, a lateral extension formed thereon and projecting through the aperture located in the arm, a collar adjustable upon the rod, and a spring surrounding the rod and engaging the collar and eye for forcing the rod outwardly to support the bracket and hold the tongue up and a guide pivoted to the tongue and extending under the arm of the bracket adjacent the slot for limiting the movement of the slot.

1,079,190. SAFETY LAMP-BURNER. CARL T. SIEBERT, East Pittsburgh, Pa. Filed June 17, 1912. Serial No. 704,069. (Cl. 67-79.)

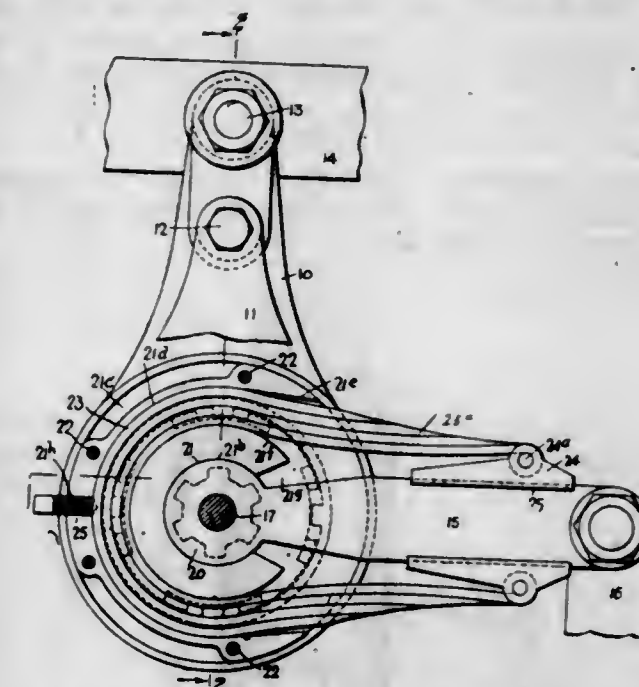


In combination with a lamp burner of the class described having stamped-in quasi-hemispherical recesses therein on either side of the wick tube and journal pieces formed from material of the burner adjacent to the end portions of the tube, an attachment comprising jaws having hinge portions or pins rotatable in the journal pieces, said jaws being adapted to close on and about the wick tube of the burner, a wing angularly attached to and integral with each of said jaws and provided with a quasi-hemispherical recess therein aligned with a quasi-hemispherical recess in the burner, each wing being adapted to come into contact with the burner adjacent to the recess thereof when the attachment is in open position, and weighted balls for actuating the wings and

196 O. G.—48

thereby the jaws, said balls being disposed in the quasi-hemispherical recesses and closely fitting the same and those in the wings so as to roll up the sides thereof and actuate the wings when the burner is tilted out of its normal vertical position, said attachment and recesses being arranged to not increase the relative heights of the burner and its attachment above normal.

1,079,191. COMBINED SPRING AND FRICTION SHOCK-ABSORBER. CHARLES N. SOWDEN, Guan-tanamo, Cuba. Filed Dec. 13, 1912. Serial No. 736,507. (Cl. 21-105.)



1. A shock absorber, comprising relatively movable pivoted levers, a series of friction units mounted to turn relatively to each other and having the same center of movement as the levers, each unit comprising a friction element in fixed relation to one of the levers, and intermediate units adapted to move with said lever to a limited extent, means for arresting the said intermediate elements of the respective units in succession to cause a relative movement between the elements of the respective units, and spring means resisting the relative movement of the levers, said spring means being subject to the resistance afforded by the frictional units, and the levers serving to place the spring under increasing tension to successively overcome the resistance of the friction units.

2. A shock absorber, comprising a pair of levers adapted for connection with a vehicle, an intermediate lever adapted to be attached to a relatively movable portion of the vehicle, said levers being pivoted to move toward each other on a common center, a hub at the center of movement of the levers, the intermediate lever being capable of movement relatively to the hub, and a spring opposing the movement of the intermediate lever relatively to the first mentioned levers and to the hub, said hub being divided radially into sections and having recesses in the sections, receiving the spring, the latter extending from the hub to an engagement with one of the levers.

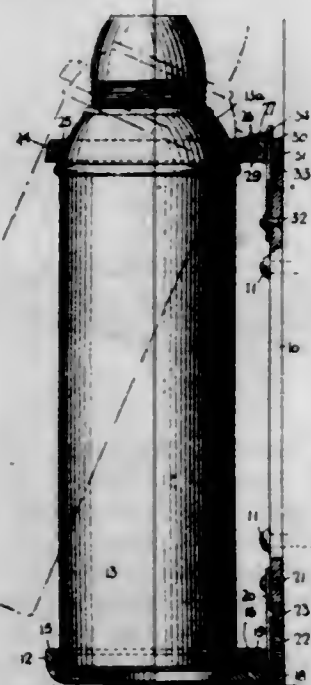
3. A shock absorber, comprising a pair of levers, an intermediate lever pivotally connected with the first mentioned levers, a hub at the center of movement of the levers, friction units surrounding the hub, each comprising an element in fixed relation to the hub, and a contacting element loose on the hub and in frictional engagement with the first element, means for causing the pair of levers to clamp the friction elements, stops on the pair of levers to arrest in succession the mentioned co-acting elements of the respective friction units, and spring means interposed between the intermediate lever and the hub.

4. A shock absorber comprising a series of friction units to be brought individually into action to cumulate their resistances, each unit being composed of relatively mov-

able elements in frictional engagement with each other; relatively movable actuating members having a range of movement sufficient to cumulate the friction units; means for mounting the actuating members on relatively movable parts of a vehicle; spring means resisting a relative movement of the actuating members and subject to increasing compression during the cumulating of the friction units, and means independent of said spring means for exerting pressure on the friction elements.

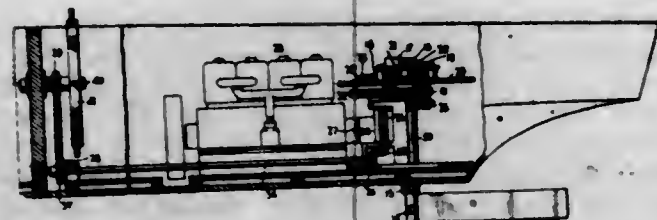
5. A shock absorber, comprising relatively movable levers, a spring opposing the relative movement of the levers and adapted to be placed under increasing tension by the levers as the movement of the latter increases, and a series of friction elements adapted to be picked up in succession by the levers to cumulate as the tension of the spring increases under the progressing movement of the levers.

1,079,192. BOTTLE-HOLDER. CHARLES N. SOWDEN, Guantánamo, Cuba. Filed Feb. 26, 1913. Serial No. 750,798. (Cl. 248—20.)



In a bottle holder, a seat for a bottle, a retainer to receive and engage the bottle at a point distant from the seat, said retainer being mounted to swing to an outer position to engage the bottle, or to a folded position at approximately right angles to the first position, and a spring adjacent to the pivot of the retainer and exerting pressure against the latter, the retainer having at an end thereof a surface opposed to the spring, and engaging the latter at a point at one side of the pivot, said point of engagement between the spring and the retainer resulting in the spring acting as a lever arm to press the retainer against the bottle.

1,079,193. FISH-TAIL PROPELLER. BINGHAM STEVENSON, Little Rock, Ark. Filed Feb. 7, 1913. Serial No. 746,776. (Cl. 115—29.)

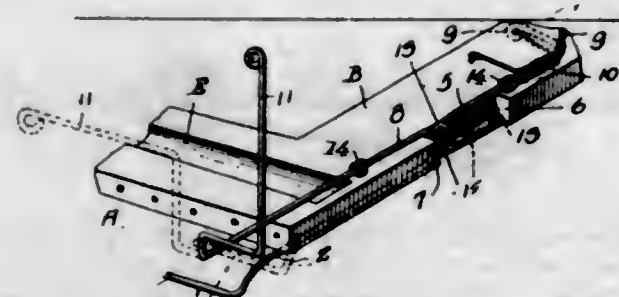


1. A fish-tail propeller comprising a paddle, a shaft on which the paddle is mounted, a pinion on said shaft, a reciprocating rack in mesh with the pinion, a turntable on which the rack has guided movement, a hollow shaft surrounding the first shaft, to which hollow shaft the turntable is secured, means for reciprocating the rack, and means for turning the hollow shaft and its turntable, the

turning of said table serving to turn the rack and the first mentioned shaft with the table.

2. In combination with a fish-tail propeller, a shaft on which the propeller is mounted, a pinion on said shaft, a reciprocating rack bar in mesh with said pinion, a turntable having a guide for said rack bar, a hollow shaft on which said table is secured, said hollow shaft surrounding the first mentioned shaft, a drive shaft, driving connections between the drive shaft and the said hollow shaft, a pinion in fixed relation to the turntable, a second pinion in mesh with the pinion on the turntable, a shaft bearing said second pinion, a steering shaft having means to turn the same, and driving connections between the steering shaft and the shaft bearing said second pinion.

1,079,194. CAR-FENDER. WILLIAM THOMAS TATE, Buxton, Iowa. Filed Apr. 23, 1910. Serial No. 557,264. (Cl. 105—127.)



1. A car fender having a movable member at the front thereof, a rotatably mounted retaining member, and means on the movable member for engaging the said retaining member to hold the same normally against rotation.

2. A fender for vehicles having a transversely extending movable member at its forward edge, revolubly mounted retaining elements having vertically disposed arms at their forward ends, spring means exerting its tension against the elements to cause the same to revolve in one direction, the said arms being located at the forward end of the fender, and means on the movable member for engaging the said elements to hold the same against rotation against the tension of the spring means and operable upon movement of the said movable member to release the said elements to cause the same to move through the tension of the spring and to cause the arm of the said retaining member to assume a horizontal position at the front of the fender.

3. A fender for vehicles having movable spring-controlled retaining arms located at the forward end of the fender, and movable actuating means operable to hold the arms normally in vertical positions and operable when moved in one direction to release the arms.

4. In a car fender, the combination with a scoop; of a sliding frame at the side of the scoop, the said frame being provided with a front portion which is normally spaced from the front of the scoop, retaining elements rotatably mounted at the sides of the scoop and provided at their forward ends with normally vertically disposed fingers, fingers on the sliding frame engaging the first fingers to hold the retaining elements normally against rotation, and springs exerting their tension against the retaining elements to rotate them in one direction when the fingers of the sliding frame are released from the fingers of the retaining elements so as to cause the retaining elements to move to positions where their fingers will be disposed substantially in a plane with each other and horizontally.

1,079,195. STAGE-FOOTLIGHTING. CLARENCE MILTON TAYLOR, Loyal, Wis. Filed Aug. 1, 1913. Serial No. 782,428. (Cl. 240—3.)

1. The combination of a stage floor with a footlight carrier associated therewith and provided with lamps; means for normally masking the said carrier and lamps; and means for adjusting said carrier with reference to the stage.

2. The combination with a stage floor having a pit with a footlight comprising a lamp-carrier in said pit; means

for adjusting the carrier in the pit; and means for closing the pit when the footlights are in inoperative position.



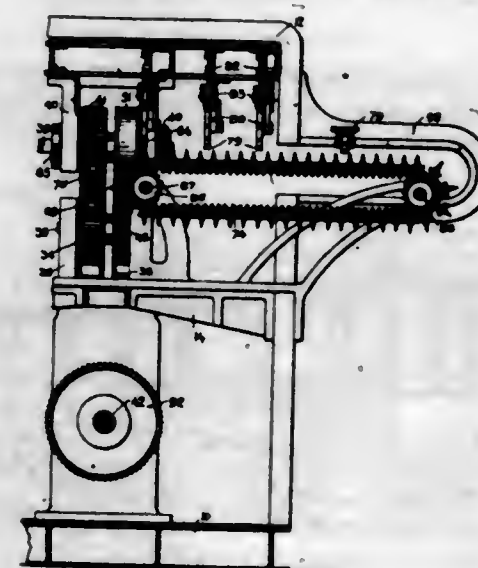
3. The combination of a stage floor having a pit with footlights comprising a lamp carrier in said pit; means associated with said carrier and said pit and means leading to a point above said floor and whereby the first mentioned means are operated and said lamp carrier may be adjusted in any desired position in said pit; and means for utilizing the space normally occupied by the footlights when the same is in inoperative position.

4. The combination of a stage floor having a pit with footlights, comprising a lamp-carrier in said pit; means connecting said lamp carrier to the pit; flexible means associated with said connecting means; and means for operating said flexible means, whereby said lamp-carrier is adjusted within said pit; and means for masking the footlights when the same are in operative position.

5. The combination of a stage floor having a pit with footlights, comprising a lamp-carrier in said pit; operative means located in a predetermined position above said floor; and means connecting said lamp carrier with said operative means and whereby by the manipulation of said operative means said lamp-carrier can be maintained in any desired position in said pit.

[Claim 6 not printed in the Gazette.]

1,079,196. DEPULPATING-MACHINE. ANTONIO TERESA, San Luis Potosi, Mexico, assignor of one-fourth to Edward H. Haskell, Newton Center, Mass., and Robert Dawes, Frankford, Philadelphia, Pa. Filed Jan. 16, 1913. Serial No. 742,490. (Cl. 13—2.)



1. In a machine of the character set forth, the combination with depulping mechanism including a plurality of movable teeth and means to support and operate said teeth, of presser mechanism including an endless idler belt operating transversely of the direction of movement of said teeth, and means to maintain one run of said belt in substantially close relation to the points of the teeth.

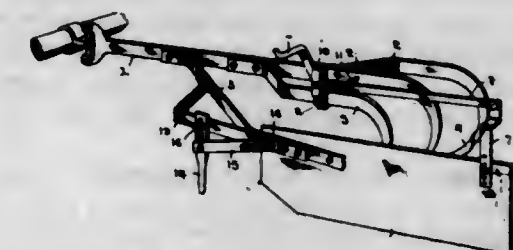
2. In a machine of the class set forth, the combination of depulping mechanism including a plurality of teeth, means to support and operate said teeth in a certain direction, a presser mechanism including an endless belt arranged over and in close relation to said teeth, said belt

being movable in a direction transverse to the movement of the teeth, and automatically operating tightening means for said belt, substantially as set forth.

3. In a depulping machine, the combination of a series of teeth of varying lengths operating in a plane parallel to one another in a certain direction, means to support and operate said teeth, a presser mechanism including an endless belt, the lower run of which is in a plane closely adjacent and parallel to the aforesaid plane, the belt operating idly in its plane in a direction transverse to the movement of the teeth, and an automatically operating tension device to maintain the lower run of said belt substantially parallel to all the points of the series of teeth.

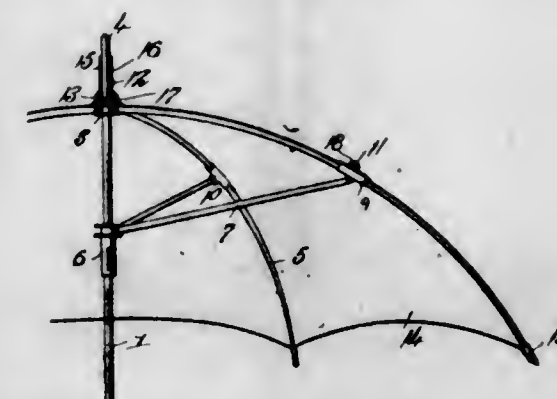
4. In a depulping machine, the combination of a frame having removable side sections, auxiliary frame sections adapted to be secured to the frame, depulping mechanism including an endless apron movable across said frame with one portion adjacent said side sections and of variable length, said auxiliary frame sections being adapted to conform to and support the adjacent portion of said depulping apron in accordance with its alteration in length, and means to operate either length of the apron from the same source of power.

1,079,197. CULTIVATOR-FENDER. WALTER A. THOMAS, New Augusta, Ind. Filed Nov. 29, 1912. Serial No. 734,171. (Cl. 97—13.)



The combination with the main and auxiliary beams of a cultivator, of an arm pivoted to the main beam and carried thereby, a bracket having a looped portion and downwardly directed ends secured to an auxiliary beam, a lever pivoted in the looped portion of said bracket, the front end of said lever being turned upwardly and normally resting against the front face of said bracket for supporting the rear end in a horizontal plane, and a link pivoted at one end to the rear end of the lever and adjustably secured at the opposite end to the blade.

1,079,198. UMBRELLA OR PARASOL. EUGENE E. TSCHUDY, New York, N. Y. Filed Dec. 28, 1912. Serial No. 739,096. (Cl. 135—34.)



A parasol, umbrella or the like including a staff, a notch upon the staff, a latch upon the staff beyond the notch, an annular bead integral with the staff in spaced relation to the notch and of less diameter than said notch, and a folding frame including ribs pivotally connected with the notch, a removable cover carried by the frame and provided with a tapered tubular projection surrounding the staff and the said integral bead, a cap piece on the cover comprising a tube adapted to slidably

engage the end of the staff, said tube having a slot therein to receive and engage the latch and provided with a conical inner end receiving the flared tubular projection of the cover, said conical end of the tube being arranged to clamp the said tubular projection against said annular bead and also against the outer face of the notch.

1,079,199. CAR-TRUCK. JOHN C. WHITRIDGE and GEORGE T. JOHNSON, Columbus, Ohio, assignors to The Buckeye Steel Castings Company, Columbus, Ohio, a Corporation. Filed Aug. 8, 1913. Serial No. 783,833. (Cl. 105—244.)



1. A side frame for car trucks consisting of two end members and a center member, each end member having an arm extending over the center member and bearing on the latter at the far side thereof.
2. A side frame for car trucks consisting of two end members and a center member, each end member having an arm extending over the center member and flexibly connected to the same at the far side thereof.
3. A side frame for car trucks composed of three flexibly connected equalizing members, each end member bearing on the central member at the far side of the latter.
4. A side frame for car trucks composed of three connected equalizing members, each end member being flexibly connected to the central member at the far side of the latter.
5. A side frame for car trucks composed of three equalizing members, each end member having an arm extending over the center member and flexibly connected to the same at the far side thereof.

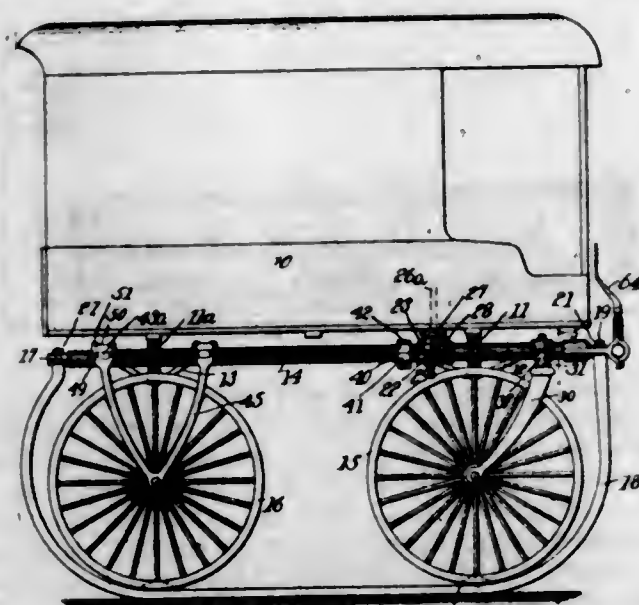
[Claims 6 to 11 not printed in the Gazette.]

1,079,200. TOY. ARTHUR E. WILDE, New York, N. Y. Filed Oct. 11, 1912. Serial No. 725,228. (Cl. 244—2.)



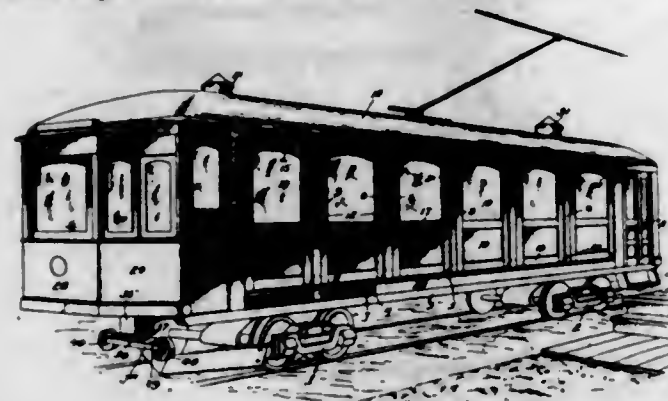
A toy comprising a tube having an open end, a parachute provided with a weighted portion, the said weighted portion inserted in the tube, a rod within the tube having a head projecting beyond the open end of the tube and lying within the folds of the parachute, spring means adapted to project the rod farther beyond the open end of the tube, means for retaining the rod in its in-position, and gravitational means for disengaging the said retaining means and releasing the rod, substantially as described.

1,079,201. COMBINATION SLEIGH AND WHEELED VEHICLE. WILLIAM ELLIS WISE, Williamsport, Pa. Filed Oct. 16, 1912. Serial No. 726,061. (Cl. 21—96.)



1. A combined sleigh and wheeled vehicle, comprising a body, running gear having tubular side bars, wheels mounted on said tubular side bars, and a bar ranging lengthwise in the said side bars and adapted to rock therein and carrying runners movable to a position beneath the wheels or to a raised position between the wheels.
2. In a combined sleigh and wheeled vehicle, the combination of a running gear having tubular side bars, cross frames secured to said side bars, forks at the ends of said frames outside of the said bars for mounting running wheels, sleigh runners, means for supporting said runners from the side bars at the inner sides of the wheel, and means for rocking said runners.
3. In a combined sleigh and wheeled vehicle, the combination of a running gear frame comprising tubular side bars and front and rear cross frames secured to said side bars, members shackled to said side bars and having bearings for running wheels, a bar ranging longitudinally in each of said tubular side bars, a runner secured at its upper ends to the ends of the last mentioned bar, rack teeth on the runner bar, toothed sectors fulcrumed on the side bars and meshing with the rack teeth on the runner bar, and levers for rocking said sectors.

1,079,202. STREET-CAR. GEORGE WITTY, Scranton, Pa., assignor of one-half to Stephen S. Spruiks, Scranton, Pa. Filed Sept. 17, 1912. Serial No. 720,827. (Cl. 105—92.)

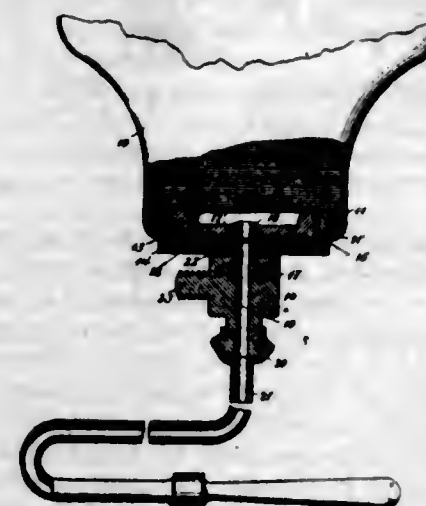


1. In a convertible car, the combination with supporting trucks, separated floors arranged thereon, partitions dividing the space between the floors into separate compartments, guides carried by the partitions, stanchions rising from said floors, a roof carried by the stanchions, panels arranged to fit between the stanchions, floor and roof and adapted to slide on the guides and means to lock the panels in the stanchions.
2. In a convertible car, the combination with supporting trucks, separated floors arranged thereon, partitions dividing the space between the floors into separate compartments, stanchions rising from said floors, a roof car-

ried by the stanchions, means to lock the frames in the stanchions, each of said compartments being open on both sides of the car, and a door hinged on each side of the car for closing said compartments, each door being common to all of the compartments.

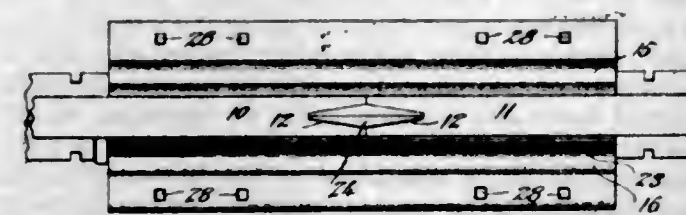
3. In a convertible car, a floor, stanchions rising from the floor and having metallic rabbet strips on each side, a roof carried by the stanchions, panels adapted to fit in the rabbet strips of the stanchions between the floor and roof and having apertured channel members on each edge, and oppositely sliding spring pressed bolts carried by the stanchions and adapted to enter the apertures in the channel members of the panels to lock the panels in place, together with compartments to store the panels when removed from the stanchions.

1,079,203. COMBINATION ICE-BAG, WATER-BOTTLE, AND FOUNTAIN-SYRINGE. CHARLES J. BAERENFOHL, New York, N. Y. Filed May 20, 1913. Serial No. 768,725. (Cl. 215—54.)



The combination of a container having a mouth fitted with a screw threaded collar and closure means therefor, said closure means including a cap screw threaded into said collar and having an opening therethrough and a plug having a plurality of shanks adapted to cooperate in said cap opening with the plug on either the inside or the outside of said cap, one of said shanks being solid and the other provided with a central bore, said plug also including a nipple on the side thereof opposite said shank having the bore and through which said bore extends.

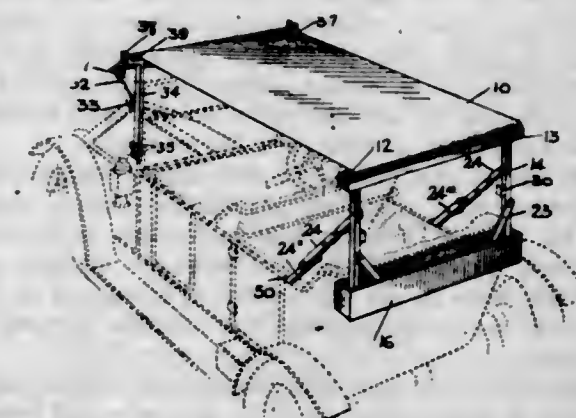
1,079,204. RAIL-CHAIR. JOSEPH H. BEATTY, Cromberg, Cal. Filed May 4, 1912. Serial No. 695,138. Renewed Apr. 19, 1913. Serial No. 762,387. (Cl. 239—6.)



1. The combination with the meeting ends of two rails, each of said ends being provided with a tapering opening in the tread surface thereof and a longitudinal recess contiguous to said opening, of a chair comprising sections, each section being provided with means for engaging the openings and recesses formed in said rail.
2. The combination with the meeting ends of two rails, each of said ends being formed with an opening in the tread surface thereof and a recess in the web of the rail contiguous to said opening, the bottom edges of said recess being inclined; of a chair comprising sections, each section being provided with means for engaging the tread and web of each of said rails.
3. The combination with the meeting ends of two rails, each rail being formed in its meeting end with an opening and a recess contiguous to said opening; of a chair

comprising sections, each section being provided with an upstanding wing, said wing adapted to engage the openings formed in the meeting ends of said rails, said wing being provided with means for engaging the inner ends of the recesses formed in said rail.

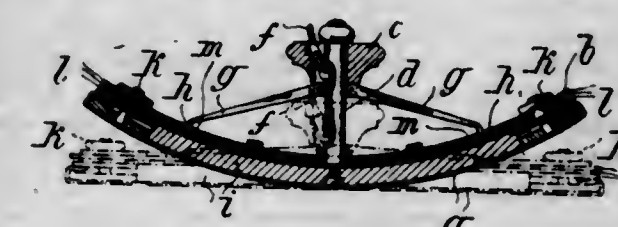
1,079,205. AUTOMOBILE-TOP. CARL V. BEEBE, Mount Gilead, Ohio. Filed June 25, 1912. Serial No. 705,733. (Cl. 21—62.)



1. A curtain-carrying means for automobiles and other vehicles comprising a case, a base therein, standards carried by the base and foldable longitudinally of the base toward and from each other from a position within the case to an erect position, and a curtain-carrying device with which the upper ends of the said standards have transverse sliding engagement.
2. In a top for automobiles and other vehicles, a spring-supported base, a curtain bar, foldable means connecting said base and curtain bar to raise and lower said bar, and braces for said foldable means.
3. In a top for automobiles and other vehicles, a spring-supported base, a curtain bar, and foldable members connecting said base and curtain bar to raise and lower said bar.
4. In a top for automobiles and other vehicles, a curtain-carrying bar, a receiving case for said curtain bar, standards having support within the case at their lower ends, and having movable connection with the curtain bar at their opposite ends, the standards being foldable from a substantially horizontal position to an erect position to carry the curtain bar downward within the case or upward to the opposite position, and braces pivotally connected with the standards at one end and having guided movement at their lower ends within the case.
5. In a top for automobiles and other vehicles, a curtain bar, standards provided with heads having sliding connection with the curtain bar, catches on the curtain bar for holding the standards in the erect position, means pivotally supporting the lower ends of the standards, and foldable means for sustaining the standards in erect position.

[Claims 6 to 9 not printed in the Gazette.]

1,079,206. BLOTTER-CRADLE. FRANZ CARL BENEDICT, Vienna, Austria-Hungary, assignor of one-half to Alois Löwy, Vienna, Austria-Hungary. Filed Nov. 16, 1912. Serial No. 731,914. (Cl. 120—24.)



1. A blotter of the character described, comprising a flexible plate, means on the plate to support a blotter, a stem extending from the flexible plate, and means operable on the stem and connected to the plate for holding the plate curved, when in one position and permitting said plate to assume a flat shape when said means are in another position.

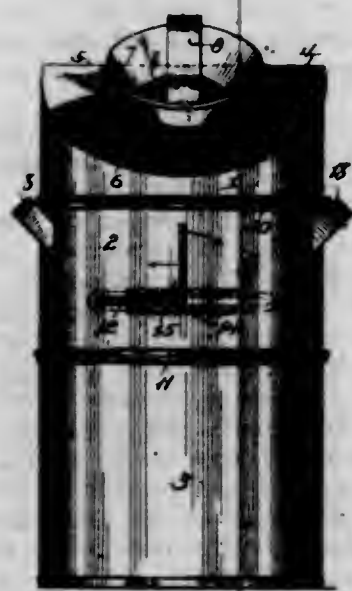
2. A blotter of the character described, comprising a flexible plate, means on the plate to support a blotter, a stem extending from the plate, a slidable element on the stem, members extending from the slidable element to the plate, whereby when the sliding element is in one position the flexible plate will be curved and when said element is in another position the flexible plate will be flat, and means for holding the slidable element in locked position on the stem when in one position.

3. A blotter of the character described, comprising a flexible plate, a stem extending therefrom, a slidable element on the stem, arms pivoted to the slidable element and engaging the plate, and a locking device carried by the slidable element to lock the latter to the stem whereby to hold the plate in a curved or a flat position.

4. A blotter of the character described comprising a base comprised of a plurality of flexible plates, means including an element slidable with reference to the base and oppositely extended arms between the slidable element and the base to set the latter in a curved or flat position, and means for locking the slidable element in either position.

5. A blotter of the character described, comprising a flexible plate, a stem extending from the plate and formed with notches, a slidable element mounted on the stem, two arms pivoted to the slidable element, the outer ends of said arms engaging the flexible plate, a locking latch pivoted to the sliding element and adapted to engage with either of the notches in the stem to hold the plate in a flat or a curved position.

1,079,207. ASH-SIFTER. NEWTON BENJAMIN, Elmira, N. Y. Filed Feb. 7, 1912. Serial No. 676,012. (Cl. 83-60.)



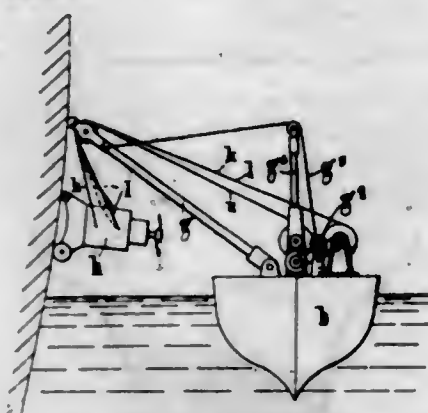
1. As a new article of manufacture, an ash sifter comprising a receptacle, a shelf in said receptacle and extending approximately half way around, and a shaking screen resting on said shelf and adapted when turned so as to bring its axis adjacent the ends of the shelf, to be tilted to dump the ashes.

2. As a new article of manufacture an ash sifter comprising a receptacle having elongated slots in its sides, a shaft passing through said slots, a screen centrally secured to said shaft, and a support located under the screen and extending from the near edge of one slot to the far edge of the other, so that when the shaft carrying the screen overhangs the said support, the screen will be held against tilting movement.

1,079,208. APPARATUS FOR CLEANING THE HULLS OF SHIPS OR ANY KIND OF VESSEL. FREDERICK GEORGE BROWNE, Malvern, near Melbourne, Victoria, Australia. Filed Aug. 5, 1912. Serial No. 713,308. (Cl. 114-222.)

1. An apparatus for cleaning the hulls of vessels, comprising in combination, a support floated beside the vessel

to be cleaned, a member pivotally carried by said floated support and adapted to be raised and lowered derrick-wise to bear at points of varying height on the hull of the vessel to be cleaned, whereby, to vary the space between said support and the vessel, means to draw said support toward said vessel, thereby causing said pivoted member to bear rigidly against the hull and holding said support in fixed relation with the vessel, a cleaning device suspended substantially from the end of said pivoted member at a plurality of points and means to vary the relative angular positions of said plurality of points of suspension, whereby the weight of the cleaning device is adjustably utilized to cause it to bear against the hull of the vessel with cleaning pressure.



2. An apparatus for cleaning the hulls of vessels, comprising in combination, a support floated beside the vessel to be cleaned, a member pivotally carried by said floated support and extending derrick-wise between said support and the hull of the vessel to be cleaned, whereby its head may be adjusted at varying heights in contact with the hull to be cleaned, a cleaning device suspended by a plurality of points from the head of said pivotally carried member so that it is thrown into contact with the hull when said member is positioned to space the support from the hull, means to draw said support toward the hull to hold the head of said pivoted member in contact therewith and rigidly brace said support, and means for varying the relative angular positions of the points of suspension of the cleaning device whereby to utilize the weight thereof to adjustably create a pressure of the cleaning device against the hull.

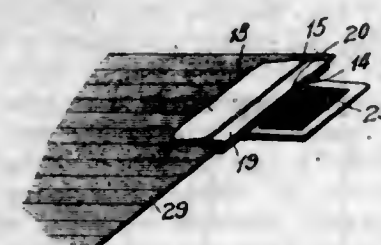
3. An apparatus for cleaning the hulls of vessels, comprising in combination, a support floated beside the vessel to be cleaned, a member pivotally carried by said floated support and extending derrick-wise between said support and the hull of the vessel to be cleaned, whereby its head may be adjusted at varying heights in contact with the hull to be cleaned, a cleaning device suspended by a plurality of points from the head of said pivotally carried member so that it is thrown into contact with the hull when said member is positioned to space the support from the hull, means to draw said support toward the hull to hold the head of said pivoted member in contact therewith and rigidly brace said support, means for operating on said means for drawing the hull and support together in order to position the latter lengthwise of the hull, and means for varying the relative angular positions of the points of suspension of the cleaning device whereby to utilize the weight thereof to adjustably create a pressure of the cleaning device against the hull.

1,079,209. INDEX-TAB. HENRY B. BURCKHART, Chicago, Ill., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 25, 1907. Serial No. 399,094. (Cl. 40-23.)

1. A label holder or index tab comprising two members each embodying a label holding portion and a supporting portion, and a removable compression device engaging both of the two members to force them together in order to hold a label between the label holding portions and to grip a support by the supporting portions.

2. A label holder or index tab comprising two members connected together to swing relatively to each other and

each embodying a label holding portion and a supporting portion, and a compression device cooperating with the two members to force them together in order to hold a label between the label holding portions and to grip a support by the supporting portions.



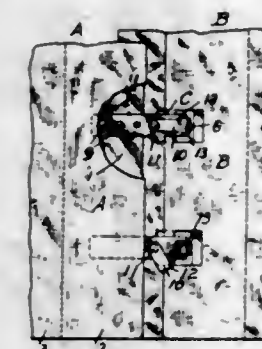
3. A label holder or index tab comprising two members each embodying a supporting portion and a label holding portion, one of the latter being provided with an opening for the exposure of the index or label, and a removable band constituting a compression means located and engaging with both members between said portions to hold a label between the label holding portions and a support between the supporting portions.

4. A label holder or index tab comprising a pair of gripping jaws and a pair of label holding portions formed from a single piece of sheet material folded on itself and provided with an index exposure opening, the fold being located on one side of the exposure opening and detachable means for holding, respectively, both the two label holding portions and the gripping portions together located on the opposite side of the exposure opening.

5. A label holder comprising two members each embodying a label holding portion and a supporting portion, said members being resiliently connected together, and exteriorly arranged movable compression means cooperating with the outer faces of both members between the label holding portions and the supporting portions to force the members together.

(Claims 6 to 12 not printed in the Gazette.)

1,079,210. CORSET-FASTENER. ELIZABETH CALKINS, St. Joseph, Mo. Filed May 9, 1913. Serial No. 766,510. (Cl. 24-203.)

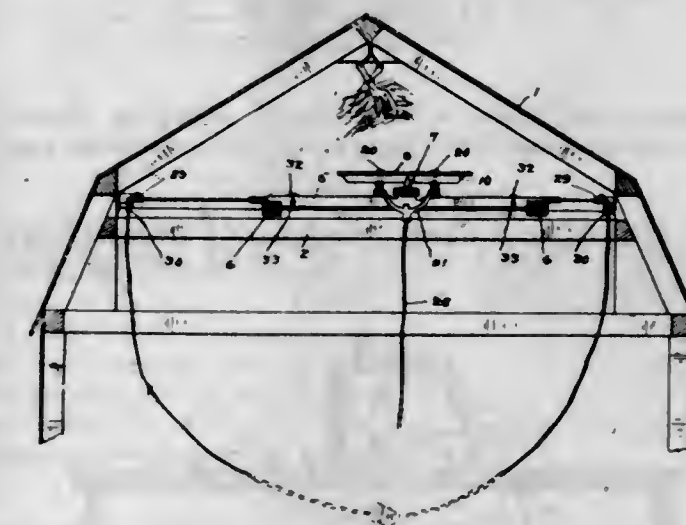


1. A corset fastener comprising an eyelet stay, a clasp-carrying stay and clasps on the latter stay, each clasp comprising a body member, a hook or bill member hingedly connected therewith to lie at one side of the body member and having a shoulder disposed at the opposite side of the body member, and a pivoted lock on the body member arranged to engage the shoulder for holding the bill member in closed position.

2. A corset fastener comprising an eyelet stay, a clasp-carrying stay and clasps on the latter stay, each clasp comprising a body member, a hook or bill member hingedly connected therewith to lie at one side of the body member and having a shoulder disposed at the opposite side of the body member, a pivoted lock on the body member arranged to engage the shoulder for holding the bill member in closed position, and a spring on the body member forming a keeper with which the tip portion of the bill member is adapted to engage when in closed position for holding the clasp engaged with the eyelet stay.

3. A corset clasp comprising a flat body member, a hook or bill member hingedly connected therewith and normally lying at one side of the body member and having a shoulder disposed at the side of the body member opposite from the bill member, and a pivoted lock on the side of the body member opposite from the bill member and arranged to engage the shoulder for holding the bill member in closed position.

1,079,211. MOW-SPREADER. DONALD PETER LOTHIAN CAMPBELL, Vankleek Hill, Ontario, Canada. Filed July 22, 1912. Serial No. 710,811. (Cl. 214-2.)



1. The combination with a trackway transversely arranged above a mow or the like, of a carriage travelling on said trackway, a tiltable platform supported on said carriage, pulleys arranged at each side of said mow, a rope having the ends thereof secured to the sides of said carriage and looped through said pulleys and a trip line operatively connected to said platform for tripping the same to its tilted position and returning the same to horizontal position.

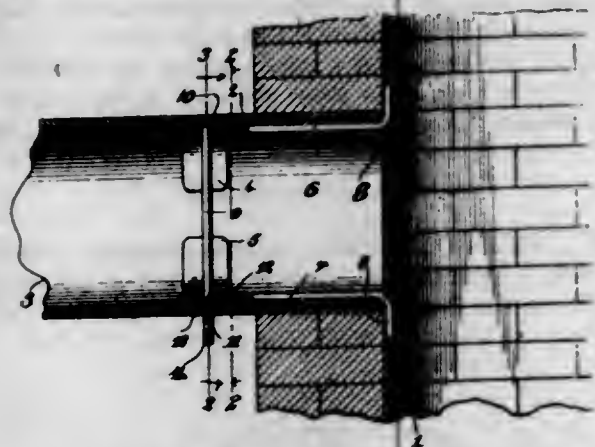
2. In a mow spreader, a carriage comprising a rectangular frame having a center cross-piece, wheels journaled at the corners of said frame, hinge irons extending upwardly from said cross-piece, a platform extending longitudinally of said cross-piece and tiltable supported on said hinge irons, a semi-circular yoke supported on the under side of said platform and looped under said cross-piece and having a limited lateral swinging movement and a tongue extending upwardly from the center thereof, a segment secured to the under side of said cross-piece above the center of said yoke and having a center notch into which the tongue of said yoke extends, an eye-bolt extending downwardly from said cross-piece and in alignment with the notch in said segment and a trip line secured to said yoke opposite the tongue thereof and extending through said eye-bolt.

3. In a mow spreader, a carriage comprising a rectangular frame having a center cross-piece, wheels journaled at the corners of said frame, a platform extending longitudinally of said cross-piece and hingedly supported thereby and having the center board thereof above said cross-piece and removable, means for retaining said platform in horizontal position and means for tripping said platform to a tilted position.

1,079,212. STOVEPIPE-HOLDER. HEZEKIAH CARPENTER, Kremmling, Colo., assignor of one-third to Nils Westerberg and one-third to George Harrison Hendrix, Kremmling, Colo. Filed Jan. 17, 1913. Serial No. 742,637. (Cl. 126-318.)

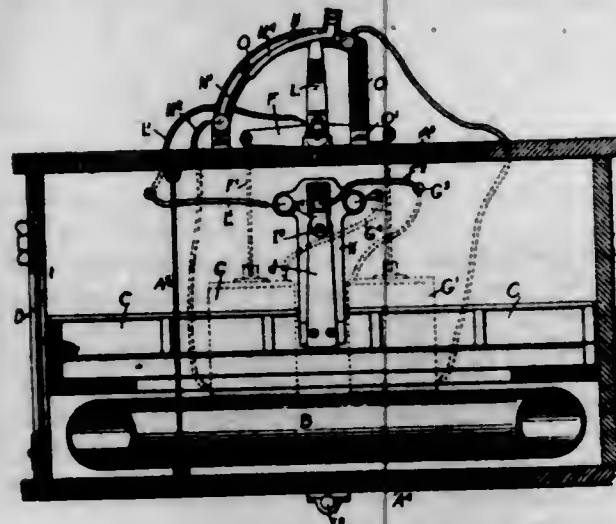
The combination with a stove pipe having an opening therein, of a holder comprising a pair of curved clamping members arranged interiorly of said pipe, hooked arms carried by said clamping members to project through an end of the pipe and engage the wall of a chimney, and a

screw bolt swiveled to one of the clamping members and having a threaded end extending through and having a



threaded engagement with the other clamping member and projecting externally through said opening in the pipe.

1,079,213. ELECTRIC REGULATOR FOR INCUBATORS. CURTIS C. CARTER, Chapin, Ill. Filed Dec. 10, 1912. Serial No. 735,920. (Cl. 236-4.)



1. An incubator comprising a casing having opening and closing means for the ingress and egress of atmospheric air, heating means for heating the casing, a thermostat within the casing, electrical means connected with the said opening and closing means to actuate the same, an electric switch controlled by said thermostat and controlling said electrical means, the said switch having a member moving with the opening and closing means, a contact adapted to be engaged by said member and having a reversing portion, and means for holding said member out of engagement with said contact during the return movement of said member.

2. An incubator comprising a casing having opening and closing means for the ingress and egress of atmospheric air, heating means for heating the casing, a thermostat within the casing, electrical devices connected with the said opening and closing means to actuate the same, an electric switch controlled by said thermostat and controlling said electrical devices, the said switch having an arm moving with the opening and closing means, spaced contacts adapted to be engaged by said arm, and an insulated member overlying one of said contacts and terminating adjacent the other contact, the said arm moving under said insulated member during the opening movement of the opening and closing means, and moving over said insulated member during the return movement.

3. An incubator comprising a casing having doors for the ingress and egress of atmospheric air, the said doors being connected with each other to open or close simultaneously, means for heating the casing, a thermostat within the casing, a pair of solenoids, a connection between the solenoids and one of the doors to open the doors when one solenoid is energized, and to close the doors when the other solenoid is energized, an electric switch controlled by the thermostat and controlling the

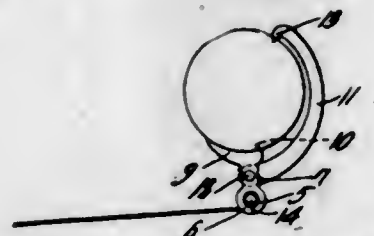
said solenoids, the said switch having a member connected with and moving with one of said doors, spaced contact plates one of which is engaged by the said member to energize one of said solenoids to open the doors and the other is engaged by the said member to energize the other solenoid to close the doors, and means for preventing contact of said member with the first mentioned contact plate during the closing movement of the doors.

4. An incubator comprising a casing having a bottom door and a top door for the ingress and egress of air, the said doors being connected with each other to open or close simultaneously, a heating means of approximately uniform temperature, for heating the casing, a thermostat within the casing, solenoids connected with the top door to open the doors when one solenoid is energized and to close the doors when the other solenoid is energized, an electric switch controlled by the said thermostat and controlling the said solenoids, the said switch including an arm on the top door, a contact engaged by the said arm, the contact having a reversing portion, and an insulated member over which the arm travels during the return movement to hold said arm out of engagement with the contact.

5. An incubator comprising a casing having a bottom door and a top door for the ingress and egress of air, the said doors being mounted to swing at their longitudinal central portions and connected with each other to open or close simultaneously, a heating means within the casing, a thermostat within the casing, a pair of solenoids, a source of electrical energy connected with the solenoids, a connection between the solenoid cores and the top door to partly open the doors when one solenoid is energized, and to partly close the doors when the other solenoid is energized, an electric switch controlled by the said thermostat and controlling the said solenoids, the said switch having an insulated arm on the top door adjacent one end and moving with the door, and segmental contact plates spaced apart and mounted on a support of insulating material secured to the casing, the free end of said insulated arm being adapted to engage said contact plates, an insulated member overlying one of said contact plates and over which the arm passes during the return movement, and an overbalancing device mounted on the top door for moving the doors into fully open or fully closed position.

[Claims 6 to 8 not printed in the Gazette.]

1,079,214. WIRE-STRETCHER. GEORGE A. COLE, Sanborn, Iowa. Filed Mar. 13, 1913. Serial No. 754,165. (Cl. 39-50.)

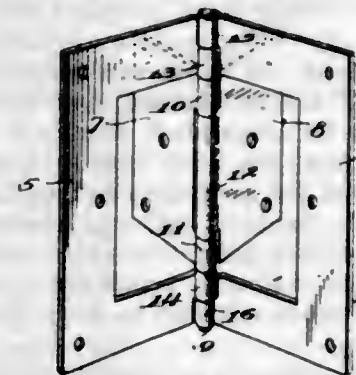


A carrier embodying a collar forming a shaft bearing having a short radial shank, and provided with a curved shoe attached intermediate its ends to the free end of the shank and having a post engaging spur at its heel, and an arcuate arm fulcrumed to the shank intermediate the shoe and bearing, and projecting in a direction opposite that of the toe of the shoe, the arm having a post engaging spur at its free end, the spurs being adapted to engage opposite sides of a post, and the shoe being adapted to be swung upon its heel spur as a fulcrum so that the toe of the shoe strikes the post, as and for the purposes described.

1,079,215. HINGE. HENRY B. CONNERS, Sioux City, Iowa. Filed Nov. 21, 1912. Serial No. 732,766. (Cl. 16-106.)

A hinge comprising two strap leaves of equal dimensions having upper and lower knuckles, two butt hinge leaves consisting of rectangular sections of the same size

cut from the intermediate portions of the strap leaves and having knuckles at their inner portions, the knuckles of the one butt hinge leaf being at the upper and lower ends of the leaf and the other butt hinge leaf having a single knuckle at the inner edge between the ends thereof to fit between the end knuckles of the other butt hinge leaf, the knuckles of the butt hinge leaves being held between the innermost knuckles at the upper and lower ends of the



strap leaves, the two sets of knuckles being disposed in vertical alignment, and a single pintle inserted through and connecting the knuckles of all the leaves, the strap leaves and the butt hinge leaves being movable independently of each other on the pintle, the knuckles of both pairs of leaves supporting each other and operating to distribute the weight strain imposed on the leaves equally over different portions of the pintle to avoid intermediate bending of the pintle.

1,079,216. STRAINER FOR DRIVEN WELLS. AUGUST D. COOK, Lawrenceburg, Ind. Filed Mar. 6, 1911. Serial No. 612,560. (Cl. 166-5.)



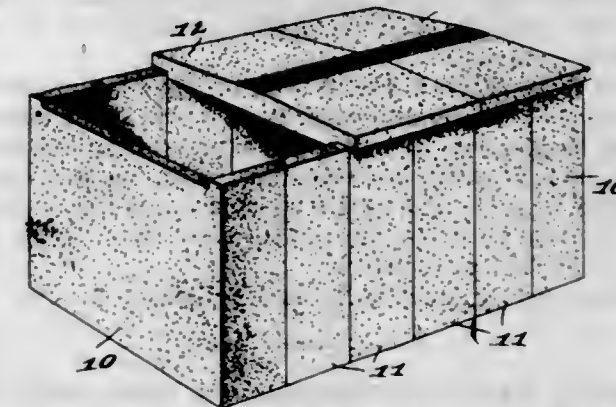
1. A strainer for driven wells comprising tubular sections fitted and secured together each made of a single piece of metal having a uniform smooth exterior, the solid end of one section against the solid end of the adjacent section, each section being correspondingly slotted through the body thereof and formed with internal integral ribs extending across said slots, substantially as set forth.

2. A driven well structure comprising a well tube, a lower perforated section secured thereto, a drive point on the lower end of said perforated section, a strainer surrounding said perforated section comprising single piece tubular sections formed with straining slots and with integral internal ribs crossing said slots, said internal ribs resting against the outer wall of said perforated section, substantially as set forth.

1,079,217. BURIAL-Vault. AUGUST D. COOK, Lawrenceburg, Ind. Filed Mar. 6, 1911. Serial No. 612,561. (Cl. 72-7.)

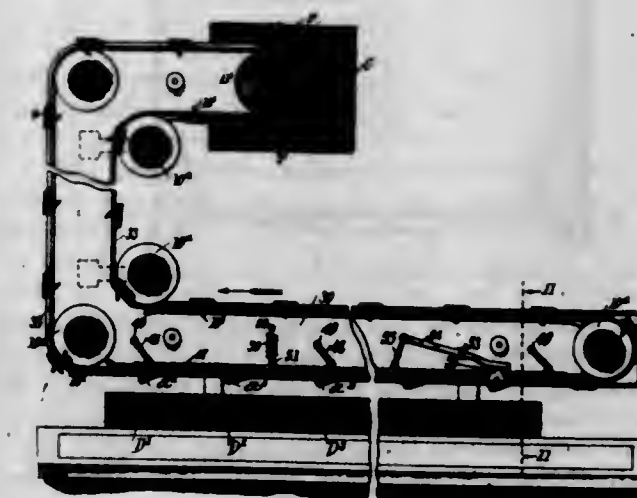
A concrete vault comprising a multiple of U-shaped sections secured together edge to edge to form the side walls

and bottom of said vault, each of said sections being formed with grooves adapted to register with each other, a uniting substance being deposited in said grooves, end sections formed to be secured to said other sections in a like manner, each of said end sections comprising a U-shaped portion and an end portion, the end portion being of less height than the side walls and formed integral



therewith, and a top formed of sections having shoulders near the ends to fit within the upper edges of said side walls and overhang the top of said walls, the shoulder in the ends of said top sections corresponding in depth to the difference between the height of the end portions and the side portions of the end sections, whereby a vault may be constructed of varying lengths from sections of standard dimensions, substantially as set forth.

1,079,218. CONVEYER. JAMES J. CURTIS, New York, N. Y. Filed Nov. 23, 1912. Serial No. 733,107. (Cl. 193-8.)



1. The combination of an endless belt, a plurality of rollers, a plurality of clamps carried by the belt, each clamp embodying a plurality of members, one of which is provided with an inwardly extending arm, the intermediate portion of some of the rollers being removed whereby the arm may pass therearound and out of engagement therewith, together with another roller with which the inwardly extending portion is adapted to engage whereby the jaws of the clamp are moved away from each other relatively.

2. The combination of an endless belt, a plurality of clamps secured to the belt, each clamp being made up of two members, one of the members being provided with an inwardly extending arm, slots being formed in the belt through which the arms project, a plurality of rollers around which the belt passes, the intermediate portion of some of the rollers being removed, whereby the clamps may pass thereover, with the arms out of engagement with such rollers, and another roller with which the arms engage, whereby the jaws of the clamps are moved relatively from each other, whereby articles carried by the clamps may be released therefrom.

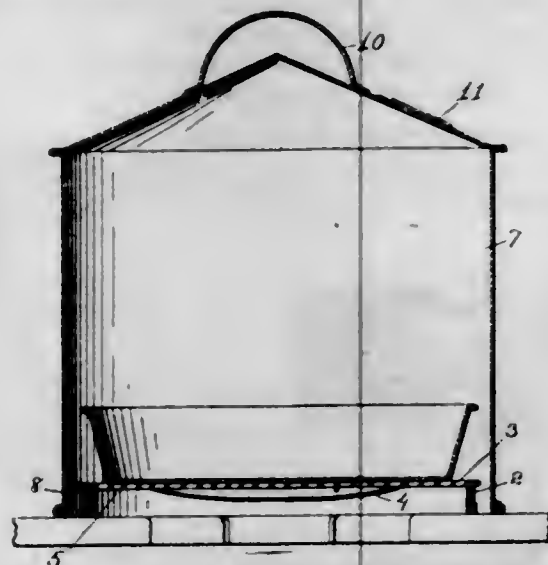
3. In combination with an endless belt and a series of selective clamps thereon, means for opening all of the clamps of such series when they come to certain selective stations corresponding to said clamps, substantially as set forth.

4. In a conveyer, the combination of an endless belt, a series of selective clamps carried by the belt in spaced relation to one another, a series of selective receptacles adjacent which the series of clamps are carried by the belt, the receptacles being spaced to correspond to the spacing of the clamps in said series, and the receptacles being distinguishable according to the several clamps, and means for opening the clamps when they arrive adjacent the receptacles, each clamp of the series opening over its corresponding receptacle.

5. In a conveyer, a belt, a series of clamps connected to the belt, a series of receptacles along which said clamps are carried by the belt in a continuous operation, the several clamps of said series corresponding to the several receptacles each to each, and means causing all of the clamps of said series to open simultaneously when they arrive adjacent all of said receptacles.

[Claims 6 to 9 not printed in the Gazette.]

1,079,219. HEAT-DISTRIBUTER OR BAKE-OVEN FOR GAS AND GASOLINE STOVES. BENJAMIN F. DAVIS, Washington, D. C., assignor, by mesne assignments, to James M. Himes, Washington, D. C. Filed Nov. 8, 1912. Serial No. 730,286. (Cl. 126—275.)



A heat distributor for gas and gasoline stoves, comprising a cylindrical supporting rim, a horizontal meshed screen having perforations and narrow upstanding thin edge walls between the same, said screen being circumferentially attached to the upper margin of said rim, a concentric dish deflector plate, smaller than said screen, and having a thin upper marginal edge in contact with the lower surface of said screen and bridging the mesh perforations thereof, and bent hook lug extensions of the deflector plate engaging said walls, said screen having circulation passages between said narrow upstanding walls above the thin edge of the deflector plate.

1,079,220. EXPLOSION-MOTOR FOR CARS AND THE LIKE. WILLIAM F. DAVIS, Kansas City, Kans., assignor to McKeen Motor Car Company, a Corporation. Filed Oct. 10, 1905. Serial No. 282,153. (Cl. 105—17.)



1. In apparatus of the class described, in combination, a pair of truck side bars, a rigid integral casting bridging said side bars, a crank shaft journaled in said casting, a multi-cylinder engine connected with said crank shaft and having its cylinders horizontally mounted on said truck, and means adapted to drive said truck from said crank shaft.

2. In apparatus of the class described, in combination, a pair of truck side bars, a rigid integral casting bridging said side bars and interlocking therewith, bearing supports formed in said casting integral therewith, a crank shaft journaled upon said bearing supports, a multi-cylinder engine connected with said crank shaft and having its cylinders mounted on said truck, and means adapted to drive said truck from said crank shaft.

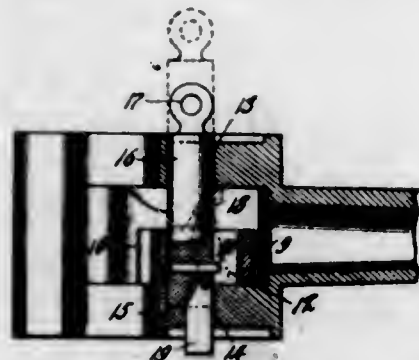
3. In apparatus of the class described, in combination, a pair of truck side bars, supporting means extending across said side bars and substantially below the upper surface thereof, an engine mounted upon said supporting means and having its crank shaft journaled thereon, and means adapted to drive the truck from said crank shaft.

4. In apparatus of the class described, in combination, a pair of truck side bars, an integral casting extending across and substantially below the upper surface of said side bars, an engine having its crank shaft mounted upon said casting, and means adapted to drive the truck from said crank shaft.

5. In apparatus of the class described, in combination, a pair of truck side bars, an integral casting fitted between and extending over said side bars and substantially below the upper surface thereof, an engine having its crank shaft journaled upon said casting, and means adapted to drive the truck from said crank shaft.

[Claims 6 to 31 not printed in the Gazette.]

1,079,221. CAR-COUPLING. JOHN R. DEISHER, Pottsville, Pa. Filed July 15, 1909. Serial No. 507,788. (Cl. 213—14.)



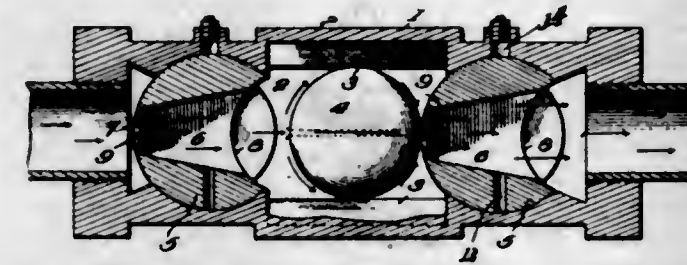
A car coupler consisting of a coupler head formed to provide spaced top and bottom walls, the bottom wall being formed with a pin receiving pocket and an opening of less diameter than said pocket and disposed eccentrically thereof, a slotted locking plate pivoted between said walls and movable over said pocket, a pin slidable through the upper wall and the plate and having its lower end snugly fitting in said pocket and provided with a longitudinal recess formed in the rear side of its lower end, a dog comprising an elongated rectangular member pivoted in said recess of the pin and adapted to slidably extend through the opening communicating with said pocket, and to engage the upper side of said bottom wall to support said pin above said plate, said dog having its upper end corresponding in shape with the walls of the recess to permit said dog to be moved into said recess by said plate and to lie in the plane with the pin to allow said pin and dog to enter said pocket, and a pin secured transversely to said first named pin and adapted to abut against the top wall to limit the movement of said pin in one direction.

1,079,222. VALVE. DENIS DENNEHY, Pittsburgh, Pa., assignor of one-half to Michael H. Dennehy, Pittsburgh, Pa. Filed May 24, 1913. Serial No. 769,591. (Cl. 137—32.)

1. A casing, a ball-valve therein, and a rotatable plug extended through the casing adjacent to the ball-valve having a transverse port, said port being capable of being closed at one end only by said ball-valve, said plug being reversible to present the other end of the port toward said ball-valve.

2. A casing, a ball-valve therein, and two rotatable plugs on opposite sides of said ball-valve, each plug having

a transverse port capable of being closed at one end only by said ball-valve, said plugs being reversible to present the other end of the port toward said ball-valve.



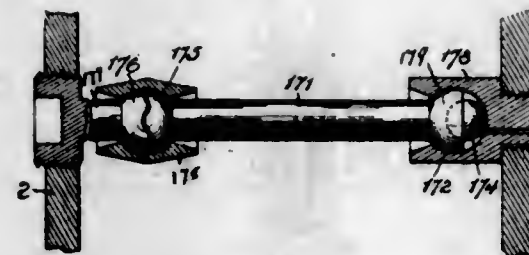
3. A casing, a ball-valve therein, and two rotatable plugs on opposite sides of said ball-valve, each plug having a transverse port which terminates at one end in a spheroidal seat for said ball-valve, whereby the latter may be seated by back pressure, said plugs being reversible.

4. A casing, a ball-valve therein, and two rotatable plugs on opposite sides of said ball-valve, each plug having a transverse port which terminates at one end in a spheroidal seat for said ball-valve whereby the latter may be seated by back pressure, and means for preventing the ball-valve from closing such ports by engagement with the other ends of said ports, said plugs being reversible.

5. A casing, a ball-valve therein, and two rotatable plugs on opposite sides of said ball-valve, each plug having a transverse port which terminates at one end in a spheroidal seat for said ball-valve and at its other end in an elongated opening, said plugs being reversible.

[Claims 6 and 7 not printed in the Gazette.]

1,079,223. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,678. (Cl. 85—1.5.)



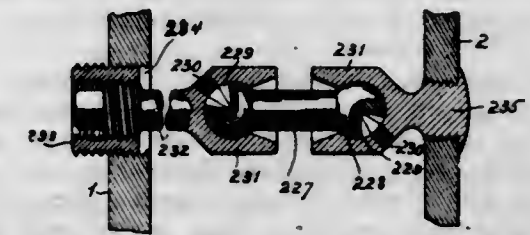
1. The combination of a member having a ball shaped socket therein, a member loose within said socket and a third member having an enlarged end to fit said socket, the loose member closely fitting a recess in said enlarged end and bearing against said socket.

2. The combination of a member having a ball shaped socket and a throat leading to said socket, a member loose within the socket and of less diameter than the throat, and a third member having an enlarged end partly fitting said socket and having a recess in which the loose member rests, the said loose member being held against the wall of the socket by the enlarged end of the third member.

1,079,224. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,679. (Cl. 85—1.5.)

1. The combination of a bolt having rounded heads at its opposite ends, connectors having sockets shaped to receive said heads, and one connector also having reduced threaded end, an externally threaded bushing adapted for attachment to a wall of the furnace and provided with a threaded opening to receive the reduced threaded end of said connector, whereby the bolt may be passed through the opening for the bushing and then secured in place by the bushing, and interlocking pro-

jections on the heads and connectors whereby the parts have free universal angular movement, but are restrained against independent rotary movement.



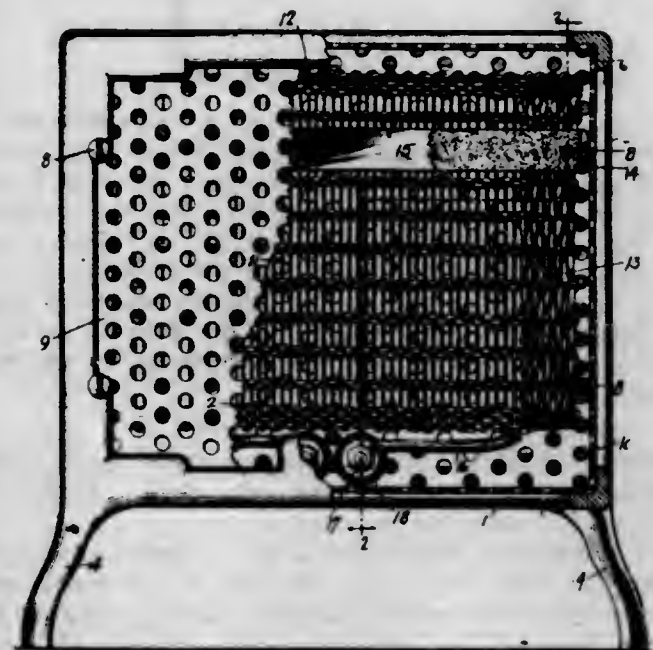
2. The combination of a bolt having heads each having a rounded bearing surface, connectors having sockets with curved seats for said heads, one of said connectors also provided with a reduced threaded end, an externally threaded bushing adapted for attachment to a wall of the furnace and provided with a threaded opening to receive the reduced threaded end of said connector, whereby the bolt may be passed through the opening for the bushing and then secured in place by the bushing and projections fixed to both connectors and resting within recesses in the heads of the bolts, the said projections and recesses being so shaped and of such relative size as to permit free angular movements of one part independently of the other, but which will prevent a complete rotation of one part independently of the other.

3. The combination of a member having a ball shaped head, a recess in said head to one side of the long axis of the member, a second member having a socket with a curved seat for the head and a key carried by said second member and resting in the recess in the ball shaped head.

4. The combination of a member having a spherical head the latter provided with a conical recess located to one side of the long axis of said member, a second member having a socket to receive the spherical head and with a curved seat for the latter, and a conical key carried by said second member and resting within the recess in the spherical head.

5. The combination with a bolt having a rounded head at each end, connectors having sockets shaped to receive said heads, one of said connectors having a reduced end, and an externally threaded bushing adapted for attachment to the wall of a furnace, and provided with a threaded opening to receive the reduced threaded end of the connector, whereby the bolt may be passed through the opening for the bushing and then secured in place by the bushing.

1,079,225. ELECTRIC HEATER. WILLIAM DUBILIER, New York, N. Y. Filed Dec. 19, 1912. Serial No. 737,642. (Cl. 219—63.)



1. The combination of a flexible element formed by a conductor bent back and forth into vertical sections, rows

of threads of insulation interwoven with the said sections and extending horizontally, and clamping bars disposed between two adjacent rows of threads and at opposite sides of the element and engaging all the sections thereof to support the said element rigidly from end to end.

2. A heating element comprising a conductor bent back and forth into vertically-disposed sections, threads of insulation interwoven with the sections and extending transversely thereto, and sag preventing and clamping elements in the form of bars engaging opposite sides of the element and extending from end to end thereof in the direction of the said threads, in combination with a casing inclosing the element and bars composed of parts clamped together and engaged with the said bars for pressing the bars against the element and thereby holding the same in place.

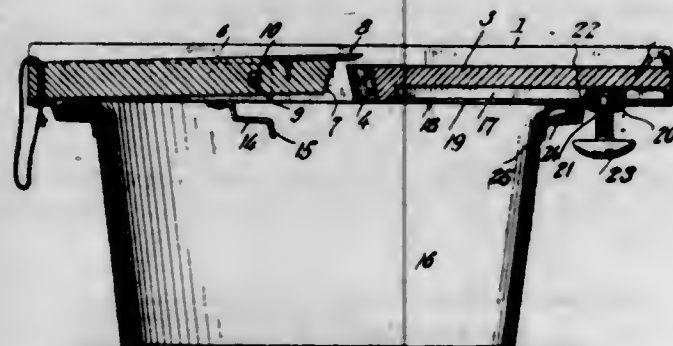
3. The combination of a casing, a flexible heating element disposed therein, sag preventing and clamping bars secured within the casing and engaging opposite sides of the element adjacent the upper edge thereof to support the weight of the element, and means in the lower portion of the casing for engaging the element to cooperate with the bars for holding the element in position.

4. The combination of a casing composed of separable sections, an lining, inwardly-disposed members on the sections, a flexible open-work heating element extending between said members, and a two-part clamping means separate from the element and casing and engaged with the members for engaging opposite sides of the element and extending from one end thereof to the other to support the weight of the element throughout its length.

5. The combination of a heating element having fabric ends of insulation, a casing inclosing the element, means passing through the fabric ends to hold the element in place, and means held by the first mentioned means for frictionally engaging opposite sides of the element and extending from end to end thereof to support the weight of the element between the fabric ends.

[Claims 6 to 8 not printed in the Gazette.]

1,079,226. SLAW OR KRAUT CUTTER. WILLIAM H. EMANUEL, Nesquehoning, Pa. Filed Dec. 24, 1912. Serial No. 738,424. (Cl. 146—7.)



Means for attaching a member to a receptacle which comprises separated pairs of receptacle engaging fingers rigidly secured to the member adjacent the side edges, said member having a groove, a slotted plate mounted over the groove, a plate fitted within the groove and adapted to operate over the slotted plate, receptacle engaging fingers connected to the slidably mounted plate and means to draw the fingers and the slidably mounted plate together, whereby they will be clamped in adjusted position upon the slotted plate.

1,079,227. RESPIRATOR. WALTER FRANCIS FANNING, Providence, R. I. Filed Dec. 17, 1912. Serial No. 737,319. (Cl. 128—13.)

1. A respirator formed with an opening having an outstanding flange, a lip at one edge of the flange, said flange being formed with a retaining groove adjacent the opposite edge, a cleaning agent held between strips of gauze screen adapted to be placed within the flange with one of the screen strips bearing against the lip and a retaining ring to seat in said groove and bear against

the remaining screen strip, said ring presenting a portion inwardly beyond the marginal edge of the groove to provide for convenient removal of the ring.



2. A respirator formed with an opening having an outstanding flange, a lip at one edge of the flange, said flange being formed with a retaining groove adjacent the opposite edge, a cleaning agent held between strips of gauze screen adapted to be placed within the flange with one of the screen strips bearing against the lip and a sinuous retaining ring to seat in said groove and bear against the remaining screen strip.

1,079,228. FOUNTAIN-PEN. ALFRED FARMER, London, England, assignor to Thomas De La Rue & Company, Limited, London, England. Filed Mar. 13, 1913. Serial No. 754,040. (Cl. 120—49.)



1. A fountain pen consisting of a pen body, a nib fixed thereto, a movable ink feed bar located below the nib, and a spring adapted to press the feed bar outward.

2. A fountain pen consisting of a pen body, a nib fixed thereto, a movable ink feed bar located below the nib, a spring adapted to press the feed bar outward, and a cap carrying a plug adapted to press the ink feed bar inward.

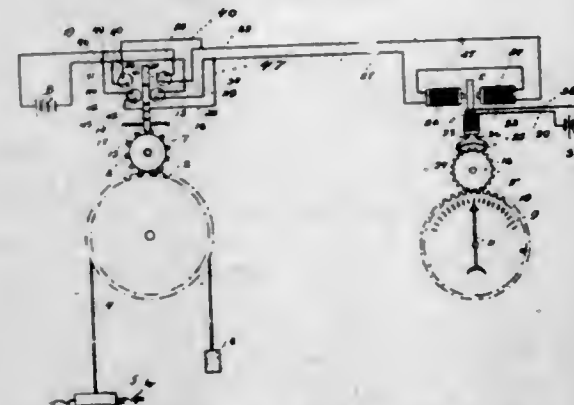
3. A fountain pen consisting of a pen body, a seat on the end of the pen body, an ink feed bar, a spring adapted to press the feed bar outward, a cap, a plug on the cap adapted to press the ink feed bar inward and a conical end on the plug adapted to fit the seat on the pen body.

4. A fountain pen, consisting of a pen body, a seat on the end of the pen body, a nib fixed to the pen body, a movable ink feed bar located below the nib, a spring adapted to press the feed bar outward, a cap, a plug on the cap adapted to press the ink feed bar inward and a conical end on the plug adapted to fit the seat on the pen body.

1,079,229. ELECTRICALLY-CONTROLLED INDICATOR. WALTER L. FITZGERALD, Philadelphia, Pa. Filed Sept. 19, 1911. Serial No. 650,117. (Cl. 73—117.)

1. The combination of an indicating device adapted to indicate the rise and fall of a body of fluid, electromag-

netic devices arranged adjacent to the indicating device, a normally open circuit including said electromagnetic devices and having a source of electrical energy therein, means adapted to impart movement to the indicating device upon the energization of the said electromagnetic devices, an operating device adapted to be actuated by the rise and fall of a body of fluid and including a pinion, a switch lever operated from said pinion intermittently, a set of contact points arranged upon each side of the switch lever and adapted to be engaged by the lever in its movement and connected in said circuit in such manner that when the lever is moved in one direction the circuit is closed through one set of contacts and energizes the electromagnetic devices to move the indicator in one direction, and when the lever is moved in the opposite direction, the circuit is closed through the opposite set of contacts and energizes the electromagnetic devices to move the indicator in the opposite direction, and means for normally sustaining the switch out of engagement with the contacts and adapted to restore said switch to its normal position subsequent to the movement of the same under the influence of the pinion.



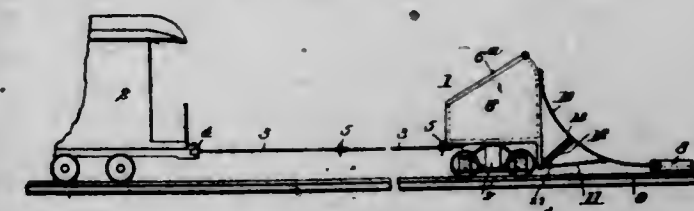
2. The combination of an indicating device adapted to indicate the rise and fall of a body of fluid, electromagnetic devices arranged adjacent the indicating device, a normally open circuit including said electromagnetic devices, and a source of electrical energy in the circuit, means adapted to impart movement to the indicating device upon the energization of said electromagnetic devices, an operating device including a pinion adapted to be actuated by the rise and fall of a body of fluid, a switch operatively associated with said pinion and pivoted adjacent thereto and designed to be operated intermittently by the teeth of said pinion, a set of contacts arranged upon each side of said lever and connected in said circuit in such manner that when the lever is moved in one direction the circuit is closed through one set of contacts and energizes the electromagnetic devices to move the indicator in one direction, and when the lever is moved in the opposite direction, the circuit is closed through the opposite set of contacts and energizes the electromagnetic devices to move the indicator in the opposite direction, and means for normally sustaining the switch out of engagement with the contacts, said last-named means operating to restore the switch lever to its normal position subsequent to the same being operated by each tooth of the pinion to impart to the indicating device a step by step movement.

3. The combination of an indicating device, electromagnetic devices, a normally open circuit for said electromagnetic devices and a source of electrical energy therein, means adapted to impart movement to the indicating device upon the energization of said electromagnetic devices, an operating device including a pinion, a switch lever operated from said pinion intermittently, a set of contacts arranged upon each side of the switch lever and connected in said circuit in such manner that when the lever is moved in one direction the circuit is closed through one set of contacts and energizes the electromagnetic devices to move the indicator in one direction, and when the lever is moved in the opposite direction, the circuit is closed through the opposite set of contacts and energizes the electromagnetic devices to move the indicator in the opposite direction, and means for normally sustaining the

switch out of engagement with the contacts and adapted to restore the same to its normal position subsequent to the movement of the switch under the action of the pinion.

4. In an indicator, an indicating device, electromagnetic devices, a normally open circuit for said electromagnetic devices and a source of electrical energy therein, means adapted to impart movement to the indicating device upon the energization of said electromagnetic devices, an operating device including a pinion, a switch operatively associated with said pinion and pivoted adjacent thereto and adapted to be operated intermittently by the teeth of the pinion, a set of contacts arranged upon each side of the lever and connected in said circuit in such manner that when the lever is moved in one direction the circuit is closed through one set of contacts and energizes the electromagnetic devices to move the indicator in one direction, and when the lever is moved in the opposite direction, the circuit is closed through the opposite set of contacts and energizes the electromagnetic devices to move the indicator in the opposite direction, and means for normally sustaining the switch out of engagement with the contacts, said last-named means operating to restore the switch to its normal position subsequent to the same being acted upon by each tooth of the pinion whereby a step by step movement is imparted to the indicating device.

1,079,230. TRAIN-DERAILER. CHARLES F. FLEMMING, Washington, D. C. Filed Sept. 9, 1913. Serial No. 789,005. (Cl. 104—127.)



1. A derailer designed to be attached to the rear end of a train or car for derailing a locomotive or car approaching from the rear before it can collide with the front train or car.

2. A derailer comprising a body adapted to be drawn behind a train or car and a derailing shoe yieldingly supported from the body so as to be normally carried slightly above one of the rails of a track in position to be depressed into operative position when engaged by the front wheel of a locomotive or car approaching from the rear.

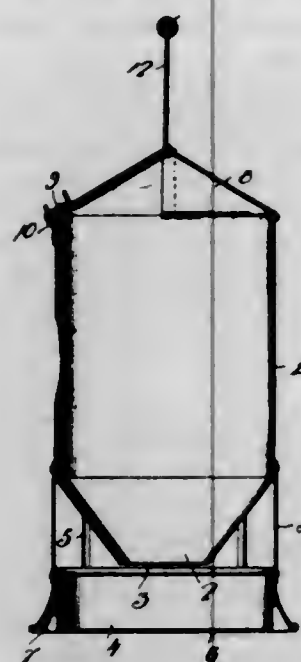
3. A derailer comprising a body adapted to be drawn behind a train or car and a derailing shoe yieldingly supported from the body so as to be normally carried slightly above one of the rails of a track in position to be depressed into operative position when engaged by the front wheel of a locomotive or car approaching from the rear, and resilient means for holding said shoe in normal position.

4. A derailer comprising a body adapted to be drawn behind a train or car, and a derailing shoe yieldingly supported from the body so as to be normally carried slightly above one of the rails of a track in position to be depressed into operative position when engaged by the front wheel of a locomotive or car approaching from the rear, said shoe having a channel in its under face, and the side walls of said channel being serrated for gripping the side of a rail when the shoe is depressed.

5. A derailer comprising a body adapted to be drawn behind a train or car, and a derailing shoe yieldingly supported from the body so as to be normally carried slightly above one of the rails of a track in position to be pressed into operative position when engaged by the front wheel of a locomotive or car approaching from the rear, said shoe having a channel in its under face, and the side walls of said channel being serrated forming flat-faced teeth for gripping the side of a rail when the shoe is depressed.

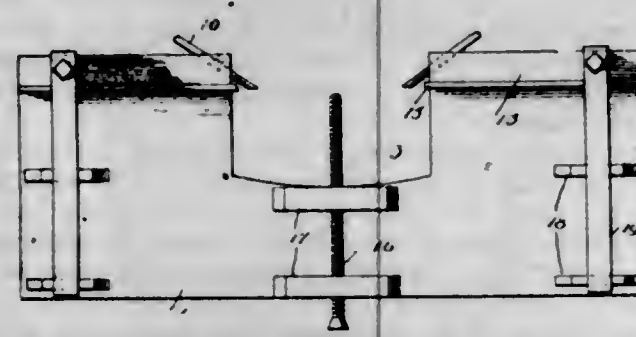
[Claims 6 to 10 not printed in the Gazette.]

1,079,231. POULTRY-FEED HOPPER. JOHN M. FRANKLIN, Hatfield, Pa. Filed Apr. 5, 1912. Serial No. 688,774. (Cl. 119-52.)



The herein described poultry feeder comprising a cylindrical hopper having an inverted truncated conical lower portion provided with a discharge opening at the bottom, a cylindrical feed pan below and arranged concentrically with respect to the hopper, a conical base wall extending around the feed pan, the lower side of the said base wall being spaced from the feed pan and the upper side of the base wall frictionally engaging the upper side of the feed pan, and vertical stays having their ends connected to the hopper and to the base wall, the base wall serving thereby as a support for the hopper and also as means for securing the feed pan in place and yet permitting the ready removal of the feed pan from below the base wall.

1,079,232. SAW-JOINTER. PETER GAGNON, Shelton, Wash., assignor of one-half to Bernard J. Duffy, Seattle, Wash. Filed Dec. 7, 1910. Serial No. 596,088. (Cl. 76-47.)

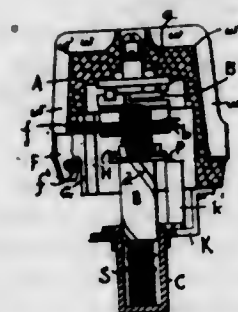


A saw jointing device comprising a saw mounting plate, a flange formed upon the plate, spacing bosses projecting from said plate beneath the flange, a file holding screw threaded into certain of said bosses, and arms secured to said flange and overhanging other of said spacing bosses to guide the saw and hold the same in position to be acted upon by the file, said arms lying parallel to the plate.

1,079,233. ELECTRICAL SWITCH. WILLIAM J. GAGNON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 21, 1909. Serial No. 508,815. (Cl. 175-291.)

1. A pendent switch having a cup-shaped insulating body with continuous wire grooves on its exterior side and top, binding posts near its lower edge, in combination with an inclosing case having wire outlet at the top and closely engaging said body so as to press the wires in their grooves, substantially as described.

2. In a rotary snap switch, a ratchet actuating mechanism comprising a crown plate with radial ratchet teeth and between the latter an equal number of upwardly bent abutment teeth for a ratchet spring, in combination with a pawl plate below said crown plate with pawl lugs struck up to engage said radial ratchet teeth, substantially as described.



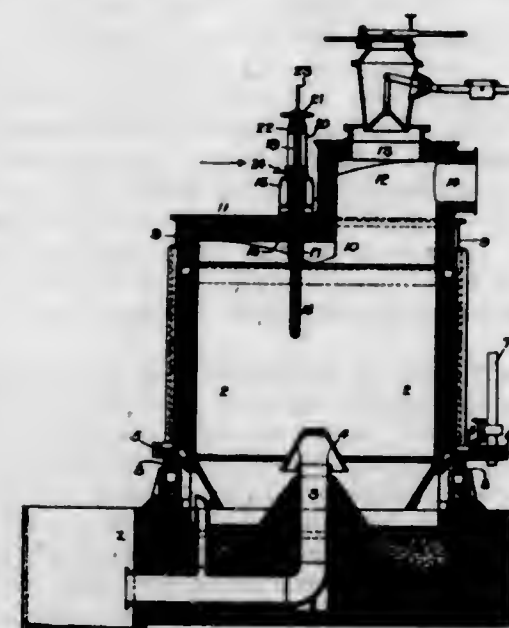
3. In a switch of the character described, an inverted insulating cup body marginally recessed at its open end, combined wire and switch terminals located in said recesses, a rotary snap switch mechanism mounted in the bottom of the cup and an operating push button projecting from the open end of the cup, substantially as described.

4. In a switch of the character described, an inverted insulating cup body, marginally recessed at its open end, combined wire and switch terminals located in said recesses, lateral wire grooves leading from the closed end of the cup to said recesses to accommodate the leading-in wires, a rotary snap switch mechanism mounted in the bottom of the cup and an operating push button projecting from the open end of the cup, substantially as described.

5. In a switch of the character described, an inverted insulating cup body, marginally recessed at its open end, combined wire and switch terminals located in said recesses, a rotary snap switch mechanism mounted in the bottom of the cup, said mechanism comprising a pawl carrying spiral, a push button engaging said spiral, a perforated metal bridge piece spanning the open end of the cup through which said push button passes and engaging means between said push button and bridge piece to hold the former against rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,079,234. GAS-PRODUCER. CLAUDE M. GARLAND, Collingswood, N. J., assignor to Camden Iron Works, Camden, N. J., a Corporation of New Jersey. Filed Jan. 6, 1913. Serial No. 740,469. (Cl. 48-85.1.)



1. The combination in a gas producer, of a rotating body portion; a fixed top section; a supporting frame; a beam extending directly over the fixed top section and at one side of the center thereof and resting on the supporting frame; a bearing for the slicer bar secured to the beam; and a slicer bar mounted in the bearing and extending through the top section into the body of the producer, the beam being the sole support of the slicer bar.

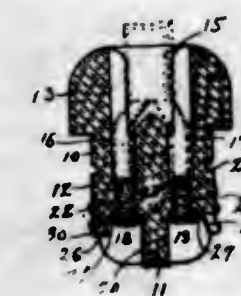
tending through the top section into the body of the producer, the beam being the sole support of the slicer bar.

2. The combination in a gas producer, of a rotating body portion; a fixed top section; a supporting frame; a beam having its ends resting on the supporting frame and extending over the top section; a series of slicer bars carried by the beam and extending through the top section into the body of the producer; said slicer bars being spaced different distances apart so that as the body portion of the producer rotates, the bars will cut through the coking coal in different paths.

3. The combination in a gas producer, of a body portion; a top section; a supporting frame; a beam having its ends resting on the frame and extending over and clear of the top section; slicer bars mounted in the frame and extending through openings in the top section and into the body of the producer; bearings mounted on the beam; each slicer bar having a threaded extension projecting through the bearings; and a nut on each threaded extension for vertically adjusting the slicer bars.

4. The combination in a gas producer, of a rotating body portion; a stepped upper portion; a feed hopper mounted in the elevated section of the upper portion; said section also having a gas outlet; a supporting framework; a beam having its ends resting on the framework and extending over the lower section of the top portion of the gas producer; with a slicer bar mounted on the beam and extending through the top section and into the body of the producer.

1,079,235. ATTACHMENT-PLUG. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 28, 1913. Serial No. 744,699. (Cl. 173-359.)



1. An attachment plug having an insulating body recessed at its entering end to form soldering wells, side and center contacts mounted on said body, electrical connections between said wells and contacts, said body being chambered at its outer end to receive a wire cable and longitudinally perforated to form independent open passages connecting said chamber with the soldering wells, through which passages leading-in wires may be readily introduced to said soldering wells, substantially as described.

2. An attachment plug having a body of insulating material recessed at its entering end to form a soldering well to one side of the axis of said plug, and a center contact member having a portion axially arranged on said entering end of the plug and an angled strap extending therefrom into said soldering well to establish electrical connection between said axial portion and the soldering well, the plug body being longitudinally perforated to form a passage extending from the outer end of the plug to the soldering well through which a leading-in wire may be introduced to said soldering well.

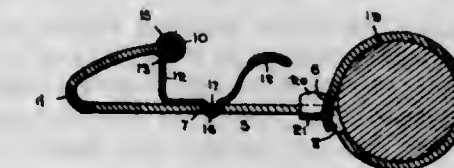
3. An attachment plug comprising a one-piece insulating body enlarged at one end to form a finger grip and internally apertured at this end to afford an entrance chamber for leading-in wires, the other end of said plug being recessed to form a soldering well, a center contact mounted on this end of the body and having a lug extending into said soldering well, the body of the plug being longitudinally perforated to afford a wire passage from said soldering well to the wire entrance chamber, and a hollow rivet lining said passage and serving to hold said center contact in position, substantially as described.

4. An attachment plug having an insulating body longitudinally perforated to form a wire passage, a center contact mounted on the entering end of said plug and comprising a strap offset at one end to form a contact plate and at the other end to form a base, said base being perforated to receive a securing rivet, in combination with a hollow rivet lining said wire passage and spread above the base of the center contact to retain the latter in position.

5. An attachment plug having an insulating body recessed at its entering end to form a soldering well, a screw shell side contact on said body and having a lug angled downwardly into said well to form one wall of said well, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,079,236. COMBINED WHIFFLETREE HOOK AND FERRULE. MARTHA E. GROSS, Sardis, Miss. Filed Apr. 3, 1913. Serial No. 758,566. (Cl. 21-79.)



1. An article of manufacture consisting of a combined whiffletree hook and ferrule formed from a tapering blank of sheet metal having a transverse slot at its broad end, said relatively broad end being formed into a ferrule, the relatively narrow end being formed into a hook, the medial portion of the blank being extended through said transverse slot.

2. An article of manufacture, consisting of a combined whiffletree hook and ferrule formed from a tapering blank of sheet metal having a transverse slot at its broad end, said relatively broad end being formed into a ferrule, the relatively narrow end being formed into a hook, the medial portion of the blank being extended through said transverse slot, a keeper pivotally connected to the narrow end of the blank and being adapted to be swung into contact with the medial portion of the blank for closing the hook, said keeper and blank being provided with means for securing them normally in fixed relation.

3. An article of manufacture consisting of a combined whiffletree hook and ferrule formed from a tapering blank of sheet metal having a transverse slot at its broad end, said relatively broad end being formed into a ferrule, the relatively narrow end being formed into a hook, the medial portion of the blank being extended through said transverse slot, and means for reducing the size of the ferrule.

4. An article of manufacture consisting of a combined whiffletree hook and ferrule formed from a tapering blank of sheet metal having a transverse slot at its broad end, said relatively broad end being formed into a ferrule, the relatively narrow end being formed into a hook, the medial portion of the blank being extended through said transverse slot, and means for adjusting and securing the ferrule to whiffletrees of different sizes.

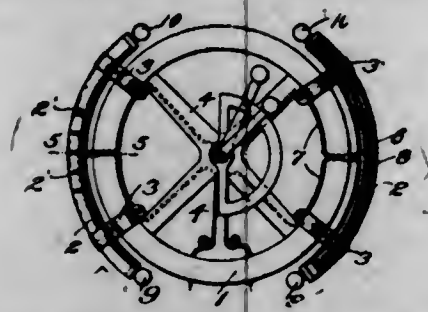
5. An article of manufacture consisting of a combined whiffletree hook and ferrule, formed from a blank of sheet metal having a slot at one end, said end being formed into a ferrule, the opposite end being formed into a hook, the medial portion of the blank being extended through said slot.

[Claims 6 and 7 not printed in the Gazette.]

1,079,237. STEERING-WHEEL HAND-WARMER. CLARENCE J. HALLUM, Wilton, N. D. Filed Mar. 8, 1912. Serial No. 682,454. (Cl. 237-3.)

1. A heating attachment for steering wheels, or the like, the same comprising a tubular member having heat escape openings, a heater disposed in said tubular member and having openings to register with those first mentioned, and means for effecting movement of the heater to cause the same to act as a valve, regulating the operative area of the heat escape openings of the tubular member.

2. A heating attachment for steering wheels, or the like, the same comprising a tubular member having heat escape openings, a heater disposed in said tubular member and comprising a fuel receptacle having openings to register with those first mentioned, and means for effecting movement of the heater to cause the same to act as a valve regulating the operative area of the heat escape openings of the tubular member.



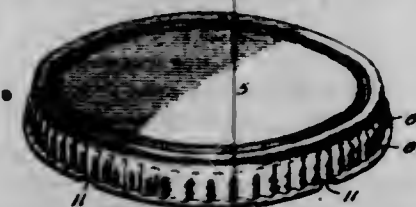
3. A heating attachment for steering wheels, or the like, the same comprising a tubular member having heat escape openings, a heater disposed in said tubular member and comprising a curved fuel receptacle having openings to register with those first mentioned, and means for effecting longitudinal movement of the heater to cause the same to act as a valve regulating the operative area of the heat escape openings of the tubular member.

4. A heating attachment for steering wheels, or the like comprising a handle, a heater disposed in said handle and having means at one end for removing it bodily from the handle, and a rotatable member at the other end of the handle operatively connected with the heater to secure the latter from displacement from within the handle.

5. The combination with a hand steering wheel, a heating attachment therefor comprising a tubular member, a heating device in said member, a knob at one end of the tubular member connected with the heating device for removal of the same, and a knob at the other end of said tubular member connected with the heating device for detachably securing the same in position.

[Claims 6 to 8 not printed in the Gazette.]

1,079,238. BOTTLE CAP OR SEAL. CHARLES HAMMER, Brooklyn, N. Y., assignor to American Metal Cap Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 8, 1911, Serial No. 619,742. Renewed Mar. 20, 1913. Serial No. 755,784. (Cl. 215-82.)



1. The combination with a receptacle provided with external threads, of a sheet metal cap for closing the mouth of said receptacle, said cap having a pendent flange provided with locking projections to engage said threads, the lower edge of said flange being formed with an outturned, permanently closed coil in which the free edge of the flange is wholly inclosed, said coil being provided with permanently contacting relatively rigid and non-separable portions sealing the coil to prevent entrance of moisture thereto.

2. A sheet metal bottle cap provided with a coiled bead at the lower edge of the flange thereof, said bead being collapsed at intervals to provide inturned locking projections.

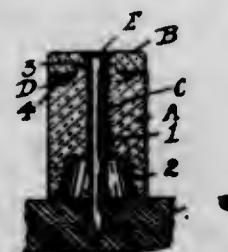
3. A sheet metal cap having a vertically corrugated flange formed with a coil enveloping its free edge, and having said coil collapsed at intervals to provide inturned locking projections reinforced by the adjacent corrugations, said collapsed portions being flattened and extended inwardly on straight lines to render the same more resilient than the remainder of said flange.

4. A sheet metal cap having a vertically corrugated flange formed with a coil enveloping its free edge, and having said coil collapsed at intervals to provide inturned locking projections reinforced by the adjacent corrugations.

5. A sheet metal bottle cap formed with a permanently closed coil at the base of its flange, wholly enveloping, concealing and protecting the raw free edge of the flange, the convolutions of said coil being arranged in contact relation to prevent access of moisture to the inclosed edge of the flange, said coil being collapsed at points to provide inturned locking projections.

[Claims 6 to 9 not printed in the Gazette.]

1,079,239. INSULATOR. JOHN R. HARRIS, Crafton, Pa. Filed Dec. 16, 1912. Serial No. 736,975. (Cl. 173-314.)



The combination, with a split insulator, comprising a base and a cap, having an axial bore, said base having a countersunk portion in its bottom, of a tube loosely disposed in said bore and normally projecting into said countersunk portion, and having a limited longitudinal movement in said bore sufficient to permit separation of the cap and base for the insertion of a wire, and having its ends upset, preventing withdrawal from said bore.

1,079,240. PARASOL. BEULAH L. HENRY, Charlotte, N. C., assignor of one-half to William Thomas Woodley, Charlotte, N. C. Filed Sept. 28, 1911. Serial No. 651,722. (Cl. 135-36.)



1. In an umbrella, in combination with a staff, a frame including a notch connected to said staff, and a removable cover; of means adapted to be removably secured to the notch and cooperating therewith to clamp said cover, and elements of a glove fastener carried by said frame and cover, the element carried by the cover comprising a member engaging the opposite surfaces of the cover, that portion of the member engaging the under surface of the cover having a reduced elongated extension terminating beyond the free edge of the cover and the underlying rib terminal.

2. In an umbrella, in combination with a stick, and a runner having an opening of relatively large diameter adapted to slide on said stick, of diametrically opposed spring keepers carried by said stick and adapted to support said runner from opposite points, and stops projecting vertically above said keepers and extending longitudinally of said stick to engage an outer surface of the runner.

1,079,241. SEED-CORN RACK. AMUND P. HERTS-GAARD, Kindred, N. D. Filed July 5, 1912. Serial No. 707,881. (Cl. 34-26.)



1. In a device of the class described, a unit comprising a suspending yoke, supporting arms extending laterally with relation to the limbs of said yoke, and inverted U-shaped loops connecting the supporting arms with the limbs of the yoke.

2. In a device of the class described, a unit including supporting means on which an ear of corn may be supported, suspending means whereby the supporting means may be freely suspended, and a yoke associated with the suspending means and constituting a hanger adapted to be engaged by the suspending means of a second unit.

3. In a device of the class described, a plurality of units each comprising a yoke or hanger and supporting members extending laterally therefrom between the limbs or side members of the hanger of a superimposed unit, and engaging the bridge piece of such yoke.

4. A suspending rack comprising a plurality of units each composed of a yoke or hanger and supporting arms extending laterally therefrom between the side members of the yoke of another unit, a suspending hook having a yoke through which the supporting arms of the uppermost unit extend, and a bottom section comprising two pairs of supporting arms, inverted U-shaped loops connecting said arms and engaging the yoke or hanger of the bottom unit, and a bridge piece connecting one pair of arms together.

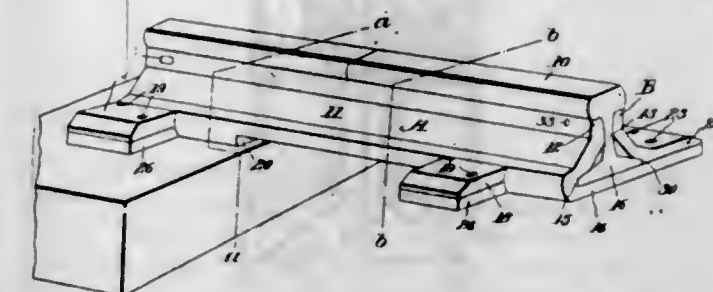
5. A seed corn rack comprising a plurality of sections each made of resilient material and each comprising a horizontal portion, upright end members extending from said horizontal portion and inclined slightly toward each other at the upper ends, and U-shaped extensions formed on said upright members, said sections being successively connected with each other with a horizontal portion of an upper section received between the upright portions and the adjacent sides of the U-shaped extensions of the next successive lower section.

1,079,242. COMBINED RAIL-CHAIR, SPLICE-BAR, AND TIE-PLATE. GEORGE W. HIMLER, North Latrobe, Pa. Filed Nov. 15, 1911. Serial No. 660,396. Cl. 230-6.)

A device of the character described comprising a pair of reversible members, each member including an inclined splice bar portion adapted to brace the rails and whose outer edge is unbroken, each of said splice bar portions being provided with inwardly and outwardly directed projections with spaces between the outwardly directed projections and a space arranged between the inwardly directed projections when the splice bar portions are assembled with the rail, and whereby the rail rests only on one thickness of material, the inwardly directed projections being longer than the outwardly directed projections, the longer projections of one member underlying

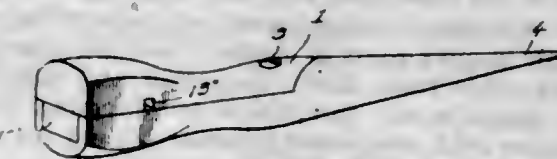
196 O. G.—49

the shorter projections of the other member on the outside only of the splice bar portions with the outer ends of the longer projections terminating beneath the outer ends of the shorter projections and with the longer and shorter projections provided with registering diagonally disposed apertures for the passage of fastening elements there-through, some of said projections carrying spurs of sub-



stantially triangular formation on their lower faces with their inclined faces opposite each other, each splice bar portion having a slot at one end and an aperture at its opposite end with the slot of one splice bar portion registering with the aperture of the other splice bar portion and through which registering apertures and slots fastenings may be passed to provide for the longitudinal adjustment of the splice bars.

1,079,243. COMPOUND TOOL. JOHN H. HOLDEN, Pekin, N. D. Filed May 6, 1913. Serial No. 765,955. (Cl. 7-1.)



1. In a tool of the class described, the combination of pivoted members, one of which is concavo-convex in cross section forming cutting edges, and the other of which is complementary thereto to form therewith a tapered piercing element, said pivoted members being provided with handle portions, a strip cutting element carried at the handle end of one of said members and having locking engagement with the other member, whereby said strip cutting element will serve to cut strips of various widths or in its inoperative position lock the pivoted members to provide the piercing element aforesaid.

2. In a tool of the class described, the combination of pivoted members, one of which is concavo-convex in cross section forming cutting edges, and the other of which is complementary thereto to form therewith a tapered piercing element, said pivoted members being provided with handle portions, a strip cutting element slidable longitudinally on the handle end of one of said members and having a projection to engage the handle end of the other of said members whereby said cutting element will serve either to cut strips of various widths or in its inoperative position will lock the pivoted members to provide the piercing element aforesaid.

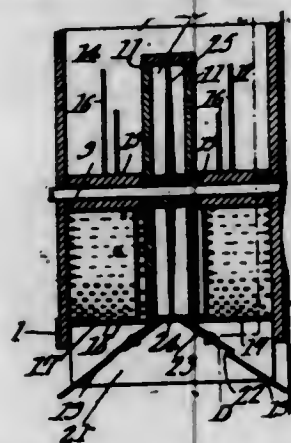
1,079,244. COTTON-SEED SEPARATOR AND PLANTER. JOSEPH S. HOLLIDAY, Statham, Ga. Filed June 19, 1913. Serial No. 774,677. (Cl. 111-7.)

1. The combination with seed dropping mechanism, of a separator including a screen, and agitating means for directing seeds over the screen and into the dropping means.

2. The combination with seed dropping means, of a screen, an agitator cooperating therewith for directing into the dropping means the seeds supported by the screen, and means for directing screenings laterally from under the screen.

3. A combined seed separator and planter including a furrow opener, a hopper having separate compartments therein, dropping mechanism within one of the compartments, a screen constituting the bottom of the other com-

partment, agitating means cooperating with the screen for directing seeds from above the screen and into the compartment containing the dropping means.

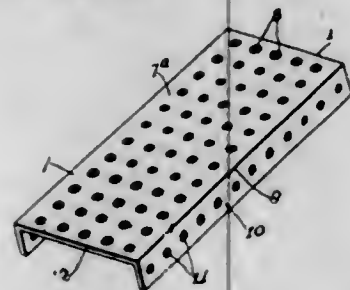


4. A combined seed separator and planter including a furrow opener, a nopper having separate compartments therein, dropping mechanism within one of the compartments, a screen constituting the bottom of the other compartment, agitating means cooperating with the screen for directing seeds from above the screen and into the compartment containing the dropping means, and means extending under the screen for directing screenings laterally beyond the path of the furrow opener.

5. A combined seed separator and planter including a wheel supported frame, a furrow opener, a hopper, having separate compartments therein, seed dropping means within one of the compartments, a screen constituting the bottom of the other compartment, agitating means within the last mentioned compartment and cooperating with the screen for keeping seeds in motion above the screen and for directing seeds from above the screen and into the first named compartment, and means for directing screenings from under said screen and laterally beyond the machine.

[Claims 6 and 7 not printed in the Gazette.]

1,079,245. PERFORATED PLATE. FRANK HORNBY, Liverpool, England. Filed Oct. 14, 1912. Serial No. 725,653. (Cl. 46-35.)



1. A flanged metallic plate for use in the construction of working models, toys or the like, comprising a plate or main body portion, and two flanges extending along said body portion at an angle thereto and each having therein a row of perforations disposed along the same in the direction of the body portion of the plate and adapted for use in the attachment of other parts.

2. A flanged metallic plate for use in the construction of working models, toys or the like, comprising a plate or main body portion, and flanges at an angle to said body portion along two of its opposite edges, said flanges each having therein a row of perforations disposed along the same in the direction of the body portion of the plate and adapted for use in the attachment of other parts.

3. A sheet metal flanged plate for use in the construction of working models, toys or the like, comprising a plate or main body portion, and flanges at an angle to said body portion along two of its opposite edges, each of said flanges having therein a series of equally pitched perforations disposed along the same in the direction of the body portion of the plate and adapted for use in the attachment of other parts.

4. A sheet metal flanged plate for use in the construction of working models, toys or the like, comprising a plate

or main body portion, and flanges at an angle to said body portion along two of its opposite edges, said body portion and flanges each having therein rows of perforations adapted for use in the attachment of other parts, the rows of perforations in the flanges being disposed along the same in the direction of the body portion of the plate.

5. A sheet metal flanged plate for use in the construction of working models, toys or the like, comprising a plate or main body portion, and flanges at an angle to said body portion along two of its opposite edges, said body portion and flanges each having therein a row of equally pitched perforations adapted for use in the attachment of other parts, the perforations in the flanges extending along the same in the direction of the body portion of the plate.

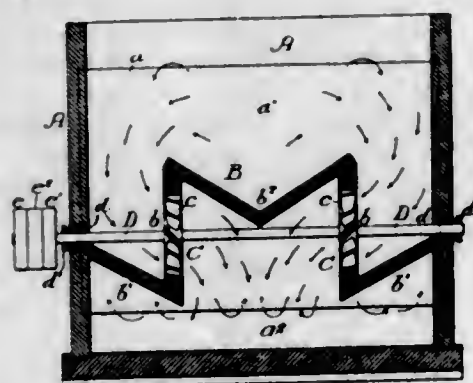
[Claims 6 to 10 not printed in the Gazette.]

1,079,246. PROCESS FOR THE MANUFACTURE OF NITROSO DERIVATIVES OF PHENYL-GLYCIN-ORTHO-CARBOXYLIC ACID. JOSEF HOUBEN, Berlin, Germany, assignor to The Firm of J. D. Riedel Aktien-gesellschaft, Berlin-Britz, Germany. Filed July 18, 1912. Serial No. 710,300. (Cl. 23-24.)

1. The process for the manufacture of nucleus-nitroso derivatives of phenyl-glycin-ortho-carboxylic acid, which consists in treating said acid with nitrous acid in the presence of fuming hydrochloric acid, substantially as described.

2. The process for the manufacture of para-nitroso-phenyl-glycin-ortho-carboxylic acid, which consists in cooling a solution of phenyl-glycin-ortho-carboxylic acid in fuming hydrochloric acid, mixing it with sodium nitrite, allowing the mixture to stand and form a precipitate, filtering the precipitate, and mixing it in aqueous solution with soda, substantially as described.

1,079,247. DYEING-MACHINE. JOSEPH HUSSONG, Camden, N. J. Filed May 2, 1907. Serial No. 371,378. (Cl. 8-19.)

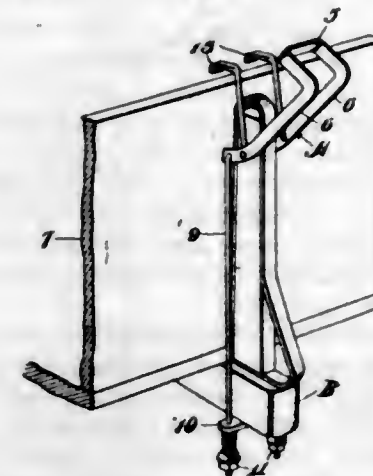


1. The combination of a dye vat having a vertical partition at one end forming a circulating chamber and a dyeing chamber; said partition stopping short of the top and bottom of the vat so as to allow the liquor to circulate through both chambers; a horizontal shaft located in the circulating chamber below the water line; two circulating wheels spaced apart and mounted on said shaft; a partition dividing the circulating chamber into two sections, one section having two end passages and the other section having a central passage; with means for driving the shaft first in one direction and then in the opposite direction, whereby the dye liquor will be given an even flow throughout the length of the dyeing chamber.

2. The combination in a dye vat, of a vertical partition near one end thereof forming a circulating chamber and a dyeing chamber; a partition extending across the circulating chamber below the liquor line and having two openings therein; a horizontal shaft extending across the circulating chamber and having circulating wheels thereon mounted in the openings; with means for reversing the said shaft so that the wheels can be driven in either direction; the vertical partition stopping short of the top and bottom

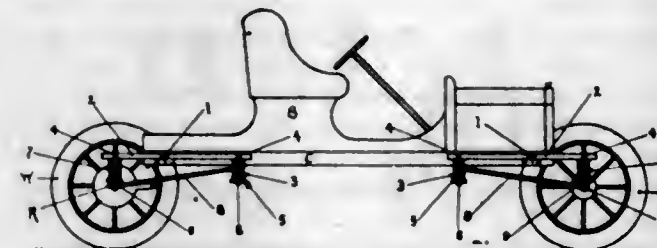
of the vat so that the dye liquor can be circulated first in one direction through the vat and then in the opposite direction.

1,079,248. ATTACHMENT FOR FARM-WAGONS. WILLIAM L. KOHLER, Carson, Va. Filed Apr. 8, 1913. Serial No. 759,730. (Cl. 21-7.)



In a device of the class described, a lever member consisting of a yoke having angular side members with curved terminals, hook members connected pivotally with the side members near the ends thereof, link rods connected pivotally with the side members between the books and the extremities of said side members, a saddle member carried by the links, nuts threaded on the links, and springs interposed between the nuts and the saddle.

1,079,249. AUTOMOBILE SHOCK-ABSORBER. NEWTON H. LINES, Arapahoe, Nebr. Filed Dec. 28, 1911. Serial No. 668,379. (Cl. 21-101.)



The combination with the chassis and axle of an automobile, of a substantially straight lever journaled intermediate its ends on a stud on the chassis and embodying a substantially horizontal forwardly extending arm, and a substantially horizontal rearwardly extending arm, one of said arms projecting beyond the end of the chassis, a coiled spring connecting the inner arm of said lever with the chassis, another coiled spring connecting the outer arm of said lever with the axle, a headed check bolt attached to the axle and slidable through one end of the lever and passing through the adjacent spring, another check bolt passing through the other end of the lever and the other spring, and a spring supporting member carried by the last-named check bolt and serving also as a stop for the inner end of the lever.

1,079,250. VAPOR ELECTRIC DEVICE. FRED W. LYLE, Saugus, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 18, 1910. Serial No. 567,546. (Cl. 250-36.)

1. In a vapor electric device having an envelop and an anode, the combination of a vaporizable cathode, an annular refractory cap having its inner edge dipping into said cathode and exposing a limited portion thereof, and means for holding a fluid in contact with the outer edge of said cap to form a seal.

2. In a vapor electric device having an envelop and an anode, the combination of a vaporizable cathode, an annular refractory cap covering the greater part of said cathode surface and having a depending flange at its

outer edge, and means for holding a fluid in contact with said edge to form a seal.



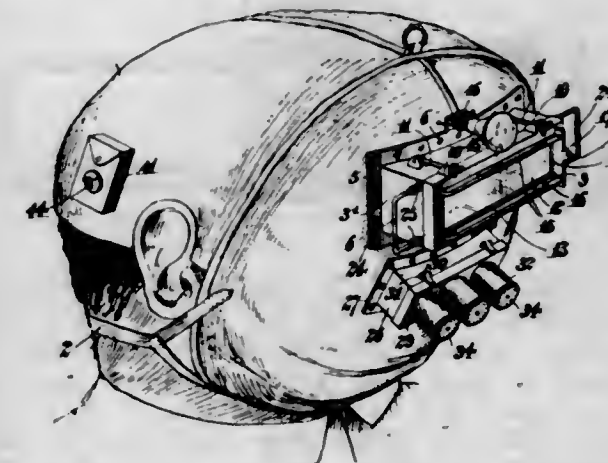
3. In a vapor electric device having an envelop and an anode, the combination of a vaporizable cathode, a conductor projecting above the surface thereof, a refractory cap over said cathode having an opening near said conductor, and insulating means for holding a fluid seal in contact with said cap.

4. In a vapor electric device, the combination of an envelop, a vaporizable cathode therein, means for producing an arc to said cathode, a conductor projecting above the surface of said cathode, and a refractory cap inclosing said conductor and exposing a limited portion of said cathode in the neighborhood of said conductor.

5. In a vapor electric device, the combination of a mercury cathode, a rod projecting therefrom, means for starting an arc to said cathode, and means for preventing the cathode spot from wandering from the immediate neighborhood of said rod.

[Claims 6 to 13 not printed in the Gazette.]

1,079,251. FIREMAN'S MASK. ALFRED F. MACRINI, New York, N. Y. Filed May 10, 1912. Serial No. 696,538. (Cl. 128-42.)



1. A mask of the character described comprising a hood having an opening therein, a casing secured over the opening, a hinged lid for closing the casing, a pair of rods mounted on the lid, a rubber slidably mounted upon the rods for cleaning the outside surface of the glass, and reciprocating means operable from the outside for cleaning the inside of the glass.

2. A mask of the character described comprising a hood having an opening therein, a casing secured over the opening, a hinged lid for the casing having a sight glass therein, rods mounted on the lid, a rubber slidably mounted upon the rods for cleaning the outside of the glass, and oppositely movable rubbers operable from the outside for cleaning the inside of the glass.

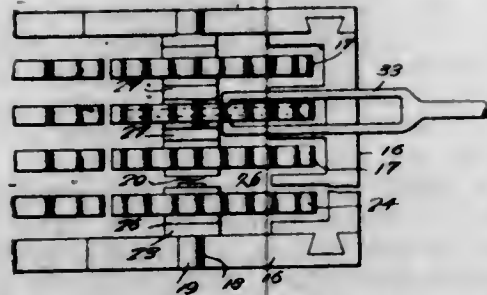
3. A mask of the character described comprising a hood having an opening therein, a casing secured over the opening, a hinged lid for the casing having a sight glass therein, rods mounted on the lid, a rubber slidably mounted upon the rods for cleaning the outside of the glass, guide rods mounted within the casing, rubbers independently movable upon said guide rods, packing glands carried by the casing, and operating rods slidably mounted in the packing glands and connected to the rubbers.

4. A mask of the character described comprising a hood, a padded crown therefor, a pervious packing ring

secured inside the hood and adapted to surround the face of the wearer, and means to constrict said packing ring.

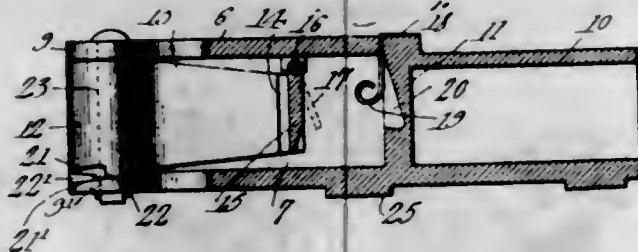
5. A mask of the character described comprising a hood, means to secure the same upon the head of the wearer, a packing ring arranged inside the hood and adapted to surround the face of the wearer, said packing ring being constructed of natural wool, and a spring embedded in the packing ring for constricting the same.

1,079,252. GRATE-BAR. FRANK MAHONY, deceased. Brooklyn, N. Y., by Nettie Mahony, administratrix. Filed Feb. 1, 1910. Serial No. 541,337. (Cl. 126-152.)



In combination, a frame, supporting bars therein, grate sections removably mounted upon said bars, and each comprising a flat body having a raised slotted portion intermediate its width and a corrugated head connected centrally to the body to form shoulders upon its under side, said head being narrower than the raised portion, together with a forked tool having intumed ends upon its legs to engage beneath the shoulders for removing the grate sections from the supporting bars.

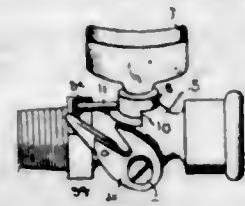
1,079,253. COUPLING. JOHN O. MARTIN, Lincoln, Ill. Filed Aug. 23, 1912. Serial No. 716,773. (Cl. 213-12.)



1. A coupler embodying a chambered draw head, a knuckle pivoted to the same, one arm of the knuckle being adapted to swing into the draw head against one side thereof, a latch hung within the draw head and adapted to engage and lock the said arm of the knuckle against the said side of the draw head when the latch hangs vertically, means for swinging the latch, and a yielding member within the head lying in the path of the free portion of the latch and serving to limit the upward swing of the latch when normal force is applied thereto, the said arm of the knuckle being adapted to swing past the latch when the latch is swung upwardly against the yielding member, and the said member being adapted to yield and lock the latch in inactive position against the top of the draw head when sufficient force is applied thereto.

2. A coupler embodying a chambered draw head, a knuckle pivoted to the same, one arm of the knuckle being adapted to swing into the draw head against one side thereof, an actuating rod journaled through the sides of the draw head adjacent the top, a latch carried by the rod to engage and lock the said arm of the knuckle against the said side of the draw head when the latch hangs vertically, and a spring depending from the top of the draw head and having its free end coiled, the coil lying in the path of the free portion of the latch and serving to limit the upward swing of the latch when normal force is applied thereto, the said arm of the knuckle being adapted to swing past the latch when the latch is swung upwardly against the coil, and the coil being adapted to yield and lock the latch in inactive position against the top of the drawhead when sufficient force is applied thereto.

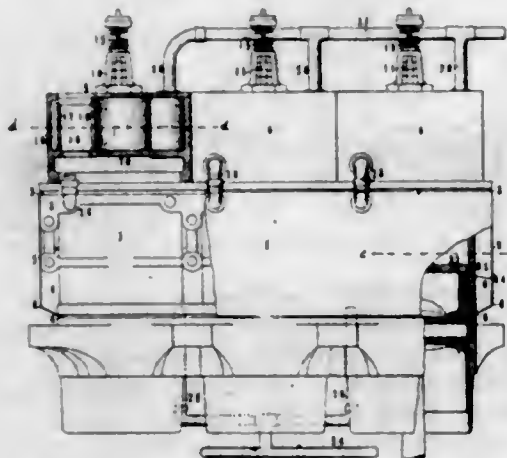
1,079,254. PLUG-VALVE. JOHN MCCARTHY, New York, N. Y. Filed Apr. 16, 1913. Serial No. 761,411. (Cl. 15-7.)



1. A valve comprising a casing, a ratchet on the side of the casing, a plug in the casing provided with a suitable operating handle, a locking plate pivoted to the casing on an axis at a right angle to the plug, a pawl pivoted to the locking plate, and a radial bar projecting from the plug in position to actuate the locking plate in the turning of the valve plug.

2. A valve comprising a casing provided with a track having a shoulder at each end, a plug in the casing having a suitable operating handle, a hollow tubular lug projecting from the casing at a right angle to the plug and having exterior ratchet teeth, a screw mounted in said hollow lug, a locking plate pivotally mounted on said screw and provided with two tongues and an intermediate notch, a spring actuated pawl pivoted on one of said tongues in position to engage said ratchet teeth, and a radial arm projecting from the plug into said track and adapted to engage in the notch of the locking plate when the plug is turned to open or close the valve.

1,079,255. INTERNAL-COMBUSTION ENGINE. WILLIAM R. MCKEEN, Jr., Omaha, Nebr., assignor to McKeen Motor Car Company, Omaha, Nebr., a Corporation of New Jersey. Filed Aug. 13, 1907. Serial No. 388,285. (Cl. 123-173.)



1. In construction of the class described, in combination, a plurality of cylinders, jacketing means about said cylinders, heads mounted upon said cylinders, each of said heads being provided with a separate jacket water passage, and individual connections leading from said cylinder jacketing means to the passages of said heads, said cylinder jacketing means comprising a single jacket about the several cylinders.

2. In construction of the class described, in combination, a plurality of cylinders, jacketing means about said cylinders, separately detachable heads mounted upon said cylinders, each of said heads being provided with a jacket water passage, separate connections leading from said cylinder jacketing means to the passages of said heads, said cylinder jacketing means comprising a single jacket about the several cylinders, and water connections leading to the lower portion of said cylinder jacketing means and from the upper portion of said heads.

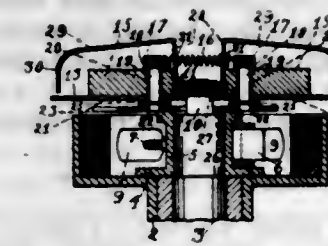
3. In construction of the class described, in combination, a cylinder head, and a pair of valves mounted in said head, said head being formed to provide walls about said valves and to guide cooling water about each of said walls and from the lower portion of one side of the head to the upper portion of another side thereof.

4. In construction of the class described, in combination, a cylinder, jacketing means about said cylinder, a head mounted upon said cylinder and provided with a jacket water passage leading from the lower portion of one side thereof to the upper portion of another side thereof, and means connecting said jacketing means about said cylinder with said passage in said head.

5. In construction of the class described, in combination, a cylinder, jacketing means about said cylinder, a head mounted upon said cylinder and provided with a jacket water passage leading from the lower portion of one side thereof to the upper portion of another side thereof, and means connecting said jacketing means about said cylinder with said passage in said head, said head being detachably mounted upon said cylinder and said connecting means being separable.

[Claims 6 and 7 not printed in the Gazette.]

1,079,256. TIMING DEVICE FOR IGNITION SYSTEMS. JAMES L. MIDDLETON, Pittsfield, Mass. Filed May 21, 1912. Serial No. 698,826. (Cl. 123-117.)



1. In an ignition system, apparatus for controlling the time of ignition and comprising a rotary member having a lateral extension, a rotatively-actuable member, in addition to said rotary member, and having a lateral extension, one of said extensions having a curved slot therein, and a centrifugally-actuable member carried by the other of said extensions and having a registering member free to move in the slot of said slotted extension.

2. A device of the class described, comprising a rotary member having a lateral extension, a rotatively-actuable member, in addition to said rotary member, and having a lateral extension, one of said extensions having a straight slot therein and the other of the extensions having a curved slot therein, and a centrifugally-actuable member carried by at least one of said lateral extensions and having a registering member free to move in the slots of said lateral extensions.

3. In an ignition system, a speed-controlled governor for controlling the time of ignition and comprising a rotary shaft having oppositely-arranged radial arms provided with straight slots, a rotatively-actuable member, in addition to said shaft, having oppositely-arranged radial arms provided with curved slots, and centrifugally-actuable weights carried on the arms of the shaft and having a pin free to move in the slots of the arms of said shaft and said rotatively-actuable member.

4. In a device of the class described, the combination of a driven shaft having lateral extensions provided with straight slots, a sleeve movably mounted on the shaft and having lateral extensions provided with curved slots, and centrifugally-actuable weights carried on said shaft extensions and carrying a pin to register with the slots in said shaft and sleeve extensions for rotatively adjusting the sleeve on the shaft.

5. In a device of the class described, a rotary shaft, a terminal carried by the shaft and rotatively actuable thereon, and a speed-controlled governor for adjusting the position of the terminal on the shaft and comprising horizontally disposed plates carried by the shaft, one of the plates having a straight slot therein and the other a curved slot, a centrifugally-actuable weight carried by the shaft and arranged to move in a plane parallel with the plates, and a pin carried by the weight and free to move in said slots for adjusting the position of the terminal on the shaft.

[Claims 6 and 7 not printed in the Gazette.]

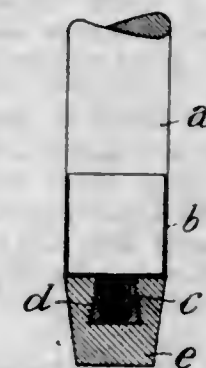
1,079,257. PROCESS OF MAKING GASOLINE JELLY. JOHN EDWARD MITCHELL, New York, N. Y. Filed Mar. 5, 1912. Serial No. 681,852. (Cl. 87-5.)

1. A process of making gasoline jelly, which comprises thoroughly agitating a solution containing 1 part soap and 16 parts of water, with about 544 parts of gasoline until complete emulsification takes place.

2. The herein described method of producing gasoline jelly which comprises forming a purger composed of thirty-two parts water, two parts castile soap as a solution to which is added one part chloroform, two parts glycerin and one part ammonia; mixing two parts of the purger with sixty-four parts of gasoline and agitating same until it solidifies and then agitating a mixture of one unit by weight of this solid mixture in sixteen to twenty-four units by weight of gasoline.

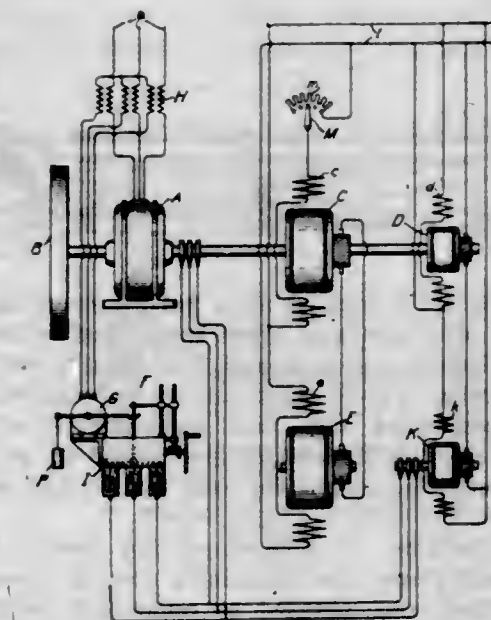
3. A process of making gasoline jelly, which comprises thoroughly agitating a solution containing 1 part of soap dissolved in a sufficient quantity of water, with over 500 parts of light hydrocarbons and inflammability-reducing agents until complete emulsification takes place.

1,079,258. FERRULE. PAUL MUSCHOL, Scharley, near Benthien, Germany. Filed Mar. 17, 1913. Serial No. 754,991. (Cl. 16-159.)



In a device of the class described, a ferrule, a member extending from one end thereof and centrally mounted, a tip having a central bore extending partly therethrough, one end of the tip being solid, and the lower end of the bore being flared, a sleeve having outer walls similarly flared and a central bore of uniform diameter throughout, the centrally mounted member entering said central bore for securing the tip of the ferrule, the solid portion thereof being at a point remote from the ferrule.

1,079,259. SYSTEM OF TRANSMISSION. HERMANN NEHLSSEN, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 20, 1911. Serial No. 615,483. (Cl. 171-312.)



1. In combination, an induction motor, a source of alternating current supplying said motor, a separately excited

generator coupled to a fly wheel driven by said motor, a second generator driven by said motor, automatic means for varying the speed of said induction motor so as to permit the fly wheel to return energy to said source, and a rotary transforming apparatus connected on its alternating current side to the secondary member of the induction motor, the direct current side of the transforming apparatus being connected in series with said second generator, said transforming apparatus and the second generator supplying the separate excitation for said first-mentioned generator.

2. In combination, an induction motor, a source of alternating current supplying said motor, a separately excited generator coupled to a fly wheel driven by said motor, automatic means for varying the speed of said induction motor so as to permit the fly wheel to return energy to said source, a direct current motor supplied by said generator, a second generator driven by said motor, and a rotary converter connected on its alternating current side to the secondary member of the induction motor, the direct current side of said rotary converter being connected in series with said second generator, said rotary converter and said second generator supplying separate excitation for said first-mentioned generator.

3. In combination, an induction motor, a direct current generator driven by said motor, a rheostat in the secondary circuit of said motor, a rotary transforming apparatus connected on its alternating current side in parallel with said rheostat and on its direct current side in series with said generator.

4. In combination, an induction motor, a rheostat in the secondary circuit of said motor, a direct current generator driven by said motor, direct current mains, and a rotary transforming apparatus connected on its alternating current side in parallel with said rheostat, the direct current side of said transforming apparatus being connected in series with said direct current generator across said mains.

5. In combination, an induction motor, a rheostat in the secondary circuit of said induction motor, a source of alternating current supplying said motor, direct current mains, a generator driven by said motor and supplying said mains, and means for automatically maintaining the potential of said mains independent of the speed of the induction motor comprising a rotary transforming apparatus connected on its alternating current side in parallel with said rheostat and on its direct current side in series with said generator across said direct current mains.

[Claims 6 to 8 not printed in the Gazette.]

1,079,260. VEHICLE-SCALE. EBIN N. OSBORNE, Dixon, Ill. Filed Apr. 26, 1913. Serial No. 763,798. (Cl. 73-8.)



1. A vehicle scale comprising a scale-supporting frame consisting of side bars and cross bars, longitudinally arranged main levers carried by and fulcrumed in said frame to rock vertically, a scale beam carried by said frame and operatively connected with said main levers, normally-inactive vehicle-body lifting devices carried by said main levers, and actuating means for said devices and mounted in said frame.

2. In combination, a scale-supporting frame, bolsters carried by said frame and adjustable therein toward and from each other and adapted to removably receive and carry a vehicle body and permit vertical movement of the body from said bolsters independently of said frame, and vehicle-body weighing devices carried by and mounted in

said frame, and normally in inoperative position with respect to said body and adapted to lift the same from said bolsters for weighing.

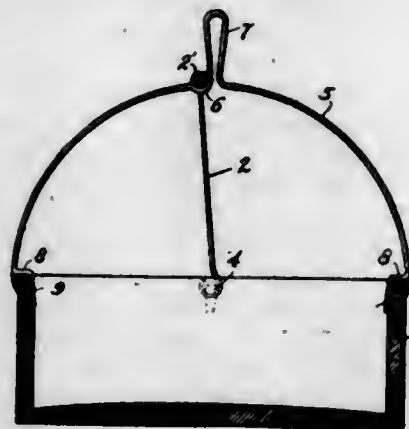
3. In combination, a scale-supporting frame, bolsters adjustable longitudinally thereof and adapted to receive a vehicle body vertically-movable with respect to said frame and bolsters and normally resting thereon and removable therefrom, scale levers mounted in and carried by said frame and normally inoperative with respect to said body, and body lifting means carried by said frame and separate from said body and adapted to elevate the same and throw the weight thereof onto said levers.

4. In combination, a scale-supporting frame, bolsters carrying the same and adjustable longitudinally thereof and adapted to receive a vehicle body vertically-movable with respect to said frame and bolsters and normally resting thereon and removable therefrom, and body weighing means carried by and mounted in said frame.

5. In combination, a scale-supporting frame, bolsters carrying the same and adjustable longitudinally thereof and adapted to receive a vehicle body vertically-movable with respect to said frame and bolsters and normally resting thereon and removable therefrom, and body weighing means mounted in and carried by said frame and disconnected from said body and normally in inoperative position with respect to said body and adapted to lift the same for weighing.

[Claims 6 to 16 not printed in the Gazette.]

1,079,261. FEED-DISH GUARD. PHILIP R. PARK, Somerville, Mass., assignor to The Park & Pollard Company, a Corporation of Massachusetts. Filed Sept. 5, 1912. Serial No. 718,752. (Cl. 119-61.)



1. In combination with a feeding receptacle comprising a shallow open top vessel adapted to hold a body of feed therein, a grid horizontally disposed and loosely fitting within the open top of said vessel and bearing upon and retaining the surface level of the food within the vessel, a ball fastened to said vessel and having a handle, and a removable ball support having edge engaging portions at each end to limit the upward movement of the grid and a central portion adapted for engagement with the handle of said ball.

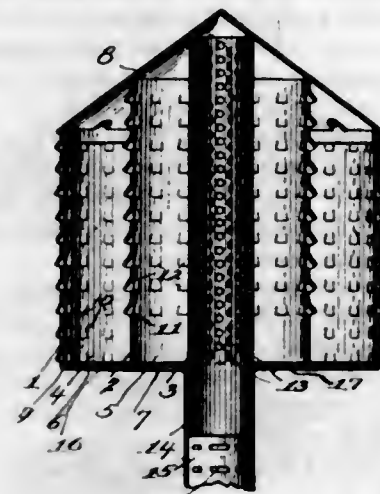
2. In a device of the class described in combination with a vessel adapted to hold a body of feed therein, a grid loosely fitting within said vessel and bearing upon said body of feed, a removable ball support having bent portions to engage the vessel edges and a spring loop extended therefrom, and a handle ball detachably engaging the vessel sides and adapted for locking engagement with said ball support.

1,079,262. DRAIN-HEAD. JOHANNES M. PETERSEN, Clinton, Iowa. Filed May 3, 1913. Serial No. 765,359. (Cl. 61-9.)

1. A drain head having a filtering chamber, the outer wall of which is provided with openings having outwardly projecting overhanging lips.

2. A drain head comprising a plurality of concentric walls provided with drainage openings and a conical top forming a common closure for the walls.

3. A drain head comprising a plurality of concentric walls provided with drainage openings and progressively increasing in height toward the center of said head, and a conical top forming a common closure for the walls and supported on the upper edges thereof.

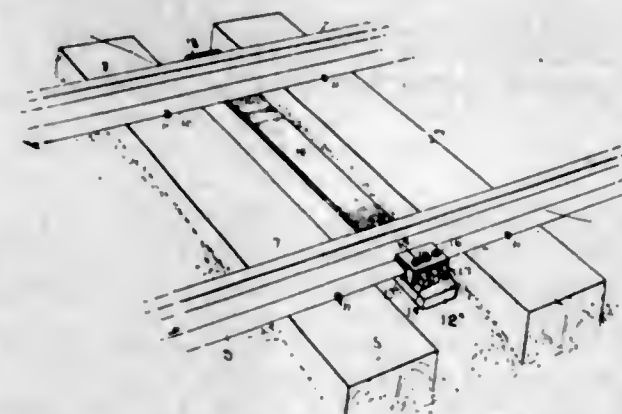


4. A drain head comprising concentric walls provided with drainage openings and defining inner and outer filtering chambers, and apertured bottom plates for said chambers, the openings in the outer wall extending to the lower end thereof and the openings in the intermediate wall commencing at some distance from its lower end.

5. A drain head comprising concentric walls provided with drainage openings, and defining inner and outer filtering chambers, and apertured bottom plates for said chambers, the bottom plate for the outer chamber having its apertures in the form of long and narrow slots.

[Claims 6 to 10 not printed in the Gazette.]

1,079,263. SAFETY APPLIANCE FOR RAILWAYS. GEORGE I. PONDER, Jarrell, Tex. Filed May 29, 1913. Serial No. 770,768. (Cl. 238-5.)

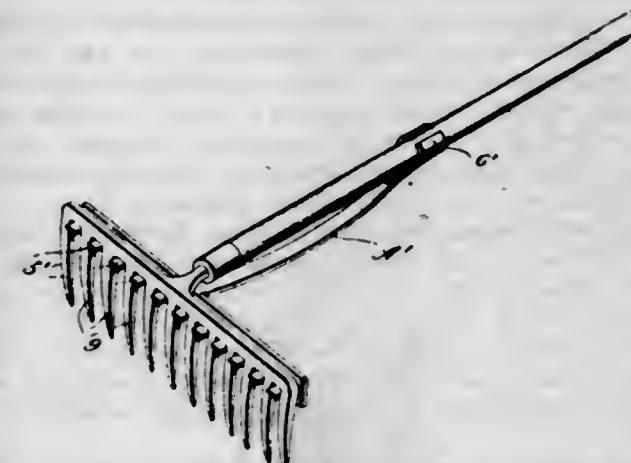


A safety device for railways comprising a strong metal bar adapted to be placed beneath the rails between the cross ties, an integral head at one end of said bar adapted to embrace the outer edge of the base flange of one of the rails, the other end of the bar being plain and projecting beyond the opposite rail and provided in said projection with a series of longitudinal slots, a removable head adapted to rest upon the projecting end of the bar over said slots and provided with bolt holes, bolts passing through the slot and the bolt holes of the head, nuts on said bolts, and wedges in the slots on the outside of the head.

1,079,264. RAKE. WILLIAM J. PRICE, Birmingham, Ala., assignor of one-half to Oscar Reinhart, Birmingham, Ala. Filed July 25, 1913. Serial No. 781,265. (Cl. 55-146.)

1. A rake cleaning attachment consisting of a single piece of resilient sheet metal of substantially T-shape, the cross bar of which is provided with spaced projections and the stem with lateral extensions; the cross bar being doubled on itself to form a head, the projections and the stem

being bent substantially at right angles to the head, and the portion of the stem including the lateral extensions being bent to form a clip.



2. A rake cleaning device consisting of a single piece of resilient sheet metal including a head portion doubled on itself, cleaner teeth extending along one edge of the head portion substantially at right angles thereto, a shank extending substantially at right angles to the head portion at the opposite edge, and a spring clip at the end of the shank distant from the head.

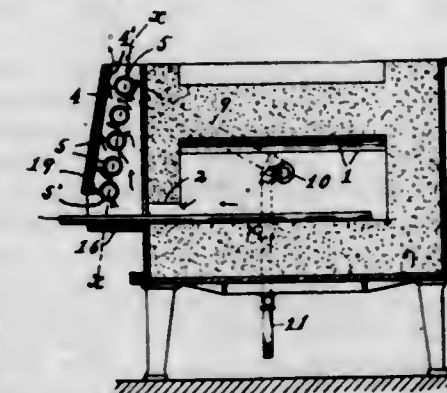
1,079,265. ROCKER FOR BABY-CARRIAGES. ALBERT RAPHAEL, New York, N. Y. Filed May 25, 1911. Serial No. 629,315. (Cl. 21-12.)



1. In a rocker for carriages, the combination with two parallel members having grooves on their inner faces, of cross rods connecting the two members, frames with hooks sliding in the grooves and adapted to engage the wheels, and springs connecting the frames with adjacent cross bars.

2. In a rocker for carriages, the combination with a rectangular metal frame having a hook at one side, of rockers secured together by cross bars and having grooves on their inner faces to receive the frame, and springs connected with the frames to cause them to engage the wheels.

1,079,266. PREHEATER AND FURNACE-SHIELD. WALTER S. ROCKWELL, New York, N. Y. Filed Aug. 15, 1913. Serial No. 784,912. (Cl. 75-196.)



1. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of air-heating pipes

with connections for the supply and delivery of air, a non-conducting plate at one side of such pipes and secured thereto, and means for supporting the preheater and shield upon the outside of the furnace.

2. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of a plurality of pipes connected together at their ends and provided with inlet and outlet for air, a plate attached to such pipes and provided with a layer of non-conducting material to form a shield, and means for supporting the preheater and shield upon the outside of the furnace.

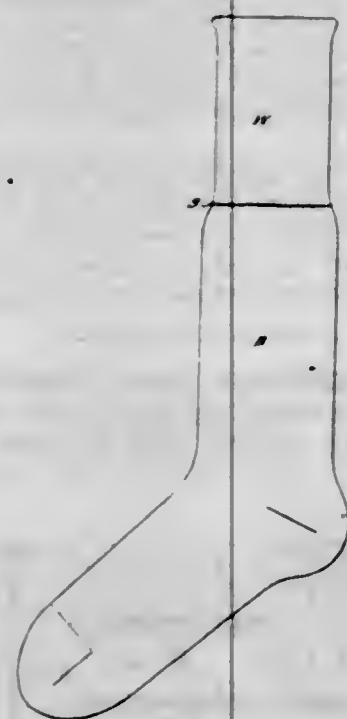
3. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of a plurality of parallel pipes, headers connected respectively to the opposite ends of such pipes and provided with inlet and outlet for air, a plate attached to the headers and provided with a layer of non-conducting material to form a shield, and means for supporting the headers upon the outside of the furnace.

4. The combination, with a metal heating furnace having a heating chamber with an outlet for the waste gases, of a casing of non-heat-conducting material supported adjacent to such outlet with the waste gases conducted therethrough, and air conduits in the casing in the path of the heated gases, such conduits having inlet with connection to an air-blower and outlet delivering the heated air to the fuel during the combustion of the same.

5. In a metal heating furnace, the combination, with a furnace-front having a heating-chamber with working-opening in such front from which the waste gases may escape, of a shield of non-heat conducting material supported adjacent to the furnace-front above such working-opening, with a vertical passageway between such shield and front through which the waste gases may travel, and an air-blast-pipe supported above the said opening at the bottom of the passageway, and directing an air-blast upon the gases escaping from the said opening and operating to deflect them into said passageway.

[Claims 6 to 12 not printed in the Gazette.]

1,079,267. STOCKING OR SOCK AND METHOD OF KNITTING THE SAME. ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Feb. 14, 1913. Serial No. 748,308. (Cl. 66-4.)



1. A stocking of plain fabric having an integral out-turned welt of plain fabric comprising a course containing uniting loops penetrated by loops of wales of the body fabric, and having a course of yarn free from engagement with the body fabric, in engagement with said uniting loops.

2. A stocking having a plain fabric body and a plain fabric welt united to the body at each end thereof by stitches in less than the whole number of wales, and having a free strip of selvaged fabric attached by said stitches, said strip having as many wales therein as the body fabric, and more wales than the welt.

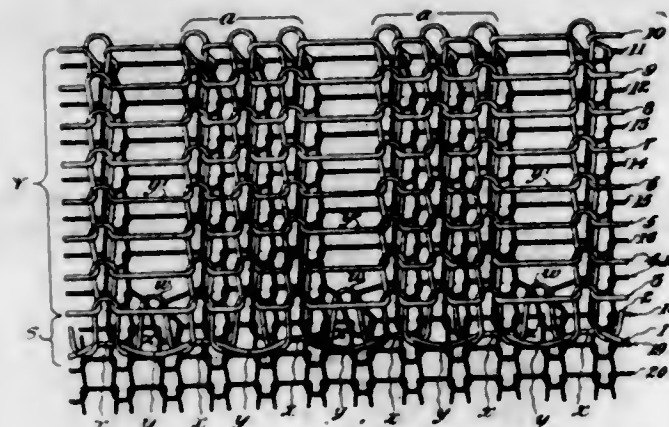
3. A sock or half-sock knit from top to toe having foot and body parts, and a long double plain fabric welt, the initial courses of which project as a strip of free fabric at the juncture of said welt and body parts.

4. A knit garment having a body portion and an integral selvaged welt united to the body portion by loops in certain wales of a course subsequent to the initial course and by the continuation of other wales of the welt throughout the body portion.

5. A knit garment having a body portion and an integral selvaged welt united to the body portion by loops of a course subsequent to the initial course penetrated by the initial loops of some of the wales of the body portion and by the continuation of other wales of the welt throughout the body portion.

[Claims 6 to 11 not printed in the Gazette.]

1,079,268. WELTED GARMENT AND METHOD OF MAKING THE SAME. ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Feb. 14, 1913. Serial No. 748,309. (Cl. 66-4.)



1. A knit garment having a body portion and an integral welt united to the body portion at every fourth wale of said body portion, said welt having a selvage structure at the initial courses of the intervening wales.

2. A knit garment having a body portion and an integral welt united to the body portion at recurrent wales of said body portion, said welt having a selvage structure at the initial courses of a plurality of intervening wales.

3. A knit garment provided with an integral out-turned welt having uniting stitches in certain wales only of the body portion of the garment, the fabric of the welt having more wales than there are uniting stitches and fewer wales than the body portion.

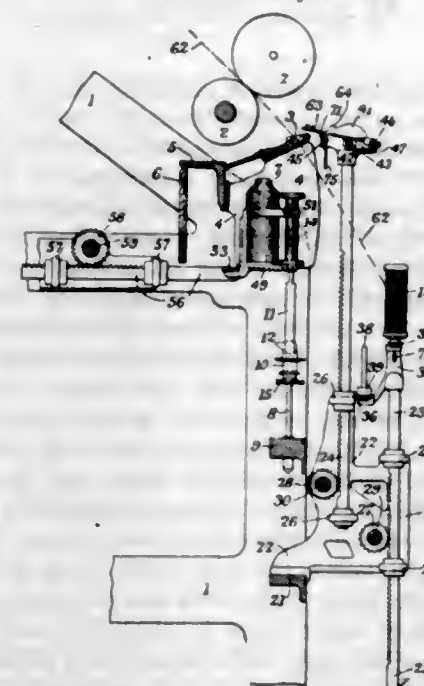
4. A knit garment having a body portion and an integral welt comprising sections of solid fabric a plurality of wales in extent, separated by single wales of floated or free yarns, said welt having a selvage structure comprising an initial course, and a subsequent course united to the body portion of the garment in the wales occupied by the floated yarns.

5. A knit garment having an out-turned welt of fabric presenting alternate sections of solid knitting in a plurality of adjacent wales continuing into the body of the garment, and of floats or runs of yarn, said welt having a selvage structure to prevent the raveling of its initial courses, and having loops of a course subsequent to and near the initial course penetrated by loops of the body fabric, whereby the welt is integrally attached to the body both at the beginning and end thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,079,269. MANUFACTURE OF MAGNETITE ELECTRODES. WALTER SEEGER, Nuremberg, Germany. Filed Jan. 26, 1912. Serial No. 673,662. (Cl. 148-41.)
The herein described process of producing magnetite electrodes which contain an excess of ferrous oxide above the theoretical amount, which consists in heating iron in the presence of steam at a temperature of about 1000 degrees centigrade.

1,079,270. DOFFING MECHANISM. SUGDEN SHACKLETON, Malsis Mount, Keighley, England. Filed Dec. 26, 1911. Serial No. 667,864. (Cl. 118-13.)



1. In doffing mechanism for cap spinning and analogous machines, a series of rigid carriers, each having a base constructed to support both the caps and the bobbins, devices for steadying said caps and said bobbins when supported by said carriers, and means for reciprocating the carriers as a series.

2. In doffing mechanism for cap spinning and analogous machines, a series of rigid carriers, each having a base constructed to support both the caps and the bobbins, and an upwardly projecting stem, a cap and bobbin steadying device mounted on said stem, and means for reciprocating the carriers as a series.

3. In doffing mechanism for cap spinning and analogous machines, a series of rigid carriers, each having an open base constructed to support both the caps and the bobbins, and an upwardly projecting stem, a cap and bobbin steadying device mounted on said stem, and means for reciprocating the carriers as a series.

4. In doffing mechanism for cap spinning and analogous machines, a series of rigid carriers, each having a base constructed to support both the caps and the bobbins and having an upwardly projecting stem, the base having a key-hole shaped opening, a cap and bobbin steadying device mounted on said stem, and means for reciprocating the carriers as a series.

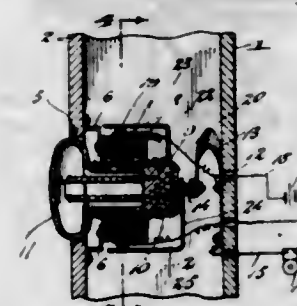
5. In doffing mechanism for cap spinning and analogous machines, a series of rigid carriers, each having a base constructed to support both the caps and the bobbins and formed with a key-hole shaped opening therein, and means for reciprocating the carriers as a series.

[Claims 6 to 24 not printed in the Gazette.]

1,079,271. PUSH-BUTTON SWITCH. JOSEPH H. SMEDLEY, Narberth, Pa. Filed Mar. 26, 1913. Serial No. 756,981. (Cl. 177-10.)

1. A device of the class described comprising a lamp adapted for longitudinal and rotary movement, a pair of contacts disposed in the path of longitudinal movement of said lamp, an annunciator circuit including said contacts, a switch for the lamp adapted to be closed when the lamp is rotated, and means for rotating said lamp whereby the switch will be closed.

2. A device of the class described comprising a casing having an opening in the front wall thereof, an annulus disposed within the casing coaxial with the opening therein, a ring disposed within said annulus and capable of sliding and rotary movement therein, a lamp carried by said ring and normally projecting out of the casing by way of the opening therein, a pair of contacts disposed within the casing in the path of sliding movement of said lamp, an annunciator circuit including said contacts and adapted to be closed when said lamp is moved inwardly of the casing, a switch for closing the lamp circuit when the lamp is rotated, and means for rotating said lamp whereby the switch will be closed.



3. A device of the class described comprising a casing having an opening in the front wall thereof and formed with a slot in one side wall thereof, an annulus disposed within the casing coaxial with the opening therein and having a slot formed therein aligning with the slot in the side wall of said casing, a ring disposed within said annulus and capable of sliding and rotary movement therein, a lamp carried by said ring and normally projecting out of said casing by way of the opening therein, a pair of contacts disposed within the casing in the path of sliding movement of the lamp, an annunciator circuit including said contacts and adapted to be closed when said lamp is moved inwardly of the casing, a switch for closing the lamp circuit when the lamp is rotated, and a manipulating handle for said switch connected to said ring and extending outwardly of the casing by way of the slots in the annulus and in the side wall of the casing.

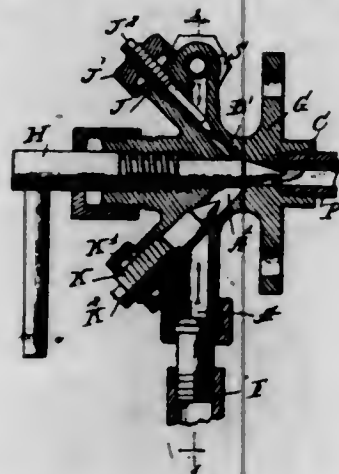
4. A device of the class described comprising a casing having an opening in the front wall thereof, an annulus disposed within the casing coaxial with the opening therein, a ring disposed within said annulus and capable of sliding and rotary movement therein, a lamp carried by said ring and normally projecting out of the casing by way of the opening therein, a pair of contacts disposed within the casing in the path of sliding movement of said lamp, an annunciator circuit including said contacts and adapted to be closed when said lamp is moved inwardly of the casing, a switch for closing the lamp circuit when the lamp is rotated and comprising a pair of contacts secured to the outer surface of said annulus at diametrically opposite points, and a pair of contacts secured to said lamp at diametrically opposite points and rotatable therewith to engage the first-mentioned contacts, and means for rotating said lamp whereby the switch will be closed.

1,079,272. SPRAY-BURNER. JAMES SNEDDEN, Wichita, Kans., assignor of one-third to Albert Ralph Murray, Wichita, Kans. Filed Oct. 7, 1912. Serial No. 724,369. (Cl. 158-76.)

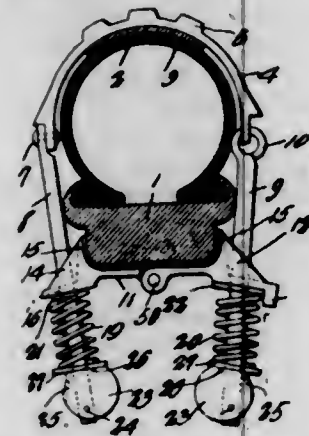
1. In a hydrocarbon burner device, in combination with a fuel mixture passage, an oil passage and an air passage in communication with said fuel mixture passage; the maximum cross sections of the oil passage and the air passage being proportioned to correspond to the quantities of oil and air entering into the fuel mixture; and said oil passage being provided with an automatic resisting valve yieldingly seated against the flow of oil through said oil passage and having means for regulating its resistance at will.

2. In a hydrocarbon burner the combination with a burner casing, a main valve spindle and a seat therefor for admitting the compression mixture to the burner, an oil pipe and an air pipe, an air passage connecting the

air pipe with the seat of said main spindle, and an oil passage connecting the oil pipe with said valve seat, an adjustable plug in said oil passage for regulating the cross section thereof; the maximum cross section of said oil passage being smaller than the maximum cross section of said air passage; of a device in said oil passage for automatically admitting fuel above a fixed minimum pressure, said device comprising a ball, a set screw and a spring abutting against said set screw and said ball; whereby said oil supply will be automatically cut off when the oil pressure is less than desired; the minimum amount of pressure being regulated through the adjustment of the compression of said spring by means of the set screw.



1,079,273. AUTO TIRE-PROTECTOR. ALBERT SENTER STANDISH, Cleveland, Ohio. Filed Nov. 22, 1912. Serial No. 732,996. (Cl. 152-16.)



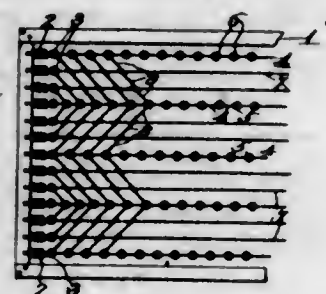
1. In a device of the class described, a shoe; a base member having a notch in one end and provided with a projection located adjacent the notch; ties connected with the shoe and extended through the base member, one tie lying in the notch; a washer upon said tie and engaged behind the projection and abutting against the base member; springs upon the ties, the springs exerting a thrust against the base member and one spring bearing against the washer; and tightening devices upon the ties for putting the springs under compression.

2. In a structure of the class described, a base member; a shoe; and tensioning devices connecting opposed portions of the shoe with opposed portions of the base member; the base member comprising angular, felly-pinching parts pivotally connected for movement under the action of the tensioning devices in a plane substantially parallel to the plane defined by the tension devices.

1,079,274. WIRE-MATRESS FABRIC. JOHN L. TANDY, Kansas City, Mo. Filed Aug. 25, 1908. Serial No. 450,228. (Cl. 245-9.)

1. In a wire fabric, a series of wires spaced apart and extending in the same general direction and a number of substantially parallel wire strands extending obliquely across the said wires, and each consisting of a plurality of parallel obliquely-arranged links connecting adjacent wires of said series; the ends of each link lapping the ad-

acent ends of the contiguous links at the sides of the latter which form acute angles with the wires which the intervening link connects.



2. In a wire fabric, a series of wires spaced apart and extending in the same general direction and a number of substantially parallel wire strands extending obliquely across the said wires, and each consisting of a plurality of parallel obliquely-arranged links connecting adjacent wires of said series; each link terminating at its ends in eyes receiving adjacent wires of said series, the eyes of each link lapping the eyes of contiguous links receiving the same wires of said series, at the sides of said contiguous links which form acute angles with the said wires which the intervening link connects.

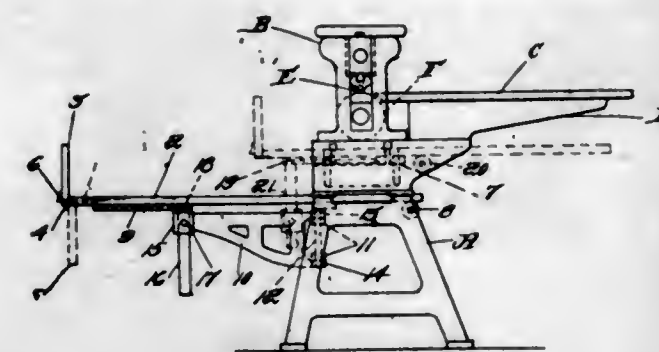
3. In a wire fabric, a pair of substantially parallel stays, a series of spaced wires between and extending in the same general direction as the stays, and a number of substantially parallel wire strands extending obliquely across the said wires, each strand consisting of parallel obliquely-arranged links, the end links being pivotally interlocked at their outer ends with the adjacent stays and connected at their inner ends to the outermost wires of said series, the remaining links connecting adjacent wires of said series; the ends of each link lapping the adjacent ends of contiguous links at the sides of the latter which form acute angles with the wires which the intervening link connects.

4. In a wire fabric, a pair of substantially parallel stays, a series of spaced wires between and extending in the same general direction as the stays, and a number of substantially parallel wire strands extending obliquely across the said wires, each strand consisting of parallel obliquely-arranged links, the end links being pivotally interlocked at their outer ends with the adjacent stays and connected at their inner ends to the outermost wires of said series, the remaining links connecting adjacent wires of said series; each link terminating at its ends in the eyes receiving adjacent wires of said series, the eyes of each link lapping the eyes of contiguous links receiving the same wires of said series, at the sides of said contiguous links which form acute angles with the said wires which the intervening link connects.

5. In a wire fabric, a series of parallel wires spaced apart and extending in the same general direction, a stay between and paralleling said series of wires, stays parallel with and at opposite sides of said series of wires, a series of parallel strands extending obliquely across the wires between the first-named stay and one of the side stays, and connected at their ends to said stays, a similar series of parallel strands extending obliquely across the remaining wires and connected at their ends to said first-named stay and the other side stay, the two series of strands extending at opposite angles from the first-named stay so as to conjointly form a plurality of V-shaped strands connected at their apices to the first-named stay and at their opposite ends to the side stays; each strand consisting of a plurality of parallel obliquely-arranged links and embodying end links connected at their outer ends to the first-named stay and the outer stay and provided with eyes at their inner ends receiving the adjacent parallel wires, and one or more intermediate links having eyes receiving adjacent wires of the series between said stays, the eyes of each intermediate link lapping the adjacent eyes of contiguous links at the sides of the latter which form acute angles with the wires of said series which the intervening link connects.

[Claim 6 not printed in the Gazette.]

1,079,275. PAPER-BOX MACHINE. EUGENE H. TAYLOR, Hyde Park, Mass. Filed Sept. 15, 1909. Serial No. 517,859. (Cl. 164-60.)



1. A paper box machine having a frame, containing two sets of guide ways for a slidable work table, one set of said guide ways being above the other, a slidable work table fitting either of said guide ways, a bracket swinging in a horizontal plane on a vertical pivot and a pin on the said bracket adjustable vertically to bring it into engagement with the said table.

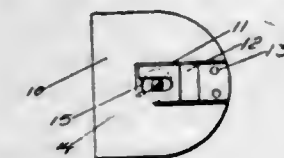
2. A paper box machine having a frame containing two sets of guide ways for a slidable work table, one set of said guide ways being above the other, a slidable work table fitting either of said guide ways and having a track formed therein, a bracket swinging in a horizontal plane on a vertical pivot, and a pin on the said bracket engaging the said track and adjustable vertically to bring it into engagement with the said track.

3. In a paper-box machine, the combination with suitable fixed supports therefor on the frame of the machine of a sliding table, a track on said table, bracket arms pivoted on the frame of the machine and having at their free ends vertically adjustable supporting pins which engage the said track.

4. The combination with a supporting frame, of a table having a sliding connection therewith, table supporting brackets hinged to said frame and having connection with the table to be moved therewith, and slide rails on the table to receive the engagement of said brackets.

5. The combination with a supporting frame, of a table having a sliding connection therewith, table supporting brackets hinged to said frame and having connection with the table to be moved therewith, and slide rails on the table to receive the engagement of said brackets and being made to conform to the path of movement of the latter.

1,079,276. ELECTRIC MASSAGE APPARATUS. JUSTINA THORELL, Portland, Oreg. Filed Jan. 23, 1913. Serial No. 743,765. (Cl. 174-89.)

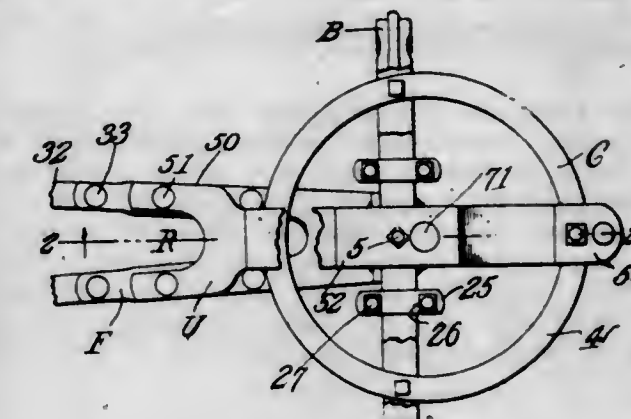


An electric massage apparatus including an electrical battery and circuit wires, a patient pad, a metallic covering therefor connected to one of said circuit wires, an operator's pad comprising a base, an inner metallic element connected to the other of said wires and a fabric covering therefor, a metallic plate worn upon the heel of the operator, spring bars connected therewith, and a pointed metallic pin connected to said bars adapted, upon pressure from the operator's foot, to pierce the fabric covering and yieldably contact with the metallic member of the pad.

1,079,277. FIFTH-WHEEL. CRISTOPHER WALLACE, Irondale, Mo. Filed July 15, 1909. Serial No. 507,756. (Cl. 21-24.)

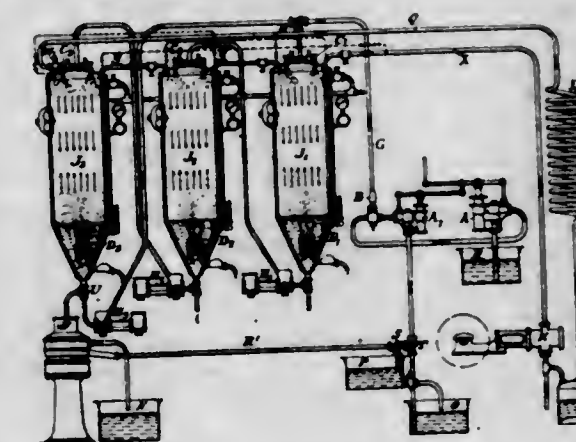
The combination with the spring, the bolster, a plate clipped beneath the latter and having a forwardly pro-

jecting lug, the axle, plates clipped above and beneath the axle and having lugs aligned with that in the first named plate, the lower fifth wheel member clipped upon the axle, and the upper fifth wheel member secured beneath the bolster whereby the adjacent plates on the bolster and axle are held out of contact; of the reach connected with the bolster, an upper brace leading from the reach over the spring to the front of the upper fifth wheel member, a bolt securing it thereto with its head



countersunk in the member, a lower brace leading from the reach beneath the axle and beneath the front end of the upper brace, a spacing block secured between the front end of the upper brace, a spacing block secured between the front ends of said braces, a bolt passing through the projecting ends of the braces and blocks and holding the fifth wheel members in contact, and a king bolt passing through the upper brace, the aligned lugs, and the lower brace and standing against the front faces of the spring, bolster and axle.

1,079,278. APPARATUS FOR CONVERTING FATS, OILS, AND FISH-OILS INTO LIKE BODIES OF HIGHER MELTING-POINTS. MOSE WILBUSCHEWITSCH, Nischinowgorod, Kanavino, Russia. Original application filed Jan. 12, 1911, Serial No. 602,322. Divided and this application filed Jan. 3, 1912. Serial No. 669,177. (Cl. 87-12.)



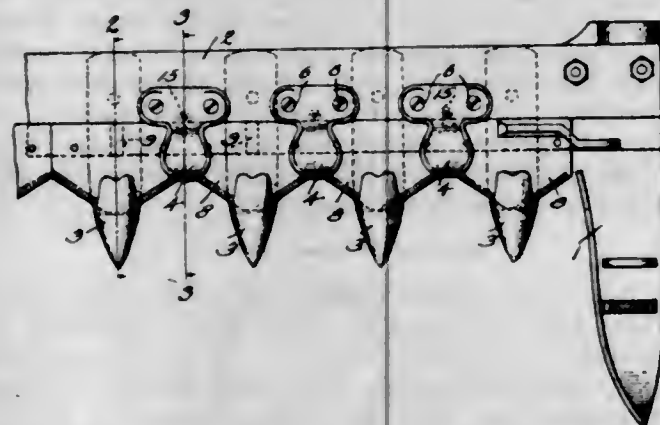
1. An apparatus for converting fats, oils and fish-oils into like bodies of higher melting point, comprising a reservoir for the fat, a reservoir for the catalyst, means for mixing the fat and catalyst, an autoclave, a pump for supplying the mixture of fat and catalyst to the autoclave, spraying devices for supplying hydrogen under pressure, and means for separating the fat from the catalyst after the mixed fat and catalyst have passed through the autoclave.

2. An apparatus for converting fats, oils or fish-oils into like substances of higher melting point, comprising a reservoir for the fat, a reservoir for the catalyst, a differential pump connecting the said reservoirs, means for mixing the fat and the catalyst, an autoclave provided with a heating jacket, means for introducing hydrogen under pressure into the autoclave, means for cooling, purifying and returning the hydrogen which has been used in the autoclave, and means for separating the fat and returning the catalyst.

3. In an apparatus for subjecting fats, oils or fish-oils to the action of gases under pressure, the combination of a plurality of autoclaves, spraying devices at the upper part thereof for the mixed fat and catalyst, a nozzle at the lower part thereof, means for forcing gas under pressure through said nozzle into the autoclave, means connecting the lower part of one autoclave with the upper part of the next autoclave for conveying the mixed fat and catalyst from the lower part of one autoclave to the upper part of the next autoclave, means for cooling and purifying the gas, and means for separating the reduced fat and catalyst delivered by the last autoclave of the series.

4. An apparatus for subjecting fats, oils or fish-oils to the action of gases under pressure, comprising an autoclave having a conical lower part, spraying devices for the mixture of fat and catalyst at the upper part of said autoclave, an upwardly directed admission nozzle for gases in the said conical lower part of the autoclave adapted to spray the material collected in said conical lower part back into the body of the autoclave, and means for supplying gases under pressure to said nozzles.

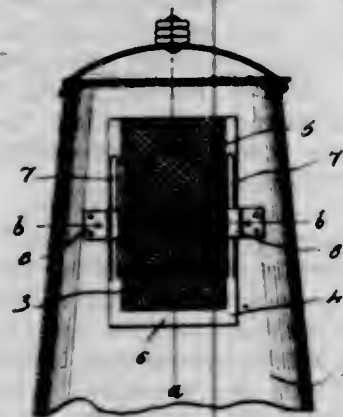
1,079,279. CUTTER-BAR. PETER WILDE and LOUIS WILDE, Fort Laramie, Wyo. Filed Feb. 18, 1913. Serial No. 740,206. (Cl. 56-44.)



1. In a device of the class described, the combination of a cutter bar, a guard finger detachably connected thereto, said cutter bar having a transversely square recess opening toward the guard finger, and the guard finger having a similar recess opening toward the cutter bar, a bearing sleeve disposed in each of said recesses, each of the bearing sleeves having a transversely square exterior, a shaft journaled in the sleeves, and a sickle engaging anti-friction roller sustained by the shaft.

2. In a device of the class described, the combination of a cutter bar, a guard finger detachably connected thereto, the cutter bar having a recess opening toward the guard finger and the guard finger having a recess opening toward the cutter bar, a bearing sleeve disposed in each of said recesses, a shaft journaled in the sleeves, and a sickle engaging anti-friction roller sustained by the shaft.

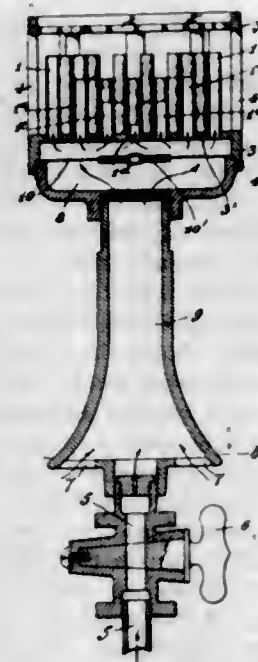
1,079,280. STRAINER. LOUIS E. WILLARD, Chula, Ark. Filed Jan. 15, 1913. Serial No. 742,243. (Cl. 53-3.)



A pot of the class described having a pouring spout and a strainer arranged on the intake end of the pouring spout

and detachably secured to the wall of the pot, the said strainer having a frame provided with side walls having vertical wedge ribs the inner sides of which are inclined and converge downwardly to the side walls of the frame and the pot being provided with supporting arms on its wall to extend across the side walls of the strainer frame and bear on the inclined sides of the wedge ribs and detachably hold the strainer in place.

1,079,281. GAS-BURNER. JOHN H. ACKROYD, Elizabeth, N. J. Filed Mar. 3, 1911. Serial No. 612,091. (Cl. 158-112.)



1. A gas burner comprising a mixing chamber, series of burner tubes leading therefrom, all of the tubes being at substantially equal distances apart and the several series increasing progressively in height from the center outward, a frame surrounding the burner tubes and provided with lateral air openings and a heating chamber above the frame into which the flame from the burner tubes passes and in which combustion is completed.

2. A gas burner comprising a mixing chamber, series of burner tubes leading therefrom, all of said tubes being at substantially equal distances apart, a heating chamber above the burner tubes and a support for the heating chamber having lateral air openings extending substantially the height of said support.

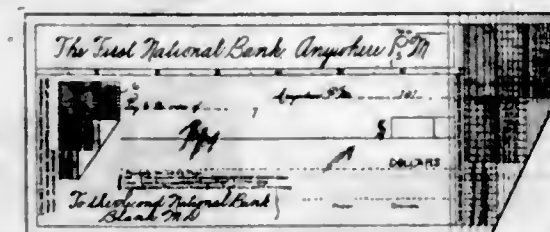
3. A gas burner comprising a mixing chamber, series of burner tubes leading therefrom, all of the tubes being at substantially equal distances apart, the tubes of each series being of the same height and the several series increasing progressively in height from the center outward, a heating chamber above the burner tubes and a support for the heating chamber having means for supplying air in lateral currents above the tops of the burner tubes.

4. A gas burner comprising a mixing chamber, series of burner tubes leading therefrom, all of the tubes being at substantially equal distances apart, the tubes of each series being of the same height and the several series increasing progressively in height from the center outward, a heating chamber above the burner tubes and a support for the heating chamber having lateral air openings extending above the tops of the highest burner tubes, substantially as described, for the purpose specified.

5. A gas burner comprising a mixing chamber, a central burner tube leading therefrom, a plurality of series of tubes surrounding said central tube, all of the tubes being at an equal distance apart and the several series increasing progressively in height from the central tube outward, a frame surrounding said series of tubes and provided with lateral air openings and a heating chamber above the casing into which the flame from the tubes passes and in which combustion is completed.

[Claims 6 to 16 not printed in the Gazette.]

1,079,282. SAFETY-CHECK. JAMES PIERCE ADAMS, Sioux Falls, S. D. Filed Dec. 21, 1912. Serial No. 738,102. (Cl. 11-13.)



1. As a new article of manufacture, a blank negotiable instrument of a predetermined length having one end provided with a protective scale forming a part thereof, said scale comprising a plurality of detachable columns representing different monetary values, said columns indicating various lengths and each length expressing the maximum sum to be mentioned in the blank, and a miniature facsimile scale on the end of the blank opposite the protective scale duplicating the value indicating characters to indicate the exact number of rows or columns which have been removed to prevent fraudulent alterations thereof, whereby the removal of said protective scale will render the blank worthless.

2. As a new article of manufacture, a blank negotiable instrument of a predetermined length and having a longitudinal scale upon its face and extended from end to end, a protective scale printed upon one end of the instrument and forming part thereof, said scale comprising a plurality of detachable columns of different monetary values, said columns indicating various lengths and each length expressing the maximum sum to be mentioned in the blank, and a facsimile scale on the end of the blank opposite the detachable protective scale duplicating the monetary values thereof to indicate the exact number of rows or columns which have been removed to prevent fraudulent alterations thereof, whereby the removal of the protective scale will render the blank worthless.

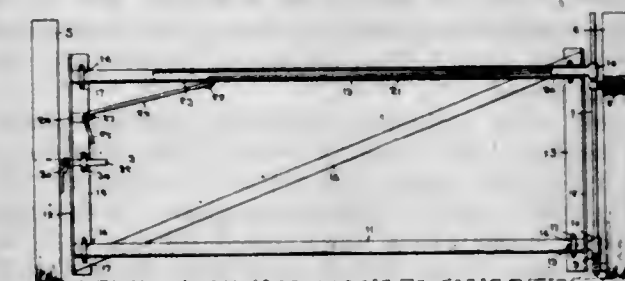
3. As a new article of manufacture, a blank negotiable instrument of a predetermined length and having one end provided with a scale detachably secured to the main portion of the instrument, said scale comprising a plurality of columns representing monetary values, said columns representing various lengths of the blank and each column expressing the maximum sum to be mentioned in the blank, a length indicating scale arranged longitudinally upon the instrument and extending the entire length thereof, and a protective scale at the opposite end of the blank duplicating the value indicating characters of the scale at the first mentioned end of the blank to indicate the exact number of rows or columns which have been removed to prevent fraudulent alterations thereof, whereby the removal of said scale will render the check worthless.

4. As a new article of manufacture, a blank negotiable instrument having a protective scale printed upon one end and forming part thereof, said scale comprising a plurality of detachable columns representing monetary values whereby any portion or all of said columns may be removed from the rest of the scale in vertical or horizontal rows or parts thereof, the last of the remaining rows expressing the sum to be mentioned in the blank or approximating that sum, a longitudinal length indicating scale upon the instrument and extending from end to end thereof, and a miniature scale on the end of the blank opposite the protective scale to indicate the number of rows or columns which have been removed to prevent fraudulent alterations thereof, the miniature scale being a facsimile of the protective scale, whereby the removal of the protective scale will render the check worthless.

1,079,283. GATE. JOHN J. AKRE, Spring Grove, Minn. Filed Nov. 7, 1912. Serial No. 729,999. (Cl. 39-25.)

A gate frame consisting of a pair of horizontal and parallel frame members and a pair of vertical frame members secured together, one of said horizontal mem-

bers being spaced above the other horizontal member and being of tubular form and having a longitudinal slot in its lower side, a draw rod within said tubular member and having an eye extending through said longitudinal slot, a hinge member extending into the tubular member and engaging with said draw rod, a second hinge member secured to the gate under the first said hinge member, said hinge members being formed for engagement with a



suitable vertical pivot, a latch bar secured in fixed relation on the free end of the gate, a lifter member comprising a lever and a crank pivoted to the frame under the tubular member, and a link pivotally connecting said lifter member with said draw rod, whereby the free end of said gate may be raised for moving the latch bar optionally into or out of engagement with a suitable keeper.

1,079,284. RAIL-JOINT. RICHARD T. BERRY, Mendenhall, Miss. Filed Mar. 22, 1913. Serial No. 756,259. (Cl. 239-8.)



1. A rail joint including oppositely disposed interlocking similar rail ends each having a flat vertical face, an abutment at one end of said face, a ledge extending along the face from the lower portion of the abutment and having an upstanding side rib, a portion of the head of the rail end overhanging the ledge and being grooved longitudinally, there being a shoulder at the end of said overhanging portion and extending to the inner end of an obliquely disposed face located above the flat vertical face, a tongue extending below and beyond said obliquely disposed face, spaced longitudinally and cross ribs upon the bottom of the tongue and adapted to be seated in the recess in the opposed rail end, and a flange upon the tongue and adapted to be seated in the groove in the overhanging portion of the head of the opposed rail end.

2. A rail joint including oppositely disposed interlocking similar rail ends each having a flat vertical face, an abutment at one end of said face, a ledge extending along the face from the lower portion of the abutment and having an upstanding side rib, a portion of the head of the rail end overhanging the ledge and being grooved longitudinally, there being a shoulder at the end of said overhanging portion and extending to the inner end of an obliquely disposed face located above the flat vertical face, a tongue extending below and beyond said obliquely disposed face, spaced longitudinally and cross ribs upon the bottom of the tongue and adapted to be seated in the recess in the opposed rail end, and a flange upon the tongue and adapted to be seated in the groove in the overhanging portion of the head of the opposed rail end, and a key insertible transversely through each recess and between the ribs on the adjacent ledge and the transverse rib on the adjacent tongue.

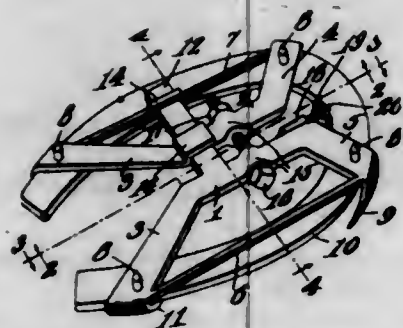
3. A rail joint including oppositely disposed similar members each having a side recess and a tongue, the tongue of each member being insertible laterally into the recess in the opposed member, means upon the upper and lower walls of the recesses and upon the upper and lower faces of the tongues for cooperating to hold the members against lateral displacement when said members are shifted toward each other while the tongues are seated in the recesses.

4. A rail joint including oppositely disposed similar members each having a side recess and a tongue, the tongue of each member being insertible laterally into the recess in the opposed member, means upon the upper and lower walls of the recesses and upon the upper and lower faces of the tongues for cooperating to hold the members against lateral displacement when said members are shifted toward each other while the tongues are seated in the recesses, and means insertible into the recesses and cooperating with the tongues for holding said tongues against longitudinal movement to disengage said cooperating means.

5. A rail joint including oppositely disposed similar lapping members each having a recess in one side thereof and a tongue, each tongue being insertible laterally into the recess, there being a longitudinal groove in the upper wall of each recess and a longitudinal rib upon the bottom wall of each recess, means upon each tongue for extending into the groove in the opposed member and back of the rib on said opposed member, respectively, when the two members are shifted toward each other, thus to hold the members against lateral displacement.

[Claim 6 not printed in the Gazette.]

1,079,285. HORSESHOE. RAYMOND C. BONNELL, Atlantic City, N. J. Filed Dec. 17, 1912. Serial No. 737,297. (Cl. 168—30.)



A shoe of the class described comprising a pair of centrally open frames and a clamping device connecting the frames; one frame being provided upon its inner edge with a transverse tongue projecting within the contour of the other frame, and said other frame being provided upon its inner and outer edges with sockets which receive the tongue slidably but closely, whereby the tongue will act as a reinforcement for said other frame and as a guiding means for directing relative movement between the frame, the tongue serving as a gripping cleat and the sockets constituting means for reinforcing and holding the tongue to serve as a cleat, the tongue lying behind the clamping means thereby to protect same against the back-thrust of the shoe; and means for producing relative movement between the frames.

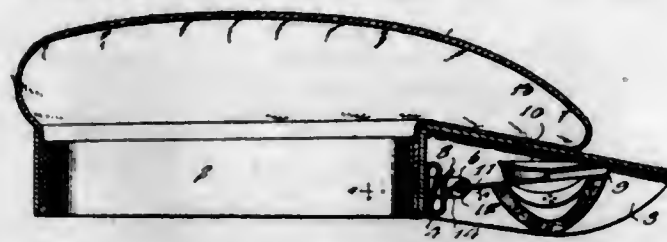
1,079,286. COMBINED TOOL-BOX AND CARRIER FOR MOTOR AND OTHER CYCLES. THOMAS BRAIDWOOD, Bridge-of-Allan, Scotland. Filed Nov. 19, 1912. Serial No. 732,284. (Cl. 224—30.)



1. A combined tool box and carrier for motorcycles or the like comprising a box; bars secured to said box and having grooves formed therein; clips; and bolts slidably secured to said bars within the grooves and to said clips whereby the latter may be adjusted to secure the box to the cycle.

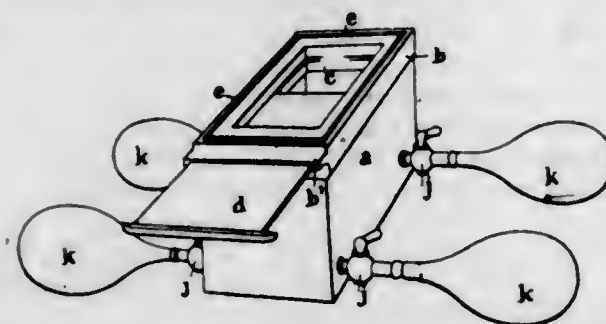
2. A combined tool box and carrier for motorcycles or the like comprising a box; bars secured to said box and having dovetail grooves formed therein; clips; and bolts for adjustably securing said clips to the said bars, said bolts having portions adapted to slidably register with the said dove-tail grooves.

1,079,287. EYE-SHIELD. CARLOS N. BRUZAUD, New York, N. Y. Filed Dec. 16, 1911. Serial No. 666,086. (Cl. 2—149.)



The combination with a cap, of an attaching device secured to the cap and comprising a body, a pair of apertured pivoting ears extending outwardly from opposite sides of the body, a substantially S shaped spring formed on the body and lying between the ears, an eye shield, an extension on the eye shield leaving laterally extended plittles to engage in the apertured ears, and a longitudinally extending lip on the extension adapted to continuously bear on the spring on either side of the pivotal center of the extension so that the eye shield will be held against displacement in either raised or lowered position.

1,079,288. APPARATUS ENABLING PHOTOGRAPHIC PLATES TO BE DEVELOPED IN DAYLIGHT. RUDOLPHE LUCHSINGER CABALLERO, Brighton, England. Filed Oct. 6, 1909. Serial No. 521,414. (Cl. 95—90.)



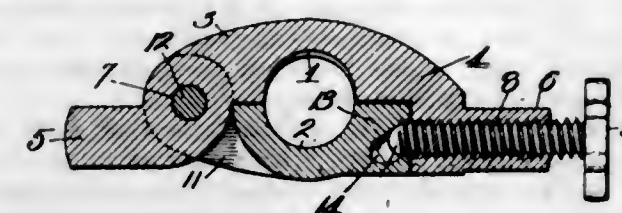
1. A photographic developing apparatus, comprising a developing tank with ports in its sides adjacent the bottom thereof, and means for introducing suitable liquids therethrough for the developing process, a casing permanently secured to the upper edge of said tank and recessed on its upper face to form a groove, a horizontally slotted nose on said casing, a shutter sliding in said casing and projecting at its handle end through the slot in said nose, said shutter forming a closure for said tank, in combination with a frame provided with a depending flange adapted to enter said groove, said frame having an opening therein through which a plate may be introduced into the tank, together with means in connection with said frame for preventing the exposure of said plate to light during its removal from its holder.

2. A photographic developing apparatus, comprising a developing tank with ports in its sides adjacent the bottom thereof, and means for introducing suitable liquids therethrough for the developing process, a casing permanently secured to the upper edge of said tank and recessed on its upper face to form a groove, a shutter sliding in said casing to form a closure for said tank, in combination with a frame provided with a depending flange adapted to enter said groove, said frame having an opening therein through which a plate may be introduced into the tank, together with means in connection with said frame for preventing the exposure of said plate to light during its removal from its holder, together with a flexible skirt to cover said tank having an elastic band at its upper edge slotted to permit the passage of the shutter therethrough, substantially as described.

1,079,289. BOXING FOR COAL-DRILLING MACHINES. ABDON F. DERUY, Pittsburg, Kans. Filed Jan. 4, 1912. Serial No. 669,501. Renewed Apr. 15, 1913. Serial No. 761,357. (Cl. 255—46.)

1. A boxing for coal drilling machines, comprising a pair of internally threaded semi-cylindrical members

hingedly connected together and one of them provided with a pair of trunnions; one of said members having a socket at its free end and the other a bolt extending longitudinally through one of the said trunnions and adapted to enter said socket when the members are closed, to clamp and lock them in such relation.

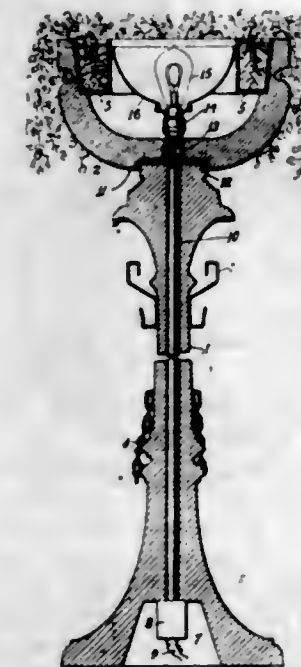


2. A boxing for coal drilling machines, comprising a pair of internally threaded semi-cylindrical members hingedly connected together and one of them provided with a pair of trunnions; one of said trunnions being tubular and internally threaded and the other member having a boss to fit against one end of the tubular trunnion and provided with a socket communicating with the tubular trunnion and extending at an angle thereto, and a bolt extending through said trunnion and cooperatively engaging the threads thereof and terminating at its inner end in a beveled or tapered end for entering said socket and bearing against the inner wall thereof and clamping the two members in interlocked relation.

3. In a boxing for coal drilling machines, a pair of internally-threaded members pivoted together, one of said members having a pair of aligned trunnions, one of said trunnions being provided with an axial bore therethrough, and means operating within said bore for locking said members together.

4. In a boxing for coal drilling machines, a pair of internally-threaded members pivoted together, one of said members having a pair of aligned trunnions, one of said trunnions being provided with an axial bore therethrough, and a bolt carried by said bored trunnion and movable in said bore to clamp said members together.

1,079,290. PEDESTAL INDIRECT-ELECTRIC-LIGHT-ING FIXTURE. FREDERICK W. EMMER, Hackensack, N. J. Filed Nov. 29, 1911. Serial No. 663,063. (Cl. 47—18.)



1. An indirect electric illuminating fixture, composed of a pedestal surmounted by a bowl, having within same a ring shaped flower receptacle, an electric lamp within a reflector mounted in the center of the bowl, an iron disk rigidly attached to the upper end of a conduit for forming attachment to the bowl, lamp and reflector, a downward extension of the conduit, through the pedestal, strengthening same, and a junction box attached to the lower end of the conduit within the base of the pedestal.

2. A decorative indirect electric illuminating fixture, composed of a pedestal surmounted by a bowl, having within same a ring shaped flower receptacle, an electric lamp and a reflector for same, in the center of the bowl, mounted at the upper end of an electric conduit which extends downwardly through the pedestal, strengthening same, and a junction box attached to the lower end of the conduit within the base of the pedestal.

3. In an indirect illuminating fixture, a pedestal surmounted by a member, recessed and designed to contain a flower receptacle, a conduit within the pedestal and an attachment device at the upper end of the conduit to hold the recessed member.

4. In an indirect illuminating fixture, a relatively tall slender pedestal surmounted by a recessed member, a light in the recess and means including a flower receptacle within the edge of the recess to screen the light from horizontal distribution, a conduit within the pedestal and an attachment device at the upper end of the conduit to hold the recessed member.

5. In a lighting fixture, a bowl, a source of light centrally located therein, a flower receptacle within the bowl to screen the light horizontally and provided with an aperture through which the light may shine upwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,079,291. PROCESS OF OBTAINING SULFUR FROM HYDROGEN SULFID AND SULFUR DIOXID. WALTER FELD, Linz, Germany. Filed Dec. 23, 1912. Serial No. 738,242. (Cl. 23—10.)

1. In a process for recovering sulfur from gases containing sulfureted hydrogen and sulfurous acid, the step of causing said gases to react upon a solution of a thio-sulfate of a metal the sulfid of which is soluble in water, substantially as and for the purpose described.

2. In a process for recovering sulfur from gases containing sulfureted hydrogen and sulfurous acid, the step of causing said gases, in the proportion of at least one part by weight of sulfurous acid for each part by weight of sulfureted hydrogen, to react upon a solution of a thio-sulfate of a metal the sulfid of which is soluble in water, substantially as and for the purpose described.

3. In a process for recovering sulfur from gases containing sulfureted hydrogen and sulfurous acid, the step of causing said gases to react upon a solution of a thio-sulfate of a metal the sulfid of which is soluble in water, and subjecting the thus treated solution to a reducing agent to convert into thiosulfates the polythionates resulting from the presence of excess sulfurous acid in the preceding treatment of the solution.

4. In a process for recovering sulfur from gases containing sulfureted hydrogen and sulfurous acid, the step of causing said gases, together with ammonia gas, to react upon a solution of a thiosulfate of a metal the sulfid of which is soluble in water, substantially as described.

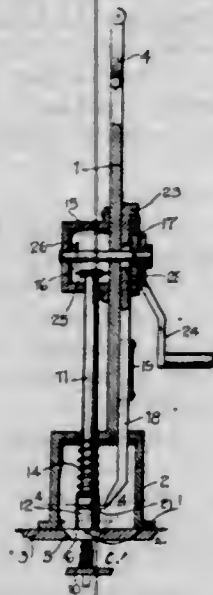
5. In a process for recovering sulfur from gases containing sulfureted hydrogen and sulfurous acid, the step of causing said gases, together with ammonia gas, to react upon a solution of a thiosulfate of a metal the sulfid of which is soluble in water, said gases being present in such proportion that the sulfurous acid gas equals at least two parts by weight of the ammonia gas in addition to the quantity of ammonia gas necessary for the oxidation of the sulfureted hydrogen.

[Claim 6 not printed in the Gazette.]

1,079,292. VALVE-GRINDER. CONRAD C. FRANK, Denison, Iowa. Filed June 20, 1913. Serial No. 774,909. (Cl. 51—4.)

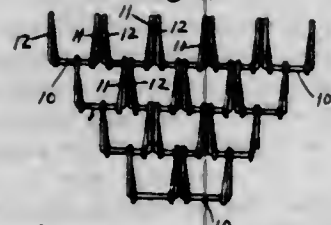
1. In a valve grinder, a casing adapted to be mounted on a member having a valve operatively mounted therein, an upstanding plate formed on said casing, a shaft mounted in said casing to reciprocate vertically therein, spring means in connection with said shaft and the casing to normally force the former downwardly, valve engaging means formed on the lower end of said shaft, a transverse shaft supported by said plate above the casing, a vertically reciprocating arm having its lower end connected with

the first mentioned shaft and adapted to be actuated upon rotation of the transverse shaft, means for rotating said transverse shaft, and additional means carried by the transverse shaft for engagement with the vertical shaft to rotate the latter as the same is reciprocated.



2. In a valve grinder, a casing adapted to be mounted on a member having a valve operatively mounted therein, an upstanding plate formed on said casing, a shaft mounted in said casing to reciprocate vertically therein, valve engaging means formed on the lower end of said shaft, spring means in connection with said shaft and the casing to normally force the former downwardly, a housing mounted on the upstanding plate above the casing, a transverse shaft rotatably mounted in the walls of said housing, a vertically reciprocating arm extending through the top wall of the casing and having its lower end connected with the first mentioned shaft, a ratchet mounted upon the transverse shaft, a lug carried on the upper end of said arm, and adapted to be engaged by the ratchet to raise and lower said arm, a toothed wheel mounted on the upper end of the first mentioned vertical shaft and disposed within said housing, a lug carried on the transverse shaft adapted for engagement with the teeth on said wheel to rotate said vertical shaft as the transverse shaft is rotated, and means for imparting motion to the transverse shaft, whereby to rotate and simultaneously raise and lower the first mentioned shaft.

1,079,293. WIRE-MESH FABRIC. EUGENE FULLER, Providence, R. I., assignor, by direct and mesne assignments, to Webb Manufacturing Company, a Corporation of Rhode Island. Filed Jan. 10, 1913. Serial No. 741,192. (Cl. 245-4.)



1. In a wire mesh fabric, a link formed of wire bent into substantially a U-shape whose side arms are each formed into a loop whose opening is substantially the length of the arm to receive the corresponding loop of the next adjacent link in forming the fabric, the extremity of the wire of each arm returning and being bent around its own base bar.

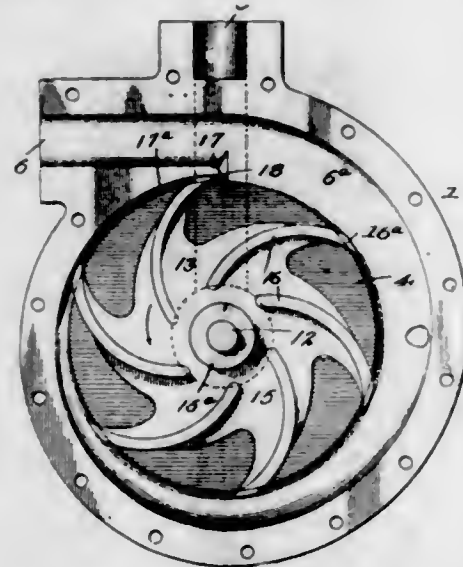
2. In a wire mesh fabric, a link formed of wire bent into substantially a U-shape whose side arms are each formed into an elongated loop whose opening is substantially the length of the arm to receive the corresponding loop of the next adjacent link, the extremity of the wire of each arm returning and being bent around its own base bar, and the outer portion of said loop being wider than that adjacent its bar.

3. In a wire mesh fabric, a link formed of wire bent into substantially a U-shape whose side arms are each formed into an elongated open loop of a size to permit the passage of the corresponding loop of the next adjacent link, the extremity of the wire of each arm returning and being bent around its own base bar, said links being interconnected by placing the side arms of the adjacent links adjacent each other forming laterally arranged pairs and hanging each pair of side arms on the base bar of the next adjacent longitudinal links.

4. In a wire mesh fabric, a link formed of wire bent into substantially a U-shape whose side arms are each formed into an elongated open loop of a size to receive the corresponding loop of the next adjacent link, the extremity of the wire of each arm returning and being bent around its own bar, said links being interconnected and the side arms of the adjacent links located adjacent each other forming laterally arranged pairs, each pair of side arms being hung on the base bar of the next adjacent longitudinal links, whereby said pairs of arms are arranged spaced apart in the same plane transversely of the fabric and in staggered relation to each other longitudinally of the fabric.

5. In a wire mesh fabric, a link formed of wire bent into substantially a U-shape whose side arms are each formed into an elongated open loop of a size to receive the corresponding loop of the next adjacent link, the extremity of the wire of each arm returning and being bent around its own bar, that portion of the loop near the outer end of the arm being opened wider than the portion adjacent its bar, said links being interconnected and the side arms of the adjacent links located adjacent each other forming laterally arranged pairs, each pair of side arms being hung on the base bar of the next adjacent longitudinal links, whereby said pairs of arms are arranged spaced apart in the same plane transversely of the fabric and in staggered relation to each other longitudinally of the fabric.

1,079,294. CENTRIFUGAL PUMP. DAVID M. HEY, Chattanooga, Tenn., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Apr. 24, 1911. Serial No. 622,902. (Cl. 103-43.)



1. In a centrifugal pump having inlet and outlet passages arranged therein, a rotor wheel mounted therein, a plurality of blades on said wheel having their outer ends oppositely beveled to taper to points, and a gate or abutment arranged between the outlet passage and the rotor wheel adjacent the outlet opening, the inner wall of said gate being inclined to correspond with the beveled pointed ends of said rotor blades.

2. In a centrifugal pump, a pair of oppositely disposed casing sections having a central chamber formed therein and inlet and outlet passages leading to and from the central chamber respectively, a rotor wheel mounted eccentrically in said chamber, said rotor wheel being provided with blades having their outer ends oppositely beveled

to taper to points, and a gate or abutment arranged between the outlet passage and the rotor wheel adjacent the outlet passage, the inner wall of said gate or abutment being inclined to correspond with the pointed beveled ends of the rotor blades.

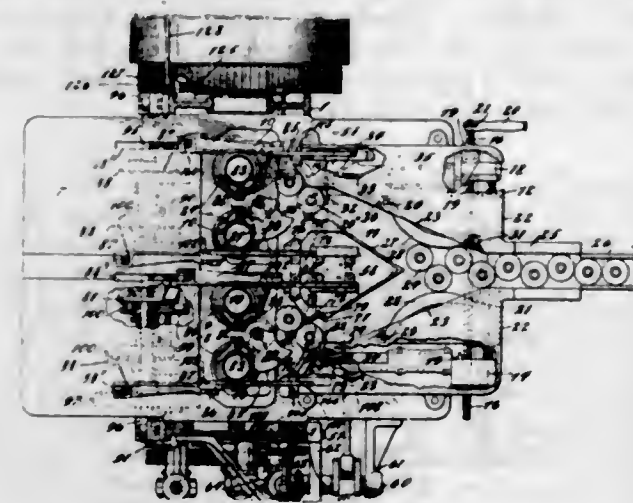
3. In a centrifugal pump, a pair of oppositely disposed casing sections having a central chamber formed therein and inlet and outlet passages leading to and from the central chamber respectively, a rotor wheel mounted eccentrically in said chamber, said rotor wheel being provided with blades having their outer ends oppositely beveled to taper to points, and a gate or abutment arranged adjacent the outlet opening at one side of the outlet passage, the inner wall of said gate or abutment being inclined in opposite directions to admit the passage of the beveled pointed ends of the rotor blades.

4. In a centrifugal pump, a casing provided with inlet means discharging into the same near its center, a rotor wheel disposed in the casing and having blades curved outwardly in a direction opposite to the rotation of said rotor wheel, a substantially horizontal outlet conduit disposed above the rotor wheel upon the side thereof toward which its blades above the shaft rotate, said outlet conduit leading into a curved discharge passage formed in the casing about the rotor wheel and gradually tapering toward one end, and an abutment disposed radially between the outlet conduit and the rotor wheel.

5. In a centrifugal pump, a casing having inlet means contracted inwardly extending bearings forming a space around them to receive fluid from said inlet means, a shaft journaled through the contracted bearings, a rotor wheel carried by the shaft, including a hub having its ends in contact with the inner ends of said bearings and a central web-plate carrying radially extending blades terminating at their inner ends adjacent the outer portions of said spaces, and an outlet conduit leading into a discharge passage formed in the casing about the rotor wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,079,295. BOTTLE-HANDLING MECHANISM. JOSEPH V. IRENIUS and CLAYTON B. WEAVER, Newark, N. J. Filed Aug. 28, 1912. Serial No. 717,423. (Cl. 113-2.)



1. In combination with a bottle capping machine, means for delivering filled bottles to the cap applying parts thereof while maintaining said bottles in a substantially upright position, and co-acting means for removing said bottles from said cap applying parts, after the caps have been applied to said bottles, each of said means comprising a movable yielding finger adapted for engagement with a bottle whereby to displace the same, said finger of said first mentioned means being movable toward and from one of said cap applying parts in a path located to one side of the latter, and said finger of said second mentioned means being movable toward and from the same cap applying part in a path located upon another side of said part, each of said fingers being adapted to slip past a bottle when in engagement therewith when moving in a direction opposite to the course of travel of bottles through said machine, and means for actuating said first and second mentioned means in timed relationship to each other.

106 O. G.—50

2. In combination with a bottle capping machine, having cap applying parts and actuating mechanism therefor including a clutch, mechanism for feeding filled bottles in a substantially upright position to said cap applying parts and connections between a part of said feeding mechanism and said clutch, said connections operable by a bottle improperly positioned in said feeding mechanism.

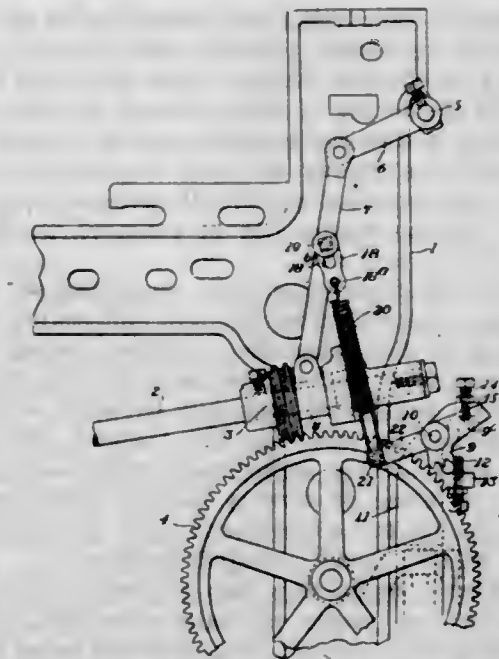
3. In combination with a power driven bottling appliance having a bottle engaging part and actuating mechanism therefor, means for successively feeding bottles to said part, including a bottle shifting device and a guide co-acting therewith, and automatic means for stopping said actuating mechanism when a bottle becomes improperly positioned with respect to said shifting device and guide.

4. In combination with a bottle capping machine having a plunger and a capping head in line with said plunger, means for centering bottles on said plunger with respect to said head, said means comprising a structure adapted for engagement with portions of the side walls of a bottle, a co-acting member adapted for engagement with a portion of said bottle substantially opposite to those engaged by said structure, said member being laterally movable with respect to said plunger, means for supporting said member in part only upon said plunger, and means for moving said member to and fro.

5. In combination with a bottle capping machine having a plunger and a capping head in line with said plunger, means for centering bottles on said plunger with respect to said head, said means comprising a structure adapted for engagement with portions of the side walls of a bottle, said structure being mounted upon said plunger, a co-acting member adapted for engagement with a portion of said bottle substantially opposite to those engaged by said structure, said member being laterally movable with respect to said plunger, means for supporting said member in part only upon said plunger, and means for moving said member to and fro.

[Claims 6 to 16 not printed in the Gazette.]

1,079,296. LET-BACK FOR TAKE-UP MECHANISM OF LOOMS. SIMON S. JACKSON, Boston, Mass., assignor to The Stafford Company, Readville, Boston, Mass., a Corporation of New Jersey. Filed Feb. 27, 1913. Serial No. 750,939. (Cl. 139-60.)



1. In take-up mechanism for looms, the combination with letting-back devices including a let-back dog which co-operates with a wheel to control the extent of letting-back, of means for definite or positive actuation of said dog into engagement with said wheel at time of letting-back.

2. The combination with take-up mechanism including a wheel, and a let-back dog which co-operates with said wheel, of letting-back means operating to release said wheel for letting-back purposes, and a spring through which the movement of said letting-back means to oc-

casion letting-back produces actuation of the said dog into engagement with the wheel to limit the extent of letting-back.

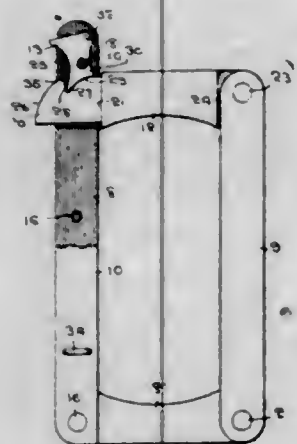
3. In take-up mechanism the combination with take-up gearing, letting-back devices operating to disconnect such gearing for the letting-back, and a let-back dog that co-operates with a rotatable wheel, of a spring through which the movement of said devices to disconnect the gearing actuates the said dog into engagement with the said wheel to control the extent of the letting-back.

4. In combination, take-up mechanism including a worm-drive, letting-back devices operating to operatively disconnect said drive for the letting-back, and a let-back dog that co-operates with a wheel of said mechanism, of means through which the movement of said devices to disconnect said drive actuates the said dog into engagement with the said wheel to control the extent of the letting-back.

5. In combination, take-up mechanism including a worm and worm-gear, letting-back devices whereby said worm is disengaged from said worm-gear for letting-back purposes, and means through which the movement of said devices to disengage said worm actuates the dog into engagement with said worm-gear to limit the extent of the letting-back.

[Claims 6 and 7 not printed in the Gazette.]

1,079,297. **RELEASING DEVICE.** DAMASE JACQUES, Detroit, Mich. Filed Jan. 25, 1913. Serial No. 744,119. (Cl. 9—23.)

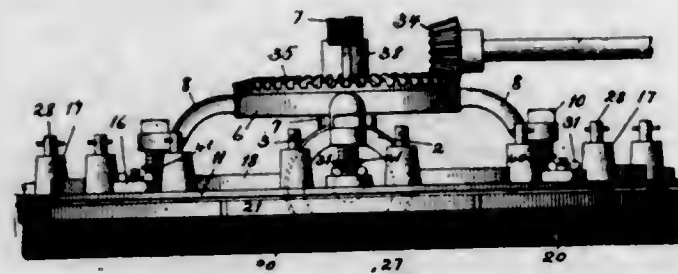


1. A releasable supporting link consisting of several elements movably connected together, one of said elements being formed of springy material and having a slot into which an end of another of said elements is adapted to be seated, locking means for normally securing said end in said slot, means engaging the wall of said slot for retarding the movement of said locking means, and means whereby the locking means may be actuated for disengaging said end from said slot.

2. A releasable supporting link consisting of a bifurcated member, a lock-bar having one end seated between the furcations of the bifurcated member, means movably connecting the other end of the lock-bar with the bifurcated member, a tumbler mounted between said furcations, and means for rotating the tumbler and thereby bringing it into locking engagement with said lock-bar, said furcations being of springy material and being provided with means for engagement with the tumbler for retaining it in its normal operative position.

3. A releasable supporting link consisting of a slotted element, a lock-bar, means pivotally connecting the lock-bar with the slotted element, said lock-bar being provided with means for guiding it into the slot of the slotted element and with means for limiting its movement into said slot and with a notch and a convex end portion adjacent to the notch, a locking member provided with trunnions and being thereby pivotally mounted within the slot and having a detent in engagement with said notch of the lock-bar, and with a concave surface adapted to contact with the convex end of the lock-bar, whereby the lock-bar may be moved into contact with the locking member for rotating it and thereby moving the detent into and out of engagement with the notch.

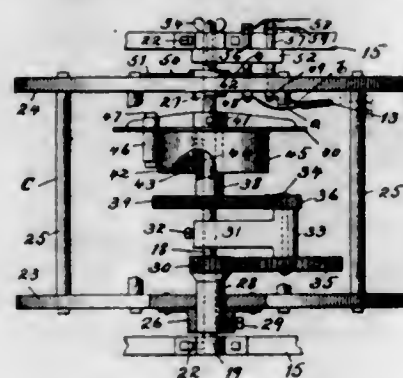
1,079,298. **ROTARY SCRUBBING-MACHINE.** THOMAS R. JENKINS, Jr., Baltimore, Md., assignor of one-half to Walter S. Fennell, Hannibal, Mo., and one-half to Finola Manufacturing Company, Hannibal, Mo., a Corporation of Missouri. Filed Jan. 18, 1912. Serial No. 671,958. (Cl. 15—14.)



1. In a brush carrying mechanism for scrubbing machines the combination with a ring plate having a plurality of spaced-apart hollow casings and an opening between adjacent casings, of a plurality of brush suspension plates each having spaced-apart stems which project into the said hollow casings,—said suspension plates also having an opening therein between the stems; a brush for each suspension plate and means in the openings between the hollow casings for securing the brushes to their suspension plates.

2. In a brush carrying mechanism for scrubbing machines the combination with a ring plate having a plurality of spaced-apart hollow casings each with an opening and also having an opening in the plate between adjacent casings, of brush suspension plates having spaced-apart stems which project into and through the hollow casings and said suspension plates each also having a perforated boss on its upper side between the stems and each boss having a vertical rib on one side; a brush secured to the boss of each of the suspension plates and the boss and rib of each suspension plate entering one of said openings of the ring plate between the casings.

1,079,299. **TRUCK-REEL FOR CONDUCTOR-WIRES.** THOMAS R. JENKINS, Jr., Baltimore, Md., assignor of one-half to Walter S. Fennell, Hannibal, Mo., and one-half to Finola Manufacturing Company, Hannibal, Mo., a Corporation of Missouri. Filed Sept. 21, 1912. Serial No. 721,583. (Cl. 242—91.)



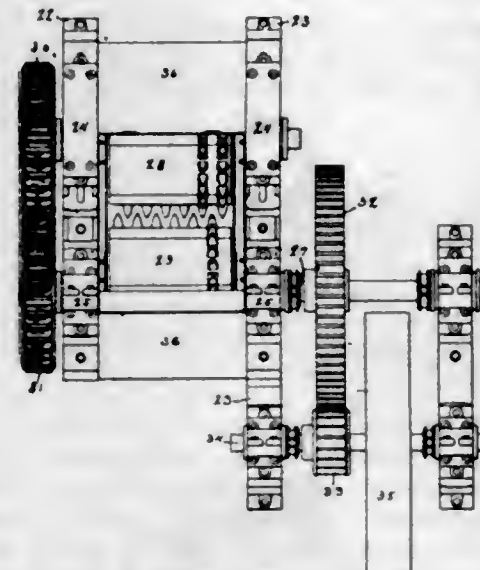
A truck-reel for winding the conducting wires of a rotary floor-scrubbing machine having in combination, a fixed horizontal rod; a reel on which the conducting wires may be wound—said reel having two disks rotatably mounted on the said rod one of the disks being provided with a sleeve 28 loose around the rod; a stationary vertical plate rigidly supported on said rod between the two disks; a second sleeve loose on the rod; a bracket arm rigidly secured to the said rod intermediate of said two sleeves and said arm projecting and having a shaft-bearing, 33; a spring coiled around the rod and one end of the spring attached to the stationary vertical plate and the other end to the second sleeve; a shaft, 34, supported in the bearing on the projecting bracket arm and carrying gear-wheels; and gear-wheels connecting with the said two sleeves.

1,079,300. **COMBINATION GARMENT-KNIFE.** THOMAS J. LITTLETON, Jr., and JAMES P. TYNER, Estill Springs, Tenn. Filed Jan. 24, 1913. Serial No. 744,018. (Cl. 164—3.)



As an article of manufacture, a combination garment knife comprising a handle having a bifurcation extending partially through the same and opening through only one end thereof, the closed end of the bifurcation being formed with inwardly converging opposed abutments, an outwardly tapered knife blade arranged within the bifurcations and having an elongated slot centrally therein, a pivot passed through the slot and fixed in the handle for guiding the knife blade in various adjusted positions, and a finger rib formed at the larger end of the blade in alignment with the slot therein, the said blade being provided with a single knife edge and a point at its smaller end.

1,079,301. **COAL-BREAKER.** WILLIAM LLOYD, Drifton, Pa. Filed May 27, 1913. Serial No. 770,270. (Cl. 83—52.)



1. A coal breaker having a breaking roll and teeth thereon having cutting edges and abutment faces extending between said edges, the cutting edges of each tooth being presented to abutment faces of the adjacent teeth both circumferentially and longitudinally of the roll.

2. A coal breaker having a breaking roll and teeth thereon having cutting edges and abutment faces, said teeth being arranged in rows circumferentially and longitudinally of the roll, adjacent teeth in said rows both circumferentially and longitudinally of the roll being arranged to present a cutting edge of one to an abutment face of the other.

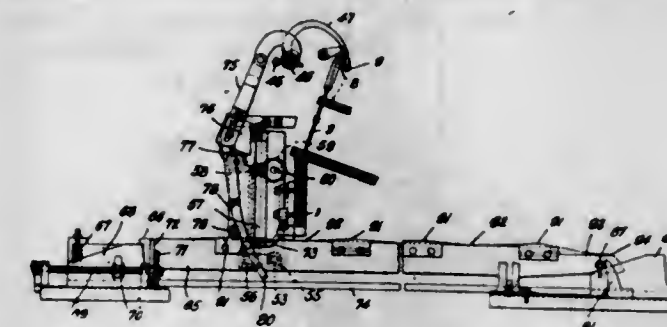
3. A coal breaker having a breaking roll and circumferential and longitudinal rows of teeth thereon, said teeth being of two different shapes, one having a concave cutting edge and the other having a concave abutment face, said teeth being arranged alternately in said rows with their concaves facing in the direction of rotation of the roll.

4. A coal breaker having a breaking roll body, and mounted thereon a series of breaker-tooth segments, each segment comprising a filler piece adjacent the roll body and a facing segment coextensive therewith carrying the breaker teeth, in combination with engaging means on the one hand between the adjacent faces of the tooth segment and the filler piece, and on the other hand between the adjacent faces of the filler piece and the roll body to take up circumferential thrust together with means common to said tooth segment and filler piece for holding the same on the roll body.

5. A breaker roll comprising a drum of general polygonal outline, the faces of the roll periphery being centrally recessed and stepped to form seats in combination with breaker-tooth segments substantially coextensive with said roll faces and having on their lower faces longitudinal ribs adapted to engage in the seats in the roll faces to take up circumferential thrust or shearing strains during the operation of the roll, in combination with means passing through said segments and entering the roll body to retain said segments in position thereon.

[Claims 6 and 7 not printed in the Gazette.]

1,079,302. **SPINNING-MULE.** JOHN LOWE, New Bedford, Mass., assignor to James K. Lanning, Boston, Mass. Filed Oct. 12, 1909. Serial No. 522,235. (Cl. 118—9.)



1. A spinning mule including in combination spinning spindles, counterfaller means, a cross wind guide distinct from said counterfaller means, means to impart a plurality of to and fro cross wind movements to said guide during a single winding run of the mule, and means independent of said guide to tension the yarns during both directions of cross winding movements imparted thereto by said guide.

2. A spinning mule including in combination driving means, spinning spindles, counterfaller means, a faller, a cross wind guide distinct from said counterfaller means and positioned to engage the yarns between the faller and the spindles, and instrumentalities coöperating with said driving means for imparting to said guide to and fro cross winding movements lengthwise of the spindles, and for imparting cross winding tensioning movements to the faller.

3. A spinning mule including in combination spinning spindles, counterfaller means, a faller, a cross wind guide distinct from said counterfaller means and positioned to engage the yarns between the faller and the spindles, means to impart to said guide to and fro cross winding movements during a single winding run of the mule, and means to impart to the faller cross winding tensioning movements lengthwise of the spindles during such run of the carriage.

4. A spinning mule including in combination driving means, spinning spindles, a faller, a cross wind guide positioned to engage the yarns between the faller and the spindles, and instrumentalities coöperating with said driving means acting during a single winding run of the mule to impart to the said guide and faller cross winding movements, periodically substantially simultaneous but differentiated in extent.

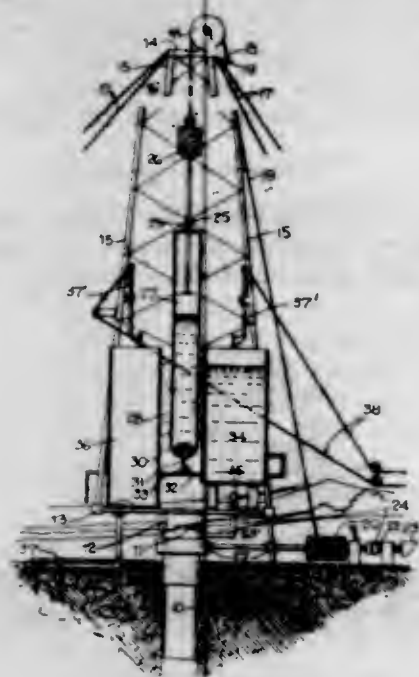
5. A spinning mule including in combination spinning spindles, counterfaller means, a faller, a cross wind guide distinct from said counterfaller means and positioned to engage the yarns between the faller and the spindles, and means to impart vibratory cross winding movements both to the guide and to the faller during a single winding run of the mule.

[Claims 6 to 35 not printed in the Gazette.]

1,079,303. **DERRICK.** OTIS G. MOORE, Knox, Pa., assignor of one-third to Cuvier L. Clover, Knox, Pa., and one-third to Charles R. Moore, St. Petersburg, Pa. Filed Apr. 3, 1913. Serial No. 758,695. (Cl. 166—17.)

1. The combination with a casing such as described, of a plate having a flange formed thereon attached to said

casing, rods connected to said plate, a second plate connected to the upper ends of the rods, a plurality of stay rods, a pulley journaled upon one of the plates, an operating drum, a cable attached to the operating drum and passing over said pulley, a bailer supported by the cable, a piston disposed within the bailer, and a valve for said bailer.



2. In a derrick such as described the combination with a casing, a plate attached thereto, rods connected to said plate, a second plate attached to the opposite ends of the rods, a shaft supported by the rods and the casing, a drum upon the shaft, means for rotating the shaft, a cable attached to the drum and passing over the pulley, a piston rod connected to the cable, a weight attached to the piston rod, a piston attached to the piston rod, a bailer receiving said piston, a valve controlling the bailer, and means for operating the valve.

3. The combination in a derrick of a plate, supporting means upon said plate, a bailer supported thereby, receptacles disposed upon the plate, a tank communicating with one receptacle, means for heating the other receptacle, and means for attaching the plate to a casing such as described.

4. An apparatus for increasing the flow of oil wells consisting of a hot water boiler, a bailer adapted to receive hot water from said boiler, and means for lowering the bailer with the contained hot water into the well whereby the heat from the hot water melts the paraffin contained in the oil bearing rock and thereby produces a greater flow of oil.

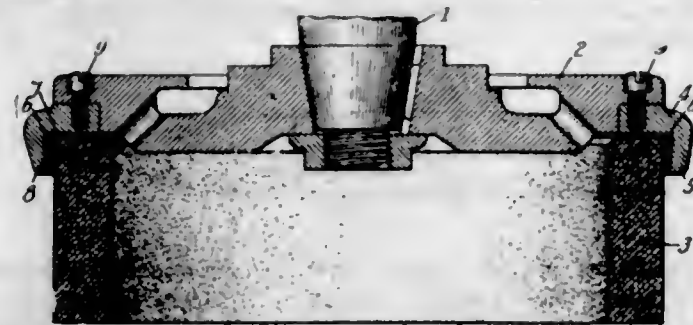
5. An apparatus for increasing the flow of oil wells including a hot water boiler, a gas burner operatively connected to the oil well casing and receiving gas therefrom, said burner directing its flame on said boiler, a bailer, means for charging said bailer with hot water from said boiler, and means for lowering said bailer with the contained hot water into said well whereby the heat from said hot water melts the paraffin contained in the oil bearing rock and produces a greater flow of oil.

1,079,304. MOUNTING OF ABRASIVE WHEELS. HENRY K. SPENCER, Dorchester, Mass., assignor to The Blanchard Machine Company, Cambridge, Mass., a Corporation of Massachusetts. Original application filed Sept. 21, 1911, Serial No. 650,563. Divided and this application filed Dec. 16, 1912. Serial No. 736,909. (Cl. 51-1.)

1. The combination with a grinding wheel, of a driving spindle therefor, a face plate, and means including a cemented lock-joint attachment for securing the grinding wheel to the face plate.

2. The combination with a driving member, a grinding wheel, and a holding device for securing the wheel to the driving member, said device having a cement-filled joint

between the same and the circumferential surface of the wheel.



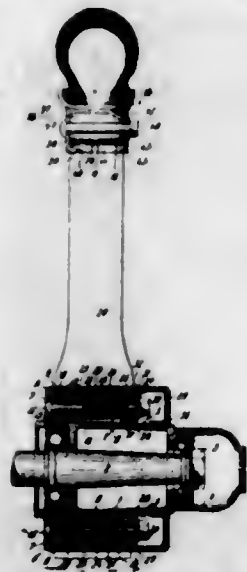
3. The combination with a grinding wheel, of a face plate, a retaining ring having a tapered wall adapted to overlap the wheel, and a cement filling between the wheel and the wall.

4. The combination with a driving member, of a face plate, a retaining ring, and a grinding wheel having a circumferential surface cemented to the retaining ring.

5. The combination with an abrasive wheel, of a body of cementitious material adhering to the periphery of said wheel, and a holder with which said cementitious material interengages.

[Claims 6 to 8 not printed in the Gazette.]

1,079,305. KNOCKDOWN WHEEL. JOHN E. STRIETELMEIER, Cincinnati, Ohio, assignor to The Ideal Wheel Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 10, 1913. Serial No. 753,347. (Cl. 152-50.)



1. A resilient wheel of the nature disclosed combining a hub, a plurality of looped flat-spring spokes radiating from said hub, a rim providing seating surfaces for the extremities of said spokes, a member secured to said rim providing a pair of parallel beveled faces, the one being adjacent the back edge of the inner periphery, and the other being adjacent the front edge of the outer periphery of said rim, and a cooperating L-shaped clip having beveled faces engaging those above mentioned, whereby said clip will move in parallelism with said member to clamp its associated spoke to said rim.

2. A resilient wheel of the nature disclosed combining a rim, an L-shaped member permanently secured thereto, a detachable L-shaped member arranged conversely to the former, to form an open rectangle, inclosing a section of the rim, a flat spring forming a spoke element also inclosed within said open rectangle, and means for drawing said two members together to clamp said spring flat-wise against said rim.

3. A resilient wheel of the nature disclosed combining a rim, means providing parallel beveled surfaces at diagonally opposite points of a transverse section of said rim, a flat spring having a portion seated flat-wise on said rim, a member having beveled faces coacting with the aforesaid beveled surfaces and providing a portion for clamping said spring to said rim, and screw-threaded means for moving

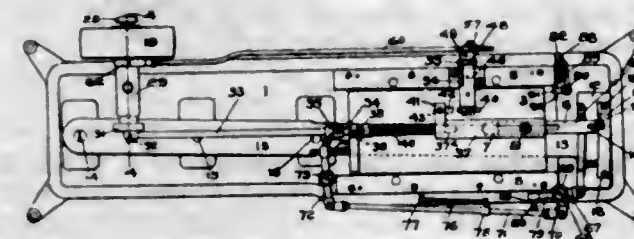
said member laterally relatively to said rim whereby it will be forced into clamping relations with said spring by said beveled faces.

4. A resilient wheel of the nature disclosed combining a rim, a member extending radially inward along the back side of said rim and providing at the inner periphery of said rim a lip having an under-beveled face, an L-shaped clip having a portion extending parallel with the axle of said wheel, and terminating in a beveled end engaging said lip, said portion bending at right angles and extending along the front side of said rim and terminating in a beveled face contacting a correspondingly beveled surface provided by said rim, a flat metal spoke element engaged by said clip and means for drawing said parts together.

5. A resilient wheel of the nature disclosed combining a hub, a rim, an equispaced plurality of loop-like spokes each providing spring portions having concave faces and convex backs, said portions being spaced widely apart face-to-face, but spaced only slightly apart back-to-back, and having flange-like feet extending toward one another on the periphery of the hub, a radially movable clamping-block resting on said feet between the corresponding spring portions, spacers alternating in succession with said clamping-blocks around the periphery of said hub to separate the same, and means for drawing the clamping-blocks radially inward to cooperate with said hub in clamping said flange-like feet.

[Claims 6 to 26 not printed in the Gazette.]

1,079,306. GRADUATING-MACHINE. CHARLES G. TREFETHEN, Erie, Pa., assignor to Modern Tool Company, a Corporation of Pennsylvania. Filed Nov. 5, 1910. Serial No. 590,805. (Cl. 73-13.)



1. In a graduating machine, the combination of a cutting tool; a scale holder; means for reciprocating the tool and holder relatively to each other; mechanism acting on said means to limit its action for automatically varying the length of the cut; and devices driven with said means for automatically feeding the cutting tool and holder relatively to each other to space the cuts.

2. In a graduating machine, the combination of a cutting tool and scale holder; a rotating driving means; devices on said rotating driving means for converting said rotating movement to reciprocating movement, said devices having a fixed throw; a yielding mechanism actuated by said devices and reciprocating the tool and holder relatively to each other; and varying stops acting against said yielding mechanism for limiting the movement of the tool and holder relatively to each other to vary the length of the cut.

3. In a graduating machine, the combination of a cutting tool and scale holder; a rotating driving means; devices on said rotating driving means for converting said rotating movement to reciprocating movement, said devices having a fixed throw; a yielding mechanism actuated by said devices and reciprocating the tool and holder relatively to each other; varying stops acting against said yielding mechanism for limiting the movement of the tool and holder relatively to each other to vary the length of the cut; and means for automatically feeding the cutting tool and holder relatively to each other to space the cuts.

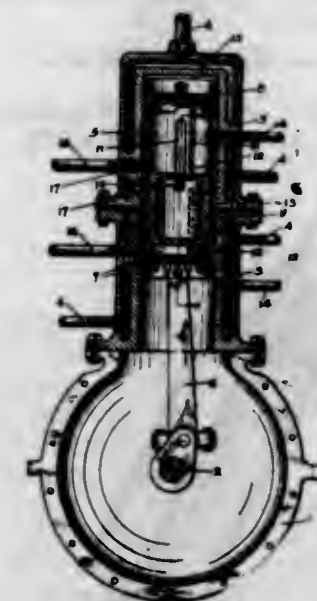
4. In a graduating machine, the combination of a cutting tool and scale holder; a rotating driving means; devices on said rotating driving means for converting said rotating movement to reciprocating movement, said devices having a fixed throw; a yielding mechanism actuated by said devices and reciprocating the tool and holder relatively to each other; varying stops acting against said yielding

mechanism for limiting the movement of the tool and holder relatively to each other to vary the length of the cut; means for automatically feeding the cutting tool and holder relatively to each other to space the cuts; and means for automatically varying the stops driven with said rotating driving means.

5. In a graduating machine, the combination of a cutting tool; a rotating driving means; devices on said means for converting the rotating movement to a reciprocating movement, said devices having a fixed throw; a slide on which the tool is mounted; a scale holder; a yielding connection between said devices and the slide; and varying stops for limiting the varying movement of the slide to vary the length of the cut.

[Claims 6 to 10 not printed in the Gazette.]

1,079,307. INTERNAL-COMBUSTION ENGINE. NORRIS C. WARD, Chicago, Ill. Filed May 27, 1912. Serial No. 699,987. (Cl. 123-50.)



1. An internal combustion engine comprising a hollow casing; a cylinder mounted to reciprocate in said casing and closed at each end; a hollow stationary head secured in said cylinder by means of water pipes passing through said casing and cylinder, said cylinder being slotted to permit reciprocations thereof; means for admission and exhaust for each end of said cylinder and means for utilizing reciprocations of said cylinder, substantially as described.

2. An internal combustion engine comprising a hollow casing; a cylinder mounted to reciprocate in said casing; a stationary head secured in said cylinder; means for admission and exhaust for each end of said cylinder; means of ignition mounted in the walls of said casing and projecting into each end of said cylinder, said cylinder being slotted to receive said means of ignition and permit reciprocations of said cylinder and means for utilizing reciprocations of said cylinder, substantially as described.

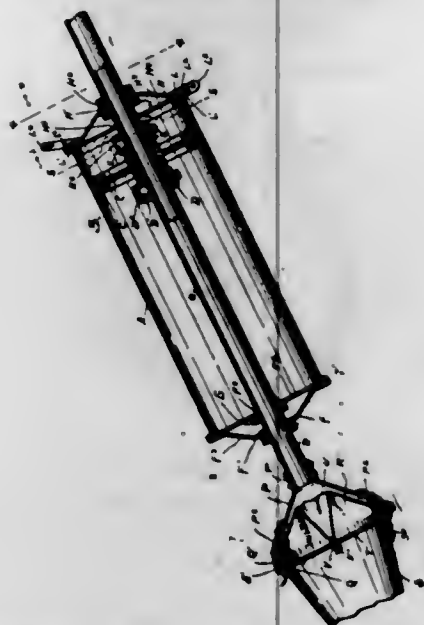
3. An internal combustion engine comprising a hollow stationary head provided with water circulating means; a cylinder mounted to reciprocate on said head and closed at each end; a casing surrounding said cylinder and provided with a water jacket; means for admission and exhaust for each end of said cylinder; means for ignition for each end of said cylinder; and means for utilizing reciprocations of said cylinder, substantially as described.

4. In an internal combustion engine, a closed crank case; a crank shaft in said case; a hollow casing secured to said crank case in open communication therewith; a cylinder mounted to reciprocate in said casing and having closed ends; a connecting rod connecting said cylinder and crank shaft; inwardly opening valves in the ends of said cylinder; fuel supply connections for the opposite ends of said casing and arranged to be opened and closed by said cylinder; exhaust connections in said casing for the ends of said cylinder, there being exhaust ports in

the walls of said cylinder adapted to register therewith; means of ignition for the ends of said cylinder; and a stationary head in said cylinder and secured to said casing, there being slots in the walls of said cylinder to accommodate the securing means, substantially as described.

5. In an internal combustion engine, a closed crank case, a crank shaft in said case; a hollow water jacketed casing secured to said crank case in open communication therewith; a cylinder mounted to reciprocate in said casing and having closed ends; a connecting rod connecting said cylinder and crank shaft; inwardly opening valves in the ends of said cylinder; fuel supply connections for the opposite ends of said casing and arranged to be opened and closed by said cylinder; exhaust connections in said casing for the ends of said cylinder, there being exhaust ports in the walls of said cylinder adapted to register therewith; means of ignition for the ends of said cylinder; and a stationary hollow head in said cylinder and secured to said casing, there being slots in the walls of said cylinder to accommodate the securing means, and said securing means also constituting means for effecting a water circulation through said head, substantially as described.

1,079,308. PUMP. JOHN F. WARNER, Muncie, Ind.
Filed Jan. 29, 1912. Serial No. 874,022. (Cl. 230—27.)



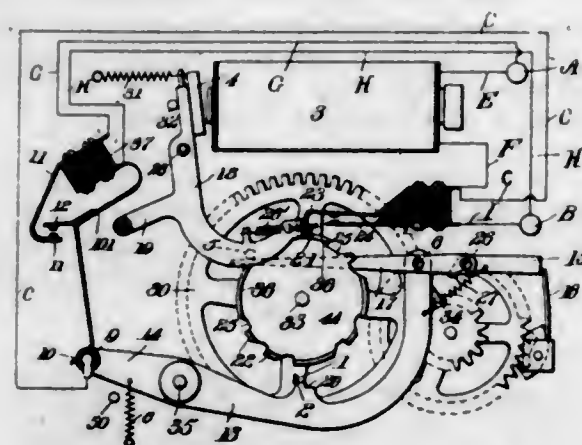
1. In a machine of the kind described, the combination of a piston tube having a pair of openings in the wall thereof, a closure for one end of the piston tube, a piston head secured on the piston tube at location between the said openings, valves for the said openings, a cylinder capable of being reciprocated on the piston head having its rims flanged, heads to close the end of the cylinder, the head for the lower end of the cylinder being secured thereto, and the said heads being provided with openings therein and with stuffing boxes for the piston tube, a valve plate secured to the interior side of each of the cylinder heads and having a central opening of diameter larger than that of the piston tube, a ring slidingly disposed on the piston tube between each head and its valve plate and adapted to close the opening in the valve plate, an expansible member to coengage the flange of the cylinder and the rim of the last named head and that is capable of being constricted whereby the said cylinder flange and the rim of the head may be drawn and held securely together.

2. A pump of the kind described comprising a piston tube having a pair of openings in the wall thereof, a piston head secured on the piston tube at location between the said openings, a valve for each of said openings, a cylinder capable of being reciprocated on the piston head, heads to close the ends of the cylinder and which are provided with closed bearings for the piston tube, one of said heads being removable, a valve in each of the said heads, and an expansible member to coengage the end of the cylinder and the rim of the removable head and

that is capable of being constricted whereby the said head may be drawn and held securely to the end of the cylinder.

3. A pump comprising a cylinder having its rims flanged, heads for the ends of the cylinder, the head for one end of the cylinder being secured thereto, and each of the said heads being provided with openings therein and with stuffing box for the piston, a valve plate secured to the interior side of each of said heads and having a central opening of diameter larger than that of the piston tube, a ring between each head and its valve plate and which is of diameter slightly smaller than said central opening, and an expansible member to coengage the flange of the cylinder and the rim of the head plate and that is capable of being constricted whereby the said cylinder flange and the said head may be drawn and held securely together.

1,079,309. SIGNAL-BOX. CLARENCE E. BEACH and HERMAN W. DOUGHTY, Binghamton, N. Y., assignors to George O. Knapp, New York, N. Y. Filed May 25, 1911. Serial No. 629,415. (Cl. 178—163.)



1. In a signaling box, the combination of a non-interference electromagnet and armature, a signaling train, means for causing the armature to control the running of the train for a period after starting of the box, means for allowing the signaling train to run independent of the armature for a period after such armature control period, a disabling circuit closed during said first and second periods to prevent signaling operation, and means for causing said armature to control said disabling circuit for a period after said period of independent running of the train.

2. In a signal box, a magnet, its armature, an armature lever, a signaling train, a locking lever for said train, a second lever to which said locking lever is pivoted, means on said armature lever for operatively engaging said locking lever, and means connected to the train for operating said second lever independently of said locking lever.

3. In a signal box, a magnet and an armature structure therefor, a signaling train, a locking lever for said train, a second lever to which said locking lever is pivoted, means on said armature structure for operatively engaging said locking lever, and means driven by the train for operating said second lever to successively adjust the locking lever to bring the running of the train under its control and to disengage it from such control.

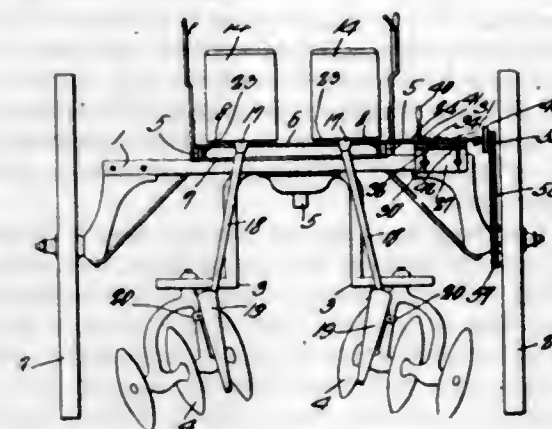
4. In a signal box, a magnet, its armature, an armature lever, a signaling train, a locking lever for said train, a second lever to which said locking lever is pivoted, means on said armature lever for operatively engaging said locking lever, and means connected to the train for operating said second lever, said means comprising a pin on a wheel of said train and a ledge on said second lever.

5. In a signal box, a magnet, its armature, an armature lever, a signaling train, a locking lever for said train, a second lever to which said locking lever is pivoted, means on said armature lever for operatively engaging said locking lever, and means connected to the

train for operating said second lever, said means comprising a pin on a wheel of said train and a ledge having a notch on said second lever.

(Claims 6 to 32 not printed in the Gazette.)

1,079,310. PEA-DRILL. JOHN G. BECKER, Campbell, Mo. Filed Dec. 3, 1912. Serial No. 734,786. (Cl. 111—6.)



1. In a device of the class described, a vehicle; a bracket vertically adjustable on the vehicle; a bearing member horizontally adjustable upon the bracket in the direction of travel of the vehicle; a shaft journaled in the bearing member; means extending in the direction of travel of the vehicle for driving the shaft; a seed distributing element movably mounted upon the support; and means for operatively connecting the seed distributing element with the shaft.

2. In a device of the class described, a vehicle; a bracket vertically adjustable upon the vehicle; a bearing member horizontally adjustable upon the bracket in the direction of travel of the vehicle; a shaft journaled for rotation in the bearing member; a seed distributing element movably mounted upon the support; means for operatively connecting the seed distributing element with the shaft; a driving element; means for clutching the driving element to the shaft; and movable means mounted upon the bearing member for disengaging the clutch means.

3. In a device of the class described, clamping members; means for connecting the clamping members; a seed distributor mounted upon one clamping member; a vertically adjustable bracket; a horizontally adjustable bearing member carried by the bracket; a shaft journaled in the bearing member and operatively connected with the distributor; and means for actuating the shaft.

1,079,311. PNEUMATIC-DESPATCH APPARATUS. THOMAS BEMIS, Indianapolis, Ind., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed Apr. 23, 1908. Serial No. 428,734. (Cl. 243—15.)

1. Pneumatic despatch apparatus including an air inlet terminal, a valve for closing said terminal, means for closing said valve, an arm projecting into the carrier passageway of said terminal into position to be controlled by the carrier moving air current through said passageway for causing the closing operation of said valve closing means, and connections from said arm to said valve closing means controlling the operation of the same.

2. Pneumatic despatch apparatus including an air inlet terminal, a valve for closing the same, means for closing the said valve, an arm projecting into the carrier passageway of said terminal and mounted in position to be actuated in one direction by gravity and in the other direction by the air current through said passageway of the terminal and when so actuated to control the operation of said valve closing means, and connections from said arm to said valve closing means controlling the operation of the same.

3. Pneumatic despatch apparatus including an air inlet terminal, a valve for closing the same, means for closing the said valve, an arm projecting into the carrier passageway

way of said terminal and mounted so as to be actuated in one direction by gravity and in the opposite direction by the current of air through the carrier passageway of the terminal, and a connection between said arm projecting into the terminal and said closing means arranged so that when the arm projecting into the terminal is actuated by gravity it will cause the operation of said valve closing means and when operated by the current of air it will stop the operation of said valve closing means.

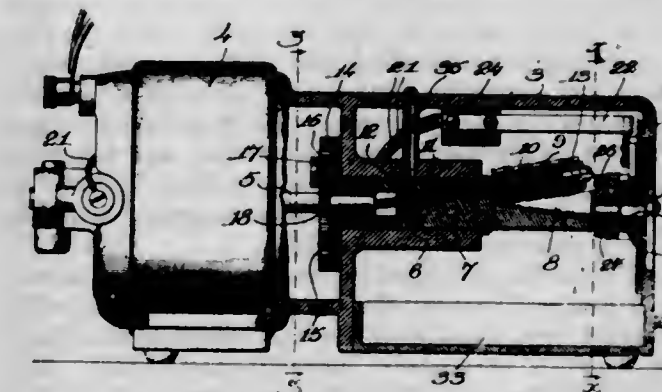


4. Pneumatic despatch apparatus provided with an inlet terminal, a valve closing the same that is held closed by the suction in the apparatus, and means controlled by the air pressure for catching and holding the valve closed when the suction therein ceases and for releasing the valve when the suction is restored.

5. Pneumatic despatch apparatus provided with inlet terminals, valves closing the same that are held closed by the suction in the apparatus, and means adapted to hold said valves closed that is actuated by gravity when there is no suction in the apparatus and is released by suction in the apparatus, whereby when the vacuum pump stops the valves will be held closed and when it starts they will be released by said holding means.

(Claims 6 to 22 not printed in the Gazette.)

1,079,312. PENCIL-SHARPENER. LEONARD B. CHADWICK, Chelsea, Mass., assignor to General Supplies Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 5, 1910. Serial No. 595,560. (Cl. 120—96.)



1. In a pencil sharpener, the combination with a rotary spindle having a conical pencil-receiving recess, of a cutter carried thereby and rotatable independently of and with the spindle, a driving element connected to the cutter to rotate the latter, and connections between the driving means for the cutter and the spindle to rotate the latter from the former.

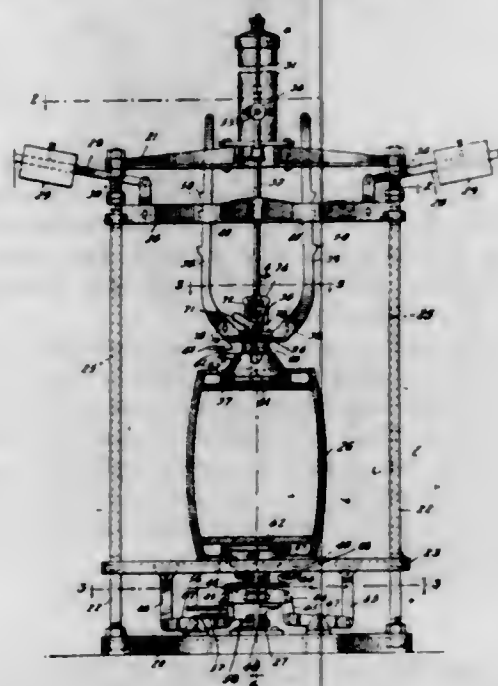
2. In a pencil sharpener, the combination with a spindle having a pencil-receiving recess, of a cutter sustained by the spindle and rotatable therewith, a motor connected directly to the cutter to rotate the latter independently of the spindle, and means to rotate the spindle.

3. In a pencil sharpener, the combination with a spindle having a conical pencil-receiving recess, of a cutter sustained by the spindle and rotatable therewith, a motor connected directly to the cutter to rotate the latter independently of the spindle, and means operated by the motor to rotate the spindle.

4. In a pencil sharpener, the combination with a rotary spindle having a conical pencil-receiving portion, of a cutter rotatably carried by the spindle, a motor, a flexible shaft connecting said motor and the cutter whereby the cutter is rotated directly from the motor, and means to rotate the spindle.

5. In a pencil sharpener, the combination with a rotary spindle having a conical pencil-receiving recess, of a cutter rotatably carried by the spindle, a motor having a shaft provided with a flexible extension which is connected directly to the cutter whereby the cutter is rotated directly by the motor, and gearing between said motor shaft and spindle to rotate the latter.

1,079,313. **BRANDING-MACHINE.** HARRY W. COLBY and CORNELIUS SIPPEL, Chicago, Ill., assignors, by direct and mesne assignments, to Automatic Racking Machine Company, a Corporation of Illinois. Filed Aug. 28, 1908. Serial No. 450,633. (Cl. 101-24.)



1. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads bearing the branding-plates, for the branding of opposite ends of the package, means for heating the branding-plates, intermittently motor-actuated operating connections adapted to reciprocate said branding heads in unison and to an extent optionally variable during the branding operation and means for varying, at will and during the branding action, the extent of movement of the said motor-actuated operating connections, substantially as specified.

2. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, intermittently motor-actuated operating mechanism for reciprocating one of said branding heads, connections for automatically reciprocating the other branding head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said mechanism, substantially as specified.

3. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, burner-connections and burners for heating the reverse side of each branding-plate, intermittently motor-actuated operat-

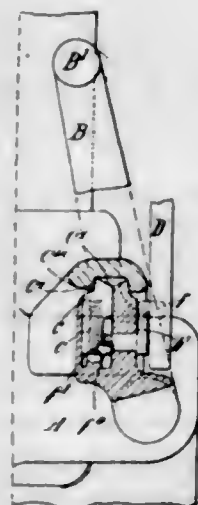
ing mechanism for reciprocating one of said branding-heads, connections for automatically reciprocating the other branding-head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said mechanism, substantially as specified.

4. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding-heads, bearing the branding plates, for the branding of opposite ends of the package, a motor and intermittently actuated connections adapted to reciprocate said branding-heads in unison, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

5. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor-cylinder and intermittently actuated connections adapted to reciprocate said branding-heads in unison, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

[Claims 6 to 61 not printed in the Gazette.]

1,079,314. **HANG-FIRE DEVICE FOR BREECH-LOADING ORDNANCE.** ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers, Limited, London, England. Original application filed Jan. 10, 1910, Serial No. 537,155. Divided and this application filed Mar. 8, 1911. Serial No. 613,145. (Cl. S9-24.)



1. In a hang fire device for breech loading guns, the combination with the breech actuating lever and its boss, of a catch situated within a cavity near the boss of said lever, a stationary device on the gun with which said catch is adapted to engage, means for retaining said catch in engagement with said device, and means for automatically moving said catch out of engagement as the gun reaches its run-out position after recoil.

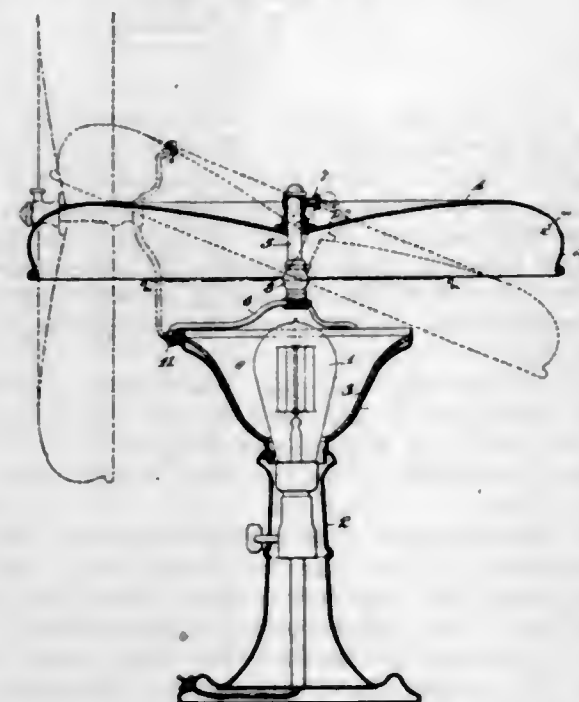
2. In a hang fire device for breech loading guns, the combination with the breech actuating lever and its boss, of a catch situated within a cavity near the boss of said lever, a pocket formed in the gun, said catch being adapted to engage in said pocket, means for retaining said catch in engagement with said pocket, and means for automatically moving said catch out of engagement as the gun reaches its run-out position after recoil.

3. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever and its boss, of a catch situated within a cavity near the boss of said lever, a pocket formed in the gun, said catch being adapted to engage in said pocket, means for retaining said catch in engagement with said pocket, a contrivance on a

non-recoiling part of the gun, and a contrivance coöperating with the other contrivance for moving said catch out of engagement as the gun reaches its run-out position after recoil.

4. In a hang fire device for breech loading guns, the combination with the breech actuating hand lever and its boss, of a spring controlled catch situated within a cavity near the boss of said lever, a pocket formed in the gun, said catch being adapted to engage in said pocket, means for retaining said catch in engagement with said pocket, a horn fixed to a non-recoiling part of the gun, and an arm pivoted to said hand lever and adapted to coöperate with said horn to move said catch out of engagement with said pocket as the gun reaches its run-out position after recoil.

1,079,315. **PORTABLE READING-LAMP.** GEORGE W. CASSIDY, East Orange, N. J. Filed Oct. 25, 1912. Serial No. 727,645. (Cl. 240-11.)



1. A portable lamp, having a light; an inclosing reflector, open at the top and with its upper edge above the line of the light; a diffusing shade, above the reflector and extending beyond the edges of the reflector; and means for supporting the diffuser to permit vertical and angular adjustment.

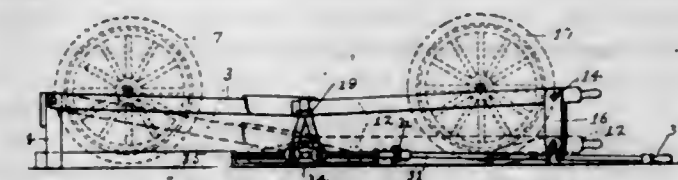
2. A portable lamp, having a light; an inclosing reflector, open at the top and with its upper edge above the line of the light; a diffuser above the reflector, said diffuser being formed upon a concave parabolic curve, and extending beyond the edges of the reflector; and an eye shade beyond the diffuser; and means for varying the inclination of said diffuser.

3. A portable lamp, having a light; an inclosing reflector, open at the top and with its upper edge above the line of the light; a diffusing shade above the reflector; and a frame connected to the reflector, said connection including a hinge, whereby the frame may be swung to one side.

4. A portable lamp, having a light; an inclosing reflector, open at the top and with its upper edge above the line of the light; a diffusing shade above the reflector; a frame above the reflector, a standard connected to the frame; a friction joint connecting the frame and standard; and means connecting the shade and standard.

5. A portable lamp, having a light; an inclosing reflector, open at the top and with its upper edge above the line of the light; a diffusing shade above the reflector; a frame above the reflector, the support for the frame including a hinge joint; a standard connected to the frame; a friction joint, connecting the frame and standard; and adjustable means between the diffuser and standard, permitting vertical adjustment of the shade.

1,079,316. **JACK.** WILLIAM J. PAGE, Grand Rapids, Mich., assignor to Page Corporation, a Corporation of Michigan. Filed Jan. 15, 1912. Serial No. 671,279. (Cl. 57-15.)



1. In a jack for vehicles, a lever adapted to directly engage an axle of the vehicle near its wheels and having its fulcrum stationary, a second lever adapted to engage the other axle of the vehicle near its wheels, and means for simultaneously operating both levers, the distance between the levers' fulcrums being greater than that between their points of such engagement.

2. In a jack for vehicles, a lever adapted to raise an axle of the vehicle, a second lever adapted to raise the other axle of the vehicle, means for supporting the fulcrum of one of said levers in a raised position and releasing it therefrom, and means for simultaneously operating both levers.

3. In a jack for vehicles, a lever adapted to raise an axle of the vehicle, a second lever comprising arms adapted to raise the other axle of the vehicle, the arms being divergently separable at their fulcrum ends, and means for simultaneously operating both levers.

4. In a jack for vehicles, a lever adapted to raise an axle of the vehicle, a second lever comprising arms adapted to raise the other axle of the vehicle and being laterally separable at their fulcrum ends, means for supporting the fulcrums of said arms in a raised position and releasing them therefrom, and means for simultaneously operating said first mentioned lever and said arms.

5. In a jack for vehicles, a lever adapted to raise an axle of the vehicle, a second lever adapted to raise the other axle of the vehicle, and a toggle for raising both levers simultaneously.

[Claims 6 to 11 not printed in the Gazette.]

1,079,317. **CORN-PROTECTOR.** JAMES EDWARD PULIAM, Port Washington, N. Y. Filed Jan. 11, 1912. Serial No. 670,616. (Cl. 128-28.)



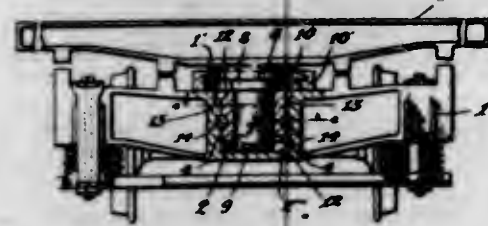
1. A device of the class described comprising a shield made of rubber having a concave face on one edge, walls in continuation of and extending beyond said face, said shield having concave faces on opposite sides of the shield, walls in continuation of and extending beyond said latter faces, and reinforcing rod means interior of said shield.

2. In a device of the character described, a body portion comprising a rubber shield, said shield having a concave face on one edge, the opposite side faces of said shield being concave and reinforcing means including spaced-apart rods extending vertically within said shield, substantially as described.

1,079,318. **TRUCK CONNECTION.** EVIE STEVENS, Stillwater, British Columbia, Canada. Filed May 1, 1913. Serial No. 764,863. (Cl. 105-108.)

1. In combination with a truck having a central recess and a rotatably supported bunk on the truck, spaced locking elements on said truck, spaced locking elements on the bunk engaging beneath those on the truck, and a central bearing on said bunk and projecting below the aforesaid locking elements into the recess in the truck.

2. In combination with a truck and a rotatably supported bunk thereon, spaced locking elements on the truck, spaced locking elements on the bunk engaging under the first named locking elements, and means for closing the space between certain of said locking elements to prevent the dislodging of the second named locking elements from under the first named locking elements.



3. In combination with a truck and a rotatably supported bunk thereon, spaced locking elements on the truck, spaced locking elements on the bunk and engaging beneath the first mentioned locking elements, and means coöperating with certain of said locking elements to prevent displacement of said bunk in any disposition.

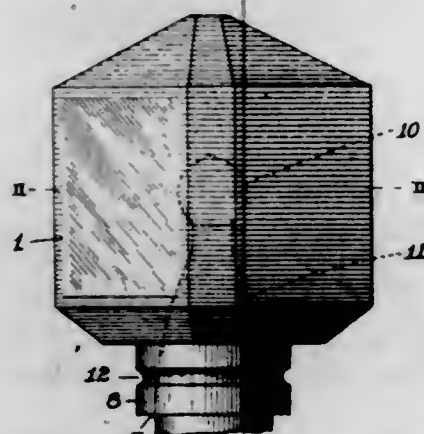
4. In combination with a truck and a rotatably supported bunk thereon, spaced locking elements on the truck, spaced locking elements on the bunk and normally engaging under the first mentioned locking elements, and locking pins interposed between certain of said locking elements.

5. In combination with a truck and a rotatably supported bunk thereon, spaced locking elements on the truck, spaced locking elements on the bunk and normally engaging under the first mentioned locking elements, a locking pin interposed between certain of said locking elements to diminish the space therebetween, and means engaging the pin to prevent dislodgment thereof.

[Claims 6 and 7 not printed in the Gazette.]

REISSUES.

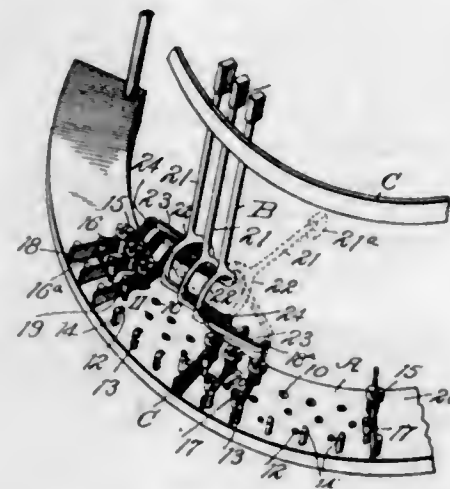
13,648. BICHROMATIC LAMP. JESSE HOWARD FRY, Rochester, Pa. Filed Aug. 25, 1913. Serial No. 786,616. Original No. 1,021,458, dated Mar. 26, 1912, Serial No. 629,000. (Cl. 240—92.)



1. A glass globe for a pilot-light having a plane face formed as a part thereof and having a single opening, the globe body consisting of an inner layer of glass of one color forming the complete globe structure, and an outer layer of glass of a different color integrally united with the said inner layer and covering the said inner layer except the plane-face portion thereof.

2. A globe for a pilot-light having a plane face formed as a part thereof and having a single opening therein, the complete globe being formed of an integral body of glass, the glass forming the outer portion of the globe except said plane face being colored, and the glass forming the inner portion and all of said plane face being clear, whereby a substantially white illuminating light may be transmitted through said plane face and a colored signal light through the other portion of the globe body.

13,649. TYPE-WRITING MACHINE. JOHN A. HAGERSTROM, New York, N. Y., assignor, by mesne assignments, to Victor Typewriter Company. Filed June 13, 1907. Serial No. 378,880. Original No. 810,202, dated Jan. 16, 1906, Serial No. 240,370. (Cl. 197—38.)



1. In a typewriting machine, the combination of a plurality of type-bars, said bars having lateral bearing extensions, a pair of independent hanger-arms for each bar, bearing connections between said hanger-arms and extensions, the members of a pair of hanger-arms having intervening between them members of other pairs of hanger-arms, and the axes of rotation of said bars forming chords of circle whose center is the striking point of the machine.

2. In a typewriting machine, the combination of a plurality of type-bars, said bars having lateral bearing extensions, a pair of independent hanger-arms for each bar, bearing connections between said hanger-arms and extensions, means to adjust said hanger-arms, the members of a pair of hanger-arms having intervening between them members of other pairs of hanger-arms, and the axes of rotation of said bars forming chords of circle whose center is the striking point of the machine.

3. In a typewriting machine, the combination of a plurality of type-bars, said bars having an arched fulcrum end and the arch portion whereof is substantially radial to the printing center of the machine, bearing extensions springing laterally from the limbs of the arch portion, a pair of independently-mounted hanger arms for each type-bar, bearing connections between said hanger-arms and extensions, and the members of each pair of hanger-arms having intervening between them members of other pairs of hanger-arms.

4. In a typewriting machine, the combination of a plurality of type-bars, said bars having an arched fulcrum end and the arch portion whereof is substantially radial to the printing center of the machine, bearing extensions springing laterally from the limbs of the arch portion, a pair of independently-mounted hanger-arms for each type-bar and bearing connections between said hanger-arms and extensions, said bars mounted in nested arrangement with the bearing extensions of one bar intersecting the planes of rotation of one or more adjacent bars.

5. In a typewriting machine, the combination of a plurality of type-bars, each bar formed at its fulcrum end with an arched portion, said arched portion being transverse to the axis of rotation of the bar, a lateral bearing extension springing from each limb of the arched portion, a pair of independently mounted hanger-arms for each bar, the members of the pair having bearing connections with the lateral extensions of a bar, and said bars mounted with their lateral extensions in nested arrangement one with another.

6. In a typewriting machine, the combination of a plurality of type-bars, each bar formed at its fulcrum end with an arched portion, said arched portion being transverse to the axis of rotation of the bar, a lateral bearing extension extending from the ends of the arched portion obliquely to the plane of rotation of the bar, a pair of separately mounted hanger-arms for each bar, and

bearing connections between said hanger-arms and the free ends of said extensions.

7. In a typewriting machine, the combination of a plurality of type-bars, each bar having a pair of bearing extensions extending in each direction laterally from the plane of rotation of the bar, an arched portion connecting the said extensions to the shank or body of the bar, a pair of separately mounted hanger-arms for each bar and bearing connections between said hanger-arms and said extensions.

8. In a typewriting machine, the combination of a plurality of type-bars, each bar having a pair of bearing extensions extending in each direction laterally from the plane of rotation of the bar, an arched portion connecting the said extensions to the shank or body of the bar, said arched portion transverse to the axis of rotation of the bar, a pair of separately mounted hanger-arms for each bar and bearing connections between said hanger-arms and said extensions.

9. In a typewriting machine, the combination of a plurality of type-bars, each bar having a pair of bearing extensions extending in each direction laterally from the plane of rotation of the bar, an arched portion connecting the said extensions to the shank or body of the bar, the lateral extensions of one bar extending beyond the arched portions of adjacent bars, a pair of separately mounted hanger-arms for each bar and bearing connections between said hanger-arms and said extensions.

10. In a typewriting machine, the combination of a plurality of type-bars, each bar having a pair of bearing extensions extending in each direction laterally from the plane of rotation of the bar, a branch or member uniting said bearing extensions to the shank or body of the bar, said branch extending away from the axis of the bar and in the direction of its plane of rotation, a pair of separately mounted hanger-arms for each bar and bearing connections between said hanger-arms and said extensions.

11. In a typewriting machine, the combination of a plurality of type-bars, each bar formed with a shank carrying the type at one end thereof, divergent branches springing from said shank at a point short of the axis of rotation of the bar, said branches extending in a direction transverse to said axis, bearing extensions extending from said branches laterally on each side of the plane of rotation of the bar, and a pair of separately mounted hanger-arms, said hanger-arms having bearing connections with the bearing extensions.

12. In a typewriting machine, the combination of a plurality of separately mounted hanger-arms, said hanger-arms arranged in pairs with adjacent hanger-arms pertaining to different pairs, a plurality of type-bars, each type-bar having lateral bearing extensions connecting it with its pair of hanger-arms and an arched member connecting said bearing extensions with the shank of the bar, said arched portion forming a clearance for the lateral extensions of adjacent bars.

13. In a typewriting machine, the combination of a plurality of adjacently mounted type-bars, a pair of separately mounted hanger-arms for each bar, the members of each pair non-adjacently mounted, lateral bearing extensions for each bar connecting the same with its pair of hanger-arms, an arched offset connecting said extensions to the shank of the bar, said arched offset forming a clearance for lateral extensions of adjacent bars to one side of a given bar, and the lateral extensions to that side of said given bar moving in the clearance formed by the arch members of said adjacent-bars.

14. In a typewriting machine, the combination of a supporting plate, hanger-arms for type-bars mounted on said plate, abutments on said plate for each hanger-arm, means for exerting lateral pressure on said hanger-arms, whereby said hanger-arms are secured in position and held between said pressure means and the abutments.

15. In a typewriting machine, the combination of a hanger support, lateral abutments radially arranged on said support, a plurality of hanger-arms, mounted upon said support against said abutments, securing screws for said hangers, said screws lying in arcs of concentric

circles and means for holding said hanger arms against said abutments, lateral movement of each of said hanger arms being prevented by the sides of its abutments.

16. In a typewriting machine, the combination of a supporting plate for the hanger arms, abutments arranged in pairs on said supporting plate, hanger arms on said plate, and each supported laterally by a pair of said abutments, and means to hold the hanger arms against the abutments.

17. In a typewriting machine, the combination of a supporting plate for the hanger arms, abutments projecting from said plate for laterally supporting the hanger arms, one part of the abutment of each hanger arm being formed by a headed screw, hanger arms mounted on said plate against said abutments, and held between said screw heads and the plate, and adjustable means for holding said arms laterally against the abutments.

18. In a typewriting machine, the combination of a supporting plate, hanger-arms mounted on said plate, type-bar bearings in one end of said arms, a pair of abutments for each hanger-arm, the bearing ends of said arms extending beyond the abutments, and means for exerting variable lateral pressure on said hanger-arms at a point intermediate the abutments whereby said arms are secured in position against said abutments and the type-bar bearings adjusted.

19. In a typewriting machine, the combination of a supporting plate, pairs of posts projecting from said plate, each pair in substantially radial line with the printing center of the machine, hanger-arms mounted on said plate and supported laterally against said pairs of posts, and adjustable pressure devices at the sides of said hanger-arms opposite to the posts, whereby said hanger-arms are held between said posts and pressure devices.

20. In a typewriting machine, the combination of a supporting plate, pairs of posts projecting from said plate, each pair in substantially radial line with the printing center of the machine, hanger-arms mounted on said plate and supported laterally against said pairs of posts, certain of said pairs of posts common to two hanger-arms, and adjustable pressure devices at the sides of said hanger-arms opposite to the posts, whereby said hanger-arms are held between said posts and pressure devices.

21. In a typewriting machine, the combination of a supporting plate, two series of posts rising from said plate, both series concentrically arranged with regard to the printing center of the machine, each of said posts of one series in radial alignment with a post of the other series, hanger-arms mounted on said supporting plate, each hanger-arm bearing against the posts of each series which are in radial alignment, and a series of adjustable pressure devices for exerting lateral pressure on said hanger-arms to hold the same against their posts.

22. In a typewriting machine, the combination of a supporting plate, two series of posts rising from said plate, the posts of one series in radial alignment with the posts of the other series, the posts of one series formed by shoulder screws, hanger-arms mounted on said plate, each hanger-arm lying against a pair of said radially aligned posts, each hanger-arm having a curved offset to engage the screws beneath their shoulders, and a series of adjusting screws in said supporting plate, each adjusting screw arranged intermediate the two posts in radial alignment, and on the side of the hanger-arm opposite to said radially aligned posts, whereby each hanger-arm is held between the posts of one side thereof and the adjusting screw on the other side thereof and between the supporting plate and the shoulder of said screw post.

23. In a typewriting machine, the combination of a supporting plate, pairs of posts projecting from said plate, each pair in substantially radial alignment with the printing center of the machine, the forward post of each pair formed by a shoulder screw, hanger-arms mounted on said plate, each hanger-arm bearing against a pair of posts and engaging beneath the shoulder of the said screw, a variable pressure device engaging each hanger-arm on the side thereof opposite said posts whereby each hanger-arm is secured laterally by said posts and pressure device, and is held against the plate by the shoulder.

24. In a typewriting machine, the combination of a supporting plate, pairs of posts in substantially radial alignment with the printing center of the machine projecting from said plate, the forward posts of said pairs formed of shoulder screws tapped in said plate, taper headed screws tapped in said plate at points intermediate the members of said pairs of posts, hanger-arms mounted on said plate, each hanger-arm arranged between a pair of posts on one side thereof and a taper headed screw on the other side thereof, whereby said hanger-arms are held laterally by said posts and screws and against said plate by the shoulder screws.

25. In a typewriting machine, the combination of a supporting plate, pairs of posts radially aligned with the printing center of the machine projecting from said plate, hanger-arms mounted upon said plate and bearing laterally against said pairs of posts, the bearing ends of said hanger-arms projecting beyond its adjacent post, adjusting screws having inclined surfaces tapped in said plate at points intermediate the members of each pair of posts, said screws engaging said hanger-arms with their inclined surfaces and holding the same against their pairs of posts, whereby adjustment of said screws shifts laterally the bearing ends of said arms and adjusts the type-bar bearing.

26. In a typewriting machine, the combination of a supporting plate, a series of screws tapped in said plate, said series concentrically arranged with the printing center of the machine, a corresponding series of pins similarly arranged in said plate with each pin in substantially radial alignment with one of said screws, hanger-arms mounted on said plate and bearing laterally each against one of said screws and its corresponding pin with the bearing ends of said hanger-arms extending beyond said screws, the screws and pins in the central portion of said plate common to two hanger-arms, one on each side thereof, an adjusting screw for each hanger-arm bearing adjustably against the same in opposition to its screw and pin, said screws situated intermediate the screw and pin pertaining to its hanger-arm whereby the bearing end of the hanger-arm is adjusted by adjusting the pressure of said screw.

27. In a typewriting machine, the combination of a hanger support, a hanger comprising two arms, screws securing said arms in place, a pivotal bearing projection on each hanger-arm, a type-bar having an arched offset transverse to its axis of movement, and lateral bearing extensions provided with seats which engage said bearing projections.

28. In a typewriting machine, the combination of a hanger support, a hanger comprising two arms mounted on said support, an integral bearing projection on each arm, and a type-bar having lateral bearing extensions, seats in said extensions engaging the said bearing projections of the hangers, and an arched offset transverse of the axis of movement of the bar connecting said bearing extensions to the shank of the bar.

29. In a typewriting machine, the combination of a hanger support, a hanger comprising two independent hanger-arms, screws securing said hanger-arms in place, said hanger-arms separately removable and separately adjustable, a pivotal bearing on each hanger-arm and a type-bar having an arched offset transverse of its axis of movement and lateral bearing extensions, said extensions having indentations cooperating with said pivotal bearings on the hanger-arms.

30. A type-bar for typewriting machines, having a shank adapted to carry the type at one end, and having its other end formed in two branches, said branches laterally separated and deflected in opposite directions from the line of the shank, the extremities of said extensions deflected toward each other and intersected by the axis of rotation of the bar, said branches adapted to embrace branches of adjacent type-bars and to provide a clearance therefor.

31. A type-bar having a body portion, said body portion branched at one end into two branches, said branches extending laterally of the direction of stroke of said bar, and having pivotal bearings in their ends,

and said branches having the portions adjacent the body of the bar deflected to lie substantially in the line of stroke of the bar, and to form a clearance for the lateral branches of neighboring bars.

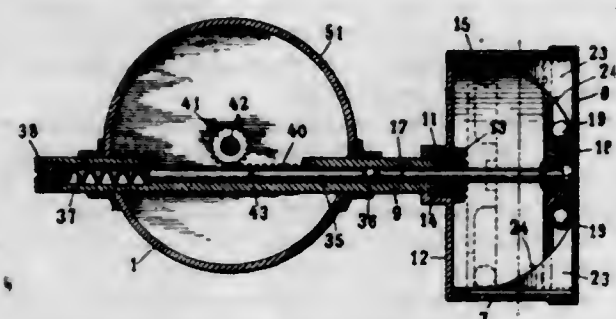
32. In a typewriting machine, a pair of independent hangers, independent supports and lateral adjusting devices for each hanger, a type bar having an arched lower extremity, and foot members extending in opposite directions from, and at an angle to the terminals of said arched extremity, each foot member having an independent pivotal connection with one of said hangers.

33. In a typewriting machine, a pair of hangers, supports and lateral adjusting devices for the same, and a type bar having a lower arched member and foot members extending horizontally in opposite directions from the ends of the arched member, which foot members are pivoted in said hangers.

34. In a typewriting machine, a support, bearing plates in pairs, located on said support, lateral adjusting devices for the bearing plates, a type bar having an arched lower member, radially disposed with reference to the support, horizontal oppositely disposed foot members extending from the arched member, toe extensions from the foot members and pivotal connections between the bearing plates and the toe extension of the type bar.

35. In a typewriting machine, a supporting plate, bearing posts carried by the supporting plate and arranged in transverse rows, bearing plates in pairs, located upon the supporting plate, said bearing plates having semi-circular offsets for engagement with one of said bearing posts, their inner ends being upwardly curved beyond the inner edge of the supporting plates, the outer ends of said bearing plates having engagement with the other of said bearing posts, said bearing plates being also provided with projections from one side face and with conical offsets at their curved inner ends, and type bars having arched lower members radially disposed to the supporting plate and oppositely extending foot members at the ends of the arched members, each foot member having a toe extension provided with a depression to receive the offsets from the inner ends of the bearing plates, and adjusting screws engaging with the projections of the bearing plates, as described.

13,650. SPEED-MEASURE. JOSEPH O. MORRISON, Anderson, Ind., assignor, by direct and mesne assignments, to The Forse Manufacturing Company, a Corporation of Indiana. Filed Aug. 12, 1911. Serial No. 643,804. Original application filed Jan. 16, 1905, Serial No. 241,294. Renewed Mar. 15, 1911, Serial No. 614,702. Original No. 995,412, dated June 13, 1911. (Cl. 73-123.)



1. In a speed measurer and indicator, the combination with a relatively stationary member and a rotary member operatively connected therewith, of a reciprocatory member, centrifugally operative means carried by said rotary member, connections between said means and said reciprocatory member and curved guides within said rotary member to cause said means to move longitudinally as well as radially of said rotary member.

2. In a speed measuring instrument, the combination with its stationary member and rotative member case, of an endwise movable converter rod, and means for indicating its movements, a converter head upon the end of said rod within the case, a kerfed arm provided with a bore within said head, a guide member upon the case accom-

modated within said kerf, and a ball constituting a centrifugal actuating member, movably confined by said guide member within the bore of the converter head.

3. In a speed measurer and indicator, the combination with its stationary member and rotative member of an endwise movable converter rod, and means for indicating its movements, a converter head upon the end of said rod within the case, a kerfed arm provided with a bore within said head, an inclined guide member upon the case accommodated within said kerf, and a ball constituting a centrifugal actuating member, movably confined by said guide member within the bore of the converter head.

4. In a speed measurer and indicator, the combination with a stationary member and rotative member case, of an endwise movable converter rod, an indicator operatively connected therewith and carried by said stationary member, a converter head upon the end of said rod within the case, a kerfed arm provided with a bore within said head, a ball constituting a centrifugal actuating member within the bore of said arm, and a guide member upon the case accommodated within the kerf operatively engaging said ball, and so curved that for equal changes in the rapidity of rotation of the rotative member case said indicator will pass over equal angular distances.

5. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said members being endwise movable relatively to the other member, the endwise movable member being operatively related to said indicator, one of said members having a plurality of radially extending substantially cylindrical unobstructed centrifugal member-carrying channels constructed to prevent lateral displacement of the centrifugal members while leaving said centrifugal members free to revolve therein and permitting movement of said centrifugal members longitudinally of the channels, said channels being open-ended, said member being also provided with a plurality of open ended slots arranged in pairs, one pair for each channel, the slots of each pair cutting through the walls of the corresponding channel on opposite sides coincident with the axis thereof, a centrifugal member in each of said channels shaped conformably with the channel, the other of said members being provided with a plurality of radially disposed arms, each of which enters the open ended slots of one of said channels and forms an end closure for the channel, the inner surfaces of said arms, being inclined with respect to the axis of revolution of said pair of members, so that when the two relatively endwise movable members are revolved together, said centrifugal members acting through centrifugal force, will engage said arms and compel a relative endwise movement between said two members.

6. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said members being endwise movable relatively to the other member, the endwise movable member being operatively related to said indicator, one of said members having a plurality of radially extending substantially cylindrical unobstructed ball carrying channels constructed to prevent lateral displacement of balls while leaving the balls free to revolve therein and permitting movements of the balls longitudinally of the channels, said channels being open-ended, said member being also provided with a plurality of open-ended slots arranged in pairs, one pair for each channel, the slots of each pair cutting through the walls of the corresponding channel on opposite sides coincident with the axis thereof, a plain ball in each of said channels, the other of said members being provided with a plurality of radially disposed arms, each of which enters the open ended slots of one of said ball channels and forms an end closure for the channel, the inner surfaces of said arms being inclined with respect to the axis of revolution of said pair of members, so that when the two relatively endwise movable members are revolved together, said balls, acting through centrifugal force, will engage said arms and compel a relative endwise movement between said two members.

7. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said

members being endwise movable relatively to the other member, one of said members having an axial pin, and the other being provided with an axial bore within which said pin is slidable, the endwise movable member being operatively related to said indicator, one of said members having a plurality of radially extending substantially cylindrical unobstructed ball carrying channels constructed to prevent lateral displacement of balls while leaving the balls free to revolve therein and permitting movement of the balls longitudinally of the channels, said channels being open ended, said member being also provided with a plurality of open ended slots arranged in pairs, one pair for each channel, the slots of each pair cutting through the walls of the corresponding channel on opposite sides coincident with the axis thereof, a plain ball in each of said channels, the other of said members being provided with a plurality of radially disposed arms, each of which enters the open ended slots of one of said ball channels and forms an end closure for the channel, the inner surfaces of said arms, being inclined with respect to the axis of revolution of said pair of members, so that when the two relatively endwise movable members are revolved together, said balls, acting through centrifugal force, will engage said arms and compel a relative endwise movement between said two members.

8. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said pair of members being fixed against movement of translation relatively to the other and the other member being movable relatively to the first of said pair of members, said relatively movable member being operatively related to said indicator, one of said pair of members having a plurality of radially extending centrifugal member-carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, the other of said pair of members being provided with a plurality of arms each of which passes through one of said channels, the inner surfaces of said arms being inclined with respect to the axis of revolution of said pair of members so that when said members are revolved said centrifugal members, acting through centrifugal force will engage said arms and compel a relative movement between said pair of members.

9. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said pair of members being fixed against movement of translation relatively to the other and the other member being movable relatively to the first of said pair of members, said relatively movable member being operatively related to said indicator, one of said pair of members having a plurality of radially extending centrifugal member-carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, the other of said pair of members being provided with a plurality of arms each of which passes through one of said channels, the inner surfaces of said arms being inclined with respect to the axis of revolution of said pair of members, so that when said members are revolved said centrifugal members, acting through centrifugal force will engage said arms and compel a relative movement between said pair of members, and means opposing such relative movement.

10. In a speed measuring instrument, an indicator, a pair of members mounted to revolve together, one of said pair of members being fixed against movement of translation relatively to the other and the other member being movable relatively to the first of said pair of members, one of said members having a pin, and the other being provided with a bore in which said pin is slidable, said relatively movable member being operatively related to said indicator, one of said pair of members having a plurality of radially extending centrifugal member-carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, the other of said pair of members being provided with a plurality of arms each of which passes through one of said channels, the inner sur-

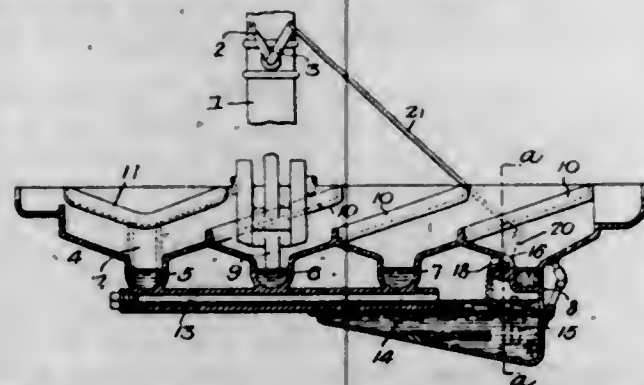
faces of said arms being inclined with respect to the axis of revolution of said pair of members, so that when said members are revolved said centrifugal members, acting through centrifugal force, will engage said arms and compel a relative movement between said pair of members.

11. In a speed measuring instrument, an indicator, a pair of members, one of which is rotatable, one of said pair of members being fixed against movement of translation relatively to the other and the second member being movable relatively to the first of said pair of members, said relatively movable member being operatively related to said indicator, a rotatable one of said pair of members having a plurality of radially extending centrifugal member carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, and parts extending through said channels and compelling relative movement of said relatively movable member when the centrifugal members, acting through centrifugal force, engage said parts.

12. In a device of the kind described, an element to be moved, a pair of members mounted to revolve together, one of said pair of members being fixed against movement of translation relatively to the other and the other member being movable relatively to the first of said pair of members, said relatively movable member being operatively related to said element to be moved, one of said pair of members having a plurality of radially extending centrifugal member-carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, the other of said pair of members being provided with a plurality of arms, each of which passes through one of said channels, the inner surfaces of said arms being inclined with respect to the axis of revolution of said pair of members, so that when said members are revolved said centrifugal members, acting through centrifugal force will engage said arms and compel a relative movement between said pair of members, and means opposing such relative movement.

13. In a device of the kind described, an element to be moved, a pair of members, one of which is rotatable, one of said pair of members being fixed against movement of translation relatively to the other and the second member being movable relatively to the first of said pair of members, said relatively movable member being operatively related to said element to be moved, a rotatable one of said pair of members having a plurality of radially extending centrifugal member-carrying channels adapted to accommodate centrifugal members, a centrifugal member in each of said channels having its axes free for rotation and translation therein, and parts extending through said channels and compelling relative movement of said relatively movable member when the centrifugal members, acting through centrifugal force, engage said parts.

13,651. SPLASH SYSTEM OF LUBRICATION. ERNEST M. WHITE, Globe, Ariz. Filed Jan. 15, 1913. Serial No. 742,286. Original No. 1,030,148, dated June 18, 1912, Serial No. 669,308. (Cl. 184-11.)



1. In a lubricating device consisting of an oil container having an overflow opening; a movable member for taking oil from said container; means for supplying oil to the container; with means for varying the position of the

bottom edge of the overflow opening to vary the depth of oil in the container.

2. The combination of an oil reservoir having an overflow opening; a member periodically entering the reservoir for removing the oil therefrom; means for supplying oil to the reservoir faster than it is removed therefrom by said member; and means for adjusting the overflow to vary the depth of oil in the reservoir.

3. The combination with the throttle of an engine, of a fixed oil reservoir; a movable member mounted to enter the reservoir for removing oil therefrom; means for supplying oil to the reservoir; and a device for varying the depth of oil in the reservoir operatively connected to the throttle so as to be adjustable therewith.

4. The combination with the throttle of an engine, of an oil reservoir having an overflow opening provided with an adjustable member for varying the depth of oil in said reservoir; means for connecting said member with the engine throttle to cause it to be adjusted with said throttle; and means for supplying oil to the reservoir.

5. The combination of an engine crank case having a series of reservoirs formed to be entered respectively by portions of the engine; means for transmitting to certain reservoirs the oil splashed up from other reservoirs; a storage reservoir connected to an end one of said reservoirs; means for delivering oil from the storage reservoir to the other end reservoir; said last reservoir having an overflow opening discharging into the storage reservoir; and means for adjusting the depth at which the oil in said last reservoir discharges through said overflow opening.

6. The combination of a crank case having a series of oil reservoirs respectively entered by moving parts of the engine; means for delivering oil splashed up from certain of the reservoirs into adjacent reservoirs; a storage reservoir connected to receive oil splashed up from an end one of said reservoirs; means for delivering oil from the storage reservoir to the other end reservoir; said last reservoir having an overflow provided with an adjustable structure for varying the depth of oil therein; a throttle for the engine; and means for operatively connecting said throttle with the said adjustable structure.

7. The combination of engine controlling means; a fixed reservoir placed to be entered by a portion of a connecting rod of the engine; and means for varying the depth of oil in the reservoir, said latter means being connected to the engine controlling means.

8. The combination with the fuel supply conduit of an engine, of a throttle in said conduit; an oil supply system for said engine including a reservoir; a valve for controlling the flow from said reservoir mounted to raise the level of oil in the latter when moved in either of two directions from a neutral position; and a member connecting said valve and the throttle.

9. The combination in an engine of a crank case having a main oil reservoir and a series of auxiliary reservoirs, the latter being respectively in positions to be entered by the connecting rods of the engine; means for supplying oil from the main reservoir to one of said auxiliary reservoirs; and means for causing the oil splashed up from one auxiliary reservoir to be passed through all the others, one of the auxiliary reservoirs having an overflow discharging into the main reservoir.

10. The combination in an engine oiling system of a main oil container; auxiliary oil containers placed to be respectively entered by moving parts of an engine and having a level determining overflow to the main container; conduits for causing oil splashed up from each auxiliary container by a moving engine part to be passed to another auxiliary container; and means for delivering oil from the main container to the auxiliary containers.

11. The combination of a crank case; a main oil container; auxiliary oil containers of which one has an overflow to the main container; conduits for causing oil splashed from said latter auxiliary container to flow into another auxiliary container and then to the main container; with means for causing oil to flow from said main oil container to that auxiliary container having the overflow.

12. The combination of a crank case provided with a main container; a series of auxiliary containers in said crank case placed to be respectively entered by moving parts of the engine, there being an overflow from one of the auxiliary containers to the main container; troughs on the wall of the crank case placed to direct oil splashed up from one auxiliary container to another; and means for forcing oil from the main container to one of the auxiliary containers.

13. The combination in an engine oiling system of main and auxiliary containers; conduits for delivering oil splashed up from certain of the auxiliary containers to another auxiliary container; a pump for transferring oil from the main container to one of the auxiliary containers; and a conduit for delivering to the main container the oil splashed up from one of the auxiliary containers.

14. The combination in an engine oiling system of a main and a series of auxiliary containers, one of said latter containers having an overflow to the main container; means for transferring oil from the main container to said first auxiliary container; conduits for delivering oil splashed up from certain of the auxiliary containers to other auxiliary containers; and a conduit for delivering to the main container the oil splashed up from the last auxiliary container of the series.

15. The combination of a crank case having a main container; a series of auxiliary containers in said crank case placed above the main container in positions to be respectively entered by moving parts of an engine, there being an overflow from one of the auxiliary containers to the main container; troughs on the wall of the crank case placed in position to direct oil splashed up from certain auxiliary containers to others; means for transferring oil from the main container to that auxiliary container having said overflow; and a conduit for returning to the main container, the oil splashed up from the last auxiliary container of the series.

16. The combination of a crank case provided with a series of auxiliary containers placed to be respectively entered by moving parts of an engine; a main container below said auxiliary containers; troughs on the wall of the crank case placed to direct oil splashed from one auxiliary container to others; means for transferring oil from the main container to the first auxiliary container; a conduit for returning to the main container oil delivered to the first of the auxiliary containers; and means for conveying to the main container the oil splashed up from the last auxiliary container.

DESIGNS.

44,881. BOTTLE. ANST ALEXANDER and ARNOLD M. STEINBERG, Paris, Tenn. Filed Aug. 27, 1913. Serial No. 787,033. Term of patent 7 years.



The ornamental design for a bottle, as shown.

44,882. BOTTLE. ANST ALEXANDER and ARNOLD M. STEINBERG, Paris, Tenn. Filed Aug. 27, 1913. Serial No. 787,034. Term of patent 7 years.



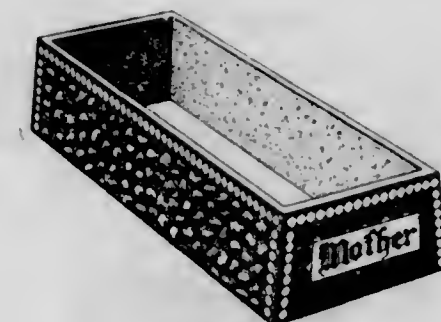
The ornamental design for a bottle, as shown.

44,883. BOTTLE. ANST ALEXANDER and ARNOLD M. STEINBERG, Paris, Tenn. Filed Aug. 27, 1913. Serial No. 787,035. Term of patent 7 years.



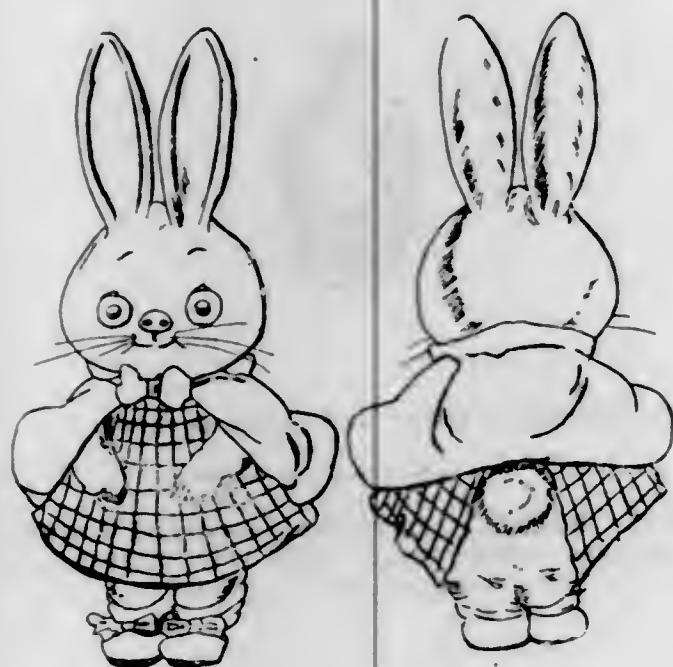
The ornamental design for a bottle, as shown.

44,884. GRAVE-INCLOSURE. HENRY H. ALTHOFF, New York, N. Y. Filed Sept. 30, 1913. Serial No. 792,694. Term of patent 14 years.



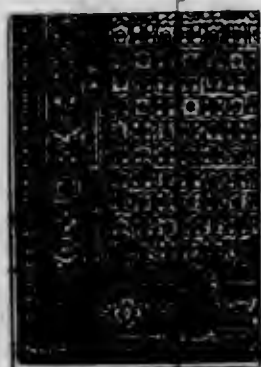
The ornamental design for a grave inclosure, as shown.

44,885. BUNNY-DOLL. GRACE G. DRAYTON, New York, N. Y. Filed Sept. 10, 1913. Serial No. 789,180. Term of patent 3½ years.



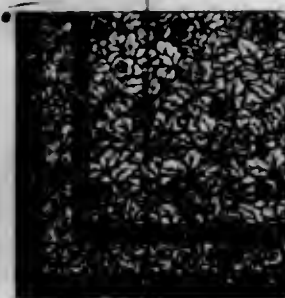
The ornamental design for a bunny doll, as shown.

44,886. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,013. Term of patent 3½ years.



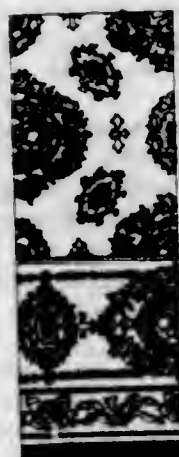
The ornamental design for a carpet, as shown.

44,887. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,014. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,888. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,015. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,889. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,016. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,890. RUBBER MAT. EDWARD HUTCHENS, Milwaukee, Wis., assignor to Federal Rubber Mfg. Co., Milwaukee, Wis. Filed Sept. 19, 1913. Serial No. 790,802. Term of patent 7 years.



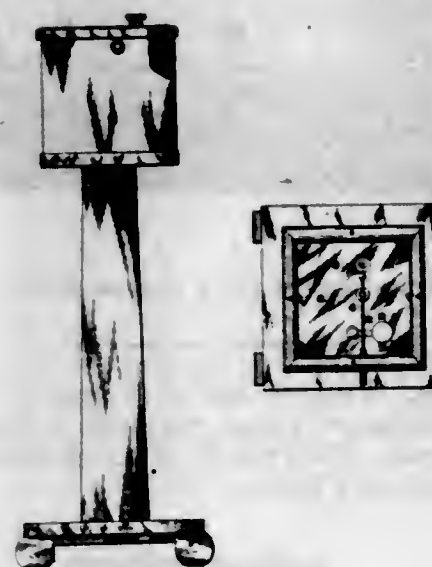
The ornamental design for a rubber mat as shown.

44,891. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,775. Term of patent 7 years.



The ornamental design for a carpet, as shown.

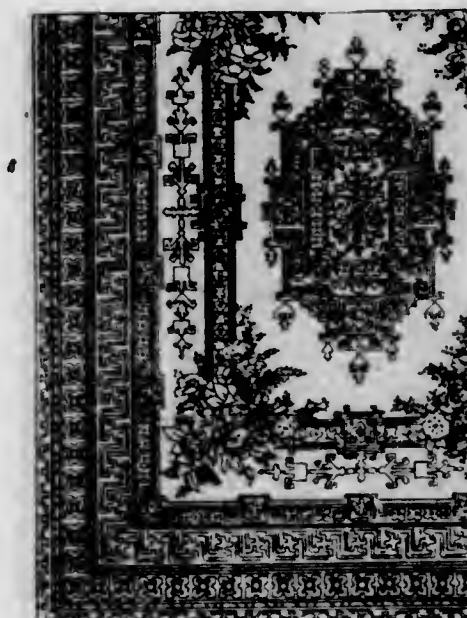
44,892. HIGH-FREQUENCY ELECTRIC CABINET. CHARLES OSCAR NELSON, Cleveland, Ohio. Filed Aug. 23, 1913. Serial No. 786,337. Term of patent 3½ years.



The ornamental design for a high frequency electric cabinet, as shown.

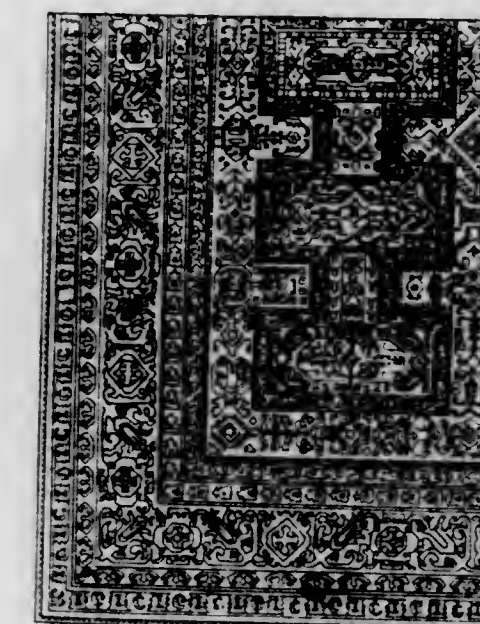
196 O. G.—51

44,893. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,736. Term of patent 3½ years.



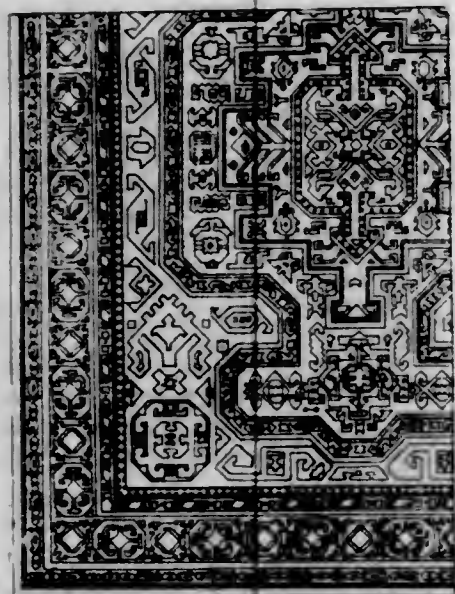
The ornamental design for a carpet or rug as shown.

44,894. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,737. Term of patent 3½ years.



The ornamental design for a carpet or rug as shown.

44,895. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,738. Term of patent $3\frac{1}{2}$ years.



The ornamental design for a carpet or rug as shown.

44,896. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,739. Term of patent $3\frac{1}{2}$ years.



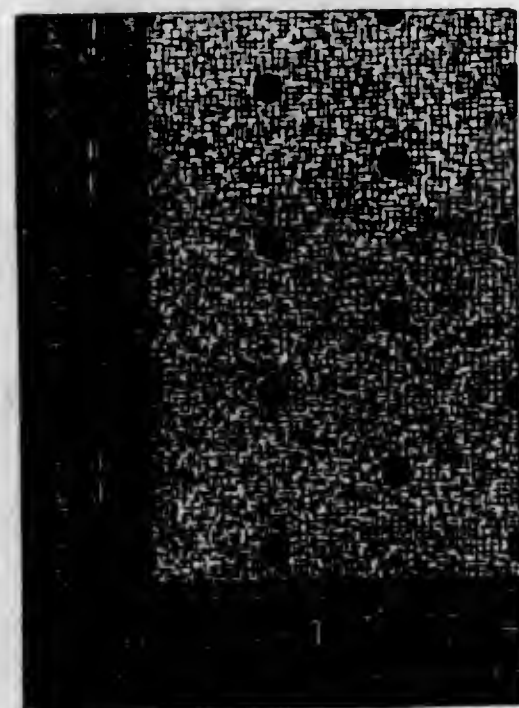
The ornamental design for a carpet or rug as shown.

44,897. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,778. Term of patent $3\frac{1}{2}$ years.



The ornamental design for a carpet, as shown.

44,898. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,779. Term of patent $3\frac{1}{2}$ years.



The ornamental design for a rug, as shown.

44,899. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,780. Term of patent $3\frac{1}{2}$ years.



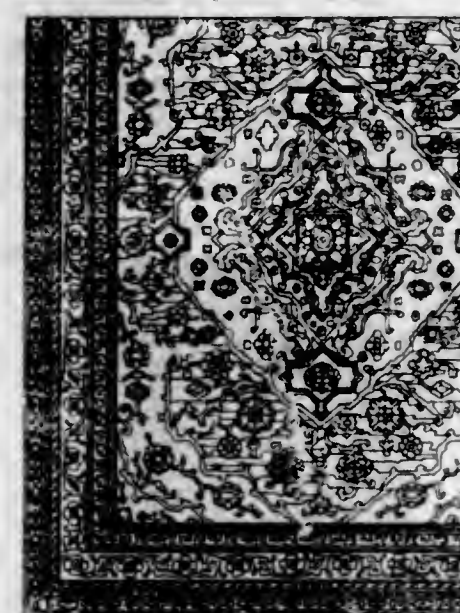
The ornamental design for a rug, as shown.

44,900. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,781. Term of patent $3\frac{1}{2}$ years.



The ornamental design for a rug, as shown.

44,901. CARPET OR RUG. WILLIAM EDWARD SAYERS, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,741. Term of patent $3\frac{1}{2}$ years.



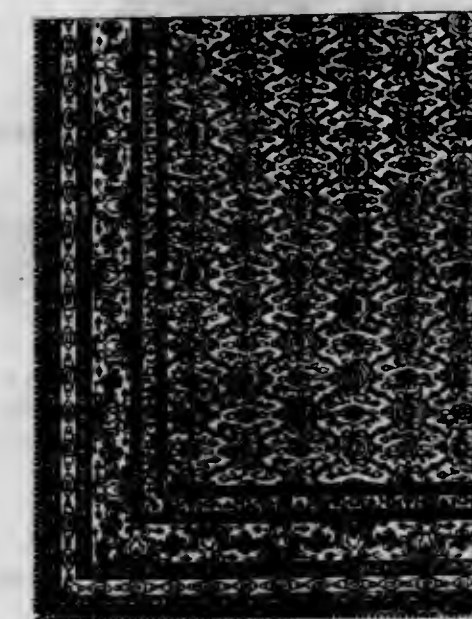
The ornamental design for a carpet or rug as shown.

44,902. CARPET OR RUG. WILLIAM EDWARD SAYERS, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,742. Term of patent $3\frac{1}{2}$ years.



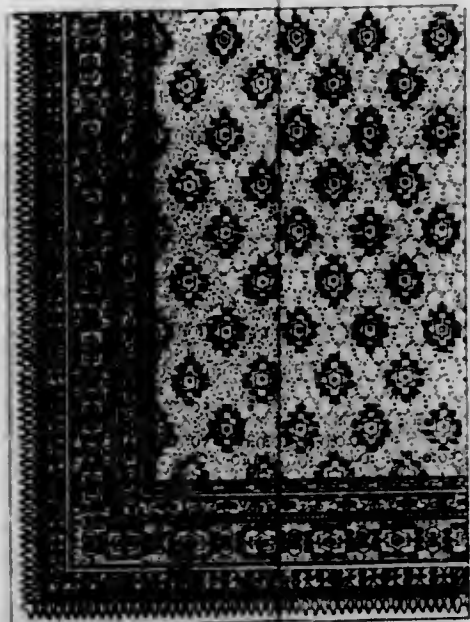
The ornamental design for a carpet or rug as shown.

44,903. CARPET OR RUG. WILLIAM EDWARD SAYERS, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,743. Term of patent $3\frac{1}{2}$ years.



The ornamental design for a carpet or rug as shown.

44,904. CARPET OR RUG. WILLIAM EDWARD SAYERS, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,744. Term of patent 3½ years.



The ornamental design for a carpet or rug as shown.

44,905. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,770. Term of patent 7 years.



The ornamental design for a carpet, as shown.

44,906. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,022. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,907. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,023. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,908. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 6, 1913. Serial No. 793,774. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,909. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 795,018. Term of patent 3½ years.



The ornamental design for a rug, as shown.

TRADE-MARKS

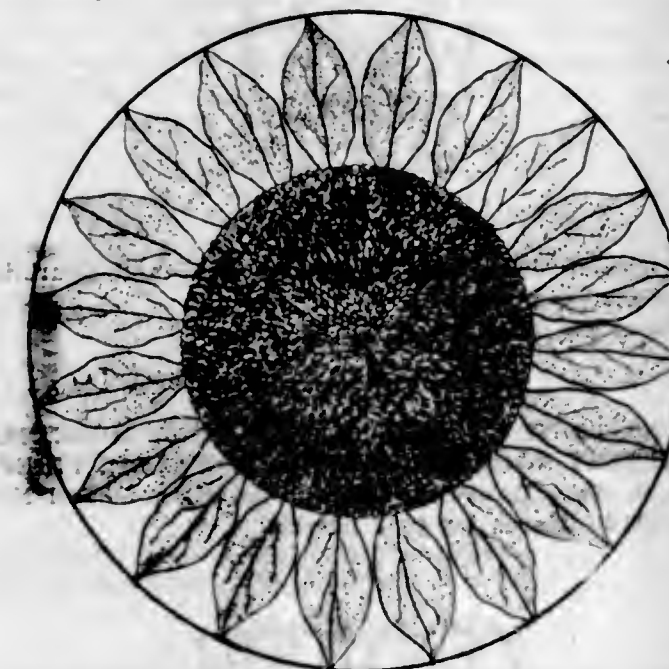
PUBLISHED NOVEMBER 18, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

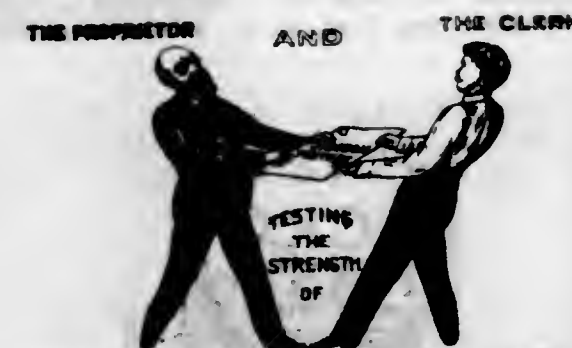
Ser. No. 21,378. (CLASS 15. OILS AND GREASES.) KANSAS CITY OIL CO., Kansas City, Kans. Filed Aug. 8, 1906.



Particular description of goods.—Illuminating and Lubricating Oils.

Claims use since about May 11, 1906.

Ser. No. 42,447. (CLASS 37. PAPER AND STATIONERY.) ROSENTHAL PAPER AND STATIONERY COMPANY, St. Louis, Mo. Filed May 15, 1909.



SAMSON TEXTURE

No claim being made hereby to the wording in the drawing with the exception of the word "Samson."

Particular description of goods.—Wrapping-Paper. Claims use since Sept. 6, 1908.

Ser. No. 53,789. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CROWN CHEMICAL WORKS, London, England. Filed Jan. 9, 1911.

CALMINE

Particular description of goods.—A Medicine to be Used as Analgesic and Hypnotic. Claims use since January, 1908.

Ser. No. 56,791. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FRANKLIN BAKER COMPANY, Philadelphia, Pa. Filed June 2, 1911.

"KOKYNUK-KIDS"

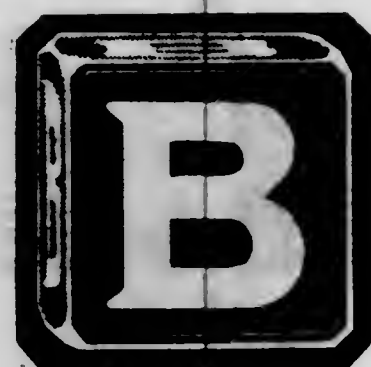
The words "Kokynut-Kids." Particular description of goods.—Shredded Coconut. Claims use since about May 1, 1911.

Ser. No. 57,346. (CLASS 2. RECEPTACLES.) LEONARD R. STEEL, Cleveland, Ohio. Filed June 28, 1911.



Particular description of goods.—Buckets, Cans, and Tubs.
Claims use since April, 1911.

Ser. No. 58,995. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK E. BLOCK COMPANY, Atlanta, Ga. Filed Oct. 4, 1911.



Particular description of goods.—Crackers.
Claims use since October, 1909.

Ser. No. 63,839. (CLASS 32. FURNITURE AND UPHOLSTERY.) CHARLES SUMNER GREENE, Pasadena, Cal. Filed May 27, 1912.

His True Mark

Being my facsimile signature, no claim being made to the words "His True Mark."

Particular description of goods.—Furniture and Upholstery, as Follows: Chairs, Tables, Stands, Commodes, Lounges, Davenports, Sofas, Bedsteads, Dressers, Looking-Glass Frames, Sideboards, Bookcases, Desks, Hat-Racks, Cabinets, Stools, Benches, Piano-Cases, Piano Benches and Stools.

Claims use since Nov. 30, 1910.

Ser. No. 66,224. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LIQUID SALOL COMPANY, Chicago, Ill. Filed Oct. 10, 1912.

Pheno-Septol

Particular description of goods.—An Antiseptic and Germicide Compound.
Claims use since 1900.

Ser. No. 66,445. (CLASS 47. WINES.) C. F. ECCARDT & Co., Kreuznach, Germany, and New York, N. Y. Filed Oct. 21, 1912.



Particular description of goods.—Still and Sparkling White and Red Wines.
Claims use since Feb. 3, 1879.

Ser. No. 66,672. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) W. S. NOTT COMPANY, Minneapolis, Minn. Filed Nov. 4, 1912. Under ten-year proviso.

KENWOOD

Particular description of goods.—Rubber Belting and Rubber Hose.
Claims use since about July 1, 1888.

Ser. No. 67,249. (CLASS 39. CLOTHING.) ABRAHAM C. ROTHSTEIN, New York, N. Y. Filed Dec. 5, 1912.



The words "Premier Quality," "Hats," "New York," "Trade Mark Reg." being disclaimed.
Particular description of goods.—Ladies' Hats.
Claims use since Nov. 1, 1912.

[Vol. 196. No. 3.]

Ser. No. 68,421. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CASWELL BARRIE, New York, N. Y. Filed Feb. 10, 1913.



No claim is made herein to the word—"Barrie."
Particular description of goods.—Soaps.
Claims use since Jan. 2, 1913.

Ser. No. 68,587. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) STAUFFER, ESHLEMAN & Co. LTD., New Orleans, La. Filed Feb. 17, 1913.

SECO

The same consisting of the word "Seco."
Particular description of goods.—Cotton-Hooks, Shears, Braces, Chisels, Froes, Handles, Hoes, Hammers, Hatchets, Drawing-Knives, Mattocks, Drifting-Picks, Railroad-Picks, Pliers, Saws, Grass-Hooks, Wedges, Shovels, Spades, and Push-Plates.
Claims use since March, 1912.

Ser. No. 69,246. (CLASS 17. TOBACCO PRODUCTS.) CARDENAS Y Co., Habana, Cuba. Filed Mar. 22, 1913.



Particular description of goods.—Cigars.
Claims use since Oct. 14, 1912.

Ser. No. 69,626. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) SMITH & WESSON, Springfield, Mass. Filed Apr. 5, 1913. Under ten-year proviso.

SMITH & WESSON.

Particular description of goods.—Revolvers, Pistols, Automatic Pistols, Rifles and Guns, and Ammunition.
Claims use since 1857.

Ser. No. 69,768. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FERMENT COMPANY, New York, N. Y. Filed Apr. 14, 1913.



Particular description of goods.—Bacteriological Products Prepared in Both Tablet and Liquid Form, Containing in Symblolis the Amylolytic Bacterium (*Glycobacter Peptolyticus*) and the *Bacillus Bulgaricus* Selected.

[Vol. 196. No. 3.]

Studied, and Recommended by Professor Elie Metchnikoff, Institut Pasteur, Paris, France, for the Modification of the Intestinal Microbic Flora, the Treatment and Prevention of Bacterial Infection of the Intestines, Intestinal Toxemia, Intestinal Auto-Intoxications, Ailments Resulting from Auto-Intoxications, Arteriosclerosis, and Premature Old Age.

Claims use since about Dec. 15, 1912.

Ser. No. 70,199. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILSON B. BRAY, Belvidere, N. J. Filed May 3, 1913. Under ten-year proviso.

ALBER

Wilson B. Bray

The signature being a facsimile of the applicant's.
Particular description of goods.—A Remedy for Dyspepsia.
Claims use since about March, 1892.

Ser. No. 70,281. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. NEUMANN & Co. CHEMISCHE FABRIK G. M. B. H., Charlottenburg, Germany. Filed May 7, 1913.

„Valamin“

Particular description of goods.—Medicinal Nerve-Sedative Preparations.
Claims use since Jan. 6, 1913.

Ser. No. 70,598. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR STORES COMPANY, Jersey City, N. J. Filed May 23, 1913.



No claim being made to the exclusive right to the word "Cigars."
Particular description of goods.—Cigars, Cigarettes, and Manufactured Tobacco.
Claims use since September, 1905.

Ser. No. 70,705. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EARLEY WILBUR ADAMS, Philadelphia, Pa. Filed May 28, 1913.

Napier

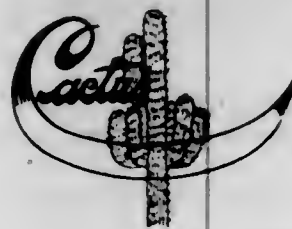
The exclusive use of the word "Napier" not being claimed.
Particular description of goods.—Candy.
Claims use since Apr. 28, 1913.

Ser. No. 70,802. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RECKITT'S (U. S. A.), LTD., New York, N. Y., and New Brunswick, N. J. Filed May 31, 1913. Under ten-year proviso.



Particular description of goods.—Bluing for Laundry Purposes.
Claims use since before 1880.

Ser. No. 71,019. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KRAKAUER, ZORK & MORE'S SONS, INC., El Paso, Tex. Filed June 11, 1913.



Particular description of goods.—Axes, Files, Wrenches, Nail-Hammers, Tack-Hammers, Lathing-Hatchets, Shingling-Hatchets, Claw-Hatchets, Drawing-Knives, Planes, Auger-Bits, Drill-Bits, Bit-Braces, Handsaws, Shovels, and Agricultural Forks.
Claims use since 1907.

Ser. No. 71,072. (CLASS 33. GLASSWARE.) THE JEFFERSON GLASS COMPANY, Follansbee, W. Va. Filed June 12, 1913.



Particular description of goods.—Glass Lamp Shades and Globes.
Claims use since May 13, 1913.

Ser. No. 71,330. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRIS HUBBARD AYER, New York, N. Y. Filed June 24, 1913.

Ayer's

Particular description of goods.—Adeps-Lane Cream, Alkenna Powder, Almond-Meal, Aromatic Ozonizer, Antiseptic Washing-Water, Aromatic Vinegar, Astringent for Relaxed Tissues, Almond-Honey, Cucumber-Lotion, Bando-line, Benzoin, Bath Essence, Bath-Powder, Bath-Vinegar, Bath-Salts, Brilliantine, (Liquid.) Brilliantine, (Pomade.) Bay-Rum, Camphor-Ice, Cocoa-Butter, Cold-Cream, Cologne-Water, Cuticle-Acid, Cuticle-Softener, Complexion-Balm, Cuticle-Ice, Cuticle-Cream, Cuticle-Powder, Depilatory, (Liquid.) Depilatory, (Dry.) Depilatory, (Paste.) Disinfectant, Eye-Lotion, Eyebrow-Pencil, Face-Powder, Face-Powder, (Liquid.) Face-Powder, (Pomade.) Face-Cream, Face-Lotion, Face-Bleach, Freckle-Cream, Foot-Ice,

Freckle-Lotion, Foot-Cream, Foot-Powder, Frost-Bite Lotion, Frost-Bite Salve, Foot-Lotion, Finishing-Cream, Glove-Perfume Powder, Grease-Paint, Hair-Pomade, Hair-Whitener, Hair-Powder, Hair-Dye, Hair-Color, Hair-Bleach, Hair-Oil, Hair Essence, Hair-Tonic, Hand-Whitener, Hand-Lotion, Hand-Salve, Honey-Lotion, Head-Lotion, Hair-Waver, Headache-Cologne, Incense, Lip-Pencil, Lip-Pomade, Lip-Rouge, Massage-Cream, Mouth-Tablets, Mouth-Lotion, Milk of Cucumber, Mutton-Tallow, Refined and Perfumed, Menthol Pencils, Moth and Freckle Lotion, Mouth-Wash, Non-Alcoholic Perfumes, Nail-Polish, Nail-Enamel, Nail-Acid, Nail-Bleach, (Powder.) Nail-Bleach, (Liquid.) Nail-Pomade, Nail-Polish, (Cake.) Nail-Tint, Non-Greasy Cream, Nail-Rouge, Nail-Powder, Orange-Wood Sticks, Oatmeal-Powder, Toilet Paste, Pomade, Perspiration-Powder, Perspiration-Cream, Perspiration Liquid, Powder - Papers, Handkerchief - Perfume, Body - Perfume, Room-Perfume, Perfume-Tablets, Perfume-Pencils, Rouge-Pomade, Rouge, (Liquid.) Rouge, (Dry.) Rouge, (Paste.) Rice-Powder, Cheek-Rouge, Rouge-Leaves, Strawberry-Cream, Strawberry-Lotion, Strawberry-Vinegar, Skin and Tissue Builder, Skin-Whitener, a Lotion for Use After Shaving, Non-Greasy Shaving-Cream, Stick - Cosmetic, Sachet-Powder, Smelling-Salts, Skin-Lotion, Shampoo, (Powder.) Shampoo, (Liquid.) Synthetic Perfumes, Toilet Water, Toilet Powder, Talcum, (Liquid.) Talcum, (Dry.) Toilet Cream, Toilet Cerate, Toilet Lotion, Tooth-Powder, Tooth-Paste, Tooth-Wash, Tooth-Cream, Theatrical Make-Up, Toilet Vinegar, Toilet Borax, Toilet Glycerin, Theatrical Powder, Theatrical Cream, Theatrical Rouge, Troche for the Breath, Vanishing-Cream, Wrinkle-Eradicator, Water-Softener.

Claims use since Jan. 1, 1898.

Ser. No. 71,419. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) ACME WHITE LEAD & COLOR WORKS, Detroit, Mich. Filed June 28, 1913.

ACME QUALITY

Particular description of goods.—Brushes for Painters' Use.
Claims use since Mar. 13, 1913.

Ser. No. 71,446. (CLASS 39. CLOTHING.) F. MAYER BOOT & SHOE CO., Milwaukee, Wis. Filed June 30, 1913.



HONORBIET

No particular claim being made for the words "Milwaukee," "Trade Mark," and "Custom Made" and "Mayer."
Particular description of goods.—Leather Boots and Shoes.
Claims use since 1912.

Ser. No. 71,453. (CLASS 39. CLOTHING.) WEIL-KAL-TER MFG. CO., St. Louis, Mo. Filed June 30, 1913.

WYKO

Particular description of goods.—Silk and Jersey Petticoats.
Claims use since May 1, 1913.

[Vol. 196. No. 3.]

Ser. No. 71,469. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOWARD W. BOYNTON, New York, N. Y. Filed July 2, 1913.

BORASALT

Particular description of goods.—Washing-Powder.
Claims use since March, 1912.

Ser. No. 71,471. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARCLAY & BARCLAY, New York, N. Y. Filed July 2, 1913.

Alexander Barry

Showing a facsimile of the signature "Alexander Barry."
Particular description of goods.—Soaps.
Claims use since June 20, 1913.

Ser. No. 71,539. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JOHNSON-LAYNE COFFEE CO., St. Louis, Mo. Filed July 5, 1913.

DINING CAR

Particular description of goods.—Coffee.
Claims use since about Dec. 10, 1908.

Ser. No. 71,549. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MATTHEW J. WHITTALL, Worcester, Mass. Filed July 5, 1913.



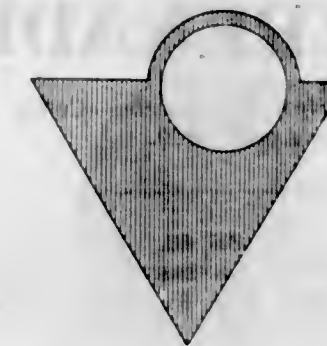
Particular description of goods.—Carpets and Rugs.
Claims use since Jan. 1, 1907.

Ser. No. 71,843. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed July 18, 1913.

FERROTUBAN

Particular description of goods.—A Pharmaceutical Product Obtained from the Alt Tuberculin Koch and Particularly Applicable as a Specific in the Treatment and Diagnosis of Tuberculosis, (Consumption.)
Claims use since Nov. 18, 1910.

Ser. No. 71,970. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LASH'S BITTERS CO., San Francisco, Cal., and New York, N. Y. Filed July 25, 1913.



The trade-mark consisting of a red triangle and white disk.
Particular description of goods.—Liver-Bitters.
Claims use since June 6, 1913.

Ser. No. 72,038. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ALEXANDER COPPEL, Solingen, Germany. Filed July 30, 1913.



Particular description of goods.—Tubes, Pedals, Sprockets, Cranks, Pedal-Bearings, Axles, Axle-Housings, Handle-Bar Heads, Bifurcated Heads, Lamp-Holders, and Brake-Hinges.
Claims use since Jan. 28, 1903.

Ser. No. 72,131. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed Aug. 2, 1913.



Particular description of goods.—Coffee.
Claims use since July, 1880.

Ser. No. 72,132. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed Aug. 2, 1913.



Particular description of goods.—Coffee.
Claims use since June, 1880.

Vol. 196. No. 3.]

Ser. No. 72,134. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed Aug. 2, 1913.

SERENADE

Particular description of goods.—Coffee.
Claims use since April, 1909.

Ser. No. 72,174. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEVERETT B. SIDWAY, Godfrey and Chicago, Ill. Filed Aug. 5, 1913. Under ten-year proviso.

"TENDER STALK"

Particular description of goods.—Fresh or Garden Asparagus.
Claims use since about the year 1890.

Ser. No. 72,241. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE ARTHUR CHEMICAL Co., New Haven, Conn. Filed Aug. 9, 1913. Under ten-year proviso.

George Lorens

Particular description of goods.—Soaps.
Claims use since 1864.

Ser. No. 72,256. (CLASS 5. ADHESIVES.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

Particular description of goods.—Cement Adapted for Use as an Adhesive for Household Purposes.
Claims use since June 1, 1913.

Ser. No. 72,259. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

Particular description of goods.—Lighting-Burners for Lamps; Candle-Wicks; Peanut-Roasters, and Lamp-Wicks.
Claims use since June 1, 1913.

Ser. No. 72,262. (CLASS 2. RECEPTACLES.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

Particular description of goods.—Bags; Butter-Dishes Made of Wood, Fiber, or Paper; Flour-Sacks; Paper Bags; Paper Sacks.
Claims use since June 1, 1913.

Ser. No. 72,272. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

Particular description of goods.—Clothes-Irns.
Claims use since June 1, 1913.

Ser. No. 72,285. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ELECTRO IMPORTING Co., New York, N. Y. Filed Aug. 11, 1913.



Particular description of goods.—Telephones, Telegraph Instruments, Wireless Telephones, Wireless-Telegraph Instruments, Electrical Conductors, Insulators, Wireless-Telegraph Apparatus, Wireless-Telephone Apparatus, Static Machines, Electrolytic Rectifiers, Storage Batteries, Batteries, Spark-Coils, Tesla Transformers, Copper-plating Outfits, Nickelplating Outfits, Voltmeters and Ammeters, Electrical Flash-Lights, Medical Coils, Switches, Automatic Cut-Outs, Rheostats, Telegraph-Keys, Dynamos, Electric Motors, Electric Bells, Electric Wires.
Claims use since Jan. 3, 1912.

Ser. No. 72,289. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KOHLER Co., Sheboygan, Wis. Filed Aug. 11, 1913. Under ten-year proviso.

KOHLER

Particular description of goods.—Bath-Tubs, Lavatories, Sinks, Water-Closets, Closet-Tanks, Urinals, Slop-Sinks, Traps, Sitz-Baths, Foot-tubs, Receptors for Use in Connection with Showers, Baby-Baths, Lavatory-Bowls, Drain-Boards, Sink-Backs, Closet-Bowls, and Closet-Tanks.
Claims use since 1873.

Ser. No. 72,303. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) McPHERSON HEIGHTS CITRUS ASSOCIATION, McPherson, Cal. Filed Aug. 12, 1913.

WILLIAM
TELL

Particular description of goods.—Citrus Fruits.
Claims use since Nov. 25, 1912.

Ser. No. 72,304. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) McPHERSON HEIGHTS CITRUS ASSOCIATION, McPherson, Cal. Filed Aug. 12, 1913.

Robin
Hood

Particular description of goods.—Citrus Fruits.
Claims use since June 1, 1913.

Ser. No. 72,391. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) MORRIS BLEENDES, Brooklyn, N. Y. Filed Aug. 18, 1913.



No claim being made to the words "Space Saver" and "Come-Packt."
Particular description of goods.—Dress-Forms.
Claims use since Nov. 1, 1912.

Ser. No. 72,397. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KALLE & CO. AKTIENGESELLSCHAFT, Bleibach-on-the-Rhine, Germany. Filed Aug. 18, 1913.

Acetoform

The trade-mark consists of the arbitrary or fanciful word "Acetoform."

Particular description of goods.—Aluminium-Acetate Compounds to be Used as Disinfectants in the Form of Solutions, Ointments, Powders, or Tablets.
Claims use since Apr. 15, 1904.

Ser. No. 72,422. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany. Filed Aug. 19, 1913.

Neohexal

Particular description of goods.—Internal Disinfectants for Uric-Acid Diathesis and Genital Urinary Inflammations.
Claims use since Oct. 8, 1912.

Ser. No. 72,469. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REBECCA ANN HOPKINS, Culver, Oreg. Filed Aug. 21, 1913.



The same being a portrait of myself.
Particular description of goods.—Hair-Tonic.
Claims use since Aug. 1, 1911.

Ser. No. 72,478. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. C. AYER COMPANY, Lowell, Mass. Filed Aug. 22, 1913. Under ten-year proviso.



The words "Prepared by . . . practical and analytical chemists, Lowell, Mass., U. S. A., Proprietary" are not essential and are hereby disclaimed.
Particular description of goods.—Cathartic Pills.
Claims use since July 1, 1883.

Ser. No. 72,479. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. C. AYER COMPANY, Lowell, Mass. Filed Aug. 22, 1913. Under ten-year proviso.



The words "Trade-mark adopted July, 1883, Proprietary" are not essential and are hereby disclaimed.
Particular description of goods.—Sarsaparilla, Cherry Pectoral, Ague Remedy, Hair-Vigor, and a Laxative and Digestive Tonic.
Claims use since July 1, 1883.

Ser. No. 72,512. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. & O. AUTO SUPPLY Co., Pasadena, Cal. Filed Aug. 25, 1913.

F&O

Particular description of goods.—A Decarbonizer.
Claims use since July 1, 1913.

Ser. No. 72,533. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Aug. 26, 1913.

SIGNET

Consisting of the word "Signet."
Particular description of goods.—Belt-Dressings, Shoe and Leather Polishes, and a Polish for Silver, Brass, Nickel, and other Metals.
Claims use since Jan. 15, 1913, in connection with the belt-dressing; in connection with the shoe-polish since Aug. 1, 1913, and in connection with the metal-polish since Aug. 1, 1913.

Ser. No. 72,568. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CALIFORNIA GLOVE COMPANY, San Francisco, Cal. Filed Aug. 28, 1913.

Ka-Ki-No

Particular description of goods.—Leather.
Claims use since Aug. 1, 1913.

Ser. No. 72,586. (CLASS 17. TOBACCO PRODUCTS.) SCHINASI BROS., New York, N. Y. Filed Aug. 29, 1913.



Particular description of goods.—Cigarettes.
Claims use since Jan. 1, 1893.

Ser. No. 72,587. (CLASS 17. TOBACCO PRODUCTS.) SCHINASI BROS., New York, N. Y. Filed Aug. 29, 1913. Under ten-year proviso.

SCHINASI BROS.

The words "Schinasi Bros."
Particular description of goods.—Cigarettes.
Claims use since April, 1893.

Ser. No. 72,631. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FELIX PUCHALSKI, Chicago, Ill. Filed Sept. 2, 1913.



Particular description of goods.—Liniments.
Claims use since May 1, 1913.

Ser. No. 72,651. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WESTERN CLOCK CO., Peru, Ill. Filed Sept. 2, 1913.

BINGO

Particular description of goods.—Clocks and Watches.
Claims use since Aug. 1, 1913.

Ser. No. 72,660. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HIRSCH BROTHERS, Milwaukee, Wis. Filed Sept. 3, 1913. Under ten-year proviso.

THE WEBBER

The word "Webber."
Particular description of goods.—Fanning-Mills, Grain-Separators, and Grain and Seed Cleaning Machines.
Claims use since Sept. 1, 1894.

Ser. No. 72,667. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) NORWOOD SPECIALTY COMPANY, Federalburg, Md. Filed Sept. 3, 1913.



Particular description of goods.—Liquid Polishes for Planos, Furniture, Woodwork, Upholstery, and Vehicle-Bodies.
Claims use since Mar. 31, 1913.

Ser. No. 72,687. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CONTINENTAL WOOD SCREW COMPANY, New Bedford, Mass. Filed Sept. 5, 1913.

Continental

C

The word "Continental" being disclaimed.
Particular description of goods.—Wood-Screws.
Claims use since July 1, 1912.

Ser. No. 72,808. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SAMUEL BUEGELEISEN, New York, N. Y. Filed Sept. 12, 1913.

THE STUDENT

"The Student."
Particular description of goods.—Violins and Parts, Mandolins and Parts, Banjos and Parts, Guitars and Parts, Lute-Mandolins and Parts, Guitar-Mandolins and Parts, Drums and Parts, Banjo-Drums and Parts, Violin-Bows and Parts, Banjeaurines and Parts, Solo-Banjeaurines and Parts, Piccolo-Banjos and Parts, Bass and Cello Banjos and Parts, Banjo-Banjeaurines and Parts, Banjo-Strings, Violin-Strings, Guitar-Strings, Mandolin-Strings, Banjo-Mandolins and Parts.
Claims use since 1888.

Ser. No. 72,871. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SILICON OPERATING CO., Sheridan, Wyo. Filed Sept. 15, 1913.



Particular description of goods.—A Material for Cleaning and Polishing Metal, Glass, Enamel, and Porcelain and for Cleaning Cloth and Removing Grease from the Hands.
Claims use since May 23, 1913.

Ser. No. 72,884. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOLDBERG, BOWEN & CO., San Francisco, Cal. Filed Sept. 16, 1913.

BIG TREE

Particular description of goods.—Baking-Powder.
Claims use since Sept. 20, 1911.

Ser. No. 72,890. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAAS-LIEBER GROCERY COMPANY, St. Louis, Mo. Filed Sept. 16, 1913.



Particular description of goods.—Baking-Powder, Cream of Tartar, Salt, and Bicarbonate of Soda.

Claims use since June 1, 1898, in application to cream of tartar and bicarbonate of soda. It was first used on baking-powder June 1, 1899. It was first used on salt May 1, 1899.

Ser. No. 72,994. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAR-MION QUIGLEY, Cincinnati, Ohio. Filed Sept. 16, 1913.

CAPITOL

Particular description of goods.—Carbon Boiler-Cleaner.
Claims use since July 1, 1913.

Ser. No. 72,964. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BON ARBOR CHEMICAL CO., Paterson, N. J. Filed Sept. 20, 1913.



Particular description of goods.—Worm-Eradicator, Weed and Insect Destroyers, and Disinfectants.
Claims use since November, 1906.

Ser. No. 73,034. (CLASS 43. THREAD AND YARN.) THE BRAINERD AND ARMSTRONG CO., New London, Conn. Filed Sept. 25, 1913. Under ten-year proviso.

IMPERIAL

Particular description of goods.—Embroidery-Silk, Floss-Silk, Wash-Silk, (So Dyed That the Color Will Not Change When Washed,) and Sewing-Silk.
Claims use since Nov. 13, 1894.

Ser. No. 73,067. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. S. COX & BRO. INC., Philadelphia, Pa. Filed Sept. 26, 1913.

FLEXO

Particular description of goods.—Interlining for Garments.
Claims use since August, 1913.

Ser. No. 73,072. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HERBERT R. MAINZER, New York, N. Y. Filed Sept. 26, 1913.

DESKAID

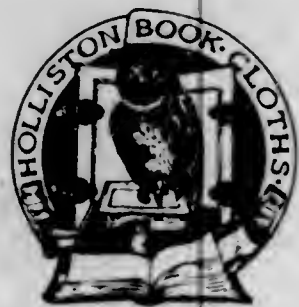
Particular description of goods.—Architects' Rulers.
Claims use since Sept. 8, 1913.

Ser. No. 73,094. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TRIPPE, BARKER & Co., New York, N. Y. Filed Sept. 27, 1913.

SHYNN

Particular description of goods.—Cotton and Linen Piece Goods.
Claims use since about Aug. 28, 1913.

Ser. No. 73,107. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HOLLISTON MILLS, Norwood, Mass. Filed Sept. 29, 1913.



No claim being made to the words "Holliston Book Cloths."

Particular description of goods.—Cloth Used in Book-binding.
Claims use since Sept. 2, 1913.

Ser. No. 73,121. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN CALVIN WITHERSPOON, Davenport, Iowa. Filed Sept. 29, 1913.



Particular description of goods.—A Remedy for Rheumatism, Neuralgia, Gout, Sciatica, Lumbago, Backache, Kidney, Bladder, Liver, Stomach, Uric-Acid, and All Blood Disorders.

Claims use since April, 1910.

Ser. No. 73,122. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS ASPINALL, Bolton, England. Filed Sept. 30, 1913.

MUGILIN

Particular description of goods.—A Chemical Substance for Use in Manufacture for Toning-Size for Cotton and other Fabrics.

Claims use since Feb. 4, 1905.

Ser. No. 73,162. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE I. YOUNG, Baltimore, Md. Filed Oct. 1, 1913.



DRUCO

The portrait being that of applicant's son.

Particular description of goods.—Antiseptic and Healing Solutions for the Treatment of Scalds, Burns, Cuts, Bruises, Ulcers, and Abrasions of the Skin.

Claims use since Sept. 1, 1913.

Ser. No. 73,163. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) YORK MANUFACTURING Co., Saco, Me. Filed Oct. 1, 1913.

KROY

"Kroy."

Particular description of goods.—Cotton Piece Goods.
Claims use since July 25, 1913.

Ser. No. 73,185. (CLASS 15. OILS AND GREASES.) LOUIS B. WALTERS, Philadelphia, Pa. Filed Oct. 3, 1913.

DELCO

Particular description of goods.—Lubricating-Oil.
Claims use since about Sept. 1, 1913.

Ser. No. 73,216. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JEFFERY DEWITT Co., Detroit, Mich. Filed Oct. 4, 1913.

JD

Particular description of goods.—Spark-Plugs and Electrical Terminal Clips.

Claims use since Oct 14, 1908.

[Vol. 196. No. 3.]

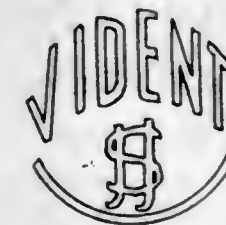
Ser. No. 73,251. (CLASS 20. LINOLEUM AND OILED CLOTH.) THE GEO. W. BLABON COMPANY, Philadelphia, Pa. Filed Oct. 7, 1913.

Linofelt

Particular description of goods.—Linoleum Floor-Cloth.

Claims use since Oct. 1, 1913.

Ser. No. 73,259. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) JULES J. SARRAZIN, New Orleans, La. Filed Oct. 7, 1913.



Particular description of goods.—Tooth-Brushes.
Claims use since Feb. 3, 1912.

Ser. No. 73,260. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULES J. SARRAZIN, New Orleans, La. Filed Oct. 7, 1913.



Particular description of goods.—Lip-Cream.
Claims use since Feb. 3, 1912.

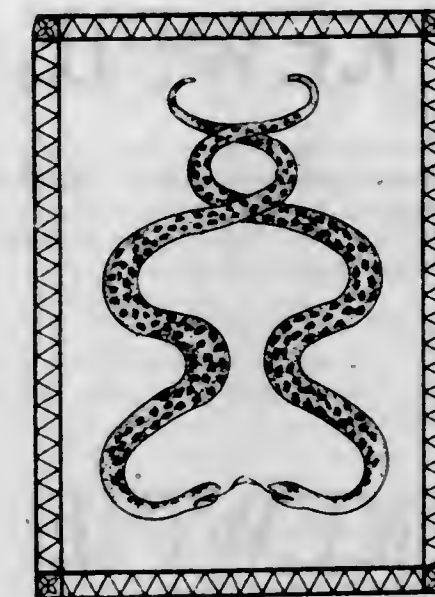
Ser. No. 73,265. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CHAS. H. WILSON, Mount Vernon and New York, N. Y. Filed Oct. 7, 1913.

PYOD

Particular description of goods.—Thermo-Electric Couples Used in Pyrometry for Temperature Measurements.

Claims use since January, 1913.

Ser. No. 73,277. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEUSS, HESSLEIN & Co., New York, N. Y. Filed Oct. 8, 1913.



Particular description of goods.—Woven Cotton Plads.
Claims use since October, 1911.

Ser. No. 73,292. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) A. R. MOSLER & Co., New York, N. Y. Filed Oct. 9, 1913.

VE SUVIUS

Particular description of goods.—Spark-Plugs.
Claims use since July 15, 1909.

Ser. No. 73,314. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) MILLER BROS. & Co., New York, N. Y. Filed Oct. 11, 1913.

Storm Hero

The words "Storm Hero."
Particular description of goods.—Parasols and Umbrellas.
Claims use since Apr. 1, 1911.

Ser. No. 73,319. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNIVERSAL FILM MANUFACTURING COMPANY, Chicago, Ill., and New York, N. Y. Filed Oct. 11, 1913.



Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 8, 1913.

[Vol. 196. No. 3.]

Ser. No. 73,328. (CLASS 2. RECEPTACLES.) GEO. BORGFELDT & Co., New York, N. Y. Filed Oct. 13, 1913.

KEWPIE

Particular description of goods.—Celluloid Toilet-Trays; Puff-Boxes; Hair-Receiver; Soap-Boxes; Jewel, Fancy, and Holiday Boxes; Sewing-Boxes; Pencil-Boxes; Papler-Maché Trays, and Glass-Covered Trays.
Claims use since Oct. 1, 1913.

Ser. No. 73,331. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) GEO. BORGFELDT & Co., New York, N. Y. Filed Oct. 13, 1913.

KEWPIE

Particular description of goods.—Celluloid Hair-Brushes.
Claims use since Oct. 1, 1913.

Ser. No. 73,333. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEO. BORGFELDT & Co., New York, N. Y. Filed Oct. 13, 1913.

KEWPIE

Particular description of goods.—Enameled Steelware.
Claims use since Oct. 1, 1913.

Ser. No. 73,346. (CLASS 2. RECEPTACLES.) PUBLIC SERVICE Co., Harrisburg, Pa. Filed Oct. 13, 1913.

SANIFOLD

Particular description of goods.—Paper Drinking-Cups.
Claims use since July 1, 1912.

Ser. No. 73,348. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Oct. 13, 1913.

Stonewells

Particular description of goods.—Salt, Laundry Starch, Ammonia, and Bluing.
Claims use since December, 1905.

Ser. No. 73,360. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BEACON MINATURE ELECTRIC COMPANY, New York, N. Y. Filed Oct. 15, 1913.



Particular description of goods.—Electric Flash-Light Lamps.
Claims use since Sept. 15, 1913.

Ser. No. 73,371. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BURTON BROS. & Co., New York, N. Y. Filed Oct. 15, 1913.

DUTINE

"Dutine."
Particular description of goods.—Silk, Cotton, or Silk and Cotton Piece Goods.
Claims use since Oct. 10, 1913.

Ser. No. 73,378. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIONEL HAGENAUERS & COMPANY, New York, N. Y. Filed Oct. 15, 1913.

PLINIUS

Particular description of goods.—Glucose.
Claims use since Jan. 24, 1912.

Ser. No. 73,409. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) WILHELM ALBRECHT, Boston, Mass. Filed Oct. 16, 1913.

AMERICAN LEAGUE

Particular description of goods.—Whisky.
Claims use since about December, 1905.

Ser. No. 73,435. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AMERICAN SHEARER MFG. Co., Nashua, N. H. Filed Oct. 17, 1913.

DMESTIKEZE

Particular description of goods.—Apparatus and Adjustable Attachment for the Application of Electric Power to the General Hand-Power Utensils of Ordinary Domestic Use.
Claims use since January, 1913.

Ser. No. 73,508. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE E. INGRAHAM Co., Bristol, Conn. Filed Oct. 20, 1913.

PATHFINDER

Particular description of goods.—Watches.
Claims use since Oct. 1, 1913.

TRADE-MARKS

REGISTERED NOVEMBER 18, 1913.

94,234. PERFUME, TOILET WATER, FACE-CREAM, FACE-POWDER, AND TOOTH-POWDER. ANNA D. ADAMS, Chicago, Ill.
Filed July 26, 1913. Serial No. 71,983. PUBLISHED SEPTEMBER 16, 1913.

94,235. TALCUM POWDER. FRANK GAUIS BURKE, New York, N. Y.
Filed July 24, 1913. Serial No. 71,931. PUBLISHED SEPTEMBER 16, 1913.

94,236. DEVICE FOR THE TREATMENT OF PILES. FRANK S. CHANCE, Indianapolis, Ind.
Filed August 11, 1913. Serial No. 72,295. PUBLISHED SEPTEMBER 9, 1913.

94,237. DOLLS AND TOYS. THE H. B. CLAFLIN COMPANY, New York, N. Y.
Filed July 15, 1913. Serial No. 71,703. PUBLISHED SEPTEMBER 9, 1913.

94,238. HAIR-TONIC. THE COLORIFIC COMPANY, Tampa, Fla.
Filed July 24, 1913. Serial No. 71,937. PUBLISHED SEPTEMBER 16, 1913.

94,239. AUTOMOBILES. WILLIAM A. DE SCHAU, Detroit, Mich.
Filed August 4, 1913. Serial No. 72,151. PUBLISHED SEPTEMBER 9, 1913.

94,240. PHOTOGRAPHIC DEVELOPER. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed August 2, 1913. Serial No. 72,127. PUBLISHED SEPTEMBER 16, 1913.

94,241. PAILS AND BUCKETS FORMED OF CANVAS OR OTHER TEXTILE WATERPROOF FABRIC. EDWARD ELLIS, Minneapolis, Minn.
Filed July 7, 1913. Serial No. 71,562. PUBLISHED SEPTEMBER 9, 1913.

94,242. STARCH FOR TEXTILE-MILL USAGE. EUSTIS, PENNOCK & Co., Boston, Mass.
Filed June 20, 1913. Serial No. 71,214. PUBLISHED SEPTEMBER 9, 1913.

94,243. CRATES. CHARLES W. FERGUSON, Houston, Tex.
Filed March 20, 1913. Serial No. 69,203. PUBLISHED SEPTEMBER 9, 1913.

94,244. PREPARATION FOR THE TREATMENT OF WOUNDS. KALLE & Co., ARTIENGESSELLSCHAFT, Bleibach, Germany.
Filed July 11, 1913. Serial No. 71,660. PUBLISHED SEPTEMBER 16, 1913.

94,245. DENTIFRICE. ROBERT LICH, Sutton, Nebr.
Filed July 12, 1913. Serial No. 71,673. PUBLISHED SEPTEMBER 16, 1913.

94,246. CHILD'S SWING. FRANCIS T. MACKEDON, Brockton, Mass.
Filed July 25, 1913. Serial No. 71,975. PUBLISHED SEPTEMBER 9, 1913.

94,247. OINTMENT. CHARLES E. MCLOUD, Rochester, N. Y.
Filed June 11, 1913. Serial No. 71,024. PUBLISHED SEPTEMBER 16, 1913.

94,248. MENTHOL-ICE. THE MENTHOL-ICE MANUFACTURING Co., Kansas City, Kans.
Filed July 18, 1913. Serial No. 71,866. PUBLISHED SEPTEMBER 16, 1913.

94,249. BEER AND PORTER. MINNEAPOLIS BREWING COMPANY, Minneapolis, Minn.
Filed June 21, 1912. Serial No. 64,321. PUBLISHED SEPTEMBER 16, 1913.

94,250. TOOTH-PICKS. NAVE-MCCORD MERCANTILE Co., St. Joseph, Mo.
Filed May 9, 1913. Serial No. 70,323. PUBLISHED SEPTEMBER 9, 1913.

94,251. PORTLAND CEMENT. NEWAYGO PORTLAND CEMENT COMPANY, Newaygo, Mich.
Filed January 16, 1913. Serial No. 67,948. PUBLISHED JUNE 10, 1913.

94,252. METAL TOOLS USED FOR SHOT-FIRING PURPOSES IN MINES AND QUARRIES. PRICE, PRYSE & COMPANY LIMITED, Westminster, London, England.
Filed April 10, 1913. Serial No. 69,710. PUBLISHED SEPTEMBER 9, 1913.

94,253. TOILET PREPARATION FOR CLEANSING THE PORES OF THE SKIN. PEARL M. RIBBLIN, Los Angeles, Cal.
Filed July 14, 1913. Serial No. 71,689. PUBLISHED SEPTEMBER 16, 1913.

94,254. FRUIT SODA-FOUNTAIN BEVERAGES. THURMAN J. SAULS, Chicago, Ill.
Filed September 7, 1912. Serial No. 65,615. PUBLISHED SEPTEMBER 16, 1913.

94,255. WATER-STERILIZING APPARATUS. SOCIETE NOUVELLE DES STERILISATEURS CANTAUT, Paris, France.
Filed April 22, 1913. Serial No. 69,996. PUBLISHED SEPTEMBER 9, 1913.

94,256. MEDICATED TONIC FOOD. SOUTHALL BROTHERS AND BARCLAY, LIMITED, Birmingham, England.
Filed July 15, 1913. Serial No. 71,717. PUBLISHED SEPTEMBER 16, 1913.

94,257. LINIMENT. SPEEDWAY REMEDY Co., Shelby, Ohio.
Filed July 16, 1913. Serial No. 71,782. PUBLISHED SEPTEMBER 16, 1913.

94,258. ESSENTIAL AND VOLATILE OILS. A. M. TODD COMPANY, Kalamazoo, Mich.
Filed July 18, 1913. Serial No. 71,849. PUBLISHED SEPTEMBER 16, 1913.

94,259. GLUE AND MUCILAGE. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,274. PUBLISHED SEPTEMBER 9, 1913.

94,260. MASSAGE-VIBRATORS. THE VIBRAKO COMPANY, Portland, Me., and Boston, Mass.
Filed June 25, 1913. Serial No. 71,372. PUBLISHED SEPTEMBER 9, 1913.

LABELS

REGISTERED NOVEMBER 18, 1913.

- 17,341.—Title: "JABON CURATIVO DE BARRY." (For Soap.) BARCLAY & BARCLAY, New York, N. Y. Filed June 21, 1913.
- 17,342.—Title: "FIFTH AVENUE GIRL HOSIERY." (For Women's Hosiery.) BERKS KNITTING CO., INC., Reading, Pa. Filed October 31, 1913.
- 17,343.—Title: "DO-NE-DO." (For a Prepared Doughnut-Flour.) THE CABELL COMPANY, Baltimore, Md. Filed January 29, 1913.
- 17,344.—Title: "GOLDEN STATE BUTTER." (For Butter.) CALIFORNIA CENTRAL CREAMERIES, San Francisco, Cal. Filed June 24, 1913.
- 17,345.—Title: "CARQUE'S NUT-CREAM BUTTER." (For Nut-Cream Butter.) OTTO CARQUE, Los Angeles, Cal. Filed August 14, 1913.
- 17,346.—Title: "KO-ZY UNION SUIT." (For Ladies' Union Suits.) HARRY H. CONdit, New York, N. Y. Filed October 30, 1913.
- 17,347.—Title: "DUSTBANE." (For a Preparation Used in Sweeping.) DUSTBANE MFG. CO., Ipswich, Mass. Filed October 10, 1913.
- 17,348.—Title: "E-A-CO." (For Flour.) EVERETT, AUGHENBAUGH & CO., Waseca, Minn. Filed October 9, 1913.
- 17,349.—Title: "FLOR DE LOPEZ GARCIA." (For Cigars.) RODRIGO FERNANDEZ, Chicago, Ill. Filed August 15, 1913.
- 17,350.—Title: "STEP LIVELY." (For Foot-Balm.) J. GOODMAN INC., New York, N. Y. Filed July 30, 1913.
- 17,351.—Title: "DOMESTIC SPARKLING HUNYADI OR CATHARTIC SPLIT." (For Cathartic Water of an Artificial Nature.) HUNYADI SPLIT CORPORATION, Minneapolis, Minn. Filed March 7, 1913.
- 17,352.—Title: "'HOLD-TIGHT' BRAND FRINGE HAIR NETS." (For Hair-Nets.) ADOLPH KLAR, New York, N. Y. Filed September 11, 1913.
- 17,353.—Title: "'HOLD-TIGHT' NO. 43. SELF ADJUSTABLE." (For Hair-Nets.) ADOLPH KLAR, New York, N. Y. Filed September 11, 1913.
- 17,354.—Title: "KLEANALL." (For Cleansers and Water-Softeners.) KLEANALL CHEMICAL COMPANY, Pittsburgh, Pa. Filed October 30, 1913.
- 17,355.—Title: "TECH." (For Beer.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed October 27, 1913.
- 17,356.—Title: "'DUNFORD'S' IMPROVED ROOF AND BRIDGE PAINTS." (For Paints.) REESE-HERRIN COMPANY, Atlanta, Ga. Filed November 1, 1913.
- 17,357.—Title: "TULA." (For Citrus Fruits.) JAMES N. REYNOLDS, Lindsay, Cal. Filed October 25, 1913.
- 17,358.—Title: "THE MISSION PLAY BRAND." (For Oranges.) SAN MARINO GROWERS PACKING ASSOCIATION, San Gabriel, Cal. Filed November 20, 1912.
- 17,359.—Title: "WHEAT-O." (For Breakfast Food.) E. W. SHADEWALD, Toronto, S. D. Filed August 18, 1913.
- 17,360.—Title: "SAVEX WASHING POWDER." (For a Washing-Powder.) SIERRA CHEMICAL COMPANY, Los Angeles, Cal. Filed October 27, 1913.
- 17,361.—Title: "SMITH'S ISLAND OYSTER." (For Oysters.) SMITH'S ISLAND OYSTER COMPANY, New York, N. Y. Filed October 18, 1913.
- 17,362.—Title: "THE BEER DE LUXE." (For Beer.) THE THIEME & WAGNER BREWING CO., La Fayette, Ind. Filed October 25, 1913.
- 17,363.—Title: "MOSAIC." (For Crepe Tissue.) THE TUTTLE PRESS COMPANY, Appleton, Wis. Filed October 6, 1913.
- 17,364.—Title: "ITS REAL GENUINE KNO-BLUR." (For Carbon-Paper.) UTICA CARBON & WAX PAPER CO., Utica, N. Y. Filed November 3, 1913.
- 17,365.—Title: "ISLAND PLANTATION." (For Syrup.) VICTORIA SYRUP & COFFEE COMPANY, Victoria, Tex. Filed August 22, 1913.
- 17,366.—Title: "PRAIRIE STATE." (For Cigars.) PETER WACHTLER, Chicago, Ill. Filed October 27, 1913.
- 17,367.—Title: "HEALTH OIL." (For Health-Oil.) W. ELLIS WISE, Williamaport, Pa. Filed September 2, 1913.

PRINTS

REGISTERED NOVEMBER 18, 1913.

- 3,414.—Title: "ABANDONED." (For Oilless Bearings.) ARGUTO OILLESS BEARING CO., Philadelphia, Pa. Filed July 7, 1913.
- 3,415.—Title: "READING HIS FATE." (For Hams and Bacon.) BATCHELDER & SNYDER COMPANY, Boston, Mass. Filed October 6, 1913.
- 3,416.—Title: "'GOLD COIN' CREAMERY." (For Oleomargarin.) ECKERSON COMPANY, Jersey City, N. J. Filed September 17, 1913.
- 3,417.—Title: "EAT BREAD MADE WITH FLEISCHMANN'S YEAST." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 6, 1913.
- 3,418.—Title: "WHATEVER THE EFFECT." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 7, 1913.
- 3,419.—Title: "EVERYWOMAN." (For Hose-Supporters.) GEORGE FROST COMPANY, Boston, Mass. Filed October 30, 1913.
- 3,420.—Title: "'HOLD-TIGHT' NO. 43. (SELF ADJUSTABLE)." (For Hair-Nets.) ADOLPH KLAR, New York, N. Y. Filed September 11, 1913.
- 3,421.—Title: "PRINCE ALBERT MAKES A HIT WITH EVERY MAN—PIPE AND CIGARETTE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed October 25, 1913.
- 3,422.—Title: "THE CHEER-UP CHEW—BROWN'S MULE TOBACCO." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed Oct. 25, 1913.
- 3,423.—Title: "SCOTTISSUE." (For Towels, Table-Covers, and Diapers, All Made of Paper, and Toilet-Paper.) SCOTT PAPER CO., Philadelphia, Pa. Filed September 23, 1913.
- 3,424.—Title: "THE RAILROAD SOCK." (For Socks.) ROBERT P. STEELE & CO., New York, N. Y. Filed July 10, 1913.
- 3,425.—Title: "VANQUISHED." (For Vitrified Pipe and other Imperishable Products.) TEXARKANA PIPE CO., Texarkana, Tex. Filed October 6, 1913.
- 3,426.—Title: "WINCHESTER." (For Firearms and Ammunition.) WINCHESTER REPEATING ARMS COMPANY, New Haven, Conn. Filed June 28, 1913.
- 3,427.—Title: "CHICKEN KARNO." (For Karno.) WORKMAN PACKING COMPANY, San Francisco, Cal. Filed October 6, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

STIER v. MARBURG BROTHERS.

Decided October 29, 1913.

1. TRADE-MARKS—INTERFERENCE—"BOB WHITE" AND "QUAIL"—MARKS USED CONCURRENTLY.

Where it appears that a mark consisting of the words "Bob White" and the representation of a bird and a mark consisting of the word "Quail" and the representation of two birds in a field have been used for a long period of time and there is no allegation of confusion, *Held* that an interference between these marks should be dissolved.

2. SAME—SAME—MOTION TO DISSOLVE BY THE REGISTRANT—DOUBTS RESOLVED IN FAVOR OF THE APPLICANT.

Where in an interference involving an application for registration and a registered trade-mark the registrant moves to dissolve, *Held* that any reasonable doubt on the question of registrability should be resolved in favor of the applicant.

APPEAL ON MOTION.

TRADE-MARK FOR CIGARS.

Mr. W. G. Henderson for Stier.

Messrs. Meyers, Cushman & Rea for Marburg Brothers.

EWING, Commissioner:

This is an appeal by Marburg Brothers from a decision of the Examiner of Trade-Marks refusing to dissolve the above-entitled interference.

The motion to dissolve alleged non-similarity of the marks and also that the Commissioner had no authority to declare the interference, as Marburg's registration had expired.

The mark shown in the registration consists of the words "Bob White" and the pictorial representation of a bird. The mark of the applicant consists of the word "Quail" and the pictorial representation of two birds in a field.

The Examiner held that "Bob White" and "Quail" were names interchangeably applied to the same bird and that ordinarily no attention would be paid to the use of different terms to designate the same bird.

While it is true that the names "Bob White" and "Quail" are applied to the same bird, it is not believed that that fact would be likely to confuse the ordinary purchaser of smoking-tobacco.

In *Gaines & Co. v. Knecht & Son* (123 O. G., 657; 27 App. D. C., 530) a mark consisting of the words

[Vol. 196.

"Old Crow" and the picture of a crow was held not to conflict with a mark consisting of the words "Old Jay" and the representation of a jay. In the case of *Summit City Soap Works v. The Standard Soap Co.* (174 O. G., 587; 37 App. D. C., 604) the court, in holding that a mark consisting of the head and shoulders of a mammoth associated with the word "Mammoth" did not conflict with a picture of two elephants and the words "Rub-No-More-Soap," referred to the prior decision in *Nestle & Anglo-Swiss Condensed Milk Co. v. Walter Baker & Co.* (167 O. G., 765; 37 App. D. C., 148) and pointed out that any tendency to confusion by reason of the pictures was obviated by the difference in the words associated therewith.

It appears that these marks have been concurrently used for a long period of time, and there is no allegation of any confusion arising in the minds of the public from such use.

Furthermore, it is to be noted in this case that the registrant is moving to dissolve—in other words, that it is consenting to the registration of applicant's mark. Under these circumstances, as pointed out in the case of *J. & Riley Carr v. The William Schollhorn Co. et al.*, (181 O. G., 265,) any reasonable doubt on the question of registrability should be resolved in favor of the applicant.

In view of the above holding it is not necessary to consider whether the mark shown in the expired registration is a known mark within the meaning of section 7 of the Trade-Mark Act.

The decision of the Examiner of Trade-Marks is reversed.

EX PARTE HUNTLEY.

Decided October 31, 1913.

APPLICATION—REJECTION—MISUNDERSTANDING BY THE APPLICANT—REJECTION SHOULD NOT BE FINAL.

Where in response to the first rejection an argument is filed, but it is evident from such argument that the applicant does not understand the ground of the Examiner's rejection, *Held* that the rejection should not be made final.

ON PETITION.

ELEVATOR-FLIGHT.

Messrs. Davis & Davis for the applicant.

EWING, Commissioner:

This is a petition from the action of the Examiner refusing to withdraw a final rejection and enter an amendment.

No. 3.]

It is undoubtedly proper to enter a final rejection on the second action of the case where it appears that the applicant fully understands the grounds of the Examiner's rejection and merely takes issue as to the correctness of that rejection.

In the present case, however, the applicant's argument filed in response to the first rejection shows, when taken in connection with the next action by the Office, that he did not fully understand the Examiner's ground of rejection. Under these circumstances the rejection should not have been made final. But even if it were not clear from the amendment that the applicant did not understand the Examiner's ground of rejection it is believed that when he came in promptly after the final rejection and pointed out that he did not understand it and asked permission to amend the claim the final rejection should have been withdrawn and the amendment entered.

It is noted that this case was filed April 23, 1913, and the final rejection was entered August 14, 1913.

The petition is granted.

STODDARD V. MALMS V. PETERSON AND PETERSON.

Decided November 1, 1913.

INTERFERENCE—MOTION TO DISSOLVE—DEFINITENESS.

A motion to dissolve alleging that one of the parties cannot make the claims because the subject-matter thereof forms no part of his original application, since it did not include certain specified elements of the issue. Held sufficiently definite to justify transmission thereof.

APPEAL ON MOTION.

TWO-CYCLE ENGINE.

Mr. Raizemond A. Parker for Stoddard.

Mr. F. Dittmar for Malms.

Mr. Edward N. Pagelsen for Peterson and Peterson.

FRAZIER, First Assistant Commissioner:

This is an appeal from a decision of the Examiner of Interferences refusing to transmit Stoddard's motion of dissolution as to grounds 1 and 4.

These grounds are as follows: (1) that Peterson and Peterson have no right to make the claims of the issue; (4) because there is no interference in fact between the applications of Petersons and that of Stoddard.

The first reason given by Stoddard in support of ground 1 is thus stated:

(a) Because the subject matter thereof formed no part of the original application or disclosure of said Petersons in that said original disclosure and application did not include—

"A passage communicating with said reservoir above the liquid therein and opening into said bypass so that the air passing in said bypass shall be projected into said passage to cause a pressure in said reservoir due to the inertia of the air."

"A passage communicating with said reservoir above the liquid therein and opening into said bypass against the current of air passing therein and extending in the direction of the movement of said air whereby said air is projected into said passage and causes a pressure in said reservoir due to the inertia of the air."

As to this reason the Examiner holds that the motion is indefinite, because—

no effort has been made to point out wherein the disclosure is deficient, except by the quotations referred to. Moreover, from the language used it is not apparent whether Stoddard proposes to argue that Peterson and Peterson disclose new matter, or whether the subject-matter is not found in their application at all.

I cannot agree with this view of the first reason quoted, since it seems clear to me that while the words "new matter" are not actually used in the specified reason under this ground the obvious meaning of the language employed is that in the particulars specified—namely, a passage related to and cooperating with the other features, as defined—the application of Peterson and Peterson did not originally disclose that subject-matter. There can be no other conclusion drawn from these expressions than that this particular matter as now appearing in the Peterson and Peterson case is new matter.

It is not believed to be the purpose of the practice requiring certainty of definition of the grounds of motions for dissolution to require any particular literal expressions, such as in this case the words "new matter," in order to make such grounds sufficiently definite to entitle such motions to transmission, but to make the reasons and grounds stated sufficiently clear and definite to enable an opponent to understand the point or points of attack he must be prepared to meet in opposing such motion, if he so intends or desires to do. This object appears to be fully satisfied by the definition of the first ground set up by Stoddard as a reason for asking transmission.

Stoddard's second reason under the first ground is that Peterson and Peterson have not made the invention described in the claim. This in view of the repetition of the allegation under the first ground in respect to the features said to be omitted from the original disclosure of Peterson and Peterson's application is but another way of asserting that the features so specified constitute new matter.

The third reason is simply a statement that there is no evidence that Peterson and Peterson conceived the invention before it was suggested to them under Rule 96. This again is another way, it seems to me, of denying the right of Peterson and Peterson to make the claim because of new matter. With this understanding this third reason may go with the first.

The fourth reason urged by Stoddard is an assertion that the claims introduced by amendment corresponding to the counts of the issue constitute new matter.

While it would have been better for Stoddard to have omitted the last three reasons in support of his first ground for dissolution, as I read them, I see no objection to their being coupled with the first-specified reason in transmission of the motion to the Primary Examiner. It is to be understood, however, that this first ground of the motion is to be transmitted as a ground alleging new matter, with whatever effects would naturally flow from the presence of such new matter in the Petersons' application, if established at the hearing on the motion for dissolution.

The Examiner's decision refusing transmission of the motion as to the fourth ground is clearly correct and is affirmed, but his decision denying transmission of the first ground is believed to be erroneous and is therefore reversed.

[Vol. 196. No. 3.]

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE THE EXCELSIOR SHOE COMPANY.

Decided May 26, 1913.

Motion for rehearing denied October 9, 1913.

1. TRADE-MARKS—NAME OF AN ORGANIZATION—JUDICIAL NOTICE.

"The appellant contends that as there was no evidence introduced to show that there is such an association or organization as the Boy Scouts, the Commissioner cannot take notice of the same. The rule that a judge is not to shut his eyes to what everybody else of intelligence knows, applies with peculiar force in proceedings in the Patent Office, for reasons that are obvious."

2. SAME—"BOY SCOUTS" FOR SHOES—DESCRIPTIVE OR DECEPTIVE.

The words "Boy Scouts" held properly refused registration as a trade-mark for shoes as being either descriptive or deceptive, since these words would indicate to purchasers that the particular shoes were of a superior quality approved by the association of Boy Scouts and marked with their name by their authority.

Mr. James Hamilton for the appellant.

Mr. R. F. Whitehead for the Commissioner of Patents.

PATENT APPEALS NOS. 841, 842, AND 843.

SHEPARD, C. J.:

These separate appeals from decisions of the Commissioner of Patents denying registration of a trade-mark involve substantially the same question, and have been heard as one.

The trade-mark is the words Boy Scouts, applied to leather and canvas shoes for boys, youths, and men. In No. 841 a representation of the mark consists of a youth on horseback, dressed in the garb of a cowboy or scout, with the words Boy Scouts printed thereunder in conspicuous letters; this is stamped or printed on the sole of a shoe. It was shown in the course of the application that there was affixed to the boxes containing each pair of shoes a label in colors, on which appears not only the scout on horseback, but pictures of boy scouts engaged in various sports. The most conspicuous thing in this label is the words Boy Scouts in white letters on a red background. It also shows that the shoes are manufactured by The Excelsior Shoe Company of Portsmouth, Ohio. Each application states that the trade-mark has been—continuously used in the business of said corporation since July 1, 1910.

The mark described in No. 842 is a picture of a youth, dressed for an outing, who holds in his hands a line, intended to represent a lasso, the noose embracing a shoe, and the intermediate convolutions forming the letters of the word Scout. It does not appear what labels were used on the shoe-boxes.

The mark described in No. 843 is the figure of a fully equipped boy scout or cowboy on horseback. The accompanying label used on the shoe-boxes shows this figure on a circular background with the words Boy Scouts in large letters overhead, and The Excelsior Shoe Company, Portsmouth, Ohio, underneath. The trade-mark is claimed to be affixed

[Vol. 196.

to the goods or the packages containing them by means of a printed label.

The Examiner of Trade-Marks denied registration in each case on two grounds: 1. That the mark is the name of a well-known organization; 2. That it is descriptive or deceptive. The Commissioner affirmed the Examiner's decision on the second ground, and declared it unnecessary to pass upon the other.

The appellant contends that as there was no evidence introduced to show that there is such an association or organization as the Boy Scouts, the Commissioner cannot take notice of the same. The rule that a judge is not to shut his eyes to what everybody else of intelligence knows, applies with peculiar force in proceedings in the Patent Office, for reasons that are obvious. Taking notice that the "Boy Scouts" is an association comprising a great number of youths throughout the United States devoted to out-of-door exercises and sports, the Commissioner was right that their name applied as a trade-mark for shoes was either descriptive or deceptive, or both, as indicating to purchasers that the particular shoes were of a superior quality approved by the association of Boy Scouts, and marked with their name by their authority.

It is unnecessary to consider other grounds of objection. It may be remarked also, that the several applications for the registration of these marks are fatally defective in that the accompanying affidavit does not show that the mark has been used in commerce among the States, or with foreign nations, or with the Indian tribes, as expressly required by the Trade-Mark Act, sections 1 and 2. We are not to be understood as holding that the applicant might not obtain registration of the figure represented on his label, provided it has not been appropriated by some other manufacturer. What we hold is that he cannot obtain registration for it with the accompanying words "Boy Scouts."

The decision in each appeal is affirmed, and this decision will be certified to the Commissioner of Patents.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Moffatt patent, No. 541,941, for a process of forming starch into coherent masses, construed and Held not infringed. *Corn Products Refining Co. v. Douglas & Co.*, 207 Fed. Rep., 571.

(U. S. C. C. A.) The Reno patents, Nos. 723,307 and 754,807, for tunnel construction, construed and Held not infringed. *United Tunnel Improvement Co. v. Interborough Rapid Transit Co.*, 207 Fed. Rep., 561.

(U. S. D. C.) The Brown patent, No. 781,711, for a process for treatment of precious-metal-bearing ores, claim 1 Held valid and infringed. *Vincent v. Tonopah Mining Co. of Nevada*, 207 Fed. Rep., 579. No. 3.]

(U. S. C. C. A.) The Cohn patents, Nos. 824,908 and 835,850, for improvements in envelopes, *Held* valid and infringed. *H. J. Heinz Co. v. Cohn*, 207 Fed. Rep., 547.

(U. S. D. C.) The Hunnicutt patent, No. 989,976, for a seed-corn grader, *Held* void for lack of novelty as to claims 1, 2, and 4. Claims 3 and 5 *Held* not infringed if valid. *Charles Hunnicutt Co. v. A. B. Gaston Co.*, 207 Fed. Rep., 585.

Changes in Classification.

(ORDER NO. 2,080.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 6, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 98, Pneumatics, (Division II,) establish subclasses—

49. Registers—

- 50. Air distributor,
- 51. Air moistening attachments,
- 52. Border or frame,
- 53. Flush surface,
- 54. Wall.

The patents contained in these subclasses have been taken from class 126, Stoves and Furnaces, subclass 325, Hot air registers, and the subclasses thereunder, hereinafter abolished.

In class 126, Stoves and Furnaces, (Division XIX,) abolish the following subclasses, with their definitions:

325. Hot-air registers—

- 330. Air-moistening attachments,
- 327. Border or frame,
- 328. Flush surface,
- 331. Foot-rests,
- 329. Heat distributor,
- 326. Wall.

The patents formerly contained in these subclasses have been placed in class 98, Pneumatics, subclass 49, Registers, and the subclasses thereunder, hereinafter established.

THOMAS EWING,
Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 7, 1913.

Frank C. McMullen, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Aktiebolaget Rotator, of 33 Storgatan, Sodertelje, Sweden, for registration of a trade-mark and Trade-Mark No. 74,099, registered June 15, 1909, to Frank C. McMullen, of 37 Kemble street, Boston, Mass., and a notice of such declaration sent by registered mail to Frank C. McMullen at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank C. McMullen, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Joseph Wassmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Voigt Brewery Co., of 203-213 Grand River avenue, Detroit, Mich., for registration of a trade-mark and Trade-Mark No. 13,649, registered September 7, 1886, to Joseph Wassmer, of New York, N. Y., and a notice of such declaration sent by registered mail to Joseph Wassmer at the said address having been returned by the post-office undeliverable, notice is hereby given that

unless the said Joseph Wassmer, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Katherine Culver, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of J. C. Ayer Company, of 178 Middle street, Lowell, Mass., for registration of a trade-mark and Trade-Mark No. 68,514, registered April 14, 1908, to Katherine Culver, of West Jordan, Utah, and a notice of such declaration sent by registered mail to Katherine Culver at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Katherine Culver, her assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 31, 1913.

Louise H. Gordon, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Fountain Chemical Company, 208 North Liberty street, Baltimore, Md., for registration of a trade-mark and trade-mark registered May 22, 1888, No. 15,491, to Louise H. Gordon, 212 Columbus avenue, Boston, Mass., and a notice of such declaration sent by registered mail to Louise H. Gordon at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Louise H. Gordon, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Fred Ippich & Treffinger, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the L. Burg Carriage Company, of Dallas City, Ill., for registration of a trade-mark and trade-mark registered May 23, 1893, No. 23,106, to Fred Ippich & Treffinger, of 400 East Seventy-third street, New York, N. Y., and a notice of such declaration sent by registered mail to Fred Ippich & Treffinger at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Fred Ippich & Treffinger, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1913.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Black Manufacturing Company, 532 First avenue south, Seattle, Wash., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, Providence, R. I., and a notice of such declaration sent by registered mail to Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, Commissioner.

[Vol. 196.

No. 3.]

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 196—No. 4.

TUESDAY, NOVEMBER 25, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF NOVEMBER 25, 1913.....	807
ADVERSE DECISIONS IN INTERFERENCE.....	807
AMENDMENTS.....	807
APPLICATIONS UNDER EXAMINATION.....	808
PATENTS GRANTED.....	809
REISSUES.....	1022
DESIGNS.....	1023
TRADE-MARKS—REGISTRATION APPLIED FOR.....	1031
TRADE-MARKS—REGISTERED.....	1047
LABELS AND PRINTS.....	1050
COMMISSIONER'S DECISIONS—	
Ex parte Hildebrandt.....	1051
Ex parte McPherson.....	1051
DECISIONS OF THE U. S. COURTS—	
Ludwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs.....	1052
INTERFERENCE NOTICES.....	1054

ISSUE OF NOVEMBER 25, 1913.

Patents.....	610—No. 1,079,319 to No. 1,079,928, inclusive.
Designs.....	41—No. 44,910 to No. 44,950, inclusive.
Trade-Marks.....	83—No. 94,261 to No. 94,343, inclusive.
Labels.....	8—No. 17,368 to No. 17,375, inclusive.
Prints.....	4—No. 3,428 to No. 3,431, inclusive.
Reissues.....	1—No. 13,652.

Total..... 747

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	1	.....	North Carolina.....	2	.....
Arizona.....	3	.....	North Dakota.....	3	.....
Arkansas.....	4	.....	Ohio.....	35	6
California.....	32	5	Oklahoma.....	3	.....
Colorado.....	4	.....	Oregon.....	5	1
Connecticut.....	13	1	Pennsylvania.....	55	5
Delaware.....	.....	.....	Rhode Island.....	9	1
Florida.....	2	1	South Carolina.....	2	.....
Georgia.....	5	.....	South Dakota.....	3	.....
Idaho.....	3	.....	Tennessee.....	1	1
Illinois.....	56	3	Texas.....	13	2
Indiana.....	9	3	Utah.....	3	.....
Iowa.....	10	1	Vermont.....	1	.....
Kansas.....	13	.....	Virginia.....	1	.....
Kentucky.....	8	1	Washington.....	12	2
Louisiana.....	7	.....	West Virginia.....	5	.....
Maine.....	1	.....	Wisconsin.....	14	2
Maryland.....	5	2	Wyoming.....	3	.....
Massachusetts.....	40	2			
Michigan.....	20	2	Alaska, District of.....	.....	.....
Minnesota.....	10	1	Canal Zone.....	.....	.....
Mississippi.....	2	.....	District of Columbia.....	2	1
Missouri.....	21	2	Hawaii Territory.....	.....	.....
Montana.....	3	.....	Philippine Islands.....	.....	.....
Nebraska.....	1	.....	Porto Rico.....	.....	.....
Nevada.....	2	.....	U. S. Army.....	.....	.....
New Hampshire.....	1	.....	U. S. Navy.....	.....	.....
New Jersey.....	26	14			
New Mexico.....	.....	.....	Total to residents of the United States.....	561	89
New York.....	87	28			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....	.....	.....	Mexico.....	.....	.....
Austria-Hungary.....	7	.....	Netherlands.....	.....	.....
Assore.....	.....	.....	New South Wales.....	.....	.....
Belgium.....	1	.....	New Zealand.....	.....	.....
Bermuda.....	1	.....	Norway.....	2	.....
Brazil.....	.....	.....	Panama.....	.....	.....
British West Indies.....	.....	.....	Queensland.....	.....	.....
Canada.....	11	.....	Russia.....	1	1
Cape Colony.....	.....	.....	Scotland.....	.....	.....
Chile.....	.....	.....	South Australia.....	.....	.....
Costa Rica.....	.....	.....	Spain.....	.....	.....
Cuba.....	.....	.....	Sweden.....	1	.....
Denmark.....	.....	.....	Switzerland.....	1	.....
Dutch East Indies.....	.....	.....	Transvaal, South Africa.....	.....	.....
Ecuador.....	.....	.....	Victoria.....	.....	.....
England.....	15	1	Wales.....	.....	.....
France.....	6	1	Western Australia.....	.....	.....
Germany.....	44	3			
Ireland.....	.....	.....	Total to residents of foreign countries.....	91	6
Italy.....	.....	.....	
Japan.....	.....	.....	

Adverse Decisions in Interference.

PATENT NO. 1,003,459.

On October 25, 1913, a decision was rendered that Leicester Bodine Holland was not the first inventor of the subject-matter covered by claims Nos. 1, 7, and 8 of his Patent No. 1,003,459.

PATENT NO. 1,048,532.

On October 21, 1913, a decision was rendered that Ernest G. Helander was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,048,532.

PATENT NO. 1,058,782.

On October 18, 1913, a decision was rendered that Burton W. Mudge was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 7, 8, and 9 of his Patent No. 1,058,782, and no appeal having been taken within the time allowed such decision has become final.

Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the drawing number and the room number appearing on the last Office letter, as well as the date of such letter.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 22, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 15	Sept. 9	780
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatic; Presses; Store-Services; Tobacco.	July 11	Sept. 12	718
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Oct. 22	Nov. 10	267
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Aug. 4	Sept. 2	843
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 14	Sept. 11	663
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 21	Sept. 4	889
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	June 7	Sept. 25	1061
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	July 12	Sept. 20	1046
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 12	Oct. 18	725
235	10. Carriages and Wagons.	July 21	Sept. 10	1370
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelets, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 4	Oct. 8	451
323	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 5	July 21	1610
329	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 1	Sept. 30	764
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 11	Oct. 10	884
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 15	Aug. 16	1615
109	16. Radiant Energy; Telegraphy; Telephony.	June 25	Aug. 26	528
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Sept. 22	Oct. 16	369
327	18. Injectors and Motors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engine; Steam-Engine Valves.	Aug. 25	Oct. 8	275
306	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 28	Sept. 23	732

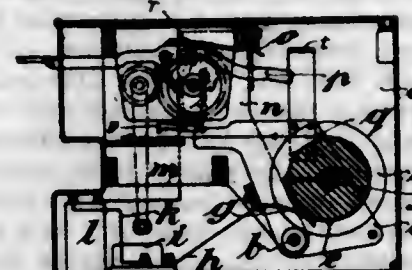
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Saws; Undertaking.	Sept. 29	Oct. 1	338
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	June 27	Aug. 13	727
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Aug. 8	Sept. 25	506
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 27	Sept. 25	567
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Sept. 26	Sept. 19	691
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Sept. 29	Oct. 17	323
106	26. Electricity; Generation; Motive Power.	July 1	Aug. 8	682
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Weaving Apparatus.	Sept. 15	Sept. 30	530
65	28. Internal-Combustion Engines.	Aug. 23	Sept. 25	883
147	29. Coopering; Fire-Escapes; Ladders; Ropes; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	July 7	July 1	830
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Sept. 18	Nov. 1	289
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Aug. 18	Aug. 30	501
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	July 10	Oct. 11	562
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 29	Aug. 30	563
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Sept. 25	Sept. 20	466
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	July 24	Oct. 14	916
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Aug. 28	Sept. 2	1042
107	37. Electric Lamps; Electricity; Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 11	June 27	1013
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Aug. 29	1078
321	39. Water Distribution.	Aug. 20	Sept. 5	613
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 21	Sept. 27	1218
125	41. Railway Draft Appliances; Re-silient Tires and Wheels.	Sept. 16	Sept. 24	563
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 2	June 19	1064
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 7	Sept. 25	336
Oldest new case, Apr. 11; oldest amended, June 19. Total number of applications awaiting action..... 31,550				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 13	Oct. 16	1099
	Designs.....	Oct. 2	Oct. 26	258
	Labels and Prints.....	Nov. 7	Nov. 1	74

PATENTS

GRANTED NOVEMBER 25, 1913.

1,079,319. SIGNALING DEVICE FOR LETTER-STAMPING APPARATUS. HERMANN ANGERSTEIN, Berlin, Germany, assignor, by mesne assignments, to American Stamp & Ticket Vending Machine Co., New York, N. Y., a Corporation of New Jersey. Filed Feb. 24, 1910, Serial No. 545,793. Renewed May 5, 1913. Serial No. 765,686. (Cl. 216—28.)



1. In a stamp affixing machine, an operating means, a reel of stamps, a means normally locking the operating means against movement, an electric alarm signal, and means for operating the same comprising a source of power, circuit closing contacts associated with the stamp reel and adapted to be closed on each other when the stamp reel is nearly emptied, circuit connections from said contact including the signal and source of power, and additional circuit closing contacts in said circuit and controlled by the aforesaid locking means.

2. In a stamp affixing machine, an operating means, a stamp reel, and means normally locking the operating means against movement, an alarm signal, means connected with the stamp reel for controlling the operation of said signal, and additional controlling means connected with the aforesaid locking means, and operating in conjunction with the first named controlling means only.

3. In a stamp affixing machine, an operating means, a battery of stamp reels, said reels and operating means being electrically connected together, means normally locking the operating means against movement, a segmental contact on the hub of one of said reels, a second contact yieldingly pressed toward the periphery of said hub, an alarm device electrically connected with said second contact on the one hand, a third contact in position to be engaged by said locking means when moved to unlocking position, a source of power, and connections from said alarm signal to the said third contact, said source of power being inclined in the aforesaid electrical circuit.

4. In a stamp-affixing machine, an operating means, locking means normally holding said operating means from movement, a signal associated with said locking means to be actuated thereby, and a stamp reel connected with the signal and adapted to control the operation of the same.

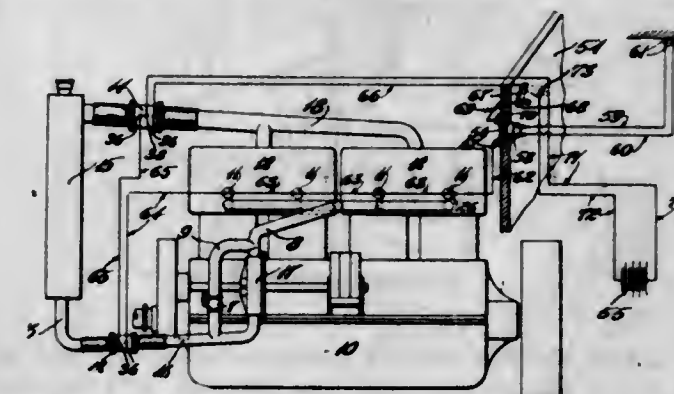
5. In a stamp-affixing machine, an operating means, a stamp reel connected with said operating means and adapted to carry a stamp strip, and a signal associated with said operating means whereby the signal is intermittently actuated, said signal being also associated with said stamp reel whereby it is held inoperative by said stamp strip on the reel.

[Claim 6 not printed in the Gazette.]

1,079,320. AUTOMOBILE. HENRY A. BAKER, St. Louis, Mo. Filed Jan. 26, 1912. Serial No. 673,694. (Cl. 123—170.)

1. In a water cooling system for water jacketed explosion engines in combination with the engine casing a

radiator and oppositely sloping ducts between the top and bottom of said radiator and the engine casing, a plurality of electric heating means and means for supplying electricity thereto, one of said heating means being located in each duct whereby thermal circulation is produced through the entire cooling system.



2. In an automobile having an explosion motor comprising a water cooling system, in combination with said cooling system, an electric battery, means forming a part of said water cooling system for transforming electric energy into heat, electrical connections between said battery and said means embracing a two-pole switch, and electrical connections adapted to include a fixed source of electric current also controlled by said two-pole switch.

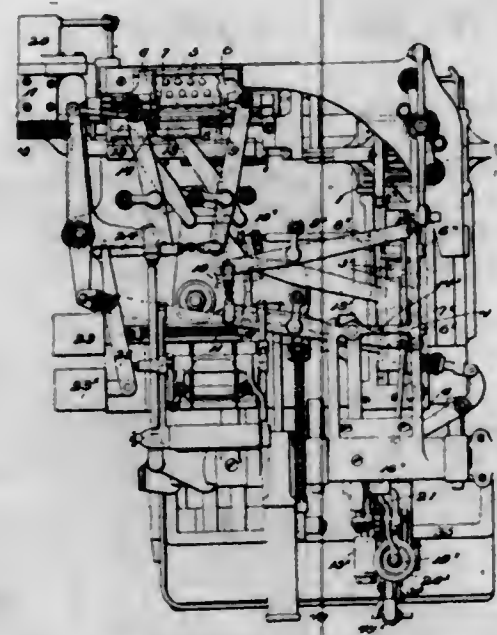
3. In a water cooling system for motors comprising a closed water circulating circuit in combination with said circuit, a duct forming a part thereof, said duct having one end higher than the other, a coil of electrical resistance wire surrounding said duct, electrical connections between the ends of said coil and a fixed source of electric current, and an electrical connection between said coil intermediate its ends and one of the ends of the coil, said last mentioned connection being adapted to include a portable electric battery, and means for breaking the said connections.

4. In a water cooling system for motors comprising a closed water circulating circuit in combination with said circuit, a duct forming a part thereof, said duct having one end higher than the other, a coil of electrical resistance wire surrounding said duct, electrical connections between the ends of said coil and a fixed source of electric current, and an electrical connection between said coil intermediate its ends and one of the ends of the coil, said last mentioned connection adapted to include a portable electric battery, and means for breaking the last mentioned connection when the connection with the fixed source of electric current is made.

5. In a water cooling system for motors comprising a closed water circulating circuit in combination with said circuit, a duct forming a part thereof, said duct having one end higher than the other, a coil of electrical resistance wire surrounding said duct, electrical connections between the ends of said coil and a fixed source of electric current, and an electrical connection between said coil intermediate its ends and one of the ends of the coil, said last mentioned connection adapted to include a portable electric battery, and means whereby the fixed source of power and the battery cannot be in circuit simultaneously.

[Claims 6 and 7 not printed in the Gazette.]

1,079,321. CENTERING OR POSITIONING MECHANISM FOR TYPE CASTING AND COMPOSING MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Oct. 26, 1912. Serial No. 727,951. (Cl. 101—200.)



1. A type casting machine organized to receive and act upon a two-way movable die case provided with matrices uniformly spaced in the directions of movement of said die case and equipped with two centering mechanisms each provided with a signal controlled gage, a positioning mechanism and a movable member whose location is determined by said positioning mechanism, and in combination therewith, a die case equipped with matrices uniformly spaced in one direction in a measure differing from that of the signal controlled gage pertaining to the same line of movement, and spaced in the other direction partly in the measure of the associated signal controlled gage and partly in a measure differing therefrom, auxiliary gaging mechanism (one for each direction of movement of the die case) furnished with gaging members spaced to correspond with the spacing of the matrices in the direction of motion controlled thereby, means for coupling each of said auxiliary gaging mechanisms with the movable member of the corresponding centering mechanism, and means controlled by one centering mechanism for automatically bringing into action the auxiliary gaging mechanism of the associated centering mechanism.

2. A type casting machine equipped with duplex centering or positioning mechanisms, each including a signal controlled primary gage, a positioning mechanism, a movable member whose position is determined by said positioning mechanism and associated gage and adapted to operate in conjunction with a two-way movable die case, the matrices whereof are spaced in two directions to accord with the pitch or measure of the primary gages, and in combination therewith, a die case whose matrices are abnormally spaced relatively to the primary gages, gaging means auxiliary to the primary gages and corresponding in pitch or measure with the spacing of the matrices, and controllable means for cutting into and out of action said auxiliary gaging means.

3. In a type casting machine equipped with duplex centering or positioning mechanisms each of the latter including a signal controlled primary gage, positioning mechanism, a movable member, locking means for retaining the movable member in adjusted position, and actuating devices common to said positioning mechanisms, and locking means, and in combination therewith, two positioning plungers and complementary gaging members each of the latter coupled with one of the said movable members and having its gaging members spaced differently from the associated primary gage, means for suspending the action of said locking means, and controllable actuating devices for said positioning plungers and lock-sus-

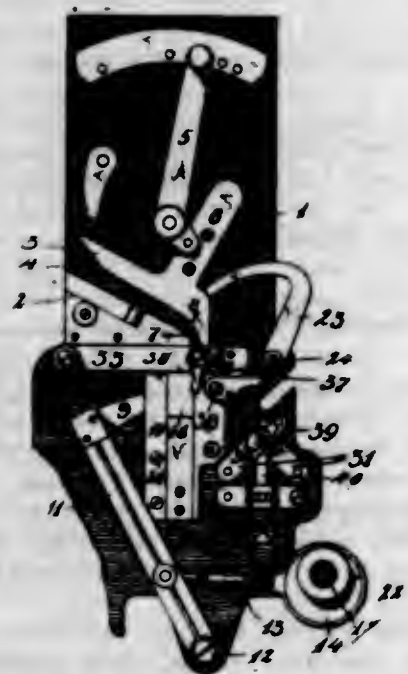
pending means whereby when either positioning plunger is brought into action the corresponding locking means are thrown out of action.

4. In a type casting machine provided with duplex centering or positioning mechanisms, each of the latter including a signal controlled primary gage, a positioning mechanism, a movable member controlled by said positioning mechanism, and actuating devices for said positioning mechanisms, and in combination therewith, two positioning plungers and complementary gaging racks each of the latter coupled with one of said movable members and having teeth spaced to a different measure from the associated primary gage, and actuating devices for said positioning plungers, including selective means coupled with one of said movable members for bringing into action the positioning plunger pertaining to the other movable member.

5. In a centering or positioning mechanism provided with a signal controlled primary gage, and oppositely movable positioning jaws, and in combination therewith, a stop bar located between and positioned by said jaws and provided with two sets of teeth differing in pitch or measure, a locking bar for engaging one set of said teeth for retaining the stop bar in any of the various positions of adjustments indicated by the primary gage, a positioning plunger cooperating with the teeth of the other set for readjusting the stop bar, and means for automatically suspending the action of the locking bar and for actuating the positioning plunger after the stop bar has been adjusted to the position indicated by the primary gage.

[Claims 6 to 33 not printed in the Gazette.]

1,079,322. FOUR-MOTION FEED. CHARLES S. BARDON, Brooklyn, N. Y. Filed Dec. 11, 1909. Serial No. 532,544. (Cl. 133—8.)



1. In an article feeding and stacking mechanism, the combination with a feed chute and a stack support, of means for feeding articles successively along said chute to said stack support and for holding the article last fed on said stack support out of its final position in the stack, and adjacent the path of the next succeeding article along the feed chute.

2. In an article feeding and stacking mechanism, the combination with a feed chute, a stack support, means for feeding articles successively along said chute to said stack support, means for holding the last article fed to said stack support adjacent said feed chute to temporarily form a continuation of the wall of said chute, said feeding mechanism being constructed and arranged to cause the next succeeding article to release the first from said holding means and to take its place therein.

3. In a coin feeding and stacking mechanism, the combination with a feed chute and a stack support, means

to feed coin successively through said feed chute and to said support, and means to prevent overthrow of the coin during the feeding operation and to hold the last coin fed to said stack support adjacent said chute to form a temporary chute wall.

4. In an article feeding and stacking mechanism, the combination with a feed chute and a stack support, means to feed articles successively through said chute and to said stack support, and means to prevent overthrow of the feed and to act as a stop to position said article adjacent said feed chute.

5. In an article feeding and stacking mechanism, the combination with a feed chute, a stack support, an article support at the end of said chute adjacent said stack support, means for feeding articles successively along said chute and to said article support, said article support being constructed and arranged to operate as a stop to position the article upon the stack support adjacent the feed chute at the end of the feeding operation.

[Claims 6 to 28 not printed in the Gazette.]

1,079,323. MANUFACTURE OF ARMOR-PLATES AND OTHER STEEL ARTICLES. JOHN LAWRENCE BENTHALL, Chesterfield, England, assignor to Vickers Limited, Westminster, England. Filed July 13, 1912. Serial No. 700,204. (Cl. 148—37.)

1. In the manufacture of armor plates, subjecting the plate to cementation, heating it to a temperature suitable for oil or water hardening, hardening it with oil or water, heating the plate to a temperature of from 1150° to 1350° F. and cooling it, again heating it to a temperature of from 1150° to 1350° F. and again cooling it, then machining the plate, then again heating it to a temperature suitable for oil or water hardening, hardening it with oil or water, heating the plate to a temperature of from 1200° to 1350° F., bending it, and, while still hot, reheating it to a temperature of from 1200° to 1350° F., sprinkling it with water, and then subjecting the plate to "differential" hardening.

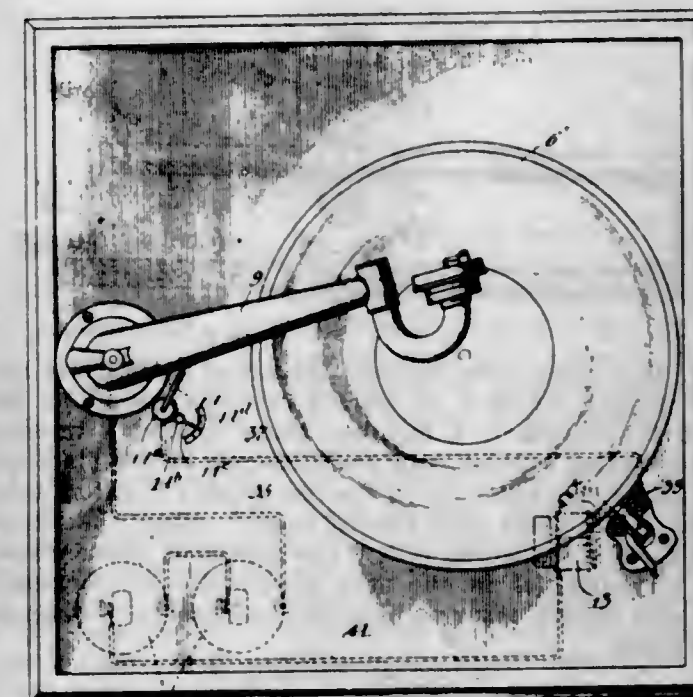
2. In the manufacture of armor plates, subjecting the plate to cementation, heating it to a temperature suitable for oil or water hardening, hardening it with oil or water, heating the plate to a temperature of from 1150° to 1350° F. and cooling it, again heating it to a temperature of from 1150° to 1350° F. and again cooling it, then machining the plate, then again heating it to a temperature suitable for oil or water hardening, hardening it with oil or water, heating the plate to a temperature of from 1200° to 1350° F., bending it, and, while still hot, reheating it to a temperature of from 1200° to 1350° F., sprinkling it with water, then embedding the back of the plate in sand leaving its face exposed, subjecting it to a temperature of from 1200° to 1750° F. and then sprinkling with water.

3. The manufacture of armor plates, consisting in rolling the plate, heating it to a temperature of from 1050° to 1250° F. allowing it to cool in air, cementing the face of the plate at a temperature of from 1700° to 1850° F. bending the plate and while still hot heating it to a temperature of from 1400° to 1600° F. then hardening it with oil or water, then heating the plate to a temperature of from 1150° to 1350° F. and cooling it, again heating it to a temperature of from 1150° to 1350° F. and sprinkling it, then machining the plate, then heating it to a temperature of from 1300° to 1550° F. hardening it with oil or water, heating the plate to a temperature of from 1200° to 1350° F. bending it, and, while still hot, reheating it to a temperature of from 1200° to 1350° F. sprinkling it with water, then embedding the back of the plate in sand leaving its face exposed, subjecting it to a temperature of from 1200° to 1750° F. and then sprinkling with water.

1,079,324. AUTOMATIC MOTOR STOPPING DEVICE. JOHN L. BLOCKBURGER, Chicago, Ill. Filed Sept. 12, 1912. Serial No. 719,932. (Cl. 74—46.)

1. A brake mechanism of the character described comprising in combination a traveling element, a brake plun-

ger, an electric circuit, means included in the circuit for controlling the brake plunger, one terminal of the circuit being adapted for electric connection with the traveling element, a contact for the other terminal of the circuit, said contact comprising a rotatably adjustable post having a crank arm adapted to be set in the path of said traveling element, a scale, a pointer in coöperative relation with the scale, and means for moving the pointer over the scale by rotation of the post.



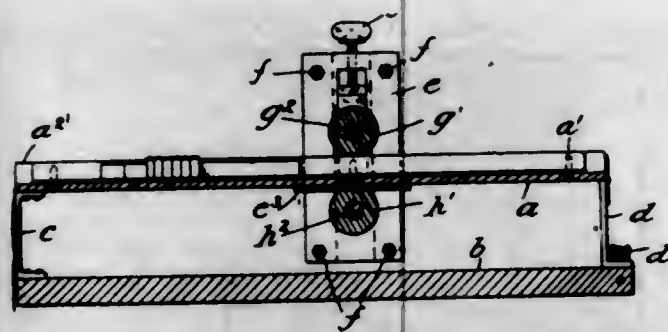
2. The combination of a casing having a top, a rotatable element mounted on the upper side of the top, a swinging arm pivotally supported above the top of the casing and working across the rotatable element, a brake plunger mounted on the casing top in coöperative relation with the rotatable element, an electric circuit disposed beneath the casing top with one terminal connected with the swinging arm, means included in the circuit and located below the casing top for controlling the brake plunger, a contact comprising a rotatable post connected with the other terminal of the electric circuit and rising above the casing top and provided with a crank arm disposed in the path of the swinging arm, a scale on the casing top, a pointer pivoted upon the casing top in coöperative relation with the scale, a pinion for the pivot of the pointer, and a gear in mesh with the pinion and carried concentrically by the post.

3. The combination of a rotatable member, an arm mounted to travel with respect to the rotatable member, a brake plunger mounted to contact said member, electrically operated releasing means for said plunger including an adjustable contact adapted to be positioned in the path of movement of said arm, a scale graduated with respect to predetermined operative positions of said arm, a pointer mounted for movement in proximity to said scale, and an operative connection between the pointer and the contact whereby a desired position of the contact in the path of movement of said arm is secured upon adjustment of the pointer to a predetermined position indicated by said scale.

1,079,325. PROOF-PRESS. ARTHUR L. BLUE, New York, N. Y. Filed May 25, 1912. Serial No. 699,709. (Cl. 101—11.)

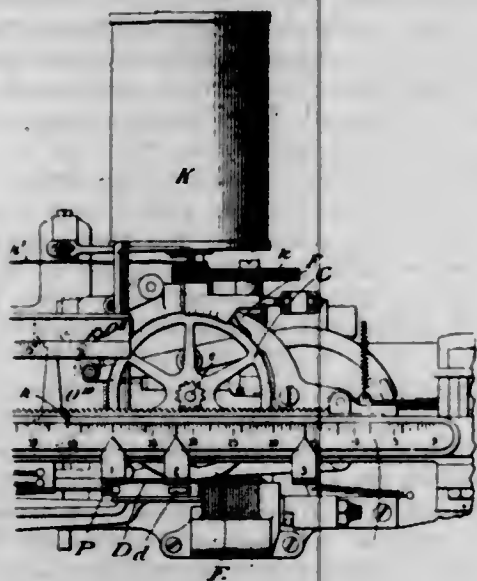
1. In a proof press, the combination of a yielding bed-plate to support the type, hinged means to support the bed-plate, a printing frame having a reaction or pressure roller having contact with the underside of the plate and an impression roller above the bed-plate and horizontal guide brackets carried on the frame in juxtaposition to the bed-plate, the rollers being movable over the hinged supporting means to permit the removal of the frame from the bed-plate.

2. In a proof press, the combination of a yielding bed-plate to support the type, longitudinal bearers less than type high secured on the upper face of the bed-plate, and adjacent the edges thereof, hinged means to support the bed-plate and a printing frame having a reaction or pressure roller for contact with the underside of the bed and an impression roller disposed on said bearers, the rollers being movable over the hinged supporting means to permit the removal of the frame from the bed-plate.



3. In a proof press the combination of a relatively thin and flexible bed-plate to support the type, means to support the bed-plate, a printing frame having a pressure roller having contact with the underside of the plate and an impression roller above the bed plate, the rollers being mounted yieldably with respect to each other, the flexible bed plate and yielding rollers compensating automatically for irregularities in the type as the line of impression changes thereby insuring a uniform impression throughout the proof.

1,079,326. TYPOGRAPHIC COMPOSING-MACHINE. JOSEPH BOURDAS SMITH BOOTH, Enfield, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed June 3, 1912. Serial No. 701,241. (Cl. 164-112.)



1. In a key-controlled typographic composing machine, the combination with a line-measuring device which is advanced in accordance with the unit-value, of each type signaled, and a second measuring device that is advanced to meet the line-measuring device, of means on the second device for automatically selecting one of a series of justification abutments on the line-measuring device to determine the setting of a justification indicator, substantially as and for the purpose described.

2. A measuring and indicating mechanism for a key-operated typographic composing machine which is responsive to a key at any point in the composition of a line of matter in order to indicate the proper justification factor for the line, substantially as described.

3. In a key-controlled typographic composing machine furnished with a line-measuring member which is advanced in accordance with the unit-value of the type signaled and is provided with means for returning it at the end of a line against a zero-stop and a second measuring mem-

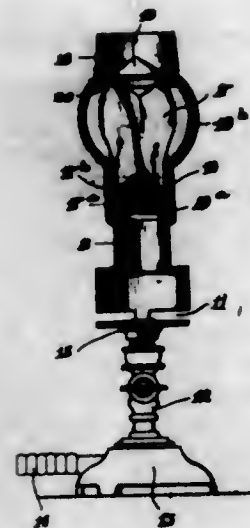
ber advanced toward the line-measuring member to set a justification chart or indicator, the combination with the line-measuring member of a series of abutments with one or other of which a movable catch in the second measuring member is adapted to engage, and a series of separately acting stops automatically successively positioned to form zero stops for the line-measuring member, substantially as described.

4. In a key-controlled typographic composing machine the combination with a line measuring member and a second measuring member connected with a justification chart or indicator and adapted to engage one or other of a series of abutments on the line-measuring member, of a series of separately acting stops automatically positioned to form successive zero stops for the line-measuring member, and mechanism for removing simultaneously all the zero stops from the return path of the line-measuring member with or without a series of adjustable pointers for a line-scale, substantially as and for the purpose described.

5. In a key-controlled typographic composing machine furnished with a motor-driven line-measuring member or rack and controlled in its advance by a series of stops and a justification member or rack advanced by a motor and operating a justification scale or indicator, of a series of abutments on the line-measuring member and a movable catch or stop on the justification rack adapted to engage one or other of the abutments on the line-measuring member but normally held out of engagement therewith by a stationary abutment, substantially as described.

[Claim 6 not printed in the Gazette.]

1,079,327. BURNER. FREDERIC C. CHADBORN, Newburgh, N. Y. Filed Nov. 30, 1912. Serial No. 734,260. (Cl. 158-118.)



1. A burner for gaseous fuel embodying therein a casing, an extension projecting from one end of said casing to form means for conducting heat to the walls of the casing, a mixing device having a series of ogee-shaped wings depending within the casing, and means supported by said mixing device for spreading the issuing flame whereby the same is caused to impinge against the inner wall of said extension.

2. A burner for gaseous fuel embodying therein a casing, an extension projecting from one end of said casing to form means for conducting heat to the wall of the casing, a combined heater and mixer within said casing consisting of a plurality of substantially ogee-shaped wings, and a disk supported by said combined mixer and heater and adapted to spread the flames whereby the latter are caused to impinge against the inner wall of said extension.

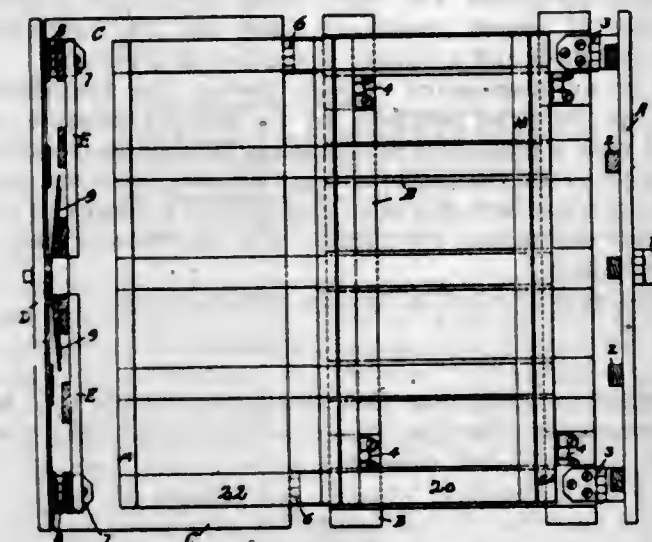
3. A burner for gaseous fuel embodying therein a casing having the inner face of its wall at substantially its median portion screw threaded, an extension projecting from one end of said casing, a combined heater and mixer consisting of a plurality of substantially ogee-shaped wings having portions thereof threaded to engage the threads on the wall of said casing, and a disk supported

by said wings and adapted to spread the issuing flame and cause the same to impinge against the inner wall of the said extension.

4. A burner for gaseous fuel embodying therein a casing, an extension projecting from one end of said casing, and being provided with a series of orifices, a series of substantially ogee-shaped wings within said casing and adapted to admit the fuel and air entering said casing, and means supported by said wings for spreading the flame and directing the latter to impinge upon the inner wall of said extension.

5. A burner for gaseous fuel embodying therein a casing, an extension projecting from one end of said casing, and being provided with a series of orifices, air admission means connected to said orifices, a series of substantially ogee-shaped wings within said casing and adapted to admit the fuel and air entering said casing, and means supported by said wings for spreading the flame and directing the latter to impinge upon the inner wall of said extension.

1,079,328. FOLDING CRATE. NETTIE A. CLUTE, Rensselaer, N. Y. Filed Sept. 21, 1909. Serial No. 518,889. (Cl. 217-46.)



1. A folding berry crate comprising a bottom portion, having a side portion hinged thereto at one of its longitudinal edges and spaced therefrom; a cover hinged to said side portion; a side portion hinged to the other longitudinal edge of said bottom portion; an end portion hinged to each end of said last mentioned side portion, all so arranged and connected up that the ends may be folded onto one of the side portions and the folded ends and side portions folded onto the bottom portion, the cover folded onto the other of said side portions; and means for locking together the folded crate.

2. A berry crate comprising a bottom portion; a cover; two side pieces; two end pieces; a series of trays and cleats; chest hinges connecting the end pieces to one of the side pieces; chest hinges connecting the bottom to one of the side pieces; chest hinges connecting the bottom to the other of the side pieces; chest hinges connecting the cover to one of said side pieces; when knocked down and assembled for shipment in knocked down condition the end pieces folded onto the side piece to which they are hinged, a tray placed on said folded end pieces, the said side piece with the end pieces folded thereon and the tray resting on them folded onto the bottom, two trays and their cleats placed onto the other side piece, the cover folded onto the trays on said last mentioned side piece, and the cover locked in its folded over position to the first mentioned side piece, substantially as described.

1,079,329. TUCK-MARKER FOR SEWING-MACHINES. PHILIP DIEHL, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 22, 1912. Serial No. 685,442. (Cl. 112-27.)

1. In a tuck-marker, the combination with the frame,

and an operating lever, of a lower marking member provided with a marking element, an upper spring-retracted marking member provided with a second marking element and a spring-arm overlying and spaced above the same, said upper marking member and spring-arm being connected with the lower marking member laterally of and remotely from and at the same side of said marking elements and extending in the same direction toward the latter.



2. In a tuck-marker, the combination with the frame, and an operating lever, of three overlapping arms normally spaced apart, of which two carry cooperating marking elements and a third receives the impact of the operating lever and all are connected together remotely from said marking elements, and means for securing said arms upon the frame adjustably crosswise of the direction of movement of said operating lever.

3. In a tuck-marker, the combination with the frame and an operating lever, of a marking device comprising a strip of spring metal bent to form two integral and spaced superposed members one of which carries a marking element, and an intermediate spring member secured to the upper member intermediate its ends and provided with a cooperating marking element, and means applied to the lower of said integral members for securing the same upon the frame adjustably transverse to the direction of movement of said operating lever.

4. In a tuck-marker, the combination with the frame and an operating lever, of a marking device provided with cooperating marking elements within the range of action of said operating lever, and a smoothing device constructed separately from and arranged adjacent said marking device and comprising a pair of integral spring-arms formed of a strip of spring metal with its end portions bent in overlapping relation, said arms embracing near their integrally connected ends a portion of the frame to which they are secured.

5. A tuck-marker comprising a presser-foot having a pressure member formed with a needle aperture, a forwardly extending arm provided with a fulcrum-pin in advance of said needle-aperture, and a laterally and forwardly extending frame member, an operating lever mounted upon said fulcrum-pin and extending backwardly therefrom and provided with a depending cam projection, a marking device comprising a lower member adjustably secured upon said frame member and carrying a marking element, a superposed spring-retracted marking member connected therewith and provided with a cooperating marking element, and a spring-arm having one end secured to said superposed member and disposed within the range of action of the cam projection of said operating lever.

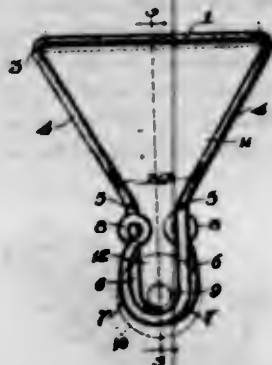
[Claims 6 to 12 not printed in the Gazette.]

1,079,330. GARMENT-SUPPORT. JOSEPH WALTER FLAGG, Worcester, Mass., assignor of one-half to Harry A. Walker, Boston, Mass. Filed Jan. 29, 1907. Serial No. 354,633. (Cl. 24-246.)

1. A clasp member for garment supporters having a central transverse portion, converging sections at each end of said central portion, parallel sections at the ends of said converging sections, with the distance between said parallel sections less than the length of said central portion, with return bends in planes intersecting with each other at the ends of said parallel sections, and with the ends of said return bends crossing the planes of said parallel sections.

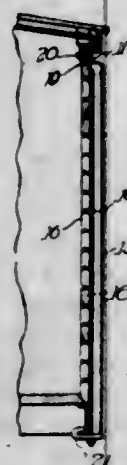
2. A clasp member for garment supporters formed of a single piece of wire having a central transverse portion,

lateral branches reversely laterally and inwardly bent to form two overlapping loops terminating in eyes which lie



in the same plane, and which normally lie close together to form a contracted entrance to said loops.

1,079,331. TIGHTENER FOR CAR SIDES. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 23, 1912. Serial No. 721,877. (Cl. 105—15.)

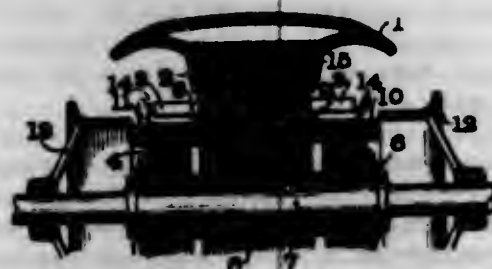


1. In a car having exterior framing and an inner wall, the combination of tightening means secured over the top of the wall and passing down over the outer surface of the wall, and an abutment located exteriorly of the car wall for a tightening nut, the arrangement being such that the nut is exposed to the exterior of the car, substantially as described.

2. In a car, the combination of side walls and an exterior framing, of a tightening rod hooked over the upper edge of a wall, an abutment projecting outwardly from the car side sill and providing a bearing for a tightening nut exteriorly of the car wall, substantially as described.

3. In a car, the combination of side walls and an exterior framing, of a tightening rod hooked over the upper edge of a wall, an abutment hooked to the car side sill and projecting outwardly therefrom, thereby providing a bearing exteriorly of the car wall for a tightening nut on said rod, substantially as described.

1,079,332. ALTERNATE-CURRENT MOTOR. VALERE ALFRED FRYN, London, England. Filed June 12, 1911. Serial No. 632,582. (Cl. 172—280.)



1. In an alternating current motor, the combination with an inducing member having a group of laminations and windings partly embedded therein and partly projecting beyond said laminations, of an induced member having a plurality of groups of laminations, one of said groups

being of substantially the same width as the laminations of the inducing member and in line therewith, a winding embracing said group only, and a second winding on the induced member embracing a plurality of groups of laminations and in inductive relation with projecting portions of the inducing windings.

2. In an alternating current motor, the combination with a laminated inducing member, of an induced member of greater width than the inducing member and provided with a plurality of groups of laminations, one of said groups being of substantially the same width as the laminations of the inducing member and in line therewith, a permanently short-circuited winding embracing said group only and a second winding on the induced member of higher resistance than the first and embracing a plurality of groups of laminations.

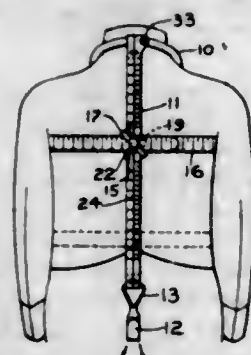
3. In an alternating current motor, the combination with an inducing member, of an induced member provided with a main and two auxiliary groups of laminations, a winding embracing the main group only and a second winding of higher resistance than the first and embracing both the main and the auxiliary groups of laminations.

4. In an alternating current motor, the combination with an inducing member, of an induced member provided with a main and an auxiliary group of laminations, a winding embracing the main group only, and a second winding of higher resistance than the first embracing both the main and auxiliary groups of laminations.

5. In an alternating current motor, the combination with an inducing member, of an induced member provided with a main and an auxiliary group of laminations, a winding embracing the main group only, a second winding embracing both the main and auxiliary groups of laminations, and means for varying the reactance of the second winding.

(Claims 6 to 8 not printed in the Gazette.)

1,079,333. TAILOR'S MEASURING DEVICE. MAX GOLDBERGER, Chicago, Ill. Filed Mar. 21, 1910. Serial No. 550,702. (Cl. 73—48.)



1. In a tailor's measuring device, a neckpiece or clasp made of a strip of spring metal having spreadable ends and adapted to be fitted over and automatically adjust itself to the neck and a flexible back measuring tape attached to the rear or closed part of said clasp and provided at its lower end with means adapted to engage in the trousers to hold the tape taut.

2. In a tailor's measuring device, a neckpiece, a back measuring tape fixed thereto and provided at its lower end with means for fastening it to the trousers, a graduated bust measuring tape crossing the back tape at a right angle and provided with means for fastening it about the bust and a loop fitted over the bust and back tape at their intersection and through which both tapes freely slide, and having a single fastening device by which said tapes are detachably fastened at their point of crossing.

3. In a tailor's measuring device, a neckpiece, a back measuring tape fixed thereto and provided at its lower end with means for fastening it to the trousers, a graduated bust measuring tape crossing the back tape at a right angle and provided with means for fastening it about the bust, a single loop fitted over and disposed obliquely to the bust and back tapes at their intersection, through which both tapes freely slide and a single fastening device

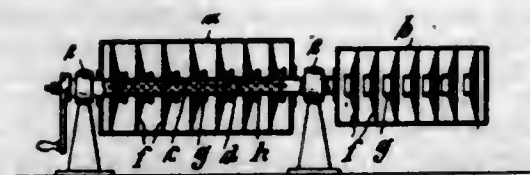
associated with said loop and for detachably locking said back and bust measuring tapes together at their point of crossing.

4. In a tailor's measuring device, the combination with a back measuring tape having means for holding the same centrally of the back and having a graduated scale, and a second, flexible tape which extends around the figure and crosses the back tape at or near the level of the base of the arm scye and having a graduated scale, said back tape having a supplemental, proportioned attitude size scale based on normal human growth adapted to read from a gage edge on the second tape.

5. In a tailor's measuring device, the combination with a back measuring tape having means for holding the same centrally of the back and having a graduated scale, and a second, flexible tape which extends around the figure and crosses the back tape at or near the level of the arm scye and having a graduated scale, said second tape having a supplemental proportioned attitude scale arranged to cooperate with the back measuring tape to indicate erect or stooping postures.

(Claims 6 to 17 not printed in the Gazette.)

1,079,334. ICE-MAKING MACHINE. WILHELM GRAAFF, Berlin, Germany. Filed Sept. 26, 1911. Serial No. 651,397. (Cl. 62—6.)



1. In an ice making machine the combination of a vessel serving as distiller and absorber with a vessel serving as condenser and refrigerator, a tube connecting said vessels, passing through the absorber and having perforations within the same and serving as a revolving shaft for said vessels, a plurality of conical, perforated disks in the absorber, said disks having a tubular socket.

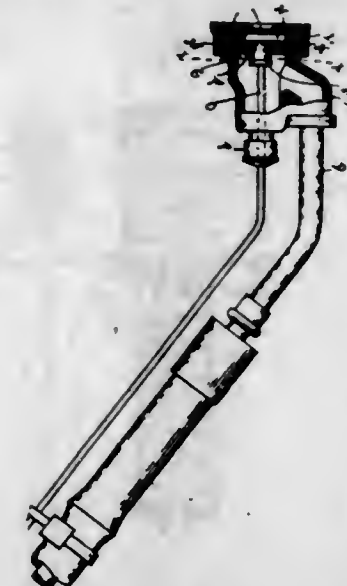
2. In an ice making machine the combination of a vessel serving as distiller and absorber with a vessel serving as condenser and refrigerator, a tube connecting the two said vessels, passing through the absorber and having perforations within said absorber said tube serving as a common revolving shaft for said vessels, a plurality of conical disks with perforations mounted in the absorber, said disks each having a central tubular socket, provided with a bead at the free end, and similarly shaped perforated disks each having a central tubular socket in the refrigerator, said disks in the absorber all turned with their apices toward said refrigerator and said disks in the absorber all turned with their apices toward said absorber.

1,079,335. TREE-SPRAYING DEVICE. HENRY H. HARDIE, Hudson, Mich., assignor to The Hardie Manufacturing Company, Hudson, Mich., a Corporation of Michigan. Filed Mar. 6, 1911. Serial No. 612,662. (Cl. 137—86.)

1. In a spraying apparatus, the combination with a member forming an extended nozzle, of a chambered fitting at the upper end of said member, a disk in said chambered fitting having obliquely arranged ports therethrough for causing the rotation of the liquid, a centrally apertured disk through which the rotating liquid is discharged, a port through the first mentioned disk in alignment with said central port, and means for variably restricting the last mentioned port.

2. In a spraying apparatus, the combination with a member forming an extended nozzle, of a chambered fitting at the upper end of said member arranged to discharge the liquid in an oblique direction, means for causing the rotation of the liquid discharge from said fitting, a port in said fitting for discharging a non-rotating stream, a plug for normally closing said port, and a rod for actuating said plug extending to the lower end of said member and operable therefrom.

3. In a liquid spraying apparatus, a member forming an extended nozzle, a fitting at the upper end of said member comprising a chambered casing, an apertured disk forming the discharge from said casing, a disk within said casing parallel to said apertured disk having inclined ports therethrough, and a centrally tapering port in alignment with the discharge port, a tapering plug normally seated in said tapering port, a rod connected to said plug and extending out through said fitting and downward to the lower end of said member, a spring for normally holding said plug to its seat, and a handle for actuating said rod to withdraw the plug from its seat.



4. In a spraying apparatus, the combination with a member forming an extended nozzle, of a chambered fitting at the upper end of said member arranged to discharge the liquid in an oblique direction, said chambered fitting being provided with a continuously open centrifugal discharge means, a port for discharging a non-rotating stream, a valve normally closing said port, and means extending to the lower end of said member for adjusting said valve from its seat in a direction substantially parallel to the direction of discharge to variably change the character of the spray.

5. In a spraying apparatus, a liquid discharge nozzle comprising a chambered casing, a disk in said chambered casing having obliquely arranged ports therethrough for causing the rotation of the liquid, a centrally apertured disk through which the rotating liquid is discharged, a port through the first-mentioned disk in alignment with said central port, and means for variably restricting the last-mentioned port.

(Claim 6 not printed in the Gazette.)

1,079,336. WEIGHING AND ADDING SCALE. HOSKA HATHAWAY, Boston, Mass. Filed Nov. 11, 1908. Serial No. 462,045. (Cl. 73—100.)

1. In a weighing scale the combination of a casing forming an oil chamber whose upper and lower ends are provided with stuffing boxes, a draft rod for supporting the object to be weighed, said draft rod being passed through said stuffing boxes and having reciprocating movement therein, a head or piston secured to said draft rod intermediate of the stuffing boxes to resist the downward movement of the draft rod by pressure against the oil in the casing, a spring immersed in the oil and arranged to form a yielding resistance to the downward movement of the draft rod, and a weight-indicating scale, connected with said draft rod, substantially as described.

2. In a weighing scale the combination of an oil tight casing provided with upper and lower stuffing boxes, a reciprocating draft rod passing through the casing and projecting through said stuffing boxes, an indicator cooperating with the draft rod to indicate the weight of the object, a compression spring immersed in the oil of the chamber and arranged to oppose a yielding resistance to the downward movement of the draft rod, substantially as described.

3. In a weighing scale the combination of a draft rod for supporting the object to be weighed, a compression spring for resisting the pull of said weight, adding mechanism having direct engagement with said rack bar to add the successive weights, an interlocking lever engaging said draft rod to hold it against movement, and means for positively locking said lever against disengagement with said draft rod, substantially as described.

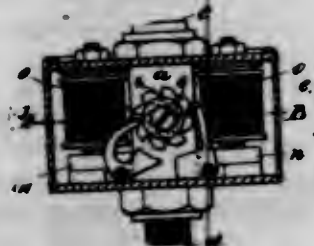


4. In a weighing scale the combination of a supporting casing, a vertically movable draft rod mounted therein, a spring carried by the casing and having engagement with the draft rod to afford a yielding resistance to its downward movement, a weighing and adding mechanism actuated by said draft rod, an interlocking lever having engagement with said draft rod to prevent its movement, and means for locking said lever against disengagement with said locking means embracing a lug formed on the casing, and means for securing said lever to said lug, substantially as described.

5. A weighing scale embracing in its construction a hollow casing, recording mechanism mounted therein, a cylindrical chamber formed below said casing and provided at its upper and lower ends with stuffing boxes, a draft rod passing through said stuffing boxes and having engagement with the weighing and adding mechanism, a piston secured to the draft rod intermediate of the ends of the cylinder, an oil passage being provided for permitting the flow of oil from one side to the other of said piston, and a spring for resisting the downward movement of the draft rod, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,079,337. GAS-VALVE. EPHRAIM WILLIAM HAYERS, London, England. Filed Sept. 7, 1912. Serial No. 719,047. (Cl. 67-18.)



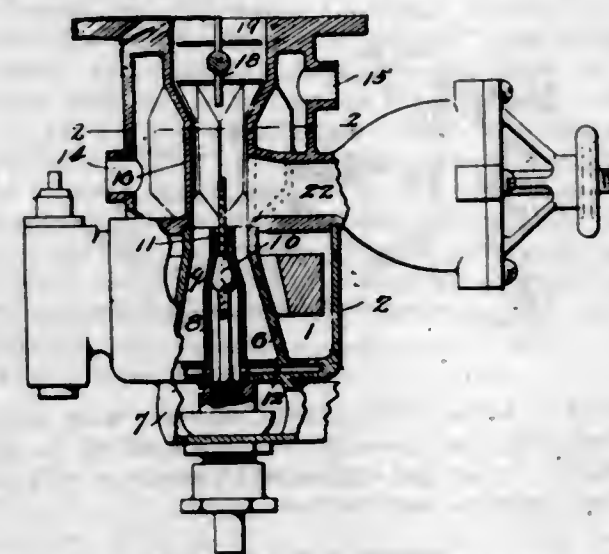
1. In a gas controlling device, in combination, a main inlet conduit provided with a port, a main outlet conduit provided with a port, an auxiliary outlet conduit provided with a port, a rotatable valve provided with ports and passages communicating therewith, said valve being

adapted to assume four positions, the ports of said valve and said conduits being so proportioned and arranged that in the first or normal position of the valve the ports of said main conduits are closed, in the second and fourth positions of the valve the main inlet conduit is in communication with the auxiliary outlet conduit and with the main outlet conduit and in the third position of the valve the main inlet conduit is in communication with the main outlet conduit and out of communication with the auxiliary outlet conduit, and valve actuating means for rotating said valve from its first position to its third position by one impulse of energy acting in two steps, and for rotating said valve from its third position to its first position by a similar impulse of energy acting in two steps, the first step of the impulses moving the valve from its first position to its second position or from its third position to its fourth position, and the second step of the impulses moving the valve from its second position to its third position or from its fourth position to its first position.

2. In a gas controlling device, in combination, a main inlet conduit provided with a port, a main outlet conduit provided with a port, an auxiliary outlet conduit provided with a port, a rotatable valve provided with ports and passages communicating therewith, said valve being adapted to assume four positions, the ports of said valve and said conduits being so proportioned and arranged that in the first or normal position of the valve the ports of said main conduits are closed, in the second and fourth positions of the valve the main inlet conduit is in communication with the auxiliary outlet conduit and with the main outlet conduit and in the third position of the valve the main inlet conduit is in communication with the main outlet conduit and out of communication with the auxiliary outlet conduit, a ratchet wheel connected to said valve, two oppositely acting pawls co-acting with said ratchet wheel, and means for operating said pawls alternately for rotating said valve from its first position to its third position by one impulse of energy acting in two steps, and for rotating said valve from its third position to its first position by a similar impulse of energy acting in two steps, the first step of the impulses moving the valve from its first position to its second position or from its third position to its fourth position, and the second step of the impulses moving the valve from its second position to its third position or from its fourth position to its first position.

3. In a gas controlling device, in combination, a main inlet conduit provided with a port, a main outlet conduit provided with a port, an auxiliary outlet conduit provided with a port, a rotatable valve provided with ports and passages communicating therewith, said valve being adapted to assume four positions, the ports of said valve and said conduits being so proportioned and arranged that in the first or normal position of the valve the ports of said main conduits are closed, in the second and fourth positions of the valve the main inlet conduit is in communication with the auxiliary outlet conduit and with the main outlet conduit, and in the third position of the valve the main inlet conduit is in communication with the main outlet conduit and out of communication with the auxiliary outlet conduit, a ratchet wheel connected to said valve, two oppositely acting pawls co-acting with said ratchet wheel, an electro-magnet, an armature therefor connected to said pawls, one of said pawls being operative and rotating said ratchet wheel when the armature is attracted, the other of said pawls being operative and rotating said ratchet wheel when the armature is released and returns to its normal position, whereby said valve will be rotated from its first position to its third position by one impulse of energy acting in two steps and from its third position to its first position by a similar impulse of energy acting in two steps, the first step of the impulses moving the valve from its first position to its second position or from its third position to its fourth position and the second step of the impulses moving the valve from its second position to its third position or from its fourth position to its first position.

1,079,338. GASEOUS-FUEL MIXER. JOHN T. HAZELTON, Somerville, N. J. Filed Sept. 21, 1912. Serial No. 721,625. (Cl. 48-180.)



1. The combination of a throttle inclosed within a casing forming part of a carburetor, with means on the throttle for disintegrating gases which pass through the casing.

2. The combination of a throttle inclosed within a casing forming part of a carburetor, with separated pins projecting from the throttle for disintegrating the gases that pass through the casing.

1,079,339. INKING-ROLLER AND PROCESS OF MAKING SAME. JEROME H. HENNESSEY, Washington, D. C. Filed May 31, 1912. Serial No. 700,791. (Cl. 101-76.)

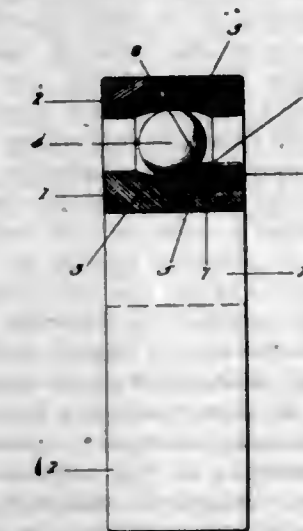


1. The process of making an inking roller which consists in casting the roller in cylindrical form, winding about said cylinder a tape in a helical line and under sufficient tension to cause a helical depression therein and allowing the so-wound roller to stand until the roller-material has acquired a permanent set.

2. An inking roller having thereon a helical ink-applying portion with a corresponding shallow depression between the turns of the helix, such depression being only so deep as to avoid contact with the surface to which the ink is to be applied.

3. An inking roller having thereon a helical ink-applying portion rounded at the sides, with a corresponding shallow depression between the turns of the helix, such depression being deep enough to avoid contact with the surface to which the ink is to be applied.

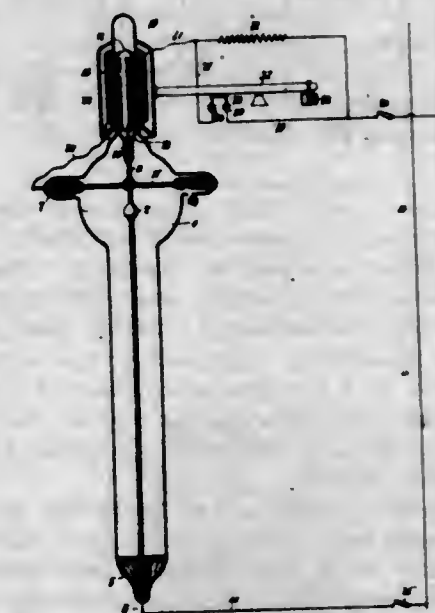
1,079,340. BALL-BEARING. HENRY HESS, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 15, 1907. Serial No. 357,442. (Cl. 64-38.)



The combination of two bearing rings provided with races, balls in the races, one of the rings being cut-away

at one side to approximately the depth of its race, the ring also being formed with a shoulder adjacent to the race, a retaining ring on said bearing ring having a convexly curved face presented to the balls and a nut engaging a screw thread on the bearing ring and serving to hold the retaining ring in position.

1,079,341. METHOD OF STARTING ELECTRIC-LIGHTING APPARATUS. PETER COOPER HEWITT, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Mar. 23, 1901, Serial No. 52,488. Divided and this application filed Mar. 30, 1903. Serial No. 150,170. (Cl. 176-46.)



1. The method of starting an electric gas or vapor apparatus in which there is an initial negative electrode reluctance, which consists in breaking down said reluctance locally and thereby leaving the current free to traverse the entire gas or vapor path.

2. The method of starting a gas or vapor electric apparatus having the quality of opposing an initial negative electrode reluctance to the passage of current, which consists in providing a path through the gas or vapor by locally breaking down the said reluctance.

3. The method of starting a gas or vapor electric apparatus containing a positive electrode and a negative electrode, and also containing a vapor conductor between the electrodes, which consists in establishing a path for the current between the positive and the negative electrodes by locally breaking down the reluctance at the negative electrode.

4. The method of starting a gas or vapor electric apparatus in which an inclosed gas or vapor is held between a positive and a negative electrode and in which an abnormal resistance to starting exists at or near the surface of contact between the gas or vapor and the negative electrode, which consists in establishing normal conditions of current flow by locally breaking down the resistance at the said surface of contact.

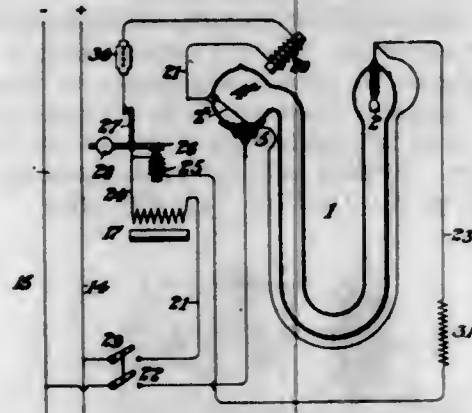
5. The method of starting a gas or vapor electric apparatus comprising a suitable container, a conducting gas or vapor therein, and two electrodes, which consists in closing a circuit to the negative electrode and automatically opening the circuit within the container, thereby causing a flow of electricity into the vapor.

[Claims 6 and 7 not printed in the Gazette.]

1,079,342. ELECTRIC GAS OR VAPOR LAMP. PETER COOPER HEWITT, New York, and NELSON W. ROGERS, Mount Vernon, N. Y., assignors, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Mar. 23, 1901, Serial No. 52,499. Divided and this application filed Nov. 16, 1906. Serial No. 343,699. (Cl. 176-49.)

1. The method of starting a gas or vapor electric apparatus having electrodes, one at least of which is composed

of vaporizable material and having an auxiliary means for initially producing a local vaporization of vaporizable material at the last named electrode, which consists in initially causing a localized vaporization by means of a supplementary electrode and afterward transferring the flow of current to the other working electrode.



2. In a gas or vapor electric apparatus of the character described, having one negative electrode and at least two positive electrodes, one positive electrode being adapted for electrical connection within the container with the negative electrode, the method of starting operation, which consists in automatically overcoming the negative electrode resistance by a supplementary flow of current, and thereafter transferring this current flow to the main path through the agency of a temporarily impressed higher potential impressed thereon.

3. The method of starting and operating gas or vapor electric apparatus having electrodes, one at least of which is formed wholly or in part of vaporizable material, and having auxiliary means for initially producing a localized vaporization of the material forming said vaporizable electrode, which consists in initiating a vaporization locally by means of a supplementary electrode, and thereafter transferring the flow of current from the local to the other working electrode.

4. The method of producing a flow of current in an evacuated space between electrodes, one at least of which during said flow of current emits a vapor, which consists in impressing upon said electrodes through two paths an electromotive force of a value insufficient to initiate the desired flow of current and, disengaging from the vapor emitting electrode migratory ions in one of said paths by an electromotive force of the same order of magnitude as that applied to the main electrodes.

5. The method of starting a vapor electric apparatus having main electrodes and an additional or auxiliary electrode adapted to cooperate therewith, which consists in impressing upon a main electrode and said additional electrode an electromotive force, and by the action of said electromotive force causing an initial production of ionized vapor.

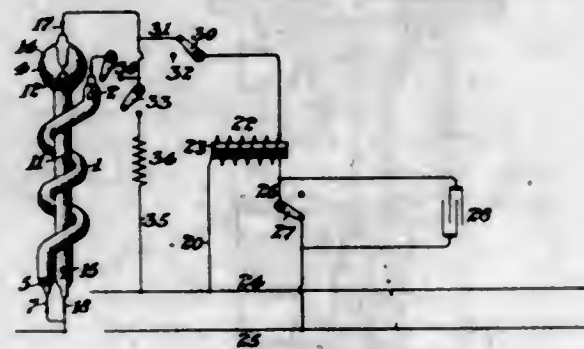
[Claims 6 to 12 not printed in the Gazette.]

1,079,343. ELECTRIC LIGHTING. PETER COOPER HEWITT, Ringwood Manor, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Apr. 5, 1900, Serial No. 11,608. Divided and this application filed Jan. 18, 1908. Serial No. 411,384. (Cl. 176-13.)

1. In a system of electrical distribution, the combination with a source of direct current, a plurality of vapor electric devices, each comprising an exhausted container and suitable electrodes therein, and means for connecting said devices in parallel across said mains, of means for operating said lamps in parallel, said means including a resistance in series with one of said devices, and an inductance in series with another, together with means for utilizing said inductance for starting each of the devices.

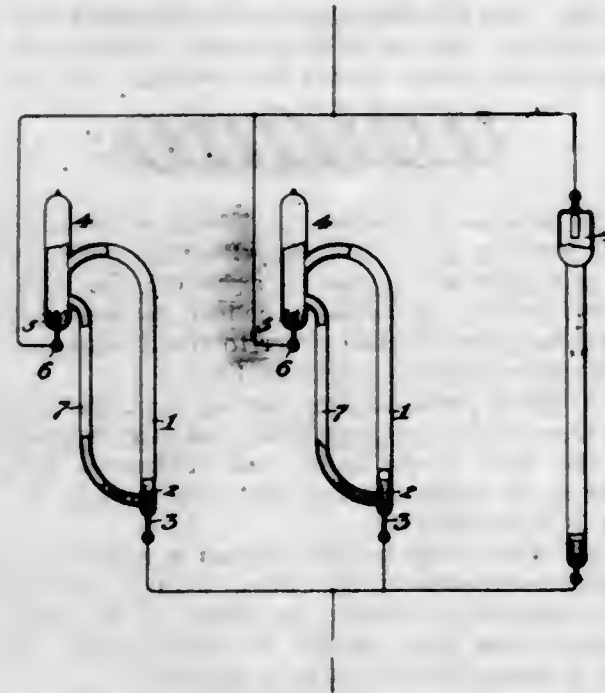
2. In a system of electrical distribution, the combination with a source of direct current, a plurality of vapor electric devices, each comprising an exhausted container and suitable electrodes therein, and means for connecting said

devices in parallel across said mains, of means for operating said lamps in parallel, said means including a resistance in series with one of said devices, and an in-



ductance in series with another, together with means for utilizing said inductance for starting each of the devices, and means for interchanging said resistance and said inductance between said devices.

1,079,344. ELECTRICAL PRODUCTION OF LIGHT. PETER COOPER HEWITT, Ringwood Manor, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Apr. 29, 1899, Serial No. 714,995. Divided and application filed Mar. 27, 1900, Serial No. 10,360. Divided and this application filed Mar. 21, 1911. Serial No. 615,914. (Cl. 176-42.)



1. In a mercury vapor apparatus, the combination with an exhausted container having two separated electrode chambers and a connecting portion constituting a vapor path, and mercury in said chambers constituting the electrodes, of means for condensing mercury vapor generated in the operation of the said apparatus and for collecting said mercury in the upper of said electrodes, together with means for returning the excess of the accumulated mercury to the lower electrode through a return tube separate from the said vapor path.

2. An electric lamp of the character described, comprising an exhausted vapor-containing inclosure, a mercury electrode in one portion of said inclosure, a second mercury electrode at another portion of the inclosure, a current vapor path between the electrodes and a return tube for carrying mercury overflowing from the first named electrode to the second named electrode.

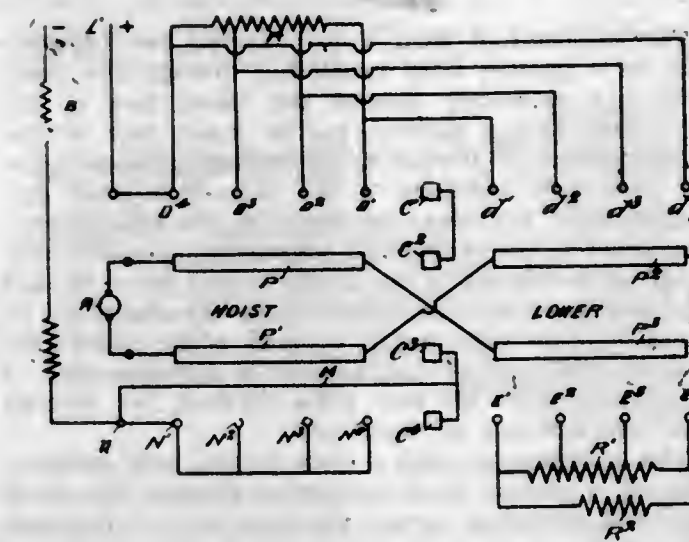
3. A vaporizable conducting liquid apparatus comprising an exhausted container having a tubular light giving portion and a condensing chamber, vaporizable conducting liquid electrodes therein at the terminals of said light giving portion, and means for maintaining the normal distribution of the vaporizable conducting liquid between the electrodes, said means being independent of said light giving portion.

4. In a vapor electric apparatus comprising an exhausted container and two mercury electrodes therein connected by a current path, one electrode being located above the other, means for condensing vaporized material in said container and for discharging it into the upper electrode and means for maintaining the normal level of said electrodes, said last named means consisting of a return tube, separate from said current path, for taking the overflow of said upper electrode to the lower electrode.

5. In a vapor electric apparatus, the combination with an exhausted container and two mercury electrodes therein connected by a vapor path, of means for maintaining the normal distribution of the mercury between these electrodes, said means operating independently of said vapor path.

[Claims 6 to 15 not printed in the Gazette.]

1,079,345. DYNAMIC CONTROL FOR ELECTRIC MACHINES. ARTHUR E. HUGHES and JOHN D. FIRMIN, Philadelphia, Pa., assignors to Niles-Bement-Pond Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 5, 1911. Serial No. 819,188. (Cl. 172-179.)



1. The combination of an undivided line circuit including a motor armature, a field, and a variable resistance all in series, a normally open armature circuit containing a variable resistance, and a controller and suitable contacts for varying the series resistance for running in one direction, and for closing the armature circuit and progressively cutting out the series resistance and increasing the armature resistance for running in the other direction.

2. The combination of an armature and field in series on the line, a variable series resistance, a shunt circuit about the armature excluding the field, a fixed resistance and a variable resistance in said shunt circuit, a controller and suitable contacts for opening the armature circuit for running in one direction and for closing the armature circuit and progressively and simultaneously cutting out the series resistance and increasing the armature resistance for running in the other direction.

3. The combination of an undivided line circuit including an armature a field and a variable resistance all in series, a circuit in shunt about the armature, a fixed resistance and a variable resistance therein, a controller and suitable contacts for varying the series resistance for running in one direction, and for closing the armature circuit and progressively cutting out the series resistance and increasing the armature resistance for running in the other direction.

1,079,346. METHOD OF MAKING STORAGE-BATTERY ELECTRODES. HARRY C. HUBBELL, Newark, N. J. Filed Nov. 23, 1910. Serial No. 593,760. (Cl. 204-29.)

1. The process of making a storage battery electrode consisting in coating with metal one side of a filament shaped portion of active material and massing together a plurality of the resulting filaments.

2. The process of making a storage battery electrode consisting in electro-depositing a metal upon one side of a

filament shaped portion of active material and massing together a plurality of the resulting filaments.

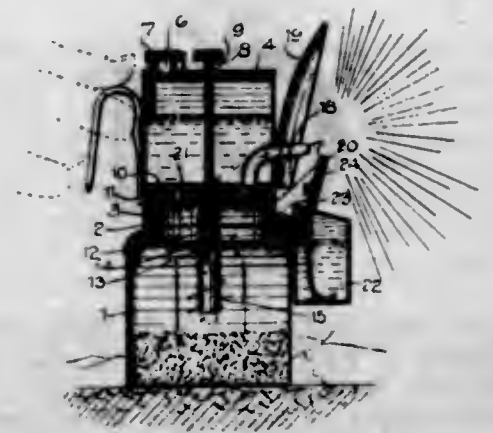
3. The process of making a storage battery electrode consisting in depositing a filament shaped portion of active material upon a conducting surface, and electro-depositing a metal upon the exposed portion of said active material, and massing together a plurality of the resulting filaments.

4. The process of making a storage battery electrode consisting in electro-depositing a metal upon one side of a filament shaped portion of active material containing finely divided metal to increase conductivity, and massing together a plurality of the resulting filaments.

5. The process of making a storage battery electrode consisting in depositing a filament shaped portion of active material containing finely divided metal upon a conducting surface, electro-depositing a metal upon the exposed portion of said active material, and massing together a plurality of the resulting filaments.

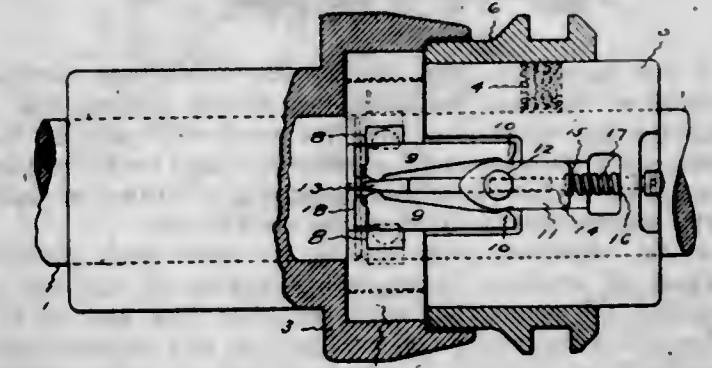
[Claims 6 and 7 not printed in the Gazette.]

1,079,347. LAMP. WILLIAM F. HUDGINS, Dorrisville, Ill., assignor of one-third to Frederick W. Bristow and one-third to Squire A. Wallace, Dorrisville, Ill. Filed Jan. 25, 1913. Serial No. 744,213. (Cl. 240-37.)



A device of the character described comprising the combination of a carbide lamp having a reduced portion, an auxiliary lamp removably secured to such reduced portion of the carbide lamp and having an upwardly directed burner, a reflector carried by the carbide lamp, and an outwardly directed burner for said carbide lamp extending through the wall thereof and through the reflector, said burner terminating adjacent the burner of the auxiliary lamp.

1,079,348. FRICTION-CLUTCH. MOSES C. JOHNSON, Hartford, Conn. Filed Feb. 25, 1913. Serial No. 750,703. (Cl. 192-13.)



1. A friction clutch having a female part and a male part with an expansible ring arranged between the two parts and turning with one of them, levers arranged to expand the ring, means for spreading the levers, and a yielding tapering fulcrum for the levers which is movable longitudinally of the levers.

2. A friction clutch having male and female parts with a split ring between the parts, levers for expanding the ring, means for spreading the levers and causing the ring

to expand, a longitudinally movable fulcrum bar between the short arms of the levers, and a spring thrusting the fulcrum bar between the levers.

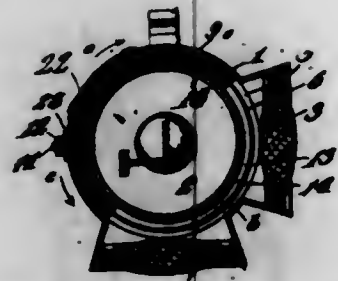
3. A friction clutch having male and female parts with a split ring between the parts, levers for expanding the ring, means for spreading the levers and causing the ring to expand, a tapering fulcrum bar projecting between the short arms of the levers, an adjustable screw threaded shank for the said bar, and a spring thrusting the bar between the levers.

4. A friction clutch having male and female parts with a split ring between said parts, levers for expanding the ring, ball-like bearing surfaces between the levers and the ends of the ring, and means for spreading the levers and causing the ring to expand.

5. A friction clutch having male and female parts with a split ring between said parts, levers for expanding the ring, spherical projections on the levers, spherical sockets in the ends of the ring for receiving said spherical projections, and means for spreading the levers and causing the ring to expand.

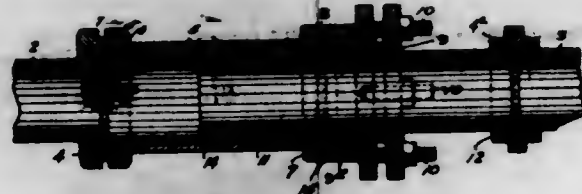
[Claims 6 and 7 not printed in the Gazette.]

1,079,349. MARKER-LAMP. ALBERT G. KARL, Baltimore, Md. Filed Aug. 5, 1912. Serial No. 713,370. (Cl. 240—20.)



A marker lamp including a lamp body having spaced lenses disposed at right angles to each other, semi-circular transparent shutters of different colors mounted to move independently of each other in concentric circles within the body, each shutter being shiftable to active position back of either or both of said lenses or to inactive position within the body.

1,079,350. EXPANSION-JOINT. JOHN T. KELLY, Brooklyn, N. Y., assignor to one-half to George M. Jones, Pittsburgh, Pa. Filed Feb. 7, 1910. Serial No. 542,639. (Cl. 137—28.)



1. An expansion joint having its outer body portion formed of wrought metal tubing having at one end a coupling for connection with the main line and at the other end a separate metal stuffing box, and its inner telescoping sleeve formed of a plain section of drawn wrought metal tubing passing through the stuffing-box.

2. An expansion joint having its outer body portion formed of wrought metal tubing having at one end a coupling for connection with the main line and at the other end a separate metal stuffing box, and its inner telescoping sleeve formed of a plain section of drawn copper containing metal tubing passing through the stuffing-box.

1,079,351. LOCK. RICHARD J. KEPPEL, Philadelphia, Pa., assignor to Keppel & Company, Chester, Pa. Filed Aug. 14, 1911. Serial No. 643,843. (Cl. 70—29.)

1. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a

lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved into the path of movement of the latch, and a key adapted to be projected through the upper openings in the door and lock and operate said tumbler, substantially as described.



2. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved into the path of movement of the latch, a face plate on said casing having an opening therein, and key receiving recesses at opposite sides of said opening, a key constructed to operate said tumbler, and notches in opposite sides of said key to receive the face plate between the recesses therein, substantially as described.

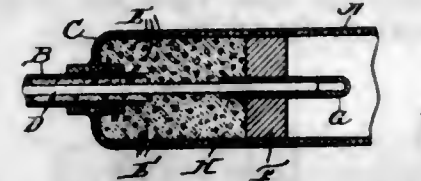
3. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved across the path of movement of the latch, a face plate on said casing having an opening therein, and key receiving recesses at opposite sides of said opening, a key constructed to turn said tumbler, and notches in opposite sides of said key to receive the face plate between the recesses therein, and a spring within the locked casing bent between its ends and bearing against the tumbler, whereby said tumbler is held in either its locked or unlocked position, substantially as described.

4. The combination with a door having two openings therein, of an escutcheon secured to the outer face of the door and positioned over the openings, a handle on said escutcheon, a latch pivoted to the escutcheon and projected through the lower opening, a lock casing secured to the inner face of the door independent of the latch and having an opening through which said latch projects, lugs struck from the face plate of said casing forming key receiving recesses, said lugs positioned in the upper opening in the door, a swiveled slotted key receiving plate in the escutcheon opposite the upper opening, a tumbler in said casing, and a key adapted to be projected through the upper opening to move said tumbler into position over the latch and limit the movement of the latch, substantially as described.

1,079,352. VACUUM-TIGHT SEAL. FREDERICK G. KEYES, Boston, Mass., assignor to Arthur A. Noyes, trustee, Boston, Mass. Filed Mar. 6, 1913. Serial No. 752,318. (Cl. 176—50.)

1. In a vapor electric apparatus, a container, a metallic member sealed through the wall of the container, an absorbing material interposed between the interior of the

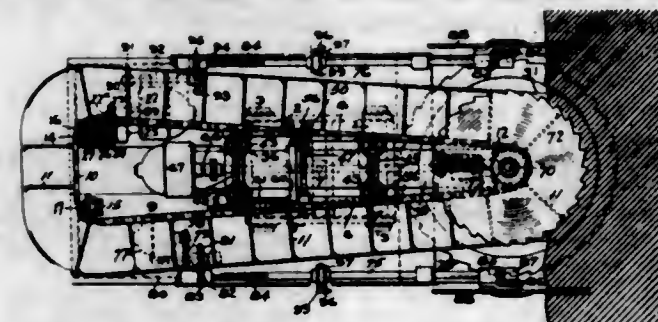
container and the metallic member to delay the penetration of vapor into the neighborhood of the metallic member.



2. In a vapor electric apparatus, a container, a metallic lead sealed through the wall of the container, an absorbing material pulverulent in form, interposed between the interior of the container and the metallic member to delay the penetration of vapor into the neighborhood of the metallic member.

3. In a vapor electric apparatus, a container constructed of non-conducting material, a metallic member passing through the wall of the container, an absorbing material embedded in a pulverulent material, interposed between the interior of the container and the metallic member.

1,079,353. MINING-MACHINE. HARRY A. KUHN, Pittsburgh, Pa. Filed Oct. 12, 1907. Serial No. 397,126. Renewed Nov. 21, 1908. Serial No. 463,891. (Cl. 125—14.)



1. In a mining machine, the combination with a suitable frame or support, of a conveyor carried thereby, an undercutter at the forward end of said conveyor, said undercutter having a dish upper face, and a receiving plate in said dish upper face.

2. In a mining machine, the combination with a suitable frame or support, of a beam supported thereby, means for raising and lowering said beam, means for moving said beam longitudinally, a cutter carried by said beam and mechanism carried by said beam for driving said cutter.

3. In a mining machine, the combination with a suitable frame or support, of a beam carried thereby, means for moving said beam longitudinally, means for tilting or rocking said beam laterally, a cutter carried by said beam and mechanism carried by said beam for driving said cutter.

4. In a mining machine, the combination with a suitable frame or support, of a hollow beam, a shaft supported within said hollow beam, a motor for driving said shaft, means for raising and lowering said beam, means for moving the same longitudinally, a cutter carried by said beam and connections between said shaft and said cutter for driving the latter.

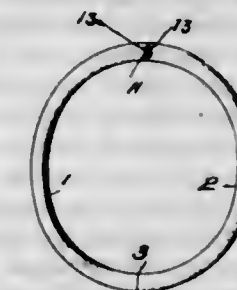
5. In a mining machine, the combination with a suitable frame or support, of a hollow beam, hangers supporting said beam, threaded standards engaging said hangers, a shaft extending through said beam, a motor driving said shaft, a cutter carried by said beam, connections between said shaft and said cutter, and means for moving said beam longitudinally.

[Claims 6 to 8 not printed in the Gazette.]

1,079,354. BRACELET. CHARLES M. LEVY, New York, N. Y. Filed June 7, 1912. Serial No. 702,169. (Cl. 63—7.)

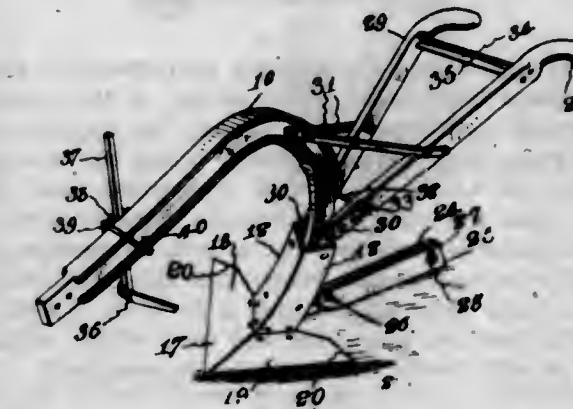
1. A bracelet comprising two members hinged together, an outwardly projecting latch carried at the free end of one of said members, an outwardly extending rigid guide and stop bar carried by said latch and provided with a

head at its free end, a sleeve secured in the free end of the other bracelet member, a spring latch carried by said sleeve and consisting of a curved bar having a latch hook formed at one end and a finger piece adjacent said hook, the sleeve being provided with an aperture to permit said finger piece to extend outwardly therethrough, the sleeve being also provided with a recess on the opposite side thereof from the finger piece aperture to receive the end of the curved bar, the outer end of said sleeve being formed with an aperture through which the rigid latch passes to engage the spring latch and being also formed with a recess through which the guide and stop bar passes, the head on the free end of said bar being adapted to engage the end of the sleeve to limit the outward movement of the free ends of the bracelet members, the free ends of said members being provided with recesses to permit the latch finger piece to extend therethrough.



2. A bracelet comprising two members hinged together, an outwardly projecting latch carried at the free end of one of said members, a sleeve secured in the free end of the other bracelet member, a spring latch carried by said sleeve and consisting of a curved bar having a latch hook formed at one end and a finger piece adjacent said hook, said finger piece extending through an aperture in the sleeve, the other end of the curved bar fitting in a recess in the sleeve directly opposite the finger piece, the curved portion of the bar extending into the bracelet member carrying the sleeve and the latch hook lying near the outer end of the sleeve and the latch being adapted to enter said sleeve when the bracelet members are brought together, a stop bar carried by one of the bracelet members and adapted to enter the other bracelet member and serving to limit the separation of the bracelet members at their free ends.

1,079,355. PLOW. RICHARD D. LOIKA and CHARLES E. LOIKA, Ballinger, Tex. Filed Mar. 21, 1912. Serial No. 685,209. (Cl. 97—21.)



In a plow of the class described, a frog, a bracket secured to said frog adjacent the lower portion thereof, a second bracket secured to said frog adjacent the upper portion thereof and displaced laterally with reference to the first bracket, a runner having its forward end positioned against the first bracket, a standard lying on one side of the first bracket and lying on the opposite side of the second bracket, a bolt passing through said first bracket, standard and runner, a second bolt passing through the second bracket and standard, and a third bolt passing through the runner and standard to the rear of the first bolt, said bolts lying in triangular relation.

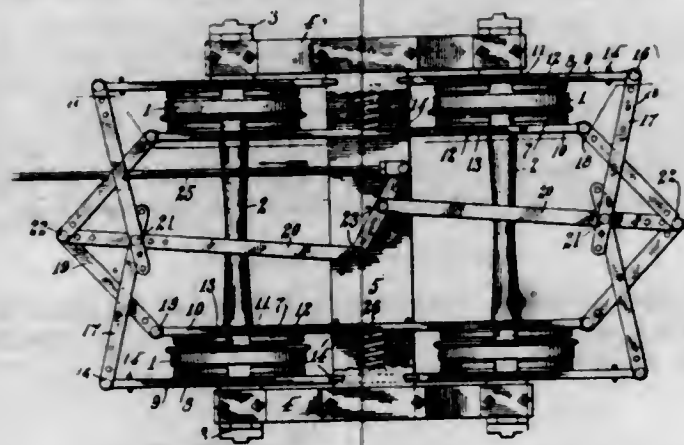
1,079,356. GAS-STOVE-OVEN BOTTOM. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 15, 1912. Serial No. 671,153. (Cl. 126—39.)



1. An oven bottom comprising a lower plate, an upper plate, a middle plate interposed between and so disposed with respect to said upper and lower plates as to form an air space above and below said middle plate, said upper plate having perforations communicating with the space below the middle plate and having other perforations communicating with the space above said middle plate.

2. An oven bottom comprising a lower plate, an upper plate, and an interposed middle plate spaced from said lower plate and having a marginal flange engaging the under side of the upper plate to afford an air space between the middle and upper plates, said bottom plate having an opening for the passage of the products of combustion to the space between it and the middle plate and the upper plate having an opening to allow of the passage of the products of combustion from said space below the middle plate into the baking chamber.

1,079,357. BRAKE IN RAILWAY-TRUCKS. GEORGE NAPIER and HARRY B. HARRIS, Dayton, Ohio. Filed June 4, 1913. Serial No. 771,674. (Cl. 188—24.)



In combination with a car truck including the wheels, brake members conforming substantially to the curvature of said wheels and arranged to engage the opposite sides of said wheels, side beams mounted along the inner and outer sides of said wheels, and supporting said brake members, links arranged substantially parallel with said beams and mounted between the wheels, connecting links extending between said side beams and the links arranged parallel to said side beams, and a lever to which said first named links are connected and from which motion is imparted to said beams, substantially as described.

1,079,358. SIDEREAL SPHERE. LA VERNE W. NOYES, Chicago, Ill., assignor to Aeromotor Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 16, 1912. Serial No. 731,763. (Cl. 35—3.)

1. A hollow rotatable sidereal sphere structure formed of thin material and having an axis of rotation inclined with respect to the horizontal, said structure including a ring engaging the sphere portion in the region of its equator and in a plane perpendicular to the axis of rotation of the sphere; and a mounting element engaging the sphere structure in the region of the ring.

2. A hollow sidereal sphere formed of thin material and having an axis of rotation inclined with respect to the

horizontal; a band encompassing and engaging the sphere in a plane perpendicular to the axis of rotation of the sphere and located between the poles of the sphere; and a mounting structure upon which said band may move rotatably to support the sphere.



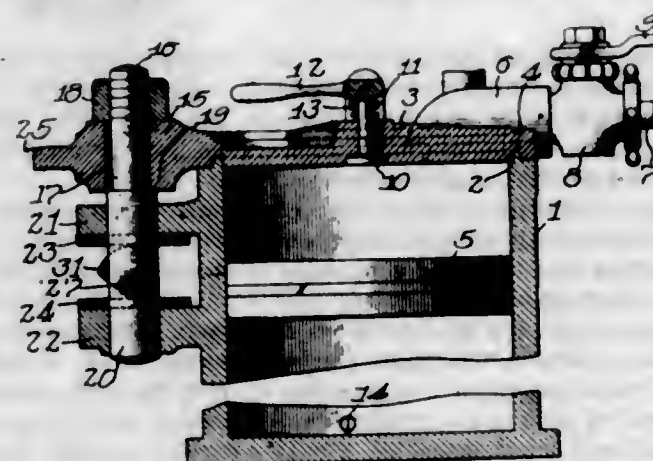
3. A hollow sidereal sphere having an axis of rotation inclined with respect to the horizontal; and a mounting structure upon which the sphere is rotatably supported and engaging the sphere structure at its equatorial zone.

4. A hollow sidereal sphere having an axis of rotation inclined with respect to the horizontal and free of bearing support at its upper pole; and a mounting structure upon which the sphere is rotatably supported and engaging the sphere between its poles.

5. A hollow sidereal sphere formed of thin material and having an axis of rotation inclined with respect to the horizontal; and a mounting structure upon which the sphere is rotatably supported and engaging the sphere structure in the region of its equator.

[Claims 6 to 8 not printed in the Gazette.]

1,079,359. TANK-CLOSURE. HARRY D. OPPENHEIMER, Chicago, Ill., assignor to S. Oppenheimer & Co., a Partnership consisting of Gustav Freund and Julius Oppenheimer, Chicago, Ill. Filed June 17, 1912. Serial No. 704,065. (Cl. 220—124.)

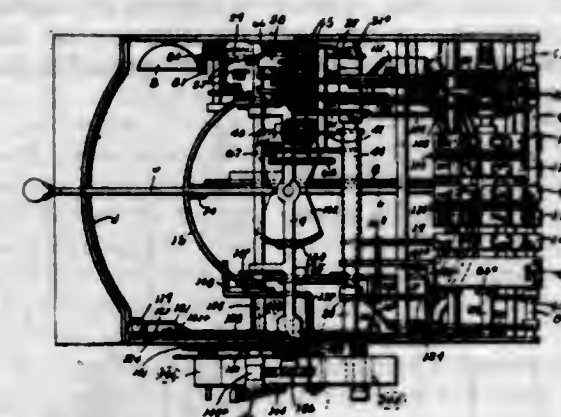


An apparatus of the character described comprising a vertically arranged cylindrical receptacle having an inlet adjacent its lower end for compressed air, a follower arranged in air-tight engagement with the inner wall of the receptacle, a closure for the upper end of the receptacle having an outlet opening, said closure being supported from the outside of the cylinder for swinging movement, and the inner surface of the cylinder forming an unobstructed passageway for the follower from top to bottom thereof, and an auxiliary closing medium on the closure, adapted to overlie the open upper end of the receptacle as the closure is swung to open position, whereby the said cooperating closures form a stop at all times limiting the outward movement of the follower due to the air pressure therebeneath.

1,079,360. CASH-REGISTER. ELMER E. PATTEN, St. Louis, Mo., assignor to St. Louis Cash Register Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 2, 1911. Serial No. 647,321. (Cl. 235—2.)

1. In a cash register, the combination of a horizontal swinging plate, a vertically movable operating handle pivoted thereto and independently operable lifting plates cooperating with said operating handle.

2. In a cash register, the combination of a horizontally swinging and vertically movable operating handle, relatively positioned vertically movable stepped lifting plates cooperating therewith, segments which are moved by said plates and register wheels which are operated by said segments.



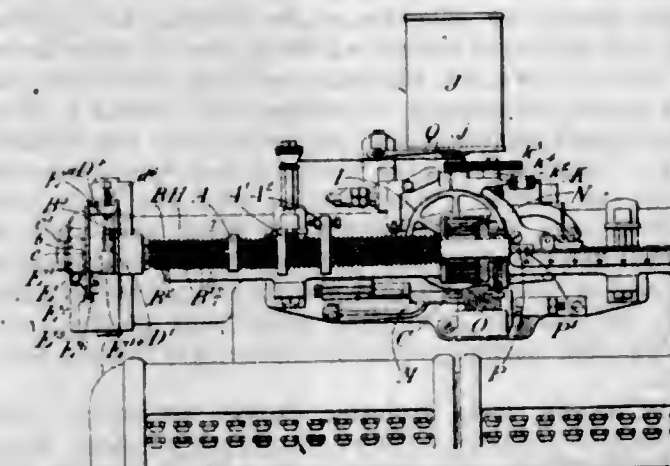
3. In a cash register, the combination of a horizontally swinging and vertically movable operating handle, pivotally mounted stepped lifting plates cooperating therewith, segments connected to said lifting plates, register wheels, and means for moving said register wheels into and out of mesh with said segments.

4. In a cash register, the combination of a horizontally swinging and vertically movable operating handle, stepped lifting plates pivotally mounted so as to move independently of each other, a segment operated by each of said lifting plates, register wheels, and means for moving said register wheels into and out of engagement with said segments.

5. In a cash register, the combination of a vertically movable operating handle, a horizontally swinging plate to which said handle is pivoted, a vertically movable rocker frame which is operated by said handle in all of its positions, a registering mechanism, and means for operating said registering mechanism from said rocker frame.

[Claims 6 to 67 not printed in the Gazette.]

1,079,361. TYPOGRAPHIC COMPOSING-MACHINE. FRANK HINMAN PIERPONT, Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed June 3, 1912. Serial No. 701,323. (Cl. 164—112.)



1. In a line measuring and justification mechanism for a key operated or manually controlled typographic composing machine the combination with a series of adjustable zero stops for the line-measuring mechanism and mechanism controlled by the initiation of the return movement of the measuring mechanism for effecting the successive adjustments of the stops, of an adjustable controller and a motor for effecting the return movement of the stops to initial position, substantially as described.

2. In a line measuring and justification mechanism for a key operated or manually-controlled typographic com-

106 O. G.—54

posing machine the combination with a series of adjustable zero-stops for the line-measuring mechanism, of mechanism controlled by a key for effecting the successive adjustments of the stops and for effecting their return to initial position, substantially as described.

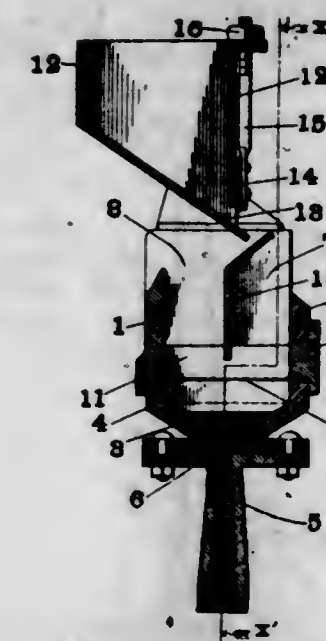
3. In a line measuring and justification mechanism for a key-operated or manually controlled typographic composing machine, the combination with a series of adjustable zero-stops for the line-measuring mechanism, of a key-controlled actuating air-motor for effecting the successive interchange of the stops and a conduit controlled by the piston of the motor and leading from this motor to the reversing motor of the line-measuring mechanism, substantially as and for the purpose described.

4. In a line measuring mechanism for a key operated or manually-controlled typographic composing machine, the combination with a series of adjustable zero-stops mounted upon a rotatable shaft which is actuated by a motor driven pawl, of a controller adjustably connected to the shaft by a clutch member and arranged to operate a lever to disengage or effect the disengagement and re-engagement of the shaft-driving pawl and a holding pawl, substantially as and for the purpose described.

5. In a line measuring and justification mechanism for a key-operated or manually controlled typographic composing machine, the combination with a series of adjustable zero stops carried upon a rotatable shaft provided with pawl and ratchet mechanism D, B³ controlled by a motor D² D³, and a reversing motor C, of an adjustable controller E adapted to control the movement in both directions, of a lever which directly controls the disengagement of the driving pawl D and opens a valve to effect through a motor E¹ E² the disengagement of a holding pawl D⁴, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,079,362. ORE-SEPARATOR. ALBERT M. PLUMB, Platteville, Wis. Filed July 17, 1912. Serial No. 709,847. (Cl. 83—54.)



1. In an ore separating apparatus, a separating chamber having a level, reticulated bottom and provided with means for maintaining separate columns of material communicating only at a point near the bottom of the separating chamber and with a discharge opening for each column, the lowest of said discharge openings being substantially higher than the highest point of communication between the columns and said discharge openings being so positioned that the weight of the columns of material, when each extends to the level of its discharge opening, will be equal per unit of cross sectional area, means for supplying material to be separated to one of said columns, and means for applying intermittent impulses of air to the entire bottom of the separating chamber.

2. An ore separator having a separating chamber provided with means for maintaining separate columns of material and with discharge openings positioned to keep the weight of said columns per unit of cross sectional area substantially equal, means for supplying material to one of said columns, an air chamber beneath said columns, and a tapering nozzle beneath the air chamber and communicating therewith by a narrow slot extending throughout the entire length of said air chamber, and means for supplying intermittent impulses of air to the air chamber.

3. An ore separator comprising a separating chamber, having a substantially level, reticulated bottom and discharge openings at different levels, means for adjusting the height of one discharge opening, a partition extending across the chamber and to a point nearer the bottom thereof than to the level of the lowest discharge opening, guide plates extending across the bottom of the separating chamber and at right angles to the partition, an air chamber communicating with the separating chamber, a tapering nozzle beneath the air chamber and communicating therewith through a narrow slot extending throughout the entire length of said air chamber, and means for supplying intermittent impulses of air to the air chamber.

4. In combination, an oblong separating chamber, having a level, reticulated bottom, a partition extending across the central portion of the chamber in the direction of its length and to a point adjacent to the bottom, means for feeding material to the chamber on one side of and at points adjacent to the partition, said chamber being provided with a discharge opening on each side of the partition, the level of the lowest of said openings being substantially above the lower edge of the partition and the relative height of said openings being so adjusted that the weight of the columns of material on opposite sides of the partition will be substantially equal per unit of cross sectional area, and means for applying intermittent impulses of air to the entire bottom of the separating chamber.

1,079,363. ROPE-TERMINAL. LEWIS H. RANDOLPH, Bandana, Ky. Filed Mar. 1, 1913. Serial No. 751,660. (Cl. 24—126.)

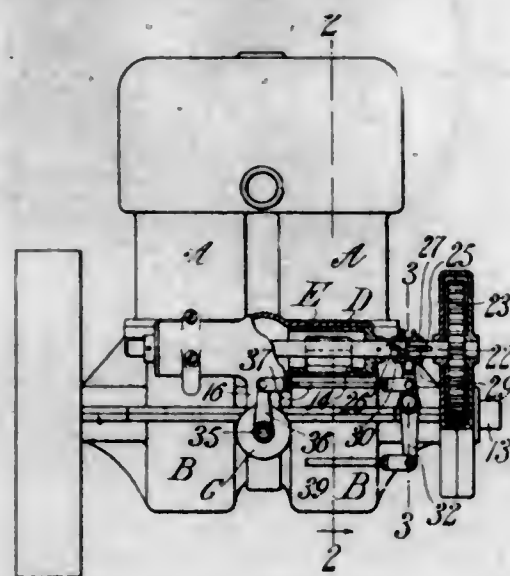


1. The herein described clamp for a rope end comprising four strands of wire having substantially straight bodies with oppositely disposed depressions at points throughout their length and intumed points at their upper ends, their lower ends being twisted together in pairs into a loop standing beyond the extremity of the rope; and rings of a size on their interior slightly less than the exterior size of said strand when the latter are disposed about a rope end, the rings standing within said depressions.

2. The herein described clamp for a rope end comprising four strands of wire having substantially straight bodies and intumed points at their upper ends, their lower ends being twisted together in pairs into a loop standing beyond the extremity of the rope and having a neck of less width than its body or the diameter of said rope; and

rings of a size on their interior slightly less than the exterior size of said strands when the latter are disposed about a rope end, and adapted to encircle said strands when the device is in place upon a rope or to lie around said neck when the device is removed.

1,079,364. ENGINE. FRANK W. RUGGLES, Springfield, Mass., assignor to one-half to Emerson G. Gaylord, Chicopee, Mass. Filed Sept. 2, 1900. Serial No. 515,743. (Cl. 123—98.)



1. In a two-cycle explosive engine, a body comprising a cylinder, a piston therein, a closed crank case, said body having a passage leading from the closed chamber in the crank case for admission into the cylinder, and relatively to the inner port of which passage the piston operates as an opening and closing valve, and said body having therein a passage for a motor fluid with a port for the admission of such fluid into the closed crank case chamber, a rotary inlet valve having a port for alternately opening and closing said crank case port, means for causing rotation of the said valve, the engine shaft having a crank in the said casing which is connected with the cylinder piston, and means for rotatively adjusting the said valve whereby in its rotations its port will be, as desired, in open relation to the said crank case admission port at an early or late period during the operation of the piston.

2. In a two-cycle explosive engine, a body comprising a cylinder, a piston therein, a closed crank case and having a passage leading from the closed crank case chamber for admission into the cylinder and relatively to which passage the piston operates as an opening and closing valve, and said body having a passage therein for a motor fluid with a port for admission of such fluid into the closed crank case member, an engine shaft having a crank in said closed chamber and connected with the cylinder piston, a rotary inlet valve having a port for alternately opening and closing communication with the crank case admission port, a shaft section on which said valve is mounted, another shaft section driven by the engine crank shaft and in driving connection with the valve shaft, and means for causing a rotative adjustment of the valve carrying shaft section relatively to the said driving shaft section.

3. In a two cycle explosive engine, an engine body comprising a cylinder, a closed crank case, a rotary valve, a motor-fluid passage in which said valve is located, said passage conducting the motor fluid to the crank case, and a passage leading from the closed crank case into the cylinder, two aligned shaft-sections, one thereof carrying a rotary inlet valve having a port for successively opening and closing said fluid passage, and the other of said shaft-sections being in driving connection with the engine crank shaft; and the adjacent ends of said shaft sections having, the one a groove parallel with its axis and the other a cam groove, a sleeve surrounding and slidable relatively to the contiguous ends of the shaft-sections, and having inwardly extending projections engaging in the grooves in such shaft-sections, and means for moving the sleeve.

4. In a two cycle explosive engine, a body comprising a cylinder and a closed crank case, and having a passage leading from the crank case into the cylinder, a valve-casing having a port for the admission of motor fluid from such casing into the crank case, a carburetor connected with the said valve casing having a throttling valve provided with an operating stem, and a rotary inlet valve in said valve casing having a port for alternately opening and closing communication with the said crank case port, means for causing rotation of the said valve in unison with the engine crank-shaft, means for rotatively adjusting said valve whereby in its rotations its port will be, as desired, in open relation to the admission port at an early or late period during the piston stroke, and a connection between the engine inlet valve adjusting means, and said stem of the carburetor throttling valve whereby the latter may be adjusted concurrently with the adjustment of the engine inlet valve.

5. In a two cycle explosive engine, a body comprising a cylinder and a closed crank case, and having a passage leading from the crank case into the cylinder, a valve-casing having a port for the admission of motor fluid from such casing into the crank case, a carburetor having a throttling valve provided with an operating stem, connected with the valve casing, a piston in said cylinder, the engine shaft having a crank in said crank casing connected with the piston, a rotary inlet valve in said valve casing having a port for alternately opening and closing communication with the crank case, two aligned shaft-sections, one thereof carrying said rotary inlet valve and the other of said shaft-sections being in driving connection with the engine crank shaft, the adjacent end portions of said shaft-sections having, the one a groove parallel with its axis and the other a peripheral cam-groove, a peripherally grooved sleeve surrounding and slidable relatively to the contiguous ends of the shaft-sections and having inwardly extending projections engaging in the grooves of such shaft sections, a yoke lever engaging the grooved sleeve, and a connection between the yoke lever and the stem of the carburetor throttling valve.

[Claims 6 to 8 not printed in the Gazette.]

1,079,365. PARCHMENT BUTTON. GUSTAV SACHSEN-RÖDER, Barmen-Unterbarren, Germany. Filed Jan. 4, 1912. Serial No. 669,445. (Cl. 24—90.)



1. A button consisting of a piece of vegetable parchment, and a covering of textile fabric structurally united thereto during the manufacture of said parchment.

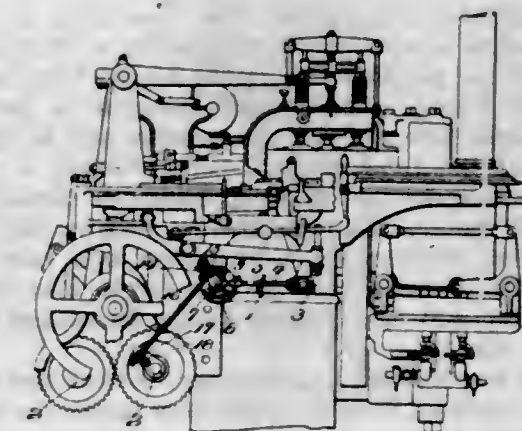
2. A button consisting of a piece of vegetable parchment, and a covering of textile fabric parchmentized thereto during the manufacture of said parchment.

1,079,366. TYPE-CASTING MACHINE. FRANK SALLY, Mount Vernon, N. Y., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 8, 1913. Serial No. 747,144. (Cl. 101—200.)

1. In a type casting machine provided with driving shaft and a pump lock-out actuating means, and in combination therewith, a variable timing mechanism controlling said lock-out actuating means, and means for coupling said timing mechanism with the driving shaft of the casting machine for varying the timing of the pump lock action with relation to the driving shaft.

2. In a type casting machine provided with a pump lock-out controlling means, and in combination therewith, a variable timing mechanism adapted to be coupled with said controlling means for temporarily suspending the action of the pump mechanism during one or more revolutions of the driving shaft, said timing mechanism being connected in timed relation to and deriving motion from said driving shaft.

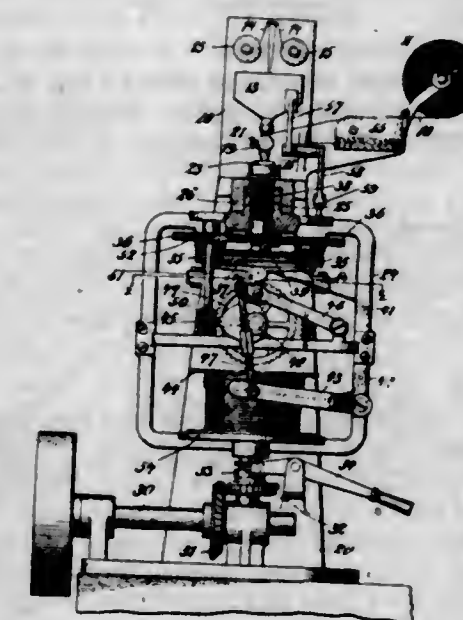
3. In a type casting machine provided with a pump lock-out controlling means, and in combination therewith, a timing mechanism for actuating said controlling means the same including a ratchet mechanism deriving motion from the driving shaft, a cam connected with said ratchet mechanism, and an abutment coupled with the pump lock-out controlling means and operated upon by said cam.



4. In a type casting machine such as described, organized to produce a cast at each revolution of the driving shaft and provided with a shiftable pump lock-out controlling means for suspending the action of the metal injecting mechanism, and in combination therewith a timing mechanism interposed between a timing mechanism interposed between said lock-out controlling means and the driving shaft of the casting machine and deriving motion from said driving shaft, said timing mechanism being provided with means for varying the ratio between the rotation of the driving shaft and the shifting of said lock-out controlling means.

5. In a type casting machine provided with a lock-out actuating means for temporarily suspending the action of the metal injecting mechanism and in combination therewith a timing mechanism coupled with the driving shaft and acting upon said lock-out actuating means, to shift the latter, the same including a driving ratchet, a plurality of series or sets of cam flights, and a transmitting abutment adapted to be set in register with either set of cam flights.

1,079,367. MACHINE FOR MAKING FUSES. LOUIS SCHULMAN and JOSEPH SCHULMAN, New York, N. Y., assignors to The Ensign-Bickford Company, Simsbury, Conn., a Corporation of Connecticut. Filed Oct. 12, 1906. Serial No. 338,552. (Cl. 93—78.)



1. In a machine for making fuse, the combination of a fixed hollow nozzle, a fixed die below the nozzle, means for feeding paper in strip form about the exterior of the nozzle to form a tube, means for supplying a combustible to

the interior of the nozzle whereby said combustible will be delivered to the interior of the tube as it is being formed, and means below the nozzle for bodily twisting that portion of the fuse element comprising said tube and the combustible therein, which is between the nozzle and twisting means; the die being arranged so as to receive the tube after being formed about the nozzle and for causing a contraction of the tube while being drawn through the die.

2. A machine for making fuse comprising in combination a hollow nozzle, means for feeding a strip about the nozzle for the purpose of forming a tube from said strip, means for feeding a combustible material to the interior of the nozzle whereby the combustible will be fed to the interior of the tube as it is being formed, a fixed die through which the tube is drawn during its formation after it has left the nozzle and means for drawing through said die the fuse element which comprises said tube and the combustible material therein, said means also serving to bodily twist said fuse element during its transit from the nozzle to the die.

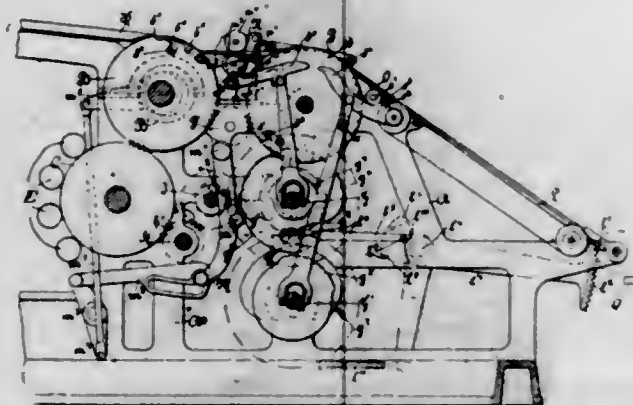
3. In a machine for making fuses, the combination with a hollow tapering forming nozzle and means for feeding a combustible element therethrough, of means for guiding a strip of paper angularly around the nozzle, a take-up means, a bobbin arranged to receive the product from the nozzle, and means for rotating the bobbin upon its axis, and also with respect to the axis of the bobbin for the purpose of simultaneously twisting the paper below the nozzle and drawing it past the nozzle while the combustible element is being fed to the portion being twisted.

4. In a machine of the character described, the combination with a removably mounted reservoir having a throat piece, a removable tapering forming nozzle arranged in line therewith and recessed to receive the throat piece, and a die arranged in line with the nozzle, of means for feeding a granular material from the reservoir through the nozzle and die, means for guiding a strip of paper angularly around the nozzle and through the die, and means for twisting the paper below the nozzle, and for drawing the same through the die.

5. In a machine of the character described, the combination with a forming member and means for feeding a strip thereto, of a frame arranged to rotate about an axis longitudinally in line with the said forming member, a bobbin carried by the said frame with its axis eccentric to the axis of the frame but parallel thereto, means for rotating the bobbin about its axis to draw the strip from the forming member, and means for simultaneously rotating the frame to simultaneously twist the strip below the forming member.

[Claims 6 to 14 not printed in the Gazette.]

1,079,368. PRINTING-PRESS. WALTER SCOTT, Plainfield, N. J.; Isabella Scott and David John Scott executors of said Walter Scott, deceased. Filed Aug. 11, 1902. Serial No. 119,212. (Cl. 101—118.)



1. In a printing press, the combination of a two revolution impression cylinder, a collecting cylinder, means for transferring the sheet from the impression cylinder to the collecting cylinder with the printed side out, a delivery

mechanism, and means for operating the delivery mechanism a predetermined less number of times than the collecting cylinder.

2. In a printing press, the combination of a two revolution impression cylinder, a two revolution receiving cylinder, means for transferring the sheets from the impression cylinder to the receiving cylinder with the printed side out, a delivery mechanism, and means for operating the said delivery mechanism once to every two revolutions of the receiving cylinder.

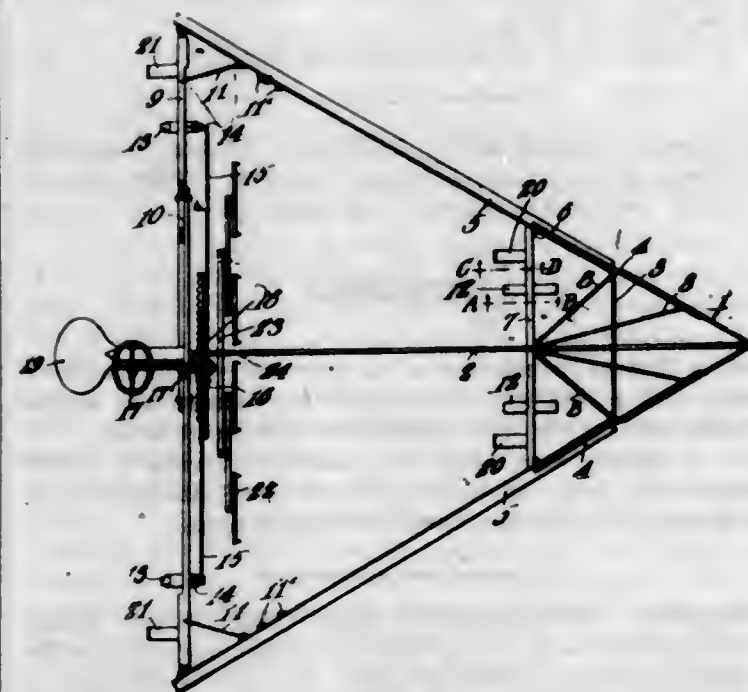
3. In a printing press, the combination of a collecting cylinder, a two revolution impression cylinder, a two revolution plate cylinder, means for separating the said impression and plate cylinders once to every two revolutions of the collecting cylinder, and a delivery mechanism and means for transferring the sheet from the impression cylinder to the collecting cylinder with the printed side out.

4. In a printing press, the combination of a two revolution impression member, a two revolution plate member, means for separating the said members once to every two revolutions, a two revolution collecting cylinder, a delivery mechanism, and means for operating the said delivery mechanism once to every two revolutions of the collecting cylinder.

5. In a printing press, the combination of a two revolution impression cylinder, a collecting cylinder, means for transferring the sheet from the impression cylinder to the collecting cylinder with the printed side out, a delivery mechanism, and means for causing the collecting cylinder to rotate twice with the first sheet received from the impression cylinder before it receives the second sheet.

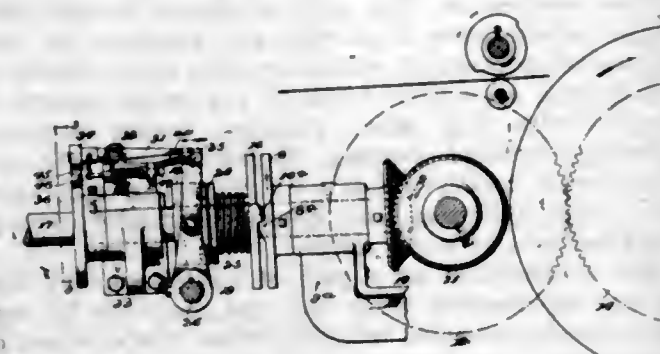
[Claims 6 to 28 not printed in the Gazette.]

1,079,369. SNOW-PLOW. LAWRENCE SIMS, Berryton, Kans. Filed July 17, 1912. Serial No. 709,994. (Cl. 37—35.)



A snow plow including a point made up of rearwardly diverging blades having their rear end portions cut away along downwardly and rearwardly curved lines, a central strip extending rearwardly from the point, a cross strip fixedly connected to said central strip, supporting wheels connected to the cross strip, runners connected to said strips, disks mounted for rotation in planes parallel with the sides of the point, the front portions of the peripheries of the disks being extended back of the curved rear edges of the sides of the point, scrapers hingedly connected between their ends to the ends of the cross strip and having their front ends extended back of the rear portions of the disks, and means for adjusting the said scrapers angularly about their hinged connections, the said disks constituting means for deflecting snow from the sides of the point to the scrapers.

1,079,370. MEANS FOR COUPLING FEEDERS OR THE LIKE TO PRINTING-PRESSES. WALTER H. SMITH, Niles, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Apr. 26, 1911. Serial No. 623,487. (Cl. 101—36.)



1. In combination with a printing press having a driving shaft, and a feeder having a driven shaft, cooperating clutch members carried by said shafts, one clutch member being movable longitudinally of its shaft, means for moving such clutch member on its shaft to disengage it from the cooperative clutch member on the other shaft, means for normally arresting such movement, and means for actuating said arresting means once in each cycle of operation to permit said clutch members to be disengaged.

2. In combination with a printing press having a driving shaft, and a feeder having a driven shaft, cooperating clutch members carried by said shafts, one clutch member being movable longitudinally of its shaft, means for moving such clutch member on its shaft to disengage it from the cooperative clutch member on the other shaft, means for normally holding said moving means to retain the members in cooperative relation, means for arresting said moving means if released by said holding means other than at a predetermined point in the cycle of operation, and means for actuating said arresting means once in each cycle of operation to permit the clutch members to be disengaged.

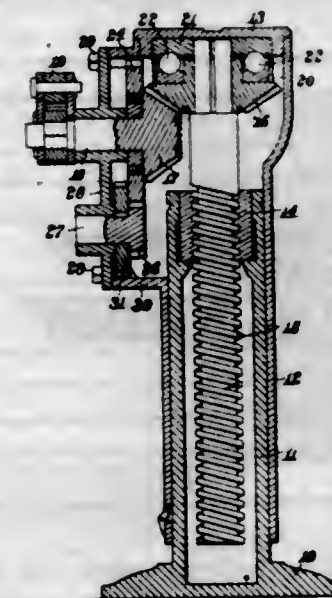
3. The combination with a printing press and a shaft actuated thereby forming a driving shaft, of a feeder, an operating shaft therefor forming a driven shaft, said shafts being in axial alignment, clutch members carried by said shafts and having interengaging projections, the clutch member of the driven shaft being movable longitudinally thereof, means for so moving such member to disengage it from the member of the driving shaft, means for normally locking said moving means, means for arresting said moving means when released by said locking means, and means for periodically actuating said arresting means to release said moving means at a predetermined point in the cycle of operation of the feeder.

4. The combination with a printing press and a feeder therefor, of a driving shaft, a clutch disk on said shaft, a driven shaft for operating said feeder, a second clutch disk loose on said driven shaft for cooperating with the first mentioned disk, a yoke for moving said disk on said driven shaft, a spring interposed between said disk and said yoke, means for normally holding said yoke, means for releasing said holding means, and periodically actuated means for permitting said yoke to disengage the disks at a predetermined point in the cycle of operation of the feeder.

5. The combination with a printing press and a feeder therefor, of a driving shaft, a driven shaft for operating said feeder, clutch members carried by said shafts, means for disengaging said clutch members, means for normally locking said disengaging means, means for automatically releasing said locking means in the event of any interruption in the feed supply to the press, arresting means for preventing said disengaging means from releasing said clutch members except at a predetermined point in the cycle of operation of the feeder, and means for periodically actuating said arresting means.

[Claims 6 to 8 not printed in the Gazette.]

1,079,371. LIFTING-JACK. JOSEPH B. SMYTHE, Coaticook, Quebec, Canada. Filed Oct. 26, 1912. Serial No. 728,262. (Cl. 57—44.)



1. In a device of the class described, the combination of a stationary member; a movable member thereon; a revoluble member for raising said movable member; means for rotating said revoluble member to raise said movable member; a ratchet wheel inoperative during the raising operation but adapted to be rotated by the reverse movement of said revoluble member; and mechanism including a manually controlled crank normally engaging said ratchet to prevent the lowering of said movable member but adapted to be released therefrom to permit an intermittent movement of said ratchet and a gradual lowering of said movable member during the rotation of said crank.

2. In a device of the class described, the combination of a stationary member; a movable member thereon; a revoluble member for raising said movable member; means for rotating said revoluble member; a ratchet wheel inoperative during the raising operation but adapted to be rotated by the reverse movement of said revoluble member; a crank; a member adapted to be oscillated by the rotation of said crank; and means controlled by the oscillation of said member normally engaging the teeth of said ratchet wheel to prevent the lowering of said movable member but adapted to be released therefrom to permit an intermittent movement of said ratchet and a gradual lowering of the movable member during the rotation of said crank.

3. In a device of the class described, the combination of a stationary member; a movable member thereon; a revoluble member for raising said movable member; means for rotating said revoluble member; a ratchet wheel inoperative during the raising operation but adapted to be rotated by the reverse movement of said revoluble member; a crank; a pivoted member provided with a slot engaged by said crank and adapted to be oscillated by the rotation thereof; and mechanism secured to the pivot of said oscillating member and normally engaging said ratchet wheel to prevent the lowering of said movable member but adapted to be released therefrom to permit an intermittent movement of said ratchet and a gradual lowering of said movable member during the rotation of said crank.

1,079,372. CHANGEABLE BULLETIN-BOARD. ADOLPH SPIELMANN, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,388. (Cl. 40—143.)

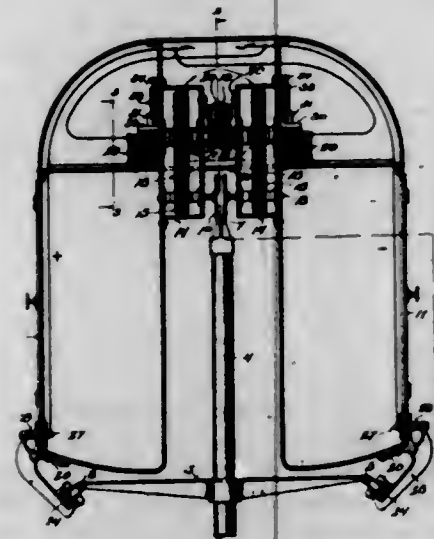
1. In a changeable bulletin board, the combination of a frame, a series of channel-shaped members having slightly outwardly flaring resilient walls mounted in the said frame at their ends and free from the frame therebetween and having the said flanges extending rearwardly in said frame and pressed inwardly of the member into substantially parallel relation, and a plurality of char-

acter-bearing members each having a rearwardly extending projection adapted to be inserted between and retained by adjacent flanges of two channel-shaped members whereby the character-bearing elements are held in position.



2. In a changeable bulletin board, the combination of a frame, a series of channel-shaped members having resilient flanges, the adjacent flanges of contiguous members being disposed in juxtaposition, the resilient flanges tending to diverge and each being held by the adjacent flange in substantially parallel relation, and a plurality of character-bearing members each having a rearwardly extending stem adapted to be inserted between and frictionally held by the adjacent flanges.

1,079,373. CARRIER. JOHN S. SPIREWFEL, Jr., Milwaukee, Wis., assignor of one-third to Daniel C. O'Connell and one-third to Samuel A. Strzelczyk, Milwaukee, Wis. Filed Aug. 28, 1913. Serial No. 787,071. (Cl. 104-146.)



1. The combination of a pair of electric-current line-wires, an intermediate track-wire and supports for said wires; a carrier provided with a traction trolley-wheel on the track-wire, an electric-motor in the carrier geared in connection with said wheel, hangers having insulated connection with the carrier, conductor trolley-wheels with the hangers in opposition to said line-wires, and means electrically connecting said hangers with the motor.

2. The combination of a pair of electric-current line-wires, an intermediate track-wire and supports for said wires; a carrier provided with a traction trolley-wheel on the track-wire, an electric-motor in the carrier geared in connection with said wheel, hangers having insulated connection with the carrier, conductor trolley-wheels with the hangers in opposition to said line-wires, and switch-controlled wiring by which the hangers of the conductor trolley-wheels are put in reversible electric connection with the motor.

3. The combination of a pair of electric-current line-wires, an intermediate track-wire and supports for said wires; a carrier provided with a traction trolley-wheel on the track-wire, an electric-motor in the carrier geared in

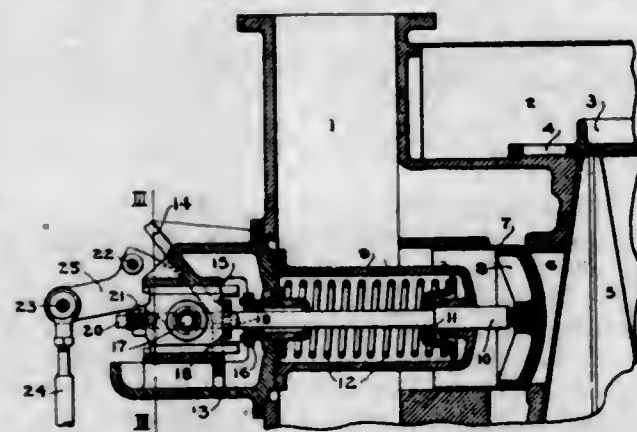
connection with said wheel, automatic set brake-mechanism for the same wheel, and electric brake-release means in circuit with the motor; hangers having insulated connection with the carrier, conductor trolley-wheels with the hangers in opposition to said line-wires, and means electrically connecting said hangers with the motor.

4. The combination of a pair of electric-current line-wires, an intermediate track-wire and supports for said wires; a carrier provided with a traction trolley-wheel on the track-wire, an electric-motor in the carrier geared in connection with said wheel, hangers having insulated and spring-controlled yielding connection with the carrier, conductor trolley-wheels with the hangers in opposition to said line-wires, and means electrically connecting said hangers with the motor.

5. The combination of a pair of electric-current line-wires, an intermediate track-wire and supports for said wires; a carrier provided with a traction trolley-wheel on the track-wire, spur-pinions fast on the axle of said trolley-wheel with which it is rigid, an electric-motor in the carrier, a spindle in gear with the motor-shaft, spur-wheels fast on the spindle in mesh with said pinions, hangers having insulated connection with the carrier, conductor trolley-wheels with the hangers in opposition to said line-wires, and means electrically connecting said hangers with the motor.

[Claim 6 not printed in the Gazette.]

1,079,374. DISCHARGE-VALVE GEAR FOR BLOWING-ENGINES. CARL G. SPRADO, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 15, 1911. Serial No. 808,689. (Cl. 230-34.)



1. In a valve gear, a valve, means for permitting opening of said valve, means for mechanically operating said opening permitting means in one direction, means for automatically operating said opening permitting means in the opposite direction to move said valve toward closed position, and a stop for said opening permitting means.

2. In a valve gear, a valve and seat therefor, a plunger contractible with said valve, means for withdrawing said plunger from contact with said valve, impositive means for urging said plunger in the opposite direction, and a stop for said plunger to limit the action of said impositive means.

3. In combination, a valve, a plunger, means operating said plunger to move said valve toward closing position, and a stop for said plunger.

1,079,375. CONCRETE PILING. OTTOMAR STANGE, Aspinwall, Pa. Filed May 27, 1912. Serial No. 700,068. (Cl. 72-81.)

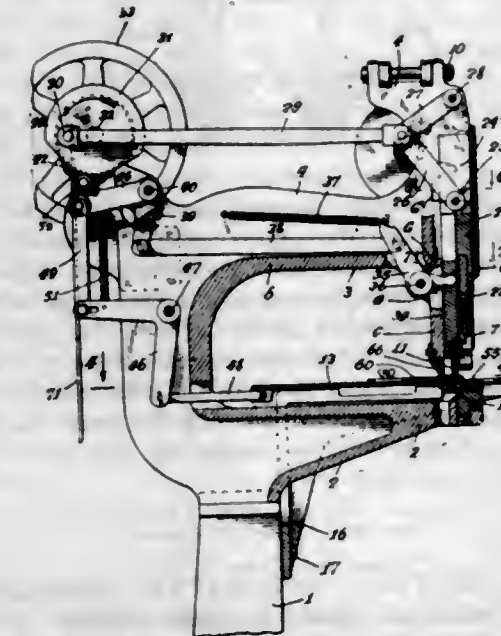
A pile comprising solid sections of cementitious material, said sections being longitudinally aligned, a cushioning body and filler located between the ends of adjacent sections, and a splicing band carried by one section and projecting from the end thereof, the other section having a circumferentially reduced end portion and a shoulder at the inner end thereof, said band projecting beyond the end of that section on which it is mounted for a dis-

tance greater than the distance between the end of the other section and its shoulder, whereby the reduced end portion is received within the band and the end thereof



engages the shoulder, and space is left between the two sections in which the aforesaid cushioning body and filler is confined by the band.

1,079,376. COMBINED PUNCH AND SETTING-MACHINE. EDWIN BALL STIMPSON, Brooklyn, N. Y. Filed Nov. 7, 1911. Serial No. 658,984. (Cl. 218-15.)

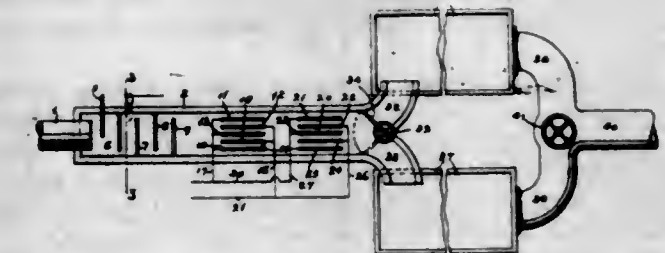


1. In a combined hole-punching and setting machine, the combination of vertically reciprocating punch means, vertically reciprocating setting means, a horizontally reciprocating work-support which carries the work from the punch means to the setting means so that the holes punched by the punch means are in alignment with the setting means, a crank and means for operating all of the aforesaid means in timed relation, wherein the work-support is moved to the setting means after the punch means has been operated and before the setting means is operated, said means for operating the parts in timed relation comprising a toggle operated by said crank and operatively connected with the setting means, a cam carried around with said crank, cam-lever means cooperating with the cam and itself being operatively connected with the setting means, a second cam carried around with said crank, and cam-lever means cooperating with said second cam and being operatively connected with the work-support.

2. In a combined hole-punching and setting machine, the combination of setting means comprising a suitably guided vertically reciprocating plunger carrying a setting spindle, punch means comprising another vertically reciprocating plunger guided to reciprocate in a recess in the first

named plunger, a horizontally reciprocating work-support which carries the work from the punch means to the setting means so that the holes punched by the punch means are in alignment with the spindle of the setting means, and means for operating all of the aforesaid means in timed relation, wherein the work-support is moved to the setting means after the punch means has been operated and before the setting means is operated.

1,079,377. METHOD OF PURIFYING AND STERILIZING LIQUID. GEORGE W. SWINBURNE, East Orange, N. J., assignor to Sterilization Company, a Corporation of New Jersey. Filed June 21, 1910. Serial No. 568,112. (Cl. 204-25.)

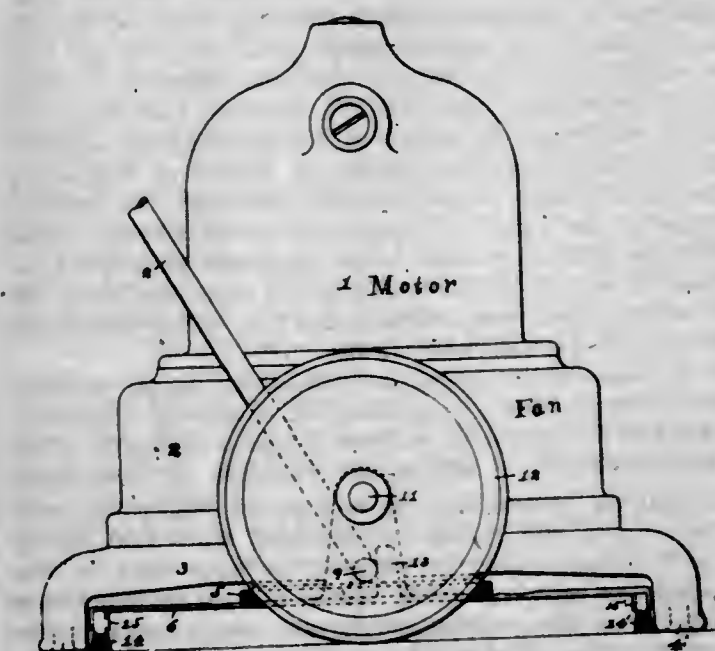


1. A process of purifying and sterilizing sewage or other liquid containing a chlorid, consisting in conducting the liquid into an electrolyzing apparatus, discharging the liquid from said apparatus with an unretarded passage therethrough, and afterward confining the liquid until the products resulting from the action of the products of electrolysis upon the liquid have also reacted upon the liquid.

2. A process of purifying and sterilizing sewage or other liquid containing a chlorid, consisting in conducting the liquid into an electrolyzing apparatus, discharging the liquid from said apparatus with an unretarded passage therethrough, and afterward retarding the liquid until the products resulting from the action of the products of electrolysis upon the liquid have also reacted upon the liquid.

3. A process of purifying and sterilizing sewage or other liquid containing a chlorid, consisting in conducting the liquid into an electrolyzing apparatus, discharging the liquid from said apparatus with an unretarded passage therethrough, and afterward holding the liquid at rest until the products resulting from the action of the products of electrolysis upon the liquid have also reacted upon the liquid.

1,079,378. SUCTION-CLEANER. JOSEPH H. TEMPLIN, Philadelphia, Pa. Filed Jan. 27, 1913. Serial No. 744,517. (Cl. 15-60.)



1. In a suction cleaner, a hollow base provided with parallel inlet slots, a suction pump mounted upon and communicating with said base, a motor for operating

said pump, a pivotal support between said slots, and means for reciprocating the cleaner on the floor and tilting it upon said support.

2. In a suction cleaner, a hollow base provided with parallel inlet slots, a suction pump mounted upon and communicating with said base, a motor for operating said pump, a pivotal support between said slots, means for adjusting the height of said pivotal support, and means for reciprocating the cleaner over the floor and tilting it upon said support.

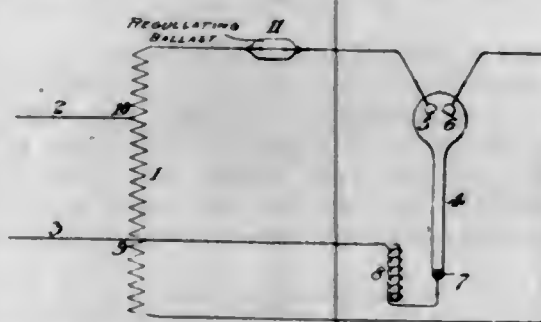
3. In a suction cleaner, a hollow base provided with parallel inlet slots, a suction pump mounted upon and communicating with said base, a motor for operating said pump, a pivotal support between said slots, means for detachably clamping said support to said base, means for adjusting the height of said support, and means for reciprocating the cleaner over the floor and tilting it upon said support.

4. In a suction cleaner, a hollow base having a suction inlet, a plate provided with clamping means for detachably clamping the same to said base, projections formed on said plate to prevent said plate from turning, a pair of standards formed on said plate, said standards provided with axles and a roller revolvably retained on each axle.

5. In a suction cleaner, a hollow base having a suction inlet, a plate provided with means for detachably clamping the same to said base, said plate provided with a brush adjacent to said suction inlet, a pair of standards formed on said plate, each of said standards provided with an axle, and a roller revolvably retained on said axles.

[Claim 6 not printed in the Gazette.]

1,079,379. **OUTFIT FOR ALTERNATING-CURRENT VAPOR-LAMPS.** PERCY H. THOMAS, Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Sept. 27, 1905. Serial No. 280,255. (Cl. 171—253.)



1. The combination with a single phase alternating current source, a vacuum device comprising a hermetically sealed and completely exhausted container, positive electrodes and a vaporizable reconstructing cathode therein and an alternating current transformer winding for supplying said device, connections from the negative electrode to an intermediate point of the winding and from the positive electrodes to points on the winding on opposite sides of said intermediate point, of a current regulating device in the lead to one positive electrode, the relative position of the points of connection in the winding being such as to cause a voltage to be impressed upon the positive electrode whose lead contains the said regulating device, which is relatively higher than the voltage impressed upon the other positive electrode.

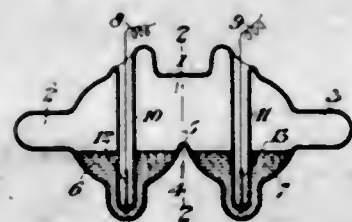
2. The combination with an alternating supply winding and a vacuum device comprising an exhausted container, anodes and a vaporizable cathode, adapted to rectify alternating currents from said supply windings, of connections for supplying current through said device from both waves of the supply and means for deriving from said supply unequal voltages whereby unequal currents tend to flow from alternate waves of the source and an inductance in the circuit of the rectified current to steady and equalize the current flow produced by said unequal voltages.

3. The combination with an apparatus adapted to utilize separately both waves of an alternating current supply, an auto-transformer connected with said supply and a control-

ling device traversed by current derived from one wave of said supply, of means for passing energy through said auto-transformer with a small ratio of transformation from said supply to said apparatus through said controlling device and means for passing energy with a larger ratio of transformation from the other wave of the supply in the original direction through said apparatus, thus reducing the transformation losses of the energy supplied through said controlling device.

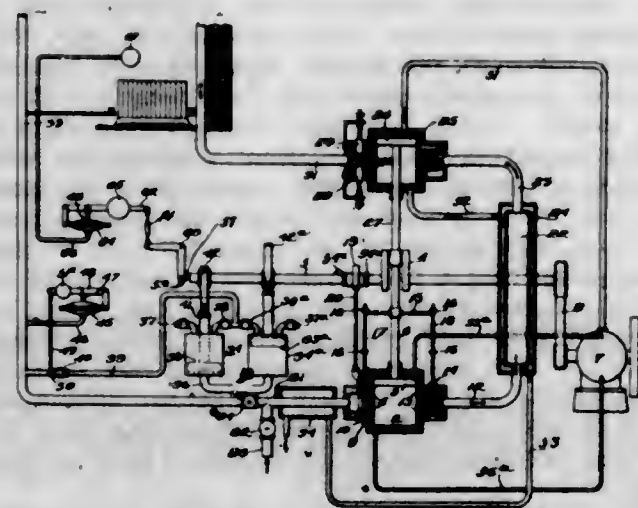
4. In a system of electrical distribution wherein an alternating current vapor lamp is supplied from a single-phase source, a transformer, connections from the transformer to one of the positive electrodes of the lamp through a current regulating device, connections from another portion of the transformer to the other positive electrode and means whereby the transformer is unbalanced so that the voltage supplied through the positive electrode connected with said regulating device shall be enough higher than the voltage applied to the other positive electrode to compensate for the resistance of the said device.

1,079,380. **CIRCUIT-INTERRUPTER.** PERCY H. THOMAS, Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Co., Hoboken, N. J., a Corporation of New Jersey. Original application filed Dec. 24, 1906, Serial No. 349,270. Divided and this application filed Apr. 24, 1908. Serial No. 428,965. (Cl. 175—282.)



A circuit interrupter, comprising a hermetically sealed and completely exhausted glass chamber having a body part substantially cylindrical in form with hollow axial extensions at the ends, a quantity of mercury within the container, an indentation in the cylindrical part of said container adapted to divide the mercury into two parts on rotation about the axial extensions and reentrant tubes inclosing lead wires and introducing the lead wires under the surface of the divided bodies of mercury, together with seals for said lead wires.

1,079,381. **HEATING APPARATUS.** NATHANIEL B. WALES, Braintree, Mass., assignor to Guy B. Collier, Kinderhook, N. Y. Filed Dec. 17, 1906. Serial No. 348,335. (Cl. 237—1.)



1. A heating apparatus comprising fluid expanding mechanism, fluid compressing mechanism to which the expanded fluid is delivered, a prime motor for driving said mechanisms, means for supplying heat to the fluid between its

admission to the expanding mechanism and its admission to the compressing mechanism, a circulating conduit to which the fluid from the compressing mechanism is delivered, devices for opening and closing the communication between the circulating conduit and the intake of the expanding mechanism and for opening and closing communication between said intake and a source of fluid supply.

2. A heating apparatus comprising fluid expanding mechanism, fluid compressing mechanism to which the expanded fluid is delivered, a prime motor for driving said mechanisms, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, heat utilizing devices to which the fluid from the compressing mechanism is delivered and from which the fluid is delivered to the expanding mechanism, and means for supplying fluid to the system whenever the pressure in the system falls below a predetermined point.

3. A heating apparatus comprising fluid expanding mechanism, fluid compressing mechanism to which the expanded fluid is delivered, a prime motor for driving said mechanisms, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, heat utilizing devices to which the fluid from the compressing mechanism is delivered and from which the fluid is delivered to the expanding mechanism, and means for maintaining a substantially uniform quantity of fluid in the system.

4. A heating apparatus comprising fluid expanding mechanism, fluid compressing mechanism to which the expanded fluid is delivered, a prime motor for driving said mechanisms, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, a circulating conduit to which the fluid from the compressing mechanism is delivered and from which the fluid is delivered to the expanding mechanism, and means controlled by the pressure in the system for supplying fluid thereto.

5. A heating apparatus comprising fluid expanding mechanism, fluid compressing mechanism to which the expanded fluid is delivered, a prime motor for driving said mechanisms, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, heat utilizing devices to which the fluid from the compressing mechanism is delivered and from which the fluid is delivered to the expanding mechanism, and fluid compressing mechanism for forcing fresh fluid into the system to maintain a quantity of fluid therein.

[Claims 6 to 12 not printed in the Gazette.]

1,079,382. **NECKWEAR.** WILLIAM E. WEBB, Jr., Larchmont, N. Y. Filed Apr. 1, 1913. Serial No. 758,240. (Cl. 2—11.)



A necktie formed of folded fabric and comprising a narrow neck-band portion, knot forming portions at the ends of the neck-band portion, and enlarged ends, the edges of the folded fabric forming a longitudinal seam at the back of the tie, in combination with a longitudinally extending, relatively inelastic smooth, flexible reinforcing piece covering the seam between the folded edges of the necktie fabric and protecting said seam throughout the entire length of the neck-band and the knot forming portions of the tie, lines of stitches along the longitudinal edges of the reinforcing piece connecting said piece to the back fold only of the tie throughout the knot forming portions thereof, and lines of stitches connecting said reinforcing piece to the back and face folds of the tie throughout the length of the neck-band portion thereof.

1,079,383. **DELAYED-ACTION DEVICE FOR IMPACT-FUSES.** KARL WIESER, Bredency, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 31, 1912. Serial No. 739,562. (Cl. 102—39.)



1. In an impact fuse, a delayed-action device comprising a revoluble member in said fuse, having a retarding charge, said member being provided with passages and adapted to connect and disconnect the time train of the fuse with the bursting charge of a shell and a shrapnel respectively.

2. In an impact fuse, a delayed-action device comprising a revoluble member in said fuse, having a retarding charge, said member being provided with a channel adapted to connect the time train of the fuse with the bursting charge of the shell, with said member in one position; and cut out the passage of the igniting flame from said time train to said bursting charge, with said member in another position.

3. In an impact fuse, a delayed-action device comprising a revoluble member in said fuse, having a retarding charge, said member being provided with a longitudinal channel connecting the time train of the fuse with the bursting charge of the shell, with said member in one position, the axis of revolution of said member being perpendicular to the longitudinal axis of the fuse.

4. In a combination impact and time fuse having a time train and an impact hammer; a turn-cock, situated with its axis at right angles to the axis of the fuse; a recess at the inner end of said turn-cock forming a projecting tongue inserted between said hammer and the bursting charge of the shell, a retarding charge in said tongue; said tongue causing delayed-action in the fuse when said tongue is situated centrally relative to said hammer; a free passage for the flame from said hammer, when said tongue is turned to one side, said turn-cock simultaneously connecting one and disconnecting another passage from said time train to either of the bursting charges for the shrapnel and the shell.

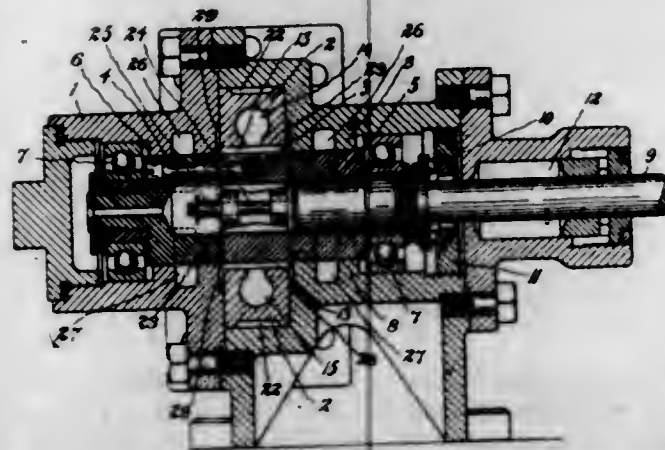
5. In a combination impact and time fuse having a time train and an impact hammer; a turn-cock, situated with its axis at right angles to the axis of the fuse; a recess at the inner end of said turn-cock forming a projecting tongue inserted between said hammer and the bursting charge of the shell, of a retarding charge in said tongue; said tongue causing delayed-action when said tongue is situated centrally relative to said hammer, and causing free passage for the flame from said hammer to a bursting charge, when said tongue is turned out of its central position; a transverse channel in said turn-cock and a longitudinal channel therein; said transverse channel connecting the time train of the fuse with the bursting charge of the shrapnel when said turn-cock stands to one side of the central position; and said longitudinal channel connecting said time train with the bursting charge of the shell when said turn-cock stands to the other side of the central position.

[Claims 6 to 12 not printed in the Gazette.]

1,079,384. **ROTARY PUMP AND MOTOR.** JAMES M. WILSON, Toronto, Ontario, Canada, assignor to Harry Clifford Stevenson, trustee, Toronto, Ontario, Canada. Filed Sept. 26, 1912. Serial No. 722,467. (Cl. 103—44.)

1. In a rotary machine the combination of an outer casing; a rotor revolvable within said casing; vanes mov-

ably mounted in radial slots in said rotor; a vane chamber surrounding said rotor; oppositely disposed frusto-conical rollers upon which correspondingly inclined inner edges of said vanes bear; and resilient means tending to force the two rollers together.



2. In a rotary machine the combination of an outer casing; a rotor revoluble within said casing; a vane chamber surrounding said rotor, laterally movable in said casing and provided with inlet and outlet ports; means for admitting fluid pressure from the interior to the exterior of said vane chamber, in communication with each port; said means preventing fluid pressure passing in the reverse direction.

3. In a rotary machine the combination of an outer casing; a rotor revoluble within said casing; a vane chamber surrounding said rotor laterally movable in said outer casing; inlet and outlet ports to said vane chamber, tubular members connecting said ports with openings in the outer casings and slidable therewith; and U shaped washers between said tubular members and said casing adapted to allow fluid under pressure to gain access to the exterior of said vane chamber to balance the internal pressure.

4. In a rotary machine the combination of an outer casing; a rotor revoluble within said casing; a vane chamber surrounding said rotor, laterally movable in said outer casing; inlet and outlet ports in said vane chamber; tubular members connected therewith and slidable in openings in said outer casing; U shaped washers around said tubular members adapted to allow fluid under pressure to gain access to the exterior of said vane chamber; and means for allowing the movement of fluid from one part of the outer casing to another around said vane chamber when it is moved laterally.

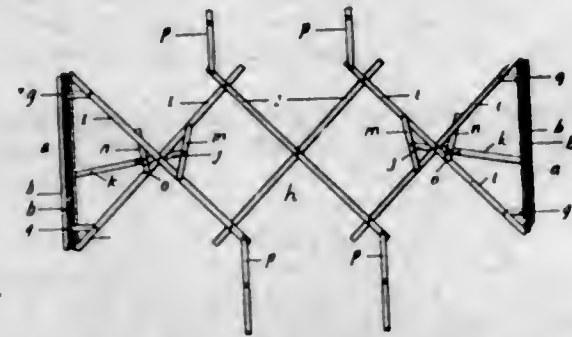
5. In a rotary machine the combination of an outer casing; a rotor revoluble within said casing; a vane chamber surrounding said rotor, laterally movable in said outer casing; inlet and outlet ports in said vane chamber; tubular members connected therewith and slidable in openings in said outer casing; U shaped washers around said tubular members adapted to allow fluid under pressure to gain access to the exterior of said vane chamber; and grooves at the top and bottom of said vane chamber to allow of the passage of the fluid from one part of the casing to another when the vane chamber is moved laterally.

[Claims 6 to 12 not printed in the Gazette.]

1,079,385. COLLAPSIBLE STAND. EDWARD M. ATKINSON, Portland, Oreg. Filed Apr. 15, 1913. Serial No. 761,387. (Cl. 211-14.)

1. A stand consisting of legs made of bars pivotally connected in the form of lazy tongs, transverse shelf-like members made of pivotally connected bars arranged in the form of lazy tongs, the ends of such bars pivoted to said legs, means for locking the legs against being collapsed, and means for locking the transverse shelf-like members in their extended state, such means consisting of brace-rods pivoted to the leg members with locking bars adapted to be engaged with the adjacent members of the shelf-leaves.

2. A stand consisting of legs made of angle bars pivotally connected in the form of lazy tongs, laterally projecting stub-bars on the interior of the legs; transverse shelf-like members made of pivotally connected bars arranged in the form of lazy tongs, the ends of such bars pivoted to said stub bars of the legs; means for locking the legs against being collapsed, such means consisting of a pendant arm pivotally attached to the leg members and adapted to be positioned so that it will act as a diagonal brace rod between said leg members; and means for locking the transverse shelf-like members in their extended state, such means consisting of brace-rods pivoted to the leg members with locking bars adapted to be engaged with the adjacent members of the shelf-leaves.



3. A stand consisting of legs made of bars pivotally connected in the form of lazy tongs; transverse shelf-like members made of pivotally connected bars arranged in the form of lazy tongs, the ends of such bars pivoted to said legs; means for locking the legs in their extended state, and other means for locking the transverse shelf-like members against being collapsed; an extensible base comprising a horizontally arranged base member pivoted to one of the lower members of each leg and slidably journaled relatively to the adjacent leg member; and a pivoted extensible arm attached to said base member and parallel to the latter.

4. A stand consisting of legs made of bars pivotally connected in the form of lazy tongs; transverse shelf-like members made of pivotally connected bars arranged in the form of lazy tongs, the ends of such bars pivoted to said legs; means for locking the legs in their extended state, and other means for locking the transverse shelf-like members against being collapsed; an extensible base comprising a horizontally arranged base member pivoted to one of the lower members of each leg and slidably journaled relatively to the adjacent leg member in which said horizontally arranged base member slidably bears; and a pivoted extensible arm attached to said base member and parallel to the latter.

1,079,386. MOTOR-CONTROLLER. THOMAS E. BARNUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 13, 1909. Serial No. 495,738. (Cl. 172-288.)

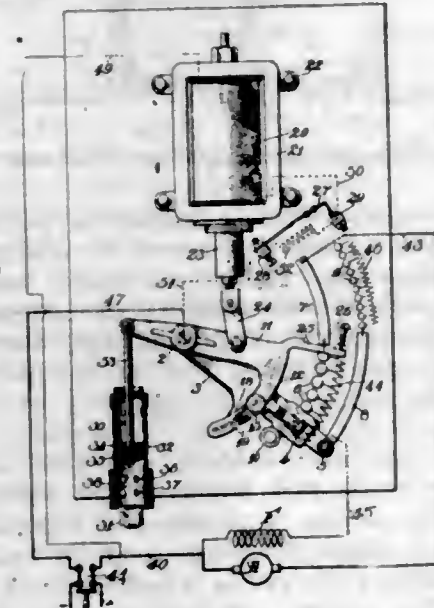
1. In a controller for electric motors, in combination, a movable controlling element, a pivoted operating member therefor, having a limited movement and an adjustable connection between said member and said element for varying the limit of movement of said element.

2. In a controller for electric motors, in combination, a pivoted contact device, an operating member therefor, pivoted concentrically therewith, said operating member having a limited movement and an adjustable connection between said member and said element for varying the limit of movement of said device.

3. In a controller for electric motors, in combination, a movable controlling member, a movable operating member therefor, having a limited movement, one of said members having a plurality of apertures therein, and the other of said members having a device arranged to fit into any of said apertures to adjustably connect said members to vary the limit of movement of said controlling member.

4. In a controller for electric motors, in combination, a pivoted contact member, a pivoted operating member

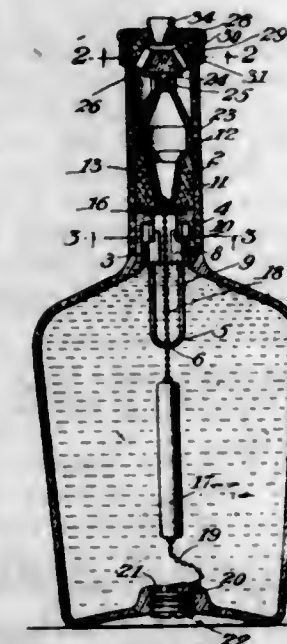
therefor, having a limited movement, said members being pivoted concentrically, one of said members having a series of apertures therein, and the other of said members having a spring pressed device adapted to fit into different apertures to adjustably connect said members to vary the limit of movement of said contact member.



5. In a controller for electric motors, in combination, a pivoted controlling element, a plurality of resistance contacts arranged to be engaged thereby, an automatically operated rocker arm for actuating said element, said rocker having a limited movement, and an adjustable connection between said arm and said element for causing said arm to stop said element in final position on different contacts.

[Claims 6 to 9 not printed in the Gazette.]

1,079,387. NON-REFILLABLE BOTTLE. WILLIAM J. BEISEL, Brooklyn, N. Y. Filed Oct. 19, 1912. Serial No. 726,772. (Cl. 215-63.)



1. The combination with a bottle having a neck, of a conical valve seat therein, a funnel-shaped valve adapted to fit said seat and close the opening therethrough, a weight within said bottle below said valve, means for flexibly connecting said weight to said valve and to a fixed support in line therewith in said bottle, and a fixed guide for said connecting means between said weight and valve and in line therewith.

2. The combination with a bottle having a neck, of a conical valve seat therein, a funnel-shaped valve adapted to fit said seat and close the opening therethrough, a weight within said bottle below said valve, means for flexibly connecting said weight to said valve and to the bottom of said bottle in line with said valve,

and a fixed guide for said connecting means between said weight and valve.

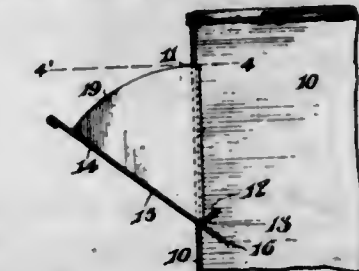
3. The combination with a bottle having a neck, of a conical valve seat therein, a funnel-shaped valve adapted to fit said seat and close the opening therethrough, a weight within said bottle below said valve, means for flexibly connecting said weight to said valve and to a fixed support in line therewith in said bottle, a fixed guide for said connecting means between said weight and valve and in line therewith, and a sliding hammer adapted to impart a slight blow to the bottom of said valve when the bottle is inverted.

4. The combination with a bottle having a neck, of a conical valve seat therein, a funnel-shaped valve fitting said seat and closing the opening therethrough, a sliding hammer below said seat adapted to impart a slight blow to said valve as the bottle is inverted, and a yielding member between said hammer and valve to cushion said blow.

5. The combination with a bottle having a neck, of a conical valve seat therein, a funnel-shaped valve fitting said seat and closing the opening therethrough, a sliding hammer below said seat adapted to impart a slight blow to said valve as the bottle is inverted, and a rubber ring secured below said valve with its inner edge projecting over the outer lower edge of said valve and interposed between it and said hammer.

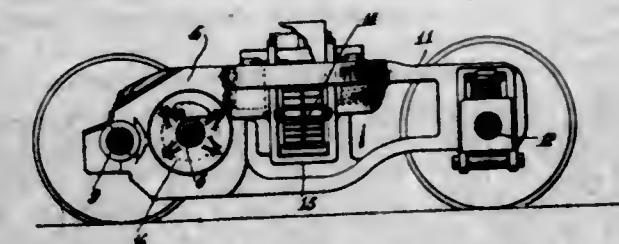
[Claims 6 to 9 not printed in the Gazette.]

1,079,388. POURING-SPOUT FOR TIN OR PAPER RECEPTACLES. CYRUS F. BLANKE, St. Louis, Mo. Filed Dec. 24, 1912. Serial No. 738,488. (Cl. 221-11.)



A receptacle provided with an opening, said opening having an inwardly bent flange at one end thereof extending into the receptacle, said flange being provided with a transverse slot, a spout comprising a bottom adapted to normally close the opening, a straight tongue of less width than the bottom carried at one end thereof and arranged in substantially the same plane as the said bottom and projecting through said slot with the edge of the bottom on each side of the tongue supported on the flange to permit the spout to be swung away from the receptacle to uncover the opening, rearwardly extending segmental resilient sides connected to the bottom of the spout and adapted to frictionally engage the receptacle at the sides of the opening, said sides having arcuate edges located at the end of the said opening opposite that at which the flange is arranged and outwardly projecting flanges carried at the rear ends of the sides to limit the outward movement of the spout.

1,079,389. ELECTRIC-RAILWAY TRUCK. WARREN L. BOYER, Kingston, N. Y. Filed Jan. 25, 1913. Serial No. 744,132. (Cl. 105-259.)



1. In a motor truck for electric railways, a combined motor casing and truck frame formed as a single unitary structure and having bearings adapted to receive a sup-

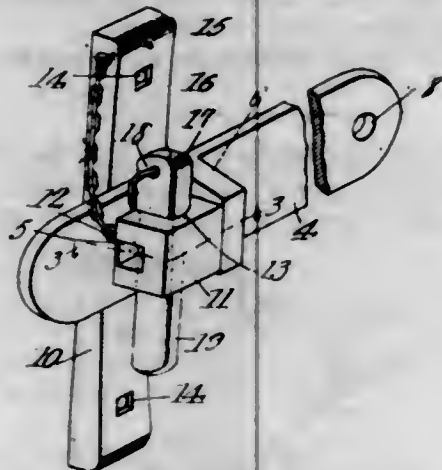
porting axle, spring supported from and the lower ends of which lie below the upper surface of said combined casing and frame, and a bolster supported by said springs.

2. In a motor truck for electric railways, a combined motor casing and truck frame formed integral with one another and having bearings adapted to receive a supporting axle, springs supported from and the lower ends of which lie below the upper surface of said combined casing and frame, and a bolster supported by said springs.

3. In a motor truck for electric railways, a motor frame or casing having arms so arranged as to support two parallel axes of the truck, and bolster supporting means located between said axes and below the upper surface of said frame or casing.

4. In a motor truck for electric railways, a motor frame or casing having arms formed integrally therewith and so arranged as to support two parallel axes of the truck, and bolster supporting means located between said axes.

1,079,390. HASP-FASTENER. ROBERT BRUCE, Wellington, Kans. Filed Aug. 7, 1913. Serial No. 783,639. (Cl. 70-83.)



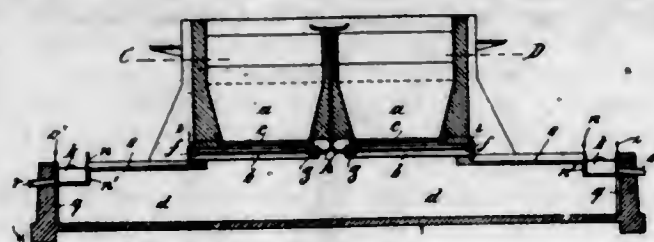
1. In a hasp fastener the combination of a hasp provided with an opening extending therethrough, a shoulder adjacent the edge of said opening and provided with an aperture extending therethrough, a plate with a lug projecting therefrom adapted to extend through the opening of the said hasp, said lug provided with apertures extending longitudinally and transversely therethrough, the transverse aperture thereof adapted to align with the shoulder aperture, and a pin adapted to extend through the said lug longitudinal opening, said pin provided with an aperture extending transversely therethrough adapted to align with the transverse openings of the lug and shoulder.

2. In a device of the class described, the combination of a hasp provided with an aperture extending therethrough, said hasp provided with a shoulder projecting therefrom adjacent one edge of said opening, said shoulder provided with an opening extending transversely therethrough, a plate provided with a lug projecting therefrom said plate adapted to project through the hasp opening, said lug provided with transverse and longitudinal openings extending therethrough, and a key with an enlarged head having an aperture extending transversely therethrough adapted to extend through the longitudinal opening of the lug with the apertures thereof in alignment with the transverse apertures of the said lug and shoulder, and flexible means for securing the said pin to the plate.

1,079,391. APPARATUS FOR PURIFYING SEWAGE AND THE LIKE. PAUL BUNZEL, Cöthen, Germany. Filed Aug. 5, 1913. Serial No. 783,078. (Cl. 210-5.)

1. The combination with apparatus for purifying sewage and the like having a plurality of settling troughs open below and sludge discharge conduits beneath said troughs; of valves intermediate the conduits and troughs for cutting off said conduits from said troughs, a re-

movable end cover for the discharge end of said conduits and means for supplying water to said conduits after the sludge has been discharged and the end covers replaced and before said valves are re-opened.



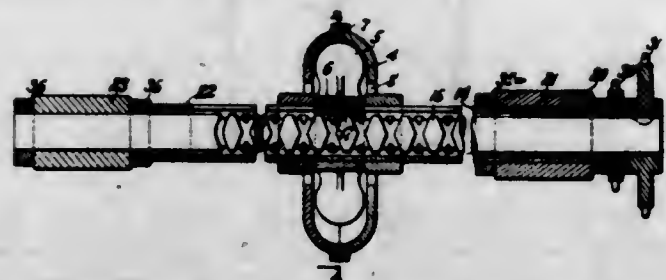
2. The combination with apparatus for purifying sewage and the like having a plurality of settling troughs open below and sludge discharge conduits beneath said troughs; of valves of unvariable height intermediate the conduits and troughs for cutting off said conduits from said troughs, a removable end cover for the discharge end of said conduits and means for supplying water to said conduits after the sludge has been discharged and the end covers replaced and before said valves are re-opened.

3. The combination with apparatus for purifying sewage and the like having a plurality of settling troughs open below and sludge discharge conduits beneath said troughs; of sliding plate valves intermediate the conduits and troughs for cutting off said conduits from said troughs, a removable end cover for the discharge end of said conduits and means for supplying water to said conduits after the sludge has been discharged and the end covers replaced and before said valves are re-opened.

4. The combination with apparatus for purifying sewage and the like having a plurality of settling troughs open below and sludge discharge conduits beneath said troughs; of valves intermediate the conduits and troughs and movable in horizontal plane for cutting off said conduits from said troughs, a removable end cover for the discharge end of said conduits and means for supplying water to said conduits after the sludge has been discharged and the end covers replaced and before said valves are re-opened.

5. The combination with apparatus for purifying sewage and the like having a plurality of settling troughs open below and sludge discharge conduits beneath said troughs; of valves intermediate the conduits and troughs for cutting off said conduits from said troughs, a removable end cover for the discharge end of said conduits, a transverse collecting channel in which the water is separated from the sludge and means for supplying water to said conduits after the sludge has been discharged and the end covers replaced before said valves are re-opened. [Claims 6 to 13 not printed in the Gazette.]

1,079,392. CARDING-MACHINE. LEON W. CAMPBELL, Woonsocket, R. I. Filed Apr. 13, 1912. Serial No. 690,475. (Cl. 19-15.)



1. A carding machine having, in combination, a carding cylinder, a doffer-in roll and a doffer roll located upon opposite sides of the cylinder, a blower arranged to direct a thin current of air against the cylinder, and mechanism for actuating the blower and moving it lengthwise of the cylinder.

2. A carding machine comprising a carding cylinder, a fan having its nozzle directed toward the cylinder, means for rotating the fan to blow a current of air through the nozzle, and means for moving the fan back and forth lengthwise of the cylinder.

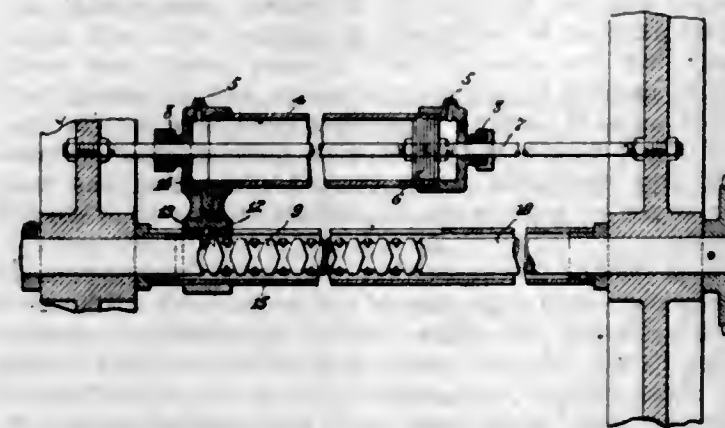
3. A carding machine comprising a carding cylinder, a fan arranged beneath the cylinder, a shaft, connections between the shaft and fan to cause the fan to travel lengthwise of the shaft when the two are relatively rotated, a hollow shaft inclosing the first mentioned shaft and splined to the fan, and means for rotating the two shafts at different rates of speed.

4. A carding machine comprising a carding cylinder, a shaft having a series of spiral grooves formed therein, a hollow shaft inclosing the first mentioned shaft, means for rotating the two shafts at different rates of speed, a fan splined to the hollow shaft, and connections between the fan and first mentioned shaft to cause the fan to be rotated and to traverse back and forth beneath the cylinder.

5. A carding machine comprising a carding cylinder, a fan arranged to direct a current of air against the surface of the cylinder, means for rotating the fan, and means for moving the fan across the surface of the cylinder.

[Claim 6 not printed in the Gazette.]

1,079,393. CARDING-MACHINE. LEON W. CAMPBELL, Woonsocket, R. I. Filed Mar. 1, 1913. Serial No. 751,450. (Cl. 19-15.)



1. A carding machine, having, in combination, a carding cylinder, a cylinder provided with a nozzle for directing air against the carding cylinder, a piston within the cylinder, and mechanism for reciprocating the cylinder across the carding cylinder.

2. A carding machine, having, in combination, a carding cylinder, a cylinder provided with a nozzle at each end for directing air against the carding cylinder, a stationary piston within the cylinder, and mechanism for reciprocating the cylinder.

3. A carding machine, having, in combination, a carding cylinder, a cylinder of a length substantially half that of the carding cylinder and provided with a nozzle at each end for directing air against the carding cylinder, a stationary piston within the cylinder arranged approximately midway of the carding cylinder, and means for reciprocating the cylinder.

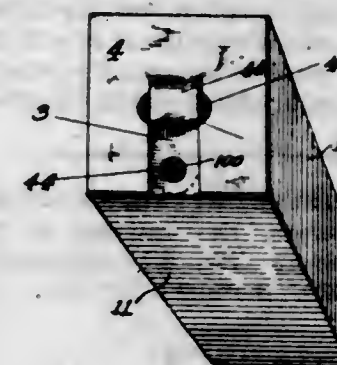
4. A carding machine, having, in combination, a carding cylinder, a rod extending across the face of the carding cylinder, a piston secured to the rod, a cylinder surrounding the piston, nozzles at each end of the cylinder, and mechanism for reciprocating the cylinder.

5. A carding machine, having, in combination, a carding cylinder, a rod extending across the face of the carding cylinder, a piston secured to the rod substantially midway of the carding cylinder, a cylinder surrounding the piston of a length substantially one-half the length of the carding cylinder, nozzles in each end of the cylinder, and mechanism for reciprocating the cylinder. [Claim 6 not printed in the Gazette.]

1,079,394. CARTON. ARTHUR B. CAREY, Hutchinson, Kans. Filed May 2, 1911. Serial No. 624,629. (Cl. 229-17.)

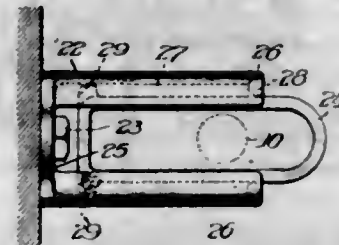
A collapsible box comprising in combination, a piece of material formed to make a four sided package, said sides having their end portions or flaps adapted to close inwardly and overlap and close the ends of the box, the

under portion having a hole therein for the egress of the contents of said package, the second of said flaps having a slot cut out so that the said portion will not obstruct said hole, the third of said portions having a hole therein



arranged to be disposed over the hole in the under portion and a slot disposed relatively close to said hole, and an outer portion or flap provided with a tongue adapted to engage with the last mentioned slot and project between the egress holes formed integral therewith.

1,079,395. UNCOUPLING DEVICE. CHARLES A. CARSDIN and GEORGE A. WOODMAN, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,731. (Cl. 213-59.)



1. An uncoupling device for railway cars comprising a substantially horizontal operating rod secured to the car and having an end adapted to be connected to the locking and having an end adapted to be connected to the locking pin of the coupler, and means for securing the operating rod to the car, said means comprising a pair of bearing brackets for the operating rod, one of said brackets being provided with a guideway extending transversely of said operating rod and a slide working in said guideway and carrying said operating rod.

2. An uncoupling device for railway cars comprising a substantially horizontal operating rod secured to the car and having a lifting arm adapted to be connected with the locking pin of the coupler, and means for securing the operating rod to the car, said means comprising a pair of bearing brackets for the operating rod, one of said bearing brackets being provided with a guideway disposed transversely of the operating rod and a slide working in said guideway and carrying said operating rod, said slide being provided with a longitudinal slot through which said rod extends.

3. An uncoupling device for railway cars comprising an operating rod adapted to be secured to a car and to be connected to the locking pin of the coupler, and means for securing the operating rod to the car comprising a member having a pair of outwardly extending arms and adapted to be fastened to the car, and an element embracing said rod and slidably mounted between said arms to move longitudinally thereof.

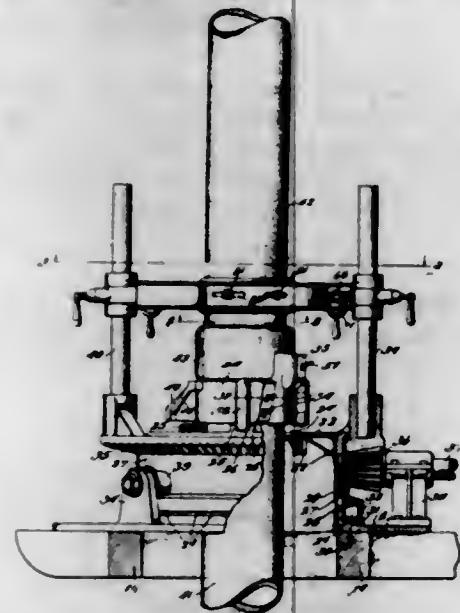
4. An uncoupling device for railway cars comprising an operating rod adapted to be secured to a car and be connected to the locking pin of the coupler, and means for securing the operating rod to the car comprising a member for retaining the rod in position and having a pair of outwardly extending arms adapted to be fastened to the car, and a link slidably mounted between said arms to move longitudinally thereof and adapted to embrace the said rod.

5. An uncoupling device for railway cars comprising an operating rod adapted to be secured to a car and be

connected to the locking pin of the coupler, and means for securing the operating rod to the car comprising a member having a pair of outwardly-extending arms adapted to be secured to the car between which the said rod is movable horizontally when the parts are in position, and a slidable member for restraining excessive movement of said rod outwardly of said arms, said member being mounted to slide between the arms.

[Claims 6 and 7 not printed in the Gazette.]

1,079,396. WELL-SINKING APPARATUS. MATTHEW T. CHAPMAN, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed May 16, 1910. Serial No. 561,596. (Cl. 255-23.)



1. In a well-sinking apparatus, the combination of a base having an upright annular sleeve, a turntable mounted on the base, a detachable cover-plate mounted upon and non-rotatably engaging said sleeve, a clamp adapted to embrace the well-tube and adapted to non-rotatably engage the cover-plate, and means carried by said clamp for holding the well-tube against rotation.

2. In a well-sinking apparatus, the combination of a base having an upright annular sleeve, a turntable mounted on the base, a detachable cover-plate mounted upon and non-rotatably engaging said sleeve, said cover-plate having notches in its upper surface, a clamp adapted to embrace the well-tube and having means adapted to engage said notches to hold said clamp non-rotatably in engagement with said cover-plate, and means carried by said clamp for holding the well-tube against rotation.

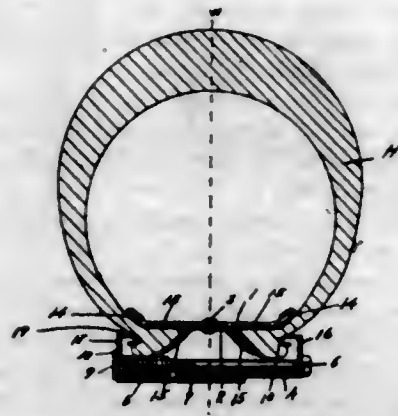
3. In a well-sinking apparatus, the combination of a stationary base, a clamp adapted to embrace the well-tube, means non-rotatably connecting said clamp with said base, gripping devices carried by said clamp at different distances from the axis of the well-tube for engaging the well-tube and a coupling thereof for holding the same against rotation.

4. In a well-sinking apparatus, the combination of a stationary base, a clamp adapted to embrace the well-tube, means non-rotatably connecting said clamp with said base, gripping devices carried by said clamp at different distances from the axis of the well-tube for engaging the well-tube and a coupling thereof, for holding the same against rotation, a turntable mounted on said base, and means carried by the turntable for engaging and gripping the well-tube for rotating the same.

5. In a well-sinking apparatus, the combination of a stationary base, a clamp adapted to embrace the well-tube, means non-rotatably connecting said clamp with said base, gripping devices carried by said clamp at different distances from the axis of the well-tube for engaging the well-tube and a coupling thereof for holding the same against rotation, a turntable mounted on said base, and vertically-movable means carried by the turntable for engaging and rotating the well-tube.

[Claims 6 to 17 not printed in the Gazette.]

1,079,397. VEHICLE-TIRE. JOHN T. CLARK, Provo, Utah. Filed June 7, 1913. Serial No. 772,455. (Cl. 152-21.)



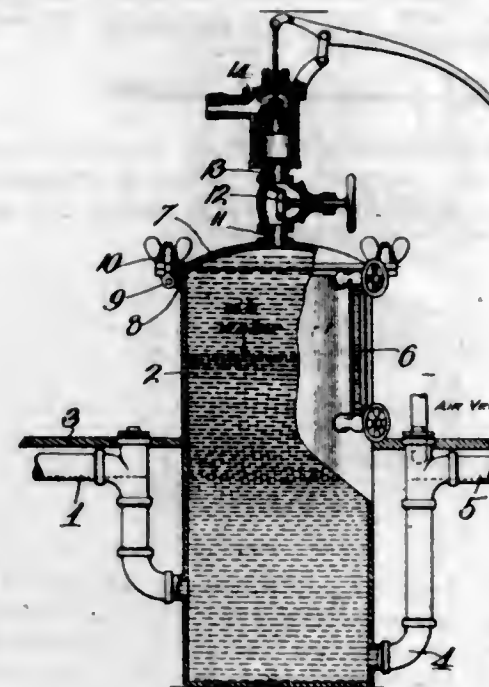
1. A vehicle tire consisting of a casing having annular beads near each edge thereof; a metal band within said casing having its edges flanged outwardly; a channel band rigidly fastened within said metal band and having its edges inclined from each other; an air valve fastened through said metal band and said channel band; V-shaped annular bands made of flexible, compressible material adapted to be drawn in contact with said metal band and the sides of said channel band; two metal bands adapted to partially telescope and to engage said beads on said casing; a packing band between the last mentioned band; and bolts with nuts thereon to draw said last mentioned bands toward each other and hold the edges of said casing in contact with said V-shaped bands.

2. A vehicle tire consisting of a casing having annular beads near each edge thereof; a metal band within said casing having its edges flanged outwardly; a channel band rigidly fastened within said metal band and having its edges inclined from each other; an air valve fastened through said metal band and said channel band; V-shaped annular bands made of flexible, compressible material adapted to be drawn in contact with said metal band and the sides of said channel band; two metal bands adapted to partially telescope and to engage said beads on said casing; a packing band between the last mentioned bands; bolts through said last mentioned metal bands; and square sleeve nuts within which said bolts are screwed to draw the said last mentioned bands toward each other and hold the edges of said casing in contact with said V-shaped bands.

3. A vehicle tire consisting of a casing having annular beads near each edge thereof; a metal band within said casing having its edges flanged outwardly; a channel band rigidly fastened within said metal band and having its edges inclined from each other; an air valve fastened through said metal band and said channel band; V-shaped annular bands made of flexible, compressible material adapted to be drawn in contact with said metal band and the sides of said channel band; two metal bands adapted to partially telescope and to engage said beads on said casing; a packing band between the last mentioned bands; a radially extended transverse lug on the inner of said metal bands; and means to draw said last mentioned bands toward each other.

4. A vehicle tire consisting of a casing having annular beads near each edge thereof; a metal band having its edges flanged outwardly; a channel band rigidly fastened within said metal band and having its edges inclined from each other; an air valve fastened through said metal band and said channel band; V-shaped annular bands made of flexible, compressible material adapted to be drawn in contact with said metal band and the sides of channel band; two metal bands adapted to partially telescope and to engage said beads on said casing; outwardly extended flanges thereon; a packing band between said last mentioned bands; bolts inserted through said flanges; and square sleeve nuts within which said bolts are screwed to draw said last mentioned bands toward each other and to hold the V-shaped annular bands in close contact with said metal band and said channel band.

1,079,398. VACUUM SEPARATING-TRAP. WILLIAM F. COAKLEY and JOSIAH S. LEVENE, Kansas City, Mo. Filed Jan. 10, 1913. Serial No. 741,212. (Cl. 210-5.)



1. A vacuum separating trap, comprising a liquid supply and discharge means, and a receptacle rising above the level of said supply and discharge means and communicating with both, and means for creating a vacuum in the said receptacle to raise liquid therein above the highest level which the liquid attains in its escape through said discharge means.

2. A vacuum separating trap, comprising a liquid supply and discharge means, a receptacle rising above the level of said supply and discharge means and communicating with both, a pump mechanism connected with the top of said receptacle whereby to create a vacuum therein to raise the level of the liquid to the top of the receptacle, and means for controlling communication between the interior of the receptacle and the vacuum-creating means.

3. A vacuum separating trap, comprising a liquid supply and discharge means, a receptacle rising above the level of said supply and discharge means and communicating with both, means for raising the level of liquid in the receptacle above the plane of the supply and discharge means, and means to maintain the liquid in the receptacle at said raised level.

1,079,399. COLLAPSIBLE SHOO-FLY ROCKER. ATHERTON D. CONVERSE, Winchendon, Mass. Filed Mar. 14, 1912. Serial No. 683,873. (Cl. 155-8.)

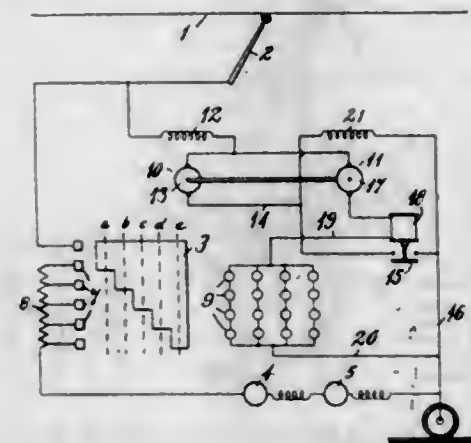


1. In a device of the class described, the combination of two side members; a divided seat hinged together and to said side members at its ends and adapted to collapse upwardly to permit said members to be moved toward each other; and a divided back hinged together and at its ends to said side members so as to collapse rearwardly and normally extending over said divided seat retaining it in its normal extended position.

2. In a device of the class described, the combination of two side members; a divided seat hinged together and to said side members at its ends and adapted to collapse upwardly to permit said members to be moved toward each other; a divided back hinged together and at its ends to said side members so as to collapse rearwardly and normally extending over said divided seat retaining it in its normal extended position, said divided back having the

lower front corners of each of its vertical ends chamfered off to permit the upward collapse of the divided seat as soon as the divided back commences to collapse rearwardly.

1,079,400. CAR-LIGHTING SYSTEM. WILLIAM COOPER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1909. Serial No. 517,151. (Cl. 171-313.)



1. In an electric current distributing system, the combination with a source of variable-voltage energy, translating devices requiring a substantially constant-voltage supply of energy, an electric motor having a field magnet winding pertaining thereto, a generator operatively connected to said motor for supplying energy to the translating devices, and a field magnet winding pertaining to the generator, of electro-responsive means adapted to short circuit the field magnet winding pertaining to the generator, said means being dependent upon a function of the energy supplied to the translating devices.

2. In an electric current distributing system, the combination with a source of variable-voltage energy, a motor connected thereto, a generator driven by the motor, a plurality of translating devices supplied with energy from said source through the armature of said generator, and means dependent upon a function of the energy supplied to the translating devices for short-circuiting the generator field magnet.

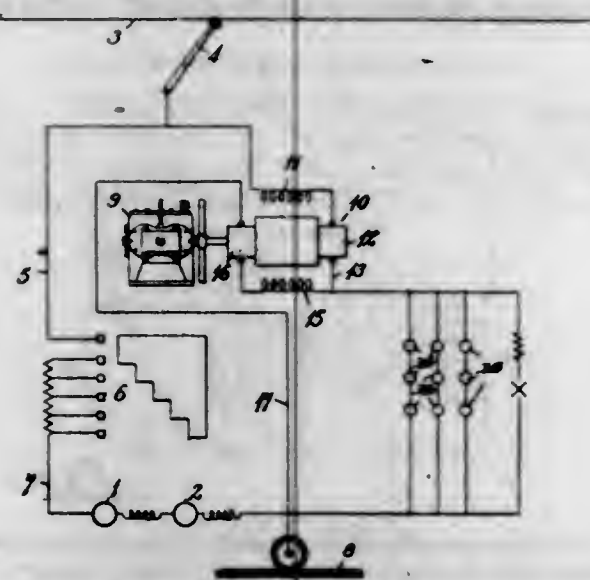
3. In an electric current distributing system, the combination with a supply circuit of variable voltage, an electric motor connected thereto having an armature and field magnet winding, a generator operatively connected to the motor, translating devices connected in series with the generator armature, and means dependent upon the current supplied to the translating devices for short-circuiting the field magnet of the generator, said generator armature and translating devices being electrically connected in multiple circuit to the armature of the motor and the field magnet of the generator.

4. In an electric current distributing system, the combination with a source of variable-voltage energy, a motor connected thereto, a generator operatively connected to the motor and having a field magnet winding connected in series relation with the motor armature, a relay switch adapted to short-circuit the generator field magnet and having an actuating magnet connected in series circuit with the field magnet of the motor, the armature of the generator and translating devices to which it is desired to supply constant current energy being connected to the source of energy through the motor field winding.

1,079,401. CAR-LIGHTING SYSTEM. WILLIAM COOPER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 13, 1909. Serial No. 522,440. (Cl. 171-313.)

1. A lighting system for electric vehicles comprising a dynamotor, a source of electric energy to which the dynamotor is connected, and a lighting circuit connected in shunt circuit relation to a portion of the dynamotor winding.

2. A lighting system comprising a supply circuit, a dynamo-electric machine comprising a two-part field magnet winding and two armature windings connected in series relation across the circuit, a mechanical load driven by said machine and a lighting circuit connected to an intermediate point in the circuit of the dynamo-electric machine at one end and to one side of the supply circuit at the other.



3. A lighting system comprising a supply circuit, a dynamo having two armature windings and a two-part field magnet winding connected in series relation across the supply circuit, a mechanical load for the dynamo and a lighting circuit connected in shunt relation to a portion of the dynamo winding.

4. A lighting system comprising a supply circuit, a dynamo-electric machine comprising a two-part field magnet winding and two armature windings connected in series relation across the circuit, a mechanical load driven by said machine and a lighting circuit connected to a point in the circuit of the dynamo-electric machine between the two armatures and between the two field windings at one end, and to one side of the supply circuit at the other end.

5. In an electrical vehicle, the combination with a source of energy and a dynamo comprising a divided field magnet winding and two armature windings, said field magnet and armature windings being connected in series circuit relation across the supply circuit, of a mechanical load for said dynamo and a lighting circuit which is connected at one end to an intermediate point in the circuit composed of the series of dynamo windings and at its other end to one side of the supply circuit.

1,079,402. TYPES. GEORGE E. CORNWALL, Rye, N. Y., assignor to American Planograph Company, a Corporation of West Virginia. Filed Apr. 17, 1905. Serial No. 256,122. (Cl. 101-204.)



1. An interchangeable settable type body bearing a character, the portion constituting the character and the remaining portion of the type body, respectively, being of opposite action with respect to the transmission of light.

2. An interchangeable settable type body comprising a light-transmitting character, the remainder of said type body being light-arresting.

3. An interchangeable settable type body bearing a character, said character and the remaining parts of said type body being of opposite qualities as regards the transmission of light, said type body being provided with a proud portion for the purpose of engaging with adjacent type bodies.

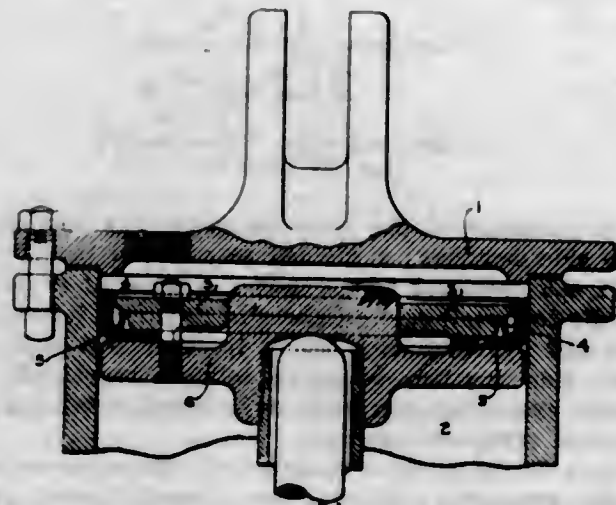
4. An interchangeable settable type body bearing a character, the portion constituting the character and the remaining portion of the type body being of opposite action with respect to the transmission of light, said type body being provided with means for preventing the action of light about the edges of the type body.

1,079,403. REFILLABLE BOTTLE. LOUIS J. CRECELIUS, St. Louis, Mo., assignor to Charles A. Thompson, St. Louis, Mo. Filed Apr. 19, 1912. Serial No. 691,909. (Cl. 215-29.)



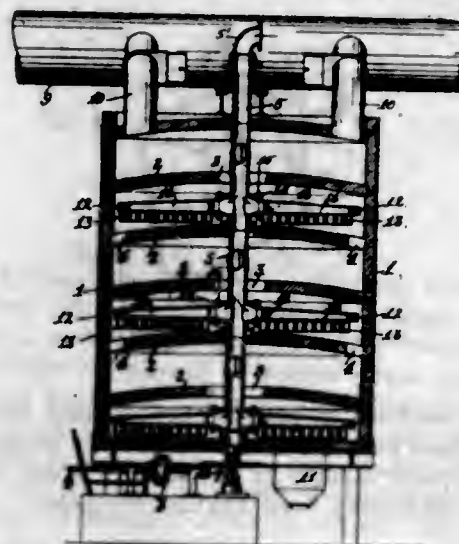
A refillable glass bottle formed with a neck having an outwardly gradually tapering conoidal finely ground seat providing a slightly curved roughened frictional surface at the mouth or filling end of the neck of the bottle, and a glass finely ground ball stopper providing a universal roughened frictional surface over the entire stopper which is loosely contained within the bottle and adapted to seat outwardly and to contact with the curved roughened frictional surface of the seat which conforms with a sufficient portion of any part of the surface of the stopper and securely seals the contents of the bottle when the bottle with its contents is inverted and bumped or jarred endwise to seat the stopper.

1,079,404. PACKING-EXPANDER. GEORGE F. DE WEIN, Milwaukee, Wis., assignor, by mesne assignments, to H. W. Johns-Manville Company, New York, N. Y., a Corporation of New York. Filed July 27, 1910. Serial No. 574,054. (Cl. 121-108.)



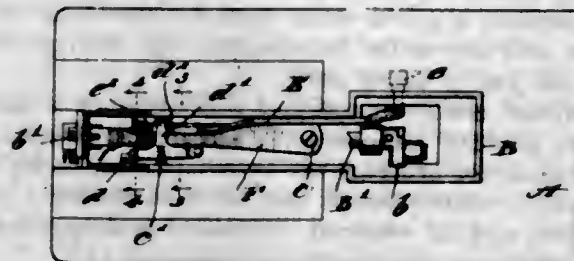
A piston packing expander ring consisting of a thin strip of spring metal bent up along one edge so as to have a J-shaped cross section, and curved into a circle with abutting but disconnected ends, the shorter lip of the J being on the inside of the ring so formed.

1,079,405. ROASTING-FURNACE. EDWARD J. FOWLER, Redwood City, Cal., assignor to Pacific Foundry Company, San Francisco, Cal., a Corporation of California. Filed May 3, 1913. Serial No. 765,252. (Cl. 75-143.)



In a roasting furnace of the described class, the combination of the hearths; a single central rotatable hollow shaft having a continuous longitudinal cavity adapted to receive and convey air; and the hollow rabble-arms connected at their inner ends with said shaft and having their outer ends closed, each of said arms having within it a longitudinal partition wall terminating short of the closed outer end of the arm and dividing its cavity into two longitudinally directed channels, one of which communicates at its inner end with the cavity of the hollow central shaft, and at its outer end with the other channel, said latter channel at its inner end being closed to the cavity of said shaft, and each of said arms having in its wall an opening proximate to the connection of the arm with the central shaft, said opening leading from the inner end of said other channel directly into the furnace.

1,079,406. SEWING-MACHINE. CHARLES T. E. GOULD, Chicago, Ill., assignor of one-third to Edward Hilker, Chicago, Ill. Filed Oct. 8, 1909. Serial No. 521,747. Renewed Apr. 17, 1913. Serial No. 761,792. (Cl. 112-8.)



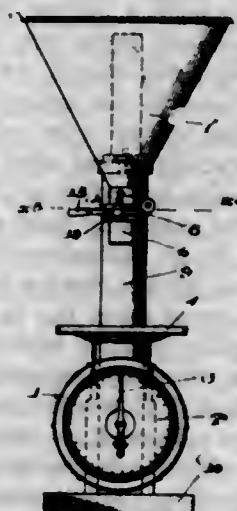
1. A sewing machine comprising a bed-plate, a feed bar pivoted to the bed plate and having a lug thereon, a plate pivotally supported adjacent to the feed bar and having an arm extending transversely of said bar, a roller on the pivoted plate, a cam adapted to engage said roller, and adjustable means interposed between the arm and the lug and adapted to vary the movement in one direction of said pivoted plate about its pivotal point, said pivoted plate being actuated by the coaction of said cam and said roller.

2. A sewing machine, comprising a bed plate, a feed bar pivoted on the bed plate, a rotative shaft, a cam on the shaft, a pivotally supported plate extending beneath the bar in position to be operated by said cam, means for adjusting the pivoted plate with respect to the cam, and a spring adapted to move the bar in one direction.

3. A sewing machine, comprising a feed bar having a lug thereon, a shaft, a cam on the shaft, a swinging plate beneath the feed bar and having an arm extending transversely of the feed bar, a roller on the swinging plate adapted to be engaged by the cam, and a tapered adjusting bar interposed between said lug and arm and adapted to adjust the roller with respect to the cam.

196 O. G.—55

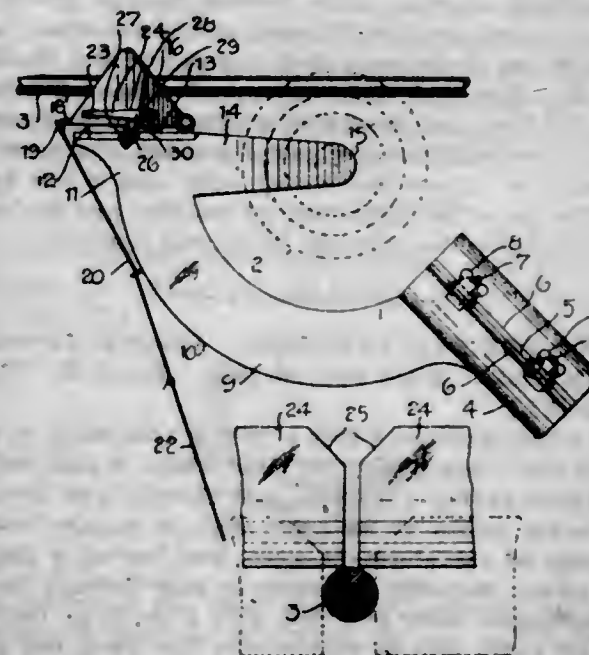
1,079,407. AUTOMATIC WEIGHING DEVICE. JOSIAH GRIMES, Los Angeles, Cal., assignor of one-half to Bird F. Lytle, Los Angeles, Cal. Filed Jan. 9, 1913. Serial No. 741,110. (Cl. 73-176.)



1. An automatic weighing scales comprising a direct reading scales provided with pivoted indicator, an adjustable contact in the path of said indicator, a feed gate for said scales, electromagnetic means for controlling said feed gate, and an operating circuit therefor including said indicator and said adjustable contact and also including a traveling contact means comprising a contact ring member and a contact member therefor, said members of the traveling contact means being mounted to permit of relative movement thereof around the pivot of the indicator, and one of said members of the traveling contact means being connected to said adjustable contact.

2. An automatic weighing scales comprising a direct reading scales provided with a dial and with a pointer, a rotatable metal ring around said dial, a contact member carried by said ring and movable therewith to different positions in the path of said pointer, an electromagnetically controlled feed gate for said scales, and a controlling circuit therefor, including a source of current and connected to said pointer and to said metal ring so as to operate said feed gate when the pointer touches said contact member.

1,079,408. TROLLEY-GUARD. MAURO GUARIGLIA, Morgantown, W. Va. Filed Feb. 3, 1913. Serial No. 746,077. (Cl. 191-79.)



1. The combination with a trolley pole and wheel, of an open ended guard member adapted to receive the trolley wire, angular arms carried by the guard and normally in position to engage the trolley wire.

closing the open end thereof to retain the wire into engagement with the wheel, tapering bars adapted to engage and actuate the arms upon the downward movement of the guard to release the wire and means for returning the guard to its normal position.

2. The combination with a trolley pole and wheel, of a sleeve removably mounted upon the pole, a curved arm integrally formed with the sleeve, an open ended guard member hingedly secured to the upper end of the arm and adapted to receive the trolley wire, means carried by the guard for normally retaining the wire in engagement with the trolley wheel, means actuated by the downward movement of the guard for releasing said wire, and means for returning the guard to its normal position.

3. The combination with a trolley pole and wheel, of a sleeve removably mounted upon the upper end of the pole, a curved arm integrally formed with the sleeve, an open ended guard member hingedly secured to the upper end of said arm and adapted to receive the trolley wire, said guard being provided adjacent its upper end with aligned openings, angular resilient arms secured to the outer faces of the guard and having their horizontal ends disposed through said openings and closing the open end of the guard member to normally retain the wire in engagement with the wheel, means for actuating said arms upon the downward movement of the guard for releasing the wire, and means for returning said arms to their normal position.

4. The combination with a trolley pole and wheel, of a removable sleeve mounted adjacent the upper end thereof, a curved arm integrally formed with said sleeve, spaced bracing members formed integral with the arm and having their ends secured to the upper end of the trolley pole, a plate mounted upon the upper end of the curved arm, an open ended guard member hingedly secured to one side of the plate and adapted to normally receive the trolley wire, angular arms carried by the guard member and adapted to close the open end thereof, tapering bars mounted upon the plate and having their upper ends disposed between the arms and the guard whereby, upon downward movement of the guard member, the tapering bars will actuate the arms to release the wire and means for returning the guard member to its normal position.

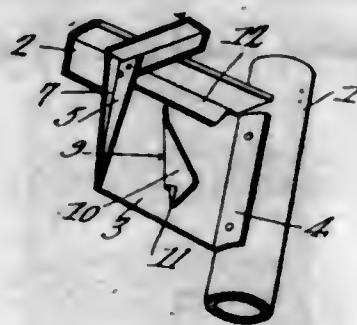
5. The combination with a trolley pole and wheel, of a sleeve removably mounted adjacent the upper end thereof, a curved arm integrally formed with the sleeve, an enlarged portion formed at the upper end of the arm and provided with a flat surface, a plate mounted upon the upper end of the arm and provided with threaded openings, an open ended guard member hingedly secured to one side of the plate and adapted to normally receive the trolley wire, resilient angular arms carried by the guard and adapted to normally close the open end of the same, tapering bars having their lower ends engaged within the openings in the plate and their upper ends disposed between the angular arms and the guard member whereby upon the downward movement of the guard member, the arms will be actuated to release the trolley wire, and a coil spring disposed between the upper end of the arm and the guard member to return the guard to its normal position.

1,079,409. BED-RAIL FASTENER. JAMES S. HENDRICKS, Colville, Wash. Filed Apr. 16, 1913. Serial No. 761,521. (Cl. 5—55.)

1. In a bed fastener, a pair of plates attachable to a bed post and rail, respectively, the plate which is attachable to the bed post having a diagonal slot therein, and the other plate having means at its upper edge to engage over the upper edge of the aforesaid plate, and having a diagonal tongue struck inwardly therefrom to pass through the said slot, the tongue being provided with a notch at the lower end of its basal edge to engage over the lower end of the slot.

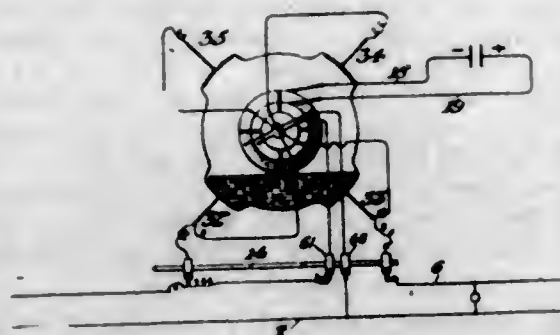
2. In combination with a bedpost and rail, a plate attached to the post, and a plate attached to the rail, the first mentioned plate having a diagonal slot therein con-

verging upwardly away from the post, the upper edge of the last mentioned plate being bent back to provide a lip engageable over the upper edge of the first mentioned plate, and the last mentioned plate having a tongue struck



inwardly therefrom to engage through and over the lower end of the said slot, the basal edge of the tongue being disposed diagonally similar to the slot, in order that the last mentioned plate may bind against the post.

1,079,410. CIRCUIT-BREAKER. PETER COOPER HEWITT, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed May 1, 1905. Serial No. 258,148. (Cl. 175—282.)



1. A circuit controller device consisting of a gas or vapor chamber, electrodes therein, means for bridging the electrodes, means for moving the chamber for interrupting such connection, a gas or vapor path for receiving the current flow, and means for interrupting the flow of current through the gas or vapor path.

2. A circuit controlling device consisting of a movable container, positive and negative electrodes therein, conducting means for bridging the electrodes, means for opening the circuit therethrough and for substituting a gas or vapor path, and an external condenser bridging the electrodes.

3. A circuit controlling device consisting of a movable container, positive and negative electrodes therein, conducting means for bridging the electrodes, means for opening the circuit therethrough and for substituting a gas or vapor path, an external condenser bridging the electrodes, and means for charging the condenser in a reverse direction with reference to said electrodes.

4. The combination of a rotatable container, positive and negative electrodes therein, a mercury bridge therefor, means for rotating the electrodes out of contact with the bridge and for establishing a vapor path in place thereof, a condenser therefor and means for connecting the respective plates of the condenser with said electrodes.

5. The combination of a revoluble chamber, a pair of electrodes, a quantity of mercury bridging said electrodes when in a certain position but separated therefrom when in other positions, a condenser, contact devices connecting the respective condenser plates with a circuit for charging this condenser in a given direction when the electrodes are so bridged, and means for connecting the respective plates of the condenser with said electrodes in a reverse sense when the electrodes are in said other positions.

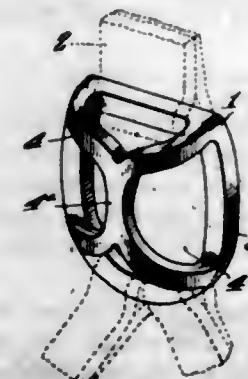
[Claims 6 to 10 not printed in the Gazette.]

1,079,411. CATCH FOR POCKETS. CARL HOLMCRAANS, Boston, and CARL GUSTAF BERGSTROM, Everett, Mass. Filed Feb. 27, 1911. Serial No. 611,293. (Cl. 24—224.)



A catch of the class described comprising a catch plate having a catch member, a base plate having a resilient integral tongue struck up from the metal thereof and inclined outwardly therefrom, a socket plate mounted on said base plate having a T-shaped locking slot therein, in which said catch member is adapted to be engaged, inward bearing flanges formed on said socket plate along the sides of the stem part of said T-shaped slot but terminating short of the end thereof against which flanges and beyond the terminals thereof the free end of said resilient tongue yieldingly bears.

1,079,412. REIN-SUPPORT. MARTIN E. HUEBNER, Sumner, Ill. Filed May 14, 1912. Serial No. 697,226. (Cl. 54—73.)



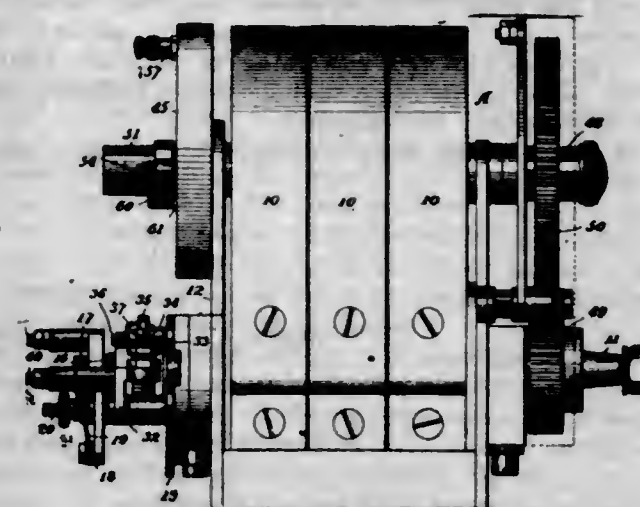
A rein support including a horizontal bar, a U-shaped member connected thereto, the said horizontal bar arranged to have the neck strap secured thereto, the lower arcuate portion of the U-shaped member arranged to have a plurality of downwardly diverging straps secured thereto, the horizontal bar and arcuate portion with the straps connected thereto in use holding the said bar in substantially a horizontal position, the horizontal bar and U-shaped member constituting a base, a rod spaced from said base lying substantially parallel to the plane thereof, arched members outstanding from the base and supporting said rod, said rod and arched members forming aligned lateral openings adapted to receive a rein therethrough, the side portions of the U-shaped member and the said rod contacting with the rein at three points for the guidance thereof.

1,079,413. IGNITION APPARATUS FOR HYDROCARBON-ENGINES. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 22, 1906. Serial No. 349,190. (Cl. 123—148.)

1. The combination with a hydrocarbon engine and an electric ignition apparatus comprising a battery, a generator having a shaft and driven by the engine, and transformer apparatus in circuit respectively with the battery and the generator, of a face plate adapted to rock upon an axis concentric with the generator shaft, a cam wheel on said shaft, and a pair of circuit breakers connected to said face plate and operated by said cam wheel, said circuit breakers being included respectively in the battery and generator circuits, and being movable to advance or retard the spark in the engine.

2. The combination with a hydrocarbon engine, an electric ignition apparatus comprising a battery, a generator having a shaft and driven by the engine, and a transformer apparatus, of a face plate adapted to rock about an axis concentric with the generator shaft, a cam wheel on said shaft adjacent to the face plate and having two cam surfaces, a pair of cam levers operated by said cam surfaces, and circuit breakers operated by said levers, said circuit breakers being respectively in the battery and generator circuits, and said face plate being movable to advance or retard the spark in the engine, for the purpose set forth.

3. The combination with a hydrocarbon engine and an electric ignition apparatus comprising a battery, a generator having a shaft and driven by the engine, a transformer in the battery circuit, and a second transformer in the generator circuit, of a face plate adapted to rock upon an axis concentric with the generator shaft, a cam wheel on said shaft, and a pair of circuit breakers connected to said face plate and operated by said cam wheel, said circuit breakers being included respectively in the battery and generator circuit, and said face plate being movable to advance or retard the spark in the engine.

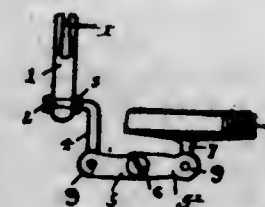


4. In an ignition apparatus, in combination, an electric generator, a battery, suitable transformer apparatus for the generator and battery, a plurality of contact devices for sending current from either the battery or the generator through the transformer apparatus, and means for simultaneously adjusting the contact devices for advancing or retarding the spark.

5. In an ignition apparatus, in combination, an electric generator, a transformer therefor, a battery and a transformer therefor, a plurality of contact devices for sending current from either the generator or the battery through the primaries of their respective transformers, a spark plug, a single switch for connecting the spark plug in circuit with either of the secondaries of the transformers, and means for simultaneously adjusting the contact devices for advancing or retarding the spark.

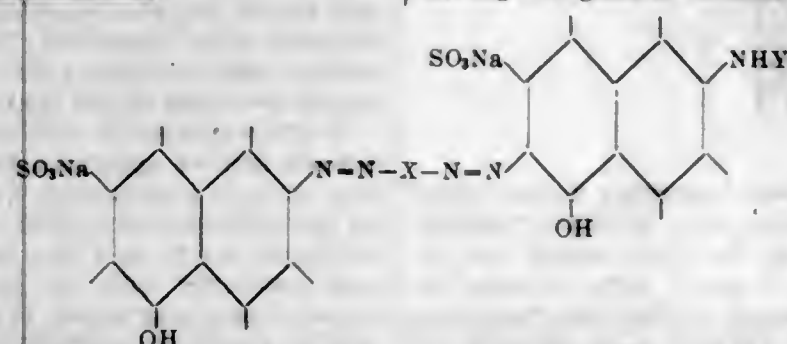
[Claims 6 to 9 not printed in the Gazette.]

1,079,414. CLAMP MOUTH-MIRROR. IRWIN G. JIRKA, Chicago, Ill. Filed Feb. 24, 1913. Serial No. 750,366. (Cl. 32—27.)



In a device of the class described, a clamp comprising an elongated member bifurcated at one end forming a pair of spring jaws adapted to engage the clamp of a rubber dam, the opposite end of said clamp being provided with a transverse perforation, a support section comprising a rod bent to form a pair of angularly disposed arms, one of said arms being swiveled in said perforation, the

free end of the other arm terminating in a ball, a mirror, a stem on said mirror terminating in a ball and a support section comprising a pair of parallel plates provided on their inner faces adjacent the ends with sockets to receive said balls respectively and means for clamping said plates upon said balls, substantially as described.

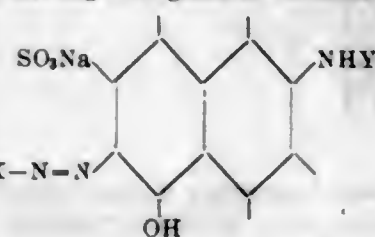


(X representing the nucleus of an amino compound, Y meaning a univalent radical) which consists in combining one molecule of diazotized 2,5-aminonaphthol-7-sulfonic acid with one molecule of an amino compound suitable to be further diazotized, then diazotizing the monoazo dyestuff thus obtained and combining in alkaline solution with one molecule of a 2,5-aminonaphthol-7-sulfonic compound substantially as described.

2. The herein described process of producing disazo

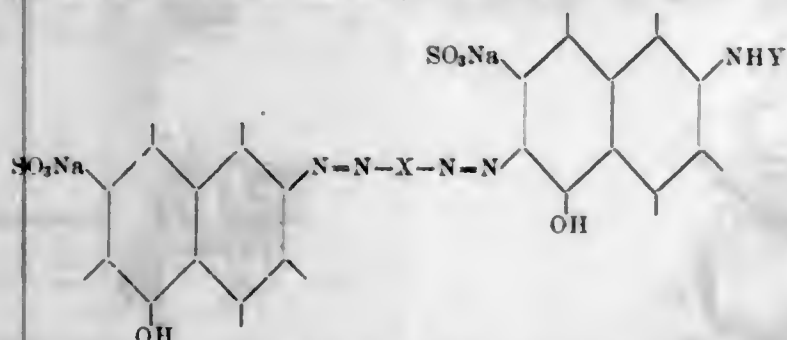
1,079,415. DISAZO DYES AND PROCESSES OF MAKING SAME. GEORG KALISCHER, Mainz, near Frankfurt-on-the-Main, Germany, assignor to Cassella Color Company, a Corporation of New York. Filed Feb. 27, 1913. Serial No. 750,943. (Cl. 8-1.)

1. The herein described process of producing disazo dyes having the general formula



dyes by combining one molecule of diazotized 2,5-aminonaphthol-7-sulfonic acid with one molecule of m-aminop-cresolmethylether, then diazotizing the monoazo dyestuff thus obtained and combining in alkaline solution with one molecule of 2,5-phenylaminonaphthol-7-sulfonic acid substantially as described.

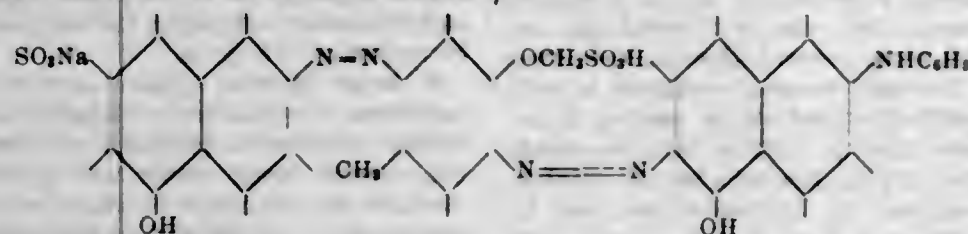
3. The herein described disazo dyes having the general formula



(X representing the nucleus of an amino compound, Y meaning a univalent radical) being dark powders soluble in water with a violet to blue color, dissolving in concentrated sulfuric acid with a blue to bluish green color, dyeing cotton in reddish violet to blue shades which treated

with p-nitrodiazobenzene yield violet to blue shades fast to washing and light and which can be discharged to a pure white, substantially as described.

4. The herein described disazo dyestuff of the formula



being a dark powder soluble in water with a violet blue color, dissolving in concentrated sulfuric acid with a bluish green color, dyeing cotton in violet blue shades, which treated with p-nitrodiazobenzene yield clear blue shades fast to washing and light and which can be discharged to a pure white, substantially as described.

1,079,416. GAS-SUPPLY-CONTROLLING MEANS. LEO A. KORB, Richwood, W. Va., assignor of one-half to Bernard Sickling, Cincinnati, Ohio. Filed Mar. 15, 1912. Serial No. 684,030. (Cl. 123-351.)

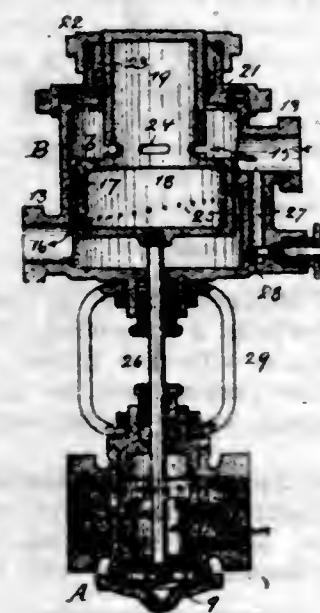
1. In means for controlling the gas-supply to a heater-burner by means of a water-actuated device, the combination of a gas-supply-pipe, a valve controlling passage therethrough, a cylindrical piston-housing open at one end and provided with an inlet and an outlet opening in its side, a water-pipe in communication with these openings, a hollow cylindrical piston closed at both ends movably fitted to this housing and having part of it concentrically contracted, which contracted part extends outwardly through the open end of the housing, a stuffing-box in the piston-housing fitted to this contracted part of the valve, inlet ports in the side of the contracted part of the piston, outlet ports in the side of its wider part and a rod where-

by the piston is connected to the valve in the gas-supply-pipe.

2. In means for controlling the gas-supply to a heater burner by means of a water-actuated device, the combination of a cylindrical piston-housing having between its ends an annular inwardly projecting lip and being open at one end where an outwardly extended neck is provided, diametrically opposite openings in this housing, one above and one below the lip mentioned, serving respectively for admission and for egress of water, a cylindrical, hollow piston closed at both ends and fitted to contact with the lip mentioned and also into the neck of the housing, vertically spaced ports in the side of the piston to permit water to enter the same and to pass out therefrom, a gas-supply pipe, a valve which controls passage through the same and means to connect this valve and the piston so that both move together.

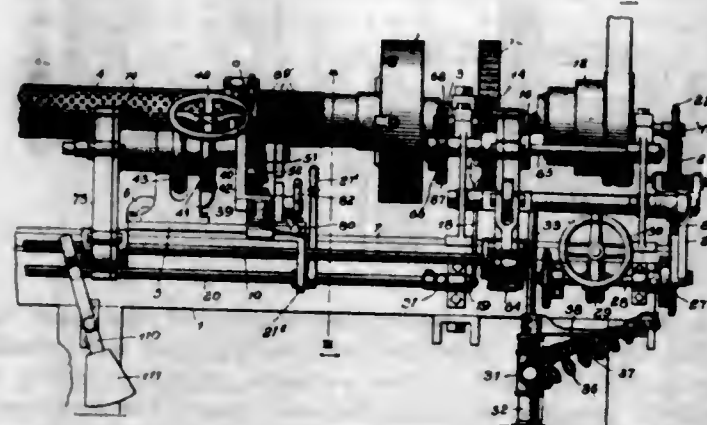
3. In means for controlling the gas-supply to a heater-burner by a water-actuated device, the combination of a hollow, cylindrical valve which controls the flow of gas and a cylindrical, hollow piston which controls the flow of water, a rod whereby both are rigidly connected in axial alignment, ports to admit water to the hollow piston, additional ports which form outlets for the water from the piston, ports to permit passage of gas through the

valve mentioned, a housing for this valve, a housing for the piston provided with an annular lip to which the piston is fitted and in which housing said piston occupies a normal position with the outlet ports above this lip, an inlet for water to the housing above this lip, and an outlet



for water below the same, the outlet ports in the piston and the ports in the valve being arranged in a line inclined to the axis of both so that upon movement a proportionally graduated passage of respectively water and gas takes place.

1,079,417. MACHINE FOR MAKING WATER AND OIL SCREENS. RICHARD F. KREITER, ERNEST S. POST, ALBERT L. ROCO, and MAHLON E. LAYNE, Houston, Tex.; said Kreiter, Roco, and Post assignors to said Layne. Filed Oct. 15, 1908. Serial No. 457,966. (Cl. 29-33.)



1. A machine for forming wire screening surfaces upon supporting pipes, comprising means for rotating a pipe about its axis, a device movable longitudinally of the pipe for guiding the wire onto the pipe, and a spring held member mounted on the device for yieldingly engaging the sides of the coils of wire.

2. A machine for forming wire screening surfaces upon supporting pipes, comprising means for rotating a pipe about its axis, a device movable longitudinally of the pipe for guiding the wire onto the pipe, and a laterally spring-held shoe adapted to engage the side of the last wound coil of wire.

3. A machine for forming wire screening surfaces upon supporting pipes, comprising means for rotating a pipe about its axis, a device movable longitudinally of the pipe for guiding the wire onto the pipe, means for providing the wire with spacing members mounted on the device, and a laterally spring-held shoe adapted to engage the side of the last wound coil of wire to press its spacing members against the preceding coil of wire.

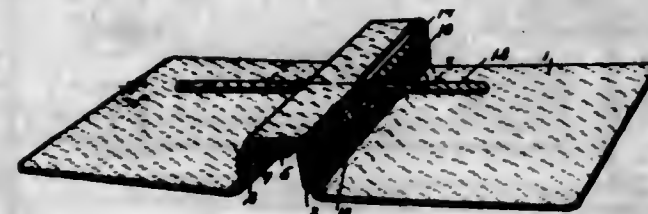
4. A machine for forming wire screening surfaces upon supporting pipes, comprising means for rotating a pipe about its axis, a device movable longitudinally of the pipe for guiding the wire onto the pipe, a laterally spring

held wire engaging means mounted upon the device, and adjusting means for varying the pressure of the spring held engaging means upon the wire.

5. A machine for forming wire screening surfaces upon supporting pipes, comprising means for rotating a pipe about its axis, a device movable longitudinally of the pipe for guiding the wire onto the pipe, and a laterally spring-held shoe member adapted to rest on the surface of the pipe and engage the last turn of wire with a yielding pressure.

[Claims 6 to 34 not printed in the Gazette.]

1,079,418. BOOK HOLDER OR SUPPORT. REINHOLD KRUMMING, Milwaukee, Wis. Filed Jan. 6, 1913. Serial No. 740,451. (Cl. 129-1.)



1. In a temporary binder, the combination with the cover members provided with overlapping back members, means for adjustably connecting said cover members, said back members being supported in a spaced relation, and a supporting bar pivotally mounted on the inner back member to swing between the back members, the cover member having the outer back member thereon being longitudinally slotted to permit the bar being swung through the slot to a position transverse of the back members and being collapsed between the back members.

2. In a temporary binder, the combination with the cover members provided with overlapping back members, means for adjustably connecting said cover members, said back members being supported in a spaced relation, and a supporting bar pivotally mounted on the inner back member to swing between the back members or to a position transverse of the back members.

3. In a temporary binder, the combination with the cover members provided with overlapping back members, adjusting means for said binder whereby said cover members are adjustably connected, and a supporting bar disposed between the back members and pivotally mounted to one of them to swing between them, the cover member having the outer back member thereon being longitudinally slotted to permit the supporting bar being swung through the slot to a position transverse of the back members.

4. In a temporary binder, the combination with the cover members provided with overlapping back members, means whereby said back members are adjustably connected, and a support mounted on one of said back members to collapse between the same.

5. In a temporary binder, the combination with the cover members provided with overlapping back members, means whereby said back members are adjustably connected, and a support mounted to collapse between the back members or to be extended transversely thereof.

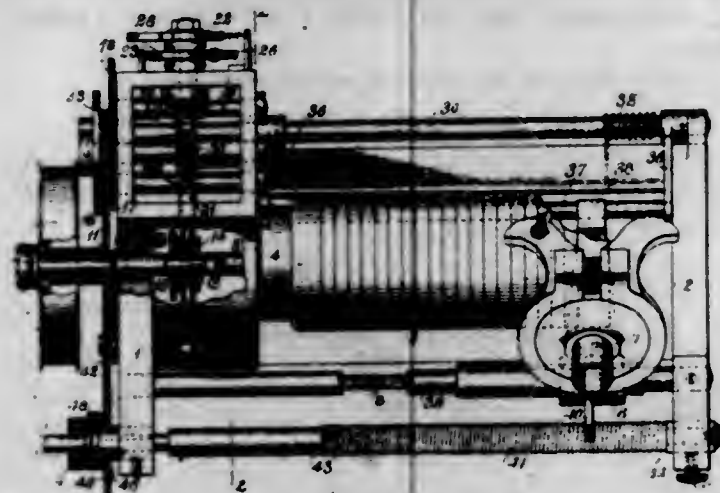
[Claims 6 to 8 not printed in the Gazette.]

1,079,419. AUTOMATIC ANNOUNCEMENT - GRAPHO-PHONE. THOMAS H. MACDONALD, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Dec. 9, 1908. Serial No. 466,680. (Cl. 181-9.)

1. In a talking machine, the combination of a main shaft, a continuously moving driving device, a clutch for engaging the two, and cam mechanism automatically operated at predetermined intervals for closing and opening said clutch.

2. In a talking machine, the combination of a main shaft, a continuously moving driving device, a clutch for engaging the two, cam mechanism automatically operated at predetermined intervals for closing and opening said clutch, said cam mechanism being adjustable to vary the intervals.

3. In a talking machine, the combination of a carriage, a main shaft and a continuously moving driving device, of a clutch for engaging the two, and two sets of cam operated mechanisms automatically operated the one to open said clutch and the other to close the same at predetermined intervals, one of said cams being movable relatively to the other to vary the intervals.

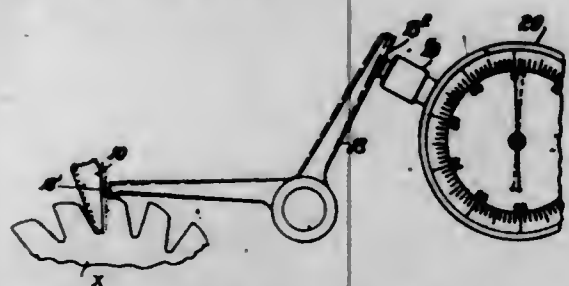


4. In a talking machine, the combination of a carriage, a main shaft and a continuously moving driving device, of a clutch for engaging the two, and two sets of cam operated mechanisms automatically operated the one to open said clutch and the other to close the same at predetermined intervals, one of said cams being rotatable relatively to the other to vary the intervals.

5. In a talking machine, the combination of a carriage, a main shaft and a driving shaft, of a clutch for engaging the two, cam mechanism automatically operated to actuate said clutch at predetermined intervals, said cam mechanism being adjustable to vary said intervals, means for automatically returning the carriage to its initial position at a predetermined time, and means whereby the time of return is adjusted.

[Claims 6 to 18 not printed in the Gazette.]

1,079,420. METHOD OF ADJUSTING ROTARY CUTTERS. SIMON MACKAY, Athol, Mass., assignor to Union Twist Drill Company, Athol, Mass., a Corporation of Massachusetts. Filed Aug. 16, 1911. Serial No. 644,445. (Cl. 51-7.)



1. The method of grinding a radially relieved milling cutter, consisting in establishing a predetermined relative feed movement of cutter and grinding wheel, in setting the forward face of a tooth to be ground against the face of the grinding surface of said wheel, in separating said cutter and said wheel, in advancing the face of said cutter past the plane of said face grinding surface in said wheel a predetermined amount, as indicated by a gage applied to the outer edge of the tooth.

2. The method of setting a rotary tooth cutter for grinding which consists essentially in determining the proper circumferential adjustment of the cutter relative to the grinder by contact of a measuring device with the relieved periphery of a tooth.

1,079,421. CULTIVATOR. NORMAN MCASLAN, Bruce, Wis. Filed Nov. 1, 1912. Serial No. 729,099. (Cl. 97-41.)

1. A cultivator comprising a set of runners, cutting means, brackets carried by said runners, each comprising

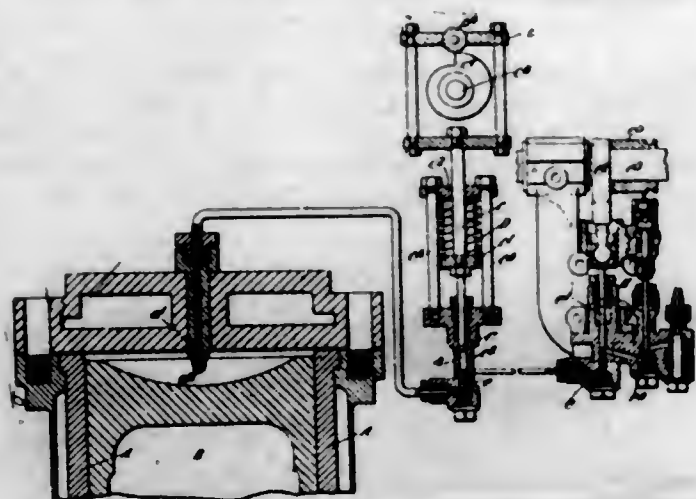
a body portion provided with a plurality of openings, studs extending from said body portion and secured to one of said runners, a handle, and securing means for said handle passing through a selected set of openings.



2. A cultivator comprising a set of runners having upturned rear end portions, a transversely extending cutting blade formed integral with said runners and having upturned end portions merging into the upturned end portions of said runners, and a handle connected with said runners.

3. A device of the character described comprising a strip of material bent intermediate its length to form an operating element having supporting arms extending therefrom, and a handle connected with said arms.

1,079,422. INTERNAL-COMBUSTION ENGINE. JAMES MCKECHNIE, Barrow-in-Furness, England, assignor to Vickers Limited, Barrow-in-Furness, England. Filed Nov. 23, 1911. Serial No. 661,995. (Cl. 123-32.)



1. In an internal combustion engine of the kind in which liquid fuel is injected into a charge of compressed air in the cylinder, a fuel pressure chamber having a resilient pressure applying member, means for supplying liquid fuel to the pressure chamber, and engine driven mechanism connected mechanically to the resilient member and adapted to gradually store energy in the resilient member and subsequently to quickly release it to suddenly inject the liquid fuel under extreme pressure from the pressure chamber into the engine cylinder.

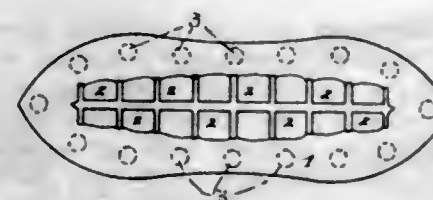
2. In an internal combustion engine of the kind in which liquid fuel is injected into a charge of compressed air in the cylinder, a fuel pressure chamber having a piston, a resilient pressure applying member effective on the piston, means for supplying liquid fuel to the pressure chamber, and engine driven mechanism connected mechanically to the resilient member and adapted to gradually store energy in the resilient member and subsequently to quickly release it to cause the piston to suddenly inject the liquid fuel under extreme pressure from the pressure chamber into the engine cylinder.

3. In an internal combustion engine of the kind in which liquid fuel is injected into a charge of compressed air in the cylinder, a fuel pressure chamber adapted to receive the liquid fuel unmixed with air, a powerful spring adapted to subject the fuel to extreme pressure, a pump supplying the fuel to the said pressure chamber, and a power driven cam adapted to compress the spring during the supply of unmixed liquid fuel to the chamber and to

release the spring for the sudden injection of the fuel into the cylinder.

4. In an internal combustion engine of the kind in which liquid fuel is injected into a charge of compressed air in the cylinder, a fuel pressure chamber adapted to receive the liquid fuel unmixed with air, a plunger working in said chamber, a piston mounted on said plunger, a powerful spring acting on the piston, a pump supplying the fuel to the pressure chamber, and a power driven cam adapted to compress the spring and to release it suddenly for the sudden injection of the unmixed liquid fuel into the cylinder.

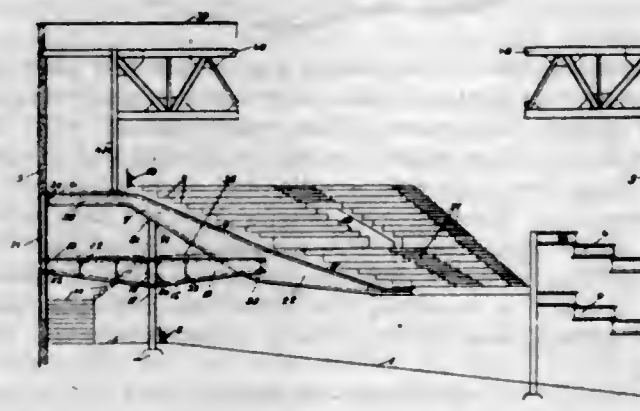
1,079,423. STAGE ILLUSION. JAMES MEIKLEJOHN, Port Stanley, Wash., assignor of one-half to Fred P. Gorin, Seattle, Wash. Filed Sept. 23, 1912. Serial No. 721,857. (Cl. 2-119.)



1. In an article of the class described a flexible sheet of waterproof material cut into oblong shape, a set of teeth cut centrally of said sheet and whitened to simulate the human teeth, whereby said sheet may be placed against the gums and held in place thereagainst by suction.

2. In an article of the class described a flexible oblong sheet of rubber or the like colored to simulate the human gums, a set of teeth cut centrally of said sheet and whitened to simulate the human teeth, and suction cavities in the back of said sheet.

1,079,424. FLOOR-SUPPORTING STRUCTURE OF THEATERS AND THE LIKE. FREDERICK MEISTER, Jersey City, N. J. Filed Feb. 15, 1913. Serial No. 748,601. (Cl. 20-112.)



1. In a structure of the class described, the combination of a lower load-supporting member anchored at its outer end, a support for said lower member intermediate its ends, an upper load-supporting member anchored at its outer end and inclined downwardly toward said lower member and supported by said lower member on the side of said support away from which said member is anchored, and a balcony located upon said upper member, substantially as described.

2. In a structure of the class described, the combination of a lower load-supporting member anchored at its outer end, a support for said lower member intermediate its ends, an upper load-supporting member anchored at its outer end and inclined downwardly toward said lower member and supported by said lower member on the side of said support away from which said member is anchored, a support for said upper member intermediate its anchorage and its point of support on said lower member, and a balcony located upon said upper member, substantially as described.

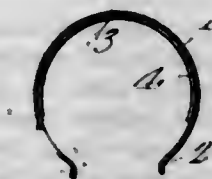
3. In a structure of the class described, the combination of a lower load-supporting member anchored at its outer end, a support for said lower member intermediate its ends, an upper load-supporting member anchored at its outer end and inclined downwardly toward said lower member and supported by said lower member on the side of said support away from which said member is anchored, a mezzanine floor located between the outer ends of said upper and lower member, and a balcony located upon said upper member, substantially as described.

4. In a structure of the class described, the combination of a lower load-supporting member anchored at its outer end, a support for said member intermediate its ends, an upper load-supporting member anchored at its outer end and inclined downwardly toward said lower member and supported by said lower member on the side of said support away from which said member is anchored, a mezzanine floor located between the outer ends of said upper and lower member, a balcony located upon said upper member, and an aisle extending from the level of the mezzanine floor to the incline of said balcony, substantially as described.

5. In a structure of the class described, the combination of an upper and a lower load-supporting member arranged one above the other and anchored at their outer ends, a column supporting both of said members intermediate their ends, the said upper member being inclined downwardly toward the lower one and being supported thereby on the side of the column away from which said members are anchored, and a balcony disposed upon and supported by said upper member, substantially as described.

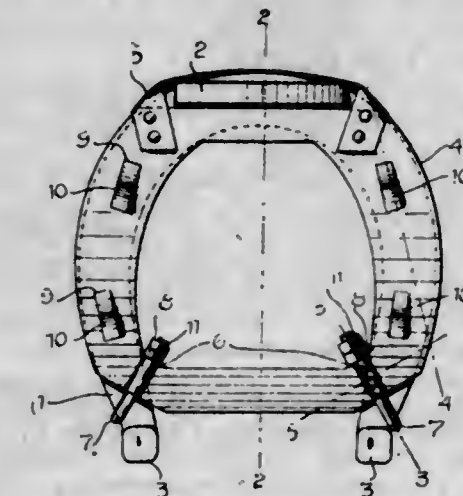
[Claim 6 not printed in the Gazette.]

1,079,425. REMNANT-TAG. CHARLES E. MITCHEM, Chicago, Ill. Filed May 17, 1912. Serial No. 697,991. (Cl. 40-23.)



In a device of the class described, a tag provided at one end only with an opening; an arched, resilient clip extended transversely of the outer face of the tag, both ends of the clip being extended beyond the ends of the tag, and one end only of the clip being threaded through the opening, and extended beneath the corresponding end of the tag.

1,079,426. HORSESHOE ATTACHMENT. JACOB R. MORGENSTEIN and JACOB BLENZ, Decatur, Ill. Filed Feb. 17, 1913. Serial No. 748,960. (Cl. 168-30.)



The combination with a horseshoe, of a plate adapted for engagement against the under face thereof, calks adapted to project from such plate, means carried by the plate adapted to overlie the toe of the hoof of the animal to which the shoe may be applied, and hook members

endwise adjustable on the plate and disposed in inwardly directed converging planes, the hooks of such members being adapted to engage the outer edge of the shoe in advance of the heel cleats.

1,079,427. APPARATUS FOR ELECTROPLATING PIPES. DANIEL H. MURPHY, Pittsburgh, Pa., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 8, 1912. Serial No. 708,097. (Cl. 204—11.)



1. In an apparatus for electroplating pipes, the combination of a tank for holding the plating solution, conductor supports conformed to lead pipes into the tank at one end and across the bottom thereof and out of the tank at its opposite end, and operating members having resilient surfaces in engagement with the pipes for moving them through the tank and delivering them therefrom, said operating members occupying inclined positions across the tank.

2. In an apparatus for electroplating pipes, the combination of a tank for holding the plating solution, conductor supports conformed to lead pipes into the tank at one end and across the bottom thereof and out of the tank at its opposite end, and operating members having resilient surfaces in engagement with the pipes for moving them through the tank and delivering them therefrom, said operating members being oppositely inclined across the tank to prevent longitudinal motion of the pipes in the tank.

3. In an apparatus for electroplating pipes, the combination of a tank for holding the plating solution, conductor supports conformed to lead the pipes into the tank at one end and across the bottom thereof and out of the tank at its opposite end, operating members having resilient surfaces in engagement with the pipes for moving them through the tank and delivering them therefrom, said operating members occupying inclined positions across the tank, and means for moving the operating members continuously in the same direction.

4. In an apparatus for electroplating pipes, the combination of a tank for holding the plating solution, conductor supports conformed to lead the pipes into the tank at one end and across the bottom thereof and out of the tank at its opposite end, operating members having resilient surfaces in engagement with the pipes for moving them through the tank and delivering them therefrom, said operating members being oppositely inclined across the tank to prevent longitudinal motion of the pipes in the tank, and means for moving the operating members continuously in the same direction.

5. In an apparatus for electroplating pipes, the combination of a tank for containing the plating solution, an operating member presenting a surface of readily compressible material for simultaneously and positively engaging the topmost surfaces of a plurality of pipes, a conductor support in the tank for the pipes to be plated, an anode in the tank, and devices connected with the operating member for moving it to rotate the pipes.

1,079,428. APPARATUS FOR ELECTROPLATING PIPES. DANIEL H. MURPHY, Pittsburgh, Pa., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 9, 1913. Serial No. 766,468. (Cl. 204—11.)

1. In an apparatus for electroplating pipes, the combination of a tank for containing the plating solution, a conductor support in the tank for the pipes to be plated, an anode in the tank, and an operating member disposed above said conductor support provided with an inflated

tube, which tube is held in contact with the pipes to positively rotate the same, and mechanism connected with the operating member for moving it to rotate the pipes.



2. In an apparatus for electroplating pipes, the combination of a tank for containing the plating solution, a conductor support in the tank for the pipes to be plated, an anode in the tank, and an operating member provided with a readily compressible tube of substantially circular cross-section, said tube being held in contact with the pipes to positively rotate the same, and mechanism connected with the operating member for moving it to rotate the pipes.

3. In an apparatus for electroplating pipes, the combination of a tank for containing a plating solution, said tank comprising a substantially horizontal support for the pipes to be plated, an operating member provided with a readily compressible inflated tube of substantially circular cross-section, said tube being held in contact with the pipes to positively rotate the same, and mechanism connected with the operating member for moving it to rotate the pipes.

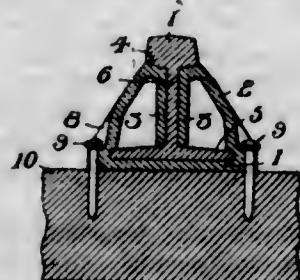
4. In an apparatus for electroplating pipes, the combination of a tank for containing the plating solution, an operating member comprising an inflated tube for simultaneously and positively engaging the topmost surfaces of a plurality of pipes, a conductor support in the tank for the pipes to be plated, an anode in the tank, and devices connected with the operating member for moving it to rotate the pipes.

1,079,429. SHOE-FORM. JAMES A. NILES, Lynn, Mass. Filed Nov. 16, 1912. Serial No. 731,909. (Cl. 12—128.)



A bottomless shoe-form shaped out of a single piece of material by two straight cuts on the heel-edge leaving a central tongue, the center of the lower edge of which is the center of the heel-edge; the two parts adjacent to said tongue being bent under it, overlapping each other and a rivet extending through the tongue and the two overlapped parts underneath; the unsecured lower part of the shoe-form being flexible to pressure applied transversely thereto in inserting the shoe-form into the shoe and in withdrawing it therefrom, substantially as described.

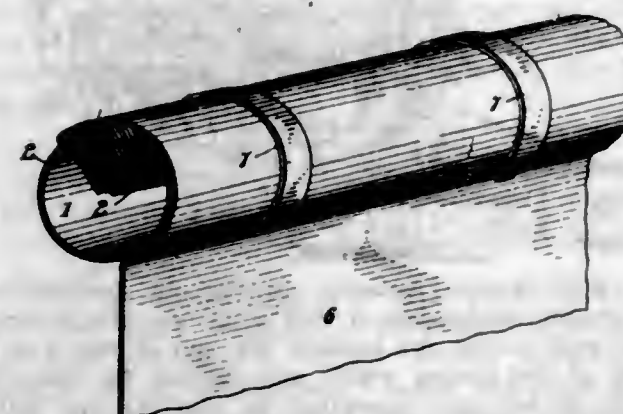
1,079,430. RAIL-JOINT. ALBERT NITKA, Sobleski, Wis. Filed June 8, 1912. Serial No. 702,603. (Cl. 239—6.)



A rail joint comprising a rail chair plate having the longitudinal marginal portions of its upper face provided with vertically disposed longitudinally extending thick flanges adapted to abut against the longitudinal edges of the bases of rails, longitudinally extending solid braces formed integral with and of greater thickness than said flanges, projecting inwardly with respect to these latter and adapted to overlap the bases of the rails, said braces

extending upwardly and inwardly at an inclination and terminating in inwardly extending downwardly inclined portions adapted to engage the lower faces of the heads of the rails, the upper portion of the inner face of each of said braces extending at a greater inclination than the lower portion of the inner face, depending parallel splice bars formed integral with the inner terminal of said inwardly extending inclined portions and engaging the webs and bases of the rails, said braces having their outer face formed with pockets, said flanges having openings communicating with the bottoms of said pockets, and spikes extending through said pockets and openings and having their heads engaging the bottoms of the pockets.

1,079,431. CURTAIN-POLE. ALBERT NITKA, Sobleski, Wis. Filed June 17, 1912. Serial No. 704,155. (Cl. 156—19.)



A curtain pole comprising a split cylindrical shell having the longitudinal edges thereof spaced from each other and each terminating in a depending longitudinally disposed inclined flange, said shell having its bottom formed with openings, said flanges projecting toward each other and forming a V-shaped groove at the top of the shell, a longitudinally extending V-shaped clamping member arranged within said groove and provided at its top with oppositely disposed clamping flanges overlapping the longitudinal edges of the shell, said member adapted to retain the upper end of a curtain against said inclined flanges, the supporting means for the shell having vertical portions extending upwardly through said openings and between the lower edges of the inclined flanges and at the ends of said member, and annular clamping bands mounted upon the shell for maintaining said member in said groove and for clamping the curtain to the front thereof.

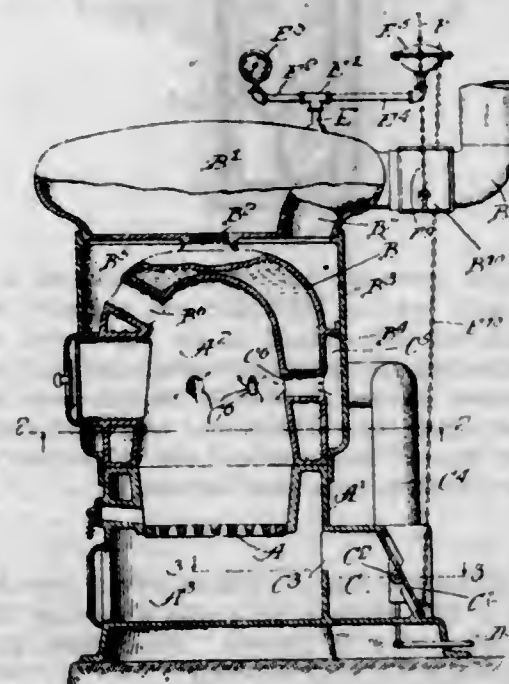
1,079,432. HOT-BLAST FURNACE. CHARLES ERWIN NORMAN, Chicago, Ill. Filed May 18, 1910. Serial No. 561,951. (Cl. 110—56.)

1. The combination with a furnace, of means for supplying air to the combustion chamber together with means for heating said air independently of the furnace, said means comprising a pipe and a damper, and heating means within said pipe, said heating means being operative responsive to the operation of said damper.

2. The combination with a furnace having a combustion chamber and ash box of an air chamber in communication with the ash box, a damper controlling the air supply to said air chamber, a smoke flue and check damper therein, a passage outside of the furnace leading from the air chamber to the combustion chamber, heating means within such passage for the air as it passes to the combustion chamber, said means operative only when the damper in such air chamber is open.

3. The combination with a furnace having a combustion chamber and an ash box of an air chamber in communication with the ash box, means for controlling the supply of air to said air chamber, a smoke flue and check damper therein, a passage outside of the furnace leading from the air chamber to the combustion chamber, heating means within such passage for the air as it passes to the combustion chamber, said means operative only when air is being supplied to said air chamber.

4. The combination with a furnace having a combustion chamber and an ash box of an air chamber in communication with the ash box, means for controlling the supply of air to said air chamber, said means comprising a damper, a smoke flue and check damper therein, a passage outside of the furnace leading from the air chamber to the combustion chamber, heating means within such passage for the air as it passes to the combustion chamber, said means operative only when air is being supplied to said air chamber.



5. The combination with a furnace having a combustion chamber and an ash box of an air chamber in communication with the ash box, means for controlling the supply of air to said air chamber comprising a damper in said chamber, a smoke flue and check damper therein, a passage outside of the furnace leading from the air chamber to the combustion chamber, and heating means within such passage for the air as it passes to the combustion chamber, said means operative only when the damper in such air chamber is open.

[Claims 6 and 7 not printed in the Gazette.]

1,079,433. SHEET-METAL BOX. EDWIN NORTON, New York, N. Y. Filed Mar. 6, 1906. Serial No. 304,508. (Cl. 220—66.)



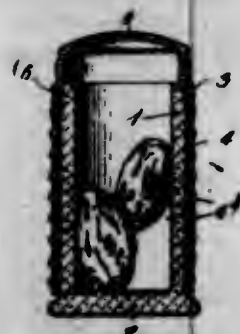
1. As a new article of manufacture, a sheet metal box having the bottom thereof formed with an outwardly extending bead projecting beyond the plane of the bottom, and located slightly inwardly from the side of the bottom of the box, and a continuous score on the inner face of the bottom between said bead and the side of the box.

2. As a new article of manufacture, a sheet metal box formed of a single piece of metal and having an outwardly extending bead formed in its bottom, said bead projecting beyond the plane of the bottom, and being located slightly inwardly of the side wall of the box, the side wall of the bead adjacent the side wall of the box being at substantially right angles to the bottom of the box, whereby said wall of the bead and the side wall of the box extend in substantially the same general direction, said bottom being formed with a score adjacent said bead and between it and the side wall of the box.

1,079,434. NUTMEG CONTAINER AND GRATER. EDMUND A. PARKER, Meriden, Conn. Filed Feb. 19, 1913. Serial No. 749,458. (Cl. 146—15.)

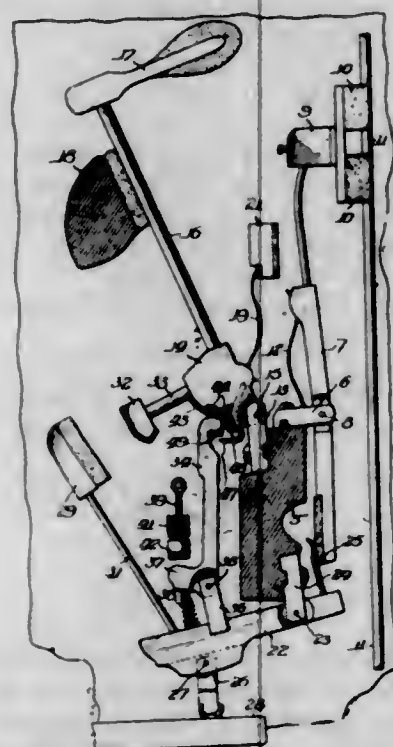
1. A device of the character set forth comprising a receptacle having an open top, a combined grater and cap

having a body portion substantially the same height as the receptacle and adapted to telescope the same and to be detachably engaged therewith, said cap being adapted to close the top of the receptacle when applied to it and to form a handle for the grater when removed from the receptacle.



2. A nutmeg container and grater comprising a hollow cylindrical body open at its upper end, a grater comprising a cylindrical body closed at its upper end to form a cap, and having its sides perforated and the edges of the perforations turned outwardly to form an abrasive surface upon which the nutmegs may be grated and means to removably fasten the grater and cap in position on said container to close the open end thereof.

1,079,435. PIANO-ACTION. FRANK PECK, Laporte, Ind., assignor to The Hobart M. Cable Company, Laporte, Ind., a Corporation of Illinois. Filed Mar. 10, 1913. Serial No. 755,271. (Cl. 84—28.)



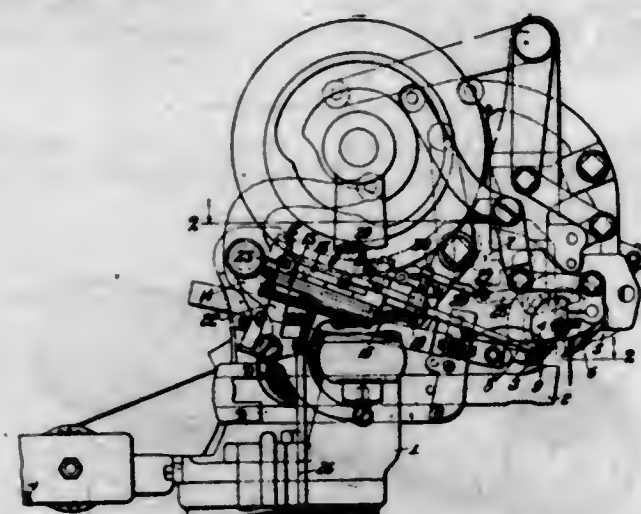
1. A piano action comprising a jack, a hammer butt provided with a socket and a groove at the mouth of the socket disposed at an angle to the socket, and a pin threaded into said socket and bent at the mouth of the socket to lie in said groove whereby turning of the pin is prevented, the free end of the pin being bent outwardly toward the jack in position to be engaged thereby upon return movement of the jack.

2. A piano action comprising a hammer butt provided with a socket and a groove at the mouth of said socket disposed at an angle to the axis of the socket, and a pin having one end threaded and its other end bent at an angle to the threaded portion, said pin being threaded into said socket and bent at the mouth of the socket to lie in said groove with the bent end projecting from said groove.

3. A piano action, comprising a jack, a hammer butt positioned to be operated by said jack and provided with a socket and a groove at the mouth of the socket disposed at an angle thereto, and a pin positioned in said

socket and bent to lie in said groove whereby turning of the pin is prevented, the free end of the pin being bent toward the jack to be engaged thereby upon return movement of the jack.

1,079,436. WELT-SEWING MACHINE. FREDERICK H. PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 2, 1910. Serial No. 558,868. (Cl. 112—20.)



1. A welt sewing machine, having, in combination, stitch forming mechanism, a welt guide, an independently movable welt holder for holding the end of the welt in the rear of the sewing point, and devices for throwing the welt holder into operation in starting the stitch forming mechanism, substantially as described.

2. A welt sewing machine, having, in combination, stitch forming mechanism, an independently movable welt holder for holding the welt in the rear of the sewing point, and connections between the starting mechanism of the machine and the welt holder for engaging the welt holder with the end of the welt in starting the stitch forming mechanism, substantially as described.

3. A welt sewing machine, having, in combination, stitch forming mechanism, a welt guide, a welt holder for holding the end of the welt against the shoe, devices for throwing the welt holder into operation in starting the stitch forming mechanism, and mechanism for automatically throwing the welt holder out of operation after the end of the welt has been attached to the shoe, substantially as described.

4. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder movable in the direction of the feed, actuating devices for engaging the holder with the end of the welt, and means for disconnecting the holder and actuating devices by the movement of the holder in the direction of the feed, substantially as described.

5. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder movable in the direction of the feed, an actuating device for engaging the welt holder with the end of the welt, a latch connecting the holder and actuating device, and means for disengaging the latch by the movement of the holder with the shoe, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,079,437. PROCESS FOR HYDROLYZING FATS AND FATTY OILS INTO GLYCERIN AND FATTY ACIDS. GRIGORI PETROFF, Novo Girevo, Russia. Filed July 5, 1912. Serial No. 707,753. (Cl. 87—4.)

1. A process for splitting fats and oils into glycerin and fatty acids, which consists in using as splitting agents the sulfonic acids which are formed and isolated in the treatment of mineral oils or their distillates with concentrated sulfuric acid or its anhydride.

2. A process for splitting fats and oils into glycerin and fatty acids, which consists in mixing the fat or oil with the necessary quantity of sulfonic acids of mineral oil hydrocarbons and effecting hydrolysis of the fat or oil in the presence of water in an acid medium.

3. A process for splitting fats and oils into glycerin and fatty acids, which consists in mixing the fat or oil with the necessary quantity of sulfonic acids of mineral oil hydrocarbons and effecting hydrolysis of the fat or oil in the presence of water in an acid medium with agitation of the mixture by steam or air.

1,079,438. CAPSULE FOR MEDICINE. MONTAGUE POLLOCK, New York, N. Y. Filed June 10, 1913. Serial No. 772,767. (Cl. 167—2.)



A soluble capsule having two parts, one part telescoping over a portion of the other, and interengaging notches in said parts whereby the parts of said capsule are not permitted to separate when once the capsule has been assembled.

1,079,439. METHOD OF FORMING MACHINED SHAPES OF MANGANESE-STEEL. WINFIELD S. POTTER, New York, N. Y. Filed Mar. 30, 1912. Serial No. 687,504. (Cl. 148—24.)

1. The method of forming a machined shape of manganese steel, which comprises establishing therein by a suitable heat treatment a texture having relatively weak cleavage planes, intermediate a tough austenitic structure and a fragile coarse grained martensitic structure, machining the shape while in that condition, and subsequently establishing in the shape by a suitable heat treatment a uniform tough austenitic structure; substantially as described.

2. The method of forming a machined shape of manganese steel, which comprises modifying the texture thereof by a suitable heat treatment to establish relatively weak cleavage planes, machining the shape while in that condition, and subsequently subjecting it to a further heat treatment to establish a tough austenitic texture therein; substantially as described.

3. The method of treating a manganese steel shape to facilitate machining thereof, which comprises establishing therein for the machining operation, by a suitable heat treatment, a texture having relatively weak cleavage planes, between a tough austenitic structure and a fragile coarse grained martensitic structure; substantially as described.

4. The method of treating a manganese steel shape to facilitate machining thereof, which comprises maintaining it at a temperature lying between 640° C. and 720° C. for a period of time of from 15 minutes to 1 hour per inch of thickness of the shape; substantially as described.

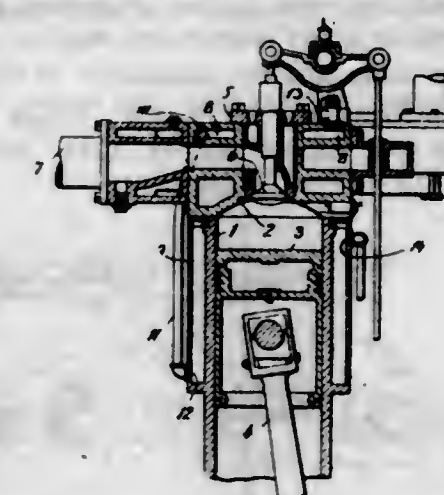
5. The method of forming a machined shape of manganese steel, which comprises subjecting the shape to a temperature lying between 640° C. and 720° C. for a period of time of from 15 minutes to 1 hour per inch of thickness of the shape, cooling and machining the shape, and subsequently heating the machined shape to a temperature approximately 975° C. until it has attained a uniform temperature throughout, then subjecting it for 5 minutes to 15 minutes per inch of thickness of the shape to a temperature between 975° C. to 1075° C. and then rapidly cooling to below 420° C.; substantially as described.

[Claim 6 not printed in the Gazette.]

1,079,440. ENGINE. EDWARD RATHBUN, Toledo, Ohio. Filed May 29, 1908. Serial No. 435,770. (Cl. 123—173.)

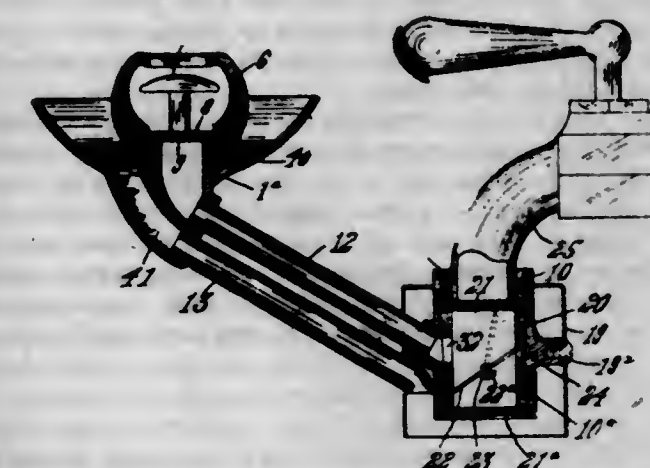
1. A jacketed engine cylinder comprising separate head and cylinder jackets, the former above the latter, each such jacket provided with inlet and outlet ports, the inlet port of the cylinder jacket being near the bottom of said cylinder jacket, the outlet port of said cylinder jacket being near the top of said cylinder jacket, said cylinder also

provided with a duct connecting the outlet port of the head jacket and the inlet port of the cylinder jacket, whereby water first admitted to the head jacket flows therethrough and thence through the cylinder jacket.



2. A jacketed engine cylinder comprising separate head and cylinder jackets, the former above the latter, each such jacket provided with inlet and outlet ports, the outlet port of the head jacket being near the top of such head jacket, the inlet port of the cylinder jacket being near the bottom of said cylinder jacket, the outlet port of said cylinder jacket being near the top of said cylinder jacket, said cylinder also provided with a duct connecting the outlet port of the head jacket and the inlet port of the cylinder jacket, whereby water first admitted to the head jacket flows therethrough and thence through the cylinder jacket.

1,079,441. SANITARY DRINKING-FOUNTAIN. ALBERT R. ROETHLISBERGER, Cleveland, Ohio. Filed June 26, 1912. Serial No. 705,948. (Cl. 137—11.)



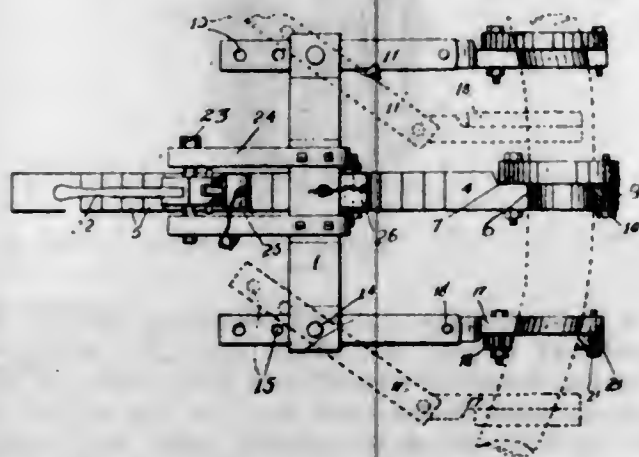
1. A drinking fountain attachment for a faucet, comprising a valve casing adapted to be fitted at one end to the nozzle of the faucet, a valve in said casing, a pipe opening at its inner end into the valve casing between the said nozzle and valve, a mouthpiece at the outer end of the pipe, said valve permitting flow from the faucet either directly through the casing or indirectly into said pipe, a rotary collar on the casing, to which collar, the pipe is connected to permit the pipe and mouthpiece to be swung around the casing, and means actuated by the turn of the collar to operate the valve.

2. A drinking fountain attachment for a faucet, comprising a valve casing attachable to the nozzle of the faucet, said casing having a direct passage therethrough and a side port, a collar rotatable on said casing, a pipe mounted on said collar to swing therewith and having an inlet adapted to register with said port when the collar is turned to a certain position, and a mouthpiece at the outer end of said pipe, and a valve in the casing, beyond said port and adapted to control the outlet of said direct passage.

3. A drinking fountain attachment for a faucet comprising a valve casing attachable to the nozzle of the faucet, a valve in said casing controlling flow through the same

and having a projecting crank arm, a collar rotatable on the casing, and a delivery pipe mounted on the collar and arranged to swing therewith, said pipe and casing having openings which register when the pipe is swung to a certain position, and the collar having projections arranged to strike the crank arm and operate the valve.

1,079,442. PIPE-BENDING MACHINE. CALEB C. RUTLEDGE, Alvord, Tex. Filed Jan. 17, 1913. Serial No. 742,531. (Cl. 153—38.)

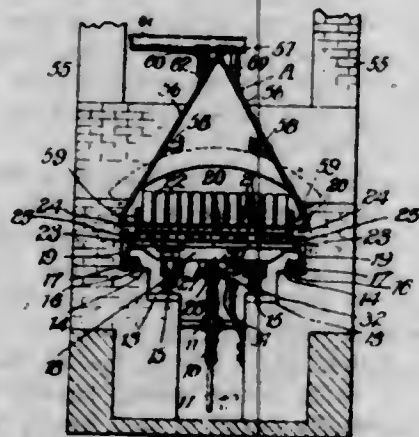


1. In a pipe shaping machine, a base, a shaping member movable longitudinally on the base, a pipe receiving member mounted on the forward end of the said member, fulcrum members pivoted on the base, fulcrum jaws hinged on the forward ends of the fulcrum members, and keepers hinged and fastened to the fulcrum jaws, said jaws and keepers having beveled pipe receiving faces.

2. In a pipe shaping machine, a base, a rack bar slidable longitudinally, a hand operating lever having a dog engaging in the teeth of the rack bar, a jaw fixed on the forward end of the rack bar, a keeper hinged to the jaw, fulcrum bars pivoted at each side of the base and between which the rack bar is disposed, fulcrum jaws having ears hinged in the forward ends of the fulcrum bars, and keepers hinged on the fulcrum jaws.

3. In a pipe shaping machine, a base, a rack bar slidable longitudinally, a hand operating lever having a dog engaging in the teeth of the rack bar, a jaw fixed on the forward end of the rack bar, a keeper hinged to the jaw, fulcrum bars pivoted at each side of the base and between which the rack bar is disposed, fulcrum jaws having ears hinged in the forward ends of the fulcrum bars, and keepers hinged on the fulcrum jaws, the fulcrum jaws and keepers having beveled pipe receiving faces and the beveled face of one jaw being inclined relatively away from the beveled face of the other jaw and the beveled faces of the keepers of said jaws being correspondingly oppositely inclined.

1,079,443. CONTINUOUS KILN. FRANCES D. SHAW, Chicago, Ill., assignor to Shaw Kiln Company, Atlanta, Ga., a Corporation of Georgia. Filed Feb. 18, 1910. Serial No. 544,183. (Cl. 25—142.)



1. In a continuous kiln, the combination of a kiln chamber in the form of a rectilinear passageway open at

the ends and provided with a main exhaust passage opening from the top of the kiln chamber into the outside atmosphere at a point toward one end of the kiln chamber, a furnace receiving its air supply from the outside atmosphere and discharging into the kiln chamber approximately midway between the ends thereof, and two dampers one immediately adjacent to each side of the opening from the kiln chamber into the exhaust passage, each damper extending across and arranged to be adjusted in a vertical plane within the kiln chamber to restrict the kiln passageway but to permit a constant draft there-through.

2. In a continuous kiln, a rectilinear tunnel-like kiln chamber, a plurality of cars adapted to travel through the tunnel, supporting surfaces of fire-resisting material mounted on the tops of said cars, metal aprons depending from either side of the car top, a plurality of sheet-metal strips of inverted V-shaped cross-section mounted at either side of the tunnel, successive strips overlapping one another and each strip being fastened at one point in its length to the tunnel wall, the said strips on either side of the tunnel forming with the tunnel wall a trough into which the aprons depending from the car tops extend, the said troughs being adapted to contain sand to constitute a sand seal between the car top and the tunnel walls.

3. In a continuous kiln, in combination, a kiln chamber in the form of a tunnel, a shoulder on each side of said tunnel, a car for passing through said tunnel, said car being constructed and mounted so that a part thereof will pass under said shoulder, and sand disposed upon the parts of said car passing under said shoulders.

4. In a continuous brick kiln, the combination of a rectilinear tunnel of substantially uniform cross-section from end to end, a plurality of closely adjacent but independent furnaces opening into the upper part of said tunnel at or near the center of the length thereof, an exhaust flue opening from the top of the tunnel at or near one end thereof, a vertically adjustable damper at either side of the opening from the tunnel into the said exhaust flue, the said dampers being immediately adjacent to either side of the said exhaust flue opening, a plurality of cars with tops of fire-resisting material, means for moving the said cars continuously in close juxtaposition to one another through the said tunnel from end to end thereof, the direction of movement being from the exhaust flue end of the tunnel toward the said furnaces, and means for sealing the joint between the car tops and the side walls of the tunnel.

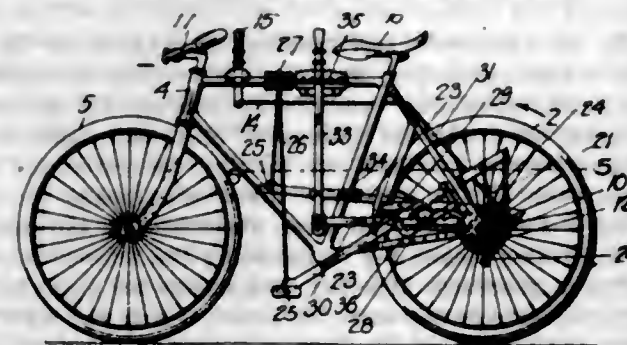
5. In a continuous brick kiln, the combination of a rectilinear tunnel of fire-resisting material having vertical side walls and an arched roof, a plurality of furnaces arranged on either side of the tunnel at or near the middle of the length thereof, and each opening into the said tunnel, an exhaust flue opening from the said tunnel at or near one end thereof, a plurality of abutting cars, the width of the car tops being substantially equal to the width between the walls of the tunnel and adapted to form the floor of the tunnel, and the width of the tunnel between the walls being more than twice as great as the height of the arch above the car tops, and means for moving said cars through the tunnel from end to end thereof in a direction toward the furnaces from the exhaust flue end of the tunnel.

[Claims 6 to 8 not printed in the Gazette.]

1,079,444. PROPELLING MECHANISM FOR BICYCLES AND THE LIKE. HARRY J. SHERRILL, Salda, Colo. Filed July 22, 1912. Serial No. 710,827. (Cl. 208—20.)

1. A vehicle comprising a frame, a rotary driving-wheel thereon, two pairs of parallel racks, one rack of each pair being fixed on the frame and the other having a linear movement on the same, a lever for moving the movable racks of the two pairs, pinions meshing respectively with the racks of the said pairs, levers having teeth in mesh with the respective pinions and connected to oscillate in unison in opposite directions, and means for converting alternate motions of said levers into a rotary movement of the said wheel in one direction.

2. The combination with the driving wheel of a vehicle, of transmission devices composed of clutch members fixed on said wheel, and rotary driving members adapted to separately transmit a rotary movement to said wheel in one direction by interlocking engagement with the respective clutch members, two oscillatory tread levers, a pair of cords attached at one of their ends to one of said levers and at their opposite ends, to one of the said driving members, a pair of cords attached at one of their ends to the other lever and at their opposite ends to the other driving member, the cords of each pair being wound upon the respective driving member in opposite directions whereby the cord unwound from the said member by the movement of the respective lever in one direction will be rewound upon the same by a rotary movement imparted to the said member by the unwinding of the other cord during the movement of the lever in the opposite direction, and means adapted to convert a downward movement of one of said levers into a simultaneous upward movement of the other lever.



3. The combination with the driving wheel of a vehicle, of transmission devices composed of clutch members fixed on said wheel and rotary driving members adapted to separately transmit a rotary movement to said wheel in one direction by interlocking engagement with the respective clutch members, two oscillatory tread levers, means adapted to convert a downward movement of one of said levers into a simultaneous upward movement of the other lever, cords attached at one of their ends to the said levers and wound upon the said guiding members to rotate the same by unwinding therefrom during downward movement of the respective levers, and means actuated by movement of the said levers in the opposite direction to rewind the said cords upon the respective driving members.

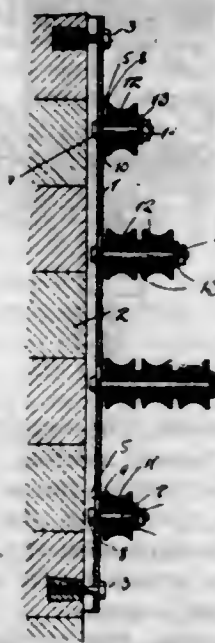
4. A vehicle comprising a frame, a rotary driving wheel thereon, levers connected to oscillate in unison in opposite directions, means for converting alternate motions of said levers into a rotary movement of said wheel in one direction, fulcrums for said levers adjustable on said frame, and means for adjusting said fulcrums, adapted to normally secure them in their adjusted positions on the said frame.

1,079,445. SUPPORT FOR CONDUIT-CABLES. EDWARD H. SMITH, Cleveland, Ohio, assignor to one-half to W. H. Hartman, Cleveland, Ohio. Filed Feb. 24, 1913. Serial No. 750,139. (Cl. 173—321.)

1. In a support for cables and the like, the combination of a fixed support provided with a bayonet slot; a bolt entering such slot and having a head adapted to prevent removal of said bolt from the narrower portion of such slot; means adapted to secure said bolt to said support when such head is engaged in the narrower portion of such slot, said means including a sleeve removably mounted on said bolt and adapted to be pressed against said support opposite such head, thereby drawing the latter into secure frictional engagement with said support; and a roller rotatably mounted on said sleeve, said roller being narrower than the length of said sleeve, whereby pressure on the latter does not prevent free rotation of said roller.

2. In a support for cables and the like, the combination of a fixed support provided with a bayonet slot; a bolt having a head adapted to enter the wider portion of such slot and to lock behind the narrower portion of the same; a sleeve removably mounted on the extending por-

tion of said bolt and adapted to be forced into contact with said support opposite such head; a nut adjustably engaging said bolt and adapted to force said sleeve against said support, thereby drawing such head into secure frictional engagement with said support; and a roller rotatably mounted on said sleeve, said roller being narrower than the length of said sleeve, whereby pressure on the latter does not prevent free rotation of said roller.



3. In a support for cables and the like, the combination of a fixed support provided with a bayonet slot; a bolt having a head adapted to enter the wider portion of the same, and a square portion adjacent such head adapted to snugly enter such narrower portion of such slot; a sleeve removably mounted on said bolt; a washer disposed at either end of said sleeve on said bolt, one of said washers being adjacent to the face of said support against which said bolt-head rests; a nut on said bolt, whereby adjustment of the same against said sleeve forces said bolt-head into secure frictional engagement with said support; and a roller rotatably mounted on said sleeve, said roller being narrower than the length of said sleeve, whereby pressure on the latter does not prevent free rotation of said roller.

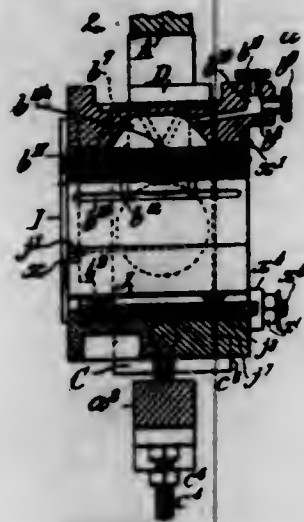
4. In a support for cables and the like, the combination of a fixed support provided with a bayonet slot; a bolt having a head adapted to enter the wider portion of the same, and a square portion adjacent such head adapted to snugly enter such narrower portion of such slot; a plurality of sleeves removably mounted on said bolt; washers disposed between and at either end of said sleeves; a nut on said bolt, whereby adjustment of the same against said washers and sleeves clamps said bolt securely to said support; and a roller mounted on each of said sleeves, each said roller being narrower than the length of the corresponding sleeve.

5. In a support for cables and the like, the combination of a fixed support; a bolt having a head adapted to detachably engage behind said support; means adapted to secure said bolt to said support when so engaged, said means including a sleeve removably mounted on said bolt and adapted to be pressed against said support opposite such head, thereby drawing the latter into secure frictional engagement with said support; and a roller rotatably mounted on said sleeve, said roller being narrower than the length of said sleeve, whereby pressure on the latter does not prevent free rotation of said roller.

1,079,446. GREASE-HOLDER FOR JOURNAL-BOXES. LUTHER KELLER SMITH, Moberly, Mo., assignor to Augustus Crane Buzby, Philadelphia, Pa. Original application filed Feb. 2, 1912, Serial No. 874,861. Divided and this application filed Apr. 23, 1912. Serial No. 692,672. (Cl. 64—35.)

1. In a journal bearing, the combination of a bearing brass and a collar having meeting edges, said bearing brass having longitudinal grooves in the bottom thereof,

the tops of which are out of alignment with the said meeting edges, and a dust guard and grease holder having its side edge extending upwardly into the said grooves.

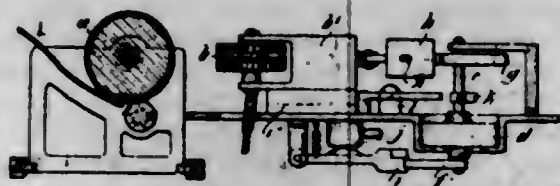


2. In a journal bearing, the combination of a bearing brass and a cellar having meeting edges, said bearing brass having a journal fitting recess and grooves in the portions between the recess and side faces, the tops of which are out of alignment with the said meeting edges, and a dust guard and grease holder having its side edge extending into the said grooves.

3. In a journal bearing, the combination of a bearing brass and a cellar having meeting edges, said bearing brass having a journal fitting recess and grooves in its bottom laterally of the said recess, the tops of which are out of alignment with the said meeting edges, and dust guard and grease holder supported on the cellar with its side edge entered in the grooves of the bearing brass.

4. In a journal bearing, the combination with a journal of a bearing body having an open front, a brass therein over the journal and having grooves in its bottom, a cellar under the journal, the meeting edges of said brass and cellar being out of alignment with the top of said groove, and a dust guard and grease holder disposed between the journal and cellar with its side edges in the said grooves of the brass, and a key mounted in said cellar and having a spring connection with said guard and holder, said guard and holder adapted to be removed from the body through the open front thereof by the removal of said key, while the journal, cellar and brass remain in position.

1,079,447. PNEUMATIC PRINTING MECHANISM FOR TYPE WRITERS. MAX SOBLIK, Dresden-Klotzsche, Germany, assignor to Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung, Düsseldorf, Germany, a Corporation of Germany. Filed Dec. 31, 1912. Serial No. 739,496. (Cl. 197—15.)

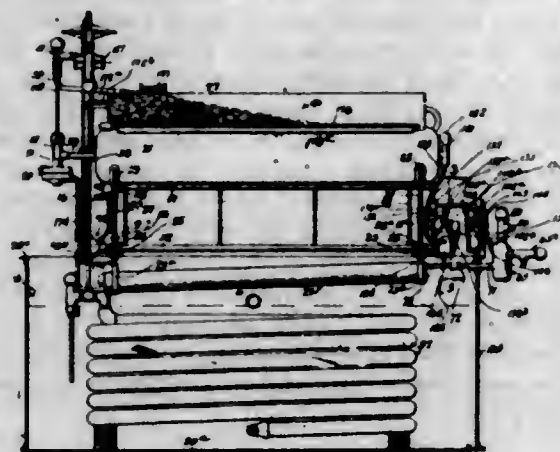


1. In a typewriter, a platen, a typewheel, an eccentric, means for rotating the same, means for operatively connecting said eccentric to the typewheel whereby the latter is reciprocated toward and away from the platen, and pneumatically controlled means for increasing the length of said connecting means.

2. In a typewriter, a typewheel, an eccentric, and means for operatively connecting the eccentric to the typewheel, said connecting means including a pneumatic press for increasing the length thereof.

3. In a typewriter, a slide, a typewheel journaled therein, an eccentric, and means for operatively connecting the eccentric to the slide, said connecting means including a pneumatic press for increasing the length thereof.

1,079,448. REFRIGERATING APPARATUS. HARRISON H. SOUTHWORTH and FRED W. WOLF, Jr., Cleveland, Ohio, assignors, by mesne assignments, to Clarence E. Mehlhoppe, Chicago, Ill. Filed Feb. 23, 1912. Serial No. 679,315. (Cl. 62—6.)



1. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation, time controlled means for terminating the periods of heating of each generator absorber, and means for applying the heat to the alternate generator absorber and for terminating the application of the cooling means to the said alternate generator absorber, when the pressure therein has reached a predetermined limit, and for simultaneously applying said cooling means to the other generator absorber.

2. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation, time controlled mechanism for terminating the periods of heating each generator absorber, and means for applying heat to the alternate generator absorber, and for simultaneously shifting the cooling means from said alternate generator absorber to the other generator absorber when the pressure in the said alternate generator absorber has reached a predetermined limit.

3. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation, comprising a member adapted to supply heat to either of said generator absorbers, said heat supply member being movable from heating position under one generator absorber to heating position under the other, devices for discharging a cooling fluid against either of said generator absorbers, adapted to be shifted by said heat supply member at a predetermined point in the path of its movement, power means for moving said heat supply member from heating position under one generator absorber toward its heating position under the other generator absorber, time controlled mechanism for determining the instant when said power means shall act, and stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point.

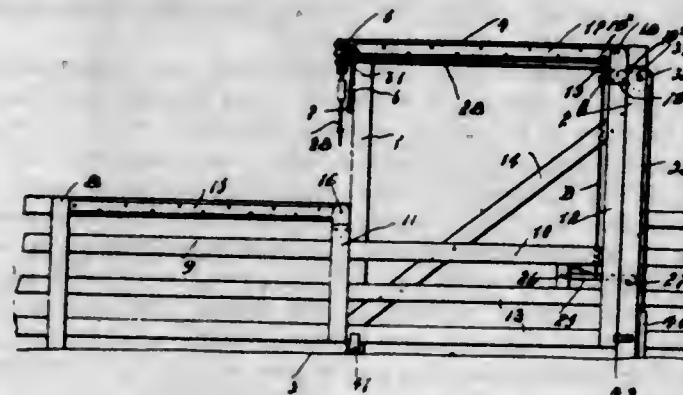
4. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation, time controlled mechanism for determining the instant when said power means shall act, and stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point.

ed fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation comprising a member adapted to supply heat to either of said generator absorbers, said heat supply member being movable from heating position under one generator absorber to heating position under the other, devices for discharging a cooling fluid against either of said generator absorbers, adapted to be shifted by said heat supply member in the latter part of its movement, power means for moving said heat supply member from heating position under one generator absorber toward its heating position under the other generator absorber, time controlled mechanism for determining the instant when said power means shall act, a controlling device for cutting off the heat supply intermediate the two final positions of said heat supply member, and stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point.

5. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation including a member adapted to supply heat to either of said generator absorbers, said heat supply member being movable from heating position under one generator absorber to heating position under the other, devices for discharging a cooling fluid against either of said generator absorbers adapted to be shifted by said heat supply member at a predetermined point in the path of its movement, power means for moving said heat supply member from heating position under one generator absorber toward its heating position under the other generator absorber, a time controlled stop adapted to prevent such movement for a predetermined time interval, a second stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point, and means for resetting said time controlled stop at the beginning of each period of heating.

[Claim 6 not printed in the Gazette.]

1,079,449. GATE-OPENING DEVICE. JOHN SPENCE, Lethbridge, Alberta, Canada. Filed Apr. 12, 1912. Serial No. 690,291. (Cl. 39—28.)



1. The combination with a gate and tracks supporting the gate, of weighted means holding the gate normally closed, hand grips connected to the gate and located at the approach to and beyond the same, and means for locking the gate in the open position, said latter means being set in the locking position by a pull on the hand grip on the approaching side of the gate and released from the locking position by a pull on the hand grip located beyond the gate, as and for the purpose specified.

2. The combination with a gate, a track supporting one end of the gate and located at the end thereof, and an elevated track supporting the other end of the gate and located above the same, of weighted means designed to continuously close the gate, releasable means for locking the gate in the open position, elevated hand grips at the approach to and beyond the gate, such hand grips being connected by cables with the locking means, said

locking means being arranged to be set in the locking position by a pull on the hand grip on the approaching side of the gate and released by a pull on the hand grip beyond the gate, as and for the purpose specified.

3. The combination with a pair of upright gate posts, a spanner connecting the posts at the top, and a gate, of a track located at the side of one of the gate posts and supporting the adjoining end of the gate, an elevated track secured to the spanner and supporting the other end of the gate, a pulley adjoining the latter end of the gate, a weighted cable secured to the gate and passing over the pulley, releasable means for locking the gate in the open position, elevated hand grips located at the approach to and beyond the gate, such hand grips being connected with the locking means and arranged to control the setting and releasing of said locking means upon the hand grips being pulled, as and for the purpose specified.

4. The combination with a pair of upright gate posts, a spanner connecting the posts at the top, a gate, and a suitably braced elevated cross beam located at the upper end of one of the posts, of an extending track located to the side of the latter gate post and supporting the adjoining or inner end of the gate, an elevated track carried by the spanner and supporting the other or outer end of the gate, a pulley carried by the gate post adjoining the outer end of the gate, a weighted cable secured to said end and passing over the pulley, a notched locking bar pivotally secured to the gate, elevated hand grips suspended from the ends of the cross beam at the opposite sides of the gate and connected through suitable cables with the locking bar, and a set of catch rods carried by the cross beam designed to enter the notches in the locking bar, as and for the purpose specified.

5. The combination with a pair of upright gate posts, a spanner connecting the posts at the top, a gate, and a suitably braced elevated cross beam located at the upper end of one of the posts, of an extending track supporting the inner end of the gate, an elevated track secured to the spanner and supporting the outer end of the gate, a pulley carried by the gate post adjoining the latter end of the gate, a weighted cable passing over the pulley and secured to the outer end of the gate, a notched locking bar pivotally secured to the outer end of the gate, pulleys located at the extending ends of the cross beam, a set of pulleys carried by the cross beam and adjoining the gate post, locking rods carried by the cross beam and adjoining the latter pulleys, such rods being designed to pass into the notches in the locking bar, cables passing over the pulleys carried by the cross beams and connected with the locking bar, and hand grips secured to the ends of the cables and located beneath the extending end of the cross beam, as and for the purpose specified.

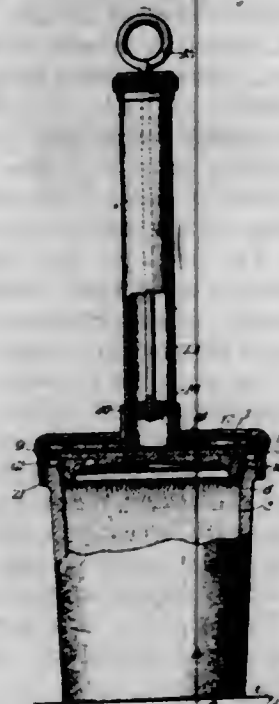
[Claims 6 and 7 not printed in the Gazette.]

1,079,450. VACUUM-PACKAGE AND MEANS FOR SEALING SAME. GRAY STAUNTON, Muskegon, Mich. Filed July 12, 1912. Serial No. 708,965. (Cl. 220—97.)

1. In a device of the character described the combination with a vessel to be sealed, a closure therefor and an air exhaust pump having a piston and an expanded base adapted to overlie and encompass said closure and to rest upon the edge of said vessel, leaving room for the closure to move upwardly to permit escape of the air from said vessel during process of sealing, said base having openings for escape of air on the downstroke of its piston, and a resilient member extending from adjacent the center of said base over said openings in the base and over the joints between the pump base and vessel, the free edge of said member being in contact with the vessel below said joints.

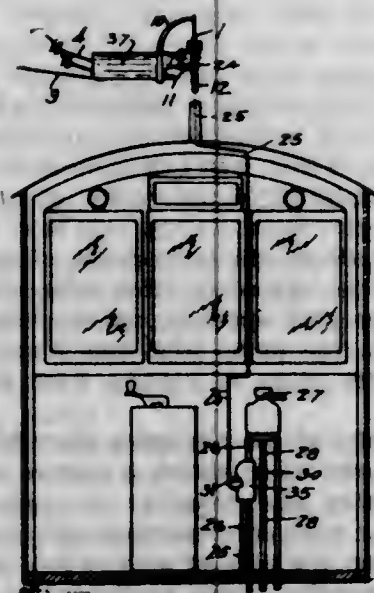
2. In a device of the character described, the combination with a vessel to be sealed, a closure therefor, smaller in diameter than said vessel at the open end thereof, a pump having a base, encompassing said closure and adapted to rest upon the edge of said vessel, and an air tight yielding responsive means overlying the base and bridging the joint between said vessel and base during the process of sealing the vessel, said base having air-admitting openings under said air tight means.

3. In combination with a vessel to be sealed having a cooperative closure carrying a packing ring, of a pump having a base part supported directly by said vessel, leaving the closure free, and a rubber cap overlying said base part and said closure and having a lower edge adapted to make contact with said vessel below the open mouth thereof, said base being shaped to provide openings for passage of air under said cap for discharge from its lower vessel-contacting edge.



4. In a device of the character described, the combination with a vessel to be sealed, said vessel having, surrounding its open end, an annular edge and a cover for said open end having a flat upper portion of less diameter than said annular edge of the vessel, and suitable packing means between the vessel and cover, of a pump having a base provided with a flat portion coacting with the flat portion of the cover and a flange extending from said flat portion of the base down around said flat portion of the cover for engagement with said annular edge of the vessel, said flange being of a depth to space said flat portion of the base from said cover to permit operation of the cover as a valve for the vessel during operation of the pump, and a rubber cap overlying said pump base and annular edge of the vessel to operate as a valve for the space between the cover and base during operation of the pump.

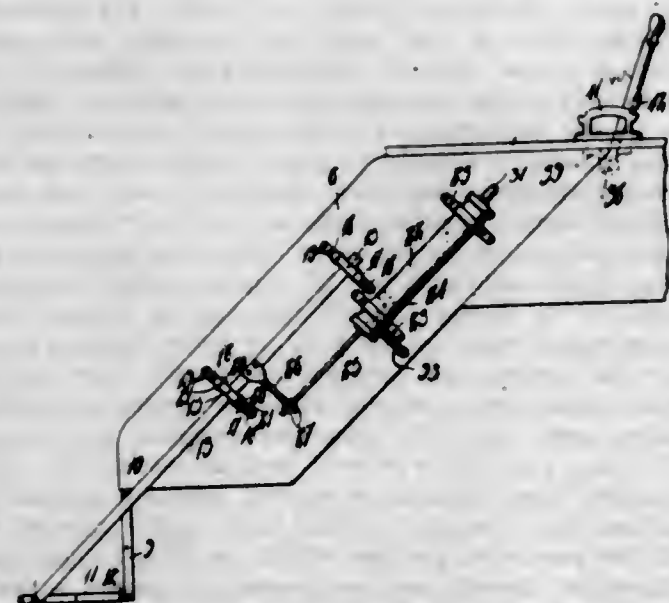
1,079,451. AUTOMATIC CAR-STOPPING DEVICE. JOHN S. STRICKLAND and CHARLES H. BEACH, Tacoma, Wash. Filed June 26, 1909. Serial No. 504,546. (Cl. 246—36.)



In an automatic car stopping device, the combination with an electric signal circuit, and a car propelling

circuit, of a magnetically operated contact device, the magnet portion of said contact device being within said signal circuit and controlled thereby and the contact portion adapted to be moved into the path of a car, that portion of the contact device which is adapted to be moved into the path of the car being electrically connected with the car propelling current, an insulated contact device mounted on said car and adapted to touch said contact device as it moves therepast, when said contact is in said path, a train controlling device, and electromagnetic means in electrical connection with the contact device on the car and within the car propelling circuit when contact is made with the magnetically operated contact device, said electromagnetic means adapted to operate the train controlling device.

1,079,452. FOLDING CAR-STEP. PIERCE J. STRIMPLE, Sekitan, Ohio. Filed Aug. 4, 1913. Serial No. 782,983. (Cl. 105—86.)



1. An extension car step comprising the combination with the platform steps, of a tread pivotally secured to the riser, brackets on the sides of the car steps, bars slidable in the brackets and pivotally connected to the outer portion of the tread, cylinders disposed on the sides of the steps, pistons slidable in the cylinders and having stems extending therefrom, lateral arms on the bars connected to the stems and means for introducing compressed liquid into either end of each cylinder.

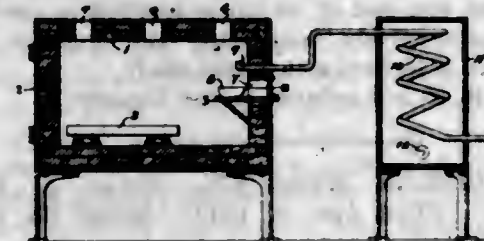
2. An extension car step comprising the combination with platform steps, of a hinged tread portion, cylinders on the sides of the steps, pistons slidable in the cylinders and connected to the tread, a pipe connecting the outer ends of the cylinders, a pipe connecting the inner ends of the cylinders, a valve casing, pipes connecting adjacent ends of the valve casing and the first-mentioned pipes, an inlet port in the upper end of the casing, an outlet port, and a valve head slidable in the casing and having its upper portion cutaway and being provided with a passage selectively connecting the outlet port and one of the pipes communicating with the first-mentioned pipes.

1,079,453. PROCESS FOR THE TREATMENT OF IRON AND STEEL TO FORM A PERMANENT BLACK FINISH THEREON. WILLIAM R. SWAN, Bridgeport, Conn. Filed July 30, 1913. Serial No. 782,078. (Cl. 148—41.)

1. The process for the treatment of iron and steel to form a dead black rust resisting finish which includes the following steps, heating the iron being treated, subjecting it to the action of superheated steam in the presence of a metallic salt adapted to form a base thereon while still heated, cooling and submerging the iron in heated paraffin oil.

2. The process of treating iron or steel to produce a dead black rust resisting finish thereon, which includes

the following steps, heating the iron being treated, subjecting it to the action of superheated steam in the presence of a metallic salt adapted to form a base thereon and other chemicals adapted to cooperate therewith to produce a finish, cooling the iron and submerging it in heated paraffin oil.



3. The process of treating iron and steel to produce a dead black rust resisting finish thereon, which includes the following steps, heating the iron being treated, subjecting it to the action of superheated steam in the presence of copper sulfate while thus heated, cooling the article and submerging it in heated paraffin oil.

4. The process of treating iron and steel to produce a dead black rust resisting finish thereon, which includes the following steps, heating the iron being treated, subjecting it to the action of superheated steam in the presence of copper sulfate and sal-ammoniac while thus heated, cooling the article and submerging it in heated paraffin oil.

5. The process of treating iron and steel to produce a dead black rust resisting finish thereon, which includes the following steps, heating the iron being treated, subjecting it to the action of superheated steam in the presence of copper sulfate, sal-ammoniac, and glucose while thus heated, cooling the iron and submerging it in heated paraffin oil.

[Claims 6 to 9 not printed in the Gazette.]

1,079,454. MOP-WRINGER. JAMES HART TAYLOR and JULIUS BYRON TAYLOR, Toledo, Ohio. Filed Nov. 22, 1911. Serial No. 661,751. (Cl. 15—12.)



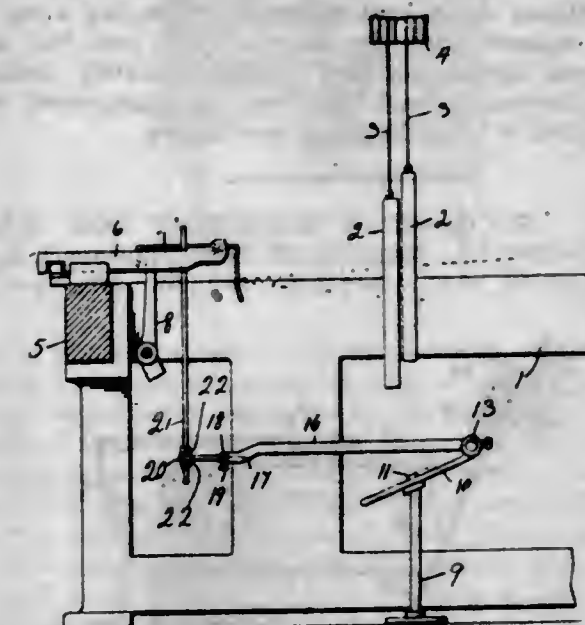
1. In a device of the described character, a pail, a bracket secured to the side of the pail, an upright lever of the first class fulcrumed upon said bracket and having at its lower end a downwardly outwardly curved portion, a fork pivotally connected with the upper end of said lever, a wringer roll having the ends of its shaft mounted in the fork, a pair of parallel bars in the mouth of the pail which slidably support the ends of said shaft, a pair of link-bars pivoted respectively upon said bars, a pair of rolls journaled upon and between said link-bars, a lever of the second class fulcrumed upon the side of the pail and below said bracket and having at its outer end a pedal, a roller carried by said second lever and which rides upon the top of the said curved part of the lever first mentioned, and a spring which holds the upper part of the lever first mentioned pressed toward the pail.

2. In a device of the described character, in combination, a pail, an upright lever fulcrumed on the side of the

196 O. G.—56

pail and having at its lower end below its fulcrum a downwardly, outwardly curved arm, a foot-lever fulcrumed on the side of the pail and carrying a roller which rides upon the top of said curved arm, opposed rolls in the mouth of the pail, and a forked member having its arms connected with the opposite ends of one of said rolls and having its outer end pivotally connected with the upper end of said upright lever.

1,079,455. HARNESS-STOP FOR LOOMS. CHARLES THIBEAULT and WENCESLAS GAGNE, Lawrence, Mass. Filed Mar. 21, 1913. Serial No. 756,037. (Cl. 139—52.)



1. In a harness stop motion for looms, the combination with a loom frame, harness and filling stop mechanism; of a pair of spaced standards arranged within said frame below the harness, a pair of plate-like members adjustably connected to the upper ends of said standards and inclined upwardly therefrom, a shaft extending longitudinally of the frame and mounted to oscillate in the uppermost ends of the inclined plate-like members, spring means in connection with said plate-like members and said shaft to normally retain the latter in one position, a pair of laterally extending arms adjustably connected to the ends of said shaft and adapted to receive the harness frames thereon when the supporting standards of the latter become broken, and connecting means between the outer ends of said arms and the filling stop mechanism.

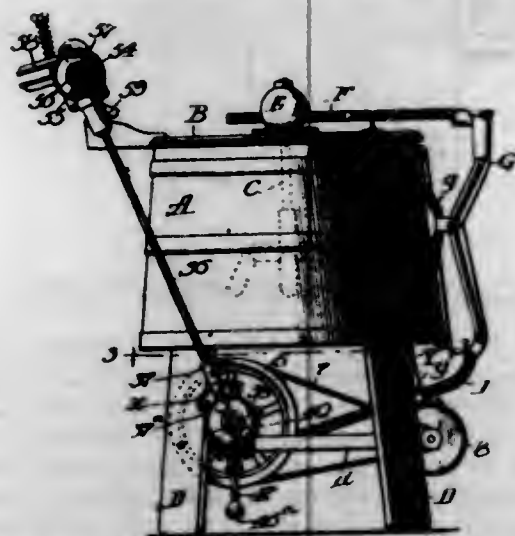
2. In a harness stop motion for looms, the combination with a loom frame, harness and filling stop mechanism; of a pair of spaced standards arranged within said frame below the harness, a pair of plate-like members adjustably connected to the upper ends of said standards and inclined upwardly therefrom, a shaft extending longitudinally of the frame and mounted to oscillate in the uppermost ends of the inclined plate-like members and said shaft to normally retain the latter in one position, a pair of laterally extending arms adjustably connected to the ends of said shaft and adapted to receive the harness frames thereon when the supporting standards of the latter become broken, and adjustable means connecting the outer ends of said arms with the filling stop mechanism.

3. In a harness stop motion for looms, the combination with a loom frame, harness and filling stop mechanism; of a pair of standards arranged within the frame below the harness, plate members adjustably mounted on the upper ends of said standards and inclined upwardly therefrom, the uppermost ends of said plate members being designed to form bearings, a shaft extending longitudinally of the frame and mounted to oscillate in said bearings, spring means in connection with said bearings and shaft to dispose the latter normally in one position, a pair of arms adjustably secured to the ends of said shaft and extending laterally therefrom, and a pair of vertically extending arms adjustably connected with the free ends of said laterally extending arms, said vertical

arms having an arcuate portion formed therein, terminating in a hook for engagement with the weft fork of the filling stop mechanism.

4. In a harness stop motion for looms, the combination with a loom frame, harness and filling stop mechanism; of a pair of spaced standards arranged within said frame below the harness, a pair of plates adjustably mounted on the upper ends of said standards and inclined upwardly therefrom, the uppermost ends of said plates terminating in bearings, a longitudinal shaft mounted to oscillate in said bearings, arms adjustably connected to the ends of said shaft and extending laterally therefrom, the outer ends of said arms being offset and provided with bearings, angular rods adjustably carried in the bearings of the last mentioned arms, and vertically extending arms adjustably engaged with the angular rods, said last mentioned arms having portions thereof arcuately designed and terminating in hook members for engagement with the weft fork of the filling stop mechanism.

1,079,456. MECHANICAL MOVEMENT FOR WASHING-MACHINES. WILLIAM H. VOSS, Davenport, Iowa. Filed Jan. 18, 1913. Serial No. 742,785. (Cl. 74-50.)



1. A mechanical movement comprising a rotary reciprocable shaft and means for driving the same consisting of a motor-driven drive-shaft, a pulley loose on said drive-shaft, a train of speed-reducing gears one of which is connected to said pulley and another of which is fast on said drive-shaft, a crank, means connecting said crank to said last-mentioned gear, and devices operatively connecting said crank to said first-mentioned shaft.

2. A mechanical movement comprising a rotary reciprocable shaft and means for driving the same consisting of a motor-driven drive-shaft, a pulley loose on said drive-shaft, a train of speed-reducing gears one of which is connected to said pulley and another of which is fast on said drive-shaft, a crank loosely carried by said drive-shaft, means connecting said crank to said last-mentioned gear, and devices operatively connecting said crank to said first-mentioned shaft.

3. A mechanical movement comprising a rotary reciprocable shaft and means for driving the same consisting of a motor-driven drive-shaft, a pulley loose on said drive-shaft, a train of speed-reducing gears one of which is connected to said pulley and another of which is fast on said drive-shaft, a crank, a clutch mechanism connecting said crank to said last-mentioned gear, and devices operatively connecting said crank to said first-mentioned shaft.

4. A mechanical movement comprising a rotary reciprocable shaft and means for driving the same consisting of a motor-driven drive-shaft, a pulley loose on said drive-shaft, a train of speed-reducing gears one of which is connected to said pulley and another of which is fast on said drive-shaft, a crank, means connecting said crank to said last-mentioned gear, a pitman one end of which is secured to said crank, and devices operatively connecting the opposite end of said pitman to said first-mentioned shaft.

5. A mechanical movement comprising a rotary reciprocable shaft and means for driving the same consisting of a motor-driven drive-shaft, a pulley loose on said drive-shaft, a train of speed-reducing gears one of which is connected to said pulley and another of which is fast on said drive-shaft, a crank loosely carried by said drive-shaft, means connecting said crank to said last-mentioned gear, a pitman one end of which is secured to said crank, and devices operatively connecting the opposite end of said pitman to said first-mentioned shaft.

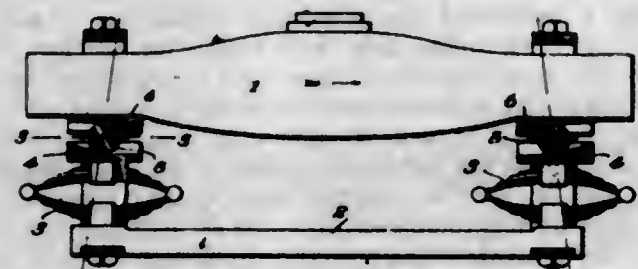
[Claims 6 to 10 not printed in the Gazette.]

1,079,457. LINEAR MEASURE. ISAAC A. WESSON, Wingo, Ky. Filed Apr. 8, 1911. Serial No. 619,919. (Cl. 73-40.)



A tapering resilient measure circular in cross-section provided with indices throughout its length, foot indicating characters adjacent to said indices progressively increasing numerically from the small to the large end of said measure, foot indicating characters adjacent to the same indices increasing numerically from the large end to an intermediate portion of said measure, the scale at the larger end of said measure being subdivided with indices representing inches, the scale upon an intermediate portion being subdivided with indices representing hand measures, and hand indicating characters adjacent said hand indices and progressively increasing numerically from the larger portion of said measure.

1,079,458. CAR-TRUCK. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Swing Rolling Truck Co., St. Louis, Mo., a Corporation of Delaware. Filed Jan. 20, 1913. Serial No. 743,087. (Cl. 105-243.)



1. A car having a rolling body support operating on surfaces formed and arranged so that, when the car body moves laterally, it is caused to travel in a curved path and to also partially rotate about an imaginary axis.

2. A car having a rolling body support operating on surfaces formed and arranged so that when the car body is moved laterally, one side thereof is elevated and the other side is lowered.

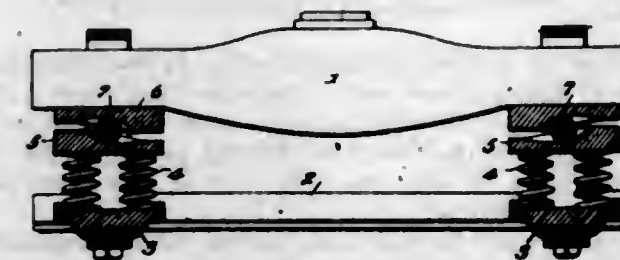
3. In a car truck, a bolster, rolling supports beneath said bolster, and bearing surfaces for said rolling supports, which surfaces are arranged to elevate one end of said bolster and to lower the opposite end when the bolster is shifted laterally with respect to the truck.

4. In car construction, a lateral motion device comprising rollers and curved roller seats arranged so that straight lines passing through the centers of the rollers and points of contact between the rollers and seats converge upward in all positions of the rollers.

5. In a car truck, a bolster having curved roller seats, rollers engaging said roller seats for supporting the bolster, said roller seats being formed so that straight lines passing through the centers of the rollers and points of contact between the rollers and seats converge upward in all positions of said rollers.

[Claims 6 to 10 not printed in the Gazette.]

1,079,459. CAR-TRUCK. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Swing Rolling Truck Co., St. Louis, Mo., a Corporation of Delaware. Filed Jan. 20, 1913. Serial No. 743,088. (Cl. 105-243.)



1. A car having rolling body supports of high initial resistance to lateral movement and arranged so that when the car body moves laterally from its normal position said car body is caused to also travel in a curved path and to rotate about an imaginary axis.

2. In a car truck, a bolster and supports for said bolster, which supports are arranged for rolling movement on seats so as to resist normal lateral thrust upon the bolster and to elevate one end of said bolster in advance of the other when said bolster is subjected to abnormal lateral thrust.

3. In a car truck, a bolster, rolling supports therefor, bearing members for said rolling supports, which bearing members are provided with roller bearing surfaces the central parts of which are curves having the same radius as the rolling supports, and the balance of said bearing surfaces having different radii.

4. In a car truck, a bolster, rolling supports therefor, supporting members having curved bearing faces for the rolling supports, the outer portion of each curved bearing surface having a shorter radius than the inner portion of said curved bearing surface.

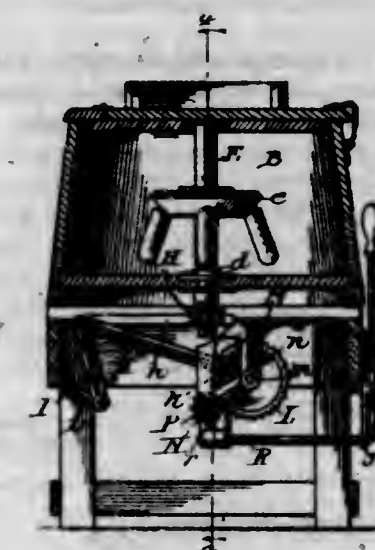
5. In a car truck, a bolster, rolling supports therefor, supporting means having bearing faces for said rolling supports, which bearing faces are formed so as to maintain the rolling supports in normal positions against normal lateral thrust of the car body transmitted to the bolster, and to elevate one end of the bolster in advance of the other when abnormal side thrust of the car body is transmitted to the bolster, and to cause said car body to travel in a curved path and to rotate about an imaginary axis.

[Claims 6 to 11 not printed in the Gazette.]

1,079,460. MECHANICAL MOVEMENT FOR WASHING-MACHINES. SAMUEL T. WHITE, Davenport, Iowa. Filed Mar. 10, 1913. Serial No. 753,327. (Cl. 74-50.)

1. A mechanical movement for washing machines comprising a suitable elongated support, a vertically disposed rotary reciprocable driven-shaft journaled near one end thereof, a longitudinally disposed master-shaft having fixed bearings in said support, means for imparting the motion of said master-shaft to said driven-shaft, comprising a gear

deriving motion from said master-shaft, a rack, a link pivotally connected to and supporting one end of said rack, and a connecting rod connecting said gear to the link-supported end of said rack.



2. A mechanical movement for washing machines comprising a suitable elongated support, a vertically disposed rotary reciprocable driven-shaft journaled near one end thereof, a longitudinally disposed master-shaft having fixed bearings in said support, means for imparting the motion of said master-shaft to said driven-shaft comprising a gear deriving motion from said master-shaft, clutch mechanism movable longitudinally on said master-shaft and cause the parts of said clutch to cooperate, a rack, a link pivotally connected to and supporting one end of said rack, and a connecting rod connecting said gear to the link-supported end of said rack.

3. A mechanical movement for washing machines comprising a suitable elongated support, a vertically disposed rotary reciprocable driven-shaft journaled near the end thereof, a longitudinally disposed master-shaft having fixed bearings in said support, means for imparting the motion of said master-shaft to said driven-shaft comprising a drive-gear, a driven gear separate therefrom, a clutch mechanism movable longitudinally on said shaft and having an extended boss with a circumferential groove therein, a transverse rock-shaft having a suitable arm that engages said groove and is adapted to move said drive-gear and cause the parts of said clutch mechanism to cooperate, a rack, a link pivotally connected to and supporting one end thereof, and a connecting-rod connecting said gear to the link-supported end of said rack.

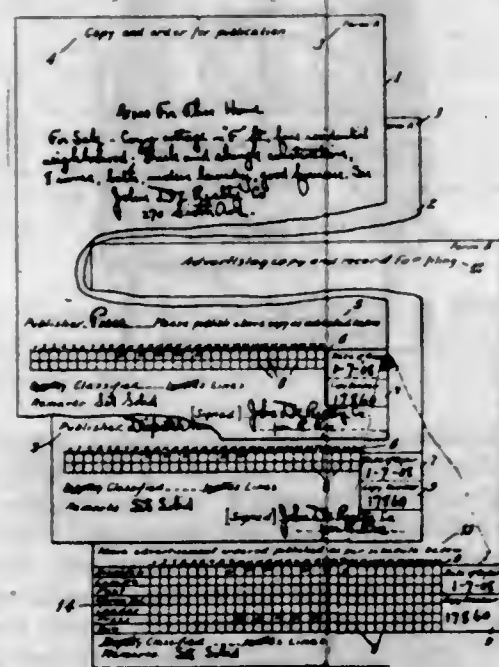
4. A mechanical movement for washing machines comprising a suitable elongated support, a vertically disposed rotary reciprocable driven-shaft journaled near the end thereof, a longitudinally disposed master-shaft having fixed bearings in said support, a clutch member fast on said master-shaft, a drive-pinion loose on said master-shaft having an integral clutch member that is movable into and out of engagement with the first-mentioned clutch member, a gear meshing with said pinion, a rack, a link pivotally connected to and supporting one end thereof, and a connecting-rod connecting said gear to the link-supported end of said rack.

5. A mechanical movement for washing machines comprising a suitable elongated support, a vertically disposed rotary reciprocable driven-shaft journaled near the end thereof, a longitudinally disposed master-shaft having fixed bearings in said support, a clutch member fast on said master-shaft, a drive-pinion loose on said master-shaft having an integral clutch member that is movable into and out of engagement with the first-mentioned clutch member and having its boss extended opposite to said clutch with a circumferential groove therein, a transverse rock-shaft having a suitable arm that engages said groove and is adapted to move the pinion and clutch into and out of operative relation with said first-mentioned clutch member, a gear meshing with said pinion, a rack,

a link pivotally connected to and supporting one end thereof, and a connecting-rod connecting said gear to the link-supported end of said rack.

[Claims 6 to 8 not printed in the Gazette.]

1,079,461. ADVERTISING-ORDER RECORD. EDWIN B. WILSON, Brooklyn, N. Y., and CARL I. ROBINSON, Pittsburgh, Pa. Filed Mar. 27, 1911. Serial No. 617,200. (Cl. 11-19.)



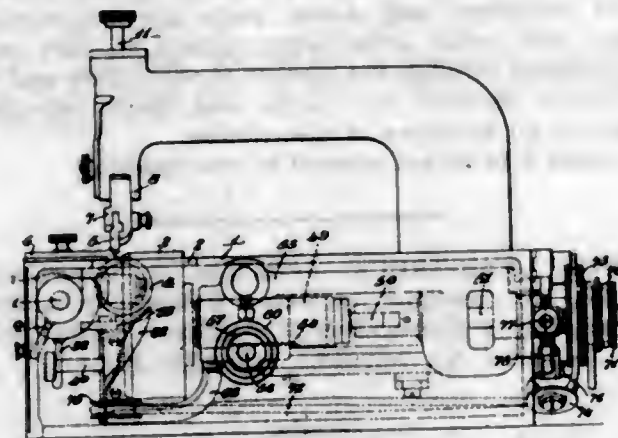
1. An order record comprising a file copy sheet and a plurality of order copy sheets each having a correspondingly located and an appropriately designated space on which the subject-matter of the order may be concurrently produced by manifolding, a suitably defined and correspondingly located space adapted to receive identifying data, and a perpetual calendar comprising a series of legends indicating periods of time, the file copy sheet having a list of addresses and being ruled to provide spaces aligning in one direction with the list of addresses and in another direction with the legends which constitute the perpetual calendar whereby the file copy sheet is adapted to be marked to constitute a complete record of the order copy sheets.

2. An advertising record comprising a file copy sheet and a plurality of order copy sheets having appropriately designated spaces for advertising matter, and appropriately designated and suitably defined spaces for the copy number, date of the order and identifying data adapted to register when superposed, and a perpetual calendar comprising a series of numerals indicating days of the month, the perpetual calendar of the order copy sheets being adapted to be checked to complete the order and the file copy sheet having a list of publications and being ruled to provide spaces aligned transversely with the list of publications and vertically with the numerals indicating the days of the month whereby the file copy sheet is adapted to be checked to constitute a complete record of the order copy sheets.

3. An advertising order record comprising a file copy sheet and a plurality of corresponding, order copy sheets having appropriately designated spaces for advertising matter correspondingly located in the middle and extending near to the top of the sheets, and being ruled to provide spaces for the copy number, date of the order, and identifying data, adapted to register when the sheets are superposed, and a perpetual calendar comprising a series of numerals indicating days of the month, the perpetual calendar of the order copy sheet being adapted to be checked to complete the order and the file copy sheet having a list of publications and being ruled near the bottom to provide spaces aligned transversely with the list of publications and vertical with the numerals indicating the days of the month, said spaces for the copy number, date

of the order and identifying data being located near the bottom of the sheet with said calendar whereby the file copy sheet is adapted to be checked to constitute a complete record of the order copy sheets.

1,079,462. LEATHER-SKIVING MACHINE. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 8, 1909. Serial No. 526,736. (Cl. 69-9.)



1. A leather skiving machine, having, in combination, a cylindrical knife, a feed roll within the knife, and a concave fixed presser foot without the knife the position of which determines the bevel cut having provision for lateral adjustment to vary the bevel cut by the knife, substantially as described.

2. A leather skiving machine, having, in combination, a cylindrical knife, a feed roll within the knife having its periphery curved longitudinally to correspond to the curvature of the knife, and a fixed pressed foot the position of which determines the bevel cut having an engaging face curved to correspond to the curvature of the knife and having provision for lateral adjustment to vary the bevel cut by the knife, substantially as described.

3. A leather skiving machine, having, in combination, a cylindrical knife, a feed roll within the knife, and a concave presser foot having provision for adjustment laterally in a line inclined toward the knife in the direction of its travel, substantially as described.

4. A leather skiving machine, having, in combination, a cylindrical knife, a fixed presser foot having a concave engaging surface and having provision for lateral adjustment to vary the bevel cut by the knife, and a feed roll within the knife having its periphery curved longitudinally to correspond to the curvature of the presser foot, and mounted to yield angularly and bodily toward and away from the presser foot, substantially as described.

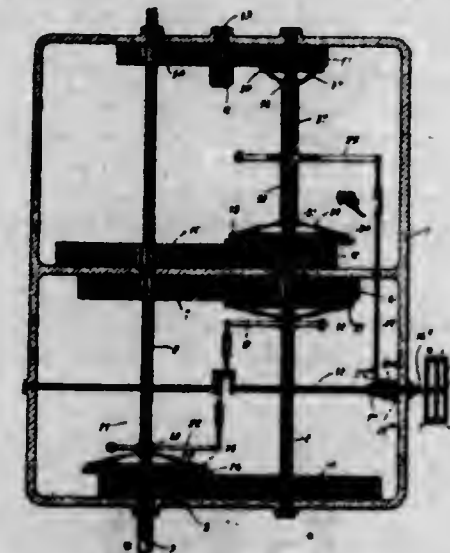
5. A leather skiving machine, having, in combination, a knife, a presser foot, a cooperating feed roll, a block on which the roll is mounted, a spring supported lever on which the block is pivoted to tip to vary the angle of the roll with relation to the presser foot and knife, cooperating stops on the lever and block, and a spring for holding the stops in engagement, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,079,463. TRANSMISSION-GEARING. WALTER D. ARNSBURGER, Patch Grove, Wis. Filed July 8, 1912. Serial No. 708,155. (Cl. 74-59.)

A device of the character described comprising a driving shaft and a driven shaft, a third shaft, a gear on said driving shaft, a gear on said third shaft intermeshing with said gear on said driving shaft, a plurality of gears on said driven shaft and a plurality of gears on said third shaft engaging said plurality of gears on said driven shaft, an independent clutch adapted to engage the gear on said driving shaft and each of the plurality of gears on said third shaft, means for operating said clutch members, such means comprising a turnable rod, links connecting said rod with certain ones of said clutch members, a sleeve on said rod, links connecting said sleeve

with the remaining clutch members, a gear on said rod and said sleeve, and a shifting lever provided with a

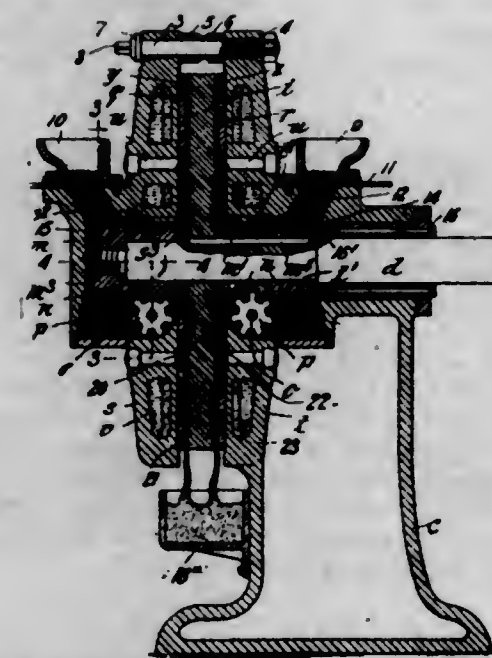


gear adapted to engage each of the gears on said rod and said sleeve, as described.

1,079,464. PROCESS FOR REGENERATING VULCANIZED RUBBER. CHARLES PAUL BARY, Paris, France, assignor to Henry Pierre Charles Georges Debaugé, Paris, France. Filed May 1, 1912. Serial No. 694,567. (Cl. 18-52.)

Improved process for devulcanizing rubber consisting in treating it with a solvent in presence of a metal peroxid capable of fixing the sulfur by oxidation of the sulfur and formation of a metal sulfate which is insoluble in the solvent and is easily separated therefrom.

1,079,465. GRINDING-MACHINE. ALONZO LINTON BAUSMAN, Chicopee, Mass. Filed July 21, 1910. Serial No. 573,124. (Cl. 83-8.)



1. In a grinding machine, the combination with a rotatable bur or plate member, a shaft for supporting said member, a sleeve provided with grooves thereon which communicate with a hopper for receiving the material to be ground, a worm-gear operable from the grooved sleeve for forcing the material into contact with the bur and for preventing its return movement during the grinding operation.

2. In a grinding machine, the combination with the shaft thereof, a rotatable grinding disk, a pair of fixed grinding disks oppositely disposed to the first mentioned disk and having openings through their centers, and means including a grooved sleeve and worm-gear driven from the shaft for simultaneously forcing the material to be ground

through the openings and into engagement with the said disks.

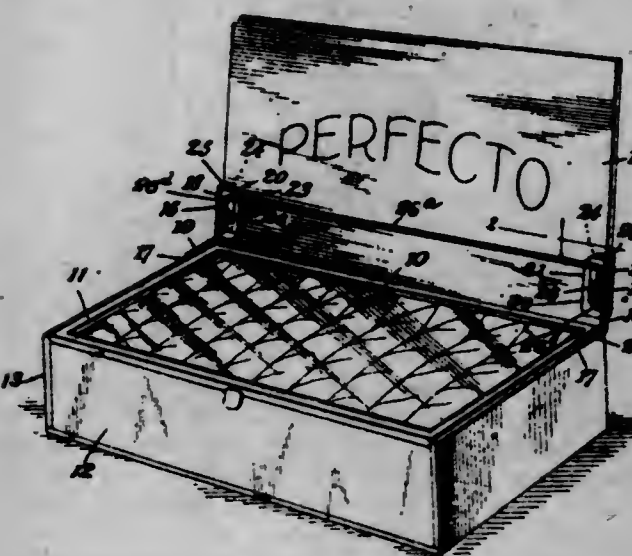
3. In a grinding machine, the combination with a rotatable shaft, a pair of grooved cylindrical members carried thereby and secured thereto, a worm-gear engaging said grooves, a rotatable grinding disk carried by the shaft for effecting the grinding, fixed grinding disks oppositely disposed to the grinding disk, said gears being designed to force the material into engagement with the rotatable grinding disk, and means for axially adjusting the position of the said fixed disks whereby the spaces on the opposite sides of the grinding disk are adjusted.

4. A grinding machine of the class described comprising a pair of fixed grinding members, a rotatable grinding member located therebetween, means, including a toothed wheel and a rotatable feed member, for forcing the material to be ground into the grinding spaces on the opposite sides of the grinding members, and for preventing its escape.

5. A grinding machine comprising a pair of coating members, a rotatable bur member therebetween, a shaft, the fixed members having spiral grooves leading to the rotatable bur member, cylindrical members having spiral grooves secured to the shaft, a toothed feed wheel operable from the grooved cylindrical members for forcing the material to be ground toward the rotatable bur member, and means for adjusting the fixed members toward and from the rotatable bur member, as described.

[Claim 6 not printed in the Gazette.]

1,079,466. DISPLAY-LID. PHILIP A. BECKER, New York, N. Y. Filed Nov. 27, 1912. Serial No. 733,807. (Cl. 217-58.)



1. The combination with a box having a lid hinged thereto, of a frame inclosing a transparent plate and movably applied upon the top of the body of the box, two clamps, each pivotally held at corresponding opposite parts of the frame and each being guided over opposite parts of the edge of the lid of the box, two sleeves one provided upon each of the clamps, and a rod having bent ends, each end being removably disposed in one of said sleeves.

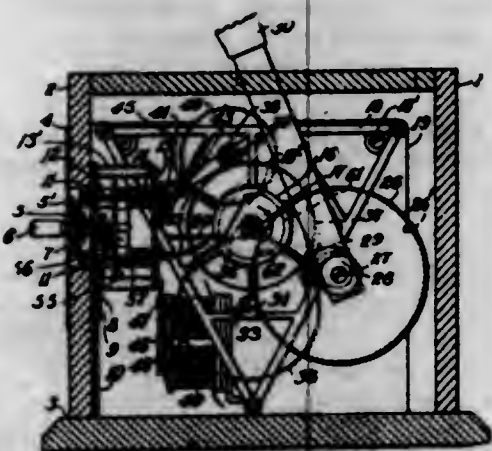
2. The combination with a box having a lid hinged thereto, of a frame inclosing a transparent plate and movably applied upon the top of the body of the box, two tubular members provided at corresponding opposite parts of the frame, two clamps of spring material, one pivotally held to each of the tubular members and such clamps being guided over opposite parts of the edge of the lid of the box, two sleeves, one provided upon each of the clamps, and a rod having bent ends, each end being removably disposed in one of said sleeves.

3. The combination with a box having a lid hinged thereto, of a frame inclosing a transparent plate and movably applied upon the top of the body of the box, two clamps pivotally held at corresponding opposite parts of the frame, and each of said clamps having two spaced side members guided over opposite parts of the edge of the lid, two bridging members, one integrally formed upon the

corresponding ends of the side members of each clamp, two sleeves, one provided upon each of the corresponding members of each clamp, and a rod having bent ends, each end being removably disposed in one of said sleeves.

4. The combination with a box having a rectangular lid hinged thereto, of a frame inclosing a transparent plate and movably applied upon the top of the body of the box, two tubular members provided upon the opposite side edges at the corresponding corners of the frame, two angular supporting rods, each having one of its arms rotatable in one of the tubular members, two clamps, one secured to each of the second arms of the tubular members, and each of said clamps having two spaced yielding side members guided over opposite parts of the edge of the lid, and two bridging members, one integrally formed upon the corresponding ends of the side members of each clamp, two sleeves, one provided upon each of the corresponding members of each clamp, and a rod having bent ends, each end being removably disposed in one of said sleeves.

1,079,467. SEARCH-CALL APPARATUS. ARTHUR F. BOARDMAN, Arlington, Mass., assignor of one-half to himself, and one-half to James R. Murphy, Boston, Mass. Filed Sept. 28, 1912. Serial No. 722,452. (Cl. 179-85.)



1. In a signal system of the class described, a plurality of differentiated rotary contact disks arranged in pairs, a plurality of sliding contact points, a plurality of operating levers associated with said sliding contacts to move either of the contact points of a pair into engagement with said disks, means for locking all of the remaining levers upon the operation of any one of said levers, a normally effective locking mechanism for the contact devices, and a release for said locking mechanism operable upon the movement of said operating means.

2. A signaling device comprising a frame, a plurality of rotatable members having groups of contact points, a motor operatively associated with said members to rotate them, a plurality of pairs of contacts movable into the path of said points, and an operating lever pivoted between the contacts of each pair and effective to move either one or the other of said contacts when rocked in one or the other direction.

3. A signaling device comprising a frame, a plurality of rotatable members having groups of contact points, a motor operatively associated with said members to rotate them, a plurality of pairs of contacts movable into the path of said points, an operating lever pivoted between the contacts of each pair and effective to move either one or the other of said contacts when rocked in one or the other direction, and a normally effective locking device to prevent rotation of said members and a release for said lock operable upon the movement of any one of said contacts.

4. A signaling device comprising a frame, a plurality of rotatable members having groups of contact points, a motor operatively associated with said members to rotate them, a plurality of pairs of contacts movable into the path of said points, an operating lever pivoted between the contacts of each pair and effective to move either one or the other of said contacts when rocked in one or the other direction, and a normally effective locking device to prevent rotation of said members and a release for said lock operable upon the movement of any one of said contacts.

other direction, a sliding locking plate adapted to be moved by any one of said levers and interengaging abutments on said plates and levers for preventing the movement of the rest of the levers after one lever has been moved to slide the plate.

5. In a signaling device a plurality of pairs of movable contacts, an operating lever pivoted between the contacts of each pair and effective to move either one or the other of said contacts when rocked in one or the other direction, and a locking device to prevent the movement of the rest of said contacts upon the operating movement of any one of said levers.

1,079,468. RADIATOR FOR AUTOMOBILES. JOHN W. BOWERBANK, Los Angeles, Cal. Filed Sept. 16, 1912. Serial No. 720,681. (Cl. 62-28.)



1. In a radiator construction, a core unit formed of an integral strip of sheet metal, comprising two side walls and two end walls, the edges of said walls being bent upon themselves to form channels continuous with their external faces, said channels being so formed that they open toward one another on the same side wall, so said unit may be joined by said intumed edges to a unit of the same construction, whereby inclosed fluid passages are formed having an internally disposed radiating web parallel with the side walls of the respective units.

2. In a radiator construction, a radiator core formed of a strip of sheet metal having its lateral edges bent upon themselves to form channels adjacent said edges with the side walls of said channel in parallel relation, said channelled strip being bent to form side walls and end walls with the channels externally thereof, the terminal ends of said strip being lock joined at one of said end walls, to form an elongated rectangular structure whereby the parallel externally channelled faces of a plurality of units may be joined along said outer side walls of said channels to form an expansible fluid passage of elongated cross section having a longitudinal web intermediate of its side walls and extending centrally into said fluid passage, and means to secure said walls whereby no radiating area is lost and one unit may be readily separated from a plurality of units so joined.

1,079,469. SILL-SIGN STRUCTURE. JAY CHAPIN, Edgewood borough, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 20, 1912. Serial No. 898,488. (Cl. 40-125.)

1. In a sheet metal sill sign, means for fastening the bottom of said sign, an inwardly extending top flange integral with said sign, and brackets adapted to be secured to the sill and provided with shoulders against which said flange bears and also provided with downwardly extending portions to which said sign is attached, for the purpose described.

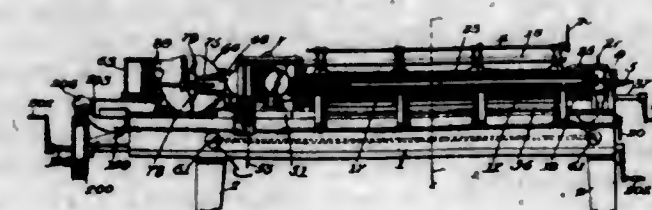
2. In a sheet metal sill sign, means for fastening the bottom of said sign to a support, an inwardly extending top flange, having notches in the edge thereof, integral with said sign, and brackets adapted to be secured to the

sill and provided with shoulders which seat in said notches and also provided with downwardly extending portions to which said sign is attached.



3. In a sheet metal sill sign, means for fastening the top of said sign to the building, an integral intumed flange at the bottom of said sign provided with a plurality of slots transversely placed, a plurality of brackets fixed to the building and having pierced outer extremities, and bolts engaging said pierced outer extremities and said slots to support the bottom of said sign, said slots permitting the adjustment of the position of said sign.

1,079,470. WARP-TYING MACHINE. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Oct. 5, 1906. Serial No. 337,651. (Cl. 139-95.)



1. A textile machine comprising a pivotally mounted selector; means for reciprocating said selector; a stationary cam; and a member connected with said selector adapted to engage said cam.

2. A textile machine comprising a yoke; a selector pivotally mounted in said yoke; a spring tending to move said selector in one direction; a member engaging one end of said spring for adjusting the tension thereof; and a clamping blade and screw for locking said member in adjusted position.

3. A textile machine comprising a stripper member; a bracket having a seat thereon; a rod for carrying said stripper member, said rod being flattened at one side to fit upon said seat in position to hold said stripper member in proper alignment; and means for clamping said rod upon said seat.

4. A textile machine including a selector, means for moving said selector, a stationary member, and means co-operating with said selector to engage said stationary member to impart a swinging movement to said selector.

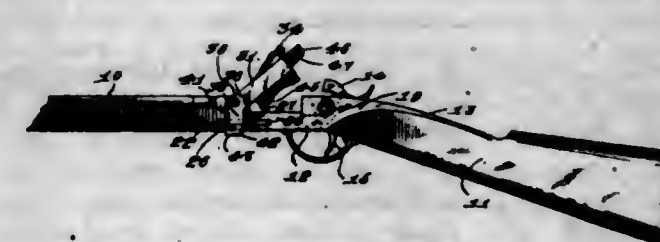
5. A textile machine including an oscillatory selector, means for imparting a longitudinal movement to said selector, a stationary member, and means on the selector to contact with the stationary member to impart an oscillatory movement to said selector.

[Claims 6 to 38 not printed in the Gazette.]

1,079,471. RIFLE. FRANK J. COOPER, Emporia, Kans. Filed Feb. 25, 1913. Serial No. 750,644. (Cl. 42-36.)

1. In a fire arm, a cartridge chamber provided with a longitudinally extending groove, a cartridge extractor slidably mounted in said groove, pins extending from said cartridge extractor, a breech block pivotally connected with said cartridge chamber, an arm extending from said breech block and positioned between the pins

of said cartridge extractor, and the edges of said arm being curved to form cams for moving said cartridge extractor in said groove upon the opening and closing of said breech block.

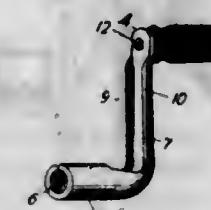


2. In a fire arm, a cartridge chamber provided with a longitudinally extending groove and with longitudinally extending slots, a cartridge extractor slidably mounted in said groove, pins extending from said cartridge extractor and extending through said slots, a breech block pivotally mounted upon said cartridge chamber, and an arm provided with cam edges extending from said breech block between said pins whereby the cams will engage said pins for moving said cartridge extractor upon the opening and closing of said breech block.

3. In a fire arm, a cartridge chamber provided with a longitudinally extending groove and being also provided with longitudinally extending slots positioned substantially parallel to said groove, a cartridge extractor slidably mounted in said groove, said extractor comprising a body portion, a pin extending from one end of said body portion through one of the slots in said cartridge chamber, a shoulder formed upon the opposite end portion of said body portion and provided with a cut-out portion to receive the flange of a shell, a pin extending from said body portion adjacent the opposite end from said first mentioned pin and extending through the remaining slot of said cartridge chamber, and a breech block pivotally mounted upon said cartridge chamber and provided with an arm extending along the side of said chamber between said pins whereby the opening and closing of said breech block will operate said cartridge extractor.

4. In a fire arm, a cartridge chamber, a cartridge extractor slidably connected with said cartridge chamber, pins extending from said cartridge extractor, one of said pins being hook shape, a breech block pivotally connected with said cartridge chamber, an arm extending from said breech block between said pins for moving said cartridge extractor upon the opening and closing of said breech block, a hook formed at the end of said arm for engaging the forward pin to securely hold said cartridge extractor in a closed position, and a heel formed upon said hook and adapted to engage the neck of said hook shaped pin for preventing the breech block from being open to such an extent as to move said arm out of engagement with said cartridge extractor.

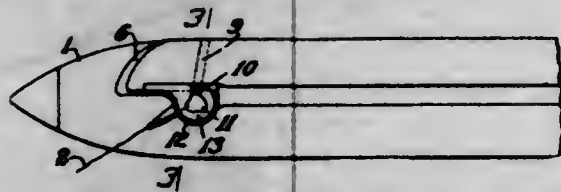
1,079,472. CRANK-ARM. EDWARD B. CRAFT, Hackensack, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 14, 1909. Serial No. 507,492. (Cl. 74-33.)



1. A crank formed from a blank of sheet metal having a rectangular end from which the sides of the blank converge to the other end, comprising an interiorly threaded cylindrical sleeve portion formed from said rectangular end, an arm portion at right angles to the sleeve portion and formed from the remainder of the blank, the edges of which are turned in at right angles to the body of said arm portion, a flat end portion, and a handle pivotally mounted upon said end portion.

2. A generator crank formed from a sheet metal blank, comprising a cylindrical interiorly threaded sleeve portion, a trough shaped crank arm at right angles thereto, said crank arm having a flattened end portion, and a handle pivotally mounted upon said end portion.

1,079,473. SHUTTLE. JEAN BAPTISTE DAUDELIN and EUSEBE H. DAUDELIN, Fall River, Mass. Filed Feb. 28, 1912. Serial No. 680,446. (Cl. 139-46.)

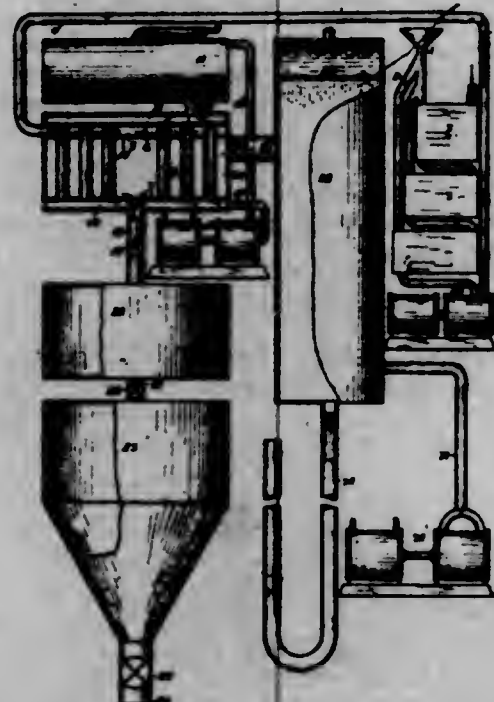


1. In a shuttle having a threading eye and a threading slot, a guard fitted in said eye and having a pair of points defining said eye but with a passage between their ends, and a fibrous member projecting between said points and having free fiber ends disposed inwardly therebetween.

2. In a shuttle of the class described having a threading eye and a threading passage leading into said eye, a thread check composed of longitudinally disposed fibers set in said passage and disposed inwardly along said passage toward said eye and having no exposed fiber ends at its outer part, but having a surface of free fiber ends projecting toward said eye and effectively blocking said passage to prevent backward movement of a thread through said passage.

3. In a shuttle having a threading eye and a threading slot leading into said eye, a thread check composed of longitudinally disposed fibers set in said passage and having its free fiber ends disposed inwardly toward said eye and exposed in said eye through the entry of the threading slot therein.

1,079,474. PROCESS OF MAKING COFFEE EXTRACT. JOHN T. DAVIS, San Francisco, Cal., assignor to Davis Oil Refining Co., San Francisco, Cal., a Corporation of California. Filed Feb. 5, 1912. Serial No. 675,588. (Cl. 99-11.)

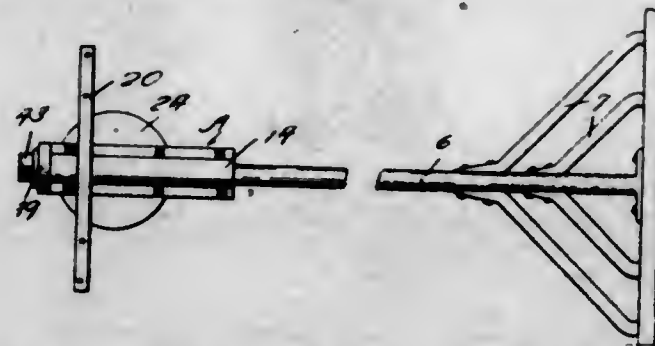


1. The method of preparing coffee extract which consists in infusing roasted pulverized coffee berries with hot water at a temperature of 165° F., and then evaporating the water therefrom by the application of heat at a temperature of 165° F. to the mixture at less than atmospheric pressure.

2. The method of preparing coffee extracts which consists in infusing roasted pulverized coffee berries with

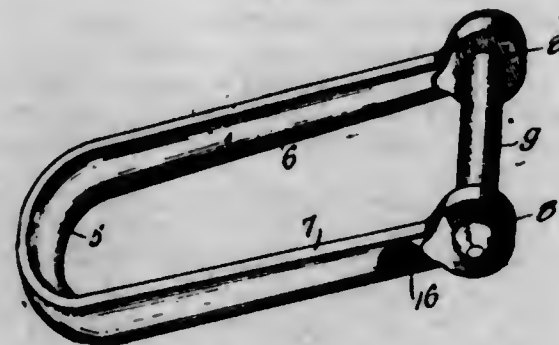
hot water at a temperature of not more than 170° F., evaporating the water therefrom by the application to the mixture of heat at a temperature of not more than 170° F. and at all times, from the beginning to the end of said process, maintaining the coffee extract at a pressure less than atmospheric.

1,079,475. FIFTH-WHEEL CONNECTION FOR VEHICLES. MILO DAVIS, Dederick, Mo. Filed Nov. 14, 1912. Serial No. 731,394. (Cl. 21-39.)



In a fifth wheel connection for vehicles, a boxing consisting of detachable upper and lower sections rotatably mounted on the reach and having interlocking connection therewith, the upper section being formed with an opening, a bolster having an eye depending therefrom extending through the opening of the boxing and receiving the end of the reach bar therethrough, an upper bearing plate carried by the lower section of the boxing, a fifth wheel disposed below and bearing thereagainst, a king-bolt carried by the lower section extending through the plate and wheel, and said reach bar journaled in the boxing and having enlarged bearing portions and reduced portions, a transverse key carried by the boxing and disposed between the enlarged bearings, and a bracket carried by the front end of the reach bar, and having means engaging under the fifth wheel and boxing to support the wheel and boxing against rattling.

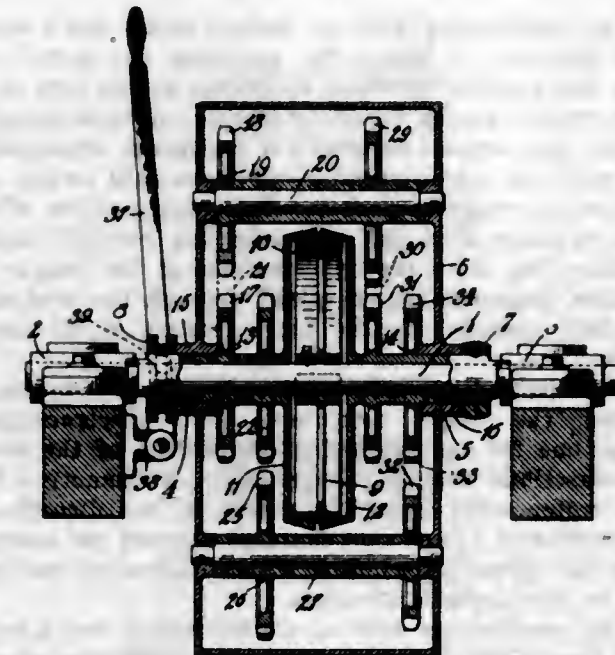
1,079,476. CLEVIS. HENRY B. DEAKINS, Logan, Iowa. Filed Feb. 27, 1912. Serial No. 680,167. (Cl. 97-4.)



The combination with a clevis having aligning eye terminals at the free ends of its limbs, of a clevis bolt provided with a head at one end and an outwardly tapering opposite end, and also provided with an annular groove contiguous to the said tapered end and adapted to be concealed within one of the eyes when the said pin has been inserted in both eyes, one of the limbs of the said clevis being provided with a guide bore intersecting its eye terminal and also opening through the outer side edge of the latter, a latch bolt slidably fitted within the bore and having an outwardly beveled end cooperative with the tapered end of the clevis bolt for automatically snapping the latch in the annular groove in the bolt, a finger button located exteriorly upon one of the limbs for manual manipulation and having a shank engaging the latch bolt to permit the retracting of the latter from the annular groove in the clevis bolt, a spring located within the bore rearwardly of the latch bolt for normally projecting it into the eye terminal for positive engagement with the clevis bolt, and a removable plug inserted in the outer end

of the bore for closing the same and adapted when removed to permit the extracting of the latch bolt from the said bore.

1,079,477. TRANSMISSION MECHANISM. HENRY DEVLIN, Bay City, Mich., assignor to The M. Garland Company, Bay City, Mich., a Corporation of Michigan. Filed Feb. 2, 1912. Serial No. 674,877. (Cl. 74-34.)



1. Transmission mechanism comprising a shaft, a pair of sprocket wheels independently rotatable and reciprocable longitudinally on the shaft, a driving member rotatable concentrically and longitudinally reciprocable with the sprocket wheels, means for securing one of the wheels from rotating when the latter are shifted in one direction and the other from rotating when shifted in the opposite direction, means adapted to secure either wheel to the shaft when the companion wheel is secured from rotating, planetary sprocket wheels on the driving member provided with members each revoluble around a reciprocable sprocket wheel, and endless flexible connections between said members and companion reciprocable sprocket wheels.

2. Transmission mechanism comprising a shaft, a pair of sprocket wheels independently rotatable and reciprocable longitudinally on the shaft, a driving member rotatable concentrically and longitudinally reciprocable with the sprocket wheels, means for securing one of the wheels from rotating when the latter are shifted in one direction and the other from rotating when they are shifted in the opposite direction, means adapted to secure either wheel to the shaft when the companion wheel is secured from rotating, planetary sprocket wheels on the driving member provided with members each revoluble around a reciprocable sprocket wheel, endless flexible connections between the members of the planetary wheels and the companion sprocket wheels and means for shifting the reciprocable sprocket wheels and driving member on the shaft.

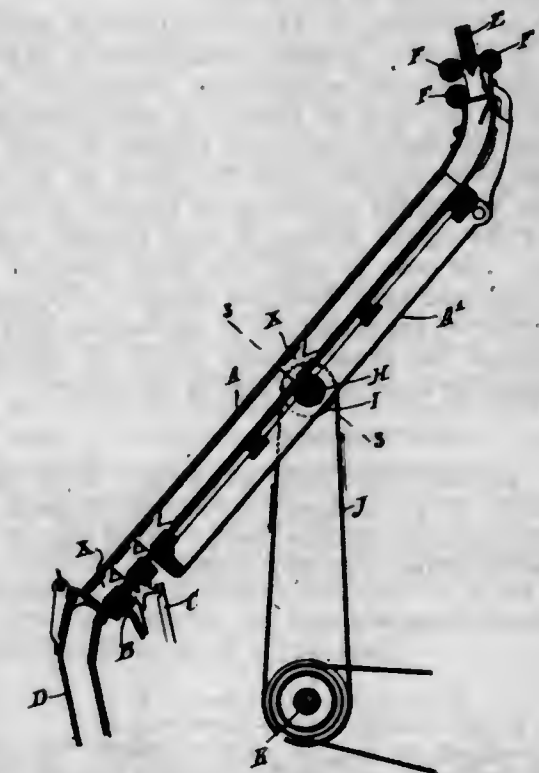
3. Transmission mechanism comprising a shaft, a friction drum secured thereto, a pair of sprocket wheels independently rotatable and reciprocable longitudinally on the shaft on each side of the drum, a driving member rotatable concentrically with the sprocket wheels and drum, means for securing one of the wheels from rotating when the latter are shifted in one direction and the other from rotating when they are shifted in the opposite direction, means adapted to secure either rotatable wheel in engagement with the drum when the companion wheel is secured from rotating, planetary sprocket wheels mounted on the drum and provided with members each revoluble around a reciprocable sprocket wheel, endless flexible connections between each member and the companion reciprocable sprocket wheel, and means for shifting the reciprocable sprocket wheels and driving member.

4. Transmission mechanism, comprising a shaft a pair of bearings, a friction drum secured to the shaft between

the bearings, a sprocket wheel rotatable and reciprocable longitudinally of the shaft between each bearing and the drum, provided with a spider adapted to be moved by the shifting thereof into engagement with the drum and with a hub that is adapted to be interlocked with the adjacent bearing when the said wheel is shifted away from the drum, a driving member rotatable on the hubs concentrically with the reciprocable sprocket wheels which it connects to shift together, means for shifting the reciprocable wheels and driving member on the shaft, and planetary sprocket wheels on the driving member revoluble around the reciprocable wheels with a member for the wheels, and endless flexible connections between each member and companion reciprocable wheel.

5. Transmission mechanism comprising a shaft a pair of bearings therefor, a friction drum secured to the shaft between the bearings, a sprocket wheel rotatable and longitudinally reciprocable on the shaft between each bearing and the drum provided with a spider to be moved by the shifting thereof into engagement with the drum and with a hub adapted to be interlocked with the adjacent bearing when the wheel is shifted away from the drum, each sprocket wheel having a pair of members, a driving member rotatable on the hubs concentrically with the reciprocable wheels which it connects to shift together, means for shifting the reciprocable wheels, planetary wheels on the driving member revoluble around the reciprocable wheels each having two members, and endless flexible connections between the members on each planetary wheel and the companion members of the reciprocable wheels whereby the planetary wheels act as intermediate wheels between the reciprocable wheels.

1,079,478. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 18, 1912. Serial No. 737,387. (Cl. 199-7.)



1. In a typographical machine, the combination of a magazine for the type or matrices, and a device located between the ends of the magazine in position to engage the edges of the type or matrices and thus retard them as they pass into place therein.

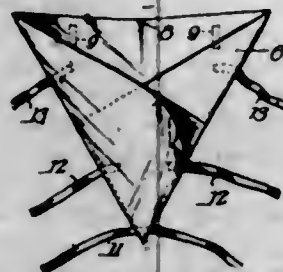
2. In a typographical machine, the combination of a magazine for the type or matrices and a rotatable roll projecting into the magazine so as to engage and retard the type of matrices as they pass into place therein.

3. In a typographical machine, the combination of a magazine for the type or matrices and a constantly rotating roll projecting into the magazine so as to engage and retard the type or matrices as they pass to place therein,

the said roll having a velocity less than that of the passing type or matrices.

4. In a typographical machine, a magazine to contain type or matrices having projecting ears, and provided with a rotatable roll to engage and retard the type or matrices in their passage into place therein, the said roll being located in the space between their projecting ears when the type or matrices are at rest.

1,079,479. DIAPER. GEORGE F. EARNSHAW, Chicago, Ill., assignor to Earnshaw Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 6, 1911. Serial No. 658,641. (Cl. 2—131.)

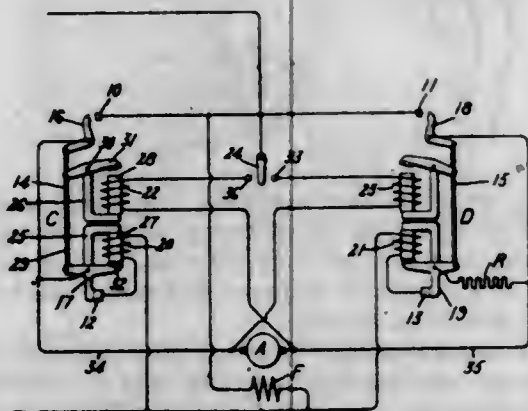


1. A diaper comprising a piece of fabric, the lower corners of which are folded upwardly and inwardly on the body fabric to produce a substantially triangular article having a plurality of layers or thicknesses at a point below the upper edge of said article, and means secured to the corners of the triangular article for securing the diaper in place.

2. A diaper consisting of an oblong piece of cloth folded transversely and having the lower corners folded upwardly to produce a substantially triangular article, the corners of the article being provided with tapes and loops whereby the corners may be fastened together to hold the diaper in place and having tapes secured adjacent the folded edges below the waist line for securing the diaper around the legs of the wearer.

3. A diaper consisting of an oblong piece of cloth provided with a centrally disposed longitudinally extending dart, said piece of cloth being folded transversely of the median line of the dart to produce a substantially rectangular two ply blank, the lower corners of said blank being folded upwardly one over the other to produce a substantially triangular article, loops secured to the article adjacent the upper corners, a tape secured near the lower corner, the ends of said tape being adapted to be passed through said loops and tied together to secure the corners together at the waist line of the wearer, and tapes secured adjacent the edges of said article in position to be tied together in front of the legs of the wearer.

1,079,480. MOTOR-CONTROL SYSTEM. JOHN EATON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 7, 1912. Serial No. 724,319. (Cl. 172—179.)



1. The combination with an electric motor and a supply circuit therefor, of means for reversing the motor comprising a pair of contacts connected to one side of the supply circuit, a corresponding pair of contacts connected to the opposite side of the supply circuit, two electro-

magnetically operated switch members connected with the armature terminals normally engaging the contacts on the same side of the supply circuit and movable into engagement with corresponding contacts on the opposite side of the supply circuit, a resistance connected between one armature terminal and one switch contact so as to be in series with the armature only when said switch contact is in its normal position, and a switch arranged to energize the actuating electromagnet of either of said switch members.

2. The combination with an electric motor and a supply circuit therefor, of means for reversing the motor comprising two contact members connected to one side of the supply circuit, switch members having contacts normally engaging said contact members, a resistance connected in series with the motor armature between said switch contacts, and an electromagnet for disengaging either of said switch members from its corresponding contact member and connecting it to the opposite side of the supply circuit, each magnet being energized through the contact of the switch operated by the other magnet in its normal position.

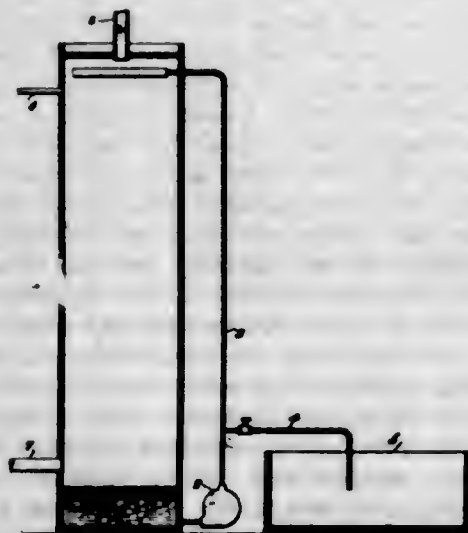
3. The combination with an electric motor, of means for reversing the same comprising two electromagnetic switches one for each direction of rotation of the motor, and connections whereby the counter electromotive force of the motor when caused to rotate in one direction by the actuation of one of said switches opposes the energization of the actuating winding which causes the motor to rotate in the opposite direction.

4. The combination with an electric motor and a supply circuit therefor, of means for reversing the motor comprising a pair of contact members connected to one side of the supply circuit, a corresponding pair of contacts connected to the opposite side of said circuit, two switch members connected with the armature terminals movable into engagement with one of each pair of said contacts and normally engaging the contacts on the same side of the supply circuit, and a resistance connected between one armature terminal and one switch contact so as to be in series with the armature only when said switch member is in its normal position.

5. The combination with an electric motor and a supply circuit therefor, of means for reversing the motor comprising two contact members connected to one side of said circuit, switch members having contacts normally engaging said contact members, a brake resistance connected in series with the motor armature between said switch contacts so as to be in a closed circuit with the motor armature when the contacts are in normal position, and a winding connected in the braking circuit for holding each switch member in its normal position.

(Claims 6 to 9 not printed in the Gazette.)

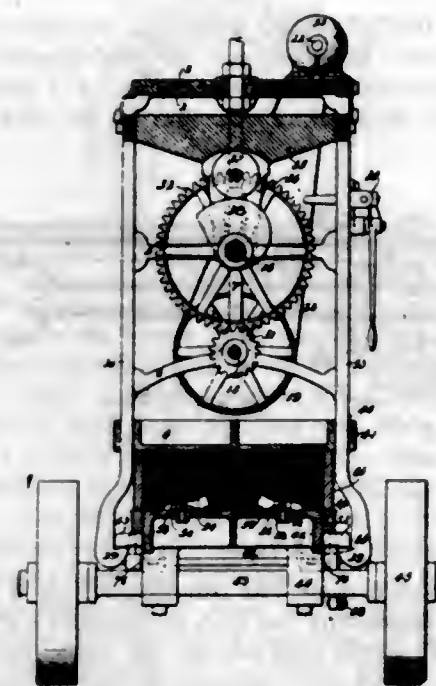
1,079,481. PROCESS OF PRODUCING WHITE LEAD. EDWIN EUSTON, St. Louis, Mo. Filed Dec. 7, 1912. Serial No. 735,505. (Cl. 134—75.)



The method of producing white lead consisting in treating approximately neutral lead acetate solution with car-

bon dioxide gas, and introducing therein basic lead acetate solution at a rate proportional to the precipitation of white lead.

1,079,482. MOLDING-MACHINE. JESSE A. FIELD, Dunkirk, N. Y. Filed Oct. 28, 1912. Serial No. 728,259. (Cl. 22—25.)



1. In an apparatus for making molds for metal castings, a mold-forming machine consisting of a frame having a lower plate, a shaft journaled in said frame, a cam on said shaft, compressing arms slidably mounted in said frame and connected by a top yoke adapted to engage the cam, said compressing arms having hooks at their lower ends in combination with a pattern, a plate on which said pattern is mounted, the hooked lower ends of the compressing arms being adapted to catch beneath the lower edge of said latter plate, and a flask containing molding sand interposed between the lower plate of the mold-forming machine and the pattern supporting plate.

2. In an apparatus of the class described, a mold-forming machine consisting of a frame, a main shaft journaled in said frame, a counter shaft journaled in said frame above the main shaft, intermeshing gears connecting said shafts, cams mounted on the counter shaft, compressing arms adapted to operatively engage a pattern at their lower ends, means connected to the arms and operatively engaging the cams to actuate the arms, and means for rotating said main shaft.

3. In an apparatus of the class described, a mold-forming machine consisting of a frame, a main shaft journaled in said frame, a counter shaft journaled in said frame above the main shaft, intermeshing gears connecting said shafts, cams mounted on the counter shaft, and compressing arms yoked together in pairs and adapted to operatively engage a pattern carrying element at their lower ends and to operatively engage the cams on the counter shaft at their upper ends.

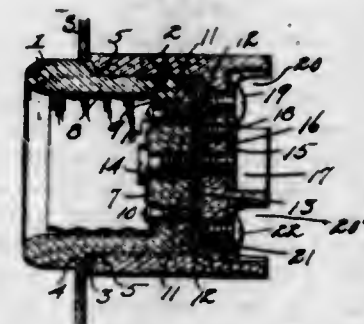
4. In an apparatus of the class described, a mold-forming machine consisting of a frame, a plurality of shafts journaled in said frame and connected to each other by intermeshing gears, cams mounted on one of said shafts, compressing arms adapted to operatively engage a pattern carrying element, and yokes connecting said arms in pairs and arranged in operative proximity to the cams.

5. In an apparatus of the class described, a mold-forming machine consisting of a frame, a plurality of shafts journaled in said frame and connected to each other by intermeshing gears, cams mounted on one of said shafts, compressing arms adapted to operatively engage a pattern carrying element, yokes connecting said arms in pairs, and having depending forked portions straddling one of said

shafts, and rollers contacting with the edges of the cams on said shafts.

(Claims 6 to 10 not printed in the Gazette.)

1,079,483. ELECTRICAL SIGN-RECEPTACLE. EDGAR H. FREEMAN, Trenton, N. J., assignor to E. H. Freeman Electric Company, Trenton, N. J., a Corporation of New Jersey. Filed May 17, 1913. Serial No. 768,235. (Cl. 173—339.)



1. A sign receptacle comprising a pair of telescoping cup members, wire terminal plates arranged upon one of the cup members, plug contacts carried by the other cup member, one of said plug contacts having a direct connection with one of the wire terminal plates, a contact member carried by one of said cup members adapted to be housed in the space between the said two cup members, and contact springs carried by the other of said cup members also adapted to be housed within the space between the two cup members for engagement with said contact member, said contact springs having electrical connection with the other wire terminal plate.

2. A sign receptacle comprising a pair of telescoping cup members, one of which carries both wire terminal plates, a combined center plug contact and connecting screw adjustably connected with one wire terminal plate, a screw shell contact arranged within one cup member, a contact ring connected with the screw shell contact and arranged upon the outside face of the bottom piece of one cup member, and contact springs fitted upon the inner face of the bottom piece of the other cup member and connected with the other wire terminal plate, said springs being adapted to metallically engage with said contact ring when the two members are united.

3. A sign receptacle comprising a pair of telescoping cup members, two wire terminal plates mounted upon the outer side of the bottom of the outer cup member, one of said wire terminal plates being of a forked construction, a pair of contact springs fitted to the inner face of said bottom piece of the cup member and having screw connections respectively with the separate arms of the forked wire terminal plate, a center plug contact screw extending through the bottoms of both cup members and engaging one wire terminal plate, a screw shell contact within the inner cup member, and a contact ring having screw connections with the shell contact and mounted upon the outer face of the bottom of the inner cup member.

1,079,484. FOLD-CUFF. HARRY FRIEDMANN, Baltimore, Md., assignor, by mesne assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y., a Corporation of New York. Filed July 27, 1912. Serial No. 711,809. (Cl. 2—79.)

A sleeve having a reversible soft fold-cuff attached thereto, said cuff having an outer ply presenting a folded edge adjacent to the sleeve and attached to the sleeve at a substantial distance from said folded-edge, whereby a free flap is formed along the outer side of the cuff adjacent to said sleeve, the attached portion of said cuff being provided with a pair of button-holes and the folded-over portion of said cuff being provided with a pair of button-holes at a greater distance from its edge than are the button-holes in the attached portion from the folded-edge

thereof, all of said button-holes being adapted to register with each other and to receive a single cuff-button where-



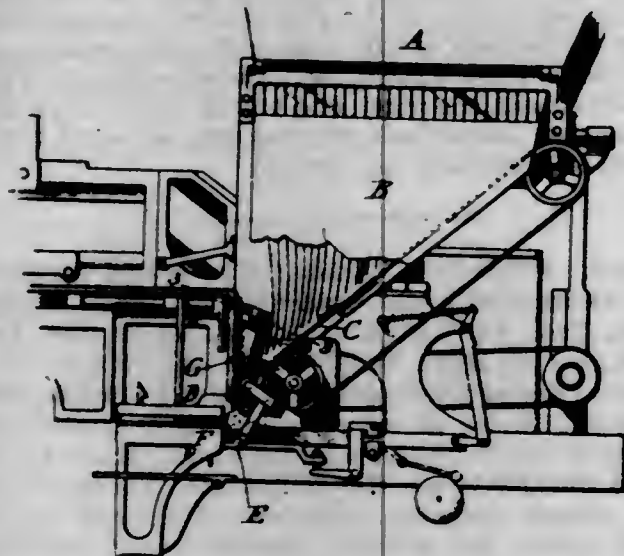
by said folded edge is covered by the edge of the fold-over portion when the cuff is folded outwardly.

1,079,485. SEWING-MACHINE. CHARLES T. E. GOULD, Chicago, Ill., assignor of one-third to Edward Hilker, Chicago, Ill. Filed Sept. 13, 1912. Serial No. 720,205. (Cl. 112—15.)



In a sewing machine, the combination of a revoluble shaft, a bobbin case held in the end of the shaft, a throat plate located above said case, a circular bobbin holder pivotally secured at its upper part to the under side of the throat plate, a pin extending across the center of said holder and projecting from the peripheral edge thereof, and a leaf spring secured at one end thereof to the under side of the throat plate and adapted for engagement at its free end with said pin to lock the holder in closed position substantially as described.

1,079,486. LINE-CASTING MACHINE. ALFRED W. F. GUEST, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 25, 1910. Serial No. 589,028. (Cl. 199—7.)

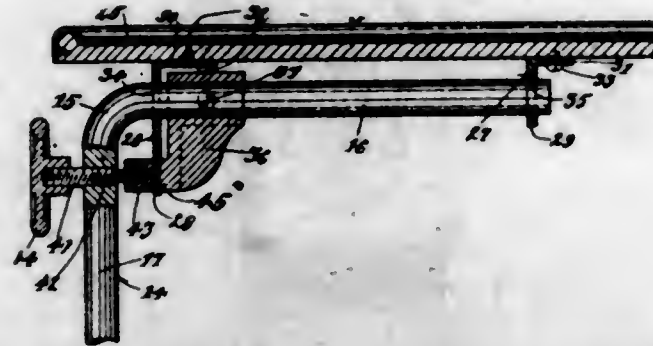


1. In a mechanism of the class described, a matrix retarding device comprising a plurality of springs, fixed at one end, and having their free ends terminating at different distances from the point of composition so as to act

individually or cumulatively in resisting the passage of the matrices, according to the thickness of the latter.

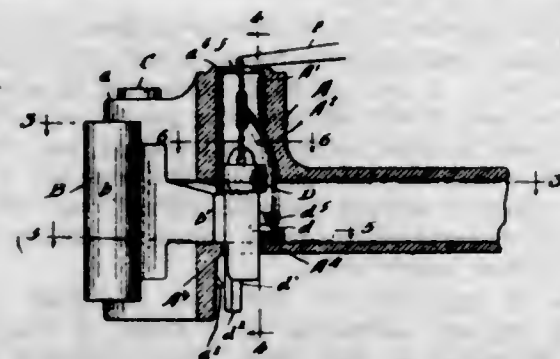
2. In a mechanism of the class described, a matrix retarding device comprising a plurality of superposed springs overlying the matrix path, and adapted to act individually or cumulatively so as to offer varying resistance to the passing type or matrices in proportion to the thickness of the latter.

1,079,487. ADJUSTABLE TABLE. FERDINAND HASENZAHN, Bellevue, Ky., assignor to The Western Surgical Supply Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 16, 1912. Serial No. 684,127. (Cl. 45—110.)



In an adjustable table the combination of a supporting rod having a depending leg and a laterally extending leg rigid with each other and having an angle therebetween, a table-top, a clamp-plate secured to and depending from said table-top and having a hole therein through which said last-named leg extends and a clamp-face below said hole, a pivot-plate secured to and depending from said table-top in which the outer end of said last-named leg is pivoted, said clamp-plate being located closely adjacent to the angle of said supporting rod, a clamp-block secured to said last-named leg and having a clamp-face between said clamp-plate and pivot-plate and coacting with said clamp-face on said clamp-plate, and a clamp-screw having threaded connection with said depending leg closely adjacent to the angle of said supporting rod, and constructed and arranged for clamping said table-top and rod together in the angle of said rod and for directing the clamping force between said legs to said angle, substantially as described.

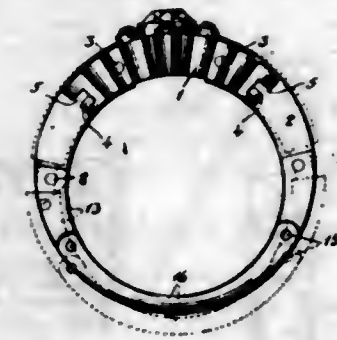
1,079,488. CAR-COUPLING. GUSTAF A. HERMANSON, Chicago, Ill., assignor, by mesne assignments, to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 5, 1907. Serial No. 395,996. (Cl. 213—10.)



In a car coupler, the combination with a draw head having an opening in its upper part, said opening being formed with a bearing at its upper end and a cam face below said bearing located at the rear of the head, of a lock member comprising a pin having an enlarged head axially rotatable and vertically slidable in said bearing and confined therein, said pin being provided with an integral, laterally extending arm having a depending finger carried at its free end, said arm being curved intermediate the pin and the finger and adapted to cooperate with said cam face, whereby the latter swings the lock about its axis when moved vertically, and a knuckle having a sur-

face with which said shoulder engages and formed with a slot between the walls of which said depending finger is confined, substantially as specified.

1,079,489. EXPANSIBLE FINGER-RING. LINDLEY M. HIGHAM, Brooklyn, N. Y. Filed Dec. 9, 1911. Serial No. 664,777. (Cl. 63—16.)

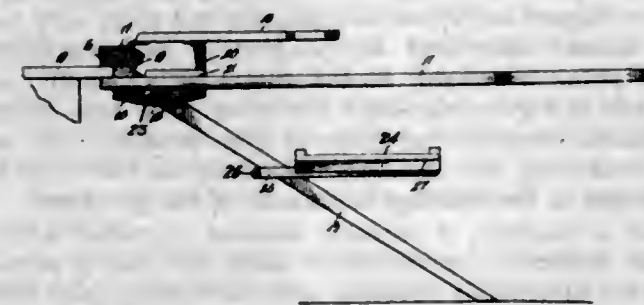


1. An expansible finger ring comprising a head, oppositely disposed tubular head sections pivotally attached to said head, a pair of base sections each normally abutting against one of said head sections and each pivotally attached to a connecting section, a draw-bar inclosed and concealed within each abutting base and head section and attached to one of said sections, and a spring engaging the other section and a draw-bar so as to resist separation of the normally abutting sections.

2. An expansible finger ring comprising a head, oppositely disposed hollow head sections attached to said head so as to have play in the plane of the ring with respect thereto and provided with lug and slot, means to limit the extent of said play, a pair of base sections normally abutting against said head sections and pivotally attached to a connecting section, a draw-bar attached to each base section extending into each hollow head section, and a spring surrounding said draw-bar engaged with one end of said draw-bar and with an internal shoulder whereby separation of the normally abutting sections is resisted.

3. An expansible finger ring comprising a head, a pair of sections on each side of said head to one only of which a draw-bar is attached, said draw-bar extending into the other section, each pair being pivotally joined at one end to said head so as to have play in the plane of the ring and at the other end pivotally joined to a connecting piece, and a spring engaged with said draw-bar and with the section to which said draw-bar is not attached.

1,079,490. IRONING-TABLE. WILLIAM HOSEY, Successor, Ark. Filed Apr. 3, 1912. Serial No. 688,207. (Cl. 68—10.)



1. In a device of the class described, the combination with an ironing board, a supporting member pivotally secured thereto adjacent one end thereof, an auxiliary board hingedly secured to said supporting member, a block hingedly secured to said auxiliary board, an upstanding member on said ironing-board, the said block in combination with said upstanding member adapted to hold said auxiliary board when in an open position and lock the said supporting leg when in a closed position.

2. In a device of the class described, the combination with an ironing board-member, a supporting member pivotally secured thereto, an auxiliary board member pivotally secured to one end of said supporting member, a block fixed on one of said board members, and an adjust-

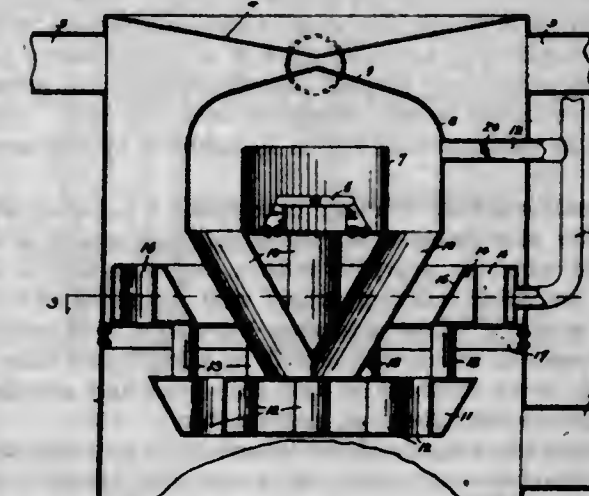
able support on the other board member to engage said block when in closed position to thereby hold the board member and lock the supporting member when in such closed position.

3. In a device of the class described, the combination with an ironing board, a supporting member pivotally secured thereto, an auxiliary board member, a hinge connecting the board to one end of said supporting member, a fixed block on said ironing board, a pivoted support on said auxiliary member, said pivoted support lying between the hinge and fixed block when the device is in folded or closed position to thereby hold the board member and lock the supporting member when in such closed position.

4. In a device of the class described, the combination with an ironing board having a recess formed in one end thereof, a supporting member pivotally mounted within said recess, one end of said supporting member forming a gripping jaw, a block secured to the outer face of said gripping jaw, an auxiliary board hingedly secured to said block, a supporting block hingedly secured to said auxiliary board, a transversely extending block mounted on said ironing board, the said supporting block adapted to hold said auxiliary board in an open position and adapted to lie between the inner faces of said blocks when in a folded position, thereby forming a lock to prevent the swinging movement of said supporting member when in a closed position, substantially as and for the purpose set forth.

5. In a device of the class described, an ironing board, a supporting member pivoted thereto, a first block secured to said supporting member, a second block mounted on said ironing board, the first block having one end face extending parallel with said board when in open position, the opposite end face of said block being at right angles to said board when in closed position, an auxiliary board hinged to said first mentioned block, a supporting block hinged to said auxiliary board, the inner face of the second block being at right angles to the said ironing board, and the said supporting block adapted to rest between the first and second blocks when in folded position to prevent swinging movement of said supporting member, substantially as and for the purpose described.

1,079,491. HOT-AIR FURNACE. JAMES B. HUCKLE and WILLIAM E. RIENHART, Columbus, Ohio. Filed July 19, 1913. Serial No. 779,941. (Cl. 126—116.)

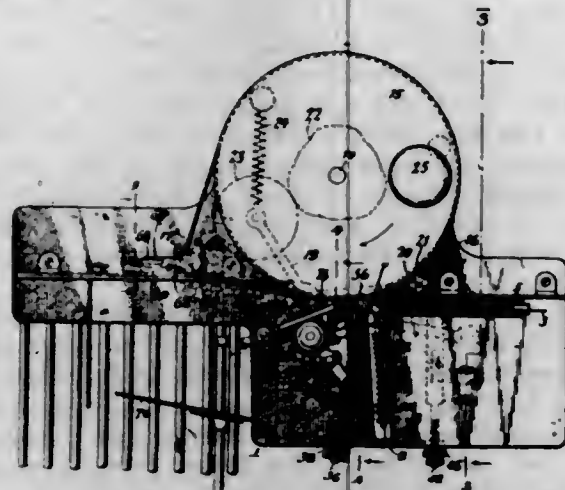


1. A hot air furnace comprising a casing, a combustion chamber in the top of said casing, pipes leading downward from the top of said chamber, a drum below the level of the bottom of said combustion chamber, said pipes converging toward each other and entering said drum at approximately its center, a second drum above said first drum, conduits connecting said drums, an outlet pipe connected to said second drum, and means for introducing air to be heated beneath said first drum.

2. A hot-air furnace comprising a casing, an inwardly extending cone forming the top of said casing, a combustion chamber in the top of said casing, an upwardly extending cone forming the top of said chamber and lying directly beneath said casing top, pipes leading downward

from the top of said casing, a drum below the level of the bottom of said combustion chamber, said pipes converging toward each other and entering said drum at approximately its center, short pipe sections extending through said drum to permit the free passage of air, a second drum above said first drum, conduits from the periphery of said first drum leading to said second drum, short pipe sections extending through said second drum to permit the free passage of air, an outlet pipe connected to said second drum, and means for introducing air beneath said first drum.

1,079,492. MAIL-MARKING MACHINE. AUGUST LELFIELD, Silver Creek, N. Y., assignor to Columbia Postal Supply Company, Silver Creek, N. Y., a Corporation of New York. Filed Aug. 9, 1912. Serial No. 714,192. (Cl. 101-82.)



1. A mail marking machine comprising a table adapted to support the pieces of mail matter, a printing mechanism, and means for feeding the pieces of mail matter successively past said printing mechanism comprising a driving wheel arranged adjacent to said printing mechanism, front and rear pulleys arranged in front and in rear of said printing mechanism and driving wheel, a feeding belt passing around said pulleys and also engaging its operative part with one side of said driving wheel and its inoperative part with the other side of said wheel and means for moving said rear pulley intermittently toward and from the pieces of mail matter.

2. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop lug, and a letter controlled stop lever pivoted on said wheel and provided with an opening which receives said lug and with a shoulder in said opening which is adapted to engage said stop lug.

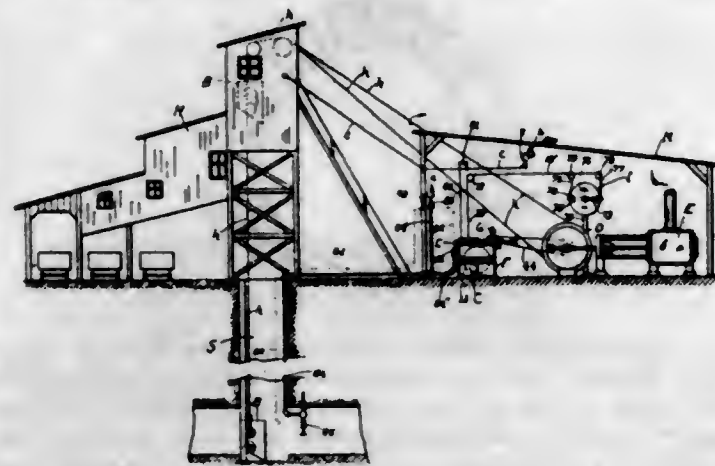
3. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop lug, a stop lever pivoted on said printing wheel and provided with an opening which receives said stop lug and a stop shoulder in said opening which is adapted to engage said stop lug, and a trip lever mounted on said stop lever and adapted to be engaged by the pieces of mail matter.

4. A mail marking machine comprising a printing wheel, a normally stationary arbor on which said wheel is journaled and which is provided with a stop lug, a stop lever pivoted on said printing wheel and provided with an opening which receives said stop lug and a stop shoulder in said opening which is adapted to engage said stop lug, a trip lever mounted on said stop lever and adapted to be engaged by the pieces of mail matter and a spring connected with said trip lever and operating to hold the same and said stop lever yieldingly in an operative position.

5. A mail marking machine comprising a printing mechanism, a feed mechanism for moving the pieces of mail matter past said printing mechanism and having a feed belt extending past said printing mechanism, and a retaining device for holding the mail matter in engagement with said belt in front of the printing mechanism comprising a guide having upper and lower longitudinal guide

bars and a vertical bar connecting the rear ends of the longitudinal bars, a rock arm to the free end of which said guide is pivoted, and a spring for moving said arm and guide toward said belt.

1,079,493. MINE-HOIST RECORDER. ORIZ W. INGELS, Carlyle, Ill. Filed Jan. 16, 1913. Serial No. 742,447. (Cl. 234-1.)



1. In a mine-hoist recorder, a rotatable drum operated chronometrically and having an axial advance simultaneous with its rotary movement and provided with a recording surface divided into a series of spiral spaces formed continuous about the drum periphery, and having a pitch conformable to the rate of axial advance of the drum, a series of markers disposed across the axis of the drum and adapted to impress a record in the spiral spaces aforesaid, the record marks having different lengths depending on the length of contact of the markers with the surface of the drum.

2. In the mine-hoist, a rotatable cylindrical member having an axial advance and operated chronometrically and provided with a peripheral writing surface, a hoisting drum rotatable alternately in opposite directions, suitable skips hoisted and lowered by said drum, a spindle governor actuated by the drum, a marker in coöperative relation with said writing surface, and means interposed between the marker and governor for actuating the former with a rotation of the governor in either direction.

3. In a mine-hoist, a rotatable chronometrically operated member provided with a peripheral writing surface and having an axial advance simultaneous with its rotary movement, a series of spring-controlled reciprocating stylus in coöperative relation with the said surface, a hoisting drum rotating alternately in opposite directions, a spindle-governor actuated by the drum, a drive-shaft for the governor, a stylus-depressing lever adapted to oscillate in a plane to engage the stylus and depress the same, and having a lateral movement independent of said oscillation in the plane aforesaid, means interposed between said lever and the governor-shaft for controlling said lateral oscillations whereby the lever is first brought over one stylus and then over another depending on the direction of rotation of the hoisting drum and of the governor.

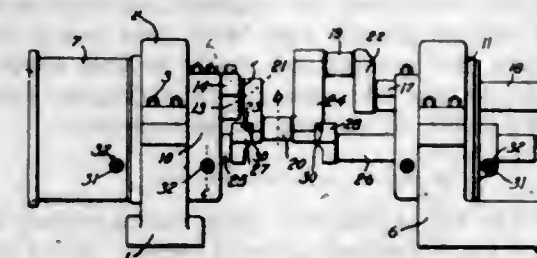
4. In a recorder, a movable member provided with a writing surface, a governor, a shaft for the governor, means for alternately rotating said shaft in opposite directions, a member on the shaft having a spiral groove terminating in circular formations, a lever pivoted at one end and provided with a pin traversing said groove first in one direction and then the other, depending on the direction of rotation of the shaft, a series of reciprocating spring-controlled stylus positioned in proximity to the writing surface of the movable member, a vertically oscillating stylus-depressing lever for engaging the upper ends of the stylus, said lever having a lateral oscillation independent of its oscillation to and from the stylus, a weighted extension pivoted to one end of the stylus-depressing lever, a spring-controlled rock shaft, an arm on the shaft engaging the spindle of the governor, an arm on the shaft extending in the opposite direction from the arm aforesaid, a link connecting the last named arm with the lever ex-

tension, a pin on the stylus-depressing lever positioned to be struck by the extension upon release of the latter with a rotation of the rock-shaft in one direction, and a link movably coupled to the stylus-operating lever and to the lever engaging the grooved member on the governor-shaft, the parts operating substantially as, and for the purpose set forth.

5. In combination with a movable member presenting a writing surface, a hoisting drum adapted to be rotated alternately in opposite directions, an indicator provided with a movable member responsive to the rotation of the drum, a stylus or marker for impinging on the writing surface of the movable member, and means between the stylus and indicator member for actuating the stylus upon the approach of the limit of rotation of the drum in either direction.

[Claims 6 to 10 not printed in the Gazette.]

1,079,494. LATHE ATTACHMENT. RICHARD JANTSCH, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio. Filed July 12, 1913. Serial No. 778,741. (Cl. 82-9.)



1. A lathe-attachment comprising, a head-end bearing adapted to be secured to a lathe-bed in front of the face plate of the lathe, a hollow head-end carrier journaled therein, a hollow sleeve projecting from the head-end carrier toward said face plate and adapted to be secured thereto, a radially slotted projection on the face of said head-end carrier, a half-box resting on the floor of said slot and having such radial dimension that the axis of its bore will position it a distance from the axis of the carrier equal to the throw of the crank to be dealt with, a half-box disposed in said slot to form a cap for the first mentioned half-box, clamp-bolts to secure said half-boxes and urge them toward each other, bearings carried by said carrier eccentric to the axis of the carrier, a driving-bar mounted to slide in said bearings and splined thereto, jaws carried by the end of said driving-bar, a binder mounted in said carrier and adapted to lock therein said driving-bar in adjusted position, clamping means carried by said jaws and adapted to engage the sides of the cheek of a crank whose shaft engages said half-boxes, a tail-end bearing in line with the head-end bearing, a hollow carrier journaled therein, half-boxes and clamping means mounted in said tail-end carrier, a driving-bar with jaws and clamping means mounted in the tail-end carrier and adapted to engage a second cheek of a crank mounted in the first-mentioned carrier, and a binder carried by the tail-end carrier and adapted to lock the second driving-bar thereto in adjusted position, combined substantially as set forth.

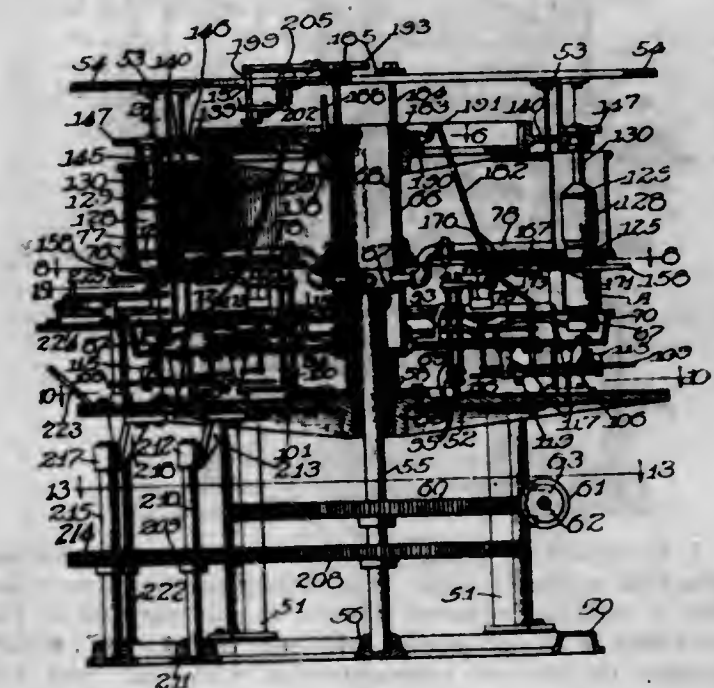
2. A lathe-attachment comprising, a head-end bearing adapted to be secured to a lathe-bed in front of the face plate of the lathe, a hollow head-end carrier journaled therein, a hollow sleeve projecting from the head-end carrier toward said face plate and adapted to be secured thereto, a radially slotted projection on the face of said head-end carrier, a half-box resting on the floor of said slot and having such radial dimension that the axis of its bore will position it a distance from the axis of the carrier equal to the throw of the crank to be dealt with, a half-box disposed in said slot to form a cap for the first mentioned half-box, clamp-bolts to secure said half-boxes and urge them toward each other, bearings carried by said carrier eccentric to the axis of the carrier, a driving-bar mounted to slide in said bearings and splined thereto, jaws carried by the end of said driving-bar, a binder mounted in said carrier and adapted to lock therein said

driving-bar in adjusted position, clamping means carried by said jaws and adapted to engage the sides of the cheek of a crank whose shaft engages said half-boxes, a tail-end bearing in line with the head-end bearing, a hollow carrier journaled therein, half-boxes and clamping means mounted in said tail-end carrier, a driving-bar with jaws and clamping means mounted in the tail-end carrier and adapted to engage a second cheek of a crank mounted in the first-mentioned carrier, a binder carried by the tail-end carrier and adapted to lock the second driving-bar thereto in adjusted position, and a separable half-bushing in each of said half-boxes, combined substantially as set forth.

3. In a lathe attachment the combination of carriers adapted to be secured to the bed of the lathe and carry and rotate therein a crank with its crank pin concentric with the axis of the carriers, a driving-bar mounted in each carrier parallel with the axis thereof and arranged for endwise sliding motion, binders mounted on the carriers to lock the driving-bar in adjusted position, jaws carried by the inner ends of driving-bars and adapted to straddle the cheeks of a crank, and clamping and adjusting means carried by said jaws to engage said cheeks, substantially as set forth.

4. A driving-bar for a crank lathe comprising, a single bar-portion adapted for splined engagement with a carrier, a pair of coöperating jaws carried by one end of said single bar-portion and adapted to straddle the cheek of a crank, and clamping means carried by said jaws to serve in adjusting and gripping such crank-cheek, combined substantially as set forth.

1,079,495. CAN-FILLING APPARATUS. FREDRICK LESTER JEFFERIES, Granite City, Ill., and WILLIAM SPAIN, St. Louis, Mo., assignors to Corn Products Refining Company, a Corporation of New Jersey. Filed Feb. 23, 1911. Serial No. 610,291. (Cl. 73-183.)



1. In apparatus of the character described, the combination with a movable support for a receptacle, of a scale which moves with said support and is provided with means adapted to engage the receptacle, lift it from the support and sustain it during the weighing operation.

2. In apparatus of the character described, the combination with a movable support for a receptacle, of a scale which moves with said support and is provided with means adapted to project through the said support, lift the receptacle from said support, and sustain it during the weighing operation.

3. In apparatus of the character described, the combination with a support for a receptacle having a flat surface over which the can may be slid, of a scale provided with means adapted to project through the said support, engage and lift the receptacle from said support, and sustain it during the weighing operation, and means for automatically depressing said engaging means so that it does not

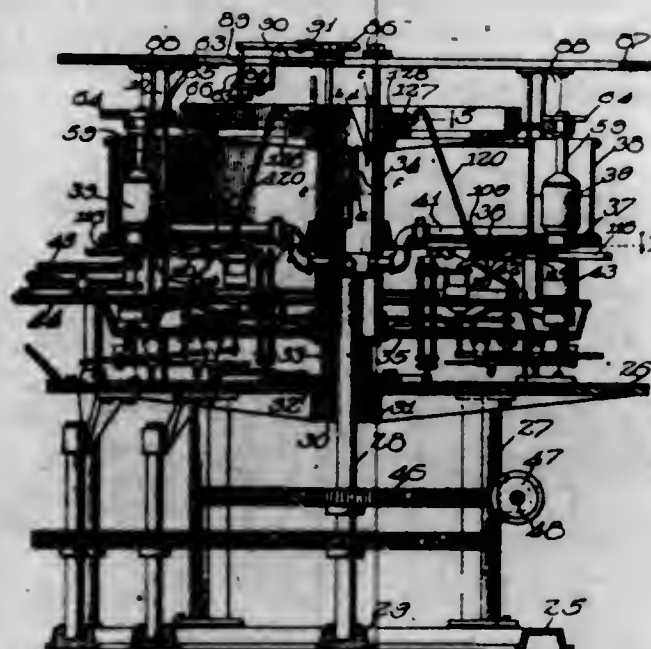
interfere with the movement of the receptacle across said support.

4. In apparatus of the character described, the combination with a movable support for a receptacle, of a scale which moves with said support and is provided with means adapted to project through the said support, engage and lift the receptacle from said support, and sustain it during the weighing operation, means for automatically depressing said engaging means so that it does not interfere with the movement of the receptacle across said support, and means for feeding receptacles on said support when said engaging means is so depressed.

5. In apparatus of the character described, the combination with a movable support for a receptacle, of a scale which moves with said support and is provided with means adapted to project through the said support, engage and lift the receptacle from said support, and sustain it during the weighing operation, means for automatically depressing said engaging means so that it does not interfere with the movement of the receptacle across said support, and means for removing the receptacles from said support when said engaging means is so depressed.

[Claims 6 to 79 not printed in the Gazette.]

1,079,496. FILLING APPARATUS. FREDRICK L. JEFFRIES, Granite City, Ill., and WILLIAM SPAIN, St. Louis, Mo., assignors to Corn Products Refining Company, a Corporation of New Jersey. Original application filed Feb. 23, 1911, Serial No. 610,291. Divided and this application filed Nov. 6, 1911. Serial No. 658,655. (Cl. 226-9.)



1. In apparatus of the character described, the combination with a supply tank, of a measuring vessel provided with a rotatable element adapted in one position to put the vessel in communication with said tank and in another position to shut off communication with said tank and discharge the contents of said vessel therefrom, a movable support for the above specified apparatus, a stationary member, and means associated with said rotatable element adapted to be engaged by said stationary member so that said element is rotated by said member.

2. In apparatus of the character described, a volume filling mechanism comprising a conical pivot member having a filling port and a discharge port, a measuring vessel which is rotatably supported in upright position upon said pivot member and has its bottom perforated so as in one position to receive liquid from said filling port and in another position to discharge its contents through said discharge port, the other port in each case being closed, means for rotating said vessel, and a spring to hold said vessel in contact with said pivot member.

3. In apparatus of the character described, a filling mechanism comprising a supply tank, a vessel having a conical bottom, a conical pivot member which projects into said supply tank and on which said vessel is mounted,

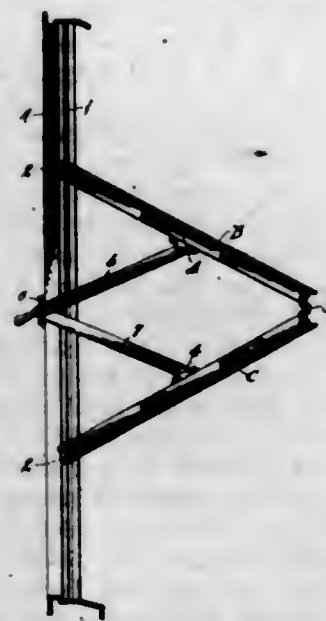
said vessel and pivot member being formed with ports arranged so that in one position of the vessel it is in communication with the supply tank and in another is provided with a discharge, and a spring adapted to keep the vessel in contact with said pivot.

4. In apparatus of the character described, a filling mechanism comprising a supply tank, a vessel having a conical bottom, a conical pivot member which projects into said supply tank and on which said vessel is mounted, said vessel and pivot member being formed with ports arranged so that in one position of the vessel it is in communication with the supply tank and in another is provided with a discharge, a stud on said pivot member, an abutment on said stud, and a spring interposed between the abutment and said vessel for the purpose described.

5. In apparatus of the character described, the combination with a supply tank adapted to contain a liquid, of a pivot member in said tank which projects upward from the bottom thereof, a measuring vessel rotatably mounted on said pivot and immersed in the liquid in said tank, the measuring vessel and pivot member being formed with ports arranged so that in one position of the measuring vessel it is in communication with said tank and in another position discharges its contents through said pivot member, a hollow spindle rigid with said vessel and projecting above the level of the liquid in said supply tank and open at the top, and means for rotating the spindle.

[Claims 6 to 35 not printed in the Gazette.]

1,079,497. SASH HANGING AND OPERATING MECHANISM. JULIUS KAHN, Detroit, Mich. Filed Nov. 18, 1912. Serial No. 731,927. (Cl. 20-42.)



1. The combination of window sashes having their meeting rails hinged together, means for pivotally supporting and guiding the opposite ends of said sashes, and supporting means having a fixed pivotal support and pivotally attached to the sashes intermediate their ends.

2. The combination of a window frame, sashes in said frame pivotally connected at their adjacent ends, means for pivotally attaching the sashes at their opposite ends to said frame and permitting a free sliding movement thereon, and means pivotally attached to the frame intermediate the ends thereof and pivotally connected to each sash intermediate the ends of said sash.

3. The combination of a window frame having guides, sash in said frame pivotally connected at their adjacent ends and free to slide along said guides at their opposite ends, and members pivotally attached at one end to the sashes and having a common fixed pivotal attachment to the frame at their opposite ends.

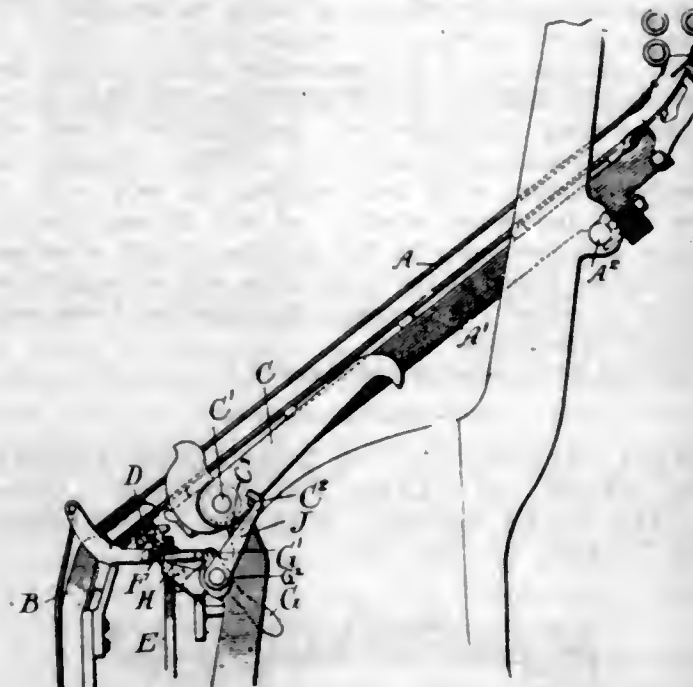
4. The combination of a window frame, sashes in said frame, the sashes arranged in superposed relation and pivotally connected at their adjacent ends, means for pivotally connecting the upper end of the upper sash and the lower end of the lower sash to said frame and guiding the same to slide vertically thereon, and members having a

fixed pivotal attachment to the frame midway between the upper and lower ends thereof and pivotally connected to said sashes between their point of attachment to the frame and their pivotally connected ends.

5. The combination of a window frame having a guide slot, sashes in said frame pivotally connected at their adjacent ends, means on the opposite ends of said sashes to engage the guide slot and turn therein, links pivotally attached to the sashes at one end and having a common fixed pivotal attachment to the frame at their opposite ends located in the plane of the pivotally connected ends of the sashes.

[Claims 6 to 8 not printed in the Gazette.]

1,079,498. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 12, 1912. Serial No. 703,118. (Cl. 199-7.)



1. In a typographical machine, the combination of a removable magazine provided with escapements, actuating devices connected to the escapements, and further means to prevent the removal of the magazine until said actuating devices are disconnected from the escapements.

2. In a typographical machine, the combination of a removable magazine provided with escapements, means for moving the magazine from its operative position to permit its removal, actuating devices connected to the escapements, and further mechanism for locking the magazine-moving means against action when the actuating devices are connected to the escapements.

3. In a typographical machine, the combination of a removable magazine provided with escapements, escapement actuating devices, and means for connecting the escapements and their actuating devices and simultaneously locking the magazine against removal.

4. In a typographical machine, the combination of a removable magazine provided with escapements, means for locking the magazine against removal, escapement actuating devices, means for connecting the escapements and their actuating devices, and connections between the magazine locking means and the said connecting means, whereby the removal of the magazine will be prevented when the escapements are connected to their actuating devices.

5. In a typographical machine, the combination of a removable magazine provided with escapements, means for locking the magazine against removal, actuating devices connected to the escapements, and mechanism for simultaneously effecting the disconnection of said actuating devices and the unlocking of the magazine.

[Claims 6 to 10 not printed in the Gazette.]

196 O. G.—57

1,079,499. BOILER-FLUE CLEANER. JOHN T. LEMON, Columbus, Ohio. Filed May 13, 1912. Serial No. 696,877. (Cl. 122-390.)



1. A boiler flue cleaner comprising a nozzle mounted to have a universal movement, and a guide element carrying said nozzle of a form to confine the working area of said nozzle to the area covered by the boiler flues.

2. A boiler flue cleaner comprising a nozzle universally mounted to swing within a confined area, and a guide element for said nozzle whereby the nozzle is confined to movement over the area covered by the boiler flues by following the contour of said guide element.

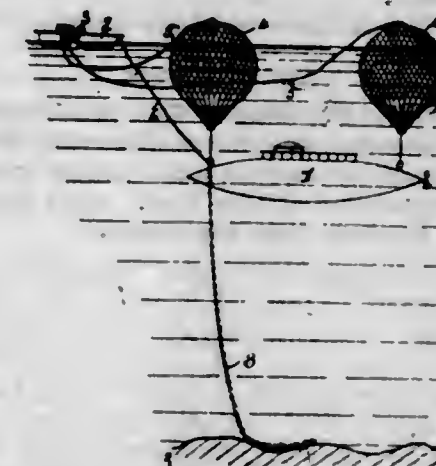
3. A boiler flue cleaner comprising a nozzle universally mounted to swing within a confined area, a guide element for said nozzle whereby the nozzle is confined to movement over the area covered by the boiler flues, by following the contour of said guide element and formations on said element for guiding said nozzle to irregularly spaced boiler flues.

4. A boiler flue cleaner comprising a nozzle universally mounted to swing within a confined area, and a guide element constructed to guide said nozzle to irregularly spaced boiler flues.

5. A boiler flue cleaner comprising, in combination with boiler furnace structure, a casting having a flared aperture therein, a nozzle element for insertion through said aperture and having a universal movement therein, said casting being formed to confine the working area of said nozzle element to just the area covered by said boiler flues.

[Claims 6 and 7 not printed in the Gazette.]

1,079,500. APPARATUS FOR RAISING SUBMERGED BODIES. GEORGES LESOURD, Paris, France. Filed June 6, 1911. Serial No. 631,643. (Cl. 114-54.)



1. An apparatus for raising submerged bodies comprising an inflatable balloon, a source of fluid pressure, a tubular connection to lead pressure to said balloon when submerged, a connection from said balloon to said submerged body, means upon said balloon for automatically equalizing the internal and external pressures on the balloon and a heavy guide rope for retarding the ascent of the apparatus.

2. An apparatus for raising submerged bodies, comprising a plurality of inflatable balloons, a source of fluid pressure, a connection from said source of pressure to each of

said balloons, an inner water balloon in each of said inflatable balloons to automatically equalize the internal and external pressures on the balloons, and a heavy guide rope connected with one of said inflatable balloons for retarding the ascent of the apparatus.

1,079,501. TRACTION DEVICE. BERTHOLD LINDEMANN, Los Angeles, Cal., assignor to Los Angeles Trust & Savings Bank, trustee, Los Angeles, Cal., a Corporation of California. Filed Nov. 25, 1912. Serial No. 733,241. (Cl. 105-142.)



1. In combination, a track and a traction wheel thereon, one of said members having a groove therein and the other having a tread portion adapted to snugly fit into said groove, the tread portion being composed of relatively pliable material.

2. In combination, a track and a traction wheel thereon, one of said members having a groove therein and the other having a tread portion adapted to snugly fit into said groove, the groove portion being composed of relatively hard material, and the tread portion being composed of relatively pliable resilient material.

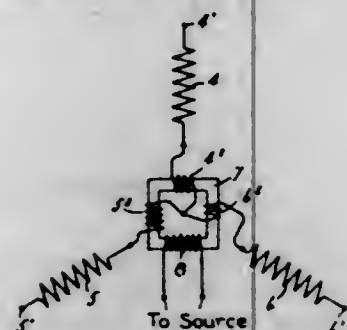
3. In combination, a relatively hard rail having an upper longitudinal groove, and a traction wheel having a tread portion of relatively pliable material fitting into the groove and simultaneously contacting with the sides and bottom of said groove.

4. In combination, a metallic rail having an upper longitudinal groove, and a traction wheel having a tread portion of rubber fitting into the groove and simultaneously contacting with the sides and bottom of said groove.

5. In combination, a metallic rail having an upper longitudinal groove, and a traction wheel having a removable tread portion of rubber fitting into the groove and simultaneously contacting with the sides and bottom of said groove.

[Claims 6 to 9 not printed in the Gazette.]

1,079,502. DYNAMO-ELECTRIC MACHINE. WILLY LINKE, Westend, and LUDWIG DREYFUS, Nieder-Schönhausen, Germany, assignors to General Electric Company, a Corporation of New York. Filed June 23, 1911. Serial No. 634,942. (Cl. 172-238.)



1. In combination, a polyphase alternating current dynamo electric machine having a winding for each phase and generating dissymmetrical electromotive forces, and electromotive force producing means in the circuits of said windings forming seats of induced electromotive forces of phases and magnitudes adapted to make the terminal electromotive forces substantially symmetrical.

2. In combination, a polyphase alternating current dynamo electric machine having a winding for each phase and generating dissymmetrical electromotive forces, and means for producing in the circuits of said windings electromotive forces of the same phase and of magnitudes adapted to make the terminal electromotive forces substantially symmetrical.

3. In combination, a polyphase alternating current dynamo electric machine having a winding for each phase and generating dissymmetrical electromotive forces, auxiliary electromotive force producing windings in series with said windings of said dynamo electric machine forming seats of induced electromotive forces adapted to make the terminal electromotive forces substantially symmetrical.

4. In combination, a polyphase alternating current dynamo electric machine having a winding for each phase and generating dissymmetrical electromotive forces, auxiliary electromotive force producing windings in series with said windings of said dynamo electric machine forming seats of induced electromotive forces of the same phase and magnitudes adapted to make the terminal electromotive forces substantially symmetrical.

5. In combination, a polyphase alternating current dynamo electric machine having a winding for each phase and generating dissymmetrical electromotive forces, an iron core, a winding on said core, auxiliary windings in inductive relation with said winding on said core, in series with the phase windings of said dynamo electric machine and producing in the circuits of said windings electromotive forces of the same phase and of magnitudes adapted to render the terminal electromotive forces substantially symmetrical.

[Claim 6 not printed in the Gazette.]

1,079,503. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OF ULTRA-VIOLET RAYS. OSKAR LINKER, Leipzig, Germany. Filed June 3, 1913. Serial No. 771,425. (Cl. 210-20.)



1. An apparatus of the character described consisting of a lamp emitting ultra-violet rays and having an opening extending the length thereof, and a liquid conveying conduit passed through the opening and extending beyond the ends of the lamp and diverging from the electrodes thereof, said conduit being out of contact with the wall of the opening throughout its entire length.

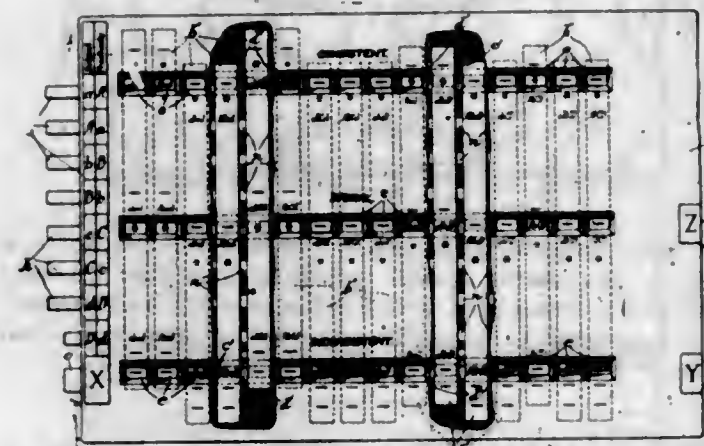
2. An apparatus of the character described consisting of an elongated lamp emitting ultra-violet rays and having an opening extending centrally therethrough, and an integral liquid conveying pipe of substantially uniform diameter passing through the opening in the lamp and trained over the outer surface thereof, said pipe being out of contact with the walls of said lamp throughout its entire length.

3. An apparatus of the character described comprising an elongated lamp adapted to emit ultra-violet rays and having an opening extended centrally therethrough, and an integral liquid conveying pipe of substantially uniform diameter passing through the opening in the lamp and trained over the outer surface thereof, said conduit being out of contact with the walls of said lamp, the opposite ends of the opening in the lamp being sealed about said pipe to provide a dead air space between the wall of the lamp and said pipe.

1,079,504. LOGIC MACHINE. CHARLES P. R. MACAULAY, Chicago, Ill. Filed July 18, 1910. Serial No. 572,550. (Cl. 35-12.)

1. A plurality of character strips each having symbols thereupon to represent terms of propositions; a casing

in which these character strips are slidably mounted and in which the character strips are free to be moved in opposite directions by the force of gravity acting thereupon when the casing is suitably tilted; and means for restricting movement of selected character strips while permitting other character strips to slide when the casing is tilted, said casing having openings therein at each of which a symbol appears and which symbols are changed by manipulation of the casing to cause the character strips to slide.



2. A plurality of character strips each having symbols thereupon to represent terms of propositions; a casing in which these character strips are slidably mounted and in which the character strips are free to be moved in opposite directions by the force of gravity acting thereupon when the casing is suitably tilted; means for restricting movement of selected character strips while permitting other character strips to slide when the casing is tilted, said casing having openings therein at each of which a symbol appears and which symbols are changed by manipulation of the casing to cause the character strips to slide; and means for differentiating groups of character strips and the symbols borne thereby.

3. A device for exhibiting logical operations, including a plurality of movably mounted character strips carrying symbols related in pairs; means for restricting the movements of said character strips to effect different combinations of said symbols, each combination containing one, but not both, of the members of every pair of related symbols; and means for applying, collectively, to the character strips carrying combinations containing any given symbol, restrictions against operation.

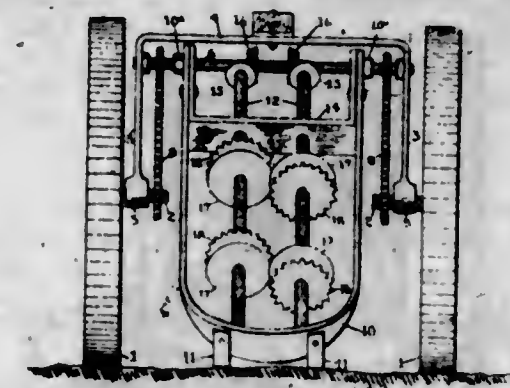
4. In a device for ascertaining propositions of the same logical import, a plurality of movably mounted character strips carrying a series of symbols related in pairs; a second plurality of movably mounted character strips carrying a second series of the same symbols, in which each symbol of the first series is transposed with its related symbol; means for applying restrictions against operation to character strips and a table formed of the two series, so that each symbol of one series is collocated with its related symbol in the other series.

1,079,505. STALK-CUTTER. WILLIAM A. MARTIN, Waxahachie, Tex., assignor of one-third to John F. Phillips, one-third to George L. Griffin, and one-sixth to Thomas B. Criddle, Waxahachie, Tex. Filed June 3, 1913. Serial No. 771,550. (Cl. 55-62.)

1. A cutting unit for a stalk cutter comprising a pair of disk shaped knives adapted to rotate oppositely about parallel axes, their adjacent peripheral portions being overlapped, and a toothed disk mounted adjacent to each of said knives adapted to rotate about the same axis.

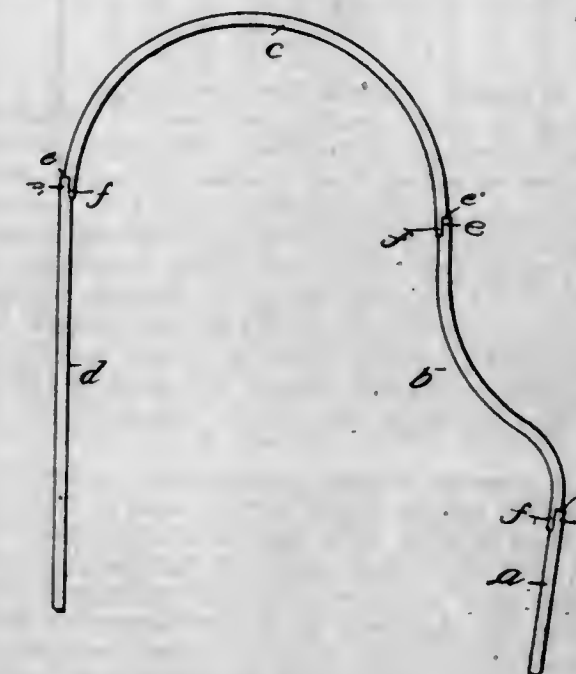
2. In a stalk cutter, the combination with a pair of parallel shafts, of a frame in which said shafts are mounted, means furnishing a pivotal support for one extremity of said frame, means adapted to communicate an opposite rotation to said shafts, a pair of disk shaped

knives adjacently mounted upon said shafts, their adjacent peripheral portions being overlapped, and a pair of



toothed disks mounted upon said shafts one adjacent to each of said knives.

1,079,506. RIM FOR GRAND PIANOS. JULIAN T. MAYER, New York, N. Y., assignor to J. & C. Fischer, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1910. Serial No. 552,450. (Cl. 84-52.)



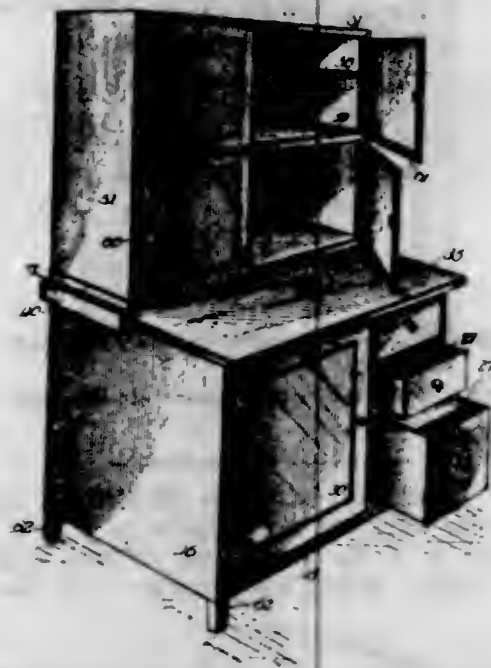
As an article of manufacture, a grand piano comprising a rim made up of a plurality of pieces, each connected with the next at its end beyond the curves of the rim by a rabbeted joint, the portion of the joint on the outside which overlaps the next piece being of greater thickness than the distance from the outer surface of the inner overlapping portion to the outside of the piece from which it projects, so as to project beyond the surface of the next piece to form a vertical line at the end thereof.

1,079,507. METALLIC KITCHEN-CABINET. LOUIS F. MCCLERNAN and JAMES MCCLERNAN, Chicago, Ill. Filed Apr. 29, 1912. Serial No. 693,824. (Cl. 45-16.)

1. In a kitchen cabinet, the combination of a lower section and an upper section, and means for interlocking said sections removably together, said means comprising an apertured projection extending from one of said sections, and a projection extending from the other section and adapted to rest upon the apertured projection, said last named projection having a lug adapted to enter the aperture of the other projection, substantially as described.

2. In a kitchen cabinet, the combination of a lower section and an upper section, and means for interlocking said sections removably together, said means comprising an apertured projection extending from one of said sections, and a projection extending from the other section and adapted to rest upon the apertured projection, said last named projection having a lug adapted to enter the aperture of the other projection and hold the two sections

in substantially locked spaced relation to each other, and a sliding member within the space between said sections, substantially as described.



3. In a kitchen cabinet, the combination of a lower section and an upper section, and means for interlocking said sections removably together, said means comprising a projection extending from the side of one of said sections and a channeled projection secured by one wall to the other section and adapted to abut the first named projection with its other wall, one of said projections having an aperture and the other having an undercut lug adapted to enter the aperture and to engage the opposite side of said apertured projection when in locked position, and a sliding member arranged between said sections and guided within the channeled projections, substantially as described.

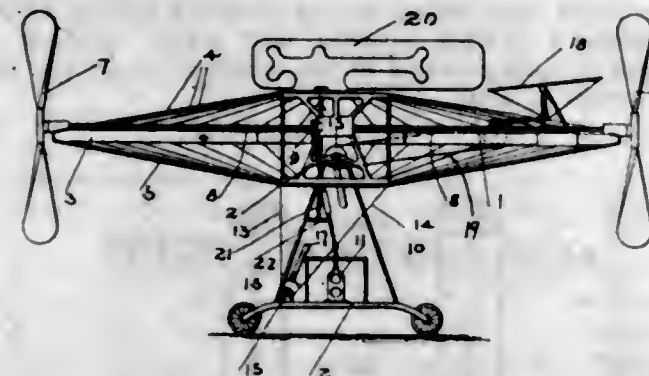
4. In a metallic kitchen cabinet, the combination of a lower section and an upper section, said sections having two or more of their main body walls respectively formed integral with each other, means for interlocking said sections removably together in spaced relation, said means comprising an apertured projection extending from the side of said lower section, and a projection extending from said upper section and adapted to rest upon said apertured projection, said upper section projection having a lug adapted to enter the aperture of said other projection and hold the two sections in substantially locked relation to each other, and a sliding member between said sections, substantially as described.

5. In a kitchen cabinet, the combination of an upper and lower section and means for holding said sections in spaced and locked relation, and a sliding work-board having edges projecting beyond the sides of said cabinet between said upper and lower sections, said locking and spacing means comprising an apertured projection extending from the side of said lower section and beneath the extending edge of said board, and a substantially U-shaped member secured to the upper section adapted to inclose a portion of the extending edge of said board and to rest upon said lower projection, said U shaped member having an undercut lug adapted to enter the aperture of said lower section and to engage the underside of said projection when in locked position, substantially as described.

1,079,508. FLYING-MACHINE. JOHN MENZL and ELMER BURDO, Dayton, Ohio. Filed Feb. 3, 1912. Serial No. 875,102. (Cl. 244-14.)

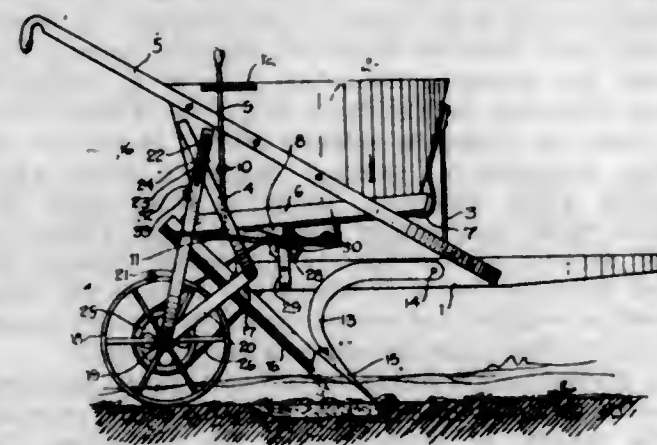
1. In a flying machine, the combination with a circular plane including a centrally disposed frame, of propellers respectively mounted at the front and rear ends of said plane, and a carriage disposed below and pivotally connected directly to the frame on a transverse axis whereby said plane and carriage may have longitudinal swinging movements relative to each other.

2. In a flying machine, the combination with a circular plane including a centrally disposed frame, of a propeller mounted at one end of said plane, a carriage disposed below and pivotally connected directly to the frame on a transverse axis whereby said plane and carriage may



have longitudinally swinging movements relative to each other, a horizontal rudder pivotally mounted on said plane, and a connection between the carriage and the rudder for automatically shifting the latter upon movement of the former.

1,079,509. FERTILIZER-DISTRIBUTER. EDWARD J. PEARSON, Austin, Ark. Filed May 14, 1913. Serial No. 767,730. (Cl. 111-33.)



A fertilizer distributor comprising a beam, a hopper above the beam, means for rigidly supporting said hopper above the beam, a trough bottom spaced below the hopper, means connected with the hopper and the bottom for resiliently retaining the latter in normal position, a ground wheel, means for adjustably supporting the ground wheel below the beam, a pawl carried by the bottom, a ratchet wheel engaged with the pawl, and connections between the ground wheel and the ratchet wheel whereby the trough bottom will be agitated to cause material resting upon the same to travel to the rear end thereof, and a spout at the rear end of the trough bottom to receive material from the latter.

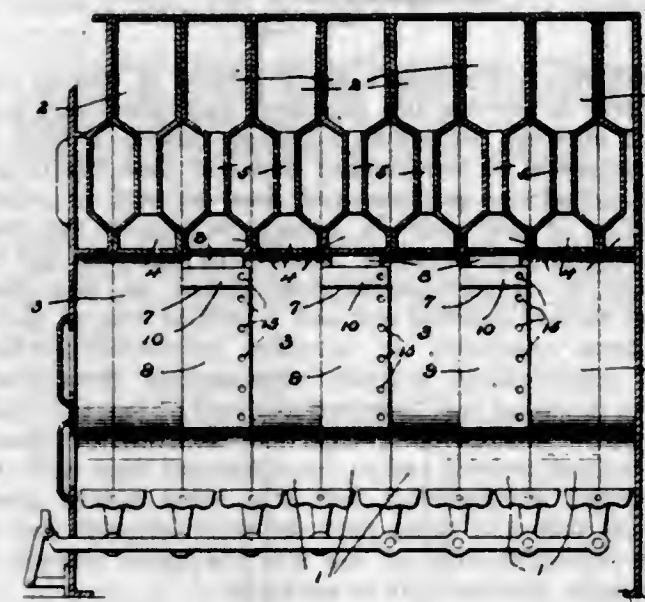
1,079,510. BELT OR BUCKLE SUPPORT. MAX PLOTKE, Chicago, Ill. Filed June 24, 1911. Serial No. 635,163. (Cl. 24-73.)



A belt buckle support consisting of a pair of hinged members, one of said hinged members being adapted to be attached to one part of a garment to be passed through an overlapping part of the same to serve as a button to hold said parts together, the head of the button member being grooved to accommodate a belt buckle, the other of said members consisting of a plate hinged to the head

of said button member for covering the groove, and a latch for holding the cover plate in closed relation with said button member.

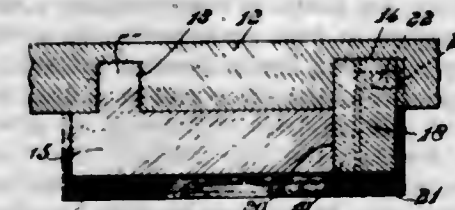
1,079,511. HEATER. JACOB J. PLUCKER, Philadelphia, Pa., assignor of one-half to Ormond Rambo, Philadelphia, Pa. Filed Feb. 11, 1913. Serial No. 747,505. (Cl. 110-75.)



1. A heater comprising a longitudinal series of inverted U-shaped furnace sections, certain of said sections having L-shaped air chambers cast integral with the sections, spaced from the inner walls of the sections and having their horizontal portions located near the tops of the sections, said air chambers having outlets for discharging hot air into the inside of the sections, and having inlets communicating with the outside of the sections, substantially as described.

2. A heater comprising a plurality of sections secured together, certain of said sections having at opposite sides independent air heating chambers, said chambers integral with the section located entirely within the section, having outlets discharging into the inside of the section and inlets communicating with the outside of the section, said chambers of L-shaped form having vertical and horizontal portions, and partitions within the chambers compelling a circuitous passage of air therethrough, substantially as described.

1,079,512. HORSESHOE. NAPOLEON B. QUICK, Glen Spey, N. Y. Filed Nov. 22, 1912. Serial No. 732,936. (Cl. 168-42.)



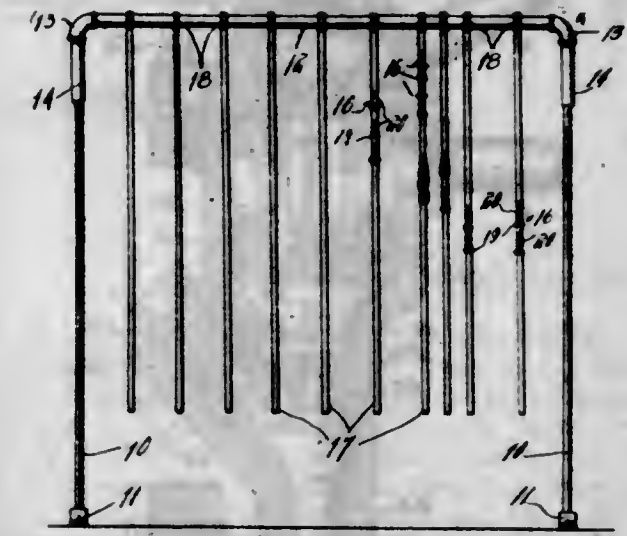
1. A horseshoe calk comprising a body portion having an angular end, an angular key for said body portion engaging and fitting the end thereof, the outer end of said key being formed to correspond in shape with the outer edge of said body portion and lying substantially flush therewith, and separate means for retaining said key in place.

2. A horseshoe calk comprising an elongated body portion having an angular end and a threaded shank adjacent the opposite end, an angular, longitudinally sliding key fitting and engaging the angular end of said body portion to hold the same against turning, said key being of greater length than the depth of said body portion and extending to the outer edge thereof, and separate means for holding said key in place.

3. The combination with a horseshoe having a threaded opening and a separate unthreaded opening, of a calk

comprising a body portion having an angular end and having adjacent the opposite end a threaded shank cooperating with said threaded opening, an angular key in said unthreaded opening and engaging the opposite end of said body portion to hold the same against turning, said key having a notch in its lateral face, and a set screw entering the edge of said horseshoe and engaging said notch to retain said key in place.

1,079,513. SEED-RACK. MICHAEL E. REILLY, New Hampton, Iowa. Filed May 14, 1913. Serial No. 767,636. (Cl. 34-26.)



1. A device of the character described comprising a supporting bar, a plurality of rods depending therefrom and slidable thereon and a plurality of holding members carried by the rods and adjustable thereon.

2. A seed corn ear supporting rack comprising a pair of standards, a transverse bar detachably supported by said standards, a plurality of rods slidably and detachably depending from the bar and ear holding members slidable on the rods.

3. A seed corn ear supporting rack comprising a pair of standards, a transverse bar detachably supported by said standards, a plurality of rods slidably and detachably depending from the bar and ear holding members and said members each comprising a loop slidable on the rod and an ear engaging portion carried by the loop, said loop being adapted to bind against movement on the rod upon an ear being affixed on said ear engaging portion.

1,079,514. DRIFTING-VALVE FOR LOCOMOTIVES. ROBERT RENNIE, Scotia, N. Y., and HAL R. STAFFORD, Plainfield, N. J. Filed Sept. 27, 1913. Serial No. 792,099. (Cl. 121-14.)

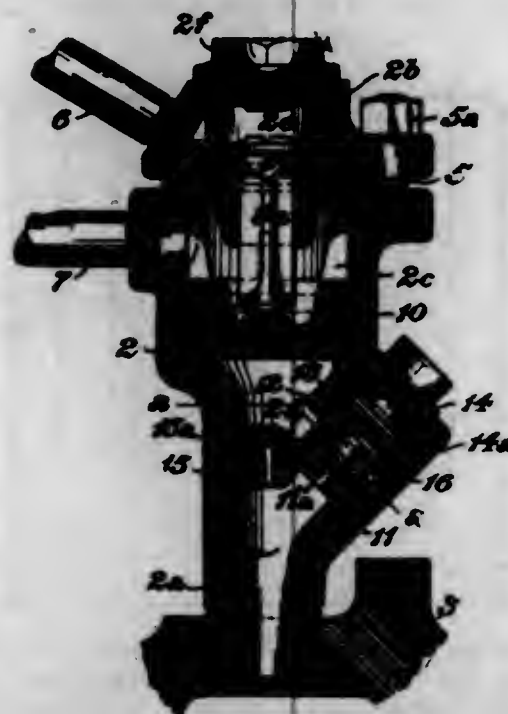
1. In a drifting valve appliance for locomotives, the combination of a valve controlling the supply of steam from a locomotive boiler to a steam cylinder, independently of the main steam supply pipe, a piston adapted to unseat said valve, and means, automatically operable by the cessation of main steam pipe supply, for admitting cylinder pressure to said piston.

2. In a drifting valve appliance for locomotives, the combination of a passage establishing communication between a locomotive boiler and a steam cylinder, independently of the main steam supply pipe, a valve controlling said passage, a piston adapted to unseat said valve, and a check valve subject to cylinder pressure and controlling the admission of said pressure to the piston.

3. In a drifting valve appliance for locomotives, the combination of a valve casing having connections to the steam space of a locomotive boiler, to a locomotive cylinder, and to a distribution valve chest, respectively, a valve in said casing, controlling communication between the boiler connection and the valve chest connection, and means for unseating said valve by pressure from the cylinder connection.

4. In a drifting valve appliance for locomotives, the combination of a valve casing having connections to the

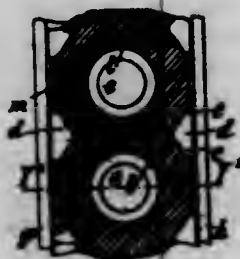
steam space of a locomotive boiler, to a locomotive cylinder, and to a distribution valve chest, respectively, a valve chamber in said casing continuously open to the boiler connection, a piston chamber in said casing continuously open to the valve chest connection, a valve controlling communication between the valve chamber and the piston chamber, a piston fitting in the piston chamber and adapted to unseat said valve, and a valve controlling the admission of pressure from the cylinder connection to the piston chamber.



5. In a drifting valve appliance for locomotives, the combination of a valve casing having connections to the steam space of a locomotive boiler, to a locomotive cylinder, and to a distribution valve chest, respectively, a valve chamber in said casing continuously open to the boiler connection, a piston chamber in said casing continuously open to the valve chest connection, a valve controlling communication between the valve chamber and the piston chamber, a piston fitting in the piston chamber and adapted to unseat said valve, a valve controlling the admission of pressure from the cylinder connection to the piston chamber, and means for releasing pressure from the piston chamber upon the closure of said valve.

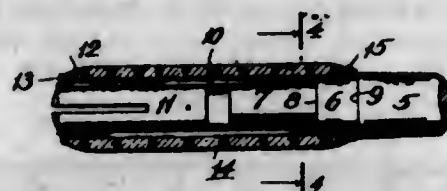
[Claim 6 not printed in the Gazette.]

1,079,515. PNEUMATIC TIRE. RENÉ RONDEAU, Paris, France, assignor to Société Ferrière de l'Automatique Ducasble, Paris, France. Filed Feb. 7, 1911. Serial No. 607,168. (Cl. 152—1.)



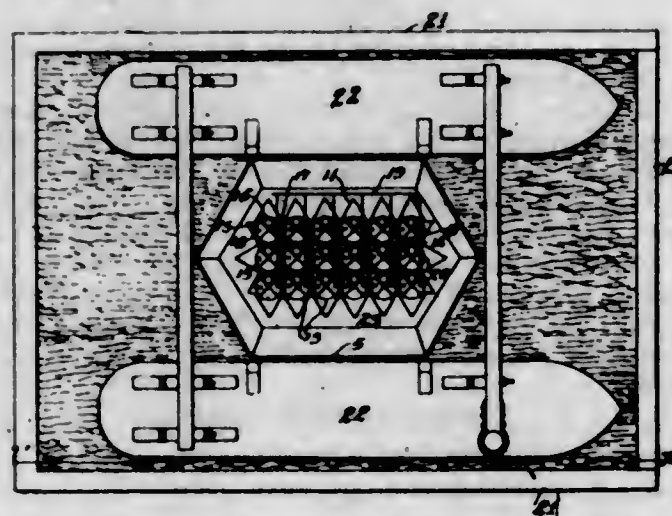
A wheel tire consisting of an annular body of rubber having in its interior a succession of chambers or cells in communication with the atmosphere and at its exterior in each of its side walls a succession of recesses, the interior chambers and the exterior recesses being of such shape and relative location that if an annular section is made of the tire in the portion of the chamber of greatest section the thickness of the rubber is uniform both on the sides of the tire and between the succeeding cells or chambers and that in the case of a cross section through the cells the thickness of the rubber wall about the cell is substantially constant.

1,079,516. PENHOLDER. HENRY J. ROTH, New York, N. Y., assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 7, 1912. Serial No. 719,053. (Cl. 120—102.)



A penholder comprising a shaft reduced in size at one end thereof to provide two shoulders and cylindrical portions of different diameters, adjacent thereto a tube of thin sheet-metal of less exterior diameter than the larger of said cylindrical portions and into one end of which the smaller of said portions projects to support the tube on the shaft, a pen-holding clip at the opposite end of said tube, a circumferential enlargement on said tube adjacent to said opposite end and a tubular grip of cylindrical form presenting an unbroken cylindrical surface and of substantially uniform cross-section throughout, said grip inclosing said tube and mounted at one end upon the larger of said cylindrical portions abutting the shoulder at the end thereof and at the other end upon said circumferential enlargement, said grip being spaced apart from said tube and being made of such material that it may be depressed more or less into the space between it and the tube, substantially as set forth.

1,079,517. DEEP-WATER BRIDGE-PIER AND MEANS FOR AND METHOD OF CONSTRUCTING THE SAME. ALLAN C. RUSH, Los Angeles, Cal. Filed Aug. 30, 1911. Serial No. 646,929. (Cl. 61—3.)



1. The method set forth of constructing a deep water pier which consists in first constructing in a dry dock a reinforced concrete pier frame having internal cavities; admitting water to the dry dock and excluding it from all or a portion of said cavities sufficiently to give required buoyancy for floating the pier frame; then towing the pier frame to the pier site; admitting water to the cavities and lowering the pier frame onto the site; excavating the mud or other material in said cavities and allowing the pier to settle into place.

2. The method set forth of constructing a deep water pier which consists in first constructing in a dry dock a reinforced concrete pier frame having internal cavities; admitting water to the dry dock; forcing compressed air into the cavities and thereby excluding water from all or a portion of said cavities, giving required buoyancy for floating the pier frame; then towing the pier frame to the pier site; lowering the pier frame onto the site, excavating from said cavities the mud or other material from therein, allowing the air to escape and the pier to settle into place; and filling the cavities with concrete.

3. The method set forth of constructing a deep water pier which consists in first constructing in a dry dock a reinforced concrete pier frame having internal cavities; admitting water to the dry dock and excluding it from

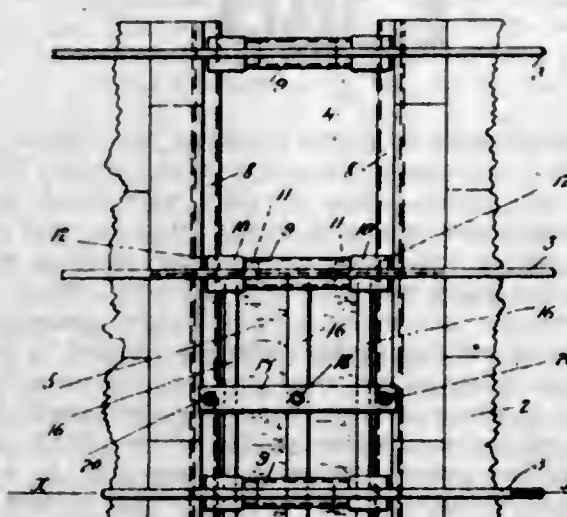
all or a portion of said cavities sufficiently to give required buoyancy for floating the pier frame; then towing the pier frame to the pier site; lowering the pier frame onto the site; excavating from said cavities the mud or other material therein; allowing the pier to settle into place; making anchor-receiving excavations in the site and filling said excavations and the cavities with concrete.

4. The pier frame substantially set forth comprising a nest of tubes; frame plates between and fastened to adjacent tubes; and a reinforced concrete body around the nest.

5. The pier frame substantially as set forth comprising a nest of tubes, and trough shaped reinforcements and a reinforced concrete body around the nest.

[Claims 6 to 16 not printed in the Gazette.]

1,079,518. DOOR FOR SILOS. DEWEY A. SALNAVE, Bangor, Mich., assignor of one-half to Alfred Wood, Bangor, Mich. Filed Mar. 25, 1913. Serial No. 756,770. (Cl. 20—1.4.)



1. The combination, with a silo provided with a door opening having grooves at its edges, of uprights arranged in the said grooves, distance-pieces arranged out of line with the uprights and forming the steps of a ladder and having end portions which engage with the uprights, and hoops engaging with the silo and with the distance-pieces and securing the uprights in the said grooves, by exerting a strut-like thrust upon the distance pieces and the deflected ends thereof.

2. The combination, with a silo provided with a door opening having grooves at its edges, of cylindrical uprights arranged in the said grooves, distance-pieces arranged out of line with the uprights and forming the steps of a ladder and having end portions provided with forked ends which straddle the uprights, and hoops engaging with the silo and with the distance-pieces and securing the uprights in the grooves when tightened, by exerting a strut-like thrust upon the distance pieces and the deflected ends thereof.

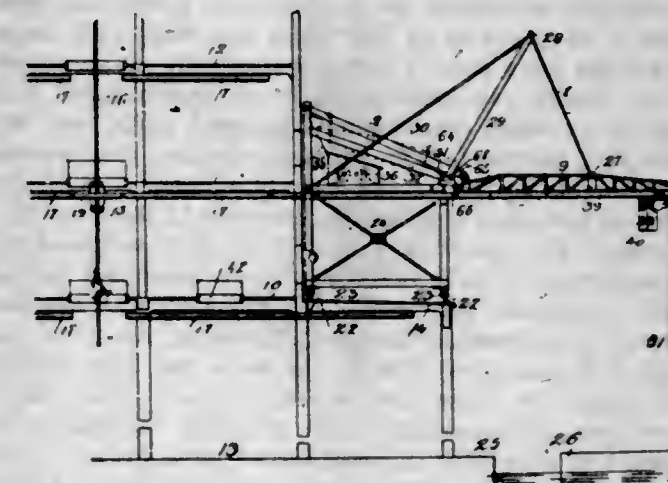
1,079,519. FREIGHT-HANDLING APPARATUS. HARRY SAWYER, Muskegon, Mich. Filed June 24, 1912. Serial No. 705,421. (Cl. 212—15.)

1. In an apparatus for handling freight, a movable crane having a plurality of switch track sections, a boom having a track rail, said switch track sections extending in the same general direction as the boom track rail, and means to bring the boom track rail into cooperative relation with any desired switch track section.

2. In an apparatus for handling freight, a movable crane having a plurality of switch track sections and a boom, said boom having a track rail, the crane switch track sections extending in the same general direction as the boom track rail, said track rail having a movable portion adapted to be brought into registering relation with any one of the switch track sections.

3. In an apparatus for handling freight, a movable crane having a plurality of switch track sections, a boom carried by said crane and provided with a track rail, the

crane switch track sections extending in the same general direction as the boom track rail, said track rail having a movable portion adapted to be brought into registering relation with any one of the switch track sections, and means for retaining said movable track rail portion in adjusted position.



4. In an apparatus for handling freight, a crane, means for supporting a boom from said crane in substantially horizontal position for use, and means for elevating the inner end of said boom and shifting the latter endwise inwardly to withdraw the same from position for use.

5. In an apparatus for handling freight, a crane having seats, a boom suspended at its outer end from the crane and having means at its inner end adapted to said seats, whereby when in position for use, said boom is maintained in substantially horizontal position and means for raising the inner end of the boom out of said seats and shifting the same endwise to withdraw it from position for use.

[Claims 6 and 7 not printed in the Gazette.]

1,079,520. CHUCK. HARRY B. SHREVE, Chicago, Ill., assignor to Thomas H. Lovejoy, Chicago, Ill. Filed May 17, 1912. Serial No. 697,858. (Cl. 29—119.)



1. In a chuck, the combination of an axially-bored head, a stop mounted for reciprocatory axial movement within the bore of the head, means to lock the stop at spaced intervals, and means exterior to and reciprocable axially of the head whereby to position the stop and operate the locking means, substantially as described.

2. In a chuck, the combination of an axially-bored head having slotted side walls, one side of the slot provided with recesses, a stop mounted for axial movement within the bore of the head and having laterally extending pins guided in the slot and adapted to enter the recesses, and means exterior to the head whereby to position the stop in the recesses, substantially as described.

3. In a chuck, the combination of an axially-bored head having slotted side walls, one side of each slot provided

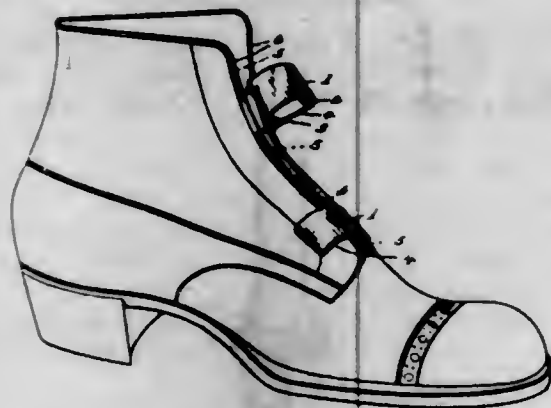
with inclined recesses, a stop mounted for axial movement within the bore of the head and having laterally extending pins guided in the slots and adapted to enter the recesses, a sleeve surrounding the head and connected to the pins whereby to move the stop axially and to bring the same into locking relation with one of the recesses, tool-receiving jaws laterally adjustable on the head and providing therebetween a passageway in line with the stop, and means to clamp the jaws upon a tool, substantially as described.

4. In a chuck, the combination of an axially-bored head having in its walls diametrically opposed slots, one side of each slot provided with inclined recesses, the recesses of one slot diametrically disposed in alignment with the recesses of the other slot, a stop provided in its front face with means for centering a tool, said stop mounted for axial movement within the bore of the head and having laterally extending pins guided in the slots and adapted to enter the recesses, a sleeve surrounding the head and connected to the pins whereby to move the stop axially and to bring the same into locking relation with one of the recesses, tool-receiving jaws laterally adjustable on the head and providing therebetween a passageway in line with the stop, and means to clamp the jaws upon a tool, substantially as described.

5. In a chuck, the combination of a head, tool-receiving jaws adjustable laterally on the head, studs projecting from the head between the jaw members to limit their inward movement, and a cap to embrace the jaws to limit their outward movement and to clamp the same upon a tool, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,079,521. SHOE-FASTENER. ANTOUN A. SIMAN, Detroit, Mich. Filed Jan. 18, 1909. Serial No. 472,796. (Cl. 24-71.)

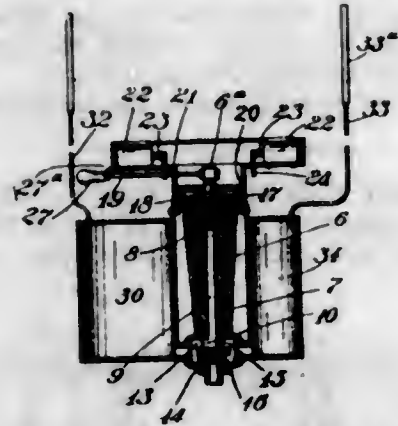


The combination with a shoe having flaps overlying the upper instep portion, of a fastener comprising an arched spring metal plate, inrolled ends thereon forming tubular bearings and links each consisting of a spring wire journaled between its ends in one of the bearings and bent beyond the bearings into a pair of similarly disposed arms with outturned ends, the arms being curved to fold closely against the underside of the adjacent plate and proportioned to hold the flap margins in abutment when so folded, the end portions being institched along the marginal portions of the shoe flaps to which they yieldingly conform and in which they turn axially, the plate and arms being so proportioned that the fastener when closed yieldingly compresses the margins of the shoe flaps together throughout their length.

1,079,522. LIQUID-MEASURING DEVICE. PAUL H. SMITH, Columbus, Ohio. Filed May 16, 1912. Serial No. 697,637. (Cl. 73-164.)

1. A fluid measuring device including, in combination, a valve casing, two measuring vessels, each provided with an air vent said valve casing provided with inlets to and outlets from said vessels, a rotary valve in said casing provided with a transverse inlet passage opening at two points on the valve, said valve also provided with a longitudinal passage connected with said inlet passage and

also provided with an outlet therefrom adapted to be connected with either of said vessels to feed the same but not with both at the same time, said valve also provided with a transverse outlet passage opening at two points on the valve, said last named transverse passage lying in a plane at angles to the plane of the first named outlet passage of said valve and adapted to be connected with the outlets from said vessels, said valve also provided with an outlet to the exterior of the valve said last named outlet being connected with the last named transverse passage.



2. A fluid measuring device including, in combination, a valve casing, two measuring vessels, each provided with an air vent said valve casing provided with inlets to and outlets from said vessels, a rotary valve in said casing provided with a transverse inlet passage opening at two points on the valve said valve also provided with a longitudinal passage connected with said inlet passage and also provided with an outlet therefrom adapted to be connected with either of said vessels to feed the same but not with both at the same time, said valve also provided with a transverse outlet passage opening at two points on the valve, said last named transverse passage lying in a plane at angles to the plane of the outlet passage of said valve and adapted to be connected with the outlets from said vessels, said valve also provided with an outlet to the exterior of the valve said last named outlet being connected with the last named transverse passage and means for registering the number of times said valve has been actuated to feed each of said measuring vessels.

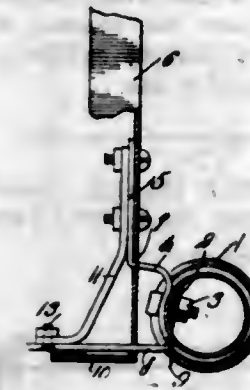
3. A fluid measuring device including, in combination, a valve casing, and a measuring vessel having an air vent, said casing provided with an inlet to and an outlet from said vessel, a rotary valve in said casing having a transverse inlet passage and a longitudinal passage 9 connected therewith entirely within the body of the valve for the passage of liquid only, said valve also having a lateral outlet passage from said longitudinal passage 9 adapted to register with the inlet passage to the measuring vessel, said valve also having an independent transverse passage formed therein, said last named passage to register with the outlet passage from the measuring vessel and lying in a plane at an angle to the plane of the first named lateral outlet passage, said valve also having an outlet from said transverse passage to the exterior of the valve, and means for registering the number of times said valve has been actuated to feed said measuring vessel.

1,079,523. BEDPOST FOR BRASS OR IRON BEDS. MARCUS SOBEL, San Francisco, Cal. Filed Nov. 23, 1912. Serial No. 733,164. (Cl. 5-55.)

1. In a corner lock for bedsteads, a bed post, an end bar having a slit cut therein, a bracket held to the post, and having an end wall passing through the slit in the side bar, a side wall formed on the bracket, a side bar held to the side wall, and means for holding the end bar to the end wall of the bracket.

2. In a corner lock for bedsteads, a bed post, a bracket associated therewith, the bracket having an end wall, a side wall, and an offset portion formed between the said walls, the offset portion being secured to the bed post, an end bar associated with the end wall of the bracket, the end bar having a slit therethrough, and

adapted to receive the end wall of the bracket, and a side bar held to the side wall of the bracket.



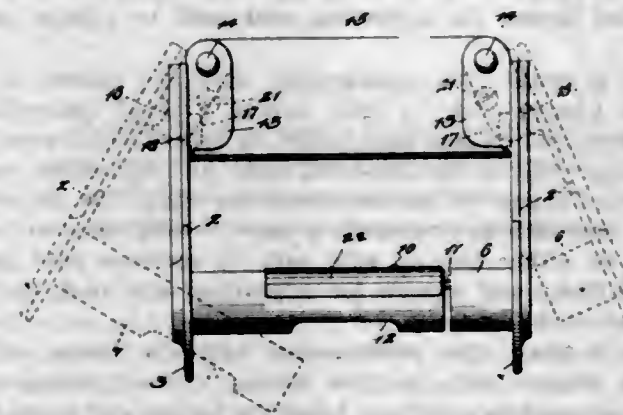
3. In a corner lock for bedsteads, a bed post, a bracket associated therewith having end and side walls, the bracket being provided with an offset portion intermediate the walls, an end bar secured to the end wall and having a slit therein through which the end wall of the bracket passes, the extending end of the end bar bridging the offset portion, and a side bar held to the side wall.

4. In a corner lock for bedsteads, a bed post, a bracket associated therewith, the bracket having an end wall, a side wall extending from the bracket at right angles to the end wall, and an offset portion between the walls, an end bar, a brace, means passing through the end bar and one end of the brace for securing the same to the end wall of the bracket, means associated with the side wall for securing the other end of the brace thereto, a side bar associated with the side wall, and means for securing the bracket to the bed post.

5. In a corner lock for bedsteads, a bed post, a bracket having side and end walls at right angles to each other and an offset portion extending between the walls, an end bar having a slit therein through which the side wall passes, the extending end of the end bar bridging the offset portion, and engaging the side walls, a brace, one end of which is secured to the end wall, means passing through the brace for securing the said bar to the side wall, and a side bar associated with the side wall.

[Claims 6 to 10 not printed in the Gazette.]

1,079,524. TOILET-PAPER HOLDER. LEE ULLERY, Phoenix, Ariz. Filed Feb. 26, 1913. Serial No. 750,913. (Cl. 211-31.)



A holder for toilet paper comprising in combination a base plate having slots in the sides thereof, a plurality of arms, pivotally mounted on said base plate, a plurality of lips disposed on said arms, and arranged to engage in said slots and rest on said plates, a plurality of members secured to said arms and adapted to cover the front portion of said plate, a plurality of sleeves adjustably mounted on said arms, provided with resilient locking means to be kept in alignment with each other, for holding the toilet paper thereon, means for locking the sleeves together that can not be unlocked except when the holder is empty, (thereby preventing removal of the roll of toilet paper, except as intended), and means for fastening said holder to the wall, disposed in said plate and adapted to be covered by said members when the holder is in its closed position.

1,079,525. WINDOW. HERMAN VEISER, Philadelphia, Pa. Filed Apr. 21, 1913. Serial No. 762,649. (Cl. 20-52.1.)



1. The combination with a window frame having a sash pocket therein, of sashes adapted to move into said pocket, and a spring-pressed pocket cover on the outside of the frame, and means on the cover engaged by the sashes to force the cover outwardly when the sashes are lowered, substantially as described.

2. The combination with a window frame having a sash pocket therein, of sashes adapted to move into said pocket, a spring-pressed pocket cover on the outside of the frame, cams on said spring cover, and devices on the sashes adapted to engage the cams to force the cover outwardly when the sashes are lowered, substantially as described.

3. The combination with a window frame having a sash pocket therein, of sashes adapted to move into said pocket, a spring-pressed pocket cover on the outside of the frame, cams on said spring cover, devices on the sashes adapted to engage the cams to force the cover outwardly when the sashes are lowered, said devices comprising tracks, and enlargements on the tracks fixed to the outer faces of the vertical members of the sashes, substantially as described.

4. The combination with a window frame having a sash pocket in its lower end, two sashes mounted to slide in the frame, means on the frame limiting the upward movement of the lower sash, a spring-pressed pocket cover on the outside of the frame, cams on said cover, tracks on the vertical members of both sashes, and enlargements on the tracks in position to engage the cams, whereby the downward movement of both sashes moves the cover outwardly, substantially as described.

5. The combination with a window frame having a sash pocket in its lower end, of two sashes mounted to slide in the frame, a pocket cover located on the outside of the frame and at the top of the pocket, said cover having a depending apron at its lower end, and an upwardly projecting flange at its inner end normally pressed against the lower sash, and means compelling the cover to swing outwardly when the sashes are lowered, substantially as described.

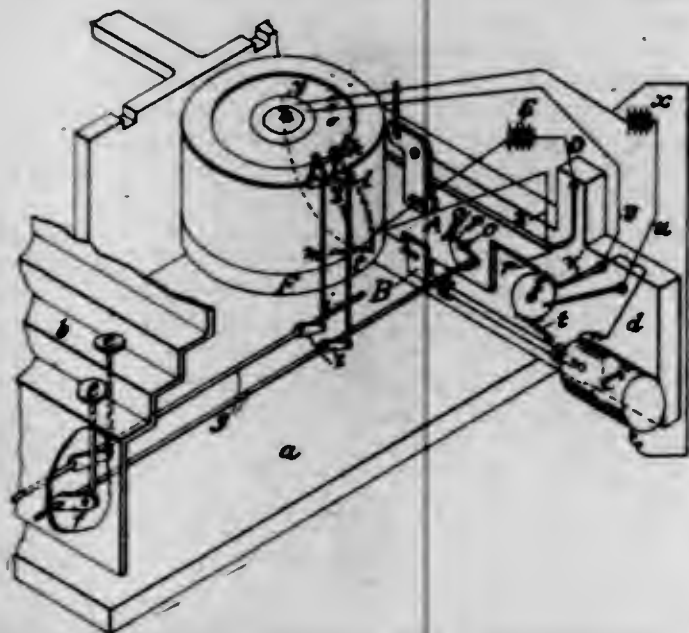
[Claim 6 not printed in the Gazette.]

1,079,526. TYPE-WRITING MACHINE. CHARLES HERMAN VOGEL, Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 22, 1910. Serial No. 578,457. (Cl. 197-14.)

1. The combination with a plurality of typewriting elements, of means for operating one of said elements individually, and electrically operated means for holding any other similar element inactive whenever one of said elements has been actuated.

2. The combination with a plurality of typewriting elements each adapted to be individually operated, of electro-magnetic means for holding any other similar

element at rest after one of said elements has been actuated.



3. The combination with a typewriting element, of electro-magnetic means for operating said element by direct attraction thereof, and separate power-driven means for supplementing the action of said electro-magnetic means.

4. The combination with a typewriting element, of electro-magnetic means for operating said element by direct attraction thereof, and electro-magnetic means for supplementing the action of said first-mentioned electro-magnetic means.

5. The combination with a typewriting element, of means for pulling said element in one direction, means for pulling said element in another direction, and selecting devices for controlling the actuation of said element by either of said means, by initially moving said element to bring it under the influence of either of said means.

[Claims 6 to 33 not printed in the Gazette.]

1,079,527. BAG CLOSURE AND CARRIER. EDWARD MOORE WALLACE, New Orleans, La. Filed Apr. 3, 1913. Serial No. 758,595. (Cl. 224-45.)

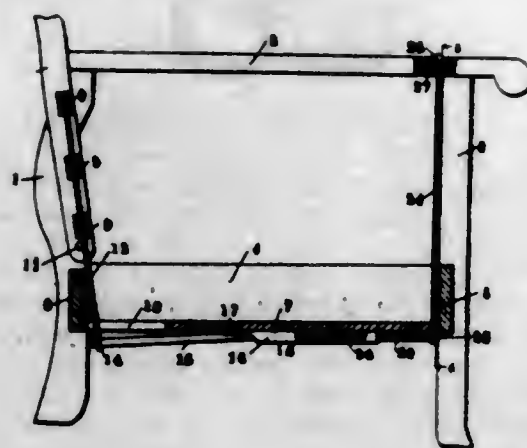


1. As a new article of manufacture, a bag closure and carrier comprising a flat one piece body portion that is provided with openings of different sizes the larger opening being of a size to admit therethrough the fingers of a person and to provide above the opening a grasping portion the openings having between them a curved wall which separates the two openings.

2. A bag closure and carrier comprising a flat piece of material having rounded ends and oval apertures of different sizes, one of the apertures being of a size to provide a hand grasping portion between the aperture and one end, for use in closing, sustaining or carrying a bag when the gathered end thereof is passed through the larger aperture and then through the smaller one substantially as described; so that the weight of the contents of the bag will press its end portion against the opposite flat surface of the closure and carrier.

3. A bag closure comprising a card-board body portion having therethrough within its perimeter elliptical apertures of different areas which are separated by an intermediate integral part the contour of which is concave to provide curved bearing surfaces for a gathered and looped end portion of a bag.

1,079,528. ADJUSTABLE CHAIR. JERROLD F. WALTON, Sturgis, Mich. Filed Mar. 29, 1909. Serial No. 486,469. (Cl. 155-27.)



1. In a chair, the combination with the frame, of a seat; a hinged back; a link having a pivot connection for its rear end to said back below its hinges and laterally-projecting pins at its forward end; an adjustable rack comprising a pair of members between which the forward end of said link is arranged; a pair of springs connected to said pins on said link and to said frame; said springs being arranged to lift upwardly on the forward end of said link; a pair of stop members arranged on either side of said rack to embrace said pins on said link; and means for adjusting said rack to release said link.

2. In a chair, the combination with the frame, of a seat; a hinged back; a link having a pivot connection for its rear end to said back below its hinges and laterally-projecting pins at its forward end; an adjustable rack comprising a pair of members between which the forward end of said link is arranged; a pair of springs connected to said pins on said link and to said frame, said springs being arranged to lift upwardly on the forward end of said link; and means for adjusting said rack to release said link.

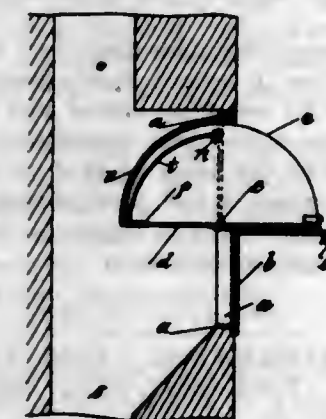
3. In a chair, the combination with the frame, of a seat; a hinged back; a link having a pivot connection for its rear end to said back below its hinges and laterally-projecting pins at its forward end; an adjustable rack comprising a pair of members between which the forward end of said link is arranged; a pair of stop members arranged on either side of said rack to embrace said pins on said link; and means for adjusting said rack to release said link.

4. In a chair, the combination with the frame, of a seat; a hinged back; a link having a pivot connection for its rear end to said back below its hinges and laterally-projecting pins at its forward end; an adjustable rack comprising a pair of members between which the forward end of said link is arranged; and means for adjusting said rack to release said link.

5. In a chair, the combination with the frame, of a seat; a hinged back; a link having a pivot connection for its rear end to its said back below its hinges, said link being formed of a piece of sheet metal bent into U-shape and having laterally-projecting pins at its forward end; a rack comprising a pair of members between which the forward end of said link is arranged, said rack being formed of a piece of sheet metal bent into a loop, the rear ends of which are turned horizontally and secured to said frame, whereby said rack is adjustably supported; and means for adjusting said rack to release said link.

[Claims 6 to 10 not printed in the Gazette.]

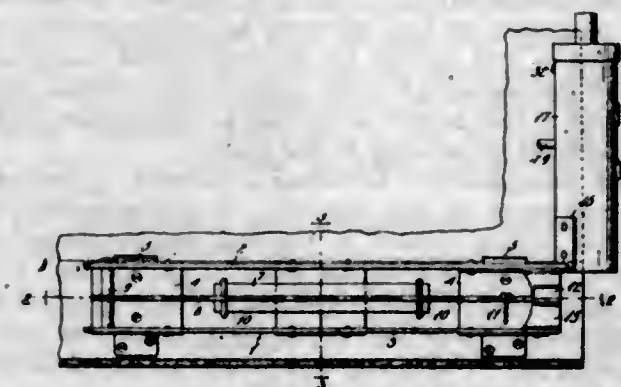
1,079,529. DUST-CHUTE. WILHELM HEINRICH AUGUST ROBERT WEDEMMEYER, Hamburg, Germany. Filed July 2, 1912. Serial No. 707,398. (Cl. 57-37.)



1. A device of the character described, comprising a chute having an inlet opening, a frame fitted into said opening, a trough pivoted at its center to the frame and being composed of a bottom plate and a pair of semicircular side plates, curved grid bars within the trough, and a hood composed of a curved rear wall and a pair of quadrantal side plates that flank the trough sides, said hood constituting an abutment for said trough when swung into a horizontal position, whereby the inlet is closed against the chute.

2. A device of the character described, comprising a chute having an inlet opening, a frame fitted into said opening, a trough pivoted at its center to the frame and being composed of a bottom plate and a pair of semicircular side plates, a counterweighted lid fulcrumed to said side plates and having a projection adapted to engage the frame, and a hood extending into the chute and straddling the trough, said hood constituting an abutment for said trough when swung into a horizontal position, whereby the inlet is closed against the chute.

1,079,530. COMBINED WHIP, REIN, AND LAP-ROBE LOCK FOR VEHICLES. OTTO W. WILDE, Wichita, Kans. Filed Feb. 28, 1913. Serial No. 751,345. (Cl. 21-131.)



1. A lap robe lock including a guide having aligned eyes, and a movable robe-holding bar having an eye adapted to be passed between those of the guide; combined with an upright casing having an upright slot and a stop on its interior above said slot, a bolt movable vertically within said casing behind the slot and having a stud projecting through the latter, its upper end adapted to strike said stop and its lower end adapted to be projected through the aligned eyes of the guide, and whip-locking mechanism connected with said bolt but thrown out of action when the latter is raised.

2. A lap robe lock including a guide having aligned eyes, and a movable robe-holding bar having an eye adapted to be passed between those of the guide; combined with an upright casing having an upright slot and a stop on its interior above said slot, a bolt movable vertically within said casing behind the slot and having a stud projecting through the latter, its upper end adapted to strike said stop and its lower end adapted to be projected through the aligned eyes of the guide, a whip socket, means for holding the whip-handle therein, and locking

mechanism for said holding means connected with said bolt but adapted to be thrown out of action when the latter is raised.

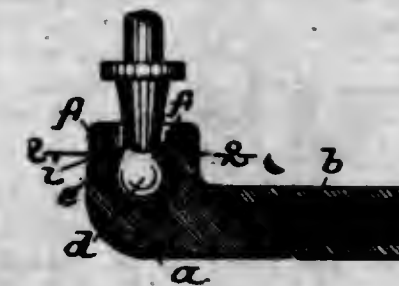
3. A lap robe lock including a guide having aligned eyes, and a movable robe-holding bar adapted to be passed between the eyes of the guide; combined with an upright casing having an upright slot and a stop on its interior above said slot, a bolt movable vertically within said casing behind the slot and having a stud projecting through the latter, its upper end adapted to strike said stop and its lower end adapted to be projected through the aligned eyes of the guide, a whip socket, means for holding the whip-handle therein, a set screw for advancing said holding means, the shank of the set screw having a transverse slot, a bolt connected with said first-named bolt and having a finger adapted to be projected through said slot as both bolts are depressed and to be raised out of said slot as the first-named bolt is raised until its upper end engages said stop, and means for locking both bolts in depressed condition.

4. In a device of the class described, the combination with a tubular casing having a threaded boss in one side and an upright slot in the other, a lock carried by the casing, a whip socket in the latter, holding means for the whip, a set screw in said boss engaging said means and having a slotted shank, and a locking member including a finger adapted to be passed through said slot in the shank of the set screw, a stud projecting through the slot in said casing, and a long bolt depending below the casing and having a notch in its edge; of a lap robe holder including a guide having aligned and spaced eyes, a base, and a spring-pressed bar pivoted in the base and having an eye adapted to be passed into said guide and to stand in line with the eyes therein to receive said bolt.

5. In a whip-socket lock, the combination with an upright casing, and a whip socket therein having surrounding rings pierced with upright aligned notches and an internally threaded boss between said rings grooved in a line with said notches; of a set screw engaging said boss and having a slotted shank, a lock, and a bolt having a finger adapted to be projected through the slot of the set screw.

[Claims 6 to 9 not printed in the Gazette.]

1,079,531. BALL-AND-SOCKET JOINT. ARNOLD ZÄHRINGER, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Dec. 8, 1910. Serial No. 595,373. (Cl. 74-17.)

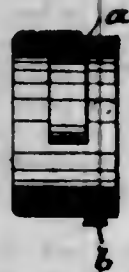


1. A readily disengageable ball and socket joint, comprising a ball end, a socket for the ball end having a radial passage of decreasing bore toward the ball end and arranged beyond the maximum diameter of the ball end when the latter is in place in the socket, a ball in said passage having a diameter less than the outer diameter of the bore and greater than the inner diameter of the bore, and a spring pressing the ball against the ball end so as to hold the latter in place in the socket in such manner as to allow disengagement thereof from the socket; substantially as described.

2. A readily disengageable ball and socket joint, comprising a ball end, a socket for the ball end, having a plurality of radial passages of decreasing bore toward the ball end and arranged beyond the maximum diameter of the ball end, a ball in each of said passages having a diameter less than the outer diameter of the bore and greater than the inner diameter of the bore, and a plate

spring of ring form pressing all the balls against the ball end so as to hold the latter in place in the socket in such manner as to allow the disengagement thereof from the socket; substantially as described.

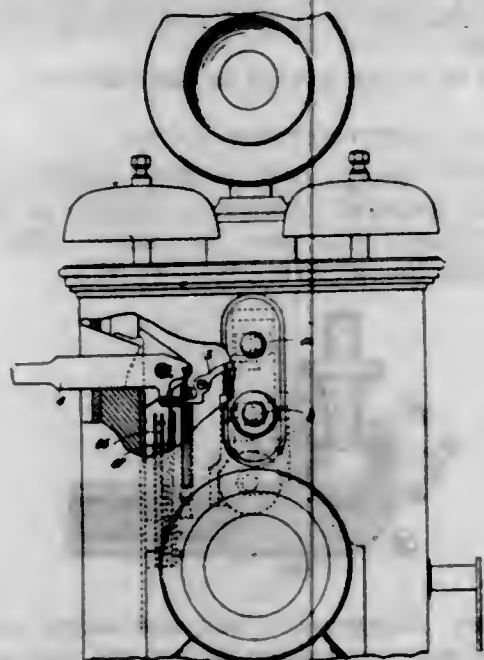
1,079,532. ADJUSTABLE TIMING APPARATUS FOR ELECTRIC IGNITION SYSTEMS. ARNOLD ZÄHRINGER, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Aug. 1, 1912. Serial No. 712,638. (Cl. 123-166.)



1. In an adjustable timing apparatus for electrical ignition systems, a cam ring having a circumferential ledge, a timing lever having a socket adapted to loosely engage said ledge, and a clamping screw for drawing up the socket to securely tighten it on the ledge at any point to which the timing lever may be adjusted.

2. In an adjustable timing apparatus for electrical ignition systems, a cam ring having a circumferential ledge and a plurality of circumferentially spaced recesses, a timing lever having a socket adapted to loosely engage said ledge, and a clamping screw adapted to fasten the socket to the ledge and to fit within any one of said recesses to securely lock the time lever in place on the cam ring.

1,079,533. TELEPHONE SWITCHING SYSTEM. WILLIAM AITKEN, Liverpool, England. Filed June 9, 1913. Serial No. 772,487. (Cl. 179-99.)



1. In apparatus of the class described, a pair of double-throw key switches, and electromagnetic means for holding one of said switches in either of two operated positions, said last-mentioned switch being adapted to restore the other switch to normal position when it is thrown to one of its two operated positions.

2. In apparatus of the class described, an electromagnet, a slotted pole-piece therefor, and a key switch carrying an armature projecting through said slot but normally out of contact with said pole-piece, said armature being adapted to engage with said pole-piece when said switch is thrown into operated position, whereby said switch is electromagnetically held in operated position.

3. In apparatus of the class described, a pair of double-throw key switches, a switch hook, means controlled by

said switch hook for restoring one of said switches to normal position when it has been operated in one direction, and means controlled by the other of said switches for restoring said switch when it has been operated in the other direction.

4. In apparatus of the class described, a pair of double-throw key switches, a switch hook, means controlled by said switch hook for restoring one of said switches to normal position when it has been operated in one direction, means controlled by the other of said switches for restoring said switch when it has been operated in the other direction, and electromagnetic means for holding said second switch in operated position.

1,079,534. AMALGAMATOR. JACOB ISAAC ANDERSON, Prescott, Ariz. Filed Apr. 1, 1913. Serial No. 758,222. (Cl. 83-87.)



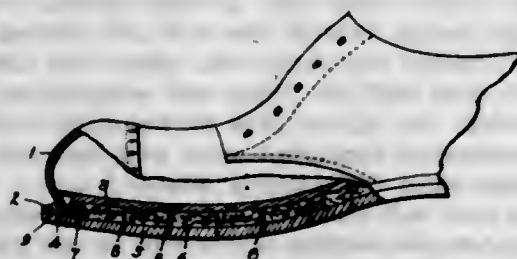
1. An amalgamator, including a support, a rod swingingly connected to said support and depending therefrom, a rectangular amalgamating plate journaled at a central point upon the rod, an upstanding rim carried adjacent the edges upon the upper face of said plate and constituting a receptacle for the amalgam, and means connected to said rod for inclining the same and the plate.

2. An amalgamator, including a support, a rod swingingly connected to said support and depending therefrom, a rectangular amalgamating plate journaled at a central point upon the rod, an upstanding rim carried adjacent the edges upon the upper face of said plate and constituting a receptacle for the amalgam, means connected to said rod for inclining the same and the plate, and a feed hopper connected to the support above the amalgamating plate.

3. An amalgamator, including a support, a rod swingingly connected to the support, an amalgamating plate connected to and carried by the rod, means connected to said rod for maintaining the same at any desired adjustment, and a feed hopper connected to the support and rod for movement in relation to the plate.

4. An amalgamator, including a support, a rod swingingly connected to the support, an amalgamating plate connected to and carried by the rod, means connected to said rod for maintaining the same at any desired adjustment, and a feed hopper connected to the support and rod for movement in relation to the plate and a rim provided upon the plate to form a pocket to prevent the dripping of the amalgam over the end thereof.

1,079,535. SHOE. DE ROY AUSTIN, Omaha, Nebr. Filed Dec. 7, 1911. Serial No. 664,502. (Cl. 36-44.)



1. In a shoe, an outsole, an insole, a filler of fibrous resilient material disposed between the outsole and the insole, and seams passing only through the outsole and the filler to secure them together.

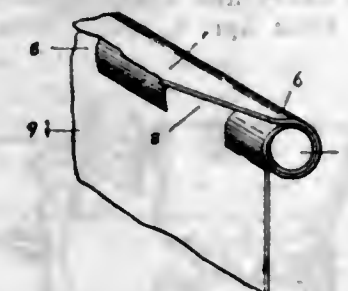
2. In a shoe, an outsole, an insole, a filler comprising a sheet of fibrous resilient material disposed between the outsole and insole, and means for positively securing to-

gether the outsole and the edges and intermediate parts of the filler sheet, whereby the filler sheet is attached only to the outsole.

3. In a shoe, an upper, a welt and a leather insole, an insole securing them together, a leather outsole secured to the welt, and a sheet of fibrous resilient material disposed between the outsole and the insole and secured only to the outsole.

4. In a shoe, an outsole, a sheet of fibrous resilient material disposed on the upper side thereof, a seam securing together the outsole and the edge portions of the fibrous sheet, and seams securing together the middle portions of the outsole and the fibrous sheet, whereby the fibrous sheet is attached only to the outsole.

1,079,536. HINGE FOR AUTOMOBILE HOODS. HENRY G. BAUM, York, Pa., assignor to Pullman Motor Car Company, York, Pa., a Corporation of Pennsylvania. Filed Sept. 20, 1911. Serial No. 650,315. (Cl. 16-104.)



In a hinge for automobile hoods, comprising two sheets of metal, the edge of one sheet being rolled to form a tube, a rod placed in said tube and spaced therefrom, cut-out portions on the inner and lower sides of said tube, said cut-out portions being spaced slightly from the other sheet of the hinge, tongues formed on the other sheet of metal, said tongues being bent to produce knuckles, the knuckles being disposed within the openings in the tube, between the tube and the rod, the free edges of the knuckles being spaced slightly from the first-mentioned sheet of said hinge, the cut-out portions and the tongues, being cut at corresponding angles, whereby a water proof and dust proof hinge is formed.

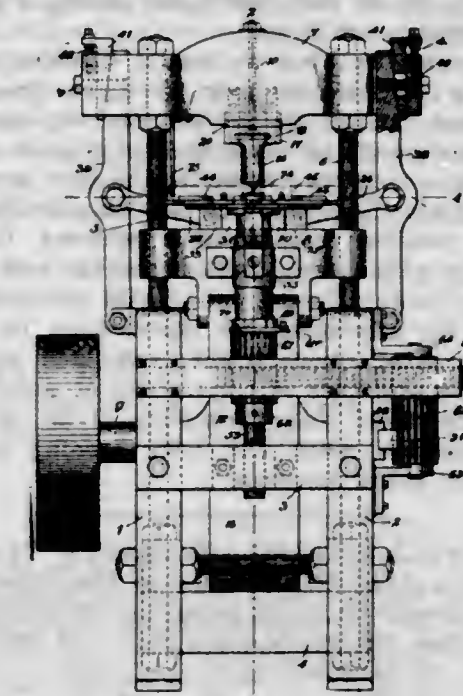
1,079,537. MACHINE FOR PRESSING HEEL-LIFTS, HEELS, &c. THOMAS BOSTOCK, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 12, 1910. Serial No. 537,773. (Cl. 12-48.)

1. The combination in a compressing machine of co-operating opposed dies, means for forcing one of the dies toward the other and withdrawing it therefrom, a carrier having means for grasping an article to be compressed mounted to travel between the dies in a path transverse to the direction in which the pressure of the dies is applied, mechanism for moving said carrier step by step constructed to cause the carrier to be arrested when the article carried thereby is between the dies and at the time when the dies are in position to press upon the article, means for causing the grasping means of the carrier to release the article when so arrested, and means for causing the article to be again grasped when the dies separate, whereby a further movement of the carrier removes the compressed article from between the dies.

2. The combination in a compressing machine of co-operating opposed dies, means for forcing one of the dies toward the other and withdrawing it therefrom, a carrier having means for grasping an article to be compressed mounted to travel between the dies in a path transverse to the direction in which the pressure of the dies is applied, means for causing said grasping means to release the article when between the die, and to grasp the article again after compression, and mechanism for advancing the carrier step by step, said mechanism being constructed to cause an arrest of the carrier when the article is between the dies and the latter engage the article, and to advance the carrier farther when the dies separate.

3. The combination of a pair of opposed dies having

their adjacent operative faces approximately flat, means for moving one of the dies toward and from the other, a carrier having separable grippers for grasping the edges of an article which has approximately flat faces, said carrier being mounted to travel in a path extending between the dies and substantially parallel with the operative faces thereof, means for advancing the carrier with a step by step motion and causing the same to pause while the article is between the dies and the latter are most closely together, and means for separating said grippers.



4. The combination in a press machine of the character described, of co-operating dies, a carrier having means for grasping an article to be pressed, mechanism for moving said carrier step by step to carry the article into pressing position between said dies and remove it therefrom to a discharging position, and means for causing said grasping means to release the article temporarily while between the dies.

5. A machine comprising compressing elements or dies, mechanism for producing a relative movement of approach and recession between the dies, a rotary carrier for the articles to be compressed consisting of a plurality of holders radiating from the axis of rotation, such axis being approximately parallel to the line of movement of the dies and so located that the holders pass between the dies and close to one of them, means for rotating the carrier step by step and arresting it when any holder is between the dies, and means other than such holder for confining the periphery of the article between the dies. [Claims 6 to 28 not printed in the Gazette.]

1,079,538. AUTOMATIC DISINFECTANT-HOLDER FOR TELEPHONE-MOUTHPIECES. AMOS B. BUCKLAND, Rochester, N. Y. Filed Feb. 24, 1913. Serial No. 750,395. (Cl. 179-185.)



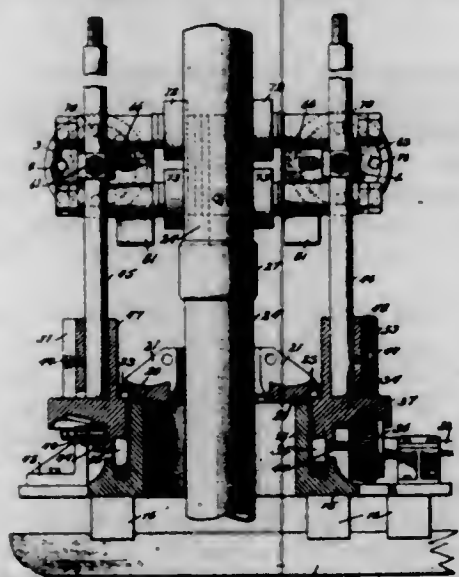
1. The herein described automatic disinfectant holder for telephone mouthpieces, comprising a hollow ring, means for detachably and adjustably connecting it with the telephone mouthpiece, the wall of the ring having an exit opening at the top and a filling opening at one side when the ring stands in normal position, a closure for said filling opening, and a partition across the bottom of the ring with a space past its edge, for the purpose set forth.

2. The herein described automatic disinfectant holder for telephone mouthpieces, comprising a hollow ring,

means for detachably and adjustably connecting it with the telephone mouthpiece, the wall of the ring having an exit opening at a point at the top of the ring when the latter stands in normal position and a filling opening quartering to said exit opening, means for removably closing the filling opening, a partition across the interior of the ring directly opposite said exit opening, and a second partition across the interior of the ring at a point dividing said interior into a larger compartment with which both said openings communicate and a smaller compartment, one of said partitions having a space past it, for the purpose set forth.

3. The herein described automatic disinfectant holder comprising a ring-shaped body having a group of fine outlet openings through its walls at one side and a single inlet opening through its outer wall at a point quartering to said group, a movable closure for the inlet opening, and partitions across the interior of said ring dividing it into larger and smaller compartments whereof the former communicates with all said outlet openings and the latter is adapted to contain liquid, one of said partitions having an opening for admitting the liquid from its compartment to the other compartment; combined with means for supporting said ring with its group of outlet openings normally uppermost and permitting it to be given a quarter revolution when the inlet opening is brought uppermost for filling purposes.

1,079,539. WELL-SINKING APPARATUS. MATTHEW T. CHAPMAN, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed Mar. 13, 1909. Serial No. 483,264. (Cl. 255-23.)



1. In a rotary well-sinking machine, the combination of a stationary turntable member comprising a base having a central opening for the passage of the boring tools and an integral upwardly-extending support around said opening, a rotary member fitting around said support, anti-friction rollers supporting said rotary member, and means detachably connected with said support for holding the well-tube or boring device from rotation when another section of tubing is connected thereto by rotation.

2. In a rotary well-sinking machine, the combination of a stationary turntable member comprising a base having a central opening for the passage of the boring tools and an upwardly-projecting sleeve around said opening, a rotary member fitting around said sleeve, anti-friction rollers supporting said rotary member, and means detachably connected with said sleeve for holding the well-tube or boring device from rotation when another section of tubing is connected thereto by rotation.

3. A well-sinking apparatus having a non-rotary base having a central opening for the passage of the well-tube and a removable support having pivoted gripping devices adapted to be thrown forward into engagement with the well-tube for supporting it against downward movement and to be thrown back out of engagement therewith to permit the passage of the well-tube downward.

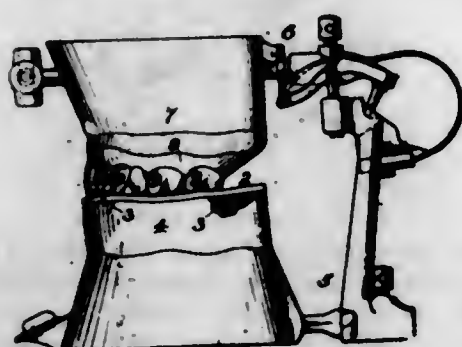
4. In a well-sinking apparatus, the combination of a turntable comprising a lower stationary member and an

upper rotary member, said stationary member having a central opening for the passage of the well-tube, a support adapted to non-rotatably engage said stationary member, and means carried by said support and movable into and out of engagement with the well-tube for supporting the same against downward movement.

5. In a well-sinking apparatus, the combination of a turntable comprising a lower stationary member and an upper rotary member, said stationary member having a central opening for the passage of the well-tube, a support adapted to non-rotatably engage said stationary member, and gripping devices carried by said support and movable into and out of engagement with the well-tube for supporting the same against downward movement and holding the same against rotation.

[Claims 6 to 27 not printed in the Gazette.]

1,079,540. DEVICE FOR USE IN CONNECTION WITH THE ARTICULATION OF ARTIFICIAL TEETH. GEORGE WOOD CLAPP and ERVIN S. ULSAVER, New Rochelle, N. Y. Filed Apr. 4, 1913. Serial No. 758,745. (Cl. 32-1.)



1. An artificial plate for use in setting up dentures, having a body providing an operative surface upon which the teeth of the denture are to be set up and by which they are positioned vertically and in inclination, said surface made with curvatures forming undulations lying in vertical planes and also providing inclined surfaces to horizontal planes, which are inverse or complementary to the curvatures and inclinations to be given to the occlusal or grinding surfaces and edges of the teeth of the completed denture or set of teeth thus being set up.

2. An artificial plate for use in setting up dentures, having a body provided with an operative surface upon which the teeth of the denture to be made are to be set up and by which they are positioned vertically, said surface made with curvatures taken from the average curves derived from curves of the occlusal or grinding surfaces of a plurality of different jaws.

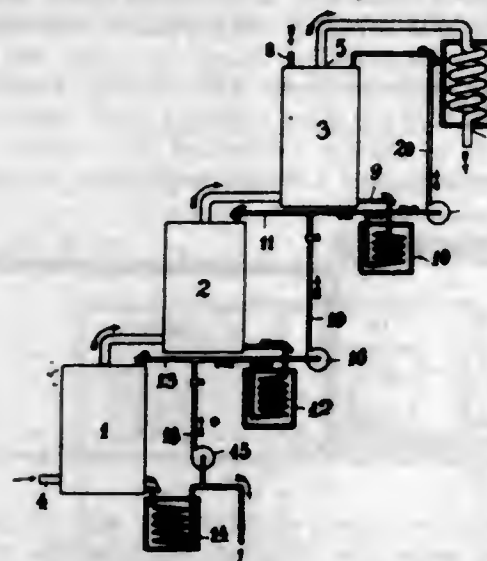
3. An artificial plate for use in setting up dentures, consisting of a plate of hard material and said plate shaped to present curved portions disposed over its surface to correspond to the points or cusps of the occlusal or grinding surfaces of the artificial set of teeth to be produced as the result of setting up the denture upon the said plate.

4. An artificial plate for use in setting up dentures, consisting of a plate of hard material and said plate shaped to present curved portions disposed over its surface to correspond to the points or cusps of the occlusal or grinding surfaces of the artificial set of teeth to be produced as the result of setting up the denture upon the said plate, combined with an articulator having a foundation upon which the artificial plate is attached.

1,079,541. PROCESS OF CONCENTRATING ACID SUCH AS NITRIC ACID BY MEANS OF A DRYING AGENT. EMIL COLLETT, Christiania, Norway, assignor to Norsk Hydro-Elektrisk Kvaestofabriksselskab, Christiania, Norway. Filed Nov. 11, 1912. Serial No. 730,822. (Cl. 23-1.)

1. The process of concentrating acids, such as nitric acid, which comprises passing a current of acid vapor to be concentrated against a counter current of a drying agent, withdrawing the latter from contact with the vapor at one zone of the current and introducing it into

the current at another zone and cooling the agent during its passage from one zone to another.

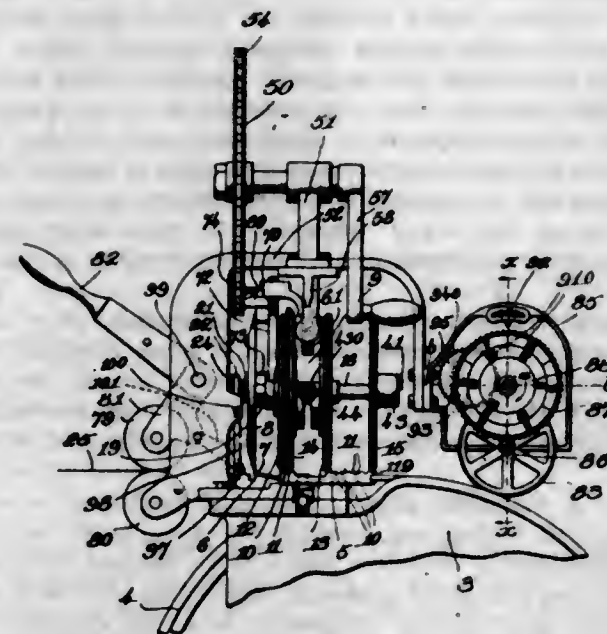


2. The process of concentrating acid, such as nitric acid, which comprises passing an ascending current of acid vapor against a counter current of a drying agent, withdrawing the latter from contact with the vapor at one zone of the current of acid vapor, cooling the withdrawn agent, and introducing the cooled agent into the current of acid vapor in a zone near the zone of withdrawal.

3. The process of concentrating acid, such as nitric acid, which comprises passing an ascending current of acid vapor against a counter current of a drying agent, withdrawing the latter from contact with the vapor at one zone of the current of acid vapor, cooling the withdrawn agent, and introducing the cooled agent into the current of acid vapor in zones near to and distant from the zone of withdrawal.

4. The process of concentrating acids, such as nitric acid, which consists in establishing an ascending current of acid vapor, passing a drying agent in a counter current against the acid vapor, withdrawing the drying agent from the vapor in certain zones of the current, cooling the withdrawn agent, and introducing the cooled agent into the current of vapor at two different zones of the current.

1,079,542. MACHINE FOR CUTTING AND CREASING SHEET MATERIAL. CALVIN N. COLPITTS, Boston, Mass., assignor to American Shade Machine Company, Boston, Mass., a Corporation of Maine. Filed Dec. 20, 1910. Serial No. 598,388. (Cl. 164-77.)



1. In a machine for cutting and creasing sheet material, the combination with means to feed sheet material, of means to cut said material transversely to the direction of feed, and means to form creases in either side of said material at will.

2. In a machine for cutting and creasing sheet material, the combination with means to feed sheet material, of means to cut said material transversely to the direction of feed, and means associated with the cutting means to form creases in either side of said material at will.

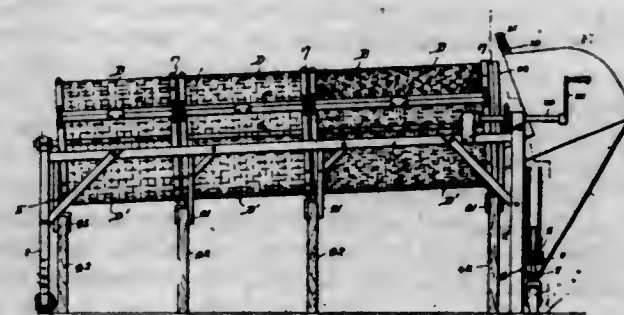
3. In a machine of the class described, the combination with means to feed sheet material, of means to form creases transversely of the length of the material in either or both sides thereof at will.

4. In a machine of the class described, the combination with means to feed sheet material, of means to form creases transversely of the length of the material in either side thereof at will.

5. In a machine of the class described, the combination with a creasing track over which sheet material may be drawn, of a carriage movable on said track and provided with male and female creasing wheels, and means to bring either of said wheels into operative engagement with the track.

[Claims 6 to 23 not printed in the Gazette.]

1,079,543. ROTARY COAL-SCREEN. FREDERIC S. CONVERSE, Binghamton, N. Y. Filed May 4, 1911. Serial No. 625,634. (Cl. 83-56.)



1. A rotary screen comprising spider supports mounted on a central shaft and rotatable therewith, circular bands upon said supports forming a support for a cylindrical screen, screen sections, and bands attached to said screen support and constituting a framework for said screen sections, said bands being arranged concentrically in pairs and with the ends of one band overlapping the ends of another, substantially as described.

2. A rotary screen comprising spider supports mounted on a central shaft and rotatable therewith, circular bands upon said supports forming a support for a cylindrical screen, screen sections, and a framework for said screen sections comprising inner and outer circular and transverse bands attached to said screen support and with the meeting edges or joints of said bands arranged in different planes to break joints with each other, substantially as described.

3. A rotary screen comprising a support for a cylindrical screen, screen sections, supporting bands for said screen sections arranged both interiorly and exteriorly thereof, and means for clamping said supporting bands of adjoining sections at their meeting ends to each other upon said support, substantially as described.

4. A rotary screen comprising spider supports mounted on a central shaft and rotatable therewith, circular bands upon said supports forming a support for a cylindrical screen and provided with circumferentially extending slots therein spaced apart, screen sections, and means for attaching said screen sections to said circular bands comprising bolts passing through holes in said screen sections and the slots in said bands, and means for clamping said screen sections together at their meeting edges.

1,079,544. LIGHT-SIGNAL APPARATUS. GUSTAF DALBEN, Stockholm, Sweden, assignor to American Gas-accumulator Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Apr. 23, 1912. Serial No. 692,590. (Cl. 67-111.)

1. In light signal apparatus, the combination of a casing having a chamber, means for supplying gas thereto,

means for delivering the gas therefrom to a burner, means for controlling the flow of gas into and from the said chamber so that the inflow and outflow thereof may be caused to take place during periodic intervals, and mechanism operated and controlled by the increase and decrease of pressure in the said chamber for causing a periodically increased flow of gas into said chamber, the said mechanism being independent of the said means for controlling the flow of gas into and from said chamber.



2. In light signal apparatus, the combination of a casing having a chamber, a gas outlet from said chamber for supplying gas to a burner at intervals, a main supply pipe for conducting gas into the said chamber at intervals, means actuated by the increase and decrease of gas pressure in said casing to cause the said outlet and supply pipe to be opened and closed, an auxiliary gas supplying means, and mechanism operated and controlled by the increase and decrease of pressure in the said chamber for causing the flow of gas from the said auxiliary source into the chamber at intervals, the said mechanism being independent of the said means for causing the said outlet and supply pipe to be closed.

3. In light signal apparatus, the combination of a casing having a chamber, an outlet conduit for supplying gas to a burner, a conduit for supplying gas to the said chamber, means for alternately opening and closing the said conduits, auxiliary means for supplying gas to the said chamber, and mechanism including a diaphragm operated and controlled by the increase and decrease of gas pressure in the said chamber for periodically permitting gas to enter the said chamber from the said auxiliary source.

4. In light signal apparatus, the combination of a casing having a chamber, a diaphragm for closing the said chamber, an outlet valve for controlling the delivery of gas to a burner, an inlet valve for controlling the supply of gas to the said chamber, a valve member having connection with the said diaphragm and oscillating between the said valves to open and close the same to control the outflow and the inflow of gas through the said valves, an inlet valve for controlling a supply of gas to the said chamber from an auxiliary source, and mechanism including an additional diaphragm controlled and actuated by the increase and decrease of pressure of gas in the said chamber for alternately opening and closing the said last mentioned valve for periodically permitting the flow of gas from the said auxiliary source into the said chamber.

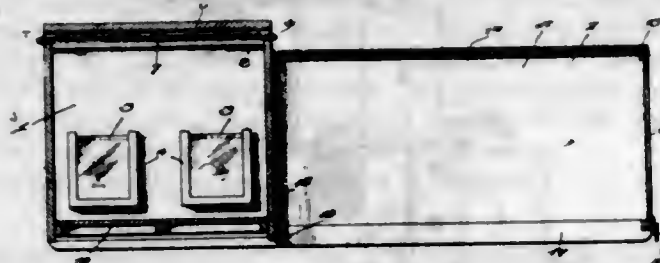
5. In light signal apparatus, the combination of a casing having a chamber, a diaphragm for closing the same, an outlet from said chamber to supply gas to a burner, an inlet for supplying gas to said chamber, means having connection with the said diaphragm for alternately opening and closing the said outlet and the said inlet, an auxiliary inlet for supplying gas to the said chamber, a valve for closing the said auxiliary inlet, and means independent of the said diaphragm which is responsive to the increase and decrease of pressure in the said chamber and which means controls and actuates mechanism to open the valve of the said auxiliary inlet at intervals whereby gas is permitted to enter the said chamber periodically through the said auxiliary inlet.

[Claims 6 to 14 not printed in the Gazette.]

1,079,545. POULTRY-BROODER. CLYDE DELAY, Sandborn, Ind. Filed Feb. 26, 1912. Serial No. 680,041. (Cl. 119-21.)

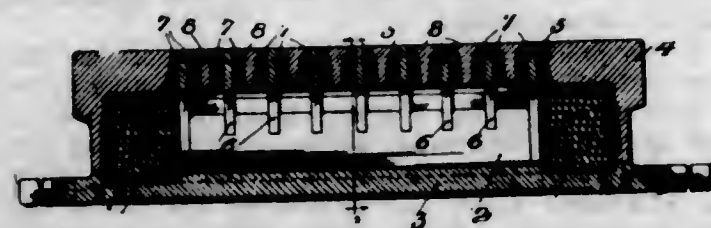
A brooder coop comprising longitudinal walls having corresponding portions at their opposite ends extended

above the remainder of said walls and a transverse partition formed therewith, a rear end wall, said rear end wall, partition, and tall portions of the longitudinal walls forming the walls of a brooding compartment, a portion of the upper edge of the partition being cut away, the extended portions of the longitudinal walls having guide grooves formed in their inner faces adjacent their upper edges to accommodate a slidable perforated top member for the brooding compartment, a hinged solid cover for the brood-



ing compartment hinged to the upper edge of one of the longitudinal walls and adapted when in its lowermost position to cover the brooding compartment, means for retaining the cover in raised position, the remainder of the coop forming a runway, a perforated slidable cover for the runway, and a perforated front end wall for the runway, said partition having an opening therein to form communication between the brooding compartment and the runway and being provided with means for closing said opening.

1,079,546. MAGNETIC CHUCK. LOUIS W. DOWNES and ALFRED W. FAXON, Providence, R. I.; said Faxon assignor to D. & W. Fuse Co., Providence, R. I., a Corporation of Rhode Island. Filed Mar. 7, 1913. Serial No. 752,662. (Cl. 90-59.)



1. A magnetic chuck suitable for holding small articles having its holding surface composed of interlocking narrow pole pieces and non-magnetic material filling narrow polar gaps between them, the pole pieces of at least one polarity being composed of mild steel and all the pole pieces being magnetically connected with a core of magnetic material other than mild steel surrounded by a magnetizing coil.

2. A magnetic chuck suitable for holding small articles having its holding surface composed of interlocking narrow pole pieces and non-magnetic material filling narrow polar gaps between them, the pole pieces of at least one polarity being composed of mild steel and all the pole pieces being magnetically connected with a core of magnetic material surrounded by a magnetizing coil, said pole pieces being cut away relatively to each other below their surfaces to decrease the magnetic leakage across the gap.

3. In a magnetic chuck, the combination of a magnetizing coil, a cast iron core for the same provided with mild steel pole projections and a casing having one wall provided with openings for receiving said steel projections and magnetically connected with the opposite end of said core.

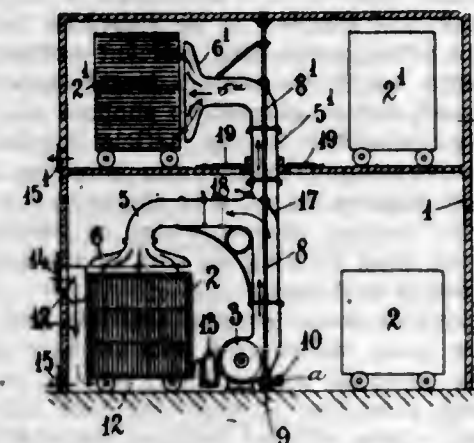
4. In a magnetic chuck, the combination of a magnetizing coil, a cast iron core for the same, mild steel pole plates inserted in said core and a work holding surface or plate having elongated openings registering with said steel poles and magnetically connected with the opposite end of said core, the connecting webs of the plate being tapered for the purpose described.

5. A magnetic chuck having a work holding face which comprises a plurality of bars of highly permeable magnetic metal spaced apart and supported by the walls of

the casing of different magnetic metal to form a grid, pole extension pieces terminating within the spaces of the grid and non-magnetic material between said pole pieces and bars.

[Claims 6 to 18 not printed in the Gazette.]

1,079,547. DRYING PLANT. GIOVANNI FALCHI, Marseille, France. Filed May 19, 1913. Serial No. 768,815. (Cl. 34-46.)



1. In a drying plant, the combination with a chamber having valve-controlled air inlet and air outlet openings; of devices to support the material to be dried circularly arranged in said chamber, a blower having its intake connected to the valved air inlet opening, means to open said intake to the interior of the chamber, and a rotating discharge pipe for the blower having its exit end directed toward said devices, whereby a continuous current of air is swept over the material holding devices to pass through them in succession and whereby either fresh air from outside said chamber may be discharged, or the air within the chamber repeatedly used.

2. In a drying plant, the combination with two superposed chambers having a valve connection between them; of devices for supporting the material to be dried arranged around said chambers, a blower in one chamber, rotatable discharge pipes for the blower, one of which pipes is located in each chamber and discharges on said devices during rotation.

3. In a drying plant, the combination with two chambers having valved connection with one another; of devices arranged around the chambers to support the material to be dried, an air supply pipe having a discharge portion in each chamber arranged to discharge on said devices and means to impart relative movement to said portions and devices.

4. In a drying plant, the combination with a plurality of chambers having a valved connection between them, and independent valved outlets; of drying racks circularly arranged in said chambers, a central blower in one chamber having rotatable discharge branch pipes in each chamber arranged to discharge on said racks, and a valved air supply conduit for the blower.

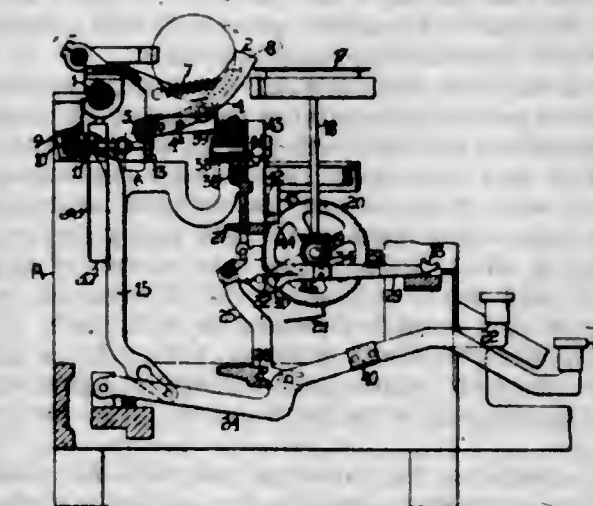
5. In a drying plant, the combination with a plurality of chambers having a valved connection between them, and independent valved outlets; of drying racks circularly arranged in said chambers, a central blower in one chamber having rotatable discharge branch pipes in each chamber arranged to discharge on said racks, a valved air supply conduit for the blower, and means to heat the air passing through said pipe.

1,079,548. TYPE-WRITING MACHINE. HERMANN V. FENGLER, Philadelphia, Pa., and VICTOR B. ROUILLOT, Mays Landing, N. J., assignors to Underwood Type-Writer Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 28, 1909. Serial No. 514,995. (Cl. 197-113.)

1. In a typewriter, the combination with a carriage, and an escapement normally engaged thereby, of a type-carrier movable to printing position, and a release lever

196 O. G.—58

actuated through the operation of the carrier for disengaging the carriage from its escapement and maintaining it in such disengaged position, when the type-carrier is in printing position.



2. In a typewriter, the combination with a power-driven carriage, and an escapement normally engaged thereby, of a key-operated type-carrier, and a release lever actuated by the key for disengaging the carriage from its escapement to permit it to feed continuously while the type is at the printing point.

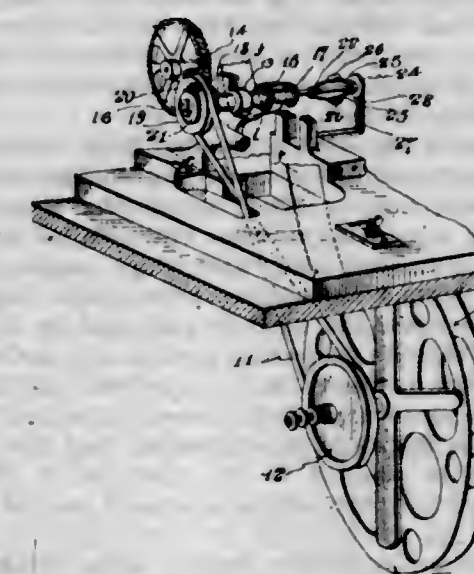
3. In a typewriter, the combination with a power-driven carriage, and an escapement normally engaged thereby, of a key-operated type-carrier movable to printing position, a release actuated by the key for disengaging the carriage from its escapement to permit it to feed continuously while the type-carrier is in printing position, and mechanism for feeding the ribbon while the type-carrier is in printing position.

4. In a typewriter, the combination with a carriage, of a yielding manually-operated type-carrier, and means actuated through the travel of the carriage in letter-feeding direction to bodily vibrate said type-carrier repeatedly to make a line of impressions.

5. In a typewriter, the combination with a power-driven carriage, and an escapement normally engaged thereby, of a key, a type-carrier movable by said key, and means actuated by said key for disengaging the carriage from its escapement to permit it to feed continuously while the type is at the printing point, and means to enable the carriage to vibrate said type-carrier.

[Claims 6 to 64 not printed in the Gazette.]

1,079,549. ATTACHMENT FOR MOVING-PICTURE MACHINES. FRANK H. FRUDE, Chicago, Ill., assignor of one-third to Samuel I. Levin, Chicago, Ill. Filed Apr. 25, 1912. Serial No. 693,029. (Cl. 88-17.)



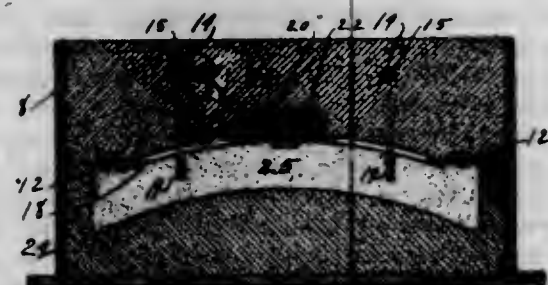
1. In a device of the character described, the combination with a projecting apparatus for moving pictures and

an actuating means therefor, including an electric circuit, of a take up reel, a driving mechanism for said reel, a rotatable shaft carrying a sprocket over which the film passes to the reel, means coacting between the reel driving mechanism and the shaft for limiting the speed of rotation of the shaft, and means operable by the stopping of the shaft for breaking the electric circuit.

2. In a device of the character described, the combination with a projecting apparatus for moving pictures and actuating means therefor, including an electric circuit, of a sleeve, a gear and pulley rotatable on said sleeve and locked to each other, means for rotating said gear, a take up reel, means operable by said pulley for rotating said reel, a shaft journaled in said sleeve, a sprocket keyed on said shaft over which the film passes on its way to the reel, a ratchet carried by said shaft, a pawl carried by the pulley and engaging with said ratchet to limit the speed of rotation of the shaft, and means operable by the stopping of the shaft for breaking the electric circuit.

3. In a device of the character described, the combination with a projecting apparatus for moving pictures and actuating means therefor, of a shaft, a sprocket on said shaft over which the film passes, a take up reel, means for actuating said take up reel, means for limiting the speed of rotation of the sprocket shaft irrespective of the pull of the film upon the sprocket, and means operable by the stopping of the shaft to render the actuating means inoperative.

1,079,550. MEANS FOR HOLDING INSERTS IN PLACE IN MOLDS. JOSEPH O. HARRIS, Columbia Heights, Minn., assignor, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Dec. 17, 1912. Serial No. 737,184. (Cl. 22—124.)



1. In combination, a section of a multiple part mold having a supporting member embedded therein; and an insert supporting element supported by said supporting member and embedded in said section, and which supporting element extends beyond the surface of said section with which the molten metal contacts when the mold is used and is flexible to such a degree that its projecting portion may be bent into engagement with an insert to be supported; said supporting element being separate and distinct from and forming no part of the insert to be supported, and the portion thereof which is embedded in said section forming no part of the article produced when said section is used.

2. The combination with a foundry flask within which a mold may be formed, of a supporting member supported from said flask; and an insert supporting element supported by said supporting member and adapted to be embedded in sand in said flask, and which supporting element extends beyond the surface with which the molten metal contacts when the mold is used and is flexible to such a degree that its projecting portion may be bent into engagement with an insert to be supported; said supporting element being separate and distinct from and forming no part of the insert to be supported, and the portion thereof which is adapted to be embedded in the sand forming no part of the article produced in the use of said flask.

3. The combination with a foundry flask within which a mold may be formed, of a supporting member supported from said flask; and an insert supporting element connected with said supporting member and adapted to be

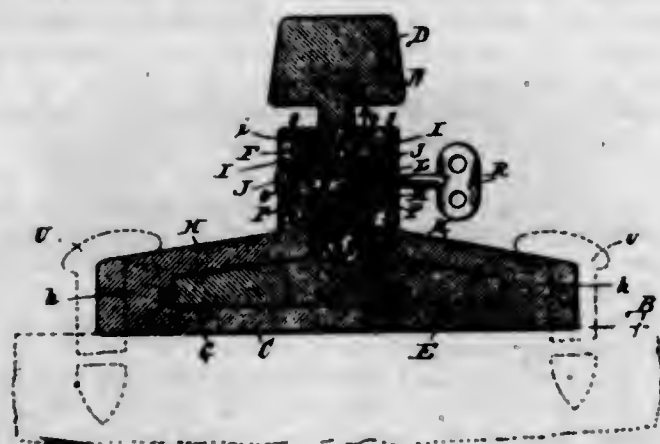
embedded in sand in said flask, and which supporting element extends beyond the surface with which the molten metal contacts when the mold is used and is adapted to support an insert in position to be embedded in the article formed in the mold; said supporting element being separate and distinct from and forming no part of the insert to be supported, and the portion thereof which is adapted to be embedded in the sand forming no part of the article produced in the use of said flask.

4. The combination with a foundry flask within which a mold may be formed, of a supporting member; and an insert supporting element in engagement with said supporting member and adapted to be embedded in sand in said flask, and which supporting element extends beyond the surface with which the molten metal contacts when the mold is used and is adapted to support an insert in position to be embedded in the article formed in the mold; said supporting element being separate and distinct from and forming no part of the insert to be supported, and the portion thereof which is adapted to be embedded in the sand forming no part of the article produced in the use of said flask.

5. In combination, a section of a multiple part foundry flask; a table upon which said section may rest, and which table is provided with a hole; and an insert supporting element extending through the hole aforesaid in said table, and which element becomes embedded therein as the flask section is filled with sand.

[Claims 6 to 9 not printed in the Gazette.]

1,079,551. RAIL-JOINT. CHARLES HEIM and STEPAN JELLENIK, North Tonawanda, N. Y. Filed May 17, 1912. Serial No. 697,909. (Cl. 239—11.)



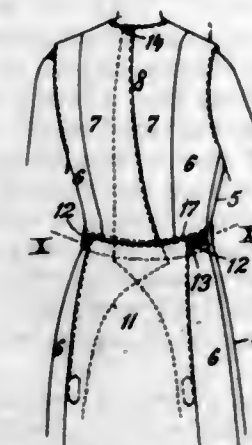
1. The combination with a rail having a transverse opening in its web, of a rail-chair having an inverted T-shaped opening therein, said rail-chair having integral fish-plates lying on opposite sides of the web of said rail, said fish-plates having openings aligned with the opening in said rail, at least one of said openings in the fish-plates having an inwardly projecting stud, and a lock-pin having a longitudinal groove adapted to pass over said stud when entering the pin in said openings and a circumferential groove at one end of said longitudinal groove to receive said stud when turning the lock-pin, said stud and circumferential groove serving to prevent dislodgment of said lock-pin.

2. The combination with a rail having a transverse opening in its web, of a rail-chair having fish-plates arranged on opposite sides of the web of said rail and provided with openings in line with the opening in said rail, the openings in said fish-plates having inwardly-projecting studs, and a lock-pin fitting into said openings and having a circumferential groove near each end and a longitudinal groove extending from the first-inserted end to the circumferential groove near the other end thereof, said longitudinal groove permitting the entrance of the pin into said openings and said circumferential grooves receiving the studs in the openings of said fish-plates when turning said pin to prevent accidental dislodgment of the latter.

3. The combination with a rail, of a rail-chair having opposite fish-plates between which adjacent sections of

said rail are located, each section of the rail having a transverse opening and said fish-plates having openings in line with the openings of said rail-sections, the openings in said fish-plates having inwardly-projecting studs and the opening in one fish-plate being reduced in diameter to form a key-opening and having an inwardly-extending rib or projection, a lock-pin for each set of aligned openings having a circumferential groove near each end and a longitudinal groove extending from the first-inserted end of said pin to the circumferential groove near the other end thereof, said lock-pin having also a socket in said first-inserted end provided with inwardly projecting ribs, and a key for turning said lock-pin having a circumferential groove near one end and longitudinal grooves extending from said circumferential groove to said end of the key, said longitudinal grooves passing over the ribs in the socket of said lock-pin and over the projection in said key opening and said circumferential groove being adapted to receive the projection in said key opening.

1,079,552. DRESS. JACOB AARON HERMAN, New York, N. Y. Filed May 17, 1912. Serial No. 697,962. (Cl. 2—145.)



1. A dress comprising a front portion, side portions, duplicate back portions substantially straight along the meeting edges from the neck to the waist line, and curved outwardly and downwardly from the waist line toward the side portions, a back placket flap portion adapted to cover the opening in the back of the skirt portion of the dress below the waist line, and means for adjusting the back portions as regards each other along the waist line so that the size of the waist of the dress shall conform to that of the wearer.

2. A dress comprising a front portion, side portions, duplicate back portions extending from the shoulder seams to a point below the waist line and substantially straight along the meeting edges from the neck to the waist line, and curved outwardly and downwardly from the waist line toward the side portions, a back placket flap portion formed integrally with the back breadth of the dress and adapted to cover the opening in the back of the skirt portion of the dress below the waist line, and means for adjusting the back portions as regards each other along the waist line and for securing the back placket flap at the waist line so that the size of the waist of the dress shall conform to that of the wearer.

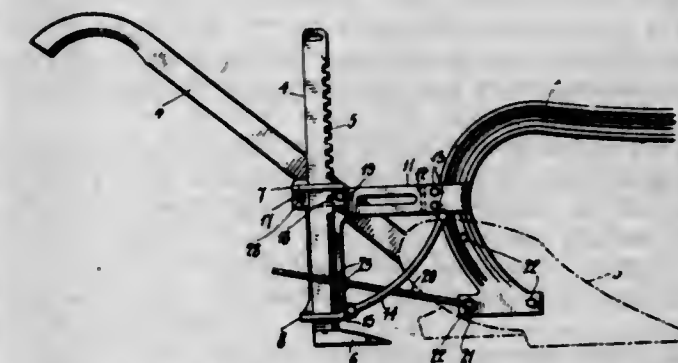
3. A dress comprising a front portion and side portions continuous from the shoulder seams to the bottom of the dress, duplicate back portions continuous from the shoulder seams to a point below the waist line, said back portions substantially straight along the meeting edges from the neck to the waist line, and curved outwardly and downwardly from the waist line toward the side portions, a back placket flap portion adapted to cover the opening in the back of the skirt portion of the dress below the waist line, a braid provided with openings located at the waist line, a hook at the lower edge of one of the back portions at the waist line adapted to cooperate with said braid, and hooks on the upper edge of the back placket flap portion adapted to cooperate with said braid, whereby the size of the waist of the dress may be adapted to the size of the waist of the wearer.

4. A single piece dress adjustable to various sizes of the wearer at the waist line, comprising a front portion, side portions, duplicate back portions substantially straight from the shoulder seams to the waist line, and adapted to meet from the back of the neck to the waist line at the back and to be overlapped if required to conform to the size of the waist of the wearer and curved outwardly and downwardly from the waist line toward the side portions, a back placket flap portion adapted to cover the opening at the back of the skirt portion, a braid having spaced openings located at the waist line, and means connected to one of the back portions and means connected to the flap portion, said means adapted to coact with the braid to adjust the size of the waist of the dress to the size of the waist of the wearer.

5. A so-called princess dress, comprising an integral front portion, integral side portions, a back panel consisting of two pieces continuous from the neck to a point below the waist line, said pieces substantially straight along their meeting edges to the waist line, and curved outwardly and downwardly from the waist line to the side portions, a back panel continuous from the waist line to the bottom of the skirt, said back panel formed as a placket flap at its upper portion but secured at its outer edges to the side portions from a point at the bottom of the flap to the bottom of the skirt, a perforated braid located at the waist line, means secured to one of the back portions and means secured to the flap portion adapted to cooperate with said braid, whereby the size of the waist line of the dress may be adjusted to the size of the waist of the wearer.

[Claims 6 and 7 not printed in the Gazette.]

1,079,553. SUBSOIL-PLOW. CHARLES W. HICKS, Clearwater, Fla. Filed Nov. 4, 1912. Serial No. 729,194. (Cl. 97—32.)



1. In a plow, the combination, with a supporting bar adapted for connection to the plow beam; of a pair of superposed guide brackets carried by said bar; and an endwise movable element slidably engaged with said brackets, one of the brackets being movable relatively to the other to vary the position of said element.

2. In a plow, the combination, with a supporting bar adapted for connection to the plow beam; of a pair of counter-part guides carried by said bar adjacent the lower end thereof; a reversible guide removably connected to the upper portion of said bar for cooperation with either of the first-named guides; and an endwise movable element slidably engaged with the reversible guide and with the adjacent first-named guide.

3. In a plow, the combination, with an angular supporting bar adapted for connection to the plow beam; of a pair of superposed guide brackets secured, one to the horizontal arm and the other to the vertical arm of said bar; and an endwise movable element slidably engaged with said brackets, one of the brackets being movable relatively to the other, to vary the position of said element.

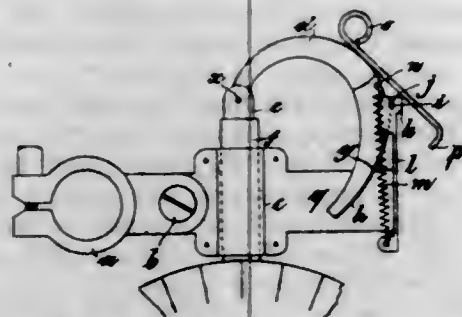
4. In a plow, the combination with a supporting bar adapted for connection to the plow beam; of a pair of counter-part guides carried by said bar adjacent the lower end thereof; a slidable and reversible guide removably connected to the upper portion of said bar for cooperation with either of the first-named guides; and an

endwise movable element slidably engaged with the second-named guide and with the adjacent first-named guide.

5. In a plow, the combination with an angular supporting bar adapted for connection to the plow beam and embodying an upper horizontal arm and a lower vertical arm; of a slidable guide bracket secured to the horizontal arm; a guide bracket fixed to the vertical arm beneath the first-named bracket; and an endwise movable element slidably engaged with said brackets.

[Claims 6 to 12 not printed in the Gazette.]

1,079,554. BRUSH-HOLDER FOR DYNAMO-ELECTRIC MACHINES. JOHN HENRY HOLMES, Newcastle-upon-Tyne, England. Filed June 28, 1913. Serial No. 776,236. (Cl. 171-210.)



1. In a brush holder for dynamo electric machines of the type in which a rectilinear feeding motion is given to the brush, in combination a pressing finger of curved form, a path fixedly carried on the brush holder on which the curved finger can roll, the curve of the finger and the shape of the path being such that when relative motion takes place between the finger and path, the said finger always presses axially on the brush throughout its whole stroke, a spring or springs adapted to give a feeding pressure to the said finger and restraining means co-acting with the brush holder adapted to act in opposition to said spring or springs to insure true rolling contact between the curved finger and the path on which it rolls, substantially as described.

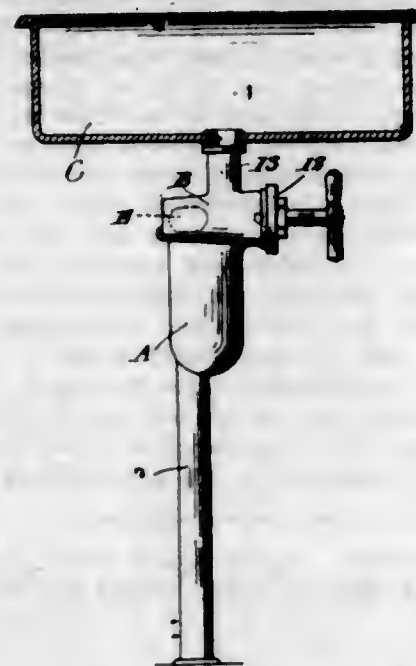
2. In a brush holder for dynamo electric machines of the type in which a rectilinear feeding motion is given to the brush, in combination a pressing finger having a curved surface forming part of a circle, a straight line path fixedly carried on the brush holder on which the curved finger can roll, a spring or springs adapted to give a feeding pressure to the said finger and restraining means co-acting with the brush holder adapted to act in opposition to said spring or springs to insure true rolling contact between the curved finger and the path on which it rolls, substantially as described.

3. In a brush holder for dynamo electric machines of the type in which a rectilinear feeding motion is given to the brush, in combination a pressing finger of curved form, a path fixedly carried on the brush holder on which the curved finger can roll, the curve of the finger and the shape of the path being such that when relative motion takes place between the finger and path, the said finger always presses axially on the brush throughout its whole stroke, a spring or springs adapted to give a feeding pressure to the said finger and a flexible restraining strip one end of which is attached to the finger and the other end is attached to the holder so as to allow the finger to roll upon the fixed path while restraining any movement from the spring pressure to destroy the true rolling motion, substantially as described.

1,079,555. FLUSHING DEVICE. CHARLES HOPWELL, Ottawa, Ontario, Canada. Filed Apr. 8, 1913. Serial No. 759,626. (Cl. 4-21.)

1. In a device of the class described, and in combination, a casing having an inlet adapted to be connected to a plumbing fixture, a waste outlet, a passage from the inlet to outlet, a ventilating outlet, a flushing water inlet and a valve seat, and a single valve member on the seat control-

ling the ventilating outlet, the flushing water inlet and the passage of material through the passageway.

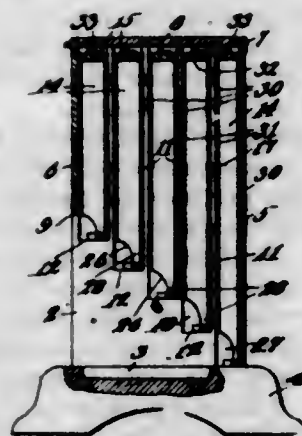


2. In a device of the character described and in combination, a waste pipe, adapted to lead to a drain, a ventilating pipe and a flushing pipe, a casing uniting said pipes, and single valve means in the casing controlling all the said pipes adapted in one position to open the waste and ventilating pipes and close the flushing pipe and in another position to close the waste and ventilating pipes and open the flushing pipe on the drainward side of the closure in the waste pipe, and adapted in a third position to close the waste pipe but leave the waste pipe on the drainward side of the closure in communication with the ventilating pipe.

3. A device of the character described comprising a valve casing having a main inlet, a flushing inlet, a waste-pipe outlet and a ventilating outlet and turning plug in the casing having separated parallel ports therethrough with lateral ports affording communication in certain positions between the inlets and outlets aforesaid.

4. A device of the character described comprising a valve casing having a main inlet, a flushing inlet, a waste-pipe outlet and a ventilating outlet, and a turning plug having separated parallel ports therethrough, one of said ports communicating with a side port, which ports are adapted in a certain position to afford communication between the waste and the ventilating outlet and the other port communicating with a lateral passageway and a lateral port adapted in a certain position to afford communication between the waste and the flushing inlet.

1,079,556. SPOOL HOLDER OR CASE. OSCAR J. ISRAEL, Chariton, Iowa. Filed May 27, 1913. Serial No. 770,244. (Cl. 211-10.)

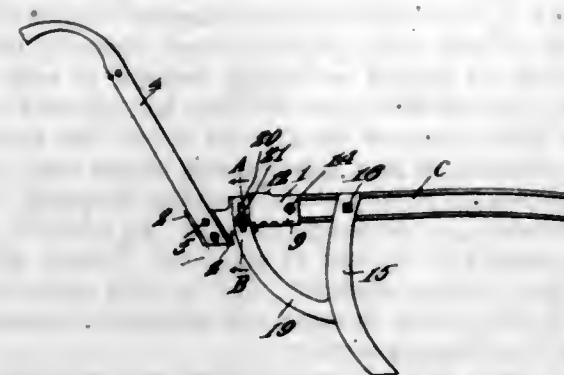


1. In a spool holder, a case comprising side walls having guide ways and ribs between the guide ways, the guide ways being of successively increasing lengths from the front of the case toward the back thereof to define vertically spaced shoulders at the lower ends of the guide

ways; and a plurality of individually removable spool holding frames mounted to slide in the guide ways and spaced from each other by the ribs, the spool holding frames being supported by the shoulders, thereby to hold the lower end of each spool holding frame above the lower end of the next spool holding frame to the rear, the spool holding frames being of different lengths and having their tops flush.

2. In a spool holder, a case; and a spool holding frame mounted to slide in the case, the frame comprising a top having notches in its rear edge, a bottom having notches in its rear edge, and partitions; each partition abutting at its upper end against the lower face of the top and having an upstanding finger engaged in a notch of the top, the lower end of each partition being cut away above the bottom to define a spool disclosing opening through the frame from side to side thereof and to define a reduced end at the lower extremity of the partition, the end being received in one notch of the bottom; a securing element passing through the finger into engagement with the top; and a securing element passing through the reduced end of the partition into engagement with the bottom.

1,079,557. PLOW. EDWARD BRADFORD JAMES, Cordele, Ga. Filed June 19, 1913. Serial No. 774,690. (Cl. 97-26.)



1. The combination with a plow beam, a standard hinged connected thereto and an arcuate brace extending from the plow standard and concentric with its pivot, of a member having a box-like extension constituting a seat for the rear end of the beam, said beam being secured within the extension, there being an arcuate channel within said member and into which the brace extends, said brace having a slot, coöperating means in the channel and upon the brace for holding the brace against sliding movement in the channel, and means for binding the brace against one wall of the channel.

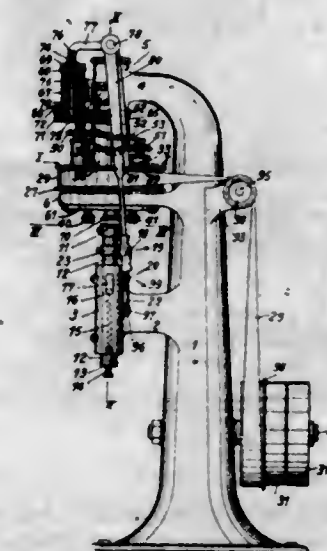
2. The combination with a plow beam, a standard adjustable angularly relative thereto, and a brace extending from the standard and concentric with the pivot of the standard, of a member extending partly around and secured to the rear end portion of the beam, said member being formed with a channel in which the brace is slidably mounted, said brace having a slot, there being a plurality of recesses in the inner side of the brace, means within the channel for projecting into any one of the recesses to hold the brace against sliding movement, and means for clamping the brace in the channel.

3. The combination with a plow beam, a standard adjustable angularly thereon, and a brace extending from the beam and concentric with the pivot of the beam, of a single member for fixedly engaging the rear end of the beam, for engagement by the handles of the plow, and for slidable engagement by the brace, and means for binding the brace upon said beam to hold the standard against adjustment.

4. The combination with a plow beam, a standard mounted for angular adjustment thereon, and a brace extending from the standard and concentric with the pivot thereof, of a casting having a box-like extension constituting a seat for the rear end of the beam, there being a channel within the casting and back of the extension for the reception of the brace, said brace being slotted, and there being opposed channels in the back portion of

the casting for the reception of the handles of the plow, said brace portion being wedge-shaped, the brace being provided in its inner side with recesses, a projection upon the casting adapted to be seated in any one of the recesses to hold the brace against sliding movement relative to the casting, and means for binding the brace to the casting, said means extending through the slot in the brace.

1,079,558. TIN-CAN-SEAMING MACHINE. ANDREAS JENSEN, Stavanger, Norway, assignor to Aktieselskabet Record, Stavanger, Norway. Filed Feb. 14, 1913. Serial No. 748,274. (Cl. 113-24.)



1. In a can seaming machine, the combination with a stationary guide ring, of a pair of oscillative arms, spindles depending therefrom, conical rollers slidable on said spindles and adapted to engage said guide ring, seaming rollers carried by the lower ends of said spindles, and means for axially moving the conical rollers.

2. In a can seaming machine, the combination with a can support, of a stationary stem, a sleeve rotatable thereon, a carrier integral with the sleeve, a seaming device carried by said carrier, a tubular member loosely surrounding the sleeve, a differential gear intermediate the sleeve and member that effects a relative movement between said sleeve and member, and means actuated by said member for rendering the differential gear inactive after the tubular member has completed one rotation around the sleeve.

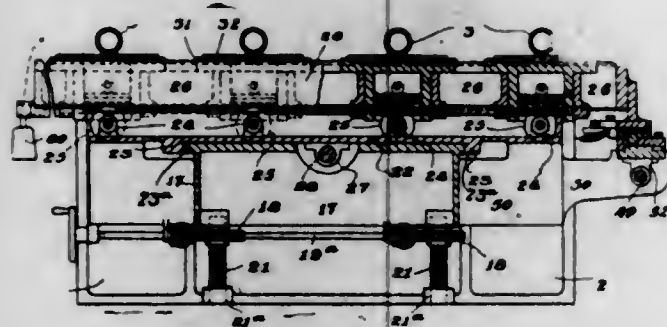
3. In a can seaming machine, the combination with a spring-influenced can support, a hand lever operatively connected thereto, a stem, a carrier having a sleeve that is rotatably mounted on the stem, a tubular member rotatable on the sleeve, a seaming device carried by the carrier, a differential gear intermediate said sleeve and member, and means operated by said member for rendering said differential gear inactive upon the completion of one rotation of said member around the sleeve.

4. In a can seaming machine, the combination with a frame, of a guide ring secured in said frame, a carrier parallel to said guide ring and turnable in said frame, arms on said carrier, spindles depending from the arms, conical rollers movable on said spindles and adapted to engage the inner edge of said guide ring, seaming rollers fast on said spindles, springs for moving said levers outward and thereby forcing the conical rollers against the inner edge of said guide ring, and means for turning said carrier and axially shifting said conical rollers on said spindles whereby said seaming rollers are moved toward and away from the axis of said carrier.

5. In a can seaming machine, the combination with a frame, of a carrier turnable in said frame and having a sleeve, means for driving said carrier, arms rocking on said carrier, spindles depending from the arms, seaming rollers fast on said spindles, a guide ring secured to said frame at right angles to the axis of said carrier, conical rollers movable on said spindles and adapted to engage the inner edge of said guide ring, means for moving said

arms outward and thereby pressing said conical rollers against the inner edge of said guide ring, a tubular member adapted to turn on the sleeve and having peripheral grooves, means for turning said member relatively to said carrier, and means engaging the grooves for axially moving said conical rollers, whereby said seaming rollers are moved toward and away from the axis of said carrier.
[Claims 6 to 9 not printed in the Gazette.]

1,079,559. ENGRAVING-MACHINE. CHARLES ALISON KER, Glasgow, Scotland, assignor of one-third to Andrew Wilson and one-third to William Allison Ker, Glasgow, Scotland. Filed Feb. 6, 1911, Serial No. 606,904. Renewed Sept. 27, 1913. Serial No. 792,222. (Cl. 101-166.)



1. In combination, a frame, means for carrying a plurality of pieces of work in the frame, means for holding the pieces of work rigidly in position in the frame, a bed carried in the frame, a table on the bed, means for moving the table transversely on the bed, a frame on the table, means carried by the table frame for making impressions on each piece of work and means for raising the bed and bringing the impressing means carried by the table frame simultaneously into contact with all the pieces of work.

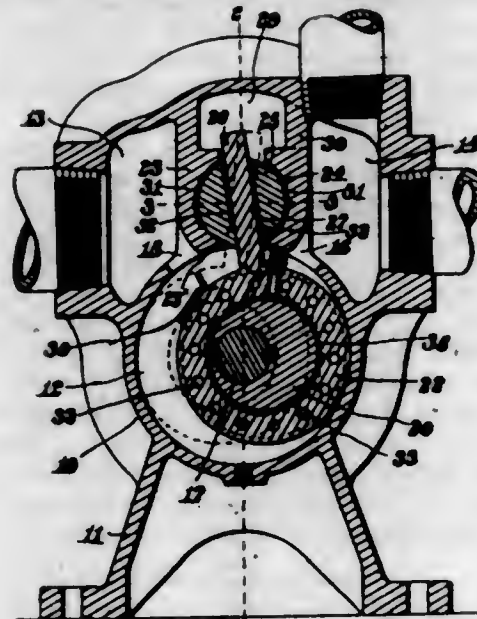
2. In combination, a frame, means for carrying a plurality of pieces of work in the frame, means for holding the pieces of work rigidly in position in the frame, a bed carried in the frame, a table on the bed, means for moving the table transversely on the bed, a frame on the table, means carried by the table frame for making impressions on each piece of work, a series of screws for raising the bed and bringing the impressing means carried by the table frame simultaneously into contact with the pieces of work and means for operating the screws simultaneously.

3. In combination, a frame, means in the frame for holding pieces of work stationary in position, a bed carried in the frame, a table on the bed, means for moving the table transversely on the bed, a sliding frame on the table, mechanical means for sliding the table frame, means carried by the table frame for making impressions on the pieces of work and means for raising and lowering the bed and moving the impressing means simultaneously into and out of contact with the pieces of work.

4. In combination, a frame, means in the frame for holding pieces of work stationary in position, a bed carried in the frame, a table on the bed, means for moving the table transversely on the bed, a frame on the table, mechanical means operated by power for moving the table frame, means carried by the table frame for making impressions on the pieces of work and means for raising and lowering the bed and moving the impressing means simultaneously into and out of contact with the pieces of work.

5. In combination, a frame, means for carrying a plurality of copper rolls in the frame, means for holding the copper rolls rigidly in position in the frame, a bed carried in the frame, a table on the bed, means for moving the table transversely on the bed, a frame on the table, means carried by the table frame for making impressions on each copper roll and means for raising the bed and bringing the impression means carried by the table frame simultaneously into contact with the copper rolls.
[Claims 6 to 16 not printed in the Gazette.]

1,079,560. ROTARY PUMP. JUSTUS R. KINNEY, Dorchester, Mass. Filed Dec. 9, 1912. Serial No. 736,203. (Cl. 103-44.)



1. In a device of the class described, the combination of a casing provided with an inlet compartment, an outlet compartment, a cylindrical chamber between said compartments, and a cylindrical piston chamber communicating with each of said compartments upon opposite sides of said chamber; a slotted oscillating member in said chamber having grooves in the walls of its slot adapted to contain fluid under pressure the grooves in one wall extending the full diameter of said member and in the other wall a lesser distance; a rotary shaft centrally disposed in said piston chamber; an eccentric thereon; an annular piston member adapted to contact at one point thereof with the wall of said piston chamber; and a solid blade rigidly secured to said piston member and extending through the slot in said oscillating member.

2. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having an inlet passage and an outlet passage communicating therewith, said casing being also provided with a cylindrical recess interposed between said passages and having two grooves in the wall thereof adapted to contain fluid under pressure, one of said grooves being open at both ends while the other is open at one end only; an oscillating slotted member in said recess having two grooves in the opposite walls of said slot, one of said grooves being open at both ends while the other is open at one end only; and a rotary eccentric piston in said piston chamber provided with a blade rigidly secured thereto extending through and accurately fitting the slot in said oscillating member.

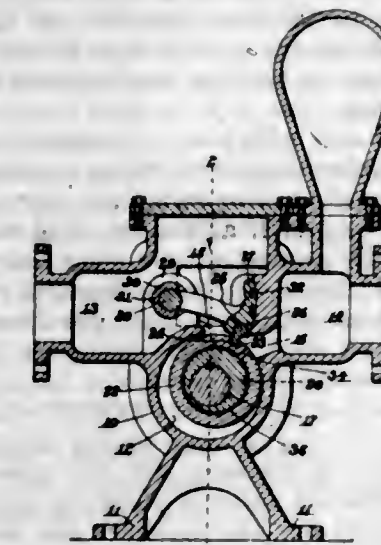
3. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having inlet and outlet passages communicating therewith; a rotary eccentric piston in said chamber provided with a radial blade rigidly secured thereto; and a slotted oscillating member through the slot of which said blade extends, said member having grooves in the bearing walls of its slot the one on the discharge side extending to the piston chamber and the other extending from the upper end of said slot to a point removed from said piston chamber.

4. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having an inlet passage and an outlet passage communicating therewith, a rotary eccentric piston in said piston chamber provided with a blade interposed between said inlet and outlet passages and preventing the flow of fluid from one to the other; a rotary shaft for said piston; and a bearing for the end of said shaft provided with a groove extending longitudinally of its inner wall and a groove communicating therewith extending longitudinally of its periphery and communicating with the piston chamber.

5. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having an inlet passage and an outlet passage communicating

therewith; a rotary shaft centrally disposed in said piston chamber; an eccentric thereon; and an annular member having a radial blade interposed between said passages, said annular member being provided with an annular groove in its inner cylindrical wall communicating with the discharge passage whereby fluid under pressure may be admitted to the space between said eccentric and annular member and confined therein.
[Claims 6 and 7 not printed in the Gazette.]

1,079,561. ROTARY PUMP. JUSTUS R. KINNEY, Boston, Mass. Filed Oct. 20, 1910, Serial No. 588,210. Renewed Apr. 16, 1913. Serial No. 761,560. (Cl. 103-44.)



1. In a device of the class described, the combination of a casing provided with a piston chamber and inlet and outlet passages communicating therewith; a revolvable piston therein; an annular member surrounding said piston and adapted to bear at one point in its periphery upon the wall of said piston chamber, said member having an annular groove in its inner cylindrical wall; means for admitting liquid under pressure to said groove; and a projection from said annular member interposed between said inlet and outlet passages and adapted to prevent the direct passage of liquid from one passage to the other.

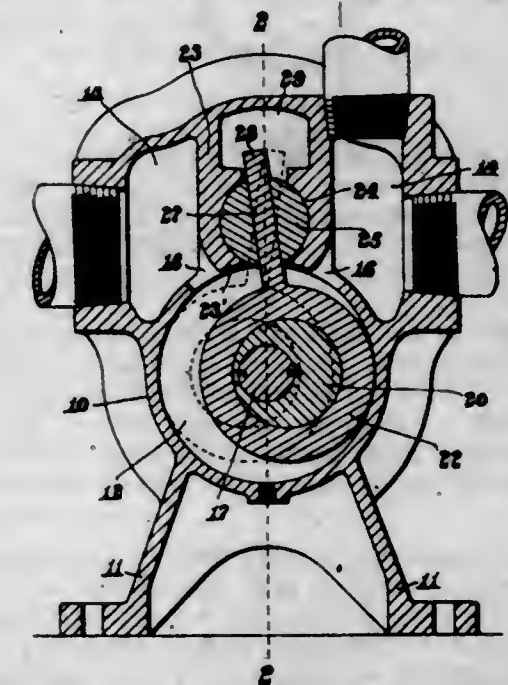
2. In a device of the class described, the combination of a casing provided with a piston chamber and inlet and outlet passages communicating therewith; a revolvable piston therein; an annular member surrounding said piston and adapted to bear at one point in its periphery upon the wall of said piston chamber, said member having an annular groove in its inner cylindrical wall; a passage through said annular member communicating with the outlet passage adapted to admit liquid under pressure to said groove; and a projection from said annular member interposed between said inlet and outlet passages and adapted to prevent the direct passage of liquid from one passage to the other.

3. In a device of the class described, the combination of a casing provided with a piston chamber and inlet and outlet passages communicating therewith; a revolvable piston therein; and an annular member surrounding said piston and adapted to bear at one point in its periphery upon the wall of said piston chamber, said member being provided with means projecting therefrom to prevent the direct passage of liquid from one passage to the other and having an annular groove in its inner cylindrical wall communicating with said outlet passage by a single passage adjacent said projecting means.

1,079,562. ROTARY PUMP. JUSTUS R. KINNEY, Dorchester, Mass. Filed July 18, 1912, Serial No. 710,255. Renewed July 21, 1913. Serial No. 780,366. (Cl. 103-44.)

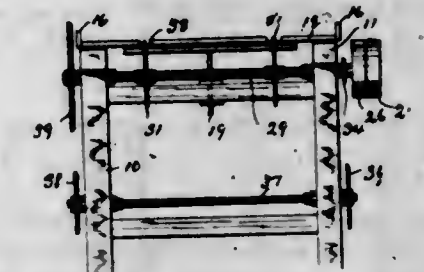
1. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having an inlet passage and an outlet passage communicating therewith, said casing being also provided with a cylindrical recess interposed between said passages, the ends

of the walls of which are positioned outside the cylindrical wall of said piston chamber; an oscillating slotted member in said recess; and a rotary eccentric piston in said piston chamber provided with a blade rigidly secured thereto extending through and fitting the slot in said oscillating member.



2. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber having an inlet and outlet passage communicating therewith, said casing being provided with a recess between said passages, the ends of the walls of which are positioned outside the cylindrical wall of the piston chamber; and a rotary eccentric piston in said piston chamber provided with a blade rigidly secured thereto extending into said recess.

1,079,563. SHAKER FOR CHOCOLATE AND THE LIKE. JOHN KNIGHT, Newark, N. J. Filed July 30, 1912. Serial No. 712,228. (Cl. 107-8.)



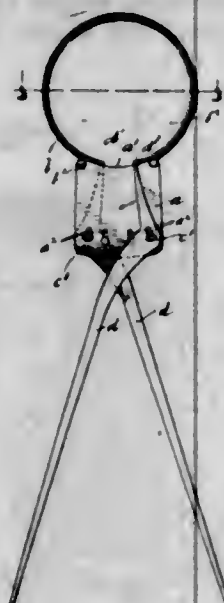
1. In an apparatus for shaking chocolate, a support, members adjustable in the support, a frame loosely held on the said members, a table movably held by the frame, said table having longitudinally extending grooves in its top, belts mounted to travel in the grooves, and slats attached to and carried by the said belts whereby articles are carried longitudinally of the table, and means for vibrating the table.

2. In an apparatus for shaking chocolate, a support, members adjustable thereon, a frame mounted on the members, a table loosely carried by the frame, said table having grooves in its upper surface and extending longitudinally thereof, means for vibrating the table with relation to the adjustable members, flexible devices traveling in the grooves of the table below the surface thereof, means for causing the travel of said flexible members, and slats attached to the flexible members whereby articles are drawn over the surface of the table thereby.

1,079,564. TOOL FOR REMOVING OR INSERTING PISTON PACKING-RINGS OR THE LIKE. JOSEPH KOMANCSEK, New York, N. Y. Filed Nov. 8, 1912. Serial No. 730,243. (Cl. 81-3.)

1. A tool comprising a rigid member, two intersecting jaws pivotally secured in said member and a circularly

curved member, the bits of said jaws projecting into the space surrounded by said circularly curved member having its ends secured to said member.

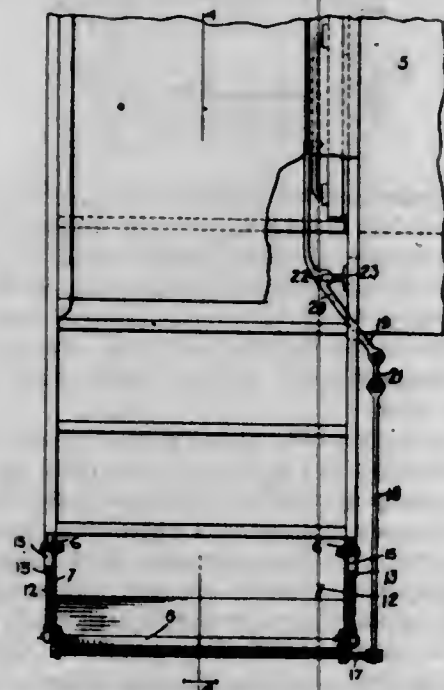


2. A tool comprising a rigid member, two intersecting jaws pivotally secured in said member and a circularly curved member removably secured to the first named member, the bits of the two jaws slightly projecting into the space surrounded by said circularly curved member.

3. A tool comprising a rigid member, two intersecting jaws adjustably and pivotally secured in said member and a circularly curved member removably secured to the first named member, the bits of the two jaws projecting into the space surrounded by said circularly curved member.

4. A tool comprising a plate having a concave edge, a circularly curved member secured to said plate and projecting beyond said concave edge to form with the latter a complete circle and two intersecting jaws pivotally secured to said plate and arranged at opposite sides of said plate, the bits of said jaws projecting into the space surrounded by said member.

1,079,565. CAR-STEP. JOHN R. KUNZELMAN, Duluth, Minn. Filed Dec. 21, 1912. Serial No. 737,972. (Cl. 105—88.)



1. In combination with a car, a member pivoted to the car, a tread member pivoted to the first member and having a projection adapted to strike the first member, when it is folded thereagainst, and a member extending downward and outward, and pivoted to the tread member, so that when the third member is drawn upward and inward it will fold the tread member against the first member and raise the first two members.

2. In combination with a car having a recess, a member pivoted to the car and having a guideway, a tread member pivoted to the first member, a bolt disposed in the guideway and adapted to engage the car at the recess, and means for connecting the bolt to the tread member for operating the bolt by a movement of the tread member.

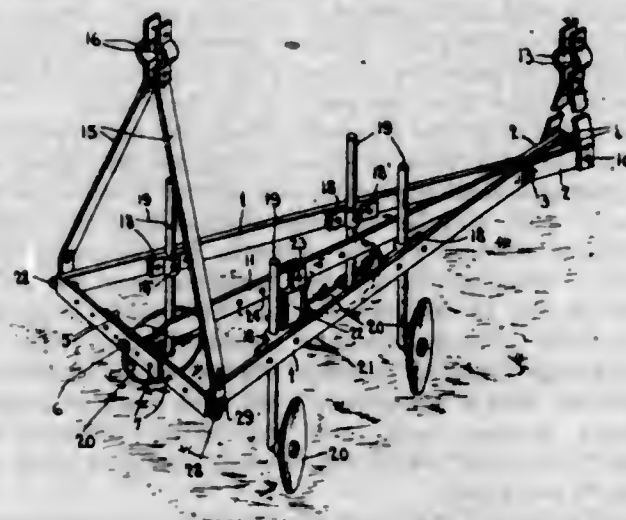
3. In combination with a car having a recess, a member pivoted to the car having a guideway, a tread member pivoted to the first member and having a projection adapted to strike against the first member, a bolt disposed in the guideway and adapted to engage the car at the recess, means for connecting the bolt to the tread member for operating the bolt by a movement of the tread member, and a third member extending downward and outward and articulated to the tread member, so that when the third member is drawn upward and inward it will fold the tread member against the first member and raise the first two members.

4. In combination with a car, a member pivoted to the car, a tread member pivoted to the first member and having a projection adapted to strike the first member when it is folded thereagainst, a member extending downward and outward and pivoted to the tread member, so that when the third member is drawn upward and inward it will fold the tread member against the first member and raise the first two members, and a lug on the first member for supporting the tread member in horizontal position.

5. In combination with a car having locking means, a member pivoted to the car and having locking means for engaging the locking means on the car, when the member is in a predetermined position relatively thereto, a tread member pivoted to the first member, and means operable by a movement of the tread member relatively to the first member for actuating one of the locking means.

[Claims 6 to 9 not printed in the Gazette.]

1,079,566. HARROW ATTACHMENT FOR CULTIVATORS. HARRIS E. LANCASTER, Adamsville, Tex. Filed Mar. 24, 1913. Serial No. 756,451. (Cl. 97—44.)



1. A harrow attachment for cultivators comprising side bars loosely connected near one end, with the ends of each bar flaring from their point of connection, arms at the free ends of the longer portions of said bars extending inwardly toward each other and overlapping, means for adjustably connecting said arms, harrows mounted on said side bars, and means for holding the shorter flared portion of said bars rigidly in adjusted position.

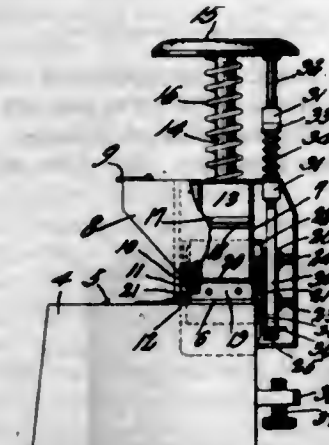
2. A harrow attachment comprising side bars having outwardly flared apertures near one end, a bolt extending loosely through said apertures and connecting said side bars, the short ends of said bars being bent outwardly from said connecting bolt, spacers arranged between the outwardly bent forward ends of said bars, means for adjustably securing said spacers in adjusted position, means for adjustably connecting the rear ends of said bars, and harrows mounted on said side bars.

3. A harrow attachment comprising side bars having outwardly flared apertures near one end, a bolt extending loosely through said apertures and connecting said side

bars, the shorter ends of said bars being bent outwardly from said connecting bolt, wedge shaped blocks arranged between the flared ends of said bars and having longitudinal slots therein, bolts extending through said bars and the slots in said blocks to secure said blocks in adjusted position, means for detachably connecting the rear ends of said bars, and harrows mounted on said side bars.

4. A harrow attachment for cultivators comprising side bars loosely connected near their forward ends whereby the rear ends of the bars may be adjusted to a greater or less distance apart, said forward ends of the bars being bent outwardly, end bars at the rear ends of the side bars, and having an overlapping engagement, means to adjustably connect the overlapping ends of said bars whereby the rear ends of the side bars are adjusted to greater or less distances apart and held in their adjusted positions, wedge shaped spacing blocks arranged between the outwardly bent forward ends of said side bars and having therein longitudinal slots, a fastening bolt engaged with said forward ends of the side bars and with the slots in said spacing blocks, a series of standards adjustably secured to the side bars of the frame, harrow disks carried by said standards, hanger bars secured at their lower ends to the ends of said side bars, and clips formed on the upper ends of said hanger bars and adapted to be engaged with the beams of the cultivator.

1,079,567. STAMP-AFFIXING MACHINE. CURTIS C. LANPHEAR, Miles City, Mont. Filed Dec. 20, 1912. Serial No. 737,913. (Cl. 216—25.)



1. In a stamp affixing machine, a spring returned plunger, means for feeding a strip of stamps below the plunger, cutting means actuated by the plunger, a member operatively connected to the feeding means and yieldably connected to the plunger, and an adjustable stop for limiting the movement of the said member.

2. In a stamp affixing machine, a spring returned plunger, an anvil block thereunder, means for feeding a strip of stamps below the plunger and including a gear, cutting means actuated by the plunger, a rack bar meshing with the said gear, a connection between the plunger and rack bar for yieldably depressing the rack bar with the plunger and for raising the rack bar with the plunger, and a stop for limiting the movement of the rack bar.

3. In a stamp affixing machine, a spring returned plunger, an anvil block thereunder, means for feeding a strip of stamps below the plunger and including a gear, cutting means actuated by the plunger, a member movable with the plunger, a rack bar meshing with the said gear and slidably engaging the said member, means for yieldably moving the rack bar with the said member, and a stop for limiting the movement of the rack bar.

4. In a stamp affixing machine, a spring returned plunger, means for feeding a strip of stamps below the plunger including a gear, cutting means actuated by the plunger, a spindle carried by the plunger, a rack bar meshing with the said gear and having a pair of eyes loosely embracing the spindle, a coiled wire spring compressibly disposed between the spindle and the lower eye, and a stop for limiting the downward movement of the rack bar.

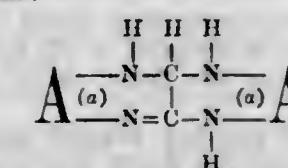
5. In a stamp affixing machine, a spring returned plunger, a pair of feed rollers, cutting means actuated by the plunger, a rack bar yieldably connected to the plunger, an adjustable stop for limiting the movement of the rack bar, a gear meshing with the rack bar, a ratchet wheel secured to one of the rollers, and a pawl actuated by the gear and cooperating with the ratchet wheel to advance the roller.

[Claims 6 and 7 not printed in the Gazette.]

1,079,568. VAT DYESTUFF. AUGUST LEOPOLD LASKA and ERNST JULIUS RATH, Offenbach-on-the-Main, Germany, assignors to The Corporation of Chemische Fabrik Griesheim-Elektron, Frankfurt-on-the-Main, Germany. Filed June 12, 1913. Serial No. 773,185. (Cl. 8—1.)

1. The process of making vat dyestuffs of the anthraquinone series consisting in acting with glyoxylic acid upon ortho-diamino-anthraquinones.

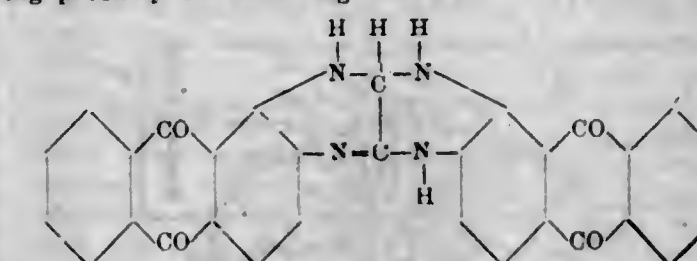
2. As new articles the vat dyestuffs of the anthraquinone series, obtained by acting with glyoxylic acid upon ortho-diamino-anthraquinones, having probably the following formula:



where A is an anthraquinone nucleus, which dyestuffs form when dry black to bluish black powders and yield with alkaline hydrosulfite solution a reddish brown to brownish red vat, which dyes cotton fast black to bluish black shades.

3. The process of making a vat dyestuff of the anthraquinone series, consisting in acting with glyoxylic acid upon 1,2-diamino-anthraquinone.

4. As a new article a vat dyestuff, obtained by acting with glyoxylic acid upon 1,2-diamino-anthraquinone, having probably the following formula:



which dyestuff dissolves in concentrated sulfuric acid to a brownish red solution, not changed by addition either of boric acid or of formic aldehyde, in fuming sulfuric acid, containing 60% SO₃, to a violet solution, forming dry a bluish black powder, yielding with alkaline hydrosulfite solution a brownish red vat, which dyes cotton fast bluish black shades.

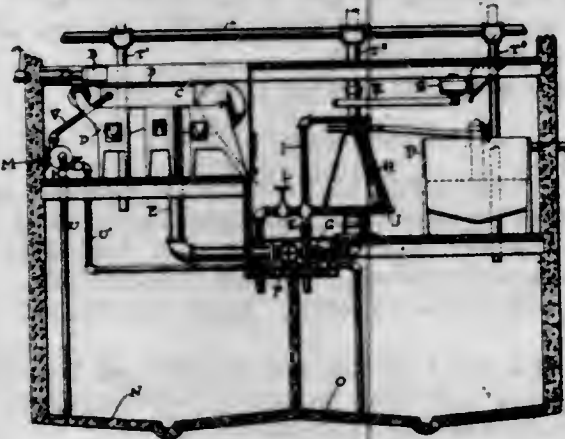
1,079,569. SEWAGE DISPOSAL. LYNN T. LEET, Reading, Pa., assignor to Water & Sewage Purification Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 17, 1909, Serial No. 528,614. Renewed Apr. 3, 1913. Serial No. 758,714. (Cl. 210—18.)

1. The process of treating sewage which consists in separating sewage into two parts one containing a high percentage of solids and the other a low percentage of solids, conveying the former to a closed septic tank and there permitting it to be liquefied by the action of anaerobic bacteria.

2. The process of treating sewage which consists in separating sewage into two parts one containing a high percentage of solids and the other a low percentage of solids, conveying the former to a closed septic tank and permitting it to be liquefied by the action of anaerobic bacteria and oxidizing the effluent from the septic tank.

3. The process of treating sewage which consists in separating sewage into two parts, one containing a high percentage of solids and the other a low percentage of

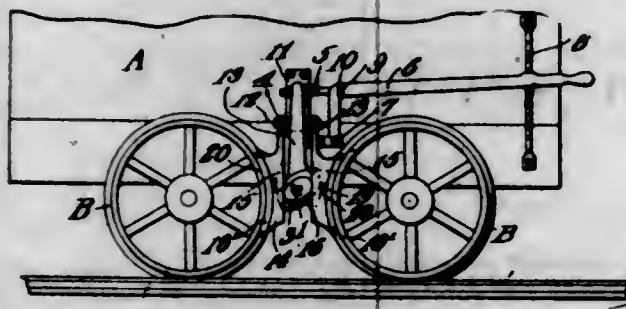
solids, conveying the former to a closed septic tank and permitting it to be liquefied by the action of anaerobic bacteria and conveying the liquid resulting from the septic action to raw sewage previous to being subjected to the separate treatment.



4. The process of treating sewage which consists in separating sewage into two parts, one containing a high percentage of solids and the other a low percentage of solids, conveying the former to a closed septic tank and there permitting it to be liquefied by the action of anaerobic bacteria and subjecting the latter to an oxidizing treatment.

5. The process of treating sewage which consists in separating sewage into two parts, one containing a high percentage of solids and the other a low percentage of solids, conveying the former to a closed septic tank and there permitting it to be liquefied by the action of anaerobic bacteria and subjecting the latter together with the effluent from the septic tank to an oxidizing treatment. [Claims 6 and 7 not printed in the Gazette.]

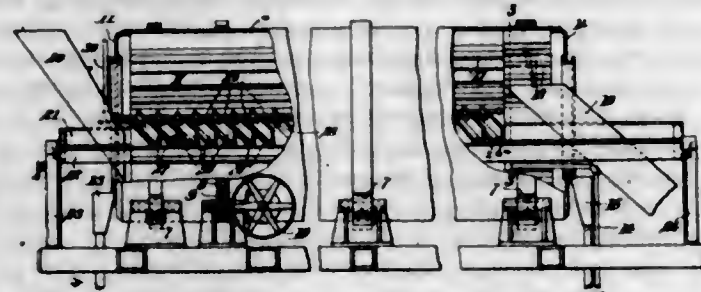
1,079,570. CAR-BRAKE. RILEY MCCLASKEY, Carneyville, Wyo. Filed May 4, 1912. Serial No. 695,202. (Cl. 188—24.)



1. A car brake comprising oppositely disposed brake blocks, cams disposed between said brake blocks and adapted to actuate the same, a vertical arm rigidly secured to the cam shaft and adapted to rotate the same, a bracket rigidly secured to the car side intermediate the ends of said brake blocks, a bell crank lever pivotally secured at one of its extremities to said bracket, the said bell crank lever including a horizontal actuating arm and a vertical arm, an adjustable connection between the said cam shaft vertical arm and the said bell crank lever at the meeting portions of the arms of the same.

2. A brake including oppositely disposed brake blocks having recesses in their back faces, a cam interposed between the blocks and having an annular flange projecting into the recesses, a bracket secured to the car side and loosely supporting said brake blocks, a cam shaft extending between the brake blocks and supporting cams thereon, an arm rigidly secured to said cam shaft and projecting upwardly therefrom, a bell crank lever including a vertical arm pivotally secured to said car bracket beneath the brake block supports, an adjustable connection between the upper extremity of said last mentioned arm and the cam shaft arm, and a horizontal arm projecting from the vertical arm of the said bell crank lever, and means for holding the said horizontal arm in adjusted position.

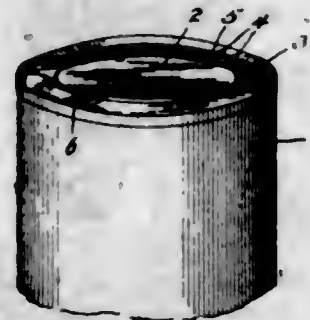
1,079,571. SAND AND GRAVEL CLEANER. WALTER C. MERCER, Richmond, Va. Filed Oct. 8, 1913. Serial No. 794,053. (Cl. 83—86.)



1. The combination of a revolving drum, a washing board extending lengthwise therein and inclined transversely, on which board material is dropped by the revolution of the drum, means to flow water across the board, and a water pipe extending within the drum along the upper edge of the board and provided with openings adapted to cause a flow of material from one end of the drum toward the other.

2. The combination of a revolving drum provided with internal lifters, a washing board extending lengthwise therein and adapted to receive material dropped by the lifters, said board being inclined transversely, a succession of guides on the board, inclined to direct the flow of material toward one end of the drum, and a water pipe extending lengthwise within the drum, along the upper edge of the board, and provided with jet openings arranged to discharge water onto the board.

1,079,572. CAN. JOHN F. MONTGOMERY, Columbus, Ohio, assignor to The John Wildt Evaporator Milk Co., Columbus, Ohio, a Corporation of Illinois. Filed Nov. 6, 1912. Serial No. 729,855. (Cl. 220—67.)



1. A can, provided with a top adapted to be punctured at a predetermined point at a distance from the edge of the can to permit the outflow of the contents, and guiding means for the contents provided upon the upper surface of said top, said guiding means extending from the point of puncturing to the edge of the can.

2. A can, provided with a top adapted to be punctured at a predetermined point and with raised ribs forming a groove which extends from said point of puncturing to the edge of the can.

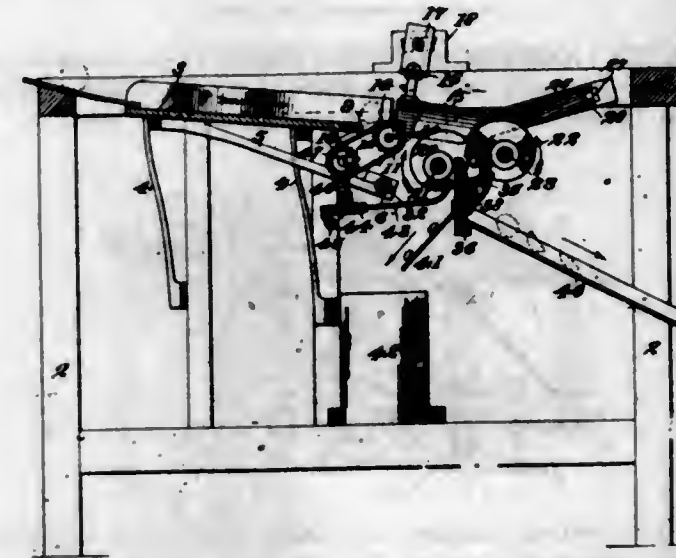
3. A can, provided with a top having an annular depressed portion intersected at different points by raised ribs which form grooves, and lower depressed portions at the inner ends of said grooves, said lower depressed portions being adapted to be punctured and the liquid fed through one of said grooves, which forms a guide.

4. A can provided with a top having an annular depressed portion adapted to be punctured at different points, adjacent to the inner edge of the same, said annular depressed portion being intersected by raised ribs, which form grooves from said points of puncturing to the edge of the can.

1,079,573. FRUIT CUTTING AND PITTING MACHINE. ARTHUR L. MORTON, Mountain View, Cal. Filed Sept. 19, 1912. Serial No. 721,198. (Cl. 146—6.)

1. In a fruit handling machine, a device for arranging fruit in a given position, said device comprising an in-

clined member having a plurality of substantially parallel corrugations, portions of which are transversely zigzag for the purpose of rapidly arranging a quantity of fruit in the desired position, and stationary guides forming channels in alignment with the channels of the corrugations.



2. In a fruit handling machine, a device for arranging fruit in a given position, said device comprising an inclined member having a plurality of substantially parallel corrugations, portions of which are transversely zigzag for the purpose of rapidly arranging the fruit in the desired position, supporting springs for giving the device an upward throw, and means for reciprocating said member on the springs.

3. In a fruit handling machine, a device for arranging fruit in a given position, said device comprising a member having a plurality of substantially parallel corrugations, portions of which are transversely zigzag for the purpose of rapidly arranging the fruit in the desired position, said member being provided with serrations at the bottom portions of the corrugations adjacent to one end, stationary channel forming guides, and a fruit conveyor running through the serrations in said member and to said guides.

4. In a fruit handling machine, the combination with a reciprocating feeding member, of stationary spaced guides forming channels into which the fruit from the feeding member is carried, a conveyor for delivering the fruit in given order from the moving feed member to the stationary guides, yieldable receiving devices, the arms of which are disposed adjacent to the ends of the stationary guides, and rotary cutters arranged in cooperative sets operating in the channels formed between the stationary guides and the receiving devices.

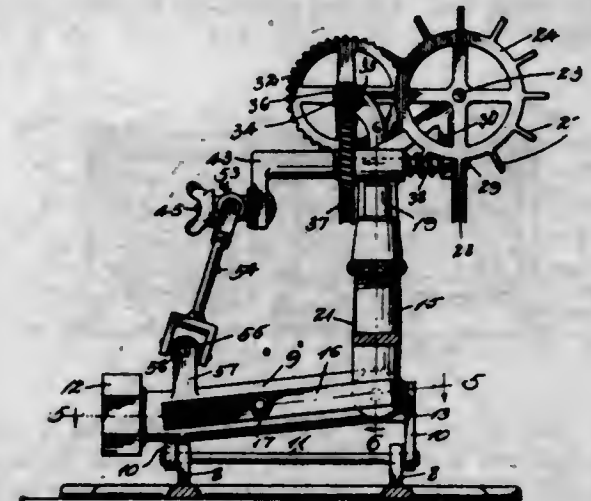
5. In a fruit handling machine, the combination with a reciprocating feeding member, of stationary spaced guides forming channels into which the fruit from the feeding member is carried, a conveyor for delivering the fruit in given order from the moving feed member to the stationary guides, yieldable receiving devices, the arms of which are disposed adjacent to the ends of the stationary guides, rotary cutters arranged in cooperative sets operating in the channels formed between the stationary guides and the receiving devices, and stationary throat plates arranged in sets to form throats below the cutter sets through which pits from the fruit are precipitated, said throat plates forming diverting walls for the fruit sections.

[Claims 6 to 11 not printed in the Gazette.]

1,079,574. AUTOMATIC LAWN-SPRINKLER. EDGAR L. NICHOLSON, Los Angeles, Cal. Filed May 28, 1912. Serial No. 700,156. (Cl. 137—59.)

1. In an automatic lawn sprinkler, a pivotally mounted hose connection member, a nozzle member pivotally mounted on said hose connection member, and revoluble fluid actuated means to move both members in different directions simultaneously.

2. In an automatic lawn sprinkler, a pivotally mounted hose connection member, a nozzle member pivotally mounted on said hose connection member in operative relation thereto, a water wheel mounted in the discharge path of the nozzle member, and means connected to said water wheel to actuate said nozzle and said hose connection member.



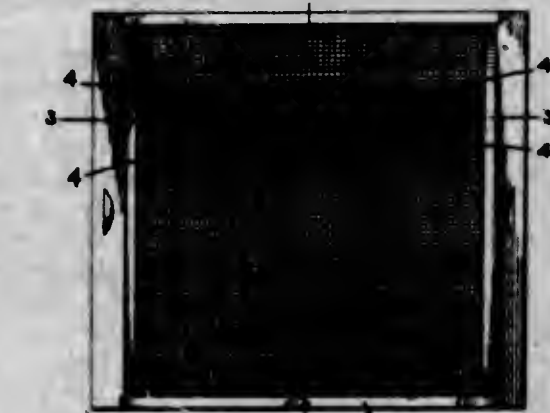
3. In an automatic lawn sprinkler, the combination of a supporting frame, a hose connection member pivotally supported thereon, a nozzle member pivotally connected to the said hose connection member, a water wheel mounted in the axial plane of the nozzle, a connecting rod pivotally connected to the hose connection member and adjustably connected to a crank arm, and actuating means to oscillate the nozzle member in relation to the hose connection member.

4. In an automatic lawn sprinkler, a pivotally supported hose connection member, a nozzle member pivotally connected to the said hose connection member, a water wheel mounted in the axial plane of the nozzle, a connecting rod pivotally connected to the hose connection member and adjustably connected to a crank arm, and actuating means to oscillate the nozzle member in relation to the hose connection member.

5. In an automatic lawn sprinkler, the combination of a supporting frame, a hose connection member pivotally supported thereon, a nozzle member pivotally connected to the said hose connection member, a water wheel with its paddles mounted in the axial plane of the nozzle, worm gear on the shaft of the water wheel, a train of intermediate gears, a crank arm mounted on a shaft actuated by said train of gears and adjustably connected with a fixed point on the frame to rock the hose connection member and its cooperative member.

[Claims 6 to 9 not printed in the Gazette.]

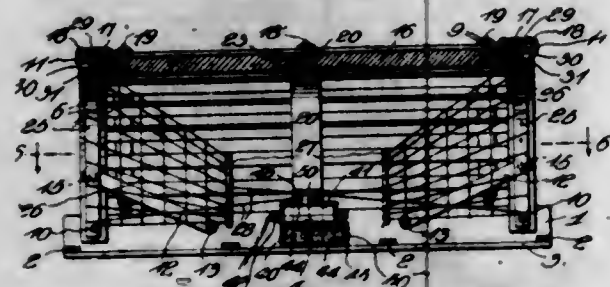
1,079,575. SCREEN. CARL VICTOR NILSSON, Philadelphia, Pa. Filed Oct. 23, 1912. Serial No. 727,272. (Cl. 156—37.)



The combination with a frame, of wire mesh sections in said frame overlapping at their adjacent ends, pins positioned between the wire mesh sections at their overlapping portions, said pins having fork shaped ends engaging the wires of the mesh, and securing devices comprising wire.

loops extending through the wire mesh and longitudinally of the pins for holding the mesh in engagement with said forked ends, substantially as described.

1,079,576. LOBSTER-TRAP. ARTHUR A. NOYES, New York, N. Y., assignor to Minerva S. Austin, New York, N. Y. Filed Nov. 18, 1912. Serial No. 732,158. (Cl. 43-20.)



1. A trap of the class described comprising a bottom, ribs of inverted U-shape pivoted at their ends to said bottom, a top bar having its extremities provided with recesses adapted to engage said ribs when the latter stand upright, latches mounted on said bar and adapted to hook over said ribs at this time, slatted sides loosely connected at their lower edges with said bottom and adapted to be drawn upward over said ribs, fastening devices between the adjacent edges of said sides, and approaches within the endmost ribs.

2. A trap of the class described comprising a bottom, ribs of inverted U-shape pivoted at their ends to said bottom and having pins in their sides, braces pivoted at their inner ends to said bottom and having notches near their outer ends engaging said pins when the ribs stand upright, a top bar having its extremities provided with recesses adapted to engage said ribs when the latter stand upright, latches mounted on said bar and adapted to hook over said ribs at this time, slatted sides loosely connected at their lower edges with said bottom and adapted to be drawn upward over said ribs, fastening devices in the top bar adapted to engage the upper edges of said sides, and approaches within the endmost ribs.

3. A trap of the class described comprising a slatted bottom, ribs of inverted U-shape pivoted at their ends to said bottom and having pins in their sides, braces pivoted at their inner ends to said bottom and having notches near their outer ends engaging said pins when the ribs stand upright, a top bar having its extremities adapted to engage said ribs when the latter stand upright, slatted sides loosely connected at their lower edges with said bottom and adapted to be drawn upward over said ribs, an intermediate rib of inverted U-shape having notches in its extremities, pins in the bottom with which said notches are adapted to be engaged when this rib stands upright and its center passes over said top bar, screw hooks in the latter adapted to engage links at the upper edges of said sides when they are stretched taut, and approaches within the endmost ribs.

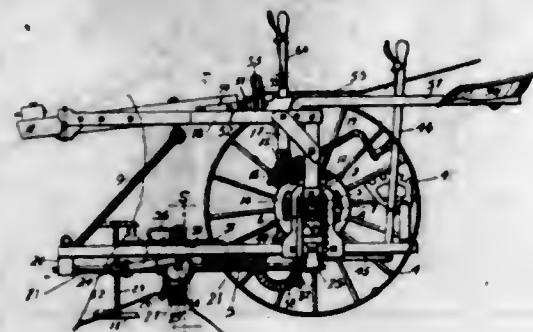
4. In a knock-down trap for under-water use, the combination with a bottom, end ribs of inverted U-shape, rods across the bottom on which the ends of said ribs are pivotally mounted, means for distending said ribs and holding them upright, and a reticulated body connected with the edges of said bottom and passing over the ribs; of arches of inverted U-shape pivoted at their ends on said rods and underlying the ribs, means for connecting the centers of the arches with the centers of the ribs, and a reticulated approach of cone-shape connected at its larger end with each arch and having a ring at its smaller end.

5. In a knock-down trap for under-water use, the combination with a bottom, end ribs of inverted U-shape, rods across the bottom on which the ends of said ribs are pivotally mounted, means for distending said ribs and holding them upright, and a reticulated body connected with the edges of said bottom and passing over the ribs; of arches of inverted U-shape pivoted at their ends on said rods and underlying the ribs, means for connecting

the centers of the arches with the centers of the ribs, an approach in the shape of a truncated cone having its larger end connected with said arch and cross rod, a ring for distending its smaller end, and cords leading from said ring to the arch at the opposite end of the trap.

[Claim 6 not printed in the Gazette.]

1,079,577. COTTON-CHOPPER MACHINE. JOSEPH R. PENN, Duncanville, Tex. Filed Jan. 17, 1913. Serial No. 742,551. (Cl. 97-46.)



1. In a cotton chopper, the combination of a standard, ground wheels supporting the standard, a hoe frame adjustably supported in relation to the standard, a shaft mounted in the frame, driving connections between the shaft and one of the ground wheels, a gear hanger slidably mounted on the hoe frame, a gear slidable on the shaft and arranged to be revolved thereby, a pinion mounted in the gear hanger meshing with the gear, a hoe sleeve slidably mounted on the shaft and arranged to be revolved thereby, hoed radially supported by the sleeve, a link connected to the sleeve at one end and having connection at the other end with the pinion eccentrically thereof, a lever mounted on the frame, and link connections between the lever and the gear hanger.

2. In a cotton chopper, the combination with a frame mounted on ground wheels, a hoe frame in suspended relation to the first named frame, means for adjusting the hoe frame in a vertical plane, a revoluble shaft mounted longitudinally of the hoe frame, a gear hanger slidably suspended from the hoe frame, a pinion carried by the gear hanger, a gear slidable mounted on the shaft and retained in mesh relation with the pinion, a sleeve slidably mounted on the shaft, hoed carried by the sleeve, a reciprocating connection between the sleeve and the pinion, a hand operated lever slide mechanism having connection with the hanger and arranged to operate independently of the pinion and gear, and means for driving the shaft.

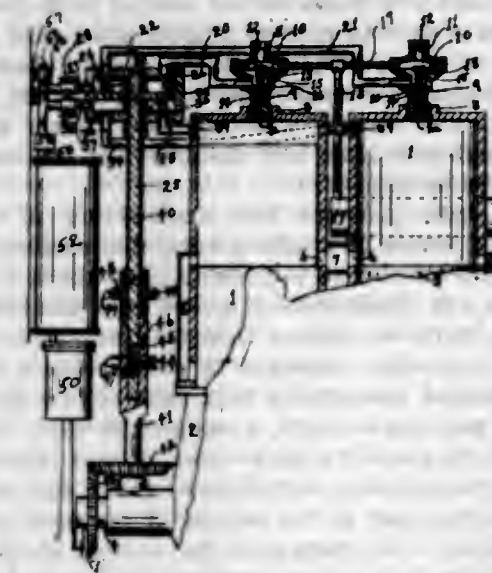
3. In a cotton chopper, the combination with a wheel supported main frame, a frame suspended from the main frame, a revoluble shaft mounted longitudinally of the suspended frame, driving connections between the main frame and the shaft of the suspended frame, means for adjusting the suspended frame vertically relatively of the main frame, revoluble hoed slidably mounted on the shaft, a driving device slidable on the suspended frame and connected with the shaft and the hoed, connections between the sliding device and the hoed, and means for holding the driving device against sliding.

4. In a cotton chopper, the combination with a wheel supported main frame, a frame suspended from the main frame, a revoluble shaft mounted longitudinally of the suspended frame, driving connections between the main frame and the shaft of the suspended frame, means for adjusting the suspended frame vertically relatively of the main frame, revoluble hoed slidably mounted on the shaft, a driving device slidable on the suspended frame and connected with the shaft and the hoed, connections between the sliding device and the hoed, a hand lever mounted on the suspended frame, and a connection between the hand lever and the sliding driving device.

5. In a cotton chopper, a main frame, a hoe frame suspended from the main frame, a revoluble shaft mounted on the hoe frame longitudinally thereof, hoed slidably mounted on the shaft, a hanger slidable on the hoe frame, pinions journaled in the hanger, a gear confined in the

hanger in mesh with the pinions and slidably mounted on the shaft, connections between the hoed and the pinions eccentrically pivoted to the latter, means for driving the shaft, a hand lever mounted on the hoe frame, and a connection between the lever and the slidable hanger.

1,079,578. INTERNAL-COMBUSTION ENGINE. ADOLPHE C. PETERSON, Minneapolis, Minn. Filed Jan. 13, 1909. Serial No. 472,072. (Cl. 123-33.)



1. In an internal combustion engine, an engine cylinder and a cooperating piston, means whereby the engine cylinder is periodically according to the piston movements charged with air and whereby said air is compressed and isolated in the engine cylinder, means for charging each charge of air isolated in the engine cylinder, with fuel, means for the ignition of the charges of air and fuel isolated in the engine cylinder, in combination with means for the introduction of air under a sustained pressure into the engine cylinder, periodically, each introduction occurring during a portion of a working stroke of the piston and means whereby the engine may be caused to operate under the action of either or all of said means.

2. In an internal combustion engine, an engine cylinder, a cooperating piston, means whereby the engine cylinder is periodically, according to the piston movements, charged with air and whereby said air is compressed and isolated in the engine cylinder, a system for the introduction of charges of fuel periodically to the engine cylinder, an independent air pressure delivery system, in combination with manually controlled means for effecting a periodic delivery through either of said systems into the engine cylinder, independently of the other or conjointly.

3. In an internal combustion engine, an engine cylinder, means for periodically supplying a body of air to the engine cylinder, means for the injection of a fluid fuel into the body of air in the engine cylinder, in combination with means for the introduction of a subsidiary volume of air into the engine cylinder to periodically maintain pressure in the engine cylinder, substantially as described.

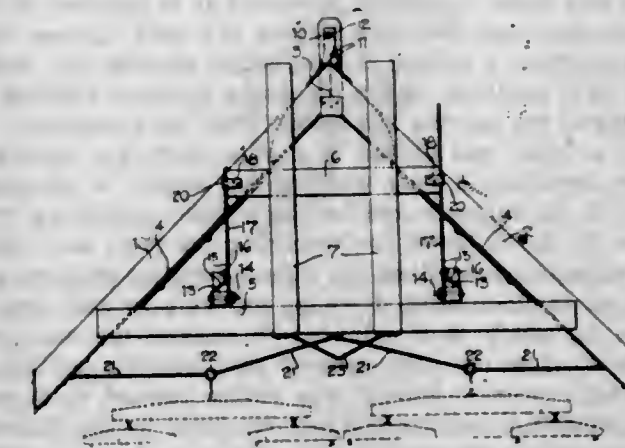
4. In an internal combustion engine, an engine cylinder, means for periodically supplying a body of air to the engine cylinder, means for the injection of a fluid fuel into the body of air in the engine cylinder, in combination with means for the introduction of a subsidiary volume of air under a sustained pressure into the engine cylinder to periodically maintain pressure in the engine cylinder, in combination with means for effecting delivery through either of said means, independently of the other, substantially as described.

5. In an internal combustion engine, means for the injection of a fluid fuel into a body of air in the engine cylinder, in combination with means for the introduction of a subsidiary volume of air under a sustained pressure in the engine cylinder to periodically maintain pressure in the engine cylinder, in combination with means for independently regulating the delivery through each of said

means, so that delivery may be made through each of said means or independently through either of said means, substantially as described.

[Claims 6 to 33 not printed in the Gazette.]

1,079,579. ROAD-GRADER. MARK J. PHILLIPS, Webster, S. D. Filed Apr. 12, 1913. Serial No. 760,701. (Cl. 37-5.)



A road grader including converging side beams having the inner ends rigidly secured and having concaved portions to provide an exit for the dirt which accumulates between the side beams, a curved protecting plate arranged within said concaved portions, and a packing plate secured to the meeting ends of the beams and projecting rearwardly therefrom.

1,079,580. LOOSE-LEAF BINDER. WILLIAM P. PITT, Independence, Mo., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Nov. 8, 1911. Serial No. 659,144. (Cl. 129-12.)



1. In a loose leaf binder, a tubular follower having a hole for receiving a post and having a slot, a clamping member in the follower and having a hole registering with the hole in the follower for receiving the post, said member at one end of the hole having a bearing portion and having an inclined seat, a wedge movable to and from a position in which it is adapted to engage the seat and post for forcing the post against said bearing portion, a spring for forcing the wedge to said position, a releasing member in the follower for forcing the wedge from said position, and an operating member extending through the slot for actuating the releasing member.

2. In a loose leaf binder, a tubular follower having a hole for receiving a post and having a slot, a clamping member in the follower and having a hole registering with the hole in the follower for receiving the post, said member having at one end of the hole a bearing portion and having an inclined seat, a wedge movable to and from a position in which it is adapted to engage the seat and post for forcing the post against said bearing portion, a spring for normally moving the wedge to said position, and means including a device slidably mounted in the slot for moving the wedge from said position.

3. In a loose leaf binder, a tubular follower having a hole for receiving a post and having a slot, a clamping member in the follower and having a hole registering with the hole in the follower for receiving the post, said member having at one end of the hole a bearing portion and having an inclined seat, a wedge movable to and from a position in which it is adapted to engage the seat and post for moving the post against the bearing portion, means for

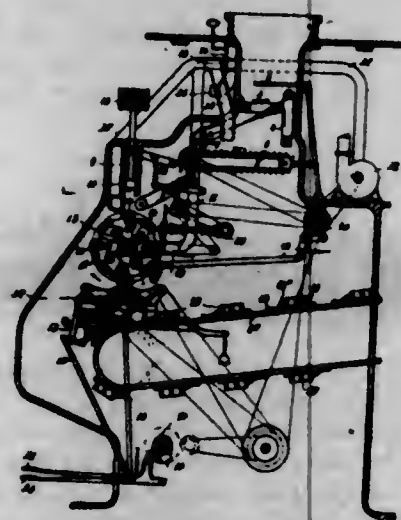
normally forcing the wedge to said position, a releasing member slidably mounted in the follower for moving the wedge from said position, and an operating member extending through and slidable in the slot for actuating the releasing member.

4. In a loose leaf binder, a tubular follower having a hole for receiving a post, a clamping member having a hole registering with the hole in the follower for receiving the post, said member having at one end of the hole a bearing portion and having an inclined seat, a wedge movable to and from a position in which it is adapted to engage the seat and post for forcing the post against said bearing portion, a spring for normally moving the wedge toward said position, and a releasing member slidable in the follower for moving the wedge from said position.

5. In a loose leaf binder, a tubular follower having a hole for receiving a post and having a slot, a clamping member in the follower and having a hole registering with the hole in the follower for receiving the post, said member having at one end of its hole a bearing portion and having an inclined seat, a wedge movable to and from a position in which it is adapted to engage the seat and post for forcing the post against said bearing portion, a spring for normally moving the wedge toward said position, a releasing member slidably mounted in the follower for moving the wedge from said position, and an operating member extending through and slidable in said slot for actuating the releasing member.

[Claims 6 to 12 not printed in the Gazette.]

1,079,581. CIGAR-MACHINE. OTTO PREISSLER, Gross-aubelm, near Hanau, and ANTON FRITZ, Darmstadt, Germany. Filed Mar. 27, 1913. Serial No. 757,216. (Cl. 131-5.)



1. In a cigar machine the combination of a hopper, a traveling apron in said hopper, a second traveling apron perpendicular to the first-mentioned apron, arranged with a small clearance between said aprons, an endless conveyor band below said aprons, a series of transverse bars of triangular cross-section fixed to said band to form V-shaped grooves thereon, a series of traveling molds arranged to consecutively receive tobacco from said conveyor, and a plunger arranged to press tobacco delivered by said conveyor into said molds.

2. In a cigar machine the combination of a hopper, a traveling apron in said hopper, a second traveling apron perpendicular to the first-mentioned apron, arranged with a small clearance between said aprons, an endless conveyor band below said aprons, a series of transverse bars of triangular cross-section fixed to said band to form V-shaped grooves thereon, a fan-wheel having vanes sweeping over said transverse bars, a series of traveling molds, means for delivering tobacco from said conveyor to said molds consecutively, and a plunger for pressing tobacco into said molds.

3. In a cigar machine the combination of a hopper, a traveling apron in said hopper, a second traveling apron perpendicular to the first-mentioned apron, arranged with a small clearance between said aprons, an

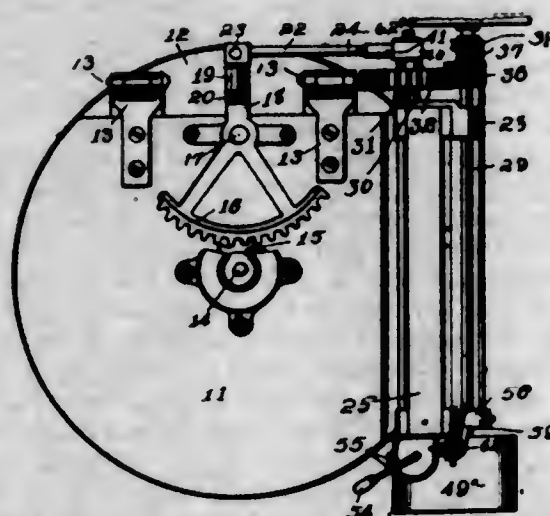
endless conveyor band below said aprons, a series of transverse bars of triangular cross-section fixed to said band to form V-shaped grooves thereon, a fan-wheel having vanes sweeping over said transverse bars, a series of traveling molds, means for delivering tobacco from said conveyor to said molds consecutively, a weighted plunger for pressing tobacco into said molds, and means for alternately raising and dropping said plunger.

4. In a cigar machine the combination of conveyor mechanism, a series of molds, a rotatable carrier whereby said molds are carried in a circular path about a horizontal axis and are consecutively moved to a position at the top of said path to receive tobacco from said conveyor mechanism, a plunger arranged to press tobacco delivered by said conveyor mechanism into said molds, movable mold-covers, and means whereby said covers are temporarily withdrawn from said molds at the top and at the bottom of the mold-path.

5. In a cigar machine the combination of conveyor mechanism, a series of molds, a rotatable carrier whereby said molds are carried in a circular path about a horizontal axis and are consecutively moved to a position at the top of said path to receive tobacco from said conveyor mechanism, a plunger arranged to press tobacco delivered by said conveyor mechanism into said molds, on each of said molds two slide-covers, arranged to close the mold-orifice by moving toward each other, means whereby said covers are temporarily withdrawn from the respective molds at the top and at the bottom of the mold-path, and a knife adjacent said mold-path for cutting away tobacco projecting from said molds between the meeting edges of said slide-covers.

[Claims 6 to 12 not printed in the Gazette.]

1,079,582. GEARING DEVICE FOR WASHING-MACHINES AND WRINGERS. WILLIAM J. SCHOONOVER, Des Moines, Iowa. Filed Feb. 6, 1911. Serial No. 606,956. (Cl. 74-50.)



1. In a gearing device of the class described, the combination of a main support, a hinged supporting member thereon, the pivotal point of said hinges being arranged above the top of the hinged support, a vertically arranged driven shaft in the hinged support, a pinion thereon, a segmental rack in mesh with the pinion pivoted to the hinged support, said segmental rack having an arm connected therewith and extended outwardly beyond the hinged support and inclined upwardly, and a pitman connected to the outer end of said arm and being capable of universal movement relative to said arm.

2. In a gearing device of the class described, the combination of a main support, a hinged supporting member thereon, the pivotal point of said hinges being arranged above the top of the hinged support, a vertically arranged driven shaft in the hinged support, a pinion thereon, a segmental rack in mesh with the pinion pivoted to the hinged support, said segmental rack having an arm connected therewith and extended outwardly beyond the hinged support and inclined upwardly, a pitman connected to the outer end of said arm and being capable of uni-

versal movement relative to said arm, the end of said pitman opposite from said arm being screw threaded, and a socket member having said screw threaded end seated therein, and means applied to said socket member for reciprocating the pitman.

3. In a gearing device of the class described, the combination of a main support, a hinged supporting member thereon, the pivotal point of said hinges being arranged above the top of the hinged support, a vertically arranged driven shaft in the hinged support, a pinion thereon, a segmental rack in mesh with the pinion pivoted to the hinged support, said segmental rack having an arm connected therewith and extended outwardly beyond the hinged support and inclined upwardly, a pitman connected to the outer end of said arm and being capable of universal movement relative to said arm, the end of said pitman opposite from said arm being screw threaded, a socket member having said screw threaded end seated therein, means applied to said socket member for reciprocating the pitman, said means comprising a gear wheel having a crank pin thereon, and a head on the socket member having said crank pin inserted in it.

4. In a gearing device of the class described, the combination of a main support, a hinged support thereon, the hinge joint thereof being spaced above the hinged support, a vertically arranged driven shaft in the hinged support, a pinion thereon, a segmental rack pivoted to the hinged support and in mesh with said pinion, said segmental rack having an arm connected therewith and extended outwardly beyond the hinged support and inclined upwardly, and provided at its outer end with a horizontally arranged bearing, a shaft rotatably mounted in said bearing, a forked head for the shaft, a pitman mounted in said forked head and capable of pivotal movement in a horizontal plane relative to the forked head, the other end of said pitman being provided with a screw threaded portion, a socket member having said screw threaded portion screwed into it to permit a slight rotary movement of the pitman relative to the socket member, a head on the socket member having a horizontally arranged opening through it, a crank wheel, and a wrist pin on the crank wheel extended through said head, for the purposes stated.

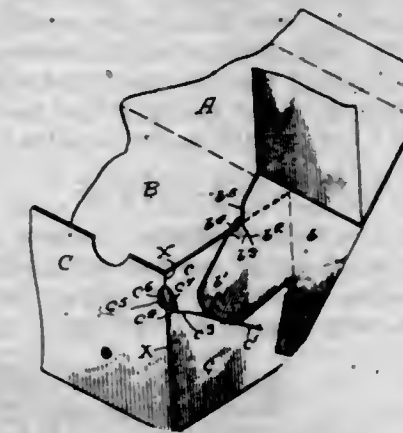
5. In a gearing device of the class described, the combination of a main support, a hinged member on the main support, a vertically arranged driven shaft in the hinged support, a pinion thereon, a segmental rack pivoted to the hinged support and in mesh with the pinion, said segmental rack having an arm fixed thereon, a pitman connected to said arm, an upright frame secured to the main support, a power shaft mounted on said upright frame, a pinion on the power shaft, a pulley on the power shaft, a gear wheel mounted on the upright frame and in mesh with said pinion, and a pitman connected to said gear wheel and to the arm on the segmental rack, said pitman and said pulley being both arranged on the same side of the support toward which the hinged support moves when being elevated, for the purposes stated.

1,079,583. FOLDING BOX. CHARLES H. SEEGMILLER, Chicago, Ill., assignor, by mesne assignments, to said Charles H. Seegmiller and Fred J. Dennis, Chicago, Ill. Filed Nov. 11, 1912. Serial No. 730,551. (Cl. 229-36.)

1. A box having connected bottom and side walls, each side wall provided with a flap, one of said flaps having a slot extending from its base toward its free end and the other having a tongue to enter the slot, the material of the flap above the base-end of the slot being bent outwardly from alignment with the material at the ends of the slot to overlie the lower edge or wall of the slot behind which the tongue lies, and the tongue of the other flap having a wall underlying the outwardly bent portion of the first flap.

2. A box having connected bottom and side walls, each side wall provided with a flap flexibly connected thereto upon a scored line, one of said flaps having a slot extending from its base toward its free end and the other having a tongue to enter the slot, the score between the inner flap and its side being interrupted above the

slot to bend the material of the upper wall of the slot outwardly, and the tongue of the other flap having a wall to underlie the bent portion of the inner flap.



3. A box having connected bottom and side walls, each side wall provided with a flap, the inner one of said flaps having a slot extending from its base toward its free end and the other having a tongue to enter the slot, the material of the flap above the base-end of the slot being bent outwardly from alignment with the material at the ends of the slot to overlie the lower wall of the slot behind which the tongue lies, and the other flap having a marginal slot registering with the slot in the inner flap to provide a wall to underlie the said outward bend and being cut-away at the top of its slot.

4. A box having connected bottom and side walls, each side wall provided with a flap flexibly connected thereto upon a scored line, one of said flaps having a slot extending from its base toward its free end and the other having a tongue to enter the slot, the score between the side and flap having a gap above the slot, and a lateral score in the flap above the base-end of the slot, the tongue having a cut to provide a wall underlying the material at the lateral score in the flap.

5. A box having connected bottom and side walls, each side wall provided with a flap flexibly connected thereto upon a scored line, one of said flaps having a slot extending from its base toward its free end and the other with a tongue to enter the slot, the score between the side and flap having a gap above the slot, a lateral score in the flap above the base-end of the slot, and a lateral score in the side associated with the flap, said lateral scores being at the sides of the gap in the score between said side and its flap, the tongue having a cut to provide a wall underlying the material at the lateral score in the flap.

[Claims 6 and 7 not printed in the Gazette.]

1,079,584. END-LASTING WIPER. WILLIAM A. STUBBS, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 19, 1910. Serial No. 587,972. (Cl. 12-14.)



1. An end lasting mechanism comprising end embracing wipers adapted for positioning movement to present for action at one side of the shoe a wiping edge which is substantially longer than the wiping edge presented for action at the other side of the shoe.

2. An end lasting mechanism having heel embracing wipers of which that one which acts at the inner side of the shoe extends farther forwardly toward or along the shank than does the wiper which acts at the outer side of the shoe.

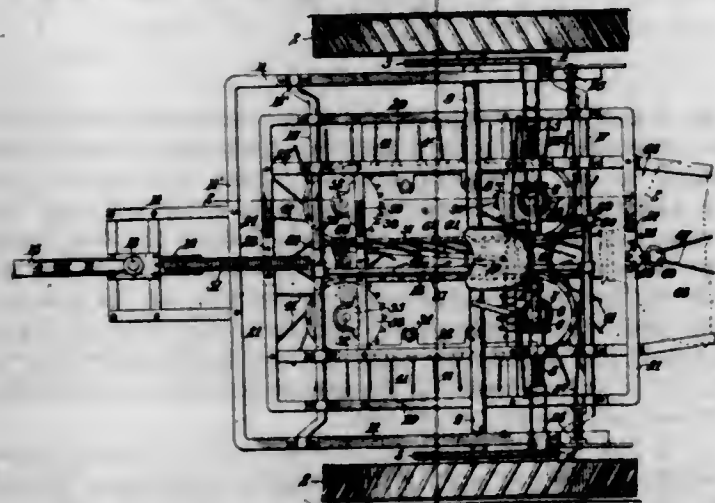
3. In an end lasting mechanism, end embracing wipers and end extensions removably attached to the wipers, substantially as described.

4. In an end lasting mechanism, end embracing wipers and extensions attached thereto and mounted for movement into and out of operative position upon the wipers.

5. In an end lasting mechanism, end embracing wipers and an end extension piece mounted for positioning movement on a wiper, said wiper and extension piece being relatively formed to hold the extension rigid with the wiper when the extension occupies its operative position.

[Claims 6 to 17 not printed in the Gazette.]

1,079,585. COTTON-HARVESTER. LUCIUS L. UPshaw, Denison, Tex., assignor of one-fifth to Godwin L. Blackford and one-fifth to Patric H. Tobin, Denison, Tex. Filed Aug. 26, 1912. Serial No. 717,028. (Cl. 56—118.)



1. A cotton harvester, comprising a frame, supporting wheels therefor, endless carriers mounted in the frame, and substantially horizontally-disposed, one of said carriers being at each side of the center of the machine and each of the carriers having its outer run moving horizontally toward the rear of the machine, horizontally-disposed picker spindles movable with the carriers, means on the frame adjacent the outer run of the carriers for rotating said spindles, the spindles of one carrier operating upon one row of cotton plants at one side of the machine and outside of the outer run of a carrier, and the spindles of the outer run of the other carrier operating upon the plants of another row at the opposite side of the machine and outside of the outer run of the second-named carrier, stripping elements at the rear central portion of the machine toward which the loaded spindles of the two carriers approach from opposite sides, and means operating at the central portion of the machine for discharging the stripped cotton.

2. A cotton harvester, comprising a frame, supporting wheels therefor, endless carriers mounted in the frame and substantially horizontally-disposed, one of said carriers being at each side of the center of the machine and each of the carriers having its outer run moving horizontally toward the rear of said machine, horizontally-disposed picker spindles movable with the carriers, means on the frame adjacent the outer run of the carriers for rotating said spindles, the spindles of one carrier operating upon one row of cotton plants at one side of the machine and outside of the outer run of a carrier, and the spindles of the outer run of the other carrier operating upon the plants of another row at the opposite side of the machine and outside of the outer run of the second-named carrier, the spindles of the two carriers approaching each other from opposite directions toward the central portion of the machine, and means at the rear central portion of said machine for stripping the cotton from the spindle of said carriers.

3. A cotton harvester, comprising a frame and supporting wheels therefor, endless-carriers mounted in the frame, one at each side of the center thereof, means for operating the carriers, horizontally disposed picker-spindles movable with the carriers, and means adjacent the outer runs of the carriers for rotating the spindles carried thereby, the spindles of one carrier operating upon one row of cotton plants at one side of the machine and outside

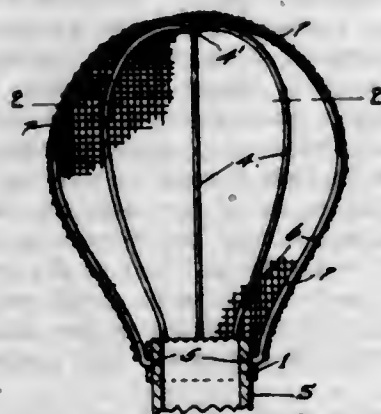
of the outer run of a carrier, and the spindles on the outer run of the other carrier operating upon the plants of another row at the opposite side of the machine and outside of the outer run of the second-named carrier, means for folding the spindles relatively to the carriers, as said spindles approach the center of the machine, and means for stripping the collected cotton from the spindles and delivering the same at the rear central portion of said machine.

4. A cotton harvester, comprising a frame and supporting wheels therefor, endless carriers mounted in the frame, one at each side of the center thereof, means for operating the carriers, and horizontally disposed rotatably mounted picker spindles movable with the carriers, the spindles of one carrier adapted to operate upon a row of cotton plants at one side of the center of the machine, and the spindles of the other carrier adapted to operate upon the plants of a row at the other side of the center of the machine, means including toothed wheels on the spindles and fixed racks over which said wheels travel, whereby said spindles are rotated, the spindles of the two carriers approaching each other at the center of the machine, means for folding the spindles relatively to the carriers as they approach the center of the machine, means for stripping the collected cotton from the spindles and delivering the same upon the central portion of the machine, a cotton discharger operating in the central portion of the machine upon the delivered cotton, and a receiver into which the cotton is delivered by said discharger.

5. A cotton harvester, comprising a frame and supporting wheels therefor, endless-carriers mounted in the frame having their outer runs moving toward the rear of the machine, and their inner runs moving toward the front, means for operating the carriers in unison, picker-spindles movable with the carriers, means adjacent the outer run of the carriers for rotating the picker-spindles carried thereby, the spindles of one carrier operating upon one row of cotton plants at one side of the machine and outside of the outer run of a carrier, and the spindles on the outer run of the other carrier operating upon the plants of another row at the opposite side of the machine and outside of the outer run of the second-named carrier, means adjacent the outer run of the carriers for holding the picker-spindles carried thereby projected radially and across the cotton plants during the travel of the outer run of the carriers toward the rear of the machine, means for changing the angle of the picker-spindles as the spindles of each carrier approach each other from opposite directions at the rear end of the machine, and means at the central portion of the machine and toward which the spindles of the two carriers approach from opposite directions, for stripping the collected cotton from the spindles of both carriers and delivering the same centrally of the machine.

[Claims 6 to 20 not printed in the Gazette.]

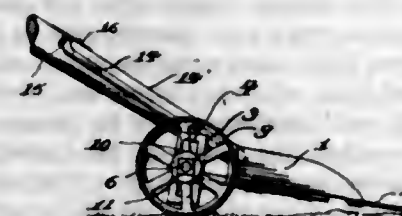
1,079,586. SPARK-ARRESTER. WALLACE C. YEOMANS, Pe Ell, Wash. Filed Feb. 12, 1913. Serial No. 747,942. (Cl. 110—130.)



1. In a spark arrester, the combination with a smoke stack, of a collar adapted to be secured adjacent the upper end thereof, ovoidal-shaped flexible wire members connected at their lower ends to said collar, and a fine mesh screen covering said members.

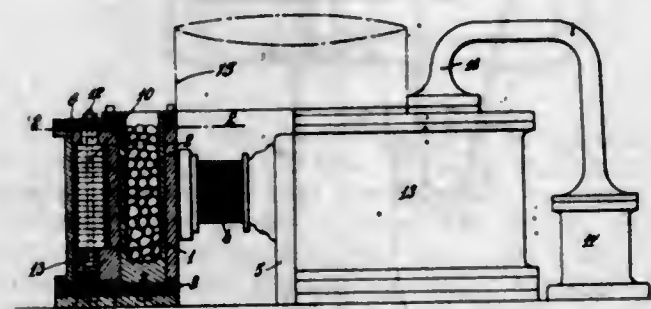
2. In a spark arrester, the combination with a smoke stack, of a collar adapted to be secured adjacent the upper end thereof, flexible wires bent to provide substantially inverted U-shaped members connected at their lower ends to said collar, the sides of said U-shaped members being of greater diameter substantially mid-way the height thereof and directed inwardly to provide a top greater in diameter than the support, and a fine mesh screen covering said members.

1,079,587. STREET-SCRAPER. GEORGE W. ANTHONY, Montpelier, Ind. Filed June 10, 1912. Serial No. 702,874. (Cl. 21—65.)



The combination of a bracket having a vertically disposed extension at its free end, said vertical extension being slotted and provided on the vertical walls of the slot inwardly from the inner face of the extension with vertical ribs, a spindle inserted through said slot and provided at its inner end with an angular head fitting between the walls of the slot and against the inner edges of the ribs, a sleeve mounted on the outer end of the spindle and bearing against the outer face of the extension, a wheel rotatably mounted on said sleeve, a washer on the spindle against the end of the sleeve, and a nut mounted on the spindle and bearing against the washer to retain the wheel on the sleeve and secure the spindle in the extension of the bracket.

1,079,588. ELECTRIC RETORT-FURNACE. JEAN BALLY, Grenoble, France. Filed July 5, 1912. Serial No. 707,855. (Cl. 204—84.)



1. In an electric furnace, in combination: parallel retorts arranged around a central space and containing the material to be heated, said retorts being made of a conductive material, means for connecting the retorts together, an inductor inside the said central space and means for energizing the inductor, substantially as described and for the purpose set forth.

2. In an electric furnace, in combination: parallel retorts arranged around a central space and containing the material to be heated, said retorts being made of a conductive material, means for connecting the retorts together, an inductor rotating inside the said central space and means for rotating and energizing the inductor, substantially as described and for the purpose set forth.

3. In an electric furnace, in combination: retorts arranged around a central space containing the material to be heated, said retorts being made of a conductive material, divided covers connecting the retorts in a continuous circuit, a magnetic frame around the retorts, an inductor rotating inside the said central space and means for rotating and exciting the inductor, substantially as described and for the purpose set forth.

198 O. G.—59

1,079,589. TREATMENT OF ALUMINUM-BEARING MATERIALS. HARRY P. BASSETT, Catonsville, Md. Filed Mar. 22, 1912. Serial No. 685,583. (Cl. 23—13.)

1. The herein described process of treating clay, feldspar, slate and other aluminum bearing materials, which consists in heating the same with an alkali and an alkali metal sulfate, the alkali being employed in not to exceed three parts by weight, to five parts by weight of the aluminum bearing material and extracting the sulfate portion of the treated mass.

2. The herein described process of treating clay, feldspar, slate and other aluminum bearing materials, which consists in heating the same with sodium carbonate and sodium sulfate, the sodium carbonate being employed in not to exceed approximately three parts by weight, to five parts by weight of the aluminum bearing material.

3. The process of treating clay, feldspar, slate and other aluminum bearing materials which consists in heating the same with an alkali and an alkali metal sulfate in the proportions of five parts of the aluminum bearing material, not to exceed approximately three parts of the alkali and not to exceed approximately two parts of the alkali metal sulfate.

4. The herein described process of treating clay, feldspar, slate and other aluminum bearing materials which consists in heating the same with sodium carbonate and sodium sulfate in the approximate proportions of five parts of the aluminum bearing material and not to exceed approximately three parts of sodium carbonate and two parts of sodium sulfate and extracting the soluble portion of the treated mass.

5. The herein described process of treating clay, feldspar, slate and other aluminum bearing materials which consists in heating the same with sodium carbonate and sodium sulfate in approximately the following proportions by weight, five parts of the aluminum bearing material, three parts of the sodium carbonate and two parts of the sodium sulfate extracting the soluble portion of the treated mass, carbonating the solution to produce a precipitated aluminum hydroxide, and separating the precipitated aluminum hydroxide.

1,079,590. GRIPPER MECHANISM. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 2, 1913. Serial No. 739,701. (Cl. 12—11.1.)



1. A machine of the class described having, in combination, with suitable operating mechanism, a gripper mechanism comprising two adjacent grippers and a single bar for operating them, a connector located between each gripper and the said bar and having rack teeth, and a pinion carried by the said bar and engaging the said rack teeth whereby the grippers are moved to do their work and also may move relatively to one another for the purpose specified.

2. In a machine of the class described, a gripper mechanism comprising two adjacent grippers having rack toothed bars connected therewith, a single operating bar, and an equalizing pinion through which said toothed bars the operating bar is connected to the two grippers.

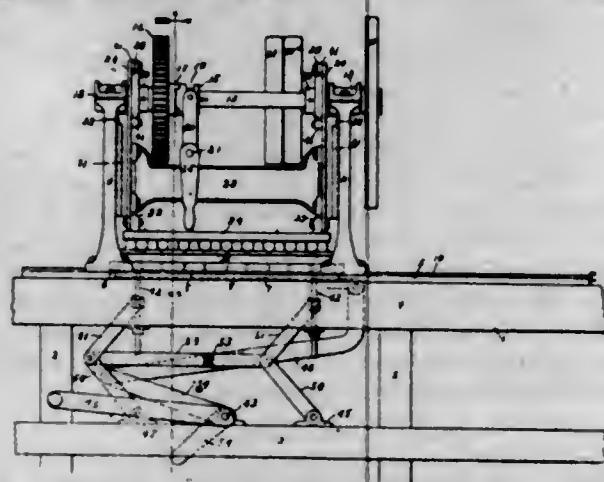
3. In a machine of the class described, a gripper mechanism comprising two adjacent grippers each having a separate connector bar 36 provided with rack teeth on its face adjacent to the companion bar, and a single operating bar provided between said connecting bars with two pinions both engaging the racks thereon.

4. In a gripper mechanism for pulling an upper over a last, a plurality of pairs of jaws for engaging the upper of the same side of a shoe, separate closing mechanisms for said pairs of jaws including separate latches 204 each of which has detachable engagement with a closing mechanism, a single operating means for lifting the jaws, and equalizing means whereby the several pairs of jaws are caused to put different portions of upper acted upon under the same strain.

5. In a gripper mechanism for pulling an upper over a last, a plurality of pairs of jaws for engaging the upper of the same side of a shoe, separate closing mechanisms for said pairs of jaws, a single operating bar for lifting the jaws, separate connectors extending from the jaws to said operating bar, and rack and pinion equalizing means between said bar and said connectors.

[Claim 6 not printed in the Gazette.]

1,079,591. POPCORN-CRISP MACHINE. WALTER M. BROWN, Dayton, Ohio. Filed July 31, 1912. Serial No. 712,440. (Cl. 107--16.)



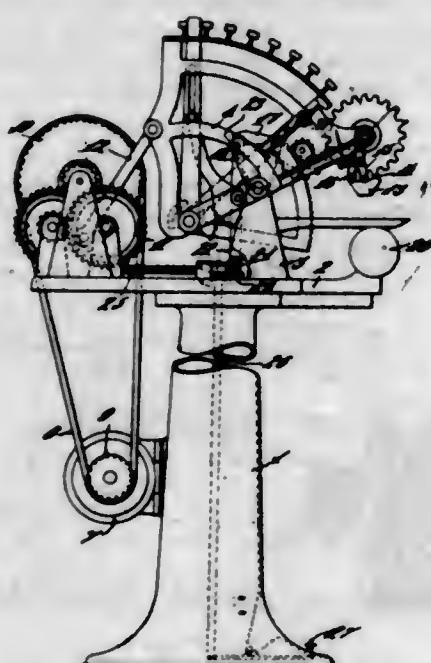
1. In a pop corn crisp machine, a plurality of vertically movable molds, a longitudinally movable surface plate forming a bottom for said molds and co-acting therewith to support the plastic material to be compressed, a series of plungers vertically movable within the molds for compressing said material, power-driven means for forcing said plungers into the molds to compress the plastic material and elevating said plungers above the molds after said material is compressed, and lever-controlled mechanism for shifting the surface plate to uncover the bottom portions of the molds after the plungers are in their raised position, and means actuated by said lever-controlled mechanism for elevating the molds to bring the compressed material which they contain into engagement with the plungers, after said surface plate is first slightly shifted by the lever-controlled mechanism to loosen the compressed material therefrom, substantially as described.

2. In a popcorn crisp machine, a plurality of vertically movable molds, a longitudinally movable surface plate forming a bottom for said molds and co-acting therewith to receive the plastic material to be compressed, a series of plungers vertically movable within the molds for compressing said material, power-driven means for forcing said plungers into the molds to compress the plastic material, and elevating them above the molds after said material is compressed, lever-controlled mechanism for shifting the surface plate to uncover the molds after the plungers are in their raised position, vertically movable plungers for elevating said molds and toggle-link mechanism for raising said plungers, said toggle-link mechanism adapted to be engaged by the lever-controlled mechanism, after the surface plate is first slightly shifted thereby, to raise the vertically movable plungers, whereby the molds are elevated to bring the plastic material or crisps within them in contact with the first mentioned plungers,

by which said crisps are formed out of the molds as their upward movement continues, substantially as described.

3. In a popcorn crisp machine, a plurality of longitudinally and vertically movable molds, a longitudinally movable surface plate forming a bottom for said molds and co-acting therewith to receive the plastic popcorn to be compressed, a series of plungers vertically movable within the molds for compressing said plastic popcorn, power-driven means for forcing said plungers into the molds to compress said popcorn, and elevating them above the molds after said popcorn is compressed, a shaft, a lever for rocking said shaft, arms mounted on said shaft, links connecting said arms and surface plate for shifting the latter to uncover the bottom portions of the molds after the plungers are in their raised positions, vertically movable plungers for raising said molds, toggle-links for elevating said plungers, links connecting said toggle-links, a lug on each of said connecting links, and arms mounted on said shaft for engaging said lugs, whereby, when the lever after first slightly shifting said surface plate to loosen the crisps therefrom has reached the point in its travel where the last mentioned arms engage the lugs, a further movement of said lever will cause the toggle-links to straighten, with the result that the molds will be elevated to bring the compressed popcorn or crisps within them into contact with the first mentioned plungers, by which said crisps are forced out of the molds as the upward movement of the latter continues, substantially as described.

1,079,592. INKING MECHANISM FOR MARKING-MACHINES. CHESTER W. CANINE, Norwood, Ohio, assignor to The National Marking Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 20, 1912. Serial No. 698,471. (Cl. 101--71.)



1. In a marking machine, a numbering head, providing a swinging frame and type disks journaled thereon, an ink reservoir pivotally connected to the frame beneath the surface of the type to be inked, a lever mounted separately from the frame, and pivotally connected to the ink reservoir and movable with the swinging frame, means for arresting the movement of the said lever to thereby actuate the ink reservoir independent of frame movement to engage the reservoir with the type.

2. In a marking machine, having type disks mounted upon a frame movable to and from a printing platen, in combination with an ink reservoir having an ink distributing surface movable with the frame to and from the printing platen and independent thereof to and from the type, link and lever mechanism connecting the ink reservoir to the frame and independent of the frame, treadle mechanism controlling the motive power for the frame and actuating said lever mechanism, whereby the ink distributing surface of said reservoir is normally free from type contact and brought into engagement therewith simultaneously with the initial movement of the swinging frame.

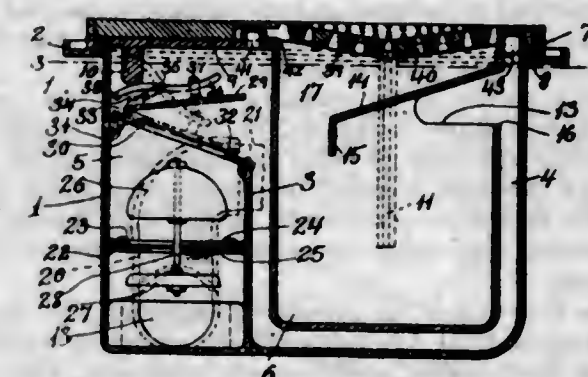
3. In a marking machine, the combination with a swinging type carrying frame, of an ink reservoir pivoted to the frame and moving therewith, a member separate from the frame pivoted to the ink reservoir and moving with the frame in one direction and arrested toward the limit of movement of frame in an opposite direction, to swing the ink reservoir independently of the frame movement and against the type to ink the same.

4. A device of the nature disclosed combining a series of type characters in longitudinal alignment and support therefor, inking mechanism for said type characters comprising a lever member mounted upon a fixed fulcrum, an inking pad supporting member, a link hingedly connecting said pad supporting member to the type character support, and a link hingedly connecting said pad supporting member to said lever member, whereby the fulcrum of said pad supporting member is alternately diverted to move the pad supporting member from a normal position toward and from the type characters and from the normal position to a position more remote from the type characters in each printing operation.

5. A device of the nature disclosed combining a series of type characters in longitudinal alignment, a swingingly mounted inking pad holder support, an inking pad holder and inking pad therefor fulcrumed on said support with its axis approximately in a diametric plane with the engaging plane of said type characters and inking pad, and lever mechanism engaged with said holder for maintaining said pad in type engagement during non-printing intervals.

[Claims 6 to 9 not printed in the Gazette.]

1,079,593. FLOOR-DRAIN TRAP. JOHN J. DONOVAN, Dorchester, Mass. Filed Dec. 6, 1912. Serial No. 735,249. (Cl. 182--13.)



1. A drainage trap comprising an outer member having its ultimate outlet at a level above its bottom, an inner member contained in said outer member to a depth lower than said outlet, having an opening in its top, which constitutes the only inlet to the trap, and also having a lateral outlet, and obstructing means between the side walls of the inner and outer members located between the outlets of the two members and extending from a point higher than such outlets to a point lower than both outlets, but above the bottom of the outer member.

2. A drainage trap consisting of an outer casing having a main chamber provided with an outlet discharging at a height above its bottom, an inner receptacle contained in said chamber, open at its top and having an outlet in its side opposite to the outlet of the chamber, the side walls of said receptacle and chamber being separated, and a baffle crossing the space between such walls, located intermediate the two outlets and extending from a level above to a level below both outlets, but not to the bottom of the chamber.

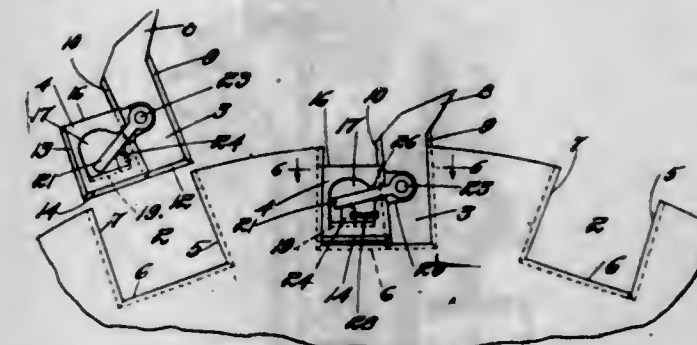
3. A drainage trap consisting of an outer casing having a main chamber provided with an outlet arranged to discharge at a height above its bottom, an inner receptacle contained in said chamber, open at its top and having an outlet in its side opposite to the outlet of the chamber, the side walls of said receptacle and chamber being separated, and one of such walls having a tongue extending across the space between the walls from a level above the outlets to a level below the outlets but above the bottom of the main chamber.

4. A drainage trap consisting of an outer casing having a main chamber provided with an outlet arranged to discharge at a height above its bottom, an inner receptacle contained in said chamber, open at its top and having an outlet in its side opposite to the outlet of the chamber, the side walls of said receptacle and chamber being separated by an annular space surrounding the receptacle, and tongues projecting externally from opposite sides of the receptacle, intermediate the two outlets, to the walls of the main chamber and extending from the top of the receptacle to points lower than both outlets but above the bottom of the chamber.

5. A drainage trap comprising an outer receptacle, an inner receptacle contained therein and of such dimensions as to provide a space between its side and the adjacent side of the outer receptacle, said inner receptacle having an inlet and an outlet elevated above the bottom of the outer receptacle, said outer receptacle having an elevated outlet and containing an obstruction crossing the space between its wall and the inner receptacle and extending both above and below the level of the outlet from the inner receptacle and below the level of the outlet from the outer receptacle.

[Claims 6 to 17 not printed in the Gazette.]

1,079,594. INSERTED SAW-TOOTH AND LOCKING MECHANISM THEREFOR. ARTHUR ELSON, Boston, Mass. Filed Mar. 28, 1913. Serial No. 757,303. (Cl. 29--105.)



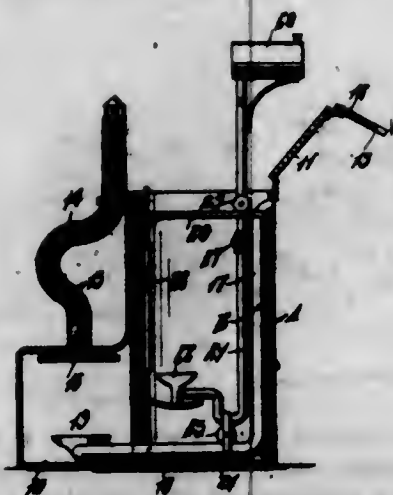
1. In combination with a saw plate, a plurality of peripheral recesses, each to receive a removable tooth, said recesses being narrower at the top than at the bottom, a tooth and a locking plate having a tongue and groove connection with each other and slidable with relation to each other, the sides of said recesses and the sides of said assembled tooth and locking plate having a tongue and groove connection with each other whereby the assembled tooth and locking plate are slidable into connection with said saw plate, said locking plate being formed with an opening therethrough having a contracted entrance on the edge adjacent to the said tooth, an arm pivoted to said tooth and extending into said recess in the locking plate, a locking block having a tongue and groove connection with the inner edge of the opening in said locking plate and supporting the swinging end of said pivoted arm, said locking block being movable whereby said swinging arm is turned on its pivot to move said locking plate toward the open end of the recess in the saw plate, the locking plate and tooth having inclined slides whereby the movement of the locking plate toward the open end of the said recess in the saw plate locks the tooth in position.

2. In combination with a saw plate, a plurality of peripheral recesses, each to receive a removable tooth, said recesses being narrower at the top than at the bottom, a tooth and a locking plate having a tongue and groove connection with each other and slidable with relation to each other, the sides of said recesses and the sides of said assembled tooth and locking plate having a tongue and groove connection with each other whereby the assembled tooth and locking plate are slidable into connection with said saw plate, said locking plate being formed with an opening therethrough having an entrance on the edge adjacent to the said tooth, an arm pivoted to said tooth and extending into said recess in the locking plate, said arm being adapted to be turned on its pivot and thereby

move said locking plate toward the open end of the recess in the saw plate and bind the saw tooth firmly to its seat, and means whereby said arm is retained in said locking position.

3. In combination with a saw plate, a plurality of peripheral recesses, each to receive a removable tooth, said recesses being narrower at the top than at the bottom, a tooth having sides, one of which is at an acute angle to the bottom edge of the tooth and the other of which is at an obtuse angle to the bottom edge, the acute angle made by the one side being nearer a right angle than is the obtuse angle made by the other side, a locking plate cooperating with said tooth in the space between the tooth and one side of said recess and having the side which is adjacent to the tooth inclined to its base, forming an angle which is as much less than a right angle as the angle made by the said adjacent side of the tooth is greater than a right angle, the opposite side of the locking plate forming a right angle with its base, said locking plate being adapted to be moved toward the open end of said recess in sliding engagement with the edge of said saw tooth and binding said tooth firmly on its seat, and means for locking said locking plate in its adjusted position when the tooth is locked.

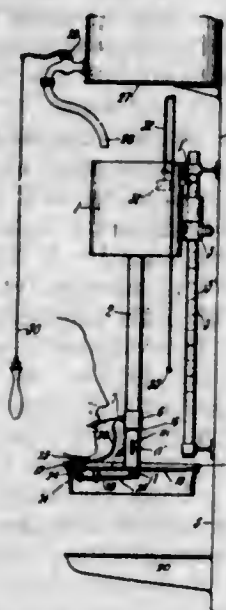
1,079,595. STOCK-TANK HEATER. THOMAS FINNEGAN, Svecia City, Iowa. Filed Jan. 31, 1913. Serial No. 743,465. (Cl. 126—360.)



1. In a stock tank heater, the combination of a casing having an open upper end and a lateral extension at its lower end, a products of combustion discharge pipe rising from the top of said lateral extension and communicating with the interior of the casing, a fuel supply pipe extending into said casing and disposed vertically of the latter, said supply pipe having its lower end directed toward the lateral extension of the casing and terminating in the burner, means for adjusting said fuel supply pipe and burner transversely of the casing, and means for supplying air to the interior of the casing at a point directly beneath the lower end of the products of combustion discharge pipe.

2. In a stock tank heater, the combination of a casing having an open upper end and a lateral extension at its lower end, a products of combustion discharge pipe rising from the top of the lateral extension and communicating with the interior of the casing, an air supply pipe disposed within the casing and comprising vertical and horizontal portions, the latter of which projects into the lateral extension, parallel bars arranged transversely of the casing adjacent the open end of the latter, a fuel supply pipe extending between said bars and having its lower end directed toward said lateral extension of the casing and terminating in a burner, rollers journaled on said fuel supply pipe engaging respectively the upper sides of said bars, a bracket on the lower end of said fuel supply pipe, a roller journaled in said bracket and engaging the horizontal portion of the air supply pipe, whereby the fuel supply pipe may be adjusted transversely of the casing, and a fuel tank mounted on the upper end of the fuel supply pipe.

1,079,596. DRINKING DEVICE. SAMUEL WARD GREENE, East Greenwich, R. I. Filed May 21, 1910. Serial No. 562,762. (Cl. 137—109.)



1. In a device of the character described, the combination, with a fluid receptacle, of a delivery nozzle, a valve, and means adapted to be operated by the opening and closing of the mouth for operating said valve.

2. In a device of the character described, the combination, with a fluid receptacle, of a delivery nozzle, a waste water receptacle below said delivery nozzle, and means for deflecting the water from said nozzle to said waste receptacle arranged and adapted to be moved in front of and away from said delivery nozzle.

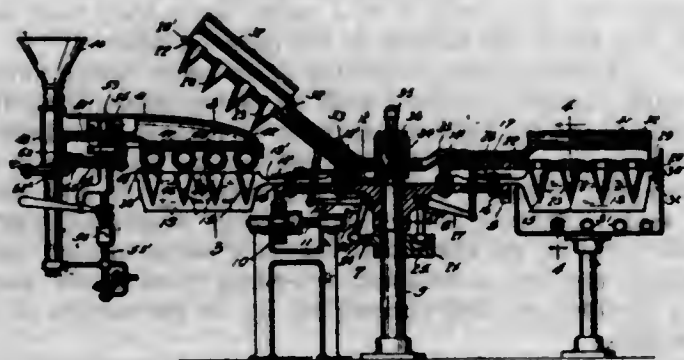
3. In a device of the character described, the combination of a fluid receptacle provided with a horizontal outlet and means for positioning the mouth at the proper height to receive water from said outlet.

4. In a device of the character described, the combination, with a fluid receptacle, of an outlet, a valve for controlling the flow of fluid through said outlet, a depressible chin-rest adapted to operate said valve and to hold the mouth in position to receive fluid flowing from said outlet, and means for adjusting the height of said chin-rest.

5. In a device of the character described, the combination, with a fluid receptacle, of an outlet, a valve controlling said outlet, a depressible chin-rest, and means for operating said valve when said chin-rest is depressed a predetermined distance.

[Claims 6 to 16 not printed in the Gazette.]

1,079,597. ICE-CREAM-CONE-COOKING MACHINE. JOHN P. GROSET, Bothell, Wash. Filed Feb. 26, 1912. Serial No. 680,131. (Cl. 107—58.)

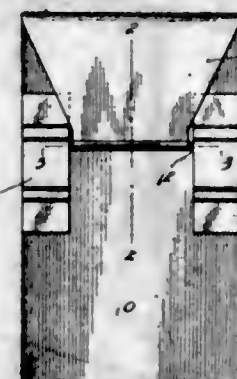


1. In an ice cream cone cooking apparatus, a vertically movable former, heating cores upon said former, a hood over said former, projecting inclined wings upon said hood extending below the plane of the open tops of said cores and provided with rows of outlet apertures adjacent to the hood.

2. An ice cream cone cooking apparatus comprising a standard, a former and a gas reservoir revolvably-mounted upon said standard, hollow cores upon said former, a

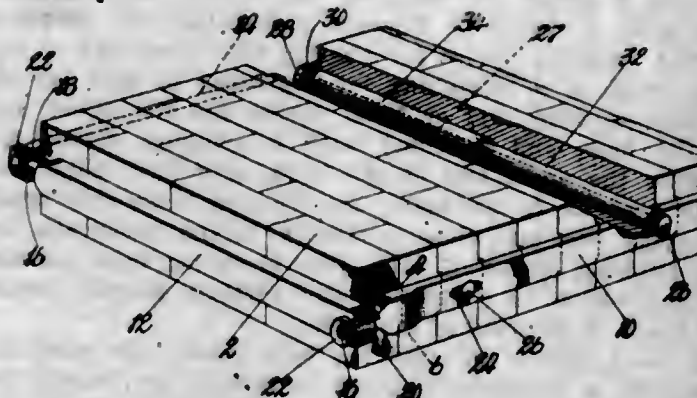
gas burner pipe upon said former provided with openings adapted for directing flame separately into each of said cores, a hose connection between said pipe and reservoir, a stationary gas entrance pipe entering said gas reservoir, a sheet metal hood mounted over said former, downwardly-inclined wings extending from the lower edges of the hood and provided with rows of outlet apertures adjacent to the hood and the said former member being readily movable vertically.

1,079,598. ENVELOP-FASTENER. RUDOLF V. HITSCHMANN, Claflin, Kans. Filed Apr. 9, 1913. Serial No. 759,976. (Cl. 229—78.)



The combination with an envelop including a back member and a closing flap, of oppositely disposed corresponding keeper members secured against said back member, each of said keeper members including a perforated portion disposed at right angles to the back member, and a locking rod carried by the free end of the closing flap, the terminals of said rod being adapted to be detachably inserted in corresponding perforations of the keeper members respectively.

1,079,599. CUTTING-BLOCK. EDWARD L. HURD, Milton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 20, 1912. Serial No. 704,735. (Cl. 164—58.)



1. In a cutting block comprising laterally interlocking sections, a series of binding irons, each adjustably connected at its ends to the adjacent irons, the adjustable connections at the opposite ends of each iron being constructed and arranged to act at right angles to each other.

2. In a cutting block, a plurality of wood sections having abutting shoulders which cut the grain of the wood, and means for binding said sections together comprising a series of binding irons, each adjustably connected at its ends to the adjacent irons, the adjustable connections at the opposite ends of each iron being constructed and arranged to act at right angles to each other.

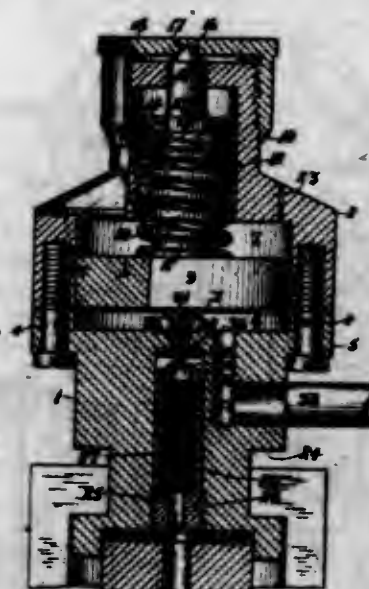
3. In a cutting block, a plurality of wood sections having upper and lower abutting shoulders which cut the grain of the wood, and means for binding said sections together comprising a series of binding irons, each adjustably connected at its ends to the adjacent irons, the adjustable connections at the opposite ends of each iron being constructed and arranged to act at right angles to each other.

4. In a cutting block, a plurality of laterally interlocking sections and means for binding said sections together comprising a series of bands connected together, each of said bands being provided at one end with an opening in which it receives a threaded extension of the preceding band and being provided at its other end with a similar extension received in an opening in a succeeding band.

5. A cutting block comprising a plurality of sections, a series of binding irons each adjustably connected at its ends to the adjacent irons, the adjustable connections at the opposite ends of each iron being constructed and arranged to act at right angles to each other and comprising a threaded end upon one iron and a shouldered nut having a threaded portion extending through an opening in the connected iron.

[Claims 6 to 10 not printed in the Gazette.]

1,079,600. FLUID-PRESSURE-REGULATING GAGE. GUY L. KENNEDY, San Francisco, Cal., assignor to National Carbonated Liquid Company, San Francisco, Cal. Filed Feb. 1, 1910. Serial No. 541,215. (Cl. 50—23.)



1. A pressure regulator including a chamber, an inlet for the chamber, an outlet for the chamber, a valve controlling the fluid admitted to the chamber, a diaphragm acting on the valve and responsive to variations in fluid pressure in the chamber, an adjustable tensioning means for the diaphragm, a rotary element for adjusting the said means within a given range, and a device reversibly mounted between the means and element to change the range of adjustment of the said means.

2. A pressure regulator including a chamber, an inlet for the chamber, an outlet for the chamber, a valve controlling the fluid admitted to the chamber, a diaphragm acting on the valve and responsive to variations in fluid pressure in the chamber, an adjustable tensioning means for the diaphragm, a rotary element for adjusting the said means within a given range, a device reversibly mounted between the means and element to change the range of adjustment of the said means, and a fixed guide through which the said device slides.

3. A pressure regulator including a chamber, an inlet for the chamber, an outlet for the chamber, a valve controlling the fluid admitted to the chamber, a diaphragm acting on the valve and responsive to variations in fluid pressure in the chamber, an adjustable tensioning means for the diaphragm, a central stem engaging the said means and reversible with respect thereto, and an element threaded to the casing and operating through the stem to adjust the tension of the said means.

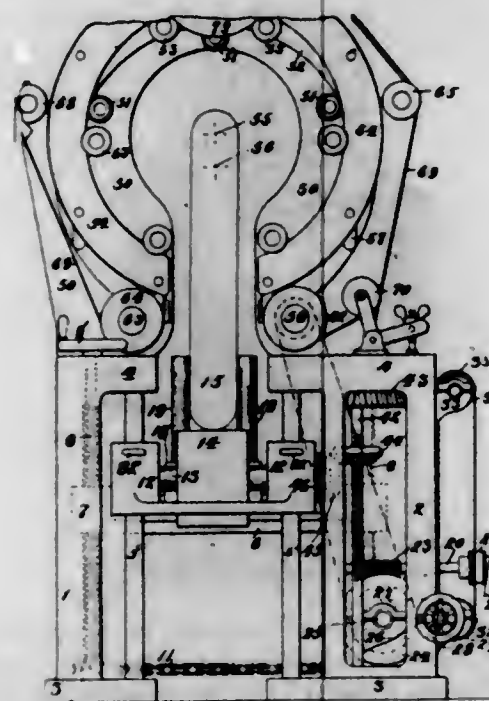
4. A pressure regulator including a chamber, an inlet for the chamber, an outlet for the chamber, a valve controlling the fluid admitted to the chamber, a diaphragm acting on the valve and responsive to variations in fluid pressure in the chamber, an adjustable tensioning means for the diaphragm, a central stem engaging the

said means and reversible with respect thereto, and a cap threaded on the casing and engaging the said stem, one end of the stem being blunt and the other end being pointed and the cap having a seat for receiving the said pointed end.

5. In a pressure regulator comprising a valve controlling diaphragm responsive to fluid pressure, a casing inclosing the diaphragm, a spring acting on the diaphragm, a member forming an abutment for the spring, a rotary spring adjusting member threaded to the casing, and a pin interposed between the members and axially engaging the adjusting member, said pin being reversible and so related to the members as to increase or diminish the distance between the members when the pin is reversed.

[Claim 6 not printed in the Gazette.]

1,079,601. WRAPPING AND UNWRAPPING MACHINE. CURT KUENTZEL, Akron, Ohio, assignor to The Good-year Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Oct. 31, 1912. Serial No. 728,856. (Cl. 242-6.)



1. A device of the class described comprising a revolvable shuttle embodying a pair of broken annuli eccentrically mounted with respect to each other, a bobbin-carrier on one annulus and having actuated connection with the other annulus, and a bobbin mounted on said bobbin-carrier.

2. A device of the class described comprising feeding mechanism, a revolvable shuttle embodying a pair of broken annuli arranged to revolve around the object carried by said feeding mechanism, a bobbin-carrier mounted on one annulus and having connection with the other, a bobbin mounted on said bobbin-carrier, and means for revolving said annuli simultaneously on different axes.

3. A device of the class described comprising a revolvable shuttle embodying a pair of broken annuli revolving on parallel relatively fixed axes offset from each other, a bobbin-carrier on one annulus and means on the other annulus connecting with said carrier for holding it in a relatively fixed position during its orbital movement and a bobbin mounted on said bobbin-carrier.

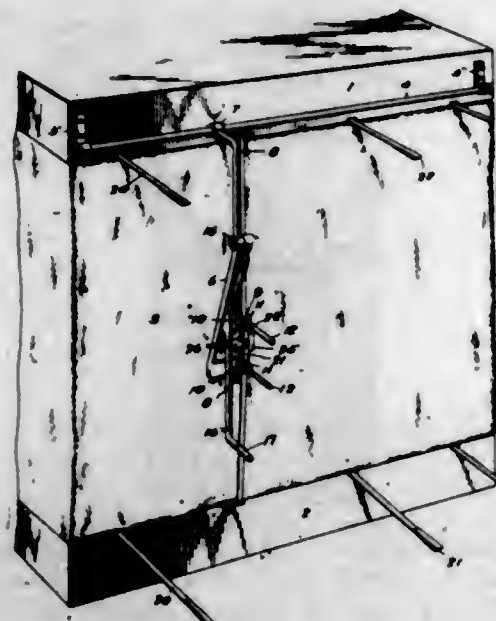
4. A device of the class described comprising a revolvable shuttle embodying a pair of broken annuli revolving on parallel relatively fixed axes offset from each other, a hinged bobbin-carrier on one annulus, means on the latter having connection with the companion annulus, and a bobbin mounted on said bobbin-carrier.

5. A device of the class described comprising a revolvable shuttle embodying a pair of broken annuli revolving on parallel relatively fixed axes offset from each other, a bobbin-carrier on one annulus, means connecting the

two annuli with each other, a bobbin mounted on said bobbin-carrier, and means for simultaneously revolving both annuli in the same direction.

[Claims 6 to 12 not printed in the Gazette.]

1,079,602. BALE-BAND-APPLYING DEVICE. JOHN HARDIN MARION, Chester, S. C. Filed Jan. 8, 1913. Serial No. 740,860. (Cl. 100-15.)



1. In a device for applying bale bands the combination with a sustaining bar provided with a gripping device for engaging one end of the bale band, of a stretching lever pivoted to said bar, and carrying a gripping device for holding the other end of the bar, and located so as to be capable of swinging outwardly from the bale from a position remote from the gripping device on the sustaining bar, to a position in close proximity thereto, and means for swinging said stretching lever from one of said positions to the other to draw the band taut.

2. In a device for applying bale bands, the combination with a vertically disposed sustaining bar, provided with a gripping device for holding the lower end of the bale band, of a stretching lever pivoted to said bar at a point between said gripping device and the upper end of the bale, and provided with a gripping device for holding the upper end of the band, said lever being arranged so as to gradually stretch the band and bring its upper end into close proximity to the lower end, as the gripping device of said lever is swung from an elevated position to a substantially vertical position below the point of pivoting of said lever.

3. In a device for applying bale bands, the combination with a vertically disposed sustaining bar, means for supporting the same adjacent to the bale confining devices, and a gripping device for one end of the band carried by said bar, of a lever pivoted to said bar and provided with a gripping device, for the other end of the band, adapted to be brought into proximity to the gripping device on the sustaining bar, and a stop on said sustaining bar for arresting the movement of the said lever when in final position.

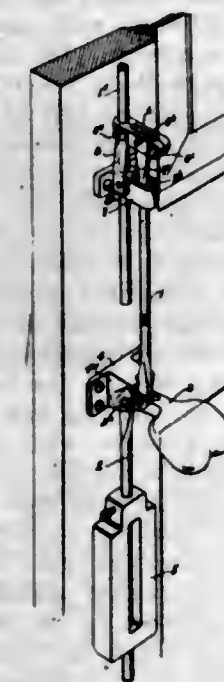
4. In a device for applying bale bands, the combination with a horizontally disposed guiding and supporting bar, of a vertically disposed sustaining bar having a sliding engagement therewith, a gripping device carried by said bar, a stretching lever pivoted to the sustaining bar, and a gripping device carried by said stretching lever.

5. In a device for applying bale bands the combination with a sustaining bar, provided with a gripping device for engaging one end of the bale band, of a stretching lever, pivoted to said sustaining bar and provided with a gripping device for the other end of the band, located between the pivotal connection of said lever with the sustaining bar, and the outer hand engaging end of the lever, whereby said lever can be swung outwardly

with respect to the bale, to move its gripping device from a position remote from the gripping device on the sustaining bar into a position in close proximity thereto.

[Claim 6 not printed in the Gazette.]

1,079,603. PANIC-BOLT. JOHN M. MARTY, Cleveland, Ohio. Filed June 24, 1913. Serial No. 775,480. (Cl. 70-120.)



1. In a panic bolt, a pivotally mounted bolt operating member provided with oppositely extending lock bars, an upper lock bar adjustably connected to one of said bars, a guide bracket for the adjustably connected ends of said bars, and a latching device adapted to automatically engage with said guide bracket when said bars are moved to door released position.

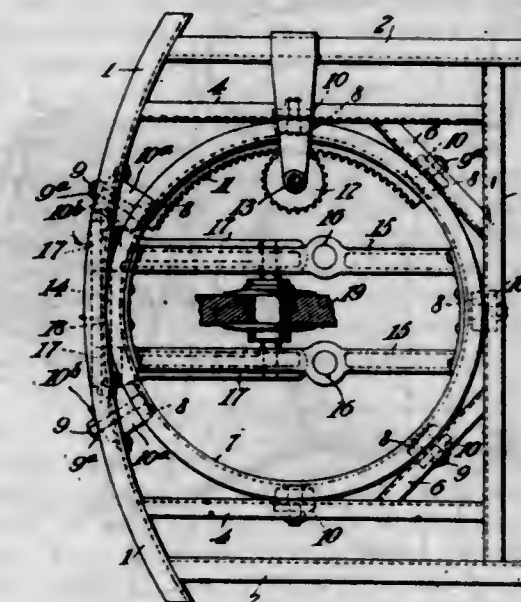
2. In a panic bolt, a lock rod, a clamping member secured thereto, a lock rod adjustably mounted in said clamping member, an attaching guide bracket for said lock rods, and a spring latch carried by said clamping member and bearing against one side of said attaching guide bracket whereby said spring latch is adapted to engage said attaching guide bracket when said rods are moved to door released position.

3. In a panic bolt, a lock rod, a two-part clamping member detachably connected thereto, a lock rod adjustably secured in said clamping member, an attaching guide bracket provided with a bearing opening slidably receiving and containing said adjustably mounted lock rod, and a latch member carried by said clamping member and adapted to automatically engage with said attaching guide bracket when said lock rods are moved to door released position.

4. In a panic bolt, the combination with a pair of lock rods, and means for moving the latter toward and from each other; of a third lock rod adjustably connected to one of said lock rods; an attaching guide bracket for the latter and the adjacent end of said adjustably connected third lock rod, and a spring latch member carried by said adjustably connected lock rod and adapted to automatically engage with said attaching guide bracket when said lock rods are moved to door released position.

5. A panic bolt, comprising an attaching bracket, a bolt operating member pivotally mounted thereon, a weighted lock rod depending from said bolt operating member, a second lock rod pivotally connected to said bolt operating member, a clamping member connected to said second lock rod, a third lock rod adjustably secured in said clamping member, an attaching guide bracket for slidably connecting the adjacent ends of said second and third lock rods, and a spring latch member for automatically locking the parts when moved to door released position.

1,079,604. TRACTOR CASTER-WHEEL. GEORGE D. MUNSING, New York, N. Y., assignor to George D. Munsing and Charles E. Ingersoll, New York, N. Y., Co-partners doing business as Munsing and Ingersoll. Filed Aug. 29, 1912. Serial No. 717,770. (Cl. 21-114.)



1. A wheel mount, comprising a rotatable ring, a fork connected with the ring and arranged to swing toward and from the latter, a wheel journaled in the free end of the fork, parallel members extending across the ring and spaced apart to permit the wheel to swing between them, guide rods connected to the fork passing through holes in the parallel members, and springs interposed between the free ends of the fork and the parallel members.

2. The combination with a chassis, of a channel-shaped ring, rollers on the chassis engaging the channel of said ring, a casting extending across the middle of the ring having holes therein, a wheel fork pivoted to the casting, guide rods connected to the fork passing through said holes, and coil springs on the rods between the ends of the fork and casting.

1,079,605. TRACE-CARRIER. MILO H. OSBORN, Danville, Kans. Filed Oct. 31, 1912. Serial No. 728,877. (Cl. 54-56.)



A trace carrier formed from a single blank of metal having an enlarged portion at one end and formed with a struck-up hook at the opposite end, there being a longitudinal slot formed in said blank, terminating in said enlarged portion and formed with branches which diverge from such terminal end toward the other end of the slot and arranged to securely hold in operative position the usual cockeye, there being a lateral enlargement of the slot intermediate its ends, and said branches converging to a common straight wall which confronts the adjacent end of said slot and is of greater extent than the width of said slot.

1,079,606. SHOE-POLISHING BOX. AMELIA I. ROONEY, Pittsburgh, Pa. Filed Feb. 13, 1913. Serial No. 748,120. (Cl. 15-58.)

1. The combination of a foot support, and means projecting therefrom adapted to receive the legs of a chair for holding the support positioned relatively to the chair.

2. The combination of a foot support, arms hinged thereto and adapted to turn down onto the floor to receive the legs of a chair.

3. The combination of a foot support, two arms each hinged to the support and adapted to turn inward into overlapping relation, the arms adapted to turn outward onto the floor in position to receive the legs of a chair.

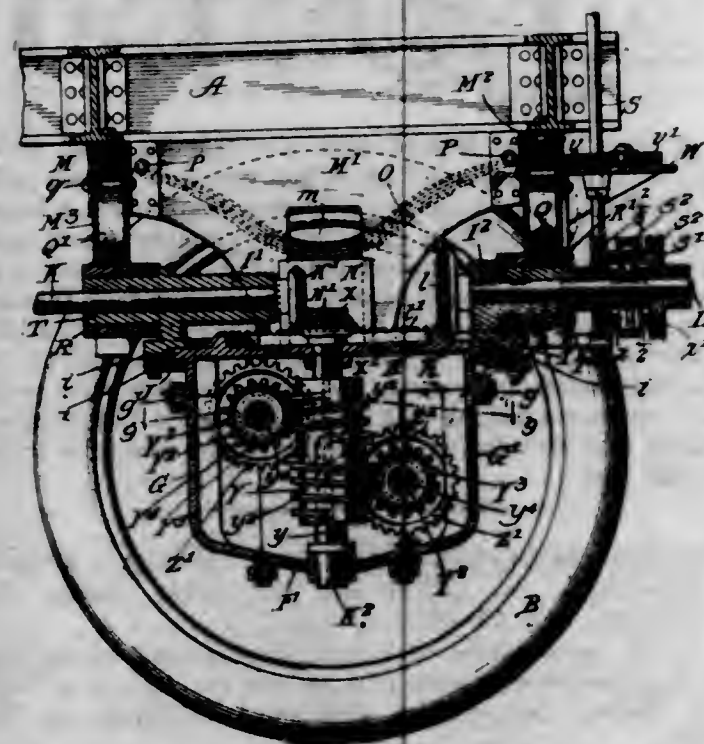


4. The combination of a foot support, a horizontal bar secured at opposite ends to the lower portion of the support with the bar deflected outwardly horizontally between its secured ends, and two arms each hinged to an outwardly deflected portion of the bar with the arms adapted to fold inwardly over the bar with the arms when turned outwardly adapted to rest on the floor in position to receive the legs of a chair.

5. The combination of a foot support provided with legs, a horizontal bar having its ends fitted and secured to two of the legs, and support holding arms hinged to the bar and adapted to be turned outward into holding position.

[Claim 6 not printed in the Gazette.]

1,070,607. TRANSMISSION AND STEERING MECHANISM FOR MOTOR-DRIVEN VEHICLES. HARRY H. SCHIELER, Meadows, Idaho, assignor of four-tenths to Thomas Benton Snyder, Meadows, Idaho, and two-tenths to Nathan H. Hall, St. Louis, Mo. Filed Mar. 16, 1912. Serial No. 684,238. (Cl. 21-40.)



1. In a motor-driven vehicle, the combination with the vehicle body, of a divided axle carrying road wheels, means for pivotally connecting the axle with the vehicle

body to permit it to turn about a vertical axis perpendicular to and in the same vertical plane with the longitudinal central axis of the vehicle, a vertically arranged worm mounted to turn about an axis in line with the axis about which the axle swings and in the same vertical plane as the longitudinal axis of the axle, means for rotating said worm and gearing operated by the worm for driving the road wheels and which freely swings about the axis of the worm with the axle when steering without turning the worm.

2. In a motor-driven vehicle, the combination with the vehicle body, of a divided axle carrying road wheels, means for pivotally connecting the axle with the vehicle body to permit it to turn about a vertical axis perpendicular to the longitudinal central axis of the vehicle, a vertically arranged worm mounted between the inner ends of the divided axle and arranged to turn about an axis in line with the axis about which the axle swings and in the same vertical plane as the longitudinal axis of the axle, means for rotating said worm and differential gearing operated by the worm for driving the road wheels and which freely swings around the axis of the worm with the axle when steering without turning the worm.

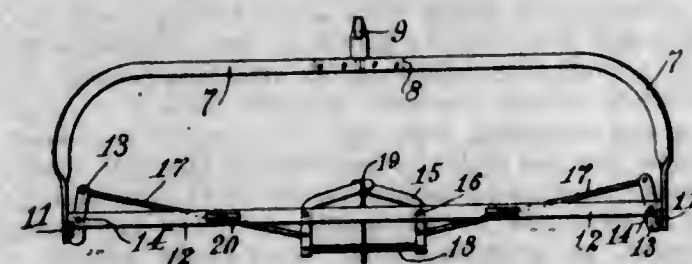
3. In a motor-driven vehicle, the combination with the vehicle body of an axle carrying road wheels, means for pivotally connecting the axle with the vehicle body to permit it to turn about a vertical axis perpendicular to the longitudinal central axis of the vehicle, a vertically arranged worm shaft carrying oppositely disposed worms and mounted to turn about an axis in line with the axis about which the axle swings, means for rotating said worm, and gearing operated by the worm for driving the road wheels and which freely swings around the axis of the worm with the axle when steering.

4. In a motor-driven vehicle, the combination with the vehicle body, of a divided axle carrying road wheels, means for supporting and connecting the axle members and for pivotally connecting them with the vehicle body to permit them to turn about a vertical axis perpendicular to the longitudinal central axis of the vehicle, a vertically arranged worm mounted between the inner ends of the divided axle and arranged to turn about an axis in line with the axis about which the axle swings and in the same vertical plane as the axis of the axle, means for rotating said worm, differential gearing operated by the worm for driving the road wheels and which freely swings about the axis of the worm with the axle when steering without turning the worm and springs interposed between the vehicle body and the axle supports.

5. In a motor-driven vehicle, the combination with the vehicle body of a divided axle carrying road wheels, means for supporting the axle members and for pivotally connecting them with the vehicle body to permit them to turn about a vertical axis perpendicular to the longitudinal central axis of the vehicle, a vertically arranged worm shaft mounted to turn about an axis in line with the axis about which the axle swings, means for rotating said worm, worm wheels engaging the oppositely disposed worm on opposite sides of the axis of the worm shaft, and gearing connecting each of said worm wheels with both of the axle members.

[Claims 6 to 20 not printed in the Gazette.]

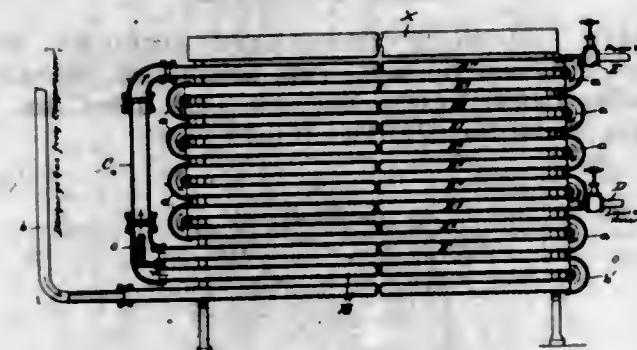
1,079,608. ELEVATOR FOR GREEN TOBACCO. SAMUEL SCHMIDT, Farmersville, Ohio. Filed Mar. 15, 1913. Serial No. 754,627. (Cl. 131-21.)



In a device of the type specified, a connecting member, a plurality of radiating arms extending from said con-

necting member and curved downwardly at their outer ends, a rod connecting two of said arms, end cross-members pivoted to two of said arms, latches pivoted to said rod and adapted to engage the free ends of said end cross-members, levers pivoted to said rod and connected to said latches, and adapted to release said latches.

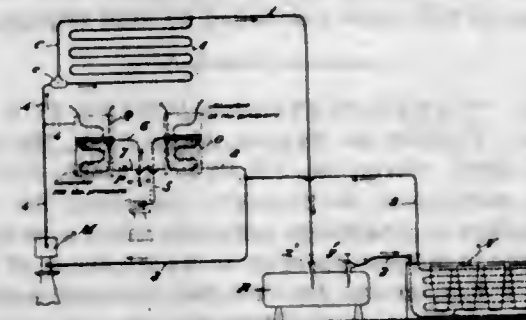
1,070,609. CONDENSER FOR ICE-MAKING AND REFRIGERATING MACHINES. THOMAS SHIPLEY, York, Pa. Filed Oct. 30, 1912. Serial No. 728,577. (Cl. 62-6.)



1. In a condenser, and in combination, a pipe communicating with, and adapted to receive a constant supply of the liquid contained in, the lower portion of the condenser; a gas inlet or nozzle from which the gas to be condensed is injected under pressure into the body of liquid contained in said pipe and means for maintaining the level of the liquid above said inlet; and a riser leading from said pipe to, and opening into, the top of the condenser, through which riser the product resulting from the injection of the gas into the body of liquid contained in the pipe is conducted directly into the top of the condenser to pass down over the cooling surfaces therein to the body of liquid below, substantially as and for the purposes hereinbefore set forth.

2. In a condenser, and in combination, a pipe communicating with, and adapted to receive a constant supply of the condensed liquid contained in, the lower portion of the condenser; a gas inlet or nozzle from which the gas to be condensed is injected under pressure into the body of liquid contained in said pipe; a riser leading from said pipe to, and opening into, the top of the condenser, through which riser the product resulting from the injection of the gas into the body of liquid contained in the pipe is conducted directly into the top of the condenser to pass down over the cooling surface therein to the body of liquid below; and an outlet for the liquid located at a higher level than the gas inlet, substantially as and for the purposes hereinbefore set forth.

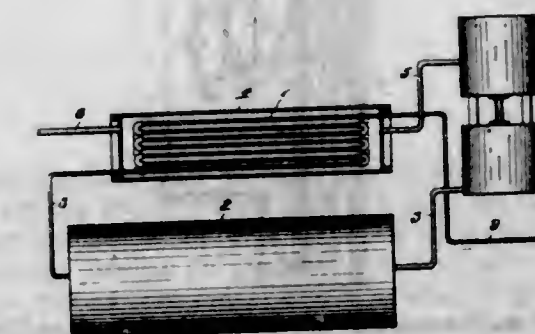
1,079,610. ICE-MAKING AND REFRIGERATING MACHINERY. THOMAS SHIPLEY, York, Pa. Filed Oct. 7, 1913. Serial No. 793,836. (Cl. 62-6.)



In a refrigerating or ice making plant in which a refrigerating coil and a condenser are included in a pipe circuit with means for continuously withdrawing the expanded ammonia vapor from the refrigerating coil and returning it as vapor under pressure to the condenser, whence it passes, condensed and cooled, back to the refrigerating coil, the combination of the following mem-

bers, viz: the refrigerating coil; the condenser; forcing means adapted to draw the ammonia from the refrigerating coil and return it as vapor or gas under pressure to the condenser; the pipe circuit including said refrigerating coil, condenser and forcing means; an inlet nozzle and connections through which the said ammonia gas from said forcing means is discharged under pressure into the condenser; an outlet through which the condensed ammonia liquid passes off into the pipe circuit; located at a point on the condenser which will maintain at the gas injecting point a body of its own liquid into which the ammonia drawn by the forcing means from the refrigerating coil is injected as gas under pressure, and thereby condensed; and a connection leading directly to the gas injecting point from that part of the condenser containing the condensed liquid, whereby the liquid at the gas injecting point is constantly renewed by a supply drawn directly from the liquid contents of the condenser, substantially as hereinbefore set forth.

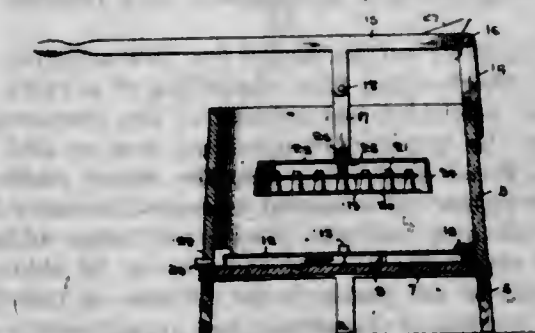
1,079,611. DEVICE FOR HEATING AIR-BRAKE SYSTEMS. JAMES S. SHOEMAKER, Hammond, Ind., assignor of one-third to Lloyd W. Parsons, Hammond, Ind. Filed May 20, 1912. Serial No. 698,454. (Cl. 188-1.)



1. A device of the character described, the combination with an air-brake system comprising an air-pump operated by steam, a main air reservoir, a pipe connecting said reservoir with the train pipe and provided with a plurality of coils, a heating tank within which said coils are disposed, and means for supplying said tank with exhaust steam from the air-pump.

2. A device of the character described, the combination with an air-brake system, comprising an air-pump operated by steam, of a main air-reservoir supplied with air under pressure by said pump, the pressure of air automatically controlling the operation of said pump, means for supplying the brake operating means with air from said reservoir, and means for heating said air with the exhaust steam of the pump, whereby the operation of the pump and supply of heating medium are both controlled by the variable pressure of the air.

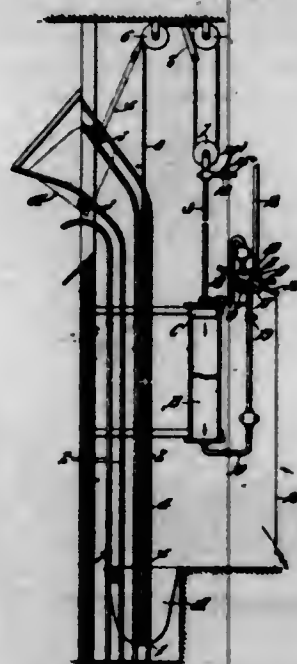
1,079,612. CLOTHES-POUNDER. LOUISA R. SPOHRER, Mayetta, Kans. Filed Mar. 19, 1913. Serial No. 755,371. (Cl. 68-5.)



In a clothes pounder a stem, a lower plate secured centrally thereon, an upper plate secured centrally thereon, said upper and lower plates provided with a plurality of registering openings, the openings in the upper plate being

smaller than the openings in the lower plate, a plurality of cone shaped members open at both ends and secured in said registering openings, and a valve plate slidably secured on said stem above said upper plate, and a flange formed on said valve plate and extending downwardly therefrom and circumscribing said upper and lower plates, and spaced therefrom, said valve plate adapted to alternately engage with and disengage from the upper ends of said cone members for alternately closing and opening the same.

1,079,613. AUTOMATIC-RETURN FLUID-OPERATED DEVICE. GEORGE F. STEEDMAN, St. Louis, Mo. Filed Nov. 22, 1912. Serial No. 732,863. (Cl. 121-45.)



1. In a fluid-actuated operating device, a cylinder, a piston in said cylinder, a valve for controlling the supply of fluid that actuates the piston, an arm connected to said valve, a tripping member adjustably connected to the piston rod and adapted to cooperate with said arm to automatically move said valve, and a spring eccentrically connected to said arm for completing the movement of said valve after it has been shifted into a certain position by said tripping member.

2. An automatic return device for a fluid-actuated hoist, consisting of a valve which controls the flow of the pressure fluid to the cylinder of the hoist, an operating lever for moving said valve, an actuating device on the piston rod of the cylinder arranged to contact with the valve lever and move it, and a spring device arranged to pull the valve lever over the dead center of the valve, said actuating device being adjustable longitudinally of the piston rod.

3. An automatic return device for fluid-actuated cylinders of the direct-acting type, consisting of an oscillating valve which controls the admission and exhaust of the operating fluid to and from the cylinder, an operating arm on said valve, a device to throw said valve over the center position, and an arm on the piston rod arranged to operate the arm on the valve, the arm on the piston rod being adjustable longitudinally and radially with relation to the piston rod.

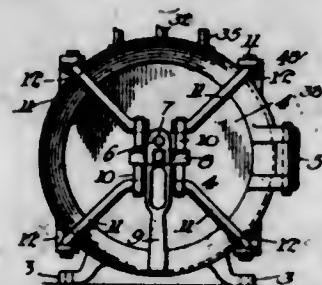
4. An automatic return device for fluid-actuated cylinders of the direct-acting type, consisting of a valve which controls the admission and exhaust of the operating fluid to and from the cylinder, an operating arm on said valve, a device to throw said valve over the center position, an arm on the piston rod arranged to move the valve-operating arm, the arm on said piston rod being adjustable lengthwise or longitudinally of same so as to change the axial position of the piston in the cylinder at the time of reversal of motion of the piston, and an adjustable means for changing the length of the piston travel necessary to cause a reversal of the valve's functions.

5. An automatic return device for fluid-actuated cylinders of the direct-acting type, consisting of an oscillating valve which controls the admission and exhaust of the

operating fluid to and from the cylinder, an operating arm on said valve, a device to throw said valve over the center position, an arm on the piston rod arranged to move the valve-operating arm, the arm on said piston rod being adjustable lengthwise or longitudinally of same so as to change the axial position of the piston in the cylinder at the time of reversal of motion of the piston, and an adjustable means for enabling the point of contact between the arm on the piston rod and the valve-operating arm to be moved nearer to or farther away from the center of oscillation of said valve-operating arm.

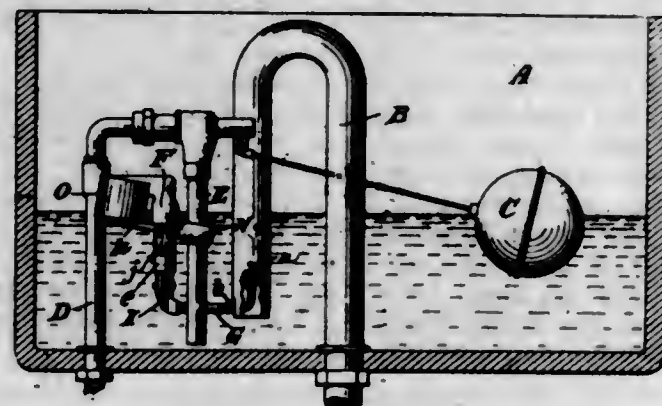
[Claims 6 to 14 not printed in the Gazette.]

1,079,614. CLOSURE-FASTENING DEVICE. WARD ROSS STEVENS, Burbank, Cal., assignor of one-half to Charles Daniel Reaser, Burbank, Cal. Filed Jan. 15, 1912. Serial No. 871,541. (Cl. 70-3.)



In a steam cooker, the combination of a cover, bars at one end pivotally connected with the unit, said bars bearing against the outer face of said cover, a cam pivotally supported by the cover, and means connected to the inner ends of said bars against which said cam operates to force said bars against the outer face of said cover and clamp the cover against the unit.

1,079,615. FLUSHING-TANK. GEORGE H. TARBLETON, New York, N. Y. Filed Sept. 13, 1912. Serial No. 720,118. (Cl. 4-5.)



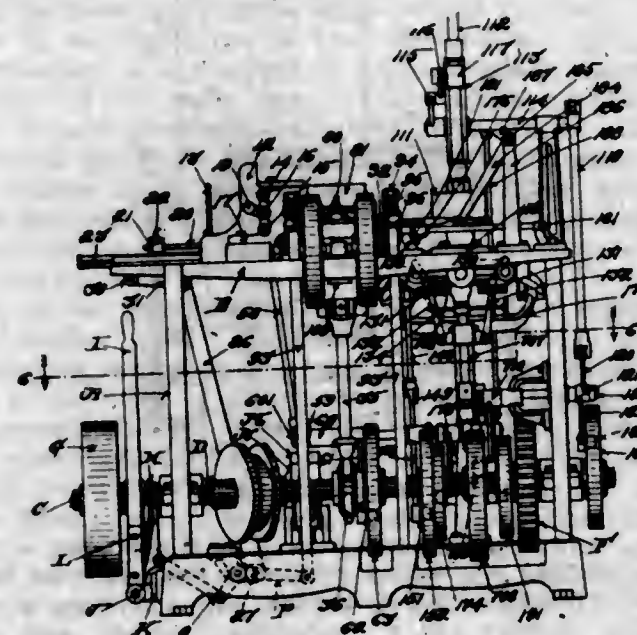
A siphon jet flushing tank, provided with a tripping device, comprising a water-containing bucket, a counterbalance, and means whereby said bucket and counterbalance are alternately operated to hold open or permit the closing of the valve controlled by said tripping device.

1,079,616. CORNER-STAYING MACHINE FOR PAPER BOXES. EUGENE H. TAYLOR, Hyde Park, Mass. Filed Aug. 8, 1906. Serial No. 329,687. (Cl. 93-41.)

1. In a machine of the character described, the combination of means for applying simultaneously one-half of a corner stay in proper position to each corner of the flat blank for a box, means for bringing the appropriate portions of said blank into positions adjacent each other, and means for simultaneously applying the other half of each of said corner stays to the proper portion of the blank.

2. In a machine of the character described, the combination of means for applying simultaneously a portion of a corner stay in proper position to each corner of a flat blank, means for folding the blank, and means for simultaneously applying the remainder of each stay to the corresponding edge of the folded blank.

3. In a machine of the character described, means for applying simultaneously one-half of a corner stay in proper position to each corner of a flat blank, means for folding the blank, and means for simultaneously applying subsequently the other half of each of said corner stays to the proper portion of the blank.



4. In a machine of the character described, a hopper, means for applying simultaneously a half of pieces of stay strip to appropriate portions of a flat blank, means for forming the blank, means for applying simultaneously the remainder of the pieces of stay strip to the appropriate portions of the blank, and a feeder for successively transferring the blank from the hopper to the position in which the pieces of stay strip are first applied to said blank.

5. In a machine of the character described, the combination of a hopper, means for applying simultaneously one half of pieces of stay strip to appropriate portions of a flat blank, means for forming the blanks, means for applying simultaneously the remainder of each piece of stay strip to its appropriate portion of the blank, and a feeder operating to transfer the blank from the hopper to the position in which the pieces of stay strip are first applied to said blank, and from the last mentioned position to the forming position whereby each blank is caused by the said carrier to occupy successively each position, and a blank in the hopper and another in the position in which the pieces of stay strip are first applied to said blank are moved forward simultaneously.

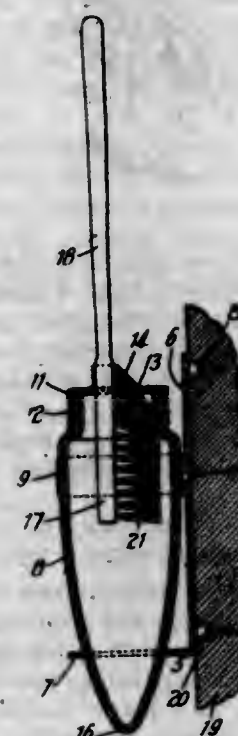
[Claims 6 to 33 not printed in the Gazette.]

1,079,617. SIGN-FASTENING. GEORGE TENNIE, Chicago, Ill. Filed Apr. 15, 1913. Serial No. 761,382. (Cl. 40-125.)



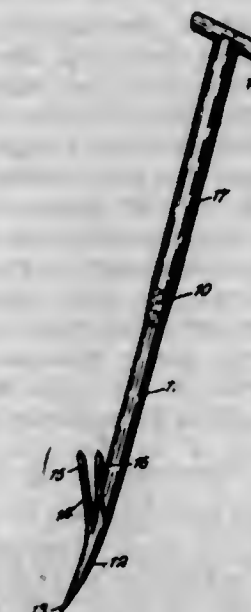
In a device of the character described, a body portion, prongs in each corner thereof, tongues at the ends of the body portion intermediate said prongs, said tongues and prongs being integral with said body portion and separated from each other by slots, laterally extending prongs intermediate the ends of the body portion and formed integral therewith, said laterally extending prongs being bent at right angles to the surface of the body portion and having spear points at their outer extremities, the first mentioned prongs being bent at an angle to the body portion and adapted to hook in a wall when the device is being put in place.

1,079,618. TOOTH-BRUSH HOLDER. JOHN H. TRAYNE, Groton, Mass., assignor to Elma Mfg. Co., a Corporation of Massachusetts. Filed Aug. 7, 1912. Serial No. 713,711. (Cl. 132-11.)



A tooth brush holder having, in combination, a bottle tapered toward and provided with a hole at its lower end, a bracket consisting of a plate adapted to be fastened to a wall and having an annular arm adapted to receive the lower end of said bottle and a U-shaped spring arm secured to said plate and adapted to partly encircle and grip said bottle.

1,079,619. WEED-PULLER. CHARLES N. WALTON, Monroe, N. Y. Filed Sept. 13, 1912. Serial No. 720,231. (Cl. 55-85.)



1. A weed puller comprising a bar, a handle provided upon the upper end of the bar, a curved pointed lower end, and two pointed divergent prongs springing from the concave side of the curved end, and extending upwardly, substantially as and for the purposes set forth.

2. In a weed puller, a rod adapted to serve as a handle, a cross bar disposed upon its upper end, a curved cylindrical pointed lower end adapted for penetrating the earth, and two cylindrical pointed divergent upwardly disposed prongs projecting from the concave side of the curved end of the rod, substantially as and for the purposes set forth.

1,079,620. CUFF-BUTTON. CHARLES L. WEBSTER, Providence, R. I. Filed Feb. 7, 1913. Serial No. 746,701. (Cl. 24-102.)



1. In a cuff button or the like, the combination of a skeleton framework formed from a sheet-metal blank and consisting of a top-plate having arms cut away therefrom and bent at right-angles to the plate to overlap each other and form a double post or shank, said arms being joined to the plate at a distance apart in the plane common to their overlapping faces, an ornamental shell attached to said top-plate and a shell-like bean attached to the opposite end of the post.

2. In a cuff button or the like, the combination with a skeleton framework formed from a sheet-metal blank and comprising a top-plate having two cooperating arms sheared from the metal of the plate and bent at right-angles thereto to overlap each other and form a double post or shank, said arms being spaced apart at their joiner with the plate in a plane common to their overlapping faces and the opposite extremities of the arms being bent outward in right-angled portions, a shell formed with an annular rim rolled over the edge of the top-plate to secure it thereto, and a hollow bean formed around the end portions of the arms.

3. A framework for cuff buttons or the like constructed from a sheet-metal blank and comprising a skeleton top-plate with two separate arms sheared from the metal of the plate and bent at right-angles thereto to overlap each other and form a double shank or post, said arms spaced apart at their joiner with the plate in a plane common to their overlapping faces, and ears at the extremities of the arms bent outwardly therefrom to adapt them to receive the hollow shell or bean of the button.

4. A framework for cuff buttons or the like constructed from a sheet-metal blank and comprising an appropriately-shaped top-plate with two separate curved arms sheared from said plate and each arm bent once on the median line of the plate to stand at substantially right-angles thereto and overlap the other arm to form a double post, said arms extending from the top-plate at a distance apart in the plane common to their overlapping faces.

5. A framework for cuff buttons or the like constructed from a sheet-metal blank and comprising a top-plate with arms sheared therefrom and bent at substantially right-angles thereto to overlap each other and form a double shank, said arms extending from the top-plate at a distance apart in the plane common to their overlapping faces and the adjacent faces of the arms channelled to form a hollow, substantially-tubular post.

1,079,621. THERMO-ELECTRIC COUPLE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 27, 1909. Serial No. 524,945. (Cl. 171-73.)

1. A thermo-electric couple, one element of which consists essentially of boron.

2. A thermo-electric couple, one element of which is composed of boron associated with carbon.

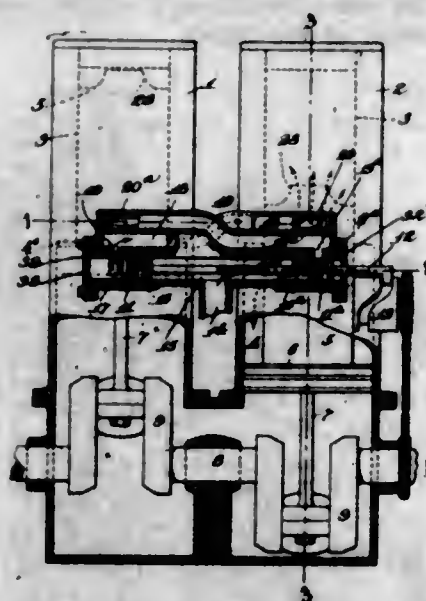
3. A thermo-electric couple, one member of which is constructed of a fused body, consisting largely of boron.

4. A thermo-electric couple one element of which consists essentially of fused boron.

5. A thermo-electric couple one element of which consists of fused boron associated with small amounts of another element.

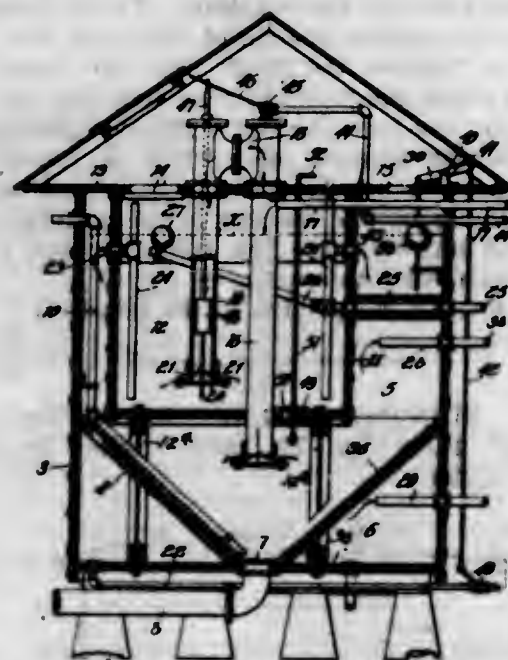
[Claim 6 not printed in the Gazette.]

1,079,622. INTERNAL-COMBUSTION ENGINE. JOHN WILLOUGHBY, New York, N. Y., assignor of one-half to George W. Bayley, Brooklyn, N. Y. Filed June 9, 1911. Serial No. 632,153. (Cl. 123-50.)



An internal combustion engine of the two-cycle type, having cylinders arranged in pairs, each embracing a compressing chamber and a combustion chamber, with pistons in each cylinder working in synchronism, a valve casing connected to the two cylinders of each pair, each compressing chamber having a port communicating through a cross-over passage with the combustion chamber of the opposite cylinder, said ports being controlled by piston valves sliding within the valve casing, two piston valves sliding within the valve casing, a rigid connection between the valves, and means for sliding the valves as a unit.

1,079,623. WATER STORING AND HEATING APPARATUS FOR BOILERS. DAVID L. WINTERS, Chicago, Ill. Filed Nov. 25, 1912. Serial No. 733,404. (Cl. 122-306.)



1. In an apparatus of the character set forth, the combination of a plurality of water-chambers, a passage connecting said chambers for the passage of water from one to the other of said chambers, and means for conducting the water from a boiler to be emptied into one of said chambers and the steam in the boiler into the other of said chambers.

2. In an apparatus of the character set forth, the combination of a plurality of water-chambers, means for conducting the water from a boiler to be emptied into one of said chambers near the bottom thereof and the steam in the boiler into the other of said chambers, and means for conducting the water at the top of the chamber into which the water from the boiler is introduced, into the other of said chambers.

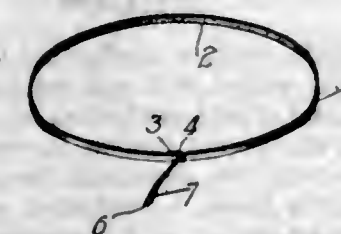
3. In an apparatus of the character set forth, the combination of a plurality of water-chambers, means for conducting the water from a boiler to be emptied into one of said chambers near the bottom thereof and the steam in the boiler into the other of said chambers, and means for conducting the water at the top of the chamber into which the water from the boiler is introduced, into the lower part of the other of said chambers.

4. In an apparatus of the character set forth, the combination of a plurality of water-chambers, means for conducting the water from a boiler to be emptied into one of said chambers near the bottom thereof and the steam in the boiler into the other of said chambers near the bottom thereof, and a pipe opening at one end into said last referred to chamber near the bottom thereof and at its opposite end into the other of said chambers near the top thereof.

5. In an apparatus of the character set forth, the combination of a plurality of chambers, a passage connecting said chambers for the passage of water from one to the other of said chambers, a pipe adapted to be connected with the boiler to be emptied for conducting the water and steam to said apparatus, and a pipe disposed at angles to said first-named pipe and into which the latter opens, said last-named pipe communicating at its lower end with one of said chambers and leading from its upper end into the other of said chambers.

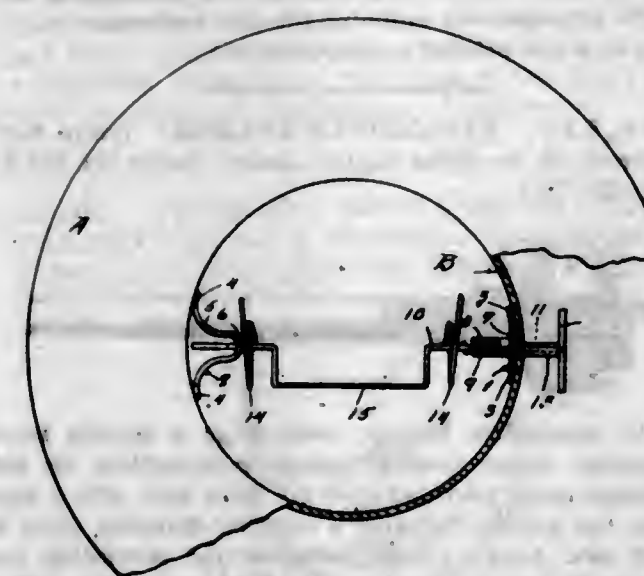
[Claims 6 to 34 not printed in the Gazette.]

1,079,624. SHIRT-WAIST BELT. IRVING C. WOODWARD, Chicago, Ill. Filed Nov. 10, 1910. Serial No. 591,728. (Cl. 241-8.)



A belt comprising a strip of fabric having a coating of unvulcanized rubber compound, said belt being adapted to have frictional engagement with the surface of a garment to resist the sliding or creeping movement of said garment and prevent its disarrangement from a certain normal position.

1,079,625. HAT-PIN. WILLIAM OSCAR YANCEY and CHARLES CAROLUS DU MESNIL, Chicago, Ill. Filed Apr. 17, 1912. Serial No. 691,541. (Cl. 132-25.)

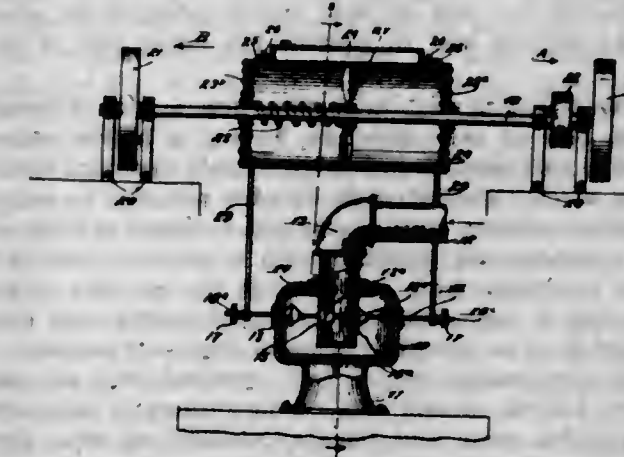


1. In a hat fastener, shaft supporting brackets adapted to be secured to the crown of a hat, one of the brackets provided with a laterally extending tubular casing, a shaft journaled in said brackets, a spring secured to said casing and shaft, and fastening means secured to said shaft, said spring normally tending to rotate the shaft and hold said fastening means in engaging position.

2. A hat fastener including a pair of shaft supporting brackets adapted to be mounted in the crown of a hat, one of said brackets being provided with an inwardly directed laterally extending tubular casing, a spiral spring mounted on said casing and having one end fixedly secured internally thereof, a shaft journaled in said bracket, a plurality of resilient hair engaging members carried by said shaft, said spiral spring having its other terminal secured to the said shaft and disposed to normally hold the hair engaging members in a position of positive engagement.

3. A hat fastener including a pair of supporting brackets adapted to be secured in the crown of a hat at diametrically opposite points thereof, an inwardly extending laterally directed tubular casing carried by one of said brackets, a spiral spring arranged in said casing and having one terminal fixedly secured thereto, a shaft journaled in said brackets and disposed for rotation within the said tubular casing, the other end of said spiral spring being secured to said shaft, and a plurality of hair engaging members carried by the said shaft and arranged spirally with relation to the longitudinal axis thereof, said hair engaging members being normally held in operative engagement by the action of the said spiral spring.

1,079,626. COMBINED VALVE AND GOVERNOR. STEPHEN R. ADAMS and LEONARD H. JACKSON, American Fork, Utah. Filed Dec. 4, 1911. Serial No. 663,742. (Cl. 121-114.)



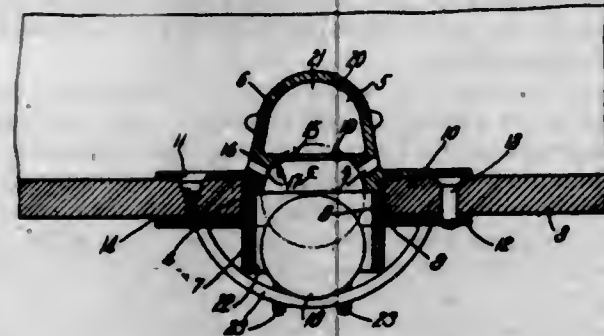
1. In a valve, a tubular pedestal, a valve casing mounted thereon provided with oppositely disposed openings, a steam pipe projecting into said casing closed at its lower terminal and provided with a pair of diametrically oppositely disposed openings in alignment with the openings in said casing, valve seats in said openings, a longitudinally reciprocal rod mounted in the openings in said casing and said pipe, a valve mounted on said rod interiorly of the steam pipe, valves mounted in said casing exteriorly of said steam pipe adapted to cut off the steam from the casing when the rod is reciprocated to its limit in either direction, and means for controlling the reciprocal throw of the rod.

2. In a valve, a valve casing provided with diametrically oppositely disposed openings, a steam pipe closed at its lower terminal projecting into said casing and provided with a pair of diametrically disposed openings in alignment with the openings in the casing, a longitudinally reciprocal rod provided with threaded extremities mounted in the openings in steam pipe and valve casing, valves mounted on said rods adapted to shut off the steam from said casing when the rod is reciprocated to its limit in either direction, screw members adjustably mounted on the ends of the rod to regulate the reciprocal throw of said rod.

1,079,627. BOAT-PLUG. WILLIAM J. ADAMS, Newtonville, Mass. Filed July 16, 1913. Serial No. 779,295. (Cl. 114-197.)

1. A boat plug having, in combination, a casing open at one end, an annular rib disposed intermediate the ends of

said casing, having a seat formed therein, said casing having a plurality of inclined passages extending through and terminating at said seat, a float arranged within said casing adapted to be moved toward and away from said seat to open and close said passages, and a guard arranged adjacent the open end of said casing adapted to retain said float in said casing.



2. A boat plug having, in combination, a casing provided with an opening at one end thereof and a plurality of passages extending therethrough adjacent the opposite end of said casing, an annular rib in said casing having a concave seat at which said passages terminate, a float arranged in said casing adapted to be moved by the pressure of water against the top or the bottom of said float to move the same toward and away from said seat to open and close said passages, and means arranged exteriorly of and adjacent the end of said casing adapted to retain said float therein and to protect the outer end of said casing.

3. A boat plug having, in combination, a pair of flanged members, one of said members having a hollow screw-threaded female member, the other of said members having a hollow screw-threaded male member adapted to engage said female member, an annular rib arranged within one of said members and provided with a concave seat with passages extending from said seat to the exterior of said member, and a spherical float arranged within said members adapted to be moved to open or close said passage.

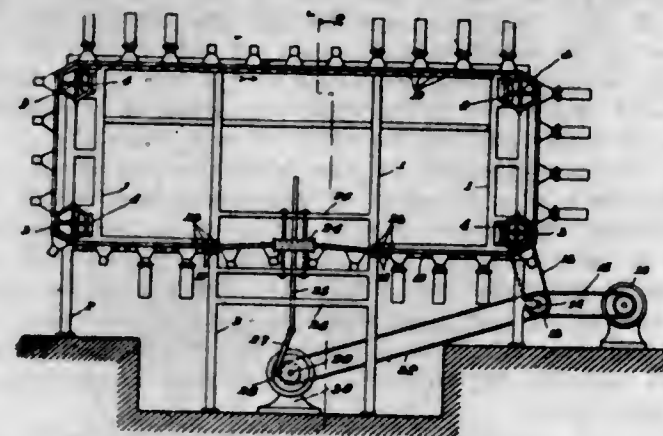
4. The combination with a boat provided with an opening in the bottom thereof of a casing formed in two parts, screw-threaded male and female members on said parts respectively adapted to be united within said opening and to draw said flanges against opposite faces of said boat, an annular rib in said casing provided with a concave seat with passages extending therefrom outwardly to the exterior of said casing within said boat, a spherical float arranged in said casing adapted to engage and fit said seat, said casing also having an opening extending from the interior thereof to the exterior of said boat, and means to retain said float within said casing.

5. The combination with a boat having an opening in the bottom thereof of a casing secured within said opening and protruding therefrom into the interior of said boat, said casing having an opening at the outer end thereof, an annular rib arranged within and substantially midway of said casing having a concave seat with passages extending from said seat through said casing to the interior of said boat, a float adapted to be moved to engage and fit said seat and to close said passages, said casing also having a chamber in the inner end thereof adapted to be closed when said float is engaging said seat and to assist in retaining said float in contact with said seat.

1,079,628. MACHINE FOR PACKING FUEL IN PAPER BAGS. ALBERT AMBUSTEY, New York, N. Y. Filed Apr. 10, 1913. Serial No. 760,274. (Cl. 83—26.)

An apparatus for filling and packing bags with charcoal or the like, comprising a vertical frame, a series of feed hoppers, means for removably attaching bags thereto, a pair of chains carrying said hoppers, sprockets carrying said chains in spaced parallelism over a rectangle, supports for said chains to prevent sagging; driving means for said chains, a fixed supply device for said passing hoppers,

vertically reciprocating guides for said chains; and means, co-acting with said chain driving means, to actuate said



guides, thereby vibrating said chains, hoppers and attached bags, to pack the bag contents.

1,079,629. RESISTANCE-RING OF ROTORS. JOHN MARTIN BARR, Indianapolis, Ind., assignor to Fairbanks-Morse Electrical Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 6, 1912. Serial No. 735,266. (Cl. 172—120.)



1. In an electric rotor, a conducting bar; a resistance element integrally united with and making electrical connection with an end of said conducting bar; said resistance element having an opening therein to reveal the integral union of said bar and the resistance element.

2. In an electric rotor, a conductor, a resistance element embracing an end of said conductor and integrally united therewith and having an opening formed through said element to the embraced end of said conductor.

3. In an alternating current rotor, conducting bars, a resistance ring, having a groove therein, cut to a point where the bars are united with the metal of said ring.

4. In an alternating current motor, conducting bars, a resistance ring, having an opening in said ring extending therein and exposing a portion of the said bars in contact with the metal of said ring.

5. An electric rotor comprising two conjointly united elements, one of which is provided with an opening to reveal the homogeneous union of the two elements.

[Claim 6 not printed in the Gazette.]

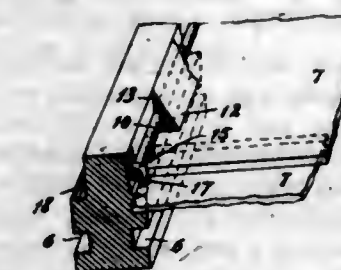
1,079,630. EXPANSIBLE REAMER. LOUIS BAUM, Paterson, N. J. Filed Dec. 17, 1912. Serial No. 737,345. (Cl. 77—75.)



1. An expansible reamer, comprising a spindle having an annular flange formed thereon intermediate its ends, said flange being provided upon its outer face with a spiral thread, the spindle being of a reduced diameter upon one side of said flange, a head mounted for revolution upon said reduced spindle portion, said head being of a reduced diameter adjacent its outer end and formed with socket openings to receive a spanner wrench, the head being also formed with a plurality of radial slots, cutters sliding within said slots and formed with threads for engagement with said spiral threads, and a locking nut threaded upon said spindle for engagement with the outer face of the head.

2. An expansible reamer comprising a spindle having an annular flange formed integral therewith, said flange being provided upon its outer face with a spiral thread, the spindle being reduced adjacent its outer end, a head having an external diameter equal to said flange, the head being reduced in diameter adjacent its outer end and formed with sockets adapted to receive a spanner wrench, a bushing fitted within the bore of said head and terminating short of the outer end thereof, said bushing being revoluble upon the spindle, a plurality of cutters movable within radial slots formed in said head, the cutters being provided with segmental threads for engagement with said spiral thread, and a locking nut threaded upon the extremity of said spindle between the same and the head, said nut bearing against the outer face of the head.

1,079,631. SASH FOR HOTBEDS AND OTHER PURPOSES. WILLIAM S. BODLEY, Louisville, Ky., assignor to Sunlight Double Glass Sash Company, Inc., Louisville, Ky. Filed Jan. 7, 1910. Serial No. 536,882. (Cl. 108—16.)

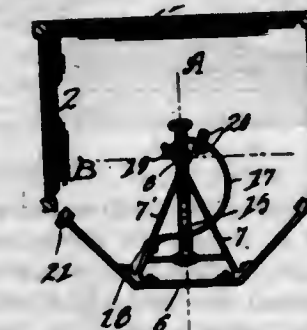


1. In a sash for hot beds and other purposes, the combination of a grooved frame, panes of glass superposed so as to lap on each other and fitted in the grooves of the frame, a packing in the grooves superposed upon the panes and beneath the lip of the groove without adhesion to the glass or to the frame, and means for holding the glass and packing in place consisting of putty arranged outside of the packing and having adhesion to the frame only upon the overhanging lip of the groove, substantially as set forth.

2. In a sash for hot beds and other purposes, the combination of a frame, a pane or panes of glass therein, a packing of an oily character superposed upon the glass and against portions of the frame, and putty applied against the glass and over the packing, substantially as set forth.

3. In a sash for hot beds and other purposes, the combination of a frame formed with longitudinal grooves 6 and flanges 14 exterior to the grooves, panes of glass fitted in the grooves, the panes being of a width greater than the distance between opposing flanges 14, and a packing having a strip 11 fitted in the grooves above the panes with its said strip arranged at the edges of the panes and between the same and the bottoms of grooves.

1,079,632. AUTOMATIC SHOW-CASE OR CLOTHING-CABINET. GEORGE O. BOUCHARD, Grand Rapids, Mich. Filed Apr. 2, 1913. Serial No. 758,465. (Cl. 211—16.)



1. A display cabinet including a case, a rotatable door adapted to normally close said case, a vertical shaft normally mounted in the center of said case and adapted for sliding movement toward the front of the said case, supporting arms for said door adjustably mounted on said

shaft, a clothes rack carried by said shaft, and substantially arc-shaped band members operatively connecting the said shaft to the said door for sliding the said shaft toward the front of the said case automatically, and simultaneously with the opening of the said door.

2. A display cabinet including a case, a vertical shaft mounted for sliding movement therein and normally disposed centrally thereof, a bearing plate for each terminal of said shaft, a set of roller casters for each of said bearing plates, said casters being arranged for sliding movement within track ways formed in the top and base walls of said case, a plurality of radially extending supporting arms adjustably mounted on said shaft and adjacent each terminal thereof, a rotatable door carried on the free ends of said supporting arms, a set of guide rollers attached to the base wall of said case, a substantially arc-shaped metallic band operatively connecting said shaft to said door and mounted for movement through the said guide rollers for sliding the said vertical shaft to the front of the said case simultaneously with the opening of the said door.

3. A display cabinet including a case having a pair of longitudinally aligned track ways formed on the inner faces of its upper and lower wall and extending from the center of said case toward the front thereof, a vertical shaft arranged within the said case, a bearing plate for each terminal of said shaft, a set of roller casters for each of said bearing plates, said roller casters being disposed in the said track ways, a clothes rack carried by said shaft and rotatable thereon, a pair of hub members adjustably mounted on said shaft and adjacent the terminals thereof, a plurality of radial arms carried by said hub, a door member secured to the free ends of said radial arms and adapted for rotation so as to be swung interiorly of the cabinet, a pair of roller guide members secured to the top and base walls of said case, a pair of metallic band members respectively secured at one terminal to a radial supporting arm and at the other terminal to a hub member, said band members being adapted to slide the said shaft toward the front of the case simultaneously and automatically with the inward rotation of the door.

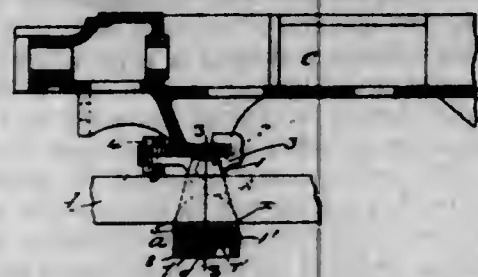
4. A display cabinet including a case, a vertically disposed shaft mounted for sliding movement therein and normally disposed in the center thereof, a bearing plate for each terminal of the said shaft, a set of roller casters for each of said bearing plates, said casters being mounted for sliding movement through a pair of track ways formed in the top and base walls of the said case, a pair of hub members adjusted adjacent the upper and lower terminals of the said vertical shaft and adjustably keyed thereon, a pair of radial supporting arms carried by each of said hubs, a door secured to the free end of the said radial arms and adapted for rotation for permitting it to be swung interiorly of the said case, a set of roller guides mounted on the top and base walls of said case, a pair of metallic bands arranged at the upper and lower terminals of the said shaft, said band members being attached at their one terminal to a radial projecting arm and at the other to a hub member and arranged for sliding movement through the said roller guides, said band members being adapted to communicate the movement of the door member, when the latter is swung inwardly, to the said vertical shaft for sliding said shaft to the front of the said cabinet, and a circular clothes rack rotatably mounted on said vertical shaft.

1,079,633. CAR DRAW-BAR CARRY-IRON. CRAUS L. BUNDY, Jersey City, N. J., and JULIUS J. ACKER, Horton, Kans., assignors to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 19, 1909. Serial No. 528,990. (Cl. 213—42.)

1. The combination in an under frame, of a carry-iron pivotally suspended therefrom, a saddle block movably mounted on the carry-iron, and having its supporting face convex, means for yieldingly holding said saddle block in a central position to guide a draw-bar arranged in said saddle block.

2. In a car draw-bar, a carry-iron pivotally suspended from the car, a support for the draw bar slidable on the

carry-iron and having its supporting face convex lengthwise of the said bar, and a spring interposed between each side of the carry-iron and the said support.



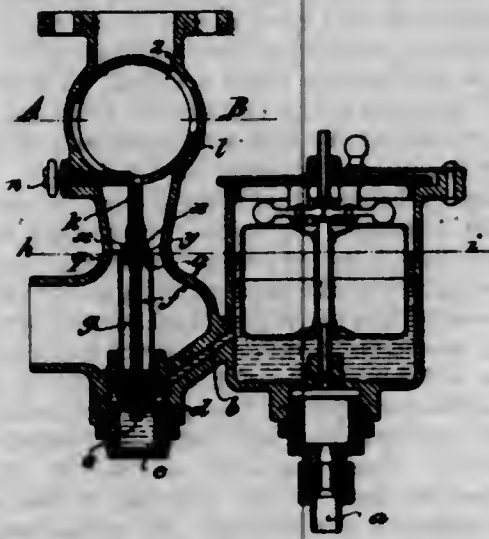
3. The combination of a pivotally mounted carry-iron, and a saddle block for supporting a draw-bar, which saddle block is yieldingly mounted to move transversely upon said carry-iron.

4. A draw bar hanger comprising the combination of a swinging support, a saddle block carried by said swinging support and adapted to move transversely thereupon, and yielding pressure means interposed between the swinging support, and the saddle block for maintaining the latter in a central position upon said swinging support.

5. In a car including a draw bar, a support therefor, which support is mounted to swing longitudinally, and a transversely movable member mounted on the longitudinally swinging support and adapted to engage the draw-bar.

[Claims 6 to 10 not printed in the Gazette.]

1,079,634. CARBURETER. JOHANN GUSTAV BURCHARTZ, Cologne, Germany. Filed July 26, 1912. Serial No. 711,611. (Cl. 48—155.1.)



1. In an injection carbureter for internal combustion engines an injection duct *g* having an outlet *k* lying considerably above the level of the fuel close to a slot *m* of the throttling organ *l*, a fuel container *f* having supply openings *q* on the level of the fuel, an inlet opening smaller than the said supply openings *q*, and a store space *y* at the head of the fuel container *f* around and above the supply openings *q* as set forth.

2. In an injection carbureter for internal combustion engines an injection duct *g* having an outlet *k* lying considerably above the level of the fuel close to the slot *m* of the throttling organ *l*, a fuel container *f* having supply openings *q* on the level of the fuel an inlet opening smaller than the said supply openings *q*, and a store space *y* at the head of the fuel container *f* around and above the supply openings *q* the said space *y* being provided with air discharging openings the sectional area of which is considerably smaller than that of the supply openings, as set forth.

1,079,635. PAINT AND VARNISH REMOVER. HARRY B. CHALMERS, Quogue, N. Y., assignor to Lawrence B. Dunham, New York, N. Y. Filed Oct. 18, 1911. Serial No. 655,374. (Cl. 87—5.)

1. A detergent comprising approximately equal parts of gasoline and alcohol with approximately fifteen per

cent. of oleic acid, the same forming a pulplified mass which is characterized by not skinning over on exposure to the atmosphere.

2. A detergent of pulplified consistency comprising forty-seven and one-half parts of gasoline, fifty parts of ninety-per cent. wood alcohol, two and one-half parts of wax comprising half each of paraffin and ceresin wax, and fifteen parts of double-pressed oleic acid; the latter acting to pulplify the immiscible volume of gasoline, wood alcohol and wax.

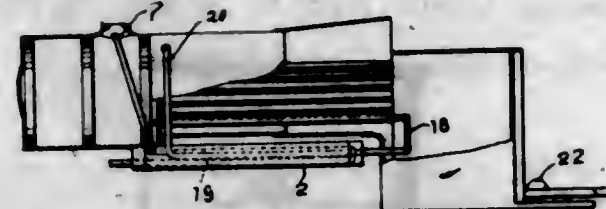
1,079,636. AIR-FEEDING ATTACHMENT. FRANK N. COOKE, Danvers, Mass., assignor to Arabella C. Cooke, Danvers, Mass. Filed Jan. 20, 1913. Serial No. 744,968. (Cl. 110—175.)



1. The combination, with a fire-box having a rectangular opening on one side, and a supporting plate extending over the said opening and provided with an air inlet at its upper part; of a front baffle plate secured to the rear side of the supporting plate and having flanges at its edges which form an unobstructed air chamber against the supporting plate and having a row of outlet holes in its back below the level of the air inlet; and a rear baffle plate secured to the rear side of the front baffle plate and having a row of outlet holes in the upper part of its back, and having flanges at its edges and partition plates projecting from its front face and forming with the back of the front baffle plate a tortuous air passage extending between the outlet holes of the front and rear baffle plates respectively.

2. The combination, with a fire-box having a rectangular opening on one side, and a supporting plate extending over the said opening and provided with an air inlet at its upper part; of a front baffle plate secured to the rear side of the supporting plate and having flanges at its edges which form an unobstructed air chamber against the supporting plate and having a row of outlet holes in its back below the level of the air inlet; and a rear baffle plate secured to the rear side of the front baffle plate and having a row of outlet holes in the upper part of its back, and having flanges at its edges and partition plates projecting from its front face and arranged horizontally in two series and having openings at their middle parts and ends alternately and forming with the back of the front baffle plate a tortuous air passage extending between the outlet holes of the front and rear baffle plates respectively.

1,079,637. STEAM-HEATING SYSTEM. THOMAS W. COOPER, Buckhead, Ga. Filed June 3, 1913. Serial No. 771,527. (Cl. 122—434.)

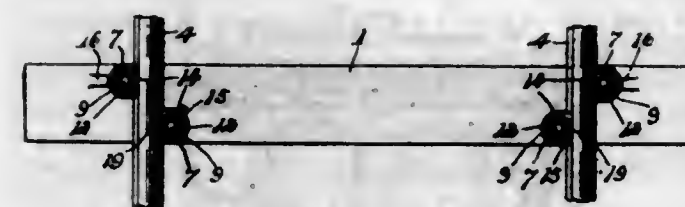


1. The combination with a boiler, smoke stack, fire box and feed tank of a locomotive steam engine, of a coil radiator mounted in the feed tank, a sealed casing for said radiator, a force pump mounted within said feed tank and connected with the lower terminal of said sealed tank, a cylindrical casing arranged on each side of said locomotive, a steam pipe of each cylindrical casing connected at one terminal with the exhaust pipe of the steam chest and at its other terminal with the smoke stack, said pipe coiled within said cylindrical casings, a second steam pipe con-

nected with one of said first steam pipes within one of said cylindrical casings at one terminal and at its other terminal to the lower coil of said coil radiator, a water pipe connected at one terminal with the upper portion of said sealed casing and at its other terminal with said boiler, said water pipe directed through one of said cylindrical casings, the fire tubes of said locomotive, the fire box and finally through the other of said cylindrical casings and into said boiler and a force pump adapted to force the water from said feed tank through said water pipe.

2. The combination with a boiler, smoke stack, fire box and feed tank of a locomotive steam engine, of heating means mounted within said feed tank, cylindrical casings secured to said boiler, pipes connected with the steam chest of the locomotive, coiled within each of said cylindrical casings and terminating in upwardly extending portions communicant with the smoke stack, a pipe connected with one of said steam pipes and with said heating means, a heated water supply pipe connected with said heating means and said boiler, said last named pipe directed through one of said cylindrical casings, the fire tubes, the fire box, into the other of said casings and finally into said boiler, and a plurality of pumps for circulating the water in said pipes.

1,079,638. RAILWAY-TIE. FRANCIS M. CROSSLEY, Detroit, Mich. Filed July 22, 1912. Serial No. 710,813. (Cl. 238—5.)



1. The combination of a tie having an opening in its upper side, downwardly extending ribs on the tie adjacent to said opening, a clip adapted to engage the flange of a track rail and formed with a recess of irregular outline in its upper side, a bolt engaging the opening in the tie and extending through the clip into the center of the recess, a hooked lower end on the bolt engaged over the rib adjacent to said opening, a nut on the bolt within the recess, and a plate having a center opening to fit the nut and a laterally projecting portion to engage the side of the recess and prevent the turning of the plate therein.

2. The combination with a tie having an opening and a downwardly extending flange around the opening, of a clip having a laterally extending portion adapted to engage the flange of a track rail and formed with an upwardly extending wall to engage beneath the head of the track rail and provided with webs forming braces for the wall, said clip being also formed with a recess in its upper side and an opening in the bottom of the recess, a bolt extending through the opening in the tie and the opening in the bottom of the recess of the clip, a nut on the bolt within the recess, means within the recess engaging the nut to prevent its turning, and a formed lower end on the bolt to engage over the flange of the tie and prevent the bolt from turning.

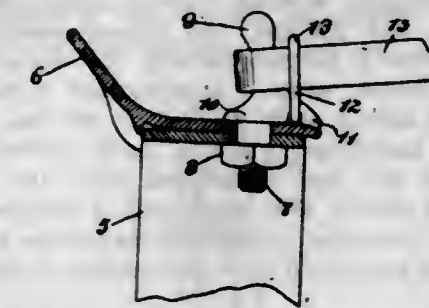
1,079,639. CHECKREIN FASTENER OR HOLDER. JAPHET S. CUSSON, De Kalb, Ill. Filed Oct. 3, 1910. Serial No. 685,143. (Cl. 54—61.)

1. A check rein holder comprising a bolt, a post extending from the bolt and inclined rearwardly relative to the axis thereof, said post having a base extending forwardly from the bolt, and having a recess in its under side, and a ring working in said recess.

2. A check rein holder comprising a bolt, a post extending from the bolt and inclined rearwardly relative to the axis thereof, said post having a base extending for-

196 O. G.—60

wardly from the bolt, and having a recess in its under side, said base being downwardly inclined forwardly of said recess to form a downwardly inclined lip, and a ring engaging in said recess.



said recess to form a downwardly inclined lip, and a ring engaging in said recess.

1,079,640. TEMPORARY BINDER. CHESLEY DOM, Cincinnati, Ohio, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 23, 1911. Serial No. 656,089. (Cl. 129—12.)



1. In a temporary binder, a series of binder posts, a cover member adjustable thereon, comprising a plate notched and provided with an inclined surface adjacent to each post, a wedge member adapted to engage between each post and adjacent inclined surface of the plate, locking the parts together in an upward movement of the plate and released in a downward movement thereof, and an elastic arm carrying said wedge member for moving said wedge member toward and away from its post-engaging position.

2. In a temporary binder, a series of binder posts, a cover member slidable on said posts having an inclined abutment adjacent to each post, an elastic arm at its free end journaling a roller wedge, one arm for each post, with the wedge adapted to intervene between the post and abutment, and bind therewith, and means for moving said arm transversely to the plane of the post to displace the roller wedge from a post-binding position.

3. In a temporary binder, a series of binder posts, a cover member slidable thereon, a slide plate slidably mounted upon said cover member, a resilient wedge supporting arm on said slide plate, a wedge member mounted on said arm, adapted to engage a post of the series, means for slidably moving said slide plate to and from said post for withdrawing said wedge from its post engagement.

4. In a temporary binder, a series of binder posts, a cover member slidable thereon, provided with notches extended therein from one edge to receive the posts in a lateral movement of the cover member, a yielding member, one for each post, slidable on the cover member, adapted to engage and bind with a respective post, and unitarily provided with a rigid element to close the notch around the post.

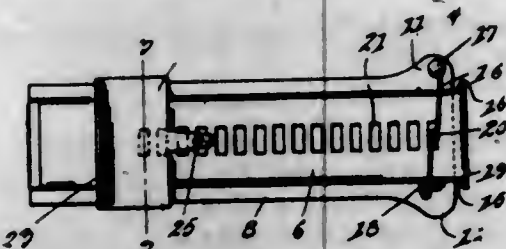
5. In a temporary binder, a series of binder posts, a cover member slidable thereon, means for locking said cover to said posts in any adjusted position, comprising a resilient arm slidable within said cover member, with its free end provided with a wedge, adapted to engage said cover and posts and resist upward movement of the cover upon the posts, means adapted to engage said arm, for sliding the same to move said wedge out of locking position.

[Claims 6 to 10 not printed in the Gazette.]

1,079,641. SHADE-BRACKET. WILLIAM H. DRAKE, Columbia, S. C. Filed May 12, 1913. Serial No. 767,128. (Cl. 156—24.)

1. A shade bracket including a base formed of a pair of telescoping plates, one of said plates forming a channel in

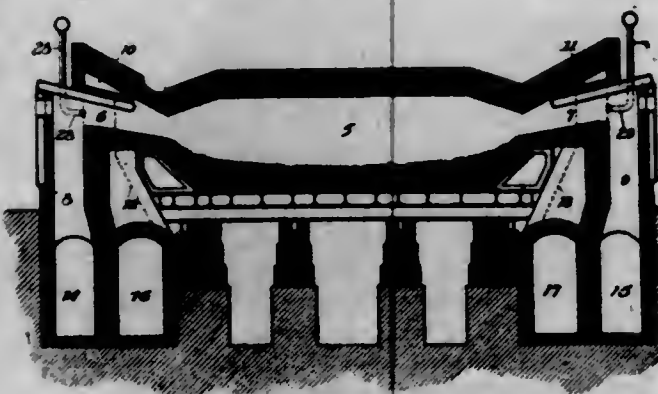
which the other plate is received, means carried by the outer ends of said plates whereby the base may be secured to a support, a strap slidable along the first mentioned plate and holding the second mentioned plate within the channel formed thereby, the second mentioned plate being formed with a longitudinal series of transverse slots, a spring latch pivoted at one end to one side of the first mentioned plate, a hook formed upon the other side of the last mentioned plate for engagement with the free end of said latch, and a tongue carried by the latch for reception within the transverse slots, whereby the base is prevented from increasing in length.



2. A shade bracket comprising a base formed of a pair of telescoping plates, means carried by the outer ends of said plates for engagement with a support, a slidable member carried by one of the plates and extending across the other of the plates, the last mentioned plate being formed with a plurality of transverse openings, a spring tongue carried by the slidable member for reception within said openings, a bracket plate formed upon the strap, and means for preventing the clamping members from moving away from each other.

3. A shade bracket comprising a channel plate having one end extended rearwardly to form a clamping portion, laterally projecting flanges formed upon the walls of the channel plate, a second plate slidable within the channel plate, said second mentioned plate being formed with diverging flanges which space the main portion of the plate from the channel plate and have one end extended rearwardly to form a clamping portion, a strap slidably connected to the flanges of the channel plate and extending across the second mentioned plate, said second mentioned plate being provided with a plurality of transverse openings, a latch pivotally connected to one flange of the channel plate and removably connected to the other flange thereof, and a tongue carried by said latch for reception within the transverse openings, whereby the two plates are prevented from spreading.

1,079,642. REGENERATIVE FURNACE. NICOLAS FRIDERICH EGGER, Chicago, Ill., assignor to Thomas S. Blair, Jr., Chicago, Ill. Filed May 1, 1913. Serial No. 764,925. (Cl. 75-94.)



1. A regenerative furnace provided at each end with gas and superposed air ports and having means to return burnt gas issuing from one end of the furnace and without chemical change thereof to the gas-port at the opposite end, and means to introduce coke-oven gas into the burnt gas so returned.

2. A regenerative furnace provided at each end with gas and superposed air ports and having a conduit leading from a burnt-gas passage on the outgoing end of the furnace to a passage leading to the gas-port at the

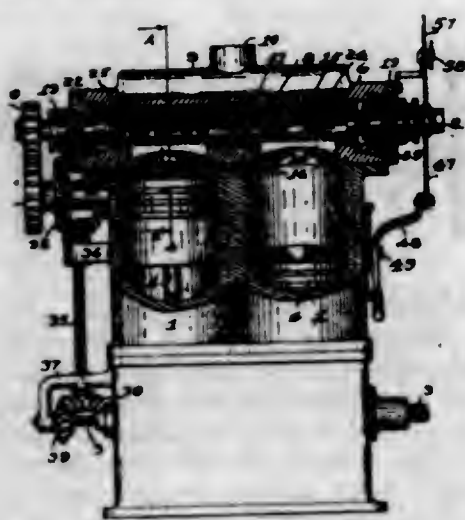
opposite end, a pump in said conduit, and means to mix coke-oven gas with the burnt gases passed through said conduit.

3. In combination, a regenerative furnace proper having at each end gas and superposed air ports, regenerators connected to said ports, a stack to which the regenerators are alternately connected, a by-pass leading stack-gas to the gas-regenerator on the intake-end, a pump in said by-pass, and means to mix coke-oven gas with the gas passed therethrough.

4. In combination, a furnace proper having at each end gas and superposed air ports, regenerators connected to said ports, air and gas reversing valves, a by-pass from the exhaust side of a reversing valve to the intake-side of the gas-reversing valve, a pump in said by-pass, and means to introduce coke-oven gas into the burnt gases passed through said by-pass.

5. The process of heating reverberatory furnaces, which consists in mixing a gas containing a relatively high percentage of hydrogen with the burnt gas issuing from the furnace, without change of the chemical constituents of such burnt gas from the condition in which it so issues, and discharging said mixture into the furnace beneath a superposed stratum of air.

1,079,643. VALVES FOR ENGINES. THAYER B. FARINGTON, Columbus, Ohio. Filed Mar. 19, 1913. Serial No. 755,288. (Cl. 136-7.)



1. In valve mechanism for fluid-pressure engines, a cylinder, a head on the cylinder provided with a fluid-pressure supply passage, a cylindrical bushing seated in the head provided with an inlet port leading from said supply passage to the interior of the bushing and said bushing also provided with a supply port leading from the interior of the bushing into the cylinder, a hollow cylindrical valve rotatable in the bushing and constantly open through the latter to said supply passage and provided with a port to intermittently register with the supply port of the bushing to the cylinder as the valve rotates, and a controller journaled in the cylindrical valve to regulate the opening from the interior of the valve through the valve's port and the supply port of the bushing to the cylinder.

2. In valve mechanism for fluid-pressure engines, a cylinder, a head on the cylinder provided with a fluid-pressure supply passage, a cylindrical bushing seated in the head provided with an inlet port leading from said supply passage to the interior of the bushing and said bushing also provided with a supply port leading from the interior of the bushing into the cylinder, valve seats projecting from the inner face of the bushing on opposite sides of the supply port of said bushing and said valve seats forming between them a clearance communicating with the inlet port of the bushing, a hollow cylindrical valve rotatable within the bushing on said valve seats with its interior in communication with said clearance and said rotatable valve provided with a port to register intermittently with the supply port of the bushing to the cylinder as the valve rotates, and a controller journaled in the cylindrical valve to regulate the opening from the in-

terior of the valve through the valve's port and the supply port of the bushing to the cylinder.

3. In valve mechanism for fluid-pressure engines, a cylinder, a head on the cylinder, a cylindrical bushing seated in said head provided with an exhaust port leading to its interior from the cylinder, a hollow cylindrical valve rotatable in the bushing provided with a port to register intermittently with the exhaust port of the bushing as the valve rotates, and a hollow cylindrical controller journaled in the cylindrical valve provided with a slot through its side to register more or less with the exhaust port of the bushing as the controller is turned to regulate the exhaust from the cylinder through the port of the valve and through said slot into the interior of the controller, said controller having an eduction port leading from its interior.

4. In valve mechanism for fluid-pressure engines, a cylinder, a head on the cylinder provided with a fluid-pressure supply passage, a cylindrical bushing seated in the head provided with an exhaust port leading to its interior from the cylinder, valve seats projecting from the inner face of the bushing on opposite sides of the exhaust port of said bushing and said valve seats forming between them a clearance communicating with said supply passage in the head, a hollow cylindrical valve rotatable within the bushing on said valve seats provided with a port to register intermittently with the exhaust port of the bushing as the valve rotates, and a hollow cylindrical controller journaled in the cylindrical valve provided with a slot through its side to register more or less with the exhaust port of the bushing as the controller is turned to regulate the exhaust from the cylinder through the port of the valve and said slot into the interior of the controller, said controller having an exhaust port leading from its interior and also provided with a clearance in its periphery opposite its slot to receive fluid-pressure from said clearance between the valve seats through the port in the valve as the latter rotates.

5. In valve mechanism for fluid-pressure engines, a plurality of cylinders, a head on said cylinders provided with a fluid-pressure supply passage, a cylindrical bushing seated in said head provided with an inlet port leading from the fluid-pressure supply passage to the interior of the bushing and said bushing also provided with a supply port leading from the interior of the bushing into each cylinder, a hollow cylindrical valve rotatable in said bushing and provided with ports intermediate of the adjacent cylinders to form a constantly open communication from the fluid-pressure supply passage through the bushing into the valve, said valve provided with a series of ports for each cylinder to register intermittently with the supply port in the bushing leading to the adjacent cylinder as the valve rotates, the series of ports for one cylinder being arranged opposite to the ports of the series for the adjacent cylinder, and a controller journaled in the cylindrical valve to regulate the communication from the interior of the valve through the different series of ports in the valve and the supply ports of the bushing to the several cylinders.

[Claim 6 not printed in the Gazette.]

1,079,644. VEHICLE-WHEEL. RALPH K. GRATIGNY, Edgewater, N. J. Filed July 5, 1912. Serial No. 707,652. (Cl. 152-28.)

1. A wheel comprising a rim, a hub mounted to move diametrically therein, an annular resilient member intermediate the rim and hub, two annular side plates attached to the rim, two annular side plates attached to the hub and making sliding contact with the rim plates, two annular inner plates bearing against the sides of the annular resilient member, and operative connections between the side plates and the inner plates whereby the movement of the hub within the rim is converted into and limited by a lateral pressure upon the annular resilient member.

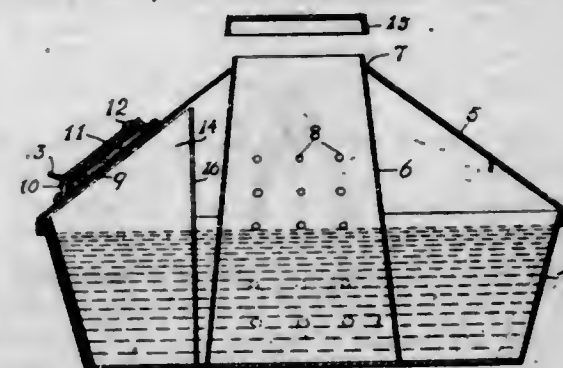
2. A wheel comprising a rim, a hub mounted to move diametrically therein, two annular plates attached to the rim, two annular plates attached to the hub and making

sliding contact with the rim plates, an annular air-cushion interposed between the rim and hub within the inclosed chamber formed by the rim and hub plates, two inner annular plates bearing against the sides of the air-cushion,



and operative connections between the rim plates and the inner plates whereby the movement of the hub within the rim is converted into and limited by a lateral pressure upon the air-cushion.

1,079,645. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo., assignor to The Hamilton Orchard Heater Company, a Corporation of West Virginia. Filed Nov. 8, 1912. Serial No. 730,293. (Cl. 158-91.)



1. An orchard heater comprising a liquid fuel reservoir, a sloping annular hood fitted closely to the top of the fuel reservoir, air inlet openings in the annular hood for admitting air into the fuel reservoir, and a combustion compartment provided with an opening in the side thereof located within the fuel reservoir in direct communication with said air inlet openings.

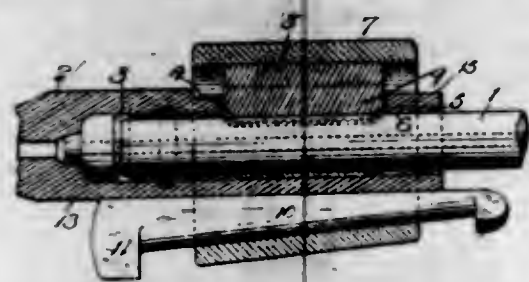
2. An orchard heater comprising a liquid fuel reservoir, a sloping annular hood fitted closely to the top of the fuel reservoir, a centrally located perforated draft chimney, air inlet openings in the annular hood for admitting air into the fuel reservoir, and a combustion compartment provided with an opening in the side thereof located within the fuel reservoir in direct communication with said air inlet openings.

1,079,646. CHUCK. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 23, 1909. Serial No. 479,325. (Cl. 255-57.)

1. A chuck receiving a drill steel, a laterally movable strap surrounding the chuck, a clamping shoe and a wedge key located upon opposite sides of the chuck within said strap, said clamping shoe engaging the steel and strap, and said wedge key engaging the chuck and strap.

2. A chuck for receiving a drill steel, a laterally movable strap surrounding the chuck, a clamping shoe and a

wedge key located upon opposite sides of the chuck within said strap, said clamping shoe engaging the steel and said wedge key engaging the chuck, said chuck being provided with shoulders between which the strap is held against longitudinal displacement in both directions.



3. A chuck for receiving a drill steel, an elongated laterally movable strap surrounding the chuck, a clamping shoe and a wedge key located upon opposite sides of the chuck within said strap, said clamping shoe engaging the steel and said strap engaging the chuck, said chuck having a circumferential groove forming shoulders for retaining the strap against longitudinal displacement and oppositely arranged flattened faces intersecting the groove for permitting the insertion and removal of the strap by rotative and longitudinal movements on the chuck.

4. A chuck for receiving a drill steel, an elongated laterally movable strap surrounding the chuck with its side walls engaging the sides of the chuck and its end walls spaced a distance therefrom, a clamping shoe interposed between the drill steel and one end wall of the strap and a wedge key interposed between the chuck and the other end wall of the strap.

1,079,647. GLOVE. HENRY G. HARTMANN, Chicago, Ill., assignor to C. D. Osborn Company, Chicago, Ill. Filed July 25, 1913. Serial No. 781,087. (Cl. 2-9.)



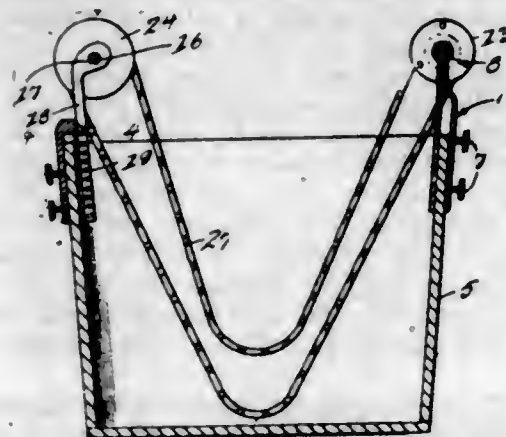
1. In an outside-seam glove, strips of relatively pliable material sewed intermediate their edges to those edges of the glove the seams of which are to be protected, to embrace between the edges of said strips the said edges of the glove, whereby the free edges of said strips are rendered free to curl back and cover both sides of the seams.

2. In an outside-seam glove, strips of relatively pliable material embracing between their edges parts of the glove to be secured together by outside seams, said strips being sewed between their edges to secure them in said embracing position and said parts of the glove together by outside seams, whereby the free edges of said strips are rendered free at opposite sides of said seams to permit them to curl back and cover the stitching securing said parts of the glove together and said strips in place.

1,079,648. HOG-SCALDING APPARATUS. CHARLES B. HRONISH, Knife River, N. D. Filed Apr. 25, 1913. Serial No. 763,617. (Cl. 17-7.)

1. In a hog scalding apparatus, the combination with a swinging tank, of a shaft rotatably secured to one side thereof, rollers rigid with said shaft and formed with peripheral channels having teeth formed upon the inner walls thereof, the side walls of said channels being formed with registering openings, means for rotating said shaft, means for locking the shaft against rotation in one direction, a second shaft rotatably supported upon the other side of the tank, grooved rollers rigidly secured to the second mentioned shaft, endless sprocket chains running over corresponding rollers on the two shafts, and means adapted to be inserted through the registering

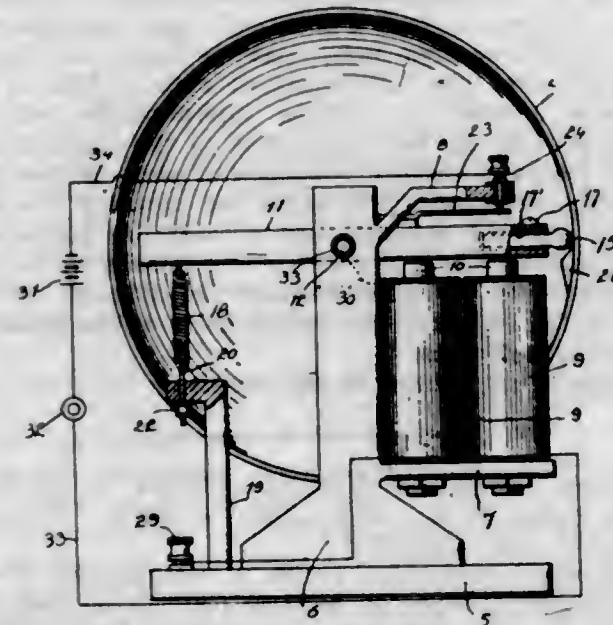
openings in the first mentioned rollers to prevent the chains running around said rollers.



2. In a hog scalding apparatus of the character described, a swinging tank, a shaft rotatably secured to one side thereof, means for rotating said shaft, means for locking the shaft against rotation in one direction, a plurality of rollers rigidly secured to the shaft and provided with peripheral channels having teeth formed upon the inner wall thereof, the side walls of said channels being provided with openings, a second shaft rotatably secured to the other side of the tank, rollers rigidly secured to the second mentioned shaft, endless sprocket chains running over corresponding rollers on opposite sides of the tank, and pins inserted through the openings in the side walls of said channels to lock the chains against movement relative to the corresponding rollers.

3. In a hog scalding apparatus, the combination with a scalding tank, of a shaft supported upon one side thereof, means for rotating said shaft, means for locking the shaft against rotation in one direction, a second shaft secured to the other side of said tank, toothed rollers rigid with the shafts, endless chains revoluble around corresponding rollers and running through the tank, and means for locking the chains to certain of the rollers, whereby the chains may be drawn taut.

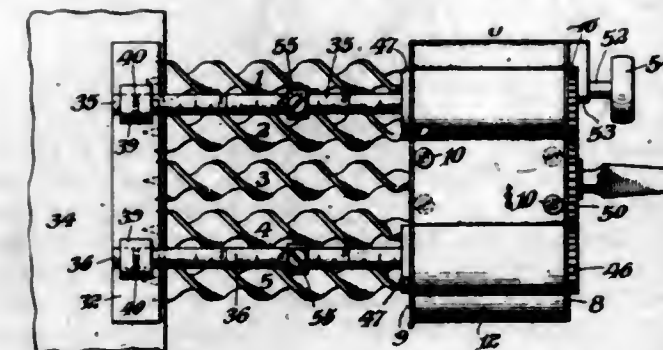
1,079,649. ELECTRIC BELL. ANDREW JACOBSEN, Fruitvale, Cal. Filed June 2, 1913. Serial No. 771,278. (Cl. 177-7.)



In a device of the character described, the combination of a base, a standard formed thereon, a pair of laterally extending arms secured to the standard and positioned one above the other, an electro-magnet secured to the lower of the arms, a shaft extending from the standard, an armature pivoted centrally of its ends upon the shaft and insulated from the standard, a bell, a striker extending from one extremity of the armature for engagement with the bell said striker being insulated from the armature, a stop carried upon the other arm, a spring contact movable with the armature for normal engage-

ment with the stop, and spring means for returning the armature to its normal position after having been attracted by the electro-magnet, said spring means, armature and stop being in the bell circuit.

1,079,650. BORING-MACHINE. DANIEL P. JORDAN, Burns, Oreg. Filed May 20, 1911. Serial No. 629,688. (Cl. 145-60.5.)



1. In a boring machine the combination of a plurality of bits, a head carrying said bits, sleeves rotatably mounted in said head, a guide-rod eccentrically mounted in each of said sleeves, a guide-plate located at each side of said bits, said guide-rods rotatably mounted in said guide-plates, gear-wheels upon said sleeves, a centrally located gear-wheel meshing with said gear-wheels upon said sleeves and means for rotating said centrally located gear-wheel.

2. In a boring machine the combination of a plurality of bits, a head carrying said bits, sleeves rotatably mounted in said head, a guide-rod eccentrically mounted in each of said sleeves, a guide-plate located at each side of said bits, said guide-rods rotatably mounted in said guide-plates, gear-wheels upon said sleeves, a centrally located gear-wheel meshing with said gear-wheels upon said sleeves, a pinion mounted on said head and meshing with said centrally located gear-wheel, and a handle on said pinion for rotating the same.

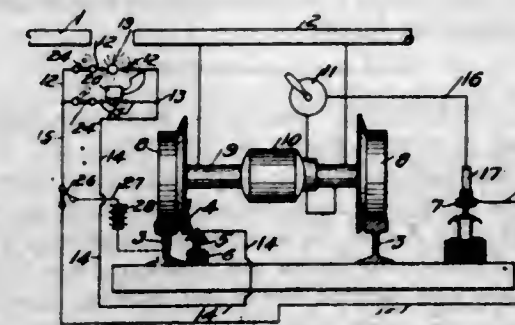
3. In a boring machine, the combination of a plurality of bits, bearing plates carrying said bits, a casing extending between said plates, guide rods eccentrically mounted in said plates and means for rotating said guide rods.

4. In a boring machine, the combination of a head consisting of two plates, a bit mounted in said plates, sleeves mounted in said plates at either side of the said bit, guide rods eccentrically mounted in said sleeves and means for rotating said sleeves.

5. In a boring machine, the combination of two plates, a casing between said plates, a bit mounted in said plates, said plates made in two sections, fastening devices for securing said sections together, guide rods, eccentrically mounted in said plates and means for rotating said guide rods.

[Claim 6 not printed in the Gazette.]

1,079,651. PLATFORM-INDICATOR. CHARLES J. KINTNER, New York, N. Y. Filed Feb. 14, 1913. Serial No. 748,354. (Cl. 246-21.)



1. In a railway system a platform, electrical translating devices located below said platform and near the edge thereof, a pair of tram rails adjacent thereto, and one or more cars adapted to pass over said tram rails; together

with an electrical generator, electrical circuits, and a flexible contact rail adjacent to one of the tram rails for automatically closing the circuit of the generator through the translating devices and the wheels and flanges of the car during the time that it remains in close proximity to the station, substantially as described.

2. In a railway system a platform, a pair of tram rails adjacent thereto, a car or train adapted to pass over said tram rails in proximity to said platform, translating devices located under the platform for attracting attention, an electrical generator and circuits and circuit connections embracing one of the tram rails, the car wheels and a flexible contact rail for causing said translating devices to operate automatically during the time that any portion of the car or train remains in proximity to the platform, substantially as described.

3. In a railway system a pair of curved tram rails, a platform having its adjacent edge to the rails curved to correspond therewith, one or more electrical translating devices located between the platform and the tram rails, a source of electrical energy, circuits and circuit connections between the translating devices and the generator, and a flexible contact rail adjacent to one of the tram rails for automatically closing the circuit from the generator through the translating devices and the wheels and flanges of the car during the entire time that the car or train remains adjacent thereto, the generator being connected with its negative pole to the tram rails, substantially as described.

4. In a railway system a flexible contact rail adjacent to one of the track rails, a plurality of translating devices, a source of electrical energy having its negative pole connected to the track rails and its positive pole connected to said translating devices, which devices are in turn electrically connected to the flexible contact rail, the arrangement being such that when the wheels of a car or train make contact with the flexible rail the translating devices will be energized and the current will flow from the generator through the translating devices to the flexible contact rail, through the flanges and faces of the wheels and the track rail, back to the generator, substantially as described.

5. In a railway system a flexible contact rail adjacent to one of the track rails, a plurality of electric lamps, a source of electrical energy having its negative pole connected to the track rails and its positive pole connected to said electric lamps, which lamps are in turn electrically connected to the flexible contact rail, the arrangements being such that when the wheels of a car or train make contact with the flexible rail the electric lamps will be energized and the current will flow from the generator through the electric lamps to the flexible contact rail, through the flanges and faces of the wheels and the track rail, back to the generator, substantially as described.

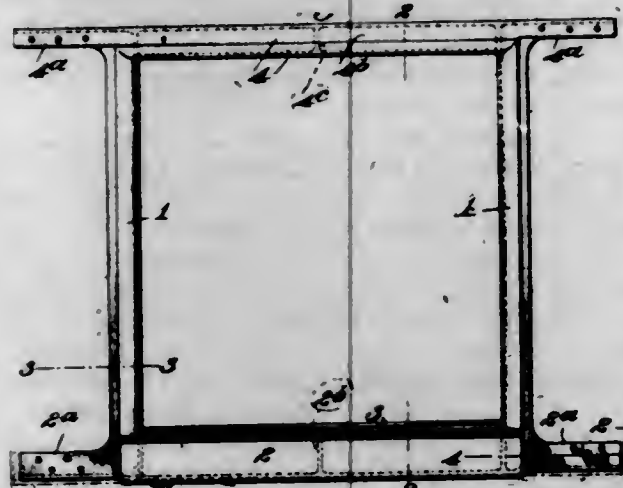
[Claims 6 and 7 not printed in the Gazette.]

1,079,652. RAILWAY-CAR SIDE-DOOR FRAME. WILLIAM J. KNOX, Dubois, Pa., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 6, 1912. Serial No. 695,483. (Cl. 189-46.)

1. The combination with a railway car side frame top and bottom chords, of a car door frame cast in a single piece, comprising vertically disposed channel-shaped members which perform the functions of door posts, lateral extensions at the ends of said upright members for attachment to the upper and lower chords of the car side frame, a horizontal channel-shaped member between the upper ends of said upright members, which horizontal member performs the function of a door frame lintel, and a horizontal channel-shaped member between the lower ends of the upright members, the top flange of which last mentioned channel-shaped member extends inwardly a substantial distance to form a threshold plate for the door frame.

2. The combination with a railway car side frame top and bottom chords, of a car door frame cast in a single piece and comprising vertically disposed channel-shaped

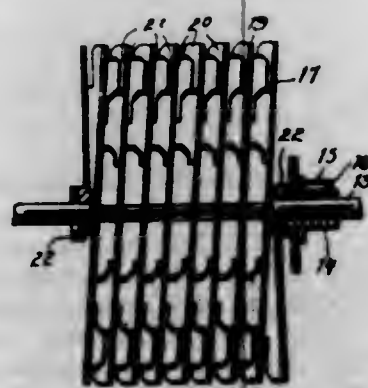
members which perform the functions of door posts, lateral extensions at the ends of said upright members for attachment to the upper and lower chords of the car side frame, a horizontal channel-shaped member between the upper ends of said upright members, which horizontal member performs the function of a door frame lintel, a horizontal channel-shaped member between the lower ends of the upright members, which last mentioned member performs the function of a door sill, and a threshold plate integral with and extending rearwardly from the last mentioned horizontally disposed member.



3. As a new article of manufacture a car side door frame, comprising a pair of substantially channel-shaped posts, a substantially channel-shaped rail between the upper ends of said posts, extensions on the ends of said rail for attachment to the side plate of a car side frame, a substantially channel-shaped rail between the lower portions of the posts, an inwardly projecting threshold plate on the upper portion of said last mentioned rail, extensions at the ends of said last mentioned rail for attachment to the side sill of the car frame, all of which parts are cast integral.

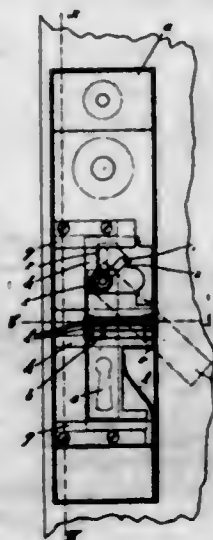
4. The herein described car side door frame cast in a single piece, and comprising a pair of substantially hollow door posts, a substantially hollow lintel between the upper ends of said door posts, extensions at the ends of the lintel for attachment to the car frame side plate, a substantially hollow sill member between the lower ends of the posts, a threshold plate integral with said sill, and extensions at the ends of said sill member for attachment to the side sill of the car body frame, which last mentioned extensions are off-set with respect to the main body portion of the sill member.

1,079,653. ROTARY MOTOR. ARTHUR J. KROUSE, Albany, N. Y. Filed Feb. 24, 1913. Serial No. 750,320. (Cl. 121-57.)



In a rotary motor of the character described, a rotor comprising a hub of a relatively small diameter, a spiral rib extending the full length of said hub and forming a narrow spiral passage, and baffle plates arranged throughout the entire length of said passage and extending radially from the hub to the periphery of the rotor, said baffle plates being recessed along certain of their side edges adjacent their outer ends, the recesses being positioned in staggered relationship within the passage.

1,079,654. KEYHOLE-GUARD. ALOIS LISSNER, Tetschen, Austria-Hungary. Filed July 9, 1912. Serial No. 708,475. (Cl. 70-8.)



A keyhole guard, comprising in combination, a casing having in its front side a keyhole and an insertion-slot for a socket-key, a keyhole cover, a pivot pin to mount the latter on the outer side of the casing, a ratchet-bolt arranged within the casing and having a recess, a fixed ward on the pivot pin of the keyhole-cover arranged within said recess and adapted to permit of the keyhole-cover being freely turned so far only that the insertion-slot becomes accessible, an arresting bar fixed in the casing behind the insertion-slot, spring-pressed tumblers movably mounted on the ratchet-bolt and adapted to normally engage said arresting bar but to be disengaged therefrom upon introduction of a socket-key in the insertion-slot, and a spring to laterally shift said ratchet-bolt and thus also the tumblers upon the latter being disengaged, substantially as and for the purpose set forth.

1,079,655. LOCK FOR WEARING-APPAREL. ALOIS LISSNER, Tetschen, Austria-Hungary. Filed Dec. 3, 1912. Serial No. 734,718. (Cl. 70-108.)

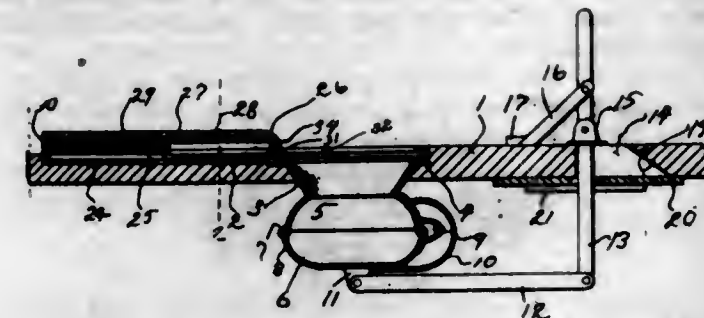


In a safety-device for locking wearing apparel and the like articles, in combination, a flat box, a spring-pressed sliding shackle guided in the latter, a toothed rack forming part of the shackle, a spring pawl to gear with the toothed rack, an extension on the pawl beyond its fulcrum having a keyhole slot designed to effect a direct engagement with a fixed member on the article to be locked simultaneously with the engagement of pawl and rack, and a key-operated shoulder on the end of said extension, substantially as and for the purpose set forth.

1,079,656. CUSPIDOR. FRANK A. MCGUIRE, Iola, Kans. Filed Jan. 2, 1913. Serial No. 739,865. (Cl. 4-39.)

1. The combination with a floor having a recess formed in its upper surface and a transverse opening communicating with said recess, of a cuspidor secured within said opening and projecting below the recess, a plate fitted within the recess and formed with the opening directly over said cuspidor, the plate being formed with a central longitudinally extending arch portion, a cover plate slidably secured to said first mentioned plate and formed with a projection adapted to be received within said arch portion, and a spring seated within said arched portion and

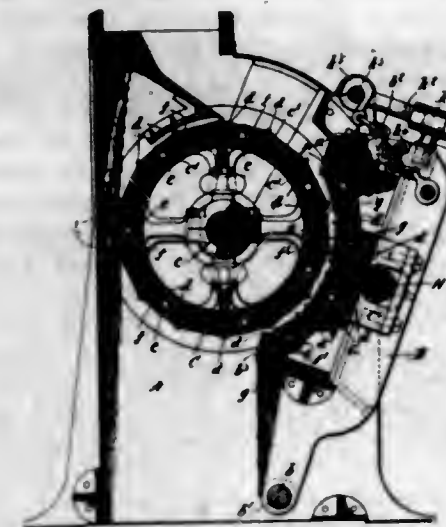
bearing against the projection, whereby the cover is normally retained in its closed position.



2. In a device of the character described, the combination with a casing, of a cover plate adapted to slide within said casing, the cover plate being formed with a transverse opening, a knob extending through said opening, and a flat metal spring engaging one end of said knob to normally retain the same in a projected position, the outer end of the knob being formed with a transverse recess to engage one edge of said casing, whereby the cover is retained therein.

3. The combination with a cuspidor, of a casing plate projecting at one end over said cuspidor, the casing plate being formed with an opening communicating therewith, a cover plate slidable within the casing plate and adapted to close said opening, the casing plate being formed with a longitudinally extending arch portion terminating at said opening, means carried within said arch portion for engagement with the cover plate to hold the latter over the cuspidor, and a spring-pressed knob carried by the cover plate for engagement with one end of the arch portion, whereby the cover plate is held from over the cuspidor.

1,079,657. COTTON-SEED HULLER. ROBERT W. MCLEAN, Bridgewater, Mass., assignor to Carver Cotton Gin Company, East Bridgewater, Mass., a Corporation of Massachusetts. Filed Apr. 11, 1912. Serial No. 690,140. (Cl. 83-14.)



1. In a cotton seed huller, a knife carrier, and a plurality of knives of angular cross section detachably and interchangeably secured to said carrier, each knife being also reversible end for end and back for front on said carrier whereby four different edges may be brought into operative position.

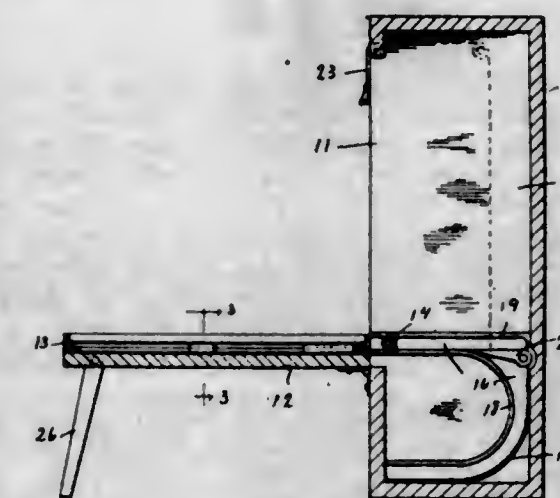
2. In a cotton seed huller, a knife carrier and a plurality of knives arranged in pairs, the knives of each pair being detachably secured to said carrier by a common clamp and each knife being of angular cross section and interchangeable with the other knives.

3. In a cotton seed huller, a knife carrier provided with knife receiving channels, a pair of knives of angular cross section in each channel, one blade of each angle knife bearing against the side wall of said channel and the other blade against the bottom wall of said channel, and a clamp to hold said knives in place within the channel.

4. In a cotton seed huller, a knife carrier provided with knife receiving channels, a pair of knives of angular cross section in each channel, one blade of each angle knife bearing against the side wall of said channel and the other blade against the bottom wall of said channel, and a clamp common to both knives overlying the blades bearing against the bottom wall of the channel to hold said knives in place within the channel.

5. In a cotton seed huller, a knife carrier provided with knife receiving channels, a pair of knives of angular cross section in each channel, one blade of each angle knife bearing against the side wall of said channel and the other blade against the bottom wall of said channel, and a clamp consisting of a plate overlying the blades of both knives which bear against the bottom wall of the channel, said plate being separably held in place by screws passing between the last named blades and into the carrier. [Claims 6 to 8 not printed in the Gazette.]

1,079,658. CABINET OR WALL BED. WILLIAM R. NEES, Los Angeles, Cal. Filed July 14, 1913. Serial No. 778,998. (Cl. 5-38.)



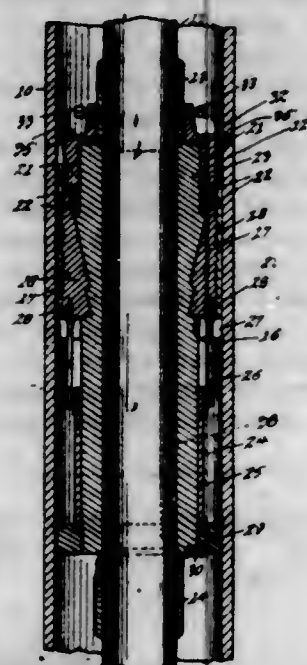
1. A folding bed comprising a cabinet having an opening in the front thereof; a downwardly swinging closure for said opening; a bed frame slidably mounted upon the upper side of said closure; rollers secured to the outer sides of said bed frame; guideways secured to the inner sides of the cabinet and adapted to guide said rollers when being used.

2. A folding bed comprising a cabinet having an opening in the front thereof; a downwardly swinging closure for said opening; a bed frame slidably mounted upon the upper side of said closure; rollers pivotally secured upon the outer sides of said bed frame; guideways secured to the inner sides of the cabinet adapted to guide said rollers when being used; and means mounted in said guideways to prevent accidental closure of said cabinet closure.

3. A folding bed comprising a cabinet having an opening in one side thereof; a downwardly swinging closure for said opening; a bed frame in slidable connection with the upper side of said closure; anti-friction rollers mounted on the outer sides of the end of said bed frame at the inner ends thereof; guideways for said rollers secured to the inner sides of the cabinet adapted to guide the inner ends of said bed frame downwardly when desired; means mounted in the guideways to lock the bed frame against downward movement; and means to actuate said last means when desired to close the cabinet.

4. In a folding bed, a cabinet having an opening in one side thereof; a downwardly swinging closure for said cabinet opening; a bed frame in slidable engagement with the upper side of said closure; anti-friction rollers mounted on the ends of the bed frame; guideways for said rollers mounted within and on the lower ends of the cabinet, said guideways extending rearwardly and then rearwardly and downwardly and then downwardly and forwardly whereby when the bed frame is pushed into the cabinet the inner end descends and the outer end of the bed frame carries the closure of the cabinet into its closing position.

1,079,659. AUTOMATIC STOP FOR WELL-TUBING. CLARENCE OCHS, Coalinga, Cal. Filed Mar. 6, 1913. Serial No. 752,465. (Cl. 103—65.)



1. The combination with a well tubing, of an automatic stop including a tubular body rotatably mounted on said tubing, stop members slidable upon the periphery of the body, means for holding the body against longitudinal movement relative to the tubing, a flange rigidly secured to the tubing in juxtaposition to the top of the body, said flange preventing an upward movement of the stop members relative to the body; and means for holding the body against rotational movement, a rotation of the tubing carrying the flange from the path of the stop members.

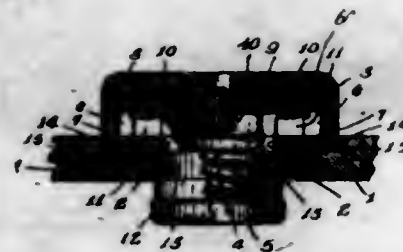
2. The combination with a well tube, of an automatic stop including a body rotatable upon the tube, stop members slidable upon the periphery of the body, spring means for holding the body against rotational movement relative to the tube, a recessed flange rigidly secured to the tube above the body, said flange normally preventing an upward movement of the stop members relative to the body; and a stop pin carried by the top of the body for engagement with the walls of one of the recesses formed in the flange, a rotation of the tube, relative to the body, moving the flange into or out of operative position relative to the stop members.

3. In an automatic stop for well tubing, the combination with a tube, of a body rotatable thereon, wedges slidable upon the periphery of said body, upwardly extending extension bars carried by said wedges, means rigid with the tube and movable into or out of the path of said extension bars; and means for holding the body against rotational movement relative to the tube.

4. In an automatic stop for well tubes, the combination with a tube, of a cylindrical body rotatable thereon, stop wedges slidable upon the periphery of the body adjacent the upper edge thereof, a sleeve slidable upon the body adjacent the lower edge thereof, links connecting the wedges with the sleeve, a plurality of main springs rigidly secured adjacent their upward extremities to the periphery of the body near the top thereof; and a plurality of secondary springs carried by the sleeve.

5. In an automatic stop for well tubes, the combination with a tube, of a body rotatable around the tube, means for holding the body against longitudinal movement relative to the tube, stop wedges slidable upon the body adjacent the top thereof, a sleeve slidable upon the body adjacent the bottom thereof, a link connecting each wedge to said sleeve, a ring carried by the body adjacent the lower edge thereof, said ring being formed with vertical slots, a plurality of main springs rigidly secured adjacent their upper extremities to the body near the top thereof, the lower ends of said springs being received within the slots, a plurality of secondary springs carried by the sleeve; and means for normally preventing an upward movement of the wedges relative to the body.

1,079,660. INCANDESCENT-ELECTRIC-LAMP SOCKET. EDWIN A. OLLEY, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed July 25, 1912. Serial No. 711,446. (Cl. 173—339.)



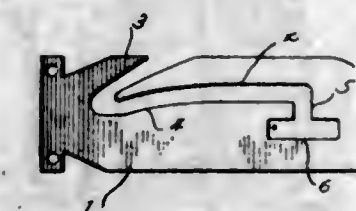
1. A socket for an electrical appliance comprising a base arranged to engage the rear side of a support, and having its front face provided with a recess and with a marginal flange constituting the inclosing side wall of the recess, the flange having wire passages extending there-through between opposite end portions of the flange, said base being provided with a projection extending forwardly from the bottom face of the recess, a central terminal mounted on the front face of the projection, a screw ring terminal mounted on the bottom face of the recess and adapted to extend into an opening in the support, wire terminals having their outer ends on the bottom face of the recess outside of the lengthwise planes of opposite portions of the screw ring terminal and in proximity to the wire passages, one wire terminal having its inner end engaged with the central terminal, and the other wire terminal having its inner end engaged with the screw ring terminal, and a collar turning on the screw ring terminal and coacting with the front face of the support, substantially as and for the purpose described.

2. A socket for an electrical appliance comprising a base of greater length than width arranged to engage the rear side of a support, and having its front face provided with a recess and with a marginal flange constituting the inclosing side wall of the recess, said recess being of greater length than width, and the flange having wire passages extending through end portions thereof, and said base being provided with an indentation in its bottom face and with a projection within the recess extending forwardly from said bottom face, a central terminal mounted on the front face of the projection, a screw ring terminal seated in the indentation in the bottom face of the recess and adapted to extend into an opening in the support, and having its diameter nearly equal to the width of the recess, wire terminals having their outer ends arranged on the bottom face of the recess outside of the lengthwise planes of diametrically opposite portions of the screw ring terminal and in proximity to the wire passages, one wire terminal having its intermediate portion extended forwardly and its inner end engaged with the central terminal, and the other wire terminal being substantially parallel to said bottom face and having its inner end engaged with the screw ring terminal, and a collar turning on the screw ring terminal and coacting with the front face of the support, a portion of the collar being interposed between opposing surfaces of the screw ring terminal and the wall of the opening in the support, substantially as and for the purpose specified.

3. The combination with a support having an opening extending therethrough and also spaced apart sockets in its rear face; of a socket for an electrical appliance comprising a base arranged to engage the rear side of the support, and having its front face provided with a recess and with a marginal flange constituting the inclosing side wall of the recess, the flange having wire passages extending therethrough between opposite end portions of the flange, said base being provided with a projection within the recess extending forwardly from the bottom face of the recess, and said flange being provided with forwardly extending lugs for entering the sockets in the support, a central terminal mounted on the front face of the projection, a screw ring terminal mounted on the bottom face of the recess and adapted to extend into the opening of the support, wire terminals having their outer ends arranged on the bottom face of the recess outside of the

lengthwise planes of opposite portions of the screw ring terminal and in proximity to the wire passages, one wire terminal having its inner end engaged with the central terminal, and the other wire terminal having its inner end engaged with the screw ring terminal, and a collar turning on the screw ring terminal and coacting with the front face of the support, a portion of the collar being interposed between opposing surfaces of the screw ring terminal and the wall of the opening in the support, substantially as and for the purpose set forth.

1,079,661. HARNESS-HOOK. FERRELL PARRISH, West Durham, N. C. Filed Dec. 17, 1912. Serial No. 737,353. (Cl. 54—30.)



A harness hook comprising a rectangular plate, said plate provided with a rearwardly extending slot, said slot extending slightly in an inclined plane to the forward end thereof, the forward end of said slot provided with an upwardly and rearwardly extending slot, said last mentioned slot provided with a cut-away portion providing means for an easy access thereto and the rearward end of first mentioned slot provided with a downwardly extending, inverted, T-shaped slot.

1,079,662. FLUID-PRESSURE-OPERATED TOOL. CAID H. PECK, Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 13, 1912. Serial No. 690,560. (Cl. 121—10.)



1. A telescope feed pressure fluid operated tool including an oiler located within the telescope feed for supplying oil to the tool and means for feeding the pressure fluid to the tool through the oiler.

2. A telescope feed pressure fluid operated tool including a hollow feed piston, a feed cylinder and an oiler located in the feed piston for supplying oil to the tool and means for feeding the pressure fluid to the tool through the oiler.

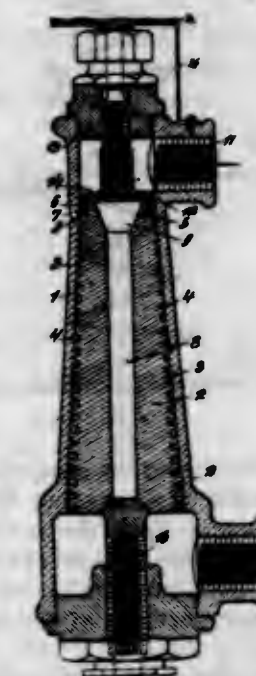
3. A telescope feed pressure fluid operated tool including a fixed hollow feed piston, an extensible feed cylinder and an oiler located within the fixed feed piston for supplying oil to the tool and means for feeding the pressure fluid to the tool through the oiler.

4. A telescope feed pressure fluid operated tool including a fixed hollow feed piston, an extensible feed cylinder and an oiler comprising a perforated tube in the bore of the piston having a surrounding oil chamber, through which tube the motive fluid passes to the tool piston.

5. A telescope feed pressure fluid operated tool including a fixed hollow feed piston, an extensible feed cylinder and an oiler comprising a perforated tube in the bore of the piston having a surrounding oil chamber, through which tube the motive fluid passes to the tool piston, and a blanket of absorbent material surrounding said tube.

(Claims 6 and 7 not printed in the Gazette.)

1,079,663. BLOW-OFF VALVE FOR STEAM-HEATED APPARATUS AND THE LIKE. FRIEDRICH RAFFENS-DORFER, Grünberg, Silesia, Germany, assignor to The Firm of Heinrich C. Sommer Nachfolger, Düsseldorf, Germany. Filed Dec. 19, 1911. Serial No. 666,714. (Cl. 137—103.)



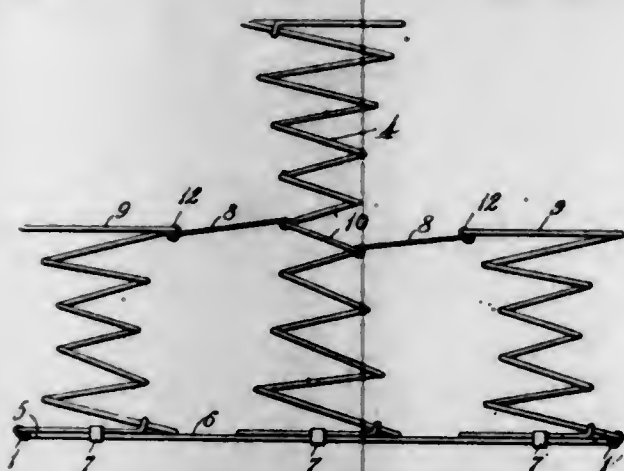
1. In a blow-off valve for steam-heated apparatus, the combination, with a casing having an inlet at one end and an outlet at the other end thereof, of a fitting therein bearing against the walls of the casing, said fitting having a spiral groove in the periphery thereof forming with the walls of the casing a duct, of a comparatively small cross-section, that cross-section increasing from the inlet end of the fitting toward the outlet end.

2. In a blow-off valve for steam-heated apparatus, the combination, with a casing having an inlet at one end and an outlet at the other end thereof, of a fitting therein bearing against the walls of the casing, said fitting having a spiral groove in the periphery thereof forming with the walls of the casing a duct, of a comparatively small cross-section, that cross-section increasing from the inlet end of the fitting toward the outlet end, the said fitting having a longitudinal central bore, a valve disk for closing the inlet end of said bore, and a valve disk for closing the outlet end of the same.

3. In a blow-off valve for steam-heated apparatus, the combination, with a casing having an inlet at one end and an outlet at the other end thereof, of a fitting therein bearing against the walls of the casing, said fitting having a spiral groove in the periphery thereof forming with the walls of the casing a duct, of a comparatively small cross-section, that cross-section increasing from the inlet end of the fitting toward the outlet end, the said duct being in open communication with the said outlet, the said fitting having one or more holes in the inlet end thereof communicating with said duct and having a longitudinal bore, a valve disk for closing the inlet end of said bore and a valve disk for closing the outlet end of the same.

4. In a blow-off valve for steam-heated apparatus, the combination, with a casing having an inlet at one end and an outlet at the other end thereof, of a fitting therein bearing against the walls of the casing, said fitting having a spiral groove in the periphery thereof forming with the walls of the casing a duct, of a comparatively small cross-section, that cross-section increasing from the inlet end of the fitting toward the outlet end, the said duct being in open communication with the said outlet, the said fitting having one or more holes in the inlet end thereof communicating with said duct and having a longitudinal bore, a valve disk for closing the inlet end of said bore and a valve disk for closing the outlet end of the same, the former valve disk having one or more holes through the same leading to the said bore.

1,079,664. SPRING CONSTRUCTION. SOLOMON M. RAFFERTY, Albion, Mich., assignor to National Spring and Wire Company, Albion, Mich., a Corporation of Michigan. Filed Feb. 15, 1912. Serial No. 677,780. (Cl. 5-29.)



1. A back spring construction comprising a frame, body springs secured around the margins thereof, inner body springs of greater height than the marginal springs and means secured to the middle coils of the inner body springs and to the adjacent portions of the top coils of the marginal springs, the outer portions of the top coils being free to turn downwardly.

2. A back spring construction comprising a rim frame, a plurality of marginal body springs whose base coils are secured thereto, stay rods secured in spaced relation across the frame to the base coils of the marginal body springs, inner body springs supported on the frame and stay rods and provided with upper coils extending beyond the plane of the top coils of the marginal springs and means articulating the intermediate turns of the inner body springs to the top coils of the marginal body springs, the top coils of the latter being free to tilt and the projecting portions of the inner body springs being free to tilt in any direction.

3. A back spring construction comprising a rim frame, a plurality of marginal body springs with their base coils secured to the frame, transverse members of the frame secured to the base coils of the marginal springs, inner body springs of greater height than the marginal springs supported on the rim frame and transverse members, a single member connecting the inner portions of the top coils of the marginal body springs and means articulating the single member to the adjacent intermediate turns of the inner body springs, the outer portions of the body springs being free to tilt.

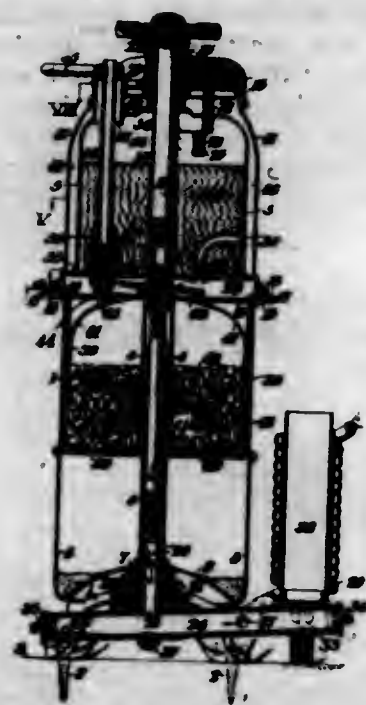
1,079,665. ACETYLENE-GAS GENERATOR. EDWIN M. ROSENBLUTH, Philadelphia, Pa. Filed Oct. 4, 1909. Serial No. 520,943. (Cl. 48-4.)

1. In an acetylene gas generator, the combination with a water receptacle surrounded by a vacuum jacket, having a water inlet including a tube extending through said jacket and the wall of said water receptacle; of a removable closure for said tube; and, a spring pressed rod forming a pivot for said closure and normally retaining the same in closed position.

2. In an acetylene gas generator, the combination with a water receptacle surrounded by a vacuum jacket, having a water inlet including a tube extending through said jacket and the wall of said water receptacle; of a removable closure for said tube; and, a spring normally retaining the same in closed position.

3. In an acetylene gas generator, the combination with a base frame arranged to be permanently secured to supporting means; of a stem extending upwardly from said base frame and having a threaded upper end; a carbide casing having a tube extending centrally through it and surrounding said stem; a water receptacle detachably fitted upon said carbide casing and forming a gas chamber; a tube in said receptacle forming a central passageway therethrough; a connecting rod extending through said passageway in engagement with said stem; and, a jacket

on said receptacle forming a vacuum chamber surrounding the same.



4. In an acetylene gas generator, the combination with a carbide receptacle; of a water receptacle detachably fitted upon said carbide receptacle and forming a gas chamber; a base frame arranged to be permanently secured to supporting means; a rod extending through said water receptacle and carbide casing in connection with said base frame; and, a condensing coil carried by said base frame, independently of said water receptacle and carbide casing but in communication with said gas chamber.

5. In an acetylene gas generator, the combination with a carbide receptacle; of a water receptacle detachably fitted upon said carbide receptacle and forming a gas chamber; a base frame arranged to be permanently secured to a convenient supporting means; a rod extending through said water receptacle and carbide casing in connection with said base frame; and, a condensing coil carried by said base frame in concentric relation with said rod, independently of said water receptacle and carbide casing but in communication with said gas chamber.

[Claims 6 to 17 not printed in the Gazette.]

1,079,666. RABBIT-TRAP. JOSEPH ANTON SAUTER, Schwaigern, Germany. Filed July 31, 1913. Serial No. 782,195. (Cl. 43-23.)

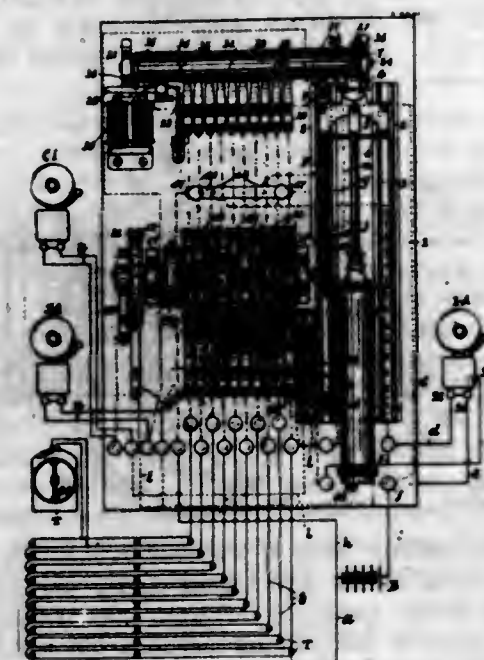


1. In a trap, in combination, two rods hinged to one another at their upper ends, one of said rods being hollow, a spring within said hollow rod, a cord secured to said spring and to the lower end of the other of said rods, and disengageable bait receiving means for holding the lower ends of said rods apart against the action of said spring.

2. In a trap, in combination, two rods hinged to one another at their upper ends, one of said rods being hollow, a spring within said hollow rod, means for adjusting the

tension of said spring, a cord secured to said spring and to the lower end of the other of said rods, and disengageable bait receiving means for holding the lower ends of said rods apart against the action of said spring.

1,079,667. ELECTRIC FIRE-ALARM SYSTEM. JOSEPH G. SCHLÜCHTER, Brooklyn, N. Y. Filed Jan. 4, 1913. Serial No. 740,129. (Cl. 178-160.)



1. An electric indicating system substantially as described including, in combination, an electric circuit having an unbranched and a branched portion, a source of energy and an indicator in the unbranched portion, a primary circuit closer in each branch, each branch being divided, a movable train of secondary circuit closers for closing the circuit through one division in each branch, an electro-magnet connected in the circuit with the other divisions of said branches, and means, including a detent armature controlled by the magnet, for controlling the movement of said train.

2. An electric indicating system substantially as described, including, in combination, an electric circuit having an unbranched and a branched portion, a source of energy and an indicator in the unbranched portion, a primary circuit closer in each branch, each branch being divided, a movable train of secondary circuit closers for closing the circuit through one division in each branch, an electro-magnet connected in the circuit with the other divisions of said branches and means, including a detent armature, controlled by the magnet and an armature-controlled circuit breaking member for the last-named divisions, for controlling the movement of said train.

3. An electric indicating system substantially as described including, in combination, an electric circuit having branches and a source of energy, an indicator in the circuit, a primary circuit closer in each branch, a normally impelled train of secondary circuit closers for the respective branches, and electro-magnetically released means for normally restraining the train against movement having an electro-magnet in said circuit.

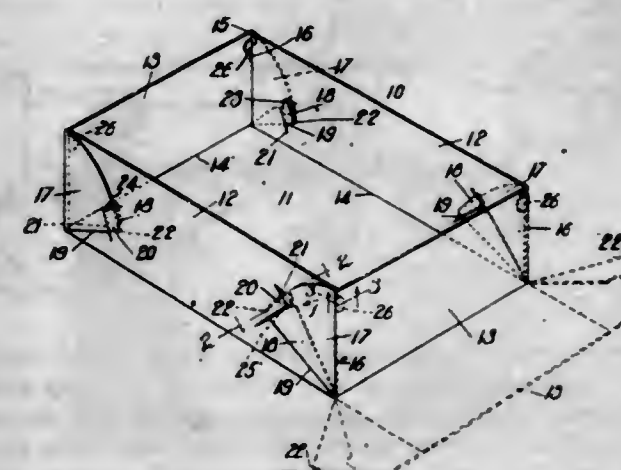
4. An electric indicating system substantially as described including, in combination, an electric circuit having branches and a source of energy, an indicator in the circuit, a primary circuit closer in each branch, a normally impelled train of secondary circuit closers for the respective branches, said secondary circuit closers having different numbers of circuit-closing contacts, and electro-magnetically released means for normally restraining the train against movement having an electro-magnet in said circuit.

5. An electric indicating system substantially as described including, in combination, an electric circuit having an unbranched and a branched portion and a source of energy in the unbranched portion, an indicator in the unbranched portion of the circuit, a primary circuit closer

in each branch, a normally impelled train of secondary circuit closers for the respective branches, and electro-magnetically released means for normally restraining the train against movement having an electro-magnet in said circuit.

[Claims 6 to 18 not printed in the Gazette.]

1,079,668. KNOCKDOWN BOX. JAMES A. SCOTT, West Somerville, Mass. Filed Nov. 29, 1912. Serial No. 734,008. (Cl. 229-35.)



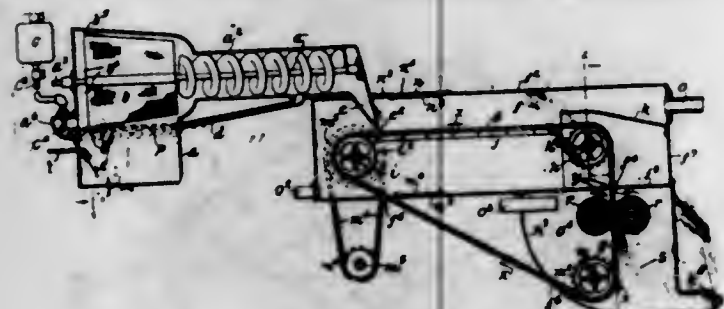
1. A knock-down box embodying bottom and side members formed from sheet material, means for attaching the contiguous edges of said side members together, said means embodying a slit formed adjacent to one of said contiguous edges, a flap two sides of which form substantially a right angle, said flap being pivotally attached at one of the sides of said right-angle to the other of said contiguous edges, the other side of said right-angle being free, a supplemental flap formed from a portion of the material constituting said flap by bending the material adjacent said free edge on a line extending substantially from the vertex of said right-angle outwardly to the edge constituting the hypotenuse of said flap and intermediate said free edge and an imaginary line bisecting said right angle, a portion of the outer corner of said flap including said supplemental flap adapted to be inserted in said slit, and a nose formed adjacent the outer end of the free edge of said flap adapted to engage the edge of said slit and lock said flap therein.

2. A knock-down box embodying bottom and side members formed from sheet material, means for attaching the contiguous edges of said side members together, said means embodying a slit formed adjacent to one of said contiguous edges, a flap two sides of which form substantially a right angle, said flap being pivotally attached at one of the sides of said right-angle to the other of said contiguous edges, the other side of said right-angle being free, a supplemental flap formed from a portion of the material constituting said flap by bending the material adjacent said free edge on a line extending from the vertex of said right-angle outwardly to the edge constituting the hypotenuse of said flap and intermediate said free edge and an imaginary line bisecting said right angle, a portion of the outer corner of said flap including said supplemental flap adapted to be inserted in said slit, a nose formed in the side of said flap which constitutes said hypotenuse and intermediate said supplemental flap and the pivotal side of said flap, and a second nose formed adjacent the outer end of the free edge of said flap adapted to align with said first named nose upon the bending of said supplemental flap backwardly against the inner face of said flap, said first and second noses adapted to engage the edge of said slit and lock said flap therein.

1,079,669. EVAPORATING APPARATUS. WALTER A. SELTMANN, New Rochelle, N. Y. Filed Nov. 29, 1912. Serial No. 733,946. (Cl. 127-9.)

1. In an evaporating apparatus, an oblong heating box or casing in which is mounted an endless conveyor, a main tank provided with a conveyor casing which com-

municates with the top portion thereof, a screw conveyor mounted in said conveyor casing and provided with a shaft which also passes through the top portion of said tank and is provided therein with a stirrer or mixer, said conveyor casing being provided at the end thereof opposite said tank with a downwardly directed discharge nozzle which extends into said box or casing and terminates in proximity to said endless conveyor, and a brush or brushes mounted in connection with said endless belt conveyor after it passes through said heating box or casing.



2. In an evaporating apparatus, a main oblong heating box or casing provided at the bottom of one end with a supplemental casing, an openwork endless belt conveyor movable longitudinally and centrally in the main box or casing and vertically in the supplemental casing, and a brush or brushes mounted in connection with said endless belt conveyor in the supplemental casing, and means for depositing material through the top of the opposite end portion of the main box or casing on said endless belt conveyor.

3. In an evaporating apparatus, a main tank provided with a conveyor casing, a screw conveyor mounted in said casing and the shaft of which passes through the top portion of said tank, a stirrer or mixer connected with said shaft within said tank, and means for feeding liquid material into said tank, said conveyor casing being provided with a discharge nozzle through which the contents of the tank are discharged in the form of a paste, and means for drying said paste and for dividing the same into a powdered, granulated, or crystalline product.

4. In an evaporating apparatus, a tank and means for feeding a liquid substance thereinto, said tank being provided with a conveyor casing which projects therefrom, a screw conveyor mounted in said casing and the shaft of which passes through the top portion of said tank, and a stirrer or mixer connected with said shaft within said tank, the conveyor casing being provided at the end thereof opposite said tank with a discharge nozzle from which the contents of the tank are discharged in the form of a paste, and means for drying said paste and dividing it into a powdered, granulated or crystalline product.

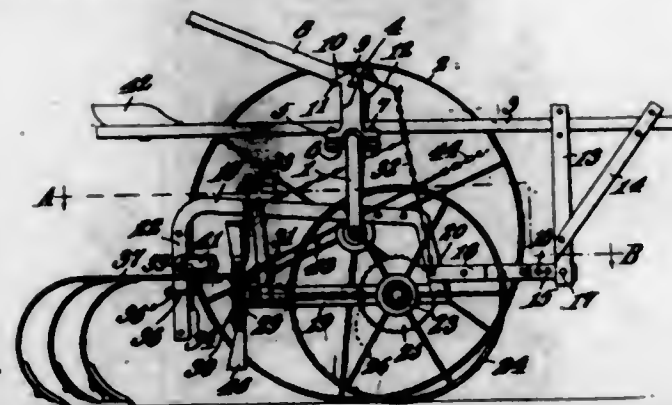
1,079,670. EAR-TRUMPET. OSBORNE H. SHEPPARD, Chicago, Ill., assignor to W. N. Sharp, Chicago, Ill. Filed June 14, 1913. Serial No. 773,749. (Cl. 181-25.)



In an ear-trumpet, the combination with a flexible tube provided at one of its ends with an inflexible tubular section adapted for insertion in the ear, and at its opposite end with a mouth-piece having a reduced tubular inner end adapted to be inserted in said flexible tube and an outer end outwardly flaring therefrom, of a concavo-convex disk located entirely within said flaring mouth-

piece approximately centrally thereof and spaced about its edge from the flared wall surface of such mouth-piece, the said disk being located sufficiently far from the mouth of the mouth-piece so that all the sound waves that strike said disk will be deflected against the inner wall of the mouthpiece and diffused over rounded surfaces into the flexible tube, for the purpose set forth.

1,079,671. COTTON-CULTIVATING MACHINE. ROBERT TOLIVER SIMMONS and WILLIAM R. SIMMONS, Wynne, Ark. Filed Nov. 27, 1912. Serial No. 733,855. (Cl. 97-46.)



The combination with a cultivator including a wheel supported axle, of an attachment under the axle and including a wheel supported frame, side frame members connected thereto and having downwardly extending rear portions, an angle strip adjustable vertically along said portions, means for clamping the strip upon said portions to hold it against movement, soil engaging teeth secured to and extending rearwardly from said strip, a chopping means supported by the frame and in front of said strip, and means operated by one of the supporting wheels for actuating the chopping means during the forward movement of the wheel.

1,079,672. CLEANING DEVICE. JOHN H. SIMPSON, Providence, R. I. Filed Nov. 7, 1911. Serial No. 659,029. (Cl. 15-16.)



1. A device of the character specified comprising an approximately rectangular inner removable section, an outer casing closely fitting and inclosing said inner section, a sliding cover for the inner section and a clamping band extending around the upper edge of the casing to removably secure the latter in place, the inner edge of said band being rolled in to provide means whereby the cover is slidably held in position.

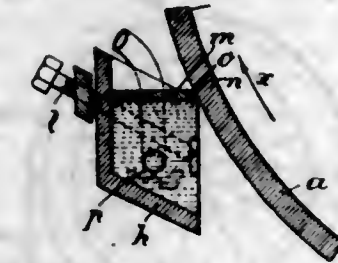
2. A device of the class described comprising an approximately rectangular inner section, an outer rectangular casing closely fitting and inclosing said inner section, a sliding cover for the inner section and a clamping band extending entirely around the upper edge of the outer casing with its inner edge rolled in, leaving a space between the inner edge of the band and the upper edges of the side and end walls of the inner section to slidably receive the cover.

1,079,673. DRYING APPARATUS. FRANZ FRIEDRICH WILLY STIELER, Berlin, Germany. Filed Dec. 28, 1912. Serial No. 739,119. (Cl. 127-9.)

1. In a cylinder evaporator, the combination of a drying drum, a vessel adjacent to the periphery of said drum to contain the liquid to be dried, and a float supported on the liquid in position to feed said liquid to said drum.

2. In a cylinder evaporator, the combination of a drying drum, a vessel positioned adjacent the periphery of said drum in position to feed liquid to the latter, and a

float supported on the liquid contents of said vessel with an edge in such close proximity to said drum periphery as to feed said liquid contents to the drum.



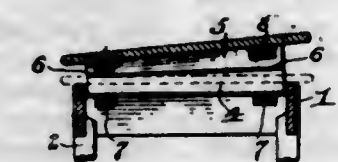
3. In a cylinder evaporator, the combination of a drying cylinder, a means for supporting a liquid supply adjacent the periphery of said cylinder and a means floated on the liquid in such close proximity to said cylinder as to feed said liquid gradually to the latter.

4. In a cylinder evaporator, the combination of a drying drum, a vessel adjacent to said drying drum containing a liquid to be dried and pressing against said drum, a float contained in said vessel, and pins along the edge of said float adjacent to said drum, substantially as, and for the purpose, set forth.

5. In a cylinder evaporator, the combination of a drying drum, a vessel adjacent to said drying drum, a float contained in said vessel, and a feed pipe passing throughout the entire width of said vessel and having downwardly directed perforations, substantially as, and for the purpose, set forth.

[Claim 6 not printed in the Gazette.]

1,079,674. SUPPORTING DEVICE. ROBERT V. TOUTJIAN, Los Angeles, Cal. Filed May 12, 1909. Serial No. 495,411. (Cl. 155-22.)



1. A piano bench comprising a base frame, a seat portion adjustably mounted thereon, and hinge members comprising tapered hinge leaves hinged together, the lower inclined supporting edges of the lower leaves being connected with the base frame and the upper inclined supporting edges of the upper leaves being hinged to the seat portion, the structure being such that when the said seat portion is lifted from the base frame, it will lift the hinge members into seat supporting position.

2. A piano bench comprising a base frame, a movable seat mounted thereon, hinge members extending transversely of said seat portion, each of said hinge members comprising two leaves hinged together at their meeting edges, the leaves being tapered with their reduced ends applied together, hinges connecting the lower edges of the hinge members with the base frame, and hinges connecting the upper edges of the hinge members with the said movable seat, the structure being such that the hinges will be lifted into vertical seat supporting position by raising the said movable seat.

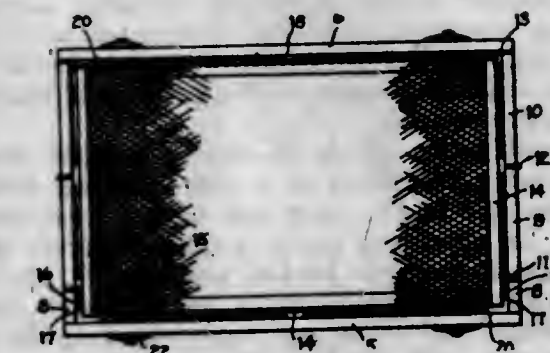
3. A piano bench having an adjustable top and a supporting base, folding hinge members for supporting the adjustable top in its raised position, a safety lock comprising a spring actuated bolt carried by the base, means for limiting its upward movement and a detent carried by the adjustable top for engaging said bolt, the bolt preventing the top from accidentally collapsing.

4. A piano bench comprising a base frame, a movable seat, foldable hinges connecting the seat with the base, a follower bolt mounted upon the base and capable of remaining in engagement with the seat in its lower and upper positions, and means for limiting the upward movement of the bolt so that the seat may be lifted from it and disengaged therefrom for the purpose of collapsing.

5. A piano bench comprising a base frame, a seat portion adjustably mounted thereon, hinge members extend-

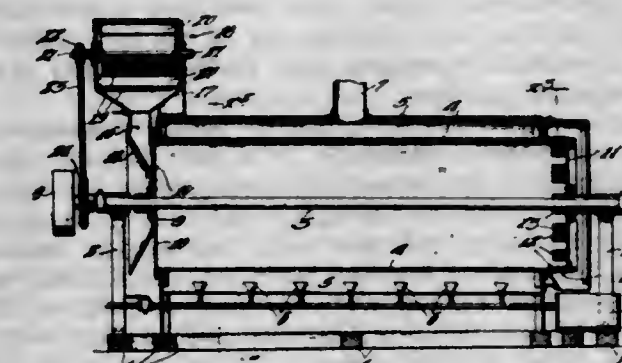
ing transversely of said seat portion, each of said hinge members comprising a plurality of leaves hinged together at their meeting edges, at least one of said leaves being tapered, hinges connecting the lower edges of the hinge members with the base frame, and hinges connecting the upper edges of the hinge members with said seat, whereby as the seat is lifted it will assume an inclined position with respect to the frame.

1,079,675. CONVERTIBLE CRIB AND COOP. EDWARD MAURICE TRIMBLE, Rochester, N. Y. Filed Feb. 17, 1913. Serial No. 749,037. (Cl. 5-58.)



A folding crib having, in combination, a rectangular bottom-member; vertical side-members of a height substantially equal to the width of the bottom-member; end-members connecting the side-members and adapted to fold to bring the side-members toward each other; means, located adjacent the lower edges of the side-members, for supporting the bottom in a lower position, the bottom being freely removable, upwardly, from said means, and said means, adjacent one side, being pivotal to permit the bottom to be swung to vertical position when the crib is folded; and means for supporting the bottom, horizontally, in a higher position between the side-members and the end-members.

1,079,676. PROCESS OF BROWNING FLOUR. JOSEPH WALLOS, Los Angeles, Cal. Filed May 19, 1913. Serial No. 768,689. (Cl. 99-10.)



1. The process of browning flour consisting of reducing it to a finely divided condition and then passing it over a heated surface.

2. The process of browning flour consisting of screening and separating the flour and immediately thereafter subjecting it to the action of heat.

3. The process of browning flour consisting of screening and separating the flour and immediately thereafter passing it over a heated surface.

4. The process of browning flour consisting of reducing it to a finely divided condition and then passing it over a heated surface, said flour being kept in motion during the time it is passing over said plates.

5. The process of browning flour consisting of reducing it to a finely separated condition and immediately thereafter subjecting it to the action of heat, the flour being kept in motion during the period that heat is applied.

[Claims 6 to 8 not printed in the Gazette.]

1,079,877. COMBINED RAILWAY-TIE AND FASTENER. JOSEPH ROBERT WATSON and ROBERT MARTIN LISTON, Tiltonville, Ohio. Filed Mar. 17, 1913. Serial No. 754,971. (Cl. 238-4.)

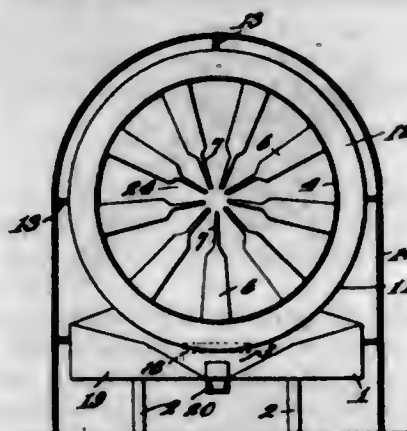


1. The combination with a tie having a recess extending thereinto from its top, of a rail fastening member pivotally mounted in the recess and including means at one end for engaging a rail and a weighted portion at its other end, and a key insertible into the recess and under the weighted portion to hold the rail engaging means in active position.
2. The combination with a tie having a recess extending downwardly thereinto, of a rail fastening member pivotally mounted in the recess and having a rail engaging jaw at its upper end and a weighted portion at its lower end, said weighted portion holding the jaw normally in inactive position, and a key insertible transversely through the recess and under the weighted portion to hold the jaw in active position.
3. The combination with a rail tie having a recess extending thereinto from the top thereof, of a rail fastener pivotally mounted in the recess and having spaced jaws at its upper end for extending over and under the base flange of a rail respectively, there being a weighted portion at the other end of the member and within the recess, a key insertible in the recess and under the weighted portion to hold the jaws in engagement with a rail, and means on the key and cooperating with the wall of the recess for preventing accidental displacement of the key.
4. The combination with a rail tie having a recess extending downwardly thereinto, of a rail fastener pivotally mounted in the recess having upper and lower rail engaging jaws at its upper end and a weighted portion at its lower end, said weighted portion holding the jaws normally in inactive positions, there being upwardly extending keyhole slots in opposed walls of the recess, a key insertible into the slots and having a wing, said wing being movable by gravity downwardly in the recess to prevent withdrawal of the key, said key constituting means for holding the weighted end of the rail fastener against downward movement and for holding the jaws in rail engaging position.
5. The combination with a rail tie having a recess extending downwardly thereinto, of a rail fastener pivotally mounted in the recess and having upper and lower rails engaging jaws at its upper end and a weighted portion at its lower end, said weighted portion holding the jaws normally in inactive positions, there being upwardly extending keyhole slots in opposed walls of the recess, a key insertible into the slots and having a wing, said wing being movable downwardly by gravity in the recess to prevent withdrawal of the key, said key constituting means for holding the weighted end of the rail fastener against downward movement and for holding the jaws in rail engaging position, there being a drain opening extending downwardly from the bottom of the recess.

1,079,878. AMUSEMENT DEVICE. JOSEPH M. WEST, Rockport, Mo. Filed May 14, 1913. Serial No. 767,687. (Cl. 124-15.)

1. An amusement device, including a vertically disposed cylindrical member, a plurality of targets hingedly connected thereto and disposed to form radii for the member, a resilient lock for each target for maintaining the target at right angles to the axis of the supporting member, means for resetting the targets, such means including a ring disposed to be in alignment to receive any or all of the targets when inclined after being struck,

and means for moving the ring to place the targets simultaneously in set position.

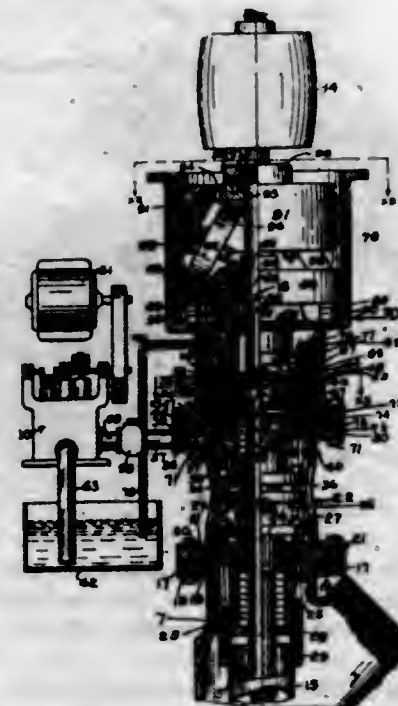


2. An amusement device, including a frame, a cylindrical member carried by the frame extending in a vertical position, a plurality of targets hinged to the cylindrical member with their free ends extended inwardly toward the center thereof, said targets being disposed as the radii of the cylindrical member, means for locking each target in radial relation, and means disposed in the rear to receive the inclined targets.
3. An amusement device, including a frame, a cylindrical member carried by the frame extending in a vertical position, a plurality of targets hinged to the cylindrical member with their free ends extended inwardly toward the center thereof, said targets being disposed as the radii of the cylindrical member, means for locking each target in radial relation, slidable means disposed in the rear to receive the inclined targets, and means for sliding the inclined targets, and means for sliding the same to reset the targets.
4. An amusement device, including a vertically disposed cylindrical support, a ring mounted forwardly of said support, the support and ring having their centers in the same axial line, a pad carried by said ring, a plurality of targets hingedly connected to the cylindrical support, said targets being disposed to form the radii thereof, resilient means for locking the same in radial relation to the cylindrical support, and slidably mounted means disposed to the rear of the targets for receiving the same when inclined and for resetting the same in radial relation to the cylindrical support.
5. An amusement device, including a vertically disposed cylindrical support, a ring mounted forwardly of said support, the support and ring having their centers in the same axial line, a pad carried by said ring, a plurality of targets hingedly connected to the cylindrical support, said targets being disposed to form the radii thereof, resilient means for locking the same in radial relation to the cylindrical support, a bar slidably mounted in the rear of the cylindrical support, a post carried by the bar, and a target resetting ring connected to the post and disposed to receive the inclined targets.

1,079,879. WELL MECHANISM. JOHN A. WINTROATH, Los Angeles, Cal., assignor to Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Dec. 2, 1912. Serial No. 734,649. (Cl. 103-43.)

1. In deep well pumping mechanism, the combination with pump means including a pump casing located beneath the surface of the earth and rotary impeller means in said casing, of a downwardly extending power shaft having such length that the shaft would buckle seriously if supported from below, said shaft being driven from above and being adapted to drive said impeller means, a fluid operated bearing cooperating to support said shaft, said fluid operated bearing being located substantially at the top of said long shaft so that the shaft depends from the fluid bearing and by its own weight tends to draw itself into a substantially straight vertical line, and positively operated means separate from and in addition to said pump means for supplying fluid pressure for said fluid bearing.

2. In deep well pumping mechanism, the combination of a pump casing located beneath the surface of the earth, a rotary impeller in said casing, a long power shaft driven from above and extending downward to said impeller, said power shaft being adapted to transmit power to said impeller, a fluid operated bearing located substantially at the top of said power shaft for supporting said shaft and impeller on a fluid surface, positively operated means separate from and in addition to said pump for supplying fluid pressure to said fluid bearing and auxiliary bearing means for sustaining any resultant downward thrust of said power shaft.

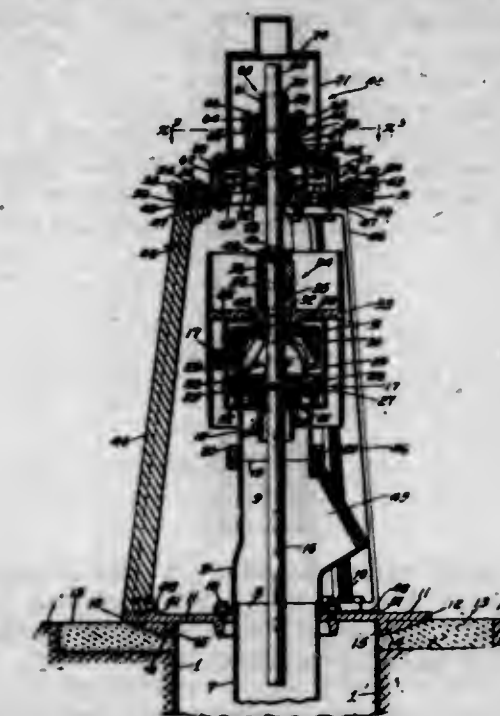


3. In deep well pumping mechanism, the combination with pump means including a pump casing located beneath the surface of the earth and rotary impeller means in said casing, of a long downwardly extending power shaft driven from above and adapted to drive said impeller means, a fluid operated bearing cooperating to support said long shaft, auxiliary bearing means for sustaining any resultant downward thrust on said shaft, said fluid operated bearing and said auxiliary bearing means both being located substantially at the top of said power shaft so that the long shaft depends therefrom and by its own weight tends to draw itself into a substantially straight vertical line, and positively operated means separate from and in addition to said pump means for supplying fluid pressure for said fluid operated bearing.

4. In deep well pumping mechanism, the combination with pump means including a pump casing located beneath the surface of the earth and rotary impeller means in said casing, of a downwardly extending power shaft driven from above and adapted to drive said impeller means, a fluid operated bearing cooperating to support said shaft, said fluid operated bearing being located substantially at the top of said shaft so that the shaft depends from the fluid bearing and by its own weight tends to draw itself into a substantially straight vertical line, positively operated means separate from and in addition to said pump means for supplying fluid pressure to said fluid bearing, auxiliary bearing means for sustaining any resultant downward thrust of said power shaft and auxiliary bearing means for sustaining any resultant upward thrust of said power shaft.

5. In deep well pumping mechanism, the combination with pump means including a pump casing located beneath the surface of the earth and rotary impeller means in said casing, of a downwardly extending power shaft driven from above and adapted to drive said impeller means, a fluid operated bearing cooperating to support said shaft, said fluid operated bearing being located substantially at the top of said shaft and said fluid operated bearing having play so that the fluid bearing may accommodate itself to shifting of the shaft axis, and positively operated means separate from and in addition to said pump means for supplying fluid pressure for said fluid bearing.

1,079,880. BEARING. JOHN A. WINTROATH, Los Angeles, Cal., assignor to Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Feb. 10, 1913. Serial No. 747,574. (Cl. 64-52.)

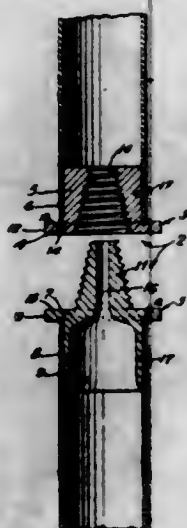


1. In combination, a relatively stationary horizontal plate having a supporting face, a vertical shaft, a bearing head movably supported on said supporting face, means for positively moving and adjusting said bearing head around on said supporting face, and transversely of said shaft, and a bearing member supported on said bearing head, said bearing member being adapted to support said shaft transversely, and said bearing member being adapted to universally and automatically align itself with respect to the axis of said shaft.
2. In combination, a relatively stationary horizontal plate, a vertical shaft extending up through said plate, a bearing head slidably and adjustably mounted on said plate, adjusting screws for positively adjusting said head in any horizontal direction whatsoever, a bearing member supported on said bearing head, said bearing member being adapted to support said shaft transversely, and said bearing member being adapted to universally and automatically align itself with respect to the axis of said shaft.
3. In combination, a relatively stationary horizontal plate having a supporting face, a vertical shaft, a bearing head supported by said face so as to be slidable on the same in any horizontal direction whatsoever, means for positively sliding said head on the said supporting face so as to adjust said head in any horizontal direction whatsoever, a bearing member carried by said bearing head, said bearing member being adapted to support said shaft transversely, and said bearing member being adapted to universally and automatically align itself with respect to the axis of said shaft.

1,079,881. BORING-STEM. JOHN A. WINTROATH, Los Angeles, Cal., assignor to Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Feb. 10, 1913. Serial No. 747,575. (Cl. 255-31.)

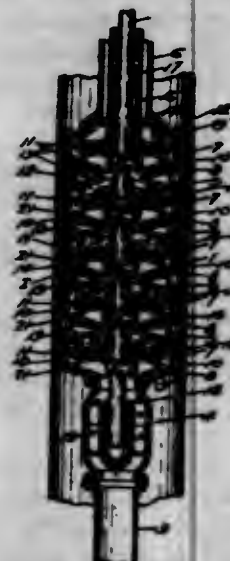
A light weight boring stem comprising sections of pipe having internally screw-threaded ends, coupling means for said pipe sections, said coupling means being formed so as to provide a shoulder beyond the outer periphery of said pipe sections, said coupling means each comprising a socketed coupling member and a pin coupling member, said socketed coupling member having an externally threaded seat portion adapted to tightly screw-seat said socketed member internally onto the internally-threaded end of a pipe section, said socketed coupling having a longitudinally tapered coarse-threaded socket which extends into and is substantially co-extensive with said internally-threaded seat portion, so that the very same metal serves

for forming the coarse-threaded socket and the externally-threaded seat; and said pin coupling member also being internally screw-seated onto another of said internally-threaded pipe ends, said pin coupling member having a



tapered relatively coarse-threaded pin with a longitudinal opening through same, said pin being adapted to screw into said socket for rapidly connecting or disconnecting successive pipe sections together.

1,079,682. BEARING SYSTEM FOR ROTARY WELL-PUMPS. JOHN A. WINTROATH, Los Angeles, Cal., assignor to The Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Feb. 11, 1913. Serial No. 747,780. (Cl. 103-43.)



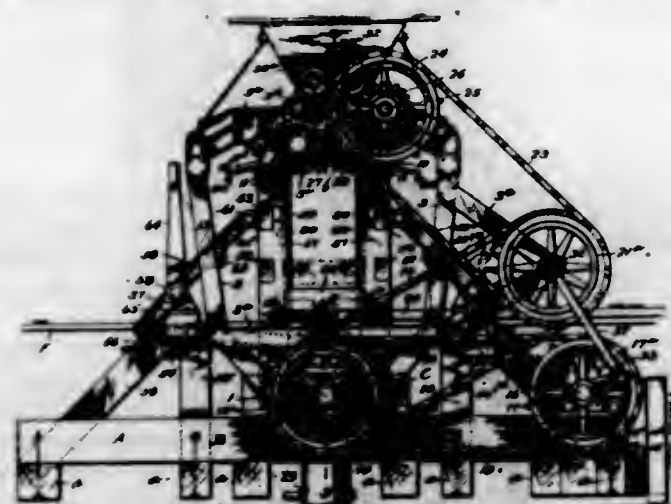
1. In a vertical rotary fluid pump having its inlet passage below, a vertical shaft, an impeller on said shaft, a bearing embracing and supporting the lower extremity of said shaft, an upstanding cap on said bearing and forming a chamber surrounding said shaft, a depending cap within said chamber and having a water tight fit with said shaft, filtering material within said chamber, and a second depending cap above said upstanding cap and having a water tight fit with said shaft.

2. In a rotary deep well water pump having its inlet passage below, the combination with a vertical shaft, of impeller means on said shaft, a pump casing in which said impeller means works, said pump casing having bearing means for said shaft, a separate bearing below said impeller means, the last said bearing being closed around the lower extremity of the shaft and the last said bearing having a filtering chamber surrounding the shaft, and filtering material in said chamber preventing access of sandy or gritty material to the surface of the shaft which runs in the last said bearing.

3. In a rotary deep well water pump having its inlet passage below, the combination with a vertical shaft, of impeller means on said shaft, a pump casing in which said impeller means works, said pump casing having bearing means for said shaft, and a separate bearing below the impeller means, said bearing being closed around the lower

extremity of the shaft, a separate bearing casing attached to the pump casing and supporting the last said bearing, the interior surface of said bearing casing being constructed to substantially conform with the exterior surface of the bearing so that the velocity change of the water passing through said bearing casing is minimized.

1,079,683. BALING-PRESS. JAMES NELSON WOOD, Blackshear, Ga., assignor to Neely Compress & Cotton Company, Richmond, Va., a Corporation of Virginia. Filed Oct. 17, 1912. Serial No. 726,352. (Cl. 100-1.)



1. In a baling press the combination with the baling rollers comprising spaced bale engaging sections, of pressure devices interposed between the sections of said rollers, and supported independently of the shafts of said rollers.

2. In a baling press the combination with a pair of baling rollers each having major and minor peripheral faces, of pressure bars provided with bale engaging faces extending horizontally from each of said rollers, and supported independently of the shafts of said rollers.

3. In a baling press the combination with a pair of baling rollers, each comprising spaced sections provided with major and minor peripheral surfaces, of a series of pressure bars adjacent to each of said rollers, having horizontally disposed bale engaging portions, and interposed between certain of said spaced sections of the roller, and means for supporting said pressure bars independently of the shafts of said rollers.

4. In a baling press the combination, with a pair of baling rollers each comprising spaced sections provided with major and minor peripheral surfaces, of a series of pressure bars adjacent to each roller having substantially horizontally disposed bale engaging faces, and interposed between certain of said spaced sections of the roller, the major peripheral portions of each roller extending slightly beyond the bale engaging faces of the adjacent pressure bars in a direction toward the bale.

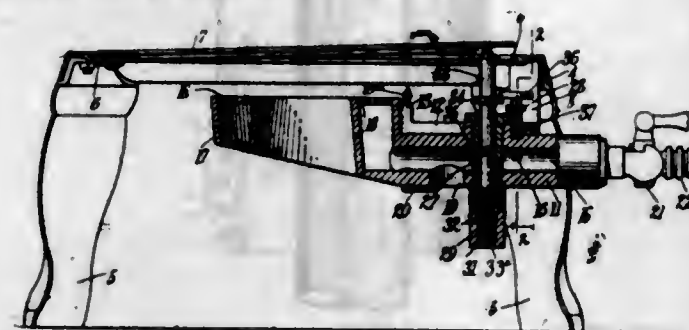
5. In a baling press the combination with a pair of baling rollers each comprising spaced sections provided with major and minor peripheral surfaces, of a series of pressure bars adjacent to each roller having substantially horizontal bale engaging portions provided with staggered anti-friction rollers for engaging the bale, whereby the formation of waves in the successive layers of the bale is avoided.

[Claims 6 to 16 not printed in the Gazette.]

1,079,684. VALVE FOR GAS-BURNERS. EUGENE S. ALLEN, New York, N. Y. Filed Sept. 25, 1911. Serial No. 651,181. (Cl. 126-52.)

1. The combination of a burner provided with a barrel arranged for connection with a source of gas supply, the said barrel having a hole of frusto-conical form extending diametrically through it intermediate the ends of the barrel, a detachable sleeve of frusto-conical form extending through the said hole, the said sleeve having a cylindrical bore and being provided with transverse holes in register with the bore of the said barrel for permitting gas to flow through the said sleeve, a piston

plunger slidably mounted in the said sleeve and provided with a reduced portion normally out of register with the said sleeve holes and adapted to be moved into register with the said sleeve holes on pressing the piston plunger downward, the upper end of the said piston plunger extending through the upper end of the said sleeve, actuating means engaging the upper end of the said piston plunger to move the same downward in the sleeve, a cap screwing on the lower end of the said sleeve and abutting against the said barrel to hold the sleeve in position on the barrel, and a spring in the said cap and pressing the said piston plunger to hold the latter in normal closed position.



2. The combination of a burner provided with a barrel arranged for connection with a source of gas supply, the said barrel having a hole of frusto-conical form extending diametrically through it intermediate the ends of the barrel, a detachable sleeve of frusto-conical form extending through the said hole, the said sleeve having a cylindrical bore and being provided with transverse holes in register with the bore of the said barrel for permitting gas to flow through the said sleeve, the base end of the said sleeve having a collar seated on the barrel and the lower end of the sleeve being provided with exterior screw threads, a piston plunger slidably mounted in the said sleeve and provided with a reduced portion normally out of register with the said sleeve holes, and adapted to be moved into register with the said sleeve holes on pressing the piston plunger downward, the upper end of the said piston plunger extending through the upper end of the said sleeve, actuating means engaging the upper end of the said piston plunger to move the same downward in the sleeve, a cap screwing on the said threaded end of the said sleeve and abutting against the said barrel to hold the sleeve in position on the barrel, and a spring in the said cap and pressing the said piston plunger in an outward direction to hold the piston plunger in normal closed position.

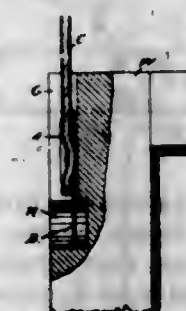
3. The combination of a burner provided with a barrel arranged for connection with a source of gas supply, the said barrel having a hole of frusto-conical form extending diametrically through it intermediate the ends of the barrel, a detachable sleeve of frusto-conical form extending through the said hole, the said sleeve having a cylindrical bore and being provided with transverse holes in register with the bore of the said barrel for permitting gas to flow through the said sleeve, a piston plunger slidably mounted in the said sleeve and provided with a reduced portion normally out of register with the said sleeve holes and adapted to be moved into register with the said sleeve holes on pressing the piston plunger downward, a cap screwing on the lower end of the said sleeve and abutting against the said barrel to hold the sleeve in position on the barrel, a spring in the said cap and pressing the said piston plunger to hold the latter in normal closed position, an annular bead on the said piston plunger outside of the said sleeve, and a limiting screw screwing in the said barrel and having a head engaging the said annular bead to limit the upward movement of the said piston plunger.

1,079,685. SASH-CORD-FASTENING DEVICE. JOSEPH ASHER, Albany, N. Y. Filed Oct. 8, 1912. Serial No. 724,645. (Cl. 16-16.)

1. In a device of the class described, a window sash, a groove in the vertical edge thereof, adapted to retain

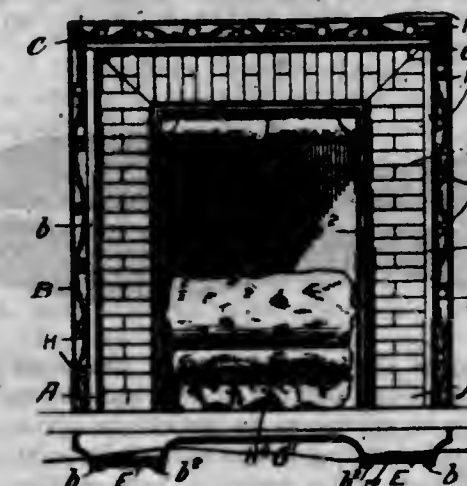
198 O. G.—61

a cord, a recess at the bottom of said groove being circular in form and wider and deeper than said groove, a shank adapted to fit in said groove, a head to said shank wider than said groove and adapted to fit deeply and in an inverse position in said recess, a portion of said shank bent upwardly forming a bridge, the shank and circular head adapted to be held in place by the outward trend of the cord and the pressure of the upper part of the circular head against the upper walls of the recess and adapted to hold the cord in place by the friction of the cord passing over the bridge, without projections, spurs or ears, a beveled edge to the circular head adapted to prevent the marring or splitting of the wood of the sash.



2. In a device of the class described, a window sash having a groove in the vertical edge thereof, a recess in said sash at the bottom of said groove, wider and deeper than said groove, a laterally bowed shank adapted to fit in said groove, the lower end of said shank forming a circular head, flat in form and broader than said groove and adapted to fit in said recess, a portion of said shank bent upwardly forming a bridge, the said circular head adapted to be inserted deeply in said recess whereby the strain of the weight of the sash falls upon the upper edge and causes the cord to pull outwardly from the sash against said top of the circular head causing the circular head to remain in the socket and the bowed shank to remain in the groove without the necessity of projections, spurs or ears, adapted to hold the cord in place by the friction of the cord passing over the bridge.

1,079,686. PORTABLE GAS-LOG FIREPLACE. QUIMBY S. BACKUS, Brandon, Vt.; Frederick E. Backus, Brandon, Vt., executor of said Quimby S. Backus, deceased, assignor to Backus Heater Company, a Corporation of Vermont. Filed Jan. 4, 1911. Serial No. 600,830. Renewed Apr. 29, 1913. Serial No. 764,484. (Cl. 126-128.)



1. A portable fire place comprising a main frame and a secondary frame, the side edges of said frames being in substantially the same vertical plane, means rigidly securing the two frames together with a space between, an ornamental filling of suitable material closing the space between the side edges of the frames, means for holding said filling in place and a sheathing connected to said secondary frame forming a fire place recess, the said main frame having flanges extending rearwardly farther than said sheathing to form an air space in rear of said sheathing.

2. A portable fire place comprising a main frame and a secondary frame, the side edges of the said frames being in substantially the same vertical plane, an ornamental filling of the tiling between said frames at the sides and top thereof, securing strips for said ornamental tiling extending over the back of the same, and bracing straps retaining and securing said strips in place and rigidly uniting said frames.

1,079,687. CUE-SHAVE. PETER BALZANO, New Haven, Conn. Filed Feb. 14, 1913. Serial No. 743,369. (Cl. 145-27.)



1. In a cue shave, the combination with a fixed cutter, having a semi-circular recess therein, of the same diameter as that of the shaved cue, that terminates in cutting edges at both ends thereof and upon opposite sides of the center; of a plate upon each side of and abutting against said cutter, one of said plates having an opening therethrough; a pressure block movable between said plates, and having a notch therein opposite and parallel with said recess, the end of said pressure block in one of its positions abutting against both of the cutting edges of said cutter, at which time the cutter ceases to cut and the cue in the shave contacts with the said notch and said semi-circular recess with its end against the inside of one of the said side plates; and means for moving said pressure block toward and away from said cutter.

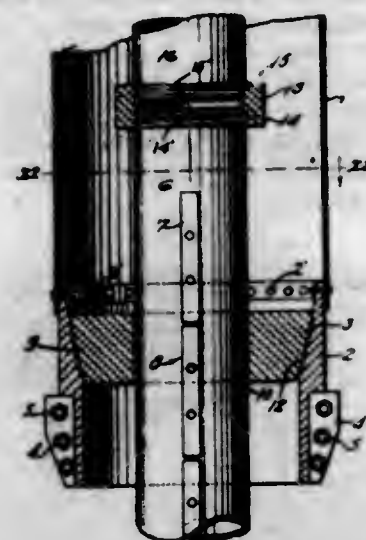
2. In a cue shave, the combination with a fixed cutter, having a semi-circular recess therein, of the same diameter as that of the shaved cue and provided with cutting edges that will engage and cut the cue irrespective of the direction that it may be rotated in relation thereto; of a plate upon each side of and abutting against said cutter, one of said plates having an opening therethrough; a pressure block movable between said plates, and having a notch therein opposite and parallel with said recess, the end of said pressure block in one of its positions abutting against the cutting edges of said cutter, at which time the cutter ceases to cut; and means for moving said pressure block toward and away from said cutter.

1,079,688. ASBESTOS HANDLE. ROBERT B. BEST, Great Neck, N. Y. Filed May 13, 1913. Serial No. 767,483. (Cl. 126-322.)



In a device of the class described the combination of a hollow core, means located at one end thereof whereby the same may be affixed to an article to act as a handle therefor, an outstanding flange carried by said core adjacent the said end, a fire resisting body portion having a low coefficient of thermal conductivity detachably secured to said core, having surface contact therewith, abutting said flange, and of a relatively smaller diameter than the said flange at its point of contact therewith, means engaging the opposite external end of said core, contacting with the said body portion and adapted to hold the same rigidly in place, said core provided with a plurality of air ducts extending through the side wall thereof intermediate its end and said flange, the opposite end of said core open to the atmosphere for the free circulation of air therethrough for the cooling thereof.

1,079,689. WELL MECHANISM. PAUL D. BOWLER and WILLIAM D. DUTTON, Los Angeles, Cal., assignors to Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Oct. 17, 1912. Serial No. 726,373. (Cl. 166-4.)



1. In combination a pit casing, a well casing, and heavy metallic closure means loose with respect to said well casing but firm with respect to said pit casing, for substantially closing the opening between the well casing and the pit casing.

2. In combination a well casing, a pit casing, closure supporting means on said pit casing, and heavy metallic closure means loose with respect to said well casing and normally supported on said closure supporting means for substantially closing the opening between the well casing and the pit casing.

3. In combination a pit casing, a well casing, and closure means loose with respect to said well casing, said closure means being adapted to substantially close the opening between the well casing and the pit casing, said closure means being adapted to be connected and disconnected from said pit casing.

4. In combination a well casing, a pit casing, closure-supporting means on said pit casing, and metallic closure means loose with respect to said well casing and adapted to be supported on said closure-supporting means and also adapted to be connected and disconnected with said closure-supporting means, said closure means substantially closing the opening between the well casing and the pit casing.

5. In combination, a pit casing, a well casing of smaller diameter than the pit casing, a coupling head on said pit casing, a coupling bushing for said coupling head, said head having coupling entrance for said bushing from above, so as to connect said bushing and head together, and said bushing substantially closing the opening between said pit casing and well casing.

(Claims 6 to 10 not printed in the Gazette.)

1,079,690. WELL MECHANISM. PAUL D. BOWLER and WILLIAM D. DUTTON, Los Angeles, Cal., assignors to The Layne & Bowler Corporation, Los Angeles, Cal., a Corporation of California. Filed Feb. 11, 1913. Serial No. 747,814. (Cl. 166-4.)

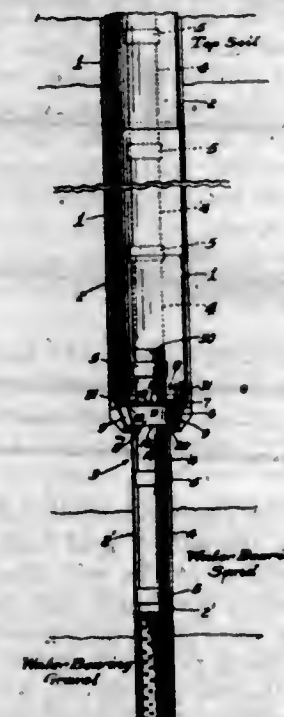
1. In combination, a pit casing, a well casing formed of sections connected by externally projecting couplings, means sectioned substantially along a longitudinal axis and adapted to pass down through the pit casing for coupling the well casing to the pit casing, said means having a beveled lower edge for spreading the sections of same when said edge contacts with a coupling on the well casing.

2. In combination, a pit casing, a well casing, a series of coupling members surrounding said well casing, means for loosely holding said members together, and a head on said pit casing adapted to force said members tight toward said well casing.

3. In combination, a well casing, a pit casing, and means for coupling the well casing to the pit casing, said

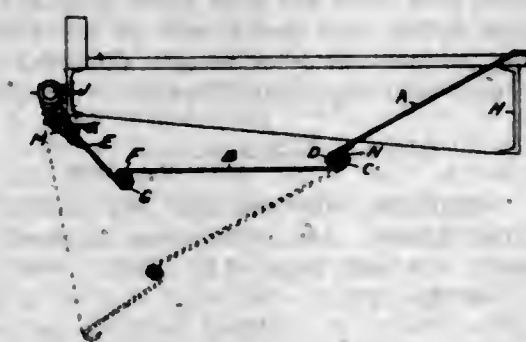
means including a sectioned annulus and means for forcing said sectioned annulus tight around said well casing.

4. In combination, a pit casing sunk into the earth, closure supporting means on said casing, a well casing set down into and past said pit casing, and closure means loosely surrounding said well casing for passing down along said well casing and onto said closure supporting means after the well casing has been set into the pit casing.



5. In combination, a pit casing, a well casing, a series of members surrounding said well casing, means for loosely holding said members together, and a head on said casing adapted to force said members toward each other so as to substantially close the opening between the well casing and the pit casing.

1,079,691. DUMP-CAR DOOR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Dec. 14, 1910. Serial No. 597,183. (Cl. 105-185.)



1. In a dump car a central sill, a hopper wall secured thereto, a hopper door hinged to the hopper wall by means of their intermeshing bent edges, an apron hinged to the hopper door by means of their intermeshing bent edges, a side sill against which the apron rests when closed and means to open and close the hopper door and apron, as described.

2. In a dump car, a hopper door hinged to the hopper wall by means of their intermeshing bent edges, an apron hinged to the hopper door by means of their intermeshing bent edges and means to open and close the apron and hopper door, as described.

3. In a dump car a hopper door, an apron hinged thereto by means of their intermeshing bent edges, a sill against which the apron rests when closed, and means to open and close the hopper door and apron as described.

4. In a dump car a floor plate provided with an edge bent downwardly and curved beneath the same, a door plate having an edge bent upwardly and curved to overhang the same the said upwardly bent edge meshing with the downwardly bent edge of the floor plate and forming therewith a continuous hinge for the door as described.

5. In a dump car a hopper door hinged to the floor plate by means of their intermeshing bent edges—and an apron hinged to the hopper door by means of their intermeshing bent edges as described.

(Claims 6 to 9 not printed in the Gazette.)

1,079,692. SMOKE-CONSUMER. DOUGLAS H. COWHERD, Louisville, Ky. Filed Jan. 16, 1913. Serial No. 742,508. (Cl. 110-85.)



1. In a smoke consumer, the combination with a furnace having a door, a jet within the furnace, a steam pipe leading to the jet, and a valve within said pipe; of means for closing the valve, stronger means for opening it, devices for overcoming the last-named means when the door is closed, an upright cylinder closed at its lower end, a ring-shaped piston having a valve seat at its upper end, packing carried by the piston and fitting frictionally within the cylinder, a piston rod connected at its upper end with said first-named means and having at its lower end a valve head adapted to close against said seat on the descent of the piston and a restricted by-pass port around said head, and a guide below the valve passing loosely through said piston, for the purpose set forth.

2. In a smoke consumer, the combination with a furnace having a door, a jet within the furnace, a steam pipe leading to the jet, and a valve within said pipe; of a relatively light weight connected with said valve for closing the latter, a relatively heavy weight connected with the valve for opening the latter, a chain connecting this weight with the furnace door for raising the weight when the door is closed, an upright cylinder closed at its lower end, a ring-shaped piston having a valve seat at its upper end, packing carried by the piston and fitting frictionally within the cylinder, a piston rod connected at its upper end with said light weight and having at its lower end a valve head adapted to close against said seat on the descent of the piston and a restricted by-pass port around said head, and a guide below the valve passing loosely through said piston for the purpose set forth.

3. In a smoke consumer, the combination with a furnace having a door, a jet within the furnace, a steam pipe leading to the jet, and a valve within said pipe; of a relatively light weight connected with said valve for closing the latter, a relatively heavy weight connected with the valve for opening the latter, a chain connecting this weight with the furnace door for raising the weight when the door is closed, an upright cylinder closed at its lower end, a ring-shaped piston having a valve seat at its upper end, packing carried by the piston and fitting frictionally within the cylinder, a piston rod connected at its upper end with said light weight and having at its lower end a valve head adapted to close against said seat on the descent of the piston and a restricted by-pass port around said head, a guide secured below the valve and including crossed wings passing loosely through said piston, and a

lower skeleton head detachably connected with the lower end of said guide and larger than the lower end of the opening in said ring-shaped piston, for the purpose set forth.

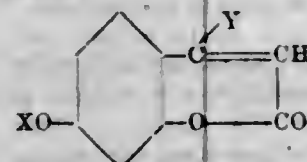
4. The combination with an upright cylinder having a closed lower end, a piston rod movable through its upper end, and a coupling at the lower end of said rod; of a piston having a ring-shaped body with a valve-seat at its upper end, an open-work guide movable through said piston and having a valve head at its upper end and a skeleton head at its lower end, and a nipple projecting above said valve head and engaging said coupling, the guide having a restricted by-pass port extending around said valve head, for the purpose set forth.

5. The combination with an upright cylinder having a closed lower end, a tubular piston rod movable through its upper end, and a coupling at the lower end of said rod; of a piston having a ring-shaped body with a valve-seat at its upper end, an open-work guide movable through said piston and having a valve head at its upper end and a skeleton head at its lower end, an internally threaded nipple projecting above said valve head and engaging said coupling, the guide having a restricted by-pass port leading into the threaded bore of said nipple and from said bore downward to and opening at a point below said valve head, and an adjusting rod extending throughout said piston rod and screwed into said threaded bore, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,079,693. MERCURY COMPOUNDS AND PROCESSES OF PRODUCING SAME. ALEX B. DAVIS, Indianapolis, Ind., assignor to The Eli Lilly and Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 16, 1912. Serial No. 731,902. (Cl. 23-24.)

1. A mercury compound consisting of a mercury salt combined with an oxycoumarin, substantially as described.
2. A mercury compound consisting of a mercury salt combined with an umbelliferone, substantially as described.
3. A mercury derivative which consists of a salt of mercury combined with an oxycoumarin, in which is combined by one valence with a carbon atom of the oxycoumarin and by the other valence with the group originally present in the mercury salt, substantially as described.
4. A mercury compound which is formed by the combination of mercury with compounds of the type represented by the formula:



in which X may be a radical capable of substituting hydrogen in a hydroxyl and Y may be any radical capable of substituting the methyl group in betamethyl-umbelliferone.

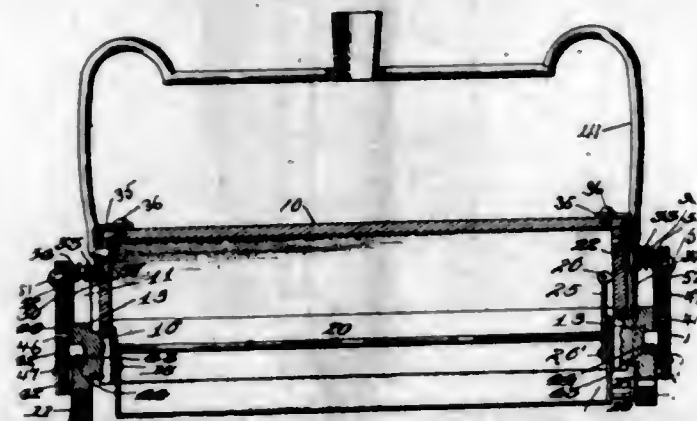
5. A mercury compound soluble in water consisting of the combination of an oxycoumarin, a mercury salt and a base, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,079,694. CARPET-SWEEPER. GEORGE B. DEACON, London, Ontario, Canada. Filed June 26, 1912. Serial No. 706,123. (Cl. 15-60.)

1. A device of the class described comprising a sweeper casing, a guard surrounding one end of said casing, a brush spindle provided with a socket in the end thereof, an axle plate, an inwardly extending boss upon said axle plate and positioned within said socket, said axle plate positioned interiorly of said guard, a slide plate secured to said axle plate and positioned exteriorly of said guard within a slotted vertical depression of the guard, both said axle plate and slide plate being vertically movable, a channel member positioned within said guard, and an adjustable set screw passing through the slot of said depression and extending through said slide plate and threaded into said channel member.

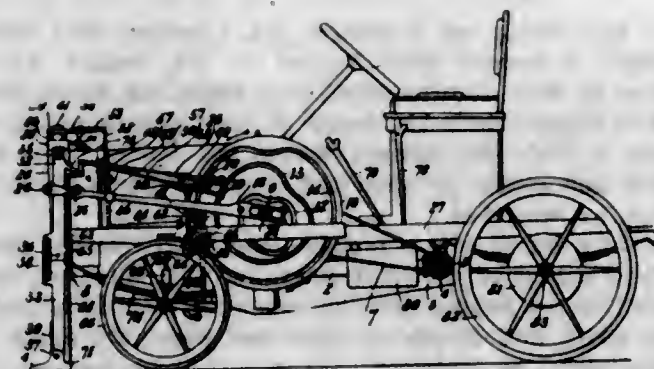
2. A device of the class described comprising a sweeper casing, a guard surrounding one end of said casing, a brush spindle provided with a socket in the end thereof, an axle plate, an inwardly extending boss upon said axle plate and positioned within said socket, said axle plate positioned interiorly of said guard, and a slide plate secured to said axle plate and positioned exteriorly of said guard within a vertical depression of the guard, both said axle plate and slide plate being vertically movable.



3. A device of the class described comprising a sweeper casing, a guard on the end of said casing, a brush spindle provided with a socket in the end thereof, an axle plate, an inwardly extending boss upon said plate and positioned within said socket, said plate positioned interiorly of said guard, said guard being provided with a vertical depression in the outer face thereof and having a vertical slot in the bottom of said depression, a slide plate positioned in said depression, and a pin positioned through said slot and connecting said axle plate and slide plate.

4. A device of the class described comprising a sweeper casing, a guard thereon, a brush spindle provided with a socket in the end thereof, an axle plate, an inwardly extending boss upon said plate and positioned within said socket, said plate positioned interiorly of said guard, said guard being provided with a vertical depression in the outer face thereof and having two vertical slots in the bottom of said depression, a slide plate positioned in said depression, a pin positioned through one of said slots and connecting said axle plate and slide plate, a channel member positioned within said guard, and an adjustable set screw passing through the other of said slots and extending through said slide plate and threaded into said channel member.

1,079,695. VEHICLE ADVANCING BY MEANS OF ARTIFICIAL LEGS. ADOLF EHRLICH, Budapest, Austria-Hungary. Filed Sept. 11, 1911. Serial No. 648,710. (Cl. 21-124.)



1. In a vehicle of the kind described the combination with the framework of carrying and steering wheels, legs composed each of an upper leg part, a lower leg part and a foot, hinges connecting the said leg parts together and with the said framework, a driving shaft transversely journaled on said framework, means for rotating the said shaft, cam wheel keyed on said shaft, three cam grooves corresponding to said leg parts and provided in said cam wheel and connecting rods positively connecting the said

grooves with the said leg parts so that the said grooves directly reciprocate said rods.

2. In a vehicle of the kind described the combination with the framework of carrying and steering wheels, a plurality of legs composed each of an upper leg part, a lower leg part, and a foot part, hinges connecting the said parts with each other and with the said framework, a transverse driving shaft, means for rotating said driving shaft, cam wheels keyed on said shaft, an inner cam groove provided in each face of each cam wheel and having an asymmetrical heart shape the unequal halves arc involutes of circles, a connecting rod connecting each of said grooves positively with each of said upper leg parts, the arrangement being such that the smaller half of said cam groove moves the said upper leg part forward with a relatively great speed, and the larger half of said cam groove moves the same part backward with a slower and uniform motion, substantially as and for the purpose set forth.

3. In a vehicle of the kind described the combination with the framework of carrying and steering wheels, a plurality of legs composed each of an upper leg part, a lower leg part and a foot part, means for hingedly connecting said leg parts with each other and with the said framework, a transverse driving shaft, means for rotating said shaft, a plurality of cam wheels keyed on said shaft, an inner cam groove in each side of each of said wheels, this groove being composed of unequal halves, means for operatively connecting said inner cam groove with said upper leg part, a second cam groove provided in each side of each of said cam wheels around the said inner cam groove and concentrically to the said driving shaft, an inwardly directed bend in the said second cam groove opposite the smaller half of said inner cam groove, means comprising a rod for operatively connecting the said second cam groove with the said lower leg part the arrangement being such that the rod bends the lower leg part backward with reference to the upper leg part while the said inner cam groove moves the said upper leg part rapidly forward so that the foot part is raised from the ground during the forward motion of the leg, substantially as and for the purpose set forth.

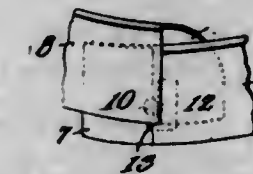
4. In a vehicle of the kind described the combination with the framework of carrying and steering wheels, a plurality of legs composed of an upper leg part, a lower leg part and a foot part, means for hingedly connecting said leg parts with each other and with the said framework, a transverse driving shaft, means for rotating said shaft, a plurality of cam wheels keyed on said shaft, an inner cam groove in each side of each of said cam wheels, means for operatively connecting said inner cam groove with the upper part of each leg, a second cam groove provided in each side of each of said cam wheels and surrounding the said inner cam groove, means for operatively connecting the said second cam groove with said lower leg part, a third cam groove provided in each side of each of said cam wheels and surrounding the said second cam groove, a radially inwardly directed depression provided in said third cam groove opposite that arc part of the said inner cam groove which causes the said upper leg part to perform the last part of its rearwardly directed way, means comprising a rod and adapted to positively connect said outer cam groove with the foot part of the leg so that the latter is bent backward with reference to the lower part of the leg during that space of time during which the upper leg part covers the last part of its rearwardly directed way, substantially as and for the purpose set forth.

5. In a vehicle of the kind described the combination with the framework of carrying and steering wheels, a plurality of artificial propelling legs arranged by pairs, a common bearing for each pair of legs, a vertical pivot connecting said common bearing with said framework, means for rotating in curves said pairs of legs around said vertical pivot with reference to the said framework, said means comprising a balance beam, a pivot provided in the middle of said balance beam, rods rising from said balance beam and adapted to cause the said pairs of legs to rotate

around their vertical pivot, and rods descending from said balance beam and means for changing the amplitude of the strides of the legs and adapted to be actuated by said rods, substantially as and for the purpose set forth.

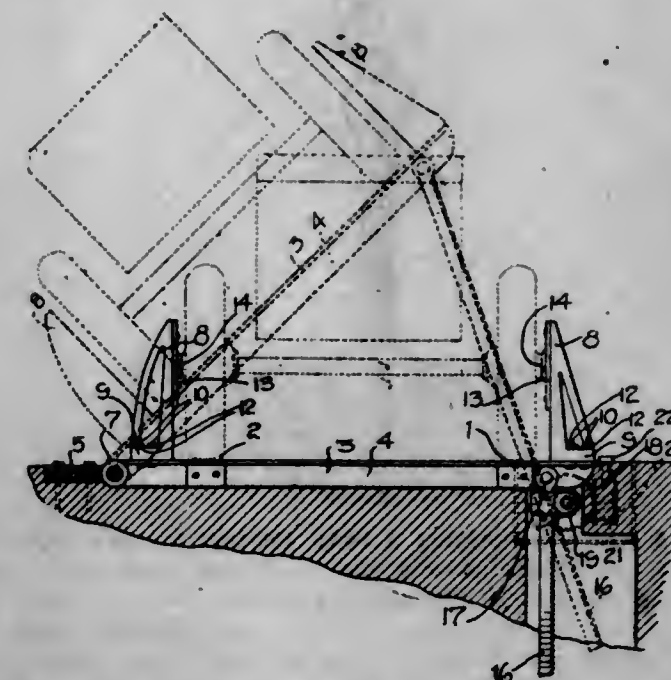
[Claim 6 not printed in the Gazette.]

1,079,696. COLLAR. HENRY C. FLETCHER, New Castle, Pa. Filed Aug. 13, 1912. Serial No. 714,929. (Cl. 2-69.)



A lay-down collar wherein the ends of the face are designed to fit close together and wherein the ends of the band are designed to overlap, the band being provided at its last attached end with an enlarged collar button opening directly in rear of the corresponding end of the face to readily receive the head of the collar button and having an outwardly projecting notch at its lower end extending toward the end of the band to receive the shank of the collar button, the outer edge of the opening being substantially vertical and extending from a point adjacent the lower edge of the band, along the end of the face and to a point short of the upper edge of the band, so that the said outer edge of the opening may slide on the shank of the collar button.

1,079,697. LIFTING-JACK. WILLIAM FLETT, Hyde Park, Mass. Filed July 3, 1913. Serial No. 777,364. (Cl. 57-15.)



1. A device of the class described including a frame hingedly secured at one side thereof, opposed clamping members adjustably mounted upon said frame, plates secured to the inner faces of the clamping members for vertical adjustment, said plates being provided with socket members and means for tilting the frame to any desired degree.

2. A device of the class described including a frame hingedly secured at one side thereof, clamping members carried by the frame and adapted for lateral adjustment, plates secured to the inner faces of said clamping members and adapted for vertical relative adjustment, said plates being provided with socket members, and means for raising one side of the frame whereby the same will be tilted at any desired angle.

3. A device of the class described including a frame, said frame comprising longitudinal spaced bracket members, transverse members connecting the ends of the longitudinal bracket members, a rib formed on the lower face

of each of the transverse members, said frame being hingedly secured at one side thereof, said transverse members having spaced slots arranged upon opposite sides of the rib, clamping members having a base, bolts carried by the base and removably arranged in said slots whereby the clamping members may be readily adjusted, plates secured to the inner faces of the clamping members and provided with sockets, and means for raising one side of the frame to tilt the same at any desired angle.

1,079,698. FINISH-REMOVER. HENRY A. GARDNER, Washington, D. C. Filed Sept. 10, 1913. Serial No. 789,130. (Cl. 87-5.)

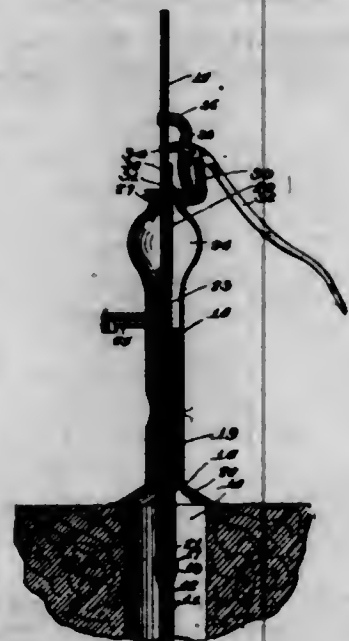
1. A finish remover comprising polymerized oil, a waxy body intimately associated therewith, and a finish-dissolving liquid in which polymerized oil is insoluble.

2. A finish remover comprising polymerized oil, a finish-dissolving liquid in which polymerized oil is insoluble, and a softening agent consisting of polymerized oil intimately associated with a waxy body.

3. A softening agent for finish removers, consisting of a polymerized oil intimately associated with a waxy body.

4. In a process of making a finish remover, the step of preparing a softening agent, which consists in mixing a waxy body with a suitable oil, and polymerizing said oil.

1,079,699. PUMP. FRANK A. GARVEY, Lynxville, Wis. Filed Dec. 21, 1912. Serial No. 788,061. (Cl. 103-62.)



1. A pump comprising a body portion, a pump pipe, a spring casing having one end connected with said pipe and the upper end connected with said body portion, a sucker rod in said pipe, a pump rod passing through said spring casing and having its inner end removably connected with said sucker rod, a spring having its lower end connected with said pump rod and its upper end adjustably supported by said body portion, and operating means connected with said pump rod.

2. A pump comprising a body portion, a water tube, a sucker rod in said water tube, a spring casing removably connected with said water tube and having its upper end portion removably connected with said body portion, a pump rod passing vertically through said body portion and having its lower end threaded and fitting into a socket at the upper end of said sucker rod, a spring positioned in said casing surrounding said pump rod and having its lower end connected with said pump rod, the upper end of the spring terminating in a rod having a threaded end passing through the upper end of said body portion, an adjusted nut threaded upon the outer end portion of said rod, and operating means connected with said pump rod.

3. A pump comprising a body portion having upper and lower sections, a spring casing passing through said

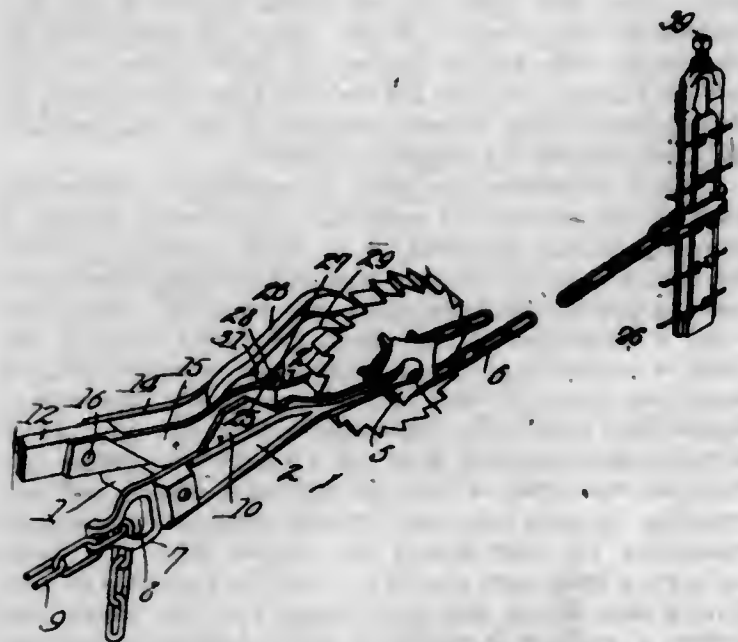
lower section and having its upper end in threaded engagement with an enlarged threaded collar in said body portion, a water tube connected with the lower end of said spring casing, a sucker rod positioned in said water tube, a pump rod passing through said spring casing and connected with said sucker rod, a spring connected with said sucker rod and the upper portion of said body portion, and operating means connected with said pump rod.

4. A pump comprising a body portion provided with an outlet spout intermediate its height and having an upper portion enlarged to form a water head, a water pipe, a spring casing connected with said body portion and supporting said water pipe, the upper end of said casing being positioned in alignment with the lower edge of said outlet spout, a sucker rod in said water pipe, a pump rod passing through said spring casing and connected with said sucker rod, a spring passing through said spring casing with its lower end connected with said pump rod, the upper portion of said spring extending to a point adjacent the lower end of said water head and terminating in a rod adjustably connected with said body portion, and operating means connected with said pump rod.

5. In a pump, a casing, a pump rod passing through said casing, and a spring in said casing surrounding said pump rod and having its lower end secured thereto, the upper portion of said spring forming a rod having a threaded end portion whereby said spring may be adjustably connected with the body portion of a pump.

[Claim 6 not printed in the Gazette.]

1,079,700. WIRE-STRETCHER. FOREST GIBSON, Yelk, W. Va. Filed Apr. 25, 1912. Serial No. 693,278. (Cl. 39-62.)



1. In a wire stretcher, a body member including spaced arms; a ratchet wheel journaled for rotation between the arms; means connected with the ratchet wheel for receiving a flexible element; the arms being provided in their forward ends with recesses opening at their outer ends toward the ratchet wheel; a lever having bearing elements adapted to be slid into the open ends of the recesses; and a pawl carried by the lever and adapted to engage the ratchet wheel.

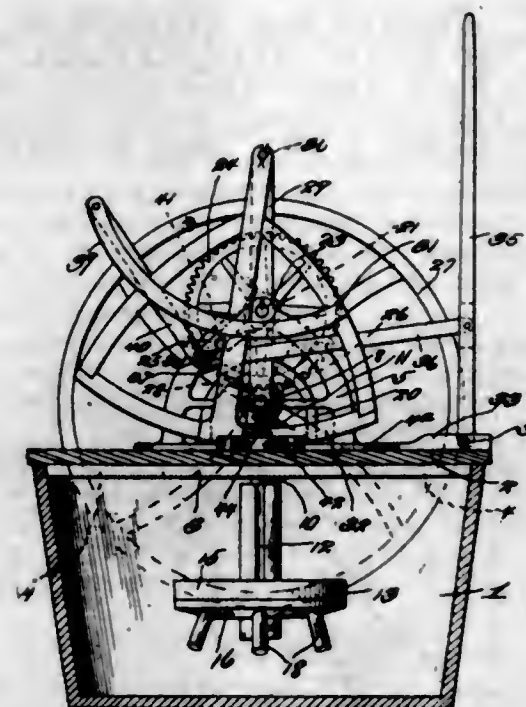
2. In a device of the class described, a body member; a ratchet wheel journaled for rotation thereon; means upon the ratchet wheel for receiving a flexible element; a lever fulcrumed upon the body member and provided with eccentrically disposed heads; pawls carried by the heads and adapted to engage the ratchet wheel; a connecting element projecting laterally from one pawl, there being a recess in the adjacent face of the other pawl, into which the connecting element is adapted to move.

3. As an article of manufacture for use in a wire stretcher, a lever provided with spaced arms, said arms

being provided with eccentrically disposed heads; pawls mounted upon the heads, and a connecting element projecting laterally from one pawl, and adapted to engage in a recess formed in the adjacent face of the other pawl.

4. As an article of manufacture, a lever for use in a wire stretcher, the lever having spaced arms provided upon their inner faces with eccentrically disposed heads, one arm being provided with an outstanding bearing stud and the other arm being movable and having an opening extended through its head; a pin extended through the opening and engaging the head of the other arm to maintain and to hold the heads in eccentric relation and to form a laterally projecting bearing; and pawls mounted to swing upon the heads.

1,079,701. GEARING. JOHN D. GRAFING, Olivet, S. D. Filed Feb. 18, 1913. Serial No. 749,076. (Cl. 74-50.)

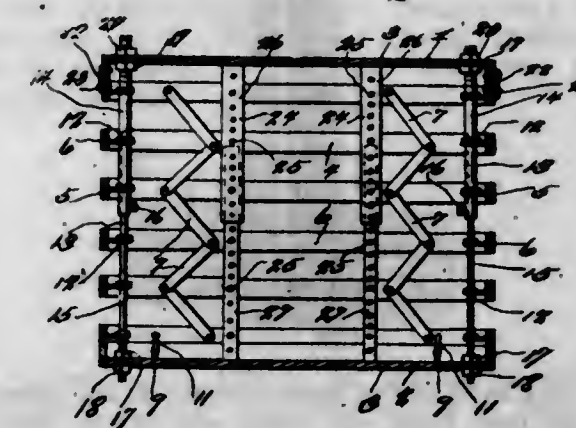


1. In a washing machine, a vertically disposed shaft, a pinion thereon, a bracket member in which said shaft is mounted, a second shaft mounted in said bracket member having a fly wheel at one end and provided at the other end with an arm, said bracket member having an upwardly extending projection, a segmental oscillatory member fulcrumed to the upper end of said projection, said oscillatory member having a segmental rack to mesh with said pinion and provided with an extension arm, an operating lever, a pair of links connected together, the connected ends of said links being pivoted to said arm of the second shaft, one of said links connecting the arm of the second shaft to the extension arm, while the other link connects the operating lever to the arm of the second shaft, thereby constituting means for oscillating the oscillatory member and rotating the second shaft, which maintains a steady movement of said oscillatory member, and a member for guiding the oscillatory member.

2. In a washing machine, a support, a vertically disposed shaft mounted in said support, a pair of brackets mounted on the top of said support, and in one of which brackets said shaft is journaled, a second shaft journaled in said brackets, one end of which second shaft is provided with an arm, while the other end of the second shaft is provided with a gear, one of the brackets having a stud pin, a fly wheel loosely journaled on the stud pin and provided with a pinion meshing with said gear, one of said brackets having an upwardly extending projection, a segmental oscillatory member fulcrumed to the upper end of said projection and provided with a segmental rack having gear connections with the first shaft, said oscillatory member having an extension arm, an operating lever, a pair of links connected together, the con-

nected ends of said links being pivoted to said arm of the second shaft, one of said links connecting the arm of the second shaft to the extension arm, while the other link connects the operating lever to the arm of the second shaft, thereby constituting means for oscillating the oscillatory member and rotating the second shaft, which maintains a steady movement of said oscillatory member, a plate adjustably secured to the support and provided with lugs including guide notches for guiding the oscillatory member.

1,079,702. COLLAPSIBLE SHIPPING-CRATE. CHARLES B. GUTHRIE, Slab Fork, W. Va. Filed Sept. 7, 1912. Serial No. 719,107. Renewed Sept. 6, 1913. Serial No. 788,445. (Cl. 217-47.)



A shipping crate, comprising a top and bottom sides and ends constructed of slats, means for connecting the sides and ends to the top and bottom, lary tong links connecting the slats of the sides and ends, eye bolts carried by the adjacent ends of the slats of the sides and ends and arranged in registration, corner stay rods consisting of telescoping united sections passing through the registered eye bolts for holding the sides and the ends rigid, means for holding the telescoping sections of the stay rods in adjusted positions, said telescoping sections having nuts upon their upper and lower ends, one above and below the top and bottom of the crate for holding the top and bottom in position, bars comprising telescopically united sections bolted to the slats of the sides and ends, thereby affording rigidity and strength for the crate, and means for holding the sections of the bars in adjusted positions.

1,079,703. HOOD FOR MOUTHPIECES OF PIPES OR THE LIKE. HERBERT E. HAGMUELLER, Hoboken, N. J. Filed Mar. 27, 1913. Serial No. 757,056. (Cl. 181-18.)



1. The combination with a mouthpiece of a pipe or the like, of an elastic normally inflated hood having a nozzle at one end, said nozzle being adapted to fit in the opening of the mouthpiece and the hood being adapted to be turned over the mouthpiece and also over itself, so as to protect the opening of the mouthpiece and to expel matters contained in the passage.

2. The combination with a mouthpiece of a pipe or the like, of an elastic bispherical inflated hood having a nozzle, said nozzle being adapted to fit in the opening of the mouthpiece, one part of the said hood being adapted to be drawn over the end of the mouthpiece and the second part being adapted to be drawn over the said first part of the hood, whereby the opening of the mouthpiece is tightly closed and the matters contained in the passage of the mouthpiece are expelled or blown out.

1,079,704. COMBINATION TIRE VALVE-STEM AND PRESSURE-GAGE. DALLAS C. HATHAWAY, Sheldon, Ill. Filed June 19, 1912. Serial No. 704,649. (Cl. 152-12.)



1. A tire valve barrel having eccentric and parallel air and gage tube bores, the lower end of the latter bore having a primary and an eccentric secondary counter-bore and the upper end of the latter bore terminating short of the tip of the barrel, a mercury tube fitting in the said bore and having its outer end closed and seated against the upper end of the bore, the lower end of the tube being open and entering the primary counter-bore, a packing ring in the counter-bore around the end of the tube, a diaphragm having its edges thickened and seated against the shoulder formed by the secondary counter-bore so as to space the diaphragm from the said shoulder, and a binding ring screw-threaded into the secondary counter-bore and bearing against the thickened edge of the diaphragm to retain the diaphragm in position, a portion of the valve being cut away to expose the tube and bearing graduations.

2. A tire valve barrel having parallel air and gage tube bores, the lower end of the latter bore having a primary and a secondary counter-bore, a mercury tube fitting in the latter bore, the lower end of the tube entering the primary counter-bore, a diaphragm having its edges thickened and seated against the shoulder formed by the secondary counter-bore, so as to space the diaphragm from the said shoulder, and a ring engaged in the secondary counter-bore and bearing against the thickened edge of the diaphragm to retain the diaphragm in position, a portion of the valve being cut away to expose the tube and bearing graduations.

1,079,705. PROCESS FOR SYNTHETICALLY PREPARING AMMONIA AND OTHER COMPOUNDS CONTAINING NITROGEN AND HYDROGEN. FAUSTIN HAVATI, Vienna, Austria-Hungary. Filed Feb. 13, 1913. Serial No. 748,223. (Cl. 23-21.)

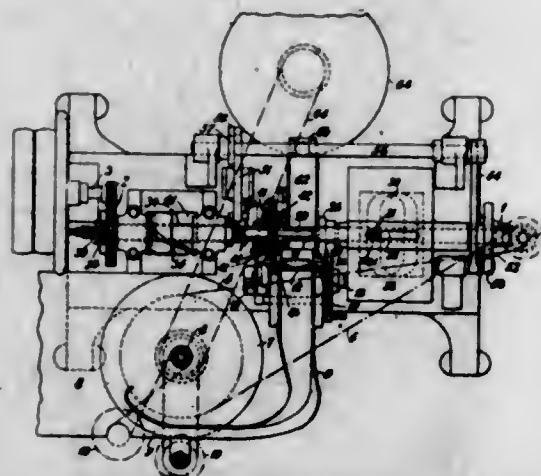
1. The herein described process of synthetically producing compounds containing nitrogen and hydrogen, which process consists in ionizing a gas mixture containing the said elements and passing the said mixture over a catalyst containing a metal of the platinum group and titanium.

2. The herein described process of synthetically producing compounds containing nitrogen and hydrogen, which process consists in ionizing by electrical discharges a gas mixture containing the said elements and passing the said mixture over a catalyst containing a metal of the platinum group and titanium in the ratio of the atomic weights of the said metals.

3. The herein described process of synthetically producing compounds containing nitrogen and hydrogen, which process includes the steps of passing an ionizing gas mixture containing the said elements into contact with metal of the platinum group and titanium, at a range of temperature at which hydrogen is absorbed by the metal of the platinum group, and at which temperature nitrogen is absorbed by titanium, and then raising the temperature to expel the said absorbed elements from the absorbing metals in a chemically active condition, to cause said elements to combine.

4. The herein described process of synthetically producing compounds containing nitrogen and hydrogen, which process consists in ionizing by electrical discharges a gas mixture containing the said elements and passing the said mixture over a plurality of masses of a catalytic body including a metal of the platinum group and titanium, and reversing the direction of the flow of said gas mixture at intervals.

1,079,706. MACHINE FOR CANNELURING, TRIMMING, AND GAGING CARTRIDGE-CASES. HOWARD DOUGLAS HODGE, Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Filed Sept. 3, 1912. Serial No. 718,277. (Cl. 86-16.)



1. In a machine for cannelling the heads of cartridge cases, a rotating mandrel, means for pushing a case thereonto, means for expanding the mandrel inside the case, a cannelling tool, and means for causing the tool to press upon the head of the case while it rotates.

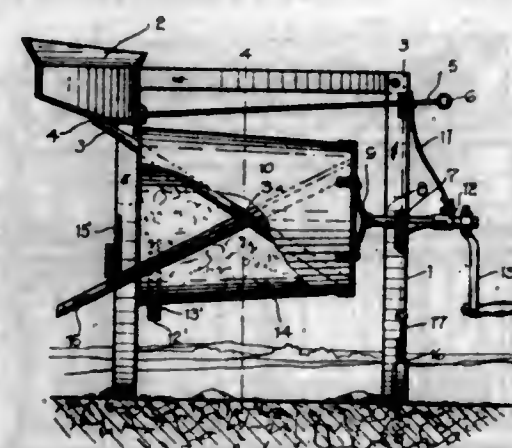
2. In a machine for cannelling the heads of cartridge cases, a rotating mandrel, means for pushing a case thereonto, a rod capable of sliding within the mandrel, means for pushing the rod into the front of the mandrel, a cannelling tool, means for causing the tool to press upon the head of the case while it rotates, and means for withdrawing the rod from the front of the mandrel.

3. In a machine for cannelling the heads of cartridge cases, a rotating mandrel, a trough, means for supplying cases one by one to the trough, means for bringing the trough into line with the mandrel and for withdrawing it again, a pusher adapted to push the case from the trough onto the mandrel, means for expanding the mandrel inside the case, a cannelling tool, and means for causing the tool to press upon the head of the case while it rotates.

4. In a machine for cannelling the heads of cartridge cases, a rotating mandrel, means for pushing a case thereonto, means for expanding the mandrel inside the case, a cannelling tool, means for causing the tool to press upon the head of the case while it rotates, and means for pushing the case off the mandrel.

5. In a machine for cannelling the heads of cartridge cases, a rotating mandrel, means for pushing a case thereonto, means for expanding the mandrel inside the case, a cannelling tool, means for causing the tool to press upon the head of the case while it rotates, a tool adapted to cut off the open end of the case, and means for bringing this tool up against the case while it rotates.

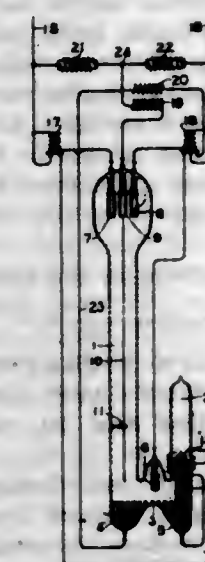
1,079,707. GRAIN-SEPARATOR. OLE L. KLEVEN, Oslo, Minn. Filed Feb. 21, 1913. Serial No. 749,971. (Cl. 130-18.)



1. In combination with a frame provided with a hopper, of a drum rotatably mounted in said frame, a spout extending diagonally downward through the drum and contacting with the inner walls thereof, an angular bracket secured to the frame and to the spout and extending rearwardly thereof a predetermined distance whereby such spout is maintained in operative position, a second spout leading from the hopper downwardly through the drum to the rear of the latter, and connecting means between both of the spouts whereby the latter spout is maintained in operative position.

2. In combination with a frame having a supply hopper, of a drum rotatably mounted in said frame, a spout extended inwardly and upwardly of the frame and adapted to contact with the inner walls thereof, means carried by the frame for maintaining the spout in such position, a chute depending inwardly and downwardly within the hopper, and means coacting with the spout and chute for maintaining the chute against displacement from within the drum.

1,079,708. VAPOR ELECTRIC LAMP. OSIAS O. KAUH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 22, 1903. Serial No. 162,499. (Cl. 176-46.)



1. The combination of an exhausted envelop, main electrodes therefor, starting electrodes therefor, and means for impressing a high voltage upon a main electrode and one of the starting electrodes.

2. The combination of an exhausted envelop, a main mercury electrode, and two starting electrodes in proximity to said main electrode, one of said starting electrodes being of non-vaporizable material and the other of mercury.

3. The combination of a plurality of main electrodes one of which is adapted to generate a vaporous conducting medium, additional or starting electrodes, a trans-

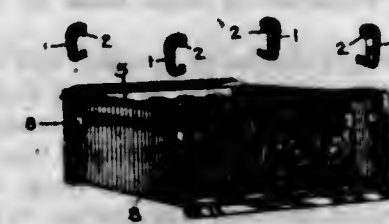
former connected to one of said additional or starting electrodes, and means for supplying the primary of the transformer with current flowing to said main electrodes.

4. The combination of electrodes, a source of alternating current connected to said electrodes, inductance coils in circuit between said source and said electrodes, and a transformer having its primary in shunt to one of said inductance coils and its secondary connected to two of said electrodes.

5. The combination of an envelop, a body of mercury in said envelop, electromagnetically-actuated means for separating said mercury into separate bodies, and a solid electrode located in proximity to the region of such separation.

[Claims 6 to 11 not printed in the Gazette.]

1,079,709. BATTERY-SUPPORT. ROBERT MCA. LLOYD, Oyster Bay, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 7, 1912. Serial No. 695,680. (Cl. 105-267.)



1. A battery cradle support for vehicles comprising in combination a plurality of hooks facing in different directions, pivotally supported and extending beneath the vehicle body and adapted to be brought into engagement with the battery cradle to support the same, and abutments for limiting the movement of the hooks in the engaging directions.

2. A battery cradle support for vehicles comprising in combination a plurality of hooks pivotally supported and extending beneath the vehicle body and adapted to be brought into engagement with the battery cradle to support the same, and adjustable means for preventing the swinging of the cradle and hooks.

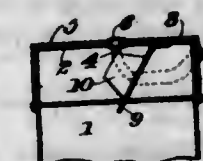
3. A battery cradle support for vehicles comprising in combination a plurality of hooks facing in different directions, pivotally supported and extending beneath the vehicle body and adapted to be brought into engagement with the battery cradle to support the same, and adjustable abutments for limiting the movement of the hooks in the engaging directions.

4. The combination with a battery cradle for vehicles, of hooks pivotally supported and extending beneath the vehicle body and engaging the top frame of the battery cradle to support the same, and means for preventing the swinging of the cradle and hooks.

5. The combination with a battery cradle for vehicles, said cradle being provided with supporting members extending laterally thereof, of hooks pivotally supported and extending beneath the vehicle body and closely engaging the cradle supporting members to support the cradle, and abutments for limiting the movements of the hooks.

[Claims 6 to 13 not printed in the Gazette.]

1,079,710. DISPENSING-CAN. CHARLES A. MASON, Baltimore, Md. Filed Apr. 2, 1913. Serial No. 758,471. (Cl. 221-61.)



1. A dispensing can, comprising a body, a discharge element movably mounted in said body, a cap rotatably mounted upon said body and having a discharge opening in its top, the position of which opening with relation to

the discharge element is varied by rotation of the cap, and means connecting the discharge element and cap to project said discharge element into said opening as the cap is rotated in one direction and to withdraw it upon reverse movement.

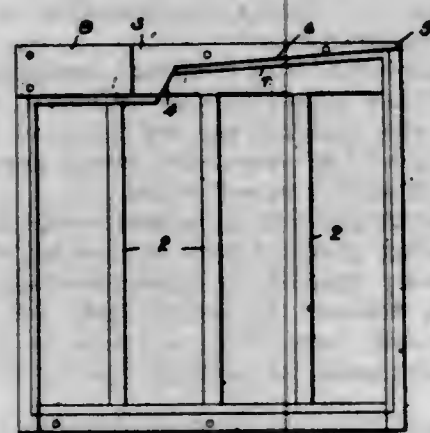
2. A receptacle, for pulverulent, granular, or other substance or material, comprising a body, a discharge element movably mounted in said body, a cap applied to said body and movable thereon, said cap and body having discharge openings adapted to be brought into register, and means to connect the cap with the discharge element to project it into and withdraw it from said discharge openings.

3. A receptacle, for pulverulent, granular, or other substance or material, comprising a body, a discharge element movably mounted in said body, a cap rotatably mounted on said body, said body and cap having discharge openings adapted to be brought into register by rotation of the cap on the body, and means to connect the discharge element and the rotating cap so as to project said element into the discharge openings when they are brought into register and to withdraw it from them on the reverse movement.

4. A body, having a discharge opening, and an adjacent slot, a tubular discharge element pivotally mounted within said body and having a laterally extended lug projecting through said slot, and a tubular portion adapted to be projected through said opening, and a cap rotatably mounted on the body and having an appropriate groove engaged by the lug on the discharge element and adapted to project the discharge element through the discharge opening and return it into the body.

5. A body, having a discharge opening and an adjacent slot in the side of the body, a discharge element having a plate pivotally mounted within the body, and a frusto-conical tubular portion rising from the plate, a cap rotatably mounted upon the body above its discharge opening and having a hole adapted to be brought into and moved out of coincidence with the discharge opening, and a groove in its side intersecting the slot in the body, and a laterally extending lug on the discharge element projecting through said slot into engagement with the groove in the cap.

1,079,711. PIANO. HAROLD MATHER, Foxcroft, Me. Filed Nov. 18, 1912. Serial No. 732,008. (Cl. 84—25.)

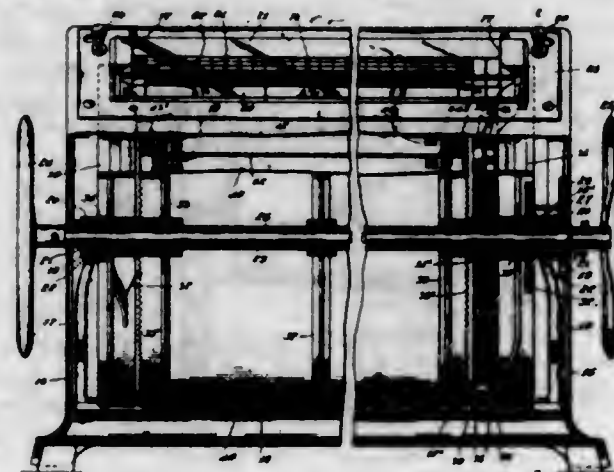


An upright piano comprising a frame, a sounding board connected to said frame, the latter having the top bar cut-away throughout the treble portion, a pin block formed in two sections, the section for the bass strings being secured to said cut-away bar, a metal string-plate having the treble section of the pin block secured thereto, and said sounding board extending throughout the cut-away portion of said bar.

1,079,712. CALCULATOR. CARL A. MEILICKE, Chicago, Ill., assignor to Mellicke Calculator Company, Chicago, Ill., a Corporation of Maine. Filed Apr. 22, 1911. Serial No. 622,704. (Cl. 235—87.)

1. In a device of the character described, a support, a calendar strip movably mounted thereon bearing consecu-

tive date-indications, a holiday strip mounted to move with said calendar strip, and holiday markers adjustable upon said holiday strip into register with different dates of the calendar strip.



2. In a device of the character described, a support, a calendar strip movably mounted thereon, a holiday strip mounted with respect to the calendar strip for adjustment relative thereto and to move therewith, and individually shiftable holiday markers carried by said holiday strip in register with respective dates of the calendar strip.

3. In a machine of the character described, the combination of a support, means on said support, to indicate a reading position, a calendar strip bearing consecutive date indications mounted in said support for movement with respect to said reading position, and holiday markers for indicating holiday dates on said calendar strip mounted for movement in harmony with said calendar strip and for adjustment relative to said calendar strip.

4. In a machine of the character described, the combination of a calendar strip bearing consecutive date indications, shiftable means associated with said calendar strip, bearing indications for register with different calendar strip dates to mark holidays, and a number strip having number spaces for register with the day spaces of the calendar strip and movable with respect to said calendar strip.

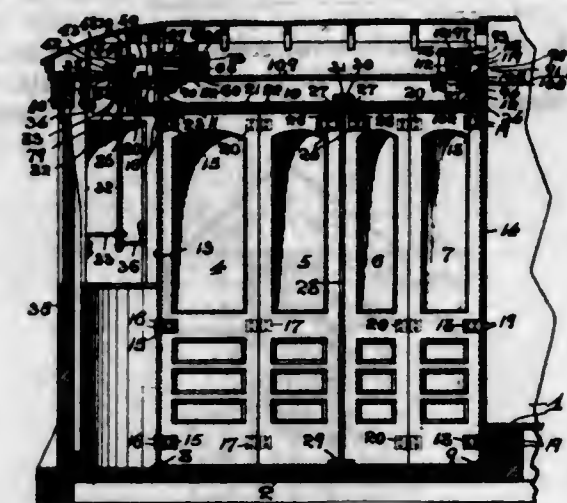
5. In a machine of the character described, the combination of a support provided with means for indicating a reading position, an endless calendar strip having consecutive designated date spaces, an endless number strip having consecutive numbered spaces corresponding with the date spaces of the calendar strip, said calendar strip and number strip being movable with respect to each other to cause the respective number spaces to register with different date spaces, and both movable with respect to the support to present different spaces in reading position; and a holiday strip bearing indications of holidays registering with appropriate spaces of the calendar strip and movable therewith.

(Claims 6 to 14 not printed in the Gazette.)

1,079,713. DOOR OR GATE OPERATING MECHANISM FOR THE PLATFORMS OF CARS. EDWARD M. MOLLER, Jersey City, N. J. Filed Aug. 31, 1912. Serial No. 718,066. (Cl. 39—93.)

1. Mechanism for opening and closing a plurality of foldable doors, comprising a pair of brackets, a vertical shaft mounted in said brackets, a crank-lever upon the lower end-portion of said shaft, and mechanism connected with the upper end-portion of said shaft for simultaneously operating said door or gate-sections, consisting of a crank-arm affixed to said vertical shaft, a pair of adjustably connected plate-like members connected with one of said door or gate-sections, a connecting rod between said crank-arm and said adjustably connected plate-like members, a second crank-arm affixed to said vertical shaft, a third bracket, a second pair of adjustably connected plate-like members pivotally connected with said last-mentioned bracket, a connecting rod between said last-mentioned crank-arm and adjustably connected plate-like members, a third crank-arm also pivotally connected with said last-

mentioned bracket, another crank-arm connected with another one of said door or gate-sections, and a connecting rod between said two last-mentioned crank-arms, substantially as and for the purposes set forth.



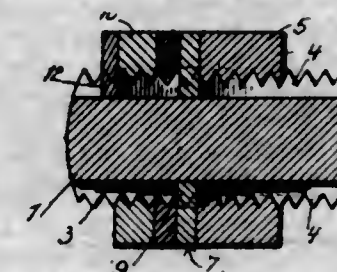
2. Mechanism for opening and closing a plurality of foldable doors, comprising a pair of rotatable vertical door or gate-supporting rods, a pair of foldably connected door or gate-sections connected with each vertical supporting rod, a pair of brackets, a vertical shaft mounted in said brackets, a crank-lever upon the lower end-portion of said shaft, mechanism connected with the upper end-portion of said shaft and with the upper end-portions of said supporting rods for simultaneously turning said rods and simultaneously operating the door or gate-sections connected with said supporting rods, consisting of a crank-arm affixed to said vertical shaft, a pair of adjustably connected plate-like members connected with one of said vertical supporting rods, a connecting rod between said crank-arm and said adjustably connected plate-like members, a second crank-arm affixed to said vertical shaft, a third bracket, a second pair of adjustably connected plate-like members pivotally connected with said last-mentioned bracket, a connecting rod between said last-mentioned crank-arm and adjustably connected plate-like members, a third crank-arm also pivotally connected with said last-mentioned bracket, another crank-arm connected with the other of said vertical supporting rods, and a connecting rod between said two last-mentioned crank-arms, substantially as and for the purposes set forth.

3. The herein described mechanism for operating a plurality of door or gate-sections, comprising a pair of bearing brackets, a vertical shaft mounted in said brackets, a crank-lever connected with said shaft, a buffer-plate upon one of said brackets, a crank-arm affixed to said vertical shaft, said crank-arm being adapted to be moved into arresting engagement with said buffer-plate, a pair of adjustably connected plate-like members connected with one of the door-sections, a connecting rod between said crank-arm and said adjustably connected plate-like members, a second crank-arm affixed to said vertical shaft, a third bracket, a second pair of adjustably connected plate-like members pivotally connected with said last-mentioned bracket, a connecting rod between said last-mentioned crank-arm and adjustably connected plate-like members, a third crank-arm also pivotally connected with said last-mentioned bracket, another crank-arm connected with another door or gate-section, and a connecting rod between said two last-mentioned crank-arms.

4. The herein described mechanism for operating a plurality of door or gate-sections, comprising a pair of bearing brackets, a vertical shaft mounted in said brackets, a crank-lever connected with said shaft, a buffer-plate upon one of said brackets, a crank-arm affixed to said vertical shaft, said crank-arm being adapted to be moved into arresting engagement with said buffer-plate, a pair of adjustably connected plate-like members connected with one of the door-sections, a connecting rod between said crank-arm and said adjustably connected plate-like members, said connecting rod consisting of two members, said members being respectively provided with right and left inter-

nally screw-threaded sockets, and a rod-like member having right and left screw-threaded end-portions screwed into said sockets, a second crank-arm affixed to said vertical shaft, a third bracket, a second pair of adjustably connected plate-like members pivotally connected with said last-mentioned bracket, a connecting rod between said last-mentioned crank-arm and adjustably connected plate-like members, said connecting rod consisting of two members, said members being respectively provided with right and left internally screw-threaded sockets, and a rod-like member having right and left screw-threaded end-portions screwed into said sockets, a third crank-arm also pivotally connected with said last-mentioned bracket, another crank-arm connected with another door or gate-section, and a connecting rod between said two last-mentioned crank-arms, said connecting rod consisting of two members, said members being respectively provided with right and left internally screw-threaded sockets, and a rod-like member having right and left screw-threaded end-portions screwed into said sockets, substantially as and for the purposes set forth.

1,079,714. NUT-LOCK. JOHN W. NIPPERT, New Brighton, Pa. Filed Nov. 16, 1912. Serial No. 731,903. (Cl. 151—2.)



1. The combination with a bolt having a longitudinal groove therein, a nut, a locking plate bearing against said nut and having a tongue adapted for engagement in the groove in said bolt, a jam nut adapted to bear against said locking plate, and a resilient member disposed between said locking plate and said jam nut, as and for the purpose described.

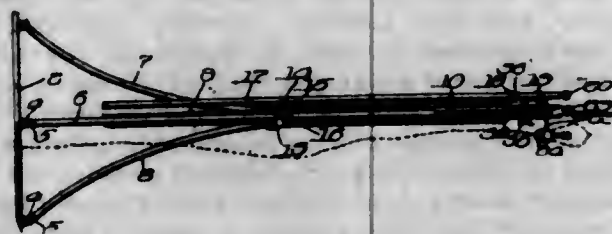
2. The combination with a bolt having a longitudinal groove formed therein, a nut having a seat formed in its outer face, a locking plate disposed in said seat, said locking plate being formed with a tongue for engagement with the groove in said bolt, a jam nut adapted to bear against said locking plate, and a lever connected to said jam nut and adapted to engage in the groove in said bolt, as and for the purpose described.

3. In combination with a bolt having a longitudinal groove formed therein, a nut, a locking plate disposed on said nut, a jam nut adapted to bear against said locking plate, a lever pivotally mounted at one end upon the outer face of said jam nut, said lever being formed with an inwardly projecting tongue for engagement with the groove in said bolt, the pivoted end of said lever being cam-shaped, and a spring secured to the outer face of said jam nut, the free end of said spring being curved and adapted to bear against the cam-shaped end of said lever, as and for the purpose described.

4. In combination with a bolt having a longitudinal groove therein, a nut having a seat formed in its outer face, a locking plate disposed in said seat, said locking plate being formed with a tongue for engagement with the groove in said bolt, a jam nut adapted to bear against said locking plate, and means pivotally mounted on said jam nut for engagement with the groove in said bolt, as and for the purpose set forth.

5. The combination with a bolt having longitudinal grooves therein, a nut having a seat formed in its outer face, a locking plate disposed in said seat, said locking plate being formed with tongues for engagement with the grooves in said bolt, a jam nut adapted to bear against said locking plate, and resilient means disposed between said jam nut and said locking plate, as and for the purpose set forth.

1,079,715. LAMP-SUPPORT. KARL JOHAN OHLSON, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,284. (Cl. 248-1.)



1. The combination with a stationary support, of an arm consisting of a center rod and a plurality of rods relatively slidable on said center rod and forming therewith a bundle of rods or spindles held together by frictional engagement, said rods being spread apart each separately jointed to said support for movement angularly relative thereto, means for clamping said rods together against movement longitudinally relative to each other, and means for clamping an electric light bulb on the free end of said arm.

2. The combination with a base-board, of means for fastening said board to a wall or the like, a series of rods or spindles movably jointed to the corners of said base board, a clamp clamping the major portion of said rods together, a rod 9 to which said rods are clamped, said rod 9 having grooves therein to receive said rods, an extension rod mounted on said rod 9, means for adjustably clamping said rod 9 and extension rod together, means upon said rod 9 for clamping an electric light bulb removably thereto, means in addition thereto on said rod 9 for supporting an electric light bulb cord, and similar means on said extension rod.

1,079,716. TYPE SETTING AND DISTRIBUTING MACHINE. HENRY C. OSBORN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 26, 1912. Serial No. 716,978. (Cl. 101-130.)



1. The combination of a receiving member having a plurality of type holders, an abutment positioned to stop a type in any of said holders adjacent to the entrance thereof after said type has been moved into said holder, and means for causing such stopped type to clear the abutment.

2. The combination of a movable type holder adapted to carry a line of type, an abutment positioned to stop a single type therein adjacent to the entrance thereof, said type clearing the abutment when the holder is moved, and means for advancing the type consequent upon such movement.

3. The combination of a multi-channelled typeholder into the end of which type may be distributed, an abutment adjacent to but standing back from said end of the holder a distance corresponding to the thickness of a type, and provision for relative movement between the typeholder and the abutment whereby the abutment may engage and stop a type in any of the channels of the holder.

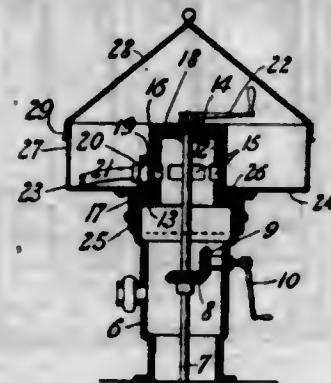
4. The combination of a multi-channelled typeholder, an abutment whose plane intersects the typeholder and which is adapted to engage and stop a type entering the channels of the holder, and means for positively advancing a stopped type in the holder beyond the abutment.

5. The combination of a rotary multi-channelled type holder an abutment positioned between the end planes of the holder and adapted to stop type in any of the chan-

nels which is positioned adjacent to the abutment, and means to engage and advance such type when the channel is moved away from the abutment.

[Claims 6 to 70 not printed in the Gazette.]

1,079,717. HYDRANT AND REEL. GEORGE A. OWEN, Hartford, and GEORGE A. BATES, New Britain, Conn. Filed May 5, 1913. Serial No. 765,528. (Cl. 137-31.)



1. In a hydrant, a casing having at the top a reduced tubular extension connected with the casing by a shouldered portion, the extension having the top closed and the sides provided with ports, a cap member rotatable on the extension and provided with a port in the side arranged to register with the said extension ports, the cap having a flange at the base engaging the said shouldered portion of the casing, a shell comprising an annular base secured to the casing with its inner marginal portion engaging the top face of the cap flange to retain the cap in its rotative position, the shell having cylindrical sides opposite the cap sides to form an annular chamber for containing a hose secured at said coupling and wound around the cap, and a removable lid on the casing.

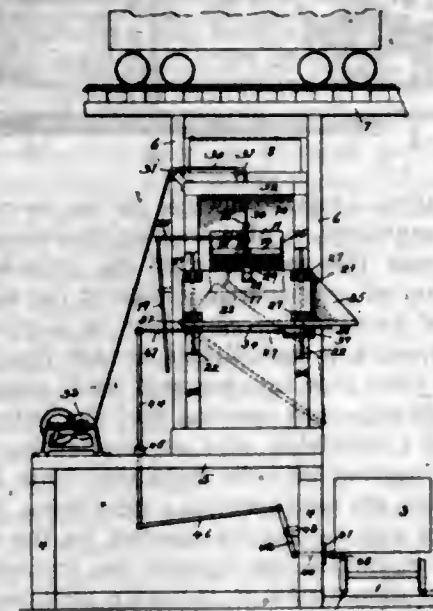
2. In a hydrant, a casing having at the top a reduced tubular extension connected with the casing by a shouldered portion, the extension having the top closed and the sides provided with ports, a cap member rotatable on the extension and provided with a port in the side arranged to register with the said extension ports, the cap having a flange at the base engaging the said shouldered portion of the casing, a crank handle on top of the cap, a shell comprising an annular base secured to the casing with its inner marginal portion engaging the top face of the cap flange to retain the cap in its rotative position, the shell having cylindrical sides opposite the cap sides to form an annular chamber for containing a hose secured at said coupling and wound around the cap, and a removable lid on the casing.

3. In a hydrant, a casing having at the top a reduced tubular extension connected with the casing by a shouldered portion, the extension having the top closed and the sides provided with ports, a cap member rotatable on the extension and provided with a port in the side arranged to register with the said extension ports, the cap having a flange at the base engaging the said shouldered portion of the casing, a crank handle on top of the cap, a shell comprising an annular base secured to the casing with its inner marginal portion engaging the top face of the cap flange to retain the cap in its rotative position, the shell having cylindrical sides opposite the cap sides to form an annular chamber for containing a hose secured at said coupling and wound around the cap, and a removable lid on the casing, the side of the shell being provided with an opening, and a door hinged at said opening to close the same, the hinges for the door having the members formed with inclined engaging faces to return the door to closed position by gravity and retain it in closed position.

1,079,718. LOADING DEVICE. JOHN H. PIMMER, deceased, Highlandtown, Md., by Edgar E. Piercy, administrator, Highlandtown, Md. Filed May 8, 1912. Serial No. 695,991. (Cl. 214-12.)

1. In a loading device the combination with a dumping hopper having a bottom two opposite side walls one end

wall and the other end of the hopper being open, of a vertically movable elevator frame having two side walls and one end wall which extends about the two side and one end wall of the dumping hopper said elevator frame being open at both the top and bottom; means carried by the movable elevator frame for closing the open end of the dumping hopper; means for detachably locking the hopper and the movable elevator frame together; means for pivotally connecting the dumping hopper with the movable elevator frame and means for raising and lowering the elevator frame.



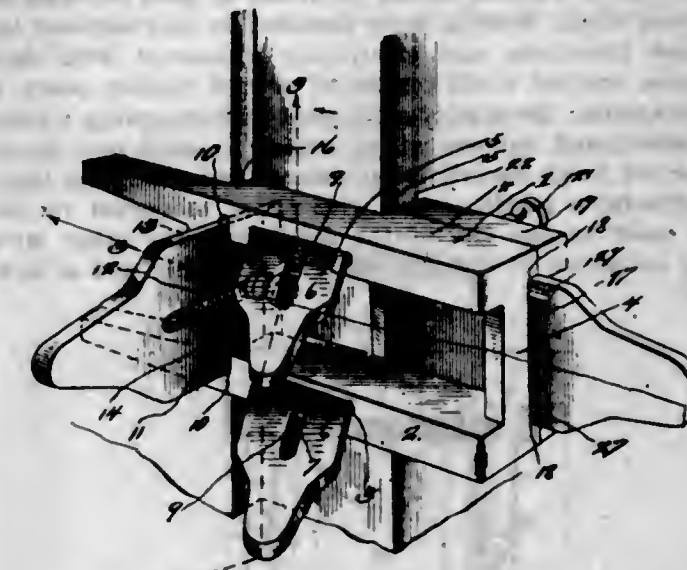
2. In a loading device the combination with an elevator guideway, of an elevator frame movable vertically on the guideway and being open at both the top and bottom and having two side walls and two end walls; a dumping hopper having a bottom two side walls and one end wall and said hopper fitting up into the elevator frame from the underside, the hopper being pivotally connected at one end to the elevator frame and the opposite open end thereof being closed by the end wall of the elevator frame; means for locking the hopper bottom to a wall of the elevator frame and means for moving the hopper and the inclosing elevator frame vertically with respect to the guideway.

3. In a loading device the combination with an elevator guideway, of an elevator frame having two side walls and two end walls and open at both top and bottom and said frame being movable on said guideway and one of the end walls of the movable frame having vertical slots; a dumping hopper having a bottom, two side walls and one end wall and the two side walls near one end extending through the slots in the end wall of the movable frame; means for pivotally connecting the closed end of the hopper and the frame; means for locking the open end of the hopper and frame together and means for moving said hopper and frame vertically on the guideway.

4. In a loading device having a storage bin with an outlet and a chute pivoted at the outlet, the combination with an elevator frame movably sustained at the outlet side of the storage bin said frame being open at the top and bottom and closed at the sides and ends, of a dumping hopper having a bottom, two side walls and one end wall and said hopper being pivotally sustained from the inclosing walls of the elevator frame; means for locking the hopper and frame together and means for moving the frame and hopper vertically to operate the chute and close the bin opening.

5. In a loading device the combination with the trackway, of an elevator frame comprising two side and two end walls and movable vertically at one side of the trackway; a dumping hopper carried by and having one end pivotally connected to the elevator frame and said hopper movable independently of the elevator frame to assume a dumping position; means for locking the frame and hopper together, and trip mechanism extending from the locking means on the hopper and frame to a point adjacent to the trackway whereby the trip may be released by the vehicle to release the dumping hopper.

1,079,719. MORTISING-TOOL. EELKE POORTINGA, Raymond, Minn. Filed Feb. 5, 1913. Serial No. 746,401. (Cl. 144-27.)



1. In a mortising tool, an elongated angular frame having upper and lower diagonally disposed guides, knives yieldably mounted therein for cutting upper and lower horizontal cuts of the mortise, said frame at one end having vertical guides, a knife yieldably mounted therein to make a vertical cut in the door jamb, one face of the frame having horizontal guides, a cutting member or blade mounted in said horizontal guides adapted for cutting out the mortise, said frame having two pairs of recesses adapted to fit the transverse contour of the door jamb, one pair of said recesses corresponding to the depth of the mortise to be cut, said upper and lower guides and said vertical guides being arranged so that the knives held therein move in intersecting paths.

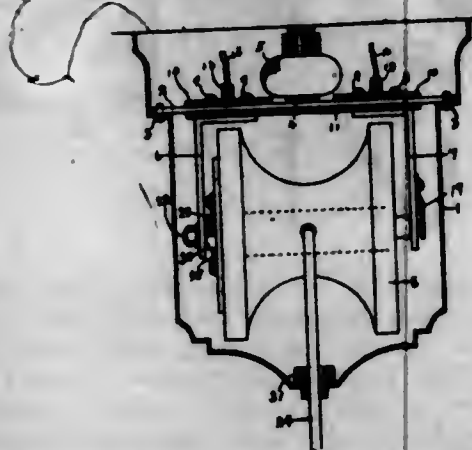
2. In a mortising tool, an elongated angular frame having upper and lower diagonally disposed guides, knives yieldably mounted therein for cutting upper and lower horizontal cuts of the mortise, said frame at one end having vertical guides, a knife yieldably mounted therein to make a vertical cut in the door jamb, one face of the frame having horizontal guides, a cutting member or blade mounted in said horizontal guides adapted for cutting out the mortise, said frame having two pairs of recesses adapted to fit the transverse contour of the door jamb, one pair of said recesses corresponding to the depth of the mortise to be cut, means adapted to be fastened in the recesses corresponding to the depth of the mortise to be cut, whereby the depth of said mortise may be varied, said upper and lower guides and said vertical guides being arranged so that the knives held therein move in intersecting paths.

3. In a mortising tool, an elongated angular frame having upper and lower diagonally disposed guides, knives yieldably mounted therein for cutting upper and lower horizontal cuts of the mortise, said frame at one end having vertical guides, a knife yieldably mounted therein to make a vertical cut in the door jamb, one face of the frame having horizontal guides, a cutting member or blade mounted in said horizontal guides adapted for cutting out the mortise, said frame having two pairs of recesses adapted to fit the transverse contour of the door jamb, one pair of said recesses corresponding to the depth of the mortise to be cut, means adapted to be fastened in the recesses corresponding to the depth of the mortise to be cut, whereby the depth of said mortise may be varied, and means adjustably arranged on said frame for holding the frame so positioned relative to the door jamb as to vary the width of the mortise, said upper and lower guides and said vertical guides being arranged so that the knives held therein move in intersecting paths.

1,079,720. CORD-ADJUSTER FOR ELECTRIC LIGHTS. FREDERICK L. PRITCHETT, Fort Worth, Tex. Filed Feb. 11, 1913. Serial No. 747,754. (Cl. 240-71.)

1. A cord adjuster for electric lights having a suspending bar, hangers connected to said bar and insulated

therefrom, stub-shafts supported in said hangers, a spool of non-conducting material mounted on said stub shafts, a spring box countersunk in one end of said spool and rigid therewith, a winding spring attached to said box and to the stub shaft, binding posts mounted in said bar and insulated therefrom and electrically connected with said hangers, current wires connected to said binding posts, a cord entering the side of said spool and extending within the spool, and current wires carried by said cord to be connected to an electric lamp, means for holding the lamp in adjustable position, one wire being connected to the stub shaft in one end of the spool, and the other wire being connected to the stub shaft in the other end of said spool.



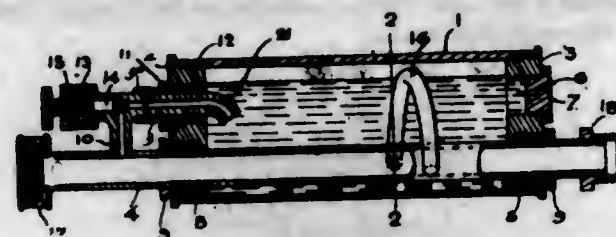
2. A cord adjuster for electric lights comprising a suspending bar, hangers connected to said bar and insulated therefrom, stub-shafts, one being mounted rigidly in one hanger and the other journaled in the other hanger, and electrically connected therewith, a hollow spool of non-conducting material having a bearing plate countersunk in one end to form a bearing to engage one of said shafts and a spring box countersunk in the other end to form a bearing to engage the other shaft, a spring for winding said spool having one end attached to said box and the other end attached to the adjacent stub shaft, binding posts mounted in said bar and electrically connected to said hangers, current wires connected to said binding posts, a cord entering the side of said spool, wires carried by said cord and electrically and operatively connected to said stub-shafts, and to be connected to an electric lamp, means for holding the lamp in adjusted position, a hood for said spool attached to said bar, and a guide socket of insulating material forming the outlet of said cord from said hood.

3. A cord adjuster and fixtures therefor comprising a suspending bar, means for connecting said bar to a suitable support, hangers attached to said bar and insulated therefrom, stub-shafts supported in said hangers and electrically connected therewith, a spring attached to one of said hangers and bearing against the adjacent stub-shaft, a hollow spool having a bearing plate countersunk in one end for engaging one of said shafts, a spring box countersunk in the other end of said spool and forming a bearing to engage the other stub-shaft, a spring for winding said spool having one end attached to said box and the other end attached to the adjacent stub-shaft, binding posts mounted in said bar and insulated therefrom and electrically connected with said hangers, a cord entering said spool through the side thereof and wires for connecting with an electric lamp carried by said cord and operatively connected to the ends of said stub-shafts, a hood for inclosing said spool and hangers attached to said bar, and a guide of insulating material mounted in said hood and forming the outlet for said cord.

1,079,721. SPRAYER. WILLIAM A. PUNGS, Detroit, Mich. Filed Jan. 18, 1913. Serial No. 742,793. (Cl. 137-14.)

1. In a sprayer, a mixing device, having in combination, a container provided with screw-threaded ends, end pieces screwed into the ends and containing openings, a pipe line passing through the openings of the end pieces and

through the container, a branch pipe tapping the main pipe exterior of the container and passing through another opening in one of the end pieces, an intake pipe of restricted diameter inclosed by the container and leading into the main water line and a cap member in one of the end pieces for acting as a closure for an opening therein adapted for the introduction of the solution, substantially as described.



2. In a sprayer, a mixing device, having in combination, a cylindrical container, a pipe leading therethrough eccentrically and near the periphery of the cylinder so as to locate the center of gravity at one side of the container for the purpose of keeping the container in a given position when on the ground, a controllable branch pipe of smaller bore than the main pipe tapping said main pipe at a point exterior of said pipe and leading into the interior of the container, and a receiving pipe of smaller bore than the main pipe and leading into the main pipe from the interior of the container, the said receiving pipe being in the form of a goose-neck and having its opening on the side of the container that normally lies against the ground by reason of the eccentric disposition of the main pipe, substantially as described.

3. In a sprayer, a mixing device, having in combination, a cylindrical container, a main pipe leading therethrough eccentrically and near the periphery at one side of the container for the purpose of placing the center of gravity near the periphery at that side so that the container will remain in a given position when on the ground, a controllable branch pipe of smaller bore leading from the main pipe into the container and having a curved end that directs the incoming fluid toward the side of the container that is normally the bottom by reason of the maintenance of the container in a given position by the disposition of the main pipe through the container, and a receiving pipe of smaller bore than the main pipe and leading thereto, the said receiving pipe being arranged with respect to the side of the container that is normally adjacent the ground so that the contents of the container will not be drawn off when the pressure on the liquid is discontinued, substantially as described.

1,079,722. CONVERTIBLE CAR-BODY. LOYD W. RAY, Fairview, Okla. Filed Dec. 10, 1912. Serial No. 735,995. (Cl. 119-8.)



1. The combination with a car structure having spaced slats, of connected slats forming a panel and adapted to fill the spaces between the first named slats, and separate means for successively shifting the panel inwardly to withdraw its slats from the spaces and for elevating the panel to position its slats back of the first named slats.

2. The combination with a car structure having spaced

slats constituting a portion of the wall thereof, of spaced connected slats constituting a movable panel and adapted to be seated between and against the wall slats to close said spaces, means operable from within the car for shifting said panel inwardly to withdraw its slats from the spaces, and means operable within the car for bodily elevating the panel to position its slats back of the wall slats.

3. The combination with a car structure having spaced slats constituting a portion of the wall thereof, of spaced connected slats constituting a movable panel and adapted to be seated between and against the wall slats to close said spaces, means operable from within the car for shifting said panel inwardly to withdraw its slats from the spaces, means operable within the car for bodily elevating the panel to position its slats back of the wall slats, and means for locking the panel in elevated position.

4. The combination with a car structure having spaced slats constituting a portion of the wall thereof, of spaced connected slats constituting a movable panel and normally seated between the wall slats to close the spaces therebetween, means within the car for shifting the panel inwardly to withdraw its slats from between the wall slats, means operable from within the car for bodily shifting the panel to position its slats back of the wall slats, and means for locking the panel in shifted position.

5. The combination with a car structure having spaced slats constituting a portion of the wall thereof, of a movable panel including connected spaced slats adapted to be seated in the spaces between the wall slats to close said spaces, crank arms extending from the ends of the panel, means upon the walls of the car for engagement by said arms, a shaft mounted for rotation on the panel, crank arms carried thereby, brackets slidably and detachably engaged by the crank arms of the shaft, means for rotating the shaft to shift the panel inwardly to remove its slats from between the wall slats, and means for shifting the panel vertically to bring its slats back of the wall slats.

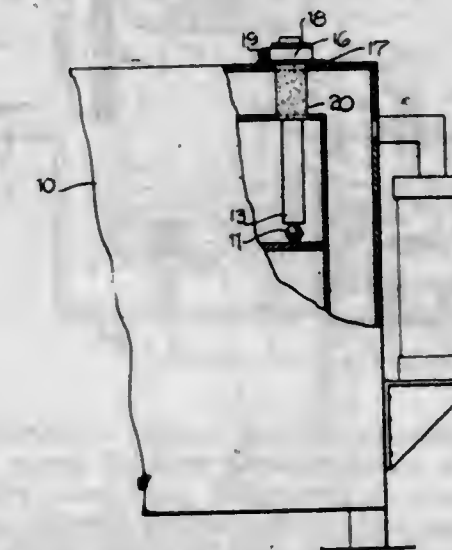
1,079,723. CHURN. THOMAS S. RIGDON, Ashland, La. Filed Aug. 2, 1912. Serial No. 712,903. Renewed June 25, 1913. Serial No. 775,814. (Cl. 31-44.)



A churn, including a receptacle having a bearing block in its bottom, an upright retaining frame comprising corner posts having inner curved surfaces conforming to the exterior surface of said receptacle, a closure for said receptacle, said frame having its upper end extending some distance beyond the upper end of said receptacle, interengaged dasher-shafts stepped at their lower ends in said bearing block, an actuating member for the interengaged dasher-shafts, said frame being adapted to be slipped down around said receptacle and embrace it, the lower end of said receptacle resting upon the surface, outside of said receptacle, while the dasher-shaft lower ends rest within said receptacle, the upwardly extended

end of said retaining frame having said dasher-shaft actuating member supported thereon, to provide for the removal of said actuating member with the removal of said frame from around said receptacle, and means for the retention of said actuating member in position upon said frame.

1,079,724. INCUBATOR-THERMOMETER. CLARA ROBERTS, Newberry, Mich. Filed Apr. 12, 1913. Serial No. 760,716. (Cl. 73-52.)



1. The combination with an incubator, of a guide tube forming a passage from the exterior of the incubator into the egg chamber, a transparent tube slidably fitted in said guide tube, a thermometer inclosed in said transparent tube, and a stop adjustably mounted upon said transparent tube and limiting insertion thereof through said guide tube, as and for the purpose described.

2. The combination with an incubator, of a guide tube forming a passage from the exterior of the incubator into the egg chamber, a transparent tube slidably fitted in said guide tube, a thermometer inclosed in said tube, a ring adjustably mounted on said transparent tube, and an abutment flange carried by said ring, as and for the purpose described.

3. The combination with a receptacle, of a guide tube forming a passage from the exterior of the receptacle into the interior thereof, a transparent tube slidably fitted in said guide tube, a thermometer inclosed in said transparent tube, a ring of yielding material adjustably mounted on said transparent tube to limit the insertion of said tube through said guide tube, and a clamp encircling said ring to bind the same upon the tube, as and for the purpose described.

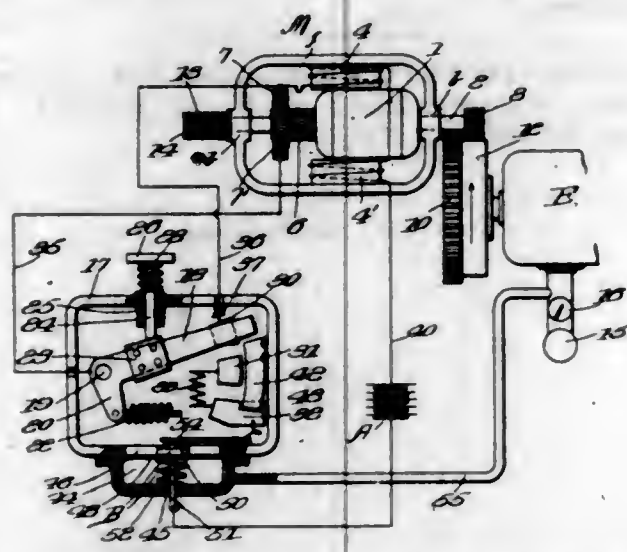
4. The combination with a receptacle, of a guide tube forming a passage from the exterior of the receptacle into the interior thereof, a transparent tube slidably fitted in said guide tube, a thermometer inclosed in said transparent tube, a yieldable ring adjustably mounted on said transparent tube, an abutment plate carried by said ring, and a clamping member engageable with said ring to bind the same against the periphery of said transparent tube, as and for the purpose described.

1,079,725. ELECTRICAL ENGINE-STARTER. SAMUEL W. RUSHMORE, Plainfield, N. J. Filed Nov. 13, 1912. Serial No. 731,094. (Cl. 172-239.)

1. The combination with an engine, a starting motor and means for engaging same with the engine, of means for passing a comparatively large current through the field windings and less than maximum current through the armature until the engagement has been effected and thereafter passing the full working current through the armature.

2. The combination with an engine and a starting motor having the field and armature connected in series, of means for engaging the motor with the engine, a shunt adapted to divert a portion of the current from passing through the armature, so that at the moment of effecting

engagement the latter will exert less than its maximum torque and means for disconnecting said shunt to cause the motor to exert its maximum torque for starting the engine.



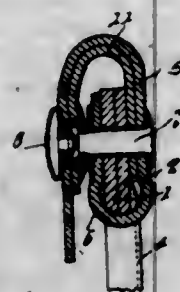
3. The combination with an engine, a starting motor having a series winding on its field, of means for connecting the motor to the engine, said means being actuated by the main load current passing through the motor and means for causing less than maximum current to pass through the motor armature, so that the armature will exert less than its maximum torque until the motor has been brought into engagement with the engine.

4. The combination with an engine, and a starting motor, of means for first passing the comparatively strong current through the field magnet winding and less than maximum current through the armature and thereafter passing the full working current through the armature and driving connections between said motor and said engine, said driving connections being automatically brought into operative engagement when less than the maximum current is flowing in the armature.

5. The combination with an engine, and a starting motor having a series winding upon the field, of means for connecting the motor to the engine, said means being actuated by the main load current passing through the motor, and means for causing less than maximum current to pass through the motor armature, so that the armature will exert less than its maximum torque until the motor has been brought into engagement with the engine.

[Claims 6 to 13 not printed in the Gazette.]

1,079,726. SUSPENDER-END. ORTON G. RUST, Springfield, Ohio. Filed Dec. 23, 1908. Serial No. 463,963. (Cl. 241-18.)



1. In a suspender-end, a flexible cast-off comprising a body portion having its lower end folded upon itself, two button straps flexible throughout their length and each folded upon itself for a portion of its length, said button straps having their adjacent ends overlapping and connected one to the other within the folded-over lower end of said body portion, and a fastening device to connect said folded-over lower end to said body portion and to retain the connected ends of said button-straps within the folded-over lower end of said body portion, said body

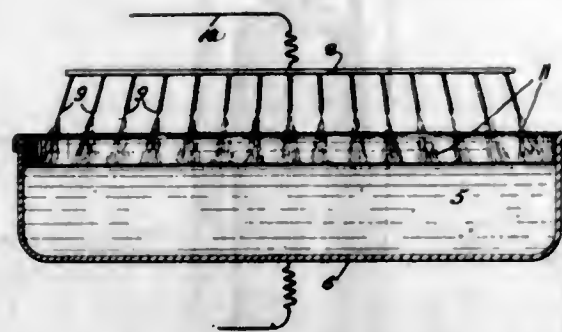
portion also having its upper end portion bent downward in front of the folded-over lower end portion thereof, connected to said body portion and serving both to connect the cast-off to the suspender and to conceal from view the upturned lower end and its fastening device.

2. In a suspender-end, the combination, with a cast-off comprising a body portion having its lower end folded upon itself and its upper end bent downward and arranged to extend in front of the folded-over lower end thereof, and two button-straps flexible throughout their length and having their adjacent ends secured within the folded-over lower end of said body portion, of a reinforcing strip secured to the folded-over lower end of said body portion, extending along the inner surfaces of said body portion and said upper end portion and having its outer end secured to said upper end-portion at a point removed from said body portion.

3. In a suspender-end, the combination, with a cast-off comprising a body portion having its lower end folded upon itself and its upper end bent downward and arranged to extend in front of the folded-over lower end of said body portion, and two button-straps flexible throughout their length and having their adjacent ends overlapping and arranged within the folded-over lower end of said body portion, of an auxiliary supporting-strap having one end arranged between said body portion and the folded-over lower end thereof, and a single fastening device for securing together the adjacent ends of said button-straps, for securing said button-straps to said body portion and for securing said auxiliary supporting strap to said body portion.

4. In a suspender-end, the combination, with two button-straps having flat outer ends, each strap being folded upon itself for a portion of its length, of a cast-off having one end folded about the adjacent ends of said button-straps, a reinforcing strip for said cast-off having one end secured to said cast-off at a point removed from said folded over portion thereof, said reinforcing strip having an extension extending through that portion of said cast-off which is folded about said button-straps, and means for securing said button straps to said cast-off and for securing said reinforcing strip to said cast-off.

1,079,727. PROCESS FOR BLEACHING AND THICKENING OILS AND FATS. OTTO SCHERIEBLE, Esslingen, Germany. Filed Feb. 14, 1913. Serial No. 748,388. (Cl. 204-31.)



1. A process for bleaching and thickening oils, consisting in passing a high potential current through the oil in the presence of oxygen.

2. A process for bleaching oils or fats said process consisting in passing an electric current of a potential of as much as 50,000 volts through the oil or fat in the presence of an atmosphere containing oxygen.

3. A process of bleaching and thickening oils, consisting in passing electric discharges through the oil in the presence of oxygen.

4. A process for bleaching and thickening oils and fats, consisting in passing a silent or brush discharge through and over the oil in the presence of oxygen.

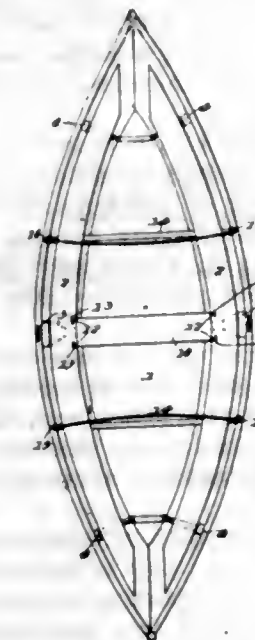
5. A process for bleaching and thickening oils and fats, consisting in passing a silent or brush discharge through the oil in the presence of oxygen.

[Claim 6 not printed in the Gazette.]

1,079,728. LINOLEUM, LINCRUSTA, OR LIKE MATERIAL. AUGUST CASIMIR SCHWARTING, Bremen, Germany, assignor to Reis- & Handels-Aktiengesellschaft, Bremen, Germany. Filed Dec. 13, 1911. Serial No. 665,532. (Cl. 106-7.)

The herein described linoleum composition comprising essentially pulverized rice husks and linoleum cement.

1,079,729. SHIP'S BOAT. PETER A. STOFEL, Kirksville, Mo. Filed Oct. 19, 1912. Serial No. 726,627. (Cl. 9-1.)



1. A ship's boat having hinged side seats and hinged supporting legs therefor mounted to fold parallel with the seat, some of the seat hinges being automatically extensible.

2. A ship's boat having hinged side seats, some of the hinges thereof being automatically extensible, and a cross seat detachably uniting the side seats.

3. A ship's boat having hinged side seats, some of the hinges thereof being automatically extensible, and a cross seat detachably uniting the side seats, the side seats being provided with hinged automatically folding supporting legs.

4. A ship's boat having permanently attached hinged side seats, some of the hinges thereof being automatically extensible, a detachable cross seat, and means for detachable connection between the side and cross seats.

5. A ship's boat having hinged side seats, some of the hinges thereof being automatically extensible, a cross seat having detachable connection with the side seats, and transversely disposed brace rods.

[Claims 6 to 8 not printed in the Gazette.]

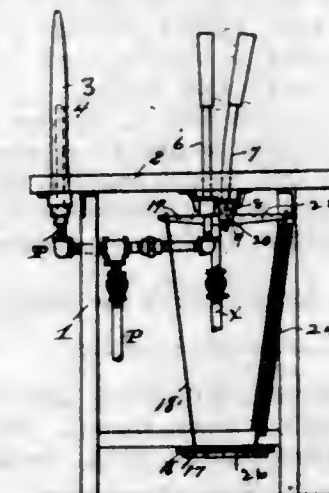
1,079,730. GLOVE SHAPING AND SETTING DEVICE. ARCHIBALD B. TOZER, Erie, Pa., assignor to The Sabin-Curtis Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 26, 1911. Serial No. 667,653. (Cl. 223-17.)

1. In a glove stretching and setting device, a stationary former and a corresponding former opposed thereto and movable thereto and therefrom, said formers insertible into the palm, wrist and arm of a glove, a device for heating said formers, a device for maintaining a continuing yielding lateral tension upon the movable former and a device for increasing the tension upon the glove at the time of drawing the glove off from the formers.

2. In a glove stretching and setting device, a pair of formers one of which is movable to and from the other former, a device for heating said former, a device for maintaining a continuous automatic elastic lateral tension upon one former, said device tending to automatically separate the formers, devices for increasing the tension upon the glove while drawing the same from the former, and a device for bringing the movable former toward the corresponding former.

196 O. G.—62

3. In a glove stretching and setting device, the combination with a pair of oppositely arranged hollow formers, of supporting means therefor, one former pivoted at its lower end in said supporting means, said formers enlarged at their upper ends to exert a substantially uniform pressure upon the glove when drawn off from the former, and a spring attached to said pivoted former, said spring tending to separate said formers, and to provide elastic lateral tension upon said glove, and means for conducting a heating agency to the formers.

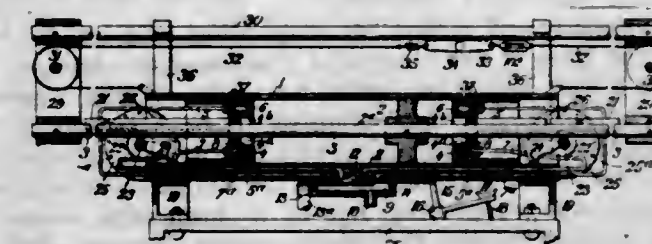


4. In a glove stretching and setting device, a hollow former, a corresponding movable former adjacent thereto, a pipe for conveying a heating agency communicating with both said formers, an exhaust pipe communicating with each said formers, a swiveled connection for the movable former in said conveying pipe, a tension spring adapted to exert a continuous elastic tension on the movable former to separate the formers, and a treadle device for bringing the movable former toward the other former.

5. In a glove stretching, setting and forming device, a pair of opposed hollow formers, over which the palm wrist and arm portions of a glove are placed, one of which is movable, a device for applying automatic elastic tension to one of said formers to normally separate the same, said formers having enlarged outer ends, said enlarged outer ends adapted to exert a substantially uniform pressure upon the glove when pulling the same off from the formers.

[Claims 6 to 12 not printed in the Gazette.]

1,079,731. TYPE-WRITING MACHINE. CHARLES HERMAN VOGEL, Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 20, 1911. Serial No. 609,700. (Cl. 197-82.)



1. In a typewriting machine, a pneumatic cylinder, a piston movable with respect to said cylinder, means connecting said cylinder and said piston to the typewriter carriage to move the same when a relative movement occurs between said piston and said cylinder, means for admitting an operating medium to one end of said cylinder, and a stop in the path of said piston to arrest it and adapted to cushion the movement thereof by trapping the fluid in the cylinder.

2. In a typewriting machine, in combination, a pneumatic cylinder, a piston movable therein, means for connecting said piston and said cylinder to the carriage to move the carriage in each direction, and adjustable cylinder heads in said cylinder limiting the movement of said piston.

3. In a typewriting machine, a pneumatic cylinder, a piston movable therein, means for connecting said piston

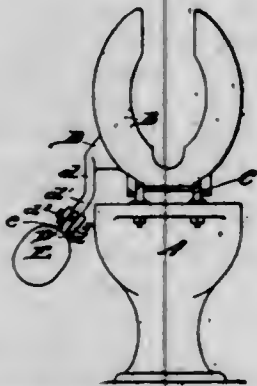
and said cylinder with the typewriter carriage to move the same, cylinder heads movably mounted in said cylinder and limiting the movement of said piston, means for admitting an operating fluid to said cylinder, means permitting the escape of said operating fluid before said piston, as the same advances, and means for closing said last means to form a cushion before said piston, in arresting the movement thereof.

4. In a typewriting machine, a pneumatic cylinder, a piston movable therein, mechanism connecting said cylinder and said piston with the carriage to move the carriage, movable heads in said cylinder limiting the movement of said piston, and means for admitting air into the interior of said cylinder through said heads.

5. In a typewriting machine, a cylinder, a piston moving therein, said cylinder having an exhaust port for the operating medium, and means forming an extension of said piston for closing said port before said piston reaches the end of the stroke to form a cushion in advance thereof.

[Claims 6 to 18 not printed in the Gazette.]

1,079,732. SEAT-ACTUATING MECHANISM FOR WATER-CLOSETS. ALEXANDER L. WALTENSPERGER, Detroit, Mich. Filed Sept. 24, 1913. Serial No. 791,504. (Cl. 4—18.)



1. In a seat actuating device for water closets, a counterweight supporting arm adapted to be attached to a seat and to extend both rearwardly and at an angle to its rearwardly extending portion, and a counterweight pivoted to the angular extension of the arm, whereby a graduated frictional resistance may be obtained between the arm and weight to check the rapid upward movement of the seat.

2. In a seat actuating device for water closets, a counterweight supporting arm adapted to be attached to a seat and to extend both rearwardly and at an angle to its rearwardly extending portion, its free end being bifurcated to receive a suspended counterweight pivoted thereto, the counterweight, and means for suspending said weight between the tines of the bifurcated portion of the arm.

3. In a seat actuating device for water closets, a counterweight supporting arm adapted to be attached to a seat and to extend both rearwardly and at an angle to its rearwardly extending portion, its free end being bifurcated to receive the supporting lug of a suspended counterweight pivoted thereto, the counterweight provided with a projecting lug, and a bolt engaging said lug and carried by the arm for suspending said weight between the tines of the bifurcated portion of the arm.

4. In a seat actuating device for water closets, a counterweight supporting arm adapted to be attached to a seat and to extend rearwardly and angularly from its rearwardly projecting portion, a counterpoise weight pivoted to the angular extension of the arm, and adjustable screws adapted to limit the movement of the weight upon its pivot.

5. In a seat actuating device for water closets, a counterweight supporting arm adapted to be attached to a seat and to extend rearwardly and angularly from its rearwardly projecting portion, a counterpoise weight pivoted to the angular extension of the arm, and adjustable screws carried by the arm adapted to contact with the weight to limit the movement of the latter upon its pivot.

1,079,733. GUARD. JOEL C. WELLS, Southbridge, Mass. Filed June 1, 1912. Serial No. 700,980. (Cl. 88—49.)



1. The combination with a pliable supporting arm, of an arm curving upwardly therefrom and extending reversely relative thereto and having a portion substantially parallel to the supporting arm, and a bearing pad carried by the curved arm.

2. The combination with a supporting arm, of a pair of arms extending in opposite directions from one end of the supporting arm, each of the arms of said pair having a portion disposed substantially parallel to the supporting arm and terminating in a pad with its major dimension disposed substantially normal to that of the supporting arm.

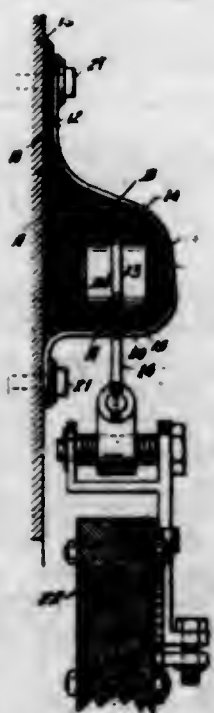
3. The combination with a supporting arm having a loop formed therein, of a pair of branches extending from opposite sides of the supporting arm and curving toward the looped portion of said arm, said branches terminating in pads disposed substantially above and below the loop of the supporting arm.

4. The combination with a supporting arm having a loop formed therein, of a pair of branches extending from opposite sides of the supporting arm and curving toward the looped portion of said arm, said branches terminating in pads disposed substantially above and below the loop of the supporting arm and the intersection of the supporting arm and the branches therefrom being constructed and disposed to provide an auxiliary bearing portion disposed in advance of the pads.

5. The combination with a looped supporting arm terminating in a bearing portion, of arms extending reversely from said bearing portion and pads carried by said arms, one of said pads being disposed above and the other of said pads being disposed below the bearing portion and both pads being disposed out of vertical alignment with the bearing portion.

[Claim 6 not printed in the Gazette.]

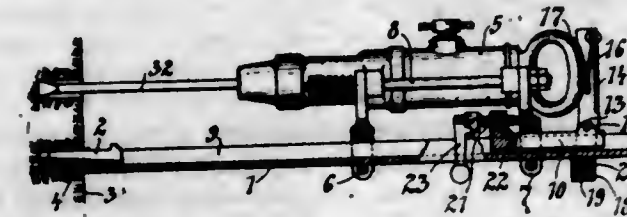
1,079,734. BARN-DOOR-HANGER TRACK. GEORGE W. YENTZER, Ottawa, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Filed Feb. 12, 1913. Serial No. 747,887. (Cl. 16—90.)



As an article of manufacture, a door hanger track comprising separate inner and outer, longitudinally extending

members, each of which is provided with a vertical portion and a lower, horizontal, flat portion, the flat portions extending in opposite directions and being spaced from each other and forming a track for a roller carriage, and end brackets each provided with a flange corresponding in outline to and adapted to fit over the longitudinally extending members, said brackets being also each provided with a lug 20 fitting between the horizontal flat portions of the longitudinally extending members, substantially as specified.

1,079,735. PNEUMATIC ROCK-DRILL. EDUARD ALTENHOFF, Oberhausen, Germany. Filed Dec. 26, 1911. Serial No. 667,911. (Cl. 255—52.)



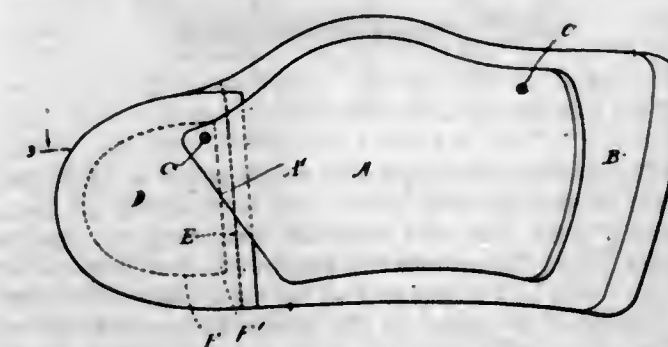
1. A device of the character described, comprising a bar, a clamping shoe movable along said bar, a clamping lever pivotally connected to said shoe, a rock drill slidably supported by said bar, means for intermittently advancing said drill, a rebound spring intermediate said lever and drill, and means on said lever for locking the clamping shoe to the bar.

2. A device of the character described, comprising a bar, a rock drill adapted to be intermittently advanced along said bar and having an abutment, a clamping shoe movable along the bar, a clamping lever pivotally connected to said shoe, a rebound spring intermediate the drill and lever, and drill-advancement adjusting means movable with the shoe and adapted to be engaged by the drill-abutment.

3. A device of the character described, comprising a bar, a rock drill adapted to be intermittently advanced along said bar and having an abutment, a clamping shoe movable along the bar, a clamping lever pivotally connected to said shoe, a friction block carried by the lever and adapted to engage the bar, a rebound spring intermediate the drill and lever, and an adjusting screw tapped into the shoe and adapted to engage the drill-abutment.

4. A device of the character described, comprising a bar, a rock drill adapted to be intermittently advanced along said bar and having an abutment, a clamping shoe movable along the bar, a clamping lever pivotally connected to said shoe, a friction block carried by the lever and adapted to engage the bar, a rebound spring intermediate the drill and lever, an adjusting screw tapped into the shoe and adapted to engage the drill-abutment, a slotted head on said screw, and a swinging gravity lever pivoted to said head and adapted to engage the head-slots.

1,079,736. INSTEP-SUPPORT. JAMES W. ARROWSMITH, Morristown, N. J. Filed Oct. 22, 1909. Serial No. 523,960. (Cl. 36—71.)



1. The combination of a metallic instep arch support consisting of a plate conforming to the instep arch and adapted to extend from the anterior portion of the metatarsus to the base of the calcaneum on one side and being cut away at its rear end on a line running from one side of the plate to the other forward of the said calcaneum

base, the cover secured to the upper side of said plate near its rearmost extremity and extending back of the same to a point behind the calcaneum, fastening means by which the said cover is so secured, a piece of flexible material secured to the plate by the same fastening as the cover and extending from that point to the back of the calcaneum, and a cushion of elastic material also secured to the plate near its rearmost point and extending backward beneath the base of the calcaneum.

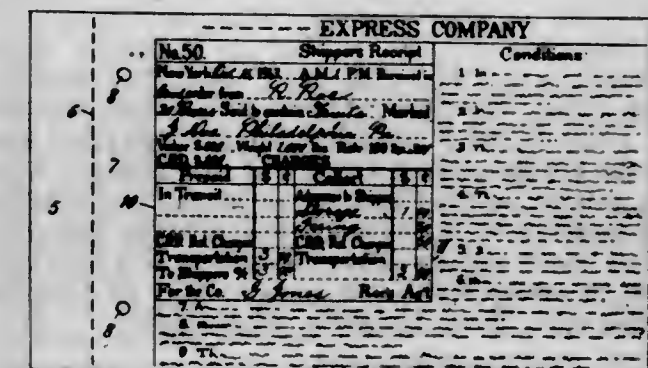
2. The combination of a metallic plate adapted to fit the arch of the instep, and having its rear edge cut away from one side to the other so that one side edge is within the base of the instep arch, a cover secured thereto, extending backward beneath the heel, a heel piece of flexible material co-extensive with the heel portion of the cover and secured thereto at its forward edge, a cushion of elastic material between the heel portion of the cover and the heel piece, and a single fastening extending through the cover, cushion and heel piece and through the plate near its rearmost extremity whereby the said parts are all secured together.

3. The combination of a metallic instep arch support consisting of a plate conforming to the instep arch and extending from the anterior portion of the metatarsus to the base of the calcaneum on one side along one longitudinal edge and to a point forward of the same along the opposite edge, the back edge of the said plate being oblique to the longitudinal axis of the same, a cover secured to the upper side of the said plate near its rearmost extremity and extending back of the same to a point behind the calcaneum, and a piece of flexible material secured to the plate between the cover and the plate and extending from that point to the back of the calcaneum, said piece of flexible material having a forward portion of reduced thickness.

4. A device of the character described comprising in its construction an elastic non-metallic heel cushion, a metallic arch support extending from a point at the forward portion of the heel base to a point beneath the ball of the foot, and conforming substantially to the instep arch between these points, the heel cushion having its major portion non-coincident with the plate and the plate having its major portion non-coincident with the cushion.

5. A device of the character described comprising in its construction an elastic non-metallic heel cushion, a metallic arch support extending from a point at the forward portion of the heel base to a point beneath the ball of the foot and conforming substantially to the instep arch between these points, the heel cushion having its major portion non-coincident with the plate and the plate having its major portion non-coincident with the cushion, and a portion of the rear edge of the plate being forward of the cushion.

1,079,737. SHIPPING-BLANKS. WILLIAM BANNERMAN, New York, N. Y. Continuation of application Serial No. 690,851, filed Apr. 15, 1912. This application filed Oct. 24, 1913. Serial No. 797,001. (Cl. 11—23.)



1. Shipping blanks comprising shipper's receipt, way-bill, and record blanks each having imprints and spaces providing for entry of shipment ownership and financial data and for signature of the carrier's receiving agent, said way-bill blank also having imprints and spaces providing for entry of the inspection attest of the carrier's forward-

ing settling clerk, like imprints and spaces of the respective blanks being similarly located to be in registration when the blanks are superposed, and means automatically transferring to said way-bill and record blanks the receiving agent's writings on the shipper's receipt blank and transferring to the record blank the forwarding settling clerk's writings on the way-bill blank, substantially as described.

2. Shipping blanks comprising shipper's receipt, way-bill, and record blanks each having imprints and spaces providing for entry of shipment ownership and financial data and for signature of the carrier's receiving agent, said way-bill and record blanks also having below said space for the receiving agent's signature further imprints and spaces for entering corrections of said shipment data, and said way-bill and record blanks also having below said correction imprints further imprints and spaces providing for entry of the inspection attest of the carrier's forwarding settling clerk, like imprints and spaces of the respective blanks being similarly located to be in registration when the blanks are superposed, and means automatically transferring to said way-bill and record blanks the receiving agent's writings on the shipper's receipt blank and transferring to the record blank the forwarding settling clerk's writings on the way-bill blank, substantially as described.

3. Shipping blanks comprising shipper's receipt, way-bill, and record blanks each having imprints and spaces providing for entry of shipment ownership and financial data and for signature of the carrier's receiving agent, said way-bill blank also having imprints and spaces providing for entry of the inspection attest of the carrier's forwarding settling clerk, like imprints and spaces of the respective blanks being similarly located to be in registration when the blanks are superposed, and means automatically transferring to said way-bill and record blanks the receiving agent's writings on the shipper's receipt blank and transferring to the record blank the forwarding settling clerk's writings on the way-bill blank, said blanks having like shipment serial number, substantially as described.

4. Shipping blanks comprising shipper's receipt, way-bill, and record blanks each having imprints and spaces providing for entry of shipment ownership and financial data and for signature of the carrier's receiving agent and for entry of the day and hour time when said agent received the shipment, said way-bill blank also having imprints and spaces providing for entry of the inspection attest of the carrier's forwarding settling clerk, like imprints and spaces of the respective blanks being similarly located to be in registration when the blanks are superposed, and means transferring to said way-bill and record blanks the receiving agent's writings on the shipper's receipt blank and transferring to the record blank the forwarding settling clerk's writings on the way-bill blank, substantially as described.

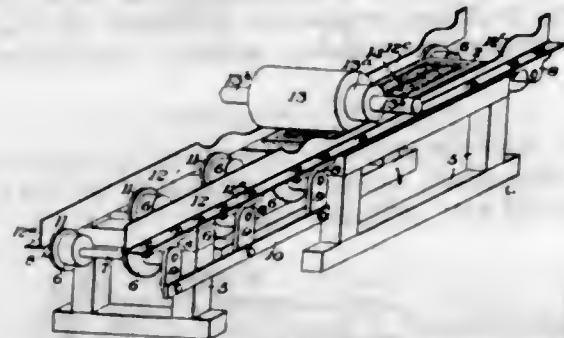
5. Shipping blanks comprising shipper's receipt, way-bill, and record blanks each having imprints and spaces providing for entry of shipment ownership and financial data and for signature of the carrier's receiving agent, said way-bill blank also having imprints and spaces providing for the consignee's receipt to the carrier for a delivered shipment and for entry of the inspection attest of settling clerks at the carrier's forwarding and destination offices, like imprints and spaces of the respective blanks being similarly located to be in registration when the blanks are superposed, and means automatically transferring to said way-bill and record blanks the receiving agent's writings on the shipper's receipt blank and transferring to the record blank the forwarding settling clerk's writings on the way-bill blank, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,079,738. APPARATUS FOR FORMING METAL-REINFORCED COMPOSITE SLABS. GEORGE H. BARBOUR, Pittsburgh, Pa. Filed Dec. 23, 1908. Serial No. 469,027. (Cl. 25-42.)

1. Apparatus for forming composite slabs, comprising a pallet in which the materials are shaped while plastic, a pressing device for pressing said materials, mechanism

for moving the pallet toward the pressing device and simultaneously moving it up and down to distribute the material therein, said mechanism being adapted to retain the pallet in a horizontal plane during such movement, so that the material will be evenly distributed in the pallet; substantially as described.

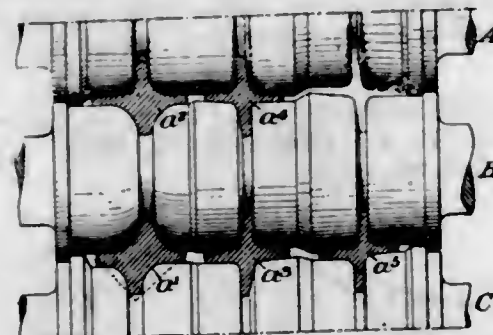


2. Apparatus for forming composite slabs, comprising a pallet in which the materials are shaped while plastic, a pressing device for pressing said materials, mechanism for moving the pallet toward the pressing device and simultaneously moving the pallet back and forth across said mechanism and also up and down to distribute the material therein, said mechanism being adapted to retain the pallet in a horizontal plane during such movement so that the material will be equally distributed in the pallet; substantially as described.

3. An apparatus for forming slabs of plastic materials in a pallet comprising a shaking device and a pressing device, said shaking device having a plurality of eccentrically mounted rollers, each of said rollers having cams for moving the pallet back and forth across said rollers, and actuating connections for said rollers, said rollers being connected to said actuating mechanism in timed relation so that the pallet will always be maintained in a horizontal position while being moved across said rollers toward the pressing device; substantially as described.

4. In apparatus for forming composite slabs, a pallet arranged to shape plastic material placed therein, a shaking table on which the pallet is placed, said shaking table having eccentrically mounted rollers adapted to be oscillated to move the pallet endwise and up and down, means for oscillating said rollers, said rollers being timed so that the pallet will always be held in a horizontal plane in order to equally distribute the material placed therein, means for moving the pallet back and forth across said rollers; substantially as described.

1,079,739. METHOD OF ROLLING FLANGED SECTIONS. GEORGE H. BARBOUR, Pittsburgh, Pa. Filed Mar. 5, 1910. Serial No. 547,418. (Cl. 80-66.)



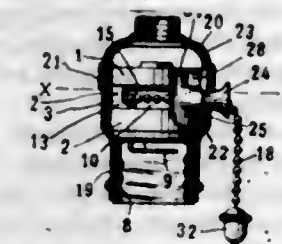
1. The method of shaping in a plurality of roll passes a metal section having a web and a plurality of flanges extending from one end thereof, consisting in applying pressure to one flange and the web in the first pass to form the full width of the flange and the full height of the web, then applying pressure to the other flange and the web in the second roll pass to form the full width of said flange, and then reducing the thickness of the flanges and web in subsequent roll passes without materially changing the width of the flanges and the height of the web; substantially as described.

2. The method of shaping in a plurality of roll passes a metal section having a web and a plurality of flanges ex-

tending from each end of the web, consisting in applying pressure to oppositely disposed flanges and the web in the first pass to form the full width of the flanges and the height of the web, then applying pressure to the other flanges and the web in a second roll pass to form the full width of the flanges, and then reducing the thickness of the flanges and the web in subsequent roll passes without materially changing the width of the flanges and the height of the web; substantially as described.

3. The method of forming an I-beam which consists in providing a blank having a central web and flanges extending at substantially 90 degrees with relation to each other from each end of the web, then passing the work piece through alternate passes to apply pressure to one flange at each end of the web and simultaneously apply pressure to the web without materially changing the angular relation between the flanges and the web, or without materially changing the width of the flanges and the height of the web, and then changing the angular relation between the web and the flanges so that said flanges will extend at right angles to the web; substantially as described.

1,079,740. PULL-SOCKET SWITCH. FREDERIC BARR, New York, N. Y. Filed July 20, 1911. Serial No. 639,522. (Cl. 173-354.)



1. In a pull socket, an insulating block formed of two parts with a channel around one side, an insulating carrier, rotatably mounted between the upper and lower parts of the block, an operating lever, an operating chain connected to said operating lever and operating in said channel, a shell inclosing the block and lever, and a chain guide extending through said shell and having a base plate removably held in place between said block and said shell without attachment to either said block or said shell.

2. In a pull socket, an insulating block having a channel around one side, an operating lever having one end extending into said channel, an operating chain connected to said lever and operating in said channel, a shell inclosing said block and lever, and a chain guide extending through said shell and having a base plate bridging said channel and held removably between said shell and said insulating block by the relative shape of the parts without attachment to either said block or said shell.

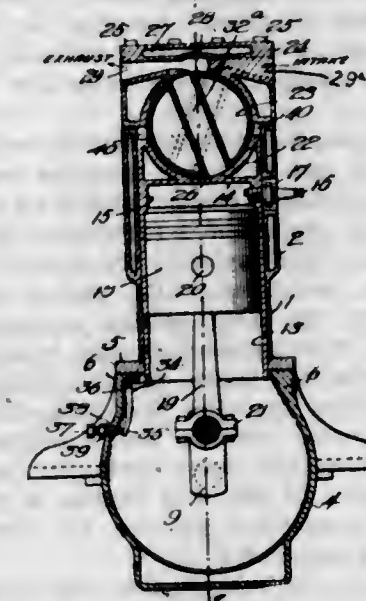
3. In a pull socket, an insulating block having a channel around one side, an operating lever having one end extending into said channel, an operating chain connected to said lever and operating in said channel, a shell inclosing said block and lever, and a chain guide extending through said shell and having a curved base plate part of which fits against the outer wall of the insulating block and part of which fits against the shell without attachment to either said block or said shell.

4. In a pull socket switch, a block carrying the switch members and having a laterally projecting lug, a shell inclosing said block and switch members consisting of a body having a slot and a cap detachably secured to the body and a chain guide consisting of a plate located between said block and said shell and having fingers positioned by said lug and a bell projecting through said slot.

5. In a pull socket, an insulating block carrying the switch members and having a laterally projecting lug, a shell formed in two parts inclosing said insulating block and switch members, one of the parts of said shell having a slot in one edge into which said lug projects and a chain guide consisting of a plate fitting between the insulating block and the shell and a bell projecting through said slot, the relative shape and location of the insulating block, the shell, the plate and the bell being such that the chain guide is held in place without attachment to the shell or the block when the parts are assembled.

[Claims 6 to 14 not printed in the Gazette.]

1,079,741. INTERNAL-COMBUSTION ENGINE. FRED D. CALKINS and ALFRED C. JOHNSON, Sunnyvale, Cal. Filed Feb. 15, 1912. Serial No. 677,655. (Cl. 123-190.)



1. An engine of the character specified, comprising a shell having open ends, a crank case at the lower end of the shell, a crank shaft journaled in the case, a cylinder in the shell, said cylinder extending into the crank case, and having its outer end recessed to form one section of a bearing, an outer bearing section secured to the outer end of the shell and cooperating with the inner section to form a cylindrical valve chamber, said sections being spaced apart, a cylindrical valve in the chamber and extending beyond the same at each end, a head at one end of the valve fitting against the end of the chamber, a ring of teeth on the other end of the valve, a sprocket wheel on the crank shaft, a chain connecting the wheel to the ring, said sections each having a pair of aligned ports extending longitudinally of the valve and registering with the ports of the other section, and the valve having diametrical passages for connecting the registering ports of the sections, a piston in the cylinder, a connection between the piston and the crank shaft, and means for pressing the cylinder outwardly toward the valve, said means comprising an elbow lever pivoted in the crank case and having resilient arms arranged at an angle to each other, one of said arms engaging the inner end of the cylinder, and a set screw threaded through the crank case and engaging the other arm.

2. An engine of the character specified, comprising a shell having open ends, a crank case at the lower end of the shell, a crank shaft journaled in the case, a cylinder in the shell, said cylinder extending into the crank case, and having its outer end recessed to form one section of a bearing, an outer bearing section secured to the outer end of the shell and cooperating with the inner section to form a cylindrical valve chamber, said sections being spaced apart, a cylindrical valve in the chamber and extending beyond the same at each end, a head at one end of the valve fitting against the end of the chamber, a ring of teeth on the other end of the valve, a sprocket wheel on the crank shaft, a chain connecting the wheel to the ring, said sections each having a pair of aligned ports extending longitudinally of the valve and registering with the ports of the other section; and the valve having diametrical passages for connecting the registering ports of the sections, a piston in the cylinder, a connection between the piston and the crank shaft, and means for pressing the cylinder outwardly toward the valve, and means for adjusting the pressure of the said means.

3. An engine comprising a shell and a crank case, a cylinder in the shell and extending into the crank case, the outer end of the cylinder being recessed on its outer face to form the inner section of a cylindrical valve chamber having its axis at right angles to the axis of the cylinder, an outer section connected to the end of the shell and spaced apart from the inner section, a cylindrical valve in the chamber, said sections having registering aligned longitudinally extending ports, and the valve having passages arranged at an angle to each other for con-

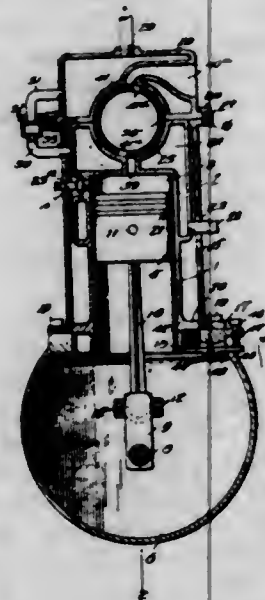
necting the registering ports, and yielding means normally pressing the cylinder toward the outer section, said means comprising an angle lever pivoted in the crank case and having a resilient arm engaging the inner end of the cylinder, an adjustable set screw engaging the other arm of the lever, a piston in the cylinder, and a driving connection between the piston and the valve for rotating said valve.

4. An engine comprising a shell and a crank case, a cylinder in the shell and extending into the crank case, the outer end of the cylinder being recessed on its outer face to form the inner section of a cylindrical valve chamber having its axis at right angles to the axis of the cylinder, an outer section connected to the end of the shell and spaced apart from the inner section, a cylindrical valve in the chamber, said sections having registering aligned longitudinally extending ports, and the valve having passages arranged at an angle to each other for connecting the registering ports, yielding means normally pressing the cylinder toward the outer sections, and means for varying the tension of the said means, a piston in the cylinder, and a connection between the piston and the valve for rotating said valve.

5. In an engine, the combination with the shell having open ends and the piston, of a cylinder between the shell and the piston, a cylindrical valve chamber at the outer end of the shell, said chamber having its axis at right angles to the axis of the cylinder and being composed of inner and outer sections spaced apart from each other, the inner section being integral with the cylinder, and the outer section being secured to the shell, yielding means pressing the sections together, and means for varying the tension of the said means.

[Claims 8 to 12 not printed in the Gazette.]

1,079,742. INTERNAL-COMBUSTION ENGINE. FRED D. CALKINS and ALFRED C. JOHNSON, Sunnyvale, Cal. Filed May 8, 1912. Serial No. 696,847. (Cl. 123—190.)



1. An engine of the character specified, comprising a cylinder having an explosion chamber at one end and a water jacket at the said end extending over the explosion chamber and the outer end of the cylinder, the cylinder being closed at the outer end of the explosion chamber, said cylinder being enlarged annularly beyond the closed end to form a chamber for cooling liquid communicating with the jacket, the outer end of the said enlarged portion being concave transversely to form a bearing section, said cylinder having a transverse passage or port leading from the explosion chamber to the said end, an outer hollow bearing section at the outer end of the cylinder and cooperating with the inner section to form a cylindrical valve chamber, said outer section having a pair of aligned passages or ports registering with the port of the cylinder, said ports opening laterally of the outer bearing section, a pipe extending from each bearing section toward the other section, a slidable connection between the pipes, a cylindrical valve in the bearing, said valve having trans-

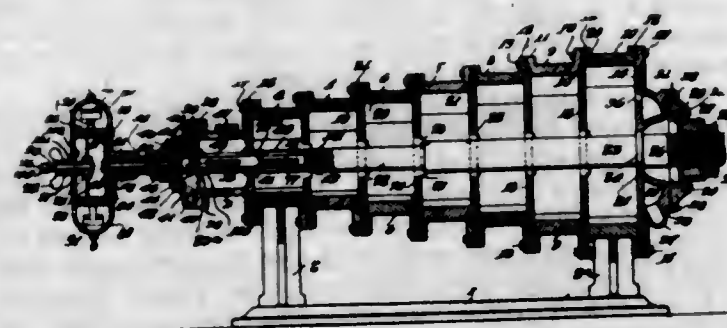
verse passages arranged at an angle to each other for alternately and successively connecting the ports of the outer section to the port of the cylinder, a crank case at the opposite end of the cylinder, a shell inclosing the cylinder, said shell being secured at one end to the crank case and at the other to the outer section, said cylinder being movable in the shell, the jacket of the cylinder having an inlet nipple extending laterally therefrom, a spark plug connected to the cylinder at the explosion chamber, the shell being slotted at the nipple and the spark plug, the outer section of the bearing having an outlet for the cooling liquid, a piston in the cylinder, a connection between the piston and the valve for rotating said valve, and springs pressing the cylinder toward the valve.

2. An engine of the character specified, comprising a cylinder having an explosion chamber at one end and having a transverse bearing section at the said end beyond the explosion chamber, a crank case at the opposite end of the cylinder, a shell inclosing the cylinder and secured to the crank case, an outer bearing section secured to the other end of the shell and cooperating with the section of the cylinder to form a cylindrical bearing, a valve in the bearing, a piston in the cylinder, a connection between the valve and the piston for rotating the valve, said cylinder having a water jacket, and the bearing sections being hollow, the hollow of the inner section connecting with the jacket of the cylinder, a pipe leading from the hollow of each section toward the other section, a slidable connection between the pipes, and springs between the crank case and the cylinder.

3. In an explosion engine, a cylinder provided at one end with a transverse bearing section, an outer bearing section cooperating with the section of the cylinder, a crank case at the opposite end of the cylinder, a shell inclosing the cylinder and connected at one end to the crank case and at the other to the outer bearing section, said bearing sections being chambered, and an expandable and contractible connection between the chambers, the cylinder being jacketed, the jacket communicating with the chamber of the inner section, said cylinder having an inlet nipple and a spark plug, the shell being slotted to permit the passage of the nipple and plug, the chamber of the outer section having an outlet, and springs between the crank case and the cylinder.

4. In an explosion engine, a cylinder provided at one end with a transverse bearing section, an outer bearing section cooperating with the section of the cylinder, a crank case at the opposite end of the cylinder, a shell inclosing the cylinder and connected at one end to the crank case and at the other to the outer bearing section, said bearing sections being chambered, and an expandable and contractible connection between the chambers.

1,079,743. ROTARY ENGINE. GEORGE E. CALLAWAY, Jonesboro, La. Filed June 5, 1912. Serial No. 701,789. (Cl. 121—83.)



1. A compound rotary engine, comprising a series of connected coaxial rings gradually increasing in diameter from one end to the other, a shaft journaled coaxially in the rings, heads closing the outer ends of the outermost rings, disks separating the adjacent rings, a rotor secured to the shaft in each ring, a steam chest adjacent to the smallest ring and coaxial therewith, said shaft being longitudinally chambered within the steam chest and the adjacent ring and having ports leading from the

chest and to the chamber of the ring, a valve rotatable in the chamber of the shaft and having ports cooperating with the ports of the shaft, and means operated by the rotation of the shaft for moving the valve angularly to control the flow of steam from the steam chest to the first ring.

2. A compound rotary engine, comprising a series of connected coaxial rings gradually increasing in diameter from one end to the other, a shaft journaled coaxially in the rings, heads closing the outer ends of the outermost rings, disks separating the adjacent rings, a rotor secured to the shaft in each ring, a steam chest adjacent to the smallest ring and coaxial therewith, said chest comprising a ring having an integral head at its inner end, a removable head at the outer end, the shaft being externally grooved adjacent to each of the said heads, and rings in the grooves, each of the said rings being sectional, and means for detachably connecting the sections.

3. In a rotary engine, comprising a plurality of connected coaxial rings gradually increasing in diameter from one end to the other, a shaft journaled coaxially in the rings, a head closing the outer end of the largest ring, disks between the adjacent rings for separating the said rings, each disk having a central opening for receiving the shaft of a greater diameter than the shaft, a rotor in each ring, each rotor having a tubular extension or nipple for extending through the opening of the adjacent disk, the succeeding rotor being recessed to receive the nipple, each rotor being ported to permit the passage of the motive fluid to the successive rings, the ports being in the nipples.

4. In a rotary engine, comprising a plurality of connected coaxial rings gradually increasing in diameter from one end to the other, a shaft journaled coaxially in the rings, a head closing the outer end of the largest ring, disks between the adjacent rings for separating the said rings, each disk having a central opening for receiving the shaft of a greater diameter than the shaft, a rotor in each ring, each rotor having a tubular extension or nipple for extending through the opening of the adjacent disk, the succeeding rotor being recessed to receive the nipple, each rotor being ported to permit the passage of the motive fluid to the successive rings, the ports being in the nipples, each of the said nipples being beveled at its outer end.

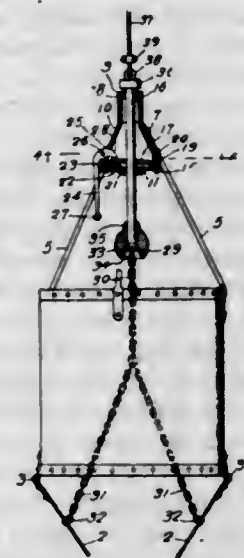
5. In a compound rotary engine, comprising a plurality of connected coaxial rings gradually increasing in diameter from one end to the other, said rings being annularly recessed at each of its ends, the recesses at one end each having its outer wall beveled and the recesses at the other end each having its outer wall perpendicular to the plane of the ring, and disks for separating the rings, each disk having its peripheral edge shaped to fit the cooperating recesses of the adjacent rings, a shaft journaled coaxial of the rings, each disk having a central opening for the shaft of greater diameter than the shaft, a rotor in each ring secured to the shaft, each rotor having at the end adjacent to the succeeding ring a tubular nipple passing through the opening of the disk, the succeeding disk being recessed to receive the nipple, said rotors being ported, and the ports extending through the nipples.

[Claim 6 not printed in the Gazette.]

1,079,744. SELF-DUMPING BUCKET. ROY W. CATCHING, Fairview, Mont. Filed June 18, 1913. Serial No. 774,370. (Cl. 57—13.)

1. In combination with the bucket having an open bottom, and doors hinged to the side wall of the bucket for closing the bottom, said doors consisting of similar sections, a casing arranged above the bucket, balls connecting the casing to the bucket, said casing having a central vertical opening, a rod or bar slidable through the opening of the casing, chains connecting the lower end of the rod or bar to the sections of the door, for closing the said sections when the rod or bar is moved upward with respect to the casing, said rod or bar having means at its upper end for connection with a

hoisting cable, a latch plate within the casing and hinged at one side thereof and having a central opening through which the rod extends, a spring between the plate and the bottom of the casing and normally holding the said latch plate in inclined position with respect to the rod to cause the sides of the opening of the plate to grasp the rod, said casing having an opening in its side wall at the opposite side to the hinged connection of the latch plate, a trip lever pivoted in the opening and having a nose for engaging and depressing the latch plate into a position perpendicular to the axis of the bar or rod, a stop in the casing for limiting the downward movement of the latch plate, a stop on the lower end of the rod or bar for engaging the bottom of the casing to limit the upward movement of the said rod or bar, a cross head rigidly connected with the casing at its upper end and extending on opposite sides thereof, and a coil spring connecting each end of the said cross head with the casing.



2. In combination with the bucket having an open bottom, and doors hinged to the side wall of the bucket for closing the bottom, said doors consisting of similar sections, a casing arranged above the bucket, balls connecting the casing to the bucket, said casing having a central vertical opening, a rod or bar slidable through the opening of the casing, chains connecting the lower end of the rod or bar to the sections of the door, for closing the said sections when the rod or bar is moved upward with respect to the casing, said rod or bar having means at its upper end for connection with a hoisting cable, a latch plate within the casing and hinged at one side thereof and having a central opening through which the rod extends, a spring between the plate and the bottom of the casing and normally holding the said latch plate in inclined position with respect to the rod to cause the sides of the opening of the plate to grasp the rod, said casing having an opening in its side wall at the opposite side to the hinged connection of the latch plate, a trip lever pivoted in the opening and having a nose for engaging and depressing the latch plate into a position perpendicular to the axis of the bar or rod, a cross head rigidly connected with the casing at its upper end and extending on opposite sides thereof, and a coil spring connecting each end of the said cross head with the casing.

3. In combination with the bucket having an open bottom, and doors hinged to the side wall of the bucket for closing the bottom, said doors consisting of similar sections, a casing arranged above the bucket, balls connecting the casing to the bucket, said casing having a central vertical opening, a rod or bar slidable through the opening of the casing, chains connecting the lower end of the rod or bar to the sections of the door, for closing the said sections when the rod or bar is moved upward with respect to the casing, said rod or bar having means at its upper end for connection with a hoisting cable, a latch plate within the casing and hinged at one side thereof and having a central opening through which the rod extends, a spring between the plate and the bottom of the casing and normally holding the said latch plate

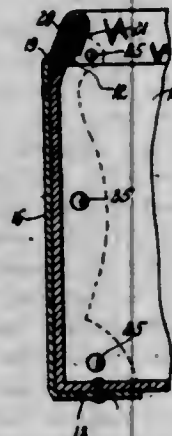
in inclined position with respect to the rod to cause the sides of the opening of the plate to grasp the rod, said casing having an opening in its side wall at the opposite side to the hinged connection of the latch plate, a trip lever pivoted in the opening and having a nose for engaging and depressing the latch plate into a position perpendicular to the axis of the bar or rod, and a yielding connection between the bar and the casing for normally pressing the said bar upward.

4. In combination with the bucket having an open bottom, and doors hinged to the side wall of the bucket for closing the bottom, said doors consisting of similar sections, a casing arranged above the bucket, balls connecting the casing to the bucket, said casing having a central vertical opening, a rod or bar slidable through the opening of the casing, chains connecting the lower end of the rod or bar to the sections of the door, for closing the said sections when the rod or bar is moved upward with respect to the casing, said rod or bar having means at its upper end for connection with a hoisting cable, a latch plate within the casing and hinged at one side thereof and having a central opening through which the rod extends, a spring between the plate and the bottom of the casing and normally holding the said latch plate in inclined position with respect to the rod to cause the sides of the opening of the plate to grasp the rod, said casing having an opening in its side wall at the opposite side to the hinged connection of the latch plate, and a trip lever pivoted in the opening and having a nose for engaging and depressing the latch plate into a position perpendicular to the axis of the bar or rod.

5. In combination with the bucket having an open bottom, and the doors hinged to the bucket for closing the bottom, a rod above the bucket having at its upper end means for connection with hoisting mechanism, flexible connections between the lower end of the rod and the doors, a sleeve slidable on the rod and rigidly connected with the bucket, a latch plate hinged to the sleeve and having an opening through which the rod passes, a spring normally holding the latch plate in inclined position with respect to the axis of the rod to cause the sides of the opening to grip the rod to clamp the rod to the sleeve, a lever pivoted to the sleeve and having a lateral lug for engaging the latch plate to move the sleeve into a position at right angles to the axis of the rod to release the rod when the lever is swung, a cross head rigid with the upper end of the rod, and springs connecting the ends of the cross head with the sleeve and acting normally to draw the sleeve toward the upper end of the rod.

[Claims 6 to 8 not printed in the Gazette.]

1,079,745. TRAVELING-BAG. MORRIS CHODORKOW and ROBERT HARVEY, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,553. (Cl. 190-49.)



1. A traveling bag comprising a body portion, a cover hinged to said body portion, a metallic strengthening frame bent around the top edges of said body portion, and combined corner and edge shields attached to said body portion, each shield comprising a strip of metal bent into the form of an angle-bar, the sides of said shield bearing against two meeting sides of said body portion, the lower ends of said strip being connected by

a flange which abuts against the bottom of said body portion, the two ends of the sides of said strip being offset and in contact with the outer surface of said strengthening frame, and the free connecting portion of said offset ends being bent against the inner surfaces of said strengthening frame, the offsetting of the upper ends of the sides of said strip forming shoulders upon said shields extending substantially at right angles to the planes of the respective sides on which shoulders the free edges of said cover are adapted to rest when the latter is in its closed position.

2. A traveling bag comprising a body portion, a cover hinged to said body portion, and combined corner and edge shields attached to said body portion, each shield comprising a strip of metal bent into the form of an angle-bar, the sides of said shield bearing against two meeting sides of said body portion, the lower ends of said strip being connected by a flange which abuts against the bottom of said body portion, the top ends of the sides of said strip being offset and in parallel relation to the outer surfaces of the top edge of the body portion, and the free connecting portion of said offset ends being bent against the inner surfaces of the top edges of said body portion, the offsetting of the upper ends of the sides of said strip forming shoulders upon said shields extending substantially at right angles to the planes of the respective sides, on which shoulders the free edges of said cover are adapted to rest when the latter is in its closed position.

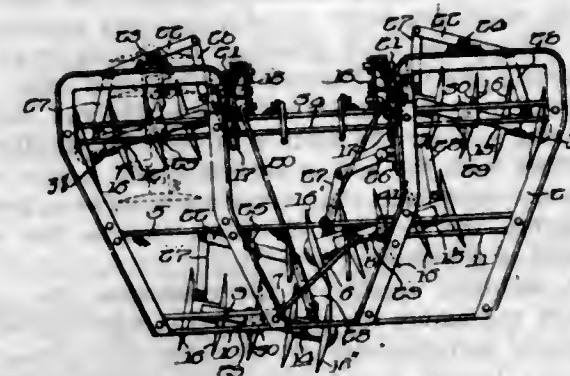
3. A traveling bag comprising a body portion, a cover hinged to said body portion, a metallic strengthening frame bent around the top edges of said body portion, combined corner and edge shields upon said body portion, each shield comprising a strip of metal bent into the form of an angle-bar, the sides of said shield bearing against two meeting sides of said body portion, the lower ends of said strip being connected by a flange which abuts against the bottom of said body portion, the top ends of the sides of said strip being offset and in contact with the outer surface of said strengthening frame, and the free connecting portion of said offset ends being bent against the inner surfaces of said strengthening frame, and rivets for attaching said shields to said body portion, the rivets passing through the offset upper ends of the sides of the shields serving at the same time to secure said strengthening frame to said body portion.

4. A combined corner and edge shield for traveling bags, comprising a strip of metal bent into the form of an angle-bar, the sides of said shield being adapted to bear against two meeting sides of the body portion of the bag, the lower ends of said strip being connected by a flange which is adapted to abut against the bottom portion of the body of the bag, the upper ends of said sides of said strip being offset and adapted to be placed in parallel relation to the top edge of the body portion of the bag, and the free connecting portion of said offset ends being adapted to be bent against the inner surface of the top edge of the body portion of the bag, the offsetting of the upper ends of the sides of said strip forming shoulders extending substantially at right angles to the planes of the respective sides, on which shoulders the cover of the bag, when in its closed position, is adapted to rest.

1,079,746. DISK PULVERIZER. OSCAR CHRISTIANSON, Chicago, Ill. Filed Feb. 12, 1912. Serial No. 677,122. (Cl. 55-83.)

1. In a pulverizer, the combination with a frame having a wide forward portion and a narrow rear portion, of a pair of forward gangs of disks pivoted to said wide portion, a pair of rear gangs of disks pivotally attached to said narrow portion, said forward gangs being spaced apart by the construction of said frame to leave an uncultivated path therebetween, said rear gangs being arranged by the construction of said frame to cover or cultivate said uncultivated path, part of one of said rear gangs being also arranged to travel in part of the path of the other of said rear gangs.

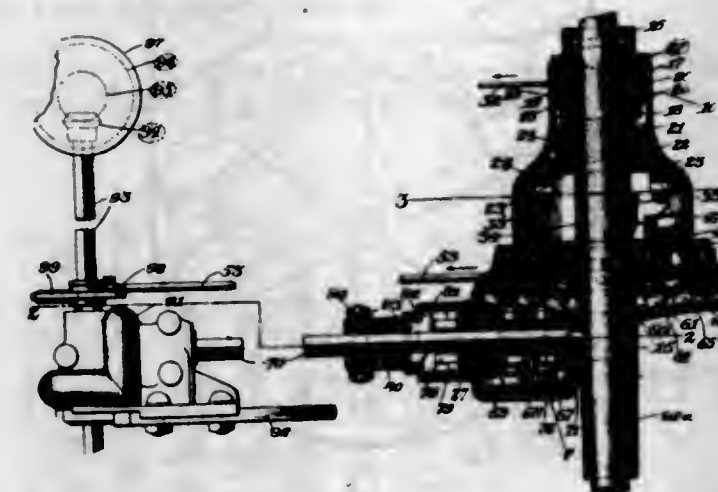
2. In a pulverizer, the combination with a pair of forward and a pair of rear gangs of disks, of a frame having rearwardly narrowed portions and a space between said portions, said forward pair having its adjacent or innermost disks normally spaced apart substantially by said space to leave an uncultivated path therebetween, and said rear pair of gangs having their innermost disks arranged one in front of the other in said space.



3. In a pulverizer, the combination with a pair of pivoted forward gangs of disks arranged abreast, of pivoted rear gangs of disks having their pivots arranged diagonally relative to the path of movement of said forward gangs, a frame consisting of angle irons bent to form a contracted rear frame portion to which said gangs are pivoted, means for swinging a forward and a rear gang simultaneously, each of said rear gangs being arranged, at least partly, by the formation of said frame to traverse a part of the path of movement of one of the forward gangs as well as to overlap each other's paths of movement.

4. In a pulverizer, the combination of a rearwardly contracted frame having disk gang bearings thereon, with a pair of forward gangs of disks mounted abreast and a pair of rear gangs of disks having their outer pivots arranged diagonally relative to the forward gangs and on the contracted portion of the frame, said forward gangs being laterally spaced apart relative to the rear gangs by the formation of said frame so as to leave a strip of uncultivated ground between them, said rear gangs being brought together by the contraction of the rear portion of the frame to traverse said uncultivated ground, and the rearmost of said rear pair of gangs having a part thereof arranged to follow in the path traversed by the other of said rear gangs.

1,079,747. TRANSMISSION-GEARING. JOHN F. DAVIS and RALPH L. FORD, Decatur, Ill., assignors to Pioneer Implement Company, Council Bluffs, Iowa, a Corporation of Iowa. Filed Mar. 9, 1912. Serial No. 682,776. (Cl. 74-59.)



1. In transmission gearing, the combination with driving and driven shafts positioned in angular relation, of a bevel gear having a plurality of sets of teeth and mounted on one of said shafts, a set of bevel pinions on the other of said shafts meshing with the teeth on said first gear, and means for successively clutching said pinions with

their shaft, said clutching means including a clutching device operative in one direction only between one of said pinions and their shaft and means for rendering said clutching device operative to connect its pinion to its shaft.

2. In transmission gearing, the combination of driving and driven shafts positioned in angular relation, a gear having a plurality of sets of teeth and mounted on one of said shafts, a set of bevel pinions on the other of said shafts meshing with the teeth on the gear on the first shaft, individual clutching devices operative in one direction only for said pinions, and means on said second shaft for successively rendering said clutching devices operative to successively connect said pinions to their shaft.

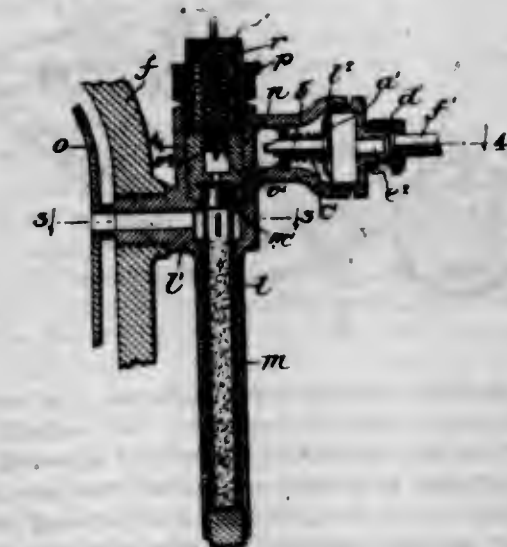
3. In transmission gearing, the combination of driving and driven shafts, gearing on one of said shafts, a set of gears on the other of said shafts meshing with said gearing on the first shaft, a sleeve on the second shaft connected with one of said gears thereon, a second sleeve in nested relation with respect to said first sleeve, means operative in one direction only for connecting said second sleeve with another gear on said second shaft, and means including a member movable with and on said second shaft for connecting said sleeves with said second shaft.

4. In transmission gearing, the combination of driving and driven shafts, gearing on one of said shafts, a set of gears on the other of said shafts meshing with said gearing on the first shaft, clutch engaging members connected with the gears on the second shaft, one of the connections being made through means operative in one direction only, and a clutch sleeve on the second shaft having means adapted to engage said clutch engaging members and connect said gears with said second shaft.

5. In transmission gearing, the combination of driving and driven shafts, gearing on one of said shafts, a set of gears on the other of said shafts meshing with said gearing on the first shaft, clutch engaging members connected with the gears on the second shaft, one of the connections being made through means operative in one direction only, and a clutch sleeve on the second shaft having means adapted to successively engage said clutch engaging members, said clutch sleeve maintaining its engagement with one of said clutch engaging members while engaging another of said clutch engaging members.

[Claims 6 to 12 not printed in the Gazette.]

1,079,748. IGNITION APPARATUS FOR POWER-GENERATING SYSTEMS. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Original application filed Nov. 4, 1910, Serial No. 590,827. Divided and this application filed July 22, 1912. Serial No. 710,786. (Cl. 60-3.)



1. A firing attachment for the purpose described, comprising a casing, having a fuse-receiving chamber with an outlet duct for the product of combustion of the fuse, the

portion of the casing surrounding said duct being adapted for attachment to a chamber into which it is desired to project an ignition flame, a fuse-carrying plug projecting into said chamber, and means for igniting the fuse.

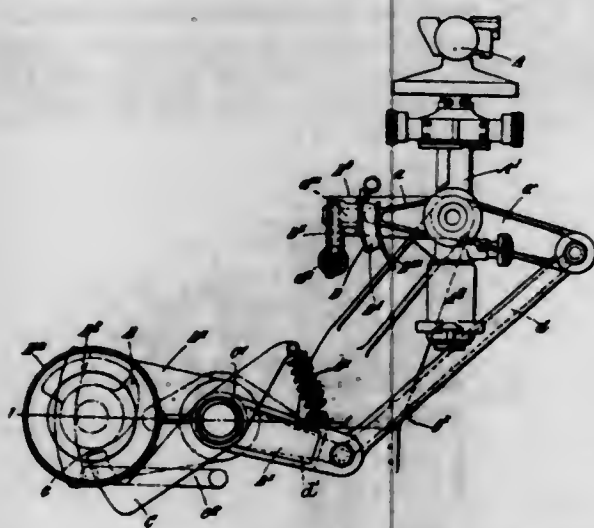
2. A firing attachment for the purpose described, comprising a casing having an open-mouthed fuse-receiving chamber with a lateral outlet duct for the products of combustion of the fuse, the portion of the casing surrounding said duct being adapted for attachment to a chamber into which it is desired to project an ignition flame, a fuse-carrying plug seated in the mouth of said chamber, and means for igniting the fuse.

3. A firing attachment for the purpose described, comprising a casing containing a fuse-receiving chamber with a lateral outlet duct for the products of combustion of the fuse, the portion of the casing surrounding said duct being adapted for connection to a chamber into which it is desired to project an ignition flame, a slotted plug projecting into said chamber and carrying a fuse and firing pin, a pivoted trigger on said casing extending through the slot in the plug into the path of the firing pin, a diaphragm-chamber on the casing, a diaphragm and diaphragm spring therein, the diaphragm being connected to the trigger, and pressure connections to the diaphragm chamber.

4. A firing attachment for the purpose described, comprising a casing containing a fuse-receiving chamber with a lateral outlet duct for the products of combustion of the fuse, the portion of the casing surrounding said duct being adapted for connection to a chamber into which it is desired to project an ignition flame, a slotted plug projecting into said chamber and carrying a fuse and firing pin, a pivoted trigger on said casing extending through the slot in the plug into the path of the firing pin, a diaphragm-chamber on the casing, a diaphragm and diaphragm spring therein, the diaphragm being connected to the trigger, and pressure connections to the diaphragm chamber, the said diaphragm chamber having a removable cap.

5. Firing pin releasing mechanism for the purpose described, comprising a pivoted trigger, a diaphragm casing containing a diaphragm and plunger connected to said trigger, a spring surrounding said plunger and pressing the diaphragm outwardly, and a removable cap closing the end of said casing.

1,079,749. SIGHTING APPARATUS FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Jan. 27, 1913. Serial No. 744,395. (Cl. 89—32.)



1. In sighting apparatus for ordnance, the combination with the sight, and the angularly and axially movable cam for effecting the setting thereof, of a loosely mounted bracket carrying said cam, a member moving only during the pointing of the gun, said member bearing against the surface of the cam, means for angularly displacing said cam during the ranging of the gun and means for axially displacing the cam during the pointing of the gun.

2. In sighting apparatus for ordnance, the combination with the sight, its sight bracket and the angularly and

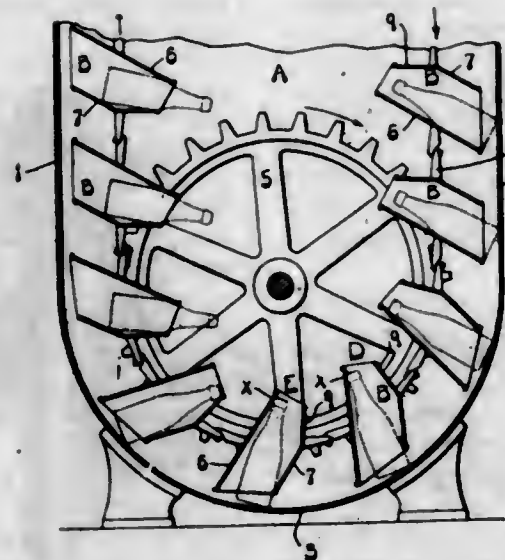
axially movable cam for effecting the setting of the sight, of a loosely mounted bracket carrying said cam, a link connecting said bracket to the sight bracket, a member moving only during the pointing of the gun, said member bearing against the surface of the cam, means for angularly displacing said cam during the ranging of the gun and means for axially displacing the cam during the pointing of the gun.

3. In sighting apparatus for ordnance, the combination with the sight, its sight bracket and the angularly and axially movable cam for effecting the setting of the sight, of a loosely mounted bracket carrying said cam, a member moving only during the pointing of the gun, said member bearing against the surface of the cam, another member moving with the gun in elevation and means whereby the relative movement that takes place between said members during the ranging operation effects the angular movement of the cam.

4. In sighting apparatus for ordnance, the combination with the sight, its sight bracket and the angularly and axially movable cam for effecting the setting of the sight; of a loosely mounted bracket carrying said cam, a member moving only during the pointing of the gun, said member bearing against the surface of the cam, another member moving with the gun, means whereby the relative movement that takes place between said members during the ranging operation effects the angular movement of the cam, a rotary member which moves angularly when the pointing operation is performed, and means for causing said rotary member during its angular movement to displace the cam axially.

5. In sighting apparatus for ordnance, the combination with the gun, its trunnions, the sight, its sight bracket, and the angularly and axially movable cam for effecting the setting of the sight, of a loosely mounted bracket carrying said cam, an arm moving only during the pointing of the gun, said arm bearing against the surface of the cam, a quadrant attached to one of the gun trunnions, a pinion gearing with said quadrant, a spindle with flat surfaces actuated by said pinion, means for slidably mounting the cam on said spindle, a rotary drum having helical slots therein, means for angularly displacing said drum during the ranging operation, and means for effecting the axial movement of the cam from the said helical grooves during the pointing operation.

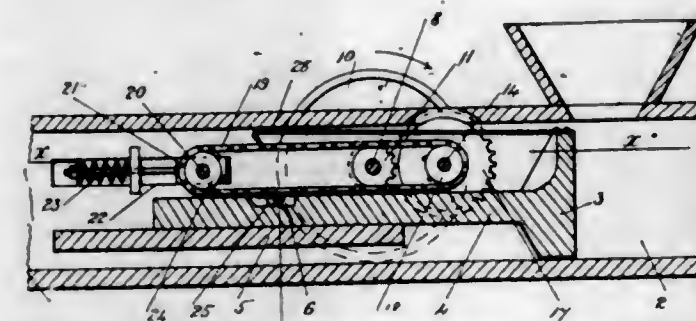
1,079,750. BOTTLE-CARRIER FOR SOAKING-MACHINES. JOSEPH W. DAWSON, St. Louis, Mo., assignor to Barry-Wehmiller Machinery Company, St. Louis, Mo., a Corporation. Filed Feb. 12, 1912. Serial No. 676,997. (Cl. 141—7.)



A bottle holder of the character described, having two walls, one of which is straight and unobstructed from the outer end of the holder to the inner end of the holder, and the other of which, throughout its rear portion, is substantially parallel with the first wall and throughout its forward portion converges toward the rear end of the first

wall; and parallel walls connecting said first named walls and forming therewith a bottle holding chamber having three sides unobstructed throughout the length of the holder, whereby a bottle carried by the holder is caused to ride against said straight wall out of contact with said converging wall portion, when pressure is exerted against an end of the bottle exterior of the holder during movement of said holder.

1,079,751. HAY-PRESS. JOHN M. ENYART, Lewisville, Ark. Filed Jan. 21, 1913. Serial No. 743,307. (Cl. 100—12.)

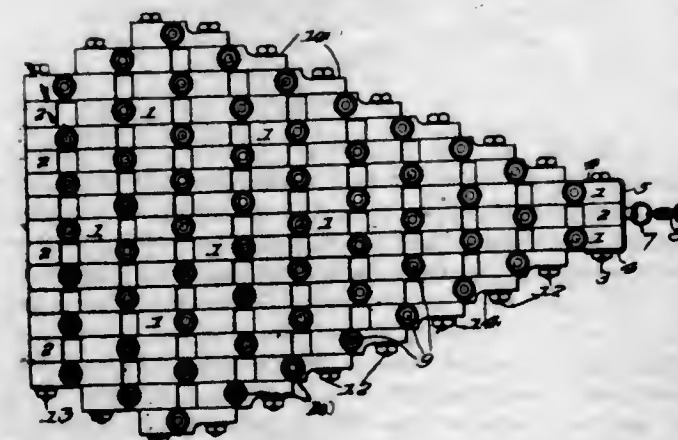


1. The combination, with a press chamber, and a plunger slidable therein and provided with a stem; of a pair of drive chains arranged in the said chamber, driving mechanism for supporting and actuating the drive chains, a catchbar secured crosswise between the drive chains, and a retracting hook having a stem which is secured at one end to the plunger, said hook having an inclined tip which projects under the middle part of the catchbar during its rearward movement and effects the return of the plunger.

2. The combination, with a press chamber, and a shelf secured crosswise between the side walls of the rear part of the chamber; of a plunger slidable in the front part of the chamber and provided with a relatively broad stem which slides on the said shelf, a trip carried by the said stem, and drive chains arranged in the upper part of the chamber over the shelf and provided with a catchbar which engages with the said trip and moves the plunger forwardly.

3. The combination, with a press chamber, and a shelf secured crosswise between the side walls of the rear part of the chamber; of a plunger slidable in the front part of the chamber and provided with a relatively broad stem which slides on the said shelf and which has a recess in its upper side, a trip roller journaled in the said recess, drive chains arranged in the upper part of the chamber over the shelf, and a catchbar secured crosswise of the drive chains and entering the said recess and engaging with the trip roller and operating to move the plunger forwardly, and permitting the drive chains to rest on the upper surface of the said stem.

1,079,752. HARROW. OSCAR ERIKSON, Maguire, Mo. Filed June 9, 1913. Serial No. 772,534. (Cl. 55—32.)



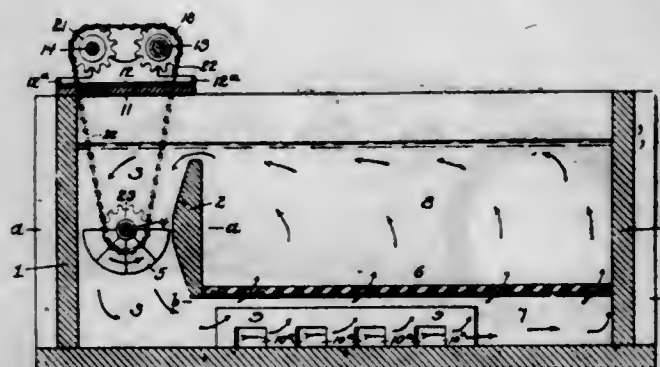
1. In a harrow, a series of units arranged in transverse spaced series, the units of each series being spaced from

each other, the ends of the units of the intermediate series being arranged in the space between the units of adjacent series, a tooth borne by each unit centrally of the length thereof, the foremost end of the harrow having but two units, a spacing block arranged in the space between said two units, a U-shaped member having its legs engaged over the outer faces of said two units and having its intermediate portion engaged with the outer ends of each of said two units and the outer end of the spacing block, a plate seating on the top faces of said two units and the top face of the spacing block and secured to said block and two units and having a contracted front end which extends downwardly and formed with a hook, the units being arranged so that the same present a substantially triangular configuration, the forward end portion at the outer side of each outer unit being cut away, and bolts for connecting the units having heads which seat in said cut-away parts.

2. In a harrow, a series of units arranged to form a substantially triangular conformation, the forward ends of the outer sides of the outer units being cut away, bolts connecting the units and having their heads arranged in said cutaway portions, and teeth carried by the units.

3. In a harrow, a series of pivotally connected units, the forward end of the harrow having a pair of spaced units, a spacing block arranged in the space between said pair of units, a U-shaped member having its intermediate portion engaged over the outer ends of said pair of units and the outer face of the spacing block and having its legs engaged with the outer side faces of said pair of units, and a plate seating on the upper faces of the pair of units and the upper face of the spacing block and having a hook connected thereto.

1,079,753. CIRCULATING AND MIXING DEVICE. JAMES J. FEARON, Philadelphia, Pa., assignor of one-half to Charles J. Fox, Philadelphia, Pa. Filed Oct. 15, 1912. Serial No. 725,938. (Cl. 8—19.)



1. The combination, in a liquid circulating device, of a vessel having a treating chamber and a chamber below the same, means for causing the liquid to flow longitudinally through the lower chamber, and a deflector in said chamber disposed at an angle to the direction of flow and serving by contact with the liquid to direct a portion of the same upwardly into the treating chamber.

2. The combination, in a liquid circulating device, of a vessel having a treating chamber and a chamber below the same, means for causing the liquid to flow longitudinally through said lower chamber, and deflectors located in said chamber but providing a passage between them for the flow of liquid to the end of the chamber.

3. The combination, in a liquid circulating device, of a vessel having a treating chamber and a chamber below the same, means for causing the liquid to flow longitudinally through said lower chamber, and deflectors located in said chamber but extending only part way throughout the length of the same.

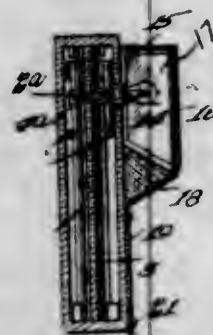
4. The combination, in a liquid circulating device, of a vessel having a treating chamber and a chamber below the same, means for causing flow of liquid longitudinally through said lower chamber, and inclined deflectors located in said chamber but extending only part way

throughout the length of the same and providing a passage between them for the direct flow of liquid to the end of the chamber.

5. The combination, in a liquid circulating device, of a vessel having therein a passage leading from the upper to the lower portion thereof and contracted in width at an intermediate point, a shaft extending transversely through said contracted portion of the passage, and a spiral blade secured to said shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,079,754. SIGN AND INDICATOR. PASQUALE FICCIO, Tampa, Fla. Filed Apr. 21, 1913. Serial No. 762,669. (Cl. 40—130.)



In a sign or indicating device for automobiles, a supporting member, an electric lamp carried thereby, a plate secured to the supporting member beneath the lamp and bearing a registration number and a housing for said electric lamp, said housing comprising a top portion, a front portion of ruby glass, end portions of green glass, and a glass prism disposed in and constituting the bottom of said housing, said glass prism being positioned to refract light from the lamp upon the registration member.

1,079,755. TIRE. JOHN J. FIELDS, New York, N. Y. Filed Jan. 6, 1912. Serial No. 669,830. (Cl. 152—14.)



1. A tire having its portions next to its central portion provided with lateral wedge shaped depressions sunk beneath the normal curved outer contour of the tire, and the bases of said depressions contracting toward said central portion.

2. A tire having its portions next to its central portions provided with lateral wedge shaped depressions sunk beneath the normal curved outer contour of the tire, and the bases of said depressions curved and contracting toward said central portion.

3. A tire having its central portion provided with depressions, and the portions of the tire next to said central portion provided with lateral wedge shaped depressions sunk beneath the normal outer curved contour of the tire, and the bases of said wedge shaped depressions contracting toward said central portion.

4. A tire having its central portion provided with depressions, and the portions of the tire next to said central portion provided with lateral wedge shaped depressions sunk beneath the normal outer curved contour of the tire, and the bases of said wedge shaped depressions curved and contracting toward said central portion.

5. A tire having its central portion provided with depressions, and the portions of the tire next to said central portion provided with lateral wedge shaped depressions sunk beneath the normal outer curved contour of the tire,

the bases of said wedge shaped depressions contracting toward said central portion and said wedge shaped depressions arranged in staggered relation to the central depressions.

[Claim 6 not printed in the Gazette.]

1,079,756. PROCESS OF TONING PHOTOGRAPHIC SILVER-PICTURES. RUDOLF FISCHER, Steglitz, Germany. Filed Mar. 1, 1913. Serial No. 751,637. (Cl. 95—88.)

1. The process of toning and intensifying photographic silver-pictures, consisting in first converting the silver in said pictures into reducible silver compounds, and then treating said compounds to produce oxidation products of the desired color.

2. The process of toning and intensifying photographic silver-pictures, consisting in first converting the silver in said pictures into reducible silver compounds, and then developing said pictures by developers adapted to convert said compounds into oxidation products of the desired color, said products remaining at the places where they are formed.

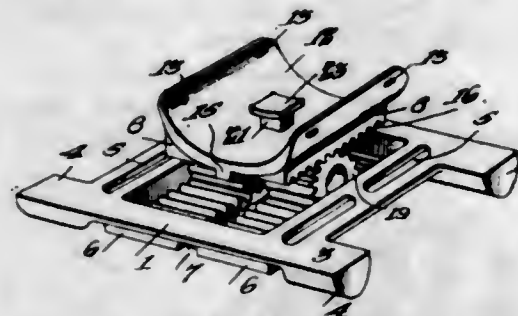
1,079,757. TENT. FRED L. GOULD, Reno, Nev., assignor of one-half to W. I. Thomas, one-tenth to Clara M. Knox, and one-tenth to Ross Petersen, Reno, Nev. Filed Dec. 9, 1912. Serial No. 735,652. Renewed Sept. 12, 1913. Serial No. 789,541. (Cl. 135—4.)



1. A spring frame for a collapsible tent formed of a series of springs radiating from a point where they are secured together centrally, and forming normally, or in their collapsed condition, circular coils whose inner sides converge to a common center, as described.

2. A collapsible tent formed of a series of spring ribs secured together at the middle of their length, their free portions tending to coil inward upon themselves and provided at their extremities with rings for the reception of pins for securing them to the ground and holding the frame distended, and a canvas covering secured to the ribs at equidistant points, as described.

1,079,758. PIPE-SUPPORT. WILLIAM BEALL GRAY, Louisville, Ky., assignor to Martin J. Bannon, Louisville, Ky. Filed July 13, 1912. Serial No. 709,262. (Cl. 137—75.)



1. A device of the character specified, comprising a cradle having in its upper face a substantially rectangular depression and having a rack bar at each side of the depression, extending longitudinally of the cradle, said rack bars being spaced apart from each other, a carriage for the pipe, the upper face of the carriage being concave transversely to fit the insulation of the pipe to be supported and having a central recess, said carriage having on its under face a longitudinal central rib and a series of gear teeth on each side of the rib, a pair of gear wheels arranged between the carriage and the cradle, each wheel meshing with a rack bar and with the adjacent series of teeth on the carriage, the rib of the carriage extending

between the wheels, a shaft connecting the said wheels, the carrier having an opening at each side edge near each end thereof, for receiving the end of a holding wire to hold the pipe on the carriage, and a block adapted to be seated in the recess of the carriage and having a bearing plate for engaging the pipe, said block being adapted to extend through the insulation of the pipe to engage the pipe directly.

2. A device of the character specified, comprising a cradle having in its upper face a substantially rectangular depression and having a rack bar at each side of the depression, extending longitudinally of the cradle, said rack bars being spaced apart from each other, a carriage for the pipe, the upper face of the carriage being concave transversely to fit the insulation of the pipe to be supported and having a central recess, said carriage having on its under face a longitudinal central rib and a series of gear teeth on each side of the rib, a pair of gear wheels arranged between the carriage and the cradle, each wheel meshing with a rack bar and with the adjacent series of teeth on the carriage, the rib of the carriage extending between the wheels, a rigid connection between the wheels, and a block seated in the recess and extending above the carriage a distance corresponding to the thickness of the insulation on the pipe.

3. A device of the character specified, comprising a cradle having spaced longitudinally extending series of teeth on its upper face, a carriage for the pipe, the upper face of the carriage being concave transversely to fit the insulation of the pipe to be supported, said carriage having on its under face a longitudinal central rib and a series of gear teeth on each side of the rib, a pair of rigidly connected spaced gear wheels arranged between the carriage and the cradle, each wheel meshing with a series of gear teeth on the carriage and a series of gear teeth on the cradle, the rib of the carriage extending between the wheels, the carriage having a recess in its upper face, and a block seated in the recess and extending above the carriage a distance corresponding to the thickness of the insulation on the pipe.

4. A device of the character specified, comprising a cradle having spaced longitudinally extending series of teeth on its upper face, a carriage for the pipe, the upper face of the carriage being concave transversely to fit the insulation of the pipe to be supported, said carriage having on its under face a longitudinal central rib and a series of gear teeth on each side of the rib, a pair of rigidly connected spaced gear wheels arranged between the carriage and the cradle, each wheel meshing with a series of gear teeth on the carriage and a series of gear teeth on the cradle, the rib of the carriage extending between the wheels, and a block seated on the upper face of the saddle and extending above the said face a distance corresponding to the thickness of the insulation on the pipe.

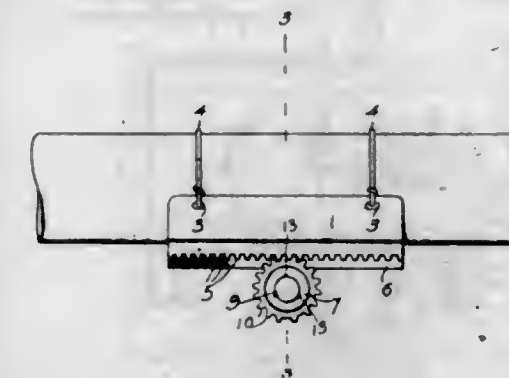
5. A device of the character specified, comprising a cradle, having laterally spaced longitudinally extending series of gear teeth on its upper face, a carriage having its upper face concave transversely to fit the pipe to be supported, and having on its under face a pair of laterally spaced longitudinally extending series of gear teeth, a pair of rigidly connected gear wheels arranged between the carriage and the cradle, each wheel meshing with a series of teeth on the cradle, and a series of teeth on the carriage, the carriage having a longitudinal rib between the series of teeth, said rib extending between the wheels.

[Claims 6 to 13 not printed in the Gazette.]

1,079,759. PIPE-SUPPORT. WILLIAM BEALL GRAY, Louisville, Ky., assignor to Martin J. Bannon, Louisville, Ky. Filed Sept. 16, 1912. Serial No. 720,524. (Cl. 137—75.)

1. In combination with the conduit, a device of the character specified, comprising a carriage for the pipe, the upper face of the carriage being concave transversely to fit the pipe to be supported, said carriage having on its under face a longitudinal central rib, and a series of gear teeth on each side of the rib, a roller provided with an annular groove for receiving the rib, and with an annular

series of gear teeth on each side of the rib, to fit the teeth of the carriage, said roller having a central longitudinal bore, the ends of the bore being restricted, a shaft received in the bore and fitting the restricted ends, a collar on the shaft at each end of the roller, said shaft having struck up lugs for holding the collars from outward movement, the conduit having a longitudinally extending rib on each side of the central line of its bottom, each rib having a horizontal upper face and a vertical inner face, said ribs having oppositely arranged notches for receiving the ends of the shaft.



2. A device of the character specified, comprising a carriage for the pipe, the upper face of the carriage being concave transversely to fit the pipe to be supported, said carriage having on its under face a longitudinal central rib, and a series of gear teeth on each side of the rib, a roller provided with an annular groove for receiving the rib, and with an annular series of gear teeth on each side of the rib, to fit the teeth of the carriage, said roller having a central longitudinal bore, the ends of the bore being restricted, a shaft received in the bore and fitting the restricted ends, a collar on the shaft at each end of the roller, said shaft having struck up lugs for holding the collars from outward movement, the ends of the shaft extending beyond the collars.

3. A device of the character specified, comprising a carriage for the pipe, the upper face of the carriage being concave transversely to fit the pipe to be supported, said carriage having on its under face a longitudinal central rib, and a series of gear teeth on each side of the rib, a roller provided with an annular groove for receiving the rib, and with an annular series of gear teeth on each side of the rib, to fit the teeth of the carriage, and a shaft for the roller, said shaft extending at its ends beyond the ends of the roller and having means for preventing longitudinal movement of the roller.

4. A device of the character specified, comprising a carriage for the pipe, the upper face of the carriage being concave transversely to fit the pipe to be supported, said carriage having on its under face a longitudinal central rib, and a series of gear teeth on each side of the rib, a roller provided with an annular groove for receiving the rib, and with an annular series of gear teeth on each side of the rib, to fit the teeth of the carriage, said roller having an axial journal pin at each end for the purpose specified.

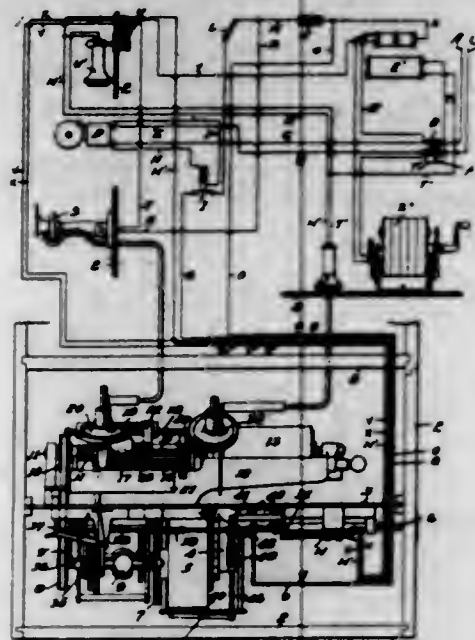
5. A device of the character specified, comprising a carriage for the pipe having on its under face a longitudinal central rib and a longitudinal series of gear teeth on each side of the rib, the rib depending below the teeth, and a roller having an annular series of gear teeth for each series of the carriage, and an annular groove between the series for receiving the rib, and having an axial journal pin for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,079,760. ANSWERING AND RECORDING TELEPHONE. CARL J. GUSTAFSON, Aberdeen, S. D. Filed Mar. 22, 1913. Serial No. 756,173. (Cl. 179—6.)

1. An answering and recording telephone including a telephone line, mechanism for automatically transmitting speech upon the same, a recording device for registering communications received from the line, a motor for actuating said mechanism and said recording device simultane-

ously, and mechanism actuated by the movement of the motor for stopping it after a predetermined interval.



2. An answering and recording telephone comprising a telephone line, an answering device for automatically transmitting a communication upon the line, an automatic recording mechanism for registering communications from the line, an operating motor for said answering device and for said recording mechanism, a brake device for said motor, electro-magnets, an armature therefor, and mechanism actuated by the movement of said armature when said magnets are energized for releasing said motor to operate said answering device and said recording mechanism simultaneously.

3. An answering and recording telephone comprising a telephone line, an answering device for automatically transmitting a communication upon the line, an automatic recording mechanism for registering communications from the line, a motor for operating said answering device and said recording mechanism, a brake device for said motor, a rock shaft connected with said brake device and having a pinion thereon, a rack bar engaging said pinion, an armature mounted on said rack bar, electro-magnets having an electric circuit with said line and adapted, when energized, to attract said armature and move said rack bar to rock said shaft and release said motor, means for locking said rack bar in its operating position, and means for releasing said bar to allow it and said rock shaft to return to their normal position at a predetermined point in the movement of said motor.

4. An answering and recording telephone comprising a telephone line, an answering device for automatically transmitting a communication upon the line, an automatic recording mechanism for registering communications from the line, a motor for operating said answering device and said recording mechanism, a brake device for said motor, a rock shaft connected with said brake device, electro-magnets having an electric circuit with said line, an armature for said magnets, means actuated by the movement of said armature to rock said shaft and release said motor brake device, means for temporarily locking said armature and said rock shaft in the position to which they are moved by the energizing of said magnets, and means for releasing said armature and rock shaft to allow them to return to their normal position at a predetermined point in the movement of said motor.

5. An answering and recording telephone including a telephone line, mechanism, including a transmitter and record cylinder for automatically transmitting speech upon said line, a recording device for registering communications received from the line, a motor for actuating said mechanism and said recording device simultaneously, means for moving said transmitter out of engagement with said record cylinder and returning it to its normal position, and mechanism for checking the motor at a predetermined point in its operation.

[Claim 6 not printed in the Gazette.]

1,079,761. SUCTION-PRODUCING DEVICE. CHARLES JAMES HARVEY, Kidderminster, England. Filed Apr. 18, 1913. Serial No. 761,878. (Cl. 230-5.)



1. An exhauster comprising a casing, openings at each end of said casing, a flexible diaphragm having free ends, means for reciprocating the diaphragm transversely of the casing, a flexible body at each end of the diaphragm cooperating with the diaphragm to control the admission and exhaust of air.

2. An exhauster comprising a casing, openings at each end of said casing, a flexible diaphragm having free ends, a central rigid member upon said diaphragm, an extension on said member also carried by the diaphragm, means for reciprocating the diaphragm transversely of the casing, a flexible body at each end of the diaphragm cooperating with the diaphragm to control the admission and exhaust of air.

3. An exhauster comprising a casing formed in two parts, a flexible diaphragm having free ends with its edges clamped between the edges of the component members of the case, a central rigid member upon said diaphragm, an extension on said member also carried by the diaphragm, means for reciprocating the diaphragm transversely of the casing, a flexible body at each end of the diaphragm cooperating with the diaphragm to control the admission and exhaust of air.

4. An exhauster comprising a casing formed in two parts, a flexible diaphragm having free ends with its edges clamped between the edges of the component members of the case, a central rigid member upon said diaphragm, an extension on said member also carried by the diaphragm, a crank operable from the exterior of the case, an eye upon the rigid member of the diaphragm engaged by said crank, a flexible body at each end of the diaphragm cooperating with the diaphragm to control the admission and exhaust of air.

5. An exhauster comprising a casing formed in two parts, a flexible diaphragm having free ends with its edges clamped between the edges of the component members of the case, a central rigid member upon said diaphragm, an extension on said member also carried by the diaphragm, a crank operable from the exterior of the case, an eye upon the rigid member of the diaphragm engaged by said crank, a flexible body embracing the diaphragm at each end and cooperating therewith to control the admission and exhaust of the air.

[Claims 6 to 13 not printed in the Gazette.]

1,079,762. COLLAPSIBLE TRICK-BOX. SIMON HECHINGER, Nuremberg, Germany. Filed Feb. 20, 1912. Serial No. 678,814. (Cl. 46-41.)

1. A trick box composed of separate parts pivotally connected with one another, springs provided in the box and bearing against the pivotal parts, a lid for maintaining the several parts together when the box is closed, and releasable means of locking said lid in the closed position.

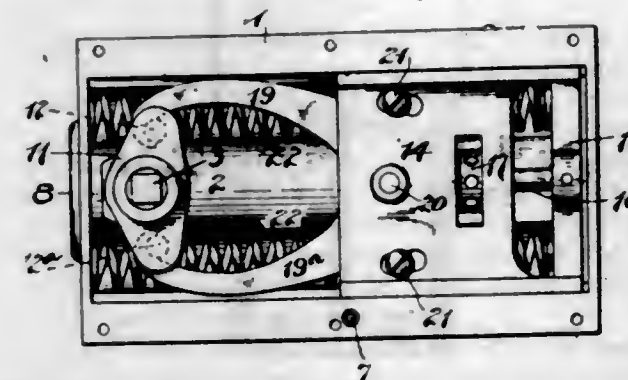
2. A trick box composed of separate parts pivotally connected with one another, springs located upon the inner surface of parts of the box and bearing against other parts of the box, a lid for maintaining the several parts

together when the box is closed, said lid having a cavity in the front wall, and a hook-shaped part fixed on the



front wall of the box adapted to engage with the said cavity of the lid.

1,079,763. DOOR-CONTROLLING MEANS. WILLIAM K. HENRY, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed July 9, 1913. Serial No. 778,038. (Cl. 16-88.)



1. In a door closer mechanism, a casing, a door-controlling spindle rotatably mounted therein, a slide arranged to reciprocate in said casing, an eccentric on the spindle, a connection between said eccentric and said slide, a pair of spiral compression springs arranged on opposite sides of the spindle and operatively connected with said slide, and means for adjusting the operative connection between said springs and said slide said springs extending substantially the full interior length of the casing.

2. In a door closer mechanism, a casing, a door-controlling spindle rotatably mounted therein, a slide arranged to reciprocate in said casing, an eccentric on the spindle, a connection between said eccentric and said slide, a pair of spiral compression springs arranged on opposite sides of the spindle and operatively connected with said slide, and means for adjusting the operative connection between said springs and said slide, said means including a movable cross-head carried by said slide.

3. In a door closing mechanism, a casing, a door controlling spindle rotatably mounted therein, a slide arranged to reciprocate in said casing, an eccentric on the spindle, a connection between said eccentric and said slide, a pair of spiral compression springs arranged on opposite sides of the spindle and operatively connected with said slide, said casing having a pair of channels formed therein in which said pair of spiral springs is located, the opposite side walls of each of said channels affording a support for the opposite sides of each spring to prevent buckling.

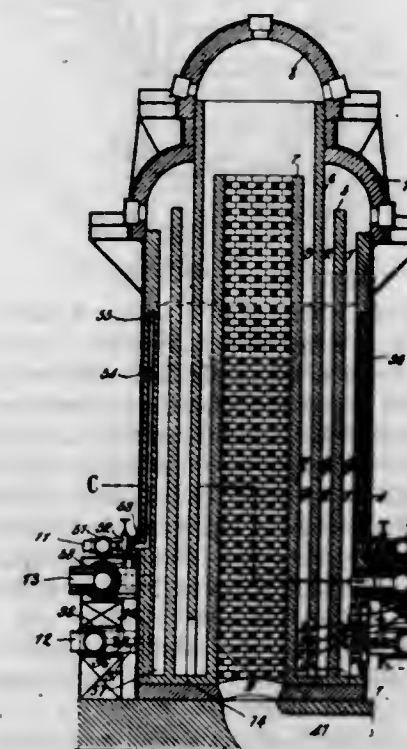
4. In a door closer mechanism, a casing, a door-controlling spindle rotatably mounted therein, a slide arranged to reciprocate in said casing, an eccentric on the spindle, a connection between said eccentric and said slide, a pair of spiral compression springs arranged on opposite sides of the spindle and operatively connected with said slide, means for adjusting the operative connection between said springs and said slide, said casing including a removable cover plate, said cover plate having a hand-hole passage therein to afford access to the adjusting mechanism, and a removable cover for said hand hole.

5. In a door closer mechanism, a casing, a door-controlling spindle rotatably mounted therein, a slide arranged to

reciprocate in said casing, a double eccentric on said spindle, means for connecting said slide with said eccentrics including a pair of hooked links, a pair of spiral compression springs arranged on opposite sides of the spindle and operatively connected with the slide.

[Claims 6 to 9 not printed in the Gazette.]

1,079,764. AIR-BLAST HEATER. EDMUND HOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didler, Stettin, Germany, a Corporation of Germany. Filed Mar. 25, 1912. Serial No. 685,974. (Cl. 75-52.)

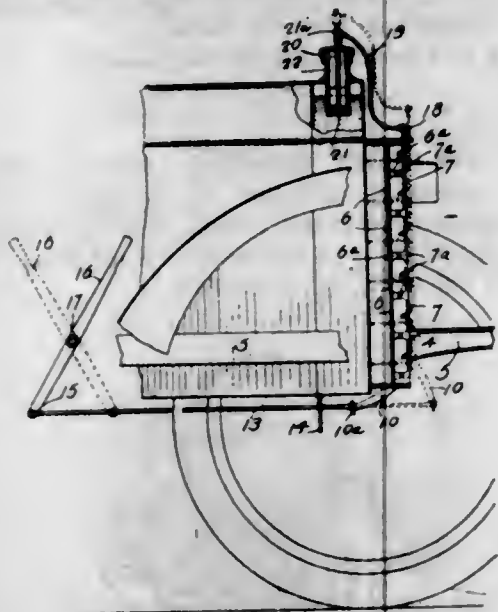


1. An air-blast heater comprising walls forming a central shaft and nested chambers surrounding said shaft, said chambers being subdivided into radial groups of flues connected in series, a channel connected with the lower end of the shaft to supply cold air thereto or to carry away combustion products, individually regulatable means for supplying air and fuel to the lower portions of the outermost flues of the several groups, and individually regulatable means for carrying the hot blast away from the outermost flues at points above the fuel inlets and air inlets.

2. An air-blast heater comprising walls forming a central shaft and nested chambers surrounding said shaft, said chambers being subdivided into radial groups of flues connected in series, a channel connected with the lower end of the shaft to supply cold air thereto or carry away combustion products, individually regulatable air-heating channels located in the outermost wall and connected with the lower portions of the outermost flues, individually regulatable means for supplying fuel to the lower portions of said outermost flues, and individually regulatable means for carrying the hot blast away from the outermost flues at points above the fuel inlets and air inlets.

3. An air-blast heater comprising walls forming a central shaft and nested chambers surrounding said shaft, said chambers being subdivided into radial groups of flues connected in series, a channel connected with the lower end of the shaft to supply cold air thereto or carry away combustion products, individually regulatable air-heating channels located in the outermost wall, each of said channels comprising an ascending portion connected with the air inlet and a descending portion, of smaller cross section than the ascending portion, connected with the lower portion of one of the outermost flues, individually regulatable means for supplying fuel to the lower portions of said outermost flues, and individually regulatable means for carrying the hot blast away from the outermost flues at points above the fuel inlets and air inlets.

1,079,765. WIND-SHIELD FOR AUTOMOBILE-RADIATORS. ALBERT HOILAND, Nome, N. D. Filed June 17, 1912. Serial No. 704,148. (Cl. 236-6.)



1. The combination with an automobile radiator having a water jacket, of a wind shield therefor comprising a frame, a series of slats pivotally mounted within said frame and arranged to be brought into alignment, means operated by the expansion of the water in the radiator jacket for automatically rotating the slats to expose the radiator, additional means for manually operating the slats, said automatic means comprising a cylinder having one end open and projecting into the water jacket of the radiator, a piston in said cylinder having a piston rod projecting through the end of the cylinder into the open end, a common rod pivotally connected to all of the slats, and a connection between the end of said common rod and the end of the piston rod.

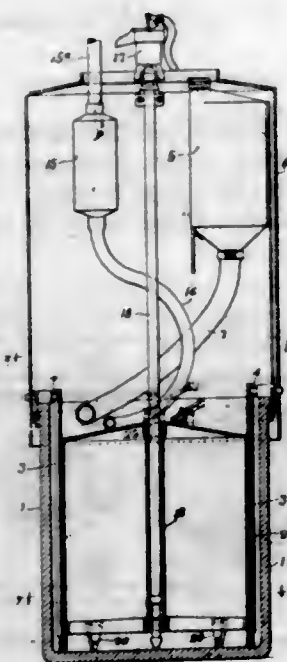
2. The combination with an automobile radiator having a water jacket, of a wind shield therefor comprising a frame, a series of slats pivotally mounted within said frame and arranged to be brought into alignment, means operated by the expansion of the water in the radiator jacket for automatically rotating the slats to expose the radiator, additional means for manually operating the slats, said automatic means comprising a cylinder having one end open and projecting into the water jacket of the radiator, a piston in said cylinder having a piston rod projecting through the end of the cylinder into the open end, a common rod pivotally connected to all of the slats, a connection between the end of said common rod and the end of the piston rod, said manual means comprising a second common rod pivotally connected to all of the slats, a lever for moving said second common rod, a link pivotally connected to one end of said lever, and an operating lever pivotally connected to said link.

1,079,766. ACETYLENE-GAS GENERATOR. CHARLES WESTLEY HOLM, Troy, Ohio, assignor to Mary B. Holm, Troy, Ohio. Filed Dec. 23, 1912. Serial No. 738,132. (Cl. 48-38.)

1. In a generator, the combination, with a generating receptacle, and an inverted bell communicating with said receptacle and capable of vertical movement relative thereto, of a carbide container supported above said receptacle, a flexible conduit connecting the container and bell, and a device controlled by the movement of said bell for imparting vibratory movement to said conduit.

2. In a generator, the combination, with a receptacle forming a generating chamber, an inverted bell mounted in said generating chamber and capable of vertical movement relative thereto, and a carbide container mounted above said chamber, of a flexible conduit extending from said container to said generating chamber, a connection between said bell and the lower portion of said conduit to cause the lower portion of said conduit to rise and fall with said bell, and an agitator controlled by the movement of said bell and adapted to engage said conduit.

3. In a generator, the combination, with a receptacle forming a generating chamber, an inverted bell mounted in said generating chamber and capable of vertical movement relative thereto, and a carbide container mounted above said chamber, of a flexible conduit extending from said container to said generating chamber, a connection between said bell and the lower portion of said conduit to cause the lower portion of said conduit to rise and fall with said bell, an agitator device mounted on said bell and arranged to engage said conduit, and a device mounted upon a fixed part of said generator to control the operation of said agitator.



4. In a generator, the combination with a generating receptacle, and an inverted bell mounted in said receptacle and capable of vertical movement relative thereto, of a carbide container supported above said receptacle, a flexible conduit connecting the container and bell, a vertically disposed guide mounted on said receptacle and formed with a series of recesses, and an agitator carried by the bell and engageable with the notches of said guide to vibrate the conduit whereby the carbide will be fed to said bell.

5. In a generator, the combination with a generating receptacle, and an inverted bell mounted in said receptacle and capable of vertical movement relative thereto, of a carbide container supported above said receptacle, a flexible conduit connecting the container and bell, an agitator carried by the bell consisting of a lever fulcrumed intermediate its ends upon said bell and having one end engageable with the conduit, the other end of said lever carrying a roller engageable with the notches of the guide to shift the lever during movement of said bell, and means for yieldably holding said roller in engagement with said guide. [Claims 6 to 8 not printed in the Gazette.]

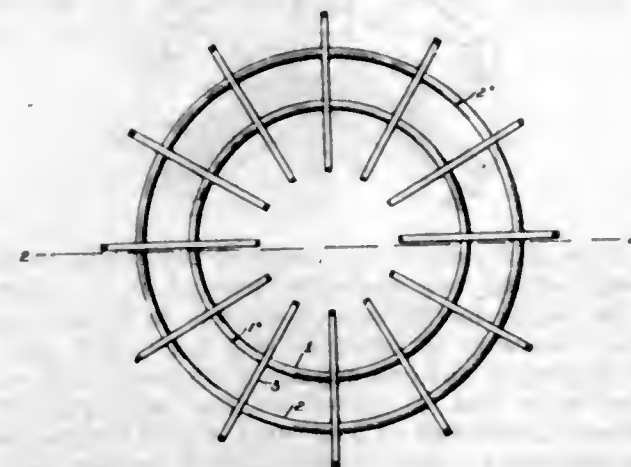
1,079,767. GRATE. WILLIAM R. JEAVONS and ARNOLD R. WHITTAKER, Cleveland, Ohio. Filed May 1, 1912. Serial No. 694,425. (Cl. 126-214.)

1. As a new article of manufacture, a grate comprising a plurality of wrought metal rings, each of said rings being discontinuous and having its ends spaced apart to form a slot, and a plurality of wrought metal ribs separate from and interlocked with said rings, the slots formed between the ends of the rings being out of radial alignment.

2. As a new article of manufacture, a grate comprising a plurality of wrought metal ribs each having an upper and a lower surface and a slot projecting into the body thereof from one of such surfaces, and a wrought metal ring inserted into said slots and interlocked thereby with said ribs.

3. A grate comprising a plurality of wrought metal rings and a plurality of radially extending wrought metal ribs, said rings being circular in cross section with slots projecting from a surface thereof and having their ends rounded, the slots being of less width and greater depth than the diameter of said rings, and the rings being provided with opposed grooves forming bearings for the sides of said slots and the metal bounding the slots being forced inwardly into engagement with said rings.

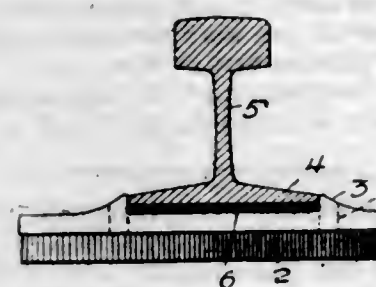
ing from a surface thereof and having their ends rounded, the slots being of less width and greater depth than the diameter of said rings, and the rings being provided with opposed grooves forming bearings for the sides of said slots and the metal bounding the slots being forced inwardly into engagement with said rings.



4. A grate comprising a wrought metal ring and a plurality of wrought metal ribs, said ring being circular in cross section between said ribs and said ribs being provided each with a slot projecting upwardly from the lower surface thereof, the slots being of less width and greater depth than the diameter of said ring and the ring being provided with opposed grooves forming bearings for the opposed sides of each slot and the metal at the lower surface of the ribs bounding the slots being forced inwardly into engagement with said ring.

5. A grate comprising a wrought metal wire ring and a plurality of wrought metal ribs each having a slot for the reception of said ring, the ring having opposed surfaces adapted to form each an elongated bearing with a side of a slot, the slots being of greater depth than the vertical thickness of the ring and the metal of each rib adjacent to the slot therein being forced inwardly into locking engagement with the bottom of the ring. [Claims 6 to 8 not printed in the Gazette.]

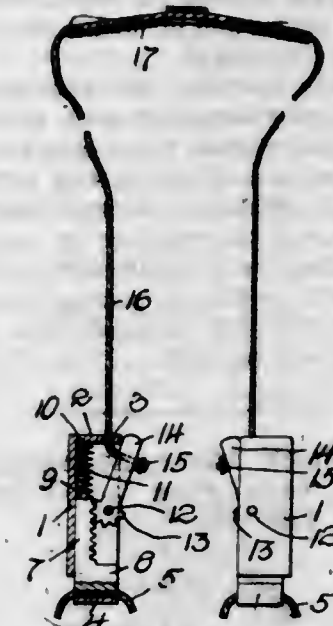
1,079,768. RAIL-CHAIR. JOHN RAYMAN JENNINGS, West Newton, Pa. Filed Aug. 5, 1913. Serial No. 783,146. (Cl. 238-2.)



A rail chair comprising the combination with a rail having the lower face of its base flanges provided with transversely extending serrations, of a rectangular rail supporting plate provided with spaced transversely extending enlargements engaging the edges of the base flange of a rail to prevent lateral shifting of the latter, said plate having its upper face, between said enlargements, formed with longitudinally extending serrations alternately disposed with respect to the serrations on the base of the rail, the serrations in the plate engaging in the serrations of the base to prevent longitudinal movement of the rail, said plate provided with diagonally disposed openings for the passage of spikes, and longitudinally converging ribs integral with the lower face of said plate and V-shaped in cross section, said ribs merging into each other at their outer ends centrally of the lower face of the plate, one of said openings arranged between said ribs and the other of said openings arranged at the outer side of one of the ribs and near the outer end of the latter.

196 O. G.—63

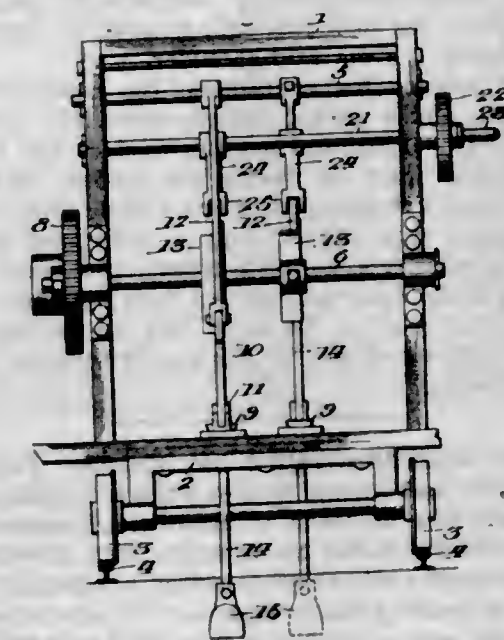
1,079,769. PACKAGE-HOLDER. FRANK JOHANYAK, Batavia, N. Y. Filed Apr. 25, 1913. Serial No. 763,516. (Cl. 224-57.)



1. A package holder comprising members having hooks projecting from one end thereof and adapted to engage the twine of a package, spring pressed longitudinal racks within said members and having heads adapted to enter said hooks, pinions within said members for moving said racks, arms carried by said pinions, a cord having ends extending into said members and connected to said arms, and a hand grip carried by said cord.

2. A package holder comprising a pair of channel members, each of said members having its lower end open, a hook projecting from the lower end of each of said members, a longitudinally movable spring pressed rack mounted in each of said members and having its outer end provided with a head adapted to be shifted in a hook for clamping a twine to the hook, means pivotally connected to each of said members and engaging with a rack for shifting it, and a flexible element having its ends connected to said shifting means and extending through the upper ends of said members.

1,079,770. TAMPING-MACHINE. JOSEPH E. JOINER, Meridian, Miss. Filed June 26, 1913. Serial No. 775,947. (Cl. 104-173.)

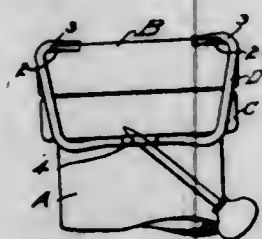


1. In a tamping machine, a truck having a body or platform, a frame on said body or platform, transverse rods journaled in said frame, transverse shafts journaled in the frame, below the first-named shafts and connected by intermeshed gears, vertically swinging arms adjustably fixed on the first-named shafts and having shoes with inclined faces, cams fixed on the second-named shafts

and opposed to the inclined faces of the shoes, guides mounted on the body or platform of the truck and movable in the direction of the length thereof, means connected with said guides for moving the same, tamping bars movable through the guides and pivoted to the arms, and tamping feet carried by said bars.

2. In a tamping machine, the combination of a portable frame, vertically swinging arms connected with the frame, tamping bars pivoted to the said arms and equipped with tamping feet, means for raising said arms and enabling the same to suddenly gravitate, shafts journaled in the frame and connected together by intermeshed gears, means for actuating one of said shafts, and arms mounted to swing with said shafts and having bifurcated portions adapted to be detachably engaged with the first-named arms, for the purpose set forth.

1,079,771. CLOSURE FOR CONTAINERS. KARL KIEFER, Cincinnati, Ohio. Filed Apr. 17, 1909. Serial No. 490,600. (Cl. 215-93.)



1. In a closure for containers, the combination with a neck having a shoulder, and a cap having clip engaging means, of clips engaging with the cap and having upwardly arched transverse members sprung under said shoulder.

2. In a closure for containers, the combination with a neck having a shoulder, and a cap having upwardly open recesses arranged in opposed pairs, of clips each comprising hooks engaging with a pair of said recesses, and members extending down and joined by an upwardly arched transverse member engaging under said shoulder.

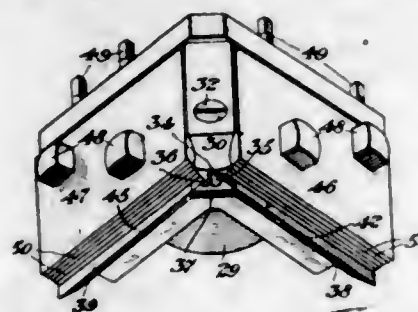
3. In a closure for containers, the combination with a neck having a shoulder, and a cap having clip engaging means, of clips engaging with the cap each having members extending down and embracing the cap and the shoulder, and a transverse member joining said downwardly extending members, upwardly arched therefrom to a loop substantially midway therebetween and engaging under said shoulder with parts flanking the loop, said loop being substantially horizontally projected, to apply leverage for springing said transverse member under or disengaging it from said shoulder.

4. In a closure for containers, the combination of a neck, a cap, and a gasket therebetween, the neck having a substantially horizontal seating surface for the gasket and a vertical part to center the gasket, and the cap having a short exterior vertical part with which it centers itself against said gasket, and a horizontal part with which it presses against said gasket, the inner diameter of the cap being materially larger than the outer diameter of the vertical part of the neck, and the centering of the cap being entirely caused by the gasket being of the specified dimensions.

1,079,772. MANUFACTURE OF BOXES. FREDERIC K. KNOWLTON and ANNIE D. KNOWLTON, Rochester, N. Y., administrators of Mark D. Knowlton, deceased. Filed Apr. 27, 1906. Serial No. 314,104. (Cl. 93-58.)

1. A die of the character described comprising an angular body, a cutting blade fastened to each exterior side of said body, and a removable apex die punch fitted to the angle of said body between the adjacent side edges of said cutting blades and having angular cutting edges on one end at opposite sides, the adjacent side edges of the cutting blades being shaped to bear against the body of the apex die punch, one part of each angular cutting edge of the apex die punch being continuous with the cutting edge of the blade in juxtaposition thereto, said

apex die punch also having a curved cutting edge connecting the outermost ends of the other parts of the two angular cutting edges.



2. A die of the character described comprising an angular body having two flat sides meeting at a corner, an apex die punch having a recessed side to fit said corner and be removably attached to said body, said apex die punch having on one end oppositely disposed right angled cutting edges and a curved cutting edge joining the outermost extremities of said right angled cutting edges, and a removable cutting blade fastened against each flat side of said angular body and having an inclined side in contact with the apex die, the cutting edges of said blades being each continuous with one part of the adjacent right angled cutting edge of the apex die punch.

3. A die of the character described comprising a right angled body, a cutting blade fastened to each exterior side of said body, a removable apex die punch fitted to the angle of said body between the adjacent side edges of said cutting blades and having angular cutting edges on one end at opposite sides, said adjacent side edges of the cutting blades being inclined or beveled to bear against the body of the apex die punch, one part of each angular cutting edge of the apex die punch being continuous with the cutting blade in juxtaposition thereto, said apex die punch also having a curved cutting edge connecting the outermost ends of the two angular cutting edges, and a removable plate adjustably secured against each cutting blade having scoring ribs on its lower edge to transversely score the ends of that part of the blank forming the rounded box corner.

4. In a cutting machine, the combination of a bed plate, a plunger, an angular body plate attached to said plunger and having two flat sides meeting at a corner, an apex die-punch removably fastened to said corner formed with cutting edges on one end, a removable cutting blade fastened on each flat side of said angular body plate, the cutting edges of said blades being in line with the cutting edges on the apex die-punch, a scoring blade carried by said plunger in line with one of said flat cutting blades, a complementary die supported on the bed plate, and adjustable guides for the blank to be cut.

1,079,773. CELLULOSE COMPOSITION. GUSTAV KOLLER, Forest Gate, England. Filed Feb. 8, 1912. Serial No. 676,364. (Cl. 106-40.)

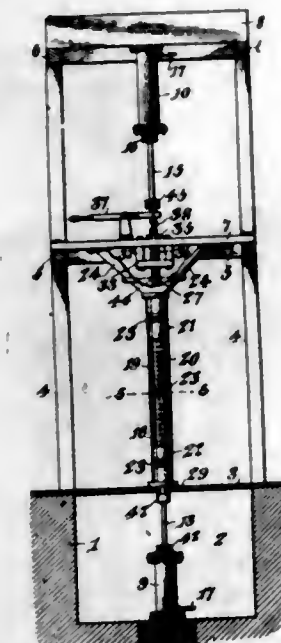
1. The process of treating cellulose esters in the presence of phenols with chlorin substitution products of ethylene containing more than two atoms of chlorin substantially as described.

2. As a new article of manufacture an acetylated cellulose composition containing chlorin substitution products of ethylene having more than two atoms of chlorin and phenols substantially as described.

1,079,774. MACHINE FOR MAKING TUBES FROM FIBROUS MATERIAL. JAMES E. LAPPEN, Winona, Minn., assignor to Union Fibre Company, Winona, Minn., a Corporation of Minnesota. Filed Dec. 30, 1911. Serial No. 668,779. (Cl. 92-59.)

1. A press for forming tubes of fibrous material comprising a mold casing, a sectional core therefor having an intermediate hollow section perforated for the escape of liquid and capable of sidewise removal from the contiguous core sections, and oppositely movable plungers

working within the casing and adapted to compress the material from both ends of the casing into the intermediate portion thereof surrounding the removable section of the core, said intermediate portion of the casing being perforated for the escape of liquid and provided with a side door of sufficient length to permit the sidewise withdrawal of the compressed tube and the perforated core section together.



2. A press for forming tubes from fibrous material comprising an elongated mold casing, a core extending therethrough and having an intermediate hollow, removable section perforated for the escape of liquid and sections abutting the same, one of said abutting sections being longitudinally movable to release the perforated section, and plungers arranged to enter both ends of the casing and adapted to compress the material into the intermediate portion thereof surrounding said removable core section, said intermediate portion of the casing being perforated for the escape of liquid and provided with a gated-opening of sufficient length to permit the withdrawal of the compressed tube and the removable core section together.

3. A press for forming tubes from wet pulpy fibrous material comprising an elongated mold chamber, a core extending therethrough and provided with an intermediate removable perforated tubular section, one section of the core being longitudinally movable to release the perforated section at will and the mold being provided with a door intermediate of its length, the intermediate portion of the mold and the door being perforated, plungers movable through the mold toward the intermediate portion thereof, one plunger being permanently located in the mold and the other being movable into and out of one end thereof, a feeding hopper connected to the end of the mold into and out of which one plunger moves, and aligned actuating means for the plungers.

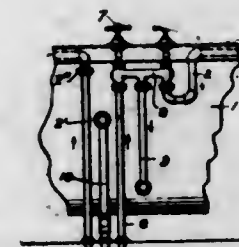
4. A press for forming tubes from wet pulpy fibrous material comprising an elongated mold chamber, a core extending therethrough and provided with an intermediate removable perforated tubular section, one section of the core being longitudinally movable to release the perforated section at will and the mold being provided with a door intermediate of its length, the intermediate portion of the mold and the door being perforated, plungers movable through the mold toward the intermediate portion thereof, one plunger being permanently located in the mold and the other being movable into and out of one end thereof, a feeding hopper connected to the end of the mold into and out of which one plunger moves, and aligned actuating means for the plungers, said aligned actuating means being of different lengths to impart a greater extent of travel to the plunger moving into and out of the hopper end of the mold.

5. A press for forming tubes of fibrous material from a wet pulpy mass thereof comprising an elongated mold having an intermediate perforated section and an inter-

mediate door for access to the interior portion of the mold, plungers movable lengthwise of the mold from the ends toward the center portion thereof simultaneously, and a core for the mold comprising socketed end sections and an intermediate perforated tubular portion adapted to engage in the sockets in the end portions, one end portion of the core having a normal tendency toward the other end portion of the core and provided with manipulating means for moving it against its normal tendency to release the intermediate portion of the core from engagement therewith.

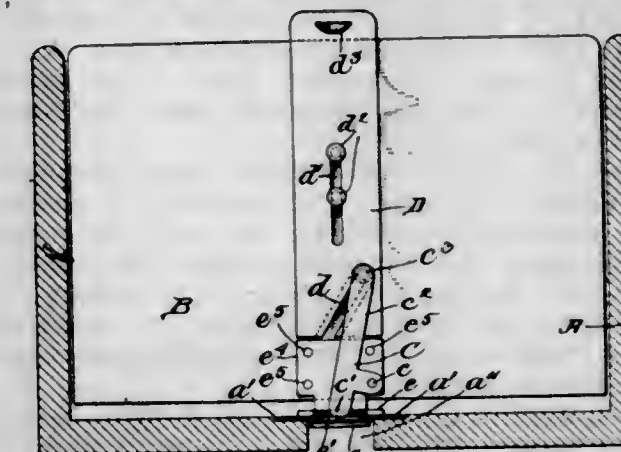
[Claims 6 and 7 not printed in the Gazette.]

1,079,775. BATH-TUB. JAMES J. LAWLER, Pelham, N. Y. Filed Oct. 12, 1912. Serial No. 725,377. (Cl. 4-27.)



A device of the class described comprising in combination with a bath tub, an outwardly turned rim thereon provided with two perforations therethrough, a faucet body positioned beneath said rim, a faucet at each end of said faucet body and extending through said perforations, a pipe connecting centrally of said faucet body and adapted for entering the tub, a hot water entrance pipe extending vertically to a point beneath said rim and thence circumferentially of the tub and beneath said rim and connecting with one end of the faucet body in vertical alignment with one of said faucets, and a vertically positioned cold water pipe between said vertical portion of the hot water pipe and said tub entrance pipe and connected to the opposite end of the faucet body in vertical alignment with the other end of said faucet members.

1,079,776. FILING-CASE FOR CARDS AND THE LIKE. LOUIS AARON LEBOWITZ, Boston, Mass. Filed Apr. 26, 1913. Serial No. 763,939. (Cl. 129-27.)



1. A filing case for cards and the like comprising a receptacle provided near its bottom with a bar; a follower arranged within said receptacle; a clamp carried by the follower and cooperating with said bar; a lever pivotally mounted on said follower for operating said clamp and an upright slide mounted on the follower for operating said lever.

2. A filing case for cards and the like comprising a receptacle provided near its bottom with a bar; a follower arranged within said receptacle; a spring clamp carried by the follower and normally tending to engage said bar so as to hold the follower against movement within the receptacle; a lever pivotally mounted on the follower for operating said clamp and an upright slide mounted on the follower for operating said lever.

3. A filing case for cards and the like comprising a receptacle provided near its bottom with a bar; a follower arranged within said receptacle; a clamp on said follower and cooperating with said bar; said clamp comprising a spring pawl engaging said bar to hold the follower against movement within the receptacle; a lever pivotally mounted on the follower in position to cooperate with said spring member and an upright slide mounted on the follower through upward movement of which the lever is operated to disengage the spring member of the clamp from said bar.

4. A filing case for cards and the like comprising a receptacle provided near its bottom with a slot; two bars secured to the bottom of said receptacle; one at each side of said slot and each overhanging said slot so as to provide said slot with two inwardly projecting lips; a follower arranged within said receptacle provided at its lower end with an extension projecting into said slot; a spring pawl fastened to the underside of said extension and cooperating at its free end with the undersides of said lips; a lever pivotally mounted on said follower in position to cooperate with the free end of said spring pawl and provided with a stud on one arm thereof and an upright slide mounted on the follower and made with a cam slot into which projects the stud on said lever.

5. A filing case for cards and the like comprising a receptacle provided near its bottom with a slot; two bars secured to the bottom of said receptacle, one at each side of said slot and each overhanging said slot so as to provide said slot with two inwardly projecting lips; a follower arranged within said receptacle provided at its lower end with an extension projecting into said slot; a spring pawl fastened to the underside of said extension and cooperating at its free end with the undersides of said lips; a lever pivotally mounted on said follower in position to cooperate with the free end of said spring pawl and provided with a stud on one arm thereof and an upright slide mounted on the follower and made with a cam slot into which projects the stud on said lever; the cam slot in said slide being constructed so that upward movement of the slide operates the lever so as to cause the latter to shift the spring pawl out of engagement with said lips.

[Claims 6 and 7 not printed in the Gazette.]

1,079,777. MANUFACTURE OF INCANDESCENT BODIES OF METALLIC TUNGSTEN OR MOLYBDENUM FOR ELECTRIC INCANDESCENT LAMPS. ANTON LEDERER, Atzgersdorf, near Vienna, Austria-Hungary. Filed Aug. 25, 1906. Serial No. 332,076. (Cl. 176-132.)

1. The process of manufacturing metallic filaments for incandescent electric lamps, consisting of intimately mixing amorphous sulfur with the other constituents used in making the filaments, kneading the mixture to a pasty mass, forming filaments from this paste by pressure, exposing the same to air, heating the bodies when still in a reducing gas, and finally passing an electric current therethrough, *in vacuo*.

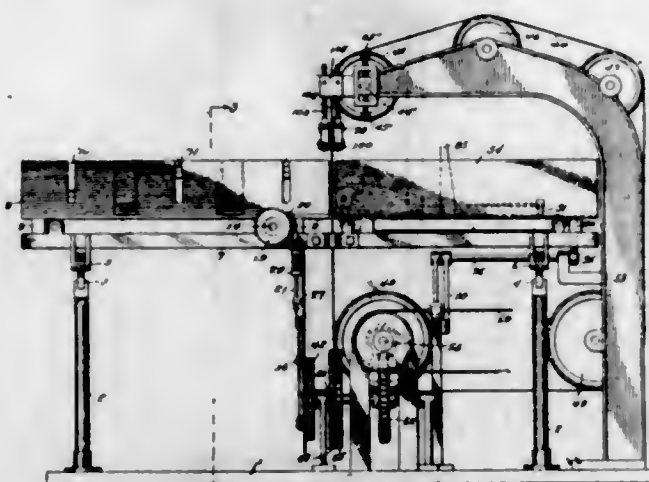
2. The process of manufacturing metallic filaments for incandescent electric lamps, which consists in intimately mixing amorphous sulfur with the sulfides of tungsten, kneading the mixture to a pasty mass, forming filaments from the paste, drying the same in the air, heating the same when still in the presence of a reducing gas, and passing electric current therethrough.

3. The process of manufacturing tungsten filaments for incandescent electric lamps, which consists in intimately mixing amorphous sulfur at a moderate temperature with a tungsten compound, kneading the mixture to a pasty mass, forming filaments therefrom, drying the same, heating the dry filaments in the presence of a reducing gas, and passing an electric current therethrough *in vacuo*.

4. The process for manufacturing bodies of pure tungsten, which consists in intimately mixing powdered tungsten with amorphous sulfur, shaping the mixture

thus obtained into the desired form by means of pressure and finally heating the bodies to a high temperature for the purpose of removing the sulfur and consolidating the said bodies.

1,079,778. MEAT-SLICER. LEOPOLD LINKIEWICZ, New York, N. Y. Filed Apr. 11, 1913. Serial No. 760,398. (Cl. 17-24.)



1. In a meat slicing machine, a meat supporting carriage, means for moving said carriage back and forth, means for feeding a piece of meat on said carriage longitudinally of the carriage, a knife adapted to engage and slice said meat, means for receiving the severed slices of meat, means for supporting said severed slices of meat in substantially their original position, and a stop mechanism associated with said last mentioned means for automatically stopping the movement of the carriage.

2. In a meat slicing machine of the class described, a reciprocating carriage, means for slicing a piece of meat arranged on said carriage, a follower block arranged to support the severed piece of meat, means for feeding said meat forward, a flexible member connected with said block formed with a depending pin, driving means for said carriage, disconnecting mechanism for disconnecting said driving means and said carriage said mechanism being formed with an arm, said arm being arranged in the path of movement of the pin on said flexible member after the same has been moved off the end of the discharge portion of the carriage whereby a movement of the carriage will transmit movement to the disconnecting mechanism for throwing off the power.

3. In a meat slicing machine, a hand knife, and a guiding and cleaning member adapted to engage said knife, said guiding and cleaning member comprising a supporting structure, a pair of clamping rollers, means for holding said clamping rollers in contact with the knife, a pair of cleaning bristles, and means for clamping said bristles against movement.

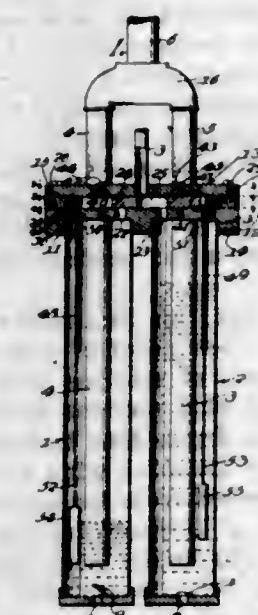
4. In a meat slicing machine, a movable meat supporting member, means for slicing meat on said meat supporting member, and a stop mechanism for automatically stopping the movement of said meat supporting member, said stop mechanism including a slidable block, a stop pin, and means for connecting said pin with said slidable block, said last mentioned means being designed to space said pin different distances from said block for causing the pin to release said meat supporting member from the driving power at different times.

5. In a meat slicing machine of the character described, a reciprocating supporting member, means for slicing an article arranged on said supporting member, a follower block arranged to support the severed pieces from said article, means for feeding said article forward, a lazy-tong structure connected with said block, a depending pin connected with the outer end of said lazy-tong structure, means for locking said lazy-tong structure in any of its adjusted positions, whereby said pin may be positioned at different distances from said block, driving means for said supporting member and for said slicing means, disconnecting mechanism for disconnecting said

driving means from said member and the slicing means, said disconnecting mechanism being formed with an arm arranged in the path of movement of the pin on said lazy-tong after the same has been moved off the end of the discharge opening of said supporting member, whereby a movement of the supporting member will transmit movement to the disconnecting mechanism for throwing off the power.

[Claim 6 not printed in the Gazette.]

1,079,779. PUMPING APPARATUS. PEARL A. LITTLE, Frederick, Okla. Filed Jan. 23, 1913. Serial No. 743,795. (Cl. 103-8.)



1. In a pumping apparatus, the combination, with a pair of chambers having inlet openings for the liquid to be pumped, and a discharge pipe in communication with both chambers; of a box wherein the upper ends of said chambers are fitted, having a motive fluid inlet opening in communication with each chamber; a motive fluid supply pipe leading into said box; and controlling mechanism arranged in said box for supplying the motive fluid to said chambers alternately, comprising a reciprocating slide valve having a longitudinal slot which is in constant communication with the outlet end of said supply pipe and in alternate communication with said motive fluid inlet openings during its movements, and a pair of float-controlled valves for automatically delivering the motive fluid from either chamber behind the adjacent end of said slide valve to shift the latter toward the other chamber when the contents of the first-mentioned chamber are exhausted.

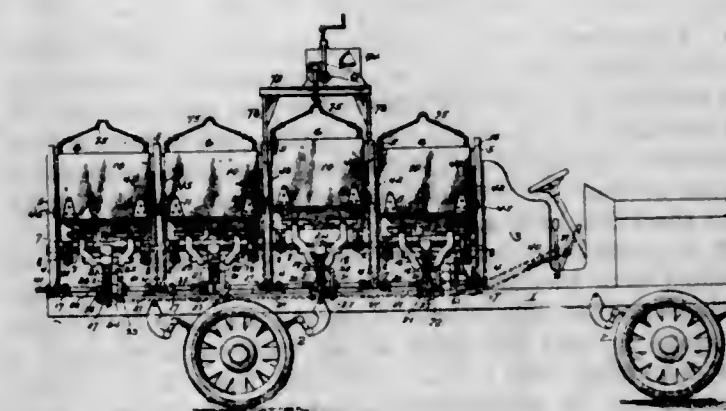
2. In a pumping apparatus, the combination, with a pair of chambers having inlet openings for the liquid to be pumped, and a discharge pipe in communication with both chambers; of a box wherein the upper ends of said chambers are fitted having a motive fluid inlet opening in communication with each chamber; a motive fluid supply pipe leading into said box; and controlling mechanism arranged in said box for supplying the motive fluid to said chambers alternately, comprising a reciprocating slide valve having a longitudinal slot which is in constant communication with the outlet end of said supply pipe and in alternate communication with said motive fluid inlet openings during its movements, a pair of open-ended sleeves secured to said box behind the ends of the slide valve and projecting into said chambers, each sleeve being provided adjacent its upper end with an inlet port, and a float arranged in each chamber and having its stem extending upwardly into the corresponding sleeve to normally close the port therein, whereby the fall of either float consequent upon the emptying of the corresponding chamber will cause its stem to uncover the port in the corresponding sleeve, and permit the motive fluid in that chamber to pass into said box behind the adjacent end of said slide valve, to shift the latter toward the other chamber.

3. In a pumping apparatus, the combination, with a pair of chambers having inlet openings for the liquid to be

pumped, and a discharge pipe in communication with both chambers; of a box wherein the upper ends of said chambers are fitted provided with a longitudinal passage-way having motive fluid inlet openings formed through its bottom wall communicating with said chambers; a motive fluid supply pipe opening through the top wall of said passage-way; a slide valve slidable in opposite directions in said passage-way and provided with a longitudinal slot which is in continuous communication with the outlet end of said supply pipe during the movements of the valve and which communicates alternately with said motive fluid inlet openings; a stop block fitted in each end of said passage-way for limiting the movements of said slide valve, each block having a notched and undercut inner end; and a pair of float-controlled valves for automatically delivering the motive fluid contained in either chamber to said passage-way beneath the aforesaid end of the adjacent stop block and behind the adjacent end of said slide valve to shift the latter toward the other stop block, when the contents of the first-mentioned chamber are exhausted.

4. In a pumping apparatus, the combination, with a pair of chambers having inlet openings for the liquid to be pumped, and a discharge pipe in communication with both chambers; of a box wherein the upper ends of said chambers are fitted provided with a longitudinal passage-way having motive fluid inlet openings formed through its bottom wall communicating with said chambers; a motive fluid supply pipe opening through the top wall of said passage-way; a slide valve slidable in opposite directions in said passage-way and provided with a longitudinal slot which is in continuous communication with the outlet end of said supply pipe during the movements of the valve and which communicates alternately with said motive fluid inlet openings; a stop block fitted in each end of said passage-way for limiting the movements of said slide valve, each block having a notched and undercut inner end; a pair of open-ended depending sleeves secured to the bottom wall of said stop blocks, each sleeve being provided adjacent its upper end with an inlet port; and a float arranged in each chamber and having its stem extending upwardly into the corresponding sleeve to normally close the port therein, whereby the fall of either float consequent upon the emptying of the corresponding chamber will cause its stem to uncover the port in the corresponding sleeve, and permit the motive fluid in that chamber to pass into said box behind the adjacent end of said slide valve, to shift the latter toward the other stop block.

1,079,780. DUMPING-VEHICLE. WILLIAM B. LONGEST and PHILIP S. LONGEST, Louisville, Ky. Filed Mar. 10, 1913. Serial No. 753,403. (Cl. 21-20.)



1. In a dumping vehicle, the combination with a wheeled frame, and a plurality of separate dumping units arranged transversely thereon, of a segment under each unit and loosely mounted independently of the same, means for operating each segment to tilt the body unit over the same when said segment is moved in one direction, and devices connected with the body unit and the segment and cooperating with said segment, a fixed part on the frame

and the body unit for restoring the latter when the segment is moved in the reverse direction.

2. In a dumping vehicle, the combination with a wheeled frame and a dumping body unit mounted centrally on said frame and disposed transversely thereof, of a rocking segment mounted independently of the body and adapted at its ends to engage the body unit for tilting the same in one direction or the other, means for imparting motion to said segment, and devices connected with the segment and the body unit and cooperating with a fixed part on the frame for restoring the body unit to normal horizontal position.

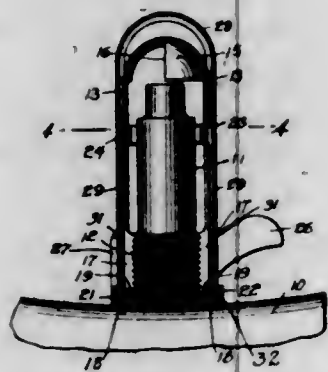
3. In a dumping vehicle, the combination with a wheeled frame, and a transversely disposed dumping body unit mounted over said frame, of inclined trackways arranged transversely on the frame, swinging legs having rollers engaging said trackways, a swinging segment mounted independently and adapted to engage the body unit for dumping the same, connections between said segment and swinging legs, and means for imparting motion to the segment.

4. In a dumping vehicle, the combination with a wheeled frame and a transversely disposed dumping body unit, of hinged end gates for said body unit having side wings, pins on said wings, levers pivotally attached to the frame and having slots to receive the pins on said wings, each lever having a notch communicating with one end of the slot therein, and means for imparting power to said body unit to tilt the same.

5. In a dumping vehicle, the combination with a wheeled frame, and a transversely disposed dumping unit, of mechanism for applying power to said body unit for tilting the same, hinged end gates hinged at their lower edges to the body unit, levers pivoted to the frame and cooperating with the hinged gates to automatically open and close the same, and devices cooperating with the body unit and the gates to limit the opening movement of the latter.

[Claims 6 to 11 not printed in the Gazette.]

1,079,781. DUST-CAP FOR TIRE-VALVES. JOHN LYNN, Alice, Tex. Filed Apr. 28, 1913. Serial No. 764,119. (Cl. 152-12.)



1. A dust cap for tire valves comprising a pair of sections normally held in contact, wedge means for spreading the sections to apply and remove the cap, said sections being threaded to engage the valve casing, and a locking ring removably carried by the spreading means and engageable by the sections to cause binding engagement of the latter with the valve casing.

2. A removable dust cap for valves, comprising a pair of sections each having an open end and a closed end, said sections having depressions, a spring engaged in the depressions to hold the edges of the sections in contact, a grasping wing and a lug extending from each section spaced from its longitudinal edges and in opposed relation, a U-shaped spring engaged on the cap and movable longitudinally with respect thereto, said spring having its leg portions disposed between a spaced wing and lug and formed with a tapered portion to spread the sections when moved between said wings and lugs, and means for clamping the sections to a valve casing.

3. A dust cap for tire valves comprising a pair of sections normally held in contact, means for spreading the sections to apply and remove the cap, said sections being

threaded to engage the valve casing, and a locking ring removably carried by the spreading means and engageable by the sections to cause binding engagement of the latter with the valve casing, said sections having extensions received by the opposed sections to hold the sections against independent movement.

4. A removable dust cap for valves having threaded portions adjacent to their point of attachment to a wheel rim, comprising a pair of sections each having an open end and a closed end, said sections having depressions, a spring engaged in the depressions to hold the edges of the sections in contact, a grasping wing and a lug extending from each section spaced from its longitudinal edges and in opposed relation, a U-shaped spring engaged on the cap and movable longitudinally with respect thereto, said spring having its leg portions disposed between a spaced wing and lug and formed with a tapered portion to spread the sections when moved between said wings and lugs, said sections having thickened interiorly threaded portions at their open ends to be engaged on the threaded portion of the valve when the sections are spread apart, and means carried by the spring to cause binding contact of the threaded portions when the sections are rotated by the wings.

5. A removable dust cap for valves having threaded portions adjacent to their point of attachment to a wheel rim, comprising a pair of sections each having an open end and a closed end, said sections having depressions, a spring engaged in the depressions to hold the edges of the sections in contact, a grasping wing and a lug extending from each section spaced from its longitudinal edges and in opposed relation, a U-shaped spring engaged on the cap and movable longitudinally with respect thereto, said spring having its leg portions disposed between a spaced wing and lug and formed with a tapered portion to spread the sections when moved between said wings and lugs, said sections having thickened interiorly threaded portions and beveled ends to be engaged on the threaded portion of the valve when the sections are spread apart, a locking ring having a bore provided with a beveled portion engageable by the beveled portions of the sections, said spring having hooked terminals and the ring having recesses removably engageable by the terminals, whereby when said terminals are disengaged from the recesses the cap sections may be rotated to attach and remove the same, and means for forming an air-tight joint between the ring and the rim.

1,079,782. LIQUID WATERPROOF SURFACING COMPOSITION. GUSTAF W. MAGNUS, Seattle, Wash. Filed July 19, 1911. Serial No. 639,447. (Cl. 134-17.)

A liquid water-proof surfacing composition consisting of fifteen parts by weight of raw linseed oil, one part by weight of low grade rubber and one part suitable white drier.

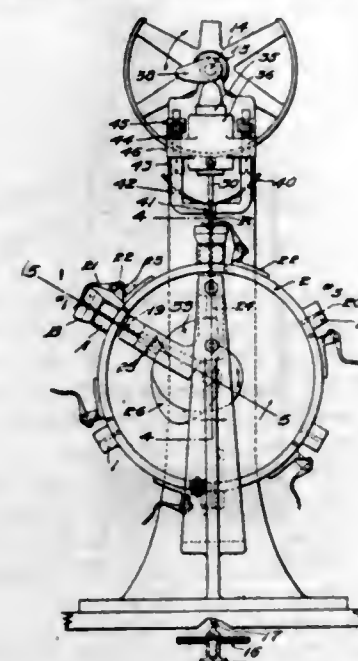
1,079,783. RIVETING-MACHINE. NORMAN MARSHALL, Newton, Mass. Filed Feb. 3, 1910. Serial No. 541,872. (Cl. 78-49.)

1. A riveting machine, having, in combination, a riveting mechanism, a work support and an aligning device arranged to engage rivet receiving holes in the work when the support is in work receiving position and position them in alignment with each other, and means operating independently of the rivets for removing the aligning devices for the introduction of the rivet, substantially as described.

2. A riveting machine, having, in combination, a riveting plunger and anvil, a work support and finger arranged to engage rivet receiving holes in the work, means for projecting and withdrawing the finger, means for transferring the work support from position to register with the finger to position to register with the plunger and anvil, and means for retaining the work in position after the withdrawal of the finger, substantially as described.

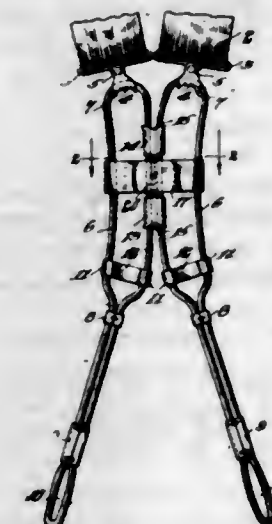
3. A riveting machine, having, in combination, a riveting plunger and anvil, a finger arranged to engage rivet receiving holes in the work, a work support movable from

position to register with the finger to position to register with the plunger and anvil, means for projecting and retracting the finger, means for projecting and retracting



the anvil, and means for retaining the work in position after the retraction of the finger, substantially as described.

1,079,784. SUSPENDERS. LYNN P. MASON, Conewango Valley, N. Y. Filed Feb. 11, 1913. Serial No. 747,727. (Cl. 241-23.)



1. As an article of manufacture, suspenders consisting of straps for engaging opposite shoulders, a stirrup pivoted to the rear end of each strap, an endless holding loop of cord or the like passing through each stirrup, a spacing member at approximately the center of each of the said last-named loops for spacing the side members of the loops apart, the stirrup spacing the said side members at the upper end of the loop, clips engaging the side members below the spacing member and holding the said side members alongside each other, said side members at the lower extremity of each loop being capable of separation to engage a button, the adjacent side members of the loops above the spacing members lying alongside each other, a pair of sleeves engaging the said side members and slidable thereon, and an endless loop of flexible material inclosing both loops between the sleeves, said loop being slidable on the said loops between the sleeves, the side members of the said loop being connected between the adjacent lying side members of the said holding loops.

2. As an article of manufacture, suspenders consisting of straps for engaging opposite shoulders, a stirrup pivoted to the rear end of each strap, an endless holding loop of cord or the like passing through each stirrup, a spacing member at approximately the center of each of the said last-named loops for spacing the side members of the loops apart, the stirrup spacing the said side members at

the upper end of the loop, clips engaging the side members below the spacing member and holding the said side members alongside each other, said side members at the lower extremity of each loop being capable of separation to engage a button, the adjacent side members of the loops above the spacing members lying alongside each other, a pair of sleeves engaging the said side members and slidable thereon, and an endless loop of flexible material inclosing both loops between the sleeves, said loop being slidable on the holding loops between the sleeves.

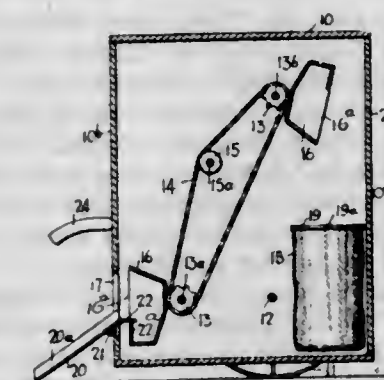
3. As an article of manufacture, suspenders consisting of straps for engaging opposite shoulders, a stirrup pivoted to the rear end of each strap, an endless holding loop of cord or the like passing through each stirrup, a spacing member at approximately the center of each of the said last-named loops for spacing the side members of the loop apart, the stirrup spacing the said side members at the upper end of the loop, clips engaging the side members below the spacing member and holding the said side members alongside each other, said side members at the lower extremity of each loop being capable of separation to engage a button, the adjacent side members of the loops above the spacing members lying alongside each other, means for inclosing both loops above the spacing members, said means being slidable on the loops, and a slidable connection between the adjacent side members of the loop on each side of the said means.

4. As an article of manufacture, suspenders consisting of straps for engaging opposite shoulders, a stirrup pivoted to each strap, an endless holding loop of cord or the like passing through each stirrup, a spacing member at approximately the center of each of the said last-named loops for spacing the side members of the loop apart, the stirrup spacing the said side members at the upper end of the loop, means slidable on the loops for inclosing the spaced portions of both loops between the spacing members and the stirrups, and a slidable connection between the adjacent side members of the loops above the spacing members.

5. As an article of manufacture, suspenders comprising a pair of independent straps, a stirrup pivoted to the rear end of each strap, an endless holding loop slidable in each stirrup, a clip connecting the side members of each loop near the lower end thereof to form a button hole, a spacing member at approximately the center of each loop for holding the side members in spaced relation, the stirrup spacing the side members at the upper end of the loop, means for inclosing the upper ends of both loops, said means being slidable on the loops, and a sliding connection between the side members of the loops above and below the said means.

[Claim 6 not printed in the Gazette.]

1,079,785. STREET-CLEANER'S CART. THOMAS BARTIN MASON, Trenton, N. J. Filed Feb. 5, 1913. Serial No. 746,300. (Cl. 37-32.)



1. In a device of the character described adapted to receive sweepings, upper and lower sprockets, an endless chain thereon, a pivoted pan adapted to be disposed at an incline to conduct sweepings toward the chain, buckets on the chain, and a pivoted bridge piece carried by the pan at its inner end and adapted to bridge the space between the pan and a bucket when the latter is positioned by the chain adjacent to the pan, the bucket having a seat for the

free end of the bridge piece, that end of the bucket adjacent to the seat constituting the bucket bottom and the opposite end of the bucket extending forwardly from the back and inclining, the front edge terminating approximately in the plane of the seat to present a front opening between the said inclined end and the seat.

2. In a device of the character described adapted to receive sweepings, upper and lower sprockets, an endless chain thereon, a pan to conduct sweepings toward the chain, buckets on the chain, and a movable bridge piece at the inner end of the pan adapted to bridge the space between the pan and a bucket when the latter is positioned by the chain adjacent to the pan, the bucket having a member forming a seat for the free end of the bridge piece, the end of the bucket adjacent to the said seat member constituting the bucket bottom and the opposite end of the bucket being inclined from the back and extending forwardly, said inclined end when the bucket is in a receiving position constituting an overhanging deflector, and constituting a discharge incline when the bucket is in the reversed position for dumping.

3. In a device of the character described having an inlet for the entrance of sweepings, means whereby sweepings may be directed to the said inlet, an endless carrier provided with buckets and mounted to travel upwardly and rearwardly from the inlet and return, said buckets each having a front wall at one end, that end of the bucket adjacent to the front wall constituting the bucket bottom and the opposite end of the bucket being inclined from the back and extending forwardly approximately to the plane of the front wall and spaced from the latter to present a front opening between the inclined end and the front wall, the said inclined end, when the bucket is in the receiving position constituting an overhanging deflector, and constituting a discharge incline when the bucket is in the reversed dumping position.

1,079,786. PROCESS OF HARDENING COPPER. JAMES A. McLARTY, Toronto, Ontario, Canada. Filed Sept. 11, 1911. Serial No. 648,759. (Cl. 148—12.)

1. A process of hardening copper which comprises coating the copper with a material including a compound containing both hydrogen and carbon, and thereafter heating said copper to a temperature of about 1600° F., and then allowing to remain out of contact with air until cold.

2. A process of hardening copper which comprises coating the copper with a material including carbohydrate and thereafter heating said copper to a temperature of about 1600° F., and then allowing to remain out of contact with air until cold.

3. A process of hardening copper which comprises coating the copper with a material including sugar and thereafter heating said copper to a temperature of about 1600° F., and then allowing to remain out of contact with air until cold.

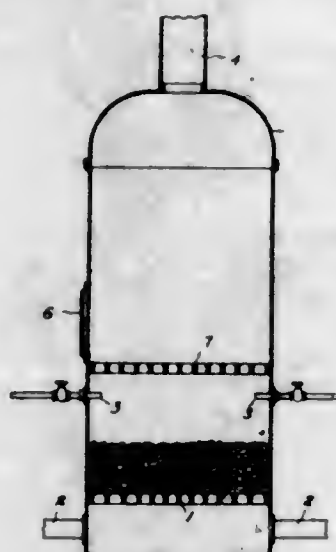
1,079,787. PROCESS OF TREATING METALS. JAMES A. McLARTY, Toronto, Ontario, Canada. Filed Dec. 18, 1911. Serial No. 660,541. (Cl. 75—17.)

1. A method of treating metals which comprises subjecting the same, in a heated state to the action of gases and vapors produced by heating a mixture including a carbohydrate and a fat to a temperature below that necessary to produce material amounts of carbon monoxid, said mixture being out of contact with said metal.

2. A method of treating metals which comprises subjecting the same to the vapor-form products obtained by heating a mixture including a fat and a carbohydrate to below the temperature necessary to produce carbon monoxid, the metal and the mixture being out of contact with each other.

3. A method of treating copper which comprises subjecting the copper, in a heated state to the action of the gases and vapors produced by heating a mixture of a carbohydrate and a solid to a temperature below that necessary to produce carbon monoxid, said mixture being out of contact with said copper.

1,079,788. ORE-REDUCING PROCESS. JAMES A. McLARTY, Toronto, Ontario, Canada. Filed Mar. 8, 1912. Serial No. 682,541. (Cl. 75—17.)

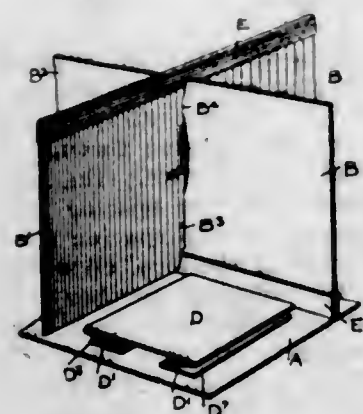


1. A process of reducing ores which comprises exposing hot carbonaceous fuel to the action of an excess of air, to produce gases containing carbon dioxid, and thereafter reacting upon the gases so produced with a material containing hydrogen and carbon, to produce reducing gases; and treating the ores with the resulting gases, at a temperature below a red heat.

2. A process of reducing ores which comprises exposing hot carbonaceous fuel to the action of an excess of air, to produce gases containing carbon dioxid, and thereafter reacting upon the gases so produced with a material containing hydrogen and carbon, to produce reducing gases; and treating the ores with the resulting gases, at a temperature of about 750 to 800° F.

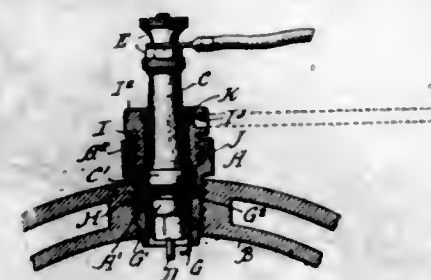
3. A process of reducing ores which comprises exposing hot carbonaceous fuel to the action of an excess of air, to produce gases containing carbon dioxid, and thereafter reacting upon the gases so produced with a hydrocarbon, to produce reducing gases; and treating the ores with the resulting gases at a temperature below a red heat.

1,079,789. COMBINATION CUSHIONED FLAT AND FILLER. WILLIAM MERKER, New York, N. Y. Filed Dec. 28, 1912. Serial No. 739,087. (Cl. 217—31.)



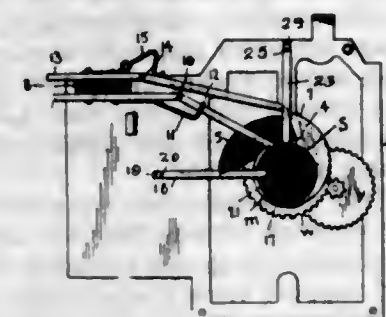
An egg carrier having a plurality of cells formed by longitudinal and transverse strips, the strips extending in one direction having their upper edges bound with U-shaped metallic bars and provided with slots extending from the bottom upwardly, and the strips extending in the other direction having their lower edges bound with similar bars and provided with slots extending from the top downwardly, the sets of strips being interlocked, with the binding bars of the strips of one set at the top and the binding bars of the strips of the other set at the bottom, the binding bars of one set projecting beyond the unbound edges of the other set.

1,079,790. SPARK-PLUG. JOHN J. MEYER, Yonkers, N. Y. Filed Mar. 6, 1913. Serial No. 752,340. (Cl. 123—169.)



A spark plug, comprising a nipple provided with an interior seat, a sleeve of insulating material removably held within the said nipple, the sleeve having a collar and a cylindrical lower portion, an electrode within the said sleeve and extending below the said reduced lower portion, a second electrode in sparking relation with the said first-named electrode and provided with a cylindrical band having a flange seated on the said nipple seat, the said band fitting onto the said lower portion of the said sleeve, and a cushion interposed between the said electrode flange and the collar of the said sleeve, and a screw retainer screwing in the said nipple against the said sleeve collar.

1,079,791. ELECTRIC TIME-SWITCH. GEORGE E. MORDEEN, Detroit, and JAMES L. CHAPMAN, Ann Arbor, Mich. Filed Mar. 31, 1913. Serial No. 757,982. (Cl. 161—27.)

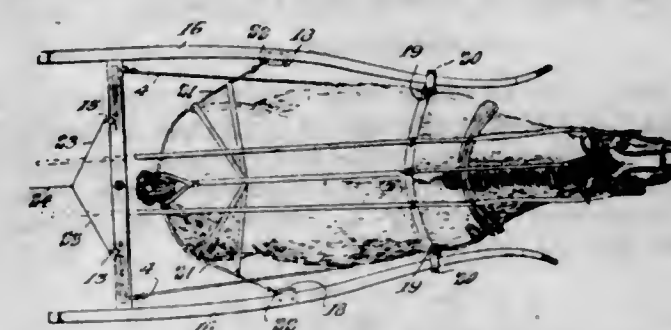


1. In an electric time switch, the combination with a clock train including the hour hand shaft, a setting dial carried by said shaft and having openings adjacent its numbers, and the main dial surrounding said setting dial; of a small cam of non-conducting material, a sleeve of non-conducting material connected with said cam and mounted on said shaft, a setting arm projecting from said sleeve and carrying a pin adapted to engage with one of said openings in the setting dial; a small cam of metal mounted on said sleeve next the first-named cam, a sleeve also of metal mounted on the first-named sleeve and connected with the metal cam, a setting arm projecting from this sleeve and carrying a pin adapted to engage with one of said openings in the setting dial; a current conducting lever, means for holding it in constant yielding contact with said metal sleeve, a contact lever whose tip overlies the edge of both said cams, and yielding means for holding it in contact with whichever edge is highest.

2. In an electric time switch, the combination with a clock train including the hour hand shaft, a setting dial carried by said shaft, and the main dial surrounding said setting dial and separated therefrom to leave an annular space between them; of a small cam of non-conducting material, a sleeve of non-conducting material connected with said cam and mounted on said shaft, a collar of non-conducting material carried by said sleeve, a setting arm projecting from said collar and carrying a finger projecting into said space; a small cam of metal mounted on said sleeve next the first-named cam, a sleeve also of metal mounted on the first-named sleeve and connected with the metal cam, a collar carried by said sleeve next inside the first-named collar, a setting arm projecting from this collar and carrying a finger projecting into said space; a current conducting lever, means for holding it in constant yielding contact with said metal sleeve, a contact lever whose tip overlies the edges of both said cams, and yielding means for holding it in contact with whichever edge is highest.

8. In an electric time switch, the combination with a clock train including the hour hand shaft, a setting dial carried by said shaft and having openings adjacent its numbers, and the main dial surrounding said setting dial and separated therefrom to leave an annular space between them; of a small cam of non-conducting material, a sleeve of non-conducting material connected with said cam and mounted on said shaft, a collar of non-conducting material carried by said sleeve, a set screw in the collar engaging said shaft, a setting arm projecting from said collar and carrying a finger projecting into said space and a pin adapted to engage with one of said openings in the setting dial; a small cam of metal mounted on said sleeve next the first-named cam, a sleeve also of metal on the first-named sleeve and connected with the metal cam, a collar carried by said sleeve next inside the first-named collar, a set screw through this collar against said metal sleeve, a setting arm projecting from this collar and carrying a finger projecting into said space and a pin adapted to engage with one of said openings in the setting dial; a current conducting lever, means for holding it in constant yielding contact with said metal sleeve, a contact lever whose tip overlies the edges of both said cams, and yielding means for holding it in contact with whichever edge is highest.

1,079,792. HORSE-DETACHER. ROBERT RALPH MORGAN and WILLIAM HAMILTON CORDER, North Carrollton, Miss. Filed Nov. 24, 1911. Serial No. 662,133. (Cl. 21—75.)



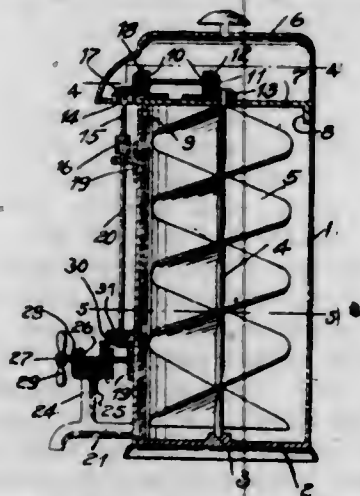
1. In a device for detaching horses from vehicles, a whiffletree, each end of the whiffletree being provided with an outwardly extending pin, a rod having a notch at one end and being provided with a U-shaped yoke at the other, the arms of said yoke being perforated to receive the pin, a pair of screw eyes carried by said whiffletree and arranged to receive said rod, a spring arranged to bear at one end on one of said screw eyes and being secured at the other end to said rod, a bracket, and a spring pressed trigger carried by said bracket and arranged to enter the notch in said rod for holding the yoke upon the pin, the withdrawal of said spring pressed trigger permitting the yoke to be forced off from the end of the pin.

2. In a device for detaching horses from vehicles, a whiffletree, each end of the whiffletree being provided with an outwardly extending pin, a rod having a notch at one end and being provided with a U-shaped yoke at the other, the arms of said yoke being perforated to receive the pin, a trace provided with an eye arranged to receive the pin, said eye being adapted to enter between the arms of the yoke, a pair of screw eyes carried by said whiffletree and arranged to receive said rod, a spring arranged to bear at one end on one of said screw eyes and being secured at the other end to said rod, a bracket, and a spring pressed trigger carried by said bracket and arranged to enter the notch in said rod for holding the yoke upon the pin, the withdrawal of said spring pressed trigger permitting the yoke to be forced off from the end of the pin, thereby freeing the trace eye from the whiffletree.

1,079,793. DISPENSING-CAN. RALPH A. MOWNBY, Ridgway, Pa. Filed Feb. 27, 1913. Serial No. 751,126. (Cl. 225—21.)

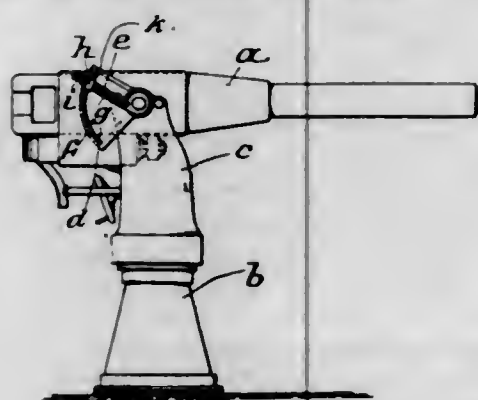
In combination with a can having an agitator mounted therein, of a cock connected to the can, a turning plug for

the cock, a barrel carried by the cock, a horizontal shaft journaled upon the upper end of the barrel, a handle carried by the shaft, a stem having its lower end connected to the turning plug and its upper end provided with a gear adapted to mesh with a gear carried upon said shaft, a vertical shaft journaled upon the side of the can, and having its lower end provided with a gear adapted to mesh



with a gear fixed to the horizontal shaft, a second vertical shaft having a socket formed upon its lower end adapted to detachably connect the first named vertical shaft, a cover having journaled therein a horizontal shaft and means connecting the second named vertical shaft and second named horizontal shaft for rotating the agitator when the handle and turning plug are rotated.

1,079,794. APPARATUS FOR AUTOMATICALLY INDICATING THE TIME OF FLIGHT OF A PROJECTILE. EMIL MÜLLER, Düsseldorf, Germany, assignor to Rheinische Metallwaren- und Maschinenfabrik, Düsseldorf-Derendorf, Germany, a Corporation of Germany. Filed Mar. 22, 1911. Serial No. 616,260. (Cl. 89—1.)



1. In combination with a gun, means for indicating the range, and means for indicating the time of flight of a projectile, one of said means being adjusted relatively to the other in adjusting the position of the gun.

2. In combination with a gun, means for indicating the range, and means for indicating the time of flight of a projectile, one of said means being automatically adjusted relatively to the other in adjusting the position of the gun.

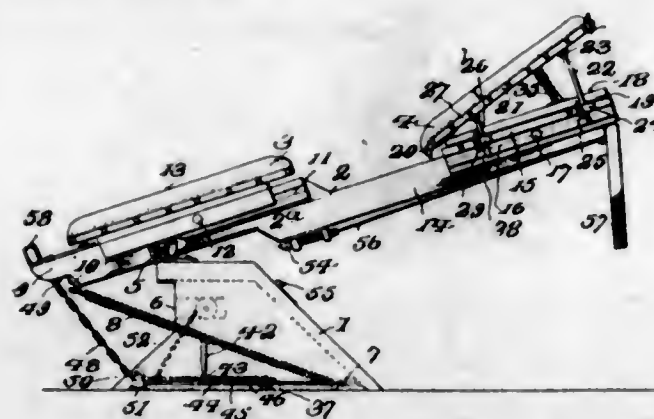
3. In combination with a gun, means for changing the elevation of the gun, means for indicating the range, and means for indicating the time of flight of a projectile according to the different elevations of the gun.

4. In combination with a gun, means for changing the elevation of the gun, a sighting device, means for indicating the range, means for changing the position of the sighting device, means for indicating the time of flight of a projectile, and means for simultaneously adjusting the sighting device and the range indicating means.

5. In combination with a gun, means for changing the elevation of the gun, means for indicating the range, means for indicating the time of flight of a projectile, and means for automatically changing the flight indicating means in changing the position of the gun.

[Claims 6 to 8 not included in the Gazette.]

1,079,795. CHIROPRACTIC TABLE. FRANK M. NAY-SMITH, Columbia, Mo. Filed June 17, 1913. Serial No. 774,221. (Cl. 128—16.)



1. In a device of the class described comprising a base, a support pivotally mounted on said base for angular movement in a vertical plane, means acting to assist the movement of said support from a horizontal toward an upright position, and mechanism to automatically augment the action of said assisting means during the commencement of said movement, said augmenting means diminishing in action as the said support continues said movement.

2. A device of the class described comprising a base, a support pivotally mounted on said base for angular movement in a vertical plane, variable means including a plurality of springs acting to assist the movement of said support from a horizontal toward an upright position, and means whereby a greater number of said springs act to assist said movement during the commencement than near the end of said movement.

3. A device of the class described comprising a base, a support pivotally mounted on said base for angular movement in a vertical plane, a spring arranged to assist the movement of said support toward an upright position, an auxiliary spring adapted to assist said action of the first named spring, and means whereby said auxiliary spring acts to assist the first named spring during a portion only of the movement of the said support.

4. A device of the class described comprising a base, a support pivotally mounted on said base for angular movement in a vertical plane, a spring arranged to assist the movement of said support toward an upright position, an auxiliary spring adapted to assist said action of the first named spring, and means whereby said auxiliary spring acts to assist the first named spring during a portion only of the movement of the said support, said means being adjustable to vary the time of action of said auxiliary spring.

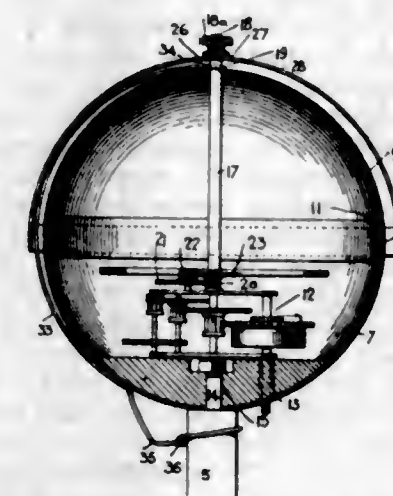
5. A device of the class described comprising a base, a support pivotally mounted on said base for angular movement in a vertical plane, a spring connected to said base and said support, and acting to assist the movement of said support throughout its movement toward an upright position, an auxiliary spring adapted to assist said action of the first named spring, a lost motion connection between said auxiliary spring and said support whereby said movement of said support is assisted during a portion thereof by said auxiliary spring, and an adjustable connection between said auxiliary spring and base for varying the action of said auxiliary spring.

[Claims 6 to 15 not printed in the Gazette.]

1,079,796. CLOCK. GUSTAF RIBERT NORDLING, New York, N. Y., assignor of one-half to Sulo Salonen, Brooklyn, N. Y. Filed Jan. 30, 1913. Serial No. 745,145. (Cl. 58—44.)

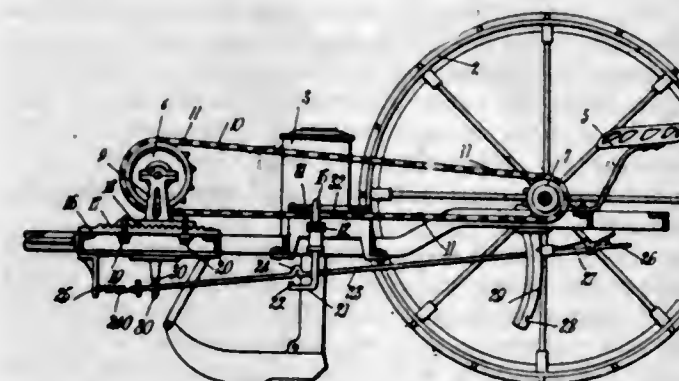
1. In a clock, a standard, a hollow terrestrial globe mounted on the standard having an opening at one pole, a clock in the globe and having an arbor with a terminal extending through the opening, a band around the globe having markings thereon, indicating time, means connecting the terminal of the arbor with the band for oper-

ating the latter, and a member loosely mounted on the terminal of the arbor and extending from the pole having the opening, the other terminal of the member being adjustable to the standard.



2. In a clock a standard, a hollow terrestrial globe section mounted on the standard, a second terrestrial globe section fitting the first globe section means for holding the second section in place relatively to the first section, there being an orifice in the pole of the second globe section, a clock in one of the globe sections and having an arbor with a terminal extending through the opening, a band around the globe and having markings thereon indicating time, means connecting the terminal of the arbor with the band for operating the latter, a wire having a terminal loosely looped around the arbor and a second terminal looped around the standard which may be pushed down on the standard after the adjustment of the wire to hold the latter in adjusting position relatively to the globe.

1,079,797. CORN-PLANTER. EDMUND J. OODEN, Springfield, Ill. Filed Dec. 5, 1911. Serial No. 664,000. (Cl. 111—46.)



1. A corn planter embodying means for dropping seed, the said means comprising a rod, a member having a bifurcated end movably carried by the rod, a chain having lugs thereon, the lugs periodically engaging the said ends in order to turn the rod, means for holding the bifurcated ends in the path of the lugs and other means for moving the said bifurcated ends out of the path of the lugs whereby the machine may be driven over the ground with the seed dropping mechanism in inoperative position.

2. A corn planter embodying means for dropping seed, the said means comprising a rod, means for periodically actuating the said seed dropping mechanism, and comprising a fork carried by the rod, and a movable chain having lugs thereon, the lugs engaging the ends of the fork whereby the rod is turned, a spring for keeping the ends of the fork in the path of the lugs, and other means comprising a locking rod adapted for engagement with the end of the said forked member whereby the ends may be brought out of the path of the lugs and the seed dropping mechanism held in inoperative position.

3. A corn planter embodying seed dropping mechanism, the said mechanism comprising a rod, a forked member car-

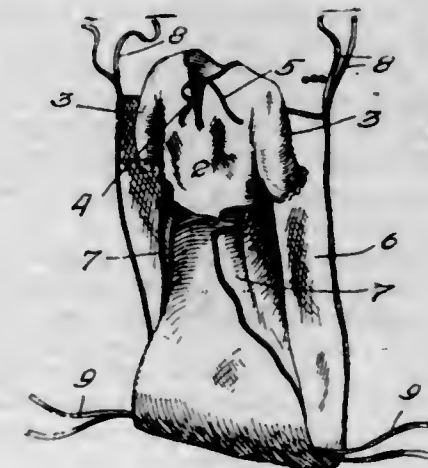
ried by the rod and movable thereon, a chain having lugs thereon, movement of the chain bringing the lugs into engagement with the ends of the forked member whereby the seed dropping mechanism is actuated, a spring for keeping the forked ends in the path of the lugs, together with means for moving the forked element out of the path of the lugs, the said means comprising a longitudinally extending locking rod resiliently mounted at one end, the other end thereof being movable, the said locking rod being provided with a bent portion adapted for engagement with the under side of the forked element, and means for holding the locking rod in position.

4. A corn planter embodying mechanism for dropping seed, the said mechanism embodying a rod, an element carried by the rod having a bifurcated upper end and an offset lower end, a chain having lugs thereon, the lugs being adapted for engagement with the forked end of the said member whereby the rod is turned, together with a locking rod resiliently mounted at its forward end and having an intermediate bent portion, the said bent portion being adjacent the offset end of the said member whereby when the parts are in operative position the engagement of the lugs with the forked end of the said member will turn the rod, the bent portion of the locking rod providing a pocket into which the offset end may swing out of engagement with any of the parts.

5. A corn planter embodying means for dropping seed, the said means comprising a rod, a fork carried by the rod and movable relatively thereto, a chain for moving the rod through engagement with the fork, and means for moving the fork to a certain position, whereby the chain does not engage therewith.

[Claim 6 not printed in the Gazette.]

1,079,798. INFANT'S GARMENT. GERTRUDE GLOVER PAINTER, Pittsburgh, Pa. Filed Nov. 6, 1911. Serial No. 658,692. (Cl. 2—145.)

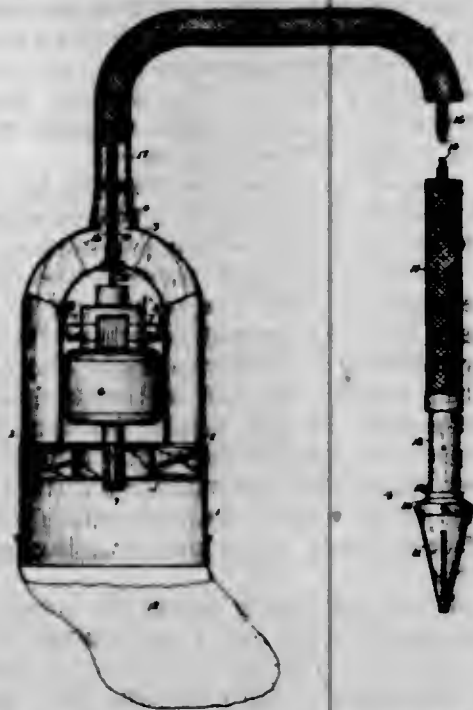


An infant's garment comprising a jacket including a tubular body portion and a pair of sleeves, said body portion having the rear thereof provided with a slit terminating in the neck of said body portion, a skirt forming a continuation of the front of the body portion and consisting of an oblong piece of material, said material of a width to project from each side of the jacket to provide flaps with the top edges of these latter above the lower edge of the rear of the body portion, said flaps capable of being folded around the limbs of the infant, said skirt further of a length whereby the flaps are folded around the limbs of the infant and can be folded upwardly over the infant and extend upon said body, strings projecting from each side of the material intermediate its ends, and strings projecting from each lower corner of the material, said material of the same width from end to end.

1,079,799. ROTARY CUTTER. HARRY J. PARKER, San Francisco, Cal. Filed July 29, 1912. Serial No. 712,191. (Cl. 30—1.)

1. In combination, a conical casing having a slot, a rotary cutter in said casing, a flexible shaft connected at one end to said cutter in line with its axis of rotation,

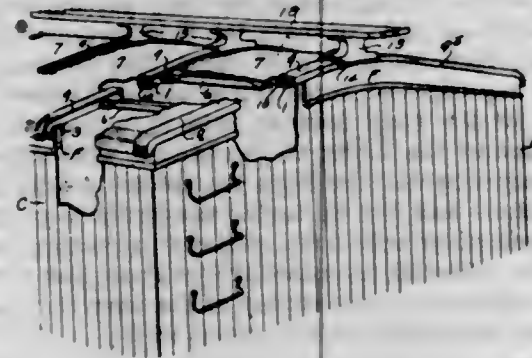
a flexible casing closely surrounding the shaft, a flexible tube surrounding the flexible casing and spaced therefrom and connected at one end to said conical casing in line with its axis, rotating means connected to the other end of said shaft, and vacuum producing means at the other end of said tube.



2. In combination with a cutter casing having a slot, a rotary cutter therewithin arranged to rotate in proximity to said slot, a flexible shaft operatively connected at one end to said cutter, bearings in which the ends of the flexible shaft rotate, a flexible casing closely surrounding said shaft, and connected with said bearings, a flexible tube surrounding said flexible casing and spaced therefrom and connected to said cutter casing, a motor operatively connected to the other end of said flexible shaft to impart rotation thereto, and vacuum producing means communicating with the other end of said tube.

3. In combination, a conical casing having a slot directed in an element of the cone, a rotary cutter coaxially located in said casing having a cutting edge arranged to rotate in close proximity to the inner surface of said casing, but oblique to the elements of the casing, a flexible shaft connected at one end to said cutter in line with its axis of rotation, a flexible casing closely surrounding said shaft, a flexible tube surrounding the flexible casing and spaced therefrom and connected at one end to said conical casing in line with its axis, rotating means connected to the other end of said shaft, and a vacuum-producing means at the other end of said tube.

1,079,800. CAR-ROOF CONSTRUCTION. CHARLES W. RENNER, Altoona, Pa. Filed Nov. 1, 1912. Serial No. 729,170. (Cl. 108-5.)

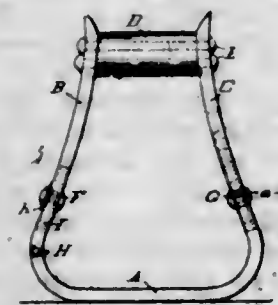


1. A car roof construction, comprising in combination with the car body, a plurality of channelled metal carlines extending transversely thereof, roof sheets spanning said carlines and extending from one side of the car to the other, removable means for holding the roof sheets into the carlines, said means provided with sockets, bridge blocks at the meeting edges of said removable

means, blocks provided with downwardly projecting studs adapted to enter the sockets on said removable means, flanges on said bridge blocks adapted to fit over the edges of said removable means, and means for locking the bridge block to the carline.

2. A car roof construction, comprising in combination with the car body, a plurality of channelled pressed steel carlines extending transversely thereof, roof sheets for spanning the carlines, flanges on said roof sheets for entering the channels of the carlines, removable locking bars, provided with sockets, for securing the roof sheets in the carlines, upstanding sleeves welded at one end to the carlines, bridge blocks at the junction of the locking bars, said blocks being provided with a central bolt-receiving hole adapted to fit over the said upstanding sleeve, studs projecting from the underside of the bridge blocks and adapted to fit into the sockets on the locking bars, means for locking the bridge blocks to the carlines, and flanges depending from the said bridge blocks.

1,079,801. SAFETY-STIRRUP. WILLIAM P. SARRETT and THOMAS A. BAKKE, Wallawa, Oreg. Filed June 10, 1912. Serial No. 702,903. (Cl. 54-49.)



1. A safety stirrup comprising side members and a tread plate pivotally connected at one end to one of said side members to swing in planes at right angles to each other, and means for detachably connecting the other end of said plate with the other side member.

2. A safety stirrup comprising side members and a tread plate pivotally connected at one end to one of said side members to swing in planes at right angles to each other, means for detachably connecting the other end of said plate with the other side member, said means comprising a cam catch on said tread plate, shoulders on said side member for engagement by said cam catch, and a spring for holding said shoulders and catch in yieldable engagement.

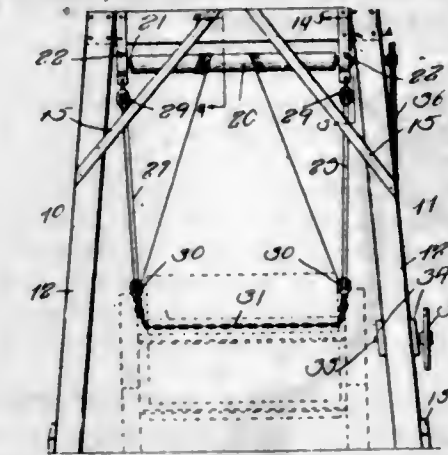
3. A safety stirrup comprising side members, a spacer connecting the upper ends of said side members, a link pivotally connected at one end with the free end of one of said side members, a tread plate pivotally connected with said link to swing in a plane at right angles to said link, and cooperating means on the other side member and the free end of said tread plate for detachably connecting said plate and member.

4. A safety stirrup comprising side members, a tread plate pivotally connected with one of said side members, a cam catch secured to the free end of said tread plate and having a hook at one end and a recess at its other end, a shoulder on the other side member for engagement by the hook of said cam, another shoulder on said side member for engagement with the recess on said cam, said cam having a cam recess in its inner face, and a pin on said side member for engaging said cam recess.

1,079,802. WAGON-JACK. BYRON SCHRADER, White Earth, N. D. Filed Jan. 30, 1913. Serial No. 745,272. (Cl. 57-129.)

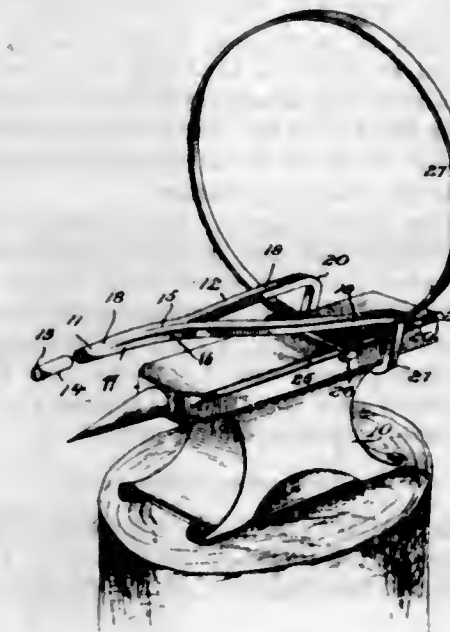
A wagon jack including spaced standards, a cross bar connecting said standards at the tops, spaced bearings depending from said cross bar near the ends thereof, a roller terminally journaled in said bearings, a block and tackle carried by each bearing, the end of each tackle cable being secured to said roller near the center thereof whereby lateral swaying of the load is prevented, a chain

connecting the lower blocks of both tackles and adapted to be engaged underneath a wagon, and means for actuating said roller whereby to wind said cables thereupon to lift one end of the wagon.



ing said roller whereby to wind said cables thereupon to lift one end of the wagon.

1,079,803. TIRE-SHRINKER. IRA I. SCOTT, Kingman, Kans. Filed Mar. 13, 1913. Serial No. 754,050. (Cl. 78-55.)



A tire shrinking tool comprising a bar bent intermediate its terminals, said terminals being secured together, the bar intermediate its ends being bent to form a yoke, the side members of which diverge from the connected terminals of the bar, said yoke being bent at right angles to provide an anvil embracing portion.

1,079,804. FILAMENT-LAMP. MAXIMILIAN SIDON, New York, N. Y. Filed Apr. 27, 1911. Serial No. 623,599. (Cl. 176-39.)



1. An incandescent lamp provided with a supporting rod, one of the leading-in wires of the said lamp being in electrical connection with the said rod, a shell carried by

the rod and insulated therefrom, a frame removably carried by said supporting rod, the lamp filament being carried on the frame, one end of the filament being in electrical contact with the said shell.

2. An incandescent lamp provided with a supporting rod, one of the leading-in wires being in electrical connection with the said supporting rod, a shell carried on the said rod and insulated therefrom, the other leading-in wire being in electrical connection with the said shell, and a frame having a filament thereon mounted on the said supporting rod, the frame being provided with members adapted for electrical contact with the said supporting rod and the said shell, whereby the leading-in wires are placed in circuit with the said filament.

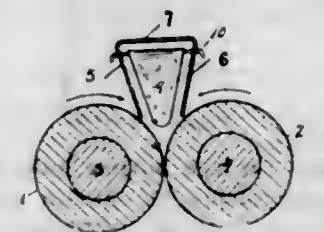
3. As a new article of manufacture, a supporting frame having an opening extending therethrough and a plurality of arms thereon, a filament carried by the said arms, one of the said arms being adapted for engagement with one end of a suitable supporting rod carried within an incandescent bulb, another of the said arms being adapted for connection with an insulated shell carried by the said supporting rod, the said rod and the said shell being in electrical contact with the leading-in wires of the lamp.

4. As a new article of manufacture, a supporting frame having an opening extending longitudinally therethrough, the said frame being provided with a plurality of arms, filament on the arms, one of the said arms being provided with a ring, another of the said arms terminating in a ferrule positioned on the said frame, the said ring and the said ferrule being adapted for contact with portions connected to the leading-in wires of an incandescent lamp when the said frame and filament are positioned on a suitable supporting rod contained within a lamp.

5. An incandescent lamp provided with a supporting rod adapted to conduct current, one of the leading-in wires of the lamp being connected to the said rod, a shell carried by the rod and insulated therefrom, the other leading-in wire being connected to the shell, a frame having a filament thereon, the frame being mounted on the said rod, one end of the filament being in electrical contact with the said shell, the other end of the filament being in contact with the said rod, and means for engagement with the said rod, whereby the frame will be held thereon.

[Claims 6 to 8 not printed in the Gazette.]

1,079,805. BEAN-PICKING MACHINE. CHARLES E. SMITH, Saginaw, Mich., assignor of one-fourth to Gustave R. Meyer, Saginaw, Mich. Filed Feb. 20, 1913. Serial No. 749,697. (Cl. 130-18.)



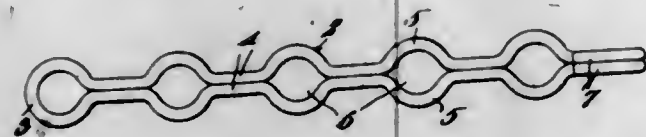
1. In combination with a pair of revolvable bean picking rolls, a pair of substantially vertical baffles oppositely disposed having their lower edges projecting downwardly between, but out of contact with the rolls, the lower edge of each baffle being adjacent the periphery of one of said rolls, but out of contact therewith, the lower edges of the baffles spaced apart farther than the width of a bean, the upper edges of said baffles projecting above said rolls, and a cover for said baffles for the purposes set forth.

2. In combination with a pair of revolvable bean picking rolls, a pair of substantially vertical baffles extending lengthwise said rolls and having their lower edges projecting between said rolls, but out of contact therewith and a cover connecting the upper edges of said baffles.

3. In combination with a pair of revolvable bean picking rolls, a pair of substantially vertical oppositely disposed baffles having their lower edges projecting part way between the rolls, but out of contact therewith, the lower

edge of each baffle being adjacent the periphery of one of said rolls, and a plurality of freely suspended swinging members between said baffles, the lower ends of said members located out of contact with the rolls, above the path of travel of beans when passing down the groove in proper contact with the peripheries of said rolls, said members adapted to yieldingly retard those beans that bound above the rolls.

1,079,806. CORRUGATED LINK FOR WIRE FABRIC. GARY B. SMITH, Chicago, Ill. Original application filed Aug. 9, 1912, Serial No. 714,283. Divided and this application filed Nov. 1, 1912. Serial No. 729,101. (Cl. 245-9.)



A link for wire fabrics, fashioned from a strip of material bent upon itself to form an eye at one end of the link and to form limbs, each limb terminating in a hook, said hooks facing the same way and being partly on each side of the plane of the link; the links comprising straight contacting parts and oppositely disposed out-struck portions alternating with the straight parts throughout the length of the link and defining eyes, the eye-forming portions and the straight parts of each limb lying upon the same side of a plane passed between the straight parts of the respective limbs, the diameters of the eyes being substantially equal to the lengths of the straight portions.

1,079,807. COAT-CLOSURE. JONATHAN S. SNYDER, Newport, Pa. Filed Sept. 25, 1912. Serial No. 722,259. (Cl. 24-202.)

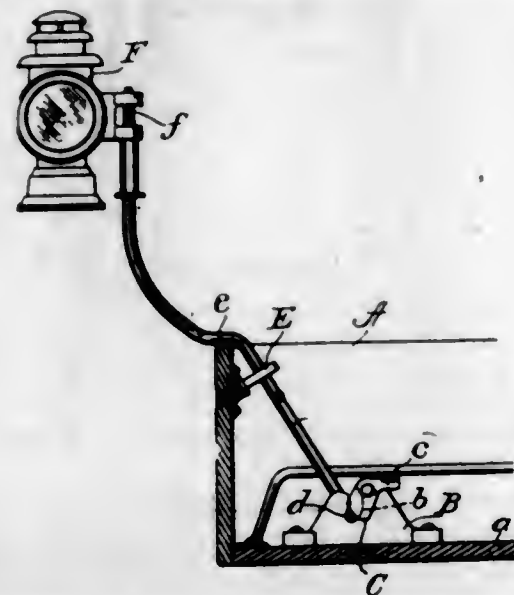


An attachment for the button hole side of the closure of a garment comprising an elastic webbing secured between the layers of cloth of the closure, the said webbing having openings formed therein which are shorter than the button holes of the closure, one end wall of each of the openings of the webbing being coincident with the outer end of the button hole of the closure and the other end of said opening being normally disposed a distance from the other end of the button hole of the closure and a strip of rubber sewn around the wall of each of the openings of the webbing, whereby said opening of the webbing will permit the button to pass through the button hole and then contract around the shank of the button and prevent the same being accidentally withdrawn therefrom.

1,079,808. VEHICLE LAMP-SUPPORT. JOSEPH W. SPANGENBERG, North Paterson, N. J. Filed Jan. 4, 1913. Serial No. 740,128. (Cl. 248-30.)

1. In a vehicle lamp support, the combination with a rod, releasable means constructed to be secured to the floor of the body of a vehicle and to hold the end of the

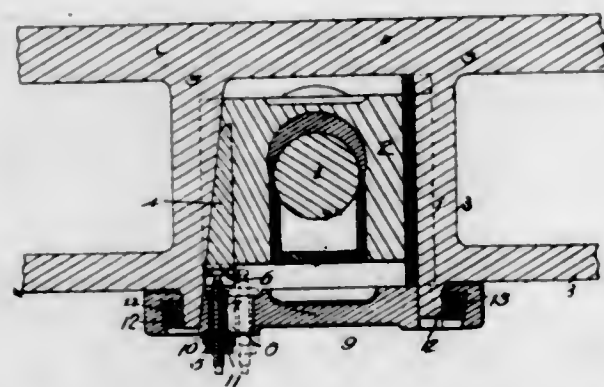
rod, and a clip constructed to be secured to the side of the body of the vehicle and arranged to engage the rod at a distance from the said releasable means and to hold the rod in an inclined position.



2. In a vehicle lamp support, the combination with a rod having its lower end bent at an angle, releasable means constructed to be secured to the floor of the body of a vehicle and to hold the bent end of the rod against displacement, and a clip constructed to be secured to the side of the body of the vehicle and arranged to engage the rod at a distance from the said releasable means and to hold the rod in an inclined position.

3. In a vehicle lamp support, the combination with a rod having a bent lower end and an intermediate bend constructed to rest upon the upper edge of the said side of the body of a vehicle, of releasable means secured within the body and constructed to hold the bent end of the rod against displacement, and a clip secured within the body of the vehicle and arranged to engage the rod at a distance from said rod-end-holding means.

1,079,809. LOCOMOTIVE-AXLE BEARING. WILLIAM CURRY STEPHENSON, Rocky Mount, N. C. Filed Nov. 11, 1912. Serial No. 730,637. (Cl. 105-113.)



1. The combination with a locomotive frame, an axle-journal bearing, a wedge, and a horizontal bar beneath the bearing and wedge, of a bolt extending through an opening in said bar, a collar surrounding and adapted to retain said bolt within the opening, means on the upper end of said collar engaging said bar.

2. The combination with a locomotive frame, an axle-journal bearing, a wedge, and a horizontal bar beneath the bearing and wedge, of a bolt extending through an opening in said bar, a collar surrounding said bolt provided with an interior threaded portion, a holding means on end of said collar, and means on the body of the collar engaging said bolt to retain the device when said holding means is in operation.

3. The combination with a locomotive frame, an axle-journal bearing, a wedge, and a binder beneath the bearing and wedge, of a bolt extending through an opening in said binder, a collar surrounding said bolt provided with

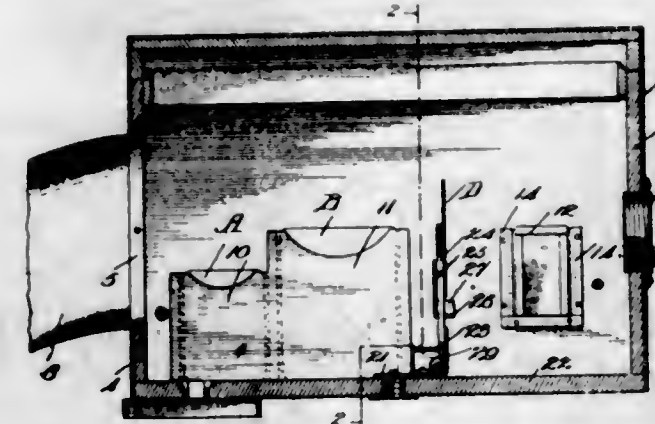
an interior threaded portion, a nut on its lower end engaging a recess in the bottom surface of the binder, and oppositely disposed laterally extending lugs and its upper end adapted to engage a recess in the top surface of the binder to hold the device in operative position when the nut is tight.

4. The combination, with a locomotive frame, an axle-journal block arranged therein, and a wedge inserted between the block and frame, of a horizontal bar attached to the frame and extending beneath the block, said bar being provided with a lengthwise slot adapted for lateral adjustment of means for adjusting the wedge, said means consisting of a screw-bolt, and an internally threaded collar through which it is inserted, said collar being provided with means for supporting it in the slot of the bar, as described.

5. The combination, with a slotted locomotive frame, a journal-block arranged in the slot, and a wedge arranged between them, as described, of a horizontal bar arranged below the journal-block and secured to the frame and provided with a lengthwise slot at a point directly below the wedge, and a device for adjusting the bolt vertically, the same consisting of a screw-bolt and a screw-threaded collar through which it passes, said bolt and collar being adapted for support in the slot of the bar and for adjustment laterally to one side of the wedge, as set forth.

[Claim 6 not printed in the Gazette.]

1,079,810. PLATE-HOLDER FOR CAMERAS. WILLIAM J. THOMPSON, New York, N. Y. Filed Dec. 21, 1912. Serial No. 738,038. (Cl. 95-19.)



1. A camera comprising a casing; a device hingedly mounted therein adapted for holding a sensitized plate in position for exposure; and means associated with said device for presenting said plate in relatively different angular positions for exposure, substantially as described.

2. A camera comprising a casing; devices hingedly mounted therein adapted for holding sensitized plates in position for exposure, and movable vice versa into and out of exposure position; and means associated with one of said devices for presenting the plates to be exposed in relatively different angular positions, substantially as described.

3. A camera comprising a casing; a device hingedly mounted on the bottom wall thereof and adapted for holding a sensitized plate in position for exposure; a device hingedly mounted on the side wall of the casing and adapted for holding a pack of sensitized plates in position for successive exposures; and means associated with said pack holding device for presenting the plates in relatively different angular positions for exposure, substantially as described.

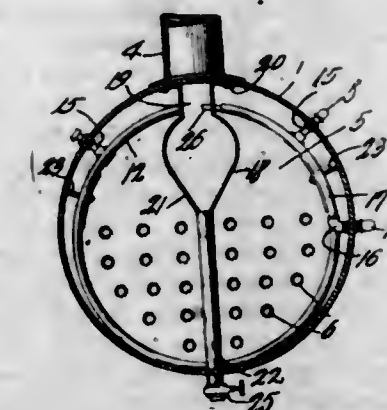
4. A camera comprising a casing; a magnet hingedly mounted on a wall thereof for holding a sensitized plate to be exposed; a plate having an irregular edge secured to the magnet for facilitating the positioning of plates of different sizes on the magnet; a device hingedly mounted on another wall of the casing for holding a pack of sensitized plates to be successively exposed, said devices movable vice versa into and out of position for exposure; and means associated with the pack holding device for pre-

sending the plates in different angular positions for exposure, substantially as described.

5. A camera comprising a casing; a bracket hingedly to the bottom wall of the casing; a device secured to said bracket and adapted for holding sensitized plates to be exposed; a bracket hingedly to a side wall of the casing; and a plate holding clip swiveled on said bracket and adapted for presenting the plate in different angular positions for exposure, substantially as described.

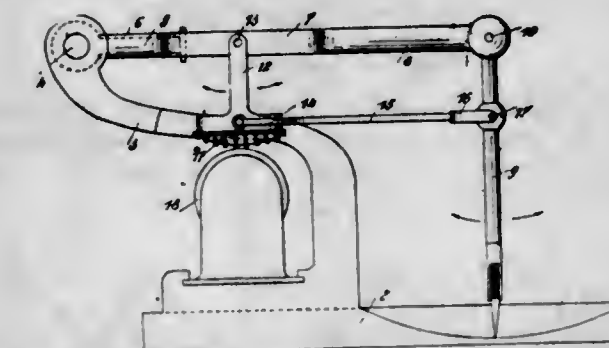
[Claims 6 and 7 not printed in the Gazette.]

1,079,811. WATER-HEATER. JOHN O. VAN BUSKOR and ERNEST MEIER, Dwight, Ill. Filed July 22, 1913. Serial No. 780,602. (Cl. 122-426.)



In a device of the class described, a boiler including a shell, a flue-sheet defining a smoke box in the boiler, and a stack communicating with the smoke box; a single helical coil of pipe in the smoke box, the rear convolution of the coil being located close to the flue sheet, the end of the rear convolution of the coil being extended outside of the boiler; a source of water supply communicating with said end of the rear convolution of the coil; a mud drum secured directly to the top of the shell in advance of the stack and acting as a deflector to facilitate the progress of the products of combustion through the stack; a pipe leading from the bottom of the mud drum through the shell; and a valve in said pipe; the forward convolution of a coil consisting of two axially aligned portions, one of which portions at its outer end communicates with the water space of the boiler, the other end of which enters the mud drum and protrudes inwardly beyond the inner face of the mud drum to form an anti-foaming nozzle, the other of said portions of the forward convolution of the coil entering the mud drum and terminating at its inner end substantially flush with the inner face of the mud drum and opposite to the anti-foaming nozzle.

1,079,812. TYPE-WRITER. ALOIS VAN LOY, Brussels, Belgium. Filed Aug. 13, 1913. Serial No. 784,562. (Cl. 197-47.)



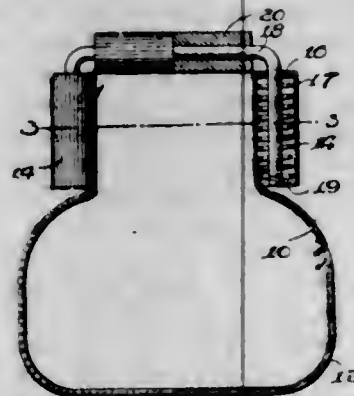
1. In a typewriter of the class described, the combination with a suitable frame, an index-plate and the usual carriage slidably arranged on said frame, of a horizontal shaft, journaled on the frame, a single-armed printing lever carried by said shaft, a pointing key, pivotally connected to the free end of said lever, a spherical segmental type-carrier suspended from the printing lever intermediate the ends of the latter, means for causing

the pointing key and type-carrier to be moved in unison, and means enabling the printing lever to turn around its longitudinal axis, substantially as set forth.

2. In a typewriter of the class described, the combination with a suitable frame, an index-plate on the same and the usual carriage slidably arranged on said frame, of a horizontal shaft journaled on said frame, a forwardly projecting stud on said shaft, a single armed, printing lever one end of which is rotatably held on said stud, a pointing key pivotally connected to the free end of the printing lever above said index-plate, a suitable type-carrier, pivotally connected to the printing lever intermediate the ends of the latter, and means for causing the pointing key and type-carrier to be moved in unison, substantially as set forth.

3. In a typewriter of the class described, the combination with a suitable frame, an index-plate on the same and the usual carriage slidably arranged on said frame, of a horizontal shaft journaled on said frame, a forwardly projecting stud on said shaft, a single-armed printing lever one end of which is rotatably held on said stud, a pointing key pivotally connected to the free end of the printing lever above said index-plate, a suitable type-carrier pivotally connected to the printing lever intermediate the ends of the latter, and a suitable rod pivotally connected at opposite ends to the body of the type-carrier and the pointing key respectively, whereby the printing lever, type-carrier, pointing key and said rod form a pointed parallelogram, capable of turning around the longitudinal axis of the printing lever and swinging in a vertical plane around the said horizontal shaft, substantially as set forth.

1,079,813. STIRRUP. DIEHLIS P. VAN ZANTE, Pella, Iowa. Filed Apr. 15, 1912. Serial No. 690,747. (Cl. 54-49.)



A stirrup comprising a body portion, a pair of spring housings, the bottom of said body portion extending beneath said spring housings and the sides of said body portion being carried beyond said housings and having their upper ends brought inwardly and connected with said spring housings, a hanger bracket having its arms extending into said housings and springs in said housings connected with the arms of said hanger bracket.

1,079,814. IRON PILING. FRANZ WIEDER, Bliersheim, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Sept. 28, 1912. Serial No. 722,863. (Cl. 61-62.)



1. A cross shaped pile having two pairs of longitudinal blades, one pair of which forming a female member and the other pair a male member.

2. A cross shaped pile having two pairs of longitudinal blades, one pair of which forming a female member and

the other pair a male member; said pairs of blades being oppositely disposed to each other on each side of a central plane and their blades forming continuations of each other.

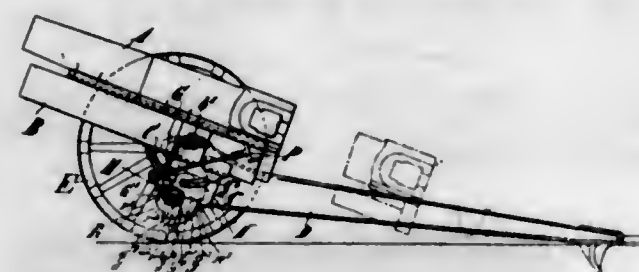
3. A cross shaped pile having two pairs of longitudinal blades, one pair of which forming a female member and the other pair a male member; the female pair of blades having inwardly bent flanges.

4. A cross shaped pile having two pairs of longitudinal blades, one pair of which forming a female member and the other pair a male member; the female pair of blades having inwardly bent flanges; said pairs of blades being oppositely disposed to each other on each side of a central plane and their blades forming continuations of each other.

5. A cross shaped pile having two longer and two shorter longitudinal blades, the two longer blades being provided with flanges bent toward each other.

(Claims 6 to 13 not printed in the Gazette.)

1,079,815. GUN-CARRIAGE. GEORG WIENHOLTZ, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 5, 1912. Serial No. 688,676. (Cl. 89-41.)



1. In a gun carriage having a rocking member partaking of the elevating movement of the gun barrel and a trail wherein said rocking member is mounted; the combination of a cranked wheel axle, the middle part of which is mounted to turn in said trail; a pair of flanges on said axle adjacent the trail sides; a plurality of bolt holes in said flanges; a bolt hole in each of said trail sides; a pair of key bolts adapted to lock said cranked axle to said trail to prevent its turning therein, by means of said bolt holes in the trail sides and either pair of said bolt holes in the flanges, for the purpose of giving the gun barrel different heights from the ground by using different pairs of flange bolt holes, and members on said trail and rocking member adapted to limit the maximum elevation of the gun barrel for each of said different heights.

2. In a gun carriage having a cradle for carrying the gun barrel and a trail in which the cradle is mounted to rock; the combination of a cranked wheel axle, the middle part of which is mounted to turn in said trail; a pair of flanges on said axle adjacent the trail sides; a plurality of bolt holes in said flanges; a bolt hole in each of said trail sides; a pair of key bolts adapted to lock said cranked axle to said trail to prevent its turning therein, by means of said bolt holes in the trail sides and either pair of said bolt holes in the flanges, for the purpose of giving the gun barrel different heights from the ground by using different pairs of flange bolt holes and members on said trail and cradle adapted to limit the maximum elevation of the gun barrel for each of said different heights.

3. In a gun carriage having a rocking member partaking of the elevating movement of the gun barrel, a trail wherein said rocking member is mounted, and an independent elevating gear for elevating said rocking member with the gun barrel relative to said trail; the combination of a cranked wheel axle constructed to give a plurality of fixed firing heights to the gun barrel; radial disks on the middle part of said wheel axle; arms projecting downward from said rocking member and adapted to cooperate with said radial disks to limit the maximum elevation of the gun barrel for each of said fixed firing heights.

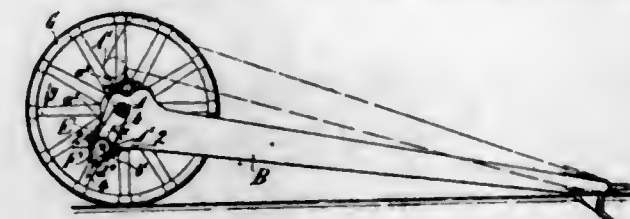
4. In a gun carriage having a cradle with the gun barrel slidably mounted thereon, a trail in which the cradle is

mounted to rock, and an independent elevating gear for elevating said cradle with the gun barrel relative to said trail; the combination of a cranked wheel axle constructed to give a plurality of fixed firing heights to the gun barrel; radial disks on the middle part of said wheel axle; arms projecting downward from said cradle and adapted to cooperate with said radial disks to limit the maximum elevation of the gun barrel for each of said fixed firing heights.

5. In a gun carriage having a cradle with the gun barrel slidably mounted thereon, a trail in which the cradle is mounted to rock, and an independent elevating gear for elevating said cradle with the gun barrel relative to said trail; the combination of a cranked wheel axle constructed to give a plurality of fixed firing heights to the gun barrel; radial disks on the middle part of said wheel axle; each of said radial disks being composed of a plurality of circle sectors of different radii; arms projecting downward from said cradle and adapted to cooperate with said radial disks to limit the maximum elevation of the gun barrel for each of said fixed firing heights.

(Claims 6 to 9 not printed in the Gazette.)

1,079,816. WHEELED GUN-CARRIAGE. GEORG WIENHOLTZ, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Feb. 13, 1913. Serial No. 748,183. (Cl. 89-40.)



1. In a wheeled gun carriage having a trail, a cranked axle-tree, bearings in said trail in which the middle cranked portion of the axle-tree is mounted to oscillate, a spring accumulator one end of which is secured to the trail and the other end to the axle-tree in such a manner that the spring is compressed when the trail is in the lowest position and partly or wholly released when the trail is in the highest position.

2. In a wheeled gun carriage having a trail, a cranked axle-tree, bearings in said trail in which the middle cranked portion of the axle-tree is mounted to oscillate for the purpose of giving different heights to said trail; the middle portion of the axle-tree being hollow, an accumulator in the hollow portion of the axle-tree, said accumulator comprising a helical spring, a spindle for said spring, one end of the spring being secured to said spindle and the other end thereof to said middle portion of the axle-tree; and means for rigidly connecting said spindle to the trail.

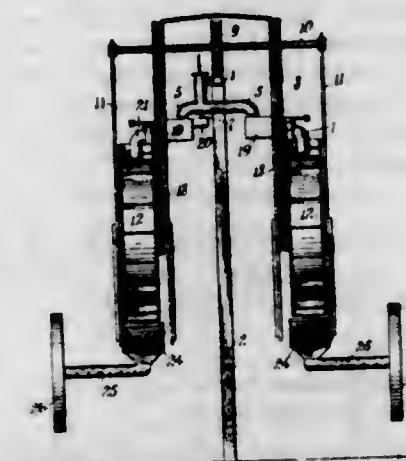
3. In a wheeled gun carriage having a trail, a cranked axle-tree, bearings in said trail in which the middle cranked portion of the axle-tree is mounted to oscillate for the purpose of giving different heights to said trail; the middle portion of the axle-tree being hollow, an accumulator in the hollow portion of the axle-tree, said accumulator comprising a helical spring, a spindle for said spring, one end of the spring being secured to said spindle and the other end thereof to said middle portion of the axle-tree; an arm keyed to said spindle and rigidly secured to the trail; said accumulator having its greatest stress when the trail is in the lowest position.

1,079,817. IRRIGATING APPARATUS. GEORGE SHAW WILLIAMSON, Elk Grove, Cal. Filed May 10, 1910. Serial No. 580,449. (Cl. 137-86.)

1. An irrigating apparatus, comprising a track pipe line, valves for controlling the flow of liquid from the track pipe line, a carriage mounted to travel on the track pipe line and provided with means for operating the valves, a trough on each side of the carriage and into which the said valves discharge, valves for each trough, means for

196 O. G.—64

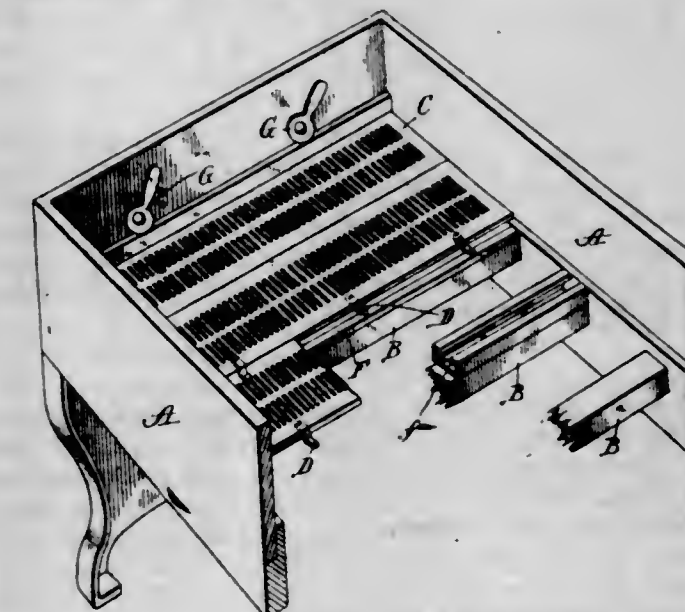
automatically operating the last named valves, a paddle wheel on each side of the carriage and onto which the valves of the troughs discharge, means for operating the carriage from the paddle wheels, and a sprinkling device receiving the liquid from each wheel.



2. In an irrigating apparatus, a track pipe line, valves for controlling the flow of liquid from the track pipe line, a carriage mounted to travel on the track pipe line, a trough on the carriage for receiving the liquid from said valves, means on the trough for operating the valves, a paddle wheel, means for delivering the liquid from the trough to the paddle wheel, means for operating the carriage from the paddle wheel, and a distributing device receiving the liquid from the paddle wheel.

3. In an irrigating apparatus, a track pipe line, valves for controlling the flow of liquid from the track pipe line, a carriage mounted to travel on the track pipe line and provided with means for operating the valves, a trough on the carriage for receiving the liquid from the valves, valves on the trough, a rod connecting the last-named valves and projecting beyond one end of the carriage, a stop with which the rod is adapted to engage to open one valve and close the other, a paddle wheel receiving the liquid from the valves of the trough, a sprinkling device to which the liquid is delivered from the paddle wheel, and means for operating the carriage from the paddle wheel.

1,079,818. PULP-STRAINER. GEORGE S. WITHAM, Sr., Hudson Falls, N. Y. Filed Feb. 17, 1913. Serial No. 748,972. (Cl. 92-29.)



1. A pulp screen, comprising a vat having plate-supporting cross-beams, a series of screen plates each of which is provided on its under side on one edge with outwardly projecting locking fingers and on its opposite edge with outwardly projecting locking arms, and means carried by the cross-beams which engage the locking fingers.

2. A pulp screen, comprising a vat having a series of plate-supporting cross-beams, a series of screen plates placed edge to edge, the plates in each pair having locking

fingers on one plate projecting laterally beneath the other plate and locking arms on said other plate projecting laterally beneath and close to the finger-carrying plate, and means carried by a supporting cross-beam which are engaged by the locking fingers and hold both plates in a horizontal position.

3. A pulp screen, comprising a vat having plate-supporting cross-beams, recessed locking bars carried by the cross-beams, screen plates provided on their under sides with locking fingers engaging said recessed bars and with locking arms extending across the joint between the edges of adjacent plates.

1,079,819. CANNERY EXHAUST-BOX. JOHN E. WRIGHT and JOHN P. SMITH, Seattle, Wash. Filed Feb. 7, 1912. Serial No. 676,105. (Cl. 126-272.)



1. In a device of the class described, a chamber, channels extending longitudinally of the chamber in spaced relation, cables disposed in the channels, means to move alternate cables in opposite directions, guides disposed upon opposite sides of the channel, and means at opposite ends of the chamber adapted to move an object from one cable to the oppositely traveling adjacent cable.

2. In a device of the class described, a housing, channels extending longitudinally of the housing, cables moving in the channels, alternate cables moving in opposite directions, said cables extending slightly above the flanges of the channel, guides positioned upon opposite sides of each of the channels, and means to transfer an object from one cable to the adjacent cable at the completion of travel of said object upon said cable.

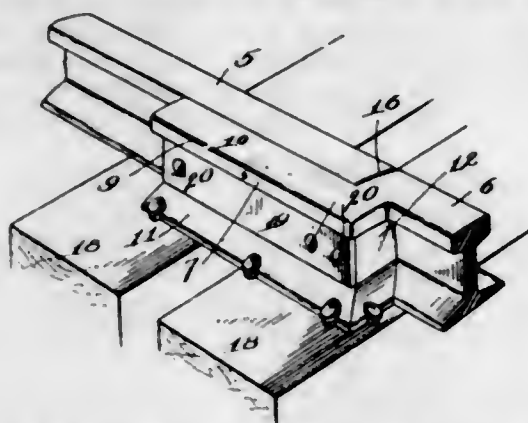
3. In a device of the class described, a plurality of channels, sheaves journaled at the ends of said channels, cables carried upon the sheaves and moving in the channels, alternate cables moving in opposite directions, the extreme cables extending beyond the remaining cables, guides positioned upon opposite sides of the channels and proportioned to support an object upon the cable, and means at opposite ends of the channels for moving the object laterally from one cable to the next.

4. In a device of the class described, a housing having cables extending longitudinally thereof and moved alternately in opposite directions, disks mounted to rotate in horizontal planes located immediately above the cables, the edges of said disks being tapered substantially to an edge, the opposite sides of said disks moving in the direction of the cable adjacent which it occurs.

1,079,820. RAIL-JOINT. DAVID YOKAM, Lacona, Iowa. Filed June 19, 1912. Serial No. 704,859. (Cl. 239-8.)

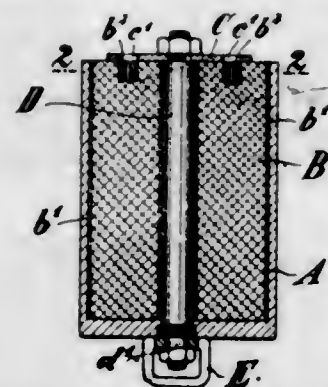
In a rail joint, the combination of a rail section having an angular offset at one end of substantially the same configuration as the body of the said rail section and extending in the main longitudinally straight in a plane parallel to the section to provide a straight transverse abutting shoulder and a seat, the transverse extent of the shoulder and seat being just equal to the cross-sectional extent of an ordinary rail extremity, the offset between the upper and lower surfaces thereof having a longitudinal boss which is in addition to the thickness of the offset and has a vertical extent less than the maximum vertical extent of the offset and a thickness less than the transverse extent of the recess formed by the offset, and a second rail section of normal contour and proportions having its extremity fitted in the said recess flush with the por-

tion of the rail extremity carrying the offset with the said boss snugly fitting in the side of the said second rail section between the head and the base flange of the latter, the



one side of the head of the second rail section being supported on the upper edge of the boss below the top surface of the offset, and means extending through the two rail sections for securing them.

1,079,821. ILLUMINATING-BODY FOR ILLUMINATING-PROJECTILES. FRIEDRICH ZIEGENFUSS, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed May 27, 1913. Serial No. 770,202. (Cl. 102-29.)



1. An illuminating body for illuminating projectiles comprising a housing, a plurality of sections of illuminating mass, said sections acting independently from each other and being separated from each other and from the housing by means of an easily melting material.

2. An illuminating body for illuminating projectiles comprising a cylindrical housing closed at one end, and a plurality of sections of illuminating mass, each extending the whole length of the housing, a casing for each of said sections open at both ends, means for securing said sections in the housing, and a filling material for the space between the individual sections and the housing, said filling material consisting of an easily melting matter.

3. An illuminating body for illuminating projectiles, comprising a cylindrical housing closed at one end, a plurality of sections of illuminating mass, each extending the whole length of the housing, a casing for each of said sections, means for securing said sections in the housing and a filling material for the space between the individual sections and the housing, said filling material consisting of an easily melting matter; a fulminant in each of said sections at the open end of said housing.

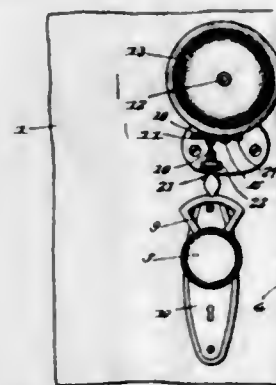
4. An illuminating body for illuminating projectiles comprising a cylindrical housing closed at one end, a plurality of sections of illuminating mass, each extending the whole length of the housing, a casing for each of said sections, means for securing said sections in the housing and a filling material for the space between the individual sections and the housing respectively said filling material consisting of an easily melting matter; and a fulminant in each of said sections at the open end of said housing; said means comprising a bolt secured in the bottom of the housing and a cover-plate at the open end of the housing.

5. An illuminating body for illuminating projectiles comprising a cylindrical housing closed at one end, a plurality of sections of illuminating mass, each extending the

whole length of the housing, a casing for each of said sections, means for securing said sections in the housing and a filling material for the space between the individual sections and the housing respectively said filling material consisting of an easily melting matter; and a fulminant in each of said sections at the open end of said housing; said means comprising a bolt secured in the bottom of the housing and a cover-plate at the open end of the housing and a plurality of holes in said cover-plate situated opposite said fulminants.

(Claim 6 not printed in the Gazette.)

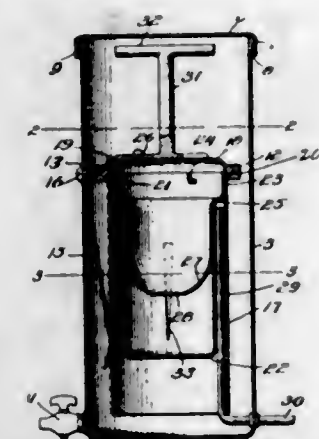
1,079,822. DOOR-BELL. MARTIN ZIMMERMAN, Ephrata, Pa. Filed Apr. 9, 1913. Serial No. 760,037. (Cl. 116-35.)



1. In a door bell, a supporting plate, a pivoted bell crank lever carried thereby, a slidably and rotatably mounted lock-operating knob shank, means carried by the knob shank and adapted to actuate the bell crank lever only when the knob shank is in normal position relative to its rotation, resilient means for holding the knob shank against sliding movement, and bell striking mechanism actuated by the bell crank lever.

2. In a door bell, a supporting plate, a pivoted bell crank lever carried thereby, a slidably and rotatably mounted lock-operating knob shank, a curved segment carried by the knob shank and arranged in the path of the bell crank lever only when the knob shank is in normal position relative to its rotation, a spring surrounding the knob shank and adapted to hold the same against sliding movement and bell striking mechanism actuated by the bell crank lever.

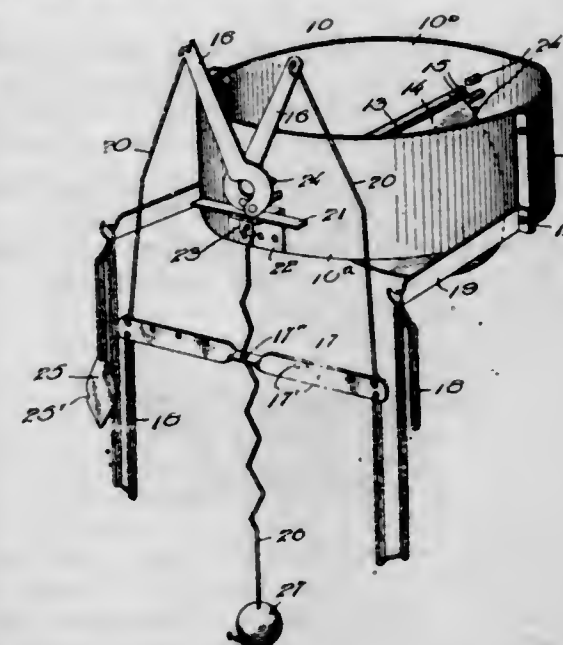
1,079,823. ACETYLENE-GENERATOR. ERNIE ADAMSON, Carrollton, Ga. Filed Feb. 19, 1913. Serial No. 749,503. (Cl. 48-22.)



1. In an acetylene generator, a tank, a supporting ring fixed interiorly thereof, a gas bell detachably engaged with the ring and depending within the tank, a slotted cup detachably engaged interiorly of the bell and having its major portion spaced therefrom, a carbide holder removably held within the cup, means extending between the cup and bell and leading from the tank for delivering gas from the bell to a point exteriorly of the tank, and means integrally formed with the bell for permitting the turning thereof for the fastening of the same in the ring or detaching it therefrom.

2. In an acetylene generator, a tank, a supporting ring fixed interiorly thereof, a gas bell detachably engaged with the ring and depending within the tank, a slotted cup detachably engaged interiorly of the bell and having its major portion spaced therefrom, a carbide holder removably held within the cup, and means extending between the cup and bell and leading from the tank for delivering gas from the tank.

1,079,824. AUTOMATIC FURNACE-DAMPER. ARTHUR W. ARNOLD, New York, N. Y. Filed Nov. 14, 1911. Serial No. 660,234. (Cl. 236-2.)



1. In an automatic damper, the combination of a pair of normally pendent wings, oppositely arranged levers connected to said wings, a cross bar connected to said levers, and flexible weight means of variable effective heft connected to and suspended from both ends of said cross bar.

2. In an automatic damper, the combination of a normally pendent wing and counterweight mechanism therefor comprising a flexible weight whose one end is connected to the wing and a support for the other end thereof whereby the intermediate portion of the weight is formed into a depending loop of variable length and effective heft, substantially as set forth.

3. In an automatic damper, the combination of a pair of wings adapted to be moved by the force of the draft and means to control the speed of such movement, said controlling means including a member connected to said wings and having a vertical eye, and a sinuous rod extending through said eye, substantially as set forth.

4. The combination with the movable portion of an automatic damper, of retarding means therefor comprising a vertically movable member connected to said portion and having an eye, and a sinuous rod fixed from vertical movement and extending through said member eye, substantially as set forth.

5. The combination with the movable portion of an automatic damper, of retarding means therefor comprising a vertically movable member connected to said portion and having an eye, a sinuous rod extending through said eye and vibratable laterally, and means to resist such vibration, substantially as set forth.

(Claims 6 to 9 not printed in the Gazette.)

1,079,825. RAIL-JOINT. JOHN E. BAMBER, Rouse, Colo. Filed Dec. 28, 1912. Serial No. 739,101. (Cl. 239-8.)

In a rail joint, identical rail sections, each of said sections having its vertical web provided at one end with spaced extensions having aligned shoulders lying below the plane of the upper surfaces of said extensions, and disposed in parallel relation thereto on either side of the axis of the web, and provided at its opposite end with a pair of longitudinally extending slots provided with shoulders and recesses opening directly into the

slots for the reception of the shoulders of the adjacent rail section, an integral extension formed at said opposite end of the section and separating the slots from each other and extending beyond the outer ends of the slots and provided with a shoulder lying in the same horizontal



plane with the shoulders of the said spaced extensions, the said section having a recess opening into the space between the spaced extensions for the reception of the shoulder on the extension of the next adjacent rail section.

1,079,826. WATER-HEATING DEVICE. HARRISON K. BEALER, Allentown, Pa. Filed July 19, 1912. Serial No. 710,407. (Cl. 126-54.)



1. A combined water heater and gas burner having a gas compartment and a horizontally divided water circulating passage of tortuous form, said passage being provided at one end with an inlet and an outlet, the spaces between the limbs of the tortuous passage being provided with apertures communicating with the gas compartment of the burner.

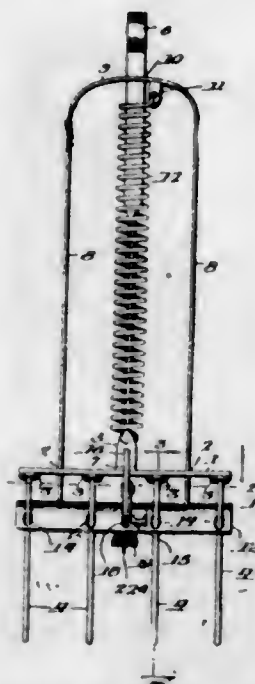
2. A combined water heater and gas burner comprising a base plate, a tortuous water passage on the upper side of said plate including a plurality of parallel casings connected together, and a horizontal partition which extends through the entire compartment terminating at a distance from one end thereof which is closed, an inlet and an outlet at the opposite end of the compartment communicating respectively with the spaces below and above the horizontal partition, and gas ducts or passages on the underside of the plate, the latter being provided with apertures through which the gas ducts communicate with the open spaces between the limbs of the tortuous water compartment.

1,079,827. MOLE-TRAP. HENRY H. BEERS, Middlebury, Ind. Filed Mar. 3, 1913. Serial No. 751,760. (Cl. 43-27.)

1. A trap comprising a plurality of spaced depending loops, a pressure plate having apertures loosely receiving the arms of the loops, a body plate, arms fixed to and extending laterally from said body plate and fixedly connected to the arms of the several loops, above the pressure plate, a lateral trigger-engaging arm fixed to and extending from the body plate, a bar fixed with respect to and extending upwardly from the body plate, a loop-shaped frame fixed at its ends to the pressure plate and loosely receiving said bar in its bight portion and having its sides loosely arranged in apertures in the body plate, a retractile spring surrounding said bar and connected at its upper end with the bight of the frame and at its lower end with the bar, a standard fixed to and rising from the pressure plate adjacent one side edge thereof, and a trigger fulcrumed on the said standard and having a beveled head at its upper end arranged to engage the trigger-engaging arm of the body plate and also having its lower arm loosely arranged in an aperture of the pressure plate and terminating below the pressure plate in a plate that is substantially parallel to the pressure plate.

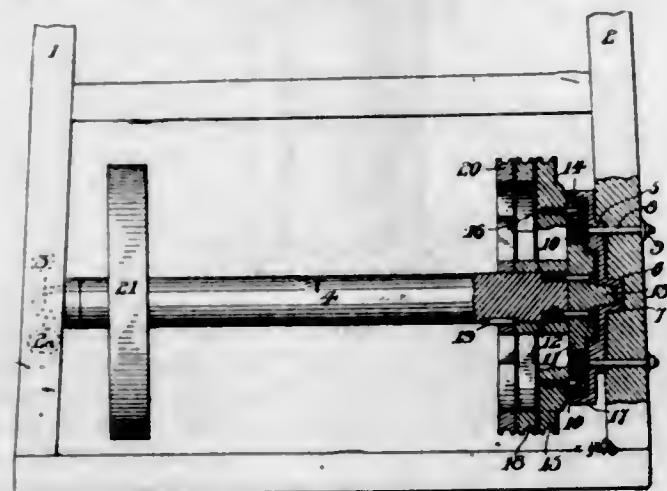
2. A trap comprising a plurality of spaced depending loops, a pressure plate that loosely receives the arms of

the loops, means fixedly connecting the arms of the several loops, above the pressure plate, a lateral arm fixed to and extending from said means, a bar fixed with respect to and extending upwardly from said means, a frame fixed to the pressure plate and loosely receiving said bar, a retractile spring surrounding said bar and connected at its upper end with said frame and at its lower end with the bar, a trigger pivoted on a support carried by the pressure plate and having on its lower arm a plate disposed below the pressure plate; said trigger being arranged to engage the arm on said connecting means, and a safety lever fulcrumed on a support on the pressure plate and having an arm that extends below said plate and is provided with means for engaging the plate on the lower arm of the trigger.



3. A trap comprising a loop-shaped portion, a pressure plate loosely mounted on said loop-shaped portion, a trigger carried by said plate and having a portion disposed below the pressure plate and adapted to be pressed upwardly by the ground below it, means carried by the loop-shaped portion and arranged to cooperate with said trigger, means including a spring for moving the loop-shaped portion with respect to the pressure plate when the trigger is disengaged from the means that cooperates therewith, and a safety lever mounted on the pressure plate and having an arm disposed below said plate and provided with means for engaging the said portion on the lower arm of the trigger.

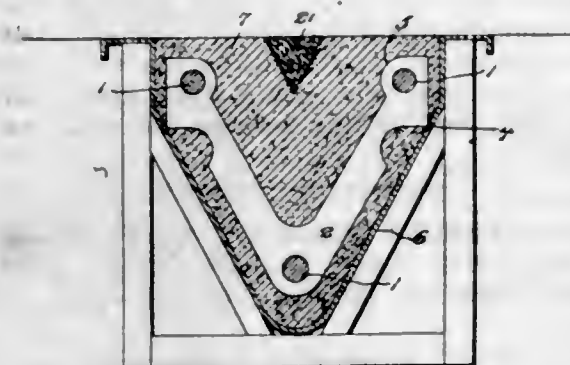
1,079,828. WHEEL. CHARLES WASHINGTON BELL, Chicago, and SAMUEL P. HILLWIG, Kaylor, Pa. Filed Feb. 24, 1913. Serial No. 750,443. (Cl. 74-21.)



A bull wheel comprising the combination with a pair of supports, of a socket bearing carried by one of said supports, a flanged plate mounted in the other of said supports and provided with a socket bearing, a shaft journaled

in the first mentioned bearing, a gear wheel abutting against and secured to the other end of said shaft and having a hub journaled in the said second mentioned socket bearing, pinions engaging with said gear, means for securing said plate in position and supporting said pinions, a grooved pulley fixed to said shaft, an idler pulley loosely mounted upon the shaft, a pulley loosely mounted upon the shaft and provided with a rack extending into said plate and engaging the said pinions.

1,079,829. COMPOSITION FENCE-POST. RUSSELL B. BENNETT, Westerville, Ohio. Filed Aug. 13, 1912. Serial No. 714,920. (Cl. 72-82.)



A fence post comprising a substantially triangular body, a plurality of V-shaped spacers embedded therein and having their sides substantially parallel with the faces of the body, each spacer having an eye at its apex and at each terminal and provided with a supporting projection on each outer side near each terminal, said projections constituting suspending points disposed between the terminals and the apex of the spacer, rods inserted through and inclosed and supported by the eyes in the spacers, and a penetrable composition in one face of the body between the terminals of the spacers.

1,079,830. COFFEE OR TEA POT. ELFRIDA BOHMAN, Rock Island, Ill. Filed Jan. 8, 1913. Serial No. 740,851. (Cl. 53-3.)



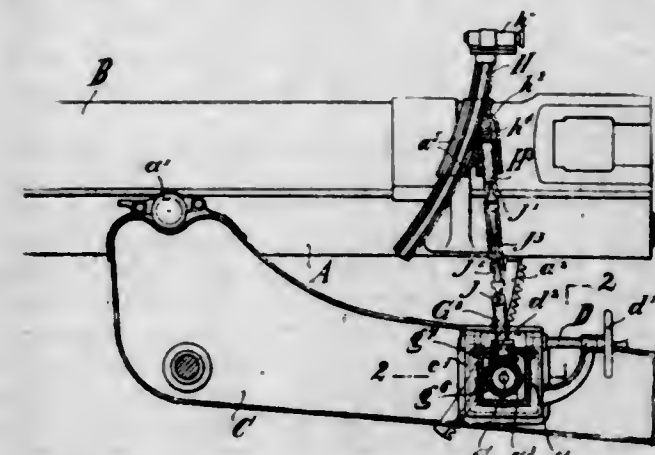
1. A coffee or tea pot having a pouring spout, a perforated vertical partition arranged within the body of the pot and subdividing the same to form compartments, one of which is in communication with the spout and a base piece integral with the bottom of said partition and forming the base of the other compartment, said base being in locked engagement with the body of the pot.

2. A coffee or tea pot having a pouring spout, a partition disposed vertically within said pot and forming compartments, one communicating with said spout, a lid or cover hinged to the upper edge of the partition for closing one of said compartments and a partially circular base piece projecting laterally from the lower edge of the partition and covering the underlying portion of the bottom of the pot, the wall, bottom of the pot and base piece of the partition being jointly united.

3. A coffee or tea pot comprising a body having a pouring spout, a bottom united to the body, a vertical per-

forated partition within the pot and subdividing the same into compartments one of which is in communication with the spout, and an integral semi-base piece at the lower end of the partition resting upon the bottom of the pot and united therewith to the body of the pot.

1,079,831. GUN-ELEVATING MECHANISM. FRANZ BÖMINGHAUS, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Jan. 14, 1910. Serial No. 538,045. (Cl. 89-41.)



1. In a gun elevating mechanism having two driving means independent of each other both arranged on a part of the mount which does not partake of the elevating movements of the gun barrel; means whereby one of said driving means, the conditions being otherwise equal, imparts a more rapid elevating movement to the gun barrel than the other driving means, constituting a closed kinematic train and comprising a part positively connected to one of the driving means, a part positively connected to the other driving means, and a part positively connected to the gun barrel; said kinematic train being adapted, when either of the driving means and the member of the train connected thereto is held stationary, to establish positive connection between the member connected to the other driving means, the member connected to the gun barrel, and the member connected to the stationary member of the train; and the ratio of transmission to the gun barrel produced by said connections when the one driving means is held stationary being of different value than when the other driving means is held stationary.

2. In a gun elevating mechanism having two driving means independent of each other, both arranged on a part of the mount which does not partake of the elevating movements of the gun barrel; means whereby one of said driving means, the conditions being otherwise equal, imparts a more rapid elevating movement to the gun barrel than the other driving means, constituting a closed kinematic train and comprising a gear rotated upon a fixed axis by one of the driving means, a revolving member meshing with said rotated gear, and rotatable upon an axis which is revolved by the other driving means about said fixed axis, and a gear driven by the revolving member having driving connection with the gun barrel; said kinematic train being thereby adapted, when either of the driving means and the member of the train connected thereto is held stationary, to establish positive connection between the member connected to the other driving means, the member connected to the gun barrel, and the member connected to the stationary member of the train, and with a ratio of transmission to the gun barrel of different value when the one driving means is held stationary than when the other driving means is held stationary.

3. In a gun elevating mechanism having two driving means independent of each other but both arranged on a part of the mount which does not partake of the elevating movements of the gun barrel; means whereby one of said driving means, the conditions being otherwise equal, imparts a more rapid elevating movement to the gun barrel than the other driving means, consisting of a curved rack

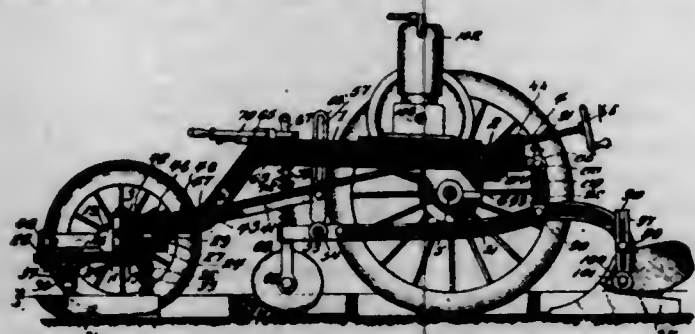
and pinion elevating gear, and a planetary gear; said planetary gear comprising a driven gear-wheel rotating upon a fixed axis and rigidly connected with the pinion of the elevating gear, a driving gear-wheel rotating upon the same fixed axis, and positively connected to one of the driving means, and a bridging gear member positively connected to the other driving means, and meshing with the said driving and driven gear wheels, whereby a closed kinematic train is established, adapted, when either of the driving means and the member of the train connected thereto is held stationary, to establish positive connection between the member connected to the other driving means, the member connected to the elevating gear pinion, and the member connected to the stationary member of the train, and adapted to vary the ratio of transmission to the gun barrel, as one or the other of the driving means is held stationary.

4. In a gun elevating mechanism having an elevating gear and two driving means independent of each other, arranged on opposite sides of the mount and upon a part thereof which does not partake of the elevating movements of the gun barrel and provided with means for locking them against rotation; means whereby one of said driving means, the conditions being otherwise equal, imparts a more rapid elevating movement to the gun barrel than the other driving means, comprising a cross-shaft driven by the more rapid driving means, planetary gear members loosely mounted on said cross-shaft, connected respectively with the slower driving means and the elevating gear, and an arm rigidly carried by said cross-shaft, having journaled therein a bridging gear member meshing with both said loosely mounted gears.

5. In a gun elevating mechanism having an elevating gear, and two independent driving means arranged on either side of and upon a part of the mount which does not partake of the elevating movements of the gun barrel; means whereby one of said driving means, under otherwise equal conditions, imparts a more rapid elevating movement to the gun barrel than the other driving means, constituting a closed kinematic train having three members positively connected with the two driving means and the elevating gear, respectively and adapted, when either of the driving means and the member of the train connected thereto is held stationary, to establish positive connection between the member connected to the other driving means, the member connected with the elevating gear, and the member connected to the stationary member of the train; and the ratio of transmission to the gun barrel produced by said connections when the one driving means is held stationary being of different value than when the other driving means is held stationary; and a sighting device located on the side of the gun with the slower driving means.

[Claims 6 to 8 not printed in the Gazette.]

1,079,832. PLOW. JAMES G. BROCK, Anadarko, Okla. Filed Apr. 27, 1912. Serial No. 693,641. (Cl. 97—30.)

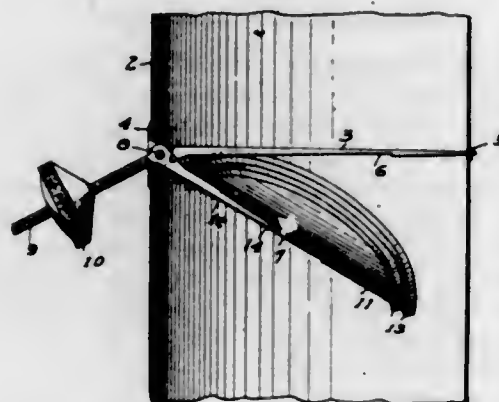


1. In a plow of the class described, the combination of a wheeled frame, a plow beam connected to the frame for vertical movement, a rolling colter having a vertical standard shaft pivotally connected to the plow beam and also vertically movable with respect thereto, a guide on the frame for the said standard shaft, means to turn said standard shaft to adjust the rolling colter angularly with respect to the line of draft.

2. In a plow of the class described, the combination of a wheeled frame, a plow beam connected to the frame for vertical movement, a rolling colter having a vertical standard shaft pivotally connected to the plow beam and also vertically movable with respect thereto, a guide on the frame for the said standard shaft, means to turn said standard shaft to adjust the rolling colter angularly with respect to the line of draft, and a spring exerting downward pressure on the plow beam.

3. In a plow of the class described, the combination of a wheeled frame, a plow beam connected to the frame for vertical movement, a rolling colter having a vertical standard shaft pivotally connected to the plow beam and also vertically movable with respect thereto, a guide on the frame for the said standard shaft, means to turn said standard shaft to adjust the rolling colter angularly with respect to the line or draft, a spring exerting downward pressure on the plow beam, and a spring arranged on the standard shaft and bearing between the guide and the plow beam.

1,079,833. DAMPER. LEIGHTON L. BROWN, Minneapolis, and CHARLES H. PATEK, Brainerd, Minn. Filed Nov. 7, 1912. Serial No. 729,976. (Cl. 236—2.)



1. The combination, with a pipe, of a spindle pivotally supported thereon and projecting into the pipe, said spindle having an arm projecting outwardly at an angle thereto, and a weight adjustably mounted on said arm, said spindle being adapted to swing to a position against the inner surface of the pipe, said arm having an unobstructed travel to permit said spindle to assume a position in line with said pipe and against the wall thereof, and a damper blade mounted on said spindle and curved in cross section and fitting snugly against the curved wall of the pipe when said spindle is swung to a position against said wall.

2. The combination, with a pipe, of a pin fitting into holes therein and extending across the pipe from side to side, a spindle pivoted on said pin at one end thereof and provided with an arm extending outwardly at an angle to said spindle, a damper plate mounted on said spindle, and a weight adjustably mounted on said arm.

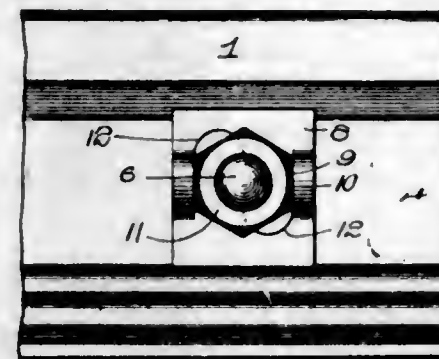
3. The combination, with a pipe having holes therein, of a pin fitting into said holes and having a head at one end seated against the surface of the pipe, a spindle pivoted on said pin near one end thereof, and a damper plate having a socket therein to receive said spindle.

4. The combination, with a pipe, of a pin extending across the pipe and having its ends supported in the walls of the pipe and provided with a longitudinal recess, a spindle pivoted at one end on said pin and adapted to fit into said recess, and a damper plate having a socket to receive said spindle.

5. The combination, with a pipe, of a head having a part fitting within a hole in the wall of the pipe, a spindle pivoted on said head and provided with a tapered inner portion to extend across the interior of the pipe, a damper blade having a socket to receive said tapered inner portion, said spindle having an outwardly projecting threaded portion and an interiorly threaded weight to engage the threads of said threaded portion.

[Claims 6 and 7 not printed in the Gazette.]

1,079,834. NUT-LOCKING DEVICE. JAMES WILLIAM BRUNDAGE, West Newton, Pa. Filed Mar. 29, 1913. Serial No. 757,549. (Cl. 151—52.)



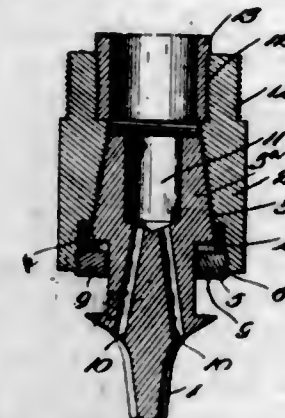
In a nut locking device, the combination with a bolt, and a nut screwed upon said bolt, of a rectangular washer arranged upon said bolt and having a central opening for said bolt, said washer having diametrically opposed sides thereof slitted and depressed to provide diametrically opposed offset portions adapted to engage opposite facets of said nut said washer having the slitted portions thereof prolonged to form semi-circular slits in communication with the opening that receives said bolt whereby the slits of said washer will compensate for the expansion and contraction thereof.

1,079,835. LOW-CUT-SHOE ATTACHMENT. WALTER EMERY BUNKER, Natick, Mass. Filed July 21, 1913. Serial No. 780,207. (Cl. 36—1.)



A low-cut shoe having a stiffener attachment applied thereto at the foot-receiving opening, said stiffener comprising two resilient arms integral with each other and formed in a single length of wire, said arms being twisted together at their juncture to form an eye, the arms extending rearwardly at the opposite sides of the foot-receiving opening and terminating short of the rear end of said opening, a covering overlying the stiffener and forming a pocket for the stiffener, and a fastener extending through the eye of the stiffener and securing the same to the vamp of the shoe.

1,079,836. APPARATUS FOR BORING WELLS. ROGER H. CANFIELD, Mooringsport, La. Filed Dec. 19, 1912. Serial No. 737,726. (Cl. 255—61.)



1. The combination with a drill piping, of a head connected thereto; a bit detachably connected to said head and constructed with a shoulder; and a ring carried by

said head and adapted to engage with said shoulder to raise the bit, substantially as described.

2. The combination with a drill piping, of a head connected thereto; a bit detachably connected to said head and constructed with a shoulder; and a split ring detachably connected to said head and adapted to engage with said shoulder to raise the bit, substantially as described.

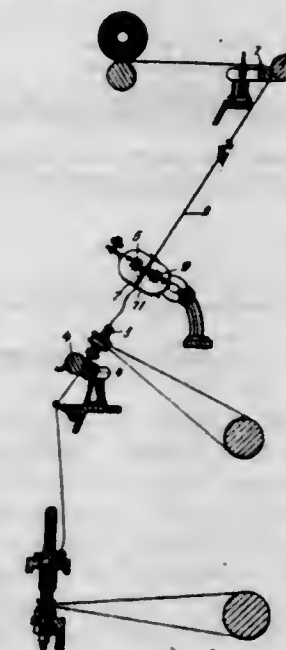
3. The combination with a drill piping, of a head connected thereto and constructed with a recess; a bit detachably connected to said head and constructed with a shoulder; and a ring fitting within said recess and carried by said head and adapted to engage with said shoulder to raise the bit, substantially as described.

4. The combination with a drill piping, of a head connected thereto and constructed with a recess; a bit detachably connected to said head and constructed with a shoulder; and a split ring screw-threaded on said head within the recess thereof and adapted to engage with said shoulder to raise the bit, substantially as described.

5. The combination with a drill piping, of a head connected thereto and constructed with a recess and a tapered socket; a bit having a tapered shank screw-threaded into said socket, and constructed with an annular shoulder; and a split ring screw-threaded into the head recess and carried by said head and adapted to engage with the bit shoulder to raise the bit, substantially as described.

[Claim 6 not printed in the Gazette.]

1,079,837. MECHANISM FOR DRAWING ROVINGS OF WOOL AND OTHER TEXTILE FIBERS. FERNANDO CASABLANCAS, Sabadell, Spain. Filed May 14, 1912. Serial No. 697,185. (Cl. 118—7.)



1. In a roving frame, feeding rollers, delivery rollers operating at a relatively greater speed than said feeding rollers, a flier for imparting the required twist to the roving, and drawing rollers operating at a relatively greater speed than said delivery rollers and located between said feeding and delivery rollers in proximity to the latter providing an extended length of roving subjected to drawing, and a relatively short space between said drawing and delivery rollers to accommodate the slack.

2. In a roving frame, feeding rollers, delivery rollers operating at a relatively greater speed than said feeding rollers, a flier for imparting the required twist to the roving, and drawing rollers operating at a relatively greater speed than said delivery rollers and provided with diametrically opposed sectors of minimum surface contact engaging with the roving, said drawing rollers being located between said feeding and delivery rollers in proximity to the latter providing an extended length of roving subjected to drawing and a relatively short space between said drawing and delivery rollers to accommodate the slack.

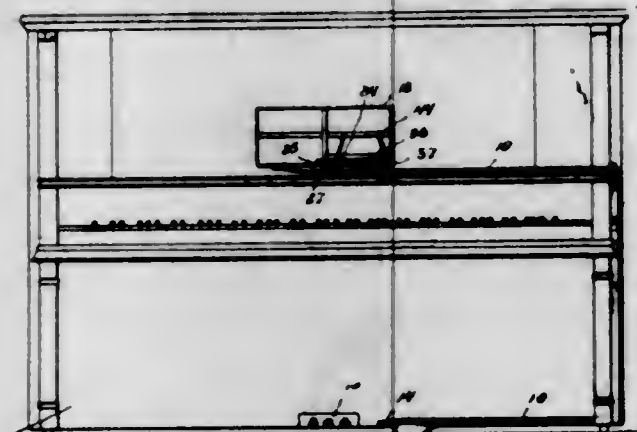
3. In a roving frame, feeding and delivery rollers, a fler for imparting the required twist to the roving, and drawing rollers provided with adjustable sectors for varying the duration of contact with the roving.

4. In a roving frame, feeding and delivery rollers, a fler for imparting the required twist to the roving, and drawing mechanism located between said feeding and delivery rollers and comprising a pair of oppositely rotating parallel shafts, adjustable sleeves mounted to turn with said shafts, and a plurality of cooperating sectors projecting from said sleeves and engaging with the roving to draw the same.

5. In a roving frame, feeding rollers, delivery rollers operating at a relatively greater speed than said feeding rollers, a fler for imparting the required twist to the roving, and drawing mechanism operating at a relatively greater speed than said delivery rollers and located between said feeding and delivery rollers in proximity to the latter providing an extended length of roving subject to drawing and a relatively short space between said drawing and delivery rollers to accommodate the slack, said mechanism comprising a pair of oppositely rotating parallel shafts, adjustable sleeves mounted to turn with said shafts, and a plurality of cooperating sectors projecting from said sleeves and engaging with the roving to draw the same.

[Claim 6 not printed in the Gazette.]

1,079,838. SHEET-MUSIC-TURNING DEVICE. LINCOLN B. CHAMBERS, Fort Columbia, Wash. Filed May 8, 1912. Serial No. 695,979. (Cl. 84-135.)



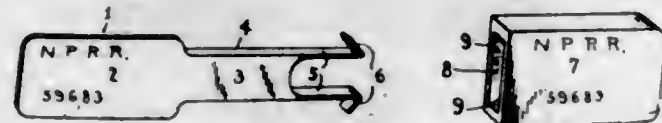
1. In a music turning device, the combination with a casing for attachment to a musical instrument, of a plurality of turning members, means on the said casing for independently operating the said turning members, a releasing member for independently releasing the said turning members, means for actuating the said releasing member, and a spring-actuated locking member mounted to turn on the casing and including an integral laterally extending head adapted to engage the said releasing member to limit the movement thereof.

2. In a music turning device, the combination with a casing for attachment to a musical instrument, of a plurality of turning members, means supported on the casing for operating the said turning members, a foot pedal mounted to swing on the casing, a releasing member for independently releasing the said turning members, a connection between the said foot pedal and the said releasing member for actuating the same to release the turning members, a spring-engaged locking member mounted to turn on the said casing, and a head formed with the locking member and projecting therefrom to engage the releasing member and limit the movement thereof.

1,079,839. SEAL-BOLT. PETER M. CIERNIA, St. Paul, Minn. Filed July 17, 1913. Serial No. 779,586. (Cl. 70-94.)

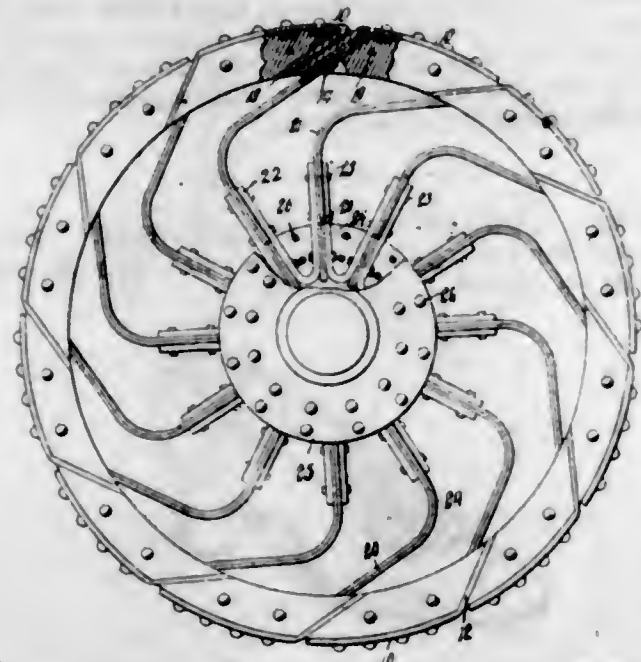
In a seal of the character described a bolt member comprising a plate adapted to receive an inscription, a reduced

bolt portion or fastening engaging tongue on one end of said plate, reinforcing flanges on the edges of said tongue, said flanges being extended beyond the tongue to form spring keeper engaging fingers, catch lugs formed on the ends of said fingers, a frangible keeper member having



therein a socket provided along its edges with ratchet shaped notches forming stop shoulders and adapted to receive said catch lugs when said tongue and spring fingers of the bolt member are engaged therewith.

1,079,840. SPRING-WHEEL. JAMES DELL COLLIER, Redlands, Cal. Filed Oct. 11, 1912. Serial No. 725,227. (Cl. 152-50.)



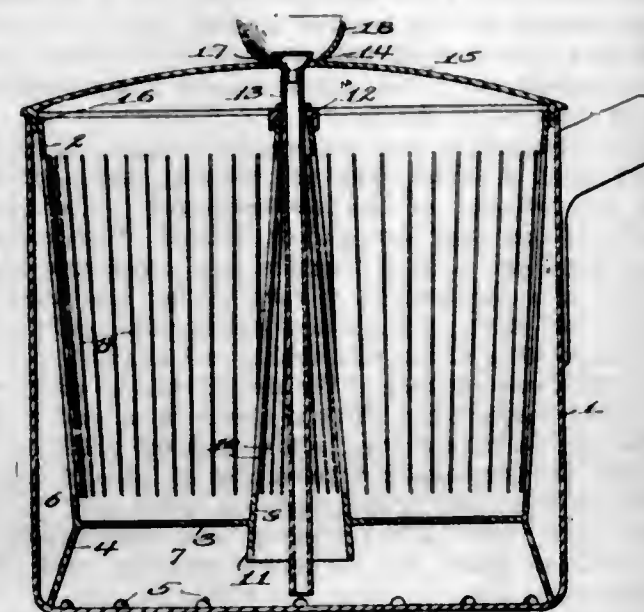
1. A device of the class described comprising a hub, resilient spokes associated with said hub at one end, V-shaped resilient members associated with said hub and interposed between each pair of said spokes to strengthen the same near the hub, the other end of said spokes being at right angles to the first end engaging the hub, an independent shoe for each of last said ends of said spokes, and means associated with said shoes for binding same together to form a continuous ring.

2. A device of the class described comprising a hub, resilient spokes associated with said hub, an independent shoe for each of said spokes, said shoes being formed by side members, a block inclosed in said side members, and a removable tread associated with said side members and said spokes.

3. A device of the class described comprising a hub, resilient spokes associated with said hub, an independent shoe for each of said spokes, said shoes formed by side members, a block inclosed in said members, and a removable tread having both ends bent to a predetermined angle with the surface contacting with the ground and associated with said side members, block and spokes, and means for binding them together.

4. A device of the class described comprising a hub, resilient spokes associated with said hub, an independent shoe for each of said spokes, said shoes formed by two side members having bent portions abutting against each other and making a predetermined angle with the curved surfaces of said side members, a block inclosed in said side members, and a removable tread associated with said side members, block and spokes, and means for binding them together.

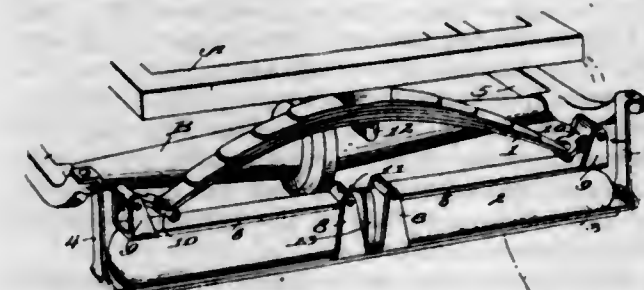
1,079,841. STEAM-COOKER. WALTER H. COOK, New Orleans, La. Filed May 27, 1912. Serial No. 699,969. (Cl. 53-2.)



1. In a steam cooker, an outer vessel and an inner vessel, the latter having a perforate body and a perforate bottom spaced from the bottom of the outer vessel, a perforate column arranged centrally of the inner vessel, a tube arranged within said column, a whistle provided on the upper end of said tube, and a cap which closes the upper end of the column and which supports the tube.

2. In a steam cooker for use in the preparation of rice, an outer vessel, an inner rice containing vessel having a perforated bottom and an upwardly flaring body, the inner vessel being so supported concentrically within the outer vessel that its perforated bottom is substantially spaced from the bottom of the outer vessel, and a perforate column arranged within the inner vessel and having its lower end in open communication with the space between the bottoms of said vessels, the flaring body of the inner vessel and the perforate column being provided with closely associated narrow vertical slots selected to promote a continuous circulation of steam and a continuous drainage of the cooking mass and to prevent the escape of rice from said inner vessel.

1,079,842. SHOCK-ABSORBER FOR AUTOMOBILES. WALTER H. COOK, New Orleans, La. Filed Aug. 14, 1913. Serial No. 784,794. (Cl. 21-50.)



1. In a shock absorber, the combination with a chassis, an axle casing, and a pair of longitudinally disposed arms secured at the ends of the axle casing, of a main spring secured at its center to the center of a transverse bar of the chassis, a cushioning element in the plane of said spring, a rigid bed for said cushioning element connected at its ends to the ends of said arms, a shock transmitting element pivotally connected to the central portion of said bed and engaging upon said cushioning element, and links connecting the outer ends of said shock transmitting element and said main spring.

2. In a shock absorber, the combination with a chassis, an axle casing, and a pair of longitudinally disposed arms secured at the ends of the axle casing, of a main spring

secured at its center to the center of a transverse bar of the chassis, a cushioning element arranged below said spring in the plane thereof, a rigid bed for said cushioning element, hangers depending from said arms and carrying said bed, a shock transmitting element pivotally connected to the central portion of said bed and engaging upon said cushioning element, and links connecting the outer ends of said shock transmitting element and said main spring.

3. In a shock absorber, the combination with a chassis, an axle casing, and a pair of longitudinally disposed arms secured at the ends of the axle casing, of a main spring secured at its center to the center of a transverse bar of the chassis, a cushioning element arranged below said spring in the plane thereof, a rigid bed for said cushioning element, hangers depending from said arms and carrying said bed, a shock transmitting element comprising a pair of bars pivotally connected at their inner ends to said bed and engaging upon said cushioning element, links connecting the outer ends of said bars and said main spring, the pivoted inner ends of the bars being spaced to expose the central portion of the cushioning element, and a bumper provided at the center of said main spring to engage the exposed central portion of the cushioning element.

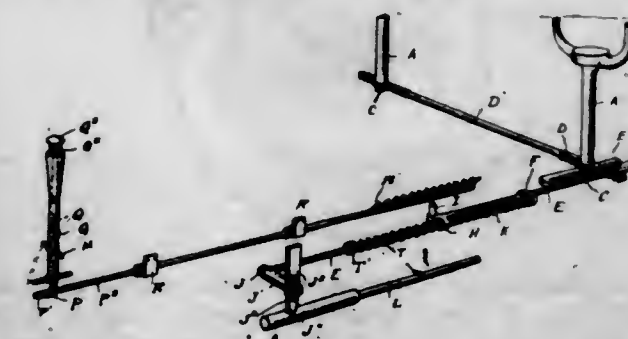
4. In a shock absorber, the combination with a main spring connected at its center to the chassis, an elongated air cushion below the main spring, a bed supporting the air cushion, a pair of shock transmitting bars arranged between the main spring and the air cushion and engaging the upper side of the latter, links connecting the outer ends of said bars and the outer ends of the main spring, pivotal connections between the inner ends of the bars and the bed, said pivotal connections being arranged in spaced relation to expose the central portion of the air cushion, and a bumper provided at the center of the main spring for engagement with the exposed central portion of the air cushion.

1,079,843. NAIL-EXTRACTOR. GEORGE R. DIBERT, Ford, Idaho. Filed Jan. 27, 1913. Serial No. 744,482. (Cl. 145-39.)



A tool of the class described comprising a handle formed at one end to provide a fulcrum, said handle being formed with longitudinally extending slots on opposite sides adjacent the fulcrum end, a plate resting upon the upper surface of the handle and having portions fitting in the slots in the handle to guide the plate in movement longitudinally of the handle, means for securing the handle in fixed adjustable position thereon and a nail engaging element pivotally connected to said plate.

1,079,844. DIRIGIBLE LAMP FOR AUTOMOBILES. WILLIAM B. DIEVENDORF, Sprakers, N. Y. Filed July 25, 1913. Serial No. 781,240. (Cl. 240-62.)



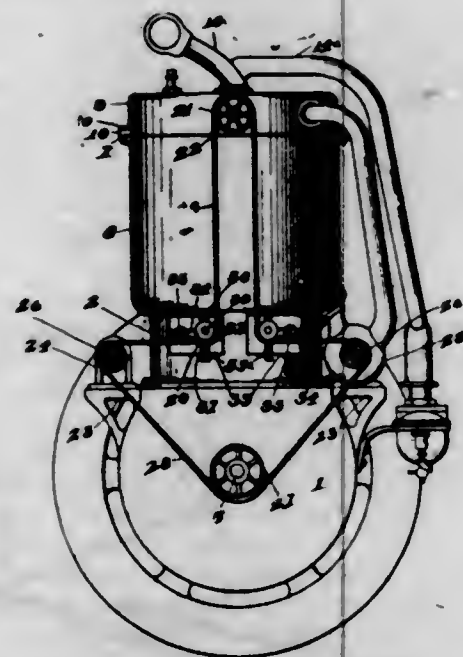
1. In combination with the steering mechanism of a vehicle, a combined automatic and manually-operated mechanism for dirigible lights comprising rotatable lamp carrying posts with teeth upon the circumference thereof,

a rack bar having teeth meshing with the teeth upon said posts, longitudinally movable parallel rods and bearings in which the same are mounted, coiled springs intermediate said bearings, one of said rods having a rack bar adapted to mesh with the teeth upon one of said posts, connections between one of said rods and the steering mechanism of the vehicle for causing the rods to move in unison with the steering wheels of the vehicle, and mechanism for actuating one of said rods independent of the other to cause said lamp carrying posts to be rotated independent of the steering mechanism, as set forth.

2. In combination with the steering mechanism of a vehicle, a combined automatic and manually-operated mechanism for dirigible lights comprising rotatable lamp carrying posts with teeth upon the circumference thereof, a rack bar having teeth meshing with the teeth upon said posts, longitudinally movable parallel rods and bearings in which the same are mounted, coiled springs intermediate said bearings, one of said rods having a rack bar adapted to mesh with the teeth upon one of said posts, connections between one of said rods and the steering mechanism of the vehicle for causing the rods to move in unison, a lug projecting from one of said rods, a longitudinally movable rock shaft with projections thereon adapted to engage said lug, and means for imparting a longitudinal movement to said shaft for causing one of said rods to move independent of the other, as set forth.

3. In combination with the steering mechanism of a vehicle, a combined automatic and manually-operated mechanism for dirigible lights comprising rotatable lamp carrying posts with teeth upon the circumference thereof, a rack bar having teeth meshing with the teeth upon said posts, longitudinally movable parallel rods and bearings in which the same are mounted, coiled springs intermediate said bearings, one of said rods having a rack bar adapted to mesh with the teeth upon one of said posts, connections between one of said rods and the steering mechanism of the vehicle for causing the rods to move in unison, a lug projecting from one of said rods, a longitudinally movable rock shaft with projections thereon adapted to engage said lug, and a depressible rod having pivotal connection with a crank upon said rock shaft, as set forth.

1,079,845. EXPLOSIVE-ENGINE. BENJAMIN BLAKE DORR, West Toledo, Ohio. Filed May 18, 1912. Serial No. 698,233. (Cl. 123—80.)



1. The combination with an explosive engine including a crank case, a crank shaft, a cylinder and a piston within the cylinder, of brackets connected to the opposite sides of the crank case and at one end of the engine, a pump upon one of said brackets, and a magneto upon the other of said brackets, a valve casing connected to the upper end of the cylinder and forming the head thereof,

a rotary valve within said casing and adapted to control the inlet and exhaust of the motive fluid to and from the cylinder respectively, driving wheels upon said pump, magneto and valve, a driving wheel upon the crank shaft, and an endless driving member trained over all of said wheels and driven from the crank shaft to drive said pump, magneto and valve synchronously and simultaneously from the crank shaft.

2. The combination with an explosive engine including a crank case, a crank shaft, a cylinder and a piston within the cylinder, of brackets connected to the opposite sides of the crank case and at one end of the engine, a pump upon one of said brackets, and a magneto upon the other of said brackets, a valve casing connected to the upper end of the cylinder and forming the head thereof, a rotary valve within said casing and adapted to control the inlet and exhaust of the motive fluid to and from the cylinder respectively, driving wheels upon said pump, magneto and valve, a driving wheel upon the crank shaft, an endless driving member trained over all of said wheels and driven from the crank shaft to drive said pump, magneto and valve synchronously and simultaneously from the crank shaft, and means for adjusting said driving member to take up wear and eliminate play.

3. The combination with an explosive engine including a crank case, a crank shaft, a cylinder and a piston within the cylinder, of brackets connected to the opposite sides of the crank case and at one end of the engine, a pump upon one of said brackets, and a magneto upon the other of said brackets, a valve casing connected to the upper end of the cylinder and forming the head thereof, a rotary valve within said casing and adapted to control the inlet and exhaust of the motive fluid to and from the cylinder respectively, driving wheels upon said pump, magneto and valve, a driving wheel upon the crank shaft, an endless driving member trained over all of said wheels and driven from the crank shaft to drive said pump, magneto and valve synchronously and simultaneously from the crank shaft, and means for adjusting said driving member tangentially of the driving wheels of said magneto and pump to take up wear and eliminate play between the parts.

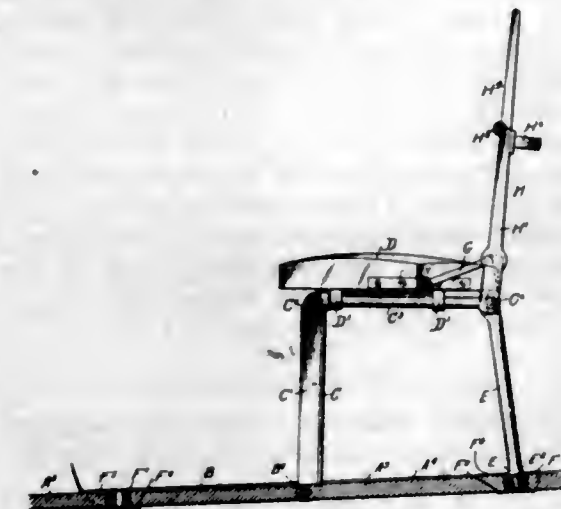
4. The combination with an explosive engine including a crank case, a crank shaft, a cylinder and a piston within the cylinder, of brackets connected to the opposite sides of the crank case and at one end of the engine, a pump upon one of said brackets, and a magneto upon the other of said brackets, a valve casing connected to the upper end of the cylinder and forming the head thereof, a rotary valve within said casing and adapted to control the inlet and exhaust of the motive fluid to and from the cylinder respectively, driving wheels upon said pump, magneto and valve, a driving wheel upon the crank shaft, an endless driving member trained over all of said wheels and driven from the crank shaft to drive said pump, magneto and valve synchronously and simultaneously from the crank shaft, and means for adjusting said driving member to take up wear on the parts, said means including idle pulleys adapted to engage the driving member and adjustable tangentially of the peripheries of the wheels of the magneto and pump.

5. The combination with an explosive engine including a crank case, a crank shaft, a cylinder and a piston within the cylinder, of brackets connected to the opposite sides of the crank case and at one end of the engine, a pump upon one of said brackets, and a magneto upon the other of said brackets, a valve casing connected to the upper end of the cylinder and forming the head thereof, a rotary valve within said casing and adapted to control the inlet and exhaust of the motive fluid to and from the cylinder respectively, driving wheels upon said pump, magneto and valve, a driving wheel upon the crank shaft, an endless driving member trained over all of said wheels and driven from the crank shaft to drive said pump, magneto and valve synchronously and simultaneously from the crank shaft, and means for adjusting said driving member to take up wear, said means comprising a pair of idle rollers, a plate for each roller mounted upon the engine and adjustable in one direction and provided with

a groove extending at right angles to its direction of adjustment, and a block within said groove and slidably mounted therein and rotatably receiving said roller.

(Claim 6 not printed in the Gazette.)

1,079,846. FOLDING CHAIR FOR AUTOMOBILES. WILLIAM H. DOUGLAS, Belleville, N. J., assignor to Healey & Co., New York, N. Y. Filed May 20, 1913. Serial No. 768,758. (Cl. 21—48.)



1. A folding chair for automobiles, comprising a seat, a front leg pivoted at its lower end and provided at its upper end with a seat-supporting frame, on which the said seat is mounted to slide forward and backward, rear legs pivotally connected at their upper ends with the said seat-supporting frame, the rear legs having upwardly-extending arms, and links pivotally connecting the said arms with the said seat to slide the latter forward or backward.

2. A folding chair for automobiles, comprising a seat, a front leg pivoted at its lower end and provided at its upper end with a seat-supporting frame on which the said seat is mounted to slide forward and backward, rear legs pivotally connected at their upper ends with the said seat-supporting frame, the rear legs having upwardly-extending arms, links pivotally connecting the said arms with the said seat to slide the latter forward or backward, a back mounted to swing on the pivotal connection of the rear leg and seat frame, and means to limit the swinging motion of the said back.

3. A folding chair for automobiles, comprising a seat, a front leg pivoted at its lower end and provided at its upper end with a seat-supporting frame on which the said seat is mounted to slide forward and backward, rear legs pivotally connected at their upper ends with the said seat-supporting frame, the rear legs having upwardly-extending arms, links pivotally connecting the said arms with the said seat to slide the latter forward or backward, and a back having side members mounted to swing forward and backward on the upper ends of the said rear legs, the said side members having recesses into which extend the said arms to limit the swinging motion of the said back.

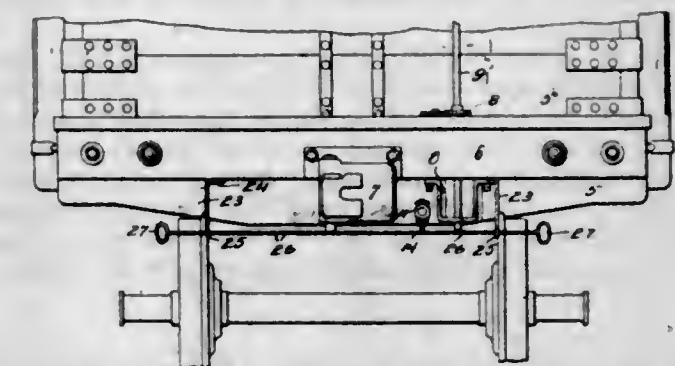
4. A folding chair for automobiles, comprising a seat, a front leg pivoted at its lower end and provided at its upper end with a seat-supporting frame on which the said seat is mounted to slide forward and backward, rear legs pivotally connected at their upper ends with the said seat-supporting frame, the rear legs having upwardly-extending arms, cushioning sockets adapted to receive the lower ends of the said rear legs, and links pivotally connecting the said arms with the said seat to slide the latter forward or backward.

5. A folding chair for automobiles, comprising a seat, a front leg pivoted at its lower end and provided at its upper end with a seat-supporting frame on which the said seat is mounted to slide forward and backward, rear legs pivotally connected at their upper ends with the said seat-supporting frame, the rear legs having upwardly-extending arms and having their lower ends provided with shoulders and reduced terminals, cushioning sockets for receiving the said terminals and on which the said shoul-

ders are seated, and links pivotally connecting the said arms with the said seat to slide the latter forward or backward.

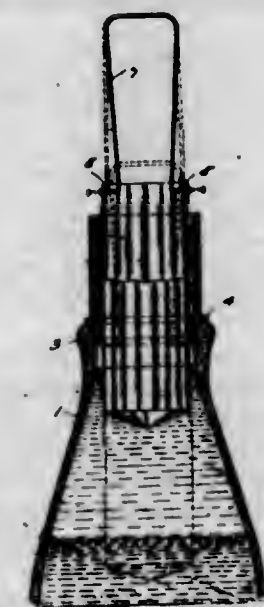
(Claims 6 to 8 not printed in the Gazette.)

1,079,847. TRAIN-PIPE COCK AND OPERATING MECHANISM THEREFOR. EMORY B. DUNKEL, Lucknow, and FRANK S. BOWMAN, Harrisburg, Pa. Filed Oct. 28, 1911. Serial No. 657,253. (Cl. 137—7.)



A train pipe cock including a body and a turning plug mounted therein, said turning plug having a stem at its lower end extending below the under side of the body and a handle attached to said stem, said body having stop lugs, on its lower side, on opposite sides of the stem and in the path of the handle and also having spaced beveled notches in its lower surface, between said stop lugs, the bevels of said notches extending in opposite directions and said notches being deepened at their outer sides, and a spring pressed pin mounted in the handle and having a terminal rounded end to cooperate with said notches and lock the handle in engagement with the stop lug and permit movement of the handle in the opposite directions under sufficient pull in combination with means connected to the handle and projecting in both directions and beyond, to permit operation of the handle from opposite points relatively remote therefrom.

1,079,848. CREAM-REMOVER. WALTER L. ELLINGWOOD, New York, N. Y. Filed Jan. 10, 1913. Serial No. 741,276. (Cl. 65—28.)



1. In a cream remover, the combination of a supplemental container adapted for insertion into the mouth of a milk bottle and provided with a stop arranged for contacting with the brim of the bottle, a container adapted to be passed through the supplemental container and further adapted to effect a rising of the liquid from the milk bottle into the container by displacing the fluid in the bottle.

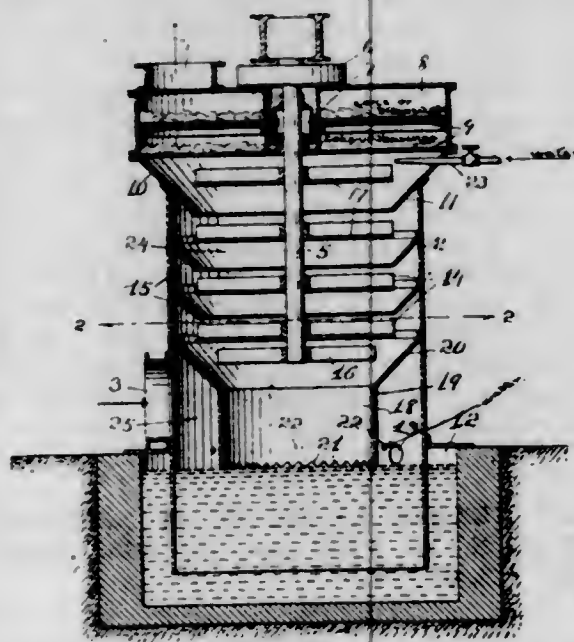
2. In a cream remover, the combination of an open ended supplemental container adapted for insertion into the mouth of a milk bottle, and a container closed at its

lower end and adapted to be passed through the supplemental container and further adapted to effect a rising of the liquid from the milk bottle into the container by displacing the fluid in the bottle.

3. In a cream remover, the combination of an open ended supplemental container adapted for insertion into the mouth of a milk bottle, and a container closed at its lower end and having a corrugated side wall and adapted to be passed through the supplemental container and further adapted to effect a rising of the liquid from the milk bottle into the container by displacing the fluid in the bottle.

4. In a cream remover, the combination of an open ended supplemental container adapted for insertion into the mouth of a milk bottle, and a bottomed container adapted to be passed through the supplemental container and of considerable less diameter than the supplemental container, and a handle associated with the container and having portions yieldingly held in the path of the edge of the supplemental container for the purpose set forth.

1,079,849. GAS-CLEANER. ALFRED ERNST, Pittsburgh, Pa. Filed Dec. 13, 1912. Serial No. 736,596. (Cl. 48-129.)



1. Apparatus for cleaning gas, comprising a cylindrical casing having an interiorly flanged main chamber, a drier chamber in its top, perforated racks between the drier chamber and main chamber, an entrance chamber circumscribing the main chamber, an overflow water holding connection at the bottom of the casing, a tubular partition between the entrance chamber and the main chamber having a horizontal series of passages at the water level, and rotary disks and fan devices in the main chamber.

2. Apparatus for cleaning gas, comprising a casing having an overflow water-holding connection at its bottom, an interiorly flanged main chamber, an entrance chamber around the lower portion of the main chamber and constructed to separate the entrance chamber and the main chamber, a water supply to the main chamber, a series of rotary disks for commingling the water and gas in the main chamber, fan blades located in the main chamber, and separating the entrance chamber and the main chamber a tubular partition wall having an annular sloping upper portion and a horizontal series of passages substantially in the plane of the overflow.

3. Apparatus for cleaning gas, comprising a casing having a vertical series of inclined flanges, an overflow water-holding connection at the bottom of the casing, a drying compartment in its upper portion, below the drying compartment a washing chamber, perforations between the drying compartment and the washing chamber around the washing chamber an entrance chamber, a central passage communicating above with the washing chamber and below with the entrance chamber by a circumferential series of

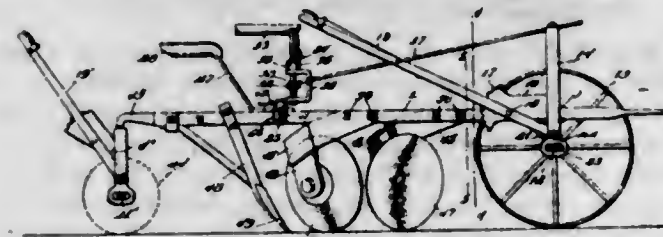
passages at the overflow level, a rotary shaft and a series of disks and fan blades on said shaft extending outward to the inclined flanges of the casing and arranged in vertical alternation with said flanges.

4. Apparatus for cleaning gas, comprising a casing having a series of inward and downward sloping circumferential flanges, a water seal drip connection, a water supply jet in the upper portion of the casing, an inward and downward sloping annular partition wall, a tubular partition wall extending from said annular partition wall to the water seal level, an entrance chamber around this partition wall, a rotary shaft, and connected to said shaft a series of horizontal disks in vertical alternation with said flanges, and fan blades in connection with said disks.

5. In apparatus for cleaning gas, a casing having at its top a drier compartment, at its bottom a water seal tank, between the drier and tank and communicating with both a washing chamber, a circumscribing entrance chamber, and a tubular draining partition wall extending downward from the casing wall and terminating, at the level of the water seal, in a serrated edge.

[Claim 6 not printed in the Gazette.]

1,079,850. PLOW. WILLIAM F. FIELDER, Lockhart, Tex. Filed Feb. 19, 1913. Serial No. 749,472. (Cl. 97-40.)



1. In a plow, a frame bar, a tiltable bearing member pivoted on the frame bar, said bearing member including a sleeve and a flange having an arcuate toothed edge, means for securing the bearing member at various adjustments, a vertical shaft journaled in the sleeve, said shaft having an axle stub, a wheel supported on the latter, an angular bracket supported on the shaft, a hand lever fulcrumed on the toothed flange of the bearing member and having a stop member engaging the toothed edge of the flange, a pivoted member connecting an arm of said hand lever with the angular bracket, and a lug supported on the pivot member and having a slot through which the axle stub extends.

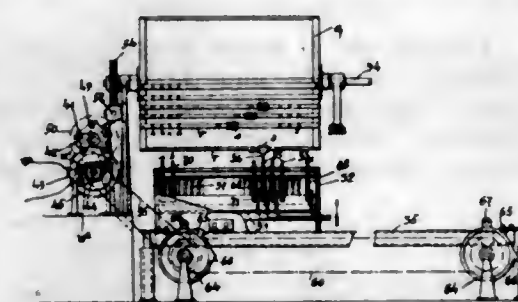
2. In a plow of the character described, a main beam, supporting means for said beam including a pair of cross bars, tiltable bearing members secured on said cross bars, vertical wheel carrying shafts journaled in the bearing members, and means whereby said shafts may be vertically adjusted, cranks fixed on the wheel carrying shafts, a clip secured on the main beam and including a sleeve and an upstanding U-shaped bracket having an upwardly extending notched collar, a seat supporting bar secured by the clip, a shaft journaled in the upstanding U-shaped bracket, a hand lever on said shaft having a stop member engaging the notched collar, a cross bar on said shaft, links connecting said cross bar with the cranks on the wheel carrying shafts, and a rod seated in the sleeve of the clip and having foot rests connected therewith.

1,079,851. CHANGEABLE SIGN. BERNHARD FRIED, Budapest, Austria-Hungary. Filed June 28, 1911. Serial No. 635,866. (Cl. 40-52.)

1. An electrical device for operating changeable signs comprising in combination, solenoid devices, a selector device rotatable about a fixed axis, a switch box mechanism movable into and out of engagement with said selector for operation thereby, a source of current and a circuit connecting the switch box mechanism with said solenoid devices, and a commutator device for cutting said solenoid devices into and out of circuit, substantially as described.

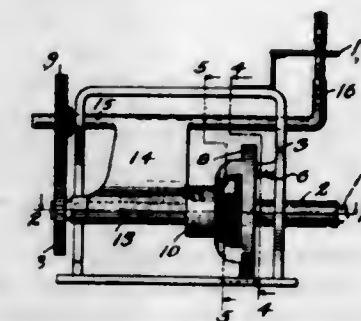
2. A changeable sign operating mechanism comprising a plurality of flap operating solenoid devices, a switch box

having a plurality of circuit closing elements, a circuit connecting said elements with said solenoid devices, a source of current in said circuit, a commutator device in said circuit for cutting said solenoid devices into and out of circuit, a revolving selector device having a pin adjust-



able parallel to its axis of rotation, and mechanism for operating said selector device and commutator device and moving said switch box to bring its circuit closing elements into and out of engagement with said selector pin, substantially as described.

1,079,852. VARIABLE-SPEED GEARING. ROY HANMORRE GERARD, Berkeley, Cal. Filed Oct. 9, 1912. Serial No. 724,839. (Cl. 74-58.)



1. In variable speed gearing, the combination of a rock shaft, an operating lever for rocking said shaft, and for moving it longitudinally, an internally toothed gear supported by said rock shaft for lateral and axial movements on the rocking and longitudinal movements respectively of said shaft, said gear having a clutch element concentric therewith, a second shaft coaxial with respect to said gear, and gears of different diameters on said second shaft adapted to cooperate with the internal gear, and one of which is engageable with the clutch element.

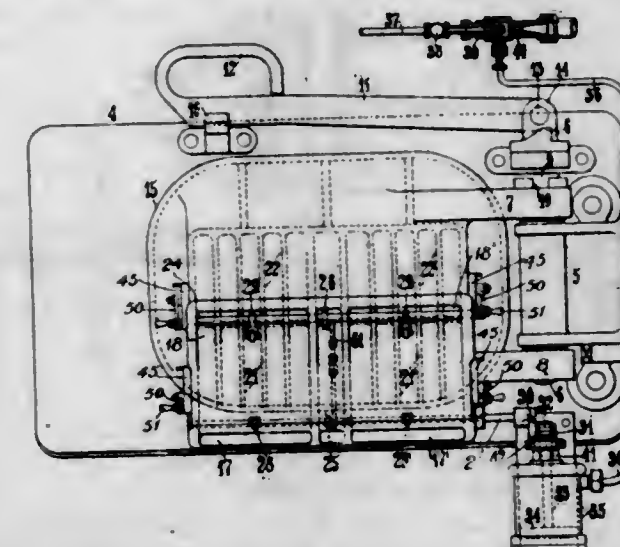
2. In combination, a support, a drive shaft, a plurality of drive gears carried by said drive shaft, a rock shaft mounted in said support in parallel relation to the drive shaft, a lever for rocking and moving said rock shaft longitudinally, a carrier operable by the rock shaft and having a bearing therein, a driven shaft supported in said bearing of the carrier, a gear and a clutch element connected with said driven shaft, longitudinal movement of the driven shaft under actuation of the rock shaft being adapted to cause engagement with the clutch element and one of the drive gears, while lateral movement of the driven shaft by the rock shaft will cause engagement of either drive gear with the gear of the driven shaft.

3. In variable speed gearing, the combination of a drive shaft, driving gears of different diameters carried thereby, a reverse gear normally meshing with one of said drive gears and operating as an idler, a driven shaft, a driven gear carried by said driven shaft, an operating shaft, a carrier operable thereby and supporting the driven shaft, and a lever for actuating the operating shaft to cause longitudinal and lateral movement of the carrier and impart corresponding movements to the driven gear to control meshing of the latter with the drive and reverse gears aforesaid.

4. In variable speed gearing, the combination of a frame, a drive shaft mounted thereon, drive gears carried by said shaft, a driven shaft, a driven gear carried by said shaft, a reversing gear arranged intermediate certain of the drive and driven gears, a lever, and means interme-

diating said lever and the driven shaft for imparting longitudinal and lateral movement to the latter, whereby to engage and disengage the drive and driven gears and reverse gear.

1,079,853. APPARATUS FOR AUTOMATICALLY REGULATING THE DRAFT IN BOILER-FURNACES. GUSTAV DE GRAHL, Zehlendorf, near Berlin, Germany. Filed Jan. 6, 1912. Serial No. 689,828. (Cl. 110-147.)



1. In apparatus for automatically regulating the draft in furnaces of locomotive-boilers the combination of a fire-box and a horizontally opening fire-door provided with air-conduits, arranged in pairs one over another opening below into the atmosphere and above into the fire-box, and means for admitting air in turns to different levels of the fire-box said means being controlled by the vacuum in the fire-box.

2. In apparatus for automatically regulating the draft in furnaces of locomotive-boilers the combination of a fire-box and a horizontally opening fire-door provided with air-conduits arranged in pairs one over another opening below into the atmosphere and above into the fire-box, non-return flap-valves in said conduits, said valves being pivoted at one end and adapted to open automatically under the influence of the vacuum in the fire-box and stops positively connected with said valves for limiting the strokes of said valves, each of said stops being individually adjustable independent of each other.

3. In apparatus for automatically regulating the draft in furnaces of locomotive-boilers the combination of a fire-box and a horizontally opening fire-door provided with air-conduits, arranged in pairs one over another opening below into the atmosphere and above into the fire-box, non-return flap-valves in said conduits, said valves being pivoted at one end and adapted to open automatically under the influence of the draft in the fire-box; the individual flap-valves of each pair of conduits possessing different inclination toward the horizontal in their closed positions.

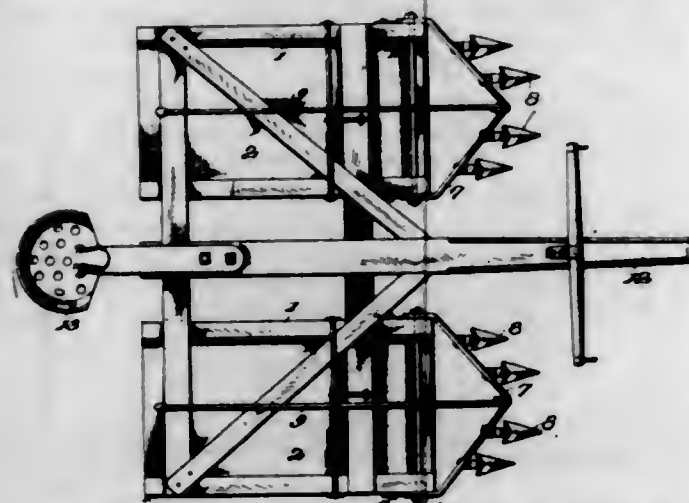
4. In apparatus for automatically regulating the draft in furnaces of locomotive-boilers the combination of a fire-box and a horizontally opening fire-door provided with air-conduits, arranged in pairs one over another opening below into the atmosphere and above into the fire-box non-return flap-valves in said conduits, said valves being pivoted at one end, and adapted to open automatically under the influence of the draft in the fire-box, the upper non-return flap-valves of each pair being downwardly inclined and the lower one of said pair horizontal in closed position.

5. In apparatus for automatically regulating the draft in furnaces of locomotive-boilers, the combination of a fire-box with a horizontally opening fire-door provided with air-conduits, arranged in pairs one over another, opening below into the atmosphere and above into the fire-box, non-return flap-valves in said conduits, said valves being pivoted at one end and adapted to open automatically under the influence of the draft in the fire-box, the individual flap-valves of each pair of conduits possessing

different inclination toward the horizontal in their closed position and adjustable stops positively connected with said valves for limiting the strokes of said flap-valves.

[Claims 6 to 8 not printed in the Gazette.]

1,079,854. CULTIVATOR. EUGENE W. GREEN, Ridgefield, Wash. Filed Jan. 11, 1913. Serial No. 741,413. (Cl. 97—31.)

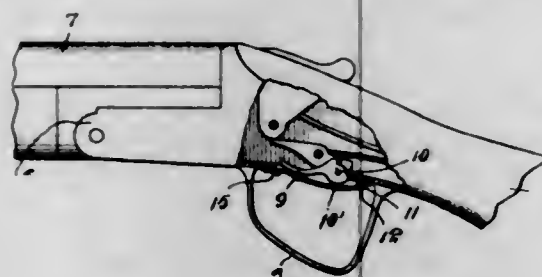


1. The combination with a frame having runners connected thereto, attachments connected to the lower edges of the runners for forming stone-boats, of rollers journaled at the forward ends of the runners and extending beneath the lower edges of the runners whereby the forward ends of the runners are elevated, cultivator frames carrying shovels pivotally connected to the forward ends of the runners.

2. The combination with a frame having two sets of runners connected thereto, a bottom connected to each set of runners forming stone-boats, rollers journaled at the forward end of each set of runners and extending below the runners for elevating the forward ends of the runners, and cultivator frames carrying shovels pivotally connected to the forward end of each set of runners.

3. The combination with a frame having two sets of runners, a bottom connected to each set of runners for forming stone-boats, each set of runners provided with recesses at the forward ends thereof, rollers received in the recesses, brackets connected to the runners for supporting the rollers below the lower edges of the runners for elevating the forward ends of the runners, cultivator frames carrying shovels pivotally mounted at the forward end of each set of runners, and means for elevating said cultivator frames.

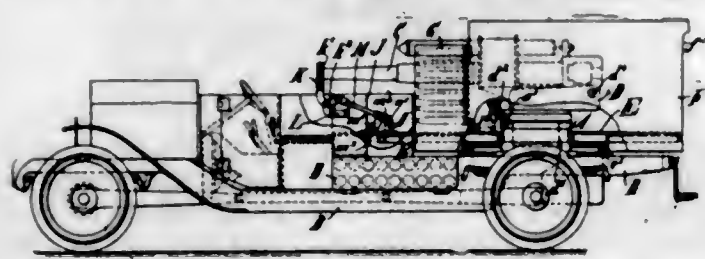
1,079,855. GUN. JOSEPH ANTONIO GUARINO, Westerly, R. I. Filed Jan. 8, 1913. Serial No. 740,878. (Cl. 42—1.)



The combination with a gun having firing mechanism including a trigger swingingly supported for movement from operative to inoperative position within the breech of the gun, of a bearing formed on the breech of the gun rearwardly of the path of movement of the trigger, a trigger guard comprising a disbed member having a pintle sleeve at one end and a nib at its opposite end, a pivot passed through the pintle sleeve and engaging the bearing for swingingly connecting the guard thereto whereby it may be moved to a position for concealing the trigger when located within the breech of the gun, and a latch member pivoted to the breech of the gun forwardly of the path of

movement of the trigger and movable into engagement with the nib for sustaining the guard in a position for concealing the trigger and adapted to be moved for releasing the guard whereby it may be moved out of the path of movement of the trigger.

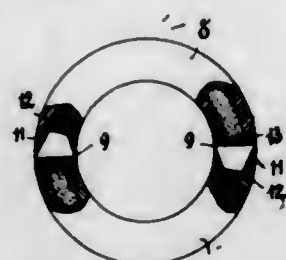
1,079,856. AUTOMOBILE WITH A PIVOT-GUN. GEORGE HAYN, Essen-on-the-Ruhr, and NORBERT KOCH, Essen-Rellinghausen, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 19, 1911. Serial No. 655,601. (Cl. 89—40.)



1. In an automobile having a pivot gun, an automobile frame, a rotary bearing by which the gun is mounted on the frame, and a platform having a rotary bearing on said frame independent of the gun bearing, and securing means comprising a cap and a link, both journaled in the automobile frame, a connecting rod hinged to said cap and said link, an extension member on said rod, a socket on said platform and a key in the socket for engaging said extension member; said cap constructed to fit closely over the gun muzzle, whereby the gun will be held securely in both horizontal and vertical direction, and said platform in horizontal direction when said key engages said extension member.

2. In an automobile having a pivot gun, an automobile frame, a rotary bearing by which the gun is mounted on the frame and a platform rotatable independently of the gun and mounted on said frame, coupling means for connecting the gun and the platform to turn together, and securing means adapted to engage the platform and a part of the gun partaking of its elevation and training movement, said securing means being mounted on said frame and connected to the gun and the platform in such a way that when the gun is secured in both horizontal and vertical direction, the platform is simultaneously secured in horizontal direction.

1,079,857. METAL PACKING-RING. GUSTAV HUHNE, Berlin, Germany. Filed Jan. 6, 1913. Serial No. 740,429. (Cl. 121—109.)



1. A divided metal packing ring with tube like hollow ends, at least one of said abutting hollow ends of the sectional rings having thin walls, so that these thin walls may be worn away by the pressure and the vibrating friction of the abutting ring end in proportion to the wearing away of the interior bearing surface of the ring.

2. A metal packing ring composed of sections one of the abutting ends of said sections being hollow and having thin walls.

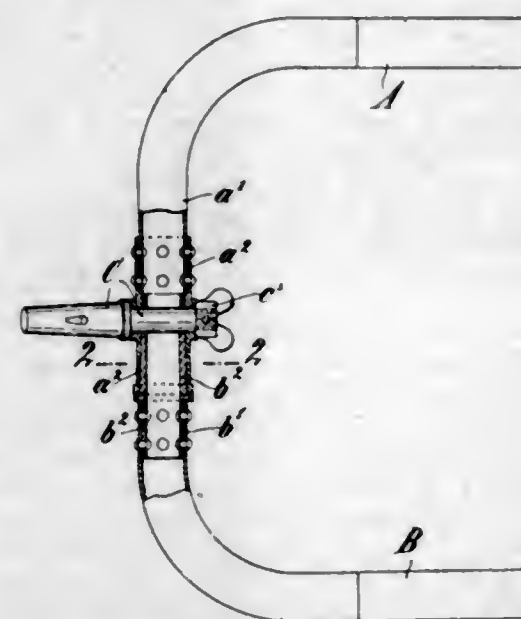
3. A divided metal packing ring with tube like hollow ends, at least one of said abutting hollow ends of the sectional rings having thin walls, the outsides of said thin walls lying in the same planes as the outside of the normal parts of said sectional rings.

4. A divided metal packing ring composed of sectional rings, one end of each of said sectional rings being hollow and having thin walls, the other end being normal.

5. A divided hollow metal packing ring composed of sectional hollow rings of white metal and filled with lubricant, one of the abutting ends of said sectional hollow rings having thin walls, the abutting end of the neighboring ring being normal.

[Claims 6 and 7 not printed in the Gazette.]

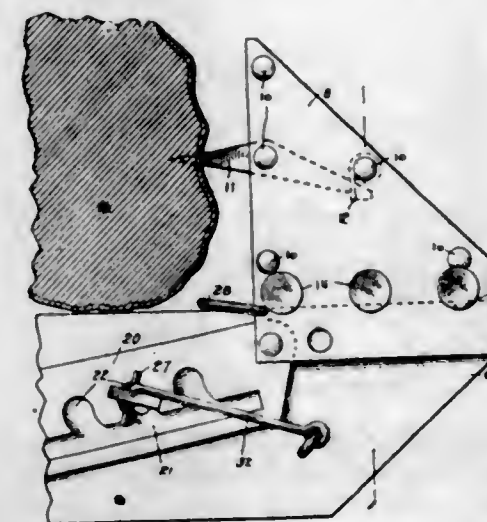
1,079,858. VEHICLE-SHAFT. OTTO JAHN, Essen/West, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Nov. 20, 1912. Serial No. 732,577. (Cl. 21—36.)



1. A demountable shaft structure comprising a pair of shaft members, each carrying a part of the cross bar, said cross bar parts being telescoped together intermediately of the shaft structure, and a draft pin removably inserted through said telescoping parts and keying the parts together.

2. A demountable shaft structure comprising a pair of shaft members, each carrying a part of the cross bar, said cross bar parts being telescoped together intermediately of the shaft structure, and a draft pin removably inserted through said telescoping parts and keying the parts together; said draft pin being provided with a nut on its forward end releasably holding the pin in place and transmitting the draft from the shafts to the draft pin.

1,079,859. BUMPER FOR LOG-WAGONS. WILLIAM F. JONES, Dialville, Tex. Filed Mar. 27, 1913. Serial No. 757,101. (Cl. 105—173.)



1. In combination with a wagon bolster, a bumper comprising collapsible means adapted to roll on top of the bolster; means connecting said bumper to said bolster and adapted to make said bumper stationary or movable or cause it to collapse from the top of the bolster.

2. In combination with a wagon bolster, a bumper comprising a member adapted to roll on top of the bolster; means engaging the sides of the bolster; a key connecting said side means to the bolster, said side means having means therein co-acting with said key whereby said rolling member when supporting the load may be caused by the same to roll on the bolster and roll off from the top of same against the end of the bolster.

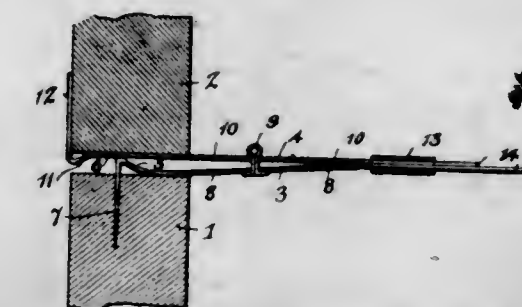
3. In combination with a wagon bolster, a bumper comprising a member having means whereby it is adapted to roll on top of the bolster and pivotal means secured to said member and adapted to engage the sides of the bolster; and a key engaging said side means and the bolster, said key and said side means having means whereby the said member can be made stationary or movable on the bolster, said member being adapted when rolling on the bolster to roll off the top of same and rest against the end of the bolster.

4. In combination with a wagon bolster, a bumper comprising two plates; means connecting said plates together; rollers intermediate said plates resting on the top of the bolster; a sharply pointed member pivotally mounted between the plates; longitudinal plates pivotally connected to said plates and bearing against the sides of the bolster; and a key having cam portions connecting said longitudinal plates to the bolster, said longitudinal plates having means adapted to co-act with said cam portions on said key, whereby said bumper is made stationary or movable on the bolster.

5. In combination with a wagon bolster, a bumper comprising a structure resting on top of the bolster formed by two plates; means for connecting said plates together; rollers intermediate said plates adapted to roll on top of the bolster and a clevis pivotally engaging said plates and resting on top of the bolster; longitudinal plates contacting with the sides of the bolster in pivotal connection with said structure; and a key connecting said plates to said bolster, said longitudinal plates and key having means whereby said structure and longitudinal plates can be made stationary or movable on the bolster, the bolster having a groove near the end thereof adapted to engage said clevis when said structure rolls off the top of the bolster, said engagement of said clevis with said groove causing the said rollers of the structure to contact with the end of the bolster, thereby maintaining said structure in a predetermined position.

[Claim 6 not printed in the Gazette.]

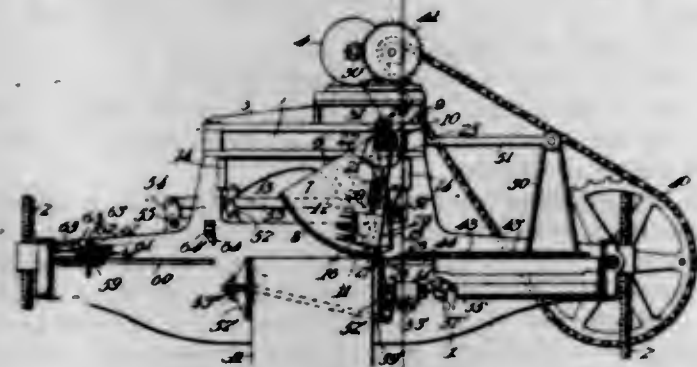
1,079,860. DOOR-LOCK. GEORGE KIEHL, Somonauk, Ill. Filed Jan. 27, 1913. Serial No. 744,461. (Cl. 16—8.)



A door securer of the class described comprising a primary and an auxiliary section, a connecting loop positioned upon the outer end of said sections for holding the same together, each section provided with a plurality of spaced apertures, each section comprising a spring body, said primary section provided with an outwardly bent end terminating in a knob and provided with a right angularly extending door gripping point, said auxiliary section comprising an outwardly bent end terminating in a right angularly extending jamb engaging lip extending in an opposite direction to the point of said primary section, said outwardly bent portions of said primary and auxiliary sections adapted to exert an outward pressure upon the body of said sections for causing the body of said sections to accommodate itself to different width

spaces, said outwardly inclined portions abutting against each other for constituting a yieldable contact and facilitating the compression of one section upon the other, and means passing through said apertures in said primary and auxiliary sections for securing the same together.

1,079,861. SHEET-SEPARATING MACHINE. WILLIAM R. KINNAR, New Castle, Pa. Filed May 24, 1910. Serial No. 563,209. (Cl. 29—17.)



1. In a sheet separating machine, means for engaging the edge of and then stripping the sheets one by one from a pile, and means for removing the stripped sheets.

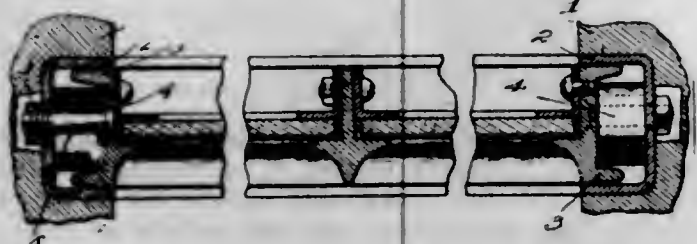
2. In a sheet separating machine, means for engaging the edge portion of and then stripping the sheets one by one from a pile, means for removing the stripped sheets, and means for positioning said engaging and stripping means for action as the sheets are separated.

3. In a sheet separating machine, suction means for engaging and lifting one portion of a sheet, a carrier for said suction means having gripping members co-operating with said carrier to strip the sheet from the next adjacent sheet, means for preventing the adherence of another sheet to the sheet being stripped, and means for removing the stripped sheet.

4. In a sheet separating machine, means adapted to rest upon the sheets and through suction engage and lift one portion of the topmost sheet and having gripping members adapted to be actuated to effect the stripping of the sheet, and means co-operating therewith for removing the stripped sheet.

5. A machine for separating a pile of sheets comprising a frame adapted to be supported over and lowered progressively with a pile of sheets as the sheets are separated, a carrier mounted in said frame and provided with suction and gripping means for successively engaging and stripping the topmost sheet of the pile, and means co-operating therewith for removing the sheet as stripped. [Claims 6 to 23 not printed in the Gazette.]

1,079,862. FIREPROOF WINDOW CONSTRUCTION. WILLIAM R. KINNAR, New Castle, Pa. Filed Dec. 14, 1911. Serial No. 665,789. (Cl. 189—64.)



1. In a fire proof window construction, the combination of the confined and confining members fitted one within the other with a space between the faces of said members which are opposed in the direction of expansion under heat, tension means on each side of the confined member rigidly securing it against movement as a whole relatively to the confining member toward the other side, but permitting a part of the confined member to move relatively to the confining member under inherent expansion of the confined member.

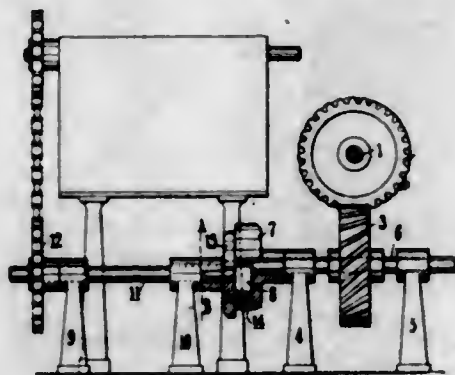
2. In a fire proof window construction, the combination of the confined and confining members fitted one within the other with a space between the faces of said members which are opposed in the direction of expansion under heat, means rigidly securing the confined member against movement as a whole relatively to the confining member, but permitting a part of the confined member to move relatively to the confining member under inherent expansion of the confined member; said securing means comprising tie bars connecting the members together in the direction of expansion and movable in one of the members.

3. In a fire proof window construction, the combination of the confined and confining members fitted one within the other with a space between the faces of said members which are opposed in the direction of expansion under heat, tension means on each side of the confined member rigidly securing it against movement as a whole relatively to the confining member toward the other side, but permitting a part of the confined member to move relatively to the confining member under inherent expansion of the confined member, and compressible filling pieces located in said spaces between the confined and confining members.

4. In a fire proof window construction, the combination of the confined and confining members fitted one within the other with a space between the faces of said members which are opposed in the direction of expansion under heat, tension means on each side of the confined member rigidly securing it against movement as a whole relatively to the confining member toward the other side, but permitting a part of the confined member to move relatively to the confining member under inherent expansion of the confined member, and fusible metal filling pieces interposed in the spaces between the confined and confining members.

5. In a fire proof window construction, the combination of the confined and confining members fitted one within the other with a space between the faces of said members which are opposed in the direction of expansion under heat, tension means on each side of the confined member rigidly securing it against movement as a whole relatively to the confining member toward the other side, but permitting a part of the confined member to move relatively to the confining member under inherent expansion of the confined member, and fusible metal filling pieces interposed in the spaces between the confined and confining members, and abutting against the faces of said members which are opposed in the direction of expansion. [Claims 6 and 7 not printed in the Gazette.]

1,079,863. TAMBOR-FRAME-OPERATING MECHANISM. JOHANN JAKOB KNECHT, Chemnitz, Germany. Filed Jan. 16, 1911. Serial No. 602,946. (Cl. 112—7.)



1. In means for operating tambour frames controlled by jacquard pattern-gear, the combination with a jacquard pattern-gear, a variable-crank-connection for transmitting the motion of the jacquard pattern-gear to the frame of the embroidering-machine, of auxiliary variable-crank-connection moving with an accelerated and retarded rotary motion out of step with the former variable-crank-connection, and means for transmitting the motion of the auxiliary-variable-crank-connection to the former variable-

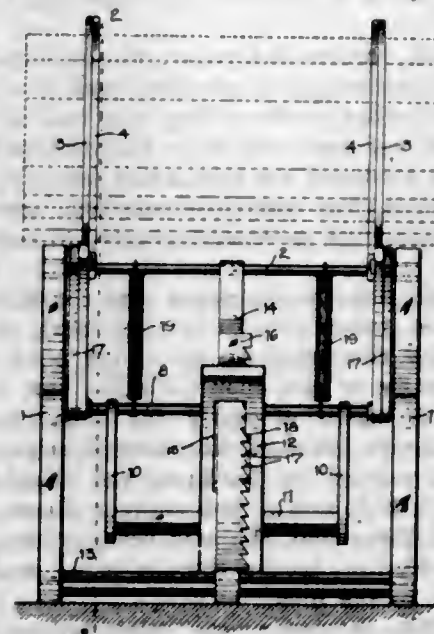
crank-connection for the purpose of slowing the transmission of motion brought about by the former variable-crank-connection during its acceleration and accelerating the same during its retardation, whereby a uniform speed is imparted to the frame of the embroidering-machine.

2. In means for operating tambour frames controlled by jacquard pattern-gear, the combination with a jacquard pattern-gear, a motor-driven shaft, and a variable-crank-connection for transmitting the motion of the jacquard pattern-gear to the frame of the embroidering-machine, of rotating auxiliary variable-crank-connection driven by said shaft and moving non-synchronously with the former connection and means for transmitting the motion of the auxiliary variable-crank-connection to the former variable-crank-connection, for the purpose of slowing the transmission of motion brought about by the former connection during its acceleration and accelerating the same during its retardation, whereby a uniform speed is imparted to the frame of the embroidering-machine.

3. In means for operating tambour frames controlled by jacquard pattern-gear, the combination with a jacquard pattern-gear, a motor, the main shaft of the embroidering-machine driven thereby, and a variable-crank-connection for transmitting the motion of the jacquard pattern-gear to the frame of the embroidering-machine, of auxiliary-crank-connection driven by said shaft, the speed of the auxiliary connection being a minimum when the speed of the former connection is a maximum, and means for transmitting the motion of the auxiliary variable-crank-connection to the former variable-crank-connection for the purpose of slowing the transmission of motion brought about by the former connection during its acceleration and accelerating the same during its retardation, whereby a uniform speed is imparted to the frame of the embroidering-machine.

4. In means for operating tambour frames, controlled by jacquard pattern gear, the combination with a jacquard pattern-gear, a frame, means comprising variable-crank-connection adapted to give an alternately accelerated and retarded motion to said frame, and a driving shaft; of means driven by said shaft for driving said variable-crank-connection with an alternately retarded and accelerated motion, synchronizing with the former accelerated and retarded motion respectively, thereby imparting a uniform motion to said frame.

1,079,864. BUNDLING-MACHINE. JOHN A. KOLLER, Manhattan, Kans. Filed Feb. 10, 1913. Serial No. 747,493. (Cl. 100—31.)



1. In a device of the character described, the combination of spaced standards, rods connecting the lower ends of said standards, a longitudinal rod having its ends mounted in the upper ends of said standards, curved arms having their outer ends normally disposed in spaced relation, a foot treadle, means for connecting said treadle

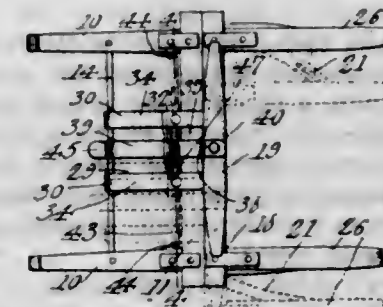
196 O. G.—65

to the other ends of said arms for actuating the same, a brace member connecting the first and one of the second rods, and having a plurality of teeth in one of its longitudinal edges, said foot treadle having a longitudinal opening therein in which the brace member is disposed, a catch member carried by the treadle and adapted to removably engage the teeth on the brace member to hold the treadle in various adjusted positions and means for returning said arms to their normal position when the foot treadle is released.

2. In a device of the character described, the combination of spaced standards, rods connecting the lower ends of said standards, a longitudinal rod having its ends mounted in the upper ends of said standards, curved arms arranged in opposed relation and having their outer ends normally retained in spaced relation, the other ends of said arms being normally disposed in a horizontal plane, link members pivotally connected to the horizontal portions of said arms, said standards being provided with grooves upon the inner faces thereof, a longitudinal rod having its ends movably mounted within said grooves, said links having their lower ends pivotally mounted upon said rod, a brace member secured to one of the first rods and having a plurality of teeth upon one of its longitudinal edges, a pivotally mounted foot treadle pivotally connected to the last mentioned rod and provided with a longitudinal opening to receive the brace member, a catch member carried by the treadle and adapted to engage the teeth and the brace member to retain the treadle in various adjusted positions, and means for returning the arms to their normal position upon the release of the treadle.

3. In a device of the character described, the combination of spaced standards having grooves formed upon the inner faces thereof, a longitudinal rod connecting the upper ends of said standards, curved arms pivotally mounted upon said rod and having their outer ends normally arranged in spaced relation, link members pivotally secured to the other ends of said arms, a second longitudinal rod having its ends slidably mounted within said grooves, said links having their other ends pivotally mounted upon said rod, means for reciprocating said rod to actuate the arms and force the same toward each other, and coil springs arranged between said rods and having their ends secured thereto to return the arms to their normal position.

1,079,865. ADJUSTABLE SHAFT. ALPHONS M. KUHLE, Carroll, Iowa. Filed Jan. 20, 1913. Serial No. 743,175. (Cl. 21—95.)



1. A draft attachment, comprising a stationary bar supported by the thills of a vehicle, a bar disposed in sliding relation to the first mentioned bar, said second bar supporting the shafts, a rod connecting the thills, a yoke carried by the sliding bar and embracing said rod, and a latch member carried by said yoke for locking the same at any point along said bar.

2. A draft attachment, comprising a stationary bar, supported by the thills of a vehicle, a bar disposed in sliding relation to the first mentioned bar, said bar supporting the shafts, a link connection between the stationary bar and the shafts, and a yoke carried by the sliding bar, a rod connecting the thills, said yoke embracing said rod to maintain the sliding bar and the stationary bar in engagement.

3. A draft attachment, comprising a stationary bar, said bar being formed with a groove, a sliding shaft supporting bar, said bar being arranged with a tongue adapted

to enter the groove of the other bar, a link connection between the stationary bar and the shafts, a yoke secured to the sliding bar, a rod connecting the thills, the yoke being formed with extensions which embrace said rod, a plate supported by said yoke and arranged to contact with the stationary bar, and a latch member pivotally supported by said yoke and arranged to contact with said rod, to lock the yoke against lateral movement thereon.

4. A draft attachment comprising a stationary bar connecting the thills of a vehicle, a bar disposed in sliding relation to the first mentioned bar, said bar supporting the shafts of the vehicle, a curved slotted link pivotally supported by the stationary bar and having a sliding connection with the sliding bar, a yoke supported by the sliding bar, said yoke being formed with extensions, a rod connecting said thills and being embraced by said extensions, a plate supported by said extensions and supported in contact with the stationary bar, an extension being formed integral with said plate and being extended above the sliding bar to form a support for the swingle tree, the plate adjacent said extension being bent to form bearings, and a latch member, said latch member being formed with trunnions which extend in said bearings, said latch member being arranged to embrace said bar to lock the yoke against longitudinal movement on the bar.

5. A draft device comprising a stationary bar connecting the thills of a vehicle, a shaft supporting bar disposed in sliding relation to the first mentioned bar, a link connecting the shafts supported by the stationary and sliding bars, said link having a pivotal connection with the stationary bar and a sliding connection with the shafts, a yoke secured to the sliding bar, a rod connecting the thills, said yoke being formed with extensions which embrace said rod, a plate supported by said yoke and arranged to contact with the stationary bar, and a latch member carried by said yoke and arranged to embrace said rod to hold the yoke against longitudinal movement on the rod.

[Claim 6 not printed in the Gazette.]

1,079,866. RAILWAY-SPLICE WITH FISH-PLATES. OTTO ARNDT KUNERT and THEODOR FREIHERR KORB VON WEIDENHEIM, Vienna, Austria-Hungary. Filed Mar. 28, 1912. Serial No. 686,855. (Cl. 239-3.)



1. In a railway splice, the combination of a fish-plate, a base plate supporting the ends of the joined rails and being provided with a recess closed at both ends by oblique or tapered surfaces, the opening of the said trough shaped recess being directed toward the rails, a lower flange of the fish-plate engaging said recess and being tapered at both ends so as to fit said oblique or tapered surfaces at the ends of the said recess.

2. In a railway splice, the combination of fish-plates on both sides of the rail joint, a base plate supporting the ends of the joined rails and being provided at each side with a recess closed at both ends by oblique or tapered surfaces, the opening of said trough shaped recess being directed toward the rails, a lower flange of the respective fish-plate engaging said recess and being tapered at both ends, the head of the outer fish-plate being provided with means to carry the wheel from one rail over the joint to the other rail without shocks.

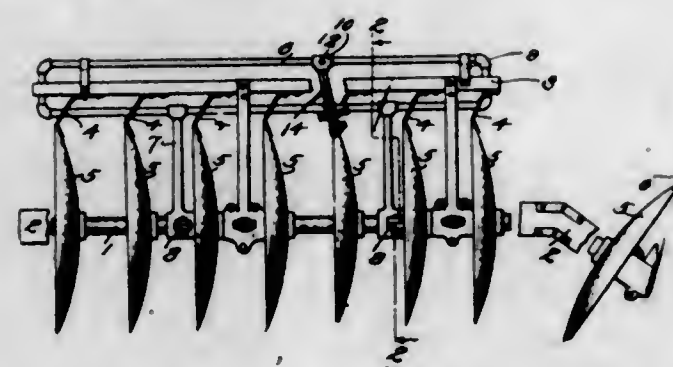
3. In a railway-splice, the combination of fish-plates on both sides of the rail joint, a base plate supporting the ends of the joined rails and being provided at each side with a recess closed at both ends by oblique or tapered surfaces, the opening of said trough shaped recess being directed toward the rails, a lower flange of the respective fish-plate engaging said recess and being tapered at both ends, the surface of the head of the outer fish-plate being composed of an inner longitudinal part increasing in breadth toward the middle of the fish-plate and of an outer longitudinal

part which is beveled off by a transversely sloping face and increased in breadth toward both ends of the fish-plate, said beveled part extending from one end of the fish-plate to the other.

4. In a railway splice, the combination of fish-plates on both sides of the rail joint, a lower flange on each fish-plate curved at its ends, a base plate supporting the ends of the rails and provided with recesses closed and tapering at the ends, the openings of said trough shaped recesses being directed toward the rails, said flanges engaging the respective recesses of the base plate so as to fit wholly therein.

5. In a railway splice, the combination of fish-plates on both sides of the rail joint, a lower flange of each of said fish-plates provided with curved ends, a base plate supporting the ends of the rails and provided with recesses, which are closed and tapering at the ends and are engaged by the respective lower flanges of the fish-plates which flanges are provided with tapered ends, the said fish-plates fitting snugly to the faces of the web and base of the rails and constituting in transverse direction a bell crank lever, the lower arm of which is wedged fast in the respective recess of the base plate, in case the upper arm of the said bell crank lever is screwed fast.

1,079,867. DISK-HARROW SHARPENER. HARRY LAMMON, Cleveland, Tex. Filed Feb. 14, 1913. Serial No. 748,394. (Cl. 97-77.)



1. In a disk harrow sharpener, the combination, with a frame, of a sleeve shiftably carried by the frame, means for locking the sleeve against movement, arms pivotally connected to the sleeve and extending across the frame and resting thereupon, the said arms being free to be moved apart pivotally, resilient means tensioned to resist such movement of said arms, and sharpening means carried by the arms in position for engaging the edge of a disk.

2. In a disk harrow sharpener, the combination, with a frame having substantially parallel bars, of a pair of arms pivotally connected to one of the bars and disposed across the frame to rest upon the other bar, the said arms being free to move pivotally for separating laterally, cushioning means resisting the lateral separation, and sharpening means carried by the arms and adapted to engage the edge of a disk.

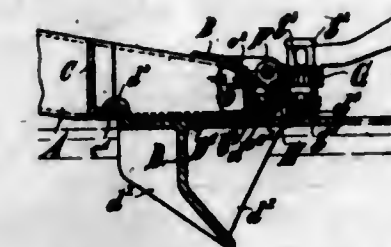
3. In a disk harrow sharpener, the combination, with a frame having substantially parallel bars, of a pair of arms pivotally connected to one of the bars and disposed across the frame to rest upon the other bar, the said arms being free to move pivotally for separating laterally, cushioning means resisting the lateral separation, sharpening means carried by the arms and adapted to engage the edge of a disk, and a disk scraper disposed to engage a disk being sharpened, the said scraper being pressed by the said cushioning means thereby being resiliently movable relative to the disk.

4. In a disk sharpener, the combination of a pair of pivotally mounted arms, disk sharpening means carried thereby, said arms being movable laterally apart on their pivots, a spring, means connected therewith and with the arms for resiliently resisting lateral separation of the arms, and a scraper for a disk being sharpened disposed for being movable relative to the disk against the tension of the spring.

5. In a disk sharpener, the combination of arms movable laterally apart, disk sharpening means carried by said arms, a spring connected to press the arms toward each other, and a disk scraper pivoted to one of the arms and disposed to be subject to the pressure of said spring.

[Claims 6 to 8 not printed in the Gazette.]

1,079,868. SPADE-FASTENING FOR WHEELED GUN-CARRIAGES. OTTO LAUBER, Bredene, and FRIEDRICH STOCK, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Aug. 30, 1910. Serial No. 579,724. (Cl. 89-40.)



1. The combination with a wheeled gun-carriage having a trail and a spade, of means for easily detaching or attaching said spade to the trail-end, constructed to permit a horizontal displacement between trail-end and spade, said spade being provided with fixed connecting members and a movable gearing member and said trail provided with fixed connecting members and a gearing member, said several members adapted to be brought into engagement with the respective spade members by a mutual displacement of the trail and the spade in the longitudinal direction of the gun-carriage.

2. The combination with a wheeled gun-carriage having a trail and a spade, of means for detachably mounting said spade on the trail-end, constructed to permit a lateral displacement between trail-end and spade, said means being brought into engagement by running the trail rearward on the spade, and clutches bolted to the trail and locking the spade to the trail-end.

3. The combination with a wheeled gun-carriage having a trail and a spade, of means for easily detaching said spade from, or attaching it to the trail-end, gearing comprising rack and pinion for producing lateral displacement between trail-end and spade, said spade and trail being each provided with two connecting members comprising transverse flanges on the spade and transverse opposing flanges on the trail-end brought into engagement with each other by running the trail rearward on the spade.

4. The combination with a wheeled gun-carriage having a trail and a spade, of means for detachably mounting said spade on the trail-end, said means comprising transverse jaws or flanges on the spade and opposing transverse flanges on the trail-end, and clutches bolted to the trail; and the spade being provided with a pinion and the trail with a rack forming a gear for effecting lateral displacement of the trail on the spade; said gear being brought into mesh and said flanges being brought into engagement simultaneously by running the trail rearward on the spade, substantially as described.

1,079,869. WATER-FEEDING ATTACHMENT. DOMINICK F. LEONE, Anaconda, Mont. Filed Jan. 29, 1912. Serial No. 674,227. (Cl. 221-67.)

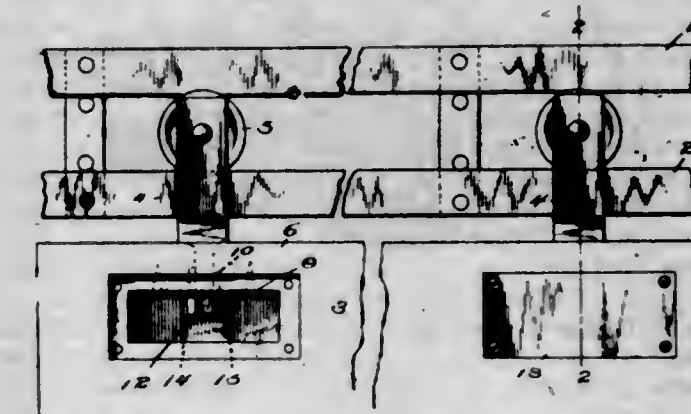
A device of the class described including a cover having an air inlet opening, said cover being adapted to be placed upon a receptacle, a reservoir above the cover, means for supporting the reservoir spaced from the cover, said reservoir being normally inverted and having a mouth depending therefrom, a screw cap engaging the mouth and constituting a closure therefor, an air inlet pipe extending through the screw cap and into the reservoir to a point near the top thereof and downwardly through the opening in the cover of the receptacle, said air inlet pipe being constantly open, a water discharge pipe extending through the screw cap, one end of said pipe being located ad-

acent the bottom of the reservoir and the other end portion being extended loosely through the opening in the cover and downwardly into the receptacle, a valve within the water discharge pipe for controlling the flow of liquid



therethrough, and supporting members upon the screw cap and extending into the mouth, said members being detachably engaged by the respective pipes to hold the pipes adjustably connected to the screw cap.

1,079,870. DOOR-HANGER. THOMAS LLOYD, Shamokin, Pa. Filed Mar. 17, 1913. Serial No. 754,976. (Cl. 16-7.)



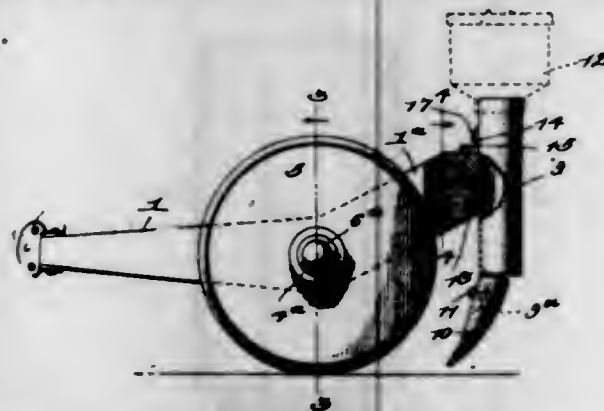
The combination with a sliding door having a mortise formed in the upper edge thereof, of a hanger for the door provided with a shank extending into said mortise, a plate attached to the inner, upper surface of the mortise and formed with a boss for embracing said shank, an adjusting nut mounted on the shank and bearing against said plate, a plate closing one side of the mortise, and an arm extending laterally into said mortise from the last mentioned plate for engaging the nut to lock the latter against reverse rotation.

1,079,871. DISK DRILL. HENRY E. LOHMAN, Russell, Kans. Filed July 3, 1913. Serial No. 777,204. (Cl. 111-11.)

1. A disk drill including a beam having a transverse opening therein, a tubular bushing fitted within the opening, a sleeve adapted to be journaled within the bushing, a disk at one end of the sleeve, the said disk being adapted to be positioned upon either side of the beam, a boot adjustably mounted upon the rear end of the beam, a shovel carried by the boot, the said boot being adapted to be swung laterally to position the point of the shovel in alignment with the disk, and means for locking the boot in an adjusted position.

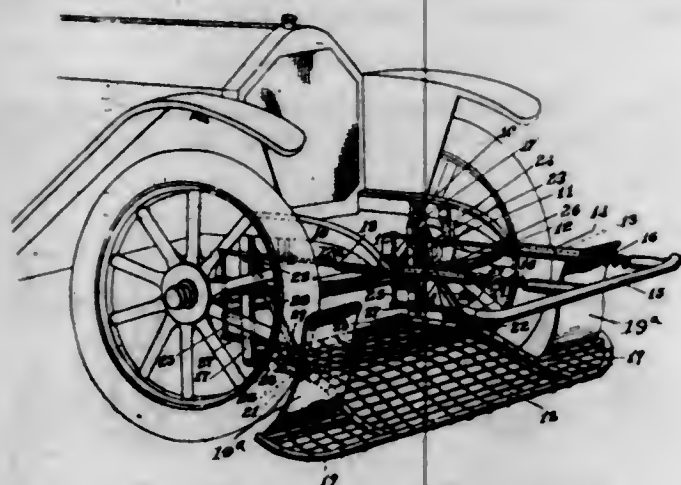
2. A disk drill including a beam having a transverse opening therein, a tubular bushing mounted within the opening, a sleeve journaled within the bushing and adapted to be inserted into the bushing from either end thereof, a disk at one end of the sleeve, said disk being adapted to be positioned upon either side of the beam, means for

retaining the sleeve within the bushing, a boot adjustably mounted upon the rear end of the beam so as to have a lateral swinging movement, a shovel carried by the



boot and adapted to have the point thereof swung into alignment with the disk, and means for locking the boot in an adjusted position.

1,079,872. VEHICLE-FENDER. JOSEPH MASCARI, Memphis, Tenn. Filed Feb. 28, 1911. Serial No. 611,325. (Cl. 105-130.)

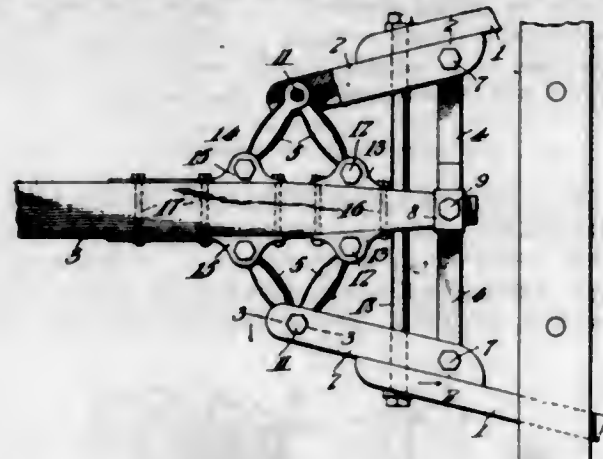


In a fender for vehicles, the combination with sleeves carried by the chassis of the vehicle and projecting forwardly therefrom, of rods slidable longitudinally in the said sleeves and projecting beyond the ends thereof, a bumper carried on the forward ends of the said rods, supports on the said chassis and through which the rear ends of the said rods slide, depending supporting bars secured to the chassis of the vehicle, brackets projecting laterally rearward from the depending bars, levers mounted to swing on the said brackets and having pivotal connection at their upper ends with the said rods, an apron mounted to swing on the said depending supporting bars, retaining bars mounted to swing on the depending supporting bars and terminating at their lower ends in hooks, lugs carried by the apron and normally engaged by the hooks of the retaining bars, and actuating bars having pivotal connection with the said levers and with the said retaining bars, for disengaging the hooks of the retaining bars from the lugs of the apron when a rearward pressure is exerted on the said bumper.

1,079,873. WAGON-TONGUE HOUNDS. WILLIAM J. McWILLIAMS, Lost Cabin, Wyo. Filed May 13, 1913. Serial No. 767,325. (Cl. 21-30.)

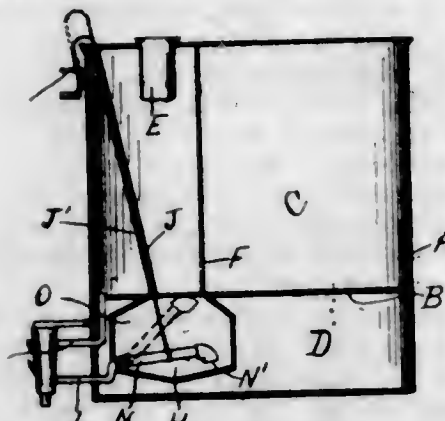
In a device of the class described, the combination, with a tongue, of spaced tongue hounds adapted to engage wagon hounds, tongue engaging cross braces pivotally engaging the tongue hounds and extending through the tongue, the tongue being formed with an aperture for receiving the cross braces, a tongue engaging sleeve surrounding the cross braces and tongue, a set screw threaded through the sleeve and a portion of the tongue and engaging one of the cross braces in a direction pressing one cross brace toward the other for clamping the cross braces

together, a pair of links pivotally connected to each of the tongue hounds and spaced from the cross braces, and



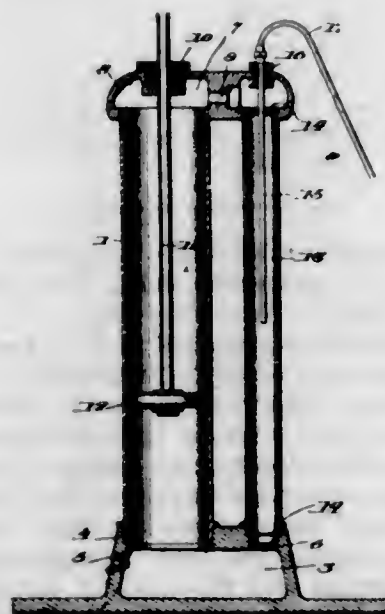
means pivotally connecting the relatively opposite ends of said links to the tongue.

1,079,874. AUTOMATIC MEASURING DEVICE. FRANCIS LOREN METZGER, Harrisburg, Pa. Filed May 9, 1913. Serial No. 766,641. (Cl. 73-158.)



An automatic liquid dispensing tank provided with a scale and having a vented measuring receptacle therein, a valve casing with ports therein, a pipe connecting one of said ports with the supply chamber of the tank, a second pipe connecting the other port with the measuring receptacle, a ported valve within said valve casing, a movable measuring pipe communicating with said second pipe, a rod fastened to said measuring tube, an open-ended pipe through which said rod passes, a portion of the rod being bent to form a handle, and adapted to move adjacent to said scale to designate the quantities to be measured, as set forth.

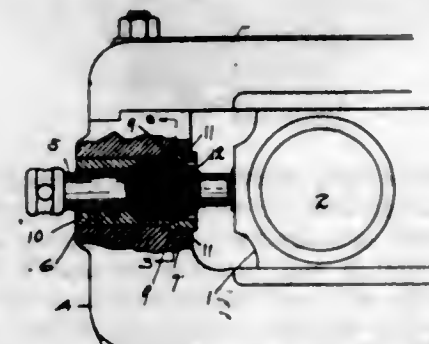
1,079,875. PUMP-FILTER. ROSS E. MILES, Mereta, Tex. Filed July 19, 1912. Serial No. 710,470. (Cl. 230-27.)



In a pump, a cylinder having a piston adapted for reciprocation therein, a filter comprising a tube parallel with

said cylinder and relatively small diameter, screens at the opposite ends of said tube, a base connected to the lower ends of said cylinder and tube and supporting the same and common thereto, and a head connected to the upper ends of said cylinder and tube and common thereto, said base and head carrying the discharge valves of said pump and serving to establish communication between the exhaust side of said cylinder and tube whereby the air delivered from the pump cylinder will be filtered.

1,079,876. ADJUSTING MEANS FOR PRESSURE-ROLLS. MORRIS A. PEARSON, Cuyahoga Falls, Ohio, assignor to The Turner Vaughn & Taylor Company, Cuyahoga Falls, Ohio, a Corporation of Ohio. Filed May 1, 1912. Serial No. 694,508. (Cl. 64-10.)



1. In mechanism of the class described, the combination of a frame; an adjustable roll-support; a screw for adjusting said support; and an interiorly threaded bushing forming a nut for said screw, said bushing being formed with radial lugs at its inner end and said frame having a longitudinally recessed opening adapted to receive and removably hold said bushing in one axial position of the latter, other shallow recesses being formed at the inner end of said opening adapted to receive the lugs on said bushing upon the latter being given a fractional turn from such first position.

2. In mechanism of the class described, the combination of a frame; an adjustable roll-support; a screw for adjusting said support; and an interiorly threaded bushing forming a nut for said screw, said bushing being formed with radial lugs at its inner end and said frame having a longitudinally recessed opening adapted to receive and removably hold said bushing in one axial position of the latter, the inner portion of such opening being enlarged to the depth of said recesses and other shallow recesses being formed in said enlarged portion to receive the lugs on said bushing upon the latter being given a fractional turn from such first position.

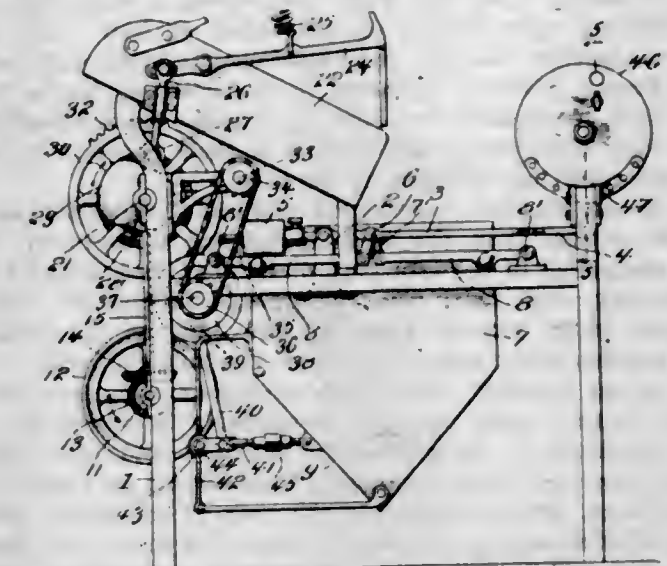
1,079,877. AUTOMATIC WEIGHING DEVICE. ARLA A. PILE, Chattanooga, Okla. Filed Aug. 23, 1912. Serial No. 716,886. (Cl. 73-46.)

1. A suitably supported weighing receptacle having a discharge opening, a hinged valve to obstruct said opening, a link connected with the valve, a wheel having a wrist pin, a pitman connecting the wrist pin with the link extending from the valve, anti-friction means supported at the junction of the link and the pitman, a resilient guide for said anti-friction means, and means for intermittently rotating the wheel having the wrist pin.

2. A suitably supported weighing receptacle having a discharge valve provided with a link, an intermittently operated pitman connected with said link, an anti-friction member at the junction of the link and the pitman, and a resilient guide for said anti-friction member, said guide having a recess engaging the anti-friction member to prevent displacement of the parts when the valve is in obstructing position.

3. A suitably supported weighing receptacle, a discharge valve for said receptacle, means for intermittently actuating the valve to discharge the contents of the receptacle, and means including a resilient guide coöperating with the actuating means and having a notch engaging the actuating means to prevent accidental opening of the valve.

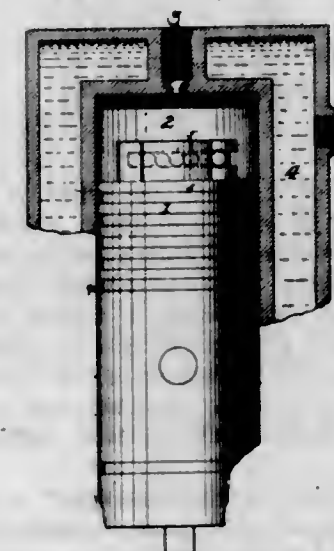
4. A suitably supported weighing receptacle, a discharge valve hingedly connected therewith, a feed chute having a spring retracted obstructing valve, and constantly driven means for simultaneously operating the discharge valve and the obstructing valve at predetermined intervals, said means including a driving shaft, a counter shaft having a wheel provided with a plurality of concentric series of teeth, an upright shaft, miter gearing whereby said upright shaft receives motion from the driving shaft, and a pinion adjustably supported on the upright shaft and adapted to mesh with any one of the circumferential series of cogs.



5. In a device of the class described, a scale beam, a weighing receptacle supported thereby, constantly driven means for discharging the contents of the receptacle at predetermined intervals, a drum, an anchor within the drum including top and base members and a pair of uprights, a cross head slidable on the uprights, springs connecting the cross head with the top member of the anchor, a link connecting the cross head with the scale beam, a shaft supported axially within the drum, means associated with the cross head for rotating the shaft, a units wheel mounted loosely on the shaft, an operating arm carried by the shaft and engaging the units wheel to rotate the latter in one direction and a spring to check reverse rotation of the units wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,079,878. VAPORIZER AND IGNITER FOR INTERNAL-COMBUSTION ENGINES. WILBER O. PLATT and JOHN REID, Oil City, Pa., assignors to Joseph Reid Gas Engine Company, Oil City, Pa., a Corporation of Pennsylvania. Filed Oct. 8, 1912. Serial No. 724,588. (Cl. 123-143.)



1. In an internal combustion engine, a vaporizer and igniter acting upon the fuel, comprising a plurality of individually detachable rods suspended at both ends in the

combustion chamber; said rods accumulating sufficient heat from a previous explosion to vaporize and ignite the fuel for a subsequent explosion.

2. In an internal combustion engine, a vaporizer and igniter acting upon the fuel, comprising a plurality of individually detachable rods suspended at both ends in the combustion chamber; said rods accumulating sufficient heat from a previous explosion to vaporize and ignite the fuel for a subsequent explosion, and means for suspending said rods, comprising lugs between which said rods are secured.

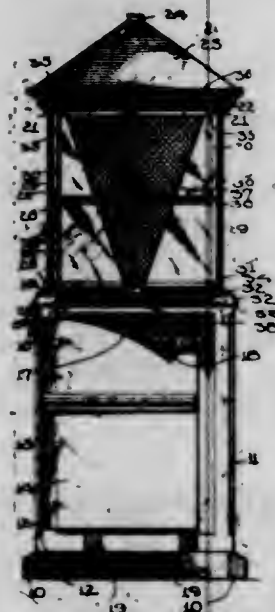
3. In an internal combustion engine, a vaporizer and igniter acting upon the fuel, comprising a plurality of individually detachable rods suspended at both ends in the combustion chamber, said rods accumulating sufficient heat from a previous explosion to vaporize and ignite the fuel for a subsequent explosion, and means for suspending said rods, comprising lugs having in their opposed faces, grooves receiving the ends of the rods.

4. In an internal combustion engine, a vaporizer and igniter acting upon the fuel, comprising a plurality of rods suspended in the combustion chamber, and means for suspending said rods, comprising lugs having in their opposed faces, grooves receiving the ends of the rods; said grooves being open at one end to admit the rods.

5. In an internal combustion engine, a vaporizer and igniter acting upon the fuel, comprising a plurality of rods suspended in the combustion chamber, and means for suspending said rods, comprising lugs having in their opposed faces, grooves receiving the ends of the rods; said grooves being open at one end to admit the rods; said lugs being recessed transversely to and near one end of the grooves to admit a confining rod.

[Claims 6 to 8 not printed in the Gazette.]

1,079,879. ADVERTISING-KIOSK. SAMUEL W. PORTER, Reno, Nev. Filed Oct. 19, 1912. Serial No. 726,827. (Cl. 43—22.)

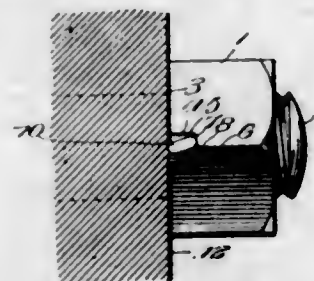


1. In a device of the kind described, a base, a hollow pedestal mounted on said base, entry openings at the upper part of said hollow pedestal, a casing mounted on said pedestal, an inverted frusto-pyramidal frame hung from the upper part of said casing, a screen surrounding the sides of said frame, a second screen surrounding the lower end of said frame and extending to the sides of the hollow pedestal beneath the entry openings, and a removable receptacle held in said hollow pedestal beneath the second screen.

2. In a device of the kind described, a base, a hollow pedestal mounted on said base, entry openings at the upper part of said hollow pedestal, a casing mounted on said hollow pedestal, an inverted frusto-pyramidal frame hung from the upper part of said casing, a screen surrounding the sides of said frame, a second screen surrounding the lower end of said frame and extending to the

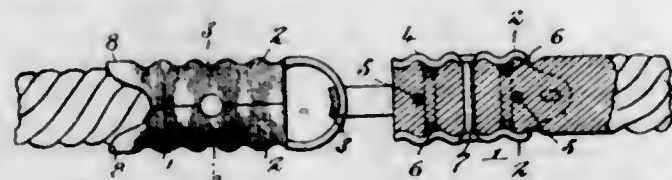
sides of the hollow pedestal beneath the entry openings, a removable receptacle held in said hollow pedestal beneath the second screen, and a top for the casing having its bottom edges in spaced relation to the top of the casing whereby to provide entry openings between said edges and casing.

1,079,880. NUT-LOCK. WILLIAM I. PRIDE and HUGO O. SCHROETER, Pawtucket, R. I. Filed June 26, 1912. Serial No. 706,083. (Cl. 151—37.)



In a nut lock, a nut provided in its bearing face with a channel extending radially from the bolt hole outwardly and open at both ends, and a dog of uniform width and straight from end to end inserted in said channel and detached from the nut and adapted to turn on its major axis until one side thereof binds against the bottom of said channel and another side thereof binds against the surface upon which the nut bears.

1,079,881. ROPE-COUPLING. SAMUEL E. REAGLES, Baraboo, Wis. Filed Jan. 15, 1913. Serial No. 742,248. (Cl. 24—123.)



1. A coupling for rope belts comprising identical socket members having rope receiving portions and interfittng loops, in combination with rope ends having fixed metallic collars embraced by the walls of the sockets and rivets extending through the sockets and through the rope ends and lying beside the collars and mutually contacting therewith.

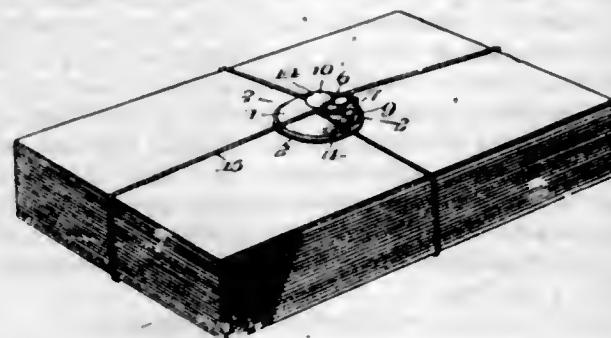
2. A coupling for rope belts, comprising socket members for receiving the companion terminals of the belt, the said socket members being connected for relative angular movements, in combination with metallic collars on the rope ends embraced by the walls of the sockets and fastening devices extending through the sockets and through the rope ends and lying in mutual contact with surfaces of said collars.

3. A coupling for rope belts, comprising socket members for receiving the companion ends of the belt, said members being connected for relative angular movements, collars extending around the rope ends and embraced by the walls of the sockets, fastening devices extending through the sockets and through the rope ends and lying at the aides of the collars so as to hold the rope ends against longitudinal movements in the sockets, extensions carried by said members and provided with longitudinally extending sockets at their inner ends, devices extending through the sockets and through said socket members and rivets passing through said extensions and through the rope ends.

1,079,882. PACKAGE-TIER. GEORGE A. ROBERTS, Wollaston, Mass. Filed Jan. 15, 1913. Serial No. 742,242. (Cl. 24—18.)

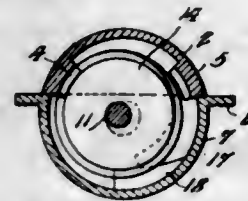
A package binder comprising a concavo-convex disk having a central passage therein and a radial recess formed on the convexity of the disk and terminating at

its inner end around said central passage and terminating at its outer end onto the disk at a point within the marginal edge thereof, a sheet-metal spring curved to conform with the convex-surface of the disk and having a portion seated in the recess and having its free end curved outwardly away from the convex-surface at a point beyond the outer end of the recess, a rivet having a reduced portion extending through the inner end of the spring and through the central passage in the disk and up-struck



against the walls of the concave-surface of the disk and having an upper enlargement extending above the convex-surface of the disk centrally of the latter and terminating in a relatively broad head lying in spaced relation with the convex-surface of the disk and having a shoulder seated directly against the spring whereby to confine the latter in the recess and thereby hold the spring against moving around the rivet and a flexible member having one of its terminals secured to said rivet at a point above the convex-surface of the disk.

1,079,883. VISE. JOHN SAYER and GEORGE G. DENT, Flagstaff, Ariz. Filed Dec. 28, 1910. Serial No. 599,711. (Cl. 81—36.)



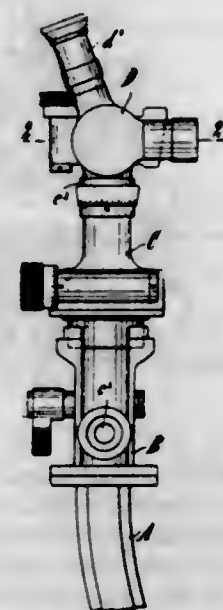
1. In a vise comprising a fixed jaw and a movable jaw, an operating screw, and two fixed thread segments having a relative arrangement, with the arcuate threads of one segment out of register—less than the width of one thread—with the corresponding threads of the other segment so that the threads of the operating screw will never strike those of both the segments edge-to-edge but will with certainty slip into engagement.

2. In a vise comprising a fixed jaw and a movable jaw the combination of an operating screw mounted to have both a vertical and a lateral movement, means for elevating the screw and holding the same in elevated position during a revolution, and two fixed thread segments arranged upon opposite sides of a vertical plane passing through the axis of the operating screw, the relative arrangement being such that the arcuate threads of one segment are out of register—less than the width of one thread—with the corresponding threads of the other segment to prevent the matching of the threads of the operating screw with both the segments at the same time when said operating screw is elevated.

3. The herein described vise comprising a fixed jaw having a shank formed upon its inner side with longitudinal ribs which are transversely spaced, each of the ribs having arcuate threads, the threads of one segment being out of register with the corresponding threads of the other segment, a movable jaw provided with a shank having portions engaging the shank of the fixed jaw to form guide means, a shaft mounted in the movable jaw and having a limited relative lateral play and having a screw-thread to match with the threads of the segments but adapted to engage with one only at the same time, said shaft having an enlarged portion having a part formed with the before-mentioned screwthread and the remaining portion plain and formed with an opening having one side

inclined, and a projection carried by the shank of the movable jaw to enter the opening of the enlarged portion of the shaft to admit of the screwthread of said shaft clearing the before mentioned segments, said shaft being elevated when turned to bring its screwthread into matching engagement with one or the other of the said segments.

1,079,884. SIGHTING DEVICE FOR GUNS. RICHARD SCHÜRMANN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Mar. 15, 1912. Serial No. 683,925. (Cl. S9—32.)



1. A sighting device for guns comprising a pointing telescope and an observation telescope, said pointing telescope consisting of a panoramic telescope having its eye piece set at right angles with the plane of elevation, the relative position of the eye pieces for said two telescopes being so located that they may be simultaneously used by different persons.

2. A sighting device for guns comprising a pointing telescope and an observation telescope, said pointing telescope consisting of a panoramic telescope having its eye piece at right angles with the plane of elevation, a reflector in said panoramic telescope, a housing for said reflector and a housing for said observation telescope secured to the reflector housing.

3. A sighting device for guns comprising a pointing telescope and an observation telescope, said pointing telescope consisting of a panoramic telescope, and both telescopes being rigidly connected and having their eye pieces located in two planes at right angles to each other.

4. A sighting device for guns comprising a pointing telescope and an observation telescope, said pointing telescope consisting of a panoramic telescope with its eye piece at right angles with the plane of elevation, having a reflector mounted therein and revoluble around its horizontal axis and a housing for said reflector revoluble around its vertical axis.

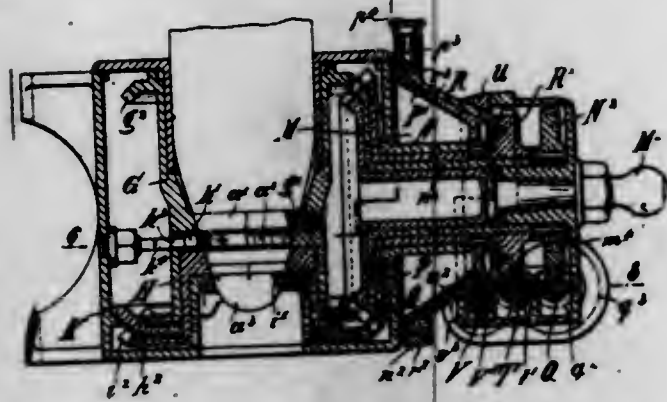
5. A sighting device for guns comprising a pointing telescope and an observation telescope, said pointing telescope consisting of a panoramic telescope having its eye piece at right angles with the plane of elevation and a reflector mounted in the panoramic telescope and revoluble around its horizontal axis, and a housing for said reflector revoluble around its vertical axis, a housing for said observation telescope rigidly attached to said reflector housing.

[Claims 6 and 7 not printed in the Gazette.]

1,079,885. FUSE-SETTING DEVICE. WILHELM SCHWARTZ, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 22, 1912. Serial No. 705,255. (Cl. 86—23.)

1. A setting device for fuses with two setting parts independent of each other, comprising three setting mem-

bers, the first setting member being constructed to engage the body of the fuse; the second setting member constructed to engage the one, and the third setting member the other of the independent setting parts of the fuse; each of said setting members adapted to engage the respective fuse parts only at a certain angular position relative to each other; the angular positions, of said second and third setting members relative to the first setting member being adapted to be changed at least once 360° during the setting operation of the fuse, after the angular position corresponding to the desired setting has been given to said second and third setting members relative to the first setting member.



2. A setting device for fuses with two setting parts independent of each other, comprising three setting members, the first setting member being constructed to engage the body of the fuse; the second setting member constructed to engage the one, and the third setting member the other, of the independent setting parts of the fuse; each of said setting members adapted to engage the respective fuse parts only at a certain angular position relative to each other; the angular positions of said second and third setting members relative to the first setting member being adapted to be changed at least once 360° during the setting operation of the fuse, counted from that angular position of said three setting members when all three are in engagement with their respective fuse parts.

3. A setting device for fuses, with two setting parts independent of each other, comprising three setting members, the first setting member being constructed to engage the body of the fuse; the second setting member constructed to engage the one and the third setting member the other of the independent setting parts of the fuse; a housing for the setting members and an automatic clutch between said housing and said first setting member; said second and third setting members being angularly adjustable relative to said housing, an amount corresponding to the desired setting of said two setting parts of the fuse; said clutch being released by hand when the fuse is inserted into the fuse setting device, and automatically brought into action at the moment the desired angular position relative to the fuse body has been attained.

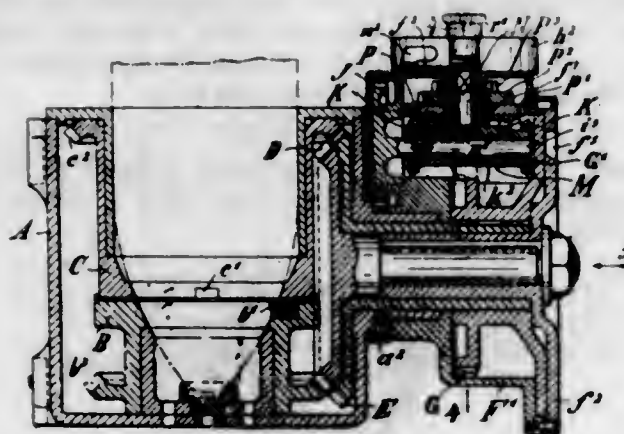
4. A setting device for fuses with two setting parts independent of each other, comprising three setting members, the first setting member being constructed to engage the body of the fuse; the second setting member constructed to engage the one and the third setting member the other of the independent setting parts of the fuse; a housing wherein said setting members are revolvably mounted and an automatic clutch between said housing and said first setting member, said first setting member being adapted to engage the fuse body at a certain angular position relative to the fuse; said second and third setting members being angularly adjustable within said housing corresponding to the desired setting; and said automatic clutch, coupling together said housing and said first setting member at a certain predetermined angular position of said first setting member relative to the housing.

5. A setting device for fuses with two setting parts independent of each other, comprising a housing; three independently revolvable setting members mounted in the

housing; the first of said setting members having a notch, a spring actuated plunger in said housing, tending to engage said notch and adapted to be released by hand; a toe on said first setting member adapted to engage a recess in the fuse body; a spring actuated plunger in the second of said setting members adapted to engage a notch in the first of the independent setting parts of the fuse; a hand operated worm mounted to rotate in said housing and worm teeth meshing therewith on said second setting member; a spring actuated plunger in the third of said setting members adapted to engage a notch in the second of the independent setting parts of the fuse; a spring actuated plunger in said third setting member and said housing having a plurality of apertures, said last named plunger adapted to automatically engage any one of said apertures, whereby said housing and said third setting member will be locked together, and said plunger being constructed to be withdrawn by hand; a handle on said third setting member for actuating the fuse setting device for setting the fuse.

[Claims 6 to 18 not printed in the Gazette.]

1,079,886. FUSE-SETTING MACHINE. WILHELM SCHWARTZ, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 22, 1912. Serial No. 705,250. (Cl. 86—23.)



1. A fuse setting device having an adjusting member adapted to change the adjustment of the fuse setting device corresponding to the desired distance of the bursting point; an operating member for setting the fuse and means connecting said adjusting member with said operating member, whereby the adjusting member is actuated to automatically change the adjustment of the fuse setting device when said operating member is being moved for setting the fuse.

2. A fuse setting device having an adjusting member adapted to change the adjustment of the fuse setting device corresponding to the desired distance of the bursting point; an operating member for setting the fuse and means connecting said adjusting member with said operating member, said connecting means composing a change speed gear whereby the adjusting member is actuated to automatically change the adjustment of the fuse setting device when said operating member is being moved for setting the fuse.

3. A fuse setting device having an adjusting member adapted to change the adjustment of the fuse setting device corresponding to the desired distance of the bursting point; an operating member for setting the fuse and a change speed gear connecting said adjusting member with said operating member, said change speed gear having a reversing gear, whereby the adjusting member is actuated to automatically change the adjustment of the fuse device when said operating member is being moved for setting the fuse.

4. A fuse setting device having a revolvable adjusting member adapted to change the adjustment of the fuse setting device corresponding to the desired distance of the bursting point; an operating member for setting the fuse; a plurality of followers coaxially mounted relatively to said adjusting member and positively connected with said

operating member to turn with different angular speeds when said operating member is being moved; and a coupling adapted to rigidly connect said adjusting member to either one of said followers.

5. A fuse setting device having a revolvable adjusting member adapted to change the adjustment of the fuse setting device corresponding to the desired distance of the bursting point; an operating member for setting the fuse; a plurality of annular followers of different diameters coaxially mounted relatively to said adjusting member and positively connected with said operating member to turn with different angular speeds when said operating member is being moved, said followers being provided with a plurality of radial slots; a latch mounted on said adjusting member to slide radially thereon and a spring-actuated stud in the latch adapted to engage any one of said slots; and rings interposed between the adjacent annular followers whereby said latch will be retained radially in engagement with any one of said annular followers.

1,079,887. DRAFT-EQUALIZER. JOHN A. SCHWARZFISCHER, Pocomasset, Okla. Filed June 6, 1913. Serial No. 772,149. (Cl. 21—76.)



1. In a four horse evener, the combination of a draw bar, long and short levers pivotally attached to the bar at points in advance of each other and extending on opposite sides of the bar, an equalizing connection between said levers, draft devices carried by the levers, and a connection between the bar and short lever adapted to permit a certain degree of pivotal motion of said short lever and to positively and rigidly connect said lever with the bar when the lever is moved forward to a determined degree.

2. In a four horse draft evener, the combination of a beam, a clevis attached thereto, a bracket adjustably engaging said clevis, a draw bar reversibly connected with the bracket, long and short levers pivoted to the bar one in advance of the other and extending on opposite sides of the bar, an equalizing connection between said levers, an arm attached to the beam and projecting laterally therefrom on the long lever side, a flexible connection between said arm and the forward end of the bar, and a connection between the short lever and the bar adapted to permit independent swinging to a certain degree and to fix the lever to the bar on a determined forward movement of said lever.

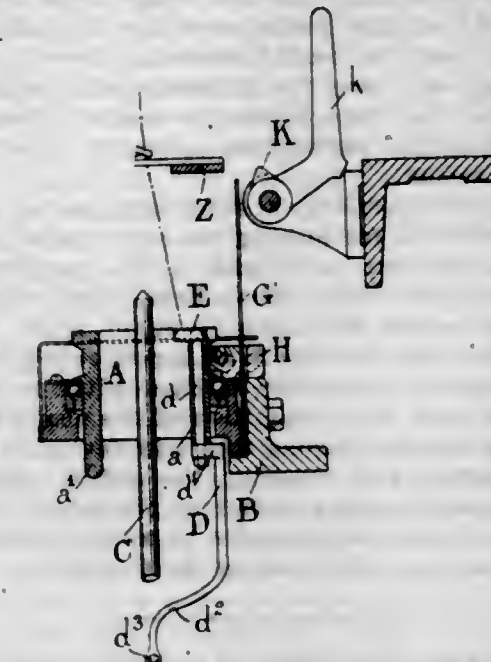
1,079,888. APPARATUS FOR SPINNING FLAX, HEMP, JUTE, AND OTHER FIBERS. GEORGE SHAW, Leeds, England. Filed Mar. 14, 1913. Serial No. 754,341. (Cl. 118—29.)

1. In a spinning machine for jute, hemp, flax and other fibers, a spinning device comprising in its construction a revolving ring, wide enough to embrace the cop or bobbin and through which the cop or bobbin passes, and an eccentric centrifugal presser pivoted to the interior of the ring and extending downwardly therefrom, said presser being provided with a guide eye at its lower end by which the yarn is laid upon the cop.

2. In a spinning machine for jute, hemp, flax and other fibers, a ring, an eccentric flter and centrifugal presser pivoted to the ring and provided with a guide eye at its lower end, and with a thread guide at its upper end so placed that the drag or tension on the yarn tends to press the presser guide eye against the cop or bobbin.

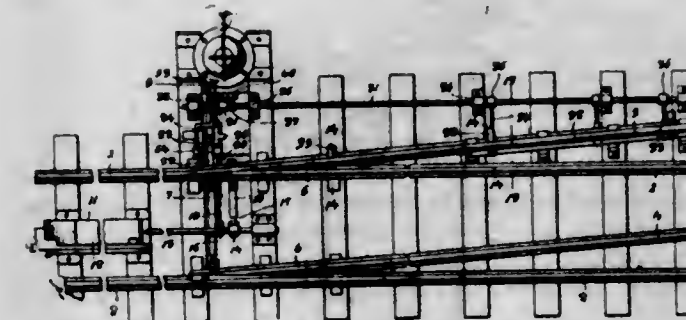
3. In a machine for spinning jute, hemp, flax and other fibers, the combination, with a revolving ring and a cen-

trifugal presser and guide eye pivoted thereto, of a spring controlled brake block, a spring connected therewith, and



an eccentric and lever by which to apply or release the brake block.

1,079,889. RAILWAY-SWITCH MECHANISM. MARSHALL L. SHEPHERD, Montgomery, Ala., assignor to Shepherd Automatic Switch Company, Inc., Montgomery, Ala., a Corporation of Alabama. Filed June 23, 1913. Serial No. 775,362. (Cl. 104—77.)



1. In a railway switch, a self-closing switch point, a self-projected latch for locking the switch point in closed and opened positions, a latch tripping device, and a plurality of devices for independently controlling said tripping device and throwing the switch.

2. In a railway switch, a self-closing switch point, a self-projected latch for locking the switch point in closed and opened positions, a latch tripping device having forward and backward latch controlling movements, in each of which it is adapted to successively retract the latch to free the switch and to release the latch for subsequent locking operation, a switch throwing device operative to actuate the tripping device on its forward motion and throw the switch, and a second switch throwing device operative to control said tripping device on both of its latch controlling movements.

3. In a railway switch, a self-closing switch point, a self-projected latch for locking the switch point in closed and opened positions, a latch tripping device having forward and backward latch controlling movements, in each of which it is adapted to successively retract the latch to free the switch and to release the latch for subsequent locking action, a switch throwing device operative to move the tripping device on its forward motion and effect the throw of the switch, and means for moving said tripping device on its backward motion to free the switch for an automatic closing action.

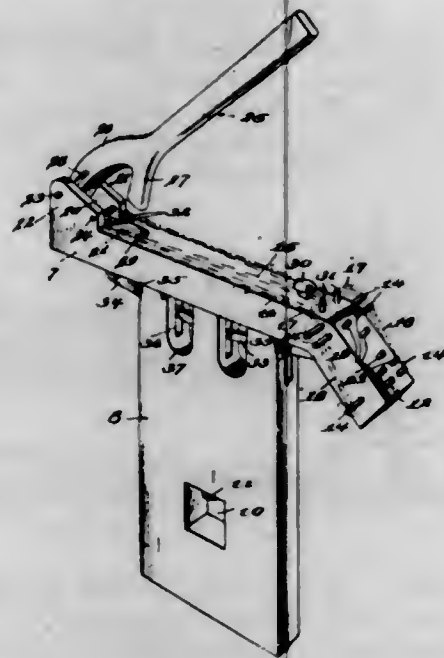
4. In a railway switch, a self-closing switch point, a self-projected latch for locking said switch point in closed and opened positions, a latch tripping device having forward and backward latch controlling motions, in each of which it successively retracts the latch to free the

switch and releases the latch for a subsequent locking action, means for actuating said tripping device on its forward motion and throwing the switch, and means for actuating said tripping device on each of its motions, said means being operative to independently throw the switch and to engage and move the tripping device backward for an automatic resetting and switch closing action, in the event of the switch having been primarily thrown by the first-named means.

5. In a railway switch, a self-closing switch point, a self-projected latch for locking the switch point in closed and opened positions, a tripping device movable in one direction to retract the latch to permit the switch to be thrown and release the latch to adapt it to lock the thrown switch, and movable in an opposite direction to retract the latch to permit the thrown switch to be closed to reset the parts for a repetition of the above described operation, means for moving said trip device on its first described motion and throwing the switch, and means for moving said tripping device on its second described motion for a return of the parts to normal position.

[Claims 6 to 18 not printed in the Gazette.]

1,079,890. WIRE-BENDING MACHINE. WILLIAM W. SHIRLEY, New Orleans, La. Filed Feb. 27, 1913. Serial No. 751,121. (Cl. 140—71.)



1. In a wire-bending machine, the combination, with a work support provided with a work-engaging cross-bar and with a vertical socket adjacent the same; of a lever fulcrumed on said support and having a curved head cooperative with said bar to bend a portion of the work thereover, and a depending arm adapted to enter said socket to bend another portion of the work downwardly therein, when said lever is swung toward said support; and work-retaining devices carried by said support.

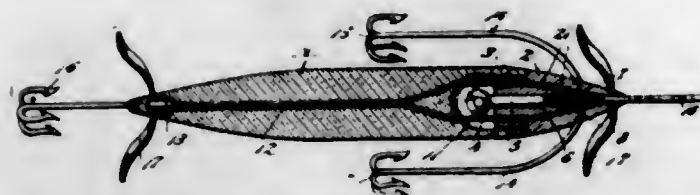
2. In a wire-bending machine, the combination, with an apertured work support provided with a work-engaging cross-bar, and with a vertical socket adjacent the same; of a lever fulcrumed on said support and having a curved head cooperative with said bar to bend a portion of the work thereover, and a depending arm adapted to enter said socket to bend another portion of the work downwardly therein, when said lever is swung toward said support; a work-retaining device movable through the aperture in said support into and out of position to engage the work; and means for operating said device.

3. In a wire-bending machine, the combination, with a work support and a bending lever fulcrumed thereon, said support being formed with a pair of parallel passages extending transversely therethrough; of a U-shaped work retaining device having its arms working through said passages; and an operating lever connected to the base of said device for moving the latter into and out of position to engage the work.

4. In a wire-bending machine, the combination, with a work support and a bending lever fulcrumed thereon, said support being provided adjacent its ends with pairs of parallel passages extending transversely therethrough; of a standard whereon said support is mounted formed at its top with a horizontal passage parallel with said support, and with a pair of finger openings intersecting said passage substantially at right angles; a U-shaped work-retaining device having its arms movable through each pair of passages; and a lever fulcrumed on said support adjacent each retaining device and connected to the latter at its outer end, the inner ends of said levers extending in opposite directions into the passage in said standard and terminating adjacent said finger openings.

5. In a wire-bending machine, the combination, with a work support provided with a vertical socket and with a pair of parallel passages extending transversely therethrough and located adjacent said socket; of a lever fulcrumed on said support and having a bending head provided with an arm adapted to enter said socket when said lever is swung toward said support; a U-shaped work-retaining device having its arms movable through said passages; and a lever fulcrumed on said support and connected with the base of said work-retaining device for moving the latter into and out of operative position.

1,079,891. ARTIFICIAL MINNOW. JESSE C. SIMMS, Matoaka, W. Va. Filed Mar. 28, 1913. Serial No. 757,413. (Cl. 43—30.)



1. An artificial minnow comprising connected body and head sections, said body section being constructed of glass, and an electrical lamp housed within the head section so as to transmit the rays outwardly therefrom through the glass body.

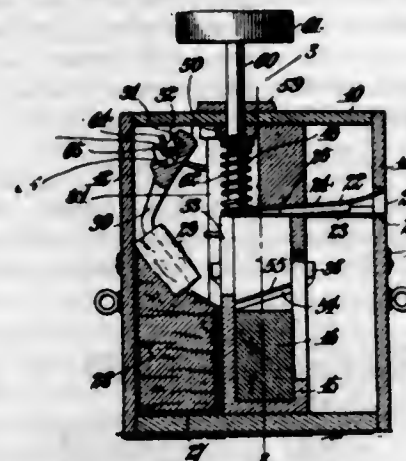
2. An artificial minnow comprising connected body and head sections, said body being formed of glass and having a cavity therein, an electric lamp secured to the head section and including a bulb projecting into the body section to transmit the light rays therethrough, and a line including suitable current supplying connections.

3. An artificial minnow comprising connected body and head sections, said body section being formed of glass and having a cavity therein and a passage leading therefrom, an electric lamp inclosed within the head section and having its bulb projecting partially into said cavity, and a line provided with conductors connected with the lamp terminals, said line having a portion branched and extending through the head and cavity and its terminal end extending through said passage and fixed at the tail of the body.

1,079,892. AUTOMATIC POSTAGE-STAMP ATTACHER. JAMES M. STEVENS, EARL D. HARRISON, and JOHN J. MACHADO, Bakersfield, Cal. Filed Sept. 27, 1912. Serial No. 722,736. (Cl. 216—25.)

1. A stamp affixing machine comprising a casing having an envelop guideway provided with a stamp aperture adapted to admit one of a series of successively connected stamps, a hollow guide post disposed vertically within the casing and communicating with the aperture, a plunger movable in the hollow post, a lever fulcrumed in the casing and engaging the plunger for moving the same, means acting upon the lever to normally hold the plunger lowered within the hollow post, a manually operated frame, legs on the frame, one of which is engageable with the lever for operating the same, a feed roller journaled in the casing at one side of the hollow post, connections between the other leg of the frame and the said roller for rotating the same, a reel detachably mounted exteriorly of the

casing for supporting the series of successively connected stamps and delivering the same over the feed roller into the path of movement of the plunger, and a cutter mounted in the hollow post in alignment with the point of connection of adjacent stamps for severing one of the stamps on the raising of the plunger.



2. A stamp affixing machine comprising a casing having an envelop guideway provided with a stamp aperture adapted to admit one of a series of successively connected stamps, a hollow guide post disposed vertically within the casing and communicating with the aperture, a plunger movable in the hollow post, a lever fulcrumed in the casing and engaging the plunger for moving the same, means acting upon the lever to normally hold the plunger lowered within the hollow post, a manually operated frame, legs on the frame, one of which is engageable with the lever for operating the same, a feed roller journaled in the casing at one side of the hollow post, connections between the other leg of the frame and the said roller for rotating the same, a reel detachably mounted exteriorly of the casing for supporting the series of successively connected stamps and delivering the same over the feed roller into the path of movement of the plunger, a cutter mounted in the hollow post in alignment with the point of connection of adjacent stamps for severing one of the stamps on the raising of the plunger, and a guide roller resiliently supported above the feed roller and engageable with the successively connected stamps.

3. A stamp affixing machine comprising a casing having an envelop guideway provided with a stamp aperture adapted to admit one of a series of successively connected stamps, a hollow guide post disposed vertically within the casing and communicating with the aperture, a plunger movable in the hollow post, a lever fulcrumed in the casing and engaging the plunger for moving the same, means acting upon the lever to normally hold the plunger lowered within the hollow post, a manually operated frame, legs on the frame, one of which is engageable with the lever for operating the same, a feed roller journaled in the casing at one side of the hollow post, connections between the other leg of the frame and the said roller for rotating the same, a reel detachably mounted exteriorly of the casing for supporting the series of successively connected stamps and delivering the same over the feed roller into the path of movement of the plunger, a cutter mounted in the hollow post in alignment with the point of connection of adjacent stamps for severing one of the stamps on the raising of the plunger, a guide roller resiliently supported above the feed roller and engageable with the successively connected stamps, and a housing inclosing the said reel and connected with the casing.

4. A stamp affixing machine comprising a casing having an envelop guideway provided with a stamp aperture adapted to admit one of a series of successively connected stamps, a hollow guide post disposed vertically within the casing and communicating with the aperture, a plunger movable in the hollow post, a lever fulcrumed in the casing and engaging the plunger for moving the same, means acting upon the lever to normally hold the plunger lowered within the hollow post, a manually operated frame, legs on the frame, one of which is engageable with the lever for operating the same, a feed roller journaled in the

casing at one side of the hollow post, connections between the other leg of the frame and the said roller for rotating the same, a reel detachably mounted exteriorly of the casing for supporting the series of successively connected stamps and delivering the same over the feed roller into the path of movement of the plunger, a cutter mounted in the hollow post in alignment with the point of connection of adjacent stamps for severing one of the stamps on the raising of the plunger, a guide roller resiliently supported above the feed roller and engageable with the successively connected stamps, a housing inclosing the said reel and connected with the casing, a water distributing tank mounted interiorly of the casing, a moistening member swingingly connected interiorly of the casing and movable from the tank to the stamp aperture in advance of the plunger, and a yoke carried by the frame and engageable with the said moistening member for operating the same on the initial movement of the frame.

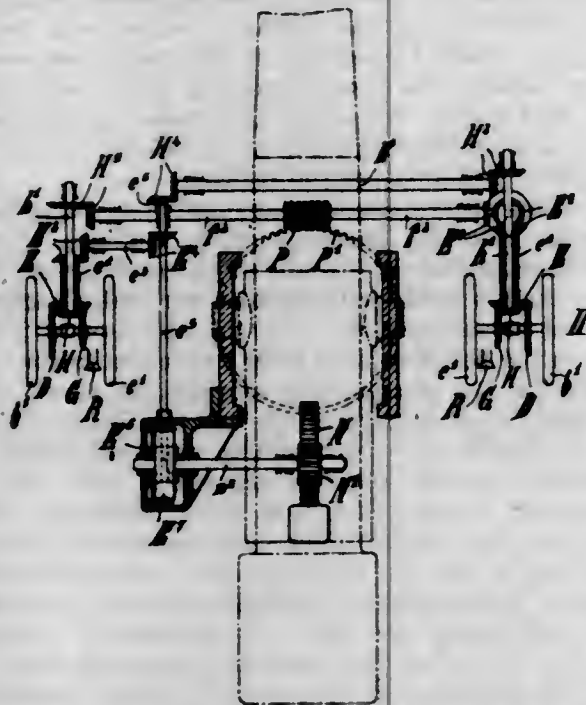
5. A stamp affixing machine comprising a casing having an envelop guideway provided with a stamp aperture adapted to admit one of a series of successively connected stamps, a hollow guide post disposed vertically within the casing and communicating with the aperture, a plunger movable in the hollow post, a lever fulcrumed in the casing and engaging the plunger for moving the same, means acting upon the lever to normally hold the plunger lowered within the hollow post, a manually operated frame, legs on the frame, one of which is engageable with the lever for operating the same, a feed roller journaled in the casing at one side of the hollow post, connections between the other leg of the frame and the said roller for rotating the same, a reel detachably mounted exteriorly of the casing for supporting the series of successively connected stamps and delivering the same over the feed roller into the path of movement of the plunger, a cutter mounted in the hollow post in alignment with the point of connection of adjacent stamps for severing one of the stamps on the raising of the plunger, a guide roller resiliently supported above the feed roller and engageable with the successively connected stamps, a housing inclosing the said reel and connected with the casing, a water distributing tank mounted interiorly of the casing, a moistening member swingingly connected interiorly of the casing and movable from the tank to the stamp aperture in advance of the plunger, a yoke carried by the frame and engageable with the said moistening member for operating the same on the initial movement of the frame, and a trip device carried by the moistening member and adapted to ride over the yoke for releasing the said moistening member therefrom when the frame has been completely lowered in the casing.

1,079,893. DRIVING DEVICE FOR GUN ELEVATING AND TRAINING GEARS. HANS STRAUSS, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp, Aktien-gesellschaft, Essen-on-the-Ruhr, Germany. Filed Mar. 18, 1913. Serial No. 755,146. (Cl. 89—41.)

1. In a gun directing mechanism, having both elevating and training gears, two sets of driving mechanisms, each operable by one man and each comprising a pair of hand wheels; the first of said hand wheels in the first set of said driving mechanisms having permanent gearing connection with the elevating gear; and the first of said hand wheels in the second set of said driving mechanisms having permanent connection with the training gear; and coupling means in each of said sets of driving mechanisms, said coupling means constructed to connect the second of said hand wheels in either of said sets of driving mechanisms with the first of said hand wheels in the same, or the first of said hand wheels in the other of said sets of driving mechanisms; whereby the elevating gear may be operated by both wheels in the one set, and the training gear by both wheels in the other set; or the elevating gear by one hand wheel and the training gear by the other hand wheel in the same set of driving mechanisms.

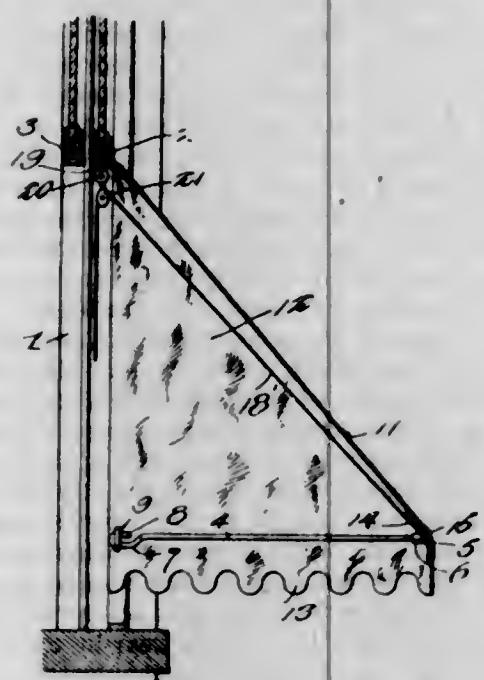
2. In a gun directing mechanism, having both elevating and training gears, two sets of driving mechanisms, each operable by one man and each comprising a pair of hand wheels; the first of said hand wheels in the first set of

said driving mechanisms having permanent gearing connection with the elevating gear; and the first of said hand wheels in the second set of said driving mechanisms having permanent gearing connection with the training gear; a coupling means in each of said sets of driving mechanisms; said coupling means comprising a shaft for the second hand wheel, a gear wheel running loose on said shaft, a muff keyed to slide on said shaft, claws on both ends of said muff and corresponding claws on said gear wheel and on an adjacent part of the permanent gearing connection respectively, a shifting lever adapted to hold



said muff in either of its three positions, viz. first idle position, second in engagement with said gear wheel or third in engagement with said permanent gearing connection; said gear wheel in one of said sets of driving mechanism being constantly in engagement with the permanent gearing connection in the other of said sets of driving mechanisms; whereby the elevating gear may be operated by both wheels in the one set; and the training gear by both wheels in the other set; or the elevating gear by one hand wheel and the training gear by the other hand wheel in the same set of driving mechanisms.

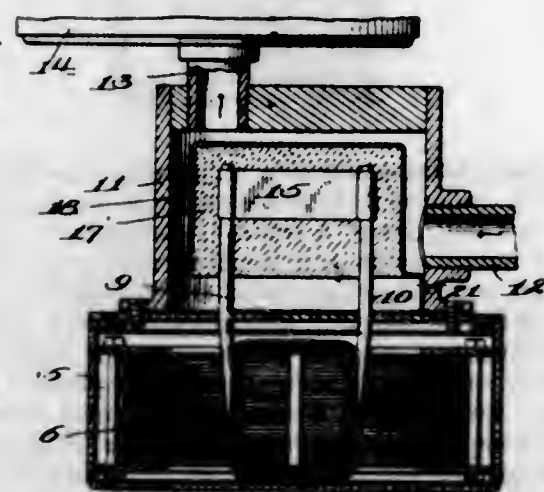
1,079,894. AWNING. WILLIAM SULLIVAN, New York, N. Y. Filed Sept. 12, 1911. Serial No. 648,838. (Cl. 156—15.)



In combination with the upper sash of a window frame, a U shaped member having its legs pivotally secured at the lower end of the window jamb, an awning having parts

engaging the cross-piece and the legs of said U shaped member, said cross-piece engaging part of said awning terminating in a bight, a plurality of flat fastening members carried by said bight and arranged to bear against the under surface of said window sash to hold said bight securely against the lower edge of the latter, eye-bolts passing through said fastening members and engaging the sash to hold said fastening members against displacement, said sash when lowered arranged to lower the outer end of said U shaped member, and means whereby the outer end of said U shaped member may be raised.

1,079,895. ELECTRIC HEATER. IVAN F. TALBOT, Boise, Idaho, assignor to Ernest O. Atwood, Boise, Idaho. Filed Dec. 20, 1912. Serial No. 737,903. (Cl. 219—47.)



1. In an electrical heater, a heating element consisting of a single flat strip of metal, an electrical device having arms connected to the opposite extremities of said flat strip, a heat transmitting cementitious substance directly applied over and having the strip and portions of the arms embedded therein, and an inclosing device adjacent to said strip and operating to hold the said substance, the arms projecting exteriorly of the inclosing device and supporting the latter, strip and substance.

2. In an electrical heater, a heating element consisting of a single flat strip of metal, an electrical device having arms connected to the opposite ends of said strip, a heat transmitting cementitious substance directly applied over and having the strip and portions of the arms embedded therein, and an inclosing device for said strip and substance and having a comparatively narrow cross-sectional extent to reduce the thickness of the substance between the strip and at least one side of the inclosing device to increase the heat on one side of the device.

1,079,896. TWINE-HOLDER. CHARLES YORGER, Indianapolis, Ind. Filed Apr. 25, 1912. Serial No. 693,205. (Cl. 242—141.)



1. A twine-holder comprising a stem adapted at its upper end for suspension support, the normal lower end

of the stem having a frame bar and a guide arm and also a loop thereon, the guide arm extending laterally from one side of the stem approximately at right angles to the frame bar and the stem and having an eye on its end, the loop being on the opposite side of the stem from the arm, two guides connected with the upper portion of the stem, two hangers connected to the frame bar, and a ring normally resting upon the frame bar and the guide arm and also upon the loop.

2. A twine-holder comprising a stem formed of two wires of unequal length connected together, portions of the two wires being bent outward and forming two portions respectively of a frame bar and two hangers extending from the two portions respectively, the frame portions and the hangers being all in one and the same plane with the stem, one of the hangers which is formed of the longer one of the wires having a shaft formed thereon extending to the remaining one of the hangers, the said remaining one of the hangers being formed of the shorter one of the wires and having an eye formed thereon to receive the end of said shaft, and a second wire bent at its middle portion to form a supporting eye and connected on opposite sides of the eye to the two wires of said stem.

3. An improved article of manufacture comprising a frame stem composed of two wires secured together, a frame bar connected to the two wires at the normally lower end thereof, two arms formed integrally with each other and secured to the normally upper ends of the two wires of the stem, a supporting eye formed integrally with the two arms between the two wires, two hangers formed on the hanger respectively, there being an eye on each hanger, a hanger formed integrally on the frame bar provided with an eye, a hanger formed integrally with the frame bar and having an integral shaft thereon normally extending into the last-mentioned eye, a guide arm and a guide loop formed integrally with each other and secured to said stem and also to said frame bar on opposite sides of the stem, the guide arm being relatively long having an eye thereon, said arm extending at right angles to said stem and said frame bar, and a ring loosely guided on said stem and normally resting on said guide arm and said loop and extending across said frame bar.

1,079,897. PROCESS OF ROASTING FINE ORES. WILHELM BUDDER, Wiesbaden, Germany, assignor to John Dern, Salt Lake City, Utah. Filed Jan. 20, 1911. Serial No. 603,745. (Cl. 75—60.)



1. The process of treating metal bearing ores adapted to be roasted by internal combustion of the mass, which comprises igniting the combustible ingredients of the ore at the bottom of a columnar charge of the ore, supplying combustion supporting gas in finely divided jets at the bottom of the charge and passing said gas through the charge substantially uniformly, thereby progressing the zone of combustion upwardly through the charge and

removing from time to time the treated ore from below the zone of combustion as said zone ascends.

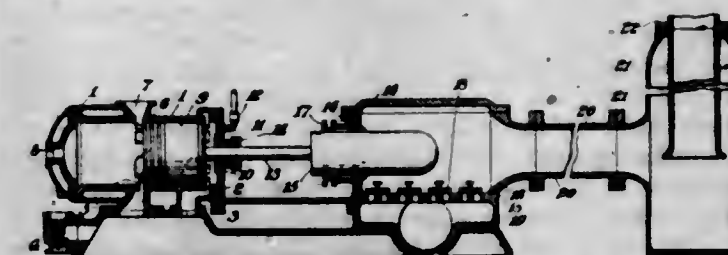
2. The process of treating metal bearing ores adapted to be roasted by internal combustion of the mass, which comprises igniting the combustible ingredients of a columnar charge of ore at the bottom of said charge, supplying combustion supporting gas to the bottom of said charge thereby progressing the zone of combustion upwardly through the charge and maintaining the height of the charge above the zone of combustion sufficient to utilize practically all of the heat generated by the combustion and practically all of the oxygen in the combustion supporting gas and removing from time to time the treated ore from below the zone of combustion as said zone ascends.

3. The process of treating ore, which comprises igniting the bottom of a columnar charge of ore containing combustible, supplying air to the charge at the bottom thereof thereby upwardly progressing the zone of combustion, stopping the supply of air, removing that portion of the charge below the combustion zone after said zone has risen the desired height, bodily lowering the remaining portion of the charge and increasing the height of said remaining portion by adding new material on top of said remaining portion.

4. The process of treating ore, which comprises igniting the bottom of a columnar charge of ore containing combustible, supplying air through a porous material to the bottom of the charge, thereby upwardly progressing the combustion zone, temporarily discontinuing the supply of air while supporting the charge beneath the zone of combustion after said zone has risen a desired height, removing that portion of the charge below the point of support, bodily lowering the remaining portion of the charge and then supplying fresh material to the top thereof and at the proper time continuing the supply of air.

5. The process of treating metal bearing ores adapted to be roasted by internal combustion of the mass, which comprises igniting the combustible ingredients of the ore at the bottom of a columnar charge of the ore, supplying combustion supporting gas in finely divided jets at the bottom of the charge and passing said gas through the charge substantially uniformly, thereby progressing the zone of combustion upwardly through the charge and removing the treated ore from below the zone of combustion as said zone ascends.

1,079,898. APPARATUS FOR PUMPING LIQUIDS. THOMAS M. CHANCE, Philadelphia, Pa. Filed Jan. 10, 1912. Serial No. 670,413. (Cl. 103—67.)



1. An apparatus for pumping liquids comprising in combination a pump chamber, a pump piston operatively connected to the piston of a prime mover adapted to be actuated by a medium having high initial pressure and expansive force, said pump piston being adapted to work in said pump chamber, an extension of said pump chamber forming a conduit connecting said chamber with an accumulator, and a valved inlet for the admission of liquid to be pumped, said conduit being of such dimensions as may be necessary to contain a body of liquid whose mass, cross-sectional area and length are such as to adapt it efficiently to perform the functions of a fly wheel or compensator in absorbing a portion of the energy developed during the early part of the power stroke of said pump piston and in giving out energy in performing work after the end of the power stroke of said piston.

2. An apparatus for pumping liquids comprising in combination a pump chamber, a pump piston operatively connected to the piston of a prime mover adapted to be actuated by a medium having high initial pressure and expansive force, said pump piston being adapted to work in said pump chamber, an extension of said pump chamber forming a conduit connecting said chamber with an accumulator, a discharge outlet adjacent to said accumulator and a valved inlet for the admission of liquid to be pumped, said conduit being of such dimensions as may be necessary to contain a body of liquid whose mass, cross-sectional area and length are such as to adapt it efficiently to perform the functions of a fly wheel or compensator in absorbing a portion of the energy developed during the early part of the power stroke of said pump piston and in giving out energy in performing work after the end of the power stroke of said piston, and also efficiently to perform similar functions during the return stroke of said piston in absorbing energy from said accumulator during the early part of said return stroke and in giving out energy in work done upon said piston during the completion of said return stroke.

3. An apparatus for pumping liquids comprising in combination a pump chamber, a pump piston operatively connected to the piston of a prime mover adapted to be actuated by a medium having high initial pressure and expansive force, said pump piston being adapted to work in said pump chamber, an extension of said pump chamber forming a conduit connecting said chamber with an accumulator, a discharge outlet adjacent to said accumulator and a valved inlet for the admission of liquid to be pumped, said conduit being of such dimensions as may be necessary to contain a body of liquid whose mass, cross-sectional area and length are such as to adapt it efficiently to perform the functions of a fly wheel or compensator capable of absorbing all that portion of the energy developed during the power stroke which is to be utilized in discharging and drawing in liquid and of giving out said energy after the end of said power stroke, and also capable of performing similar functions during the return stroke of said piston in absorbing energy from said accumulator during the early part of said return stroke and in giving out energy in work done upon said piston during the completion of said return stroke.

4. An apparatus for pumping liquids comprising in combination a pump chamber, a pump piston operatively connected to the piston of a prime mover adapted to be actuated by an elastic prime medium having high initial pressure and expansive force, said pump piston being adapted to work in said pump chamber, means for arresting the further movement of said piston at the end of its power stroke, an extension of said chamber forming a conduit connecting said chamber with an accumulator, a discharge outlet adjacent to said accumulator, a valved inlet for the admission of liquid to be pumped, and means for admitting an elastic prime medium into said prime mover and for exhausting said prime medium after the expansion thereof, said conduit being of such length and diameter as may be required to contain a body of liquid whose mass, cross-sectional area and length are such as to adapt it to efficiently perform the functions of an oscillating flywheel or compensator in absorbing a relatively large amount of energy during the power stroke of said pump piston, in giving out this absorbed energy after the end of said power stroke, in absorbing a relatively smaller quantity of energy during a portion of the return stroke of said piston and in giving out this energy during the balance of said return stroke.

5. An apparatus for pumping liquids comprising in combination a pump chamber, a pump piston connected to the piston of an internal combustion power cylinder, said pump piston being adapted to work in said pump chamber, means for arresting the further movement of said piston at the end of its power stroke, an extension of said pump chamber forming a conduit connecting said chamber with an accumulator, a discharge outlet for liquid adjacent to said accumulator, a valved inlet for the admission of liquid to be pumped, and means for admitting combustible matter to said cylinder and for

exhausting the products of combustion therefrom, said conduit being of such length and diameter as may be required to contain a body of liquid whose mass, cross-sectional area and length are such as to adapt it efficiently to perform the functions of an oscillating flywheel or compensator in absorbing a large portion of the energy of the power stroke of said power piston and in giving out said energy after the end of said power stroke and also in absorbing energy from said accumulator during the early part of the return stroke of said piston and in so giving out this energy during the balance of said return stroke that said return stroke may compress a combustible mixture contained in the combustion chamber to a pressure much higher than that of the said accumulator. [Claims 6 and 7 not printed in the Gazette.]

1,079,899. PURIFYING ALUMINA. HOWARD F. CHAPPELL, New York, N. Y. Filed Apr. 22, 1913. Serial No. 762,927. (Cl. 23—13.)

1. The method of removing silica from alumina containing the same, which comprises first heating it to a temperature sufficiently elevated to render alumina practically insoluble in hydrofluoric acid, then subjecting it to the action of hydrofluoric acid and removing the product of the reaction; substantially as described.

2. The method of removing silica from alumina containing the same, which comprises first heating it to a temperature sufficiently elevated to render alumina insoluble in hydrofluoric acid, then subjecting it to the action of hydrofluoric acid and removing by ignition the product of the reaction; substantially as described.

3. The method of removing silica from alumina containing the same, which comprises first heating it to a temperature sufficiently elevated to render alumina insoluble in hydrofluoric acid, then subjecting it to the action of hydrofluoric acid and removing by ignition, assisted by preliminary washing, the product of the reaction; substantially as described.

4. The method of removing silica from alumina, which comprises first heating it to a temperature sufficiently elevated to render alumina insoluble in hydrofluoric acid, then subjecting it to the action of hydrofluoric acid in the presence of water, and removing the product of the reaction; substantially as described.

5. The method of removing silica from alumina, which comprises first heating it to a temperature sufficiently elevated to render alumina insoluble in hydrofluoric acid, then subjecting it to the action of hydrofluoric acid in the presence of water and at a temperature above 600° C. and removing the product of the reaction; substantially as described.

1,079,900. PURIFYING ALUMINA. HOWARD F. CHAPPELL, New York, and GUSTAV EMANUEL COHEN, Brooklyn, N. Y.; said Cohen assignor to said Chappell. Filed July 17, 1913. Serial No. 779,517. (Cl. 23—13.)

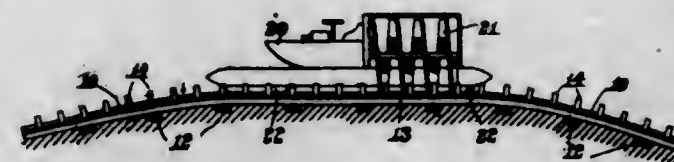
1. The method of removing silica from alumina containing the same, which comprises heating it to a temperature sufficiently elevated to render the alumina substantially insoluble in ammonium fluorides, then removing silica therefrom by subjecting it to the dissolving action of a fluoride of ammonium, and removing the solution containing the silica from the purified alumina; substantially as described.

2. The method of removing silica from alumina containing the same, which comprises heating it to a temperature sufficiently elevated to render the alumina substantially insoluble in ammonium bi-fluoride, then removing silica therefrom by subjecting it to the dissolving action of ammonium bi-fluoride, and removing the solution containing the silica from the purified alumina; substantially as described.

1,079,901. TRACK FOR MOTOR-BOATS. EMILE DURAND, Salem, Mass. Filed Apr. 5, 1913. Serial No. 759,223. (Cl. 61—11.)

1. In a device of the class described, the combination of a pair of rails; and a plurality of upwardly extending

revolvable cylindrical members interposed between said rails and adapted to be engaged by the revolvable propeller of a boat to impart movement to said boat along said rails.



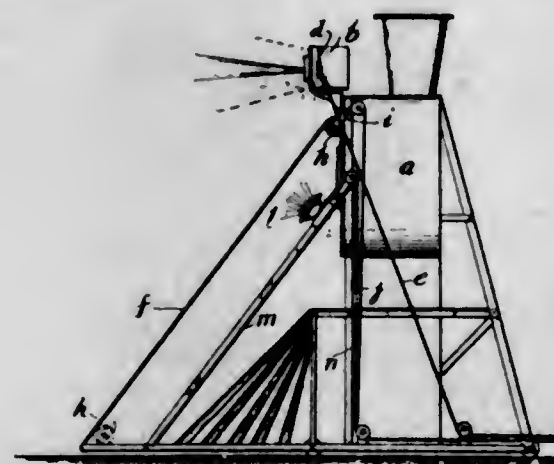
2. In a device of the class described, the combination of a pair of rails; and a plurality of upwardly extending revolvable cylindrical members having peripheral flanges thereon and interposed between said rails and adapted to be engaged by the revolvable propeller of a boat to impart movement to said boat along said rails.

3. In a device of the class described, the combination of a pair of rails having V-shaped grooves; and a plurality of upwardly extending cylindrical members interposed between said rails and adapted to be engaged by the revolvable propeller of a boat to impart movement to said boat along said rails.

4. In a device of the class described, the combination of a pair of parallel rails the ends of which are submerged in water and flare from each other; and means interposed between said rails adapted to be engaged by the revolvable propeller of a boat to impart movement to said boat along said rails.

5. In a device of the class described, the combination of a pair of parallel rails the ends of which are submerged in water and flare from each other; and revolvable means interposed between said rails adapted to be engaged by the revolvable propeller of a boat to impart movement to said boat along said rails.

1,079,902. ILLUSION DEVICE. LANGDON MCCORMICK, New York, N. Y., assignor to Thurston-McCormick Co., Inc., New York, N. Y., a Corporation of New York. Filed Feb. 19, 1913. Serial No. 749,357. (Cl. 46—70.)



1. A device for association with an observed object or with a representation thereof to create the impression of approach or recession of the object, comprising a perspective representation of a road, course or way, and mechanism for progressively changing the visible extent of the perspective representation, substantially as and for the purpose described.

2. A device for creating the illusion of approach or recession of an observed object, comprising a progressively variable representation of the object, a perspective representation of a road, course or way associated therewith, and mechanism for actuating the progressively variable representation of the object and simultaneously varying the visible extent of the perspective representation of the road, course or way to create and sustain the desired illusion; substantially as described.

3. A device for creating the illusion of approach of a locomotive or the like, comprising a head light, a perspective representation of a road, course or way associated with the head light, and mechanism for progressively obscuring the perspective representation of the road, course

or way and simultaneously and progressively increasing the visible extent of the head light to create and sustain the illusion of approach of the locomotive or the like; substantially as described.

4. A device for creating the illusion of approach of a locomotive or the like, comprising a scenic representation of the front of the locomotive or the like, a head light carried thereby, a curtain bearing a perspective representation of a road, course or way beneath the head light and concealing the scenic representation, and mechanism for progressively removing the curtain from the top down and for simultaneously and progressively increasing the visible extent of the head-light; substantially as described.

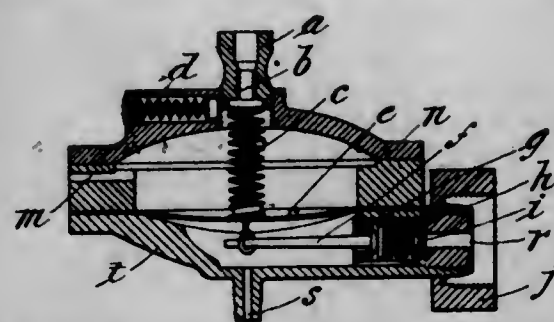
5. A device for creating the illusion of approach of a locomotive or the like, comprising a scenic representation of the front of the locomotive or the like, a head light carried thereby, a curtain bearing a perspective representation of a road, course or way, beneath the head light, and concealing the scenic representation, mechanism for progressively removing the curtain from the top down and for simultaneously and progressively increasing the visible extent of the head light, and means for continually accentuating the illumination of the upper visible portion of the perspective representation; substantially as described. [Claims 6 to 8 not printed in the Gazette.]

1,079,903. SHEET-METAL BOX. EDWIN NORTON, Paget West, Bermuda. Filed June 4, 1912. Serial No. 701,492. (Cl. 220—5.)



A sheet metal box consisting of a bottom and side walls, said side walls being slightly tapered outwardly toward their upper edges, whereby one box may nest in another, said side walls at their upper edges being bent outwardly to form a flange, said flange having a coating of sealing material applied thereto on its under face, the outer edges of said flange being bent downwardly and inwardly, said inwardly bent portion of the flange being spaced from the outwardly bent portion thereof, whereby said sealing material is protected, and a support is formed for the nested boxes which prevents said nested boxes from wedging together.

1,079,904. PRESSURE-REGULATING MEANS. JULIAN LEIGH PERKINS, Springfield, Mass., assignor, by mesne assignments, to Fred. E. Muzzy, Springfield, Mass. Filed Mar. 1, 1912. Serial No. 680,978. (Cl. 50—26.)



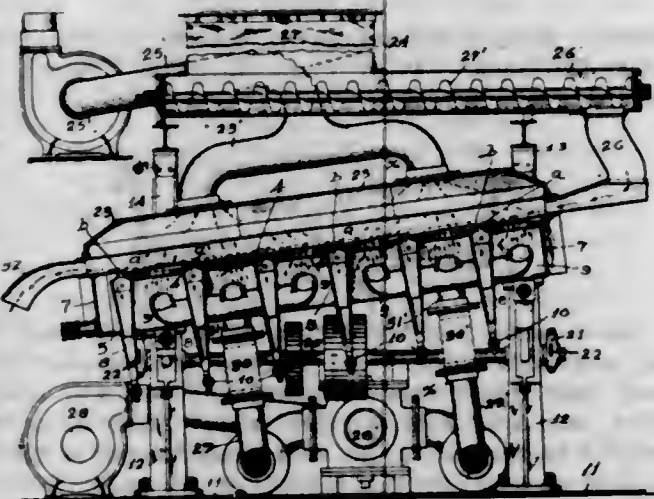
1. A pressure-regulator, comprising a casing having a gas-inlet and a gas-outlet passage, a pressure diaphragm therein, a valve controlling one of said passages, means for normally holding said valve in one of its extreme positions, together with a rod loosely connected with the diaphragm for movement therewith and having a head adapted to pivot against a fixed part of the casing and engage the valve to move it toward the other of its extreme positions, all for the purpose described.

2. A pressure regulator comprising a casing, inlet and outlet passages thereto, a diaphragm therein, a valve con-

trolling one of said passages spring-pressed into one of its extreme positions, a rod loosely hung at one end from said diaphragm with a cam head at the other end and a surface against which said cam head can fulcrum whenever the diaphragm moves the end of the rod in any direction to move the valve from one position to another.

3. A pressure regulator comprising a casing divided by a diaphragm into two parts, one part open to the atmosphere, and the other part having inlet and outlet passages, a spring pressing on said diaphragm, a nut having a thread engagement with said casing against which the spring also presses thereby to control the sensitivity of the diaphragm, a spring normally pressing on said nut to fix its adjustment, a valve for one of said passages normally spring-pressed to open position, a rod hung loosely from said diaphragm for movement therewith, a cam-head on said rod, a surface on which said head can fulcrum on movement of the rod whereby said cam-head can move the valve toward closed position when the pressure on one side of the diaphragm increases.

1,079,905. CONCENTRATING-JIG. MARSHAL C. SEAGRAVE, Oakland, Cal. Filed Sept. 22, 1911. Serial No. 850,740. (Cl. 83-54.)



1. In an apparatus for the described purpose, the combination of a jig-frame inclined in the direction of its length, means for imparting a vibratory motion thereto, a series of transversely disposed spaced screened sections secured within and arranged throughout the length of the said frame, and a series of transversely disposed open top and bottom discharge bins let into the frame throughout the length thereof intermediate the screened sections and serving as downward discharges for the material separated on the screened surface of the vibratory frame, each of said bins being provided with a contracted outlet and projected below the surface of the said frame.

2. In an apparatus for the concentration of material, the combination with a jig frame, of means for imparting vibratory motion thereto, a screened concentrating surface for the said frame, devices for delivering thereon material to be worked, means for supplying intermittent blasts of air under pressure to the screened surface of the frame, and a transversely disposed downwardly extended open top and bottom discharge bin let into the under face of the frame adjacent the lower end of the screened surface thereon for receiving the separated material flowing therefrom and serving as a discharge therefor, the said bin being provided with a contracted discharge outlet.

3. In an apparatus for the described purpose, the combination with the jig frame having a separating bed composed of a series of transversely disposed spaced screened sections arranged throughout the length of the frame, of devices for supplying material to be separated onto said bed, means for imparting a vibratory motion to the jig frame, an open top discharge bin having a contracted outlet let into the frame intermediate the screened sections thereof and projected a distance below the frame, each bin extended the entire width of the screened sections of

the separating bed, and each bin having a section extended above the lower edge of the screened sections to form a series of transverse riffles for the separating bed of the jig frame, and means for supplying intermittent blasts of air under pressure to the screened sections of the separating bed.

1,079,906. DRILL. MAXIMILIAN SIDON, New York, N. Y., assignor to Smith & Hemenway Co., Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1913. Serial No. 747,476. (Cl. 77-67.)



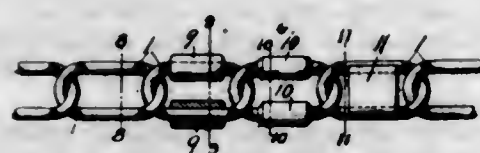
1. A drill comprising a stem member, a sleeve member thereon, one of said members being slotted longitudinally, means to effect relative longitudinal movement between said members, a drill inserted in said slot and having a shoulder engaged by one of said members to feed the drill forward in said slot.

2. A drill comprising a slotted stem constituting a holder, a shouldered drill blade inserted in said slot, and a sleeve on said stem movable longitudinally thereof and adapted to engage the shoulder of said blade to feed the blade forward.

3. A drill comprising a stem member, a sleeve member thereon, one of said members being slotted longitudinally, means to effect relative longitudinal movement between said members, a drill having a cutting head, a shank, and shoulders between the two, and inserted in said slot, the shank extending into said sleeve and the shoulders engaged by said sleeve to feed the drill forward, said sleeve extending on to the cutting head of the drill and engaging opposite sides thereof, and of lesser width than said drill.

4. A drill comprising a stem having a slot extending longitudinally and opening through one end thereof, a sleeve on said stem adapted to extend over said slot, means to effect relative longitudinal movement between said stem and sleeve, a drill comprising a blade having a cutting head, a shank, and shoulders formed between the two, said blade being inserted in said slot, the said shank extending into the sleeve and one end of the sleeve engaging the shoulders of said blade to feed the latter forward, the sleeve extending along opposite sides of the cutting head and of lesser width than said head.

1,079,907. TREAD-SECTION FOR ANTISKIDDING DEVICES. HARRY D. WEED, Syracuse, N. Y. Filed Mar. 26, 1908. Serial No. 423,323. (Cl. 152-14.)



1. A tread section for anti-skidding devices comprising a chain having the greater portion of the opposite sides of its links disposed in the same plane and its ends twisted.

2. A tread section for anti-skidding devices comprising a chain having the greater portion of the opposite sides of its links disposed in the same plane and its ends twisted in opposite directions.

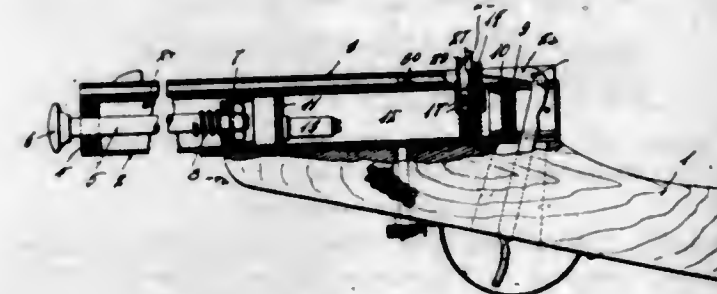
3. A cross chain for anti-skidding devices having continuous open wire tread links, the central portions of which between and exclusive of their ends are provided with extra wearing material, said ends being disposed at an angle to the plane of the central portions of the links.

4. An anti-skidding cross chain for tires having the opposite ends of its links twisted and the central portion of at least one of the links between and exclusive of the ends provided with extra wearing material.

5. An anti-skidding cross chain for tires having the greater portion of the opposite sides of its tread links disposed in the same flat plane and reinforced with extra metal and their ends twisted.

[Claim 6 not printed in the Gazette.]

1,079,908. AIR-GUN. ADOLPH WISSLER, St. Louis, Mo. Filed Aug. 14, 1911. Serial No. 644,276. (Cl. 124-8.)



1. In an air gun, the combination with a compression chamber, and pellet barrel, of a hollow valve member seated in the wall of the compression chamber and having communication with the interior of the pellet barrel, a perforated cup loosely mounted on the lower end of the valve member, a packing member between the cup and the valve member, and means for moving the perforated cup upon said valve member.

2. In an air gun, the combination with a compression chamber and a pellet barrel, of a valve member seated in the wall of the compression chamber and having communication with the interior of the pellet barrel, a perforated cup loosely mounted on the lower portion of the valve member, a packing member between the cup and the valve member, a pin operating through the valve member, and bearing upon a part of the cup and means for actuating said pin.

3. In an air gun, the combination with a compression chamber, and pellet barrel, of a hollow valve member seated in the wall of the compression chamber and having communication with the opening in the pellet barrel, a spring pressed perforated cup loosely mounted on the lower end of the valve member and a flexible packing member between the cup and valve member.

4. In an air gun, the combination with a compression chamber and pellet barrel, of a hollow valve member seated in the wall of the compression chamber and having communication with the opening in the pellet barrel, a spring pressed perforated cup loosely mounted on the lower end of the valve member, a flexible packing member between the cup and valve member, and means operating through the valve member for unseating the cup.

5. In an air gun, the combination with a compression chamber and pellet tube, of a hollow valve member adapted to establish communication between the compression chamber and interior of the pellet barrel, a cup mounted for sliding movement on the lower portion of the valve member and the vertical wall of which cup is perforated.

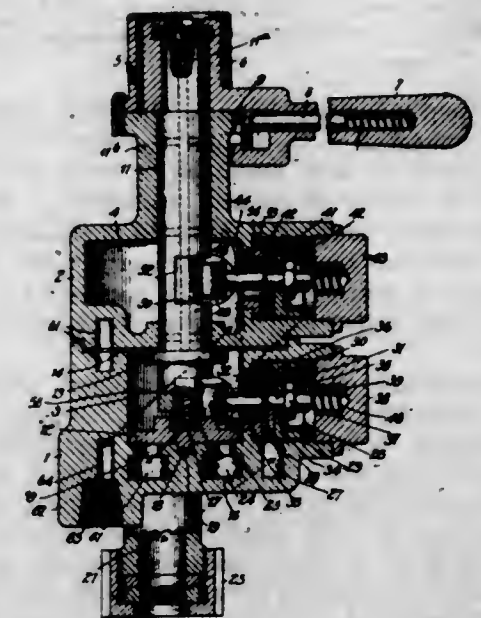
[Claims 6 to 14 not printed in the Gazette.]

1,079,909. ENGINEER'S VALVE. BURTON S. AIKMAN, Chicago, Ill., assignor to National Brake & Electric Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 7, 1910. Serial No. 547,888. (Cl. 188-7.)

1. In an engineer's valve, the combination of a main casing having inlet and outlet openings, a valve between said openings, a spindle passing through said casing, and a separately pivoted lever operated by the movement of said spindle, said lever adapted to unseat said valve, thereby establishing communication between said openings.

196 O. G.—66

2. In an engineer's valve, the combination of a main casing having inlet and outlet openings and an exhaust passage, a valve between said inlet and outlet openings, a second valve between said outlet opening and said exhaust passage, a manually operated spindle passing through said main casing, and a separately pivoted lever associated with each of said valves, said levers being selectively operated by rotation of the spindle, each of said levers adapted to unseat its associated valve, thereby establishing connection between said inlet and outlet openings, or between said outlet opening and the exhaust passage.



3. In an engineer's valve, the combination of a main casing having inlet and outlet openings, an exhaust passage, a chamber between the inlet and outlet openings and a second chamber between the outlet opening and the exhaust passage, a valve in each of said chambers, a spindle passing through said casing, suitably disposed recesses in said spindle and a lever associated with each valve and engaging in said recesses, rotation of said spindle adapted to selectively operate one of said valves, thereby establishing communication between said inlet and outlet openings or between said outlet opening and said exhaust passage.

4. In an engineer's valve, the combination of a main casing having inlet and outlet openings, an exhaust passage, a chamber between said inlet and outlet openings and a second chamber communicating with said first chamber, a valve between said inlet opening and said first chamber, a valve between said first and second chambers, a spindle passing through said casing, and a lever associated with each of said valves, rotation of said spindle adapted to selectively operate either of said valves, thereby establishing connection between said inlet and said outlet openings or between said first and second chambers.

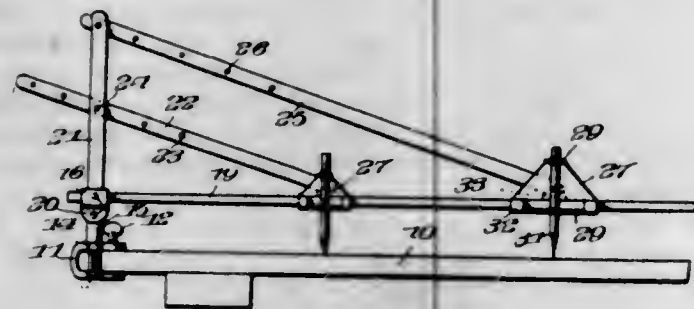
5. In an engineer's valve, the combination of a main casing having inlet and outlet openings, an exhaust passage, a first chamber between said inlet opening and said outlet opening and a second chamber between said first chamber and said exhaust passage, a spring controlled valve between said inlet opening and the first chamber, a second spring controlled valve between the first chamber and the second chamber, a rotatable spindle passing through said casing, suitably disposed recesses in said spindle and a lever associated with each valve, each of said levers engaging a recess in said spindle and adapted to be operated by the rotation of said spindle to selectively unseat either of said spring controlled valves.

[Claims 6 to 13 not printed in the Gazette.]

1,079,910. PANTOGRAPH. BENJAMIN ANDERSON, Oboe, Wyo. Filed July 19, 1912. Serial No. 710,447. (Cl. 33-6.)

1. A pantograph comprising a standard adapted to be rotatably connected to a support, a laterally extending

beam connected to said standard, a vertically swinging arm pivotally connected to said standard, and a plurality of levers adjustably connected to said swinging arm and slidably connected to said beam.



2. A pantograph comprising a standard adapted to be rotatably connected to a support, a laterally extending beam connected to said standard, a vertically swinging arm pivotally connected to said standard, a plurality of levers adjustably connected to said swinging arm and slidably connected to said beam, and a slide made of a single length of material pivotally connected to one end of each of said levers and adapted for engagement with said beam.

3. A pantograph comprising a standard adapted to be rotatably connected to a support, a laterally extending beam connected to said standard, a vertically swinging arm pivotally connected to said standard, a plurality of levers adjustably connected to said swinging arm and slidably connected to said beam, a slide made of a single length of material pivotally connected to one end of each of said levers and adapted for engagement with said beam, said slide comprising a beam engaging portion having reduced offset extensions, and pivot ears carried by the beam engaging portion and adapted for connection with the end of the lever.

4. A pantograph comprising a standard adapted to be rotatably mounted in a support, a vertical swinging arm pivotally connected to said standard, a lever pivotally and adjustably connected to said swinging arm intermediate the ends thereof, a tracing pencil carrying means connected to said lever, a second lever pivotally and adjustably connected to said swinging arm adjacent the outer end thereof, and a reproducing pencil carrying means connected to said second lever.

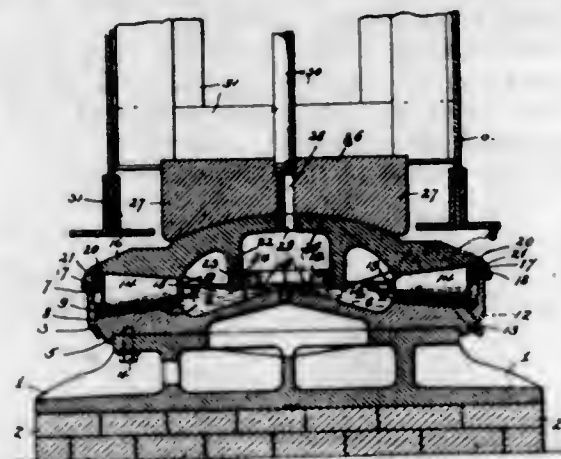
5. A pantograph comprising a standard adapted to be rotatably mounted in a support, a beam extending laterally from said standard, a vertically swinging arm connected to the standard, a lever pivotally and adjustably connected to the swinging arm intermediate the ends thereof, a tracing pencil carrying means connected to said lever, a second lever pivotally and adjustably connected to said swinging arm adjacent the outer end thereof, and a reproducing pencil carrying means connected to said second lever, the respective pencil carrying means being slidably connected to the beam.

[Claims 6 to 10 not printed in the Gazette.]

1,079,911. ROLLER-BEARING FOR TURN-TABLES. PAUL A. CUENOT, Steelton, Pa., assignor to The Pennsylvania Steel Company, Philadelphia, Pa., a Corporation. Filed Mar. 15, 1911. Serial No. 614,732. (Cl. 64-64.)

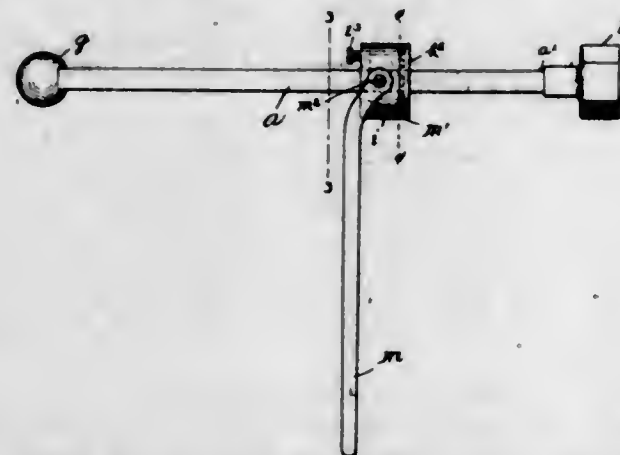
A turn table center bearing comprising a lower roller box having a bearing face, a central flange provided with oil distributing passages, an upwardly directed peripheral flange and a groove formed between the face and flange; a continuous cast iron ring in swaged connection with the lower roller box and in said groove, an upper roller box having a bearing face, a central flange provided with a rabbet and taking over the central flange in the lower box, a peripheral flange having a rabbet taking over the peripheral flange of the lower box, a groove formed between the peripheral flange and bearing face of said upper box, a continuous cast iron ring in

swaged connection with said upper box and in said groove, rollers between the bearing faces of said boxes, and means



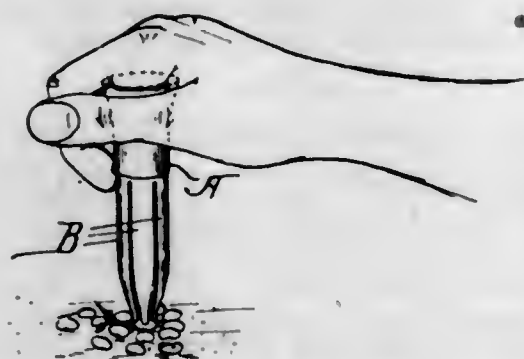
to supply oil through the top of the upper box within the central flange of the lower box.

1,079,912. LEVER-BRACE. GEORGE A. CUTTER, Taunton, Mass., assignor to Charles A. Stone, Plymouth, Mass., Edwin S. Webster, Newton, Mass., Russell Robb, Concord, Mass., Henry G. Bradlee, Brookline, Mass., and Elliot Wadsworth, Boston, Mass., Copartners as Firm of Stone & Webster, Boston, Mass. Filed Jan. 7, 1909. Serial No. 471,076. (Cl. 145-71.)



A lever brace including a bar of angular contour, and a ratchet head slidably mounted on said bar, said head including a collar formed with a longitudinal bore corresponding in size and shape to the transverse dimensions of the bar, an annular flange projecting at right angles from one end of the collar and formed with a series of teeth, said collar beyond the flange being formed with an annular recess, a ring rotatably fitting the collar beyond the flange, a handle, and pivot pins uniting the handle and ring, said pins seating in the recess in the collar and securing said ring and collar against other than independent rotary movement.

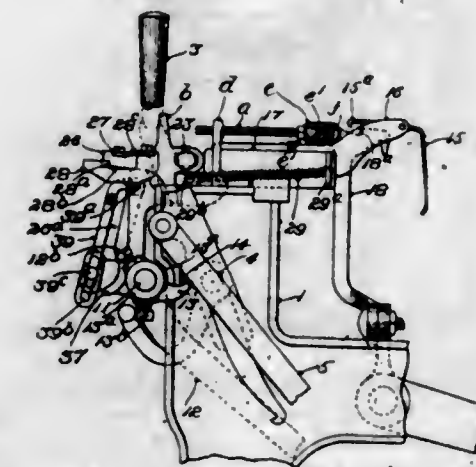
1,079,913. BEAN-SORTER. WILLIAM S. FOSTER, Dallas, Wis. Filed Sept. 17, 1912. Serial No. 720,775. (Cl. 130-18.)



In a device for picking beans and other articles, a tubular receptacle directly formed by a plurality of resilient

fingers trending in the same general direction, sloping toward a common point at one end, until coinciding and forming an expansible entering mouth for a bean, said fingers being formed with inward detentures producing shoulders and outwardly curved extremities beyond said detentures producing flaring guides which are adapted to slide over the surface of a bean and expand said fingers until said detentures engage over said bean and hold the same within said fingers.

1,079,914. LOOM. SIMON SCHOON JACKSON, Readville, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed Aug. 28, 1909. Serial No. 515,046. (Cl. 139-85.)



1. The combination with a transmitting member, a dog, and a lip and a shoulder with which the dog coacts, such coaction involving a shift of the dog from one side of the lip to the other, and a weft-detector under control of which the interaction of dog, lip, and shoulder occurs, of means acting to restore the dog to the original side of the lip in case a sequence of beats that has been begun is interrupted.

2. The combination with a transmitting member, a dog, and a lip and a shoulder with which the dog coacts, such coaction involving a shift of the dog from one side of the lip to the other, and a weft-detector under control of which the interaction of dog, lip, and shoulder occurs, of a reciprocating member which restores the dog to the original side of the lip in case a sequence of beats that has been begun is interrupted.

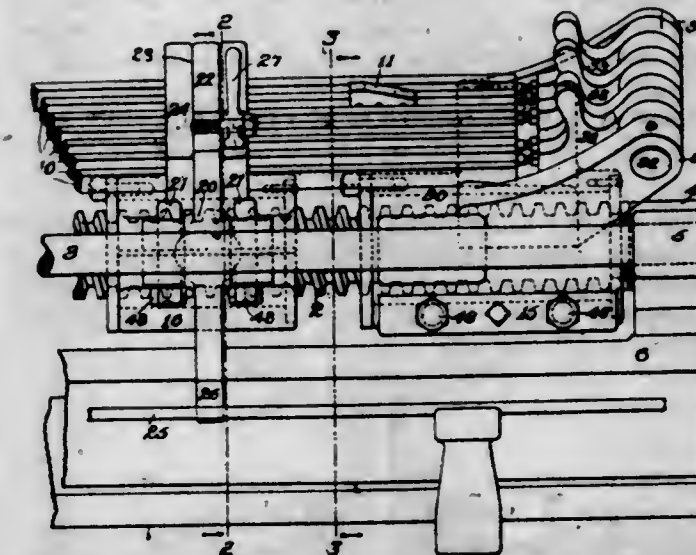
3. The combination with a transmitting member, a dog, and a lip and a shoulder with which the dog coacts, such coaction involving a shift of the dog from one side of the lip to the other, a weft-fork under control of which the interaction of dog, lip, and shoulder occurs, and a weft-hammer, of means through which the weft-hammer restores the dog to the original side of the lip in case a sequence of beats due to engagement of the weft-hammer with the weft-fork is begun and left uncompleted.

4. The combination with a weft-detector, a dog operated under the control of the weft-detector, and a transmitting member having a shoulder adapted to be engaged by the dog and a lip which controls the action of the dog, the operation of the parts involving a shift of the dog from one side of the lip to the other, of means for restoring the dog to the original side of the lip in case of uncompleted operation of the dog leaving it at the other side thereof.

5. The combination with a weft-detector, a transmitting member having a shoulder and a lip, and a dog to engage the said shoulder to move the said member, the said dog being operated under the control of the weft-detector, also governed in its action by the lip, and having a normal starting position at one side of the lip, of means to return the dog to the said side in case of uncompleted operation of the dog leaving it at the other side thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,079,915. YARN-FEED TRAVERSE MECHANISM FOR KNITTING-MACHINES. HENRY JANSSEN and MELCHIOR ZWICKY, Wyomissing borough, Pa., assignors to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Dec. 22, 1911. Serial No. 667,336. (Cl. 66-12.)



1. In a straight knitting machine having a series of reciprocating thread-carrier rods and a controlling screw therefor, an end-stop nut on said screw provided with spaced pivot-pin ears carrying a transverse pivot pin arranged above the plane of said series of rods, and a corresponding series of end-stop levers for said rods pivotally mounted upon said transverse pin so as to independently swing thereon to operative or inoperative positions.

2. In a straight knitting machine the combination with the thread-carrier rods and controlling screw therefor, of an end-stop nut provided with pivot ears, and a series of pivotally mounted end-stop levers for said rods arranged to swing in the plane of the respective rods and to permit free passage of determined rods when the corresponding levers are swung to inoperative positions; said levers being provided with separately adjustable rod-contacting points.

3. In a straight knitting machine the combination with a series of reciprocating thread carrier rods and a controlling screw therefor, of a split end-stop nut on said screw carrying a corresponding series of end-stop levers for said rods, and a separate split stop nut thereon, arranged to stop the reverse movements of said rods; said nuts being independently adjustable on said screw to regulate the location of the stops.

1,079,916. PROCESS OF PRODUCING PINACONES. AUGUST JONAS and EDUARD TSCHUNKUR, Leverkusen, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 16, 1911. Serial No. 668,259. (Cl. 23-24.)

1. The process of producing a pinacone from a ketonic homologue of acetone which comprises treating such ketonic homologue with aluminum amalgam to form an organo-aluminum compound and decomposing the organo-aluminum compound, substantially as described.

2. The process of producing a pinacone from a ketonic homologue of acetone which comprises treating such ketonic homologue with aluminum amalgam in the presence of an agent promoting the reaction to form an organo-aluminum compound and decomposing the organo-aluminum compound, substantially as described.

3. Process of producing tetraethylglycol from diethylketone which comprises treating diethylketone with aluminum amalgam to form an organo-aluminum compound and decomposing the organo-aluminum compound, substantially as described.

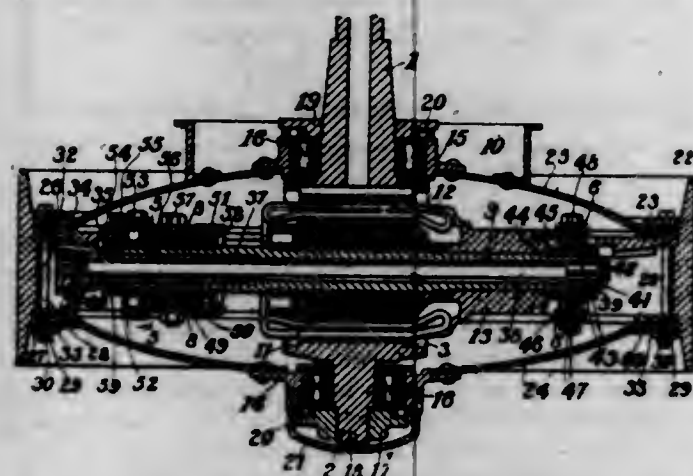
4. Process of producing tetraethylglycol from diethylketone which comprises treating diethylketone with alu-

minum amalgam in the presence of an agent promoting the reaction to form an organo-aluminum compound and decomposing the organo-aluminum compound, substantially as described.

5. Process for producing a pinacone from a ketonic homologue of acetone which comprises treating such ketonic homologue with mercuric chlorid and metallic aluminum to form an organo-aluminum compound and decomposing the organo-aluminum compound, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,079,917. ELECTRIC MOTOR-WHEEL. KARSTEN KNUDSEN, Grand Rapids, Mich., assignor, by direct and mesne assignments, to Electric Wheel Co., (Associates,) Springfield Mass. Filed May 24, 1912. Serial No. 699,583. (Cl. 74-7.)



1. The combination with an oscillatory driving member, and a driven member, both of said members being in constant engagement and their revolutions relatively being constant in direction, of connecting means between said driving member and said driven member, whereby the former follows any irregularity in the latter.

2. The combination, with an annular rack, of a shaft, a movable bearing for said shaft at one terminal, a pinion secured to said shaft at the other terminal, said pinion being in mesh with said rack, a movable bearing for said shaft adjacent to said pinion, and connecting means between said bearing and said rack, whereby said shaft is caused to follow any irregularity in said rack and said pinion is maintained in constant normal relation to said rack.

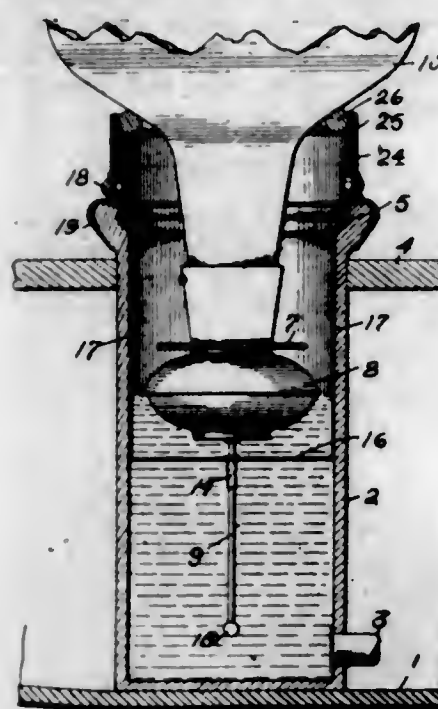
3. The combination, with an annular rack, of an oscillatory shaft, a pinion on such shaft to mesh with said rack, movable bearings for said shaft, and connecting means between one of said movable bearings and said rack, whereby said shaft is caused to follow any irregularity in said rack and the normal relationship between said pinion and rack is maintained.

4. The combination, with an annular rack, of an oscillatory shaft, a pinion on one terminal of such shaft to mesh with said rack, an oscillatory bearing for said shaft at the other terminal, a sliding bearing for said shaft adjacent to said pinion, and connecting means between said sliding bearing and said rack, whereby said shaft is caused to follow any irregularity in said rack and the normal relationship between said pinion and rack is maintained.

5. The combination, with an annular rack, of a hollow shaft journaled for oscillatory movement, a pinion carried by said shaft in mesh with said rack, a floating-shaft within said hollow shaft, said floating-shaft being secured at one end to said hollow shaft and being provided at the other end with means to drive said pinion, and connecting means between said shafts and said rack, whereby the former follow any irregularity in the latter and the normal relationship between said pinion and rack is maintained.

[Claims 6 to 11 not printed in the Gazette.]

1,079,918. LIQUID-COOLER. GEORGE R. LONG, Waterbury, Conn., and HENRY G. CORDELY, Glenn Ridge, N. J., assignors to said Long. Filed Jan. 22, 1913. Serial No. 743,686. (Cl. 62-13.)



1. In a liquid cooler the combination of an outer vessel adapted to contain ice, an inner vessel adapted to contain liquid to be cooled and open at its upper end, means for drawing off liquid from the inner vessel, an inverted bottle having its mouth extending downwardly into the upper end of the inner vessel, a valve adapted to close the mouth of the bottle and a float arranged to be operated by the liquid in the inner vessel to bring the valve against or away from the mouth of the bottle, a guide for the float locked in the inner vessel and means for permanently securing the float to the guide to lock it against removal.

2. In a liquid cooler the combination of an outer vessel adapted to contain ice, an inner vessel adapted to contain liquid to be cooled and open at its upper end, means for drawing off liquid from the inner vessel, an inverted bottle having its mouth extending downwardly into the upper end of the inner vessel, a disk valve adapted to close the mouth of the bottle and a float arranged to be operated by the liquid in the inner vessel to bring the disk valve against or away from the mouth of the bottle, a guide for the float locked in the inner vessel and means for permanently securing the float to the guide to lock it against removal.

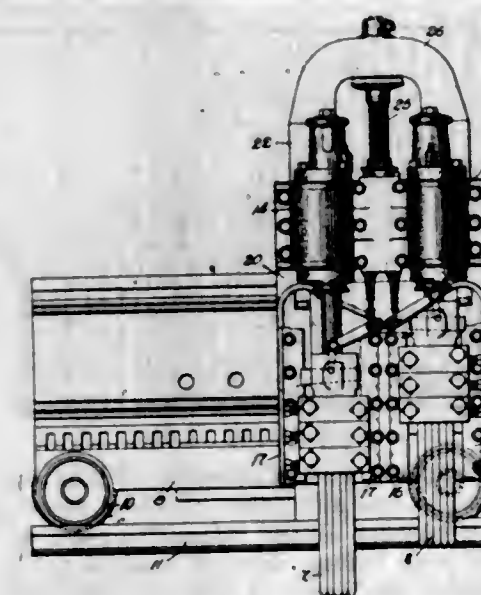
3. In a liquid cooler the combination of an outer vessel adapted to contain ice, an inner vessel adapted to contain liquid to be cooled open at its upper end and provided at its upper end with a seat adapted to receive the shoulder of an inverted bottle, means for drawing off liquid from the inner vessel, an inverted bottle having its mouth extending into the inner vessel a vertically movable float within the inner vessel provided with a disk adapted to close the mouth of the bottle, of greater diameter than that of said bottle mouth, a guide for the float locked in the inner vessel and means for permanently securing the float to the guide to lock it against removal.

1,079,919. CHANNELING-MACHINE. HENRY H. MERCER, Claremont, N. H., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of Maine. Filed Jan. 16, 1908. Serial No. 411,072. (Cl. 125-2.)

1. In a channeling machine, the combination of an adjustably supported tool-actuating device; a vertically disposed feed screw for adjusting the same having a part located in proximity to a heated wall of said device; and means connected to said device to engage said screw; said machine being provided with one or more passages disposed about said screw but separated therefrom by a wall and having one or more inlets open to the air adjacent the bot-

tom and one or more outlets open to the air adjacent the top providing for the cooling of said screw by convection currents of air for preventing substantial conduction of heat from said device to said screw and the engaging part.

2. In a channeling machine, the combination of an adjustably supported tool-actuating device; a frame to sustain the same, a feed screw intermediate the frame and said device and having threaded engagement with part of the latter, said feed screw having also a lubricant conduit extending axially through the screw; said screw having a passage for distributing lubricant from the said conduit to the screw thread.



3. In a channeling machine, the combination of an adjustably supported tool-actuating device; a feed screw for adjusting the same having a part proximate a heated wall of said device; said machine having a lubricant chamber in which the lower end of the screw may be immersed; and having also a lubricant conducting conduit for the lubricant immersing said lower screw end.

4. In a machine of the character described, the combination of a tool and cylinder supporting carriage; a depending tool and superposed cylinder thereon; a frame to support the carriage; a feed screw connecting the frame with the carriage and having screw threaded engagement with the cylinder casting; and lubricating means, said machine being provided with air cooling means for preventing conduction of heat from the cylinder to the threads of the screw.

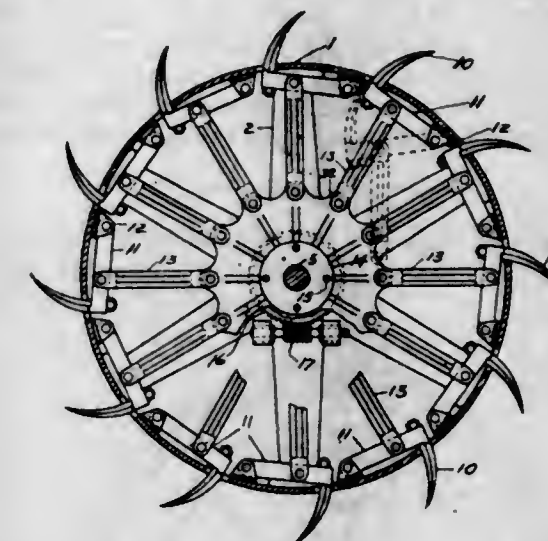
5. In a machine of the character described, the combination of a cylinder and tool supporting carriage; a frame to sustain the same; a feed adjusting device intermediate the frame and said carriage and having engagement with the latter proximate a cylinder; said adjusting device having an internal lubricator conduit spaced from the immediate heat of the cylinder and having a passage for distributing lubricant from said conduit to the engaged surfaces of the adjusting device and said carriage; said machine having an air passage interposed between the lubricant distributing means and the heated parts of the carriage.

[Claims 6 to 19 not printed in the Gazette.]

1,079,920. ROLLING-DRUM PLOW. WALTER B. PRUGH, Sinking, Mo., assignor to Peter Gravert, Benson, Nebr. Filed Oct. 30, 1911. Serial No. 657,418. (Cl. 97-63.)

1. A rolling-drum plow comprising a hollow power-driven roller having a plurality of tooth-holes through its cylindrical wall, a plurality of lever arms pivoted to the inside of said wall in advance of the tooth-holes respectively, a plurality of curved teeth carried by the lever arms and adjustable endwise thereby through the tooth-holes respectively, the curvature of the teeth being substantially concentric with their respective arm pivots, and approximately identical with the curvature of the orbits of the teeth as they enter the soil, hubs rotarily adjustable

on the roller axle, links connecting the hubs with the lever arms, a gear secured to the hubs, and a worm mounted on the head of the roller to engage the gear.



2. A rolling-drum plow comprising a hollow power-driven roller having tooth-holes through its peripheral wall, lever arms pivoted to lugs on the inside of said wall in advance of the tooth-holes respectively, teeth having a curvature substantially concentric with their respective arm pivots and mounted on the lever arms to move endwise into the hollow interior of the roller and outward in the tooth-holes respectively in the direction of their own curvature and approximately in the direction of the curvature of their own orbits at the surface of the ground, hubs rotarily adjustable on the roller axle, links connecting the hubs to the lever arms respectively, and gearing for adjusting the hubs on the axle.

3. A rolling-drum plow comprising a hollow traction roller having tooth-holes through its peripheral wall, a plurality of lever arms pivoted within the roller in advance of the tooth-holes respectively, a plurality of curved teeth mounted on the pivoted arms respectively and movable endwise thereby into the hollow interior of the traction roller and outward in the tooth-holes respectively the curvature of the teeth being substantially concentric with their respective arm pivots, a plurality of hubs bolted together on the roller axle, links connecting the hubs to the lever arms respectively, and means for adjusting the hubs rotarily on the axle.

4. A rolling-drum plow, comprising a hollow roller having circumferential rows of tooth-holes through its peripheral wall, a plurality of lever arms approximately equal in length to one third the radius of the roller, arranged in circular groups within the roller and pivoted approximately in the rim thereof in advance of the tooth-holes respectively, a plurality of teeth carried by the lever arms respectively, curved circularly around their pivotal centers and registering with the tooth-holes respectively, and means for adjusting the lever arms in unison; the curvature of the teeth and of their pivotal movements being substantially identical with the cycloidal curvature of their movements while entering the soil.

5. A machine of the described class, comprising a hollow power-driven roller having tooth-holes through its peripheral wall, a plurality of lever arms pivoted in advance of the tooth-holes within the roller and near said wall, a plurality of curved teeth mounted on the free ends of the lever arms respectively and movable endwise thereby in the direction of their curvature into the hollow interior of the roller and outward in the tooth-holes, the curvature of the teeth and of their pivotal movements being substantially concentric and substantially identical with the curvature of their movements into the soil, means mounted within the roller for rotary movements relative thereto, links connecting said means with the pivoted arms, and mechanism for imparting predetermined rotary movements to said means to communicate through the links unitary oscillating movements to the arms.

1,079,921. CORSET-FASTENER. ABRAHAM ROCKOWITZ, New York, N. Y., assignor of one-half to Louis Margolis, New York, N. Y. Filed Mar. 7, 1913. Serial No. 752,542. (Cl. 24-205.)



1. An auxiliary fastening means for corsets adapted to be used in conjunction with the usual corset-fastening means, provided with a series of eye-plates adapted to take over the buttons on one of the corset steels, staples adapted to extend through the slots on the other corset steel, and a series of connected auxiliary locking devices adapted to lock said staples within said slots, substantially as described.

2. An auxiliary fastening strip for corsets adapted to be used between the usual corset-fastening means, comprising a series of eye-plates mounted on said strip adapted to take over the buttons on one of the corset steels, staples formed on said eye-plates adapted to extend through the slots on the other corset steel, and a series of connected auxiliary locking devices movable on said strip and adapted to lock said staples within said slots, substantially as described.

3. An auxiliary fastening means for corsets adapted to be used in conjunction with the usual corset-fastening means, provided with a series of eye-plates adapted to take over the buttons on one of the corset steels, staples adapted to extend through the slots on the other corset steel, and a series of connected simultaneously movable hooks of progressively greater length disposed adjacent said staples and adapted to be progressively moved through said staples above said eyes when said eyes and staples are in engagement, substantially as described.

4. An auxiliary fastening means for corsets adapted to be used in conjunction with the usual corset-fastening means, provided with a series of eye-plates adapted to take over the buttons on one of the corset steels, staples adapted to extend through the slots on the other corset steel, a series of connected auxiliary locking devices adapted to lock said staples within said slots, and means for maintaining the locking devices in engagement with the staples, substantially as described.

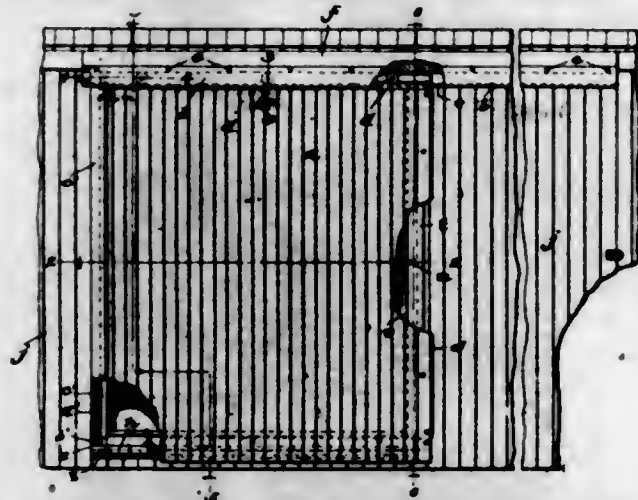
5. An auxiliary fastening means for corsets adapted to be used in conjunction with the usual corset-fastening means, provided with a series of eye-plates adapted to take over the buttons on one of the corset steels, staples adapted to extend through the slots on the other corset steel, a series of connected auxiliary locking devices adapted to lock said staples within said slots, and means for moving the locking devices into and out of engagement with the staples, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,079,922. CAR-DOOR FRAME. JAMES W. RUMSEY and WILLIAM H. SHEASBY, Chicago, Ill. Filed Jan. 25, 1913. Serial No. 744,191. (Cl. 20-22.)

1. In combination with a wooden box car having a door opening in its side wall, of a sheet metal door post rigidly

bolted to the car structure at each side of the door opening and extending the full height thereof, each of these metal posts being provided with an extension at its upper end and a depending extension at its lower end, a metal door-hanger-housing rail member affixed to the car structure above the door opening and bolted to said upper extensions of the door posts and a door guiding rail bolted to the car structure along below the lower edge of the door opening and rigidly affixed to the aforesaid depending extensions of the door posts.



2. In combination with a wooden freight car, having a door opening in one side wall, of sheet steel posts fastened to the woodwork at the respective sides of the door opening, each post having upward extensions, means for rigidly fastening the posts to the car structure, a pair of depending hanger housings and means rigidly connecting the upper edges of these housings together, and additional means connecting the housings to the upper extensions of said posts, for the purpose set forth.

3. In combination with a wooden freight car, having a door opening in one side wall, of sheet metal posts fastened to the woodwork at the respective sides of the door opening, each post having upward extensions, means for rigidly fastening the posts to the car structure, a pair of depending hanger housings and means rigidly connecting the upper edges of these housings together, and additional means connecting the housings to the upper extensions of said posts, together with additional means for rigidly attaching said connected housings to the carlines of the car structure.

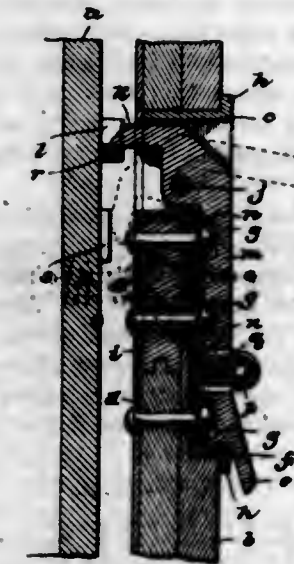
4. In combination with a box car having a door opening within its side wall, a sheet metal door post affixed to one of the wood door posts, and each consisting of a facing plate *q* abutting against the face of the door post wood members, an inner plate *o* and an outer plate *t* and bolts fastening said members *o* and *t* against the car structure, said facing member *q* being provided with a vertical bead or corrugation projecting away from the face of the wood door post members to form a vertical drain channel *v*.

1,079,923. COMBINED HANDLE AND LOCK FOR CAR-DOORS. JAMES W. RUMSEY and WILLIAM H. SHEASBY, Chicago, Ill. Filed Feb. 12, 1913. Serial No. 747,965. (Cl. 70-102.)

1. In combination, a sliding car door, a metal casing fitted into a recess in the door and having a depending channel portion likewise fitting into a recess in the face of the door, means for fastening the casing to the door, the bottom of the said channel portion being provided with an upstanding seal-wire-receiving lug, a combined lock and handle pivoted in the casing and having a depending handle portion adapted to fit and lie in said channel portion, this handle being provided with a hole through which the aforesaid lug projects and also with adjacent seal-wire-receiving lugs, for the purpose set forth.

2. In combination, a sliding door, a casing fitted into the face thereof and provided with a depending channel portion likewise fitted into the face of the door, bolts pass-

ing through the bottom wall of said channel portion and adapted to fasten the casing to the door, said bolts being provided with nuts on their outer ends which lie in said channel portion of the casing, a combined lock and handle pivoted to the casing and having a depending handle portion which is adapted to lie within said channel portion when the door is locked, this handle portion serving to cover the bolts and nuts and being provided with recesses for the projecting ends of the bolts and the nuts, and means whereby a seal wire may lock the handle in its down position.



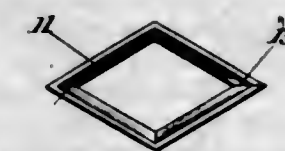
3. In combination with a car door, a casing fastened thereto, a combined lock bolt and handle pivotally mounted in the casing, said handle being adapted to swing down toward the door to bring the lock bolt into locking position, a series of fastening devices for said casing located all in vertical alignment so as to be covered by said handle when the same is in its down position.

4. In combination, a car door provided with an opening, a casing set into said opening and having a depending channel portion embedded in the face of the door, a horizontal pivot *j* extending across the casing, a freely-acting combined lock bolt and handle mounted on said pivot, the handle member being adapted to depend from the pivot when in locking position and to lie within the aforesaid channel portion of the casing, the handle member and the casing being provided with seal-wire-receiving lugs.

5. In combination, a car door, a casing set therein to and a vertical series of devices for fastening the casing to the door, said casing being provided with a depending channel or trough also set into the door, and a combined lock and pendant handle, the handle being adapted to close down into and lie in said channel, said fastening means being in vertical series in said channel so as to be all covered by said handle when the same is in locking position.

[Claims 6 to 9 not printed in the Gazette.]

1,079,924. GEM-SETTING. HERMAN C. SCHULTZ, New York, N. Y., assignor to Chas. Keller & Co., New York, N. Y., a Corporation of New York. Filed Mar. 21, 1912. Serial No. 685,294. (Cl. 63-26.)



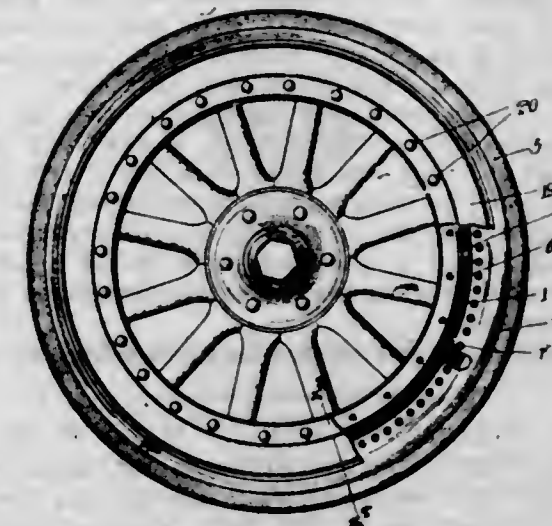
1. A gem setting, comprising a metal ribbon or strip, and an integral ridge projecting inwardly beyond the inner faces thereof intermediate of the upper and lower edges to provide a support for the gem, the ends of said ribbon abutting and being suitably held together.

2. A gem setting comprising a metal ribbon or strip, and an integral ridge projecting inwardly beyond the inner faces thereof intermediate of the upper and lower edges to provide a support for the gem, the portion

of the ribbon above and below the ridge being of uniform thickness and the ends of said ribbon abutting and being suitably held together.

3. A gem band setting, angular in outline and comprising a bent metal ribbon or strip provided with integral ridges intermediate of the upper and lower edges to afford a support for the gem, the ridges of the adjacent angular portions abutting and the ends of the said ribbon likewise abutting and being suitably held together.

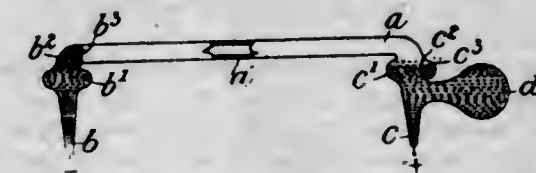
1,079,925. SPRING-FELLY. FRANK MONROE PRATHER, Los Angeles, Cal. Filed Feb. 24, 1913. Serial No. 750,437. (Cl. 152-37.)



1. A spring felly comprising two felly members, the outer felly member having two ribs, said ribs having recesses, spring fasteners extending into said recesses and having grooves, slotted disks in said recesses engaging the grooves of the spring fasteners, two sets of springs, the outer ends of the respective sets being engaged with the spring fasteners in said ribs, and means connecting the inner ends of the two sets of springs to the inner felly.

2. A spring felly comprising two felly members, the outer felly member having two ribs, said ribs having recesses, spring fasteners extending into said recesses and having grooves, slotted disks in said recesses engaging the grooves of the spring fasteners, two sets of springs, the outer ends of the respective sets being engaged with the spring fasteners in said ribs, a rib on the inner felly, and spring fasteners in said rib to which the inner ends of the respective sets of springs are attached.

1,079,926. ELECTRIC VAPOR APPARATUS. CHARLES ORME BASTIAN, London, England, assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Dec. 19, 1905. Serial No. 292,480. (Cl. 176-43.)



1. In a vapor lamp the combination with an anode, of a cathode chamber containing an active fluid, said electrodes being so relatively proportioned that the heat dissipating capacity of the cathode chamber bears the same relation to the corresponding heat dissipating capacity of the anode that the heat generated by one of said electrodes bears to that generated at the other.

2. In a vapor lamp, the combination with an anode chamber containing an active fluid, of a cathode chamber containing an active fluid, said electrodes being so relatively proportioned that the heat dissipating capacity of the cathode chamber bears the same relation to the

corresponding heat dissipating surface of the anode chamber that the heat generated at the cathode bears to that generated at the anode.

3. In a vapor lamp, the combination with an anode, of a cathode, said electrodes being so relatively proportioned that the heat dissipating capacity of the cathode bears the same relation to the corresponding heat dissipating capacity of the anode that the heat generated at one of said electrodes bears to that generated at the other, and means for regulating the dissipation of heat from one of said electrodes.

4. In a vapor lamp, the combination with an anode, of a cathode, said electrodes being so relatively proportioned that the heat dissipating capacity of the cathode bears the same relation to the corresponding heat dissipating capacity of the anode that the heat generated at one of said electrodes bears to that generated at the other, and means for automatically regulating the dissipation of heat from one of said electrodes.

5. In a vapor lamp, the combination with an anode, of a cathode, said electrodes being so relatively proportioned that the heat dissipating capacity of the cathode bears the same relation to the corresponding heat dissipating capacity of the anode that the heat generated at the cathode bears to that generated at the anode, and means for automatically regulating the dissipation of heat from the cathode.

[Claims 6 to 16 not printed in the Gazette.]

1,079,927. EXTENSION-TABLE. HARRY W. BRADNER, Tacoma, Wash., assignor, by direct and mesne assignments, to The General Patents Company, Inc., New York, N. Y., a Corporation of New York. Original application filed May 20, 1912, Serial No. 698,447. Divided and this application filed Feb. 8, 1913. Serial No. 747,026. (Cl. 45-115.)



1. In an extension table of the character set forth, two relatively movable slides, each having channels on the face presented to the adjacent slide, a rib between such channels, a strip of metal extending longitudinally of each rib and secured thereto, a fork at one end of each of said strips and oppositely located relatively to the adjacent strip, housings in the branches of said forks, and rollers mounted in said housings and engaged with the upper and lower edges of the adjacent strip.

2. In an extension table, two relatively movable slides, each having a strip of metal extending longitudinally and secured thereto, a fork at one end of each of said strips and oppositely located relatively to the adjacent strip, housings in the branches of said forks, rollers mounted in said housings and engaged with the upper and lower edges of the adjacent strip, and stops for limiting the outward movement of said slides, consisting of spurs on the edge of said strips, formed integrally with the latter in the paths of said rollers.

3. In an extension table two relatively movable slides each having a flat strip of metal extending longitudinally thereof and secured thereto, each strip being slitted at one end thereof to separate the strip into two branches, said branches diverging in the planes of their respective strips and the terminal of each of said branches being bent over to form a hook-shaped flange extending over the adjacent edge of the opposite strip into engagement with the rear surface of the latter.

1,079,928. MARKING DEVICE. HARRY J. POTTER, Seattle, Wash., assignor to Dennison Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed July 13, 1912. Serial No. 709,172. (Cl. 40-25.)

1. In a marking device of the class described, the combination with a tablet, of a pin-wire fastening device provided with two opposed pointed members both of which members being disposed in the same plane side by side, such plane being parallel with the plane of such tablet.

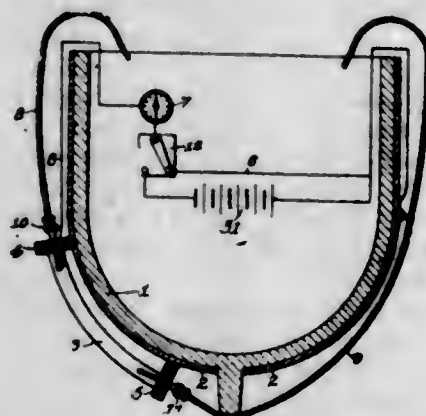


2. In a marking device of the class described, the combination with a tablet, of a pointed engaging member, a pointed opposing locking member, both of said members being disposed in the same plane such plane being parallel with the plane of said tablet, the axis of said engaging member for a portion of its length being in a line with the axis of said opposing member, while its axis for another portion of its length is parallel with the axis of said opposing member.

3. In a marking device of the class described, the combination with a tablet, of two opposed pointed members differing in lengths both disposed in the same plane which plane is parallel with and of suitable distance from the plane of said tablet, the pointed end portion of the longer of said members being extended past the supporting portion of the shorter of said members whereby both members may coact to maintain a portion of fabric locked thereon.

REISSUES.

13,652. ELECTROLYTIC SHIP-BOTTOM CLEANER. GEORGE W. FRAZIER, deceased, Allegheny, Pa., by Pittsburgh Electrolytic Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania, assignee. Filed Apr. 30, 1913, Serial No. 764,714. Original No. 820,105, dated May 8, 1906. Serial No. 307,084. (Cl. 114-222.)



1. In an electrolytic ship-bottom cleaner, the combination of a conducting plate, tackle constructed to suspend said plate from the vessel movably contiguous to the side of the vessel below the water-line, insulating-fenders arranged to prevent contact between said plate and the sheathing or hull of the vessel, a conductor leading aboard from said plate, a source of electricity having one pole connected with said conductor and the remaining pole connected with the sheathing of the vessel, substantially as described.

2. In an electrolytic ship-bottom cleaner, the combination of a zinc plate, tackle constructed to suspend said plate from the vessel movably contiguous to the side of the vessel below the water-line, insulating-fenders arranged to prevent contact between said plate and the sheathing or hull of the vessel, a conductor leading aboard from said plate, a conductor leading inboard from the sheathing of the vessel, the said conductors being adapted for connection with each other, substantially as described.

3. In an electrolytic ship-bottom cleaner, the combination of a zinc plate, a rope connected with one end of said plate and passing upward aboard the vessel, a rope connected with the opposite end of said plate and passing beneath the vessel and aboard up the other side, a conductor leading aboard from said plate, a conductor leading in-

board from the sheathing of the vessel, the said conductors being adapted for connection with each other, and insulating-fenders arranged to prevent contact between the said plate and sheathing, substantially as described.

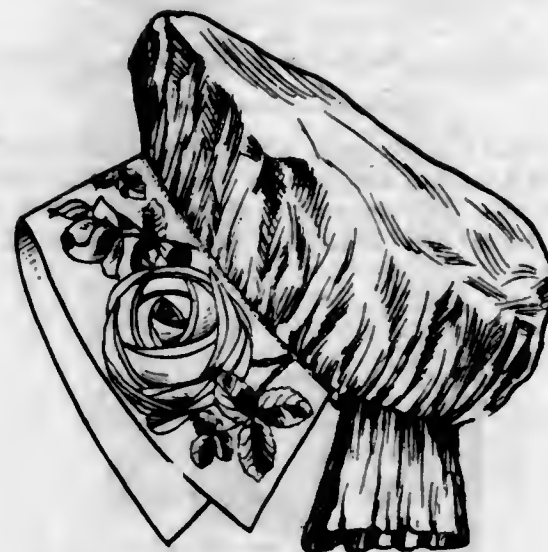
4. In an electrolytic ship-bottom cleaner, the combination of a chain of zinc plates in metallic and pivotal connection with each other, a rope connected with one end of said chain and passing upward aboard the vessel, a rope connected with the opposite end of said chain and passing beneath the vessel and aboard up the other side, a conductor leading aboard from said chain of plates, a conductor leading inboard from the sheathing of the vessel, the said conductors being adapted for connection with each other, and insulating-fenders arranged to prevent contact between the said plates and sheathing, substantially as described.

5. In an electrolytic ship-bottom cleaner, the combination of a chain of zinc plates in metallic and pivotal connection with each other, a rope connected with one end of said chain and passing upward aboard the vessel, a rope connected with the opposite end of said chain and passing beneath the vessel and aboard up the other side, a conductor leading aboard from said chain of plates, a conductor leading inboard from the sheathing of the vessel, the said conductors being adapted for connection with each other, insulating-fenders arranged to prevent contact between the said plates and sheathing, and a float secured to said chain of plates, substantially as described.

6. In an electrolytic ship-bottom cleaner, the combination with a conducting plate supported contiguous to the side of the vessel below the water-line, of insulating-fenders arranged to prevent contact between said plate and the sheathing or hull of the vessel, a conductor leading aboard from said plate, a source of electricity having one pole connected with the said conductor and the remaining pole connected with the sheathing of the vessel, substantially as described.

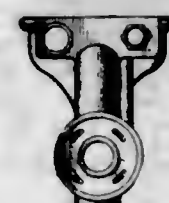
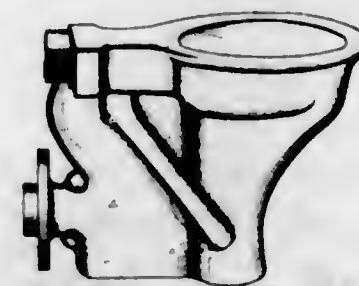
DESIGNS.

44,910. HAT. LUCY ALDEN, Saginaw, Mich. Filed Sept. 12, 1913. Serial No. 789,827. Term of patent 14 years.



The ornamental design for a hat, as shown.

44,911. BOWL FOR WATER-CLOSETS. SAMUEL P. ALPAUGH, Martins Ferry, Ohio, assignor to Wheeling Sanitary Manufacturing Company, Wheeling, W. Va. Filed Aug. 4, 1913. Serial No. 782,959. Term of patent 7 years.



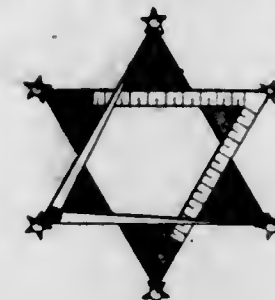
The ornamental design for a bowl for water closets, as shown.

44,912. MINIATURE CHURCH FOR HOME DEVOTION. JOHN D. ARNOLD, Pittsburgh, Pa. Filed July 31, 1913. Serial No. 782,357. Term of patent 7 years.



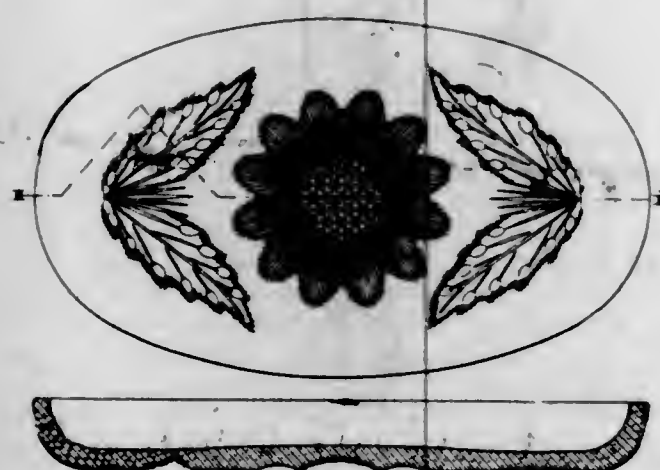
The ornamental design for a miniature church for home devotion, as shown.

44,913. BADGE OR SIMILAR ARTICLE. JOHN V. BUCKLE, Salt Lake City, Utah. Filed Sept. 19, 1913. Serial No. 790,801. Term of patent 14 years.



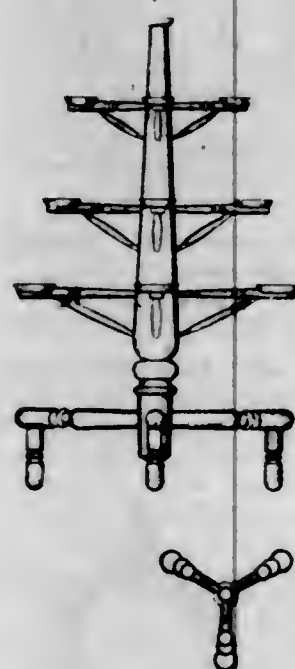
The ornamental design for a badge or similar article, as shown.

44,914. CUT-GLASS DISH OR SIMILAR ARTICLE. HARRY H. BUCKLEY, Chicago, Ill., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Sept. 25, 1913. Serial No. 791,868. Term of patent 7 years.



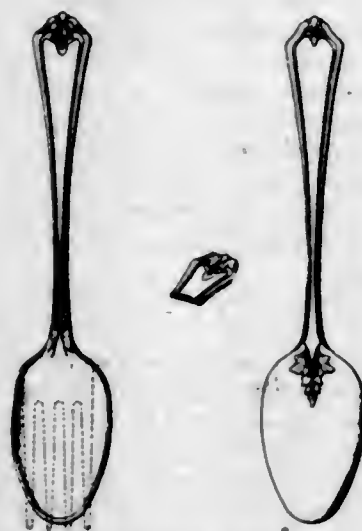
The ornamental design for a cut glass dish or similar article, as shown.

44,915. FLOWER-STAND. FRANK E. CARLSON, Chicago, Ill. Filed Sept. 18, 1912. Serial No. 721,104. Term of patent 3½ years.



The ornamental design for a flower stand, as shown.

44,916. HANDLE FOR SPOONS OR ANALOGOUS ARTICLES. PIERRE J. CHÉRON, Mount Tabor, N. J., assignor to Towle Manufacturing Company, Newburyport, Mass., a Corporation of Massachusetts. Filed Aug. 2, 1913. Serial No. 782,722. Term of patent 14 years.



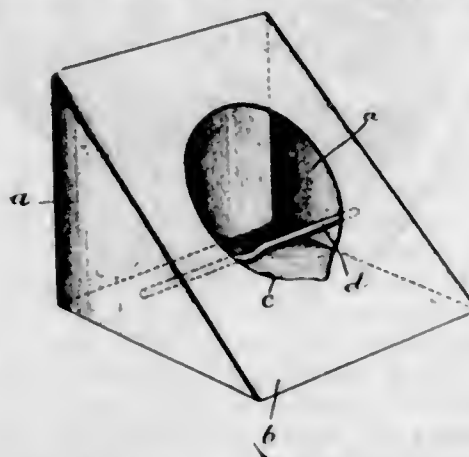
The ornamental design for a handle for spoons or analogous articles as shown.

44,917. CLOCK-CASE. MATTHEW DAVING, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 19, 1913. Serial No. 785,568. Term of patent 7 years.



The ornamental design for a clock case as shown.

44,918. CIGAR AND ASH RECEIVER. OLIVER C. DENNIS, Chicago, Ill., assignor to Venn Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 3, 1910. Serial No. 585,152. Term of patent 7 years.



The ornamental design for a cigar and ash receiver, as shown and described.

44,919. BADGE. MABEL C. FAIRFIELD, Los Angeles, Cal. Filed Sept. 12, 1913. Serial No. 789,556. Term of patent 3½ years.



The ornamental design for a badge, as shown and described.

44,920. PENWORK-RECORD. LUTHER WM. GAMBLE, Nevada, Mo. Filed Sept. 2, 1913. Serial No. 787,810. Term of patent 7 years.



The ornamental design for a pen work record, as shown.

44,921. PILLOW-TOP OR SIMILAR ARTICLE. PAUL E. GOODRICH, Pawtucket, R. I., assignor to Naco Co., Pawtucket, R. I. Filed Oct. 1, 1913. Serial No. 792,882. Term of patent 3½ years.



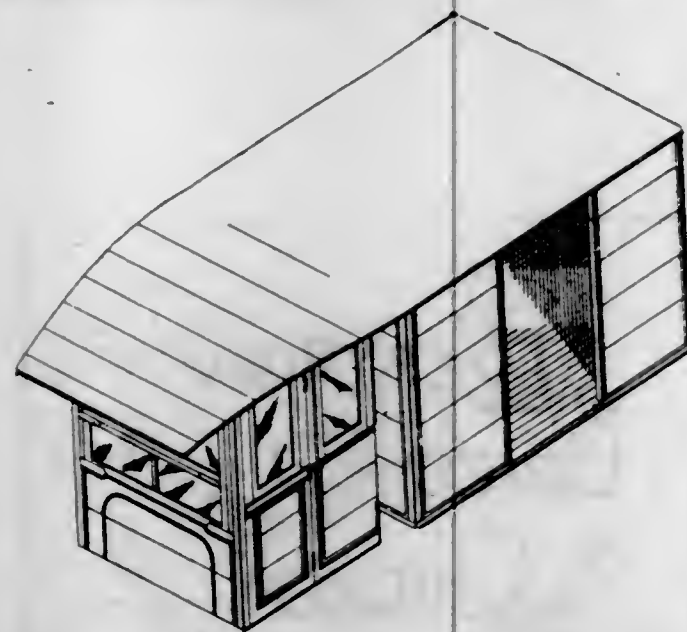
The ornamental design for a pillow top or similar article as shown.

44,922. WALL-RECEPTACLE. FRIEDRICH HEROLD, Buchholz, Saxony, Germany. Filed Sept. 2, 1913. Serial No. 787,805. Term of patent 7 years.



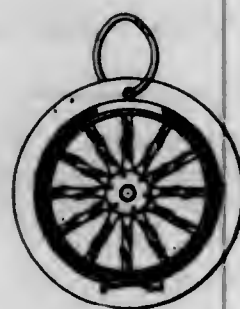
The ornamental design for a wall receptacle, as shown.

44,923. TRUCK-BODY. ENOCH HOBY, Minneapolis, Minn. Filed Oct. 3, 1912. Serial No. 723,778. Term of patent 14 years.



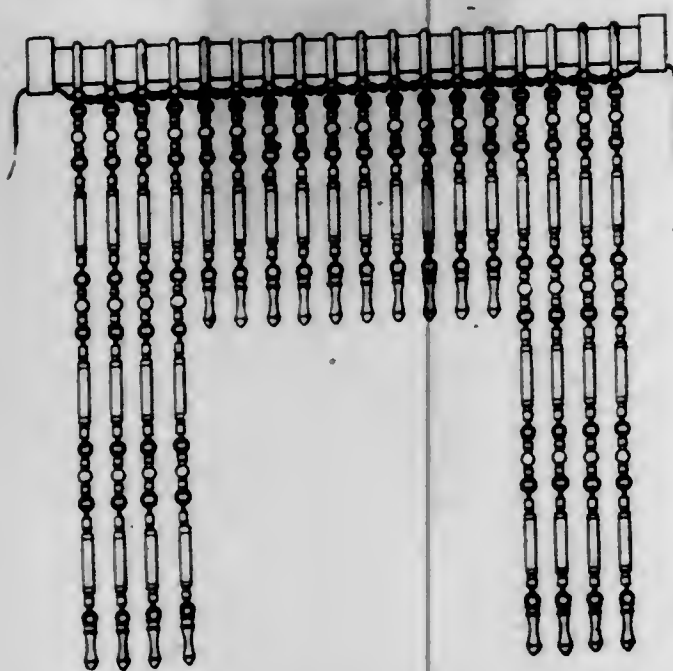
The ornamental design for a truck body, as shown.

44,924. KEY-TAG. FREDERICK C. HOWARD, Spokane, Wash. Filed May 14, 1913. Serial No. 767,715. Term of patent 7 years.



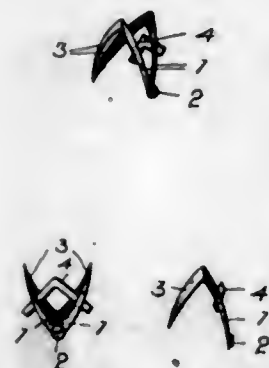
The ornamental design for a key tag, as shown.

44,925. PORTIERE. JAMES HOYE, Rochester, N. Y. Filed May 31, 1913. Serial No. 771,074. Term of patent 7 years.



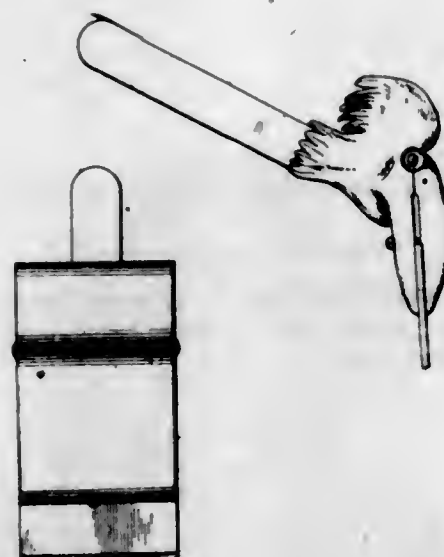
The ornamental design for a portiere, as shown.

44,926. RING. EDWARD LA VINE, Brussels, Belgium. Filed July 21, 1913. Serial No. 780,401. Term of patent 7 years.



The ornamental design for a ring, as herein shown and described.

44,927. FLOOR-SCRAPER. FRANK M. LAYTON, Port Dickinson, N. Y. Filed Mar. 3, 1913. Serial No. 751,817. Term of patent 3½ years.



The ornamental design for a floor scraper, as shown.

44,928. METAL BOX. STUART J. LEBACH, New York, N. Y. Filed Feb. 28, 1913. Serial No. 751,367. Term of patent 7 years.



The ornamental design for a metal box, as shown.

44,929. CAN, JAR, OR SIMILAR ARTICLE. WILLIAM A. LORENZ, Hartford, Conn. Filed Feb. 11, 1911. Serial No. 608,130. Term of patent 14 years.



The ornamental design for a can, jar, or similar article, as shown.

44,930. CAN, JAR, OR SIMILAR ARTICLE. WILLIAM A. LORENZ, Hartford, Conn. Filed Feb. 11, 1911. Serial No. 608,132. Term of patent 14 years.



The ornamental design for a can, jar, or similar article, as shown.

44,931. CAN, JAR, OR SIMILAR ARTICLE. WILLIAM A. LORENZ, Hartford, Conn. Filed Feb. 11, 1911. Serial No. 608,133. Term of patent 14 years.



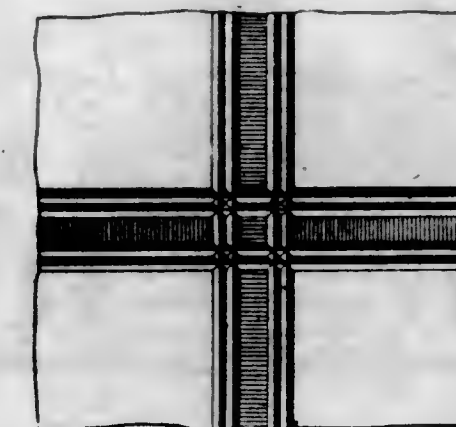
The ornamental design for a can, jar, or similar article, as shown.

44,932. DISH-PAN. GEORGE E. MITTINGER, Jr., New Castle, Pa. Filed Oct. 14, 1909. Serial No. 522,688. Term of patent 14 years.



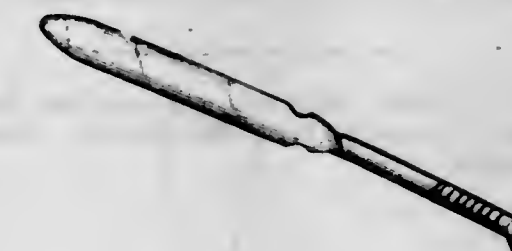
The ornamental design for a dish pan, as shown.

44,933. DECORATIVE SHEET-GLASS REPRESENTING GLASS PANELS. EMIL OFFENBACHER, Marktredwitz, Germany. Filed Dec. 21, 1912. Serial No. 738,073. Term of patent 14 years.



The ornamental design for decorative sheet glass representing glass panels as shown.

44,934. PAPER-KNIFE. ALEX PETERSON, Minneapolis, Minn. Filed May 7, 1913. Serial No. 766,193. Term of patent 7 years.



The ornamental design for a paper knife, as shown.

44,935. HANDLE FOR ELECTRIC SWITCHES. JOHANN G. PETERSON, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 14, 1913. Serial No. 784,788. Term of patent 14 years.



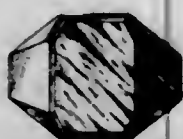
The ornamental design for a handle for an electric switch as shown.

44,936. CASKET HANDLE-PLATE. WIRT M. REESE, Cleveland, Ohio. Filed Mar. 21, 1912. Serial No. 685,348. Term of patent 7 years.



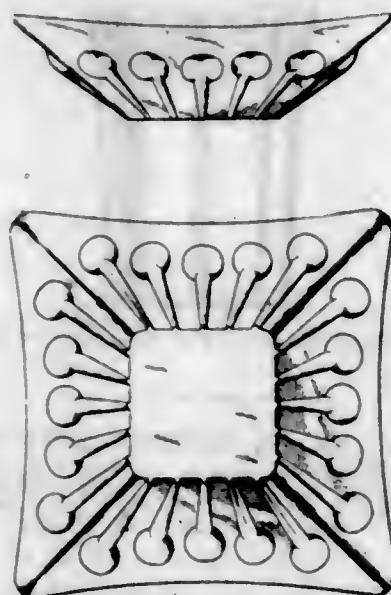
The ornamental design for a casket handle plate, as shown.

44,937. CUT GEM. MEYER L. ROBBINS, New York, N. Y. Filed Oct. 15, 1913. Serial No. 795,216. Term of patent 7 years.



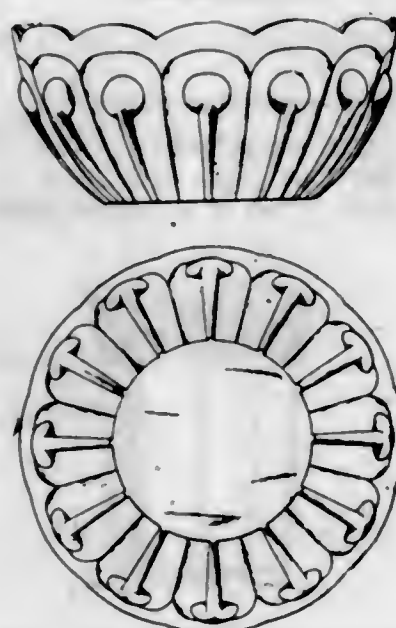
The ornamental design for a cut gem, as shown.

44,938. BOWL OR NAPPY. ANDREW J. SANFORD, Newark, Ohio. Filed Oct. 8, 1913. Serial No. 794,176. Term of patent 14 years.



The ornamental design for a bowl or nappy, as shown.

44,939. BOWL OR NAPPY. ANDREW J. SANFORD, Newark, Ohio. Filed Oct. 8, 1913. Serial No. 794,177. Term of patent 14 years.



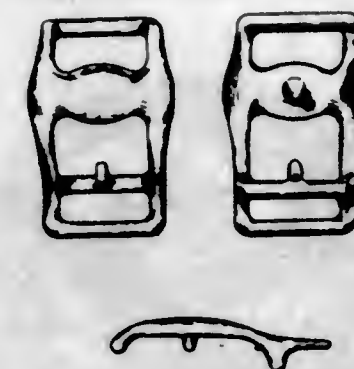
The ornamental design for a bowl or nappy, as shown.

44,940. SWEAT-BAND. WILLIAM P. SCHAEFER, Philadelphia, Pa. Filed Oct. 8, 1913. Serial No. 794,175. Term of patent 7 years.



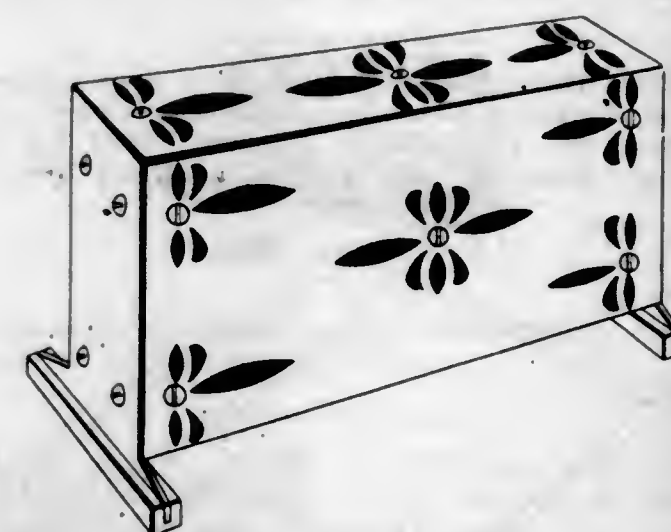
The ornamental design for a sweat band, as shown.

44,941. SHIELD-BUCKLE. RUDOLPH A. SCHWAB, Eau Claire, Wis. Filed Sept. 19, 1913. Serial No. 790,799. Term of patent 14 years.



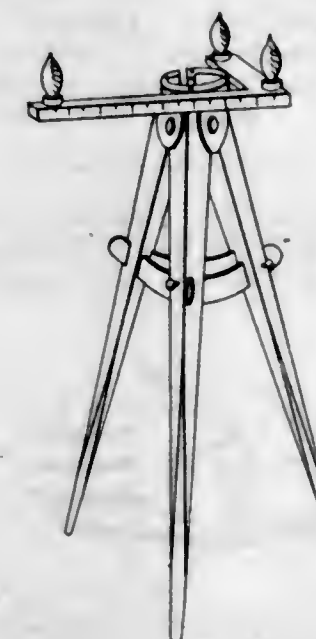
The ornamental design for a shield buckle, as shown.

44,942. ELECTRIC HEATER. WILBUR S. SHEPPARD, Colorado Springs, Colo. Filed Aug. 27, 1913. Serial No. 787,028. Term of patent 7 years.



The ornamental design for an electric heater as shown.

44,943. CANDLESTICK. HARVEY E. SHUMWAY, Frankfort, Kans. Filed July 10, 1913. Serial No. 778,317. Term of patent 3½ years.



The ornamental design for a candlestick, as shown and described.

44,944. TEXTILE FABRIC. EMILE SINS, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Oct. 8, 1913. Serial No. 794,179. Term of patent 3½ years.



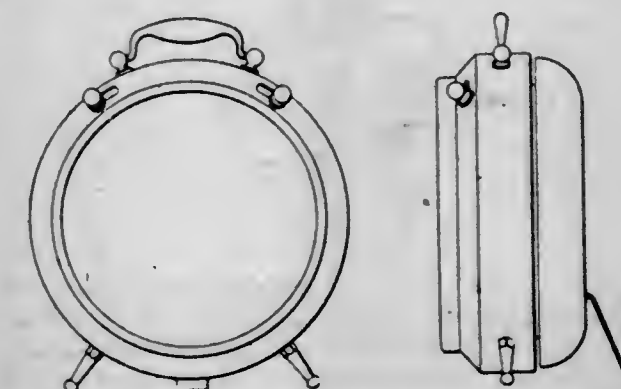
The ornamental design for a textile fabric, as shown.

44,945. BOTTLE-OPENER. HARRY L. VAUGHAN, Chicago, Ill., assignor to Crown Throat & Opener Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 8, 1913. Serial No. 794,174. Term of patent 7 years.



The ornamental design for a bottle opener, as shown.

44,946. ALARM-CLOCK CASE. HENRY W. WACHTEL-HAUSEN, Meriden, Conn., assignor to The Parker Clock Company, Meriden, Conn., a Corporation of Connecticut. Filed July 16, 1913. Serial No. 779,403. Term of patent 7 years.



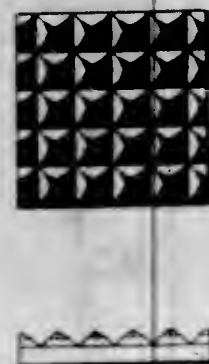
The ornamental design for an alarm clock case as shown.

44,947. CANDELABRUM. FRANK WAGNER and WILLIAM L. WAGNER, Cleveland, Ohio. Filed June 21, 1913. Serial No. 775,143. Term of patent 14 years.



The ornamental design for a candelabrum, as shown.

44,948. SHEET-GLASS. EDWARD J. WALSH, St. Louis, Mo. Filed May 20, 1913. Serial No. 768,876. Term of patent 14 years.



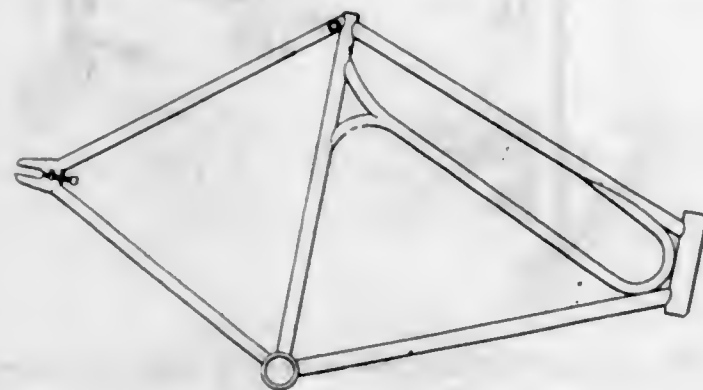
The ornamental design for sheet glass as shown.

44,949. BADGE, PIN, BUTTON, EMBLEM, INSIGNIA, OR SIMILAR ARTICLE. WICTOR WISNIEWSKI, New York, N. Y., assignor to Polish Falcons Alliance of America, Pittsburgh, Pa., a Corporation of Illinois. Filed Oct. 16, 1913. Serial No. 795,574. Term of patent 14 years.



The ornamental design for a badge, pin, button, emblem, insignia, or similar article as shown.

44,950. BICYCLE-FRAME. EDWARD J. LONN, Laporte, Ind., assignor to Great Western Manufacturing Co., Laporte, Ind., a Corporation of Illinois. Filed July 26, 1913. Serial No. 781,403. Term of patent 14 years.



The ornamental design for a bicycle-frame, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 25, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1906, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 8,400. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KENDALL MFG. CO., Providence, R. I. Filed May 23, 1905.

Soapine



Particular description of goods.—Soap Powder.
Claims use since May 10, 1879.

Ser. No. 46,307. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) W. H. STAYNES & SMITH, Leicester, England. Filed Dec. 6, 1909.

Velve

Particular description of goods.—Reindeer, Deer, Goat, Sheep, and Calf Skins Used for the Uppers of Boots, Shoes, and Slippers, Purses, Hand-Bags, Gloves, Books, Card-Cases, Letter-Cases, Wallets, Cigar and Cigarette Cases, Cushion-Covers, Dressing-Cases, Pouches, Straps, and other Similar and Fancy Articles.
Claims use since Nov. 23, 1906.

Ser. No. 51,136. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SMITH, KLINE & FRENCH Co., Philadelphia, Pa. Filed July 29, 1910.



The picture being fanciful.
Particular description of goods.—Remedies for Children—to wit, Diarrhea Mixture, Colic Remedy, Pleasant Physic, Worm Elixir, Cough and Croup Medicine, Teething Lotion, General Tonic, and Chafing-Powder.
Claims use since Nov. 1, 1884.

196 O. G.—67

Ser. No. 56,653. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) PLYMPTON MANUFACTURING Co., Boston, Mass. Filed May 27, 1911.



Consisting of a dark annular band located at an end of the containing-tube, no claim being made to the representation of the tube.

Particular description of goods.—Bottle Stoppers and Caps.
Claims use since about Feb. 15, 1911.

Ser. No. 56,939. (CLASS 39. CLOTHING.) ALFRED NELSON COMPANY, New York, N. Y. Filed June 8, 1911. Under ten-year proviso.



The picture being fanciful.
Particular description of goods.—Sporting-Coats, Vests, Trousers, Knickerbockers, Overcoats, Capes, Riding-Breeches, Invernesses, and House-Coats for Men, Women, and Children.
Claims use since the year 1894.

[Vol. 196. No. 4.]

Ser. No. 57,513. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) EMPIRE TIRE COMPANY, Trenton, N. J.; Philadelphia, Pa.; Chicago, Ill.; Detroit, Mich.; Indianapolis, Ind.; Kansas City, Mo.; Newark, N. J.; New York, N. Y., and Atlanta, Ga. Filed July 6, 1911.

Empire Peerless

No claim is made to the word "Peerless."
Particular description of goods.—Rubber Inner Tubes for Pneumatic Tires.
Claims use since January, 1906.

Ser. No. 58,577. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILL H. JACKMAN, Genoa, Ill. Filed Sept. 7, 1911.

P

*Will H. Jackman
Bk.*

The signature of the applicant is in red.
Particular description of goods.—A Remedy for Asthma, Hay-Fever, Catarrh, and Nervous Disorders.
Claims use since May 10, 1911.

Ser. No. 59,266. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SILVER & Co., New York, N. Y. Filed Oct. 21, 1911.

MARION HARLAND

The name "Marion Harland."
Particular description of goods.—Coffee.
Claims use since on or about the 17th of February, 1902.

Ser. No. 59,529. (CLASS 39. CLOTHING.) MILLS & GIBB, East Orange, N. J., and New York, N. Y. Filed Nov. 3, 1911.

The Elsmere

Particular description of goods.—Gloves.
Claims use since on or about Jan. 1, 1898.

Ser. No. 60,120. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BISCUITFABRIEK "DE LINDEBOOM" FIRMA WED. B. VAN DOESBURG, Mijdrecht and Amsterdam, Netherlands. Filed Dec. 8, 1911.

TOBI

Particular description of goods.—Wafers, Biscuits, and Crackers.
Claims use since July 25, 1911.

Ser. No. 61,514. (CLASS 15. OILS AND GREASES.) ABRAHAM WALTER HARRIS, Cowesett and Providence, R. I.; Annie Corey Harris, Warwick, R. I., and Seeber Edwards, Providence, R. I., executors of said Abraham Walter Harris, deceased, assignors to A. W. Harris Oil Company, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 15, 1912. Under ten-year proviso.



Particular description of goods.—Lubricating-Oils.
Claims use since Jan. 1, 1892.

Ser. No. 61,516. (CLASS 15. OILS AND GREASES.) ABRAHAM WALTER HARRIS, Cowesett and Providence, R. I.; Annie Corey Harris, Warwick, R. I., and Seeber Edwards, Providence, R. I., executors of said Abraham Walter Harris, deceased, assignors to A. W. Harris Oil Company, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 15, 1912. Under ten-year proviso.

**SUBMERGED
SPINDLE OIL**

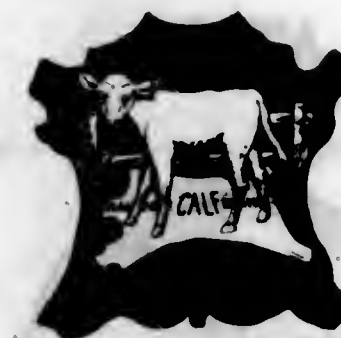
Particular description of goods.—Lubricating-Oils.
Claims use since Jan. 1, 1892.

Ser. No. 63,618. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JENNEVIEVE L. WILEY, Peoria, Ill. Filed May 18, 1912.

EVERY DAY

Particular description of goods.—Foot-Balm.
Claims use since about Nov. 1, 1910.

Ser. No. 64,040. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) KAUFHERR & Co., Newark, N. J. Filed June 7, 1912.



No claim being made to the use of the words "Kaufherr Calf Brand."
Particular description of goods.—Hides and Skins.
Claims use since the 26th day of December, 1911.

Ser. No. 64,774. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 17, 1912.



Particular description of goods.—India-Rubber, Gutta-Percha, Balata, and Similar Vegetable Substances, Alone or Mixed with Waxes, Oils, Grease, Tar, Pitch, or Asphalt; Oxid of Lead or Litharge.
Claims use since 1870.

Ser. No. 64,896. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) BRAMBACH PIANO COMPANY, New York, N. Y. Filed July 24, 1912.

MINIMGRAND

Particular description of goods.—Pianos.
Claims use since April, 1912.

Ser. No. 64,897. (CLASS 17. TOBACCO PRODUCTS.) FLECK CIGAR CO., LTD., Reading, Pa. Filed July 24, 1912.

Rose O-Cuba

Particular description of goods.—Cigars.
Claims use since the early part of February, 1902.

Ser. No. 64,898. (CLASS 17. TOBACCO PRODUCTS.) FLECK CIGAR CO., LTD., Reading, Pa. Filed July 24, 1912.



The picture being fanciful.
Particular description of goods.—Cigars.
Claims use since Apr. 22, 1905.

Ser. No. 64,946. (CLASS 39. CLOTHING.) CLAUDE H. DANIELS, Newtonville and Boston, Mass. Filed July 26, 1912.



Particular description of goods.—Boots and Shoes Made in Whole or in Part of Leather, Textile Fabric, and Rubber.
Claims use since July 23, 1912.

Ser. No. 65,129. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HUGO BRUCKNER, Vienna, Austria. Filed Aug. 6, 1912.

VIENDA

Particular description of goods.—Braces for Personal Wear, Garters and Belts for Personal Wear.
Claims use since Jan. 1, 1912.

Ser. No. 65,741. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CASCARINE MEDICINE COMPANY, Dallas, Tex. Filed Sept. 13, 1912. Under ten-year proviso.

CASCARINE

Particular description of goods.—A Preparation for the Treatment of All Diseases Arising from a Disordered Condition of the Stomach, Liver, and Bowels, Such as Dyspepsia, Indigestion, Sick and Nervous Headache, Fever and Ague, and Constipation.
Claims use since January, 1885.

Ser. No. 65,756. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAS. W. DOUTHITT, Bedford, Ind. Filed Sept. 14, 1912.

PETRISOL

Particular description of goods.—A Remedy for Coughs and Colds in the Chest, Croup, Bronchitis, Asthma, Pneumonia, Rheumatism, Pleurisy, Neuralgia, Headache, Sore Joints, Sprains, and Sore Muscles.

Claims use since about January, 1912.

Ser. No. 66,366. (CLASS 39. CLOTHING.) O'CALLAGHAN & FEDDEN, New York, N. Y. Filed Oct. 10, 1912.

Lady Violet

Particular description of goods.—Stockings.

Claims use since about June 20, 1911.

Ser. No. 66,368. (CLASS 39. CLOTHING.) O'CALLAGHAN & FEDDEN, New York, N. Y. Filed Oct. 19, 1912.

**LILY
OF
FRANCE**

Particular description of goods.—Stockings.

Claims use since about Mar. 9, 1912.

Ser. No. 66,702. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIS A. WILKINS, El Paso, Tex. Filed Nov. 5, 1912. Under ten-year proviso.

WEMAL

Particular description of goods.—A Preparation for the Treatment of Diseases of the Skin and Scalp.

Claims use since Jan. 1, 1890.

Ser. No. 66,703. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) B. W. MCCANDLESS Co., Los Angeles, Cal. Filed Nov. 5, 1912.

BENMAC

Particular description of goods.—Toilet Preparations, Particularly Nail-Gloss, Shampoo Preparations, Hair-Tonic, and Dandruff-Remover, Toilet Tint, Tooth-Powder, Face-Powder, and Analgesic Cerate.

Claims use since Nov. 4, 1909.

Ser. No. 67,025. (CLASS 37. PAPER AND STATIONERY.) LINDSAY BROTHERS, INCORPORATED, Philadelphia, Pa. Filed Nov. 20, 1912.

ATLAS



Particular description of goods.—Paper Linings for Wooden Cases.

Claims use since October, 1912.

Ser. No. 67,592. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PATRICK M. SWEENEY, Cincinnati, Ohio. Filed Dec. 26, 1912.



Particular description of goods.—Laces.

Claims use since January, 1911.

Ser. No. 67,985. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FLEMISH ART COMPANY, New York, N. Y. Filed Jan. 18, 1913.

FLEM-AR-CO

Particular description of goods.—Pyrographic Apparatus and Accessories.

Claims use since Dec. 26, 1912.

Ser. No. 68,384. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BURTON REMEDY Co., McHenry, Ill. Filed Feb. 7, 1913. Under ten-year proviso.



Particular description of goods.—Foot-Powder.

Claims use since the year 1803.

[Vol. 196. No. 4.]

Ser. No. 68,538. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE WILLIAM PRYM COMPANY, LIMITED, Stolberg, Germany, and New York, N. Y. Filed Feb. 13, 1913.



Particular description of goods.—Toilet-Pins, Safety-Pins, Hair-Pins, Hooks and Eyes, Thimbles of Base Metal or Composition, and Rings Used for Fancy-Work and Dressmaking.

Claims use since Jan. 23, 1893.

Ser. No. 68,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH M. CABRAL, Merced, Cal. Filed Feb. 17, 1913.

CABRAL



The portrait being that of applicant.

Particular description of goods.—A Remedy for Rheumatism.

Claims use since Aug. 1, 1912.

Ser. No. 69,239. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RAMSDELL DRUG COMPANY, New York, N. Y. Filed Mar. 21, 1913. Under ten-year proviso.

SULPHUR CREAM

Particular description of goods.—Shampoo-Cream.

Claims use since Jan. 10, 1893.

Ser. No. 69,296. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOHN McEWAN & Co., Edinburgh, Scotland. Filed Mar. 24, 1913.

MAGISTRATE

Particular description of goods.—Whisky.

Claims use since Feb. 28, 1913.

Ser. No. 69,533. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) A/B B. A. HJORTH & Co., Stockholm, Sweden. Filed Apr. 2, 1913.

BAHCO

Particular description of goods.—Bath-Furnaces, Bath-Heaters, Benzin-Stoves, Baking-Ovens, Portable Forges, Gas-Stoves, Gas-Furnaces, Heating-Stoves for Liquid Fuel, Doors for Fire-Brick Stoves, Gas and Oil Lamps, Blow-Lamps and Heaters Working with Liquid or Gas Fuel, Soldering-Stoves, Spirit-Stoves, Petroleum-Stoves, Ranges, Forge-Furnaces, Dampers, Ironing-Stoves (for Heating Ironing-Irons) Heated with Solid, Liquid, or Gaseous Fuel, but Not with Electricity, Roasting-Ovens, Drying-Kilns, Heating-Furnaces for Buildings, Steam-Boilers, Cooking-Stoves Heated with Liquid or Gaseous Fuel, (but Not with Electricity.)

Claims use since Oct. 27, 1905.

Ser. No. 69,600. (CLASS 17. TOBACCO PRODUCTS.) CHARLES OWINS, Portsmouth, Va. Filed Apr. 4, 1913.



Particular description of goods.—Cigars.

Claims use since December, 1899.

Ser. No. 69,845. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & Co., Chicago, Ill. Filed Apr. 17, 1913.

SAXON

Particular description of goods.—Cheviots, Muslin, Gingham, Sheets, and Pillow-Cases.

Claims use since about 1902.

Ser. No. 70,151. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAROLL H. FRANCIS, Camden, N. J. Filed May 1, 1913.

K-PACKET

Particular description of goods.—Packed Antiseptic Drugs for the Prevention of Venereal Diseases.

Claims use since Feb. 1, 1912.

[Vol. 196. No. 4.]

Ser. No. 70,296. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-Main, Germany. Filed May 8, 1913.

HYDRARSAN

Particular description of goods.—A Powder to be Used as a Remedy for Syphilis, Sleeping-Sickness, Trypanosomiasis, and other Tropical Infectious Diseases.
Claims use since Mar. 18, 1913.

Ser. No. 70,434. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEORGE W. PRESTON COMPANY, Bridgeton, N. J. Filed May 15, 1913.



Particular description of goods.—Turkish Towels; Turkish Toweling and Terry Fabrics in the Piece; Face-Cloths Made of Turkish Toweling; Wash-Rags Made of Turkish Toweling; and Bath-Mats Made of Turkish Toweling.
Claims use since about May 1, 1911.

Ser. No. 70,482. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ANCHOR COAL COMPANY, Charleston, W. Va. Filed May 19, 1913.



No claim is made for the representation of the block of coal.

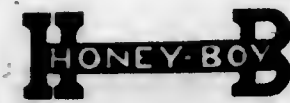
Particular description of goods.—Block-Coal.
Claims use since Nov. 27, 1910.

Ser. No. 70,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. B. J. KENDALL COMPANY, Enosburg Falls, Vt. Filed May 23, 1913. Under ten-year proviso.



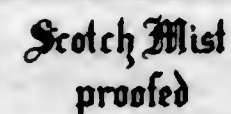
Particular description of goods.—Liniment for the Treatment of Spavin, Ring-Bone, Curb, Sprains, Swellings, and Lameness in Horses; and for Man, Rheumatism, Neuralgia, Corns, Bunions, Burns, Goiter, Piles, Sore Throat, Soreness of the Chest, Bruises and Cuts, or Lameness Requiring a Liniment of This Kind.
Claims use since Oct. 18, 1879.

Ser. No. 70,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GORDON SMITH, Mobile, Ala. Filed May 28, 1913.



Particular description of goods.—Bread.
Claims use since Mar. 25, 1913.

Ser. No. 70,809. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed May 31, 1913.



The exclusive use of the word "Proofed" not being claimed.

Particular description of goods.—Outer Suits and Overcoats.
Claims use since Mar. 17, 1913.

Ser. No. 70,974. (CLASS 39. CLOTHING.) HIRSCHMAN SHOE CO., Salt Lake City, Utah. Filed June 9, 1913.



The word "Notafault" being hereby disclaimed.
Particular description of goods.—Boots and Shoes Made of Leather, Canvas, and Rubber.
Claims use since May, 1912.

Ser. No. 71,089. (CLASS 39. CLOTHING.) HENNESSY COMPANY, Butte, Mont. Filed June 13, 1913.



Particular description of goods.—Shoes.
Claims use since May 29, 1913.

Ser. No. 71,148. (CLASS 39. CLOTHING.) A. BELLER & Co., New York, N. Y. Filed June 17, 1913.



No claim being made to the words "Custom Made."
Particular description of goods.—Outer Suits, Dresses, Outer Skirts, Capes, Coats, Cloaks, Mantles, Wraps, and Dress-Waists.
Claims use since about June 1, 1890.

Ser. No. 71,215. (CLASS 39. CLOTHING.) J. J. GROVER'S SONS, Lynn, Mass. Filed June 20, 1913.



Particular description of goods.—Women's Shoes Made Wholly or in Part of Cloth and Leather.
Claims use since Mar. 20, 1913.

Ser. No. 71,247. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KAYSER, ELISON & Co. LIMITED, Sheffield, England. Filed June 21, 1913. Under ten-year proviso.



Particular description of goods.—Machine-Tools—Namely, Twist, Mining, Rock-Boring, and Wood-Boring Drills, Milling, Slotting, Shaping, Turning, Wheel, Dividing, Fluting, and Grooving Cutters and Shear-Blades; Lathes, Planing, Punching, Riveting, Drilling, Screwing, Chasing, Shaping, and Slotting Machines, Steam Engines and Bolders, Steam-Hammers, Traveling, Traversing, and Lifting Jacks, Hoisting Crabs and Cranes, Blowers, Saw-Benches, Chaff-Cutters, Straw-Knives as Parts of Agricultural Machines, Files, Saws, Shear-Blades, Chisels, Gouges, Plane-Irons, Hay-Knives, Sickles, Augers, Taps, Stocks and Dies, Hammers, Wrenches, Spanners, Ratchet-Braces, Drills, Mill-Picks, Rivet-Cups, Sates, (Blacksmiths' Tools for Cutting Either Hot or Cold Iron,) Spades, and Shovels.
Claims use since the year 1876.

Ser. No. 71,258. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

DRUID

Particular description of goods.—Biscuit.
Claims use since at least Apr. 30, 1913.

Ser. No. 71,260. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913. Under ten-year proviso.

KAISER

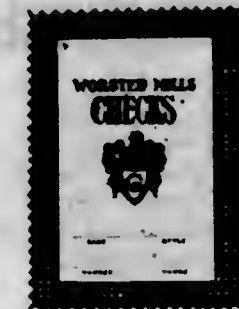
Particular description of goods.—Biscuit.
Claims use since at least Jan. 1, 1895.

Ser. No. 71,263. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

OCEAN SPRAY

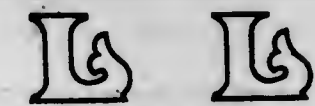
Particular description of goods.—Biscuit.
Claims use since at least January, 1902.

Ser. No. 71,298. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BENJAMIN W. GREER, Philadelphia, Pa. Filed June 23, 1913.



No claim being made for the words "Worsted Mills Checks," "Case," "Style," "Number," and "Yards."
Particular description of goods.—Piece Goods of Woolen, Worsted, and Cotton Cloths for Outer Garments.
Claims use since about June 10, 1913.

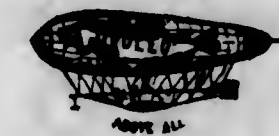
Ser. No. 71,363. (CLASS 48. MALT EXTRACTS AND LIQUORS.) WILLIAM J. LEMP BREWING COMPANY, St. Louis, Mo. Filed June 25, 1913.



Particular description of goods.—Bottled Beer.
Claims use since Mar. 26, 1913.

Ser. No. 71,399. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. MATTHIAS ALEXANDER, Westminster, London, England. Filed June 27, 1913.

OVOLEO



No claim being made to the words "Above All."
Particular description of goods.—A Preparation of Cod-Liver Oil and Eggs for Human Consumption.
Claims use since Dec. 18, 1912.

Ser. No. 71,534. (CLASS 43. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed July 5, 1913. Under ten-year proviso.

DEXTER

Particular description of goods.—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie. Claims use since July 1, 1880.

Ser. No. 71,616. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELDRIDGE BAKER CO., Boston, Mass. Filed July 9, 1913. Under ten-year proviso.

Brunswick

Particular description of goods.—Canned Fruits, Canned Vegetables, Olives, Catsup, Preserved Fruits, Spices, Tea, Coffee, Salmon, and Raisins. Claims use since August, 1886.

Ser. No. 71,617. (CLASS 38. PRINTS AND PUBLICATIONS.) THE HIBERNIAN PUBLISHING CO., Boston, Mass. Filed July 9, 1913.

The HIBERNIAN
ESTABLISHED MARCH 7, 1899

The trade-mark, of which the words "The Hibernian" constitute the trade-mark which it is desired to register, and of which the words "Established March, 1899," the representations of the shamrock, and the border-line inclosing the drawing are disclaimed.

Particular description of goods.—A Weekly Newspaper. Claims use since Mar. 17, 1899.

Ser. No. 71,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BOCHIE J. DEMARTINI, San Mateo, Cal. Filed July 12, 1913.

B
B J D
D

Particular description of goods.—A Remedy for Poison-Oak Poisoning. Claims use since Oct. 1, 1912.

Ser. No. 71,691. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ROTHSCHILD BROS., Philadelphia, Pa. Filed July 14, 1913.



Part of which is shown in red. Particular description of goods.—Blended Whisky. Claims use since about July, 1902.

Ser. No. 71,725. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABEL & ASHER CO., Shreveport, La. Filed July 16, 1913.



Particular description of goods.—Coffee. Claims use since Apr. 16, 1912.

Ser. No. 71,879. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM W. VAN VECHTEN, Rochester, N. Y. Filed July 21, 1913. Under ten-year proviso.

IRVING MILLS

Particular description of goods.—Rye and Wheat Bread Flour. Claims use since July 1, 1869.

Ser. No. 71,894. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LORRAINE J. SCHUMAKER, Philadelphia, Pa. Filed July 22, 1913.

ORIGINAL

Particular description of goods.—Whole-Wheat Bread, Whole-Wheat Biscuits, and Whole-Wheat Flour. Claims use since about the middle of January, 1913.

Ser. No. 71,900. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL MILLING COMPANY, Lockport, N. Y. Filed July 23, 1913.

KENNEL CLUB

Particular description of goods.—Wheat-Flour. Claims use since Apr. 24, 1913.

Ser. No. 71,935. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE BETZ-PIERCE COMPANY, Cleveland, Ohio. Filed July 24, 1913.



The triangular figure being disclaimed. Particular description of goods.—Tool-Steel, Steel in Bar, Rod, Sheet, Plate, Bolt, Billet, Hoop, Ingot, Tube, and Wire Form, Also Castings and Forgings of Steel. Claims use since August, 1911.

Ser. No. 71,990. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR M. LEINE, Honesdale, Pa. Filed July 26, 1913.

Van-Co

The trade-mark consists of the word "Van-Co." Particular description of goods.—Flavoring Extracts for Foods. Claims use since Sept. 1, 1911.

Ser. No. 72,017. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GEORGE AST CANDY CO., Cincinnati, Ohio. Filed July 29, 1913.



The same consisting of the pictorial representation of the head and bust of the minor child of George Ast. Particular description of goods.—Candy, Chewing-Gum, Peanut and Popcorn Confections. Claims use since June, 1905.

Ser. No. 72,047. (CLASS 33. GLASSWARE.) LIGHTING STUDIOS COMPANY, New York, N. Y. Filed July 30, 1913.

JADE

Particular description of goods.—Glass Lamp-Shades. Claims use since June 30, 1913.

Ser. No. 72,060. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 31, 1913.



No claim being made to the right to the exclusive use of any of the wording appearing upon the mark, with the exception of the initials "F. G." and the word "Nep-tune."

Particular description of goods.—Wire Strings for Musical Instruments, (Commonly Called Music-Wire.) Claims use since 1912.

Ser. No. 72,078. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Leather, Rubber, and Canvas Belting; Rubber Hose; Rubber Tubing. Claims use since June 25, 1913.

Ser. No. 72,197. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) J. S. ZIEGLER COMPANY, Chicago, Ill. Filed Aug. 6, 1913.

So-Cool-a

Particular description of goods.—Orange-Flavored Beverage. Claims use since May, 1908.

Ser. No. 72,205. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GIBSON'S LIMITED, Vancouver, British Columbia, Canada. Filed Aug. 7, 1913.

GORILLA

Consists of the arbitrarily-selected word "Gorilla."
Particular description of goods.—Belting for Machinery.
Claims use since Jan. 1, 1913.

Ser. No. 72,209. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BERNARD B. NEAL, New York, N. Y. Filed Aug. 7, 1913.



No claim being made for the words "Toothed Shovels, Spades, Scoops."
Particular description of goods.—Shovels, Spades, and Scoops.
Claims use since Feb. 1, 1912.

Ser. No. 72,232. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE H. PARKER, Dayton, Ohio. Filed Aug. 8, 1913.



Particular description of goods.—A Preparation for the Treatment of Urinary Diseases.
Claims use since July 21, 1913.

Ser. No. 72,235. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HELMUTH VOSS, Hamburg, Germany. Filed Aug. 8, 1913.

Rubberine

Particular description of goods.—A Chemical for Coloring Rubber.
Claims use since Jan. 19, 1912.

Ser. No. 72,271. (CLASS 11. INKS AND INKING MATERIALS.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

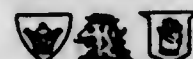
Particular description of goods.—Ink Used as a Writing Fluid.
Claims use since June 1, 1913.

Ser. No. 72,374. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed Aug. 16, 1913.

VENA

The word "Vena."
Particular description of goods.—Rubber Tubing, Rubber Hose, Rubber and Cotton Fire-Hose, Rubber and Cotton Mill-Hose, and Belting.
Claims use since Aug. 1, 1913.

Ser. No. 72,468. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE HOMAN MANUFACTURING COMPANY, Cincinnati, Ohio. Filed Aug. 21, 1913.



Particular description of goods.—Precious-Metal Electroplated Hollow Ware.
Claims use since June 1, 1913.

Ser. No. 72,504. (CLASS 39. CLOTHING.) SULLOWAY MILLS, Franklin, N. H. Filed Aug. 23, 1913. Under ten-year proviso.

FRANKLIN

The word "Franklin."
Particular description of goods.—Hosiery.
Claims use since Mar. 15, 1893.

Ser. No. 72,535. (CLASS 43. THREAD AND YARN.) SEA ISLAND THREAD CO., New York, N. Y. Filed Aug. 26, 1913.



Particular description of goods.—Mercerized Thread and Spool-Cotton.
Claims use since Jan. 1, 1913.

Ser. No. 72,543. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBANY CHEMICAL CO., Albany, Ga. Filed Aug. 27, 1913.

BLACK SHOT

Particular description of goods.—A Remedy for the Treatment of Malaria and other Diseased and Disordered Conditions of the Liver and Alimentary Canal.
Claims use since about Jan. 15, 1888.

Ser. No. 72,607. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBANY CHEMICAL CO., Albany, Ga. Filed Sept. 2, 1913.



Particular description of goods.—A Liniment.
Claims use since about Nov. 10, 1888.

Ser. No. 72,818. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EAGLE CLAW WRENCH CO., Chicago, Ill. Filed Sept. 2, 1913.



The words "Wrench, Showing a Few Difficult Grips, For Sale Here, Fully Guaranteed, Drop Forged" and the representation of wrenches being disclaimed.
Particular description of goods.—Wrenches.
Claims use since Sept. 1, 1912.

Ser. No. 72,794. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. RUMELY COMPANY, Laporte, Ind. Filed Sept. 11, 1913.

ADVANCE

Particular description of goods.—Ensilage Feed and Fodder Cutters.
Claims use since Feb. 15, 1913.

Ser. No. 72,805. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SAMUEL BUEGELEISEN, New York, N. Y. Filed Sept. 12, 1913.

20TH CENTURY

The "20th Century."
Particular description of goods.—Violins and Parts, Mandolins and Parts, Banjos and Parts, Guitars and Parts, Lute-Mandolins and Parts, Guitar-Mandolins and Parts, Drums and Parts, Banjo-Drums and Parts, Violins, Bows, and Parts, Banjeaurines and Parts, Solo-Banjeaurines and Parts, Piccolo-Banjos and Parts, Bass and Cello Banjos and Parts, Banjo-Banjeaurines and Parts, Banjo-Strings, Violin-Strings, Guitar-Strings, Mandolin-Strings, Banjo-Mandolins and Parts.
Claims use since 1888.

Ser. No. 72,810. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMUEL EISEMAN & CO., New York, N. Y. Filed Sept. 12, 1913.

SEA

The word "Sea."
Particular description of goods.—Silk, Silk and Cotton, and Satin Piece Goods.
Claims use since Aug. 28, 1913.

Ser. No. 72,812. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THOMAS A. EDISON, INCORPORATED, West Orange, N. J. Filed Sept. 12, 1913.

SANITUBE

Particular description of goods.—Speaking-Tubes for Dictating-Machines.
Claims use since Aug. 29, 1913.

Ser. No. 72,831. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO BERGMAYER, Dayton, Ky. Filed Sept. 13, 1913.



No claim being made for the word "Gonorrhoea."
Particular description of goods.—A Gonorrhoea Remedy.
Claims use since February, 1912.

Ser. No. 72,849. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT E. SMITH, Cleveland, Ohio. Filed Sept. 13, 1913.



The portrait being that of myself, associated with a facsimile of my signature.
Particular description of goods.—A Preparation for the Treatment of Diabetes, Liver and Kidney Trouble, Bright's Disease, and Dropsy.
Claims use since October, 1911.

Ser. No. 72,859. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM M. MYERS, Hannibal, Mo. Filed Sept. 15, 1913.



Particular description of goods.—A Preparation for the Treatment of Bad Colds, La Grippe, and Biliousness.
Claims use since July, 1913.

Ser. No. 72,914. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BENFORD MANUFACTURING CO., Mount Vernon, N. Y. Filed Sept. 17, 1913.



Particular description of goods.—Spark-Plugs.
Claims use since Jan. 1, 1910.

Ser. No. 72,917. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HARRIS AUTOMATIC PRESS CO., Niles, Ohio. Filed Sept. 17, 1913.



The words "Quality with Large Output" and "Reg. U. S. Pat. Office" being disclaimed.
Particular description of goods.—Printing-Presses and Parts Thereof.
Claims use since Aug. 1, 1913.

Ser. No. 72,948. (CLASS 39. CLOTHING.) ALBERT J. BLOUIN, Houston, Tex. Filed Sept. 19, 1913.



Particular description of goods.—Overalls, Uniform Jumpers, and Trousers.
Claims use since Aug. 30, 1913.

Ser. No. 72,977. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) LUDWIG KOCHMANN, Berlin, Germany. Filed Sept. 20, 1913.

Pójdz-Marynka

Particular description of goods.—Liqueur.
Claims use since Aug. 1, 1904.

Ser. No. 73,019. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAMS, MARTIN & GRAY, INC., Norfolk, Va. Filed Sept. 23, 1913.

DOLLY MADISON

Particular description of goods.—Perfumes and Talcum Powder.
Claims use since Apr. 16, 1913.

Ser. No. 73,029. (CLASS 47. WINES.) A. MATTEI, Fresno, Cal. Filed Sept. 24, 1913.



Particular description of goods.—Wines.
Claims use since Oct. 1, 1909.

Ser. No. 73,039. (CLASS 39. CLOTHING.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Sept. 25, 1913.

LITTLE COLONEL

Particular description of goods.—Boys' Outer Waists, Dress and Negligée Shirts, and Overalls.
Claims use since about July 24, 1913.

Ser. No. 73,049. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BERTHOLD LEVI, New York, N. Y. Filed Sept. 25, 1913.



Particular description of goods.—The Unfinished Side of Process Leather.
Claims use since Aug. 14, 1913.

Ser. No. 73,077. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) EDWIN H. SCHMOEGER, New York, N. Y. Filed Sept. 26, 1913.

UNEK

Particular description of goods.—Curtain-Supports.
Claims use since Apr. 1, 1913.

Ser. No. 73,101. (CLASS 39. CLOTHING.) JAMES T. CARADINE, St. Louis, Mo. Filed Sept. 29, 1913.



The picture of the man shown in the drawing being that of the applicant.
Particular description of goods.—Hats.
Claims use since about Aug. 1, 1913.

Ser. No. 73,114. (CLASS 47. WINES.) T. L. ORR, Occidental, Cal. Filed Sept. 29, 1913.



No claim being made to the use of the language appearing on the drawing.
Particular description of goods.—Wines.
Claims use since Sept. 1, 1913.

Ser. No. 73,119. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY E. WARNER, Chicago, Ill. Filed Sept. 29, 1913.

TEN YEARS YOUNGER

Particular description of goods.—A Preparation for Beautifying the Complexion.
Claims use since Jan. 1, 1913.

Ser. No. 73,139. (CLASS 15. OILS AND GREASES.) WEST INDIA OIL COMPANY, Bayonne, N. J. Filed Sept. 30, 1913.



Particular description of goods.—Lubricating Oils and Greases.
Claims use since Sept. 17, 1913.

Ser. No. 73,152. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OEFELE SYNTHESIS CO., New York, N. Y. Filed Oct. 1, 1913.

LIPOLYSIN

Oefele

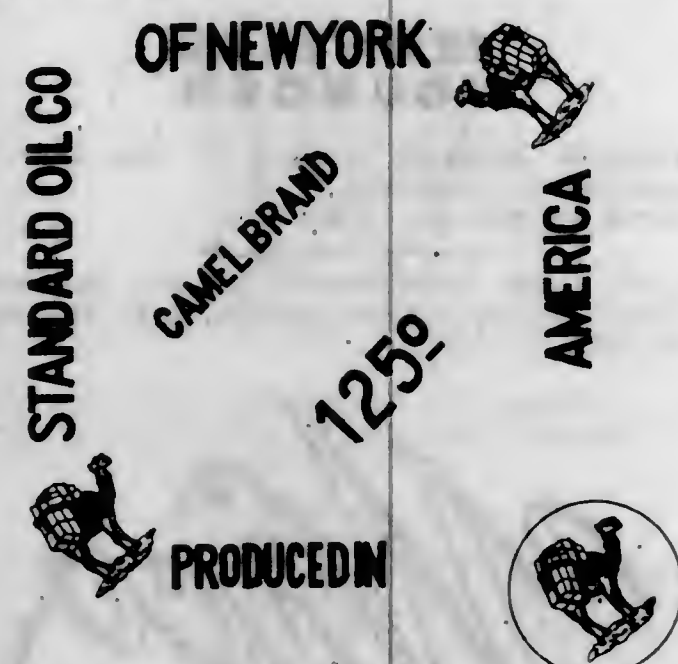
The name "Oefele" being the facsimile of the name "Oefele" of Felix von Oefele, a member of the firm.
Particular description of goods.—A Fat-Digesting Pill.
Claims use since about June 16, 1913.

Ser. No. 73,188. (CLASS 39. CLOTHING.) B. HART & BRO., San Francisco, Cal. Filed Oct. 3, 1913.



Comprising the words "Joan of Arc" and the representation of Joan of Arc.
Particular description of goods.—Men's, Women's, and Children's Hosiery.
Claims use since about the 25th of November, 1912.

Ser. No. 73,192. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Oct. 3, 1913.



No claim is made to the use of the words "Standard Oil Co. of New York" nor to the words "Produced in America Brand 1250."

Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.

Claims use since July 3, 1913.

Ser. No. 73,207. (CLASS 39. CLOTHING.) THE COMMONWEALTH SHOE AND LEATHER CO., Portland, Me., and Boston, Mass. Filed Oct. 4, 1913.



The trade-mark consists of a representation of a bear's paw in connection with the words "Bear Paw."

Particular description of goods.—Leather Boots and Shoes for Men, Women, and Youths.

Claims use since the month of July, 1913.

Ser. No. 73,239. (CLASS 7. CORDAGE.) PLYMOUTH CORDAGE COMPANY, Plymouth, Mass. Filed Oct. 6, 1913.

PILGRIM

Particular description of goods.—Fibrous and Textile Rope and Twine.

Claims use since Sept. 10, 1913.

Ser. No. 73,241. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN HOWARD SUYDAM, Walkerville, Mont. Filed Oct. 6, 1913.

"SINAPO"

Particular description of goods.—Ointment for External Use.

Claims use since Dec. 9, 1910.

Ser. No. 73,245. (CLASS 37. PAPER AND STATIONERY.) GEO. W. WHEELWRIGHT PAPER COMPANY, Boston, Mass. Filed Oct. 6, 1913.



Particular description of goods.—Bristol-Board.

Claims use since September, 1913.

Ser. No. 73,252. (CLASS 37. PAPER AND STATIONERY.) CHAPIN & GOULD PAPER COMPANY, Springfield, Mass. Filed Oct. 7, 1913.

HALCYON

Particular description of goods.—Writing-Paper.

Claims use since Aug. 1, 1913.

Ser. No. 73,281. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Oct. 8, 1913.

KIRO

Particular description of goods.—Toilet-Paper.

Claims use since Sept. 26, 1913.

Ser. No. 73,282. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Oct. 8, 1913.



Particular description of goods.—Toilet-Paper.

Claims use since Sept. 29, 1913.

[Vol. 196. No. 4.]

Ser. No. 73,283. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Oct. 8, 1913.



Particular description of goods.—Toilet-Paper.

Claims use since Sept. 26, 1913.

Ser. No. 73,323. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RALPH B. WAITE, Springville, N. Y. Filed Oct. 11, 1913.

Dr. R. B. Waite's

The said trade-mark being a facsimile signature of the applicant.

Particular description of goods.—Local Anesthetics.

Claims use since July, 1900.

Ser. No. 73,340. (CLASS 39. CLOTHING.) THE FORTSYTHE WAIST CO., New York, N. Y. Filed Oct. 13, 1913.



The trade-mark consists of a coat-of-arms and of a facsimile of the name "Forsythe" in the handwriting of John Forsythe.

Particular description of goods.—Ladies' and Misses' Shirt and Dress Waists.

Claims use since about 1893.

Ser. No. 73,353. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES V. CROSS, San Francisco, Cal. Filed Oct. 14, 1913.

FAGISOTE

Consists of the word "Fagisote."

Particular description of goods.—The Compound or Prescription Prepared by Me or Under My Direction for the Treatment of Pneumonia, Tuberculosis, and Coughs.

Claims use since May 28, 1908.

[Vol. 196. No. 4.]

Ser. No. 73,355. (CLASS 39. CLOTHING.) HART SCHAFFNER & MARX, Chicago, Ill. Filed Oct. 14, 1913.

"PREP"

Particular description of goods.—Coats, Vests, Trousers, Overcoats, and Rain-Coats.

Claims use since Oct. 1, 1913.

Ser. No. 73,379. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MADAME IRENE, New York, N. Y. Filed Oct. 15, 1913.

IRENE

Particular description of goods.—Boning for Corsets.

Claims use since Feb. 1, 1911.

Ser. No. 73,408. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JESSE H. YOUNG, Fort Wayne, Ind. Filed Oct. 15, 1913.

WAYNENE

Particular description of goods.—Silver-Plating Material.

Claims use since Aug. 18, 1913.

Ser. No. 73,439. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BURTON BROS. & Co., New York, N. Y. Filed Oct. 17, 1913.

DOLLY

VARDEN

Particular description of goods.—Silk, Cotton and Silk, and Cotton Piece Goods.

Claims use since Feb. 15, 1913.

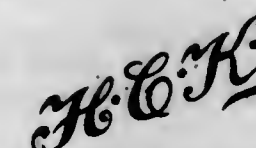
Ser. No. 73,512. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) H. C. KNOBE, Indianapolis, Ind. Filed Oct. 20, 1913.



Particular description of goods.—Whisky.

Claims use since about May, 1897.

Ser. No. 73,513. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) H. C. KNOBE, Indianapolis, Ind. Filed Oct. 20, 1913.



Particular description of goods.—Whisky.

Claims use since about May, 1897.

[Vol. 196. No. 4.]

Ser. No. 73,538. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Oct. 22, 1913.



ST. PAUL'S CATHEDRAL.

Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 1, 1905.

Ser. No. 73,600. (CLASS 37. PAPER AND STATIONERY.) CHARLES J. COHEN & SON, Philadelphia, Pa. Filed Oct. 30, 1913.

INTERVIEW

Particular description of goods.—Envelops.
Claims use since about Oct. 21, 1913.

[Vol. 196. No. 4.]

TRADE-MARKS

REGISTERED NOVEMBER 25, 1913.

- 94,261. TOILET-PAPER. ADIRONDACK TISSUE PAPER Co., New Hartford, N. Y.
Filed April 21, 1913. Serial No. 69,935. PUBLISHED JUNE 10, 1913.
- 94,262. ADHESIVE LABELING-PASTE. LEON N. ADLER, New York, N. Y.
Filed June 12, 1913. Serial No. 71,031. PUBLISHED SEPTEMBER 23, 1913.
- 94,263. WINDMILLS. LEO ALEXANDER, New York, N. Y.
Filed August 9, 1913. Serial No. 72,240. PUBLISHED SEPTEMBER 23, 1913.
- 94,264. AMMONIA FOR HOUSEHOLD USES. BADGER OIL & SPECIALTY Co., Milwaukee, Wis.
Filed April 3, 1913. Serial No. 69,690. PUBLISHED JUNE 17, 1913.
- 94,265. CRASH AND TOWELING. BALLIN & TAYLOR, New York, N. Y.
Filed June 12, 1913. Serial No. 71,046. PUBLISHED SEPTEMBER 23, 1913.
- 94,266. CERTAIN NAMED FOODS. BESSIRE & COMPANY, Indianapolis, Ind., and Louisville, Ky.
Filed April 4, 1913. Serial No. 69,588. PUBLISHED AUGUST 26, 1913.
- 94,267. PAPER FOR CERTAIN NAMED USES, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed April 3, 1913. Serial No. 69,571. PUBLISHED SEPTEMBER 23, 1913.
- 94,268. DANDRUFF-REMOVER AND HAIR-RENEWER IN A LIQUID FORM. EDWARD WOLFGANG BREY, Woonsocket, R. I.
Filed April 19, 1913. Serial No. 69,914. PUBLISHED SEPTEMBER 23, 1913.
- 94,269. COVER, BOND, WRITING, AND PRINTING PAPER. THE CENTRAL OHIO PAPER Co., Columbus, Ohio.
Filed September 30, 1912. Serial No. 66,042. PUBLISHED DECEMBER 3, 1912.
- 94,270. MILK AND CREAM. MYRON L. CHAMBERLAIN, Beverly, Mass.
Filed June 2, 1911. Serial No. 56,884. PUBLISHED SEPTEMBER 23, 1913.
- 94,271. CANNED FRUITS, FIGS, TOMATO CATSUP, AND CANNED VEGETABLES. THE COAST PRODUCTS COMPANY, St. Louis, Mo.
Filed December 5, 1910. Serial No. 53,126. PUBLISHED SEPTEMBER 23, 1913.
- 94,272. LIQUEUR. ELIE DE LAAGE, St. Savinjen-sur-Charente, near Cognac, France.
Filed March 6, 1913. Serial No. 68,865. PUBLISHED SEPTEMBER 23, 1913.
- 94,273. RAT-EXTERMINATING COMPOUND. PIETRO DE MAURO, New York, N. Y.
Filed August 6, 1913. Serial No. 72,184. PUBLISHED SEPTEMBER 23, 1913.
- 94,274. CERTAIN NAMED MACHINERY AND PARTS THEREOF. DEUTSCHE MASCHINENFABRIK AKTIEN GESELLSCHAFT, Duisburg, Germany, and New York, N. Y.
Filed April 15, 1913. Serial No. 69,796. PUBLISHED SEPTEMBER 23, 1913.
- 94,275. CERTAIN NAMED RECEPTACLES, ALL MADE OF CELLULOID. J. C. DOWD & Co., New York, N. Y.
Filed July 15, 1913. Serial No. 71,707. PUBLISHED OCTOBER 7, 1913.
- 94,276. CHEMICALLY-REFINED STEARATE OF ZINC FREE FROM OLEATES. ELSON & BREWER, INC., New York, N. Y.
Filed May 19, 1913. Serial No. 70,488. PUBLISHED SEPTEMBER 23, 1913.
- 94,277. CEMENT TILES FOR ROOFS, FLOORS, WALLS, AND GUTTERS. FEDERAL CEMENT TILE COMPANY, Chicago, Ill.
Filed July 16, 1913. Serial No. 71,746. PUBLISHED SEPTEMBER 23, 1913.
- 94,278. BACTERIOLOGICAL PRODUCTS FOR TREATMENT AND PREVENTION OF CERTAIN BACTERIAL INFECTION. THE FERMENT COMPANY, New York, N. Y.
Filed April 14, 1913. Serial No. 69,769. PUBLISHED SEPTEMBER 23, 1913.
- 94,279. AMMONIA, TOOTH-POWDER, WRITING FLUID, AND BLUING. THE FREDERICK H. FOX COMPANY, Syracuse, N. Y.
Filed February 24, 1913. Serial No. 68,683. PUBLISHED SEPTEMBER 23, 1913.
- 94,280. FRESH DECIDUOUS FRUITS. FRESNO FRUIT GROWERS Co., East Fresno, Cal.
Filed August 23, 1912. Serial No. 65,383. PUBLISHED MAY 6, 1913.
- 94,281. DOOR-LOCKS. EMIEL R. FUCHS, New York, N. Y.
Filed July 30, 1913. Serial No. 72,041. PUBLISHED SEPTEMBER 23, 1913.
- 94,282. CASEIN CALCIUM. THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y.
Filed July 22, 1913. Serial No. 71,883. PUBLISHED SEPTEMBER 23, 1913.
- 94,283. ORANGE-WOOD STICKS AND NAIL-BOARDS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,474. PUBLISHED SEPTEMBER 23, 1913.
- 94,284. ORANGE-WOOD STICKS AND NAIL-BOARDS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,477. PUBLISHED SEPTEMBER 23, 1913.
- 94,285. CANDIES. INGERSOLL CANDY COMPANY, San Diego, Cal.
Filed April 15, 1913. Serial No. 69,798. PUBLISHED SEPTEMBER 23, 1913.
- 94,286. COFFEE. INTERNATIONAL COFFEE Co., Houston, Tex.
Filed June 21, 1913. Serial No. 71,243. PUBLISHED SEPTEMBER 23, 1913.
- 94,287. COOKIES. ROBERT A. JOHNSTON Co., Milwaukee, Wis.
Filed July 3, 1911. Serial No. 57,455. PUBLISHED SEPTEMBER 23, 1913.
- 94,288. BREATH-TABLETS. KNOX JULIAN, Indianapolis, Ind.
Filed July 14, 1913. Serial No. 71,685. PUBLISHED SEPTEMBER 23, 1913.

- 94,289. PINEAPPLES. KOPF NURSERY & REALTY CO. Inc., New Haven, Conn.
Filed June 25, 1913. Serial No. 71,361. PUBLISHED SEPTEMBER 23, 1913.
- 94,290. ELECTRIC GENERATORS. THE KOUYOUMJIAN ELECTRIC AND MANUFACTURING COMPANY, Cleveland, Ohio.
Filed August 25, 1913. Serial No. 72,516. PUBLISHED SEPTEMBER 23, 1913.
- 94,291. DISINFECTANT AND INSECTICIDE. LEBANON CHEMICAL CO., Lebanon, Pa.
Filed August 13, 1913. Serial No. 72,321. PUBLISHED SEPTEMBER 23, 1913.
- 94,292. REMEDY FOR CERTAIN NAMED DISEASES. LEBANON CO-OPERATIVE MEDICINE CO., Lebanon, Tenn.
Filed January 29, 1913. Serial No. 68,182. PUBLISHED SEPTEMBER 9, 1913.
- 94,293. CERTAIN SYRUP EXTRACTS TO BE USED AS A BEVERAGE. LEMON BEER COMPANY, San Diego, Cal.
Filed August 21, 1913. Serial No. 72,470. PUBLISHED SEPTEMBER 23, 1913.
- 94,294. MACARONI, SPAGHETTI, VERMICELLI, AND EGG-NOODLES. F. A. MATTOCCIO MACARONI COMPANY, Minneapolis, Minn.
Filed January 29, 1913. Serial No. 68,198. PUBLISHED MAY 20, 1913.
- 94,295. BEER. WILLIAM MCEWAN & CO., LIMITED, Edinburgh, Scotland.
Filed September 21, 1912. Serial No. 65,901. PUBLISHED APRIL 15, 1913.
- 94,296. HAIR-RESTORATIVE. ALICE A. MCGEE, Glendale, Cal.
Filed May 27, 1913. Serial No. 70,695. PUBLISHED SEPTEMBER 23, 1913.
- 94,297. INSECTICIDE. MERIDIAN CHEMICAL COMPANY, Washington, D. C.
Filed July 17, 1913. Serial No. 71,813. PUBLISHED SEPTEMBER 23, 1913.
- 94,298. CONDENSED SKIMMED MILK. MICHIGAN CONDENSED MILK CO., New York, N. Y.
Filed September 16, 1912. Serial No. 65,803. PUBLISHED NOVEMBER 19, 1912.
- 94,299. CHEWING-GUM. EDWARD K. MORRIS, Baltimore, Md.
Filed June 11, 1913. Serial No. 71,023. PUBLISHED SEPTEMBER 23, 1913.
- 94,300. TEA AND COFFEE. NALLEY GROCERY CO., Austin, Tex.
Filed January 6, 1913. Serial No. 67,748. PUBLISHED MARCH 25, 1913.
- 94,301. GARMENT-LACERS AND SHOE-LACERS. THE NARROW FABRIC CO., Wyomissing, Pa.
Filed May 3, 1913. Serial No. 70,212. PUBLISHED JULY 29, 1913.
- 94,302. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 30, 1912. Serial No. 64,993. PUBLISHED APRIL 8, 1913.
- 94,303. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,251. PUBLISHED SEPTEMBER 23, 1913.
- 94,304. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,252. PUBLISHED SEPTEMBER 23, 1913.
- 94,305. BISCUIT AND BREAD. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,253. PUBLISHED SEPTEMBER 23, 1913.
- 94,306. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,254. PUBLISHED SEPTEMBER 23, 1913.
- 94,307. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,256. PUBLISHED SEPTEMBER 23, 1913.
- 94,308. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,257. PUBLISHED SEPTEMBER 23, 1913.
- 94,309. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,259. PUBLISHED SEPTEMBER 23, 1913.
- 94,310. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,265. PUBLISHED SEPTEMBER 23, 1913.
- 94,311. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,266. PUBLISHED SEPTEMBER 23, 1913.
- 94,312. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,267. PUBLISHED SEPTEMBER 23, 1913.
- 94,313. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,268. PUBLISHED SEPTEMBER 23, 1913.
- 94,314. BEER. OBERMEYER & LIEBMANN, Brooklyn, N. Y.
Filed August 21, 1913. Serial No. 72,472. PUBLISHED SEPTEMBER 23, 1913.
- 94,315. BEER. OBERMEYER & LIEBMANN, Brooklyn, N. Y.
Filed August 21, 1913. Serial No. 72,473. PUBLISHED SEPTEMBER 23, 1913.
- 94,316. BEER. OBERMEYER & LIEBMANN, Brooklyn, N. Y.
Filed August 21, 1913. Serial No. 72,474. PUBLISHED SEPTEMBER 23, 1913.
- 94,317. PREPARATION FOR THE TREATMENT OF SKIN DISEASES. LAWRENCE O'BRIEN, San Francisco, Cal.
Filed July 21, 1913. Serial No. 71,875. PUBLISHED SEPTEMBER 16, 1913.
- 94,318. CERTAIN NAMED TRAYS, BOXES, AND HOLDERS. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed April 3, 1913. Serial No. 69,584. PUBLISHED JUNE 3, 1913.
- 94,319. TALCUM POWDER AND TOOTH-POWDER. PEERLESS DRUG CO., New York, N. Y.
Filed December 7, 1912. Serial No. 67,277. PUBLISHED SEPTEMBER 23, 1913.
- 94,320. MACARONI. JOSEPH PETROCELLI & COMPANY, New York, N. Y.
Filed June 21, 1913. Serial No. 71,270. PUBLISHED SEPTEMBER 23, 1913.
- 94,321. PLAYING-CARDS. ELSWORTH PICKEL, Portland, Oreg.
Filed July 17, 1913. Serial No. 71,816. PUBLISHED SEPTEMBER 23, 1913.
- 94,322. ASH-SIFTERS. RICE AND COMPANY INCORPORATED, Lowell, Mass.
Filed July 15, 1912. Serial No. 64,741. PUBLISHED SEPTEMBER 23, 1913.
- 94,323. INSECT-POWDER. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed August 9, 1913. Serial No. 72,252. PUBLISHED SEPTEMBER 23, 1913.
- 94,324. BUTTER AND EGGS. THE ROCK ISLAND BUTTER CO., Toledo, Ohio.
Filed June 23, 1913. Serial No. 71,321. PUBLISHED SEPTEMBER 23, 1913.

- 94,325. BEER. JACOB RUPPERT, New York, N. Y.
Filed August 19, 1913. Serial No. 72,419. PUBLISHED SEPTEMBER 23, 1913.
- 94,326. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. WM. J. RYAN, Philadelphia, Pa.
Filed May 23, 1913. Serial No. 70,590. PUBLISHED SEPTEMBER 23, 1913.
- 94,327. CANDY. SCHANDEIN & LIND CO., Philadelphia, Pa.
Filed April 18, 1913. Serial No. 69,906. PUBLISHED SEPTEMBER 23, 1913.
- 94,328. FILTERING-PAPERS. CARL SCHLEICHER & SCHÜLL, Düren, Germany.
Filed May 29, 1913. Serial No. 70,765. PUBLISHED SEPTEMBER 23, 1913.
- 94,329. PREPARATION FOR TREATMENT OF BITES AND STINGS OF POISONOUS INSECTS. FREDERICK W. SCHOONMAKER, Jr., New York, N. Y.
Filed July 23, 1913. Serial No. 71,922. PUBLISHED SEPTEMBER 16, 1913.
- 94,330. AUTOMOBILES. WILLIAM K. SHELLEY, Baltimore, Md.
Filed July 23, 1913. Serial No. 71,921. PUBLISHED SEPTEMBER 23, 1913.
- 94,331. PREPARATION OF MILK AND CHOCOLATE. JAMES C. SMITH, Dumont, N. J.
Filed March 14, 1913. Serial No. 69,039. PUBLISHED SEPTEMBER 23, 1913.
- 94,332. BITTERS. SPLIT BITTER CO., Peoria, Ill.
Filed April 22, 1913. Serial No. 69,997. PUBLISHED SEPTEMBER 23, 1913.
- 94,333. CATSUPS. TADAJIRO TAMAKI, Seattle, Wash.
Filed May 26, 1913. Serial No. 70,680. PUBLISHED SEPTEMBER 23, 1913.
- 94,334. LINIMENT FOR RHEUMATISM. JOHN J. TIGHE, Dracut, Mass.
Filed July 8, 1913. Serial No. 71,599. PUBLISHED SEPTEMBER 23, 1913.
- 94,335. BUTTER-PAPER, MANILA PAPER, AND TOILET-PAPER. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,258. PUBLISHED SEPTEMBER 23, 1913.
- 94,336. PAPER BAGS. THE UNION BAG AND PAPER COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 6, 1913. Serial No. 70,272. PUBLISHED JULY 22, 1913.
- 94,337. CAUSTIC SODA AND SODA-ASH. THE UNITED ALKALI COMPANY LIMITED, county of Lancaster and Liverpool, England.
Filed June 7, 1913. Serial No. 70,962. PUBLISHED SEPTEMBER 23, 1913.
- 94,338. HEALING-SALVE, LIVER-PILLS, AND REMEDY FOR AGUE. AUGUST H. VORDICK, St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,789. PUBLISHED SEPTEMBER 9, 1913.
- 94,339. ORANGES AND GRAPE-FRUIT. FRED D. WAITE, Palmetto, Fla.
Filed March 17, 1913. Serial No. 69,135. PUBLISHED MAY 6, 1913.
- 94,340. POWDER. WEDGERITE POWDER COMPANY, Boston, Mass.
Filed January 27, 1913. Serial No. 68,160. PUBLISHED SEPTEMBER 23, 1913.
- 94,341. HAM. WESTERN SAUSAGE & PROVISION CO., INCORPORATED, New York, N. Y.
Filed April 22, 1913. Serial No. 69,998. PUBLISHED SEPTEMBER 23, 1913.
- 94,342. LARD. THE W. J. WILCOX LARD & REFINING COMPANY, New York, N. Y.
Filed April 24, 1913. Serial No. 70,049. PUBLISHED SEPTEMBER 16, 1913.
- 94,343. COMPOUND FOR FLAVORING TOBACCO USED IN THE MANUFACTURE OF CIGARS. JOSEPH YENN, Rock Island, Ill.
Filed July 11, 1913. Serial No. 71,667. PUBLISHED SEPTEMBER 23, 1913.

LABELS

REGISTERED NOVEMBER 23, 1913.

- | | |
|--|---|
| <p>17,368.—Title: "SUNSHINE COFFEE." (For Coffee.) THADDEUS S. AFFLECK, New York, N. Y. Filed September 17, 1913.</p> <p>17,369.—Title: "\$1,000.00 PURE SUGAR STICK CANDY." (For Candy.) M. M. JOHANNSEN CANDY CO., Dubuque, Iowa. Filed July 7, 1913.</p> <p>17,370.—Title: "GOLDEN HEARTS OF ALL CEREAL FOOD." (For Cereal Food.) KUCK CEREAL COMPANY, Spokane, Wash. Filed October 29, 1913.</p> <p>17,371.—Title: "LA PORTE WASH GOODS." (For Wash Goods.) LA PORTE WOOLEN MILLS, Laporte, Ind. Filed October 16, 1913.</p> | <p>17,372.—Title: "MADE WELL." (For Bread.) THE MIRROR PRINTING CO., Albion, Mich. Filed September 26, 1913.</p> <p>17,373.—Title: "PREMIER." (For Brooms.) PREMIER BROOM & BRUSH CO., Amsterdam, N. Y. Filed November 7, 1913.</p> <p>17,374.—Title: "RAY." (For Brooms.) PREMIER BROOM & BRUSH CO., Amsterdam, N. Y. Filed November 7, 1913.</p> <p>17,375.—Title: "EL. POTVINO." (For Cigars.) SAGINAW SPECIALTY COMPANY, Saginaw, Mich. Filed October 24, 1913.</p> |
|--|---|

PRINTS

REGISTERED NOVEMBER 23, 1913.

- | | |
|---|--|
| <p>3,428.—Title: "SATURDAY EVENING POST." (For Collars and Cuffs.) CLUETT, PEABODY & CO., INC., Troy, N. Y. Filed October 15, 1913.</p> <p>3,429.—Title: "RUN 'EM OUT OF TOWN." (For Egg-Testers.) WILLIAM RIGLING, Hamilton, Ohio. Filed September 12, 1913.</p> | <p>3,430.—Title: "TWO BAD EGGS." (For Egg-Testers.) WILLIAM RIGLING, Hamilton, Ohio. Filed September 12, 1913.</p> <p>3,431.—Title: "POLARINE." (For Motor-Oil.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed November 11, 1913.</p> |
|---|--|

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE HILDEBRANDT.

Decided November 11, 1913.

APPLICATION—PROSECUTION—UNAVOIDABLE DELAY.

Where an attorney prepared amendments in two applications and forwarded them to his Washington associate in ample time to have been filed within the statutory period, but through an inadvertence only one of such amendments was filed, and within a reasonable time thereafter inquiry was made as to the status of the other application, and upon learning that the amendment was not of record a petition was promptly filed, *Held* that the application is not abandoned.

ON PETITION.

APPARATUS FOR SEPARATING GAS MIXTURES CONSISTING OF CASES OF DIFFERENT BOILING-POINTS

Messrs. H. B. Willson & Co. and Mr. H. Schweitzer for the applicant.

Ewing, Commissioner:

This is a petition that the above-entitled application be held not abandoned.

It appears from the affidavits that an amendment to this application was prepared and sent to the Washington associate of the attorney in ample time, but through some inadvertence this amendment was not filed, although one sent at the same time in a companion application was filed. Not hearing from the Office, inquiry as to the status of this application was made by the attorney within a reasonable time after the supposed filing of the amendment, and the petition was filed promptly thereafter.

Under these circumstances the delay in the prosecution of the application is held to have been unavoidable.

The petition is granted.

EX PARTE MCPHERSON.

Decided November 11, 1913.

1. APPLICATION—PROSECUTION—FINAL REJECTION.

Where a clear issue has been reached between the applicant and Examiner, *Held* that the final rejection may be properly entered on the second action in the case.

2. SAME—SAME—STATEMENT BY THE EXAMINER THAT DEVICE IS UNPATENTABLE—NOT OBJECTIONABLE.

A statement by the Examiner that applicant's device is unpatentable cannot be construed as casting a cloud upon the title of the patent should the Examiner be

reversed. Such a statement is merely intended to fully apprise the applicant of the Examiner's judgment and of the futility of further prosecution before him.

ON PETITION.

CALCULATING-MACHINE.

Mr. Obed C. Billman for the applicant.

FRAZIER, First Assistant Commissioner:

This is a petition asking the Commissioner to instruct the Primary Examiner, first, to withdraw the final rejection of October 24, 1912, as premature; second, requiring the Examiner, without any further action on the part of the applicant, to examine claims 1 and 2 on their merits and to explain and apply the respective references to the claims; third, that the Examiner be advised that his Office action of October 24 did not constitute a proper action or response to applicant's amendment filed August 3, 1912, and that at that time no issue was reached with applicant; fourth, that the Examiner be instructed to withdraw the third paragraph of the Office letter of July 10, 1912, as unfair to the inventor, particularly in second Office action, and as an intrusion upon the prerogatives of the Federal courts, and, fifth, for such other and further relief in the premises as to the Commissioner may seem equitable and proper.

The record shows that the first Office action of April 1, 1912, rejected all the claims on either the patent to Duncan, No. 591,332, or Schleicher, No. 668,070. In this rejection the Examiner specifically stated that each of the patents cited shows—product panels and multiplier numerals on rotatable disks, the former also showing slits.

Following this action the claims were rejected under date of July 10, 1912, the Examiner holding that the device is fully anticipated in the device of record. He further points out specifically the elements he regards as disclosed in the art of record. In the official letter of October 24, 1912, the Examiner states that he does not regard the device as patentable, and in view of the issue reached with applicant, in accordance with the ruling in *ex parte Miller*, (1910, C. D., p. 15.) the claims were finally rejected. The Examiner in his statement calls attention to the fact that the device disclosed in this application and covered by the claims is a simple one and that the two references were equally simple. He further states:

Applicant has had two opportunities of patentably distinguishing his device from the references but the amended

[Vol. 196. No. 4.]

claims read as well on the references, particularly Fig. 1 of the Duncan patent as they did originally. Indeed it would seem to be impossible to patentably distinguish from the references and it is believed that no useful purpose would be subserved by continuing the prosecution and that this case falls under the decision, *ex parte Miller*, (1910, C. D.)

The Examiner's actions in the case have been clear and explicit, notwithstanding which it appears that applicant's amendments instead of distinguishing from the references still leave the claims readable upon the references, particularly Fig. 1 of the Duncan patent. Although there were but two actions, it is clear that an issue has been reached between the Examiner and the applicant. No useful purpose would be served by sending this case back to the Examiner for further treatment. The result would be the same, as the judgment of the latter is obviously fixed and the reasons in support plainly stated.

The Examiner's opinion that the device is not patentable over the devices shown in the prior art was apparently not intended to cloud the title to a patent, should such be granted, any more than the specific rejection of the claims. It was obviously intended to fully advise the applicant of the Examiner's judgment and to apprise him of the futility of further prosecution of the case before him.

Under these circumstances it is believed that the Examiner's action was correct, and the petition is denied.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Seventh Circuit.

LUDWIGS v. PAYSON MFG. CO. PAYSON MFG. CO. v. LUDWIGS.

Decided April 15, 1913.

206 FED. REP., 60.

1. PATENTS—VALIDITY AND INFRINGEMENT—SASH-LOCK.

The Payson patent, No. 623,620, for a sash-lock, was not anticipated and discloses invention; also held infringed.

2. COURTS—JURISDICTION—INFRINGEMENT OF PATENT—INCIDENTAL UNFAIR COMPETITION.

Where in a suit in equity for infringement the evidence which proves infringement also establishes that defendant made the infringing article in imitation of the patented device in form and appearance, such imitation, while constituting unfair competition, is in a fairer aspect an aggravation of the infringement, and damages therefor are recoverable in the same suit, regardless of the citizenship of the parties.

STATEMENT OF THE CASE.

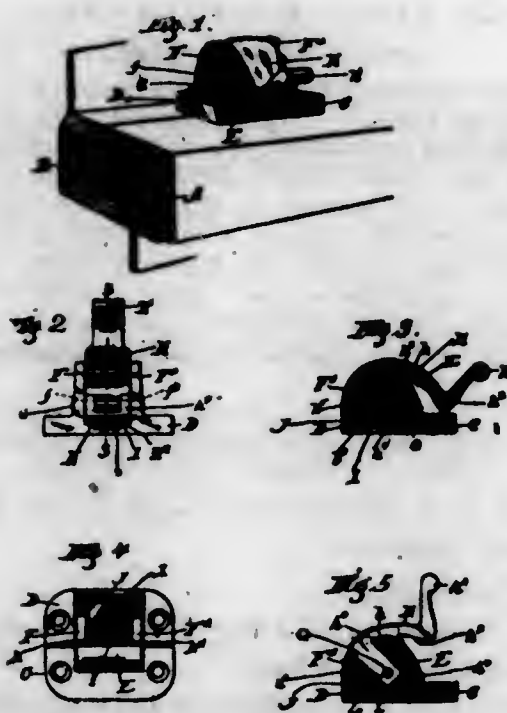
Payson Company, an Illinois corporation, is the owner of Patent No. 623,620, issued on April 25, 1899, to Joseph R. Payson, for a sash-lock. "Incidentally," the patent states, "the invention aims to cheapen the manufacture, and bring the lock into compact and ornamental shape or form." Payson Company has built up a large trade in this lock, particularly for use in buildings, like school-houses, where the lock cannot be reached from the floor except by the use of a window-pole; has embodied the mechanical principles of the invention in the "ornamental shape" pictured in the drawings of the patent; and, to identify its product, has stamped the word "Payson" on the locks.

Ludwigs, a citizen of Illinois, is a dealer in hardware. For a time he filled his orders for Payson locks by purchasing genuine ones from Payson Company. Later he procured a brass-founder to

cast for him spurious ones by using the genuine as a pattern. Material, color, form, and marks of the genuine were reproduced in the spurious. Thereafter Ludwigs filled orders by mixing a few genuine with many spurious which he passed off as genuine.

Payson Company's bill set up the patent and Ludwigs's sales, and charged that the sales infringed trade as well as patent-rights. On pleadings and proofs the court decreed that the patent was void for lack of invention, but further decreed that Ludwigs be enjoined not only from selling or offering to sell the counterfeits, but also from making or using them, and ordered an accounting of Ludwigs's profits and Payson Company's damages by reason of Ludwigs's interference with Payson Company's exclusive right to make, use, and sell. Both parties have appealed, and the questions are the validity of the patent and the right to count on trade damages in a patent suit between citizens of the same State.

Drawings, description, and claims of the patent follow:



My invention relates to certain improvements relating to a sash-lock adapted for use upon the meeting-rails of window-sashes and the like, the objects of the invention being to provide a lock that can be securely fastened by merely pulling forward a locking-arm without any secondary or additional movement or locking device, also one that can be unlocked by merely pushing backward said locking-arm, and also one that indicates at a glance by the appearance of the lock and the position of the parts thereof whether the sashes are locked or not.

Incidentally, of course, the invention aims to cheapen the manufacture and bring the lock into compact and ornamental shape or form.

To such end the invention consists in certain features of novelty and improvement which will be fully described and claimed in the following specification.

The invention is illustrated in the drawings by means of five figures, of which—

Figure 1 is a perspective of the preferred form of my improved sash-lock, showing the same in position upon portions of the meeting-rails of two window-sashes. Fig. 2 is a front elevation of the back plate of the lock and the parts connected therewith, showing said parts in the position assumed by them when the lock is unlocked. Fig. 3 is a vertical section in line 3-3 of Fig. 2, showing the locking parts in their locked position and showing the front plate in cooperative relation thereto. Fig. 4 is a top plan of the front and back plates and a spring held in the back plate; and Fig. 5 is a view similar to Fig. 3, with the exceptions that the locking-arm is shown in side elevation and in a position intermediate between the locked and unlocked positions.

In the drawings the meeting-rail of the lower sash is lettered A and that of the upper sash B.

C is a plate adapted to be attached to the rail A and commonly called the "front" plate.

D is a plate adapted to be attached to the rail B and commonly called the "back" plate. Upon the rear portion of the front plate C is a substantially vertical lug or flange E, approximately parallel with the meeting-rails, and upon the back plate are two vertical tongues or lugs F F', substantially at right angles to said meeting-rails and arranged parallel to each other and having

[Vol. 196.

No. 4.]

their outer surfaces preferably in the planes of the opposite ends of the flange E. The tops and rear edges of the lugs F F' are joined by a curve substantially concentric about an axis indicated by pivot-holes f f'. In the two lugs and a pivot G, secured in said holes. Upon this pivot is secured a swinging-arm H, extended into a segmental hook h, which terminates in a handle h'. The segmental hook has an internal curved surface substantially parallel with the pivot G and preferably having a portion h² eccentric to said pivot and a portion h³ concentric therewith. The portion h² diverges from said pivot toward the end of the hook, and the internal surface of the hook as a whole is intended to engage with the upper portion of the vertical flange E, the movement of the eccentric or cam-shaped portion h² over the top of the flange being adapted to draw the back plate upward and forward and the function of the concentric portion h³ being to permit the final forward movement of the hook to be made without further motion of the meeting-rails. This is of double advantage. In the first place it removes any possibility of picking the lock or of its unlocking itself because of any jarring or shaking, however prolonged, and in the second place it makes the final forward movement of the handle easier than the prior movement, enabling the operator to tell readily when the sashes are securely locked.

The top of the vertical flange E is arranged as nearly as possible in the plane of the pivot G and some little distance above said pivot, so that the upward movement of the lower sash or the downward movement of the upper sash cannot disengage the lock. As a result of this arrangement the insertion of a tool and the pressing upward with the same against the internal curved surface of the hook also has no tendency to unlock the swinging-arm. It is of course impossible to put the top of the vertical flange and the pivot in the same vertical plane, as in that case it would be impossible for the two sashes to be moved one past the other, which is often necessary in cleaning. The degree of approximation toward the same vertical plane is not material, except that it shall be sufficient to accomplish the result above referred to. This arrangement of the pivot and the point of engagement between the arm and the vertical flange does not interfere with the holding of the sashes against lateral movement with respect to each other, because such movement necessarily draws down the hook upon the flange, tending to crowd down the lower sash or crowd up the upper sash, which is not permitted by the window-frame.

The pivoted end of the locking-arm is preferably squared about the pivot, so that the extreme end may have a horizontal under surface h⁴ when the sashes are locked and an adjacent surface h⁵, which becomes substantially horizontal when the sashes are unlocked. In a suitable recess b² in the back plate a horizontal spring I is placed, arranged to press upward upon the pivoted end of the locking-arm, thus tending to assist the final movement of said arm into either the locked or unlocked position and to hold said arm in either of said positions. A U-shaped spring is here shown held against horizontal movement between the two lugs F F', a flange J rising from the rear of the bottom plate between said lugs, and two projections K K' upon the inner surfaces of said lugs, the spring I is shown in Fig. 4, the upper portion being broken away to show the lower. Said lower portion has a tongue 4 extending forward between the projections K K' to prevent the downward pressure of the locking-arm as the latter is swung forward or backward.

The principal advantages of this sash-lock are its compact form, its neat and pleasing appearance, its great simplicity, making it easy and economical to manufacture and durable and not likely to get out of order when in use, and especially the great ease and simplicity of its operation and the evident and distinctive difference in the appearance of the lock in its locked and unlocked positions. To lock the parts, the lever is simply pulled forward, and to unlock the same it is thrown backward. In the locked position the lever as seen from the inside of the window lies within the outlines of the other portions of the lock and is not noticeable, whereas in the unlocked position it extends directly upward from the remainder of the lock and constitutes the most prominent feature thereof. It is practically impossible for any person, even if possessed of no mechanical talent whatever, to forget that when the lever is thrown backward and upward the lock is unlocked and that when it is thrown forward and downward the lock is locked. This makes it possible to determine at a glance whether the windows are fastened or not, which the average person cannot do if the only difference is caused by swinging the handle from right to left, or vice versa.

It is obvious that the specific form, construction, and arrangement of the various parts of the lock may be varied greatly without departing from the essential features thereof, and I therefore desire not to limit myself to the preferred construction herein shown and described in any of these particulars.

I claim as new and desire to secure by Letters Patent—1. A sash-lock having a back plate provided with a locking-arm pivoted near its front edge to swing forward in a plane substantially transverse to the meeting-rails of the sash, and a front plate provided with a vertical flange and upon its rear edge extending upward to a point above and approximately in the vertical plane of the pivot when the

arm is locked, said locking-arm being formed with a segmental hook having an under curve substantially parallel to its pivot and adapted to engage when locked with the top of the vertical flange; substantially as described.

2. In a meeting-rail sash-lock the combination with a front plate having a vertical flange upon its rear edge, of a back plate having a locking-arm pivoted to swing forward in a plane substantially transverse to the meeting-rails and upon a pivot below and approximately in the vertical plane of the top of the flange upon the front plate, said locking arm being provided with a hook having an internal surface substantially parallel with the arm-pivot and curved in the plane of the arm's movement, the rear portion of said curved surface being substantially concentric with the arm-pivot and the forward portion being eccentric thereto and receding forwardly therefrom; substantially as described.

3. The combination with the plate, D, having the swinging arm, H, provided with a squared lower end pivoted to said plate near the front thereof, of the spring, I, bearing upon said squared surfaces alternately and held in a socket in the plate formed by vertical flanges or lugs thereupon on the sides and in the rear and by the lugs, k k', in front, said spring, being formed with a tongue, 4, extending between said lugs k k', and giving a more forwardly-extending bearing for the spring upon said plate; substantially as described.

Mr. Frederick Benjamin and Mr. Benjamin T. Roodhouse for the appellant.

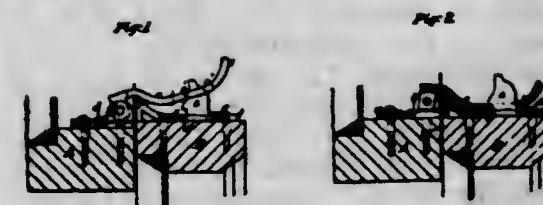
Mr. George P. Barton and Mr. George E. Folk for the appellee.

Before BAKER and KOHLSAAT, Circuit Judges, and ANDERSON, District Judge.

BAKER, Cir. J., (after stating the facts as above:)

1. Patents that show locking-levers operable in a horizontal plane need not be reviewed, for if the Thompson British Patent No. 2,060 of 1876, with a lever moving in a vertical plane, as does Payson's lever, neither anticipates the Payson combination nor teaches the mechanic how to modify and reconstruct the Thompson into the Payson device, certainly those others do not.

Thompson's Figs. 1 and 2 are here reproduced:



Construction and intended operation are thus described in the specification:

I form the fastener in two parts, one of which is fixed to the lower bar of the upper sash, and the other to the upper bar of the lower sash, as heretofore. I form one part thereof with a hinged lever, the knuckle of which is formed with flat sides which by the aid of a spring d, act to keep the said lever either in a vertical or horizontal position. The outer end of the said lever is formed with a slot, e', which is so arranged as to permit a sliding catch, e, on the other part of the fastener, to pass therethrough when the lever is pressed down into a horizontal position, then by sliding the said catch it is caused to pass over the metal at the end of the slot and thereby securely hold the two parts together. The lever is formed to act in combination with a projection or fulcrum on the other part of the fastener in such manner as to insure the proper closing of the sashes by the simple depression of the lever. If desired the sliding catch may be made self-acting (by means of the spring, g) to lock the parts together.

It seems quite clear to us that Thompson had no conception of a device in which the pulling forward or pushing backward of a lever in a vertical plane would lock or unlock the sashes "without any secondary or additional movement or locking device." He relied upon the lever and the opposing flange only to bring the sashes together laterally, and to his sliding catch he wholly ascribed the function of locking. So the Thompson patent is not an anticipation; and this virtually is confessed by Ludwigs's reliance on Thompson modified by omitting the catch.

[Vol. 196.

No. 4.]

But the modified Thompson structure is not a part of the prior art. (*Topliff v. Topliff*, 145 U. S., 156, 161; 12 Sup. Ct. 825; 36 L. Ed. 658.) It has been produced in the light of Payson's teachings. It is a subsequent art brought into being in the endeavor to defeat Payson. If, however, the sliding catch be omitted, what results? A locking device in which the locking function is lost with the removal of the locking element. For a glance at the drawings will show, what was demonstrated by tests of the model in court, that the pivot on which the lever is hinged and the top of the opposing flange on which the lever bears are so nearly in a horizontal line that a slight effort is effective to throw off the lever and raise the sash; while in the Payson lock the lever and the opposing flange are designedly so formed, and the pivot and flange are so nearly in a vertical line, that the practical art has been given what Payson promised—

a lock that can be securely fastened by merely pulling forward a locking arm without any secondary or additional movement or locking device.

If the mechanics of the case left any doubt, it should be resolved in favor of invention by reason of the lock's filling a special need, its success in commerce, the general acquiescence of the trade, and the tribute of Ludwigs's faithful imitation.

2. Counsel for Ludwigs cite several cases in support of their contention that under no circumstances can damages from unfair competition be lawfully included in patent litigation between citizens of the same State. (*Illinois Watch-Case Co. v. Elgin National Watch Co.*, 94 Fed., 667; 35 C. C. A., 237; *Keasby & Mattison Co. v. Philip Carey Mfg. Co.*, C. C., 113 Fed., 432; *King v. Inlander*, C. C., 133 Fed., 416; *Cushman v. Atlantis Fountain Pen Co.*, C. C., 164 Fed., 94; *Mecky v. Grabowski*, C. C., 177 Fed., 591; *Johnston v. Brass Goods Mfg. Co.*, D. C., 201 Fed., 368.) Whether or not such damages are cognizable if two separate and distinct matters or transactions are offered for investigation, or if, one matter alone being in evidence, the patent fails, we need not consider. For here the patent is found to be valid and infringed. Evidence of sales to prove infringement of the mechanical principles of the patent establishes also that Ludwigs unlawfully took the livery of Payson in order to make the sales. Under such circumstances (whether the compactness for cheapness of manufacture and the ornamental form are within the protection of the claims or not) a Federal court of equity in granting relief for the infringement of the mechanism ought not to remit the complainant to another forum to mete out the damages which necessarily appear in proving the infringement and which, though in one aspect arising from fraud in trade, in a fairer aspect are aggravations of the infringement. (*Globe-Wernicke Co. v. Fred Macy Co.*, C. C. A., 6th Circuit, 119 Fed., 696; 56 C. C. A., 304; *Adam v. Folger*, C. C. A., 7th Circuit, 120 Fed., 260; 56 C. C. A., 540; *Woods Sons Co. v. Valley Iron Works*, C. C. A., 166 Fed., 770; *Onondaga Indian Wigwam Co. v. Ka-Noo-No Indian Mfg. Co.*, C. C., 182 Fed., 832; *Ross v. Geer Co.*, C. C., 188 Fed., 731; *Saxlehner v. Eisner & Mendelsohn Co.*, 179 U. S., 19; 21 Sup. Ct., 7; 45 L. Ed., 60; *Siler v. Louisville, etc., R. Co.*, 213 U. S., 175; 29 Sup. Ct., 451; 53 L. Ed., 753.)

Consequently Ludwigs should respond fully for his wrongful conduct as shown in this record. In addition to being enjoined, he should be held to account, first, for the profits he has made by his infringement; second, for any additional profits Payson Company would have made if it had filled the orders for which Ludwigs supplied spurious locks; and, third, for any further damage Payson Company may have suffered in reputation and loss of trade resulting from the appearance of the spurious goods in the market.

Though the decree as entered respecting unfair competition must be modified, it is evident that Ludwigs gains nothing by his appeal. So the costs thereof, as well as of Payson Company's appeal, should be taxed against him.

The decree is vacated and the cause remanded, with the direction to enter a decree in favor of Payson Company in consonance with this opinion.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 7, 1913.

Frank C. McMullen, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Aktiebolaget Rotator, of 33 Storgatan, Sodertelje, Sweden, for registration of a trade-mark and Trade-Mark No. 74,099, registered June 15, 1909, to Frank C. McMullen, of 37 Kemble street, Boston, Mass., and a notice of such declaration sent by registered mail to Frank C. McMullen at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank C. McMullen, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Joseph Wassmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Voigt Brewery Co., of 203-213 Grand River avenue, Detroit, Mich., for registration of a trade-mark and Trade-Mark No. 13,648, registered September 7, 1886, to Joseph Wassmer, of New York, N. Y., and a notice of such declaration sent by registered mail to Joseph Wassmer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Joseph Wassmer, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 5, 1913.

Katherine Culver, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of J. C. Ayer Company, of 176 Middle street, Lowell, Mass., for registration of a trade-mark and Trade-Mark No. 68,514, registered April 14, 1908, to Katherine Culver, of West Jordan, Utah, and a notice of such declaration sent by registered mail to Katherine Culver at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Katherine Culver, her assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 31, 1913.

Louise H. Gordon, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Fountain Chemical Company, 208 North Liberty street, Baltimore, Md., for registration of a trade-mark and trade-mark registered May 22, 1888, No. 15,491, to Louise H. Gordon, 212 Columbus avenue, Boston, Mass., and a notice of such declaration sent by registered mail to said Louise H. Gordon at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Louise H. Gordon, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

[Vol. 196. No. 4.]

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS

AND OF THE UNITED STATES COURTS.

NOVEMBER, 1913.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

TABLE OF CASES.

	Page.		Page.
*Excelsior Shoe Company, The. <i>In re</i>	805	Mitchell. <i>Ex parte</i>	525
Forward. <i>In re</i>	275	*Stevenson v. Shalcross <i>et al.</i> Shalcross <i>et al.</i> v. Stevenson....	525
Hildebrandt. <i>Ex parte</i>	1051	Stier v. Marburg Brothers.....	803
Huntley. <i>Ex parte</i>	803	Stoddard v. Malms v. Peterson and Peterson.....	804
dLudwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs....	1052	dWestinghouse Mach. Co. <i>et al.</i> v. General Electric Co. <i>et al.</i>	276
McPherson. <i>Ex parte</i>	1051		

SUBJECT-MATTER INDEX.

	Page.		Page.
Abandonment of application, unavoidable delay in prosecution, <i>ex parte</i> Hildebrandt.....	1051	*Matters of common knowledge, judicial notice of, <i>in re</i> The Excelsior Shoe Company.....	805
Applications, election to prosecute divisible invention, cancellation of claims required by Examiner, <i>ex parte</i> Mitchell....	525	Motion to dissolve interference, definiteness justifying transmission, Stoddard v. Malms v. Peterson and Peterson....	804
Claims, election by original presentation, <i>ex parte</i> Mitchell....	525	Patentability of device, denial of by Examiner casts no cloud on title to patent if Examiner is reversed, <i>ex parte</i> McPherson.....	1051
dConstruction of section 4923, Revised Statutes, Westinghouse Mach. Co. <i>et al.</i> v. General Electric Co. <i>et al.</i>	276	dReduction to practice in foreign country, a nullity for the purpose of defeating a patent application unless it was patented or described in a printed publication, Westinghouse Mach. Co. <i>et al.</i> v. General Electric Co. <i>et al.</i>	276
dConstruction of specifications and patents, patent not held void because of use in a foreign country if not described in a printed publication, Westinghouse Mach. Co. <i>et al.</i> v. General Electric Co. <i>et al.</i>	276	Rejection of claims, action of Examiner, misunderstood by applicant, should not be made final on second action, <i>ex parte</i> Huntley.....	803
dValid and infringed, Ludwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs.....	1052	Trade-marks, applicant and registrant, motion to dissolve interference by registrant, Stier v. Marburg Brothers.....	803
dVoid as to part of claims for want of patentable invention and valid and not infringed as to other claims, Stevenson v. Shalcross <i>et al.</i> Shalcross <i>et al.</i> v. Stevenson.....	525	Interference, two marks, concurrent use, one the words "Bob White" and the representation of a bird, the other the word, "Quail" and two birds in a field, no charge of confusion, should be dissolved, Stier v. Marburg Brothers.....	803
dVoid for want of patentable invention, Stevenson v. Shalcross <i>et al.</i> Shalcross <i>et al.</i> v. Stevenson.....	525	*Name of organization, <i>in re</i> The Excelsior Shoe Company.....	805
Designs, amended petition for longer term entered before allowance of application if accompanied by additional fee, <i>in re</i> Forward.....	275	*The words "Boy Scout," for shoes, refused registration as either descriptive or deceptive, <i>in re</i> The Excelsior Shoe Company.....	805
Divisible inventions, cancellation of claims, <i>ex parte</i> Mitchell....	525		
Examiners-in-Chief, Examiner's action reviewable by, <i>ex parte</i> Mitchell.....	525		
Final rejection of claims, properly entered on second action where there is a clear issue between applicant and Examiner, <i>ex parte</i> McPherson.....	1051		
dInfringement, imitation of patented article in form and appearance, aggravation of, damages recoverable, Ludwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs.....	1052		

DIGEST

OF THE DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

NOVEMBER, 1913.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

ABANDONMENT OF APPLICATIONS.

See Prosecution of Applications, 3.

ACTION BY EXAMINER.

See Final Rejection of Claims; Prosecution of Applications, 1, 2, 4, 5.

ALLEGATIONS.

See Interference; Motion to Dissolve Interference, 2.

ALLOWANCE OF APPLICATION.

See Designs.

AMENDMENTS.

See Designs; Prosecution of Applications, 3.

ANTICIPATION.

See Particular Patents, 3.

APPLICANT AND REGISTRANT.

See Interference; Motion to Dissolve Interference, 1.

APPLICATIONS.

See Designs; Motion to Dissolve Interference, 2; Prosecution of Applications.

ARGUMENT.

See Final Rejection of Claims.

ATTORNEYS.

See Prosecution of Applications, 3.

CANCELATION OF CLAIMS.

See Prosecution of Applications, 1, 2.

CITIZENSHIP.

See Suits for Infringement.

COMMISSIONER OF PATENTS.

See Common Knowledge.

COMMON KNOWLEDGE.

TRADE-MARKS—NAME OF AN ORGANIZATION—JUDICIAL NOTICE.
"The appellant contends that as there was no evidence introduced to show that there is such an association or organization as the Boy Scouts, the Commissioner cannot take notice of the same. The rule that a judge is not to shut his eyes to what everybody else of intelligence knows, applies with peculiar force in proceedings in the Patent Office, for reasons that are obvious."
[* *In re The Excelsior Shoe Company*, 805.]

CONCURRENT USE OF TRADE-MARKS.

See Interference.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

See Particular Patents.

CONSTRUCTION OF STATUTES.

PATENTS—RIGHT TO PATENT—USE OF INVENTION IN FOREIGN COUNTRY.

Under Revised Statutes, section 4923, (U. S. Comp. St., 1901, p. 3396,) which expressly provides that a patent shall not be held to be void on account of the invention or discovery or any part thereof having been known or used in a foreign country before the patentee's invention or discovery thereof if it had not been patented or described in a printed publication, for the purpose of defeating a patent application a previous reduction to practice of the invention in a foreign country is a nullity unless it was patented or described in a printed publication.
[*Westinghouse Mach. Co. et al. v. General Electric Co. et al.*, 276.]

DAMAGES.

See Suits for Infringement.

DEFINITENESS.

See Motion to Dissolve Interference, 2.

DELAY IN PROSECUTION OF APPLICATIONS.

See Prosecution of Applications, 3.

DESIGNS.

PETITION FOR EXTENSION OF TERM—MAY BE ENTERED ANY TIME BEFORE ALLOWANCE.

An amended petition in an application for a design patent asking that the patent be granted for one of the longer terms provided by the statute will be entered if accompanied by the additional fee and presented before the allowance of the application. [In re Forward, 275.]

DISSOLUTION OF INTERFERENCE.

See Interference; Motion to Dissolve Interference.

DIVISION OF APPLICATIONS.

See Prosecution of Applications, 1, 2.

ELECTION OF CLAIMS.

See Prosecution of Applications, 1.

EVIDENCE.

See Common Knowledge; Suits for Infringement.

EXAMINERS-IN-CHIEF.

See Prosecution of Applications, 2.

FEES.

See Designs.

FINAL REJECTION OF CLAIMS.

See Prosecution of Applications, 4.

MISUNDERSTANDING BY THE APPLICANT.

Where in response to the first rejection an argument is filed, but it is evident from such argument that the applicant does not understand the ground of the Examiner's rejection, *Held* that the rejection should not be made final. [Ex parte Huntley, 803.]

FOREIGN INVENTION.

See Construction of Statutes.

INFRINGEMENT.

See Particular Patents, 2, 3; Suits for Infringement.

INTERFERENCE.

TRADE-MARKS—"BOB WHITE" AND "QUAIL"—MARKS USED CONCURRENTLY.

Where it appears that a mark consisting of the words "Bob White" and the representation of a bird and a mark consisting of the word "Quail" and the representation of two birds in a field have been used for a long period of time and there is no allegation of confusion, *Held* that an interference between these marks should be dissolved. [Stier v. Marburg Brothers, 803.]

INVENTION.

See Construction of Statutes; Particular Patents.

JURISDICTION OF THE COURTS.

See Suits for Infringement.

MOTION TO DISSOLVE INTERFERENCE.

1. TRADE-MARKS—MOTION BY THE REGISTRANT—DOUBTS RESOLVED IN FAVOR OF THE APPLICANT.

Where in an interference involving an application for registration and a registered trade-mark the registrant moves to dissolve, *Held* that any reasonable doubt on the question of registrability should be resolved in favor of the applicant. [Stier v. Marburg Brothers, 803.]

2. DEFINITENESS.

A motion to dissolve alleging that one of the parties cannot make the claims because the subject-matter thereof forms no part of his original application, since it did not include certain specified elements of the issue, *Held* sufficiently definite to justify transmission thereof. [Stoddard v. Malmis v. Peterson and Peterson, 804.]

NAME OF ORGANIZATION.

See Registrability of Trade-Marks.

PARTICULAR PATENTS.

1. STEVENSON—No. 817,199—DOOR-FRAME—VALIDITY.

The Stevenson patent, No. 817,199, for a door-frame, the distinctive feature of which is an angle-iron brace connecting the lower ends of the side jambs, to be embedded in a concrete floor, is void for lack of patentable invention. [4 Stevenson v. Shalcross et al. Shalcross et al. v. Stevenson, 525.]

2. SAME—No. 812,377—DOOR MECHANISM FOR COLD-STORAGE ROOMS—VALIDITY AND INFRINGEMENT.

The Stevenson patent, No. 812,377, for door-frames and mechanism for air-tight compartments, consisting of devices relating to the doors and shutters of cold-storage rooms having an overhead trolley to carry the load in and out of the room, *Held* void for lack of invention as to claims 1, 2, 3, and 7 and not infringed as to claims 4 and 5. [4 Id.]

3. PAYSON—No. 623,620—SASH-LOCK—VALIDITY AND INFRINGEMENT.

The Payson patent, No. 623,620, for a sash-lock, was not anticipated and discloses invention; also *Held* infringed. [4 Ludwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs, 1052.]

PATENTABILITY.

See Particular Patents; Prosecution of Applications, 5.

PRINTED PUBLICATION.

See Construction of Statutes.

PROSECUTION OF APPLICATIONS.

See Designs; Final Rejection of Claims.

1. ELECTION MAY BE MADE BY ORIGINAL PRESENTATION OF CLAIMS.

Where an applicant presented claims for a street-sweeping device and also claims which the Examiner rejected as aggregations of a specific scraper and a specific sweeping device and after such rejection presented specific claims to the scraper, *Held* that if the Examiner was of the opinion that the scraper and sweeper constituted divisible inventions he properly required the cancellation of the latter claims. [Ex parte Mitchell, 525.]

2. SAME—REQUIREMENT FOR CANCELATION—APPEAL.

Where the Examiner required that certain claims be canceled on the ground that the applicant had elected to prosecute a divisible invention, *Held* that the Examiner's action is reviewable in the first instance by the Examiners-in-Chief. [Id.]

3. UNAVOIDABLE DELAY.

Where an attorney prepared amendments in two applications and forwarded them to his Washington associate in ample time to have been filed within the statutory period, but through an inadvertence only one of such amendments was filed, and within a reasonable time thereafter inquiry was made as to the status of the other application, and upon learning that the amendment was not of record a petition was promptly filed, *Held* that the application is not abandoned. [Ex parte Hildebrandt, 1051.]

4. FINAL REJECTION.

Where a clear issue has been reached between the applicant and Examiner, *Held* that the final rejection may be properly entered on the second action in the case. [Ex parte McPhefson, 1051.]

5. STATEMENT BY THE EXAMINER THAT DEVICE IS UNPATENTABLE—NOT OBJECTIONABLE.

A statement by the Examiner that applicant's device is unpatentable cannot be construed as casting a cloud upon the title of the patent should the Examiner be reversed. Such a statement is merely intended to fully apprise the applicant of the Examiner's judgment and of the futility of further prosecution before him. [Id.]

REDUCTION TO PRACTICE.

See Construction of Statutes.

REGISTRABILITY OF TRADE-MARKS.

See Motion to Dissolve Interference, 1.

"BOY SCOUTS," FOR SHOES—DESCRIPTIVE OR DECEPTIVE.

The words "Boy Scouts" *Held* properly refused registration as a trade-mark for shoes as being either descriptive or deceptive, since these words would indicate to purchasers that the particular shoes were of a superior quality approved by the association of Boy Scouts and marked with their name with their authority. [In re The Excelsior Shoe Co., 805.]

REJECTION OF CLAIMS.

See Final Rejection of Claims.

RESPONSIVE ACTION BY APPLICANT.

See Final Rejection of Claims.

RIGHT TO MAKE CLAIMS.

See Motion to Dissolve Interference, 2.

RIGHT TO PATENT.

See Construction of Statutes.

SIMILARITY OF TRADE-MARKS.

See Interference.

SUITS FOR INFRINGEMENT.

COURTS—JURISDICTION—INFRINGEMENT OF PATENT—INCIDENTAL UNFAIR COMPETITION.

Where in a suit in equity for infringement the evidence which proves infringement also establishes that defendant made the

infringing article in imitation of the patented device in form and appearance, such imitation, while constituting unfair competition, is in a fairer aspect an aggravation of the infringement, and damages therefor are recoverable in the same suit, regardless of the citizenship of the parties. [4 Ludwigs v. Payson Mfg. Co. Payson Mfg. Co. v. Ludwigs, 1052.]

TERM OF PATENT.

See Designs; Prosecution of Applications, 5.

TITLE TO PATENT.

See Designs.

TRADE-MARKS.

See Common Knowledge; Interference; Motion to Dissolve Interference; Registrability of Trade-Marks.

TRANSMISSION OF MOTIONS.

See Motion to Dissolve Interference, 2.

UNFAIR COMPETITION.

See Suits for Infringement.

VOID PATENTS.

See Construction of Statutes; Particular Patents, 1, 2.

ALPHABETICAL LIST OF PATENTEEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1913.

[Abbreviations: "Gaz."—Official Gazette.]

- A. Schrader's Son. (See Tisne, Marcel H., assignor.)
A. F. Meisselbach & Brother. (See Catucci, Philny, assignor.)
A. H. & F. H. Lippincott. (See Lippincott, Fisher H., assignor.)
A. J. Ellis, Inc. (See Ellis, Alfred J., assignor.)
Abbott Coin Counter Company. (See Bisland, Pressley E., assignor.)
Abbott, Franklin E., Buffalo, N. Y. Combined railway-rail and rail-base plate. (Reissue.) No. 13,637; Nov. 4; Gaz. vol. 196; p. 250.
Abbott, James H., Philadelphia, Pa. Knife-sharpener. No. 1,077,249; Nov. 4; Gaz. vol. 196; p. 3.
Abrames, Erle L., and J. H. Coryell, Hayward, Okla. Vacuum-cleaner. No. 1,077,947; Nov. 4; Gaz. vol. 196; p. 243.
Acker, Julius J. (See Bundy and Acker.)
Ackerman, George, assignor of one-third to F. C. Bush, Salt Lake City, Utah. Sheet delivery and stacker. No. 1,078,569; Nov. 11; Gaz. vol. 196; p. 487.
Ackermann, Clemens W. and F. B., Chicago, Ill. Tie and tie-plate support. No. 1,078,980; Nov. 18; Gaz. vol. 196; p. 662.
Ackermann, Frank B. (See Ackermann, Clemens W. and F. B.)
Ackroyd, John H., Elizabeth, N. J. Gas-burner. No. 1,079,281; Nov. 18; Gaz. vol. 196; p. 764.
Actien Gesellschaft für Anilin Fabrikation. (See Herzberg and Hoppe, assignors.)
Actien Gesellschaft für Anilin Fabrikation. (See Herzberg and Lange, assignors.)
Adams-Bagnall Electric Company, The. (See Root, Ralph R., assignor.)
Adams, James P., Sioux Falls, S. D. Safety-check. No. 1,079,282; Nov. 18; Gaz. vol. 196; p. 765.
Adams, Stephen R., and L. H. Jackson, American Fork, Utah. Combined valve and governor. No. 1,079,626; Nov. 25; Gaz. vol. 196; p. 915.
Adams, W. Herbert, executor. (See Gould and Clouette, assignor.)
Adams & Westlake Company, The. (See Glese, James A., assignor.)
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Adams, William D., New York, N. Y. Refrigerator. No. 1,079,155; Nov. 18; Gaz. vol. 196; p. 725.
Adams, William J., Newtonville, Mass. Boat-plug. No. 1,079,627; Nov. 25; Gaz. vol. 196; p. 915.
Adamson, Ernie, Carrollton, Ga. Acetylene-generator. No. 1,079,823; Nov. 25; Gaz. vol. 196; p. 985.
Addograph Company. (See Crawley, Mansfield C., assignor.)
Adolf Bleichert & Company. (See Brunner and Schöndeling, assignors.)
Adrian, Benjamin. (See Calleson, Amos, assignor.)
Aermotor Company. (See Noyes, La Verne W., assignor.)
Alchete, Albert, Baden, Switzerland. Grinding of toothed wheels, milling-cutters, and the like. No. 1,078,570; Nov. 11; Gaz. vol. 196; p. 487.
Aikman, Burton S., Chicago, Ill., assignor to National Brake & Electric Company, Milwaukee, Wis. Pneumatic governor. No. 1,078,595; Nov. 11; Gaz. vol. 196; p. 496.
Aikman, Burton S., Chicago, Ill., assignor to National Brake & Electric Co., Milwaukee, Wis. Engineer's valve. No. 1,079,909; Nov. 25; Gaz. vol. 196; p. 1015.
Altken, William, Liverpool, England. Telephone-exchange system. No. 1,079,156; Nov. 18; Gaz. vol. 196; p. 725.
Altken, William, Liverpool, England. Telephone switching system. No. 1,079,533; Nov. 25; Gaz. vol. 196; p. 882.
Akre, John J., Spring Grove, Minn. Gate. No. 1,079,283; Nov. 18; Gaz. vol. 196; p. 765.
Aktieselskabet Record. (See Jensen, Andreas, assignor.)
Albert and J. M. Anderson Manufacturing Company. (See Andersen, Johan M., assignor.)
Alden, Herbert W., assignor to The Timken-Detroit Axle Company, Detroit, Mich. Vehicle-wheel. No. 1,078,760; Nov. 18; Gaz. vol. 196; p. 587.
Alexander, Alexander M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-skiving machine. No. 1,079,462; Nov. 25; Gaz. vol. 196; p. 858.
Alexander, William W., deceased, Denver, Colo.; E. T. Kelm, administrator, assignor, by mesne assignments, to The Protective Signal Manufacturing Company. Circuit-closing device. No. 1,077,948; Nov. 4; Gaz. vol. 196; p. 244.
Allbee, Elmer E., Arlington, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y. Heating system. No. 1,078,761; Nov. 18; Gaz. vol. 196; p. 587.
Allen, Alfred C., Detroit, Mich. Pressure-controller. No. 1,077,501; Nov. 4; Gaz. vol. 196; p. 93.
Allen, Charles F., New Brighton, N. Y. Producing tannin and the product. No. 1,078,893; Nov. 18; Gaz. vol. 196; p. 682.
Allen, Charles H., and C. J. Callahan, Attleboro, Mass. Non-separable link cuff-button. No. 1,078,892; Nov. 18; Gaz. vol. 196; p. 632.
Allen, Eugene S., New York, N. Y. Valve for gas-burners. No. 1,079,684; Nov. 25; Gaz. vol. 196; p. 934.
Allen, William. (See Ashby and Allen.)
Allen, William R., assignor to The American Multigraph Company, Cleveland, Ohio. Type. No. 1,078,400; Nov. 11; Gaz. vol. 196; p. 433.
Allen, William R., assignor to The American Multigraph Company, Cleveland, Ohio. Type-bar. No. 1,078,401; Nov. 11; Gaz. vol. 196; p. 433.
Allen, William R., assignor to The American Multigraph Company, Cleveland, Ohio. Stacking mechanism. No. 1,079,089; Nov. 18; Gaz. vol. 196; p. 701.
Allerton, Collin, West Homestead, Pa. Railway-tie. No. 1,078,596; Nov. 11; Gaz. vol. 196; p. 497.
Alliger, William T., J. W. Gamble, Philadelphia, Pa., and G. H. Gibson, Montclair, N. J., assignors to Harrison Safety Boiler Works, Philadelphia, Pa. Water purification. No. 1,078,655; Nov. 18; Gaz. vol. 196; p. 649.
Allis-Chalmers Manufacturing Company. (See Gray and Hintz, assignors.)
Allis-Chalmers Manufacturing Company. (See Sprado, Carl G., assignor.)
Allsop, Thomas, assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Conveyor for driers. No. 1,078,528; Nov. 11; Gaz. vol. 196; p. 474.
Allum, Arthur E., New York, N. Y. Tubular waistband. No. 1,077,250; Nov. 4; Gaz. vol. 196; p. 3.
Alston, Charles H. T., county of Chester, and P. T. Houston, London, England. Apparatus for regulating the supply of steam to gas-producers. No. 1,078,480; Nov. 11; Gaz. vol. 196; p. 458.
Altenhoff, Eduard, Oberhausen, Germany. Pneumatic rock-drill. No. 1,079,735; Nov. 25; Gaz. vol. 196; p. 953.
Altorfer, Alpheus W., Roanoke, assignor to Power Washing Machine Co., Peoria, Ill. Driving mechanism. No. 1,078,402; Nov. 11; Gaz. vol. 196; p. 433.
Amberger, Conrad. (See Paal and Amberger.)
Ambruster, Cornelius, Roslyn, Pa. Laminated contact-brush. No. 1,078,656; Nov. 18; Gaz. vol. 196; p. 649.
American Brake Shoe & Foundry Company. (See Gallagher, Joseph D., assignor.)
American Brake Shoe & Foundry Company. (See Harris, Joseph O., assignor.)
American Button Company. (See Goerdes, Frederick W., assignor.)
American Car and Foundry Company. (See Ames, John M., assignor.)
American Car and Foundry Company. (See Barrows, Donald S., assignor.)
American Car and Foundry Company. (See Bateman, Paul, assignor.)
American Car and Foundry Company. (See Hartbauer, August W. L., assignor.)
American Car & Foundry Company. (See Hartbauer and Sparks, assignors.)
American Car and Foundry Company, The. (See Johnson and Sheffer, assignors.)
American Car and Foundry Company. (See Ostrander, Allen E., assignor.)
American Car and Foundry Company. (See Price, Charles W., assignor.)
American Car and Foundry Company. (See Rohlfing, John M., assignor.)

American Car and Foundry Company. (See Scott, George W., assignor.)
 American Car and Foundry Company. (See Seymour, George E., assignor.)
 American Car and Foundry Company. (See Sparks and Hartbauer, assignors.)
 American Car and Foundry Company. (See Summa, Victor M., assignor.)
 American Conduit Manufacturing Company. (See Murphy, Daniel H., assignor.)
 American District Telegraph Company. (See Hoge, Joseph F. D., assignor.)
 American Encaustic Tiling Company. (See Stanbery, George A., assignor.)
 American Gasaccumulator Company. (See Dalén, Gustaf, assignor.)
 American Graphophone Company. (See Macdonald, Thomas H., assignor.)
 American Hardware Corporation, The. (See Henry, William K., assignor.)
 American Lacing Hook Co. (See Havener, Arthur R., assignor.)
 American Metal Cap Company. (See Hammer, Charles, assignor.)
 American Multigraph Company, The. (See Allen, William R., assignor.)
 American Multigraph Company, The. (See Osborn, Henry C., assignor.)
 American Nicotine Company. (See Gloystein, Christian R., assignor.)
 American Planograph Company. (See Cornwall, George R., assignor.)
 American Pneumatic Service Company. (See Bemis, Thomas, assignor.)
 American Seeding Machine Company, The. (See Packham, Frank H., assignor.)
 American Shade Machine Company. (See Colpitts, Calvin N., assignor.)
 American Speed Indicator Company. (See Kenney, Charles H., assignor.)
 American Stamp & Ticket Vending Machine Co. (See Angerstein, Hermann, assignor.)
 American Tool Works Company, The. (See Jantsch, Richard, assignor.)
 American Well Works, The. (See Chapman, Matthew T., assignor.)
 Ames, John M., Dongan Hills, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo. Truss-rod anchor. No. 1,078,235; Nov. 11; Gaz. vol. 196; p. 372.
 Amster, Walter O., Pittsburgh, Pa. Gas-producer. No. 1,077,578; Nov. 4; Gaz. vol. 196; p. 117.
 Amundson, Jens O. A., Stavanger, Norway. Machinery for drying milk and similar food. No. 1,078,603; Nov. 18; Gaz. vol. 196; p. 531.
 Andersen, Johan M., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass. Trolley-pole support. No. 1,078,762; Nov. 18; Gaz. vol. 196; p. 588.
 Andersen, Johan M., Suffolk, assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass. Electrical connection. No. 1,078,763; Nov. 18; Gaz. vol. 196; p. 588.
 Anderson, Benjamin, Gebro. Wyo. Pantograph. No. 1,079,910; Nov. 25; Gaz. vol. 196; p. 1015.
 Anderson, Charles E., Lake Andes, S. D. Gate. No. 1,077,449; Nov. 4; Gaz. vol. 196; p. 74.
 Anderson, David A., Chicago, Ill. Fireproof stair. No. 1,078,403; Nov. 11; Gaz. vol. 196; p. 434.
 Anderson, Edward V., Monesson, assignor of one-half to C. E. Golden, Crafton, Pa. Cushion-valve. No. 1,077,502; Nov. 4; Gaz. vol. 196; p. 94.
 Anderson, Edward V., Monesson, assignor of one-half to C. E. Golden, Crafton, Pa. Automatic valve. No. 1,077,503; Nov. 4; Gaz. vol. 196; p. 94.
 Anderson, Jacob I., Prescott, Ariz. Amalgamator. No. 1,079,534; Nov. 25; Gaz. vol. 196; p. 882.
 Anderson, F. J., Stoughton, Wis. Hay-scatterer. No. 1,077,967; Nov. 11; Gaz. vol. 196; p. 281.
 Anderson, Robert D. H., assignor of one-half to W. R. Rockhold, Cincinnati, Ohio. Incandescent-lamp hanger. No. 1,077,663; Nov. 4; Gaz. vol. 196; p. 146.
 Anderson, Sigurd E., Des Moines, Iowa. Silo-reinforcement. No. 1,077,949; Nov. 4; Gaz. vol. 196; p. 244.
 Andrews Wire & Iron Works. (See Dennis, Elmer L., assignor.)
 Andrus, Burton R. (See Selbert and Andrus.)
 Anger, Gottlieb, McKees Rocks, assignor of one-half to T. A. Sprague, Bellevue, Pa. Tire. No. 1,077,504; Nov. 4; Gaz. vol. 196; p. 94.
 Angerstein, Hermann, Berlin, Germany, assignor, by mesne assignments, to American Stamp & Ticket Vending Machine Co., New York, N. Y. Signaling device for letter-stamping apparatus. No. 1,079,319; Nov. 25; Gaz. vol. 196; p. 808.
 Anglund, Broer E., Atwater, Minn. Cream-cooler. No. 1,077,382; Nov. 4; Gaz. vol. 196; p. 50.
 Angood, Nev. Rockport, Wash., assignor of one-half to W. S. Prickett, Sidaw, Mich. Safe. No. 1,078,764; Nov. 18; Gaz. vol. 196; p. 589.
 Angus, Arthur R., Spit Road Moesman, New South Wales, Australia. Running-gear of railway-cars. No. 1,077,505; Nov. 4; Gaz. vol. 196; p. 95.
 Ankenmann, George, New York, N. Y. Billiard-cue tip. No. 1,077,664; Nov. 4; Gaz. vol. 196; p. 146.

Anspach, Francis G., assignor of one-third to V. B. Cannon, Deerfield, Mich. Controllable headlight for automobiles. No. 1,077,450; Nov. 4; Gaz. vol. 196; p. 74.
 Anthony, George W., Montpelier, Ind. Street-scraper. No. 1,079,587; Nov. 25; Gaz. vol. 196; p. 903.
 Antonuccio, Joseph, Fruitvale, Cal. Water-heater. No. 1,077,579; Nov. 4; Gaz. vol. 196; p. 117.
 Apple Electric Company, The. (See Apple, Vincent G., assignor.)
 Apple Electric Company, The. (See Sayre, Gordon, assignor.)
 Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Gearing. No. 1,079,090; Nov. 18; Gaz. vol. 196; p. 701.
 Appleby, John F., Beaver county, Okla., assignor to Dixie Cotton Picker Company, Redfield, S. D. Cotton-picking machine. No. 1,078,327; Nov. 11; Gaz. vol. 196; p. 405.
 Appleby, John F., Beaver county, Okla., assignor to Dixie Cotton Picker Company, Redfield, S. D. Cotton-picking machine. No. 1,078,328; Nov. 11; Gaz. vol. 196; p. 406.
 Appleman, Lewis W., Carl Junction, Mo. Drill-rig. No. 1,078,481; Nov. 11; Gaz. vol. 196; p. 459.
 Ariens, Henry, assignor to Brillion Iron Works, Brillion, Wis. Portable container. No. 1,078,981; Nov. 18; Gaz. vol. 196; p. 663.
 Armbruster, Albert, New York, N. Y. Machine for packing fuel in paper bags. No. 1,079,028; Nov. 25; Gaz. vol. 196; p. 916.
 Armstrong, Thomas H., assignor to S. Pearlman, Chicago, Ill. Gas-generator. No. 1,079,091; Nov. 18; Gaz. vol. 196; p. 702.
 Arnold, Arthur E., Weehawken, N. J. Nut-lock. No. 1,077,248; Nov. 4; Gaz. vol. 196; p. 3.
 Arnold, Arthur W., New York, N. Y. Automatic furnace-damper. No. 1,079,824; Nov. 25; Gaz. vol. 196; p. 985.
 Arnold, Harry R., assignor to The National Spring Bed Company, New Britain, Conn. Bed. No. 1,078,077; Nov. 11; Gaz. vol. 196; p. 318.
 Arnaburger, Frederick H., assignor of one-half to W. J. Rundle, Stockton, Cal. Automatic safety-crank and gear-shift for automobiles. No. 1,077,506; Nov. 4; Gaz. vol. 196; p. 95.
 Arnaburger, Walter D., Patch Grove, Wis. Transmission-gearing. No. 1,079,463; Nov. 25; Gaz. vol. 196; p. 858.
 Arrowsmith, James W., Morristown, N. J. Instep-support. No. 1,079,730; Nov. 25; Gaz. vol. 196; p. 953.
 Arrowsmith, James W., Morristown, N. J., assignor to Arrowsmith Manufacturing Company, Arch-support. No. 1,077,864; Nov. 4; Gaz. vol. 196; p. 213.
 Arrowsmith Manufacturing Company. (See Arrowsmith, James W., assignor.)
 Arsen, William C., Schenectady, N. Y., assignor to General Electric Company. Silicious material of low density. No. 1,077,950; Nov. 4; Gaz. vol. 196; p. 244.
 Arthur Colton Company. (See Colton, Arthur, assignor.)
 Asbury, Harry E., and W. C. Atkinson, Philadelphia, Pa. Device for removing obstructions from drain-pipes. No. 1,077,784; Nov. 4; Gaz. vol. 196; p. 186.
 Ashby, Archie P., and W. Allen, Virginia Beach, Va. Surgeon's operating-table. No. 1,078,894; Nov. 18; Gaz. vol. 196; p. 638.
 Asher, Joseph, Albany, N. Y. Sash-cord-fastening device. No. 1,079,685; Nov. 25; Gaz. vol. 196; p. 935.
 Ashley, George T., Santa Monica, Cal., assignor to Fairbanks-Morse Electrical Manufacturing Company, Indianapolis, Ind. Electrical controlling and regulating apparatus. No. 1,077,451; Nov. 4; Gaz. vol. 196; p. 75.
 Asmussen, Albert W., Treynor, Iowa. Planter. No. 1,078,121; Nov. 11; Gaz. vol. 196; p. 334.
 Asmussen, Louis C., Chicago, Ill. Seal-lock. No. 1,079,092; Nov. 18; Gaz. vol. 196; p. 702.
 Aspinwall, Robert S., Cleveland, Ohio, assignor to The Virden Manufacturing Company. Shade-holder. No. 1,077,384; Nov. 4; Gaz. vol. 196; p. 50.
 Atkins, Frank K., Philadelphia, Pa. Game apparatus. No. 1,077,865; Nov. 4; Gaz. vol. 196; p. 213.
 Atkinson, Edward M., Portland, Oreg. Collapsible stand. No. 1,079,385; Nov. 25; Gaz. vol. 196; p. 832.
 Atkinson, Wilbur C. (See Asbury and Atkinson.)
 Atlantic National Bank. (See Cummings, Henry H., assignor.)
 Atlas, Jacob, Vista Grande, Cal. Interchangeable window-weight. No. 1,077,924; Nov. 4; Gaz. vol. 196; p. 234.
 Atwood, Ernest O. (See Talbot, Ivan F., assignor.)
 Aufiero, Emanuel, Brooklyn, N. Y. Mechanical horn. No. 1,078,529; Nov. 11; Gaz. vol. 196; p. 474.
 Auracher, Dorothy D. (See Dyrenforth, Dorothy.)
 Austin, De Roy, Omaha, Nebr. Shoe. No. 1,078,571; Nov. 11; Gaz. vol. 196; p. 488.
 Austin, De Roy, Omaha, Nebr. Shoe. No. 1,079,535; Nov. 25; Gaz. vol. 196; p. 882.
 Austin, Frederick C. (See Bunnell, Morton G., assignor.)
 Austin, Herbert, San Antonio, Tex. Hose-nozzle holder. No. 1,078,817; Nov. 18; Gaz. vol. 196; p. 607.
 Austin, John T., assignor to Austin Organ Company, Hartford, Conn. Combination organ stop-action. No. 1,078,078; Nov. 11; Gaz. vol. 196; p. 319.
 Austin, John T., assignor to Austin Organ Company, Hartford, Conn. Combination organ stop-action. No. 1,078,079; Nov. 11; Gaz. vol. 196; p. 319.
 Austin, Minerva S. (See Noyes, Arthur A., assignor.)
 Austin Organ Company. (See Austin, John T., assignor.)

Austin, William A., and L. E. Feichtner, assignors to Lima Locomotive Corporation, Lima, Ohio. Geared locomotive with independently-hung axles. No. 1,077,580; Nov. 4; Gaz. vol. 196; p. 118.
 Auto-Sales Gum and Chocolate Company. (See Patterson, James W., assignor.)
 Automatic Electric Company. (See Keith, Alexander E., assignor.)
 Automatic Electric Company. (See Newforth, Frank, Jr., assignor.)
 Automatic Press Feeder Company. (See Kirkman, Karl F., assignor.)
 Automatic Racking Machine Company. (See Colby and Sippel, assignors.)
 Automatic Weighing Machine Company. (See Thomas, Edward G., assignor.)
 Avery, Charles E., Jersey City, N. J., assignor to Manhattan Electrical Supply Company, New York, N. Y. Electric switch. No. 1,078,404; Nov. 11; Gaz. vol. 196; p. 434.
 Avery, Lewis B., Bridgewater, Mich. Rein-guard. No. 1,077,327; Nov. 4; Gaz. vol. 196; p. 30.
 Axelsson Machine Co. (See Deuel, Joseph J., assignor.)
 Ayer, Alton E., assignor of one-half to J. Baxter, Boston, Mass. Warning device for telephone-booths and the like. No. 1,077,900; Nov. 4; Gaz. vol. 196; p. 225.
 Aylsworth, Jonas W., East Orange, assignor of one-half to F. L. Dyer, Montclair, N. J. Fire-extinguishing fluid. No. 1,078,030; Nov. 11; Gaz. vol. 196; p. 302.
 Aylsworth, Jonas W., East Orange, and F. L. Dyer, Montclair, N. J. Apparatus for distilling liquids and fuel-ble solids. No. 1,079,093; Nov. 18; Gaz. vol. 196; p. 702.
 B. F. Goodrich Company, The, et al. (See Gilbert, Joseph M., assignor.)
 B. F. Goodrich Company, The, et al. (See Wagenhorst, James H., assignor.)
 Babb, Jesse D., Dallas, Ga. Combined halter and yoke. No. 1,077,251; Nov. 4; Gaz. vol. 196; p. 4.
 Babson, Henry B., Chicago, Ill. Clutch. No. 1,079,094; Nov. 18; Gaz. vol. 196; p. 703.
 Bache, Leigh S., Roundbrook, N. J. Process of treating and coloring wood and product of such process. No. 1,077,252; Nov. 4; Gaz. vol. 196; p. 4.
 Backus, Frederick E., executor. (See Backus, Quimby S., assignor.)
 Backus Heater Company. (See Backus, Quimby S., assignor.)
 Backus, Quimby S., deceased; F. E. Backus, Brandon, Vt., executor, assignor to Backus Heater Company. Portable gas-bag fireplace. No. 1,079,686; Nov. 25; Gaz. vol. 196; p. 935.
 Bacon, George T. (See Brown, J. Grove, assignor.)
 Badische Anilin & Soda Fabrik. (See Ulrichs, Ernst, assignor.)
 Bailey, Carl E., Manchester, N. H., assignor to Draper Company, Hopedale, Mass. Beam-lock for looms. No. 1,077,385; Nov. 4; Gaz. vol. 196; p. 50.
 Bailey, Edward T., Aurora, Ill. Hinge-gage. No. 1,077,785; Nov. 4; Gaz. vol. 196; p. 187.
 Baird Corn Husker Co. (See Baird, William S., assignor.)
 Baird, William S., Urbana, assignor to Baird Corn Husker Co., Champaign, Ill. Corn-harvesting machine. No. 1,077,963; Nov. 4; Gaz. vol. 196; p. 248.
 Baker Casing Shoe Co. (See Baker, Reuben C., assignor.)
 Baker, Clifford M., Mason City, Iowa. Gate. No. 1,078,236; Nov. 11; Gaz. vol. 196; p. 372.
 Baker, George B., Duluth, Minn. Type-writer. No. 1,078,081; Nov. 11; Gaz. vol. 196; p. 320.
 Baker, Henry A., St. Louis, Mo. Automobile. No. 1,079,320; Nov. 25; Gaz. vol. 196; p. 809.
 Baker, Irvin, Latty, Ohio. Engine-valve control. No. 1,077,581; Nov. 4; Gaz. vol. 196; p. 118.
 Baker, Nelson M., Southbridge, Mass. Goggles. No. 1,078,405; Nov. 11; Gaz. vol. 196; p. 435.
 Baker, Reuben C., Coalinga, Cal. Plug for well-casings. No. 1,078,895; Nov. 18; Gaz. vol. 196; p. 633.
 Baker, Reuben C., Coalinga, Cal., assignor to Baker Casing Shoe Co. Well-casing shoe. No. 1,078,530; Nov. 11; Gaz. vol. 196; p. 474.
 Baker, William H., Montreal, Quebec, Canada. Stop-motion for looms. No. 1,078,406; Nov. 11; Gaz. vol. 196; p. 435.
 Bakke, Leopold, Chicago, Ill. Paper-gulge for presses. No. 1,078,657; Nov. 18; Gaz. vol. 196; p. 549.
 Bakke, Thore A. (See Sarrett and Bakke.)
 Baldwin, Daniel O., Cleveland, Ohio. Window-shield. No. 1,078,765; Nov. 18; Gaz. vol. 196; p. 589.
 Baldwin, Eli N., Jr., Stratford, Conn. Concealed hinge. No. 1,078,237; Nov. 11; Gaz. vol. 196; p. 373.
 Baldwin, Frederic E., New York, N. Y. Acetylene-gas lamp. No. 1,077,582; Nov. 4; Gaz. vol. 196; p. 118.
 Baldwin Locomotive Works, The. (See Vauclain, Linton, and Henderson, assignors.)
 Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Electric storage device. No. 1,077,507; Nov. 4; Gaz. vol. 196; p. 95.
 Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Electrically-heated cooking device. No. 1,077,866; Nov. 4; Gaz. vol. 196; p. 214.
 Ball, Warren A., Salem, Ohio. Sanitary receptacle. No. 1,078,604; Nov. 18; Gaz. vol. 196; p. 531.
 Ballner, Charles R. (See Geraerds and Ballner.)

Bally, Jean, Grenoble, France. Electric retort-furnace. No. 1,079,588; Nov. 25; Gaz. vol. 196; p. 903.
 Balzano, Peter, New Haven, Conn. Cue-shave. No. 1,079,687; Nov. 25; Gaz. vol. 196; p. 936.
 Bamber, John E., Rouse, Colo. Rail-joint. No. 1,079,825; Nov. 25; Gaz. vol. 196; p. 985.
 Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Centering or positioning mechanism for type casting and composing machines. No. 1,079,321; Nov. 25; Gaz. vol. 196; p. 810.
 Bangs, Edwin D., Milwaukee, Wis. Gas-engine starter. No. 1,077,386; Nov. 4; Gaz. vol. 196; p. 50.
 Bannerman, William, New York, N. Y. Shipping-blanks. No. 1,079,737; Nov. 25; Gaz. vol. 196; p. 953.
 Bannor, Martin J. (See Gray, William B., assignor.)
 Banwell, James, assignor of one-third to R. L. Beck, Cleveland, Ohio. Street-paving. No. 1,078,982; Nov. 18; Gaz. vol. 196; p. 663.
 Banzhaf, Ernst, Easton, Pa. Chimney. No. 1,078,983; Nov. 18; Gaz. vol. 196; p. 663.
 Baraduc-Muller, Louis M. V. H., Paris, France. Apparatus for treating molten metals, alloys, and steels. No. 1,077,025; Nov. 4; Gaz. vol. 196; p. 234.
 Barber-Colman Company. (See Colman, Howard D., assignor.)
 Barber-Colman Company. (See Peterson, Burt A., assignor.)
 Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery mechanism for printing-machines. No. 1,078,238; Nov. 11; Gaz. vol. 196; p. 373.
 Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery mechanism for printing-machines. No. 1,078,239; Nov. 11; Gaz. vol. 196; p. 373.
 Barber, John J. (See Vetter, William S., assignor.)
 Barber, William D., Chicago, Ill. Combined crib and intake. No. 1,078,658; Nov. 18; Gaz. vol. 196; p. 549.
 Barbour, George H., Pittsburgh, Pa. Rolling-mill. No. 1,078,240; Nov. 11; Gaz. vol. 196; p. 374.
 Barbour, George H., Pittsburgh, Pa. Apparatus for forming metal-reinforced composite slabs. No. 1,079,738; Nov. 25; Gaz. vol. 196; p. 954.
 Barbour, George H., Pittsburgh, Pa. Rolling flanged sections. No. 1,079,739; Nov. 25; Gaz. vol. 196; p. 954.
 Barker, Irving, Springfield, Ill. Pump for vacuum-cleaners. No. 1,078,329; Nov. 11; Gaz. vol. 196; p. 408.
 Barnard and Leas Manufacturing Company. (See Cornwall, John B., assignor.)
 Barnard, Louis E., Washington, D. C. Cord-cutter. No. 1,077,665; Nov. 4; Gaz. vol. 196; p. 146.
 Barnes, Pierre. (See Peter, John J., assignor.)
 Barnett, Otto R. (See Smith, Edgar M., assignor.)
 Barnhart, Edwin. (See Bent, Barnhart, and Ladd.)
 Barnum, Thomas E., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,079,386; Nov. 25; Gaz. vol. 196; p. 832.
 Barr, Carl, Chicago, Ill. Spring terminal clip. No. 1,078,706; Nov. 18; Gaz. vol. 196; p. 590.
 Barr, Frederic, New York, N. Y. Pull-socket switch. No. 1,079,740; Nov. 25; Gaz. vol. 196; p. 955.
 Barr, John M., assignor to Fairbanks-Morse Electrical Manufacturing Company, Indianapolis, Ind. Resistance-ring of rotors. No. 1,079,629; Nov. 25; Gaz. vol. 196; p. 916.
 Barrenpohl, Charles J., New York, N. Y. Combination ice bag, water-bottle, and fountain-syringe. No. 1,079,203; Nov. 18; Gaz. vol. 196; p. 741.
 Barrows, Donald S., Paterson, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Door-operating device. No. 1,078,241; Nov. 11; Gaz. vol. 196; p. 374.
 Barry, Charles E., Baltimore, Md. Smoke-cleaning device. No. 1,078,659; Nov. 18; Gaz. vol. 196; p. 550.
 Barry, Henry. (See Becker and Barry.)
 Barry Manufacturing Company. (See Becker and Barry, assignors.)
 Barry-Wehmiller Machinery Company. (See Dawson, Joseph W., assignor.)
 Bartels, Carl. (See Mosler and Bartels.)
 Bartels, Carl, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Safe-boltwork. No. 1,078,818; Nov. 18; Gaz. vol. 196; p. 608.
 Bartholomaj, Christ, Los Angeles, Cal. Centrifugal screen and classifier. No. 1,078,819; Nov. 18; Gaz. vol. 196; p. 608.
 Bartholomew, Ella R., Springfield, Ohio. Making dish-mats. No. 1,078,242; Nov. 11; Gaz. vol. 196; p. 375.
 Barton, Charles N., assignor of one-half to J. B. Blackman, Harrisburg, Ill. Cutting-bit for chains of mining-machines. No. 1,078,082; Nov. 11; Gaz. vol. 196; p. 320.
 Barry, Charles P., assignor to H. P. C. G. Debaugé, Paris, France. Regenerating vulcanized rubber. No. 1,079,464; Nov. 25; Gaz. vol. 196; p. 859.
 Bassett, Harry P., Catonsville, Md. Treatment of aluminum-bearing materials. No. 1,079,589; Nov. 25; Gaz. vol. 196; p. 903.
 Bastian, Charles O., London, England, assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electric vapor apparatus. No. 1,079,926; Nov. 25; Gaz. vol. 196; p. 1021.

Batchelor, William W., Chelsea, Mass. Conveyor-belt. No. 1,079,157; Nov. 18; Gaz. vol. 196; p. 725.
 Batdorf, Charles S., Brooklyn, N. Y. Four-motion feed. No. 1,079,322; Nov. 25; Gaz. vol. 196; p. 810.
 Bateman, Paul, assignor to American Car and Foundry Company, St. Louis, Mo. Carry-iron. No. 1,078,243; Nov. 11; Gaz. vol. 196; p. 375.
 Bateman, Paul, assignor to American Car and Foundry Company, St. Louis, Mo. Carry-iron. No. 1,078,244; Nov. 11; Gaz. vol. 196; p. 375.
 Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Gripper mechanism. No. 1,079,500; Nov. 25; Gaz. vol. 196; p. 903.
 Bates & Bacon. (See Coles, William E., assignor.)
 Bates, George A. (See Owen and Bates.)
 Bates Valve Bag Company. (See Truman and Tietz, assignors.)
 Batson, Matthew A., Springfield, Mass. Flying-machine. No. 1,077,786; Nov. 4; Gaz. vol. 196; p. 187.
 Baum, Henry G., assignor to Pullman Motor Car Company, York, Pa. Hinge for automobile-hoods. No. 1,079,536; Nov. 25; Gaz. vol. 196; p. 833.
 Baum, Louis, Paterson, N. J. Expandable reamer. No. 1,079,630; Nov. 25; Gaz. vol. 196; p. 916.
 Bauman, George C. (See Kane and Bauman.)
 Bausman, Alonzo L., Chicopee, Mass. Grinding-machine. No. 1,079,465; Nov. 25; Gaz. vol. 196; p. 859.
 Bayer, Charles S., New York, N. Y. Lubricating apparatus. No. 1,078,407; Nov. 11; Gaz. vol. 196; p. 435.
 Baxendale, Fredrick W., assignor of one-half to W. E. Baxendale, Streator, Ill. Weather-strip. No. 1,078,531; Nov. 11; Gaz. vol. 196; p. 475.
 Baxendale, Walter E. (See Baxendale, Fredrick W., assignor.)
 Baxter, Avery B., Frederick, Okla. Railway-spike. No. 1,077,583; Nov. 4; Gaz. vol. 196; p. 119.
 Baxter, John. (See Ayer, Alton E., assignor.)
 Bayles, Lewis C., Johannesburg, Transvaal, assignor to Ingersoll-Rand Company, New York, N. Y. Valve-motion for rock-drills. No. 1,077,584; Nov. 4; Gaz. vol. 196; p. 119.
 Bayley, George W. (See Willoughby, John, assignor.)
 Beach, Charles H. (See Strickland and Beach.)
 Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Signaling mechanism. No. 1,078,984; Nov. 18; Gaz. vol. 196; p. 643.
 Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Signaling system. No. 1,078,985; Nov. 18; Gaz. vol. 196; p. 644.
 Beach, Clarence E., and H. W. Doughty, Binghamton, assignors to G. O. Knapp, New York, N. Y. Signal-box. No. 1,079,309; Nov. 18; Gaz. vol. 196; p. 774.
 Beach, Edward W., Waterbury, Conn. Foundry-riddle. No. 1,078,532; Nov. 11; Gaz. vol. 196; p. 475.
 Bealer, Harrison K., Allentown, Pa. Water-heating device. No. 1,079,826; Nov. 25; Gaz. vol. 196; p. 986.
 Bean, Henry O., Coldwater, Kans. Combined hawk and trowel. No. 1,078,122; Nov. 11; Gaz. vol. 196; p. 334.
 Beard, Daniel, Newport, R. I. Safety-razor. No. 1,079,095; Nov. 18; Gaz. vol. 196; p. 703.
 Beattie, Joseph F., Hammond, Ind. Apparatus for refining lead. No. 1,078,408; Nov. 11; Gaz. vol. 196; p. 435.
 Beatty, Joseph H., Cromberg, Cal. Rail-chair. No. 1,079,204; Nov. 18; Gaz. vol. 196; p. 741.
 Beatty, Richard C., Buffalo, N. Y. Display device. No. 1,079,096; Nov. 18; Gaz. vol. 196; p. 703.
 Beatty, Richard C., Buffalo, N. Y. Display device. No. 1,079,097; Nov. 18; Gaz. vol. 196; p. 704.
 Beatty, Richard C., Buffalo, N. Y. Display device for bottles and analogous articles. No. 1,079,153; Nov. 18; Gaz. vol. 196; p. 725.
 Beaudette, Romeo A., Chippewa Falls, Wis. Clamping device. No. 1,078,533; Nov. 11; Gaz. vol. 196; p. 475.
 Beavens, John P., Burlington Junction, Mo. Card game. No. 1,078,330; Nov. 11; Gaz. vol. 196; p. 406.
 Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. (Release.) No. 13,641; Nov. 11; Gaz. vol. 196; p. 600.
 Beck, Edward E., assignor to Crown Die & Tool Company, Chicago, Ill. Cutting implement. No. 1,077,951; Nov. 4; Gaz. vol. 196; p. 244.
 Beck, Robert L. (See Banwell, James, assignor.)
 Becker, Bernhard, and H. Bafry, Chicago, Ill. assignors, by mesne assignments, to Barry Manufacturing Company. Carpet cleaning and renovating machine. No. 1,077,867; Nov. 4; Gaz. vol. 196; p. 214.
 Becker, John G., Campbell, Mo. Pea-drill. No. 1,079,310; Nov. 18; Gaz. vol. 196; p. 775.
 Becker, Julius H., San Francisco, Cal. Automatic cut-out mechanism for fluid-actuated devices. No. 1,078,986; Nov. 18; Gaz. vol. 196; p. 644.
 Becker, Paul, assignor to M. M. Koch, Cleveland, Ohio. Combined coal and gas range. No. 1,078,896; Nov. 18; Gaz. vol. 196; p. 633.
 Becker, Philip A., New York, N. Y. Display-ld. No. 1,079,466; Nov. 25; Gaz. vol. 196; p. 859.
 Beckert, Reinhardt W., Alsfeld, Germany. Tie for binding sheaves or the like. No. 1,079,098; Nov. 18; Gaz. vol. 196; p. 704.
 Beebe, Carl V., Mount Gilead, Ohio. Automobile-top. No. 1,079,205; Nov. 18; Gaz. vol. 196; p. 741.
 Beers, Henry H., Middlebury, Ind. Mole-trap. No. 1,079,827; Nov. 25; Gaz. vol. 196; p. 986.

Beery, Jesse, assignor to The Jesse Beery Company, Pleasant Hill, Ohio. Bridle-bit. No. 1,078,987; Nov. 18; Gaz. vol. 196; p. 665.
 Beggs, Jessie E., et al. (See Beggs, Thomas R., assignor.)
 Beggs, Thomas R., assignor to J. E. Beggs, New York, and W. A. Murray, Yonkers, N. Y. Beer-faucet. No. 1,077,387; Nov. 4; Gaz. vol. 196; p. 51.
 Beisel, William J., Brooklyn, N. Y. Non-refillable bottle. No. 1,079,387; Nov. 25; Gaz. vol. 196; p. 833.
 Bell, Charles W., Chicora, and S. P. Hillwig, Kaylor, Pa. Wheel. No. 1,079,828; Nov. 25; Gaz. vol. 196; p. 986.
 Bell, George M. D., Lucerne, Ind. Drift-wheel for piers and bridges. No. 1,077,508; Nov. 4; Gaz. vol. 196; p. 96.
 Bellemare, Edmond, Peoria, Ill. Tractor. No. 1,078,820; Nov. 18; Gaz. vol. 196; p. 608.
 Bemis, Richard A., San Bernardino, Cal. Wave-motor. No. 1,077,509; Nov. 4; Gaz. vol. 196; p. 96.
 Bemis, Thomas, Indianapolis, Ind., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass. Pneumatic despatch apparatus. No. 1,079,311; Nov. 18; Gaz. vol. 196; p. 775.
 Benage, George W., Juda, Wis. Nose-guard for cattle. No. 1,077,585; Nov. 4; Gaz. vol. 196; p. 119.
 Benedict, Franz C., assignor of one-half to A. Löwy, Vienna, Austria-Hungary. Blotting-cradle. No. 1,079,206; Nov. 18; Gaz. vol. 196; p. 741.
 Benedix, Bernhard. (See Golodetz, Abram, assignor.)
 Benjamin, Newton, Elmira, N. Y. Ash-sifter. No. 1,079,207; Nov. 18; Gaz. vol. 196; p. 742.
 Bennett, Augustus P., New York, N. Y. Ornament-holder for hats. No. 1,077,787; Nov. 4; Gaz. vol. 196; p. 187.
 Bennett, Eugene G., Carthage, Mo. Display-rack. No. 1,077,788; Nov. 4; Gaz. vol. 196; p. 188.
 Bennett, Frederick, Ravenswood, assignor to Walker & Bennett Manufacturing Company, New York, N. Y. Car-seat. No. 1,078,767; Nov. 18; Gaz. vol. 196; p. 690.
 Bennett, Frederick, Ravenswood, assignor to Walker & Bennett Manufacturing Company, New York, N. Y. Car-seat. No. 1,078,897; Nov. 18; Gaz. vol. 196; p. 634.
 Bennett-O'Connell Co. (See Schulte, Louis, assignor.)
 Bennett, Russell B., Westerville, Ohio. Composition fence-post. No. 1,079,829; Nov. 25; Gaz. vol. 196; p. 987.
 Bent, Quincy, E. Barnhart, Sparrows Point, Md., and J. B. Ladd, Ardmore, Pa. Treating materials for wintering. No. 1,078,988; Nov. 18; Gaz. vol. 196; p. 665.
 Benthal, John L., Chesterfield, assignor to Vickers Limited, Westminster, England. Manufacture of armor-plates and other steel articles. No. 1,079,323; Nov. 25; Gaz. vol. 196; p. 811.
 Bergstrom, Carl G. (See Holmerans and Bergstrom.)
 Berliner Jute-Spinnerel & Weberel. (See Watzlawik, Fritz, assignor.)
 Berman, Alfred. (See Berman, Jacob and A.)
 Berman, Jacob and A., Manchester, England. Life-saving garment and belt. No. 1,077,808; Nov. 4; Gaz. vol. 196; p. 214.
 Bernard, William A., assignor to The Schollhorn Company, New Haven, Conn. Cutting-pilars. No. 1,077,789; Nov. 4; Gaz. vol. 196; p. 188.
 Bernhardt, Clarence T., Salisbury, N. C. Clock winding device. No. 1,078,409; Nov. 11; Gaz. vol. 196; p. 436.
 Berry, Richard T., Mendenhall, Miss. Rail-joint. No. 1,079,284; Nov. 18; Gaz. vol. 196; p. 765.
 Berthelm, Alfred. (See Ehrlich and Berthelm.)
 Best, Alfred, Salt Lake City, Utah. Vacuum cleaning device. No. 1,078,186; Nov. 11; Gaz. vol. 196; p. 355.
 Best Electric Company. (See Vetter, Clarence A., assignor.)
 Best, Robert B., Great Neck, N. Y. Asbestos handle. No. 1,079,688; Nov. 25; Gaz. vol. 196; p. 936.
 Biggs, Leonard C., Dunedin, New Zealand. Hand-guard for steel hacksaws. No. 1,078,821; Nov. 18; Gaz. vol. 196; p. 609.
 Billau, Charles F., Cedar Rapids, Iowa. Fruit and flower cutter. (Release.) No. 13,642; Nov. 11; Gaz. vol. 196; p. 500.
 Bingham, Michael D., Somerville, Mass. Sash-weight. No. 1,077,586; Nov. 4; Gaz. vol. 196; p. 120.
 Binsfeld, Louis E., assignor of one-half to J. J. Treppa, Detroit, Mich. Reversible table. No. 1,077,901; Nov. 4; Gaz. vol. 196; p. 226.
 Blipart, Achill, Newark, N. J. Safety-razor. No. 1,078,980; Nov. 18; Gaz. vol. 196; p. 666.
 Bird, Charles E., Minneapolis, Minn. Man-lift elevator. No. 1,079,159; Nov. 18; Gaz. vol. 196; p. 726.
 Birdsey-Somers Company. (See Somers, Thomas F., assignor.)
 Bleland, Pressley E., assignor to Abbott Coin Counter Company, New York, N. Y. Coin-packaging device. No. 1,077,908; Nov. 11; Gaz. vol. 196; p. 281.
 Blaauw, Geert, Pittsburgh, Pa. Dam. No. 1,077,790; Nov. 4; Gaz. vol. 196; p. 189.
 Blaauw, Geert, Pittsburgh, Pa. Cellular dam. No. 1,077,791; Nov. 4; Gaz. vol. 196; p. 189.
 Blackburn, Jasper, Kirkwood, Mo. Gny-clamp. No. 1,078,805; Nov. 18; Gaz. vol. 196; p. 682.
 Blackford, Godwin L., et al. (See Uphaw, Lucius L., assignor.)
 Blackman, James B. (See Barton, Charles N., assignor.)
 Blair, Thomas E., Jr. (See Egler, Nicolas F., assignor.)
 Blanchard Machine Company, The. (See Spencer, Henry K., assignor.)

Blanka, Cyrus F., St. Louis, Mo. Pouring-spout for tin or paper receptacles. No. 1,079,388; Nov. 25; Gaz. vol. 196; p. 833.
 Blens, Jacob. (See Morgenstern and Blens.)
 Bloch, David. (See Burns, John A., assignor.)
 Blockburger, John L., Chicago, Ill. Automatic motor-stopping device. No. 1,079,324; Nov. 25; Gaz. vol. 196; p. 811.
 Blood, Orrin E., East Las Vegas, N. Mex. Bag-holder. No. 1,078,083; Nov. 11; Gaz. vol. 196; p. 320.
 Bloss, William G., Los Angeles, Cal. Irrigation system. No. 1,077,869; Nov. 4; Gaz. vol. 196; p. 215.
 Blige, Arthur L., New York, N. Y. Proof-press. No. 1,079,325; Nov. 25; Gaz. vol. 196; p. 811.
 Blush, J. D., et al. (See Buttress, George, assignor.)
 Boardman, Arthur F., Arlington, assignor of one-half to himself, and one-half to J. R. Murphy, Boston, Mass. Search-call apparatus. No. 1,079,467; Nov. 25; Gaz. vol. 196; p. 860.
 Boberg, Arthur A. (See Olson and Boberg.)
 Bock, Emil H., Berlin, assignor to A. Richter, Charlottenburg, Germany. Alarm, signaling, and controlling device. No. 1,078,410; Nov. 11; Gaz. vol. 196; p. 436.
 Bodie, Josiah W., Greenwood, S. C. Device for braking railway-cars. No. 1,078,031; Nov. 11; Gaz. vol. 196; p. 303.
 Bodley, William S., assignor to Sunlight Double Glass Sash Company, Inc., Louisville, Ky. Sash for hotbeds and other purposes. No. 1,079,631; Nov. 25; Gaz. vol. 196; p. 917.
 Boecker, Olof, Berlin-Wilmersdorf, Germany. Sight for guns. No. 1,078,411; Nov. 11; Gaz. vol. 196; p. 436.
 Bohannan, Robert S., and N. Dugger, Ensley, Ala. Rail-joint. No. 1,077,253; Nov. 4; Gaz. vol. 196; p. 4.
 Bohman, Elfrida, Rock Island, Ill. Coffee or tea pot. No. 1,079,830; Nov. 25; Gaz. vol. 196; p. 987.
 Boileau, Aimé. (See Richard, Thomas, assignor.)
 Bömlinghaus, Franz, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Gun-elevating mechanism. No. 1,079,831; Nov. 25; Gaz. vol. 196; p. 987.
 Bond, Claud V., Los Angeles, Cal. Curtain-rod. No. 1,078,822; Nov. 18; Gaz. vol. 196; p. 609.
 Bonham, George W., assignor to Helena Manufacturing Company, Helena, Okla. Tire-bolting machine. No. 1,078,084; Nov. 11; Gaz. vol. 196; p. 320.
 Bonneau, John B., Jr., Millisap, Tex. Cultivator. No. 1,078,898; Nov. 18; Gaz. vol. 196; p. 634.
 Bonnell, Raymond C., Atlantic City, N. J. Horseshoe. No. 1,079,285; Nov. 18; Gaz. vol. 196; p. 766.
 Booker, James, assignor of one-half to J. H. Henderson, San Francisco, Cal. Round-top extension-table. No. 1,079,099; Nov. 18; Gaz. vol. 196; p. 704.
 Booth, James S., Detroit, Mich. Drive-wheel mounting for vehicles. No. 1,077,926; Nov. 4; Gaz. vol. 196; p. 235.
 Booth, John, Peru, Ind. Fireproof safe for cabinets. No. 1,078,123; Nov. 11; Gaz. vol. 196; p. 334.
 Booth, Joseph B. S., Enfield, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Typographic composing-machine. No. 1,079,326; Nov. 25; Gaz. vol. 196; p. 812.
 Bosch, Firm of Robert. (See Kratz and Wagner, assignors.)
 Bosch, Firm of Robert. (See Woerner, Eugen, assignor.)
 Bosch, Firm of Robert. (See Zähringer, Arnold, assignor.)
 Boateck, Thomas, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Machine for pressing heel-lifts, heels, &c. No. 1,079,537; Nov. 25; Gaz. vol. 196; p. 883.
 Boston Clock Company. (See McGraw, Walter E., assignor.)
 Boston Machine Works Company. (See Hanan and Gates, assignors.)
 Boswell, John, and E. Pearl, New York, N. Y. Document-ile. No. 1,079,100; Nov. 18; Gaz. vol. 196; p. 704.
 Böttger, Max, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,079,101; Nov. 18; Gaz. vol. 196; p. 705.
 Bouchard, George O., Grand Rapids, Mich. Automatic show-case or clothing-cabinet. No. 1,079,632; Nov. 25; Gaz. vol. 196; p. 917.
 Boucher, Paul, Paris, France. Photographic exposure-meter. No. 1,078,482; Nov. 11; Gaz. vol. 196; p. 459.
 Boughton, Charles H., Camden, N. J. Machine for grinding steel pens. No. 1,077,969; Nov. 11; Gaz. vol. 196; p. 281.
 Boulton, Percival R., Birmingham, England. Automatic gas-analyzer. No. 1,077,927; Nov. 4; Gaz. vol. 196; p. 235.
 Bowerbank, John W., Los Angeles, Cal. Radiator for automobiles. No. 1,079,468; Nov. 25; Gaz. vol. 196; p. 860.
 Bowers, Mary, Angora, Nebr. Screen-door. No. 1,078,483; Nov. 11; Gaz. vol. 196; p. 459.
 Bowler, Ernest, assignor of one-half to J. E. Mellish, Cottage Grove, Wis. Potato-planter. No. 1,079,102; Nov. 18; Gaz. vol. 196; p. 705.
 Bowler, Paul D., and W. D. Dutton, assignors to Layne & Bowler Corporation, Los Angeles, Cal. Well mechanism. No. 1,079,689; Nov. 25; Gaz. vol. 196; p. 936.
 Bowler, Paul D., and W. D. Dutton, assignors to The Layne & Bowler Corporation, Los Angeles, Cal. Well mechanism. No. 1,079,690; Nov. 25; Gaz. vol. 196; p. 936.

Rowman, Frank S. (See Dunkel and Bowman.)
 Bowman, George S., Lebanon, Pa. Knockdown package. No. 1,078,245; Nov. 11; Gaz. vol. 196; p. 376.
 Bowser, Allen A., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Combined meter and valve. No. 1,079,103; Nov. 18; Gaz. vol. 196; p. 705.
 Bowser, Allen A., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Valve. No. 1,079,104; Nov. 18; Gaz. vol. 196; p. 706.
 Bowyer, Charles D., Camden, N. J. Bottle-closure. No. 1,077,328; Nov. 4; Gaz. vol. 196; p. 30.
 Boyd, Harry M., Creston, Iowa. Axle-drive. No. 1,078,032; Nov. 11; Gaz. vol. 196; p. 303.
 Boye, James H., assignor to The Boye Needle Company, Chicago, Ill. Hasp. No. 1,078,990; Nov. 18; Gaz. vol. 196; p. 666.
 Boye Needle Company, The. (See Boye, James H., assignor.)
 Boyer, Warren L., Kingston, N. Y. Electric-railway truck. No. 1,079,389; Nov. 25; Gaz. vol. 196; p. 833.
 Boyle, Philip J. (See Walk, Frank E., assignor.)
 Boynton, Eugene R. (See Grant, Burt E., assignor.)
 Brach, Leon S., New York, N. Y. Nut-lock. No. 1,077,254; Nov. 4; Gaz. vol. 196; p. 4.
 Bradley, Peter G. (See Ford, William H., assignor.)
 Bradner, Harry W., Tacoma, Wash., assignor to The General Patents Company, Inc., New York, N. Y. Extension-table. No. 1,079,927; Nov. 25; Gaz. vol. 196; p. 1022.
 Braidwood, Thomas, Bridge-of-Allan, Scotland. Combined tool-box and carrier for motor and other cycles. No. 1,079,286; Nov. 18; Gaz. vol. 196; p. 766.
 Brainerd, Caroline E., et al. (See Symonds, William H., assignor.)
 Bralley, Walter S., Schenectady, N. Y., assignor to General Electric Company. Voltage-regulator. No. 1,077,792; Nov. 4; Gaz. vol. 196; p. 189.
 Brantitzky, William T., assignor of one-fourth to J. Hausler, Chicago, Ill. Animal-trap. No. 1,077,666; Nov. 4; Gaz. vol. 196; p. 147.
 Bray, Joseph, Arlington Station, Cal. Vehicle-wheel. No. 1,077,388; Nov. 4; Gaz. vol. 196; p. 51.
 Bremerman, Franklin B., Indianapolis, Ind. Internal-combustion engine. No. 1,078,991; Nov. 18; Gaz. vol. 196; p. 666.
 Brennan, James A. (See Rodgers and Brennan.)
 Bretsnyder, Ferdinand C., et al. (See Porter, John W., assignor.)
 Brewerton, W. A., et al. (See Moore, Justus J., assignor.)
 Bricker, Barney B., et al. (See Landis, David D., assignor.)
 Bricker, Samuel S., et al. (See Landis, David D., assignor.)
 Briggs, Frederick, Washington, D. C. Apparatus for cooking meats. No. 1,079,160; Nov. 18; Gaz. vol. 196; p. 726.
 Brillion Iron Works. (See Ariens, Henry, assignor.)
 Brink, Carl A. (See Wardwell and Brink.)
 Bristol, Frederick W., et al. (See Hudgins, William F., assignor.)
 Brobant, Thomas, and J. Mates, Schenectady, N. Y. Method of and means for giving signals. No. 1,078,823; Nov. 18; Gaz. vol. 196; p. 609.
 Brobst, John E. (See Murphy and Brobst.)
 Brock, James G., Anadarko, Okla. Plow. No. 1,079,832; Nov. 25; Gaz. vol. 196; p. 988.
 Brooks, Brutus, Martin, Tenn. Aeroplane. No. 1,078,713; Nov. 18; Gaz. vol. 196; p. 571.
 Brower, Louis S., Black Rock, Ark. Vaginal syringe. No. 1,078,824; Nov. 18; Gaz. vol. 196; p. 610.
 Brown, Arnold V., assignor to Kabo Corset Company, Chicago, Ill. Adjusting-buckle for garment-supporters. No. 1,077,902; Nov. 4; Gaz. vol. 196; p. 226.
 Brown, Frank E. (See White, William, assignor.)
 Brown, Frederick E., McHenry, N. D. Car-sash. No. 1,077,587; Nov. 4; Gaz. vol. 196; p. 120.
 Brown, Henry W., Westport, Conn. Time-recorder. No. 1,078,124; Nov. 11; Gaz. vol. 196; p. 334.
 Brown, J. Grove, assignor of one-half to G. T. Bacon, Groton, N. Y. Traction-lug. No. 1,077,667; Nov. 4; Gaz. vol. 196; p. 147.
 Brown, Leighton L., Minneapolis, and C. H. Patek, Brainard, Minn. Damper. No. 1,079,833; Nov. 25; Gaz. vol. 196; p. 988.
 Brown, Robert S., assignor to The New Britain Machine Company, New Britain, Conn. Bearing mechanism. No. 1,078,606; Nov. 18; Gaz. vol. 196; p. 532.
 Brown, Walter M., Dayton, Ohio. Popcorn-crip machine. No. 1,079,591; Nov. 25; Gaz. vol. 196; p. 904.
 Brown, William H., Bangor, Mich. Display-machine. No. 1,079,105; Nov. 18; Gaz. vol. 196; p. 706.
 Brownback, Henry L., Norristown, Pa. Internal-combustion engine. No. 1,077,793; Nov. 4; Gaz. vol. 196; p. 189.
 Browne, Frederick G., Malvern, near Melbourne, Victoria, Australia. Apparatus for cleaning the hulls of ships or any kind of vessel. No. 1,079,208; Nov. 18; Gaz. vol. 196; p. 742.
 Brownstein, Benjamin, Ellwood City, Pa. Concrete-building-block construction. No. 1,078,714; Nov. 18; Gaz. vol. 196; p. 571.
 Brox, George M., and H. S. Knight, Milford, Nebr. Railway-spike. No. 1,077,970; Nov. 11; Gaz. vol. 196; p. 282.

Bruce, Robert, Wellington, Kans. Inexp-fastener. No. 1,079,390; Nov. 25; Gaz. vol. 196; p. 834.
 Bruder, Lawrence, Covington, Ky. Dumping-vehicle. No. 1,078,246; Nov. 11; Gaz. vol. 196; p. 376.
 Bruet, Alexandre J. A., St. Denis, France. Auxiliary raising and centering vehicle-rim. No. 1,078,825; Nov. 18; Gaz. vol. 196; p. 610.
 Brundage, James W., West Newton, Pa. Nut-locking device. No. 1,079,834; Nov. 25; Gaz. vol. 196; p. 988.
 Brundige, Samuel H., Oakland, Cal. Saw-holder. No. 1,077,588; Nov. 4; Gaz. vol. 196; p. 120.
 Bruner, Seabury E., and H. F. Hardin, Marion, Ind. Four-wheel drive. No. 1,077,794; Nov. 4; Gaz. vol. 196; p. 190.
 Brunkhoefer, Henry F., Galveston, Tex. Mail-bag-handling apparatus. No. 1,078,768; Nov. 18; Gaz. vol. 196; p. 590.
 Brunner, Alfred, Leipzig-Eutritsch, and W. Schöndeling, assignors to Adolf Bleichert & Company, Leipzig-Gohlis, Germany. Coke quenching and conveying apparatus. No. 1,077,255; Nov. 4; Gaz. vol. 196; p. 5.
 Brunner, Clarence H., Brooklyn, N. Y. Rail-joint. No. 1,078,247; Nov. 11; Gaz. vol. 196; p. 376.
 Bruns, Hans T., Nuremberg, Germany. Starting-valve for internal-combustion engines. No. 1,077,795; Nov. 4; Gaz. vol. 196; p. 190.
 Brunswick-Balke-Collender Co., The. (See Hjort, Axel F., assignor.)
 Brunton, Arthur G., Centralla, assignor of one-half to W. J. Woods, Seattle, Wash. Work-holder for lathe. No. 1,078,484; Nov. 11; Gaz. vol. 196; p. 460.
 Brush, Alanson P., Detroit, Mich. Carbureter. No. 1,077,256; Nov. 4; Gaz. vol. 196; p. 5.
 Bruton, Jackson W., Guthrie, Mo. Garment attachment. No. 1,078,826; Nov. 18; Gaz. vol. 196; p. 610.
 Bruzand, Carlos N., New York, N. Y. Eye-shield. No. 1,079,287; Nov. 18; Gaz. vol. 196; p. 766.
 Bryan, Harry S., St. Louis, Mo. Combined cape, blanket, and shelter-tent. No. 1,078,992; Nov. 18; Gaz. vol. 196; p. 667.
 Bryant Electric Company, The. (See Gagnon, William J., assignor.)
 Bryant Electric Company, The. (See Goodridge, Gilbert W., assignor.)
 Bryant Electric Company, The. (See Thomas, George B., assignor.)
 Bryant Electric Company, The. (See Wallbillich, Anthony F., assignor.)
 Buchalter, Joseph, New York, N. Y. Cane frame for caps and hats. No. 1,077,796; Nov. 4; Gaz. vol. 196; p. 190.
 Buchanan, John A., Pittsburgh, Pa. Draft appliance. No. 1,077,797; Nov. 4; Gaz. vol. 196; p. 191.
 Bucher, Julian, Kansas City, Mo. Printing-press. No. 1,079,161; Nov. 18; Gaz. vol. 196; p. 727.
 Buchner, James A., Maquoketa, Iowa. Folding floral-display rack. No. 1,078,248; Nov. 11; Gaz. vol. 196; p. 376.
 Buckeye Steel Castings Company, The. (See Whitridge and Johnson, assignors.)
 Buckham, George T., (See Dawson and Buckham.)
 Buckland, Amos B., Rochester, N. Y. Automatic disinfectant-holder for telephone-mouthpieces. No. 1,079,538; Nov. 25; Gaz. vol. 196; p. 833.
 Bucknam, Worthy C., Jersey City, N. J., assignor to Davis-Bourneville Company, New York, N. Y. Blow-pipe apparatus. No. 1,078,419; Nov. 11; Gaz. vol. 196; p. 436.
 Buda Company. (See Penrose, Edward R., assignor.)
 Budd, Edward G., assignor to Hale and Kilburn Company, Philadelphia, Pa. Car construction. No. 1,077,589; Nov. 4; Gaz. vol. 196; p. 120.
 Buddäus, Wilhelm, Wiesbaden, Germany, assignor to J. Dern, Salt Lake City, Utah. Roasting fine ores. No. 1,079,897; Nov. 25; Gaz. vol. 196; p. 1011.
 Buffalo Forge Company. (See Carrier, Willis H., assignor.)
 Buffalo Foundry & Machine Company. (See Sleeper, Oliver S., assignor.)
 Bull, Frederick W., New London, Conn. Adjustable sectional mold. No. 1,077,971; Nov. 11; Gaz. vol. 196; p. 282.
 Bullock Electric Manufacturing Company, The. (See Ralston, Howard H., assignor.)
 Bundy, Cyrus L., Jersey City, N. J., and J. J. Acker, Horton, Kans. assignors to Commonwealth Steel Company, St. Louis, Mo. Car draw-bar carry-iron. No. 1,079,633; Nov. 25; Gaz. vol. 196; p. 917.
 Bundy, Philo D., Mount Vernon, Ind. Well-digger's tool. No. 1,079,162; Nov. 18; Gaz. vol. 196; p. 727.
 Bunker, Walter E., Natick, Mass. Low-cut-shoe attachment. No. 1,079,835; Nov. 25; Gaz. vol. 196; p. 988.
 Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Adjustable ventilator-frame. No. 1,078,033; Nov. 11; Gaz. vol. 196; p. 303.
 Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Window-screen. No. 1,078,827; Nov. 18; Gaz. vol. 196; p. 610.
 Bunzel, Paul, Cöthen, Germany. Apparatus for purifying sewage and the like. No. 1,079,391; Nov. 25; Gaz. vol. 196; p. 834.
 Burchard, Bernhard T., New York, N. Y., V. E. Hansen, Elizabeth, N. J., and H. S. Marsh, assignors to International Cigar Machinery Company, New York, N. Y. Cigar-machine. No. 1,077,903; Nov. 4; Gaz. vol. 196; p. 226.

Burchartz, Johann G., Cologne, Germany. Carbureter. No. 1,079,634; Nov. 25; Gaz. vol. 196; p. 918.
 Burckhart, Henry B., Chicago, Ill., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y. Index-tab. No. 1,079,209; Nov. 18; Gaz. vol. 196; p. 742.
 Burd, Elmer. (See Menzl and Burd.)
 Burgess, Jonathan, Marion, Ohio. Loose-leaf binder. No. 1,079,039; Nov. 18; Gaz. vol. 196; p. 634.
 Burgoon, Robert L., Sharpsburg, Pa. Door for box-cars. No. 1,077,798; Nov. 4; Gaz. vol. 196; p. 191.
 Burke, Thomas J., New Orleans, La. Animal-trap. No. 1,077,452; Nov. 4; Gaz. vol. 196; p. 75.
 Burkett, Alvie R., Manns Choice, Pa. Vehicle-wheel. No. 1,077,799; Nov. 4; Gaz. vol. 196; p. 191.
 Burkhardt, Firm of Hugo. (See Gabel, Otto, assignor.)
 Burlingame, Elmer A., assignor to Burlingame Telegraphing Typewriter Company, Boston, Mass. Selective telegraph system. No. 1,078,899; Nov. 18; Gaz. vol. 196; p. 635.
 Burlingame Telegraphing Typewriter Company. (See Burlingame, Elmer A., assignor.)
 Burn-All Incinerator Company. (See McCause, William, assignor.)
 Burne, Stanley. (See Force and Burne.)
 Burnett, Richard W., Montreal, Quebec, Canada. Dump-car door. No. 1,079,691; Nov. 25; Gaz. vol. 196; p. 937.
 Burnett, Richard W., and H. H. Vaughan, Montreal, Quebec, Canada. St. for railway-cars. No. 1,078,660; Nov. 18; Gaz. vol. 196; p. 550.
 Burns, Ernest H., Seattle, Wash. Seal-hasp. No. 1,078,534; Nov. 11; Gaz. vol. 196; p. 475.
 Burns, John A., assignor of three-tenths to D. Bloch, Mexico, Mexico. Show-case. No. 1,078,240; Nov. 11; Gaz. vol. 196; p. 377.
 Burpee, John H., and E. T. Hoskins, Bellingham, Wash. Mechanical movement. No. 1,078,900; Nov. 18; Gaz. vol. 196; p. 635.
 Burroughs, Edwin M., Detroit, Mich. Soap-suds and hot-water dispenser. No. 1,077,590; Nov. 4; Gaz. vol. 196; p. 121.
 Burtie, William J., Louisville, Ky. Rail-chair. No. 1,078,250; Nov. 11; Gaz. vol. 196; p. 377.
 Burton, William K. (See Trimble, Joseph M., assignor.)
 Burwell, John T. (See Welch, Rosla W., assignor.)
 Bush, Frederick C. (See Ackerman, George, assignor.)
 Busky, John S., Sr., New York, N. Y. Shoe-last. No. 1,078,251; Nov. 11; Gaz. vol. 196; p. 378.
 Bussler, Frederick R., Quincy, Mass. Dispenser for liquids and other materials. No. 1,079,106; Nov. 18; Gaz. vol. 196; p. 707.
 Butler, Frank. (See Resalar and Butler.)
 Butters, Charles, Oakland, Cal. Filter-leaf. No. 1,078,993; Nov. 18; Gaz. vol. 196; p. 667.
 Butters, Charles, Oakland, Cal. Dislodging alime cakes from filter media. No. 1,078,994; Nov. 18; Gaz. vol. 196; p. 668.
 Butts, Patent Vacuum Filter Company, The. (See Patterson, Clarence G., assignor.)
 Butters, Thomas B., New York, N. Y. Life-belt. No. 1,077,800; Nov. 4; Gaz. vol. 196; p. 191.
 Büttner, August, Uerdingen, Germany. Cellular drying apparatus. No. 1,078,125; Nov. 11; Gaz. vol. 196; p. 335.
 Buttress, George, assignor of one-third to J. D. Blush, one-third to G. F. Shields, and one-third to L. A. Wurts, Los Angeles, Cal. Perforating attachment for cans. No. 1,078,535; Nov. 11; Gaz. vol. 196; p. 476.
 Buzzy, Augustus C. (See Smith, Luther K., assignor.)
 C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
 C. B. Cottrell & Sons Company. (See McKee, Milton A., assignor.)
 C. D. Osborn Company. (See Hartmann, Henry G., assignor.)
 C. G. Sargent's Sons Corporation. (See Sargent, Frederick G., assignor.)
 C. M. Kemp Manufacturing Co. (See Kemp, Clarence M., and C. E., assignors.)
 Caballero, Rudolphe L., Brighton, England. Apparatus enabling photographic plates to be developed in daylight. No. 1,079,288; Nov. 18; Gaz. vol. 196; p. 766.
 Cabral, Daniel, Guadalajara, Mexico. Flush-tank for water-closets. No. 1,077,329; Nov. 4; Gaz. vol. 196; p. 31.
 Cacko, Walter, Elizabeth, N. J. Faucet. No. 1,078,252; Nov. 11; Gaz. vol. 196; p. 378.
 Caddy, Sydney C., Keynsham, near Bristol, England. Apparatus for coiling steel and other wire or metal. No. 1,078,485; Nov. 11; Gaz. vol. 196; p. 460.
 Cady, William M. (See Turner and Cady.)
 Caesar, John. (See Morris, William S., assignor.)
 Cahill, William, and L. A. Chattelle, Caledonia, Minn. Wire cable clasp. No. 1,077,257; Nov. 4; Gaz. vol. 196; p. 5.
 Cahill, William A., Syracuse, N. Y. Carbureter. No. 1,078,413; Nov. 11; Gaz. vol. 196; p. 437.
 California Corrugated Culvert Company. (See Force and Burne, assignors.)
 Calkins, Elizabeth, St. Joseph, Mo. Corset-fastener. No. 1,079,210; Nov. 18; Gaz. vol. 196; p. 743.
 Calkins, Fred D., and A. C. Johnson, Sunnyvale, Cal. Internal-combustion engine. No. 1,079,741; Nov. 25; Gaz. vol. 196; p. 955.

Calkins, Fred D., and A. C. Johnson, Sunnyvale, Cal. Internal-combustion engine. No. 1,079,742; Nov. 25; Gaz. vol. 196; p. 956.
 Callahan, Charles J. (See Allen and Callahan.)
 Callaway, George E., Jonesboro, La. Rotary engine. No. 1,079,743; Nov. 25; Gaz. vol. 196; p. 956.
 Calleson, Amos, assignor to B. Adriance, Brooklyn, N. Y. Bottle-sealing machine. No. 1,078,607; Nov. 18; Gaz. vol. 196; p. 532.
 Camden Iron Works. (See Garland, Claude M., assignor.)
 Cameron, William, Toledo, Ohio. Pipe-wrench. No. 1,077,591; Nov. 4; Gaz. vol. 196; p. 121.
 Camp, Franklin I. (See Hiller and Camp.)
 Camp, George E., assignor to International Heater Company, Utica, N. Y. Grate. No. 1,078,769; Nov. 18; Gaz. vol. 196; p. 591.
 Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Dump or drop-bottom car. No. 1,077,389; Nov. 4; Gaz. vol. 196; p. 52.
 Campbell, Donald P. L., Vankleek Hill, Ontario, Canada. Mow-spreader. No. 1,079,211; Nov. 18; Gaz. vol. 196; p. 743.
 Campbell, Henry E., Bridgewater, Iowa. Barber's-chair head-rest. No. 1,078,828; Nov. 18; Gaz. vol. 196; p. 611.
 Campbell, Leon W., Woonsocket, R. I. Carding-machine. No. 1,079,392; Nov. 25; Gaz. vol. 196; p. 834.
 Campbell, Leon W., Woonsocket, R. I. Carding-machine. No. 1,079,393; Nov. 25; Gaz. vol. 196; p. 835.
 Camporini, Augustine, Chicago, Ill. Shock-absorber. No. 1,078,536; Nov. 11; Gaz. vol. 196; p. 476.
 Cane, Pietro. (See D'Orsogna and Cane.)
 Canfield, Roger H., Mooringsport, La. Apparatus for boring wells. No. 1,079,836; Nov. 25; Gaz. vol. 196; p. 988.
 Canine, Chester W., Norwood, assignor to The National Marking Machine Company, Cincinnati, Ohio. Inking mechanism for marking-machines. No. 1,079,592; Nov. 25; Gaz. vol. 196; p. 904.
 Cannon, Vernon B. (See Anspach, Francis G., assignor.)
 Capewell, William R. H., Jamesburg, N. J. Car-coupling. No. 1,077,592; Nov. 4; Gaz. vol. 196; p. 121.
 Carborundum Company, The. (See Tone, Frank J., assignor.)
 Carey, Arthur B., Hutchinson, Kans. Carton. No. 1,079,394; Nov. 25; Gaz. vol. 196; p. 835.
 Carey, James D., and B. Goldenthal, New Haven, Conn. Pipe-cleaner. No. 1,078,253; Nov. 11; Gaz. vol. 196; p. 379.
 Carichoff, Eugene R., Schenectady, N. Y., assignor to General Electric Company. Relay for two-wire notching systems. No. 1,077,972; Nov. 11; Gaz. vol. 196; p. 282.
 Carlsen, Andrew M., assignor, by mesne assignments, to Standard Cone Company, St. Paul, Minn. Apparatus for baking pastry cones. No. 1,078,572; Nov. 11; Gaz. vol. 196; p. 488.
 Carlson, Carl A. (See Swanson, Linden, and Carlson.)
 Carlson, Carl A., San Francisco, Cal. Door-controlling mechanism. No. 1,077,594; Nov. 4; Gaz. vol. 196; p. 122.
 Carlson, Carl G., Hawthorne, Ill. Sound-modifying reproducer for phonographs. No. 1,077,593; Nov. 4; Gaz. vol. 196; p. 122.
 Carlson, Charles A., Blue Island, Ill. Punch-press. No. 1,077,668; Nov. 4; Gaz. vol. 196; p. 147.
 Carlson, Frank A. (See Greenleaf, Rupert L., assignor.)
 Carlson, John W., Salt Lake City, Utah. House-number. No. 1,077,801; Nov. 4; Gaz. vol. 196; p. 192.
 Carney, John, Chatsworth, Ill. Marker-operating mechanism. No. 1,077,669; Nov. 4; Gaz. vol. 196; p. 147.
 Carpenter, Delos H., Minneapolis, Minn. Die for forming dental backings. No. 1,078,829; Nov. 18; Gaz. vol. 196; p. 611.
 Carpenter, Hezekiah, assignor of one-third to N. Westenberg and one-third to G. H. Hendrix, Kremmling, Colo. Stovepipe-holder. No. 1,079,212; Nov. 18; Gaz. vol. 196; p. 743.
 Carpenter, John H. (See Taylor, John A., assignor.)
 Carpenter, Rolla C., Ithaca, N. Y., and T. J. Fleming, Los Angeles, Cal.; said Carpenter assignor to said Fleming. Process of and apparatus for producing draft in cement-kills and separating dust from the waste gases of such kilns. No. 1,078,254; Nov. 11; Gaz. vol. 196; p. 379.
 Carr, Frederick, et al. (See Hervey, Lee A., assignor.)
 Carrau, Mario, Montevideo, Uruguay. Umbrella. No. 1,078,414; Nov. 11; Gaz. vol. 196; p. 437.
 Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Air-cooling apparatus. No. 1,078,608; Nov. 18; Gaz. vol. 196; p. 533.
 Carroll, Lewis R., Charlotte, N. C. Adjustable holder for laminated forms. No. 1,079,163; Nov. 18; Gaz. vol. 196; p. 727.
 Carscadin, Charles A., and G. A. Woodman, Chicago, Ill. Uncoupling device. No. 1,079,395; Nov. 25; Gaz. vol. 196; p. 835.
 Carter, Curtis C., Chapin, Ill. Electric regulator for incubators. No. 1,079,213; Nov. 18; Gaz. vol. 196; p. 744.
 Cartier, Frank E., Winslow, Wash. Fastening for knock-down furniture and the like. No. 1,078,186; Nov. 11; Gaz. vol. 196; p. 356.
 Cartmill, John C., Lead, S. D. Mine-shovel. No. 1,078,255; Nov. 11; Gaz. vol. 196; p. 379.

Cartmill, John E., Roseville, W. Va. Wrench. No. 1,078,901; Nov. 18; Gaz. vol. 196; p. 636.
 Carver Cotton Gin Company. (See McLean, Robert W., assignor.)
 Casablanca, Fernando, Sabadell, Spain. Mechanism for drawing rovings of wool and other textile fibers. No. 1,079,837; Nov. 25; Gaz. vol. 196; p. 989.
 Case, Frank E., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,077,802; Nov. 4; Gaz. vol. 196; p. 192.
 Case, James C., Sleepy Eye, Minn. Twine-holder. No. 1,077,453; Nov. 4; Gaz. vol. 196; p. 75.
 Case, Willis W., Jr., Denver, Colo. Oil-forge for drill-steel. No. 1,077,803; Nov. 4; Gaz. vol. 196; p. 192.
 Cassella Color Company. (See Kallscher, Georg, assignor.)
 Cassidy, George W., East Orange, N. J. Portable reading-lamp. No. 1,079,315; Nov. 18; Gaz. vol. 196; p. 777.
 Catching, Roy W., Fairview, Mont. Self-dumping bucket. No. 1,079,744; Nov. 25; Gaz. vol. 196; p. 957.
 Catchpole, Alfred, Geneva, N. Y. Steam-boiler. No. 1,078,187; Nov. 11; Gaz. vol. 196; p. 356.
 Catucci, Pliny, assignor to A. F. Meisselbach & Brother, Newark, N. J. Phonograph. No. 1,077,973; Nov. 11; Gaz. vol. 196; p. 283.
 Cazen, Canada de, Montreal, Quebec, Canada. Cigarette-making machine. No. 1,078,034; Nov. 11; Gaz. vol. 196; p. 304.
 Centofant, Samuel S., Smiths Basin, N. Y. Vessel emergency-brake. No. 1,078,902; Nov. 18; Gaz. vol. 196; p. 660.
 Chadborn, Frederic C., Newburgh, N. Y. Burner. No. 1,079,327; Nov. 25; Gaz. vol. 196; p. 812.
 Chadwick, Leonard B., Chelsea, assignor to General Supplies Company, Boston, Mass. Pencil-sharpener. No. 1,079,312; Nov. 18; Gaz. vol. 196; p. 775.
 Chadwick, Lewis, Nelsonville, Ohio. Mine-pump. No. 1,078,126; Nov. 11; Gaz. vol. 196; p. 335.
 Chalfant, Herman S., Balacon Spa, N. Y. Wood-grinding machine. No. 1,078,415; Nov. 11; Gaz. vol. 196; p. 438.
 Chalmers, Harry B., Quogue, assignor to L. B. Dunham, New York, N. Y. Paint and varnish remover. No. 1,079,635; Nov. 25; Gaz. vol. 196; p. 918.
 Chambers, Lincoln B., Fort Columbia, Wash. Sheet-music-turning device. No. 1,079,838; Nov. 25; Gaz. vol. 196; p. 990.
 Chambersburg Engineering Company. (See Derbyshire, Henry E., assignor.)
 Champlon, James E., et al. (See Champlon, James P., assignor.)
 Champlon, James P., assignor of one-third to J. H. Champlon and one-third to J. E. Champlon, Chipley, Ga. Vehicle-wheel. No. 1,078,256; Nov. 11; Gaz. vol. 196; p. 380.
 Champlon, Jessie H., et al. (See Champlon, James P., assignor.)
 Chance, Thomas M., Philadelphia, Pa. Apparatus for pumping liquids. No. 1,079,898; Nov. 25; Gaz. vol. 196; p. 1011.
 Chaney, Carlton, Glenwood, Ind. Traveling fan. No. 1,078,609; Nov. 18; Gaz. vol. 196; p. 533.
 Chapin, Jay, Edgewood borough, assignor to Jas. H. Matthews & Co., Pittsburgh, Pa. Sill-sign structure. No. 1,079,469; Nov. 25; Gaz. vol. 196; p. 860.
 Chapin, John J., Detroit, Mich. Motor-cycle. No. 1,077,974; Nov. 11; Gaz. vol. 196; p. 283.
 Chapman, Edward H., San Francisco, Cal. Nut-tapping machine. No. 1,077,595; Nov. 4; Gaz. vol. 196; p. 122.
 Chapman, George A., and S. Tucker, assignors to Minerals Separation Limited, London, England. Ore concentration. No. 1,079,107; Nov. 18; Gaz. vol. 196; p. 707.
 Chapman, James L. (See Morden and Chapman.)
 Chapman, Matthew T., assignor to The American Well Works, Aurora, Ill. Well-sinking apparatus. No. 1,079,396; Nov. 25; Gaz. vol. 196; p. 836.
 Chapman, Matthew T., assignor to The American Well Works, Aurora, Ill. Well-sinking apparatus. No. 1,079,539; Nov. 25; Gaz. vol. 196; p. 864.
 Chappell, Howard F., New York, N. Y. Purifying alumina. No. 1,079,899; Nov. 25; Gaz. vol. 196; p. 1012.
 Chappell, Howard F., New York, and G. E. Cohen, Brooklyn, N. Y.; said Cohen assignor to said Chappell. Purifying alumina. No. 1,079,900; Nov. 25; Gaz. vol. 196; p. 1012.
 Charet, Israel, New York, N. Y. Scale. No. 1,078,416; Nov. 11; Gaz. vol. 196; p. 438.
 Charet, Israel, New York, N. Y. Scale. No. 1,078,417; Nov. 11; Gaz. vol. 196; p. 438.
 Charles Cory & Son. (See Wood, Frank W., assignor.)
 Charles E. Reed & Company. (See Reed, Charles E., assignor.)
 Charles F. Elms Engineering Works. (See Slater, Harvey, assignor.)
 Chas. Keller & Co. (See Schuetz, Herman C., assignor.)
 Chase, Edward S., Reading, Pa., assignor to Pacific Flush Tank Company, Chicago, Ill. Siphon. No. 1,078,995; Nov. 18; Gaz. vol. 196; p. 668.
 Chase, Grant. (See Stevens, Sidney M., assignor.)
 Chase Rolling Mill Co. (See Summey, David L., assignor.)
 Chattelle, Lorenzo A. (See Cahill and Chattelle.)
 Chemische Fabrik Griesheim-Elektron. (See Laska and Rath, assignors.)

Chenette, Jesse E., Montpelier, Vt. Double runner. No. 1,079,164; Nov. 18; Gaz. vol. 196; p. 723.

Cherry, Moses, Jr., Larchmont Manor, N. Y. Wardrobe-trunk. No. 1,078,715; Nov. 18; Gaz. vol. 196; p. 571.

Cheshire, Carey A., Des Moines, Iowa. Feeding mechanism. No. 1,077,590; Nov. 4; Gaz. vol. 196; p. 52.

Chicago Railway Equipment Company. (See Williams, Charles H., Jr., assignor.)

Chlger, Siegmund, Berlin, Germany. Subtracting device for change-giving apparatus. No. 1,078,085; Nov. 11; Gaz. vol. 196; p. 321.

Chlger, Siegmund, Berlin, Germany. Device for coupling the coin-ejectors in change-giving apparatus. No. 1,078,331; Nov. 11; Gaz. vol. 196; p. 407.

Chipley, William G., Atlanta, Ga. Rail-joint. No. 1,078,716; Nov. 18; Gaz. vol. 196; p. 571.

Chipperfield, Walter, Romford, assignor to W. E. Garforth, Pontefract, England. Kinetograph camera and projecting apparatus. No. 1,079,168; Nov. 18; Gaz. vol. 196; p. 707.

Chisholm, Kenneth O. (See Fallor, Ernest A., assignor.)

Chitwood, George L., Conway Springs, Kans. Wagon-jack. No. 1,078,610; Nov. 18; Gaz. vol. 196; p. 533.

Choate, Horace H., Gloucester, Mass. Liquid-dispensing apparatus. No. 1,077,870; Nov. 4; Gaz. vol. 196; p. 215.

Chodorow, Morris, and R. Harvey, New York, N. Y. Traveling-bag. No. 1,079,745; Nov. 25; Gaz. vol. 196; p. 965.

Cholick, Joe J., Lakeside, Minn. Corn-replanting machine. No. 1,078,332; Nov. 11; Gaz. vol. 196; p. 407.

Chorlton, Alan E. L., Manchester, England. Fluid-pressure engine. No. 1,078,661; Nov. 18; Gaz. vol. 196; p. 560.

Chorlton, Alan E. L., Manchester, England. Fluid-pressure engine. No. 1,078,830; Nov. 18; Gaz. vol. 196; p. 612.

Chott, Edward L., et al. (See Welch, John W., assignor.)

Chott, Hugo J., et al. (See Welch, John W., assignor.)

Chrisman, Horace, Edgewood Park, Pa., assignor to Pittsburgh Meter Company. Meter. No. 1,078,257; Nov. 11; Gaz. vol. 196; p. 380.

Christenson, Oscar, Milwaukee, Wis. Centering-punch. No. 1,078,770; Nov. 18; Gaz. vol. 196; p. 591.

Christianson, Oscar, Chicago, Ill. Disk pulverizer. No. 1,079,746; Nov. 25; Gaz. vol. 196; p. 958.

Chriwell, Frederick W., Seattle, Wash. Car stake and bunk. No. 1,079,109; Nov. 18; Gaz. vol. 196; p. 708.

Church, Harold D., assignor to Packard Motor Car Company, Detroit, Mich. Lock-nut. No. 1,077,670; Nov. 4; Gaz. vol. 196; p. 148.

Ciernia, Peter M., St. Paul, Minn. Seal-bolt. No. 1,079,839; Nov. 25; Gaz. vol. 196; p. 990.

Cincinnati Milling Machine Company, The. (See De Leuw, Adolph L., assignor.)

Clapp, Edward C., York, N. Y. Adjustable lamp-bracket for automobiles. No. 1,078,831; Nov. 18; Gaz. vol. 196; p. 612.

Clapp, George W., and E. S. Ulsaver, New Rochelle, N. Y. Device for use in connection with the articulation of artificial teeth. No. 1,079,540; Nov. 25; Gaz. vol. 196; p. 884.

Clark, Ernest G., De Kalb, assignor to Melville Clark Piano Company, Chicago, Ill. Note-sheet terminal. No. 1,078,771; Nov. 18; Gaz. vol. 196; p. 592.

Clark, Francis C., Kansas City, Kans. Type-writer. No. 1,077,804; Nov. 4; Gaz. vol. 196; p. 193.

Clark, George, Landsborough, Victoria, assignor to Mono Situ Concrete Company, Richmond, Australia. Core for use in molding concrete walls. No. 1,077,952; Nov. 4; Gaz. vol. 196; p. 245.

Clark, John T., Provo, Utah. Vehicle-tire. No. 1,079,397; Nov. 25; Gaz. vol. 196; p. 836.

Clark, Walter A., assignor to Slingby Manfg. Co. Ltd., Brantford, Ontario, Canada. Shuttle-box selecting mechanism for looms. No. 1,077,904; Nov. 4; Gaz. vol. 196; p. 227.

Clark, Walter C., Canby, Oreg. Automatic pump. No. 1,077,597; Nov. 4; Gaz. vol. 196; p. 123.

Clark, Walter G., New York, N. Y. Geographical-position indicator. No. 1,077,596; Nov. 4; Gaz. vol. 196; p. 122.

Clarke, David E. G., New York, N. Y. Washing-machine. No. 1,077,330; Nov. 4; Gaz. vol. 196; p. 31.

Clarke, Richard T., Columbus, Ohio. Garment-supporter. No. 1,077,671; Nov. 4; Gaz. vol. 196; p. 148.

Clausen, Henry P., and W. T. Curtis, assignors to S. C. Scotten, trustee, Chicago, Ill. Call-register. No. 1,078,772; Nov. 18; Gaz. vol. 196; p. 592.

Clegg, Robert C., vom, Hoboken, N. J. Millinery-pliers. No. 1,077,672; Nov. 4; Gaz. vol. 196; p. 148.

Clement, Henry W., Rutland, Vt. Transfer mechanism for calculating-machines. No. 1,078,662; Nov. 18; Gaz. vol. 196; p. 551.

Clement, William, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,078,188; Nov. 11; Gaz. vol. 196; p. 356.

Cleveland, Francis D., Winchester, assignor to William Underwood Company, Boston, Mass. Machine for cutting off the heads and tails of fish. No. 1,078,717; Nov. 18; Gaz. vol. 196; p. 572.

Cleveland, Francis D., Winchester, assignor to William Underwood Company, Boston, Mass. Machine for handling and cutting fish. No. 1,078,718; Nov. 18; Gaz. vol. 196; p. 572.

Cleveland, Francis D., Winchester, assignor to William Underwood Company, Boston, Mass. Fish-cutting machine. No. 1,078,719; Nov. 18; Gaz. vol. 196; p. 572.

Cleveland, Francis D., Winchester, assignor to William Underwood Company, Boston, Mass. Positioning fish. No. 1,078,720; Nov. 18; Gaz. vol. 196; p. 573.

Clouette, Nelson C. (See Gould and Clouette.)

Cloutier, Louis J., Providence, R. I. Blow-torch. No. 1,077,391; Nov. 4; Gaz. vol. 196; p. 53.

Clover, Cuvier L., et al. (See Moore, Otis G., assignor.)

Cluett, Peabody & Co. (See Friedmann, Harry, assignor.)

Clute, Nettie A., Rensselaer, N. Y. Folding crate. No. 1,079,328; Nov. 25; Gaz. vol. 196; p. 813.

Co-Ran Bed Company. (See Conant, John, assignor.)

Cookley, William F., and J. S. Levene, Kansas City, Mo. Vacuum separating-trap. No. 1,079,398; Nov. 25; Gaz. vol. 196; p. 837.

Cock, Lucine A., Chicago, Ill. Indicator. No. 1,078,673; Nov. 11; Gaz. vol. 196; p. 489.

Coffin, Arthur E., et al. (See Dodge, Frank, assignor.)

Coffman, Hushel R., Kansas City, Mo. Flying-machine. No. 1,077,258; Nov. 4; Gaz. vol. 196; p. 6.

Cohen, Gustav E. (See Chappell and Cohen.)

Colby, Harry W., and C. Sippel, Chicago, Ill., assignors to Automatic Racking Machine Company. Branding-machine. No. 1,079,313; Nov. 18; Gaz. vol. 196; p. 776.

Cole, Albert L., Auburndale, assignor to F. C. Parmenter, Gloucester, Mass. Packing. No. 1,078,333; Nov. 11; Gaz. vol. 196; p. 408.

Cole, Frank G., Conway, N. H. Adjustable square and bevel. No. 1,079,110; Nov. 18; Gaz. vol. 196; p. 709.

Cole, George A., Sanborn, Iowa. Wire-stretcher. No. 1,079,214; Nov. 18; Gaz. vol. 196; p. 744.

Coleman, Clarence W., deceased, Westfield, N. J.; K. Coleman, administratrix. Self-propelled vehicle. No. 1,077,598; Nov. 4; Gaz. vol. 196; p. 123.

Coleman, John P., New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-signal. No. 1,078,127; Nov. 11; Gaz. vol. 196; p. 335.

Coleman, Katharine, administratrix. (See Coleman, Clarence W.)

Coleman, Samuel H. (See Edwards, Stillman B., assignor.)

Coles, William E., assignor to Bates & Bacon, Attleboro, Mass. Bracket unit. No. 1,077,673; Nov. 4; Gaz. vol. 196; p. 149.

Coleston, William C. (See Patnaude, William E., assignor.)

Colglazier, Harry C., Larned, Kans. Whiffletree-hook. No. 1,078,418; Nov. 11; Gaz. vol. 196; p. 439.

Collett, Emil, assignor to Norsk Hydro-Elektrisk Kvaestofabriksselskab, Christiania, Norway. Concentrating acid such as nitric acid by means of a drying agent. No. 1,079,541; Nov. 25; Gaz. vol. 196; p. 884.

Collier, Arthur T., St. Albans, assignor of one-third to J. Dangerfield, London, England. Magnetic clutch. No. 1,077,805; Nov. 4; Gaz. vol. 196; p. 193.

Collier, Guy B. (See Wales, Nathaniel B., assignor.)

Collier, James D., Redlands, Cal. Spring-wheel. No. 1,079,840; Nov. 25; Gaz. vol. 196; p. 990.

Collin, Carl, Offenbach-on-the-Main, Germany. Type setting and distributing machine. No. 1,078,832; Nov. 18; Gaz. vol. 196; p. 612.

Collings, Edward T., Phoenix, Ariz. Spring harrow-tooth. No. 1,077,806; Nov. 4; Gaz. vol. 196; p. 194.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Spooler. No. 1,078,574; Nov. 11; Gaz. vol. 196; p. 489.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Warp-tying machine. No. 1,079,470; Nov. 25; Gaz. vol. 196; p. 861.

Colpitts, Calvin N., assignor to American Shade Machine Company, Boston, Mass. Machine for cutting and creasing sheet material. No. 1,079,542; Nov. 25; Gaz. vol. 196; p. 885.

Colton, Arthur, assignor to Arthur Colton Company, Detroit, Mich. Capsule-filling machine. No. 1,077,392; Nov. 4; Gaz. vol. 196; p. 53.

Columbia Postal Supply Company. (See Ielfield, August, assignor.)

Columbia Postal Supply Company. (See Ielfield, Fred C., assignor.)

Commonwealth Steel Company. (See Bundy and Acker, assignors.)

Commonwealth Steel Company. (See Knox, William J., assignor.)

Commonwealth Steel Company. (See Westlake, Charles T., assignor.)

Conant, John, assignor to Co-Ran Bed Company, Oakland, Cal. Bed-canopy. No. 1,078,128; Nov. 11; Gaz. vol. 196; p. 336.

Connable, Frank L. (See Williams, David T., assignor.)

Connecticut Turbine Manufacturing Company. (See Rearick, Charles B., assignor.)

Connell, William F., New York, N. Y. Instep-support. No. 1,077,871; Nov. 4; Gaz. vol. 196; p. 215.

Connors, Henry B., Sioux City, Iowa. Hinge. No. 1,079,215; Nov. 18; Gaz. vol. 196; p. 744.

Conrad, Richard D. (See Gehring and Conrad.)

Conrad, Edward W., Seattle, Wash. Double-seaming can-machine. No. 1,077,893; Nov. 4; Gaz. vol. 196; p. 53.

Conte, James, Lima, Ohio. Conveyor mechanism. No. 1,079,165; Nov. 18; Gaz. vol. 196; p. 728.

Converse, Atherton D., Winchendon, Mass. Collapsible shoe-fly rocker. No. 1,079,399; Nov. 25; Gaz. vol. 196; p. 837.

Converse, Frederic S., Binghamton, N. Y. Rotary coal-screen. No. 1,079,543; Nov. 25; Gaz. vol. 196; p. 885.

Conzelman, John E., assignor to Unit Construction Company, St. Louis, Mo. Double-wall construction. No. 1,079,111; Nov. 18; Gaz. vol. 196; p. 709.

Conzelman, John E., Webster Groves, assignor to Unit Construction Company, St. Louis, Mo. Wall construction. No. 1,079,112; Nov. 18; Gaz. vol. 196; p. 709.

Conzelman, John E., Webster Groves, assignor to Unit Construction Company, St. Louis, Mo. Double-wall construction. No. 1,079,113; Nov. 18; Gaz. vol. 196; p. 710.

Cook, August D., Lawrenceburg, Ind. Strainer for driven wells. No. 1,079,216; Nov. 18; Gaz. vol. 196; p. 745.

Cook, August D., Lawrenceburg, Ind. Burial-vault. No. 1,079,217; Nov. 18; Gaz. vol. 196; p. 745.

Cook, C. W., Mathis, Tex. Machine for cleaning and feeding cotton. No. 1,078,833; Nov. 18; Gaz. vol. 196; p. 613.

Cook, Charles W., Milwaukee, Wis. Life-raft. No. 1,078,334; Nov. 11; Gaz. vol. 196; p. 408.

Cook, Herbert F., and C. C. Hildreth, Lake Mills, Iowa. Bowling-alley. No. 1,077,807; Nov. 4; Gaz. vol. 196; p. 194.

Cook, Thomas, Indiana, Pa. Gaseous-fuel mixer. No. 1,078,834; Nov. 18; Gaz. vol. 196; p. 613.

Cook, Walter H., New Orleans, La. Steam-cooker. No. 1,079,841; Nov. 25; Gaz. vol. 196; p. 991.

Cook, Walter H., New Orleans, La. Shock-absorber for automobiles. No. 1,079,842; Nov. 25; Gaz. vol. 196; p. 991.

Cooke, Alexander H., New York, N. Y. Variable-speed-transmission gearing. No. 1,077,454; Nov. 4; Gaz. vol. 196; p. 78.

Cooke, Arabella C. (See Cooke, Frank N., assignor.)

Cooke, Frank N., assignor to A. C. Cooke, Danvers, Mass. Air-feeding attachment. No. 1,079,636; Nov. 25; Gaz. vol. 196; p. 918.

Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Production of refractory conductors. No. 1,077,674; Nov. 4; Gaz. vol. 196; p. 149.

Cooper, Frank. (See Hodges and Cooper.)

Cooper, Frank J., Emporia, Kans. Rifle. No. 1,079,471; Nov. 25; Gaz. vol. 196; p. 861.

Cooper Hewitt Electric Co. (See Pole, Joseph C., assignor.)

Cooper Hewitt Electric Company. (See Bastian, Charles O., assignor.)

Cooper Hewitt Electric Company. (See Hewitt, Peter C., assignor.)

Cooper Hewitt Electric Company. (See Hewitt and Rogers, assignors.)

Cooper Hewitt Electric Company. (See Keyes, Frederick G., assignor.)

Cooper Hewitt Electric Company. (See Thomas, Percy H., assignor.)

Cooper, Thomas W., Buckhead, Ga. Steam-heating system. No. 1,079,637; Nov. 25; Gaz. vol. 196; p. 918.

Cooper, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Car-lighting system. No. 1,079,400; Nov. 25; Gaz. vol. 196; p. 837.

Cooper, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Car-lighting system. No. 1,079,401; Nov. 25; Gaz. vol. 196; p. 837.

Copenhagen, Herman C., Auburn, Wash. Harrow. No. 1,077,455; Nov. 4; Gaz. vol. 196; p. 76.

Corcoran, Cornelius H., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,078,537; Nov. 11; Gaz. vol. 196; p. 477.

Corder, William H. (See Morgan and Corder.)

Cordley, Henry G. (See Long and Cordley.)

Corn Products Refining Company. (See Jefferies and Spain, assignors.)

Cornell, Robert F., San Diego, Cal. Folding bed. No. 1,078,613; Nov. 18; Gaz. vol. 196; p. 534.

Cornett, Barney T., assignor to M. E. Farris, Showans, Tenn. Sealing-torch. No. 1,078,903; Nov. 18; Gaz. vol. 196; p. 636.

Cornwall, George R., Rye, N. Y., assignor to American Planograph Company. Types. No. 1,079,402; Nov. 25; Gaz. vol. 196; p. 838.

Cornwall, John B., assignor to Barnard and Leas Manufacturing Company, Moline, Ill. Packer. No. 1,077,808; Nov. 4; Gaz. vol. 196; p. 194.

Corrigan, John A., St. Paul, and E. M. Mortimer, Minneapolis, Minn. Joint for train-pipe connections. No. 1,078,129; Nov. 11; Gaz. vol. 196; p. 336.

Coryell, Joe H. (See Abrames and Coryell.)

Cosgrove, James M., Malden, Mass. Street and road construction. No. 1,078,773; Nov. 18; Gaz. vol. 196; p. 593.

Couch, Buel, et al. (See Kneeder, John D., assignor.)

Courser, Fred M., Rochester, N. Y. Device for cleaning and truing emery-wheels, &c. No. 1,078,258; Nov. 11; Gaz. vol. 196; p. 380.

Covert, C. M., et al. (See Patrick, James H., assignor.)

Cowherd, Douglas H., Louisville, Ky. Smoke-consumer. No. 1,079,692; Nov. 25; Gaz. vol. 196; p. 937.

Cowles, William P., assignor of one-half to S. F. Evans, Minneapolis, Minn. Reinforced-concrete building. No. 1,078,575; Nov. 11; Gaz. vol. 196; p. 489.

Cox, Frank J., Dodge City, Kans. Sanitary holder for barbers' checks and accessories. No. 1,077,809; Nov. 4; Gaz. vol. 196; p. 194.

Craft, Edward B., Hackensack, N. J., assignor to Western Electric Company, New York, N. Y. Crank-arm. No. 1,079,472; Nov. 25; Gaz. vol. 196; p. 861.

Craggs, Ross V., Gainsborough, England, assignor to R. H. Wright, Durham, N. C. Apparatus for filling and packing materials into receptacles. No. 1,077,810; Nov. 4; Gaz. vol. 196; p. 195.

Craig, Charles V., Los Angeles, Cal. Flume construction. No. 1,078,835; Nov. 18; Gaz. vol. 196; p. 614.

Craig, Sam A., El Paso, Tex. Gate. No. 1,078,130; Nov. 11; Gaz. vol. 196; p. 336.

Cramer, Alfred L., Colby, Wis. Attachment for cattle-stanchions. No. 1,079,166; Nov. 18; Gaz. vol. 196; p. 728.

Crandall, William M., Stillwell, Kans. Safety appliance for air-brake mechanisms. No. 1,078,663; Nov. 18; Gaz. vol. 196; p. 551.

Crane, Edward F., Newark, N. J. Floor construction. No. 1,077,394; Nov. 4; Gaz. vol. 196; p. 54.

Craven Engineering Company. (See Craven, James F., assignor.)

Craven, James F., assignor to Craven Engineering Company, Pittsburgh, Pa. Receptacle with metal label. No. 1,077,259; Nov. 4; Gaz. vol. 196; p. 6.

Crawford, Edmund M., Schenectady, N. Y. Locomotive-bell. No. 1,078,335; Nov. 11; Gaz. vol. 196; p. 408.

Crawley, Mansfield C., San Francisco, Cal., assignor to Addograph Company. Type-writer. No. 1,077,675; Nov. 4; Gaz. vol. 196; p. 149.

Crecelius, Louis J., assignor to C. A. Thompson, St. Louis, Mo. Refillable bottle. No. 1,079,403; Nov. 25; Gaz. vol. 196; p. 838.

Crelighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Protective device for street-cars. No. 1,078,131; Nov. 11; Gaz. vol. 196; p. 337.

Criddle, Thomas B., et al. (See Martin, William A., assignor.)

Crompton, Frank E. (See Woodward and Crompton.)

Crompton & Knowles Loom Works. (See Kyon, Eppa H., assignor.)

Crompton, Rookes E. B., and E. T. J. Tapp, London, England. Road-roller. No. 1,078,538; Nov. 11; Gaz. vol. 196; p. 477.

Cronin, William, Philadelphia, Pa. Means for securing heads to spools. No. 1,078,419; Nov. 11; Gaz. vol. 196; p. 439.

Crosby, Gorham, New York, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,078,721; Nov. 18; Gaz. vol. 196; p. 573.

Crossley, Francis M., Detroit, Mich. Railway-tie. No. 1,079,838; Nov. 25; Gaz. vol. 196; p. 919.

Crouse-Hinds Company. (See Olley, Edwin A., assignor.)

Crowe, Paul L., Jersey City, N. J. Stoker. No. 1,077,872; Nov. 4; Gaz. vol. 196; p. 215.

Crown Die & Tool Company. (See Beck, Edward E., assignor.)

Cubitt, Archibald S., Pittsfield, Mass., assignor to General Electric Company. Electric heater. No. 1,077,676; Nov. 4; Gaz. vol. 196; p. 150.

Cuenot, Paul A., Steelton, assignor to The Pennsylvania Steel Company, Philadelphia, Pa. Roller-bearing for turn-tables. No. 1,079,911; Nov. 25; Gaz. vol. 196; p. 1016.

Cullin, Jasper F., Clinton, Mich. Internal-combustion motor. No. 1,077,811; Nov. 4; Gaz. vol. 196; p. 195.

Culver, Francis D., Humboldt, Kans. Holder. No. 1,077,510; Nov. 4; Gaz. vol. 196; p. 96.

Cummings, Henry H., Newton, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I. Target-practice apparatus. No. 1,078,259; Nov. 11; Gaz. vol. 196; p. 381.

Cuno, Charles H., Meriden, Conn. Gas-engine starter. No. 1,078,260; Nov. 11; Gaz. vol. 196; p. 381.

Curtain Supply Company, The. (See Forsyth, William H., assignor.)

Curtain Supply Company. (See Forsyth and Whitmore, assignors.)

Curtain Supply Company, The. (See Whitmore, Edward E., assignor.)

Curtis, Charles G., New York, N. Y. Gearing. No. 1,078,836; Nov. 18; Gaz. vol. 196; p. 614.

Curtis, Charles G., New York, N. Y. Gearing. No. 1,078,837; Nov. 18; Gaz. vol. 196; p. 614.

Curtis, Charles G., New York, N. Y. Steam prime mover for marine propulsion. No. 1,078,838; Nov. 18; Gaz. vol. 196; p. 614.

Curtis, James J., New York, N. Y. Conveyor. No. 1,079,218; Nov. 18; Gaz. vol. 196; p. 745.

Curtis, Lewis A., and E. H. Hall, Alameda, Cal. Washing-machine. No. 1,078,486; Nov. 11; Gaz. vol. 196; p. 460.

Curtis, William T. (See Clausen and Curtis.)

Curtiss, Allen H., Conneaut, Ohio. Spout-closure for receptacles. No. 1,077,677; Nov. 4; Gaz. vol. 196; p. 150.

Cusson, Japhet B., De Kalb, Ill. Checkrein fastener or holder. No. 1,079,639; Nov. 25; Gaz. vol. 196; p. 919.

Cutler, David A., Mount Vernon, N. Y. Devulcanizing rubber. No. 1,078,086; Nov. 11; Gaz. vol. 196; p. 321.
 Cutler-Hammer Mfg. Co., The. (See Barnum, Thomas E., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Wiegand, Henry J., assignor.)
 Cutter, George A., Taunton, assignor to Stone & Webster, Boston, Mass. Lever-brace. No. 1,079,912; Nov. 25; Gaz. vol. 196; p. 1016.
 D. & W. Fuse Co. (See Downes and Faxon, assignors.)
 D'Orsogna, Louis S., and P. Cane, Philadelphia, Pa. Pattern for drafting garments. No. 1,078,576; Nov. 11; Gaz. vol. 196; p. 490.
 D'Orsogna, Louis S., and P. Cane, Coney Island, assignors to N. D'Orsogna, Brooklyn, N. Y. Pattern for drafting and fitting garments. No. 1,078,087; Nov. 11; Gaz. vol. 196; p. 322.
 D'Orsogna, Nicholas. (See D'Orsogna and Cane, assignors.)
 Dalley, Russell L., Kansas City, Kans. Oil-burner. No. 1,077,878; Nov. 4; Gaz. vol. 196; p. 150.
 Dalén, Gustaf, Stockholm, Sweden, assignor to American Gasaccumulator Company, Philadelphia, Pa. Light-signal apparatus. No. 1,079,544; Nov. 25; Gaz. vol. 196; p. 885.
 Daley, Hugh, Chicago, Ill. Hydrocarbon-burner. No. 1,077,260; Nov. 4; Gaz. vol. 196; p. 6.
 Dalmar, Richard. (See Wander and Dalmar.)
 Dalton, Adding Machine Company. (See Landsiedel, Harry, assignor.)
 Dalton, William, Schenectady, N. Y. Steam-engine valve-reversing gear. No. 1,078,774; Nov. 18; Gaz. vol. 196; p. 593.
 Dangerfield, James. (See Collier, Arthur T., assignor.)
 Daniel, James E., Texarkana, Tex. Cooking-range. No. 1,078,722; Nov. 18; Gaz. vol. 196; p. 573.
 Daniels, Taylor E. (See Ogle, Harley A., assignor.)
 Darling, Arthur R., assignor to Edwards Instrument Company, Indianapolis, Ind. Holder for high-tension electrodes. No. 1,078,597; Nov. 11; Gaz. vol. 196; p. 497.
 Darrow, Wilton E., Sutter Creek, Cal. Pulp-distributor. No. 1,078,775; Nov. 18; Gaz. vol. 196; p. 593.
 Daudellin, Eusebe H. (See Daudellin, Jean B. and E. H.)
 Daudellin, Eusebe H., assignor to himself and J. B. Daudellin, Fall River, Mass. Shuttle. No. 1,078,261; Nov. 11; Gaz. vol. 196; p. 332.
 Daudellin, Jean B. (See Daudellin, Eusebe H., assignor.)
 Daudellin, Jean B. and E. H., Fall River, Mass. Shuttle. No. 1,079,473; Nov. 25; Gaz. vol. 196; p. 862.
 Davene, Eugene F., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Transmitting device. No. 1,078,664; Nov. 18; Gaz. vol. 196; p. 552.
 Davidson, Robert J., Chicago, Ill. Rotary engine. No. 1,078,539; Nov. 11; Gaz. vol. 196; p. 477.
 Davies, David, Salt Lake City, Utah. Water-gate cock. No. 1,078,420; Nov. 11; Gaz. vol. 196; p. 439.
 Davis, Alex B., assignor to The Eli Lilly and Company, Indianapolis, Ind. Mercury compounds and producing same. No. 1,079,693; Nov. 25; Gaz. vol. 196; p. 938.
 Davis, Benjamin F., assignor, by mesne assignments, to J. M. Himes, Washington, D. C. Heat-distributor or bake-oven for gas and gasoline stoves. No. 1,079,219; Nov. 18; Gaz. vol. 196; p. 746.
 Davis-Bourneville Company. (See Bucknam, Worthy C., assignor.)
 Davis, Emory E., assignor to Matthews-Davis Tool Company, St. Louis, Mo. Boring-tool. No. 1,078,611; Nov. 18; Gaz. vol. 196; p. 534.
 Davis, John F., and R. L. Ford, Decatur, Ill., assignors to Pioneer Implement Company, Council Bluffs, Iowa. Transmission-gearing. No. 1,079,747; Nov. 25; Gaz. vol. 196; p. 959.
 Davis, John T., assignor to Davis Oil Refining Co., San Francisco, Cal. Making coffee extract. No. 1,079,474; Nov. 25; Gaz. vol. 196; p. 862.
 Davis, Milo, Dederick, Mo. Fifth-wheel connection for vehicles. No. 1,079,475; Nov. 25; Gaz. vol. 196; p. 862.
 Davis Oil Refining Co. (See Davis, John T., assignor.)
 Davis, William F., Kansas City, Kans., assignor to McKee Motor Car Company, Car-motor. No. 1,077,679; Nov. 4; Gaz. vol. 196; p. 151.
 Davis, William F., Kansas City, Kans., assignor to McKee Motor Car Company. Explosion-motor for cars and the like. No. 1,079,220; Nov. 18; Gaz. vol. 196; p. 746.
 Davidson, Gregory C., New London, Conn., assignor to Electric Boat Company, New York, N. Y. Ignition apparatus for power-generating systems. No. 1,079,748; Nov. 25; Gaz. vol. 196; p. 959.
 Davison, Herbert H., Winnipeg, Manitoba, Canada. Sheaf-loader. No. 1,078,132; Nov. 11; Gaz. vol. 196; p. 337.
 Davison, Roy E., Catoosa, Okla. Agricultural implement. No. 1,079,114; Nov. 18; Gaz. vol. 196; p. 710.
 Dawes, Robert, et al. (See Teresa, Antonio, assignor.)
 Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Automatic gun. No. 1,077,680; Nov. 4; Gaz. vol. 196; p. 151.

Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Firearm. No. 1,077,873; Nov. 4; Gaz. vol. 196; p. 216.
 Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Hang-fire device for breech-loading ordnance. No. 1,078,665; Nov. 18; Gaz. vol. 196; p. 552.
 Dawson, Arthur T., and G. T. Buckham, Westminster, assignors to Vickers, Limited, London, England. Hang-fire device for breech-loading ordnance. No. 1,079,314; Nov. 18; Gaz. vol. 196; p. 776.
 Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Sighting apparatus for ordnance. No. 1,079,749; Nov. 25; Gaz. vol. 196; p. 960.
 Dawson, James C., Webster Groves, Mo. Loose-leaf binder. No. 1,077,682; Nov. 4; Gaz. vol. 196; p. 152.
 Dawson, James C., Webster Groves, assignor to George D. Barnard & Co., St. Louis, Mo. Loose-leaf binder. No. 1,077,681; Nov. 4; Gaz. vol. 196; p. 152.
 Dawson, Joseph W., assignor to Barry-Wehmiller Machinery Company, St. Louis, Mo. Basket for bottle-conveyers. No. 1,078,262; Nov. 11; Gaz. vol. 196; p. 382.
 Dawson, Joseph W., assignor to Barry-Wehmiller Machinery Company, St. Louis, Mo. Bottle-carrier for soaking-machines. No. 1,079,750; Nov. 25; Gaz. vol. 196; p. 960.
 De Coninck, Arthur, Woluwe-St.-Lambert, near Brussels, Belgium. Crank-shaft. No. 1,077,511; Nov. 4; Gaz. vol. 196; p. 96.
 De Forest, Charles, Los Angeles, assignor to Sanitary Utilities Company, San Bernardino, Cal. Sanitary churn. No. 1,077,456; Nov. 4; Gaz. vol. 196; p. 76.
 De Graaf, Benjamin and G. A., Bloomfield, N. J.; said Benjamin De Graaf assignor to said G. A. De Graaf. Diamond-polishing machine. No. 1,077,396; Nov. 4; Gaz. vol. 196; p. 55.
 De Graaf, Gerrit A. (See De Graaf, Benjamin and G. A.)
 De Leeuw, Adolph L., Cincinnati, assignor to The Cincinnati Milling Machine Company, Oakley, Ohio. Gear-cutter grinder. No. 1,078,540; Nov. 11; Gaz. vol. 196; p. 478.
 De Mendoza ver Mehr, John M. (See Owen, John S., assignor.)
 De Weir, George F., Milwaukee, Wis., assignor, by mesne assignments, to H. W. Johns-Manville Company, New York, N. Y. Packing-expander. No. 1,079,404; Nov. 25; Gaz. vol. 196; p. 838.
 Deacon, George B., London, Ontario, Canada. Carpet-sweeper. No. 1,079,694; Nov. 25; Gaz. vol. 196; p. 938.
 Deakins, Henry B., Logan, Iowa. Clevis. No. 1,079,476; Nov. 25; Gaz. vol. 196; p. 862.
 Decker, William, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Mechanically-operated accelerating mechanism. No. 1,077,395; Nov. 4; Gaz. vol. 196; p. 55.
 Debaughe, Henry P. C. G. (See Barry, Charles P., assignor.)
 Decker & Cohn, Alfred. (See Pelne, Adolphus G., assignor.)
 Deery, Daniel H., Bridgeport, Conn. Resilient tire for trucks. No. 1,077,683; Nov. 4; Gaz. vol. 196; p. 152.
 Dees, Oils B., and P. F. McIntosh, Mayo, Fla. Skimmer for making syrup. No. 1,077,331; Nov. 4; Gaz. vol. 196; p. 31.
 Degener, Gustave O., New York, N. Y., and H. Resch, Bayonne, N. J., assignors to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,077,684; Nov. 4; Gaz. vol. 196; p. 152.
 Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Matrix-setting and type-line-casting machine. No. 1,077,332; Nov. 4; Gaz. vol. 196; p. 32.
 Delsher, John R., Pottsville, Pa. Car-coupling. No. 1,079,221; Nov. 18; Gaz. vol. 196; p. 746.
 Dekan, Frank K., and A. Glauber, Lorain, Ohio. Automatic gate for railway-crossings. No. 1,078,421; Nov. 11; Gaz. vol. 196; p. 440.
 Delaney, Thomas A., Chicago, Ill., assignor to Hills-McCanna Co. Pneumatic motor. No. 1,078,598; Nov. 11; Gaz. vol. 196; p. 498.
 Delany, Edward L., New York, N. Y. Valve for flush-tanks. No. 1,077,457; Nov. 4; Gaz. vol. 196; p. 77.
 Delay, Clyde, Sandborn, Ind. Poultry-brooder. No. 1,079,545; Nov. 25; Gaz. vol. 196; p. 886.
 Delsing, Paul A., Seattle, Wash. Fireplace-damper. No. 1,078,189; Nov. 11; Gaz. vol. 196; p. 357.
 Deming Company, The. (See Stratton, James M., assignor.)
 Dempster, Mill Manufacturing Company. (See Elliott, Loeber, and Schlachter, assignors.)
 Denison, George H., et al. (See Korte, Christian, assignor.)
 Denison, George W., Cleveland Heights, Ohio. Wall-tying device. No. 1,079,115; Nov. 18; Gaz. vol. 196; p. 710.
 Denison, Samuel, et al. (See Korte, Christian, assignor.)
 Dennehy, Denis, assignor of one-half to M. H. Dennehy, Pittsburg, Pa. Valve. No. 1,079,222; Nov. 18; Gaz. vol. 196; p. 746.
 Dennehy, Michael H. (See Dennehy, Denis, assignor.)
 Dennis, Elmer L., assignor to Andrews Wire & Iron Works, Rockford, Ill. Carpet-beater. No. 1,078,839; Nov. 18; Gaz. vol. 196; p. 615.

Dennis, Fred J. (See Seegmiller, Charles H., assignor.)
 Dennis, George W., Harvey, Ill. Machine for molding metal in indeterminate lengths. No. 1,077,458; Nov. 4; Gaz. vol. 196; p. 77.
 Dennison, Charles R., Youngstown, Ohio. Gold-extracting machine. No. 1,077,261; Nov. 4; Gaz. vol. 196; p. 7.
 Dennison Manufacturing Company. (See Potter, Harry J., assignor.)
 Dent, George G. (See Sayer and Dent.)
 Derbyshire, Henry E., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Hammer construction. No. 1,077,812; Nov. 4; Gaz. vol. 196; p. 195.
 Dern, John. (See Buddus, Wilhelm, assignor.)
 Dery, Abdon F., Pittsburg, Kans. Boxing for coal-drilling machines. No. 1,079,289; Nov. 18; Gaz. vol. 196; p. 766.
 Deschamps, Jules, Paris, France. Automatic electric despatch system. No. 1,078,035; Nov. 11; Gaz. vol. 196; p. 304.
 Deuel, Joseph J., Bakersfield, assignor to Axelson Machine Co., Los Angeles, Cal. Pump-protector. No. 1,077,685; Nov. 4; Gaz. vol. 196; p. 153.
 Deutscher, Maximilian, Heidelberg, Germany. Automatic lubricator. No. 1,077,813; Nov. 4; Gaz. vol. 196; p. 198.
 Devlin, Henry, assignor to The M. Garland Company, Bay City, Mich. Transmission mechanism. No. 1,079,477; Nov. 25; Gaz. vol. 196; p. 863.
 Dewey, Edward L., Whiting, Ind. Automobile-muffler. No. 1,077,905; Nov. 4; Gaz. vol. 196; p. 227.
 Diamalt Aktien-Gesellschaft. (See Jacoby, Ernst, assignor.)
 Diamond Match Company, The. (See Fairburn, William A., assignor.)
 Dibert, George R., Ford, Idaho. Nail-extractor. No. 1,079,843; Nov. 25; Gaz. vol. 196; p. 991.
 Dichmann, William. (See Wakeman, Charles A., assignor.)
 Dickey, Arthur V., assignor of one-half to W. M. Sheffield, Seattle, Wash. Air-gun. No. 1,078,487; Nov. 11; Gaz. vol. 196; p. 460.
 Diehl, Philip, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Tuck-marker for sewing-machines. No. 1,079,329; Nov. 25; Gaz. vol. 196; p. 813.
 Dievendorf, William E., Sprakers, N. Y. Dirigible lamp for automobiles. No. 1,079,844; Nov. 25; Gaz. vol. 196; p. 991.
 Diller, James C., Bluffton, Ohio. Kiln. No. 1,078,488; Nov. 11; Gaz. vol. 196; p. 461.
 Dixie Cotton Picker Company. (See Appleby, John F., assignor.)
 Dixon, Ezra, Bristol, R. I. Weight-lever for spinning-machines. No. 1,078,996; Nov. 18; Gaz. vol. 196; p. 668.
 Dixon, James F., Kansas City, Mo., assignor to I. Hill, Lawrence, Kans. Package. No. 1,078,263; Nov. 11; Gaz. vol. 196; p. 382.
 Doble, William H., et al. (See Field, Samuel B., assignor.)
 Dodds, Ethan L., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Fire-box stay-bolt for locomotive and other boilers. No. 1,077,975; Nov. 11; Gaz. vol. 196; p. 283.
 Dodds, Ethan L., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,079,223; Nov. 18; Gaz. vol. 196; p. 747.
 Dodds, Ethan L., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,079,224; Nov. 18; Gaz. vol. 196; p. 747.
 Dodge, Frank, Boston, assignor to F. R. Sawyer, Malden, and A. E. Coffin, Newton, Mass. Labeling-machine. No. 1,078,723; Nov. 18; Gaz. vol. 196; p. 574.
 Dodge, Norman, East Orange, N. J., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,077,397; Nov. 4; Gaz. vol. 196; p. 55.
 Dodge, Norman, East Orange, N. J., assignor to Mergenthaler Linotype Company. Pl-stacking device for typographical machines. No. 1,078,612; Nov. 18; Gaz. vol. 196; p. 534.
 Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,079,478; Nov. 25; Gaz. vol. 196; p. 863.
 Dolph, Cyrus, Preston, Ontario, Canada. Barn. No. 1,079,040; Nov. 18; Gaz. vol. 196; p. 685.
 Dom, Chesley, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio. Temporary binder. No. 1,079,640; Nov. 25; Gaz. vol. 196; p. 919.
 Donath, Adolf, New York, N. Y. Aeronautical apparatus. No. 1,078,614; Nov. 18; Gaz. vol. 196; p. 535.
 Doner, William F., Winnipeg, Manitoba, Canada. Rotary engine. No. 1,077,874; Nov. 4; Gaz. vol. 196; p. 216.
 Donovan, James P., Georgetown, Ky. Railway-tie. No. 1,078,666; Nov. 18; Gaz. vol. 196; p. 552.
 Donovan, John J., Dorchester, Mass. Floor-drain trap. No. 1,079,593; Nov. 25; Gaz. vol. 196; p. 905.
 Doolittle, Tracy W., C. S. Winsor, and C. H. Vergason, Binghamton, N. Y. Adjustably-mounted swivel-roller. No. 1,077,906; Nov. 4; Gaz. vol. 196; p. 228.
 Dorneth, Julius, assignor to Typograph G. m. b. H., Berlin, Germany. Line setting and casting machine. No. 1,078,422; Nov. 11; Gaz. vol. 196; p. 440.
 Dorr, Benjamin B., West Toledo, Ohio. Explosive-engine. No. 1,079,845; Nov. 25; Gaz. vol. 196; p. 992.

Dorricott, Charles W., Philadelphia, assignor to Electrelle Company, Summerdale, Philadelphia, Pa. Pneumatic-electric tracker-bar for musical instruments. No. 1,078,133; Nov. 11; Gaz. vol. 196; p. 337.
 Dorsey, Farnum F., assignor to Seneca Camera Manufacturing Company, Rochester, N. Y. Spring-adjusting mechanism. No. 1,078,134; Nov. 11; Gaz. vol. 196; p. 338.
 Dorsey, John M., Ellensburg, Wash. Rail-joint fastening and the like. No. 1,078,904; Nov. 18; Gaz. vol. 196; p. 637.
 Doughty, Herman W. (See Beach and Doughty.)
 Douglas, Roy C., San Francisco, Cal. Electric fog-signal light. No. 1,077,398; Nov. 4; Gaz. vol. 196; p. 56.
 Douglas, Theodore, Scarborough, N. Y. Speed-governor. No. 1,078,336; Nov. 11; Gaz. vol. 196; p. 409.
 Douglas, Theodore, Scarborough, N. Y. Power-vehicle governor. No. 1,078,337; Nov. 11; Gaz. vol. 196; p. 409.
 Douglas, William H., Belleville, N. J., assignor to Healey & Co., New York, N. Y. Folding chair for automobiles. No. 1,079,346; Nov. 25; Gaz. vol. 196; p. 993.
 Dove, Claude H., Lynn, Neb. Rake attachment for mowers. No. 1,077,262; Nov. 4; Gaz. vol. 196; p. 7.
 Dover, George W., Cranston, R. I. Pin. No. 1,077,599; Nov. 4; Gaz. vol. 196; p. 124.
 Downes, Louis W., and A. W. Faxon, said Faxon assignor to D. & W. Fuse Co., Providence, R. I. Magnetic chuck. No. 1,079,546; Nov. 25; Gaz. vol. 196; p. 886.
 Downie, James K., Wawanesa, Manitoba, Canada. Rotary weeder. No. 1,078,338; Nov. 11; Gaz. vol. 196; p. 409.
 Dragan, Philip, C. D. George, and R. J. Palmerio, Philadelphia, Pa. Trolley-guard. No. 1,078,489; Nov. 11; Gaz. vol. 196; p. 461.
 Drake, Arthur J. (See Hewitt and Drake.)
 Drake, James E., New York, N. Y. Paper-weight. No. 1,078,905; Nov. 18; Gaz. vol. 196; p. 637.
 Drake, William H., Columbia, S. C. Shade-bracket. No. 1,079,641; Nov. 25; Gaz. vol. 196; p. 919.
 Draper Company. (See Bailey, Carl E., assignor.)
 Draper Company. (See Northrop, Jonas, assignor.)
 Draper Company. (See Patterson, George, assignor.)
 Draper Company. (See Pope, Toombs O., assignor.)
 Dressler, Rudolph G., Coney Island, N. Y. Aerodrome. No. 1,079,167; Nov. 18; Gaz. vol. 196; p. 729.
 Drewell, Heinrich, Charlottenburg, assignor to Schnellseits-maschinengesellschaft mit beschränkter Haftung, Berlin, Germany. Matrix-setting and type-casting machine. No. 1,077,512; Nov. 4; Gaz. vol. 196; p. 97.
 Dreyfus, Ludwig. (See Linke and Dreyfus.)
 Driscoll, Daniel A., Buffalo, N. Y. Toilet-powder case. No. 1,077,459; Nov. 4; Gaz. vol. 196; p. 77.
 Driscoll, Robert H., Aylmer, Quebec, Canada. Feed-mixer. No. 1,077,814; Nov. 4; Gaz. vol. 196; p. 196.
 Drottcour, Michael A., Oak Park, Ill. Paper-feeder. No. 1,077,399; Nov. 4; Gaz. vol. 196; p. 57.
 Drottcour, Michael A., Oak Park, assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill. Paper-delivery mechanism. No. 1,077,400; Nov. 4; Gaz. vol. 196; p. 57.
 Drottcour, Michael A., Oak Park, assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill. Mechanical movement. No. 1,077,815; Nov. 4; Gaz. vol. 196; p. 196.
 Drottcour, Michael A., Oak Park, assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill. Sheet-delivery mechanism for rotary printing-presses. No. 1,078,997; Nov. 18; Gaz. vol. 196; p. 669.
 Dronsfield, Albert J., assignor of forty-nine one-hundredths to E. L. Martin, Providence, R. I. Preparing cotton for dyeing and bleaching. No. 1,077,263; Nov. 4; Gaz. vol. 196; p. 8.
 Drum, George E. (See Smith, Drum, and Skitt.)
 Druschel, Henry, Columbia, Pa. Combined friction and positive clutch. No. 1,078,840; Nov. 18; Gaz. vol. 196; p. 615.
 Dryfoos, Milton M., New York, N. Y. Wearing-apparel. No. 1,079,041; Nov. 18; Gaz. vol. 196; p. 686.
 Du Brul, Napoleon, assignor to The Miller, Du Brul and Peters Manufacturing Company, Cincinnati, Ohio. Rotary knife-grinder. No. 1,077,333; Nov. 4; Gaz. vol. 196; p. 32.
 Du Mesnil, Charles C. (See Yancey and Du Mesnil.)
 Dubiller, William, New York, N. Y. Electric heater. No. 1,079,225; Nov. 18; Gaz. vol. 196; p. 747.
 Duffy, Bernard J. (See Gagnon, Peter, assignor.)
 Duffy, Charles G., New York, N. Y. Sample-case. No. 1,077,686; Nov. 4; Gaz. vol. 196; p. 153.
 Dugan, Samuel A., Gorgona, Canal Zone. Jointing apparatus for boiler-tubes. No. 1,078,615; Nov. 18; Gaz. vol. 196; p. 535.
 Dugger, Neal. (See Bohannon and Dugger.)
 Dunbar, Thomas E., Lakeland, Fla. Train-order-delivering device. No. 1,077,816; Nov. 4; Gaz. vol. 196; p. 197.
 Duncan, Emma S., Globe, Ariz. Garment-stretcher. No. 1,077,480; Nov. 4; Gaz. vol. 196; p. 78.
 Duncan, Garnett, Yellville, Ark. Embroidery-frame. No. 1,079,042; Nov. 18; Gaz. vol. 196; p. 686.
 Duncan, Joseph S., et al. (See Rogers, Russell N., assignor.)
 Dunham, Lawrence B. (See Chalmers, Harry B., assignor.)
 Dunkel, Emory B., Lucknow, and F. S. Bowman, Harrisburg, Pa. Train-pipe cock and operating mechanism therefor. No. 1,079,847; Nov. 25; Gaz. vol. 196; p. 993.

Dunleavy, James F., Newton, Mass. Tab for index-cards. No. 1,077,334; Nov. 4; Gaz. vol. 196; p. 32.
 Dunning, Parker, Schenectady, N. Y., assignor to General Electric Company. Starting device for electric motors. No. 1,077,817; Nov. 4; Gaz. vol. 196; p. 197.
 Dutton, John C., Grand Rapids, Mich. Flooring. No. 1,078,776; Nov. 18; Gaz. vol. 196; p. 594.
 Dupes, George, Knoxville, Tenn. Railway joint-crossing. No. 1,078,724; Nov. 18; Gaz. vol. 196; p. 574.
 Duplex Printing Press Company. (See Bechman, Henry F., assignor.) (Reissue.)
 Durand, Emil, Salem, Mass. Track for motor-boats. No. 1,079,901; Nov. 25; Gaz. vol. 196; p. 1012.
 Dusha, Paul F., A. Feyk, and J. Komancsek, assignors to Holub-Dusha Company, New York, N. Y. Feeding device for button-making machines. No. 1,077,335; Nov. 4; Gaz. vol. 196; p. 33.
 Dusha, Paul F., A. Feyk, and J. Komancsek, assignors to Holub-Dusha Company, New York, N. Y. Button-making machine. No. 1,077,336; Nov. 4; Gaz. vol. 196; p. 33.
 Dusha, Paul F., A. Feyk, and J. Komancsek, assignors to Holub-Dusha Company, New York, N. Y. Button-making machine. No. 1,077,337; Nov. 4; Gaz. vol. 196; p. 33.
 Dustin, John F., Fulton, N. Y. Electromechanical warp stop-motion for looms. No. 1,079,116; Nov. 18; Gaz. vol. 196; p. 710.
 Dutcher, Lewis B., Oswego, N. Y. Reel. No. 1,077,461; Nov. 4; Gaz. vol. 196; p. 78.
 Dutton, William D. (See Bowler and Dutton.)
 Dyer, Frank L. (See Aylsworth, Jonas W., assignor.)
 Dyer, Frank L. (See Aylsworth and Dyer.)
 Dyrenforth, Dorothy, now by marriage D. D. Auracher, Oak Park, Ill. Swimming-suit. No. 1,077,687; Nov. 4; Gaz. vol. 196; p. 154.
 E. Goldman & Co. (See Paul, John T. H., assignor.)
 E. H. Freeman Electric Company. (See Freeman, Edgar H., assignor.)
 E. I. du Pont de Nemours Powder Company. (See Masland, Walter E., assignor.)
 Eagar, George T., New York, N. Y., assignor to General Electric Company. Detector for printing presses or the like. No. 1,077,818; Nov. 4; Gaz. vol. 196; p. 198.
 Eagle Pencil Company. (See Klose, Gustav K. H., assignor.)
 Eagleson, Daniel, East Granby, Conn. Tobacco-supporting lath. No. 1,077,513; Nov. 4; Gaz. vol. 196; p. 87.
 Earnshaw, George F., Chicago, Ill., assignor to Earnshaw Knitting Company. Infant's band. No. 1,077,264; Nov. 4; Gaz. vol. 196; p. 8.
 Earnshaw, George F., assignor to Earnshaw Knitting Company, Chicago, Ill. Diaper. No. 1,079,479; Nov. 25; Gaz. vol. 196; p. 864.
 Earnshaw Knitting Company. (See Earnshaw, George F., assignor.)
 Eaton, John, Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,079,480; Nov. 25; Gaz. vol. 196; p. 864.
 Eberhard Faber Pencil Company. (See Roth, Henry J., assignor.)
 Eberle, John C., Denver, Colo. Shade-roller adjuster. No. 1,078,725; Nov. 18; Gaz. vol. 196; p. 575.
 Eckert, Leonard, Rancher, Mont. Hay-retainer for stackers. No. 1,077,819; Nov. 4; Gaz. vol. 196; p. 198.
 Eddings, James T., assignor of one-half to G. T. Knight, Coolidge, Ga. Plow. No. 1,077,820; Nov. 4; Gaz. vol. 196; p. 198.
 Edgar Allen American Manganese Steel Company. (See McKee, Walter S., assignor.)
 Edison Storage Battery Company. (See Rogers, Owen A., assignor.)
 Edison, Thomas A., Llewellyn Park, Orange, assignor to New Jersey Patent Company, West Orange, N. J. Phonographic recording or reproducing apparatus. No. 1,078,264; Nov. 11; Gaz. vol. 196; p. 383.
 Edison, Thomas A., Llewellyn Park, Orange, assignor to New Jersey Patent Company, West Orange, N. J. Making phonograph-records. No. 1,078,265; Nov. 11; Gaz. vol. 196; p. 383.
 Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Sound-box. No. 1,078,266; Nov. 11; Gaz. vol. 196; p. 383.
 Edman, John, assignor to H. L. Laird, Minneapolis, Minn. Stove and furnace lighter. No. 1,077,688; Nov. 4; Gaz. vol. 196; p. 154.
 Edwards, Charles E., Rockville Center, N. Y. Hose-clamp. No. 1,078,088; Nov. 11; Gaz. vol. 196; p. 322.
 Edwards Instrument Company. (See Darling, Arthur R., assignor.)
 Edwards, Oliver M., Syracuse, N. Y. Window. No. 1,077,875; Nov. 4; Gaz. vol. 196; p. 217.
 Edwards, Oliver M., Syracuse, N. Y. Sash-holder. No. 1,078,036; Nov. 11; Gaz. vol. 196; p. 304.
 Edwards, Oliver M., Syracuse, N. Y. Railway-car-trap-door latch. No. 1,078,777; Nov. 18; Gaz. vol. 196; p. 594.
 Edwards, Stillman B., Villisca, assignor of one-half to S. H. Coleman, Montgomery county, Iowa. Automatic hog-greaser. No. 1,078,267; Nov. 11; Gaz. vol. 196; p. 383.
 Egan, Florenz M., New York, N. Y. Lighting-fixture. No. 1,078,339; Nov. 11; Gaz. vol. 196; p. 410.
 Egler, Nicolas F., assignor to T. S. Blair, Jr., Chicago, Ill. Regenerative furnace. No. 1,079,642; Nov. 25; Gaz. vol. 196; p. 920.
 Egly, George C., Philadelphia, Pa. Knitting-machine needle. No. 1,077,600; Nov. 4; Gaz. vol. 196; p. 124.
 Ehrlich, Adolf, Budapest, Austria-Hungary. Vehicle advancing by means of artificial legs. No. 1,079,695; Nov. 25; Gaz. vol. 196; p. 938.
 Ehrlich, Paul, and A. Berthelm, Frankfurt-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Derivatives of acylaminooxyarsenobenzene and making same. No. 1,077,462; Nov. 4; Gaz. vol. 196; p. 78.
 Ehrlich, Paul, Frankfurt-on-the-Main, and B. Reuter, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Preparation from alkali salts of the 3,3'-diamino-4,4'-dioxarsenobenzene and making same. No. 1,078,135; Nov. 11; Gaz. vol. 196; p. 338.
 Eichhorn, Harry L., Chicago, Ill. Window-operating mechanism. No. 1,077,907; Nov. 4; Gaz. vol. 196; p. 228.
 Eisenach, Henry, and W. F. Smith, Detroit, Mich. Gas-control valve for water-heaters. No. 1,078,089; Nov. 11; Gaz. vol. 196; p. 322.
 Eklund, Stone E., Toledo, Ohio. Scale. No. 1,077,265; Nov. 4; Gaz. vol. 196; p. 8.
 Elderkin, Lester L. D., Boston, Mass. Machine for gaging and distributing articles of different thicknesses. No. 1,078,778; Nov. 18; Gaz. vol. 196; p. 594.
 Eldred, Byron E., Bronxville, N. Y. Producing clad metals. No. 1,078,906; Nov. 18; Gaz. vol. 196; p. 637.
 Electrelle Company. (See Dorricott, Charles W., assignor.)
 Electric Boat Company. (See Davison, Gregory C., assignor.)
 Electric Compositor Company. (See Lynda, Fred H., assignor.)
 Electric & Ordnance Accessories Company, The. (See Langley and Price, assignors.)
 Electric Tachometer Company, The. (See Hopkins, Nevil M., assignor.)
 Electric Wheel Co. (Associates). (See Knudsen, Karsten, assignor.)
 Eli Lilly and Company, The. (See Davis, Alex B., assignor.)
 Ellery, Robert L., Portsmouth, N. H. Adjustable reamer. No. 1,077,463; Nov. 4; Gaz. vol. 196; p. 79.
 Ellingwood, Walter L., New York, N. Y. Cream-remover. No. 1,079,848; Nov. 25; Gaz. vol. 196; p. 903.
 Elliott, William, H. M. Loeber, and R. H. Schlachter, assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr. Double-disk grain-drill. No. 1,077,338; Nov. 4; Gaz. vol. 196; p. 34.
 Ellis, Alfred J., Woodcliff-on-Hudson, N. J., assignor to A. J. Ellis, Inc. Hollow sheet-metal structure. No. 1,079,117; Nov. 18; Gaz. vol. 196; p. 711.
 Ellis, Carleton, Montclair, N. J. Hydrogenating oil mixtures and the like. No. 1,078,136; Nov. 11; Gaz. vol. 196; p. 338.
 Ellis, Carleton, Montclair, N. J. Making catalytic material. No. 1,078,541; Nov. 11; Gaz. vol. 196; p. 478.
 Ellis, Carleton, Montclair, N. J., assignor to New Jersey Testing Laboratories. Concrete waterproofing composition. No. 1,077,889; Nov. 4; Gaz. vol. 196; p. 154.
 Ellis, Flem S., Hannibal, Mo. Vehicle-wheel. No. 1,078,907; Nov. 18; Gaz. vol. 196; p. 637.
 Elma Mfg. Co. (See Trayne, John H., assignor.)
 Elmore, Guy H., Joplin, Mo. Coal-separator. No. 1,077,876; Nov. 4; Gaz. vol. 196; p. 217.
 Elson, Arthur, Boston, Mass. Inverted saw-tooth and locking mechanism therefor. No. 1,079,594; Nov. 25; Gaz. vol. 196; p. 905.
 Elvert, Heinrich. (See Schirmacher and Elvert.)
 Emanuel, William H., Nesquehoning, Pa. Saw or kraut cutter. No. 1,079,226; Nov. 18; Gaz. vol. 196; p. 748.
 Emenhiser, Jerome A., Anadarko, Okla. Hay-rake and side loader. No. 1,077,821; Nov. 4; Gaz. vol. 196; p. 199.
 Emerson-Brantingham Company. (See Farnam, Julian P., assignor.)
 Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
 Emmer, Frederick W., Hackensack, N. J. Pedestal indirect-electric-lighting fixture. No. 1,079,290; Nov. 18; Gaz. vol. 196; p. 767.
 Empire Railway Appliance Corporation. (See Powers, Edmund B., assignor.)
 Engleman, Ernest E., Roanoke, Va. Transplanter. No. 1,077,822; Nov. 4; Gaz. vol. 196; p. 199.
 Ensign-Rickford Company, The. (See Schulman, Louis and J., assignors.)
 Ensign, Orville H., Madison, Wis. Gas-generator. No. 1,079,118; Nov. 18; Gaz. vol. 196; p. 711.
 Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
 Enyart, John M., Lewisville, Ark. Hay-press. No. 1,079,751; Nov. 25; Gaz. vol. 196; p. 961.
 Ergler, Adolph C. (See Graybill and Ergler.)
 Erickson, Martin. (See Olson, Lewis H., assignor.)
 Erie Toe Calk Machine Company. (See Gardner, Myron L., assignor.)
 Erikson, Oscar, Maguire, Mo. Harrow. No. 1,079,752; Nov. 25; Gaz. vol. 196; p. 961.
 Ernst, Alfred, Pittsburgh, Pa. Gas-cleaner. No. 1,079,849; Nov. 25; Gaz. vol. 196; p. 994.

Ernst, Charles K., Buffalo, N. Y. Holsting apparatus. No. 1,078,998; Nov. 18; Gaz. vol. 196; p. 669.
 Ervin, Dabney L., Columbus, Miss. Hasp-fastener. No. 1,078,037; Nov. 11; Gaz. vol. 196; p. 305.
 Eschellmann, Georg, and A. Harmuth, St. Petersburg, Russia, assignors to General Chemical Company, New York, N. Y. Gas-cooler. No. 1,078,841; Nov. 18; Gaz. vol. 196; p. 616.
 Estey Organ Company. (See Haskell, William E., assignor.)
 Euston, Edwin, St. Louis, Mo. Producing white lead. No. 1,079,481; Nov. 25; Gaz. vol. 196; p. 864.
 Evans, Clarence A., Chester, Pa. Revolving sign. No. 1,077,690; Nov. 4; Gaz. vol. 196; p. 154.
 Evans, George H. (See Roth, Gilson W., assignor.)
 Evans, Lewis J., Kirkwood, N. Y. Elevating device. No. 1,077,691; Nov. 4; Gaz. vol. 196; p. 155.
 Evans, Scott F. (See Cowles, William P., assignor.)
 Evans Stamping & Plating Company. (See Tuttle, Henry A., assignor.)
 Everett, Charles J., and J. V. McAdam, New York, N. Y. Machine for washing and drying photographic sheets. No. 1,077,464; Nov. 4; Gaz. vol. 196; p. 79.
 Everett, Harvey, Lewiston, Idaho. Sign. No. 1,077,514; Nov. 4; Gaz. vol. 196; p. 97.
 Extensive Manufacturing Company, The. (See Fancher, Charles J., assignor.)
 F. A. T. (See Schaaf, Albert E., assignor.)
 F. A. Hardy and Company. (See Troppman, Charles J., assignor.)
 F. H. Smith Manufacturing Company. (See Sassemann, David C., assignor.)
 F. O. Hilfker Co. (See Hilfker, Frederick O., assignor.)
 Fairbanks, Jesse L., Marion, Ohio. Excavator. No. 1,078,842; Nov. 18; Gaz. vol. 196; p. 616.
 Fairbanks-Morse Electrical Manufacturing Company. (See Ashley, George T., assignor.)
 Fairbanks-Morse Electrical Manufacturing Company. (See Barr, John M., assignor.)
 Fairburn, William A., Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill. Treating match-splint material. No. 1,079,119; Nov. 18; Gaz. vol. 196; p. 712.
 Falchi, Giovanni, Marseille, France. Drying plant. No. 1,079,547; Nov. 25; Gaz. vol. 196; p. 887.
 Fallor, Ernest A., assignor to K. O. Chisholm, New York, N. Y. Method of and apparatus for electric welding. No. 1,077,953; Nov. 4; Gaz. vol. 196; p. 245.
 Fancher, Charles J., Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y. Feeding mechanism. No. 1,077,266; Nov. 4; Gaz. vol. 196; p. 8.
 Fancher, Charles J., Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y. Stamp-mixer. No. 1,077,954; Nov. 4; Gaz. vol. 196; p. 245.
 Fanning, Luther J., Seely Creek, N. Y. Screw-operating mechanism. No. 1,077,465; Nov. 4; Gaz. vol. 196; p. 79.
 Fanning, Sam H., assignor of one-half to H. Frady, Dallas, Tex. Educational device. No. 1,077,515; Nov. 4; Gaz. vol. 196; p. 97.
 Fanning, Walter F., Providence, R. I. Respirator. No. 1,079,227; Nov. 18; Gaz. vol. 196; p. 748.
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Grüter, Reinhold, assignor.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Kahn and Ossenbeck, assignors.)
 Farbenwerke vorm. Meister Lucius & Brüning. (See Ehrlich and Berthelm, assignors.)
 Farbenwerke vorm. Meister Lucius & Brüning. (See Ehrlich and Reuter, assignors.)
 Farbenwerke vorm. Meister Lucius & Brüning. (See Schirmacher and Elvert, assignors.)
 Farez, Christ G., New York, N. Y. Safety gas-burner. No. 1,077,955; Nov. 4; Gaz. vol. 196; p. 246.
 Farmer, Alfred, assignor to Thomas De La Rue & Company, Limited, London, England. Fountain-pen. No. 1,079,228; Nov. 18; Gaz. vol. 196; p. 748.
 Farmer, Thomas B., Baltimore, Md. Protected-cable-terminal box for telephone systems. No. 1,078,843; Nov. 18; Gaz. vol. 196; p. 616.
 Farnam, Julian P., Minneapolis, Minn., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill. Lubricating system for gas-engines. No. 1,077,823; Nov. 4; Gaz. vol. 196; p. 199.
 Farr, Ernest W., et al. (See Perrine, William E., assignor.)
 Farrell, William E., Little Rock, Ark. Belt-tightener. No. 1,077,339; Nov. 4; Gaz. vol. 196; p. 34.
 Farrington, Thayer B., Columbus, Ohio. Valve for engines. No. 1,079,643; Nov. 25; Gaz. vol. 196; p. 920.
 Farris, Maurice E. (See Cornett, Barney T., assignor.)
 Farris, Maurice E., Shouns, Tenn. Penholder. No. 1,077,824; Nov. 4; Gaz. vol. 196; p. 200.
 Fauber, Delmer W. (See Fauber, Samuel E. and D. W.)
 Fauber, Samuel E. and D. W., Hillsboro, Ohio. Attachment for corn-planters. No. 1,077,516; Nov. 4; Gaz. vol. 196; p. 98.
 Faul, William J., assignor to William J. Faul Co., New York, N. Y. Lubricator. No. 1,078,268; Nov. 11; Gaz. vol. 196; p. 384.
 Faulds, John, Oak Park, assignor of one-half to J. I. Marshall, Chicago, Ill. Bake-oven. No. 1,078,687; Nov. 18; Gaz. vol. 196; p. 553.
 Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,077,692; Nov. 4; Gaz. vol. 196; p. 155.
 Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,077,693; Nov. 4; Gaz. vol. 196; p. 156.
 Fawcett, James E., Platteville, Wis. Shield for pneumatic tires. No. 1,077,267; Nov. 4; Gaz. vol. 196; p. 9.
 Faxon, Alfred W. (See Downes and Faxon.)
 Fearon, James J., assignor of one-half to C. J. Fox, Philadelphia, Pa. Circulating and mixing device. No. 1,079,753; Nov. 25; Gaz. vol. 196; p. 961.
 Federal Signal Company. (See Taylor, Herbert B., assignor.)
 Feely, Duncan J., San Diego, Cal. Ironing device. No. 1,079,168; Nov. 18; Gaz. vol. 196; p. 729.
 Feightner, Lewis E. (See Austin and Feightner.)
 Feld, Walther, Linz, Germany. Obtaining sulfur from hydrogen sulfide and sulfur dioxide. No. 1,079,291; Nov. 18; Gaz. vol. 196; p. 767.
 Félliat, Louis, Salon, France. Furnace in which industrial residues are burnt. No. 1,078,038; Nov. 11; Gaz. vol. 196; p. 305.
 Fengler, Hermann V., Philadelphia, Pa., and V. B. Roullot, Mays Landing, N. J., assignors to Underwood Type-writer Company, New York, N. Y. Type-writing machine. No. 1,078,548; Nov. 25; Gaz. vol. 196; p. 887.
 Fenlason, Orin C., Hoquiam, Wash. Veneer branding or printing press. No. 1,078,490; Nov. 11; Gaz. vol. 196; p. 461.
 Ferguson, Herman B., Pittsburgh, Pa. Apparatus for ironing garments. No. 1,078,269; Nov. 11; Gaz. vol. 196; p. 384.
 Ferguson, David, and J. R. Way, assignors to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Ventilator for vehicles. No. 1,078,340; Nov. 11; Gaz. vol. 196; p. 410.
 Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Stall construction. No. 1,078,999; Nov. 18; Gaz. vol. 196; p. 670.
 Fewell, Everett B., Madison, Ind. Artificial tooth. No. 1,078,844; Nov. 18; Gaz. vol. 196; p. 617.
 Fey, Charles A., Fond du Lac, Wis. Coin-operated weighing-scale. No. 1,077,517; Nov. 4; Gaz. vol. 196; p. 98.
 Feyk, Anton. (See Dusha, Feyk, and Komancsek.)
 Ficco, Pasquale, Tampa, Fla. Sign and indicator. No. 1,079,754; Nov. 25; Gaz. vol. 196; p. 962.
 Fiedler, Gustav M., New York, N. Y. Dark-room lantern. No. 1,077,694; Nov. 4; Gaz. vol. 196; p. 156.
 Fiehler, Paul T., Gordonville, Mo. Rail-joint. No. 1,078,341; Nov. 11; Gaz. vol. 196; p. 411.
 Field, Jesse A., Dunkirk, N. Y. Molding-machine. No. 1,079,482; Nov. 25; Gaz. vol. 196; p. 865.
 Field, Samuel B., Holbrook, assignor of one-fourth to Pneumatic Scale Corporation, Limited, and three-fourths to W. H. Doble, Quincy, Mass. Drop-handle for boxes. No. 1,078,491; Nov. 11; Gaz. vol. 196; p. 462.
 Fielder, William F., Lockhart, Tex. Plow. No. 1,079,850; Nov. 25; Gaz. vol. 196; p. 994.
 Fields, John J., New York, N. Y. Tire. No. 1,079,755; Nov. 25; Gaz. vol. 196; p. 962.
 Filippi, Antoine P., Paris, France. Screw-propeller. No. 1,078,270; Nov. 11; Gaz. vol. 196; p. 385.
 Fincke, Oskar. (See Frank and Fincke.)
 Finnegan, Thomas, Swea City, Iowa. Stock-tank heater. No. 1,079,595; Nov. 25; Gaz. vol. 196; p. 906.
 Finnell, Walter S., et al. (See Jenkins, Thomas R., Jr., assignor.)
 Finola Manufacturing Company et al. (See Jenkins, Thomas R., Jr., assignor.)
 Firmin, John D. (See Hogrebe and Firmin.)
 Firth and Sons, Thomas. (See Strange, Harry B., assignor.)
 Fischer, Louis, Philadelphia, Pa., assignor to R. H. Wright, Durham, N. C. Machine for introducing charges of material into receptacles. No. 1,078,492; Nov. 11; Gaz. vol. 196; p. 462.
 Fischer, Rudolf, Steglitz, Germany. Toning photographic silver pictures. No. 1,079,756; Nov. 25; Gaz. vol. 196; p. 962.
 Fischerupp, George, Chicago, Ill. Folding bed. No. 1,078,608; Nov. 18; Gaz. vol. 196; p. 637.
 Fischerupp, George, Chicago, Ill. Folding bed. No. 1,078,609; Nov. 18; Gaz. vol. 196; p. 638.
 Fischerupp, George, Chicago, Ill. Folding bed. No. 1,078,910; Nov. 18; Gaz. vol. 196; p. 638.
 Fisher, Andrew J., assignor to Illinois Concrete Machinery Co., Buda, Ill. Portable mold for concrete culverts. No. 1,079,000; Nov. 18; Gaz. vol. 196; p. 670.
 Fisher, Edwin H., assignor to Scientific Materials Company, Pittsburgh, Pa. Gas-burner. No. 1,078,726; Nov. 18; Gaz. vol. 196; p. 575.
 Fisher, Jacob, Roann, Ind. Fence-wire fastener for fence-posts. No. 1,079,043; Nov. 18; Gaz. vol. 196; p. 686.
 Fisher, William C., assignor to The Russell Manufacturing Company, Middletown, Conn. Brake-shoe. No. 1,078,039; Nov. 11; Gaz. vol. 196; p. 305.
 Fisher, William C., assignor to The Russell Manufacturing Company, Middletown, Conn. Brake-shoe. No. 1,078,040; Nov. 11; Gaz. vol. 196; p. 306.

Fisher, William C., assignor to The Russell Manufacturing Company, Middletown, Conn. Brake-shoe. No. 1,078,041; Nov. 11; Gaz. vol. 196; p. 306.
 Fitch, William H., Fort Worth, Tex. Circuit-closing device for doors. No. 1,077,877; Nov. 4; Gaz. vol. 196; p. 217.
 Fitzgerald, Walter L., Philadelphia, Pa. Electrically-controlled indicator. No. 1,079,229; Nov. 18; Gaz. vol. 196; p. 748.
 Flagg, Joseph W., Worcester, assignor of one-half to H. A. Walker, Boston, Mass. Garment-support. No. 1,079,330; Nov. 25; Gaz. vol. 196; p. 813.
 Flannery Bolt Company. (See Dodds, Ethan I., assignor.)
 Fleagle, Harry S., Farrar, Iowa. Hog-trap. No. 1,078,911; Nov. 18; Gaz. vol. 196; p. 639.
 Fleming, David S., and E. Jones, Estacada, Oreg. Computing-blk. No. 1,078,912; Nov. 18; Gaz. vol. 196; p. 639.
 Fleming, Richard, and C. A. B. Halvorson, Jr., Lynn, Mass., assignors to General Electric Company. Arc-lamp. No. 1,078,913; Nov. 18; Gaz. vol. 196; p. 640.
 Fleming, Thomas J. (See Carpenter and Fleming.)
 Flemming, Charles F., Washington, D. C. Train-derailer. No. 1,079,230; Nov. 18; Gaz. vol. 196; p. 749.
 Fletcher, Henry C., New Castle, Pa. Collar. No. 1,079,696; Nov. 25; Gaz. vol. 196; p. 939.
 Flett, William, Hyde Park, Mass. Lifting-jack. No. 1,079,697; Nov. 25; Gaz. vol. 196; p. 939.
 Florack, Joseph G., Rochester, N. Y. Anti-tilt attachment for automobile-tires. No. 1,077,401; Nov. 4; Gaz. vol. 196; p. 57.
 Florheim, Leonard S., Chicago, Ill. Hose-supporter clasp. No. 1,078,493; Nov. 11; Gaz. vol. 196; p. 463.
 Floyd, George W., Spokane, Wash. Double-sheave block. No. 1,077,268; Nov. 4; Gaz. vol. 196; p. 9.
 Force, Raymond C., and S. Burne, Los Angeles, assignors to California Corrugated Culvert Company, Oakland, Cal. Slide-gate. No. 1,078,271; Nov. 11; Gaz. vol. 196; p. 385.
 Ford, Henry, Detroit, Mich. Automobile control mechanism. No. 1,078,042; Nov. 11; Gaz. vol. 196; p. 306.
 Ford, Ralph L. (See Davis and Ford.)
 Ford, William H., assignor of one-half to P. G. Bradley, Buffalo, N. Y. Window-cleaner. No. 1,077,402; Nov. 4; Gaz. vol. 196; p. 58.
 Foreman, Arthur S., St. Paul, Minn. Platen-press chase-lock. No. 1,078,137; Nov. 11; Gaz. vol. 196; p. 339.
 Forland, Tormod R., Broken Hill, New South Wales, Australia. Treatment and separation of complex sulfides. No. 1,078,779; Nov. 18; Gaz. vol. 196; p. 595.
 Force Manufacturing Company, The. (See Morrison, Joseph O., assignor.)
 Forsman, Stanton W. (See Hammond and Forsman.)
 Forsyth, William H., assignor to The Curtin Supply Company, Chicago, Ill. Automatically-opening cardiaphragma. No. 1,078,781; Nov. 18; Gaz. vol. 196; p. 595.
 Forsyth, William H., and E. E. Whitmore, assignors to Curtin Supply Company, Chicago, Ill. Window-sash balance. No. 1,078,780; Nov. 18; Gaz. vol. 196; p. 595.
 Fort Madison Plow Company. (See Huntoon, Harry A., assignor.)
 Foss, D. J. (See Mills, William H., assignor.)
 Foss, Harry, Santa Maria, Cal. Invald-elevator. No. 1,078,090; Nov. 11; Gaz. vol. 196; p. 323.
 Fosselman, Otto C., Maywood, Ill. Counterbalanced stair. No. 1,077,976; Nov. 11; Gaz. vol. 196; p. 283.
 Foster, Theodore W., Providence, R. I. Bracelet. No. 1,078,272; Nov. 11; Gaz. vol. 196; p. 385.
 Foster, Thomas, Christchurch, New Zealand. Variable gear. No. 1,079,044; Nov. 18; Gaz. vol. 196; p. 886.
 Foster, William H., New York, N. Y., assignor of one-half to W. O. Taylor, North Plainfield, N. J. Drifting-valve mechanism for locomotive-engines. No. 1,077,695; Nov. 4; Gaz. vol. 196; p. 156.
 Foster, William S., Dallas, Wis. Bean-sorter. No. 1,079,913; Nov. 25; Gaz. vol. 196; p. 1016.
 Fournier, Edward, Plattsburg, N. Y. Non-refillable bottle. No. 1,077,825; Nov. 4; Gaz. vol. 196; p. 200.
 Fowler Car Company, The. (See Fowler, William E., Sr., assignor.)
 Fowler, Edward J., Redwood City, assignor to Pacific Foundry Company, San Francisco, Cal. Roasting-furnace. No. 1,079,405; Nov. 25; Gaz. vol. 196; p. 839.
 Fowler, Robert H. (See Yemiker, John, assignor.)
 Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Box-car. No. 1,078,616; Nov. 18; Gaz. vol. 196; p. 535.
 Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Tightener for car sides. No. 1,079,331; Nov. 25; Gaz. vol. 196; p. 814.
 Fox, Charles H., Bakersfield, Cal. Internal-combustion engine. No. 1,077,956; Nov. 4; Gaz. vol. 196; p. 246.
 Fox, Charles J. (See Pearson, James J., assignor.)
 Fox, Farnham, New York, N. Y. Telephone-bracket. No. 1,078,577; Nov. 11; Gaz. vol. 196; p. 490.
 Fox, John F., Birmingham, Ala. Running-gear and draw-bar attachment for mine-cars. No. 1,077,601; Nov. 4; Gaz. vol. 196; p. 124.
 Fraase, Albert, Berlin, Germany. Artificial stone and making same. No. 1,078,845; Nov. 18; Gaz. vol. 196; p. 617.
 Frady, Homer. (See Fanning, Sam H., assignor.)

Francis, Howard M., Forrest, Ill. Interlocking block. No. 1,077,466; Nov. 4; Gaz. vol. 196; p. 80.
 Franey, Jane C., et al. (See Shore, William E., assignor.)
 Franey, John, et al. (See Shore, William E., assignor.)
 Frank, Conrad C., Denison, Iowa. Valve-grinder. No. 1,079,292; Nov. 18; Gaz. vol. 196; p. 767.
 Frank Mossberg Company. (See Mossberg, Frank, assignor.)
 Frank, Otto, and O. Flacke, Berlin, Germany. Obtaining nitrogen from the atmosphere. No. 1,078,423; Nov. 11; Gaz. vol. 196; p. 441.
 Frankel, Fridolf, Stockholm, Sweden. Means for stretching a resonant plate over a frame. No. 1,078,424; Nov. 11; Gaz. vol. 196; p. 441.
 Franklin, John M., Hatfield, Pa. Poultry-feed hopper. No. 1,079,231; Nov. 18; Gaz. vol. 196; p. 750.
 Franks, Andrew S., New York, N. Y. Lock. No. 1,078,425; Nov. 11; Gaz. vol. 196; p. 441.
 Fraser, John A., Benton, Harbor, Mich., assignor to Metal Sectional Furniture Company, Portland, Maine. Filling-cabinet. No. 1,078,668; Nov. 18; Gaz. vol. 196; p. 553.
 Frazier, George W., deceased, Allegheny, assignor to Pittsburgh Electrolytic Manufacturing Company, Pittsburgh, Pa. Electrolytic ship-bottom cleaner. (Reissue.) No. 13,652; Nov. 25; Gaz. vol. 196; p. 1022.
 Freeman, Edgar H., assignor to E. H. Freeman Electric Company, Trenton, N. J. Electrical sign-receptacle. No. 1,079,483; Nov. 25; Gaz. vol. 196; p. 865.
 Fretwell, William A., Willson, N. C. Fire-alarm. No. 1,077,966; Nov. 4; Gaz. vol. 196; p. 249.
 Frick, Robert, Chicago, Ill. Recording mechanism. No. 1,078,138; Nov. 11; Gaz. vol. 196; p. 339.
 Fricke, Gustav C., Morgan Park, Ill. Hair-comb. No. 1,077,403; Nov. 4; Gaz. vol. 196; p. 58.
 Fried, Bernhard, Budapest, Austria-Hungary. Changeable sign. No. 1,079,851; Nov. 25; Gaz. vol. 196; p. 904.
 Fried, Krupp Aktiengesellschaft. (See Böhmighaus, Franz, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Hayn and Koch, assignors.)
 Fried, Krupp Aktiengesellschaft. (See Jahn, Otto, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Lauber and Stock, assignors.)
 Fried, Krupp Aktiengesellschaft. (See Schürmann, Richard, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Schwartz, Wilhelm, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Strauss, Hans, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Wieder, Franz, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Wlenholtz, Georg, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Wieser, Karl, assignor.)
 Fried, Krupp Aktiengesellschaft. (See Ziegenfuss, Friedrich, assignor.)
 Friedmann, Harry, Baltimore, Md., assignor, by means assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y. Fold-cuff. No. 1,079,484; Nov. 25; Gaz. vol. 196; p. 865.
 Friedrich, Eduard, Leipzig-Plagwitz, Germany. Crusher. No. 1,078,342; Nov. 11; Gaz. vol. 196; p. 411.
 Friedrich, Ernest H. (See McLane, Friedrich, and Warner.)
 Frink, Gerald, Seattle, Wash. Pulley-block. No. 1,078,190; Nov. 11; Gaz. vol. 196; p. 357.
 Frisina, Francesco, Brooklyn, N. Y. Extension-table. No. 1,077,826; Nov. 4; Gaz. vol. 196; p. 200.
 Fritz, Anton. (See Preisler and Fritz.)
 Fritz, George E. (See Hinkle, Max H., assignor.)
 Frude, Frank H., assignor of one-third to S. I. Levin, Chicago, Ill. Attachment for moving-picture machines. No. 1,079,549; Nov. 25; Gaz. vol. 196; p. 887.
 Fry, Jesse H., Rochester, Pa. Bichromatic lamp. (Reissue.) No. 13,648; Nov. 18; Gaz. vol. 196; p. 778.
 Fuchs, Leon, Dayton, Ohio. Surface-indicator. No. 1,079,169; Nov. 18; Gaz. vol. 196; p. 729.
 Fuller, Carl T., East Orange, N. J., assignor to General Electric Company. Working tungsten. No. 1,077,696; Nov. 4; Gaz. vol. 196; p. 156.
 Fuller, Carl T., East Orange, N. J., assignor to General Electric Company. Treating tungsten. No. 1,077,827; Nov. 4; Gaz. vol. 196; p. 200.
 Fuller, Eugene, Providence, R. I., assignor to Webb Manufacturing Company. Wire-mesh fabric. No. 1,079,293; Nov. 18; Gaz. vol. 196; p. 768.
 Fuller, Truman S., Schenectady, N. Y., assignor to General Electric Company. Composite metal. No. 1,077,977; Nov. 11; Gaz. vol. 196; p. 284.
 Fulper, John W., Annandale, N. J. Vacuum-cleaner. No. 1,077,518; Nov. 4; Gaz. vol. 196; p. 98.
 Fumo, Andrea, New York, N. Y. Therapeutic apparatus. No. 1,078,343; Nov. 11; Gaz. vol. 196; p. 411.
 Fynn, Valere A., London, England. Alternate-current motor. No. 1,079,332; Nov. 25; Gaz. vol. 196; p. 814.
 Gabel, Otto, assignor to Firm of H. Burkhardt, Apolda, Germany. Double-rib-warp-knitting machine. No. 1,078,914; Nov. 18; Gaz. vol. 196; p. 640.
 Gagne, Wenceslas. (See Thibault and Gagne.)
 Gagnon, Peter, Shelton, assignor of one-half to B. J. Duffy, Seattle, Wash. Saw-jointer. No. 1,079,232; Nov. 18; Gaz. vol. 196; p. 750.

Gagnon, William J., assignor to The Bryant Electric Company, Bridgeport, Conn. Road-chain. No. 1,078,494; Nov. 11; Gaz. vol. 196; p. 463.
 Gagnon, William J., assignor to The Bryant Electric Company, Bridgeport, Conn. Electrical switch. No. 1,079,233; Nov. 18; Gaz. vol. 196; p. 750.
 Galindez, Ismael F., Buenos Aires, Argentina. Electrical gun-firing mechanism. No. 1,078,782; Nov. 18; Gaz. vol. 196; p. 596.
 Gallagher, Elizabeth A. M., New York, N. Y. Bed-tub. No. 1,078,617; Nov. 18; Gaz. vol. 196; p. 536.
 Gallagher, Joseph D., Glen Ridge, assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Brake-shoe and supporting means therefor. No. 1,079,001; Nov. 18; Gaz. vol. 196; p. 670.
 Galland, Edward R. (See Heins and Galland.)
 Galpin, Frederic, near Williamsfield, Ill. Saw-setting machine. No. 1,078,139; Nov. 11; Gaz. vol. 196; p. 340.
 Gambartini, Florenzo, Chicago, Ill. Wheel-hub. No. 1,077,928; Nov. 4; Gaz. vol. 196; p. 236.
 Gamble, Joseph W. (See Alliger, Gamble, and Gibson.)
 Gamble, Joseph W. (See Jones, Gamble, and Gibson.)
 Gamble, Joseph W., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Measuring apparatus. No. 1,078,680; Nov. 18; Gaz. vol. 196; p. 553.
 Gamewell Fire-Alarm Telegraph Company. (See Suren, Nathan H., assignor.)
 Garber, Amos R., Mount Joy, assignor of one-half to E. K. Post, Media, Pa. Switch throwing and locking mechanism. No. 1,079,120; Nov. 18; Gaz. vol. 196; p. 712.
 Gardner, Henry A., Washington, D. C. Finish-remover. No. 1,079,698; Nov. 25; Gaz. vol. 196; p. 940.
 Garduer, James A., Northshade, Mich. Brooder. No. 1,078,344; Nov. 11; Gaz. vol. 196; p. 412.
 Gardner, Myron L., assignor to Erie Toe Calk Machine Company, Erie, Pa. Heel-calk-forming machine. No. 1,078,345; Nov. 11; Gaz. vol. 196; p. 412.
 Gardner, Omar N., Jamestown, N. Y. Crane and derrick. No. 1,077,467; Nov. 4; Gaz. vol. 196; p. 80.
 Garforth, William E. (See Chipperfield, Walter, assignor.)
 Garland, Claude M., Collingswood, assignor to Camden Iron Works, Camden, N. J. Gas-producer. No. 1,079,234; Nov. 18; Gaz. vol. 196; p. 750.
 Garlick, James D., Saginaw, Mich. Composition for rubbing and finishing varnished and other surfaces. No. 1,077,957; Nov. 4; Gaz. vol. 196; p. 246.
 Garlough, Alfred L., St. Paul, Minn. Harrow. No. 1,078,915; Nov. 18; Gaz. vol. 196; p. 640.
 Garman, Harry B., assignor of one-half to R. Wilson, Detroit, Mich. Saw-handle. No. 1,078,599; Nov. 11; Gaz. vol. 196; p. 498.
 Garred, Ulysses A., et al. (See Wiggin, Albert E., assignor.)
 Garretson, David I. (See Lorentzen, Hans K., assignor.)
 Garst, Julius. (See Johnson, Lawrence E., assignor.)
 Garvey, Frank A., Lynxville, Wis. Pump. No. 1,079,699; Nov. 25; Gaz. vol. 196; p. 940.
 Gatchell, William H. (See West and Gatchell.)
 Gates, Albert J., Chicago, Ill. Valve for controlling compressed air. No. 1,077,697; Nov. 4; Gaz. vol. 196; p. 156.
 Gates, Joseph H. (See Hannan and Gates.)
 Gatta, Ferdinando, Turin, Italy. Reversing mechanism. No. 1,077,519; Nov. 4; Gaz. vol. 196; p. 99.
 Gaunt, Walter F., Birmingham, England. Button-holding device. No. 1,078,091; Nov. 11; Gaz. vol. 196; p. 323.
 Gaylord, Emerson G. (See Ruggles, Frank W., assignor.)
 Gealy, George M., assignor to Gealy Wrench and Manufacturing Company, Grove City, Pa. Pipe-wrench. No. 1,078,426; Nov. 11; Gaz. vol. 196; p. 441.
 Gealy Wrench and Manufacturing Company. (See Gealy, George M., assignor.)
 Gee, Charles E. (See Gee, William H. and C. E.)
 Gee, William H. and C. E., Maskell, Nebr. Gate. No. 1,077,269; Nov. 4; Gaz. vol. 196; p. 9.
 Gehring, Joseph C., Jr., and R. D. Conrad, Pittsburgh, Pa. Welding-torch. No. 1,078,578; Nov. 11; Gaz. vol. 196; p. 490.
 Geiger, Eugen, Karlsruhe, Germany. Rotary sprinkler. No. 1,078,727; Nov. 18; Gaz. vol. 196; p. 575.
 Gelabert, William P., Fulton, Mo. Horse-collar. No. 1,078,140; Nov. 11; Gaz. vol. 196; p. 340.
 Gelleri, Soma, Budapest, Austria-Hungary, assignor of one-half to A. Hambloch, Andernach, Germany. Recovering alkalis from silicate rocks. No. 1,078,495; Nov. 11; Gaz. vol. 196; p. 463.
 Gelleri, Soma, Budapest, Austria-Hungary, assignor of one-half to A. Hambloch, Andernach, Germany. Recovering alkalis from silicates. No. 1,078,496; Nov. 11; Gaz. vol. 196; p. 463.
 General Chemical Company. (See Eschellmann and Har-muth, assignors.)
 General Chemical Company. (See Messel, Rudolph, assignor.)
 General Electric Company. (See Arsem, William C., assignor.)
 General Electric Company. (See Ball, Henry P., assignor.)
 General Electric Company. (See Bralley, Walter S., assignor.)
 General Electric Company. (See Carichoff, Eugene R., assignor.)

General Electric Company. (See Case, Frank E., assignor.)
 General Electric Company. (See Coolidge, William D., assignor.)
 General Electric Company. (See Creighton, Elmer E. F., assignor.)
 General Electric Company. (See Cubitt, Archibald S., assignor.)
 General Electric Company. (See Dunning, Parker, assignor.)
 General Electric Company. (See Eagar, George T., assignor.)
 General Electric Company. (See Eaton, John, assignor.)
 General Electric Company. (See Fleming and Halvorson, assignors.)
 General Electric Company. (See Fuller, Carl T., assignor.)
 General Electric Company. (See Fuller, Truman S., assignor.)
 General Electric Company. (See Green, Frank C., assignor.)
 General Electric Company. (See Greiner, Otto, assignor.)
 General Electric Company. (See Hall, John L., assignor.)
 General Electric Company. (See Hewlett, Edward M., assignor.)
 General Electric Company. (See Heyder, Richard, assignor.)
 General Electric Company. (See Klein, Simon, assignor.)
 General Electric Company. (See Krämer, Christian, assignor.)
 General Electric Company. (See Krub, Oslas O., assignor.)
 General Electric Company. (See Libby, Sam H., assignor.)
 General Electric Company. (See Linke and Dreyfus, assignors.)
 General Electric Company. (See Lloyd, Robert M., assignor.)
 General Electric Company. (See Lyle, Fred W., assignor.)
 General Electric Company. (See Markau, Karl, assignor.)
 General Electric Company. (See Moore, Chester N., assignor.)
 General Electric Company. (See Murphy and Brobst, assignors.)
 General Electric Company. (See Nehlsen, Hermann, assignor.)
 General Electric Company. (See Pauly, Karl A., assignor.) (Reissue.)
 General Electric Company. (See Porter, Willard E., assignor.)
 General Electric Company. (See Pratt, William H., assignor.)
 General Electric Company. (See Rogers, Robert H., assignor.)
 General Electric Company. (See Vogel, Frederick M., assignor.)
 General Electric Company. (See Weintraub, Ezechiel, assignor.)
 General Electric Company. (See Welsch, Wilhelm, assignor.)
 General Electric Company. (See Yates, William C., assignor.)
 General Engineering and Construction Company. (See Hufshag, Herdman, and Lorimer, assignors.)
 General Fire Extinguisher Company. (See Loepsinger, Albert J., assignor.)
 General Patents Company, The. (See Bradner, Harry W., assignor.)
 General Supplies Company. (See Chadwick, Leonard B., assignor.)
 Gentil, Anton, Aschaffenburg, Germany. Centrifugal pump. No. 1,077,520; Nov. 4; Gaz. vol. 196; p. 90.
 George, Charles D. (See Dragan, George, and Palmerio.)
 George D. Barnard & Co. (See Dawson, James C., assignor.)
 Gerardts, William, and C. R. Ballner, New York, N. Y. Fireproof wall. No. 1,078,273; Nov. 11; Gaz. vol. 196; p. 386.
 Gerard, Joseph R., Parsons, Kans. Vehicle-wheel. No. 1,078,916; Nov. 18; Gaz. vol. 196; p. 640.
 Gerard, Roy H., Berkeley, Cal. Variable-speed gearing. No. 1,079,852; Nov. 25; Gaz. vol. 196; p. 995.
 Gerber, John G., Rochester, N. Y. Welt for footwear. No. 1,078,043; Nov. 11; Gaz. vol. 196; p. 307.
 Gerdien, Hans, Halensee, near Berlin, and R. Holm, Charlottenburg, assignors to Siemens & Halske A. G., Berlin, Germany. Apparatus for measuring the velocity and inclination of the wind. No. 1,077,521; Nov. 4; Gaz. vol. 196; p. 90.
 Gesellschaft für Drahtlose Telegraphie m. b. H. (See Meissner, Alexander, assignor.)
 Gettelman, Frederick, Milwaukee, Wis. Pasteurizing. No. 1,077,270; Nov. 4; Gaz. vol. 196; p. 9.
 Gibson, Forest, Yek, W. Va. Wire-stretcher. No. 1,079,700; Nov. 25; Gaz. vol. 196; p. 940.
 Gibson, George H. (See Alliger, Gamble, and Gibson.)
 Gibson, Lemuel E., Des Moines, Iowa. Adjustable device for uniting frames. No. 1,077,908; Nov. 4; Gaz. vol. 196; p. 228.
 Glese, James A., assignor to The Adams & Westlake Company, Chicago, Ill. Door. No. 1,079,121; Nov. 18; Gaz. vol. 196; p. 713.

Gilbert, Joseph M., Mount Vernon, assignor, by mesne assignments, of one-half to The B. F. Goodrich Company, New York, N. Y., one-fourth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fourth to The United States Tire Company, New York, N. Y. Demountable rim. No. 1,078,579; Nov. 11; Gaz. vol. 196; p. 491.

Gilchrist, John E., South Bend, Wash. Cable-cutter. No. 1,078,191; Nov. 11; Gaz. vol. 196; p. 357.

Gille, William L., Ludington, Mich. Hydraulic controlling means for propellers. No. 1,078,092; Nov. 11; Gaz. vol. 196; p. 324.

Giles, Chesley T. J., Greenville, S. C. Hinge. No. 1,077,522; Nov. 4; Gaz. vol. 196; p. 100.

Gill Brick Machine Company, The. (See Gill, Charles W., assignor.)

Gill, Charles W., Erie, Pa., assignor to The Gill Brick Machine Company, Westfield, N. Y. Plastic-block-making apparatus. No. 1,077,523; Nov. 4; Gaz. vol. 196; p. 100.

Gillepie, Jane E., Atlanta, Ga. Water-heater. No. 1,077,328; Nov. 4; Gaz. vol. 196; p. 201.

Gillette, Harleigh, Chicago, Ill. Electric clock. No. 1,078,274; Nov. 11; Gaz. vol. 196; p. 386.

Gilman, John H., assignor to King & Hamilton Company, Ottawa, Ill. Wagon-dump. No. 1,078,670; Nov. 18; Gaz. vol. 196; p. 554.

Gilman, John H., assignor to King & Hamilton Company, Ottawa, Ill. Gearing. No. 1,078,671; Nov. 18; Gaz. vol. 196; p. 554.

Gilman, John H., Chicago, assignor to King & Hamilton Company, Ottawa, Ill. Wagon-dump. No. 1,078,672; Nov. 18; Gaz. vol. 196; p. 555.

Gilmore, Millard, assignor to Variety Manufacturing Company, Chicago, Ill. Fire-door. No. 1,077,468; Nov. 4; Gaz. vol. 196; p. 81.

Gilmore, Millard, assignor to Variety Manufacturing Company, Chicago, Ill. Fire-door for elevator-shafts, &c. No. 1,078,275; Nov. 11; Gaz. vol. 196; p. 386.

Giri, Christian, et al. (See Perrine, William E., assignor.)

Gladfelter, Robert. (See Hanna and Gladfelter.)

Glauber, August. (See DeKan and Glauber.)

Gleason, Edward D., assignor to Plastic Metal Company, New York, N. Y. Lead-copper-tin composition. No. 1,077,698; Nov. 4; Gaz. vol. 196; p. 157.

Gleason, Edward D., assignor to Plastic Metal Company, New York, N. Y. Lead-copper composition. No. 1,077,699; Nov. 4; Gaz. vol. 196; p. 157.

Gleason, Edward D., assignor to Plastic Metal Company, New York, N. Y. Making lead-copper composition. No. 1,077,700; Nov. 4; Gaz. vol. 196; p. 157.

Gleason, Edward D., assignor to Plastic Metal Company, New York, N. Y. Making lead-copper-tin compositions. No. 1,077,701; Nov. 4; Gaz. vol. 196; p. 157.

Gleason, Edward D., New York, assignor, by mesne assignments, to New-Metals and Process Company, Long Island City, N. Y. Molding compound. No. 1,077,958; Nov. 4; Gaz. vol. 196; p. 246.

Gledhill, Edward C., Gallon, Ohio. Sleigh-runners for go-carts and the like. No. 1,077,524; Nov. 4; Gaz. vol. 196; p. 101.

Glidden, John E., insane; S. E. Glidden, guardian, Beverly, Mass.; said S. E. Glidden, administratrix of said John E. Glidden, deceased, assignor to United Shoe Machinery Company, Paterson, N. J. Heel-picking machine. No. 1,077,929; Nov. 4; Gaz. vol. 196; p. 236.

Glidden, Sadie E., administratrix. (See Glidden, John E.)

Gloystein, Christian E., assignor to American Nicotine Company, Henderson, Ky. Treating tobacco-scraps. No. 1,078,427; Nov. 11; Gaz. vol. 196; p. 442.

Goerdes, Frederick W., assignor to American Button Company, Newark, N. J. Igniter. No. 1,078,002; Nov. 18; Gaz. vol. 196; p. 671.

Gohmann, Arthur, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didler, Stettin, Germany. Chamber-oven. No. 1,079,003; Nov. 18; Gaz. vol. 196; p. 671.

Gold, Egbert H., Chicago, Ill. Car-heating system. No. 1,077,525; Nov. 4; Gaz. vol. 196; p. 101.

Goldberger, Max, Chicago, Ill. Tailor's measuring device. No. 1,079,333; Nov. 25; Gaz. vol. 196; p. 814.

Golden, Charles E. (See Anderson, Edward V., assignor.)

Goldenthal, Bernard. (See Carey and Goldenthal.)

Goldman, Ella E., executrix. (See Goldman, Isaac S.)

Goldman, Isaac S., deceased; E. E. Goldman, executrix, Los Angeles, Cal., assignor of one-half to L. S. Hackney, St. Paul, Minn. Lock. No. 1,078,192; Nov. 11; Gaz. vol. 196; p. 357.

Goldsmith, William M., Cincinnati, Ohio. Metal lath. No. 1,077,404; Nov. 4; Gaz. vol. 196; p. 58.

Goldstein, Abe, et al. (See Goldstein, Samuel, assignor.)

Goldstein, Harry H., Hartford, Conn. Vending-receptacle. No. 1,078,346; Nov. 11; Gaz. vol. 196; p. 412.

Goldstein, Isadore, et al. (See Goldstein, Samuel, assignor.)

Goldstein, Meyer, et al. (See Goldstein, Samuel, assignor.)

Goldstein, Samuel, assignor of one-fourth to I. Goldstein, one-fourth to A. Goldstein, and one-fourth to M. Goldstein, Chicago, Ill. Bed davenport or couch. No. 1,078,044; Nov. 11; Gaz. vol. 196; p. 307.

Goldetz, Abram, Berlin, assignor of one-half to B. Benedix, Hamburg, Germany. Separating mixtures of liquids. No. 1,079,004; Nov. 18; Gaz. vol. 196; p. 672.

Good Inventions Co. (See Good, John, assignor.)

Good, John, New York, N. Y. Combing-machine. No. 1,078,618; Nov. 18; Gaz. vol. 196; p. 536.

Good, John, deceased, Far Rockaway, N. Y.; J. E. Good, administratrix, assignor to Good Inventions Co. Combing-machine. No. 1,077,526; Nov. 4; Gaz. vol. 196; p. 101.

Good, Julia E., administratrix. (See Good, John.)

Goeder, George C., Stanton, Mich. Lighting device. No. 1,078,428; Nov. 11; Gaz. vol. 196; p. 442.

Goodrich, Frank K., and G. West, Coalton, Ohio. Rail-joint. No. 1,078,093; Nov. 11; Gaz. vol. 196; p. 324.

Goodridge, Gilbert W., assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment-plug. No. 1,079,235; Nov. 18; Gaz. vol. 196; p. 751.

Goodside, Moses, New York, N. Y. Instep-arch support. No. 1,078,276; Nov. 11; Gaz. vol. 196; p. 387.

Goodyear Tire & Rubber Company, The, et al. (See Gilbert, Joseph M., assignor.)

Goodyear Tire and Rubber Company, The. (See Kuentzel, Curt, assignor.)

Goodyear Tire & Rubber Company, The, et al. (See Wagenhorst, James H., assignor.)

Gordon, Chesley, Los Angeles, Cal. Device for automatically cutting off the supply of gas to a burner. No. 1,079,122; Nov. 18; Gaz. vol. 196; p. 713.

Gorin, Fred P. (See Melklejohn, James, assignor.)

Gorton, George, Racine, Wis. Rotary cutting-off saw and the like. No. 1,077,271; Nov. 4; Gaz. vol. 196; p. 10.

Gorton, George, Racine, Wis. Rotary cutting-off saw and the like. No. 1,078,193; Nov. 11; Gaz. vol. 196; p. 358.

Gostner, Elkan, San Francisco, Cal. Sealing-wax lamp. No. 1,077,527; Nov. 4; Gaz. vol. 196; p. 102.

Gosnay, William J., Elizabeth, Ill. Shifting guide for corn-planters. No. 1,078,846; Nov. 18; Gaz. vol. 196; p. 617.

Goss Printing Press Company, The. (See Goss, Samuel G., assignor.)

Goss, Samuel G., Glencoe, assignor to The Goss Printing Press Company, Chicago, Ill. Matrix-forming machine. No. 1,078,429; Nov. 11; Gaz. vol. 196; p. 442.

Gossweiler, Carl. (See Schroer, Heinrich, assignor.)

Goubert, August A., Englewood, N. J. Power-driven hammer. No. 1,077,489; Nov. 4; Gaz. vol. 196; p. 81.

Gould, Charles T. E., assignor of one-third to E. Hilker, Chicago, Ill. Sewing-machine. No. 1,079,406; Nov. 25; Gaz. vol. 196; p. 889.

Gould, Charles T. E., assignor of one-third to E. Hilker, Chicago, Ill. Sewing-machine. No. 1,079,485; Nov. 25; Gaz. vol. 196; p. 886.

Gould Coupler Company. (See Crosby, Gorham, assignor.)

Gould, Fred L., assignor of one-half to W. I. Thomas, one-tenth to C. M. Knox, and one-tenth to R. Petersen, Reno, Nev. Tent. No. 1,079,757; Nov. 25; Gaz. vol. 196; p. 962.

Gould, Marcellus, deceased, and N. C. Clonette, Penacook, N. H.; W. H. Adams, executor, assignor to said Clonette. Clearer-roll for drawing, roving, and spinning frames. No. 1,077,528; Nov. 4; Gaz. vol. 196; p. 102.

Gouldsbourn, Joseph. (See Keall, Gouldsbourn, and Jeram.)

Gow, John, deceased, Schenectady, (H. W. Philbrook and A. M. Loudon, administrators), assignor to A. M. Loudon, Elmira, N. Y. Molding-machine. No. 1,077,930; Nov. 4; Gaz. vol. 196; p. 236.

Graaff, Wilhelm, Berlin, Germany. Ice-making machine. No. 1,079,334; Nov. 25; Gaz. vol. 196; p. 815.

Graefing, John D., Olivet, S. D. Gearing. No. 1,079,701; Nov. 25; Gaz. vol. 196; p. 941.

Graham, Hattie B. (See Graham, William R., assignor.)

Graham, John E., Battersea Park, and G. Wallace, London, England. Resilient wheel for motor-cars and the like. No. 1,078,430; Nov. 11; Gaz. vol. 196; p. 443.

Graham, William R., assignor to H. B. Graham, Washington, D. C. Amusement device. No. 1,077,340; Nov. 4; Gaz. vol. 196; p. 35.

Grahl, Gustav de, Zehlendorf, near Berlin, Germany. Apparatus for automatically regulating the draft in boiler-furnaces. No. 1,079,853; Nov. 25; Gaz. vol. 196; p. 995.

Grant, Burt E., assignor of one-half to E. R. Boynton, Kansas City, Kans. Concrete-mold. No. 1,077,702; Nov. 4; Gaz. vol. 196; p. 157.

Grant, James K., Mounds, Okla., assignor to The Texas Steel Tie Company, Denison, Tex. Railway-tie. No. 1,077,341; Nov. 4; Gaz. vol. 196; p. 35.

Grasser, William H., Clarkston, Wash. Insect-trap. No. 1,079,170; Nov. 18; Gaz. vol. 196; p. 730.

Gratigny, Ralph K., Edgewater, N. J. Vehicle-wheel. No. 1,079,644; Nov. 25; Gaz. vol. 196; p. 921.

Grauenfels, David. (See Grauenfels, Wilhelm, J. H., and D.)

Grauenfels, Josef H. (See Grauenfels, Wilhelm, J. H., and D.)

Grauenfels, Wilhelm and J. H., Bucharest, Roumania, and D. Grauenfels, Brassó, Austria-Hungary. Grain-sampler. No. 1,078,847; Nov. 18; Gaz. vol. 196; p. 617.

Gravert, Peter. (See Prugh, Walter B., assignor.)

Gray, Chester E., Eureka, and A. Jensen, Oakland, Cal. Apparatus for desiccating liquids. No. 1,078,848; Nov. 18; Gaz. vol. 196; p. 617.

Gray, John, Central Falls, R. I. Merchandise-display rack. No. 1,078,728; Nov. 18; Gaz. vol. 196; p. 576.

Gray, Lawrence B., Boston, Mass., assignor to Hydraulic Vacuum Dredging Company, Wilmington, Del. Vacuum-dredger. No. 1,078,542; Nov. 11; Gaz. vol. 196; p. 479.

Gray, William B., assignor to M. J. Bannon, Louisville, Ky. Pipe-support. No. 1,079,758; Nov. 25; Gaz. vol. 196; p. 962.

Gray, William B., assignor to M. J. Bannon, Louisville, Ky. Pipe-support. No. 1,079,759; Nov. 25; Gaz. vol. 196; p. 963.

Gray, William D., and J. G. Hintz, Jr., Milwaukee, Wis., assignors, by mesne assignments, to Allis-Chalmers Manufacturing Company. Bolting, sifting, and grading machine. No. 1,078,917; Nov. 18; Gaz. vol. 196; p. 641.

Graybill, Henry C., and A. C. Erbler, Altoona, Pa. Face-mask. No. 1,077,272; Nov. 4; Gaz. vol. 196; p. 10.

Green, Eurosos W., Ridgefield, Wash. Cultivator. No. 1,079,854; Nov. 25; Gaz. vol. 196; p. 996.

Green, Frank C., Pittsfield, Mass., assignor to General Electric Company. Oil-cooled transformer. No. 1,078,141; Nov. 11; Gaz. vol. 196; p. 340.

Greene, Albert E., Chicago, Ill. Electric furnace. No. 1,078,610; Nov. 18; Gaz. vol. 196; p. 536.

Greene, George S., et al. (See Inrig, Gavan and L., assignors.)

Greene, Jacob W., Chillicothe, Mo. Mold for making dental plates. No. 1,077,703; Nov. 4; Gaz. vol. 196; p. 158.

Greene, Samuel W., East Greenwich, R. I. Drinking device. No. 1,079,596; Nov. 25; Gaz. vol. 196; p. 906.

Greenleaf, Rupert L., assignor of one-half to F. A. Carlson, Brockton, Mass. Heel-trimmer. No. 1,078,849; Nov. 18; Gaz. vol. 196; p. 618.

Gregg, Alfred W., Phoenix, Ariz. Molding apparatus. No. 1,077,273; Nov. 4; Gaz. vol. 196; p. 10.

Gregory, Horace B., and I. F. Brooklyn, N. Y., assignors of two-thirds to J. H. Williams and one-third to J. T. Williams, Baltimore, Md. Textile-fiber netting. No. 1,077,959; Nov. 4; Gaz. vol. 196; p. 247.

Gregory, Irene F. (See Gregory, Horace B. and I. F.)

Gregory, Robert H., Cleburne, Tex. Combined jack and wrench. No. 1,078,850; Nov. 18; Gaz. vol. 196; p. 618.

Greiner, Otto, Lynn, Mass., assignor to General Electric Company. Production of articles from refractory material. No. 1,077,704; Nov. 4; Gaz. vol. 196; p. 158.

Grier, Frank L. (See Grier, Garrett L. and F. L.)

Grier, Garrett L., and F. L. Milford, Del. Sanitary holder for shade-guides. No. 1,078,431; Nov. 11; Gaz. vol. 196; p. 443.

Griffin, George L., et al. (See Martin, William A., assignor.)

Griffin, Gussie G., Mulberry, Fla. Curtain-rod. No. 1,077,529; Nov. 4; Gaz. vol. 196; p. 102.

Griffiths, David M., Merthyr, Wales. Automatic guide-box for iron and steel rolling mills. No. 1,078,045; Nov. 11; Gaz. vol. 196; p. 307.

Grimes, Josiah, assignor of one-half to B. F. Lytle, Los Angeles, Cal. Automatic weighing device. No. 1,079,407; Nov. 25; Gaz. vol. 196; p. 839.

Grimm, Paul H., Glen Cove, N. Y. Steam-trap and system for draining water of condensation from steam-coils. No. 1,078,733; Nov. 18; Gaz. vol. 196; p. 596.

Grisham, Edward P., St. Louis, Mo. Attachment for stuffing-boxes. No. 1,078,784; Nov. 18; Gaz. vol. 196; p. 597.

Groff, William W., South Omaha, Nebr. Switch. No. 1,078,497; Nov. 11; Gaz. vol. 196; p. 463.

Groschen, George. (See Olsen, Einar J., assignor.)

Groset, John P., Bothell, Wash. Ice-cream-cone-cooking machine. No. 1,079,597; Nov. 25; Gaz. vol. 196; p. 906.

Gross, Martha E., Sardis, Miss. Combined whiffletree hook and ferrule. No. 1,079,236; Nov. 18; Gaz. vol. 196; p. 751.

Grossman, Henry M., and J. Wynn, Jr., Canton, Ohio. Automatic rheostat. No. 1,078,785; Nov. 18; Gaz. vol. 196; p. 597.

Grotenhuis, William J., assignor, by mesne assignments, to Kinney-Rome Company, Chicago, Ill. Metallic fabric for beds or couches. No. 1,077,705; Nov. 4; Gaz. vol. 196; p. 158.

Gruchl, Edward C., Passaic, N. J. Tooth-brush. No. 1,077,900; Nov. 4; Gaz. vol. 196; p. 228.

Gruenberg, Raoul J. (See Lyons and Gruenberg.)

Grutter, Reinhold, Charlottenburg, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Rendering sterilized water tasteless and odorless. No. 1,078,918; Nov. 18; Gaz. vol. 196; p. 641.

Guariglia, Mauro, Morgantown, W. Va. Trolley-guard. No. 1,079,408; Nov. 25; Gaz. vol. 196; p. 839.

Guarino, Joseph A., Westerly, R. I. Gun. No. 1,079,855; Nov. 25; Gaz. vol. 196; p. 996.

Guerra, Angel, Celaya, Mexico. Circuit-breaker. No. 1,077,829; Nov. 4; Gaz. vol. 196; p. 201.

Guest, Alfred W. F., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,079,486; Nov. 25; Gaz. vol. 196; p. 866.

Guignard, Gaston P., Melun, and H. L. A. M. Watrignat, Lille, France. Extracting glycerin from vineas. No. 1,078,580; Nov. 11; Gaz. vol. 196; p. 491.

Guljer, Henry, et al. (See Zahl, Hjalmar, assignor.)

Gulbransen, Axel G., assignor to Gulbransen-Dickinson Company, Chicago, Ill. Automatically-operated piano. No. 1,078,673; Nov. 18; Gaz. vol. 196; p. 555.

196 O. G.—ii

Gulbransen-Dickinson Company. (See Gulbransen, Axel G., assignor.)

Gustafson, Carl J., Aberdeen, S. D. Answering and recording telephone. No. 1,079,760; Nov. 25; Gaz. vol. 196; p. 963.

Guthrie, Charles B., Slab Fork, W. Va. Collapsible shipping-crate. No. 1,079,702; Nov. 25; Gaz. vol. 196; p. 941.

Gutsch, Alfred O., Sheboygan, Wis. Furnace. No. 1,077,405; Nov. 4; Gaz. vol. 196; p. 59.

H. Mueller Manufacturing Company. (See Mueller, Philip, assignor.)

H. L. Hurst Manufacturing Company, The. (See Lamiell, Earld H., assignor.)

H. T. Paiste Company. (See Paiste, Henry T., assignor.)

H. W. Johns-Manville Company. (See De Wein, George F., assignor.)

Haas, Cyrus A., St. Louis, Mo. Valve-stem and check-valve therefor. No. 1,078,347; Nov. 11; Gaz. vol. 196; p. 413.

Haas, Cyrus A., St. Louis, Mo. Water-heater. No. 1,079,005; Nov. 18; Gaz. vol. 196; p. 672.

Hackney, L. S. (See Goldman, Isaac S., assignor.)

Hadden, John S., Huntington Park, assignor of one-half to F. H. Johnson, South Pasadena, Cal. Lawn-sprinkling device. No. 1,078,432; Nov. 11; Gaz. vol. 196; p. 443.

Hadden, John S., Huntington Park, assignor of one-half to F. H. Johnson, South Pasadena, Cal. Lawn-sprinkling device. No. 1,078,543; Nov. 11; Gaz. vol. 196; p. 479.

Hadden, John S., Huntington Park, and F. H. Johnson, South Pasadena, Cal. Sprinkler. No. 1,078,433; Nov. 11; Gaz. vol. 196; p. 444.

Haff, Maximilian M. (See Willson and Haff.)

Haga, Ottar B., assignor of one-half to J. Vatne, Seattle, Wash. Whiffletree-hook. No. 1,078,434; Nov. 11; Gaz. vol. 196; p. 444.

Hagan Gas Engine & Mfg. Co. (See Hagan, Louis T., assignor.)

Hagan, Louis T., assignor to Hagan Gas Engine & Mfg. Co., Winchester, Ky. Motor-plow and traction-engine. No. 1,077,878; Nov. 4; Gaz. vol. 196; p. 218.

Hagelstein, Christian H. T., Dorchester, assignor to The Reece Button Hole Machine Company, Boston, Mass. Button-attaching machine. No. 1,077,602; Nov. 4; Gaz. vol. 196; p. 124.

Hagerstrom, John A., New York, N. Y., assignor, by mesne assignments, to Victor Typewriter Company, Type-writing machine. (Reissue.) No. 13,649; Nov. 18; Gaz. vol. 196; p. 778.

Hagmueller, Herbert E., Hoboken, N. J. Hood for month-pieces of pipes or the like. No. 1,079,703; Nov. 25; Gaz. vol. 196; p. 941.

Hahn, Alexander, New York, N. Y. Fastening device for folding tables. No. 1,079,006; Nov. 18; Gaz. vol. 196; p. 672.

Hahn, John, Los Angeles, Cal. Sucker-rod and the like. No. 1,077,931; Nov. 4; Gaz. vol. 196; p. 237.

Haines, John H. J., New York, N. Y. Telephone. No. 1,079,123; Nov. 18; Gaz. vol. 196; p. 713.

Halbielb, Edward A., assignor to North East Electric Company, Rochester, N. Y. Brush-holder for electric motors or generators. No. 1,078,194; Nov. 11; Gaz. vol. 196; p. 358.

Halbielb, Edward A., Rochester, N. Y., assignor to North East Electric Company. Electric switch. No. 1,078,195; Nov. 11; Gaz. vol. 196; p. 358.

Hale and Kilburn Company. (See Budd, Edward G., assignor.)

Hale, Thomas E., Caribou, Me. Potato-digger. No. 1,078,435; Nov. 11; Gaz. vol. 196; p. 444.

Hall, Adelbert E., Bay City West, Mich. Valve-gear. No. 1,078,277; Nov. 11; Gaz. vol. 196; p. 387.

Hall, Edward H. (See Curtis and Hall.)

Hall, Elbert J., West Berkeley, Cal. Internal-combustion engine. No. 1,078,919; Nov. 18; Gaz. vol. 196; p. 641.

Hall, John B., et al. (See Rogers, Russell N., assignor.)

Hall, John L., Schenectady, N. Y., assignor to General Electric Company. Range-transmitter. No. 1,077,706; Nov. 4; Gaz. vol. 196; p. 159.

Hall, Nathan H., et al. (See Schieler, Harry H., assignor.)

Hall, William H., Cicero, Ill. Vacuum carpet-cleaner. No. 1,077,603; Nov. 4; Gaz. vol. 196; p. 125.

Hallum, Clarence J., Wilton, N. D. Steering-wheel hand-warmer. No. 1,079,237; Nov. 18; Gaz. vol. 196; p. 751.

Hallwood Cash Register Company, The. (See Hallwood, Henry S., assignor.)

Hallwood, Henry S., assignor, by mesne assignments, to The Hallwood Cash Register Company, Columbus, Ohio. Cash-register. No. 1,078,920; Nov. 18; Gaz. vol. 196; p. 642.

Halvorson, Cromwell A. B., Jr. (See Fleming and Halvorson.)

Hamann, Charles, Stewartville, Mo. Anchoring device. No. 1,078,142; Nov. 11; Gaz. vol. 196; p. 341.

Hambloch, Anton. (See Gellér, Soma, assignor.)

Hamill, Alexander, Baltimore, Md. Sand valve or strainer. No. 1,078,674; Nov. 18; Gaz. vol. 196; p. 556.

Hamilton, Henry W., et al. (See Porter, John W., assignor.)

Hamilton, James L., Grand Junction, Colo., assignor to The Hamilton Orchard Heater Company. Orchard-heater. No. 1,079,645; Nov. 25; Gaz. vol. 196; p. 921.
 Hamilton Orchard Heater Company, The. (See Hamilton, James L., assignor.)
 Hamm, William S., Hubbard Woods, Ill., assignor to The Adams & Westlake Company. Lamp. No. 1,079,124; Nov. 18; Gaz. vol. 196; p. 713.
 Hammer, Charles, assignor to American Metal Cap Company, Brooklyn, N. Y. Bottle cap or seal. No. 1,079,238; Nov. 18; Gaz. vol. 196; p. 752.
 Hammett, Charles A., Washington, D. C. False work for concrete construction. No. 1,079,045; Nov. 18; Gaz. vol. 196; p. 687.
 Hammond, Mary E., residuary legatee. (See Hammond and Forsman.)
 Hammond, Richard E., deceased, and S. W. Forsman, Colorado Springs, Colo.; M. E. Hammond, residuary legatee. Starting device for explosive-engines. No. 1,078,196; Nov. 11; Gaz. vol. 196; p. 359.
 Hammond, Wilberforce B., Brookline, Mass. Sprinkler attachment. No. 1,077,830; Nov. 4; Gaz. vol. 196; p. 201.
 Hanan, Herbert W., and J. H. Gates, New York, N. Y., assignors, by mesne assignments, to Boston Machine Works Company. Slitting and folding machine. No. 1,078,348; Nov. 11; Gaz. vol. 196; p. 413.
 Hanba, Frank, and R. Gladfelter, Detroit, Mich. Automobile door-hinge. No. 1,078,786; Nov. 18; Gaz. vol. 196; p. 597.
 Hance Brothers & White. (See Hance, Edward H., assignor.)
 Hance, Edward H., assignor to Hance Brothers & White, Philadelphia, Pa. Drug-mill. No. 1,078,436; Nov. 11; Gaz. vol. 196; p. 445.
 Handlin, Scott D., Eldora, Iowa, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,077,604; Nov. 4; Gaz. vol. 196; p. 125.
 Hanes, George E., Denver, Colo. Aeroplane. No. 1,079,171; Nov. 18; Gaz. vol. 196; p. 730.
 Hanington, Charles F., Roselle Park, N. J. Window-lock. No. 1,077,605; Nov. 4; Gaz. vol. 196; p. 126.
 Hanna, William G., Jr., Manchester, England. Apparatus for melting, compressing, and forcing metal or alloys into molds. No. 1,078,921; Nov. 18; Gaz. vol. 196; p. 642.
 Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Chuck. No. 1,079,646; Nov. 25; Gaz. vol. 196; p. 921.
 Hansen, Victor E. (See Burchard, Hansen, and Marsh.)
 Hanson, N. T., et al. (See Kneeder, John D., assignor.)
 Hantsch, Arthur, Linden, N. J. Calculating-machine. No. 1,077,274; Nov. 4; Gaz. vol. 196; p. 10.
 Hardie, Henry H., assignor to The Hardie Manufacturing Company, Hudson, Mich. Tree-spraying device. No. 1,079,335; Nov. 25; Gaz. vol. 196; p. 815.
 Hardie Manufacturing Company, The. (See Hardie, Henry H., assignor.)
 Hardin, Harley F. (See Bruner and Hardin.)
 Harmuth, Albert. (See Eschellmann and Harmuth.)
 Harris Automatic Press Company, The. (See Smith, Walter H., assignor.)
 Harris, Harry B. (See Napier and Harris.)
 Harris, John R., Crafton, Pa. Insulator. No. 1,079,239; Nov. 18; Gaz. vol. 196; p. 752.
 Harris, Joseph O., Columbia Heights, Minn., assignor, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J. Means for holding inserts in place in molds. No. 1,079,550; Nov. 25; Gaz. vol. 196; p. 888.
 Harrison, Earl D. (See Stevens, Harrison, and Machado.)
 Harrison, Martin E., Parnassus, and H. D. McCutcheon, Pittsburgh, Pa. Steam or electrical street-railway grade-crossing. No. 1,078,437; Nov. 11; Gaz. vol. 196; p. 445.
 Harrison Safety Boiler Works. (See Allger, Gamble, and Gibson, assignors.)
 Harrison Safety Boiler Works. (See Gamble, Joseph W., assignor.)
 Harrison Safety Boiler Works. (See Jay, Edward G., Jr., assignor.)
 Harrison Safety Boiler Works. (See Jones, Gamble, and Gibson, assignors.)
 Harrop, Benjamin T., Winnfield, La. Log-stake. No. 1,079,172; Nov. 18; Gaz. vol. 196; p. 730.
 Hart, George B., Rochester, N. Y. Detachable ball for flower-pots and like articles. No. 1,077,879; Nov. 4; Gaz. vol. 196; p. 218.
 Hart, George B., Rochester, N. Y. Combined tack and staple. No. 1,077,880; Nov. 4; Gaz. vol. 196; p. 218.
 Hartbauer, August W. L. (See Sparks and Hartbauer.)
 Hartbauer, August W. L., assignor to American Car and Foundry Company, St. Louis, Mo. Hood panel-casting. No. 1,078,278; Nov. 11; Gaz. vol. 196; p. 387.
 Hartbauer, August W. L., Chicago, Ill., and L. C. Sparks, assignors to American Car & Foundry Company, St. Louis, Mo. Metallic filing-cabinet. No. 1,078,279; Nov. 11; Gaz. vol. 196; p. 388.
 Hartbauer, August W. L., Chicago, Ill., and L. C. Sparks, assignors to American Car & Foundry Company, St. Louis, Mo. Metallic letter-case. No. 1,078,280; Nov. 11; Gaz. vol. 196; p. 388.
 Hartman, August H., Stamford, Conn. Drinking-fountain. No. 1,077,707; Nov. 4; Gaz. vol. 196; p. 159.

Hartman, W. H. (See Smith, Edward H., assignor.)
 Hartmann, Henry G., assignor to C. D. Osborn Company, Chicago, Ill. Glove. No. 1,079,647; Nov. 25; Gaz. vol. 196; p. 922.
 Hartness, James, Springfield, Vt. Chuck. No. 1,077,470; Nov. 4; Gaz. vol. 196; p. 82.
 Harvey, Alfred and H. C., Milwaukee, Wis. Machine for manufacturing pompons. No. 1,079,125; Nov. 18; Gaz. vol. 196; p. 714.
 Harvey, Charles J., Kidderminster, England. Suction-producing device. No. 1,079,761; Nov. 25; Gaz. vol. 196; p. 964.
 Harvey, Harold C. (See Harvey, Alfred and H. C.)
 Harvey, Robert. (See Chodorkow and Harvey.)
 Hasenzahl, Ferdinand, Bellevue, Ky., assignor to The Western Surgical Supply Company, Cincinnati, Ohio. Adjustable table. No. 1,079,487; Nov. 25; Gaz. vol. 196; p. 866.
 Haskell, Edward H., et al. (See Teresa, Antonio, assignor.)
 Haskell, William E., assignor to Estey Organ Company, Brattleboro, Vt. Organ-coupler. No. 1,078,851; Nov. 18; Gaz. vol. 196; p. 618.
 Haskell, William E., assignor to Estey Organ Company, Brattleboro, Vt. Organ-coupler. No. 1,078,852; Nov. 18; Gaz. vol. 196; p. 619.
 Hassler, Carl, Aalen, Germany. Atomizer. No. 1,077,708; Nov. 4; Gaz. vol. 196; p. 160.
 Haster, Wilhelm, Siegen, Germany. Beet-harvesting machine. No. 1,077,878; Nov. 11; Gaz. vol. 196; p. 284.
 Hastings, Alonzo L., Chicago, Ill. Constructing bolsters. No. 1,077,709; Nov. 4; Gaz. vol. 196; p. 160.
 Hastings, Ralph V., Chicago, Ill. Tire-protector. No. 1,077,275; Nov. 4; Gaz. vol. 196; p. 11.
 Hathaway, Dallas C., Sheldon, Ill. Combination tire valve-stem and pressure-gage. No. 1,079,704; Nov. 25; Gaz. vol. 196; p. 942.
 Hathaway, Hosea, Boston, Mass. Weighing and adding scale. No. 1,079,336; Nov. 25; Gaz. vol. 196; p. 815.
 Haugh, Benjamin F., Anderson, Ind. Car-coupling knuckle. No. 1,078,498; Nov. 11; Gaz. vol. 196; p. 464.
 Haugh, Benjamin F., Anderson, Ind. Casting car-coupling knuckles. No. 1,078,499; Nov. 11; Gaz. vol. 196; p. 464.
 Haugh, Benjamin F., Anderson, Ind. Casting knuckles for car-couplings. No. 1,078,500; Nov. 11; Gaz. vol. 196; p. 464.
 Hauser, Altus T., Ellensburg, Wash. Convertible hair-cutter and safety-razor. No. 1,077,530; Nov. 4; Gaz. vol. 196; p. 102.
 Hauser, Percy, and A. G. McLaughlin, Altoona, Pa. Candle-lamp. No. 1,078,197; Nov. 11; Gaz. vol. 196; p. 359.
 Hauser, Percy, and A. G. McLaughlin, Altoona, Pa. Candle-lamp. No. 1,078,198; Nov. 11; Gaz. vol. 196; p. 360.
 Hausler, Joseph. (See Branitzky, William T., assignor.)
 Haussmann, John F., Milwaukee, Wis. Tool for handling compressed coiled springs. No. 1,077,606; Nov. 4; Gaz. vol. 196; p. 126.
 Havener, Arthur R., Waltham, Mass., assignor to American Lacing Hook Co. Feed mechanism for lacing-book-setting machines. No. 1,078,350; Nov. 11; Gaz. vol. 196; p. 414.
 Havers, Ephraim W., London, England. Gas-valve. No. 1,079,337; Nov. 25; Gaz. vol. 196; p. 816.
 Hawxburst, John J., and E. F. Nicolai, New York, N. Y. Carbureting device. No. 1,078,349; Nov. 11; Gaz. vol. 196; p. 414.
 Hay, Walter, Seville, assignor to The Postalgraph Company, Cleveland, Ohio. Feeding device for printing-machines. No. 1,078,281; Nov. 11; Gaz. vol. 196; p. 388.
 Hayes, John, assignor of one-fourth to J. T. Whitson, Uniontown, Pa. Coke-drawing apparatus. No. 1,079,126; Nov. 18; Gaz. vol. 196; p. 714.
 Hayn, Georg, Essen-on-the-Ruhr, and N. Koch, Essen-Rellinghausen, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Automobile with pivot-gun. No. 1,079,856; Nov. 25; Gaz. vol. 196; p. 996.
 Hayne, Wilbur, Ottawa, Ill. Acetylene-gas generator. No. 1,078,046; Nov. 11; Gaz. vol. 196; p. 308.
 Hays, Joseph W., Chicago, Ill. Gas-analyzing apparatus. No. 1,077,342; Nov. 4; Gaz. vol. 196; p. 35.
 Hayward, Hubert H., Aldrich, Mo. Wrench. No. 1,077,343; Nov. 4; Gaz. vol. 196; p. 36.
 Hazelton, John T., Somerville, N. J. Gaseous-fuel mixer. No. 1,079,338; Nov. 25; Gaz. vol. 196; p. 817.
 Hazlett, Merritt W., Treadwell, N. Y. Lamp-bracket. No. 1,077,531; Nov. 4; Gaz. vol. 196; p. 103.
 Healey & Co. (See Douglas, William H., assignor.)
 Healy, William P. (See Mead, Howard G., assignor.)
 Heany, John A., Washington, D. C. Electrical welding apparatus. No. 1,078,675; Nov. 18; Gaz. vol. 196; p. 556.
 Heath, George W., Stonington, Conn. Poultry-feeder. No. 1,078,853; Nov. 18; Gaz. vol. 196; p. 620.
 Heaton, Cary S., et al. (See Skeen, Samuel T., assignor.)
 Hechinger, Simon, Nuremberg, Germany. Collapsible trick-box. No. 1,079,762; Nov. 25; Gaz. vol. 196; p. 964.
 Heffner, William F., Benton Harbor, Mich. Filing-cabinet. No. 1,079,173; Nov. 18; Gaz. vol. 196; p. 731.

Heilner, Julius E., New York, N. Y. Corset. No. 1,077,932; Nov. 4; Gaz. vol. 196; p. 237.
 Helm, Charles, and S. Jellenik, North Tonawanda, N. Y. Rail-joint. No. 1,079,551; Nov. 25; Gaz. vol. 196; p. 888.
 Helms, Theodore, and E. R. Galland, San Francisco, Cal. Towel-retainer. No. 1,078,501; Nov. 11; Gaz. vol. 196; p. 465.
 Hele-Shaw, Henry S., London, England. Hydraulic transmission apparatus. No. 1,077,980; Nov. 11; Gaz. vol. 196; p. 285.
 Hele-Shaw, Henry S., and F. L. Martineau, London, England. Pump and motor. No. 1,077,979; Nov. 11; Gaz. vol. 196; p. 285.
 Helena Manufacturing Company. (See Bonham, George W., assignor.)
 Helena Manufacturing Company, The. (See Long, Matthew T., assignor.)
 Heller & Son, L. (See Moritz, René, assignor.) (Reissue.)
 Henderson, Carl, Oak Park, Ill., assignor to Miehle Printing Press and Mfg. Co., Chicago, Ill. Sheet-delivery apparatus. No. 1,078,351; Nov. 11; Gaz. vol. 196; p. 415.
 Henderson, Edward K. (See Ray and Henderson.)
 Henderson, George R. (See Vaucrain, Linton, and Henderson.)
 Henderson, John H. (See Booker, James, assignor.)
 Hendricks, James S., Colville, Wash. Bed-rail fastener. No. 1,079,400; Nov. 25; Gaz. vol. 196; p. 840.
 Hendrix, George H., et al. (See Carpenter, Hezekiah, assignor.)
 Henefeld, Edward I. (See Henefeld, John B. and E. I.)
 Henefeld, John B. and E. I., San Antonio, Tex. Two-row cotton and corn planter. No. 1,078,282; Nov. 11; Gaz. vol. 196; p. 389.
 Hennessey, Jerome H., Washington, D. C. Inking-roller and making same. No. 1,079,339; Nov. 25; Gaz. vol. 196; p. 817.
 Hennig, Gustav K., Wahren, assignor to Firm of Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Mechanically-operated musical string instrument. No. 1,079,046; Nov. 18; Gaz. vol. 196; p. 687.
 Hennig, Paul, New York, N. Y. Gyroscope steering-gear. No. 1,077,344; Nov. 4; Gaz. vol. 196; p. 36.
 Henry, Beniah L., assignor of one-half to W. T. Woodley, Charlotte, N. C. Parasol. No. 1,079,240; Nov. 18; Gaz. vol. 196; p. 752.
 Henry Disston & Sons File Company. (See Rogers, George L., assignor.)
 Henry, William K., assignor to The American Hardware Corporation, New Britain, Conn. Door-controlling means. No. 1,079,763; Nov. 25; Gaz. vol. 196; p. 905.
 Herdman, William J. (See Hulsh, Herdman, and Lormer.)
 Herman, Jacob A., New York, N. Y. Dress. No. 1,079,552; Nov. 25; Gaz. vol. 196; p. 889.
 Hermanson, Gustaf A., Chicago, Ill., assignor, by mesne assignments, to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,079,488; Nov. 25; Gaz. vol. 196; p. 866.
 Herrick, James A., Newark, N. J. Stirrer for gas-producers. No. 1,077,981; Nov. 11; Gaz. vol. 196; p. 286.
 Herrmann, Oscar, New York, N. Y. Wardrobe. No. 1,078,502; Nov. 11; Gaz. vol. 196; p. 465.
 Hertsgaard, Amand P., Kindred, N. D. Seed-corn rack. No. 1,079,241; Nov. 18; Gaz. vol. 196; p. 753.
 Hervey, Lee A., assignor of one-third to G. W. Tyrrell and one-third to F. Carr, Perth Amboy, N. J. Street-cleaner. No. 1,078,352; Nov. 11; Gaz. vol. 196; p. 415.
 Herzberg, Wilhelm, Wilmersdorf, and W. Lange, Treptow, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Diazotizable disazo dyes for cotton. No. 1,078,503; Nov. 11; Gaz. vol. 196; p. 465.
 Herzberg, Wilhelm, Wilmersdorf, and W. Lange, Treptow, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Diazotizable disazo dyes for cotton. No. 1,078,504; Nov. 11; Gaz. vol. 196; p. 466.
 Herzberg, Wilhelm, Wilmersdorf, and G. Hoppe, Treptow, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Blue dyes of the anthraquinone series. No. 1,078,505; Nov. 11; Gaz. vol. 196; p. 468.
 Herzfeld, Julius, Schöneberg, near Berlin, assignor to Sucrofilter- und Wasserreinigungs Gesellschaft mit beschränkter Haftung, Schöneberg, Germany. Intermittently-acting double siphon. No. 1,077,471; Nov. 4; Gaz. vol. 196; p. 82.
 Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)
 Hess, Henry, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Ball-bearing. No. 1,079,340; Nov. 25; Gaz. vol. 196; p. 817.
 Hesse, Otto, Hoboken, N. J. Hose-coupling. No. 1,077,710; Nov. 4; Gaz. vol. 196; p. 160.
 Hesselman, Knut J. E., Stockholm, Sweden. Fuel-pump for internal-combustion engines. No. 1,078,438; Nov. 11; Gaz. vol. 196; p. 445.
 Heusler, Friedrich, Dillenburg, Germany. Extracting manganese from its ores. No. 1,078,199; Nov. 11; Gaz. vol. 196; p. 360.
 Hewitt, Edward R., Ringwood, N. J., assignor, by mesne assignments, to International Motor Company, New York, N. Y. Automobile. No. 1,077,933; Nov. 4; Gaz. vol. 196; p. 237.

Hewitt, James M., Manchester, and A. J. Drake, Hale, assignors to Saver Clutch Co., Ltd., Manchester, England. Friction-clutch and the like. No. 1,077,831; Nov. 4; Gaz. vol. 196; p. 201.
 Hewitt, Peter C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Starting electric-lighting apparatus. No. 1,079,341; Nov. 25; Gaz. vol. 196; p. 817.
 Hewitt, Peter C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Circuit-breaker. No. 1,079,410; Nov. 25; Gaz. vol. 196; p. 840.
 Hewitt, Peter C., Ringwood Manor, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electric lighting. No. 1,079,343; Nov. 25; Gaz. vol. 196; p. 818.
 Hewitt, Peter C., Ringwood Manor, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electrical production of light. No. 1,079,344; Nov. 25; Gaz. vol. 196; p. 818.
 Hewitt, Peter C., New York, N. Y., assignors, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electric gas or vapor lamp. No. 1,079,342; Nov. 25; Gaz. vol. 196; p. 817.
 Hewlett, Edward M., Schenectady, N. Y., assignor to General Electric Company. High-potential insulator. No. 1,077,711; Nov. 4; Gaz. vol. 196; p. 161.
 Hey, David M., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn. Centrifugal pump. No. 1,079,294; Nov. 18; Gaz. vol. 196; p. 768.
 Heyder, Richard, New York, N. Y., assignor to General Electric Company. Manufacture of boron nitride. No. 1,077,712; Nov. 4; Gaz. vol. 196; p. 161.
 Hicks, Charles W., Clearwater, Fla. Subsoil-plow. No. 1,079,553; Nov. 25; Gaz. vol. 196; p. 889.
 Hicks, Walter F. (See Hines and Hicks.)
 Higdon, Otis P. (See Mutton, Arthur R., assignor.)
 Higginbotham, Don J., Rialto, Fla. Stamping device. No. 1,078,854; Nov. 18; Gaz. vol. 196; p. 620.
 Higgins, William H. C., Jr., Laporte, Ind. Mixing fuel for carbureters. No. 1,077,881; Nov. 4; Gaz. vol. 196; p. 219.
 Higgins, William H. C., Jr., Laporte, Ind. Carbureter. No. 1,077,910; Nov. 4; Gaz. vol. 196; p. 229.
 Higham, Lindley M., Brooklyn, N. Y. Expandable finger-ring. No. 1,079,489; Nov. 25; Gaz. vol. 196; p. 867.
 Hildreth, Carl C. (See Cook and Hildreth.)
 Hilliker, Frederick O., Irondequoit, assignor to F. O. Hilliker Co., Syracuse, N. Y. Toller implement. No. 1,078,283; Nov. 11; Gaz. vol. 196; p. 390.
 Hiller, Edward. (See Gould, Charles T. E., assignor.)
 Hill, Irving. (See Dixon, James F., assignor.)
 Hill, Leonore C., Bethesda, Md. Combined clothing hanger and protector. No. 1,078,729; Nov. 18; Gaz. vol. 196; p. 577.
 Hiller, Louis C., and F. I. Camp, Meriden, Conn. Gas-burner. No. 1,077,713; Nov. 4; Gaz. vol. 196; p. 161.
 Hills-McCanna Co. (See Delaney, Thomas A., assignor.)
 Hillwig, Samuel P. (See Bell and Hillwig.)
 Hiltz, George S., assignor to The Stock Quotation Telegraph Company, New York, N. Y. Printing-telegraph receiver. No. 1,078,620; Nov. 18; Gaz. vol. 196; p. 537.
 Himes, James M. (See Davis, Benjamin F., assignor.)
 Himler, George W., North Latrobe, Pa. Combined rail-chair, splice-bar, and tie-plate. No. 1,079,242; Nov. 18; Gaz. vol. 196; p. 753.
 Hindley, John H. (See Roy and Hindley.)
 Hines, William J., and W. F. Hicks, assignors to Puritan Comb Company, Leominster, Mass. Barrette. No. 1,077,345; Nov. 4; Gaz. vol. 196; p. 37.
 Hinkle, Max H., assignor of one-half to G. E. Fritz, Blackhawk, Colo. Poultry-feeder. No. 1,078,094; Nov. 11; Gaz. vol. 196; p. 325.
 Hintz, John G., Jr. (See Gray and Hintz.)
 Hiscok, Alfred O., Palatka, Fla. Combined muffler and oil-gas producer. No. 1,078,353; Nov. 11; Gaz. vol. 196; p. 416.
 Hitchcock, Halbert K., Tarentum, Pa. Apparatus for applying abrasives to grinding-machines. No. 1,077,982; Nov. 11; Gaz. vol. 196; p. 286.
 Hirschman, Rudolf V., Claflin, Kans. Envelop-fastener. No. 1,079,508; Nov. 25; Gaz. vol. 196; p. 907.
 Hixon, Edward, and E. S. Parker, Chicago, Ill. Apparatus for treating water. No. 1,077,406; Nov. 4; Gaz. vol. 196; p. 59.
 Hixson, R. G., et al. (See Patrick, James H., assignor.)
 Hjort, Axel F., assignor to The Brunswick-Balke-Collender Co., Chicago, Ill. Combined davenport and billiard-table. No. 1,077,276; Nov. 4; Gaz. vol. 196; p. 11.
 Hlavati, Faustin, Vienna, Austria-Hungary. Synthetically preparing ammonia and other compounds containing nitrogen and hydrogen. No. 1,079,705; Nov. 25; Gaz. vol. 196; p. 942.
 Hobart M. Cable Company, The. (See Peck, Frank, assignor.)
 Hodge, Howard D., Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Machine for canneling, trimming, and gaging cartridge-cases. No. 1,079,706; Nov. 25; Gaz. vol. 196; p. 942.
 Hodges, Arthur, and F. Cooper, Yeovil, England. Machine for working leather. No. 1,077,346; Nov. 4; Gaz. vol. 196; p. 37.

Hoehl, August, Haledon, N. J. Electric sign. No. 1,077,532; Nov. 4; Gaz. vol. 196; p. 103.
 Hoelcher, Herman M., assignor to L. Wolf Manufacturing Company, Chicago, Ill. Water-closet seat. No. 1,079,007; Nov. 18; Gaz. vol. 196; p. 673.
 Hoene, Andrew J., Murray, Utah. Medical electric-current regulator. No. 1,078,787; Nov. 18; Gaz. vol. 196; p. 597.
 Hoffman, Charlie P., Carrollton, Ohio. Locking mechanism. No. 1,079,047; Nov. 18; Gaz. vol. 196; p. 687.
 Hoffmann, Charles B., Cincinnati, Ohio. Repulsion-motor-control system. No. 1,078,439; Nov. 11; Gaz. vol. 196; p. 446.
 Hofmann, Josef, Baumaroche, Switzerland. Pneumatic spring. No. 1,077,472; Nov. 4; Gaz. vol. 196; p. 82.
 Hoge, Joseph F. D., New York, N. Y., assignor to American District Telegraph Company. Multiplex-telegraph system. No. 1,078,284; Nov. 11; Gaz. vol. 196; p. 390.
 Hogrobo, Arthur E., and J. D. Firmin, Philadelphia, Pa., assignors to Niles-Bement-Pond Company, New York, N. Y. Dynamic control for electric machines. No. 1,079,345; Nov. 25; Gaz. vol. 196; p. 819.
 Hohmann, Edmund, assignor to Stettiner Chamotte-Fabrik Aktien-Gesellschaft vorm. Didler, Stettin, Germany. Air-blast heater. No. 1,079,764; Nov. 25; Gaz. vol. 196; p. 965.
 Holland, Albert, Nome, N. D. Wind-shield for automobile-radiators. No. 1,079,765; Nov. 25; Gaz. vol. 196; p. 966.
 Holden, John H., Pekin, N. D. Compound tool. No. 1,079,243; Nov. 18; Gaz. vol. 196; p. 753.
 Holland, Isaac W., Midlothian, Tex. Wire-stretcher. No. 1,079,127; Nov. 18; Gaz. vol. 196; p. 714.
 Holland-Letz, George and J. Crown Point, Ind. Grinding-machine. No. 1,077,714; Nov. 4; Gaz. vol. 196; p. 161.
 Holland-Letz, John. (See Holland-Letz, George and J.)
 Hollenbeck, Albert B., Sidney, N. Y. Automobile-tire. No. 1,077,407; Nov. 4; Gaz. vol. 196; p. 59.
 Holliday, Joseph S., Statham, Ga. Cotton-seed separator and planter. No. 1,079,244; Nov. 18; Gaz. vol. 196; p. 753.
 Holm, Charles W., assignor to M. B. Holm, Troy, Ohio. Acetylene-gas generator. No. 1,079,766; Nov. 25; Gaz. vol. 196; p. 966.
 Holm, Mary B. (See Holm, Charles W., assignor.)
 Holm, Ragnar. (See Gerdien and Holm.)
 Holmerans, Carl, Boston, and C. G. Bergstrom, Everett, Mass. Catch for pockets. No. 1,079,411; Nov. 25; Gaz. vol. 196; p. 841.
 Holmes, John H., Newcastle-upon-Tyne, England. Brush-holder for dynamo-electric machines. No. 1,079,554; Nov. 25; Gaz. vol. 196; p. 890.
 Holmes, Samuel A., Storm Lake, Iowa. Latrine-seat shield. No. 1,077,277; Nov. 4; Gaz. vol. 196; p. 12.
 Holmes, William J., Toronto, Ontario, Canada. Saw-setting machine. No. 1,078,855; Nov. 18; Gaz. vol. 196; p. 620.
 Holt, Harold E. S., Farnborough, England. Safety-razor. No. 1,079,174; Nov. 18; Gaz. vol. 196; p. 731.
 Holt-Lyon Company, The. (See Holt, Thomas, assignor.)
 Holt, Thomas, assignor to The Holt-Lyon Company, Tarrytown, N. Y. Egg-beater. No. 1,077,832; Nov. 4; Gaz. vol. 196; p. 202.
 Holton, James O., Springfield, Mo. Lightning-arrester. No. 1,078,922; Nov. 18; Gaz. vol. 196; p. 643.
 Holtzman, John, assignor of one-half to J. Sarg, New York, N. Y. Sash-holder. No. 1,078,856; Nov. 18; Gaz. vol. 196; p. 621.
 Holub-Dusha Company. (See Dusha, Feyk, and Komancsek, assignors.)
 Holz, Edward F., Chicago, Ill. Ink-fountain for printing-presses. No. 1,077,882; Nov. 4; Gaz. vol. 196; p. 219.
 Homans, Thomas S., Brooklyn, N. Y. Mechanical movement. No. 1,079,048; Nov. 18; Gaz. vol. 196; p. 688.
 Homer Roberts Telephone Co. (See Roberts, Homer J., assignor.)
 Honig, Sigmund, New York, N. Y. Razor-sharpener. No. 1,077,934; Nov. 4; Gaz. vol. 196; p. 238.
 Hopewell, Charles, Ottawa, Ontario, Canada. Flushing device. No. 1,079,555; Nov. 25; Gaz. vol. 196; p. 890.
 Hopkins, Nevil M., Washington, D. C., assignor, by mesne assignments, to The Electric Tachometer Company, Philadelphia, Pa. Electromagnetic tachometer. No. 1,078,200; Nov. 11; Gaz. vol. 196; p. 360.
 Hopkinson, Joseph, Dayton, Ohio. Computing-scale. No. 1,077,945; Nov. 4; Gaz. vol. 196; p. 238.
 Hoppe, Gerhard. (See Herzberg and Hoppe.)
 Horn, Felix B., and A. Wagner, assignors to Wagner Manufacturing Company, Cedar Falls, Iowa. Sheet-metal wheel. No. 1,078,581; Nov. 11; Gaz. vol. 196; p. 491.
 Horn, William P., Mount Vernon, N. Y. Lighting-fixture. No. 1,077,983; Nov. 11; Gaz. vol. 196; p. 286.
 Hornby, Frank, Liverpool, England. Perforated plate. No. 1,079,245; Nov. 18; Gaz. vol. 196; p. 754.
 Horner, Julius M. (See Moore, Theophilus W., assignor.)
 Hornung, Timothy F., Sacramento, Cal. Water-supply system. No. 1,077,473; Nov. 4; Gaz. vol. 196; p. 83.
 Hovey, William, Success, Ark. Ironing-table. No. 1,079,490; Nov. 25; Gaz. vol. 196; p. 867.
 Hoskins, Adelmour M., Minneapolis, Minn. Differential adjusting-rod for drums. No. 1,077,347; Nov. 4; Gaz. vol. 196; p. 57.
 Hoskins, Eugene T. (See Burpee and Hoskins.)

Houben, Josef, Berlin, assignor to J. D. Riedel Aktien-gesellschaft, Berlin-Brand, Germany. Manufacture of nitroso derivatives of phenyl-glycin-ortho-carboxylic acid. No. 1,079,246; Nov. 18; Gaz. vol. 196; p. 754.
 Houghton, Ella V., Philadelphia, Pa. Removable sanitary hat-lining. No. 1,077,833; Nov. 4; Gaz. vol. 196; p. 202.
 Houghton, William, Bath, Me. Door for ships' bulkheads. No. 1,078,095; Nov. 11; Gaz. vol. 196; p. 325.
 House, Henry A., Bridgeport, Conn. Knockdown metal barrel. No. 1,078,621; Nov. 18; Gaz. vol. 196; p. 537.
 Houseman, Harold E., assignor to Standard Machine Company, Philadelphia, Pa. Needle-picker for circular-knitting machines. No. 1,078,678; Nov. 18; Gaz. vol. 196; p. 556.
 Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,078,677; Nov. 18; Gaz. vol. 196; p. 557.
 Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Stop-motion for circular-knitting machines. No. 1,078,678; Nov. 18; Gaz. vol. 196; p. 557.
 Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,078,679; Nov. 18; Gaz. vol. 196; p. 558.
 Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Take-up motion for circular-knitting machines. No. 1,078,680; Nov. 18; Gaz. vol. 196; p. 559.
 Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,078,681; Nov. 18; Gaz. vol. 196; p. 559.
 Houston, David T. (See Aiston and Houston.)
 Howe, Clarence O. S., Montclair, N. J. Surgical instrument. No. 1,079,128; Nov. 18; Gaz. vol. 196; p. 715.
 Howe, Edwin A., Bancroft, Iowa. Automobile-tire. No. 1,079,175; Nov. 18; Gaz. vol. 196; p. 731.
 Howies, Fred. (See McDougall and Howies.)
 Hoxsey, James F., Washington, D. C. Adjustable liner. No. 1,078,780; Nov. 18; Gaz. vol. 196; p. 577.
 Hoxsey, James F., Washington, D. C. Mold and liner. No. 1,079,049; Nov. 18; Gaz. vol. 196; p. 688.
 Hoybook, Henry L., Tyler, Tex. Support for telegraph and telephone wires. No. 1,078,201; Nov. 11; Gaz. vol. 196; p. 361.
 Hoyt, Albert M. (See Matson, Carl A., assignor.)
 Hronish, Charles R., Knife River, N. D. Hog-scalding apparatus. No. 1,079,648; Nov. 25; Gaz. vol. 196; p. 922.
 Hubbell, Harry C., Newark, N. J. Making storage-battery electrodes. No. 1,079,346; Nov. 25; Gaz. vol. 196; p. 819.
 Hubler, Robert L., et al. (See Inrig, Gavan and L., assignors.)
 Huckle, James B., and W. E. Rlenhart, Columbus, Ohio. Hot-air furnace. No. 1,079,491; Nov. 25; Gaz. vol. 196; p. 867.
 Hudgins, William F., assignor of one-third to F. W. Brilaw and one-third to S. A. Wallace, Dorrisville, Ill. Lamp. No. 1,079,347; Nov. 25; Gaz. vol. 196; p. 819.
 Hudson, Charles E., assignor of one-half to D. W. Hudson, Green Bay, Wis. Pumping apparatus. No. 1,077,474; Nov. 4; Gaz. vol. 196; p. 83.
 Hudson, David W. (See Hudson, Charles E., assignor.)
 Hudson, Frank, Dolgeville, Cal. Swiveled irrigating-hydrant for sheet-metal pipes. No. 1,077,936; Nov. 4; Gaz. vol. 196; p. 239.
 Huebner, Martin E., Sumner, Ill. Rein-support. No. 1,079,412; Nov. 25; Gaz. vol. 196; p. 841.
 Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Speed control for motor-cars. No. 1,077,348; Nov. 4; Gaz. vol. 196; p. 37.
 Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Ignition apparatus for hydrocarbon-engines. No. 1,079,413; Nov. 25; Gaz. vol. 196; p. 841.
 Huffman, Polly, Cameron, Tex. Horseshoeing-rack. No. 1,077,475; Nov. 4; Gaz. vol. 196; p. 84.
 Hughes, Abednego B., Cedarville, Cal. Single-delivery toothpick-holder. No. 1,077,715; Nov. 4; Gaz. vol. 196; p. 162.
 Huhn, Gustav, Berlin, Germany. Metal packing-ring. No. 1,079,857; Nov. 25; Gaz. vol. 196; p. 906.
 Hulfish, David S., W. J. Herdman, and E. S. Lorimer, assignors, by mesne assignments, to General Engineering and Construction Company, Limited, Toronto, Ontario, Canada. Printing-telegraph system and alphabet. No. 1,077,278; Nov. 4; Gaz. vol. 196; p. 12.
 Hull, William S., Jackson, Miss. Flying-machine. No. 1,078,143; Nov. 11; Gaz. vol. 196; p. 341.
 Hultquist, Charles A., Los Angeles, Cal. Rock-drill. No. 1,077,911; Nov. 4; Gaz. vol. 196; p. 229.
 Hund, Ernest, Providence, R. I. Heel-plate. No. 1,079,050; Nov. 18; Gaz. vol. 196; p. 689.
 Hunold, Ernest, Providence, R. I. Heel-plate. No. 1,079,051; Nov. 18; Gaz. vol. 196; p. 689.
 Hunt, Helm, Ferris & Company. (See Ferris, Henry L., assignor.)
 Hutton, Harry A., Fort Madison, Iowa, assignor to Fort Madison Plow Company. Plow-adjusting mechanism. No. 1,078,285; Nov. 11; Gaz. vol. 196; p. 391.
 Hupfeld Aktiengesellschaft, Ludwig. (See Hennig, Gustav K., assignor.)

Hupp, Fred J., Spalding, Mich. Firearm. No. 1,078,923; Nov. 18; Gaz. vol. 196; p. 643.
 Hurd, Edward L., Milton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting-block. No. 1,079,699; Nov. 25; Gaz. vol. 196; p. 907.
 Hussong, Joseph, Camden, N. J. Dyeing-machine. No. 1,079,247; Nov. 18; Gaz. vol. 196; p. 754.
 Hydraulic Vacuum Dredging Company. (See Gray, Lawrence B., assignor.)
 Hyve, Louis, Doriglies, near Douai, France. Self-acting conveyor for coal and goaf-packing in colliery-inclines of low gradient. No. 1,079,176; Nov. 18; Gaz. vol. 196; p. 732.
 Ideal Wheel Company, The. (See Strietelmeyer, John E., assignor.)
 Ielfeld, August, assignor to Columbia Postal Supply Company, Silver Creek, N. Y. Mail-marking machine. No. 1,079,492; Nov. 25; Gaz. vol. 196; p. 868.
 Ielfeld, Fred C., assignor to Columbia Postal Supply Company, Silver Creek, N. Y. Mail-marking machine. No. 1,077,408; Nov. 4; Gaz. vol. 196; p. 60.
 Ielfeld, Fred C., assignor to Columbia Postal Supply Company, Silver Creek, N. Y. Mail-marking machine. No. 1,078,096; Nov. 11; Gaz. vol. 196; p. 325.
 Illinois Concrete Machinery Co. (See Fisher, Andrew J., assignor.)
 Illinois Show Case Works. (See McInel, Frederick E., assignor.)
 Illmer Gas Engine Company. (See Illmer, Louis, Jr., assignor.)
 Illmer, Louis, Jr., Cincinnati, Ohio, assignor to Illmer Gas Engine Company. Gas-engine. No. 1,078,286; Nov. 11; Gaz. vol. 196; p. 391.
 Imperial Stopper Company. (See Irenius, Joseph V., assignor.)
 Indahl, Mauritz C. (See Bancroft and Indahl.)
 Ingels, Orle W., Carlyle, Ill. Mine-holst recorder. No. 1,079,493; Nov. 25; Gaz. vol. 196; p. 868.
 Ingersoll, Frederick, Detroit, Mich. Pleasure-railway. No. 1,079,052; Nov. 18; Gaz. vol. 196; p. 689.
 Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
 Ingersoll-Rand Company. (See Clement, William, assignor.)
 Ingersoll-Rand Company. (See Hansen, Charles C., assignor.)
 Ingersoll-Rand Company. (See Peck, Cald H., assignor.)
 Ingersoll-Rand Company. (See Prellwitz, William, assignor.)
 Inrig, Gavan and L., London, England, assignors to R. L. Hubler and G. S. Greene, Dayton, Ohio. Dynamo-electric generator. No. 1,079,008; Nov. 18; Gaz. vol. 196; p. 673.
 Inrig, Leon. (See Inrig, Gavan and L.)
 International Cigar Machinery Company. (See Burchard, Hansen, and Marsh, assignors.)
 International Cigar Machinery Company. (See Marsh, Harry S., assignor.)
 International Heater Company. (See Camp, George E., assignor.)
 International Motor Company. (See Hewitt, Edward R., assignor.)
 International Time Recording Company of New York. (See Tomlinson, Charles E., assignor.)
 Internationale Wasserstoff Aktiengesellschaft. (See Lane, Howard, assignor.)
 Irenius, Joseph V., Newark, N. J., assignor to Imperial Stopper Company. Bottling appliance. No. 1,079,053; Nov. 18; Gaz. vol. 196; p. 689.
 Irenius, Joseph V., and C. B. Weaver, Newark, N. J. Bottle-handling mechanism. No. 1,079,295; Nov. 18; Gaz. vol. 196; p. 769.
 Irving-Pitt Manufacturing Company. (See Pitt, William P., assignor.)
 Irwin, Anson W., Rochester, N. Y. Turnstile. No. 1,077,984; Nov. 11; Gaz. vol. 196; p. 287.
 Isanacs, William R., assignor of one-half to T. G. Puckett, Thompsonville, Ill. Railway appliance. No. 1,078,287; Nov. 11; Gaz. vol. 196; p. 392.
 Isenberg, Louis. (See Stilling, Louis J., assignor.)
 Isherwood, Harold. (See Pollen and Isherwood.)
 Isitt, Frederick C., Russ, Cal. Trunk-strap. No. 1,077,716; Nov. 4; Gaz. vol. 196; p. 162.
 Israel, Oscar J., Charlton, Iowa. Spool holder or case. No. 1,079,556; Nov. 25; Gaz. vol. 196; p. 890.
 Ito, Kumezo, Fukuoka-Ken, Japan. Propeller-blade-milling machine. No. 1,077,279; Nov. 4; Gaz. vol. 196; p. 12.
 J. Geo. Leyner Engineering Works Company, The. (See Leyner, John G., assignor.)
 J. A. Fay & Egan Company. (See Solem, Peter A., assignor.)
 J. & C. Fischer. (See Mayer, Julian T., assignor.)
 J. E. Porter Company. (See Yentzer, George W., assignor.)
 J. P. Seeburg Piano Company. (See Wiggen, Peter, assignor.)
 Jackson, Byron D., assignor to Modern Tool Company, Erie, Pa. Tail-foot for lathes. No. 1,078,857; Nov. 18; Gaz. vol. 196; p. 621.
 Jackson, Leonard H. (See Adams and Jackson.)
 Jackson, Simon S., Boston, assignor to The Stafford Company, Readville, Boston, Mass. Let-back for take-up mechanism of looms. No. 1,079,296; Nov. 18; Gaz. vol. 196; p. 769.

Jackson, Simeon S., assignor to The Stafford Company, Readville, Mass. Loom. No. 1,079,914; Nov. 25; Gaz. vol. 196; p. 1017.
 Jackson, Thomas, London, assignor to himself, and A. Ramsay, Chesham, England. Gas-flash-light advertising device. No. 1,077,985; Nov. 11; Gaz. vol. 196; p. 287.
 Jackson, Walter, and H. N. Pochin, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Burnishing-machine. No. 1,077,349; Nov. 4; Gaz. vol. 196; p. 38.
 Jackson, William P., Oakland, Cal. Motor control. No. 1,077,717; Nov. 4; Gaz. vol. 196; p. 162.
 Jacobs, Maurice L., Brooklyn, N. Y. Putty-dispensing device. No. 1,078,440; Nov. 11; Gaz. vol. 196; p. 446.
 Jacobsen, Andrew, Fruitvale, Cal. Electric bell. No. 1,079,649; Nov. 25; Gaz. vol. 196; p. 922.
 Jacoby, Ernst, assignor to Diamalt Aktien-Gesellschaft, Munich, Germany. Treating yeast. No. 1,078,288; Nov. 11; Gaz. vol. 196; p. 392.
 Jacques, Damase, Detroit, Mich. Releasing device. No. 1,079,297; Nov. 18; Gaz. vol. 196; p. 770.
 Jagenberg, Emil, Dusseldorf, Germany. Paper bag. No. 1,078,682; Nov. 18; Gaz. vol. 196; p. 559.
 Jahn, Otto, Essen/West, assignor to Fried. Krupp Aktien-gesellschaft, Essen-on-the-Ruhr, Germany. Vehicle-shaft. No. 1,079,858; Nov. 25; Gaz. vol. 196; p. 907.
 James, Edward B., Cordele, Ga. Plow. No. 1,079,557; Nov. 25; Gaz. vol. 196; p. 891.
 James, Henry D., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,078,622; Nov. 18; Gaz. vol. 196; p. 538.
 Janssen, Henry, and M. Zwicky, Wyomissing borough, assignors to Textile Machine Works, Wyomissing, Pa. Yarn-feed traverse mechanism for knitting-machines. No. 1,079,915; Nov. 25; Gaz. vol. 196; p. 1017.
 Jantsch, Richard, assignor to The American Tool Works Company, Cincinnati, Ohio. Lathe attachment. No. 1,079,494; Nov. 25; Gaz. vol. 196; p. 869.
 Jas. H. Matthews & Co. (See Chapin, Jay, assignor.)
 Jas. H. Matthews & Co. (See Matthews, James H., assignor.)
 Jaugue, Paul P. L., Paris, France. Carbureter. No. 1,078,582; Nov. 11; Gaz. vol. 196; p. 492.
 Jay, Edward G., Jr., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Water heating and measuring apparatus. No. 1,077,350; Nov. 4; Gaz. vol. 196; p. 38.
 Jeavons, William R., and A. R. Whitaker, Cleveland, Ohio. Grate. No. 1,079,767; Nov. 25; Gaz. vol. 196; p. 966.
 Jefferies, Fredrick L., Granite City, Ill., and W. Spain, St. Louis, Mo., assignors to Corn Products Refining Company. Can-filling apparatus. No. 1,079,495; Nov. 25; Gaz. vol. 196; p. 869.
 Jefferies, Fredrick L., Granite City, Ill., and W. Spain, St. Louis, Mo., assignors to Corn Products Refining Company. Filling apparatus. No. 1,079,496; Nov. 25; Gaz. vol. 196; p. 870.
 Jefferson, Eugene D., Boston, Mass. Apparatus for bleaching paper-pulp. No. 1,077,883; Nov. 4; Gaz. vol. 196; p. 220.
 Jellenik, Stepan. (See Helm and Jellenik.)
 Jenkins, Thomas R., Jr., Baltimore, Md., assignor of one-half to W. S. Fennell and one-half to Finola Manufacturing Company, Hannibal, Mo. Rotary scrubbing-machine. No. 1,079,298; Nov. 18; Gaz. vol. 196; p. 770.
 Jenkins, Thomas R., Jr., Baltimore, Md., assignor of one-half to W. S. Fennell and one-half to Finola Manufacturing Company, Hannibal, Mo. Truck-reel for conductor-wires. No. 1,079,299; Nov. 18; Gaz. vol. 196; p. 770.
 Jenness, Charles L., et al. (See Minor, Charles C., assignor.)
 Jennings, John R., West Newton, Pa. Rail-chair. No. 1,079,768; Nov. 25; Gaz. vol. 196; p. 967.
 Jensen, Aage. (See Gray and Jensen.)
 Jensen, John S., Chicago, Ill. Temporary bladder. No. 1,078,354; Nov. 11; Gaz. vol. 196; p. 416.
 Jensen, Andreas, assignor to Aktieselskabet Record, Stavanger, Norway. Tin-can-seaming machine. No. 1,079,558; Nov. 25; Gaz. vol. 196; p. 891.
 Jerram, Arthur E. (See Keall, Gouldbourn, and Jerram.)
 Jesse Beery Company, The. (See Beery, Jesse, assignor.)
 Jester, Marvin H., Denver, Colo., assignor to The M. H. Jester Investment Company. Means for supporting plaster-boards in partition construction. No. 1,078,144; Nov. 11; Gaz. vol. 196; p. 341.
 Jirka, Irwin G., Chicago, Ill. Clamp mouth-mirror. No. 1,079,414; Nov. 25; Gaz. vol. 196; p. 841.
 Johansson, Karl E., Chicago, Ill. Animal-trap. No. 1,077,912; Nov. 4; Gaz. vol. 196; p. 230.
 Johanyak, Frank, Batavia, N. Y. Package-holder. No. 1,079,760; Nov. 25; Gaz. vol. 196; p. 967.
 John A. Roebing's Sons Company. (See Sunderland, Charles C., assignor.)
 John Wildt Evaporated Milk Co., The. (See Montgomery, John F., assignor.)
 Johnson, Alfred C. (See Calkins and Johnson.)
 Johnson, Francis A., Kansas City, Mo. Automatic regulator for gasolene-burners. No. 1,078,441; Nov. 11; Gaz. vol. 196; p. 446.
 Johnson, Frederick H. (See Hadden, John S., assignor.)
 Johnson, George T. (See Whitridge and Johnson.)

Johnson, Harold, Brooklyn, N. Y. Combined drawing instrument, book-mark, and paper-cutter. No. 1,078,145; Nov. 11; Gaz. vol. 196; p. 341.

Johnson, John D. A., Omaha, Nebr. Gearling. No. 1,078,146; Nov. 11; Gaz. vol. 196; p. 342.

Johnson, Lawrence E., Winthrop, assignor to J. Garst, Worcester, Mass. Nail making and driving machine. No. 1,078,147; Nov. 11; Gaz. vol. 196; p. 342.

Johnson, Lucius E., Roanoke, Va. Railway scoop-car. No. 1,078,289; Nov. 11; Gaz. vol. 196; p. 392.

Johnson, Moses C., Hartford, Conn. Friction-clutch. No. 1,079,348; Nov. 25; Gaz. vol. 196; p. 819.

Johnson, Philip D., Chicago, Ill. Hardening copper boiler-tubes. No. 1,078,583; Nov. 11; Gaz. vol. 196; p. 492.

Johnson, Thomas, Dudley, England. Blasting. No. 1,078,442; Nov. 11; Gaz. vol. 196; p. 447.

Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,077,607; Nov. 4; Gaz. vol. 196; p. 126.

Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,077,608; Nov. 4; Gaz. vol. 196; p. 126.

Johnson, William S., and J. W. Sheffer, Berwick, Pa., assignors to The American Car and Foundry Company, St. Louis, Mo. Electric rivet-furnace. No. 1,078,290; Nov. 11; Gaz. vol. 196; p. 392.

Johnston, James W., assignor of one-half to T. A. Lowe, Lockport, N. Y. Bucket-dumping device. No. 1,077,986; Nov. 11; Gaz. vol. 196; p. 287.

Johnston, John, Woonsocket, R. I. Friction device for shuttles. No. 1,079,009; Nov. 18; Gaz. vol. 196; p. 673.

Johnston, Willis, Schenectady, N. Y. Starting device. No. 1,078,924; Nov. 18; Gaz. vol. 196; p. 648.

Joiner, Joseph E., Meridian, Miss. Tamping-machine. No. 1,079,770; Nov. 25; Gaz. vol. 196; p. 967.

Jonas, August D., and E. Tschunkur, Leverkusen, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing pinacones. No. 1,079,918; Nov. 25; Gaz. vol. 196; p. 1017.

Jones, Earl. (See Fleming and Jones.)

Jones, Edward F., St. Joseph, Mo. Steam-trap. No. 1,078,047; Nov. 11; Gaz. vol. 196; p. 308.

Jones, Ernest G., and T. T. Patchel, Cape May, N. J. Rotary engine. No. 1,079,177; Nov. 18; Gaz. vol. 196; p. 732.

Jones, Frank T. (See Jones, Richard T. and F. T.)

Jones, George M. (See Kelly, John T., assignor.)

Jones, James T., Brookwood, Ala. Shaft attachment. No. 1,078,731; Nov. 18; Gaz. vol. 196; p. 577.

Jones, John C., J. W. Gamble, and H. E. Sibson, assignors to Harrison Safety Boiler Works, Philadelphia, Pa. Water-heating apparatus. No. 1,078,623; Nov. 18; Gaz. vol. 196; p. 538.

Jones, Joseph F., assignor to The Porcupine Water Heater Company, Cleveland, Ohio. Water-heater. No. 1,077,609; Nov. 4; Gaz. vol. 196; p. 127.

Jones, Laban E., Anaconda, Mont. Sampler-operating device. No. 1,079,010; Nov. 18; Gaz. vol. 196; p. 674.

Jones, Lyman M., and R. H. Verity, assignors to Massey-Harris Co. Ltd., Toronto, Ontario, Canada. Lifting device of mower cutter-bars. No. 1,077,351; Nov. 4; Gaz. vol. 196; p. 38.

Jones, Ralph E., U. S. Army. Shower-bath pail. No. 1,078,355; Nov. 11; Gaz. vol. 196; p. 417.

Jones, Richard T. and F. T., assignors to The Jones Safety Train Control System Company, Baltimore, Md. Train-controlling mechanism. No. 1,077,937; Nov. 4; Gaz. vol. 196; p. 239.

Jones Safety Train Control System Company, The. (See Jones, Richard T. and F. T., assignors.)

Jones, William A., Sharon, and W. A. Minehan, Sharpsville, Pa. Locomotive attachment. No. 1,078,624; Nov. 18; Gaz. vol. 196; p. 538.

Jones, William F., Dlatville, Tex. Bumper for log-wagons. No. 1,079,859; Nov. 25; Gaz. vol. 196; p. 997.

Jones, William S., Meadville, Pa. Gas mixer and regulator. No. 1,078,584; Nov. 11; Gaz. vol. 196; p. 492.

Jordan, Daniel P., Burns, Oreg. Boring-machine. No. 1,079,650; Nov. 25; Gaz. vol. 196; p. 923.

Jordan, Jasper O., et al. (See Patrick, James H., assignor.)

Joseph Reid Gas Engine Company. (See Platt and Reid, assignors.)

Judith, George H., Cisco, Tex. Hat-pin guard. No. 1,078,683; Nov. 18; Gaz. vol. 196; p. 560.

Junkers, Hugo, Aix-la-Chapelle, Germany. Combustion-engine. No. 1,077,718; Nov. 4; Gaz. vol. 196; p. 163.

Just, Lulu L., La Salle, Ill. Dress-shirt. No. 1,078,443; Nov. 11; Gaz. vol. 196; p. 447.

Juster, Bernard, Tampa, Fla. Wooden packing-case. No. 1,077,834; Nov. 4; Gaz. vol. 196; p. 203.

Kabo Corset Company. (See Brown, Arnold V., assignor.)

Kaessmann, Frederick D. J., Coffeyville, Kans. Gas generator and compressor. No. 1,079,011; Nov. 18; Gaz. vol. 196; p. 674.

Kahn, Julius, Detroit, Mich. Sash hanging and operating mechanism. No. 1,079,497; Nov. 25; Gaz. vol. 196; p. 870.

Kahn, Myrtill, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Black mordant monazo dyestuff. No. 1,078,925; Nov. 18; Gaz. vol. 196; p. 643.

Kahn, Myrtill, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Blue azo dyes. No. 1,078,926; Nov. 18; Gaz. vol. 196; p. 644.

Kaibel, Burkhardt, Darmstadt, Germany. Apparatus for separating deposited matter from liquids. No. 1,077,476; Nov. 4; Gaz. vol. 196; p. 84.

Kallischer, Georg, Mainkur, near Frankfurt-on-the-Main, Germany, assignor to Cassella Color Company. Diazo dyes and making same. No. 1,079,415; Nov. 25; Gaz. vol. 196; p. 842.

Kalle & Company, Aktiengesellschaft. (See Paal and Amberger, assignors.)

Kane, John N., and G. C. Bauman, Chicago, Ill.; said Kane assignor to Moser Paper Co. Automatic card cutting, counting, and packaging machine. No. 1,078,291; Nov. 11; Gaz. vol. 196; p. 393.

Kaplan, Morduch L., Brooklyn, N. Y. Galvanic cell. No. 1,078,788; Nov. 18; Gaz. vol. 196; p. 598.

Karl, Albert G., Baltimore, Md. Marker-lamp. No. 1,079,349; Nov. 25; Gaz. vol. 196; p. 820.

Karsitz, Frank, Bridgeport, Conn. Buttonhole-scissors. No. 1,077,280; Nov. 4; Gaz. vol. 196; p. 13.

Kaufman, William J., Cleveland, Ohio. Type-writer. No. 1,077,281; Nov. 4; Gaz. vol. 196; p. 13.

Kaufman, Herman, New York, N. Y. Protective device for gas-meters and the like. No. 1,077,409; Nov. 4; Gaz. vol. 196; p. 60.

Kaufmann, Jacob, assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa. Loom heddle-frame. No. 1,077,719; Nov. 4; Gaz. vol. 196; p. 163.

Keagy, Joseph, Coshocton, Ohio. Machine for feeding and cutting cloth, paper, or other material. No. 1,078,202; Nov. 11; Gaz. vol. 196; p. 361.

Keagy, Rudolph H., Canton, Ohio. Embroidery-hoop. No. 1,077,987; Nov. 11; Gaz. vol. 196; p. 288.

Keall, Frank B., J. Gouldsbourn, and A. E. Jerram, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Machine for operating on shoes. No. 1,078,684; Nov. 18; Gaz. vol. 196; p. 560.

Kelm, Edward T., administrator. (See Alexander, William W.)

Kelb, Alexander E., Hinsdale, assignor to Automatic Electric Company, Chicago, Ill. Telephone-exchange trunking system. No. 1,078,685; Nov. 18; Gaz. vol. 196; p. 560.

Kellher, James F., Independence, Mo. Collar-button. No. 1,078,732; Nov. 18; Gaz. vol. 196; p. 578.

Keller, Peter, Chicago, Ill. Gas-regulator. No. 1,078,625; Nov. 18; Gaz. vol. 196; p. 539.

Kelley, Blaine, Syracuse, N. Y. Electrically-operated duplicate type-writing machine. No. 1,078,626; Nov. 18; Gaz. vol. 196; p. 539.

Kelley, Walter L., Pawtucket, R. I. Locking-ring. No. 1,077,282; Nov. 4; Gaz. vol. 196; p. 14.

Kellogg Switchboard & Supply Company. (See Webster, Harry G., assignor.)

Kelly, Albert A., Sidcup, England. Packing pulverulent, granular, and other substances. No. 1,077,835; Nov. 4; Gaz. vol. 196; p. 203.

Kelly, Charles F., Philadelphia, Pa. Railway-crossing. No. 1,078,048; Nov. 11; Gaz. vol. 196; p. 308.

Kelly, John F., Pittsfield, Mass. Musical instrument. No. 1,078,627; Nov. 18; Gaz. vol. 196; p. 539.

Kelly, John T., Brooklyn, N. Y., assignor of one-half to G. M. Jones, Pittsburgh, Pa. Expansion-joint. No. 1,079,350; Nov. 25; Gaz. vol. 196; p. 820.

Keltner, Delmar D., Des Moines, Iowa. Pick. No. 1,078,585; Nov. 11; Gaz. vol. 196; p. 493.

Keltner, Delmar D., Des Moines, Iowa. Smoke-consuming mechanism. No. 1,078,927; Nov. 18; Gaz. vol. 196; p. 644.

Kemp, Charles E. (See Kemp, Clarence M. and C. E.)

Kemp, Clarence M. and C. E., assignors to C. M. Kemp Manufacturing Co., Baltimore, Md. Pipe-testing plug. No. 1,077,352; Nov. 4; Gaz. vol. 196; p. 39.

Kemper, Charles W. (See Kemper, John T. and C. W.)

Kemper, John T. and C. W., Garberville, Cal. Car-door hasp. No. 1,078,928; Nov. 18; Gaz. vol. 196; p. 644.

Kempe, Henry J., assignor to Package Machinery Company, Springfield, Mass. Wrapping-machine. No. 1,079,012; Nov. 18; Gaz. vol. 196; p. 675.

Kendrick, John W., Chicago, Ill. Railway tie-plate. No. 1,077,720; Nov. 4; Gaz. vol. 196; p. 163.

Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,077,721; Nov. 4; Gaz. vol. 196; p. 164.

Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,079,498; Nov. 25; Gaz. vol. 196; p. 871.

Kennedy, Guy L., assignor to National Carbonated Liquid Company, San Francisco, Cal. Fluid-pressure-regulating gage. No. 1,079,600; Nov. 25; Gaz. vol. 196; p. 907.

Kenney, Charles H., assignor, by mesne assignments, to The American Speed Indicator Company, New London, Conn. Marine speedometer. No. 1,077,533; Nov. 4; Gaz. vol. 196; p. 103.

Keppel & Company. (See Keppel, Richard J., assignor.)

Keppel, Richard J., Philadelphia, assignor to Keppel & Company, Chester, Pa. Lock. No. 1,079,351; Nov. 25; Gaz. vol. 196; p. 820.

Ker, Charles A., assignor of one-third to A. Wilson and one-third to W. A. Ker, Glasgow, Scotland. Engraving-machine. No. 1,079,559; Nov. 25; Gaz. vol. 196; p. 892.

Ker, William A., et al. (See Ker, Charles A., assignor.)

Kerecsfalvy, Anton, New York, N. Y. Exercising-stick. No. 1,077,836; Nov. 4; Gaz. vol. 196; p. 203.

Kern, George, Peru, assignor to Western Clock Co., La Salle, Ill. Alarm-clock. No. 1,078,858; Nov. 18; Gaz. vol. 196; p. 621.

Kerner Manufacturing Company. (See Dodda, Ethan I., assignor.)

Kerpely, Anton von, Vienna, Austria-Hungary. Water seal for gas-producers working with high-pressure blast. No. 1,078,148; Nov. 11; Gaz. vol. 196; p. 343.

Kerigan, James P., Wilmington, Del. Tube-expander. No. 1,077,837; Nov. 4; Gaz. vol. 196; p. 203.

Keyes, Frederick G., Boston, Mass., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Mercury-vapor apparatus. No. 1,078,859; Nov. 18; Gaz. vol. 196; p. 622.

Keyes, Frederick G., assignor to A. A. Noyes, trustee, Boston, Mass. Vacuum-tight seal. No. 1,079,352; Nov. 25; Gaz. vol. 196; p. 820.

Keystone Steel and Wire Company. (See Sommer, Joseph W., assignor.)

Keyte, Sarah M., Oakland, Cal. Hammer-action for musical instruments. No. 1,077,913; Nov. 4; Gaz. vol. 196; p. 230.

Kiefer, Charles J., Indianapolis, Ind. Trombone. No. 1,078,628; Nov. 18; Gaz. vol. 196; p. 540.

Kiefer, Karl, Cincinnati, Ohio. Closure for containers. No. 1,079,771; Nov. 25; Gaz. vol. 196; p. 968.

Kiehl, George, Somonauk, Ill. Door-lock. No. 1,079,860; Nov. 25; Gaz. vol. 196; p. 997.

Kiesel, William F., Jr., Altoona, Pa. Car-truck. No. 1,079,178; Nov. 18; Gaz. vol. 196; p. 732.

Kight, Gordon T. (See Eddings, James T., assignor.)

Kilberry, George D., Worcester, Mass. Paper-making machine. No. 1,078,292; Nov. 11; Gaz. vol. 196; p. 393.

Kilburn, John F., assignor of one-half to G. E. Wallace, El Paso, Tex. Pump working barrel. No. 1,078,444; Nov. 11; Gaz. vol. 196; p. 447.

Kling & Hamilton Company. (See Gilman, John H., assignor.)

Kling, Hiram R. A., Sandy Springs, S. C. Guano-distributor. No. 1,077,838; Nov. 4; Gaz. vol. 196; p. 204.

Kling Machine Company, The. (See Warner, Frederick E., assignor.)

Kingston, Thomas H., West Somerville, Mass. Putlog. No. 1,077,839; Nov. 4; Gaz. vol. 196; p. 204.

Kinkaid, Joseph S., Traer, Iowa. Window-ventilator. No. 1,078,860; Nov. 18; Gaz. vol. 196; p. 622.

Kinne, Tempel L., Dallas, Tex. Cotton-packer. No. 1,077,477; Nov. 4; Gaz. vol. 196; p. 85.

Kinnear, William R., New Castle, Pa. Sheet-separating machine. No. 1,079,861; Nov. 25; Gaz. vol. 196; p. 998.

Kinnear, William R., New Castle, Pa. Fireproof window construction. No. 1,079,862; Nov. 25; Gaz. vol. 196; p. 998.

Kinney, Celia M., New York, N. Y. Changeable-letter sign. No. 1,079,179; Nov. 18; Gaz. vol. 196; p. 733.

Kinney, Justus R., Dorchester, Mass. Starting device for motor-cars. No. 1,077,884; Nov. 4; Gaz. vol. 196; p. 220.

Kinney, Justus R., Dorchester, Mass. Rotary pump. No. 1,079,660; Nov. 25; Gaz. vol. 196; p. 992.

Kinney, Justus R., Dorchester, Mass. Rotary pump. No. 1,079,662; Nov. 25; Gaz. vol. 196; p. 993.

Kinney, Justus R., Boston, Mass. Rotary pump. No. 1,079,661; Nov. 25; Gaz. vol. 196; p. 993.

Kinney-Rome Company. (See Grothnha, William J., assignor.)

Kintner, Charles J., New York, N. Y. Platform-indicator. No. 1,079,651; Nov. 25; Gaz. vol. 196; p. 923.

Kinzer, John J., Wildwood, Pa. Press. No. 1,077,840; Nov. 4; Gaz. vol. 196; p. 204.

Kippe, Otto, Osnabrück, Germany. Making briquets. No. 1,078,544; Nov. 11; Gaz. vol. 196; p. 479.

Kirby, John, Pittsburgh, Pa. Treating iron. No. 1,079,129; Nov. 18; Gaz. vol. 196; p. 715.

Kirk, Alexander, Crosby, Wyo. Punching-tool. No. 1,077,722; Nov. 4; Gaz. vol. 196; p. 164.

Kirkby, Harold, Middletown, Conn. Resilient wheel. No. 1,078,149; Nov. 11; Gaz. vol. 196; p. 343.

Kirkman, Karl F., Erie, Pa., assignor to Automatic Press Feeder Company, Chicago, Ill. Printing-press. No. 1,077,283; Nov. 4; Gaz. vol. 196; p. 14.

Kirner, Emil, et al. (See Landolt, Charles F., assignor.)

Klavon, Joseph L., Jackson, Mich. Car-replacer. No. 1,077,478; Nov. 4; Gaz. vol. 196; p. 85.

Klein, Simon, Berlin, Germany, assignor to General Electric Company. Device adapted to show whether an electric incandescent lamp has been in use. No. 1,077,479; Nov. 4; Gaz. vol. 196; p. 85.

Kleven, Ole L., Oslo, Minn. Grain-separator. No. 1,079,707; Nov. 25; Gaz. vol. 196; p. 943.

Kling, Peter M., Elizabeth, N. J. Spring-wheel. No. 1,074,410; Nov. 4; Gaz. vol. 196; p. 60.

Klose, Gustav K. H., assignor to Eagle Pencil Company, New York, N. Y. Pencil-sharpener. No. 1,077,723; Nov. 4; Gaz. vol. 196; p. 164.

Knapp, George O. (See Beach, Clarence E., assignor.)

Knapp, George O. (See Beach and Doughty, assignors.)

Knapp, Thomas H., Chicago, Ill. Space-hand for linotype machines. No. 1,078,049; Nov. 11; Gaz. vol. 196; p. 309.

Knauff, George C., Chicago, Ill. Socket for electric lamps. No. 1,078,586; Nov. 11; Gaz. vol. 196; p. 493.

Knecht, Johann J., Chemnitz, Germany. Tambour-frame-operating mechanism. No. 1,079,863; Nov. 25; Gaz. vol. 196; p. 998.

Kneidler, John D., Sioux City, Iowa. Engine. No. 1,077,724; Nov. 4; Gaz. vol. 196; p. 164.

Kneidler, John D., assignor of one-third to B. Couch and one-third to N. T. Hanson, Sioux City, Iowa. Engine-starter. No. 1,077,841; Nov. 4; Gaz. vol. 196; p. 205.

Knight, Herbert C., Portland, Me. Spring-wheel. No. 1,078,150; Nov. 11; Gaz. vol. 196; p. 343.

Knight, Howard S. (See Brox and Knight.)

Knight, John, Newark, N. J. Shaker for chocolate and the like. No. 1,079,563; Nov. 25; Gaz. vol. 196; p. 893.

Knowlton, Annie D., et al., administrators. (See Knowlton, Mark D.)

Knowlton, Frederic K., et al., administrators. (See Knowlton, Mark D.)

Knowlton, Mark D., deceased; F. K. and A. D. Knowlton, administrators, Rochester, N. Y. Manufacture of boxes. No. 1,079,772; Nov. 25; Gaz. vol. 196; p. 968.

Knox, Clara M., et al. (See Gould, Fred L., assignor.)

Knox, William J., Dubois, Pa., assignor to Commonwealth Steel Company, St. Louis, Mo. Railway-car side-door frame. No. 1,079,652; Nov. 25; Gaz. vol. 196; p. 923.

Knudsen, Karsten, Grand Rapids, Mich., assignor to Electric Wheel Co., (Associates,) Springfield, Mass. Electric motor-wheel. No. 1,079,917; Nov. 25; Gaz. vol. 196; p. 1018.

Koch, Arthur F., Decatur, Ill. Film-signal for moving-picture machines. No. 1,078,861; Nov. 18; Gaz. vol. 196; p. 622.

Koch, Max M. (See Becker and Koch.)

Koch, Norbert. (See Hayn and Koch.)

Kohler, William L., Carson, Va. Attachment for farm-wagons. No. 1,079,248; Nov. 18; Gaz. vol. 196; p. 755.

Kohn, Monroe, Chicago, Ill. Tag and guard therefor. No. 1,078,733; Nov. 18; Gaz. vol. 196; p. 578.

Kolakovski, Victor, New Haven, Conn. Auxiliary horse-shoe. No. 1,077,810; Nov. 4; Gaz. vol. 196; p. 127.

Koller, Gustav, Forest Gate, England. Cellulose composition. No. 1,079,773; Nov. 25; Gaz. vol. 196; p. 968.

Koller, John A., Manhattan, Kans. Bundling-machine. No. 1,079,864; Nov. 25; Gaz. vol. 196; p. 999.

Komancsek, Joseph. (See Dusha, Feyk, and Komancsek.)

Komancsek, Joseph, New York, N. Y. Tool for removing or inserting piston packing-rings or the like. No. 1,079,564; Nov. 25; Gaz. vol. 196; p. 893.

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,078,356; Nov. 11; Gaz. vol. 196; p. 417.

Korb, Leo A., Richmond, W. Va., assignor of one-half to B. Sickling, Cincinnati, Ohio. Gas-supply-controlling means. No. 1,079,416; Nov. 25; Gaz. vol. 196; p. 842.

Korte, Christian, assignor of one-third to S. Denison and one-third to G. H. Denison, Leeds, England. Revolution-counter. No. 1,077,611; Nov. 4; Gaz. vol. 196; p. 127.

Krakau, Harry T., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,078,203; Nov. 11; Gaz. vol. 196; p. 362.

Kramer, Christian, Berlin, Germany, assignor to General Electric Company. Motor-control system. No. 1,077,725; Nov. 4; Gaz. vol. 196; p. 165.

Kratz, Franz, and R. Wagner, assignors to Firm of R. Bosch, Stuttgart, Germany. Terminal connector for concentric-conductor cables. No. 1,079,130; Nov. 18; Gaz. vol. 196; p. 715.

Krause, J. Henry. (See Schwartz, Morris, assignor.)

Kretler, Richard F., E. S. Post, A. L. Roco, and M.-E. Layne, Houston, Tex.; said Kretler, Roco, and Post assignors to said Layne. Machine for making water and oil screens. No. 1,079,417; Nov. 25; Gaz. vol. 196; p. 843.

Kremer, Franklin W., Rutherford, N. J. Apparatus and method for splicing rubber tubing. No. 1,078,097; Nov. 11; Gaz. vol. 196; p. 326.

Kremer, Franklin W., Carlsbad, N. J. Antiskid-tire. No. 1,078,098; Nov. 11; Gaz. vol. 196; p. 326.

Kremer, Franklin W., Carlsbad, N. J. Machine for forming rubber tubes. No. 1,078,099; Nov. 11; Gaz. vol. 196; p. 326.

Krieger, Andrew, Columbus, Ohio. Detachable saw-tooth. No. 1,078,734; Nov. 18; Gaz. vol. 196; p. 578.

Krivonyak, Andro, Saltzburg, Pa. Draft appliance. No. 1,078,735; Nov. 18; Gaz. vol. 196; p. 578.

Krouse, Arthur J., Albany, N. Y. Rotary motor. No. 1,079,653; Nov. 25; Gaz. vol. 196; p. 924.

Kruh, Osias O., Schenectady, N. Y., assignor to General Electric Company. Vapor electric lamp. No. 1,079,708; Nov. 25; Gaz. vol. 196; p. 943.

Krumming, Reinhold, Milwaukee, Wis. Book holder or support. No. 1,079,418; Nov. 25; Gaz. vol. 196; p. 843.

Kruse, Johann S., London, England. Artificial stone or like composition. No. 1,078,100; Nov. 11; Gaz. vol. 196; p. 327.

Kruser, Augustus F., New York, N. Y. Mail-bag-transfer device. No. 1,078,789; Nov. 18; Gaz. vol. 196; p. 598.

Kubel, Stephen J., Washington, D. C. Feed-gate for printing-presses. No. 1,077,284; Nov. 4; Gaz. vol. 196; p. 14.

Kuntzel, Curt, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Wrapping and unwrapping machine. No. 1,079,601; Nov. 25; Gaz. vol. 196; p. 908.

Kugler, Charles H., Cosad, Nebr. Cutting apparatus for harvesting machines. No. 1,078,101; Nov. 11; Gaz. vol. 196; p. 827.

Kuhl, Alphonse M., Carroll, Iowa. Adjustable shaft. No. 1,079,865; Nov. 25; Gaz. vol. 196; p. 899.

Kuhlmann, Henry F., Indianapolis, Ind. Washing-machine. No. 1,077,534; Nov. 4; Gaz. vol. 196; p. 104.

Kuhn, Harry A., Pittsburgh, Pa. Mining-machine. No. 1,079,353; Nov. 25; Gaz. vol. 196; p. 821.

Kunert, Otto A., and T. F. K. von Weidenheim, Vienna, Austria-Hungary. Railway-splice with fish-plates. No. 1,079,866; Nov. 25; Gaz. vol. 196; p. 1000.

Kunkel, Nelson L., Utica, N. Y. Combination compasses and marking-gage. No. 1,078,862; Nov. 18; Gaz. vol. 196; p. 622.

Kunzelman, John R., Duluth, Minn. Car-step. No. 1,079,565; Nov. 25; Gaz. vol. 196; p. 894.

Küpper's Metallwerke Gesellschaft mit beschränkter Haftung. (See Maes, Ludwig, assignor.)

L. Wolf Manufacturing Company. (See Hoelscher, Herman M., assignor.)

L. M. Booth Company. (See Sutro, Harry H., assignor.)

La Chapelle, Euclid I., Beverly, Mass. Lasting-machine. No. 1,077,411; Nov. 4; Gaz. vol. 196; p. 81.

La Pearl, James H., Glendale, Cal. Changeable advertising-sign. No. 1,077,885; Nov. 4; Gaz. vol. 196; p. 221.

La Reau, Leo. (See Madsen, Peter N., assignor.)

Laas, Edward, Shawnee, Okla., and H. H. Sponenburg, Gurnee, Ill., assignors to Laas & Sponenburg Co. Railway-track device. No. 1,077,333; Nov. 4; Gaz. vol. 196; p. 39.

Laas & Sponenburg Co. (See Laas and Sponenburg, assignors.)

Lackey, Ben, Meridian, Miss. Nut-lock. No. 1,077,412; Nov. 4; Gaz. vol. 196; p. 81.

Ladd, James B. (See Bent, Barnhart, and Ladd.)

Lagay, Az, Pieter, Rotterdam, Netherlands. Davit. No. 1,078,080; Nov. 11; Gaz. vol. 196; p. 319.

Laird, Herbert L. (See Edman, John, assignor.)

Laist, Frederick, et al. (See Wiggin, Albert E., assignor.)

Lamb, Bert L., Norwalk, assignor of one-half to H. R. Mason, Monroeville, Ohio. Starting device for internal-combustion engines. No. 1,078,151; Nov. 11; Gaz. vol. 196; p. 344.

Lambert, Asher, Newark, N. J. Clutch-operating mechanism. No. 1,077,413; Nov. 4; Gaz. vol. 196; p. 82.

Lamiell, Earle H., assignor to The H. L. Hurst Manufacturing Company, Canton, Ohio. Adjustable spray-nozzle. No. 1,079,131; Nov. 18; Gaz. vol. 196; p. 716.

Lammon, Harry, Cleveland, Tex. Disk-harrow sharpener. No. 1,079,867; Nov. 25; Gaz. vol. 196; p. 1000.

Lancaster, Harris E., Adamsville, Tex. Harrow attachment for cultivators. No. 1,079,566; Nov. 25; Gaz. vol. 196; p. 894.

Landis, David D., Oberlin, Ohio, assignor of one-third to S. S. Bricker and one-third to H. B. Bricker, Philadelphia, Pa. Burial device. No. 1,078,929; Nov. 18; Gaz. vol. 196; p. 645.

Landis Tool Company. (See Shearer, Harry T., assignor.)

Landis Tool Company. (See Steiner, Ulrich, assignor.)

Landolt, Charles F., assignor of one-third to A. H. Schaffert and one-third to E. Kirner, Youngstown, Ohio. Guard for emery-wheels. No. 1,079,180; Nov. 18; Gaz. vol. 196; p. 733.

Landsiedel, Harry, Poplar Bluff, assignor to Dalton Adding Machine Company, St. Louis, Mo. Tabulating mechanism. No. 1,078,357; Nov. 11; Gaz. vol. 196; p. 417.

Landsiedel, Harry, Poplar Bluff, assignor to Dalton Adding Machine Company, St. Louis, Mo. Adding-machine. No. 1,078,358; Nov. 11; Gaz. vol. 196; p. 418.

Landsiedel, Harry, Poplar Bluff, assignor to Dalton Adding Machine Company, St. Louis, Mo. Adding and recording machine. No. 1,078,359; Nov. 11; Gaz. vol. 196; p. 418.

Lane, Elmer E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buffing-machine. No. 1,078,050; Nov. 11; Gaz. vol. 196; p. 808.

Lane, Howard, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfurt-on-the-Main, Germany. Production of hydrogen. No. 1,078,686; Nov. 18; Gaz. vol. 196; p. 561.

Lanes, Samuel, and O. Rudich, Brooklyn, N. Y. Divanette. No. 1,077,842; Nov. 4; Gaz. vol. 196; p. 205.

Lang, Albert, Karlsruhe, Germany. Treatment of the surfaces of articles of aluminum. No. 1,077,480; Nov. 4; Gaz. vol. 196; p. 85.

Lange, Werner. (See Hersberg and Lange.)

Lange, William, Tompkins Cove, assignor of one-half to C. Tompkins, New York, N. Y. Stone washer and separator. No. 1,079,132; Nov. 18; Gaz. vol. 196; p. 716.

Lange, William, Tompkins Cove, assignor of one-half to C. Tompkins, New York, N. Y. Screening-tray for stone washers and separators. No. 1,079,133; Nov. 18; Gaz. vol. 196; p. 717.

Languth, Erich, Neerpelt, Belgium. Treating ores. No. 1,078,360; Nov. 11; Gaz. vol. 196; p. 418.

Langley, Edward H. M., and E. W. Price, Aston, Birmingham, assignors to The Electric & Ordnance Accessories Company, Limited, Birmingham, England. Electric-circuit-controlling apparatus for train-lighting and similar systems. No. 1,079,013; Nov. 18; Gaz. vol. 196; p. 675.

Lanning, James K. (See Lowe, John, assignor.)

Lanphear, Curtis C., Miles City, Mont. Stamp-affixing machine. No. 1,079,567; Nov. 25; Gaz. vol. 196; p. 895.

Langston Monotype Machine Company. (See Bancroft and Indahl, assignors.)

Langston Monotype Machine Company. (See Booth, Joseph B. S., assignor.)

Langston Monotype Machine Company. (See Pierpont, Frank H., assignor.)

Langston Monotype Machine Company. (See Sally, Frank, assignor.)

Lappen, James E., assignor to Union Fibre Company, Winona, Minn. Machine for making tubes from fibrous material. No. 1,079,774; Nov. 25; Gaz. vol. 196; p. 968.

Larsen, Andru, Chicago, Ill. Hoof-pad. No. 1,078,204; Nov. 11; Gaz. vol. 196; p. 362.

Laska, August L., and E. J. Rath, Offenbach-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfurt-on-the-Main, Germany. Vat dyestuff. No. 1,079,568; Nov. 25; Gaz. vol. 196; p. 895.

Latham Machinery Company. (See Weber, Henry, assignor.)

Lauber, Otto, Bredene, and F. Stock, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Spade-fastening for wheeled gun-carriages. No. 1,079,868; Nov. 25; Gaz. vol. 196; p. 1001.

Laughlin, James A., St. Louis, Mo. Combined car fender and brake. No. 1,077,285; Nov. 4; Gaz. vol. 196; p. 15.

Law, Alexander H. (See Parsons, Stoney, and Law.)

Lawler, James J., Pelham, N. Y. Bath-tub. No. 1,079,775; Nov. 25; Gaz. vol. 196; p. 969.

Lawrence, Thomas H., New York, N. Y. Fire-door safety device. No. 1,078,301; Nov. 11; Gaz. vol. 196; p. 419.

Lawson, Frans O. (See Wright and Lawson.)

Layne & Bowler Corporation. (See Bowler and Dutton, assignors.)

Layne & Bowler Corporation. (See Wintroath, John A., assignor.)

Layne, Mahlon E. (See Kreiter, Post, Roco, and Layne.)

Le Baron, Irvin T., Fredericktown, Mo. Sickle with saw attachment. No. 1,078,152; Nov. 11; Gaz. vol. 196; p. 344.

Le Baron, John F., Chardon, Ohio. Tread for tires. No. 1,078,153; Nov. 11; Gaz. vol. 196; p. 344.

Lenke, Richard C., Lakeland, assignor of one-half to S. B. Storer, Syracuse, N. Y. Automatic synchronizer. No. 1,078,863; Nov. 18; Gaz. vol. 196; p. 623.

Leavitt, Harry W., Paris, Mo. Adjustable tool-hitch for tractors. No. 1,078,736; Nov. 18; Gaz. vol. 196; p. 578.

Leblanc, Maurice, Val sur Seine par Croissy, assignor to Sté. Ame. pour l'Exploitation des Procédés Westinghouse Leblanc, Paris, France. Steam-ejector. No. 1,079,134; Nov. 18; Gaz. vol. 196; p. 717.

Lebowich, Louis A., Boston, Mass. Filing-case for cards and the like. No. 1,079,776; Nov. 25; Gaz. vol. 196; p. 969.

Lederer, Anton, Atzgersdorf, near Vienna, Austria-Hungary. Manufacture of incandescent bodies of metallic tungsten or molybdenum for electric incandescent lamps. No. 1,079,777; Nov. 25; Gaz. vol. 196; p. 970.

Leet, Lynn T., Reading, Pa., assignor to Water & Sewage Purification Company, New York, N. Y. Sewage disposal. No. 1,079,509; Nov. 25; Gaz. vol. 196; p. 895.

Leighton, John M., Belfast, Ireland. Recording the volume or sectional area of concrete in piles formed in the ground. No. 1,079,014; Nov. 18; Gaz. vol. 196; p. 676.

Leitzman, Gilbert A., Clayton, Ind. Resilient wheel. No. 1,077,612; Nov. 4; Gaz. vol. 196; p. 127.

Lemale, Charles, Paris, France. Self-propelling torpedo. No. 1,078,687; Nov. 18; Gaz. vol. 196; p. 561.

Lemay, Arthur S., Jerome, Idaho. Alternating rotary gearing. No. 1,077,354; Nov. 4; Gaz. vol. 196; p. 39.

Lemon, John T., Columbus, Ohio. Boiler-fume cleaner. No. 1,079,499; Nov. 25; Gaz. vol. 196; p. 871.

Lendgren, Alfred, Corning, Iowa. Heel top-lift. No. 1,077,535; Nov. 4; Gaz. vol. 196; p. 104.

Leonard, Emma H., Chelsea, London, assignor of one-half to B. M. Shera, Chelsea, England. Lady's veil-holder. No. 1,078,362; Nov. 11; Gaz. vol. 196; p. 419.

Leonard, Harry W., Bronxville, N. Y. Controller for electric motors and similar devices. No. 1,077,613; Nov. 4; Gaz. vol. 196; p. 128.

Leonard, Harry W., Bronxville, N. Y. Controller for electric motors and similar devices. No. 1,077,614; Nov. 4; Gaz. vol. 196; p. 128.

Leonard, Harry W., Bronxville, N. Y. Controller for electric motors and similar devices. No. 1,077,615; Nov. 4; Gaz. vol. 196; p. 129.

Leone, Dominick F., Anaconda, Mont. Water-feeding attachment. No. 1,079,869; Nov. 25; Gaz. vol. 196; p. 1001.

Leslie, Bradford, London, England. Drawbridge. No. 1,078,293; Nov. 11; Gaz. vol. 196; p. 393.

Lesourd, Georges, Paris, France. Apparatus for raising submerged bodies. No. 1,079,500; Nov. 25; Gaz. vol. 196; p. 871.

Letora, John, Tuolumne, Cal. Non-refillable bottle. No. 1,078,737; Nov. 18; Gaz. vol. 196; p. 579.

Levene, Josiah S. (See Coakley and Levene.)

Levi, Samuel J., and T. A. and A. H. Rose, London, England. Portable electric reading-lamp. No. 1,078,445; Nov. 11; Gaz. vol. 196; p. 448.

Levin, Samuel I. (See Frude, Frank H., assignor.)

Levy, Charles M., New York, N. Y. Bracelet. No. 1,079,354; Nov. 25; Gaz. vol. 196; p. 821.

Levy, Harry, Boston, Mass. Collapsible-landing-net holder. No. 1,077,481; Nov. 4; Gaz. vol. 196; p. 86.

Lewis, Albert H., assignor of one-third to C. R. Starker and one-third to C. C. Starker, New Comerstown, Ohio. Collapsible core-bar. No. 1,078,446; Nov. 11; Gaz. vol. 196; p. 448.

Lewis, Joseph W., Wilkesburg, Pa., assignor to Weating-house Electric and Manufacturing Company. Mercury-vapor rectifier. No. 1,078,629; Nov. 18; Gaz. vol. 196; p. 540.

Leyner, John G., Denver, Colo. Dies for drill-making machines. No. 1,078,295; Nov. 11; Gaz. vol. 196; p. 395.

Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Oil-burning forge. No. 1,078,154; Nov. 11; Gaz. vol. 196; p. 345.

Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Drill-sharpening machine. No. 1,078,294; Nov. 11; Gaz. vol. 196; p. 394.

Libby, Sam H., East Orange, N. J., assignor to General Electric Company. Suspension device for monorail cranes. No. 1,077,726; Nov. 4; Gaz. vol. 196; p. 165.

Libby, Sam H., East Orange, N. J., assignor to General Electric Company. Gliding switch for overhead monorail tramways. No. 1,078,051; Nov. 11; Gaz. vol. 196; p. 310.

Lilliston, Thomas M., assignor to National Machine Corporation, Suffolk, Va. Peanut-stemmer. No. 1,078,506; Nov. 11; Gaz. vol. 196; p. 466.

Lima Locomotive Corporation. (See Austin and Felghtner, assignors.)

Lindemann, Berthold, assignor to Los Angeles Trust & Savings Bank, trustee, Los Angeles, Cal. Traction device. No. 1,079,501; Nov. 25; Gaz. vol. 196; p. 872.

Linden, Charles A. (See Swanson, Linden, and Carlson.)

Lindquist, David L., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Alternating-current electromagnetic controller. No. 1,077,355; Nov. 4; Gaz. vol. 196; p. 40.

Lines, Howard N., Sabetha, Kans. Display-case. No. 1,078,447; Nov. 11; Gaz. vol. 196; p. 448.

Lines, Newton H., Arapahoe, Nebr. Automobile shock absorber. No. 1,079,249; Nov. 18; Gaz. vol. 196; p. 755.

Linke, Willy, Westend, and L. Dreyfus, Nieder-Schönhausen, Germany, assignors to General Electric Company. Dynamo-electric machine. No. 1,079,502; Nov. 25; Gaz. vol. 196; p. 872.

Linker, Oskar, Leipzig, Germany. Apparatus for sterilizing liquids by means of ultra-violet rays. No. 1,079,503; Nov. 25; Gaz. vol. 196; p. 872.

Linkiewicz, Leopold, New York, N. Y. Meat-slicer. No. 1,079,778; Nov. 25; Gaz. vol. 196; p. 970.

Linton, Morris. (See Vauclair, Linton, and Henderson.)

Lippincott, Fisher H., assignor to A. H. & F. H. Lippincott, Inc., Philadelphia, Pa. Ice-shaving machine. No. 1,077,482; Nov. 4; Gaz. vol. 196; p. 86.

Lisickie, Paul, Boston, Mass. Hinge. No. 1,078,363; Nov. 11; Gaz. vol. 196; p. 419.

Lissner, Alois, Tetschen, Austria-Hungary. Keyhole-guard. No. 1,079,654; Nov. 25; Gaz. vol. 196; p. 924.

Lissner, Alois, Tetschen, Austria-Hungary. Lock for wearing-apparel. No. 1,079,655; Nov. 25; Gaz. vol. 196; p. 924.

Liston, Robert M. (See Watson and Liston.)

Little, Pearl A., Frederick, Okla. Pumping apparatus. No. 1,079,779; Nov. 25; Gaz. vol. 196; p. 971.

Littleton, Thomas J., Jr., and J. P. Turner, Estill Springs, Tenn. Combination garment-knife. No. 1,079,300; Nov. 18; Gaz. vol. 196; p. 771.

Livering, Charles J., Eddyville, Ky. Wire-fence clamp. No. 1,078,155; Nov. 11; Gaz. vol. 196; p. 345.

Ljungdahl, Carl F., Gottenborg, Sweden. Manufacturing lute, putty, and the like. No. 1,078,864; Nov. 18; Gaz. vol. 196; p. 623.

Lloyd, Robert M., Oyster Bay, N. Y., assignor to General Electric Company. Battery-support. No. 1,079,709; Nov. 25; Gaz. vol. 196; p. 943.

Lloyd, Thomas, Shamokin, Pa. Door-hanger. No. 1,079,870; Nov. 25; Gaz. vol. 196; p. 1001.

Lloyd, William, Drifton, Pa. Coal-breaker. No. 1,079,301; Nov. 18; Gaz. vol. 196; p. 771.

Locher, Felix M. E., Oakland, Cal. Switch-box lock. No. 1,078,156; Nov. 11; Gaz. vol. 196; p. 345.

Lock, Henry E., Assumption, Ill. Butter, lard, and cheese cutter. No. 1,078,135; Nov. 18; Gaz. vol. 196; p. 717.

Lockwood, Burns D., Bellevue, assignor to Pressed Steel Car Company, Pittsburgh, Pa. Center-bearing for cars. No. 1,077,356; Nov. 4; Gaz. vol. 196; p. 40.

Loeber, Herman M. (See Elliott, Loeber, and Schlachter.)

Loepsinger, Albert J., assignor to General Fire Extinguisher Company, Providence, R. I. Pipe-hanger. No. 1,077,727; Nov. 4; Gaz. vol. 196; p. 166.

Logan, George W., Steubenville, Ohio. Envelop-fastener. No. 1,077,616; Nov. 4; Gaz. vol. 196; p. 129.

Lohman, Henry E., Russell, Kans. Disk drill. No. 1,079,871; Nov. 25; Gaz. vol. 196; p. 1001.

Lohmann-Hold Manufacturing Company, The. (See Lohmann, Paul W., assignor.)

Lohmann, Paul W., Worthington, W. Va., assignor to The Lohmann-Hold Manufacturing Company, Inc., Pittsburgh, Pa. Acetylene-gas lamp. No. 1,078,865; Nov. 18; Gaz. vol. 196; p. 623.

Loika, Charles E. (See Loika, Richard D. and C. E.)

Loika, Richard D. and C. E., Ballinger, Tex. Flow. No. 1,079,355; Nov. 25; Gaz. vol. 196; p. 821.

Long, Eugene M., New York, N. Y. Automatic sprinkler-head. No. 1,079,136; Nov. 18; Gaz. vol. 196; p. 717.

Long, George R., Waterbury, Conn., and H. G. Cordley, Glen Ridge, N. J., assignors to said Long. Liquid-cooler. No. 1,079,018; Nov. 25; Gaz. vol. 196; p. 1018.

Long, Matthew T., Helena, Okla., assignor to The Helena Manufacturing Company. Tire-bolling machine. No. 1,078,052; Nov. 11; Gaz. vol. 196; p. 310.

Longest, Philip S. (See Longest, William B. and P. S.)

Longest, William B. and P. S., Louisville, Ky. Dumping-vehicle. No. 1,079,780; Nov. 25; Gaz. vol. 196; p. 971.

Longway, William, Gary, Ind. Breathing appliance. No. 1,078,364; Nov. 11; Gaz. vol. 196; p. 419.

Loomis, Edwin C., assignor to Spengler Brothers Company, Chicago, Ill. Knife-grinder. No. 1,078,507; Nov. 11; Gaz. vol. 196; p. 467.

Loomis, Edwin C., assignor to Spengler Brothers Company, Chicago, Ill. Scissors-grinding attachment. No. 1,078,508; Nov. 11; Gaz. vol. 196; p. 467.

Lorentzen, Hans K., assignor to D. I. Garretson, New York, N. Y. Apparatus for manufacturing horseshoes. No. 1,078,296; Nov. 11; Gaz. vol. 196; p. 395.

Lorimer, Egbert S. (See Hulfish, Herdman, and Lorimer.)

Los Angeles Trust & Savings Bank, trustee. (See Lindemann, Berthold, assignor.)

Loudon, Archibald M., et al., administrators. (See Gow, John, assignor.)

Lovejoy, Thomas H. (See Shreve, Harry B., assignor.)

Loveless, William A., Ozan, Ark. Brake-shoe. No. 1,078,866; Nov. 18; Gaz. vol. 196; p. 624.

Lowe, George M., Ridgeway, Mo. Adjustable hog-trap. No. 1,078,509; Nov. 11; Gaz. vol. 196; p. 468.

Lowe, John, New Bedford, assignor to J. K. Lanning, Boston, Mass. Spinning-mule. No. 1,079,302; Nov. 18; Gaz. vol. 196; p. 771.

Lowe, Thomas A. (See Johnston, James W., assignor.)

Löwy, Alois. (See Benedict, Franz C., assignor.)

Luard, Edward S., London, England. Steam-superheater for locomotive, marine, and other boilers. No. 1,077,617; Nov. 4; Gaz. vol. 196; p. 129.

Luce, George E., Riverhead, N. Y. Potato-separator. No. 1,079,181; Nov. 18; Gaz. vol. 196; p. 733.

Ludwick, William F., Beaumont, Kans., assignor of one-half to C. G. Miller, Enid, Okla. Nut-lock. No. 1,078,738; Nov. 18; Gaz. vol. 196; p. 579.

Lumiere, Louis, Lyon, France, assignor to Victor Talking Machine Company, Camden, N. J. Acoustical instrument. No. 1,077,536; Nov. 4; Gaz. vol. 196; p. 104.

Luppe, Otto, Munich, Germany. Producing printing-plates. No. 1,077,483; Nov. 4; Gaz. vol. 196; p. 86.

Luster, Emile J., New York, N. Y. Wind device for automatic musical instruments. No. 1,077,843; Nov. 4; Gaz. vol. 196; p. 206.

Luten, Daniel B., Indianapolis, Ind. Beam. No. 1,078,365; Nov. 11; Gaz. vol. 196; p. 420.

Luten, Daniel B., Indianapolis, Ind. Concrete reinforcement. No. 1,078,510; Nov. 11; Gaz. vol. 196; p. 468.

Lybeck, Nels A., Bristol, R. I. Submarine cultivator and harvester. No. 1,079,182; Nov. 18; Gaz. vol. 196; p. 734.

Lyle, Fred W., Saugus, Mass., assignor to General Electric Company. Vapor electric device. No. 1,079,250; Nov. 18; Gaz. vol. 196; p. 755.

Lynch, Jacob B., Logansport, Ind. Foldable screen-supporting frame. No. 1,078,587; Nov. 11; Gaz. vol. 196; p. 493.

Lynda, Fred H., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Linotype-mold. No. 1,078,930; Nov. 18; Gaz. vol. 196; p. 645.

Lynn, John, Alice, Tex. Dust-cap for tire-valves. No. 1,079,781; Nov. 25; Gaz. vol. 196; p. 972.

Lyons, Irving H., and R. J. Gruenberg, assignors to S. F. Walter, San Francisco, Cal. Suit-box. No. 1,079,137; Nov. 18; Gaz. vol. 196; p. 718.

Lytle, Bird F. (See Grimes, Josiah, assignor.)

M. Garland Company, The. (See Devlin, Henry, assignor.)

M. H. Jester Investment Company, The. (See Jester, Marvin H., assignor.)

Mass, Gottfried H. J., Berlin-Steglitz, Germany. Combination sole-plate and railway-tie. No. 1,078,297; Nov. 11; Gaz. vol. 196; p. 395.

MacDonald Car Buffer Limited. (See McDonald, William T. B., assignor.)

MacDonald, William, Winnipeg, Manitoba, Canada. Clothes-pounder. No. 1,078,739; Nov. 18; Gaz. vol. 196; p. 579.

MacKay, Simon, assignor to Union Twist Drill Company, Athol, Mass. Adjusting rotary cutters. No. 1,079,420; Nov. 25; Gaz. vol. 196; p. 844.

MacMahon, John A., Philadelphia, Pa. Car-fender. No. 1,078,868; Nov. 18; Gaz. vol. 196; p. 624.

MacMillan, Gavin S., New York, N. Y. Pad. No. 1,077,537; Nov. 4; Gaz. vol. 196; p. 105.

Macnamis, Charles P. R., Chicago, Ill. Logic machine. No. 1,079,604; Nov. 25; Gaz. vol. 196; p. 872.

Macdonald, Thomas H., assignor to American Graphophone Company, Bridgeport, Conn. Automatic announcement-graphophone. No. 1,079,419; Nov. 25; Gaz. vol. 196; p. 843.

Machado, John J. (See Stevens, Harrison, and Machado.)

Machlet, George, Jr., Elizabeth, N. J. Fluid-mixture regulator. No. 1,078,790; Nov. 18; Gaz. vol. 196; p. 598.

Macleod, Albert A., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,078,511; Nov. 11; Gaz. vol. 196; p. 468.

Macrini, Alfred F., New York, N. Y. Fireman's mask. No. 1,079,251; Nov. 18; Gaz. vol. 196; p. 755.

Madsen, Peter N., South Chicago, assignor of one-half to L. La Reau, Chicago, Ill. Railway-rail. No. 1,079,054; Nov. 18; Gaz. vol. 196; p. 680.

Maea, Ludwig, assignor to Kupper's Metallwerke Gesellschaft mit beschränkter Haftung, Bonn, Germany. Soldering-stick. No. 1,078,701; Nov. 18; Gaz. vol. 196; p. 599.

Maginnis, William, Okontz, Pa. Tire. No. 1,077,618; Nov. 4; Gaz. vol. 196; p. 130.

Magul, Umberto, San Francisco, Cal. Jar-closure. No. 1,077,538; Nov. 4; Gaz. vol. 196; p. 105.

Magnus, Gustaf W., Seattle, Wash. Liquid waterproof surfacing composition. No. 1,079,782; Nov. 25; Gaz. vol. 196; p. 972.

Maguire, Hugh J., Kellogg, Idaho. Elevator-bucket. No. 1,077,844; Nov. 4; Gaz. vol. 196; p. 206.

Mahla, Charles A., New York, N. Y. Battery-box. No. 1,077,539; Nov. 4; Gaz. vol. 196; p. 105.

Mahoney, Myles, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive. No. 1,078,630; Nov. 18; Gaz. vol. 196; p. 540.

Mahoney, Myles, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Railway-locomotive. No. 1,078,631; Nov. 18; Gaz. vol. 196; p. 540.

Mahony, Frank, deceased, Brooklyn, N. Y.; N. Mahony, administratrix. Grate-bar. No. 1,079,252; Nov. 18; Gaz. vol. 196; p. 756.

Mahony, Nettie, administratrix. (See Mahony, Frank.)

Malmstrom, Peter E., New York, N. Y. Filter. No. 1,078,366; Nov. 11; Gaz. vol. 196; p. 420.

Manblatt, Joseph D., New York, N. Y. Sole-bridge. No. 1,077,845; Nov. 4; Gaz. vol. 196; p. 207.

Mancini, Vincenzo, Schenectady, N. Y. Spring-wheel. No. 1,078,632; Nov. 18; Gaz. vol. 196; p. 541.

Manhattan Electrical Supply Company. (See Avery, Charles E., assignor.)

Manierre, Arthur. (See Tevander, Olof N., assignor.)

Manly, Charles M., Brooklyn, N. Y. Tractor. No. 1,078,102; Nov. 11; Gaz. vol. 196; p. 327.

Mann, Horace, Muskegon, Mich. Clutch. No. 1,077,728; Nov. 4; Gaz. vol. 196; p. 166.

Mann and Willkomm Aktiengesellschaft. (See Theuerkorn, Paul, assignor.)

Manning, Bowman & Company. (See Savage, George E., assignor.)

Manning, Pleasant F., Oklahoma, Okla. Door-lock. No. 1,079,138; Nov. 18; Gaz. vol. 196; p. 718.

Maranville, Harvey F., Akron, assignor to The Perfection Spring Company, Cleveland, Ohio. Filter. No. 1,077,619; Nov. 4; Gaz. vol. 196; p. 130.

Marcroft, William, Providence, R. I., assignor to Universal Winding Company, Portland, Me. Tension device. No. 1,078,448; Nov. 11; Gaz. vol. 196; p. 449.

Margolis, Louis. (See Rockowitz, Abraham, assignor.)

Marino, Quintin, London, England. Metallizing ceramic and other surfaces. No. 1,077,367; Nov. 4; Gaz. vol. 196; p. 41.

Marion, John H., Chester, S. C. Bale-band-applying device. No. 1,079,602; Nov. 25; Gaz. vol. 196; p. 908.

Markau, Karl, Berlin, Germany, assignor to General Electric Company. System of electric metering. No. 1,077,729; Nov. 4; Gaz. vol. 196; p. 166.

Markham, Charles F., Providence, R. I. Pin. No. 1,079,015; Nov. 18; Gaz. vol. 196; p. 676.

Markham, R. E. (See McElwaine, Clayton B., assignor.)

Märkische Maschinenbauanstalt "Teutonia." Gesellschaft mit beschränkter Haftung. (See Vorraber, Josef, assignor.)

Markowski, Henry C., and H. B. Wittkowski, Grand Rapids, Mich. Combination storm-sash and ventilator. No. 1,078,205; Nov. 11; Gaz. vol. 196; p. 362.

Marmon, Howard C., assignor to Nardye & Marmon Company, Indianapolis, Ind. Brake. No. 1,078,600; Nov. 11; Gaz. vol. 196; p. 498.

Marresford, William F., Brooklyn, N. Y. Belt-fastener. No. 1,078,053; Nov. 11; Gaz. vol. 196; p. 311.

Marsh, George W., Oakland, Cal. Cooling device for an engine. No. 1,077,414; Nov. 4; Gaz. vol. 196; p. 62.

Marsh, Harry S. (See Burchard, Hansen, and Marsh.)

Marsh, Harry S., assignor to International Cigar Machinery Company, New York, N. Y. Cigar-machine. No. 1,077,886; Nov. 4; Gaz. vol. 196; p. 221.

Marshall, George, Fremont, Nebr. Apparatus for generating steam. No. 1,078,545; Nov. 11; Gaz. vol. 196; p. 480.

Marshall, John I. (See Faulda, John, assignor.)

Marshall, Norman, Newton, Mass. Riveting-machine. No. 1,079,783; Nov. 25; Gaz. vol. 196; p. 972.

Marshall, Stephen M., Clinton, assignor to Rockwood Sprinkler Company of Massachusetts. Automatic sprinkler. No. 1,079,016; Nov. 18; Gaz. vol. 196; p. 676.

Marshall, Thomas C., Marshall, Mo. Fire-escape. No. 1,078,931; Nov. 18; Gaz. vol. 196; p. 645.

Marshek, Frank E., Antigo, Wis. Axle steering-knuckle. No. 1,078,054; Nov. 11; Gaz. vol. 196; p. 311.

Martens, John D., Swift Current, Saskatchewan, Canada. Agricultural implement. No. 1,078,792; Nov. 18; Gaz. vol. 196; p. 599.

Martin, Charles E., Louisville, Ky. Rain-shield for windows. No. 1,077,730; Nov. 4; Gaz. vol. 196; p. 167.

Martin, Edward L. (See Dronfield, Albert J., assignor.)

Martin, Frederick W., New York, N. Y. Locomotive-grate shaker. No. 1,077,887; Nov. 4; Gaz. vol. 196; p. 221.

Martin, Heinrich, Laibach, Austria-Hungary. Lubricating device. No. 1,078,449; Nov. 11; Gaz. vol. 196; p. 448.

Martin, James T., Fellows, Cal. Pipe-tongs. No. 1,078,932; Nov. 18; Gaz. vol. 196; p. 645.

Martin, John O., Lincoln, Ill. Coupling. No. 1,079,253; Nov. 18; Gaz. vol. 196; p. 756.

Martin, Thomas E. (See Starkey, William P., assignor.)

Martin, William A., assignor of one-third to J. F. Phillips, one-third to G. L. Griffin, and one-sixth to T. B. Cridle, Waxahachie, Tex. Stalk-cutter. No. 1,079,505; Nov. 25; Gaz. vol. 196; p. 873.

Martin, William R., Idaho Falls, Idaho. Wind-wheel or propeller. No. 1,078,157; Nov. 11; Gaz. vol. 196; p. 345.

Martineau, Francis L. (See Hele-Shaw and Martineau.)

Marty, John M., Cleveland, Ohio. Panic-bolt. No. 1,079,603; Nov. 25; Gaz. vol. 196; p. 909.

Mascari, Joseph, Memphis, Tenn. Vehicle-fender. No. 1,079,872; Nov. 25; Gaz. vol. 196; p. 1002.

Masland, Walter E., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Acetylation of monochlorohydrocarbons. No. 1,077,988; Nov. 11; Gaz. vol. 196; p. 288.

Masli, Anton, Laibach, Austria-Hungary. Device for use in dressing the hair. No. 1,078,055; Nov. 11; Gaz. vol. 196; p. 311.

Mason, Charles A., Baltimore, Md. Dispensing-can. No. 1,079,710; Nov. 25; Gaz. vol. 196; p. 943.

Mason, Harry R. (See Lamb, Burt I., assignor.)

Mason, Lynn P., Conewango Valley, N. Y. Suspenders. No. 1,079,784; Nov. 25; Gaz. vol. 196; p. 973.

Mason, Thomas B., Trenton, N. J. Street-cleaner's cart. No. 1,079,785; Nov. 25; Gaz. vol. 196; p. 973.

Massey-Harris Co., Ltd. (See Jones and Verity, assignors.)

Massey, Harry W., Bessemer, Ala. Check-valve. No. 1,077,415; Nov. 4; Gaz. vol. 196; p. 62.

Mateer, Jesse E., Wilkesburg, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Insulator. No. 1,078,633; Nov. 18; Gaz. vol. 196; p. 541.

Mates, James. (See Broadbent and Mates.)

Mathar, Harold, Foxcroft, Me. Piano. No. 1,079,711; Nov. 25; Gaz. vol. 196; p. 944.

Mathews, Samuel J., Kansas City, Mo. Well-drilling gear. No. 1,077,620; Nov. 4; Gaz. vol. 196; p. 131.

Matson, Carl A., Lynn, assignor of one-half to A. M. Hoyt, Swampscott, Mass. Sectional heel-edge finishing and burnishing tool. No. 1,079,017; Nov. 18; Gaz. vol. 196; p. 677.

Matthews-Davis Tool Company. (See Davis, Emery E., assignor.)

Matthews, James H., assignor to Jaa. H. Matthews & Co., Pittsburgh, Pa. Die. No. 1,078,601; Nov. 11; Gaz. vol. 196; p. 499.

Maul, Henry C., assignor to The Michigan Stove Company, Detroit, Mich. Gas-stove-oven bottom. No. 1,079,356; Nov. 25; Gaz. vol. 196; p. 822.

Maxim, Hiram S., London, assignor to Vickers Limited, Westminster, England. Bomb for use in connection with aeroplanes or flying-machines. No. 1,077,989; Nov. 11; Gaz. vol. 196; p. 288.

Maxim, Hiram S., London, assignor to Vickers Limited, Westminster, England. Bomb for use with aeroplanes and other flying-machines. No. 1,077,990; Nov. 11; Gaz. vol. 196; p. 289.

Maxim, Hiram S., Streatham, London, assignor to Vickers Limited, Westminster, England. Flying-machine bomb. No. 1,077,991; Nov. 11; Gaz. vol. 196; p. 289.

Maxim, Hiram S., Streatham, London, assignor to Vickers Limited, Westminster, England. Bomb for use with aeroplanes and other flying-machines. No. 1,078,298; Nov. 11; Gaz. vol. 196; p. 395.

Maxwell, Erastus M. and J. F., Cardinal, Va. Metal-sheet-folding machine. No. 1,078,740; Nov. 18; Gaz. vol. 196; p. 579.

Maxwell, James F. (See Maxwell, Erastus M. and J. F.)

Maxwell, Joseph G., Brooklyn, N. Y. Reversing-gear for multiple-expansion steam-engines. No. 1,078,299; Nov. 11; Gaz. vol. 196; p. 396.

Maxwell, Thomas S., Cleveland, Ohio. Elevator-indicator. No. 1,077,416; Nov. 4; Gaz. vol. 196; p. 63.

May, Samuel C., Modesto, Cal. Lady's hat-fastener. No. 1,078,793; Nov. 18; Gaz. vol. 196; p. 599.

May, W. B., et al. (See Moore, Justus J., assignor.)

Mayer, Joseph, Seattle, Wash. Electric meter. No. 1,078,206; Nov. 11; Gaz. vol. 196; p. 363.

Mayer, Julian T., assignor to J. & C. Fischer, New York, N. Y. Rim for grand pianos. No. 1,079,508; Nov. 25; Gaz. vol. 196; p. 873.

Mayer, Otto, American Falls, Idaho. Coin-controlled locker. No. 1,077,846; Nov. 4; Gaz. vol. 196; p. 207.

McAdam, John V. (See Everett and McAdam.)

McAdams, James, Portland, Oreg. Baking-oven. No. 1,078,367; Nov. 11; Gaz. vol. 196; p. 421.

McAlear, James, Chicago, Ill. Diaphragm exhaust-valve for radiators and the like. No. 1,077,731; Nov. 4; Gaz. vol. 196; p. 167.

McAslan, Norman, Bruce, Wis. Cultivator. No. 1,079,421; Nov. 25; Gaz. vol. 196; p. 844.

McCanse, William, Hobart, assignor to Burn-All Incinerator Company, (Incorporated.) Frederick, Okla. Refuse-burner. No. 1,078,158; Nov. 11; Gaz. vol. 196; p. 346.

McCarthy, John, New York, N. Y. Plug-valve. No. 1,079,254; Nov. 18; Gaz. vol. 196; p. 756.

McCarthy, Daniel J., and H. B. McGinnis, Chicago, Ill. Radiator. No. 1,078,546; Nov. 11; Gaz. vol. 196; p. 480.

McCarthy, Patrick A., Honesdale, Pa. Tricycle propelling mechanism. No. 1,078,056; Nov. 11; Gaz. vol. 196; p. 311.

McClaskey, Riley, Carneyville, Wyo. Car-brake. No. 1,079,570; Nov. 25; Gaz. vol. 196; p. 896.

McCleery, Robert J. (See McNab and McCleery.)

McClellon, James M., Everett, Mass. Fire-box construction. No. 1,078,933; Nov. 18; Gaz. vol. 196; p. 645.

McClellon, James M., Everett, Mass. Fire-box. No. 1,078,934; Nov. 18; Gaz. vol. 196; p. 646.

McClellon, James M., Everett, Mass. Fire-box. No. 1,078,935; Nov. 18; Gaz. vol. 196; p. 646.

McClellan, James. (See McClellan, Louis F. and J.)

McClellan, Louis F. and J., Chicago, Ill. Metallic kitchen-cabinet. No. 1,079,507; Nov. 25; Gaz. vol. 196; p. 873.

McClintock, Paul D., Clearwater, Kans. Cartridge-carrier. No. 1,078,450; Nov. 11; Gaz. vol. 196; p. 449.

McCormick, Langdon, assignor to Thurston-McCormick Co., Inc., New York, N. Y. Illusion device. No. 1,079,902; Nov. 25; Gaz. vol. 196; p. 1013.

McCormick, Samuel B., Otterbein, Ind. Cultivator. No. 1,078,634; Nov. 18; Gaz. vol. 196; p. 542.

McCormick, William, Seattle, assignor of one-fourth to T. C. Wand and one-fourth to C. F. McDowell, Snohomish, Wash. Ice-making apparatus. No. 1,077,484; Nov. 4; Gaz. vol. 196; p. 86.

McCracken, John T., Bradford, Ky. Pipe-coupling. No. 1,077,417; Nov. 4; Gaz. vol. 196; p. 63.

McCroxy, William H., Three Rivers, Mich. Piston-head. No. 1,079,055; Nov. 18; Gaz. vol. 196; p. 690.

McCulloch, Robert M., Cienfuegos, Cuba. Portable automatic counting device. No. 1,079,183; Nov. 18; Gaz. vol. 196; p. 734.

McCurdy, William S., St. Paul, Minn. Gravity-carrier. No. 1,077,540; Nov. 4; Gaz. vol. 196; p. 105.

McCutcheon, Henry D. (See Harrison and McCutcheon.)

McDevitt, James B., Chicago, Ill. Water-trap for carbide light systems. No. 1,077,358; Nov. 4; Gaz. vol. 196; p. 41.

McDonald, William T. B., Granby, Quebec, assignor to McDonald Car Buffer Limited, Montreal, Canada. Means for stopping trains. No. 1,077,286; Nov. 4; Gaz. vol. 196; p. 15.

McDougall, Isaac and S., and F. Howles, Manchester, England. Manufacture of tar acids. No. 1,077,287; Nov. 4; Gaz. vol. 196; p. 15.

McDougall, Sidney. (See McDougall and Howles.)

McDowell, C. F., et al. (See McCormick, William, assignor.)

McElwaine, Clayton B., assignor of one-half to R. E. Markham, Tulsa, Okla. Gas-burner. No. 1,078,588; Nov. 11; Gaz. vol. 196; p. 493.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Pulling-over machine. No. 1,077,938; Nov. 4; Gaz. vol. 196; p. 240.

McGaughey, George C., Canadian, Tex. Sleigh-runner. No. 1,078,936; Nov. 18; Gaz. vol. 196; p. 646.

McGinnis, Harry B. (See McCarty and McGinnis.)

McGinnis, Harry E., Cincinnati, Ohio. Deraller. No. 1,078,704; Nov. 18; Gaz. vol. 196; p. 599.

McGinty, Bernard, Doylestown, Pa., assignor to Printers Specialties Company, Printing-press. No. 1,077,485; Nov. 4; Gaz. vol. 196; p. 87.

McGowan, Edward, Mulberry, Kans. Mining-machine. No. 1,077,418; Nov. 4; Gaz. vol. 196; p. 63.

McGraw, Walter E., Malden, assignor to Boston Clock Company, Boston, Mass. Vibration-recorder. No. 1,078,867; Nov. 18; Gaz. vol. 196; p. 624.

McGuire, Frank A., Iola, Kans. Cuspidor. No. 1,079,656; Nov. 25; Gaz. vol. 196; p. 924.

McIntosh, James O., Caliente, Nev. Water-raising wheel. No. 1,078,103; Nov. 11; Gaz. vol. 196; p. 328.

McIntosh, Paul F. (See Dees and McIntosh.)

McKechnie, James, assignor to Vickers Limited, Barrow-in-Furness, England. Internal-combustion engine. No. 1,079,422; Nov. 25; Gaz. vol. 196; p. 844.

McKee, Charles H., Pittsburgh, Pa. Rotary disk. No. 1,077,288; Nov. 4; Gaz. vol. 196; p. 16.

McKee, Milton A., Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Treatment of printing-plates. No. 1,077,621; Nov. 4; Gaz. vol. 196; p. 131.

McKee, Walter S., Glencoe, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me. Two-part dipper for excavating-machines. No. 1,077,486; Nov. 4; Gaz. vol. 196; p. 87.

McKeen Motor Car Company. (See Davis, William F., assignor.)

McKeen Motor Car Company. (See McKeen, William F., Jr., assignor.)

McKeen, William F., Jr., assignor to McKeen Motor Car Company, Omaha, Nebr. Internal-combustion engine. No. 1,079,255; Nov. 18; Gaz. vol. 196; p. 756.

McKinney, William C., Toronto, Ontario, Canada, assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Foot attachment. No. 1,078,104; Nov. 11; Gaz. vol. 196; p. 328.

McKinstry, John. (See Parrahm, James N., assignor.)

McLane, Frederick A., E. H. Friedrich, and R. B. Warner, Holyoke, Mass. Ventilator. No. 1,077,847; Nov. 4; Gaz. vol. 196; p. 207.

McLarty, James A., Toronto, Ontario, Canada. Hardening copper. No. 1,079,786; Nov. 25; Gaz. vol. 196; p. 974.

McLarty, James A., Toronto, Ontario, Canada. Treating metals. No. 1,079,787; Nov. 25; Gaz. vol. 196; p. 974.

McLarty, James A., Toronto, Ontario, Canada. Ore-reducing process. No. 1,079,788; Nov. 25; Gaz. vol. 196; p. 974.

McLaughlin, Albert G. (See Hauser and McLaughlin.)

McLaughlin, Robert B., Newton, assignor to United Printing Machinery Co., Boston, Mass. Trip mechanism for sheet-feeders. No. 1,077,889; Nov. 4; Gaz. vol. 196; p. 222.

McLean, John J., Moose Jaw, Saskatchewan, Canada. Internal-combustion engine. No. 1,077,992; Nov. 11; Gaz. vol. 196; p. 289.

McLean, Robert W., Bridgewater, assignor to Carver Cotton Gin Company, East Bridgewater, Mass. Cotton-seed huller. No. 1,079,857; Nov. 25; Gaz. vol. 196; p. 925.

McLellan, James, Kankakee, Ill. Picture-frame. No. 1,077,622; Nov. 4; Gaz. vol. 196; p. 131.

McLellan, James, Kankakee, Ill. Picture-frame. No. 1,077,623; Nov. 4; Gaz. vol. 196; p. 132.

McLeod, Alexander, Winnipeg, Manitoba, Canada. Sheaf-loader. No. 1,077,888; Nov. 4; Gaz. vol. 196; p. 222.

McMeen & Miller. (See Miller, Kempster B., assignor.)

McMillan, James T., Detroit, Mich. Tackle-block. No. 1,077,983; Nov. 11; Gaz. vol. 196; p. 289.

McMurtrie, John M., and I. Robertson, Glasgow, Scotland. Hydrocarbon-burner. No. 1,077,848; Nov. 4; Gaz. vol. 196; p. 207.

McNab, Warren G., Wyandotte, and R. J. McCleery, Detroit, Mich. Automobile-lock. No. 1,078,105; Nov. 11; Gaz. vol. 196; p. 328.

McNicol, Harley L. (See Sken and McNicol.)

McRae, James C., Jr., Dunbar, S. C. Plow. No. 1,078,741; Nov. 18; Gaz. vol. 196; p. 590.

McWilliams, Ted E., Alva, Okla. Screen. No. 1,077,849; Nov. 4; Gaz. vol. 196; p. 208.

McWilliams, William J., Lost Cabin, Wyo. Wagon-tongue bounds. No. 1,079,873; Nov. 25; Gaz. vol. 196; p. 1002.

Mead, Howard G., St. Louis, Mo., assignor to W. P. Healy, Chicago, Ill. Wire-bound crate. No. 1,077,624; Nov. 4; Gaz. vol. 196; p. 132.

Mebane, Alexander R., Hickory Flat, Miss. Spring-trap. No. 1,077,850; Nov. 4; Gaz. vol. 196; p. 208.

Mehlhop, Clarence E. (See Southworth and Wolf, assignors.)

Mehlin, Charles, Fort Lee, N. J. Fall-board for upright pianos. No. 1,077,732; Nov. 4; Gaz. vol. 196; p. 167.

Meler, Ernest. (See Van Buskirk and Meler.)

Meler, Heinrich, Oslebshausen, assignor to Stuhlrohr-fabrik Bremen, Carl Frese & Co., near Bremen, Germany. Raton-scrapers. No. 1,079,056; Nov. 18; Gaz. vol. 196; p. 690.

Melkieleh, James, Port Stanley, assignor of one-half to F. P. Gorin, Seattle, Wash. Stage illusion. No. 1,079,423; Nov. 25; Gaz. vol. 196; p. 845.

Mellicke Calculator Company. (See Mellicke, Carl A., assignor.)

Mellicke, Carl A., assignor to Mellicke Calculator Company, Chicago, Ill. Calculator. No. 1,079,712; Nov. 25; Gaz. vol. 196; p. 944.

Meinel, Frederick E., assignor to Illinois Show Case Works, Chicago, Ill. Disappearing-door construction for cases. No. 1,078,795; Nov. 18; Gaz. vol. 196; p. 600.

Melnhardt, Frederick A. B. (See Well, Hugo C., assignor.)

Melchner, Alexander, assignor to Gesellschaft für Drahtlose Telegraphie, m. b. H., Berlin, Germany. Means for producing slightly-damped oscillations by shock excitation. No. 1,077,733; Nov. 4; Gaz. vol. 196; p. 167.

Meister, Frederick, Jersey City, N. J. Floor-supporting structure of theaters and the like. No. 1,079,424; Nov. 25; Gaz. vol. 196; p. 845.

Melish, John E. (See Bowker, Ernest, assignor.)

Melville Clark Piano Company. (See Clark, Ernest G., assignor.)

Menzel, John, and E. Burd, Dayton, Ohio. Flying-machine. No. 1,078,508; Nov. 25; Gaz. vol. 196; p. 874.

Mercer, Henry H., assignor to Sullivan Machinery Company, Claremont, N. H. Channeling-machine. No. 1,079,919; Nov. 25; Gaz. vol. 196; p. 1018.

Mercer, Walter C., Richmond, Va. Sand and gravel cleaner. No. 1,079,571; Nov. 25; Gaz. vol. 196; p. 896.

Mergenthaler Linotype Company. (See Böttger, Max, assignor.)

Mergenthaler Linotype Company. (See Degener, Heinrich, assignor.)

Mergenthaler Linotype Company. (See Dodge, Norman, assignor.)

Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)

Mergenthaler Linotype Company. (See Guest, Alfred W. F., assignor.)

Mergenthaler Linotype Company. (See Handlin, Scott D., assignor.)

Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)

Mergenthaler Linotype Company. (See Morehouse, Melvin W., assignor.)

Mergenthaler Linotype Company. (See Rogers, John R., assignor.)

Mergenthaler Linotype Company. (See Van Sant, Norman S., assignor.)

Mergenthaler Linotype Company. (See Wilson, Fergus E., assignor.)

Merker, William, New York, N. Y. Combination cushioned flat and filler. No. 1,079,789; Nov. 25; Gaz. vol. 196; p. 974.

Merrick, Frank W., assignor to Union Lock Stitch Company, Boston, Mass. Sewing-machine. No. 1,077,625; Nov. 4; Gaz. vol. 196; p. 132.

Merrill, Jno. A. (See Nix, Joshua J. and F. C., assignors.)

Mershon, Ralph D., New York, N. Y. Alternating-current apparatus. No. 1,077,626; Nov. 4; Gaz. vol. 196; p. 132.

Mershon, Ralph D., New York, N. Y. Electrolytic condenser. No. 1,077,628; Nov. 4; Gaz. vol. 196; p. 133.

Mershon, Ralph D., and J. S. Riddle, New York, N. Y. said Riddle assignor to said Mershon. Electrolytic condenser. No. 1,077,627; Nov. 4; Gaz. vol. 196; p. 133.

Messel, Rudolph, London, England, assignor, by mesne assignments, to General Chemical Company, New York, N. Y. Purification of gases containing sulfur dioxide. No. 1,078,937; Nov. 18; Gaz. vol. 196; p. 647.

Metal Sectional Furniture Company. (See Fraser, John A., assignor.)

Metcalfe, Foster M., Battle Creek, Mich. Pump. No. 1,077,419; Nov. 4; Gaz. vol. 196; p. 64.

Metzger, Francis L., Harrisburg, Pa. Automatic measuring device. No. 1,079,874; Nov. 25; Gaz. vol. 196; p. 1002.

Meusebach, Otto C., San Antonio, Tex. Line-insulator. No. 1,078,368; Nov. 11; Gaz. vol. 196; p. 421.

Mevia, John W., Lowell, Mass. Advertising device. No. 1,078,742; Nov. 18; Gaz. vol. 196; p. 580.

Meyer, Charles C., Philadelphia, Pa. assignor to L. A. Thompson, St. David, Del. Fishing-rod tip end or top. No. 1,078,589; Nov. 11; Gaz. vol. 196; p. 494.

Meyer, Fanny J. (See Schodde, George W., assignor.)

Meyer, Gustave R. (See Smith, Charles E., assignor.)

Meyer, John J., Yonkers, N. Y. Spark-plug. No. 1,079,790; Nov. 25; Gaz. vol. 196; p. 975.

Meyer, Silvere, New York, N. Y. Folding shelf. No. 1,079,057; Nov. 18; Gaz. vol. 196; p. 691.

Michael, Thomas, Los Angeles, Cal. Hot and cold water applicator. No. 1,078,207; Nov. 11; Gaz. vol. 196; p. 383.

Michel, Isaac, and R. Stein, Frankfurt-on-the-Main, Germany. Machine for affixing stamps, labels, or the like to envelopes or the like. No. 1,079,058; Nov. 18; Gaz. vol. 196; p. 691.

Michigan Stove Company, The. (See Maul, Henry C., assignor.)

Middleton, James F., Pittsfield, Mass. Timing device for ignition systems. No. 1,079,256; Nov. 18; Gaz. vol. 196; p. 757.

Midland Chair & Seating Company. (See Van Derveer, Clarence A., assignor.)

Miehle Printing Press and Manufacturing Company. (See Drotteour, Michael A., assignor.)

Miehle Printing Press and Mfg. Co. (See Henderson, Carl, assignor.)

Migheil, Norman E., Marshalltown, Iowa. Surgical appliance. No. 1,077,629; Nov. 4; Gaz. vol. 196; p. 133.

Milam, William A., Dallas, Tex. Vehicle-wheel. No. 1,077,994; Nov. 11; Gaz. vol. 196; p. 290.

Miles, Ross E., Mereta, Tex. Pump-filter. No. 1,079,875; Nov. 25; Gaz. vol. 196; p. 1002.

Miller, Charles G. (See Ludwig, William F., assignor.)

Miller, Du Brul and Peters Manufacturing Company. (See Du Brul, Napoleon, assignor.)

Miller, Ellis D., Berkeley, Cal. Towel-dispenser. No. 1,078,938; Nov. 18; Gaz. vol. 196; p. 647.

Miller, George C., New York, N. Y. Window-sash lock. No. 1,077,487; Nov. 4; Gaz. vol. 196; p. 87.

Miller, Jesse D., Hampton, Va. Stay. No. 1,078,208; Nov. 11; Gaz. vol. 196; p. 383.

Miller, John E. (See Miller and Orgel.)

Miller, Kemper B., assignor to McMeen & Miller, Chicago Ill. Harmonic relay. No. 1,078,106; Nov. 11; Gaz. vol. 196; p. 329.

Miller, Royal R., Pueblo, Colo. Adjustment for invalids' cots. No. 1,077,359; Nov. 4; Gaz. vol. 196; p. 41.

Miller, William H., Emaus, Pa. Trolley collector-shoe. No. 1,079,059; Nov. 18; Gaz. vol. 196; p. 691.

Miller, William H. and J. E., and W. H. Orgel, Cleveland, Ohio. Combination-faucet. No. 1,078,939; Nov. 18; Gaz. vol. 196; p. 647.

Mills, Albert W., West Orange, N. J. Pneumatic agitator and cleaner. No. 1,078,512; Nov. 11; Gaz. vol. 196; p. 469.

Mills, Joseph H., Richmond, Ind. Packing or shipping box. No. 1,077,890; Nov. 4; Gaz. vol. 196; p. 223.

Mills, William H., assignor of one-half to D. J. Foss, Wooster, Ohio. Brush. No. 1,077,851; Nov. 4; Gaz. vol. 196; p. 208.

Milwaukee Net Company. (See Wahra, Walter E., assignor.)

Mincer, Edwin N., Chicago, Ill. Key-socket attachment. No. 1,077,630; Nov. 4; Gaz. vol. 196; p. 134.

Minahan, William A. (See Jones and Minahan.)

Miner, William H. (See Nash, Charles J., assignor.)

Miner, William H. (See O'Connor, John F., assignor.)

Minerals Separation Limited. (See Chapman and Tucker, assignors.)

Mitch, James J., Blessing, Tex. Self-cleaning currycomb. No. 1,078,451; Nov. 11; Gaz. vol. 196; p. 449.

Minor, Charles C., assignor of one-eighth to W. F. Smith and one-fourth to C. L. Jenness, Chicago, Ill. Photographic objective. No. 1,077,420; Nov. 4; Gaz. vol. 196; p. 64.

Mirault, Maurice L., Les Riceys, France. Safety-pin. No. 1,077,360; Nov. 4; Gaz. vol. 196; p. 41.

Mitchell, Charles. (See Robertson, George L., assignor.)

Mitchell, Henry J., Elkhart, Ind. Vehicle-spring. No. 1,078,057; Nov. 11; Gaz. vol. 196; p. 312.

Mitchell, John E., New York, N. Y. Making gasoline jelly. No. 1,079,257; Nov. 18; Gaz. vol. 196; p. 757.

Mitchell, Richard S. M., assignor to The Talking Moving Picture Co., Inc., Syracuse, N. Y. Electrophotograph. No. 1,077,361; Nov. 4; Gaz. vol. 196; p. 42.

Mitchem, Charles E., Chicago, Ill. Remnant-tag. No. 1,079,425; Nov. 25; Gaz. vol. 196; p. 845.

Modern Tool Company. (See Jackson, Byron D., assignor.)

Modern Tool Company. (See Trefethen, Charles G., assignor.)

Modler, Johann, Schweinfurt, Germany. Ball-bearing. No. 1,078,940; Nov. 18; Gaz. vol. 196; p. 648.

Mohun, John L., Brooklyn, N. Y. Car-roof construction. No. 1,077,631; Nov. 4; Gaz. vol. 196; p. 134.

Mohun, John L., Brooklyn, N. Y. Car-roof. No. 1,077,632; Nov. 4; Gaz. vol. 196; p. 134.

Mohun, John L., Brooklyn, N. Y. Car-roof construction. No. 1,077,633; Nov. 4; Gaz. vol. 196; p. 135.

Moise, Harmon D., Sumter, S. C. Flush-tank. No. 1,078,796; Nov. 18; Gaz. vol. 196; p. 600.

Moise, Harmon D., Sumter, S. C. Flushing apparatus. No. 1,078,797; Nov. 18; Gaz. vol. 196; p. 601.

Molenaar, William, Paterson, N. J. Bill-file. No. 1,078,452; Nov. 11; Gaz. vol. 196; p. 440.

Moller, Edward M., Jersey City, N. J. Door or gate operating mechanism for the platforms of cars. No. 1,079,713; Nov. 25; Gaz. vol. 196; p. 944.

Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)

Monfredini, Callisto J., Boston, Mass. Pneumatic action for musical instruments. No. 1,078,688; Nov. 18; Gaz. vol. 196; p. 561.

Mono Situ Concrete Company. (See Clark, George, assignor.)

Monson, George M., Ambrose, N. D. Sliding-door fastener. No. 1,078,941; Nov. 18; Gaz. vol. 196; p. 648.

Montgomery, John F., assignor to The John Wild Evaporated Milk Co., Columbus, Ohio. Can. No. 1,079,572; Nov. 25; Gaz. vol. 196; p. 896.

Moon, Adam R., Mercer, Pa. Window-ventilator. No. 1,078,453; Nov. 11; Gaz. vol. 196; p. 450.

Mooney, James B., Coldwater, Kans. Drenching-bottle. No. 1,077,541; Nov. 4; Gaz. vol. 196; p. 106.

Moore, Charles R., et al. (See Moore, Otis G., assignor.)

Moore, Charles R., La Fayette, Ind. Timing device. No. 1,078,058; Nov. 11; Gaz. vol. 196; p. 312.

Moore, Chester N., Schenectady, N. Y. assignor to General Electric Company. Terminal for metal-sheathed wire. No. 1,077,734; Nov. 4; Gaz. vol. 196; p. 168.

Moore, James A., Detroit, Mich. Apparatus for controlling aeroplanes. No. 1,078,300; Nov. 11; Gaz. vol. 196; p. 397.

Moore, Justus J., Springfield, assignor of one-fourth to H. Thomas, Harrisburg, one-fourth to W. A. Brewerton, Chicago, Ill., and one-fourth to W. B. May, Clarksburg, W. Va. Bit for mining-machines. No. 1,077,542; Nov. 4; Gaz. vol. 196; p. 106.

Moore, Otis G., assignor of one-third to C. L. Clover, Knox, and one-third to C. R. Moore, St. Petersburg, Pa. Derrick. No. 1,079,303; Nov. 18; Gaz. vol. 196; p. 771.

Moore, Theodore V., administrator. (See Moore, Theophilus W.)

Moore, Theophilus W., deceased, Alachua; T. V. Moore, administrator, Miami, Fla., assignor of one-half to J. M. Horner, Asheville, N. C. Rotary engine. No. 1,078,301; Nov. 11; Gaz. vol. 196; p. 397.

Moore, William F., Charlotte, N. C. Coffin. No. 1,077,421; Nov. 4; Gaz. vol. 196; p. 64.

Morden, George E., Detroit, and J. L. Chapman, Ann Arbor, Mich. Electric time-switch. No. 1,079,791; Nov. 25; Gaz. vol. 196; p. 975.

Morehouse, Melvin W., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,077,362; Nov. 4; Gaz. vol. 196; p. 42.

Morehouse, Walton L., Madera, Mexico. Ore feeder and sampler. No. 1,070,184; Nov. 18; Gaz. vol. 196; p. 735.

Morehouse, Warren J., Ashtabula, Ohio. Railway-rail joint. No. 1,078,743; Nov. 18; Gaz. vol. 196; p. 580.

Morel, Marshall E., Sheridan, Ill. Valve structure for internal-combustion engines. No. 1,078,942; Nov. 18; Gaz. vol. 196; p. 648.

Morgan, Franklyn J., Los Angeles, Cal. Automobile seat construction. No. 1,078,602; Nov. 11; Gaz. vol. 196; p. 499.

Morgan, Robert R., and W. H. Corder, North Carrollton, Miss. Horse-detacher. No. 1,079,792; Nov. 25; Gaz. vol. 196; p. 975.

Morgenstern, Jacob R., and J. Blenz, Decatur, Ill. Horse-shoe attachment. No. 1,079,426; Nov. 25; Gaz. vol. 196; p. 845.

Moringa, Fumi, Philadelphia, Pa. Toy. No. 1,077,735; Nov. 4; Gaz. vol. 196; p. 168.

Moring, Frederick L., Jr., Forreston, Ill. Baby-carriage. No. 1,077,422; Nov. 4; Gaz. vol. 196; p. 64.

Moritz, René, Wasquehal, France, assignor to L. Heller & Son, New York, N. Y. Electrolytic device for generating oxygen and hydrogen. (Reissue.) No. 18,643; Nov. 11; Gaz. vol. 196; p. 500.

Moritz, Simon, St. Louis, Mo. Cloth-laying machine. No. 1,078,302; Nov. 11; Gaz. vol. 196; p. 398.

Morris, James W., assignor of one-half to R. W. Sweet, Oakland, Cal. Brooder. No. 1,078,547; Nov. 11; Gaz. vol. 196; p. 480.

Morris, Sydney S., Watertown, N. Y. Sectional rim. No. 1,078,798; Nov. 18; Gaz. vol. 196; p. 601.

Morris, William S., assignor of forty one-hundredths to J. Caesar, St. Louis, Mo. Reinforced-cement pole. No. 1,078,548; Nov. 11; Gaz. vol. 196; p. 481.

Morrison, Joseph O., Anderson, Ind., assignor to The Forse Manufacturing Company. Speed-measure. (Reissue.) No. 13,650; Nov. 18; Gaz. vol. 196; p. 780.

Morrison, Kenneth M., Minneapolis, Minn. Time-calculator. No. 1,077,736; Nov. 4; Gaz. vol. 196; p. 169.

Morse, Mathew H., Algiers, La. Self-cleaning drag-scraper bucket. No. 1,078,454; Nov. 11; Gaz. vol. 196; p. 450.

Mortimer, Elias M. (See Corrigan and Mortimer.)

Morton, Arthur L., Mountain View, Cal. Fruit cutting and pitting machine. No. 1,079,573; Nov. 25; Gaz. vol. 196; p. 896.

Moser Paper Co. (See Kane and Bauman, assignors.)

Mosler, Moses, Cincinnati, and C. Bartels, Hamilton, Ohio, assignors to The Mosler Safe Company of New York. Safe construction. No. 1,078,799; Nov. 18; Gaz. vol. 196; p. 601.

Mosler Safe Company of New York, The. (See Mosler and Bartels, assignors.)

Mosler Safe Company, The. (See Bartels, Carl, assignor.)

Moss, Samuel, Waltham, Mass. Wrench. No. 1,077,543; Nov. 4; Gaz. vol. 196; p. 106.

Mossberg, Frank, Attleboro, Mass., assignor to Frank Mossberg Company. Wrench. No. 1,077,059; Nov. 11; Gaz. vol. 196; p. 313.

Mott, James H., Battle Creek, Mich. Straw-spreader. No. 1,078,800; Nov. 18; Gaz. vol. 196; p. 602.

Mowrey, Ralph A., Ridgway, Pa. Dispensing-can. No. 1,079,793; Nov. 25; Gaz. vol. 196; p. 975.

Mueller, Adolf E., Louisville, Ky. Propeller. No. 1,078,159; Nov. 11; Gaz. vol. 196; p. 346.

Mueller, Philip, assignor to H. Mueller Mfg. Co., Decatur, Ill. Float-valve. No. 1,078,943; Nov. 18; Gaz. vol. 196; p. 648.

Muir Company. (See Muir, Wellington W., assignor.)

Muir, Wellington W., assignor to Muir Company, Baltimore, Md. Carbureter. No. 1,078,590; Nov. 11; Gaz. vol. 196; p. 494.

Muir, Wellington W., assignor to Muir Company, Baltimore, Md. Carbureter. No. 1,078,591; Nov. 11; Gaz. vol. 196; p. 495.

Muir, Wellington W., assignor to Muir Company, Baltimore, Md. Carbureter. No. 1,078,592; Nov. 11; Gaz. vol. 196; p. 495.

Müller, Emil, Düsseldorf, assignor to Rheinische Metallwaren- und Maschinenfabrik, Düsseldorf-Derendorf, Germany. Apparatus for automatically indicating the time of flight of a projectile. No. 1,079,794; Nov. 25; Gaz. vol. 196; p. 976.

Munsing, George D., assignor to Munsing and Ingersoll, New York, N. Y. Tractor connection. No. 1,078,801; Nov. 18; Gaz. vol. 196; p. 602.

Munsing, George D., assignor to Munsing and Ingersoll, New York, N. Y. Tractor caster-wheel. No. 1,079,604; Nov. 25; Gaz. vol. 196; p. 900.

Munsing and Ingersoll. (See Munsing, George D., assignor.)

Munson, Hugh H., Truro, Iowa. Revolving clod-fender. No. 1,078,689; Nov. 18; Gaz. vol. 196; p. 561.

Murphy, James A., Germantown, Pa. Railway-station truck. No. 1,077,738; Nov. 4; Gaz. vol. 196; p. 170.

Murphy, Edwin J., and J. E. Brobst, Schenectady, N. Y., assignors to General Electric Company. Motor-control system. No. 1,077,737; Nov. 4; Gaz. vol. 196; p. 169.

Murphy, Daniel H., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa. Apparatus for electroplating pipes. No. 1,079,427; Nov. 25; Gaz. vol. 196; p. 846.

Murphy, Daniel H., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa. Apparatus for electroplating pipes. No. 1,079,428; Nov. 25; Gaz. vol. 196; p. 846.

Murphy, James R. (See Boardman, Arthur F., assignor.)

Murphy, Peter E., Newark, N. J. Plasterer's or painter's scraping-pan. No. 1,078,944; Nov. 18; Gaz. vol. 196; p. 649.

Murray, Albert R. (See Snedden, James, assignor.)

Murray, Christopher K., Oshkosh, Wis. Overhead switch. No. 1,078,945; Nov. 18; Gaz. vol. 196; p. 649.

Murray, Thomas E., New York, N. Y. Fuse and fuse-carrier. No. 1,079,018; Nov. 18; Gaz. vol. 196; p. 677.

Murray, William A., et al. (See Beggs, Thomas R., assignor.)

Muschel, Paul, Scharley, near Beuthen, Germany. Ferule. No. 1,079,258; Nov. 18; Gaz. vol. 196; p. 757.

Muth, George E., assignor to F. A. Voegelé, Mansfield, Ohio. Automatic air-valve car-coupling. No. 1,078,869; Nov. 18; Gaz. vol. 196; p. 625.

Mutton, Arthur R., assignor of one-half to O. P. Higdon, Waterloo, Iowa. Train-stop. No. 1,077,739; Nov. 4; Gaz. vol. 196; p. 170.

Muzzy, Fred E. (See Perkins, Julian L., assignor.)

Myers, Allen S., Altoona, Pa. Plant-holder. No. 1,077,423; Nov. 4; Gaz. vol. 196; p. 65.

Myers, Carl E., Frankfurt, N. Y. Airship. No. 1,078,455; Nov. 11; Gaz. vol. 196; p. 451.

Myers, James J., Thurles, Ireland. Variable-speed gear. No. 1,077,424; Nov. 4; Gaz. vol. 196; p. 65.

N. Y. Sanitation-Filtration Co. (See Van Fossen, Charles L., assignor.)

Napier, George, and H. B. Harris, Dayton, Ohio. Brake in railway-trucks. No. 1,079,357; Nov. 25; Gaz. vol. 196; p. 822.

Nash, Charles J., assignor, by mesne assignments, to W. H. Miner, Chicago, Ill. Friction draft-rigging. No. 1,078,946; Nov. 18; Gaz. vol. 196; p. 649.

Nash, Lawrence S., assignor, by mesne assignments, to Oliver Motor Car Co., Detroit, Mich. Convertible cycle-motor. No. 1,077,363; Nov. 4; Gaz. vol. 196; p. 42.

Nash, Thomas J., Lincoln, Neb. High-pressure steam-cooking utensil. No. 1,077,289; Nov. 4; Gaz. vol. 196; p. 16.

National Brake & Electric Company. (See Aikman, Burton S., assignor.)

National Carbonated Liquid Company. (See Kennedy, Guy L., assignor.)

National Electric Utilities Corporation. (See Rice, Merritt H., assignor.)

National Machine Corporation. (See Lilliston, Thomas M., assignor.)

National Malleable Castings Company, The. (See Her-manson, Gustaf A., assignor.)

National Malleable Castings Company, The. (See Krakau, Harry T., assignor.)

National Marking Machine Company, The. (See Canine, Chester W., assignor.)

National Spring Bed Company, The. (See Arnold, Harry B., assignor.)

National Spring and Wire Company. (See Raftery, Solomon M., assignor.)

National Store Specialty Company. (See Pritchard, William C., assignor.)

Naylor, Isaac B., New York, N. Y. Irrigating-conduit. No. 1,078,635; Nov. 18; Gaz. vol. 196; p. 542.

Naylor, Isaac B., New York, N. Y. Irrigating-conduit. No. 1,078,636; Nov. 18; Gaz. vol. 196; p. 543.

Naylor, Isaac B., New York, N. Y. Conduit for irrigation. No. 1,078,637; Nov. 18; Gaz. vol. 196; p. 543.

Naysmith, Frank M., Columbia, Mo. Chiropactic table. No. 1,079,795; Nov. 25; Gaz. vol. 196; p. 976.

Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Triple valve for air-brakes. No. 1,078,303; Nov. 11; Gaz. vol. 196; p. 398.

Nedomansky, Ludwig, Vienna, Austria-Hungary. Manufacture of stamps. No. 1,077,740; Nov. 4; Gaz. vol. 196; p. 171.

Neely Compress & Cotton Company. (See Wood, James N., assignor.)

Nees, William R., Los Angeles, Cal. Cabinet or wall bed. No. 1,079,658; Nov. 25; Gaz. vol. 196; p. 925.

Neff, Raymond H., Pittsburgh, Pa. Milk-bottle holder. No. 1,078,744; Nov. 18; Gaz. vol. 196; p. 581.

Nehlsen, Hermann, Berlin, Germany, assignor to General Electric Company. System of transmission. No. 1,079,269; Nov. 18; Gaz. vol. 196; p. 757.

Nelissen, Charles E., assignor to C. B. Wilkinson, St. Paul, Minn. Tamping-machine. No. 1,077,544; Nov. 4; Gaz. vol. 196; p. 107.

Nelk, Carl N., Palo Alto, Cal. Pipe-wrench attachment for monkey-wrenches. No. 1,077,964; Nov. 4; Gaz. vol. 196; p. 249.

Nelson, Charles, assignor to S. Sternan & Co., Brooklyn, N. Y. Wick-tube for alcohol-lamps. No. 1,077,364; Nov. 4; Gaz. vol. 196; p. 43.

Neveu, Frank A., Denver, Colo. Elbow pipe-joint. No. 1,077,741; Nov. 4; Gaz. vol. 196; p. 171.

New Britain Machine Company, The. (See Brown, Robert S., assignor.)
 New Jersey Patent Company. (See Edison, Thomas A., assignor.)
 New Jersey Testing Laboratories. (See Ellis, Carleton, assignor.)
 New Metals and Process Company. (See Gleason, Edward D., assignor.)
 Newforth, Frank, Jr., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,078,690; Nov. 18; Gaz. vol. 196; p. 561.
 Newhall, Henry B. (See Upson and Pleister, assignors.)
 Newman, Edmund W., Ashland, Va. Shock-absorber. No. 1,078,060; Nov. 11; Gaz. vol. 196; p. 313.
 Nichols, Charles H., Wolverton, England. Mud-guard. No. 1,078,456; Nov. 11; Gaz. vol. 196; p. 451.
 Nichols, Jesse W., Chicago, Ill. Tin can. No. 1,077,742; Nov. 4; Gaz. vol. 196; p. 172.
 Nicholson, Edgar L., Los Angeles, Cal. Automatic lawn-sprinkler. No. 1,079,574; Nov. 25; Gaz. vol. 196; p. 897.
 Nicholson, Percival, Ardmore, Pa. Sphygmomanometer. No. 1,077,365; Nov. 4; Gaz. vol. 196; p. 43.
 Nickerson Art Metal Company. (See Smith, Harry W. and C. G., assignors.)
 Nicolai, Edward E. (See Hawxhurst and Nicolai.)
 Nielsen, Erasmus, Troy, N. Y. Icecream-cone filler. No. 1,078,209; Nov. 11; Gaz. vol. 196; p. 364.
 Nikolaus, Hermann, Vienna, Austria-Hungary. Sliding window. No. 1,078,300; Nov. 11; Gaz. vol. 196; p. 421.
 Niles-Bement-Pond Company. (See Hogrebe and Firmin, assignors.)
 Niles, Glenn H., St. Louis, Mo. Combustion apparatus and gas-producer. No. 1,078,160; Nov. 11; Gaz. vol. 196; p. 347.
 Niles, James A., Lynn, Mass. Shoe-form. No. 1,079,420; Nov. 25; Gaz. vol. 196; p. 846.
 Nilsson, Carl V., Philadelphia, Pa. Screen. No. 1,079,575; Nov. 25; Gaz. vol. 196; p. 897.
 Nilsson, Martin, Marion, Nebr. Adjustable horse-collar attachment. No. 1,078,802; Nov. 18; Gaz. vol. 196; p. 603.
 Nippert, John W., New Brighton, Pa. Nut-lock. No. 1,079,714; Nov. 25; Gaz. vol. 196; p. 945.
 Nitka, Albert, Sobieski, Wis. Rail-joint. No. 1,079,430; Nov. 25; Gaz. vol. 196; p. 846.
 Nitka, Albert, Sobieski, Wis. Curtain-pole. No. 1,079,431; Nov. 25; Gaz. vol. 196; p. 847.
 Nix, Frank C. (See Nix, Joshua J. and F. C.)
 Nix, Joshua J. and F. C., Alhambra, assignors to J. A. Merrill, Los Angeles, Cal. Producing gas. No. 1,078,304; Nov. 11; Gaz. vol. 196; p. 399.
 Nobel's Explosive Company. (See Hodge, Howard D., assignor.)
 Noble, Ralph E., Chicago, Ill. Commutator. No. 1,077,014; Nov. 4; Gaz. vol. 196; p. 230.
 Noel, John P. (See Reddick and Noel.)
 Noiseless Typewriter Company, The. (See Ronchetti, Joseph A., assignor.)
 Nolde & Horst Co., The. (See Robinson, Frank W., assignor.)
 Nolder, Francis M., Westboro, Ohio. Animal-trap. No. 1,078,457; Nov. 11; Gaz. vol. 196; p. 451.
 Nordling, Gustaf R., New York, assignor of one-half to S. Salonen, Brooklyn, N. Y. Clock. No. 1,079,796; Nov. 25; Gaz. vol. 196; p. 976.
 Nordyke & Marmon Company. (See Marmon, Howard C., assignor.)
 Norman, Charles E., Chicago, Ill. Hot-blast furnace. No. 1,079,432; Nov. 25; Gaz. vol. 196; p. 847.
 Normand, Augustin, Le Havre, France. Boiler-furnace. No. 1,078,803; Nov. 18; Gaz. vol. 196; p. 603.
 Norsk Hydro-elektrisk Kvaestofaktieselskab. (See Collett, Emil, assignor.)
 North East Electric Company. (See Halbleib, Edward A., assignor.)
 Northey, Silas, Waterloo, Iowa. Door-fastener. No. 1,078,549; Nov. 11; Gaz. vol. 196; p. 481.
 Northrop, Jonas, assignor to Draper Company, Hopedale, Mass. Thread-part for looms. No. 1,078,210; Nov. 11; Gaz. vol. 196; p. 364.
 Norton, Edwin, New York, N. Y. Sheet-metal box. No. 1,079,433; Nov. 25; Gaz. vol. 196; p. 847.
 Norton, Edwin, Paget West, Bermuda. Sheet-metal box. No. 1,079,903; Nov. 25; Gaz. vol. 196; p. 1013.
 Norton, Walter S., Lubbock, Tex. Attachment for lathes. No. 1,078,745; Nov. 18; Gaz. vol. 196; p. 581.
 Nowatke, Paul C., Mukwonago, Wis. Pump-operating mechanism. No. 1,077,290; Nov. 4; Gaz. vol. 196; p. 16.
 Noyes, Arthur A., trustee. (See Keyes, Frederick G., assignor.)
 Noyes, Arthur A., assignor to M. S. Austin, New York, N. Y. Lobster-trap. No. 1,079,576; Nov. 25; Gaz. vol. 196; p. 898.
 Noyes, La Verne W., assignor to Aermotor Company, Chicago, Ill. Sideral sphere. No. 1,079,358; Nov. 25; Gaz. vol. 196; p. 822.
 Nygren, Theodore N., Minneapolis, Minn. Brake-actuating mechanism. No. 1,078,107; Nov. 11; Gaz. vol. 196; p. 329.
 Nyquist, Gustaf W., Minneapolis, Minn. Device for pumping air or other fluid. No. 1,078,870; Nov. 18; Gaz. vol. 196; p. 625.

O. K. Manufacturing & Stamping Company, The. (See Sloan, Francis E., assignor.)
 O'Bert, John F., Los Angeles, Cal. Cranking device for internal-combustion engines. No. 1,077,291; Nov. 4; Gaz. vol. 196; p. 16.
 O'Bert, John F., Los Angeles, Cal. Starting device for internal-combustion engines. No. 1,077,292; Nov. 4; Gaz. vol. 196; p. 17.
 O'Brien, Stephen R., Pittsburgh, Pa. Vehicle-brake. No. 1,077,546; Nov. 4; Gaz. vol. 196; p. 107.
 O'Bryan, George W., Cambria, Va. Mill. No. 1,077,852; Nov. 4; Gaz. vol. 196; p. 208.
 O'Connell, Daniel C., et al. (See Spirewski, John S., Jr., assignor.)
 O'Connor, John F., assignor, by means assignments, to W. H. Miner, Chicago, Ill. Friction draft-rigging for railway-cars. No. 1,077,366; Nov. 4; Gaz. vol. 196; p. 44.
 O'Connor, Martin A., Buffalo, N. Y., assignor to W. H. Miner Company, Chicago, Ill. Draft-rigging. No. 1,079,060; Nov. 18; Gaz. vol. 196; p. 902.
 O'Connor, Michael, et al., trustees. (See Pratt, Edward W., assignor.)
 O'Connor, William J., New York, N. Y. Tap-filter. No. 1,078,370; Nov. 11; Gaz. vol. 196; p. 421.
 O'Hara, Belzimer, Orofino, Idaho. Churn. No. 1,077,547; Nov. 4; Gaz. vol. 196; p. 107.
 O'Hara, James T., Lowell, N. Y. Log-decking apparatus. No. 1,078,947; Nov. 18; Gaz. vol. 196; p. 650.
 O'Neill, James L., Macedon, N. Y. Agricultural machine. No. 1,079,139; Nov. 18; Gaz. vol. 196; p. 710.
 Oberheim, Albert, Ogden, Utah. Razor and guard therefor. No. 1,077,545; Nov. 4; Gaz. vol. 196; p. 107.
 Ochs, Clarence, Coalinga, Cal. Automatic stop for well-tubing. No. 1,079,659; Nov. 25; Gaz. vol. 196; p. 926.
 Ogden, Edmund J., Springfield, Ill. Corn-planter. No. 1,079,797; Nov. 25; Gaz. vol. 196; p. 977.
 Ogil, Edward, Dallas, Tex. Burglar-alarm. No. 1,078,550; Nov. 11; Gaz. vol. 196; p. 481.
 Ogle, Harley A., assignor to T. E. Daniels, Chicago, Ill. Motor or engine. No. 1,078,305; Nov. 11; Gaz. vol. 196; p. 399.
 Oglesby, John M., Green Pond, Ala. Wing attachment. No. 1,078,371; Nov. 11; Gaz. vol. 196; p. 422.
 Ohlson, Karl J., Chicago, Ill. Lamp-support. No. 1,079,715; Nov. 25; Gaz. vol. 196; p. 946.
 Ohmer Fare Register Company. (See Ohmer, John F., assignor.)
 Ohmer, John F., assignor to Ohmer Fare Register Company, Dayton, Ohio. Actuating mechanism for fare-registers. No. 1,077,939; Nov. 4; Gaz. vol. 196; p. 240.
 Old, William S., Youngstown, Ohio. Nut-lock. No. 1,077,425; Nov. 4; Gaz. vol. 196; p. 66.
 Oliver Motor Car Co. (See Nash, Lawrence S., assignor.)
 Oliver, William B., Collingswood, N. J. Amplifying-case for microtelephones. No. 1,078,746; Nov. 18; Gaz. vol. 196; p. 581.
 Olley, Edwin A., assignor to Crouse-Hinds Company, Syracuse, N. Y. Incandescent-electric-lamp socket. No. 1,079,660; Nov. 25; Gaz. vol. 196; p. 926.
 Olsen, Aksel, Christiania, Norway. Entrail-cleaning machine. No. 1,077,488; Nov. 4; Gaz. vol. 196; p. 88.
 Olsen, Einar J., assignor of one-fourth to G. Groschen, Minneapolis, Minn. Bed-rail joint. No. 1,077,995; Nov. 11; Gaz. vol. 196; p. 290.
 Olson, Andrew G., and A. A. Boberg, St. Joseph, Mo. Hog-scraper. No. 1,078,211; Nov. 11; Gaz. vol. 196; p. 364.
 Olson, Charles S., et al. (See Zahl, Hjalmar, assignor.)
 Olson, Lewis H., Melville, Saskatchewan, Canada, assignor of one-half to M. Erickson, Galesburg, N. D. Plow. No. 1,078,871; Nov. 18; Gaz. vol. 196; p. 626.
 Oppenheimer, Albert C., Norwood, Ohio. Insole-making. No. 1,077,634; Nov. 4; Gaz. vol. 196; p. 135.
 Oppenheimer, Albert C., Cincinnati, Ohio. Machine for making insoles. No. 1,079,019; Nov. 18; Gaz. vol. 196; p. 678.
 Oppenheimer & Co., S. (See Oppenheimer, Harry D., assignor.)
 Oppenheimer, Harry D., assignor to S. Oppenheimer & Co., Chicago, Ill. Tank-closure. No. 1,079,359; Nov. 25; Gaz. vol. 196; p. 822.
 Orgel, William H. (See Miller and Orgel.)
 Orndel, Edwin J., Wheeling, W. Va. Coin-controlled mechanism. No. 1,077,293; Nov. 4; Gaz. vol. 196; p. 17.
 Orzechowski, Antoni, Stamford, Conn. Nut-lock. No. 1,077,940; Nov. 4; Gaz. vol. 196; p. 240.
 Osborn, Henry C., assignor to The American Multigraph Company, Cleveland, Ohio. Type setting and distributing machine. No. 1,079,716; Nov. 25; Gaz. vol. 196; p. 946.
 Osborn, Milo H., Danville, Kan. Trace-carrier. No. 1,079,605; Nov. 25; Gaz. vol. 196; p. 909.
 Osborn, Samuel C., San Francisco, Cal. Note-book and manuscript holder. No. 1,077,853; Nov. 4; Gaz. vol. 196; p. 209.
 Osborn, Warren M., New Britain, Conn. Rail-chair. No. 1,077,367; Nov. 4; Gaz. vol. 196; p. 44.
 Osborne, Ebin N., Dixon, Ill. Vehicle-scale. No. 1,079,260; Nov. 18; Gaz. vol. 196; p. 758.
 Ossenbeck, Anton. (See Kahn and Ossenbeck.)
 Ostheimer, Adam, Cleveland, Ohio. Railway construction. No. 1,077,548; Nov. 4; Gaz. vol. 196; p. 108.

Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Vestibule-hood. No. 1,078,306; Nov. 11; Gaz. vol. 196; p. 400.
 Otis Elevator Company. (See Deats, William, assignor.)
 Otis Elevator Company. (See Lindquist, David L., assignor.)
 Otis Elevator Company. (See Sundh, August, assignor.)
 Ott, George E., Lancaster, N. Y. Can-top set and wrench. No. 1,077,294; Nov. 4; Gaz. vol. 196; p. 18.
 Overton, Oron, Mobile, Ala. Side car attachment for motor-cycles. No. 1,077,743; Nov. 4; Gaz. vol. 196; p. 172.
 Ovington, Edward J., Los Angeles, Cal. Electrical resistance unit. No. 1,077,635; Nov. 4; Gaz. vol. 196; p. 135.
 Owen, George A., Hartford, and G. A. Bates, New Britain, Conn. Hydrant and reel. No. 1,079,717; Nov. 25; Gaz. vol. 196; p. 946.
 Owens, Benjamin F., Rockwell City, Iowa. Inspection device for grain-cars. No. 1,078,948; Nov. 18; Gaz. vol. 196; p. 650.
 Owens, John S., assignor to John M. De Mendoza y Mehr, London, England. Metallic sheet-piling. No. 1,077,295; Nov. 4; Gaz. vol. 196; p. 18.
 Paul, Carl, Leipzig, and C. Amberger, Erlangen, assignors to Kalle & Company, Aktiengesellschaft, Bielefeld, Germany. Ointment containing colloidal compounds. No. 1,077,854; Nov. 4; Gaz. vol. 196; p. 209.
 Paul, Carl, Leipzig, and C. Amberger, Erlangen, assignors to Kalle & Company, Aktiengesellschaft, Bielefeld, Germany. Preparation containing colloidal compounds. No. 1,077,891; Nov. 4; Gaz. vol. 196; p. 223.
 Pabst, William F., assignor of one-third to W. G. Steenbock, Denver, Colo. Car-cuspidor. No. 1,078,872; Nov. 18; Gaz. vol. 196; p. 626.
 Pacific Flush Tank Company. (See Chase, Edward S., assignor.)
 Pacific Foundry Company. (See Fowler, Edward J., assignor.)
 Package Machinery Company. (See Kempf, Henry J., assignor.)
 Packard Motor Car Company. (See Church, Harold D., assignor.)
 Packard Motor Car Company. (See Huff, Russell, assignor.)
 Packham, Frank R., assignor to The American Seeding Machine Company, Springfield, Ohio. Double-disk furrow-opener. No. 1,079,140; Nov. 18; Gaz. vol. 196; p. 719.
 Page Corporation. (See Page, William J., assignor.)
 Page, Sydney E., et al. (See Swann, Charles, assignor.)
 Page, William J., Grand Rapids, Mich., assignor to Page Corporation, Jack. No. 1,079,316; Nov. 18; Gaz. vol. 196; p. 777.
 Pahl, Emiel, Slater Bay, Wis. Platform for engines. No. 1,077,549; Nov. 4; Gaz. vol. 196; p. 108.
 Painter, Gertrude G., Pittsburgh, Pa. Infant's garment. No. 1,079,798; Nov. 25; Gaz. vol. 196; p. 977.
 Paiste, Henry T., assignor to H. T. Paiste Company, Philadelphia, Pa. Fuse-plug. No. 1,078,458; Nov. 11; Gaz. vol. 196; p. 452.
 Palmer, Cassius C., assignor to Railway and Stationary Refrigerating Company, New York, N. Y. Powder or explosive magazine for war-ships. No. 1,079,070; Nov. 18; Gaz. vol. 196; p. 695.
 Palmerio, Raymond J. (See Dragan, George, and Palmerio.)
 Pannier Brothers Stamp Company. (See Pannier, Oscar M., assignor.)
 Pannier, Oscar M., assignor to Pannier Brothers Stamp Company, Pittsburgh, Pa. Stamp. No. 1,079,061; Nov. 18; Gaz. vol. 196; p. 692.
 Park, Philip R., Somerville, Mass., assignor to The Park & Pollard Company. Feed-dish guard. No. 1,079,261; Nov. 18; Gaz. vol. 196; p. 758.
 Park & Pollard Company, The. (See Park, Philip R., assignor.)
 Park, Sidney R., Wigan, England. Handle for spades, shovels, forks, and like implements. No. 1,077,550; Nov. 4; Gaz. vol. 196; p. 108.
 Parker, Edmund A., Meriden, Conn. Nutmeg container and grater. No. 1,079,434; Nov. 25; Gaz. vol. 196; p. 847.
 Parker, Edwy S. (See Hixon and Parker.)
 Parker, Fred E., Lansing, Mich. Speed-governing pulley. No. 1,078,161; Nov. 11; Gaz. vol. 196; p. 347.
 Parker, Geo. D. (See Shepherd, Winfred P., assignor.)
 Parker, George S., Jancaville, Wis. Fountain-pen. No. 1,078,513; Nov. 11; Gaz. vol. 196; p. 469.
 Parker, Harry J., San Francisco, Cal. Rotary cutter. No. 1,079,799; Nov. 25; Gaz. vol. 196; p. 977.
 Parker, Thomas T., New York, N. Y. Boiler. No. 1,078,212; Nov. 11; Gaz. vol. 196; p. 365.
 Parker, William, Dunbar, W. Va. Tobacco-box. No. 1,077,744; Nov. 4; Gaz. vol. 196; p. 172.
 Parkhurst, Harleigh, Walpole, N. H. Steering-gear. No. 1,078,514; Nov. 11; Gaz. vol. 196; p. 469.
 Parkison, Thomas B., Muncie, Ind., assignor to Union Fibre Company, Winona, Minn. Non-conducting material and making same. No. 1,078,307; Nov. 11; Gaz. vol. 196; p. 400.
 Parmenter, Frank C. (See Cole, Albert L., assignor.)
 Parrahm, James N., assignor of one-half to J. McKinstry, Denver, Colo. Shade and curtain hanger. No. 1,078,162; Nov. 11; Gaz. vol. 196; p. 347.

Parrish, Ferrell, West Durham, N. C. Harness-hook. No. 1,079,681; Nov. 25; Gaz. vol. 196; p. 927.
 Parrish, James S., Richmond, Va., assignor to Richmond Cedar Works. Ice-cream-freezer-frame lock. No. 1,077,489; Nov. 4; Gaz. vol. 196; p. 88.
 Parsons, Charles A., G. G. Stoney, and A. H. Law, Newcastle-upon-Tyne, England; said Stoney and Law assignors to said Parsons. Dynamo-electric machinery. No. 1,077,426; Nov. 4; Gaz. vol. 196; p. 66.
 Parsons, Lloyd W. (See Shoemaker, James S., assignor.)
 Partridge, Edward O., Chicago, Ill. Grinding-machine. No. 1,078,551; Nov. 11; Gaz. vol. 196; p. 481.
 Paschall, Benjamin S., Seattle, Wash. Substance for treatment of tuberculosis and making said substance. No. 1,078,873; Nov. 18; Gaz. vol. 196; p. 626.
 Paschen, Max, K8then, Germany. Apparatus for leaching sacchariferous vegetables. No. 1,077,296; Nov. 4; Gaz. vol. 196; p. 18.
 Pasman, Abram N., Jersey City, N. J. Flush-valve. No. 1,077,745; Nov. 4; Gaz. vol. 196; p. 172.
 Patchel, Thomas T. (See Jones and Patchel.)
 Patek, Charles H. (See Brown and Patek.)
 Paterson, Charles D., Worcester, Mass. Damper-operating device. No. 1,078,747; Nov. 18; Gaz. vol. 196; p. 581.
 Patnaude, William E., assignor of one-half to W. C. Coleston, Haverhill, Mass. Water-cooler faucet. No. 1,078,213; Nov. 11; Gaz. vol. 196; p. 365.
 Patnaude, William E., assignor of one-half to W. C. Coleston, Haverhill, Mass. Water-cooler. No. 1,078,214; Nov. 11; Gaz. vol. 196; p. 366.
 Patrick, James H., Pony, assignor of one-fourth to J. O. Jordan, Renova, one-fourth to R. G. Hixon, and one-fourth to C. M. Covert, Piedmont, Mont. Stop for ditches. No. 1,077,996; Nov. 11; Gaz. vol. 196; p. 200.
 Patten, Elmer E., assignor to St. Louis Cash Register Company, St. Louis, Mo. Cash-register. No. 1,079,360; Nov. 25; Gaz. vol. 196; p. 822.
 Patterson, Clarence G., Berkeley, Cal., assignor to The Butters Patent Vacuum Filter Company, Inc. Vacuum and water connections. No. 1,078,552; Nov. 11; Gaz. vol. 196; p. 482.
 Patterson, George, Manchester, N. H., assignor to Draper Company, Hopedale, Mass. Warp-stop-motion attachment. No. 1,078,215; Nov. 11; Gaz. vol. 196; p. 366.
 Patterson, James W., Bronxville, assignor to Auto-Sales Gum and Chocolate Company, New York, N. Y. Vending-machine. No. 1,078,372; Nov. 11; Gaz. vol. 196; p. 422.
 Paul, John T. H., assignor to E. Goldman & Co., Inc., Chicago, Ill. Bottle-washing machine. No. 1,077,636; Nov. 4; Gaz. vol. 196; p. 136.
 Pauly, Karl A., Schenectady, N. Y., assignor to General Electric Company. Induction-motor. (Reissue.) No. 1,078,633; Nov. 4; Gaz. vol. 196; p. 250.
 Pavelka, Joseph, St. Louis, Mo. Grinding-machine. No. 1,078,949; Nov. 18; Gaz. vol. 196; p. 650.
 Payne, Charles W. (See Wade, Edwin T., assignor.)
 Pearl, Eugene. (See Boswell and Pearl.)
 Pearlman, Solomon. (See Armstrong, Thomas H., assignor.)
 Pearson, Edward J., Austin, Ark. Fertilizer-distributor. No. 1,079,509; Nov. 25; Gaz. vol. 196; p. 874.
 Pearson, Henry, Springfield, Mass. Railway-car. No. 1,078,373; Nov. 11; Gaz. vol. 196; p. 422.
 Pearson, Morris A., assignor to The Turner Vaughn & Taylor Company, Cuyahoga Falls, Ohio. Adjusting means for pressure-rolls. No. 1,079,876; Nov. 25; Gaz. vol. 196; p. 1003.
 Pease, Charles H. (See Richards, Sierra L., assignor.)
 Peck, Cald H., Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Fluid-pressure-operated tool. No. 1,079,662; Nov. 25; Gaz. vol. 196; p. 927.
 Peck, Frank, assignor to The Hobart M. Cable Company, Laporte, Ind. Piano-action. No. 1,079,435; Nov. 25; Gaz. vol. 196; p. 848.
 Peerless Husker Company. (See Zimmerman and Sells, assignors.)
 Peine, Adolphus G., assignor to Alfred Decker & Cohn, Chicago, Ill. Waistband for garments. No. 1,078,950; Nov. 18; Gaz. vol. 196; p. 651.
 Penn, Joseph R., Duncanville, Tex. Cotton-chopper machine. No. 1,079,577; Nov. 25; Gaz. vol. 196; p. 898.
 Pennebaker, George W., Albany, Oreg. Display device. No. 1,077,855; Nov. 4; Gaz. vol. 196; p. 209.
 Pennsylvania Steel Company, The. (See Cuenot, Paul A., assignor.)
 Penrose, Edward R., Logansport, Ind., assignor to Buda Company, Chicago, Ill. Lifting-jack. No. 1,078,374; Nov. 11; Gaz. vol. 196; p. 423.
 Perfection Gas Regulator Company. (See Ricketts, James B., assignor.)
 Perfection Spring Company, The. (See Maranville, Harvey F., assignor.)
 Perkins, Edward P., Woodchester, England. Box or receptacle for containing small articles. No. 1,079,141; Nov. 18; Gaz. vol. 196; p. 720.
 Perkins, Frank G., deceased, Lansdale, Pa.; G. S. Perkins, executrix, South Bend, Ind., assignor to Perkins Glue Company. Vegetable glue. No. 1,078,691; Nov. 18; Gaz. vol. 196; p. 562.
 Perkins, Frank G., deceased, Lansdale, Pa.; G. S. Perkins, executrix, South Bend, Ind., assignor to Perkins Glue Company. Making glue. No. 1,078,692; Nov. 18; Gaz. vol. 196; p. 562.

Perkins, Gertrude S., executrix. (See Perkins, Frank G.)
 Perkins Glue Company. (See Perkins, Frank G., assignor.)
 Perkins, Julian L., assignor, by mesne assignments, to F. E. Muzzy, Springfield, Mass. Pressure-regulating means. No. 1,079,904; Nov. 25; Gaz. vol. 196; p. 1013.
 Perrine, William E., assignor of one-third to C. G. Cleveland, and one-third to R. W. Farr, Cleveland Heights, Ohio. Vehicle-check. No. 1,079,020; Nov. 18; Gaz. vol. 196; p. 678.
 Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-sewing machine. No. 1,079,436; Nov. 25; Gaz. vol. 196; p. 848.
 Perry, Samuel C., London, Ky. Railway-switch. No. 1,077,427; Nov. 4; Gaz. vol. 196; p. 66.
 Person, William M., Sparrows Point, Md. Coke-oven. No. 1,079,062; Nov. 18; Gaz. vol. 196; p. 692.
 Peter, John J., assignor to P. Barnes, Seattle, Wash. Clutch-operating mechanism. No. 1,079,063; Nov. 18; Gaz. vol. 196; p. 693.
 Peterman, Mahlon L., Millside, British Columbia, Canada. Lath-bolter. No. 1,077,551; Nov. 4; Gaz. vol. 196; p. 109.
 Peters, Gustav, Hoboken, N. J. Making bakers' products. No. 1,077,552; Nov. 4; Gaz. vol. 196; p. 109.
 Peters, Theodore, Ferdinand, Ind. Air lift-pump. No. 1,077,997; Nov. 11; Gaz. vol. 196; p. 291.
 Peters, W. Ernest, Denver, Colo. Eye-cup. No. 1,079,064; Nov. 18; Gaz. vol. 196; p. 693.
 Petersen, Charles, San Francisco, Cal. Adjustable double-tree. No. 1,079,021; Nov. 18; Gaz. vol. 196; p. 678.
 Petersen, Johannes M., Clinton, Iowa. Drain-head. No. 1,079,262; Nov. 18; Gaz. vol. 196; p. 758.
 Petersen, Rosa, et al. (See Gould, Fred L., assignor.)
 Peterson, Adolphe C., Minneapolis, Minn. Internal-combustion engine. No. 1,079,578; Nov. 25; Gaz. vol. 196; p. 899.
 Peterson, Burt A., Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill. Bobbin-magazine for dollers. No. 1,078,553; Nov. 11; Gaz. vol. 196; p. 482.
 Peterson, Emanuel, Wakefield, Mass. Sostenuto device for pianos. No. 1,077,428; Nov. 4; Gaz. vol. 196; p. 66.
 Peterson, Johann G., Hartford, Conn. Snap-switch. No. 1,077,746; Nov. 4; Gaz. vol. 196; p. 173.
 Petesch, Charles N., Chicago, Ill. Horse-power recorder. No. 1,077,637; Nov. 4; Gaz. vol. 196; p. 136.
 Petroff, Grigorii, Novo Gireevo, Russia. Hydrolyzing fats and fatty oils into glycerin and fatty acids. No. 1,079,437; Nov. 25; Gaz. vol. 196; p. 848.
 Petsche, August C., Yonkers, N. Y. Filling-cabinet. No. 1,077,638; Nov. 4; Gaz. vol. 196; p. 137.
 Pfager, Harry M., St. Louis, Mo. Locomotive-tender frame. No. 1,078,638; Nov. 18; Gaz. vol. 196; p. 543.
 Pfelder, Eugene C., West Orange, N. J. Motor-cycle engine-support. No. 1,078,308; Nov. 11; Gaz. vol. 196; p. 400.
 Philadelphia Drying Machinery Company, The. (See Allison, Thomas, assignor.)
 Philbrook, Horace W., et al., administrators. (See Gow, John.)
 Phillips, John F., et al. (See Martin, William A., assignor.)
 Phillips, Mark J., Webster, S. D. Road-grader. No. 1,079,579; Nov. 25; Gaz. vol. 196; p. 899.
 Phillips, Otis B., Carbondale, Ill. Coin-controlled machine. No. 1,077,747; Nov. 4; Gaz. vol. 196; p. 173.
 Phillips, Thomas H., Jr., New York, N. Y. Automatic reversing mechanism. No. 1,077,748; Nov. 4; Gaz. vol. 196; p. 174.
 Picot, Germain F., Paris, France. Safety device for gas-supply apparatus. No. 1,078,163; Nov. 11; Gaz. vol. 196; p. 348.
 Pierce-Arrow Motor Car Company, The. (See Fergusson and Way, assignors.)
 Pierce, Charles S., Brockton, Mass. Shoe-form. No. 1,078,554; Nov. 11; Gaz. vol. 196; p. 482.
 Pierce, Robert C., assignor to The Toledo Electric Welder Company, Cincinnati, Ohio. Work-table for electric welding-machines. No. 1,078,639; Nov. 18; Gaz. vol. 196; p. 544.
 Piercy, Edgar E., administrator. (See Piercy, John H.)
 Piercy, John H., deceased; E. E. Piercy, administrator, Highlandtown, Md. Loading device. No. 1,079,718; Nov. 25; Gaz. vol. 196; p. 946.
 Pierpont, Frank H., Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Typographic composing-machine. No. 1,079,361; Nov. 25; Gaz. vol. 196; p. 823.
 Pile, Arla A., Chattanooga, Okla. Automatic weighing device. No. 1,079,877; Nov. 25; Gaz. vol. 196; p. 1003.
 Pilston, John I., Wyandotte, Mich. Pipe-peening machine. No. 1,079,065; Nov. 18; Gaz. vol. 196; p. 693.
 Pincus, William, Kalpmet, Pa. Life-saving apparatus. No. 1,078,640; Nov. 18; Gaz. vol. 196; p. 544.
 Pioneer Implement Company. (See Davis and Ford, assignors.)
 Pitschman, Joseph H., Fresno, Cal. Strainer. No. 1,078,459; Nov. 11; Gaz. vol. 196; p. 452.
 Pitt, William P., Independence, assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo. Loose-leaf binder. No. 1,077,639; Nov. 4; Gaz. vol. 196; p. 137.
 Pitt, William P., Independence, assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo. Loose-leaf binder. No. 1,077,639; Nov. 4; Gaz. vol. 196; p. 137.
 Pittsburg Meter Company. (See Chrisman, Horace, assignor.)
 Pittsburgh Electrolytic Manufacturing Company. (See Frazier, George W., assignor.) (Reissue.)
 Plastic Metal Company. (See Gleason, Edward D., assignor.)
 Platt, Clarence D., Bridgeport, Conn. Lock attachment for snap-switches. No. 1,078,693; Nov. 18; Gaz. vol. 196; p. 563.
 Platt, Wilber O., and J. Reid, assignors to Joseph Reid Gas Engine Company, Oil City, Pa. Vaporizer and igniter for internal-combustion engines. No. 1,079,878; Nov. 25; Gaz. vol. 196; p. 1003.
 Pleister, Henry W. (See Upson and Pleister.)
 Plony, John, Syracuse, N. Y. Liquid-cooler. No. 1,077,368; Nov. 4; Gaz. vol. 196; p. 44.
 Plotke, Max, Chicago, Ill. Belt or buckle support. No. 1,079,510; Nov. 25; Gaz. vol. 196; p. 874.
 Plucker, Jacob J., assignor of one-half to O. Rambo, Philadelphia, Pa. Heater. No. 1,079,511; Nov. 25; Gaz. vol. 196; p. 875.
 Plumb, Albert M., Platteville, Wis. Ore-separator. No. 1,079,362; Nov. 25; Gaz. vol. 196; p. 823.
 Pneumatic Scale Corporation et al. (See Field, Samuel B., assignor.)
 Ponge, James H., Chicago, Ill. Propelling engine or motor. No. 1,078,748; Nov. 18; Gaz. vol. 196; p. 582.
 Pochin, Harold N. (See Jackson and Pochin.)
 Podolsky, Heinrich, San Francisco, Cal. Aeroplane. No. 1,077,892; Nov. 4; Gaz. vol. 196; p. 223.
 Polak, Joseph, New York, N. Y. Electric water-heater. No. 1,079,185; Nov. 18; Gaz. vol. 196; p. 735.
 Pole, Joseph C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Co., Hoboken, N. J. Mercury-vapor apparatus. No. 1,078,641; Nov. 18; Gaz. vol. 196; p. 544.
 Polacek, Emil, Florence, Italy. Production of weather-proof carbonaceous fuel of permanent shape and for rendering innocuous the sulfur contained in the coal. No. 1,079,442; Nov. 18; Gaz. vol. 196; p. 720.
 Pollen, Arthur H., London, and H. Isherwood, York, England. Naval fire-control apparatus. No. 1,077,965; Nov. 4; Gaz. vol. 196; p. 249.
 Pollock, Montague, New York, N. Y. Capsule for medicine. No. 1,079,438; Nov. 25; Gaz. vol. 196; p. 849.
 Polo, Joseph B., Clear Lake, S. D. Alarm for pneumatic tires. No. 1,078,061; Nov. 11; Gaz. vol. 196; p. 313.
 Ponder, George I., Jarrell, Tex. Safety appliance for railways. No. 1,079,263; Nov. 18; Gaz. vol. 196; p. 759.
 Pongratz, Frank, Warrens, Wis. Railway-tie and fastener. No. 1,078,642; Nov. 18; Gaz. vol. 196; p. 544.
 Pool, Jesse E., Wetumka, Okla. Drilling-machine attachment. No. 1,079,143; Nov. 18; Gaz. vol. 196; p. 720.
 Poortinga, Eelke, Raymond, Minn. Mortising-tool. No. 1,079,719; Nov. 25; Gaz. vol. 196; p. 947.
 Pope, Toombs O., Columbus, Ga., assignor to Draper Company, Hopedale, Mass. Shuttle-guard for looms. No. 1,077,553; Nov. 4; Gaz. vol. 196; p. 110.
 Porcupine Water Heating Company, The. (See Jones, Joseph F., assignor.)
 Porteous, Samuel W., Reno, Nev. Advertising-kiosk. No. 1,079,879; Nov. 25; Gaz. vol. 196; p. 1004.
 Porter, John W., Ferguson, assignor of one-fourth to H. W. Hamilton and one-half to F. C. Bretsynder, St. Louis, Mo. Hydrocarbon-burner. No. 1,078,593; Nov. 11; Gaz. vol. 196; p. 496.
 Porter, Marion L., Silverton, Colo. Mineral separator. No. 1,077,297; Nov. 4; Gaz. vol. 196; p. 18.
 Porter, Ralph E., Parker, Ind. Farm-gate. No. 1,078,375; Nov. 11; Gaz. vol. 196; p. 423.
 Porter, Willard E., Lynn, Mass., assignor to General Electric Company. Maximum-demand electric meter. No. 1,077,749; Nov. 4; Gaz. vol. 196; p. 174.
 Poss, Tony, Aurora, Ill. Vehicle-wheel. No. 1,078,164; Nov. 11; Gaz. vol. 196; p. 348.
 Possons, Minard A., Cleveland, Ohio. Automatic stop mechanism for gramophones. No. 1,078,460; Nov. 11; Gaz. vol. 196; p. 452.
 Post, Ernest K. (See Garber, Amos R., assignor.)
 Post, Ernest S. (See Kreiter, Post, Roco, and Layne.)
 Postalgraph Company, The. (See Hay, Walter, assignor.)
 Potter, Ford B., Tampico, Ill. Silo. No. 1,078,874; Nov. 18; Gaz. vol. 196; p. 827.
 Potter, Harry J., Seattle, Wash., assignor to Dennison Manufacturing Company, Boston, Mass. Marking device. No. 1,079,928; Nov. 25; Gaz. vol. 196; p. 1022.
 Potter, Winfield S., New York, N. Y. Forming machined shapes of manganese steel. No. 1,079,439; Nov. 25; Gaz. vol. 196; p. 849.
 Potwin, William S. (See Staunton, Gray, assignor.)
 Poulson, Andrew, Farnworth, Widnes, England. Treatment or renovation of foundry-sand. No. 1,078,062; Nov. 11; Gaz. vol. 196; p. 314.
 Power Washing Machine Co. (See Altorfer, Alpheus W., assignor.)
 Powers, Edmund B., New York, N. Y., assignor to Empire Railway Appliance Corporation. Anticreeping device for railway-rails. No. 1,078,951; Nov. 18; Gaz. vol. 196; p. 651.

Powers, James, Newark, N. J. Apparatus for making and vending sanitary cups. No. 1,077,298; Nov. 4; Gaz. vol. 196; p. 19.
 Prather, Frank M., Los Angeles, Cal. Spring-felly. No. 1,079,925; Nov. 25; Gaz. vol. 196; p. 1021.
 Pratt, Edward W., Chicago, Ill., assignor to himself, and M. O'Connor, Missouri Valley, Iowa, trustees. Steam-boiler. No. 1,078,210; Nov. 11; Gaz. vol. 196; p. 366.
 Pratt, William H., Lynn, Mass., assignor to General Electric Company. Electrical measuring instrument. No. 1,077,429; Nov. 4; Gaz. vol. 196; p. 67.
 Preissler, Otto, Grossauheim, near Hanau, and A. Fritz, Darmstadt, Germany. Cigar-machine. No. 1,079,581; Nov. 25; Gaz. vol. 196; p. 900.
 Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Hammer-drill. No. 1,078,952; Nov. 18; Gaz. vol. 196; p. 652.
 Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Hammer-drill. No. 1,078,953; Nov. 18; Gaz. vol. 196; p. 652.
 Premont, Alphonse U., Springfield, Mass. Wind-shield for automobiles. No. 1,078,376; Nov. 11; Gaz. vol. 197; p. 424.
 Pressed Steel Car Company. (See Lockwood, Burns D., assignor.)
 Pressey, Burt J., Newport News, Va. Aeroplane. No. 1,077,750; Nov. 4; Gaz. vol. 196; p. 175.
 Preston, Edward E., Leicester, England. Circular-knitting machine. No. 1,079,144; Nov. 18; Gaz. vol. 196; p. 720.
 Prihnow, Albert F., Meilen, Wis. Electric-incandescent-lamp carrier. No. 1,077,751; Nov. 4; Gaz. vol. 196; p. 175.
 Prihnow, John F., Meilen, Wis. Swage-shaper. No. 1,078,377; Nov. 11; Gaz. vol. 196; p. 424.
 Price, Charles W., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door hanger. No. 1,078,954; Nov. 18; Gaz. vol. 196; p. 652.
 Price, Ernest W. (See Langley and Price.)
 Price, James. (See Roy and Hindley, assignors.)
 Price, Mitchell D., Miami, Fla. Wheel. No. 1,078,461; Nov. 11; Gaz. vol. 196; p. 452.
 Price, William, and H. E. Sheridan, Scranton, Pa. Lock-switch. No. 1,077,554; Nov. 4; Gaz. vol. 196; p. 110.
 Price, William J., assignor of one-half to O. Reinhardt, Birmingham, Ala. Brake. No. 1,079,264; Nov. 18; Gaz. vol. 196; p. 759.
 Prickett, Walter S. (See Angood, Ney, assignor.)
 Pride, William L., and H. O. Schroeter, Pawtucket, R. I. Nut-lock. No. 1,079,880; Nov. 25; Gaz. vol. 196; p. 1004.
 Priebe, Herman C., Chicago, Ill. Hopper-car. No. 1,077,299; Nov. 4; Gaz. vol. 196; p. 19.
 Priestler, Charles. (See Roemer and Priestler.)
 Printers Specialties Company. (See McGinty, Bernard, assignor.)
 Priset, Clarence J., Wellsboro, Pa. Potato-dropper. No. 1,078,165; Nov. 11; Gaz. vol. 196; p. 348.
 Pritchard, William C., assignor to National Store Specialty Company, Lancaster, Pa. Register. No. 1,078,166; Nov. 11; Gaz. vol. 196; p. 349.
 Pritchett, Ponder L., Fort Worth, Tex. Cord-adjuster for electric lights. No. 1,079,720; Nov. 25; Gaz. vol. 196; p. 947.
 Protective Signal Manufacturing Company, The. (See Alexander, William W., assignor.)
 Pruett, Haskell, Reed, Okla. Cotton-chopper. No. 1,078,749; Nov. 18; Gaz. vol. 196; p. 582.
 Prugh, Walter B., Sinking, Mo., assignor to P. Gravert, Benson, Nebr. Rolling-drum plow. No. 1,079,920; Nov. 25; Gaz. vol. 196; p. 1019.
 Puckett, Thomas G. (See Isaacs, William R., assignor.)
 Pulliam, James E., Port Washington, N. Y. Corn-protector. No. 1,079,317; Nov. 18; Gaz. vol. 196; p. 777.
 Pullman Motor Car Company. (See Baum, Henry G., assignor.)
 Pungs, William A., Detroit, Mich. Sprayer. No. 1,079,721; Nov. 25; Gaz. vol. 196; p. 948.
 Puritan Comb Company. (See Hines and Hicks, assignors.)
 Purkey, Carl W., Detroit, Mich. Drafting-table. No. 1,077,998; Nov. 11; Gaz. vol. 196; p. 291.
 Pyle, Adrian R., Dobbs Ferry, N. Y. Gas-cock. No. 1,078,875; Nov. 18; Gaz. vol. 196; p. 627.
 Querns Bros. (See Querns, Harry G. G., assignor.)
 Querns, Harry G. G., assignor to Querns Bros., Philadelphia, Pa. Lady's underwear. No. 1,078,217; Nov. 11; Gaz. vol. 196; p. 367.
 Quick, Napoleon B., Glen Spey, N. Y. Horseshoe. No. 1,079,512; Nov. 25; Gaz. vol. 196; p. 875.
 Quigley, Daniel T., North Platte, Nebr. Rectum-bottle. No. 1,077,490; Nov. 4; Gaz. vol. 196; p. 69.
 Quinn, John A. (See Smith, John T., assignor.)
 Quintus, Charles, Garner, Iowa. Metallic wheel-tire. No. 1,078,876; Nov. 18; Gaz. vol. 196; p. 627.
 R. Hoe and Co. (See Sheldon, Edward P., assignor.)
 Raffensdorfer, Friedrich, Grünberg, Silesia, assignor to H. C. Sommer Nachfolger, Düsseldorf, Germany. Blow-off valve for steam-heated apparatus and the like. No. 1,079,063; Nov. 25; Gaz. vol. 196; p. 627.
 Rafferty, Solomon M., assignor to National Spring and Wire Company, Albion, Mich. Spring construction. No. 1,079,664; Nov. 25; Gaz. vol. 196; p. 928.
 Railway and Stationary Refrigerating Company. (See Palmer, Cassius C., assignor.)

Railway and Stationary Refrigerating Company. (See Starr, John E., assignor.)
 Rakowski, Wladislaw, Davis, W. Va. Non-refillable bottle. No. 1,077,916; Nov. 4; Gaz. vol. 196; p. 231.
 Ralston, Howard H., Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 1,078,877; Nov. 18; Gaz. vol. 196; p. 627.
 Rambo, Ormond. (See Plucker, Jacob J., assignor.)
 Ramsay, Allan. (See Jackson, Thomas, assignor.)
 Ramsey, Lee, Columbus, Tex. Water-heater. No. 1,078,064; Nov. 18; Gaz. vol. 196; p. 563.
 Rancourt, Joseph St. Benoit, Quebec, Canada. Thegnostatic fire-alarm. No. 1,078,063; Nov. 11; Gaz. vol. 196; p. 314.
 Rand, Ed, Charleston, W. Va. Well-drilling machine. No. 1,078,064; Nov. 11; Gaz. vol. 196; p. 314.
 Rand, James H., Newton, Mass. Buffer for swinging indicator-frames. No. 1,077,555; Nov. 4; Gaz. vol. 196; p. 110.
 Randall, Marion I., Oakland, Cal. Fruit-picker. No. 1,077,640; Nov. 4; Gaz. vol. 196; p. 137.
 Randolph, Joseph S., Glencoe, Ohio. Trolley-wheel. No. 1,078,643; Nov. 18; Gaz. vol. 196; p. 545.
 Randolph, Lewis H., Bandana, Ky. Rope-terminal. No. 1,079,363; Nov. 25; Gaz. vol. 196; p. 824.
 Raphael, Albert, New York, N. Y. Rocker for baby-carriages. No. 1,079,265; Nov. 18; Gaz. vol. 196; p. 759.
 Rapson, Frederick W., Bad Axe, Mich. Measuring-wheel. No. 1,078,402; Nov. 11; Gaz. vol. 196; p. 453.
 Ratten, Battu Smoot Company. (See Smoot, Charles H., assignor.)
 Rath, Ernst J. (See Laska and Rath.)
 Rathbun, Edward, Toledo, Ohio. Engine. No. 1,079,440; Nov. 25; Gaz. vol. 196; p. 849.
 Rawson, Grant L., St. Louis, Mo. Mine-shot-firing system. No. 1,078,463; Nov. 11; Gaz. vol. 196; p. 453.
 Ray, Ebenezer R., Placerville, Cal. Pneumatic feed and return rock-drill. No. 1,077,856; Nov. 4; Gaz. vol. 196; p. 210.
 Ray, Loyd W., Fairview, Okla. Convertible car-body. No. 1,079,722; Nov. 25; Gaz. vol. 196; p. 948.
 Ray, Madison B., and E. K. Henderson, Nederland, Colo. Resilient wheel. No. 1,077,430; Nov. 4; Gaz. vol. 196; p. 67.
 Ray, Thomas H., Dorchester, Mass. Ice-making machine. No. 1,077,916; Nov. 4; Gaz. vol. 196; p. 231.
 Raymond, Albert. (See Raymond, Alfred and A.)
 Raymond, Alfred and A., Washington, D. C. Inner tubes for pneumatic tires. No. 1,078,515; Nov. 11; Gaz. vol. 196; p. 470.
 Raymond, Alfred and A., Washington, D. C. Manufacturing multiple-chamber inner tubes for pneumatic tires. No. 1,079,186; Nov. 18; Gaz. vol. 196; p. 735.
 Reagles, Samuel E., Baraboo, Wis. Rope-coupling. No. 1,079,881; Nov. 25; Gaz. vol. 196; p. 1004.
 Rearick, Charles B., assignor to Connecticut Turbine Manufacturing Company, New London, Conn. Axial-flow steam-turbine. No. 1,077,300; Nov. 4; Gaz. vol. 196; p. 20.
 Reaser, Charles D. (See Stevens, Ward R., assignor.)
 Reehultz, Otto, Cottbus, Germany. Carrier for plaster-work. No. 1,078,464; Nov. 11; Gaz. vol. 196; p. 453.
 Reddick, Eugene, and J. P. Noel, Hackensack, N. J. Trolley. No. 1,078,218; Nov. 11; Gaz. vol. 196; p. 367.
 Reece Button Hole Machine Company, The. (See Hagelstein, Christian H., assignor.)
 Reed, Charles E., assignor to Charles E. Reed & Company, Chicago, Ill. Pattern-grading machine. No. 1,079,022; Nov. 18; Gaz. vol. 196; p. 678.
 Reed, John C., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Mold-former. No. 1,078,108; Nov. 11; Gaz. vol. 196; p. 329.
 Rees, Forrest P., Huntington, Ind. Measuring-cabinet. No. 1,077,999; Nov. 11; Gaz. vol. 196; p. 292.
 Reese, Joseph W., Salt Lake City, Utah. Clamping device. No. 1,078,378; Nov. 11; Gaz. vol. 196; p. 424.
 Regar Company, The. (See Regar, Joseph, assignor.)
 Regar, Joseph, assignor to The Regar Company, Cleveland, Ohio. Faucet attachment. No. 1,078,379; Nov. 11; Gaz. vol. 196; p. 425.
 Reher, August H., Norwood, Ohio. Multiple-spindle drill-head. No. 1,079,023; Nov. 18; Gaz. vol. 196; p. 679.
 Reid, John. (See Platt and Reid.)
 Reilly, Michael E., New Hampton, Iowa. Seed-rack. No. 1,079,513; Nov. 25; Gaz. vol. 196; p. 875.
 Reinhardt, John, Early, Iowa. Rail-joint. No. 1,078,750; Nov. 18; Gaz. vol. 196; p. 583.
 Reinhardt, Oscar. (See Price, William J., assignor.)
 Reis & Handels-Aktiengesellschaft. (See Schwarting, August C., assignor.)
 Remington Typewriter Company. (See Selb, George A., assignor.)
 Renner, Charles W., Altoona, Pa. Car-roof construction. No. 1,079,800; Nov. 25; Gaz. vol. 196; p. 978.
 Rennie, Robert. (See Stafford and Rennie.)
 Rennie, Robert, Scotia, N. Y., and H. R. Stafford, Plainfield, N. J. Drifting-valve for locomotives. No. 1,079,514; Nov. 25; Gaz. vol. 196; p. 875.
 Resch, Henry. (See Degener and Resch.)
 Reslar, Daniel M., and F. Butler, Mount Vernon, Ohio. Capping-tool. No. 1,077,801; Nov. 4; Gaz. vol. 196; p. 20.
 Reuter, Baptist. (See Ehrlich and Reuter.)

Reynolds, Chauncey W., Colorado City, Colo. Fly-trap. No. 1,078,465; Nov. 11; Gaz. vol. 196; p. 453.
 Reynolds, John R., assignor to The Smyth Manufacturing Company, Hartford, Conn. Needle. No. 1,078,955; Nov. 18; Gaz. vol. 196; p. 652.
 Reynolds, Morley P., assignor to The W. S. Tyler Company, Cleveland, Ohio. Forming woven-wire fabrics. No. 1,078,380; Nov. 11; Gaz. vol. 196; p. 425.
 Reynolds, Richard W., Kittanning, Pa. Door-mat. No. 1,077,302; Nov. 4; Gaz. vol. 196; p. 21.
 Reynolds, Vestal, Marion, Ind. Retainer for overshoes and rubbers. No. 1,078,109; Nov. 11; Gaz. vol. 196; p. 330.
 Rheinische Metallwaren- und Maschinenfabrik. (See Müller, Emil, assignor.)
 Rice, Merritt H., New Rochelle, assignor to National Electric Utilities Corporation, New York, N. Y. Electric soldering-iron. No. 1,079,066; Nov. 18; Gaz. vol. 196; p. 694.
 Richard, Thomas, Montreal, Quebec, assignor of one-half to A. Boileau, St. Raphael, Ile Bizard, Quebec, Canada. Saw-feeding mechanism. No. 1,079,145; Nov. 18; Gaz. vol. 196; p. 721.
 Richards, Sierra L., assignor, by mesne assignments, to C. H. Pease, Baltimore, Md. Combined broiler and oven. No. 1,077,556; Nov. 4; Gaz. vol. 196; p. 110.
 Richardson, Austin E., West Palm Beach Fla. Irrigator and sprinkler. No. 1,077,431; Nov. 4; Gaz. vol. 196; p. 67.
 Richey, Kliss, McKees Rocks, Pa. Bed-spring. No. 1,078,516; Nov. 11; Gaz. vol. 196; p. 470.
 Richmond Cedar Works. (See Parrish, James S., assignor.)
 Richter, Alfred. (See Bock, Emil H., assignor.)
 Richter, Emanuel, Chicago, Ill. Coin-actuated mechanism. No. 1,078,381; Nov. 11; Gaz. vol. 196; p. 426.
 Richter, Emanuel, Chicago, Ill. Coin-actuated mechanism. No. 1,078,382; Nov. 11; Gaz. vol. 196; p. 426.
 Ricketts, James R., assignor to Perfection Gas Regulator Company, Los Angeles, Cal. Gas-regulator. No. 1,079,146; Nov. 18; Gaz. vol. 196; p. 721.
 Rickards, Samuel B., Seymour, Iowa. Grave-marker. No. 1,079,147; Nov. 18; Gaz. vol. 196; p. 722.
 Riddle, John S. (See Mershon and Riddle.)
 Ridley, Thomas W., Middlebrough, England. Concrete pile. No. 1,078,000; Nov. 11; Gaz. vol. 196; p. 292.
 Riebe, Paul, Chicago, Ill. Adjustable guide-plate guard. No. 1,077,432; Nov. 4; Gaz. vol. 196; p. 68.
 Riedel Aktiengesellschaft, J. D. (See Houben, Josef, assignor.)
 Rlenhart, William E. (See Huckle and Rlenhart.)
 Rlenka, Gustaaf A., Freeport, Ill. Wrench. No. 1,077,303; Nov. 4; Gaz. vol. 196; p. 21.
 Rigdon, Thomas S., Ashland, La. Churn. No. 1,079,723; Nov. 25; Gaz. vol. 196; p. 949.
 Riggs, Elzy, Monongalia county, W. Va. Wagon-tongue. No. 1,078,956; Nov. 18; Gaz. vol. 196; p. 652.
 Rinaldo, David, San Jose, Cal. Clamp-ring for hose-couplings. No. 1,078,957; Nov. 18; Gaz. vol. 196; p. 653.
 Ritchey, Roy R., Wickenburg, Ariz. Water-cooling refrigerator. No. 1,077,557; Nov. 4; Gaz. vol. 196; p. 111.
 Ritter, Jacob, New York, N. Y. Inlay for bag-frames. No. 1,078,383; Nov. 11; Gaz. vol. 196; p. 427.
 Roach, Harry F., St. Louis, Mo. Rail-joint. No. 1,078,695; Nov. 18; Gaz. vol. 196; p. 663.
 Roach, William E., San Antonio, Tex. Account-index. No. 1,077,752; Nov. 4; Gaz. vol. 196; p. 175.
 Robert Wetherill & Company. (See Wetherill, Robert, assignor.)
 Robertson, Isalah. (See McMurtrie and Robertson.)
 Roberts, Clara, Newberry, Mich. Incubator-thermometer. No. 1,079,724; Nov. 25; Gaz. vol. 196; p. 949.
 Roberts, Edward E., Hartford, Conn. Fuse. No. 1,077,369; Nov. 4; Gaz. vol. 196; p. 45.
 Roberts, George A., Wollaston, Mass. Package-tier. No. 1,079,882; Nov. 25; Gaz. vol. 196; p. 1004.
 Roberts, Homer J., Evanston, Ill., assignor, by mesne assignments, to Homer Roberts Telephone Co. Switch-board-circuits and apparatus for telephones. No. 1,077,753; Nov. 4; Gaz. vol. 196; p. 175.
 Robertson, George L., assignor of one-half to C. Mitchell, Philadelphia, Pa. Pneumatic hammer. No. 1,078,384; Nov. 11; Gaz. vol. 196; p. 427.
 Robertson, Norman A., New York, N. Y. Bending and drawing sheet metal. No. 1,078,958; Nov. 18; Gaz. vol. 196; p. 653.
 Robertson, Norman A., New York, N. Y. Apparatus for bending and drawing sheet metal. No. 1,078,959; Nov. 18; Gaz. vol. 196; p. 653.
 Robin, René A., Paris, France. Kinetographic apparatus for taking and projecting views by means of photographic plates. No. 1,079,187; Nov. 18; Gaz. vol. 196; p. 736.
 Robinson, Carl I. (See Wilson and Robinson.)
 Robinson, Frank W., assignor to The Nolde & Horst Company, Reading, Pa. Vertical-stripping attachment for circular-knitting machines. No. 1,077,304; Nov. 4; Gaz. vol. 196; p. 21.
 Robinson, Frank W., assignor to The Nolde & Horst Co., Reading, Pa. Stocking. No. 1,077,370; Nov. 4; Gaz. vol. 196; p. 45.
 Robinson, John G., Manchester, England. Steam super-heater for locomotive and other smoke-tube boilers. No. 1,077,641; Nov. 4; Gaz. vol. 196; p. 138.

Robinson, Millard S., Donora, Pa. Clamp. (Reissue.) No. 13,644; Nov. 11; Gaz. vol. 196; p. 501.
 Robinson, Patrick H., assignor to Scovill Manufacturing Company, Waterbury, Conn. Detachable shade-holder for electric lamps. No. 1,078,878; Nov. 18; Gaz. vol. 196; p. 628.
 Robinson, William G., Battle Creek, Mich. Collar-holding device. No. 1,079,024; Nov. 18; Gaz. vol. 196; p. 679.
 Robnett, James H., Albany, Oreg. Projecting-lamp. No. 1,078,167; Nov. 11; Gaz. vol. 196; p. 319.
 Rockhold, Walter R. (See Anderson, Robert D. H., assignor.)
 Rockowitz, Abraham, assignor of one-half to L. Margolis, New York, N. Y. Corset-fastener. No. 1,079,921; Nov. 25; Gaz. vol. 196; p. 1020.
 Rockwell, Walter S., New York, N. Y. Preheater and furnace-shield. No. 1,079,266; Nov. 18; Gaz. vol. 196; p. 759.
 Rockwood Sprinkler Company of Massachusetts. (See Marshall, Stephen M., assignor.)
 Roco, Albert L. (See Kreiter, Post Roco, and Layne.)
 Rodgers, Charles B., and J. A. Brennan, Bordentown, N. J. Trolley-pole retriever. No. 1,077,558; Nov. 4; Gaz. vol. 196; p. 111.
 Roemer, George W., and C. Priester, assignors of one-third to P. Slipchen, Chicago, Ill. Rail-fastening. No. 1,078,555; Nov. 11; Gaz. vol. 196; p. 482.
 Roethlisberger, Albert R., Cleveland, Ohio. Sanitary drinking-fountain. No. 1,079,441; Nov. 25; Gaz. vol. 196; p. 849.
 Rogers, George L., assignor to Henry Dilsdon & Sons File Company, Philadelphia, Pa. Brush. No. 1,078,556; Nov. 11; Gaz. vol. 196; p. 483.
 Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,077,642; Nov. 4; Gaz. vol. 196; p. 138.
 Rogers, Nelson W. (See Hewitt and Rogers.)
 Rogers, Owen A., Berlin, Germany, assignor to Edison Storage Battery Company, West Orange, N. J. Electrical connector and making same. No. 1,078,751; Nov. 18; Gaz. vol. 196; p. 683.
 Rogers, Robert H., Schenectady, N. Y., assignor to General Electric Company. Transfer-terminal. No. 1,077,754; Nov. 4; Gaz. vol. 196; p. 176.
 Rogers, Russell N., assignor, by mesne assignments, to J. B. Hall and J. S. Duncan, Chicago, Ill. Addressing-machine. No. 1,077,755; Nov. 4; Gaz. vol. 196; p. 176.
 Rogers, Winfield S., Bantam, Conn. Hanger-box. No. 1,078,696; Nov. 18; Gaz. vol. 196; p. 664.
 Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Underframe. No. 1,078,309; Nov. 11; Gaz. vol. 196; p. 400.
 Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Underframe. No. 1,078,310; Nov. 11; Gaz. vol. 196; p. 401.
 Ronchetti, Joseph A., Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,077,941; Nov. 4; Gaz. vol. 196; p. 241.
 Rondeau, René, assignor to Société Fermière de l'Automatique Ducasable, Paris, France. Pneumatic tire. No. 1,079,515; Nov. 25; Gaz. vol. 196; p. 876.
 Rooney, Amelia L., Pittsburgh, Pa. Shoe-polishing box. No. 1,079,606; Nov. 25; Gaz. vol. 196; p. 909.
 Roop, Joseph, Frankfort, Ind. Tie-strap. No. 1,077,559; Nov. 4; Gaz. vol. 196; p. 111.
 Root, Percy H., Plymouth, Ohio. Grinding-machine. No. 1,077,308; Nov. 4; Gaz. vol. 196; p. 22.
 Root, Ralph R., assignor to The Adams-Bagnall Electric Company, Cleveland, Ohio. Electric horn. No. 1,077,307; Nov. 4; Gaz. vol. 196; p. 22.
 Rose, Alfred H. (See Levi and Rose.)
 Rose, Arthur, Newark, N. J. Self-adjusting shade-roller. No. 1,078,466; Nov. 11; Gaz. vol. 196; p. 454.
 Rose, Thomas A. (See Levi and Rose.)
 Roselle, Per A., Racine, Wis. Window-screen. No. 1,077,917; Nov. 4; Gaz. vol. 196; p. 232.
 Rosenbluth, Edwin M., Philadelphia, Pa. Acetylene-gas generator. No. 1,079,665; Nov. 25; Gaz. vol. 196; p. 928.
 Rosenheim, Milton T., Philadelphia, Pa. Luminous switch-key. No. 1,077,305; Nov. 4; Gaz. vol. 196; p. 22.
 Rosenthal, August, West Allis, Wis. Self-feeder. No. 1,078,697; Nov. 18; Gaz. vol. 196; p. 664.
 Rossman, William H., Altoona, Pa. Car-window construction. No. 1,077,857; Nov. 4; Gaz. vol. 196; p. 210.
 Roth, Felix L., New Orleans, La. Running-gear. No. 1,078,960; Nov. 18; Gaz. vol. 196; p. 654.
 Roth, Gilson W., Jackson township, Brown county, assignor to G. H. Evans, Evansville, Ind. Engine-starter. No. 1,077,858; Nov. 4; Gaz. vol. 196; p. 211.
 Roth, Henry J., New York, assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y. Pencilholder. No. 1,079,516; Nov. 25; Gaz. vol. 196; p. 876.
 Roulliot, Victor B. (See Fenger and Roulliot.)
 Roy, Thomas A., Dorchester, and J. H. Hindley, assignors of one-third to J. Price, Malden, Mass. Flexible template. No. 1,078,879; Nov. 18; Gaz. vol. 196; p. 628.
 Royse, Harvey E., Perrysville, Ind. Banana-stand. No. 1,078,804; Nov. 18; Gaz. vol. 196; p. 603.
 Rozelle, Marion E., Chambersburg, Pa. Grinding-mill. No. 1,078,517; Nov. 11; Gaz. vol. 196; p. 470.

Rubin, Louis M., New York, N. Y. Incandescent gas-lamp. No. 1,077,756; Nov. 4; Gaz. vol. 196; p. 177.
 Rudich, Oslas. (See Lanes and Rudich.)
 Ruggles, Frank W., Springfield, assignor of one-half to E. G. Gaylord, Chicopee, Mass. Engine. No. 1,079,364; Nov. 25; Gaz. vol. 196; p. 824.
 Ruhlmann, Theodor, New York, N. Y. Rotary motor. No. 1,078,168; Nov. 11; Gaz. vol. 196; p. 349.
 Rumsey, James W., and W. H. Sheasby, Chicago, Ill. Car-door seal. No. 1,078,557; Nov. 11; Gaz. vol. 196; p. 483.
 Rumsey, James W., and W. H. Sheasby, Chicago, Ill. Car-door frame. No. 1,079,922; Nov. 25; Gaz. vol. 196; p. 1020.
 Rumsey, James W., and W. H. Sheasby, Chicago, Ill. Combined handle and lock for car-doors. No. 1,079,923; Nov. 25; Gaz. vol. 196; p. 1020.
 Rundle, William J. (See Arnsburger, Frederick H., assignor.)
 Rush, Allan C., Los Angeles, Cal. Deep-water bridge-pler and means for and method of constructing the same. No. 1,079,517; Nov. 25; Gaz. vol. 196; p. 876.
 Rushmore, Samuel W., Plainfield, N. J. Electrical engine-starter. No. 1,079,725; Nov. 25; Gaz. vol. 196; p. 949.
 Ruenak, Samuel, Chicago, Ill. Bed fabric. No. 1,078,880; Nov. 18; Gaz. vol. 196; p. 628.
 Russell Manufacturing Company, The. (See Fisher, William C., assignor.)
 Rust, Orion G., Springfield, Ohio. Suspender-end. No. 1,079,726; Nov. 25; Gaz. vol. 196; p. 950.
 Rutledge, Caleb C., Alvord, Tex. Pipe-bending machine. No. 1,079,442; Nov. 25; Gaz. vol. 196; p. 850.
 Ryan, Edward J., Buffalo, N. Y. Display-form. No. 1,077,560; Nov. 4; Gaz. vol. 196; p. 111.
 Ryerson, Daniel, Moline, Ill., assignor to Velle Carriage Company, Axle. No. 1,078,698; Nov. 18; Gaz. vol. 196; p. 565.
 Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Shedding mechanism for looms. No. 1,077,757; Nov. 4; Gaz. vol. 196; p. 177.
 Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Warp stop-motion. No. 1,079,025; Nov. 18; Gaz. vol. 196; p. 680.
 S. F. Bowser & Company. (See Bowser, Allen A., assignor.)
 Sabin-Curtis Machine Company, The. (See Tozer, Archibald B., assignor.)
 Sachsenröder, Gustav, Barmen-Unterbarmen, Germany. Parchment button. No. 1,079,365; Nov. 25; Gaz. vol. 196; p. 825.
 Saehrendt, Paul E., Brooklyn, N. Y. Pocket adding-machine. No. 1,078,385; Nov. 11; Gaz. vol. 196; p. 428.
 Sage, Ralph V., Westmont, Pa. Car-door spreader. No. 1,077,561; Nov. 4; Gaz. vol. 196; p. 112.
 Sage, Ralph V., Westmont, Pa. Dumping-car-door spreader. No. 1,077,562; Nov. 4; Gaz. vol. 196; p. 112.
 Salina, Paul. (See Tosco and Salina.)
 Sally, Frank, Mount Vernon, N. Y., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Type-casting machine. No. 1,079,366; Nov. 25; Gaz. vol. 196; p. 825.
 Salmave, Dewey A., assignor of one-half to A. Wood, Bangor, Mich. Door for silos. No. 1,079,518; Nov. 25; Gaz. vol. 196; p. 877.
 Salonen, Sulo. (See Nordling, Gustaf R., assignor.)
 Salter, Thomas C., San Francisco, Cal. Gage-glass fixture. No. 1,077,758; Nov. 4; Gaz. vol. 196; p. 178.
 Samuel C. Tatum Company, The. (See Dom, Chesley, assignor.)
 Sanders, William A., Rahway, N. J. Fan. No. 1,077,859; Nov. 4; Gaz. vol. 196; p. 211.
 Sandy, Joseph, Minneapolis, Minn. Drifting-valve for locomotives. No. 1,078,065; Nov. 11; Gaz. vol. 196; p. 315.
 Saner, Basil, West New York, N. J. Embroidering-machine. No. 1,078,881; Nov. 18; Gaz. vol. 196; p. 629.
 Sanitary Utilities Company. (See De Forest, Charles, assignor.)
 Sarg, Julius. (See Holtzman, John, assignor.)
 Sargent, Frederick G., Westford, assignor to C. G. Sargent's Sons Corporation, Grantville, Mass. Settling-tank. No. 1,077,308; Nov. 4; Gaz. vol. 196; p. 23.
 Sarrett, William E., and T. A. Bakke, Wallowa, Oreg. Safety-strap. No. 1,079,801; Nov. 25; Gaz. vol. 196; p. 978.
 Saseman, David C., River Forest, assignor to F. H. Smith Manufacturing Company, Chicago, Ill. Magnetic pick-up for riveting-machines. No. 1,079,148; Nov. 18; Gaz. vol. 196; p. 722.
 Satka, John L., Winona, Minn. Combination-plate. No. 1,077,643; Nov. 4; Gaz. vol. 196; p. 139.
 Saunders, Louis F., Knoxville, Tenn. Sliding extensible step. No. 1,077,644; Nov. 4; Gaz. vol. 196; p. 139.
 Sauter, Joseph A., Schwabern, Germany. Rabbit-trap. No. 1,079,666; Nov. 25; Gaz. vol. 196; p. 928.
 Savage, George E., assignor to Manning, Bowman & Company, Meriden, Conn. Apparatus for making tea and other infusions. No. 1,077,491; Nov. 4; Gaz. vol. 196; p. 89.
 Savarese, Aniello, Paris, France. Type-composing machine. No. 1,077,759; Nov. 4; Gaz. vol. 196; p. 178.
 Saver Clutch Co. (See Hewitt and Drake, assignors.)
 Sawyer, Frederic R., et al. (See Dodge, Frank, assignor.)
 Sawyer, Harry, Muskegon, Mich. Freight-handling apparatus. No. 1,079,519; Nov. 25; Gaz. vol. 196; p. 877.

Sayer, John, and G. G. Dent, Flagstaff, Ariz. Vise. No. 1,079,883; Nov. 25; Gaz. vol. 196; p. 1005.
 Sayre, Gordon, assignor to The Apple Electric Company, Dayton, Ohio. Dynamo-electric machine. No. 1,077,942; Nov. 4; Gaz. vol. 196; p. 241.
 Schaaf, Albert E., Poughkeepsie, N. Y., assignor to F. I. A. T. Hood-cornice for automobiles. No. 1,078,961; Nov. 18; Gaz. vol. 196; p. 654.
 Schaffert, Adolf H., et al. (See Landolt, Charles F., assignor.)
 Schahl, Gottlieb F., Mount Pulaski, Ill. Implement-holder. No. 1,078,805; Nov. 18; Gaz. vol. 196; p. 603.
 Schehr, Frederick G., Detroit, Mich. Rotary valve for explosion-engines. No. 1,078,699; Nov. 18; Gaz. vol. 196; p. 565.
 Scheible, Albert, Chicago, Ill. Spring-bed. No. 1,078,806; Nov. 18; Gaz. vol. 196; p. 604.
 Scherleble, Otto, Esslingen, Germany. Bleaching and thickening oils and fats. No. 1,079,727; Nov. 25; Gaz. vol. 196; p. 850.
 Schieler, Harry H., assignor of four-tenths to T. B. Snyder, Meadows, Idaho, and two-tenths to N. H. Hall, St. Louis, Mo. Transmission and steering mechanism for motor-driven vehicles. No. 1,079,607; Nov. 25; Gaz. vol. 196; p. 910.
 Schierer, Edward J. (See Villiger and Schierer.)
 Schirmacher, Karl, and H. Elvert, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Brown azo dyestuffs. No. 1,077,492; Nov. 4; Gaz. vol. 196; p. 90.
 Schlachter, Robert H. (See Elliott, Loeber, and Schlachter.)
 Schleicher, John C., Mount Vernon, N. Y. Airship. No. 1,077,563; Nov. 4; Gaz. vol. 196; p. 113.
 Schliecker, August H. F., Vinita, Okla. Hand-bag and the like. No. 1,079,188; Nov. 18; Gaz. vol. 196; p. 736.
 Schlis, Michael, Bayfield, Wis. Door-fastener. No. 1,077,433; Nov. 4; Gaz. vol. 196; p. 68.
 Schlichtner, Joseph G., Brooklyn, N. Y. Electric fire-alarm system. No. 1,079,667; Nov. 25; Gaz. vol. 196; p. 929.
 Schmeisser, Louis, Erfurt, Germany. Automatic firearm. No. 1,077,760; Nov. 4; Gaz. vol. 196; p. 179.
 Schmeizer, Bernard, Joliet, Ill. Liquid-tapping device. No. 1,077,943; Nov. 4; Gaz. vol. 196; p. 242.
 Schmid, Gustave, Chicago, Ill. Still. No. 1,078,962; Nov. 18; Gaz. vol. 196; p. 654.
 Schmidt, Samuel, Farmersville, Ohio. Elevator for green tobacco. No. 1,079,608; Nov. 25; Gaz. vol. 196; p. 910.
 Schnaler, Milton, New York, N. Y. Hose-rack. No. 1,079,026; Nov. 18; Gaz. vol. 196; p. 680.
 Schneeman, Frederick W., New York, N. Y. Pen and pencil holder. No. 1,078,001; Nov. 11; Gaz. vol. 196; p. 292.
 Schneider, Frederick D., Bedford, Ohio. Heater. No. 1,077,761; Nov. 4; Gaz. vol. 196; p. 179.
 Schnellsetzmaschinen-gesellschaft mit beschränkter Haftung. (See Drewell, Heinrich, assignor.)
 Schodde, George W., assignor to F. J. Meyer, New York, N. Y. Water-escape or scupper. No. 1,078,700; Nov. 18; Gaz. vol. 196; p. 585.
 Schollhorn Company, The. (See Bernard, William A., assignor.)
 Scholz, Paul, Bergen, Norway. Opening device for sheet-metal cans. No. 1,078,311; Nov. 11; Gaz. vol. 196; p. 401.
 Schöndeling, Wilhelm. (See Brunner and Schöndeling.)
 Schoonover, William J., Des Moines, Iowa. Gearing device for washing-machines and wringers. No. 1,079,582; Nov. 25; Gaz. vol. 196; p. 900.
 Schrader, Byron, White Earth, N. D. Wagon-jack. No. 1,078,802; Nov. 25; Gaz. vol. 196; p. 978.
 Schreiber, John, St. Louis, Mo. Carburetor. No. 1,078,169; Nov. 11; Gaz. vol. 196; p. 350.
 Schrey, Frederick, New Rochelle, N. Y. Hinge. No. 1,078,002; Nov. 11; Gaz. vol. 196; p. 292.
 Schroer, Heinrich, Dusseldorf, Germany, assignor to C. Gosswiler, Olten, Switzerland. Liquid for cleaning glass. No. 1,077,860; Nov. 4; Gaz. vol. 196; p. 212.
 Schroeter, George H., St. Louis, Mo. Combined cigar cutter and lighter. No. 1,079,027; Nov. 18; Gaz. vol. 196; p. 681.
 Schroeter, Hugo O. (See Pride and Schroeter.)
 Schruth, Albert. (See Schruth, Edward A., and J.)
 Schruth, Edward A., and J. Peplin, Wis. Neck-yoke. No. 1,077,645; Nov. 4; Gaz. vol. 196; p. 140.
 Schruth, John. (See Schruth, Edward A., and J.)
 Schuetz, Herman C., Newark, N. J., assignor to Chas. Kel-ler & Co., New York, N. Y. Gem-setting. No. 1,079,924; Nov. 25; Gaz. vol. 196; p. 1021.
 Schuey, Claude R., Carterville, Ill. Overshoe holder or clamp. No. 1,079,149; Nov. 18; Gaz. vol. 196; p. 722.
 Schulman, Joseph. (See Schulman, Louis and J.)
 Schulman, Louis and J., New York, N. Y., assignors to The Ensign-Bickford Company, Simsbury, Conn. Machine for making fuses. No. 1,079,387; Nov. 25; Gaz. vol. 196; p. 825.
 Schulte, Louis, assignor to Bennett-O'Connell Co., Chicago, Ill. Electroplating device. No. 1,077,646; Nov. 4; Gaz. vol. 196; p. 140.
 Schulz, Max, Oldenburg, Germany. Temperature-controller. No. 1,078,752; Nov. 18; Gaz. vol. 196; p. 583.

Schuppli, Paul, Grubnerhof, near Admont, Austria-Hungary. Cattle-fastener. No. 1,077,647; Nov. 4; Gaz. vol. 196; p. 140.

Schürmann, Richard, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Sighting device for guns. No. 1,079,884; Nov. 25; Gaz. vol. 196; p. 1005.

Schurr, Cleo F., St. George, Kans. Gate. No. 1,078,003; Nov. 11; Gaz. vol. 196; p. 293.

Schwahn, Heinrich F. D., Belleville, Ill. Preparing aluminum sulfate. No. 1,077,806; Nov. 4; Gaz. vol. 196; p. 23.

Schwartz, August C., assignor to Reis- & Handels-Aktiengesellschaft, Bremen, Germany. Linoleum, linocrusta, or like material. No. 1,079,728; Nov. 25; Gaz. vol. 196; p. 951.

Schwartz, Alfred J. C., Chicago, Ill. Grating device. No. 1,078,558; Nov. 11; Gaz. vol. 196; p. 483.

Schwartz, Morris, assignor of one-half to J. H. Krause, Chicago, Ill. Electric lamp socket. No. 1,079,028; Nov. 18; Gaz. vol. 196; p. 681.

Schwartz, Wilhelm, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse-setting device. No. 1,079,885; Nov. 25; Gaz. vol. 196; p. 1005.

Schwartz, Wilhelm, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse-setting machine. No. 1,079,886; Nov. 25; Gaz. vol. 196; p. 1006.

Schwarzacher, John A., Pocasset, Okla. Draft-equalizer. No. 1,079,887; Nov. 25; Gaz. vol. 196; p. 1007.

Scientific Materials Company. (See Fisher, Edwin H., assignor.)

Scott, David J., et al., executors. (See Scott, David J. and W. C., assignors.)

Scott, David J., et al., executors. (See Scott, Walter.)

Scott, David J. and W. C. Scott, deceased, assignors to I. and D. J. Scott, executors, Plainfield, N. J. Rotary intaglio-printing machine. No. 1,078,219; Nov. 11; Gaz. vol. 196; p. 367.

Scott, George W., Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo. Cast end frame. No. 1,078,312; Nov. 11; Gaz. vol. 196; p. 401.

Scott, Ira I., Kingman, Kans. Tire-shrinker. No. 1,079,803; Nov. 25; Gaz. vol. 196; p. 979.

Scott, Isabella, et al., executors. (See Scott, David J. and W. C., assignors.)

Scott, Isabella, et al., executors. (See Scott, Walter.)

Scott, James A., West Somerville, Mass. Knockdown box. No. 1,079,068; Nov. 25; Gaz. vol. 196; p. 929.

Scott, James H., San Diego, Cal. Ironing-table. No. 1,078,882; Nov. 18; Gaz. vol. 196; p. 629.

Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Stocking or sock and knitting the same. No. 1,079,267; Nov. 18; Gaz. vol. 196; p. 760.

Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Welted garment and making the same. No. 1,079,268; Nov. 18; Gaz. vol. 196; p. 760.

Scott, Thomas S. (See Skinner and Scott.)

Scott, Walter, deceased, Plainfield, N. J.; I. and D. J. Scott, executors. Printing-press. No. 1,079,368; Nov. 25; Gaz. vol. 196; p. 826.

Scott, Walter C. (See Scott, David J. and W. C.)

Scott & Williams. (See Scott, Robert W., assignor.)

Scotten, Samuel C., trustee. (See Clausen and Curtis, assignors.)

Seavill Manufacturing Company. (See Robinson, Patrick H., assignor.)

Seabrook, Frederick W., Fulham, London, England. Lock for vehicle and other lamps. No. 1,078,559; Nov. 11; Gaz. vol. 196; p. 483.

Seagrave, Marshal C., Oakland, Cal. Concentrating-jig. No. 1,079,905; Nov. 25; Gaz. vol. 196; p. 1014.

Sears, Roebuck and Company. (See Zuber, John G., assignor.)

Seaton, Benjamin C., Detroit, Mich. Vehicle-tire. No. 1,077,310; Nov. 4; Gaz. vol. 196; p. 24.

Seck, Heinrich, Dresden, Germany. Conveying apparatus. No. 1,077,918; Nov. 4; Gaz. vol. 196; p. 232.

Seeger, Walter, Nuremberg, Germany. Manufacture of magnetite electrodes. No. 1,079,269; Nov. 18; Gaz. vol. 196; p. 761.

Seegmiller, Charles H., assignor, by mesne assignments, to said Charles H. Seegmiller and F. J. Dennis, Chicago, Ill. Folding box. No. 1,079,583; Nov. 25; Gaz. vol. 196; p. 901.

Selb, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,078,066; Nov. 11; Gaz. vol. 196; p. 315.

Selbert, Arthur D., and E. R. Andrus, Pendleton, Ore. Spring-wheel. No. 1,077,434; Nov. 4; Gaz. vol. 196; p. 68.

Seliger, Edward, Nowila, S. D. Plow. No. 1,078,644; Nov. 18; Gaz. vol. 196; p. 545.

Selden, Arthur E., Rochester, N. Y. Power-transmission mechanism. No. 1,077,871; Nov. 4; Gaz. vol. 196; p. 45.

Sella, Oden S. (See Zimmerman and Sella.)

Seltmann, Walter A., New Rochelle, N. Y. Evaporating apparatus. No. 1,079,669; Nov. 25; Gaz. vol. 196; p. 929.

Semet-Solvay Company. (See Tufts, Charles G., assignor.)

Seneca Camera Manufacturing Company. (See Dorsey, Farnum F., assignor.)

Serpek, Ottokar, assignor to Société Générale des Nitrures, Paris, France. Manufacture of aluminum nitrid. No. 1,078,313; Nov. 11; Gaz. vol. 196; p. 401.

Sessions, Hugh E., Columbia, S. C. Cotton-seed hater. No. 1,077,435; Nov. 4; Gaz. vol. 196; p. 60.

Seymour, George E., New Albany, Ind., assignor to American Car and Foundry Company, St. Louis, Mo. Folding lavatory. No. 1,078,314; Nov. 11; Gaz. vol. 196; p. 401.

Shackleton, Sugden, Malsis Mount, Keighley, England. Doffing mechanism. No. 1,079,270; Nov. 1; Gaz. vol. 196; p. 761.

Shaffer, Fred K., Sedalia, Mo. Clamping device. No. 1,078,087; Nov. 11; Gaz. vol. 196; p. 315.

Shaler, Clarence A., Waupun, Wis. Electrically-heated sad-iron. No. 1,077,372; Nov. 4; Gaz. vol. 196; p. 46.

Shamroy, Nicholas J., New York, N. Y. Roundabout. No. 1,078,645; Nov. 18; Gaz. vol. 196; p. 545.

Shappy, Theophil H., Roanoke, Ill. Wagon-tongue supporter. No. 1,079,189; Nov. 18; Gaz. vol. 196; p. 737.

Sharp, W. N. (See Sheppard, Osborne H., assignor.)

Shaw, Frances D., Chicago, Ill., assignor to Shaw Kiln Company, Atlanta, Ga. Continuous kiln. No. 1,079,443; Nov. 25; Gaz. vol. 196; p. 850.

Shaw, George, Leeds, England. Apparatus for spinning flax, hemp, jute, and other fibers. No. 1,079,888; Nov. 25; Gaz. vol. 196; p. 1007.

Shaw, James, Dauphin, Manitoba, Canada. Rotary engine. No. 1,078,170; Nov. 11; Gaz. vol. 196; p. 350.

Shaw, John N., Seattle, Wash. Coffee-urn. No. 1,078,171; Nov. 11; Gaz. vol. 196; p. 351.

Shaw, Joseph V., Denver, Colo. Sanitary folding cup. No. 1,079,067; Nov. 18; Gaz. vol. 196; p. 694.

Shaw Kiln Company. (See Shaw, Frances D., assignor.)

Shaw-Walker Company, The. (See Wilson, Charles E., assignor.)

Shearer, Harry T., assignor to Landis Tool Company, Waynesboro, Pa. Internal-grinding-wheel bearing. No. 1,078,560; Nov. 11; Gaz. vol. 196; p. 484.

Shearer, Harry T., assignor to Landis Tool Company, Waynesboro, Pa. Work-rest for grinding-machines. No. 1,078,561; Nov. 11; Gaz. vol. 196; p. 484.

Shensby, William H. (See Rumsey and Shensby.)

Sheffer, John W. (See Johnson and Sheffer.)

Sheffield, William M. (See Dickey, Arthur V., assignor.)

Sheldon, Edward P., assignor to R. Hoe and Co., New York, N. Y. Rotary sheet-printing machine. No. 1,078,963; Nov. 18; Gaz. vol. 196; p. 655.

Shelton, Harrison B. (See Shelton, William J., J., and H. B.)

Shelton, Jesse. (See Shelton, William J., J., and H. B.)

Shelton, William J., J., and H. B., Troy, Kans. Wagon-skein. No. 1,078,518; Nov. 11; Gaz. vol. 196; p. 471.

Shepherd Automatic Switch Company. (See Shepherd, Marshall L., assignor.)

Shepherd, Marshall L., assignor to Shepherd Automatic Switch Company, Inc., Montgomery, Ala. Railway-switch mechanism. No. 1,079,889; Nov. 25; Gaz. vol. 196; p. 1007.

Shepherd, Winfred P., assignor to G. D. Parker, Riverside, Cal. Tree-prop. No. 1,078,004; Nov. 11; Gaz. vol. 196; p. 293.

Sheppard, Osborne H., Chicago, Ill. Window-burglar-proofing device. No. 1,079,029; Nov. 18; Gaz. vol. 196; p. 681.

Sheppard, Osborne H., assignor to W. N. Sharp, Chicago, Ill. Broom-prop. No. 1,079,670; Nov. 25; Gaz. vol. 196; p. 930.

Shera, Blanche M. (See Leonard, Emma H., assignor.)

Sheridan, Harry E. (See Price and Sheridan.)

Sherrill, Harry J., Salida, Colo. Propelling mechanism for bicycles and the like. No. 1,079,444; Nov. 25; Gaz. vol. 196; p. 850.

Shields, George F., et al. (See Buttress, George, assignor.)

Shipley, Thomas, York, Pa. Condenser for ice-making and refrigerating machines. No. 1,079,609; Nov. 25; Gaz. vol. 196; p. 911.

Shipley, Thomas, York, Pa. Ice-making and refrigerating machinery. No. 1,079,610; Nov. 25; Gaz. vol. 196; p. 911.

Shirley, William W., New Orleans, La. Wire-bending machine. No. 1,079,890; Nov. 25; Gaz. vol. 196; p. 1008.

Shoemaker, James S., assignor of one-third to L. W. Parsons, Hammond, Ind. Device for heating air-brake systems. No. 1,079,611; Nov. 25; Gaz. vol. 196; p. 911.

Shonard, Harold W., East Orange, N. J. Submarine torpedo. No. 1,077,311; Nov. 4; Gaz. vol. 196; p. 24.

Shore, William E., assignor of forty one-hundredths to J. Franey and twenty one-hundredths to J. C. Franey, Toronto, Ontario, Canada. Stove. No. 1,078,315; Nov. 11; Gaz. vol. 196; p. 402.

Shreeve, Herbert E., Milbarn, N. J., assignor to Western Electric Company, New York, N. Y. Telephone-transmitter. No. 1,077,873; Nov. 4; Gaz. vol. 196; p. 46.

Shreve, Harry B., assignor to T. H. Lovejoy, Chicago, Ill. Chuck. No. 1,079,620; Nov. 25; Gaz. vol. 196; p. 877.

Sibson, Horace E. (See Jones, Gamble, and Sibson.)

Sicking, Bernard. (See Korb, Leo A., assignor.)

Sidon, Maximilian, New York, N. Y. Filament-lamp. No. 1,079,804; Nov. 25; Gaz. vol. 196; p. 979.

Sidon, Maximilian, assignor to Smith & Hemenway Co., Incorporated, New York, N. Y. Drill. No. 1,079,906; Nov. 25; Gaz. vol. 196; p. 1014.

Siebert, Carl T., East Pittsburgh, Pa. Safety lamp-burner. No. 1,079,190; Nov. 18; Gaz. vol. 196; p. 737.

Siegel, Otto, Schlauwe, Germany. Ladder. No. 1,078,316; Nov. 11; Gaz. vol. 196; p. 402.

Siemens & Halske, A. G. (See Gerdlén and Holm, assignors.)

Sigmund, Oscar, Los Angeles, Cal. Railway-car. No. 1,078,068; Nov. 11; Gaz. vol. 196; p. 316.

Signature Company, The. (See Woodward and Crompton, assignors.)

Simau, Antoun A., Detroit, Mich. Shoe-fastener. No. 1,079,521; Nov. 25; Gaz. vol. 196; p. 878.

Simmons, Robert T. and W. R. Wyne, Ark. Cotton-cultivating machine. No. 1,079,671; Nov. 25; Gaz. vol. 196; p. 930.

Simmons, William R. (See Simmons, Robert T. and W. R.)

Simms, Jesse C., Matoaka, W. Va. Artificial minnow. No. 1,079,891; Nov. 25; Gaz. vol. 196; p. 1008.

Simons, Frank W., Vallejo, Cal. Umbrella rib and socket. No. 1,078,069; Nov. 11; Gaz. vol. 196; p. 316.

Simpson, John H., Providence, R. I. Cleaning device. No. 1,079,672; Nov. 25; Gaz. vol. 196; p. 930.

Sims, Lawrence, Berryton, Kans. Snow-plow. No. 1,079,369; Nov. 25; Gaz. vol. 196; p. 826.

Sines, Henry M. and M. Farris, Wash. Automatic sleigh-brake. No. 1,077,919; Nov. 4; Gaz. vol. 196; p. 232.

Sines, Martin. (See Sines, Henry M. and M.)

Singer Manufacturing Company, The. (See Diehl, Philip, assignor.)

Sipchen, Peter. (See Roemer and Priester, assignors.)

Sippel, Cornelius. (See Colby and Sippel.)

Skanks, Stephen C., Toronto, Ontario, Canada. Watering-can. No. 1,078,005; Nov. 11; Gaz. vol. 196; p. 294.

Skeen, Samuel T., Sandoval, assignor of one-sixth to C. S. Heaton, one-sixth to H. C. Worcester, and one-sixth to G. M. Wyatt, Rodhouse, Ill. Apparatus for drilling holes. No. 1,078,701; Nov. 18; Gaz. vol. 196; p. 565.

Skeen, William F., and H. L. McNiel, Hillsboro, Ohio. Whip-socket. No. 1,078,006; Nov. 11; Gaz. vol. 196; p. 294.

Skinner, Charles E., Wilkinsburg, and T. S. Scott, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company. Dynamo-electric machine. No. 1,077,374; Nov. 4; Gaz. vol. 196; p. 47.

Skitt, James H. (See Smith, Drum, and Skitt.)

Slater, Harvey, assignor to Charles F. Elms Engineering Works, Chicago, Ill. Retaining device for presses. No. 1,079,068; Nov. 18; Gaz. vol. 196; p. 694.

Slattery, Frank, Perry, Iowa. Gate-latch. No. 1,078,964; Nov. 18; Gaz. vol. 196; p. 655.

Slattery, John, Chrome, N. J. Wheel and method of and apparatus for making the same. No. 1,079,030; Nov. 18; Gaz. vol. 196; p. 682.

Sledge, John M., Marshall, Tex. Adjustable pilot. No. 1,078,467; Nov. 11; Gaz. vol. 196; p. 454.

Sleeper, Oliver S., assignor to Buffalo Foundry & Machine Company, Buffalo, N. Y. Vacuum-valve. No. 1,079,150; Nov. 18; Gaz. vol. 196; p. 722.

Slick, Edwin E., Westmont borough, Pa. Rail-joint. No. 1,078,220; Nov. 11; Gaz. vol. 196; p. 368.

Slingsby Manfg. Co. Ltd. (See Clark, Walter A., assignor.)

Sloan, Elmer L., Joplin, Mo. Automatic burglar-proof sash-lock. No. 1,077,312; Nov. 4; Gaz. vol. 196; p. 25.

Sloan, Francis E., assignor to The O. K. Manufacturing & Stamping Company, Baltimore, Md. Bed-riser. No. 1,077,944; Nov. 4; Gaz. vol. 196; p. 242.

Smale, William A. (See Sutch, Alfred J., assignor.)

Smallman, James W., Blackdown, near Leamington, England. Haulage-clip. No. 1,077,436; Nov. 4; Gaz. vol. 196; p. 69.

Smallwood, Alfred, London, England. Rotary furnace or fire-box. No. 1,079,151; Nov. 18; Gaz. vol. 196; p. 723.

Smedley, Joseph H., Narberth, Pa. Push-button switch. No. 1,079,271; Nov. 18; Gaz. vol. 196; p. 761.

Smith, Abraham, Erie, Pa. Type-setting and type-distributing machine. No. 1,077,493; Nov. 4; Gaz. vol. 196; p. 90.

Smith, Charles E., assignor of one-fourth to G. R. Meyer, Saginaw, Mich. Bean-picking machine. No. 1,079,805; Nov. 25; Gaz. vol. 196; p. 979.

Smith, Charles G. (See Smith, Harry W. and C. G.)

Smith, Edgar M., New York, N. Y., assignor to O. R. Barnett, Chicago, Ill. Anticreeper. No. 1,078,562; Nov. 11; Gaz. vol. 196; p. 484.

Smith, Edward H., assignor of one-half to W. H. Hartman, Cleveland, Ohio. Support for conduit-cables. No. 1,079,445; Nov. 25; Gaz. vol. 196; p. 851.

Smith, Gary B., Chicago, Ill. Corrugated link for wire fabric. No. 1,079,806; Nov. 25; Gaz. vol. 196; p. 980.

Smith, Harry W. and C. G., assignors to Nickerson Art Metal Company, Pawtucket, R. I. Link-mesh machine. No. 1,078,317; Nov. 11; Gaz. vol. 196; p. 402.

Smith, Harry W. and C. G., assignors to Nickerson Art Metal Company, Providence, R. I. Link-mesh machine. No. 1,078,318; Nov. 11; Gaz. vol. 196; p. 403.

Smith & Hemenway Co. (See Sidon, Maximilian, assignor.)

Smith, James, Oakland, Cal. Fruit-press. No. 1,077,437; Nov. 4; Gaz. vol. 196; p. 70.

Smith, John I. (See Wright and Smith.)

Smith, John T., assignor of one-half to J. A. Quinn, Oberlin, Kans. Belt-guide. No. 1,079,031; Nov. 18; Gaz. vol. 196; p. 682.

Smith, Louis T. (See Smith, Theron A. and L. T.)

Smith, Luther K., Moberly, Mo., assignor to A. C. Busby, Philadelphia, Pa. Grease-holder for journal-boxes. No. 1,079,446; Nov. 25; Gaz. vol. 196; p. 851.

Smith, Paul H., Columbus, Ohio. Liquid-measuring device. No. 1,079,522; Nov. 25; Gaz. vol. 196; p. 878.

Smith, Ralph T., Reno, Nev. Electric contact and indicator. No. 1,078,172; Nov. 11; Gaz. vol. 196; p. 351.

Smith, Robert P., G. E. Drum, and J. H. Skitt, Philadelphia, Pa. Dyeing-machine. No. 1,077,762; Nov. 4; Gaz. vol. 196; p. 180.

Smith, Theron A. and L. T., San Jose, Cal. Shoe-polishing device. No. 1,078,173; Nov. 11; Gaz. vol. 196; p. 351.

Smith, Walter H., assignor to The Harris Automatic Press Company, Niles, Ohio. Means for coupling feeders or the like to printing-presses. No. 1,079,370; Nov. 25; Gaz. vol. 196; p. 827.

Smith, William F. (See Eisenach and Smith.)

Smith, Wirt F., et al. (See Minor, Charles C., assignor.)

Smolka, Frans, Vienna, Austria-Hungary. Manufacture of meat-like conserves. No. 1,078,807; Nov. 18; Gaz. vol. 196; p. 604.

Smoot, Charles H., Chicago, Ill., assignor, by mesne assignments, to Kateau Battu Smoot Company. Brush-holder for dynamos. No. 1,078,174; Nov. 11; Gaz. vol. 196; p. 352.

Smyth Manufacturing Company, The. (See Reynolds, John R., assignor.)

Smythe, Joseph B., Coaticook, Quebec, Canada. Lifting-jack. No. 1,079,371; Nov. 25; Gaz. vol. 196; p. 827.

Snedden, James, assignor of one-third to A. R. Murray, Wichita, Kans. Spray-burner. No. 1,079,272; Nov. 18; Gaz. vol. 196; p. 761.

Snyder, Jonathan S., Newport, Pa. Coat-closure. No. 1,079,807; Nov. 25; Gaz. vol. 196; p. 980.

Snyder, Thomas B., et al. (See Schleier, Harry H., assignor.)

Sobel, Marcus, San Francisco, Cal. Bed-post for brass or iron beds. No. 1,079,523; Nov. 25; Gaz. vol. 196; p. 878.

Soblik, Max, Dresden-Klotzsche, assignor to Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung, Düsseldorf, Germany. Pneumatic printing mechanism for type-writers. No. 1,079,447; Nov. 25; Gaz. vol. 196; p. 852.

Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung. (See Soblik, Max, assignor.)

Société Fermière de l'Automatique Ducasble. (See Rondeau, René, assignor.)

Société Générale des Nitrures. (See Serpek, Ottokar, assignor.)

Soeda, Sadami, Alameda, Cal. Water-heater. No. 1,077,648; Nov. 4; Gaz. vol. 196; p. 141.

Solem, Peter A., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Positioning means for adjustable supports. No. 1,077,945; Nov. 4; Gaz. vol. 196; p. 242.

Solem, Peter A., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Wood-planing machine. No. 1,079,032; Nov. 18; Gaz. vol. 196; p. 682.

Somers, Thomas F., assignor to Birdsey-Somers Company, New York, N. Y. Corset-steel. No. 1,077,861; Nov. 4; Gaz. vol. 196; p. 212.

Sommer, Benjamin L., executor. (See Sommer, Joseph W.)

Sommer, Joseph W., deceased; B. L. Sommer, Peoria, executor, assignor to Keystone Steel and Wire Company, South Bartonville, Ill. Wire-fabric machine. No. 1,078,702; Nov. 18; Gaz. vol. 196; p. 566.

Sommer Nachfolger, Firm of Heinrich C. (See Raffensdorfer, Friedrich, assignor.)

Soss, Charles J. and H., assignors of one-third to S. Soss, New York, N. Y. Hinge. No. 1,078,703; Nov. 18; Gaz. vol. 196; p. 566.

Soss, Henry. (See Soss, Charles J. and H.)

Soss, Samuel. (See Soss, Charles J. and H., assignors.)

Southworth, Harrison H., and F. W. Wolf, Jr., Cleveland, Ohio, assignors, by mesne assignments, to C. E. Mehlhope, Chicago, Ill. Refrigerating apparatus. No. 1,079,448; Nov. 25; Gaz. vol. 196; p. 852.

Sowden, Charles N., Guantánamo, Cuba. Combined spring and friction shock-absorber. No. 1,079,191; Nov. 18; Gaz. vol. 196; p. 737.

Sowden, Charles N., Guantánamo, Cuba. Bottle-holder. No. 1,079,192; Nov. 18; Gaz. vol. 196; p. 738.

Spacie, Thomas, Blue Island, Ill. Skate-clamp. No. 1,077,893; Nov. 4; Gaz. vol. 196; p. 224.

Spain, William. (See Jefferies and Spain.)

Spangenberg, Joseph W., North Paterson, N. J. Vehicle lamp-support. No. 1,079,808; Nov. 25; Gaz. vol. 196; p. 980.

Sparks, Levi C. (See Hartbauer and Sparks.)

Sparks, Levi C., and A. W. L. Hartbauer, assignors to American Car and Foundry Company, St. Louis, Mo. Car-window. No. 1,078,319; Nov. 11; Gaz. vol. 196; p. 403.

Specht, John J., and W. J. Wachemuth, Kallspeil, Mont. Plow-comb. No. 1,078,753; Nov. 18; Gaz. vol. 196; p. 564.

Spellman, Edward R., Walla Walla, Wash. Draft-equalizer. No. 1,078,386; Nov. 11; Gaz. vol. 196; p. 428.
 Spence, John, Lethbridge, Alberta, Canada. Gate-opening device. No. 1,079,449; Nov. 25; Gaz. vol. 196; p. 853.
 Spencer, Harry M., Dunmore, Pa. Spark-plug. No. 1,077,960; Nov. 4; Gaz. vol. 196; p. 247.
 Spencer, Henry K., Dorchester, assignor to The Blanchard Machine Company, Cambridge, Mass. Mounting of abrasive wheels. No. 1,079,304; Nov. 18; Gaz. vol. 196; p. 772.
 Spengler Brothers Company. (See Loomis, Edwin C., assignor.)
 Spicker, Frederick. (See Stevens and Spicker.)
 Spielmann, Adolph, Chicago, Ill. Changeable bulletin-board. No. 1,079,372; Nov. 25; Gaz. vol. 196; p. 827.
 Spielmann, Adolph, assignor to The Tablet & Ticket Company, Chicago, Ill. Directory and score-board. No. 1,078,221; Nov. 11; Gaz. vol. 196; p. 368.
 Spirewki, John S., Jr., assignor of one-third to D. C. O'Connell and one-third to S. A. Strzelczyk, Milwaukee, Wis. Carrier. No. 1,079,373; Nov. 25; Gaz. vol. 196; p. 828.
 Spilaine, George W., Boston, Mass. Cream-dipper. No. 1,078,175; Nov. 11; Gaz. vol. 196; p. 352.
 Spohrer, Louis R., Mayetta, Kans. Clothes-pounder. No. 1,079,612; Nov. 25; Gaz. vol. 196; p. 911.
 Sponenburgh, Hiram H. (See Laas and Sponenburgh.)
 Sprado, Carl G., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Discharge-valve gear for blowing-engines. No. 1,079,374; Nov. 25; Gaz. vol. 196; p. 828.
 Sprague, Theodore A. (See Anger, Gottlieb, assignor.)
 Spruill, John C., Pittsburgh, Pa. Accessory for toys. No. 1,078,704; Nov. 18; Gaz. vol. 196; p. 567.
 Spruka, Stephen S. (See Witly, George, assignor.)
 St. Louis Cash Register Company. (See Patten, Elmer E., assignor.)
 Stacey, William S. (See Wright, James, assignor.) (Re-issue.)
 Stafford Company, The. (See Jackson, Simeon S., assignor.)
 Stafford, Hal R. (See Rennie and Stafford.)
 Stafford, Hal R., Plainfield, N. J., and R. Rennie, Schenectady, N. Y. Steam-engine valve-reversing gear. No. 1,077,862; Nov. 4; Gaz. vol. 196; p. 212.
 Stamm, George T., Upland, Cal. Fruit-drier. No. 1,078,110; Nov. 11; Gaz. vol. 196; p. 330.
 Stanbery, George A., Zanesville, Ohio, assignor to American Encasement Tiling Company, Limited, New York, N. Y. Machine for classifying tiles. No. 1,078,883; Nov. 18; Gaz. vol. 196; p. 829.
 Standard Cone Company. (See Carlsen, Andrew M., assignor.)
 Standard Heat and Ventilation Company. (See Albee, Elmer E., assignor.)
 Standard Machine Company. (See Houseman, Harold E., assignor.)
 Standard Sanitary Manufacturing Company. (See McKinney, William C., assignor.)
 Standard Sanitary Manufacturing Company. (See Reed, John C., assignor.)
 Standish, Albert S., Cleveland, Ohio. Auto tire-protector. No. 1,079,273; Nov. 18; Gaz. vol. 196; p. 762.
 Stange, Ottomar, Aspinwall, Pa. Tie for concrete molds or forms. No. 1,078,007; Nov. 11; Gaz. vol. 196; p. 294.
 Stange, Ottomar, Aspinwall, Pa. Concrete piling. No. 1,079,375; Nov. 25; Gaz. vol. 196; p. 828.
 Stark, Alma P., Spanish Fork, Utah. Nut-lock. No. 1,077,763; Nov. 4; Gaz. vol. 196; p. 180.
 Starker, Charles C., et al. (See Lewis, Albert H., assignor.)
 Starker, Charles R., et al. (See Lewis, Albert H., assignor.)
 Starkey, William P., Harrisburg, Pa., assignor to T. E. Martin, Buffalo, N. Y. Mechanical stoker. No. 1,077,494; Nov. 4; Gaz. vol. 196; p. 90.
 Starkweather, Henry W., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,077,564; Nov. 4; Gaz. vol. 196; p. 113.
 Starr, Alden B., New York, N. Y., assignor to Starr Package Machinery Company, Inc. Tube-making machine. No. 1,077,764; Nov. 4; Gaz. vol. 196; p. 180.
 Starr, John E., assignor to Railway and Stationary Refrigerating Company, New York, N. Y. Powder or explosive magazine for war-ships. No. 1,079,089; Nov. 18; Gaz. vol. 196; p. 695.
 Starr Package Machinery Company. (See Starr, Alden B., assignor.)
 Staunton, Gray, Muskegon, Mich. Vacuum-package and means for sealing same. No. 1,079,450; Nov. 25; Gaz. vol. 196; p. 853.
 Staunton, Gray, assignor, by mesne assignments, to W. S. Potwin, Chicago, Ill. Pontianak compound and preparing same. No. 1,078,070; Nov. 11; Gaz. vol. 196; p. 316.
 Sté. Ame. pour l'Exploitation des Procédés Westinghouse Leblanc. (See Leblanc, Maurice, assignor.)
 Stebbins, Clarence B., Wichita, Kans. Railway-tie. No. 1,078,754; Nov. 18; Gaz. vol. 196; p. 584.
 Steedman, George F., St. Louis, Mo. Automatic-return fluid-operated device. No. 1,079,613; Nov. 25; Gaz. vol. 196; p. 912.

Steel Heddle Manufacturing Company. (See Kaufmann, Jacob, assignor.)
 Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,077,495; Nov. 4; Gaz. vol. 196; p. 91.
 Steele, Lawrence C., Beaver, Pa. Wire-wiping apparatus. No. 1,078,176; Nov. 11; Gaz. vol. 196; p. 352.
 Steelman, Lewis, assignor of one-half to T. C. Wheaton Co., Millville, N. J. Glass-machine. No. 1,078,965; Nov. 18; Gaz. vol. 196; p. 656.
 Steenbock, William G. (See Pabst, William F., assignor.)
 Steffen, Heinrich, Tonndorf-Lobe, near Altrahstedt, near Hamburg, Germany. Radiator made of wrought-iron. No. 1,078,884; Nov. 18; Gaz. vol. 196; p. 630.
 Steger & Sons Piano Manufacturing Company. (See Swanson, Emil, assignor.)
 Stegner, Clayton W., Nerstrand, Minn. Cow-tail holder. No. 1,078,808; Nov. 18; Gaz. vol. 196; p. 804.
 Steichen, Theodore, Alton, Iowa. Corn-husking machine. No. 1,077,313; Nov. 4; Gaz. vol. 196; p. 25.
 Stein, Rudolf. (See Michel and Stein.)
 Steiner, Ulrich, assignor to Landis Tool Company, Waynesboro, Pa. Grinding-machine. No. 1,078,563; Nov. 11; Gaz. vol. 196; p. 485.
 Steiner, William W., Wellman, Iowa. Wire-handling apparatus. No. 1,078,519; Nov. 11; Gaz. vol. 196; p. 471.
 Steinhoff, Felix, Elberfeld, Germany. Rack or support. No. 1,079,033; Nov. 18; Gaz. vol. 196; p. 683.
 Stentzel, Robert W., Montreal, Quebec, Canada. Concrete construction. No. 1,079,152; Nov. 18; Gaz. vol. 196; p. 723.
 Stephenson, William C., Rocky Mount, N. C. Locomotive-axle bearing. No. 1,079,809; Nov. 25; Gaz. vol. 196; p. 980.
 Sterilization Company. (See Swinburne, George W., assignor.)
 Stern Manufacturing Company. (See Stern, Walter F., assignor.)
 Stern, Walter F., Gap, assignor to Stern Manufacturing Company, Lancaster, Pa. Rotary gas-engine. No. 1,077,314; Nov. 4; Gaz. vol. 196; p. 25.
 Sternau & Co., S. (See Nelson, Charles, assignor.)
 Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didler. (See Gohmann, Arthur, assignor.)
 Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didler. (See Hohmann, Edmund, assignor.)
 Stevens, Evie, Stillwater, British Columbia, Canada. Truck connection. No. 1,079,318; Nov. 18; Gaz. vol. 196; p. 777.
 Stevens, Frank, and F. Spicker, Roundup, Mont. Drilling-machine. No. 1,077,649; Nov. 4; Gaz. vol. 196; p. 141.
 Stevens, John M., E. D. Harrison, and J. J. Machado, Bakersfield, Cal. Automatic postage-stamp attacher. No. 1,079,892; Nov. 25; Gaz. vol. 196; p. 1008.
 Stevens, Royal H., Salt Lake City, Utah, assignor to United States Smelting, Refining & Mining Company, Portland, Me. Electrode. No. 1,077,920; Nov. 4; Gaz. vol. 196; p. 233.
 Stevens, Royale H., Salt Lake City, Utah, assignor to United States Smelting, Refining & Mining Company, Portland, Me. Electrode. No. 1,077,894; Nov. 4; Gaz. vol. 196; p. 224.
 Stevens, Sidney M., assignor of one-half to G. Chase, Prince George, Va. Hydraulic ram. No. 1,077,315; Nov. 4; Gaz. vol. 196; p. 26.
 Stevens, Ward R., assignor of one-half to C. D. Reaser, Burbank, Cal. Closure-fastening device. No. 1,079,614; Nov. 25; Gaz. vol. 196; p. 912.
 Stevenson, Bingham, Little Rock, Ark. Fish-tail propeller. No. 1,079,193; Nov. 18; Gaz. vol. 196; p. 738.
 Stevenson, Harry C., trustee. (See Wilson, James M., assignor.)
 Stewart, John K., Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation. Magnetic speedometer. No. 1,077,433; Nov. 4; Gaz. vol. 196; p. 70.
 Stewart, McElmer, Kansas City, Mo. Vehicle-jack. No. 1,078,111; Nov. 11; Gaz. vol. 196; p. 330.
 Stewart, Robert A., Los Angeles, Cal. Rotary engine. No. 1,079,034; Nov. 18; Gaz. vol. 196; p. 683.
 Stewart-Warner Speedometer Corporation. (See Stewart, John K., assignor.)
 Stieler, Franz F. W., Berlin, Germany. Drying apparatus. No. 1,079,673; Nov. 25; Gaz. vol. 196; p. 930.
 Stilling, Louis J., assignor of one-half to L. Isenbarg, Newark, N. J. Non-refillable bottle. No. 1,077,565; Nov. 4; Gaz. vol. 196; p. 113.
 Stimpson, Edwin B., Brooklyn, N. Y. Combined punch and setting-machine. No. 1,079,376; Nov. 25; Gaz. vol. 196; p. 829.
 Stinson, James C., Bradford, Pa. Top packer for oil or gas wells. No. 1,077,566; Nov. 4; Gaz. vol. 196; p. 114.
 Stock, Friedrich. (See Lauber and Stock.)
 Stock Quotation Telegraph Company, The. (See Hiltz, George S., assignor.)
 Stofel, Peter A., Kirksville, Mo. Ship's boat. No. 1,079,729; Nov. 25; Gaz. vol. 196; p. 951.
 Stoil, Jacob G., Orrville, Ohio. Trap. No. 1,077,567; Nov. 4; Gaz. vol. 196; p. 114.

Stone, Louis G., London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Air-compressor. (Reissue.) No. 13,645; Nov. 11; Gaz. vol. 196; p. 502.
 Stone & Webster. (See Cutter, George A., assignor.)
 Stones, Giles H., Pittsburgh, Pa. Rail-fastener. No. 1,077,961; Nov. 4; Gaz. vol. 196; p. 247.
 Stoney, George G. (See Parsons, Stoney, and Law.)
 Storer, Simon B. (See Leake, Richard C., assignor.)
 Storm, Samuel, Mattoon, Ill. Hose-coupling. No. 1,078,112; Nov. 11; Gaz. vol. 196; p. 331.
 Story, Ward B., New York, N. Y. End and side clip. No. 1,078,966; Nov. 18; Gaz. vol. 196; p. 656.
 Stough, Turney G., Jeannette, Pa. Kaleidoscope. No. 1,078,008; Nov. 11; Gaz. vol. 196; p. 294.
 Strange, Harry B., assignor to T. Fifth and Sons, Limited, Sheffield, England. Fuse for a projectile. No. 1,077,439; Nov. 4; Gaz. vol. 196; p. 71.
 Stratton, James M., assignor to The Deming Company, Salem, Ohio. Pump. No. 1,078,320; Nov. 11; Gaz. vol. 196; p. 403.
 Strauss, Hans, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Driving device for gun elevating and training gears. No. 1,079,893; Nov. 25; Gaz. vol. 196; p. 1009.
 Strickland, John S., and C. H. Beach, Tacoma, Wash. Automatic car-stopping device. No. 1,079,451; Nov. 25; Gaz. vol. 196; p. 854.
 Strietmeier, John E., assignor to The Ideal Wheel Company, Cincinnati, Ohio. Knockdown wheel. No. 1,079,305; Nov. 18; Gaz. vol. 196; p. 772.
 Strimple, Pierce J., Sekitan, Ohio. Folding car-step. No. 1,079,452; Nov. 25; Gaz. vol. 196; p. 854.
 Stromberg Motor Devices Company. (See Wilcox, Howard H., assignor.)
 Stromborg, Fritz O., Seattle, Wash. Ore-separator. No. 1,078,520; Nov. 11; Gaz. vol. 196; p. 471.
 Stroud, Clarence E., Grand Island, Nebr. Step-ladder. No. 1,077,650; Nov. 4; Gaz. vol. 196; p. 141.
 Struck, Philip, assignor of one-half to A. B. Wilson, Toronto, Ontario, Canada. Antislip-overshoe for horses. No. 1,077,765; Nov. 4; Gaz. vol. 196; p. 180.
 Strzelczyk, Samuel A., et al. (See Spirewki, John S., Jr., assignor.)
 Stubbs, William A., New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting wiper. No. 1,079,584; Nov. 25; Gaz. vol. 196; p. 901.
 Stubenrauch, Herman F., Chicago, Ill. Window-cleaning device. No. 1,077,651; Nov. 4; Gaz. vol. 196; p. 142.
 Stuhlrohrfabrik Bremen, Carl Frese & Co. (See Meier, Heinrich, assignor.)
 Sturges, Varney K., Oakland, Cal. Tire-protector. No. 1,077,440; Nov. 4; Gaz. vol. 196; p. 71.
 Stutsman, Reuben O., Des Moines, Iowa. Corn-popper. No. 1,078,521; Nov. 11; Gaz. vol. 196; p. 472.
 Suchorzynski, Anton von, Steglitz, near Berlin, Germany. Ear appliance for facilitating hearing. No. 1,077,766; Nov. 4; Gaz. vol. 196; p. 181.
 Sucrofilter- und Wasserreinigungsgesellschaft mit beschränkter Haftung. (See Herzfeld, Julius, assignor.)
 Suggitt, John, Minneapolis, Minn. Reversible side ballast-unloading plow for cars. No. 1,078,755; Nov. 18; Gaz. vol. 196; p. 585.
 Sullivan Machinery Company. (See Mercer, Henry H., assignor.)
 Sullivan, William, New York, N. Y. Awning. No. 1,079,894; Nov. 25; Gaz. vol. 196; p. 1010.
 Sullivan, William F., and A. M. Washbauer, assignors of one-eighth to I. Washbauer, Paterson, N. J. Rotary fluid-pressure motor. No. 1,077,568; Nov. 4; Gaz. vol. 196; p. 114.
 Summa, Victor M., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,078,222; Nov. 11; Gaz. vol. 196; p. 368.
 Summa, Victor M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door-operating device. No. 1,078,321; Nov. 11; Gaz. vol. 196; p. 404.
 Summa, Victor M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-roof. No. 1,078,967; Nov. 18; Gaz. vol. 196; p. 656.
 Summers, Edgar W., assignor to Summers Steel Car Company, Pittsburgh, Pa. Railway-car. (Reissue.) No. 13,646; Nov. 11; Gaz. vol. 196; p. 503.
 Summers Steel Car Company. (See Summers, Edgar W., assignor.) (Reissue.)
 Sumnerscales, Samuel H., Winnipeg, Manitoba, Canada. Metallic wheel. No. 1,078,522; Nov. 11; Gaz. vol. 196; p. 472.
 Summey, David L., assignor to Chase Rolling Mill Co., Waterbury, Conn. Machine for coiling metal strips. No. 1,079,071; Nov. 18; Gaz. vol. 196; p. 696.
 Sumwalt, Clarence A., Sterling, Kans. Hay-harvesting machine. No. 1,078,468; Nov. 11; Gaz. vol. 196; p. 454.
 Sunderland, Charles C., Trenton, N. J., assignor to John A. Roebling's Sons Company. Cableway. No. 1,077,921; Nov. 4; Gaz. vol. 196; p. 233.
 Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Automatic brake mechanism for spool-winding machines. No. 1,077,375; Nov. 4; Gaz. vol. 196; p. 47.
 Sunlight Double Glass Sash Company. (See Bodley, William S., assignor.)

Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire-Alarm Telegraph Company, New York, N. Y. Auxiliary fire-alarm box. No. 1,077,767; Nov. 4; Gaz. vol. 196; p. 181.
 Suss, Charles, Rochester, N. Y. Tenpin. No. 1,078,223; Nov. 11; Gaz. vol. 196; p. 369.
 Sutch, Alfred J., assignor of one-half to W. A. J. Smale, Chicago, Ill. Clamping device. No. 1,077,652; Nov. 4; Gaz. vol. 196; p. 142.
 Sutherland, Alexander K., assignor to The Trumbull Electric Manufacturing Company, Plainville, Conn. Knife-switch blade. No. 1,078,523; Nov. 11; Gaz. vol. 196; p. 472.
 Sutro, Harry H., deceased, New York, N. Y.; V. Sutro, administrator, assignor to L. M. Booth Company. Apparatus for treating liquids. No. 1,077,316; Nov. 4; Gaz. vol. 196; p. 26.
 Sutro, Victor, administrator. (See Sutro, Harry H.)
 Sutton, Raymond C., North Attleboro, Mass. Feed-trough for poultry. No. 1,078,524; Nov. 11; Gaz. vol. 196; p. 472.
 Swan, William R., Bridgeport, Conn. Treatment of iron and steel to form a permanent black finish thereon. No. 1,079,453; Nov. 25; Gaz. vol. 196; p. 854.
 Swann, Charles, Gravesend, assignor of one-third to C. F. Townsend and one-third to S. E. Page, London, England. Vacuum cleaning apparatus. No. 1,078,469; Nov. 11; Gaz. vol. 196; p. 455.
 Swanson, Emil, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Pneumatic action for automatic playing mechanism. No. 1,079,072; Nov. 18; Gaz. vol. 196; p. 696.
 Swanson, Eric. (See Wilcoxson and Swanson.)
 Swanson, John C., C. A. Linden, and C. A. Carlson, Jamestown, N. Y. Electric welding-machine. No. 1,079,073; Nov. 18; Gaz. vol. 196; p. 696.
 Sweet, Richard W. (See Morris, James W., assignor.)
 Swenson, Carl E., Rockford, Ill. Valve for internal-combustion engines. No. 1,077,317; Nov. 4; Gaz. vol. 196; p. 27.
 Swift, Charles E., Danville, Ill. Binder. No. 1,078,470; Nov. 11; Gaz. vol. 196; p. 455.
 Swinburne, George W., East Orange, N. J., assignor to Sterilization Company. Method of purifying and sterilizing liquid. No. 1,079,377; Nov. 25; Gaz. vol. 196; p. 829.
 Swing Rolling Truck Co. (See Westlake, Charles T., assignor.)
 Switzer, Edmund A., Lodi, Ohio. Cement-block machine. No. 1,077,376; Nov. 4; Gaz. vol. 196; p. 47.
 Symmonds, Theophilus, Buffalo, N. Y. Current water-wheel. No. 1,077,318; Nov. 4; Gaz. vol. 196; p. 27.
 Symonds, Irene V., et al. (See Symonds, William H., assignor.)
 Symonds, William H., Allendale, N. J., assignor of one-half to C. E. Brainerd, New Rochelle, N. Y., and one-half to I. V. Symonds, Allendale, N. J. Actuating device for window shades, shutters, and like movable parts. No. 1,077,768; Nov. 4; Gaz. vol. 196; p. 182.
 Symons, Wilson R., Chicago, Ill. Steel roof for freight-cars. No. 1,078,968; Nov. 18; Gaz. vol. 196; p. 657.
 T. C. Wheaton Co. (See Steelman, Lewis, assignor.)
 Tablet & Ticket Company, The. (See Spielmann, Adolph, assignor.)
 Tait, Godfrey M. S., Washington, D. C. Grate. No. 1,078,071; Nov. 11; Gaz. vol. 196; p. 316.
 Talbot, Ivan F., assignor to E. O. Atwood, Boise, Idaho. Electric heater. No. 1,079,895; Nov. 25; Gaz. vol. 196; p. 1010.
 Talking Moving Picture Co., The. (See Mitchell, Richard S. M., assignor.)
 Tandy, John L., Kansas City, Mo. Wire-mattress fabric. No. 1,079,274; Nov. 18; Gaz. vol. 196; p. 762.
 Tannenberg, August O., Oakland, Cal. Combination step-ladder. No. 1,078,072; Nov. 11; Gaz. vol. 196; p. 317.
 Tapp, Ernest T. J. (See Crompton and Tapp.)
 Tarcza, Gustavus, Litchfield, N. Y. Stanchion. No. 1,077,569; Nov. 4; Gaz. vol. 196; p. 115.
 Tarleton, George H., New York, N. Y. Flushing-tank. No. 1,079,615; Nov. 25; Gaz. vol. 196; p. 912.
 Tate, William T., Buxton, Iowa. Car-fender. No. 1,079,194; Nov. 18; Gaz. vol. 196; p. 738.
 Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Means for controlling electromagnetic and solenoids. No. 1,077,319; Nov. 4; Gaz. vol. 196; p. 28.
 Tawney, Clark L., Barberton, Ohio. Poultry-feeder. No. 1,078,646; Nov. 18; Gaz. vol. 196; p. 545.
 Taylor, Clarence M., Loyal, Wis. Stage-footlighting. No. 1,079,195; Nov. 18; Gaz. vol. 196; p. 738.
 Taylor, Eugene H., Hyde Park, Mass. Paper-box machine. No. 1,079,275; Nov. 18; Gaz. vol. 196; p. 763.
 Taylor, Eugene H., Hyde Park, Mass. Corner-staying machine for paper boxes. No. 1,079,616; Nov. 25; Gaz. vol. 196; p. 912.
 Taylor, Henry J., Boston, Mass. Combination ruler and blotter. No. 1,078,969; Nov. 18; Gaz. vol. 196; p. 657.
 Taylor, Herbert B., assignor to Federal Signal Company, Albany, N. Y. System for electrically controlling and operating railway-traffic-controlling devices. No. 1,077,895; Nov. 4; Gaz. vol. 196; p. 254.
 Taylor, James H., Chicago, Ill. Pipe-coupling. No. 1,078,009; Nov. 11; Gaz. vol. 196; p. 295.

Taylor, James H. and J. B., Toledo, Ohio. Mop-wringer. No. 1,079,454; Nov. 25; Gaz. vol. 196; p. 855.

Taylor, James M., San Francisco, Cal. Container-forming machine. No. 1,077,496; Nov. 4; Gaz. vol. 196; p. 91.

Taylor, John A., Recoll-operated firearm. No. 1,078,224; Nov. 11; Gaz. vol. 196; p. 869.

Taylor, Julius B. (See Taylor, James H. and J. B.)

Taylor, William O. (See Foster, William H., assignor.)

Tebbetts, Lewis B., 2d, St. Louis, Mo. Composite metal article. No. 1,079,035; Nov. 18; Gaz. vol. 196; p. 683.

Tekippe, William J., New Hampton, Iowa. Life-boat. No. 1,078,471; Nov. 11; Gaz. vol. 196; p. 455.

Templeton, Walter B., Chicago, Ill. Metal sheet-piling. No. 1,078,970; Nov. 18; Gaz. vol. 196; p. 658.

Templin, Joseph H., Philadelphia, Pa. Suction-cleaner. No. 1,079,378; Nov. 25; Gaz. vol. 196; p. 829.

Templin, William, Glenellyn, Ill. Means for fastening books to stands. No. 1,077,896; Nov. 4; Gaz. vol. 196; p. 224.

Tennie, George, Chicago, Ill. Sign-fastening. No. 1,079,617; Nov. 25; Gaz. vol. 196; p. 913.

Teresa, Antonio, San Luis Potosi, Mexico, assignor of one-fourth to E. H. Haskell, Newton Center, Mass., and R. Dawes, Frankford, Philadelphia, Pa. Depulping-machine. No. 1,079,196; Nov. 18; Gaz. vol. 196; p. 739.

Tevander, Olof N., assignor of one-half to A. Manierre, Chicago, Ill. Band-making machine. No. 1,078,707; Nov. 18; Gaz. vol. 196; p. 668.

Tevander, Olof N., and A. Manierre, Chicago, Ill. Apparatus for modifying the size of fastening elements. No. 1,078,705; Nov. 18; Gaz. vol. 196; p. 667.

Tevander, Olof N., and A. Manierre, Chicago, Ill. Machine for applying closures to receptacles. No. 1,078,706; Nov. 18; Gaz. vol. 196; p. 667.

Texas Steel Tie Company, The. (See Grant, James K., assignor.)

Textile Machine Works. (See Jaassen and Zwicky, assignors.)

Theuerkorn, Paul, Chemnitz, assignor to Mann and Willkomm, Aktiengesellschaft, Heidenau, Dresden, Germany. Apparatus for lining tubes with lead, tin, or the like. No. 1,078,387; Nov. 11; Gaz. vol. 196; p. 428.

Thibault, Charles, and W. Gagne, Lawrence, Mass. Harness-stop for looms. No. 1,079,455; Nov. 25; Gaz. vol. 196; p. 855.

Thomas, Arvine N., Canton, Ohio. Embroidery-hoop. No. 1,078,809; Nov. 18; Gaz. vol. 196; p. 604.

Thomas De La Rue & Company. (See Farmer, Alfred, assignor.)

Thomas, Edward G., Boston, Mass., assignor, by mesne assignments, to Automatic Weighing Machine Company, New York, N. Y. Automatic weighing-machine. No. 1,078,971; Nov. 18; Gaz. vol. 196; p. 658.

Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Fuse-plug. No. 1,078,472; Nov. 11; Gaz. vol. 196; p. 455.

Thomas, Harry, et al. (See Moore, Justus J., assignor.)

Thomas, Henry S., Fargo, Okla. Broom-corn harvester and seeder. No. 1,077,863; Nov. 4; Gaz. vol. 196; p. 212.

Thomas, John B., Lakewood, N. J. Shock-absorber. No. 1,078,885; Nov. 18; Gaz. vol. 196; p. 630.

Thomas, John P., Chicago, Ill. Arch-supporter. No. 1,078,708; Nov. 18; Gaz. vol. 196; p. 568.

Thomas, Percy H., Montclair, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Outfit for alternating-current vapor-lamps. No. 1,079,379; Nov. 25; Gaz. vol. 196; p. 830.

Thomas, Percy H., Montclair, assignor, by mesne assignments, to Cooper Hewitt Electric Co., Hoboken, N. J. Circuit-interrupter. No. 1,079,380; Nov. 25; Gaz. vol. 196; p. 830.

Thomas, Theodore B., Quincy, Mass. Antiskidding device. No. 1,078,322; Nov. 11; Gaz. vol. 196; p. 404.

Thomas, W. I., et al. (See Gould, Fred L., assignor.)

Thomas, Walter A., New Augusta, Ind. Cultivator-fender. No. 1,079,197; Nov. 18; Gaz. vol. 196; p. 739.

Thomas, William R., Watertown, Wis. Anticreep railway-rail attachment. No. 1,077,377; Nov. 4; Gaz. vol. 196; p. 47.

Thompson, Charles A. (See Creclius, Louis J., assignor.)

Thompson, Lewis A. (See Meyer, Charles C., assignor.)

Thompson, Walter E., Chester, Pa. Attachment for boiler-tubes. No. 1,077,441; Nov. 4; Gaz. vol. 196; p. 71.

Thompson, William J., New York, N. Y. Plate-holder for cameras. No. 1,079,810; Nov. 25; Gaz. vol. 196; p. 981.

Thomson Electric Welding Company. (See Thomson, Ellihu, assignor.)

Thomson Electric Welding Company. (See Thomson, Roland D., assignor.)

Thomson, Ellihu, Swampscott, assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass. Electrical welding of sheet metal. No. 1,078,225; Nov. 11; Gaz. vol. 196; p. 869.

Thomson, Roland D., Swampscott, assignor to Thomson Electric Welding Company, Lynn, Mass. Welding. No. 1,078,226; Nov. 11; Gaz. vol. 196; p. 869.

Thomson, William B., Chicago, Ill. Bottle closure or seal. No. 1,079,074; Nov. 18; Gaz. vol. 196; p. 697.

Thorell, Justina, Portland, Oreg. Electric massage apparatus. No. 1,079,276; Nov. 18; Gaz. vol. 196; p. 763.

Thron, Heinrich, Frankfort-on-the-Main, assignor to Vereinigte Chiniinfabriken Zimmer & Co. G. m. b. H., Frankfort, Germany. Hydrogenizing organic compounds. No. 1,077,442; Nov. 4; Gaz. vol. 196; p. 72.

Thurston-McCormick Co. (See McCormick, Langdon, assignor.)

Tietz, August. (See Truman and Tietz.)

Timken-Detroit Axle Company, The. (See Alden, Herbert W., assignor.)

Tlane, Marcel H., assignor to A. Schrader's Son, Incorporated, New York, N. Y. Holder and attachment for feathers. No. 1,077,653; Nov. 4; Gaz. vol. 196; p. 142.

Tobey, William L., Winthrop, Mass. Rope-laying machine. No. 1,078,010; Nov. 11; Gaz. vol. 196; p. 295.

Tobey, William L., Winthrop, Mass. Rope-laying machine. No. 1,078,073; Nov. 11; Gaz. vol. 196; p. 317.

Tobin, Patric H., et al. (See Upshaw, Lucius L., assignor.)

Toledo Electric Welder Company, The. (See Pierce, Robert C., assignor.)

Toles, Justin K., San Francisco, Cal. Revolving endless-band oil-burner. No. 1,078,972; Nov. 18; Gaz. vol. 196; p. 658.

Tomkins, Calvin. (See Lange, William, assignor.)

Tomlinson, Charles E., Syracuse, assignor, by mesne assignments, to International Time Recording Company of New York, Enolcott, N. Y. Time-recording machine. No. 1,078,011; Nov. 11; Gaz. vol. 196; p. 295.

Tomlinson, Charles E., Syracuse, assignor, by mesne assignments, to International Time Recording Company of New York, Enolcott, N. Y. Time-recorder. No. 1,078,012; Nov. 11; Gaz. vol. 196; p. 296.

Tone, Frank J., assignor to The Carburetor Company, Niagara Falls, N. Y. Refractory material. No. 1,078,525; Nov. 11; Gaz. vol. 196; p. 473.

Topf, Ludwig, Erfurt, Germany. Apparatus for treating malt, seeds, and the like. No. 1,079,153; Nov. 18; Gaz. vol. 196; p. 724.

Tosco, Agostino, and P. Salina, San Francisco, Cal. Flush-out valve. No. 1,079,036; Nov. 18; Gaz. vol. 196; p. 683.

Toutjian, Robert V., Los Angeles, Cal. Supporting device. No. 1,079,674; Nov. 25; Gaz. vol. 196; p. 931.

Townsend, Charles F., Mitchell, S. D. Electric horn. No. 1,078,013; Nov. 11; Gaz. vol. 196; p. 296.

Townsend, Charles F., et al. (See Swann, Charles, assignor.)

Tozer, Archibald B., Erie, Pa., assignor to The Sabin-Curtis Machine Company, Cleveland, Ohio. Glove shaping and setting device. No. 1,079,730; Nov. 25; Gaz. vol. 196; p. 951.

Trah, Henry J., Chicago, Ill. Hat-brush. No. 1,077,654; Nov. 4; Gaz. vol. 196; p. 143.

Trayne, John H., Groton, Mass., assignor to Elma Mfg. Co. Tooth-brush holder. No. 1,079,618; Nov. 25; Gaz. vol. 196; p. 913.

Trefethen, Charles G., assignor to Modern Tool Company, Erie, Pa. Graduating-machine. No. 1,079,306; Nov. 18; Gaz. vol. 196; p. 773.

Treppa, Joseph J. (See Binsfeld, Louis E., assignor.)

Trimble, Edward M., Rochester, N. Y. Convertible crib and coop. No. 1,079,675; Nov. 25; Gaz. vol. 196; p. 931.

Trimble, Joseph M., assignor of one-half to W. K. Burton, Memphis, Tenn. Chewing-gum. No. 1,078,564; Nov. 11; Gaz. vol. 196; p. 485.

Troppman, Charles J., Chicago, Ill., assignor to F. A. Hardy and Company. Mounting for spectacles and eyeglasses. No. 1,078,973; Nov. 18; Gaz. vol. 196; p. 659.

Trull, Lyman A., Manchester, N. H. Wave-motion motor. No. 1,078,323; Nov. 11; Gaz. vol. 196; p. 404.

Trull, Lyman A., Manchester, N. H. Wave-motion. No. 1,078,324; Nov. 11; Gaz. vol. 196; p. 405.

Truman, Ernest, and A. Tietz, Toledo, assignors, by mesne assignments, to Bates Valve Bag Company, Cleveland, Ohio. Bag-tie machine. No. 1,079,075; Nov. 18; Gaz. vol. 196; p. 697.

Trumbull Electric Manufacturing Company, The. (See Sutherland, Alexander K., assignor.)

Tschudy, Eugene E., New York, N. Y. Umbrella or parasol. No. 1,079,198; Nov. 18; Gaz. vol. 196; p. 739.

Tschunkur, Eduard. (See Jonas and Tschunkur.)

Tucker, Stanley. (See Chapman and Tucker.)

Tufts, Charles G., Syracuse, assignor to Smet-Solvay Company, Solvay, N. Y. Treating coal-gases. No. 1,078,014; Nov. 11; Gaz. vol. 196; p. 297.

Tugender, Herman, New York, N. Y. Plate-holding means for printing-machines. No. 1,079,076; Nov. 18; Gaz. vol. 196; p. 698.

Turner, James B., Chicago, Ill. Making artificial marble. No. 1,079,077; Nov. 18; Gaz. vol. 196; p. 698.

Turner Vaughn & Taylor Company, The. (See Pearson, Morris A., assignor.)

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. High-speed brake. No. 1,078,015; Nov. 11; Gaz. vol. 196; p. 297.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. High-pressure emergency-brake. No. 1,078,016; Nov. 11; Gaz. vol. 196; p. 297.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure-brake device for double-heading. No. 1,078,017; Nov. 11; Gaz. vol. 196; p. 298.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure-brake device. No. 1,078,018; Nov. 11; Gaz. vol. 196; p. 298.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Speed-controlled brake-release device. No. 1,078,019; Nov. 11; Gaz. vol. 196; p. 299.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic brake-valve device. No. 1,078,021; Nov. 11; Gaz. vol. 196; p. 299.

Turner, Walter V., and W. M. Cady, Edgewood, assignors to The Westinghouse Air Brake Company, Pittsburgh, Pa. Brake-valve device. No. 1,078,020; Nov. 11; Gaz. vol. 196; p. 299.

Tuttle, Henry A., assignor to Evans Stamping & Plating Company, Taunton, Mass. Gearing. No. 1,078,565; Nov. 11; Gaz. vol. 196; p. 485.

Tyner, James P. (See Littleton and Tyner.)

Typograph G. m. b. H. (See Dorneth, Julius, assignor.)

Tyrrell, George W., et al. (See Hervey, Lee A., assignor.)

Uhlery, Lee, Phoenix, Ariz. Toilet-paper holder. No. 1,079,524; Nov. 25; Gaz. vol. 196; p. 879.

Ulrichs, Ernst, Reval, Russia, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo coloring-matter. No. 1,077,655; Nov. 4; Gaz. vol. 196; p. 143.

Ulsaver, Ervin S. (See Clapp and Ulsaver.)

Underwood Computing Machine Company. (See Degener and Resch, assignors.)

Underwood Engineering Company. (See Underwood, John T., assignor.)

Underwood, John T., assignor to Underwood Engineering Company, Detroit, Mich. Burner. No. 1,078,227; Nov. 11; Gaz. vol. 196; p. 869.

Underwood Typewriter Company. (See Corcoran, Cornelius B., assignor.)

Underwood Typewriter Company. (See Fengler and Roullot, assignors.)

Underwood Typewriter Company. (See Vogel, Charles H., assignor.)

Union Bag & Paper Company, The. (See Witham, Isaac J. and G. S., Sr., assignors.)

Union Fibre Company. (See Lappen, James E., assignor.)

Union Fibre Company. (See Parkison, Thomas B., assignor.)

Union Lock Stitch Company. (See Merrick, Frank W., assignor.)

Union Switch & Signal Company, The. (See Coleman, John P., assignor.)

Union Twist Drill Company. (See MacKay, Simon, assignor.)

Unit Construction Company. (See Conzelman, John E., assignor.)

United Printing Machinery Co. (See McLaughlin, Robert B., assignor.)

United Shoe Machinery Company. (See Alexander, Alexander M., assignor.)

United Shoe Machinery Company. (See Bates, Arthur, assignor.)

United Shoe Machinery Company. (See Bostock, Thomas, assignor.)

United Shoe Machinery Company. (See Davenport, Eugene F., assignor.)

United Shoe Machinery Company. (See Gilden, John E., assignor.)

United Shoe Machinery Company. (See Hurd, Edward L., assignor.)

United Shoe Machinery Company. (See Jackson and Pochin, assignors.)

United Shoe Machinery Company. (See Keall, Gould-bourn, and Jerram, assignors.)

United Shoe Machinery Company. (See Lane, Elmer E., assignor.)

United Shoe Machinery Company. (See Macleod, Albert A., assignor.)

United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)

United Shoe Machinery Company. (See Perry, Frederick H., assignor.)

United Shoe Machinery Company. (See Stubbs, William A., assignor.)

United Shoe Machinery Company. (See Winslow, Sidney W., assignor.)

United States Smelting, Refining & Mining Company. (See Stevens, Royale H., assignor.)

United States Tire Company, The, et al. (See Gilbert, Joseph M., assignor.)

United States Tire Company, The, et al. (See Wagenhorst, James H., assignor.)

Universal Winding Company. (See Marcroft, William, assignor.)

Upshaw, Lucius L., assignor of one-fifth to G. L. Blackford and one-fifth to P. H. Tobin, Denison, Tex. Cotton-harvester. No. 1,079,585; Nov. 25; Gaz. vol. 196; p. 902.

Upson, Edwin L., Brooklyn, N. Y., and H. W. Fleister, Westfield, assignors to H. B. Newhall, Plainfield, N. J. Implement-handle. No. 1,078,228; Nov. 11; Gaz. vol. 196; p. 370.

Uriata, Adolfo M., Mexico, Mexico. Boiler. No. 1,078,177; Nov. 11; Gaz. vol. 196; p. 353.

Vacuum Dyeing Machine Company. (See Hey, David M., assignor.)

Valve and Air Brake Company. (See Neal, Spencer G., assignor.)

Van Aulken, Lansing, Watervliet, N. Y. Automatic fire-extinguishing apparatus. No. 1,078,388; Nov. 11; Gaz. vol. 196; p. 429.

Van Buskor, John O., and E. Meier, Dwight, Ill. Water-heater. No. 1,079,811; Nov. 25; Gaz. vol. 196; p. 981.

Van Curen, Elza K., Bairdstown, assignor to M. S. Van Curen, Santa Monica, Cal. Trap for rats, gophers, and similar small game. No. 1,078,526; Nov. 11; Gaz. vol. 196; p. 473.

Van Curen, Mary S. (See Van Curen, Elza K., assignor.)

Van Derveer, Clarence A., assignor, by mesne assignments, to Midland Chair & Seating Company, Michigan City, Ind. Chair. No. 1,078,810; Nov. 18; Gaz. vol. 196; p. 605.

Van Derveer, Clarence A., assignor, by mesne assignments, to Midland Chair & Seating Company, Michigan City, Ind. Car-seat. No. 1,078,811; Nov. 18; Gaz. vol. 196; p. 605.

Van Deusen, Cary, Craryville, N. Y. Metal railway-tie. No. 1,077,656; Nov. 4; Gaz. vol. 196; p. 143.

Van Pessen, Charles L., Hastings-upon-Hudson, assignor to N. Y. Sanitation-Filtration Co., New York, N. Y. Filter-leaf. No. 1,078,812; Nov. 18; Gaz. vol. 196; p. 605.

Van Loy, Alois, Brussels, Belgium. Type-writer. No. 1,079,812; Nov. 25; Gaz. vol. 196; p. 981.

Van Sant, Norman S., Philadelphia, Pa., assignor to Mergenthaler Linotype Company. Border-rule. No. 1,079,078; Nov. 18; Gaz. vol. 196; p. 608.

Van Vleck, Horace R., Montclair, N. J. Lamp. No. 1,078,389; Nov. 11; Gaz. vol. 196; p. 429.

Van Voorhis, George S., Brookline, Mass. Means for issuing directions concerning care of motor-vehicles. No. 1,077,657; Nov. 4; Gaz. vol. 196; p. 143.

Van Zante, Diella P., Pella, Iowa, Stirrup. No. 1,079,813; Nov. 25; Gaz. vol. 196; p. 982.

Vanderwater, Daniel B., Liberty, Tex. Agricultural implement. No. 1,077,443; Nov. 4; Gaz. vol. 196; p. 72.

Variety Manufacturing Company. (See Gilmore, Millard, assignor.)

Varney, Theodore, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Anchor structure for overhead lines. No. 1,078,647; Nov. 18; Gaz. vol. 196; p. 548.

Vatne, John. (See Haga, Ottar B., assignor.)

Vauchain, Samuel M., Philadelphia, Pa., M. Linton, Moorestown, N. J., and G. R. Henderson, assignors to The Baldwin Locomotive Works, Philadelphia, Pa. Geared locomotive. No. 1,077,769; Nov. 4; Gaz. vol. 196; p. 182.

Vaughan, Henry H. (See Burnett and Vaughan.)

Vaughn, Jerry A., Montello, Wis. Hoisting device. No. 1,078,756; Nov. 18; Gaz. vol. 196; p. 585.

Veiser, Herman, Philadelphia, Pa. Window. No. 1,079,525; Nov. 25; Gaz. vol. 196; p. 879.

Velle Carriage Company. (See Ryerson, Daniel, assignor.)

Vereinigte Chiniinfabriken Zimmer & Co., G. m. b. H. (See Thron, Heinrich, assignor.)

Vergason, Charles H. (See Doolittle, Winsor, and Vergason.)

Verity, Robert H. (See Jones and Verity.)

Vetter, Clarence A., Pittsburgh, Pa., assignor, by mesne assignments, to Best Electric Company, Lamp-socket. No. 1,078,813; Nov. 18; Gaz. vol. 196; p. 606.

Vetter, William S., New York, assignor of one-half to J. J. Barber, Brooklyn, N. Y. Case-making machine. No. 1,078,527; Nov. 11; Gaz. vol. 196; p. 473.

Vickers Limited. (See Benthal, John L., assignor.)

Vickers Limited. (See Dawson and Buckham, assignors.)

Vickers Limited. (See Maxin, Hiram S., assignor.)

Vickers Limited. (See McKechnie, James, assignor.)

Vickrey, Eli W., Indianapolis, Ind. Faucet. No. 1,078,325; Nov. 11; Gaz. vol. 196; p. 405.

Victor Talking Machine Company. (See Lumiere, Louis, assignor.)

Victor Typewriter Company. (See Hagerstrom, John A., assignor.)

Vierengel, Matthew, Brooklyn, N. Y. Machine for applying patches and fasteners to envelopes. No. 1,078,473; Nov. 11; Gaz. vol. 196; p. 456.

Villiger, Joseph, and E. J. Schierer, Metamora, Ill. Fifth-wheel. No. 1,078,709; Nov. 18; Gaz. vol. 196; p. 569.

Vincent, Ernest H., Emeryville, Cal. Auto dumping-truck. No. 1,077,570; Nov. 4; Gaz. vol. 196; p. 115.

Vinson, James, Tunnel Hill, Ill. Motor. No. 1,078,074; Nov. 11; Gaz. vol. 196; p. 318.

Virden Manufacturing Company, The. (See Aspinwall, Robert S., assignor.)

Voegel, Frank A. (See Muth, George E., assignor.)

Vogel, Charles H., Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,079,526; Nov. 25; Gaz. vol. 196; p. 879.

Vogel, Charles H., Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,079,731; Nov. 25; Gaz. vol. 196; p. 951.

Vogel, Frederick M., Pittsfield, Mass., assignor to General Electric Company. Heating unit. No. 1,077,658; Nov. 4; Gaz. vol. 196; p. 143.

Vorraber, Josef, assignor to Märklische Maschinenbauanstalt "Teutonia," Gesellschaft mit beschränkter Haftung, Frankfurt-on-the-Oder, Germany. Ball-bearing. No. 1,078,474; Nov. 11; Gaz. vol. 196; p. 456.

Voss, William H., Davenport, Iowa. Mechanical movement for washing-machines. No. 1,079,456; Nov. 25; Gaz. vol. 196; p. 856.

Vukasovich, Nickilo, New Orleans, La. Guiding attachment for selnes. No. 1,078,566; Nov. 11; Gaz. vol. 196; p. 486.

W. H. Miner Company. (See O'Connor, Martin A., assignor.)

W. S. Tyler Company, The. (See Reynolds, Morley P., assignor.)

Wachsmuth, William J. (See Specht and Wachsmuth.)

Wade, Edwin T., assignor of one-fourth to C. W. Payne, Jackson, Miss. Combined rail-joint and nut-lock. No. 1,077,770; Nov. 4; Gaz. vol. 196; p. 183.

Wadewitz, Alfred H., Racine, Wis. Chase-lock. No. 1,078,594; Nov. 11; Gaz. vol. 196; p. 496.

Wadsworth, Harry E., Vancouver, Wash. Spike-pulling jack. No. 1,078,178; Nov. 11; Gaz. vol. 196; p. 353.

Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Wrench for demountable rims and the like. No. 1,078,567; Nov. 11; Gaz. vol. 196; p. 486.

Waggoner, George E., Vacaville, Cal. Means for controlling fumes or smoke. No. 1,077,771; Nov. 4; Gaz. vol. 196; p. 183.

Wagner, Adam. (See Horn and Wagner.)

Wagner, Herman A., New York, N. Y. Electrolytic diaphragm. No. 1,077,444; Nov. 4; Gaz. vol. 196; p. 72.

Wagner Manufacturing Company. (See Horn and Wagner.)

Wagner, Robert. (See Kratz and Wagner.)

Wahra, Walter E., assignor to Milwaukee Net Company, Milwaukee, Wis. Fly-net for horses. No. 1,078,022; Nov. 11; Gaz. vol. 196; p. 300.

Wait, Henry H., Chicago, Ill. Electric generating system. No. 1,078,179; Nov. 11; Gaz. vol. 196; p. 353.

Wakeman, Charles A., assignor of one-half to W. Diekmann, Oshkosh, Wis. Furniture packing-pad. No. 1,078,390; Nov. 11; Gaz. vol. 196; p. 429.

Waldo, Albert V., Degraff, Ohio. Internal-combustion engine. No. 1,078,392; Nov. 11; Gaz. vol. 196; p. 430.

Wales, Nathaniel B., Boston, Mass. Heating apparatus. No. 1,077,378; Nov. 4; Gaz. vol. 196; p. 48.

Wales, Nathaniel B., Boston, Mass. Heating apparatus. No. 1,077,379; Nov. 4; Gaz. vol. 196; p. 48.

Wales, Nathaniel B., Braintree, Mass., assignor to G. B. Collier, Kinderhook, N. Y. Heating apparatus. No. 1,079,381; Nov. 25; Gaz. vol. 196; p. 830.

Walk, Frank E., Allentown, assignor of one-half to P. J. Boyle, Hazleton, Pa. Culinary utensil. No. 1,077,946; Nov. 4; Gaz. vol. 196; p. 243.

Walker & Bennett Manufacturing Company. (See Bennett, Frederick, assignor.)

Walker, Harry A. (See Flagg, Joseph W., assignor.)

Wallace, Christopher, Irondale, Mo. Fifth-wheel. No. 1,079,277; Nov. 18; Gaz. vol. 196; p. 763.

Wallace, Edward M., New Orleans, La. Bag closure and carrier. No. 1,079,527; Nov. 25; Gaz. vol. 196; p. 880.

Wallace, George E. (See Graham and Wallace.)

Wallace, George E. (See Kilburn, John F., assignor.)

Wallace, Roger W., and E. Wassmer, London, England. Preparation of metallic magnesium. No. 1,079,079; Nov. 18; Gaz. vol. 196; p. 698.

Wallace, Squire A., et al. (See Hudgins, William F., assignor.)

Wallbillich, Anthony F., assignor to The Bryant Electric Company, Bridgeport, Conn. Safety mechanism for stamping-presses and the like. No. 1,078,391; Nov. 11; Gaz. vol. 196; p. 430.

Wallos, Joseph, Los Angeles, Cal. Browning flour. No. 1,079,676; Nov. 25; Gaz. vol. 196; p. 931.

Walsh-Baker Corporation. (See Walsh, Thomas P., assignor.) (Reissue.)

Walsh, James L., U. S. Army. Powder-grain. No. 1,077,320; Nov. 4; Gaz. vol. 196; p. 28.

Walsh, Thomas P., Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Machine for selecting, spooling, shearing, and drawing in yarn for Axminster looms. (Reissue.) No. 13,640; Nov. 4; Gaz. vol. 196; p. 252.

Waltensperger, Alexander L., Detroit, Mich. Seat-actuating mechanism for water-closets. No. 1,079,732; Nov. 25; Gaz. vol. 196; p. 952.

Walter, Sanford F. (See Lyons and Gruenberg, assignors.)

Walton, Charles N., Monroe, N. Y. Weed-puller. No. 1,079,619; Nov. 25; Gaz. vol. 196; p. 913.

Walton, Edgar M., Kansas City, Mo. Cement shingle structure. No. 1,077,321; Nov. 4; Gaz. vol. 196; p. 28.

Walton, Jerrold F., Sturgis, Mich. Adjustable chair. No. 1,079,628; Nov. 25; Gaz. vol. 196; p. 880.

Wand, Leo, Elizabeth, Ill. Vehicle-support. No. 1,077,445; Nov. 4; Gaz. vol. 196; p. 72.

Wand, Thomas C., et al. (See McCormick, William, assignor.)

Wander, Alfred K., and R. Dalmat, Chicago, Ill. Trousers-belt. No. 1,078,974; Nov. 18; Gaz. vol. 196; p. 659.

Ward, Edward F., Trumansburg, N. Y. Egg-carton. No. 1,077,322; Nov. 4; Gaz. vol. 196; p. 29.

Ward, Isaac E., Mount Hope, Kans. Automatic tier for hay-presses. No. 1,078,023; Nov. 11; Gaz. vol. 196; p. 300.

Ward, Norris C., Chicago, Ill. Internal-combustion engine. No. 1,079,307; Nov. 18; Gaz. vol. 196; p. 773.

Ward, William M., St. Joseph, Mo. Buckle. No. 1,079,080; Nov. 18; Gaz. vol. 196; p. 698.

Wardwell Braiding Machine Company. (See Wardwell and Brink, assignors.)

Wardwell, Simon W., and C. A. Brink, Providence, R. I., assignors to Wardwell Braiding Machine Company, Portland, Me. Holder for cop-tubes, bobbins, spools, or the like. No. 1,078,393; Nov. 11; Gaz. vol. 196; p. 431.

Warner, Frederick E., assignor to The King Machine Company, Bridgeport, Conn. Ironing-machine. No. 1,078,394; Nov. 11; Gaz. vol. 196; p. 431.

Warner, Gilbert W., Kenmore, Ohio. Rail-joint. (Reissue.) No. 13,639; Nov. 4; Gaz. vol. 196; p. 251.

Warner, John F., Muncie, Ind. Pump. No. 1,079,308; Nov. 18; Gaz. vol. 196; p. 774.

Warner, Robert B. (See McLane, Friedrich, and Warner.)

Warrell, John D., Deweyville, Tex. Rail-tie. No. 1,078,075; Nov. 11; Gaz. vol. 196; p. 318.

Wasbauer, Alfred M. (See Sullivan and Wasbauer.)

Wasbauer, Isidore. (See Sullivan and Wasbauer, assignors.)

Wasserman, Edwin A., San Francisco, Cal. Candy-packing machine. No. 1,078,180; Nov. 11; Gaz. vol. 196; p. 354.

Wassmer, Eugene. (See Wallace and Wassmer.)

Water & Sewage Purification Company. (See Leet, Lynn T., assignor.)

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Clutch mechanism. No. 1,077,497; Nov. 4; Gaz. vol. 196; p. 92.

Watrigan, Henri L. A. M. (See Guignard and Watrigan.)

Watson, George E., Hickory Point, Tenn. Corn and pea planter. No. 1,078,395; Nov. 11; Gaz. vol. 196; p. 431.

Watson, Joseph E., and R. M. Liston, Tiltonsville, Ohio. Combined railway-tie and fastener. No. 1,079,677; Nov. 25; Gaz. vol. 196; p. 932.

Watzlawik, Fritz, Schöneberg, assignor to Berliner Jute-Spinnerei & Weber, Straulan, near Berlin, Germany. Machine for automatically removing the full pirns in spinning and twisting frames. No. 1,079,154; Nov. 18; Gaz. vol. 196; p. 724.

Way, James R. (See Fergusson and Way.)

Weathersby, Fred R., Houston, Tex. Drill. No. 1,077,772; Nov. 4; Gaz. vol. 196; p. 183.

Weaver, Clayton B. (See Irenius and Weaver.)

Webb Manufacturing Company. (See Fuller, Eugene, assignor.)

Webb, William E., Jr., Larchmont, N. Y. Neckwear. No. 1,079,382; Nov. 25; Gaz. vol. 196; p. 831.

Weber, Christopher J. M., St. Paul, Minn. Mail-bag-delivering apparatus. No. 1,077,323; Nov. 4; Gaz. vol. 196; p. 29.

Weber, Henry, assignor to Latham Machinery Company, Chicago, Ill. Feeding mechanism for wire-stitching machines. No. 1,078,024; Nov. 11; Gaz. vol. 196; p. 300.

Weber, Henry C., Milwaukee, Wis. Suspenders. No. 1,077,571; Nov. 4; Gaz. vol. 196; p. 115.

Webster, Charles L., Providence, R. I. Cuff-button. No. 1,079,620; Nov. 25; Gaz. vol. 196; p. 914.

Webster, Harry C., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Signalling system. No. 1,078,229; Nov. 11; Gaz. vol. 196; p. 370.

Wedemeyer, Wilhelm H. A. R., Hamburg, Germany. Dust-chute. No. 1,079,529; Nov. 25; Gaz. vol. 196; p. 881.

Wedge, Utley, Ardmore, Pa. Apparatus for charging furnaces or ovens. No. 1,079,081; Nov. 18; Gaz. vol. 196; p. 699.

Weed, Harry D., Syracuse, N. Y. Tread-section for anti-skidding devices. No. 1,079,907; Nov. 25; Gaz. vol. 196; p. 1014.

Weeman, Frederick L., Portland, Me. Oil-burner. No. 1,078,475; Nov. 11; Gaz. vol. 196; p. 457.

Weidenhelm, Theodor F. K. von. (See Kunert and Weidenhelm.)

Weimar, Otto L., Philadelphia, Pa. Safety-envelop. No. 1,077,773; Nov. 4; Gaz. vol. 196; p. 183.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Thermo-electric couple. No. 1,079,621; Nov. 25; Gaz. vol. 196; p. 914.

Weir, Max W., Newark, N. J. Means for transmitting power. No. 1,078,710; Nov. 18; Gaz. vol. 196; p. 569.

Welch, John F., Bloomington, Ill. Mop. No. 1,077,498; Nov. 4; Gaz. vol. 196; p. 92.

Welch, John W., assignor of one-fourth to E. L. Chott and one-fourth to H. J. Chott, Chicago, Ill. Dental-engine stone and mandrel. No. 1,077,572; Nov. 4; Gaz. vol. 196; p. 116.

Welch, Rosia W., Baltimore, Md., assignor of one-half to J. T. Burwell, Millwood, Va. Rice-hulling machine. No. 1,077,659; Nov. 4; Gaz. vol. 196; p. 144.

Well, Hugo C., assignor of one-half to F. A. B. Meinhardt, New York, N. Y. Aeroplane. No. 1,077,774; Nov. 4; Gaz. vol. 196; p. 184.

Welles, Henry S., New York, N. Y. Artificial bait. No. 1,078,886; Nov. 18; Gaz. vol. 196; p. 630.

Wellman, Holley G., Cleveland, Ohio. Quick-break switching mechanism. No. 1,077,380; Nov. 4; Gaz. vol. 196; p. 49.

Wells, Joel C., Southbridge, Mass. Guard. No. 1,079,733; Nov. 25; Gaz. vol. 196; p. 952.

Wells, Joseph U., Fallen Leaf, Cal. Pneumatic vehicle-wheel. No. 1,079,082; Nov. 18; Gaz. vol. 196; p. 699.

Welsch, Wilhelm, Berlin, Germany, assignor to General Electric Company. Potential-regulator. No. 1,078,076; Nov. 11; Gaz. vol. 196; p. 318.

Werber, Isidor, Vienna, Austria-Hungary. Method of and means for manufacturing mantles for incandescent gas-lighting. No. 1,077,922; Nov. 4; Gaz. vol. 196; p. 235.

Wert, Albitus B., Nevada, Mo. Rail-joint. No. 1,077,775; Nov. 4; Gaz. vol. 196; p. 184.

Wessinger, William E., Duluth, Minn. Switch-operating mechanism. No. 1,078,975; Nov. 18; Gaz. vol. 196; p. 659.

Weason, Isaac A., Wingo, Ky. Linear measure. No. 1,079,467; Nov. 25; Gaz. vol. 196; p. 856.

Weason, Joseph H., Springfield, Mass. Cartridge. No. 1,079,083; Nov. 18; Gaz. vol. 196; p. 699.

West, Augustus A., Brooklyn, N. Y., and W. H. Gatchell, Philadelphia, Pa., assignors to W. H. Gatchell. Hair-curler. No. 1,077,897; Nov. 4; Gaz. vol. 196; p. 224.

West, Frank P., Orting, Wash. Corn-rack. No. 1,078,814; Nov. 18; Gaz. vol. 196; p. 606.

West, Grafton. (See Goodrich and West.)

West, Joseph M., Rockport, Mo. Amusement device. No. 1,079,678; Nov. 25; Gaz. vol. 196; p. 932.

Westerberg, Nils, et al. (See Carpenter, Ezekiah, assignor.)

Western Clock Co. (See Kern, George, assignor.)

Western Electric Company. (See Craft, Edward B., assignor.)

Western Electric Company. (See Shreeve, Herbert E., assignor.)

Western Surgical Supply Company, The. (See Hasenzahl, Ferdinand, assignor.)

Westinghouse Air Brake Company, The. (See Stone, Louis G., assignor.) (Reissue.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Air Brake Company, The. (See Turner and Cady, assignors.)

Westinghouse Electric and Manufacturing Company. (See Cooper, William, assignor.)

Westinghouse Electric and Manufacturing Company. (See James, Henry D., assignor.)

Westinghouse Electric and Manufacturing Company. (See Lewis, Joseph W., assignor.)

Westinghouse Electric and Manufacturing Company. (See Mahoney, Myles, assignor.)

Westinghouse Electric & Manufacturing Company. (See Matter, Jesse E., assignor.)

Westinghouse Electric & Manufacturing Company. (See Skinner and Scott, assignors.)

Westinghouse Electric and Manufacturing Company. (See Varney, Theodore, assignor.)

Westlake, Charles T., assignor to Commonwealth Steel Company, St. Louis, Mo. Car-truck. No. 1,078,648; Nov. 18; Gaz. vol. 196; p. 546.

Westlake, Charles T., assignor to Swing Rolling Truck Co., St. Louis, Mo. Car-truck. No. 1,079,458; Nov. 25; Gaz. vol. 196; p. 856.

Westlake, Charles T., assignor to Swing Rolling Truck Co., St. Louis, Mo. Car-truck. No. 1,079,459; Nov. 25; Gaz. vol. 196; p. 857.

Wetherill, Robert, assignor to Robert Wetherill & Company, Incorporated, Chester, Pa. Valve-gear for steam-engines. No. 1,077,898; Nov. 4; Gaz. vol. 196; p. 225.

White Company, The. (See White, Rollin H., assignor.)

White, Ernest M., Globe, Ariz. Splash system of lubrication. (Reissue.) No. 13,651; Nov. 18; Gaz. vol. 196; p. 782.

White, Frank C., assignor to The Wilcox & White Company, Meriden, Conn. Automatic pedal-folder for player-pianos and the like. No. 1,077,499; Nov. 4; Gaz. vol. 196; p. 92.

White, Howard J., San Francisco, Cal. Box for electric conduits. No. 1,078,181; Nov. 11; Gaz. vol. 196; p. 354.

White, Rollin H., assignor to The White Company, Cleveland, Ohio. Automobile wheel-brake. No. 1,078,976; Nov. 18; Gaz. vol. 196; p. 660.

White, Samuel T., Davenport, Iowa. Mechanical movement for washing-machines. No. 1,079,460; Nov. 25; Gaz. vol. 196; p. 857.

White, William, London, England, assignor of one-half to F. E. Brown, Sydney, New South Wales, Australia. Cooking-stove. No. 1,079,084; Nov. 18; Gaz. vol. 196; p. 699.

Whitehead, John B., Baltimore, Md. System of electrical transmission. No. 1,078,711; Nov. 18; Gaz. vol. 196; p. 570.

Whitman, Charles R., Chicago, Ill. Collar attachment. No. 1,079,085; Nov. 18; Gaz. vol. 196; p. 700.

Whitmore, Edward E. (See Forsyth and Whitmore.)

Whitmore, Edward E., Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J. Vestibule-curtain mounting. No. 1,077,660; Nov. 4; Gaz. vol. 196; p. 144.

Whitmore, Edward E., Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J. Hood for car-diaphragms. No. 1,078,567; Nov. 18; Gaz. vol. 196; p. 586.

Whitmore, Edward E., Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J. Car-diaphragm. No. 1,078,758; Nov. 18; Gaz. vol. 196; p. 586.

Whitridge, John C., and G. T. Johnson, assignors to The Buckeye Steel Castings Company, Columbus, Ohio. Car-truck. No. 1,079,199; Nov. 18; Gaz. vol. 196; p. 740.

Whitright, Samuel L., Waterbury, Conn. Dental cotton-holder. No. 1,078,230; Nov. 11; Gaz. vol. 196; p. 370.

Whitson, James T. (See Hayes, John, assignor.)

Whittaker, Arnold R. (See Jeavons and Whittaker.)

Whitted, Eddie G. (See Whitted, Thomas and E. G.)

Whitted, Thomas and E. G., Narcoossee, Fla. Rake. No. 1,078,231; Nov. 11; Gaz. vol. 196; p. 371.

Wichertjes, Arend, Chicago, Ill. Fire-escape. No. 1,078,759; Nov. 18; Gaz. vol. 196; p. 586.

Widney, Stanley W., Chicago, Ill. Piano-pedal. No. 1,078,025; Nov. 11; Gaz. vol. 196; p. 301.

Wieder, Franz, Bliersheim, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Iron piling. No. 1,079,814; Nov. 25; Gaz. vol. 196; p. 982.

Wiegand, Henry J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Limit-switch. No. 1,078,815; Nov. 18; Gaz. vol. 196; p. 606.

Wienholtz, Georg, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Gun-carriage. No. 1,079,815; Nov. 25; Gaz. vol. 196; p. 982.

Wienholtz, Georg, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Wheeled gun-carriage. No. 1,079,816; Nov. 25; Gaz. vol. 196; p. 983.

Wieser, Karl, Bredene, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Delayed-action device for impact-fuses. No. 1,079,383; Nov. 25; Gaz. vol. 196; p. 831.

Wiggen, Peter, assignor to J. P. Seeburg Piano Company, Chicago, Ill. Coin-operated mechanism. No. 1,077,962; Nov. 4; Gaz. vol. 196; p. 248.

Wiggers, Otto, Hooper, Utah. Burglar-alarm. No. 1,078,476; Nov. 11; Gaz. vol. 196; p. 457.

Wiggin, Albert E., assignor of one-third to U. A. Garred and one-third to F. Laist, Anconda, Mont. Multiple-deck concentrator. No. 1,078,977; Nov. 18; Gaz. vol. 196; p. 660.

Wilbuschewitsch, Mose, Nischinowgorod, Kanavino, Russia. Apparatus for converting fats, oils, and fish-oils into like bodies of higher melting-points. No. 1,079,278; Nov. 18; Gaz. vol. 196; p. 763.

Wilcox & White Company, The. (See White, Frank C., assignor.)

Wilcoxson, Earl C., and E. Swanson, Denver, Colo. Jeweler's vice. No. 1,077,661; Nov. 4; Gaz. vol. 196; p. 145.

Wilde, Arthur E., New York, N. Y. Toy. No. 1,079,200; Nov. 18; Gaz. vol. 196; p. 740.

Wilde, Louis. (See Wilde, Peter and L.)

Wilde, Otto W., Wichita, Kans. Combined whip, rein, and lap-robe lock for vehicles. No. 1,079,530; Nov. 25; Gaz. vol. 196; p. 881.

Wilde, Peter and L., Fort Laramie, Wyo. Cutter-bar. No. 1,079,279; Nov. 18; Gaz. vol. 196; p. 764.

Wildeblood, Henry S., Lucknow, India. Means for improving the stability of aeroplanes. No. 1,078,477; Nov. 11; Gaz. vol. 196; p. 457.

Wilder, William S. A., Anderson, Cal. Device for removing and replacing railway-ties. No. 1,078,182; Nov. 11; Gaz. vol. 196; p. 354.

Wilkinson, Clarence R. (See Neilsen and Wilkinson.)

Willard, Charles A., Madison, Conn. Supplemental control for motive power. No. 1,078,232; Nov. 11; Gaz. vol. 196; p. 371.

Willard, Louie E., Chula, Ark. Strainer. No. 1,079,280; Nov. 18; Gaz. vol. 196; p. 764.

William J. Paul Co. (See Paul, William J., assignor.)

William Underwood Company. (See Cleveland, Francis D., assignor.)

Williams, Charles H., Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Gage for brake-beams. No. 1,078,649; Nov. 18; Gaz. vol. 196; p. 546.

Williams, David T., Paterson, N. J., assignor of one-half to F. L. Connable, Wilmington, Del. Feed-water heater. No. 1,078,026; Nov. 11; Gaz. vol. 196; p. 301.

Williams, J. Harry, et al. (See Gregory, Horace B. and I. F., assignors.)

Williams, John L., Los Angeles, Cal. Flushing-valve. No. 1,078,113; Nov. 11; Gaz. vol. 196; p. 331.

Williams, John T., et al. (See Gregory, Horace B. and I. F., assignors.)

Williams, John T., Swansea, Wales. Clutch mechanism. No. 1,077,776; Nov. 4; Gaz. vol. 196; p. 184.

Williams, Luton A., Marietta, N. C. Heat-distributing apparatus. No. 1,077,324; Nov. 4; Gaz. vol. 196; p. 29.

Williams, Milton F., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Shredding-hammer. No. 1,078,650; Nov. 18; Gaz. vol. 196; p. 547.

Williams Patent Crusher & Pulverizer Company. (See Williams, Milton F., assignor.)

Williamson, Chester, San Francisco, Cal. Signal apparatus. No. 1,078,978; Nov. 18; Gaz. vol. 196; p. 661.

Williamson, George S., Elk Grove, Cal. Irrigating apparatus. No. 1,079,817; Nov. 25; Gaz. vol. 196; p. 983.

Willmott, Charles, Smethwick, England. Solder for aluminum. No. 1,078,114; Nov. 11; Gaz. vol. 196; p. 332.

Willoughby, John, New York, assignor of one-half to G. W. Bayley, Brooklyn, N. Y. Internal-combustion engine. No. 1,077,391; Nov. 4; Gaz. vol. 196; p. 49.

Willoughby, John, New York, assignor of one-half to G. W. Bayley, Brooklyn, N. Y. Internal-combustion engine. No. 1,079,622; Nov. 25; Gaz. vol. 196; p. 914.

Willson, Thomas L. and M. M. Hoff, Ottawa, Ontario, Canada; said Hoff assignor to said Willson. Manufacturing double superphosphate. No. 1,078,887; Nov. 18; Gaz. vol. 196; p. 630.

Wilson, Andrew, et al. (See Ker, Charles A., assignor.)

Wilson, Asa B. (See Struck, Philip, assignor.)

Wilson, Ben H., Portland, Ore. Clothes-pounder. No. 1,078,183; Nov. 11; Gaz. vol. 196; p. 355.

Wilson, Charles E., assignor to The Shaw-Walker Company, Muskegon, Mich. Filling-tray. No. 1,077,600; Nov. 4; Gaz. vol. 196; p. 93.

Wilson, Edward B., Worland, Wyo. Ditching-machine. No. 1,077,777; Nov. 4; Gaz. vol. 196; p. 184.

Wilson, Edwin B., Brooklyn, N. Y., and C. I. Robinson, Pittsburgh, Pa. Advertising order record. No. 1,079,461; Nov. 25; Gaz. vol. 196; p. 858.

Wilson, Fergus F., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Printing bar or slug. No. 1,079,086; Nov. 18; Gaz. vol. 196; p. 700.

Wilson, Franklin A., Hagerman, Idaho. Reinforced-concrete railway-tie. No. 1,078,712; Nov. 18; Gaz. vol. 196; p. 570.

Wilson, James M., assignor to H. C. Stevenson, trustee, Toronto, Ontario, Canada. Rotary pump and motor. No. 1,079,384; Nov. 25; Gaz. vol. 196; p. 831.

Wilson, Lydell L., Randolph, N. Y. Water-cooling apparatus. No. 1,079,087; Nov. 18; Gaz. vol. 196; p. 700.

Wilson, Roy. (See Garman, Harry B., assignor.)

Wilson, William W., Los Angeles, Cal. Underreamer. No. 1,078,568; Nov. 11; Gaz. vol. 196; p. 487.

Winans, Daniel M. (See Winans, Thomas J. and D. M.)

Winans Machine Company, The. (See Winans, Thomas J. and D. M., assignors.)

Winans, Thomas J. and D. M., assignors to The Winans Machine Company, Binghamton, N. Y. Vacuum cleaning apparatus. No. 1,078,651; Nov. 18; Gaz. vol. 196; p. 547.

Winchester Repeating Arms Co. (See Johnson, Thomas C., assignor.)

Winchester Repeating Arms Co. (See Starkweather, Henry W., assignor.)

Windel, Theodore, Brooklyn, N. Y. Automatic stabilizer for aeroplanes. No. 1,078,888; Nov. 18; Gaz. vol. 196; p. 631.

Winslow, Sidney W., Orleans, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Top lift. No. 1,078,652; Nov. 18; Gaz. vol. 196; p. 547.

Winsor, Clifford S. (See Doolittle, Winsor, and Vergason.)

Winters, David L., Chicago, Ill. Water storing and heating apparatus for boilers. No. 1,079,623; Nov. 25; Gaz. vol. 196; p. 914.

Wintroath, John A., assignor to Layne & Bowler Corporation, Los Angeles, Cal. Well mechanism. No. 1,079,679; Nov. 25; Gaz. vol. 196; p. 932.

Wintroath, John A., assignor to Layne & Bowler Corporation, Los Angeles, Cal. Bearing. No. 1,079,680; Nov. 25; Gaz. vol. 196; p. 933.

Wintroath, John A., assignor to Layne & Bowler Corporation, Los Angeles, Cal. Boring-stem. No. 1,079,681; Nov. 25; Gaz. vol. 196; p. 933.

Wintroath, John A., assignor to The Layne & Bowler Corporation, Los Angeles, Cal. Bearing system for rotary well-pumps. No. 1,079,682; Nov. 25; Gaz. vol. 196; p. 934.

Wise, Charles W., Pittsburgh, Pa. Cellular member for egg-cases. No. 1,078,396; Nov. 11; Gaz. vol. 196; p. 432.

Wise, William E., Williamsport, Pa. Combination sleigh and wheeled vehicle. No. 1,079,201; Nov. 18; Gaz. vol. 196; p. 740.

Wissler, Adolph, St. Louis, Mo. Air-gun. No. 1,079,908; Nov. 25; Gaz. vol. 196; p. 1015.

Witham, George S., Sr. (See Witham, Isaac J. and G. S., Sr.)

Witham, George S., Sr., Hudson Falls, N. Y. Pulp-strainer. No. 1,079,818; Nov. 25; Gaz. vol. 196; p. 983.

Witham, Isaac J. and G. S., Sr., Hudson Falls, N. Y., assignors to The Union Bag & Paper Company. Sheet-delivery feed. No. 1,079,823; Nov. 4; Gaz. vol. 196; p. 234.

Witter, William S., Toledo, Iowa. Spark-plug. No. 1,077,325; Nov. 4; Gaz. vol. 196; p. 29.

Wittkowski, Harry B. (See Markowski and Wittkowski.)

Witty, George, assignor of one-half to S. S. Spruiks, Scranton, Pa. Street-car. No. 1,079,202; Nov. 18; Gaz. vol. 196; p. 740.

Wixon, Howard H., assignor to Stromberg Motor Devices Company, Chicago, Ill. Interrupter for ignition-dynamos. No. 1,078,233; Nov. 11; Gaz. vol. 196; p. 371.

Woerner, Eugen, Cannstatt, assignor to The Firm of R. Bosch, Stuttgart, Germany. Pump for lubricating systems. No. 1,078,889; Nov. 18; Gaz. vol. 196; p. 631.

Woerner, Eugen, Cannstatt, assignor to The Firm of R. Bosch, Stuttgart, Germany. Pump for lubricating systems. No. 1,078,890; Nov. 18; Gaz. vol. 196; p. 631.

Wogenstahl, Leo J., San Antonio, Tex. Lamp-operating mechanism. No. 1,078,115; Nov. 11; Gaz. vol. 196; p. 332.

Wolf, Ernest P. A., New York, N. Y. Loose-leaf book. No. 1,078,116; Nov. 11; Gaz. vol. 196; p. 332.

Wolf, Fred W., Jr. (See Southworth and Wolf.)

Wolf, John J., San Antonio, Tex. Pencil-sharpener. No. 1,077,778; Nov. 4; Gaz. vol. 196; p. 184.

Wolfe, Arthur P., Vineland, N. J. Tomato-coring machine. No. 1,077,446; Nov. 4; Gaz. vol. 196; p. 73.

Wolfe, Edward H., Camas, Wash. Saw-sage. No. 1,077,573; Nov. 4; Gaz. vol. 196; p. 116.

Wood, Alfred. (See Salnave, Dewey A., assignor.)

Wood, Charles O., Chambersburg, Pa. Molding-jacket. No. 1,077,779; Nov. 4; Gaz. vol. 196; p. 185.

Wood, Frank W., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y. Ship's telegraph. No. 1,078,653; Nov. 18; Gaz. vol. 196; p. 548.

Wood, James N., Blackshear, Ga., assignor to Neely Compress & Cotton Company, Richmond, Va. Baling-press. No. 1,079,683; Nov. 25; Gaz. vol. 196; p. 934.

Wood, Willard, San Francisco, Cal. Attachment for telephone instruments. No. 1,078,117; Nov. 11; Gaz. vol. 196; p. 332.

Woodbridge, Joseph L., Philadelphia, Pa. Electrical system of distribution. No. 1,078,654; Nov. 18; Gaz. vol. 196; p. 548.

Woodley, William T. (See Henry, Beulah L., assignor.)

Woodman, George A. (See Carscadin and Woodman.)

Woodring, Isaac, Waverly, Iowa. Feeding device for corn-busking machines. No. 1,077,899; Nov. 4; Gaz. vol. 196; p. 225.

Woods, Walter J. (See Brunton, Arthur G., assignor.)

Woodward, Henry R., Leesburg, Va. Nostril-expander. No. 1,077,574; Nov. 4; Gaz. vol. 196; p. 116.

Woodward, Irving C., Chicago, Ill. Shirt-waist belt. No. 1,079,624; Nov. 25; Gaz. vol. 196; p. 915.

Woodward, Martin J., Chanute, Kans. Holdback. No. 1,077,382; Nov. 4; Gaz. vol. 196; p. 49.

Woodward, William R., and F. E. Crompton, Brooklyn, assignors to The Signature Company, New York, N. Y. Settling-up device for document-blenders. No. 1,078,979; Nov. 18; Gaz. vol. 196; p. 662.

Worcester, Henry C., et al. (See Skeen, Samuel T., assignor.)

Wornack, Michel J., Seattle, Wash. Tooth for excavator buckets or shovels. No. 1,078,184; Nov. 11; Gaz. vol. 196; p. 355.

Wright Hinge & Lock Co. (See Wright and Lawson, assignors.)

Wright, James, assignor of three-eighths to W. S. Stacey, Hamilton, Ontario, Canada. Safety-guard for power-presses. (Reissue.) No. 13,647; Nov. 11; Gaz. vol. 196; p. 504.

Wright, John B., and F. O. Lawson, assignors to Wright Hinge & Lock Co., Greensboro, N. C. Shutter-hinge latch. No. 1,077,780; Nov. 4; Gaz. vol. 196; p. 185.

Wright, John E., and J. P. Smith, Seattle, Wash. Cannery exhaust-box. No. 1,079,819; Nov. 25; Gaz. vol. 196; p. 984.

Wright, Joseph. (See Wright, Wilson D. C., assignor.)

Wright, Morris S., Worcester, Mass. Pneumatic cleaning-machine. No. 1,078,397; Nov. 11; Gaz. vol. 196; p. 432.

Wright, Richard H. (See Craggs, Ross V., assignor.)

Wright, Richard H. (See Fischer, Louis, assignor.)

Wright, Wilson D. C., assignor of one-half to J. Wright, Philadelphia, Pa. Atomizing and mixing valve. No. 1,078,818; Nov. 18; Gaz. vol. 196; p. 607.

Wurts, L. A., et al. (See Buttress, George, assignor.)

Wutke, Frank C., Chicago, Ill. Wrench. No. 1,077,575; Nov. 4; Gaz. vol. 196; p. 116.

Wyatt, George M., et al. (See Skeen, Samuel T., assignor.)

Wyckoff Excavating and Ditching Company. (See Wyckoff, Joseph E., assignor.)

Wyckoff, Joseph E., Los Angeles, Cal., assignor to Wyckoff Excavating and Ditching Company. Digging or excavating apparatus. No. 1,078,234; Nov. 11; Gaz. vol. 196; p. 372.

Wynn, John, Jr. (See Grossman and Wynn.)

Wysocki, Frank, Chicago, Ill. Flash-light. No. 1,079,088; Nov. 18; Gaz. vol. 196; p. 700.

Xicovich, Victor, Seattle, Wash. Adhesive compound. No. 1,077,576; Nov. 4; Gaz. vol. 196; p. 117.

Yancey, William O., and C. C. Du Mesnil, Chicago, Ill. Hat-pin. No. 1,079,625; Nov. 25; Gaz. vol. 196; p. 915.

Yates, William, Glen Rock, N. J. Hinge. No. 1,077,447; Nov. 4; Gaz. vol. 196; p. 73.

Yates, William C., New York, N. Y., assignor to General Electric Company. Motor-control system. No. 1,077,662; Nov. 4; Gaz. vol. 196; p. 145.

Yarman & Erbe Manufacturing Company. (See Burckhart, Henry B., assignor.)

Yeager, Carl, Birdsboro, Pa. Shock-absorber. No. 1,077,781; Nov. 4; Gaz. vol. 196; p. 186.

Yelf, Henry H., Southsea, Portsmouth, England. Silencing and anticoncussive support for type-writing machines and the like. No. 1,079,037; Nov. 18; Gaz. vol. 196; p. 684.

Yemiker, John, assignor of forty-nine one-hundredths to R. H. Fowler, Akron, Ohio. Collapsible core. No. 1,079,038; Nov. 18; Gaz. vol. 196; p. 684.

Yentzer, George W., assignor to J. E. Porter Company, Ottawa, Ill. Barn-door-hanger track. No. 1,079,734; Nov. 25; Gaz. vol. 196; p. 952.

Yeomans, Wallace C., Pe Ell, Wash. Spark-arrester. No. 1,079,586; Nov. 25; Gaz. vol. 196; p. 902.

Yoakam, David, Lacona, Iowa. Rail-joint. No. 1,079,820; Nov. 25; Gaz. vol. 196; p. 984.

Yoakum, Burt, Kansas City, Kans. Headlight. No. 1,078,801; Nov. 18; Gaz. vol. 196; p. 632.

Yocom, James, Philadelphia, Pa. Variable-speed gear. No. 1,078,398; Nov. 11; Gaz. vol. 196; p. 432.

Yoder, Lorenzo T., Pittsburgh, Pa. Child's playhouse. No. 1,078,027; Nov. 11; Gaz. vol. 196; p. 302.

Yorger, Charles, Indianapolis, Ind. Twine-holder. No. 1,079,596; Nov. 25; Gaz. vol. 196; p. 1010.

York, David A., Northgrove, Ind. Resilient tire. No. 1,077,782; Nov. 4; Gaz. vol. 196; p. 186.

York, James E., New York, N. Y. Rolling ingots. No. 1,078,119; Nov. 11; Gaz. vol. 196; p. 333.

York, James E., New York, N. Y., assignor to York Rolling Process Company. Altering elongated steel shapes. No. 1,078,118; Nov. 11; Gaz. vol. 196; p. 333.

York Rolling Process Company. (See York, James E., assignor.)

Young, James P., Hackleburg, Ala. Gin-saw cleaner. No. 1,078,399; Nov. 11; Gaz. vol. 196; p. 433.

Zahl, Hjalmar, assignor of three-eighths to C. S. Olson and one-eighth to H. Gujer, Duluth, Minn. Hopper-bottom dump-car. No. 1,078,478; Nov. 11; Gaz. vol. 196; p. 457.

Zahn, Edward, assignor to Zahn Manufacturing Company, Buffalo, N. Y. Filtration. No. 1,077,448; Nov. 4; Gaz. vol. 196; p. 73.

Zahn Manufacturing Company. (See Zahn, Edward, assignor.)

Zähringer, Arnold, assignor to Firm of R. Bosch, Stuttgart, Germany. Ball-and-socket joint. No. 1,079,531; Nov. 25; Gaz. vol. 196; p. 881.

Zähringer, Arnold, assignor to Firm of R. Bosch, Stuttgart, Germany. Adjustable timing apparatus for electric ignition systems. No. 1,079,532; Nov. 25; Gaz. vol. 196; p. 882.

Zeamans, Harold R., New York, N. Y. Liquid-dispensing device. No. 1,078,028; Nov. 11; Gaz. vol. 196; p. 302.

Ziegenfuss, Friedrich, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Illuminating-body for illuminating-projectiles. No. 1,079,821; Nov. 25; Gaz. vol. 196; p. 984.

Zehler, Bernard H., Dayton, Ohio. Permutation-lock. No. 1,078,120; Nov. 11; Gaz. vol. 196; p. 333.

Zimmerman, Alonzo, Ansied, W. Va. Metal tie and rail-fastener. No. 1,078,326; Nov. 11; Gaz. vol. 196; p. 405.

Zimmerman, John B., and O. S. Sells, assignors to Peerless Husker Company, Buffalo, N. Y. Trimmer for butt-ends of corn. No. 1,077,577; Nov. 4; Gaz. vol. 196; p. 117.

Zimmerman, Martin, Ephrata, Pa. Door-bell. No. 1,079,822; Nov. 25; Gaz. vol. 196; p. 985.

Zimpel, Erwin, Glogau, Germany. Balance. No. 1,078,029; Nov. 11; Gaz. vol. 196; p. 302.

Zivley, Dennis C., El Paso, Tex. Stamp and coin envelop. No. 1,077,783; Nov. 4; Gaz. vol. 196; p. 186.

Zuber, John G., assignor to Sears, Roebuck and Company, Chicago, Ill. Skirt-marker. No. 1,077,326; Nov. 4; Gaz. vol. 196; p. 30.

Zuber, Quirin, Mount Vernon, N. Y. Overshoe for animals. No. 1,078,479; Nov. 11; Gaz. vol. 196; p. 458.

Zwicky, Melchior. (See Janssen and Zwicky.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

- Alden, Lucy, Saginaw, Mich. Hat. No. 44,910; Nov. 25; Gaz. vol. 196; p. 1023.
- Alexander, Anst. and A. M. Steinberg, Paris, Tenn. Bottle. No. 44,867; Nov. 11; Gaz. vol. 196; p. 505.
- Alexander, Anst. and A. M. Steinberg, Paris, Tenn. Bottle. Nos. 44,881-3; Nov. 18; Gaz. vol. 196; p. 783.
- Alpaugh, Samuel P., Martins Ferry, Ohio, assignor to Wheeling Sanitary Manufacturing Company, Wheeling, W. Va. Bowl for water-closets. No. 44,911; Nov. 25; Gaz. vol. 196; p. 1023.
- Althoff, Henry H., Middle Village, N. Y. Grave-inclosure. No. 44,884; Nov. 18; Gaz. vol. 196; p. 783.
- American Graphophone Company. (See Woods, Clinton E., assignor.)
- Arnold, John D., Pittsburgh, Pa. Miniature church for home devotion. No. 44,912; Nov. 25; Gaz. vol. 196; p. 1023.
- Bailey, Charles A., assignor to The J. & E. Stevens Company, Cromwell, Conn. Stove. Nos. 44,831-3; Nov. 4; Gaz. vol. 196; p. 254.
- Bardwell, Edwin A., Shelburne Falls, Mass. Nail-set. No. 44,834; Nov. 4; Gaz. vol. 196; p. 254.
- Bennett, Arthur J., Cambridge, Ohio. Glass goblet or similar article. No. 44,868; Nov. 11; Gaz. vol. 196; p. 506.
- Bigelow Carpet Company. (See Elliot, William A., assignor.)
- Bigelow Carpet Company. (See Merry, John, assignor.)
- Bigelow Carpet Company. (See Moffat, John B., assignor.)
- Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
- Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
- Bigelow Carpet Company. (See Schindler, Francis, assignor.)
- Bigelow Carpet Company. (See Spring, John, assignor.)
- Bigelow Carpet Company. (See Spring, William A., assignor.)
- Bigelow Carpet Company. (See Vetter, Ignatius J., assignor.)
- Binnis, Edward H., Pittsburgh, Pa. Automobile-body. No. 44,835; Nov. 4; Gaz. vol. 196; p. 254.
- Bromley & Sons, John. (See Petzold, Adolph, assignor.)
- Brunhoff, Edward, Cincinnati, Ohio. Change-tray. No. 44,836; Nov. 4; Gaz. vol. 196; p. 254.
- Buckle, John V., Salt Lake City, Utah. Badge or similar article. No. 44,913; Nov. 25; Gaz. vol. 196; p. 1023.
- Buckley, Harry H., Chicago, Ill., assignor to H. C. Fry Glass Company, Rochester, Pa. Cut-glass dish or similar article. No. 44,914; Nov. 25; Gaz. vol. 196; p. 1024.
- Burkholder, John H., Ashland, Ohio. Lifting-jack stand. No. 44,837; Nov. 4; Gaz. vol. 196; p. 255.
- Carlson, Frank E., Chicago, Ill. Flower-stand. No. 44,915; Nov. 25; Gaz. vol. 196; p. 1024.
- Cheney Brothers. (See Sims, Emile, assignor.)
- Cheron, Pierre J., Mount Tabor, N. J., assignor to Towle Manufacturing Company, Newburyport, Mass. Handle for spoons or analogous articles. No. 44,916; Nov. 25; Gaz. vol. 196; p. 1024.
- Crown Throat & Opener Company. (See Vaughan, Harry L., assignor.)
- Daving, Matthew, assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Clock-case. No. 44,917; Nov. 25; Gaz. vol. 196; p. 1024.
- Day, David L., Revere, Mass., assignor to The Vega Company, Boston, Mass. Mandolin-body. No. 44,838; Nov. 4; Gaz. vol. 196; p. 255.
- Dennis, Oliver C., assignor to Venn Manufacturing Co., Chicago, Ill. Cigar and ash receiver. No. 44,918; Nov. 25; Gaz. vol. 196; p. 1024.
- Detroit Body Company. (See Millington, Theodore H., assignor.)
- Drayton, Grace G., New York, N. Y. Bunny-doll. No. 44,885; Nov. 18; Gaz. vol. 196; p. 784.
- Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,886-7; Nov. 18; Gaz. vol. 196; p. 784.
- Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,888; Nov. 18; Gaz. vol. 196; p. 784.
- Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,889; Nov. 18; Gaz. vol. 196; p. 784.
- Fairfield, Mabel C., Los Angeles, Cal. Badge. No. 44,919; Nov. 25; Gaz. vol. 196; p. 1025.
- Federal Rubber Mfg. Co. (See Hutchens, Edward, assignor.)
- Flauder, Alfred J., Bridgeport, Conn. Picture-frame. No. 44,890; Nov. 11; Gaz. vol. 196; p. 506.
- Poster, Ralph H., Jersey City, N. J. Bottle-opener and button-hook. No. 44,839; Nov. 4; Gaz. vol. 196; p. 255.
- Galr, Robert, New York, N. Y. Box-strip. Nos. 44,870-1; Nov. 11; Gaz. vol. 196; p. 506.
- Gamble, Luther W., Nevada, Mo. Penwork-record. No. 44,920; Nov. 25; Gaz. vol. 196; p. 1025.
- Gill, Gregor W., Manokin, Md. Lather-rubber. No. 44,872; Nov. 11; Gaz. vol. 196; p. 506.
- Goodrich, Paul E., assignor to Naco Co., Pawtucket, R. I. Pillow-top or similar article. No. 44,921; Nov. 25; Gaz. vol. 196; p. 1025.
- Great Western Manufacturing Co. (See Lonn, Edward J., assignor.)
- Guinzburg, Edwin A., New York, N. Y. Bathing-cap. No. 44,840; Nov. 4; Gaz. vol. 196; p. 255.
- Guinzburg, Victor, assignor to I. B. Kleinert Rubber Company, New York, N. Y. Undergarment. No. 44,873; Nov. 11; Gaz. vol. 196; p. 506.
- H. C. Fry Glass Company. (See Buckley, Harry H., assignor.)
- Hartford Carpet Corporation. (See Pegel, Julius G., assignor.)
- Hartford Carpet Corporation. (See Sayers, William E., assignor.)
- Hawley, John H., New York, N. Y. Button. Nos. 44,841-2; Nov. 4; Gaz. vol. 196; p. 255.
- Herold, Friedrich, Buchholz, Saxony, Germany. Wall-receptacle. No. 44,922; Nov. 25; Gaz. vol. 196; p. 1025.
- Holby, Enoch, Minneapolis, Minn. Truck-body. No. 44,923; Nov. 25; Gaz. vol. 196; p. 1026.
- Howard, Frederick C., Spokane, Wash. Key-tag. No. 44,924; Nov. 25; Gaz. vol. 196; p. 1026.
- Hove, James, Rochester, N. Y. Portiere. No. 44,925; Nov. 25; Gaz. vol. 196; p. 1026.
- Hutchens, Edward, assignor to Federal Rubber Mfg. Co., Milwaukee, Wis. Rubber mat. No. 44,890; Nov. 18; Gaz. vol. 196; p. 784.
- I. B. Kleinert Rubber Company. (See Guinzburg, Victor, assignor.)
- Jones, Charles E., Chicago, Ill. Hanger for light-reflecting bowls. Nos. 44,843-5; Nov. 4; Gaz. vol. 196; p. 256.
- Kirby, James B., Cleveland, Ohio. Vacuum-cleaner casing. No. 44,846; Nov. 4; Gaz. vol. 196; p. 256.
- La Vine, Edward, Brussels, Belgium. Ring. No. 44,926; Nov. 25; Gaz. vol. 196; p. 1026.
- Layton, Frank M., Port Dickinson, N. Y. Floor-scraper. No. 44,927; Nov. 25; Gaz. vol. 196; p. 1026.
- Lebach, Stuart J., New York, N. Y. Metal box. No. 44,928; Nov. 25; Gaz. vol. 196; p. 1026.
- Lonn, Edward J., assignor to Great Western Manufacturing Co., Laporte, Ind. Bicycle-frame. No. 44,950; Nov. 25; Gaz. vol. 196; p. 1030.
- Lorenz, William A., Hartford, Conn. Can, jar, or similar article. Nos. 44,929-31; Nov. 25; Gaz. vol. 196; p. 1027.
- Manhattan Electrical Supply Company. (See Peterson, Johann G., assignor.)
- Merrill, Joshua, Dedham, Mass. Die. No. 44,874; Nov. 11; Gaz. vol. 196; p. 507.
- Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,847; Nov. 4; Gaz. vol. 196; p. 257.
- Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,848-9; Nov. 4; Gaz. vol. 196; p. 257.
- Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,850; Nov. 4; Gaz. vol. 196; p. 257.
- Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,891; Nov. 18; Gaz. vol. 196; p. 785.
- Millington, Theodore H., assignor of one-half to Detroit Body Company, Detroit, Mich. Automobile-body. No. 44,851; Nov. 4; Gaz. vol. 196; p. 257.
- Mittinger, George E., Jr., New Castle, Pa. Dish-pan. No. 44,932; Nov. 25; Gaz. vol. 196; p. 1027.
- Moffat, John B., Bronxville, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,852; Nov. 4; Gaz. vol. 196; p. 257.
- Moffat, John B., Bronxville, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,853; Nov. 4; Gaz. vol. 196; p. 258.
- Morecroft, Frederick L., Syracuse, N. Y. Cut-glass vessel. No. 44,875; Nov. 11; Gaz. vol. 196; p. 507.
- Morris, William D., Youngstown, Ohio. Vehicle-tire. Nos. 44,854-5; Nov. 4; Gaz. vol. 196; p. 258.
- Naco Co. (See Goodrich, Paul E., assignor.)
- Naja, Najeib, New York, N. Y. Embroidered collar. No. 44,876; Nov. 11; Gaz. vol. 196; p. 507.
- Nelson, Charles O., Cleveland, Ohio. High-frequency electric cabinet. No. 44,892; Nov. 18; Gaz. vol. 196; p. 785.

- Offenbacher, Emil, Marktredwitz, Germany. Decorative sheet-glass representing glass panels. No. 44,933; Nov. 25; Gaz. vol. 196; p. 1027.
- Parker Clock Company, The. (See Wachtelhausen, Henry W., assignor.)
- Pegel, Julius G., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. Nos. 44,893-6; Nov. 18; Gaz. vol. 196; pp. 785-6.
- Peterson, Alex., Minneapolis, Minn. Paper-knife. No. 44,934; Nov. 25; Gaz. vol. 196; p. 1027.
- Peterson, Johann G., assignor to Manhattan Electrical Supply Company, Jersey City, N. J. Handle for electric switches. No. 44,935; Nov. 25; Gaz. vol. 196; p. 1027.
- Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 44,856-8; Nov. 4; Gaz. vol. 196; p. 258.
- Pittsburgh Lamp, Brass & Glass Company. (See Daving, Matthew, assignor.)
- Polish Falcons Alliance of America. (See Wisniewski, Wictor, assignor.)
- Quaker Lace Company. (See Waterfield, James, assignor.)
- Rastetter, Harry O., assignor to The Union Metal Manufacturing Company, Canton, Ohio. Pedestal. No. 44,859; Nov. 4; Gaz. vol. 196; p. 259.
- Rastetter, Harry O., assignor to The Union Metal Manufacturing Company, Canton, Ohio. Head for lamp-standards. No. 44,860; Nov. 4; Gaz. vol. 196; p. 259.
- Reese, Wirt M., Cleveland, Ohio. Casket handle-plate. No. 44,936; Nov. 25; Gaz. vol. 196; p. 1028.
- Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,861-3; Nov. 4; Gaz. vol. 196; p. 259.
- Robbins, Meyer L., New York, N. Y. Cut gem. No. 44,937; Nov. 25; Gaz. vol. 196; p. 1028.
- Sanford, Andrew J., Newark, Ohio. Bowl or nappy. Nos. 44,938-9; Nov. 25; Gaz. vol. 196; p. 1028.
- Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,897; Nov. 18; Gaz. vol. 196; p. 786.
- Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,898-900; Nov. 18; Gaz. vol. 196; pp. 786-7.
- Sayers, William E., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. No. 44,901; Nov. 18; Gaz. vol. 196; p. 787.
- Sayers, William E., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. Nos. 44,902-4; Nov. 18; Gaz. vol. 196; pp. 787-8.
- Schaefer, William P., Philadelphia, Pa. Sweat-band. No. 44,940; Nov. 25; Gaz. vol. 196; p. 1028.
- Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,905; Nov. 18; Gaz. vol. 196; p. 788.
- Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,906-7; Nov. 18; Gaz. vol. 196; p. 788.
- Schwahn, Rudolph A., Eau Claire, Wis. Shield-buckle. No. 44,941; Nov. 25; Gaz. vol. 196; p. 1029.
- Schwarz, Otto C., New Chicago, Ind. Toy castle. No. 44,877; Nov. 11; Gaz. vol. 196; p. 507.
- Sheppard, Wilbur S., Colorado Springs, Colo. Electric heater. No. 44,942; Nov. 25; Gaz. vol. 196; p. 1029.
- Shumway, Harvey E., Frankfort, Kans. Candlestick. No. 44,943; Nov. 25; Gaz. vol. 196; p. 1029.
- Sins, Emile, Paris, France, assignor to Cheney Brothers, South Manchester, Conn. Textile fabric. No. 44,944; Nov. 25; Gaz. vol. 196; p. 1029.
- Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,908; Nov. 18; Gaz. vol. 196; p. 788.
- Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,864-5; Nov. 4; Gaz. vol. 196; pp. 259-60.
- Steinberg, Arnold M. (See Alexander and Steinberg.)
- Sveda, Joe, Corbin, British Columbia, Canada. Christmas tree. No. 44,878; Nov. 11; Gaz. vol. 196; p. 507.
- Towle Manufacturing Company. (See Cheron, Pierre J., assignor.)
- Union Metal Manufacturing Company, The. (See Rastetter, Harry O., assignor.)
- Vaughan, Harry L., assignor to Crown Throat & Opener Company, Chicago, Ill. Bottle-opener. No. 44,945; Nov. 25; Gaz. vol. 196; p. 1029.
- Vega Company, The. (See Day, David L., assignor.)
- Venn Manufacturing Co. (See Dennis, Oliver C., assignor.)
- Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,909; Nov. 18; Gaz. vol. 196; p. 788.
- Wachtelhausen, Henry W., assignor to The Parker Clock Company, Meriden, Conn. Alarm-clock case. No. 44,946; Nov. 25; Gaz. vol. 196; p. 1029.
- Wagner, Frank and W. L., Cleveland, Ohio. Candelabrum. No. 44,947; Nov. 25; Gaz. vol. 196; p. 1030.
- Wagner, William L. (See Wagner, Frank and W. L.)
- Walsh, Edward J., St. Louis, Mo. Sheet-glass. No. 44,948; Nov. 25; Gaz. vol. 196; p. 1030.
- Waterfield, James, assignor to Quaker Lace Company, Philadelphia, Pa. Lace curtain. Nos. 44,879-80; Nov. 11; Gaz. vol. 196; p. 508.
- Wheeling Sanitary Manufacturing Company. (See Alpaugh, Samuel P., assignor.)
- Wisniewski, Wictor, New York, N. Y., assignor to Polish Falcons Alliance of America, Pittsburgh, Pa. Badge, pin, button, emblem, insignia, or similar article. No. 44,949; Nov. 25; Gaz. vol. 196; p. 1030.
- Woods, Clinton E., assignor to American Graphophone Company, Bridgeport, Conn. Talking-machine frame. No. 44,866; Nov. 4; Gaz. vol. 196; p. 260.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

- A. Wilhelm Company, The, Reading, Pa. Enamel. No. 94,140; Nov. 4; Gaz. vol. 196; p. 272.
- A. M. Todd Company, Kalamazoo, Mich. Essential and volatile oils. No. 94,258; Nov. 18; Gaz. vol. 196; p. 801.
- Acid Proof Ink Co., Inc., New York, N. Y. Writing fluids. No. 94,143; Nov. 11; Gaz. vol. 196; p. 521.
- Acme Milling Company, Aurora, Ind. Wheat-flour. No. 94,144; Nov. 11; Gaz. vol. 196; p. 521.
- Acme Torsion Spring Co., Boston, Mass. Supplemental springs for automobiles. No. 94,043; Nov. 4; Gaz. vol. 196; p. 269.
- Adams, Anna D., Chicago, Ill. Perfume, toilet water, face-cream, face and tooth powders. No. 94,234; Nov. 18; Gaz. vol. 196; p. 801.
- Adams, Taylor & Co., Boston, Mass. Blend whisky. No. 94,044; Nov. 4; Gaz. vol. 196; p. 269.
- Adirondack Tissue Paper Co., New Hartford, N. Y. Toilet-paper. No. 94,261; Nov. 25; Gaz. vol. 196; p. 1047.
- Adler, Leon N., New York, N. Y. Adhesive labeling-paste. No. 94,262; Nov. 25; Gaz. vol. 196; p. 1047.
- Aeolian Company, Meriden, Conn.; Garwood, N. J., and New York, N. Y. Certain named musical instruments and music-sheets therefor. No. 94,145; Nov. 11; Gaz. vol. 196; p. 521.
- Albano, Francesco, New York, N. Y. Olive-oil. Nos. 94,146-7; Nov. 11; Gaz. vol. 196; p. 521.
- Albrecht & Meisler Aktiengesellschaft, Berlin-Reinickendorf-Ost, Germany. Picture post-cards, chromos, &c. No. 94,045; Nov. 4; Gaz. vol. 196; p. 269.
- Alexander, Leo, New York, N. Y. Windmills. No. 94,263; Nov. 25; Gaz. vol. 196; p. 1047.
- American Brass Company, Waterbury, Conn. Copper wire. No. 94,148; Nov. 11; Gaz. vol. 196; p. 521.
- American Felt Company, Boston, Mass. Felt in the piece. No. 94,149; Nov. 11; Gaz. vol. 196; p. 521.
- American Manufacturing and Distributing Company, Louisville, Ky. Liquid filler for pneumatic tires. No. 94,046; Nov. 4; Gaz. vol. 196; p. 269.
- Angelo Brothers Limited, Calcutta, India. Prepared shellac. No. 94,150; Nov. 11; Gaz. vol. 196; p. 521.
- Animoll Manufacturing Company, Philadelphia, Pa. Belt-dressings. No. 94,151; Nov. 11; Gaz. vol. 196; p. 521.
- Art Metal Construction Co., Jamestown, N. Y. Certain named steel and plain furniture. No. 94,047; Nov. 4; Gaz. vol. 196; p. 269.
- Art Metal Construction Co., Jamestown, N. Y. Trucks. No. 94,048; Nov. 4; Gaz. vol. 196; p. 269.
- Art Metal Construction Co., Jamestown, N. Y. Safes. No. 94,049; Nov. 4; Gaz. vol. 196; p. 269.
- Arthur S. Hoyt Co., New York, N. Y. Alimentary paste products. No. 94,182; Nov. 11; Gaz. vol. 196; p. 522.
- Atlantic Macaroni Co., Long Island City, N. Y. Alimentary paste products. Nos. 94,153-6; Nov. 11; Gaz. vol. 196; p. 521.
- Atlantic Macaroni Co., Long Island City, N. Y. Macaroni. No. 94,157; Nov. 11; Gaz. vol. 196; p. 521.
- B. F. Goodrich Company, The, New York, N. Y., and Akron, Ohio. Hard-rubber battery-jars. No. 94,075; Nov. 4; Gaz. vol. 196; p. 270.
- Badger Oil Specialty Co., Milwaukee, Wis. Ammonia. No. 94,264; Nov. 25; Gaz. vol. 196; p. 1047.
- Ballin & Taylor, New York, N. Y. Crash and toweling. No. 94,265; Nov. 25; Gaz. vol. 196; p. 1047.
- Bennett & White Inc., Newark, N. J. Perforated music-sheets. No. 94,158; Nov. 11; Gaz. vol. 196; p. 521.
- Bessire & Company, Indianapolis, Ind., and Louisville, Ky. Certain named foods. No. 94,266; Nov. 25; Gaz. vol. 196; p. 1047.
- Blue Peter Cigarette Co., Inc., New York, N. Y. Cigarettes. No. 94,160; Nov. 11; Gaz. vol. 196; p. 521.
- Bole Drug Company, The, Winnipeg, Manitoba, Canada. Kidney-pills. No. 94,159; Nov. 11; Gaz. vol. 196; p. 521.
- Braun, Frank X., Scranton, Pa. Medicine for blood diseases. No. 94,052; Nov. 4; Gaz. vol. 196; p. 269.
- Brey, Edward W., Woonsocket, R. I. Dandruff-remover and hair-renewer. No. 94,268; Nov. 25; Gaz. vol. 196; p. 1047.
- Britise Company, The, San Francisco, Cal. Metal-polish. No. 94,053; Nov. 4; Gaz. vol. 196; p. 269.
- Buffalo Car Wheel Fdy. Co., Buffalo, N. Y. Car-wheels. No. 94,055; Nov. 4; Gaz. vol. 196; p. 269.
- Burke, Frank G., New York, N. Y. Talcum powder. No. 94,235; Nov. 18; Gaz. vol. 196; p. 801.
- California Fruit Cannery Association, San Francisco, Cal. Dried fruits. No. 94,162; Nov. 11; Gaz. vol. 196; p. 521.
- Cathcart, William R., New York, N. Y. Chocolate-flavored filling. No. 94,163; Nov. 11; Gaz. vol. 196; p. 521.
- Central Ohio Paper Co., The, Columbus, Ohio. Cover, bond, writing, and printing paper. No. 94,269; Nov. 25; Gaz. vol. 196; p. 1047.
- Chamberlain, Myron L., Beverly, Mass. Milk and cream. No. 94,270; Nov. 25; Gaz. vol. 196; p. 1047.
- Chambers & Son, William, Buffalo, N. Y. Liquid polish. No. 94,164; Nov. 11; Gaz. vol. 196; p. 521.
- Champion Ignition Co., Flint, Mich. Spark-plugs. No. 94,060; Nov. 4; Gaz. vol. 196; p. 269.
- Chance, Frank S., Indianapolis, Ind. Device for treatment of piles. No. 94,236; Nov. 18; Gaz. vol. 196; p. 801.
- Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Remedies for gout and rheumatism. No. 94,061; Nov. 4; Gaz. vol. 196; p. 269.
- Chemische Fabrik Helfenberg A. G. vorm. Eugen Dieterich, Helfenberg, near Dresden, Germany. Laxative preparations. No. 94,062; Nov. 4; Gaz. vol. 196; p. 269.
- Chicago Shipping & Receipt Book Co., Chicago, Ill. Index-tabs, loose-leaf binders, record-books, and dockets. No. 94,165; Nov. 11; Gaz. vol. 196; p. 521.
- Conat Products Company, The, St. Louis, Mo. Canned fruits, figs, tomato catsup, and vegetables. No. 94,271; Nov. 25; Gaz. vol. 196; p. 1047.
- Cochrane Manufacturing Co., Dedham and East Dedham, Mass. Carpets. Nos. 94,063-4; Nov. 4; Gaz. vol. 196; p. 269.
- Collie, Joseph B., Malverna, Ark. Remedy for certain named ailments. No. 94,166; Nov. 11; Gaz. vol. 196; p. 521.
- Colombier Fils et Cie., Paris, France. Ice-making machines. No. 94,065; Nov. 4; Gaz. vol. 196; p. 269.
- Colorific Company, The, Tampa, Fla. Hair-tonic. No. 94,238; Nov. 18; Gaz. vol. 196; p. 801.
- D. & L. Slade Company, Boston and Revere, Mass. Baking-powder. No. 94,211; Nov. 11; Gaz. vol. 196; p. 523.
- Daimler-Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Flying-machines and certain named parts thereof. No. 94,066; Nov. 4; Gaz. vol. 196; p. 269.
- De Mauro, Pietro, New York, N. Y. Rat-exterminating compound. No. 94,273; Nov. 25; Gaz. vol. 196; p. 1047.
- De Schaum, William A., Detroit, Mich. Automobiles. No. 94,239; Nov. 18; Gaz. vol. 196; p. 801.
- Detroit Sanitary Supply Company, Detroit, Mich. Bath-tub, basin, and closet fittings, supply-pipes, and metallic valves. No. 94,167; Nov. 11; Gaz. vol. 196; p. 521.
- Deutsche Maschinenfabrik Aktien Gesellschaft, Duisburg, Germany, and New York, N. Y. Certain named machinery and parts thereof. No. 94,274; Nov. 25; Gaz. vol. 196; p. 1047.
- Dowd & Co., J. C., New York, N. Y. Mirrors, mirror and picture frames. No. 94,068; Nov. 4; Gaz. vol. 196; p. 269.
- Dowd & Co., J. C., New York, N. Y. Brushes. No. 94,069; Nov. 4; Gaz. vol. 196; p. 269.
- Dowd & Co., J. C., New York, N. Y. Certain named receptacles, all made of celluloid. No. 94,275; Nov. 25; Gaz. vol. 196; p. 1047.
- Drug Products Co., Inc., The, New York, N. Y. Certain named chemical and medical compounds. No. 94,070; Nov. 4; Gaz. vol. 196; p. 269.
- E. A. Potter Company, Providence, R. I. Certain named precious-metal pins, tie-clasps, link-buttons, and bracelets. No. 94,169; Nov. 11; Gaz. vol. 196; p. 522.
- E. C. Atkins & Company, Indianapolis, Ind. Wood and metal saws, cone and corn knives, and trowels. No. 94,152; Nov. 11; Gaz. vol. 196; p. 521.
- Eastman Kodak Company, Rochester, N. Y. Photographic developer. No. 94,240; Nov. 18; Gaz. vol. 196; p. 801.
- Editor & Publisher Co., New York, N. Y. Newspapers. No. 94,168; Nov. 11; Gaz. vol. 196; p. 521.
- Ehrlich & Gratz, Berlin, Germany. Certain electric-lighting appliances and accessories. Nos. 94,169-70; Nov. 11; Gaz. vol. 196; p. 521.
- Eldmann, Albert W., Cando, N. D. Remedy for erysipelas. No. 94,071; Nov. 4; Gaz. vol. 196; p. 269.
- Ellisnam Dress Form Co., Brooklyn and New York, N. Y. Dress-forms. No. 94,072; Nov. 4; Gaz. vol. 196; p. 270.
- Ellis, Edward, Minneapolis, Minn. Pails and buckets. No. 94,241; Nov. 18; Gaz. vol. 196; p. 801.
- Elson & Brewer, Inc., New York, N. Y. Chemically-refined stearate of zinc. No. 94,276; Nov. 25; Gaz. vol. 196; p. 1047.
- Eustis, Pennock & Co., Boston, Mass. Starch. Nos. 94,171-2; Nov. 11; Gaz. vol. 196; pp. 521-2.
- Eustis, Pennock & Co., Boston, Mass. Starch for textile-mill usage. No. 94,242; Nov. 18; Gaz. vol. 196; p. 801.
- F. A. Martocchio Macaroni Company, Minneapolis, Minn. Macaroni, spaghetti, vermicelli, and egg-noodles. No. 94,294; Nov. 25; Gaz. vol. 196; p. 1048.

Falls Machine Company, Sheboygan Falls, Wis. Automobiles, trucks, and autotrucks. No. 94,073; Nov. 4; Gaz. vol. 196; p. 270.

Federal Cement Tile Company, Chicago, Ill. Cement tiles. No. 94,277; Nov. 25; Gaz. vol. 196; p. 1047.

Ferguson, Charles W., Houston, Tex. Crates. No. 94,243; Nov. 18; Gaz. vol. 196; p. 801.

Ferment Company, The, New York, N. Y. Bacteriological products. No. 94,278; Nov. 25; Gaz. vol. 196; p. 1047.

Frank, John, Jacksonville, Ill. Wheat-flour. No. 94,173; Nov. 11; Gaz. vol. 196; p. 522.

Frederick H. Fox Company, The, Syracuse, N. Y. Ammonia, tooth-powder, writing fluid, and bluing. No. 94,279; Nov. 25; Gaz. vol. 196; p. 1047.

Fresno Fruit Growers Co., East Fresno, Cal. Fresh deciduous fruits. No. 94,280; Nov. 25; Gaz. vol. 196; p. 1047.

Fuchs, Emiel R., New York, N. Y. Door-locks. No. 94,281; Nov. 25; Gaz. vol. 196; p. 1047.

Geo. Borgfeldt & Co., New York, N. Y. Hair-nets, silk chignons, and nettings. No. 94,051; Nov. 4; Gaz. vol. 196; p. 269.

Giacoma & Co., C., New Orleans, La. Olive-oil. No. 94,175; Nov. 11; Gaz. vol. 196; p. 522.

Globe Naval Stores Company, Atmore, Ala. Turpentine. No. 94,074; Nov. 4; Gaz. vol. 196; p. 270.

Gorski, Stanley, Philadelphia, Pa. Metal washing device. No. 94,076; Nov. 4; Gaz. vol. 196; p. 270.

Gottesman & Son, M., New York, N. Y. Wood-pulp. No. 94,077; Nov. 4; Gaz. vol. 196; p. 270.

Gould, Percival A., Gibsonburg, Ohio. Dental rubber. No. 94,078; Nov. 4; Gaz. vol. 196; p. 270.

Graphites Maskar Société Anonyme, Paris, France. Plumbago. No. 94,176; Nov. 11; Gaz. vol. 196; p. 522.

Great Western Smelting & Refining Co., Chicago, Ill. Babbitt and antifriction metals. No. 94,177; Nov. 11; Gaz. vol. 196; p. 522.

Green, Jesse B., Sadler, Tex. Remedy for dropsy. No. 94,079; Nov. 4; Gaz. vol. 196; p. 270.

H. B. Claflin Company, The, New York, N. Y. Dolls and toys. No. 94,237; Nov. 18; Gaz. vol. 196; p. 801.

Haeseler, Charles H., Philadelphia, Pa. Sanitary napkin. No. 94,080; Nov. 4; Gaz. vol. 196; p. 270.

Hall & Ruckel, New York, N. Y. After-dinner confection. No. 94,178; Nov. 11; Gaz. vol. 196; p. 522.

Hanover Vulcanite Co., New York, N. Y. Certain named hard-rubber combs. No. 94,081; Nov. 4; Gaz. vol. 196; p. 270.

Hassinger, Egon, Paris, France. Carbon-paper. No. 94,179; Nov. 11; Gaz. vol. 196; p. 522.

Henckels, J. A., Solingen, Germany. Certain named cutlery and machinery. No. 94,180; Nov. 11; Gaz. vol. 196; p. 522.

Herz, Alexander, New York, N. Y. Toothpicks. No. 94,082; Nov. 4; Gaz. vol. 196; p. 270.

Hoffmann-La Roche Chemical Works, The, New York, N. Y. Casein calcium. No. 94,282; Nov. 25; Gaz. vol. 196; p. 1047.

Holophan Glass Company, New York, N. Y. Glass reflectors and shades. No. 94,181; Nov. 11; Gaz. vol. 196; p. 522.

Hydraulic-Press Brick Company, St. Louis, Mo. Brick. No. 94,083; Nov. 4; Gaz. vol. 196; p. 270.

Hygela Filter Company, Detroit, Mich. Water-filters. No. 94,084; Nov. 4; Gaz. vol. 196; p. 270.

Illinois Iron & Bolt Co., Carpentersville, Ill. Sad-irons, tailors' and pressing irons. No. 94,085; Nov. 4; Gaz. vol. 196; p. 270.

Ingersoll Candy Company, San Diego, Cal. Candles. No. 94,285; Nov. 25; Gaz. vol. 196; p. 1047.

International Coffee Co., Houston, Tex. Coffee. No. 94,286; Nov. 25; Gaz. vol. 196; p. 1047.

J. C. Blair Company, Huntingdon, Pa. Paper, envelope, tablets, and blank books. No. 94,267; Nov. 25; Gaz. vol. 196; p. 1047.

J. C. Dow & Co., New York, N. Y. Manicure files and buffers, cuticle and corn knives. No. 94,087; Nov. 4; Gaz. vol. 196; p. 269.

J. D. Riedel Aktiengesellschaft, Berlin, Germany. Insect-powder. No. 94,323; Nov. 25; Gaz. vol. 196; p. 1048.

J. F. Carter Company, Portland, Me., and Beverly, Mass. Oiled clothing. Nos. 94,057-9; Nov. 4; Gaz. vol. 196; p. 269.

J. & G. Butler Co., The, Columbus, Ohio. Whisky. No. 94,056; Nov. 4; Gaz. vol. 196; p. 269.

J. W. Buckley Rubber Co., New York, N. Y. Certain kind of hose, belting, packing, &c. No. 94,054; Nov. 4; Gaz. vol. 196; p. 269.

J. W. Buckley Rubber Co., New York, N. Y. Certain kind of hose, belting, packing, and jar-rings. No. 94,161; Nov. 11; Gaz. vol. 196; p. 521.

Jacob Ruppert, Inc., New York, N. Y. Beer. No. 94,325; Nov. 25; Gaz. vol. 196; p. 1049.

Jones, T. B., Athens, Tex. Batteries. No. 94,086; Nov. 4; Gaz. vol. 196; p. 270.

Joseph Benn & Sons, Inc., Greystone, R. I., and New York, N. Y. Imitation astrakhan. No. 94,050; Nov. 4; Gaz. vol. 196; p. 269.

Julian, Knox, Indianapolis, Ind. Breath-tablets. No. 94,288; Nov. 25; Gaz. vol. 196; p. 1047.

Kahn & Co., Henry, San Francisco, Cal. Certain named optical goods, barometers, and photographic cameras. No. 94,183; Nov. 11; Gaz. vol. 196; p. 522.

Kalle & Co., Aktiengesellschaft, Bleibach-on-the-Rhine, Germany. Preparation for the treatment of wounds. No. 94,244; Nov. 18; Gaz. vol. 196; p. 801.

Karlson, Lewis A., Minneapolis, Minn. Ventilators. No. 94,087; Nov. 4; Gaz. vol. 196; p. 270.

Kingston, Perry, Little Falls, N. Y. Building-papers, saturating and deadening felt. No. 94,088; Nov. 4; Gaz. vol. 196; p. 270.

Klauber Wangenheim Co., San Diego, Cal. Baking powder and soda and gloss-starch. No. 94,089; Nov. 4; Gaz. vol. 196; p. 270.

Klemak, John, Fairchild, Wis. Liniment. No. 94,184; Nov. 11; Gaz. vol. 196; p. 522.

Kopf Nursery & Realty Co. Inc., New Haven, Conn. Pine-apples. No. 94,289; Nov. 25; Gaz. vol. 196; p. 1048.

Kouyoumjian Electric and Manufacturing Company, The, Cleveland, Ohio. Electric generators. No. 94,290; Nov. 25; Gaz. vol. 196; p. 1048.

Krause, Max, Berlin, Germany. Certain printed and illustrated matter. No. 94,090; Nov. 4; Gaz. vol. 196; p. 270.

Krieg Tanning Company, San Francisco, Cal. Leather. No. 94,185; Nov. 11; Gaz. vol. 196; p. 522.

L. Sonneborn Sons, Inc., New York, N. Y. Solution for waterproofing and hardening concrete. No. 94,123; Nov. 4; Gaz. vol. 196; p. 271.

Laage, Elie de, St. Savinien-sur-Charente, near Cognac, France. Liqueur. No. 94,272; Nov. 25; Gaz. vol. 196; p. 1047.

Lawton, Jordan & Co., Macon, Ga. Evaporated milk. No. 94,186; Nov. 11; Gaz. vol. 196; p. 522.

Lebanon Chemical Co., Lebanon, Pa. Disinfectant and insecticide. No. 94,291; Nov. 25; Gaz. vol. 196; p. 1048.

Lebanon Co-Operative Medicine Co., Lebanon, Tenn. Remedy for certain named diseases. No. 94,292; Nov. 25; Gaz. vol. 196; p. 1048.

Lee Tire & Rubber Co., Whitmarsh township, Montgomery county, Pa. Certain named surgical goods. Nos. 94,091-2; Nov. 4; Gaz. vol. 196; p. 270.

Lemon Beer Company, San Diego, Cal. Syrup extract. No. 94,293; Nov. 25; Gaz. vol. 196; p. 1048.

Lich, Robert, Sutton, Nebr. Dentifrice. No. 94,245; Nov. 18; Gaz. vol. 196; p. 801.

Lighting Rug-Newer Co., Keokuk, Iowa. Cleaner for certain household goods. No. 94,093; Nov. 4; Gaz. vol. 196; p. 270.

Lindenberger Packing Co., Inc., Seattle, Wash. Canned salmon. No. 94,187; Nov. 11; Gaz. vol. 196; p. 522.

Lorraine Mfg. Co., Pawtucket, R. I. Cotton piece goods. No. 94,094; Nov. 4; Gaz. vol. 196; p. 270.

Louisville Cement Company, Louisville, Ky. Lime. No. 94,095; Nov. 4; Gaz. vol. 196; p. 270.

Lowe, William T. J., Buffalo, N. Y. Spoon fishing-bait. No. 94,096; Nov. 4; Gaz. vol. 196; p. 270.

Lyon Blood Purifier Company, Atlanta, Ga. Blood-purifier. No. 94,097; Nov. 4; Gaz. vol. 196; p. 270.

Machenbach Importing Co., New York, N. Y. Laces, shawls, and scarfs. No. 94,098; Nov. 4; Gaz. vol. 196; p. 270.

Mackdon, Francis T., Brockton, Mass. Child's swing. No. 94,246; Nov. 18; Gaz. vol. 196; p. 801.

Manhattan Rubber Mfg. Co., The, Passaic, N. J. Rubber pipe-coupler rings, piston-packing, pump-valves, &c. No. 94,099; Nov. 4; Gaz. vol. 196; p. 270.

Manissadjian, Haigasun B., deceased; M. M. Manissadjian, inheritress, assignor to Society of Chemical Industry in Basle, Basle, Switzerland. Photographic plates and films and cinematograph-films. No. 94,188; Nov. 11; Gaz. vol. 196; p. 522.

Marietta Paint & Color Co., The, Marietta, Ohio. Varnish-stain. No. 94,189; Nov. 11; Gaz. vol. 196; p. 522.

McEwan & Co., William, Edinburgh, Scotland. Beer. No. 94,295; Nov. 25; Gaz. vol. 196; p. 1048.

McGee, Alice A., Glendale, Cal. Hair-restorative. No. 94,296; Nov. 25; Gaz. vol. 196; p. 1048.

McLoud, Charles E., Rochester, N. Y. Ointment. No. 94,247; Nov. 18; Gaz. vol. 196; p. 801.

Melba Manufacturing Company, Chicago, Ill. Toilet waters and perfumes. Nos. 94,191-3; Nov. 11; Gaz. vol. 196; p. 522.

Menthonice Manufacturing Co., The, Kansas City, Kans. Menthol-ice. No. 94,248; Nov. 18; Gaz. vol. 196; p. 801.

Meridian Chemical Company, Washington, D. C. Insecticide. No. 94,297; Nov. 25; Gaz. vol. 196; p. 1048.

Michigan Condensed Milk Co., New York, N. Y. Condensed skimmed milk. No. 94,298; Nov. 25; Gaz. vol. 196; p. 1048.

Mine and Smelter Supply Co., The, Denver, Colo., and New York, N. Y. Certain named machines, cutlery, and tools. No. 94,194; Nov. 11; Gaz. vol. 196; p. 522.

Minneapolis Brewing Company, Minneapolis, Minn. Beer and porter. No. 94,249; Nov. 18; Gaz. vol. 196; p. 801.

Moore, Nathaniel H., Omaha, Nebr. Liquid preparation for treating pneumatic tires. No. 94,190; Nov. 4; Gaz. vol. 196; p. 270.

Morgan & Wright, Detroit, Mich. Rubber vehicle-tires. No. 94,191; Nov. 4; Gaz. vol. 196; p. 270.

Morris, Edward K., Baltimore, Md. Chewing-gum. No. 94,299; Nov. 25; Gaz. vol. 196; p. 1048.

Morse, Asabel U., Kansas City, Mo. Toilet-paper. No. 94,195; Nov. 11; Gaz. vol. 196; p. 522.

Munning-Loeb Co., Matawan, N. J. Wheels for polishing purposes. No. 94,192; Nov. 4; Gaz. vol. 196; p. 270.

Nalley Grocery Co., Austin, Tex. Tea and coffee. No. 94,300; Nov. 25; Gaz. vol. 196; p. 1048.

Narrow Fabric Co., The, Wyomissing, Pa. Garment and shoe lacers. No. 94,301; Nov. 25; Gaz. vol. 196; p. 1048.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 94,302-4; Nov. 25; Gaz. vol. 196; p. 1048.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit and bread. No. 94,305; Nov. 25; Gaz. vol. 196; p. 1048.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 94,306-13; Nov. 25; Gaz. vol. 196; p. 1048.

National Lime & Stone Co., The, Carey, Ohio. Hydrated lime. No. 94,193; Nov. 4; Gaz. vol. 196; p. 270.

National Tube Company, Pittsburgh, Pa. Pipes, tubes, and casings. No. 94,196; Nov. 11; Gaz. vol. 196; p. 522.

Nave-McCord Mercantile Co., St. Joseph, Mo. Toothpicks. No. 94,250; Nov. 18; Gaz. vol. 196; p. 801.

New York & Boston Drug Company, New York, N. Y. Smelling-salts, face-rouge, complexion powder and cream. No. 94,194; Nov. 4; Gaz. vol. 196; p. 270.

Newaygo Portland Cement Company, Newaygo, Mich. Portland cement. No. 94,251; Nov. 18; Gaz. vol. 196; p. 801.

Nicholas & Son Pollak Co., J. S., Oakland, Cal. Preparation for renewal of varnish-surfaces. No. 94,197; Nov. 11; Gaz. vol. 196; p. 522.

Nunes, Manuel J., Niles, Cal. Poison for squirrels. No. 94,195; Nov. 4; Gaz. vol. 196; p. 270.

O'Brien, Lawrence, San Francisco, Cal. Remedy for skin diseases. No. 94,317; Nov. 25; Gaz. vol. 196; p. 1048.

O'Connor Shoe Co., Chicago, Ill. Leather shoes. No. 94,196; Nov. 4; Gaz. vol. 196; p. 270.

Obermeyer & Liebmann, Brooklyn, N. Y. Beer. Nos. 94,314-16; Nov. 25; Gaz. vol. 196; p. 1048.

Pacific Novelty Company, New York, N. Y. Mirror and picture frames. No. 94,197; Nov. 4; Gaz. vol. 196; p. 271.

Pacific Novelty Company, New York, N. Y. Toilet-combs, pin-cushions, and button-hooks. No. 94,198; Nov. 4; Gaz. vol. 196; p. 271.

Pacific Novelty Company, New York, N. Y. Brushes. No. 94,199; Nov. 4; Gaz. vol. 196; p. 271.

Pacific Novelty Company, New York, N. Y. Manicure-files, cuticle and corn knives, and manicure-buffers. No. 94,199; Nov. 4; Gaz. vol. 196; p. 271.

Pacific Novelty Company, New York, N. Y. Certain named trays, boxes, and holders. No. 94,318; Nov. 25; Gaz. vol. 196; p. 1048.

Page Belting Company, Concord, N. H. Belting, packing, hose, &c. No. 94,191; Nov. 4; Gaz. vol. 196; p. 271.

Palruba Manufacturing Co., Philadelphia, Pa., and New York, N. Y. Floor-coverings of waterproofed fibrous materials. No. 94,198; Nov. 11; Gaz. vol. 196; p. 522.

Patton Paint Company, Milwaukee, Wis. Primer and filler. No. 94,192; Nov. 4; Gaz. vol. 196; p. 271.

Peckham, Allen L., Chicago, Ill. Card games. No. 94,193; Nov. 4; Gaz. vol. 196; p. 271.

Peerless Drug Co., New York, N. Y. Talcum and tooth powders. No. 94,319; Nov. 25; Gaz. vol. 196; p. 1048.

Petrocelli & Company, Joseph, New York, N. Y. Macaroni. No. 94,320; Nov. 25; Gaz. vol. 196; p. 1048.

Pickel, Elsworth, Portland, Ore. Playing-cards. No. 94,321; Nov. 25; Gaz. vol. 196; p. 1048.

Potter & Wrightington, Boston, Mass. Wheat-flour. No. 94,200; Nov. 11; Gaz. vol. 196; p. 522.

Price, Pryse & Company Limited, Westminster, London, England. Metal tools used for shot-firing purposes in mines and quarries. No. 94,252; Nov. 18; Gaz. vol. 196; p. 801.

Quaker City Dairies, Philadelphia, Pa. Milk. No. 94,201; Nov. 11; Gaz. vol. 196; p. 522.

R. T. French Company, The, Rochester, N. Y. Certain named foods. No. 94,174; Nov. 11; Gaz. vol. 196; p. 522.

Ribelin, Pearl M., Los Angeles, Cal. Toilet preparation for cleansing the pores of the skin. No. 94,253; Nov. 18; Gaz. vol. 196; p. 801.

Rice and Company Incorporated, Lowell, Mass. Ash-sifters. No. 94,322; Nov. 25; Gaz. vol. 196; p. 1048.

Richard Hudnut, New York, N. Y. Orange-wood sticks and nail-boards. Nos. 94,283-4; Nov. 25; Gaz. vol. 196; p. 1047.

Robert A. Johnston Co., Milwaukee, Wis. Cookies. No. 94,287; Nov. 25; Gaz. vol. 196; p. 1047.

Rock Island Butter Co., The, Toledo, Ohio. Butter and eggs. No. 94,324; Nov. 25; Gaz. vol. 196; p. 1048.

Rock River Cotton Co., Janesville, Wis. Cotton-batting. No. 94,194; Nov. 4; Gaz. vol. 196; p. 271.

Rogée & Monnet, Vve., Cognac, France. Brandy. No. 94,195; Nov. 4; Gaz. vol. 196; p. 271.

Rosenblatt, Joseph, Providence, R. I. Jewelry. No. 94,202; Nov. 11; Gaz. vol. 196; p. 522.

Ryan, Wm. J., Philadelphia, Pa. Fertilizers. No. 94,196; Nov. 4; Gaz. vol. 196; p. 271.

Sadl, Reshid, New York, N. Y. Certain named tobacco products. No. 94,197; Nov. 4; Gaz. vol. 196; p. 271.

Sauls, Thurman J., Chicago, Ill. Fruit soda-fountain beverages. No. 94,254; Nov. 18; Gaz. vol. 196; p. 801.

Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. Nos. 94,203-4; Nov. 11; Gaz. vol. 196; p. 522.

Schandeln & Lind Co., Philadelphia, Pa. Candy. No. 94,205; Nov. 11; Gaz. vol. 196; p. 522.

Schandeln & Lind Co., Philadelphia, Pa. Candy. No. 94,327; Nov. 25; Gaz. vol. 196; p. 1049.

Schleicher & Schüll, Carl, Dören, Germany. Filtering-papers. No. 94,328; Nov. 25; Gaz. vol. 196; p. 1049.

Schoonmaker, Frederick W., Jr., New York, N. Y. Remedy for bites and stings of poisonous insects. No. 94,329; Nov. 25; Gaz. vol. 196; p. 1049.

Schremp, Edward J., Utica, N. Y. Certain named clothing. No. 94,199; Nov. 4; Gaz. vol. 196; p. 271.

Schwenger & Wood, Schenectady, N. Y. Insecticides. No. 94,206; Nov. 11; Gaz. vol. 196; p. 522.

Seacoast Canning Company, Eastport, Me. Canned sardines. No. 94,208; Nov. 11; Gaz. vol. 196; p. 523.

Seiss Manufacturing Company, Toledo, Ohio. Goggles. No. 94,209; Nov. 11; Gaz. vol. 196; p. 523.

"Semperit" Oesterreichisch-Amerikanische Gummiwerke Aktiengesellschaft, Vienna, Austria-Hungary. Balls. No. 94,120; Nov. 4; Gaz. vol. 196; p. 271.

Shelley, William K., Baltimore, Md. Automobiles. No. 94,330; Nov. 25; Gaz. vol. 196; p. 1049.

Shoten, Yenjo, Tokyo, Japan. Vegetable digestive enzym. No. 94,210; Nov. 11; Gaz. vol. 196; p. 523.

Sidney Suspender Company, Providence, R. I., and Attleboro, Mass. Belts, suspenders, and garters. No. 94,121; Nov. 4; Gaz. vol. 196; p. 271.

Sloan, A., Kellogg, Brooklyn, N. Y. Electrical connectors and binding-posts. No. 94,122; Nov. 4; Gaz. vol. 196; p. 271.

Smith, James C., Dumont, N. J. Preparation of milk and chocolate. No. 94,331; Nov. 25; Gaz. vol. 196; p. 1049.

Societe Nouvelle des Sterilisateur Cartault, Paris, France. Water-sterilizing apparatus. No. 94,255; Nov. 18; Gaz. vol. 196; p. 801.

Society of Chemical Industry in Basle. (See Manissadjian, Haigasun B., assignor.)

Sottile & Korsgen, Edgewater, N. J. Razor-sharpening pomade. No. 94,124; Nov. 4; Gaz. vol. 196; p. 271.

Southall Brothers and Barclay, Limited, Birmingham, England. Medicated tonic food. No. 94,256; Nov. 18; Gaz. vol. 196; p. 801.

Speedway Remedy Co., Shelby, Ohio. Liniment. No. 94,257; Nov. 18; Gaz. vol. 196; p. 801.

Split Bitter Co., Peoria, Ill. Bitters. No. 94,332; Nov. 25; Gaz. vol. 196; p. 1049.

Standard Oil Co. of New York, New York, N. Y. Naphtha. No. 94,212; Nov. 11; Gaz. vol. 196; p. 523.

Star Company, New York, N. Y. Newspaper-section published periodically. Nos. 94,213-15; Nov. 11; Gaz. vol. 196; p. 523.

Stauffer, Eshleman & Co., Ltd., New Orleans, La. Certain named cutlery, machinery, and tools. No. 94,216; Nov. 11; Gaz. vol. 196; p. 523.

Stevenson, Charles J., New York, N. Y. Gelatin, ice-cream and cocoa powders, and flavoring extracts. No. 94,217; Nov. 11; Gaz. vol. 196; p. 523.

Stone-Ordean-Wells Company, Duluth, Minn. Monthly publication. No. 94,218; Nov. 11; Gaz. vol. 196; p. 523.

Stone, Timlow & Company, Incorporated, Boston, Mass. Deglatories. No. 94,219; Nov. 11; Gaz. vol. 196; p. 523.

Straight Filament Lamp Company, New York, N. Y., and Philadelphia, Pa. Lamp-reflectors. No. 94,125; Nov. 4; Gaz. vol. 196; p. 271.

Stubbs, Robert C., Dallas, Tex. Concrete constructions, paving, and walls. No. 94,126; Nov. 4; Gaz. vol. 196; p. 271.

Subers, Lawrence A., Cleveland, Ohio. Hose-pipes, automobile-tires, belting, &c. No. 94,220; Nov. 11; Gaz. vol. 196; p. 523.

Suchard, S. A., Serrières, Switzerland. Milk-chocolate. No. 94,221; Nov. 11; Gaz. vol. 196; p. 523.

Surbrug Company, Hoboken, N. J. Smoking-tobacco. No. 94,222; Nov. 11; Gaz. vol. 196; p. 523.

Syndicat des Grands Crus classés du Médoc, Bordeaux, France. Clarets and Bordeaux wines. No. 94,127; Nov. 4; Gaz. vol. 196; p. 271.

Tamaki, Tadajiro, Seattle, Wash. Catsups. No. 94,333; Nov. 25; Gaz. vol. 196; p. 1049.

Taylor & Co., W. D., Bessemer, Ala. Laxative and liver-tonic, &c. No. 94,223; Nov. 11; Gaz. vol. 196; p. 523.

Taylor, Lowenstein & Co., Mobile, Ala. Turpentine. No. 94,224; Nov. 11; Gaz. vol. 196; p. 523.

Tighe, John J., Dracut, Mass. Liniment for rheumatism. No. 94,334; Nov. 25; Gaz. vol. 196; p. 1049.

Tomlinson (Inc.), Syracuse, N. Y. Gelatin. No. 94,225; Nov. 11; Gaz. vol. 196; p. 523.

Tonk Manufacturing Company, Chicago, Ill. Benches, stools, cabinets, tables, and chairs. No. 94,128; Nov. 4; Gaz. vol. 196; p. 271.

Touraine Co., The, New Hartford, Conn., and New York, N. Y. Malines, chignons, and net goods. No. 94,129; Nov. 4; Gaz. vol. 196; p. 271.

Tower Manufacturing & Novelty Co., New York, N. Y. Rubber bands. No. 94,226; Nov. 11; Gaz. vol. 196; p. 523.

Truax & Company, C. C., Toledo, Ohio. Apple-juice, cider, soda and mineral waters, &c. No. 94,130; Nov. 4; Gaz. vol. 196; p. 271.

Truax & Company, C. C., Toledo, Ohio. Axle-grease, bicycle and machine oils. No. 94,227; Nov. 11; Gaz. vol. 196; p. 523.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Truax & Company, C. C., Toledo, Ohio. Glue and mucilage. No. 94,259; Nov. 18; Gaz. vol. 196; p. 801.
 Truax & Company, C. C., Toledo, Ohio. Butter, Manila, and toilet papers. No. 94,335; Nov. 25; Gaz. vol. 196; p. 1049.
 U. S. Industrial Alcohol Co., New York, N. Y. Carbon-remover, engine-cleanser, and solvent. No. 94,228; Nov. 11; Gaz. vol. 196; p. 523.
 Union Bag and Paper Company, The, Jersey City, N. J., and New York, N. Y. Paper bags. No. 94,336; Nov. 25; Gaz. vol. 196; p. 1049.
 United Alkali Company Limited, The, county of Lancaster and Liverpool, England. Caustic soda and soda-ash. No. 94,337; Nov. 25; Gaz. vol. 196; p. 1049.
 Universal Lock-Washer Co., New York, N. Y. Lock-washers. No. 94,131; Nov. 4; Gaz. vol. 196; p. 271.
 Vacuum-Gesellschaft m. b. H., Vienna, Austria-Hungary. Elastic wheel-tires. No. 94,132; Nov. 4; Gaz. vol. 196; p. 271.
 Van Kannel Revolving Door Company, New York, N. Y. Revolving doors. No. 94,133; Nov. 4; Gaz. vol. 196; p. 271.
 Vibrako Company, The, Portland, Me., and Boston, Mass. Massage-vibrators. No. 94,260; Nov. 18; Gaz. vol. 196; p. 801.
 Vordick, August H., St. Louis, Mo. Salve, liver-pills, and remedy for ague. No. 94,338; Nov. 25; Gaz. vol. 196; p. 1049.
 W. Schneider Wholesale Wine & Liquor Co., St. Louis, Mo. Cigars. No. 94,118; Nov. 4; Gaz. vol. 196; p. 271.
 W. J. Wilcox Lard & Refining Company, The, New York, N. Y. Lard. No. 94,342; Nov. 25; Gaz. vol. 196; p. 1049.
 Wadhams Oil Company, Milwaukee, Wis. Illuminating-oils. No. 94,134; Nov. 4; Gaz. vol. 196; p. 271.
 Waite, Fred D., Palmetto, Fla. Oranges and grape-fruit. No. 94,339; Nov. 25; Gaz. vol. 196; p. 1049.
 Walsh, Margaret A., El Paso, Tex. Floor-wax and floor-polishing material. No. 94,229; Nov. 11; Gaz. vol. 196; p. 523.
 Warren Chemical & Manufacturing Company, New York, N. Y. Asphalt-mastic. No. 94,135; Nov. 4; Gaz. vol. 196; p. 271.
 Warren, Michael, San Francisco, Cal. Baking-powder. No. 94,230; Nov. 11; Gaz. vol. 196; p. 523.
 Warren Packing Company, Portland, Oreg. Canned salmon. No. 94,136; Nov. 4; Gaz. vol. 196; p. 271.
 Wechsler, Harry, Brooklyn, N. Y. Foot-powder. No. 94,137; Nov. 4; Gaz. vol. 196; p. 271.
 Wedgerite Powder Company, Boston, Mass. Powder. No. 94,340; Nov. 25; Gaz. vol. 196; p. 1049.
 Wells, F. M., Montreal, Quebec, Canada. Tooth-powder. No. 94,138; Nov. 4; Gaz. vol. 196; p. 271.
 Wernicke, Paul, Ellenburg, Germany. Artificial-stone presses and parts thereof. No. 94,231; Nov. 11; Gaz. vol. 196; p. 523.
 Western Sausage & Provision Co., Incorporated, New York, N. Y. Ham. No. 94,341; Nov. 25; Gaz. vol. 196; p. 1049.
 Wetterwald & Pfister Company, New York, N. Y. Artificial stone. No. 94,139; Nov. 4; Gaz. vol. 196; p. 272.
 Whizz Manufacturing Co., Chicago, Ill. Hair-removers. No. 94,232; Nov. 11; Gaz. vol. 196; p. 523.
 William S. Scull Company, Camden, N. J. Blended coffee. No. 94,207; Nov. 11; Gaz. vol. 196; p. 523.
 Windsor, Millard F., Buffalo, N. Y. Soap powders. No. 94,141; Nov. 4; Gaz. vol. 196; p. 272.
 Wm. J. Ryan, Philadelphia, Pa. Certain named pharmaceutical preparations. No. 94,326; Nov. 25; Gaz. vol. 196; p. 1049.
 Wright Manufacturing Company, Newark, N. J. Igniters and accessories. No. 94,233; Nov. 11; Gaz. vol. 196; p. 523.
 Y. T. Matzoon Company, Chicago, Ill. Medicinal food. No. 94,190; Nov. 11; Gaz. vol. 196; p. 522.
 Yann, Joseph, Rock Island, Ill. Compound for flavoring tobacco. No. 94,343; Nov. 25; Gaz. vol. 196; p. 1049.
 Young, W. A., Toronto, Ontario, Canada. Monthly periodical. No. 94,142; Nov. 4; Gaz. vol. 196; p. 272.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Adams & Jewell, Rome, N. Y. "Betson's Plastic." (For Fire-Brick.) No. 17,312; Nov. 4; Gaz. vol. 196; p. 273.
 Affleck, Thaddeus S., New York, N. Y. "Sunshine Coffee." (For Coffee.) No. 17,368; Nov. 25; Gaz. vol. 196; p. 1050.
 Albrecht, Wilhelm, Boston, Mass. "American League." (For Whisky.) No. 17,313; Nov. 4; Gaz. vol. 196; p. 273.
 American Talc Company, Phoenix, Ariz., and Boston, Mass. "Talcum Powder." (For Powdered Talc.) No. 17,314; Nov. 4; Gaz. vol. 196; p. 273.
 Armour and Company, Chicago, Ill. "Atlantic Brand Salmon Pink." (For Salmon.) No. 17,315; Nov. 4; Gaz. vol. 196; p. 273.
 Armour and Company, Chicago, Ill. "Titan Brand Salmon Chum." (For Salmon.) No. 17,316; Nov. 4; Gaz. vol. 196; p. 273.
 Armour and Company, Chicago, Ill. "Armour's Salmon Alaska Red." (For Salmon.) No. 17,317; Nov. 4; Gaz. vol. 196; p. 273.
 Armour and Company, Chicago, Ill. "Medium Red Salmon." (For Salmon.) No. 17,318; Nov. 4; Gaz. vol. 196; p. 273.
 Barclay & Barclay, New York, N. Y. "Jabon Curativo de Barry." (For Soap.) No. 17,311; Nov. 18; Gaz. vol. 196; p. 802.
 Bayside Canning Co., Alviso, Cal. "Bohemian." (For Tomatoes with Purée.) No. 17,319; Nov. 4; Gaz. vol. 196; p. 273.
 Beatsall Polish Company, Chicago, Ill. "The Beatsall Stove Polish." (For Stove-Polish.) No. 17,320; Nov. 4; Gaz. vol. 196; p. 273.
 Berks Knitting Co., Inc., Reading, Pa. "Fifth Avenue Girl Hosiery." (For Women's Hosiery.) No. 17,342; Nov. 18; Gaz. vol. 196; p. 802.
 Brandstetter, Albert G., New York, N. Y. "Pan-Dandy." (For Bread.) No. 17,321; Nov. 4; Gaz. vol. 196; p. 273.
 Cabell Company, The, Baltimore, Md. "Do-Ne-Do." (For a Prepared Doughnut-Flour.) No. 17,343; Nov. 18; Gaz. vol. 196; p. 802.
 California Central Creameries, San Francisco, Cal. "Golden State Butter." (For Butter.) No. 17,344; Nov. 18; Gaz. vol. 196; p. 802.
 Carqué, Otto, Los Angeles, Cal. "Carqué's Nut-Cream Butter." (For Nut-Cream Butter.) No. 17,345; Nov. 18; Gaz. vol. 196; p. 802.
 Condit, Harry H., New York, N. Y. "Ko-Zy Union Suit." (For Ladies' Union Suits.) No. 17,346; Nov. 18; Gaz. vol. 196; p. 802.
 Dowling, Hubert A., St. Albans, Vt. "H. A. Dowling's No Buck." (For Cigars.) No. 17,322; Nov. 4; Gaz. vol. 196; p. 273.
 Dustbane Mfg. Co., Ipswich, Mass. "Dustbane." (For a Preparation Used in Sweeping.) No. 17,347; Nov. 18; Gaz. vol. 196; p. 802.
 Everett, Aughenbaugh & Co., Waseca, Minn. "E-A-Co." (For Flour.) No. 17,348; Nov. 18; Gaz. vol. 196; p. 802.
 Fernandez, Rodrigo, Chicago, Ill. "Flor De Lopez Garcia." (For Cigars.) No. 17,349; Nov. 18; Gaz. vol. 196; p. 802.
 Flint, M. E. and W. A., Montclair, N. J. "Fresh from the Farm." (For Eggs.) No. 17,323; Nov. 4; Gaz. vol. 196; p. 273.
 Florence Mfg. Co., Northampton, Mass. "Pro-phy-lactic Tooth Brush." (For Tooth-Brushes.) No. 17,324; Nov. 4; Gaz. vol. 196; p. 273.
 Geo. Haas & Sons, San Francisco, Cal. "Varied Sweets." (For Varied Sweets.) No. 17,325; Nov. 4; Gaz. vol. 196; p. 273.
 George G. London Manufacturing Company, The, Lynn, Mass. "Three in One, Cushion, Arch, Inner Sole." (For Innersoles.) No. 17,330; Nov. 4; Gaz. vol. 196; p. 273.
 Hunyadi Split Corporation, Minneapolis, Minn. "Domestic Sparkling Hunyadi or Cathartic Split." (For Cathartic Water of an Artificial Nature.) No. 17,351; Nov. 18; Gaz. vol. 196; p. 802.
 J. Goodman Inc., New York, N. Y. "Step Lively." (For a Foot-Balm.) No. 17,350; Nov. 18; Gaz. vol. 196; p. 802.
 Klar, Adolph, New York, N. Y. "Hold-Tight Brand Fringe Hair Nets." (For Hair-Nets.) No. 17,352; Nov. 18; Gaz. vol. 196; p. 802.
 Klar, Adolph, New York, N. Y. "Hold-Tight No. 43 Self Adjustable." (For Hair-Nets.) No. 17,353; Nov. 18; Gaz. vol. 196; p. 802.
 Kleenall Chemical Company, Pittsburgh, Pa. "Kleenall." (For Cleansers and Water-Softeners.) No. 17,354; Nov. 18; Gaz. vol. 196; p. 802.
 Kuck Cereal Company, Spokane, Wash. "Golden Hearts of All Cereal Food." (For Cereal Food.) No. 17,370; Nov. 25; Gaz. vol. 196; p. 1050.
 La Porte Woolen Mills, Laporte, Ind. "La Porte Wash Goods." (For Wash Goods.) No. 17,371; Nov. 25; Gaz. vol. 196; p. 1050.
 Laird, George W., Cliffside, N. J. "Laird's G W L Blush of Youth Harmless—Natural Color for the Cheeks and Lips." (For a Coloring for the Cheeks and Lips.) No. 17,328; Nov. 4; Gaz. vol. 196; p. 273.
 Lion Varnish Company, New York, N. Y. "Wunder Shine Varnish." (For Varnish.) No. 17,329; Nov. 4; Gaz. vol. 196; p. 273.
 M. M. Johannsen Candy Co., Dubuque, Iowa. "\$1,000.00 Pure Sugar Stick Candy." (For Candy.) No. 17,369; Nov. 25; Gaz. vol. 196; p. 1050.
 McKendrick, James, New York, N. Y. "Kiddle Kloth." (For Cotton Wash-Fabric Piece Goods.) No. 17,331; Nov. 4; Gaz. vol. 196; p. 273.
 Mirror Printing Co., The, Albion, Mich. "Made Well." (For Bread.) No. 17,372; Nov. 25; Gaz. vol. 196; p. 1050.
 Pee-Chee Cleaner Mfg. Co., Cleveland, Ohio. "Pee-Chee Cleaner For Gold and Silverware." (For a Cleaner.) No. 17,332; Nov. 4; Gaz. vol. 196; p. 273.
 Pittsburgh Brewing Company, Pittsburgh, Pa. "Tech." (For Beer.) No. 17,355; Nov. 18; Gaz. vol. 196; p. 802.
 Premier Broom & Brush Co., Amsterdam, N. Y. "Premier." (For Brooms.) No. 17,373; Nov. 25; Gaz. vol. 196; p. 1050.
 Premier Broom & Brush Co., Amsterdam, N. Y. "Ray." (For Brooms.) No. 17,374; Nov. 25; Gaz. vol. 196; p. 1050.
 Reese-Herrin Company, Atlanta, Ga. "'Dunford's' Improved Roof and Bridge Paints." (For Paints.) No. 17,356; Nov. 18; Gaz. vol. 196; p. 802.
 Reynolds, James N., Lindsay, Cal. "Tula." (For Citrus Fruits.) No. 17,357; Nov. 18; Gaz. vol. 196; p. 802.
 Richard Hudnut, New York, N. Y. "Violet Sec Toilet Water." (For Toilet Water.) No. 17,326; Nov. 4; Gaz. vol. 196; p. 273.
 Richard Hudnut, New York, N. Y. "Crème Violet Sec A Dry Cream For The Skin." (For a Crème Violet Sec.) No. 17,327; Nov. 4; Gaz. vol. 196; p. 273.
 Robinson, Bessie E. and Q. V., Warrenton, Oreg. "Minced Razor Clams Tillamook Head Brand." (For Canned Clams.) No. 17,333; Nov. 4; Gaz. vol. 196; p. 273.
 Robinson, Quincy V. (See Robinson, Bessie E. and Q. V.)
 Russell, Thomas W., Utica, N. Y. "Milk Maid." (For Bread.) No. 17,334; Nov. 4; Gaz. vol. 196; p. 273.
 Saginaw Specialty Company, Saginaw, Mich. "El Potvin." (For Cigars.) No. 17,375; Nov. 25; Gaz. vol. 196; p. 1050.
 San Marino Growers Packing Association, San Gabriel, Cal. "The Mission Play Brand." (For Oranges.) No. 17,358; Nov. 18; Gaz. vol. 196; p. 802.
 Selbert, Herman E., St. Paul, Minn. "Selbert Magic Fly Killer." (For an Insecticide.) No. 17,335; Nov. 4; Gaz. vol. 196; p. 273.
 Shadewald, E. W., Toronto, S. D. "Wheat-O." (For Breakfast Food.) No. 17,359; Nov. 18; Gaz. vol. 196; p. 802.
 Sierra Chemical Company, Los Angeles, Cal. "Savex Washing Powder." (For a Washing-Powder.) No. 17,360; Nov. 18; Gaz. vol. 196; p. 802.
 Sloat Bros. Company, Jacksonville, Fla. "Florangebud." (For Toilet Soap.) No. 17,336; Nov. 4; Gaz. vol. 196; p. 273.
 Smith's Island Oyster Company, New York, N. Y. "Smith's Island Oyster." (For Oysters.) No. 17,361; Nov. 18; Gaz. vol. 196; p. 802.
 Thleme & Wagner Brewing Co., The, La Fayette, Ind. "The Beer De Luxe." (For Beer.) No. 17,362; Nov. 18; Gaz. vol. 196; p. 802.
 Tump, Adam A., Milwaukee, Wis. "You Need a Biscuit, Why Not Get the Best In." (For a Biscuit.) No. 17,337; Nov. 4; Gaz. vol. 196; p. 273.
 Tuttle Press Company, The, Appleton, Wis. "Mosaic." (For Crêpe Tissue.) No. 17,363; Nov. 18; Gaz. vol. 196; p. 802.
 Urie, George M., Kansas City, Mo. "Perfection Cedar Oil Duster and Polisher." (For an Oil Duster and Polisher.) No. 17,338; Nov. 4; Gaz. vol. 196; p. 273.
 Utica Carbon & Wax Paper Co., Utica, N. Y. "Its Real Genuine Kno-Blur." (For Carbon-Paper.) No. 17,364; Nov. 18; Gaz. vol. 196; p. 802.
 Victoria Syrup & Coffee Company, Victoria, Tex. "Island Plantation." (For Syrup.) No. 17,365; Nov. 18; Gaz. vol. 196; p. 802.
 Wachter, Peter, Chicago, Ill. "Prairie State." (For Cigars.) No. 17,366; Nov. 18; Gaz. vol. 196; p. 802.
 Western Bottling Company, Spokane, Wash. "Mount Spokane." (For Beer.) Nos. 17,339-40; Nov. 4; Gaz. vol. 196; p. 273.
 Wisc, W. Ellis, Williamsport, Pa. "Health Oil." (For Health-Oil.) No. 17,367; Nov. 18; Gaz. vol. 196; p. 802.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1913.

[Abbreviations: "Gaz."—Official Gazette.]

PRINTS.

Arguto Oilless Bearing Co., Philadelphia, Pa. "Abandoned." (For Oilless Bearings.) No. 3,414; Nov. 18; Gaz. vol. 196; p. 802.
Batchelder & Snyder Company, Boston, Mass. "Reading his fate." (For Hams and Bacon.) No. 3,415; Nov. 18; Gaz. vol. 196; p. 802.
Cluett, Peabody & Co., Inc., Troy, N. Y. "Saturday Evening Post." (For Collars and Shirts.) No. 3,428; Nov. 25; Gaz. vol. 196; p. 1050.
Colgate & Co., New York, N. Y. "Thank Colgate & Co." (For Shaving-Powder, Shaving-Stick, and Shaving-Cream.) No. 3,405; Nov. 4; Gaz. vol. 196; p. 273.
Eckerson Company, Jersey City, N. J. "Gold Coin Creamery." (For Oleomargarin.) No. 3,416; Nov. 18; Gaz. vol. 196; p. 802.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "Eat Bread Made With Fleischmann's Yeast." (For Bread and Yeast.) No. 3,417; Nov. 18; Gaz. vol. 196; p. 802.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "Whatever the effect." (For Bread and Yeast.) No. 3,418; Nov. 18; Gaz. vol. 196; p. 802.
George Frost Company, Boston, Mass. "Everywoman." (For Hose-Supporters.) No. 3,419; Nov. 18; Gaz. vol. 196; p. 802.
Klar, Adolph, New York, N. Y. "Hold-Tight." No. 43. Self Adjustable. (For Hair-Nets.) No. 3,420; Nov. 18; Gaz. vol. 196; p. 802.
Kurtis, Isaac M., New York, N. Y. "On to Stay." (For Eyeglasses.) No. 3,406; Nov. 4; Gaz. vol. 196; p. 273.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Prince Albert makes a hit with every man—pipe and cigarette." (For Smoking-Tobacco.) No. 3,421; Nov. 18; Gaz. vol. 196; p. 802.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "The Cheer-up Chew Brown's Mule Tobacco." (For Chewing-Tobacco.) No. 3,422; Nov. 18; Gaz. vol. 196; p. 802.
Rigling, William, Hamilton, Ohio. "Run 'em out of Town." (For Egg-Testers.) No. 3,429; Nov. 25; Gaz. vol. 196; p. 1050.
Rigling, William, Hamilton, Ohio. "Two Bad Eggs." (For Egg-Testers.) No. 3,430; Nov. 25; Gaz. vol. 196; p. 1050.
Russell, Thomas W., Utica, N. Y. "Milk Maid." (For Bread.) No. 3,407; Nov. 4; Gaz. vol. 196; p. 273.
Scott Paper Co., Philadelphia, Pa. "Scottisae." (For Towels, Table-Covers, and Diapers, All Made of Paper, and Toilet-Paper.) No. 3,423; Nov. 18; Gaz. vol. 196; p. 802.
Shredded Wheat Company, The, Niagara Falls, N. Y. "Shredded Wheat Biscuit With Peaches or Other Fruit." (For Shredded Wheat.) No. 3,408; Nov. 4; Gaz. vol. 196; p. 273.
Shredded Wheat Company, The, Niagara Falls, N. Y. "Delicious For Any Meal." (For Shredded Wheat.) No. 3,409; Nov. 4; Gaz. vol. 196; p. 273.
Shredded Wheat Company, The, Niagara Falls, N. Y. "Shredded Wheat Biscuit." (For Shredded Wheat.) No. 3,410; Nov. 4; Gaz. vol. 196; p. 273.
Shredded Wheat Company, The, Niagara Falls, N. Y. "A Complete Nourishing Meal." (For Shredded Wheat.) No. 3,411; Nov. 4; Gaz. vol. 196; p. 273.
Standard Oil Company, Whiting, Ind., and Chicago, Ill. "Polarine." (For Motor-Oil.) No. 3,431; Nov. 25; Gaz. vol. 196; p. 1050.
Steele & Co., Robert P., New York, N. Y. "The Railroad Sock." (For Socks.) No. 3,424; Nov. 18; Gaz. vol. 196; p. 802.
Texarkana Pipe Co., Texarkana, Tex. "Vanquished." (For Vitrified Pipe and other Imperishable Products.) No. 3,425; Nov. 18; Gaz. vol. 196; p. 802.
Wanamaker, Wm. H., Jr., Philadelphia, Pa. "Sun Proof W. H. W." (For Serge Suits.) No. 3,412; Nov. 4; Gaz. vol. 196; p. 273.
Whitman & Barnes Mfg. Co., The, Akron, Ohio. "Fashioned for a barefoot boy." (For Lawn-Mowers.) No. 3,413; Nov. 4; Gaz. vol. 196; p. 273.
Winchester Repeating Arms Company, New Haven, Conn. "Winchester." (For Firearms and Ammunition.) No. 3,426; Nov. 18; Gaz. vol. 196; p. 802.
Workman Packing Company, San Francisco, Cal. "Chicken Karno." (For Karno.) No. 3,427; Nov. 18; Gaz. vol. 196; p. 802.

DISCLAIMER.

Vauclain, Samuel M., Philadelphia, Pa.; disclaimer filed by assignee, Locomotive Superheater Company. Superheater. No. 1,034,540; disclaimer filed Oct. 31, 1913; Gaz. vol. 196; p. 279.

lv

Abrasive-wheel mounting. H. K. Spencer. No. 1,079,304; Nov. 18; Gaz. vol. 196; p. 772.
Accelerating mechanism. Mechanically-operated. W. Deats. No. 1,077,395; Nov. 4; Gaz. vol. 196; p. 55.
Acetylene-generator. E. Adamson. No. 1,079,823; Nov. 25; Gaz. vol. 196; p. 985.
Acid, Manufacture of nitroso derivatives of phenyl-glycin-ortho-carboxylic. J. Houben. No. 1,079,246; Nov. 18; Gaz. vol. 196; p. 754.
Acid such as nitric acid by means of a drying agent, Concentrating. E. Collett. No. 1,079,541; Nov. 25; Gaz. vol. 196; p. 884.
Acids, Manufacture of tar. I. and S. McDougall and F. Howles. No. 1,077,287; Nov. 4; Gaz. vol. 196; p. 15.
Acidylaminooxyarsenobenzene and making same, Derivatives of. P. Ehrlich and A. Berthelm. No. 1,077,462; Nov. 4; Gaz. vol. 196; p. 78.
Acoustical instrument. L. Lumiere. No. 1,077,536; Nov. 4; Gaz. vol. 196; p. 104.
Adding and recording machine. H. Landsiedel. No. 1,078,359; Nov. 11; Gaz. vol. 196; p. 418.
Adding-machine. H. Landsiedel. No. 1,078,358; Nov. 11; Gaz. vol. 196; p. 418.
Adding-machine. Pocket. P. E. Saehrendt. No. 1,078,385; Nov. 11; Gaz. vol. 196; p. 428.
Addressing-machine. R. N. Rogers. No. 1,077,755; Nov. 4; Gaz. vol. 196; p. 176.
Adhesive compound. V. Kicovlich. No. 1,077,576; Nov. 4; Gaz. vol. 196; p. 117.
Adjustable chair. J. F. Walton. No. 1,079,528; Nov. 25; Gaz. vol. 196; p. 880.
Adjustable table. F. Hasenzahl. No. 1,079,487; Nov. 25; Gaz. vol. 196; p. 866.
Advertising device. J. W. Mevis. No. 1,078,742; Nov. 18; Gaz. vol. 196; p. 580.
Advertising device. Gas-flash-light. T. Jackson. No. 1,077,985; Nov. 11; Gaz. vol. 196; p. 287.
Advertising-kiosk. S. W. Porteous. No. 1,079,879; Nov. 25; Gaz. vol. 196; p. 1004.
Advertising-order record. E. B. Wilson and C. I. Robinson. No. 1,079,461; Nov. 25; Gaz. vol. 196; p. 858.
Aerodrome. R. G. Dressler. No. 1,079,167; Nov. 18; Gaz. vol. 196; p. 729.
Aeronautical apparatus. A. Donath. No. 1,078,614; Nov. 18; Gaz. vol. 196; p. 535.
Aeroplane. B. J. Pressey. No. 1,077,750; Nov. 4; Gaz. vol. 196; p. 175.
Aeroplane. H. C. Well. No. 1,077,774; Nov. 4; Gaz. vol. 196; p. 184.
Aeroplane. H. Podolsky. No. 1,077,892; Nov. 4; Gaz. vol. 196; p. 223.
Aeroplane. B. Brooks. No. 1,078,713; Nov. 18; Gaz. vol. 196; p. 571.
Aeroplane. G. E. Hanes. No. 1,079,171; Nov. 18; Gaz. vol. 196; p. 730.
Aeroplane-controlling apparatus. J. A. Moore. No. 1,078,300; Nov. 11; Gaz. vol. 196; p. 397.
Aeroplanes and other flying-machines, Bomb for use with. H. S. Maxim. No. 1,077,990; Nov. 11; Gaz. vol. 196; p. 289.
Aeroplanes and other flying-machines, Bomb for use with. H. S. Maxim. No. 1,078,298; Nov. 11; Gaz. vol. 196; p. 395.
Aeroplanes, Automatic stabilizer for. T. Windel. No. 1,078,888; Nov. 18; Gaz. vol. 196; p. 631.
Aeroplanes, Means for improving the stability of. H. S. Whiteblood. No. 1,078,477; Nov. 11; Gaz. vol. 196; p. 457.
Aeroplanes or flying-machines, Bomb for use in connection with. H. S. Maxim. No. 1,077,989; Nov. 11; Gaz. vol. 196; p. 288.
Agricultural implement. D. B. Vanderwater. No. 1,077,443; Nov. 4; Gaz. vol. 196; p. 72.
Agricultural implement. J. D. Martens. No. 1,078,792; Nov. 18; Gaz. vol. 196; p. 599.
Agricultural implement. R. E. Davison. No. 1,079,114; Nov. 18; Gaz. vol. 196; p. 710.
Agricultural machine. J. L. O'Neill. No. 1,079,139; Nov. 18; Gaz. vol. 196; p. 719.
Air-blast heater. E. Hohmann. No. 1,079,764; Nov. 25; Gaz. vol. 196; p. 965.
Air-brake-mechanism safety appliance. W. M. Crandall. No. 1,078,663; Nov. 18; Gaz. vol. 196; p. 551.
Air-brake systems, Device for heating. J. S. Shoemaker. No. 1,079,611; Nov. 25; Gaz. vol. 196; p. 911.
Air-compressor. L. G. Stone. (Reissue.) No. 13,645; Nov. 11; Gaz. vol. 196; p. 502.
Air-cooling apparatus. W. H. Carrier. No. 1,078,608; Nov. 18; Gaz. vol. 196; p. 533.
Air-feeding attachment. F. N. Cooke. No. 1,079,636; Nov. 25; Gaz. vol. 196; p. 918.
Airship. J. C. Schielcher. No. 1,077,563; Nov. 4; Gaz. vol. 196; p. 113.
Airship. C. E. Myers. No. 1,078,455; Nov. 11; Gaz. vol. 196; p. 451.
Alarm. See Burglar-alarm; Fire-alarm; Tire-alarm.
Alkali salts of the 3,3'-diamino-4,4'-dioxarsenobenzene and making same, Preparation from. P. Ehrlich and B. Reuter. No. 1,078,135; Nov. 11; Gaz. vol. 196; p. 338.
Alkalis from silicate rocks, Recovering. S. Gelléri. No. 1,078,495; Nov. 11; Gaz. vol. 196; p. 463.
Alkalis from silicates, Recovering. S. Gelléri. No. 1,078,496; Nov. 11; Gaz. vol. 196; p. 463.
Alumina, Purifying. H. F. Chappell. No. 1,079,899; Nov. 25; Gaz. vol. 196; p. 1012.
Alumina, Purifying. H. F. Chappell and G. E. Cohen. No. 1,079,900; Nov. 25; Gaz. vol. 196; p. 1012.
Aluminum-bearing materials, Treatment of. H. P. Bassett. No. 1,079,589; Nov. 25; Gaz. vol. 196; p. 903.
Aluminum nitride, Manufacture of. O. Serpek. No. 1,078,313; Nov. 11; Gaz. vol. 196; p. 401.
Aluminum sulfate, Preparing. H. F. D. Schwahn. No. 1,077,309; Nov. 4; Gaz. vol. 196; p. 23.
Aluminum, Treatment of the surfaces of articles of. A. Lang. No. 1,077,480; Nov. 4; Gaz. vol. 196; p. 85.
Amalgamator. J. I. Anderson. No. 1,079,534; Nov. 25; Gaz. vol. 196; p. 882.
Ammonia and other compounds containing nitrogen and hydrogen, Synthetically preparing. F. Hlavati. No. 1,079,705; Nov. 25; Gaz. vol. 196; p. 942.
Amusement device. W. R. Graham. No. 1,077,340; Nov. 4; Gaz. vol. 196; p. 35.
Amusement device. J. M. West. No. 1,079,678; Nov. 25; Gaz. vol. 196; p. 932.
Anchoring device. C. Hamann. No. 1,078,142; Nov. 11; Gaz. vol. 196; p. 341.
Animal-overshoe. Q. Zuber. No. 1,078,479; Nov. 11; Gaz. vol. 196; p. 458.
Animal-trap. T. J. Burke. No. 1,077,452; Nov. 4; Gaz. vol. 196; p. 75.
Animal-trap. W. T. Branitzky. No. 1,077,666; Nov. 4; Gaz. vol. 196; p. 147.
Animal-trap. K. E. Johansson. No. 1,077,912; Nov. 4; Gaz. vol. 196; p. 230.
Animal-trap. F. M. Nolder. No. 1,078,457; Nov. 11; Gaz. vol. 196; p. 451.
Anticreaper. E. M. Smith. No. 1,078,562; Nov. 11; Gaz. vol. 196; p. 484.
Antiskid attachment for automobile-tires. J. G. Florack. No. 1,077,401; Nov. 4; Gaz. vol. 196; p. 57.
Antiskidding device. T. B. Thomas. No. 1,078,322; Nov. 11; Gaz. vol. 196; p. 404.
Antiskidding devices, Tread-section for. H. D. Weed. No. 1,079,907; Nov. 25; Gaz. vol. 196; p. 1014.
Apparel lock, Wearing. A. Lissner. No. 1,079,655; Nov. 25; Gaz. vol. 196; p. 924.
Apparel, Wearing. M. M. Dryfoos. No. 1,079,041; Nov. 18; Gaz. vol. 196; p. 686.
Arch-support. J. W. Arrowsmith. No. 1,077,864; Nov. 4; Gaz. vol. 196; p. 213.
Arch-supporter. J. P. Thomas. No. 1,078,708; Nov. 18; Gaz. vol. 196; p. 568.
Armor-plates and other steel articles, Manufacture of. J. L. Benthall. No. 1,079,323; Nov. 25; Gaz. vol. 196; p. 811.
Asbestos handle. R. B. Best. No. 1,079,688; Nov. 25; Gaz. vol. 196; p. 936.
Atomizer. C. Hassler. No. 1,077,708; Nov. 4; Gaz. vol. 196; p. 160.

lv

Automatic lubricator. M. Deutscher. No. 1,077,813; Nov. 4; Gaz. vol. 196; p. 196.
 Automatic sprinkler. S. M. Marshall. No. 1,079,016; Nov. 18; Gaz. vol. 196; p. 676.
 Automatic sprinkler-head. E. M. Long. No. 1,079,136; Nov. 18; Gaz. vol. 196; p. 717.
 Automobile. E. R. Hewitt. No. 1,077,933; Nov. 4; Gaz. vol. 196; p. 237.
 Automobile. H. A. Baker. No. 1,079,320; Nov. 25; Gaz. vol. 196; p. 809.
 Automobile control mechanism. H. Ford. No. 1,078,042; Nov. 11; Gaz. vol. 196; p. 306.
 Automobile folding chair. W. H. Douglas. No. 1,079,846; Nov. 25; Gaz. vol. 196; p. 993.
 Automobile hood-cornice. A. E. Schaaf. No. 1,078,961; Nov. 18; Gaz. vol. 196; p. 654.
 Automobile-lock. W. G. McNab and R. J. McCleery. No. 1,078,165; Nov. 11; Gaz. vol. 196; p. 328.
 Automobile-muffler. E. L. Dewey. No. 1,077,905; Nov. 4; Gaz. vol. 196; p. 227.
 Automobile-radiator. J. W. Bowerbank. No. 1,079,468; Nov. 25; Gaz. vol. 196; p. 860.
 Automobile-radiator wind-shield. A. Holland. No. 1,079,765; Nov. 25; Gaz. vol. 196; p. 966.
 Automobile seat construction. F. J. Morgan. No. 1,078,602; Nov. 11; Gaz. vol. 196; p. 499.
 Automobile shock-absorber. N. H. Lanes. No. 1,079,249; Nov. 18; Gaz. vol. 196; p. 755.
 Automobile shock-absorber. W. H. Cook. No. 1,079,842; Nov. 25; Gaz. vol. 196; p. 991.
 Automobile-top. C. V. Beebe. No. 1,079,205; Nov. 18; Gaz. vol. 196; p. 741.
 Automobile wind-shield. A. U. Preumont. No. 1,078,376; Nov. 11; Gaz. vol. 196; p. 424.
 Automobile with pivot-gun. G. Hayn and N. Koch. No. 1,079,856; Nov. 25; Gaz. vol. 196; p. 996.
 Automobiles, Automatic safety-crank and gear-shift for. F. H. Arnsburger. No. 1,077,506; Nov. 4; Gaz. vol. 196; p. 95.
 Awning. W. Sullivan. No. 1,079,894; Nov. 25; Gaz. vol. 196; p. 1010.
 Axle. D. Ryerson. No. 1,078,698; Nov. 18; Gaz. vol. 196; p. 565.
 Axle bearing. Locomotive. W. C. Stephenson. No. 1,079,809; Nov. 25; Gaz. vol. 196; p. 980.
 Axle-drive. H. M. Boyd. No. 1,078,032; Nov. 11; Gaz. vol. 196; p. 303.
 Axle steering-knuckle. F. F. Marshak. No. 1,078,054; Nov. 11; Gaz. vol. 196; p. 311.
 Bag. See Hand-bag; Ice-bag; Paper bag; Traveling-bag.
 Bag closure and carrier. E. M. Wallace. No. 1,079,527; Nov. 25; Gaz. vol. 196; p. 880.
 Bag-frame. H. J. Ritter. No. 1,078,383; Nov. 11; Gaz. vol. 196; p. 427.
 Bag-holder. O. E. Blood. No. 1,079,083; Nov. 11; Gaz. vol. 196; p. 320.
 Bag-tie machine. E. Truman and A. Tietz. No. 1,079,075; Nov. 18; Gaz. vol. 196; p. 697.
 Ball for flower-pots and like articles, Detachable. G. B. Hart. No. 1,077,879; Nov. 4; Gaz. vol. 196; p. 218.
 Ball, Artificial. H. S. Welles. No. 1,078,896; Nov. 18; Gaz. vol. 196; p. 630.
 Bakers' products, Making. G. Peters. No. 1,077,552; Nov. 4; Gaz. vol. 196; p. 109.
 Baking pastry cones, Apparatus for. A. M. Carlsen. No. 1,078,572; Nov. 11; Gaz. vol. 196; p. 488.
 Balance. E. Zimpel. No. 1,078,029; Nov. 11; Gaz. vol. 196; p. 302.
 Bale-band-applying device. J. H. Marion. No. 1,079,602; Nov. 25; Gaz. vol. 196; p. 909.
 Baling-press. J. N. Wood. No. 1,079,683; Nov. 25; Gaz. vol. 196; p. 934.
 Ball-and-socket joint. A. Zähringer. No. 1,079,531; Nov. 25; Gaz. vol. 196; p. 881.
 Banana-stand. H. F. Royse. No. 1,078,804; Nov. 18; Gaz. vol. 196; p. 603.
 Band-making machine. O. N. Tevander. No. 1,078,707; Nov. 18; Gaz. vol. 196; p. 568.
 Bar. See Core-bar; Cutter-bar; Printing-bar; Type-bar.
 Barbers' checks and accessories, Sanitary holder for. F. J. Cox. No. 1,077,809; Nov. 4; Gaz. vol. 196; p. 194.
 Barn. C. Dolph. No. 1,079,040; Nov. 18; Gaz. vol. 196; p. 685.
 Barrel, Knockdown metal. H. A. House. No. 1,078,621; Nov. 18; Gaz. vol. 196; p. 537.
 Barrette. W. J. Hines and W. F. Hicks. No. 1,077,345; Nov. 4; Gaz. vol. 196; p. 37.
 Basket for bottle-conveyers. J. W. Dawson. No. 1,078,262; Nov. 11; Gaz. vol. 196; p. 382.
 Bath-tub. J. J. Lawler. No. 1,079,775; Nov. 25; Gaz. vol. 196; p. 969.
 Battery-box. C. A. Mahla. No. 1,077,539; Nov. 4; Gaz. vol. 196; p. 105.
 Battery-support. R. M. Lloyd. No. 1,079,709; Nov. 25; Gaz. vol. 196; p. 943.
 Beam. D. B. Luten. No. 1,078,366; Nov. 11; Gaz. vol. 196; p. 420.
 Bean-picking machine. C. E. Smith. No. 1,079,805; Nov. 25; Gaz. vol. 196; p. 979.
 Bean-sorter. W. S. Foster. No. 1,079,913; Nov. 25; Gaz. vol. 196; p. 1016.
 Bearing. J. A. Whitroath. No. 1,079,680; Nov. 25; Gaz. vol. 196; p. 933.

Bearing, Ball. J. Vorraber. No. 1,078,474; Nov. 11; Gaz. vol. 196; p. 456.
 Bearing, Ball. J. Modler. No. 1,078,940; Nov. 18; Gaz. vol. 196; p. 648.
 Bearing, Ball. H. Hess. No. 1,079,340; Nov. 25; Gaz. vol. 196; p. 817.
 Bearing for turn-tables, Roller. P. A. Cuenot. No. 1,079,911; Nov. 25; Gaz. vol. 196; p. 1016.
 Bearing, Internal-grinding-wheel. H. T. Shearer. No. 1,078,560; Nov. 11; Gaz. vol. 196; p. 484.
 Bearing mechanism. R. S. Brown. No. 1,078,606; Nov. 18; Gaz. vol. 196; p. 532.
 Bed. H. B. Arnold. No. 1,078,077; Nov. 11; Gaz. vol. 196; p. 318.
 Bed, Cabinet or wall. W. R. Nees. No. 1,079,658; Nov. 25; Gaz. vol. 196; p. 925.
 Bed-canopy. J. Conant. No. 1,078,128; Nov. 11; Gaz. vol. 196; p. 336.
 Bed davenport or couch. S. Goldstein. No. 1,078,044; Nov. 11; Gaz. vol. 196; p. 307.
 Bed fabric. S. Rusnak. No. 1,078,880; Nov. 18; Gaz. vol. 196; p. 628.
 Bed, Folding. R. F. Cornell. No. 1,078,613; Nov. 18; Gaz. vol. 196; p. 534.
 Bed, Folding. G. Fischrupp. No. 1,078,908; Nov. 18; Gaz. vol. 196; p. 637.
 Bed, Folding. G. Fischrupp. No. 1,078,909; Nov. 18; Gaz. vol. 196; p. 638.
 Bed, Folding. G. Fischrupp. No. 1,078,910; Nov. 18; Gaz. vol. 196; p. 638.
 Bed-rail fastener. J. S. Hendricks. No. 1,079,409; Nov. 25; Gaz. vol. 196; p. 840.
 Bed-rail joint. E. J. Olsen. No. 1,077,995; Nov. 11; Gaz. vol. 196; p. 290.
 Bed-riser. F. E. Sloan. No. 1,077,944; Nov. 4; Gaz. vol. 196; p. 242.
 Bed-spring. K. Richey. No. 1,078,516; Nov. 11; Gaz. vol. 196; p. 470.
 Bed, Spring. A. Scheible. No. 1,078,806; Nov. 18; Gaz. vol. 196; p. 604.
 Bed-tub. E. A. M. Gallagher. No. 1,078,617; Nov. 18; Gaz. vol. 196; p. 536.
 Beds, Bed-post for brass or iron. M. Sobel. No. 1,079,523; Nov. 25; Gaz. vol. 196; p. 878.
 Bell, Door. M. Zimmerman. No. 1,079,822; Nov. 25; Gaz. vol. 196; p. 985.
 Bell, Electric. A. Jacobsen. No. 1,079,649; Nov. 25; Gaz. vol. 196; p. 922.
 Bell, Locomotive. E. M. Crawford. No. 1,078,335; Nov. 11; Gaz. vol. 196; p. 408.
 Belt, Conveyor. W. W. Batchelor. No. 1,079,157; Nov. 18; Gaz. vol. 196; p. 725.
 Belt-fastener. W. K. Marresford. No. 1,078,053; Nov. 11; Gaz. vol. 196; p. 311.
 Belt-guide. J. T. Smith. No. 1,079,031; Nov. 18; Gaz. vol. 196; p. 682.
 Belt or buckle support. M. Plotke. No. 1,079,510; Nov. 25; Gaz. vol. 196; p. 874.
 Belt, Shirt-waist. J. C. Woodward. No. 1,079,624; Nov. 25; Gaz. vol. 196; p. 915.
 Belt-tightener. W. E. Farrell. No. 1,077,339; Nov. 4; Gaz. vol. 196; p. 34.
 Bicycles and the like, Propelling mechanism for. H. J. Sherrill. No. 1,079,444; Nov. 25; Gaz. vol. 196; p. 850.
 Billiard-cue tip. G. Ankenmann. No. 1,077,664; Nov. 4; Gaz. vol. 196; p. 146.
 Bin. See Computing-bin.
 Binder. C. E. Swift. No. 1,078,470; Nov. 11; Gaz. vol. 196; p. 455.
 Binder, Loose-leaf. W. P. Pitt. No. 1,077,639; Nov. 4; Gaz. vol. 196; p. 137.
 Binder, Loose-leaf. J. C. Dawson. No. 1,077,681; Nov. 4; Gaz. vol. 196; p. 152.
 Binder, Loose-leaf. J. C. Dawson. No. 1,077,682; Nov. 4; Gaz. vol. 196; p. 152.
 Binder, Loose-leaf. J. Burgess. No. 1,079,039; Nov. 18; Gaz. vol. 196; p. 684.
 Binder, Loose-leaf. W. P. Pitt. No. 1,079,580; Nov. 25; Gaz. vol. 196; p. 899.
 Binder, Temporary. J. S. Jensen. No. 1,078,354; Nov. 11; Gaz. vol. 196; p. 416.
 Binder, Temporary. C. Dom. No. 1,079,640; Nov. 25; Gaz. vol. 196; p. 919.
 Binders, Setting-up device for documents. W. R. Woodward and F. E. Crompton. No. 1,078,979; Nov. 18; Gaz. vol. 196; p. 662.
 Bit. See Bridle-bit; Mining-machine bit.
 Blast furnace, Hot. C. E. Norman. No. 1,079,432; Nov. 25; Gaz. vol. 196; p. 847.
 Blasting. T. Johnson. No. 1,078,442; Nov. 11; Gaz. vol. 196; p. 447.
 Block. See Cutting-block; Interlocking block; Pulley-block; Sheave-block; Tackle-block.
 Block-making apparatus, Plastic. C. W. Gill. No. 1,077,523; Nov. 4; Gaz. vol. 196; p. 100.
 Blowpipe apparatus. W. C. Bucknam. No. 1,078,412; Nov. 11; Gaz. vol. 196; p. 436.
 Board. See Bulletin-board; Piano fall-board.
 Boat, Life. W. J. Tekippe. No. 1,078,471; Nov. 11; Gaz. vol. 196; p. 455.
 Boat-plug. W. J. Adams. No. 1,079,627; Nov. 25; Gaz. vol. 196; p. 915.

Boat, Ship's. P. A. Stofel. No. 1,079,729; Nov. 25; Gaz. vol. 196; p. 951.
 Bonts, Track for motor. E. Durand. No. 1,079,901; Nov. 25; Gaz. vol. 196; p. 1012.
 Bobbin-magazine for doffers. B. A. Peterson. No. 1,078,553; Nov. 11; Gaz. vol. 196; p. 482.
 Boiler. See Steam-boiler.
 Boiler. A. M. Urista. No. 1,078,177; Nov. 11; Gaz. vol. 196; p. 353.
 Boiler. T. T. Parker. No. 1,078,212; Nov. 11; Gaz. vol. 196; p. 365.
 Boiler-flue cleaner. J. T. Lemon. No. 1,079,499; Nov. 25; Gaz. vol. 196; p. 871.
 Boiler-furnace. A. Normand. No. 1,078,803; Nov. 18; Gaz. vol. 196; p. 603.
 Boiler-tube attachment. W. E. Thompson. No. 1,077,441; Nov. 4; Gaz. vol. 196; p. 71.
 Boiler-tube-jointing apparatus. S. A. Dugan. No. 1,078,615; Nov. 18; Gaz. vol. 196; p. 535.
 Boiler-tubes, Hardening copper. P. D. Johnson. No. 1,078,583; Nov. 11; Gaz. vol. 196; p. 492.
 Bolters, Fire-box stay-bolt for locomotive and other. E. I. Dodds. No. 1,077,975; Nov. 11; Gaz. vol. 196; p. 283.
 Bolters, Water storing and heating apparatus for. D. L. Winters. No. 1,079,623; Nov. 25; Gaz. vol. 196; p. 914.
 Bolster-stake holder. C. Faust. No. 1,077,692; Nov. 4; Gaz. vol. 196; p. 155.
 Bolster-stake holder. C. Faust. No. 1,077,693; Nov. 4; Gaz. vol. 196; p. 156.
 Bolsters, Constructing. A. L. Hastings. No. 1,077,709; Nov. 4; Gaz. vol. 196; p. 160.
 Bolt. See Panic-bolt; Seal-bolt; Stay-bolt.
 Bolting, sifting, and grading machine. W. Gray and J. G. Hintz, Jr. No. 1,078,917; Nov. 18; Gaz. vol. 196; p. 641.
 Boltwork, Safe. C. Bartels. No. 1,078,818; Nov. 18; Gaz. vol. 196; p. 608.
 Book and manuscript holder, Note. S. C. Osborn. No. 1,077,853; Nov. 4; Gaz. vol. 196; p. 209.
 Book holder or support. R. Krumming. No. 1,079,418; Nov. 25; Gaz. vol. 196; p. 943.
 Book, Loose-leaf. E. P. A. Wolf. No. 1,078,116; Nov. 11; Gaz. vol. 196; p. 332.
 Books to stands, Means for fastening. W. Templin. No. 1,077,896; Nov. 4; Gaz. vol. 196; p. 224.
 Boring-machine. D. P. Jordan. No. 1,079,650; Nov. 25; Gaz. vol. 196; p. 923.
 Boring-stem. J. A. Wintroath. No. 1,079,681; Nov. 25; Gaz. vol. 196; p. 933.
 Boring-tool. E. E. Davis. No. 1,078,611; Nov. 18; Gaz. vol. 196; p. 534.
 Boron nitride, Manufacture of. R. Heyder. No. 1,077,712; Nov. 4; Gaz. vol. 196; p. 161.
 Bottle cap or seal. C. Hammer. No. 1,079,238; Nov. 18; Gaz. vol. 196; p. 752.
 Bottle-carrier for soaking-machines. J. W. Dawson. No. 1,079,750; Nov. 25; Gaz. vol. 196; p. 960.
 Bottle-closure. C. D. Bower. No. 1,077,328; Nov. 4; Gaz. vol. 196; p. 30.
 Bottle closure or seal. W. B. Thomson. No. 1,079,074; Nov. 18; Gaz. vol. 196; p. 697.
 Bottle, Drenching. J. B. Mooney. No. 1,077,541; Nov. 4; Gaz. vol. 196; p. 106.
 Bottle-handling mechanism. J. V. Irenius and C. B. Weaver. No. 1,079,295; Nov. 18; Gaz. vol. 196; p. 769.
 Bottle-holder. C. N. Sowden. No. 1,079,192; Nov. 18; Gaz. vol. 196; p. 738.
 Bottle holder, Milk. R. H. Neff. No. 1,078,744; Nov. 18; Gaz. vol. 196; p. 581.
 Bottle, Non-refillable. L. J. Stillings. No. 1,077,565; Nov. 4; Gaz. vol. 196; p. 113.
 Bottle, Non-refillable. E. Fournier. No. 1,077,825; Nov. 4; Gaz. vol. 196; p. 200.
 Bottle, Non-refillable. W. Rakowski. No. 1,077,915; Nov. 4; Gaz. vol. 196; p. 231.
 Bottle, Non-refillable. J. Letora. No. 1,078,737; Nov. 18; Gaz. vol. 196; p. 579.
 Bottle, Non-refillable. W. J. Belsel. No. 1,079,387; Nov. 25; Gaz. vol. 196; p. 833.
 Bottle, Rectum. D. T. Quigley. No. 1,077,490; Nov. 4; Gaz. vol. 196; p. 89.
 Bottle, Refillable. L. J. Crecellus. No. 1,079,403; Nov. 25; Gaz. vol. 196; p. 838.
 Bottle-washing machine. J. T. H. Paul. No. 1,077,636; Nov. 4; Gaz. vol. 196; p. 136.
 Bottling appliance. J. V. Irenius. No. 1,079,053; Nov. 18; Gaz. vol. 196; p. 689.
 Bowling-alley. H. F. Cook and C. C. Hildreth. No. 1,077,807; Nov. 4; Gaz. vol. 196; p. 194.
 Box. See Battery-box; Cannery exhaust-box; Conduit-box; Fire-box; Fire-alarm box; Folding box; Hanger-box; Knockdown box; Packing or shipping box; Sheet-metal box; Shoe-polishing box; Signal-box; Sound-box; Suit-box; Tobacco-box; Trick-box.
 Box or receptacle for containing small articles. E. P. Perkins. No. 1,079,141; Nov. 18; Gaz. vol. 196; p. 720.
 Boxes, Drop-handle for. S. B. Field. No. 1,078,491; Nov. 11; Gaz. vol. 196; p. 462.
 Boxes, Manufacture of. M. D. Knowlton. No. 1,079,772; Nov. 25; Gaz. vol. 196; p. 968.
 Brace. See Lever-brace.

Bracelet. T. W. Foster. No. 1,078,272; Nov. 11; Gaz. vol. 196; p. 385.
 Bracelet. C. M. Levy. No. 1,079,354; Nov. 25; Gaz. vol. 196; p. 821.
 Bracelet unit. W. E. Coles. No. 1,077,673; Nov. 4; Gaz. vol. 196; p. 149.
 Bracket. See Lamp-bracket; Shade-bracket; Telephone-bracket.
 Brake. See Car-brake; Emergency-brake; High-speed brake; Sleigh-brake; Truck-brake; Vehicle-brake; Vessel emergency-brake; Wheel-brake.
 Brake. H. C. Marmon. No. 1,078,600; Nov. 11; Gaz. vol. 196; p. 498.
 Brake-actuating mechanism. T. N. Nygren. No. 1,078,107; Nov. 11; Gaz. vol. 196; p. 329.
 Brake-beam gage. C. H. Williams, Jr. No. 1,078,649; Nov. 18; Gaz. vol. 196; p. 546.
 Brake-release device, Speed-controlled. W. V. Turner. No. 1,078,019; Nov. 11; Gaz. vol. 196; p. 299.
 Brake-shoe. W. C. Fisher. No. 1,078,039; Nov. 11; Gaz. vol. 196; p. 306.
 Brake-shoe. W. C. Fisher. No. 1,078,040; Nov. 11; Gaz. vol. 196; p. 306.
 Brake-shoe. W. C. Fisher. No. 1,078,041; Nov. 11; Gaz. vol. 196; p. 306.
 Brake-shoe. W. A. Lovells. No. 1,078,866; Nov. 18; Gaz. vol. 196; p. 624.
 Brake-shoe and supporting means therefor. J. D. Gallagher. No. 1,079,001; Nov. 18; Gaz. vol. 196; p. 670.
 Brake-valve device. W. V. Turner and W. M. Cady. No. 1,078,020; Nov. 11; Gaz. vol. 196; p. 299.
 Brake-valve device, Automatic. W. V. Turner. No. 1,078,021; Nov. 11; Gaz. vol. 196; p. 299.
 Branding-machine. H. W. Colby and C. Sippel. No. 1,079,313; Nov. 18; Gaz. vol. 196; p. 776.
 Breathing appliance. W. Longway. No. 1,078,364; Nov. 11; Gaz. vol. 196; p. 419.
 Bridge-pier and means for and method of constructing the same, Deep-water. A. C. Rush. No. 1,079,517; Nov. 25; Gaz. vol. 196; p. 876.
 Bridle-bit. J. Beery. No. 1,078,987; Nov. 18; Gaz. vol. 196; p. 665.
 Briquets, Making. O. Klippe. No. 1,078,544; Nov. 11; Gaz. vol. 196; p. 479.
 Broiler and oven, Combined. S. L. Richards. No. 1,077,556; Nov. 4; Gaz. vol. 196; p. 110.
 Brooder. J. A. Gardner. No. 1,078,344; Nov. 11; Gaz. vol. 196; p. 412.
 Brooder. J. W. Morris. No. 1,078,547; Nov. 11; Gaz. vol. 196; p. 480.
 Brooder, Poultry. C. Delay. No. 1,079,545; Nov. 25; Gaz. vol. 196; p. 886.
 Brush. W. H. Mills. No. 1,077,851; Nov. 4; Gaz. vol. 196; p. 208.
 Brush. G. L. Rogers. No. 1,078,556; Nov. 11; Gaz. vol. 196; p. 483.
 Brush, Hat. H. J. Trah. No. 1,077,654; Nov. 4; Gaz. vol. 196; p. 143.
 Brush holder, Tooth. J. H. Trayne. No. 1,079,618; Nov. 25; Gaz. vol. 196; p. 913.
 Brush, Laminated contact. C. Ambruster. No. 1,078,656; Nov. 18; Gaz. vol. 196; p. 549.
 Brush, Tooth. E. C. Gruhl. No. 1,077,909; Nov. 4; Gaz. vol. 196; p. 228.
 Bucket-dumping device. J. W. Johnston. No. 1,077,986; Nov. 11; Gaz. vol. 196; p. 287.
 Bucket, Self-cleaning drag-scraper. M. H. Morse. No. 1,078,454; Nov. 11; Gaz. vol. 196; p. 450.
 Bucket, Self-dumping. R. W. Catching. No. 1,079,744; Nov. 25; Gaz. vol. 196; p. 957.
 Buckle. W. M. Ward. No. 1,079,080; Nov. 18; Gaz. vol. 196; p. 698.
 Buckle for garment-supporters, Adjusting. A. V. Brown. No. 1,077,902; Nov. 4; Gaz. vol. 196; p. 226.
 Buffer for swinging indicator-frames. J. H. Rand. No. 1,077,555; Nov. 4; Gaz. vol. 196; p. 110.
 Buffing-machine. E. E. Lane. No. 1,078,050; Nov. 11; Gaz. vol. 196; p. 309.
 Bullet, Mushroom. H. W. Starkweather. No. 1,077,564; Nov. 4; Gaz. vol. 196; p. 113.
 Bullet, Mushroom. T. C. Johnson. No. 1,077,607; Nov. 4; Gaz. vol. 196; p. 126.
 Bullet, Mushroom. T. C. Johnson. No. 1,077,608; Nov. 4; Gaz. vol. 196; p. 126.
 Bulletin-board, Changeable. A. Spielmann. No. 1,079,372; Nov. 25; Gaz. vol. 196; p. 827.
 Bundling-machine. J. A. Koller. No. 1,079,864; Nov. 25; Gaz. vol. 196; p. 999.
 Burglar-alarm. O. Wiggers. No. 1,078,476; Nov. 11; Gaz. vol. 196; p. 457.
 Burglar-alarm. E. Ogle. No. 1,078,550; Nov. 11; Gaz. vol. 196; p. 481.
 Burglar-proofing device, Window. O. H. Sheppard. No. 1,079,029; Nov. 18; Gaz. vol. 196; p. 681.
 Burial device. D. D. Landis. No. 1,078,929; Nov. 18; Gaz. vol. 196; p. 645.
 Burner. See Gas-burner; Hydrocarbon-burner; Lamp-burner; Oil-burner; Refuse-burner; Spray-burner.
 Burner. J. T. Underwood. No. 1,078,227; Nov. 11; Gaz. vol. 196; p. 369.
 Burner. F. C. Chadborn. No. 1,079,327; Nov. 25; Gaz. vol. 196; p. 812.

Burnishing-machine. W. Jackson and H. N. Pochin. No. 1,077,349; Nov. 4; Gaz. vol. 196; p. 88.
 Butter, lard, and cheese cutter. H. E. Lock. No. 1,079,135; Nov. 18; Gaz. vol. 196; p. 717.
 Button-attaching machine. C. H. T. Hagelstein. No. 1,077,602; Nov. 4; Gaz. vol. 196; p. 124.
 Button, Collar. J. F. Kellher. No. 1,078,732; Nov. 18; Gaz. vol. 196; p. 578.
 Button, Cuff. C. L. Webster. No. 1,079,620; Nov. 25; Gaz. vol. 196; p. 914.
 Button-holding device. W. F. Gaunt. No. 1,078,091; Nov. 11; Gaz. vol. 196; p. 323.
 Button-making machine. P. F. Dusha, A. Feyk, and J. Komancsek. No. 1,077,336; Nov. 4; Gaz. vol. 196; p. 33.
 Button-making machine. P. F. Dusha, A. Feyk, and J. Komancsek. No. 1,077,337; Nov. 4; Gaz. vol. 196; p. 33.
 Button-making-machine feeding device. P. F. Dusha, A. Feyk, and J. Komancsek. No. 1,077,335; Nov. 4; Gaz. vol. 196; p. 33.
 Button, Non-separable link cuff. C. H. Allen and C. J. Callahan. No. 1,078,892; Nov. 18; Gaz. vol. 196; p. 62.
 Button, Parchment. G. Sachse-Röder. No. 1,079,365; Nov. 25; Gaz. vol. 196; p. 825.
 Cabinet, Metallic kitchen. L. F. and J. McClernan. No. 1,079,507; Nov. 25; Gaz. vol. 196; p. 873.
 Cable clasp. Wire. W. Cahill and L. A. Chappelle. No. 1,077,257; Nov. 4; Gaz. vol. 196; p. 6.
 Cable-cutter. J. E. Gilchrist. No. 1,078,191; Nov. 11; Gaz. vol. 196; p. 357.
 Cables, Support for conduct. E. H. Smith. No. 1,079,445; Nov. 25; Gaz. vol. 196; p. 851.
 Cables, Terminal connector for concentric-conductor. F. Kratz and R. Wagner. No. 1,079,130; Nov. 18; Gaz. vol. 196; p. 715.
 Cableway. C. C. Sunderland. No. 1,077,921; Nov. 4; Gaz. vol. 196; p. 233.
 Calculating-machine. A. Hantsch. No. 1,077,274; Nov. 4; Gaz. vol. 196; p. 10.
 Calculating-machines, Transfer mechanism for. H. W. Clement. No. 1,078,662; Nov. 18; Gaz. vol. 196; p. 551.
 Calculator. C. A. Mellicke. No. 1,079,712; Nov. 25; Gaz. vol. 196; p. 944.
 Calculator, Time. K. M. Morrison. No. 1,077,736; Nov. 4; Gaz. vol. 196; p. 169.
 Calk-forming machine. Heel. M. L. Gardner. No. 1,078,345; Nov. 11; Gaz. vol. 196; p. 412.
 Call apparatus, Search. A. F. Boardman. No. 1,079,467; Nov. 25; Gaz. vol. 196; p. 860.
 Call-register. H. I. Clausen and W. T. Curtis. No. 1,078,772; Nov. 18; Gaz. vol. 196; p. 592.
 Camera and projecting apparatus, Kinematographic. W. Chipperfield. No. 1,079,108; Nov. 18; Gaz. vol. 196; p. 707.
 Camera plate-holder. W. J. Thompson. No. 1,079,810; Nov. 25; Gaz. vol. 196; p. 981.
 Can. See Dispensing-can; Tin can; Watering-can.
 Can. J. F. Montgomery. No. 1,079,572; Nov. 25; Gaz. vol. 196; p. 896.
 Can-double-seaming machine. E. W. Conradi. No. 1,077,393; Nov. 4; Gaz. vol. 196; p. 53.
 Can-filling apparatus. F. L. Jefferies and W. Spain. No. 1,079,495; Nov. 25; Gaz. vol. 196; p. 860.
 Can-opening device, Sheet-metal. P. Scholz. No. 1,078,311; Nov. 11; Gaz. vol. 196; p. 401.
 Can perforating attachment. G. Buttress. No. 1,078,535; Nov. 11; Gaz. vol. 196; p. 476.
 Can-top set and wrench. G. E. Ott. No. 1,077,294; Nov. 4; Gaz. vol. 196; p. 18.
 Cannery exhaust-box. J. E. Wright and J. P. Smith. No. 1,079,819; Nov. 25; Gaz. vol. 196; p. 984.
 Candy-packing machine. E. A. Wasserman. No. 1,078,180; Nov. 11; Gaz. vol. 196; p. 354.
 Cane frame for caps and hats. J. Buchalter. No. 1,077,796; Nov. 4; Gaz. vol. 196; p. 190.
 Cape, blanket, and shelter-tent, Combined. H. S. Bryan. No. 1,078,992; Nov. 18; Gaz. vol. 196; p. 667.
 Capping-tool. D. M. Reslar and F. Butler. No. 1,077,301; Nov. 4; Gaz. vol. 196; p. 20.
 Capsule-filling machine. A. Colton. No. 1,077,392; Nov. 4; Gaz. vol. 196; p. 53.
 Car-body, Convertible. L. W. Ray. No. 1,079,722; Nov. 25; Gaz. vol. 196; p. 948.
 Car, Box. W. E. Fowler, Sr. No. 1,078,616; Nov. 18; Gaz. vol. 196; p. 535.
 Car-brake. R. McClaskey. No. 1,079,570; Nov. 25; Gaz. vol. 196; p. 896.
 Car center-bearing. B. D. Lockwood. No. 1,077,356; Nov. 4; Gaz. vol. 196; p. 40.
 Car construction. E. G. Budd. No. 1,077,589; Nov. 4; Gaz. vol. 196; p. 120.
 Car-coupling. W. R. H. Capewell. No. 1,077,592; Nov. 4; Gaz. vol. 196; p. 121.
 Car-coupling. H. T. Krakau. No. 1,078,203; Nov. 11; Gaz. vol. 196; p. 362.
 Car-coupling. J. R. Deisher. No. 1,079,221; Nov. 18; Gaz. vol. 196; p. 746.
 Car-coupling. G. A. Hermanson. No. 1,079,488; Nov. 25; Gaz. vol. 196; p. 866.
 Car-coupling, Automatic air-valve. G. E. Muth. No. 1,078,869; Nov. 18; Gaz. vol. 196; p. 625.
 Car-coupling knuckle. B. F. Haugh. No. 1,078,498; Nov. 11; Gaz. vol. 196; p. 464.
 Car-coupling knuckles, Casting. B. F. Haugh. No. 1,078,499; Nov. 11; Gaz. vol. 196; p. 464.
 Car-couplings, Casting knuckles for. B. F. Haugh. No. 1,078,500; Nov. 11; Gaz. vol. 196; p. 464.
 Car-diaphragm. E. E. Whitmore. No. 1,078,758; Nov. 18; Gaz. vol. 196; p. 586.
 Car-diaphragm, Automatically-opening. W. H. Forsyth. No. 1,078,781; Nov. 18; Gaz. vol. 196; p. 595.
 Car-diaphragms, Hood for. E. E. Whitmore. No. 1,078,757; Nov. 18; Gaz. vol. 196; p. 586.
 Car door, Box. R. L. Burgoon. No. 1,077,798; Nov. 4; Gaz. vol. 196; p. 191.
 Car door, Dump. R. W. Burnett. No. 1,079,891; Nov. 25; Gaz. vol. 196; p. 937.
 Car-door frame. J. W. Rumsey and W. H. Sheasby. No. 1,079,922; Nov. 25; Gaz. vol. 196; p. 1020.
 Car-door hanger. C. W. Price. No. 1,078,954; Nov. 18; Gaz. vol. 196; p. 652.
 Car-door hasp. J. T. and C. W. Kemper. No. 1,078,928; Nov. 18; Gaz. vol. 196; p. 644.
 Car-door-operating device. V. M. Summa. No. 1,078,321; Nov. 11; Gaz. vol. 196; p. 404.
 Car-door spreader. R. V. Sage. No. 1,077,561; Nov. 4; Gaz. vol. 196; p. 112.
 Car-door spreader, Dumping. R. V. Sage. No. 1,077,562; Nov. 4; Gaz. vol. 196; p. 112.
 Car-doors, Combined handle and lock for. J. W. Rumsey and W. H. Sheasby. No. 1,079,923; Nov. 25; Gaz. vol. 196; p. 1020.
 Car, Dump or drop-bottom. A. Campbell. No. 1,077,889; Nov. 4; Gaz. vol. 196; p. 52.
 Car end construction, Railway. V. M. Summa. No. 1,078,222; Nov. 11; Gaz. vol. 196; p. 368.
 Car-fender. J. A. MacMahon. No. 1,078,868; Nov. 18; Gaz. vol. 196; p. 624.
 Car-fender. W. T. Tate. No. 1,079,194; Nov. 18; Gaz. vol. 196; p. 738.
 Car fender and brake, Combined. J. A. Laughlin. No. 1,077,285; Nov. 4; Gaz. vol. 196; p. 15.
 Car friction draft-rigging, Railway. J. F. O'Connor. No. 1,077,366; Nov. 4; Gaz. vol. 196; p. 44.
 Car-heating system. E. H. Gold. No. 1,077,525; Nov. 4; Gaz. vol. 196; p. 101.
 Car, Hopper. H. C. Priebe. No. 1,077,299; Nov. 4; Gaz. vol. 196; p. 19.
 Car, Hopper-bottom dump. H. Zahl. No. 1,078,478; Nov. 11; Gaz. vol. 196; p. 457.
 Car-lighting system. W. Cooper. No. 1,079,400; Nov. 25; Gaz. vol. 196; p. 837.
 Car-lighting system. W. Cooper. No. 1,079,401; Nov. 25; Gaz. vol. 196; p. 837.
 Car-motor. W. F. Davis. No. 1,077,679; Nov. 4; Gaz. vol. 196; p. 151.
 Car protective device, Street. E. E. F. Creighton. No. 1,078,131; Nov. 11; Gaz. vol. 196; p. 337.
 Car, Railway. O. Sigismund. No. 1,078,088; Nov. 11; Gaz. vol. 196; p. 316.
 Car, Railway. H. Pearson. No. 1,078,373; Nov. 11; Gaz. vol. 196; p. 422.
 Car, Railway. E. W. Summers. (Reissue.) No. 13,646; Nov. 11; Gaz. vol. 196; p. 503.
 Car, Railway scoop. L. E. Johnson. No. 1,078,289; Nov. 11; Gaz. vol. 196; p. 302.
 Car-replacer. J. L. Klavon. No. 1,077,478; Nov. 4; Gaz. vol. 196; p. 85.
 Car-roof. J. L. Mohun. No. 1,077,632; Nov. 4; Gaz. vol. 196; p. 134.
 Car-roof. V. M. Summa. No. 1,078,967; Nov. 18; Gaz. vol. 196; p. 656.
 Car-roof construction. J. L. Mohun. No. 1,077,631; Nov. 4; Gaz. vol. 196; p. 134.
 Car-roof construction. J. L. Mohun. No. 1,077,633; Nov. 4; Gaz. vol. 196; p. 135.
 Car-roof construction. C. W. Renner. No. 1,079,800; Nov. 25; Gaz. vol. 196; p. 978.
 Car running-gear and draw-bar attachment. Mine. J. F. Fox. No. 1,077,601; Nov. 4; Gaz. vol. 196; p. 124.
 Car running-gear, Railway. A. R. Angus. No. 1,077,505; Nov. 4; Gaz. vol. 196; p. 95.
 Car-seat. F. Bennett. No. 1,078,767; Nov. 18; Gaz. vol. 196; p. 590.
 Car-seat. C. A. Van Derveer. No. 1,078,811; Nov. 18; Gaz. vol. 196; p. 605.
 Car-seat. F. Bennett. No. 1,078,897; Nov. 18; Gaz. vol. 196; p. 634.
 Car side-door frame, Railway. W. J. Knox. No. 1,079,652; Nov. 25; Gaz. vol. 196; p. 923.
 Car-side tightener. W. E. Fowler, Sr. No. 1,079,331; Nov. 25; Gaz. vol. 196; p. 814.
 Car stake and bunk. F. W. Chriawell. No. 1,079,109; Nov. 18; Gaz. vol. 196; p. 708.
 Car-starting device, Motor. J. R. Kinney. No. 1,077,884; Nov. 4; Gaz. vol. 196; p. 220.
 Car-step. J. R. Kunzelman. No. 1,079,565; Nov. 25; Gaz. vol. 196; p. 894.
 Car-step, Folding. P. J. Strimple. No. 1,079,452; Nov. 25; Gaz. vol. 196; p. 854.

Car-stopping device, Automatic. J. S. Strickland and C. H. Beach. No. 1,079,451; Nov. 25; Gaz. vol. 196; p. 854.
 Car, Street. G. Witty. No. 1,079,202; Nov. 18; Gaz. vol. 196; p. 740.
 Car-trap-door latch, Railway. O. M. Edwards. No. 1,078,777; Nov. 18; Gaz. vol. 196; p. 594.
 Car-window. L. C. Sparks and A. W. L. Hartbauer. No. 1,078,319; Nov. 11; Gaz. vol. 196; p. 403.
 Car-window construction. W. H. Rossman. No. 1,077,857; Nov. 4; Gaz. vol. 196; p. 210.
 Cars, Device for braking railway. J. W. Bodie. No. 1,078,931; Nov. 11; Gaz. vol. 196; p. 303.
 Cars, Door or gate operating mechanism for the platform of. E. M. Moller. No. 1,079,713; Nov. 25; Gaz. vol. 196; p. 944.
 Cars, Inspection device for grain. B. F. Owens. No. 1,078,948; Nov. 18; Gaz. vol. 196; p. 650.
 Cars, Reversible side ballast-unloading plow for. J. Suggett. No. 1,078,755; Nov. 18; Gaz. vol. 196; p. 585.
 Cars, Sill for railway. R. W. Burnett and H. H. Vaughan. No. 1,078,660; Nov. 18; Gaz. vol. 196; p. 550.
 Cars, Speed control for motor. R. Huff. No. 1,077,348; Nov. 4; Gaz. vol. 196; p. 37.
 Cars, Steel roof for freight. W. E. Symons. No. 1,078,931; Nov. 18; Gaz. vol. 196; p. 657.
 Carburetor. A. P. Brush. No. 1,077,256; Nov. 4; Gaz. vol. 196; p. 5.
 Carburetor. W. H. C. Higgins, Jr. No. 1,077,910; Nov. 4; Gaz. vol. 196; p. 229.
 Carburetor. J. Schreiber. No. 1,078,169; Nov. 11; Gaz. vol. 196; p. 350.
 Carburetor. W. A. Cahill. No. 1,078,413; Nov. 11; Gaz. vol. 196; p. 437.
 Carburetor. P. P. L. Jaugey. No. 1,078,582; Nov. 11; Gaz. vol. 196; p. 492.
 Carburetor. W. W. Muir. No. 1,078,590; Nov. 11; Gaz. vol. 196; p. 494.
 Carburetor. W. W. Muir. No. 1,078,591; Nov. 11; Gaz. vol. 196; p. 495.
 Carburetor. W. W. Muir. No. 1,078,592; Nov. 11; Gaz. vol. 196; p. 495.
 Carburetor. J. G. Burchartz. No. 1,079,634; Nov. 25; Gaz. vol. 196; p. 918.
 Carburetors, Mixing fuel for. W. H. C. Higgins, Jr. No. 1,077,881; Nov. 4; Gaz. vol. 196; p. 219.
 Carbureting device. J. J. Hawhurst and E. F. Nicolai. No. 1,078,349; Nov. 11; Gaz. vol. 196; p. 414.
 Card cutting, counting, and packaging machine, Automatic. J. W. Kane and G. C. Bauman. No. 1,078,291; Nov. 11; Gaz. vol. 196; p. 393.
 Carding-machine. L. W. Campbell. No. 1,079,392; Nov. 25; Gaz. vol. 196; p. 834.
 Carding-machine. L. W. Campbell. No. 1,079,393; Nov. 25; Gaz. vol. 196; p. 835.
 Carpet-beater. E. L. Dennis. No. 1,078,839; Nov. 18; Gaz. vol. 196; p. 615.
 Carpet-cleaner, Vacuum. W. H. Hall. No. 1,077,608; Nov. 4; Gaz. vol. 196; p. 125.
 Carpet cleaning and renovating machine. B. Becker and H. Barry. No. 1,077,867; Nov. 4; Gaz. vol. 196; p. 214.
 Carpet-sweeper. G. B. Deacon. No. 1,079,694; Nov. 25; Gaz. vol. 196; p. 938.
 Carriage, Baby. F. L. Moring, Jr. No. 1,077,422; Nov. 4; Gaz. vol. 196; p. 64.
 Carriages, Rocker for baby. A. Raphael. No. 1,079,265; Nov. 18; Gaz. vol. 196; p. 759.
 Carrier. See Bottle-carrier; Cartridge-carrier; Gravity-carrier; Lamp-carrier; Trace-carrier.
 Carrier. J. S. Spirewki, Jr. No. 1,079,373; Nov. 25; Gaz. vol. 196; p. 828.
 Carry-iron. P. Bateman. No. 1,078,243; Nov. 11; Gaz. vol. 196; p. 375.
 Carry-iron. P. Bateman. No. 1,078,244; Nov. 11; Gaz. vol. 196; p. 375.
 Carry-iron, Car draw-bar. C. L. Bundy and J. J. Acker. No. 1,079,633; Nov. 25; Gaz. vol. 196; p. 917.
 Cart, Street-cleaning. T. B. Mason. No. 1,079,785; Nov. 25; Gaz. vol. 196; p. 873.
 Carton. A. B. Carey. No. 1,079,394; Nov. 25; Gaz. vol. 196; p. 835.
 Cartridge. J. H. Wesson. No. 1,079,083; Nov. 18; Gaz. vol. 196; p. 699.
 Cartridge-carrier. P. D. McClintock. No. 1,078,450; Nov. 11; Gaz. vol. 196; p. 449.
 Cartridge-cases, Machine for cannelling, trimming, and gaging. H. D. Hodge. No. 1,079,706; Nov. 25; Gaz. vol. 196; p. 942.
 Case. See Display-case; Filing-case; Letter-case; Packing-case; Powder-case; Sample-case; Show-case.
 Case-making machine. W. S. Vetter. No. 1,078,527; Nov. 11; Gaz. vol. 196; p. 473.
 Cash-register. H. S. Hallwood. No. 1,078,920; Nov. 18; Gaz. vol. 196; p. 642.
 Cash-register. E. E. Patten. No. 1,079,380; Nov. 25; Gaz. vol. 196; p. 822.
 Cast end frame. G. W. Scott. No. 1,078,312; Nov. 11; Gaz. vol. 196; p. 401.
 Caster-wheel, Tractor. G. D. Munsing. No. 1,079,604; Nov. 25; Gaz. vol. 196; p. 909.
 Casting, Hood panel. A. W. L. Hartbauer. No. 1,078,278; Nov. 11; Gaz. vol. 196; p. 387.

Catalytic material, Making. C. Ellis. No. 1,078,541; Nov. 11; Gaz. vol. 196; p. 478.
 Cattle-fastener. F. Schuppli. No. 1,077,647; Nov. 4; Gaz. vol. 196; p. 140.
 Cellulose composition. G. Koller. No. 1,079,773; Nov. 25; Gaz. vol. 196; p. 968.
 Cement-block machine. E. A. Switzer. No. 1,077,376; Nov. 4; Gaz. vol. 196; p. 47.
 Cement pole, Reinforced. W. S. Morris. No. 1,078,548; Nov. 11; Gaz. vol. 196; p. 481.
 Cement-shingle structure. E. M. Walton. No. 1,077,321; Nov. 4; Gaz. vol. 196; p. 28.
 Centrifugal screen and classifier. C. Bartholomai. No. 1,078,819; Nov. 18; Gaz. vol. 196; p. 608.
 Chain, Bead. W. J. Gagnon. No. 1,078,494; Nov. 11; Gaz. vol. 196; p. 463.
 Chair. See Adjustable chair; Automobile folding chair; Rail-chair.
 Chair. C. A. Van Derveer. No. 1,078,810; Nov. 18; Gaz. vol. 196; p. 605.
 Chair head-rest, Barber's. H. E. Campbell. No. 1,078,828; Nov. 18; Gaz. vol. 196; p. 611.
 Change-giving apparatus, Device for coupling the coin-ejectors in. S. Chiger. No. 1,078,331; Nov. 11; Gaz. vol. 196; p. 40.
 Change-giving apparatus, Subtracting device for. S. Chiger. No. 1,078,085; Nov. 11; Gaz. vol. 196; p. 321.
 Channeling-machine. H. H. Mercer. No. 1,079,919; Nov. 25; Gaz. vol. 196; p. 1018.
 Chase-lock. A. H. Wadewitz. No. 1,078,954; Nov. 11; Gaz. vol. 196; p. 496.
 Chase-lock, Platen-press. A. S. Foreman. No. 1,078,137; Nov. 11; Gaz. vol. 196; p. 339.
 Check, Safety. J. P. Adams. No. 1,079,282; Nov. 18; Gaz. vol. 196; p. 765.
 Checkrein fastener or holder. J. S. Cusson. No. 1,079,639; Nov. 25; Gaz. vol. 196; p. 919.
 Chimney. E. Banzhaf. No. 1,078,983; Nov. 18; Gaz. vol. 196; p. 663.
 Chiropractic table. F. M. Naysmith. No. 1,079,795; Nov. 25; Gaz. vol. 196; p. 976.
 Chopper. See Cotton-chopper.
 Chuck. J. Hartness. No. 1,077,470; Nov. 4; Gaz. vol. 196; p. 82.
 Chuck. H. B. Shreve. No. 1,079,520; Nov. 25; Gaz. vol. 196; p. 877.
 Chuck. C. C. Hansen. No. 1,079,646; Nov. 25; Gaz. vol. 196; p. 921.
 Chuck, Magnetic. L. S. Downes and A. W. Faxon. No. 1,079,546; Nov. 25; Gaz. vol. 196; p. 886.
 Churn. B. O'Hara. No. 1,077,547; Nov. 4; Gaz. vol. 196; p. 107.
 Churn. T. S. Rigdon. No. 1,079,723; Nov. 25; Gaz. vol. 196; p. 949.
 Churn, Sanitary. C. De Forest. No. 1,077,456; Nov. 4; Gaz. vol. 196; p. 76.
 Chute, Dust. W. H. A. R. Wedemeyer. No. 1,079,529; Nov. 25; Gaz. vol. 196; p. 851.
 Cigar cutter and lighter, Combined. G. H. Schroeter. No. 1,079,027; Nov. 18; Gaz. vol. 196; p. 681.
 Cigar-machine. H. S. Marsh. No. 1,077,886; Nov. 4; Gaz. vol. 196; p. 221.
 Cigar-machine. E. T. Burchard, V. E. Hansen, and H. S. Marsh. No. 1,077,903; Nov. 4; Gaz. vol. 196; p. 226.
 Cigar-machine. O. Preissler and A. Fritz. No. 1,079,581; Nov. 25; Gaz. vol. 196; p. 900.
 Cigarette-making machine. C. de Cazen. No. 1,078,034; Nov. 11; Gaz. vol. 196; p. 304.
 Circuit-breaker. A. Guerra. No. 1,077,829; Nov. 4; Gaz. vol. 196; p. 201.
 Circuit-breaker. P. C. Hewitt. No. 1,079,410; Nov. 25; Gaz. vol. 196; p. 840.
 Circuit-closing device. W. W. Alexander. No. 1,077,948; Nov. 4; Gaz. vol. 196; p. 244.
 Circuit-interrupter. P. H. Thomas. No. 1,079,380; Nov. 25; Gaz. vol. 196; p. 830.
 Circulating and mixing device. J. J. Fearon. No. 1,079,763; Nov. 25; Gaz. vol. 196; p. 961.
 Clamp. See Fence-clamp; Guy-clamp; Hose-clamp; Skate-clamp.
 Clamp. M. S. Robinson. (Reissue.) No. 13,644; Nov. 11; Gaz. vol. 196; p. 501.
 Clamping device. A. J. Sutch. No. 1,077,652; Nov. 4; Gaz. vol. 196; p. 142.
 Clamping device. F. K. Shaffer. No. 1,078,067; Nov. 11; Gaz. vol. 196; p. 315.
 Clamping device. J. W. Reese. No. 1,078,378; Nov. 11; Gaz. vol. 196; p. 424.
 Clamping device. R. A. Beaudette. No. 1,078,533; Nov. 11; Gaz. vol. 196; p. 475.
 Clasp. See Cable-clasp; Hose-supporter clasp.
 Cleaner. See Boiler-fue cleaner; Carpet-cleaner; Gas-cleaner; Gin-saw cleaner; Pipe-cleaner; Sand and gravel cleaner; Ship-bottom cleaner; Street-cleaner; Suction-cleaner; Vacuum-cleaner; Window-cleaner.
 Cleaning device. J. H. Simpson. No. 1,079,672; Nov. 25; Gaz. vol. 196; p. 930.
 Clevis. H. B. Deakins. No. 1,079,476; Nov. 25; Gaz. vol. 196; p. 862.
 Clip. See End and side clip; Haulage-clip; Spring terminal clip.
 Clock. G. R. Nordling. No. 1,079,796; Nov. 25; Gaz. vol. 196; p. 976.

Clock, Alarm. G. Kern. No. 1,078,858; Nov. 18; Gaz. vol. 196; p. 621.
 Clock, Electric. H. Gillette. No. 1,078,274; Nov. 11; Gaz. vol. 196; p. 386.
 Clock winding device. C. T. Bernhardt. No. 1,078,409; Nov. 11; Gaz. vol. 196; p. 436.
 Clod-fender. Revolving. H. H. Munson. No. 1,078,689; Nov. 18; Gaz. vol. 196; p. 561.
 Closure-fastening device. W. R. Stevens. No. 1,079,614; Nov. 25; Gaz. vol. 196; p. 912.
 Cloth-laying machine. S. Moritz. No. 1,078,302; Nov. 11; Gaz. vol. 196; p. 398.
 Cloth, paper, or other material, Machine for feeding and cutting. J. Keagy. No. 1,078,202; Nov. 11; Gaz. vol. 196; p. 361.
 Clothes-pouder. B. H. Wilson. No. 1,078,183; Nov. 11; Gaz. vol. 196; p. 355.
 Clothes-pouder. W. MacDonald. No. 1,078,739; Nov. 18; Gaz. vol. 196; p. 579.
 Clothes-pouder. L. R. Spohrer. No. 1,079,612; Nov. 25; Gaz. vol. 196; p. 911.
 Clothing hanger and protector. Combined. L. C. Hill. No. 1,078,729; Nov. 18; Gaz. vol. 196; p. 577.
 Clutch. H. Mann. No. 1,077,728; Nov. 4; Gaz. vol. 196; p. 166.
 Clutch. H. Babsca. No. 1,079,094; Nov. 18; Gaz. vol. 196; p. 703.
 Clutch and the like. Friction. J. M. Hewitt and A. J. Drake. No. 1,077,831; Nov. 4; Gaz. vol. 196; p. 201.
 Clutch. Combined friction and positive. H. Druschel. No. 1,078,840; Nov. 18; Gaz. vol. 196; p. 615.
 Clutch. Friction. M. C. Johnson. No. 1,079,348; Nov. 25; Gaz. vol. 196; p. 819.
 Clutch. Magnetic. A. T. Collier. No. 1,077,805; Nov. 4; Gaz. vol. 196; p. 193.
 Clutch mechanism. L. E. Waterman. No. 1,077,497; Nov. 4; Gaz. vol. 196; p. 92.
 Clutch mechanism. J. T. Williams. No. 1,077,776; Nov. 4; Gaz. vol. 196; p. 184.
 Clutch-operating mechanism. A. Lambert. No. 1,077,413; Nov. 4; Gaz. vol. 196; p. 62.
 Clutch-operating mechanism. J. J. Peter. No. 1,079,063; Nov. 18; Gaz. vol. 196; p. 693.
 Coal-breaker. W. Lloyd. No. 1,079,301; Nov. 18; Gaz. vol. 196; p. 771.
 Coal-drilling-machine boxing. A. F. Deruy. No. 1,079,289; Nov. 18; Gaz. vol. 196; p. 766.
 Coal-screen. Rotary. F. S. Converse. No. 1,079,543; Nov. 25; Gaz. vol. 196; p. 885.
 Coal-separator. G. H. Elmore. No. 1,077,876; Nov. 4; Gaz. vol. 196; p. 217.
 Coat-closure. J. S. Snyder. No. 1,079,807; Nov. 25; Gaz. vol. 196; p. 980.
 Cock and operating mechanism therefor. Train-pipe. E. B. Dunkel and F. S. Bowman. No. 1,079,847; Nov. 25; Gaz. vol. 196; p. 993.
 Cock. Gas. A. R. Lyle. No. 1,078,875; Nov. 18; Gaz. vol. 196; p. 627.
 Cock. Water-gate. D. Davies. No. 1,078,420; Nov. 11; Gaz. vol. 196; p. 439.
 Coffee extract. Making. J. T. Davis. No. 1,079,474; Nov. 25; Gaz. vol. 196; p. 862.
 Coffee or tea pot. E. Bohman. No. 1,079,830; Nov. 25; Gaz. vol. 196; p. 987.
 Coffee-urn. J. N. Shaw. No. 1,078,171; Nov. 11; Gaz. vol. 196; p. 351.
 Coffin. W. F. Moore. No. 1,077,421; Nov. 4; Gaz. vol. 196; p. 64.
 Coin-actuated mechanism. E. Richter. No. 1,078,381; Nov. 11; Gaz. vol. 196; p. 426.
 Coin-actuated mechanism. E. Richter. No. 1,078,382; Nov. 11; Gaz. vol. 196; p. 426.
 Coin-controlled machine. O. B. Phillips. No. 1,077,747; Nov. 4; Gaz. vol. 196; p. 173.
 Coin-controlled mechanism. E. J. Orndorf. No. 1,077,293; Nov. 4; Gaz. vol. 196; p. 17.
 Coin-operated mechanism. P. Wiggen. No. 1,077,962; Nov. 4; Gaz. vol. 196; p. 248.
 Coin-packaging device. P. E. Bistand. No. 1,077,968; Nov. 11; Gaz. vol. 196; p. 281.
 Coke-drawing apparatus. J. Hayes. No. 1,079,126; Nov. 18; Gaz. vol. 196; p. 714.
 Coke-oven. W. M. Person. No. 1,079,062; Nov. 18; Gaz. vol. 196; p. 692.
 Coke quenching and conveying apparatus. A. Brunner and W. Schöndeling. No. 1,077,255; Nov. 4; Gaz. vol. 196; p. 5.
 Collapsible stand. E. M. Atkinson. No. 1,079,385; Nov. 25; Gaz. vol. 196; p. 832.
 Collar. H. C. Fletcher. No. 1,079,696; Nov. 25; Gaz. vol. 196; p. 939.
 Collar attachment. C. R. Whitman. No. 1,079,085; Nov. 18; Gaz. vol. 196; p. 700.
 Collar attachment. Adjustable horse. M. Nilsson. No. 1,078,802; Nov. 18; Gaz. vol. 196; p. 603.
 Collar-holding device. W. G. Robinson. No. 1,079,024; Nov. 18; Gaz. vol. 196; p. 679.
 Collar. Horse. W. P. Gelabert. No. 1,078,140; Nov. 11; Gaz. vol. 196; p. 340.
 Colloidal compounds. Preparation containing. C. Paal and C. Amberger. No. 1,077,891; Nov. 4; Gaz. vol. 196; p. 223.
 Coloring-matter. Azo. E. Ulrichs. No. 1,077,655; Nov. 4; Gaz. vol. 196; p. 143.

Comb. See Currycomb; Hair-comb; Plow-comb.
 Combing-machine. J. Good. No. 1,077,526; Nov. 4; Gaz. vol. 196; p. 101.
 Combing-machine. J. Good. No. 1,078,618; Nov. 18; Gaz. vol. 196; p. 536.
 Combustion apparatus and gas-producer. G. H. Niles. No. 1,078,160; Nov. 11; Gaz. vol. 196; p. 347.
 Combustion-engine. H. Junkers. No. 1,077,718; Nov. 4; Gaz. vol. 196; p. 163.
 Commutator. R. E. Noble. No. 1,077,914; Nov. 4; Gaz. vol. 196; p. 230.
 Compass and marking-gage. Combination. N. L. Kunkel. No. 1,078,862; Nov. 18; Gaz. vol. 196; p. 622.
 Composing-machine. Typographic. J. B. S. Booth. No. 1,079,326; Nov. 25; Gaz. vol. 196; p. 812.
 Composing-machine. Typographic. F. H. Pierpont. No. 1,079,361; Nov. 25; Gaz. vol. 196; p. 823.
 Composing-machine. Typographical. M. Böttger. No. 1,079,161; Nov. 18; Gaz. vol. 196; p. 705.
 Composition for rubbing and finishing varnished and other surfaces. J. D. Garlick. No. 1,077,957; Nov. 4; Gaz. vol. 196; p. 246.
 Computing. bin. D. S. Fleming and E. Jones. No. 1,078,912; Nov. 18; Gaz. vol. 196; p. 639.
 Concentrating-jar. M. C. Seagrave. No. 1,079,905; Nov. 25; Gaz. vol. 196; p. 2014.
 Concentrator. Multiple-deck. A. E. Wiggins. No. 1,078,977; Nov. 18; Gaz. vol. 196; p. 660.
 Concrete-building-block construction. R. Brownstein. No. 1,078,714; Nov. 18; Gaz. vol. 196; p. 571.
 Concrete building. Reinforced. W. P. Cowles. No. 1,078,575; Nov. 11; Gaz. vol. 196; p. 489.
 Concrete construction. R. W. Stentzel. No. 1,079,152; Nov. 18; Gaz. vol. 196; p. 723.
 Concrete construction. False work for. C. A. Hammett. No. 1,079,045; Nov. 18; Gaz. vol. 196; p. 687.
 Concrete culverts. Portable mold for. A. J. Fisher. No. 1,079,000; Nov. 18; Gaz. vol. 196; p. 670.
 Concrete in piles formed in the ground. Recording the volume or sectional area of. J. M. Leighton. No. 1,079,014; Nov. 18; Gaz. vol. 196; p. 676.
 Concrete-mold. B. E. Grant. No. 1,077,702; Nov. 4; Gaz. vol. 196; p. 157.
 Concrete molds or forms. Tie for. O. Stange. No. 1,078,007; Nov. 11; Gaz. vol. 196; p. 294.
 Concrete pile. T. W. Ridley. No. 1,078,000; Nov. 11; Gaz. vol. 196; p. 292.
 Concrete piling. O. Stange. No. 1,079,375; Nov. 25; Gaz. vol. 196; p. 828.
 Concrete railway-tie. Reinforced. F. A. Wilson. No. 1,078,712; Nov. 18; Gaz. vol. 196; p. 570.
 Concrete reinforcement. D. B. Luten. No. 1,078,510; Nov. 11; Gaz. vol. 196; p. 468.
 Concrete walls. Core for use in molding. G. Clark. No. 1,077,952; Nov. 4; Gaz. vol. 196; p. 245.
 Concrete-waterproofing composition. C. Ellis. No. 1,077,689; Nov. 4; Gaz. vol. 196; p. 154.
 Condenser. Electrolytic. R. D. Mershon and J. S. Riddle. No. 1,077,627; Nov. 4; Gaz. vol. 196; p. 133.
 Condenser. Electrolytic. R. D. Mershon. No. 1,077,628; Nov. 4; Gaz. vol. 196; p. 133.
 Conduit box. Electric. H. J. White. No. 1,078,181; Nov. 11; Gaz. vol. 196; p. 354.
 Conduit for irrigation. I. B. Naylor. No. 1,078,637; Nov. 18; Gaz. vol. 196; p. 543.
 Conduit, Irrigating. I. B. Naylor. No. 1,078,635; Nov. 18; Gaz. vol. 196; p. 542.
 Conduit, Irrigating. I. B. Naylor. No. 1,078,636; Nov. 18; Gaz. vol. 196; p. 543.
 Conserves. Manufacture of meat-like. F. Smolka. No. 1,078,807; Nov. 18; Gaz. vol. 196; p. 604.
 Container-closure. K. Kiefer. No. 1,079,771; Nov. 25; Gaz. vol. 196; p. 968.
 Container-forming machine. J. M. Taylor. No. 1,077,496; Nov. 4; Gaz. vol. 196; p. 91.
 Container. Portable. H. Arians. No. 1,078,981; Nov. 18; Gaz. vol. 196; p. 663.
 Continuous kiln. F. D. Shaw. No. 1,079,443; Nov. 25; Gaz. vol. 196; p. 850.
 Control system. H. D. James. No. 1,078,622; Nov. 18; Gaz. vol. 196; p. 538.
 Conveyor. J. J. Curtis. No. 1,079,218; Nov. 18; Gaz. vol. 196; p. 745.
 Conveyor for coal and goaf-packing in colliery-inclines of low gradient. Self-acting. L. Hyve. No. 1,079,176; Nov. 18; Gaz. vol. 196; p. 732.
 Conveyor for driers. T. Allsop. No. 1,078,528; Nov. 11; Gaz. vol. 196; p. 474.
 Conveyor mechanism. J. Conte. No. 1,079,165; Nov. 18; Gaz. vol. 196; p. 728.
 Conveying apparatus. H. Seck. No. 1,077,918; Nov. 4; Gaz. vol. 196; p. 232.
 Cooker. Steam. W. H. Cook. No. 1,079,841; Nov. 25; Gaz. vol. 196; p. 991.
 Cooking apparatus. Meat. F. Briggs. No. 1,079,160; Nov. 18; Gaz. vol. 196; p. 726.
 Cooking device. Electrically-heated. H. P. Ball. No. 1,077,866; Nov. 4; Gaz. vol. 196; p. 214.
 Cooking machine. Ice-cream-cone. J. P. Grosset. No. 1,079,507; Nov. 25; Gaz. vol. 196; p. 906.
 Cooking utensil. High-pressure steam. T. J. Nash. No. 1,077,289; Nov. 4; Gaz. vol. 196; p. 16.

Cooler. See Cream-cooler; Gas-cooler; Liquid-cooler; Water-cooler.
 Cop-tubes, bobbins, spools, or the like. Holder for. S. W. Wardwell and C. A. Brink. No. 1,078,393; Nov. 11; Gaz. vol. 196; p. 431.
 Copper. Hardening. J. A. McLarty. No. 1,079,786; Nov. 25; Gaz. vol. 196; p. 974.
 Cord-cutter. L. E. Barnard. No. 1,077,665; Nov. 4; Gaz. vol. 196; p. 146.
 Core-bar. Collapsible. A. H. Lewis. No. 1,078,446; Nov. 11; Gaz. vol. 196; p. 448.
 Core. Collapsible. J. Yenker. No. 1,079,038; Nov. 18; Gaz. vol. 196; p. 684.
 Coring machine. Tomato. A. P. Wolfe. No. 1,077,446; Nov. 4; Gaz. vol. 196; p. 73.
 Corn-husking machine. T. Stelchen. No. 1,077,313; Nov. 4; Gaz. vol. 196; p. 25.
 Corn-husking machines. Feeding device for. I. Woodring. No. 1,077,899; Nov. 4; Gaz. vol. 196; p. 225.
 Corn-popper. R. O. Stutsman. No. 1,078,521; Nov. 11; Gaz. vol. 196; p. 472.
 Corn-protector. J. E. Pulliam. No. 1,079,317; Nov. 18; Gaz. vol. 196; p. 777.
 Corn-rack. F. P. West. No. 1,078,814; Nov. 18; Gaz. vol. 196; p. 606.
 Corn-rack. Seed. A. P. Hertsgaard. No. 1,079,241; Nov. 18; Gaz. vol. 196; p. 753.
 Corn. Trimmer for butt-ends of. J. B. Zimmerman and O. S. Sells. No. 1,077,577; Nov. 4; Gaz. vol. 196; p. 117.
 Corset. J. E. Hellner. No. 1,077,932; Nov. 4; Gaz. vol. 196; p. 237.
 Corset. Apparel. D. Kops. No. 1,078,356; Nov. 11; Gaz. vol. 196; p. 417.
 Corset-fastener. E. Calkins. No. 1,079,210; Nov. 18; Gaz. vol. 196; p. 743.
 Corset-fastener. A. Rockowitz. No. 1,079,921; Nov. 25; Gaz. vol. 196; p. 1020.
 Corset-steel. T. F. Somers. No. 1,077,861; Nov. 4; Gaz. vol. 196; p. 212.
 Cots. Adjustment for invalids. R. R. Miller. No. 1,077,359; Nov. 4; Gaz. vol. 196; p. 41.
 Cotton-chopper. H. Pruett. No. 1,078,749; Nov. 18; Gaz. vol. 196; p. 582.
 Cotton-chopper machine. J. R. Penn. No. 1,079,577; Nov. 25; Gaz. vol. 196; p. 898.
 Cotton cleaning and feeding machine. C. W. Cook. No. 1,078,833; Nov. 18; Gaz. vol. 196; p. 613.
 Cotton for dyeing and bleaching. Preparing. A. J. Drounfield. No. 1,077,263; Nov. 4; Gaz. vol. 196; p. 8.
 Cotton-packer. T. L. Kinne. No. 1,077,477; Nov. 4; Gaz. vol. 196; p. 85.
 Cotton-picking machine. J. F. Appleby. No. 1,078,327; Nov. 11; Gaz. vol. 196; p. 405.
 Cotton-picking machine. J. F. Appleby. No. 1,078,328; Nov. 11; Gaz. vol. 196; p. 406.
 Counter. Revolution. C. Korte. No. 1,077,611; Nov. 4; Gaz. vol. 196; p. 127.
 Counting device. Portable automatic. R. M. McCulloch. No. 1,079,183; Nov. 18; Gaz. vol. 196; p. 734.
 Coupling. See Car-coupling; Hose-coupling; Pipe-coupling; Rope-coupling.
 Coupling. J. R. Martin. No. 1,079,253; Nov. 18; Gaz. vol. 196; p. 756.
 Cow-tail holder. C. W. Stegner. No. 1,078,808; Nov. 18; Gaz. vol. 196; p. 604.
 Cradle. Blotting. F. C. Benedict. No. 1,079,206; Nov. 18; Gaz. vol. 196; p. 741.
 Crane and derrick. O. N. Gardner. No. 1,077,467; Nov. 4; Gaz. vol. 196; p. 80.
 Cranes. Suspension device for monorail. S. H. Libby. No. 1,077,726; Nov. 4; Gaz. vol. 196; p. 165.
 Crank-arm. E. B. Craft. No. 1,079,472; Nov. 25; Gaz. vol. 196; p. 881.
 Crank-shaft. A. De Coninck. No. 1,077,511; Nov. 4; Gaz. vol. 196; p. 96.
 Crate. Collapsible shipping. C. B. Guthrie. No. 1,079,702; Nov. 25; Gaz. vol. 196; p. 941.
 Crate. Folding. N. A. Clute. No. 1,079,328; Nov. 25; Gaz. vol. 196; p. 813.
 Crate. Wire-bound. H. G. Mead. No. 1,077,624; Nov. 4; Gaz. vol. 196; p. 132.
 Cream-cooler. B. E. Anglund. No. 1,077,383; Nov. 4; Gaz. vol. 196; p. 50.
 Cream-remover. W. L. Ellingwood. No. 1,079,848; Nov. 25; Gaz. vol. 196; p. 993.
 Crib and coop. Convertible. E. M. Trimble. No. 1,079,675; Nov. 25; Gaz. vol. 196; p. 931.
 Crib and intake. Combined. W. D. Barber. No. 1,078,658; Nov. 18; Gaz. vol. 196; p. 549.
 Crusher. E. Friedrich. No. 1,078,342; Nov. 11; Gaz. vol. 196; p. 411.
 Che-shave. P. Balsano. No. 1,079,687; Nov. 25; Gaz. vol. 196; p. 936.
 Cuff. Fold. H. Friedmann. No. 1,079,484; Nov. 25; Gaz. vol. 196; p. 865.
 Culinary utensil. F. E. Walk. No. 1,077,946; Nov. 4; Gaz. vol. 196; p. 243.
 Cultivating machine. Cotton. R. T. and W. R. Simmons. No. 1,079,671; Nov. 25; Gaz. vol. 196; p. 930.
 Cultivator. S. B. McCormick. No. 1,078,634; Nov. 18; Gaz. vol. 196; p. 542.
 Cultivator. J. B. Bonneau, Jr. No. 1,078,898; Nov. 18; Gaz. vol. 196; p. 634.

Cultivator. N. McAslan. No. 1,079,421; Nov. 25; Gaz. vol. 196; p. 844.
 Cultivator. E. W. Green. No. 1,079,854; Nov. 25; Gaz. vol. 196; p. 996.
 Cultivator and harvester. Submarine. N. A. Lybeck. No. 1,079,182; Nov. 18; Gaz. vol. 196; p. 734.
 Cultivator-fender. W. A. Thomas. No. 1,079,197; Nov. 18; Gaz. vol. 196; p. 739.
 Cultivator harrow attachment. H. E. Lancaster. No. 1,079,566; Nov. 25; Gaz. vol. 196; p. 894.
 Cup. See Eye-cup; Folding cup.
 Cups. Apparatus for making and vending sanitary. J. Powers. No. 1,077,298; Nov. 4; Gaz. vol. 196; p. 19.
 Current apparatus. Alternating. R. D. Mershon. No. 1,077,628; Nov. 4; Gaz. vol. 196; p. 132.
 Current electromagnetic controller. Alternating. D. L. Lindquist. No. 1,077,355; Nov. 4; Gaz. vol. 196; p. 40.
 Current motor. Alternate. V. A. Fynn. No. 1,079,332; Nov. 25; Gaz. vol. 196; p. 814.
 Currycomb. Self-cleaning. J. J. Minich. No. 1,078,451; Nov. 11; Gaz. vol. 196; p. 449.
 Curtain mounting. Vestibule. E. E. Whitmore. No. 1,077,660; Nov. 4; Gaz. vol. 196; p. 144.
 Curtain-pole. G. G. Griffin. No. 1,077,529; Nov. 4; Gaz. vol. 196; p. 102.
 Curtain-pole. A. Nitka. No. 1,079,431; Nov. 25; Gaz. vol. 196; p. 847.
 Curtain-rod. C. V. Bond. No. 1,078,822; Nov. 18; Gaz. vol. 196; p. 609.
 Cushioned flat and filler. Combination. W. Merker. No. 1,079,789; Nov. 25; Gaz. vol. 196; p. 974.
 Cusplid. F. A. McGuire. No. 1,079,856; Nov. 25; Gaz. vol. 196; p. 924.
 Cusplid. Car. W. F. Pabst. No. 1,078,872; Nov. 18; Gaz. vol. 196; p. 626.
 Cut-out mechanism for fluid-actuated devices. Automatic. J. H. Becker. No. 1,078,986; Nov. 18; Gaz. vol. 196; p. 664.
 Cutter. See Butter, lard, and cheese cutter; Cable-cutter; Cigar-cutter; Cord-cutter; Fruit and flower cutter; Hair-cutter; Rotary cutter; Slaw or kraut cutter; Stalk-cutter.
 Cutter-bar. P. and L. Wilde. No. 1,079,279; Nov. 18; Gaz. vol. 196; p. 764.
 Cutters. Adjusting rotary. S. MacKay. No. 1,079,420; Nov. 25; Gaz. vol. 196; p. 844.
 Cutting-block. E. L. Hurd. No. 1,079,599; Nov. 25; Gaz. vol. 196; p. 907.
 Cutting implement. E. E. Beck. No. 1,077,951; Nov. 4; Gaz. vol. 196; p. 244.
 Cycle engine-support. Motor. E. C. Pfelder. No. 1,078,308; Nov. 11; Gaz. vol. 196; p. 400.
 Cycle. Motor. J. J. Chaplin. No. 1,077,974; Nov. 11; Gaz. vol. 196; p. 283.
 Cycles. Combined tool-box and carrier for motor and other. T. Braidwood. No. 1,079,286; Nov. 18; Gaz. vol. 196; p. 766.
 Cycles. Side car attachment for motor. O. Overton. No. 1,077,743; Nov. 4; Gaz. vol. 196; p. 172.
 Dam. G. Blaauw. No. 1,077,790; Nov. 4; Gaz. vol. 196; p. 189.
 Dam. Cellular. G. Blaauw. No. 1,077,791; Nov. 4; Gaz. vol. 196; p. 189.
 Damper. L. L. Brown and C. H. Patek. No. 1,079,833; Nov. 25; Gaz. vol. 196; p. 988.
 Damper. Automatic furnace. A. W. Arnold. No. 1,079,824; Nov. 25; Gaz. vol. 196; p. 985.
 Damper. Fireplace. P. A. Delsing. No. 1,078,189; Nov. 11; Gaz. vol. 196; p. 357.
 Damper-operating device. C. D. Paterson. No. 1,078,747; Nov. 18; Gaz. vol. 196; p. 581.
 Davenport and billiard-table. Combined. A. F. Hjort. No. 1,077,276; Nov. 4; Gaz. vol. 196; p. 11.
 Davit. P. Lagaay. No. 1,078,080; Nov. 11; Gaz. vol. 196; p. 319.
 Dental backings. Die for forming. D. H. Carpenter. No. 1,078,829; Nov. 18; Gaz. vol. 196; p. 611.
 Dental cotton-holder. S. L. Whitright. No. 1,078,230; Nov. 11; Gaz. vol. 196; p. 370.
 Dental-engine stone and mandrel. J. W. Welch. No. 1,077,572; Nov. 4; Gaz. vol. 196; p. 116.
 Dental plate-mold. J. W. Greene. No. 1,077,703; Nov. 4; Gaz. vol. 196; p. 158.
 Depulping-machine. A. Teresa. No. 1,079,196; Nov. 18; Gaz. vol. 196; p. 739.
 Derailer. H. E. McGinnis. No. 1,078,794; Nov. 18; Gaz. vol. 196; p. 599.
 Derrick. O. G. Moore. No. 1,079,303; Nov. 18; Gaz. vol. 196; p. 771.
 Diamond-polishing machine. B. and G. A. De Graaf. No. 1,077,396; Nov. 4; Gaz. vol. 196; p. 55.
 Diaper. G. F. Earnshaw. No. 1,079,479; Nov. 25; Gaz. vol. 196; p. 864.
 Die. J. H. Matthews. No. 1,078,601; Nov. 11; Gaz. vol. 196; p. 499.
 Digger. See Potato-digger.
 Digging or excavating apparatus. J. E. Wyckoff. No. 1,078,264; Nov. 11; Gaz. vol. 196; p. 372.
 Dipper. Cream. G. W. Spaine. No. 1,078,175; Nov. 11; Gaz. vol. 196; p. 352.
 Directory and score-board. A. Spielmann. No. 1,078,221; Nov. 11; Gaz. vol. 196; p. 368.
 Dish guard. Feed. P. R. Park. No. 1,079,261; Nov. 18; Gaz. vol. 196; p. 758.

Disk drill. H. E. Lohman. No. 1,079,871; Nov. 25; Gaz. vol. 196; p. 1001.
 Disk Rotary. C. H. McKee. No. 1,077,288; Nov. 4; Gaz. vol. 196; p. 16.
 Dispenser for liquids and other materials. F. B. Bussler. No. 1,079,106; Nov. 18; Gaz. vol. 196; p. 707.
 Dispensing-can. C. A. Mason. No. 1,079,710; Nov. 25; Gaz. vol. 196; p. 943.
 Dispensing-can. R. A. Mowrey. No. 1,079,793; Nov. 25; Gaz. vol. 196; p. 975.
 Display-case. H. N. Lines. No. 1,078,447; Nov. 11; Gaz. vol. 196; p. 448.
 Display device. G. W. Pennebaker. No. 1,077,855; Nov. 4; Gaz. vol. 196; p. 209.
 Display device. R. C. Beatty. No. 1,079,096; Nov. 18; Gaz. vol. 196; p. 703.
 Display device. R. C. Beatty. No. 1,079,097; Nov. 18; Gaz. vol. 196; p. 704.
 Display device for bottles and analogous articles. R. C. Beatty. No. 1,079,153; Nov. 18; Gaz. vol. 196; p. 725.
 Display-form. E. J. Ryan. No. 1,077,560; Nov. 4; Gaz. vol. 196; p. 111.
 Display-ld. P. A. Becker. No. 1,079,466; Nov. 25; Gaz. vol. 196; p. 859.
 Display-machine. W. H. Brown. No. 1,079,105; Nov. 18; Gaz. vol. 196; p. 706.
 Display-rack. E. G. Bennett. No. 1,077,788; Nov. 4; Gaz. vol. 196; p. 188.
 Display rack. Folding floral. J. A. Buchner. No. 1,078,248; Nov. 11; Gaz. vol. 196; p. 376.
 Display rack. Merchandise. J. Gray. No. 1,078,728; Nov. 18; Gaz. vol. 196; p. 576.
 Distilling liquids and fusible solids. Apparatus for. J. W. Aylsworth and F. L. Dyer. No. 1,079,093; Nov. 18; Gaz. vol. 196; p. 702.
 Ditches. Stop for. J. H. Patrick. No. 1,077,996; Nov. 11; Gaz. vol. 196; p. 290.
 Ditching-machine. E. B. Wilson. No. 1,077,777; Nov. 4; Gaz. vol. 196; p. 184.
 Divanette. S. Lanes and O. Rudich. No. 1,077,942; Nov. 4; Gaz. vol. 196; p. 205.
 Doffing mechanism. S. Shackleton. No. 1,079,270; Nov. 18; Gaz. vol. 196; p. 761.
 Door. J. A. Glese. No. 1,079,121; Nov. 18; Gaz. vol. 196; p. 713.
 Door construction for cases. Disappearing. F. E. Meinel. No. 1,078,795; Nov. 18; Gaz. vol. 196; p. 800.
 Door-controlling means. W. K. Henry. No. 1,079,763; Nov. 25; Gaz. vol. 196; p. 963.
 Door-controlling mechanism. C. A. Carlson. No. 1,077,594; Nov. 4; Gaz. vol. 196; p. 122.
 Door-fastener. M. Schlis. No. 1,077,433; Nov. 4; Gaz. vol. 196; p. 68.
 Door-fastener. S. Northey. No. 1,078,549; Nov. 11; Gaz. vol. 196; p. 481.
 Door fastener. Sliding. G. M. Monson. No. 1,078,941; Nov. 18; Gaz. vol. 196; p. 648.
 Door for silos. D. A. Salvave. No. 1,079,518; Nov. 25; Gaz. vol. 196; p. 877.
 Door-hanger. T. Lloyd. No. 1,079,870; Nov. 25; Gaz. vol. 196; p. 1001.
 Door-hanger track. Barn. G. W. Yentzer. No. 1,079,734; Nov. 25; Gaz. vol. 196; p. 952.
 Door-lock. P. F. Manning. No. 1,079,138; Nov. 18; Gaz. vol. 196; p. 718.
 Door-lock. G. Kieh. No. 1,079,860; Nov. 25; Gaz. vol. 196; p. 997.
 Door-mat. R. W. Reynolds. No. 1,077,302; Nov. 4; Gaz. vol. 196; p. 21.
 Door-operating device. D. S. Barrows. No. 1,078,241; Nov. 11; Gaz. vol. 196; p. 374.
 Door. Screen. M. Bowers. No. 1,078,483; Nov. 11; Gaz. vol. 196; p. 459.
 Doors. Circuit-closing device for. W. H. Fitch. No. 1,077,877; Nov. 4; Gaz. vol. 196; p. 217.
 Double runner. J. E. Chenette. No. 1,079,164; Nov. 18; Gaz. vol. 196; p. 728.
 Doubletree. Adjustable. C. Petersen. No. 1,079,021; Nov. 18; Gaz. vol. 196; p. 678.
 Draft appliance. J. A. Buchanan. No. 1,077,797; Nov. 4; Gaz. vol. 196; p. 191.
 Draft appliance. A. Krivonyak. No. 1,078,735; Nov. 18; Gaz. vol. 196; p. 578.
 Draft-equalizer. E. B. Spellman. No. 1,078,386; Nov. 11; Gaz. vol. 196; p. 428.
 Draft-equalizer. J. A. Schwarzscher. No. 1,079,887; Nov. 25; Gaz. vol. 196; p. 1007.
 Draft-rigging. M. A. O'Connor. No. 1,079,060; Nov. 18; Gaz. vol. 196; p. 692.
 Draft-rigging. Friction. C. J. Nash. No. 1,078,946; Nov. 18; Gaz. vol. 196; p. 649.
 Drafting-table. C. W. Purkey. No. 1,077,998; Nov. 11; Gaz. vol. 196; p. 291.
 Drain-head. J. M. Petersen. No. 1,079,262; Nov. 18; Gaz. vol. 196; p. 758.
 Drain trap. Floor. J. J. Donovan. No. 1,079,593; Nov. 25; Gaz. vol. 196; p. 905.
 Drawbridge. B. Leslie. No. 1,078,293; Nov. 11; Gaz. vol. 196; p. 393.
 Drawing instrument. book-mark. and paper-cutter. Combined. H. Johnson. No. 1,078,145; Nov. 11; Gaz. vol. 196; p. 341.
 Drawing, roving, and spinning frames. Clearer-roll for. M. Gould and N. C. Clouette. No. 1,077,528; Nov. 4; Gaz. vol. 196; p. 102.
 Dredger. Vacuum. L. B. Gray. No. 1,078,542; Nov. 11; Gaz. vol. 196; p. 479.
 Dress. J. A. Herman. No. 1,079,552; Nov. 25; Gaz. vol. 196; p. 889.
 Dress-aheld. L. L. Just. No. 1,078,443; Nov. 11; Gaz. vol. 196; p. 447.
 Drier. See Fruit-drier.
 Drying apparatus. F. F. W. Stieler. No. 1,079,673; Nov. 25; Gaz. vol. 196; p. 930.
 Drying apparatus. Cellular. A. Büttner. No. 1,078,125; Nov. 11; Gaz. vol. 196; p. 335.
 Drying plant. G. Faichl. No. 1,079,547; Nov. 25; Gaz. vol. 196; p. 887.
 Drill. See Disk drill; Grain-drill; Hammer-drill; Pea-drill; Rock-drill.
 Drill. F. R. Weathersby. No. 1,077,772; Nov. 4; Gaz. vol. 196; p. 183.
 Drill. M. Siden. No. 1,079,906; Nov. 25; Gaz. vol. 196; p. 1014.
 Drill-head. Multiple-spindle. A. H. Reher. No. 1,079,023; Nov. 18; Gaz. vol. 196; p. 679.
 Drill-making-machine die. J. G. Leyner. No. 1,078,295; Nov. 11; Gaz. vol. 196; p. 395.
 Drill-rig. L. W. Appleman. No. 1,078,481; Nov. 11; Gaz. vol. 196; p. 459.
 Drilling holes. Apparatus for. S. T. Skeen. No. 1,078,701; Nov. 18; Gaz. vol. 196; p. 565.
 Drilling-machine. F. Stevens and F. Spicker. No. 1,077,649; Nov. 4; Gaz. vol. 196; p. 141.
 Drilling-machine attachment. J. E. Pool. No. 1,079,143; Nov. 18; Gaz. vol. 196; p. 720.
 Drinking device. S. W. Greene. No. 1,079,590; Nov. 25; Gaz. vol. 196; p. 906.
 Drinking-fountain. A. H. Hartman. No. 1,077,707; Nov. 4; Gaz. vol. 196; p. 159.
 Drinking-fountain. Sanitary. A. R. Roethlisberger. No. 1,079,441; Nov. 25; Gaz. vol. 196; p. 849.
 Driving mechanism. A. W. Altorfer. No. 1,078,402; Nov. 11; Gaz. vol. 196; p. 433.
 Dropper. See Potato-dropper.
 Drug-mill. E. H. Hance. No. 1,078,436; Nov. 11; Gaz. vol. 196; p. 445.
 Drums. Differential adjusting-rod for. A. M. Hoskins. No. 1,077,347; Nov. 4; Gaz. vol. 196; p. 37.
 Dye and making same. Disazo. G. Kallischer. No. 1,079,415; Nov. 25; Gaz. vol. 196; p. 842.
 Dye. Blue azo. M. Kahn and A. Ossenbeck. No. 1,078,926; Nov. 18; Gaz. vol. 196; p. 644.
 Dye for cotton. Diazotizable disazo. W. Herzberg and W. Lange. No. 1,078,503; Nov. 11; Gaz. vol. 196; p. 465.
 Dye for cotton. Diazotizable disazo. W. Herzberg and W. Lange. No. 1,078,504; Nov. 11; Gaz. vol. 196; p. 466.
 Dye of the anthraquinone series. Blue. W. Herzberg and G. Hoppe. No. 1,078,505; Nov. 11; Gaz. vol. 196; p. 466.
 Dyeing-machine. R. P. Smith, G. E. Drum, and J. H. Skiff. No. 1,077,762; Nov. 4; Gaz. vol. 196; p. 180.
 Dyeing-machine. J. Hussong. No. 1,079,247; Nov. 18; Gaz. vol. 196; p. 754.
 Dyestuff. Black mordant monazo. M. Kahn and A. Ossenbeck. No. 1,078,925; Nov. 18; Gaz. vol. 196; p. 643.
 Dyestuff. Vat. A. L. Laska and E. J. Rath. No. 1,079,568; Nov. 25; Gaz. vol. 196; p. 895.
 Dyestuffs. Brown azo. K. Schirmacher and H. Elvert. No. 1,077,492; Nov. 4; Gaz. vol. 196; p. 90.
 Dynamo brush-holder. C. H. Smoot. No. 1,078,174; Nov. 11; Gaz. vol. 196; p. 352.
 Dynamos. Interrupter for ignition. H. H. Wilcox. No. 1,078,233; Nov. 11; Gaz. vol. 196; p. 371.
 Ear appliance for facilitating hearing. A. von Suchorzynski. No. 1,077,766; Nov. 4; Gaz. vol. 196; p. 181.
 Ear-trumpet. O. H. Sheppard. No. 1,079,670; Nov. 25; Gaz. vol. 196; p. 930.
 Educational device. S. H. Fanning. No. 1,077,515; Nov. 4; Gaz. vol. 196; p. 97.
 Egg-beater. T. Holt. No. 1,077,832; Nov. 4; Gaz. vol. 196; p. 202.
 Egg-carton. E. F. Ward. No. 1,077,822; Nov. 4; Gaz. vol. 196; p. 29.
 Egg-cases. Cellular member for. C. W. Wise. No. 1,078,396; Nov. 11; Gaz. vol. 196; p. 432.
 Electric circuit-controlling apparatus for train-lighting and similar systems. E. H. M. Langley and E. W. Price. No. 1,079,013; Nov. 18; Gaz. vol. 196; p. 675.
 Electric contact and indicator. R. T. Smith. No. 1,078,172; Nov. 11; Gaz. vol. 196; p. 351.
 Electric despatch system. Automatic. J. Deschamps. No. 1,078,035; Nov. 11; Gaz. vol. 196; p. 304.
 Electric device. Vapor. F. W. Lyle. No. 1,079,250; Nov. 18; Gaz. vol. 196; p. 755.
 Electric furnace. A. E. Greene. No. 1,078,619; Nov. 18; Gaz. vol. 196; p. 536.
 Electric generating system. H. H. Wait. No. 1,078,179; Nov. 11; Gaz. vol. 196; p. 353.
 Electric generator. Dynamo. G. and L. Inrigh. No. 1,079,008; Nov. 18; Gaz. vol. 196; p. 673.
 Electric heater. A. S. Cubitt. No. 1,077,676; Nov. 4; Gaz. vol. 196; p. 150.
 Electric heater. W. Dubiller. No. 1,079,225; Nov. 18; Gaz. vol. 196; p. 747.
 Electric heater. I. F. Talbot. No. 1,079,895; Nov. 25; Gaz. vol. 196; p. 1010.
 Electric horn. C. F. Townsman. No. 1,078,013; Nov. 11; Gaz. vol. 196; p. 296.

Electric ignition systems. Adjustable timing apparatus for. A. Zahrlinger. No. 1,079,532; Nov. 25; Gaz. vol. 196; p. 882.
 Electric light cord-adjuster. P. L. Pritchett. No. 1,079,720; Nov. 25; Gaz. vol. 196; p. 947.
 Electric lighting. P. C. Hewitt. No. 1,079,343; Nov. 25; Gaz. vol. 196; p. 818.
 Electric-lighting apparatus. Starting. P. C. Hewitt. No. 1,079,341; Nov. 25; Gaz. vol. 196; p. 817.
 Electric-lighting fixture. Pedestal indirect. F. W. Emmer. No. 1,079,290; Nov. 18; Gaz. vol. 196; p. 767.
 Electric machine. Dynamo. C. E. Skinner and T. S. Scott. No. 1,077,374; Nov. 4; Gaz. vol. 196; p. 47.
 Electric machine. Dynamo. G. Sayre. No. 1,077,942; Nov. 4; Gaz. vol. 196; p. 241.
 Electric machine. Dynamo. H. H. Ralston. No. 1,078,877; Nov. 18; Gaz. vol. 196; p. 627.
 Electric machine. Dynamo. W. Linke and L. Dreyfus. No. 1,079,602; Nov. 25; Gaz. vol. 196; p. 872.
 Electric machines. Brush-holder for dynamo. J. H. Holmes. No. 1,079,554; Nov. 25; Gaz. vol. 196; p. 890.
 Electric machines. Dynamic control for. A. E. Hogrebe and J. D. Firmin. No. 1,079,345; Nov. 25; Gaz. vol. 196; p. 819.
 Electric machinery. Dynamo. C. A. Parsons, G. G. Stoney, and A. H. Law. No. 1,077,426; Nov. 4; Gaz. vol. 196; p. 66.
 Electric meter. J. Mayer. No. 1,078,206; Nov. 11; Gaz. vol. 196; p. 363.
 Electric meter. Maximum-demand. W. E. Porter. No. 1,077,749; Nov. 4; Gaz. vol. 196; p. 174.
 Electric-metering system. K. Markau. No. 1,077,729; Nov. 4; Gaz. vol. 196; p. 166.
 Electric rivet-furnace. W. S. Johnson and J. W. Sheffer. No. 1,078,290; Nov. 11; Gaz. vol. 196; p. 392.
 Electric storage device. H. P. Ball. No. 1,077,507; Nov. 4; Gaz. vol. 196; p. 95.
 Electric switch. E. A. Halbleib. No. 1,078,195; Nov. 11; Gaz. vol. 196; p. 358.
 Electric switch. C. E. Avery. No. 1,078,404; Nov. 11; Gaz. vol. 196; p. 434.
 Electrical connection. J. M. Andersen. No. 1,078,763; Nov. 18; Gaz. vol. 196; p. 588.
 Electrical connector and making same. O. A. Rogers. No. 1,078,751; Nov. 18; Gaz. vol. 196; p. 583.
 Electrical controlling and regulating apparatus. G. T. Ashley. No. 1,077,451; Nov. 4; Gaz. vol. 196; p. 75.
 Electrical distribution system. J. L. Woodbridge. No. 1,078,654; Nov. 18; Gaz. vol. 196; p. 548.
 Electrical distribution system. G. Crosby. No. 1,078,721; Nov. 18; Gaz. vol. 196; p. 573.
 Electrical production of light. P. C. Hewitt. No. 1,079,344; Nov. 25; Gaz. vol. 196; p. 818.
 Electrical resistance unit. E. J. Ovington. No. 1,077,635; Nov. 4; Gaz. vol. 196; p. 185.
 Electrical switch. W. J. Gagnon. No. 1,079,233; Nov. 18; Gaz. vol. 196; p. 750.
 Electrical transmission system. J. B. Whitehead. No. 1,078,711; Nov. 18; Gaz. vol. 196; p. 570.
 Electrically-controlled indicator. W. L. Fitzgerald. No. 1,079,229; Nov. 18; Gaz. vol. 196; p. 748.
 Electrode. R. H. Stevens. No. 1,077,894; Nov. 4; Gaz. vol. 196; p. 224.
 Electrode. R. H. Stevens. No. 1,077,920; Nov. 4; Gaz. vol. 196; p. 233.
 Electrodes. Holder for high-tension. A. R. Darling. No. 1,078,597; Nov. 11; Gaz. vol. 196; p. 497.
 Electrodes. Making storage-battery. H. C. Hubbell. No. 1,079,346; Nov. 25; Gaz. vol. 196; p. 819.
 Electrodes. Manufacture of magnetic. W. Seeger. No. 1,079,269; Nov. 18; Gaz. vol. 196; p. 761.
 Electrograph. R. S. M. Mitchell. No. 1,077,361; Nov. 4; Gaz. vol. 196; p. 42.
 Electrolytic diaphragm. H. A. Wagner. No. 1,077,444; Nov. 4; Gaz. vol. 196; p. 72.
 Electromagnets and solenoids. Means for controlling. L. L. Tatum. No. 1,077,319; Nov. 4; Gaz. vol. 196; p. 28.
 Electroplating device. L. Schulte. No. 1,077,646; Nov. 4; Gaz. vol. 196; p. 140.
 Electroplating pipes. Apparatus for. D. H. Murphy. No. 1,079,427; Nov. 25; Gaz. vol. 196; p. 846.
 Electroplating pipes. Apparatus for. D. H. Murphy. No. 1,079,428; Nov. 25; Gaz. vol. 196; p. 846.
 Elevating device. L. J. Evans. No. 1,077,691; Nov. 4; Gaz. vol. 196; p. 155.
 Elevator. See Invalid-elevator; Man-lift elevator; Tobacco-elevator.
 Elevator-bucket. H. J. Maguire. No. 1,077,844; Nov. 4; Gaz. vol. 196; p. 206.
 Elevator-indicator. T. S. Maxwell. No. 1,077,416; Nov. 4; Gaz. vol. 196; p. 63.
 Embroidering-machine. B. Saner. No. 1,078,881; Nov. 18; Gaz. vol. 196; p. 629.
 Embroidery-frame. G. Duncan. No. 1,079,042; Nov. 18; Gaz. vol. 196; p. 686.
 Embroidery-hoop. R. H. Keagy. No. 1,077,987; Nov. 11; Gaz. vol. 196; p. 288.
 Embroidery-hoop. A. N. Thomas. No. 1,078,809; Nov. 18; Gaz. vol. 196; p. 604.
 Emergency-brake. High-pressure. W. V. Turner. No. 1,078,016; Nov. 11; Gaz. vol. 196; p. 297.
 Emery-wheel guard. C. F. Landolt. No. 1,079,180; Nov. 18; Gaz. vol. 196; p. 733.
 Emery-wheels, &c. Device for cleaning and truing. F. M. Courser. No. 1,078,258; Nov. 11; Gaz. vol. 196; p. 380.
 End and slide clip. W. B. Story. No. 1,078,966; Nov. 18; Gaz. vol. 196; p. 656.
 Engine. See Combustion-engine; Explosive-engine; Fluid-pressure engine; Gas-engine; Internal-combustion engine; Propelling-engine; Rotary engine.
 Engine. J. D. Kneeder. No. 1,077,724; Nov. 4; Gaz. vol. 196; p. 164.
 Engine. F. W. Ruggles. No. 1,079,364; Nov. 25; Gaz. vol. 196; p. 824.
 Engine. E. Rathbun. No. 1,079,440; Nov. 25; Gaz. vol. 196; p. 849.
 Engine-cooling device. G. W. Marsh. No. 1,077,414; Nov. 4; Gaz. vol. 196; p. 62.
 Engine-cracking device. Internal-combustion. J. F. O'Ber. No. 1,077,291; Nov. 4; Gaz. vol. 196; p. 16.
 Engine-lubricating system. Gas. J. P. Farnam. No. 1,077,823; Nov. 4; Gaz. vol. 196; p. 199.
 Engine-platform. E. Pahl. No. 1,077,549; Nov. 4; Gaz. vol. 196; p. 108.
 Engine reversing-gear. Multiple-expansion-steam. J. G. Maxwell. No. 1,078,299; Nov. 11; Gaz. vol. 196; p. 396.
 Engine-starter. J. D. Kneeder. No. 1,077,841; Nov. 4; Gaz. vol. 196; p. 205.
 Engine-starter. G. W. Roth. No. 1,077,858; Nov. 4; Gaz. vol. 196; p. 211.
 Engine-starter. Electrical. S. W. Rushmore. No. 1,079,725; Nov. 25; Gaz. vol. 196; p. 949.
 Engine-starter. Gas. E. D. Bangs. No. 1,077,386; Nov. 4; Gaz. vol. 196; p. 50.
 Engine-starter. Gas. C. H. Cuno. No. 1,078,260; Nov. 11; Gaz. vol. 196; p. 381.
 Engine-starting device. Explosive. R. E. Hammond and S. W. Forsman. No. 1,078,196; Nov. 11; Gaz. vol. 196; p. 359.
 Engine-starting device. Internal-combustion. J. F. O'Ber. No. 1,077,292; Nov. 4; Gaz. vol. 196; p. 17.
 Engine-starting device. Internal-combustion. B. I. Lamb. No. 1,078,151; Nov. 11; Gaz. vol. 196; p. 344.
 Engine vaporizer and igniter. Internal-combustion. W. O. Platt and J. Reid. No. 1,079,878; Nov. 25; Gaz. vol. 196; p. 1003.
 Engines. Ignition apparatus for hydrocarbon. R. Huff. No. 1,079,413; Nov. 25; Gaz. vol. 196; p. 841.
 Engraving-machine. C. A. Ker. No. 1,079,559; Nov. 25; Gaz. vol. 196; p. 892.
 Entrail-cleaning machine. A. Olsen. No. 1,077,488; Nov. 4; Gaz. vol. 196; p. 88.
 Envelop-fastener. G. W. Logan. No. 1,077,616; Nov. 4; Gaz. vol. 196; p. 129.
 Envelop-fastener. E. V. Hirschmann. No. 1,079,598; Nov. 25; Gaz. vol. 196; p. 907.
 Envelop. Safety. O. L. Welmar. No. 1,077,773; Nov. 4; Gaz. vol. 196; p. 183.
 Envelops. Machine for applying patches and fasteners to. M. Vierengel. No. 1,078,473; Nov. 11; Gaz. vol. 196; p. 456.
 Evaporating apparatus. W. A. Seimann. No. 1,079,669; Nov. 25; Gaz. vol. 196; p. 929.
 Excavating-machines. Two-part dipper for. W. S. McKee. No. 1,077,486; Nov. 4; Gaz. vol. 196; p. 87.
 Excavator. J. L. Fairbanks. No. 1,078,842; Nov. 18; Gaz. vol. 196; p. 616.
 Excavator buckets or shovels. Tooth for. M. J. Woznak. No. 1,078,184; Nov. 11; Gaz. vol. 196; p. 355.
 Exercising-stick. A. Keresztfalvy. No. 1,077,836; Nov. 4; Gaz. vol. 196; p. 203.
 Expansion-joint. J. T. Kelly. No. 1,079,350; Nov. 25; Gaz. vol. 196; p. 820.
 Explosion-motor for cars and the like. W. F. Davis. No. 1,079,220; Nov. 18; Gaz. vol. 196; p. 746.
 Explosive-engine. B. B. Dorr. No. 1,079,845; Nov. 25; Gaz. vol. 196; p. 902.
 Extension-table. F. Frisina. No. 1,077,826; Nov. 4; Gaz. vol. 196; p. 200.
 Extension-table. H. W. Bradner. No. 1,079,927; Nov. 25; Gaz. vol. 196; p. 1022.
 Extension-table. Round-top. J. Booker. No. 1,079,099; Nov. 18; Gaz. vol. 196; p. 704.
 Extractor. See Nail-extractor.
 Eye-cup. W. E. Peters. No. 1,079,064; Nov. 18; Gaz. vol. 196; p. 693.
 Eye-aheld. C. N. Bruzard. No. 1,079,287; Nov. 18; Gaz. vol. 196; p. 766.
 Fabric. See Bed fabric; Mattress fabric; Metallic fabric; Wire-mesh fabric.
 Fan. W. A. Sanders. No. 1,077,859; Nov. 4; Gaz. vol. 196; p. 211.
 Fan. Traveling. C. Chaney. No. 1,078,609; Nov. 18; Gaz. vol. 196; p. 533.
 Fare-register-actuating mechanism. J. F. Ohmer. No. 1,077,939; Nov. 4; Gaz. vol. 196; p. 240.
 Farm-gate. R. E. Porter. No. 1,078,375; Nov. 11; Gaz. vol. 196; p. 423.
 Fastening elements. Apparatus for modifying the size of. O. N. Tevander and A. Manierre. No. 1,078,705; Nov. 18; Gaz. vol. 196; p. 567.
 Fats and fatty oils into glycerin and fatty acids. Hydrolyzing. G. Petroff. No. 1,079,437; Nov. 25; Gaz. vol. 196; p. 848.

Fats, oils, and fish-oils into like bodies of higher melting-point. Apparatus for converting. M. Wilbuschewitsch. No. 1,079,278; Nov. 18; Gaz. vol. 196; p. 763.

Faucet. W. Cacko. No. 1,078,262; Nov. 11; Gaz. vol. 196; p. 378.

Faucet. E. W. Vickrey. No. 1,078,325; Nov. 11; Gaz. vol. 196; p. 405.

Faucet attachment. J. Regar. No. 1,078,379; Nov. 11; Gaz. vol. 196; p. 425.

Faucet, Beer. T. R. Beggs. No. 1,077,387; Nov. 4; Gaz. vol. 196; p. 51.

Faucet, Combination. W. H. and J. E. Miller and W. H. Orgel. No. 1,078,939; Nov. 18; Gaz. vol. 196; p. 647.

Faucet, Water-cooler. W. E. Patnaude. No. 1,078,213; Nov. 11; Gaz. vol. 196; p. 365.

Feathers, Holder and attach for. M. H. Tiane. No. 1,077,653; Nov. 4; Gaz. vol. 196; p. 142.

Feed, Four-motion. C. S. Batdorf. No. 1,079,322; Nov. 25; Gaz. vol. 196; p. 810.

Feed hopper, Poultry. J. M. Franklin. No. 1,079,231; Nov. 18; Gaz. vol. 196; p. 750.

Feed-mixer. R. H. Driscoll. No. 1,077,814; Nov. 4; Gaz. vol. 196; p. 196.

Feed-trough for poultry. R. C. Sutton. No. 1,078,524; Nov. 11; Gaz. vol. 196; p. 472.

Feed-water heater. D. T. Williams. No. 1,078,026; Nov. 11; Gaz. vol. 196; p. 301.

Feeder, Poultry. M. H. Hinkle. No. 1,078,094; Nov. 11; Gaz. vol. 196; p. 325.

Feeder, Poultry. C. L. Tawney. No. 1,078,646; Nov. 18; Gaz. vol. 196; p. 545.

Feeder, Poultry. G. W. Heath. No. 1,078,853; Nov. 18; Gaz. vol. 196; p. 620.

Feeding mechanism. C. J. Fancher. No. 1,077,266; Nov. 4; Gaz. vol. 196; p. 8.

Feeding mechanism. C. A. Cheshire. No. 1,077,390; Nov. 4; Gaz. vol. 196; p. 52.

Felly, Spring. F. M. Prather. No. 1,079,925; Nov. 25; Gaz. vol. 196; p. 1021.

Fence clamp, Wire. C. J. Livering. No. 1,078,155; Nov. 11; Gaz. vol. 196; p. 345.

Fence-post, Composition. R. B. Bennett. No. 1,079,829; Nov. 25; Gaz. vol. 196; p. 937.

Fence-wire fastener for fence-posts. J. Fisher. No. 1,079,043; Nov. 18; Gaz. vol. 196; p. 636.

Fender. See Car-fender; Clod-fender; Cultivator-fender; Vehicle-fender.

Ferrule. P. Muschl. No. 1,079,258; Nov. 18; Gaz. vol. 196; p. 757.

Fertilizer-distributor. E. J. Pearson. No. 1,079,509; Nov. 25; Gaz. vol. 196; p. 874.

Fifth-wheel. J. Villiger and E. J. Schierer. No. 1,078,709; Nov. 18; Gaz. vol. 196; p. 569.

Fifth-wheel. C. Wallace. No. 1,079,277; Nov. 18; Gaz. vol. 196; p. 763.

File, Bill. W. Molenaar. No. 1,078,452; Nov. 11; Gaz. vol. 196; p. 449.

File, Document. J. Boswell and E. Pearl. No. 1,079,100; Nov. 18; Gaz. vol. 196; p. 704.

Filing-cabinet. A. C. Petsche. No. 1,077,638; Nov. 4; Gaz. vol. 196; p. 137.

Filing-cabinet. J. A. Fraser. No. 1,078,668; Nov. 18; Gaz. vol. 196; p. 553.

Filing-cabinet. W. F. Heffner. No. 1,079,173; Nov. 18; Gaz. vol. 196; p. 731.

Filing-cabinet, Metallic. A. W. L. Hartbauer and L. C. Sparks. No. 1,078,279; Nov. 11; Gaz. vol. 196; p. 388.

Filing-case for cards and the like. L. A. Lebowich. No. 1,079,776; Nov. 25; Gaz. vol. 196; p. 969.

Filling and packing materials into receptacles. Apparatus for. R. V. Craggs. No. 1,077,810; Nov. 4; Gaz. vol. 196; p. 195.

Filling apparatus. F. L. Jefferies and W. Spain. No. 1,079,496; Nov. 25; Gaz. vol. 196; p. 870.

Filter. H. F. Maranville. No. 1,077,619; Nov. 4; Gaz. vol. 196; p. 130.

Filter. P. E. Malmstrom. No. 1,078,366; Nov. 11; Gaz. vol. 196; p. 420.

Filter-leaf. C. L. Van Fossen. No. 1,078,812; Nov. 18; Gaz. vol. 196; p. 605.

Filter-leaf. C. Butters. No. 1,078,993; Nov. 18; Gaz. vol. 196; p. 667.

Filter media, Dislodging slime cakes from. C. Butters. No. 1,078,994; Nov. 18; Gaz. vol. 196; p. 668.

Filter, Pump. R. E. Miles. No. 1,079,875; Nov. 25; Gaz. vol. 196; p. 1002.

Filter, Tap. W. J. O'Connor. No. 1,078,370; Nov. 11; Gaz. vol. 196; p. 421.

Filtration. E. Zahm. No. 1,077,448; Nov. 4; Gaz. vol. 196; p. 73.

Finger-ring, Expandable. L. M. Higham. No. 1,079,489; Nov. 25; Gaz. vol. 196; p. 867.

Finish-remover. H. A. Gardner. No. 1,079,698; Nov. 25; Gaz. vol. 196; p. 940.

Fire-alarm. W. A. Fretwell. No. 1,077,966; Nov. 4; Gaz. vol. 196; p. 249.

Fire-alarm box, Auxiliary. N. H. Suren. No. 1,077,767; Nov. 4; Gaz. vol. 196; p. 181.

Fire-alarm system, Electric. J. G. Schluchter. No. 1,079,667; Nov. 25; Gaz. vol. 196; p. 929.

Fire-alarm, Thermostatic. J. Bancourt. No. 1,078,063; Nov. 11; Gaz. vol. 196; p. 314.

Fire-box. J. M. McClellon. No. 1,078,934; Nov. 18; Gaz. vol. 196; p. 646.

Fire-box. J. M. McClellon. No. 1,078,935; Nov. 18; Gaz. vol. 196; p. 646.

Fire-box construction. J. M. McClellon. No. 1,078,933; Nov. 18; Gaz. vol. 196; p. 645.

Fire-control apparatus. Naval. A. H. Pollen and H. Isherwood. No. 1,077,965; Nov. 4; Gaz. vol. 196; p. 249.

Fire-door. M. Gilmore. No. 1,077,468; Nov. 4; Gaz. vol. 196; p. 81.

Fire-door for elevator-shafts, &c. M. Gilmore. No. 1,078,275; Nov. 11; Gaz. vol. 196; p. 386.

Fire-door safety device. T. H. Lawrence. No. 1,078,361; Nov. 11; Gaz. vol. 196; p. 419.

Fire-escape. A. Wicherjes. No. 1,078,759; Nov. 18; Gaz. vol. 196; p. 586.

Fire-escape. T. C. Marshall. No. 1,078,931; Nov. 18; Gaz. vol. 196; p. 645.

Fire-extinguishing apparatus, Automatic. L. Van Auker. No. 1,078,388; Nov. 11; Gaz. vol. 196; p. 429.

Fire-extinguishing fluid. J. W. Aylsworth. No. 1,078,030; Nov. 11; Gaz. vol. 196; p. 302.

Firearm. A. T. Dawson and G. T. Buckham. No. 1,077,873; Nov. 4; Gaz. vol. 196; p. 216.

Firearm. F. J. Hupy. No. 1,078,923; Nov. 18; Gaz. vol. 196; p. 643.

Firearm, Automatic. L. Schmeisser. No. 1,077,760; Nov. 4; Gaz. vol. 196; p. 179.

Firearm, Recoil-operated. J. A. Taylor. No. 1,078,224; Nov. 11; Gaz. vol. 196; p. 369.

Fireplace, Portable gas-log. Q. S. Backus. No. 1,079,686; Nov. 25; Gaz. vol. 196; p. 935.

Fireproof safe for cabinets. J. Booth. No. 1,078,123; Nov. 11; Gaz. vol. 196; p. 334.

Fireproof stair. D. A. Anderson. No. 1,078,403; Nov. 11; Gaz. vol. 196; p. 434.

Fireproof wall. W. Gernerdt and C. R. Ballner. No. 1,078,273; Nov. 11; Gaz. vol. 196; p. 386.

Fireproof window construction. W. R. Kinnear. No. 1,079,862; Nov. 25; Gaz. vol. 196; p. 998.

Fish-cutting machine. F. D. Cleveland. No. 1,078,719; Nov. 18; Gaz. vol. 196; p. 572.

Fish, Machine for cutting off the heads and tails of. F. D. Cleveland. No. 1,078,717; Nov. 18; Gaz. vol. 196; p. 572.

Fish, Machine for handling and cutting. F. D. Cleveland. No. 1,078,718; Nov. 18; Gaz. vol. 196; p. 572.

Fish, Positioning. F. D. Cleveland. No. 1,078,720; Nov. 18; Gaz. vol. 196; p. 573.

Fishing-rod tip end or top. C. C. Meyer. No. 1,078,589; Nov. 11; Gaz. vol. 196; p. 494.

Flashlight. F. Wysocki. No. 1,079,088; Nov. 18; Gaz. vol. 196; p. 700.

Floor construction. E. F. Crane. No. 1,077,394; Nov. 4; Gaz. vol. 196; p. 54.

Floor-supporting structure of theaters and the like. F. Meister. No. 1,079,424; Nov. 25; Gaz. vol. 196; p. 845.

Flooring. J. C. Dunton. No. 1,078,776; Nov. 18; Gaz. vol. 196; p. 504.

Flour, Browning. J. Wallos. No. 1,079,676; Nov. 25; Gaz. vol. 196; p. 931.

Fluid-mixture regulator. G. Machlet, Jr. No. 1,078,790; Nov. 18; Gaz. vol. 196; p. 598.

Fluid-operated device, Automatic-return. G. F. Steedman. No. 1,079,613; Nov. 25; Gaz. vol. 196; p. 912.

Fluid-pressure-brake device. W. V. Turner. No. 1,078,018; Nov. 11; Gaz. vol. 196; p. 298.

Fluid-pressure-brake device for double-heading. W. V. Turner. No. 1,078,017; Nov. 11; Gaz. vol. 196; p. 298.

Fluid-pressure engine. A. E. L. Chorlton. No. 1,078,661; Nov. 18; Gaz. vol. 196; p. 550.

Fluid-pressure engine. A. E. L. Chorlton. No. 1,078,830; Nov. 18; Gaz. vol. 196; p. 612.

Fluid-pressure motor, Rotary. W. F. Sullivan and A. M. Washburn. No. 1,077,568; Nov. 4; Gaz. vol. 196; p. 114.

Fluid-pressure-regulating gage. G. L. Kennedy. No. 1,079,600; Nov. 25; Gaz. vol. 196; p. 907.

Flume construction. C. V. Craig. No. 1,078,835; Nov. 18; Gaz. vol. 196; p. 614.

Flush-tank. H. D. Molse. No. 1,078,796; Nov. 18; Gaz. vol. 196; p. 600.

Flush-tank for water-closets. D. Cabral. No. 1,077,329; Nov. 4; Gaz. vol. 196; p. 31.

Flushing apparatus. H. D. Molse. No. 1,078,797; Nov. 18; Gaz. vol. 196; p. 601.

Flushing device. C. Hopewell. No. 1,079,555; Nov. 25; Gaz. vol. 196; p. 890.

Flushing-tank. G. H. Tarleton. No. 1,079,615; Nov. 25; Gaz. vol. 196; p. 912.

Fly-net for horses. W. E. Wahra. No. 1,078,022; Nov. 11; Gaz. vol. 196; p. 300.

Fly-trap. C. W. Reynolds. No. 1,078,465; Nov. 11; Gaz. vol. 196; p. 453.

Flying-machine. H. R. Coffman. No. 1,077,258; Nov. 4; Gaz. vol. 196; p. 6.

Flying-machine. M. A. Batson. No. 1,077,796; Nov. 4; Gaz. vol. 196; p. 187.

Flying-machine. W. S. Hull. No. 1,078,143; Nov. 11; Gaz. vol. 196; p. 341.

Flying-machine. J. Menzl and E. Burdg. No. 1,079,508; Nov. 25; Gaz. vol. 196; p. 874.

Flying-machine bomb. H. S. Maxim. No. 1,077,991; Nov. 11; Gaz. vol. 196; p. 289.

Folding box. C. H. Seegmiller. No. 1,079,583; Nov. 25; Gaz. vol. 196; p. 901.

Folding cup, Sanitary. J. V. Shaw. No. 1,079,067; Nov. 18; Gaz. vol. 196; p. 694.

Foot attachment. W. C. McKinney. No. 1,078,104; Nov. 11; Gaz. vol. 196; p. 328.

Forge for drill-steel, Oil. W. W. Case, Jr. No. 1,077,803; Nov. 4; Gaz. vol. 196; p. 192.

Forge, Oil-burning. J. G. Leyner. No. 1,078,154; Nov. 11; Gaz. vol. 196; p. 345.

Foundry-riddle. E. W. Beach. No. 1,078,532; Nov. 11; Gaz. vol. 196; p. 475.

Fountain. See Drinking-fountain; Printing-press ink-fountain.

Four-wheel drive. S. E. Bruner and H. F. Hardin. No. 1,077,794; Nov. 4; Gaz. vol. 196; p. 194.

Frame. See Cane frame; Car-door frame; Car slide-door frame; Cast end frame; Embroidery-frame; Locomotive-tender frame; Loom heddle-frame; Picture-frame; Screen-supporting frame; Ventilator-frame.

Frames, Adjustable device for uniting. L. E. Gibson. No. 1,077,908; Nov. 4; Gaz. vol. 196; p. 228.

Freight-handling apparatus. H. Sawyer. No. 1,079,519; Nov. 25; Gaz. vol. 196; p. 877.

Fruit and flower cutter. C. F. Billau. (Reissue.) No. 13,642; Nov. 11; Gaz. vol. 196; p. 500.

Fruit cutting and pitting machine. A. L. Morton. No. 1,079,573; Nov. 25; Gaz. vol. 196; p. 896.

Fruit-drier. G. T. Stamm. No. 1,078,110; Nov. 11; Gaz. vol. 196; p. 330.

Fruit-picker. M. I. Randall. No. 1,077,640; Nov. 4; Gaz. vol. 196; p. 137.

Fruit-press. J. Smith. No. 1,077,437; Nov. 4; Gaz. vol. 196; p. 70.

Fuel in paper bags, Machine for packing. A. Armbruster. No. 1,079,828; Nov. 25; Gaz. vol. 196; p. 916.

Fuel mixer, Gaseous. T. Cook. No. 1,078,834; Nov. 18; Gaz. vol. 196; p. 613.

Fuel mixer, Gaseous. J. T. Hazelton. No. 1,079,338; Nov. 25; Gaz. vol. 196; p. 817.

Fuel of permanent shape and for rendering innocuous the sulfur contained in the coal. Production of weather-proof, carbonaceous. E. Pollack. No. 1,079,142; Nov. 18; Gaz. vol. 196; p. 720.

Fumes or smoke. Means for controlling. G. E. Waggoner. No. 1,077,771; Nov. 4; Gaz. vol. 196; p. 183.

Furnace. See Blast-furnace; Boiler-furnace; Electric furnace; Electric rivet-furnace; Hot-air furnace; Regenerative furnace; Retort-furnace; Roasting-furnace; Rotary furnace.

Furnace. A. O. Gutsch. No. 1,077,405; Nov. 4; Gaz. vol. 196; p. 59.

Furnace in which industrial residues are burnt. L. Félizat. No. 1,078,038; Nov. 11; Gaz. vol. 196; p. 305.

Furnace or oven charging apparatus. U. Wedge. No. 1,079,081; Nov. 18; Gaz. vol. 196; p. 699.

Furnaces, Apparatus for automatically regulating the draft in boiler. G. de Grahl. No. 1,079,853; Nov. 25; Gaz. vol. 196; p. 995.

Furniture and the like, Fastening for knockdown. F. E. Cartier. No. 1,078,186; Nov. 11; Gaz. vol. 196; p. 350.

Furniture packing pad. C. A. Wakeman. No. 1,078,390; Nov. 11; Gaz. vol. 196; p. 429.

Furrow opener. Double disk. F. R. Packham. No. 1,079,140; Nov. 18; Gaz. vol. 196; p. 710.

Fuse. E. E. Roberts. No. 1,077,369; Nov. 4; Gaz. vol. 196; p. 45.

Fuse and fuse-carrier. T. E. Murray. No. 1,079,018; Nov. 18; Gaz. vol. 196; p. 677.

Fuse for a projectile. H. B. Strange. No. 1,077,439; Nov. 4; Gaz. vol. 196; p. 71.

Fuse-making machine. L. and J. Schulman. No. 1,079,367; Nov. 25; Gaz. vol. 196; p. 825.

Fuse-plug. H. T. Palste. No. 1,078,458; Nov. 11; Gaz. vol. 196; p. 452.

Fuse-plug. G. B. Thomas. No. 1,078,472; Nov. 11; Gaz. vol. 196; p. 455.

Fuse-setting device. W. Schwartz. No. 1,079,885; Nov. 25; Gaz. vol. 196; p. 1005.

Fuse-setting machine. W. Schwartz. No. 1,079,886; Nov. 25; Gaz. vol. 196; p. 1006.

Fuses, Delayed-action device for impact. K. Wieser. No. 1,079,388; Nov. 25; Gaz. vol. 196; p. 831.

Gage. See Brake-beam gage; Fluid-pressure-regulating gage; Hinge-gage; Printing-press feed-gage.

Gage-glass fixture. T. C. Salter. No. 1,077,758; Nov. 4; Gaz. vol. 196; p. 178.

Gaging and distributing articles of different thickness, Machine for. L. L. D. Elderkin. No. 1,078,778; Nov. 18; Gaz. vol. 196; p. 594.

Galvanic cell. M. L. Kaplan. No. 1,078,788; Nov. 18; Gaz. vol. 196; p. 598.

Game apparatus. F. K. Atkins. No. 1,077,865; Nov. 4; Gaz. vol. 196; p. 213.

Game, Card. J. P. Beavens. No. 1,078,330; Nov. 11; Gaz. vol. 196; p. 406.

Garment and making the same, Welted. R. W. Scott. No. 1,079,268; Nov. 18; Gaz. vol. 196; p. 760.

Garment attachment. J. W. Bruton. No. 1,078,826; Nov. 18; Gaz. vol. 196; p. 610.

Garment, Infant's. G. G. Painter. No. 1,079,798; Nov. 25; Gaz. vol. 196; p. 977.

196 O. G.—v

Garment-knife, Combination. T. J. Littleton, Jr., and J. P. Tyner. No. 1,079,300; Nov. 18; Gaz. vol. 196; p. 771.

Garment-stretcher. E. S. Duncan. No. 1,077,460; Nov. 4; Gaz. vol. 196; p. 78.

Garment-support. J. W. Flagg. No. 1,079,330; Nov. 25; Gaz. vol. 196; p. 813.

Garment-supporter. R. T. Clarke. No. 1,077,671; Nov. 4; Gaz. vol. 196; p. 148.

Gas-analyzer, Automatic. P. R. Boulton. No. 1,077,927; Nov. 4; Gaz. vol. 196; p. 235.

Gas-analyzing apparatus. J. W. Hays. No. 1,077,342; Nov. 4; Gaz. vol. 196; p. 35.

Gas-burner. L. C. Hiller and F. I. Camp. No. 1,077,713; Nov. 4; Gaz. vol. 196; p. 161.

Gas-burner. C. B. McElwaine. No. 1,078,588; Nov. 11; Gaz. vol. 196; p. 493.

Gas-burner. E. H. Fisher. No. 1,078,726; Nov. 18; Gaz. vol. 196; p. 575.

Gas-burner. J. H. Ackroyd. No. 1,079,281; Nov. 18; Gaz. vol. 196; p. 764.

Gas-burner, Safety. C. G. Farez. No. 1,077,955; Nov. 4; Gaz. vol. 196; p. 246.

Gas-cleaner. A. Ernst. No. 1,079,849; Nov. 25; Gaz. vol. 196; p. 994.

Gas-cooler. G. Eschellmann and A. Harmuth. No. 1,078,841; Nov. 18; Gaz. vol. 196; p. 616.

Gas-engine. L. Illmer, Jr. No. 1,078,286; Nov. 11; Gaz. vol. 196; p. 391.

Gas-engine, Rotary. W. F. Stern. No. 1,077,314; Nov. 4; Gaz. vol. 196; p. 25.

Gas-generator. T. H. Armstrong. No. 1,079,091; Nov. 18; Gaz. vol. 196; p. 702.

Gas-generator. O. H. Ensign. No. 1,079,118; Nov. 18; Gaz. vol. 196; p. 711.

Gas generator, Acetylene. W. Hayne. No. 1,078,046; Nov. 11; Gaz. vol. 196; p. 308.

Gas generator, Acetylene. E. M. Rosenbluth. No. 1,079,665; Nov. 25; Gaz. vol. 196; p. 928.

Gas generator, Acetylene. C. W. Holm. No. 1,079,766; Nov. 25; Gaz. vol. 196; p. 968.

Gas generator and compressor. F. D. J. Kaessmann. No. 1,079,011; Nov. 18; Gaz. vol. 196; p. 674.

Gas-lighting, Method of and means for manufacturing mantles for incandescent. I. Werber. No. 1,077,922; Nov. 4; Gaz. vol. 196; p. 233.

Gas-meters and the like, Protective device for. H. Kaufman. No. 1,077,409; Nov. 4; Gaz. vol. 196; p. 60.

Gas mixer and regulator. W. S. Jones. No. 1,078,584; Nov. 11; Gaz. vol. 196; p. 492.

Gas-producer. W. O. Amsler. No. 1,077,578; Nov. 4; Gaz. vol. 196; p. 117.

Gas-producer. C. M. Garland. No. 1,079,234; Nov. 18; Gaz. vol. 196; p. 750.

Gas-producer stirrer. J. A. Herrick. No. 1,077,981; Nov. 11; Gaz. vol. 196; p. 286.

Gas-producers, Apparatus for regulating the supply of steam to. C. H. T. Alston and P. T. Houston. No. 1,078,480; Nov. 11; Gaz. vol. 196; p. 453.

Gas-producers working with high-pressure blast. Water seal for. A. von Kerpely. No. 1,078,148; Nov. 11; Gaz. vol. 196; p. 343.

Gas, Producing. J. J. and F. C. Nix. No. 1,078,304; Nov. 11; Gaz. vol. 196; p. 399.

Gas-regulator. P. Keller. No. 1,078,625; Nov. 18; Gaz. vol. 196; p. 539.

Gas-regulator. J. R. Ricketts. No. 1,079,146; Nov. 18; Gaz. vol. 196; p. 721.

Gas-supply-apparatus safety device. G. F. Plcot. No. 1,078,163; Nov. 11; Gaz. vol. 196; p. 348.

Gas-supply-controlling means. L. A. Korb. No. 1,079,416; Nov. 25; Gaz. vol. 196; p. 416.

Gas to a burner, Device for automatically cutting off the supply of. C. Gordon. No. 1,079,122; Nov. 18; Gaz. vol. 196; p. 713.

Gases containing sulfur dioxide, Purification of. R. Mesel. No. 1,078,937; Nov. 18; Gaz. vol. 196; p. 647.

Gases, Treating coal. C. G. Tufts. No. 1,078,014; Nov. 11; Gaz. vol. 196; p. 297.

Gasoline-burners, Automatic regulator for. F. A. Johnson. No. 1,078,441; Nov. 11; Gaz. vol. 196; p. 446.

Gasoline jelly, Making. J. E. Mitchell. No. 1,079,257; Nov. 18; Gaz. vol. 196; p. 757.

Gate. See Farm-gate; Railway-crossing gate; Slide-gate.

Gate. W. H. and C. E. Gee. No. 1,077,269; Nov. 4; Gaz. vol. 196; p. 9.

Gate. C. E. Anderson. No. 1,077,449; Nov. 4; Gaz. vol. 196; p. 74.

Gate. C. F. Schurr. No. 1,078,003; Nov. 11; Gaz. vol. 196; p. 293.

Gate. S. A. Craig. No. 1,078,130; Nov. 11; Gaz. vol. 196; p. 336.

Gate. C. M. Baker. No. 1,078,236; Nov. 11; Gaz. vol. 196; p. 372.

Gate. J. J. Akre. No. 1,079,283; Nov. 18; Gaz. vol. 196; p. 765.

Gate-opening device. J. Spence. No. 1,079,449; Nov. 25; Gaz. vol. 196; p. 853.

Gear, Variable. T. Foster. No. 1,079,044; Nov. 18; Gaz. vol. 196; p. 686.

Gear, Variable-speed. J. J. Myers. No. 1,077,424; Nov. 4; Gaz. vol. 196; p. 65.

Gear, Variable-speed. J. Yocom. No. 1,078,398; Nov. 11; Gaz. vol. 196; p. 432.
 Gearing. J. D. A. Johnson. No. 1,078,146; Nov. 11; Gaz. vol. 196; p. 342.
 Gearing. H. A. Tuttle. No. 1,078,565; Nov. 11; Gaz. vol. 196; p. 485.
 Gearing. J. H. Gilman. No. 1,078,671; Nov. 18; Gaz. vol. 196; p. 554.
 Gearing. C. G. Curtis. No. 1,078,836; Nov. 18; Gaz. vol. 196; p. 614.
 Gearing. C. G. Curtis. No. 1,078,837; Nov. 18; Gaz. vol. 196; p. 614.
 Gearing. V. G. Apple. No. 1,079,090; Nov. 18; Gaz. vol. 196; p. 701.
 Gearing. J. D. Graffing. No. 1,079,701; Nov. 25; Gaz. vol. 196; p. 941.
 Gearing. Alternating rotary. A. S. Lemay. No. 1,077,354; Nov. 4; Gaz. vol. 196; p. 39.
 Gearing. Transmission. W. D. Arnsburger. No. 1,079,463; Nov. 25; Gaz. vol. 196; p. 858.
 Gearing. Transmission. J. F. Davis and R. L. Ford. No. 1,079,747; Nov. 25; Gaz. vol. 196; p. 959.
 Gearing, Variable-speed. R. H. Gerard. No. 1,079,852; Nov. 25; Gaz. vol. 196; p. 995.
 Gearing, Variable-speed-transmission. A. H. Cooke. No. 1,077,454; Nov. 4; Gaz. vol. 196; p. 76.
 Gen-setting. H. C. Schuetz. No. 1,079,924; Nov. 25; Gaz. vol. 196; p. 1021.
 Generator. See Acetylene-generator; Electric generator; Gas-generator.
 Geographical-position indicator. W. G. Clark. No. 1,077,596; Nov. 4; Gaz. vol. 196; p. 122.
 Gin-saw cleaner. J. P. Young. No. 1,078,399; Nov. 11; Gaz. vol. 196; p. 433.
 Glass-cleaning liquid. H. Schroer. No. 1,077,860; Nov. 4; Gaz. vol. 196; p. 212.
 Glass-machine. L. Steelman. No. 1,078,965; Nov. 18; Gaz. vol. 196; p. 856.
 Gliding switch for overhead monorail tramways. S. H. Libby. No. 1,078,051; Nov. 11; Gaz. vol. 196; p. 310.
 Glove. H. G. Hartmann. No. 1,079,647; Nov. 25; Gaz. vol. 196; p. 922.
 Glove shaping and setting device. A. B. Tozer. No. 1,079,730; Nov. 25; Gaz. vol. 196; p. 951.
 Glue. Making. F. G. Perkins. No. 1,078,692; Nov. 18; Gaz. vol. 196; p. 562.
 Glue. Vegetable. F. G. Perkins. No. 1,078,691; Nov. 18; Gaz. vol. 196; p. 562.
 Glycerin from vases, Extracting. G. P. Guignard and H. L. A. M. Watrigan. No. 1,078,580; Nov. 11; Gaz. vol. 196; p. 491.
 Goggles. N. M. Baker. No. 1,078,405; Nov. 11; Gaz. vol. 196; p. 435.
 Gold-extracting machine. C. R. Dennison. No. 1,077,261; Nov. 4; Gaz. vol. 196; p. 7.
 Governor, Power-vehicle. T. Douglas. No. 1,078,337; Nov. 11; Gaz. vol. 196; p. 409.
 Governor, Speed. T. Douglas. No. 1,078,336; Nov. 11; Gaz. vol. 196; p. 409.
 Grader, Road. M. J. Phillips. No. 1,079,579; Nov. 25; Gaz. vol. 196; p. 899.
 Graduating-machine. C. G. Trafethen. No. 1,079,306; Nov. 18; Gaz. vol. 196; p. 773.
 Grain-drill, Double-disk. W. Elcott, H. M. Loeber, and R. H. Schlachter. No. 1,077,338; Nov. 4; Gaz. vol. 196; p. 34.
 Grain-sampler. W. J. H. and D. Grauenfels. No. 1,078,847; Nov. 18; Gaz. vol. 196; p. 617.
 Grain-separator. O. L. Kleven. No. 1,079,707; Nov. 25; Gaz. vol. 196; p. 943.
 Gramophones, Automatic stop mechanism for. M. A. Possons. No. 1,078,460; Nov. 11; Gaz. vol. 196; p. 452.
 Graphophone, Automatic announcement. T. H. Macdonald. No. 1,079,419; Nov. 25; Gaz. vol. 196; p. 843.
 Grate. G. M. S. Tait. No. 1,078,071; Nov. 11; Gaz. vol. 196; p. 316.
 Grate. G. E. Camp. No. 1,078,769; Nov. 18; Gaz. vol. 196; p. 591.
 Grate. W. R. Jeavons and A. R. Whittaker. No. 1,079,767; Nov. 25; Gaz. vol. 196; p. 966.
 Grate-bar. F. Mahony. No. 1,079,262; Nov. 18; Gaz. vol. 196; p. 756.
 Grating device. A. J. C. Schwartz. No. 1,078,558; Nov. 11; Gaz. vol. 196; p. 483.
 Grave-marker. S. B. Rickards. No. 1,079,147; Nov. 18; Gaz. vol. 196; p. 722.
 Gravity-carrier. W. S. McCurdy. No. 1,077,540; Nov. 4; Gaz. vol. 196; p. 105.
 Grinder, Gear-cutter. A. L. De Leeuw. No. 1,078,540; Nov. 11; Gaz. vol. 196; p. 478.
 Grinder, Knife. E. C. Loomis. No. 1,078,507; Nov. 11; Gaz. vol. 196; p. 467.
 Grinder, Rotary knife. N. Du Brul. No. 1,077,333; Nov. 4; Gaz. vol. 196; p. 32.
 Grinding attachment, Scissors. E. C. Loomis. No. 1,078,508; Nov. 11; Gaz. vol. 196; p. 467.
 Grinding-machine. P. H. Root. No. 1,077,306; Nov. 4; Gaz. vol. 196; p. 22.
 Grinding-machine. G. and J. Holland-Letz. No. 1,077,714; Nov. 4; Gaz. vol. 196; p. 161.
 Grinding-machine. E. O. Partridge. No. 1,078,551; Nov. 11; Gaz. vol. 196; p. 481.
 Grinding-machine. U. Steiner. No. 1,078,563; Nov. 11; Gaz. vol. 196; p. 485.
 Grinding-machine. J. Pavelka. No. 1,078,949; Nov. 18; Gaz. vol. 196; p. 650.
 Grinding-machine. A. L. Bausman. No. 1,079,465; Nov. 25; Gaz. vol. 196; p. 859.
 Grinding machine, Wood. H. S. Chalfant. No. 1,078,415; Nov. 11; Gaz. vol. 196; p. 438.
 Grinding-machines, Apparatus for applying abrasives to. H. K. Hitchcock. No. 1,077,982; Nov. 11; Gaz. vol. 196; p. 286.
 Grinding-machines, Work-rest for. H. T. Shearer. No. 1,078,561; Nov. 11; Gaz. vol. 196; p. 484.
 Grinding-mill. M. E. Rozelle. No. 1,078,517; Nov. 11; Gaz. vol. 196; p. 470.
 Grinding of toothed wheels, milling-cutters, and the like. A. Alchele. No. 1,078,570; Nov. 11; Gaz. vol. 196; p. 487.
 Grinding steel pens, Machine for. C. H. Boughton. No. 1,077,969; Nov. 11; Gaz. vol. 196; p. 281.
 Gripper mechanism. A. Bates. No. 1,079,590; Nov. 25; Gaz. vol. 196; p. 903.
 Guano-distributor. H. R. A. King. No. 1,077,838; Nov. 4; Gaz. vol. 196; p. 204.
 Guard. J. C. Wells. No. 1,079,733; Nov. 25; Gaz. vol. 196; p. 952.
 Gum, Chewing. J. M. Trimble. No. 1,078,564; Nov. 11; Gaz. vol. 196; p. 485.
 Gun. J. A. Guarino. No. 1,079,855; Nov. 25; Gaz. vol. 196; p. 996.
 Gun, Air. A. V. Dickey. No. 1,078,487; Nov. 11; Gaz. vol. 196; p. 480.
 Gun, Air. A. Wissler. No. 1,079,908; Nov. 25; Gaz. vol. 196; p. 1015.
 Gun, Automatic. A. T. Dawson and G. T. Buckham. No. 1,077,680; Nov. 4; Gaz. vol. 196; p. 151.
 Gun-carriage. G. Wienholtz. No. 1,079,815; Nov. 25; Gaz. vol. 196; p. 982.
 Gun-carriage, Wheeled. G. Wienholtz. No. 1,079,816; Nov. 25; Gaz. vol. 196; p. 983.
 Gun-carriages, Spade-fastening for wheeled. O. Lauber and F. Stock. No. 1,079,868; Nov. 25; Gaz. vol. 196; p. 1001.
 Gun elevating and training gears, Driving device for. H. Strauss. No. 1,079,893; Nov. 25; Gaz. vol. 196; p. 1009.
 Gun-elevating mechanism. F. Bömlinghaus. No. 1,079,831; Nov. 25; Gaz. vol. 196; p. 987.
 Gun firing mechanism, Electrical. I. F. Gallindez. No. 1,078,782; Nov. 18; Gaz. vol. 196; p. 596.
 Gun-sight. O. Boecker. No. 1,078,411; Nov. 11; Gaz. vol. 196; p. 436.
 Gun-sighting device. R. Schürmann. No. 1,079,884; Nov. 25; Gaz. vol. 196; p. 1005.
 Guy-clamp. J. Blackburn. No. 1,078,605; Nov. 18; Gaz. vol. 196; p. 532.
 Hacksaws, Hand-guard for steel. L. C. Biggs. No. 1,078,821; Nov. 18; Gaz. vol. 196; p. 609.
 Hair-comb. G. C. Frick. No. 1,077,403; Nov. 4; Gaz. vol. 196; p. 58.
 Hair-curler. A. A. West and W. H. Gatchell. No. 1,077,897; Nov. 4; Gaz. vol. 196; p. 224.
 Hair-cutter and safety-razor, Convertible. A. T. Hauser. No. 1,077,530; Nov. 4; Gaz. vol. 196; p. 102.
 Hair-dressing device. A. Masie. No. 1,078,055; Nov. 11; Gaz. vol. 196; p. 311.
 Halter and yoke, Combined. J. D. Babb. No. 1,077,251; Nov. 4; Gaz. vol. 196; p. 4.
 Hammer construction. H. E. Derbyshire. No. 1,077,812; Nov. 4; Gaz. vol. 196; p. 195.
 Hammer-drill. W. Prellwitz. No. 1,078,952; Nov. 18; Gaz. vol. 196; p. 652.
 Hammer-drill. W. Prellwitz. No. 1,078,953; Nov. 18; Gaz. vol. 196; p. 652.
 Hammer, Pneumatic. G. L. Robertson. No. 1,078,384; Nov. 11; Gaz. vol. 196; p. 427.
 Hammer, Power-driven. A. A. Goubert. No. 1,077,469; Nov. 4; Gaz. vol. 196; p. 81.
 Hammer, Shredding. M. F. Williams. No. 1,078,650; Nov. 18; Gaz. vol. 196; p. 547.
 Hand-bag and the like. A. H. F. Schlecker. No. 1,079,188; Nov. 18; Gaz. vol. 196; p. 736.
 Hand-warmer. Steering-wheel. C. J. Hallum. No. 1,079,237; Nov. 18; Gaz. vol. 196; p. 751.
 Handle. See Asbestos handle; Implement-handle; Saw-handle.
 Handle for spades, shovels, forks, and like implements. S. R. Park. No. 1,077,550; Nov. 4; Gaz. vol. 196; p. 108.
 Hanger. See Car-door hanger; Clothing-hanger; Door-hanger; Lamp-hanger; Pipe-hanger; Shade and curtain hanger.
 Hanger-box. W. S. Rogers. No. 1,078,696; Nov. 18; Gaz. vol. 196; p. 564.
 Harness-hook. F. Parrish. No. 1,079,661; Nov. 25; Gaz. vol. 196; p. 927.
 Harrow. H. C. Copenhagen. No. 1,077,455; Nov. 4; Gaz. vol. 196; p. 76.
 Harrow. A. L. Garlough. No. 1,078,915; Nov. 18; Gaz. vol. 196; p. 640.
 Harrow. O. Erikson. No. 1,079,752; Nov. 25; Gaz. vol. 196; p. 961.
 Harrow-tooth, Spring. E. T. Collings. No. 1,077,806; Nov. 4; Gaz. vol. 196; p. 194.
 Harvester and reeder, Broom-corn. H. S. Thomas. No. 1,077,863; Nov. 4; Gaz. vol. 196; p. 212.

Harvester, Cotton. L. L. Upshaw. No. 1,079,585; Nov. 25; Gaz. vol. 196; p. 902.
 Harvesting machine, Beet. W. Haster. No. 1,077,978; Nov. 11; Gaz. vol. 196; p. 284.
 Harvesting machine, Corn. W. S. Baird. No. 1,077,963; Nov. 4; Gaz. vol. 196; p. 248.
 Harvesting machine, Hay. C. A. Sumwalt. No. 1,078,468; Nov. 11; Gaz. vol. 196; p. 454.
 Harvesting-machines, Cutting apparatus for. C. H. Kugler. No. 1,078,101; Nov. 11; Gaz. vol. 196; p. 327.
 Haap. J. H. Boye. No. 1,078,990; Nov. 18; Gaz. vol. 196; p. 666.
 Hasp-fastener. D. L. Ervin. No. 1,078,037; Nov. 11; Gaz. vol. 196; p. 305.
 Hasp-fastener. R. Bruce. No. 1,079,390; Nov. 25; Gaz. vol. 196; p. 834.
 Hat-fastener, Lady's. S. C. May. No. 1,078,793; Nov. 18; Gaz. vol. 196; p. 599.
 Hat-lining, Removable sanitary. E. V. Houghton. No. 1,077,833; Nov. 4; Gaz. vol. 196; p. 202.
 Hat-pin. W. O. Yancey and C. C. Du Mesnil. No. 1,079,625; Nov. 25; Gaz. vol. 196; p. 915.
 Hat-pin guard. G. H. Judea. No. 1,078,683; Nov. 18; Gaz. vol. 196; p. 560.
 Hats, Ornament-holder for. A. P. Bennett. No. 1,077,787; Nov. 4; Gaz. vol. 196; p. 187.
 Haulage-chip. J. W. Smallman. No. 1,077,436; Nov. 4; Gaz. vol. 196; p. 69.
 Hawk and trowel, Combined. H. O. Bean. No. 1,078,122; Nov. 11; Gaz. vol. 196; p. 334.
 Hay-press. J. M. Enyart. No. 1,079,751; Nov. 25; Gaz. vol. 196; p. 961.
 Hay-presses, Automatic tier for. I. E. Ward. No. 1,078,023; Nov. 11; Gaz. vol. 196; p. 300.
 Hay-rake and side-loader. J. A. Emenhiser. No. 1,077,821; Nov. 4; Gaz. vol. 196; p. 199.
 Hay-scatterer. P. J. Anderson. No. 1,077,967; Nov. 11; Gaz. vol. 196; p. 281.
 Headlight. B. Yoakum. No. 1,078,891; Nov. 18; Gaz. vol. 196; p. 632.
 Headlight for automobiles, Controllable. F. G. Anepach. No. 1,077,450; Nov. 4; Gaz. vol. 196; p. 74.
 Heat-distributing apparatus. L. A. Williams. No. 1,077,324; Nov. 4; Gaz. vol. 196; p. 29.
 Heater. See Air-blaster heater; Electric heater; Feed-water heater; Orchard-heater; Tank-heater; Water-heater.
 Heater. F. D. Schneider. No. 1,077,761; Nov. 4; Gaz. vol. 196; p. 179.
 Heater. J. J. Plucker. No. 1,079,511; Nov. 25; Gaz. vol. 196; p. 875.
 Heating apparatus. N. B. Wales. No. 1,077,378; Nov. 4; Gaz. vol. 196; p. 48.
 Heating apparatus. N. B. Wales. No. 1,077,379; Nov. 4; Gaz. vol. 196; p. 48.
 Heating apparatus. N. B. Wales. No. 1,079,381; Nov. 25; Gaz. vol. 196; p. 830.
 Heating system. E. E. Albee. No. 1,078,761; Nov. 18; Gaz. vol. 196; p. 587.
 Heating system, Steam. T. W. Cooper. No. 1,079,637; Nov. 25; Gaz. vol. 196; p. 918.
 Heating unit. F. M. Vogel. No. 1,077,658; Nov. 4; Gaz. vol. 196; p. 143.
 Heel-edge finishing and burnishing tool, Sectional. C. A. Matson. No. 1,079,017; Nov. 18; Gaz. vol. 196; p. 677.
 Heel-lifts, heels, &c., Machine for pressing. T. Bostock. No. 1,079,537; Nov. 25; Gaz. vol. 196; p. 883.
 Heel-plate. E. Hunold. No. 1,079,050; Nov. 18; Gaz. vol. 196; p. 689.
 Heel-plate. E. Hunold. No. 1,079,051; Nov. 18; Gaz. vol. 196; p. 689.
 Heel-pricking machine. J. E. Gidden. No. 1,077,929; Nov. 4; Gaz. vol. 196; p. 236.
 Heel top lift. A. Lendgren. No. 1,077,535; Nov. 4; Gaz. vol. 196; p. 104.
 Heel-trimmer. R. L. Greenleaf. No. 1,078,849; Nov. 18; Gaz. vol. 196; p. 618.
 High-speed brake. W. V. Turner. No. 1,078,015; Nov. 11; Gaz. vol. 196; p. 297.
 Hinge. W. Yates. No. 1,077,447; Nov. 4; Gaz. vol. 196; p. 73.
 Hinge. C. T. J. Giles. No. 1,077,522; Nov. 4; Gaz. vol. 196; p. 100.
 Hinge. F. Schrey. No. 1,078,002; Nov. 11; Gaz. vol. 196; p. 292.
 Hinge. P. Lisicke. No. 1,078,363; Nov. 11; Gaz. vol. 196; p. 419.
 Hinge. C. J. and H. Soss. No. 1,078,703; Nov. 18; Gaz. vol. 196; p. 566.
 Hinge. H. B. Connors. No. 1,079,215; Nov. 18; Gaz. vol. 196; p. 744.
 Hinge, Automobile door. F. Hanba and R. Gladfelter. No. 1,078,786; Nov. 18; Gaz. vol. 196; p. 597.
 Hinge, Concealed. E. N. Baldwin, Jr. No. 1,078,237; Nov. 11; Gaz. vol. 196; p. 878.
 Hinge for automobile-hoods. H. G. Baum. No. 1,079,536; Nov. 25; Gaz. vol. 196; p. 883.
 Hinge-gage. E. T. Bailey. No. 1,077,785; Nov. 4; Gaz. vol. 196; p. 187.
 Hog-greaser, Automatic. S. B. Edwards. No. 1,078,267; Nov. 11; Gaz. vol. 196; p. 883.
 Hog-scalding apparatus. C. R. Hronish. No. 1,079,648; Nov. 25; Gaz. vol. 196; p. 922.
 Hog-scraper. A. G. Olson and A. A. Boberg. No. 1,078,211; Nov. 11; Gaz. vol. 196; p. 864.

Hog-trap. H. S. Fleagle. No. 1,078,911; Nov. 18; Gaz. vol. 196; p. 639.
 Hog-trap, Adjustable. G. M. Lowe. No. 1,078,509; Nov. 11; Gaz. vol. 196; p. 468.
 Hoisting apparatus. C. K. Ernst. No. 1,078,998; Nov. 18; Gaz. vol. 196; p. 660.
 Hoisting device. J. A. Vaughn. No. 1,078,756; Nov. 18; Gaz. vol. 196; p. 585.
 Holdback. M. J. Woodward. No. 1,077,382; Nov. 4; Gaz. vol. 196; p. 49.
 Holder. F. D. Culver. No. 1,077,510; Nov. 4; Gaz. vol. 196; p. 96.
 Hoof-pad. A. Larsen. No. 1,078,204; Nov. 11; Gaz. vol. 196; p. 362.
 Hook. See Harness-hook; Whiffletree-hook.
 Hoop. See Embroidery-hoop.
 Horn, Electric. R. R. Root. No. 1,077,307; Nov. 4; Gaz. vol. 196; p. 22.
 Horn, Mechanical. E. Aufero. No. 1,078,529; Nov. 11; Gaz. vol. 196; p. 474.
 Horse-detacher. R. R. Morgan and W. H. Corder. No. 1,079,792; Nov. 25; Gaz. vol. 196; p. 975.
 Horse-overshoe, Antilipping. P. Struck. No. 1,077,765; Nov. 4; Gaz. vol. 196; p. 180.
 Horse-power recorder. C. N. Petesch. No. 1,077,637; Nov. 4; Gaz. vol. 196; p. 136.
 Horseshoe. R. C. Bonnell. No. 1,079,285; Nov. 18; Gaz. vol. 196; p. 766.
 Horseshoe. N. B. Quick. No. 1,079,512; Nov. 25; Gaz. vol. 196; p. 875.
 Horseshoe attachment. J. R. Morgenstein and J. Blenz. No. 1,079,426; Nov. 25; Gaz. vol. 196; p. 845.
 Horseshoe, Auxiliary. V. Kolakowski. No. 1,077,610; Nov. 4; Gaz. vol. 196; p. 127.
 Horseshoe-manufacturing apparatus. H. K. Lountzen. No. 1,078,298; Nov. 11; Gaz. vol. 196; p. 395.
 Horseshoeing-rack. P. Huffman. No. 1,077,475; Nov. 4; Gaz. vol. 196; p. 84.
 Hose-clamp. C. E. Edwards. No. 1,078,088; Nov. 11; Gaz. vol. 196; p. 322.
 Hose-coupling. O. Hesse. No. 1,077,710; Nov. 4; Gaz. vol. 196; p. 160.
 Hose-coupling. S. Storm. No. 1,078,112; Nov. 11; Gaz. vol. 196; p. 331.
 Hose-coupling clamp-ring. D. Rinaldo. No. 1,078,957; Nov. 18; Gaz. vol. 196; p. 653.
 Hose-nozzle holder. H. Austin. No. 1,078,817; Nov. 18; Gaz. vol. 196; p. 607.
 Hose-rack. M. Schnaier. No. 1,079,026; Nov. 18; Gaz. vol. 196; p. 680.
 Hose-supporter clasp. L. S. Florsheim. No. 1,078,493; Nov. 11; Gaz. vol. 196; p. 463.
 Hot-air furnace. J. B. Huckle and W. E. Rhenhart. No. 1,079,491; Nov. 25; Gaz. vol. 196; p. 867.
 Hub, Wheel. F. Gambarini. No. 1,077,928; Nov. 4; Gaz. vol. 196; p. 236.
 Huller. See Seed-huller.
 Hydrant and reel. G. A. Owen. No. 1,079,717; Nov. 25; Gaz. vol. 196; p. 946.
 Hydrant for sheet-metal pipes, Swiveled irrigating. F. Hudson. No. 1,077,936; Nov. 4; Gaz. vol. 196; p. 239.
 Hydraulic transmission apparatus. H. S. Hele-Shaw. No. 1,077,980; Nov. 11; Gaz. vol. 196; p. 285.
 Hydrocarbon-burner. H. Daley. No. 1,077,260; Nov. 4; Gaz. vol. 196; p. 6.
 Hydrocarbon-burner. J. M. McMurtrie and I. Robertson. No. 1,077,848; Nov. 4; Gaz. vol. 196; p. 207.
 Hydrocarbon-burner. J. W. Porter. No. 1,078,593; Nov. 11; Gaz. vol. 196; p. 496.
 Hydrogen, Production of. H. Lane. No. 1,078,686; Nov. 18; Gaz. vol. 196; p. 561.
 Hydrogenizing organic compounds. H. Thron. No. 1,077,442; Nov. 4; Gaz. vol. 196; p. 72.
 Ice-bag, water-bottle, and fountain-syringe, Combination. C. J. Barrenpohl. No. 1,079,203; Nov. 18; Gaz. vol. 196; p. 741.
 Ice-cream-cone filler. R. Nielsen. No. 1,078,206; Nov. 11; Gaz. vol. 196; p. 864.
 Ice-cream-freezer-frame lock. J. S. Parrish. No. 1,077,489; Nov. 4; Gaz. vol. 196; p. 88.
 Ice-making and refrigerating machinery. T. Shipley. No. 1,079,610; Nov. 25; Gaz. vol. 196; p. 911.
 Ice-making and refrigerating machines, Condenser for. T. Shipley. No. 1,079,609; Nov. 25; Gaz. vol. 196; p. 911.
 Ice-making apparatus. W. McCormick. No. 1,077,484; Nov. 4; Gaz. vol. 196; p. 86.
 Ice-making machine. T. H. Ray. No. 1,077,916; Nov. 4; Gaz. vol. 196; p. 231.
 Ice-making machine. W. Graff. No. 1,079,334; Nov. 25; Gaz. vol. 196; p. 815.
 Ice-shaving machine. F. H. Lippincott. No. 1,077,482; Nov. 4; Gaz. vol. 196; p. 86.
 Igniter. F. W. Goerde. No. 1,079,002; Nov. 18; Gaz. vol. 196; p. 871.
 Ignition-system timing device. J. F. Middleton. No. 1,079,256; Nov. 18; Gaz. vol. 196; p. 757.
 Illusion device. L. McCormick. No. 1,079,902; Nov. 25; Gaz. vol. 196; p. 1013.
 Implement-handle. E. L. Upson and H. W. Pleister. No. 1,078,228; Nov. 11; Gaz. vol. 196; p. 870.
 Implement-holder. G. F. Schahl. No. 1,078,805; Nov. 18; Gaz. vol. 196; p. 603.

Incubators, Electric regulator for. C. C. Carter. No. 1,079,213; Nov. 18; Gaz. vol. 196; p. 744.
 Index, Account-. W. E. Roach. No. 1,077,752; Nov. 4; Gaz. vol. 196; p. 175.
 Index-cards, Tab for. J. F. Dunleavy. No. 1,077,334; Nov. 4; Gaz. vol. 196; p. 32.
 Index-tab. H. B. Burchart. No. 1,079,209; Nov. 18; Gaz. vol. 196; p. 742.
 Indicator. See Electrically-controlled indicator; Elevator-indicator; Platform-indicator; Surface-indicator.
 Indicator. L. A. Cock. No. 1,078,573; Nov. 11; Gaz. vol. 196; p. 489.
 Induction-motor. K. A. Pauly. (Reissue.) No. 13,638; Nov. 4; Gaz. vol. 196; p. 250.
 Infant's band. G. F. Earnshaw. No. 1,077,264; Nov. 4; Gaz. vol. 196; p. 8.
 Inking-roller and making same. J. H. Hennessey. No. 1,079,339; Nov. 25; Gaz. vol. 196; p. 917.
 Insect-trap. W. H. Grasser. No. 1,079,170; Nov. 18; Gaz. vol. 196; p. 730.
 Insole-making. A. C. Oppenheimer. No. 1,077,634; Nov. 4; Gaz. vol. 196; p. 135.
 Insole-making machine. A. C. Oppenheimer. No. 1,079,019; Nov. 18; Gaz. vol. 196; p. 673.
 Instep-arch support. M. Goodside. No. 1,078,276; Nov. 11; Gaz. vol. 196; p. 387.
 Instep-support. W. F. Connell. No. 1,077,871; Nov. 4; Gaz. vol. 196; p. 215.
 Instep-support. J. W. Arrowsmith. No. 1,079,736; Nov. 25; Gaz. vol. 196; p. 953.
 Insulator. J. E. Matzer. No. 1,078,633; Nov. 18; Gaz. vol. 196; p. 541.
 Insulator. J. R. Harris. No. 1,079,239; Nov. 18; Gaz. vol. 196; p. 752.
 Insulator, High-potential. E. M. Hewlett. No. 1,077,711; Nov. 4; Gaz. vol. 196; p. 161.
 Insulator, Line-. O. C. Meusebach. No. 1,078,368; Nov. 11; Gaz. vol. 196; p. 421.
 Interlocking block. H. M. Francis. No. 1,077,466; Nov. 4; Gaz. vol. 196; p. 80.
 Internal-combustion engine. J. Willoughby. No. 1,077,381; Nov. 4; Gaz. vol. 196; p. 49.
 Internal-combustion engine. H. L. Brownback. No. 1,077,793; Nov. 4; Gaz. vol. 196; p. 189.
 Internal-combustion engine. C. H. Fox. No. 1,077,956; Nov. 4; Gaz. vol. 196; p. 246.
 Internal-combustion engine. J. J. McLean. No. 1,077,992; Nov. 11; Gaz. vol. 196; p. 289.
 Internal-combustion engine. A. V. Waldo. No. 1,078,392; Nov. 11; Gaz. vol. 196; p. 430.
 Internal-combustion engine. E. J. Hall. No. 1,078,919; Nov. 18; Gaz. vol. 196; p. 641.
 Internal-combustion engine. F. B. Bremerman. No. 1,078,991; Nov. 18; Gaz. vol. 196; p. 666.
 Internal-combustion engine. W. R. McKeen, Jr. No. 1,079,255; Nov. 18; Gaz. vol. 196; p. 756.
 Internal-combustion engine. N. C. Ward. No. 1,079,307; Nov. 18; Gaz. vol. 196; p. 773.
 Internal-combustion engine. J. McKechnie. No. 1,079,422; Nov. 25; Gaz. vol. 196; p. 844.
 Internal-combustion engine. A. C. Peterson. No. 1,079,578; Nov. 25; Gaz. vol. 196; p. 899.
 Internal-combustion engine. J. Willoughby. No. 1,079,622; Nov. 25; Gaz. vol. 196; p. 914.
 Internal-combustion engine. F. D. Calkins and A. C. Johnson. No. 1,079,741; Nov. 25; Gaz. vol. 196; p. 955.
 Internal-combustion engine. F. D. Calkins and A. C. Johnson. No. 1,079,742; Nov. 25; Gaz. vol. 196; p. 956.
 Internal-combustion motor. J. F. Cullen. No. 1,077,811; Nov. 4; Gaz. vol. 196; p. 195.
 Invalid-elevator. H. Foss. No. 1,078,090; Nov. 11; Gaz. vol. 196; p. 323.
 Iron. See Carry-iron; Sad-iron; Soldering-iron.
 Iron and steel to form a permanent black finish thereon. Treatment of. W. R. Swan. No. 1,079,453; Nov. 25; Gaz. vol. 196; p. 854.
 Iron, Treating. J. Kirby. No. 1,079,129; Nov. 18; Gaz. vol. 196; p. 715.
 Ironing apparatus, Garment-. H. B. Ferguson. No. 1,078,260; Nov. 11; Gaz. vol. 196; p. 384.
 Ironing device. D. J. Feely. No. 1,079,168; Nov. 18; Gaz. vol. 196; p. 729.
 Ironing-machine. F. E. Warner. No. 1,078,394; Nov. 11; Gaz. vol. 196; p. 431.
 Ironing-table. J. H. Scott. No. 1,078,882; Nov. 18; Gaz. vol. 196; p. 629.
 Ironing-table. W. H. Hoseny. No. 1,079,490; Nov. 25; Gaz. vol. 196; p. 867.
 Irrigating apparatus. G. S. Williamson. No. 1,079,817; Nov. 25; Gaz. vol. 196; p. 983.
 Irrigation system. W. G. Bloss. No. 1,077,869; Nov. 4; Gaz. vol. 196; p. 215.
 Irrigator and sprinkler. A. E. Richardson. No. 1,077,431; Nov. 4; Gaz. vol. 196; p. 67.
 Jack. See Lifting-jack; Spike-pulling jack; Vehicle-jack; Wagon-jack.
 Jack. W. J. Page. No. 1,079,316; Nov. 18; Gaz. vol. 196; p. 777.
 Jack and wrench, Combined. R. H. Gregory. No. 1,078,850; Nov. 18; Gaz. vol. 196; p. 618.
 Jar-closure. U. Magni. No. 1,077,538; Nov. 4; Gaz. vol. 196; p. 105.
 Joint. See Ball-and-socket joint; Bed-rail joint; Expansion-joint; Pipe-joint; Rail-joint.

Journal-boxes, Grease-holder for. L. K. Smith. No. 1,079,446; Nov. 25; Gaz. vol. 196; p. 851.
 Kaleidoscope. T. G. Stough. No. 1,078,008; Nov. 11; Gaz. vol. 196; p. 294.
 Key. See Switch-key.
 Key-socket attachment. E. N. Mincer. No. 1,077,630; Nov. 4; Gaz. vol. 196; p. 134.
 Keyhole-guard. A. Lisner. No. 1,079,654; Nov. 25; Gaz. vol. 196; p. 924.
 Kiln. See Continuous kiln.
 Kiln. A. C. Diller. No. 1,078,488; Nov. 11; Gaz. vol. 196; p. 461.
 Kilns and separating dust from the waste gases of such kilns. Process of and apparatus for producing draft in cement. R. C. Carpenter and T. J. Fleming. No. 1,078,254; Nov. 11; Gaz. vol. 196; p. 379.
 Kinematographic apparatus for taking and projecting views by means of photographic plates. R. A. Robin. No. 1,079,187; Nov. 18; Gaz. vol. 196; p. 736.
 Knife. See Garment-knife.
 Knife-switch blade. A. K. Sutherland. No. 1,078,523; Nov. 11; Gaz. vol. 196; p. 472.
 Knitting machine, Circular-. H. A. Houseman. No. 1,078,677; Nov. 18; Gaz. vol. 196; p. 557.
 Knitting machine, Circular-. H. A. Houseman. No. 1,078,679; Nov. 18; Gaz. vol. 196; p. 558.
 Knitting machine, Circular-. H. A. Houseman. No. 1,078,681; Nov. 18; Gaz. vol. 196; p. 559.
 Knitting machine, Circular-. E. E. Preston. No. 1,079,144; Nov. 18; Gaz. vol. 196; p. 720.
 Knitting machine, Double-rib-warp-. O. Gübel. No. 1,078,914; Nov. 18; Gaz. vol. 196; p. 640.
 Knitting-machine needle. G. C. Egly. No. 1,077,600; Nov. 4; Gaz. vol. 196; p. 12.
 Knitting-machine stop-motion. Circular-. H. A. Houseman. No. 1,078,678; Nov. 18; Gaz. vol. 196; p. 557.
 Knitting-machine take-up motion. Circular-. H. A. Houseman. No. 1,078,680; Nov. 18; Gaz. vol. 196; p. 559.
 Knitting machines, Needle-picker for circular-. H. E. Houseman. No. 1,078,676; Nov. 18; Gaz. vol. 196; p. 556.
 Knitting machines, Vertical-stripping attachment for circular-. F. W. Robinson. No. 1,077,304; Nov. 4; Gaz. vol. 196; p. 21.
 Knitting-machines, Yarn-feed traverse mechanism for. H. Janssen and M. Zwicky. No. 1,079,915; Nov. 25; Gaz. vol. 196; p. 1017.
 Knockdown box. J. A. Scott. No. 1,079,608; Nov. 25; Gaz. vol. 196; p. 929.
 Knockdown package. G. S. Bowman. No. 1,078,245; Nov. 11; Gaz. vol. 196; p. 376.
 Knockdown wheel. J. E. Strietmeier. No. 1,079,305; Nov. 18; Gaz. vol. 196; p. 772.
 Labeling-machine. F. Dodge. No. 1,078,723; Nov. 18; Gaz. vol. 196; p. 574.
 Lacing-hook-setting machines, Feed mechanism for. A. R. Havener. No. 1,078,350; Nov. 11; Gaz. vol. 196; p. 414.
 Ladder. O. Siegel. No. 1,078,310; Nov. 11; Gaz. vol. 196; p. 402.
 Ladder, Combination step-. A. O. Tannenberg. No. 1,078,072; Nov. 11; Gaz. vol. 196; p. 317.
 Ladder, Step-. C. E. Stroud. No. 1,077,650; Nov. 4; Gaz. vol. 196; p. 141.
 Laminated forms, Adjustable holder for. L. R. Carroll. No. 1,079,163; Nov. 18; Gaz. vol. 196; p. 727.
 Lamp. H. R. Van Vleck. No. 1,078,339; Nov. 11; Gaz. vol. 196; p. 429.
 Lamp. W. S. Hamm. No. 1,079,124; Nov. 18; Gaz. vol. 196; p. 713.
 Lamp. W. F. Hudgins. No. 1,079,347; Nov. 25; Gaz. vol. 196; p. 819.
 Lamp, Acetylene-gas. F. E. Baldwin. No. 1,077,582; Nov. 4; Gaz. vol. 196; p. 118.
 Lamp, Acetylene-gas. P. W. Lohmann. No. 1,078,865; Nov. 18; Gaz. vol. 196; p. 623.
 Lamp, Arc-. R. Fleming and C. A. B. Halvorson, Jr. No. 1,078,913; Nov. 18; Gaz. vol. 196; p. 640.
 Lamp, Bichromatic. J. H. Fry. (Reissue.) No. 13,648; Nov. 18; Gaz. vol. 196; p. 778.
 Lamp-bracket. M. W. Hazlett. No. 1,077,531; Nov. 4; Gaz. vol. 196; p. 103.
 Lamp-bracket for automobiles, Adjustable. E. C. Clapp. No. 1,078,831; Nov. 18; Gaz. vol. 196; p. 612.
 Lamp-burner. Safety. C. T. Siebert. No. 1,079,190; Nov. 18; Gaz. vol. 196; p. 737.
 Lamp, Candle-. P. Hauser and A. G. McLaughlin. No. 1,078,197; Nov. 11; Gaz. vol. 196; p. 359.
 Lamp, Candle-. P. Hauser and A. G. McLaughlin. No. 1,078,198; Nov. 11; Gaz. vol. 196; p. 360.
 Lamp carrier, Electric-incandescent. A. F. Pribnow. No. 1,077,761; Nov. 4; Gaz. vol. 196; p. 175.
 Lamp, Electric gas or vapor. P. C. Hewitt and N. W. Rogers. No. 1,079,342; Nov. 25; Gaz. vol. 196; p. 817.
 Lamp, Filament-. M. Siden. No. 1,079,804; Nov. 25; Gaz. vol. 196; p. 979.
 Lamp for automobiles, Drivable. W. B. Di-vendorf. No. 1,079,844; Nov. 25; Gaz. vol. 196; p. 991.
 Lamp hanger, Incandescent. R. D. H. Anderson. No. 1,077,663; Nov. 4; Gaz. vol. 196; p. 146.
 Lamp has been in use, Device adapted to show whether an electric incandescent. S. Klein. No. 1,077,479; Nov. 4; Gaz. vol. 196; p. 85.
 Lamp, Incandescent gas-. L. M. Rubin. No. 1,077,756; Nov. 4; Gaz. vol. 196; p. 177.

Lamp lock, Vehicle and other. F. W. Seabrook. No. 1,078,559; Nov. 11; Gaz. vol. 196; p. 483.
 Lamp, Marker-. A. G. Karl. No. 1,079,349; Nov. 25; Gaz. vol. 196; p. 820.
 Lamp-operating mechanism. L. J. Wogenstahl. No. 1,078,115; Nov. 11; Gaz. vol. 196; p. 332.
 Lamp, Portable electric reading. S. J. Levi and T. A. and A. H. Rose. No. 1,078,445; Nov. 11; Gaz. vol. 196; p. 448.
 Lamp, Portable reading. G. W. Cassidy. No. 1,079,315; Nov. 18; Gaz. vol. 196; p. 777.
 Lamp, Projecting-. J. H. Robnett. No. 1,078,167; Nov. 11; Gaz. vol. 196; p. 349.
 Lamp, Sealing-wax. E. Gosliner. No. 1,077,527; Nov. 4; Gaz. vol. 196; p. 102.
 Lamp-socket. C. A. Vetter. No. 1,078,813; Nov. 18; Gaz. vol. 196; p. 606.
 Lamp socket, Electric. G. C. Knauff. No. 1,078,586; Nov. 11; Gaz. vol. 196; p. 498.
 Lamp socket, Electric. M. Schwartz. No. 1,079,028; Nov. 18; Gaz. vol. 196; p. 681.
 Lamp socket, Incandescent-electric. E. A. Olley. No. 1,079,690; Nov. 25; Gaz. vol. 196; p. 926.
 Lamp-support. K. J. Ohlson. No. 1,079,715; Nov. 25; Gaz. vol. 196; p. 946.
 Lamp-support, Vehicle. J. W. Spangenberg. No. 1,079,808; Nov. 25; Gaz. vol. 196; p. 980.
 Lamp, Vapor electric. O. O. Krub. No. 1,079,708; Nov. 25; Gaz. vol. 196; p. 943.
 Lamps, Detachable shade-holder for electric. P. H. Robinson. No. 1,078,878; Nov. 18; Gaz. vol. 196; p. 628.
 Lamps, Manufacture of incandescent bodies of metallic tungsten or molybdenum for electric incandescent. A. Lederer. No. 1,079,777; Nov. 25; Gaz. vol. 196; p. 970.
 Lamps, Outfit for alternating-current vapor-. P. H. Thomas. No. 1,079,579; Nov. 25; Gaz. vol. 196; p. 930.
 Lamps, Wick-tube for alcohol-. C. Nelson. No. 1,077,364; Nov. 4; Gaz. vol. 196; p. 43.
 Lantern, Dark-room. G. M. Fiedler. No. 1,077,694; Nov. 4; Gaz. vol. 196; p. 156.
 Last, Shoe-. J. S. Busky, Sr. No. 1,078,251; Nov. 11; Gaz. vol. 196; p. 378.
 Lasting-machine. E. I. Chapelle. No. 1,077,411; Nov. 4; Gaz. vol. 196; p. 81.
 Lasting wiper, End-. W. A. Stubbs. No. 1,079,584; Nov. 25; Gaz. vol. 196; p. 901.
 Latch, Gate-. F. Slatery. No. 1,078,964; Nov. 18; Gaz. vol. 196; p. 655.
 Latch, Shutter-hinge. J. B. Wright and F. O. Lawson. No. 1,077,780; Nov. 4; Gaz. vol. 196; p. 185.
 Lath-bolter. M. L. Peterman. No. 1,077,551; Nov. 4; Gaz. vol. 196; p. 109.
 Lath, Metal. W. M. Goldsmith. No. 1,077,404; Nov. 4; Gaz. vol. 196; p. 58.
 Lathe attachment. W. S. Norton. No. 1,078,745; Nov. 18; Gaz. vol. 196; p. 581.
 Lathe attachment. J. Janisch. No. 1,079,494; Nov. 25; Gaz. vol. 196; p. 889.
 Lathe work-holder. A. G. Brunton. No. 1,078,484; Nov. 11; Gaz. vol. 196; p. 460.
 Lathes, Tail-foot for. B. D. Jackson. No. 1,078,857; Nov. 18; Gaz. vol. 196; p. 621.
 Latrine-seat shield. S. A. Holmes. No. 1,077,277; Nov. 4; Gaz. vol. 196; p. 12.
 Lavatory, Folding. G. E. Seymour. No. 1,078,314; Nov. 11; Gaz. vol. 196; p. 401.
 Lawn-sprinkler, Automatic. E. L. Nicholson. No. 1,079,574; Nov. 25; Gaz. vol. 196; p. 897.
 Lawn-sprinkling device. J. S. Hadden. No. 1,078,432; Nov. 11; Gaz. vol. 196; p. 443.
 Lawn-sprinkling device. J. S. Hadden. No. 1,078,543; Nov. 11; Gaz. vol. 196; p. 479.
 Leaching sacchariferous vegetables, Apparatus for. M. Paschen. No. 1,077,296; Nov. 4; Gaz. vol. 196; p. 18.
 Lead-copper composition. E. D. Gleason. No. 1,077,699; Nov. 4; Gaz. vol. 196; p. 157.
 Lead-copper compositions, Making. E. D. Gleason. No. 1,077,700; Nov. 4; Gaz. vol. 196; p. 157.
 Lead-copper-tin composition. E. D. Gleason. No. 1,077,698; Nov. 4; Gaz. vol. 196; p. 157.
 Lead-copper-tin compositions, Making. E. D. Gleason. No. 1,077,701; Nov. 4; Gaz. vol. 196; p. 157.
 Lead, Producing white. E. Euston. No. 1,079,481; Nov. 25; Gaz. vol. 196; p. 864.
 Lead-refining apparatus. J. F. Beattie. No. 1,078,408; Nov. 11; Gaz. vol. 196; p. 435.
 Leather-skiving machine. A. M. Alexander. No. 1,079,462; Nov. 25; Gaz. vol. 196; p. 858.
 Leather-working machine. A. Hodges and F. Cooper. No. 1,077,346; Nov. 4; Gaz. vol. 196; p. 37.
 Letter-case, Metallic. A. W. L. Hartbauer and L. C. Sparks. No. 1,078,280; Nov. 11; Gaz. vol. 196; p. 388.
 Lever-brace. G. A. Cutter. No. 1,079,912; Nov. 25; Gaz. vol. 196; p. 1016.
 Life-belt. T. B. Butters. No. 1,077,800; Nov. 4; Gaz. vol. 196; p. 191.
 Life-raft. C. W. Cook. No. 1,078,334; Nov. 11; Gaz. vol. 196; p. 408.
 Life-saving apparatus. W. Pincus. No. 1,078,640; Nov. 18; Gaz. vol. 196; p. 544.
 Life-saving garment and belt. J. and A. Berman. No. 1,077,868; Nov. 4; Gaz. vol. 196; p. 214.
 Lifting-jack. E. R. Penrose. No. 1,078,374; Nov. 11; Gaz. vol. 196; p. 423.

Lifting-jack. J. B. Smythe. No. 1,079,371; Nov. 25; Gaz. vol. 196; p. 827.
 Lifting-jack. W. Flett. No. 1,079,697; Nov. 25; Gaz. vol. 196; p. 839.
 Light. See Flash-light; Signal-light.
 Lighting device. G. C. Gooder. No. 1,078,428; Nov. 11; Gaz. vol. 196; p. 442.
 Lighting-fixture. W. P. Horn. No. 1,077,983; Nov. 11; Gaz. vol. 196; p. 286.
 Lighting-fixture. F. M. Egan. No. 1,078,339; Nov. 11; Gaz. vol. 196; p. 410.
 Lightning-arrester. J. O. Holton. No. 1,078,922; Nov. 18; Gaz. vol. 196; p. 613.
 Limit-switch. H. J. Wiegand. No. 1,078,815; Nov. 18; Gaz. vol. 196; p. 606.
 Line-casting machine. M. W. Morehouse. No. 1,077,362; Nov. 4; Gaz. vol. 196; p. 42.
 Line-casting machine. J. R. Rogers. No. 1,077,642; Nov. 4; Gaz. vol. 196; p. 138.
 Line-casting machine. A. W. F. Guest. No. 1,079,486; Nov. 25; Gaz. vol. 196; p. 866.
 Line setting and casting machine. J. Dorneth. No. 1,078,422; Nov. 11; Gaz. vol. 196; p. 440.
 Liner, Adjustable. J. F. Hoxsey. No. 1,078,730; Nov. 18; Gaz. vol. 196; p. 577.
 Link-mech. machine. H. W. and C. G. Smith. No. 1,078,317; Nov. 11; Gaz. vol. 196; p. 402.
 Link-mech. machine. H. W. and C. G. Smith. No. 1,078,318; Nov. 11; Gaz. vol. 196; p. 403.
 Linoleum, Maccrasta, or like material. A. C. Schwarting. No. 1,079,728; Nov. 25; Gaz. vol. 196; p. 951.
 Linotype-machines, Space-band for. T. H. Knapp. No. 1,078,049; Nov. 11; Gaz. vol. 196; p. 309.
 Linotype-mold. F. H. Lynds. No. 1,078,930; Nov. 18; Gaz. vol. 196; p. 645.
 Liquid-cooler. J. Plony. No. 1,077,368; Nov. 4; Gaz. vol. 196; p. 44.
 Liquid-cooler. G. R. Long and H. G. Cordley. No. 1,079,918; Nov. 25; Gaz. vol. 196; p. 1018.
 Liquid-desiccating apparatus. C. E. Gray and A. Jensen. No. 1,078,648; Nov. 18; Gaz. vol. 196; p. 617.
 Liquid-dispensing apparatus. H. H. Choate. No. 1,077,870; Nov. 4; Gaz. vol. 196; p. 215.
 Liquid-dispensing device. H. E. Zeamans. No. 1,078,928; Nov. 11; Gaz. vol. 196; p. 302.
 Liquid-treating apparatus. H. H. Sutro. No. 1,077,316; Nov. 4; Gaz. vol. 196; p. 26.
 Liquids, Apparatus for separating deposited matter from. B. Kaibel. No. 1,077,476; Nov. 4; Gaz. vol. 196; p. 84.
 Liquids, Separating mixtures of. A. Golodetz. No. 1,079,004; Nov. 18; Gaz. vol. 196; p. 672.
 Loading device. J. H. Piercy. No. 1,079,718; Nov. 25; Gaz. vol. 196; p. 946.
 Lobster-trap. A. A. Noyes. No. 1,079,576; Nov. 25; Gaz. vol. 196; p. 898.
 Lock. See Apparel-lock; Automobile-lock; Chase-lock; Door-lock; Ice-cream-freezer-frame lock; Lamp-lock; Nut-lock; Permutation-lock; Sash-lock; Seal-lock; Switch-box lock; Window-lock.
 Lock. I. S. Goldman. No. 1,078,192; Nov. 11; Gaz. vol. 196; p. 357.
 Lock. A. S. Franks. No. 1,078,425; Nov. 11; Gaz. vol. 196; p. 441.
 Lock. R. J. Keppel. No. 1,079,351; Nov. 25; Gaz. vol. 196; p. 920.
 Lock-switch. W. Price and H. E. Sheridan. No. 1,077,554; Nov. 4; Gaz. vol. 196; p. 110.
 Locker, Coin-controlled. O. Mayer. No. 1,077,846; Nov. 4; Gaz. vol. 196; p. 207.
 Locking mechanism. C. P. Hoffman. No. 1,079,047; Nov. 18; Gaz. vol. 196; p. 687.
 Locking-ring. W. L. Kelley. No. 1,077,282; Nov. 4; Gaz. vol. 196; p. 14.
 Locomotive. M. Mahoney. No. 1,078,630; Nov. 18; Gaz. vol. 196; p. 540.
 Locomotive attachment. W. A. Jones and W. A. Minahan. No. 1,078,624; Nov. 18; Gaz. vol. 196; p. 538.
 Locomotive, Geared. S. M. Vanclain, M. Linton, and G. R. Henderson. No. 1,077,769; Nov. 4; Gaz. vol. 196; p. 182.
 Locomotive-grate shaker. F. W. Martin. No. 1,077,887; Nov. 4; Gaz. vol. 196; p. 221.
 Locomotive, Railway-. M. Mahoney. No. 1,078,631; Nov. 18; Gaz. vol. 196; p. 540.
 Locomotive-tender frame. H. M. Pfleger. No. 1,078,638; Nov. 18; Gaz. vol. 196; p. 543.
 Locomotive with independently-hung axles, Geared. W. A. Austin and L. E. Feichtner. No. 1,077,580; Nov. 4; Gaz. vol. 196; p. 118.
 Log-decking apparatus. J. T. O'Hara. No. 1,078,947; Nov. 18; Gaz. vol. 196; p. 650.
 Log-stake. B. T. Harrop. No. 1,079,172; Nov. 18; Gaz. vol. 196; p. 730.
 Logic machine. C. P. R. Macaulay. No. 1,079,504; Nov. 25; Gaz. vol. 196; p. 872.
 Loom. S. S. Jackson. No. 1,079,914; Nov. 25; Gaz. vol. 196; p. 1017.
 Loom harness-stop. C. Thibault and W. Gagne. No. 1,079,455; Nov. 25; Gaz. vol. 196; p. 855.
 Loom heddle-frame. J. Kaufmann. No. 1,077,719; Nov. 4; Gaz. vol. 196; p. 163.
 Loom shedding mechanism. E. H. Ryon. No. 1,077,757; Nov. 4; Gaz. vol. 196; p. 177.

Loom shuttle-box-selecting mechanism. W. A. Clark. No. 1,077,904; Nov. 4; Gaz. vol. 196; p. 227.
 Loom shuttle-guard. T. O. Pope. No. 1,077,553; Nov. 4; Gaz. vol. 196; p. 110.
 Loom stop-motion. W. H. Baker. No. 1,078,406; Nov. 11; Gaz. vol. 196; p. 435.
 Loom thread-partner. J. Northrop. No. 1,078,210; Nov. 11; Gaz. vol. 196; p. 364.
 Looms, Beam-lock for. C. E. Bailey. No. 1,077,385; Nov. 4; Gaz. vol. 196; p. 50.
 Looms, Electromechanical warp stop-motion for. J. F. Dustin. No. 1,079,116; Nov. 18; Gaz. vol. 196; p. 710.
 Looms, Let-back for take-up mechanism of. S. S. Jackson. No. 1,079,296; Nov. 18; Gaz. vol. 196; p. 769.
 Looms, Machine for selecting, spooling, shearing, and drawing in yarn for Arminster. T. P. Walsh. (Re-issue.) No. 13,640; Nov. 4; Gaz. vol. 196; p. 252.
 Lubricating apparatus. C. S. Bayer. No. 1,078,407; Nov. 11; Gaz. vol. 196; p. 435.
 Lubricating device. H. Martin. No. 1,078,449; Nov. 11; Gaz. vol. 196; p. 449.
 Lubrication, Splash system of. E. M. White. (Reissue.) No. 13,651; Nov. 18; Gaz. vol. 196; p. 782.
 Lubricator. See Automatic lubricator.
 Lubricator. W. J. Faul. No. 1,078,268; Nov. 11; Gaz. vol. 196; p. 384.
 Lug, Traction. J. G. Brown. No. 1,077,667; Nov. 4; Gaz. vol. 196; p. 147.
 Lute, putty, and the like, Manufacturing. C. F. Ljungdahl. No. 1,078,864; Nov. 18; Gaz. vol. 196; p. 623.
 Magnesium, Preparation of metallic. R. W. Wallace and E. Wassmer. No. 1,079,079; Nov. 18; Gaz. vol. 196; p. 698.
 Mail-bag-delivering apparatus. C. J. M. Weber. No. 1,077,323; Nov. 4; Gaz. vol. 196; p. 29.
 Mail-bag-handling apparatus. H. F. Brunkenhoefer. No. 1,078,768; Nov. 18; Gaz. vol. 196; p. 590.
 Mail-bag-transfer device. A. F. Kruser. No. 1,078,789; Nov. 18; Gaz. vol. 196; p. 598.
 Mail-marking machine. F. C. Ielfield. No. 1,077,408; Nov. 4; Gaz. vol. 196; p. 60.
 Mail-marking machine. F. C. Ielfield. No. 1,078,096; Nov. 11; Gaz. vol. 196; p. 323.
 Mail-marking machine. A. Ielfield. No. 1,079,492; Nov. 25; Gaz. vol. 196; p. 868.
 Malt, seeds, &c., Apparatus for treating. L. Topf. No. 1,079,153; Nov. 18; Gaz. vol. 196; p. 724.
 Man-lift elevator. C. E. Bird. No. 1,079,159; Nov. 18; Gaz. vol. 196; p. 726.
 Manganese from its ores, Extracting. F. Heusler. No. 1,078,199; Nov. 11; Gaz. vol. 196; p. 360.
 Marble, Making artificial. J. B. Turner. No. 1,079,077; Nov. 18; Gaz. vol. 196; p. 698.
 Marker-operating mechanism. J. Carney. No. 1,077,669; Nov. 4; Gaz. vol. 196; p. 147.
 Marking device. H. J. Potter. No. 1,079,928; Nov. 25; Gaz. vol. 196; p. 1022.
 Marking-machine linking mechanism. C. W. Canline. No. 1,079,592; Nov. 25; Gaz. vol. 196; p. 904.
 Mask, Face. H. C. Graybill and A. C. Ergler. No. 1,077,272; Nov. 4; Gaz. vol. 196; p. 10.
 Mask, Fireman's. A. F. Macriah. No. 1,079,251; Nov. 18; Gaz. vol. 196; p. 755.
 Massage apparatus, Electric. J. Thorell. No. 1,079,276; Nov. 18; Gaz. vol. 196; p. 763.
 Mat. See Door-mat.
 Mats, Making dish-. E. R. Bartholomew. No. 1,078,242; Nov. 11; Gaz. vol. 196; p. 375.
 Match-splint material, Treating. W. A. Fairburn. No. 1,079,119; Nov. 18; Gaz. vol. 196; p. 712.
 Matrix-forming machine. S. G. Goss. No. 1,078,429; Nov. 11; Gaz. vol. 196; p. 442.
 Matrix-setting and type-casting machine. H. Drewell. No. 1,077,512; Nov. 4; Gaz. vol. 196; p. 97.
 Matrix-setting and type-line-casting machine. H. Degener. No. 1,077,332; Nov. 4; Gaz. vol. 196; p. 32.
 Mattress fabric, Wire. J. L. Tandy. No. 1,079,274; Nov. 18; Gaz. vol. 196; p. 762.
 Measure, Linear. I. A. Wesson. No. 1,079,457; Nov. 25; Gaz. vol. 196; p. 856.
 Measuring apparatus. J. W. Gamble. No. 1,078,669; Nov. 18; Gaz. vol. 196; p. 553.
 Measuring-cabinet. F. P. Rees. No. 1,077,999; Nov. 11; Gaz. vol. 196; p. 292.
 Measuring device, Automatic. F. L. Metzger. No. 1,079,874; Nov. 25; Gaz. vol. 196; p. 1002.
 Measuring device, Liquid-. P. H. Smith. No. 1,079,522; Nov. 25; Gaz. vol. 196; p. 878.
 Measuring device, Tailor's. M. Goldberger. No. 1,079,333; Nov. 25; Gaz. vol. 196; p. 814.
 Measuring instrument, Electrical. W. H. Pratt. No. 1,077,429; Nov. 4; Gaz. vol. 196; p. 67.
 Measuring the velocity and inclination of the wind, Apparatus for. H. Gerden and R. Holm. No. 1,077,521; Nov. 4; Gaz. vol. 196; p. 99.
 Measuring-wheel. F. W. Rapson. No. 1,078,462; Nov. 11; Gaz. vol. 196; p. 453.
 Mechanical movement. M. A. Drotteour. No. 1,077,815; Nov. 4; Gaz. vol. 196; p. 196.
 Mechanical movement. J. H. Burpee and E. T. Hoskins. No. 1,078,900; Nov. 18; Gaz. vol. 196; p. 635.
 Mechanical movement. T. S. Homans. No. 1,079,048; Nov. 18; Gaz. vol. 196; p. 688.

Medical electric-current regulator. A. J. Hoenes. No. 1,078,787; Nov. 18; Gaz. vol. 196; p. 597.
 Medicine-capsule. M. Pollock. No. 1,079,438; Nov. 25; Gaz. vol. 196; p. 849.
 Mercury compounds and producing same. A. B. Davis. No. 1,079,693; Nov. 25; Gaz. vol. 196; p. 938.
 Metal article, Composite. L. B. Tebbetts, 2d. No. 1,079,035; Nov. 18; Gaz. vol. 196; p. 683.
 Metal, Composite. T. S. Fuller. No. 1,077,977; Nov. 11; Gaz. vol. 196; p. 284.
 Metal or alloys into molds, Apparatus for melting, compressing, and forcing. W. G. Hanna, Jr. No. 1,078,921; Nov. 18; Gaz. vol. 196; p. 642.
 Metal strips, Machine for colling. D. L. Summey. No. 1,079,071; Nov. 18; Gaz. vol. 196; p. 696.
 Metal tie and rail-fastener. A. Zimmerman. No. 1,078,326; Nov. 11; Gaz. vol. 196; p. 405.
 Metals, alloys, and steels, Apparatus for treating molten. L. M. V. H. Baraduc-Muller. No. 1,077,925; Nov. 4; Gaz. vol. 196; p. 234.
 Metals, Producing clad. B. E. Eldred. No. 1,078,906; Nov. 18; Gaz. vol. 196; p. 637.
 Metals, Treating. J. A. McLarty. No. 1,079,787; Nov. 25; Gaz. vol. 196; p. 974.
 Metallic fabric for beds or couches. W. J. Grotenhuis. No. 1,077,705; Nov. 4; Gaz. vol. 196; p. 158.
 Metallic wheel. S. H. Summerscales. No. 1,078,522; Nov. 11; Gaz. vol. 196; p. 472.
 Metallizing ceramic and other surfaces. Q. Marino. No. 1,077,357; Nov. 4; Gaz. vol. 196; p. 41.
 Meter. See Electric meter.
 Meter. H. Chrisman. No. 1,078,257; Nov. 11; Gaz. vol. 196; p. 380.
 Meter and valve, Combined. A. A. Bowser. No. 1,079,103; Nov. 18; Gaz. vol. 196; p. 705.
 Microtelephones, Amplifying-case for. W. B. Oliver. No. 1,078,746; Nov. 18; Gaz. vol. 196; p. 581.
 Milk and similar food, Machine for drying. J. O. A. Amundsen. No. 1,078,603; Nov. 18; Gaz. vol. 196; p. 531.
 Mill. See Drug-mill; Grinding-mill; Rolling-mill.
 Mill. G. W. O. Bryan. No. 1,077,852; Nov. 4; Gaz. vol. 196; p. 209.
 Millinery-pliers. R. C. vom Cleff. No. 1,077,672; Nov. 4; Gaz. vol. 196; p. 148.
 Mine-hoist recorder. O. W. Ingels. No. 1,079,493; Nov. 25; Gaz. vol. 196; p. 868.
 Mine-shot-firing system. G. I. Rawson. No. 1,078,463; Nov. 11; Gaz. vol. 196; p. 453.
 Mine-shovel. J. C. Cartmill. No. 1,078,255; Nov. 11; Gaz. vol. 196; p. 379.
 Mining-machine. E. McGowan. No. 1,077,418; Nov. 4; Gaz. vol. 196; p. 63.
 Mining-machine. H. A. Kuhn. No. 1,079,353; Nov. 25; Gaz. vol. 196; p. 821.
 Mining-machine bit. J. J. Moore. No. 1,077,542; Nov. 4; Gaz. vol. 196; p. 106.
 Mining-machines, Cutting-bit for chains of. C. N. Barton. No. 1,078,082; Nov. 11; Gaz. vol. 196; p. 320.
 Mineral-separator. M. L. Porter. No. 1,077,297; Nov. 4; Gaz. vol. 196; p. 18.
 Minnow, Artificial. J. C. Simms. No. 1,079,891; Nov. 25; Gaz. vol. 196; p. 1008.
 Mirror, Clamp mouth-. I. G. Jirka. No. 1,079,414; Nov. 25; Gaz. vol. 196; p. 841.
 Mixer. See Feed-mixer; Fuel-mixer; Gas-mixer.
 Mold. See Concrete-mold; Dental plate-mold; Linotype-mold; Sectional mold.
 Mold and liner. J. F. Horsey. No. 1,079,049; Nov. 18; Gaz. vol. 196; p. 688.
 Mold-former. J. C. Reed. No. 1,078,108; Nov. 11; Gaz. vol. 196; p. 329.
 Molds, Means for holding inserts in place in. J. O. Harris. No. 1,079,550; Nov. 25; Gaz. vol. 196; p. 888.
 Molding apparatus. A. W. Gregg. No. 1,077,273; Nov. 4; Gaz. vol. 196; p. 10.
 Molding compound. E. D. Gleason. No. 1,077,958; Nov. 4; Gaz. vol. 196; p. 246.
 Molding-jacket. C. O. Wood. No. 1,077,779; Nov. 4; Gaz. vol. 196; p. 185.
 Molding-machine. J. Gow. No. 1,077,930; Nov. 4; Gaz. vol. 196; p. 236.
 Molding-machine. J. A. Field. No. 1,079,482; Nov. 25; Gaz. vol. 196; p. 865.
 Molding metal in indeterminate lengths, Machine for. O. W. Dennis. No. 1,077,458; Nov. 4; Gaz. vol. 196; p. 77.
 Mole-trap. H. H. Beers. No. 1,079,827; Nov. 25; Gaz. vol. 196; p. 986.
 Monochlorodibromocarbons, Acetylation of. W. E. Masland. No. 1,077,988; Nov. 11; Gaz. vol. 196; p. 288.
 Mop. J. E. Welch. No. 1,077,498; Nov. 4; Gaz. vol. 196; p. 92.
 Mop-wringer. J. H. and J. B. Taylor. No. 1,079,454; Nov. 25; Gaz. vol. 196; p. 855.
 Mortising-tool. E. Poortinga. No. 1,079,719; Nov. 25; Gaz. vol. 196; p. 947.
 Motive power, Supplemental control for. C. A. Willard. No. 1,078,232; Nov. 11; Gaz. vol. 196; p. 371.
 Motor. See Car-motor; Current-motor; Explosion-motor; Fluid-pressure motor; Induction-motor; Internal-combustion motor; Pneumatic motor; Rotary motor; Wave-motor; Wave-motion motor.

Motor. J. Vinson. No. 1,078,074; Nov. 11; Gaz. vol. 196; p. 318.
 Motor control. W. P. Jackson. No. 1,077,717; Nov. 4; Gaz. vol. 196; p. 162.
 Motor-control system. W. C. Yates. No. 1,077,662; Nov. 4; Gaz. vol. 196; p. 145.
 Motor-control system. C. Kramer. No. 1,077,725; Nov. 4; Gaz. vol. 196; p. 165.
 Motor-control system. E. J. Murphy and J. E. Brobat. No. 1,077,737; Nov. 4; Gaz. vol. 196; p. 169.
 Motor-control system. F. E. Case. No. 1,077,802; Nov. 4; Gaz. vol. 196; p. 192.
 Motor-control system. J. Eaton. No. 1,079,480; Nov. 25; Gaz. vol. 196; p. 864.
 Motor-control system, Repulsion-. C. B. Hoffmann. No. 1,078,439; Nov. 11; Gaz. vol. 196; p. 446.
 Motor-controller. T. E. Barnum. No. 1,079,386; Nov. 25; Gaz. vol. 196; p. 832.
 Motor, Convertible cycle-. L. S. Nash. No. 1,077,363; Nov. 4; Gaz. vol. 196; p. 42.
 Motor or engine. H. A. Ogle. No. 1,078,305; Nov. 11; Gaz. vol. 196; p. 399.
 Motor-starting device, Electric. P. Dunning. No. 1,077,817; Nov. 4; Gaz. vol. 196; p. 197.
 Motor-stopping device, Automatic. J. L. Blockburger. No. 1,079,324; Nov. 25; Gaz. vol. 196; p. 811.
 Motor-wheel, Electric. K. Knudsen. No. 1,079,917; Nov. 25; Gaz. vol. 196; p. 1018.
 Motors and similar devices, Controller for electric. H. W. Leonard. No. 1,077,613; Nov. 4; Gaz. vol. 196; p. 128.
 Motors and similar devices, Controller for electric. H. W. Leonard. No. 1,077,614; Nov. 4; Gaz. vol. 196; p. 128.
 Motors and similar devices, Controller for electric. H. W. Leonard. No. 1,077,615; Nov. 4; Gaz. vol. 196; p. 129.
 Motors or generators, Brush-holder for electric. E. A. Habel. No. 1,078,194; Nov. 11; Gaz. vol. 196; p. 358.
 Mow-spreader. D. P. L. Campbell. No. 1,079,211; Nov. 18; Gaz. vol. 196; p. 743.
 Mower cutter-bars, Lifting device of. L. M. Jones and R. H. Verity. No. 1,077,351; Nov. 4; Gaz. vol. 196; p. 38.
 Mowers, Rake attachment for. C. H. Dove. No. 1,077,262; Nov. 4; Gaz. vol. 196; p. 7.
 Mud-guard. C. H. Nichols. No. 1,078,456; Nov. 11; Gaz. vol. 196; p. 451.
 Muffler and oil-gas producer, Combined. A. O. Hiscock. No. 1,078,353; Nov. 11; Gaz. vol. 196; p. 416.
 Music-turning device, Sheet-. L. B. Chambers. No. 1,079,838; Nov. 25; Gaz. vol. 196; p. 990.
 Musical instrument. J. F. Kelly. No. 1,078,627; Nov. 18; Gaz. vol. 196; p. 539.
 Musical instruments, Hammer-action for. S. M. Keyte. No. 1,077,913; Nov. 4; Gaz. vol. 196; p. 230.
 Musical instruments, Pneumatic action for. C. J. Monfredini. No. 1,078,688; Nov. 18; Gaz. vol. 196; p. 561.
 Musical instruments, Pneumatic electric tracker-bar for. C. W. Dorricott. No. 1,078,133; Nov. 11; Gaz. vol. 196; p. 337.
 Musical instruments, Wind device for automatic. E. J. Luster. No. 1,077,843; Nov. 4; Gaz. vol. 196; p. 206.
 Musical string instrument, Mechanically-operated. G. K. Hennig. No. 1,079,046; Nov. 18; Gaz. vol. 196; p. 687.
 Nail-extractor. G. R. Dibert. No. 1,079,843; Nov. 25; Gaz. vol. 196; p. 991.
 Nail making and driving machine. L. E. Johnson. No. 1,078,147; Nov. 11; Gaz. vol. 196; p. 342.
 Neckwear. W. E. Webb, Jr. No. 1,079,382; Nov. 25; Gaz. vol. 196; p. 831.
 Needle. J. R. Reynolds. No. 1,078,955; Nov. 18; Gaz. vol. 196; p. 652.
 Net holder, Collapsible-landing-. H. Levy. No. 1,077,481; Nov. 4; Gaz. vol. 196; p. 86.
 Netting, Textile-fiber. H. B. and I. F. Gregory. No. 1,077,959; Nov. 4; Gaz. vol. 196; p. 247.
 Nitrogen from the atmosphere, Apparatus for obtaining. O. Frank and O. Fincke. No. 1,078,423; Nov. 11; Gaz. vol. 196; p. 441.
 Non-conducting material and making same. T. B. Parkison. No. 1,078,307; Nov. 11; Gaz. vol. 196; p. 400.
 Nose-guard for cattle. G. W. Benage. No. 1,077,585; Nov. 4; Gaz. vol. 196; p. 119.
 Nostril-expander. H. R. Woodward. No. 1,077,574; Nov. 4; Gaz. vol. 196; p. 116.
 Note-sheet terminal. E. G. Clark. No. 1,078,771; Nov. 18; Gaz. vol. 196; p. 592.
 Nozzle, Adjustable spray-. E. H. Lamell. No. 1,079,131; Nov. 18; Gaz. vol. 196; p. 716.
 Number, House-. J. W. Carlson. No. 1,077,801; Nov. 4; Gaz. vol. 196; p. 192.
 Nut-lock. A. E. Arnold. No. 1,077,248; Nov. 4; Gaz. vol. 196; p. 3.
 Nut-lock. L. S. Brach. No. 1,077,254; Nov. 4; Gaz. vol. 196; p. 4.
 Nut-lock. B. Lackey. No. 1,077,412; Nov. 4; Gaz. vol. 196; p. 61.
 Nut-lock. W. S. Old. No. 1,077,425; Nov. 4; Gaz. vol. 196; p. 66.
 Nut-lock. A. P. Stark. No. 1,077,763; Nov. 4; Gaz. vol. 196; p. 180.
 Nut-lock. A. Orzechowski. No. 1,077,940; Nov. 4; Gaz. vol. 196; p. 240.
 Nut-lock. W. F. Ludwick. No. 1,078,738; Nov. 18; Gaz. vol. 196; p. 579.

Nut-lock. J. W. Nippert. No. 1,079,714; Nov. 25; Gaz. vol. 196; p. 945.
 Nut-lock. W. I. Pride and H. O. Schroeter. No. 1,079,880; Nov. 25; Gaz. vol. 196; p. 1004.
 Nut, Lock-. H. D. Church. No. 1,077,670; Nov. 4; Gaz. vol. 196; p. 148.
 Nut-locking device. J. W. Brundage. No. 1,079,834; Nov. 25; Gaz. vol. 196; p. 989.
 Nut-tapping machine. E. H. Chapman. No. 1,077,595; Nov. 4; Gaz. vol. 196; p. 122.
 Nutmeg container and grater. E. A. Parker. No. 1,079,434; Nov. 25; Gaz. vol. 196; p. 847.
 Oil-burner. R. L. Dalley. No. 1,077,678; Nov. 4; Gaz. vol. 196; p. 150.
 Oil-burner. F. L. Weeman. No. 1,078,475; Nov. 11; Gaz. vol. 196; p. 457.
 Oil-burner, Revolving-endless-band. J. K. Toles. No. 1,078,972; Nov. 18; Gaz. vol. 196; p. 658.
 Oil mixtures and the like, Hydrogenating. C. Ellis. No. 1,078,136; Nov. 11; Gaz. vol. 196; p. 338.
 Oils and fats, Bleaching and thickening. O. Scherleble. No. 1,078,727; Nov. 25; Gaz. vol. 196; p. 950.
 Ointment containing colloidal compounds. C. Paal and C. Amberger. No. 1,077,854; Nov. 4; Gaz. vol. 196; p. 209.
 Orchard-heater. J. I. Hamilton. No. 1,079,645; Nov. 25; Gaz. vol. 196; p. 921.
 Ordnance, Hang-fire device for breech-loading. A. T. Dawson and G. T. Buckham. No. 1,078,665; Nov. 18; Gaz. vol. 196; p. 552.
 Ordnance, Hang-fire device for breech-loading. A. T. Dawson and G. T. Buckham. No. 1,079,314; Nov. 18; Gaz. vol. 196; p. 776.
 Ordnance sighting apparatus. A. T. Dawson and G. T. Buckham. No. 1,079,749; Nov. 25; Gaz. vol. 196; p. 960.
 Ore concentration. G. A. Chapman and S. Tucker. No. 1,079,107; Nov. 18; Gaz. vol. 196; p. 707.
 Ore feeder and sampler. W. L. Morehouse. No. 1,079,184; Nov. 18; Gaz. vol. 196; p. 735.
 Ore-reducing process. J. A. McLarty. No. 1,079,788; Nov. 25; Gaz. vol. 196; p. 974.
 Ore-separator. F. O. Stromborg. No. 1,078,520; Nov. 11; Gaz. vol. 196; p. 471.
 Ore-separator. A. M. Plumb. No. 1,079,362; Nov. 25; Gaz. vol. 196; p. 823.
 Ores, Roasting fine. W. Buddels. No. 1,079,897; Nov. 25; Gaz. vol. 196; p. 1011.
 Ores, Treating. E. Langguth. No. 1,078,360; Nov. 11; Gaz. vol. 196; p. 418.
 Ores, Treatment and separation of complex sulfid. T. R. Forland. No. 1,078,779; Nov. 18; Gaz. vol. 196; p. 595.
 Organ-coupler. W. E. Haskell. No. 1,078,851; Nov. 18; Gaz. vol. 196; p. 618.
 Organ-coupler. W. E. Haskell. No. 1,078,852; Nov. 18; Gaz. vol. 196; p. 619.
 Organ stop-action, Combination. J. T. Austin. No. 1,078,078; Nov. 11; Gaz. vol. 196; p. 319.
 Organ stop-action, Combination. J. T. Austin. No. 1,078,079; Nov. 11; Gaz. vol. 196; p. 319.
 Oscillations by shock excitation, Means for producing slightly-damped. A. Meissner. No. 1,077,733; Nov. 4; Gaz. vol. 196; p. 167.
 Oven, Bake-. J. Faulds. No. 1,078,667; Nov. 18; Gaz. vol. 196; p. 553.
 Oven, Baking-. J. McAdams. No. 1,078,367; Nov. 11; Gaz. vol. 196; p. 421.
 Oven, Chamber-. A. Gohmann. No. 1,079,003; Nov. 18; Gaz. vol. 196; p. 671.
 Overhead lines, Anchor structure for. T. Varney. No. 1,078,647; Nov. 18; Gaz. vol. 196; p. 546.
 Overhead switch. C. K. Murray. No. 1,078,945; Nov. 18; Gaz. vol. 196; p. 649.
 Overshoe holder or clamp. C. R. Schuey. No. 1,079,149; Nov. 18; Gaz. vol. 196; p. 722.
 Overshoes and rubbers, Retainer for. V. Reynolds. No. 1,078,109; Nov. 11; Gaz. vol. 196; p. 330.
 Oxygen and hydrogen, Electrolytic device for generating. R. Moritz. (Reissue.) No. 13,643; Nov. 11; Gaz. vol. 196; p. 500.
 Package. J. F. Dixon. No. 1,078,263; Nov. 11; Gaz. vol. 196; p. 382.
 Package-holder. F. Johanyak. No. 1,079,769; Nov. 25; Gaz. vol. 196; p. 967.
 Package-tier. G. A. Roberts. No. 1,079,882; Nov. 25; Gaz. vol. 196; p. 1004.
 Packer. J. B. Cornwall. No. 1,077,808; Nov. 4; Gaz. vol. 196; p. 194.
 Packing. A. L. Cole. No. 1,078,333; Nov. 11; Gaz. vol. 196; p. 408.
 Packing-case, Wooden. B. Justen. No. 1,077,834; Nov. 4; Gaz. vol. 196; p. 203.
 Packing-expander. G. F. De Weir. No. 1,079,404; Nov. 25; Gaz. vol. 196; p. 838.
 Packing or shipping box. J. H. Mills. No. 1,077,890; Nov. 4; Gaz. vol. 196; p. 223.
 Packing pulverulent, granular, and other substances. A. A. Kelly. No. 1,077,835; Nov. 4; Gaz. vol. 196; p. 203.
 Packing-ring, Metal. G. Huha. No. 1,079,857; Nov. 25; Gaz. vol. 196; p. 996.
 Packing-rings or the like, Tool for removing or inserting piston. J. Komancsek. No. 1,079,564; Nov. 25; Gaz. vol. 196; p. 893.
 Pad. See Furniture padding-pad; Hoof-pad.

Pad. G. S. MacMillan. No. 1,077,837; Nov. 4; Gaz. vol. 196; p. 105.
 Pail, Shower-bath. R. B. Jones. No. 1,078,355; Nov. 11; Gaz. vol. 196; p. 417.
 Paint and varnish remover. H. B. Chalmers. No. 1,079,635; Nov. 25; Gaz. vol. 196; p. 918.
 Pan. See Plasterer's or painter's scraping-pan.
 Panic-bolt. J. M. Marty. No. 1,079,603; Nov. 25; Gaz. vol. 196; p. 909.
 Pantograph. B. Anderson. No. 1,079,910; Nov. 25; Gaz. vol. 196; p. 1015.
 Paper bag. E. Jagenberg. No. 1,078,682; Nov. 18; Gaz. vol. 196; p. 559.
 Paper-box-corner-staying machine. E. H. Taylor. No. 1,079,618; Nov. 25; Gaz. vol. 196; p. 912.
 Paper-box machine. E. H. Taylor. No. 1,079,275; Nov. 18; Gaz. vol. 196; p. 763.
 Paper-delivery mechanism. M. A. Droticour. No. 1,077,400; Nov. 4; Gaz. vol. 196; p. 57.
 Paper-feeder. M. A. Droticour. No. 1,077,399; Nov. 4; Gaz. vol. 196; p. 57.
 Paper holder, Toilet. L. Ullery. No. 1,079,524; Nov. 25; Gaz. vol. 196; p. 879.
 Paper-making machine. G. D. Kilberry. No. 1,078,292; Nov. 11; Gaz. vol. 196; p. 393.
 Paper-pulp-bleaching apparatus. E. D. Jefferson. No. 1,077,883; Nov. 4; Gaz. vol. 196; p. 220.
 Paper-weight. J. E. Drake. No. 1,078,905; Nov. 18; Gaz. vol. 196; p. 637.
 Parasol. B. L. Henry. No. 1,079,240; Nov. 18; Gaz. vol. 196; p. 752.
 Partition construction. Means for supporting plaster-boards in. M. H. Jester. No. 1,078,144; Nov. 11; Gaz. vol. 196; p. 341.
 Pasteurizing. F. Gettelman. No. 1,077,270; Nov. 4; Gaz. vol. 196; p. 9.
 Pattern for drafting and fitting garments. L. S. D'Orsogna and P. Cane. No. 1,078,087; Nov. 11; Gaz. vol. 196; p. 322.
 Pattern for drafting garments. L. S. D'Orsogna and P. Cane. No. 1,078,576; Nov. 11; Gaz. vol. 196; p. 490.
 Pattern-grading machine. C. E. Reed. No. 1,079,022; Nov. 18; Gaz. vol. 196; p. 678.
 Paving, Street. J. Banwell. No. 1,078,982; Nov. 18; Gaz. vol. 196; p. 663.
 Pea-drill. J. G. Becker. No. 1,079,310; Nov. 18; Gaz. vol. 196; p. 775.
 Peanut-stemmer. T. M. Lilliston. No. 1,078,506; Nov. 11; Gaz. vol. 196; p. 466.
 Pen and pencil holder. F. W. Schneeman. No. 1,078,001; Nov. 11; Gaz. vol. 196; p. 292.
 Pen, Fountain. G. S. Parker. No. 1,078,513; Nov. 11; Gaz. vol. 196; p. 469.
 Pen, Fountain. A. Farmer. No. 1,079,228; Nov. 18; Gaz. vol. 196; p. 748.
 Penholder. M. E. Farris. No. 1,077,824; Nov. 4; Gaz. vol. 196; p. 200.
 Penholder. H. J. Roth. No. 1,079,516; Nov. 25; Gaz. vol. 196; p. 876.
 Pencil-sharpener. G. K. H. Klose. No. 1,077,723; Nov. 4; Gaz. vol. 196; p. 164.
 Pencil-sharpener. J. J. Wolf. No. 1,077,778; Nov. 4; Gaz. vol. 196; p. 184.
 Pencil-sharpener. L. B. Chadwick. No. 1,079,312; Nov. 18; Gaz. vol. 196; p. 775.
 Permutation-lock. B. H. Ziehl. No. 1,078,120; Nov. 11; Gaz. vol. 196; p. 333.
 Phonograph. P. Catucci. No. 1,077,973; Nov. 11; Gaz. vol. 196; p. 283.
 Phonograph-records. Making. T. A. Edison. No. 1,078,265; Nov. 11; Gaz. vol. 196; p. 383.
 Phonograph sound-modifying reproducer. C. G. Carlson. No. 1,077,593; Nov. 4; Gaz. vol. 196; p. 122.
 Phonographic recording or reproducing apparatus. T. A. Edison. No. 1,078,264; Nov. 11; Gaz. vol. 196; p. 383.
 Photographic exposure-meter. P. Boucher. No. 1,078,482; Nov. 11; Gaz. vol. 196; p. 459.
 Photographic objective. C. C. Minor. No. 1,077,420; Nov. 4; Gaz. vol. 196; p. 64.
 Photographic plates to be developed in daylight. Apparatus enabling. R. L. Caballero. No. 1,079,288; Nov. 18; Gaz. vol. 196; p. 766.
 Photographic sheets. Machine for washing and drying. C. J. Everett and J. V. McAdam. No. 1,077,464; Nov. 4; Gaz. vol. 196; p. 79.
 Photographic silver-pictures. Toning. R. Fischer. No. 1,079,756; Nov. 25; Gaz. vol. 196; p. 962.
 Piano. H. Mather. No. 1,079,711; Nov. 25; Gaz. vol. 196; p. 944.
 Piano-action. F. Peck. No. 1,079,435; Nov. 25; Gaz. vol. 196; p. 848.
 Piano. Automatically-operated. A. G. Gulbransen. No. 1,078,673; Nov. 18; Gaz. vol. 196; p. 555.
 Piano fall-board. Upright. C. Mehl. No. 1,077,732; Nov. 4; Gaz. vol. 196; p. 167.
 Piano-pedal. S. W. Widney. No. 1,078,025; Nov. 11; Gaz. vol. 196; p. 301.
 Piano rim. Grand. J. T. Mayer. No. 1,079,506; Nov. 25; Gaz. vol. 196; p. 873.
 Pianos and the like. Automatic pedal-folder for player. F. C. White. No. 1,077,499; Nov. 4; Gaz. vol. 196; p. 92.
 Pianos. Sostenuto device for. E. Peterson. No. 1,077,428; Nov. 4; Gaz. vol. 196; p. 66.

Pick. D. D. Keltner. No. 1,078,585; Nov. 11; Gaz. vol. 196; p. 493.
 Picker. See Fruit-picker.
 Picture-frame. J. McLellan. No. 1,077,622; Nov. 4; Gaz. vol. 196; p. 131.
 Picture-frame. J. McLellan. No. 1,077,623; Nov. 4; Gaz. vol. 196; p. 132.
 Picture machines. Attachment for moving. F. H. Frude. No. 1,079,549; Nov. 25; Gaz. vol. 196; p. 887.
 Picture machines. Film-signal for moving. A. F. Koch. No. 1,078,861; Nov. 18; Gaz. vol. 196; p. 622.
 Piers and bridges. Drift-wheel for. G. M. D. Bell. No. 1,077,508; Nov. 4; Gaz. vol. 196; p. 96.
 Pilling, Iron. F. Wieder. No. 1,079,814; Nov. 25; Gaz. vol. 196; p. 982.
 Pilling, Metal sheet. W. B. Templeton. No. 1,078,970; Nov. 18; Gaz. vol. 196; p. 658.
 Pilling, Metallic sheet. J. S. Owens. No. 1,077,295; Nov. 4; Gaz. vol. 196; p. 18.
 Pilot, Adjustable. J. M. Sledge. No. 1,078,467; Nov. 11; Gaz. vol. 196; p. 454.
 Pin. See Hat-pin; Safety-pin; Tenpin.
 Pin. G. W. Dover. No. 1,077,599; Nov. 4; Gaz. vol. 196; p. 124.
 Pin. C. F. Markham. No. 1,079,015; Nov. 18; Gaz. vol. 196; p. 676.
 Pinacones. Producing. A. Jones and E. Tachunkur. No. 1,079,016; Nov. 25; Gaz. vol. 196; p. 1017.
 Pipe-bending machine. C. C. Rutledge. No. 1,079,442; Nov. 25; Gaz. vol. 196; p. 850.
 Pipe-cleaner. J. D. Carey and B. Goldenthal. No. 1,078,253; Nov. 11; Gaz. vol. 196; p. 379.
 Pipe connections. Joint for train. J. A. Corrigan and E. M. Mortimer. No. 1,078,129; Nov. 11; Gaz. vol. 196; p. 336.
 Pipe-coupling. J. T. McCracken. No. 1,077,417; Nov. 4; Gaz. vol. 196; p. 63.
 Pipe-coupling. J. H. Taylor. No. 1,078,009; Nov. 11; Gaz. vol. 196; p. 295.
 Pipe-hanger. A. J. Loepelinger. No. 1,077,727; Nov. 4; Gaz. vol. 196; p. 166.
 Pipe-joint. Elbow. F. A. Neven. No. 1,077,741; Nov. 4; Gaz. vol. 196; p. 171.
 Pipe-peening machine. J. I. Pilston. No. 1,079,065; Nov. 18; Gaz. vol. 196; p. 693.
 Pipe-support. W. B. Gray. No. 1,079,758; Nov. 25; Gaz. vol. 196; p. 962.
 Pipe-support. W. B. Gray. No. 1,079,759; Nov. 25; Gaz. vol. 196; p. 963.
 Pipe-testing plug. C. M. and C. E. Kemp. No. 1,077,352; Nov. 4; Gaz. vol. 196; p. 39.
 Pipe-wrench. W. Cameron. No. 1,077,591; Nov. 4; Gaz. vol. 196; p. 121.
 Pipe-wrench. G. M. Gealy. No. 1,078,426; Nov. 11; Gaz. vol. 196; p. 441.
 Pipe-wrench attachment for monkey-wrenches. C. N. Neik. No. 1,077,964; Nov. 4; Gaz. vol. 196; p. 249.
 Pipes. Device for removing obstructions from drain. H. E. Asbury and W. C. Atkinson. No. 1,077,784; Nov. 4; Gaz. vol. 196; p. 186.
 Pipes or the like. Hood for mouthpieces of. H. E. Hagmueller. No. 1,079,703; Nov. 25; Gaz. vol. 196; p. 941.
 Plaston-head. W. H. McCrory. No. 1,079,055; Nov. 18; Gaz. vol. 196; p. 690.
 Planing machine. Wood. P. A. Solem. No. 1,079,032; Nov. 18; Gaz. vol. 196; p. 682.
 Plant-holder. A. S. Myers. No. 1,077,423; Nov. 4; Gaz. vol. 196; p. 65.
 Planter. A. W. Asmussen. No. 1,078,121; Nov. 11; Gaz. vol. 196; p. 334.
 Planter attachment. Corn. S. E. and D. W. Fauber. No. 1,077,516; Nov. 4; Gaz. vol. 196; p. 98.
 Planter, Corn. E. J. Ogden. No. 1,079,797; Nov. 25; Gaz. vol. 196; p. 977.
 Planter, Corn and pea. G. E. Watson. No. 1,078,395; Nov. 11; Gaz. vol. 196; p. 431.
 Planter, Potato. E. Bowker. No. 1,079,102; Nov. 18; Gaz. vol. 196; p. 705.
 Planter, Two-row cotton and corn. J. B. and E. I. Henefeld. No. 1,078,282; Nov. 11; Gaz. vol. 196; p. 389.
 Planters. Shifting guide for corn. W. J. Gosnay. No. 1,078,846; Nov. 18; Gaz. vol. 196; p. 617.
 Plaster-work. Carrier for. O. Rechnitz. No. 1,078,464; Nov. 11; Gaz. vol. 196; p. 453.
 Plasterer's or painter's scraping-pan. P. E. Murphy. No. 1,078,944; Nov. 18; Gaz. vol. 196; p. 649.
 Plate. Combination. J. L. Satka. No. 1,077,643; Nov. 4; Gaz. vol. 196; p. 139.
 Plate guard. Adjustable guide. P. Riebe. No. 1,077,432; Nov. 4; Gaz. vol. 196; p. 68.
 Plate, Perforated. F. Hornby. No. 1,079,245; Nov. 18; Gaz. vol. 196; p. 764.
 Platform indicator. C. J. Kintner. No. 1,079,651; Nov. 25; Gaz. vol. 196; p. 923.
 Playhouse. Child's. L. T. Yoder. No. 1,078,027; Nov. 11; Gaz. vol. 196; p. 302.
 Playing mechanism. Pneumatic action for automatic. E. Swanson. No. 1,079,072; Nov. 18; Gaz. vol. 196; p. 696.
 Pliers, Cutting. W. A. Bernard. No. 1,077,789; Nov. 4; Gaz. vol. 196; p. 188.
 Plow. J. T. Eddings. No. 1,077,820; Nov. 4; Gaz. vol. 196; p. 198.

Plow. E. Seidler. No. 1,078,644; Nov. 18; Gaz. vol. 196; p. 545.
 Plow. J. C. McRae, Jr. No. 1,078,741; Nov. 18; Gaz. vol. 196; p. 580.
 Plow. L. H. Olson. No. 1,078,871; Nov. 18; Gaz. vol. 196; p. 626.
 Plow. R. D. and C. E. Lotka. No. 1,079,355; Nov. 25; Gaz. vol. 196; p. 821.
 Plow. E. R. James. No. 1,079,557; Nov. 25; Gaz. vol. 196; p. 891.
 Plow. J. G. Brock. No. 1,079,832; Nov. 25; Gaz. vol. 196; p. 988.
 Plow. W. F. Fielder. No. 1,079,850; Nov. 25; Gaz. vol. 196; p. 994.
 Plow-adjusting mechanism. H. A. Huntton. No. 1,078,285; Nov. 11; Gaz. vol. 196; p. 301.
 Plow and traction-engine. Motor. L. T. Hagan. No. 1,077,878; Nov. 4; Gaz. vol. 196; p. 218.
 Plow-comb. J. J. Specht and W. J. Wachsmuth. No. 1,078,753; Nov. 18; Gaz. vol. 196; p. 584.
 Plow. Rolling-drum. W. B. Prugh. No. 1,079,920; Nov. 25; Gaz. vol. 196; p. 1019.
 Plow, Subsoil. C. W. Hicks. No. 1,079,553; Nov. 25; Gaz. vol. 196; p. 890.
 Plug. Attachment. G. W. Goodridge. No. 1,079,235; Nov. 18; Gaz. vol. 196; p. 751.
 Pneumatic agitator and cleaner. A. W. Mills. No. 1,078,512; Nov. 11; Gaz. vol. 196; p. 469.
 Pneumatic cleaning machine. M. S. Wright. No. 1,078,397; Nov. 11; Gaz. vol. 196; p. 432.
 Pneumatic-despatch apparatus. T. Bemis. No. 1,079,311; Nov. 18; Gaz. vol. 196; p. 775.
 Pneumatic governor. B. S. Aikman. No. 1,078,595; Nov. 11; Gaz. vol. 196; p. 496.
 Pneumatic motor. T. A. Delaney. No. 1,078,598; Nov. 11; Gaz. vol. 196; p. 498.
 Pneumatic spring. J. Hofmann. No. 1,077,472; Nov. 4; Gaz. vol. 196; p. 82.
 Pockets. Catch for. C. Holmcraus and C. G. Bergstrom. No. 1,079,411; Nov. 25; Gaz. vol. 196; p. 841.
 Pompons. Machine for manufacturing. A. and H. C. Harvey. No. 1,079,125; Nov. 18; Gaz. vol. 196; p. 714.
 Pontianak compound and preparing same. G. Staunton. No. 1,078,070; Nov. 11; Gaz. vol. 196; p. 316.
 Popcorn-crisp machine. W. M. Brown. No. 1,079,591; Nov. 25; Gaz. vol. 196; p. 904.
 Post. See Fence-post.
 Pot. See Coffee or tea pot.
 Potato-digger. T. E. Hale. No. 1,078,455; Nov. 11; Gaz. vol. 196; p. 444.
 Potato-dropper. C. J. Priset. No. 1,078,165; Nov. 11; Gaz. vol. 196; p. 348.
 Potato-separator. G. E. Luce. No. 1,079,181; Nov. 18; Gaz. vol. 196; p. 733.
 Potential-regulator. W. Welsch. No. 1,078,076; Nov. 11; Gaz. vol. 196; p. 318.
 Powder case. Toilet. D. A. Driscoll. No. 1,077,459; Nov. 4; Gaz. vol. 196; p. 77.
 Powder-grain. J. L. Walsh. No. 1,077,320; Nov. 4; Gaz. vol. 196; p. 28.
 Power-generating systems. Ignition apparatus for. G. C. Davidson. No. 1,079,748; Nov. 25; Gaz. vol. 196; p. 959.
 Power-press safety-guard. J. Wright. (Reissue.) No. 1,078,647; Nov. 11; Gaz. vol. 196; p. 504.
 Power-transmission mechanism. A. R. Selden. No. 1,077,371; Nov. 4; Gaz. vol. 196; p. 45.
 Power-transmitting means. M. W. Weir. No. 1,078,710; Nov. 18; Gaz. vol. 196; p. 569.
 Preheater and furnace-shield. W. S. Rockwell. No. 1,079,266; Nov. 18; Gaz. vol. 196; p. 759.
 Press. See Baling-press; Fruit-press; Hay-press; Printing-press; Proof-press; Punch-press.
 Press. J. J. Kinser. No. 1,077,840; Nov. 4; Gaz. vol. 196; p. 204.
 Presses. Paper-guide for. L. Bakke. No. 1,078,657; Nov. 18; Gaz. vol. 196; p. 549.
 Presses. Retaining device for. H. Slater. No. 1,079,068; Nov. 18; Gaz. vol. 196; p. 694.
 Pressure-controller. A. C. Allen. No. 1,077,501; Nov. 4; Gaz. vol. 196; p. 98.
 Pressure-regulating means. J. L. Perkins. No. 1,079,004; Nov. 25; Gaz. vol. 196; p. 1013.
 Pressure-rolls. Adjusting means for. M. A. Pearson. No. 1,079,876; Nov. 25; Gaz. vol. 196; p. 1003.
 Printing bar or slug. F. F. Wilson. No. 1,079,086; Nov. 18; Gaz. vol. 196; p. 700.
 Printing-machine-feeding device. W. Hay. No. 1,078,281; Nov. 11; Gaz. vol. 196; p. 388.
 Printing-machine plate-holding means. H. Tugender. No. 1,079,076; Nov. 18; Gaz. vol. 196; p. 698.
 Printing machine. Rotary intaglio. D. J. and W. C. Scott. No. 1,078,219; Nov. 11; Gaz. vol. 196; p. 367.
 Printing machine. Rotary sheet. E. P. Sheldon. No. 1,078,963; Nov. 18; Gaz. vol. 196; p. 655.
 Printing-machine sheet-delivery mechanism. H. M. Barber. No. 1,078,238; Nov. 11; Gaz. vol. 196; p. 373.
 Printing-machine sheet-delivery mechanism. H. M. Barber. No. 1,078,239; Nov. 11; Gaz. vol. 196; p. 373.
 Printing-plates. Producing. O. Luppe. No. 1,077,483; Nov. 4; Gaz. vol. 196; p. 86.
 Printing plates. Treatment of. M. A. McKee. No. 1,077,621; Nov. 4; Gaz. vol. 196; p. 131.
 Printing-press. K. F. Kirkman. No. 1,077,283; Nov. 4; Gaz. vol. 196; p. 14.

Printing-press. B. McGinty. No. 1,077,485; Nov. 4; Gaz. vol. 196; p. 87.
 Printing-press. J. Bucher. No. 1,079,161; Nov. 18; Gaz. vol. 196; p. 727.
 Printing-press. W. Scott. No. 1,079,368; Nov. 25; Gaz. vol. 196; p. 826.
 Printing-press feed-gage. S. J. Kubel. No. 1,077,284; Nov. 4; Gaz. vol. 196; p. 14.
 Printing-press ink-fountain. E. F. Holz. No. 1,077,862; Nov. 4; Gaz. vol. 196; p. 219.
 Printing-press. Rotary. H. F. Bechman. (Reissue.) No. 1,078,641; Nov. 11; Gaz. vol. 196; p. 500.
 Printing-presses. Means for coupling feeders or the like to. W. H. Smith. No. 1,079,370; Nov. 25; Gaz. vol. 196; p. 827.
 Printing-presses or the like. Detector for. G. T. Eagar. No. 1,077,818; Nov. 4; Gaz. vol. 196; p. 198.
 Printing-presses. Sheet-delivery mechanism for rotary. M. A. Droticour. No. 1,078,997; Nov. 18; Gaz. vol. 196; p. 669.
 Projectile. Apparatus for automatically indicating the time of flight of a. E. Müller. No. 1,079,794; Nov. 25; Gaz. vol. 196; p. 976.
 Projectiles. Illuminating-body for illuminating. F. Ziegelfuss. No. 1,079,821; Nov. 25; Gaz. vol. 196; p. 984.
 Proof-press. A. L. Blue. No. 1,079,325; Nov. 25; Gaz. vol. 196; p. 811.
 Propeller. A. E. Mueller. No. 1,078,159; Nov. 11; Gaz. vol. 196; p. 346.
 Propeller-blade-milling machine. K. Ito. No. 1,077,279; Nov. 4; Gaz. vol. 196; p. 12.
 Propeller. Fish-tail. B. Stevenson. No. 1,079,193; Nov. 18; Gaz. vol. 196; p. 738.
 Propeller. Screw. A. P. Filippi. No. 1,078,270; Nov. 11; Gaz. vol. 196; p. 385.
 Propellers. Hydraulic controlling means for. W. L. Gile. No. 1,078,092; Nov. 11; Gaz. vol. 196; p. 324.
 Propelling engine or motor. J. H. Poage. No. 1,078,748; Nov. 18; Gaz. vol. 196; p. 582.
 Propulsion. Steam prime mover for marine. C. G. Curtis. No. 1,078,838; Nov. 18; Gaz. vol. 196; p. 614.
 Pull-socket switch. F. Barr. No. 1,079,740; Nov. 25; Gaz. vol. 196; p. 955.
 Puller. See Weed-puller.
 Pulling-over machine. R. F. McFeely. No. 1,077,938; Nov. 4; Gaz. vol. 196; p. 240.
 Pulley-block. G. Frink. No. 1,078,190; Nov. 11; Gaz. vol. 196; p. 357.
 Pulley. Speed-governing. F. E. Parker. No. 1,078,161; Nov. 11; Gaz. vol. 196; p. 347.
 Pulp-distributor. W. E. Darrow. No. 1,078,775; Nov. 18; Gaz. vol. 196; p. 593.
 Pulverizer. Disk. O. Christianson. No. 1,079,746; Nov. 25; Gaz. vol. 196; p. 958.
 Pump. F. M. Metcalf. No. 1,077,419; Nov. 4; Gaz. vol. 196; p. 64.
 Pump. J. M. Stratton. No. 1,078,320; Nov. 11; Gaz. vol. 196; p. 403.
 Pump. J. F. Warner. No. 1,079,308; Nov. 18; Gaz. vol. 196; p. 774.
 Pump. F. A. Garvey. No. 1,079,699; Nov. 25; Gaz. vol. 196; p. 940.
 Pump. Air lift. T. Peters. No. 1,077,997; Nov. 11; Gaz. vol. 196; p. 291.
 Pump and motor. H. S. Hele-Shaw and F. L. Martineau. No. 1,077,979; Nov. 11; Gaz. vol. 196; p. 285.
 Pump and motor. Rotary. J. M. Wilson. No. 1,079,384; Nov. 25; Gaz. vol. 196; p. 831.
 Pump. Automatic. W. C. Clark. No. 1,077,597; Nov. 4; Gaz. vol. 196; p. 123.
 Pump. Centrifugal. A. Gentil. No. 1,077,520; Nov. 4; Gaz. vol. 196; p. 99.
 Pump. Centrifugal. D. M. Hey. No. 1,079,294; Nov. 18; Gaz. vol. 196; p. 768.
 Pump for internal-combustion engines. Fuel. K. J. E. Hesselman. No. 1,078,438; Nov. 11; Gaz. vol. 196; p. 445.
 Pump for lubricating systems. E. Woerner. No. 1,078,889; Nov. 18; Gaz. vol. 196; p. 631.
 Pump for lubricating systems. E. Woerner. No. 1,078,890; Nov. 18; Gaz. vol. 196; p. 631.
 Pump for vacuum-cleaners. I. Barker. No. 1,078,329; Nov. 11; Gaz. vol. 196; p. 406.
 Pump. Mine. L. Chadwick. No. 1,078,126; Nov. 11; Gaz. vol. 196; p. 335.
 Pump-operating mechanism. P. C. Nowatske. No. 1,077,290; Nov. 4; Gaz. vol. 196; p. 16.
 Pump-protector. J. J. Deuel. No. 1,077,685; Nov. 4; Gaz. vol. 196; p. 153.
 Pump. Rotary. J. R. Kinney. No. 1,079,560; Nov. 25; Gaz. vol. 196; p. 892.
 Pump. Rotary. J. R. Kinney. No. 1,079,561; Nov. 25; Gaz. vol. 196; p. 893.
 Pump. Rotary. J. R. Kinney. No. 1,079,562; Nov. 25; Gaz. vol. 196; p. 893.
 Pump working barrel. J. F. Kilburn. No. 1,078,444; Nov. 11; Gaz. vol. 196; p. 447.
 Pumps. Bearing system for rotary well. J. A. Wintroath. No. 1,079,682; Nov. 25; Gaz. vol. 196; p. 934.
 Pumping air or other fluid. Device for. G. W. Nyquist. No. 1,078,870; Nov. 18; Gaz. vol. 196; p. 625.
 Pumping apparatus. C. R. Hudson. No. 1,077,474; Nov. 4; Gaz. vol. 196; p. 83.

Pumping apparatus. P. A. Little. No. 1,079,779; Nov. 25; Gaz. vol. 196; p. 971.
 Pumping apparatus, Liquid. T. M. Chance. No. 1,079,898; Nov. 25; Gaz. vol. 196; p. 1011.
 Punch and setting-machine. Combined. E. B. Stimpson. No. 1,079,376; Nov. 25; Gaz. vol. 196; p. 829.
 Punch, Centering. O. Christenson. No. 1,078,770; Nov. 18; Gaz. vol. 196; p. 591.
 Punch-press. C. A. Carlson. No. 1,077,668; Nov. 4; Gaz. vol. 196; p. 147.
 Punching-tool. A. Kirk. No. 1,077,722; Nov. 4; Gaz. vol. 196; p. 164.
 Purifying and sterilizing liquid, Method of. G. W. Swinburne. No. 1,079,377; Nov. 25; Gaz. vol. 196; p. 829.
 Purifying sewage and the like, Apparatus for. P. Bunsel. No. 1,079,391; Nov. 25; Gaz. vol. 196; p. 834.
 Push-button switch. J. H. Smedley. No. 1,079,271; Nov. 18; Gaz. vol. 196; p. 761.
 Putlog. T. H. Kingston. No. 1,077,839; Nov. 4; Gaz. vol. 196; p. 204.
 Putty-dispensing device. M. I. Jacobs. No. 1,078,440; Nov. 11; Gaz. vol. 196; p. 446.
 Rabbit-trap. J. A. Sauter. No. 1,079,666; Nov. 25; Gaz. vol. 196; p. 928.
 Rack. See Corn-rack; Display-rack; Horseshoeing-rack; Hose-rack; Seed-rack.
 Rack or support. F. Steinhoff. No. 1,079,033; Nov. 18; Gaz. vol. 196; p. 683.
 Radiator. D. J. McCarty and H. B. McGinnis. No. 1,078,546; Nov. 11; Gaz. vol. 196; p. 480.
 Radiator made of wrought-iron. H. Steffen. No. 1,078,884; Nov. 18; Gaz. vol. 196; p. 630.
 Rail-chair. W. M. Osborn. No. 1,077,367; Nov. 4; Gaz. vol. 196; p. 44.
 Rail-chair. W. J. Burtie. No. 1,078,250; Nov. 11; Gaz. vol. 196; p. 377.
 Rail-chair. J. H. Beatty. No. 1,079,204; Nov. 18; Gaz. vol. 196; p. 741.
 Rail-chair. J. R. Jennings. No. 1,079,768; Nov. 25; Gaz. vol. 196; p. 967.
 Rail-chair, splice-bar, and tie-plate, Combined. G. W. Himler. No. 1,079,242; Nov. 18; Gaz. vol. 196; p. 753.
 Rail-fastener. G. H. Stones. No. 1,077,961; Nov. 4; Gaz. vol. 196; p. 247.
 Rail-fastening. G. W. Roemer and C. Priester. No. 1,078,555; Nov. 11; Gaz. vol. 196; p. 482.
 Rail-joint. R. S. Bohannon and N. Dugger. No. 1,077,253; Nov. 4; Gaz. vol. 196; p. 4.
 Rail-joint. A. B. Wert. No. 1,077,775; Nov. 4; Gaz. vol. 196; p. 184.
 Rail-joint. G. W. Warner. (Reissue.) No. 1,3639; Nov. 4; Gaz. vol. 196; p. 251.
 Rail-joint. F. K. Goodrich and G. West. No. 1,078,093; Nov. 11; Gaz. vol. 196; p. 324.
 Rail-joint. E. E. Slick. No. 1,078,220; Nov. 11; Gaz. vol. 196; p. 363.
 Rail-joint. C. H. Brunner. No. 1,078,247; Nov. 11; Gaz. vol. 196; p. 376.
 Rail-joint. P. T. Flehler. No. 1,078,341; Nov. 11; Gaz. vol. 196; p. 411.
 Rail-joint. H. F. Roach. No. 1,078,695; Nov. 18; Gaz. vol. 196; p. 563.
 Rail-joint. W. G. Chipley. No. 1,078,716; Nov. 18; Gaz. vol. 196; p. 571.
 Rail-joint. J. Reinhart. No. 1,078,750; Nov. 18; Gaz. vol. 196; p. 583.
 Rail-joint. R. T. Berry. No. 1,079,284; Nov. 18; Gaz. vol. 196; p. 765.
 Rail-joint. A. Nitka. No. 1,079,430; Nov. 25; Gaz. vol. 196; p. 846.
 Rail-joint. C. Helm and S. Jellenik. No. 1,079,551; Nov. 25; Gaz. vol. 196; p. 888.
 Rail-joint. D. Yoakam. No. 1,079,820; Nov. 25; Gaz. vol. 196; p. 984.
 Rail-joint. J. E. Bamber. No. 1,079,825; Nov. 25; Gaz. vol. 196; p. 985.
 Rail-joint and nut-lock, Combined. E. T. Wade. No. 1,077,770; Nov. 4; Gaz. vol. 196; p. 183.
 Rail-joint fastening and the like. J. M. Dorsey. No. 1,078,904; Nov. 18; Gaz. vol. 196; p. 637.
 Rail joint, Railway. W. J. Morehouse. No. 1,078,743; Nov. 18; Gaz. vol. 196; p. 580.
 Rail-tie. J. D. Warrell. No. 1,078,075; Nov. 11; Gaz. vol. 196; p. 318.
 Railway appliance. W. R. Isaacs. No. 1,078,287; Nov. 11; Gaz. vol. 196; p. 392.
 Railway construction. A. Ostheimer. No. 1,077,548; Nov. 4; Gaz. vol. 196; p. 106.
 Railway-crossing. C. F. Kelly. No. 1,078,048; Nov. 11; Gaz. vol. 196; p. 308.
 Railway-crossing gate, Automatic. F. K. Dekan and A. Glauber. No. 1,078,421; Nov. 11; Gaz. vol. 196; p. 440.
 Railway grade-crossings, Steam or electrical. M. E. Harrison and H. D. McCutcheon. No. 1,078,437; Nov. 11; Gaz. vol. 196; p. 445.
 Railway joint-crossing. G. Dupes. No. 1,078,724; Nov. 18; Gaz. vol. 196; p. 574.
 Railway, Pleasure. F. Ingersoll. No. 1,079,052; Nov. 18; Gaz. vol. 196; p. 689.
 Railway-rail. P. N. Madsen. No. 1,079,054; Nov. 18; Gaz. vol. 196; p. 690.
 Railway-rail and rail-base plate, Combined. F. E. Abbott. (Reissue.) No. 1,3637; Nov. 4; Gaz. vol. 196; p. 250.

Railway-rail attachment, Anticreep. W. B. Thomas. No. 1,077,377; Nov. 4; Gaz. vol. 196; p. 47.
 Railway-rails, Anticreeping device for. E. B. Powers. No. 1,078,951; Nov. 18; Gaz. vol. 196; p. 651.
 Railway safety appliance. G. I. Ponder. No. 1,079,263; Nov. 18; Gaz. vol. 196; p. 759.
 Railway-signal. J. P. Coleman. No. 1,078,127; Nov. 11; Gaz. vol. 196; p. 335.
 Railway-spike. A. B. Baxter. No. 1,077,583; Nov. 4; Gaz. vol. 196; p. 119.
 Railway-spike. G. M. Brox and H. S. Knight. No. 1,077,970; Nov. 11; Gaz. vol. 196; p. 282.
 Railway-splice with fish-plates. O. A. Kunert and T. E. K. von Weldenheim. No. 1,079,866; Nov. 25; Gaz. vol. 196; p. 1000.
 Railway-switch. S. C. Perry. No. 1,077,427; Nov. 4; Gaz. vol. 196; p. 66.
 Railway-switch mechanism. M. L. Shepherd. No. 1,079,889; Nov. 25; Gaz. vol. 196; p. 1007.
 Railway-tie. J. K. Grant. No. 1,077,341; Nov. 4; Gaz. vol. 196; p. 35.
 Railway-tie. C. Allerton. No. 1,078,596; Nov. 11; Gaz. vol. 196; p. 497.
 Railway-tie. J. P. Donovan. No. 1,078,666; Nov. 18; Gaz. vol. 196; p. 552.
 Railway-tie. C. B. Stebbins. No. 1,078,754; Nov. 18; Gaz. vol. 196; p. 584.
 Railway-tie. F. M. Crossley. No. 1,079,638; Nov. 25; Gaz. vol. 196; p. 919.
 Railway-tie and fastener. F. Pongratz. No. 1,078,642; Nov. 18; Gaz. vol. 196; p. 544.
 Railway-tie and fastener. J. R. Watson and R. M. Liston. No. 1,079,677; Nov. 25; Gaz. vol. 196; p. 932.
 Railway-tie, Metal. C. Van Deusen. No. 1,077,656; Nov. 4; Gaz. vol. 196; p. 143.
 Railway-tie plate. J. W. Kendrick. No. 1,077,720; Nov. 4; Gaz. vol. 196; p. 163.
 Railway-ties, Device for removing and replacing. W. S. A. Wilder. No. 1,078,182; Nov. 11; Gaz. vol. 196; p. 354.
 Railway-track device. E. Laas and H. H. Sponenburg. No. 1,077,353; Nov. 4; Gaz. vol. 196; p. 39.
 Railway-traffic-controlling devices, System for electrically controlling and operating. H. B. Taylor. No. 1,077,895; Nov. 4; Gaz. vol. 196; p. 224.
 Rake. See Hay-rake.
 Rake. T. and E. G. Whitted. No. 1,078,231; Nov. 11; Gaz. vol. 196; p. 371.
 Rake. W. J. Price. No. 1,079,264; Nov. 18; Gaz. vol. 196; p. 759.
 Ram, Hydraulic. S. M. Stevens. No. 1,077,315; Nov. 4; Gaz. vol. 196; p. 28.
 Range, Combined coal and gas. P. Becker. No. 1,078,896; Nov. 18; Gaz. vol. 196; p. 633.
 Range, Cooking. J. E. Daniel. No. 1,078,722; Nov. 18; Gaz. vol. 196; p. 573.
 Range-transmitter. J. L. Hall. No. 1,077,706; Nov. 4; Gaz. vol. 196; p. 159.
 Ratan-scraper. H. Meier. No. 1,079,056; Nov. 18; Gaz. vol. 196; p. 690.
 Razor and guard therefor. A. Oberheim. No. 1,077,545; Nov. 4; Gaz. vol. 196; p. 107.
 Razor, Safety. A. Bippart. No. 1,078,989; Nov. 18; Gaz. vol. 196; p. 660.
 Razor, Safety. D. Beard. No. 1,079,095; Nov. 18; Gaz. vol. 196; p. 703.
 Razor, Safety. H. E. S. Holt. No. 1,079,174; Nov. 18; Gaz. vol. 196; p. 731.
 Reamer, Adjustable. R. L. Ellery. No. 1,077,463; Nov. 4; Gaz. vol. 196; p. 70.
 Reamer, Expansion. L. Baum. No. 1,079,630; Nov. 25; Gaz. vol. 196; p. 916.
 Receptacle, Sanitary. W. A. Ball. No. 1,078,604; Nov. 18; Gaz. vol. 196; p. 531.
 Receptacle with metal label. J. F. Craven. No. 1,077,259; Nov. 4; Gaz. vol. 196; p. 6.
 Receptacles, Machine for applying closures to. O. N. Tevander and A. Manierre. No. 1,078,706; Nov. 18; Gaz. vol. 196; p. 567.
 Receptacles, Machine for introducing charges of material into. L. Fischer. No. 1,078,492; Nov. 11; Gaz. vol. 196; p. 462.
 Recorder. See Horse-power recorder; Mine-hoist recorder; Time-recorder; Vibration-recorder.
 Recording mechanism. R. Frick. No. 1,078,138; Nov. 11; Gaz. vol. 196; p. 339.
 Reel. See Truck-reel.
 Reel. L. B. Dutcher. No. 1,077,461; Nov. 4; Gaz. vol. 196; p. 78.
 Refractory conductors, Production of. W. D. Coolidge. No. 1,077,674; Nov. 4; Gaz. vol. 196; p. 149.
 Refractory material. F. J. Tone. No. 1,078,525; Nov. 11; Gaz. vol. 196; p. 473.
 Refractory material, Production of articles from. O. Greiner. No. 1,077,704; Nov. 4; Gaz. vol. 196; p. 158.
 Refrigerating apparatus. H. H. Southworth and F. W. Wolf, Jr. No. 1,079,448; Nov. 25; Gaz. vol. 196; p. 852.
 Refrigerator. W. D. Adams. No. 1,079,155; Nov. 18; Gaz. vol. 196; p. 725.
 Refrigerator, Water-cooling. R. B. Ritchey. No. 1,077,557; Nov. 4; Gaz. vol. 196; p. 111.
 Refuse-burner. W. McCause. No. 1,078,158; Nov. 11; Gaz. vol. 196; p. 346.

Regenerative furnace. N. F. Egler. No. 1,079,642; Nov. 25; Gaz. vol. 196; p. 920.
 Register. See Call-register; Cash-register.
 Register. W. C. Pritchard. No. 1,078,166; Nov. 11; Gaz. vol. 196; p. 349.
 Regulator. See Fluid-mixture regulator; Gas-regulator; Medical electric-current regulator; Potential-regulator; Voltage-regulator.
 Rein-guard. L. B. Avery. No. 1,077,327; Nov. 4; Gaz. vol. 196; p. 80.
 Rein-support. M. E. Huebner. No. 1,079,412; Nov. 25; Gaz. vol. 196; p. 841.
 Relay for two-wire notching systems. E. R. Carichoff. No. 1,077,972; Nov. 11; Gaz. vol. 196; p. 282.
 Relay, Harmonic. K. E. Miller. No. 1,078,106; Nov. 11; Gaz. vol. 196; p. 329.
 Releasing device. D. Jacques. No. 1,079,297; Nov. 18; Gaz. vol. 196; p. 770.
 Replanting machine. Corn. J. J. Cholick. No. 1,078,332; Nov. 11; Gaz. vol. 196; p. 407.
 Resilient wheel. M. B. Ray and E. K. Henderson. No. 1,077,430; Nov. 4; Gaz. vol. 196; p. 67.
 Resilient wheel. G. A. Leitzman. No. 1,077,612; Nov. 4; Gaz. vol. 196; p. 127.
 Resilient wheel. H. Kirkby. No. 1,078,149; Nov. 11; Gaz. vol. 196; p. 343.
 Resilient wheel for motor-cars and the like. J. E. Graham and G. Wallace. No. 1,078,430; Nov. 11; Gaz. vol. 196; p. 443.
 Respirator. W. F. Fanning. No. 1,079,227; Nov. 18; Gaz. vol. 196; p. 748.
 Retort-furnace, Electric. J. Bally. No. 1,079,588; Nov. 25; Gaz. vol. 196; p. 903.
 Reversible table. L. E. Blusfeld. No. 1,077,901; Nov. 4; Gaz. vol. 196; p. 226.
 Reversing-machine, Automatic. T. H. Phillips, Jr. No. 1,077,748; Nov. 4; Gaz. vol. 196; p. 174.
 Reversing mechanism. F. Gatta. No. 1,077,519; Nov. 4; Gaz. vol. 196; p. 99.
 Rheostat, Automatic. H. M. Grossman and J. Wynn, Jr. No. 1,078,785; Nov. 18; Gaz. vol. 196; p. 597.
 Rice-hulling machine. R. W. Welch. No. 1,077,659; Nov. 4; Gaz. vol. 196; p. 144.
 Rifle. F. J. Cooper. No. 1,079,471; Nov. 25; Gaz. vol. 196; p. 861.
 Rim, Demountable. J. M. Gilbert. No. 1,078,579; Nov. 11; Gaz. vol. 196; p. 491.
 Rim, Sectional. S. J. Morris. No. 1,078,798; Nov. 18; Gaz. vol. 196; p. 601.
 Ring. See Finger-ring; Hose-coupling clamp-ring; Locking-ring; Packing-ring.
 Riveting-machine. N. Marshall. No. 1,079,783; Nov. 25; Gaz. vol. 196; p. 972.
 Riveting-machines, Magnetic pick-up for. D. C. Sassemann. No. 1,079,148; Nov. 18; Gaz. vol. 196; p. 722.
 Road-roller. R. E. B. Crompton and E. T. J. Tapp. No. 1,078,538; Nov. 11; Gaz. vol. 196; p. 477.
 Roasting-furnace. E. J. Fowler. No. 1,079,405; Nov. 25; Gaz. vol. 196; p. 839.
 Rock-drill. C. A. Hultquist. No. 1,077,911; Nov. 4; Gaz. vol. 196; p. 229.
 Rock-drill, Pneumatic. E. Altenhoff. No. 1,079,735; Nov. 25; Gaz. vol. 196; p. 953.
 Rock-drill, Pneumatic feed and return. E. R. Ray. No. 1,077,856; Nov. 4; Gaz. vol. 196; p. 210.
 Rock-drills, Valve-motion for. L. C. Bayles. No. 1,077,584; Nov. 4; Gaz. vol. 196; p. 119.
 Rocker, Collapsible shoe-fly. A. D. Converse. No. 1,079,399; Nov. 25; Gaz. vol. 196; p. 837.
 Rod. See Curtain-rod; Sucker-rod.
 Roller. See Ink-roller; Road-roller; Shade-roller.
 Roller, Adjustably-mounted swivel. T. W. Doolittle, C. S. Winsor, and C. H. Vergason. No. 1,077,906; Nov. 4; Gaz. vol. 196; p. 228.
 Rolling flanged sections. G. H. Barbour. No. 1,079,739; Nov. 25; Gaz. vol. 196; p. 954.
 Rolling ingots. J. E. York. No. 1,078,119; Nov. 11; Gaz. vol. 196; p. 333.
 Rolling-mill. G. H. Barbour. No. 1,078,240; Nov. 11; Gaz. vol. 196; p. 374.
 Rolling mills, Automatic guide-box for iron and steel. D. M. Griffiths. No. 1,078,045; Nov. 11; Gaz. vol. 196; p. 307.
 Rope-coupling. S. E. Reagles. No. 1,079,881; Nov. 25; Gaz. vol. 196; p. 1004.
 Rope-laying machine. W. L. Tobey. No. 1,078,010; Nov. 11; Gaz. vol. 196; p. 295.
 Rope-laying machine. W. L. Tobey. No. 1,078,073; Nov. 11; Gaz. vol. 196; p. 317.
 Rope-terminal. L. H. Randolph. No. 1,079,363; Nov. 25; Gaz. vol. 196; p. 824.
 Rotary cutter. H. J. Parker. No. 1,079,799; Nov. 25; Gaz. vol. 196; p. 977.
 Rotary engine. W. F. Doner. No. 1,077,874; Nov. 4; Gaz. vol. 196; p. 216.
 Rotary engine. J. Shaw. No. 1,078,170; Nov. 11; Gaz. vol. 196; p. 350.
 Rotary engine. T. W. Moore. No. 1,078,301; Nov. 11; Gaz. vol. 196; p. 397.
 Rotary engine. E. J. Davidson. No. 1,078,539; Nov. 11; Gaz. vol. 196; p. 477.
 Rotary engine. E. A. Stewart. No. 1,079,034; Nov. 18; Gaz. vol. 196; p. 683.

Rotary engine. E. G. Jones and T. T. Patchel. No. 1,079,177; Nov. 18; Gaz. vol. 196; p. 732.
 Rotary engine. G. E. Callaway. No. 1,079,743; Nov. 25; Gaz. vol. 196; p. 956.
 Rotary furnace or fire-box. A. Smallwood. No. 1,079,151; Nov. 18; Gaz. vol. 196; p. 723.
 Rotary motor. T. Rublmann. No. 1,078,168; Nov. 11; Gaz. vol. 196; p. 349.
 Rotary motor. A. J. Krouse. No. 1,079,653; Nov. 25; Gaz. vol. 196; p. 924.
 Rotary sprinkler. E. Geiger. No. 1,078,727; Nov. 18; Gaz. vol. 196; p. 575.
 Rotors, Resistance-ring of. J. M. Barr. No. 1,079,629; Nov. 25; Gaz. vol. 196; p. 916.
 Roundabout. N. J. Shamroy. No. 1,078,645; Nov. 18; Gaz. vol. 196; p. 545.
 Rubber, Devulcanizing. D. A. Cutler. No. 1,078,086; Nov. 11; Gaz. vol. 196; p. 321.
 Rubber, Regenerating vulcanized. C. P. Bary. No. 1,079,464; Nov. 25; Gaz. vol. 196; p. 859.
 Rubber tubes, Machine for forming. F. W. Kremer. No. 1,078,099; Nov. 11; Gaz. vol. 196; p. 326.
 Rubber tubing, Apparatus and method for splicing. F. W. Kremer. No. 1,078,097; Nov. 11; Gaz. vol. 196; p. 326.
 Rule, Border. N. S. Van Sant. No. 1,079,078; Nov. 18; Gaz. vol. 196; p. 698.
 Ruler and blotter, Combination. H. J. Taylor. No. 1,078,969; Nov. 18; Gaz. vol. 196; p. 657.
 Running-gear. F. L. Roth. No. 1,078,960; Nov. 18; Gaz. vol. 196; p. 654.
 Sad-iron, Electrically-heated. C. A. Shaler. No. 1,077,372; Nov. 4; Gaz. vol. 196; p. 46.
 Safe. N. Angood. No. 1,078,764; Nov. 18; Gaz. vol. 196; p. 589.
 Safe construction. M. Mosler and C. Bartels. No. 1,078,799; Nov. 18; Gaz. vol. 196; p. 601.
 Safety-pin. M. L. Mirault. No. 1,077,300; Nov. 4; Gaz. vol. 196; p. 41.
 Sample-case. C. G. Duffy. No. 1,077,686; Nov. 4; Gaz. vol. 196; p. 153.
 Sampler-operating device. L. E. Jones. No. 1,079,010; Nov. 18; Gaz. vol. 196; p. 674.
 Sand and gravel cleaner. W. C. Mercer. No. 1,079,571; Nov. 25; Gaz. vol. 196; p. 896.
 Sand, Treatment or renovation of foundry-. A. Poulson. No. 1,078,062; Nov. 11; Gaz. vol. 196; p. 314.
 Sash and ventilator, Combination storm-. H. C. Markowski and L. B. Witkowski. No. 1,078,205; Nov. 11; Gaz. vol. 196; p. 362.
 Sash balance, Window. W. H. Forsyth and E. E. Whitmore. No. 1,078,780; Nov. 18; Gaz. vol. 196; p. 595.
 Sash-core fastener. J. Asher. No. 1,079,685; Nov. 25; Gaz. vol. 196; p. 935.
 Sash for hotbeds and other purposes. W. S. Bodley. No. 1,079,631; Nov. 25; Gaz. vol. 196; p. 917.
 Sash hanging and operating mechanism. J. Kahn. No. 1,079,497; Nov. 25; Gaz. vol. 196; p. 870.
 Sash-holder. O. M. Edwards. No. 1,078,036; Nov. 11; Gaz. vol. 196; p. 304.
 Sash-holder. J. Holtzman. No. 1,078,856; Nov. 18; Gaz. vol. 196; p. 621.
 Sash-lock, Automatic burglar-proof. E. L. Sloan. No. 1,077,312; Nov. 4; Gaz. vol. 196; p. 25.
 Sash lock, Window-. G. C. Miller. No. 1,077,487; Nov. 4; Gaz. vol. 196; p. 87.
 Sash-weight. M. D. Bingham. No. 1,077,586; Nov. 4; Gaz. vol. 196; p. 120.
 Sashes, shutters, and like movable parts, Actuating device for window. W. H. Symonds. No. 1,077,768; Nov. 4; Gaz. vol. 196; p. 182.
 Saw and the like, Rotary cutting-off. G. Gorton. No. 1,077,271; Nov. 4; Gaz. vol. 196; p. 10.
 Saw and the like, Rotary cutting-off. G. Gorton. No. 1,078,193; Nov. 11; Gaz. vol. 196; p. 358.
 Saw-feeding mechanism. T. Richard. No. 1,079,146; Nov. 18; Gaz. vol. 196; p. 721.
 Saw-handle. H. B. Garman. No. 1,078,599; Nov. 11; Gaz. vol. 196; p. 498.
 Saw-holder. S. H. Brundige. No. 1,077,588; Nov. 4; Gaz. vol. 196; p. 120.
 Saw-jointer. P. Gagnon. No. 1,079,232; Nov. 18; Gaz. vol. 196; p. 750.
 Saw-setting machine. F. Galpin. No. 1,078,139; Nov. 11; Gaz. vol. 196; p. 340.
 Saw-setting machine. W. J. Holmes. No. 1,078,855; Nov. 18; Gaz. vol. 196; p. 620.
 Saw-sawage. E. H. Wolfe. No. 1,077,573; Nov. 4; Gaz. vol. 196; p. 116.
 Saw-tooth and locking mechanism therefor, Inserted. A. Elson. No. 1,079,594; Nov. 25; Gaz. vol. 196; p. 905.
 Saw-tooth, Detachable. A. Krieger. No. 1,078,734; Nov. 18; Gaz. vol. 196; p. 578.
 Scale. S. E. Eklund. No. 1,077,265; Nov. 4; Gaz. vol. 196; p. 8.
 Scale. J. Charet. No. 1,078,416; Nov. 11; Gaz. vol. 196; p. 438.
 Scale. J. Charet. No. 1,078,417; Nov. 11; Gaz. vol. 196; p. 438.
 Scale, Coin-operated weighing. C. A. Fey. No. 1,077,517; Nov. 4; Gaz. vol. 196; p. 98.
 Scale, Computing. J. Hopkinson. No. 1,077,935; Nov. 4; Gaz. vol. 196; p. 238.
 Scale, Vehicle. E. N. Osborne. No. 1,079,260; Nov. 18; Gaz. vol. 196; p. 758.

Scale, Weighing and adding. H. Hathaway. No. 1,079,336; Nov. 25; Gaz. vol. 196; p. 815.
 Saws. Buttonhole. F. Karsitz. No. 1,077,280; Nov. 4; Gaz. vol. 196; p. 13.
 Screen. See Centrifugal screen; Coal-screen; Window-screen.
 Screen. T. E. McWilliams. No. 1,077,849; Nov. 4; Gaz. vol. 196; p. 208.
 Screen. C. V. Nilsson. No. 1,079,475; Nov. 25; Gaz. vol. 196; p. 897.
 Screen-supporting frame. Foldable. J. B. Lynch. No. 1,078,587; Nov. 11; Gaz. vol. 196; p. 493.
 Screens. Machine for making water and oil. R. F. Kreiter, E. S. Post, A. L. Roco, and M. E. Layne. No. 1,079,417; Nov. 25; Gaz. vol. 196; p. 843.
 Screw-operating mechanism. L. J. Fanning. No. 1,077,465; Nov. 4; Gaz. vol. 196; p. 79.
 Scrubbing-machine. Rotary. T. R. Jenkins, Jr. No. 1,079,298; Nov. 18; Gaz. vol. 196; p. 298.
 Seal-bolt. P. M. Cierina. No. 1,079,839; Nov. 25; Gaz. vol. 196; p. 990.
 Seal. Car. F. E. Brown. No. 1,077,587; Nov. 4; Gaz. vol. 196; p. 120.
 Seal. Car-door. J. W. Rumsey and W. H. Sheasby. No. 1,078,557; Nov. 11; Gaz. vol. 196; p. 483.
 Seal-hoop. E. R. Burns. No. 1,078,534; Nov. 11; Gaz. vol. 196; p. 474.
 Seal-lock. L. C. Asmusen. No. 1,079,092; Nov. 18; Gaz. vol. 196; p. 702.
 Seal. Vacuum-tight. F. G. Keyes. No. 1,079,352; Nov. 25; Gaz. vol. 196; p. 820.
 Sealing machine. Bottle. A. Callison. No. 1,078,607; Nov. 18; Gaz. vol. 196; p. 532.
 Seaming machine. Tin-can. A. Jenssen. No. 1,079,558; Nov. 25; Gaz. vol. 196; p. 891.
 Seat. See Car-seat; Water-closet seat.
 Sectional mold. Adjustable. F. W. Bull. No. 1,077,971; Nov. 11; Gaz. vol. 196; p. 282.
 Seed huller. Cotton. E. W. McLean. No. 1,079,657; Nov. 25; Gaz. vol. 196; p. 925.
 Seed linter. Cotton. H. E. Sessions. No. 1,077,435; Nov. 4; Gaz. vol. 196; p. 60.
 Seed-rack. M. E. Reilly. No. 1,079,513; Nov. 25; Gaz. vol. 196; p. 875.
 Seed separator and planter. Cotton. J. S. Holliday. No. 1,079,244; Nov. 18; Gaz. vol. 196; p. 753.
 Seines. Guiding attachment for. N. Vukosovitch. No. 1,078,566; Nov. 11; Gaz. vol. 196; p. 486.
 Self-feeder. A. Rosenthal. No. 1,078,697; Nov. 18; Gaz. vol. 196; p. 564.
 Separator. See Coal-separator; Grain-separator; Mineral-separator; Ore-separator; Potato-separator; Seed-separator.
 Settling-tank. F. G. Sargent. No. 1,077,308; Nov. 4; Gaz. vol. 196; p. 23.
 Sewage disposal. L. T. Leet. No. 1,079,569; Nov. 25; Gaz. vol. 196; p. 895.
 Sewing-machine. F. W. Merrick. No. 1,077,825; Nov. 4; Gaz. vol. 196; p. 132.
 Sewing-machine. C. T. E. Gould. No. 1,079,406; Nov. 25; Gaz. vol. 196; p. 839.
 Sewing-machine. C. T. E. Gould. No. 1,079,485; Nov. 25; Gaz. vol. 196; p. 866.
 Sewing-machine tuck-marker. P. Diehl. No. 1,079,329; Nov. 25; Gaz. vol. 196; p. 813.
 Sewing machine. Welt. F. H. Perry. No. 1,079,436; Nov. 25; Gaz. vol. 196; p. 848.
 Shade and curtain hanger. J. M. Farrahm. No. 1,078,162; Nov. 11; Gaz. vol. 196; p. 347.
 Shade-bracket. W. H. Drake. No. 1,079,641; Nov. 25; Gaz. vol. 196; p. 919.
 Shade-guides. Sanitary holder for. G. L. and F. L. Grier. No. 1,078,431; Nov. 11; Gaz. vol. 196; p. 443.
 Shade-holder. R. S. Aspinwall. No. 1,077,384; Nov. 4; Gaz. vol. 196; p. 50.
 Shade-roller adjuster. J. C. Eberle. No. 1,078,725; Nov. 18; Gaz. vol. 196; p. 575.
 Shade-roller. Self-adjusting. A. Rose. No. 1,078,466; Nov. 11; Gaz. vol. 196; p. 454.
 Shaft. Adjustable. A. M. Kuhl. No. 1,079,965; Nov. 25; Gaz. vol. 196; p. 999.
 Shaft attachment. J. T. Jones. No. 1,078,731; Nov. 18; Gaz. vol. 196; p. 577.
 Shaft. Vehicle. O. Jahn. No. 1,079,858; Nov. 25; Gaz. vol. 196; p. 997.
 Shaker for chocolate and the like. J. Knight. No. 1,079,563; Nov. 25; Gaz. vol. 196; p. 893.
 Sharpener. Disk-harrow. H. Lammon. No. 1,079,867; Nov. 25; Gaz. vol. 196; p. 1000.
 Sharpener. Knife. J. H. Abbott. No. 1,077,249; Nov. 4; Gaz. vol. 196; p. 3.
 Sharpener. Razor. S. Honig. No. 1,077,934; Nov. 4; Gaz. vol. 196; p. 238.
 Sharpening machine. Drill. J. G. Leyner. No. 1,078,294; Nov. 11; Gaz. vol. 196; p. 304.
 Sheaf-loader. A. McLeod. No. 1,077,888; Nov. 4; Gaz. vol. 196; p. 222.
 Sheaf-loader. H. H. Davison. No. 1,078,132; Nov. 11; Gaz. vol. 196; p. 337.
 Sheave block. Double. G. W. Floyd. No. 1,077,268; Nov. 4; Gaz. vol. 196; p. 9.
 Sheet delivery and stacker. G. Ackerman. No. 1,078,569; Nov. 11; Gaz. vol. 196; p. 487.
 Sheet-delivery apparatus. C. Henderson. No. 1,078,351; Nov. 11; Gaz. vol. 196; p. 415.
 Sheet-delivery feed. J. J. and G. S. Witham, Sr. No. 1,077,923; Nov. 4; Gaz. vol. 196; p. 234.
 Sheet-feeders. Trip mechanism for. R. B. McLaughlin. No. 1,077,889; Nov. 4; Gaz. vol. 196; p. 222.
 Sheet-folding machine. Metal. E. M. and J. F. Maxwell. No. 1,078,740; Nov. 18; Gaz. vol. 196; p. 579.
 Sheet material. Machine for cutting and creasing. C. N. Colpitts. No. 1,079,542; Nov. 25; Gaz. vol. 196; p. 885.
 Sheet metal. Bending and drawing. N. A. Robertson. No. 1,078,958; Nov. 18; Gaz. vol. 196; p. 653.
 Sheet-metal bending and drawing apparatus. N. A. Robertson. No. 1,078,959; Nov. 18; Gaz. vol. 196; p. 653.
 Sheet-metal box. E. Norton. No. 1,079,433; Nov. 25; Gaz. vol. 196; p. 847.
 Sheet-metal box. E. Norton. No. 1,079,903; Nov. 25; Gaz. vol. 196; p. 1013.
 Sheet-metal structure. Hollow. A. J. Ellis. No. 1,079,117; Nov. 18; Gaz. vol. 196; p. 711.
 Sheet-metal wheel. F. B. Horn and A. Wagner. No. 1,078,581; Nov. 11; Gaz. vol. 196; p. 491.
 Sheet-separating machine. W. R. Kinnear. No. 1,079,861; Nov. 25; Gaz. vol. 196; p. 998.
 Shelf. Folding. S. Meyer. No. 1,079,057; Nov. 18; Gaz. vol. 196; p. 691.
 Ship-bottom cleaner. Electrolytic. G. W. Frazier. (Reissue.) No. 1,3652; Nov. 25; Gaz. vol. 196; p. 1022.
 Ships' bulkheads. Door for. W. Houghton. No. 1,078,095; Nov. 11; Gaz. vol. 196; p. 325.
 Ships or any kind of vessels. Apparatus for cleaning the hulls of. F. G. Browne. No. 1,079,208; Nov. 18; Gaz. vol. 196; p. 742.
 Shipping-blanks. W. Bannerman. No. 1,079,737; Nov. 25; Gaz. vol. 196; p. 953.
 Shock-absorber. C. Yeager. No. 1,077,781; Nov. 4; Gaz. vol. 196; p. 186.
 Shock-absorber. E. W. Newman. No. 1,078,060; Nov. 11; Gaz. vol. 196; p. 313.
 Shock-absorber. A. Camporini. No. 1,078,536; Nov. 11; Gaz. vol. 196; p. 476.
 Shock-absorber. J. B. Thomas. No. 1,078,885; Nov. 18; Gaz. vol. 196; p. 630.
 Shoe. D. Austin. No. 1,078,571; Nov. 11; Gaz. vol. 196; p. 488.
 Shoe. D. Austin. No. 1,079,535; Nov. 25; Gaz. vol. 196; p. 882.
 Shoe attachment. Low-cut. W. E. Bunker. No. 1,079,835; Nov. 25; Gaz. vol. 196; p. 989.
 Shoe-fastener. A. A. Siman. No. 1,079,521; Nov. 25; Gaz. vol. 196; p. 878.
 Shoe-form. C. S. Pierce. No. 1,078,554; Nov. 11; Gaz. vol. 196; p. 432.
 Shoe-form. J. A. Niles. No. 1,079,429; Nov. 25; Gaz. vol. 196; p. 846.
 Shoe-polishing box. A. I. Rooney. No. 1,079,606; Nov. 25; Gaz. vol. 196; p. 909.
 Shoe-polishing device. T. A. and L. T. Smith. No. 1,078,173; Nov. 11; Gaz. vol. 196; p. 351.
 Shoes. Machine for operating on. F. B. Keall, J. Gould, bourn, and A. E. Jerram. No. 1,078,684; Nov. 18; Gaz. vol. 196; p. 560.
 Shovel. See Mine-shovel.
 Show-case. J. A. Burns. No. 1,078,249; Nov. 11; Gaz. vol. 196; p. 377.
 Show-case or clothing-cabinet. Automatic. G. O. Bouchard. No. 1,079,632; Nov. 25; Gaz. vol. 196; p. 917.
 Shuttle. E. H. Daudelin. No. 1,078,261; Nov. 11; Gaz. vol. 196; p. 382.
 Shuttle. J. B. and E. H. Daudelin. No. 1,079,473; Nov. 25; Gaz. vol. 196; p. 862.
 Shuttles. Friction device for. J. Johnston. No. 1,079,009; Nov. 18; Gaz. vol. 196; p. 673.
 Sickle with saw attachment. I. T. Le Baron. No. 1,078,152; Nov. 11; Gaz. vol. 196; p. 344.
 Sideral sphere. L. W. Noyes. No. 1,079,358; Nov. 25; Gaz. vol. 196; p. 822.
 Sifter. Ash. N. Benjamin. No. 1,079,207; Nov. 18; Gaz. vol. 196; p. 742.
 Sign. H. Everett. No. 1,077,514; Nov. 4; Gaz. vol. 196; p. 97.
 Sign and indicator. P. Ficclo. No. 1,079,754; Nov. 25; Gaz. vol. 196; p. 962.
 Sign. Changeable. B. Fried. No. 1,079,851; Nov. 25; Gaz. vol. 196; p. 994.
 Sign. Changeable advertising. J. H. La Pearl. No. 1,077,885; Nov. 4; Gaz. vol. 196; p. 221.
 Sign. Changeable-letter. C. M. Kinney. No. 1,079,179; Nov. 18; Gaz. vol. 196; p. 733.
 Sign. Electric. A. Hoebl. No. 1,077,532; Nov. 4; Gaz. vol. 196; p. 103.
 Sign-fastening. G. Tennie. No. 1,079,617; Nov. 25; Gaz. vol. 196; p. 913.
 Sign-receptacle. Electrical. E. H. Freeman. No. 1,079,483; Nov. 25; Gaz. vol. 196; p. 865.
 Sign. Revolving. C. A. Evans. No. 1,077,690; Nov. 4; Gaz. vol. 196; p. 154.
 Sign structure. Sill. J. Chapin. No. 1,079,469; Nov. 25; Gaz. vol. 196; p. 860.
 Signal. See Railway-signal.
 Signal apparatus. C. Williamson. No. 1,078,978; Nov. 18; Gaz. vol. 196; p. 661.

Signal apparatus. Light. G. Dalen. No. 1,079,544; Nov. 25; Gaz. vol. 196; p. 885.
 Signal-box. C. E. Beach and H. W. Doughty. No. 1,079,309; Nov. 18; Gaz. vol. 196; p. 774.
 Signal light. Electric fog. R. C. Douglas. No. 1,077,398; Nov. 4; Gaz. vol. 196; p. 56.
 Signals. Method of and means for giving. T. Broadbent and J. Mates. No. 1,078,823; Nov. 18; Gaz. vol. 196; p. 609.
 Signaling and controlling device. Alarm. E. H. Bock. No. 1,078,410; Nov. 11; Gaz. vol. 196; p. 436.
 Signaling mechanism. C. E. Beach. No. 1,078,984; Nov. 18; Gaz. vol. 196; p. 663.
 Signaling system. H. G. Webster. No. 1,078,229; Nov. 11; Gaz. vol. 196; p. 370.
 Signaling system. C. E. Beach. No. 1,078,985; Nov. 18; Gaz. vol. 196; p. 664.
 Silicious material of low density. W. C. Arsem. No. 1,077,950; Nov. 4; Gaz. vol. 196; p. 244.
 Silo. F. B. Potter. No. 1,078,874; Nov. 18; Gaz. vol. 196; p. 627.
 Silo-reinforcement. S. E. Anderson. No. 1,077,949; Nov. 4; Gaz. vol. 196; p. 244.
 Sintering. Treating materials for. Q. Bent, B. Barnhart, and J. B. Ladd. No. 1,078,988; Nov. 18; Gaz. vol. 196; p. 665.
 Siphon. E. S. Chase. No. 1,078,995; Nov. 18; Gaz. vol. 196; p. 668.
 Siphon. Intermittently-acting double. J. Herzfeld. No. 1,077,471; Nov. 4; Gaz. vol. 196; p. 82.
 Skate-clamp. T. Spacie. No. 1,077,893; Nov. 4; Gaz. vol. 196; p. 224.
 Skimmer for making syrup. O. B. Dees and P. F. McIntosh. No. 1,077,331; Nov. 4; Gaz. vol. 196; p. 31.
 Skirt-marker. J. G. Zuber. No. 1,077,326; Nov. 4; Gaz. vol. 196; p. 30.
 Slabs. Apparatus for forming metal-reinforced composite. G. H. Barbour. No. 1,079,738; Nov. 25; Gaz. vol. 196; p. 954.
 Saw or kraut cutter. W. H. Emanuel. No. 1,079,226; Nov. 18; Gaz. vol. 196; p. 748.
 Sleigh and wheeled vehicle. Combination. W. E. Wise. No. 1,079,201; Nov. 18; Gaz. vol. 196; p. 740.
 Sleigh-brake. Automatic. H. M. and M. Sines. No. 1,077,919; Nov. 4; Gaz. vol. 196; p. 232.
 Sleigh-runner. G. C. McLaughly. No. 1,078,936; Nov. 18; Gaz. vol. 196; p. 646.
 Sleigh-runners for go-carts and the like. E. C. Gledhill. No. 1,077,524; Nov. 4; Gaz. vol. 196; p. 101.
 Slicer. Meat. L. Linkiewicz. No. 1,079,778; Nov. 25; Gaz. vol. 196; p. 970.
 Slide-gate. R. C. Force and S. Burne. No. 1,078,271; Nov. 11; Gaz. vol. 196; p. 385.
 Slitting and folding machine. H. W. Hanan and J. H. Gates. No. 1,078,348; Nov. 11; Gaz. vol. 196; p. 413.
 Smoke-cleaning device. C. E. Barry. No. 1,078,659; Nov. 18; Gaz. vol. 196; p. 550.
 Smoke-consumer. D. H. Cowherd. No. 1,079,692; Nov. 25; Gaz. vol. 196; p. 937.
 Smoke-consuming mechanism. D. D. Keltner. No. 1,078,927; Nov. 18; Gaz. vol. 196; p. 644.
 Snap-switch. J. G. Peterson. No. 1,077,746; Nov. 4; Gaz. vol. 196; p. 173.
 Snap-switch lock attachment. C. D. Platt. No. 1,078,693; Nov. 18; Gaz. vol. 196; p. 563.
 Snow-plow. L. Sims. No. 1,079,369; Nov. 25; Gaz. vol. 196; p. 826.
 Soapuds and hot-water dispenser. E. M. Burroughs. No. 1,077,590; Nov. 4; Gaz. vol. 196; p. 121.
 Solder for aluminum. C. Willmott. No. 1,078,114; Nov. 11; Gaz. vol. 196; p. 332.
 Soldering-iron. Electric. M. H. Rice. No. 1,079,066; Nov. 18; Gaz. vol. 196; p. 694.
 Soldering-stick. L. Maes. No. 1,078,791; Nov. 18; Gaz. vol. 196; p. 599.
 Sole-bridge. J. D. Manblatt. No. 1,077,845; Nov. 4; Gaz. vol. 196; p. 207.
 Sole-plate and railway-tie. Combination. G. H. J. Maas. No. 1,078,297; Nov. 11; Gaz. vol. 196; p. 395.
 Sound-box. T. A. Edison. No. 1,078,266; Nov. 11; Gaz. vol. 196; p. 383.
 Spark-arrester. W. C. Yeomana. No. 1,079,586; Nov. 25; Gaz. vol. 196; p. 902.
 Spark-plug. W. S. Witter. No. 1,077,325; Nov. 4; Gaz. vol. 196; p. 29.
 Spark-plug. H. M. Spencer. No. 1,077,960; Nov. 4; Gaz. vol. 196; p. 247.
 Spark-plug. J. J. Meyer. No. 1,079,790; Nov. 25; Gaz. vol. 196; p. 975.
 Spectacles and eyeglasses. Mounting for. C. J. Troppman. No. 1,078,973; Nov. 18; Gaz. vol. 196; p. 659.
 Speed-measure. J. O. Morrison. (Reissue.) No. 1,3650; Nov. 18; Gaz. vol. 196; p. 780.
 Speedometer. Magnetic. J. K. Stewart. No. 1,077,438; Nov. 4; Gaz. vol. 196; p. 70.
 Speedometer. Marine. C. H. Kenney. No. 1,077,533; Nov. 4; Gaz. vol. 196; p. 103.
 Sphygmomanometer. P. Nicholson. No. 1,077,365; Nov. 4; Gaz. vol. 196; p. 43.
 Spike-pulling jack. H. E. Wadsworth. No. 1,078,178; Nov. 11; Gaz. vol. 196; p. 353.
 Spinning and twisting frames. Machine for automatically removing the full pirns in. F. Watzlawik. No. 1,079,164; Nov. 18; Gaz. vol. 196; p. 724.
 Spinning flax, hemp, jute, and other fibers. G. Shaw. No. 1,079,888; Nov. 25; Gaz. vol. 196; p. 1007.
 Spinning-machines. Weight-lever for. E. Dixon. No. 1,078,996; Nov. 18; Gaz. vol. 196; p. 688.
 Spinning-mule. J. Lowe. No. 1,079,302; Nov. 18; Gaz. vol. 196; p. 771.
 Spool holder or case. O. J. Israel. No. 1,079,556; Nov. 25; Gaz. vol. 196; p. 890.
 Spools. Means for securing heads to. W. Cronin. No. 1,078,419; Nov. 11; Gaz. vol. 196; p. 439.
 Spooler. H. D. Colman. No. 1,078,574; Nov. 11; Gaz. vol. 196; p. 489.
 Spout-closure for receptacles. A. H. Curtiss. No. 1,077,877; Nov. 4; Gaz. vol. 196; p. 150.
 Spout for tin or paper receptacles. Pouring. C. F. Blanke. No. 1,079,388; Nov. 25; Gaz. vol. 196; p. 833.
 Spray-burner. J. Snedden. No. 1,079,272; Nov. 18; Gaz. vol. 196; p. 761.
 Sprayer. W. A. Pungs. No. 1,079,721; Nov. 25; Gaz. vol. 196; p. 948.
 Spraying device. Tree. H. H. Hardie. No. 1,079,335; Nov. 25; Gaz. vol. 196; p. 815.
 Spring. See Pneumatic spring; Vehicle-spring.
 Spring-adjusting mechanism. F. F. Dorsey. No. 1,078,134; Nov. 11; Gaz. vol. 196; p. 338.
 Spring and friction shock-absorber. Combined. C. N. Sowden. No. 1,079,191; Nov. 18; Gaz. vol. 196; p. 737.
 Spring construction. S. M. Raftery. No. 1,079,664; Nov. 25; Gaz. vol. 196; p. 928.
 Spring terminal clip. C. Barr. No. 1,078,766; Nov. 18; Gaz. vol. 196; p. 590.
 Spring-trap. A. R. Mebane. No. 1,077,850; Nov. 4; Gaz. vol. 196; p. 208.
 Spring-wheel. I. M. Kling. No. 1,077,410; Nov. 4; Gaz. vol. 196; p. 60.
 Spring-wheel. A. D. Seibert and B. R. Andrus. No. 1,077,434; Nov. 4; Gaz. vol. 196; p. 68.
 Spring-wheel. H. C. Knight. No. 1,078,150; Nov. 11; Gaz. vol. 196; p. 343.
 Spring-wheel. V. Mancini. No. 1,078,632; Nov. 18; Gaz. vol. 196; p. 541.
 Spring-wheel. J. D. Collier. No. 1,079,840; Nov. 25; Gaz. vol. 196; p. 890.
 Springs. Tool for handling compressed coils. J. F. Hausmann. No. 1,077,606; Nov. 4; Gaz. vol. 196; p. 126.
 Sprinkler. See Automatic sprinkler; Lawn-sprinkler; Rotary sprinkler.
 Sprinkler. J. S. Hadden and F. H. Johnson. No. 1,078,433; Nov. 11; Gaz. vol. 196; p. 444.
 Sprinkler attachment. W. B. Hammond. No. 1,077,830; Nov. 4; Gaz. vol. 196; p. 201.
 Square and level. Adjustable. F. G. Cole. No. 1,079,110; Nov. 18; Gaz. vol. 196; p. 709.
 Stackers. Hay-retainer for. L. Eckert. No. 1,077,819; Nov. 4; Gaz. vol. 196; p. 198.
 Stacking mechanism. W. R. Allen. No. 1,079,089; Nov. 18; Gaz. vol. 196; p. 701.
 Stage-footlighting. C. M. Taylor. No. 1,079,195; Nov. 18; Gaz. vol. 196; p. 738.
 Stage illusion. J. Meiklejohn. No. 1,079,423; Nov. 25; Gaz. vol. 196; p. 845.
 Stalk. Counterbalanced. O. C. Fosselman. No. 1,077,976; Nov. 11; Gaz. vol. 196; p. 283.
 Stalk-cutter. W. A. Martin. No. 1,079,505; Nov. 25; Gaz. vol. 196; p. 873.
 Stall construction. H. L. Ferris. No. 1,078,999; Nov. 18; Gaz. vol. 196; p. 670.
 Stamp. O. M. Pannier. No. 1,079,061; Nov. 18; Gaz. vol. 196; p. 692.
 Stamp-affixer. C. J. Fancher. No. 1,077,954; Nov. 4; Gaz. vol. 196; p. 245.
 Stamp-affixing machine. C. C. Lanphear. No. 1,079,567; Nov. 25; Gaz. vol. 196; p. 895.
 Stamp and coin envelop. D. C. Zivley. No. 1,077,783; Nov. 4; Gaz. vol. 196; p. 186.
 Stamp attacher. Automatic postage. J. M. Stevens, E. D. Harrison, and J. J. Machado. No. 1,079,892; Nov. 25; Gaz. vol. 196; p. 1008.
 Stamps, labels, or the like to envelopes or the like. Machine for affixing. I. Michel and R. Stein. No. 1,079,058; Nov. 18; Gaz. vol. 196; p. 691.
 Stamps. Manufacture of. L. Nedomansky. No. 1,077,740; Nov. 4; Gaz. vol. 196; p. 171.
 Stamping apparatus. Signaling device for letter. H. Angerstein. No. 1,079,319; Nov. 25; Gaz. vol. 196; p. 809.
 Stamping device. D. J. Higginbotham. No. 1,078,854; Nov. 18; Gaz. vol. 196; p. 620.
 Stamping-presses and the like. Safety mechanism for. A. F. Walldrich. No. 1,078,391; Nov. 11; Gaz. vol. 196; p. 430.
 Stanchion. G. Tarca. No. 1,077,569; Nov. 4; Gaz. vol. 196; p. 115.
 Stanchion. Cattle. A. L. Cramer. No. 1,079,166; Nov. 18; Gaz. vol. 196; p. 728.
 Stand. See Banana-stand; Collapsible stand.
 Starting device. W. Johnston. No. 1,078,924; Nov. 18; Gaz. vol. 196; p. 643.
 Stay. J. D. Miller. No. 1,078,208; Nov. 11; Gaz. vol. 196; p. 363.

Stay-bolt. E. I. Dodds. No. 1,079,223; Nov. 18; Gaz. vol. 196; p. 747.
 Stay-bolt. E. I. Dodds. No. 1,079,224; Nov. 18; Gaz. vol. 196; p. 747.
 Steam-boller. A. Catchpole. No. 1,078,187; Nov. 11; Gaz. vol. 196; p. 356.
 Steam-boller. E. W. Pratt. No. 1,078,216; Nov. 11; Gaz. vol. 196; p. 366.
 Steam-ejector. M. Leblanc. No. 1,079,134; Nov. 18; Gaz. vol. 196; p. 717.
 Steam-generating apparatus. G. Marshall. No. 1,078,545; Nov. 11; Gaz. vol. 196; p. 480.
 Steam-trap. E. F. Jones. No. 1,078,047; Nov. 11; Gaz. vol. 196; p. 308.
 Steam-trap and system for draining water of condensation from steam-colls. P. H. Grimm. No. 1,078,783; Nov. 18; Gaz. vol. 196; p. 596.
 Steel and other wire or metal. Apparatus for coiling. S. C. Caddy. No. 1,078,485; Nov. 11; Gaz. vol. 196; p. 460.
 Steel, Forming machined shapes of manganese. W. S. Potter. No. 1,079,439; Nov. 25; Gaz. vol. 196; p. 849.
 Steel shapes, Altering elongated. J. E. York. No. 1,078,118; Nov. 11; Gaz. vol. 196; p. 333.
 Steering-gear. H. Parkhurst. No. 1,078,514; Nov. 11; Gaz. vol. 196; p. 439.
 Steering-gear. Gyroscope. P. Hennig. No. 1,077,344; Nov. 4; Gaz. vol. 196; p. 86.
 Step, Sliding extensible. L. F. Saunders. No. 1,077,644; Nov. 4; Gaz. vol. 196; p. 139.
 Sterilizing liquids by means of ultra-violet rays, Apparatus for. O. Linker. No. 1,079,503; Nov. 25; Gaz. vol. 196; p. 872.
 Still. G. Schmid. No. 1,078,962; Nov. 18; Gaz. vol. 196; p. 654.
 Stirrup. D. P. Van Zante. No. 1,079,813; Nov. 25; Gaz. vol. 196; p. 982.
 Stirrup, Safety-. W. P. Sarrett and T. A. Bakke. No. 1,079,801; Nov. 25; Gaz. vol. 196; p. 978.
 Stitching machines, Feeding mechanism for wire. H. Weber. No. 1,078,024; Nov. 11; Gaz. vol. 196; p. 300.
 Stocking. F. W. Robinson. No. 1,077,370; Nov. 4; Gaz. vol. 196; p. 45.
 Stocking or sock and knitting the same. R. W. Scott. No. 1,079,267; Nov. 18; Gaz. vol. 196; p. 760.
 Stoker. P. L. Crowe. No. 1,077,872; Nov. 4; Gaz. vol. 196; p. 215.
 Stoker, Mechanical. W. P. Starkey. No. 1,077,494; Nov. 4; Gaz. vol. 196; p. 90.
 Stone and making same, Artificial. A. Fraass. No. 1,078,845; Nov. 18; Gaz. vol. 196; p. 617.
 Stone or like composition, Artificial. J. S. Kruse. No. 1,078,100; Nov. 11; Gaz. vol. 196; p. 327.
 Stone washer and separator. W. Lange. No. 1,079,132; Nov. 18; Gaz. vol. 196; p. 716.
 Stone washers and separators, Screening-tray for. W. Lange. No. 1,079,133; Nov. 18; Gaz. vol. 196; p. 717.
 Stove. W. E. Shore. No. 1,078,315; Nov. 11; Gaz. vol. 196; p. 402.
 Stove and furnace lighter. J. Edman. No. 1,077,688; Nov. 4; Gaz. vol. 196; p. 154.
 Stove, Cooking-. W. White. No. 1,079,084; Nov. 18; Gaz. vol. 196; p. 699.
 Stove-oven bottom. Gas. H. C. Maul. No. 1,079,356; Nov. 25; Gaz. vol. 196; p. 822.
 Stoves, Heat-distributor or bake-oven for gas and gasoline. B. F. Davis. No. 1,079,219; Nov. 18; Gaz. vol. 196; p. 746.
 Stovepipe-holder. H. Carpenter. No. 1,079,212; Nov. 18; Gaz. vol. 196; p. 743.
 Strainer. J. H. Pitschman. No. 1,078,459; Nov. 11; Gaz. vol. 196; p. 452.
 Strainer. L. E. Willard. No. 1,079,280; Nov. 18; Gaz. vol. 196; p. 764.
 Strainer, Pulp-. G. S. Witham, Sr. No. 1,079,818; Nov. 25; Gaz. vol. 196; p. 983.
 Strap. See Tie-strap; Trunk-strap.
 Straw-spreader. J. H. Mott. No. 1,078,800; Nov. 18; Gaz. vol. 196; p. 602.
 Street and road construction. J. M. Cosgrove. No. 1,078,773; Nov. 18; Gaz. vol. 196; p. 593.
 Street-cleaner. L. A. Hervey. No. 1,078,352; Nov. 11; Gaz. vol. 196; p. 415.
 Street-scraper. G. W. Anthony. No. 1,079,587; Nov. 25; Gaz. vol. 196; p. 903.
 Stretching a resonant plate over a frame, Means for. F. Frankel. No. 1,078,424; Nov. 11; Gaz. vol. 196; p. 441.
 Stuffing-box attachment. E. P. Grisham. No. 1,078,784; Nov. 18; Gaz. vol. 196; p. 597.
 Submerged bodies, Apparatus for raising. G. Lesourd. No. 1,079,500; Nov. 25; Gaz. vol. 196; p. 871.
 Sucker-rod and the like. J. Hahn. No. 1,077,931; Nov. 4; Gaz. vol. 196; p. 237.
 Suction-cleaner. J. H. Templin. No. 1,079,378; Nov. 25; Gaz. vol. 196; p. 829.
 Suction-producing device. C. J. Harvey. No. 1,079,761; Nov. 25; Gaz. vol. 196; p. 964.
 Suit-box. I. H. Lyons and E. J. Gruenberg. No. 1,079,137; Nov. 18; Gaz. vol. 196; p. 718.
 Sulfur from hydrogen sulfid and sulfur dioxide, Obtaining. W. Feld. No. 1,079,291; Nov. 18; Gaz. vol. 196; p. 767.

Superheater for locomotive and other smoke-tube boilers. Steam-. J. G. Robinson. No. 1,077,641; Nov. 4; Gaz. vol. 196; p. 138.
 Superheater for locomotive, marine, and other boilers. Steam-. E. S. Luard. No. 1,077,617; Nov. 4; Gaz. vol. 196; p. 129.
 Superphosphate, Manufacturing double. T. L. Willson and M. M. Haff. No. 1,078,887; Nov. 18; Gaz. vol. 196; p. 630.
 Supporting device. R. V. Toutjian. No. 1,079,674; Nov. 25; Gaz. vol. 196; p. 931.
 Supports, Positioning means for adjustable. P. A. Solem. No. 1,077,945; Nov. 4; Gaz. vol. 196; p. 242.
 Surface-indicator. L. Fuchs. No. 1,079,160; Nov. 18; Gaz. vol. 196; p. 729.
 Surgeon's operating-table. A. P. Ashby and W. Allen. No. 1,078,894; Nov. 18; Gaz. vol. 196; p. 633.
 Surgical appliance. N. E. Mighell. No. 1,077,629; Nov. 4; Gaz. vol. 196; p. 133.
 Surgical instrument. C. O. S. Howe. No. 1,079,128; Nov. 18; Gaz. vol. 196; p. 715.
 Suspender-end. O. G. Rust. No. 1,079,726; Nov. 25; Gaz. vol. 196; p. 950.
 Suspenders. H. C. Weber. No. 1,077,571; Nov. 4; Gaz. vol. 196; p. 115.
 Suspenders. L. P. Mason. No. 1,079,784; Nov. 25; Gaz. vol. 196; p. 973.
 Swage-shaper. J. F. Pribnow. No. 1,078,377; Nov. 11; Gaz. vol. 196; p. 424.
 Swimming-suit. D. Dyrenforth, (now by marriage D. D. Auracher.) No. 1,077,687; Nov. 4; Gaz. vol. 196; p. 154.
 Switch. See Electric switch; Electrical switch; Gliding switch; Limit-switch; Lock-switch; Overhead switch; Pull-socket switch; Push-button switch; Railway-switch; Snap-switch; Time-switch.
 Switch. W. W. Groff. No. 1,078,497; Nov. 11; Gaz. vol. 196; p. 483.
 Switch-box lock. F. M. E. Locher. No. 1,078,156; Nov. 11; Gaz. vol. 196; p. 345.
 Switch-key, Luminous. M. T. Rosenheim. No. 1,077,305; Nov. 4; Gaz. vol. 196; p. 22.
 Switch-operating mechanism. W. E. Weasinger. No. 1,078,975; Nov. 18; Gaz. vol. 196; p. 659.
 Switch throwing and locking mechanism. A. R. Garber. No. 1,079,120; Nov. 18; Gaz. vol. 196; p. 712.
 Switching mechanism, Quick-break. H. G. Wellman. No. 1,077,380; Nov. 4; Gaz. vol. 196; p. 49.
 Synchronizer, Automatic. R. C. Leake. No. 1,078,863; Nov. 18; Gaz. vol. 196; p. 623.
 Syringe, Vaginal. L. S. Brower. No. 1,078,824; Nov. 18; Gaz. vol. 196; p. 610.
 Table. See Adjustable table; Chiropractic table; Drafting-table; Extension-table; Ironing-table; Reversible table; Surgeon's operating-table; Welding-machine work-table.
 Tables, Fastening device for folding. A. Hahn. No. 1,079,006; Nov. 18; Gaz. vol. 196; p. 672.
 Tabulating mechanism. H. Landsiedel. No. 1,078,357; Nov. 11; Gaz. vol. 196; p. 417.
 Tachometer. Electromagnetic. N. M. Hopkins. No. 1,078,200; Nov. 11; Gaz. vol. 196; p. 360.
 Tack and staple, Combined. G. B. Hart. No. 1,077,880; Nov. 4; Gaz. vol. 196; p. 218.
 Tackle-block. J. T. McMillan. No. 1,077,993; Nov. 11; Gaz. vol. 196; p. 289.
 Tag and guard therefor. M. Kohn. No. 1,078,733; Nov. 18; Gaz. vol. 196; p. 578.
 Tag, Remnant-. C. E. Mitchem. No. 1,079,425; Nov. 25; Gaz. vol. 196; p. 845.
 Tambour-frame-operating mechanism. J. J. Knecht. No. 1,079,863; Nov. 25; Gaz. vol. 196; p. 998.
 Tamping-machine. C. E. Nielsen. No. 1,077,544; Nov. 4; Gaz. vol. 196; p. 107.
 Tamping-machine. J. E. Joiner. No. 1,079,770; Nov. 25; Gaz. vol. 196; p. 967.
 Tank. See Flush-tank; Flushing-tank; Settling-tank.
 Tank-closure. H. D. Oppenheimer. No. 1,079,359; Nov. 25; Gaz. vol. 196; p. 822.
 Tank heater, Stock-. T. Finnegan. No. 1,079,595; Nov. 25; Gaz. vol. 196; p. 906.
 Tannin and the product, Producing. C. F. Allen. No. 1,078,893; Nov. 18; Gaz. vol. 196; p. 632.
 Tapping device, Liquid-. B. Schmelzer. No. 1,077,943; Nov. 4; Gaz. vol. 196; p. 242.
 Target-practice apparatus. H. H. Cummings. No. 1,078,259; Nov. 11; Gaz. vol. 196; p. 381.
 Tea and other infusions, Apparatus for making. G. E. Savage. No. 1,077,491; Nov. 4; Gaz. vol. 196; p. 89.
 Teeth, Device for use in connection with the articulation of artificial. G. W. Clapp and E. S. Ulsaver. No. 1,079,540; Nov. 25; Gaz. vol. 196; p. 884.
 Telegraph and telephone wires, Support for. H. L. Hoybook. No. 1,078,201; Nov. 11; Gaz. vol. 196; p. 361.
 Telegraph receiver, Printing-. G. S. Hiltz. No. 1,078,620; Nov. 18; Gaz. vol. 196; p. 537.
 Telegraph, Ship's. F. W. Wood. No. 1,078,653; Nov. 18; Gaz. vol. 196; p. 548.
 Telegraph system. E. A. Burlingame. No. 1,078,899; Nov. 18; Gaz. vol. 196; p. 636.
 Telegraph system and alphabet, Printing-. D. S. Huldah. W. J. Herdman, and E. S. Lorimer. No. 1,077,278; Nov. 4; Gaz. vol. 196; p. 12.
 Telegraph system, Multiplex-. J. F. D. Hoge. No. 1,078,284; Nov. 11; Gaz. vol. 196; p. 390.

Telegraphone. J. H. J. Haines. No. 1,079,123; Nov. 18; Gaz. vol. 196; p. 713.
 Telephone, Answering and recording. C. J. Gustafson. No. 1,079,760; Nov. 25; Gaz. vol. 196; p. 963.
 Telephone-booths and the like, Warning device for. A. E. Ayer. No. 1,077,900; Nov. 4; Gaz. vol. 196; p. 226.
 Telephone-bracket. F. Fox. No. 1,078,577; Nov. 11; Gaz. vol. 196; p. 490.
 Telephone-exchange system. W. Aitken. No. 1,079,156; Nov. 18; Gaz. vol. 196; p. 725.
 Telephone-exchange trunking system. A. E. Keith. No. 1,078,685; Nov. 18; Gaz. vol. 196; p. 560.
 Telephone-instrument attachment. W. Wood. No. 1,078,117; Nov. 11; Gaz. vol. 196; p. 332.
 Telephone-mouthpieces, Automatic disinfectant-holder for. A. B. Buckland. No. 1,079,538; Nov. 25; Gaz. vol. 196; p. 883.
 Telephone switching system. W. Aitken. No. 1,079,533; Nov. 25; Gaz. vol. 196; p. 882.
 Telephone system, Automatic. F. Newforth, Jr. No. 1,078,690; Nov. 18; Gaz. vol. 196; p. 561.
 Telephone systems, Protected-cable-terminal box for. T. B. Farmer. No. 1,078,843; Nov. 18; Gaz. vol. 196; p. 616.
 Telephone-transmitter. H. E. Shreeve. No. 1,077,373; Nov. 4; Gaz. vol. 196; p. 46.
 Telephones, Switchboard circuits and apparatus for. H. J. Roberts. No. 1,077,753; Nov. 4; Gaz. vol. 196; p. 175.
 Temperature-controller. M. Schulz. No. 1,078,752; Nov. 18; Gaz. vol. 196; p. 583.
 Templet, Flexible. T. A. Roy and J. H. Hindley. No. 1,078,879; Nov. 18; Gaz. vol. 196; p. 625.
 Tenpin. C. Suss. No. 1,078,223; Nov. 11; Gaz. vol. 196; p. 369.
 Tension device. W. Marcroft. No. 1,078,448; Nov. 11; Gaz. vol. 196; p. 449.
 Tent. F. L. Gould. No. 1,079,757; Nov. 25; Gaz. vol. 196; p. 962.
 Therapeutic apparatus. A. Fumo. No. 1,078,343; Nov. 11; Gaz. vol. 196; p. 411.
 Thermo-electric couple. E. Weintraub. No. 1,079,621; Nov. 25; Gaz. vol. 196; p. 914.
 Thermometer, Incubator-. C. Roberts. No. 1,079,724; Nov. 25; Gaz. vol. 196; p. 949.
 Tie. See Concrete railway-tie; Metal tie; Rail-tie; Railway-tie; Slab-block tie.
 Tie and tie-plate support. C. W. and F. B. Ackermann. No. 1,078,980; Nov. 18; Gaz. vol. 196; p. 662.
 Tie for binding sheaves or the like. R. W. Beckert. No. 1,079,098; Nov. 18; Gaz. vol. 196; p. 704.
 Tie-strap. J. Roop. No. 1,077,559; Nov. 4; Gaz. vol. 196; p. 111.
 Tiles, Machine for classifying. G. A. Stanbery. No. 1,078,883; Nov. 18; Gaz. vol. 196; p. 629.
 Time-recorder. C. E. Tomlinson. No. 1,078,012; Nov. 11; Gaz. vol. 196; p. 296.
 Time-recorder. H. W. Brown. No. 1,078,124; Nov. 11; Gaz. vol. 196; p. 334.
 Time-recording machine. C. E. Tomlinson. No. 1,078,011; Nov. 11; Gaz. vol. 196; p. 295.
 Time-switch, Electric. G. E. Morden and J. L. Chapman. No. 1,079,791; Nov. 25; Gaz. vol. 196; p. 975.
 Timing device. C. R. Moore. No. 1,078,058; Nov. 11; Gaz. vol. 196; p. 312.
 Tin can. J. W. Nichols. No. 1,077,742; Nov. 4; Gaz. vol. 196; p. 172.
 Tire. G. Anger. No. 1,077,504; Nov. 4; Gaz. vol. 196; p. 94.
 Tire. W. Maginnis. No. 1,077,618; Nov. 4; Gaz. vol. 196; p. 130.
 Tire. J. J. Fields. No. 1,079,755; Nov. 25; Gaz. vol. 196; p. 962.
 Tire alarm, Pneumatic-. J. B. Polo. No. 1,078,061; Nov. 11; Gaz. vol. 196; p. 313.
 Tire, Antiskid-. F. W. Kremer. No. 1,078,098; Nov. 11; Gaz. vol. 196; p. 326.
 Tire, Automobile-. A. B. Hollenbeck. No. 1,077,407; Nov. 4; Gaz. vol. 196; p. 59.
 Tire, Automobile-. E. A. Howe. No. 1,079,175; Nov. 18; Gaz. vol. 196; p. 731.
 Tire-bolting machine. M. T. Long. No. 1,078,052; Nov. 11; Gaz. vol. 196; p. 310.
 Tire-bolting machine. G. W. Bonham. No. 1,078,084; Nov. 11; Gaz. vol. 196; p. 320.
 Tire for trucks, Resilient. D. H. Deery. No. 1,077,683; Nov. 4; Gaz. vol. 196; p. 152.
 Tire, Metallic vehicle-. C. Quintus. No. 1,078,876; Nov. 18; Gaz. vol. 196; p. 627.
 Tire, Pneumatic. R. Rondeau. No. 1,079,515; Nov. 25; Gaz. vol. 196; p. 876.
 Tire-protector. R. V. Hastings. No. 1,077,275; Nov. 4; Gaz. vol. 196; p. 11.
 Tire-protector. V. K. Sturges. No. 1,077,440; Nov. 4; Gaz. vol. 196; p. 71.
 Tire-protector, Auto. A. S. Standish. No. 1,079,273; Nov. 18; Gaz. vol. 196; p. 762.
 Tire, Resilient. D. A. York. No. 1,077,782; Nov. 4; Gaz. vol. 196; p. 136.
 Tire shield, Pneumatic-. J. E. Fawcett. No. 1,077,267; Nov. 4; Gaz. vol. 196; p. 9.
 Tire-shrinker. I. I. Scott. No. 1,079,803; Nov. 25; Gaz. vol. 196; p. 979.

Tire-tread. J. F. Le Baron. No. 1,078,153; Nov. 11; Gaz. vol. 196; p. 344.
 Tire-valve dust-cap. J. Lynn. No. 1,079,781; Nov. 25; Gaz. vol. 196; p. 972.
 Tire valve-stem and pressure-gage, Combination. D. C. Hathaway. No. 1,079,704; Nov. 25; Gaz. vol. 196; p. 942.
 Tire, Vehicle-. B. C. Seaton. No. 1,077,310; Nov. 4; Gaz. vol. 196; p. 24.
 Tire, Vehicle-. J. T. Clark. No. 1,079,397; Nov. 25; Gaz. vol. 196; p. 836.
 Tires, Inner tubes for pneumatic. A. and A. Raymond. No. 1,078,515; Nov. 11; Gaz. vol. 196; p. 470.
 Tires, Manufacturing multiple-chamber inner tubes for pneumatic. A. and A. Raymond. No. 1,079,186; Nov. 18; Gaz. vol. 196; p. 735.
 Tobacco-box. W. Parker. No. 1,077,744; Nov. 4; Gaz. vol. 196; p. 172.
 Tobacco elevator, Green-. S. Schmid. No. 1,079,608; Nov. 25; Gaz. vol. 196; p. 910.
 Tobacco-scraper, Treating. C. F. Gloystein. No. 1,078,427; Nov. 11; Gaz. vol. 196; p. 442.
 Tobacco-supporting lath. D. Eagleson. No. 1,077,513; Nov. 4; Gaz. vol. 196; p. 97.
 Toilet implement. F. O. Hinkler. No. 1,078,283; Nov. 11; Gaz. vol. 196; p. 390.
 Tongs, Pipe-. J. T. Martin. No. 1,078,932; Nov. 18; Gaz. vol. 196; p. 645.
 Tongue hounds, Wagon-. W. J. McWilliams. No. 1,079,873; Nov. 25; Gaz. vol. 196; p. 1002.
 Tongue supporter, Wagon-. T. H. Shappy. No. 1,079,189; Nov. 18; Gaz. vol. 196; p. 737.
 Tongue, Wagon-. E. Riggs. No. 1,078,956; Nov. 18; Gaz. vol. 196; p. 652.
 Tool, Compound. J. H. Holden. No. 1,079,243; Nov. 18; Gaz. vol. 196; p. 753.
 Tool, Fluid-pressure-operated. C. H. Peck. No. 1,079,662; Nov. 25; Gaz. vol. 196; p. 927.
 Tool, Percussive. W. Clement. No. 1,078,188; Nov. 11; Gaz. vol. 196; p. 356.
 Tooth, Artificial. E. B. Fewell. No. 1,078,844; Nov. 18; Gaz. vol. 196; p. 617.
 Toothpick-holder, Single-delivery. A. B. Hughes. No. 1,077,715; Nov. 4; Gaz. vol. 196; p. 162.
 Top lift. S. W. Winslow. No. 1,078,652; Nov. 18; Gaz. vol. 196; p. 547.
 Torch, Blow-. L. J. Cloutier. No. 1,077,391; Nov. 4; Gaz. vol. 196; p. 53.
 Torch, Sealing-. E. T. Cornett. No. 1,078,903; Nov. 18; Gaz. vol. 196; p. 636.
 Torch, Welding-. J. C. Gehring, Jr. and R. D. Conrad. No. 1,078,578; Nov. 11; Gaz. vol. 196; p. 490.
 Torpedo, Self-propelling. C. Lemale. No. 1,078,687; Nov. 18; Gaz. vol. 196; p. 561.
 Torpedo, Submarine. H. W. Shonnard. No. 1,077,311; Nov. 4; Gaz. vol. 196; p. 24.
 Towel-dispenser. E. D. Miller. No. 1,078,938; Nov. 18; Gaz. vol. 196; p. 647.
 Towel-retainer. T. Helms and E. R. Galland. No. 1,078,501; Nov. 11; Gaz. vol. 196; p. 465.
 Toy. F. Morinaga. No. 1,077,735; Nov. 4; Gaz. vol. 196; p. 168.
 Toy. A. E. Wilde. No. 1,079,200; Nov. 18; Gaz. vol. 196; p. 740.
 Toys, Accessory for. J. C. Sproull. No. 1,078,704; Nov. 18; Gaz. vol. 196; p. 567.
 Trace-carrier. M. H. Osborn. No. 1,079,605; Nov. 25; Gaz. vol. 196; p. 909.
 Traction device. B. Lindemann. No. 1,079,501; Nov. 25; Gaz. vol. 196; p. 872.
 Tractor. C. M. Manly. No. 1,078,102; Nov. 11; Gaz. vol. 196; p. 327.
 Tractor. E. Bellemare. No. 1,078,820; Nov. 18; Gaz. vol. 196; p. 608.
 Tractor connection. G. D. Munsing. No. 1,078,801; Nov. 18; Gaz. vol. 196; p. 602.
 Tractors, Adjustable tool-hitch for. H. W. Leavitt. No. 1,078,736; Nov. 18; Gaz. vol. 196; p. 578.
 Train-controlling mechanism. R. T. and F. T. Jones. No. 1,077,937; Nov. 4; Gaz. vol. 196; p. 239.
 Train-derailer. C. F. Flemming. No. 1,079,230; Nov. 18; Gaz. vol. 196; p. 749.
 Train-order-delivering device. T. E. Dunbar. No. 1,077,816; Nov. 4; Gaz. vol. 196; p. 197.
 Train-stop. A. R. Mutton. No. 1,077,739; Nov. 4; Gaz. vol. 196; p. 170.
 Train-stopping means. W. T. B. McDonald. No. 1,077,286; Nov. 4; Gaz. vol. 196; p. 15.
 Transfer-terminal. R. H. Rogers. No. 1,077,754; Nov. 4; Gaz. vol. 196; p. 176.
 Transformer, Oil-cooled. F. C. Green. No. 1,078,141; Nov. 11; Gaz. vol. 196; p. 340.
 Transmission mechanism. H. Devlin. No. 1,079,477; Nov. 25; Gaz. vol. 196; p. 863.
 Transmission system. H. Nehlsen. No. 1,079,259; Nov. 18; Gaz. vol. 196; p. 767.
 Transmitting device. E. F. Davenport. No. 1,078,664; Nov. 18; Gaz. vol. 196; p. 552.
 Transplanter. E. E. Engleman. No. 1,077,822; Nov. 4; Gaz. vol. 196; p. 199.

Trap: See Animal-trap; Drain-trap; Fly-trap; Hog-trap; Insect-trap; Lobster-trap; Mole-trap; Rabbit-trap; Spring-trap; Steam-trap; Vacuum separating-trap; Water-trap.

Trap, J. G. Stoll. No. 1,077,567; Nov. 4; Gaz. vol. 196; p. 114.

Trap for rats, gophers, and similar small game. E. K. Van Curen. No. 1,078,520; Nov. 11; Gaz. vol. 196; p. 473.

Traveling-bag. M. Chodorow and R. Harvey. No. 1,079,745; Nov. 25; Gaz. vol. 196; p. 958.

Tray, Filings. C. E. Wilson. No. 1,077,500; Nov. 4; Gaz. vol. 196; p. 93.

Tree-prop. W. P. Shepherd. No. 1,078,004; Nov. 11; Gaz. vol. 196; p. 293.

Trick-box, Collapsible. S. Hechinger. No. 1,079,762; Nov. 25; Gaz. vol. 196; p. 964.

Tricycle propelling mechanism. P. A. McCarty. No. 1,078,056; Nov. 11; Gaz. vol. 196; p. 311.

Trimmer: See Heel-trimmer.

Trolley. E. Reddick and J. P. Noel. No. 1,078,218; Nov. 11; Gaz. vol. 196; p. 387.

Trolley-collector shoe. W. H. Miller. No. 1,079,059; Nov. 18; Gaz. vol. 196; p. 691.

Trolley-guard. P. Dragan, C. D. George, and R. J. Palmerio. No. 1,078,489; Nov. 11; Gaz. vol. 196; p. 461.

Trolley-guard. M. Guariglia. No. 1,079,408; Nov. 25; Gaz. vol. 196; p. 839.

Trolley-pole retriever. C. B. Rodgers and J. A. Brennan. No. 1,077,558; Nov. 4; Gaz. vol. 196; p. 111.

Trolley-pole support. J. M. Andersen. No. 1,078,762; Nov. 18; Gaz. vol. 196; p. 588.

Trolley-wheel. J. S. Randolph. No. 1,078,643; Nov. 18; Gaz. vol. 196; p. 545.

Trombone. C. J. Klefer. No. 1,079,828; Nov. 18; Gaz. vol. 196; p. 540.

Trough: See Feed-trough.

Trousers-belt. A. K. Wander and R. Dalmar. No. 1,078,974; Nov. 18; Gaz. vol. 196; p. 639.

Truck, Auto dumping. E. H. Vincent. No. 1,077,570; Nov. 4; Gaz. vol. 196; p. 115.

Truck brake, Railway. G. Napier and H. B. Harris. No. 1,079,357; Nov. 25; Gaz. vol. 196; p. 822.

Truck, Car. C. T. Westlake. No. 1,078,648; Nov. 18; Gaz. vol. 196; p. 546.

Truck, Car. W. F. Kiesel, Jr. No. 1,079,178; Nov. 18; Gaz. vol. 196; p. 732.

Truck, Car. J. C. Whitridge and G. T. Johnson. No. 1,079,199; Nov. 18; Gaz. vol. 196; p. 740.

Truck, Car. C. T. Westlake. No. 1,079,458; Nov. 25; Gaz. vol. 196; p. 856.

Truck, Car. C. T. Westlake. No. 1,079,459; Nov. 25; Gaz. vol. 196; p. 857.

Truck connection. E. Stevens. No. 1,079,318; Nov. 18; Gaz. vol. 196; p. 777.

Truck, Electric-railway. W. L. Boyer. No. 1,079,380; Nov. 25; Gaz. vol. 196; p. 833.

Truck, Railway-station. J. A. Murphy. No. 1,077,738; Nov. 4; Gaz. vol. 196; p. 170.

Truck-reel for conductor-wires. T. R. Jenkins, Jr. No. 1,079,299; Nov. 18; Gaz. vol. 196; p. 770.

Trunk-strap. F. C. Isitt. No. 1,077,716; Nov. 4; Gaz. vol. 196; p. 162.

Trunk, Wardrobe. M. Cherry, Jr. No. 1,078,715; Nov. 18; Gaz. vol. 196; p. 571.

Truss-rod anchor. J. M. Ames. No. 1,078,235; Nov. 11; Gaz. vol. 196; p. 372.

Tub: See Bath-tub; Bed-tub.

Tube-expander. J. P. Kerrigan. No. 1,077,837; Nov. 4; Gaz. vol. 196; p. 203.

Tube-making machine. A. B. Starr. No. 1,077,764; Nov. 4; Gaz. vol. 196; p. 180.

Tubes from fibrous material, Machine for making. J. E. Lappen. No. 1,079,774; Nov. 25; Gaz. vol. 196; p. 963.

Tubes with lead, tin, or the like, Apparatus for lining. P. Theuerkorn. No. 1,078,387; Nov. 11; Gaz. vol. 196; p. 428.

Tuberculosis and making said substance. Substance for treatment of. B. S. Paschall. No. 1,078,873; Nov. 18; Gaz. vol. 196; p. 626.

Tungsten, Treating. C. T. Fuller. No. 1,077,827; Nov. 4; Gaz. vol. 196; p. 200.

Tungsten, Working. C. T. Fuller. No. 1,077,896; Nov. 4; Gaz. vol. 196; p. 156.

Turbine, Axial-flow steam. C. B. Rearick. No. 1,077,300; Nov. 4; Gaz. vol. 196; p. 20.

Turnstile. A. W. Irwin. No. 1,077,984; Nov. 11; Gaz. vol. 196; p. 287.

Twine-holder. J. C. Case. No. 1,077,453; Nov. 4; Gaz. vol. 196; p. 75.

Twine-holder. C. Yorger. No. 1,079,896; Nov. 25; Gaz. vol. 196; p. 1010.

Type. W. R. Allen. No. 1,078,400; Nov. 11; Gaz. vol. 196; p. 433.

Type. G. R. Cornwall. No. 1,079,402; Nov. 25; Gaz. vol. 196; p. 838.

Type-bar. W. R. Allen. No. 1,078,401; Nov. 11; Gaz. vol. 196; p. 433.

Type-casting and composing machines, Centering or positioning mechanism for. J. B. Bancroft and M. C. Indahl. No. 1,079,321; Nov. 25; Gaz. vol. 196; p. 810.

Type-casting machine. F. Sully. No. 1,079,366; Nov. 25; Gaz. vol. 196; p. 825.

Type-composing machine. A. Savarese. No. 1,077,759; Nov. 4; Gaz. vol. 196; p. 178.

Type setting and distributing machine. C. Collin. No. 1,078,832; Nov. 18; Gaz. vol. 196; p. 612.

Type setting and distributing machine. H. C. Osborn. No. 1,079,716; Nov. 25; Gaz. vol. 196; p. 946.

Type-setting and type-distributing machine. A. Smith. No. 1,077,493; Nov. 4; Gaz. vol. 196; p. 90.

Type-writer. W. J. Kauffman. No. 1,077,281; Nov. 4; Gaz. vol. 196; p. 13.

Type-writer. M. C. Crawley. No. 1,077,875; Nov. 4; Gaz. vol. 196; p. 140.

Type-writer. F. C. Clark. No. 1,077,804; Nov. 4; Gaz. vol. 196; p. 193.

Type-writer. G. B. Baker. No. 1,078,081; Nov. 11; Gaz. vol. 196; p. 320.

Type-writer. A. Van Loy. No. 1,079,812; Nov. 25; Gaz. vol. 196; p. 981.

Type-writers, Pneumatic printing mechanism for. M. Soblik. No. 1,079,447; Nov. 25; Gaz. vol. 196; p. 852.

Type-writing and computing machine, Combined. G. O. Degener and H. Resch. No. 1,077,684; Nov. 4; Gaz. vol. 196; p. 152.

Type-writing machine. H. H. Steele. No. 1,077,495; Nov. 4; Gaz. vol. 196; p. 91.

Type-writing machine. J. A. Ronchetti. No. 1,077,941; Nov. 4; Gaz. vol. 196; p. 241.

Type-writing machine. G. A. Selb. No. 1,078,066; Nov. 11; Gaz. vol. 196; p. 315.

Type-writing machine. C. B. Corcoran. No. 1,078,537; Nov. 11; Gaz. vol. 196; p. 477.

Type-writing machine. J. A. Hagerstrom. (Reissue.) No. 13,049; Nov. 18; Gaz. vol. 196; p. 778.

Type-writing machine. C. H. Vogel. No. 1,079,528; Nov. 25; Gaz. vol. 196; p. 879.

Type-writing machine. H. V. Fengler and V. B. Roulliot. No. 1,079,548; Nov. 25; Gaz. vol. 196; p. 887.

Type-writing machine. C. H. Vogel. No. 1,079,731; Nov. 25; Gaz. vol. 196; p. 951.

Type-writing machine, Electrically-operated duplicate. B. Kelley. No. 1,078,626; Nov. 18; Gaz. vol. 196; p. 539.

Type-writing machines and the like, Silencing and anti-concussive support for. H. H. Yelf. No. 1,079,037; Nov. 18; Gaz. vol. 196; p. 684.

Typographical machine. N. Dodge. No. 1,077,397; Nov. 4; Gaz. vol. 196; p. 55.

Typographical machine. S. D. Handlin. No. 1,077,804; Nov. 4; Gaz. vol. 196; p. 125.

Typographical machine. D. S. Kennedy. No. 1,077,721; Nov. 4; Gaz. vol. 196; p. 164.

Typographical machine. F. T. Dodge. No. 1,079,478; Nov. 25; Gaz. vol. 196; p. 863.

Typographical machine. D. S. Kennedy. No. 1,079,498; Nov. 25; Gaz. vol. 196; p. 871.

Typographical machines, Pl-stacking device for. N. Dodge. No. 1,078,612; Nov. 18; Gaz. vol. 196; p. 534.

Umbrella. M. Carrau. No. 1,078,414; Nov. 11; Gaz. vol. 196; p. 437.

Umbrella or parasol. E. E. Tschudy. No. 1,079,198; Nov. 18; Gaz. vol. 196; p. 739.

Umbrella rib and socket. F. W. Simons. No. 1,078,009; Nov. 11; Gaz. vol. 196; p. 316.

Uncoupling device. C. A. Carscadin and G. A. Woodman. No. 1,079,395; Nov. 25; Gaz. vol. 196; p. 835.

Underframe. J. M. Rohlfing. No. 1,078,309; Nov. 11; Gaz. vol. 196; p. 401.

Underframe. J. M. Rohlfing. No. 1,078,310; Nov. 11; Gaz. vol. 196; p. 401.

Underreamer. W. W. Wilson. No. 1,078,568; Nov. 11; Gaz. vol. 196; p. 437.

Underwear, Lady's. H. G. G. Querna. No. 1,078,217; Nov. 11; Gaz. vol. 196; p. 367.

Vacuum and water connections. C. G. Patterson. No. 1,078,582; Nov. 11; Gaz. vol. 196; p. 482.

Vacuum-cleaner. J. W. Fulper. No. 1,077,518; Nov. 4; Gaz. vol. 196; p. 98.

Vacuum-cleaner. E. L. Abrames and J. H. Coryell. No. 1,077,947; Nov. 4; Gaz. vol. 196; p. 243.

Vacuum cleaning apparatus. C. Swann. No. 1,078,469; Nov. 11; Gaz. vol. 196; p. 455.

Vacuum cleaning apparatus. T. J. and D. M. Winans. No. 1,078,651; Nov. 18; Gaz. vol. 196; p. 547.

Vacuum cleaning device. A. Best. No. 1,078,185; Nov. 11; Gaz. vol. 196; p. 356.

Vacuum-package and means for sealing same. G. Staunton. No. 1,079,450; Nov. 25; Gaz. vol. 196; p. 853.

Vacuum separating-trap. W. F. Coakley and J. S. Levene. No. 1,079,398; Nov. 25; Gaz. vol. 196; p. 837.

Valve. A. A. Bowser. No. 1,079,104; Nov. 18; Gaz. vol. 196; p. 706.

Valve. D. Dennehy. No. 1,079,222; Nov. 18; Gaz. vol. 196; p. 746.

Valve and governor, Combined. S. R. Adams and L. H. Jackson. No. 1,079,626; Nov. 25; Gaz. vol. 196; p. 915.

Valve, Atomizing and mixing. W. D. C. Wright. No. 1,078,816; Nov. 18; Gaz. vol. 196; p. 607.

Valve, Automatic. E. V. Anderson. No. 1,077,503; Nov. 4; Gaz. vol. 196; p. 94.

Valve, Check. H. W. Massey. No. 1,077,415; Nov. 4; Gaz. vol. 196; p. 62.

Valve control, Engine. I. Baker. No. 1,077,581; Nov. 4; Gaz. vol. 196; p. 118.

Valve, Cushion. E. V. Anderson. No. 1,077,502; Nov. 4; Gaz. vol. 196; p. 94.

Valve, Engine. T. B. Farrington. No. 1,079,643; Nov. 25; Gaz. vol. 196; p. 920.

Valve, Engineer's. B. S. Aikman. No. 1,079,909; Nov. 25; Gaz. vol. 196; p. 1015.

Valve, Float. P. Mueller. No. 1,078,943; Nov. 18; Gaz. vol. 196; p. 648.

Valve, Flush. A. N. Pasman. No. 1,077,745; Nov. 4; Gaz. vol. 196; p. 172.

Valve, Flush-out. A. Tosco and P. Sallina. No. 1,079,036; Nov. 18; Gaz. vol. 196; p. 683.

Valve, Flushing. J. L. Williams. No. 1,078,113; Nov. 11; Gaz. vol. 196; p. 331.

Valve for air-brakes, Tripie. S. G. Neal. No. 1,078,303; Nov. 11; Gaz. vol. 196; p. 398.

Valve for controlling compressed air. A. J. Gates. No. 1,077,697; Nov. 4; Gaz. vol. 196; p. 156.

Valve for explosion-engines, Rotary. F. G. Schehr. No. 1,078,699; Nov. 18; Gaz. vol. 196; p. 565.

Valve for flush-tanks. E. L. Delany. No. 1,077,457; Nov. 4; Gaz. vol. 196; p. 77.

Valve for gas-burners. E. S. Allen. No. 1,079,684; Nov. 25; Gaz. vol. 196; p. 934.

Valve for internal-combustion engines, Starting. H. T. Bruns. No. 1,077,795; Nov. 4; Gaz. vol. 196; p. 190.

Valve for locomotives, Drifting. J. Sandy. No. 1,078,065; Nov. 11; Gaz. vol. 196; p. 315.

Valve for locomotives, Drifting. R. Rennie and H. R. Stafford. No. 1,079,514; Nov. 25; Gaz. vol. 196; p. 875.

Valve for radiators and the like, Diaphragm exhaust. J. McAlear. No. 1,077,731; Nov. 4; Gaz. vol. 196; p. 167.

Valve for steam-heated apparatus and the like, Blow-off. F. Raffensdorfer. No. 1,079,663; Nov. 25; Gaz. vol. 196; p. 927.

Valve for water-heaters, Gas-control. H. Elsenbach and W. F. Smith. No. 1,078,089; Nov. 11; Gaz. vol. 196; p. 322.

Valve, Gas. E. W. Havers. No. 1,079,337; Nov. 25; Gaz. vol. 196; p. 816.

Valve-gear. A. E. Hall. No. 1,078,277; Nov. 11; Gaz. vol. 196; p. 387.

Valve gear for blowing-engines, Discharge. C. G. Sprado. No. 1,079,374; Nov. 25; Gaz. vol. 196; p. 828.

Valve-gear for steam-engines. R. Wetherill. No. 1,077,898; Nov. 4; Gaz. vol. 196; p. 225.

Valve-grinder. C. C. Frank. No. 1,079,292; Nov. 18; Gaz. vol. 196; p. 767.

Valve, Internal-combustion-engine. C. E. Swenson. No. 1,077,017; Nov. 4; Gaz. vol. 196; p. 27.

Valve mechanism for locomotive-engines, Drifting. W. H. Foster. No. 1,077,695; Nov. 4; Gaz. vol. 196; p. 156.

Valve or strainer. Sand. A. Hamill. No. 1,078,674; Nov. 18; Gaz. vol. 196; p. 556.

Valve, Plug. J. McCarthy. No. 1,079,254; Nov. 18; Gaz. vol. 196; p. 756.

Valve-reversing gear, Steam-engine. H. R. Stafford and R. Rennie. No. 1,077,862; Nov. 4; Gaz. vol. 196; p. 212.

Valve-reversing gear, Steam-engine. W. Dalton. No. 1,078,774; Nov. 18; Gaz. vol. 196; p. 593.

Valve-stem and check-valve. C. A. Haas. No. 1,078,347; Nov. 11; Gaz. vol. 196; p. 413.

Valve structure for internal-combustion engines. M. E. Morel. No. 1,078,942; Nov. 18; Gaz. vol. 196; p. 648.

Valve, Vacuum. O. S. Sleeper. No. 1,079,150; Nov. 18; Gaz. vol. 196; p. 722.

Vapor apparatus, Electric. C. O. Bastian. No. 1,079,926; Nov. 25; Gaz. vol. 196; p. 1021.

Vapor apparatus, Mercury. J. C. Pole. No. 1,078,641; Nov. 18; Gaz. vol. 196; p. 544.

Vapor apparatus, Mercury. F. G. Keyes. No. 1,078,859; Nov. 18; Gaz. vol. 196; p. 622.

Vapor rectifier, Mercury. J. W. Lewis. No. 1,078,629; Nov. 18; Gaz. vol. 196; p. 540.

Vault, Burial. A. D. Cook. No. 1,079,217; Nov. 18; Gaz. vol. 196; p. 745.

Vehicle advancing by means of artificial legs. A. Ehrlich. No. 1,079,695; Nov. 25; Gaz. vol. 196; p. 938.

Vehicle-brake. S. R. O'Brien. No. 1,077,546; Nov. 4; Gaz. vol. 196; p. 107.

Vehicle-check. W. E. Ferrine. No. 1,079,020; Nov. 18; Gaz. vol. 196; p. 678.

Vehicle drive-wheel mounting. J. S. Booth. No. 1,077,928; Nov. 4; Gaz. vol. 196; p. 235.

Vehicle, Dumping. L. Bruder. No. 1,078,246; Nov. 11; Gaz. vol. 196; p. 376.

Vehicle, Dumping. W. B. and P. S. Longest. No. 1,079,780; Nov. 25; Gaz. vol. 196; p. 971.

Vehicle-fender. J. Mascari. No. 1,079,872; Nov. 25; Gaz. vol. 196; p. 1002.

Vehicle-jack. M. Stewart. No. 1,078,111; Nov. 11; Gaz. vol. 196; p. 330.

Vehicle-rim, Auxiliary raising and centering. A. J. A. Brunet. No. 1,078,825; Nov. 18; Gaz. vol. 196; p. 610.

Vehicle, Self-propelled. C. W. Coleman. No. 1,077,598; Nov. 4; Gaz. vol. 196; p. 123.

Vehicle-spring. H. J. Mitchell. No. 1,079,057; Nov. 11; Gaz. vol. 196; p. 312.

Vehicle-support. L. Wand. No. 1,077,445; Nov. 4; Gaz. vol. 196; p. 72.

Vehicle transmission and steering mechanism, Motor-driven. H. H. Schieler. No. 1,079,607; Nov. 25; Gaz. vol. 196; p. 910.

Vehicle-ventilator. D. Fergusson and J. R. Way. No. 1,078,340; Nov. 11; Gaz. vol. 196; p. 410.

Vehicle-wheel. J. Bray. No. 1,077,388; Nov. 4; Gaz. vol. 196; p. 51.

Vehicle-wheel. A. R. Burkett. No. 1,077,799; Nov. 4; Gaz. vol. 196; p. 191.

Vehicle-wheel. W. A. Millam. No. 1,077,994; Nov. 11; Gaz. vol. 196; p. 290.

Vehicle-wheel. T. Ploss. No. 1,078,164; Nov. 11; Gaz. vol. 196; p. 348.

Vehicle-wheel. J. P. Champion. No. 1,078,256; Nov. 11; Gaz. vol. 196; p. 380.

Vehicle-wheel. H. W. Alden. No. 1,078,760; Nov. 18; Gaz. vol. 196; p. 587.

Vehicle-wheel. F. S. Ellis. No. 1,078,907; Nov. 18; Gaz. vol. 196; p. 637.

Vehicle-wheel. J. R. Gerard. No. 1,078,916; Nov. 18; Gaz. vol. 196; p. 640.

Vehicle-wheel. R. K. Gratigny. No. 1,079,644; Nov. 25; Gaz. vol. 196; p. 921.

Vehicle-wheel, Pneumatic. J. U. Wells. No. 1,079,082; Nov. 18; Gaz. vol. 196; p. 699.

Vehicles, Fifth-wheel connection for. M. Davis. No. 1,079,475; Nov. 25; Gaz. vol. 196; p. 862.

Vehicles, Means for issuing directions concerning care of motor. G. S. Van Voorhis. No. 1,077,857; Nov. 4; Gaz. vol. 196; p. 143.

Vell-holder, Lady's. E. H. Leonard. No. 1,078,362; Nov. 11; Gaz. vol. 196; p. 419.

Vending-machine. J. W. Patterson. No. 1,078,372; Nov. 11; Gaz. vol. 196; p. 422.

Vending-receptacle. H. H. Goldstein. No. 1,078,346; Nov. 11; Gaz. vol. 196; p. 412.

Veneer branding or printing press. O. C. Fenlason. No. 1,078,490; Nov. 11; Gaz. vol. 196; p. 461.

Ventilator: See Vehicle-ventilator; Window-ventilator.

Ventilator. F. A. McLane, E. H. Friedrich, and R. B. Warner. No. 1,077,847; Nov. 4; Gaz. vol. 196; p. 207.

Ventilator-frame, Adjustable. M. G. Bunnell. No. 1,078,033; Nov. 11; Gaz. vol. 196; p. 303.

Vessel emergency-brake. S. S. Centofant. No. 1,078,902; Nov. 18; Gaz. vol. 196; p. 636.

Vestibule-hood. A. E. Ostrander. No. 1,078,306; Nov. 11; Gaz. vol. 196; p. 400.

Vibration-recorder. W. E. McGraw. No. 1,078,867; Nov. 18; Gaz. vol. 196; p. 624.

Vise. J. Sayer and G. G. Dent. No. 1,079,883; Nov. 25; Gaz. vol. 196; p. 1005.

Vise, Jeweler's. E. C. Wilcoxson and E. Swanson. No. 1,077,661; Nov. 4; Gaz. vol. 196; p. 145.

Voltage-regulator. W. S. Bralley. No. 1,077,792; Nov. 4; Gaz. vol. 196; p. 189.

Wagon attachment, Farm. W. L. Kohler. No. 1,079,248; Nov. 18; Gaz. vol. 196; p. 755.

Wagon-dump. J. H. Gilman. No. 1,078,670; Nov. 18; Gaz. vol. 196; p. 554.

Wagon-dump. J. H. Gilman. No. 1,078,672; Nov. 18; Gaz. vol. 196; p. 555.

Wagon-jack. G. L. Chitwood. No. 1,078,610; Nov. 18; Gaz. vol. 196; p. 533.

Wagon-jack. B. Schrader. No. 1,079,802; Nov. 25; Gaz. vol. 196; p. 978.

Wagon-axle. W. J. J. and H. B. Shelton. No. 1,078,618; Nov. 11; Gaz. vol. 196; p. 471.

Wagons, Bumper for log. W. F. Jones. No. 1,079,859; Nov. 25; Gaz. vol. 196; p. 997.

Waistband for garments. A. G. Pelne. No. 1,078,950; Nov. 18; Gaz. vol. 196; p. 651.

Waistband, Tubular. A. E. Allum. No. 1,077,250; Nov. 4; Gaz. vol. 196; p. 3.

Wall construction. J. Conzelman. No. 1,079,112; Nov. 18; Gaz. vol. 196; p. 709.

Wall construction, Double. J. E. Conzelman. No. 1,079,111; Nov. 18; Gaz. vol. 196; p. 709.

Wall construction, Double. J. E. Conzelman. No. 1,079,113; Nov. 18; Gaz. vol. 196; p. 710.

Wall-tying device. G. W. Denison. No. 1,079,115; Nov. 18; Gaz. vol. 196; p. 710.

War-ships, Powder or explosive magazine for. J. E. Starr. No. 1,079,069; Nov. 18; Gaz. vol. 196; p. 695.

War-ships, Powder or explosive magazine for. C. C. Palmer. No. 1,079,070; Nov. 18; Gaz. vol. 196; p. 695.

Wardrobe. O. Herrmann. No. 1,078,502; Nov. 11; Gaz. vol. 196; p. 465.

Warp stop-motion. E. H. Ryon. No. 1,079,025; Nov. 18; Gaz. vol. 196; p. 680.

Warp stop-motion attachment. G. Patterson. No. 1,078,215; Nov. 11; Gaz. vol. 196; p. 366.

Warp-tying machine. H. D. Colman. No. 1,079,470; Nov. 25; Gaz. vol. 196; p. 861.

Washer: See Stone-washer.

Washing-machine. D. E. G. Clarke. No. 1,077,330; Nov. 4; Gaz. vol. 196; p. 31.

Washing-machine. H. F. Kuhlmann. No. 1,077,534; Nov. 4; Gaz. vol. 196; p. 104.

Washing-machine. L. A. Curtis and E. H. Hall. No. 1,078,486; Nov. 11; Gaz. vol. 196; p. 460.

Washing-machines and wringers, Gearing device for. W. J. Schooner. No. 1,079,582; Nov. 25; Gaz. vol. 196; p. 900.

Washing-machines, Mechanical movement for. W. H. Voss. No. 1,079,456; Nov. 25; Gaz. vol. 196; p. 856.

Washing-machines, Mechanical movement for. S. T. White. No. 1,079,460; Nov. 25; Gaz. vol. 196; p. 857.

Water applicator, Hot and cold. T. Michael. No. 1,078,207; Nov. 11; Gaz. vol. 196; p. 363.

Water-closet seat. H. M. Hoelscher. No. 1,079,007; Nov. 18; Gaz. vol. 196; p. 873.
 Water-closet-seat-actuating mechanism. A. L. Walten-sperger. No. 1,079,732; Nov. 25; Gaz. vol. 196; p. 952.
 Water-cooler. W. E. Patnaude. No. 1,078,214; Nov. 11; Gaz. vol. 196; p. 366.
 Water-cooling apparatus. L. L. Wilson. No. 1,079,087; Nov. 18; Gaz. vol. 196; p. 700.
 Water-escape or scupper. G. W. Schodde. No. 1,078,700; Nov. 18; Gaz. vol. 196; p. 565.
 Water-feeding attachment. D. F. Leone. No. 1,079,809; Nov. 25; Gaz. vol. 196; p. 1001.
 Water-heater. J. Antonuccio. No. 1,077,579; Nov. 4; Gaz. vol. 196; p. 117.
 Water-heater. J. F. Jones. No. 1,077,609; Nov. 4; Gaz. vol. 196; p. 127.
 Water-heater. S. Soeda. No. 1,077,648; Nov. 4; Gaz. vol. 196; p. 141.
 Water-heater. J. E. Gillespie. No. 1,077,828; Nov. 4; Gaz. vol. 196; p. 201.
 Water-heater. L. Ramsey. No. 1,078,694; Nov. 18; Gaz. vol. 196; p. 563.
 Water-heater. C. A. Haas. No. 1,079,005; Nov. 18; Gaz. vol. 196; p. 672.
 Water-heater. J. O. Van Buskirk and E. Meler. No. 1,079,811; Nov. 25; Gaz. vol. 196; p. 981.
 Water-heater, Electric. J. Polak. No. 1,079,185; Nov. 18; Gaz. vol. 196; p. 735.
 Water heating and measuring apparatus. E. G. Jay, Jr. No. 1,077,350; Nov. 4; Gaz. vol. 196; p. 38.
 Water-heating apparatus. J. C. Jones, J. W. Gamble, and H. E. Sibson. No. 1,078,823; Nov. 18; Gaz. vol. 196; p. 538.
 Water-heating device. H. K. Bealer. No. 1,079,826; Nov. 25; Gaz. vol. 196; p. 986.
 Water purification. W. T. Alliger, J. W. Gamble, and G. H. Gibson. No. 1,078,655; Nov. 18; Gaz. vol. 196; p. 549.
 Water-raising wheel. J. O. McIntosh. No. 1,078,103; Nov. 11; Gaz. vol. 196; p. 328.
 Water-supply system. T. F. Hornung. No. 1,077,473; Nov. 4; Gaz. vol. 196; p. 83.
 Water tasteless and odorless, Rendering sterilized. R. Gruter. No. 1,078,918; Nov. 18; Gaz. vol. 196; p. 641.
 Water-trap for carbide light systems. J. B. McDavitt. No. 1,077,358; Nov. 4; Gaz. vol. 196; p. 41.
 Water-treating apparatus. E. Hixon and E. S. Parker. No. 1,077,406; Nov. 4; Gaz. vol. 196; p. 59.
 Water-wheel, Current. T. Symmonds. No. 1,077,318; Nov. 4; Gaz. vol. 196; p. 27.
 Watering-can. S. C. Skanks. No. 1,078,005; Nov. 11; Gaz. vol. 196; p. 294.
 Waterproof surfacing composition, Liquid. G. W. Magnus. No. 1,079,782; Nov. 25; Gaz. vol. 196; p. 972.
 Wave-motion motor. L. A. Trull. No. 1,078,323; Nov. 11; Gaz. vol. 196; p. 404.
 Wave-motor. R. A. Bemis. No. 1,077,509; Nov. 4; Gaz. vol. 196; p. 96.
 Wave-motor. L. A. Trull. No. 1,078,324; Nov. 11; Gaz. vol. 196; p. 405.
 Weather-strip. F. W. Baxendale. No. 1,078,531; Nov. 11; Gaz. vol. 196; p. 475.
 Weed-puller. C. N. Walton. No. 1,079,619; Nov. 25; Gaz. vol. 196; p. 913.
 Weeder, Rotary. J. K. Downie. No. 1,078,338; Nov. 11; Gaz. vol. 196; p. 409.
 Weighing device, Automatic. J. Grimes. No. 1,079,407; Nov. 25; Gaz. vol. 196; p. 839.
 Weighing device, Automatic. A. A. Pile. No. 1,079,877; Nov. 25; Gaz. vol. 196; p. 1003.
 Weighing-machine, Automatic. E. G. Thomas. No. 1,078,971; Nov. 18; Gaz. vol. 196; p. 658.
 Welding. R. D. Thomson. No. 1,078,226; Nov. 11; Gaz. vol. 196; p. 369.
 Welding apparatus, Electrical. J. A. Heany. No. 1,078,675; Nov. 18; Gaz. vol. 196; p. 556.
 Welding-machine, Electric. J. C. Swanson, C. A. Linden, and C. A. Carlson. No. 1,079,073; Nov. 18; Gaz. vol. 196; p. 696.
 Welding-machine work-table, Electric. R. C. Pierce. No. 1,078,639; Nov. 18; Gaz. vol. 196; p. 544.
 Welding, Method of and apparatus for electric. E. A. Faller. No. 1,077,953; Nov. 4; Gaz. vol. 196; p. 245.
 Welding of sheet metal, Electrical. E. Thomson. No. 1,078,225; Nov. 11; Gaz. vol. 196; p. 369.
 Well-boring apparatus. R. H. Canfield. No. 1,079,836; Nov. 25; Gaz. vol. 196; p. 989.
 Well-casing plug. R. C. Baker. No. 1,078,895; Nov. 18; Gaz. vol. 196; p. 633.
 Well-casing shoe. R. C. Baker. No. 1,078,530; Nov. 11; Gaz. vol. 196; p. 474.
 Well-digger's tool. P. D. Bundy. No. 1,079,162; Nov. 18; Gaz. vol. 196; p. 727.
 Well-drilling gear. S. J. Mathews. No. 1,077,620; Nov. 4; Gaz. vol. 196; p. 131.
 Well-drilling machine. E. Rand. No. 1,078,064; Nov. 11; Gaz. vol. 196; p. 314.
 Well mechanism. J. A. Wintroath. No. 1,079,879; Nov. 25; Gaz. vol. 196; p. 932.
 Well mechanism. P. D. Bowler and W. D. Dutton. No. 1,079,689; Nov. 25; Gaz. vol. 196; p. 936.

Well mechanism. P. D. Bowler and W. D. Dutton. No. 1,079,690; Nov. 25; Gaz. vol. 196; p. 936.
 Well-sinking apparatus. M. T. Chapman. No. 1,079,396; Nov. 25; Gaz. vol. 196; p. 836.
 Well-sinking apparatus. M. T. Chapman. No. 1,079,539; Nov. 25; Gaz. vol. 196; p. 884.
 Well strainer, Driven. A. D. Cook. No. 1,079,216; Nov. 18; Gaz. vol. 196; p. 745.
 Well-tubing, Automatic stop for. C. Ochs. No. 1,079,659; Nov. 25; Gaz. vol. 196; p. 926.
 Wells, Top packer for oil or gas. J. C. Stinson. No. 1,077,566; Nov. 4; Gaz. vol. 196; p. 114.
 Welt for footwear. J. G. Gerber. No. 1,078,043; Nov. 11; Gaz. vol. 196; p. 307.
 Wheel: See Caster-wheel; Fifth-wheel; Knockdown wheel; Measuring-wheel; Metallic wheel; Motor-wheel; Resilient wheel; Sheet-metal wheel; Spring-wheel; Trolley-wheel; Vehicle-wheel; Water-wheel; Water-raising wheel; Wind-wheel.
 Wheel. M. D. Price. No. 1,078,461; Nov. 11; Gaz. vol. 196; p. 452.
 Wheel. C. W. Bell and S. P. Hillwig. No. 1,079,828; Nov. 25; Gaz. vol. 196; p. 986.
 Wheel and method of and apparatus for making the same. J. Slattery. No. 1,079,030; Nov. 18; Gaz. vol. 196; p. 682.
 Wheel-brake, Automobile. R. H. White. No. 1,078,976; Nov. 18; Gaz. vol. 196; p. 660.
 Whiffletree-hook. H. C. Colglazier. No. 1,078,418; Nov. 11; Gaz. vol. 196; p. 439.
 Whiffletree-hook. O. B. Haga. No. 1,078,434; Nov. 11; Gaz. vol. 196; p. 444.
 Whiffletree hook and ferrule, Combined. M. E. Gross. No. 1,079,236; Nov. 18; Gaz. vol. 196; p. 751.
 Whip, rein. and lap-rope lock for vehicles, Combined. O. W. Wilde. No. 1,079,530; Nov. 25; Gaz. vol. 196; p. 881.
 Whip-socket. W. F. Skeen and H. L. McNicol. No. 1,078,006; Nov. 11; Gaz. vol. 196; p. 294.
 Wind-wheel or propeller. W. R. Martin. No. 1,078,157; Nov. 11; Gaz. vol. 196; p. 345.
 Winding machines, Automatic brake mechanism for spool. A. Sundh. No. 1,077,376; Nov. 4; Gaz. vol. 196; p. 47.
 Window. O. M. Edwards. No. 1,077,875; Nov. 4; Gaz. vol. 196; p. 217.
 Window. H. Velsler. No. 1,079,525; Nov. 25; Gaz. vol. 196; p. 879.
 Window-cleaner. W. H. Ford. No. 1,077,402; Nov. 4; Gaz. vol. 196; p. 58.
 Window-cleaning device. H. F. Stubenrauch. No. 1,077,651; Nov. 4; Gaz. vol. 196; p. 142.
 Window-lock. C. F. Hanington. No. 1,077,605; Nov. 4; Gaz. vol. 196; p. 126.
 Window-operating mechanism. H. L. Elchhorn. No. 1,077,907; Nov. 4; Gaz. vol. 196; p. 228.
 Window-screen. P. A. Roselle. No. 1,077,917; Nov. 4; Gaz. vol. 196; p. 232.
 Window-screen. M. G. Bunnell. No. 1,078,827; Nov. 18; Gaz. vol. 196; p. 610.
 Window-shield. D. O. N. Baldwin. No. 1,078,765; Nov. 18; Gaz. vol. 196; p. 589.
 Window, Sliding. H. Nikolaus. No. 1,078,369; Nov. 11; Gaz. vol. 196; p. 421.
 Window-ventilator. A. B. Moon. No. 1,078,453; Nov. 11; Gaz. vol. 196; p. 450.
 Window-ventilator. J. S. Kinkad. No. 1,078,860; Nov. 18; Gaz. vol. 196; p. 622.
 Window-weight, Interchangeable. J. Atlas. No. 1,077,924; Nov. 4; Gaz. vol. 196; p. 234.
 Windows, Rain-shield for. C. E. Martin. No. 1,077,730; Nov. 4; Gaz. vol. 196; p. 167.
 Wing attachment. J. M. Oglesby. No. 1,078,371; Nov. 11; Gaz. vol. 196; p. 422.
 Wire-bending machine. W. W. Shirley. No. 1,079,890; Nov. 25; Gaz. vol. 196; p. 1008.
 Wire fabric, Corrugated link for. G. B. Smith. No. 1,079,806; Nov. 25; Gaz. vol. 196; p. 980.
 Wire-fabric machine. J. W. Sommer. No. 1,078,702; Nov. 18; Gaz. vol. 196; p. 566.
 Wire fabrics, Forming woven. M. P. Reynolds. No. 1,078,380; Nov. 11; Gaz. vol. 196; p. 425.
 Wire-handling apparatus. W. W. Steiner. No. 1,078,519; Nov. 11; Gaz. vol. 196; p. 471.
 Wire-mesh fabric. E. Fuller. No. 1,079,293; Nov. 18; Gaz. vol. 196; p. 768.
 Wire-stretcher. I. W. Holland. No. 1,079,127; Nov. 18; Gaz. vol. 196; p. 714.
 Wire-stretcher. G. A. Cole. No. 1,079,214; Nov. 18; Gaz. vol. 196; p. 744.
 Wire-stretcher. F. Gibson. No. 1,079,700; Nov. 25; Gaz. vol. 196; p. 940.
 Wire, Terminal for metal-sheathed. C. N. Moore. No. 1,077,734; Nov. 4; Gaz. vol. 196; p. 168.
 Wire-wiping apparatus. L. C. Steele. No. 1,078,176; Nov. 11; Gaz. vol. 196; p. 352.
 Wood and product of such process, Process of treating and coloring. L. S. Bache. No. 1,077,252; Nov. 4; Gaz. vol. 196; p. 4.
 Wool and other textile fibers, Mechanism for drawing rovings of. F. Casablancas. No. 1,079,837; Nov. 25; Gaz. vol. 196; p. 989.
 Work-support. A. A. Macleod. No. 1,078,511; Nov. 11; Gaz. vol. 196; p. 468.

Wrapping and unwrapping machine. C. Kuentzel. No. 1,079,601; Nov. 25; Gaz. vol. 196; p. 908.
 Wrapping-machine. H. J. Kempf. No. 1,079,012; Nov. 18; Gaz. vol. 196; p. 675.
 Wrench: See Pipe-wrench.
 Wrench. G. A. Rienks. No. 1,077,303; Nov. 4; Gaz. vol. 196; p. 21.
 Wrench. H. H. Hayward. No. 1,077,343; Nov. 4; Gaz. vol. 196; p. 36.
 Wrench. S. Moss. No. 1,077,543; Nov. 4; Gaz. vol. 196; p. 106.
 Wrench. F. C. Wutke. No. 1,077,575; Nov. 4; Gaz. vol. 196; p. 116.
 Wrench. F. Mossberg. No. 1,078,059; Nov. 11; Gaz. vol. 196; p. 313.
 Wrench. J. E. Cartmill. No. 1,078,901; Nov. 18; Gaz. vol. 196; p. 636.
 Wrench for demountable rims and the like. J. H. Wagenhorst. No. 1,078,567; Nov. 11; Gaz. vol. 196; p. 486.
 Wringer: See Mop-wringer.
 Yeast, Treating. E. Jacoby. No. 1,078,288; Nov. 11; Gaz. vol. 196; p. 392.
 Yoke, Neck. E. A. and J. Schrueth. No. 1,077,645; Nov. 4; Gaz. vol. 196; p. 140.

ALPHABETICAL LIST OF DESIGNS.

- Automobile-body. E. H. Binns. No. 44,835; Nov. 4; Gaz. vol. 196; p. 254.
 Automobile-body. T. H. Millington. No. 44,851; Nov. 4; Gaz. vol. 196; p. 257.
 Badge. M. C. Fairfield. No. 44,919; Nov. 25; Gaz. vol. 196; p. 1025.
 Badge or similar article. J. V. Buckle. No. 44,913; Nov. 25; Gaz. vol. 196; p. 1023.
 Badge, pin, button, emblem, insignia, or similar article. W. Wianiewski. No. 44,949; Nov. 25; Gaz. vol. 196; p. 1030.
 Bathing-cap. E. A. Guinzburg. No. 44,840; Nov. 4; Gaz. vol. 196; p. 255.
 Bicycle-frame. E. J. Lonn. No. 44,950; Nov. 25; Gaz. vol. 196; p. 1030.
 Bottle. A. Alexander and A. M. Steinberg. No. 44,867; Nov. 11; Gaz. vol. 196; p. 505.
 Bottle. A. Alexander and A. M. Steinberg. Nos. 44,881-3; Nov. 18; Gaz. vol. 196; p. 783.
 Bottle-opener. H. L. Vaughan. No. 44,945; Nov. 25; Gaz. vol. 196; p. 1029.
 Bottle-opener and button-hook. R. H. Foster. No. 44,839; Nov. 4; Gaz. vol. 196; p. 255.
 Bowl or nappy. A. J. Sanford. Nos. 44,938-9; Nov. 25; Gaz. vol. 196; p. 1028.
 Box, Metal. S. J. Lebach. No. 44,928; Nov. 25; Gaz. vol. 196; p. 1026.
 Box-strip. R. Galt. Nos. 44,870-1; Nov. 11; Gaz. vol. 196; p. 506.
 Buckle, Shield. R. A. Schwahn. No. 44,941; Nov. 25; Gaz. vol. 196; p. 1029.
 Button. J. H. Hawley. Nos. 44,841-2; Nov. 4; Gaz. vol. 196; p. 255.
 Can, Jar, or similar article. W. A. Lorenz. Nos. 44,929-31; Nov. 25; Gaz. vol. 196; p. 1027.
 Candelabrum. F. and W. L. Wagner. No. 44,947; Nov. 25; Gaz. vol. 196; p. 1030.
 Candlestick. H. E. Shumway. No. 44,943; Nov. 25; Gaz. vol. 196; p. 1029.
 Carpet. J. Merry. Nos. 44,848-9; Nov. 4; Gaz. vol. 196; p. 257.
 Carpet. J. B. Moffat. No. 44,852; Nov. 4; Gaz. vol. 196; p. 257.
 Carpet. W. A. Elliot. No. 44,888; Nov. 18; Gaz. vol. 196; p. 784.
 Carpet. J. Merry. No. 44,891; Nov. 18; Gaz. vol. 196; p. 785.
 Carpet. E. G. Sauer. No. 44,897; Nov. 18; Gaz. vol. 196; p. 786.
 Carpet. F. Schindler. No. 44,905; Nov. 18; Gaz. vol. 196; p. 788.
 Carpet or rug. J. G. Pegel. Nos. 44,893-6; Nov. 18; Gaz. vol. 196; pp. 785-6.
 Carpet or rug. W. E. Sayers. Nos. 44,901-4; Nov. 18; Gaz. vol. 196; pp. 787-8.
 Casket handle-plate. W. M. Reese. No. 44,936; Nov. 25; Gaz. vol. 196; p. 1028.
 Christmas tree. J. Sveda. No. 44,878; Nov. 11; Gaz. vol. 196; p. 507.
 Church for home devotion, Miniature. J. D. Arnold. No. 44,912; Nov. 25; Gaz. vol. 196; p. 1023.
 Cigar and ash receiver. O. C. Dennis. No. 44,918; Nov. 25; Gaz. vol. 196; p. 1024.
 Clock-case. M. Daving. No. 44,917; Nov. 25; Gaz. vol. 196; p. 1024.
 Clock case, Alarm. H. W. Wachtelhausen. No. 44,946; Nov. 25; Gaz. vol. 196; p. 1029.
 Collar, Embroidered. N. Naja. No. 44,876; Nov. 11; Gaz. vol. 196; p. 507.
 Curtain, Lace. J. Waterfield. Nos. 44,879-80; Nov. 11; Gaz. vol. 196; p. 508.
 Die. J. Merrill. No. 44,874; Nov. 11; Gaz. vol. 196; p. 507.
 Dish-pan. G. E. Mittinger, Jr. No. 44,932; Nov. 25; Gaz. vol. 196; p. 1027.
 Doll, Bunty. G. G. Drayton. No. 44,885; Nov. 18; Gaz. vol. 196; p. 784.
 Electric cabinet. High-frequency. C. O. Nelson. No. 44,892; Nov. 18; Gaz. vol. 196; p. 785.
 Electric heater. W. S. Sheppard. No. 44,942; Nov. 25; Gaz. vol. 196; p. 1029.
 Electric-switch handle. J. G. Peterson. No. 44,935; Nov. 25; Gaz. vol. 196; p. 1027.
 Fabric, Textile. E. Sins. No. 44,944; Nov. 25; Gaz. vol. 196; p. 1029.
 Floor-scraper. F. M. Layton. No. 44,927; Nov. 25; Gaz. vol. 196; p. 1028.
 Flower-stand. F. E. Carlson. No. 44,915; Nov. 25; Gaz. vol. 196; p. 1024.
 Gem, Cut. M. L. Robbins. No. 44,937; Nov. 25; Gaz. vol. 196; p. 1028.
 Glass dish or similar article, Cut. H. H. Buckley. No. 44,914; Nov. 25; Gaz. vol. 196; p. 1024.
 Glass goblet or similar article. A. J. Bennett. No. 44,868; Nov. 11; Gaz. vol. 196; p. 506.
 Glass representing glass panels, Decorative sheet. E. Offenbacher. No. 44,933; Nov. 25; Gaz. vol. 196; p. 1027.
 Glass, Sheet. E. J. Walsh. No. 44,948; Nov. 25; Gaz. vol. 196; p. 1030.
 Glass vessel, Cut. F. L. Morecroft. No. 44,875; Nov. 11; Gaz. vol. 196; p. 507.
 Grave-inclosure. H. H. Althoff. No. 44,884; Nov. 18; Gaz. vol. 196; p. 783.
 Hat. L. Alden. No. 44,910; Nov. 25; Gaz. vol. 196; p. 1023.
 Lamp-standard head. H. O. Rastetter. No. 44,860; Nov. 4; Gaz. vol. 196; p. 259.
 Lather-rubber. G. W. Gill. No. 44,872; Nov. 11; Gaz. vol. 196; p. 506.
 Lifting-jack standard. J. H. Burkholder. No. 44,837; Nov. 4; Gaz. vol. 196; p. 255.
 Light-reflecting bowls, Hanger for. C. E. Jones. Nos. 44,843-5; Nov. 4; Gaz. vol. 196; p. 256.
 Mandolin-body. D. L. Day. No. 44,838; Nov. 4; Gaz. vol. 196; p. 255.
 Nail-set. E. A. Bardwell. No. 44,834; Nov. 4; Gaz. vol. 196; p. 254.
 Paper-knife. A. Peterson. No. 44,934; Nov. 25; Gaz. vol. 196; p. 1027.
 Pedestal. H. O. Rastetter. No. 44,859; Nov. 4; Gaz. vol. 196; p. 259.
 Penwork-record. L. W. Gamble. No. 44,920; Nov. 25; Gaz. vol. 196; p. 1025.
 Picture-frame. A. J. Flauder. No. 44,869; Nov. 11; Gaz. vol. 196; p. 506.
 Pillow-top or similar article. P. E. Goodrich. No. 44,921; Nov. 25; Gaz. vol. 196; p. 1025.
 Portière. J. Hoye. No. 44,925; Nov. 25; Gaz. vol. 196; p. 1026.
 Receptacle, Wall. F. Herold. No. 44,922; Nov. 25; Gaz. vol. 196; p. 1025.
 Ring. E. La Vine. No. 44,926; Nov. 25; Gaz. vol. 196; p. 1026.
 Rubber mat. E. Hutchens. No. 44,890; Nov. 18; Gaz. vol. 196; p. 784.
 Rug. J. Merry. No. 44,847; Nov. 4; Gaz. vol. 196; p. 257.
 Rug. J. Merry. No. 44,850; Nov. 4; Gaz. vol. 196; p. 257.
 Rug. J. B. Moffat. No. 44,853; Nov. 4; Gaz. vol. 196; p. 258.
 Rug. A. Petzold. Nos. 44,856-8; Nov. 4; Gaz. vol. 196; p. 258.
 Rug. R. F. Riddell. Nos. 44,861-3; Nov. 4; Gaz. vol. 196; p. 259.
 Rug. W. A. Spring. Nos. 44,864-5; Nov. 4; Gaz. vol. 196; pp. 259-60.
 Rug. W. A. Elliot. Nos. 44,886-7; Nov. 18; Gaz. vol. 196; p. 784.
 Rug. W. A. Elliot. No. 44,889; Nov. 18; Gaz. vol. 196; p. 784.
 Rug. E. G. Sauer. Nos. 44,898-900; Nov. 18; Gaz. vol. 196; pp. 786-7.
 Rug. F. Schindler. Nos. 44,906-7; Nov. 18; Gaz. vol. 196; p. 788.
 Rug. J. Spring. No. 44,908; Nov. 18; Gaz. vol. 196; p. 788.
 Rug. I. J. Vetter. No. 44,909; Nov. 18; Gaz. vol. 196; p. 788.
 Spoons or analogous articles, Handle for. P. J. Cheron. No. 44,916; Nov. 25; Gaz. vol. 196; p. 1024.
 Stove. C. A. Bailey. Nos. 44,831-3; Nov. 4; Gaz. vol. 196; p. 254.
 Sweat-band. W. P. Schaefer. No. 44,940; Nov. 25; Gaz. vol. 196; p. 1028.
 Tag, Key. F. C. Howard. No. 44,924; Nov. 25; Gaz. vol. 196; p. 1026.
 Talking-machine frame. C. E. Woods. No. 44,866; Nov. 4; Gaz. vol. 196; p. 260.
 Tire, Vehicle. W. D. Morris. Nos. 44,854-5; Nov. 4; Gaz. vol. 196; p. 258.
 Toy castle. O. C. Schwarz. No. 44,877; Nov. 11; Gaz. vol. 196; p. 507.
 Tray, Change. E. Brunhoff. No. 44,836; Nov. 4; Gaz. vol. 196; p. 254.
 Truck-body. E. Holby. No. 44,923; Nov. 25; Gaz. vol. 196; p. 1026.
 Undergarment. V. Guinzburg. No. 44,873; Nov. 11; Gaz. vol. 196; p. 506.
 Vacuum-cleaner casing. J. B. Kirby. No. 44,846; Nov. 4; Gaz. vol. 196; p. 256.
 Water-closet bowl. S. P. Alpaugh. No. 44,911; Nov. 25; Gaz. vol. 196; p. 1023.

ALPHABETICAL LIST OF TRADE-MARKS.

- Allimentary paste products. The Atlantic Macaroni Co. Nos. 94,153-6; Nov. 11; Gaz. vol. 196; p. 521.
- Allimentary paste products. Arthur S. Hoyt Co. No. 94,182; Nov. 11; Gaz. vol. 196; p. 522.
- Ammonia. Badger Oil Specialty Co. No. 94,264; Nov. 25; Gaz. vol. 196; p. 1047.
- Ammonia, tooth-powder, writing fluid, and bluing. The Frederick H. Fox Company. No. 94,279; Nov. 25; Gaz. vol. 196; p. 1047.
- Apple-juice, cider, soda and mineral waters, &c. C. C. Truax Company. No. 94,130; Nov. 4; Gaz. vol. 196; p. 271.
- Ash-sifters. Rice and Company. No. 94,322; Nov. 25; Gaz. vol. 196; p. 1048.
- Asphalt-mastic. Warren Chemical & Manufacturing Company. No. 94,135; Nov. 4; Gaz. vol. 196; p. 271.
- Astrakhans, imitation. Joseph Benn & Sons. No. 94,050; Nov. 4; Gaz. vol. 196; p. 269.
- Automobile-springs. Acme Torsion Spring Co. No. 94,043; Nov. 4; Gaz. vol. 196; p. 269.
- Automobiles. W. A. De Schaum. No. 94,239; Nov. 18; Gaz. vol. 196; p. 801.
- Automobiles. W. K. Shelley. No. 94,330; Nov. 25; Gaz. vol. 196; p. 1049.
- Automobiles, trucks, and autotrucks. Falls Machine Company. No. 94,073; Nov. 4; Gaz. vol. 196; p. 270.
- Bacteriological products. The Ferment Company. No. 94,278; Nov. 25; Gaz. vol. 196; p. 1047.
- Baking-powder. D. & L. Slade Company. No. 94,211; Nov. 11; Gaz. vol. 196; p. 523.
- Baking-powder. M. Warren. No. 94,230; Nov. 11; Gaz. vol. 196; p. 523.
- Baking powder and soda and gloss-starch. Klauber Wangerhelm Co. No. 94,089; Nov. 4; Gaz. vol. 196; p. 270.
- Balls. "Semperit" Oesterreichisch-Amerikanische Gummiwerke Aktiengesellschaft. No. 94,120; Nov. 4; Gaz. vol. 196; p. 271.
- Bath-tub, basin, and closet fittings, supply-pipes, and metallic valves. Detroit Sanitary Supply Company. No. 94,167; Nov. 11; Gaz. vol. 196; p. 521.
- Batteries. T. B. Jones. No. 94,086; Nov. 4; Gaz. vol. 196; p. 270.
- Beer. W. McEwan & Co. No. 94,295; Nov. 25; Gaz. vol. 196; p. 1048.
- Beer. Obermeyer & Liebmann. Nos. 94,314-16; Nov. 25; Gaz. vol. 196; p. 1048.
- Beer. Jacob Ruppert, Inc. No. 94,325; Nov. 25; Gaz. vol. 196; p. 1048.
- Beer and porter. Minneapolis Brewing Company. No. 94,249; Nov. 18; Gaz. vol. 196; p. 801.
- Belt-dressings. Anlmoll Manufacturing Company. No. 94,151; Nov. 11; Gaz. vol. 196; p. 521.
- Belts for personal wear, suspenders, and garters. Sidney Suspender Company. No. 94,121; Nov. 4; Gaz. vol. 196; p. 271.
- Beltting, leather fillet, and rubber hose, steam and sheet packing, certain named. Page Belting Company. No. 94,111; Nov. 4; Gaz. vol. 196; p. 271.
- Benches, stools, cabinets, tables, and chairs. Tonk Manufacturing Company. No. 94,128; Nov. 4; Gaz. vol. 196; p. 271.
- Beverages. Fruit soda-fountain. T. J. Sauls. No. 94,254; Nov. 18; Gaz. vol. 196; p. 801.
- Biscuit. National Biscuit Company. Nos. 94,302-4; Nov. 25; Gaz. vol. 196; p. 1048.
- Biscuit. National Biscuit Company. Nos. 94,306-13; Nov. 25; Gaz. vol. 196; p. 1048.
- Biscuit and bread. National Biscuit Company. No. 94,305; Nov. 25; Gaz. vol. 196; p. 1048.
- Bitters. Split Bitter Co. No. 94,332; Nov. 25; Gaz. vol. 196; p. 1049.
- Blood-purifier. Lyon Blood Purifier Company. No. 94,097; Nov. 4; Gaz. vol. 196; p. 270.
- Brandy. Vve. Rogée & Monnet. No. 94,115; Nov. 4; Gaz. vol. 196; p. 271.
- Brick. Hydraulic-Press Brick Company. No. 94,083; Nov. 4; Gaz. vol. 196; p. 270.
- Brushes. J. C. Dowd & Co. No. 94,069; Nov. 4; Gaz. vol. 196; p. 269.
- Brushes. Pacific Novelty Company. No. 94,109; Nov. 4; Gaz. vol. 196; p. 271.
- Butter and eggs. The Rock Island Butter Co. No. 94,324; Nov. 25; Gaz. vol. 196; p. 1048.
- Calcium. Caseln. The Hoffmann-La Roche Chemical Works. No. 94,282; Nov. 25; Gaz. vol. 196; p. 1047.
- Candles. Ingersoll Candy Company. No. 94,285; Nov. 25; Gaz. vol. 196; p. 1047.
- Candy. Schandeln & Lind Co. No. 94,205; Nov. 11; Gaz. vol. 196; p. 522.
- Candy. Schandeln & Lind Co. No. 94,325; Nov. 25; Gaz. vol. 196; p. 1049.
- Canned fruits, figs, tomato catsup, and vegetables. The Coast Products Company. No. 94,271; Nov. 25; Gaz. vol. 196; p. 1047.
- Canned salmon. Warren Packing Company. No. 94,136; Nov. 4; Gaz. vol. 196; p. 271.
- Canned salmon. Lindenberg Packing Co. No. 94,187; Nov. 11; Gaz. vol. 196; p. 522.
- Canned sardines. Seacoast Canning Company. No. 94,208; Nov. 11; Gaz. vol. 196; p. 523.
- Car-wheels. Buffalo Car Wheel Fdy. Co. No. 94,055; Nov. 4; Gaz. vol. 196; p. 269.
- Carbon-remover, engine-cleanser, and solvent. U. S. Industrial Alcohol Co. No. 94,228; Nov. 11; Gaz. vol. 196; p. 523.
- Cards. Playing. E. Pickel. No. 94,321; Nov. 25; Gaz. vol. 196; p. 1048.
- Carpets. Cochrane Manufacturing Co. Nos. 94,063-4; Nov. 4; Gaz. vol. 196; p. 269.
- Catsups. T. Tamaki. No. 94,333; Nov. 25; Gaz. vol. 196; p. 1049.
- Cement, Portland. Newargo Portland Cement Company. No. 94,251; Nov. 18; Gaz. vol. 196; p. 801.
- Chemical and medicinal compounds, certain named. The Drug Products Co. No. 94,070; Nov. 4; Gaz. vol. 196; p. 269.
- Chocolate-flavored filling. W. R. Cathcart. No. 94,163; Nov. 11; Gaz. vol. 196; p. 521.
- Chocolate, Milk. Suchard, S. A. No. 94,221; Nov. 11; Gaz. vol. 196; p. 523.
- Chromos, reliefs, and pictorial post-cards, &c. Albrecht & Meister Aktiengesellschaft. No. 94,045; Nov. 4; Gaz. vol. 196; p. 269.
- Cigarettes. Blue Peter Cigarette Co. No. 94,160; Nov. 11; Gaz. vol. 196; p. 521.
- Cigars. W. Schneider Wholesale Wine & Liquor Co. No. 94,118; Nov. 4; Gaz. vol. 196; p. 271.
- Clarets and Bordeaux wines. Syndicat des Grands Crus classés du Médoc. No. 94,127; Nov. 4; Gaz. vol. 196; p. 271.
- Cleaner for certain household goods, &c. Lightning Rug-Newer Co. No. 94,093; Nov. 4; Gaz. vol. 196; p. 270.
- Clothing, certain named. E. J. Schremp. No. 94,119; Nov. 4; Gaz. vol. 196; p. 271.
- Coffee. International Coffee Co. No. 94,286; Nov. 25; Gaz. vol. 196; p. 1047.
- Coffee, Blended. William S. Scull Company. No. 94,207; Nov. 11; Gaz. vol. 196; p. 523.
- Combs, pinushions, and button-hooks. Toilet. Pacific Novelty Company. No. 94,108; Nov. 4; Gaz. vol. 196; p. 271.
- Concrete constructions, paving, and walls. R. C. Stubbs. No. 94,126; Nov. 4; Gaz. vol. 196; p. 271.
- Concrete constructions. Solution for waterproofing and hardening. L. Sonneborn Sons. No. 94,123; Nov. 4; Gaz. vol. 196; p. 271.
- Confection. After-dinner. Hall & Ruckel. No. 94,178; Nov. 11; Gaz. vol. 196; p. 522.
- Cookies. Robert A. Johnston Co. No. 94,287; Nov. 25; Gaz. vol. 196; p. 1047.
- Cotton-batting. Rock River Cotton Co. No. 94,114; Nov. 4; Gaz. vol. 196; p. 271.
- Cotton piece goods. Lorraine Mfg. Co. No. 94,094; Nov. 4; Gaz. vol. 196; p. 270.
- Crash and toweling. Ballin & Taylor. No. 94,265; Nov. 25; Gaz. vol. 196; p. 1047.
- Crates. C. W. Ferguson. No. 94,243; Nov. 18; Gaz. vol. 196; p. 801.
- Cutlery and machinery, certain named. J. A. Henckels. No. 94,130; Nov. 11; Gaz. vol. 196; p. 522.
- Cutlery, machinery, and tools. Certain named. Stauffer, Eshleman & Co. No. 94,216; Nov. 11; Gaz. vol. 196; p. 523.
- Dandruff-remover and hair-renewer. E. W. Brey. No. 94,268; Nov. 25; Gaz. vol. 196; p. 1047.
- Dentifrice. R. Lich. No. 94,245; Nov. 18; Gaz. vol. 196; p. 801.
- Depilatories. Stone, Timlow & Company. No. 94,219; Nov. 11; Gaz. vol. 196; p. 523.
- Digestive enzym. Vegetable. Y. Shoten. No. 94,210; Nov. 11; Gaz. vol. 196; p. 523.
- Disinfectant and insecticide. Lebanon Chemical Co. No. 94,291; Nov. 25; Gaz. vol. 196; p. 1048.
- Dolls and toys. H. B. Clafin Company. No. 94,237; Nov. 18; Gaz. vol. 196; p. 801.
- Doors, Revolving. Van Kannel Revolving Door Company. No. 94,133; Nov. 4; Gaz. vol. 196; p. 271.
- Electric generators. Kouyoumlian Electric and Manufacturing Company. No. 94,290; Nov. 25; Gaz. vol. 196; p. 1048.

Electric-lighting appliances and accessories therefor. Certain. Ehrlich & Graetz. Nos. 94,169-70; Nov. 11; Gaz. vol. 196; p. 521.

Electrical connectors and binding-posts. A. K. Sloan. No. 94,122; Nov. 4; Gaz. vol. 196; p. 271.

Enamel. The A. Wilhelm Company. No. 94,140; Nov. 4; Gaz. vol. 196; p. 272.

Felt in the piece. American Felt Company. No. 94,149; Nov. 11; Gaz. vol. 196; p. 521.

Fertilizers. W. J. Ryan. No. 94,116; Nov. 4; Gaz. vol. 196; p. 271.

Filters, Water. Hygela Filter Company. No. 94,084; Nov. 4; Gaz. vol. 196; p. 270.

Fishing-bait, Spoon. W. T. J. Lowe. No. 94,096; Nov. 4; Gaz. vol. 196; p. 270.

Floor-coverings of waterproofed fibrous material. Palruba Manufacturing Company. No. 94,198; Nov. 11; Gaz. vol. 196; p. 522.

Flour, Wheat. The Acme Milling Company. No. 94,144; Nov. 11; Gaz. vol. 196; p. 521.

Flour, Wheat. J. Frank. No. 94,173; Nov. 11; Gaz. vol. 196; p. 522.

Flour, Wheat. Potter & Wrightington. No. 94,200; Nov. 11; Gaz. vol. 196; p. 522.

Flying-machines, aeroplanes, monoplanes, &c. Daimler-Motoren-Gesellschaft. No. 94,066; Nov. 4; Gaz. vol. 196; p. 269.

Food, Medicinal. Y. T. Matzoon Company. No. 94,190; Nov. 11; Gaz. vol. 196; p. 522.

Foods, Certain named. The R. T. French Company. No. 94,174; Nov. 11; Gaz. vol. 196; p. 522.

Foods, Certain named. Bessaire & Company. No. 94,266; Nov. 25; Gaz. vol. 196; p. 1047.

Forms, Dress. Ellanum Dress Form Co. No. 94,072; Nov. 4; Gaz. vol. 196; p. 270.

Fruits, Dried. California Fruit Cannery Association. No. 94,162; Nov. 11; Gaz. vol. 196; p. 521.

Fruits, Fresh deciduous. Fresno Fruit Growers Co. No. 94,280; Nov. 25; Gaz. vol. 196; p. 1047.

Furniture, Certain named steel and plain. Art Metal Construction Co. No. 94,047; Nov. 4; Gaz. vol. 196; p. 269.

Games, Card. A. L. Peckham. No. 94,113; Nov. 4; Gaz. vol. 196; p. 271.

Garment and shoe lacers. The Narrow Fabric Co. No. 94,301; Nov. 25; Gaz. vol. 196; p. 1048.

Gelatin. Tomlinson (Inc.) No. 94,225; Nov. 11; Gaz. vol. 196; p. 523.

Gelatin, ice-cream and cocoa powders, and flavoring extracts. C. J. Stevenot. No. 94,217; Nov. 11; Gaz. vol. 196; p. 523.

Glue and mucilage. C. C. Truax & Company. No. 94,259; Nov. 18; Gaz. vol. 196; p. 801.

Goggles. The Seiss Manufacturing Company. No. 94,209; Nov. 11; Gaz. vol. 196; p. 523.

Grease, bicycle and machine oil, Axle. C. C. Truax & Company. No. 94,227; Nov. 11; Gaz. vol. 196; p. 523.

Gum, Chewing. E. K. Morris. No. 94,299; Nov. 25; Gaz. vol. 196; p. 1048.

Hair-nets, silk chiffons, and nettings. Geo. Borgfeldt & Co. No. 94,051; Nov. 4; Gaz. vol. 196; p. 269.

Hair-removers. Whizz Manufacturing Co. No. 94,232; Nov. 11; Gaz. vol. 196; p. 523.

Hair-restorative. A. A. McGee. No. 94,296; Nov. 25; Gaz. vol. 196; p. 1048.

Hair-tonic. Colorific Company. No. 94,238; Nov. 18; Gaz. vol. 196; p. 801.

Ham. Western Sausage & Provision Co. No. 94,341; Nov. 25; Gaz. vol. 196; p. 1049.

Hose, belting, packing, &c. J. W. Buckley Rubber Co. No. 94,054; Nov. 4; Gaz. vol. 196; p. 269.

Hose, belting, packing, and jar-rings. J. W. Buckley Rubber Co. No. 94,161; Nov. 11; Gaz. vol. 196; p. 521.

Hose-pipes, tires, belting, &c. L. A. Subers. No. 94,220; Nov. 11; Gaz. vol. 196; p. 523.

Ice-making machines. Colombier Fils et Cie. No. 94,065; Nov. 4; Gaz. vol. 196; p. 269.

Igniters and accessories. Wright Manufacturing Company. No. 94,233; Nov. 11; Gaz. vol. 196; p. 523.

Index-tabs, loose-leaf binders, record-books, and dockets. Chicago Shipping & Receipt Book Co. No. 94,165; Nov. 11; Gaz. vol. 196; p. 521.

Insecticide. Meridian Chemical Company. No. 94,297; Nov. 25; Gaz. vol. 196; p. 1048.

Insecticides. Schwenger & Weed. No. 94,206; Nov. 11; Gaz. vol. 196; p. 522.

Jewelry. J. Rosenblatt. No. 94,202; Nov. 11; Gaz. vol. 196; p. 522.

Laces, shawls, and scarfs. Machenbach Importing Co. No. 94,093; Nov. 4; Gaz. vol. 196; p. 270.

Lamp reflectors, incandescent-electric. Straight Filament Lamp Company. No. 94,125; Nov. 4; Gaz. vol. 196; p. 271.

Lard. W. J. Wilcox Lard & Refining Company. No. 94,342; Nov. 25; Gaz. vol. 196; p. 1049.

Laxative, liver-tonic, &c. W. D. Taylor & Co. No. 94,223; Nov. 11; Gaz. vol. 196; p. 523.

Laxative preparations. Chemische Fabrik Helfenberg A. G. vorm. Eugen Dieterich. No. 94,062; Nov. 4; Gaz. vol. 196; p. 269.

Leather. Krig Tanning Company. No. 94,185; Nov. 11; Gaz. vol. 196; p. 522.

Lime. Louisville Cement Company. No. 94,095; Nov. 4; Gaz. vol. 196; p. 270.

Lime, Hydrated. The National Lime & Stone Co. No. 94,103; Nov. 4; Gaz. vol. 196; p. 270.

Liniment. J. Klemak. No. 94,184; Nov. 11; Gaz. vol. 196; p. 522.

Liniment. Speedway Remedy Co. No. 94,257; Nov. 18; Gaz. vol. 196; p. 801.

Liniment for rheumatism. J. J. Tighe. No. 94,334; Nov. 25; Gaz. vol. 196; p. 1049.

Liqueur. E. de Laage. No. 94,272; Nov. 25; Gaz. vol. 196; p. 1047.

Lock-washers. Universal Lock-Washer Co. No. 94,131; Nov. 4; Gaz. vol. 196; p. 271.

Locks, Door. E. H. Fuchs. No. 94,281; Nov. 25; Gaz. vol. 196; p. 1047.

Macaroni. The Atlantic Macaroni Co. No. 94,157; Nov. 11; Gaz. vol. 196; p. 521.

Macaroni. J. Petrocelli & Company. No. 94,320; Nov. 25; Gaz. vol. 196; p. 1048.

Macaroni, spaghetti, vermicelli, and egg-noodles. F. A. Martocello Macaroni Company. No. 94,294; Nov. 25; Gaz. vol. 196; p. 1048.

Machinery and parts thereof. Certain named. Deutsche Maschinenfabrik Aktien Gesellschaft. No. 94,274; Nov. 25; Gaz. vol. 196; p. 1047.

Machines, cutlery, and tools. Certain named. The Mine and Smelter Supply Co. No. 94,194; Nov. 11; Gaz. vol. 196; p. 522.

Mallines, chiffons, and net goods. The Touraine Co. No. 94,129; Nov. 4; Gaz. vol. 196; p. 271.

Manicure files and buffers, cuticle and corn knives, and scissors. J. C. Dowd & Co. No. 94,067; Nov. 4; Gaz. vol. 196; p. 269.

Manicure files and buffers, cuticle and corn knives, and scissors. Pacific Novelty Company. No. 94,110; Nov. 4; Gaz. vol. 196; p. 271.

Massage-vibrators. Vibrako Company. No. 94,260; Nov. 18; Gaz. vol. 196; p. 801.

Medicated tonic food. Southall Brothers and Barclay. No. 94,256; Nov. 18; Gaz. vol. 196; p. 801.

Medicine for blood diseases. F. X. Braun. No. 94,052; Nov. 4; Gaz. vol. 196; p. 269.

Menthol-ice. Menthol-ice Manufacturing Co. No. 94,248; Nov. 18; Gaz. vol. 196; p. 801.

Metal-polish. The Britize Company. No. 94,053; Nov. 4; Gaz. vol. 196; p. 269.

Metals, Rabbitt and antifriction. Great Western Smelting & Refining Co. No. 94,177; Nov. 11; Gaz. vol. 196; p. 522.

Milk. Quaker City Dairies. No. 94,201; Nov. 11; Gaz. vol. 196; p. 522.

Milk and chocolate preparation. J. C. Smith. No. 94,331; Nov. 25; Gaz. vol. 196; p. 1049.

Milk and cream. M. L. Chamberlain. No. 94,270; Nov. 25; Gaz. vol. 196; p. 1047.

Milk, Condensed skimmed. Michigan Condensed Milk Co. No. 94,298; Nov. 25; Gaz. vol. 196; p. 1048.

Milk, Evaporated. Lawton, Jordan & Co. No. 94,186; Nov. 11; Gaz. vol. 196; p. 522.

Mines and quarries. Tools for inserting and withdrawing detonators for shot-firing purposes. Price, Fryse & Company. No. 94,252; Nov. 18; Gaz. vol. 196; p. 801.

Mirrors and mirror and picture frames. J. C. Dowd & Co. No. 94,068; Nov. 4; Gaz. vol. 196; p. 269.

Mirrors and mirror and picture frames. Pacific Novelty Company. No. 94,107; Nov. 4; Gaz. vol. 196; p. 271.

Music-sheets, Perforated. Bennett & White. No. 94,158; Nov. 11; Gaz. vol. 196; p. 521.

Musical instruments and music-sheets therefor. Aeolian Company. No. 94,145; Nov. 11; Gaz. vol. 196; p. 521.

Naphtha. Standard Oil Co. of New York. No. 94,212; Nov. 11; Gaz. vol. 196; p. 523.

Napkin, Sanitary. C. H. Haeseler. No. 94,080; Nov. 4; Gaz. vol. 196; p. 270.

Newspaper-section published periodically. Star Company. Nos. 94,213-15; Nov. 11; Gaz. vol. 196; p. 523.

Newspapers. The Editor & Publisher Co. No. 94,168; Nov. 18; Gaz. vol. 196; p. 801.

Oil, Olive. F. Albano. Nos. 94,146-7; Nov. 11; Gaz. vol. 196; p. 521.

Oil, Olive. C. Giacomini & Co. No. 94,175; Nov. 11; Gaz. vol. 196; p. 522.

Oils, Essential and volatile. A. M. Todd Company. No. 94,258; Nov. 18; Gaz. vol. 196; p. 801.

Oils, Illuminating. Wadhams Oil Company. No. 94,134; Nov. 4; Gaz. vol. 196; p. 271.

Oiled clothing. J. F. Carter Company. Nos. 94,057-9; Nov. 4; Gaz. vol. 196; p. 269.

Ointment. C. E. McLoud. No. 94,247; Nov. 18; Gaz. vol. 196; p. 801.

Optical goods, barometers, and photographic cameras. H. Kahn & Co. No. 94,183; Nov. 11; Gaz. vol. 196; p. 522.

Orange-wood sticks and nail-boards. Richard Hudnut. Nos. 94,283-4; Nov. 25; Gaz. vol. 196; p. 1047.

Oranges and grape-fruit. F. D. Waite. No. 94,339; Nov. 25; Gaz. vol. 196; p. 1049.

Pails and buckets. E. Ellis. No. 94,241; Nov. 18; Gaz. vol. 196; p. 801.

Paper bags. The Union Bag and Paper Company. No. 94,336; Nov. 25; Gaz. vol. 196; p. 1049.

Paper, Carbon. E. Hassinger. No. 94,179; Nov. 11; Gaz. vol. 196; p. 522.

Paper, Cover, bond, writing, and printing. The Central Ohio Paper Co. No. 94,269; Nov. 25; Gaz. vol. 196; p. 1047.

Paper, envelopes, tablets, and blank books. J. C. Blair Company. No. 94,267; Nov. 25; Gaz. vol. 196; p. 1047.

Paper, Toilet. A. U. Morse. No. 94,195; Nov. 11; Gaz. vol. 196; p. 522.

Paper, Toilet. Sauquoit Toilet Paper Co. Nos. 94,203-4; Nov. 11; Gaz. vol. 196; p. 522.

Paper, Toilet. Adirondack Tissue Paper Co. No. 94,261; Nov. 25; Gaz. vol. 196; p. 1047.

Papers, Butter, Manila, and toilet. C. C. Truax & Company. No. 94,335; Nov. 25; Gaz. vol. 196; p. 1049.

Papers, Filtering. C. Schleicher & Schüll. No. 94,328; Nov. 25; Gaz. vol. 196; p. 1049.

Papers, saturating and deadening felt, Building. P. Kingston. No. 94,088; Nov. 4; Gaz. vol. 196; p. 270.

Paste, Adhesive labeling. L. N. Adler. No. 94,262; Nov. 25; Gaz. vol. 196; p. 1047.

Perfume, toilet water, face-cream, face and tooth powders. A. D. Adams. No. 94,234; Nov. 18; Gaz. vol. 196; p. 801.

Periodical, Monthly. W. A. Young. No. 94,142; Nov. 4; Gaz. vol. 196; p. 272.

Pharmaceutical preparations, Certain named. W. J. Ryan. No. 94,326; Nov. 25; Gaz. vol. 196; p. 1048.

Photographic developer. Eastman Kodak Company. No. 94,240; Nov. 18; Gaz. vol. 196; p. 801.

Photographic plates and films and cinematograph-films. H. B. Manissadjian. No. 94,188; Nov. 11; Gaz. vol. 196; p. 522.

Piles, Device for the treatment of. F. S. Chance. No. 94,236; Nov. 18; Gaz. vol. 196; p. 801.

Pills, Kidney. The Bole Drug Company. No. 94,159; Nov. 11; Gaz. vol. 196; p. 521.

Pineapples. Kopf Nursery & Realty Co. No. 94,289; Nov. 25; Gaz. vol. 196; p. 1048.

Pins, hair-barrettes, tie-clasps, link-buttons, and bracelets. E. A. Potter Company. No. 94,199; Nov. 11; Gaz. vol. 196; p. 522.

Pipes, tubes, and castings. National Tube Company. No. 94,196; Nov. 11; Gaz. vol. 196; p. 522.

Plumbago. Graphites Maskar Société Anonyme. No. 94,176; Nov. 11; Gaz. vol. 196; p. 522.

Poison for squirrels. M. J. Nunes. No. 94,105; Nov. 4; Gaz. vol. 196; p. 270.

Polish, Liquid. W. Chambers & Son. No. 94,164; Nov. 11; Gaz. vol. 196; p. 521.

Polishing-wheels. Munnig-Loeb Co. No. 94,102; Nov. 4; Gaz. vol. 196; p. 270.

Powder, Wedgerite Powder Company. No. 94,340; Nov. 25; Gaz. vol. 196; p. 1049.

Powder, Foot. H. Wechsler. No. 94,137; Nov. 4; Gaz. vol. 196; p. 271.

Powder, Insect. J. D. Riedel Aktiengesellschaft. No. 94,323; Nov. 25; Gaz. vol. 196; p. 1048.

Powder, Talcum. F. G. Burke. No. 94,235; Nov. 18; Gaz. vol. 196; p. 801.

Powder, Talcum and tooth. Peerless Drug Co. No. 94,319; Nov. 25; Gaz. vol. 196; p. 1048.

Powder, Tooth. F. M. Wells. No. 94,138; Nov. 4; Gaz. vol. 196; p. 271.

Preparation for the treatment of wounds. Kalle & Co. Aktiengesellschaft. No. 94,244; Nov. 18; Gaz. vol. 196; p. 801.

Presses and parts thereof, Artificial-stone. P. Wernicke. No. 94,231; Nov. 11; Gaz. vol. 196; p. 523.

Primer and filler. Patton Paint Company. No. 94,112; Nov. 4; Gaz. vol. 196; p. 271.

Printed and illustrated matter, Certain. M. Krause. No. 94,090; Nov. 4; Gaz. vol. 196; p. 270.

Publication, Monthly. Stone-Ordean-Wells Company. No. 94,218; Nov. 11; Gaz. vol. 196; p. 523.

Rat-exterminating compound. P. De Mauro. No. 94,273; Nov. 25; Gaz. vol. 196; p. 1047.

Razor-sharpening pomade. Sottile & Korsgen. No. 94,124; Nov. 4; Gaz. vol. 196; p. 271.

Receptacles, Celluloid. J. C. Dowd & Co. No. 94,275; Nov. 25; Gaz. vol. 196; p. 1047.

Reflectors and shades, Glass. Holophane Glass Company. No. 94,181; Nov. 11; Gaz. vol. 196; p. 522.

Remedies for gout and rheumatism. Chemische Fabrik auf Actien (vorm. E. Schering). No. 94,061; Nov. 4; Gaz. vol. 196; p. 269.

Remedy for bites and stings of poisonous insects. F. W. Schoonmaker, Jr. No. 94,329; Nov. 25; Gaz. vol. 196; p. 1049.

Remedy for certain named ailments. J. B. Collie. No. 94,166; Nov. 11; Gaz. vol. 196; p. 521.

Remedy for certain named diseases. Lebanon Co-Operative Medicine Co. No. 94,292; Nov. 25; Gaz. vol. 196; p. 1048.

Remedy for dropsy. J. B. Green. No. 94,079; Nov. 4; Gaz. vol. 196; p. 270.

Remedy for erysipelas. A. W. Eldmann. No. 94,071; Nov. 4; Gaz. vol. 196; p. 269.

Remedy for skin diseases. L. O'Brien. No. 94,317; Nov. 25; Gaz. vol. 196; p. 1048.

Rubber bands. Tower Manufacturing & Novelty Co. No. 94,226; Nov. 11; Gaz. vol. 196; p. 523.

Rubber battery-jars. The B. F. Goodrich Company. No. 94,075; Nov. 4; Gaz. vol. 196; p. 270.

Rubber combs. Hanover Vulcanite Co. No. 94,081; Nov. 4; Gaz. vol. 196; p. 270.

Rubber, Dental. P. A. Gould. No. 94,078; Nov. 4; Gaz. vol. 196; p. 270.

Rubber pipe-coupling rings, piston-packing, &c. The Manhattan Rubber Mfg. Co. No. 94,099; Nov. 4; Gaz. vol. 196; p. 270.

Sad-irons, tailors' and pressing irons. Illinois Iron & Bolt Co. No. 94,085; Nov. 4; Gaz. vol. 196; p. 270.

Safes. Art Metal Construction Co. No. 94,049; Nov. 4; Gaz. vol. 196; p. 269.

Salts, face-rouge, complexion powder and cream, Smelling. New York & Boston Drug Company. No. 94,104; Nov. 4; Gaz. vol. 196; p. 270.

Salve, liver-pills, and remedy for ague. A. H. Vordick. No. 94,338; Nov. 25; Gaz. vol. 196; p. 1049.

Saws, cone and corn knives, and trowels. E. C. Atkins & Company. No. 94,152; Nov. 11; Gaz. vol. 196; p. 521.

Shellac, Prepared. Angelo Brothers. No. 94,150; Nov. 11; Gaz. vol. 196; p. 521.

Shoes, Leather. O'Connor Shoe Co. No. 94,106; Nov. 4; Gaz. vol. 196; p. 270.

Soap powders. M. F. Windsor. No. 94,141; Nov. 4; Gaz. vol. 196; p. 272.

Soda and soda-ash. Caustic. United Alkali Company Limited. No. 94,337; Nov. 25; Gaz. vol. 196; p. 1048.

Spark-plugs. Champion Ignition Co. No. 94,060; Nov. 4; Gaz. vol. 196; p. 269.

Starch. Eustis, Pennock & Co. Nos. 94,171-2; Nov. 11; Gaz. vol. 196; pp. 521-2.

Starch for textile-mill usage. Eustis, Pennock & Co. No. 94,242; Nov. 18; Gaz. vol. 196; p. 801.

Stone, Artificial. Wetterwald & Pfister Company. No. 94,139; Nov. 4; Gaz. vol. 196; p. 272.

Surgical goods, Certain named. Lee Tire & Rubber Co. Nos. 94,091-2; Nov. 4; Gaz. vol. 196; p. 270.

Swing, Child's. F. T. Mackedon. No. 94,246; Nov. 18; Gaz. vol. 196; p. 801.

Syrup extract. Lemon Beer Company. No. 94,293; Nov. 25; Gaz. vol. 196; p. 1048.

Tablets, Breath. K. Julian. No. 94,288; Nov. 25; Gaz. vol. 196; p. 1047.

Tea and coffee. Nalley Grocery Co. No. 94,300; Nov. 25; Gaz. vol. 196; p. 1048.

Tiles, Cement. Federal Cement Tile Company. No. 94,277; Nov. 25; Gaz. vol. 196; p. 1047.

Tires, Elastic wheel. Vacumit-Gesellschaft m. b. H. No. 94,132; Nov. 4; Gaz. vol. 196; p. 271.

Tires, Liquid filler for pneumatic. American Manufacturing and Distributing Company. No. 94,046; Nov. 4; Gaz. vol. 196; p. 269.

Tires, Preparation for treating pneumatic. N. H. Moore. No. 94,100; Nov. 4; Gaz. vol. 196; p. 270.

Tires, Rubber vehicle. Moran & Wright. No. 94,101; Nov. 4; Gaz. vol. 196; p. 270.

Tobacco-flavoring compound. J. Yenn. No. 94,343; Nov. 25; Gaz. vol. 196; p. 1049.

Tobacco products, Certain named. R. Sadi. No. 94,117; Nov. 4; Gaz. vol. 196; p. 271.

Tobacco, Smoking. The Surbrug Company. No. 94,222; Nov. 11; Gaz. vol. 196; p. 523.

Toilet preparation for cleansing the pores of the skin. E. M. Ribelin. No. 94,253; Nov. 18; Gaz. vol. 196; p. 801.

Toilet waters and perfumes. Melba Manufacturing Company. Nos. 94,191-3; Nov. 11; Gaz. vol. 196; p. 522.

Toothpicks. A. Herz. No. 94,082; Nov. 4; Gaz. vol. 196; p. 270.

Toothpicks. Nave-McCord Mercantile Co. No. 94,250; Nov. 18; Gaz. vol. 196; p. 801.

Trays, boxes, and holders, Certain named. Pacific Novelty Company. No. 94,318; Nov. 25; Gaz. vol. 196; p. 1048.

Trucks. Art Metal Construction Co. No. 94,048; Nov. 4; Gaz. vol. 196; p. 269.

Turpentine. Globe Naval Stores Company. No. 94,074; Nov. 4; Gaz. vol. 196; p. 270.

Turpentine. Taylor, Lowenstein & Co. No. 94,224; Nov. 11; Gaz. vol. 196; p. 523.

Varnish-stain. The Marletta Paint & Color Co. No. 94,189; Nov. 11; Gaz. vol. 196; p. 522.

Varnish-surfaces, Preparation for renewal of. J. S. Nicholas & Son Polish Co. No. 94,197; Nov. 11; Gaz. vol. 196; p. 522.

Ventilators. L. A. Karlson. No. 94,087; Nov. 4; Gaz. vol. 196; p. 270.

Washing device. Metal. S. Gorski. No. 94,076; Nov. 4; Gaz. vol. 196; p. 270.

Water-sterilizing apparatus. Societe Nouvelle des Sterilisateur Cartault. No. 94,255; Nov. 18; Gaz. vol. 196; p. 801.

Wax and polishing material. Floor. M. A. Walsh. No. 94,229; Nov. 11; Gaz. vol. 196; p. 523.

Whisky, Blend. Adams, Taylor & Co. No. 94,044; Nov. 4; Gaz. vol. 196; p. 269.

Whisky, Straight. The J. & G. Butler Co. No. 94,056; Nov. 4; Gaz. vol. 196; p. 269.

Windmills. L. Alexander. No. 94,263; Nov. 25; Gaz. vol. 196; p. 1047.

Wire, Copper. The American Brass Company. No. 94,148; Nov. 11; Gaz. vol. 196; p. 521.

Wood-pulp. M. Gottesman & Son. No. 94,077; Nov. 4; Gaz. vol. 196; p. 270.

Writing fluids. Acid Proof Ink Co. No. 94,143; Nov. 11; Gaz. vol. 196; p. 521.

Zinc, Stearate of. Elson & Brewer, Inc. No. 94,276; Nov. 25; Gaz. vol. 196; p. 1047.

ALPHABETICAL LIST OF LABELS.

- "American League." (For Whisky.) W. Albrecht. No. 17,313; Nov. 4; Gaz. vol. 196; p. 273.
- "Armour's Salmon Alaska Red." (For Salmon.) Armour and Company. No. 17,317; Nov. 4; Gaz. vol. 196; p. 273.
- "Atlantis Brand Salmon Pink." (For Salmon.) Armour and Company. No. 17,315; Nov. 4; Gaz. vol. 196; p. 273.
- "Betson's Plastic." (For Fire-Brick.) Adams & Jewell. No. 17,312; Nov. 4; Gaz. vol. 196; p. 273.
- "Bohemian." (For Tomatoes with Purée.) Bayside Canning Co. No. 17,319; Nov. 4; Gaz. vol. 196; p. 273.
- "Carque's Nut-Cream Butter." (For Nut-Cream Butter.) O. Carque. No. 17,345; Nov. 18; Gaz. vol. 196; p. 802.
- "Crème Violet Sec A Dry Cream For The Skin." (For a Crème Violet Sec.) Richard Hudnut. No. 17,327; Nov. 4; Gaz. vol. 196; p. 273.
- "Do-Ne-Do." (For a Prepared Doughnut-Flour.) The Cabell Company. No. 17,343; Nov. 18; Gaz. vol. 196; p. 802.
- "Domestic Sparkling Hunyadi or Cathartic Split." (For Cathartic Water of an Artificial Nature.) Hunyadi Split Corporation. No. 17,351; Nov. 18; Gaz. vol. 196; p. 802.
- "Dunford's Improved Roof and Bridge Paints." (For Paints.) Reese-Herrin Company. No. 17,356; Nov. 18; Gaz. vol. 196; p. 802.
- "Dustbane." (For a Preparation Used in Sweeping.) Dustbane Mfg. Co. No. 17,347; Nov. 18; Gaz. vol. 196; p. 802.
- "E-A-Co." (For Flour.) Everett, Aughenbaugh & Co. No. 17,348; Nov. 18; Gaz. vol. 196; p. 802.
- "El. Potvino." (For Cigars.) Saginaw Specialty Company. No. 17,375; Nov. 25; Gaz. vol. 196; p. 1050.
- "Fifth Avenue Girl Hosiery." (For Women's Hosiery.) Berks Knitting Co., Inc. No. 17,342; Nov. 18; Gaz. vol. 196; p. 802.
- "Flor De Lopez Garcia." (For Cigars.) R. Fernandez. No. 17,349; Nov. 18; Gaz. vol. 196; p. 802.
- "Florangebud." (For Toilet Soap.) Sloat Bros. Company. No. 17,336; Nov. 4; Gaz. vol. 196; p. 273.
- "Fresh from the Farm." (For Eggs.) M. E. and W. A. Flint. No. 17,323; Nov. 4; Gaz. vol. 196; p. 273.
- "Golden Hearts of All Cereal Food." (For Cereal Food.) Kuck Cereal Company. No. 17,370; Nov. 25; Gaz. vol. 196; p. 1050.
- "Golden State Butter." (For Butter.) California Central Creameries. No. 17,344; Nov. 18; Gaz. vol. 196; p. 802.
- "H. A. Dowling's Nu Buck." (For Cigars.) H. A. Dowling. No. 17,322; Nov. 4; Gaz. vol. 196; p. 273.
- "Health Oil." (For Health-Oil.) W. E. Wise. No. 17,367; Nov. 18; Gaz. vol. 196; p. 802.
- "Hold-Tight Brand Fringe Hair Nets." (For Hair-Nets.) A. Klar. No. 17,352; Nov. 18; Gaz. vol. 196; p. 802.
- "Hold-Tight No. 43. Self Adjustable." (For Hair-Nets.) A. Klar. No. 17,353; Nov. 18; Gaz. vol. 196; p. 802.
- "Island Plantation." (For Syrup.) Victoria Syrup & Coffee Company. No. 17,365; Nov. 18; Gaz. vol. 196; p. 802.
- "Its Real Genuine Kno-Blur." (For Carbon-Paper.) Utica Carbon & Wax Paper Co. No. 17,364; Nov. 18; Gaz. vol. 196; p. 802.
- "Jabon Curativo de Barry." (For Soap.) Barclay & Barclay. No. 17,341; Nov. 18; Gaz. vol. 196; p. 802.
- "Kiddle Kloth." (For Cotton Wash-Fabric Piece Goods.) J. McKendrick. No. 17,331; Nov. 4; Gaz. vol. 196; p. 273.
- "Kleanall." (For Cleansers and Water-Softeners.) Kleanall Chemical Company. No. 17,354; Nov. 18; Gaz. vol. 196; p. 802.
- "Ko-Zy Union Suit." (For Ladies' Union Suits.) H. H. Condit. No. 17,346; Nov. 18; Gaz. vol. 196; p. 802.
- "La Porte Wash Goods." (For Wash Goods.) La Porte Woolen Mills. No. 17,371; Nov. 25; Gaz. vol. 196; p. 1050.
- "Laird's G W L Blush of Youth Harmless—Natural Color for the Cheeks and Lips." (For a Coloring for the Cheeks and Lips.) G. W. Laird. No. 17,328; Nov. 4; Gaz. vol. 196; p. 273.
- "Made Well." (For Bread.) The Mirror Printing Co. No. 17,372; Nov. 25; Gaz. vol. 196; p. 1050.
- "Medium Red Salmon." (For Salmon.) Armour and Company. No. 17,318; Nov. 4; Gaz. vol. 196; p. 273.
- "Milk Maid." (For Bread.) T. W. Russell. No. 17,334; Nov. 4; Gaz. vol. 196; p. 273.
- "Minced Razor Clams Tillamook Head Brand." (For Canned Clams.) B. E. and Q. V. Robinson. No. 17,333; Nov. 4; Gaz. vol. 196; p. 273.
- "Mosaic." (For Crêpe Tissue.) The Tuttle Press Company. No. 17,363; Nov. 18; Gaz. vol. 196; p. 802.
- "Mount Spokane." (For Beer.) Western Bottling Company. Nos. 17,339-40; Nov. 4; Gaz. vol. 196; p. 273.
- "\$1,000.00 Pure Sugar Stick Candy." (For Candy.) M. M. Johannsen Candy Co. No. 17,369; Nov. 25; Gaz. vol. 196; p. 1050.
- "Pan Dandy." (For Bread.) A. G. Brandstetter. No. 17,321; Nov. 4; Gaz. vol. 196; p. 273.
- "Pee-Chee Cleaner For Gold and Silverware." (For a Cleaner.) Pee-Chee Cleaner Mfg. Co. No. 17,332; Nov. 4; Gaz. vol. 196; p. 273.
- "Perfection Cedar Oil Duster and Polisher." (For an Oil Duster and Polisher.) G. M. Urie. No. 17,338; Nov. 4; Gaz. vol. 196; p. 273.
- "Prairie State." (For Cigars.) P. Wachter. No. 17,366; Nov. 18; Gaz. vol. 196; p. 802.
- "Premier." (For Brooms.) Premier Broom & Brush Co. No. 17,373; Nov. 25; Gaz. vol. 196; p. 1050.
- "Pro-phy-lac-tic Tooth Brush." (For Tooth-Brushes.) Florence Mfg. Co. No. 17,324; Nov. 4; Gaz. vol. 196; p. 273.
- "Ray." (For Brooms.) Premier Broom & Brush Co. No. 17,374; Nov. 25; Gaz. vol. 196; p. 1050.
- "Savex Washing Powder." (For a Washing-Powder.) Sierra Chemical Company. No. 17,360; Nov. 18; Gaz. vol. 196; p. 802.
- "Selbert Magic Fly Killer." (For an Insecticide.) H. E. Selbert. No. 17,335; Nov. 4; Gaz. vol. 196; p. 273.
- "Smith's Island Oyster." (For Oysters.) Smith's Island Oyster Company. No. 17,361; Nov. 18; Gaz. vol. 196; p. 802.
- "Step Lively." (For a Foot-Balm.) J. Goodman, Inc. No. 17,350; Nov. 18; Gaz. vol. 196; p. 802.
- "Sunshine Coffee." (For Coffee.) T. S. Affleck. No. 17,368; Nov. 25; Gaz. vol. 196; p. 1050.
- "Talcum Powder." (For Powdered Talc.) American Talc Company. No. 17,314; Nov. 4; Gaz. vol. 196; p. 273.
- "Tech." (For Beer.) Pittsburgh Brewing Company. No. 17,355; Nov. 18; Gaz. vol. 196; p. 802.
- "The Beatsall Stove Polish." (For Stove-Polish.) Beatsall Polish Company. No. 17,320; Nov. 4; Gaz. vol. 196; p. 273.
- "The Beer De Luxe." (For Beer.) The Thieme & Wagner Brewing Co. No. 17,362; Nov. 18; Gaz. vol. 196; p. 802.
- "The Mission Play Brand." (For Oranges.) San Marino Growers Packing Association. No. 17,358; Nov. 18; Gaz. vol. 196; p. 802.
- "Three in One, Cushion, Arch, Inner Sole." (For Inner-soles.) The George G. London Manufacturing Company. No. 17,330; Nov. 4; Gaz. vol. 196; p. 273.
- "Titan Brand Salmon Chum." (For Salmon.) Armour and Company. No. 17,316; Nov. 4; Gaz. vol. 196; p. 273.
- "Tula." (For Citrus Fruits.) J. N. Reynolds. No. 17,357; Nov. 18; Gaz. vol. 196; p. 802.
- "Varied Sweets." (For Varied Sweets.) G. Haas & Sons. No. 17,325; Nov. 4; Gaz. vol. 196; p. 273.
- "Violet Sec Toilet Water." (For Toilet Water.) Richard Hudnut. No. 17,326; Nov. 4; Gaz. vol. 196; p. 273.
- "Wheat-O." (For Breakfast Food.) E. W. Shadewald. No. 17,350; Nov. 18; Gaz. vol. 196; p. 802.
- "Wonder Shine Varnish." (For Varnish.) Lion Varnish Company. No. 17,329; Nov. 4; Gaz. vol. 196; p. 273.
- "You Need A Biscuit, Why Not Get the Best In." (For a Biscuit.) A. A. Tump. No. 17,337; Nov. 4; Gaz. vol. 196; p. 273.

PRINTS.

- "A Complete Nourishing Meal." (For Shredded Wheat.) The Shredded Wheat Company. No. 3,411; Nov. 4; Gaz. vol. 196; p. 273.
- "Abandoned." (For Oilless Bearings.) Arguto Oilless Bearing Co. No. 3,414; Nov. 18; Gaz. vol. 196; p. 802.
- "Chicken Karno." (For Karno.) Workman Packing Company. No. 3,427; Nov. 18; Gaz. vol. 196; p. 802.
- "Delicious For Any Meal." (For Shredded Wheat.) The Shredded Wheat Company. No. 3,409; Nov. 4; Gaz. vol. 196; p. 273.
- "Eat Bread Made With Fleischmann's Yeast." (For Bread and Yeast.) The Fleischmann Company. No. 3,417; Nov. 18; Gaz. vol. 196; p. 802.
- "Everywoman." (For Hose-Supporters.) George Frost Company. No. 3,419; Nov. 18; Gaz. vol. 196; p. 802.
- "Fashioned for a barefoot boy." (For Lawn-Mowers.) The Whitman & Barnes Mfg. Co. No. 3,413; Nov. 4; Gaz. vol. 196; p. 273.
- "Gold Coin Creamery." (For Oleomargarin.) Eckerson Company. No. 3,416; Nov. 18; Gaz. vol. 196; p. 802.
- "Hold-Tight" No. 43. Self Adjustable." (For Hair-Nets.) A. Klar. No. 3,420; Nov. 18; Gaz. vol. 196; p. 802.
- "Milk Maid." (For Bread.) T. W. Russell. No. 3,407; Nov. 4; Gaz. vol. 196; p. 273.
- "On To Stay." (For Eyeglasses.) I. M. Kurtis. No. 3,406; Nov. 4; Gaz. vol. 196; p. 273.
- "Polarine." (For Motor-Oil.) Standard Oil Company. No. 3,431; Nov. 25; Gaz. vol. 196; p. 1050.
- "Prince Albert makes a hit with every man—pipe and cigarette." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,421; Nov. 18; Gaz. vol. 196; p. 802.
- "Reading his fate." (For Hams and Bacon.) Batchelder & Snyder Company. No. 3,415; Nov. 18; Gaz. vol. 196; p. 802.
- "Run 'em out of Town." (For Egg-Testers.) W. Rigling. No. 3,429; Nov. 25; Gaz. vol. 196; p. 1050.
- "Saturday Evening Post." (For Collars and Shirts.) Cluett, Peabody & Co. No. 3,428; Nov. 25; Gaz. vol. 196; p. 1050.
- "Scottissue." (For Towels, Table-Covers, and Diapers, All Made of Paper, and Toilet-Paper.) Scott Paper Co. No. 3,423; Nov. 18; Gaz. vol. 196; p. 802.
- "Shredded Wheat Biscuit." (For Shredded Wheat.) The Shredded Wheat Company. No. 3,410; Nov. 4; Gaz. vol. 196; p. 273.
- "Shredded Wheat Biscuit With Peaches or Other Fruit." (For Shredded Wheat.) The Shredded Wheat Company. No. 3,408; Nov. 4; Gaz. vol. 196; p. 273.
- "Sun Proof W. H. W." (For Serge Suits.) W. H. Wanamaker, Jr. No. 3,412; Nov. 4; Gaz. vol. 196; p. 273.
- "Thank Colgate & Co." (For Shaving-Powder, Shaving-Stick, and Shaving-Cream.) Colgate & Co. No. 3,405; Nov. 4; Gaz. vol. 196; p. 273.
- "The Cheer-up Chew Brown's Mule Tobacco." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,422; Nov. 18; Gaz. vol. 196; p. 802.
- "The Railroad Sock." (For Socks.) R. P. Steele & Co. No. 3,424; Nov. 18; Gaz. vol. 196; p. 802.
- "Two Bad Eggs." (For Egg-Testers.) W. Rigling. No. 3,430; Nov. 25; Gaz. vol. 196; p. 1050.
- "Vanquished." (For Vitrified Pipe and other Imperishable Products.) Texarkana Pipe Co. No. 3,425; Nov. 18; Gaz. vol. 196; p. 802.
- "Whatever the effect." (For Bread and Yeast.) The Fleischmann Company. No. 3,418; Nov. 18; Gaz. vol. 196; p. 802.
- "Winchester." (For Firearms and Ammunition.) Winchester Repeating Arms Company. No. 3,426; Nov. 18; Gaz. vol. 196; p. 802.

DISCLAIMER.

Superheater. S. M. Vauclain. No. 1,034,540; date of patent Aug. 6, 1912; disclaimer filed Oct. 31, 1913; Gaz. vol. 196; p. 279.

OFFICIAL GAZETTE

PL
3/15.18 *Brick-Match*
OF THE

UNITED STATES PATENT OFFICE.

VOLUME CXCVII.

DECEMBER,

1913.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1914.

23969

ERRATA.

1,079,970, page 17, second claim, line 4, and third claim, line 2, for the compound word "dip-plate" read *dip-tube*.

1,080,555, page 254, first claim, line 4, for the word "with" read *within*.

1,081,242, page 484, first claim, line 2, for the word "center" read *cutter*.

1,081,327, page 553, second claim, line 1, for the words "an ointment" read *a cosmetic*.

1,081,387, page 573, first claim, line 2, strike out the article "a," second occurrence.

1,083,145, page 1230, in heading, title of invention, for "Rivet-Bolt Holder" read *Rivet or Bolt Holder*.

Commissioners Decisions, page 533, first column, first paragraph, line 6, for "Universal Motor Truck Co." read *Universal Motor Co.*

Alphabetical List of Patentees, page i, Arrants, for "Arrants, James W." read *Arrants, James E.*

Alphabetical List of Patentees, page ix, Turner, Clarence C., first occurrence, for Patent "No. 1,080,088" read *No. 1,080,087*.

Vol. 197.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, December 2, 9, 16, 23, 30.....	3,245,539,785,1003
TRADE-MARKS PUBLISHED AND REGISTERED, December 2, 9, 16, 23, 30.....	223,513,761,979,1275
LABELS AND PRINTS REGISTERED, December 2, 9, 16, 23, 30.....	531,778,996,1290
DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS, December 2, 9, 16, 23, 30.....	239,533,779,997,1291
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.....	1295
ALPHABETICAL LIST OF PATENTEEs AND INVENTIONS.....	1

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	
Barclay, No. 949,052.....	1001
Elliott, No. 1,058,737.....	243
Lacerda, No. 1,069,436.....	537
Mashek, Nos. 852,024 and 852,025.....	1001
Wallace, No. 1,051,789.....	783
Willmann, No. 1,004,515.....	537
AMENDMENTS—	
Data required.....	537
Rule 73.....	1001
APPLICATIONS—	
Access to pending.....	783
Condition of pending.....	2,244,538,784,1002
CLASSIFICATION OF INVENTIONS—	
Changes in—Order 2082.....	1
Order 2084.....	536
Order 2087.....	782
Order 2089.....	782
Order 2092.....	782
CORRESPONDENCE BY MAIL.....	783
COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—	
Citation of decisions.....	242
DISCLAIMERS—	
Greth, John C. W.....	243
DRAWINGS—	
Correction of—Rule 72.....	243
INTERFERENCE NOTICES—	
Babcock, Clifford D.....	1294
Elliott, Samuel K.....	536,782,1000
Lichtenstein & Sons, J.....	242,536,782
Newman, Henry.....	1000,1294
PATENTS—	
Date of—Rule 207.....	537
List of adjudicated.....	242,536,781,1000

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 197—No. 1.

TUESDAY, DECEMBER 2, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.	Page.
ISSUE OF DECEMBER 2, 1913.....	1
CHANGES IN CLASSIFICATION.....	1
APPLICATIONS UNDER EXAMINATION.....	2
PATENTS GRANTED.....	3
REISSUES.....	213
DESIGNS.....	214
TRADE-MARKS—REGISTRATION APPLIED FOR.....	223
TRADE-MARKS—REGISTERED.....	235
LABELS AND PRINTS.....	None.
COMMISSIONER'S DECISIONS—	
Ex parte Sher.....	239
Ex parte Iddings and Iddings.....	239
Burling v. Elliot.....	240
Flanders and Flanders Manufacturing Company v. Stude- baker Corporation.....	241
Ex parte Benach.....	241
ADJUDICATED PATENTS.....	242
CITATION OF DECISIONS.....	242
INTERFERENCE NOTICE.....	242

ISSUE OF DECEMBER 2, 1913.

Patents.....	599—No. 1,079,929 to No. 1,080,527, inclusive.
Designs.....	43—No. 44,951 to No. 44,993, inclusive.
Trade-Marks.....	66—No. 94,344 to No. 94,409, inclusive.
Labels.....	None.
Prints.....	None.
Reissues.....	1—No. 13,653.
Total.....	709

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and De- signs.	Trade-Marks, La- bels, and Prints.	States.	Patents and De- signs.	Trade-Marks, La- bels, and Prints.
Alabama.....	2		North Carolina.....	2	
Arizona.....	1		North Dakota.....	1	
Arkansas.....	1		Ohio.....	37	5
California.....	24	1	Oklahoma.....	4	
Colorado.....	5		Oregon.....	9	
Connecticut.....	18		Pennsylvania.....	49	2
Delaware.....			Rhode Island.....	4	1
Florida.....	3		South Carolina.....	5	
Georgia.....	4		South Dakota.....	2	
Idaho.....	2		Tennessee.....	3	1
Illinois.....	54	8	Texas.....	3	1
Indiana.....	12	1	Utah.....	1	
Iowa.....	13	1	Vermont.....	1	
Kansas.....	2	1	Virginia.....	6	
Kentucky.....	3		Washington.....	9	2
Louisiana.....			West Virginia.....	2	
Maine.....	4		Wisconsin.....	11	2
Maryland.....	10	1	Wyoming.....		
Massachusetts.....	24	4	Alaska, District of.....		
Michigan.....	23	1	Canal Zone.....		
Minnesota.....	12	2	District of Columbia.....	3	
Mississippi.....	1		Hawaii Territory.....		
Missouri.....	19	2	Philippine Islands.....	1	
Montana.....	2		Porto Rico.....		
Nebraska.....	6		U. S. Army.....		
Nevada.....	1		U. S. Navy.....	1	
New Hampshire.....	5				
New Jersey.....	28	3			
New Mexico.....					
New York.....	121	16	Total to residents of the United States.....	573	56

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....	5		Netherlands.....	1	
Austria-Hungary.....	5		Newfoundland.....		
Belgium.....			New South Wales.....		
British India.....			New Zealand.....	1	
Brasil.....	1		Norway.....		
British West Indies.....			Portugal.....		
Canada.....	6	1	Queensland.....		
Cape Colony.....			Roumania.....		
Chile.....			Russia.....		
Costa Rica.....			Scotland.....	3	
Cuba.....			South Australia.....		
Denmark.....			Spain.....		
Dominican Republic.....			Sweden.....	1	
England.....	22	1	Switzerland.....	7	
France.....	3		Transvaal, South Africa.....		
Germany.....	18	7	Victoria.....		
India.....			Wales.....		
Ireland.....					
Italy.....	1				
Japan.....			Total to residents of foreign countries.....	69	9
Mexico.....					

Changes in Classification.

(ORDER NO. 2,082.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 26, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 24, Buckles, Buttons, Clamps, Etc., (Division XXXV,) in the definition of subclass 263, Clamps, Sliding jaw, change the word "on" in the second line to *relative to*, so that the definition will read:

The jaws are so connected that one jaw may slide relative to the other to grip the material.

In class 78, Metal Forging and Welding, (Division XIII,) establish the following subclass and definition:

Forging—

Riveting—

53.5. Rivet holders.

53.5. FORGING, RIVETING, RIVET HOLDERS. Self-contained means (independent in structure of riveting tools) adapted to hold a rivet in place during the riveting operation.

This subclass is composed mainly of patents taken from subclasses 42, Forging, Power hammers and presses, Fluid-operated, and 46, Forging, Riveting, in the same class.

In class 223, Apparel Apparatus, (Division XXIV,) establish subclass—

59. Miscellaneous.

This subclass is composed of patents taken from class 73, Measuring Instruments, subclasses 9, Cloth measuring machines, and 48, Measures, Tailors', abolished in Order No. 2,063.

THOMAS EWING,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 29, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
114	1. Fences; Fences, Gates, Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 18	Sept. 26	780
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Filing and Binding; Pneumatic Despatch; Pneumatics; Presses; Store-Services; Tobacco.	July 17	Sept. 20	727
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Oct. 30	Nov. 17	260
223	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Aug. 6	Sept. 10	831
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 20	Sept. 22	669
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 21	Sept. 6	880
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	June 7	Oct. 2	1048
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	July 18	Oct. 4	1018
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 12	Oct. 18	708
226	10. Carriages and Wagons.	Aug. 4	Sept. 12	1389
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelets, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 4	Oct. 10	463
323	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 5	Aug. 1	1656
320	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 1	Oct. 2	757
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware; Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 11	Oct. 10	553
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Printing.	May 15	Aug. 26	1592
100	16. Radiant Energy; Telegraphy; Telephony.	July 18	Sept. 2	509
306	17. Metal-Making; Paper Manufacture; Printing; Type-Bar Making.	Sept. 29	Oct. 16	370
237	18. Engines and Motors; Liquid Heats and Vapors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 2	Oct. 13	280
200	19. Dampers; Automatic Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 26	Oct. 1	775

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	Sept. 29	Oct. 9	352
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	June 27	Aug. 20	739
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Aug. 11	Sept. 29	524
379	23. Acoustics; Coin-Handling; Horology; Records; Registers; Time-Controlling Mechanism.	Oct. 1	Oct. 1	547
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Oct. 1	Oct. 4	671
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 6	Oct. 22	344
106	26. Electricity; Generation; Motive Power.	July 2	Aug. 15	677
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 15	Oct. 7	552
65	28. Internal-Combustion Engines.	Aug. 23	Oct. 4	906
147	29. Coopering; Fire-Escapes; Ladders; Ropes; Wheelwright Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	July 11	July 3	539
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Sept. 18	Nov. 12	334
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Sept. 2	Sept. 6	489
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	July 10	Oct. 13	577
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Cans.	Sept. 8	Sept. 9	536
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Sept. 26	Oct. 7	458
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Aug. 11	Oct. 21	858
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Sept. 6	Sept. 9	1031
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 11	June 27	1012
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Sept. 5	1055
321	39. Water Distribution.	Aug. 12	Sept. 9	631
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 26	Oct. 6	1297
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Sept. 16	Oct. 1	555
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 2	June 27	1128
352	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 8	Oct. 16	336
Oldest new case Apr. 11; oldest amended, June 27.				
Total number of applications awaiting action..... 31,723				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 13	Oct. 16	1118
	Designs.....	Oct. 13	Nov. 7	233
	Labels and Prints.....	Nov. 7	Nov. 11	115

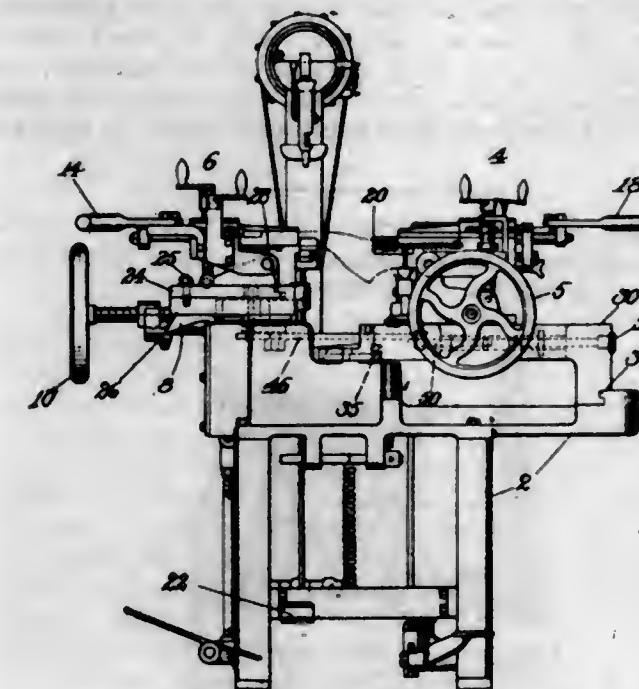
PATENTS

GRANTED DECEMBER 2, 1913.

1,079,929. TIRE-PRESERVING COMPOUND. SAMUEL R. BALL, Laporte, Ind. Filed Dec. 3, 1912. Serial No. 734,698. (Cl. 134—175.)

A tire preservative composition consisting of molasses 1 gallon, oil of peppermint $\frac{1}{2}$ ounce, wood alcohol $\frac{1}{2}$ pint and ordinary lamp black $\frac{1}{2}$ pound.

1,079,930. LASTING-MACHINE. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 27, 1910. Serial No. 579,263. (Cl. 12—14.)



1. A lasting machine having, in combination, a pivotally mounted toe lasting mechanism and a pivotally mounted heel lasting mechanism arranged for lateral turning movement about centers which are located respectively a substantial distance in front of the toe and the heel ends of the shoe for adaptation to a right or a left crooked last.

2. A lasting machine having, in combination, last supporting means, a pivotally mounted toe lasting mechanism and a pivotally mounted heel lasting mechanism connected together for simultaneous movement laterally of the machine in opposite directions relatively to the last supporting means and about separate centers, one of which is located in advance of the adjacent end of the last.

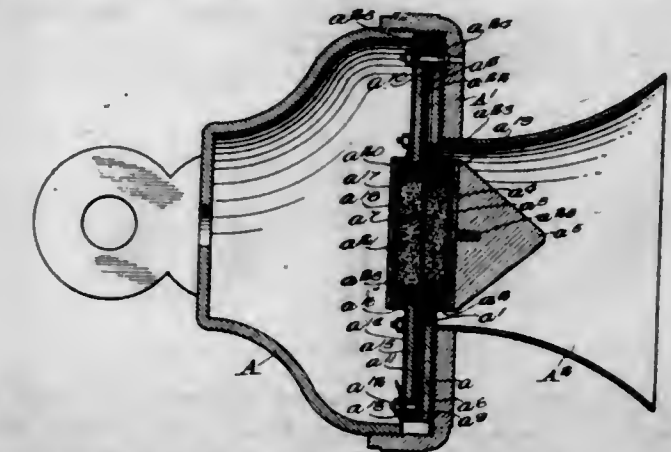
3. A lasting machine having, in combination, toe and heel lasting mechanisms which are mounted for movement laterally of the machine about centers which are located remote from the ends of the last to adapt both mechanisms for operation on a right or a left crooked last occupying a single position.

4. A lasting machine having, in combination, toe and heel lasting mechanisms which are connected together for simultaneous adjustment laterally in opposite directions about centers located respectively in front of the toe and the heel ends of the last.

5. A lasting machine having, in combination, toe and heel lasting mechanisms which are connected together for simultaneous adjustment laterally about axes which are located respectively in front of the toe and substantially at the breast of the heel and in directions which are opposite and degrees which are relatively variable.

[Claims 6 to 20 not printed in the Gazette.]

1,079,931. MICROPHONE. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 28, 1910. Serial No. 594,419. (Cl. 179—135.)



1. A differential microphone comprising a carbon diaphragm, a pair of plates, embracing said diaphragm, which plates have their outer edges secured together to clamp the marginal portion of the diaphragm between them, with interposed insulation to provide interior spaces between the diaphragm and the two plates, granular carbon engaging the opposite sides of the diaphragm at the center thereof, and stationary electrodes secured to said plates and engaging said granular carbon, said plates lying in close proximity to said diaphragm.

2. A differential microphone transmitter comprising a diaphragm with oppositely facing electrode surfaces at the center thereof, a pair of plates disposed at opposite sides of said diaphragm, engaging said electrode surfaces, stationary electrodes engaging said granular carbon, which stationary electrodes are secured to said plates, and a cone shaped deflector in the said mouth-piece, secured at the back of one of said stationary electrodes, whereby the voice vibrations entering said mouth-piece are deflected through the said apertures and into the space at the front of the diaphragm, and a springy or resilient packing encircling said granular carbon at opposite sides of said diaphragm to prevent the granular carbon from escaping into said spaces when the diaphragm is vibrated.

3. In a transmitter, a plate provided with a circular row of holes, a deflector surrounded by said circular row of holes, a mouth-piece inclosing said deflector, whereby the voice vibrations are deflected outwardly and caused to pass through said openings, a diaphragm back of said row of openings, and means covering the central portion of said diaphragm to prevent the voice vibrations from impinging on said central portion, said plate lying in close proximity to the exposed portion of said diaphragm.

4. In a transmitter, a casing, a diaphragm mounted in said casing, a carbon receptacle adjacent to the central portion of said diaphragm, a circular plate lying adjacent to the marginal portions of said diaphragm, and a second circular plate on the opposite side of said diaphragm and covering the marginal portions thereof, said plates being separated from said diaphragm by a narrow air space.

5. In a transmitter, a casing, a diaphragm mounted therein, a carbon receptacle covering the central portion

of said diaphragm, and a pair of circular plates lying adjacent to said diaphragm on opposite sides thereof and being separated therefrom by a narrow air space and substantially covering the exposed surface of said diaphragm.
[Claims 6 and 7 not printed in the Gazette.]

1,079,932. CONSTRUCTION OF EYEGLASSES, SPECTACLES, AND THE LIKE. LOUIS COURLANDER, Croydon, England. Filed Aug. 5, 1911. Serial No. 642,436. (Cl. 38—47.)

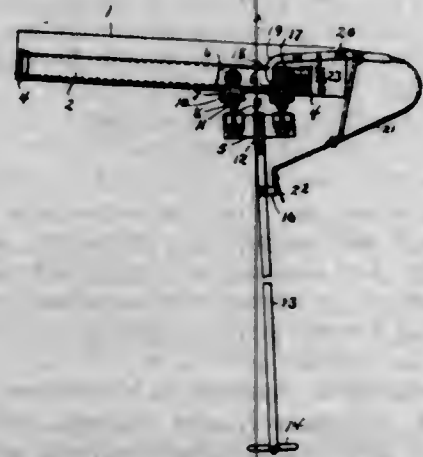


1. For spectacles and the like eye-glasses, a lens and a rim-band composed of thin strip metal which closely embraces the periphery of the lens, the contacting surfaces of the lens and band being cylindrical, such as would be generated by a straight line which traverses a closed curve, the lens and rim-band being retained in permanent connection by cement.

2. For spectacles and the like eye-glasses, a lens and a rim-band composed of thin strip metal which closely embraces the periphery of the lens, the contacting surfaces of the lens and band being cylindrical, such as would be generated by a straight line which traverses a closed curve, the lens and rim-band being retained in permanent connection by cement, the rim-band being composed of a strip of metal whose edges have a minimum thickness and visibility.

3. For spectacles and the like eye-glasses, a lens, a rim-band composed of thin strip-metal which tightly embraces the periphery of the lens and an expansion joint for slightly adjusting the length of the periphery of the band, the contacting surfaces of the lens and band being cylindrical such as would be generated by a straight line which traverses a closed curve.

1,079,933. SWING. JOHN WESLEY CULP, Huntington, Ind. Filed Feb. 13, 1913. Serial No. 748,085. (Cl. 104—111.)



1. A pleasure device including a race-way, a swing supported for movement in said race-way, means for locking the swing at one end of the race-way and means for actuating the locking means to release the swing, said latter means being operated by the swing in the movement

of the latter in the direction of its subsequent travel in the race-way.

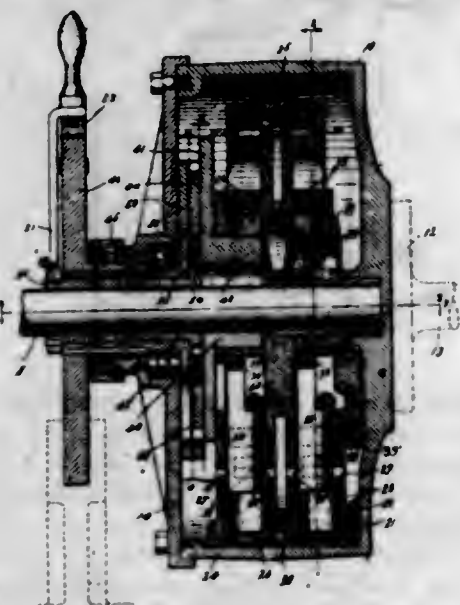
2. A pleasure device including a race-way, a swing depending from and movably supported thereby, a trip to engage and secure the swing in fixed position in the race-way, and means for releasing the trip in the movement of the swing in the direction of subsequent travel in the race-way.

3. A pleasure swing comprising an inclined race-way; rollers supported by the race-way; a hanger; brackets suitably pivoted together and affording universal joints between the rollers and hanger; a swing supported from the hanger; and a hook near one end of the race-way adapted to engage and hold the rearmost of the rollers and having also a pawl adapted to be engaged and actuated by the swing in its forward movement.

4. A pleasure device comprising a race-way, a swing depending from and movably supported thereby, a trip to engage and secure the swing in fixed position in the race-way, an arm connected to and adapted to operate the trip to release the swing, and means carried by the arm to be engaged by the swing in the movement of the swing in the direction of its subsequent travel in the race-way.

5. A pleasure device comprising a race-way, a swing, a support movable in the race-way, a universal connection between said swing and support, swing-locking means to secure the swing in fixed position in the race-way, and spring releasing means actuated by the swing in its movement in the direction of its subsequent travel in the race-way.

1,079,934. SPEED-VARYING TRANSMISSION. FREDERICK H. CHRYNE, Indianapolis, Ind. Filed Oct. 4, 1912. Serial No. 723,893. (Cl. 192—18.)



1. The combination of a driving member, a driven member, and a normally stationary member, a set of fluid pumps of each of which one element is connected to the driving member and the other element to the driven member, a set of measuring pumps of each of which one element is connected to the driving member and the other to the stationary member, a chamber into which the first set of pumps discharge and which supplies the second set of pumps, and connecting passages between and through the elements of the different pumps whereby relative movement between the two elements of one pump directs the inlet and discharge of another pump.

2. The combination of a driving member, a driven member, and a normally stationary member, a set of fluid pumps of each of which one element is connected to the driving member and the other element to the driven member, a set of measuring pumps of each of which one element is connected to the driving member and the other to the stationary member, a chamber into which the first set of pumps discharge and which supplies the second set of pumps, connecting passages between and through the elements of the different pumps whereby relative movement between the two elements of one pump directs the inlet

and discharge of another pump, and means for varying the position of said normally stationary member to control the relative movement between the elements of the second set of pumps.

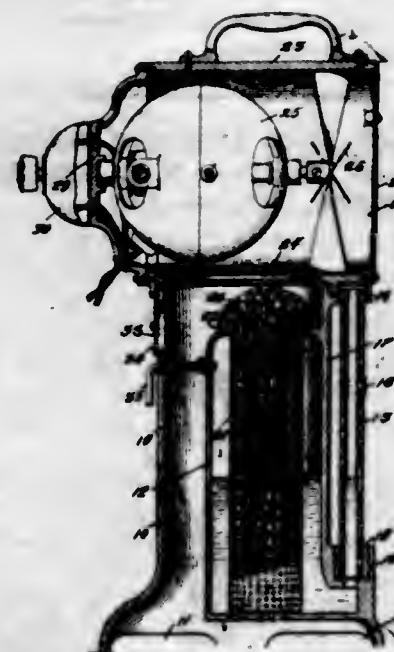
3. The combination of two rotary members, a series of circumferentially arranged reciprocating pumps of each of which the elements are relatively movable by relative movement between said two rotary members, an adjustable, normally stationary member, a second series of circumferentially arranged reciprocating pumps of each of which one element moves with one of said rotary members and the two elements are relatively movable by relative movement between that rotary member and said stationary member, and means for adjusting said stationary member to vary the amount of relative movement of the elements of the last named pumps upon relative movement between the stationary member and the last named rotary member, and connecting passages between and through the elements of the different pumps whereby relative movement between the two elements of one pump directs the inlet and discharge of another pump.

4. The combination of a rotary liquid-tight casing, a shaft coaxial with said casing, a frame removably mounted in said casing, two sets of fluid pumps of each of which one element is formed in said frame, means on said shaft for producing relative movement between the elements of one of said sets of pumps upon relative rotation between said shaft and casing, a stationary member mounted within said casing, means for producing relative movement between the elements of the second set of pumps upon relative rotation between said casing and said stationary member, and means for adjusting said stationary member to vary the amount of movement between the elements of said second set of pumps, said second set of pumps receiving the discharge from the first set of pumps.

5. The combination of a rotary liquid-tight casing, a shaft coaxial with said casing, a frame removably mounted in said casing, two sets of fluid pumps of each of which one element is formed in said frame, means on said shaft for producing relative movement between the elements of one of said sets of pumps upon relative rotation between said shaft and casing, a stationary member mounted within said casing, and means for producing relative movement between the elements of the second set of pumps upon relative rotation between said casing and said stationary member, said second set of pumps receiving the discharge from the first set of pumps.

[Claims 6 to 15 not printed in the Gazette.]

1,079,935. HUMIDIFIER. CLARKE S. DRAKE, Milwaukee, Wis. Filed July 28, 1911. Serial No. 640,989. (Cl. 98—44.)

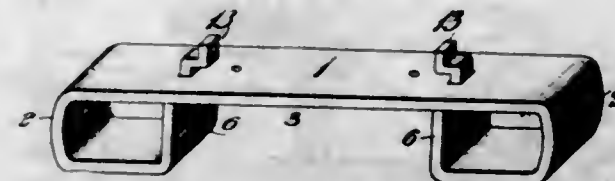


1. In a device of the character described, a casing, provided with an opening for the admission of air and an outlet opening for the air, an air moistener within the casing,

means located between the moistener and the outlet for sucking in air through the opening past the moistener and discharging it from the casing, the casing being provided with a second opening for admitting air between the moistener and the suction side of the air sucking means.

2. In a device of the character described, a hollow base forming an air passage, openings in the bottom of the base leading to the air passage, a liquid receptacle contained within the base, a wick in the liquid receptacle for conveying the liquid therefrom to the air passage, a casing mounted on the base and having an open end, and an electric fan located therein and drawing air from the air passage and discharging it through the open end of the casing, there being an opening in the casing opposite the fan.

1,079,936. METALLIC RAILWAY-TIE. STEPHEN B. ELKINS, JR., New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,633. (Cl. 238—5.)



1. A metallic railway tie, comprising a plurality of connected tubular members formed of a single strip of material, the openings of said members extending laterally relative to the tie, the edges of said members being provided with inwardly extending flanges and means for locking the ends of the metal forming the members with the connection between said members.

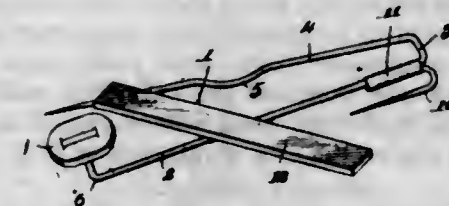
2. In a metallic railway tie, a top and end portions, the free ends of which are adapted to pass through the top portion and engage with the rail.

3. In a metallic railway tie, a top and end portions having free ends, which are reduced forming shoulders, said reduced ends being adapted to project through the top and engage with the rail.

4. A metallic railway tie, comprising a plurality of connected tubular members, the openings of said members extending laterally relative to the tie, said members having inwardly extending flanges.

5. A metallic railway tie, comprising a plurality of connected tubular members, the openings of said members extending laterally relative to the tie, the edges of said members being provided with inwardly extending flanges.
[Claims 6 to 8 not printed in the Gazette.]

1,079,937. SAFETY HAT-PIN. EDWARD H. FREEBORN, Newark, N. J. Filed May 13, 1913. Serial No. 767,366. (Cl. 132—25.)



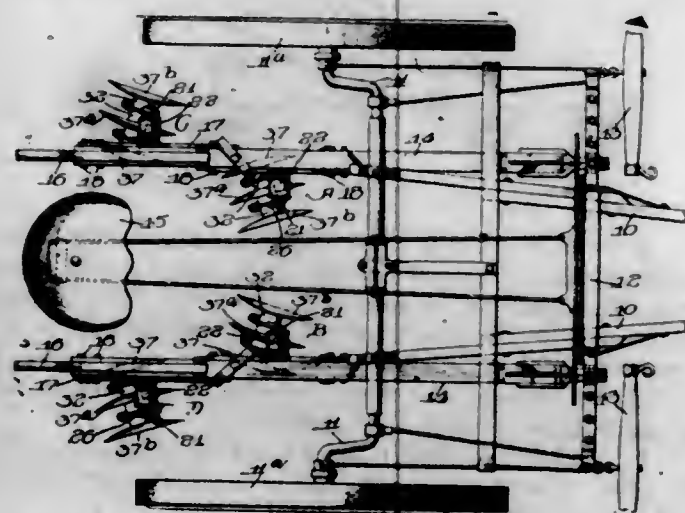
1. In a device of the class described, a pin body portion, a pin secured thereto at one end, means for releasably holding said pin at the opposite end of said body portion, a short spur disposed at the first named end, and a member secured to said body portion and extending transversely thereof, substantially as set forth.

2. A safety pin including a body portion and an inserting portion, an offset formed intermediate the ends of the said inserting portion, said offset adapted to extend in close proximity with the said body portion when fastened, a head, a hook member arranged beneath the said head adapted to retain the point of the inserting portion therebeneath, a supplemental spur carried by the said body portion, and a cross bar extending transversely of the

said connecting bar adapted to lock the pin against lateral movement, as and for the purpose set forth.

8. In a safety hat pin, the combination of a body portion and an inserting portion formed from a single strand of resilient wire, the said inserting portion having an inwardly curved portion formed about midway the length thereof, a head carried by the said body portion, a hook secured to the under face of the said head over which the said inserting portion is fitted, a supplemental spur member carried by the said wire strand adapted to engage the hat to which the safety pin is secured for preventing lateral movement of the said pin, and a bar carried by the said body portion and disposed transversely thereof adapted to engage the hat to prevent movement of the said pin, as and for the purpose set forth.

1,079,938. CULTIVATOR ATTACHMENT. JOSEPH W. GAMBLE, Carpentersville, Ill. Filed Aug. 20, 1908. Serial No. 449,417. (Cl. 97-37.)



1. A cultivator comprising pivotal longitudinal beams and two gangs of disks adjustably and detachably mounted on each beam one in front of the other and facing in opposite directions.

2. In a cultivator, a pivotal beam, gangs of disks, two of which are mounted on said beam, one in advance of the other on opposite sides of the beam, and facing in opposite directions.

3. In a cultivator, a pivotal beam, gangs of disks, two of which are adjustably and detachably secured to opposite sides of the beam, said gangs having non-coincident axes and facing in opposite directions.

4. In a disk cultivator, longitudinal beams pivotally mounted on opposite sides of the center line of said cultivator, gangs of disks mounted on said beams, one on each side of each beam, said gangs facing in opposite directions on each side of the row being cultivated.

5. In a cultivator, a frame, a beam mounted on said frame, a suitable hanger extending downwardly from said beam, a bearing lug on the lower end of said hanger, a gang yoke head adapted to be supported on said bearing lug and a disk gang suspended from said yoke head, a collar thicker on one side than on the other, on said lug and bearing against said yoke head whereby said gangs may be inclined to the vertical by a rotation of said collar.

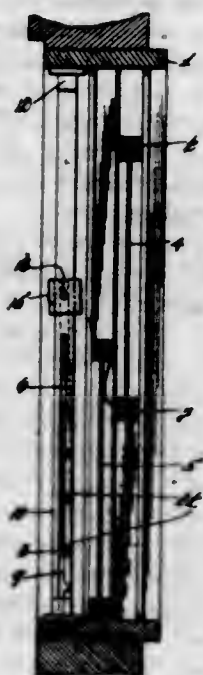
1,079,939. STONE-PULLER. JOHN GUSTIN, Mervin, Saskatchewan, Canada. Filed May 31, 1913. Serial No. 770,808. (Cl. 57-104.)



In combination, a wheel mounted axle, a frame mounted therein, a forked beam pivotally mounted on the axle and

having its two rear members curved and pointed for lifting purposes, gripping means mounted on the axle and adapted to cooperate with the lifting means, means for exerting downward pressure on the gripping means by hand, traction means secured to the forward end of the forked beam, and means for detachably connecting the traction means with the gripping means for the purpose of lifting a stone into transportable position.

1,079,940. WINDOW-SHADE SUPPORT. FREDERICK W. HAGEMEYER, New York, N. Y. Filed May 7, 1913. Serial No. 765,984. (Cl. 156-27.)



1. A supporting device for shades consisting of slotted plates, and a plurality of recesses in communication therewith, blocks slidably mounted on said plates adapted to support a shade, rods carried by said blocks and a rail carried by said blocks passing through said slots and adapted to engage said recesses.

2. In combination, a pair of plates having longitudinally spaced recesses, shade supporting blocks slidable on the plates, members depending from the blocks, and rods connecting the lower ends of the members and movable in the recesses to support the blocks in different elevations.

3. In combination, a pair of plates having longitudinal slots and recesses in communication therewith, blocks slidable on the plates and adapted to support a window shade, members depending from the blocks and movable adjacent the plates, and a rod connected to the lower ends of the members and adapted to move into the slots and move into and out of the recesses to support the blocks in different elevations.

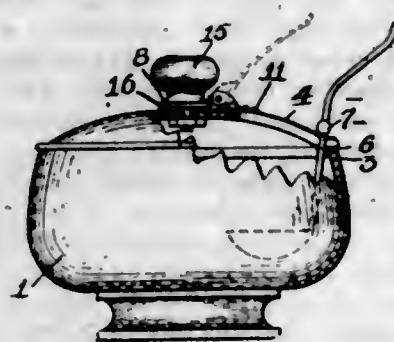
1,079,941. SHOE FOR ARTISTIC DANCING. FREDERICK HENSCHER, New York, N. Y. Filed May 11, 1910. Serial No. 560,574. (Cl. 46-70.)



1. An article of footwear embodying a base much larger, relatively, than the foot, and a shoe securely attached to said base at both the heel and toe of said shoe.

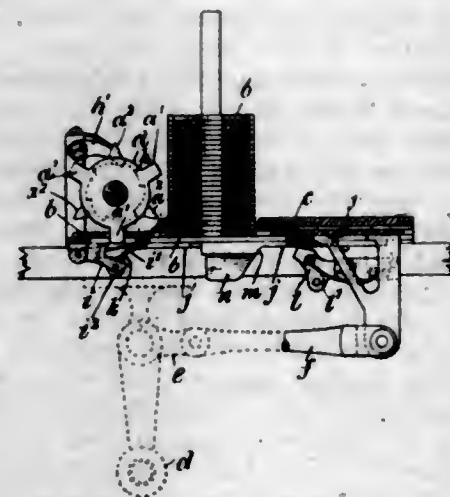
2. An article of footwear embodying a base composed of a framework much larger, relatively, than the foot, and a shoe fixedly secured to said base at the heel and toe of said shoe and intermediate thereof.

1,079,942. COVER FOR DISPENSING JARS. EDWARD T. LANGAN, Chicago, Ill. Filed July 5, 1912. Serial No. 707,682. (Cl. 65-60.)



A device of the class described, embracing a receptacle, a fixed cover section therefor having a segmental opening therethrough, a folding lip complementary with the segmental opening in the fixed cover section and hinged to the same, means adapted to force said lid to raised position, means adapted to limit the upward movement of the lid, said lid having a notch in its periphery to receive a ladle handle therethrough, a ladle, and a projection on the ladle handle adapted to engage the lid to hold the same normally closed against the tension of the opening means, the bowl of the ladle being disposed within the receptacle.

1,079,943. CHECK-DISK-ISSUING MACHINE. EDWARD MARCH, London, England. Filed July 15, 1913. Serial No. 779,087. (Cl. 235-1.)



1. In a check-disk issuing machine, a register-wheel, teeth on said register-wheel a plurality of which teeth are engaged by the said check-disks on issue of a check-disk, a pawl and means for permitting said pawl to protrude into the path of the last of said plurality of teeth immediately after the first of said plurality has moved away.

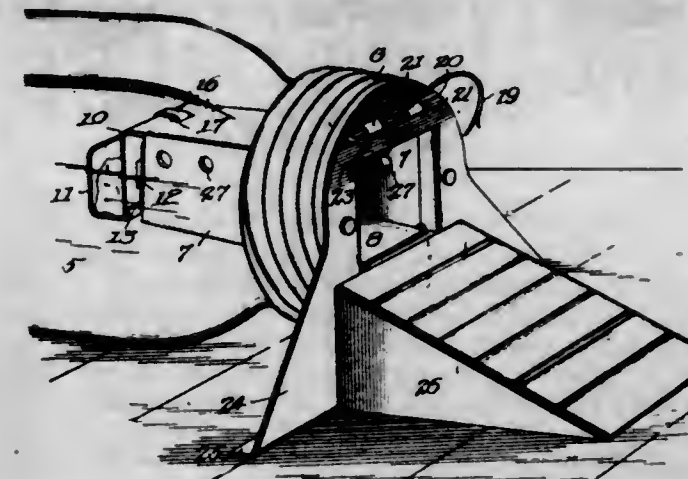
2. In a check-disk issuing machine, a pawl, a register-wheel, teeth on said register-wheel in the plane of said pawl, teeth on said register-wheel laterally out of the plane of said pawl and means for permitting said pawl to protrude into the path of said teeth in its plane immediately after one of said teeth in its plane has been moved away therefrom.

3. In a check-disk issuing machine, a pawl, a register-wheel, teeth on said register-wheel in the plane of said pawl, teeth on said register-wheel laterally out of the plane of said pawl, a reciprocating slide, a sliding plate, a shoulder on said plate in the rearward path of said slide, a ramp on said plate, a dog on said slide, a shoulder on said plate in the forward path of said dog and a fixed ramp on said machine alongside the path of said dog.

4. In a check-disk issuing machine, a pawl, a register-wheel, teeth on said register-wheel in the plane of said

pawl, teeth on said register-wheel laterally out of the plane of said pawl, a reciprocating slide, a sliding plate, a shoulder on said plate in the rearward path of said slide, a ramp on said plate, a dog on said slide, a shoulder on said plate in the forward path of said dog, a roller on said dog, and a fixed ramp on said machine in the path of said roller on said dog.

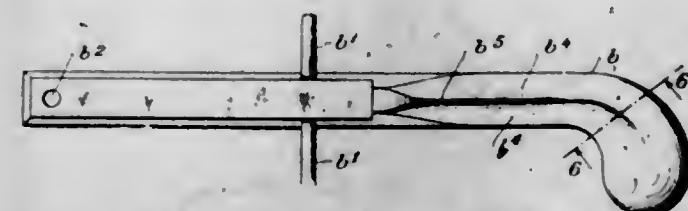
1,079,944. TRAP. JOHN R. McCLENNAN, Geneva, Ill. Filed Mar. 28, 1913. Serial No. 757,406. (Cl. 43-24.)



1. In an animal trap, a removable closure for the trap, a tube extending from the closure and having a tiltable bottom platform, the rear end wall of the tube having an opening, a bait support behind said end wall and accessible through the opening in the end wall, and a swinging trigger engageable with the platform for holding the same stationary, said trigger including a plate which extends across the tube adjacent to the aforesaid end wall, and said trigger plate having an opening which registers with the opening of said end wall.

2. In an animal trap, a removable cap for closing the trap, said cap having an entrance opening, a tube extending from the opening and having a tilting bottom, said tube being located on one side of the cap, and a plate secured to the other side of the cap, and provided with an opening registering with the cap opening, said plate having an enlarged and widened portion projecting from the cap and serving as a supporting base for the trap.

1,079,945. PIANO-PEDAL. CHARLES MEHLIN, Fort Lee, N. J. Filed Dec. 10, 1912. Serial No. 735,978. (Cl. 84-24.)



1. A piano pedal having the portion which is exposed to sight and wear formed with convex surfaces on opposite sides of a single upper edge on which rests the performer's foot when the pedal is in use.

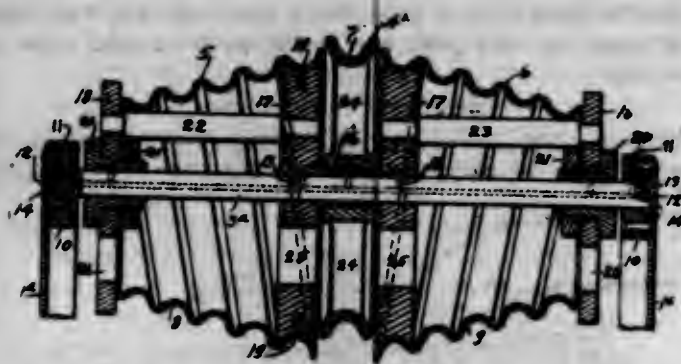
2. A piano pedal having at its outer end a relatively broad and rounded upper surface, tapered toward its inner end to form a single edge on which rests the performer's foot when the pedal is in use.

3. A piano pedal having at its outer end a relatively broad and flat upper surface and formed to the rear thereof with two convex faces disposed angularly each to each and meeting in a single edge on which rests the performer's foot when the pedal is in use.

1,079,946. TROLLEY-FINDER. PETER J. MINCK, Brooklyn, N. Y. Filed May 21, 1909. Serial No. 497,462. (Cl. 191-75.)

1. In a device of the type described, the combination with the trolley-wheel and its shaft, of tapered fender

drums mounted eccentrically for their entire length on said shaft, one on each side of said wheel, and counter-weights mounted inside said drums between the ends thereof opposite the portions farthest from the center.

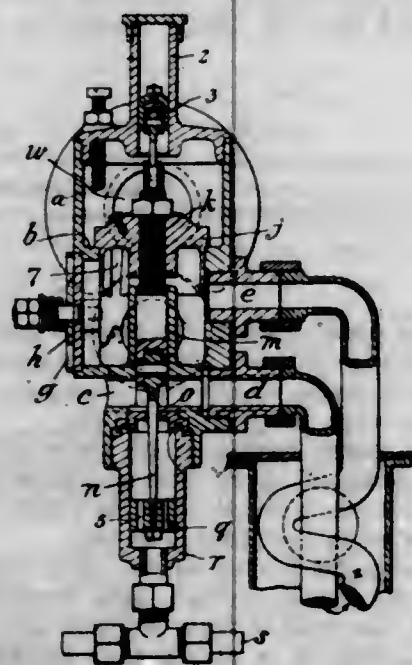


2. A device of the type described, comprising a yoke, a shaft carried thereby, a trolley-wheel loosely mounted on said shaft, combined with fender drums mounted eccentrically for their entire length on the shaft and slidable endwise thereon, one by each side of said wheel, and fiber disks respectively placed on the outer ends of the drums near the arms of the yoke, and on the inner ends of the drums facing the opposite sides of the wheel, said disks supporting the shells of the drums and constituting impact absorbers therefor.

3. A trolley-wheel provided with vanes, combined with fender drums of the type described mounted by each side of said wheel, said drums being suitably apertured to allow free air-circulation.

4. A trolley-fender in combination with a trolley-wheel, a stationary shaft carrying the same, said fender comprising drums of the character described located one on each side of said wheel, and likewise mounted on said shaft, said drums and wheel being loose thereon, fiber disks secured in the inner ends of the drums, adjacent to the sides of the wheel, similar disks on the outer ends of the drums, bushings serving as bearings to said outer ends and nuts cooperating with said bushings to clamp said last-named disks in their respective positions.

1,079,947. CARBURETER. CYRIL CLARK BOVILLE MORRIS, London, England. Filed Feb. 5, 1913. Serial No. 746,332. (Cl. 48-154.1.)



1. A carbureter comprising the combination of a casing, a valve seat in the casing, a floating valve disposed above the valve seat a mixing chamber below the valve seat, a tapered pin attached to valve and extending downward, a fuel reservoir disposed below the mixing chamber, said reservoir having an orifice disposed axially of

the valve and into which the tapered pin passes, an air inlet and passage disposed between the mixing chamber and the fuel reservoir said passage traversing the pin attached to the valve at right angles, a carbureted air inlet to the mixing chamber and means for heating the air on its way to the mixing chamber, and means for supplying fuel to the fuel chamber under pressure.

2. A carbureter comprising the combination of a casing, a valve seat in the casing, a cylindrical extension to the casing above the seat, a floating valve disposed between the valve seat and cylindrical extension, a piston on said valve working in the cylindrical extension, a mixing chamber below the valve seat, a tapered pin attached to valve and extending downward, a fuel reservoir disposed below the mixing chamber, said reservoir having an orifice disposed axially of the valve and into which the tapered pin passes, an air inlet and passage disposed between the mixing chamber and the fuel reservoir, said passage traversing the pin attached to the valve at right angles, a carbureted air inlet to the mixing chamber and means for heating the air between on its way to the mixing chamber, and means for supplying fuel to the fuel chamber under pressure.

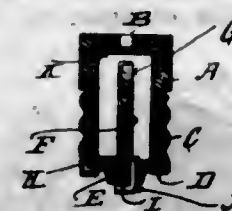
3. A carbureter comprising the combination of a casing, a valve seat in the casing, a cylindrical extension to the casing above the seat, a floating valve disposed in the casing between the valve seat and cylindrical extension, a piston on said valve and working in the cylindrical extension, a guide in the casing below the valve seat and disposed axially of the valve, a stem to the valve working in the guide, a mixing chamber below the valve seat, a tapered pin attached to valve and extending downward, a fuel reservoir disposed below the mixing chamber, said reservoir having an orifice disposed axially of the valve and into which the tapered pin passes, an air inlet and passage disposed between the mixing chamber and the fuel reservoir said passage traversing the pin attached to the valve at right angles, a carbureted air inlet to the mixing chamber, and means for heating the air between on its way to the mixing chamber, and means for supplying fuel to the fuel chamber under pressure.

4. A carbureter comprising the combination of a casing, a valve seat in the casing, a floating valve disposed above the valve seat, a mixing chamber below the valve seat, a tapered pin attached to valve and extending downward, a fuel reservoir disposed below the mixing chamber, said reservoir having an orifice disposed axially of the valve and into which the tapered pin passes, an air inlet and passage disposed between the mixing chamber and the fuel reservoir said passage traversing the pin attached to the valve at right angles, a carbureted air inlet to the mixing chamber and means for heating the air between on its way to the mixing chamber, means for admitting a constant air supply and a valve on the mixing chamber for controlling a further supply of auxiliary air to the mixing chamber and means for supplying fuel to the fuel chamber under pressure.

5. A carbureter comprising the combination of a casing, a valve seat in the casing, a cylindrical extension to the casing above the seat, a floating valve disposed in the casing between the valve seat and cylindrical extension, a piston on said valve and working in the cylindrical extension, and open to atmospheric pressure on its upper side a guide in the casing below the valve seat and disposed axially of the valve, a stem to the valve working in the guide, a mixing chamber below the valve seat, a tapered pin attached to valve and extending downward, a fuel reservoir disposed below the mixing chamber, said reservoir having an orifice disposed axially of the valve and into which the tapered pin passes, an air inlet and passage disposed between the mixing chamber and the fuel reservoir said passage traversing the pin attached to the valve at right angles, a carbureted air inlet to the mixing chamber, and means for heating the air between on its way to the mixing chamber, a valve on the mixing chamber for controlling the supply of auxiliary air to the mixing chamber and means for supplying fuel to the fuel chamber under pressure.

(Claims 6 to 13 not printed in the Gazette.)

1,079,948. FUSE-PLUG. THOMAS E. MURRAY, New York, N. Y. Filed July 24, 1913. Serial No. 780,857. (Cl. 175-277.)



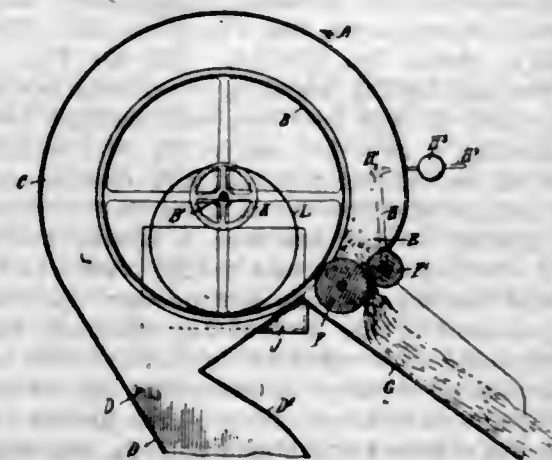
1. A fuse plug, comprising a hollow cylindrical threaded casing, a threaded shell receiving said casing and having an inwardly turned flange, a disk of insulating material interposed between the end of said casing and the flange of said shell, a partition entering said casing and supported on said disk, and a fuse strip doubled over said partition and having one end connected to said shell and the other end extending through said disk.

2. A fuse plug, comprising a hollow cylindrical threaded casing, a threaded shell receiving said casing and having an inwardly turned flange, a disk of insulating material interposed between the end of said casing and the flange of said shell, a partition entering said casing and supported on said disk, and a fuse strip doubled over said partition and having one end doubled over the edge of said disk and in contact with said shell and the other end extending through said disk.

3. A fuse plug, comprising a hollow cylindrical threaded casing, a threaded shell receiving said casing and having an inwardly turned flange, a disk of insulating material interposed between the end of said casing and the flange of said shell, a partition entering said casing and extending through said disk, a fuse strip doubled over said partition and having one end connected to said shell, and an insulating washer on said partition outside of said disk; the remaining end of said fuse strip extending through said disk and washer.

4. A fuse plug, comprising a hollow cylindrical threaded casing, a threaded shell receiving said casing and having an inwardly turned flange, a disk of insulating material interposed between the end of said casing and the flange of said shell, a partition entering said casing and extending through said disk, a fuse strip doubled over said partition and having one end connected to said shell, and an insulating washer on said partition outside of said disk; the remaining end of said fuse strip extending through said disk and washer and being doubled upon itself to form a contact terminal.

1,079,949. COTTON CONDENSER AND REGULATOR. JOHN B. NIXON, Palmetto, and SMITH F. KRUPP, Atlanta, Ga. Filed Sept. 27, 1912. Serial No. 722,598. (Cl. 13-17.)



1. A condenser, comprising a casing, a screen drum arranged within the casing and forming with the same a passage for the lint, and an inlet connected with one or more gins and an air supply, and opening into the said passage tangentially relative to the inner surface of the casing to direct the lint against the inner casing

surface and away from the peripheral face of the said drum, the said passage having an outlet, doffing rollers in the said outlet, and a tubular deflector eccentrically suspended within the said drum and open at both ends.

2. A condenser, comprising a casing, a screen drum arranged within the casing and forming with the same a passage for the lint, and an inlet connected with one or more gins and an air supply, and opening into the said passage tangentially relative to the inner surface of the casing to direct the lint against the inner casing surface and away from the peripheral face of the said drum, an outlet at one end of the casing, an outlet leading from the said passage, doffing rollers in the said outlet, collars on the shaft of the said drum within the latter, and a tubular deflector supported on the said collars and open at its ends.

3. A condenser, comprising a casing, a screen drum arranged within the casing and forming with the same a passage for the lint, and an inlet connected with one or more gins and an air supply, and opening into the said passage tangentially relative to the inner surface of the casing to direct the lint against the inner casing surface and away from the peripheral face of the said drum, an outlet at one end of the casing, an outlet leading from the said passage, doffing rollers in the said outlet, collars on the shaft of the said drum within the latter, and a tubular deflector supported on the said collars and open at its ends, one open end of the said deflector being adjacent the end of the casing at the said casing outlet.

4. A condenser, comprising a casing, a screen drum arranged within the casing and forming with the same a passage for the lint, and an inlet connected with one or more gins and an air supply, and opening into the said passage tangentially relative to the inner surface of the casing to direct the lint against the inner casing surface and away from the peripheral face of the said drum, an outlet at the end of the casing, an outlet leading from the said passage, doffing rollers in the said outlet, collars on the shaft of the said drum within the latter, and a tubular deflector eccentrically supported on the said collars and open at its ends, the said deflector being of a length somewhat less than the length of the said drum.

5. A condenser, comprising a casing having an inlet and an outlet for the cotton at the peripheral face of the casing and an outlet at the side of the casing for the air and dust, a screen drum concentrically within the casing and forming with the latter a passage between the cotton inlet and outlet, and a tubular deflector arranged eccentrically within the drum.

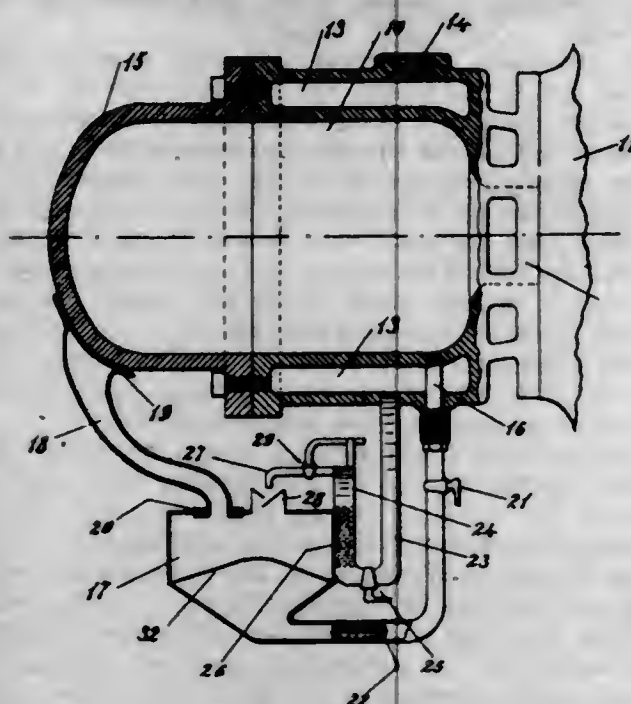
(Claim 6 not printed in the Gazette.)

1,079,950. VAPORIZER ATTACHMENT. EDWARD MORRIS NORTON, New York, N. Y., assignor to De La Vergne Machine Company, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,581. (Cl. 123-25.)

1. In an explosion engine the combination of a cylinder, a vaporizer chamber directly opening therein, a water jacket for said chamber, a box, a metallic perforated partition within said box, means for dripping water coming from said water jacket on said partition, a suction tube leading hot air from points close to the outside surface of said vaporizer chamber to the inside of said box, and a connection leading said air and moisture from said box through said partition to the inside of said vaporizer chamber.

2. In an explosion engine the combination of a cylinder, a vaporizer chamber directly opening therein, a water jacket for said chamber, a piston, a box connected to the inside of said vaporizer chamber, a valve between said box and said chamber opening during the suction stroke of said piston, a metallic perforated partition within said box, means for dripping water coming from said water jacket on top of said partition, and a suction tube leading hot air from points close to the outside surface of said vaporizer chamber to said box on the same side of said partition, said tube being mounted on a swivel so as to be movable to and from its normal position.

2. In an explosion engine, the combination of a cylinder, a vaporizer chamber directly opening therein, a water jacket for said chamber, a piston, a box connected to the inside of said vaporizer chamber, a valve between said box and said chamber opening during the suction stroke of said piston, a metallic perforated partition within said box, means for dripping water coming from said water jacket on top of said partition, a suction tube leading hot air from points close to the outside surface of said vaporizer chamber to said box on the same side of said partition, said tube being mounted on a swivel so as to be movable to and from its normal position, and means for filtering said water previous to its being delivered to the inside of the vaporizer chamber.



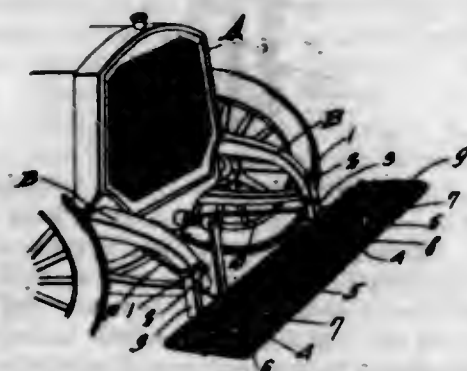
4. In an explosion engine the combination of a cylinder, a vaporizer chamber directly opening therein, a water jacket for said chamber, a piston, a box connected to the inside of said vaporizer chamber, a valve between said box and said chamber opening during the suction stroke of said piston, a metallic perforated partition within said box, means for dripping water coming from said water jacket on top of said partition, a suction tube leading hot air from points close to the outside surface of said vaporizer chamber to said box on the same side of said partition, said tube being mounted on a swivel so as to be movable to and from its normal position, means for filtering said water previous to its being delivered to the inside of the vaporizer chamber, and means for regulating the flow of the same.

5. In an explosion engine the combination of a cylinder, a vaporizer chamber directly opening therein, a water jacket for said chamber, a piston, a box connected to the inside of said vaporizer chamber, a valve between said box and said chamber opening during the suction stroke of said piston, a metallic perforated partition within said box, means for dripping water coming from said water jacket on top of said partition, a suction tube leading hot air from points close to the outside surface of said vaporizer chamber to said box on the same side of said partition, said tube being mounted on a swivel so as to be movable to and from its normal position, means for filtering said water previous to its being delivered to the inside of said box, means for regulating the flow of the same, and means for closing the connection between said box and said vaporizer chamber.

1,070,951. AUTOMOBILE ATTACHMENT. ROBERT H. PRAMSTERN, Norfolk, Va. Filed June 8, 1912. Serial No. 702,621. (Cl. 106—253.)

1. An attachment for automobiles including a fender frame mounted for rotation about a central transverse axis, means for connecting the frame to a vehicle, means

for holding the frame normally substantially horizontal and projected forward for use as a bumper, and means for shifting the front edge of the frame downwardly and rearwardly to bring the frame into a substantially vertical position for use as a fender.



2. An attachment for automobiles and the like, including a fender frame mounted for rotation about a central transverse axis, means for connecting said frame to the front of an automobile, said means constituting a support for the rear portion of the fender frame when said frame is in its normal position, yielding means for holding the frame normally in a substantially horizontal position and projected forward for use as a bumper, and means for shifting the front edge of the frame downwardly and rearwardly to bring the frame into a substantially vertical position for use as a fender.

3. An attachment for automobiles including a fender frame mounted for rotation about a central transverse axis, means for connecting the frame to the front of an automobile, means under the control of the driver of the automobile to which the structure is attached for swinging the front of the frame downwardly and rearwardly to bring the frame to a substantially vertical position for use as a fender, and a spring for automatically returning said means and the fender frame to their normal positions, said fender frame being normally disposed horizontally with its rear edge bearing downwardly on the connecting means.

4. An attachment for automobiles including a fender frame mounted for rotation about a transverse axis, means for connecting the frame to the front of an automobile, yieldable means for holding said frame normally in a substantially horizontal plane for use as a bumper, said connecting means serving to limit the movement of the frame under the action of the yielding means, lever operated means for shifting the front of the frame downwardly and rearwardly out of normal position and into a substantially vertical position for use as a fender, and means for locking the frame in lowered position.

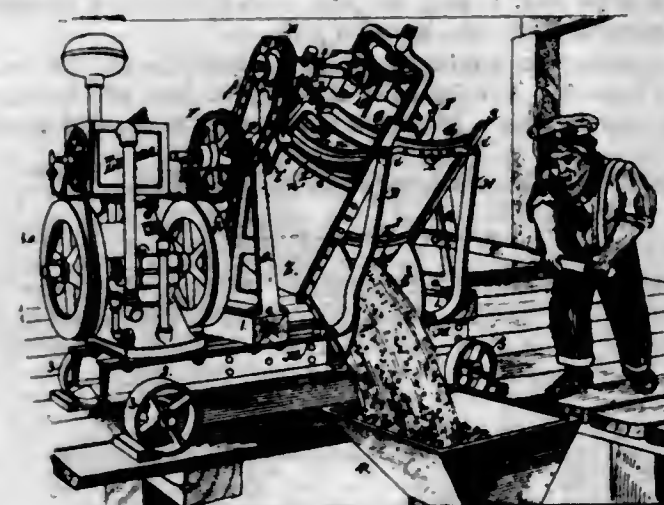
1,079,952. CONCRETE-MIXER. HENRY URSON PRINDLE, San Francisco, Cal., assignor to Planetary Machinery Company, Incorporated, San Francisco, Cal. Filed July 18, 1911. Serial No. 639,214. (Cl. 83—73.)

1. A carriage having bearings, a machine having trunnions mounted in said bearings, said machine having an outlet opening, a gate for controlling said opening, and self-actuated means for automatically opening and closing said gate as said machine is tilted on its trunnions.

2. A carriage having bearings, a mixing machine including a working element and having trunnions mounted in the said bearings, means continuously operating said working element of the said mixing machine, and other means engaging said machine for tilting said machine on its trunnions without stopping the operation of the same, the said machine including a tank having an outlet opening, and a gate for the said opening, and means for opening and closing the said gate as the tank is tilted on its trunnions.

3. A carriage having bearings, a mixing machine including a working element and having trunnions mounted in the said bearings, means continuously operating said working element of the said mixing machine, and other means engaging said machine for tilting said machine on

its trunnions without stopping the operation of the same, the said machine including a tank having an outlet opening, a gate for the said opening, means connected with the carriage and with the said gate for opening and closing the gate as the tank is tilted in opposite directions.

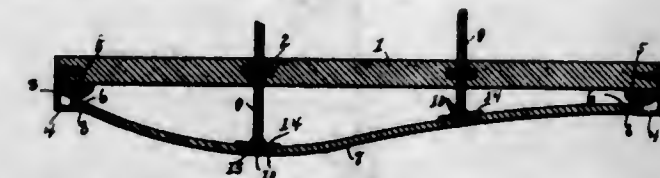


4. A carriage having bearings, a mixing machine having trunnions mounted in the said bearings, means for continuously operating said working element of the said mixing machine, said machine including a tank connected to and tiltable with the mixing machine, said tank having an inlet at one side and a discharging outlet at the other side, a gate slidable over the said outlet, arms hinged at one end to the carriage, and at the other end pivotally connected to the sliding gate and adapted when the tank is tilted to open and close the gate, and lever mechanism for tilting the tank.

5. A support having bearings, a machine having trunnions mounted in said bearings, said machine including working elements, and a tank in which said elements are located, a power applying device exterior to the machine, and cooperative connections between said power applying device and said working elements, said tank having an opening, a gate for said opening, and self-actuated means cooperatively connecting said gate with said support for opening and closing the gate as the machine is tilted on its trunnions.

[Claim 6 not printed in the Gazette.]

1,079,953. DRAWING-RULE FOR IRREGULAR CURVES. RUDOLF P. O. SAHM, Brooklyn, N. Y. Filed July 17, 1911. Serial No. 638,855. (Cl. 33—2.)



1. In a device of the character described, a body portion provided at each end with a bracket, said brackets being provided in turn with inwardly projecting extensions, a section of springy material provided at each end with a recessed portion for the reception of said extensions, said recessed portions adapted to limit the vertical movement of said member, and a plurality of bolts extending through said body portion and engaging said springy material for the purpose described.

2. In a device of the character described, a body portion provided at each end with brackets, said brackets provided, in turn, with inwardly projecting extensions, a strip of springy material provided at each end with recesses for the reception of said extensions, said recesses adapted to limit the vertical movement of said member, sections of elastic material secured to said body portion and in engagement with the ends of said springy material and bolts extending through said body portion and secured to said strip whereby the same may be adjusted for the purpose described.

3. In a device of the character described, a body portion provided at each end with brackets, said brackets, in turn, provided with inwardly projecting extensions, a strip of springy material having its ends provided with recesses for the reception of said extensions, said recesses adapted to limit the vertical movement of said member, sections of elastic material disposed between said body portion and the ends of said strip, bolts extending through said body portion and provided with bosses, plates secured about said bolts and between said bosses, said plates having connection with said strip whereby when said bolts are adjusted said strip will be curved for the purpose described.

1,079,954. CASE-HARDENING MIXTURE. JAMES F. SALLONS, Lansing, Mich., assignor to Alfred O. Blauch, Chicago, Ill. Filed Dec. 26, 1912. Serial No. 738,703. (Cl. 148—25.)

1. A case-hardening mixture consisting principally of tan bark combined in physical mixture with energizing material comprising salts of an alkaline base for rendering the carbonaceous matter of the tan bark active when the mixture is heated.

2. A case hardening mixture consisting principally of carbonaceous material in the form of spent tan bark combined in physical mixture with energizing material comprising a sodium salt and slaked lime to render the carbonaceous matter active when the mixture is heated.

3. A case-hardening mixture consisting principally of carbonaceous material in the form of spent tan bark mixed with energizing substance, including barium carbonate, a sodium salt, slaked lime and ammonium carbonate.

4. A case-hardening mixture consisting of from 65 to 70 per cent. spent tan bark, 12 to 15 per cent. barium carbonate, 5 to 10 per cent. of a sodium salt, 8 to 10 per cent. slaked lime, and about 2½ per cent. ammonium carbonate.

5. A case-hardening mixture consisting of from 65 to 70 per cent. spent tan bark, 12 to 15 per cent. barium carbonate, approximately 10 per cent. sodium chloride, 8 to 10 per cent. slaked lime, and about 2½ per cent. ammonium carbonate.

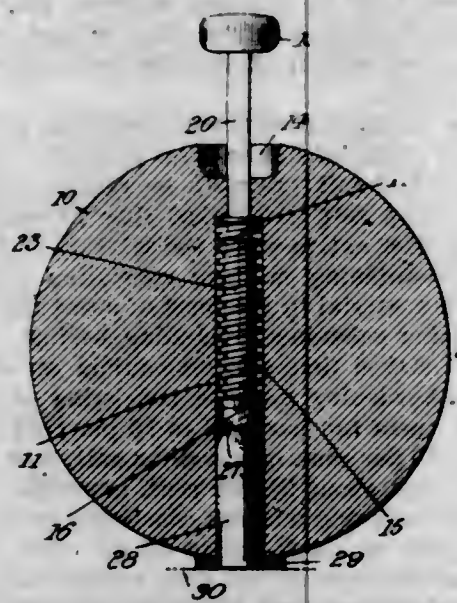
1,079,955. METHOD OF ATTACHING INVERTED INCANDESCENT MANTLES TO HOLDERS. ALBERT SCHWIDEGGER, Basel, Switzerland. Filed Apr. 9, 1913. Serial No. 759,909. (Cl. 67—100.)



1. The method of attaching an incandescence mantle to an annular holder, which consists in drawing the mantle on to a mandrel having a reduced end whereby a shoulder is produced, the mantle being drawn on to said reduced end and extending somewhat beyond said shoulder, slipping the annular holder over the mantle on said reduced end till said holder abuts on said shoulder, folding back, over the holder, that part of the mantle which extends beyond said shoulder, and attaching said folded back part to the holder.

2. The method of attaching an incandescent mantle to an annular holder having an external groove which consists in drawing the mantle on to a mandrel having a reduced end, whereby a shoulder is produced, the mantle being drawn on to said reduced end and extending somewhat beyond said shoulder, placing a spring ring around the mantle part which projects beyond said shoulder, folding back the edge of the mantle to embrace said ring, slipping the annular holder over the mantle on said reduced end till it abuts on said shoulder, and drawing the folded part of the mantle together with the spring ring over said holder so that the ring snaps into the groove of the holder.

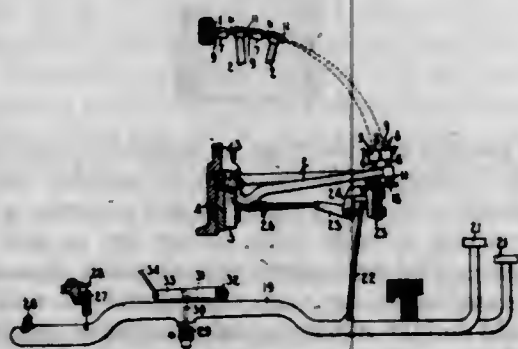
1,079,956. BOWLING-BALL. CHARLES SNESSLE, Jersey City, N. J., assignor of one-third to William J. Welsh, Jersey City, N. J., and one-third to William Mooney, Bayonne, N. J. Filed Apr. 24, 1913. Serial No. 763,232. (Cl. 46-4.)



1. A bowling ball having a recess, a communicating bore, a spring-controlled plunger engaging said bore, anti-rotating means between bore and plunger, a knob on the plunger adapted to be accommodated within the recess and to be drawn completely out of the same so as to be graspable by the player's fingers, the anti-rotating means between ball and plunger being operative subsequent to the withdrawal of the knob from the recess.

2. A bowling ball having a recess, a communicating squared bore, a spring-controlled squared plunger engaging said bore, a knob on the plunger adapted to be accommodated within the recess and to be drawn completely out of the same, so as to be graspable by the player's fingers, the engagement between the squared bore and squared plunger being maintained subsequent to the withdrawal of the knob from the recess.

1,079,957. TYPE-WRITING MACHINE. GEORGE A. SEIB, Illion, N. Y., assignor to Remington Typewriter Company, Illion, N. Y., a Corporation of New York. Filed June 20, 1913. Serial No. 774,767. (Cl. 197-36.)



1. A metallic type bar carrying a metallic type and having a socket in which is seated a buffer of material

softer than the type and against which a part of another type bar is adapted to strike.

2. A type bar having a socket in the rear of the impact face of the type, and a pad seated in said socket.

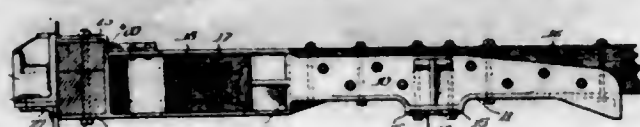
3. A type bar having an interiorly threaded socket on the rear side thereof, and a pad threaded into said socket.

4. A type bar, a pad thereon, and a threaded connection between said type bar and pad.

5. A type bar having a threaded member on the rear of the type bar and back of the impact face of the type and a pad having a threaded connection with said member.

[Claims 6 to 12 not printed in the Gazette.]

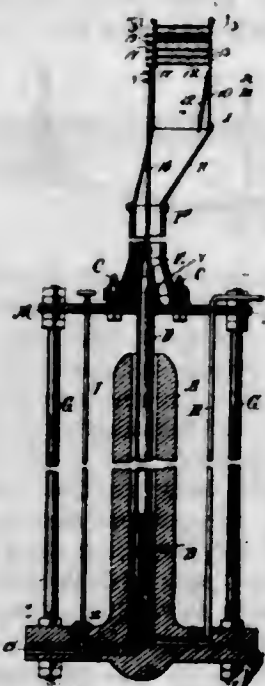
1,079,958. CAR-UNDERFRAME. WALTER A. STEARNS, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed May 23, 1913. Serial No. 769,374. (Cl. 105-76.)



1. In underframing for railway cars, the combination of center sills terminated at a point between the end sill and body bolster, and a combined center sill reinforcing member and draft sill applied to said center sills, said reinforcing member having a portion extending to the rear of the body bolster and having a squared shoulder against which the end of the center sill may abut whereby buffing force is applied directly to the ends of said center sills, substantially as described.

2. In underframing for railway cars, the combination of center sills terminated at a point between the end sill and body bolster, and combined center sill reinforcing members and draft sills applied to said center sills, said reinforcing members embracing said center sills on both sides of said body bolster and each being provided with a transverse shoulder against which the end of a shortened center sill may abut, whereby buffing force is applied in a direct line against the ends of said center sills, substantially as described.

1,079,959. APPARATUS FOR MAKING PIPE-MOLDS. WILLIS C. SWIFT, Coshocton, Ohio. Filed Dec. 18, 1909. Serial No. 533,942. (Cl. 22-35.)



1. The combination with a flask, a body pattern, and means for operating the latter, of a hopper supported on the flask and delivering thereto, a series of plates or trays arranged in the hopper to divide the same into compartments, each compartment adapted to contain sand, retain-

ing devices for said plates or trays, and means for automatically releasing said retaining devices in succession.

2. The combination with a flask, a body pattern, and means for operating the latter, of a hopper supported on the flask and delivering thereto, a series of plates or trays arranged in the hopper to divide the same into compartments, each adapted to contain sand, retaining devices for said plates or trays, and means operated by the advance of the pattern into the flask for successively releasing said retaining devices.

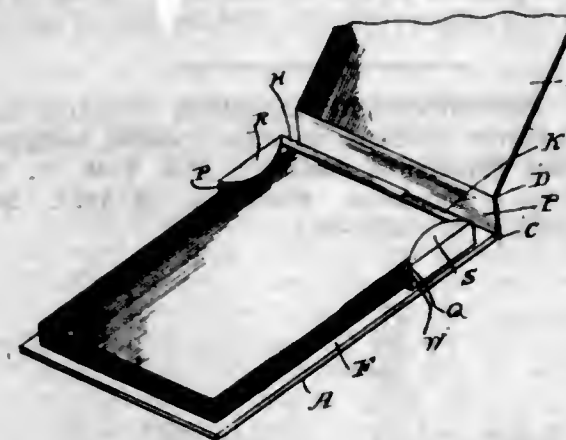
3. In an apparatus for making sand molds, a pattern, a flask open at both ends and arranged in line with the pattern, means for advancing the pattern into the flask through one end thereof, and means controlled by the pattern as it advances into the flask for automatically supplying sand to the flask through the other end thereof.

4. In an apparatus for making sand molds, a pattern, a flask open at both ends and arranged in line with the pattern, means for continuously advancing the pattern into the flask through one end thereof, and means controlled by the pattern for automatically supplying sand to the flask through the other end of the flask as the pattern advances into the flask.

5. In an apparatus for making sand molds, a pattern, a flask open at both ends and arranged in line with the pattern, a sand hopper arranged to deliver sand into one end of the flask, means for advancing the pattern into the flask through the other end thereof, and means operated by the pattern as it advances into the flask to control the delivery of the sand from the hopper into the flask.

[Claims 6 and 7 not printed in the Gazette.]

1,079,960. CARD-CASE. OSCAR WILLIAM TOLLSTAM, Chicago, Ill., assignor to James N. Murray, Chicago, Ill. Filed Dec. 17, 1910. Serial No. 597,838. (Cl. 129-35.)



1. In card holding devices, the combination with a suitable plane bed plate, of coacting jaws mounted upon the plate in position to act at opposite points upon the edges of superposed cards resting upon the plate and adapted to apply edgewise pressure independently to each card, and means for fixing the jaws at various distances apart.

2. In card holding devices, the combination with a plane bed member, of jaws secured to said member near one end thereof, adapted to hold individually by acting against their lateral edges cards superposed upon said member, and provided with overhanging webs to prevent disengagement of the cards by movement perpendicular to the bed member, and means for adjustably fixing the distance between the jaws.

3. The combination with the bed plate, of a jaw fixed to the plate near its lateral margin, a second coacting jaw secured to the plate near the opposite margin to move, parallel to the bed, toward and from its companion, and means for locking the movable jaw in any of its positions; each of said jaws being provided with independently yielding face ribs transverse with respect to the edges of cards parallel to the bed and between said jaws.

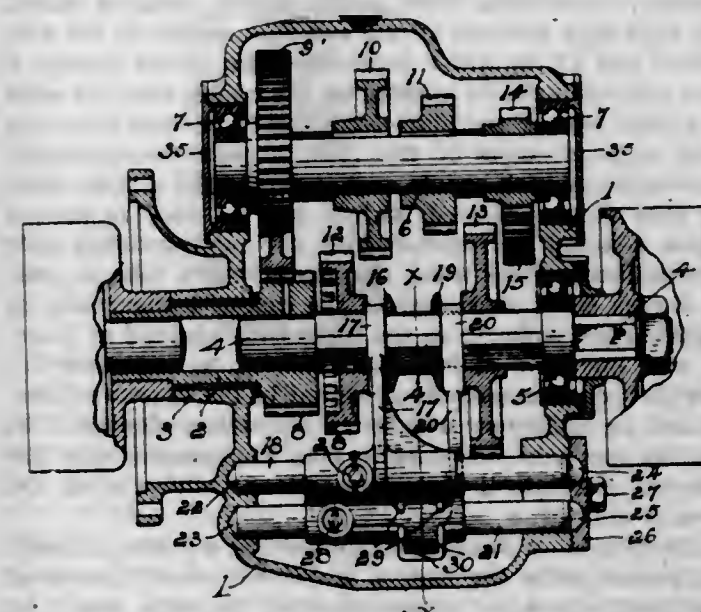
4. The combination with a bed plate of a marginal jaw fixed thereto near one end thereof and provided at its rear end with a rigid member projecting inwardly parallel to the bed, a co-acting sliding jaw, near the opposite

margin of the bed, provided with a second rigid member overlapping and sliding along the first, means for at will locking said rigid members together, and rubber blocks secured to the working faces of said jaws respectively.

5. The combination with a bed plate, of a U-shaped marginal jaw fixed to the bed plate and provided with an elastic block partially filling the recess in the jaw and having on its working face ribs transverse to the plane of the bed plate, a second similar jaw mounted upon the bed to slide parallel thereto toward and from the first, and means for locking the second jaw.

[Claims 6 to 20 not printed in the Gazette.]

1,079,961. TRANSMISSION MECHANISM. JOHN G. UTZ, Detroit, Mich. Filed Nov. 22, 1910. Serial No. 598,654. (Cl. 74-58.)



1. Transmission mechanism comprising a casing, a pair of oppositely disposed bearings therein, a main shaft journaled in one bearing, a follower shaft journaled in the other bearing and in the main shaft, a pair of removably secured anti-friction bearings in the casing, an intermediate shaft journaled therein and geared to the main shaft, change speed gears on the intermediate shaft, slide gears on the follower shaft adapted to selectively engage the intermediate shaft gears, one of the slide gears being also adapted to non-rotatably engage the main shaft gear, guide rods non-rotatably secured in the casing parallel to the shafts, a yoke non-rotatably and longitudinally reciprocable on each rod engaging a slide gear, a rock-shaft journaled in the casing transversely to the guide rods, a finger on the rock shaft adapted to detachably interlock with either one of the slide yokes, and means for locking the disengaged yoke from movement.

2. Transmission mechanism comprising a casing, a pair of oppositely disposed bearings therein, a main shaft journaled in one bearing, a follower shaft journaled in the other bearing and in the main shaft, a pair of removably secured anti-friction bearings in the casing, an intermediate shaft journaled therein and geared to the main shaft, change speed gears on the intermediate shaft, slide gears on the follower shaft adapted to selectively engage the intermediate shaft gears, one of the slide gears being also adapted to non-rotatably engage the main shaft, guide rods in the casing parallel to the shafts, a keeper plate detachably secured on the casing adjacent the rods, keys secured by the plate that engage transverse key-seats in the end faces of the rods, a yoke non-rotatable and longitudinally reciprocable on each rod engaging a slide gear, a rock-shaft journaled in the casing transversely to the guide rods, a finger on the rock shaft adapted to detachably interlock with either one of the slide yokes, and means for locking the disengaged yoke from movement.

3. Transmission mechanism comprising a casing, a main shaft journaled therein, a follower shaft journaled in the casing and end portion of the main shaft, means for transmitting motion at various speeds from one shaft to

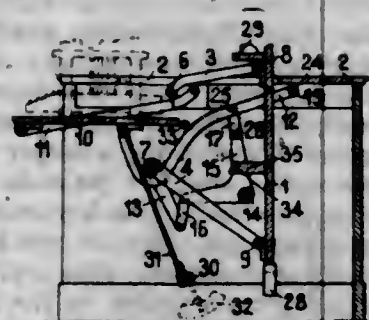
the other, comprising slide gears on the follower shaft, a pair of guide rods parallel to the shafts, a keeper plate on the casing, keys non-rotatably engaging the plate and adjacent extremities of the rods, a yoke reciprocable on each rod engaging a slide gear, said yokes being provided with oppositely disposed pairs of lugs on their adjacent sides, a rock shaft journaled in the casing transversely to the guide rods, a finger on the rock-shaft adapted to interlock with one pair of lugs when moved in one direction and the other pair when moved in the opposite direction, a member oscillating in the casing adapted to be moved by one yoke into interlocking engagement with the other yoke to hold the latter when the former is shifted.

4. Transmission mechanism comprising a casing, a main shaft journaled therein, a follower shaft journaled in the casing in axial alignment with the main shaft, means for transmitting motion at various speeds from one shaft to the other, comprising slide gears on the follower shaft, guide rods each secured at one end in a socket in the casing wall and at the other in an aperture in the casing, a keeper plate detachably secured on the casing over the ends of the rods, keys in the plate engaging transverse key-ways in the adjacent ends of the rods, a yoke non-rotatably reciprocable on each rod in engagement with a slide gear, each yoke being provided with a pair of lugs in spaced relation adapted to register with the corresponding pair on the adjacent yoke when the yokes are in release position, a rock shaft journaled in the casing transversely to the guide rods, a finger on the rock-shaft adapted to interlock with one pair of lugs when moved in one direction and with the other pair when moved in the opposite direction, and an oscillatory member in the casing adapted to be moved by one yoke into interlocking engagement with the other yoke to retain the latter in release position when the former is shifted.

5. Transmission mechanism comprising a casing, a main shaft journaled in the casing, a follower shaft journaled in the casing in axial alignment with the main shaft, an intermediate shaft journaled in the casing and geared to the main shaft, change speed gears on the intermediate shaft, slide gears on the follower shaft adapted to selectively engage the intermediate shaft gears, a pair of guide rods parallel to the shafts, a keeper plate on the casing, keys non-rotatably engaging the plate and adjacent extremities of the rods, a yoke reciprocable on each rod engaging a slide gear, and having oppositely disposed pairs of lugs on their adjacent sides, a rock shaft journaled in the casing transversely to the guide rods, a finger on the rock-shaft adapted to interlock with one pair of lugs when moved in one direction and the other pair when moved in the opposite direction, and a member oscillating in the casing adapted to be moved by one yoke into interlocking engagement with the other yoke to retain the latter in release position when the former is shifted.

[Claim 6 not printed in the Gazette.]

1,079,962. DESK, TABLE, OR CABINET. CAMILLE DE VLEESCHOUWER and JOHANNES TACOMA, Amsterdam, Netherlands. Filed Feb. 20, 1913. Serial No. 749,801. (Cl. 45—52.)

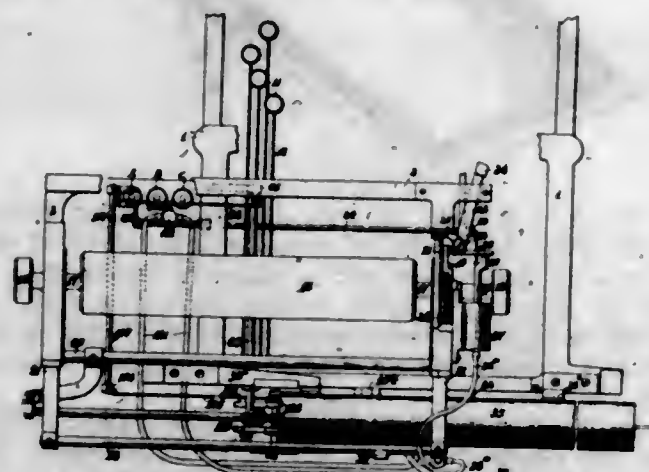


1. In a desk, a movable section in the center of the desk top adapted to be swung into a vertical position beneath the same, links by one end pivotally mounted on fixed centers and at the other end pivotally connected to said movable section for supporting and guiding the same, a table for carrying a typewriter or other machine suspended upon

links pivotally mounted at one end upon fixed centers beneath the desk top and at the other end pivotally connected to said table, springs for counterbalancing the weight of the machine upon the table, a bell crank, links coupling one arm of said bell crank with the links of the movable section and the other arm with the links of the table in such manner that when the latter is in its raised position certain of said coupling links will be at dead center and thus support the table, a pivotally mounted frontboard and weights for counterbalancing said frontboard substantially as set forth.

2. In a pedestal desk, a central movable section in the desk top at its front part pivotally supported on links pivotally mounted on the sides of the well or knee space of the desk, near the top thereof and at its rear part pivotally supported on links or levers having cranks or offsets and pivotally mounted on the sides of the well or knee space of the desk at a suitable point between the top and bottom of the desk the parts being so arranged that the movable section is adapted to be swung backward into a vertical position into the body of the desk, a table for carrying a typewriter or other machine suspended in a horizontal position at the front upon links pivotally mounted on the sides of the well or knee space immediately beneath the desk top and slightly to the rear of the pivots of the front links of the movable section and at or near the rear suspended on links curved to avoid the fixed pivots of the links of the movable section, the other ends of the curved links being pivotally mounted on fixed centers carried by the sides of the desk immediately beneath the top thereof, bell cranks turning on fixed centers at the sides of the desk, links connecting one arm of the bell cranks through links with the cranks or offsets of the links or levers of the movable section and the other arms of which bell cranks are pivotally connected to the curved links of the table, the parts being so arranged that when the table is in its raised position certain of said links will be at dead center and thus support the table substantially as set forth.

1,079,963. TYPE-WRITING MACHINE. CHARLES H. VOGL, Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 18, 1911. Serial No. 644,723. (Cl. 197—67.)



1. In a typewriter machine, a carriage, a line spacing mechanism, a source of power and connections therefrom for driving the carriage and operating the line spacing mechanism, means for setting said connections to cause the line spacing mechanism to operate when the carriage is driven and means for setting said connections to permit the line spacing mechanism to be operated independently of the drive of the carriage.

2. In a typewriter machine, a carriage, a line spacing mechanism, a source of power and connections therefrom for driving the carriage and operating the line spacing mechanism, means for setting said connections to drive the carriage at different speeds and for causing the line spacing mechanism to be operated upon drive of the carriage at either speed, and means for setting said connections to permit the line spacing mechanism to be operated independently of the drive of the carriage.

3. In a typewriter machine, a carriage, a source of power and connections therefrom for driving the carriage, means for setting said connections to effect the carriage drive, and means operable at any time during the carriage drive to arrest the carriage as soon as said means is operated.

4. In a typewriter machine, a carriage, a source of power and connections therefrom for driving the carriage, means for setting said connections to effect the carriage drive, and a brake for arresting the carriage at any time during the drive of the same.

5. In a typewriter machine, a carriage, a source of power and connections therefrom for driving the carriage, means for setting said connections to effect the carriage drive, means operable at any time during the carriage drive to arrest the carriage as soon as said means is operated, and a single key which controls both the setting of the driving connections and the operation of carriage arresting means.

[Claims 6 to 31 not printed in the Gazette.]

1,079,964. CYLINDER-TOOTH. HENRY VOHLAND, Gibson, Nebr. Filed Jan. 11, 1913. Serial No. 741,568. (Cl. 130—27.)



1. In combination with a cylinder tooth having its lower end bifurcated and a socket formed in one side thereof, of a removable member having its lower end reduced to form a projection to enter said socket and its upper end provided with an extension to enter the bifurcated end of said tooth, and a fastening member passing through said members for holding the same together and preventing movement of the parts.

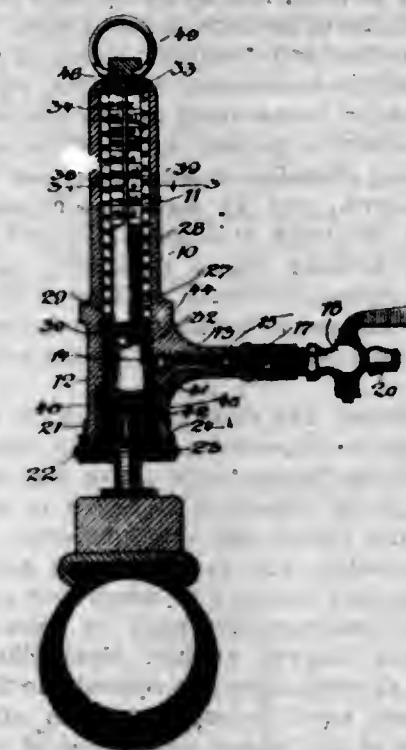
2. In combination with a cylinder tooth having its lower end bifurcated to form a pair of spaced apart extensions and having a portion of one side thereof cut away and a socket formed therein, of a removable facing member having its lower end reduced to form a projection to enter said socket and its upper end provided with an extension to engage the extensions of said tooth, the outer edges of said extensions aligning with each other, and a fastening member passing through said extensions to positively fasten them together and prevent movement of the parts.

1,079,965. TIRE-GAGE. JOHN F. WATERS, Kansas City, Mo. Filed June 20, 1912. Serial No. 706,610. (Cl. 137—28.)

1. In a tire-gage, the combination of a body, having a piston-chamber therein, a piston mounted to slide in said chamber, a spring for resisting movement of the piston, a nipple connected to one side of the body, a check-valve removably held in said nipple, an elastic ring removably held on the lower end of said body, a device for releasing the check-valve in a tire, removably held in said body, and an internal screw-thread in the body below the piston-chamber for securing the body to a screw-thread on a power-pump.

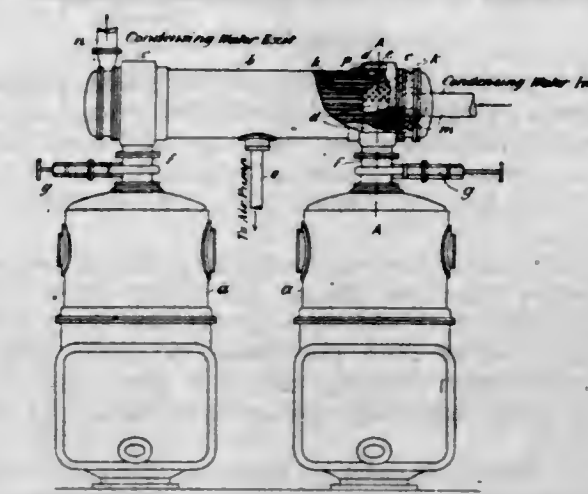
2. In a tire-gage, the combination of a body having a piston-chamber therein, a piston mounted to slide in said chamber, a spring for resisting movement of the piston, a nipple connected to one side of the body at an angle thereto, a cock connected to the outer end of said nipple and having means for connection to a hose from an air-supply, means providing a removable elastic ring for connecting said body to a tire-valve, a perforated plate carrying a stem for releasing the check-valve in a tire removably held in said body and an internal screw-

thread in the body below the piston-chamber and said plate for detachably securing said body to a screw-thread on a power pump when said plate and ring have been removed.



3. In a tire-gage, the combination of a body, having a piston-chamber therein, a piston mounted to slide in said chamber, a spring for resisting movement of the piston, a nipple connected to one side of the body, a check-valve removably held in said nipple, an elastic ring removably held on the lower end of said body, a device for releasing the check-valve in a tire, removably held in said body, and means in the body below the piston-chamber for securing the body to a power-pump.

1,079,966. EVAPORATING AND DISTILLING PLANT. WILLIAM WEIR, Cathcart, Glasgow, Scotland. Filed June 3, 1912. Serial No. 701,389. (Cl. 196—5.)



1. In evaporating and distilling plant, in combination, a pair of evaporators arranged vertically, side by side, a condenser arranged horizontally above the said evaporators, annular steam chambers arranged to surround the steam condensing chamber of said condenser, one at each end of said chamber, and provided with perforations in their upper portions adapted to admit the steam to said chamber, short passages arranged to connect the two evaporators with the two annular steam chambers, each to each, and sluice valves adapted to control the flow of steam through the said short passages.

2. In evaporating and distilling plant, in combination, a pair of evaporators arranged vertically, side by side, a condenser arranged horizontally above the said evaporators, annular steam chambers arranged to surround the steam condensing chamber of said condenser, one at each end of said chamber, the said annular chambers

being formed between swelled parts of the condenser shell and plates—perforated in their upper portions—located within the swelled parts, short passages arranged to connect the two evaporators with the two annular steam chambers, each to each, and sluice valves adapted to control the flow of steam through the said short passages.

3. In evaporating and distilling plant, in combination, a pair of evaporators arranged vertically, side by side, a condenser arranged horizontally above the said evaporators, annular steam chambers arranged to surround the steam condensing chamber of said condenser and to communicate therewith, one at each end of said chamber, short passages arranged to connect the two evaporators with the two annular steam chambers, each to each, sluice valves adapted to control the flow of steam through the said short passages, and an air pump suction connection at the bottom and center of length of the steam condensing chamber.

4. In evaporating and distilling plant, in combination, a pair of evaporators arranged vertically, side by side, a condenser arranged horizontally above the said evaporators, annular steam chambers arranged to surround the steam condensing chamber of said condenser, one at each end of said chamber, and provided with perforations in their upper portions adapted to admit the steam to said chamber, short passages arranged to connect the two evaporators with the two annular steam chambers, each to each, sluice valves adapted to control the flow of steam through the said short passages, and an air pump suction connection at the bottom and center of length of the steam condensing chamber.

5. In evaporating and distilling plant, in combination, a pair of evaporators arranged vertically, side by side, a condenser arranged horizontally above the said evaporators, annular steam chambers arranged to surround the steam condensing chamber of said condenser, one at each end of said chamber, the said annular chambers being formed between swelled parts of the condenser shell and plates—perforated in their upper portions—located within these swelled parts, short passages arranged to connect the two evaporators with the two annular steam chambers, each to each, sluice valves adapted to control the flow of steam through the said short passages, and an air pump suction connection at the bottom and center of length of the steam condensing chamber.

1,079,967. **BUTTON-FEEDING MECHANISM FOR BAR-BUTTON-ATTACHING MACHINES.** FRANKLIN R. WHITE, Waterbury, Conn., assignor to Patent Button Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 25, 1910. Serial No. 557,379. (Cl. 218—12.)

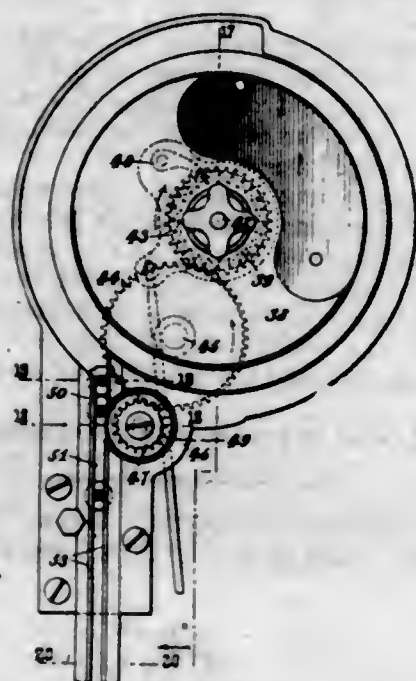
1. In a button attaching machine; a button hopper; a chute leading from said hopper and along which buttons may pass, said chute having a groove the upper portion of which is wider than the lower; a rotary disk the periphery of which projects into said groove and forms a portion of the side wall thereof; and means for rotating said disk.

2. In a button attaching machine, a rotary button hopper; means for rotating said hopper; a chute leading from said hopper and along which buttons may pass, said chute having a groove the upper portion of which is wider than the lower; a rotary disk the periphery of which projects into said groove and forms a portion of the side wall thereof; and means whereby said disk is rotated from said hopper.

3. In a button attaching machine, a button hopper; a chute leading from said hopper and along which buttons may pass, said chute having overhanging sides which provide a groove the upper portion of which is wider than the lower; a rotary disk the periphery of which projects into said groove and which disk occupies a portion of one of said overhanging sides; and means for rotating said disk.

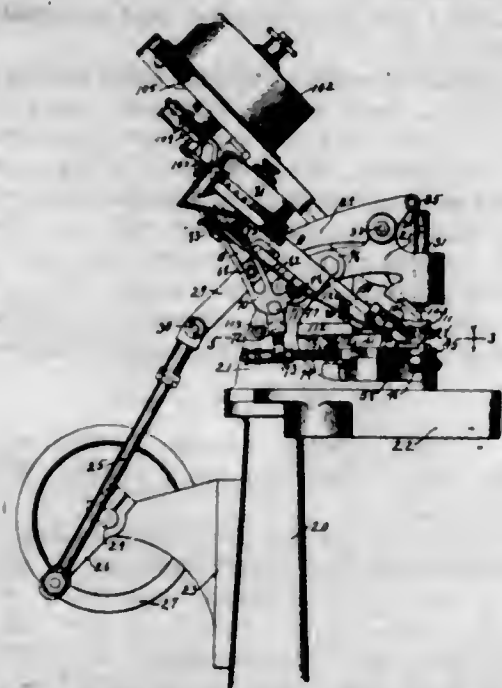
4. In a button attaching machine, a hopper, a chute leading from said hopper to a button receiver; a "tucker" connected with the lower end of said chute and adapted

to move a button therefrom and into said receiver, said "tucker" comprising a reciprocating plate provided with a cam slot to guide the same into operative engagement with the button; a stationary pin engaging said cam slot;



and operating mechanism for said tucker, the same including telescoping members and a spring interposed between said members and through which movement of one is communicated to the other.

1,079,968. **BUTTON AND STAPLE FEEDING MECHANISM FOR BUTTON-ATTACHING MACHINES.** FRANKLIN R. WHITE, Watertown, Conn., assignor to Patent Button Company, Waterbury, Conn., a Corporation of Connecticut. Filed Jan. 3, 1913. Serial No. 739,930. (Cl. 218—12.)



1. In a button attaching machine, a suitable base, a hollow rotary feeding hopper cylindrical in form supported upon said base and the lower end of which is provided with a series of slots the lower ends of which slots move adjacent the surface of said base, said base having an opening over which said slots pass, and which opening terminates adjacent the inner ends of said slots and a supply chute independent of said opening and adjacent which said slots move as said hopper is rotated.

2. In a button attaching machine, a suitable base, a hollow rotary feeding hopper cylindrical in form supported upon said base and the lower end of which is provided with a series of slots, the lower ends of which slots move adjacent the surface of said base, said base having

an opening over which said slots pass, and which opening terminates adjacent the inner ends of said slots, said opening being placed in communication with the interior of said hopper through a suitable passage.

3. In a button attaching machine, a suitable base, a hollow rotary feeding hopper cylindrical in form supported upon said base and the lower end of which is provided with a series of slots, the lower ends of which slots move adjacent the surface of said base, said base having an opening over which said slots pass, and which opening terminates adjacent the inner ends of said slots, said opening being placed in communication with the interior of said hopper through a suitable passage, and which passage discharges into said hopper in the direction in which the same rotates.

4. In a button attaching machine, a suitable base; a supply chute; a hollow rotary feeding hopper supported upon said base and having a series of slots through which articles to be fed may pass to said chute, said base having an opening independent of and located in advance of said chute and past which said slots move, and into which opening articles may pass from said slots.

5. In a button attaching machine, a suitable base; a supply chute; a hollow rotary feeding hopper cylindrical in form, supported upon said base and having a series of slots at the end thereof adjacent said base and which slots move adjacent said chute, so that articles may pass from said slots into said chute, said base having an opening independent of and located in advance of said chute, and over which openings said slots pass.

[Claims 6 to 11 not printed in the Gazette.]

1,079,969. **VEHICLE DOOR-FASTENER.** RODERICK H. WILLCOX, Columbus, Ohio. Filed Mar. 22, 1913. Serial No. 756,096. (Cl. 70—102.)



1. In combination with a slidably mounted vehicle door, means for frictionally binding said door against movement, an operating handle, means connected with said operating handle and operable by operation of the handle for rendering said binding action ineffective to allow free movement of the door, and means for automatically reestablishing said binding action upon release of said handle.

2. In combination with a slidably mounted vehicle door, means for frictionally binding said door against movement when in any position, an operating handle, means connected with said operating handle and operable by the operation of the handle for rendering said binding action ineffective to allow free movement of the door in either direction, and means for automatically reestablishing said binding action upon release of said handle.

3. In combination with a slidably mounted vehicle door, a trackway mounted on the vehicle body, a friction member adapted for cooperation with said trackway normally frictionally binding the door against movement, and means for moving said member bodily away from said trackway to permit movement of the door.

4. In combination with a slidably mounted vehicle door, means for frictionally binding said door against movement, a pivoted handle element, and means controlled by said handle element in its movement in either a forward

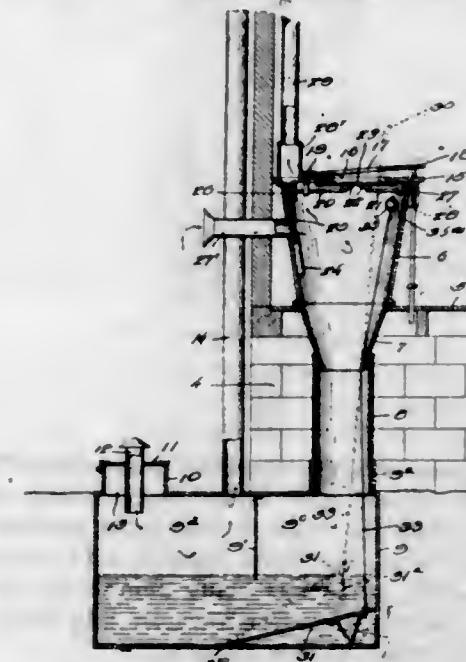
197 O. G.—2

or backward direction to render said binding action ineffective to allow free movement of said door.

5. In combination with a slidably mounted vehicle door, a trackway mounted on the vehicle body, a friction member carried by said door and cooperating with said trackway, a handle element pivoted to said door, and means controlled by said handle element in its movement in either a forward or backward direction to render said friction member ineffective.

[Claims 6 to 8 not printed in the Gazette.]

1,079,970. **ANTISEPTIC SEWAGE-Vault FOR CLOSETS.** FREDERICK E. WILSON, Bradford, Pa. Filed Nov. 18, 1912. Serial No. 732,034. (Cl. 4—20.)



1. In apparatus of the character described, a collecting tank, a transverse partition mounted within the tank and having its free end adapted to engage a chemical solution in the tank for forming a gas trap, a bowl discharging into the tank upon one side of the partition, a pivoted false bottom normally resting upon the bottom portion of the tank, and means whereby the false bottom may be raised and lowered.

2. In apparatus of the character described, a vault, a dip-tube leading into the same, a bowl connected with the dip-tube, a normally inclined agitator-plate disposed beneath the dip-plate, and means to raise the agitator-plate to increase the inclination thereof.

3. In apparatus of the character described, a vault, a dip-plate leading into one end thereof, a bowl connected with the dip-tube, and a transverse partition disposed within the upper portion of the vault at a considerable distance from the lower end of the dip-tube for forming a chamber having a much greater cross-sectional area than the dip-tube, said transverse partition extending downwardly into a chemical solution contained in the vault, as and for the purpose stated.

4. In apparatus of the character described, a bowl, a vault disposed therebelow, means of communication between the bowl and vault, a vertically movable agitator disposed in the vault, and means to vertically move the agitator.

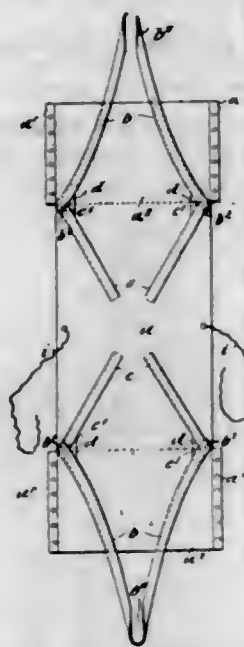
5. In apparatus of the character described, a bowl, a vault, disposed therebelow, and in communication with the bowl, a pivoted agitator disposed in the vault to swing in a substantially vertical plane, and an operating element connected with the agitator and extending upwardly near the top of the bowl.

[Claims 6 to 8 not printed in the Gazette.]

1,079,971. **COMBINED CAMP-BED AND VALISE.** EDWARD CONWAY WREN, county of Devon, England. Filed Nov. 17, 1911. Serial No. 660,762. (Cl. 5—5.)

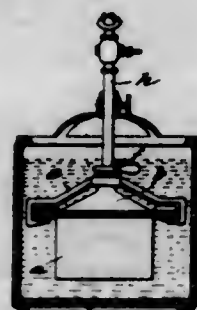
A camp bed consisting of a main member of flexible canvas adapted to extend under the body of the user,

strips of webbing secured to the underside of the main member and extending diagonally from the side portions of the main member at points spaced inwardly from the opposite ends of said member and toward the center thereof, the outer ends of said strips having free loops located near the side portions of said main member, and a strip of webbing secured to the underside of each end portion



of the main member and extending from points adjacent the outer ends of said first strips and in concave curves toward and beyond the ends of said main member to provide supported loops, the inner ends of said second strips having free loops, said loops being mountable on vertical supports and distributing the strain on said main member to maintain an equal tension thereon.

1,079,972. ACETYLENE-GAS GENERATOR. THOMAS GASKELL ALLEN, Westminster, London, England. Filed Dec. 5, 1911. Serial No. 664,025. (Cl. 48—25.)



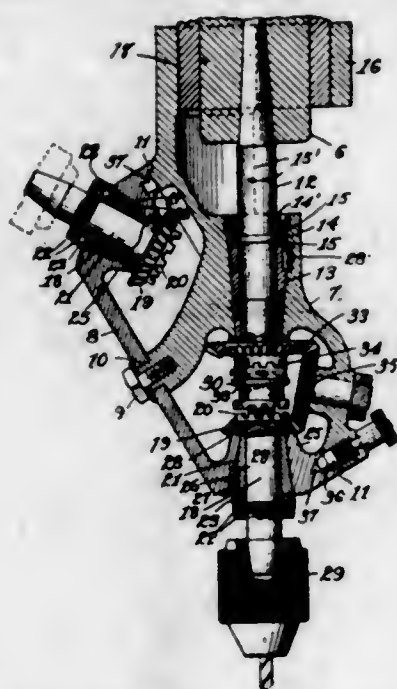
1. An acetylene generator comprising a generator chamber, a water feed device, and means for subjecting said water feed device to water pressure, said water feed device comprising flat surfaces in contact and pressed together constituting a restricted water inlet between them, the line of outermost contact of the flat surfaces when the device is in use being directly exposed to the body of water in which the device is submerged.

2. An acetylene generator comprising a generator chamber, a water feed device, and means for subjecting said water feed device to water pressure, said water feed device comprising flat surfaces having an aperture in their mid-area constituting a restricted water inlet between them, one end of said aperture leading to a burner, and the other side of said aperture communicating with the generating chamber, the line of outermost contact of the flat surfaces when the device is in use being directly exposed to the body of water in which the device is submerged.

1,079,973. DETACHABLE TURRET FOR DRILL-PRESSES AND THE LIKE. JOSEPH BROZEK, New York, N. Y. Filed June 11, 1912. Serial No. 703,009. (Cl. 10—137.)

1. A detachable turret mechanism for drill presses and the like, comprising in combination a turret head; a sup-

port upon which the turret is rotatably mounted and whereby it is adapted to be detachably connected to a drill press; rotatable tool spindles carried by the turret; a combined pinion and clutch member fixed to each of said spindles; a driving spindle rotatably mounted in the turret support and by means of which the turret is operatively connected to the spindle of the drill press; a combined pinion and clutch member rotatably mounted on the driving spindle; an idler pinion at all times in mesh with the pinion on the driving spindle and with which either one of the tool spindle pinions are adapted to mesh; a duplex clutch member mounted on the driving spindle to rotate therewith and have sliding movement thereon and adapted to be thrown into operative engagement with either one of the tool spindle clutch members to rotate said spindle in the same direction as and directly from the driving spindle, or to be thrown out of engagement with a tool spindle clutch member and into engagement with the pinion clutch member on the driving spindle and cause the tool spindle to rotate in a reverse direction through the idler pinion, substantially as and for the purpose specified.



2. A turret mechanism for drill presses and the like, comprising in combination a turret head; a support upon which the turret is rotatably mounted having means to detachably connect it to a drill press; rotatable tool spindles carried by the turret; a bevel pinion fixed to each of said tool spindles and constructed to constitute one member of a jaw clutch; a driving spindle rotatably mounted in the turret support adapted to be operatively connected to the spindle of a drill press; a bevel pinion rotatably mounted on said spindle and also constructed to constitute one member of a jaw clutch; an idle bevel pinion at all times in mesh with the driving-spindle pinion and with which either one of the tool spindle pinions are adapted to mesh; and a duplex clutch member on the driving spindle to rotate therewith and having sliding movement thereon operable to connect a tool spindle directly to the driving spindle to drive the former directly from the latter and in the same direction, or to connect the tool spindles with the driving spindle through the idle pinion to drive the tool spindle in a reverse direction, substantially as and for the purpose specified.

3. A detachable turret mechanism for drill presses and the like, comprising in combination a turret head; a support upon which the turret is rotatably mounted and having means to detachably connect it to the drill press; rotatable tool spindles carried by the rotatable member; adjustable bearings in which said spindles are mounted; a pinion fixed to each of said spindles and constituting one member of a clutch; a driving spindle rotatably mounted in the turret support and adapted to be connected to the driving spindle of the drill press; a pinion rotatably mounted on the driving spindle and constituting one member of a clutch; an idler pinion meshing

with the driving spindle pinion and with which either one of the tool spindle pinions is adapted to mesh; a duplex clutch member mounted on the driving spindle to rotate therewith and have sliding movement thereon; and a shifter connected to said clutch member to operatively connect it with either one of the tool spindle clutch members and thereby drive the tool spindles directly from and in the same direction as the driving spindle, or to connect it with the driving spindle pinion to drive the tool spindles through the gear train in a direction reverse to the driving spindle, said shifter comprising a yoke to engage in an annular recess in the duplex clutch member, a rod connected to the yoke and mounted in the turret support to have longitudinal sliding movement, a handle connected to the rod, and a detent adapted to engage with either one of a pair of recesses in the rod to lock the clutch in its adjusted position.

4. A detachable turret mechanism for drill presses and the like, comprising in combination a turret head; a support upon which the turret is rotatably mounted and having means to detachably connect it to the drill press; rotatable tool spindles carried by the turret; a bevel pinion fixed to each of said spindles and constituting one member of a clutch; a driving spindle rotatably mounted in the turret support and adapted to be connected to the driving spindle of a drill press; a bevel pinion rotatably mounted on the driving spindle and constituting one member of a clutch; an idler bevel pinion meshing at all times with the driving spindle pinion and with which either one of the tool spindle pinions is adapted to mesh; a duplex clutch member mounted on the driving spindle to rotate therewith and have sliding movement thereon; a shifter connected to said clutch member to operatively connect it with either one of the tool spindle clutch members to drive the tool spindles directly from and in the same direction as the driving spindle; and a gage bar adjustably connected to the shifter to throw said clutch member out of engagement with a tool spindle clutch member and into operative engagement with the driving spindle pinion clutch to rotate the tool spindles through the idle pinion in reverse direction, when the driving spindle of the press with the turret has been lowered a predetermined distance.

5. In a device of the class specified, the combination of a driving spindle adapted to be connected to the spindle of a drill press; turret mechanism comprising two separable members, one member stationary in which said driving spindle is rotatably mounted and having means to detachably connect it to a drill press, and the other adjustably carried by the stationary member; a spring detent carried by the stationary member adapted to engage in either one of a series of openings in the adjustable member to lock the latter in adjusted positions; tool spindles rotatably carried by the rotatable member; a bevel pinion connected to each of the tool spindles; a pair of bevel pinions rotatably mounted on the driving spindle and each constituting one member of a clutch; an idler pinion meshing with said latter pinion; a second idler pinion connected to and rotatable with the first idler pinion and with which either one of the tool spindle pinions is thrown into operative relation as the rotatable member of the turret is adjusted; and a clutch member mounted on the driving spindle to rotate therewith and have sliding movement thereon whereby to connect either one of the pinions on the driving spindle to the driving spindle to rotate the tool spindles in either direction.

[Claim 6 not printed in the Gazette.]

1,079,974. METHOD OF PRODUCING ALKALI METALS. JOHN E. BUCHER, Coventry, R. I. Filed July 22, 1912. Serial No. 710,758. (Cl. 75—183.)

1. The process of producing alkali metals which comprises reacting on a cyanogen compound of the alkali metal sought, with an element incapable of directly chemically combining with said metal but capable of dissociating the element carbon from the element nitrogen of said compound by directly combining with one of said elements, and thereby liberating said alkali metal.

2. The process of producing alkali metals which com-

prises reacting on a cyanogen compound of the alkali metal sought, with a reagent incapable of directly chemically combining with said metal but capable of dissociating the carbon from the nitrogen of said compound by directly combining with said carbon, and thereby liberating said alkali metal.

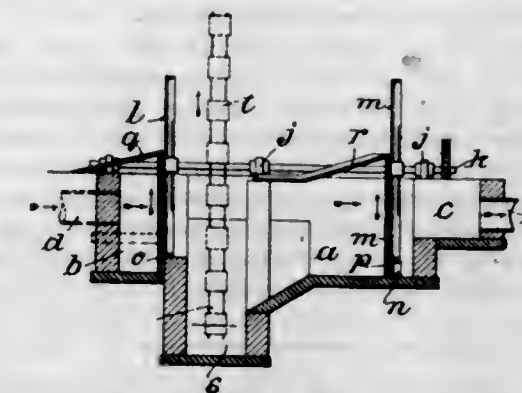
3. The process of producing alkali metals which comprises reacting on a cyanogen compound of the alkali metal sought, with iron to form carburized iron and to thereby liberate said alkali metal.

4. The process of producing alkali metals which comprises bringing a cyanogen compound of the alkali metal sought into intimate contact with finely divided iron and effecting a chemical reaction therebetween at an elevated temperature, whereby to form iron carbid and to liberate nitrogen and the alkali metal.

5. The process of producing alkali metals which comprises bringing the cyanid of the alkali metal sought into intimate contact with a finely divided metal capable of separately combining with one of the two non-metallic constituent elements of said cyanid and effecting a reaction between said cyanid and said finely divided metal at an elevated temperature, whereby to liberate both said alkali metal and the other of said non-metallic elements.

[Claims 6 to 19 not printed in the Gazette.]

1,079,975. APPARATUS FOR SEPARATING AND RECOVERING FIBERS AND THE LIKE FROM LIQUIDS. EDGAR VINCENT CHAMBERS AND THOMAS CHARLES HAMMOND, Huddersfield, England. Filed Mar. 19, 1913. Serial No. 755,488. (Cl. 210—14.)



1. In a fiber separator, the combination, with a tank provided with an inlet and an outlet, of a separating disk of reticulated material journaled in the tank crosswise of the path of the liquid, and a stationary plane surface or board secured adjacent to that part of the front or inlet surface of the disk which moves upwardly in the tank.

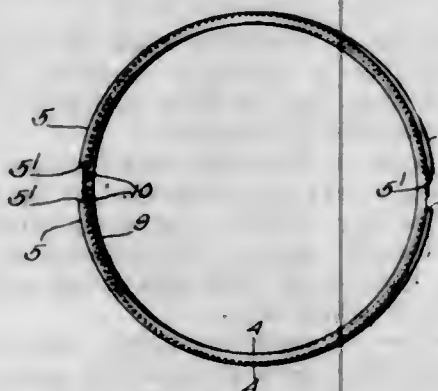
2. In a fiber separator, the combination, with a tank provided with an inlet and an outlet, of a separating disk of reticulated material journaled in the tank crosswise of the path of the liquid, a stationary plane surface or board secured adjacent to that part of the front or inlet surface of the disk which moves upwardly in the tank, and a stationary brush which engages with that part of the front surface of the disk which moves downwardly in the tank.

3. In a fiber separator, the combination, with a tank provided with an inlet and an outlet, of a plurality of separating disks of reticulated material journaled in the tank crosswise of the path of the liquid, said tank having also a receptacle for dirt arranged at its middle part between the said disks and below the level of its bottom, and stationary plane surfaces or boards secured adjacent to those parts of the front or inlet surfaces of the said disks which move upwardly in the tank.

1,079,976. PACKING. DANIEL E. COTA, Boston, Mass., assignor of one-half to himself and one-half to Jacob Fischer, Boston, Mass. Original application filed Aug. 11, 1909, Serial No. 512,340. Divided and this application filed June 17, 1913. Serial No. 774,130. (Cl. 121—108.)

1. Packing comprising a pair of open metallic eccentric and inherently resilient rings beveled at their inner sur-

faces, and a bevel spreader ring adapted to be located between the beveled surfaces of said packing rings to exert a spreading action thereon under compression of said packing rings.



2. Packing comprising an open metallic eccentric and inherently resilient spreader ring having bevel edges, and a pair of packing rings between which said spreader ring is adapted to be received.

3. Packing comprising a series of open metallic eccentric and resilient rings having complementary bevel surfaces, whereby one of said rings under compression acts to move another of said rings in a direction approximately parallel to its axis.

4. Packing comprising a pair of open metallic eccentric and resilient rings having their inner surfaces beveled, and a third open metallic eccentric and resilient ring having a V-shaped periphery adapted to be located between the beveled surfaces of said pair of rings.

5. Packing comprising a pair of flat open eccentric and inherently resilient rings having backs beveled from their meeting edges to form a groove, the meeting plane of said edges being transverse to the axis of said rings, and an open eccentric and inherently resilient bevel spreader ring located in said groove and adapted solely through its inherent resistance to resist the compression of said packing rings and inherently to act to separate said rings under compression thereof.

1,079,977. DUMPING-CAR. ROBERT W. DAVIES, Chicago Heights, Ill. Filed Mar. 1, 1912. Serial No. 680,853. (Cl. 105-14.)



1. A dumping car comprising a body portion, a plurality of doors hinged at their inner edges, a plurality of ladder sections pivotally connected to each other and to the outer edges of said doors, and hand controlled sprocket wheels for operating said ladder sections for altering the position of said doors.

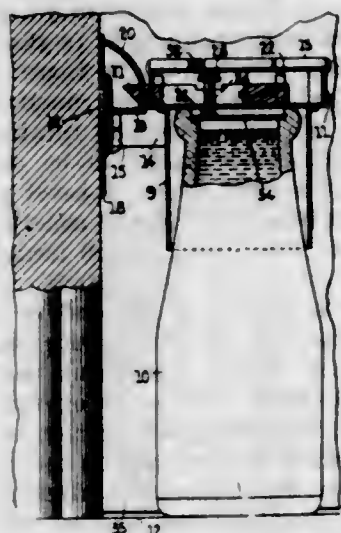
2. A dumping car comprising a body portion, a plurality of doors hinged at their inner edges, ladder sections pivotally connected to each other and connected to the outer edges of said doors, sprockets for operating said ladder sections, and a worm gear control for said sprockets.

3. A dumping car comprising a body portion, a plurality of doors hinged at their inner edges, flexible sections connected to the outer edges of said doors and adapted

to be telescoped vertically within a pocket formation on the side of the car, driving sprockets for said flexible sections for altering the position of said doors, and driving means for rotating said sprockets.

4. A dumping car comprising a body portion, a plurality of doors hinged at their inner edges, ladder sections pivotally connected to each other and connected to the outer edges of said doors and comprising a plurality of side members arranged in pairs, each pair being pivotally connected to its succeeding pair, spaced rungs interposed between the pivotal connections of each pair of members, sprockets for operating said ladder sections, and a worm and worm wheel driving means for said sprockets.

1,079,978. MILK-BOTTLE HOLDER. JOHN J. DUNN, New York, N. Y. Filed Dec. 31, 1912. Serial No. 739,432. (Cl. 232-42.)



1. A milk bottle holder, comprising a cylinder; a supporting blade operatively connected thereto; a spring-actuated bolt operatively connected with said cylinder; a striking plate for said bolt, adapted for mounting on a standing structure; and means connected with said blade for holding the same in fixed relation to said striking plate when the door of the standing structure is closed.

2. A milk bottle holder, comprising a vertically-swinging locking member having a spring-actuated extensible bolt and a cylinder adapted to circumfold the top of a bottle; means for pivotally mounting said locking member adjacent an entrance opening of a standing structure; and an engaging member for said bolt fixedly mounted upon the standing structure, to engage said bolt when said locking member is in service position.

3. A milk bottle holder, comprising a vertically-swinging lock case having a spring-actuated extensible bolt; a striking plate adapted to be permanently mounted on a standing structure adjacent a closure member thereof; a connecting member pivotally connected with said striking plate and said case, to be held in locked relation to said striking plate by said closure member.

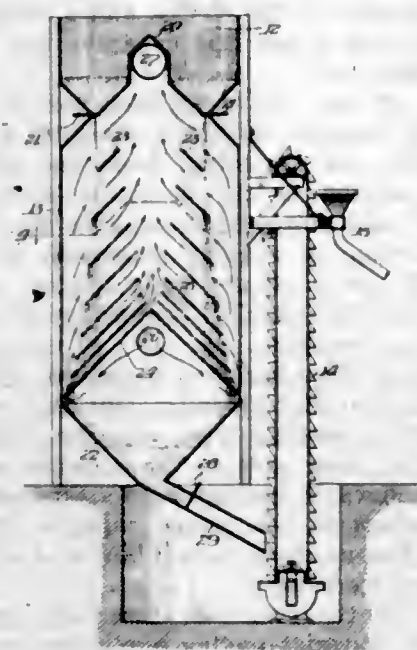
4. A milk bottle holder, comprising a vertically-swinging lock case having a spring-actuated extensible bolt and a cylinder adapted to circumfold the top of a bottle; means for pivotally mounting said lock case adjacent an entrance opening of a standing structure; an engaging member for said bolt fixedly mounted upon the standing structure, to engage said bolt when said lock case is in service position; means mounted within said case for locking said bolt in extended position to prevent the retraction thereof; and means operable by a bottle when extended within said cylinder, for releasing said bolt.

5. A milk bottle holder, comprising a lock case having a spring-actuated bolt protruding from the side thereof, an open-ended cylinder mounted on said case for circumfolding the neck of a bottle; a connecting member having a pivotally-connected plate and blade, said blade being pivotally connected with said lock case; a striking plate having a pocket formed therein to receive said blade; a locking bar to engage said bolt in out-of-service position,

to prevent retraction thereof; and means operable by a bottle when inserted in said cylinder, for releasing said bolt to permit the retraction thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,079,979. DEVICE FOR RECLAIMING SAND. WENDELL C. FLETCHER, St. Louis, Mo., and LAWRENCE E. BROWN, Somerset, Ky., assignors to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Mar. 27, 1912. Serial No. 686,544. (Cl. 8-54.)



1. In a device of the class described, the combination of a casing having an air inlet and an outlet, means for delivering sand to be cleaned to said casing by gravity action, and a series of baffles of unequal areas disposed transversely of said casing, the baffles of greatest area being disposed beneath those of less area, the outer edges of said baffles being provided with a plurality of perforations, substantially as described.

2. In a device of the class described, the combination of a casing having an air inlet and an outlet, means for delivering sand to be cleaned to said casing by gravity action, and a series of baffles of unequal areas disposed transversely of said casing, said baffles being separated by unequal distances, the baffles of greatest area and of least separation being disposed beneath those of less area and greater separation, substantially as described.

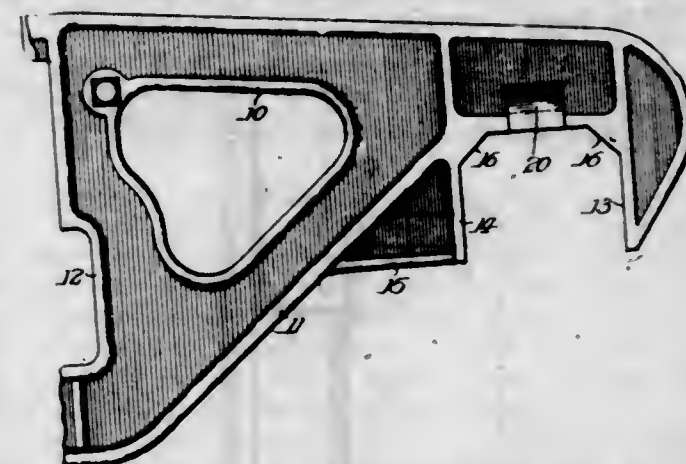
3. In a device of the class described, the combination of a casing having an air inlet and an outlet, means for delivering sand to be cleaned to said casing by gravity action, and a series of baffles of unequal areas disposed transversely of said casing, said baffles being separated by unequal distances, the baffles of greatest area and of least separation being disposed beneath those of less area and greater separation, the outer edges of said baffles being provided with a plurality of perforations, substantially as described.

4. In a device of the class described, the combination of a casing having an air inlet and an outlet, means for delivering sand to be cleaned to said casing by gravity action, and a series of baffles of unequal areas disposed transversely of said casing, said baffles being separated by unequal distances, the baffles of greatest area and of least separation being disposed beneath those of less area and greater separation, the outer edges of said baffles being provided with a plurality of perforations, the inner line of perforations in adjacent baffles being substantially in a vertical line, substantially as described.

1,079,980. PEDESTAL SIDE FRAME. GEORGE G. FLOYD, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed July 3, 1912. Serial No. 707,433. (Cl. 105-243.)

1. In a car truck, the combination of a side frame hav-

ing pedestal jaws, a journal box adapted to be embraced by said jaws, flanges projected from the surface of said box at the top and sides, the flanges on the sides diverging from each other toward the bottom of the box whereby to allow limited rocking movement of the box relative to the side frame, substantially as described.



2. In a car truck, the combination of a side frame having integral pedestal jaws, a journal box fitted between said pedestal jaws, flanges on the exterior of said box, said flanges projecting from the top and sides thereof, the top flanges being locked tightly to embrace the side frame and the side flanges being flared from each other whereby to permit limited rocking movement relative to said frame, substantially as described.

3. In a car truck, the combination of a side frame having jaws providing a journal-box-receiving opening, the upper portion of said opening being contracted transversely, and a journal box adapted to be fitted in said opening and having its upper portion shaped to be wedged in said contracted portion, substantially as described.

4. In a car truck, the combination of a side frame having jaws providing a journal-box-receiving opening, the upper portion of which is contracted to provide wedge surfaces, a journal box fitted in said opening and having its upper portion shaped to be fitted securely within the said wedge surfaces, whereby a tight connection is assured irrespective of the clearance between the jaws and the sides of the box, substantially as described.

5. In a car truck, the combination of a side frame having pedestal jaws, a journal box fitted within said jaws, the contacting surfaces of the box and frame at the top of the box being at an angle whereby the box is wedged in place, substantially as described.

[Claim 6 not printed in the Gazette.]

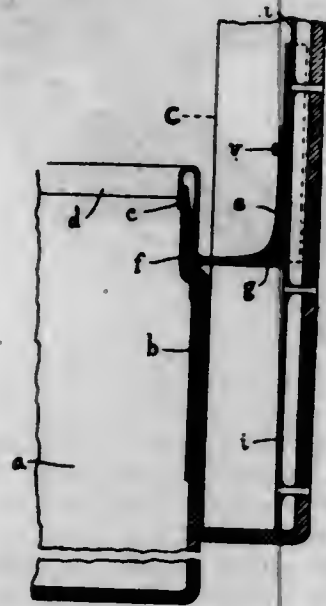
1,079,981. TRUNK AND OTHER ARTICLES WITH LIDS. ALEXANDER FORBES, Hampstead, London, England. Filed Dec. 30, 1912. Serial No. 739,318. (Cl. 190-19.)

1. The combination with a receptacle having a lid, of hinge supports attached to the receptacle, hinge members mounted to turn on said hinge supports, guides on said hinge members, bars affixed to the inside of the lid, said bars being adapted to engage with and slide in the guides, the engagement of the bars with the guides being such that the bars can slide in the guides in any position of the hinge supports.

2. The combination with a receptacle and a lid therefor formed with turned down edges, of hinges pivotally mounted on the receptacle and having turning parts of elbow shape with guides formed on the outer portions thereof, and bars attached to the inside of the lid adapted to slide upon said hinge guides, the engagement of the bars with the guides being such that the bars can slide in the guides in any position of the hinge supports.

3. The combination with a receptacle and a lid therefor formed with edges adapted to fit over the edges of the receptacle, the front edge of the lid being in the form of a flap adapted to be turned out to lie in the plane of the lid, hinges attached to the receptacle and sliding connecting means between the hinges and the lid.

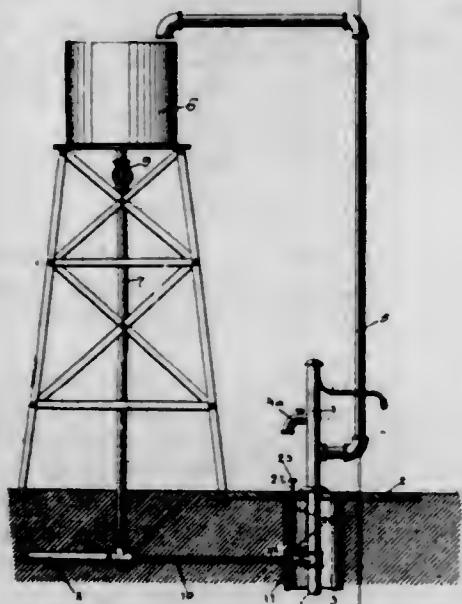
4. The combination with a receptacle, of hinges attached to the receptacle, a lid and sliding connecting means between the lid and hinges, said lid comprising a cover for the receptacle, edges to fit around the edges of the receptacle at three sides thereof, a flap at the fourth side pivotally connected to the lid, and means for fastening said flap in a position to fit against the face of the receptacle when the lid is closed thereon.



5. The combination with a receptacle having a lid, of hinges therefor, attached to the receptacle, guides forming part of said hinges, bars affixed in the lid adapted to work upon said guides on the hinges, a stop member on each bar comprising a headed pin, a spring adapted to hold said pin normally with its head retracted, the head of said pin when drawn out being adapted to come against the hinge guide and to limit the sliding of the bar thereupon.

[Claim 6 not printed in the Gazette.]

1,079,982. NON-FREEZING WATER-SUPPLY SYSTEM. PAUL HARDY, Walnut Springs, Tex., assignor of one-half to J. A. Edge, Walnut Springs, Tex. Filed June 12, 1913. Serial No. 773,193. (Cl. 137-78.)



In a device of the character described, the combination with a pump, of a pipe communicating with said pump and adapted to elevate water from a well, a well casing inclosing the last mentioned pipe, a reservoir elevated above the pump, a pipe communicating with the pump and adapted to discharge water therefrom into said reservoir, a distribution pipe extending downwardly from the reservoir, a valve interposed in the distribution pipe adjacent to the reservoir, a pipe establishing communication between the lower end of the distribution pipe and the pipe leading into the well, a valve interposed in the pipe last specified and disposed within the well casing, and a manually operated mechanism for actuating said valve.

1,079,983. FLEXIBLE RULE. AXEL E. HEGARDT, Philadelphia, Pa. Filed Mar. 5, 1913. Serial No. 752,031. (Cl. 33-177.)



1. A device of the character described, comprising a strip of flexible material having a plurality of blocks integral therewith and projecting from one edge thereof, metal straps secured to the blocks, and a strip projecting through all of said straps and engaging the blocks, substantially as described.

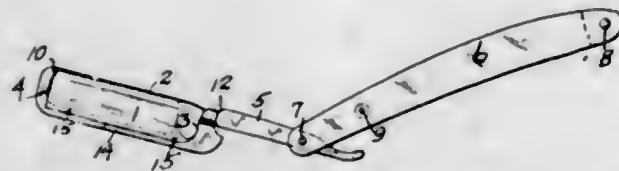
2. A device of the character described, comprising a strip of flexible material having a plurality of blocks integral therewith and projecting from one edge thereof, metal straps secured to the blocks, a strip projecting through all of said straps and engaging the blocks, said blocks each having an angular projection at their free ends, and said last-mentioned strip having a roughened surface engaging the angular projection of said blocks, substantially as described.

3. A device of the character described, comprising a strip of flexible material having a plurality of blocks integral therewith extending from one edge thereof, metal straps secured to their ends to the opposite sides of said blocks, a strip movable through said straps and engaging the blocks, springs in the straps engaging the movable strip and said first-mentioned strip having a scale thereon, substantially as described.

4. A device of the character described, comprising a strip of flexible material having a plurality of blocks integral therewith and projecting from one edge thereof, metal straps secured to the blocks, a strip projecting through all of said straps and engaging the blocks, said blocks each having an angular projection at their free ends, and said last-mentioned strip having a roughened surface engaging the angular projection of said blocks, and elastic means on the straps pressing the last-mentioned strip against the blocks, substantially as described.

5. A device of the character described, comprising a flexible strip, blocks integral with said strip, and having angular free ends, metal straps secured to the blocks, a movable strip located inside the straps and having a roughened surface engaging the angular free ends of the blocks, and springs integral with said straps and pressing said movable strip against the angular ends of the blocks, substantially as described.

1,079,984. SAFETY RAZOR. HORACE LYNFORD HENRY, Geneva, N. Y. Filed Feb. 15, 1913. Serial No. 748,635. (Cl. 30-12.)

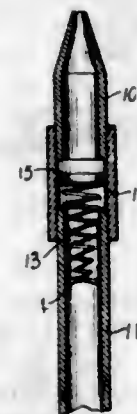


1. A safety razor comprising a tang razor blade in combination with a removable guard consisting of two similar pieces riveted together, providing a yoke on one end and a pin on the other, the said rivets forming heads to give the set to the guard against the blade and means on the blade cooperating with means on the guard to automatically draw the guard set on either side of the blade when the guard is brought in close proximity to the side of the blade.

2. A safety razor comprising a two-leaved handle provided with a hinged blade having a tang; the blade provided on its outer end with a hole and sloping recess, on its inner end a bearing on its tang; in combination with a guard provided with a pin adapted to engage the hole in the blade and a shoulder adapted to ride upon the before-mentioned sloping recess; a yoke adapted to engage the bearing on the tang provided with a cam face which when

brought into engagement with the heel of the blade draws the shoulder into the sloping recess on the other end of the blade, thereby holding the guard tight against the blade on either side.

1,079,985. FLUID-PRESSURE REGULATOR. JULIUS M. KAMINSKY, Indianapolis, Ind. Filed Apr. 18, 1912. Serial No. 691,543. (Cl. 50-14.)



1. In a regulator of the flow of fluid, the combination with a conduit, of a spring coiled longitudinally therein and normally expanded with one end surrounding the passage for the fluid so that the fluid must flow through the convolutions thereof, and a head on the other end of the spring constructed to give a passage for fluid past it of a constant caliber which is greater than that of the passage through the convolution of the spring during the period when the flow through the regulator is being changed.

2. In a regulator of the flow of fluid, the combination with a conduit, of a tapering spring coiled longitudinally therein with the large end secured to the conduit and surrounding the passage for the fluid and said spring expanded normally so that fluid will pass through its convolutions and with the means attached to the small end of the spring in position to be acted upon by the impact of the fluid, said means constructed to give a passage for fluid past it of a constant caliber which is greater than that of the passage through the convolutions of the spring during the period when the flow through the regulator is being changed.

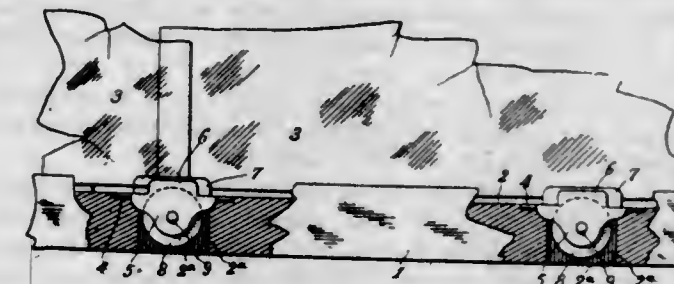
3. In a regulator of the flow of fluid, the combination with a conduit, of a tapering spring coiled longitudinally therein with the large end secured to the conduit and surrounding the passageway for the fluid, said spring being expanded normally so that the fluid may pass through its convolutions, and a head on the small end of said spring constructed to give a passage for fluid past it of a constant caliber which is greater than that of the passage through the convolutions of the spring during the period when the flow through the regulator is being changed.

4. In a regulator of the flow of fluid, the combination of a conduit with two tubes and a connecting removable sleeve, a ring in said sleeve with an opening through it for the passage of fluid, a coiled spring with one end secured to said ring and surrounding the opening therethrough and normally expanded to admit fluid through the convolutions thereof, and a head on the free end of the spring constructed to give a passage for fluid past it of a constant caliber which is greater than that of the passage through the convolutions of the spring during the period when the flow through the regulator is being changed.

1,079,986. ROLLER-GUIDE FOR SHOW-CASES. JOHN KNARE, Grand Rapids, Mich. Filed Dec. 17, 1912. Serial No. 737,259. (Cl. 16-91.)

1. A support for glass plates, comprising rollers to carry the plates, a sheet metal housing for the rollers consisting of a plate having an opening for the rollers, the metal removed from the plate to form the opening being turned upward to form side guides for the plates, downwardly turned ears at the respective sides of the plate, a pin supported by the ears and supporting the rollers,

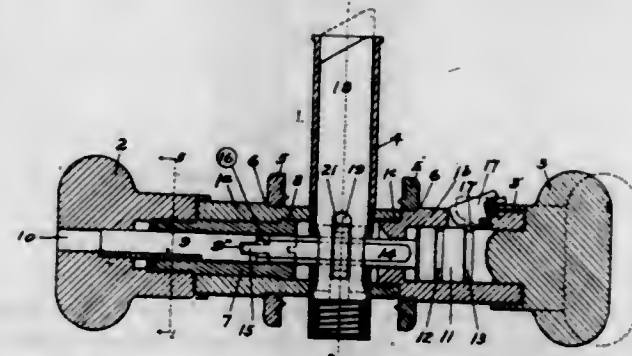
and a middle guide projecting upward from between the rollers.



2. A support for glass plates, comprising a pair of rollers spaced apart, a housing for the rollers consisting of a plate having an opening through which the upper part of the rollers project, upwardly projecting side guides and downwardly turned ears at the respective sides of the plate, a pin mounted in said ears and having a central groove, and a middle guide between the rollers embracing the pin within the groove.

3. As an article of manufacture, a support for glass plates, comprising a pair of rollers arranged side by side and a sheet metal housing consisting of a plate having side portions turned down to form ears; also having portions turned upward above said side portions to form side guides and an opening for said rollers, and a middle guide plate having lugs near the ends secured in said plate, said plate also extending downward between the rollers, and a pin in the ears on which the rollers are journaled and having a groove at the middle to receive the middle guide.

1,079,987. DOOR-LOCK. CHRISTIAN KNUDSEN, Portland, Oreg. Filed Sept. 26, 1912. Serial No. 722,508. (Cl. 70-91.)



1. A door lock comprising in combination, a cylindrical knob-bar casing, knobs and knob-bar rotatably mounted therein, a cylindrical bolt casing connected through said knob-bar casing at right angles therewith, and a bolt slidably mounted in said bolt casing and having intersecting operative connections with said knob-bar, one of said knobs being movable bodily with operative connections for rendering the other knob inoperative.

2. A door lock of the character referred to comprising in combination a two-part cylindrical casing, a cylindrical bolt casing screwed thereto and extending therethrough at right angles thereto, a bolt in said bolt casing, a knob-bar, with knobs, within said two-part casing, and extending through said bolt casing and bolt, with operative connections with the latter, one of said knobs being adapted to be disconnected from said knob-bar by the bodily movement of the other knob, and means for holding said parts in their different positions of adjustment.

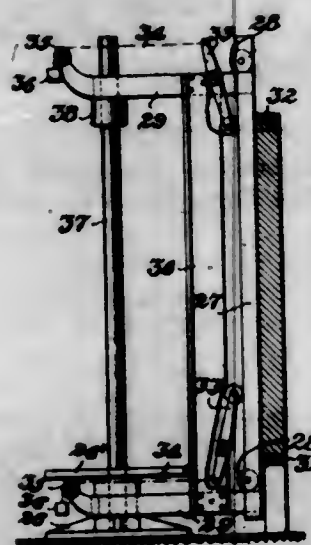
3. In a door lock, a cylindrical two-part casing with rose plates, and adapted to be screwed together through the door, a cylindrical bolt casing intersecting said two-part casing and passing therethrough at right angles thereto, a bolt in said bolt casing, a knob-bar with knobs in said two-part casing and operatively connected with said bolt within said bolt casing, one of said knobs being movable with the knob-bar relative to the other knob to render the latter inoperative, and a key for connecting the inoperative knob with the knob-bar.

4. A door lock comprising in combination, a knob-bar casing, a knob-bar with knobs rotatably mounted therein,

a bolt casing intersecting said knob-bar casing and screwed therethrough at right angles thereto, a bolt therein, operative connections between said knob-bar and said bolt, one of said knobs and said knob-bar being movable bodily out of operative connections with the other knob for rendering said other knob inoperative, and a key for putting said inoperative knob into operative connection with said knob-bar and bolt.

5. A door lock comprising in combination a two-part cylindrical casing with rose plates, a cylindrical bolt casing intersecting said two-part casing, a bolt for said bolt casing, a knob-bar with knob inserted into said two-part casing and into operative connection with said bolt, a knob rotatably mounted on the other end of said two-part casing and having a slotted bar extending into said two-part casing and adapted to be operatively connected end to end with said knob-bar, said knob and knob-bar being movable bodily into and out of operative connections with said bar, and a key for insertion through said rotatably mounted knob for operatively connecting it with said bodily moved knob and knob-bar, substantially as shown.

1,079,988. MEANS FOR PRODUCING CORES OR MOLDS. WILHELM KURZE, Wilhelmshütte, Neustadt, Germany. Filed Nov. 1, 1911. Serial No. 657,994. (Cl. 22-24.)



1. In a device of the character described, the combination of a wiper, guide supports for said wiper, a pattern for determining the final path of said wiper for determining the configuration of a sweep mold, and means for forcing said wiper toward and against said pattern during the progress of the molding operation, said guide supports being revoluble about the axis of said sweep mold.

2. In a device of the character described, the combination with a revoluble support, of a wiper movable to and fro along said support, a pattern for determining the configuration of the mold, and means for forcing said wiper into sliding contact with said pattern.

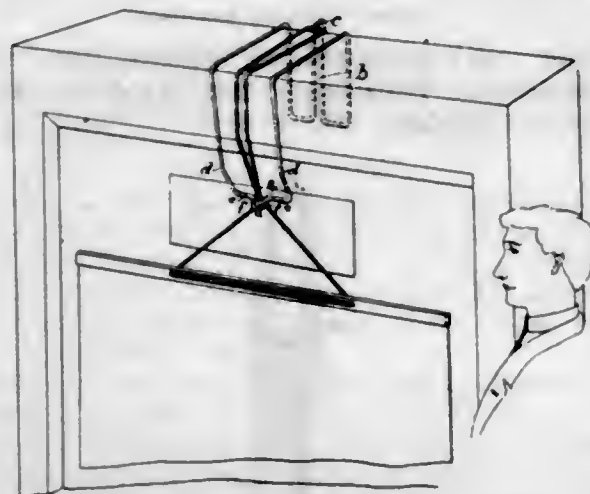
3. In a device of the character described, the combination with a mandrel, of a wiper revolubly mounted on said mandrel, means for imparting a radial movement to said wiper during its revolution, and a pattern for determining the limit of said radial movement by direct contact with said wiper.

4. An improved mechanism for producing cores and molds of any desired cross section, consisting of a mandrel journaled on a fixed axis, patterns for determining the configuration of the core or mold, arms revolubly mounted on said mandrel, a wiper supported by said arms, and means for imparting a radial movement to said wiper during its rotary movement around the mandrel.

5. An improved mechanism for producing cores and molds of any desired cross section consisting of a mandrel journaled on a fixed axis, patterns determining the configuration of the core or mold, arms revolubly mounted on said mandrel, a wiper supported by rollers upon the said arms, and weight-actuated ropes for forcibly holding the wiper against the patterns.

[Claims 6 and 7 not printed in the Gazette.]

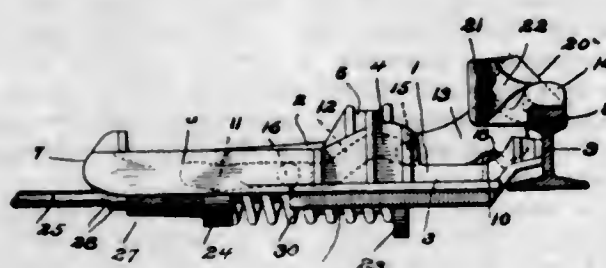
1,079,989. WIRE CLIP. HENRY LEA, St. Helens, England. Filed July 10, 1911. Serial No. 637,701. (Cl. 24-261.)



1. A device of the class described, formed from a single piece of wire, comprising a horizontal portion, a forwardly and upwardly inclined tongue formed intermediate the ends of the horizontal portion, the end of the tongue being bent rearwardly, the ends of the horizontal portion being bent upwardly and inclined rearwardly, then bent forwardly to form spacing members, the ends then bent downwardly and rearwardly for a short distance and then bent farther rearwardly, then inwardly horizontally toward each other, then forwardly and toward each other, the ends of the wire being interlocked.

2. A device of the class described, formed from a single piece of wire, comprising a horizontal portion, a forwardly and upwardly inclined tongue formed intermediate the ends of the horizontal portion, the end of the tongue being bent rearwardly, the ends of the horizontal portion being bent upwardly and inclined rearwardly, then bent forwardly to form spacing members, the ends then bent downwardly and rearwardly, then inwardly horizontally toward each other, then forwardly and toward each other, the ends of the wire being interlocked.

1,079,990. DERRAIL. TIMOTHY F. McEVoy, Pottstown, Pa. Filed Jan. 21, 1913. Serial No. 743,233. (Cl. 104-127.)



1. A derail comprising a base and a movable derailing member, elastic means exerting a pressure on the derailing member to move the same toward the rail, means compelling the derailing member to elevate and then lower in its movement by the spring, means positively locking the derailing member against movement when a wheel is supported thereupon, and said derailing member having a cam face adapted to be engaged by a wheel flange to force the same away from the rail and against the action of the spring, substantially as described.

2. A derail comprising a base having grooves adapted for supporting and guiding the derailing member toward and away from the rail, in combination with said derailing member having lugs movable in the grooves, said grooves curved upwardly throughout a portion of their length, whereby the derailing member is caused to move upwardly and then downwardly into active position on the rail, means positively locking the derailing member against movement when a wheel is supported thereupon, elastic means exerting pressure on the derailing member,

holding the same in active position, a head on said derailing member having an inclined tongue at one end against which a wheel flange is adapted to engage and move the member from active position, substantially as described.

3. A derail comprising a base having grooves adapted for supporting and guiding the derailing member toward and away from the rail, in combination with said derailing member having lugs movable in the grooves, said grooves curved upwardly throughout a portion of their length, whereby the derailing member is caused to move upwardly and then downwardly into active position on the rail, means positively locking the derailing member against movement when a wheel is supported thereupon, elastic means exerting pressure on the derailing member, holding the same in active position, a head on said derailing member having an inclined tongue at one end against which a wheel flange is adapted to engage and move the member from active position, and a rod for positively moving said derailing member, said rod connected to said elastic means, substantially as described.

4. A derail comprising a stationary member, a movable member movable longitudinally in the stationary member, a derailing head on one end of said movable member, said head having an inclined tongue at one end, constituting a cam surface against which a wheel flange is adapted to engage and move the movable member toward its inactive position, guides in the stationary member guiding the longitudinal movement of the movable member, said movable member having parallel walls spaced apart, an operating rod projecting through openings in both of said walls, a block adjustable on said rod and projecting through one of said walls, a nut on said rod in front of the other of said walls, and a coiled spring located between said last-mentioned wall and said block whereby said movable member is elastically connected to the rod, substantially as described.

5. A derail comprising a stationary member, and a movable member guided in its movement by the stationary member, a derailing head on said movable member, an operating rod connected with the movable member, guiding means on the stationary member causing the elevation of the movable member during a portion of its longitudinal movement, enlargements on the stationary member over which the movable member engages when in active position, whereby a positive lock is formed for the derailing member when a wheel is supported thereupon, elastic means exerting pressure on said movable member to hold the same in active position, said derailing head having an inclined tongue at one end against which a wheel flange is adapted to engage and move the movable member from active position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

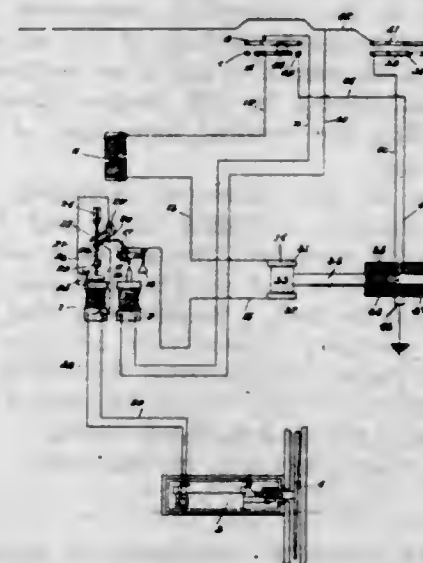
1,079,991. ELECTRICALLY-CONTROLLED RAILWAY-SWITCH. ELMER S. OLMSTED, Beechmont, Ky., assignor to Cheatham Electric Switching Device Company, Louisville, Ky. Filed Mar. 22, 1913. Serial No. 756,142. (Cl. 104-198.)

1. In a switch operating mechanism, an electrically operated switch throwing device with circuits therein and means for opening and closing one of said circuits when the device is in use so that a trolley wheel will first open said circuit and later close the same, whereby the device is rendered inoperative during the time between the opening and closing of said circuits.

2. In a switch operating mechanism, a double solenoid and means controlled thereby for operating a switch point, a relay, two trolley pans, an electric switch and a double solenoid connected therewith, wires, and means connecting said elements so that when a trolley wheel is on a part of the first trolley pan the electric switch is open, and when this trolley wheel is on the second trolley pan the electric switch is closed.

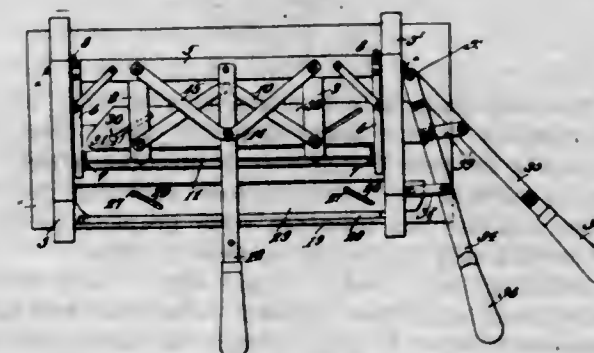
3. In a switch operating mechanism, the combination of an electrically operative switch throwing device, a trolley, circuit closing means operated automatically during the movement of a car for transmitting current from

the trolley to the switch throwing device to operate the latter in the proper direction, and an electric switch device operative with the circuit closing means and operated automatically from the trolley, to first open and subsequently close a part of the circuit closing means.



4. In a switch operating mechanism, the combination of an electrically operated switch throwing device, a trolley wire, two line contactors, a relay controllable through one of said line contactors for transmitting the current from the trolley wire to the switch throwing device, an electric switch opening and closing device made to open and close a portion of the circuit through the relay, and connections between said electric switch opening and closing device and both of said line contactors.

1,079,992. CURTAIN-STICK MACHINE. WILLIAM H. RAMSEY, Minneapolis, Minn. Filed Mar. 6, 1913. Serial No. 752,521. (Cl. 156-31.)



1. A machine of this character, including a base, a frame carried thereby, a folding and a finishing blade mounted for movement to and from each other upon the base, and a presser blade mounted in the frame for transverse sliding movement and for vertical swinging movement relatively to the base.

2. A machine of this character, including a base, a frame carried thereby, a folding and a finishing blade mounted for movement to and from each other upon the base, and a presser blade mounted in the frame for transverse sliding movement and for vertical swinging movement relatively to the base, said base being provided with parallel stick and shade receiving means one to each of the first two blades, whereby the presser blade may be disposed above either one at a time to assist in holding the shade and stick in position.

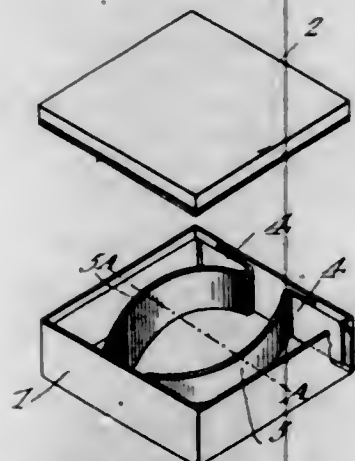
3. A machine of this character, including a base, said base being provided with two parallel recesses longitudinally thereof, a frame carried transversely of the base, a folding blade for movement to and from one of the recessed portions, a finishing blade movable to and from the other remaining recessed portion of the base, and a presser blade mounted in the frame for transverse movement relatively to the recessed portions of the base, and for vertical swinging movement to and from the base.

4. A machine of this character, including a base, said base being provided with two parallel recesses longitudinally thereof, a frame carried transversely of the base, a folding blade for movement to and from one of the recessed portions, a finishing blade movable to and from the other remaining recessed portion of the base, a presser blade mounted in the frame for transverse movement relatively to the recessed portions of the base, and for vertical swinging movement to and from the base, and co-operating means carried by the presser blade and the frame for limiting the vertical movement of the blade away from the base.

5. A machine of this character, including a base, a frame carried thereby, a folding blade and a finishing blade mounted for movement toward each other, a bar mounted for transverse and vertical swinging movement in the frame above the base, a handle projecting outwardly therefrom and normally substantially at right angles to the base, and a presser blade carried by said bar and disposed downwardly at right angles thereto for coactive action with the folding and finishing blades.

[Claims 6 to 8 not printed in the Gazette.]

1,079,993. BOX-HOLDER. WILLIAM H. RAMSEY, Minneapolis, Minn. Filed Apr. 1, 1913. Serial No. 758,281. (Cl. 15-18.)



1. A blacking box holder comprising a box, arcuate springs disposed in the box and bowed away from each other at their centers to embrace a circular article, the ends of the springs having extensions abutting the sides of the box and the box provided with projections on the sides to confine said spring extensions therein.

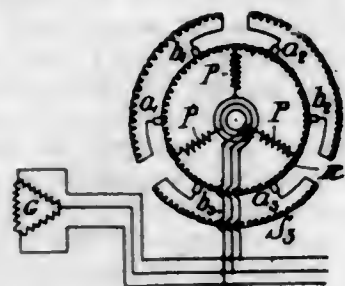
2. A blacking box holder comprising a box, arcuate springs disposed in the box opposite each other and bowed away from each other at their centers to embrace an article therebetween, the ends of the springs provided with extensions abutting the sides of the box and the side walls of the said box provided with overlapped projections adapted to confine said spring extensions within the box.

1,079,994. COMMUTATOR-MOTOR. HILDE KLAAS SCHRAGE, Vesterås, Sweden, assignor to Allmänna Svenska Elektriska Aktiebolaget, Vesterås, Sweden. Filed Sept. 9, 1911. Serial No. 648,453. (Cl. 172-280.)

1. In a dynamo electric machine, a rotor having a primary winding, and a regulating winding, means for supplying current to said primary winding, a commutator connected to said regulating winding, brushes for said commutator and a stator carrying a polyphase winding each phase of which is connected independently of the other phases to a pair of said brushes bearing on said commutator, substantially as and for the purpose set forth.

2. In a dynamo electric machine, a rotor having a primary winding and a regulating winding connected to said primary winding and forming a part of the primary circuit, means for supplying current to said primary winding, a commutator connected to said regulating winding, brushes for said commutator, and a stator carrying a polyphase winding each phase of which is connected independently of the other phases to a pair of said brushes

bearing on said commutator, substantially as and for the purpose set forth.



3. A dynamo electric machine comprising a rotor having a primary winding and a closed continuous current winding, slip rings connected to said primary winding, a commutator connected to said continuous current winding, adjustable brushes for said commutator, and a stator carrying a polyphase winding each phase of which is connected independently of the other phases to a pair of said adjustable brushes bearing on said commutator, substantially as and for the purpose set forth.

4. A dynamo electric machine comprising a rotor having a primary winding and a closed continuous current winding, slip rings connected to said primary winding, a commutator connected to said continuous current winding, two rocker rings carrying a number of brushes bearing on said commutator, and a stator carrying a polyphase winding, each phase of which is connected independently of the other phases to one brush on each of said rocker rings, substantially as and for the purpose set forth.

5. In a dynamo electric machine, a rotor having a primary winding and a regulating winding, means for supplying current to said primary winding, a stator having a non-interlinked polyphase winding, and means for connecting each phase of said polyphase winding with adjustable portions of said regulating winding.

1,079,995. WHEEL FOR MOTOR-CARS AND OTHER VEHICLES. WILLIAM THOMAS SMITH, Bolton, England. Filed July 11, 1908. Serial No. 443,047. (Cl. 152-21.)



1. In a vehicle wheel having a detachable rim, the combination with the felly, of a flat expansible side ring having slots therein suitably inclined and arranged to allow the said ring to expand and come below the side of the rim or contract and come below the side of the rim, and bolts attached to the felly and passing through said slots.

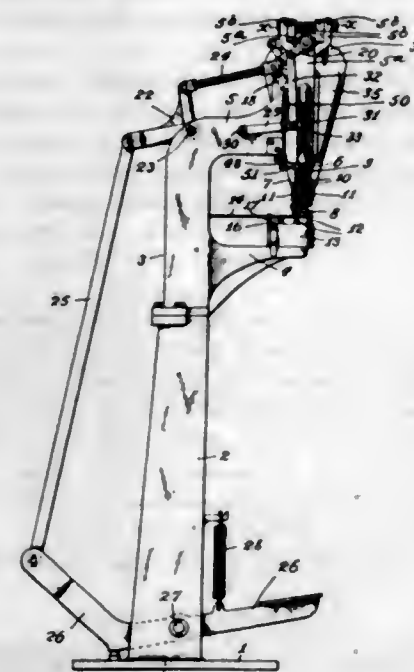
2. In a vehicle wheel having a detachable rim, the combination with the felly, of a flat expansible side ring, there being slots in said ring suitably inclined and arranged to allow the said ring to expand and come above the side of the rim or contract and come below the side of the rim, bolts attached to the felly and passing through said slots, and a cam device for expanding and contracting said ring, substantially as described.

3. In a vehicle wheel having a detachable rim, the combination with the felly, of a plain expansible side ring having slots therein suitably inclined and arranged to allow the said ring to expand and come above the side of the rim or contract and come below the side of the rim, bolts attached to the felly and passing through said slots, and heads on said bolts bearing against the outer side of said ring.

1,079,996. SETTING-MACHINE. EDWIN BALL STIMPSON, Brooklyn, N. Y. Filed July 25, 1911. Serial No. 640,499. (Cl. 218-0.5.)

1. The combination with a supporting frame, of a setting device movably mounted thereon, a magazine pivot-

ally mounted above its upper end on the frame and swinging toward and from the same, a roadway carried by the lower portion of the magazine and having its lower end swinging toward and from the setting device, and means for swinging the magazine and roadway when the setting device is operated.



2. The combination of a magazine, roadways depending from the magazine, vertically reciprocating setting devices, and means for moving the magazine and roadways to and from the setting devices, the aforesaid magazine and roadways vertically depending from a horizontal axis located over the setting devices and above the magazine, from which axis they swing to carry the delivery ends of the roadways into and out of alignment under the setting devices.

3. The combination of a magazine, a roadway depending from the magazine, vertically reciprocating setting devices, and means for moving the magazines and roadway to and from the setting devices, the aforesaid magazine and roadway vertically depending from a horizontal axis located above the magazine from which axis they swing to carry the delivery end of the roadway into and out of alignment under the setting devices, the delivery end of the roadway being substantially under the aforesaid horizontal axis and the magazine being at one side of said axis.

4. The combination of setting-devices, including a vertically reciprocating plunger, a driving stem carried by the lower end of said plunger and plunger operating toggle-arms above it; a magazine comprising a base-plate and its box operatively supported on said plate, said plate depending downwardly from a horizontally extending hinging axis located over the toggle; and a roadway extending downwardly from said plate with its delivery end reaching under the end of the up-position of the driving stem and substantially under said hinging axis, the magazine being located at one side of said axis to carry the roadway toward the driving stem.

5. The combination of setting-devices including a vertically reciprocating plunger, a driving stem carried by the lower end of the plunger, and plunger operating toggle-arms above it; a magazine comprising a base-plate and its box operatively supported thereon, said plate depending downwardly and having a hollow extension from its upper back portion forming a hopper leading to the magazine-box, said hopper and plate both depending from the same horizontally extending hinging axis located at the back of the hopper and over the toggle; and a roadway extending downwardly from said plate with its delivery end reaching under the end of the up-position of the driving stem and substantially under said hinging axis, the magazine being located at one side of said axis to carry the roadway toward the driving stem.

[Claims 6 to 14 not printed in the Gazette.]

1,079,997. COMBINATION-TOOL. HENRY G. WERNIMONT, Washington, D. C., assignor to Anna M. Wernimont, Washington, D. C. Filed Dec. 18, 1912. Serial No. 737,449. (Cl. 7-3.)

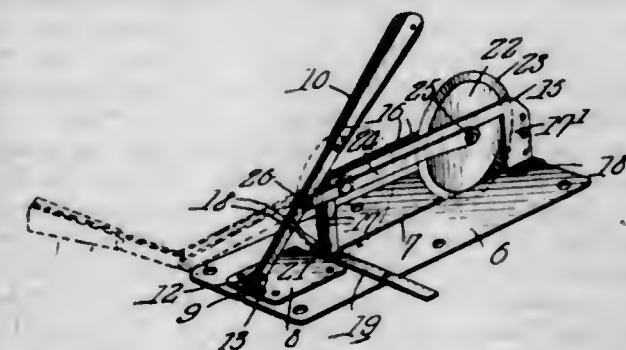


1. In an implement of the plier type a pair of handles provided with centrally recessed polygonal bosses on their inner sides, a pair of jaws formed with a plurality of tools and having polygonal recesses to fit over the bosses of the handles whereby they are capable of adjustment to various positions thereon said jaws having circular recesses in continuation of the polygonal recess, a centrally recessed circular washer seated in the circular recesses of the jaws and handles, a bolt passing through the recesses of the handles and the sleeve, and a nut on said bolt.

2. An implement of the plier type comprising a pair of handles provided with polygonal bosses on their inner sides, a pair of jaws inclosed by the handles said jaws carrying a plurality of tools and having polygonal recesses extending partway through them fitting over said polygonal bosses of the handles, and said recesses of the jaws merging into larger circular recesses in their meeting faces which register with each other forming a central cylindrical recess in the two jaws, a sleeve fitting in said recess, a securing pivotal bolt passing through the handles, their bosses, the jaws and the sleeve and a nut on said bolt.

3. An implement of the plier type comprising a pair of handles provided with polygonal bosses on their inner sides, a pair of jaws inclosed by the handles said jaws carrying a plurality of tools and having polygonal recesses extending partway through them fitting over said polygonal bosses of the handles, and said recesses of the jaws merging into larger circular recesses in their meeting faces which register with each other forming a central cylindrical recess in the two jaws, a sleeve fitting in said recess, one of the handles having a central cylindrical recess extending through it and its boss and registering with that of the sleeve and the other handle having an angular recess through its boss and a circular recess in continuation thereof through the handle proper, a bolt having a cylindrical body seated in the recess of the first named handle and of the washer, with an angular extension fitting in the angular recess of the second named handle and a threaded extension through the circular recess of said second handle, and a nut on said threaded extension.

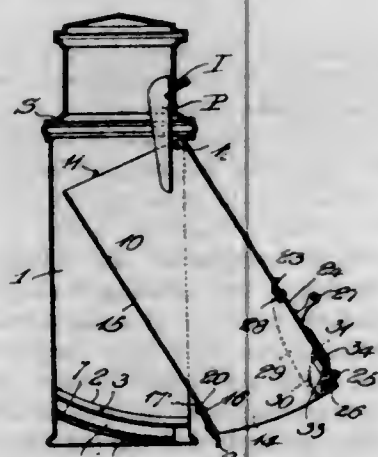
1,079,998. TOBACCO-CUTTER. JAMES E. ARRANTS, Elizabethton, Tenn. Filed May 28, 1912. Serial No. 700,343. (Cl. 131-34.)



In a tobacco cutter, a base, a pair of bars disposed thereabove, and having angular ends secured thereto, a

cutter disk disposed between the bars and having an axle below and movable along the under run of the bars, the cutter disk being adapted to move between the angular ends of the bars, a lever fulcrumed to the base beyond the respective angular ends of the bars, and a pair of links connecting the respective ends of the axle and the lever, the links being connected to the lever at a distance from its fulcrum approximately equal to the height of the bars above the base, so that the force provided by the movement of the lever acts along lines approximately parallel with the under run of the bars.

1,079,999. LETTER-BOX. WILLIAM B. BENHAM, Washington, D. C. Filed Mar. 1, 1913. Serial No. 751,622. (Cl. 232-45.)



1. In a letter box, the combination with a casing having an opening through its front wall, a dump box within said casing and hinged at the top of said opening, the front wall of said dump box having an opening, and a member for closing the latter; of an element carried by said member and within the dump box for locking said member to the casing and thereby retaining the box in the casing.

2. In a letter box, the combination with a casing having an opening through one of its upright walls, a dump box within said casing and hinged along the top of said opening, and a bottom within said casing across the lower end of said dump box and leading to the lower portion of said opening, the front wall of said dump box having an opening; of a door hinged at its lower edge so as to close said opening in the front wall of the dump box, a lock for holding said door closed, and a hook projecting rigidly from said door into the dump box and over said bottom, the latter being provided with a hole engaged by the hook when the dump box stands within the casing and the door stands closed.

3. In a letter box, the combination with an upright rectangular casing having an opening through its front wall, a rod across the casing at the top of said opening, and a fixed bottom for the casing struck on a curve around said rod and extending from the rear of the casing to the bottom of said opening in its front, each edge of said bottom being carried downward and thence outward and again downward and riveted to the side of the casing so as to produce a pocket; of a dump box disposed within said casing and hingedly mounted upon said rod, the lower edges of its side walls extending into said pockets and the lower edge of its rear wall being cut off above said bottom, a hinged rake connected with said rear wall and slidably mounted over said bottom, and devices for locking the dump box in closed position.

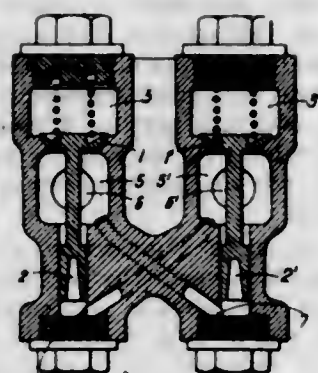
4. In a letter box, the combination with an upright rectangular casing having an opening through its front wall, a rod across the casing at the top of said opening, and a fixed bottom for the casing struck on a curve around said rod and extending from the rear of the casing to the bottom of said opening in its front, each edge of said bottom being carried downward and thence outward and again downward and riveted to the side of the casing so as to produce a pocket; of a dump box disposed within said casing and hingedly mounted upon said rod, the

lower edges of its side walls extending into said pockets and the lower edge of its rear wall being cut off above said bottom, a rake connected with said rear wall and movable across said bottom, the latter having holes through it near its front edge, hooks whose tips are adapted to engage said holes when the dump box stands within the casing, a support for said hooks movably connected with the front wall of said dump box, and a handle on the support.

5. In a letter box, the combination with an upright rectangular casing having an opening through one of its walls, a tubular dump box pivoted at its upper end within said casing and adapted to swing out through said opening, and a bottom fast within said casing and curving around the pivot line of the dump box from one wall of the casing to the lower edge of said opening, said bottom having grooves throughout its length; of a sheet metal rake hinged along its upper edge to the lower edge of said dump box and having teeth along its opposite edge coincident with said grooves, fingers projecting from the last-named edge and turned under so as to slide on said bottom, and projections rising from the hinge line of this member and adapted to contact with said wall of the dump box when such member stands in substantially alignment therewith, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,080,000. HYDRAULIC POWER-TRANSMISSION DEVICE. ANDRÉ CITROËN, Paris, France. Filed Feb. 3, 1913. Serial No. 745,922. (Cl. 138-3.)



1. The combination with a hydraulic power transmission mechanism comprising driving and driven elements, of means to prevent the driven element from actuating the driving element, said means comprising valve casings, valves located therein, each casing being in communication with the driving element on one side of the valve and with the driven element on the other side of the valve, said valves adapted to open in the direction of flow of the fluid from the driving element, and means associated with said casings whereby when one of the valves is opened by the pressure of the fluid from the driving element the other valve will be opened to permit the fluid to return to the driving element.

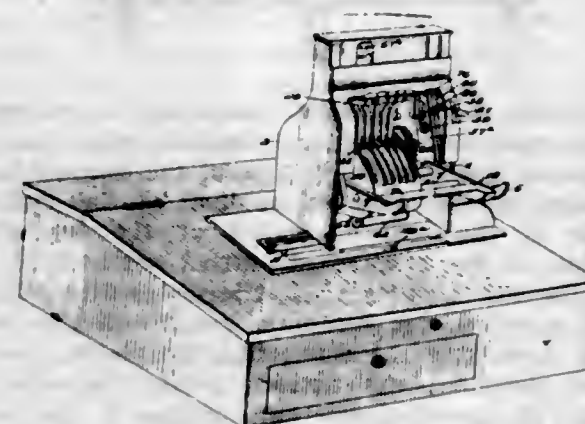
2. The combination with a hydraulic power transmission mechanism comprising driving and driven elements, of means to prevent the driven element from actuating the driving element, said means comprising valve casings, valves located therein, each casing being in communication with the driving element on one side of the valve and with the driven element on the other side of the valve, said valves adapted to open in the direction of flow of the fluid from the driving element, pistons on said valves, said casings provided with openings in which said pistons are guided, and means to permit a portion of the fluid from the driving element to act on the piston of one of said valves to open the same.

3. The combination with a hydraulic power transmission mechanism comprising driving and driven elements, of means to prevent the driven element from actuating the driving element, said means comprising valve casings, valves located therein, each casing being in communication with the driving element on one side of the valve and with the driven element on the other side of the valve,

said valves adapted to open in the direction of flow of the fluid from the driving element, a piston on one of said valves, the casing provided with an opening in which said piston is guided, and means to permit a portion of the fluid from the driving element to act on said piston and thereby open its valve.

4. The combination with a hydraulic power transmission mechanism comprising driving and driven elements, and supply and return conduits connecting said elements, of valves located in said conduits, said valves adapted to be opened by the pressure of the fluid from the driving element, but not by that from the driven element when the latter is used as a driving element, and means whereby when the valve in the supply conduit is opened the valve in the return conduit will also be opened.

1,080,001. CASH-REGISTER. JOSEPH P. CLEAL, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed June 6, 1898. Serial No. 682,725. (Cl. 235-3.)



1. In a cash register, the combination with a plurality of independent registering mechanisms each comprising denominational elements, of a movable frame adapted to be brought into alignment with any one of said mechanisms, a series of denominational keys and graduated register operating devices one for each denominational element in a register mechanism cooperating therewith and all mounted on said frame and adapted to move therewith and be brought into position to operate one of the registering mechanisms to register any desired amount.

2. In a cash register, the combination with a plurality of independent registering mechanisms, of a movable frame adapted to be brought into alignment with any one of the same and combined printing and registering operating wheels mounted on said frame and arranged to print a detail of each amount registered.

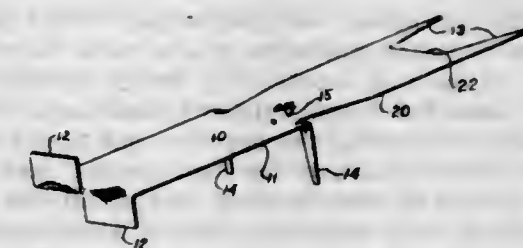
3. In a cash register, the combination with an autographic device, of a series of independent registering mechanisms representing different departments, combined register operating devices and printing means arranged to be moved into alignment with any one of said registering mechanisms so as to operate the same and simultaneously print the amount upon the paper of the autographic device.

4. In a cash register, the combination with a plurality of totalizers each comprising independent denominational elements, of a movable frame with connections for bringing it into alignment with any one of said totalizers, a plurality of operating devices, one for each denominational element in a totalizer mounted in said frame, and connections whereby a single operation of any of said operating devices may cause a differential motion of the corresponding denominational elements of the totalizer.

5. In a cash register, the combination with a plurality of independent registering mechanisms, each comprising a series of registering wheels, of a movable frame, and register operating devices mounted on said frame and arranged to operate any or all of one series of registering wheels to different desired extents at a single operation of the devices.

[Claims 6 to 94 not printed in the Gazette.]

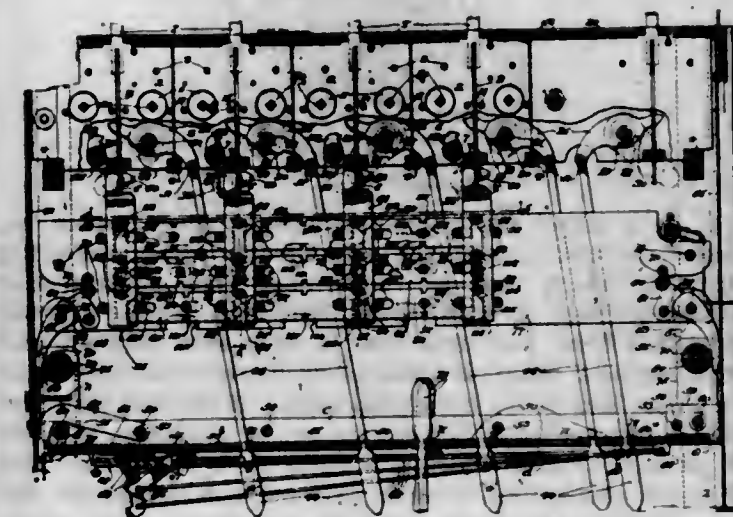
1,080,002. WALL CONSTRUCTION. Lisle J. DARE, Spokane, Wash. Filed Mar. 3, 1913. Serial No. 751,703. (Cl. 72-103.)



1. A sheet metal wall-tie, comprising a flat body portion, tongues at one end thereof bent to approximately right angles with the body portion, guides near the center of the body portion bent to right angles therewith and teeth at the end of the body portion opposite the tongues, the same being horizontal with the body portion.

2. A sheet metal wall-tie, comprising a flat body portion, tongues at one end thereof oppositely bent to approximately right angles with the body portion, guides near the center of the body portion bent to right angles therewith, teeth at the end of the body portion opposite the tongues and a spur reaching from the body portion at a position between the guides and the teeth and extending in a position approximately parallel with the guides.

1,080,003. INTERLOCKING MECHANISM FOR VOTING-MACHINES. JAMES H. DEAN, Chicago, Ill., assignor, by mesne assignments, to The Triumph Voting Machine Company, a Corporation of New Jersey. Filed Sept. 17, 1908. Serial No. 453,476. (Cl. 235-54.)



1. In voting machines, the combination with a number of office rows of ballot indicators or keys, of a corresponding number of sets of interlocking blocks, spreaders for said blocks connected to and operated by said keys, means for detachably connecting the end blocks of the several sets to form groups, stops at the opposite ends of each set of blocks and a set of grouping blocks of different lengths adapted to be inserted between one end block of each group and the adjacent stop.

2. In voting machines, the combination with a number of office rows of ballot indicators or keys, of a corresponding number of rows of interlocking blocks, spreaders for said blocks connected to and operated by said keys, tie-rods for detachably connecting the opposite end blocks of adjacent rows, stops at the opposite ends of each row of blocks and a set of grouping blocks of varying length adapted to be inserted between one end block of each group and the adjacent stop.

3. In voting machines, the combination with a number of office rows of ballot indicators or keys, of a corresponding number of rows of interlocking blocks, spreaders for said blocks connected to and operated by said keys, guide channels for said blocks, tie-rods for detachably connecting the opposite end blocks of adjacent rows, stops at one end of each channel, locking latches at the opposite

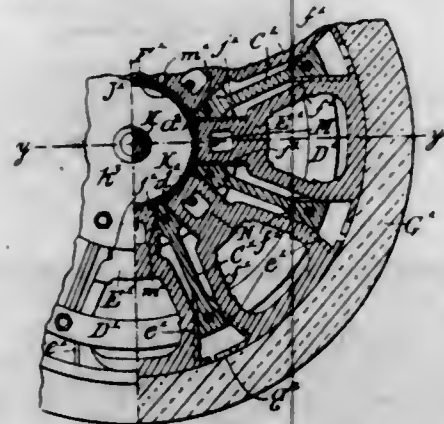
end of each channel and a number of grouping blocks of different lengths adapted to be inserted in said channels between one end block of each group and the adjacent latch.

4. In voting machines, the combination with a number of office rows of ballot indicators or keys, of a corresponding number of rows of interlocking blocks, spreaders for said blocks connected to and shifted by said keys, tie-rods for detachably connecting the opposite end blocks of adjacent rows, guide channels for said blocks, fixed stops at one end of each of said channels, locking latches at the opposite ends of said channels, grouping blocks arranged to be inserted in said channels between one end block of each group and the adjacent locking latch and means for positively holding said locking latches against movement.

5. Interlocking mechanism for voting machines comprising interlocking blocks, spreaders for said blocks and guides for said blocks comprising two connected plates having upper, vertical portions and outwardly projecting reentrantly bent lower portions forming guide grooves for said blocks.

[Claims 6 to 16 not printed in the Gazette.]

1,080,004. WHEEL FOR ROAD-VEHICLES. WALTER D. DOUGLAS-JONES, London, England. Filed Dec. 16, 1909. Serial No. 533,503. (Cl. 152—31.)



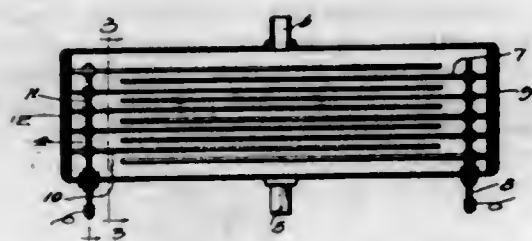
1. In a wheel for a road vehicle, a wheel frame, an elastic cushion around the axis of the wheel, radiating segments which bear at their inner ends against said elastic cushion, a wheel tread having a portion thereof supported from the outer end of each said segment and each segment being of greater circumferential extent at its outer than at its inner end, a pair of parallel slides on each segment with which engage one of a number of pairs of parallel guides which are rigid with the frame and of which the guides of each pair are a considerable distance farther apart measured in the plane of the wheel than the average length of the actual bearing surface of the inner end of each segment on said elastic cushion when the load comes thereon, and which guide the outer end of the segment, and guides which guide the inner end of said segments, said guides allowing only a radial movement of the segments while retaining them in proper alignment with the wheel frame.

2. In a wheel for a road vehicle, a wheel frame comprising spokes which are rigid with the hub, means by which they are connected with one another at their outer ends, an elastic cushion around the axis of the wheel, radiating segments which bear at their inner ends against said elastic cushion, a wheel tread having a portion thereof supported from the outer end of each said segment and each segment being of greater circumferential extent at its outer than at its inner end, pairs of parallel guides for the outer ends of the segments each pair formed upon two adjacent spokes and situated a considerable distance farther apart than the normal length of the average bearing surface of the inner end of the corresponding segment on said cushion when the load comes thereon, and guides for guiding the inner ends of said segments.

3. In a wheel for a road vehicle, a wheel frame comprising spokes which are rigid with the hub, means by which they are connected with one another at their outer ends, an elastic cushion around the axis of the wheel, radiating

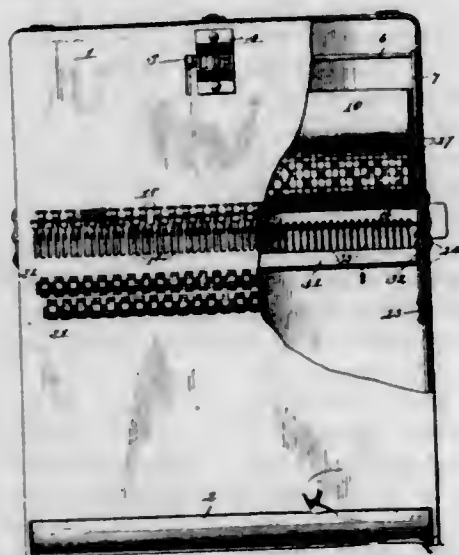
segments which bear at their inner ends against said elastic cushion, a wheel tread having a portion thereof supported from the outer end of each said segment and each segment being of greater circumferential extent at its outer end than at its inner end, pairs of parallel guides for both the outer and inner ends of the segments, each pair formed upon two adjacent spokes and the guides of each pair for the outer ends of the spokes situated a considerable distance farther apart than the average length of the actual bearing surface of the inner end of the corresponding segment on said elastic cushion when the load comes thereon.

1,080,005. ELECTRIC WATER-PURIFIER. LOUIS A. FITZER, Los Angeles, Cal. Filed Mar. 15, 1913. Serial No. 754,555. (Cl. 204—25.)



An electric water purifier comprising a rectangular metal box open at the top and flanged around its upper edge, a board fitting in the bottom of the box and having longitudinal parallel grooves, an inlet at the bottom of one side of the box, an outlet at the top of the other side of the box, boards fitting vertically in the ends of the box, a series of electric plates fitting against one end board and in alternate grooves in the bottom board, a conducting rod connecting the plates, a second series of electric plates fitting against the other end board and in the other alternate grooves in the bottom board, a second conducting rod connecting the second series of plates, a board fitting within the rim of the box upon the upper edges of the electric plates and a cover bolted to said flange.

1,080,006. VOTING-MACHINE. FRANK W. GODFREY, Beaverton, Oreg. Filed Apr. 15, 1911. Serial No. 621,312. (Cl. 235—50.)



1. A device of the kind described comprising a casing, the ends of said casing being cut out, a platen arranged in and parallel with the front of said casing, ribbon carrying rollers arranged in said cut out portions of the casing ends, means for covering said rollers and said cut-out portions, said means being arranged upon the exterior of the casing, a depressible platform, keys pivotally mounted within the casing and projecting through its front, the inner ends of said keys resting beneath said platen, means operated by depression of the platform for causing rotation of said platen and of said ribbon holders, thereby causing a sheet of paper to travel upon said platen and also cause a ribbon to travel from one of said rollers to

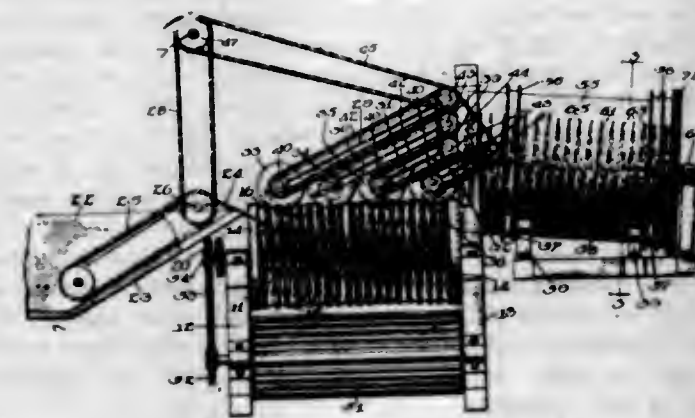
the other, and means operated by depression of the platform for locking a depressed key until return of platform to normal position.

2. In a device of the kind described, a depressible platform, means for normally holding and returning said platform to an elevated position, a register, a vertical bar adapted to be moved downwardly by depression of the platform and operatively connected with said register, a depressible key, a rock shaft, a plate carried by said rock shaft, spring pressed catches carried by said keys, the said plate normally presenting an inclined face to said catches, means connecting said rock shaft to said vertical bar, thereby lifting said rock shaft and throwing the plate into a vertical position upon downward movement of the bar, depression of the key causing its catch to engage the lower edge of said plate.

3. In a voting machine, a vertically movable platform, said platform being normally held with its inner end elevated, vertically movable bars pivotally connected at their lower ends to the inner end of the platform, said bars being drawn downwardly when the platform is stepped upon, a registering device operated by downward movement of said bars, a series of key levers, springs for holding each key lever in normal position, a series of registering devices operatively connected to said key levers, a plate extending transversely beneath said key levers, a spring pressed hook member coöperating with said plate, the said plate and hook member being normally in inoperative position, the plate being thrown into operative position by downward movement of the platform, and the hook member into engagement with said plate by depression of its key lever.

4. In a voting machine, a casing, rollers in frictional engagement with each other, a sheet of paper being adapted to travel under and over one of said rollers and between the two rollers and being fed by rotation of the rollers, a compartment receiving said paper from the rollers, means for causing an inking ribbon to travel beneath said paper, intermeshing gears carried by said rollers, a ratchet carried by one of said rollers a spring supported depressible platform, vertical bars pivotally connected to said platform, a pair of bell cranks one of which is loosely connected to one of said bars, a link connecting the two bell cranks, a pawl carried by one of said bell cranks and engaging the ratchet, said bell cranks being rocked by depression of the platform, and means also carried by the last mentioned bell crank for giving a step by step movement to the ribbon in unison with the rotation of the rollers, as and for the purpose set forth.

1,080,007. HOG SCRAPER AND CONVEYER. ALFRED HANNAFORD, Chicago, Ill. Filed July 15, 1907. Serial No. 383,834. (Cl. 17—11.)



1. In a hog-dehairing machine, a conveyer including an axially rotatable element for advancing the carcass and scraping devices rotatable with the said element and about the same axis and projecting radially outward therefrom, said scraping devices moving transversely of the direction of travel of the carcass and acting to scrape it while it is being conveyed.

2. In a hog-dehairing machine, a conveyer including an axially rotatable element for supporting and conveying the carcass and scrapers rotatable with the said element and about the same axis and projecting radially outward therefrom, said scrapers moving transversely of the direction of travel of the carcass acting to scrape it while it is being conveyed.

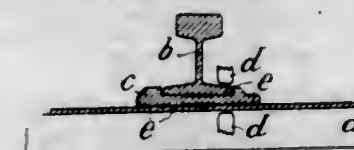
3. In combination a conveyer including an axially rotatable element for supporting and conveying the carcass and scrapers rotatable with the said element and about the same axis, said scrapers projecting beyond the periphery of the said element and moving transversely of the direction of travel of the carcass and acting to scrape it while it is being conveyed.

4. The combination of a conveying element supporting the carcass and scraping devices secured to the said element, and projecting radially outward therefrom, said scraping devices moving transversely of the direction of travel of the carcass and acting to scrape it while it is being conveyed.

5. In combination with an axially rotatable element for conveying the carcass and supporting it, scraping devices secured to the periphery thereof, and means for rotating the said element, said scraping devices moving transversely of the direction of travel of the carcass and acting to scrape it while it is being conveyed.

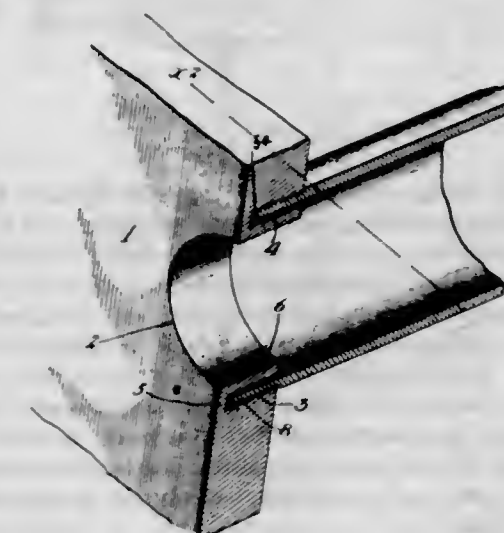
[Claims 6 to 50 not printed in the Gazette.]

1,080,008. RAIL-FASTENING. JOHANN HARMATTA, Szepesvaralja, Austria-Hungary. Filed Oct. 21, 1912. Serial No. 727,053. (Cl. 238—4.)



A rail-fastening consisting of a sleeper and an intermediary tie-plate, the latter being welded together and the tie-plate to the rail in an electric way.

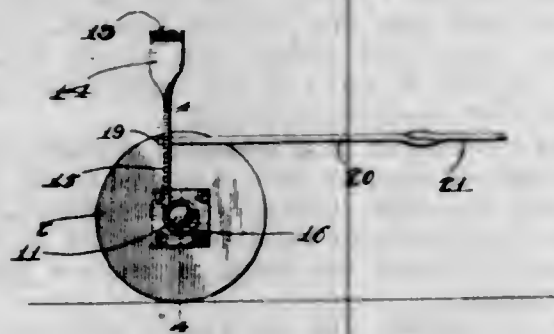
1,080,009. FLUE CONNECTION FOR FIRE-SHEETS. ROBERT B. HOUSLEY, Las Vegas, Nev. Filed July 27, 1911. Serial No. 640,926. Renewed Oct. 27, 1913. Serial No. 797,648. (Cl. 137—98.)



A fire sheet having a perforation and provided with an annular groove around the perforation, the outer wall of said groove being threaded, a flue having external threads fitting the threads of the outer wall and forming a longitudinal space in the annular groove along the flue and an enlarged space at the end of the flue, a bushing with its inner face bearing against the inner wall of said annular groove and its outer face bearing against the inner face of the flue thereby filling said longitudinal space, said

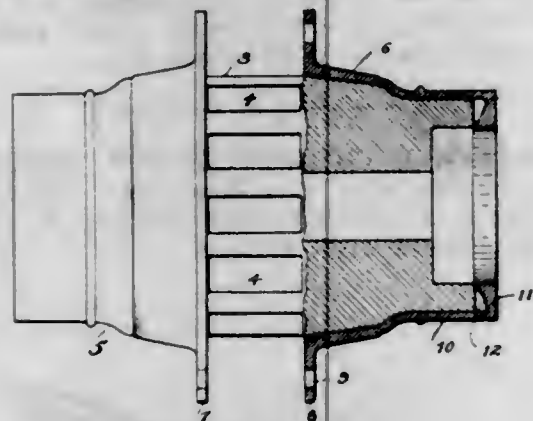
bushing having an outwardly directed flange which completely fills the said enlarged space between the end of the flue, and the outer, inner, and bottom walls of said groove.

1,080,010. PULVERIZER. ADDISON KETRING, New Madison, Ohio. Filed Dec. 3, 1912. Serial No. 734,744. (Cl. 55-6.)



In a device of the kind described, the combination with a roller arranged for pulverizing the soil, of a frame therefor comprising a single strip of material of uniform width and thickness, said material being provided centrally with a bolt receiving opening and having fold lines equally spaced on opposite sides of said opening and arranged diagonally to the length of the material, said material further having terminal portions defined therefrom by fold lines arranged to be folded into bearing members, said material further being provided with bars receiving openings intermediate the diagonal fold lines and those last mentioned.

1,080,011. WHEEL-HUB FLANGE. FRANK KOPFLIN, Chicago, Ill. Filed Nov. 11, 1912. Serial No. 730,669. (Cl. 21-31.)

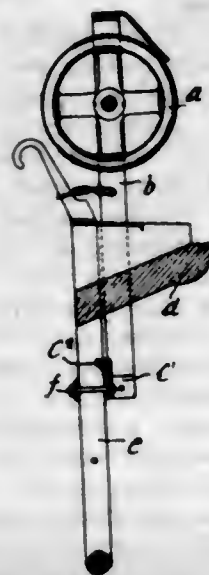


1. A hub flange having an integrally formed flange or ring extending inwardly at one end thereof, said ring having a beveled or receding inner surface, whereby it is thicker at its inner periphery than at its outer periphery.
2. The combination with a wooden hub, of a hub flange having an inwardly extending flange or ring at the end thereof, of substantially the same width as the wood at the end of the hub, the face of said ring toward the wood being tapered or beveled so that the inner portion of the ring will be thicker than the outer portion and may come in contact with the wood before the outer portion engages with the same.

1,080,012. DRILL-SHARE. JULIUS KUHNERT, Breslau, Germany. Filed Feb. 14, 1913. Serial No. 748,429. (Cl. 111-11.)

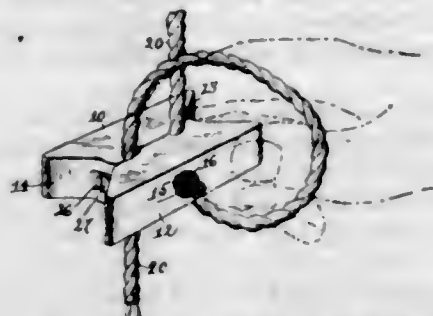
A device for a disengageable attachment of pressure-rollers to drill shares, comprising in combination, a roller supporting strap, a stay to close the front end of the latter provided at one end with grooves, diverging draw-bars for the drill share designed to engage said grooves, a rear-

wardly directed wedge at the other end of the stay engaging the angle formed by the draw-bars, and a screw-



joint of ordinary type, to connect all said parts together, substantially as and for the purpose set forth.

1,080,013. CLAMPING DEVICE. CARL J. LANDIN, Boston, Mass. Filed June 6, 1912. Serial No. 702,062. (Cl. 24-115.)

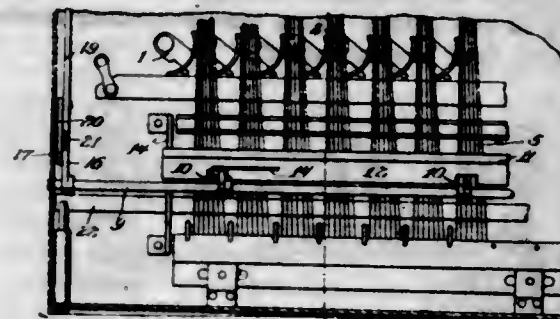


1. A double clamp of the character described, comprising two members bodily movable toward and from each other and having at their ends inclined inner surfaces of substantial length to leave a substantially wide opening between the extreme ends of said inclined surfaces at both ends of the clamp, and provided between their ends with recesses on their inner surfaces, and a spring connecting the said members together and connected therewith to normally hold the said members in their closed position and to permit one end of one member to be moved bodily away from the same end of the other member for the passage of a cord between them, while a cord or other device is clamped between the opposite ends of said members.
2. A double clamp of the character described, comprising two members bodily movable toward and from each other and having at their ends inclined inner surfaces of substantial length to leave a substantially wide opening between the extreme ends of said inclined surfaces at both ends of the clamp, and provided between their ends with recesses on their inner surfaces, one of said members having a recess, and the other member a projection at each end which extends into said recess and forms a pivot point, and a spring connecting the said members together and connected therewith to normally hold the said members in their closed position and to permit one end of one member to be moved bodily away from the same end of the other member for the passage of a cord between them while a cord or other device is clamped between the opposite ends of said members.

1,080,014. VOTING-MACHINE. WILLIAM J. LAUSTERER, Jamestown, N. Y., assignor, by mesne assignments, to Triumph Voting Machine Company, a Corporation of New Jersey. Filed Jan. 2, 1906. Serial No. 294,067. (Cl. 235-54.)

1. In a voting machine, the combination with movable ballot indicators, registers cooperating therewith and inter-

locking mechanism with which the indicators cooperate, of a member for actuating to full voted position the indicators operatively engaged with the interlock, means for operating the registers corresponding with the indicators thus operated and connections between said means and member for moving the latter to operate and release the indicators prior to the operation of the registers.



2. In a voting machine, the combination with movable ballot indicators, straps or rods connected thereto having projections, registers with which said indicators cooperate, means for actuating the registers whose indicators are left in voted position, of a movable member cooperating with the projections on the straps for moving partially-operated indicators to voted position and connections between the actuating means and member for operating the latter before the operation of the registers.

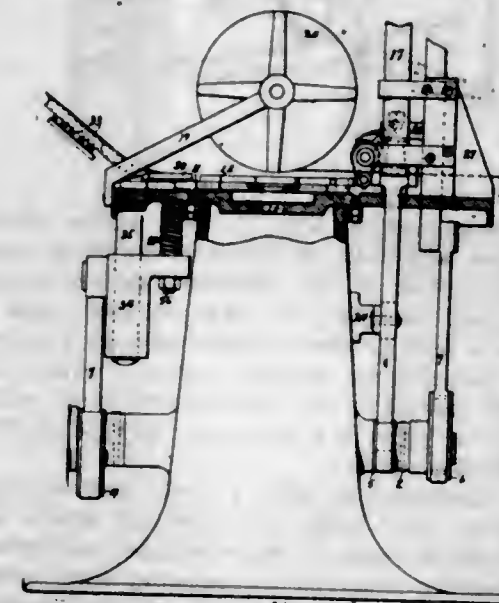
3. In a voting machine, the combination with ballot indicators, rods or straps connected thereto having projections, and a movable bar adapted to cooperate with the projections, of a movable cam cooperating mediately with the bar to operate and return it by a single movement in one direction.

4. In a voting machine, the combination with ballot indicators, rods or straps connected thereto, and a movable bar adapted to cooperate with the rods or straps to move them to voted position, of the register frame, registers thereon, means for operating the frame relatively to the indicators and connectors between said means and the bar for operating the latter.

5. In a voting machine, the combination with ballot indicators, rods or straps connected thereto, a movable bar adapted to cooperate with the straps when the latter are partially operated, a pivoted arm connected to the bar and a movable cam cooperating with said arm to move the bar and straps and disengage the bar therefrom by a movement in one direction.

[Claims 6 to 11 not printed in the Gazette.]

1,080,015. MACHINE FOR MAKING BOTTLE-CAPS. CLARENCE J. LAWSON, Yonkers, N. Y. Filed Dec. 19, 1912. Serial No. 737,649. (Cl. 113-80.)



1. In a cap making machine the combination of a table, a plate on the table provided with holes adjacent to its

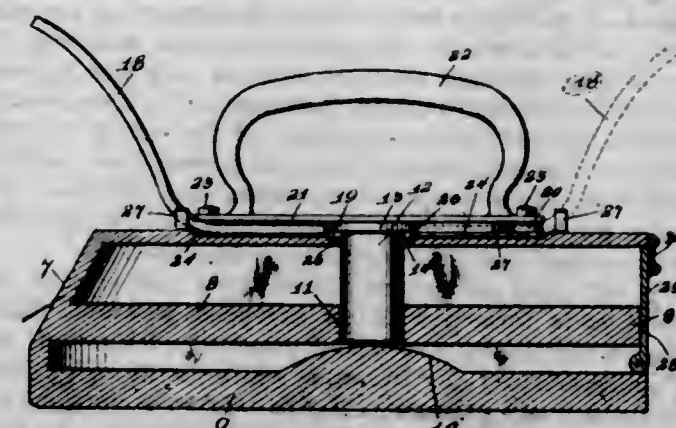
197 O. G.—3

edge, means for supplying sealing gaskets and adhesive material to said holes, means for imparting a step by step rotation to said plate, means for supplying metal shells to the gaskets and adhesive at a given point, and a series of reciprocating plungers for imparting a series of blows to the assembled caps.

2. In a cap making machine the combination of a table, a plate thereon provided with holes near its edge, a gasket magazine on the table, a feed slide passing under said magazine and over the path of the holes in the plate, a ratchet on the plate, a pawl on the feed slide cooperating therewith and means for reciprocating the slide whereby a step by step rotation will be imparted to the plate.

3. In a cap making machine the combination of a table, a plate thereon provided with holes near its edge, means for imparting a step by step rotation to the plate, means for supplying the holes with gaskets, adhesive and metal shells, a plurality of plungers below the plate, a rigid disk thereover and means for reciprocating said plungers whereby the gasket, adhesive and metal shell will be driven into intimate contact between the plungers and rigid plate.

1,080,016. IRON. HJALMAR LINDESTROM, Chicago, Ill. Filed Jan. 2, 1913. Serial No. 739,652. (Cl. 158-23.1.)



1. An iron consisting of a body having an opening and provided with a groove leading from said opening, a burner located in the opening, a fuel supply pipe connected to the burner and extended therefrom in said groove, and a plate located on the burner and a part of said pipe and secured to the iron body.

2. An iron consisting of a body having an opening and provided with a groove leading from said opening and within a pair of spaced-apart projections one on each side of the longitudinal axis of said groove, a burner located in the opening, a fuel supply pipe connected to the burner and extended therefrom in said groove, and a plate located on the burner and a part of said pipe and secured to the iron body.

3. An iron consisting of a body having an opening provided with a plurality of grooves leading from said opening, a burner located in the opening, a fuel supply pipe connected to the burner and extended therefrom for location in one of said grooves, and a plate located on the burner and a part of said pipe and secured to the iron body.

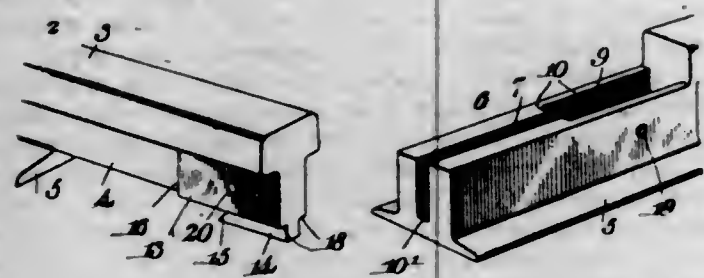
4. An iron consisting of a body having an opening and provided with a groove leading from said opening, said body having a recess at the juncture of the groove with said opening, a burner located in the opening and having a projection to fit in said recess, a fuel supply pipe connected with the burner adjacent to the projection thereon and extended therefrom in said groove, and a plate located on the burner and a part of said pipe and secured to the iron body.

5. An iron consisting of a body having an opening and provided with a plurality of grooves leading from said opening, said body having at the juncture of each of its grooves with the opening a recess, a burner located in the opening and having a projection adapted to fit in any of said recesses, a fuel supply pipe connected to the burner

and adapted to be extended therefrom in one of said grooves, and a plate located on the burner and a part of said pipe and secured to the iron body.

[Claims 6 to 9 not printed in the Gazette.]

1,080,017. RAIL-JOINT. PETER W. L. MEADOWS, Cordele, Ga., assignor of one-fourth to Perry Clements, Cordele, Ga. Filed June 4, 1913. Serial No. 771,584. (Cl. 239-8.)



1. A rail joint comprising abutting rail ends, one of said ends formed with an extended web and flange portion, said web portion thickened and provided with a slot, said slot being substantially the same width as the rail web at the outer extremity of the thickened portion, and widened at the inner end to form shoulders, an aperture in the foot of said rail communicating with said slot, the other of said rail ends provided with an extended ball and web portion, the web portion thickened at its outer end to fit within the said widened portion of the slot in the first mentioned rail web, and to form shoulders upon said extended web, and a depending lug upon said thickened web portion for engagement with said aperture in said first mentioned rail end, substantially as described.

2. A rail joint comprising the abutting ends of rails, one of said ends formed with an extended web and flange, said web portion thickened and provided with a slot, said slot being substantially the same width as the rail web adjacent the outer extremity of the thickened portion, and widened adjacent the inner end to form shoulders, an aperture in the foot of said rail communicating with said slot, the width of said aperture being substantially that of the usual rail web, the other of said rail ends provided with an extended ball and web portion, said web portion thickened at its outer end to fit within the said widened portion of the slot in the first mentioned rail web, and to form shoulders upon said extended web, and a depending lug upon said thickened web portion reduced in width to substantially that of the usual rail web, and adapted to be positioned within said aperture, substantially as described.

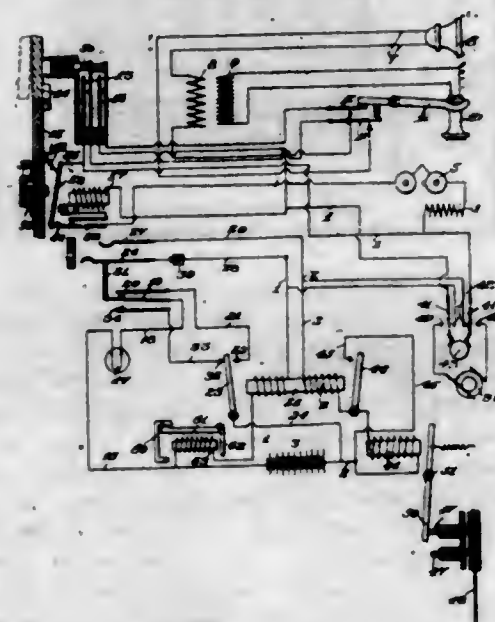
1,080,018. ELECTRICAL COMMUNICATING SYSTEM. LOUIS W. MILLER, Rochester, N. Y., assignor to National Police Signal Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 17, 1909. Serial No. 484,016. Renewed Feb. 19, 1912. Serial No. 678,748. (Cl. 179-5.)

1. The combination with a telephone system embodying a substation and a central station, of an electrically-operated time-recording mechanism having connection with the system, and means preventing the control of the time recording mechanism under normal line conditions of service except from the substation.

2. The combination with a telephone system embodying a line having a substation and a central station, of a central office apparatus adapted for connection to the line at the central station, a time recording mechanism having connection with the system, and means preventing the control of the recording mechanism from the central office apparatus.

3. A telephone system comprising a line, an operator's signaling circuit controlled by the line, a jack connected to the line, a condenser between the jack and the line, substation instruments controlling the signaling circuit, a time recording mechanism, and an electromagnet controlling the time recording mechanism, and connected to the line independently of the signaling circuit and the jack.

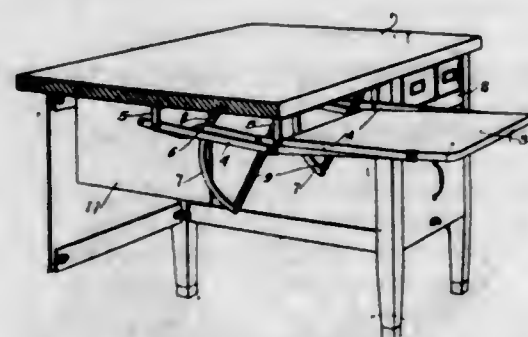
4. The combination with a source of energy, a line connected thereto having a central station and a substation, a switch at the substation to control the line, substation instruments connected to the line, a supervisory circuit controlled from the substation switch, a jack connected to the line, a condenser interposed between the jack and the line, and a central office apparatus for connection to the jack, of an electromagnet arranged to be operated on the closing of the switch, and a time recording mechanism controlled by said electromagnet.



5. The combination with a normally closed line circuit, a time recording mechanism comprising an electromagnet arranged in said circuit and a resistance interposed in the line circuit normally rendering said magnet inoperative, of a normally open shunt circuit leading around the resistance, means for closing the shunt to permit the energizing of said magnet, and further means for deenergizing the time recording magnet after its operation.

[Claims 6 to 25 not printed in the Gazette.]

1,080,019. TYPE-WRITER ATTACHMENT FOR DESKS. LEONARD B. POOLER, JOSEPH M. BAINER, and NICHOLAS V. ELLIOTT, Marysville, Ohio, assignors to The Marysville Cabinet Company, Marysville, Ohio, a Corporation of Ohio. Filed June 24, 1912. Serial No. 705,521. (Cl. 45-52.)



1. The combination, with a desk, and a platform arranged below said desk, of a pivoted device to support said platform in either of two positions, said device having a part arranged substantially parallel with said platform and movable into different planes as said platform moves from one position to another, and a yieldable retaining device held normally in engagement with said part of said device to resist the movement of said platform from either of said positions.

2. The combination, with a desk, and a platform arranged below said desk, of a pivoted device to support said platform in either of two positions, said device having a part arranged substantially parallel with said platform and movable into different planes as said platform moves from one position to another, said part of said device having portions arranged at different planes, and a yieldable retaining device held normally in engagement with

said part of said device and movable from one position thereof to the other as said platform is moved from one position to the other, said retaining device serving to resist the movement of said platform from either of said positions.

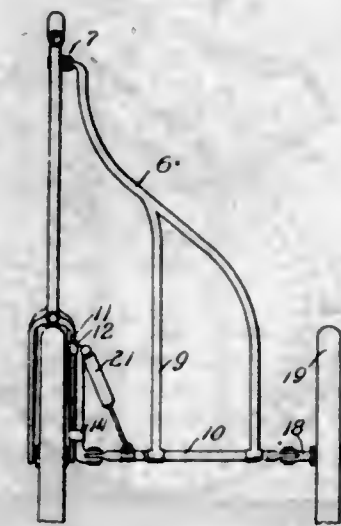
3. In a device of the character described, the combination, with a desk, stationary supporting members carried by said desk, and a platform supported beneath the same, of a group of links arranged on each side of said platform, the links of each group being pivotally connected at their lower ends to said platform and connected at points above their lower ends with the respective supporting members, a connecting member secured to the several links of one of said groups, and a yielding retaining device engaging said connecting member to retain the platform at either limit of its movement.

4. In a device of the character described, the combination, with a desk, and a platform supported beneath the same, of a group of links arranged on each side of said platform, the links of each group being pivotally connected at their lower ends to said platform and connected at points between their ends with the respective supporting members, connecting members secured to the upper ends of the links of the respective groups, retaining devices engaging the respective connecting members, and means to exert a yielding pressure on said retaining devices.

5. In a device of the character described, the combination, with a desk, and a platform supported beneath the same, of links pivotally connected at their lower ends with said platform and pivotally connected at points above their lower ends with said desk, a connecting member secured to those links which are connected to one side of said platform, and a yielding retaining device mounted on said desk and engaging said connecting member to resist the movement of said platform from either of two positions.

[Claims 6 and 7 not printed in the Gazette.]

1,080,020. SIDE-CAR ATTACHMENT. LEO A. POTHAST, Melbourne, Iowa. Filed Feb. 21, 1913. Serial No. 730,007. (Cl. 208-45.)



1. A side-car attachment for motor cycles, having a frame pivotally connected to said motor cycle, a wheel for said side car, an axle for said wheel pivotally connected to said frame and having a downwardly projecting member, and a link pivotally connected at one end to said motor cycle and at its other end to said downwardly projecting portion.

2. In a side-car attachment for vehicles, whereby said side-car while in operation will remain in contact with the ground whatever the position of the motor cycle to the ground, a frame pivotally connected to said vehicle at its forward end, a member rigidly fixed to the rear of said motor cycle, said frame pivotally connected at its rear end to said rigid member, a wheel for said side-car, an axle for said wheel pivotally connected to said frame and having a downwardly projecting member, and a link pivotally connected at one end to said motor cycle and at its other end to said downwardly projecting portion.

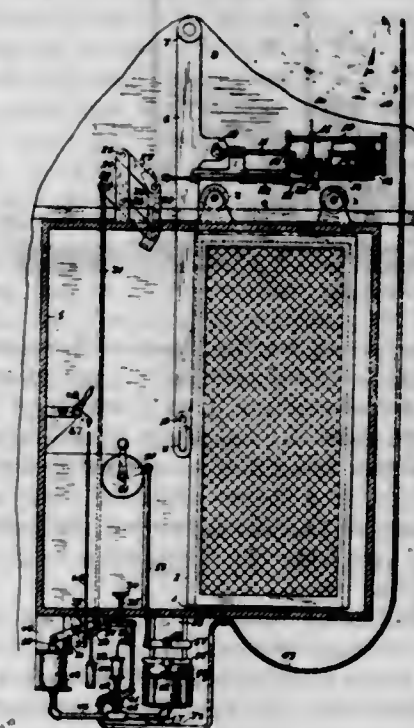
3. A side-car attachment for motor cycles having a frame pivotally connected to said motor cycle, a wheel for said side car, an axle for said wheel pivotally connected to said frame and having a downwardly projecting portion, a link pivotally connected at one end to said motor cycle and at its other end to said downwardly projecting portion, and a compression spring connected between said frame and said motor cycle to hold the motor cycle erect when not in operation.

4. In a side-car attachment for vehicles whereby said side-car while in operation will remain in contact with the ground whatever the angle of the motor cycle to the ground, a frame pivotally connected to said vehicle at its forward end, a member rigidly fixed to the rear of said motor cycle, said frame pivotally connected at its rear end to said rigid member, a wheel for said side-car, an axle for said wheel pivotally connected to said frame and having a downwardly projecting member, a link pivotally connected at one end to said motor cycle and at its other end to said downwardly projecting portion, and a compression spring connected between said frame and said motor cycle to hold the motor cycle erect when not in operation.

5. A side-car attachment for motor cycles having a frame pivotally connected to said motor cycle at its forward end, said frame composed of two bars integral with one another, one curved upwardly at its forward end and the other beginning at substantially the middle of said curved bar extending rearwardly in a straight line, the rearward portions of both bars being parallel, a crank-shaped member to the depressed portion of which both said bars are secured, and an upright bent member rigidly secured to the rear portion of said motor cycle, said crank member being pivotally connected to said upright member, a wheel for said side-car, a bent axle member carrying said wheel and pivotally connected to said crank member, and a link connecting said upright member with said bent axle member.

[Claim 6 not printed in the Gazette.]

1,080,021. CONTROLLING MECHANISM FOR ELEVATOR DOORS AND CARS. HORATIO C. RANDALL, San Francisco, Cal., assignor to Anna S. Randall, San Francisco, Cal. Filed Jan. 30, 1911. Serial No. 605,426. (Cl. 187-54.)



1. In combination with an elevator car, and a door therefor, pneumatically operated means for opening the door, a movable device carried by the car, and adapted in one position to actuate said door-opening means, a device for controlling the power for operating the car, and pneumatically operated means for simultaneously locking said latter device and moving said former device into its operative position, substantially as described.

2. In combination with an elevator car, and a door therefor, pneumatically operated means for opening the door, a movable device carried by the car, and adapted in one position to actuate said door-opening means, a device for controlling the power for operating the car, and pneumatically operated unitary means for limiting the extent of movement of said latter device and moving said former device into its operative position, substantially as described.

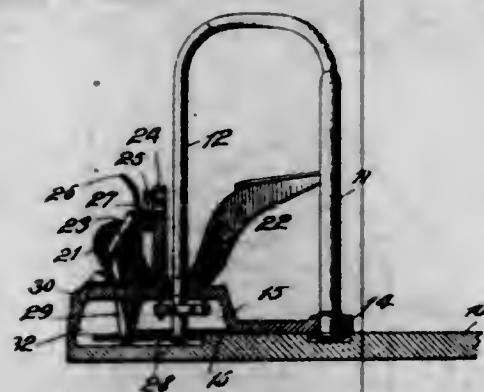
3. In combination with an elevator car, and a door therefor, pneumatically operated means for opening the door, a movable device carried by the car, and adapted in one position to actuate said door-opening means, a device for controlling the power for operating the car, pneumatically operated means for simultaneously locking said latter device and moving said former device into its operative position, and automatic means for restoring said means to its normal position, substantially as described.

4. In combination with an elevator car, and a door therefor, pneumatically operated means for opening the door, a movable device carried by the car, and adapted in one position to actuate said door-opening means, a device for controlling the power for operating the car, means for simultaneously locking said latter device and moving said former device into its operative position, automatic means for restoring said means to its normal position, and a hand-operated device for preventing the operation of said automatic means, substantially as described.

5. In an elevator, the combination of a movable shaft door, pneumatically operated means for moving said door, means on the car for controlling said door moving means, and means for controlling the movement of the car, both of said controlling means being arranged so that the actuating of the door moving controlling means throws the car controlling means into inoperative position.

[Claims 6 to 16 not printed in the Gazette.]

1,080,022. BILL-FILE. ARON SAFRO, Jersey City, N. J., and LOUIS SAINBERG and ROBERT B. SAINBURG, Brooklyn, N. Y. Filed Jan. 9, 1913. Serial No. 740,916. (Cl. 129-7.)



1. A file comprising vertical members on which sheets having holes punched therein are to be strung, a base-board, swiveled rods having arch portions to engage said members, mechanism for securing simultaneous opening and closing motion in said rods, punching mechanism for punching holes in said sheets adapting them to be strung on said members, and means connected with said punching mechanism for actuating the mechanism connected to said rods for operating them.

2. A file comprising vertical members on which sheets having holes punched therein are to be strung, a base, swiveled rods having upper laterally extended portions to engage said members, and mechanism connecting and for securing simultaneous opening and closing movement in said rods, combined with dies and cutters for punching holes in said sheets adapting them to be strung on said members, a horizontal shaft having thereon means for operating said cutters, an operating handle on said shaft, and means connected with said shaft for actuating the mechanism connecting said rods.

3. A file comprising vertical members on which sheets having holes punched therein are to be strung, a base,

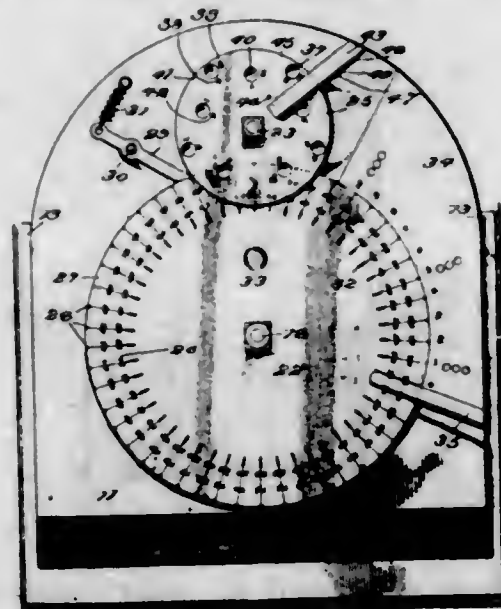
swiveled rods having upper laterally extended portions to engage said members, and mechanism connecting and for securing simultaneous opening and closing movement in said rods, combined with a horizontal shaft having means thereon for effecting the punching of holes in said sheets adapting them to be strung on said members, an operating handle on said shaft, a plate in rear of said rods carrying punches, cutter plates adjacent to said plate for the sheets to be punched and having holes through which the punches may pass, and means connected with said shaft for actuating the mechanism connecting said rods.

4. A file comprising vertical members on which sheets having holes punched therein are to be strung, a base, swiveled rods having upper laterally extended portions to engage said members, punching mechanism for punching holes in said sheets adapting them to be strung on said members, and means connected with said punching mechanism and said rods for moving said rods to their open position on the actuation of said punching mechanism.

5. A file comprising vertical members on which sheets having holes punched therein are to be strung, a base, swiveled rods having upper laterally extended portions to engage said members, bell-cranks on the lower ends of said rods, a connecting rod connecting said bell-cranks for assuring simultaneous opening and closing movements in said swiveled rods, and a spring connecting said bell-cranks for yieldingly locking them in their two positions, combined with dies and cutters for forming holes in said sheets adapting them to be strung on said members, a horizontal shaft having means thereon for operating the cutters, an operating handle on said shaft, a cam on one of said swiveled rods, and an arm on said shaft to engage said cam and actuate said swiveled rods on the movement of said shaft.

[Claim 6 not printed in the Gazette.]

1,080,023. ADDING-MACHINE. WILLIAM P. SKINNER, Garden City, Minn. Filed Oct. 25, 1912. Serial No. 727,794. (Cl. 235-74.)



1. An adding machine including a fixed indicator plate, spaced shafts, rotatable dial disks mounted one upon each of said shafts and overlapping each other, and means co-acting between the shafts, whereby a complete revolution of one shaft will partially revolve the other shaft the numbers of one disk being readable through openings formed in the other disk.

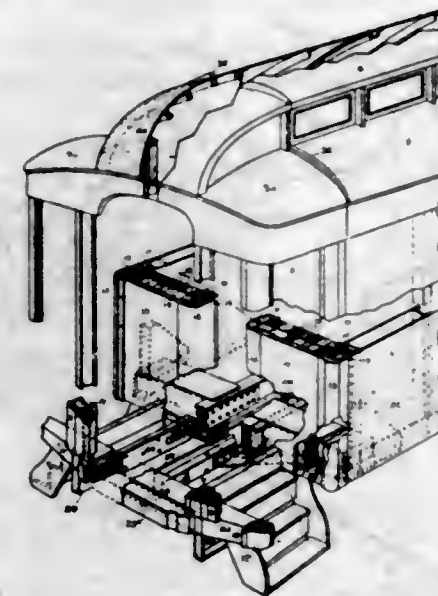
2. An adding machine including a revolvable dial plate provided with concentrically arranged series of scale divisions, the divisions of each scale being consecutively numbered and the numbers of one scale forming a continuation of those of the other, a fixed indicator plate provided with a scale, the numbers of which are in alignment with the divisions of the dial, a second revolvable dial plate overlapping the first and provided with series of concentrically arranged spaced openings having num-

bers, the openings of one series exposing a portion of one scale of the first dial while the openings of the other series expose the other scale of the first dial, and means operable by the rotation of the first dial for intermittently rotating the second dial.

3. An adding machine including a fixed indicator plate, spaced shafts, rotatable dial disks mounted one on each of said shafts, means coacting with the shafts whereby a complete revolution of one shaft will partially revolve the other shaft, an arm extending over the face of one of said disks and provided in its under face with a channel, a pin carried by said disk and adapted for passage through the channel, and a plate pivoted to the arm and normally extending across the channel to prevent passage of the pin.

4. An adding machine including a fixed indicator plate, spaced shafts, rotatable dial disks mounted one on each of said shafts, means coacting with the shafts whereby a complete revolution of one shaft will partially revolve the other shaft, an arm extending over the face of one of said disks and provided in its under face with a channel, a pin carried by said disk and adapted for passage through the channel, a plate pivoted to the arm and normally extending across the channel to prevent passage of the pin, and means for holding said plate against all swinging movement other than at right angles to the disk.

1,080,024. CAR. ARTHUR J. STEVENS and JAMES H. HORNE, Dayton, Ohio, assignors to The Barney and Smith Car Company, Dayton, Ohio, a Corporation of West Virginia. Filed Aug. 12, 1912. Serial No. 714,510. (Cl. 105-201.)



1. In a car, a body portion and a yieldable extension to said body portion, said yieldable extension being of sufficient strength to resist normal shocks, but being so constructed and arranged that when subjected to abnormal shock it will yield along a line substantially parallel to the length of the car.

2. In a car, a body portion and an extension to said body portion, said extension being of less strength than said body portion and so constructed and arranged as to be crushed or collapsed against said body portion when subjected to abnormal shock, thereby absorbing the shock and protecting the body portion of the car from injury.

3. In a car, a body portion, an extension to said body portion, said extension being separate from and connected to said body portion, and separable means for connecting said extension to said body portion, said extension further being arranged to move along a line substantially parallel with the length of the car when said connecting means are separated, whereby an abnormal shock will separate said connection and crush said extension against the end of the body portion of the car.

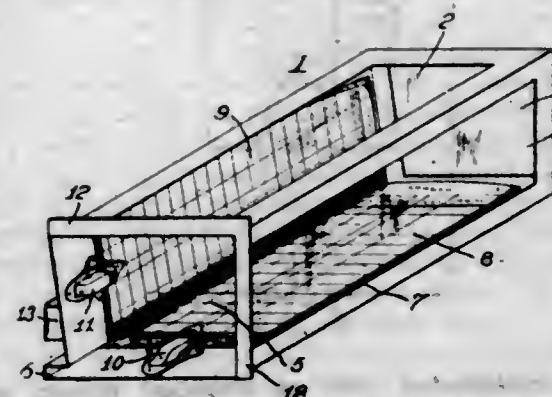
4. In a car, a body portion and an extension to said body portion, said extension being formed separate from said body portion, and a yielding connection between said body portion and said extension, whereby an abnormal

shock will cause said connection to yield and permit said extension to be crushed against the end of the body portion of the car.

5. In a car, a body portion, and an end portion, said end portion being of less strength than the body portion, and a yielding connection between said end portion and said body portion, said connection being of a strength sufficient to resist normal shocks but adapted to yield under an abnormal shock to permit the end portion to be crushed and to absorb a portion of said shock.

[Claims 6 to 16 not printed in the Gazette.]

1,080,025. BOOK-UMBRELLA. JOSEPH SWEENEY, Middletown, Ohio. Filed July 17, 1913. Serial No. 779,459. (Cl. 45-61.)



1. A book-umbrella comprising, a box-like structure having an open end and one or more transparent walls, and means disposed within said structure for holding a book or paper to be written upon, combined substantially as set forth.

2. A book-umbrella comprising, a box-like structure having an open end and one or more transparent walls, an outwardly projecting flange at the open end of the structure, and means disposed within said structure for holding a book or paper to be written upon, combined substantially as set forth.

3. A book-umbrella comprising, a box-like structure having an open end and one or more transparent walls, the left hand wall of said structure having its top sloping outwardly, and means disposed within said structure for holding a book or paper to be written upon, combined substantially as set forth.

4. A book-umbrella comprising, a box-like structure having an open end and one or more transparent walls and having along the juncture between the left hand and lower walls an inwardly presenting groove adapted to receive the hinged edge of a book, combined substantially as set forth.

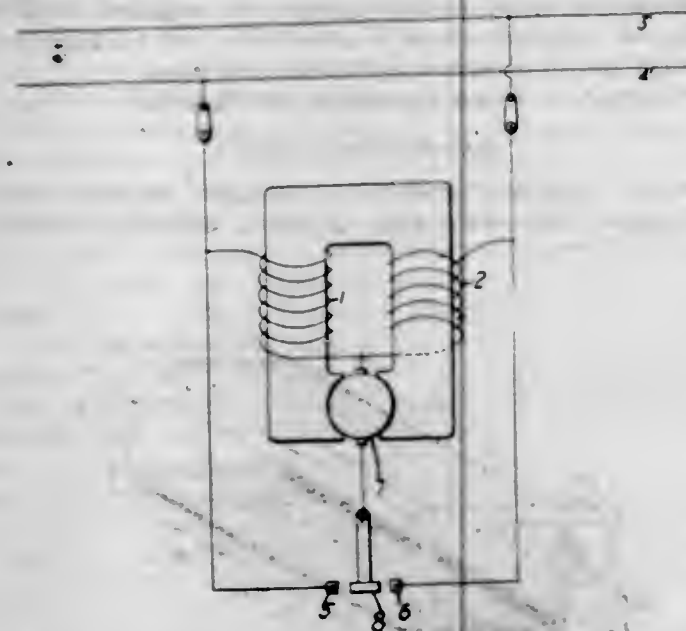
5. A book-umbrella comprising, a box-like structure having an open end and one or more transparent walls and having along the juncture between the left hand and lower walls an inwardly presenting groove adapted to receive the hinged edge of a book, and clips upon the inner surface of the left hand and lower walls near the open end of the structure and adapted to hold in open condition a book held in said groove, combined substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,080,026. MOTOR-REVERSING MEANS. HAROLD B. TAYLOR, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 23, 1912. Serial No. 679,285. (Cl. 172-179.)

1. The combination with an electric motor having one terminal of its armature connected to an intermediate point of its field magnet winding, of a controlling device comprising a single contact member that is connected to the other terminal of the armature and is relatively movable between and adapted to engage the one or the other of two other members that are respectively connected to the terminals of the field magnet winding.

2. The combination with an electric motor having one terminal of its armature connected to an intermediate point of its field magnet winding, of a single movable contact member for connecting the other terminal of the armature to the one or the other terminal of the field magnet winding.



3. The combination with an electrical circuit, and a motor having its field magnet winding connected between the circuit conductors and having one terminal of its armature connected to an intermediate point of the field magnet winding, of a controlling device comprising a contact member that is connected to the other terminal of the armature and is relatively movable to engage the one or the other of two other members that are respectively connected to the circuit conductors.

4. The combination with an electrical circuit, and a motor having its field magnet winding connected between the circuit conductors and having one terminal of its armature connected to an intermediate point of the field magnet winding, of means for connecting the other terminal of the armature to the one or the other conductor of the circuit.

1,080,027. LUBRICATOR. JOHN H. VAN SINDEREN, Albany, N. Y. Filed Apr. 2, 1913. Serial No. 758,357. (Cl. 184—55.)



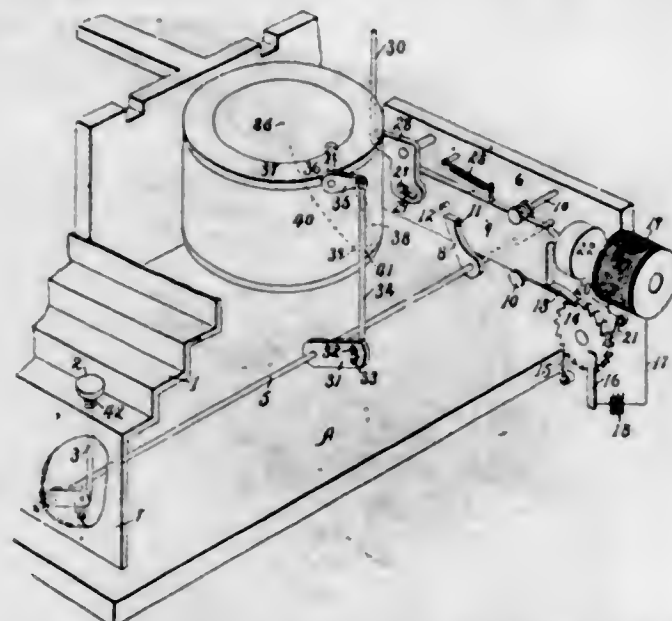
1. An automatic lubricator, comprising an oil cup; a tube therein communicating with said cup; a valve in said tube; means for obstructing the flow of the oil from said tube; a pipe connected with a fitting mounted in position to receive oil from said tube; means for observing the passage of the oil from the tube to said pipe; means

in said fitting for sealing either side of said fitting, which side depending upon the side said means is in contact with.

2. An automatic lubricator for an air brake pump comprising an oil cup; a tube therein provided with an opening for the oil near the bottom of said cup; a valve in said tube adapted to close said opening; an adjustable resilient means for limiting the action of said valve in said tube; a fitting connected with the cylinders of a locomotive air brake pump; means in said fitting for closing the connection between the fitting and one of said cylinders, while the opening between the fitting and the other of said cylinders is unobstructed; means for connecting said fitting in position to receive the oil passing from said tube.

3. An automatic lubricator, comprising an oil cup; a receptacle for receiving oil from said cup; an adjustable valve in said receptacle adapted to close said opening between the oil cup and said receptacle; a fitting connected with the cylinders of an air brake pump; means in said fitting for closing the connection between one of said cylinders in the air brake pump when the other is open; and a pipe mounted to receive the oil from said receptacle and convey it to said fitting.

1,080,028. TYPE-WRITING MACHINE. CHARLES H. VOGEL, Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed Aug. 22, 1910, Serial No. 578,457. Divided and this application filed Aug. 18, 1911. Serial No. 644,724. (Cl. 197—13.)



1. In a typewriting machine, the combination with a type bar and a key, of a rock shaft extending from front to rear of the machine and rocked by the key, a universal bar reciprocating from side to side of the machine and transversely of said shaft, a dog on said shaft actuating said universal bar to give it a partial stroke, an electric circuit closed by said partial stroke, a magnet in said circuit for drawing said universal bar to complete its stroke, and connection between said rock shaft and type bar to operate it; said connection having lost motion to render the bar ineffective during the partial stroke of the universal bar, and the completed stroke of said bar actuating said dog to operate the type bar by means of said connection.

2. In a typewriting machine, the combination with a type bar and a key, of a rock shaft rocked by the key, a universal bar for receiving a partial stroke from said shaft, an electric circuit closed and opened by said partial stroke, a magnet in said circuit for drawing said universal bar to complete its stroke, said completed stroke rocking said shaft, an arm on said shaft swung thereby, a lever for the type bar, and a link connecting said arm with the lever to operate the type bar; said arm having lost motion to render the type ineffective during the partial stroke of said universal bar.

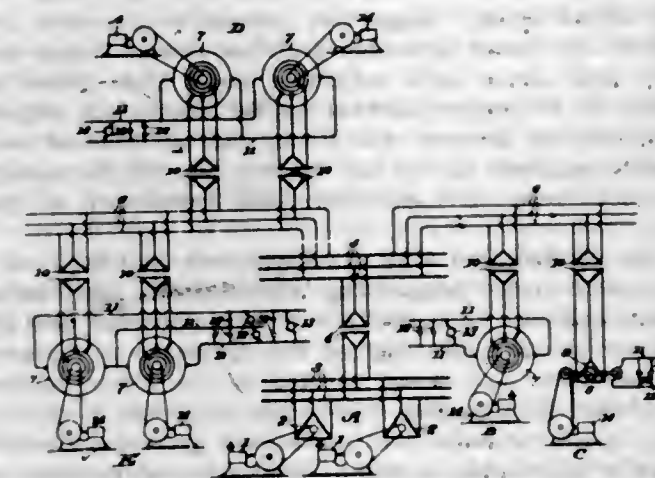
3. In a typewriting machine, the combination with a type bar and a key, of a device operated by the key, a universal bar, means between said device and said universal bar whereby the latter is given a partial stroke, connection between said device and the type bar for operating the type, said connection having lost motion to render the type ineffective during the partial stroke of said universal bar, an electric circuit closed and opened by said universal bar, and a magnet in said circuit for causing said universal bar to complete its stroke to operate the type bar through said connection.

4. In a typewriting machine, the combination of a type bar, an operating key, a shaft rocked by the key, a universal bar, a dog on said shaft for imparting a partial stroke to the universal bar, an electric circuit closed by said partial stroke, a magnet in said circuit for causing said universal bar to complete its stroke, means on the universal bar to drive the dog during the final portion of the universal bar stroke, and a connection between said shaft and the type bar for operating the type; said connection having lost motion to permit the type to be idle during said partial stroke of the universal bar.

5. In a typewriting machine, the combination with a type bar and a key connected thereto by a lost motion device, of a universal bar for receiving a partial stroke from the key, an electric circuit, a toothed member in said circuit moved by said partial stroke to the extent of one tooth, a shoe in said circuit for striking a tooth on said member when turned to make and break the circuit, and a magnet in said circuit for drawing said universal bar to complete its stroke to operate the type bar.

[Claims 6 to 18 not printed in the Gazette.]

1,080,029. ELECTRIC GENERATING, TRANSMITTING, AND DISTRIBUTING SYSTEM. FREDERICK W. WALKER, Port Washington, Wis. Filed Nov. 27, 1911. Serial No. 662,591. (Cl. 171—97.)



1. In an electric generating, transmitting and distributing system, the combination of a main generator, an alternating current transmission line supplied with current from said generator, transforming apparatus electrically connected with the transmission line and including a synchronous rotary element, a distribution line connected with said transforming apparatus, and an auxiliary engine having a driving connection with the rotary element of said transforming apparatus and of less capacity than said apparatus.

2. In an electric generating, transmitting and distributing system the combination of an alternating-current main generator, an alternating current transmission line supplied with current from said generator, transforming apparatus electrically connected with the transmission line and including a synchronous rotary element, a distribution line connected with said transforming apparatus, and an auxiliary engine connected with and adapted to supply to said transforming apparatus a substantially non-fluctuating power the amount of which may be varied at will for producing current in said transforming apparatus, the capacity of said transforming apparatus being greater than that of the auxiliary engine.

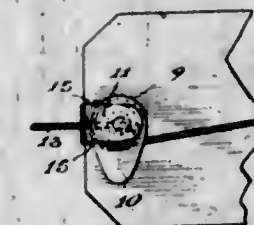
3. In an electric generating, transmitting and distributing system the combination of main generating apparatus, an alternating current transmission line adapted to be supplied with current by said apparatus, transforming apparatus electrically connected with said transmission line and including a synchronous rotary element, a distribution line connected with said transforming apparatus, and an auxiliary engine of less capacity than said transforming apparatus having a driving connection with said rotary element and adapted to supply power to said transforming apparatus in addition to that supplied by the main generating apparatus to meet increased demands upon the system beyond the normal capacity of said main generating apparatus.

4. In an electric generating, transmitting and distributing system, the combination of main generating apparatus, an alternating current transmission line adapted to be supplied with current by said apparatus, transforming apparatus electrically connected with said transmission line and including a synchronous rotary element, a distribution line connected with said transforming apparatus, and an auxiliary engine of less capacity than said transforming apparatus connected with said rotary element and adapted to supply a predetermined amount of power for the generation of additional current in said transforming apparatus to supplement that supplied by the main generating apparatus to meet increased demands on the associated distribution line or on the main line.

5. In an electric generating, transmitting and distributing system, the combination of main generating apparatus, an alternating current transmission line adapted to be supplied with current by said apparatus, transforming apparatus electrically connected with said transmission line and including a synchronous rotary element, a distribution line connected with said transforming apparatus, and an auxiliary internal combustion engine of less capacity than said transforming apparatus having a driving connection with said rotary element and adapted to supply power to said transforming apparatus for the generation therein of current in addition to that supplied by the main generating apparatus to meet increased demands upon the system.

[Claims 6 and 7 not printed in the Gazette.]

1,080,030. FASTENING DEVICE. FRED P. WARREN, Evanston, Ill. Filed Feb. 24, 1913. Serial No. 750,108. (Cl. 24—127.)



1. A fastening device comprising a button member and a severing member secured thereto and adapted to be bent over said button member.

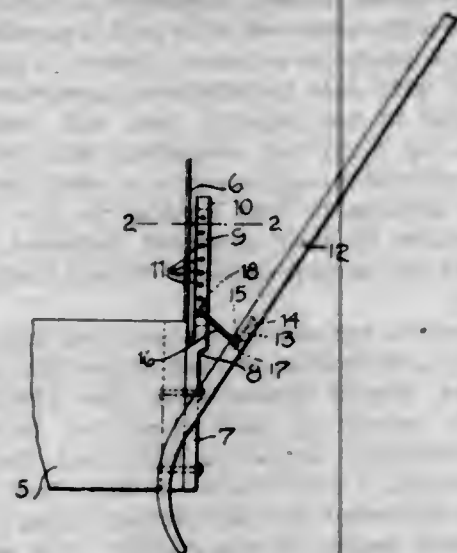
2. A fastening device comprising a base member, a button member secured thereto and a severing member also secured to said base and adapted to be bent over said button member.

3. A fastening device comprising a base member, a button member and a flexible metal severing member also secured to said base and adapted to be bent over said button member.

4. A fastening device comprising a button member and a flexible metal severing member, a base member interposed between said button and severing members and a rivet securing said members together.

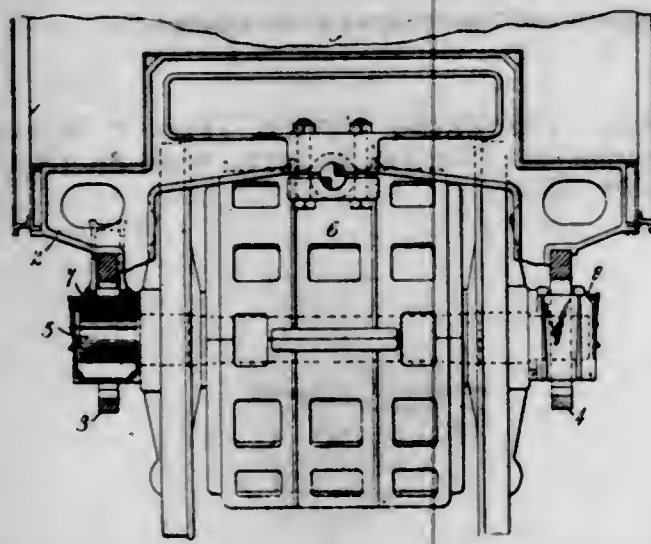
5. A fastening device comprising a button member and a severing member connected therewith and adapted to be bent over the edge of said button member.

1,080,031. SHAFT-SUPPORT. WILLIAM L. WATTERSON, Baskerville, Va. Filed Mar. 27, 1913. Serial No. 757,011. (Cl. 21-108.)



As an improved article of manufacture, the herein-described shaft support embodying a plate adapted to be secured to the body of a vehicle, said plate having parallel longitudinally extending bars formed upon one of its ends, said bars being offset at the juncture of the same with the body of said plate and adapted to extend upwardly in spaced relation to the face of the vehicle dash board, said bars at their outer ends being integrally connected, and a plurality of parallel pins connecting said bars, said pins being adapted for engagement with a hook carried by the cross bar whereby the shafts will be supported in an elevated position.

1,080,032. LOCOMOTIVE-BEARING. JOHN E. WEBSTER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 20, 1910. Serial No. 567,908. (Cl. 105-113.)



1. In a railway vehicle, the combination with side frames having U shaped pedestals, and wheel axles, of a journal box adjustably supported in the pedestal and having lateral projections for holding the journal box in position, said projections being in engagement with the pedestal legs at their lower ends and gradually diverging therefrom.

2. In a railway vehicle, the combination with side frames having a plurality of pedestals to receive journal boxes and wheel axles, of journal boxes adjustably supported in the pedestals of the side frames and having guide projections forming taper guide ways which fit the pedestal legs closely at their narrowest point, near the bottoms of the boxes.

3. In a railway vehicle, the combination with a body having notched side frames and cross ties and wheel axles, of journal boxes mounted on the axles and adjustably supported in the notches of the side frames, said journal

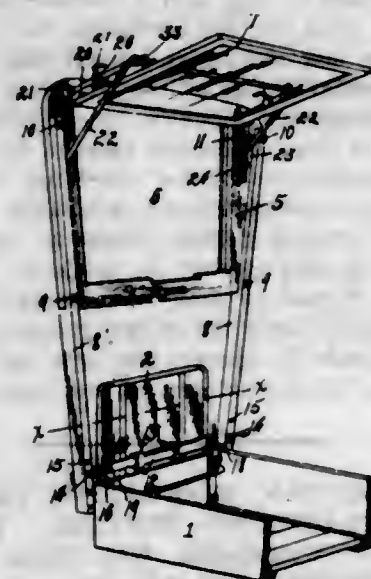
boxes being provided with lateral projections beveled to form tapered guide ways which are narrowest at the bottoms of the boxes.

4. A journal box for electrical vehicles having lateral projections which are beveled to form tapered guide ways which are narrowest near the bottom of the box.

5. In a railway vehicle, the combination with side frames having pedestals and blinders therefor, of journal boxes having lateral projections forming taper guide ways to receive the pedestal legs and interposed spacing shoes, said guide ways being narrowest and in engagement with the shoes at the bottoms of the boxes.

[Claims 6 to 8 not printed in the Gazette.]

1,080,033. STORM-SHIELD FOR VEHICLES. CHARLES F. WENSINGER, Fremont, Ohio. Filed Jan. 10, 1913. Serial No. 741,141. (Cl. 21-81.)



1. The combination with a vehicle body and dash, of a storm shield frame, supporting standards pivotally attached to the lower side edge portions of said frame and having their upper ends extending above their pivots to adjacent to the upper portion of the frame, an adjustable connection between the lower end portions of said standards adapted to rest on the top edge of the vehicle body, and means for clamping said connection to the dash.

2. The combination with a vehicle body and dash, of a storm shield frame, supporting standards for said frame disposed adjacent to opposite side edges thereof and extending from near the top of the frame to a distance below the same and being pivoted to the lower portion of the frame for swinging movements to permit a varying of the space between the lower end portions thereof, means for adjustably securing the upper end portions of the standards to the frame, means carried by the lower end portions of said standards for lengthwise adjustment relative thereto and forming an adjustable connection between the standards adapted to rest on the top edge of the vehicle body, and clamping means carried by said connecting means for securing it to the dash.

3. A storm shield having a body frame, a bracing arm pivoted to and projecting rearwardly from the upper portion of said frame, a single-piece bracket member pivotally attached to said arm and attached to the frame to adjustably brace the arm relative thereto, said arm and bracket being foldable in compact form relative to the frame.

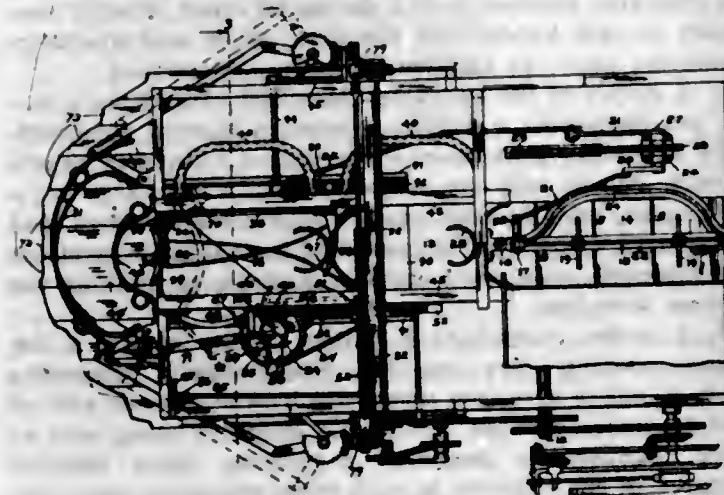
4. A shield of the class described having a body frame, arms pivoted to and projecting rearwardly from the upper portion of said frame, and a U-shaped bracket member having its loop journaled in said arms in spaced relation to their pivots and having its legs adjustably attached to the frame below the points of attaching of the arms thereto, whereby the bracket is capable of adjustment relative to the frame to vary the direction of projection of the arms therefrom.

5. In combination, a vehicle body and top, a shield mounted on and rising from the front portion of the

vehicle body, means projecting from the rear side of the shield and having rearwardly inclined contact with the under side of the front edge of the top to coact therewith to prevent a forward tilting of the shield, said top being free to lower without disturbing the adjustment of said means relative to the shield, and means carried by said first means and freely abutting against said top to prevent a rearward tilting movement of the shield relative to the top.

[Claims 6 to 9 not printed in the Gazette.]

1,080,034. SHOCK-FORMER. JAMES F. WHEELER, Southport, Ind., assignor to one-half to Augusten Boice, Indianapolis, Ind. Filed Jan. 9, 1912. Serial No. 670,235. (Cl. 56-122.)



1. In a shock-forming apparatus, resilient fingers for receiving and supporting bundles in a substantially horizontal position, a shock receiving and dumping platform, a slide-way under the fingers sloping downwardly toward the said platform, means for swinging the bundles from the fingers butt-ends down to a substantially vertical position, means for gathering the bundles into shocks on the platform, and means for discharging the shocks from the platform.

2. In a shock-forming apparatus, resilient fingers for receiving and holding the bundles in a substantially horizontal position, an arm pivoted at its inner end and occupying a substantially horizontal position above the fingers and having its free end adapted to swing downwardly around said pivot against the butt ends of the bundles to force the bundles into vertical position, means for oscillating the arm, means for gathering the bundles into shocks, and means for depositing the shocks upon the ground.

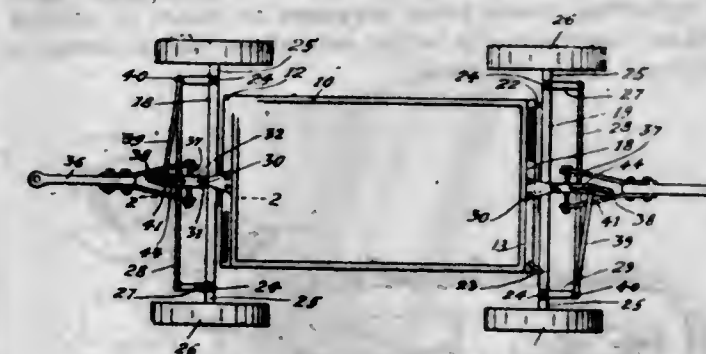
3. In a shock-forming apparatus, means for holding bundles in a substantially horizontal position, a concave slide-way under said holding means, a swinging-arm pivoted above said slide-way and holding means, means for oscillating the arm, means for gathering the bundles into shocks, and means for depositing the shocks upon the ground.

4. In a shock-forming apparatus, resilient fingers for holding bundles in a substantially horizontal position, a concave slide-way under said fingers, a swinging-arm pivoted above the fingers and lower end of the slide-way, the free end of the arm being adapted to swing down adjacent the slide-way to change the bundles from horizontal to vertical position, means for oscillating the arm, means for gathering the bundles into shocks, and means for depositing the shocks butt-ends down upon the ground.

5. In a shock-forming apparatus, means for receiving bundles, means for placing the bundles in vertical position butt-ends down, a shock-forming and dumping platform, means for gathering the bundles into shocks on said platform, means for dumping the shock when formed, an auxiliary longitudinally reciprocating platform and means to move the auxiliary platform into position above the first platform to receive and hold the bundles for a new shock while the previous shock is being dumped.

[Claims 6 to 13 not printed in the Gazette.]

1,080,035. WAGON. EDWIN M. WHEELLOCK, Winona, Minn. Filed Jan. 21, 1913. Serial No. 743,261. (Cl. 21-137.)



1. A wagon comprising a central reach, a box rigidly secured thereto, an axle, a member fast on the reach upon which the axle is supported for oscillation in a vertical plane, and a drawbar having direct connection with said member.

2. A wagon comprising a central reach, a crossbar secured to the reach, a box rigidly secured to the crossbar and the reach, an axle, a member fast on the reach upon which the axle is supported for oscillation in a vertical plane, and a drawbar pivotally connected with said member and with the crossbar.

3. A wagon comprising a central reach, a box rigidly secured thereto, a bifurcated member straddling the end of the reach and rigidly bolted thereto, said member comprising a cylindrical pin extended in line with the reach, an axle supported for oscillation in a vertical plane on said pin, and a drawbar pivotally connected with said cylindrical pin.

4. A wagon comprising a central reach, a crossbar secured to the reach, a box rigidly secured to the crossbar and the reach, a cylindrical supporting pin secured to and in line with the reach, an axle supported for oscillation in a vertical plane upon said supporting pin, a plate forwardly extended from a crossbar above the pin, said plate and pin being provided with aligned vertical apertures, a clevis having the pin thereof passing through said apertures, and a drawbar connected for oscillation in a vertical plane with the clevis at a point approximately in line with the reach.

5. A wagon comprising a box and front and rear axles for supporting the same, said axles being held from oscillation in a horizontal plane, short axle sections secured by vertical pivots to the ends of each of said axles, wheels on said axle sections, means connecting the front and rear pairs of axle sections to cause them to move in unison, front and rear drawbars mounted, for oscillation in a horizontal plane, means connecting each drawbar with the adjacent axle sections so that oscillation of the drawbar will oscillate the axle sections, and means for adjusting said connecting means to vary the extent of oscillation of said axle sections relative to that of the drawbar.

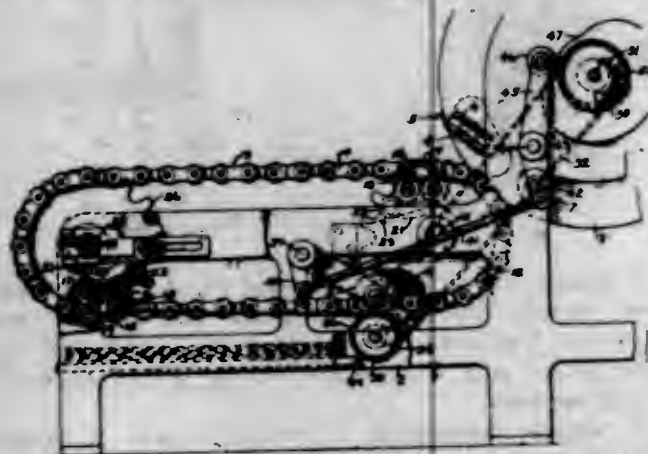
[Claims 6 and 7 not printed in the Gazette.]

1,080,036. SHEET-DELIVERY MECHANISM. JOSEPH WHITE, Piscataway township, Middlesex county, N. J., assignor to Hall Printing Press Company, Dunellen, N. J., a Corporation of New Jersey. Filed Oct. 28, 1910. Serial No. 589,627. (Cl. 101-29.)

1. In a sheet delivery mechanism, a carrier, sheet taking means on said carrier adapted and arranged to engage the front edge of the sheet and carry it over the delivery pile and retard means adapted and arranged to engage and retard the tail of the sheet while the front edge is engaged by said sheet taking means, said sheet taking means and said retarding means being arranged to co-act to stretch the sheet longitudinally before said sheet taking means is disengaged from the sheet.

2. In a sheet delivery mechanism, a carrier, sheet taking means on said carrier adapted and arranged to engage the front edge of the sheet and carry it over the delivery pile and retard means located behind the de-

livery pile and adapted and arranged to engage and retard the tail end of the sheet while the front edge is engaged by said sheet taking means, said sheet taking means and said retarding means being arranged to co-act to stretch the sheet longitudinally before said sheet taking means is disengaged from the sheet.



3. In a sheet delivery mechanism, a carrier, sheet taking means on said carrier adapted and arranged to engage the front edge of the sheet and carry it over the delivery pile, and a pair of rollers located at the rear of the pile and adapted and arranged to engage and retard the tail of the sheet while the front edge is engaged by said sheet taking means.

4. In a sheet delivery mechanism, a carrier consisting of a pair of endless chains and gripper bars mounted between them; sheet taking means comprising a set of grippers mounted on said bars, a roller located below the path of said gripper bars, a coacting movably mounted roller above said roller and means for moving said movably mounted roller into and out of the path of the gripper bars, and into and out of engagement with the sheet to retard the tail thereof while it is being carried over the delivery pile by said grippers.

5. In a sheet delivery mechanism, a carrier, a set of grippers mounted on said carrier for engaging the front edge of the sheet to carry it over the delivery pile, sheet retarding means adapted to engage the sheet while it is held in said grippers and arranged to stretch the sheet by resisting the pull of said grippers, and means for opening the grippers while the sheet is in control of the retarding means.

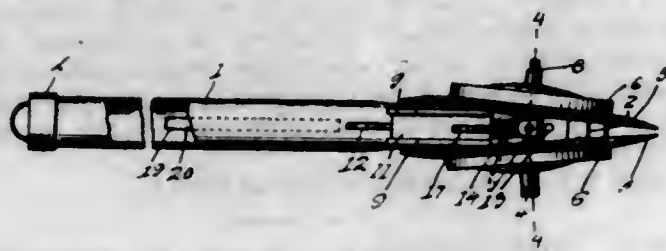
[Claims 6 to 15 not printed in the Gazette.]

1,080,037. RUBBING-POST. ROBERT F. WRIGHT and THOMAS E. WRIGHT, Circleville, Ohio. Filed Jan. 30, 1913. Serial No. 745,188. (Cl. 119—157.)



An oiling post comprising a tank and a nozzle, a spring pressed lever having an arm to close the nozzle and side flanges forming a channel which merges into a central distributing orifice through the lever, said lever having a comparatively broad rubbing surface below the orifice, and formed with a rounded protuberance at its lower end to be engaged by the underside of an animal's body.

1,080,038. SEEDER. ELOF J. YOUNGBERG, Canon City, Colo. Filed Jan. 13, 1913. Serial No. 741,808. (Cl. 111—37.)



1. A device of the character described comprising a hollow handle having a discharge opening therein, a discharge regulating plate slidably connected to said handle under the discharge opening, and a discharge spout slidably connected to said handle and arranged below said discharge regulating plate, as and for the purpose described.

2. A device of the character described comprising a hollow handle having a discharge opening therein, longitudinally extending guide members arranged upon said handle at each side of said discharge opening, a discharge regulating plate slidably connected to said guide members, and a discharge spout slidably connected to said guide members and disposed below said regulating plate, as and for the purpose described.

3. A seeder comprising a hollow handle having a discharge opening near one end, longitudinally extending guide members arranged upon said handle at each side of said discharge opening, said guide members being bent to form channels, a discharge regulating plate slidably mounted in the channels in said guide members, and a discharge spout slidably connected to the bent portions of said guide members and disposed below said regulating plate, as and for the purpose described.

4. A device of the character described comprising a hollow handle having a discharge opening near one end, disks rotatably mounted upon said handle, a feeder mounted within said handle and operatively connected to one of said disks, a discharge regulating plate slidably connected to said handle under said discharge opening, and a discharge spout slidably connected to said handle and arranged below said discharge regulating plate, as and for the purpose described.

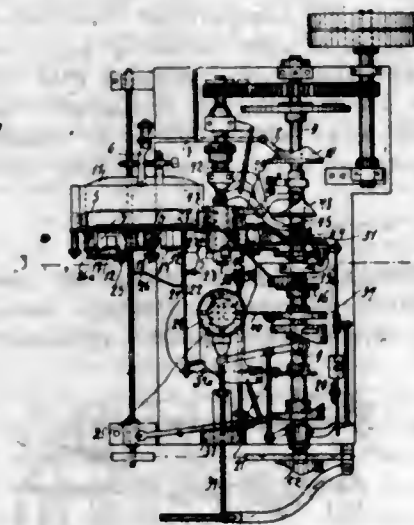
5. A seeder of the class described comprising a hollow handle having a discharge opening near one end, disks rotatably mounted upon said handle, a feeder mounted within said handle and operatively connected to one of said disks, guide members arranged upon said handle, a discharge regulating plate slidably connected to said guide members under said discharge opening, and a discharge spout slidably connected to said guide members and arranged below said discharge regulating plate, as and for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,080,039. MACHINE FOR MAKING PAPER-LINED PASTEBOARD BOXES. FRIEDRICH ALTMANN, Breslau, Germany. Filed Oct. 23, 1912. Serial No. 727,471. (Cl. 93—40.)

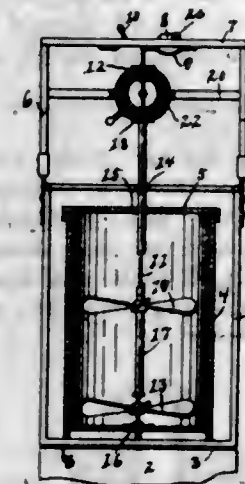
1. In an automatic machine for making paper-lined paste-board boxes, the combination of a pair of periodically disengageable conveying rollers designed to catch the paper lining and the front end of a paste-board piece and to press them together on their forward movement, an inclined ledge to first bend the projecting edge of the paper web which is to line the upper box edge, a winding bolt of narrower width than the paste-board piece, a clamping member to lead the work-piece around the winding bolt, folding-rollers to turn the other projecting edge of the paper web upon the bottom of the box which has been pressed upon the face of the winding roll, a movable piston and a shell inclosing same arranged in the extension of the winding bolt, a common axle for the piston and shell, levers to move the latter alternately toward the winding bolt and back and to allow the piston to place the previously bent projecting edge of the paper web around

the inner box edge, and a vertically movable molding roller beneath the winding bolt to smoothen the outer box envelop, all for the purpose set forth.



2. In an automatic machine for making paper-lined paste-board boxes, in combination a winding bolt, a clamping member to wind the work-piece on the same, a double-armed lever to carry said clamping member, a toothed wheel on the fulcrum of the lever adapted to be moved alternately to and fro, and a tensioned spring as well as a ring segment to control said lever and to cause same to alternately press the clamping member upon the bolt, in order to rotate with the same, or to lift it away therefrom to start for the engagement of the next work-piece.

1,080,040. CHURN. JOHN W. BARR, Blountville, Tenn., assignor of one-half to Roy Marlon, Blountville, Tenn. Filed Sept. 2, 1911. Serial No. 647,319. (Cl. 31—43.)



1. In combination with a casing, a receptacle in said casing, a shaft having its lower end journaled in the bottom of said receptacle and its upper end passing through the top of said casing, means for rotating said shaft, of a pair of standards secured to the sides of said casing, a connecting bar secured intermediate the ends of said standards, transverse bars secured to the upper ends of said standards, and a bearing plate secured to the upper end of one of said transverse bars, said bearing plate adapted to receive the upper end of said shaft, substantially as and for the purposes set forth.

2. A device of the character described comprising a casing, a pair of standards secured to the upper sides of said casing, a connecting bar secured intermediate the end of said standards, transverse bars secured to the upper ends of said standards, a bearing plate hingedly secured to the upper face of the upper end of one of said transverse bars, said bearing plate adapted to receive the upper end of a shaft, a plate spring, the one end of which is secured to the lower face of the upper end of said bar and the other end bearing against said bearing plate, and the spring latch secured to the lower face of the other of said bars and bearing against the upper face of said bearing plate, substantially as and for the purposes set forth.

1,080,041. EARTH-ANCHOR. JASPER BLACKBURN, Kirkwood, Mo. Filed Mar. 11, 1913. Serial No. 753,009. (Cl. 189—90.)

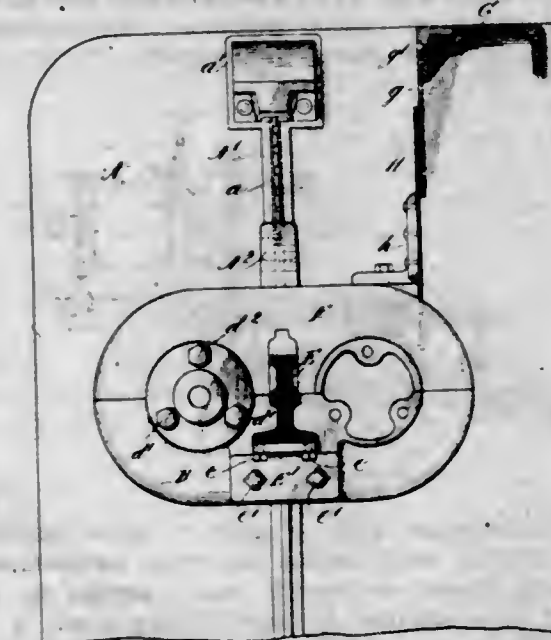


1. As a new article of manufacture, an earth anchor, comprising a flat base arranged to be secured to an anchor rod, and a plurality of pins of graduate sizes formed on the upper face of the base.

2. As a new article of manufacture, an earth anchor, comprising a flat disk-shaped base, a sleeve formed integral with the base arranged to receive an anchor rod and enlarged at its bottom to receive a nut on the end of the anchor rod, and a plurality of pins on the upper surface of the base arranged in radial rows, and the pins of each row being of graduate sizes.

3. As a new article of manufacture, an earth anchor, comprising a flat base and a plurality of pins formed integral with the base, said pins being arranged in radial rows and of graduate sizes, and pins arranged between the rows of heights greater than the pins in the rows next adjacent them.

1,080,042. CASING FOR ROVING-FRAME MECHANISM. EDMUND E. BLAKE, Saco, and WILLIAM H. GOLDSMITH, JR., Biddeford, Me., assignors, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed Dec. 17, 1909. Serial No. 533,510. (Cl. 118—13.)



In a roving frame, in combination, a stationary roller beam, a stationary guideway, a rail guide coöperating with said guideway, a gear box secured to said guide, a reciprocating bolster rail secured to said gear box at the opposite side thereof from said guide, gears in said gear box coöperating with said rail, shafts for said gears, bearings for said shafts secured to said gear box, a cover for said gear box detachably secured to said bearings, and means for closing the space between said roller beam and bolster rail comprising a longitudinally extending apron depending from said beam and a shield carried by and detachable with said gear box cover and extending therefrom longitudinally of said rail, said apron and shield being in engagement in all positions of said rail and being slidable on one another in a direction transverse to their length.

1,080,043. **EXTENSION-TABLE.** HARRY W. BRADNER, Tacoma, Wash., assignor, by direct and mesne assignments, to The General Patents Company, Inc., New York, N. Y., a Corporation of New York. Filed May 20, 1912. Serial No. 698,447. (Cl. 45-115.)

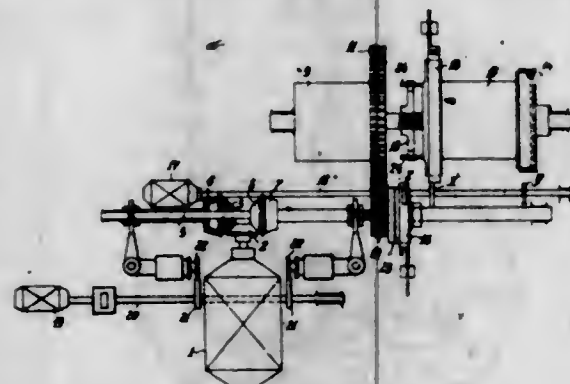


1. An extension table having a bar extending transversely of the table-joint and a horizontally arranged pulley at each end of said bar, cords attached to the halves of the table-top and extending partially around said pulleys to induce equal and opposite movements of such halves, a track on the under face of each of said halves, and vertically arranged rollers mounted on said bar in engagement with said tracks.

2. An extension table having a bar extending transversely of the table-joint and a horizontally arranged pulley at each end of said bar, cords attached to the halves of the table-top and extending partially around said pulleys to induce equal and opposite movements of such halves, a track on the under face of each of said halves, pins serving as centers for said pulleys, a yoke on the upper end of each of said pins, and a vertically arranged roller supported in said yoke, said rollers adapted to engage said tracks.

3. An extension table having a bar extending transversely of the table-joint and a horizontally arranged pulley at each end of said bar, cords attached to the halves of the table-top and extending partially around said pulleys to induce equal and opposite movements of such halves, a cylindrical track on the under face of each of said halves, pins serving as centers for said pulleys, a yoke on the upper end of each of said pins, and a vertically arranged grooved roller supported in said yoke, said rollers adapted to engage said tracks.

1,080,044. **ELECTRICALLY-OPERATED REVERSING-GEAR.** KOLOMAN BRÜLL, Budapest, Austria-Hungary. Filed Feb. 27, 1912. Serial No. 680,287. (Cl. 172-239.)

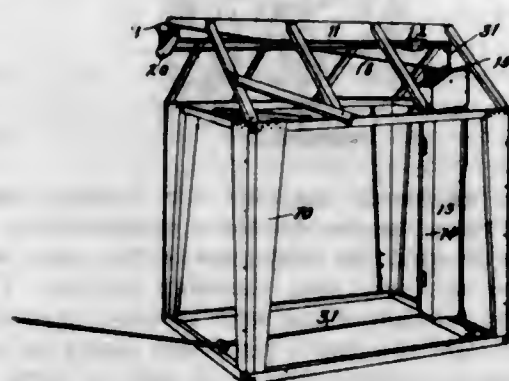


1. In combination with a pair of grab controlling drums, a driving shaft having operating connections for driving said drums, an electric motor having its armature shaft perpendicular to said driving shaft, a bevel gear on said armature shaft, a pair of bevel gears loose on said driving shaft and meshing with the gear on said armature shaft, clutches for clutching said gears to said driving shaft, and an electric motor for operating said clutches.

2. In combination with a pair of grab controlling drums, a driving shaft having operating connections for driving said drums, an electric motor having its armature shaft perpendicular to said driving shaft, a bevel gear on said armature shaft, a pair of bevel gears loose on said driving shaft and meshing with the gear on said armature shaft, clutches for clutching said gears to said driving shaft, bell crank levers operatively connected with said clutches, a rotary shaft having cams for actuating said bell crank levers, and an electric motor for driving said shaft.

3. In combination with a pair of grab controlling drums, a shaft, operating connections therefrom for driving said drums, an electric motor for driving said shaft, reversing gearing interposed between said driving motor and shaft, an electric motor, with connections therefrom for controlling the operation of said reversing gear, and a controller for the grab hoist drums, provided with three scales corresponding to the three grab operations, said scales meeting at a zero point which has to be crossed by the controller lever between each two operations, substantially as described.

1,080,045. **AUTOMATIC RETURN FOR HAY-CARRIERS.** ANDREW BURKHOW, Huxley, Iowa. Filed Feb. 13, 1913. Serial No. 748,128. (Cl. 214-2.)



In a hay carrier a track and slide; a cable secured to said slide and extending forwardly therefrom through pulleys to a drum; a second cable secured to said drum; a weight on the end of said second cable said weight being mounted in a housing; a bracket in said housing; a frame secured for vertical movement on said bracket; a buffer on the upper end of said frame; a roller in said bracket a weight (smaller than the first mentioned weight) below said bracket; a cable secured to said weight projecting over said roller and secured to the lower end of said frame, substantially as shown and described.

1,080,046. **CAPPING-HEAD FOR BOTTLE-CAPPING MACHINES.** JOSEPH BUTKUS, Chicago, Ill., and JOHN A. BUTKUS, Baltimore, Md., assignors, by mesne assignments, of one-third to said Joseph Butkus, one-third to said John A. Butkus, and one-third to August Eben, Chicago, Ill. Filed Sept. 18, 1911. Serial No. 649,785. (Cl. 113-4.)



1. A capping head for bottle capping machines comprising a plunger, means adapted to operate the plunger, a yielding cap centering device on the plunger, and means adapted to depress the cap centrally.

2. A capping head for bottle capping machines, comprising a plunger, a depressor adjustably mounted on the

plunger adapted to depress the center of the cap, and a cap centering device yieldingly mounted on the depressor.

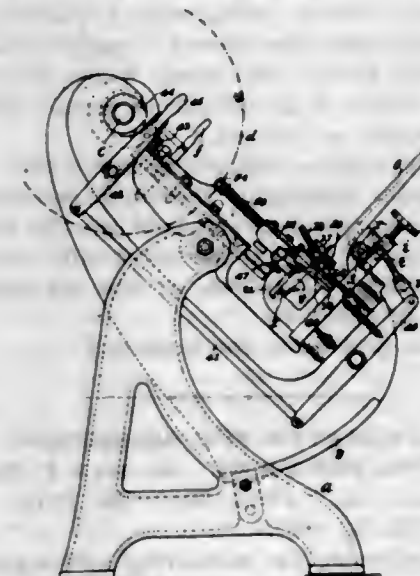
3. A capping head for bottle capping machines, comprising a vertically movable plunger, a depressor mounted in the plunger and adapted to be adjusted to depress the cap centrally to a greater or less degree, a cap centering sleeve mounted on the depressor, and a spring on the depressor adapted to normally hold the sleeve at the lower limit of its movement.

4. A capping head for bottle capping machines, comprising a sleeve, means adapted to center a bottle neck in the sleeve, a plunger yieldingly mounted in the sleeve, a depressor adjustably mounted in the plunger, a cap centering and forming sleeve mounted on the depressor adapted to engage the cap and center it on the bottle, and a spring on the depressor adapted to normally hold the centering sleeve at the lower limit of its movement.

5. A capping head for bottle capping machines, comprising a sleeve, a plunger movably mounted in the sleeve, a spring adapted to normally hold the plunger at the lower limit of its movement, a depressor mounted in the plunger and adapted to be adjusted to depress the caps centrally, a centering sleeve on the depressor and normally extending below the same, a spring adapted to normally hold the centering sleeve at the lower limit of its movement, and means adapted to secure the cap on the bottle.

[Claims 6 to 14 not printed in the Gazette.]

1,080,047. **MACHINE FOR OPERATING ON SHEET MATERIAL.** AMOS CALLESON, Brooklyn, N. Y., assignor to Benjamin Adriance, Brooklyn, N. Y. Filed Dec. 30, 1911. Serial No. 668,794. (Cl. 164-21.)



1. In combination, with the frame, means for feeding the sheet edgewise in a predetermined path, separate alternately operating means for severing the sheet in lines substantially parallel with said path, and means for operating on the sheet at substantially one side of each line, substantially as described.

2. In combination, with the frame, and a sheet-engaging stop, means for feeding the sheet edgewise in a predetermined path, separate alternately operating means for severing the sheet in lines substantially parallel with said path, and means for operating on the sheet substantially between each severing line and the stop, substantially as described.

3. In combination, with the frame, a sheet-carrier movable in substantial parallelism with the sheet-supporting plane thereof, a sheet-engaging stop disposed at one side of the path of feeding the sheet, separate alternately operating means for severing the sheet in lines substantially parallel with said path, and means for operating on the sheet substantially between each severing line and the stop, substantially as described.

4. In combination, with the frame, a sheet stop, the sheet being movable substantially planiform fashion into engagement with the stop, separate alternately operating

means for severing the sheet in lines crossing the path of movement of the sheet toward the stop, and means for operating on the sheet substantially between each severing line and the stop, substantially as described.

5. In combination, with the frame, a sheet-holding carrier movable in the frame, and separate alternately operating means for severing the sheet at one side of the path of movement of the carrier, substantially as described.

[Claims 6 to 40 not printed in the Gazette.]

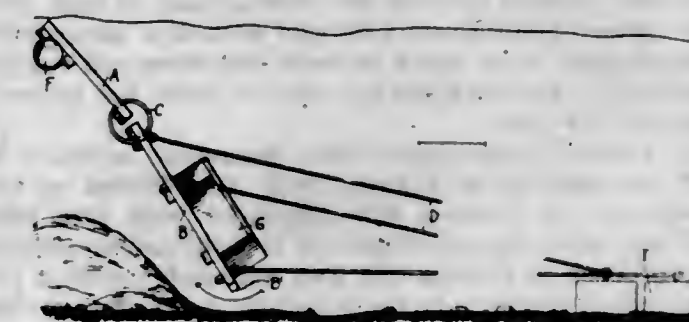
1,080,048. **FENCE-POST.** WILLIAM L. COLLINS, Gray, Okla., assignor of one-third to William A. Gray, Gray, Okla. Filed May 17, 1913. Serial No. 768,359. (Cl. 256-55.)



1. A fence post comprising a post of angular design, a detachable plate of similar design adapted to be applied thereto, bolts extending through said plate and post to secure the same together, the ends of said bolts being designed to form hooks, and additional hook members carried on said detachable plate.

2. A fence post comprising a post of angular design, a detachable plate of similar design adapted to be applied thereto, bolts having the threaded portions thereof extending through said plate and post, a pair of nuts engaged with the threaded portions of each of said bolts to secure said plate to the post, said nuts affording a means for the adjustment of said bolts with respect to the plate and post, hook members formed on the outer ends of said bolts, and additional hook members rigidly carried on said detachable plate.

1,080,049. **STREAM-DEFLECTOR.** WILLIAM HENRY DEAN, Sioux City, Iowa. Filed Feb. 20, 1913. Serial No. 749,614. (Cl. 61-26.)



1. A stream deflector comprising a submerged apron made in sections hinged together, one of the sections being float-supported and forming an overflow for the water, and the other section being inclined in an upstream direction, and upstream anchoring means for the said inclined apron section.

2. A stream deflector comprising a submerged apron formed of an inclined upstream section and a float-supported overflow section, the sections being hinged together,

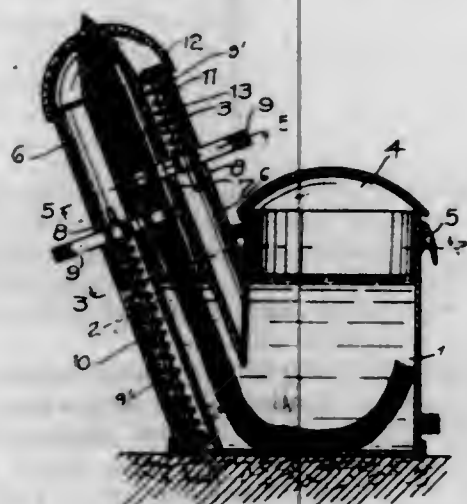
weighting means on the lower end of the upstream section, and anchorage means for the apron.

3. A stream deflector, comprising a submerged apron made in sections hinged together, one of the sections being float-supported and forming an overflow for the water and the other section being inclined in an upstream direction and having its lower edge provided with passages for the water to form an eddy underneath the apron on the downstream side thereof, and anchoring means for the said apron.

4. A stream deflector comprising a submerged apron made in sections hinged together, one of the sections being float-supported and forming an overflow for the water and the other section being inclined in an upstream direction and gradually decreasing in height toward the shore side, the lower edge having openings for the passage of the water, and anchoring means for the apron.

5. A stream deflector comprising a submerged apron made in sections hinged together, one of the sections being float supported and forming an overflow for the water and the other section being inclined in an upstream direction and having its lower edge provided with openings for the passage of the water, a weight box on the lower end of the upstream section, and anchorage means connected with the upstream section of the said apron.

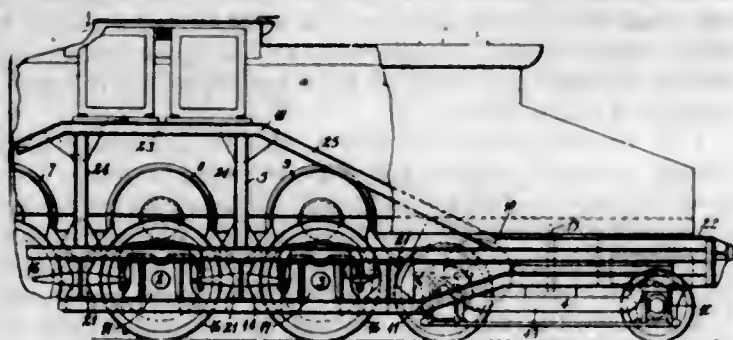
1,080,050. MINER'S LAMP. CHARLES DUSHEK, Beloit, Wis. Filed May 1, 1913. Serial No. 764,907. (Cl. 67—65.)



1. A miner's lamp comprising a receptacle, means to secure the same to an object, a wick tube formed on the receptacle and having communication with the latter, said tube being provided with slots at diametrically opposite points thereon, a wick disposed through the wick tube and having a portion disposed in the receptacle, an additional tube secured to said receptacle and surrounding said wick tube, said latter tube being also provided with slots aligning with the aforesaid slots in said wick tube, spring clip members disposed through the aligning slots of said tubes and engaged respectively with said wick, and spring members disposed in the space between said tubes and engaged respectively with said spring clips to force the latter in opposite directions.

2. A miner's lamp comprising a receptacle, means to secure the same to an object, a wick tube formed on said receptacle and engaged with the latter, said tube being provided with slots diametrically opposite points thereon, a wick disposed through the wick tube and having a portion thereof disposed in the receptacle, an additional tube surrounding said wick tube and secured to said receptacle, said latter tube being also provided with slots aligning with the slots of the wick tube, walls formed at opposite ends of the annular space between the two aforesaid tubes, spring clips disposed through the aligning slots of said tubes and engaged with said wick member one above the other, and a pair of coil spring members engaged respectively with the walls at opposite ends of said tubes, and also engaged respectively with said spring clips to force the latter in opposite directions.

1,080,051. ELECTRIC LOCOMOTIVE. GEORGE M. EATON, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 9, 1910. Serial No. 566,108. (Cl. 105—259.)



1. A railway vehicle comprising a plurality of wheel axles and a pair of trussed side frames comprising beams that extend longitudinally of the locomotive and below the axles and are located outside the vertical planes of the axle ends to permit vertical removal of the axles.

2. A railway vehicle comprising a plurality of wheel axles and a pair of trussed side frames comprising beams above the axles and beams below the same, all of said beams extending longitudinally of the locomotive and the outermost lower beams being located outside the vertical planes of the axle ends to permit vertical removal of said axles.

3. A railway vehicle comprising a plurality of wheeled axles and trussed side frames each of which has a beam above the plane of the axles and a pair of beams materially below the same, the inside lower beam being detachable to permit removal of the wheel axles.

4. A railway vehicle comprising a plurality of wheel axles and structural side frames supported on the axles, each side frame having two beams below the plane of the axles, one of which is detachable to permit removal of all of the wheel axles, as desired.

5. A railway vehicle comprising lower side frames having bearing boxes adjustable therein in vertical planes, a plurality of cross ties disposed between the bearing boxes and truss beams secured to the lower side frames at their ends and supported therefrom at the intermediate cross ties by means of uprights.

[Claim 6 not printed in the Gazette.]

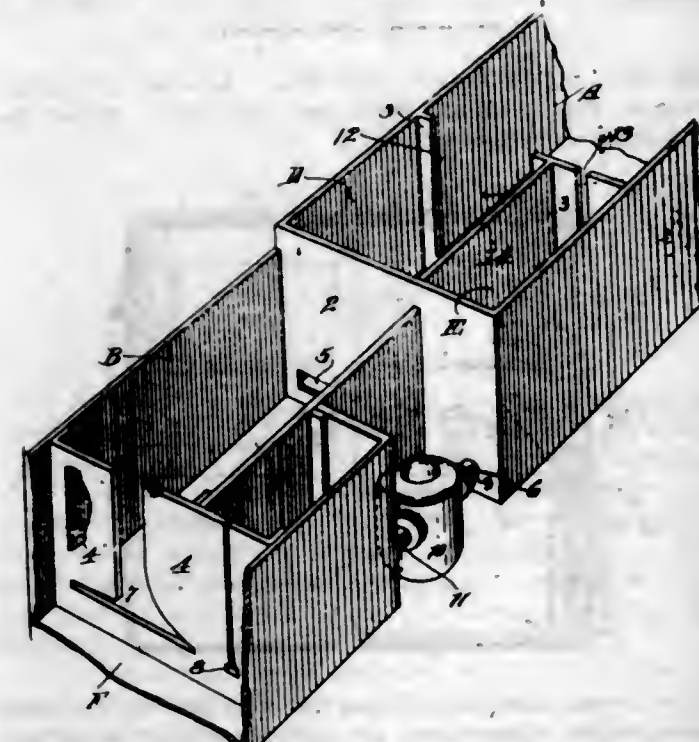
1,080,052. APPARATUS FOR MEASURING AND REGISTERING WATER-FLOW. WILLIAM F. ENGLEBRIGHT, Nevada City, Cal. Filed Sept. 28, 1912. Serial No. 722,946. (Cl. 73—167.)

1. In an apparatus for measuring and registering flowing water, a conduit, means for dividing the conduit into two chambers and having apertures for dividing flowing water into two parts of different proportions, a meter operated by the smaller portion and registering a proportional part of the total volume flowing through the conduit, said meter deriving its supply from the smaller aperture, a means for determining the volume of water flowing from said conduit at a given head, and an uppermost dam having apertures for preliminarily dividing the water to correct discrepancies in the proportional flow to the dividing means.

2. In an apparatus for measuring flowing water, a conduit, a dam in the conduit having large and small apertures dividing the water into parts of different proportions, a meter deriving water from the smaller aperture and registering a proportional part of the total volume of water flowing through the conduit in a given period of time, and a second dam having openings designed to discharge water in direct proportion to its head mounted in the conduit below the first named dam and controlling the flow of water therefrom.

3. In an apparatus for measuring flowing water, a conduit, a dam in the conduit having large and small apertures dividing the water into parts of different proportions, a meter deriving water from the smaller aperture

and registering a proportional part of the total volume of water flowing through the conduit in a given period of time, and a second dam having openings designed to discharge water in direct proportion to its head mounted in the conduit below the first named dam and controlling the flow of water therefrom, said second dam having apertures having a ratio approximately that in the first dam.

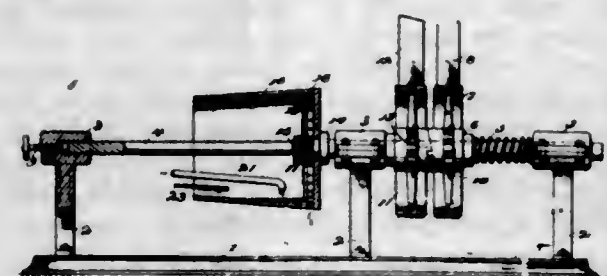


4. In an apparatus for measuring flowing water, a conduit, a dam in the conduit having large and small apertures dividing the water into portions of different proportions, a meter deriving water from the smaller aperture and registering a proportional part of the total volume of water flowing through the conduit in a given period of time when an average rate quantity of water passes through it, said meter having a rating so that when larger or smaller quantities of water pass through it, it registers different inaccurately proportionate quantities, and a correcting dam having openings designed to control the flow of water through the meter, the openings being so shaped as to have a rating inverse to the meter rating.

5. In an apparatus for measuring flowing water, a conduit, a dam in the conduit having large and small apertures dividing the water into parts of different proportions, a meter deriving water from the smaller aperture and registering a proportional part of the total volume of water flowing through the conduit in a given period of time, and a second dam mounted in the conduit below the first named dam and controlling the flow of water therefrom, said second dam having apertures having a ratio approximately that in the first dam.

[Claim 6 not printed in the Gazette.]

1,080,053. CONCENTRATOR. JOHN S. FINLAY, Wallace, Idaho. Filed Apr. 15, 1912. Serial No. 690,918. (Cl. 83—86.)



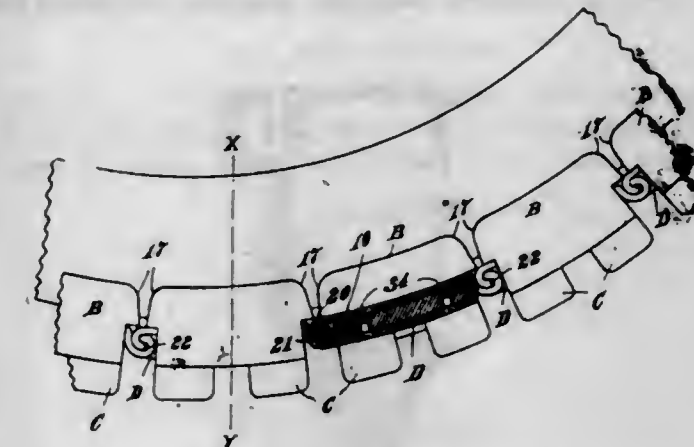
1. A concentrator including a horizontally disposed shaft, means for simultaneously rotating and reciprocating said shaft, a frusto-conical drum having an integral closure at its larger end and open at its smaller end axially mounted on said shaft for movement therewith and wholly unsupported and interiorly unobstructed save

by said shaft, an annular rib formed integrally with and interiorly of the drum and in slightly spaced relation to the closed end thereof to provide upon one side in connection with the drum an annular treatment chamber triangular in section and upon its other side in connection with the drum and closed end thereof an annular discharge chamber, the bottom of which is inclined at the same angle as the bottom of the treatment chamber, being in fact a continuation thereof, the bottom of said discharge chamber being provided intermediate of its width with a plurality of circumferentially spaced apart radially directed discharge passages, and means for separately delivering pulp and water to the inside of the drum.

2. A concentrator including spaced bearings, a shaft journaled in said bearings and mounted for free rotary and reciprocatory movement therein, means for limiting the reciprocation of said shaft, a drum mounted upon said shaft and for movement therewith, and means for rotating and reciprocating said drum, said means including a pulley loosely mounted on the shaft and seating by one side against one of the bearings, the opposite side of said pulley being provided with circumferentially disposed inclined teeth, a second pulley keyed upon said shaft adjacent the first pulley and provided upon one side with oppositely formed circumferentially extending inclined teeth adapted to co-act with the teeth of the first pulley, a coiled spring surrounding the shaft and bearing between said second pulley and another of the shaft bearings to normally hold the pulleys in engagement with each other, means for applying power to one of said pulleys, and means for applying power to the other of said pulleys.

3. A concentrator including a horizontally disposed shaft, means for simultaneously rotating and reciprocating said shaft, a frusto-conical drum closed at its larger end and opening at its smaller end axially mounted on said shaft for movement therewith and wholly unsupported and interiorly unobstructed save by said shaft, an annular rib formed interiorly of the drum and in slightly spaced relation to the closed end thereof to provide upon one side in connection with the drum an annular treatment chamber triangular in section and upon its other side in connection with the drum and closed end thereof an annular discharge chamber, the bottom of which is inclined at the same angle as the bottom of the treatment chamber, being in fact a continuation thereof, the bottom of said discharge chamber being provided intermediate of its width with a plurality of circumferentially spaced apart radially directed discharge passages, and means for separately delivering pulp and water to the inside of the drum.

1,080,054. ARMOR-CHAIN. PHIBIA GAUTHIER, Lowell, Mass. Filed May 15, 1913. Serial No. 767,826. (Cl. 152—16.)



1. An armor chain for tires comprising a plurality of sections hinged together each of which is formed of sheet metal so shaped as to have a channeled face together with sides which project on each side of the tire and extend upon thereon and bent back to fit the tread of the tire, together with detachable bearing members as described.

2. An armor chain for tires comprising a plurality of sections formed of sheet metal each of which is bent at

one end into an outward curve and at the other end into a corresponding inward curve the outward curve having a longitudinal slot, together with detachable bearing members, and attaching members for the bearing members each attached to a section one portion of each of which extends into a slot in an adjoining section as described.

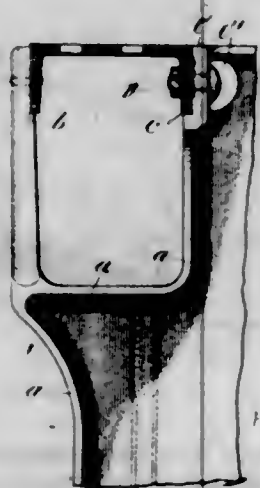
3. In an armor chain for tires, a plurality of sections hinged together each section being formed of sheet metal so shaped as to have a channeled face together with sides which project on each side of the tire and extend up thereon and are bent back to fit the tread of the tire the ends of the sides being cut away slantingly said sheet metal being bent at one end into an outward curve and at the other end into a corresponding inward curve the outward curve having a longitudinal slot, together with a detachable bearing member which fits into the channeled face, and an attaching member in the form of a cross one end of which extends into a slot in an adjoining sheet metal section, and screws which pass through the attaching member and the bearing member into the sheet metal section as described.

4. In an armor chain for tires, a plurality of sections hinged together each section being formed of sheet metal so shaped as to have a channeled face together with sides which project on each side of the tire and extend up thereon and are bent back to fit the tread of the tire the ends of the sides being cut away slantingly said sheet metal being bent at one end into an outward curve and at the other end into a corresponding inward curve the outward curve having a longitudinal slot, together with a detachable bearing member, an attaching member in the form of a cross one end of which extends into a slot in an adjoining section this end and the opposite end being rounded on the outer edge, and screws which pass through the attaching member and bearing member into the section as described.

5. In an armor chain for tires, a plurality of sections hinged together each section being formed of sheet metal so shaped as to have a channeled face together with sides which project on each side of the tire and extend up thereon and are bent back to fit the tread of the tire the ends of the sides being cut away slantingly said sheet metal being bent at one end into an outward curve and at the other end into a corresponding inward curve the outward curve having a longitudinal slot, together with a detachable member which has an extension which enters one of said slots in an adjoining section as described.

[Claim 6 not printed in the Gazette.]

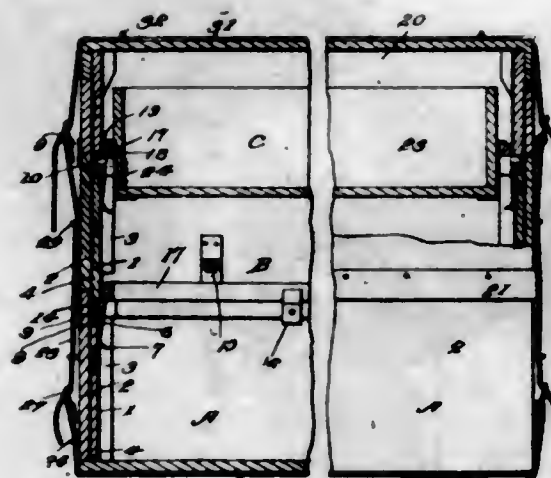
1,080,055. COUPLING FOR ROLLER-BEAMS AND THE LIKE. WILLIAM H. GOLDSMITH, JR., Bldford, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed Dec. 17, 1909. Serial No. 583,513. (Cl. 118—10.)



In a roving machine or the like, the combination with two aligned rail sections having extended lateral bearing faces and arranged with their ends adjacent one another, of means for coupling said ends to form a continuous rail and for aligning and supporting the same, said means com-

prising a samson having two uprights on its upper end, said uprights having oppositely disposed bearing faces engaging the lateral bearing faces of both said ends and oppositely disposed shoulders each in engagement with the lower side of both of said ends, and attaching devices for directly securing both of said ends to both of said uprights with said bearing faces in engagement, substantially as described.

1,080,056. SECTIONAL TRUNK. ALLISON J. GUNN, Cripple Creek, Colo. Filed Dec. 28, 1911. Serial No. 668,225. (Cl. 190—21.)



1. A trunk comprising separable sections having their meeting edges constructed to overlap, locking strips carried by a lower section and adapted to engage a superposed section, means tending to move said locking strips away from the superposed section, and stops on the strips to limit such movement.

2. A trunk comprising separable sections, locking strips provided within the several sections, the strips upon the upper section having slots, hinged members provided upon the strips on the lower section and having heads adapted to enter the said slots in the upper strips, and locking frames adapted to be inserted within the sections and hold the heads of the hinge members in engagement with the slots.

3. A trunk composed of separable sections, locking strips secured to the several sections the strips upon the upper sections having slots near their lower ends, hinge members provided upon the strips of the lower sections, frames adapted to be inserted within the sections to bear against the said hinged members of the lower strips to hold the same in engagement with the slots of the upper strips, and spring catches provided on the upper sections and adapted to retain said frames in position.

4. A trunk composed of separable sections, posts provided in the corners of the sections and having projecting upper ends, socket members in the corners of the upper sections to receive the upper ends of the posts in a subadjacent section, catches carried by the lower sections and adapted to engage the upper sections, and locking frames supported by the socket members in position to bear against said catches and hold the same in engagement with the upper sections.

5. A trunk composed of separable sections, locking strips upon the upper sections having slots near their lower ends, catches upon the lower sections adapted to engage said slots, locking frames adapted to be inserted within the sections and bear against said catches to hold the same in engagement with said slots, and means on the upper sections to retain the said frames in position.

[Claim 6 not printed in the Gazette.]

1,080,057. FENCE-POST. ALBERTUS E. HANSON, Mason City, Iowa. Filed Mar. 19, 1913. Serial No. 755,450. (Cl. 256—54.)

1. A device for use in clenching staples in tubular fence posts, consisting of a main bar formed with a plurality of laterally projecting recessed extensions, and a wedge bar

receivable in the recesses of said extensions, for the purpose specified.



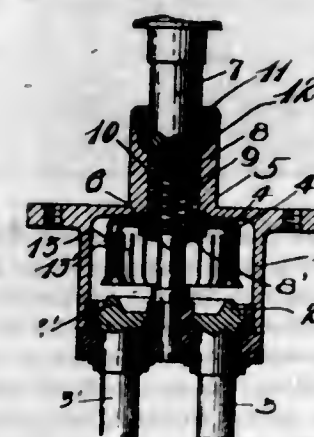
2. A device for use in clenching staples in hollow fence posts, consisting of a tapered bar provided with recessed extensions, and a wedge bar receivable in said extensions.

3. A device for use in clenching staples in hollow fence posts, consisting of a tapered bar provided with a plurality of laterally projecting recessed extensions, and a wedge bar receivable in said extensions, said wedge bar being provided with a plurality of apertures extending there-through.

4. A device for use in clenching staples in hollow fence posts, consisting of a bar provided with a plurality of recessed extensions, a wedge bar receivable in the recesses of said extensions, and an indicator bar connected to the wedge bar.

5. A device for use in clenching staples in hollow fence posts, consisting of a bar provided with a plurality of laterally projecting recessed extensions, a wedge bar receivable in said extensions and formed with a plurality of apertures extending therethrough, and an indicator bar formed with a laterally extending end having an aperture extending therethrough whereby a fastening device may be inserted through the aperture of the indicator bar and one of the apertures of the wedge bar, for the purpose specified.

1,080,058. SWITCH. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Apr. 1, 1913. Serial No. 758,190. (Cl. 177—10.)



1. In a switch, the combination of switch terminals, a switch arm for connecting the same, a plunger movable relatively to said switch arm, a spring interposed between said plunger and said switch arm, a second spring normally tending to retract said plunger and open said switch arm, said plunger having a cavity within which said second spring is located, and a guide adapted to enter said plunger and against which said second spring bears.

2. In a switch, the combination of switch terminals, a switch arm for connecting the same, a plunger movable relatively to said switch arm, a spring interposed between said plunger and said switch arm, and a second spring normally tending to retract said plunger and open said

197 O. G.—4

switch arm, said terminals being arcs of a circle and said switch arm having a plurality of slots dividing it into a plurality of independently yielding contacts constituting arcs of a circle.

3. In a switch, the combination of switch terminals, a switch arm for connecting the same, a plunger movable relatively to said switch arm, a spring interposed between said plunger and said switch arm, and a second spring normally tending to retract said plunger and open said switch arm, said terminals being arcs of a circle and said switch arm being composed of two concentric members engaging opposite sides of said terminals, said members having a plurality of slots dividing them into a plurality of independently yielding contacts constituting arcs of concentric circles.

4. In a switch, the combination of switch terminals, a switch arm for connecting the same, a plunger movable relatively to said switch arm, a spring interposed between said plunger and said switch arm, a second spring normally tending to retract said plunger and open said switch arm, said plunger having a cavity within which said second spring is located, and a guide adapted to enter said plunger and against which said second spring bears, said terminals being in the form of arcs of a circle and said switch arm consisting of two concentric members engaging opposite faces on said terminals, both of said switch arm members being provided with a plurality of slots producing independently yielding surfaces constituting arcs of concentric circles.

5. In a switch, the combination of two contact members connected to switch terminals and being in the form of arcs of a circle, a cup-like switch arm coaxial therewith so as to electrically connect and disconnect said contact members, said cup-like switch arm having portions cut away to form yielding contacts for engaging said contact members, and means for actuating said switch arm.

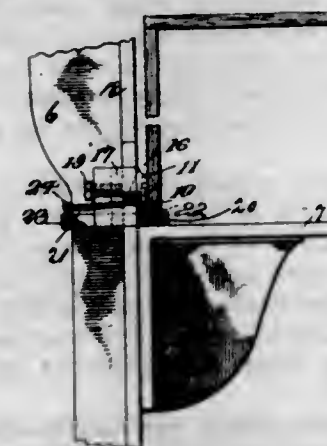
[Claim 6 not printed in the Gazette.]

1,080,059. PROCESS FOR PRODUCING CLEAN OR DE-OXIDIZED METAL SURFACES. JOHN ADAMS HARTFIELD and CHARLES ROBERT YATES, Newport, England. Filed Dec. 10, 1912. Serial No. 735,959. (Cl. 148—42.)

1. The process herein described, which consists in acting upon a metal surface while in a highly heated state with silica to clean said surface and to form thereon a removable protective coating and in cooling said coated metal and preserving said coating until the metal is further treated.

2. The process herein described, which consists in acting upon a metallic surface while in a highly heated state with silica to clean the said surface and to form thereon a removable protective coating and then coating the same with a metal to remove said protective coating and uniting the cleaned surface with said coating metal.

1,080,060. ATTACHMENT FOR BOX-NAILING MACHINES. PHILIP J. HEALY, East St. Louis, Ill. Filed July 15, 1913. Serial No. 770,206. (Cl. 1—15.)



1. An attachment for box nailing machines comprising, a bed bar provided with means for securing it adjustably

to the sides of a nailing machine above the table thereof, a rearwardly yielding bed plate slidably mounted against the lower face of the said bar, and means for normally holding the bed plate in its forward position.

2. In a box-nailing machine attachment, a bed bar, clamps carried by the bed bar for securing the bar to the frame of the machine in spaced relation above the work table of the machine, a bed plate slidably mounted beneath said bar, springs constantly urging said bed plate forward and stop means to limit the forward motion of the bed plate.

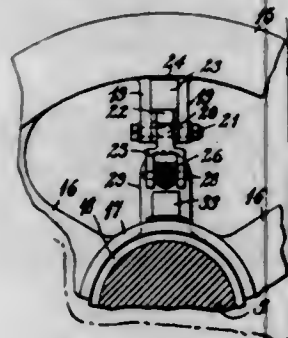
3. In an attachment for box-nailing machines provided with a frame and a work table, a bed bar, a pair of clamps arranged to be secured to said frame, means for adjustably connecting the clamps and bar, a bed plate slidably mounted beneath said bar to lie on said table, arms extending rearwardly of said bar from said plate, springs connecting the rear ends of said arms with said bar, and stop pins mounted on the arms and arranged to engage said bar and limit the forward movement of said plate.

4. The combination with a box-nailing machine provided with a frame having side flanges and further provided with a work table; of a bed plate slidably mounted on said table and provided with rearwardly extending arms, a bed bar extending across said frame above said plate, a pair of clamps arranged to engage the flanges of said frame, means for adjustably securing said bar to said clamps, and springs connecting the rear ends of said arms with said bar and stop pins adjustably mounted on the arms and arranged to engage the rear side of said bar to limit the forward movement of the plate.

5. The combination, with a box nailing machine, of a rearwardly yielding bed plate at the rear edge of the machine table arranged to support the lower edge of a box end in the first step of nailing and then yield to the rearward movement of the nailed side and end in the next step and adjustable means to limit the forward throw of said bed plate.

[Claims 6 and 7 not printed in the Gazette.]

1,080,061. INDUCTION-MOTOR. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 7, 1911. Serial No. 801,378. (Cl. 172-274.)



1. In a dynamo electric machine, the combination with a rotatable member, a winding therefor having two sets of taps, and current-collecting rings associated with said rotatable member, of a switching device that is operative independently of the movement of said rotatable member and serves to connect said rings to either of said sets of winding taps and to inter-connect the taps of one of the sets.

2. In an induction motor, the combination with a secondary rotor having a polyphase winding adapted to produce different numbers of magnetic poles, and a plurality of slip rings, of means embodied in said rotor for adjusting the circuit connections of said winding to change the number of rotor magnetic poles, and mechanical means independent of said rotor for operating said first-named means.

3. In an induction motor, the combination with a secondary rotor having a polyphase winding adapted to produce different numbers of magnetic poles, and a plurality of slip rings, of a switching device embodied in said rotor

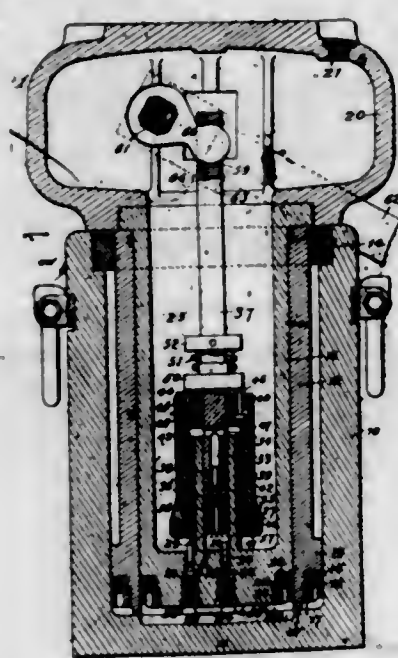
and mechanically associated with said slip rings for adjusting the circuit connections of said winding to change the number of rotor magnetic poles, and means for operating said switching device.

4. In an electric motor, the combination with a rotatable member having a polyphase winding, and a plurality of current-collectors insulated from said member, of a pivotally mounted contact member associated with each collector, a plurality of contact terminals to cooperate with said contact members, a rod disposed within said collectors and associated with said pivotally mounted contact members, a plurality of sets of cooperating stationary and movable contact members associated respectively with said collectors and said rod, and mechanical means for actuating said rod independently of the rotation of said rotatable member.

5. In an induction motor, the combination with a rotatably mounted secondary winding adapted to produce different numbers of magnetic poles, and a plurality of collector rings, of a switching device disposed within said collector rings for adjusting the circuit connections of said secondary winding to effect a change in the number of magnetic poles, and means independent of the rotation of said secondary winding for actuating said switching device.

[Claims 6 and 7 not printed in the Gazette.]

1,080,062. PUMP MECHANISM FOR HYDRAULIC JACKS AND LIKE APPARATUS. ERWIN P. HESS, South Bethlehem, Pa., assignor to Bethlehem Steel Company, South Bethlehem, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1912. Serial No. 878,325. (Cl. 138-9.)



1. In a device of the class described, in combination, a piston, a cylinder for said piston having an outlet, a second cylinder having an inlet movable with said piston, said cylinders telescoping one into the other, and means for establishing communication between the cylinders.

2. In a device of the class described, in combination, a cylinder having an outlet, a piston reciprocable in said cylinder, a second cylinder having an inlet movable with said piston, said cylinders telescoping one into the other, means for controlling the pressure in one of said cylinders, and means for establishing communication between said cylinders.

3. In a pumping mechanism, the combination of a cylinder having an inlet and outlet, a plunger reciprocable in said cylinder, a cylinder having an inlet and outlet carried by said plunger, said cylinders telescoping one into the other, one of said cylinders constituting the plunger for the other cylinder, and means for establishing communication between the cylinders.

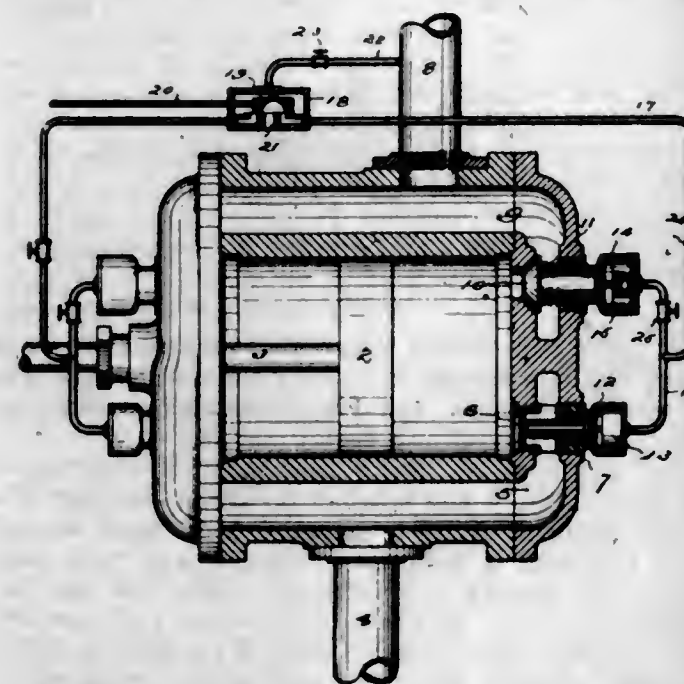
4. In a pumping mechanism, the combination of, a high pressure cylinder having an inlet and outlet, said high

pressure cylinder constituting a low pressure piston, a piston reciprocable in said high pressure cylinder, a low pressure cylinder carried by said high pressure piston and having an inlet and outlet, and means for establishing communication between said low pressure and high pressure cylinders.

5. In a pumping mechanism, the combination of, a cylinder having an inlet and outlet, a plunger reciprocable in said cylinder, a second cylinder having an inlet and outlet movable with said plunger, said cylinders telescoping one into the other, said first-named cylinders constituting the plunger for the second cylinder, means for relieving the pressure in one of said cylinders, and means for establishing communication between said cylinders.

[Claims 6 to 35 not printed in the Gazette.]

1,080,063. AIR-COMPRESSOR. EBENEZER HILL, Norwalk, Conn. Filed May 5, 1913. Serial No. 765,470. (Cl. 230-37.)



1. The combination with an air compressor having intake and discharge valves, of pistons adapted to reverse the normal actions of said valves, means arranged to conduct air under pressure to said pistons, and means arranged in said conductor to control the flow of air under pressure therethrough and the exhaust of air therefrom for the purpose of causing said pistons to actuate said valves.

2. The combination with an air compressor having intake and discharge valves and springs normally holding said valves to their seats, of pistons adapted to open said valves against the actions of the springs, means adapted to conduct air under pressure from the discharge outlet of said compressor to the backs of the pistons, and means adapted to alternately permit the flow of air under pressure through said air conductor to the pistons and the exhaust of air from said conductor back of said pistons, whereby said pistons act to cause said valves to operate in a reverse manner to their normal operation.

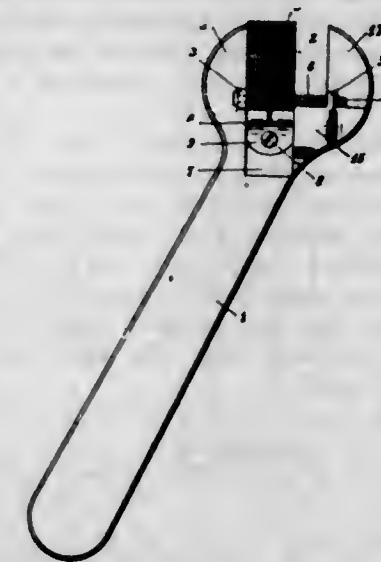
3. The combination with an air compressor having intake and discharge valves and springs arranged to normally close said valves, of pistons arranged to open said valves, a conductor leading from the discharge from said compressor to the backs of said pistons, and a valve arranged in said conductor and adapted to alternately open and close said conductor so as to permit the passage of compressed air therethrough and the exhaust of air therefrom.

4. The combination with an air compressor having intake and discharge valves and means for normally closing said valves, of means arranged to open said valves, a conductor for compressed air leading from the discharge of said compressor to said opening means, and a slide valve arranged to alternately open and close said air conductor.

5. The combination with an air compressor having intake and discharge valves and springs for normally closing said valves, of pistons adapted to open said valves,

pipes leading from back of said pistons to a valve chest, an air supply pipe leading from the discharge of said compressor to the valve chest, a valve movable in the chest for alternately admitting air pressure to and exhausting air pressure from back of the valve pistons, and cocks arranged in said pipes for controlling the flow of air there-through.

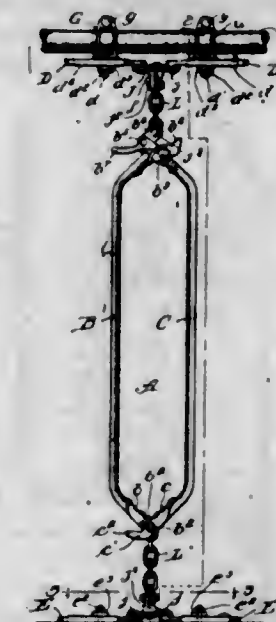
1,080,064. NUT-WRENCH. JACQUES HUBER, Basel, Switzerland. Filed Apr. 24, 1913. Serial No. 763,335. (Cl. 81-185.)



1. A wrench comprising in combination a handle, two jaws on said handle, a series of tumblers rotatably mounted on a pin on said handle, a coiled spring around said pin to hold the tumblers together, a spring adapted to hold said tumblers when in or out of use, a lug for protecting the tumblers which are not used substantially as described.

2. A wrench comprising in combination a handle, two jaws on said handle, a series of tumblers rotatably mounted on a pin of said handle, a coiled spring around said pin to hold the tumblers together, a blade spring arranged in a recess of said handle, a bent off portion on said blade spring adapted to press against the hind ends of all the tumblers, a lug for protecting the tumblers substantially as shown and described.

1,080,065. CATTLE-STANCHION. WILLIAM F. JACOBS, Ottawa, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Original application filed July 12, 1912, Serial No. 708,950. Divided and this application filed Jan. 6, 1913. Serial No. 740,275. (Cl. 119-149.)



1. A cattle-stanchion, comprising two side members or bars, means providing connection for said bars at one end of the stanchion, permitting swinging movement of said bars with respect to each other and including a stop mem-

ber; one of said bars being resilient and provided with a stop member adapted to come into contact with the first-mentioned stop-member, before the stanchion is closed, so that the resilient bar will be under tension and will tend to spring outwardly when the stanchion is closed.

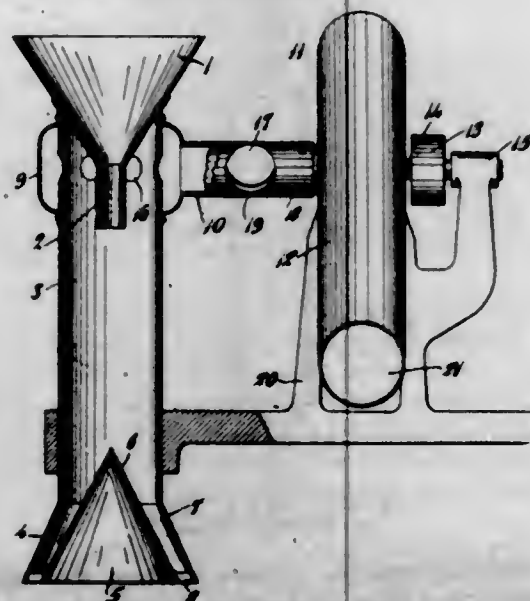
2. A cattle-stanchion, comprising two side members or bars having pivotal connection at one end of the stanchion and detachable connection at the other end of the same, each bar being provided intermediate its end with a stop-member, and that part of each bar between its swinging end and its stop-member being resilient, said stop-members being adapted to come into contact with each other, before the swinging ends of said bars are brought together in closing the stanchion, so that the resilient portions of said bars will, when the stanchion is closed, be under tension.

3. A cattle-stanchion, comprising two resilient side members or bars having pivotal connection at their lower ends and detachable connection at their upper ends, said bars being provided adjacent their lower ends and above their point of pivotal connection, with stop-members adapted to come into contact with each other, before the upper ends of said bars are brought together in closing the stanchion, so that said bars will, when the stanchion is closed, be under tension.

4. A cattle-stanchion, comprising two resilient side members or bars having their upper and lower ends directed inwardly toward each other, means providing pivotal connection for said bars at their lower ends, and means providing detachable connection for said bars at their upper ends; one of said bars being provided, at its lower end, above its pivotal connection with the other bar, with a lug adapted to come into contact with the lower end of said other bar before the upper ends of said bars are brought together in closing the stanchion, so that said bars will be under tension when the stanchion is closed.

5. A cattle-stanchion, comprising two resilient side bars having their upper and lower ends directed inwardly toward each other, means providing detachable connection for said bars at their upper ends, a yoked member secured to the lower end of one of said bars, an eyed member secured to the lower end of the other of the said bars and adapted to enter between the arms of said yoke, and a pivot bolt connecting said yoke and eyed members together; one of said members being provided, above the point where said pivot bolt passes through the same, with a lug adapted to come into contact with the other member before the upper ends of said bars are brought together in closing the stanchion, so that said bars will, when the stanchion is closed, be under tension and tend to spring apart.

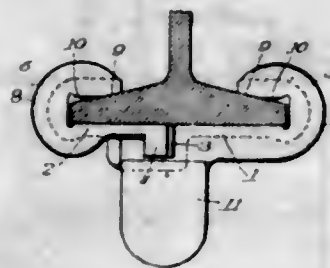
1,080,066. REFINING-MACHINE FOR COFFEE AND THE LIKE. HERBERT L. JOHNSTON, Troy, Ohio, assignor to The Hobart Electric Manufacturing Company, Troy, Ohio, a Corporation of Ohio. Filed Apr. 30, 1910. Serial No. 558,617. (Cl. 83-40.)



In a coffee refiner, a conduit through which the coffee is propelled by gravity, an exhaust blower to create an

air blast through the conduit opposed to the movement of the coffee, the discharge end of the conduit being flared, and a cone located in the flared end with its apex projecting into the center of the conduit, and with the connection forming a narrow annular passage for the discharge end of the conduit, an annular chamber surrounding the upper end of the conduit with uniformly distributed openings into the conduit, and a tubular connection between the blower and conduit provided with an opening, and a sleeve mounted on the tubular connection, and provided with an opening to register with the tube opening, the sleeve being adapted to be moved on the tube to adjust the size of the tubular opening.

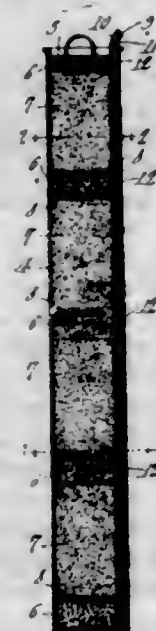
1,080,067. MEANS FOR PREVENTING THE CREEPING OF RAILROAD-RAILS. LEONARD W. KENT, New York, N. Y., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 4, 1912. Serial No. 729,310. (Cl. 238-4.)



1. A rail anchor having jaws which adapt themselves to rails having base flanges of different dimensions, said jaws each having an upper and lower engaging surface, the former being arranged in different planes.

2. An anti-creeper device comprising a clip and a mate each having a jaw adapted to receive one side of a rail base, said clip having in its upper face beneath the rail base a slot with a diagonally arranged wall, said mate having a rib adapted to be received within said slot and to engage said wall, said jaws each having an upper and lower engaging surface one of which is arranged in different planes whereby said jaws may adapt themselves to different standard sizes of rail bases.

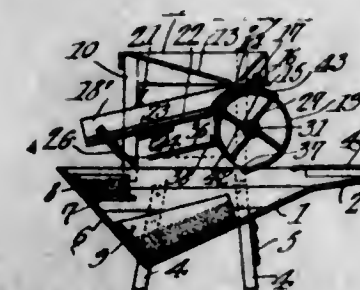
1,080,068. AUTOMATIC FIRE-EXTINGUISHER. ALPHONSE LA BRECHE, Jefferson, S. D. Filed Jan. 3, 1913. Serial No. 740,058. (Cl. 169-16.)



A fire extinguisher embodying a barrel, having its upper end open, alternate layers of an explosive and of a powdered fire extinguishing agent packed in the barrel, wads separating the various layers, and fitting snugly within the barrel, a cover fitting in the upper end of the barrel, and a fuse extending longitudinally within the barrel along one side thereof, the wads being notched to receive the fuse and the fuse passing through the cover,

one layer of the explosive being arranged adjoining the cover and the layers of the explosive being increased in quantity from the upper to the lower one.

1,080,069. GRAIN-TREATING MACHINE. HENRY LYNG, Aurdal, Minn. Filed May 13, 1913. Serial No. 767,409. (Cl. 130-17.)



1. In an apparatus of the class described, the combination of a liquid containing tank, a superstructure mounted above the said tank and including a hopper, a longitudinal corrugated plate angularly disposed with respect to the horizontal and adapted to receive material from said hopper, said corrugated plate adapted to deposit the material from said hopper onto the surface of said liquid, and a fan blower supported by the said superstructure adapted to direct a current of air upward above the said corrugated plate, said fan blower further adapted to direct a current of air upon the said liquid and in alignment with the longitudinal axis of said tank.

2. In a grain cleaning and grading machine, the combination of a liquid containing tank, a grain receiving receptacle submerged therein, a foreign material receiving receptacle submerged therein at one end thereof, a superstructure comprising a hopper, screening means positioned beneath said hopper, a longitudinal corrugated plate supported by said superstructure and receiving grain containing material from said screening means and adapted to deposit grain containing material upon the surface of the liquid, and a fan blower with means for actuating the same secured to said superstructure and adapted to direct a current of air upon the surface of said liquid in the direction of the foreign material receiving receptacle.

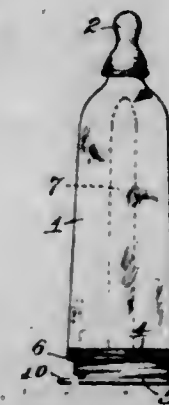
3. In an apparatus of the class described the combination of a liquid containing tank, a superstructure mounted upon the said tank and including a hopper, screening means disposed beneath said hopper adapted to receive material therefrom and to deliver grain containing material from its lower end, and means for receiving said grain containing material from the said screening means and for depositing the same upon the surface of the liquid in a gentle manner, and a fan-blower secured to said superstructure and adapted to direct a current of air upon the surface of said liquid to thereby separate the grain from the other ingredients of said material.

4. In an apparatus of the class described, the combination of a liquid containing tank, a superstructure mounted upon and supported by the said tank and comprising a hopper, screening means disposed therebeneath and adapted to separate the material received therefrom into two classes, delivering one of said classes to one side of the said superstructure, and delivering the other of said classes to a longitudinally corrugated plate, said longitudinally corrugated plate angularly disposed with respect to said screening means and adapted to receive material therefrom, said corrugated plate adapted to gently deposit the material from said screening means onto the surface of the said liquid, and a fan blower supported by the said superstructure adapted to direct a current of air upward beneath the said sleeve, said fan blower further adapted to direct a current of air upon the said liquid and in alignment with the longitudinal axis of said tank.

5. The combination with a tank and means for collecting grain and foreign material in separate receptacles therein, of a superstructure supported by the said tank and comprising a hopper, an opening disposed at the base thereof, and means for regulating the said opening, screening means disposed beneath said hopper, a fan casing dis-

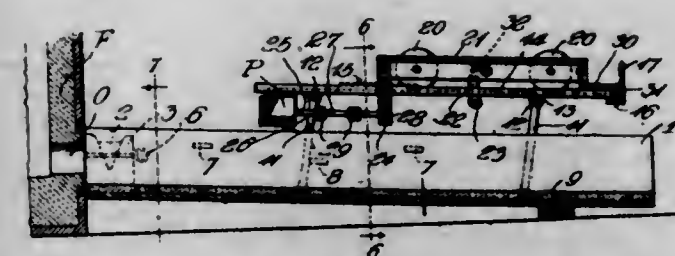
posed at one end of said superstructure and provided with an air spout leading therefrom, means for closing the said air spout, said fan casing provided with an opening adapted to supply air beneath said screening means, means for closing this opening, said fan casing provided with a third opening adjacent the top thereof and means for closing the same, said third mentioned opening adapted to direct a current of air above and across the said screening means.

1,080,070. NURSING-BOTTLE. LEOPOLD MAMBOURG, Columbus, Ohio, assignor to The Sanitary Nursing Bottle Company, Columbus, Ohio. Filed Feb. 2, 1912. Serial No. 675,021. (Cl. 215-117.)



In a nursing bottle or the like, the combination of a bottle body having a base opening, an external screw-thread surrounding the opening and a circular outwardly extending shoulder at the base of said thread, a closure for the opening consisting of a sheet-metal cap having an internal thread to engage the bottle thread, an outwardly extending flange at the inward end of said thread, said cap flange being opposed to said bottle shoulder, said closure also having an integrally formed tube of relatively large diameter extending within the bottle and terminating in a relatively small vent opening, said closure also being provided at the outward end of its screw-threaded portion with one or more lateral projections to provide a fastening grip and prevent rolling, and a gasket between the closure flange and the bottle shoulder.

1,080,071. SPOUT FOR STEEL-FURNACES. CHARLES E. MICHAELS, Wilson, Pa. Filed Sept. 18, 1913. Serial No. 790,492. (Cl. 75-193.)



1. The combination with a furnace having an outlet, and a trough leading from said outlet; of twin links pivoted at their lower ends to the sides of said trough, a track section pivotally connected to their upper ends and adapted to be raised above the trough when the links are swung to the rear, a carriage movably mounted on said track section, and a plug carried by the carriage.

2. The combination with a furnace having an outlet, and a trough leading from said outlet; of twin links pivoted at their lower ends to the sides of said trough, a track section pivotally connected to their upper ends and adapted to be raised above the trough when the links are swung to the rear, a truck movably mounted on said track section and having a tongue depending from it between said tracks, a plug forward of said tongue, and a sectional stem connecting the tongue and plug.

3. The combination with a furnace having an outlet, and a trough leading from said outlet; of twin links pivoted at their lower ends to the sides of said trough, a track

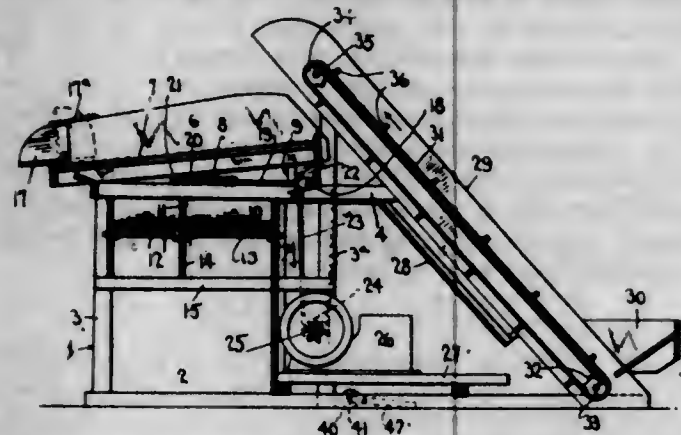
section pivotally connected to their upper ends and adapted to be raised above the trough when the links are swung to the rear, a truck movably mounted on said track section and having a tongue depending from it between said tracks, a plug forward of said tongue, a pin projecting from the rear end of the plug and threaded, pin-sections threaded at both ends and the rearmost thereof engaging said tongue, and nuts connecting the meeting ends of said sections.

4. The combination with a furnace having an outlet, and a trough leading from said outlet; of twin links pivoted at their lower ends to the sides of said trough, a track section carried by the upper ends of said links and having notches near the rear extremities of its rails and a cross bar connecting the rear ends of said rails, a carriage having wheels traveling on said rails, hooks pivotally mounted in the rear end of the carriage and adapted to drop into said notches when the carriage is moved to the rear, and a plug carried by said carriage.

5. The combination with a furnace having an outlet opening, a trough whose inlet end communicates with said opening and whose outer end is depressed, and a pair of lugs projecting outwardly from each side of the trough; of a pair of links pivotally connected at their lower ends to each side of the trough, a track section having depending ears under each rail pivotally connected to the upper ends of said links, the rails resting on said lugs when the links are thrown forward, a carriage mounted on said track section, and a plug carried by the carriage.

[Claims 6 to 8 not printed in the Gazette.]

1,080,072. SCREENING-MACHINE. JULIUS F. MOLD and ALBERT W. MOLD, Sunrise, Minn. Filed Sept. 28, 1911. Serial No. 651,810. (Cl. 130—32.)

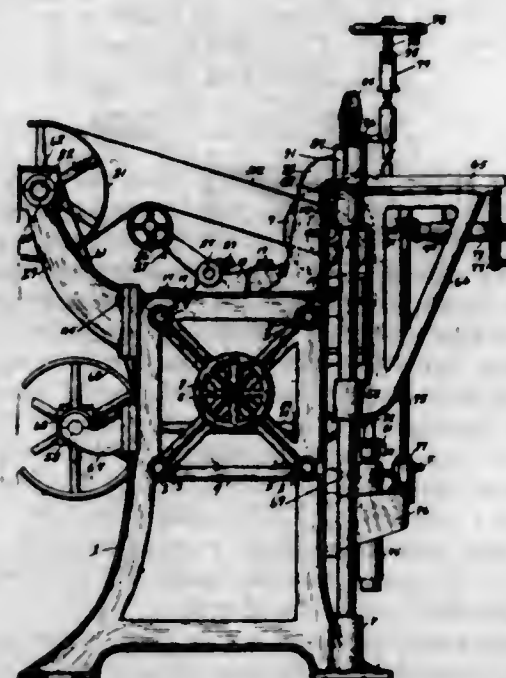


A screening machine comprising a main frame, a screen frame whose delivery end is in sliding engagement with the forward end of said main frame, links pivotally connecting the opposite end of the screen frame with said main frame, a rotary crank shaft, a pitman rod connected with its crank, and a leaf spring secured at one end to said rod and at its other end to a cross bar in the screen frame and having a tendency to hold the forward end of such frame in frictional contact with the main frame whereby the screen frame is given an edgewise movement and prevented from changing its vertical position during its reciprocation.

1,080,073. PERFORATING-MACHINE FOR LEAVES OR SHEETS. CYRUS E. MOXHOUSE, Milwaukee, Wis. Filed Sept. 1, 1911. Serial No. 647,148. (Cl. 164—12.)

1. In a perforating machine for leaves or sheets, the combination of a suitable frame made up of ends having horizontal lateral bars connecting the same; machine sections adjustably supported on the said lateral bars with means for adjusting the same; a buzz saw with means to drive the same, carried on the upper portion of each of said machine sections; a tubular circular perforating cutter disposed beneath the said buzz saw in a line tangent to the edge thereof; a tubular bearing for said cutter of such diameter that it will pass into the aperture made by said cutter; a vertical plate on each of said sections, disposed in the same plane as said saw so that it

will enter a saw kerf made thereby, to the edge of which said plate the said bearing is secured; suitable means for driving the said tubular cutter; means for drawing the air through the said tubular cutter; a suitable table disposed at the front of the said machine with a suitable paper clamp thereon, and means for raising and lowering the said table to bring the leaves clamped thereon into position to be acted upon by the said saw and cutter, coacting substantially as described and for the purpose specified.



2. In a perforating machine for leaves or sheets, the combination of a suitable frame made up of ends having horizontal lateral bars connecting the same; machine sections adjustably supported on the said lateral bars; a buzz saw with means to drive the same, carried on the upper portion of each of said machine sections; a tubular circular perforating cutter disposed beneath the said buzz saw in a line tangent to the edge thereof; a tubular bearing for said cutter of such diameter that it will pass into the aperture made by said cutter; a vertical plate on each of said sections, disposed in the same plane as said saw so that it will enter a saw kerf made thereby, to the edge of which said plate the said bearing is secured; suitable means for driving the said tubular cutter; means for drawing the air through the said tubular cutter; a suitable table disposed at the front of the said machine with a suitable paper clamp thereon; and means for raising and lowering the said table to bring the leaves clamped thereon into position to be acted upon by the said saw and cutter, coacting substantially as described and for the purpose specified.

3. In a perforating machine for leaves or sheets, the combination of a suitable frame made up of ends having horizontal lateral bars connecting the same; machine sections adjustably supported on the said lateral bars; a buzz saw with means to drive the same, carried on the upper portion of each of said machine sections; a tubular circular perforating cutter disposed beneath the said buzz saw in a line tangent to the edge thereof; a tubular bearing for said cutter of such diameter that it will pass into the aperture made by said cutter; suitable means for driving the said tubular cutter; means for drawing the air through the said tubular cutter; a suitable table disposed at the front of the said machine with a suitable paper clamp thereon; and means for raising and lowering the said table to bring the leaves clamped thereon into position to be acted upon by the said saw and cutter, coacting substantially as described and for the purpose specified.

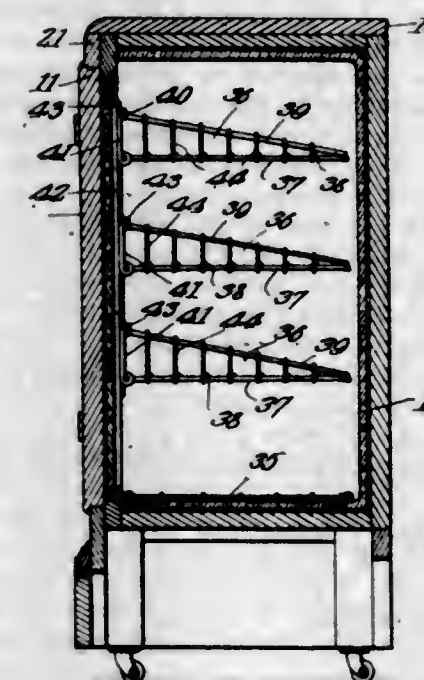
4. In a perforating machine for leaves or sheets, the combination of a suitable frame; machine sections adjustably supported on the said frame; a buzz saw with means to drive the same, carried on the upper portion of each of said machine sections; a tubular circular perforating cutter disposed beneath the said buzz saw in a line tangent

to the edge thereof; a tubular bearing for said cutter of such diameter that it will pass into the aperture made by said cutter; a vertical plate on each of said sections, disposed in the same plane as said saw so that it will enter a saw kerf made thereby, to the edge of which said plate the said bearing is secured; suitable means for driving the said tubular cutter; means for drawing the air through the said tubular cutter; a suitable table disposed at the front of the said machine with a suitable paper clamp thereon; and means for raising and lowering the said table to bring the leaves clamped thereon into position to be acted upon by the said saw and cutter, coacting substantially as described and for the purpose specified.

5. In a perforating machine for leaves or sheets, the combination of a suitable frame; machine sections adjustably supported on the said frame; a buzz saw with means to drive the same, carried on the upper portion of each of said machine sections; a tubular circular perforating cutter disposed beneath the said buzz saw in a line tangent to the edge thereof; a tubular bearing for said cutter of such diameter that it will pass into the aperture made by said cutter; suitable means for driving the said tubular cutter; means for drawing the air through the said tubular cutter; a suitable table disposed at the front of the said machine with a suitable paper clamp thereon; and means for raising and lowering the said table to bring the leaves clamped thereon into position to be acted upon by the said saw and cutter, coacting substantially as described and for the purpose specified.

[Claims 6 to 23 not printed in the Gazette.]

1,080,074. REFRIGERATOR. RUDOLPH A. RIEK, Rhinelander, Wis., assignor to Rhinelander Refrigerator Co., Rhinelander, Wis. Filed Dec. 28, 1911. Serial No. 667,784. (Cl. 211—6.)



1. A container having a door-way in one wall, a shelf extending across the door-way and having side hangers, and means carried by the inner side of the said wall at the sides of the door-way for the engagement of the hangers.

2. A container having a door-way in one wall, a shelf extending across the door-way and having side hangers, the shelf resting against and the hangers being secured to the inner side of the said wall at the sides of the door-way.

3. A container having a door-way in one wall, a shelf extending across and wider than the door-way and having side hangers, the shelf resting against the inner side of the said wall at the sides of the door-way, and means for detachably securing the hangers to the inner side of the said wall at the sides of the door-way.

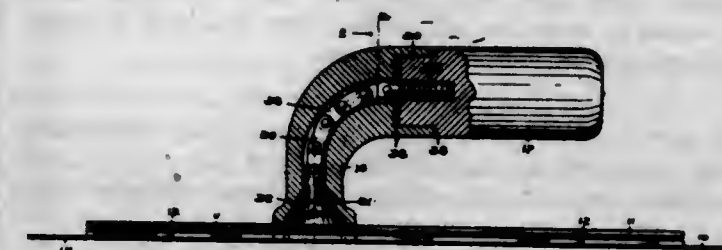
4. A container having a door-way in one wall, a shelf extending across the door-way having side hangers and

interengaging means carried by the said hangers and the inner sides of the said wall at the side of the doorway.

5. A container having a door-way in one wall, a shelf extending across and wider than the door-way, the shelf having side hangers and seating against the inner side of the side wall, and interengaging means carried by the said hangers and the inner side of the said wall at the sides of the doorway for supporting the shelf solely from the inner side of the said wall.

[Claims 6 to 10 not printed in the Gazette.]

1,080,075. TROWEL. JOHN B. RUNNER, Indianapolis, Ind., assignor to Standard Tool & Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 21, 1911. Serial No. 661,583. Renewed July 9, 1913. Serial No. 778,174. (Cl. 72—136.)

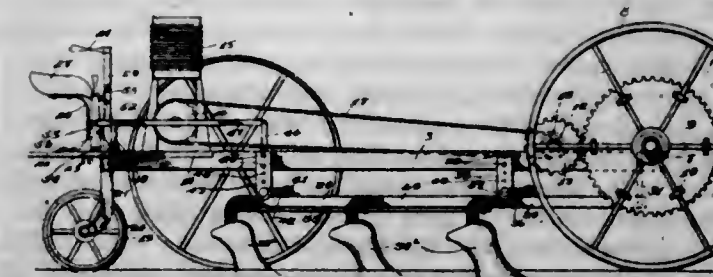


1. A trowel comprising a blade, a longitudinally extending dovetailed rib secured to said blade, a cone provided with a slot to receive said dovetailed rib, a hollow curved handle formed of a slidable and a rotatable member, the slidable member having a socket to receive said cone, supporting means for said cone, and a flexible shank on said cone-supporting means to engage and be moved longitudinally by the rotation of said rotatable handle member.

2. A trowel comprising a blade, a longitudinally extending dovetailed rib secured to said blade, a divided cone provided with a slot to receive said dovetailed rib, a hollow curved handle formed of a slidable and a rotatable member, the slidable member having a conical socket to receive said divided cone, supporting means for said divided cone, and a flexible shank on said cone-supporting means to engage and be moved longitudinally by the rotation of said rotatable handle member.

3. A trowel comprising a blade, a longitudinally extending dovetailed rib secured to said blade, a divided cone provided with a slot to receive said dovetailed rib, a hollow curved handle formed of a slidable and a rotatable member, the slidable member having a socket to receive said divided cone, a chain extending through the slidable handle member, a head on the end of said chain adapted to engage the socket in the divided cone, and means on the other end of said chain adapted to engage and be moved longitudinally by the rotation of said rotatable handle member.

1,080,076. PLOW. ADOLPH SCHMIDT, Hastings, Nebr. Filed Apr. 1, 1913. Serial No. 758,179. (Cl. 97—30.)

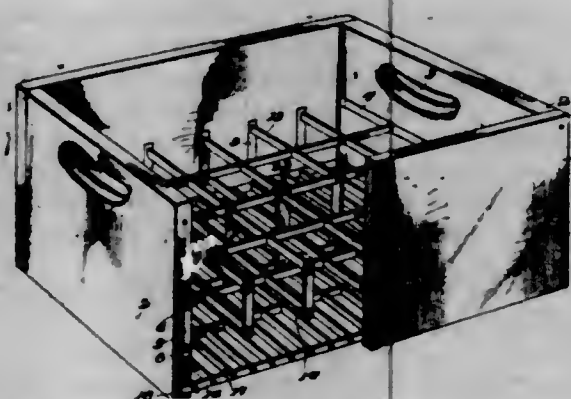


1. The combination with a wheeled frame including a transverse member, of a plurality of plow share carrying beams extending longitudinally thereof, an upstanding hook connected with the forward end of each plow share carrying beam and fitting over the transverse member, and a ball crank shaft pivotally connected with the wheeled frame and with certain of the plow share carrying beams.

2. The combination with a wheeled frame including a transverse member, of a plurality of plow share carrying beams extending longitudinally thereof, a plurality of pairs of spaced rings rigidly mounted upon the transverse member, upstanding hooks connected with the forward ends of certain of the plow share carrying beams and passing over the transverse member between the spaced rings, a ball crank shaft pivotally connected with the wheeled frame and with certain of the plow share carrying beams, and means to turn the ball crank shaft.

3. In apparatus of the character described, the combination with a wheeled frame including a forward transverse member, of a plow share carrying beam disposed therebelow and extending longitudinally thereof, an upstanding hook connected with the forward end of the plow share carrying beam and passing over the transverse member, a transverse ball crank shaft pivotally connected with the wheeled frame and with the plow share carrying beam, and means to turn the ball crank shaft and lock the same in adjustment at desired positions.

1,080,077. CRATE. JOSEPH F. SCHOEPPL, Baltimore, Md.; John Thomas Scheu, executor of said Schoeppl, deceased. Filed May 10, 1912. Serial No. 896,526. (Cl. 217-31.)



1. In a crate, the combination of outer walls, metallic members seated snugly therein, and grilles consisting of intersecting bars provided at their ends with heads passing through the members seated in the walls of the crate and embedded in said walls behind said members.

2. In a crate, the combination of outer walls, metallic members seated therein flush with the surface thereof and provided with slots, and grilles consisting of intersecting bars provided at their ends with heads passing through the said slots and embedded in the walls of the crate behind said members at angles to extend across said slots.

3. In a crate, the combination of outer walls, upper and lower grilles fitted between the said walls, connecting plates attached to the outer ends of the bars composing said grilles and seated in the outer walls, the said plates disposed at the corners of the grilles being located in the joints between the side and end walls of the crate.

4. In a crate, the combination of upper and lower grilles composed of intersecting flat metallic bars, and flat metallic upright braces extending between the grilles at points of intersection between said bars and each having a slot through which passes one of said bars and an integral tongue forming a closure for said slot.

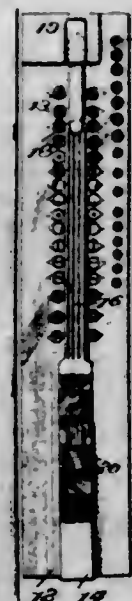
5. In a crate, the combination of upper and lower grilles consisting of intersecting bars, and upright braces having their upper ends engaging both intersecting bars of the upper grille, the said upright braces being each provided between its ends with a slot receiving a bar of a lower grille and having a flexible tongue arranged to close one side of said slot.

[Claims 6 to 11 not printed in the Gazette.]

1,080,078. TOY. JOSEPH F. SCHOEPPL, Baltimore, Md.; John Thomas Scheu, executor of said Schoeppl, deceased. Filed July 31, 1912. Serial No. 712,542. (Cl. 46-40.)

1. An amusement device including a casing having a figure represented on one side thereof and the other side

formed with a slot, there being openings formed in the casing to correspond with the features of the face of the figure, a slide mounted for reciprocation within the casing, a reinforcing strip secured to the front and the rear of the slide and provided with a finger piece extending through the slot in the casing, a tongue secured to the reinforcing strip at the upper end of the slide and adapted to extend through one of the openings in the casing, and a plurality of pairs of eyes arranged on opposite sides of the reinforcing strip and adapted to successively register with other of the openings in the front of the casing.



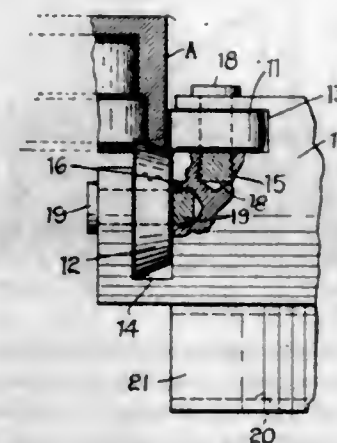
2. An amusement device including a casing having a figure represented on the front thereof and a slot in the rear of said casing, there being openings formed in the front of the casing corresponding to the features of the face of the figure, a slide mounted for reciprocation within the casing and having a plurality of pairs of eyes represented thereon and adapted to successively register with some of the openings in the front of the casing, a reinforcing strip secured to and extending longitudinally of the front and rear of the slide and having a portion thereof bent laterally to form a downwardly inclined finger piece projecting through the slot in the casing, a retaining strip secured to the front of the slide near the upper end thereof, and a tongue piece interposed between the retaining strip and the reinforcing strip, respectively.

3. An amusement device including a casing having a figure represented on the front thereof, and provided with openings some of which constitute eyes and another the mouth of the figure, there being a slot formed in the rear wall of the casing, a slide mounted for reciprocation within the casing, and having a plurality of pairs of eyes represented thereon, a reinforcing strip secured to the slide and provided with a finger piece extending through the slot in the casing, a portion of said slide being painted to represent teeth adapted to register with the mouth opening, and a tongue secured to the slide near the upper end thereof and adapted to extend through the mouth opening when the slide approaches the end of its downward stroke.

4. An amusement device including a flat elongated casing having its front wall formed of a single ply of material and provided with a figure and its rear wall formed of superposed plies and provided with a longitudinally disposed slot, the material forming the inner ply of the rear wall being folded inwardly on one side of the slot and the material forming the outer ply of the rear wall being folded inwardly on the other side of said slot, reinforcing strips secured to the rear wall of the casing at the top and bottom of said slot, a slide mounted for reciprocation within the casing and having a plurality of sets of eyes represented thereon and adapted to register with openings formed in the face of the figure, and a reinforcing strip secured to the slide and having a portion thereof folded upon itself and extending laterally through the slot in the casing and adapted to engage the upper and lower transverse strips for limiting the longitudinal movement of said slide.

5. An amusement device including a casing having a figure represented on the front thereof and provided with a cap having a tassel, there being openings formed in the face of the figure corresponding to the features thereof, and other openings one of which corresponds to the tassel of the cap and others to the buttons on the coat of the figure, there being a longitudinal slot formed in the rear wall of the casing, a slide mounted for reciprocation within the casing and having a plurality of sets of eyes represented thereon and adapted to register with some of the openings constituting the features of the figure, a reinforcing strip secured to the slide and having a portion thereof extending laterally through the slot to form a finger piece, a tongue secured to the slide and adapted to extend through the opening constituting the mouth of the figure when the slide approaches the end of its downward stroke, said slide having a portion thereof painted to represent teeth adapted to register with the mouth opening, and another portion thereof divided into colored sections adapted to register with the button openings, and a plurality of tassels represented on the slide and adapted to register with the tassel opening.

1,080,079. DIE-UPSETTING DEVICE. WILLIAM E. SENNETT, Baltimore, Md. Filed July 12, 1913. Serial No. 778,721. (Cl. 29-83.)



1. A lathe attachment consisting of a frame adapted to be movably secured to a lathe and provided with an opening and with guide ways at opposite sides of the opening, a carriage in each guide way, and a screw member having oppositely threaded ends engaged with the respective carriages for moving them toward and from one another, a frusto-conical roller carried by each carriage, and a second roller carried by each carriage contiguous and axially perpendicular to the axis of the first said roller.

2. A device of the character described comprising a frame provided with an opening, a carriage mounted on the frame adjacent each side of the opening, means for moving the carriages one relatively to the other, and a plurality of rollers carried by each carriage, the axis of the rollers being angularly disposed one relatively to the other.

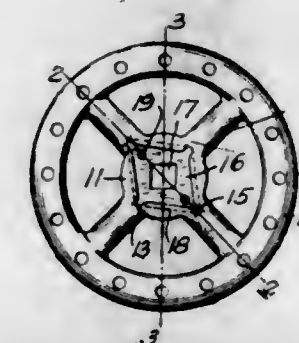
3. A device of the character described including a frame having an opening, a carriage mounted on the frame adjacent opposite sides of the opening, a plurality of relatively angularly disposed rollers carried by each of the carriages, and means common to both of the carriages for imparting relative movement thereto.

1,080,080. HAND-WHEEL FOR VALVES AND LIKE ARTICLES. ALBERT L. SESSIONS, Bristol, Conn. Filed Mar. 24, 1909. Serial No. 485,370. (Cl. 137-4.)

1. A hand wheel including a rim, arms extending laterally each of another, and a hub having a recess formed by depressing the metal forming the hub and said arms being strengthened by forming them curved in cross section, all of said parts being formed of a single piece of sheet metal, and a filling secured within the recess in the hub.

2. A hand wheel formed of sheet metal and including a rim of curved form, arms extending laterally each of

another bent to curved form and of uniform shape in cross section from end to end, and a hub having a recess formed by depressing the metal forming the hub, said wheel also including a filling secured within said recess and having an opening for the reception of a spindle.

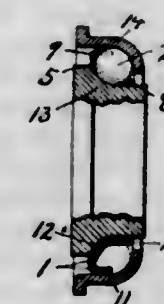


3. A hand wheel composed of a single piece of sheet material and having a rim, arms and a hub, the latter being formed to provide a recess, a filling located within said recess, and lips integrally formed from the metal composing the wheel to hold the filling on all sides and overlying the filling to retain it in place.

4. A hand wheel formed of a single piece of sheet material and including a rim, arms and a hub, the latter having a recess extending into the arms, a filling closely fitting said recess and extending into said arms, and means for holding the filling in place.

5. A hand wheel composed of sheet material and including a rim, arms and hub, the latter having a recess formed therein, a filling of solid material located within said recess, and lips formed at the upper edge of the recess and located on all sides of and overlying said filling to hold it in place, the wall forming the bottom of said recess and said lips being formed of the same piece of metal.

1,080,081. BALL-BEARING. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Jackson, Mich., a Corporation of Michigan. Filed Aug. 26, 1911. Serial No. 646,206. (Cl. 64-59.)



1. In a ball bearing, a ball retainer comprising a plate having a central opening and inner and outer concentric flanges projecting axially different distances in the same direction from the main body, said main body being disposed at an angle to said axis and provided with ball-openings of greater length but of less width than the diameters of the balls which they are adapted to receive, and balls in said openings, the outer flange having recesses in its edge also receiving portions of the balls.

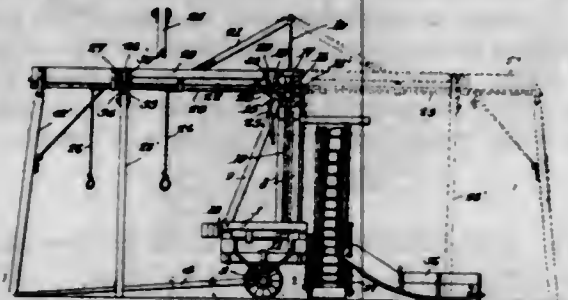
2. In a ball bearing, a ball retainer and balls therein, said retainer comprising a sheet metal plate having a central opening and inner and outer concentric flanges projecting in the same direction substantially parallel with the axis, the outer flange being somewhat shorter axially than the inner flange and spaced apart therefrom a distance less than the diameter of the balls and having its edge provided with recesses of less circumferential width than the diameter of the balls, the portions of the retainer between said flanges being provided with radial ball-openings of less circumferential width than the diameter of the balls and aligned radially with the recesses.

1,060,082. BALL-RETAINER FOR BALL-BEARINGS. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Jackson, Mich., a Corporation of Michigan. Filed Aug. 28, 1911. Serial No. 646,207. (Cl. 64—59.)



A ball retainer comprising a sheet metal ring having an inner circular series of relatively long axially extending arms having their ends flaring circumferentially, and an outer circular series of relatively short arms extending axially in the same direction as the long arms and gradually decreasing in circumferential width toward their ends, the arms of each series being spaced apart to form intervening ball openings, the openings between the inner arms being of considerably greater length than those between the outer arms in the direction of length of said arms.

1,080,083. WAGON-HOIST. HENRY W. STEEGE, Westgate, Iowa. Filed June 9, 1913. Serial No. 772,722. (Cl. 214—12.)



1. A wagon hoist, including a portable frame, a prime mover mounted thereon, a hoisting beam swingingly connected to the frame for movement above and at right angles thereto, a supporting leg carried by the free end of the beam, a vertical shaft operably connected to the prime mover, a short horizontal shaft mounted in the frame and adapted to be aligned with the beam, a hoisting shaft carried by the beam and disposed to be aligned with the horizontal shaft, and means for connecting and disconnecting the horizontal to the hoisting shaft.

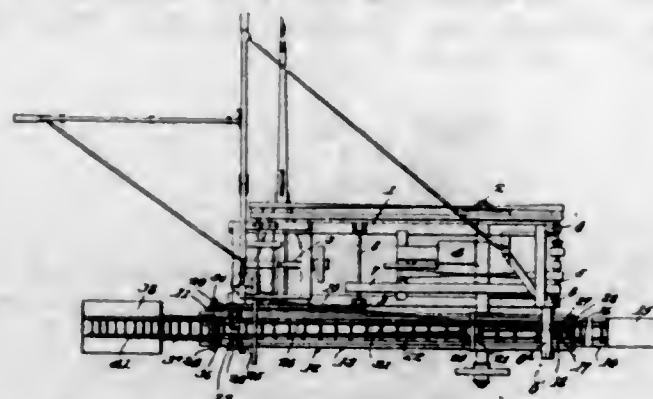
2. A wagon hoist, including a portable frame, a prime mover mounted thereon, a hoisting beam swingingly connected to the frame for movement above and at right angles thereto, a supporting leg carried by the free end of the beam, a vertical shaft operably connected to the prime mover, a short horizontal shaft mounted in the frame and adapted to be aligned with the beam, a hoisting shaft carried by the beam and disposed to be aligned with the horizontal shaft, means for connecting and disconnecting the horizontal to the hoisting shaft, an auxiliary hoist beam disposed at right angles to the main hoist beam, and a hoisting shaft carried by the auxiliary hoist beam and operably connected to the main hoisting shaft.

3. A wagon hoist, including a portable frame, a prime mover carried thereby, a vertical super-structure carried by the frame at one end thereof, a beam swingingly connected to the upper ends of the vertical super-structure for horizontal swinging movement, means for locking the beam at right angles to the frame, a supporting leg hingedly connected to the outer free end of said beam, a vertical shaft journaled in the super-structure and operably connected to the prime mover, a short horizontal shaft operably connected to the upper ends of the vertical shaft and journaled in the upper end of the super-structure, a hoisting shaft carried by the beam, and disposed to be aligned

with the horizontal shaft, and manually controlled means for operably connecting the horizontal to the hoisting shaft.

4. A wagon hoist, including a portable frame, a prime mover carried thereby, a vertical super-structure carried by the frame at one end thereof, a beam swingingly connected to the upper end of the vertical super-structure for horizontal swinging movement, means for locking the beam at right angles to the frame, a supporting leg hingedly connected to the outer free end of said beam, a vertical shaft journaled in the super-structure and operably connected to the prime mover, a short horizontal shaft operably connected to the upper end of the vertical shaft and journaled in the upper end of the super-structure, a hoisting shaft carried by the beam and disposed to be aligned with the horizontal shaft, manually controlled means for operably connecting the horizontal to the hoisting shaft, an auxiliary hoisting beam connected to the first beam, and a hoisting shaft carried thereby and operably connected to the hoisting shaft of the first beam.

1,080,084. CORN RACK AND ELEVATOR. HENRY W. STEEGE, Westgate, Iowa. Filed June 9, 1913. Serial No. 772,723. (Cl. 214—4.)



In an apparatus of the character described, a portable frame, a prime mover carried thereby, an endless conveyor mechanism supported by the frame, a horizontal shaft operably connected to the prime mover, and constituting the lower operating means of the endless conveyor, a vertical shaft operably connected to the horizontal shaft, a receiving hopper pivotally connected to the vertical shaft for lateral swinging movement, and an endless conveyor mounted in the receiving hopper and operated from the vertical shaft, the outlet thereof being disposed above the lower inlet end of the first endless conveyor.

1,080,085. METHOD OF RECOVERING GRAPHITE FROM WORN-OUT CRUCIBLES. ALBERT TRICHMANN, Zeltz, Germany. Filed Nov. 5, 1912. Serial No. 729,642. (Cl. 252.)

1. The method of recovering the graphite from worn out, broken crucibles, consisting in subjecting the crucible pieces to the action of an acid adapted to loosen the union between the graphite in said pieces and the other component substances of the same; heating the thus treated pieces to a glowing temperature; crushing them so as to loosen the slack; separating the slack from the crushed pieces; and grinding the latter.

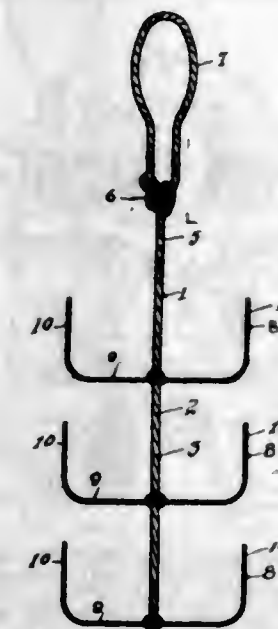
2. The method of recovering the graphite from worn out broken crucibles, consisting in subjecting the crucible pieces to the action of sulfuric acid; heating the thus treated pieces to a glowing temperature; crushing them so as to loosen the slack; separating the slack from the crushed pieces; and grinding the latter.

3. The method of recovering the graphite from worn out broken crucibles consisting in subjecting the crucible pieces to the action of a mineral acid, heating the thus treated pieces to a glowing temperature, crushing them so as to loosen the slack, separating the slack from the crushed pieces and grinding the latter.

4. The method of recovering the graphite from worn out broken crucibles, consisting in subjecting the crucible pieces to the action of a mineral acid for a number of

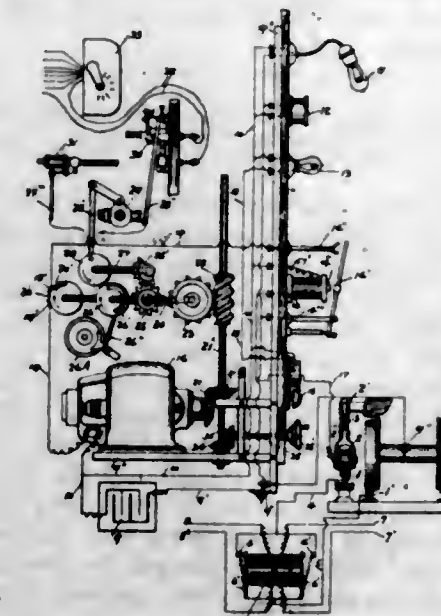
hours, heating the thus treated pieces to red heat, crushing them so as to loosen the slack, separating the slack from the crushed pieces, grinding the latter, and separating the product of the grinding process into grains and dust.

1,080,086. DRYING-RACK. HERBERT A. THOMAS, Belaire, Mich. Filed May 10, 1913. Serial No. 766,766. (Cl. 34—26.)



A drying rack of the class described comprising a frame consisting of a plurality of wire strands twisted together and so bent as to provide vertical arms, the lower ends of which are connected by a horizontal arm, said arms having their upper ends twisted together, one of said arms being of greater length than the other, whereby the long arm may be bent to provide a loop for suspending the rack, the supports formed from single lengths of wire which are passed between the strands forming the arms and twisted at their centers, said supports having curved arms for engaging the opposite ends of ears of corn.

1,080,087. AUTOMATIC SIGNALING AND TRAIN-STOPPING DEVICE. CLARENCE CLAUDE TURNER, Portland, Ore., assignor of one-half to George Yale, Portland, Ore. Filed May 27, 1912. Serial No. 699,946. (Cl. 246—58.)

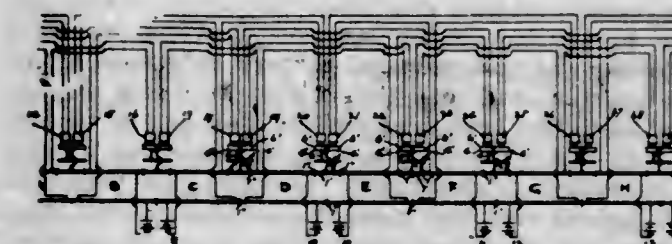


1. In a cab signaling system, a motor, a shaft driven thereby, means for shutting off the power, gearing between said means and the shaft, a member driven by said shaft, means for controlling the application of the brakes, a pin and slot connection between said member and said brake controlling means permitting a predetermined movement of the shaft without operation of said brake con-

trolling means, whereby when the motor is operated the power will first be shut off and then the brakes applied.

2. In a cab signaling system, a partial circuit on the cab including a source of energy and a magnet, said partial circuit having as terminals the wheels of the vehicle and a contact device adapted to contact with stationary contacts on the roadway, a circuit and a motor therein a switch operated by said magnet adapted to close said circuit when the magnet is energized, train controlling means operated by said motor a switch in the motor circuit operated by the motor and adapted to open the motor circuit when the train controlling means have been operated and a crank shaft connected with the motor for returning the parts to normal position.

1,080,088. AUTOMATIC SIGNALING AND TRAIN-STOPPING COMBINATION CIRCUIT DEVICE. CLARENCE CLAUDE TURNER, Portland, Ore., assignor of one-half to George Yale, Portland, Ore. Original application filed May 27, 1912, Serial No. 699,946. Divided and this application filed Mar. 11, 1913. Serial No. 753,539. (Cl. 246—27.)



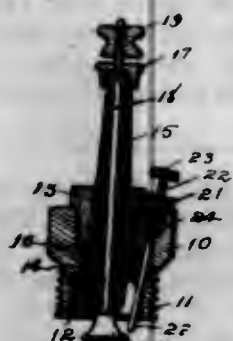
1. In an automatic signaling and train stopping combination circuit device of the character described, the combination with track batteries, track relays arranged in pairs and their circuits of a track having a short insulated section for each pair of relays, an insulated conductor which forms a conducting connection between the section of insulated track rail and the armatures of the corresponding track relays, a section of insulated third rail which is laid in close proximity to and parallel with the insulated section of the main track rail a second insulated conductor and contacting points connected by the aforesaid second insulated conductor to the aforesaid section of insulated third rail, and arranged to contact with the aforesaid relay armatures when they are released by their respective magnets.

2. A single track system of train control comprising a track having one rail divided by insulated joints into block sections and the other rail divided by two insulated joints at the end of each block into corresponding block sections with relatively short sections separating the block sections, a contact rail paralleling each short section, connections between each short section and the corresponding contact rail, two magnets for each contact rail controlling said connections one of the magnets of any contact rail being connected with the track rails of the second block in one direction from the contact rail and the other magnet being connected with the track rails of the second block in the opposite direction, and a battery connected with the rails of each block section.

1,080,089. SPARK-PLUG. FREDRICH J. WALKER and FRANK C. LOEFFLER, Des Moines, Iowa. Filed Jan. 9, 1912. Serial No. 670,301. (Cl. 123—169.)

1. In a device of the class described, a spark plug body, an elongated insulating body detachably mounted therein, an electrode detachably mounted in said insulating body, its inner end extending beyond said body, clamping means on the outer end thereof for securing a current carrying wire thereto, said body being provided with a passage for a second electrode extending obliquely through said body from a point within the cylinder when the body is attached thereto to a point outside said cylinder and with an enlarged internally screw threaded recess at the outer end of said opening, a ground electrode adjustably mounted in said opening and extending from a point near the

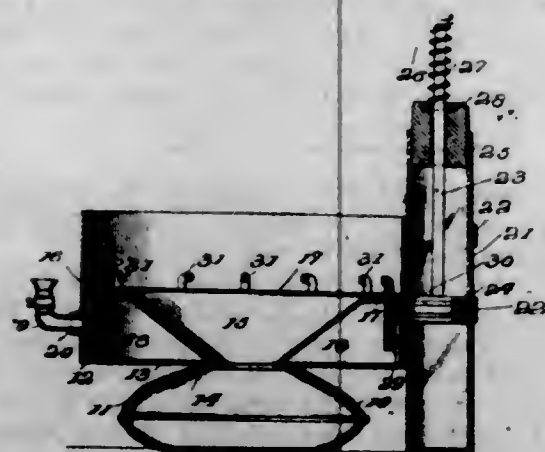
inner end of the first electrode at an acute angle thereto to a point outside the outer end of the spark plug body, said ground electrode being screwthreaded over the outer portion of its length, a head on said ground electrode, a screwthreaded plug mounted in said recess, said screwthreaded plug being provided with a screwthreaded opening in which the screwthreaded portion of said ground electrode is received, and with a head on its outer end, and packing material in said recess between said screwthreaded plug and said body.



2. In a device of the class described, a spark plug body having recesses at both ends and a partition between said recesses in which is an opening, an elongated insulating body having one end extended through said opening and provided with a shoulder adjacent thereto, a plug mounted on said insulating body and screwed into one of the said recesses in said spark plug against said shoulder, an electrode extending longitudinally through said insulating body, a ground electrode slidably mounted in said spark plug body, and extending from a point near the inner end of the first electrode at an acute angle thereto, through the spark plug body, to a point outside the same, a plug screwed on said ground electrode and screwed into said body, and a head on the outer end of said ground electrode.

3. In a device of the class described, a spark plug body, having a recess at its inner end and an insulating body mounted therein, an electrode mounted in said insulating body its inner end extending beyond said body, clamping means on the outer end thereof for securing a current carrying wire thereto, a ground, a second electrode adjustably mounted in said insulating body and extending from a point near the inner end of the first electrode at an acute angle thereto and extending to a point outside the outer end of the spark plug body, said ground electrode being screwthreaded over the outer portion of its length, a head on said ground electrode a screwthreaded plug mounted in the outer end of said spark plug body, said screwthreaded plug being provided with a screwthreaded opening in which the screwthreaded portion of said ground electrode is received, and a head on said screwthreaded plug.

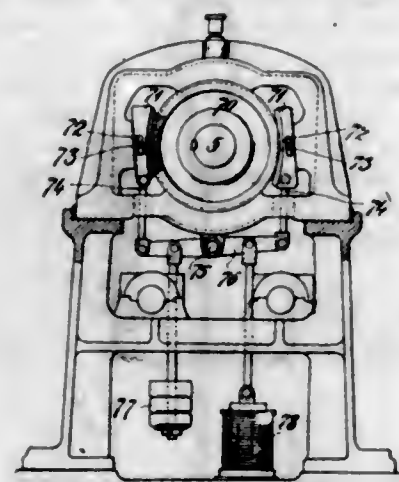
1,080,090. CUSPIDOR. ALFRED WARNE, Miami, Fla. Filed Feb. 7, 1913. Serial No. 746,953. (Cl. 4-40.)



A cuspidor comprising a receptacle formed with an opening, a conical member formed with a flange disposed to extend within the opening of the receptacle, a cylindrical member embracing the conical member and secured to the edge of the same whereby a chamber is formed be-

tween the conical member, the cylindrical member and the receptacle, said cylindrical member being provided with an opening through which the flange portion of the conical member extends, and means for forcing fluid from the chamber to the receptacle, the fluid in its passage to the receptacle passing over the conical member.

1,080,091. CONSTRUCTION OF POWER-LOOMS. JOSEF WINTERMAYER, Vienna, Austria-Hungary. Filed June 17, 1909. Serial No. 502,674. (Cl. 139-39.)



1. In a power loom the combination with the lay and operating means therefor, of a brake adapted to arrest the lay, an electric circuit, a solenoid arranged in said circuit and adapted when energized to maintain the brake in inoperative condition, means to operate the brake and an automatic switch adapted to permit the said means to operate the said brake.

2. In a power loom the combination with the lay and the lay actuating shaft, of a brake-disk mounted on said shaft, brake blocks arranged to cooperate with said brake-disk, a weight for operating the brake blocks, an electric circuit adapted to keep, while energized, the said brake blocks out of engagement with said brake-disk, and an automatic switch adapted to break the circuit, thereby permitting the brake blocks to be brought into engagement with said brake-disk by said weight.

3. In a power loom the combination with the lay and its actuating shaft, of a brake for said shaft, means for operating said brake, an electric circuit, a solenoid located therein and adapted, while energized, to maintain the brake inoperative, a main switch in said circuit, a shunt, and a second switch adapted, when reversed, to cut out the said solenoid, thereby causing the lay to be held in its position.

1,080,092. CHANDELIER. WILLIAM ADAMS, San Francisco, Cal. Filed Feb. 24, 1913. Serial No. 750,097. (Cl. 240-76.)

1. In a chandelier, the combination of a body; an arm; a lighting unit and ray-directing means carried by the outer end of the arm; a fixed sleeve fitted in and projecting from the body, the projecting end being formed with an enlargement which bears exteriorly on the body, the inner end of the light-carrying arm being seated to rotate on its axis in said sleeve; means carried by the arm and co-acting with the sleeve within the body to both limit the axial movement of said arm and to lock said arm against outward lineal movement; means on the arm exterior to the sleeve and acting in conjunction with the enlargement of said sleeve to lock said arm against inward lineal movement; and means carried by the enlargement of the sleeve to fix the arm in the position to which it is turned.

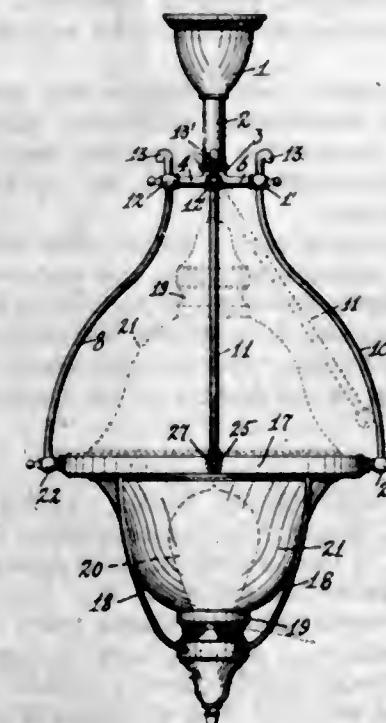
2. In a chandelier, the combination of a body; an arm; a lighting unit and ray-directing means carried by the outer end of the arm; a fixed sleeve fitted in and projecting from the body, said sleeve having a semi-circumferential cut out portion lying within the body and having on its projecting end an enlargement which bears exteriorly on the body, the inner end of the light-carrying arm being

seated to rotate on its axis in said sleeve and its enlargement; a stud on the inner extremity of the arm, playing in the cut out portion of the sleeve, to limit the axial movement of said arm; a collar on the arm bearing against the enlargement of the sleeve and acting in conjunction with the stud to fix the arm against lineal movement in its seat, and means carried by the enlargement of the sleeve to lock said arm in the position to which it is turned.



3. In a chandelier, the combination of a body; an arm; a lighting unit and ray-directing means carried by the outer end of the arm; a fixed sleeve fitted in and projecting from the body, said sleeve having a semi-circumferential cut out portion lying within the body and having on its projecting end an enlargement which bears exteriorly on the body, the inner end of the light-carrying arm being seated to rotate on its axis in said sleeve and its enlargement; a stud on the inner extremity of the arm, playing in the cut out portion of the sleeve, to limit the axial movement of said arm; a collar on the arm bearing against the enlargement of the sleeve and acting in conjunction with the stud to fix the arm against lineal movement in its seat; and a set screw in said enlargement of the sleeve impinging on the arm to lock said arm in the position to which it is turned.

1,080,093. CHANDELIER. WILLIAM ADAMS, San Francisco, Cal. Filed Feb. 24, 1913. Serial No. 750,098. (Cl. 240-91.)



1. In a chandelier, the combination of a stem-structure; an annular series of hanger-arms depending therefrom, said series comprising plural pairs, the members of which are oppositely located; a body shell; a pivotal connection

at opposite sides of the body shell with the lower extremities of a first pair of hanger arms; a fixed connection between the upper ends of said first pair of hanger arms and the stem-structure and also between the upper end of one member of a second pair of hanger arms and said stem-structure; a pivotal connection between said stem-structure and the upper end of the other member of said second pair of hanger arms adapted to permit said hanger arm to swing laterally out of the path of the movement of the body-shell on its pivotal connections with the first pair of hanger-arms; a detachable connection between said body shell and the lower extremities of said second pair of hanger arms; a source of light carried by the body shell; and ray-directing means associated with said source of light.

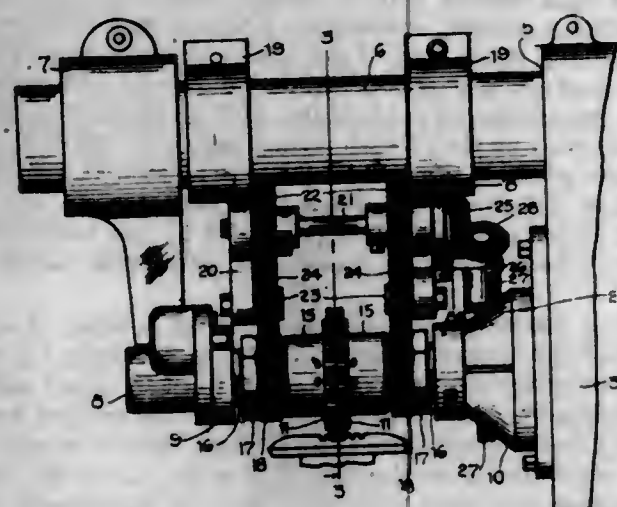
2. In a chandelier, the combination of a stem; a symmetrical four branched head carried by the stem; a first pair of opposing hanger arms having at their upper ends a fixed connection with two opposing branches of said head; a second pair of opposing hanger arms, one of which has at its upper end a fixed connection with one of the other branches of said head, the other arm of said second pair having a pivotal connection at its upper end with the remaining branch of said head, adapting said arm to swing laterally; a body-shell; a pivotal connection between the body-shell and the lower ends of the first pair of arms; a detachable connection between said body shell and the lower ends of the second pair of arms; a source of light carried by the body-shell; and ray-directing means associated with said source of light.

3. In a chandelier, the combination of a stem; a symmetrical four branched head carried by the stem; a first pair of opposing hanger arms having at their upper ends a fixed connection with two opposing branches of said head; a second pair of opposing hanger arms, one of which has at its upper end a fixed connection with one of the other branches of said head, the other arm of said second pair being pivotally mounted at its upper end within the remaining branch of said head, adapting said arm to swing laterally; means for holding said arm in said branch; a body-shell; a pivotal connection between the body-shell and the lower ends of the first pair of arms; a detachable connection between said body shell and the lower ends of the second pair of arms; a source of light carried by the body-shell; and ray-directing means associated with said source of light.

4. In a chandelier, the combination of a stem; a symmetrical four branched head carried by the stem; a first pair of opposing hanger arms having at their upper ends a fixed connection with two opposing branches of said head; a second pair of opposing hanger arms, one of which has at its upper end a fixed connection with one of the other branches of said head, the other arm of said second pair having a pivotal connection at its upper end with the remaining branch of said head, adapting said arm to swing laterally; a body-shell; a pivotal connection between the body-shell and the lower ends of the first pair of arms; a detachable connection between said body shell and the lower ends of the second pair of arms, consisting of screw pins passing through the arms and threaded in the body shell; a source of light carried by the body-shell; and ray-directing means associated with said source of light.

5. In a chandelier, the combination of a stem; a symmetrical four branched head carried by the stem; a first pair of opposing hanger arms having at their upper ends a fixed connection with two opposing branches of said head; a second pair of opposing hanger arms, one of which has at its upper end a fixed connection with one of the other branches of said head, the other arm of said second pair being pivotally mounted at its upper end within the remaining branch of said head, adapting said arm to swing laterally; means for holding said arm in said branch; a body-shell; a pivotal connection between the body-shell and the lower ends of the first pair of arms; a detachable connection between said body shell and the lower ends of the second pair of arms, consisting of screw pins passing through the arms and threaded in the body-shell; a source of light carried by the body-shell; and ray-directing means associated with said source of light.

1,080,094. GEAR-CUTTING ATTACHMENT FOR MILLING-MACHINES. LANDRUM EARL BAGWELL, Hartsyllle, S. C. Filed Jan. 2, 1913. Serial No. 739,915. (Cl. 90-5.)



1. In a gear cutting machine, the combination with a longitudinally reciprocating carrier; of a transversely extending rotating arbor disposed thereabove, a pair of sleeve members loosely mounted on said arbor and capable of longitudinal movement thereon with respect to one another, a pair of cutters respectively connected to said sleeve members, said cutters being keyed to said arbor and rotatable with the latter independent of said sleeve members, and means in connection with said carrier and said sleeve members for moving the latter and correspondingly said cutters longitudinally on said arbor upon the reciprocation of said carrier.

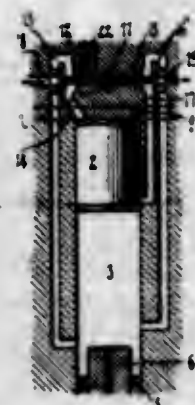
2. In a gear cutting machine, the combination with a longitudinally reciprocating carrier; of a transversely extending rotatable arbor disposed thereabove, a pair of spaced and stationarily mounted bearings through which said arbor is disposed, the inner peripheries of said bearings being oppositely threaded, a pair of sleeve members loosely applied to said arbor and having portions thereon oppositely threaded to engage respectively the threaded portions of said bearings, a pair of cutters keyed to said arbor for rotation with the latter, said cutters also having loose connection with said sleeve members, and means in connection with said carrier and said sleeve members for the rotation of the latter upon the reciprocation of the former, whereby said sleeve members and cutters connected therewith will be moved longitudinally with respect to one another on the arbor.

3. In a gear cutting machine, the combination with a longitudinally reciprocating carrier; of a transversely extending rotatable arbor disposed thereabove, a pair of spaced and stationarily mounted bearings through which said arbor is disposed, the inner peripheries of said bearings being oppositely threaded, a pair of cutters keyed to said arbor for rotation therewith, each of said cutters being provided with a hub-like portion having an annular flange at the outer end thereof, a pair of sectional sleeve-like members loosely applied to the arbor and having portions thereof respectively interlocked with the hub-like portions of said cutters, said sleeve-like members having portions thereof oppositely threaded to engage the oppositely threaded portions of said bearings, means applied to said sleeve-like members for retaining the sections thereof together and correspondingly locking the same in engagement with the hub-like portions of said cutters, and means for rotating said sleeve-like members upon the reciprocation of said carrier, whereby the former and correspondingly the cutters carried thereby will be moved longitudinally with respect to one another on the arbor.

4. In a gear cutting machine, the combination with a longitudinally reciprocating carrier; of a transversely extending and rotatable arbor disposed thereabove, a pair of stationarily mounted and spaced bearings through which said arbor is disposed, the inner peripheries of said bearings being oppositely threaded, a pair of cutters keyed to said arbor for rotation therewith, each of said cutters be-

ing provided with a hub-like portion having an annular flange on the outer end thereof, a pair of sleeve-like members applied to said arbor and having portions thereof interlocked with the hub-like portions of said cutters, each of said sleeves being formed in sections and having portions thereof oppositely threaded, a gear applied to each of said sleeve-like members to retain the sections thereof together and in loosely locked engagement with the hub-like portions of said cutters, means applied to the threaded portions of said sleeve-like members for locking the gears in position thereon, the remaining threaded portions of said sleeve-like members being respectively engaged with the aforesaid threaded bearings, and means in connection with said reciprocating carrier and the gears on said sleeve-like members for rotating the latter upon the reciprocation of the former, whereby said sleeve-like members and cutters engaged therewith will be moved longitudinally with respect to one another on said arbor as the carrier is reciprocated.

1,080,095. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 14, 1912. Serial No. 677,592. (Cl. 121-20.)



1. In a percussive tool, a pressure fluid operated distributing oscillating valve and means under manual control for holding the valve in one position.

2. In a percussive tool, a pressure fluid operated distributing oscillating valve and means under manual control for holding the valve in position to stop the operation of the tool.

3. In a percussive tool, a hollow drill steel, a pressure fluid operated distributing valve and means under manual control for holding the valve in position to maintain communication between the motive fluid supply and the drill steel.

4. In a percussive tool, a hollow drill steel, a pressure fluid operated distributing oscillating valve and means under manual control for holding the valve in position to maintain communication between the motive fluid supply and the drill steel.

5. In a percussive tool, a hollow drill steel, a pressure fluid operated distributing valve and means under manual control for holding the valve in position to stop the operation of the tool and to maintain communication between the motive fluid supply and the drill steel.

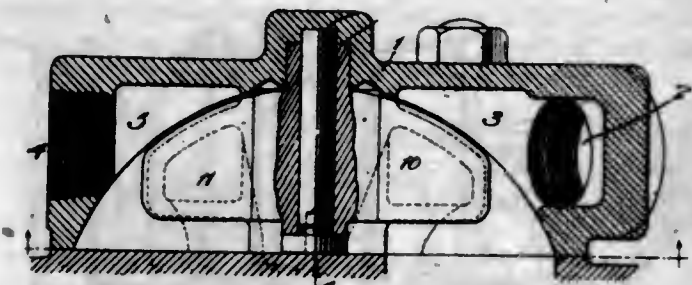
[Claims 6 to 28 not printed in the Gazette.]

1,080,096. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,835. (Cl. 121-11.)

1. A valve mechanism including a valve chest having a cylindrical chamber, a winged valve having its body portion fitted to said chamber and a spindle on which the valve oscillates provided with an enlarged head also fitted to said chamber.

2. A valve mechanism including a valve chest having a cylindrical chamber, a winged valve having its body portion fitted to said chamber and a spindle on which the valve oscillates, having one end provided with an enlarged

head fitted to said chamber and its other end seated in said chest.



3. A valve mechanism including a valve chest having a cylindrical chamber opening through its inner face, a winged valve having its body portion fitted to said chamber and a spindle on which the valve oscillates provided with an enlarged head fitted to the inner end of said chamber.

4. A valve mechanism including a valve chest having a cylindrical chamber opening through its inner face, a winged valve having its body portion fitted to said chamber and a spindle on which the valve oscillates provided with an enlarged head fitted to the inner end of said chamber, said spindle being removable through said inner face of the valve chest.

5. A valve mechanism including a valve chest having a cylindrical chamber opening through its inner face, a winged valve having its body portion fitted to said chamber and a spindle on which the valve oscillates provided with an enlarged head fitted to the inner end of said chamber, said spindle and valve being removable through said inner face of the valve chest.

[Claims 6 to 15 not printed in the Gazette.]

1,080,097. SUPPORTER. MARY E. BIRD, Plymouth, N. H. Filed Feb. 3, 1913. Serial No. 745,994. (Cl. 128-21.)

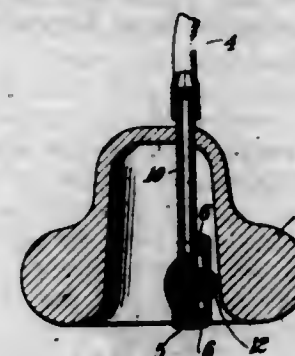


In combination with a pessary, a support therefor comprising an elongated body portion of flexible material having its transverse marginal portion folded inwardly to afford a pocket, the end of such folds being secured to the body, attaching means carried by the ends of the body, a compressible pad insertible in the pocket, a strip of impervious material disposed along the outer face of the body and being secured thereto adjacent its ends, and an absorbent cover wrapped transversely around the body intermediate the length thereof.

1,080,098. SUBMARINE SIGNALING. LUCIEN IRA BLAKE, London, England. Filed Jan. 23, 1912. Serial No. 672,857. (Cl. 116-18.)

1. A sound producer for submarine signaling, comprising in combination, two rigid bodies with parallel opposing surfaces maintained out of contact, but in close elastic relation, means for introducing, under pressure, a jet of

fluid between the opposing surfaces of said bodies so that it may flow with diminishing velocity from its entrance into, to its exit from the space between the same, and means for producing sonorous tones by the vibrations thereby imparted to said bodies.



2. An automatic vibrator for submarine sound producing apparatus comprising in combination, a vessel adapted for connection with a source of water under pressure, an ajutage for the same and a solid body having its surface confronting and corresponding in contour to the inner surface of the ajutage and held in close elastic relation thereto, whereby it will be alternately attracted and repelled by variations of pressure due to the diminishing velocity of the flow of water from its entrance to its exit between the said body and the ajutage.

3. An automatic vibrator for submarine sound producing apparatus, comprising in combination, a vessel adapted for connection with a source of water under pressure, an ajutage for the same of bowl-shaped form, and a solid confronting body having a surface of a contour corresponding to that of the ajutage and held in close elastic relation thereto, whereby it will be alternately attracted and repelled by the flow of water from the ajutage.

4. An automatic vibrator for submarine sound producing apparatus, comprising in combination, a vessel adapted for connection with a source of water under pressure, an ajutage for the same of bowl-shaped form and a solid confronting body having a surface of a contour corresponding to that of the ajutage but with a flat portion opposite to and of greater area than the discharge opening of the same, and held in close elastic relation to the ajutage, as and for the purpose set forth.

5. An automatic sound producer for submarine signaling, comprising, in combination, a cylindrical vessel, a tube for connecting the same to a source of water under pressure, an ajutage inserted in the wall of the said vessel, and a vibrating member having a surface confronting and corresponding in contour with the inner surface of the ajutage, and held in close elastic relation thereto, whereby it will be attracted and repelled by the flow of water from the discharge opening of the ajutage, as set forth.

[Claim 6 not printed in the Gazette.]

1,080,099. FOUNTAIN-PEN. WILLIAM L. CHAPMAN, New York, N. Y. Filed Mar. 26, 1912. Serial No. 686,293. (Cl. 120-47.)

1. A fountain pen having a rotary valve for opening and closing the front end of the reservoir, a piston combined with said valve, and a combined valve stem, piston rod and filling tube, adapted to be drawn out at the rear end of the reservoir, the said stem having means for turning it, means for releasably holding it longitudinally and means for opening and closing the end of the filling tube.

2. A fountain pen having a rotary valve for opening and closing the front end of the reservoir, a piston combined with said valve, and a combined valve stem, piston rod and filling tube, adapted to be drawn out at the rear end of the reservoir, the said stem and the cap of the pen being provided with cooperating means for turning the stem by movement of the cap.

3. A fountain pen having a rotary valve for opening and closing the front end of the reservoir, a piston combined with said valve, and a combined valve stem, piston rod and filling tube, adapted to be drawn out at the rear

end of the reservoir, a cap having means for securing it to the pen by turning it and means for automatically turning the stem by the turning movement of the cap.

4. A fountain pen having a rotary valve for opening and closing the front end of the reservoir, a piston combined with said valve, and a combined valve stem, platon rod and filling tube, adapted to be drawn out at the rear end of the reservoir.



5. A fountain pen having a reservoir and a rotary valve which coacts with ink ducts in the reservoir wall, a combined filling tube and valve rod, valve actuating means comprising a rotary flange having one or more openings, a flange on the barrel having one or more openings, a cap having projections or teeth one of which is adapted to pass said flanges and to be turned to secure the cap and another of which engages with the rotary flange during such action to operate the valve.

[Claims 6 and 7 not printed in the Gazette.]

1,080,100. PROCESS FOR THE MANUFACTURE OF LACQUERS AND VARNISHES. ARTHUR COHN, Neukölln, near Berlin, Germany. Filed Apr. 17, 1912. Serial No. 691,512. (Cl. 134-26.)

1. The herein described process of manufacturing lacquers and varnishes from wood oil, which consists in mixing the wood oil with a terpenylic substance having a minimum boiling point of about 170° C.

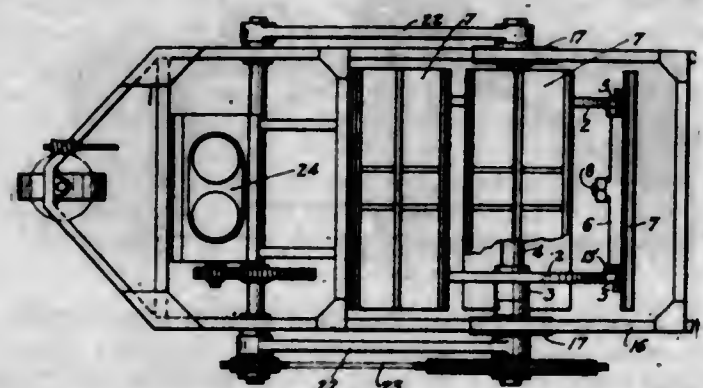
2. The herein described process of manufacturing lacquers and varnishes from wood oil, which consists in mixing the wood oil with a terpenylic substance.

1,080,101. TRACTION-VEHICLE. LESLIE S. CUSHMAN, Los Angeles, Cal. Filed Oct. 1, 1912. Serial No. 728,430. (Cl. 21-114.)

1. In combination, a rotary frame, a series of feet carried by said frame, a vehicle body supported by said rotary frame, and a compensating or neutralizing device acting between said rotary frame as a whole and said vehicle body to maintain said vehicle body at the same elevation during the rotation of said rotary frame, said compensating device consisting of two cooperating cam elements, one of said elements being carried by said rotary frame and the other being carried by the vehicle body.

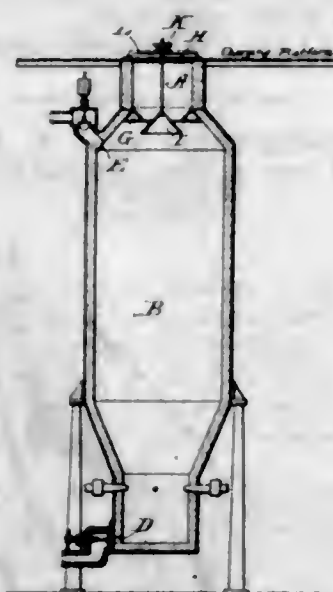
2. In combination, a rotary frame, a series of feet pivoted to said frame, a vehicle body supported by said frame, a multiple faced cam mounted axially of said rotary frame and in fixed relation thereto to rotate therewith, and a roller carried by said vehicle body, said roller cooperating with said cam to form a device for neutral-

izing the vertical movements of said rotary frame to maintain said vehicle body at the same elevation.



3. In combination, a rotary frame, a series of feet carried by said frame, a vehicle body supported by said frame, a cam mounted axially of said frame and in fixed relation thereto to rotate therewith, said cam having a series of radial projections, one for each space between said feet, and a roller carried by said vehicle body, said roller traveling over said projections of said cam to form a device for neutralizing the vertical movements of said rotary frame to maintain said vehicle body at the same elevation.

1,080,102. PROCESS OF REDUCING ZINC COMPOUNDS. ELISHA B. CUTTEN, Erie, Pa. Filed Sept. 15, 1913. Serial No. 789,843. (Cl. 75-153.)



1. The process of reducing zinc compounds free from slag forming materials which consists in subjecting them in the absence of fluxing material but in the presence of carbon to a temperature ordinarily sufficient to vaporize metallic zinc, and under a pressure sufficiently high to prevent such vaporization, the zinc being thereby precipitated as molten metallic zinc, substantially as set forth.

2. The process of reducing zinc compounds free from slag forming materials which consists in subjecting them to reducing gases under pressure and at a reducing temperature and to a solid reducing agent, substantially as described.

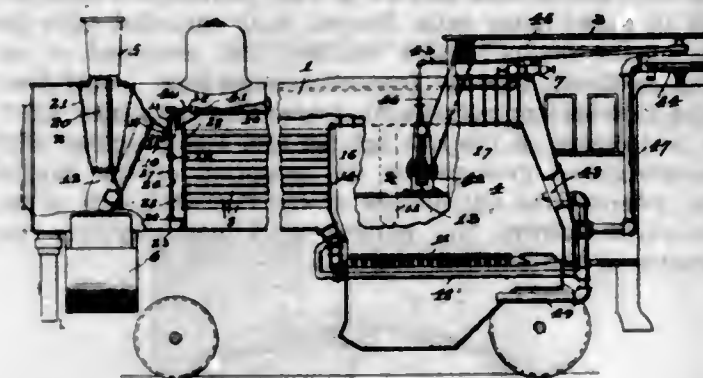
3. The process of reducing zinc oxide free from slag forming materials which consists in subjecting it in presence of carbon to a high temperature and high pressure, substantially as described.

4. The process of reducing zinc oxide free from slag forming materials which consists in subjecting it to reducing gases under pressure at a reducing temperature and to a solid reducing agent substantially as described.

1,080,103. LOCOMOTIVE. FRANCIS J. DOYLE, Chicago, Ill. Filed Feb. 21, 1910. Serial No. 545,236. (Cl. 110-76.)

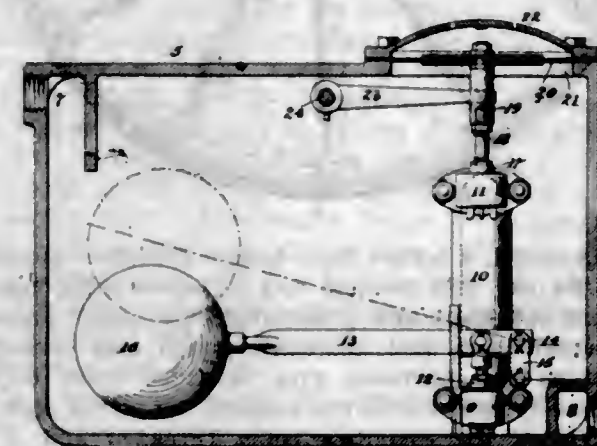
In a locomotive, the combination with a fire chamber, a grate at the lower end of said chamber and a closed ash

pit below said grate, flues extending from the front end of said fire chamber, a wall depending from the roof of said fire chamber and terminating within a short distance of the grate and disposed in front of but spaced



only a short distance from the inlet ends of said flues, adjustable means for restricting the outlets of said flues, means for positively forcing air into said closed ash pit and into said fire chamber and into the restricted throat between said depending wall and grate.

1,080,104. STEAM-HEATING APPARATUS. JAMES LOGAN FITTS, Merchantville, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed Mar. 12, 1910. Serial No. 548,802. (Cl. 237-9.)



1. In a steam heating system, the combination of a return pipe of low vacuum, a return pipe of high vacuum, and a governing mechanism between the return pipe of low vacuum and return pipe of high vacuum comprising a closed chamber for receiving the air and water of condensation from the return pipe of low vacuum, a valved communication between the low and high vacuum return pipes arranged within the chamber at a point above where the water of condensation collects and acting as the sole means for the escape of the air from the chamber, means operated by the low vacuum in the chamber for controlling the valved communication, and separate means controlled by a float substantially independent of the vacuum conditions for delivering the water of condensation received in the chamber from the low vacuum return into the high vacuum return.

2. In a steam heating system, the combination of a return pipe of low vacuum, a return pipe of high vacuum, and a governing mechanism between the return pipe of low vacuum and return pipe of high vacuum comprising a low vacuum chamber for receiving the air and water of condensation from the return pipe of low vacuum, a valved communication within the chamber from the upper part of the chamber to the high vacuum return pipe and acting as the sole means for the escape of air from the chamber, means operated by the low vacuum in the chamber for controlling the valved communication, and separate means controlled by a float substantially independent of the vacuum conditions and at a low elevation within the chamber for delivering the water of condensation received from the low vacuum return into the high vacuum return.

187 O. G.—5

3. In a steam heating apparatus, a low vacuum return pipe, and a high vacuum return pipe, combined with a governing device comprising a low vacuum chamber connecting with the low vacuum return pipe and having two valve chambers at different elevations in communication with the high vacuum return pipe, a float actuated valve for the lower valve chamber for intermittently controlling the discharge of water of condensation from within the low vacuum chamber into the high vacuum return pipe, a valve for controlling the passage of air from the low vacuum chamber through the upper valve chamber into the high vacuum return pipe subjected continually to a difference in pressure on the two sides, and a pressure motor device separate from the upper valve for controlling the said upper valve operated by variations in the pressure existing in the low vacuum chamber and maintaining the pressure in the chamber slightly higher than that in the return pipe.

4. In a steam heating apparatus, a low vacuum return pipe, and a high vacuum return pipe, combined with a governing device comprising a low vacuum chamber connecting with the low vacuum return pipe and having two valve chambers at different elevations in communication with the high vacuum return pipe each subjected to a continual differential in pressure on its opposite sides, a float actuated valve for the lower valve chamber for intermittently controlling the discharge of water of condensation from within the low vacuum chamber into the high vacuum return pipe, a valve for controlling the passage of air from the low vacuum chamber through the upper valve chamber into the high vacuum return pipe subjected continually to a difference in pressure on its two sides, a pressure motor device for controlling the said upper valve operated by variations in the pressure existing in the low vacuum chamber to maintain the difference in pressure on the two sides of the valve, and adjusting devices extending to the outside of the low vacuum chamber for adjusting the operation of the pressure motor device for regulating the extent of lower vacuum to be maintained in the low vacuum chamber and return pipe.

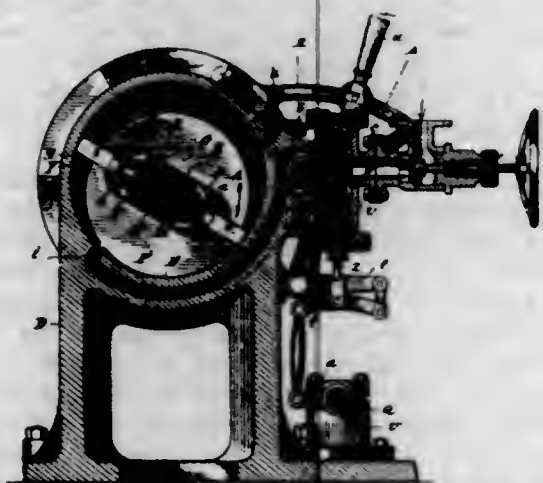
5. In a steam heating apparatus, a low vacuum return pipe and a high vacuum return pipe, combined with a governing device comprising a low vacuum chamber connecting with the low vacuum return pipe and provided with two valve chambers at different elevations in communication with the high vacuum return pipe, a float actuated valve for the lower chamber for intermittently controlling the discharge of water of condensation from within the low vacuum chamber into the high vacuum return pipe, a valve acting as the sole means for controlling the passage of air from the low vacuum chamber through the upper valve chamber into the high vacuum return pipe, and a pressure motor device immediately associated with the low vacuum chamber for controlling the said upper valve consisting of a diaphragm connected to the valve and influenced by the extent of partial vacuum within the low vacuum chamber to close the air valve, and adjustable counter-balancing devices for regulating the action of the partial vacuum upon the diaphragm, whereby the degree of lower vacuum in the return may be adjusted.

[Claims 6 and 7 not printed in the Gazette.]

1,080,105. ROTARY STEAM-ENGINE. CESARE FRANCO, New York, N. Y. Filed July 5, 1911. Serial No. 637,043. (Cl. 121-78.)

1. In a rotary steam engine embodying a suitable cylinder, a steam chest, a rotor eccentrically mounted upon a suitable shaft, said shaft being journaled in suitable bearings provided in the walls of the cylinder, the combination of two oppositely disposed spring controlled pistons reciprocally held in the rotor and adapted for engaging the peripheral wall of the cylinder and rotating the rotor and shaft of the engine with an eccentrically controlled valve disposed in a suitable valve seat in the steam chest, adapted for alternately opening and closing the induction port and the exhaust port of the engine whereby the steam is

controlled as required to operate the engine, said valve being reciprocally seated in the valve chest and having a rod projected beyond the casing thereof, said rod being pivotally secured to a lever adapted for reciprocating said valve, said lever having one end pivotally secured by link connection with a crank shaft, said crank shaft being reciprocally connected with a rod which is eccentrically connected with the main driving shaft of the engine, the other end of said lever being connected by link connection with the arm of an adjusting lever, whereby the fulcrum of the said lever may be shifted as required to change the position of the valve whereby the engine may be reversed.



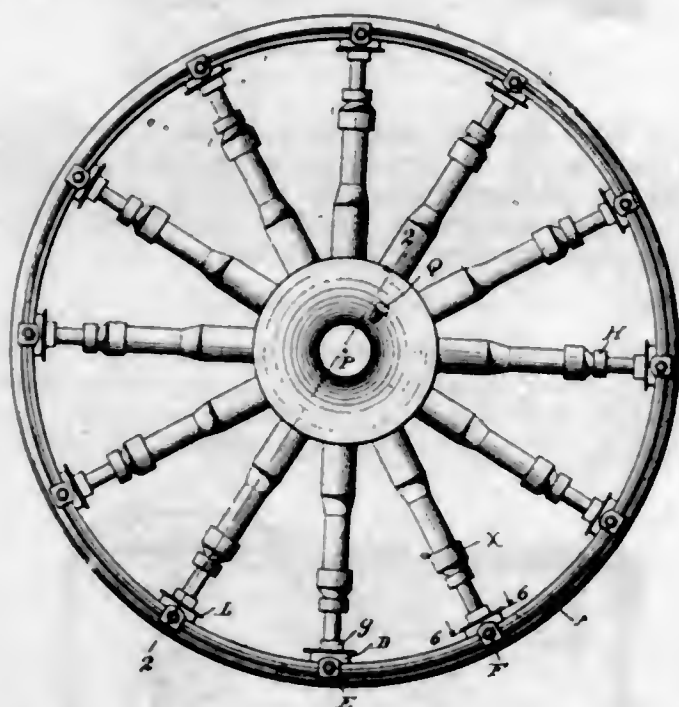
2. In a rotary engine having suitable supporting frame, casing, cylinder, steam chest, rotor and spring actuated reciprocating pistons reciprocally held in said rotor, said rotor being mounted upon a suitable drive shaft eccentrically held in suitable journals provided in the casing of the engine, the combination of a reciprocating valve disposed within the steam chest, adapted for regulating the flow of steam in the engine with means for controlling the valve comprising eccentrically actuated mechanism connected with the drive shaft of the engine and the valve rod of said valve, said mechanism embodying a lever pivotally connected at its central portion to the valve rod and having one end connected by a link with a crank arm actuated by the eccentric mechanism of the drive shaft, said lever having its opposite end pivotally connected by a link with a crank arm of a hand lever adjustably mounted upon the frame of the engine whereby the fulcrum of said lever may be changed as required to change the position of the valve whereby the engine may be reversed, substantially as and for the purposes set forth.

3. In a rotary steam engine, having a suitable frame, casing, cylinder, rotor, pistons, inlet and exhaust ports, a steam chest and reciprocable valve, the combination of a reversing mechanism embodying an eccentrically actuated arm supported upon the drive shaft of the engine, said arm being pivotally connected with a crank arm suitably mounted upon a rocking shaft, said shaft being journaled in suitable bearings provided upon said frame, a link connecting the end of the crank arm with one end of a lever, said lever having its central portion pivotally connected with a rod provided upon the valve and adapted for actuating the valve, said lever being fulcrumed at its opposite end by link connections with the arm of an adjustable hand lever, suitably mounted upon the frame of the engine whereby the position of the valve may be changed as required to reverse the engine substantially as shown and described.

1,080,106. SPRING AND PNEUMATIC WHEEL. JOSEPH A. GRAY, Norwalk, Conn. Filed July 7, 1910. Serial No. 570,907. (Cl. 152-29.)

1. In a wheel, a hollow hub, hollow cylinder members having communication with said hub, piston members movable in said cylinder members, a clamp member secured at the outer extremities of the piston members, said clamp members having transverse slots therein, and a resilient rim formed of annular sections provided with loops extending within the transverse slots of the clamp members, the hub and connecting cylinders being adapted to contain air under pressure.

2. In a wheel, a hollow hub, hollow cylinders communicating therewith and provided with slanting inner ends, the hub and cylinders adapted to contain lubricant and pneumatic fluid under pressure, pistons operable in said cylinders, piston rods carried by said pistons and provided with threaded outer ends, flanged nuts threaded onto the ends of the piston rods, a resilient rim composed of annular sections having inwardly extending projections, clamp members provided with transverse slots into which the projections on the rim extend, and also provided with circumferential grooves for the reception of the flanged nuts, whereby the adjustment of the threaded ends of the piston rods within the flanged nuts will regulate the diameter of the resilient rim.



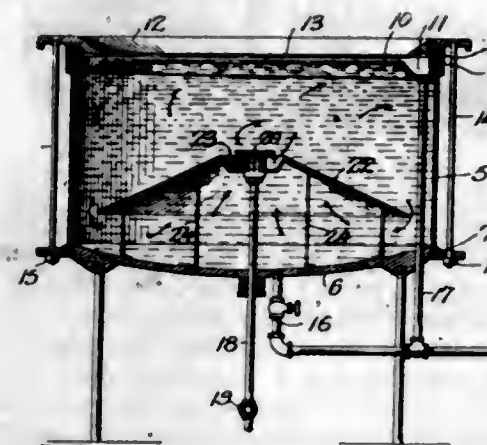
3. In a wheel, a hollow hub, hollow cylinders communicating with the hub, the hub and cylinders being adapted to contain lubricant and pneumatic fluid under pressure, pistons operable in said cylinders, piston rods carried by said pistons and provided with threaded outer ends, a flanged nut threaded onto the ends of the piston rods, the outer ends of the cylinders being threaded and a cap threaded thereon, divided into two chambers by a central wall, one chamber being adapted to contain lubricant, and the other, packing material, the central wall being fitted with a ball race through which the piston rods reciprocate, a resilient rim composed of annular coils having inwardly extending projections, clamp members provided with transverse slots into which the projections on the rim extend and also provided with a covered circumferential groove for the reception of the flanged nut, whereby the adjustment of the threaded ends of the piston rods within the flanged nuts will regulate the diameter of the resilient rim.

4. A wheel, hollow hub, hollow cylinder spoke members, piston members movable in said cylinder members, reversed cup shaped heads on said piston fitted with expanding rings, a clamp member provided with a circumferential groove secured at the outer extremities of the piston members, a fastening device extending within the circumferential groove with ball races through which all or part of the interior of the wheel is movable at any time, said clamp member having a transverse slot therein, and a resilient rim formed of annular sections provided with loops extending within the transverse slots of the clamp members, and free to yield separately or in unison to any extent either circumferentially or laterally, the hub and connecting cylinders being adapted to internal lubrication and to contain fluid under pressure.

5. A wheel, a hollow hub, hollow cylinder members having connection with said hub, piston members movable in said cylinder members to the limit of the maximum circumference of said wheel, a clamp member secured to the outer extremities of said piston members, said clamp members having transverse slots therein, a resilient rim formed of annular sections provided with loops extending within the transverse slots of the clamp members, and a soft tire

bound to the rim at the clamp fastenings, a compressible cushion between the extremities of the cylinder members and the said clamp, the hub and connecting cylinders being adapted to contain air under pressure.

1,080,107. WATERING-TROUGH. MOSES GREENBERG and BENJAMIN GREENBERG, New York, N. Y. Filed Oct. 25, 1912. Serial No. 727,728. (Cl. 119-74.)

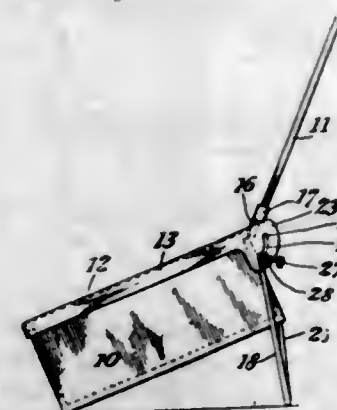


1. In a watering trough, the combination with a tank comprising side walls, a bottom and an upper ring, of bolts passing through the ring and the bottom to hold the parts together, a ring with a gutter within the upper end of the tank, an outlet pipe for the gutter, an inlet pipe, a nozzle with tangential openings, a deflecting plate about the nozzle and an outlet pipe at the bottom of the trough.

2. In a watering trough the combination with a bottom plate supported by legs and having a groove around its edge of a vertical wall fitting in the groove, a ring with an internal gutter at the upper end of the wall, a second ring on the first and having a flange 8 overhanging the gutter, bolts securing the second ring and the bottom together, outlet pipes for the bottom and the gutter, an inlet pipe with a nozzle for discharging the water spirally and a deflecting plate to cause the dead water to fall into the corners of the trough.

3. In a watering trough, the combination with a dished bottom having a groove near its outer edge, of a ring constituting a gutter within the tank and having a groove, a cylinder carried in the grooves, a second ring on the first and having a flange to cover the gutter, bolts passing through the second ring and the bottom and holding the parts together, outlet pipes, a supply pipe having a spiral discharge nozzle and a conical deflector supported above the bottom and about the nozzle.

1,080,108. DISPLAY DEVICE. EDWIN P. HIRST, Philadelphia, Pa. Filed Sept. 25, 1913. Serial No. 791,699. (Cl. 211-24.)



1. A display attachment for cigar-boxes and the like, comprising a supplementary cover and a lid-holder rigid with said cover whereby the box-lid and supplementary cover are caused to turn in fixed angular relation on the box hinge, in combination with curved bearing faces rigid with said cover and lid-holder and removed from the box-hinge, and an easel support adapted to be sprung into en-

gagement with the box and bearing at its upper part upon said bearing faces.

2. A display attachment for cigar-boxes and the like, comprising a supplementary cover having means for engaging the hinged lid of a box so as to cause lid and cover to turn in fixed angular relation, in combination with rearward slotted projections and an easel support adapted to be sprung into engagement with the box and having a transverse limb engaging the slots of said projections in position to bear against the back of the box.

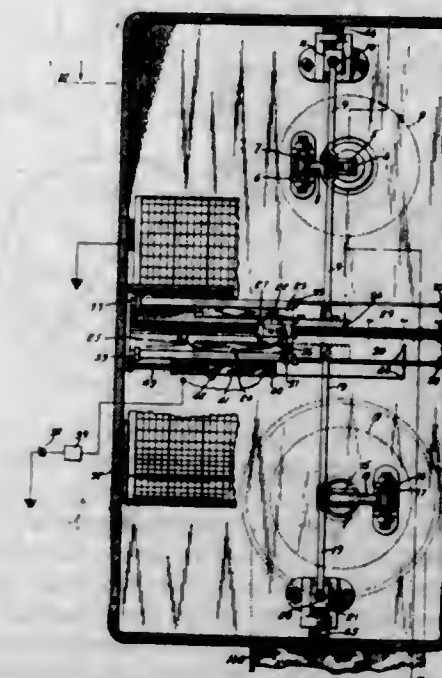
3. In a display attachment for cigar-boxes and the like, the combination with a tiltable structure comprising a supplementary cover and a lid-holder united in angular relation so as to cause a hinged box-lid and the cover to turn in unison, said structure having slotted portions, of an easel support engaging the slots of said portions, and a device for locking said structure to said easel support against turning.

4. In a display attachment for cigar-boxes and the like, the combination with a tiltable structure comprising a supplementary cover and a lid-holder united in angular relation so as to cause a hinged box-lid and the cover to turn in unison, said structure having slotted portions, of an easel support adapted to be sprung into engagement with the box and having its upper part extending through said slotted portions across and behind the box, and a device on said part of the easel support for locking the tiltable structure against turning.

5. A display attachment for cigar-boxes and the like, comprising a tiltable structure including a supplementary cover and a lid-holder united in angular relation so as to cause a box-lid and the cover to turn in unison, said structure being provided with slots eccentric to the hinge of the box to which the attachment is to be applied, in combination with a resilient easel support adapted to be sprung into engagement with the box and bearing at its upper part in said slots, whereby the tension of the easel support tends to turn said tiltable structure.

[Claim 6 not printed in the Gazette.]

1,080,109. APPARATUS FOR INDICATING AND REGULATING HUMIDITY. WILLIAM B. HODGE, Charlotte, N. C. Filed Feb. 7, 1913. Serial No. 746,794. (Cl. 98-39.)



1. In apparatus of the kind described, the combination of a differential connector operated by wet and dry bulb thermo-expansive elements, and receiving relatively greater motion per degree of temperature change from the wet bulb element than from the dry bulb element, whereby such connector moves substantially in proportion to the change in the percentage of moisture that will be held by cotton under changing conditions of relative humidity and temperature, and suitable means for translating the resultant motion of the said differential connector.

2. In apparatus of the kind described, the combination of wet and dry bulb thermo-expansive elements, a differential connector therebetween independently operated by each of such elements and receiving relatively greater motion, per degree of temperature change, from the wet bulb element than from the dry bulb element, whereby the resultant movement of such connector is in substantial proportion to the change in the percentage of moisture that will be held by cotton under changing conditions of temperature and relative humidity and suitable means for translating such resulting movement.

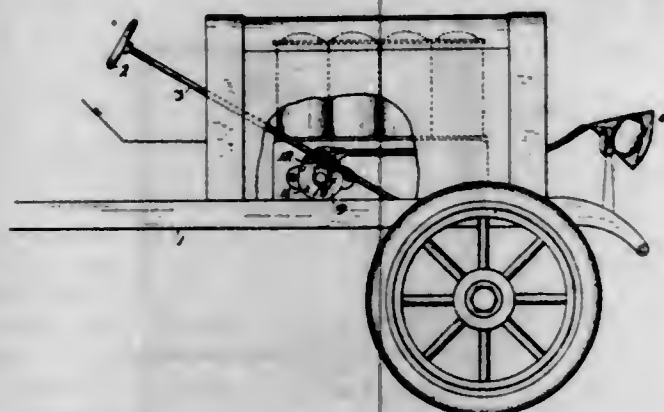
3. In apparatus of the kind described, the combination of wet and dry bulb thermo-expansive elements, a differential connector receiving motion from each of such elements and resolving such motion into a resultant movement of its own, a lever connecting each of such elements with such connector to impart such movement thereto, and means for translating the resultant movement of the said connector.

4. In apparatus of the kind described, a differential connector suitably arranged for coordinating two independent motions imparted to it, a lever for imparting one of such motions and adapted to be moved in accordance with dry bulb temperature changes of the air, a separate lever for imparting the other of such motions and adapted to be moved in accordance with wet bulb temperature changes of the air, and means for translating the resolution of such motions by the said differential connector, the proportion of the movement imparted by the dry bulb lever being to that imparted by the wet bulb lever substantially as 19 to 20.

5. In apparatus of the kind described, the combination of wet and dry bulb thermo-expansive elements, a differential connector, levers connecting both elements with the connector and operating thereon respectively through different leverage ratios whereby such connector receives a bodily resultant movement, and means for translating such movement.

[Claims 6 to 15 not printed in the Gazette.]

1,080,110. CHANGEABLE HEADLIGHT. VICTOR HOWARD and JAMES P. WRIGLEY, Oakland, Cal. Filed Mar. 6, 1913. Serial No. 752,380. (Cl. 240-7.)

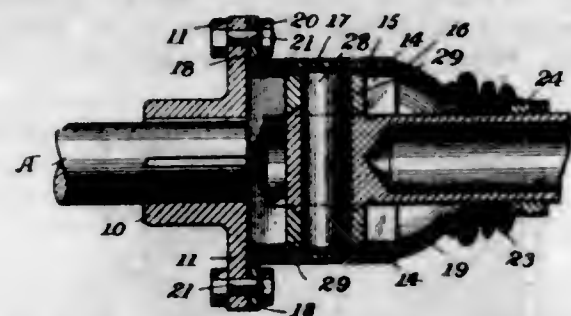


In combination with automobile steering mechanism central and side electric lamps, individual reflectors for the several lamps, the reflector for the central lamp directing the light straight ahead, and the reflectors for the side lamps directing the light at an angle with the direction by the central reflector, a circuit for each lamp, and means, operated automatically with the operation of said steering mechanism, for breaking the circuit through one of the lamps and closing that through another lamp.

1,080,111. UNIVERSAL JOINT. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 27, 1908. Serial No. 412,866. (Cl. 74-19.)

1. In a universal joint for shafting, the combination with a shaft section having a cross head and anti-friction rollers, of a second shaft section having securely connected

therewith an annular flange and jaws provided with ways for the cross head rollers, a ring surrounding said jaws and adapted to guide the cross head rollers on the ways, a casing surrounding said ring and jaws and adapted to hold the ring in place and means for securely connecting said casing with said annular flange.

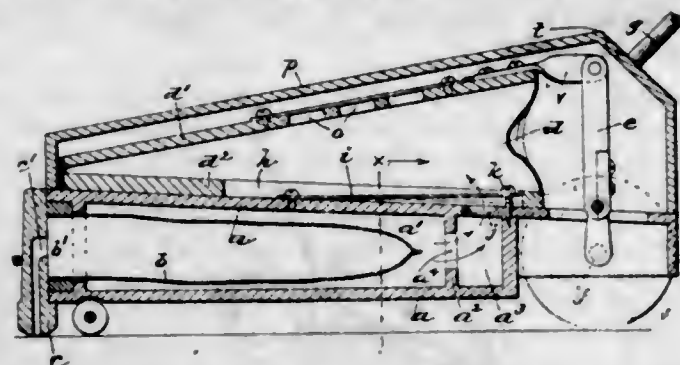


2. In a universal joint for shafting, the combination with a shaft section having a cross head and anti-friction rollers, of a second shaft section having securely connected therewith an annular flange and jaws provided with ways for the cross head rollers, a ring surrounding said jaws and adapted to guide the cross head rollers on the ways, and a casing having a cylindrical portion surrounding said ring and jaws, a flange connected to the aforesaid annular flange and a throat or contracted portion surrounding the first named shaft section.

3. In a universal joint for shafting, the combination with a shaft section having a cross head and anti-friction rollers, of a second shaft section having securely connected therewith a head provided with a pair of jaws, said jaws having ways for the cross head rollers, a ring surrounding and securely fitted to said jaws and adapted to guide the cross head and rollers, a casing surrounding and closely fitted to said ring and jaws and adapted to hold the ring in place, and means connecting said casing securely to said head.

4. In a universal joint for shafting, the combination with a shaft section having a cross head and anti-friction rollers, of a second shaft section having securely connected therewith a head provided with a pair of jaws, said jaws having ways for said cross head rollers, a ring surrounding and securely fitted to said jaws, and a casing fitting over and inclosing said ring and jaws and adapted to hold the ring in place, said casing being securely connected with said head and having a reduced portion or throat surrounding the first named shaft section, for the purpose set forth.

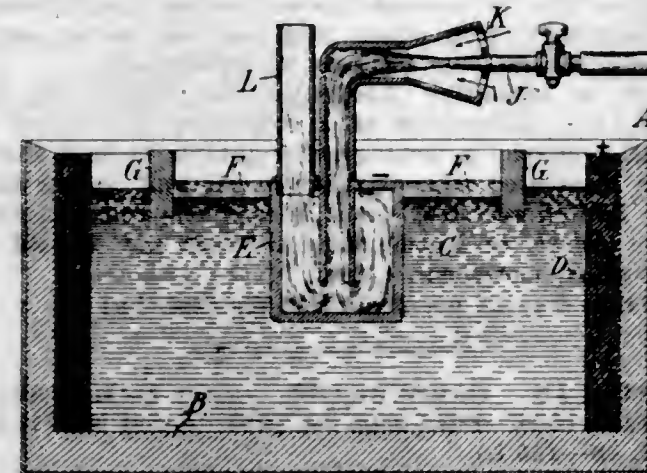
1,080,112. PUMP MECHANISM FOR CARPET-SWEEPERS. JOHN T. JOHNSON, Worcester, Mass., assignor of one-half to Verner G. Anderson, Worcester, Mass. Filed May 1, 1913. Serial No. 764,818. (Cl. 230-2.)



In combination with the crank shaft and rod connection therefrom, a casing, an auxiliary chamber extending transversely of the latter and near to the shaft, and said chamber having a longitudinally-arranged air inlet, a horizontal bellows having its larger working end above and projecting rearwardly of the said chamber, ports formed in the top of the casing and leading from the said chamber, a flat pneumatic valve to control the suction from the ports to the bellows, said valve having one end secured to the casing and its unattached end provided with a perforation, a screw member loosely passing through the latter and se-

cured to the casing, and said member to form a stop to limit the opening movement of said valve, and the member —r— for attaching to the rod connection, substantially as set forth.

1,080,113. HEATING MOLTEN ELECTROLYTES. FRANZ VON KÜBELGEN, Holcombs Rock, Va., and GEORGE OULTON SEWARD, East Orange, N. J., assignors to Virginia Laboratory Company, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1911. Serial No. 617,432. (Cl. 204-31.)



1. An electrolytic cell having a heating means comprising a hollow body immersed in the electrolyte, and means for heating the same by burning a combustible therein.

2. An electrolytic cell comprising a hollow electrode immersed in the electrolyte, and means for heating the same by burning therein a current of hot gas.

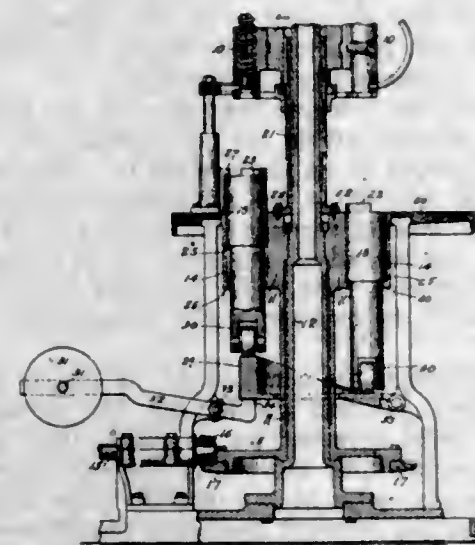
3. The method of supplementing the heating effect of an electrolytic current, which consists in immersing in the electrolyte a hollow body and heating the same by burning a combustible therein.

4. The method of supplementing the heating effect of an electrolytic current, which consists in immersing in the electrolyte a hollow electrode, and heating the same by the combustion therein of a current of hot gas.

5. In the electrolysis of molten salts, supplementing the heating effect of the electrolytic current by introducing into the electrolyte a hollow body and heating the latter by burning a gaseous combustible therein.

[Claims 6 and 7 not printed in the Gazette.]

1,080,114. CLOSURE-APPLYING MECHANISM. NORBERT M. LA PORTE, Baltimore, Md., assignor to The Crown Cork and Seal Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Feb. 20, 1912. Serial No. 679,810. (Cl. 113-2.)



1. In a machine for applying metal closures to fragile receptacles, and in combination, a plurality of holders, a plurality of closure applying devices corresponding in number with the holders, an actuator adapted to produce

a relative movement between each holder and its corresponding closure applying device, and a controller operating upon the actuator whereby the amount of relative movement and the consequent pressure on the receptacle is determined.

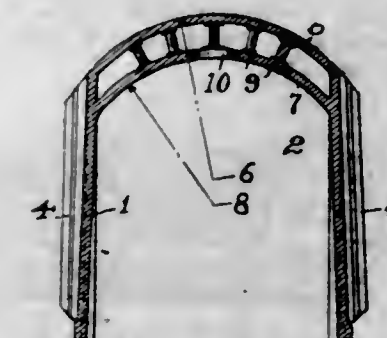
2. In a machine for applying metal closures to fragile receptacles, and in combination, a plurality of holders, a plurality of closure applying devices corresponding in number with the holders, an actuator adapted to successively move each holder toward its cooperating closure applying device, and a controller operating upon the actuator, said controller governing the actuator and holder, and thus determining the amount of pressure exerted in the closure applying operation.

3. In a machine for applying metal closures to fragile receptacles, and in combination, a rotating carrier, a plurality of holders mounted therein, a plurality of closure applying devices corresponding in number with the holders and rotating with the carrier, an actuator for effecting a relative movement between each holder and its cooperating closure applying device, and a controller operating upon the actuator whereby the amount of relative movement and the consequent pressure on the receptacle is determined.

4. In a machine for applying metal closures to fragile receptacles, and in combination, a rotating carrier, a plurality of holders mounted therein, a plurality of closure applying devices corresponding in number with the holders and rotating with the carrier, a movable actuator cam for causing each holder in succession to approach and recede from its cooperating applying device, and a controller governing the actuator and each holder, and thus determining the amount of pressure exerted in the closure applying operation.

5. In a machine for applying metal closures to fragile receptacles, and in combination, a rotating carrier, a plurality of holders mounted therein, a plurality of closure applying devices corresponding in number with the holders and rotating with the carrier, a movable actuator cam for causing the holders in succession to approach and recede from their cooperating closure applying devices, and a controller operating on the cam for governing the amount of movement of the actuator cam and the holders and thus determining the amount of pressure exerted in the closure applying operation.

1,080,115. ANNEALING-BOX. JERRY A. LAWRENCE, Brackenridge, Pa., assignor to Harry E. Sheldon, Pittsburgh, Pa. Filed Dec. 13, 1912. Serial No. 736,476. (Cl. 148-14.)



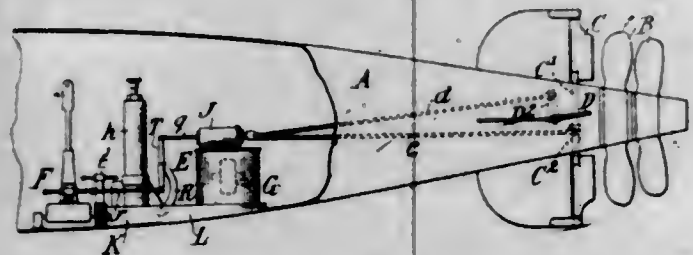
1. In an annealing box, a top composed of two spaced roofs, one above the other, the roofs being rigidly connected with the sides, and means rigidly connected to the two roofs for spacing them apart and connecting them together at a plurality of places between the sides.

2. In an annealing box, a top composed of two spaced roofs, one above the other, the roofs being rigidly connected with the sides, and means rigidly connected to the two roofs for spacing them apart and connecting them together, one of the roofs having openings connecting the space between the roofs with the interior of the box.

3. In an annealing box, a top composed of two spaced roofs, one above the other, and means for rigidly connecting one roof to the other at a plurality of places between the sides.

4. In an annealing box, a roof composed of two spaced members, one above the other, the lower member having openings connecting the interior of the box with the space between the spaced members.

1,080,116. STEERING MECHANISM FOR AUTOMOBILE TORPEDOES. FRANK M. LEAVITT, Smithtown, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Mar. 28, 1912. Serial No. 686,868. (Cl. 114—23.)



1. In a torpedo, the combination with the hull and lateral and depth steering means, of steering mechanisms for such respective means, and a single support for both such mechanisms, removable at will from the hull.

2. In a torpedo, the combination with the hull and lateral and depth steering rudders, of steering mechanisms for such rudders, and a single support for both such mechanisms, removable at will from the hull.

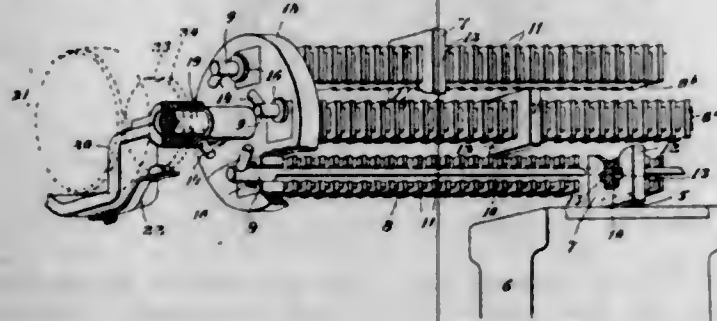
3. In a torpedo, the combination with the hull and lateral and depth steering means, of steering engines for such respective means, and a single support for both such engines removable at will from the hull.

4. In a torpedo, the combination with the hull and lateral and depth steering means, of a removable steering control unit comprising a support detachably united to the hull, and lateral and depth steering mechanisms carried by said support and having detachable connections with their respective steering means.

5. In a torpedo, the combination with the hull and lateral and depth steering rudders, of steering engines for such respective rudders, having detachable connections with their respective rudders, and means for operating their respective valves, and a support carrying said engines and valve-operating means as a single unit, removable as a whole from the hull.

[Claims 6 to 14 not printed in the Gazette.]

1,080,117. TYPE-WRITING MACHINE. JOHN C. McLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 4, 1910. Serial No. 564,967. (Cl. 197—70.)



1. The combination in a tabulating mechanism of a typewriting machine, of a tabulating rack bar, a bifurcated stop adjustably seated between any two adjacent teeth of the rack bar, said stop being recessed, a rotatable locking rod connected to the rack bar and of greater diameter in one direction than in a direction transverse thereto to releasably enter the recess in said stop to lock it against movement on the bar and a finger piece for rotating said rod.

2. In a tabulator, the combination with a rack bar, of a bifurcated stop having legs straddling said bar and having a recess in one of said legs, and a rotatable locking

rod carried by the rack bar and releasably entering said recess in the stop to lock the stop against movement on the bar.

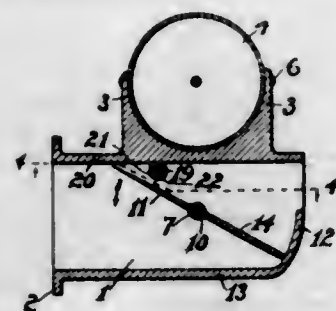
3. In a tabulator, a stop-carrying rack bar, a bifurcated stop having legs straddling said bar and having a recess formed in one of said legs, and a rotatable locking rod extending along the rack bar to releasably enter the recess to lock the stop and bar against relative movement.

4. In a tabulating mechanism for typewriting machines, the combination of a stop-carrying toothed bar having a groove on its toothed side, a locking rod rotatable in said groove, and a bifurcated stop adjustably seated astride the bar and having a recess complementary to the groove, into which said rod may swing out of the way of said stop to permit its withdrawal.

5. In a tabulating mechanism for typewriting machines, the combination of a stop-carrying toothed bar having a groove, a locking rod rotatable in said groove, and a bifurcated stop astride the bar and having oppositely located recesses, either of which is complementary to the groove, to accommodate the lock rod to hold the stop against movement.

[Claims 6 to 23 not printed in the Gazette.]

1,080,118. CARBURETER. OLNEY B. MONSMITH, Lorain, Ohio. Filed Aug. 30, 1912. Serial No. 717,935. (Cl. 48—155.1.)



1. In a carbureter, the combination of an air passage, a butterfly throttle valve pivoted within the air passage, the throttle valve being arranged on an angle when in closed position, a spraying tube located in the air passage forward of a transverse line passing through the pivotal point of the throttle valve and behind an arc made by its forward free end, and means for keeping the air passage closed on the opposite side of the throttle valve from that on which is located said spraying tube, substantially as described.

2. In a carbureter, the combination of an air passage, a butterfly throttle valve pivoted within the air passage, the throttle valve being arranged on an angle when in closed position, a spraying tube located in the air passage forward of a transverse line passing through the pivotal point of the throttle valve and behind an arc made by its forward free end, and an inwardly curved rear portion for shutting off the air passage on the opposite side of the throttle valve from that on which is located said spraying tube, substantially as described.

3. In a carbureter, the combination of an air passage, a throttle valve pivoted within the air passage, the throttle valve being arranged on an angle when in closed position, a spraying tube located in the air passage forward of a transverse line passing through the pivotal point of the throttle valve and behind an arc made by its forward free end, and the spraying tube being provided with spraying openings through its forward wall, substantially as described.

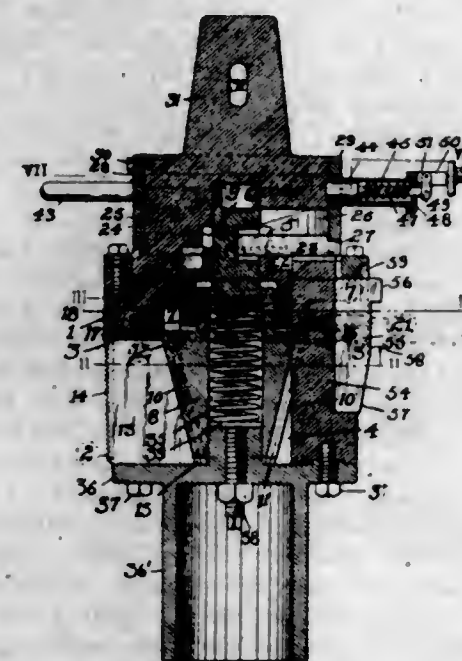
4. In a carbureter, the combination of an air passage, a throttle valve pivoted within the air passage, the throttle valve being arranged on an angle when in closed position, a spraying tube located in the air passage forward of the pivotal point of the throttle valve and behind an arc made by its forward free end, the spraying tube being provided with spraying openings through its forward wall, and means for controlling the size of said openings, substantially as described.

5. In a carbureter, the combination of an air passage, a throttle valve pivoted within the air passage, the

throttle valve being arranged on an angle when in closed position, a spraying tube located in the air passage forward of the pivotal point of the throttle valve and behind an arc made by its forward free end, the spraying tube being provided with spraying openings through its forward wall and arranged in alignment, a spindle valve mounted in said spraying tube, and the spindle valve being cut away on one side to permit the uncovering of said spraying openings as the spindle valve is rotated, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,080,119. TAPPING AND REAMING HEAD. WILLIAM M. NECKERMAN, Youngstown, Ohio. Filed Nov. 25, 1912. Serial No. 733,246. (Cl. 10—140.)



1. In a tap, a frame, threading dies having radial movement therein, a head having longitudinal movement on the frame and connected to the inner edges of the dies so as to move the dies radially as the head moves longitudinally, a spring in the head exerting a pressure tending to move the dies radially, cooperating rings, each provided with a plurality of opposing cam teeth, one ring being movable on the other for moving the head against the action of the spring, and means for releasably locking the movable cam when the dies have been projected thereby to their working positions.

2. In a tap, a frame, threading dies having radial movement therein, a head having longitudinal movement on the frame and connected to the inner edges of the dies so as to move the dies radially as the head moves longitudinally, a spring in the head exerting a pressure tending to move the dies radially, and cooperating toothed cam rings rotatable transversely of the head, one cam ring being movable on the other for moving the head against the action of the spring, the said spring having one end reacting against the front end of the frame.

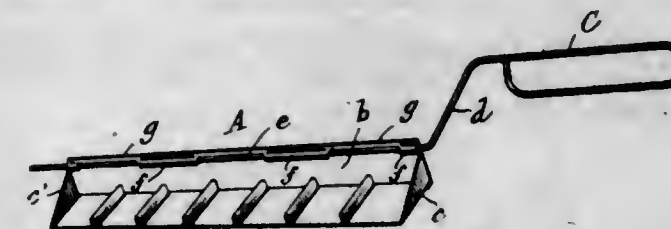
3. In a tap, a frame, radially movable threading dies carried thereby, a head for moving the dies radially, a spring tending to retract the dies, a fixed cam and a movable cam cooperating therewith and with the head to operate the head in opposition to the spring, the cams having inclined surfaces arranged to hold the dies in working position and tending under the action of the spring to move the movable cam to a position to release the head from the holding action of the inclined surfaces, and means for releasably locking the movable cam when the said inclined surfaces are cooperating to hold the dies in working position.

4. In a tap, a frame, radially-movable threading dies therein, a head movable at an angle to the movement of the dies, a nut adjustable longitudinally on the head, a spring tending to force the head in a direction to cause a retraction of the dies, and means bearing on the nut and acting to hold the dies in threading position against the force of the spring.

5. In a tap, a frame, radially-movable threading dies therein, a head movable at an angle to the movement of the dies, a nut adjustable longitudinally on the head, a spring tending to force the head in a direction to cause a retraction of the dies, means bearing on the nut and acting to hold the dies in threading position against the force of the spring, and means preventing the rotating of the nut when the dies are in threading position.

[Claims 6 to 9 not printed in the Gazette.]

1,080,120. LADLE. JOHN O'CONNOR and MARK P. BRENNAN, New York, N. Y. Filed July 25, 1907, Serial No. 385,434. Renewed Mar. 30, 1911. Serial No. 618,002. (Cl. 65—28.)



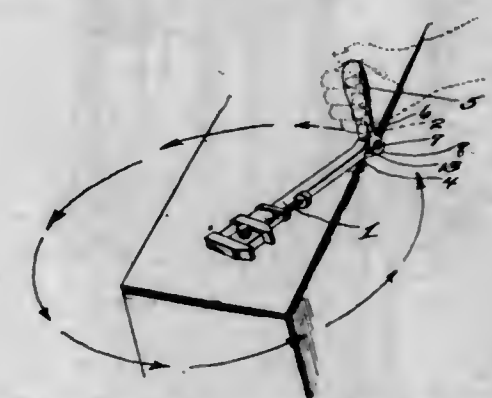
1. A ladle having a bottom, two end walls, a side wall, an open front, and means for dividing the liquid-chamber of said ladle into a plurality of compartments, whereby liquid may flow from the ladle in divided streams.

2. A ladle comprising a receptacle or chamber having a bottom, one side wall, two end walls, and an open front, said receptacle or chamber being provided with a plurality of baffles extending across the bottom of said receptacle from the side wall to the open front.

3. A ladle comprising a receptacle or chamber having a bottom, one side wall, two end walls, and an open front, the bottom of said receptacle being provided with a plurality of transverse baffles which terminate at the open front of the ladle, said baffles extending from said open front to the side wall.

4. In a ladle, a bottom having parts thereof bent upwardly so as to form spaced baffles on said bottom, end members integral with said bottom and extending from the back to the forward edge thereof, and a back member joining the bottom and end members.

1,080,121. JOINT ADJUSTABLE HANDLE. ALFONSO ORIOL, Balanga, Philippine Islands. Filed Sept. 3, 1913. Serial No. 787,853. (Cl. 81—177.)

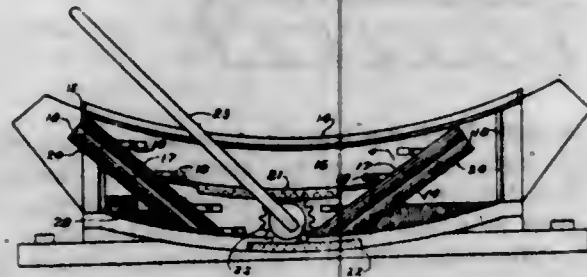


1. In combination, a tool, one end of which is provided with an apertured lug having a notch, said handle end having a recess adjoining the notch and provided with a shoulder at one end, a handle having a bifurcated end to receive the apertured lug of the tool, means penetrating the bifurcated end and the lug to connect the handle to the tool, a pin extending transversely of the tool and arranged in said recess and provided with a shoulder at one end, a spring interposed between the shoulder of the pin and the shoulder of the recess, and holding connections between the transversely disposed pin and the bifurcated end of the handle for locking the handle in various adjusted positions.

2. In combination, a tool, one end of which is provided with an apertured lug having a notch, said handle end

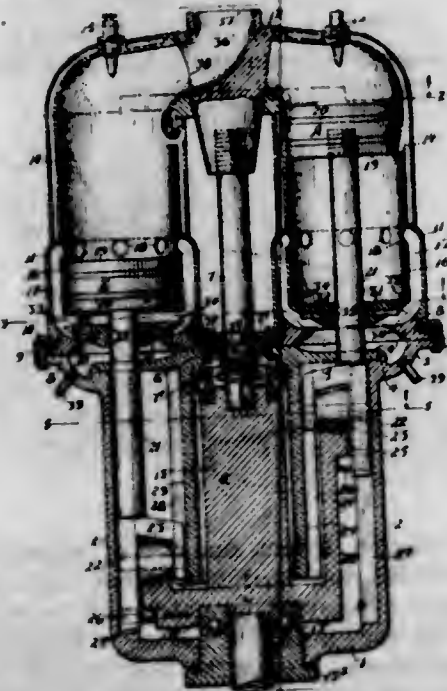
having a recess adjoining the notch and provided with a shoulder at one end, a handle having a bifurcated end to receive the apertured lug of the tool, means penetrating the bifurcated end and the lug to connect the handle to the tool, a pin extending transversely of the tool and arranged in said recess and provided with a shoulder at one end, a spring interposed between the shoulder of the pin and the shoulder of the recess, the bifurcated end of the handle having a series of opposed notches, while the transversely disposed pin is provided with a pair of opposed lugs to enter any two opposite notches of the bifurcated end to hold the handle in an adjusted position, the notch of the lug constituting means to receive one of the lugs of the transverse pin, when the pin is depressed.

1,080,122. WOOD-TRIMMER. JAMES S. PICKLES, Spokane, Wash. Filed Aug. 6, 1912. Serial No. 713,689. (Cl. 144-216.)



In a wood trimmer, a horizontally arranged table, a vertically arranged frame at one side of the table and attached thereto, having two parallel grooves curved on an arc struck from the center above the table, a knife head with beveled sides adapted to fit and to run in said grooves, knives attached to said knife head with their cutting edges set at an outward and upward angle, together with means for actuating said knife head along the said grooves to trim blocks of wood placed on said table and extending underneath the blades.

1,080,123. INTERNAL-COMBUSTION ENGINE. DON E. PRATT, San Francisco, Cal. Filed July 10, 1912. Serial No. 708,625. (Cl. 123-58.)



1. In an internal combustion engine, the combination with a stationary casing, a drive shaft rotatably mounted therein, cylinders mounted on said casing and arranged circumferentially of said drive shaft, a piston slidably mounted in each of said cylinders, each of said cylinders provided at its lower end with an inlet port for the admission into said cylinders of an explosive charge and at its upper end with a normally closed exhaust port for the escape of the exploded gases from within said cylinder.

ders, a valve carried by each of said pistons and operated by the movement thereof for controlling said inlet ports, a cam carried by said drive shaft and coöperating with said pistons for transmitting power therefrom to said drive shaft, means within each cylinder for firing the explosive charge contained therein, and an exhaust valve common to all of said cylinders and operated by the rotation of said drive shaft for intermittently opening the exhaust ports of the cylinders to the atmosphere, for permitting the escape of the exploded gases contained within the cylinders.

2. In an internal combustion engine, the combination with a casing, a stationary drive shaft rotatably mounted therein, cylinders mounted on said casing and arranged circumferentially of said drive shaft, a piston slidably mounted in each of said cylinders, each of said cylinders provided at its lower end with an inlet port for the admission into said cylinders of an explosive charge and at its upper end a normally closed exhaust port for the escape of the exploded gases from within said cylinders, a valve carried by each of said pistons and controlled by the movement thereof for controlling said inlet ports, a cam carried by said drive shaft and coöperating with said pistons for transmitting power therefrom to said drive shaft, means within each cylinder for firing the explosive charge contained therein, and a rotary exhaust valve carried by the end of said drive shaft, and arranged centrally of the upper ends of said cylinders, said valve provided with an angularly disposed port adapted upon the rotation of said valve to intermittently register with the exhaust ports of the cylinders for permitting the escape to the atmosphere of the exploded gases from within the cylinders.

3. In an internal combustion engine, the combination with a stationary casing, a drive shaft rotatably mounted therein, cylinders mounted on said casing and arranged circumferentially of said drive shaft, a piston slidably mounted in each of said cylinders, a piston rod depending therefrom and extending within said casing, each of said cylinders provided at its lower end with an inlet port for the admission into said cylinders of an explosive charge and at its upper end with a normally closed exhaust port for the escape of the exploded gases from within said cylinders, a cam carried by said drive shaft and coöperating with said piston rods for transmitting power therefrom to said drive shaft, a valve associated with each of said piston rods and operable by the movement thereof for controlling the inlet port and admission into the cylinders of an explosive charge, means within each cylinder for firing the explosive charge contained therein, a rotary conical shaped exhaust valve carried by the end of said shaft and positioned in a conical opening arranged centrally between the upper ends of said cylinders and operated by the rotation of said drive shaft for intermittently opening the exhaust ports of the cylinders to the atmosphere for permitting the escape of the exploded gases contained within the cylinders and means under tension and associated with said shaft for maintaining said valve seated.

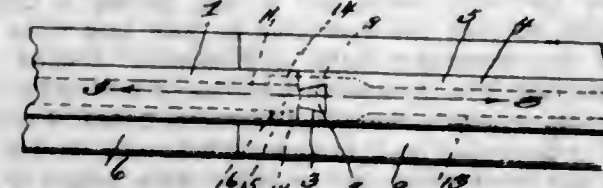
4. In an internal combustion engine, the combination with a stationary casing, a drive shaft rotatably mounted therein, a driven shaft detachably secured to and operated by said drive shaft, cylinders mounted on said casing and arranged circumferentially of said driven shaft, a piston slidably mounted in each of said cylinders, a piston rod depending therefrom and extending within said casing, each of said cylinders provided adjacent its lower end with an inlet port for the admission into said cylinders of an explosive charge and at its upper end a normally closed exhaust port for the escape of the exploded gases from within said cylinders, a cam carried by said drive shaft and coöperating with said piston rods for transmitting power therefrom to said drive shaft, a compression chamber surrounding the lower end of each cylinder, a valve associated with each of said pistons and operable by the movement thereof for controlling the admission into the cylinders and compression chambers of an explosive charge, means within each cylinder for firing the explosive charge contained therein, a rotary conical shaped exhaust valve carried by the end of said

driven shaft, said valve provided with an angularly disposed exhaust port communicating at one end with the atmosphere and positioned in a conical opening arranged centrally of the upper ends of said cylinders and adapted upon the rotation of said valve to intermittently register with the exhaust ports of the cylinders for permitting the escape of the dead gases therefrom and spring pressed means interposed between the lower end of said driven shaft and said casing for maintaining said valve seated.

5. In an internal combustion engine, the combination with a stationarily mounted casing, a drive shaft rotatably mounted therein, a driven shaft operated by said drive shaft, a cylinder mounted on said casing, a piston slidably mounted in said cylinder, said cylinder provided at its lower end with a valve controlled inlet port for the admission therinto of an explosive charge and at its upper end with a normally closed exhaust port for the escape of the exploded gases therefrom, a cam carried by said drive shaft and coöperating with said piston for transmitting power therefrom to said drive shaft, means for firing the explosive charge within said cylinder, a conical valve seat associated with the upper end of said cylinder, a conical shaped rotary exhaust valve positioned in said valve seat and carried by the end of said driven shaft said valve being operated by the rotation of said drive shaft for intermittently opening the exhaust port of said cylinder for permitting the escape to the atmosphere of the exploded gases contained therein, and spring pressed means associated with the lower end of said driven shaft for retaining said valve in its seat.

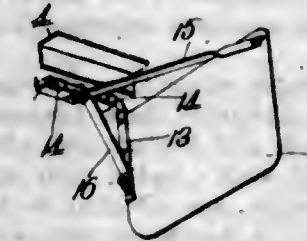
[Claims 6 and 7 not printed in the Gazette.]

1,080,124. RAIL-JOINT. HABERT REED, Mountain Grove, Va. Filed June 6, 1913. Serial No. 772,120. (Cl. 239-8.)



The combination of two rail sections, the upper and lower adjacent portions of which are provided with inter-engaging dovetail lugs and recesses, said dovetail lugs and recesses being offset from one another, the adjacent ends of the rail sections intermediate the offset positions of the lugs and recesses having opposing shoulders to withstand the weight of cars, the web of one of the rail sections having integral flanges forming a pocket to receive a shouldered part of the web of the adjacent rail section to assist in withstanding the lateral strain.

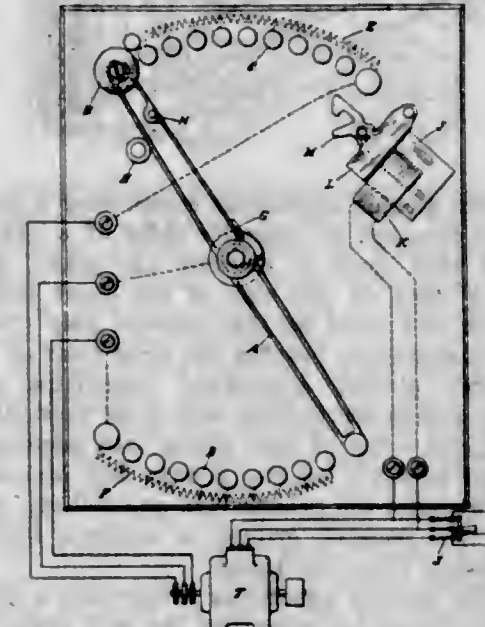
1,080,125. FENDER FOR HAY-RAKES. ERNEST N. SMITH, Waseon township, Chase county, Kans. Filed July 6, 1912. Serial No. 708,059. (Cl. 56-87.)



1. The combination with a hay rake having supporting wheels and a rake between the wheels, of a pair of vertical fenders, one arranged between each wheel and the adjacent end of the rake, angle brackets having vertical arms secured to the upper front corners of said fenders and horizontal arms supported adjacent the ends of the rake and extending inward toward the middle of the rake, and rearwardly extending braces having their front ends supported adjacent the horizontal arms of said brackets and their rear ends adjustably connected to the upper rear corners of the fenders.

2. The combination with a hay rake having supporting wheels and a rake between the wheels, of a cross bar below the axial line of the wheels, a pair of vertical fenders, one arranged between each wheel and the adjacent end of the rake, angle brackets having their vertical arms secured to said fenders and their horizontal arms connected pivotally to said cross bar, and rearwardly extending braces having their rear ends secured to the upper rear corners of said fenders and their front ends connected to said horizontal arms and extending into position to engage said cross bar to limit the downward swinging of the fenders.

1,080,126. CONTROLLER FOR ELECTRIC MOTORS. HARRY F. STRATTON, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 20, 1912. Serial No. 704,751. (Cl. 172-179.)



1. In an electric controller, a controlled circuit, a switch for closing the circuit, an electro-magnet for holding the switch in closed position, the electro-magnet having a winding connected to a source of alternating current and an armature normally in the position of least reluctance for the magnetic circuit, and means releasably connecting the switch to the armature.

2. In a motor system, an alternating current motor, a resistance in the secondary thereof, a movable device for controlling the resistance, an electro-magnet for holding the movable device in a position to connect the least resistance in the said secondary, the magnet having a winding in the primary of the motor and an armature biased to a position of least reluctance in the magnetic circuit of the magnet, and means controlled by the armature for releasably holding the movable device in its said position.

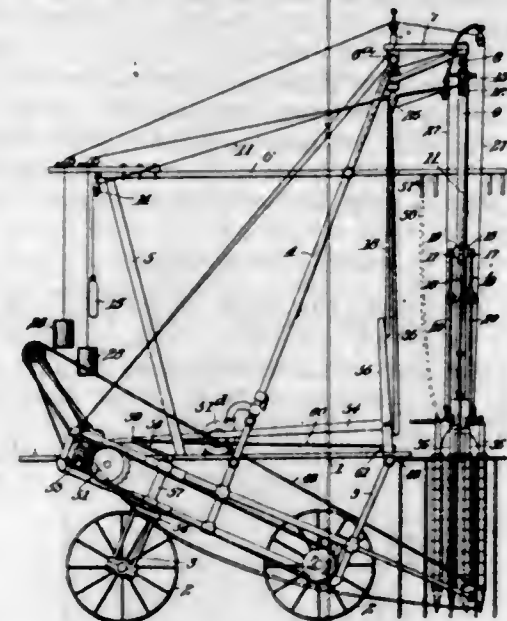
3. In a motor system, an alternating current motor, a variable resistance therefor, a movable device for controlling the resistance, an electro-magnet for holding the movable device in a position to connect less than the entire resistance in the circuit of the motor, the electro-magnet having a winding connected to a source of alternating current and an armature normally in the position of least reluctance for the magnetic circuit of the magnet, and means releasably connecting the movable device to the armature.

1,080,127. COTTON-PICKER. EDWARD SWINDELL, Apalachicola, Fla. Filed Aug. 9, 1912. Serial No. 714,214. (Cl. 56-6.)

1. A cotton picking apparatus comprising a plurality of picker arms, means for raising and lowering said arms in a vertical direction whereby they are caused to encircle the plant and engage the cotton thereon, and means for moving said arms laterally from the plant to strip the same of the cotton.

2. A cotton picking apparatus comprising a plurality of picker arms, means for raising and lowering said arms

in a vertical direction whereby they are caused to encircle the plant and engage the cotton thereon, and means for oscillating said arms to strip the cotton from the plant.



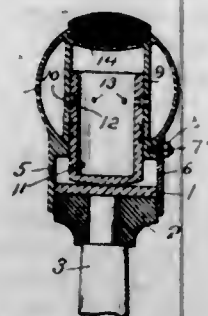
3. A cotton picking apparatus comprising a plurality of picker arms disposed at opposite sides of a plant, means for causing said arms to encircle the plant, means for bringing the arms on one side of the plant into parallel relation with the arms on the opposite side thereof, and means for subsequently moving the arms clear of the plant.

4. A cotton picking apparatus comprising groups of picker arms, means for moving said arms vertically, means for bringing the arms of each group into position relative to each other whereby the two groups may inclose a plant, means for bringing the groups into parallelism, and means for moving the parallel groups in opposite directions to strip the cotton from the plant.

5. A cotton picking apparatus comprising a plurality of picker arms, means for vibrating the said arms, and grippers mounted upon said arms and adapted to automatically engage the cotton bolls and strip the cotton therefrom as the picker arms are vibrated.

[Claims 6 to 23 not printed in the Gazette.]

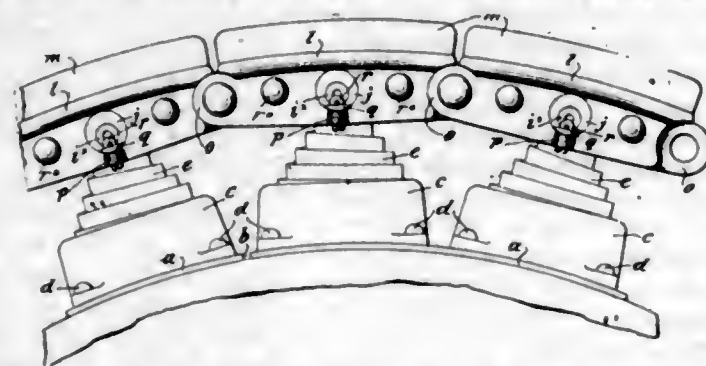
1,080,128. VEHICLE-WHEEL. JOHN J. VAN DERSTINE, Kansas City, Mo. Filed Feb. 25, 1913. Serial No. 750,495. (Cl. 152—22.)



In a vehicle wheel, a band, a rim encircling the band and having an annular tubular body provided with radial tubular guides, each having a lateral opening communicating with the interior of said body, and pistons slidably mounted respectively in said guides, each piston being tubular and having an open outer end and a closed inner end, the closed end being slidably mounted on said band, each piston having a peripheral opening adapted to register with the opening in the guide in which the piston is mounted when the piston is moved to a pre-determined position, each guide being closed at its outer end and open at its inner end.

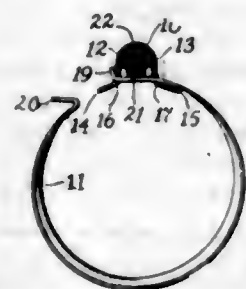
1,080,129. SPRING-TIRE FOR WHEELS OF VEHICLES. CHARLES HENRY VIDAL, Chiswick, England. Filed Aug. 29, 1911. Serial No. 646,667. (Cl. 152—8.)
A detachable spring tire comprising an inner band and a peripheral member, cups attached to the inner band,

valute springs forced into said cups, pins inserted into the outer ends of the springs, saddle pieces carried by the pins, and eccentrics mounted on the saddle pieces in co-



operative relation to the peripheral member whereby the turning of the eccentrics will cramp the springs, substantially as and for the purpose described.

1,080,130. CABLE-HANGER. JOHN J. WALSH, Yonkers, N. Y. Filed Nov. 21, 1912. Serial No. 732,666. (Cl. 248—33.)



1. A cable hanger comprising, in combination, a saddle adapted to be seated on a messenger wire and having depending apertured sides, and a ring having a hooked end passing through the apertures in both said sides underneath the messenger wire, and another hooked end adapted to lock into the aperture in one of said sides.

2. A cable hanger comprising, in combination, a saddle adapted to be seated on a messenger wire and having depending apertured sides and provided with means to engage the messenger wire and oppose sliding on said wire, and a ring having a hooked end adapted to pass through the apertures in both sides underneath the messenger wire.

3. A cable hanger comprising in combination, a saddle adapted to be seated on a messenger wire and having depending apertured sides, and a split ring having a hooked end adapted to pass through both apertures underneath the messenger wire and a hooked end adapted to engage an aperture underneath the other hooked end.

4. A cable hanger comprising in combination, a saddle adapted to be seated on a messenger wire and having depending apertured sides provided with laterally extending wings; and a split ring, having a hooked end adapted to pass above one of the wings and through both apertures underneath the messenger wire, and a hooked end adapted to engage an aperture underneath the other hooked end.

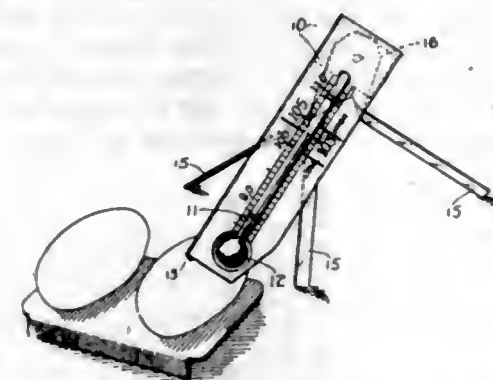
5. A cable hanger comprising, in combination, a sheet-metal saddle of elongated form adapted to be seated on a messenger wire and having depending sides provided with longitudinal slots; and a split ring of sheet metal having hooked ends, one adapted to pass through both slots underneath the messenger wire, and the other adapted to engage a slot under the first hooked end.

[Claims 6 to 8 not printed in the Gazette.]

1,080,131. THERMOMETER-HOLDER FOR INCUBATORS. WILLIAM G. WEED, Stamford, Conn. Filed Nov. 16, 1912. Serial No. 731,805. (Cl. 73—52.)

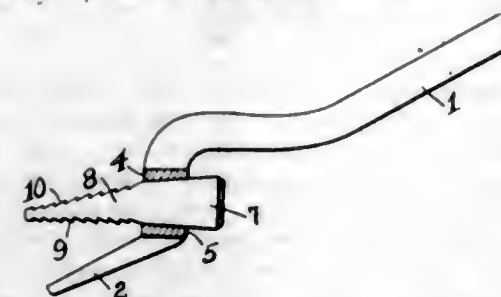
1. A thermometer holder comprising a tripod formed by slitting a piece of sheet metal and bending the strips to form legs, leaving a head above the legs, and a carrier pivoted to the head and provided with means for engaging a thermometer plate.

2. A thermometer holder comprising a tripod formed by slitting a piece of sheet metal and bending the strips to form legs and a carrier pivoted to the tripod and provided with means for engaging a thermometer plate.



3. A thermometer holder comprising a tripod formed by slitting a piece of sheet metal and bending the strips to form legs and a carrier pivoted to the tripod and provided with wings standing at an angle to the plane of the carrier, substantially as described, for the purpose specified.

1,080,132. WRENCH. OLIVER WESTON, Cleveland, Ohio. Filed May 16, 1912. Serial No. 697,669. (Cl. 81—178.)



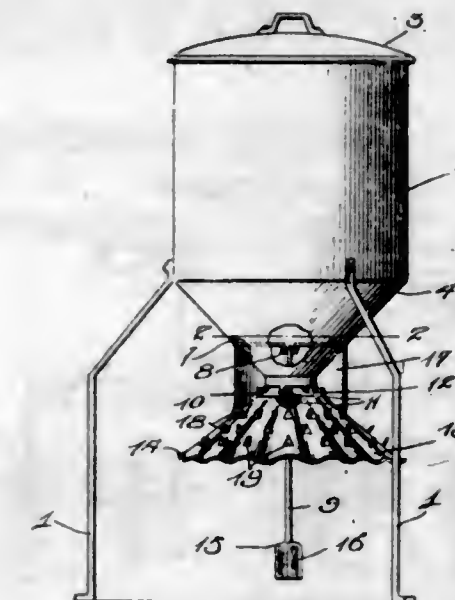
A wrench comprising a handle, a stationary jaw, an enlarged diagonally arranged portion connecting the base of the stationary jaw to the upper end of the handle, the enlarged portion being provided with a square opening arranged on an acute angle with relation to the stationary jaw, the opening being smaller at its forward end than at its rear end with converging walls forming a tapering opening, a jaw having differently inclined toothed surfaces and terminating in a square tapering opening to hold the last mentioned jaw so that its inclined toothed surfaces will form different acute angles with the stationary jaw and for wedging itself into said tapering opening on account of the pulling pressure exerted by the teeth of said jaw engaging the material being operated upon during the manipulation of said handle, substantially as described.

1,080,133. POULTRY-FEEDER. CYRUS W. ZIMMER, New York, N. Y. Filed May 22, 1912. Serial No. 699,037. (Cl. 119—70.)

1. In a device of the character described, the combination of standards, a hopper mounted upon the upper ends of said standards, an inverted cone shaped bottom for said hopper, having an opening in its lower end, a plurality of outwardly curved tongues formed at the lower end of said bottom and arranged around said opening, a transverse rod mounted in said bottom, an operating rod pivotally mounted upon the transverse rod, a receptacle adjustably mounted upon the operating rod and arranged beneath the opening in the bottom of the hopper, whereby the swinging movement of the operating rod will tilt the receptacle so that the tongues on the bottom of the hopper will throw the feed out of the receptacle.

2. In a device of the character described, the combination of standards, a hopper mounted upon the upper ends of said standards, having an inverted cone shaped bottom provided with an opening at its lower end, a plurality of tongues formed at the lower end of said bottom and arranged around the opening, a pivotally mounted receptacle

arranged beneath the said opening, and means whereby the receptacle is tilted so that the tongues on the bottom of the hopper will throw the feed therefrom.



3. In a device of the character described, the combination of standards, a hopper mounted upon the upper ends of said standards, having an inverted cone shaped bottom provided with a centrally arranged opening at the lower end thereof, a plurality of tongues formed on the lower end of the cone shaped bottom and arranged around said opening, a transverse rod arranged in the bottom and having its ends rotatably mounted in the sides thereof, an operating rod pivotally mounted upon said transverse rod, a receptacle arranged beneath the opening in the bottom and adjustably mounted upon the operating rod, a cone shaped deflector, having its lower edge curved upwardly, said deflector having a plurality of triangular shaped openings stamped therefrom to form upwardly extending lugs which project at right angles to the deflector and a bait secured to the lower end of said operating rod.

4. In a device of the character described, the combination of standards, a hopper mounted upon the upper end thereof, having an inverted cone shaped bottom provided with a centrally arranged opening, a plurality of curved tongues formed at the lower end of said bottom and arranged around said opening, a transverse rod arranged in said bottom and having its ends mounted in the sides thereof, an operating rod pivotally connected at its upper end to the central portion of the transverse rod, a receptacle adjustably mounted upon the operating rod and arranged beneath the opening in the bottom of the hopper whereby the swinging movement of the operating rod will tilt the receptacle so that the curved tongues in the bottom of the hopper will throw the food therefrom, and a shield having its upper edge mounted upon the ends of the transverse rods and extending downwardly to inclose the receptacle.

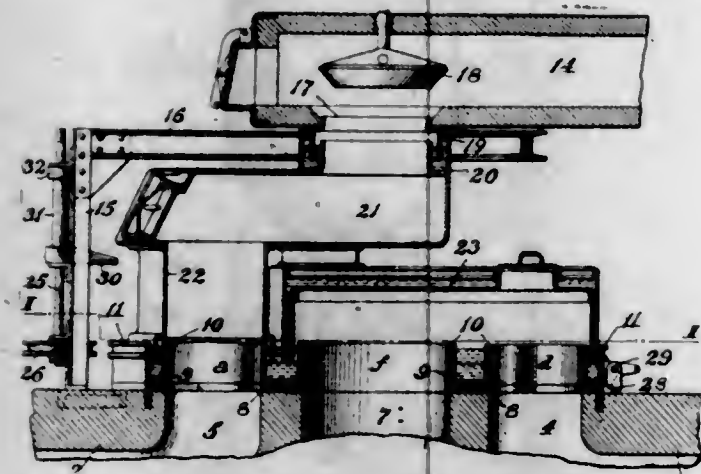
5. In a device of the character described, the combination of supporting standards, a hopper mounted upon the upper ends of said standards, having an inverted cone shaped bottom provided with an opening at its lower end, a plurality of tongues formed at the lower end of said bottom and arranged around the opening, a pivotally mounted adjustable receptacle arranged beneath the opening in the bottom of the hopper, means whereby the receptacle is tilted so that the tongues on the bottom of the hopper will throw the feed therefrom, and a shield having its upper edge mounted upon the bottom of the hopper on the outer side thereof and extending downwardly to inclose the receptacle.

[Claims 6 to 11 not printed in the Gazette.]

1,080,134. REVERSING-VALVE. WALTER O. AMSLER, Pittsburgh, Pa. Filed Mar. 14, 1910. Serial No. 549,167. (Cl. 75—124.)

1. In a combined air and gas reversing valve mechanism, the combination with a plurality of regenerator-flues and

a chimney-flue, of a single valve device for controlling both air and gas comprising a movable member having separate regenerator-ports and a common chimney-port operable in one position to admit air and gas to two regenerator-flues and a co-acting-hood to effect an exhaust from two regenerator-flues, and means for moving the valve device.



2. In a combined air and gas reversing valve mechanism, the combination with a plurality of regenerator-flues and a common chimney-flue, of a single valve device for controlling both air and gas comprising a movable member having separate regenerator-ports and a common chimney-port operable in one position to admit the air and gas to two regenerator-flues and to effect an exhaust from two regenerator-flues to a common chimney-flue.

3. In a combined air and gas reversing valve mechanism, the combination with air and gas regenerator-flues and a common chimney-flue, of a single valve device for controlling the passage of both air and gas, comprising rotative members operable in one position to admit air and gas to two regenerator-flues and to effect an exhaust from two regenerator-flues to the common chimney-flue, means for moving the rotative members to another position to cut off the gas supply, said rotative members in the second position being operable to admit air to two of the regenerators while maintaining the exhaust from another regenerator to the common chimney-flue.

4. In a combined air and gas reversing valve mechanism, the combination with regenerator-flues and a common chimney-flue, of a single rotative valve device for controlling the passage of both air and gas comprising a plate-member having openings therein, a gas-conductor, a hood connecting two of the regenerator-flues with the common chimney-flue, and means for rotating the valve device.

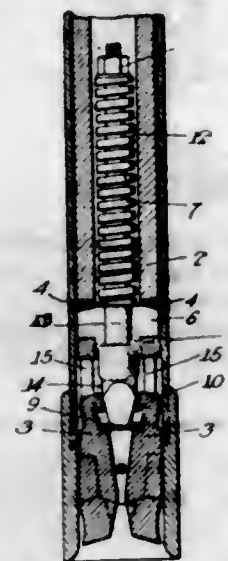
5. In a combined air and gas reversing valve mechanism, the combination with air and gas regenerator-flues and a common chimney-flue, of a fixed plate having openings registering with the flues, of a single rotative valve device for controlling both air and gas comprising a rotatable plate having air and gas openings therein in excess of the number of openings in the fixed plate, a movable member in communication with a gas-supply and adapted to connect with a gas regenerator-flue, a hood for connecting an air and a gas-regenerator-flue with the chimney-flue, and means for rotating the valve device.

[Claims 6 to 14 not printed in the Gazette.]

1,080,135. UNDERREAMER. ROBERT E. BOLE, Los Angeles, Cal., assignor of one-half to Edward Double, Los Angeles, Cal. Filed Feb. 19, 1913. Serial No. 749,343. (Cl. 255—75.)

1. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body provided with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said slot and prevent lateral displacement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

2. An underreamer comprising a body having a central bore, a rod mounted to reciprocate in said bore, said body and rod provided with slots, a key mounted in said slots, said key having a projection or wing projecting downward from the slot of the body into the central bore and preventing lateral motion of the key, a spring mounted on said key and coiled about said rod, means at the upper end of said rod adjustably connecting said rod and spring, means at the lower end of said rod for engaging and supporting the bits or cutters, and cutters or bits.



3. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots and having a projection or wing fitting within the bore of said mandrel below said slots and shouldering against the wall upon transverse movement in either direction, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging and supporting means, said rod being enlarged at its lower end and provided with surfaces adapted to support the inner ends of the bits or cutters, and bits or cutters mounted on said rod.

4. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, the slot in the rod being of sufficient longitudinal extension to permit the movement of said rod longitudinally of said body, a key or gib loosely mounted in said slots and having a projection or wing projecting downward into the central bore below the walls of the slot in the body and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tiltingly carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

5. An underreamer comprising a body having a central bore, a rod mounted in said bore, said body and rod provided with registering slots, a key or gib loosely mounted in said slots and having means at the bottom for anchoring in said body, a spring surrounding said rod and connected thereto at the top thereof, and operatively connected to said key at its lower end, said rod provided with bit engaging means.

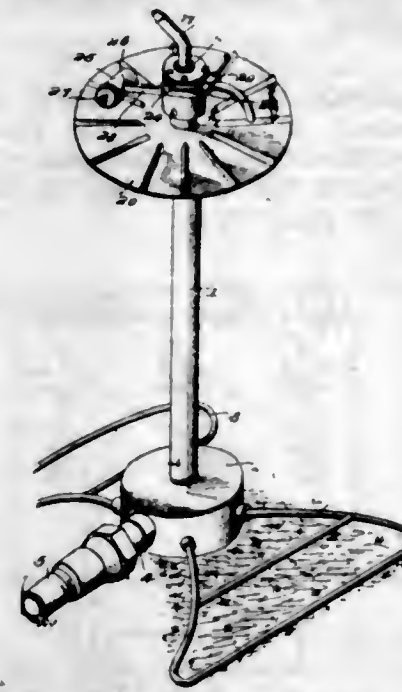
[Claims 6 to 8 not printed in the Gazette.]

1,080,136. SPRINKLER. JOHN P. CAMPBELL, Jacksonville, Fla. Filed Mar. 14, 1913. Serial No. 754,231. (Cl. 137—87.)

1. A sprinkler comprising a tube, a head rotatably mounted upon the tube, a main nozzle secured to and extending from the top of the head, a re-action nozzle also carried by the head and extending from the side thereof, and means for supplying water under pressure to the head.

2. A sprinkler comprising a tube, a head rotatably mounted upon the tube, a main nozzle on the head, a re-action nozzle also carried by the head and means for varying the effective angle of the re-action nozzle in accordance with the speed of rotation of the head.

ing the effective angle of the re-action nozzle in accordance with the speed of rotation of the head.



3. A sprinkler comprising a tube, a head rotatably mounted upon the tube, a main nozzle on the head, a re-action nozzle also carried by the head, a stationary spraying plate supported to be impinged upon by water from the re-action nozzle, and means for supplying water under pressure to the head.

4. A sprinkler comprising a tube, a head rotatably mounted upon the tube, a main nozzle on the head, a re-action nozzle also carried by the head, a stationary plate supported to be impinged upon by water from the re-action nozzle, means for varying the angle of the re-action nozzle and the plate in accordance with the speed of rotation of the head, and means for supplying water under pressure to the head.

5. A sprinkler comprising a tube, a head rotatably mounted in one end of the tube, a pipe carried by the head and extending down into the tube, a main nozzle extending out from the head and connected to the tube, a re-action nozzle also carried by the head and connected to the tube means whereby the re-action angle of the nozzle can be varied, and means for supplying water under pressure to the head.

[Claims 6 to 9 not printed in the Gazette.]

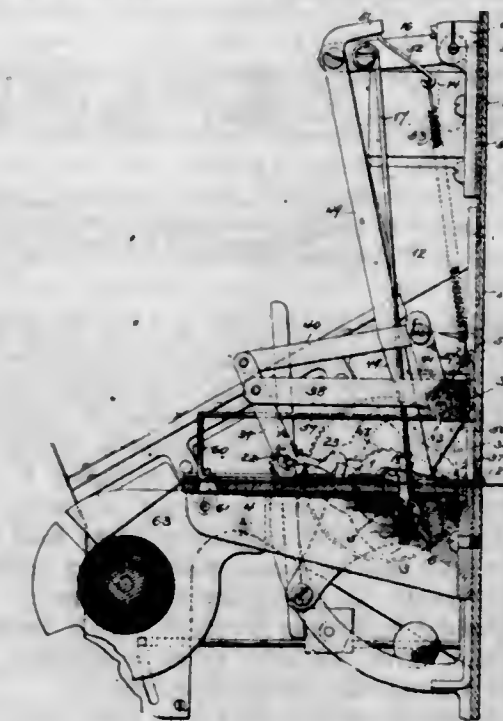
1,080,137. VENTILATING DEVICE FOR CISTERNS. WILLIAM L. CARTER, Waterloo, Iowa, assignor to The Waterloo Register Company, Waterloo, Iowa. Filed May 24, 1912. Serial No. 609,477. (Cl. 72—100.)



The combination with a cistern, of a rim therefor having a laterally directed flange and an upwardly-directed annular flange about its central opening with dentated upper edge, and a cover of domed shape having a dentated

depending edge, the cover resting upon the detents of said upwardly-directed rim and having the detents of its depending edge resting upon the said lateral flange and spaced apart from the outer wall of said upwardly-directed flange to provide continuous channels therebetween from the exterior atmosphere to the interior space of the cistern.

1,080,138. STAMP OR TICKET VENDING MACHINE. SARA L. W. COE, New York, N. Y. Filed Oct. 22, 1912. Serial No. 727,168. (Cl. 211—33.)



1. In a machine of the character described, the combination with a platform, of feeding and discharging devices, a cutter for severing a stamp or ticket from a strip, driving mechanism for the feeding and discharging devices, means for releasing said driving mechanism, and means for operating said cutter prior to the release of said driving mechanism.

2. In a machine of the character described, the combination with a platform, of feeding and discharging devices for stamps or tickets cooperating with said platform, a cutter disposed in position to sever a stamp or ticket from a strip on the platform, driving mechanism for the feeding and discharging devices, trip devices for said driving mechanism, and means for operating said cutter prior to the operation of said trip devices.

3. In a machine of the character described, the combination with a platform, of a reciprocating carriage over said platform, feeding dogs on said carriage, a discharging finger projecting from said carriage, driving means for the carriage, and means for tripping the driving means.

4. In a machine of the character described, the combination with a platform, of a reciprocating carriage over the same, dogs on said carriage for feeding a strip over said platform, a cutter in advance of said carriage for severing a stamp or ticket from said strip, a finger projecting from the carriage for discharging the severed stamp or ticket, operating means for the cutter, and driving means for the carriage.

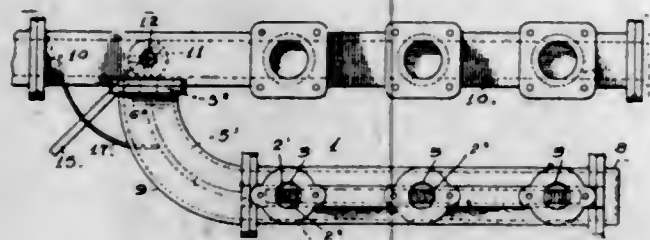
5. In a machine of the character described, the combination with a platform, of a reciprocating carriage, feeding and discharging devices mounted on said carriage, a cam wheel, connections between the cam wheel and carriage, and means for driving said cam wheel to reciprocate the carriage.

[Claims 6 to 11 not printed in the Gazette.]

1,080,139. GASIFIER FOR LIQUID FUELS. WILLIAM L. COSON, San Francisco, Cal., assignor to Union Gas Engine Company, San Francisco, Cal., a Corporation of California. Filed Feb. 20, 1912. Serial No. 878,793. (Cl. 123—122.)

1. In a gasifying device for liquid fuels, the combination of an outer casing having longitudinally extending

partitions forming an intermediate gasifying chamber, and oppositely disposed heating chambers, the heating chambers communicating with one another at one end, and one of said heating chambers constituting at its opposite end an inlet, and the other heating chamber constituting at its opposite end an outlet, said inlet and outlet being adapted for connection with the exhaust pipe of an internal combustion engine, one of the exposed sides of the gasifying chamber having intermediate its ends an inlet opening for the fluid supply and the opposite exposed side of the gasifying chamber having an opening for communication with the engine cylinder.



2. In a gasifying device for low gravity liquid fuels, the combination with an exhaust pipe of an internal combustion engine, of an inlet manifold, a gasifying chamber in said manifold, a communication between said chamber and source of fluid supply, an independent communication between said chamber and engine cylinder, a receiving duct extending around said gasifying chamber, an inlet communication from said exhaust pipe to said duct, an outlet communication from said duct to said exhaust pipe, the inlet and outlet of the receiving duct being arranged at the same point and being provided with a valve so that the circulation of the exhaust gases is through the duct and entirely around said gasifying chamber.

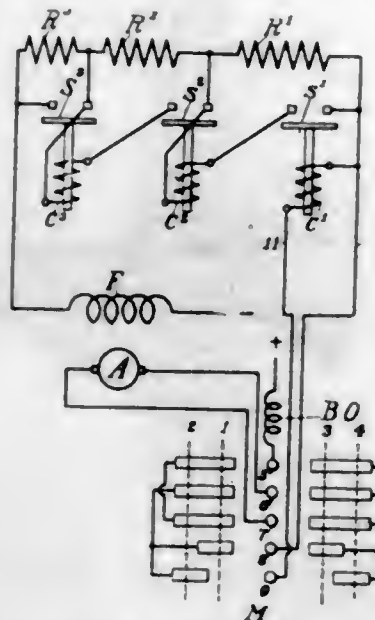
3. In a gasifying device for liquid fuels, the combination of an exhaust pipe of an internal combustion engine, of an inlet manifold comprising an elongated casing forming a gasifying chamber, said casing being closed at opposite ends and having intermediate its top wall one or more outlet openings, one for each engine cylinder, and also having in its bottom wall an inlet opening for the fluid supply, said inlet opening being intermediate the ends of the casing, a longitudinally extending wall at each side of the casing connected to the latter so as to form inclosing passages open at each end, an end passage or duct connecting the said passages at one end, and auxiliary passages leading from said inclosing passages at the opposite end thereof and communicating with the exhaust pipe of the engine.

4. In a gasifying device for low gravity liquid fuels, the combination with an exhaust pipe of an internal combustion engine, of an inlet manifold, a gasifying chamber in said manifold, a communication between said chamber and source of fluid supply, a communication between said chamber and engine cylinder, a receiving duct surrounding said chamber and having its inlet and outlet at the same end of the device, baffle plates projecting from the walls of said duct and extending into said gasifying chamber and valve controlled means in the exhaust pipe adjacent said inlet and outlet of the duct for circulating heated gases from said exhaust pipe through said duct and returning said gases to said exhaust pipe.

5. In a gasifying device for liquid fuels, the combination of an exhaust pipe of an internal combustion engine, of an inlet manifold comprising an elongated casing forming a gasifying chamber, said casing being closed at opposite ends and having intermediate its top wall one or more outlet openings, one for each engine cylinder, and also having in its bottom wall an inlet opening for the fluid supply, said inlet opening being intermediate the ends of the casing, transversely extending pins or baffles within the gasifying chamber projecting from opposite walls thereof in staggered relation, a longitudinally extending wall at each side of the casing and connected to the latter so as to form inclosing passages open at each end, a cap at one end of the device forming a duct connecting with the respective passages at one end, and auxiliary passages leading from said inclosing passages at the opposite

end of the device and communicating with the exhaust pipe of the engine, and a valve in the exhaust pipe adjacent said auxiliary passages, substantially as and for the purpose described.

1,080,140. MOTOR-CONTROL SYSTEM. CYRUS S. DAULER, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 24, 1913. Serial No. 780,918. (Cl. 172-179.)



1. In a current-varying controller, a circuit, a resistance in the circuit, a switch for controlling the resistance, an operating winding therefor, an operator's switch for closing the circuit including the resistance and the switch winding therein, a by-pass around the winding, and means for opening the by-pass.

2. In an electric motor control system, a circuit therefor, a resistance in the circuit, a switch for cutting out the resistance, an operating winding for the switch energized by current through the motor, an operator's switch comprising contacts for connecting the motor in series with the resistance and the said switch winding, a by-pass around the winding, and means for opening the by-pass around the switch winding to energize the said winding.

3. In an electric motor control system, a motor, a circuit therefor, a resistance in the circuit, a switch for cutting out the resistance, an operating winding therefor, a by-pass for the said winding, and means for connecting the winding and the by-pass in the motor circuit and for opening and closing the said by-pass.

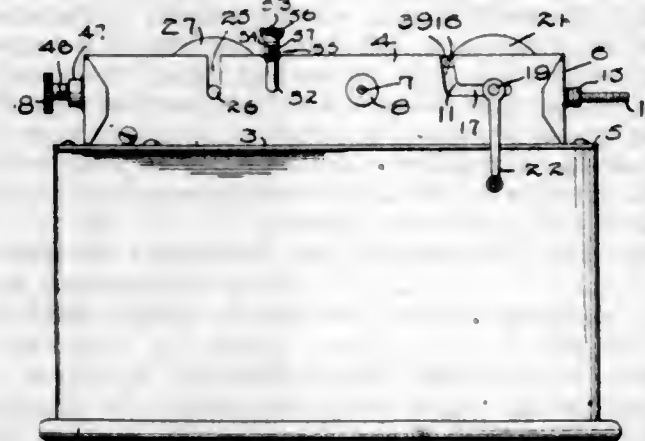
4. In an electric motor control system, a motor, a circuit therefor, a resistance in the circuit, a switch for cutting out the resistance, a winding therefor energized by current through the motor, a by-pass for the winding, and means for connecting the motor in series with the resistance and the said switch winding, and for opening and closing the by-pass.

5. In an electric motor control system, a motor, a circuit therefor, a resistance in the circuit, a series of switches for cutting out the resistance, operating windings therefor energized by current through the motor, a by-pass for the winding of the first switch of the series, and an operator's switch comprising contacts for closing the motor control circuit through the resistance and the by-pass, and contacts for opening the by-pass for energizing the winding of said first switch.

1,080,141. LABEL-MOISTENER. CHARLES W. DE LANEY, Hammond, Ind. Filed Mar. 3, 1911. Serial No. 612,011. (Cl. 91-54.)

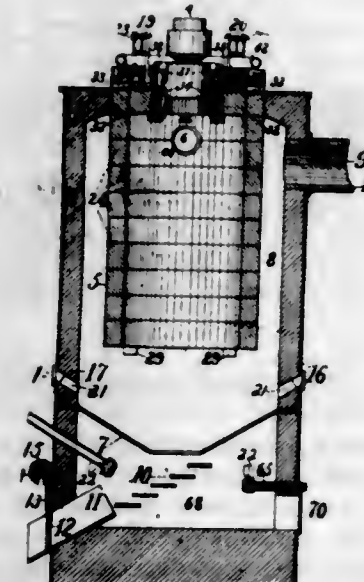
A label moistening device comprising a receptacle having a pair of plates secured therein, a plurality of rollers supported by the plates, a single roller, an endless belt trained around all the rollers, side and end plates supported upon the upper edges of the sides and ends

of the receptacle, said side plates having inclined slots with horizontal portions formed therein, adjustable plates engaging the inner surfaces of the side plates and having longitudinal slots formed therein, screws passable through the plates for engagement with the slots, nuts engaging the screws, lugs formed upon the nuts and engaging the slots to provide guides for the adjustable plates, said



adjustable plates having curved slots formed therein and adapted to register with the inclined slots to form a bearing for receiving the spindles of the single roller, and means passable through one of the end plates to shift the adjustable plates and cause the curved slots to register with the horizontal portions of the inclined slots to inclose the spindles of the single roller and to adjust the tension of said band.

1,080,142. APPARATUS FOR COKING COAL. HENRY L. DOHERTY, New York, N. Y. Filed June 22, 1909. Serial No. 503,732. Renewed May 10, 1913. Serial No. 766,899. (Cl. 48-207.)



1. In an apparatus for coking coal, the combination of a coking chamber, a gas burner in said chamber, said burner being located above the level of the fuel in said chamber, an annular gas chamber enveloping said coking chamber, means for supplying air under pressure to said burner and for supplying combustible gas to said burner, means for charging coal into said chamber and for withdrawing coke from said chamber, substantially as described.

2. In an apparatus for coking coal, the combination of a coking chamber for the reception of the coal, an annular gas chamber surrounding said coking chamber and a gas burner for burning gas in said chamber in direct contact with the coal therein, said gas burner being located above the level of the charge in said coking chamber, substantially as described.

3. In an apparatus for coking coal, the combination of a coking chamber, an annular gas chamber surrounding said coking chamber, means for feeding coal to said coking chamber, a passage conducting combustible gas to said coking chamber above the fuel in said chamber and

a passage conducting air to said coking chamber above the fuel in said chamber, whereby the freshly charged coal in said chamber may be subjected to the direct heating action of a flame of burning gas, said flame being developed in the clear space above the fuel in said coking chamber, substantially as described.

4. In an apparatus for coking coal, the combination of a closed chamber, having a hopper interposed in its lower part, and a stepped grate located beneath the aperture of said hopper; an inner coking chamber enveloped by said closed chamber; means for feeding coal to said coking chamber; a passage conducting combustible gas to said coking chamber, and a passage conducting air to said chamber, whereby the coal in said chamber may be subjected to the direct heating action of a flame of burning gas, substantially as described.

5. In an apparatus for coking coal, the combination of a closed oven chamber, having a hopper bottom; a quenching chamber located beneath said oven chamber, having a stepped grate therein, said stepped-grate being located beneath the aperture of said hopper, and a spray-nozzle in said quenching chamber; an inner coking chamber in said oven chamber; a continuous automatic coal-feeding device, for feeding coal to the coking chamber, a passage conducting combustible gas to said coking chamber, and a passage conducting air to said chamber, whereby the coal in said chamber may be subjected to the direct heating action of a flame of burning gas, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

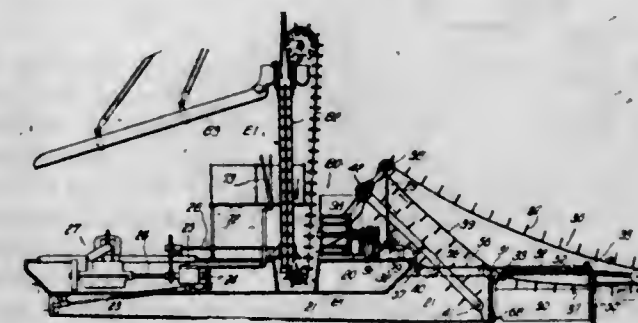
1,080,143. SIZING AND METHOD OF PREPARING SAME. ANDREW A. DUNHAM, Bainbridge, N. Y., assignor to Caseln Company of America, a Corporation of New Jersey. Filed Jan. 10, 1913. Serial No. 741,311. (Cl. 134-18.)

1. A sizing, for use in paper-coating, consisting of a mixture of one part of an alkaline silicate and about twenty-five parts of modified starch.

2. A paper-coating sizing consisting of a mixture of one part of silicate of soda with about twenty-five parts of modified starch.

3. The herein-described method of preparing a paper-coating sizing, consisting in mixing about one part of an alkaline silicate with about twenty-five parts of modified starch and then dissolving the mixture by means of a liquid and heat.

1,080,144. SEAWEED-HARVESTER. GEORGE H. ENNIS, Los Angeles, Cal. Filed Dec. 7, 1912. Serial No. 735,353. (Cl. 56-70.)



1. Apparatus for harvesting sea weed and the like, comprising a floating support, submerged propulsion means therefor, submerged cutters spaced thereon, and means cooperating with said propulsion means for directing the water current caused by said propulsion means between said cutters for drawing the sea weed toward the cutters and floating support.

2. Apparatus for harvesting sea weed and the like, comprising a floating support, cutting apparatus thereon comprising a pair of vertical cutters arranged in front of the support, adjustable means for spacing said vertical cutters apart, a horizontal cutter arranged approximately in the horizontal plane of the lower ends of the vertical cutters, converging guides leading rearwardly

from the cutters toward the floating support, and means for lifting the cut and gathered sea weed onto the support.

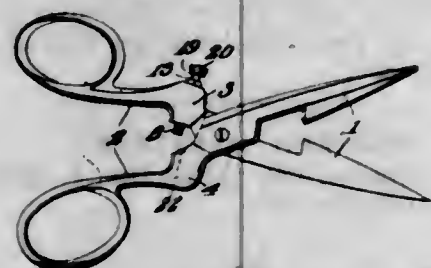
3. Apparatus for harvesting sea weed and the like, comprising a floating support, cutting apparatus thereon comprising a pair of vertical cutters arranged in front of the support and separated laterally by a considerable distance, and a horizontal cutter arranged approximately in the horizontal plane of the lower ends of the vertical cutters and behind the same, converging guides leading rearwardly from the cutters toward the floating support to the horizontal cutter, and means for lifting the cut and gathered sea weed onto the support.

4. Apparatus for harvesting sea weed and the like, comprising a floating support, cutting apparatus thereon comprising a pair of vertical cutters arranged in front of the support and separated laterally by a considerable distance, converging guides leading rearwardly from the cutters toward the floating support, a horizontal cutter arranged rearwardly of the vertical cutters and approximately in the horizontal plane of their lower ends, said horizontal cutter being at the rear ends of the converging guides, means for drawing the sea weed between the guides and toward the cutters and floating support, and means for lifting the cut and gathered sea weed onto the support.

5. Apparatus for harvesting sea weed and the like, comprising a floating support, cutting apparatus thereon comprising a pair of vertical cutters arranged in front of the support and separated laterally by a considerable distance, and a horizontal cutter arranged approximately in the horizontal plane of the lower ends of the vertical cutters, converging guides leading rearwardly from the cutters toward the floating support to the horizontal cutter, means acting over the water surface forwardly of the vertical cutters for drawing the sea weed between the guides and toward the cutters and floating support, and means for lifting the cut and gathered sea weed onto the support.

[Claims 6 to 18 not printed in the Gazette.]

1,080,145. BUTTONHOLE-SCISSORS. PHILIPPE FRIEDRICK, Salina, Kans. Filed Apr. 7, 1913. Serial No. 759,569. (Cl. 164-5.)



1. In combination with a pair of members movable toward each other, a stop in threaded engagement with one member to contact with the other, an actuating member rotatably carried by the aforesaid member, having limited sliding movements and slidably engaging the stop to turn therewith, and means for locking the actuating member against rotation when slid to a predetermined position.

2. In combination with a pair of members movable toward each other, a stop in threaded engagement with one member to contact with the other, and having a longitudinal slot extending from its outer end, an actuating member rotatably carried by the aforesaid member having limited sliding movements, the actuating member embodying a tongue working within the said slot, and means for locking the actuating member against rotation when slid to a predetermined position.

3. In combination with a pair of members movable toward each other, a stop in threaded engagement with one member to contact with the other, and having a longitudinal kerf extending from its outer end to a point short of its inner end, an actuating member rotatably carried by the first mentioned member and having limited sliding movements, the actuating member including a flat tongue engaging within the said kerf and having a knob

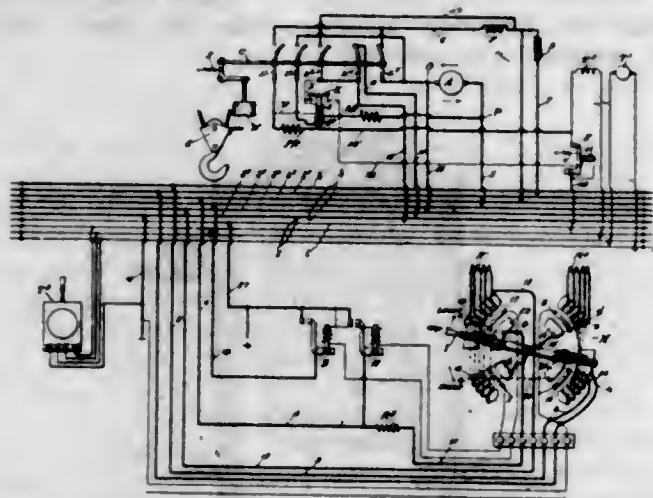
at its inner end fitting snugly within the kerf, the actuating member having interned lips at its outer end between which the tongue is snugly disposed, and means for locking the actuating member against rotation when slid to a predetermined position.

4. In combination with a pair of members movable toward each other, one member having a transverse bore, a stop threaded through the bore and projectable from the inner end of the bore, a member engaged to the aforesaid shank at the outer end of the bore, and an actuating member rotatably carried by the said member and having limited sliding movements relative thereto, the actuating member having a portion in slidable engagement with the stop, and the said member and actuating member having portions adapted to interlock when the actuating member is slid to a predetermined position.

5. In combination with a pair of members movable toward each other, one member having a transverse bore, a stop threaded through the bore to contact with the other member, a plug engaged within the outer end of the bore, an actuating member rotatably carried by the plug and having limited sliding movements, the actuating member being slidably engaged with the stop to turn therewith, and the plug and actuating member having co-operating non-circular portions adapted to interlock when the actuating member is slid to a predetermined position.

[Claims 6 to 8 not printed in the Gazette.]

1,080,146. MOTOR-CONTROL SYSTEM. JAY H. HALL, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 18, 1913. Serial No. 755,140. (Cl. 172-152.)



1. In a control system for electric hoists, a hoist motor, a cross-travel motor, a controller for each motor, trolley wires through which current is supplied to operate the two motors from the controllers, and a switching device for stopping the hoist motor comprising means for connecting the motor in a dynamic braking circuit exclusive of the controller therefor but including at least one of the said operating trolley wires for each motor.

2. In a motor control system, a hoisting mechanism, a motor for operating the hoisting mechanism, a controller and a field winding therefor, a cross-travel motor for the hoisting mechanism, circuits for both motors including trolley wires, and a stopping device for the hoist motor for connecting the armature in a closed circuit and for exciting the said field winding through a circuit exclusive of the controller, but inclusive of some of the trolley wires normally used in the operation of both motors.

3. In a motor control system, a hoisting mechanism, a motor for operating the mechanism, a cross travel motor for the mechanism, circuit connections for operating both motors, and means operated by the hoist motor for connecting the armature of said motor in a closed circuit and connecting the field to a source of supply through a circuit including one of the operating circuit connections of each motor.

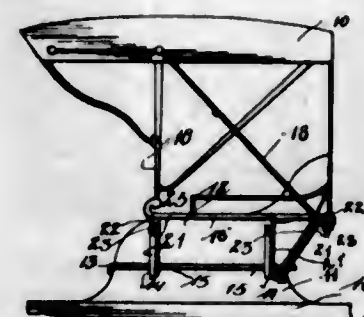
4. In a motor control system, a hoisting mechanism, a motor therefor having a series field, a controller for the

motor, and means operated by the motor for connecting the armature in a closed circuit, for opening the circuit connecting the field to the source through the controller, and for connecting the field to the source through conductors previously used in the control of the hoisting mechanism.

5. In a control system for electric hoists, a motor having a field and an armature, a controller and connections for connecting the armature and field to the source of supply in series with each other to run the motor in the hoisting direction, connections for connecting the armature and the field in parallel with each other to run the motor in the lowering direction, and means operated by the motor in hoisting for disconnecting the source from the field through the controller, for connecting the field to the source through a circuit not including the controller, and for connecting the armature in a closed circuit.

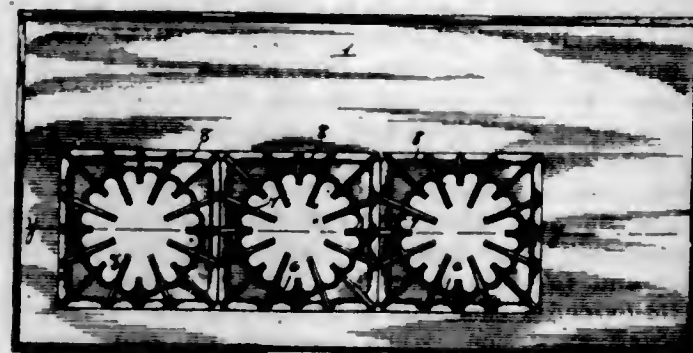
[Claims 6 to 19 not printed in the Gazette.]

1,080,147. CARRIAGE-TOP. LEWIS S. HENDERSON, Blairs, S. C. Filed Apr. 28, 1913. Serial No. 764,189. (Cl. 21-45.)



The combination with a carriage body and top which includes irons, having side rails formed with notches and a hinged seat having notches registering with the first named notches, of a removable frame including parallel bars seated within the notches, spacing links connecting the bars, said bars having upturned ends disposed in the notches of the seat, upturned rear members on the frame, the irons of the top being secured to the upturned portions of the bars, and rear members and latch members carried by one of the bars for engagement with a portion of the carriage body to hold the seat and frame in position.

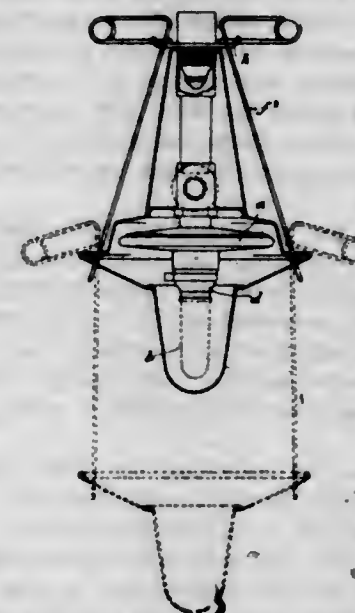
1,080,148. STOVE. WALTER E. HUENEFELD, Cincinnati, Ohio, assignor to The Huenefeld Company, Cincinnati, Ohio. Filed Sept. 6, 1912. Serial No. 718,939. (Cl. 126-214.)



In a stove, the combination of a top having a single elongated rectangular depression provided in its bottom with a plurality of burner openings, all portions of the bottom of said depression being in the same plane and unobstructed throughout, and a plurality of rectangular ribbed spiders removably seated within said depression in the stove top and filling said depression, said spiders abutting one against another and the ribs of said spiders having their upper edges in a plane above the frame portion.

197 O. G.—6

1,080,149. GAS-LAMP. JAMES KEITH and GEORGE KEITH, London, England. Filed Dec. 19, 1912. Serial No. 737,671. (Cl. 67-94.)

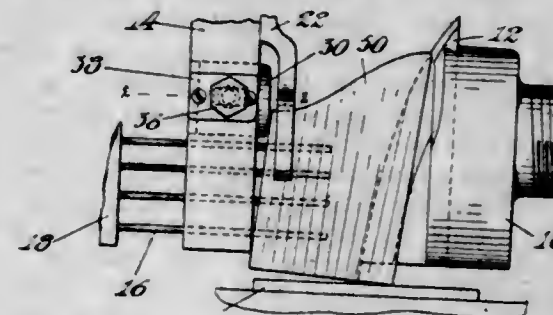


1. In combination, an inverted high pressure incandescent gas burner, a mantle therefor, and a globe of fused silica inclosing the mantle and when in use practically closed against ingress of secondary air, said globe being located within a field of temperature destructive of glass.

2. In an inverted incandescent high pressure gas lamp, in combination, an inverted mantle, means for leading a self-burning mixture of gas and air downwardly into the mantle, a globe of translucent refractory material surrounding the mantle and constituting a combustion chamber, said globe being practically closed against ingress of air other than that entering the mantle, and so dimensioned as to be located within a field of temperature destructive of glass.

3. In combination, a high pressure incandescent gas burner and a globe having a connection with the burner such as practically to prevent ingress of secondary air, said globe being composed of highly refractory light-transmitting material and located within a field of temperature destructive of glass.

1,080,150. MACHINE FOR OPERATING ON HEELS. HERBERT W. KENWAY, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 25, 1911. Serial No. 651,250. (Cl. 1-33.)



1. A machine for operating on heels having means for adjustably holding heels in positions of different inclinations comprising a plate held against angular movement, a wedge shaped member movable relatively to the plate, a heel engaging device supported by the wedge shaped member and adjusted by the movement thereof to tilt the heel about an axis adjacent to its breast edge into different angular positions, and connections for reversely moving the heel engaging device when the wedge shaped member is retracted.

2. A machine for operating on heels having, in combination, a die plate provided with awl guiding passages disposed at right angles to its work-engaging surface, a gang of awls operating in said passages, and means disposed out of line with the guiding passages for engaging the tread face of a heel at its curved end and holding it

away from the surface of the die plate while the breast end of the tread face bears upon the work-engaging surface of the die plate.

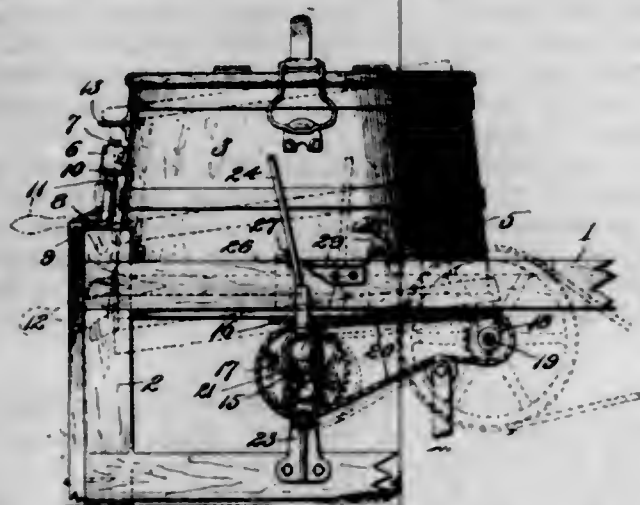
3. A machine for operating on heels having, in combination, a gang of awls, means for supporting a heel blank obliquely with respect to said awls so that the heel may be pricked obliquely, and means for preventing displacement of the heel while the awls are being stripped therefrom including a stop disposed without the rearmost awl and arranged to engage the rear curved end of the tread face of the heel.

4. A machine for operating on heels, having, in combination, relatively movable awls and die plate, and an inclined work support, said die plate having a work-engaging face disposed perpendicularly to said awls, and a stop projecting from said face to maintain the proximate face of the heel at an inclination to said awls, the effective face of the stop being relatively inclined with respect to the work support.

5. A machine for operating on heels, having, in combination, relatively movable awls and die plate, said die plate being arranged to engage the tread surface of a heel blank near one end, and a member interposed between said die plate and heel and located out of line with the awls for holding the other end of said tread surface away from the surface of the die plate.

[Claims 6 to 12 not printed in the Gazette.]

1,080,151. GEARING. CHARLES J. MARTIN, St. Louis, Mo., assignor to Wayne Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed July 24, 1912. Serial No. 711,245. (Cl. 74-7.)



1. The combination with a support, a shaft carried by said support, a drive shaft, a connection for driving said first-named shaft from said drive shaft, and means for supporting said support in different adjustments, of automatic means for rendering said connection inoperative incidentally to the movement of said support from one to the other of said adjustments, substantially as specified.

2. The combination with a bench, a support pivoted on said bench, means for holding said support in different adjustments, a shaft carried by said support, a drive shaft, connections from said drive shaft for rotating said first-named shaft when said support is in one of said adjustments, and a lever for rendering said connections operative or inoperative, of a device for operating said lever and rendering said connections inoperative when said support is moved from one adjustment to another adjustment, substantially as specified.

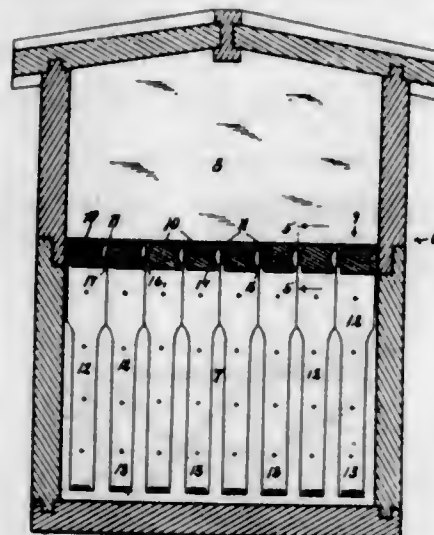
3. The combination with a bench, a support pivoted on said bench, a shaft carried by said support, a drive shaft, connections from said drive shaft for rotating said first shaft, and means for raising and lowering said support, of means for moving said lever and rendering said connections inoperative incidentally to the lowering of said support, substantially as specified.

4. The combination with a support, a shaft carried by said support, and connections for rotating said shaft, of means for holding said support in different adjustments, and means for rendering connections inoperative incidentally to the movement of said support to one of said adjustments, substantially as specified.

5. The combination with a support, means for holding said support in different positions, a shaft carried by said support, and connections for operating said shaft, of a lever for rendering said connections operative or inoperative, and means for moving said lever to render said connections inoperative incidentally to the adjustment of said support in one of said positions, substantially as specified.

[Claims 6 to 13 not printed in the Gazette.]

1,080,152. BEEHIVE. NEWTON MATTHEWS, Fullerton, Cal. Filed June 16, 1913. Serial No. 774,041. (Cl. 6-2.)



1. In a bee hive, brood frames having the top bars thereof spaced from each other and formed to provide a tortuous passageway between the sides of adjacent top bars, substantially as and for the purpose set forth.

2. In a bee hive, brood frames having the top bars thereof formed and arranged to provide tortuous passageways between the lower and the upper surfaces of the top bars, substantially as set forth.

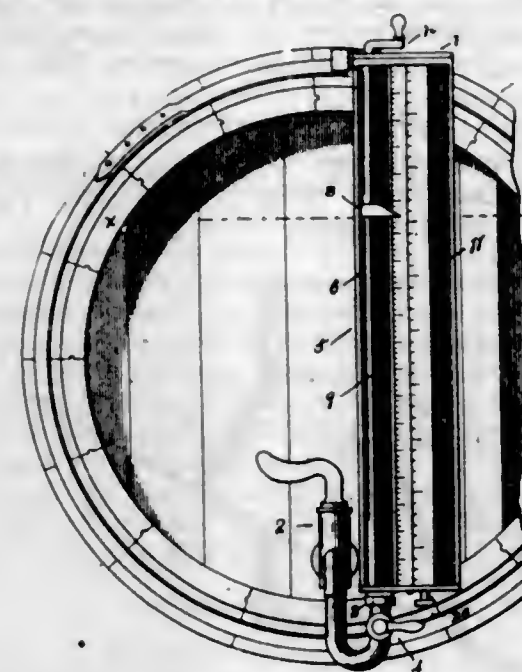
3. In a bee hive, brood frames having the top bars thereof formed with a curved projection on one side thereof and a cavity on the other side thereof and arranged spaced from each other to provide between the top bars passageways which lead from the lower to the upper surfaces of the top bars and are adapted to prevent a queen bee from passing therethrough, substantially as described.

1,080,153. LIQUID-GAGE. LOUIS MEYER, San Francisco, Cal. Filed July 11, 1912. Serial No. 708,889. (Cl. 73-54.)

1. In a liquid gage and in combination, a faucet having an inverted union with a stop-cock thereon and a means for attaching said faucet to a barrel or cask; a housing of suitable material mounted on said faucet by means of the inverted union; a glass tube within said housing so disposed that the opening thereof may articulate with the opening in said union and be secured thereto; a graduated scale within said housing, parallel with, and adjacent to said tube; a rotatably mounted screw within said housing, parallel and adjacent to said tube, said screw having mounted thereon an indicator with threads therein, articulating and in mesh with the threads of said screw; a handle having a base with a projection, said handle with base and projection rigidly mounted on said screw; a jointed locking hasp movably mounted on the top of said housing, said hasp having depressions in the side thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking said hasp; substantially as described and claimed.

2. In a liquid gage and in combination, a faucet having an inverted union with stop-cock thereon and a means for attaching said faucet to a barrel or cask; a housing of suitable material mounted on said faucet by means of the inverted union, a glass tube within said housing so dis-

posed that the opening thereof may articulate with the opening in said union, and be secured thereto; a rotating scale with multiple sides within said housing parallel with, and adjacent to said tube; a screw rotatably mounted within said housing in line with said tube, said screw having mounted thereon an indicator with threads therein, articulating with and in mesh with the threads of said screw; a handle having a base with a projection, said handle with base and projection rigidly mounted on said screw; a jointed locking hasp movably mounted on the top of said housing, said hasp having depressions in the side thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking said hasp, substantially as described.



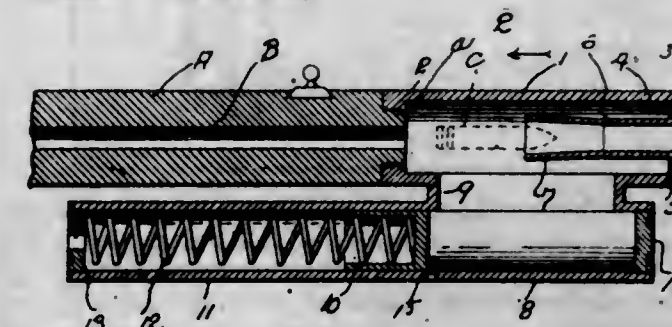
3. In a liquid gage and in combination, a faucet having an inverted union with stop-cock thereon and a means for attaching said faucet to a barrel or cask; a housing of suitable material mounted on said faucet by means of the inverted union, a glass tube within said housing so disposed that the opening thereof may articulate with the opening in said union, and be secured thereto; a guard for said tube, a revolving scale with multiple sides within said housing parallel with and adjacent to said tube; a screw rotatably mounted within said housing, in line with said tube, said screw having mounted thereon an indicator with threads therein, articulating and in mesh with the threads of said screw; a handle having a base with a projection, said handle with base and projection rigidly mounted on said screw; a jointed locking hasp movably mounted on the top of said housing, said hasp having depressions in the side thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking the same, substantially as described and claimed.

4. In a liquid gage and in combination, a faucet having an inverted union with stop-cock thereon and a means for attaching said faucet to a barrel or cask; a housing of suitable material mounted on said faucet by means of the inverted union, a glass tube within said housing so disposed that the opening thereof may articulate with the opening in said union, and be secured thereto; a guard for said tube; a revolving scale with multiple sides having differential graduations thereon, within said housing, parallel and adjacent to said tube; an index pin in the lower end of said scale, index holes in the bottom plate of the housing so disposed as to engage said pin; a screw rotatably mounted within said housing, and in line with said tube, said screw having mounted thereon an indicator with threads therein, articulating and in mesh with the threads of said screw; a handle with a base having a projection, said handle with base and projection rigidly mounted on said screw; a jointed hasp movably mounted on the top of said housing, said hasp having depressions in the side thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking said hasp, substantially as described and claimed.

thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking said hasp, substantially as described.

5. In a liquid gage and in combination, a faucet having an inverted union and stop-cock thereon, and a means for attaching said faucet to a barrel or cask; a housing of suitable material mounted on said faucet by means of the inverted union, a glass tube within said housing so disposed that the opening thereof may articulate with the opening in said union, and be secured thereto; a guard for said tube, said guard being a partially slotted tube with the ends encircling the glass sufficiently for cementing purposes, a revolving scale with multiple sides having differential graduations thereon, within said housing, parallel and adjacent to said tube; an index pin in the lower end of said scale, index holes in the bottom plate of the housing so disposed as to engage said pin; a screw rotatably mounted within the housing and in line with said tube, said screw having mounted thereon an indicator with threads therein, articulating and in mesh with the threads of said screw; a handle with a base having a projection, said handle with base and projection rigidly mounted on said screw; a jointed locking hasp movably mounted on the top of said housing; said hasp having depressions in the side thereof so disposed as to engage and articulate with the contour of the scale and the profile of the projection on the base of the controlling screw handle, and a means for locking said hasp, substantially as described and claimed.

1,080,154. SILENCER FOR FIREARMS. HERBERT P. MOORE, Norwalk, Ohio. Filed Nov. 8, 1912. Serial No. 730,228. (Cl. 89-3.)



1. A silencer comprising a cylinder, a plug adapted to fit the end of said cylinder, an inwardly projecting tube extending through said plug and into the cylinder, the inner end of the tube being flared, a cylinder parallel with the first mentioned cylinder, a plunger slidable in the second mentioned cylinder, plugs removably secured in the ends of the second mentioned cylinder, one of said plugs having an aperture therein, a spring interposed between the apertured plug and the plunger, means to attach the whole to a fire arm, and a stop intermediate the ends of the second mentioned cylinder adapted to limit the movement of the plunger.

2. A gun silencer and shock absorber comprising a cylinder, a plug secured within the cylinder, a tube extending through said plug and into the cylinder, a second cylinder parallel with the first mentioned cylinder and having a passage communicating therewith, a plunger slidable in said second cylinder, plugs removably secured in the ends of the second cylinder, one of said plugs having an aperture therein, a spring adapted to abut the apertured plug, and seat within a recess in the plunger, a stop intermediate the ends of the cylinder adapted to limit the movement of the plunger, and means to attach the whole to the barrel of a fire arm.

1,080,155. ALUMINIUM ALLOY. WALTER NORTHCOLE NAYLOR, Forest Hill, London, and STANLEY PAGE HUTTON, Beckenham, England. Original application filed Nov. 22, 1912, Serial No. 732,072. Divided and this application filed May 17, 1913. Serial No. 768,378. (Cl. 75-1.)

1. An alloy consisting of aluminium, magnesium, phosphorus and phosphorus.

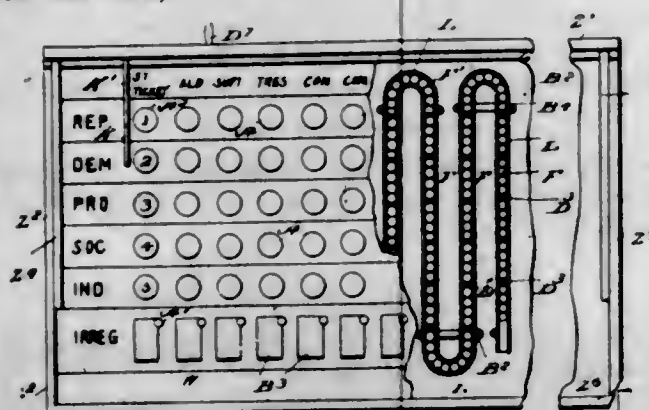
2. An alloy consisting of aluminium, magnesium, phosphor tin and phosphorus in about the following proportions: aluminium, 93.89 per cent.; magnesium, 4.89 per cent.; phosphor tin, .73 per cent., and phosphorus, .49 per cent.

1,080,156. ALUMINIUM ALLOY. WALTER NORTHCOE NAYLOR, Forest Hill, London, and STANLEY PAGE HUTTON, Beckenham, England. Original application filed Nov. 22, 1912, Serial No. 732,972. Divided and this application filed May 17, 1913. Serial No. 768,379. (Cl. 75—1.)

1. A metal alloy consisting of aluminium, magnesium, phosphor tin and sodium.

2. A metal alloy consisting of aluminium, magnesium, phosphor tin and sodium in about the following proportions: aluminium, 98.94 per cent.; magnesium, .77 per cent.; phosphor tin, .09 per cent., and metallic sodium, .02 per cent.

1,080,157. INTERLOCKING MECHANISM FOR VOTING-MACHINES. CHARLES HERBERT OCUMPAUGH, Rochester, N. Y. Filed Jan. 12, 1904, Serial No. 188,681. Renewed Apr. 15, 1913. Serial No. 761,358. (Cl. 235—54.)



1. In a voting machine, an interlocking mechanism having two stationary adjacent sections in approximately parallel planes, a curved section, one end of each of said parallel sections being connected with the other section by the curved section and all the sections adapted to communicate, said mechanism including movable parts in each section, two adjacent keys each corresponding to one of the parallel sections, and abutments between both parallel sections and the connecting curved section comprising a removable bar extending across both said adjacent sections.

2. In a voting machine the combination of a frame for an interlocking mechanism comprising a plurality of straight sections and curved connecting sections, the straight sections being connected alternately at opposite ends of said curved sections, movable interlocking members carried by said frame in both straight and curved sections, indicators, and removable abutments between the straight and connecting curved sections, the abutments comprising bars of link form crossing a plurality of sections, and indicator-controlled interlocking bars passing through the links into coöperative relation with the said movable members.

1,080,158. WEED-KILLING TRAIN. INGOMAR FRANÇOIS ORTON, Galveston, Tex. Filed June 4, 1913. Serial No. 771,711. (Cl. 104—58.)

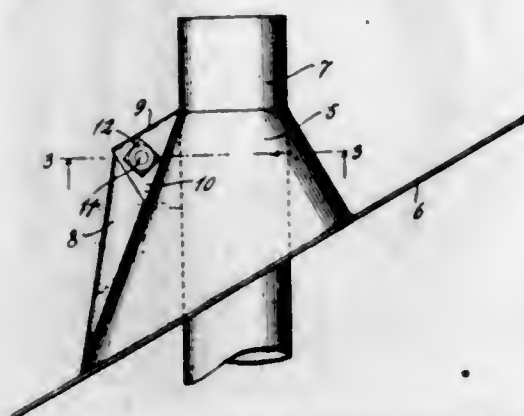


1. The combination with a car body, of pipes disposed longitudinally thereof in spaced parallel relation to each other, outturned elbows formed at the ends of the pipes

and having sprinkler heads depending therefrom, spaced pairs of valves mounted within the said pipes, nipples projecting from the pipes between the points of the valve, pumps arranged within the body and having connection with the said pipe, means for operating the pumps, and feed pipes leading from the pumps and adapted for connection with the sprinkling system of adjacent cars.

2. The combination with a car body, of pipes disposed longitudinally thereof in spaced parallel relation to each other, outturned elbows formed at the ends of the pipes and having sprinkler heads depending therefrom, spaced pairs of valves mounted within the said pipes, nipples projecting from the pipes between the points of the valve, pumps arranged within the body and having connection with the said pipe, means for operating the pumps, feed pipes leading from the pumps and adapted for connection with the sprinkling system of adjacent cars, and a tank above the pumps and having connection with the said nipples.

1,080,159. ROOF-JOINT. CHARLES AUGUSTUS OVERTON, Coeur d'Alene, Idaho. Filed Jan. 27, 1913. Serial No. 744,448. (Cl. 108—26.)

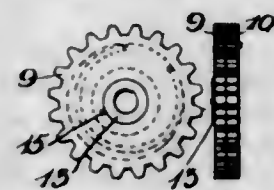


1. A roof joint comprising a sleeve adapted to encircle a pipe, said sleeve having an outstanding longitudinal crease, the side walls of which crease converge from the body of the sleeve and have their outer ends integrally united, and means for drawing said side walls of the crease together to contract the sleeve.

2. A roof joint comprising a sleeve adapted to encircle a pipe, said sleeve having an outstanding crease extending down from the top thereof and adapted to be drawn together to contract the sleeve, and a cap separate from the sleeve and the crease thereof, said cap fitting over the top edge of the crease.

3. A roof joint comprising a sleeve adapted to encircle a pipe, said sleeve having an outstanding crease extending down from the top thereof and adapted to be drawn together to contract the sleeve, a cap closing the space between the walls of the crease at the top thereof, said cap being separate from the sleeve and the crease, and having depending flanges fitting the side walls of the crease externally, and the top of the cap having its inner edge curved to fit the outer surface of the pipe, and fastening means passing through the flanges of the cap and the side walls of the crease.

1,080,160. GEAR-WHEEL. GEORGE B. OWEN, Winsted, Conn., assignor to Wm. L. Gilbert Clock Company, Winsted, Conn., a Corporation of Connecticut. Filed Dec. 14, 1912. Serial No. 736,768. (Cl. 74—28.)



1. A gear comprising a plurality of complementary toothed sections mounted in axial alignment and for relative movement and each having their adjacent faces pro-

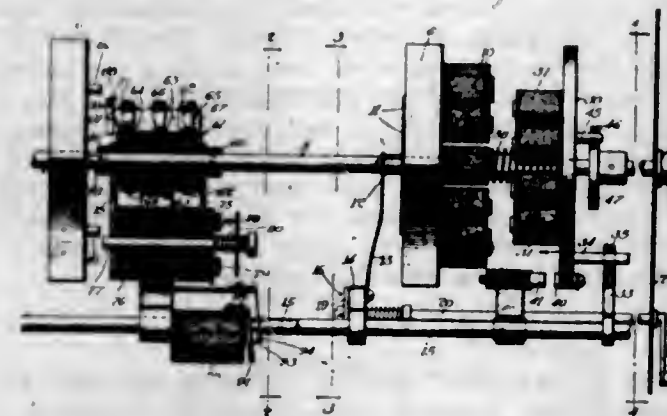
vided with axially aligned annular recesses forming a housing, a spring seated in said housing interconnecting said sections and normally tending to exert a strain on said sections in opposite directions, said spring extending around the axis of said gear.

2. A gear comprising two complementary toothed sections mounted in axial alignment and for relative movement, one of said sections being provided with a hub, and each of said sections having their adjacent faces formed with annular recesses therein providing a housing, and a coiled spring seated within said housing and interconnecting said sections and normally tending to exert a strain on said sections in opposite directions, said spring extending around the axis of said gear.

3. As an article of manufacture, a gear for regulators comprising two complementary toothed sections, one of said sections being provided with a hub and the other of said sections being rotatably mounted thereon, the adjacent faces of each of said sections being formed with axially aligned annular recesses forming a housing, and a coiled spring seated within said housing interconnecting said sections and normally tending to exert a strain on said sections in opposite directions, said spring extending around the axis of said gear.

4. In an article of manufacture, a gear comprising two complementary toothed sections connected together concentrically but capable of limited independent rotation, an annular recess in the face of one of said toothed sections, said recess facing the other toothed section and forming therewith a housing, a coiled spring arranged in said housing, the coil of said spring lying within the plane of said housing, and one end of said spring being anchored to one of said sections and the other end thereof being anchored to the other of said sections.

1,080,161. INDICATOR MECHANISM. EDGAR J. PACE and ORLANDO E. KELLUM, Los Angeles, Cal., assignors to National Street and Station Indicator Company, Los Angeles, Cal., a Corporation of California. Filed Dec. 13, 1911. Serial No. 665,446. (Cl. 172—36.)



1. In combination with a rotatable shaft, an electro-magnetic armature thereon, a field magnet coöperating with the armature, a contact mechanism controlling the supply of current to the field and armature and operable by rotation with the shaft, and means to rotatably connect the contact mechanism to the shaft during a partial revolution thereof.

2. In combination with a rotatable shaft an electro-magnetic armature thereon, a field magnet coöperating with the armature a contact mechanism controlling the supply of current to the field and armature and operable by rotation with the shaft, said contact mechanism adapted to normally remain in a certain position, and electro-magnetically actuated means to rotatably connect the contact mechanism to the shaft during a partial revolution thereof.

3. In combination with a rotatable shaft, an electro-magnetic armature thereon, a field magnet coöperating with the armature, a contact mechanism loosely mounted on the shaft and including an electro-magnet dependent below the shaft and adapted to gravitationally hold the contact mechanism normally in a certain position, a

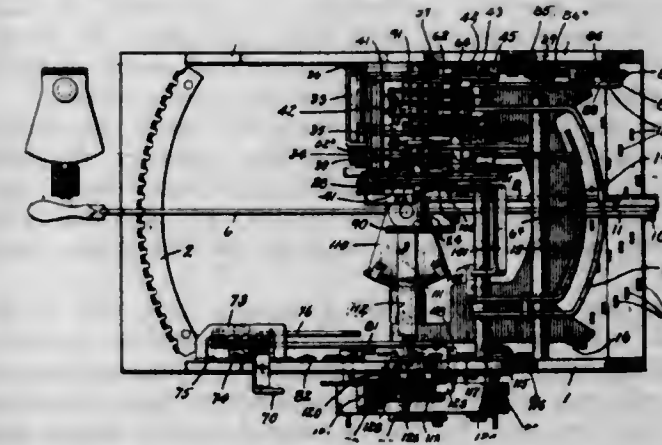
switch adapted to be closed by the energization of said electro-magnet, means operated by said magnet when energized to rotatively connect the contact mechanism to the shaft and switch means for deenergizing said electro-magnet after a certain rotation of the commutator, and a circuit including a source of electrical energy, the magnet operated switch, the field magnet and the armature.

4. In combination with a rotatable shaft, an electro-magnetic armature mounted on the shaft, field magnets mounted around the shaft and spaced longitudinally thereon from the armature, the field magnets being slidable on the shaft toward the armature, means for holding the field magnets from rotation, means dependent upon the longitudinal position of the field magnets to lock the shaft from rotation, means to supply electrical energy to the field magnets, and means dependent upon the longitudinal position of the field magnets for controlling the supply of electrical energy to the armature.

5. In combination with a rotatable shaft, an electro-magnetic armature mounted on the shaft, field magnets mounted around the shaft and spaced longitudinally thereon from the armature, the field magnets being slidable on the shaft toward the armature, means for holding the field magnets from rotation, means dependent upon the longitudinal position of the field magnets to lock the shaft from rotation, a switch adapted to be closed by the longitudinal movement of the field magnets, means to supply electrical energy to the field magnets, and means to supply electrical energy to the armature through the field magnet operated switch.

[Claims 6 to 8 not printed in the Gazette.]

1,080,162. CASH-REGISTER. ELMER E. PATTEN, St. Louis, Mo., assignor to St. Louis Cash Register Company, St. Louis, Mo., a Corporation of Missouri. Filed June 21, 1912. Serial No. 704,995. (Cl. 235—2.)



1. In a device of the class described, an operating handle, a rock frame operated thereby, a register frame, a register mounted therein, carrying mechanism coöperating with said register, a pivoted lever operated from said rock frame, and means on said pivoted lever for rocking said register frame and operating said carrying mechanism.

2. In a machine of the class described, a plurality of decimal indicating tabs, a plurality of integer indicating tabs, register mechanism, an operating handle adapted to actuate said decimal and integer tabs and said register, a lifting bar with which said handle coöperates for selectively operating said integer tabs, and means for positioning said lifting bar relative to said integer tabs.

3. In a device of the class described, register mechanism, decimal indicating tabs, integer indicating tabs, an operating handle for introducing numbers into said register and for operating said integer and decimal tabs, a lifting bar for selectively coöperating with said integer tabs, a segment adapted to engage said registering mechanism, and manually manipulative means for simultaneously positioning said lifting bar relative to said tabs and said segment relative to said registering mechanism.

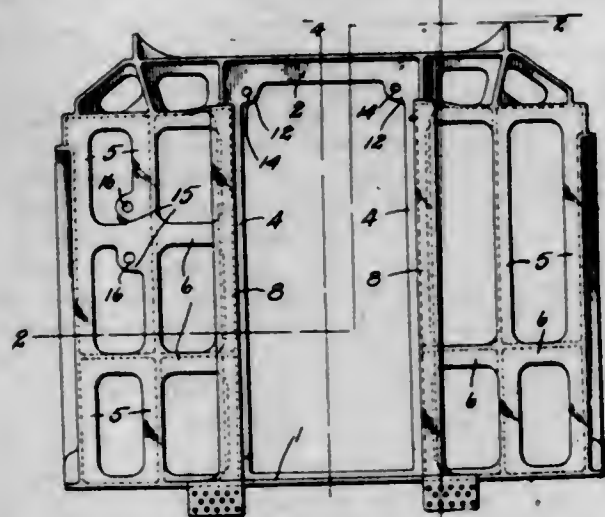
4. In a device of the class described, registering mechanism including a pinion for introducing numbers thereinto, a shaft, a spring adapted to rotate said shaft, means

for actuating said pinion from said shaft, means for positioning said pinion actuating means relative to said pinion against the influence of said spring, and means for engaging said pinion with its actuating means.

5. In a device of the class described, a plurality of indicating tabs, a lifting bar adapted to selectively engage said tabs, a shaft, a spring adapted to rotate said shaft, and means for operating said shaft to said lifting bar differentially against the influence of said spring.

[Claims 6 to 28 not printed in the Gazette.]

1,080,163. CAR-FRAME CONSTRUCTION. HARRY M. PFLAGER, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,220. (Cl. 105-201.)



1. In car construction, an integrally cast end frame formed with upright and transverse members, a pair of the upright members performing the functions of door posts, brackets integral with said door posts at predetermined points near their upper ends, and which brackets are perforated to receive the diaphragm buffer stems.

2. In car construction, an integrally cast end frame formed with upright and transverse members, brackets formed integral with one of the upright members at predetermined points, and which brackets are provided with apertures adapted to form bearings for the hand brake shafts.

3. In car construction, an integrally cast end frame formed with upright and transverse members, brackets formed integral with certain of said upright members at predetermined points, and which brackets are adapted to provide bearings for the diaphragm buffer stems, and the hand brake shafts.

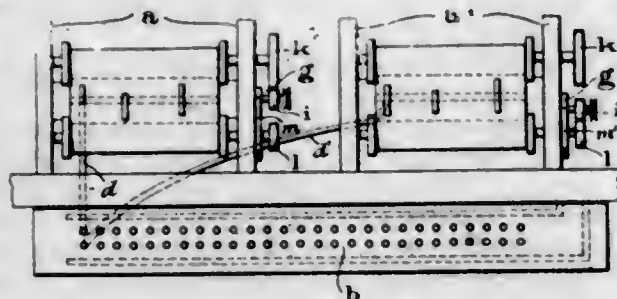
4. In car construction, an integrally cast end frame, provided with an end door opening, door posts integral with said frame at the sides of said door opening, which door posts are substantially wider than the width of the end frame, and laterally projecting flanges integral with the outer ends of said door posts, which flanges are adapted to receive the inner ends of the flexible diaphragm.

1,080,164. PNEUMATICALLY-ACTUATED MUSICAL INSTRUMENT. AUGUST PHILIPPS, Frankfort-on-the-Main, Germany. Filed Apr. 28, 1913. Serial No. 764,208. (Cl. 84-161.)

1. In a note sheet selecting mechanism for pneumatically operated musical instruments, the combination of a plurality of note sheet holders and winding mechanism with tracker bars, pivoted levers for controlling the operation of the winding mechanism, wheels mounted on said levers for driving the winding mechanism and apparatus with means for operating the same, whereby the tracker bar passages are disconnected when their winding mechanism is stationary or is reversed.

2. In a note sheet selecting mechanism for pneumatically operated musical instruments, the combination of a plurality of note sheet holders and winding mechanism

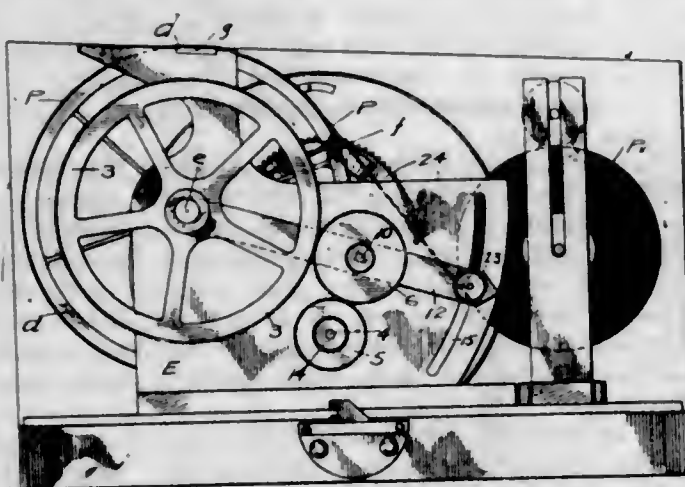
with tracker bars, pivoted levers for controlling the operation of the winding mechanism, wheels mounted on said levers for driving the winding mechanism and apparatus with means for operating the same, whereby the tracker bar passages are disconnected when their winding mechanism is stationary or is reversed, said apparatus comprising a plurality of chambers, pneumatic apparatus in connection with said chambers and with means for controlling same from the levers of the winding mechanism, and pneumatic means controlled by said pneumatic apparatus adapted to open and close the tracker bar passages.



3. In a note sheet selecting mechanism for pneumatically operated musical instruments, the combination of a plurality of note sheet holders and winding mechanism with tracker bars, levers for controlling the operation of the winding mechanism, and apparatus with means for operating the same, whereby the tracker bar passages are disconnected when their winding mechanism is stationary or is reversed, said apparatus comprising a plurality of chambers, one for each tracker bar, passages communicating with the tracker bar passages, diaphragms in the chambers adapted to close said passages, and pneumatic apparatus with means for controlling same from the levers aforesaid whereby one or other set of diaphragms may be caused to open its respective passages.

4. In a note sheet selecting mechanism for pneumatically operated musical instruments, the combination of a plurality of note sheet holders and winding mechanism with tracker bars, levers for controlling the operation of the winding mechanism, wheels mounted on said levers for driving the winding mechanism, and apparatus with means for operating the same, whereby the tracker bar passages are disconnected when their winding mechanism is stationary or is reversed, said apparatus comprising a plurality of chambers, one for each tracker bar, passages communicating with the tracker bar passage, diaphragms in the chambers adapted to close said passages, and pneumatic apparatus with means for controlling the same from the levers aforesaid to cause one or the other set of diaphragms to open its respective passage.

1,080,165. TIME-COST METER. JOHN T. QUIGLEY, San Francisco, Cal., assignor to The Costmeter Company, a Corporation of California. Filed July 14, 1908. Serial No. 443,506. (Cl. 234-53.)



1. In a time-cost system, a tape carrier, time controlled mechanism for operating the carrier during fixed periods of time at a substantially uniform speed predetermined

to correspond with a selected time-cost unit, means for varying such speed, means for operatively applying to the carrier or cutting off therefrom the source of driving power, means for placing suitable identification marks upon said tape to represent the duration of an elapsed period of time and a scale on which the marked lengths of tape represent time-cost irrespective of the rate of said speed.

2. In a time cost system, a tape carrier, and means to drive said carrier at a substantially uniform speed predetermined to correspond to a selected time-cost rate, said means being adapted to be adjusted to vary the speed to correspond to another selected time-cost rate, means for indicating on said tape the beginning of a time period, and a scale to which said tape may be applied to ascertain time cost irrespective of the said speed.

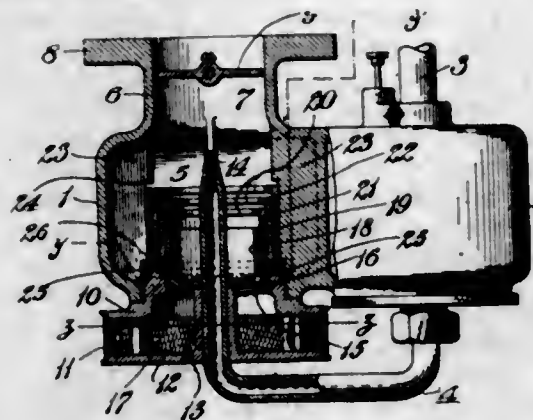
3. In a time-cost system, the combination of a clock movement, a shaft actuated thereby, a revoluble tape carrier, means for effecting a uniform movement of said carrier during fixed periods of time, the rate of movement being predetermined to correspond to a selected time-cost unit, a gear wheel on the axis of the carrier, changeable gearing connecting the gear wheel with the shaft and a scale of value in conformity to which said rate of movement may be selected.

4. In a time-cost system, the combination of a driving mechanism, a revoluble tape carrier, a gear wheel on the axis of the carrier, means for effecting a uniform movement of said carrier during fixed periods of time, the rate of movement being predetermined to correspond to a selected time-cost unit, a shaft actuated by the driving mechanism, a changeable gear on said shaft, an intermediate gear, means for adjusting the working position of said intermediate gear and a scale of value in conformity to which said changeable gear may be changed.

5. In a calculating and recording system, a tape carrier, time controlled driving means, gearing interconnecting the carrier and its driving means proportioned to cause the carrier to advance the tape a distance for a given time representing the value of the elapsed time at a selected cost rate, said gearing being adapted to be changed to advance the tape at a rate corresponding to another selected cost rate and a scale of value in conformity to which said gearing may be changed.

[Claims 6 to 20 not printed in the Gazette.]

1,080,166. CARBURETER. ALEXIS R. PRIBIL, Detroit, Mich. Filed Oct. 4, 1911. Serial No. 652,778. (Cl. 48-155.2.)



1. In a carbureter comprising a casing having an air chamber provided with an air inlet and an outlet, the combination of a valve member for controlling the air inlet adapted to be automatically operated by suction, movable stops in the path of the opening movement of said valve, and a fuel supply member opening into said chamber above said valve.

2. In a carbureter comprising a casing having an air chamber provided with an air inlet and an outlet, the combination of a valve member controlling the air inlet adapted to be automatically operated by suction, a movable gravity stop in the path of the opening movement of said valve, and a fuel supply member extending through said valve member and opening into said chamber.

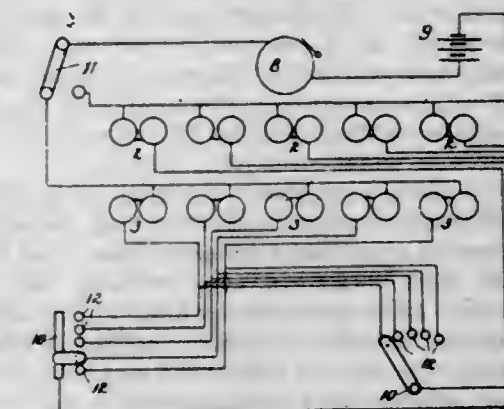
3. In a carbureter comprising a casing having an air chamber provided with an air inlet and an outlet, the combination of a fuel supply member extending into said chamber through the inlet, a valve surrounding said supply member and controlling the inlet adapted to be automatically operated by suction, and a plurality of movable members positioned at intervals along the path of travel of the valve to form an increasing resistance to the opening of said valve.

4. In a carbureter comprising a casing having an air chamber provided with an air inlet and an outlet, the combination of a fuel supply member extending vertically through said inlet into said chamber, a valve surrounding the member to control the inlet and adapted to be automatically operated by suction, a series of concentric gravity members in the path of the opening movement of the valve, and means for supporting said gravity members at different heights to be successively lifted by the valve.

5. In a carbureter comprising a casing having an air chamber provided with an air inlet and an outlet, the combination of a fuel supply member extending vertically through the inlet into said chamber, a valve slidable upon said member for controlling the inlet and adapted to be lifted by suction, and a gravity member supported above said valve concentrically therewith to be engaged and lifted thereby.

[Claims 6 to 11 not printed in the Gazette.]

1,080,167. MEANS FOR ELECTRICALLY TRANSMITTING ORDERS OR SIGNALS AND FOR INDICATING THEIR NATURE AND THE POINTS OF TRANSMISSION. HILARY QUERTIER, Wellington, New Zealand. Filed Sept. 2, 1910. Serial No. 580,231. (Cl. 177-339.)

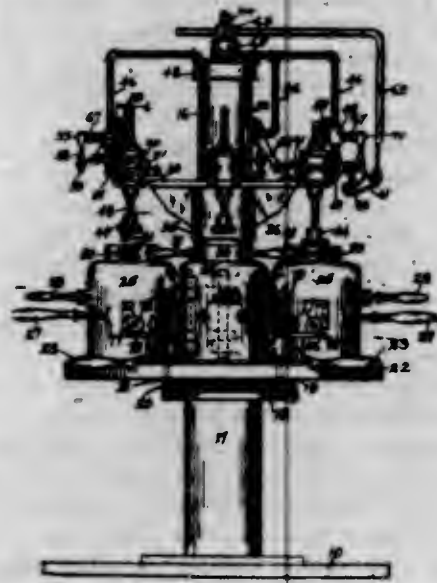


In means for the purpose herein described, the combination of a source of current; a group of electrical transmission-point indicators each connected to one pole of said source; a group of electrical message-indicators each connected to the other pole of said source; a plurality of message switches, one at each transmission point and each comprising a common contact, a plurality of message contacts and means for connecting the common contact with any one of the message contacts; means for connecting each common contact with the corresponding transmission point indicator; and means for connecting each corresponding message contact to the corresponding message indicator.

1,080,168. GLASS-BLOWING MACHINE. JOHN RAU, Indianapolis, Ind. Filed Oct. 6, 1911, Serial No. 653,193. Renewed June 26, 1913. Serial No. 775,962. (Cl. 49-19.)

1. A glass blowing machine including a platform with an upwardly extending tubular stand secured thereto, a hollow airtight air column mounted on said platform within said stand and projecting above the same and revoluble therein, a blow-mold table surrounding and secured to said column and having bearing on the upper end of the tubular stand, suitable blow molds on said table, a spider secured to the column above said table, a suitable blow-head construction carried by said spider, tubes for conveying air from the hollow air column to the blow-head construction, and stationary means for supplying

compressed air to said air column, whereby revoluble movement of the table will cause a corresponding revoluble movement of the air column and blow-head construction carried thereby.



2. A glass blowing machine including a platform, a tubular stand secured thereon, a hollow air-tight air column mounted within said stand and extending above the same and having a laterally extending bottom bearing plate, ball bearings for supporting said bearing plate, a mold table removably secured to said air column, a bearing plate secured to the underside of said table, ball bearings upon the upper end of the tubular column for supporting said bearing plate and mold table, suitable blow molds on said table, a spider secured to the column above said table, a suitable blow-head construction carried by said spider, tubes for conveying air from the hollow air column to the blow-head construction, a stationary pipe entering the upper end of the air column for supplying compressed air thereto, and a stuffing box on the upper end of the air column through which said pipe extends.

3. A glass blowing machine including a platform, a column mounted thereon so as to be rotary, a removable top for said column, blow-head constructions, and a spider for supporting said blow-head constructions the central portion of which is a split sleeve adapted to slip over said column when the top is removed, and means connected with two of the arms of said spider for clamping the same on the column, substantially as set forth.

4. A glass blowing machine including blow-head constructions, revoluble means for carrying the same, a valve in connection with each blow-head construction provided with a valve stem, an arm thereon, stationary means located within the path of said arm whereby said arm and the valve stem will be actuated as the blow-head constructions are revolved, a spring for returning said arm and valve stem to their normal positions, and a stop on the valve box for limiting the return movement of the valve stem.

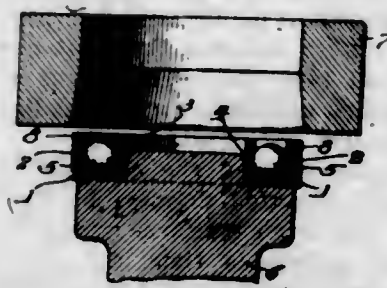
5. A glass blowing machine including a revoluble spider, air cylinders connected therewith, blow-heads controlled by said air cylinders, a valve box for each air cylinder and in communication with the top and bottom thereof, means for supplying compressed air to the valve box, a valve having a stem for controlling the passage of air through the valve box, an arm on said valve stem having a roller on the outer end thereof, a stationary inclined track mounted in position to be engaged by said arm and roller for actuating the valve stem, a spring on the valve stem for returning it, a stop arm on the valve stem, and a stop on the valve box to be engaged by the valve stem to limit the same in its return movement.

[Claim 6 not printed in the Gazette.]

1,080,169. BALL-BEARING CONSTRUCTION. ALBERT S. REED, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,100. (Cl. 29-84.)

1. The method of assembling ball-bearings, which consists in constructing the outer race of enough greater

diameter than the inner race to permit of practically filling the race-way with bearing balls; placing the balls in the race-way thus formed and then subjecting the outer race to great pressure to permanently diminish the diameter thereof to restrict the race-way to the size of the balls; whereby balls in sufficient number may be inserted to practically fill the race-way and be permanently retained therein, substantially as and for the purpose specified.



2. The method of assembling ball-bearings, which consists in constructing the outer and inner races or rings with corresponding grooves to form between the said races a race-way initially wide enough to permit the insertion of a sufficient number of balls to practically fill the said race-way throughout its circumference, and, after the balls are inserted, reducing by pressure the width of the race-way to cause the balls to fit between the grooves and to be held permanently from falling out or displacement.

1,080,170. AIR-GUN. ERNEST S. ROE, Plymouth, Mich., assignor to Markham Air Rifle Company, Plymouth, Mich., a Corporation of Michigan. Filed Aug. 3, 1912. Serial No. 713,081. (Cl. 124-10.)



1. In an air gun, the combination with a barrel, of a plunger and its spring therein, a lever for compressing the spring, and a shiftable abutment for the spring engaging the lever within the angle of friction in the normal position of the lever to hold the latter in its normal position.

2. In an air gun, the combination with barrel, of a plunger and its stem therein, and a trigger engaging the stem, a shiftable breech block, and a spring intermediate the latter and the plunger and a lever for shifting the block and compressing the spring, said block engaging the lever within the angle of friction in the normal position of the lever to hold the latter in its normal position.

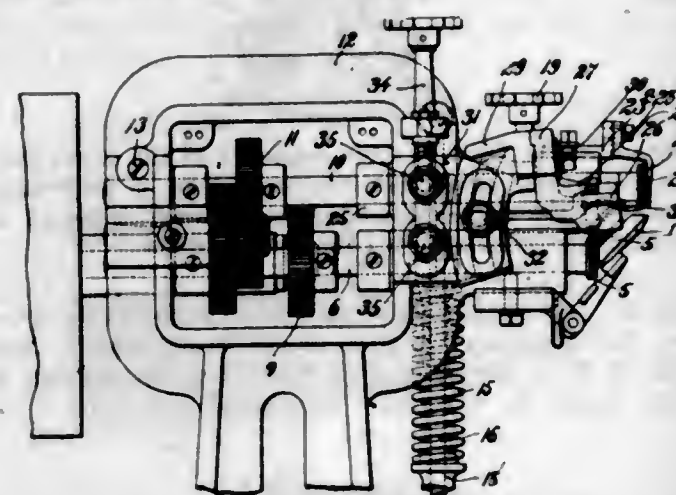
3. In an air gun, the combination with a barrel, of the plunger and spring therein, a shiftable abutment for the spring, an operating lever associated with said air gun, the said shiftable abutment having an upturned portion at its rear end, the operating lever provided with a cam face adapted to engage the upturned portion within the angle of friction when in its normal position, substantially aligning a stock, to hold the lever in its normal position.

4. In an air gun, the combination with a barrel, of a plunger and its spring therein, a shiftable abutment for the spring, a lever having a smooth face for engaging the abutment for compressing the spring, the said face of the lever when in its normal position preventing rearward movement of the abutment and also locking the lever against the gun stock.

5. In an air gun, the combination with a barrel, of the plunger and its spring therein, a shiftable abutment for the spring, a lever having a cam face engaging the rear portion of the abutment for compressing the spring, the said cam face when in its normal position holding the lever against the gun stock.

[Claims 6 to 8 not printed in the Gazette.]

1,080,171. SKIVING-MACHINE. SIMON G. ROSS and FRANK B. FREEMAN, Cincinnati, Ohio, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 27, 1909. Serial No. 498,654. (Cl. 12-85.)



1. A skiving machine, having, in combination, a work support arranged to support the projecting edge of the sole of a shoe in position to be acted upon by a skiving knife and a feed roll relatively yielding to compensate for variations in the thickness of the sole, and a skiving knife blade maintained in fixed relation to the feed roll with its edge continuously in position to shave a skiving from the lower outer margin of the sole, substantially as described.

2. A skiving machine, having, in combination, a work support arranged to support the projecting edge of the sole of a shoe in position to be acted upon by a skiving knife, a cooperating feed roll, a yielding head in which the feed roll is mounted, and a skiving knife blade carried by the head with its edge continuously in position to shave a skiving from the lower outer margin of the sole, substantially as described.

3. A skiving machine, having, in combination, a work support arranged to support the projecting edge of the sole of a shoe in position to be fed against the edge of a skiving knife, a feed roll arranged to engage the lower surface of the sole outside the channel flap, a skiving knife extending between the feed roll and work support, and a gage for guiding the shoe by the channel flap, substantially as described.

4. A skiving machine, having, in combination, a skiving knife for removing a skiving from the lower outer margin of the outsole, a work support arranged to support the projecting edge of the sole of a shoe in position to be acted upon by the knife, a feed roll, a guard arranged between the feed roll and channel flap, and means for relatively adjusting the guard and the feed roll and knife, substantially as described.

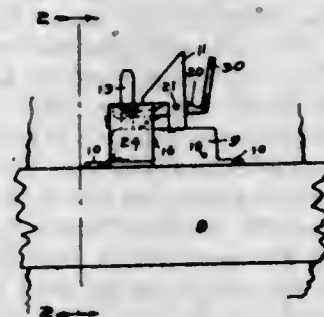
5. A skiving machine, having, in combination, a work support and feed roll arranged to engage respectively the upper and lower sides of the projecting edge of the sole of a shoe and supported for relative movement to compensate for variations in the thickness of the sole passing between them, a skiving knife blade maintained in fixed relation to the feed roll with its edge in position to shave a skiving from the lower outer margin of the sole, and a gage maintained in fixed relation to the skiving knife and feed roll and arranged to engage the lower side of the outsole, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,080,172. AUTOMATIC SASH-LOCK. NEWTON RUSK, San Diego, Cal., assignor of one-half to David Goche-nauer, San Diego, Cal. Filed July 3, 1913. Serial No. 777,310. (Cl. 16-58.)

1. In a window lock, a body member attached to one sash, a standard extending vertically from said body and having a transverse slot, a catch plate attached to the other sash having a slot through which the standard passes when the window is locked, a latch bar pivoted to the body and adapted to swing to and from the catch plate and having a head with an abrupt shoulder to lock upon the catch plate said head having an oblique face on the side next to the catch plate, and a spring to press the latch bar normally toward the standard and a locking bar pivoted to the latch bar and passing above the catch plate and through the slot in the standard.

to the body and adapted to swing into locking engagement with the catch plate, and a locking bar, pivoted to the latch bar and passing above the catch plate and through the slot in the standard.

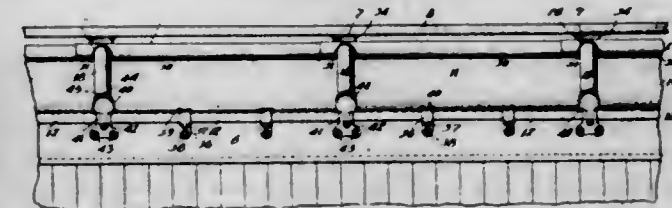


2. In a window lock, a body member attached to one sash, a standard having a vertical taper extending upwardly from said body and having a transverse slot, a catch plate attached to the other sash and having a slot through which the standard passes when the window is locked, a latch bar pivoted to the body and adapted to swing to and from the catch plate and having a head with an abrupt shoulder to lock upon the catch plate said head having an oblique face on the side next to the catch plate, and a spring to press the latch bar normally toward the standard and a locking bar pivoted to the latch bar and passing above the catch plate and through the slot in the standard.

3. In a window lock, a body member attached to one sash, a vertically tapering standard extending upwardly from said body said standard having a transverse slot, a catch plate attached to the other sash having a slot through which the standard passes when the window is locked, a latch bar pivoted to the body and adapted to swing into locking engagement with the catch plate and a locking bar pivoted to the latch bar and passing through the slot in the standard and terminating with a hook to engage the opposite side of the standard from the latch bar.

4. In a window lock, a hollow body member attached to one sash, an upwardly extending tapering standard on said body, said standard having a transverse slot, a catch plate attached to the other sash and having a slot through which the standard passes when the window is locked, a latch bar pivoted within the hollow body, said bar having a head with an abrupt shoulder to rest upon and lock the catch plate said head having an oblique side next to the catch plate and said latch bar having a transverse slot, a lock bar passing through the slot in the latch bar and pivoted in said slot said lock bar also passing through the slot in the standard and terminating with an upward hook at that end and with a finger plate at its other end, and a spring within the hollow body to normally press the latch bar into locking position with the catch plate said spring extending into contact with the lock bar.

1,080,173. CAR-ROOF. THOMAS NATHAN RUSSELL, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, a Corporation of Illinois. Filed July 10, 1912. Serial No. 708,581. (Cl. 108-5.)



1. In a freight car roof, the combination of roof plates having at their sides upturned inverted U-shaped flanges having spaces allowing for relative lateral movement of the roof plates in directions transverse to the seam, and a seam cap inclosing the flanges of the roof plates and having upturned flanges engaging within the said flanges of the roof plates, and having spaces between

its flanges and between its flanges and the inclosing walls of the cap allowing relative lateral movement of the roof plates in directions transverse to the seam, the seam cap being substantially cylindrical and having its lower portions inclined outward and upward away from the middle of the seam, substantially as set forth.

2. In a freight car roof, the combination of roof plates having at their sides upturned inverted U-shaped flanges inclined outwardly away from the line of the seam and having spaces allowing for relative lateral movement of the roof plates in directions transverse to the seam, and a seam cap inclosing the flanges of the roof plates and having upturned outwardly inclined flanges engaging within the said flanges of the roof plates, and adapted to brace outwardly against the interior of the said U-shaped flanges and toward the sides of the cap, and having spaces between its flanges and between its flanges and the inclosing walls of the cap allowing relative lateral movement of the roof plates in directions transverse to the seam, substantially as set forth.

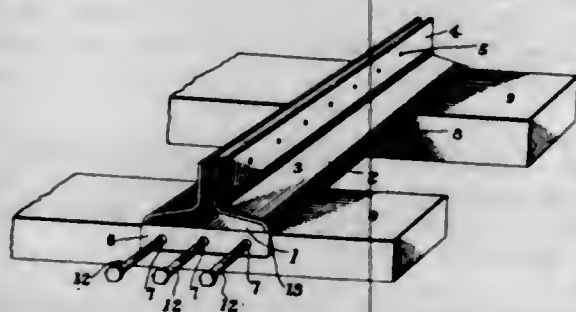
3. In a freight car roof, the combination of roof plates having at their sides upturned inverted U-shaped flanges, a seam cap of tubular form inclosing and interlocking with said flanges, and having its lower parts extended inward toward each other, and a seam cap clip attached at the eaves of the roof and inclosing and supporting the outer end of the seam cap and engaging beneath and supporting the said inwardly extended parts of the cap, substantially as set forth.

4. In a freight car roof, the combination of roof plates having upturned flanges at their inner ends along the ridge of the roof, seam caps engaging the sides of the roof plates, and ridge caps having inverted U-bends inclosing the ridge flanges of the roof plates, and having transverse U-bends inclosing the seam caps, and having upwardly extended flanges 31 interlocking with the said transverse U-bends of the ridge caps, whereby the ridge caps are interlocked with each other against both lateral and longitudinal movement, substantially as specified.

5. In a freight car roof, the combination of roof plates having upturned flanges at their inner ends along the ridge of the roof and ridge caps having longitudinal inverted U-bends inclosing the said flanges, transverse U-bends, and upturned transverse flanges at the ends of the ridge caps, the several ridge caps overlapping and interlocking directly with each other against longitudinal movement by means of said U-bends and upturned transverse flanges, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,080,174. RAIL-CHAIR. JAMES W. SHAFER, McKeesport, Pa. Filed Feb. 25, 1913. Serial No. 750,665. (Cl. 230-6.)



A rail chair comprising a member having a base portion, depending end flanges on the base portion, brackets extending downwardly from the base portion, and fastening devices extending through the flanges and engaged in the brackets and adapted to be extended through the rail supporting ties.

1,080,175. BOLT AND NUT LOCK. ADAM SIEMIENSKI, Glassport, Pa., assignor of one-half to Frank A. Piekarski, Pittsburgh, Pa. Filed Apr. 23, 1913. Serial No. 763,036. (Cl. 151-39.)

In a nut lock, the combination with a bolt, two coacting nuts mounted thereon with the outer nut having its

inner face provided with a series of depressions or pockets, the inner nut having a hole or passage extending there-through, a movable pin entered in said hole and projecting



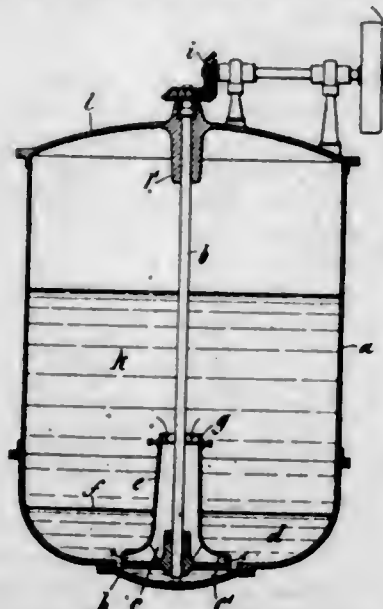
therefrom, and a fixed member adjacent to the inner face of the inner nut, said fixed member having a depression or pocket on its outer face, said movable pin adapted to coact with the outer nut and the fixed member.

1,080,176. FOUNTAIN-PEN. RICHARD H. STEVENS, Syracuse, N. Y., assignor to L. E. Waterman Company, New York, N. Y., a Corporation of New York. Filed Jan. 9, 1912. Serial No. 670,226. (Cl. 120-50.)



A fountain pen comprising a hollow body portion closed at one end, a plug for insertion in the other end, said plug having a substantially flat circular inner end, the edge of which is in contact with the wall of the body portion and provided with a relatively small conduit, leading from the hollow body to the pen, and a frame secured to the inner end of said plug and out of contact with the walls of said conduit, for exercising capillary attraction to regulate the flow of the last few drops of ink.

1,080,177. APPARATUS FOR STIRRING AND MIXING LIQUIDS. CARL STILL, Recklinghausen, Germany. Filed Sept. 28, 1911. Serial No. 651,746. (Cl. 196-26.)

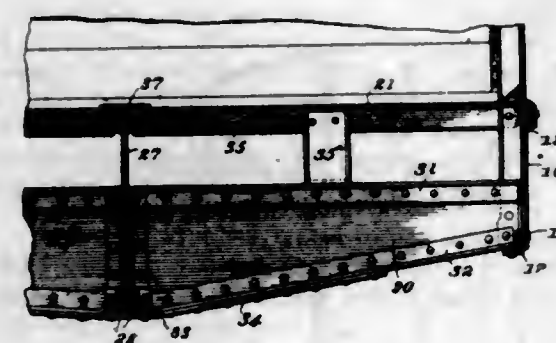


A device for mixing two liquids of different specific gravity, including a container, a rotary element in the container, a stirrer secured to the lower end portion of the element and including a vertical hollow member and a plurality of hollow horizontal radial blades which are secured to the lower end of said hollow member and which extend outwardly from the periphery thereof, said vertical hollow member being of a length which is considerably greater than the diameters of the blades and having its upper end open and disposed at a point substantially near the center of the height of the container to provide a liquid inlet.

1,080,178. CAR-UNDERFRAME. VICTOR M. SUMMA, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 24, 1911. Serial No. 662,148. (Cl. 105-76.)

1. In a metallic car underframe a pair of side sills, each comprising a plate extending continuously from one

end of the car to the other, reinforcing members applied to the top and bottom edges of said plates, suitable transverse members connecting the side sills, a center sill, reinforcing members applied to the lower edge of the center sill plate and floor plates fixed at their inner edges to the upper portion of the center sill and having their outer edges overlapping the upper portions of the side sills and secured thereto.



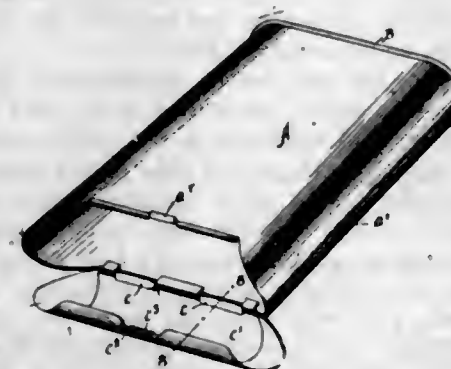
2. In a metallic car underframe the combination with a web plate center sill and web plate side sills of floor sheets having their side edges flanged downwardly and attached to the upper portions of the center sill and side sills and reinforcing plates interposed between the upper portions of the web plate side sills and the downwardly bent side edges of the floor sheets.

3. In a metallic car underframe the combination with a web plate center sill and web plate side sills of floor sheets having their side edges flanged downwardly and attached to the upper portions of the center sill and side sills and a cover plate applied to the inner edges of the floor sheets over the web plate center sill.

4. In a metallic car underframe the combination of a center sill, web plate side sills, longitudinally extending reinforcing members applied to the upper and lower portions of said side sills and floor sheets having their side edges flanged downwardly and connected to the upper portions of the web plate center sill and side sills.

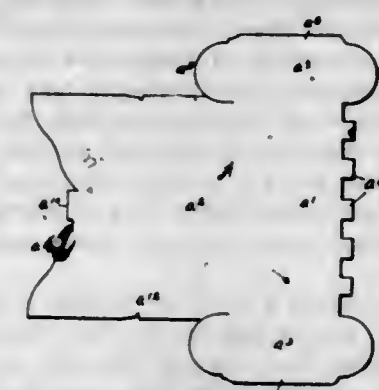
5. In a metallic car underframe in combination, a center sill, side sills comprising a pair of vertically disposed web plates provided with reinforcing members along their upper and lower edges, and floor plates attached to the center sill at their inner edges, and having their outer edges secured to the vertically disposed web plates of the side sills and to the upper reinforcing member thereon.

1,080,179. METALLIC BOX. WASHINGTON I. TUTTLE, Baltimore, Md., assignor to The American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 16, 1909. Serial No. 513,146. (Cl. 220-9.)



A metallic box comprising a body portion provided with horns, the edges of which are curved, projecting from its opposite sides, a catch for holding the box lid closed, and a lid the inner surface of which mates the curved edges of the horns, said lid being hinged to the body portion well below the top of said horns, so that the lid, when closed, exerts such tension upon the horns that pressure applied to the body portion of the box will cause the lid to spring open.

1,080,180. METALLIC BOX. WASHINGTON I. TUTTLE, Baltimore, Md., assignor to The American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 16, 1909. Serial No. 513,148. (Cl. 220-8.)



1. In a box, a body portion formed from a single blank and having its opposite ends formed with a peripheral lip, a portion of said lip being adapted to project over an intermediate portion of the remainder of the body portion, a different portion of the lip being adapted to be overlapped by the body portion.

2. In a box, a body portion formed from a single blank and having its opposite ends formed with a peripheral lip, said lip having successive portions adapted to respectively project over and to be overlapped by intermediate portions of the remainder of the body portion.

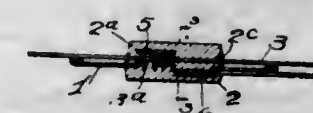
3. In a metallic box, a body portion formed from a single blank, with the ends positioned at opposite sides of the blank, the blank being slitted to continue the configuration of an end of the end portions within the main portion of the blank, the edge portions of the blank adjacent the slits being adapted to be overlapped by the end portions when the box is formed, the continuation of such edges overlapping the end portions.

4. In a metallic box, a body portion formed from a single blank, with the ends positioned at opposite sides of the blank, the blank being slitted to continue the configuration of an end of the end portions within the main portion of the blank, the edge portions of the blank adjacent the slits being adapted to be overlapped by the end portions when the box is formed, said end portions having a projecting portion adapted to be overlapped by the continuation of the edge portions of the blank.

5. In a metallic box, a body portion formed from a single blank, with the ends positioned at opposite sides of the blank, the blank being slitted to continue the configuration of an end of the end portions within the main portion of the blank, the edge portions of the blank adjacent the slits being adapted to be overlapped by the end portions when the box is formed, the continuation of such edges overlapping the end portions, and connected thereto by a seam connection.

[Claims 6 to 9 not printed in the Gazette.]

1,080,181. SEAL. EMIL TYDEN, Hastings, Mich. Filed Sept. 23, 1912. Serial No. 721,732. (Cl. 70-98.)



1. A seal comprising a hard metal disk, and soft metal projecting at its opposite sides occupying a limited portion of the area thereof, in combination with a securing wire having one end embedded in the soft metal at one side, the soft metal at the other side having an aperture extending through it substantially parallel to the plane of the disk for receiving the other end of the wire to be engaged therewith by compressing the soft metal thereon.

2. A seal comprising a hard metal disk having an aperture; soft metal occupying said aperture and extending in the form of a boss at one side and occupying a limited portion of the area thereof, in combination with a wire having one end embedded in the soft metal within the aper-

ture and extending thence off at one side of the disk, the boss at the opposite side having an aperture through which the wire may be inserted for engagement by compressing the soft metal thereon.

3. A seal comprising a hard metal disk having an aperture; a securing wire having one end portion formed with loops or bends entered in said aperture from one side of the disk and projecting therethrough, and soft metal in said aperture embedding said loops and forming a boss protruding from the side of the disk at which said loops protrude, said boss having an aperture extending through the loops for receiving the other end of the wire to be engaged by compression of the soft metal and wire loops thereon.

4. A seal comprising a hard metal disk having an aperture, and a lug struck out from and overhanging such aperture; a securing wire having one end portion entered in said aperture and having bends extending at one side of the disk under the overhanging lug at that side, and soft metal in said aperture and embedding the wire and the lugs, and forming bosses protruding at opposite sides of the disk, the boss at the side at which said wire bends protrude having an aperture extending through said bends and in position to be overhung by the lug for receiving the other end of the wire to be received by the compression of the soft metal and lug and wire loops thereon.

5. A seal comprising a hard metal disk having an aperture and staple-like lugs struck out from said aperture on opposite sides; a securing wire having one end portion formed with loops or bends entered in said aperture from one side of the disk and projecting therethrough and under the staple-like lug at the opposite side, the other end portion of the wire extending through at the side from which such loops or bends are entered in the said aperture and out under the staple-like lug at said side, and soft metal in said aperture and embedding said lugs and loops, and forming bosses at the opposite sides of the disk, the boss at the side of which said wire loops are embedded, having an aperture extending through said loops for receiving the upper end of the wire.

1,080,182. SEAL. EMIL TYDEN, Hastings, Mich. Filed Sept. 23, 1912. Serial No. 721,733. (Cl. 70-98.)



1. A seal comprising a hard metal disk and soft metal bosses projecting from opposite sides of the disk, said bosses having respectively, at said opposite sides of the hard metal disk, means for holding opposite ends of a securing wire or cord; whereby the hard metal disk becomes located between said two end portions of the securing wire; one of said bosses being adapted to have the securing wire or cord inserted through it and to be pressed thereon.

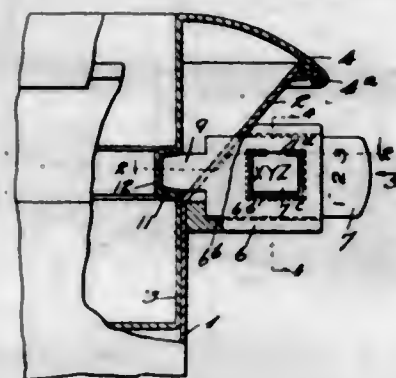
2. A seal comprising a hard metal disk and soft metal bosses on the opposite sides of the disk, the hard metal disk having lugs struck up and bent out from its body and embedded in the soft metal bosses, such bosses having each an aperture extending adjacent to said lugs for receiving a wire or cord to be engaged by compressing the substance of the lugs thereonto.

3. A seal comprising a hard metal disk having staple-like lugs struck out from its substance at its opposite sides, and soft metal bosses at the opposite sides of such disk in which such staple-like lugs are embedded, the bosses having apertures extending through them in planes substantially parallel to the plane of the disk, and taking through the apertures of said staple-like lugs, respectively, for receiving wires or cords to be engaged by the compression of the bosses and lugs thereonto.

4. A seal comprising a hard metal disk having struck up from its substance and projecting at its opposite sides, lugs which overhang the aperture from which they are struck, and soft metal bosses at said opposite sides of the

disk embedding such lugs, the bosses and apertures extending through them in position to be overhung by the lugs embedded in said bosses for receiving wires or cords to be engaged by the compression of the bosses and lugs thereon.

1,080,183. SEAL-LOCKED CAN. EMIL TYDEN, Hastings, Mich. Filed Mar. 5, 1913. Serial No. 751,984. (Cl. 31-78.)



1. In a can or the like having a cover member telescoping with the body member, the combination with said members of a lock mounted on the outer side of the outer of said telescoped members, comprising a bolt thrust through said outer member for locking, the inner member having a circumferentially-extending groove in its outer surface positioned for engagement of the bolt therewith.

2. In a can or the like, comprising a body member and a cover member telescoping with each other, the outer of said members having a flaring upper part, the combination of said members with a lock mounted on the outside of such flaring part having a bolt thrusting inward, the inner member having an exterior groove extending circumferentially at a position for engagement of the bolt therewith.

3. In a can or the like which comprises a body member and a cover member telescoped with each other, the combination with said members of a seal lock comprising a housing mounted upon the outer side of the outer of said telescoping members, said outer member being apertured for the thrust of a bolt therethrough, and the inner member having means for engagement of a bolt thrust through said aperture, said housing having a slide-way for a flat seal bolt, which slide-way registers with the aperture of the outer member, and an aperture extending through the housing transversely of said slide-way, and a flat seal bolt adapted for sliding in said slide-way and terminating for engagement with the inner of the two can members, said seal bolt having intermediate its ends a tongue which at the locking position of the bolt is exposed in said transverse aperture of the housing, said tongue being bendable in the aperture transversely of the slide-way and adapted to break upon being bent back to its original plane.

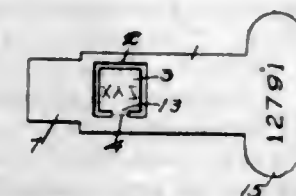
4. In a can or the like which comprises a body member and a cover member telescoped with each other, in combination with said members, a seal lock comprising a housing mounted upon the outer side of the outer of said telescoping members, said outer member being apertured for the thrust of a bolt therethrough, and the inner member having means for engagement of a bolt thrust through said aperture, said housing having a slide-way for a flat seal bolt, which slide-way registers with the aperture of the outer member, an aperture extending through the housing transversely of said slide-way, in combination with a flat seal bolt adapted for sliding in said slide-way and terminating for engagement with the inner of the two can members, said seal bolt having intermediate its ends a tongue which at the locking position of the bolt is exposed in said transverse aperture of the housing, said tongue being bendable in the aperture transversely of the slide-way and adapted to break upon being bent back to its original plane, and having its edge remote from the telescoping walls of the can members at the locking position of the bolt, proximate to and slightly inward from

the outer edge of said aperture in the housing for preventing the withdrawal of the bolt from locking position when the tongue is so bent.

5. In a can or the like which comprises a body member and a cover member telescoped with each other, the body member being flared at its upper end and the cover member having a flange overhanging said flaring upper end of the body member, a lock for securing said body and cover members together comprising a housing mounted upon the outer side of the body member; a bolt mounted in said housing for locking and unlocking movement and projecting through the flaring upper end portion of the outer member for engagement with the cover member, said cover member having on its outer surface for said engagement a circumferentially-extending upwardly-facing shoulder.

[Claims 6 and 7 not printed in the Gazette.]

1,080,184. SEAL FOR SEAL-LOCKS. EMIL TYDEN, Hastings, Mich. Filed Mar. 5, 1913. Serial No. 751,986. (Cl. 70-95.)



1. A sheet metal seal for seal locks having intermediate its ends an aperture and a tongue projecting from one margin of the aperture therelnto, the metal of the seal being adapted to permit the bending of the tongue into position transverse of the plane of the seal, but to break upon being straightened back into said plane.

2. A sheet metal seal for seal locks having opposite parallel edges for guidance in sliding, and being cut away at a portion of its length intermediate the parallel lines of said edges, such seal having a tongue standing in the cut-away area and adapted to be bent transversely to the plane of the seal, but to break upon being straightened back into that plane.

3. A sheet metal seal for seal locks having a tongue which stands normally in the plane of the seal, and which is weakened at a line transverse to the direction in which the tongue projects from the seal body for easily bending to a position transverse to the plane of the seal and breaking upon being straightened back into that plane.

4. A sheet metal seal for seal locks having intermediate its ends an aperture, and a tongue projecting from the margin of the aperture at one side thereof, said tongue being narrower than the aperture at that side and shorter than the transverse dimension of the aperture, whereby it is adapted to be bent transversely to the plane of the seal at the margin of said aperture from which it protrudes therelnto, the metal being adapted to break upon the tongue being straightened back into the plane of the seal.

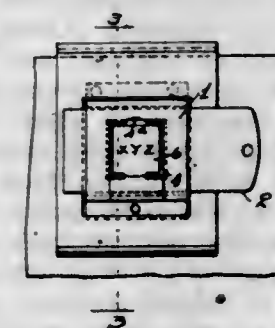
5. A sheet metal seal for seal locks having a tongue which stands normally in the plane of the seal and which is of considerable width for receiving an identifying mark, the tongue being reduced in width at its junction with the body of the seal, whereby it is adapted to be bent at said reduced junction into position transverse to the plane of the seal and to break upon being straightened back into said plane.

[Claims 6 to 9 not printed in the Gazette.]

1,080,185. SEAL-LOCK. EMIL TYDEN, Hastings, Mich. Filed Mar. 5, 1913. Serial No. 752,094. (Cl. 70-23.)

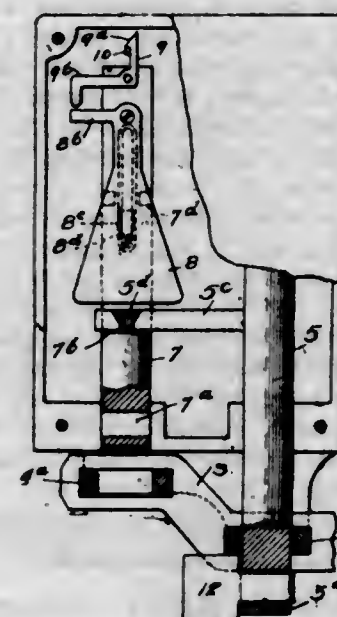
1. A seal lock comprising a housing, and a flat metal seal bolt mounted for sliding in the housing; the housing having a slide path for the bolt and a guard past which the slide path extends, the seal bolt having a portion which at the locking position of the seal bolt stands exposed and accessible adjacent to said guard, said portion being adapted to be bent out of the plane of sliding into a plane extending transversely of the slide path and across the edge of the guard, and to break at the line of bending upon being straightened back into its original position.

2. A seal lock comprising a housing and a flat metal seal bolt mounted for sliding in the housing, adapted to protrude therefrom for locking the housing, having a slide path for said seal bolt and a guard past which said slide path extends, the seal bolt having a tongue which extends normally in the plane of sliding and which at locking position of the seal bolt is exposed and accessible adjacent to the guard, and beyond the same in the direction of insertion, said tongue being adapted to be bent transversely to its normal plane so as to extend across the edge of the guard, and to break at the line of bending upon being straightened back into its normal plane.



3. A seal lock comprising a housing and a flat metal seal bolt mounted for sliding in the housing, and adapted to protrude therefrom for locking the housing, having a slide path for the seal bolt and an aperture which penetrates that path, the seal bolt having a tongue which stands normally in the plane of sliding and which at the locking position of the bolt is exposed and accessible at said aperture of the housing and which is adapted to be bent in said housing aperture so as to extend transversely of its slide path and across the edge of the aperture, and to break at the line of bending upon being straightened back into its original position.

1,080,186. CAR-SEAL LOCK. EMIL TYDEN, Hastings, Mich. Filed Mar. 15, 1913. Serial No. 754,455. (Cl. 70-23.)



1. In a car seal lock, in combination with a casing, a principal locking bolt mounted therein for locking and unlocking movement; an auxiliary bolt adapted for sealing mounted in the casing for movement into and out of sealing position; connections between the two bolts by which the unlocking movement of the principal bolt withdraws the auxiliary bolt from sealing position; a catch adapted for engagement to retain the auxiliary bolt at such withdrawn position; a pivoted member adapted to be swung on its pivot by movement of the car, and means by which, in such swinging movement, it releases the catch.

2. In a car seal lock, in combination with a casing, a principal locking bolt mounted therein for locking and unlocking movement; an auxiliary bolt adapted for sealing; mounted in the casing for movement into and out of seal-

ing position; connections between the two bolts by which the unlocking movement of the principal bolt withdraws the auxiliary bolt from sealing position, said connections being constructed with a range of play equal to the movement of the principal bolt from unlocked to locked position, whereby the principal bolt to be moved to locking position without moving the auxiliary bolt; a catch adapted for engagement to retain the auxiliary bolt at withdrawn position; a member mounted in the casing with freedom of movement therein, and adapted to be moved by the movement of the car, and means by which such movement of such member releases the catch.

3. In a car seal lock, in combination with a casing, a principal locking bolt mounted therein for locking and unlocking movement; an auxiliary bolt adapted for sealing mounted in the casing for movement into and out of sealing position; connections by which the principal bolt withdraws the auxiliary bolt from sealing position when said principal bolt is withdrawn from locking position, said connections being adapted to permit the auxiliary bolt to remain out of sealing position while the principal bolt moves to locking position; a catch adapted to retain the auxiliary bolt out of sealing position; a pivoted member within the casing adapted to be swung on its pivot by movement of the car; means by which in such swinging it releases the catch, and means by which the movement of the auxiliary bolt to sealing position locks said pivoted device against swinging.

4. In a car seal lock, in combination with a casing, a principal locking bolt mounted therein for locking and unlocking movement; an auxiliary bolt adapted for sealing, and mounted in the casing for movement into and out of sealing position, the principal bolt having an arm engaging said auxiliary bolt for moving the latter out of sealing position by the movement of the locking bolt in the opposite direction without moving the auxiliary bolt; a catch mounted on the auxiliary bolt, and means on the casing which the catch engages to retain the auxiliary bolt out of sealing position; a pendulum device pivoted on the auxiliary bolt for being swung on its pivot by movement of the car, and means by which such swinging movement releases the catch.

5. In a car seal lock, in combination with a casing, a principal locking bolt mounted therein for locking and unlocking movement; an auxiliary bolt adapted for sealing, mounted in the casing for movement into and out of sealing position, the principal bolt having an arm which engages the auxiliary bolt for moving the latter out of sealing position when the former is moved out of locking position, the parts being constructed to permit the movement of the locking bolt in the opposite direction without movement of the auxiliary bolt; a catch and an abutment for engagement of the catch, one of said parts mounted on the auxiliary bolt and the other on the casing for retaining the auxiliary bolt out of sealing position; a device pivoted for swinging when the car is moved, and means by which such swinging releases the catch, and means by which said device is locked against swinging at the sealing position of the auxiliary bolt.

[Claims 6 to 17 not printed in the Gazette.]

1,080,187. FORM FOR CEMENT CISTERNS. GEORGE A. WATKINS, Columbus, Ohio. Filed Aug. 2, 1911. Serial No. 641,982. (Cl. 25-124.)

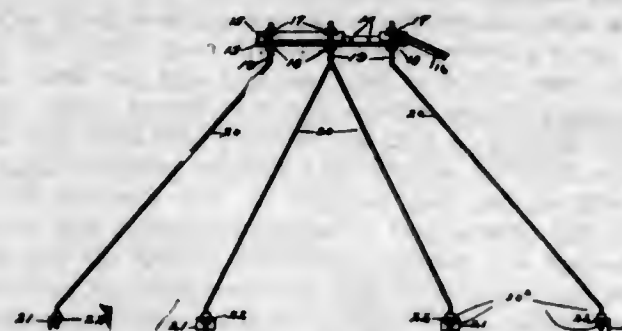
1. A form for cement cisterns comprising a body, a plurality of crown pieces, a collar embracing said crown pieces at their inner ends, and forked adjusting rods between said collar and said body.

2. A form for cement cisterns comprising a body, a plurality of crown pieces, and a collar element comprising multiple pieces mounted in superposed relation with each other for supporting the inner ends of said crown pieces.

3. A form for cement cisterns comprising a body, a plurality of crown pieces, a collar element for supporting the inner ends of said crown pieces, keeper elements, and pivoted latch elements for co-action with said keepers for supporting said crown pieces at their outer ends.

4. A form for cement cisterns comprising a body, a plu-

rality of crown pieces, a collar element for supporting the inner ends of said crown pieces, keeper elements on the



outer ends of said crown pieces, and pivoted latch elements on said body for coaction with said keepers.

1,080,188. PROCESS FOR MAKING AN ANHYDROUS REACTION PRODUCT OF PHENOL AND FORMALDEHYDE. FERDINAND GERHARD WIECHMANN, New York, N. Y., assignor to Fenoform Corporation, Hastings-on-Hudson, N. Y., a Corporation of New York. Filed Jan. 30, 1912. Serial No. 674,243. (Cl. 106-22.)

1. The process of producing an anhydrous reaction product of phenol and formaldehyde which comprises heating a mixture of substantially anhydrous phenol and formaldehyde in the presence of an agent promoting the formation of such product until a liquid anhydrous product results insoluble in water.

2. The process of producing an anhydrous reaction product of phenol and formaldehyde which comprises heating a mixture of substantially anhydrous phenol and paraform in the presence of an agent promoting the formation of such product until a liquid anhydrous product results insoluble in water.

3. The process of producing an anhydrous reaction product of phenol and formaldehyde which comprises heating a mixture of substantially anhydrous phenol and formaldehyde in the presence of dry ammonia until a liquid anhydrous product results insoluble in water.

4. The process of producing an anhydrous reaction product of phenol and formaldehyde which comprises heating a mixture of 100 parts of crystallized carbolic acid and from 10 to 35 parts of paraform in the presence of an agent promoting the formation of such product until a liquid anhydrous product results insoluble in water.

5. As a new article of manufacture an anhydrous reaction product resulting from the interaction of phenol and substantially water-free formaldehyde, being a viscous syrupy liquid at ordinary temperatures, non-hygroscopic, insoluble in water, and disclosing no water present upon test with anhydrous copper sulfate.

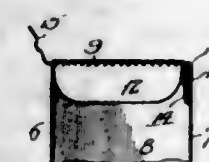
1,080,189. RAILROAD SPIKE. HARRISON E. ZACHARIAS, Humbert, Pa. Filed Aug. 14, 1912. Serial No. 715,059. (Cl. 85-10.)



A railroad spike, comprising a body, and a head, the body having a substantially straight front face extending

from the head to the point, the opposite sides of the body rounding and tapering toward the front face and forming therewith a chisel shaped entering edge, the entering edge of the body being of greater width than any other portion of the body, and the side faces of the spike being tapered from the expanded entering edge upwardly forming outwardly sloping concave shoulders immediately back of the entering edge.

1,080,190. AIR-TIGHT BOX. PERRY S. BAUER, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed Sept. 21, 1911. Serial No. 650,610. (Cl. 229-51.)



1. An air-tight box comprising a body provided with a plurality of inwardly extending flaps, and a cover for the said body provided with a plurality of flaps arranged in parallel relation with the flaps upon the body and secured to the flaps on the body by an adhesive, thereby sealing the box.

2. An air-tight box, comprising a body and a cover, the free edges of said body being provided with intumed flaps secured to the cover when the box is closed by an adhesive to form a seal, and a cord arranged within the box beneath said flaps with one end protruding whereby upon pulling the cord the flaps will be severed to open the box.

3. An air-tight box comprising a body having flaps formed upon the free edges thereof and bent back upon themselves into substantially parallel relation with the walls of the box, a cover having downwardly projecting flaps adapted to be disposed within the box and secured to the flaps formed upon the free edges of the walls of the same to form a seal when the box is closed, and a cord arranged within the box with one end protruding to be grasped and pulled, thereby severing the flaps around the periphery of the box to open the same.

4. An air-tight box comprising a body and a cover, the free edges of the said body being provided with flaps disposed inwardly of the box and in parallel relation with the walls forming the body, a cover secured by an adhesive to the said flaps, and a cord embraced between the said flaps and the walls of the body for severing the flaps from the body to open the box.

5. An air-tight box comprising a body having a wall formed of a sheet of readily severable material, said wall being provided with a flap disposed within the box, a cover formed of a sheet of similar material and having a flap secured by an adhesive to the first-mentioned flap, and a cord disposed between the flaps and one of said sheets for severing the flap from the said sheet to open the box.

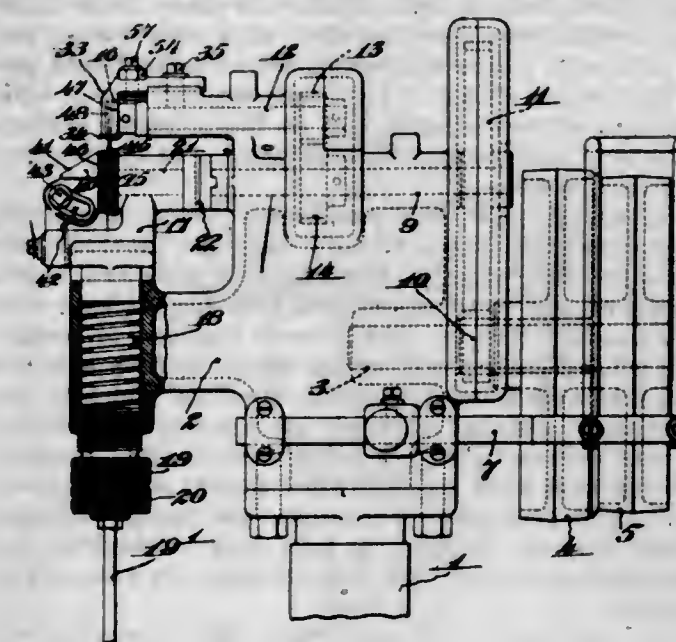
[Claim 6 not printed in the Gazette.]

1,080,191. MACHINE FOR ROUNDING SOLES. WILLIAM C. BAXTER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 4, 1912. Serial No. 688,370. (Cl. 12-85.)

1. A machine for trimming the soles of boots and shoes having, in combination, a trimming knife, a guide positioned adjacent to the knife for determining the line of cut made by the knife, and a pair of feed members engaging the sole upon opposite sides of the knife with a greater degree of feeding action upon the outside of the line of cut than upon the inside, substantially as described.

2. A machine for trimming the soles of boots and shoes having, in combination, a trimming knife, a guide positioned adjacent to the knife for determining the line of cut made by the knife, a feed member engaging the sole inside of the line of cut made by the knife and arranged to guide and feed the sole without entering into and marring the surface, and a feed member engaging the sole out-

side of the line of cut and arranged to dig into and positively grip the sole to feed the same, substantially as described.



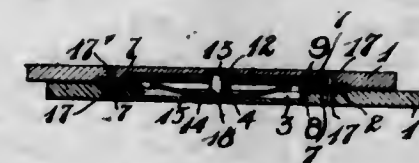
3. A machine for trimming the soles of boots and shoes having, in combination, a trimming knife, a guide positioned adjacent to the knife for determining the line of cut made by the knife, a pair of feed wheels engaging the sole upon opposite sides of the knife inside and outside of the line of cut and provided respectively with a periphery arranged to frictionally engage the sole and with a series of coarse teeth to dig into and positively grip the sole, substantially as described.

4. A machine for trimming the soles of boots and shoes having, in combination, a trimming knife, a guide for the shoe, and a pair of feed wheels positioned in close proximity to one another above and below the knife, each feed wheel having an annular groove formed in its periphery in which the knife is received, substantially as described.

5. A machine for trimming the soles of boots and shoes having, in combination, a guide for the shoe, a plurality of pairs of feed wheels engaging the top and bottom of the sole constructed and arranged to provide a recess between the wheels of each pair, and a trimming knife having its cutting edge positioned between the upper and lower feed wheels and received in said recess, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,080,192. FOLDING-RULE JOINT. CHRISTIAN BODMER and EDMUND A. SCHADE, New Britain, Conn., assignors to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed July 26, 1912. Serial No. 711,621. (Cl. 33-119.)



1. In a rule joint, the combination with cooperating rule sections overlapping at their ends and having their opposing overlapping faces provided with complementary recesses therein lying wholly within the edges of said sections, of complementary joint plates shaped to seat wholly within said recesses and secured to the opposing faces of said sections, and provided respectively with male and female interlocking means, a pivot stud positioned wholly within said recesses and connecting said joint plates, and means normally tending to hold said joint plates interlocked.

2. In a rule joint, the combination with cooperating rule sections overlapping at their ends and having their opposing overlapping faces provided with complementary recesses therein lying wholly within the edges of said sec-

tions, of an assembled joint unit comprising complementary joint plates provided with means for securing the same respectively to the opposing faces of said overlapping sections, a stud pivotally connecting said plates, said plates being provided with complementary male and female portions and with means normally tending to hold said portions interlocked, and said joint unit seating wholly within the area of said recesses and on the opposing overlapping faces of said sections with its pivot stud lying wholly within said recesses.

3. In a rule joint, the combination with cooperating rule sections overlapping at their ends and provided with recesses in their adjacent faces at such ends and within the edges of said sections, and provided further with rivet holes extending through said recessed portions, of complementary pivoted joint plates seated within said recesses and having fastening tangs projecting therefrom and into said rule sections and having rivet holes therein registering with said rule section rivet holes, with holding rivets in said holes, said joint sections being formed with cooperating projected and recessed portions, and means including a spring normally tending to hold said cooperating portions interlocked when the rule sections are extended or are folded.

4. In a rule joint, the combination with cooperating rule sections overlapping at their ends, of complementary joint plates secured to the overlapping faces of said rule sections and provided with interlocking projected and recessed portions respectively, a pivot stud extending through said portions with one end within said recessed portion and provided with a shoulder thereon, a leaf spring seated on said stud against the shoulder thereon, the end of said stud being headed to retain said spring on said stud and against said shoulder, and said spring resting against said projected portion and normally tending to hold the latter interlocked with said recessed portion.

5. In a folding rule comprising a plurality of overlapping pivoted sections having recesses formed in the adjacent overlapping faces and within the edges thereof, said sections having rivet holes extending through their recessed portions near the ends thereof, and assembled joint units comprising complementary joint plates pivotally connected by a stud centrally thereof and arranged to be seated wholly within the area of said recesses, said joint plates being provided with rivet holes therein corresponding to the rivet holes in said recesses, holding rivets in said rivet holes, the pivot studs of said joint units being arranged to lie wholly within the recessed portion of said sections, said complementary joint plates providing interlocking means located between the rivet holes therein and spring means cooperating with said interlocking means to yieldingly hold said rule sections in alignment when said rule is extended.

[Claim 6 not printed in the Gazette.]

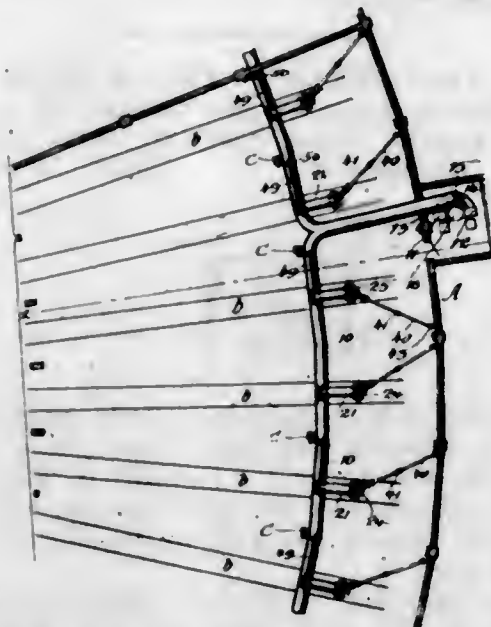
1,080,193. EQUIPMENT FOR ROUNDHOUSES. WILLIAM J. BOHAN, St. Paul, Minn. Filed Sept. 21, 1912. Serial No. 721,564. (Cl. 104-208.)

1. A round house equipment comprising an exhaust main, a pipe section projecting and extending laterally from said main, means connected to the free end of said section for connecting it to the stack of a locomotive, said pipe section being pivotally connected at its other end to the exhaust main to permit it to be swung, to bodily raise and lower said connecting means into and out of engagement with the stack of a locomotive.

2. A round house equipment comprising an exhaust main, a pipe section projecting and extending laterally from said main, an up-take pipe connected to the distal end of said laterally extending pipe having means at its lower end for connecting it to the stack of a locomotive, said pipe section having its other end pivotally connected to the exhaust main to permit it to be swung vertically to bodily raise and lower the connecting means and the up-take pipe.

3. A round house equipment comprising an exhaust main having an upwardly extending branch thereof, a pipe section projecting and extending laterally from said main

having a downwardly extending end, means connected to the free end of said section for connecting it to the stack of a locomotive, and means for pivotally connecting it at its other end to the branch on the exhaust main to permit it to be swung bodily to raise and lower said connecting means into and out of engagement with the stack of a locomotive.

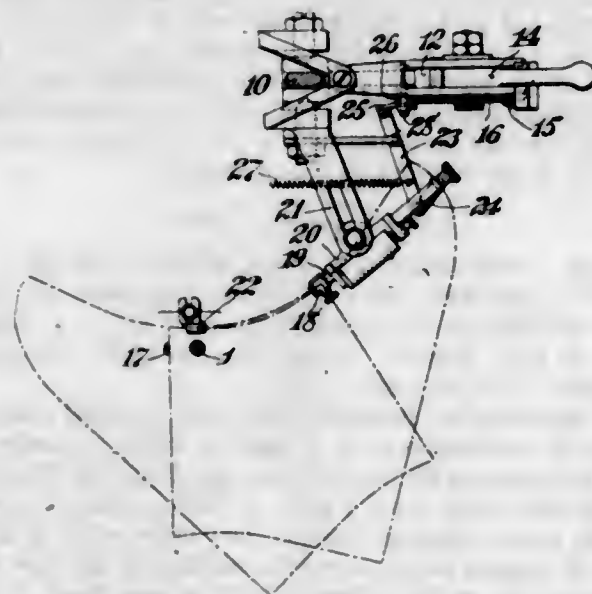


4. A round-house equipment comprising an exhaust main, a horizontally extending pipe having downwardly turned ends, one of said ends being pivotally connected to said main to permit the pipe to swing in a vertical plane, an up-take pipe pivotally connected to the other end of said horizontal pipe and means for connecting the up-take to the stack of a locomotive.

5. A round-house equipment comprising an exhaust pipe formed of sections, having means at one end for connecting it to the stack of a locomotive and having its other end connected to an exhauster, a pivotal connection between the sections and a flexible ring between the pipe terminals.

[Claims 6 to 12 not printed in the Gazette.]

1,080,194. HOOK-SETTING MACHINE. GEORGE W. BROWN, Boston, Mass., assignor to Tubular Rivet & Stud Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 10, 1913. Serial No. 753,280. (Cl. 218-17.2.)



1. A hook setting machine, having, in combination, stock feeding means, a gage for positioning an upper to set the lower hook first, and common means for simultaneously adjusting the stock feeding means and gage for different sizes.

2. A hook setting machine, having, in combination, setting devices, two end gages for the upper ends of right and

left quarters respectively, and common means for simultaneously adjusting the gages for different sizes.

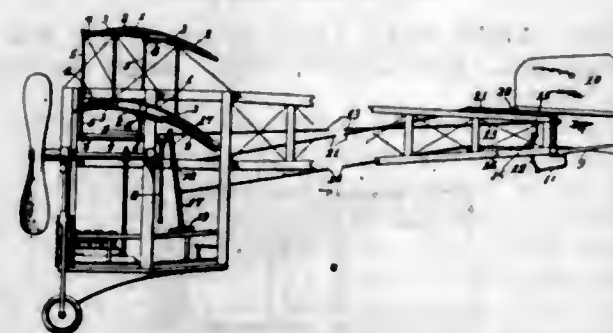
3. A hook setting machine, having, in combination, stock feeding means adjustable for different sizes, an end gage for positioning an upper to set the lower hook first, and means for determining the position of the end gage in adjusting the stock feeding means.

4. A hook setting machine, having, in combination, a punch and set, means to move the same laterally to feed the stock, an end gage movable therewith, an independently mounted end gage, and common means for varying the feeding movement of the punch and determining the position of the latter gage.

5. A hook setting machine, having, in combination, a punch and set, means to move the same laterally to feed the stock, an end gage movable therewith, an independently mounted end gage, and common means for simultaneously varying the feeding movement of the punch and set and the position of the latter gage.

[Claims 6 to 8 not printed in the Gazette.]

1,080,195. FLYING-MACHINE. SAMUEL L. BUCHANAN, Valparaiso, Ind. Filed Apr. 10, 1911. Serial No. 619,984. (Cl. 244-20.)



A flying machine, comprising a vertical rudder extending forward of its axis, a horizontal rudder at each side of the vertical rudder, a shaft on which the horizontal rudders are mounted, an arm on the shaft and projecting forward therefrom, a rod projecting upward from the forward end of the arm, pulleys respectively above and below the upper end of the rod, cords attached to the rod and extending over the pulleys and thence forward, a pendulum shaft intermediately pivoted to turn on a horizontal axis to which the cords are attached respectively above and below the said axis, oppositely projecting arms on the pendulum shaft, pulleys at opposite sides of the front end of the vertical rudder and cords attached to the arms and extending over said pulleys and thence attached to the front end of the vertical rudder.

1,080,196. LIQUID-SOAP-DISPENSING DEVICE. CHARLES BERNARD BUEGER, New York, N. Y., assignor of one-half to Sigmund Lippstadt, New York, N. Y. Filed Apr. 25, 1913. Serial No. 763,666. (Cl. 221-94.)

1. The combination with a liquid receptacle having an opening above the liquid level for the discharge of material, of means within said receptacle for dipping up a predetermined amount of liquid, conveying it to and discharging it through said opening, and a handle for operating said dipping and conveying means below said opening arranged in the path of the operator's hand when placed below said opening to receive the discharge whereby the act of placing the hand in position may cause the dipping and discharging operation.

2. In a device of the class described, the combination with a metal rim, of a bowl for containing liquid secured to the bottom of said rim, a projection on one side of said rim extending beyond the edge of said bowl and having a discharge opening through it, and means carried by said rim for dipping a predetermined amount of liquid from said bowl and discharging it through said opening.

3. In a device of the class described, the combination with a metal rim, of a bowl for containing liquid secured

197 O. G.—7

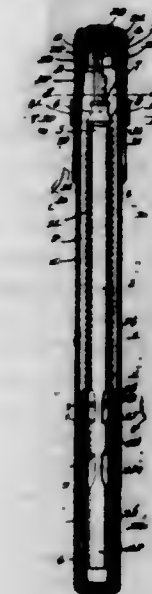
to the bottom of said rim, a projection on one side of said rim extending beyond the edge of said bowl and having a discharge opening through it, means carried by said rim for dipping a predetermined amount of liquid from said bowl and discharging it through said opening, and a cover over said rim and projection.



4. In a device of the class described, the combination with a metal rim, of a bowl for containing liquid secured to the bottom of said rim, a projection on one side of said rim extending beyond the edge of said bowl and having a discharge opening through it, a shaft mounted in and extending across said rim, an arm secured to said shaft extending down into the liquid, a dipping receptacle carried by said arm, and means for turning said shaft to raise said receptacle and discharge it through said opening.

5. In a device of the class described, the combination with a metal rim, of a bowl for containing liquid secured to the bottom of said rim, a projection on one side of said rim extending beyond the edge of said bowl and having a discharge opening through it, a shaft mounted in and extending across said rim, an arm secured to said shaft extending down into the liquid, a dipping receptacle carried by said arm, a second shaft carried by said rim, an arm outside of said rim and bowl for operating said second shaft having a portion to be operated by a hand placed below said opening, and means connecting said shafts whereby any motion of the second will be transmitted multiplied to the first to raise said dipping receptacle and discharge it through said opening.

1,080,197. FOUNTAIN-PEN. JOSEPH G. COFFIN, New York, N. Y., assignor to William F. Cushman, Boston, Mass. Filed Apr. 27, 1911. Serial No. 623,571. (Cl. 120-49.)



1. In a fountain pen, the combination with a barrel having an ink reservoir open at one end, of a pen point

adapted to be projected through said open end or retracted into the reservoir, means to move the pen point relative to the barrel, locking means located within the reservoir to hold the pen point positively in fully projected position, and means to render said locking means inoperative when the pen point is only partially projected.

2. In a fountain pen, the combination with a barrel having an ink reservoir open at one end, of a pen point adapted to be projected through said open end or retracted into the reservoir, means to move the pen point relative to the barrel, locking means within the reservoir to hold the pen positively in either its projected or its retracted position, and means to render said locking means inoperative when the pen point is in an intermediate position.

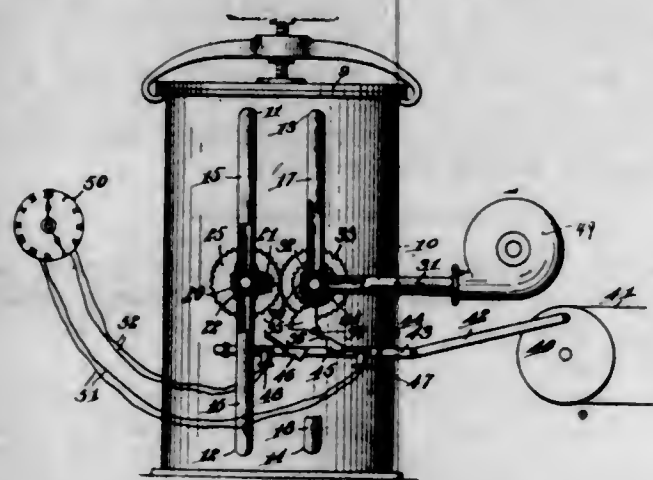
3. In a fountain pen, the combination with a barrel having an ink reservoir open at one end, of a pen point adapted to be projected through said open end or retracted into the reservoir, means to move the pen point relative to the barrel, and automatically operative means located within the reservoir to lock the pen in its projected position.

4. In a fountain pen, the combination with a barrel having an ink reservoir open at one end, of a pen point adapted to be projected through said open end or retracted into the reservoir, means to move the pen point relative to the barrel, and automatically-operative means located within the reservoir to lock the pen in one of its two positions.

5. In a fountain pen, the combination with a barrel having an ink reservoir open at one end, of a pen point adapted to be projected through said open end or retracted into the reservoir, means to move the pen point relative to the barrel, and automatically-operative means located within the reservoir to lock the pen in either of its two positions.

[Claims 6 to 20 not printed in the Gazette.]

1,080,198. DEHYDRATING APPARATUS. ERNEST WILLIAM COOKE, New York, N. Y., assignor to Cokel Company, a Corporation of New Jersey. Filed May 27, 1905. Serial No. 262,618. (Cl. 34—30.)



1. A dehydrating apparatus comprising a closed receptacle adapted to receive the substance to be treated, air-forcing means for creating a current of air, connections leading from said means to two opposite ends of the receptacle, timing means and means controlled by said timing means for periodically diverting the flow of air from each of said connections to the other.

2. A dehydrating apparatus comprising a closed receptacle adapted to receive the substance to be treated, air-forcing means for creating a current of air, valved connections leading from said means to two opposite ends of the receptacle, and automatically controlled means for controlling the flow of air through the valves of said connections to intermittently reverse the direction of flow of the air through the receptacle.

3. A dehydrating apparatus comprising a closed receptacle for the substances to be treated, means to create a current of air, means to convey said air into and out of said receptacle, and automatically and periodically

controlled valve mechanism in said air-conveying means, and means controlling said valve mechanism to automatically and to periodically reverse the direction of the current of air in said receptacle.

4. A dehydrating apparatus comprising a closed receptacle adapted to receive superimposed trays containing the substances to be treated, an air-inlet and an air-outlet at each end of said receptacle, a valve to which said air-inlets are connected and a second valve to which said air-outlets are connected, an air supply pipe leading to said first-mentioned valve and an air-exhaust pipe leading from said second valve, and means to periodically actuate said valves to reverse the direction of flow of the air through the receptacle.

5. A dehydrating apparatus comprising a closed receptacle adapted to receive superimposed trays containing the substances to be treated, an air-inlet and an air-outlet at each end of said receptacle, a valve to which said air-inlets are connected and a second valve to which said air-outlets are connected, an air supply pipe leading to said first-mentioned valve and means to automatically actuate said valves at predetermined intervals of time to reverse the direction of flow of the air through the receptacle.

[Claims 6 to 15 not printed in the Gazette.]

1,080,199. LOCK-NUT. JACOB M. DOOLITTLE, New Kensington, Pa. Filed Jan. 7, 1913. Serial No. 740,746. (Cl. 151—40.)

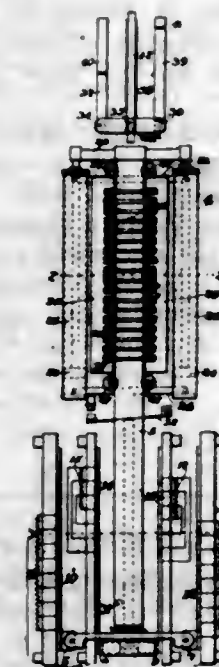


1. A bolt having a shoulder provided with teeth, a nut for the bolt, said nut being constructed of resilient material and being slitted longitudinally and transversely to provide a resilient dog, said dog being adapted to spread away from the nut proper and having its lower face formed with teeth, and the teeth of the dog adapted to cooperate with the teeth of the bolt when the nut is screwed home upon the bolt.

2. In combination with a bolt having a shoulder provided with teeth, of a nut constructed of resilient material and adapted to engage with the bolt, said nut being slitted upon its inner face longitudinally and transversely to provide a spring dog which exerts a tension away from the body of the nut, the said dog having its lower face provided with teeth which are adapted to co-act with the teeth of the bolt when the nut is screwed upon the bolt, and a locking member for retaining the teeth of the dog into engagement with the teeth of the bolt.

3. In combination with a shouldered bolt, of a washer having its outer face provided with teeth removably connected with the shoulder, a nut for the bolt, said nut being slitted longitudinally and transversely to provide a resilient dog which exerts a tension away from the body of the nut, the said dog having its underface formed with teeth, the nut being provided with orifices which enter the bore thereof, the nut and dog having notches which are arranged opposite each other and which enter the bore of the nut, the teeth of the dog adapted to engage with the teeth of the washer when the nut is screwed home upon the bolt, and a key member including malleable fingers which are adapted to enter the orifices of the nut and a malleable wedge member which is adapted to enter the notches of the nut and dog, and the said fingers and wedge adapted upon inward pressure to be spread and to be tightly engaged with one of the threads of the bolt and the wedge member also adapted to force the dog away from the body of the bolt and the teeth thereof more securely into engagement with the teeth of the washer.

1,080,200. ALTERNATING-CURRENT-MOTOR CONTROLLER. CHARLES A. DRESSER and HARLAND FANK-BONER, Chicago, Ill., assignors, by mesne assignments, to G. A. Edward Kohler, Chicago, Ill. Filed July 2, 1909. Serial No. 505,581. (Cl. 172—179.)



1. A controller for alternating current motors comprising a series of contacts with resistances associated therewith, a movable contact device adapted to be moved therealong, a plunger connected therewith, a series of coils associated with said plunger, there being separate coils for the different phases of the current, the number of coils being greater than the number of phases of the current, said coils arranged so as to cause the plunger to move the contact device along said contacts to vary the resistance in the circuit.

2. An alternating current solenoid comprising a plurality of strips of magnetic material, a core located between them, separate coils for different phases of the current located in proximity to said strips and core, and means for holding said core in any desired intermediate position.

3. An alternating current solenoid comprising a plurality of strips of magnetic material, a core located between them, separate coils for different phases of the current located in proximity to said strips and core, and circuit varying devices at opposite ends of the core controlled by said core.

4. An alternating current solenoid comprising a core, a conducting sheath therefor, a strip of magnetic material in proximity to said core, windings associated with said core and strip so as to produce magnetism in said core, a contact device connected with said core, a series of contacts over which said contact device moves, resistances between said contacts, means for holding said core in any desired intermediate position, the core adapted to drop by gravity in cutting resistance out of the circuit.

5. An alternating current solenoid comprising a core, a conducting sheath therefor, a strip of magnetic material in proximity to said core, windings associated with said core and strip so as to produce magnetism in said core, a contact device connected with said core, a series of contacts over which said contact device moves, resistances between said contacts, means for holding said core in any desired intermediate position.

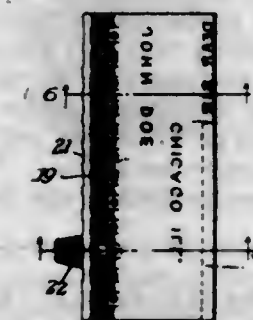
[Claims 6 to 19 not printed in the Gazette.]

1,080,201. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1912. Serial No. 685,811. (Cl. 101—178.)

1. A sheet-metal printing device having an address stamped up in relief on one face thereof, a rib formed at one edge of the device and extending throughout a portion

of its length, and a salutation stamped up in relief adjacent the said edge of the device and at the end of said rib.

2. A sheet-metal printing device provided with a salutation adjacent one edge stamped up from the body of the metal and having a rib extending along said edge from the salutation toward an end of the device.



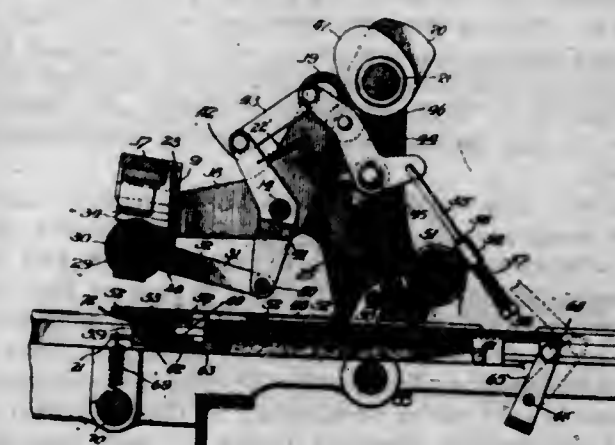
3. A sheet-metal printing device provided with an address stamped up therein and a spacing rib at one edge thereof, said rib being omitted throughout a portion of the length of the device to permit the formation of a salutation in the device where the rib portion is omitted.

4. A sheet-metal printing device provided with a strengthening rib extending partially across the device at one edge thereof and having printing characters stamped up from the body of the metal at one end of said rib.

5. A sheet-metal printing device having an address stamped up in relief on one face thereof, the edge of said device below the address being turned back upon itself to form a rib extending partially throughout the length of the device, and a salutation stamped up in relief adjacent said edge of the device.

[Claims 6 to 10 not printed in the Gazette.]

1,080,202. ADDRESSING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1912. Serial No. 688,635. (Cl. 101—1.)



1. In an addressing machine, the combination of a bed, a platen frame mounted on a pivot above the bed to move toward and from said bed, a platen, means for yieldingly supporting said platen on the frame, and means for moving the platen relatively to the frame across the bed.

2. In an addressing machine, the combination of a bed, a platen frame pivotally mounted above the bed and movable toward and from said bed, means fixedly mounted in the path of movement of said frame for positively limiting the extent of movement toward the bed, a platen yieldingly sustained by the frame, and means carried by the frame whereby the platen pressure may be regulated.

3. In an addressing machine, the combination of a bed, a frame disposed above the bed and movable toward and from the bed, means positively limiting the movement of the frame toward the bed, a platen, an adjuster carried by said frame above the platen, means for retaining both ends of the platen in operative relation with the adjuster, and means for adjusting the position of the adjuster on the frame to regulate the platen pressure.

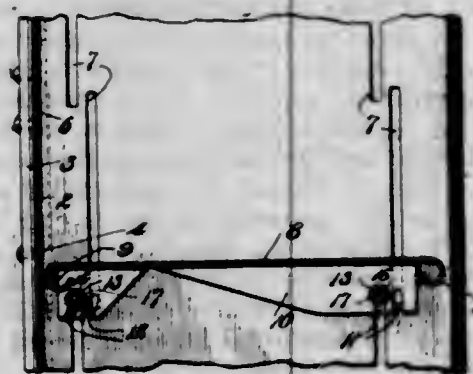
4. In an addressing machine, the combination of a platen frame, an adjuster depending from said frame and provided with a pair of tracks, a platen, rollers mounted on

the ends of the platen and adapted to roll on said tracks, a spring for yieldingly retaining said rollers in engagement with the tracks, means for adjusting the adjuster to regulate the platen pressure, and means for moving the platen along said tracks.

5. In an addressing machine, the combination of a platen frame, means for automatically raising and lowering said frame at predetermined intervals, fixed stops mounted on the machine frame in the path of the platen frame for limiting the lowering of the frame, a platen yieldingly carried by the frame, means for adjusting the position of the platen on the frame, and means for moving said platen bodily across the frame.

[Claims 6 to 18 not printed in the Gazette.]

1,080,203. ADJUSTABLE SHELF. HARRY M. DUNCAN, Jefferson City, Mo. Filed Nov. 6, 1912. Serial No. 729,778. (Cl. 45-54.)



1. Shelf construction comprising, in combination, partition elements provided with two series of staggered slots arranged adjacent to the front and rear edges of the partition elements and the slots in each series overlapping at their ends, shelf sustaining bolts arranged to be seated in said slots, shelves provided with depending flanges at each end thereof, said flanges being provided at their front ends with two vertical parallel slots and at their rear ends with two parallel inclined slots, said slots adapted to engage over the sustaining bolts carried by the slots in said partition walls, and means for binding said bolts and shelves in any desired vertical position, substantially as specified.

2. Shelf construction comprising partition elements formed from a sheet of flat metal bent to form a double wall substantially U-shaped in cross-section and being provided with outwardly extending flanges at their inner ends and reinforcing plates bolted to said flanges; said walls having formed therein a series of vertical slots adjacent to the front and rear edges thereof, respectively, and the slots of each series overlapping at their adjacent ends, lateral reinforcing elements bolted to said flanges and adapted to sustain said partition elements in vertical parallel adjustment, sustaining bolts adapted to be inserted and locked in said slots, shelf elements comprising a sheet of flat metal rounded at the edges and being provided with depending flanges at their extremities, said flanges being provided with parallel slots arranged adjacent to the front and rear edges thereof, the slots adjacent to the front edge being arranged parallel and vertical with respect to the said flat sheet, and the slots adjacent to the rear edge being inclined backwardly and downwardly, with respect to said sheet, and a binding sleeve, manually operable, adapted to cooperate with said bolts for binding said shelf element and said partition elements together, substantially as specified.

3. Shelf construction comprising, end walls of double plates, and having vertical staggered and overlapping slots in both plates adjacent the front and rear edges thereof, shelf elements provided with flanges supported at right angles and having vertical parallel slots in said flanges adjacent one edge of said shelf elements, and parallel inclined slots in said flanges adjacent the other edge of said shelf elements, shelf supporting bolts seated in the slots in said end walls and extending inwardly per-

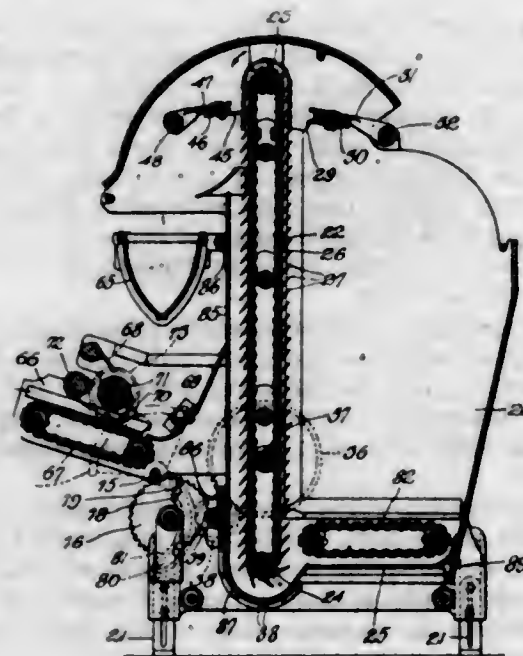
mitting the slots in the shelf elements to be engaged thereover, and means for binding bolts and shelf elements in any desired vertical adjustment, substantially as specified.

1,080,204. PROCESS FOR PRODUCING CASEIN PREPARATIONS. ANDREW A. DUNHAM, Bainbridge, N. Y., assignor to Casein Company of America, a Corporation of New Jersey. Filed May 14, 1913. Serial No. 767,560. (Cl. 99-11.)

1. The process of producing a casein glycerophosphate compound, soluble in water, which comprises mixing together casein in a comminuted form, containing water, with a slightly acid solution of a simple glycerophosphate, and thereafter drying the compound thus produced.

2. The process of producing a casein glycerophosphate compound, soluble in water, which comprises thoroughly mixing about 5 parts of a simple glycerophosphate in the form of a slightly acid solution thereof, with casein in amount corresponding to 100 parts of dry casein, and thereafter drying and grinding the compound thereby produced.

1,080,205. FEEDING MECHANISM FOR CARDING-ENGINES. DANIEL C. FISHER, Boston, Mass., assignor to Mary A. Fisher, Boston, Mass. Filed June 1, 1911. Serial No. 630,708. (Cl. 19-7.)



1. In a machine of the character described, a transferring apron, means for intermittently actuating said apron, and instantaneous detent mechanism, for holding the apron against retrograde motion from the point at which its operative motion is arrested, said detent mechanism including a stationary member and an intermittently movable member, said members having a wedge-shaped space between them, and a gravitating roll mounted in said space.

2. In a machine of the character described, a transferring apron, a shaft for said apron, a bearing for said member having a flat face, a cup-shaped member secured to the shaft and embracing the portion of the bearing having said flat face, and a gravitating roll mounted in the space between said flat face and inner surface of the cup-shaped member.

3. In a machine of the character described, a feed apron, an oscillating compressor and a rotary roll mounted in fixed bearings above the apron, the rotary roll being mounted at a height above the apron to exert rolling pressure upon the mat of fibrous material formed by the oscillating compressor, and means for actuating the rotary roll with a surface speed equal to that of the apron.

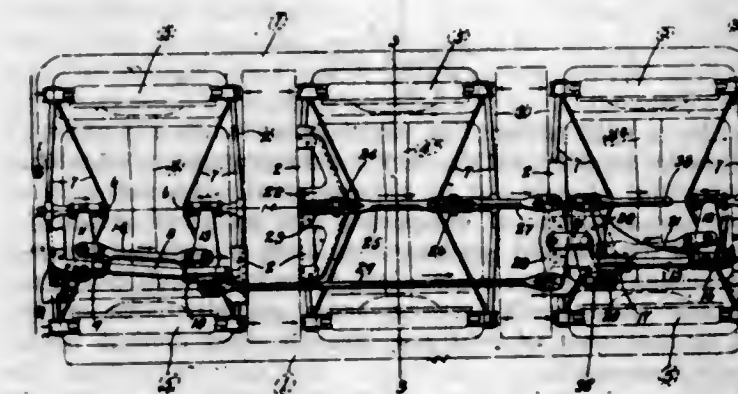
4. In a machine of the character described, a feed apron, an oscillating compressor comprising a roller having curved projections to engage the fibrous material, and

a rotary roll mounted in fixed bearings behind the compressor and having means for rotating it at the same surface speed as the speed of travel of the apron.

5. In a machine of the character described, the combination with a feed apron, of an oscillator to supply material to said apron, and a roll mounted in fixed bearings above the apron and behind the oscillator to assist the latter in forming the mat on said apron, and means for continuously rotating said roll at the same surface speed as the speed of travel of the apron.

[Claims 6 to 11 not printed in the Gazette.]

1,080,206. SIX-WHEEL-CAR-TRUCK BRAKE. CHARLES F. FREDRICK, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 21, 1913. Serial No. 755,922. (Cl. 188-24.)



1. A brake rigging for six wheeled trucks, comprising brake beams arranged in pairs on opposite sides of the wheels of the truck, levers each pivotally connected to a certain one of the brake beams of each pair at one end, and pivotally connected to fixed parts of the truck at their opposite ends, a floating lever pivotally connected to the other brake beam of each pair, a rod connecting each pair of levers, and means connected to all of the floating levers for simultaneously imparting movement thereto.

2. In a six wheel car truck, the combination with brake beams arranged in pairs on opposite sides of the truck wheels, of levers pivotally connected to said brake beams, one lever of each pair being fulcrumed to a fixed part of the truck frame, a rod connecting each pair of levers, and means for simultaneously imparting uniform movement to all of the levers.

3. In a six wheel car truck, the combination with brackets fixed to the truck frame, of levers fulcrumed to said brackets, floating levers arranged in pairs with the first mentioned levers, connections between each corresponding pair of levers, brake beams pivotally connected to said levers, which brake beams are arranged on opposite sides of the truck wheels, and connections to said floating levers for simultaneously imparting movement thereto.

4. The combination with a six wheeled truck, of brackets fixed to the truck frame, levers fulcrumed to said brackets, floating levers arranged in pairs with said first mentioned levers, connections between the pairs of levers, brake beams pivotally connected to said levers and arranged in pairs on opposite sides of the truck wheels, and connections including rods and equalizing levers for simultaneously imparting uniform movement to the floating levers.

5. A brake rigging for six wheeled trucks comprising brake beams arranged in pairs on opposite sides of the wheels, levers pivotally connected to said brake beams, brackets on the truck frame to which the upper end of one of each pair of levers is fulcrumed, certain of which brackets are slotted to form bearings for certain of the levers, a rod connecting each pair of levers, a power-actuated rod, and connections between said power-actuated rod and certain of the levers whereby corresponding movement is simultaneously imparted to all of the brake levers and the brake beams carried thereby.

[Claims 6 to 8 not printed in the Gazette.]

1,080,207. FINISHING-MACHINE. FREDERICK M. FURBER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 6, 1908. Serial No. 442,146. (Cl. 12-49.)



1. A machine of the class described, having, in combination, a tool supported for turning movement and a rotary actuator suitably constructed and arranged within the tool to impart thereto an intermittent radial movement.

2. A machine of the class described having, in combination, a tool supported for turning movement, a laterally stationary shaft and an eccentric member rotating with the shaft and acting directly upon the tool to vibrate it radially.

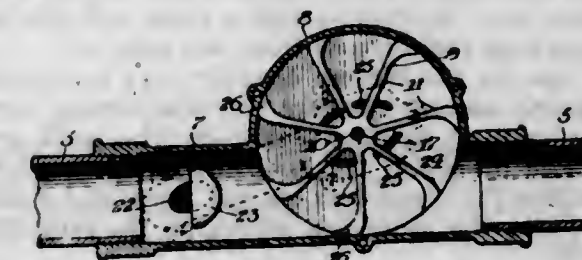
3. A machine of the class described having, in combination, an indenting tool and a member rotating about a fixed axis constructed to support the tool and to impart thereto radial vibrations.

4. A machine of the class described, having, in combination, a finishing tool adapted to have rolling contact with the work, a laterally stationary shaft located within the tool upon which it can turn, and means actuated by the rotation of the shaft for vibrating the tool.

5. A machine of the class described, having, in combination, two tools arranged side by side and adapted to have contact with the work, a shaft upon which both tools are mounted and means driven by the shaft to impart to the two tools working movements in different directions.

[Claims 6 to 12 not printed in the Gazette.]

1,080,208. CLEANER FOR ENGINE-CYLINDERS. GEORGE W. GARDNER, Chicago, Ill. Filed Oct. 28, 1912. Serial No. 728,071. (Cl. 123-40.)



1. In a device of the character described, the combination with a conduit, of a casing communicating therewith and having a by-pass leading therefrom to said conduit, and a vane-wheel or fan rotatably mounted in said casing.

2. The combination with an exhaust conduit of an engine, of a casing communicating therewith and having a by-pass communicating at one of its ends with said conduit in front of the casing and at its other end with said casing, and a vane-wheel or fan rotatably mounted in the casing.

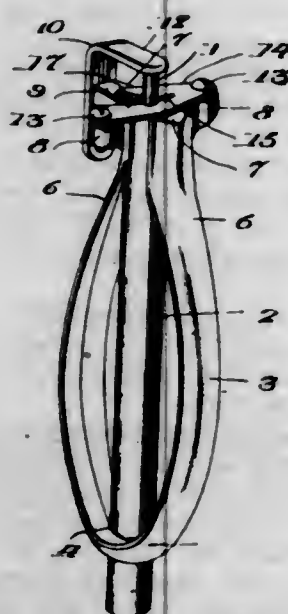
3. The combination with an exhaust conduit of an engine, of a casing communicating therewith and having a by-pass communicating at one of its ends with said conduit in front of the casing and at its other end with said casing inwardly of the periphery thereof, and a vane-wheel or fan rotatably mounted in the casing.

4. The combination with an exhaust conduit of an engine, of a casing communicating therewith and having a by-pass communicating at one of its ends with said conduit in front of the casing and at its other end with said casing by means of a plurality of openings, and a vane-wheel or fan rotatably mounted in the casing.

5. The combination with an exhaust conduit of an engine, of a casing communicating therewith and having in its front portion an opening, a lip or flange secured on the inner surface of the casing rearwardly of said opening and extended inwardly and forwardly thereof, a bypass conduit communicating at one of its ends with said opening and at its other end with said casing, and a vane-wheel or fan rotatably mounted in the casing.

[Claims 6 to 8 not printed in the Gazette.]

1,080,209. DOWEL-CUTTING TOOL. GEORGE E. GARON, Manchester, N. H. Filed Feb. 24, 1913. Serial No. 750,353. (Cl. 145-15.)



1. In a tool for the purpose described, the combination with a handle formed of a single piece of metal and having an apertured base and resilient sides and also having at the extremities of the sides jaws the interiors of which are of right angle form, and further having lateral projections on the jaws and an outwardly reaching arm on the back of one jaw; of a gage adjustably connected with said arm and having a portion that overhangs the space between the jaws, and a knife pivoted on the projections of the jaws and spaced above the jaws and having a central aperture that describes part of a circle and also having a cutting edge that extends from said aperture.

2. In a tool for the purpose described, the combination of jaws having angular interiors and also having lateral projections, resilient holding means carrying said jaws, a gage carried by one of the jaws and having a portion that overhangs the space between the jaws, and a knife resting opposite said space and pivoted to the projections of the jaws.

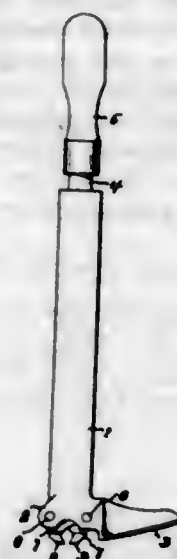
3. In a tool for the purpose described, the combination with a handle having an apertured base and resilient opposed sides and also having opposed jaws at the extremities of the sides; of a swinging knife pivoted on the jaws and opposed to the ends thereof.

1,080,210. NAIL-PULLER. JULIAN A. GILES, Derby, Conn. Filed Apr. 7, 1913. Serial No. 759,415. (Cl. 145-40.)

1. In a nail puller, the combination with a plunger; of a body within which said plunger is slidable, terminating at one end in a head portion having a fulcrum foot thereon, and companion jaws pivotally mounted within said head portion having anvil members thereon in the path of said plunger, said anvil members being at a point distant from the pivot mounting of said jaws and directly in line with the claws thereon.

2. In a nail puller, the combination with a plunger; of a body member within which said plunger is slidable, terminating at one end in a head portion having a fulcrum foot thereon; of companion jaw members pivotally mounted within said head portion, each of said jaw mem-

bers having a claw portion and an anvil portion upon that side of the center of the body member opposite to said pivot mounting.



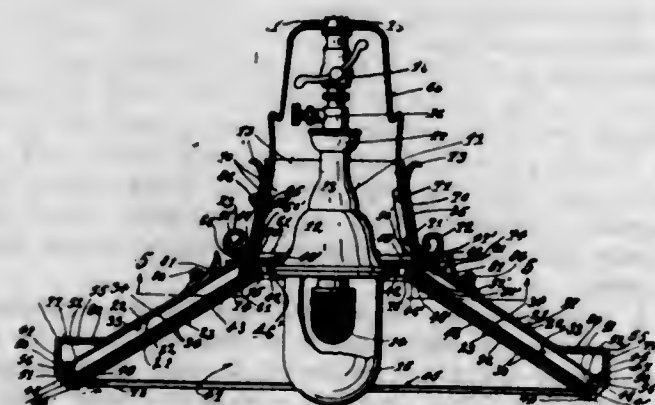
3. In a nail puller, the combination with a plunger; of a body member within which said plunger is slidable, terminating at one end in a head portion having a fulcrum foot thereon; of companion jaw members pivotally mounted within said head portion, each of said jaw members having an offset claw portion, and an anvil portion, said claw and anvil portions being opposite each other and at that part of said jaw member most distant from its pivot mounting.

4. In a nail puller, the combination with a plunger; of a body within which said plunger is slidable, terminating at one end in a head portion having a fulcrum foot thereon, and companion jaws pivotally mounted within said head portion having anvil members thereon in the path of said plunger, said anvil members being at a point distant from the pivot mounting of said jaws and directly in line with the claws thereon; and means for limiting the movement of said jaws in both directions upon their pivot mountings.

5. In a nail puller, the combination with a plunger; of a body member within which said plunger is slidable, terminating at one end in a head portion having a fulcrum foot thereon; of companion jaw members pivotally mounted within said head portion, each of said jaw members having a claw portion and an anvil portion; and means, as a stop shoulder, for limiting the movement of said jaw upon its pivot mounting.

[Claim 6 not printed in the Gazette.]

1,080,211. LAMP-SHADE. JAMES GILSEY, Cincinnati, Ohio. Filed Apr. 24, 1913. Serial No. 763,316. (Cl. 240-103.)



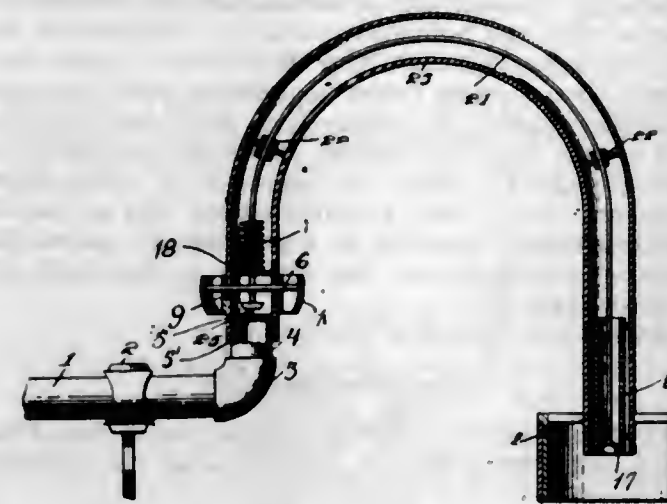
1. A lamp shade comprising a body which surrounds the lamp and is formed pluri-sided, the said body comprising an outer wall and an inner wall, the said inner wall formed of looking-glass reflectors whose silvered backs are presented toward said outer wall, upwardly converging connecting ribs between said outer wall and looking-glass reflectors at the corners between the sides of said pluri-

aided body for forming cooling air passages formed respectively of said outer walls, said ribs at the respective ends of said passages and said silvered backs of said looking-glass reflectors, and said passages having openings at their bottoms and tops, whereby currents of cooling air are created through said passages in contact with said silvered backs of said looking-glass reflectors.

2. A lamp shade comprising a body which surrounds the lamp and is formed pluri-sided, the said body comprising an outer wall and an inner wall, the said inner wall formed of looking-glass reflectors whose silvered backs are presented toward said outer wall, the fronts of said reflectors presented toward each other forming a cooling air-passage, upwardly converging connecting ribs between said outer wall and looking-glass reflectors at the corners between the sides of said pluri-sided body for forming cooling air-passages formed respectively of said outer walls, said ribs at the respective ends of said passages and said silvered backs of said looking-glass reflectors, said last-named passages having openings at their bottoms and tops, and a flue surmounting said first-named air-passage and said last-named air-passages, whereby currents of cooling air are created through said passages in contact with said fronts and said silvered backs of said looking-glass reflectors, all said currents of cooling air converging in said flue, substantially as described.

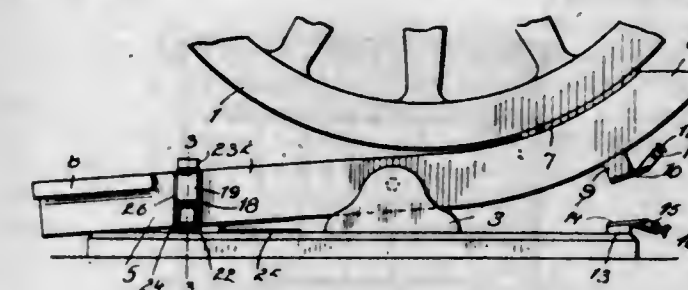
3. In combination, a lamp shade of the character described comprising an outer wall, an inner wall formed of looking-glass reflectors which surround the lamp, said walls having cooling air passages therebetween, lower channel-strips extending lengthwise of the bottoms of said cooling air passages, said lower channel-strips provided respectively with a looking-glass reflector receiving groove and an outer wall receiving groove, upper channel-strips extending lengthwise of the upper ends of said passages, said upper channel-strips provided respectively with a looking-glass reflector receiving groove and an outer wall receiving groove, releasable corner-pieces received over the proximate ends of said lower channel-strips, retaining means for said upper channel-strips, and releasable connections between said corner-pieces and retaining means.

1,080,212. ATTACHMENT FOR INCANDESCENT GAS-BURNERS. MICHELE GIORGIO, Pittsburgh, Pa. Filed June 12, 1912. Serial No. 703,280. (Cl. 67-116.)



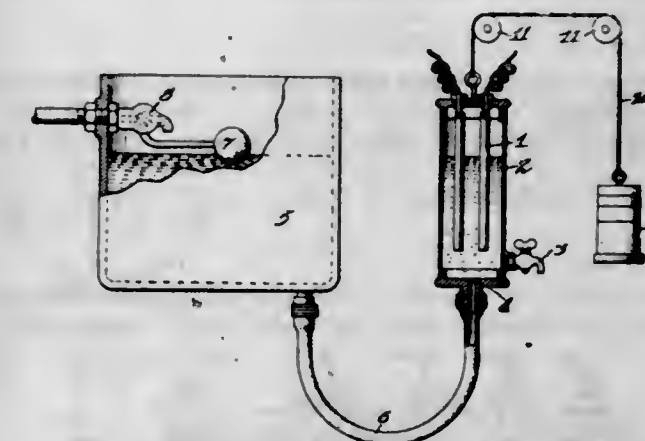
The combination with a gas burner for inverted gas mantles and having a goose neck tube; a flexible rod extending along said tube, guides within the tube arranged to cause the rod to follow the curvature of the tube when moved therein, a ring encircling the tube adjacent one end, means for connecting the rod to the ring, a hemispherical member secured to the other end of the rod and adapted to hold the same in its raised position when the member is expanded by the heat of the burner, said hemispherical member being hollow, a valve carried by the first mentioned end of the rod, an apertured disk mounted in the tube and adapted to coact with said valve when the light of the burner is extinguished, and the member contracts.

1,080,213. BRAKE AND ATTACHMENT THEREFOR. WILLIAM L. GRANGER, Watsonville, Cal. Filed Feb. 21, 1913. Serial No. 749,935. (Cl. 74-13.)



The combination with a base and a brake lever pivotally supported thereon, of means for holding one end of said brake lever in contact with said base, said means comprising a casing open at both ends and U-shaped in cross section, a latch pivotally secured within said casing, said latch being formed of a continuous strip of metal bent to form a pair of arms, a hook formed upon one of said arms for locking engagement with the brake lever, and spring means for holding said hook in locking engagement with the brake lever.

1,080,214. REGULATOR FOR ELECTRIC FLUID-HEATERS. WILLIAM S. HADAWAY, Jr., New York, N. Y. Filed Sept. 5, 1911. Serial No. 647,696. (Cl. 219-40.)



1. The combination with a fluid heating device, of a fluid containing device for supplying fluid to said heating device, one of said devices being adjustable with respect to the other to vary the height of the fluid in said heating device.

2. In combination, a fluid heating device, a fluid containing device for supplying fluid to said heating device, means for maintaining a substantially constant fluid level in said second device, and means for adjusting one of said devices with respect to the other to vary the volume of fluid in said heating device.

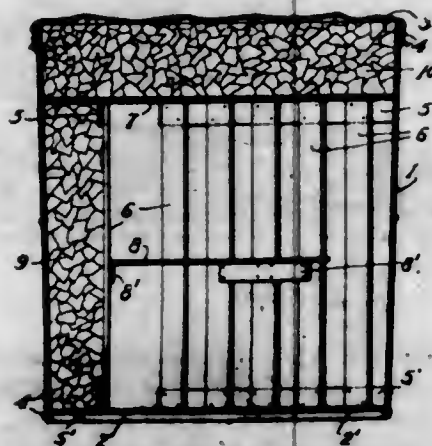
3. In combination, a fluid heating device, means for supplying fluid thereto and maintaining a substantially constant level of the fluid therein in a fixed position thereof, and means for adjusting said heater to vary the volume of fluid therein.

4. In combination, a fluid heater, means for supplying fluid thereto and maintaining a substantially constant level of the fluid in said heater, and means enabling relative adjustment of said heater and said fluid supplying means to vary the volume of fluid in said heater.

5. In combination, a fluid heater, a fluid supplying reservoir therefor connected to a source of fluid supply and means for maintaining a substantially constant level of the fluid in said reservoir, said heater being adjustable relative to said reservoir to vary the volume of fluid in said heater.

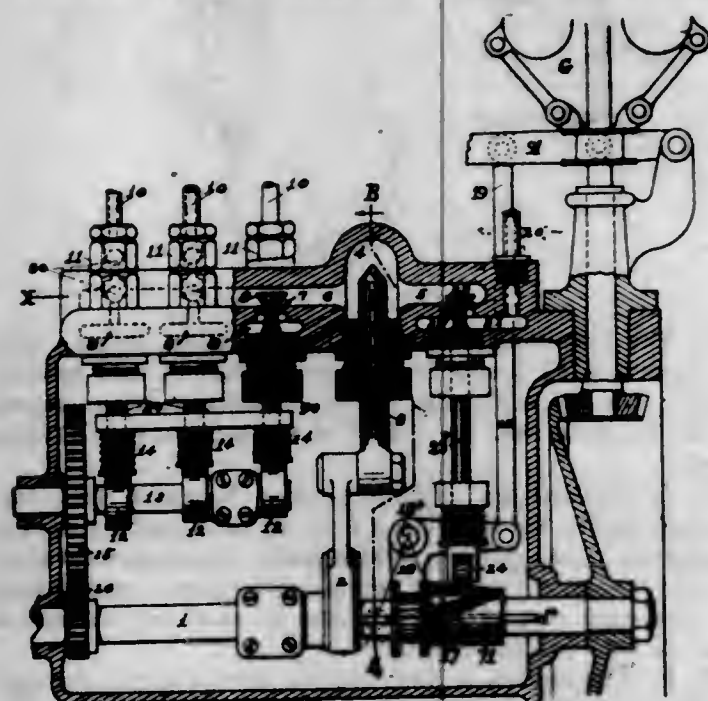
[Claims 6 to 9 not printed in the Gazette.]

1,080,215. REFRIGERATING SHIPPING-CASE. ARTHUR PALMER HAINES, Rockland, Me., assignor to Penobscot Fish Company, Rockland, Me., a Corporation of Maine. Filed Aug. 19, 1912. Serial No. 715,722. (Cl. 62—10.)



A refrigerating shipping case comprising an outer container, a plurality of symmetrically disposed grids therein, and forming between their outer faces and the inner face of the container wall ice containing pockets spaced from each other by intervening parts of the container wall, said grids also defining between their respective inner faces and those areas of the container wall which space the grids from each other a containing space adapted to receive the articles to be shipped, a partition disposed within said containing space and dividing the same into compartments, a top closure for said containing space and said ice-containing pockets, constituting an ice support and a cover above said ice support.

1,080,216. FUEL-PUMP FOR INTERNAL-COMBUSTION ENGINES. ALFRED H. HOADLEY, Providence, R. I. Filed Dec. 22, 1911. Serial No. 667,281. (Cl. 123—140.)



1. In an apparatus for supplying liquid fuel to the cylinders of an internal combustion engine, the combination of a unitary pump having a primal discharge chamber with a plurality of exits, operated delivery-valves including an independently acting valve for each of said exits, a freely operable mechanically controlled suction valve, means comprising a positively driven cam-shaft with a series of cams thereon disposed to severally operate said delivery valves, and means for varying the closing action of said suction valve working synchronously with the pump.

2. In an apparatus for supplying liquid fuel to the cylinders of an internal combustion engine, the combination of a single plunger pump having a plurality of delivery exit passages, individual conduits therefrom for the re-

spective cylinders, a series of independently movable valves for the delivery exit passages, mechanically actuated means for operating said delivery-valves, a by-pass valve controlling a by-pass located between the supply conduit and pump-chamber for regulating the discharge of fuel, a suction-valve, and means for operating said by-pass valve for the purpose specified.

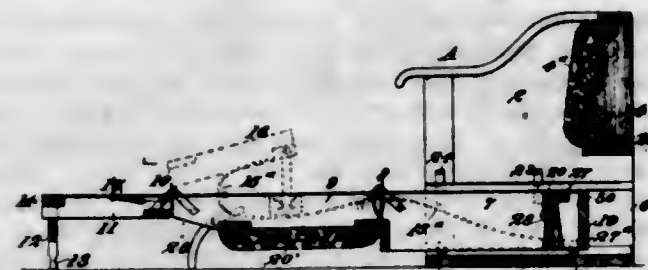
3. In a fuel pump for internal combustion engines, the combination of a pump body including a pump-chamber, a suction passage, and a delivery passage, a pumping plunger working in said pump-chamber, a plurality of separate valve-controlled openings into underlying secondary passages that communicate by a separate feed-duct with the engine cylinders, a controlling puppet-valve for each of said openings into the secondary passages, said valves having endwise reciprocating stems at the exterior of the casing, and means comprising a rotating cam-shaft with a series of cams carried thereon, for individually operating said valves.

4. In mechanism for forcing liquid fuel into cylinders of multi-cylindrical internal combustion engines, the combination of a pump body including a pump-chamber having a suction passage and discharge passage connected therewith, a supply conduit with a port opening into said suction passage, a plurality of exit ports opening from said discharge passage, with secondary passages and fittings for attaching the several cylinder supply pipes, individual valves for the respective inlet and exit ports, each having a projecting stem, a single pumping element working in said pump chamber, a rotating shaft having means for reciprocating the pumping element, a supplemental shaft having means for individually opening said exit-valves, gearing operating said supplemental shaft at a speed ratio as the number of exit valves is to one stroke of the pump, an endwise movable cam acting against the stem of said inlet valve, and means for varying the relative position of said cam in accordance with the speed of rotation of the motor-shaft.

5. In a fuel-supply mechanism for multi-cylinder internal combustion engines, the combination of a pump casing including a chamber having a laterally extended area provided with a plurality of valve-seated egress openings and secondary separate chambers beneath said openings, a pumping element adapted for working therein with its strokes synchronous with the firing intervals of the series of cylinders, means for actuating said pumping element, an ingress passage to said chamber, a plurality of separately actuated egress valves, ducts for taking the discharge from the individual secondary chambers to the respective engine cylinders, said ducts provided with automatically acting check-valves, a rotating shaft actuated by positive gearing in conjunction with the actuating means for the pumping element, said shaft provided with individual cams for respectively opening the egress valves in sequence, one at each pumping stroke, and an ingress controlling means regulated by a governor, for permitting a variable quantity of the fuel element to pass back into the ingress passage.

[Claim 6 not printed in the Gazette.]

1,080,217. FOLDING COUCH. JOHN HOEY, San Francisco, Cal. Filed Oct. 6, 1913. Serial No. 793,650. (Cl. 5—51.)



1. The combination with a frame, of a box-like structure slidably mounted in same, a foldable frame pivotedly secured to the box-like structure, a secondary folding frame pivotedly secured to the first folding frame, and a mattress

spring secured at one end to the secondary folding frame and at the other end to the box-like structure.

2. The combination with a davenport, of a box-like structure slidably mounted between the end frames thereof, means for limiting the sliding movement of said structure within the davenport, a foldable frame pivotedly secured to the box-like structure, a secondary folding frame pivotedly secured to the first folding frame, and a mattress spring secured at one end to the secondary folding frame, and at the other end to the box-like structure.

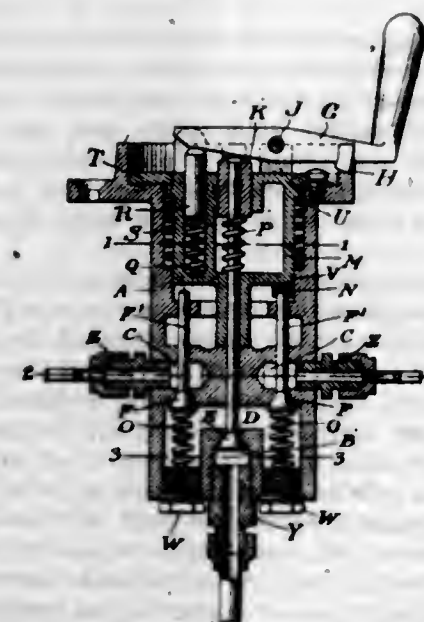
3. The combination with a davenport having a back frame and end frames, of a box-like structure adapted to slide under the back frame and between the end frames, means for limiting the sliding movement of said structure with relation to the back frame, a folding frame pivotedly secured to the box-like structure having an upholstered seat section secured on its upper side, a pair of stationary legs secured to said frame adapted to support the frame in its extended position, and a pair of pockets formed in the sides of the back frame adapted to receive the legs when the frame is folded.

4. The combination with a davenport having a back frame and end frames, of a box-like structure adapted to slide under the back frame and between the end frames, means for limiting the sliding movement of said structure with relation to the back frame, a folding frame pivotedly secured to the box-like structure having an upholstered seat section secured on its upper side, a pair of stationary legs secured to said frame adapted to support the frame in its extended position, a pair of pockets formed in the sides of the back frame adapted to receive the legs when the frame is folded, a secondary folding frame pivotedly secured to the first folding frame, and a mattress spring secured at one end to the secondary frame and at the other end to the box-like structure.

5. The combination with a frame, of a box-like structure slidably mounted in same, a foldable frame pivotedly secured to the box-like structure, a secondary folding frame pivotedly secured to the first folding frame, a mattress spring secured at one end to the secondary folding frame and at the other end to the box-like structure, a pair of latches pivotedly secured to the secondary frame, and spring catches mounted in the first folding frame adapted to engage with the latches to lock the secondary frame in an angular position with relation to the first folding frame, said latches being also adapted to act as supporting legs for the secondary frame when this is unfolded.

[Claim 6 not printed in the Gazette.]

1,080,218. VALVE FOR GAS-ENGINE STARTERS. GOTTLIEB R. HOLLIGER, Birmingham, Ala. Filed June 15, 1912. Serial No. 703,880. (Cl. 123—187.5.)



1. A valve for gas engine starters, comprising a housing, a gas inlet and pressure chamber, a distributing chamber, a circular series of outlet chambers, an inlet valve between

the inlet and distributing chambers, a circular series of outlet valves between the distributing and outlet chambers, and a manually controlled valve operating device for successively opening the outlet valve while the inlet valve remains open.

2. A valve for gas engine starters, comprising a housing, a gas inlet and pressure chamber, a distributing chamber, a circular series of outlet chambers, an inlet valve between the inlet and distributing chambers, a circular series of outlet valves between the distributing and outlet chambers, a manually controlled valve operating device for successively opening the outlet valves while the inlet valve remains open, and means for locking said device when all of the valves are closed.

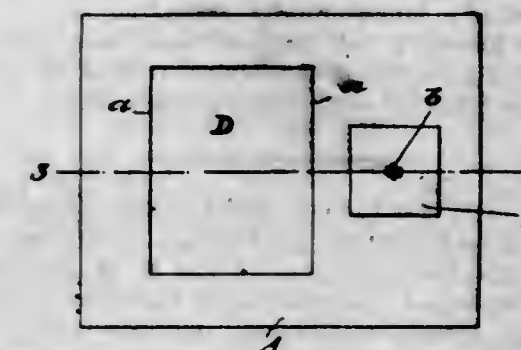
3. A valve for gas engine starters, comprising a housing, a gas inlet and pressure chamber, a distributing chamber, a circular series of outlet chambers, an inlet valve between the inlet and distributing chambers, a circular series of outlet valves between the distributing and outlet chambers, and a rotary valve operating element adapted in each cycle of movement to hold the inlet valve open and successively open and close the outlet valves.

4. A valve for gas engine starters, comprising a housing, a gas inlet and pressure chamber, a distributing chamber, a circular series of outlet chambers, an inlet valve between the inlet and distributing chambers, a circular series of outlet valves between the distributing and outlet chambers, and a manually controlled valve operating device for successively opening the outlet valves while the inlet valve remains open, the inlet and outlet valves being normally held closed by gas and spring pressure.

5. A valve for gas engine starters, comprising a housing, a gas inlet and pressure chamber, a distributing chamber, a circular series of outlet chambers, an inlet valve between the inlet and distributing chambers, a circular series of outlet valves between the distributing and outlet chambers, and a manually controlled valve operating device for successively opening the outlet valves while the inlet valve remains open, the inlet and outlet valves being normally held closed by spring pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,080,219. PICTURE-MOUNT. FRANK E. HOUSH, Wintthrop, Mass. Filed Feb. 21, 1912. Serial No. 679,145. (Cl. 40—159.)



1. A picture mount comprising a front sheet provided with a sight aperture, a pivoted calendar platform to one side of the sight aperture, said platform being adapted for rotation to a desired position relative to the position of the sight aperture, and a back sheet provided with supporting means on two of its adjacent edges.

2. A picture mount comprising an oblong front sheet provided with a sight aperture, a pivoted calendar platform to one side of the sight aperture, said platform being adapted for rotation to a desired position relative to the position of the sight aperture, and an oblong back sheet provided with supporting means on two of its adjacent edges.

3. A picture mount comprising a front sheet provided with an oblong sight aperture, a pivoted calendar platform to one side of the sight aperture, said platform being adapted for rotation to a desired position relative to the position of said sight aperture, and a back sheet provided with supporting means on two of its adjacent edges.

1,080,220. ICE-PICK. JOB HUTCHINSON, Long Island City, N. Y., assignor to National Indicator Company, a Corporation of New York. Filed June 18, 1913. Serial No. 774,487. (Cl. 83—62.)



1. An ice pick comprising a shank of rigid bar metal provided with a longitudinally extending slot, a weight having a part disposed upon each side of said shank but spaced therefrom, and a connecting piece extending through said slot and provided with means to space said parts.

2. An ice pick comprising a shank of rigid bar metal, provided with a longitudinally extending slot, a weight having a part disposed upon each side of said shank, and a connection between said weight parts slidably mounted within said slotted shank and shouldered between the parts of the weight to make the distance between the parts greater than the thickness of the shank.

3. An ice pick comprising a shank of rigid bar metal having oppositely facing plane surfaces and provided with a longitudinally extending slot, a divided weight having a part disposed upon each side of said shank, each part formed with a flat inner face to engage one of said surfaces, and a connection between said parts slidably mounted in said slotted shank.

4. An ice pick comprising a shank of rigid bar metal provided with a longitudinally extending slot, a halved ball weight having a half disposed upon each side of said shank, and a shouldered connection riveted to each half and slidably mounted within said slotted shank.

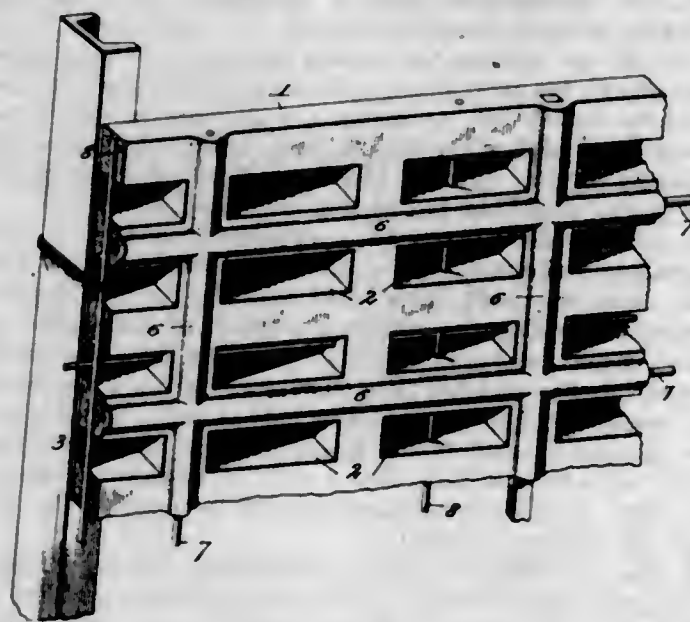
1,080,221. SUPPORT FOR RECEIVING STUCCO AND OTHER PLASTERING MATERIAL. MARVIN H. JESTER, Denver, Colo., assignor to The M. H. Jester Investment Company, a Corporation of Colorado. Filed Dec. 21, 1912. Serial No. 738,020. (Cl. 72—116.)

1. A supporting board for receiving plastering materials, comprising a plastic board having a plurality of perforated mortar clenching apertures through it, a covering of open mesh fabric on one side of it extending over said apertures, a plurality of reinforcing ribs extending across its surface on its side opposite to said open mesh fabric, rods or strips of stiffening material in said ribs, and rods or strips in said supporting board and extending across said apertures and arranged to permit a wire to be extended around them and extended around and tied to studding or other supporting members whereby said supporting board may be tied to suitable supports.

2. In a plastering material supporting partition board, the combination of a plastic board, having an open mesh fabric covering cast on one of its sides, and a plurality of apertures through it from one side to the open mesh fabric, and rods or strips cast in said board and extending across said apertures.

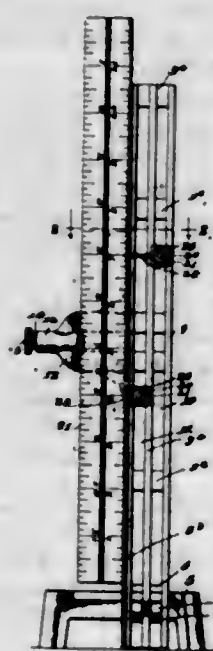
3. A board of suitable material having a plurality of rows of aligned openings extending through the same at

regular intervals, rods extending at intervals through said board, each rod being in position to intersect a row of



said aligned openings, and reinforcing rods in said boards between the rows of openings.

1,080,222. MEASURING INSTRUMENT. ANDREW KO-WALSKY, Chicago, Ill. Filed Feb. 6, 1913. Serial No. 746,572. (Cl. 33—189.)



1. In a measuring instrument of the class described, the combination of a scale-holder comprising an upright frame and a clamp disposed laterally of said frame, a scale-bar engaged edgewise between said clamp and the adjacent edge of said frame, and a pair of pointers mounted on said frame and adjustable lengthwise thereof and both coöperating with said scale-bar to indicate scale divisions on the latter.

2. In a measuring instrument of the class described, the combination of a scale-holder comprising an upright frame and a horizontally movable clamp disposed laterally of said frame, the inner end of said clamp and the adjacent edge of said frame being formed with stepped grooves adapted to engage scale-bars of different thicknesses, a scale-bar engaged edgewise by the grooves of said clamp and frame, and a pair of pointers mounted on said frame and adjustable lengthwise thereof and both coöperating with said scale-bar to indicate scale divisions on the latter.

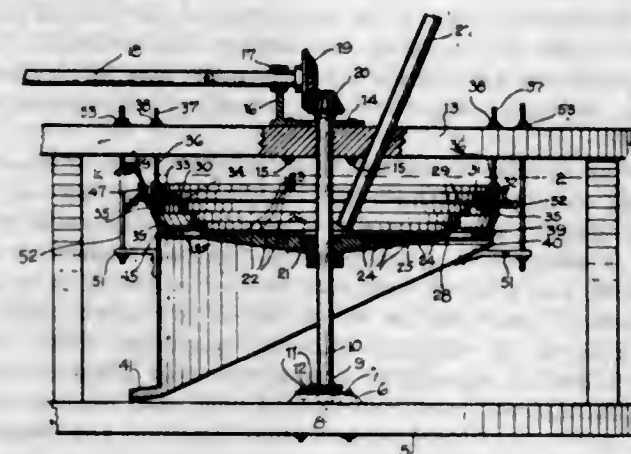
3. In a measuring instrument of the class described, the combination of a scale-holder comprising an upright frame having a pair of longitudinal guide-ways and a horizontally movable clamp disposed laterally of said frame, a scale-bar engaged edgewise between the inner end of said clamp and the adjacent edge of said frame, blocks slidably

mounted in the guide-ways of said frame, and provided with means for securing them in adjusted positions, and pointer-fingers carried by said blocks and at their free ends overlying one edge of said scale-bar.

4. In a measuring instrument of the class described, the combination of an upright frame having a pair of longitudinal guide-ways, a scale-bar, and means for clamping said scale-bar edgewise against one edge of said frame with its graduated side flush with the front of said frame, blocks slidably mounted in the guide-ways of said frame and provided on one side with springs engaging one side wall of said grooves, screws passed through said blocks and formed with tapered or beveled inner ends adapted to expand said springs into holding engagement with the side walls of said guide-ways, and pointer-fingers carried by said blocks and at their free ends overlying one edge of said scale-bar.

5. In a measuring instrument of the class described, the combination of a base-piece, a vertical frame clamped to said base-piece and provided with parallel guide-ways disposed lengthwise thereof, a scale clamped edgewise against said vertical frame, and a pair of pointers slidably engaging said guide-ways and adapted to be secured in any adjusted position lengthwise of the latter and both coöperating with said scale-bar to indicate scale division on the latter.

1,080,223. CENTRIFUGAL ORE-CONCENTRATOR. EDWARD C. LATCHER and LEWIS W. POLLOCK, Oakland, Cal. Filed Mar. 8, 1913. Serial No. 753,064. (Cl. 83—67.)



1. A revoluble vessel for centrifugal ore concentrators comprising a body having a plurality of upwardly extending annular steps formed upon its outer wall, the upper surface of the outermost step being outwardly and downwardly inclined, and an upstanding flange formed upon the extreme outer edge of said latter step.

2. A revoluble vessel for centrifugal ore concentrators comprising a body having a plurality of upwardly extending annular steps formed upon its outer wall and an upstanding flange formed upon the extreme outer edge of the uppermost step, said flange being provided upon its inner face and at its base with an annular groove.

3. A revoluble vessel for centrifugal ore concentrators comprising a body provided upon its outer wall with a plurality of upwardly extending annular steps, and an upstanding flange formed upon the outer edge of the uppermost step, the upper surface of said latter step being outwardly and downwardly inclined, said flange being provided upon its inner face and at the lower edge of the inclined step surface with an annular groove.

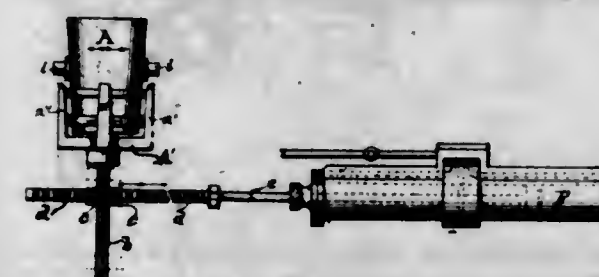
4. The combination with a revoluble ore concentrating vessel, of a relatively stationary wall arranged in spaced concentric relation to the vessel against which the material is thrown by centrifugal force, an annular mercury containing trough mounted upon the inner face of said wall, and means for vertically adjusting said wall to position said trough with relation to the edge of the vessel.

5. The combination with a revoluble ore concentrating vessel, of a relatively stationary wall arranged in spaced concentric relation to the vessel against which the material is thrown by centrifugal force, said wall having a

lower inwardly inclined portion, annular mercury troughs mounted upon the body and inclined portion of the wall respectively, and means for vertically adjusting said wall to position said troughs with relation to the edge of the vessel.

[Claims 6 and 7 not printed in the Gazette.]

1,080,224. APPARATUS FOR THE MANUFACTURE OF STEEL AND FOR THE REFINING THEREOF. JOHN WALTHART LATCHER, Edinburg, N. Y. Filed June 5, 1912. Serial No. 702,137. (Cl. 75—27.)

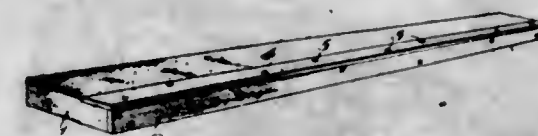


1. In a steel-making and refining apparatus, the combination of a pot having a refractory lining, a detachable oscillating support therefor, and mechanism to counterwhirl said support around the axis of the pot.

2. In a steel-making and refining apparatus, the combination of a pot having a refractory lining, oscillating means detachably supporting said pot, and mechanism to counterwhirl said supporting means around the axis of the pot.

3. In a steel-making and refining apparatus, the combination of a pot having a refractory lining, means to counterwhirl the same, and heating means supported over the top of said pot provided with a burner to project a flame on the metal while the pot is in motion.

1,080,225. STRAIGHT-EDGE. MAURICE RANDOLPH LEAMAN, Pittsburgh, Pa. Filed Feb. 9, 1911. Serial No. 607,641. (Cl. 33—18.)



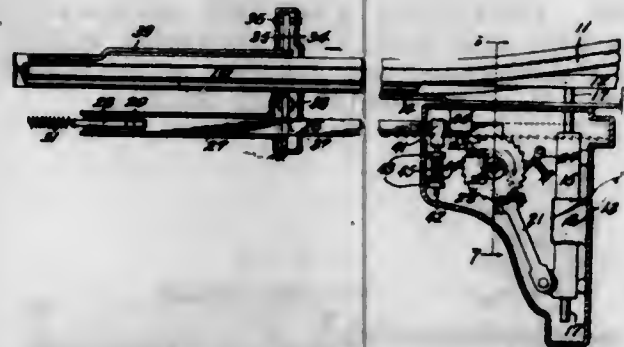
1. A device of the class described, comprising a body, a metallic facing for the guide edge thereof, and a metallic protective contact strip covering the contact face of the body at its guide edge, said contact strip being in registry with said metallic facing and serving to weight the body at the guide edge to reduce thereby the pressure necessary for holding the device in operative position.

2. A device of the class described, comprising a body, a metallic facing for the guide edge thereof, and a metallic protective contact strip covering the contact face of the body at its guide edge, said contact strip being in registry with said metallic facing and serving to weight the body at the guide edge to reduce thereby the pressure necessary for holding the device in operative position, said body having a shoulder against which the inner edge of said contact strip abuts, whereby the latter is held in alignment with said metallic facing.

1,080,226. RAILWAY-SWITCH. ALDERIC LEFEBVRE, Montreal, Quebec, Canada. Filed Dec. 12, 1910. Serial No. 596,920. (Cl. 104—24.)

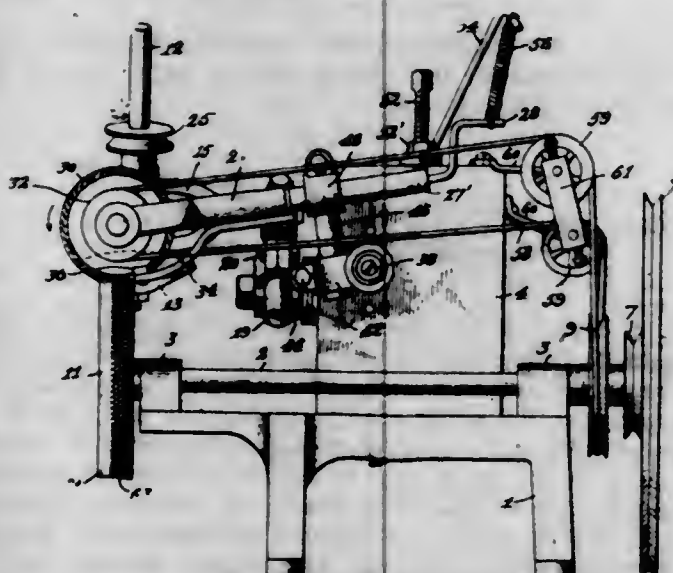
1. The combination with a switch, of a switch throwing member fixed thereto, a crank shaft, a link connecting the crank shaft and switch throwing member, rack and pinion mechanism rotating said crank shaft in one direction, a trigger pivoted to said mechanism transmitting the motion of the car to the mechanism, means normally holding said trigger rigid with the rack and pinion mechanism, and means for automatically releasing said trigger from the car.

2. The combination with a switch, of a switch throwing member fixed thereto, a crank shaft, a link connecting the crank shaft and switch throwing member, a ratchet wheel fixed to said shaft, a car actuated rack bar meshing with the ratchet wheel, a car operated lever for automatically unlocking the rack bar, and means for automatically releasing the rack bar.



3. The combination with a switch and a car, of a yieldable switch throwing member fixed to the switch, mechanism for operating said switch throwing member, a depressible arm carried by the car, a trigger pivoted to the operating mechanism in the path of said depressible arm, means for disengaging said trigger from the depressible arm to release the operating mechanism at a predetermined point, and a lever operated by the wheels of the car for automatically unlocking the operating mechanism.

1,080,227. SKIVING-MACHINE. HARRY LYON, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 21, 1910. Serial No. 539,426. (Cl. 69—16.)



1. In a machine of the class described, the combination with a skiving knife, of a gage, and a device mounted for rotary movement in a plane substantially transverse to that in which the stock is fed to the knife and arranged to advance the stock and to hold it against the gage.

2. In a machine of the class described, the combination with a skiving knife, of a gage, feeding means for the stock, and a device mounted for rotary movement in a plane substantially transverse to that in which the stock is fed to the knife and arranged to impart a combined forward and lateral movement to the stock to maintain it against the gage.

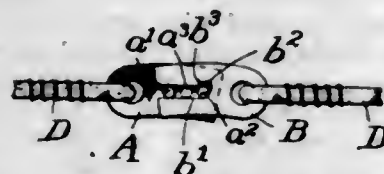
3. In a machine of the class described, the combination with a skiving knife, of a gage, feeding means to engage one side of the stock, and a device to engage the other side of the stock mounted for rotary movement in a plane substantially transverse to the plane in which the stock moves as it is fed to the knife, said device being arranged to cooperate with said means in feeding the stock and also acting to move the stock laterally against the gage.

4. In a machine of the class described, the combination with a skiving knife, of a gage, a feed roll for advancing stock to said knife, and a roll mounted for rotary movement in a plane substantially transverse to the plane of movement of the stock and acting to advance the stock and also to force the stock against said gage.

5. In a machine of the class described, the combination with a skiving knife, of a gage, a feed roll to act on one side of the stock, and a roll to act on the other side of the stock and rotatable in a plane substantially transverse to the plane of movement of the feed roll to feed the stock and force it against said gage.

[Claims 6 to 27 not printed in the Gazette.]

1,080,228. FUSIBLE LINK. STEPHEN M. MARSHALL, Clinton, Mass. Filed Nov. 16, 1912. Serial No. 731,872. (Cl. 236—10.)



1. As an article of manufacture, a link of the character described comprising two members, one having a projection and the other a slot into which said projection is adapted to project when the two members are assembled, the wall of said slot having a shoulder in position to resist the direct separation of said members, whereby separation can occur only after a relative swinging motion of the members, to move the projection from behind said shoulder with the member on which the projection is located, and readily fusible metal in said slot for holding the two members together and resisting the swinging motion.

2. As an article of manufacture, a link of the character described comprising two flat members, one having a fixed projection and the other a slot into which said projection is adapted to project when the two members are assembled, the wall of said slot having a shoulder in its own plane in position to resist the direct separation of said members by motion directly apart in their own planes, whereby separation can occur only after a relative swinging motion of the members in their own planes and a later transverse longitudinal motion, and readily fusible metal in said slot for holding the two members together and resisting the swinging motion.

3. As an article of manufacture, a fusible link comprising two members, one having a pair of projections thereon near one end, the other having a slot extending from one end and having an offset at the rear end of the slot for receiving said projections, said members having means for the application of external connections at their ends opposite the studs and slots respectively, and a body of fusible material introduced into said slot between said projections and extending between the projections in the offset and the opposite wall of the slot.

4. As an article of manufacture, a fusible link comprising two flat members, each having a hole therethrough at the outer end, one having two projections, substantially in line with the hole thereof, the other having a slot for receiving said projections and provided with means whereby when a force is applied at said end holes for separating said members they will be caused to swing on one of said studs as an axis before they commence to separate.

5. As an article of manufacture, a fusible link comprising a member having two projections near one end thereof separated from each other, a second member having a slot extending longitudinally from one end with an offset at its inner end, one of the projections being located in the outer end of the slot, and the other in the offset, said members having means near their outer ends for the application of a force for pulling the members apart, and said projection in the offset being located at one side of a line connecting said means.

[Claims 6 to 9 not printed in the Gazette.]

1,080,229. SPOOL FOR PERFORATED MUSIC-SHEETS. OSCAR NELSON, Chicago, Ill. Filed Feb. 21, 1910. Serial No. 545,188. Renewed Oct. 4, 1911. Serial No. 652,840. (Cl. 242—69.)

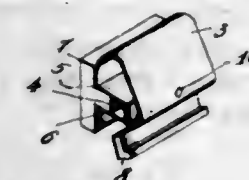


1. In a spool having end flanges, a shaft fixed in one of said end flanges, a second shaft fixed against movement on which the other of said end flanges is rotatably mounted, said fixed shaft being formed with an annular groove, and a catch having radial movement mounted wholly on said flange and cooperating with said groove, whereby the flange is fixed against endwise movement on the shaft while adapted for free rotary movement.

2. The combination with a frame, a shaft rotatably mounted therein, a shaft fixed therein, and a spool including end flanges directly engaging and supported upon said shafts, of radially-movable means carried by one of said flanges and having its inner terminal cooperating with a groove formed in said fixed shaft, and means carried by the remaining flange to secure said flange to the rotating shaft.

3. In a device of the character described, the combination with a supporting-frame having side pieces, of a stub-shaft mounted on each of said pieces, one of said shafts having a circumferential groove near its inner end, means on the supporting frame to fix the last named shaft, a flange mounted on each of said shafts and each having an inwardly extended circular portion, a catch mounted for radial sliding movement on the exterior of one of said flanges to detachably engage the groove in one of the shafts, one of said flanges having on the periphery of its inwardly extended circular portion a semi-circular recess disposed with its opening at the periphery of said circular portion, a tubular body interposed between said flanges and fitted around the circular portions thereof, said body having on the inner surface of one of its ends an inwardly extended semi-circular projection to engage the said recess in one of the circular portions of one of the flanges.

1,080,230. ELECTRICAL SLIDING CONTACT. JOHN V. PURSELL, Friendship Heights, Md. Filed Dec. 12, 1912. Serial No. 736,341. (Cl. 219—63.)



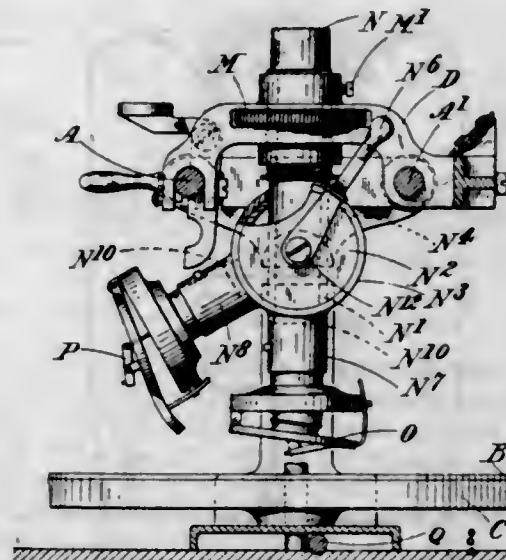
1. A slider contact comprising a single piece of metal having a substantially U shaped bend at one end and a right angles bend at the other end, a contact carried by said metal intermediate its ends, a T shaped insulated finger piece secured in said U shaped bend and an insulated finger piece secured to said right angle bend.

2. A slider contact comprising a resilient spring body with its ends normally spaced apart, a contact carried by said body intermediate its ends, insulated finger pieces secured to the ends of said body, said body being resilient at one end to form a slideway for a slider rod.

1,080,231. TALKING-MACHINE. WALTER HANSEN RAWLES, London, England. Filed May 15, 1913. Serial No. 767,830. (Cl. 181—5.)

1. In a machine of the character described, the combination of a support for a record tablet, a sound conduit, a recording diaphragm, a reproducing diaphragm, a holder for said diaphragms adjustable toward and from the record tablet support and adapted to turn about a horizontal axis to position either diaphragm across the sound

conduit and in direct communication therewith, an arm extending below said holder and adapted by contact with the record tablet to indicate when either diaphragm is in operative position, and a relatively stationary pointer on the holder cooperating with said arm to indicate the amount of vertical adjustment necessary to bring the last mentioned diaphragm into operative relation to the tablet.



2. In a machine of the character described, the combination of a support for a record tablet, a sound conduit, a recording diaphragm, a reproducing diaphragm, a holder for said diaphragms adjustable toward and from the record tablet support and adapted to turn about a horizontal axis to position either diaphragm across the sound conduit and in direct communication therewith, a sleeve supported at the axis of the holder, an arm adjustable through said sleeve to contact with the record tablet, when either diaphragm is positioned across the sound conduit, and a relatively stationary pointer on the diaphragm holder cooperating with said arm to indicate the required amount of vertical adjustment necessary to bring the last mentioned diaphragm into operative relation to the tablet.

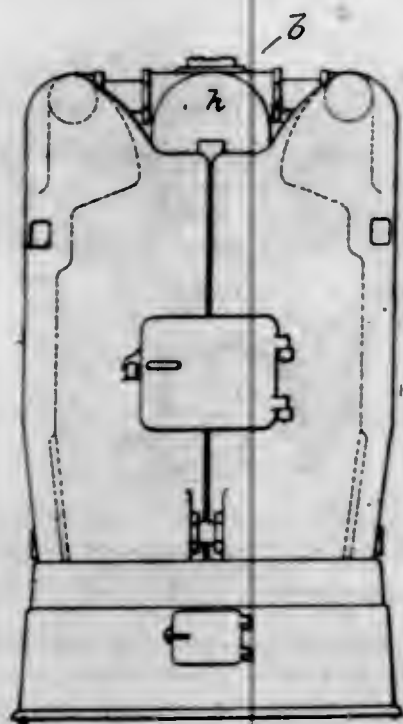
3. In a machine of the character described, the combination of a support for a record tablet, a sound conduit, a recording diaphragm, a reproducing diaphragm, a holder for said diaphragms adjustable toward and from the record tablet support and adapted to turn about a horizontal axis to position either diaphragm across the sound conduit and in direct communication therewith, an arm supported at the axis about which the diaphragm holder turns and adjustable to and from the record tablet, and a relatively stationary pointer on the holder cooperating with said arm to indicate the amount of vertical adjustment necessary to position either diaphragm in operative relation to a record tablet.

1,080,232. BOILER. RICHARD D. REED, Westfield, Mass. Filed Oct. 1, 1909. Serial No. 520,450. (Cl. 122—230.)

1. A boiler comprising a base, a boiler section arranged above said base and supported thereon, a main supply header secured to said boiler section, an inlet chamber at the lower end thereof, a continuous circulation chamber formed in said boiler section and header, one or more sectional water jackets substantially incasing the fire surface of said boiler section, connections between the upper ends of said jackets and said main supply header; a fire pot, combustion chamber and flues formed in part by said boiler section.

2. A boiler comprising a base, a boiler section arranged above said base and supported thereon, a main supply header and an inlet chamber formed integrally with said boiler section at opposite ends thereof, a continuous chamber formed in the connected parts and extending from said inlet chamber through said boiler section to said header, thereby providing for a free and uninterrupted flow therethrough, a plurality of sectional water jackets supported on said base and substantially incasing the fire surface of said boiler section, connections from the

tops of said sections to said header; a fire pot, and combustion chamber formed between said boiler section and two of said water jackets, flues leading from said chamber and passing convergently through said boiler, said boiler section and the water jackets forming the complete outer boiler wall from the top to the bottom thereof.



3. A boiler comprising a base, a boiler section centrally arranged above said base and supported at one side thereon, sectional water jacket members mounted on said base and substantially incasing said boiler section, said jacket members and boiler chamber forming the walls of the combustion chamber, a smoke flue formed in part by said boiler chamber, and flues formed between said boiler chamber and jacket members and connecting said combustion chamber with said smoke flue, a fire pot between said jacket and boiler section and said members together forming the complete outer boiler wall.

4. A boiler comprising a circular base, a boiler section arranged centrally above said base and supported thereon at one side, a supply header secured to said boiler section, a continuous chamber formed within said boiler section and header providing a free and uninterrupted flow through said members, a sectional water jacket incasing the fire surface of said boiler section and supported on said base, and connections between said water jacket sections and supply header, a fire pot between said jacket and boiler section and said members together forming the complete outer boiler wall.

5. A boiler comprising a circular base a boiler section centrally arranged above said base and supported thereon, sectional water jacket members mounted on said base and incasing the fire surface of said boiler section, flues formed between said boiler section and said water jacket members, and a smoke flue self-contained within said boiler section and in communication with said first-mentioned flues, a fire pot between said jacket and boiler section and said members together forming the complete outer boiler wall.

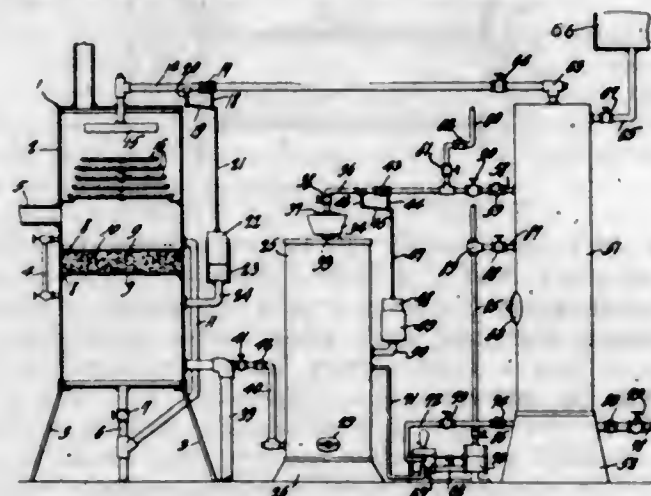
[Claim 6 not printed in the Gazette.]

1,080,233. SOFTENING AND FILTERING APPARATUS. MARTIN C. REYNOLDS, Carey, Ohio, assignor of one-half to Ralph G. Spencer, Carey, Ohio. Filed Sept. 10, 1913. Serial No. 789,187. (Cl. 210-1.)

1. In a device of the class described, a chemical tank; a mixing tank; a connection between the tanks; a pump in the connection; a source of pressure supply for actuating the pump; a pump governor in said source and responsive to mixing tank pressure; means for supplying water to the mixing tank; and an outlet for the mixing tank.

2. In a device of the class described, a chemical tank; a mixing tank; a connection between the tanks; a pump in the connection; a source of pressure supply for actuating

the pump; a pump governor in said source and responsive to mixing tank pressure; means for supplying liquid to the chemical tank; float controlled means for regulating said supplying means; means for supplying water to the mixing tank; and an outlet for the mixing tank.

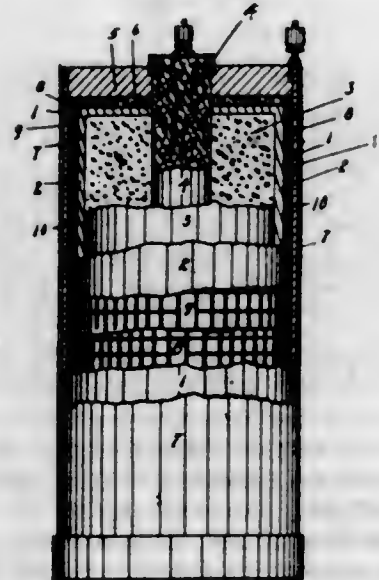


3. In a device of the class described, a chemical tank; a mixing tank; a connection between the tanks; a pump in the connection; a source of pressure supply for actuating the pump governor; a pump in said source and responsive to mixing tank pressure; a chemical container communicating with the chemical tank; means for supplying fluid to the container from the mixing tank; means for supplying water to the mixing tank; and an outlet for the mixing tank.

4. In a device of the class described, a chemical tank; a mixing tank; a connection therebetween; a filter in the chemical tank; a filter in the mixing tank; means for supplying liquid to the chemical tank, below the filter therein; the connection between the tanks opening into the chemical tank above the filter in the chemical tank and opening into the mixing tank below the filter in the mixing tank; means for supplying liquid to the chemical tank below the filter therein; means for supplying water to the mixing tank; and an outlet for the mixing tank.

5. In a device of the class described, a chemical tank; a mixing tank; a connection therebetween; a chemical container communicating with the chemical tank; a pipe communicating with the mixing tank and opening upon the container; a hot water supply pipe communicating with the last specified pipe; valves in the pipes for controlling the temperature of the liquid delivered to the container; means for supplying water to the mixing tank; and an outlet for the mixing tank.

1,080,234. DRY-CELL BATTERY. ALFRED RORDAME, Salt Lake City, Utah. Filed May 14, 1913. Serial No. 767,740. (Cl. 204-38.)

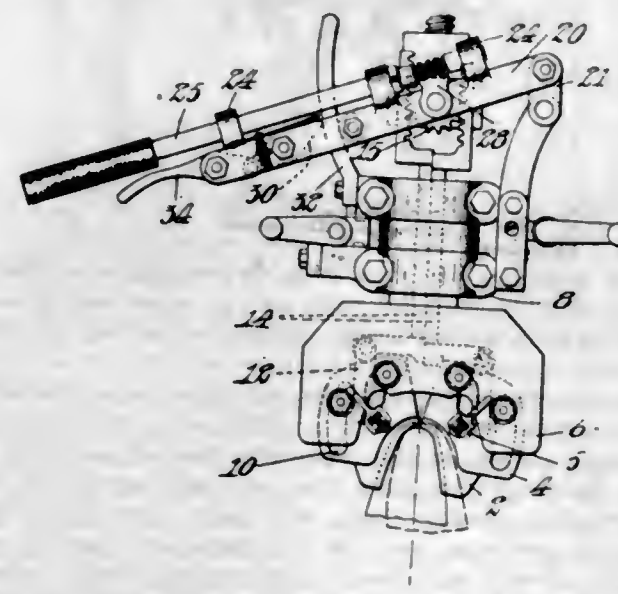


1. A dry battery comprising a zinc container; a packing therein composed of coarse mesh insulated screen cylinders with the interstices in staggered relation and filled with

energizing paste; a bibulous lining within the inner of said screens; a centrally disposed electrode; a battery mixture between the electrode and said bibulous lining; and a seal for said container.

2. A dry cell battery comprising a zinc container; a plurality of coarse mesh cotton netting cylinders one within the other with the interstices out of radial alignment; an energizing paste in the interstices of said netting; a cylindrically shaped bibulous lining within the inner of said cylinders; a centrally placed electrode; a battery mix between said electrode and said bibulous lining; and a sealing means for said container.

1,080,235. END-LASTING MECHANISM. ARTHUR L. RUSSELL, Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 11, 1910. Serial No. 571,359. (Cl. 12-14.)



1. An end lasting mechanism comprising cooperating wiper plates, means for actuating said plates over the shoe bottom together to do their work, and connections from said first mentioned means for imparting supplemental relative movements to the wiper plates.

2. An end lasting mechanism comprising cooperating wiper plates arranged to embrace an end portion of a shoe, means for simultaneously advancing and closing said plates, and connections from said first mentioned means for further closing one of said plates alone.

3. An end lasting mechanism comprising opposed cooperating wiper plates, means for simultaneously advancing and closing said plates together, and an additional means connected with the opposed wiper plates for moving one of said plates inwardly and the other outwardly.

4. An end lasting mechanism comprising opposed cooperating wiper plates, means for operating said plates together over the last, and one means connected with the opposed wiper plates for further moving one plate over the last and reversely moving the other plate.

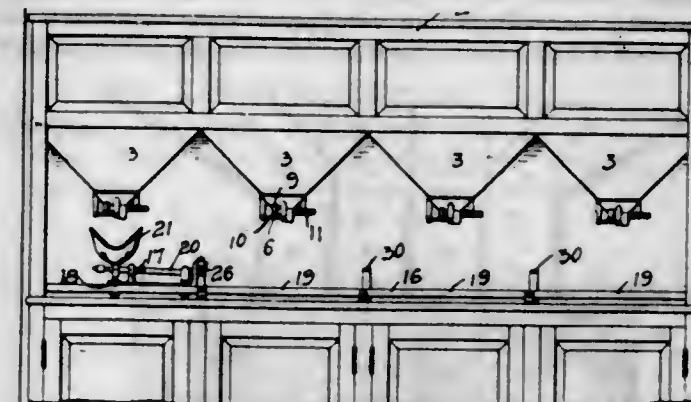
5. An end lasting mechanism comprising cooperating wiper plates, means for operating said plates together over the last, and additional means operatively connected with the first mentioned means for further moving one plate without similarly moving the other plate.

[Claims 6 to 33 not printed in the Gazette.]

1,080,236. WEIGHING-SCALE. JOHN L. SAYLOR, Minneapolis, Minn. Filed July 25, 1910. Serial No. 573,663. (Cl. 73-176.)

1. The combination, with a cabinet having a hopper provided with a discharge opening, a valve comprising a plate pivotally supported at one end and adapted to swing back and forth across said discharge opening, a guide for said plate, a spring normally holding said plate in its closed position across said discharge opening, a scale having a scoop adapted to be adjusted beneath said discharge opening, an electro-magnet in circuit with the scale beam and

having an armature provided with means in the path of said valve to normally lock it in its open position, said valve being released by the energizing of said magnet when a predetermined amount of material has been discharged into said scoop.



2. The combination, with a cabinet having a series of hoppers therein provided with discharge openings, and regulating valves therefor, of a track, a scale movable on said track beneath said discharge openings, electro-magnets, armatures therefor, said armatures being adapted to engage and lock said regulating valves in their open position, electric contacts arranged in the path of the scale beam, electric conductors connecting said contacts with said electromagnet, whereby when said scale beam is tilted the circuit will be closed through said magnet to release the valve under which the scale may be placed.

3. The combination, with a cabinet having a series of hoppers provided with discharge openings and regulating valves therefor, of a track, a scale movable on said track beneath said discharge openings, armatures arranged to engage and lock said regulating valves in their open position, an electric circuit in connection with said armatures and having contact points in the path of said scale beam, whereby when said beam is tilted said electric circuit will be closed to release the valve under which the scale may be placed.

4. The combination, with a hopper having a discharge opening, of a valve therefor, means for holding said valve in its closed position, a scale adapted to be placed beneath said hopper, a block mounted on said scale and having a contact point, a bracket arranged to engage said contact point when said scale is set beneath said hopper, an electromagnet, an armature therefor, said armature being adapted to engage and lock said valve in its open position, contact springs arranged in the path of the scale beam, electric conductors connecting said bracket and said scale beam with said electromagnet, whereby, when said scale beam is tilted, and contacts with said springs, the circuit will be closed through said magnet to release said valve.

5. The combination, with a scale frame and contact springs mounted thereon, of a scale beam adapted to oscillate and engage said springs, a plate vertically adjustable on said frame and having a slot therein to receive the end of said beam, the adjustment of said plate with respect to said contact springs determining the stroke of said beam and preventing the continued oscillation of the same, substantially as described.

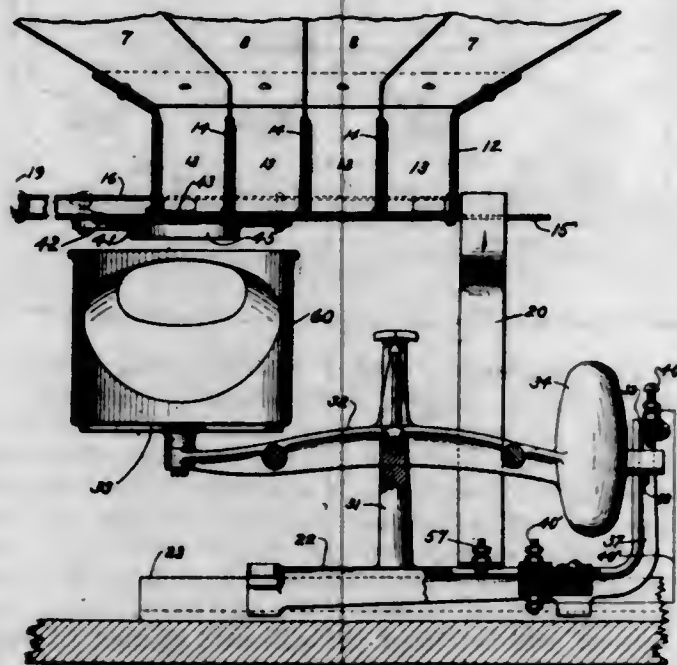
[Claims 6 and 7 not printed in the Gazette.]

1,080,237. WEIGHING-SCALE. JOHN L. SAYLOR, Minneapolis, Minn. Filed July 24, 1911. Serial No. 640,285. (Cl. 73-176.)

1. The combination, with a hopper having a series of compartments and a series of feed openings leading therefrom, of a slide having a feed opening adapted to register with any one of said hopper feed openings, a normally closed valve for said slide feed opening, a weighing scale having a scoop, and a lever for moving said slide and said scale back and forth beneath said hopper feed openings to adjust said scoop beneath said hopper feed openings.

2. The combination, with a hopper having a series of compartments and a series of feed openings leading there-

from, of a slide having a single feed opening adapted to register with any one of said hopper feed openings, a valve carried by said slide for normally closing said feed opening, a spring normally holding said valve in its closed position, a weighing scale having a scoop and slidably arranged beneath said hopper feed openings, and means for moving said slide and said scale back and forth beneath said hopper feed openings, for the purpose specified.



3. The combination, with a hopper having a series of compartments and a series of feed openings leading therefrom, of a slide having a single feed opening adapted to register with any one of said hopper feed openings, a valve for said slide feed opening, a spring for normally holding said valve in its closed position, means for temporarily locking said valve in its open position, a scale having a scoop beneath said hopper feed opening, means for moving said slide to allow the discharge from said hopper into said scoop, and means for releasing said valve when the desired weight has been delivered to said scoop.

4. The combination, with a hopper having a series of compartments and a series of feed openings leading therefrom, of a slide having a feed opening adapted to register with any one of said hopper feed openings, an oscillating valve mounted on said slide, a spring connected with said valve for normally holding it in its closed position, an armature having means for engaging said valve and locking it in its open position, a scale having a beam and scoop beneath said hopper feed openings and capable of adjustment to receive the material from any one of said openings, and an electric circuit having a magnet arranged to attract said armature and release said valve when said scale beam is tilted by the weight of the material in said scoop.

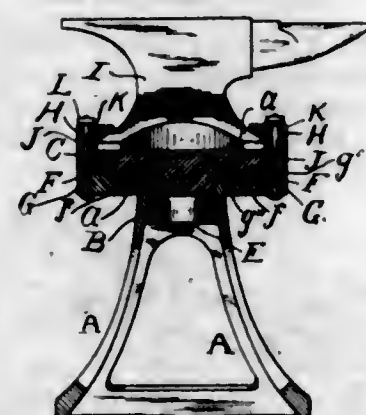
5. The combination, with a hopper having a series of compartments vertically arranged therein and partition walls separating said compartments from one another, each compartment having an independent feed opening, a slide arranged to reciprocate beneath said feed openings and having a feed opening therein and a valve therefor, a spring normally holding said valve in its closed position, means for reciprocating said slide beneath said hopper feed openings, means for locking said valve in its open position, a scale, including a weighing beam and scoop arranged beneath said hopper feed openings, and means rendered operative by the tilting of the scale beam under the weight in said scoop for releasing said valve.

[Claims 6 to 12 not printed in the Gazette.]

1,080,238. ANVIL-BASE. WILLIAM STAKE, Chicago, Ill. Filed Apr. 14, 1913. Serial No. 761,094. (Cl. 78—5.)

1. The combination of a base comprising a standard provided with a horizontal table on the upper end thereof and said table provided with a circular aperture, an additional table provided with apertures and with a circular

abutment on the under side thereof fitting and rotatable in said aperture in the first named table, said additional table provided with raised corners and with an annular flange on the under side thereof, dogs, said dogs respectively provided with apertures, some of said dogs positioned on the under side of the additional table and some positioned on said additional table, said upper dogs adapted to fasten said anvil to said additional table, bolts adapted to extend through the apertures in said dogs and in said additional table, nuts on said bolts, and means to hold the dogs which are positioned under said additional table in radial lines as said additional table is turned.



2. The combination of a base comprising a standard provided with a horizontal table on the upper end thereof and said table provided with a circular aperture, an additional table provided with apertures and with a circular abutment on the under side thereof fitting and rotatable in said circular aperture, said additional table provided with raised corners on the upper side thereof and with an annular flange on the under side, and said annular flange provided with notches, dogs, said dogs respectively provided with apertures, some of said dogs positioned on the under side of said additional table and extending through said notches, and some positioned on said additional table and adapted to fasten said anvil thereto, bolts through said apertures in said dogs and table, and nuts on said bolts.

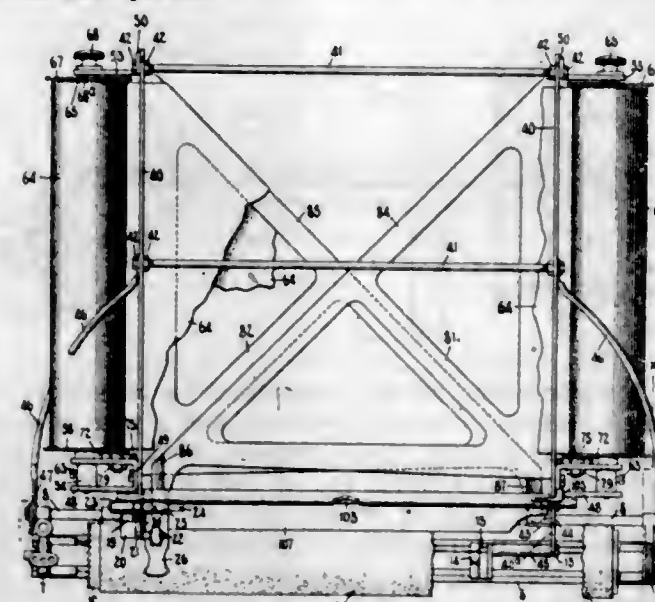
3. A base comprising a standard provided with a horizontal table on the upper end thereof and said table provided with a circular aperture, an additional table provided with a circular abutment on the under side thereof fitting said aperture in the first named table, said additional table provided with raised corners and with apertures, dogs on the under side of the additional table and adapted to engage with the under side of the first named table, and bolts adapted to be extended through the apertures in said dogs and in said additional table, with nuts on said bolts.

1,080,239. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Oct. 30, 1911. Serial No. 657,440. (Cl. 197—131.)

1. In a typewriting machine, the combination of a platen, a line spacing wheel connected therewith, paper feeding devices coöperative with the surface of the platen to feed paper around the same when said line spacing wheel is actuated, a roll of reproducing material arranged at right angles to the platen, and means for guiding said material from said roll to said platen in an unvarying path, said paper feeding devices operating to feed said material around said platen when it is turned.

2. In a typewriting machine, the combination of a platen, a line spacing wheel connected therewith, paper feeding devices coöperative with the surface of the platen to feed paper around the same when said line spacing wheel is actuated, a carbon roll at right angles to the platen, and means for guiding carbon paper inward from said roll and downward to said platen in an unvarying path, said paper feeding devices operating to feed said carbon paper around said platen.

3. In a typewriting machine, the combination with a platen carrier, a platen thereon, a line spacing wheel connected to said platen, paper feeding devices coöperating with the surface of the platen to feed paper thereover when said line spacing wheel is turned, a roll holder mounted on said platen carrier at right angles to said platen, and means for guiding the material from said roll holder to the platen, said means having a constant relationship with both said platen and with said roll holder, said paper feeding devices operating to feed said material around said platen.

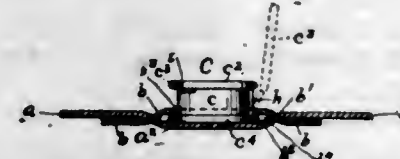


4. In a typewriting machine, the combination of a platen carrier, a platen thereon, a vertical roll holder mounted on said platen carrier at right angles to said platen, means for guiding the material from the roll holder to the platen, said means comprising a turning bar supported on the platen carrier, and means coöperating with said platen to advance said material thereover.

5. In a typewriting machine, the combination of a platen, a guiding device interposed between two superposed work sheets, and a roll holder located at one side of and clear of the path of said work sheets, the material from said work holder being led therefrom over said guide and between said work sheets, and common means for feeding said superposed work sheets and said material.

[Claims 6 to 28 not printed in the Gazette.]

1,080,240. COMBINED WRIST-STRAP AND COIN-HOLDER. WINTHROP L. TIDD, Taunton, Mass. Filed Mar. 7, 1913. Serial No. 752,625. (Cl. 224—28.)



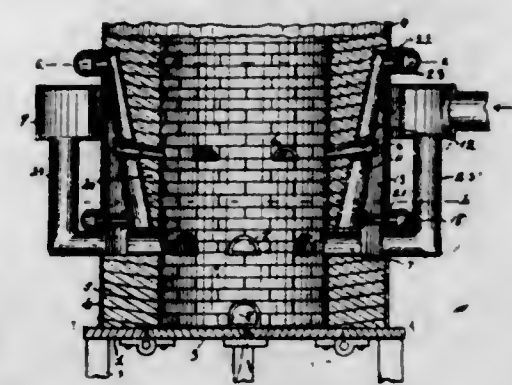
1. A flexible wrist-strap having an enlarged integral portion intermediate its ends, a superimposed flexible member having a circular central hole therein, the said last-named member having the other flexible member threaded in and extending longitudinally therethrough, the combination therewith of a coin-holder having an enlarged outer base interposed flatwise between the adjacent faces of said flexible members, the side walls of the body of the holder snugly fitting the circular hole formed in said superimposed member and extending upwardly therethrough, a cover, a relatively thick bar extending upwardly through and fitting a notch or recess formed in the said upper flexible member to secure the holder against axial bodily movement and having said bar member hinged both to said enlarged base and cover members, constructed and arranged whereby, when in use, the cover and the bar are adapted to be easily and quickly swung rearwardly on their hinges to permit the removal of a coin laterally from the holder.

2. The combination with a wrist-strap, of a coin-holder

197 O. G.—8

held and positioned therein, a hinged cover member, said coin-holder having the peripheral edges or rim portions of its base and cover extending circumferentially beyond the walls of its body or barrel part, and a vertically disposed movable hinge-bar jointed both to the said outer rims of the base and cover, said bar also engaging an opening or recess formed in the wrist-strap, whereby the coin-holder is held bodily against axial movement.

1,080,241. CUPOLA. WILLIAM J. TRICK, Hamilton, Ohio. Filed Feb. 5, 1912. Serial No. 675,472. (Cl. 75—110.)



1. In a cupola, the combination with an outer metal shell, of a fire-brick lining decreasing in thickness near the bottom so as to form next to said shell an annular air chamber the inner wall of which chamber inclines downwardly toward the center of the cupola, a water jacket located in said chamber against the firebrick on the inclined side of said chamber which jacket decreases in thickness toward its top, a bustle pipe about said shell and having frequent connections with the base of said air chamber, two series of tuyers at different altitudes passing from said air chamber through said water jacket and the firebrick lining, an inlet water manifold about the furnace at the lower end of said air chamber and having frequent connections through said chamber to said water jacket, and an outlet water manifold about the furnace at the upper end of the air chamber and having frequent connections with the water jacket.

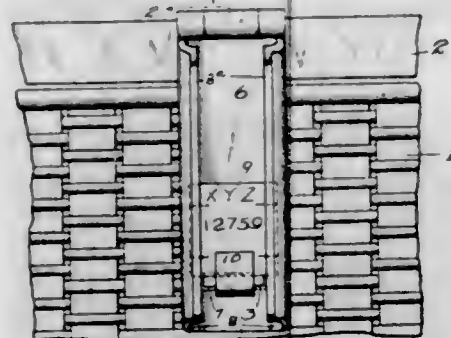
2. In a cupola, the combination with an outer metal shell, of a fire-brick lining decreasing in thickness near the bottom of the cupola so as to form next to said shell an annular air chamber the inner wall of which chamber inclines downwardly toward the center of the cupola, a water jacket located in said chamber against the firebrick on the inclined side of said chamber which jacket decreases in thickness toward its top, said water jacket being made up of hollow metal sections provided with registering recesses on their edges, a bustle pipe about said shell and having frequent connections with the base of said air chamber, tuyers passing from said air chamber through said recesses in the adjacent edges of the sections of the water jacket and through the fire-brick, an inlet water manifold about the furnace at the lower end of said air chamber and having a connection through said chamber to each section of the water jacket, and an outlet water manifold about the furnace at the upper end of said air chamber and having a connection to the upper end of each section of the water jacket.

1,080,242. HASP SEAL-LOCK. EMIL TYDEN, Hastings, Mich. Filed Mar. 11, 1913. Serial No. 753,477. (Cl. 70—23.)

1. In a hasp lock, in combination with a staple; a hasp having an aperture for engaging the staple and means for guiding a slide bolt to engage the staple; a slide bolt mounted in the hasp for sliding into and out of such engagement with the staple, the bolt and hasp being relatively formed for yielding frictional retention of the bolt at any position in its range of sliding on the hasp.

2. In a hasp lock, in combination with a staple; a hasp having an aperture for engaging the staple, and means for guiding a slide bolt to engage the staple; a slide bolt

mounted on the hasp for sliding into and out of engagement with the staple, said slide bolt having a tongue which is adapted to be easily bent out of its normal plane into a position for interlocking with one or the other parts of the lock against unlocking movement of the bolt, one of the other parts of the lock being formed and positioned for such engagement with the bent tongue, said tongue being accessible for so bending it at the locked position of the bolt, and being adapted to break when returned to its normal plane.

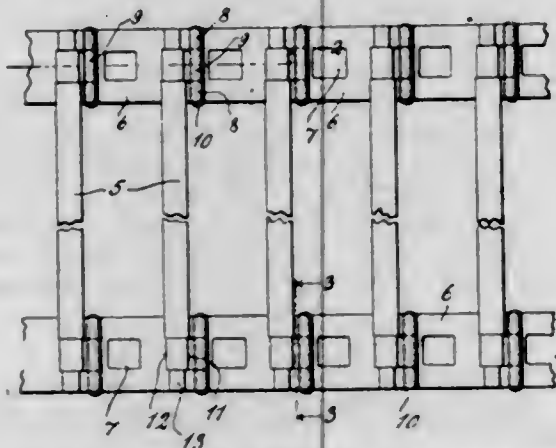


3. In a hasp lock, in combination with a staple; a hasp having an aperture for engaging the staple and means for engaging a slide bolt to engage the staple; a slide bolt mounted on the hasp for sliding into and out of such engagement with the staple, the bolt terminal which thus engages the staple being adapted to be easily bent out of its normal plane to extend across one of the bars of the staple at locked position, and being adapted to break when bent back into a plane for withdrawing from the staple.

4. In a hasp lock, the combination with a staple, a hasp having an aperture for engaging the staple, and means for guiding a sliding bolt in the hasp to engage the staple; a slide bolt mounted in the hasp for sliding into and out of engagement with the staple, said slide bolt being formed of metal plate having in its edges which are engaged for sliding transverse slits, and having the metal at one side of each slit deflected out of the plane of the plate.

5. In a hasp lock, in combination with a staple, a hasp having an aperture for engaging the staple and having its lateral edges intumed to form lips, and slide-ways between the lips and the body; a slide bolt to engage the staple made of metal plate, and having its edges engaged for sliding in said slide-ways, said edges having each two slits at a distance apart in the length of the edge, the metal between the slits being deflected out of the plane of the plate.

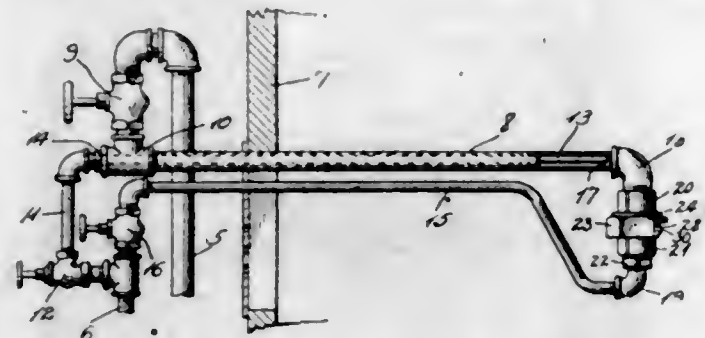
1,080,243. CONVEYER. ALBERT WAKEFIELD, Washington, D. C. Filed Nov. 27, 1912. Serial No. 733,792. (Cl. 193-8.)



A conveyer comprising a plurality of slats reduced in width at their ends to form tenons, and links across the top of which the end portions of the slats extend, each of said links comprising a flat body portion having hinge knuckles at its ends and an opening intermediate said ends, between which opening and one end of the body portion the latter has a hook comprising an upstanding shank and a downturned bill, said parts forming a socket to receive the tenon on one end of a slat, the shoulder formed by said tenon abutting against one edge of the shank and

bill, and the bottom of the slats at the ends thereof being cut away to the extent of the thickness of the body portion to bring the under side of the slat flush with the under side of the body portion, and said cut-away portion of the slat making a shoulder which abuts against the inner edge of the link.

1,080,244. HYDROCARBON-BURNER. EUGENE A. WHITTEN, Maricopa, Cal. Filed Mar. 13, 1912. Serial No. 683,406. (Cl. 158-75.)



1. A hydrocarbon burner, comprising an oil supply pipe having a terminal discharge opening and a pair of supply pipes to carry a fluid under pressure, each of said pipes having discharge openings, one of said supply pipes being inclosed within said oil supply pipe and having its discharge opening intermediate the discharge opening of said oil supply pipe and the oppositely disposed end of said oil pipe, the second of said supply pipes having its discharge opening adjacent to said oil supply pipe discharge opening and a deflector interposed between said oil pipe discharge opening and said second supply pipe discharge opening.

2. A burner having an oil supply pipe and a plurality of pipes adapted to carry fluid under pressure, one of the latter pipes extending into the piping of the oil supply and discharging therein, nozzle members connected with the supply pipes, a coupling for connecting said members having a discharge opening in its walls, and a spreading member mounted intermediate said nozzle members in said coupling and extending into said discharge opening.

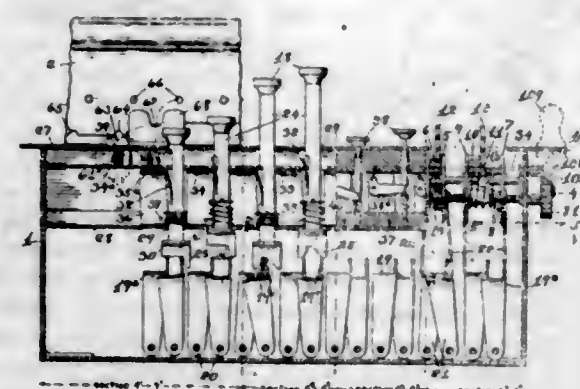
3. A hydrocarbon burner having an oil supply pipe and steam supply pipes, one of the steam supply pipes being smaller than the oil supply pipe and extending into the same so as to discharge therein, spacing means for holding the open end of the steam supply pipe in a proper position within the oil supply pipe, a nozzle member mounted between the oil supply pipe and the other of the steam supply pipes, elbows connecting the oil and second mentioned of the steam supply pipes with said nozzle member, the nozzle member having a discharge opening in one of its walls, and a member mounted within the nozzle having a thinned spreading portion extending into the discharge opening.

1,080,245. CALCULATING-MACHINE. FRANK S. BALDWIN, New York, N. Y., assignor to Monroe Calculating Machine Company, New York, N. Y., a Corporation of New York. Filed June 15, 1912. Serial No. 703,901. (Cl. 235-79.)

1. A calculating machine, comprising a registering mechanism including primary actuating wheels constructed each of independently movable members capable of movement in opposite directions toward common central points for certain numbers in series, and means for moving said wheels in opposite directions for the purpose specified.

2. A calculating machine, comprising a registering mechanism including primary actuating wheels constructed one member of each wheel to be moved in one direction for certain succeeding numbers, the other member of each wheel to be moved in the opposite direction for the next succeeding number, and both members of each wheel to be moved toward each other for certain other succeeding numbers, the movement of the members being toward common central points, and means for moving the members of the wheels as stated for the purpose specified.

3. A calculating machine, comprising a registering mechanism including primary actuating wheels constructed one member of each wheel to be moved in one direction for numbers one to four inclusive, the other member of each wheel to be moved in the opposite direction for the number five, and both members of each wheel to be moved toward each other for numbers six to nine inclusive, the movement of the members being toward common central points, and means for moving the members of the wheels as stated for the purpose specified.

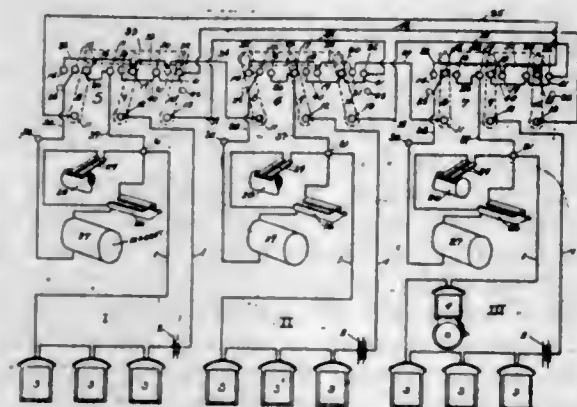


4. A calculating machine, comprising a registering mechanism including a plurality of numeral wheels, a primary rotatable and laterally movable calculating wheel composed of two members arranged at opposite sides of a central space, a wheel intermediate a numeral wheel and primary calculating wheel adapted to mesh with said members, means for holding said members in normal position, and means for independently or conjointly moving the primary wheel members laterally to bring one or more teeth of said members in line with the intermediate wheels, and means adapted to rotate the primary wheels for the purpose stated.

5. A calculating machine, comprising a registering mechanism including a plurality of numeral wheels, primary rotatable calculating wheels each composed of two members having pins and capable of independent or conjoint slidable movement in opposite directions and arranged at opposite sides of a central space, intermediate wheels adapted to mesh each with the pins of either or both said members, means for holding said members in normal position, means for independently or conjointly moving the members to bring one or more pins thereof in line with the intermediate wheels, and means for rotating the primary wheels for the purpose described.

[Claims 6 to 21 not printed in the Gazette.]

1,080,246. CONTROLLING SYSTEM FOR SIGNALING-CIRCUITS. CLARENCE E. BEACH and HERMAN W. DOUGHTY, Binghamton, N. Y., assignors to George O. Knapp, New York, N. Y. Filed Oct. 31, 1910. Serial No. 589,958. (Cl. 178-50.)



1. The combination of a series of signaling circuits each comprising a battery and signal transmitting devices and signal-receiving mechanism, switching devices for each circuit, and connecting circuits between said switching devices, each such switching device being so ar-

ranged that in one position it disconnects the signal-receiving mechanism from its circuit, in a second position connects its circuit in series with some other circuit, or in a third position connects its circuit with the signal receiving mechanism and permits its circuit to be connected with circuits controlled by other similar switches.

2. In a signal-controlling system, the combination with a circuit including a signal-receiving device and a signaling circuit, of a switching device comprising three sets of contacts, each set containing a number of contact points, a circuit including points in each set, a circuit connecting a point of the first set with a point of the second set and with one side of the signaling and signal-receiving circuits, a circuit connecting a second point of the first set with the other side of said signal-receiving circuit, a circuit connecting a point of the second set with two points of the third set, three switch arms having a common actuating means and each adapted to engage one set of contacts, one of said arms being connected to the other side of the signaling circuit, and circuit connections for the other two arms.

3. In a signal-controlling system, the combination with a circuit including a signal-receiving device and a signaling circuit, of a switching device comprising three sets of contacts, each set containing a number of contact points, a circuit including points in each set, a circuit connecting a point of the first set with a point of the second set and with one side of the signaling and signal-receiving circuits, a circuit connecting a second point of the first set with the other side of said signal-receiving circuit, a circuit connecting a point of the second set with two points of the third set, three switch arms having a common actuating means and each adapted to engage one set of contacts, one of said arms being connected to the other side of the signaling circuit, circuit connections for the other two arms, and means whereby any given circuit may be cut off without establishing connection with the other circuits.

4. In a signal-controlling system, the combination with a signal-receiving device of a number of signaling circuits connected thereto, of a gang switch for each signaling circuit, each such switch comprising three switch arms, sets of contact points arranged to be engaged by such arms, a circuit connecting contact points in each set with a switch arm in an adjacent gang switch, a circuit connecting a point of the first set with a point of the second set and with one side of the signaling and signal-receiving circuit, a circuit connecting a third point of the first set with the other side of said signal-receiving circuit, a circuit connecting a point of the second set with two points of the third set and with a second switch arm in an adjacent gang switch, the remaining switch arm of each set having its pivot connected to the other side of its signaling circuit.

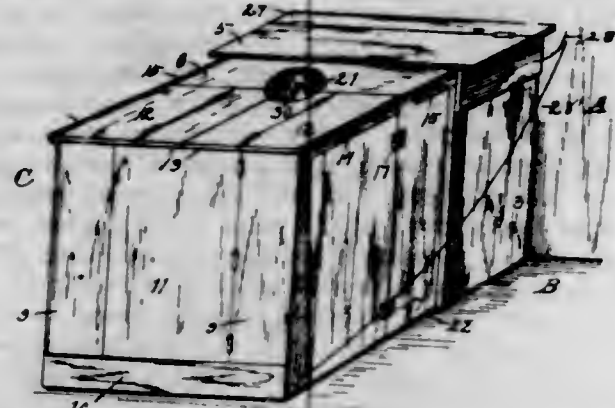
5. In a signal-controlling system, the combination with a signal-receiving device of a number of signaling circuits connected thereto, of a gang switch for each signaling circuit, each such switch comprising three switch arms, sets of contact points arranged to be engaged by such arms, a circuit connecting contact points in each set with a switch arm in an adjacent gang switch, a circuit connecting a point of the first set with a point of the second set and with one side of the signaling and signal-receiving circuit, a circuit connecting a third point of the first set with the other side of said signal-receiving circuit, a circuit connecting a point of the second set with two points of the third set and with a second switch arm in an adjacent gang switch, the remaining switch arm of each set having its pivot connected to the other side of its signaling circuit, and mechanism arranged to operate the gang switches simultaneously or separately.

[Claims 6 to 40 not printed in the Gazette.]

1,080,247. BATH-CABINET. MARK BEADLE, Battle Creek, Mich. Filed June 29, 1912. Serial No. 706,835. (Cl. 174-177.)

1. In a bath cabinet, the combination with a fixed backing, of a hinged open bottomed housing having a top pro-

vided with a head-extending hole and admittance doors, and a front having an entrance door aligned with said head opening and top doors.



2. In a bath cabinet, the combination with a fixed backing, of a hinged open-bottomed housing suspended from said backing, a front hinged at the sides to the opposite sides of the housing, a door to said front and a slidable top having a head-extending opening and provided with a foldable forward portion.

3. In a bath cabinet, the combination with a fixed backing, of a hinged open-bottomed housing suspended from said backing, an integral front hinged at the sides to the opposite sides of said housing, a door in said front, a horizontal slidable top having a head-extending opening and provided with a foldable forward portion, adapted to fold over said front when said cabinet is folded.

4. In a vertically-foldable bath cabinet, the combination with inwardly-foldable sides, a front hinged to said sides and a rearwardly-slidable top section, of means attachable between the inwardly-foldable side sections and to said slidable top section for the purpose of folding and unfolding said sides when said top is slid backward and forward.

5. In a vertically-foldable bath cabinet, the combination with inwardly-foldable sides, a front hinged to said sides and a rearwardly-slidable top section, of links pivotally attached at their inner ends to the rear edge of said top section and at their outer ends intermediate of the rear sections of said inwardly-foldable sides for the purpose of folding and unfolding said cabinet.

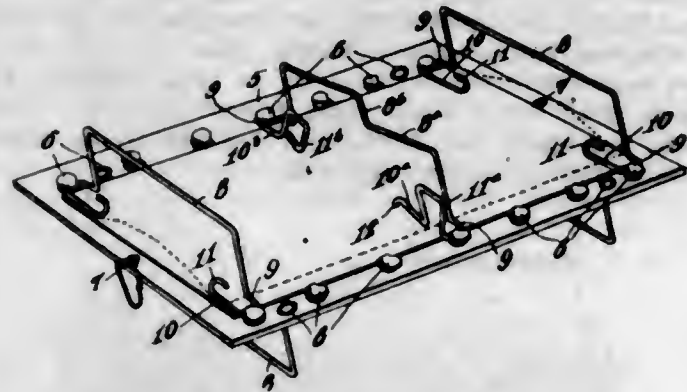
[Claims 6 to 17 not printed in the Gazette.]

1,080,248. SINGLE-DELIVERY MATCH-BOX. JOHN B. BELL, Lowry City, Mo. Filed Apr. 20, 1912. Serial No. 691,997. (Cl. 206-21.)



A match box of the character described, comprising a cylindrical receptacle open at one end and having a bottom formed into a series of annular grooves of progressively greater distance from the open end, the center of the bottom of the receptacle being flanged inward and apertured.

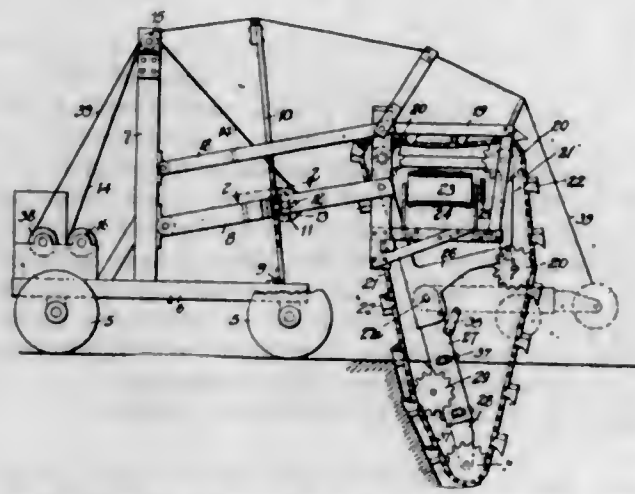
1,080,249. FLY-PAPER HOLDER. ANDREW W. BISCHOFF, Rankin, Ill. Filed Feb. 20, 1913. Serial No. 749,685. (Cl. 43-22.)



1. A fly paper holder embodying a board having parallel series of hooks designed to receive the fly paper therebetween, and resilient arched guards having feet engageable with the respective hooks and having resilient fly paper engaging portions projecting inwardly from the feet.

2. A fly paper holder embodying a board, parallel series of hook eyelets clenched to the board and designed to receive the fly paper therebetween, and a plurality of guards each comprising a wire arch having outwardly hooked feet engageable with the said hook eyelets and having resilient fly paper engaging portions projecting inwardly from the feet, the said resilient portions being provided with finger holds.

1,080,250. TRENCH-DIGGER. MICHAEL G. BLICK, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,374. (Cl. 37-24.)



1. In a trench digger, the combination of a vehicle frame, a sub-frame carried by the vehicle frame and devices supported by the vehicle frame for raising and lowering said sub-frame as desired, a digger frame pivoted to the lower end of said sub-frame, said digger frame comprising a hollow member, a second member collapsible within the hollow member, a device for adjusting the second member relatively to the first, sprocket wheels carried by the second member, a chain passing over said sprocket wheels, said chain being provided with digger buckets and other sprocket wheels supported by the vehicle structure and over which said chain passes.

2. In a trench digger, the combination of a vehicle frame, a sub-frame carried by the vehicle frame and devices supported by the vehicle frame for raising and lowering said sub-frame as desired, a digger frame pivoted to the lower end of said sub-frame, said digger frame comprising a hollow member, a second member collapsible within the hollow member, a device for adjusting the second member relatively to the first, sprocket wheels carried by the second member, a chain passing over said sprocket wheels, said chain being provided with digger buckets and other sprocket wheels supported by the vehicle structure and over which said chain passes, said sub-frame comprising a portion arranged to project down over the upper end of the hollow member of the digger frame and so prevent

the digger frame from movement under the stress exerted thereon through the chain.

3. In a trench digger, the combination of a vehicle frame, a sub-frame carried by the vehicle frame, devices supported by the vehicle frame for raising and lowering the sub-frame as desired, a digger frame pivoted to said sub-frame, said digger frame comprising a hollow upper member and a lower member collapsible within the upper member, means for adjusting the lower member within the hollow member, sprockets carried by the lower member of the digger frame, sprockets supported by the vehicle frame movable with said sub-frame, a chain carried by said sprockets and buckets on said chain.

4. In a trench digger, the combination of a vehicle frame, a sub-frame carried by the vehicle frame, devices supported by the vehicle frame for raising and lowering the sub-frame as desired, a digger frame pivoted to said sub-frame, said digger frame comprising a hollow upper member and a lower member collapsible within the upper member, means for adjusting the lower member within the hollow member, sprockets carried by the lower member of the digger frame, sprockets supported by the vehicle frame movable with said sub-frame, a chain carried by said sprockets and buckets on said chain, said sub-frame comprising a portion arranged to inclose three sides of the top of the digger frame and so prevent the digger frame from moving under the stress exerted thereon through the chain.

5. A trench digger comprising in combination a vehicle frame, a sub-frame supported by the vehicle frame, devices carried by the vehicle frame for adjusting said sub-frame vertically as desired, an extensible digger frame pivoted to said sub-frame, sprockets supported by the vehicle frame vertically adjustable with the sub-frame, sprockets carried by the digger frame and a digger chain mounted upon said sprockets, said sub-frame comprising a portion arranged to prevent movement of the digger frame upon its pivot under the stress exerted upon said digger frame through the digger chain.

1,080,251. MEANS FOR DETACHING OBSTRUCTIONS FROM ELECTRIC, TELEPHONE, AND OTHER CABLE CONDUITS. MAURICE BLUMENTHAL, Brooklyn, N. Y. Filed Sept. 12, 1912. Serial No. 719,930. (Cl. 137-70.)



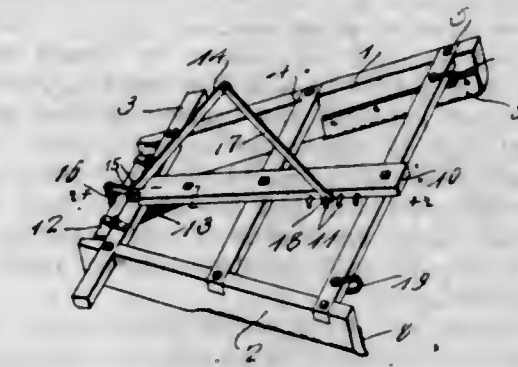
1. A "jar-rod" for detaching obstructions from the inner walls of conduits, said "jar-rod" being composed of separate detachably connected parts one of which consists of a link member comprising a sleeve closed at one end and provided with a coupling head, said sleeve being closed at the opposite end by a detachable plug, a rod movable longitudinally through said sleeve and provided at its inner end with a piston head movable in said sleeve, and said rod being provided at its outer end with a detachable coupling head.

2. A detachable link member for "jar rods" composed of separate detachably connected parts, said link member comprising a sleeve closed at one end and provided with a coupling head, said sleeve being closed at the opposite end, by a detachable plug, a rod movable longitudinally through said plug and through said sleeve and provided at its inner end with a piston head movable in said sleeve, and said rod being provided at its outer end with a detachable coupling head.

1,080,252. ROAD-DRAG. CALVIN ERNEST BOLT, Ramsey, Ill. Filed Oct. 21, 1912. Serial No. 726,998. (Cl. 37-5.)

1. A road drag having laterally spaced side members, a leveling gate hinged between said members and extending transversely of the drag, a resilient element for holding

said gate normally closed and means for opening said gate against the tension of said element and holding it in adjusted position.

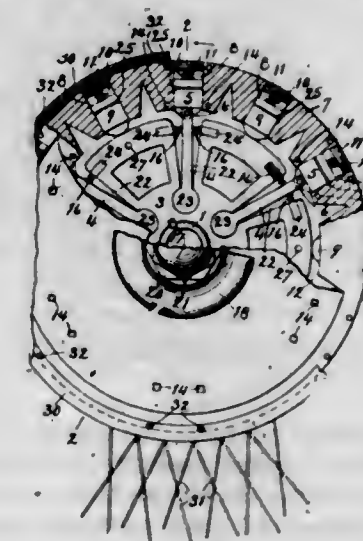


2. A road drag comprising laterally spaced side members, cross bars connecting said members, an outwardly opening end gate hinged at its upper edge to the rear cross bar, a coiled spring connected at one end to the lower end of said end gate and at its other end to a fixed support and a lever fulcrumed on said drag and connected with said end gate for opening said gate against the tension of said spring and means for locking said lever in adjusted position.

3. A road drag comprising laterally spaced side members, cross bars connecting said side members, a running board extending longitudinally of said drag and secured to said cross bars, a leveling gate depending between said side members and hinged at one edge to one of said cross bars, a coiled spring connected at one end to the inner face of said end gate and at its other end to the lower face of said running board, and adjustable means connected with said gate for holding it in open position against the tension of said spring.

4. A road drag comprising laterally spaced side members, cross bars connecting said side members, a running board extending longitudinally of said drag and secured to said cross bars, a plurality of longitudinally spaced pins extending laterally from one edge of said running board, a leveling gate depending between said side members and hinged at one edge to one of said cross bars, a coiled spring connected at one end to the inner face of said end gate and at its other end to the lower face of said running board, and a lever connected with said gate and with one of said pins for holding the gate in adjusted position.

1,080,253. RESILIENT WHEEL-HUB. JOSEPH W. BREADY, Springfield, Mass., assignor of one-third to Charles P. Kenney, Springfield, Mass. Filed Apr. 30, 1913. Serial No. 764,492. (Cl. 152-45.)



1. The combination, in a resilient wheel-hub, with a disk adapted to be mounted on an axle and having radial slots therein, of rocking arms mounted in the slotted parts of said disk, springs carried by said disk and projecting from opposite sides of its slots and bearing against opposite sides of said arms to center the latter normally in said slots, plungers pivotally connected with said arms, a

floating ring around said disk and having chambers therein for said plungers, and removable plugs in the outer ends of said chambers.

2. The combination, in a resilient wheel-hub, with a disk adapted to be mounted on an axle and having radial slots therein, of rocking arms mounted in the slotted parts of said disk, springs carried by said disk and projecting from opposite sides of its slots and bearing against opposite sides of said arms to center the latter normally in said slots, plungers pivotally connected with said arms, a floating ring around said disk and having chambers therein for said plungers, the outer ends of said chambers being closed, and springs in said chambers between their closed ends and said plungers.

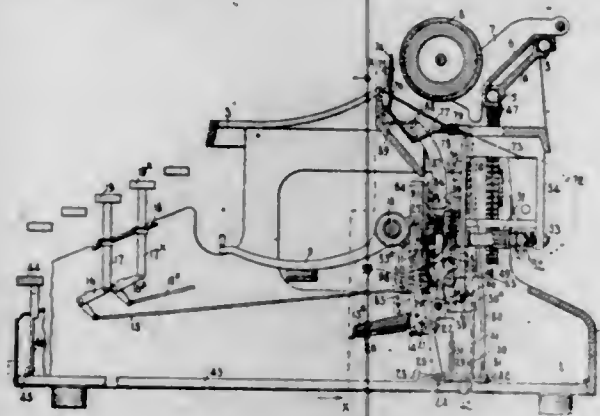
3. The combination, in a resilient wheel-hub, with a disk adapted to be mounted on an axle and having radial slots therein, of rocking arms provided with heads mounted in the slotted parts of said disk, springs carried by said disk to center normally said arms in said slots, plungers pivotally connected with said arms, and a floating ring around said disk and having chambers therein for said plungers, said chambers being closed at their outer ends.

4. The combination, in a resilient wheel-hub, with a disk adapted to be mounted on an axle and having radial slots therein, of rocking arms provided with heads mounted in the slotted parts of said disk, springs carried by said disk to center normally said arms in said slots, plungers pivotally connected with said arms, a floating ring around said disk and having chambers therein for said plungers, said outer ends of said chambers being closed, and springs in said chambers between the closed ends of the same and said plungers.

5. The combination, in a resilient wheel-hub, with a disk adapted to be mounted on an axle and having radial slots therein, of rocking arms mounted in the slotted parts of said disk, springs carried by said disk to center normally said arms in said slots, plungers pivotally connected with said arms, a floating ring around said disk and having chambers therein which are closed at their outer ends, said plungers operating in certain of said chambers, and other plungers operating in certain others of said chambers, said last-mentioned plungers bearing on the peripheral portions of said disk which are between said slots.

[Claims 6 to 9 not printed in the Gazette.]

1,080,254. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 29, 1912. Serial No. 734,102. (Cl. 197-83.)



1. In a typewriting machine, the combination of printing instrumentalities, letter feeding mechanism including a universal bar operative by said instrumentalities, a ribbon vibrator connected to said universal bar, and means including a second universal bar operative by said instrumentalities for preventing operation of said letter feeding mechanism.

2. In a typewriting machine, the combination of a type bar, key connections thereto, a ribbon vibrator, escapement mechanism, locking devices therefor, and two universal bars operative from said key connections, one of said universal bars being connected to said ribbon vibrator and es-

capement mechanism, and the other being connected to said locking devices.

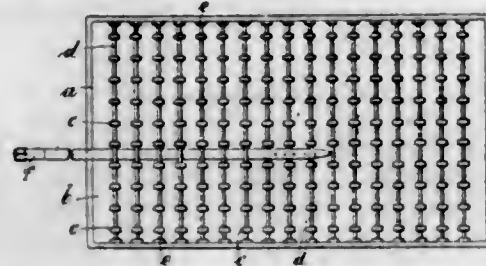
3. In a typewriting machine, the combination of a plurality of type bars, key controlled connections, one set for each type bar, and each set of connections comprising an actuating device, a ribbon vibrator, escapement mechanism, a lock therefor, and two universal bars one connected to said ribbon vibrator and said escapement mechanism, and the other connected to said locking devices only, the first named universal bar only being operative by one of said actuating devices and the other actuating device operating both of said universal bars.

4. In a typewriting machine, the combination of printing instrumentalities, letter feeding mechanism including a universal bar operative by said printing instrumentalities, and a dog carrier connected to said universal bar, a ribbon vibrator connected to said universal bar, a second universal bar controlled by said instrumentalities, and a locking plate operative by said second universal bar and effective to prevent operation of said dog carrier.

5. In a typewriting machine, the combination of an escapement wheel, a dog coöperative therewith, a carrier for said dog, an actuator for said carrier normally disconnected therefrom, a universal bar connected to said actuator, key controlled printing devices operative on said universal bar, a second universal bar, locking devices for said carrier connected to said second universal bar, and other key controlled printing devices operative on said second universal bar.

[Claims 6 to 12 not printed in the Gazette.]

1,080,255. TRAVELING-TRUNK AND THE LIKE. GEORG BRINCKMANN, Bremen, Germany, assignor to one-half to Karl Farkas, Glen Ridge, N. J. Filed Sept. 13, 1912. Serial No. 720,107. (Cl. 190-19.)



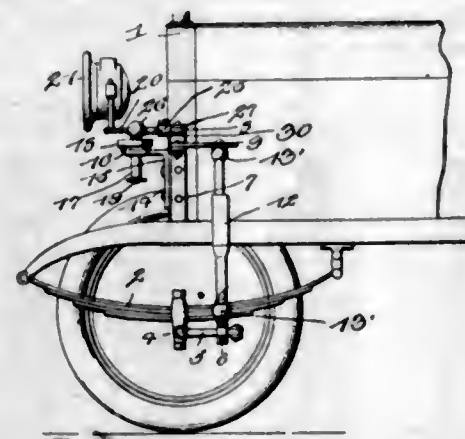
1. A traveling trunk, case or chest for transporting personal effects and fragile articles, comprising in combination, a bottom, a plurality of narrow holders secured to the bottom, a multiple of long parallel strips passing underneath said holders and permanently fixed with both ends, and adjustable means adapted to be passed underneath any desired number of parallel strips and closed for holding various numbers of personal effects or fragile articles of various sizes.

2. A traveling trunk, case or chest for transporting personal effects and fragile articles comprising in combination, a bottom, a plurality of narrow holders secured to the bottom, a multiple of long parallel strips passing underneath said holders at right angles thereto and permanently fixed with both ends, and an adjustable belt adapted to be passed underneath any desired number of parallel strips.

1,080,256. AUTOMATIC HEADLIGHT. BENJAMIN H. BROWN, GEORGE W. EDWARDS, and EDMUND T. MANWELL, Marysville, Cal. Filed Mar. 10, 1913. Serial No. 753,401. (Cl. 240-62.)

1. In a device of the character described, the combination with the steering mechanism of a vehicle, a laterally extending connecting member pivotally connected to the body of the vehicle, lamps pivotally connected to the vehicle forwardly of said connecting member, a rod connecting said lamps, a vertical rod connected at its lower end to the steering mechanism and at its upper end to said connecting member, a rearwardly extending rod connected at its forward end to one of said lamps, the rear end of said rearwardly extending rod being connected to said connecting

member, and means whereby the rear end of said rearwardly extending rod may be adjusted longitudinally of said connecting member to render the device inoperative, as and for the purpose described.



2. In a device of the class described, the combination with the steering mechanism of a vehicle, of a connecting member pivotally connected to the body of the vehicle, said member comprising a pair of outwardly projecting arms arranged one above the other, a vertical rod connected at its lower end to the steering mechanism and at its upper end to the lower arm of the connecting member, lamps pivotally connected to the vehicle, a rod connecting said lamps, one of said lamps having an outwardly projecting arm, and a rod connected at its forward end to said lamp and at its other end to the upper arm of said connecting member, as and for the purpose described.

3. In a device of the class described, the combination with the steering mechanism of a vehicle, of a connecting member pivotally connected to the body of the vehicle, said connecting member comprising a pair of outwardly projecting arms arranged one above the other, a vertical rod connected at its upper end to the lower arm of said connecting member and at its lower end to the steering mechanism, lamps pivotally connected to the body of said vehicle forwardly of said connecting member, a rod connecting said lamps, and a rearwardly extending rod pivotally connected at its forward end to one of said lamps, said rearwardly extending rod being adjustably connected at its rear end to the upper arm of said connecting member, as and for the purpose described.

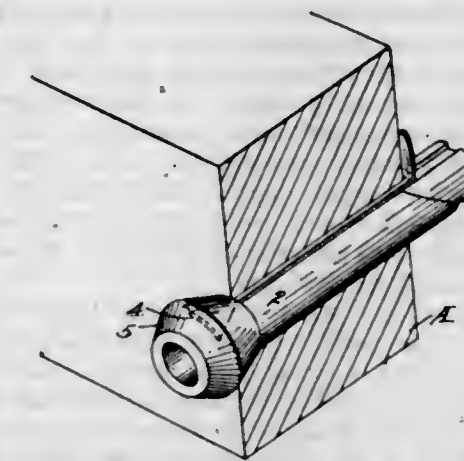
4. In a device of the character described, the combination with the steering mechanism of a motor vehicle, a connecting member comprising a pair of outwardly projecting arms arranged one above the other and pivotally connected to the body of the vehicle, a vertical rod connected at its upper end to the lower arm of said connecting member and at its lower end to the steering mechanism, lamps pivotally connected to the body of said vehicle, a rod connecting said lamps, the upper arm of said connecting member being provided with a plurality of openings, and a rearwardly extending rod pivotally connected at its forward end to one of said lamps, said rod being connected at its rear end in one of the openings in the upper arm of said connecting member, as and for the purpose described.

1,080,257. INSULATOR. KARL BRUCHSALER, San Francisco, Cal. Filed May 5, 1913. Serial No. 765,553. (Cl. 173-311.)

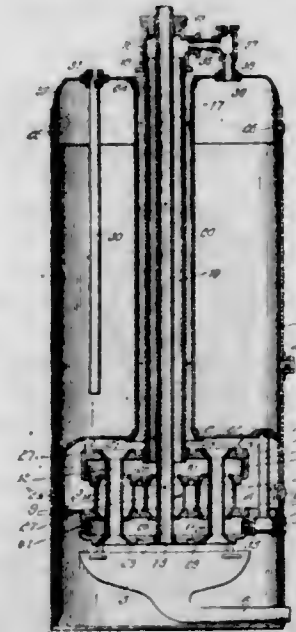
1. An insulating tube of the character described, having a tubular body, a support having an opening in which the tube fits, a conical enlargement at one end of the tube, and a bendable strip secured to the conical end and having the opposite end turnable at right angles against the support.

2. An insulating tube having a tubular body, a support through which it is adapted to pass, a conical head formed on said tube, to abut against one side of the wood, and a bendable metal strip fixed to the tube near the enlarged end and having its free end passing through the support and turnable at right angles to lock against the opposite part of the support.

3. A cylindrical insulation tube having a conical end, a locking strip having annular enlargements near one end adapted to clasp the conical end, and a body portion extending parallel with the tube, a support through which the tube and strip pass, said strip being bendable to lock against the side of the part in which the insulator is inserted.



1,080,258. HEATING APPARATUS. DANIEL J. F. BUCK, Chicago, Ill. Filed May 7, 1913. Serial No. 765,999. (Cl. 122-16.)



1. In a heater, the combination with fluid-heating compartments, of tubes connecting said compartments, a first pipe extending through said compartments and beyond the same on one side thereof, a second pipe disposed around a portion of said first pipe, and a third pipe disposed around said second pipe, said first and second pipes forming between them an annular passage of relatively small cross-section said passage having communication with one of said fluid heating compartments, the pipes on each side of said annular passage being arranged to have hot gases passed therethrough to heat the fluid in said annular passage.

2. In a heater, the combination with fluid-heating compartments, of tubes connecting said compartments, a first pipe constituting a flue for hot gases extending through said compartments and a substantial distance beyond the same on one side thereof, a second pipe disposed around a portion of said first pipe, and a third pipe disposed around said second pipe, said first and second pipes forming between them an annular passage of relatively small cross-section arranged to have passed therethrough fluid previously heated in said fluid-heating compartments, the space between said second and third pipes constituting a flue for the passage of hot gases.

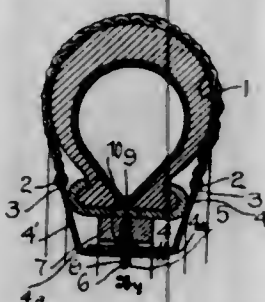
3. In a heater, the combination of a compartment for containing fluid to be heated, a fluid passageway extending vertically from said compartment, and a flue for hot gases on each side of said passageway.

4. In a heater, the combination with two fluid heating chambers, one placed over the other, in which fluid is to be heated, said chambers being connected by tubes, of flues extending through said tubes and secured to the bottom of the framework of one of said chambers and to the top of the other chamber, a central pipe arranged to have hot gases passed therethrough extending from the bottom of the lower of said chambers through said framework, and a second pipe surrounding said central pipe, said pipes forming between them an annular passage of relatively small cross section, said annular passage having communication with said fluid heating chambers so that fluid heated in said chambers is subsequently superheated in said annular passage.

5. In a heater, the combination with upper and lower chambers, of pipes having tapered ends connecting with said chambers, said tapered ends being upset to form flanges whereby a water-tight joint is secured with the framework surrounding said chambers, of pipes or flues extending through said chambers and through the pipes communicating with said chambers, said flues having tapered ends which are secured to the framework containing said chambers, said framework having projections on its upper peripheries to serve as catches for moisture, a pipe extending from the bottom of the lowermost framework through said compartments, a second pipe extending from the top of the uppermost of said framework and surrounding the first pipe, and a third pipe partially surrounding both of said last-mentioned pipes.

[Claims 6 to 9 not printed in the Gazette.]

1,080,259. ANTISKIDDING ATTACHMENT FOR TIRES. WILLIAM E. BUDD, Elizabeth, N. J. Filed Jan. 29, 1913. Serial No. 744,958. (Cl. 152-14.)



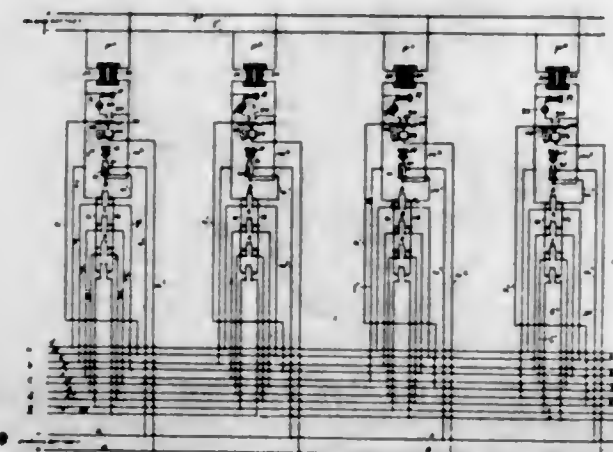
1. In combination with the felly of a wheel, a post inwardly directed from the felly, and a normally substantially right angular chain fastener of spring metal provided with a perforation in one of its portions to surround the post, the opposite portion of the fastener being adapted to frictionally engage the felly, the distance between the aperture of the fastener in engagement with the post and the bend thereof being less than the distance between the post and the edge surface of the felly with which the fastener contacts.

2. In combination with the felly of a wheel, a post inwardly directed from the felly, and a normally substantially right angular chain fastener of spring metal provided with a perforation in one of its portions to surround the post, the opposite portion of the fastener being adapted to frictionally engage the felly, the distance between the aperture of the fastener in engagement with the post and the bend thereof being less than the distance between the post and the edge surface of the felly with which the fastener contacts, the free end portion of the post being provided with a head insertible through the aperture of the fastener and serving as a positive means whereby the fastener may be held against displacement from the post.

1,080,260. INTERCOMMUNICATING TELEPHONE SYSTEM. PERCIVAL G. BURGESS, Jamaica, N. Y., assignor, by means assignments, to General Acoustic Company, a Corporation of New York. Filed Sept. 29, 1910, Serial No. 584,414. Renewed Feb. 12, 1913. Serial No. 748,017. (Cl. 179-40.)

1. In an intercommunicating telephone system, a station having two bus-bars, a telephone transmitter, a

telephone receiver, and two local instrument wires, a dictograph station, a wire therefrom joined to a point in a circuit between said transmitter and said receiver, two other dictograph wires adapted to be included in circuit with said bus-bars, and means for interrupting the connection of said transmitter and receiver with said local instrument wires.



2. In an intercommunicating telephone system, a station having two bus-bars, a telephone transmitter, a telephone receiver, and two local instrument wires, a dictograph station, a wire therefrom joined to a point in a circuit between said transmitter and said receiver, two other dictograph wires adapted to be included in circuit with said bus-bars, means for establishing the dictograph connection, and means for interrupting the connection of said transmitter and receiver with said local instrument wires when such dictograph communication is established.

3. In an intercommunicating telephone system, a station having bus-bars and a telephone receiver and a telephone transmitter, a dictograph station, a wire from said dictograph station joined to a point in a circuit between said transmitter and said receiver, and two other wires from said dictograph station adapted to be included in circuit with said bus-bars.

4. In an intercommunicating telephone system, a plurality of stations each having telephone instruments and a pair of local instrument wires, a bus-bar at each station joined to one instrument wire and also to the instruments at its station, a switch hook normally disconnected from said instruments and joined to the other instrument wire, a potential source, two upper contacts for said hook one of which is connected to the circuit of said instruments, a second bus-bar normally connected to the other said contact, means for disconnecting said second bus-bar from said contact and putting it in connection with said potential source, a plurality of local instrument wires from other stations, and means for joining said bus-bars in circuit with the wires of any selected station.

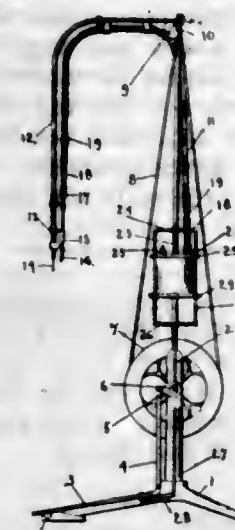
5. In an intercommunicating telephone system, a plurality of stations each having telephone instruments and a pair of local instrument wires, a conductor at each station joined to one instrument wire and also to the instruments at such station, a switch hook normally disconnected from said instruments and joined to the other instrument wire, two upper contacts for said hook, one of which is connected to the circuit of said instruments, a second conductor normally in electric connection with said other contact, a plurality of local instrument wires from other stations, and means for joining said conductors in circuit with the wires of any selected station.

[Claims 6 to 9 not printed in the Gazette.]

1,080,261. AUTOMATIC DENTAL BLOWER AND SYRINGE. ISAAC WALTON BUSH, North Carrollton, Miss., assignor of one-third to Eugene C. Neill and one-third to Jesse F. Cotton, North Carrollton, Miss. Filed June 17, 1913. Serial No. 774,093. (Cl. 32-28.)

1. A dental instrument comprising a reservoir for a liquid and a gas, means for putting the gas under pressure

over the liquid, ducts for the liquid and gas, a nozzle, and a valve to connect a liquid duct or a gas duct to said nozzle.

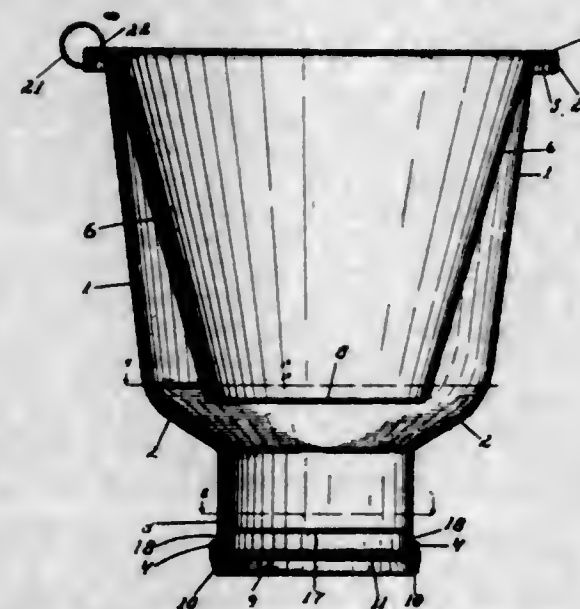


2. A dental instrument comprising a single blow and wash nozzle, a closed reservoir, means for supplying a liquid thereto, a pump in the reservoir for forcing a gas into the reservoir with the liquid, separate ducts for the gas and liquid, and a valve for controlling the supply from said ducts to the nozzle.

3. A dental instrument comprising a liquid and gas reservoir, a pump in the reservoir for placing the contents of the reservoir under pressure, said pump embodying a piston having an intake valve therethrough, a blow and wash nozzle, a gas duct and a liquid duct from said reservoir to said nozzle, and a valve for connecting the gas duct or the liquid duct to said nozzle.

4. A dental instrument comprising a reservoir for a liquid and a gas, a pump within said reservoir having connections to place said liquid and gas under pressure, driving means for the connections mounted on the reservoir, a duct from said reservoir above the surface of the liquid to take off gas, a duct from below the surface of the liquid to take off liquid from the reservoir, a nozzle, and a valve to connect the liquid or the gas duct to said nozzle.

1,080,262. MILK-STRAINER. CHARLES H. CLARK, Kalamazoo, Mich. Filed Oct. 22, 1912. Serial No. 727,095. (Cl. 214-16.)



1. In a strainer, the combination of an outer receptacle having a flange-like rim at its upper end and an open neck at its lower end; a filter pad support comprising a rim having a screen thereon; clamping means by which said support is removably secured to said neck; a filter pad arranged on said support with its edges between the end of the neck and said support; a perforated plate having down-turned flanges at its edges disposed within the neck upon said pad; an inner downwardly tapered receptacle

provided with a screen bottom and having a rim resting on the rim of said outer receptacle, the bottom of said inner receptacle being adjacent to but spaced from the neck of said outer receptacle; and a cover having a flange adapted to close over the rims of said receptacles and secured to the rim of the outer receptacle by a ring, the rim of the inner receptacle being notched to receive the ring.

2. In a strainer, the combination of an outer receptacle having an open neck at its lower end; a filter pad support comprising a rim having a screen thereon; clamping means by which said support is removably secured to said neck; a filter pad arranged on said support with its edges between the end of the neck and said support; a perforated plate having down-turned flanges at its edges disposed within the neck upon said pad; an inner downwardly tapered receptacle provided with a screen bottom and having a rim resting on said outer receptacle, the bottom of said inner receptacle being adjacent to but spaced from the neck of said outer receptacle.

3. In a strainer, the combination of an outer receptacle having a flange-like rim at its upper end and an open neck at its lower end; a filter pad support comprising a rim having a screen thereon; means by which said support is removably secured to said neck; a filter pad arranged on said support; an inner downwardly tapered receptacle provided with a screen bottom and having a rim resting on the rim of said outer receptacle, the bottom of said inner receptacle being adjacent to but spaced from the neck of said outer receptacle; and a cover having a flange adapted to close over the rims of said receptacles and secured to the rim of the outer receptacle by a ring, the rim of the inner receptacle being notched to receive the ring.

4. In a strainer, the combination of an outer receptacle having a flange-like rim at its upper end and an open neck at its lower end; a filter pad support comprising a rim having a screen thereon; means by which said support is removably secured to said neck; a filter pad arranged on said support; an inner downwardly tapered receptacle provided with a screen bottom and having a rim resting on the rim of said outer receptacle, the bottom of said inner receptacle being adjacent to but spaced from the neck of said outer receptacle; and a cover having a flange adapted to close over the rims of said receptacles and secured to the rim of the outer receptacle by a ring, the rim of the inner receptacle being notched to receive the ring.

5. In a strainer, the combination of a receptacle having an open neck at its lower end; a filter pad support comprising a rim having a screen thereon, said rim being provided with upwardly projecting lugs engaging the neck; a U-shaped clamping member having laterally turned cam members at the ends of its arms; ears on said neck projecting below said rim to receive said cam members; and a filter pad arranged in said support with its edges between the end of the neck and said support.

[Claims 6 and 7 not printed in the Gazette.]

1,080,263. STORAGE-RESERVOIR FOR EXPLOSIVE FLUIDS. CLYDE J. COLEMAN, New York, N. Y., assignor to Conrad Hubert, New York, N. Y. Filed July 12, 1907. Serial No. 383,413. (Cl. 220-108.)

1. In means for safely storing explosive fluids, the combination of a reservoir and a filler therefor, the filler comprising closely compacted granules of uniform size and forming fluid-containing interstices of substantially uniform size and of non-explosive magnitudes.

2. Means for safely storing explosive fluids, comprising an elongated substantially cylindrical reservoir, a filler therefor comprising closely compacted granules of uniform size and forming fluid-containing interstices of substantially uniform size and of non-explosive magnitudes, and a perforated communicating-tube having perforations of smaller diameter than the granules and extending substantially throughout the length of the reservoir.

3. In means for safely storing explosive fluids, the combination of a reservoir, a filler therefor, the filler comprising closely compacted granules of uniform size and forming fluid-containing interstices of substantially uniform size and of non-explosive magnitudes, and a perforated

communicating-tube embedded among the granules and having perforations of smaller diameter than the granules.

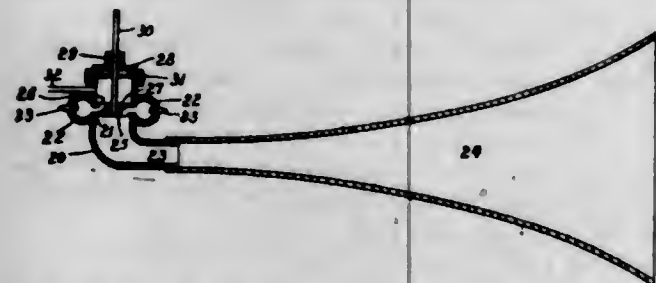


4. In means for safely storing explosive fluids, the combination of a reservoir, a filler for the reservoir comprising closely compacted porous granules of uniform size and forming fluid-containing interstices of substantially uniform size and of non-explosive magnitudes, and a fluid-absorbing liquid contained entirely in the pores of the granules, leaving the interstices free from such liquid.

5. In means for safely storing explosive fluids, the combination of a reservoir and a filler therefor, the filler comprising closely compacted granules of uniform size and forming fluid-containing interstices of substantially uniform size and of non-explosive magnitudes, the granules being composed of material having fluid-absorptive and fluid-concentrative influence on the explosive fluid.

[Claims 6 to 11 not printed in the Gazette.]

1,080,264. MEANS FOR PRODUCING SOUND-WAVES. LOUIS EUCLIDE CÔTE, Ottawa, Ontario, Canada, and WALTER FURMAN KELLEY, Ithaca, N. Y. Filed Mar. 19, 1909. Serial No. 484,542. (Cl. 116—13.)



1. In means for maintaining a train of sound waves, a resonator, means for supplying combustible gases to said resonator, means for interrupting the supply of said gases, and means for igniting said gases at intervals corresponding to the frequency of the sound waves produced.

2. In means for maintaining a train of sound waves, a resonator, means for supplying combustible gases to said resonator, means for igniting said combustible gases in said resonator, and means for interrupting the supply of gases to said resonator at intervals corresponding to the frequency of the sound waves produced.

3. In means for maintaining a train of sound waves, a resonator, a combustion chamber communicating with said resonator, means for supplying combustible gases to said combustion chamber, means for igniting said combustible gases in said combustion chamber, and means for interrupting the supply of gases to said combustion chamber at frequencies in harmonic relation with the frequencies of the sound waves produced.

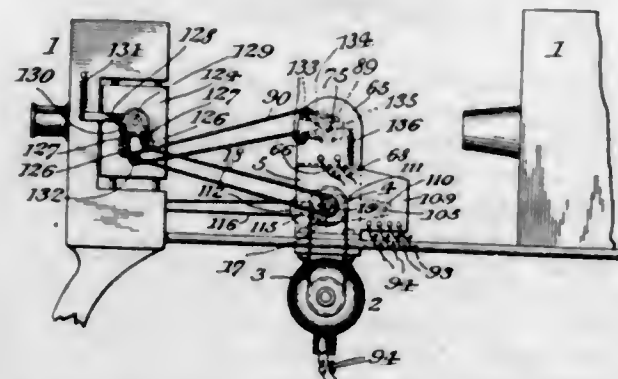
4. In means for maintaining a train of sound waves, a resonator, a combustion chamber communicating with said resonator, means for supplying combustible gases to said combustion chamber, means for igniting said combustible

gases in said combustion chamber at intervals in accord with the frequency of the sound waves produced, and means for interrupting the supply of gases to said combustion chamber.

5. In means for maintaining a train of sound waves, a combustion chamber, means for supplying combustible gases to said chamber, means for interrupting the supply of said gases, and means for igniting said gases periodically at frequencies in harmonic relation with the frequencies of the sound waves produced.

[Claims 6 to 15 not printed in the Gazette.]

1,080,265. MEANS FOR SYNCHRONIZING TALKING-MACHINES AND MOVING-PICTURE MACHINES. HENRY T. CRAPO, New York, N. Y., assignor, by mesne assignments, to The Webb Talking Pictures Company, a Corporation of Delaware. Filed Jan. 11, 1911. Serial No. 602,069. (Cl. 88—16.2.)



1. In synchronizing mechanism of the class described, a talking machine, a moving picture machine, a motor drive for operating said machines, means for maintaining the operation in unison of the motor drive for said respective machines, governor mechanism for said motor drive means, means for adjusting said governor mechanism during operation, manual means for driving the moving picture machine, and means whereby said manual driving means controls the operative status of said means for maintaining the operation in unison of the motor drive for said respective machines.

2. In synchronizing mechanism of the class described, a talking machine, a moving picture machine, drive mechanism for the talking machine, drive mechanism for the moving picture machine, means for maintaining the operation in unison of said respective drive mechanisms, governor mechanism for the drive mechanism of the moving picture machine, means for adjusting said governor mechanism during operation, manual means for independently driving the moving picture machine, and means whereby said manual driving means controls the operative status of said means for maintaining the operation in unison of said respective drive mechanisms.

3. In synchronizing mechanism of the class described, a talking machine, a moving picture machine, a motor drive mechanism for the talking machine, a motor drive mechanism for the moving picture machine, electrical circuit means for operating said motor drives, manually operable means for governing the operation of said motor drives, and an adjustable automatic governor mechanism for controlling and varying the speed of said motor drive mechanisms.

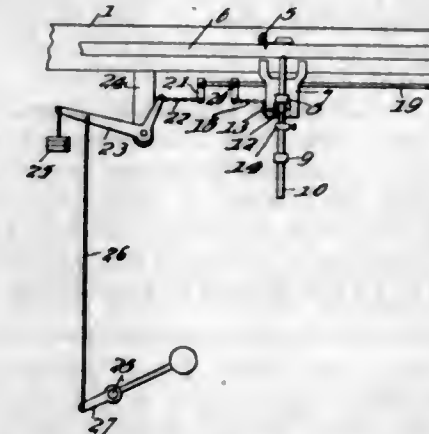
4. In synchronizing mechanism of the class described, a talking machine, a moving picture machine, a motor drive mechanism for the talking machine, a motor drive mechanism for the moving picture machine, electrical circuit means for operating said motor drives, manually operable means for governing the operation of said electrical circuit means to control simultaneous operation of said motor drives, automatically acting governor mechanism for said motor drive mechanism, and mechanical means comprised in said governor mechanism for adjusting said governor mechanism during operation.

5. In synchronizing mechanism of the class described, a talking machine, a moving picture machine, a motor

drive mechanism for the talking machine, a motor drive mechanism for the moving picture machine, electrical circuit means for operating said motor drives, manually operable means for governing the operation of said electrical circuit means to control the simultaneous operation of said motor drives, and a mechanical governor mechanism for the motor drive mechanism, said mechanical governor mechanism having means for initially adjusting said governor mechanism and secondary means for adjusting said governor mechanism during operation.

[Claims 6 to 39 not printed in the Gazette.]

1,080,266. SPINNING-MACHINE. FREDERICK S. CULVER, Taunton, Mass. Filed July 27, 1912. Serial No. 711,842. (Cl. 118—16.)



1. In a spinning machine, in combination with the thread guide rail, a guide frame connected to the frame of the machine and having a hollowed-out part the lower end of which is bifurcated, a pulley journaled in one of the furcations of said guide frame, a pair of spaced bearings carried by the guide frame and arranged in alignment with the space between the furcations, a lifter rod vertically slidable in said bearings and having its upper end connected to the thread guide rail, a coupling on the rod arranged between the bearings of the guide frame and being receivable in the space between said furcations, a horizontal reciprocal rod mounted in the hollowed out part of the guide frame and having a coupling depending therefrom, a chain connected to said coupling passing over the pulley and connected to the coupling of the lifter rod, a coupling on one end of said horizontal rod, a bell crank lever pivoted to the frame of the machine, a chain connected to said bell crank lever and to the last named coupling of the horizontal rod, and means to operate the bell crank lever from the builder motion rocker.

2. In combination with the thread guide rail and a lifter rod depending therefrom, means to slidably support the lifter rod, a guide frame having means to slidably support the lifter rod, a pulley carried by the guide frame, a horizontal reciprocal rod, a chain connected to said horizontal rod passing over the pulley and connected to the lifter rod, a bell crank lever, a flexible connection between the bell crank lever and one end of the horizontal rod, and means for operating the bell crank from the builder motion rocker.

3. In combination with the thread guide rail and a lifter rod depending therefrom, means to slidably support the lifter rod, a horizontal rod, means to connect the lifter rod to the horizontal rod, a bell crank lever disposed adjacent to one end of the horizontal rod, a connection between said horizontal rod and the bell crank lever, and a connection between the bell crank lever and the builder motion rocker.

1,080,267. EYEGLASS-CASE. JOHN CURRIN, New York, N. Y. Filed Mar. 27, 1912. Serial No. 686,669. (Cl. 206—5.)

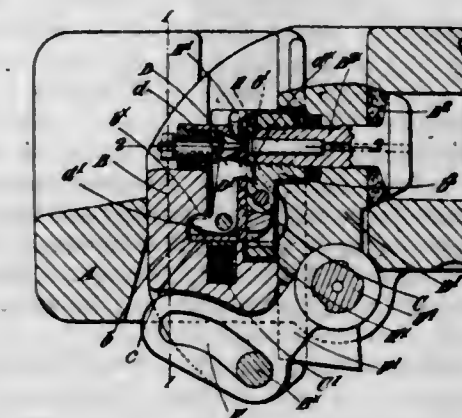
1. In a device of the character described, the combination of a case and means for supporting eye-glasses therein, comprising a covered spring having a rounded body located between the spring and its cover.

2. In a device of the character described, the combination of a case and means for supporting eye-glasses there-



in, comprising opposed covered springs, each of said springs having a rounded body located between the spring and its cover.

1,080,268. BREECH MECHANISM OF ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed May 13, 1913. Serial No. 767,265. (Cl. 89—23.)



1. In breech mechanism for ordnance, the combination with a breech block composed of two parts, the rear or wedge part being capable during the locking and unlocking of the mechanism of sliding on the rear face of the forward part, of an obturator carried by said front part, a lock frame carried by the rear part, firing mechanism mounted in said lock frame, and means for causing relative movement to take place between said rear part and the lock frame during the initial unlocking and the final locking action of the breech mechanism.

2. In breech mechanism for ordnance, the combination with a breech block composed of two parts, the rear or wedge part being capable during the locking and unlocking of the mechanism of sliding on the rear face of the forward part, of an obturator carried by said front part, a lock frame loosely carried by the rear part, firing mechanism mounted in said lock frame, and means for causing relative movement to take place between said rear part and the lock frame during the initial unlocking and the final locking action of the breech mechanism.

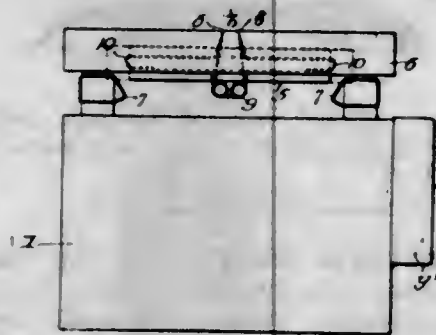
3. In breech mechanism for ordnance, the combination with a breech block composed of two parts, the rear or wedge part being capable during the locking and unlocking of the mechanism of sliding on the rear face of the forward part, of an obturator carried by said front part, a lock frame loosely carried by the rear part, firing mechanism mounted in said lock frame, means for causing relative movement to take place between said rear part and the lock frame during the initial unlocking and the final locking action of the breech mechanism, a firing needle forming part of said firing mechanism, and means whereby said relative movement effects the retraction of the firing needle and permits it to move into contact with the head of the primer.

1,080,269. DRAWING-BOARD. EARL J. EARLY, Philadelphia, Pa. Filed Apr. 25, 1912. Serial No. 693,169. (Cl. 33—15.)

1. The combination with a drawing board of means for holding paper thereon consisting of a member movably connected to the board in position to clamp one edge of a sheet of paper between itself and an edge thereof; with a structure connected to said clamping member and contacting with the board body to form a container.

2. The combination of a drawing board; a back slidably mounted on said board and forming a container there-

with: a member connected to said back for clamping an edge of a body of paper to an edge of the board; and means for retaining said member in a clamping position.



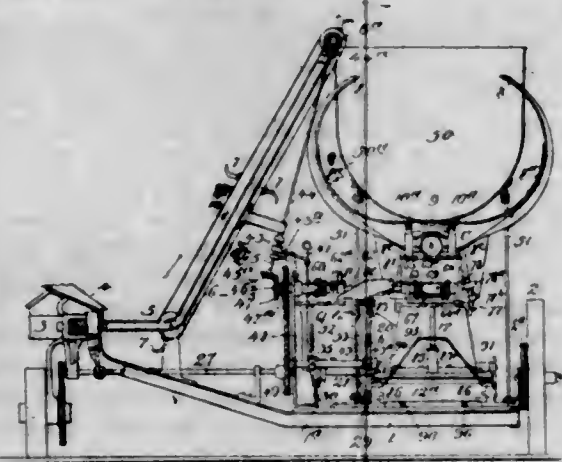
3. The combination of a drawing board having cleats along the opposite sides of its rear surface; a back slidably mounted on said cleats and cooperating therewith and with the board to form a container; a paper clamping strip connected to and movable with said back, and means for actuating said strip to cause it to clamp a piece of paper to one edge of the board.

4. The combination of a drawing board; a clamping member movably mounted thereon; structures on the board forming holding abutments; and spring retaining means mounted on the clamping member in position to co-operate with the abutments to hold said member in position to grip a body of paper between itself and the adjacent edge of the board.

5. The combination of a drawing board having cleats on its rear surface; inclined holding abutments mounted on said cleats; a clamping member; and releasable holding means carried by said member in position to co-operate with the abutments to force the clamping member toward the board edge.

[Claims 6 to 10 not printed in the Gazette.]

1,080,270. GRAIN-STOOKING MACHINE. HORACE L. EDGE, New York, N. Y. Filed Apr. 29, 1912. Serial No. 693,986. (Cl. 56—121.)



1. A stooking machine comprising a sheaf receiver having relatively movable arms, a cam located below said receiver arms, means between the cam and arms to cause the latter to close upon sheaves, means to move said receiver from the sheaf receiving position to the sheaf delivering position, means to rotate said cam and means to cause said receiver to deposit the sheaves upon the ground and release said sheaves.

2. A stooking machine comprising a rotative sheaf receiver having relatively movable arms, a cam located below said receiver arms, means connected with said arms and actuated by said cam to cause said arms to close upon sheaves, means for rotating said receiver from the sheaf receiving to the sheaf delivering position, means to rotate said cam intermittently, means to cause the receiver to deposit and release said sheaves, and means to restore said receiver to the sheaf receiving position.

3. A stooking machine comprising a receiver having relatively movable arms to receive and hold sheaves, a cam, means connected with said arms and co-active with said cam to cause said arms to close upon sheaves, said

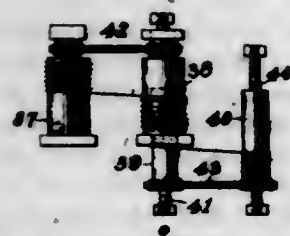
arms being supported to move from an upward sheaf receiving position to a lowered sheaf depositing position, means to actuate said cam, means to rotate said receiver from the sheaf receiving position, means to cause lowering of said receiver to the sheaf depositing position, and means to release said receiver from said sheaves.

4. A stooking machine comprising a receiver having pivotally supported arms to receive and hold sheaves, a cam located below said arms, the latter having movable members co-active with said cam to cause said arms to close upon contained sheaves, means to rotate said cam, said arms being supported to move from an upward sheaf receiving position to a lowered sheaf depositing position, means to cause lowering of said receiver to sheaf depositing position, and means to spread said arms apart in the last named position to release the contained sheaves.

5. A stooking machine comprising a receiver having a pair of relatively movable upwardly extending arms to receive sheaves between them, a cam pivotally supported below said arms, a stud connected with said arms and co-active with said cam to cause said arms to close upon the sheaves, a pivotally supported plate carrying said arms, said plate and arms being movably supported to swing to turn the contained sheaves around end for end, means to cause said arms to swing downwardly when turned from the sheaf receiving position, and means to spread said arms apart to release the sheaves.

[Claims 6 to 32 not printed in the Gazette.]

1,080,271. ART OF SIGNALING BY ELECTROMAGNETIC WAVES. REGINALD A. FERSENDE, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Original application filed May 4, 1906, Serial No. 315,266. Divided and this application filed May 18, 1909, Serial No. 496,726. (Cl. 250—8.)



1. In a wireless telegraphy, the method of tuning two circuits coupled by a transformer, which comprises varying the amount of wire in the coils of the transformer by infinitesimal increments and meanwhile adjusting the tuning in the two circuits to adapt the entire tuning to present conditions with respect to amount of energy transferred and closeness of tuning.

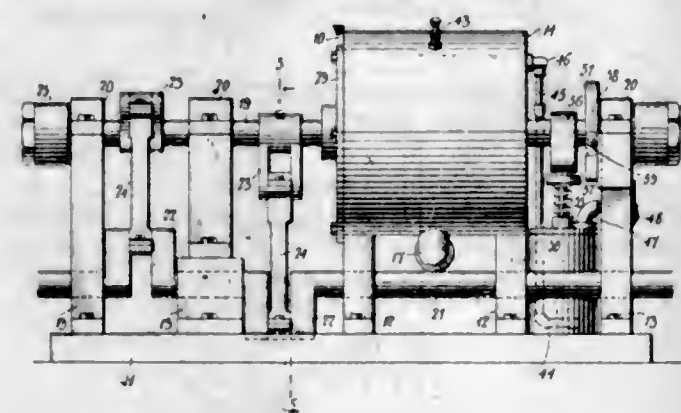
2. In wireless telegraphy, the method of tuning two inductively coupled circuits by gradually altering the amount of wire in the coils of the transformer and simultaneously varying the coupling of the transformer.

3. In wireless telegraphy, the method of tuning two inductively coupled circuits by varying both the coupling and the amount of wire in each coil of the transformer by infinitesimal increments, substantially as described.

1,080,272. ENGINE. EDSON W. FLETCHER, Searsport, Me. Filed Nov. 27, 1911. Serial No. 662,645. (Cl. 123—18.)

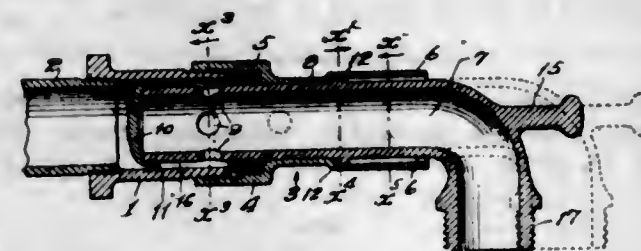
1. The combination in an engine, of a base, standards formed thereon, a cylinder casing supported by the standards, an oscillatory shaft journaled in the standards and extending through the cylinder casing, a crank shaft journaled in the standards, means for imparting a rotary motion to the crank shaft upon the oscillation of the other shaft, a longitudinal partition located in the cylinder casing, intake ports formed in one end of the cylinder casing upon the opposite sides of the partition, and an outlet port formed in the casing at a diametrically opposite point to the partition, a sleeve keyed to the oscillatory shaft, an oscillator supported by the sleeve, said sleeve engaging the adjacent end of the partition, a pump mounted upon

the base, a cam keyed to the oscillatory shaft for operating the pump, a connection between said pump and intake ports, means for supplying driving medium to the pump, a pair of spark plugs extending into the cylinder casing upon opposite sides of the partition, a yoke slidable upon one of the standards, contact plates supported by the yoke, and an arm keyed to the oscillatory shaft for engagement with the contact plates and operating the spark plugs.



2. The combination in an engine, of a cylinder casing, a shaft journaled therein, a sleeve surrounding said shaft, an oscillator carried by said sleeve, a partition extending through the cylinder casing and engaging the sleeve, intake ports formed in the cylinder casing upon opposite sides of the partition, a discharge port formed in the casing, means operated by the oscillation of said shaft for supplying fuel to the interior of the casing through the intake port, a pair of spark plugs extending into the cylinder casing upon opposite sides of the partition, a yoke slidably mounted in embracing relation to said shaft, contact plates supported by the yoke, and an arm keyed to the shaft for engagement with the contact plates.

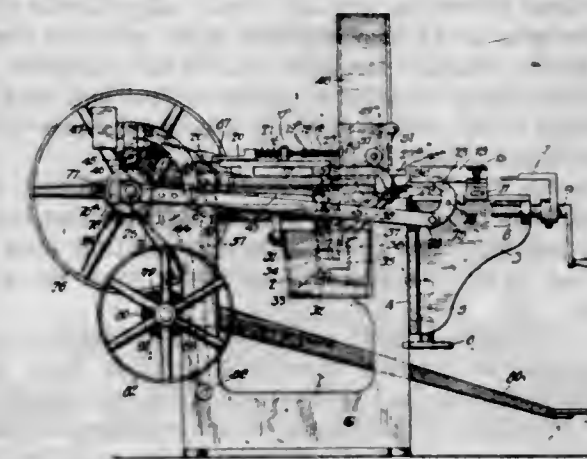
1,080,273. TELESCOPIC BIB-COCK. EVERLYN ALBERT FOUNTAIN, Pasadena, Cal. Filed May 11, 1911. Serial No. 626,585. (Cl. 137—4.)



1. A bibcock comprising a case provided at one end with an enlarged internally threaded chamber and at the other end with a longitudinal way and contracted between the way and the chamber, said way being open at the end of the case; of a nozzle slidable in the case and provided with a lug slidable into and along the way and with a port adapted to slide into and from such chamber, packing in the chamber and around the nozzle, a body screwed into the chamber against the packing to form an annular passage around the nozzle to the port, and a cap screwed onto the nozzle and projecting laterally therefrom to form a shoulder to contact with the packing when the nozzle is slid out to close the port while the lug is in the way.

2. The combination with a case having an enlarged chamber at one end, longitudinal ways at the other end and an annular way at the inner end of the longitudinal ways, said longitudinal ways being open at the end of the case; of a nozzle slidable in the case and having lugs in the ways adapted to slide therein and to allow the nozzle to rotate when the lugs are in the annular way, said nozzle being provided with a port, packing in the chamber and around the nozzle, a body in the chamber forming a passage to the port, and a cap on the end of the nozzle, normally inside the chamber and projecting laterally from the nozzle to engage the packing when the nozzle is out to close the port.

1,080,274. GLUING AND DOWEL-DRIVING MACHINE. JOHN R. FRANTZ, Oshkosh, Wis., assignor to E. B. Hayes Machine Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Feb. 19, 1913. Serial No. 749,413. (Cl. 144—31.)



1. A combined gluer and dowel driver operating in different but parallel horizontal planes, and means for moving the stock from one plane to the other.

2. A combined gluer and dowel driver operating in different but parallel horizontal planes, and an oscillating bar for moving the stock from one plane to the other.

3. The combination of gluing mechanism, dowel driving mechanism superimposed thereupon, said mechanisms operating in different but parallel horizontal planes, and means for moving the stock from one plane to the other.

4. The combination of gluing mechanism including a reciprocating glue finger adapted to be inserted into a dowel hole in the stock, and means for supplying glue to the finger, dowel driving mechanism superimposed upon the gluing mechanism and including a reciprocating dowel driver operating in a plane parallel with the plane of movement of the glue finger, and means for moving the stock from one plane to the other.

5. The combination of gluing mechanism including a reciprocating glue finger adapted to be inserted into a dowel hole in the stock, and having a glue passage through it, and a pump communicating with the finger for pumping glue therethrough and into the dowel hole, dowel driving mechanism superimposed upon the gluing mechanism and including a reciprocating dowel driver operating in a plane parallel with the plane of movement of the glue finger, and means for moving the stock from one plane to the other.

[Claims 6 to 16 not printed in the Gazette.]

1,080,275. DEVICE FOR LOCKING LINES OF TYPE. CHARLES E. GILBERT, Fort Wayne, Ind., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 6, 1912. Serial No. 729,735. (Cl. 101—169.)



1. The combination with parallel rails adapted to hold type between them, said rails having overhanging heads; of a leaf spring adapted to be shoved in the space between the rails and beneath the heads, said spring having an intermediate hump and two rapidly diverging legs, said legs engaging the under sides of the projecting heads of the rails and one of them having an abrupt end and the other a rounded end.

2. The combination, with a pair of parallel rails having overhanging edges and grooved type-held between such edges, and a locking spring occupying the space between the rails beneath the edges, said spring having an intermediate hump and two diverging legs, one of which has an abrupt end and the other a rounded end, whereby said spring binds against longitudinal movement in one direction only, though a tool inserted between the rails and

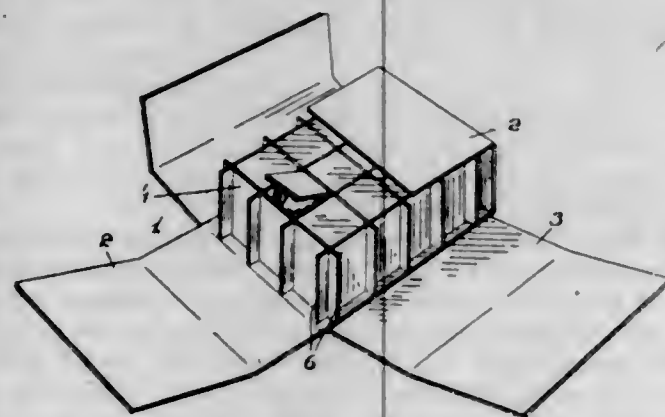
engaging the spring may shove it lengthwise of the rails in either direction.

3. The combination, with parallel rails grooved on their opposite sides, of grooved type held between such rails, and a locking spring held between the rails and consisting of a bent leaf providing a hump which engages the lower face of the grooves in two adjacent rails and two diverging legs which engage the upper face of such grooves, one of such legs being rounded adjacent to its end and the other abrupt at its end to bind on the upper faces of the grooves without lateral pressure.

4. A device for locking lines of type consisting of a leaf spring bent to present a hump on one side and having two diverging legs, and a short finger projecting from one leg adjacent to its free end and narrower than the width of the leg.

5. The combination, with parallel rails grooved on their opposite sides, of grooved type held between such rails, and a locking spring held between the rails and consisting of a bent leaf providing a hump which engages the lower face of the grooves in two adjacent rails, and two projecting legs which engage the upper face of such grooves, one of such legs having a finger substantially at right angles to the length of the rails.

1,080,276. EGG-CARRIER. ROBERT O. HAMMOND, Farmingdale, N. Y., assignor, by mesne assignments, to Tywacana Farms Poultry Company, Farmingdale, N. Y., a Corporation of New York. Filed July 18, 1913. Serial No. 779,796. (Cl. 217—29.)



The combination with an egg box having a plurality of rectangular compartments, of an egg holder for each compartment, consisting of a body having a flat side bearing against a flat side of said compartment, and opposite curved sides bearing against opposite sides of said compartment and having approximated free edges bearing against the other side of the compartment, and a rectangular top and a rectangular bottom having close engagement with the top and bottom of said compartment.

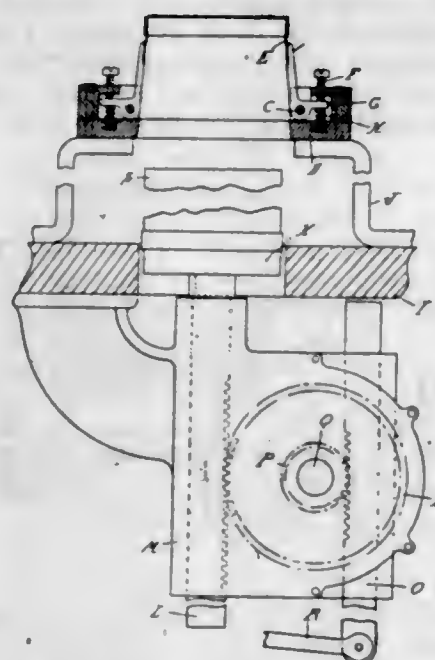
1,080,277. PACKAGE-CAPPING MACHINE. JERVIS R. HARBECK, Detroit, Mich., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Feb. 2, 1910. Serial No. 541,634. (Cl. 93—6.)

1. A package capping machine, comprising an annulus, a series of guide fingers pivotally mounted thereon and each provided with a thin plate at its upper end, adjustable stops for positioning said fingers, and resilient means for yieldably holding said fingers against said stops, for the purpose described.

2. A package capping machine, comprising an annulus, a series of guide fingers pivotally mounted upon said annulus and having thin plates at their upper ends, outwardly-extending bell crank arms on said guide fingers, set screws forming adjustable stops for said bell crank arms, and springs for yieldingly holding said bell crank arms against said stops, for the purpose described.

3. A package capping machine comprising an expandible annular guide insertible within the flange of the cap, and a plunger in axial alignment with said guide normally

below the same a sufficient distance to permit of placing the body of the package thereon, and means for raising said plunger to force said package through the guide.



4. A package capping machine, comprising a vertically arranged expandible guide insertible within the flange of the cap, the latter being supported by the upper end of the guide, a support for holding the package in vertical position, and means for effecting a relative vertical movement between the support and the guide to force the body of the package through the guide into engagement with the cap.

5. A package capping machine, comprising an upright expandible annular guide insertible within the flange of the cap, the latter being supported solely by the upper end of said guide, a support for the package in axial alignment with the guide, and means for relatively moving said support and guide toward each other in a substantially rectilinear path to force said package through the guide and into engagement with the cap.

[Claims 6 to 12 not printed in the Gazette.]

1,080,278. METHOD OF MAKING NAIL-EXTRACTOR JAWS. WILLIS F. HOBBS, Bridgeport, Conn. Filed July 15, 1913. Serial No. 779,148. (Cl. 76—101.)

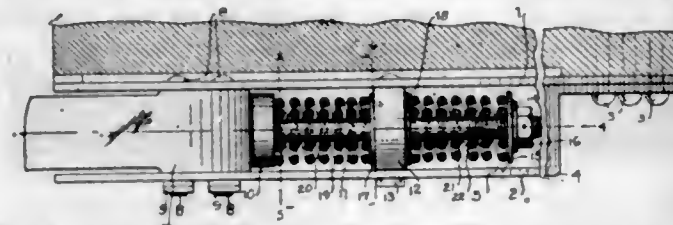


The improvement in the art of making combined nail extractor jaws and jaw levers from a bar which consists in forming a blank with a groove at the claw end and forming a lug on the opposite side of the blank, then folding the blank at its mid-width to substantially U-shape and then forming the lug into a claw.

1,080,279. BUFFING-GEAR FOR DRAW-BARS. JAMES HOOK, Manilla, Iowa. Filed Dec. 16, 1912. Serial No. 737,146. (Cl. 213—42.)

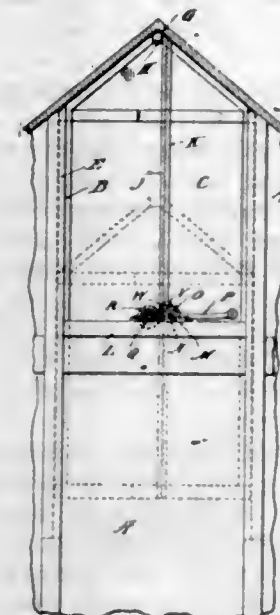
A device of the character described comprising a pair of plates secured together at one end, one of said plates being offset and extending in spaced parallel relation with the other of said plates, each of said plates being formed in its free end with a longitudinal slot, a draw bar disposed between the free ends of said plates, bolts passing through the inner end of said draw bar and through said slots whereby said draw bar is slidably maintained be-

tween said plates, an apertured block secured between said plates inwardly of said draw bar, a stem extending longitudinally from said draw bar and disposed through



the aperture in said block, and springs mounted on said stem on either side of said block as and for the purpose described.

1,080,280. DOOR-OPERATING MEANS. FRANK O. HULT, Galesburg, Ill. Filed Feb. 28, 1913. Serial No. 751,860. (Cl. 39—97.)



1. The combination of a door adapted for vertical movement, a rack-bar secured thereon in a vertical position, a pinion engaging the rack-bar, means for rotating the same, a member opposite the pinion and having the rack-bar between it and said pinion and adapted for receiving pressure from the former, and a latch adapted to lie between the pinion and rack-bar and in engagement with both.

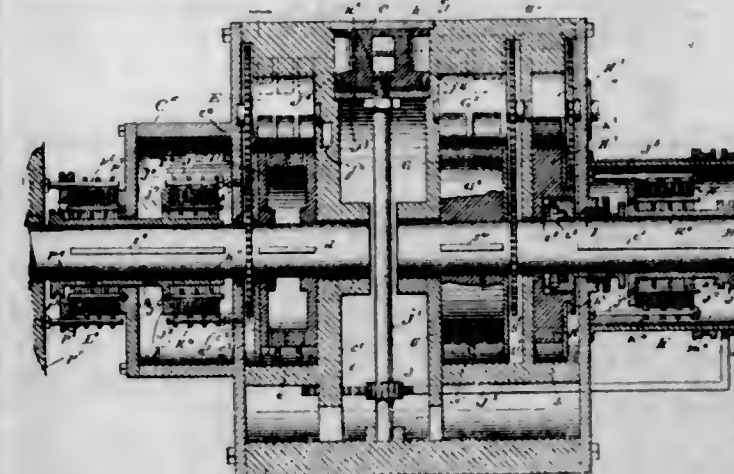
2. The combination of a door adapted for a vertical movement, a rack-bar secured thereon and having a vertical position, a pinion engaging the rack-bar, means for rotating the same, a pressure roller opposite the pinion and having the rack-bar between it and said pinion and adapted for receiving pressure from the former, and a latch adapted to lie between the pinion and rack-bar and in engagement with both.

3. The combination of a door adapted for a vertical movement, a rack-bar secured thereon and having a vertical position, a pinion engaging the rack-bar, means for rotating the same, a pressure roller opposite the pinion, a stud to carry it, and a series of friction members in said roller in contact with it and the said stud, the rack-bar lying between the roller and said pinion, the roller adapted to receive pressure from the rack-bar, and a latch adapted to engage between the pinion and said rack-bar.

1,080,281. FLUID-OPERATED POWER-TRANSMISSION MECHANISM. CHARLES SNOW KELLOGG, Montclair, N. J. Filed May 24, 1907. Serial No. 375,529. (Cl. 138—3.)

1. In an apparatus of the class described, driving and driven members, a casing provided with a liquid circuit, said casing being rotatable relative to said members, means for locking the casing against rotation in either direction, a motor operated by liquid adapted to circulate in said casing, and means for circulating liquid in said casing.

2. In an apparatus of the class described, driving and driven members, a casing rotatable relative to said members, means for restraining said casing against rotation in both directions, a pump operable by the driving member for circulating liquid in said casing, means operated by the circulating liquid in the casing for propelling the driven member, and additional means adapted to also be operated by the circulating liquid and cooperating with said driven member, said additional means supplementing the action of the first named liquid driven means and cooperating therewith to exert increased torque on the driven member.



3. A hydraulic transmission mechanism comprising a single rotatable casing, means for restraining said casing from rotation in either direction, driving and driven members, a pump within the casing and operated by the driving member for circulating liquid through the casing, a plurality of motors within the casing and adapted to cooperate with the driven member, said motors being adapted for operation by the liquid circulating in the casing, and means operable at will for admitting the liquid to one of the motors to the exclusion of the other motor and for admitting liquid simultaneously to both motors.

4. In an apparatus of the class described, driving and driven members in alignment with each other, a liquid circuit, a liquid pump operated by the driving member for forcing a liquid through said circuit, a liquid operated motor adapted to actuate the driven element, another liquid actuated motor adapted to supplement the energy exerted by the first named motor on the driven member, a valve for controlling the supply of liquid to both motors, and a separate valve for reversing the direction of flow of liquid through said motor or motors.

5. In an apparatus of the class described, a driving member, liquid pumping mechanism operated thereby, a motor operated by the liquid from said pumping mechanism, a driven member operated by said motor, a casing rotatable relative to said driving and driven members, means for controlling the rotation of said casing, and means for coupling the driving and driven members for rotation as a unit.

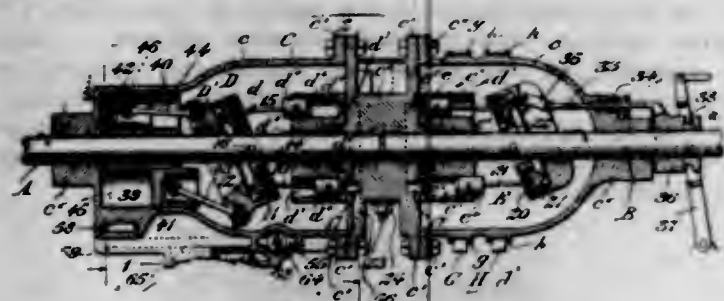
[Claims 6 to 74 not printed in the Gazette.]

1,080,282. SPEED AND POWER TRANSMITTING MECHANISM. CHARLES SNOW KELLOGG, Montclair, N. J. Filed Feb. 13, 1908. Serial No. 415,691. (Cl. 138—3.)

1. In an apparatus of the class described, a rotatable member provided with a liquid circuit, reciprocating pumps in cooperative relation to said circuit, driving and driven members cooperating with said pumps, and means for controlling the rotation of said circuit carrying member whereby it may rotate with said driving and driven members, or the pumps may be operated to drive one member from the other member.

2. In an apparatus of the class described, driving and driven members, reciprocating pumps cooperating therewith, a chambered rotatable member, independent of said driving and driven members, provided with a liquid circuit which cooperates with said pumps, and means for controlling the circulation of liquid in said circuit, where-

by the pumps are adapted to transmit the motion of one member to the other at variable speeds or the chambered rotatable member may be caused to rotate with both members at substantially the maximum speed of the driving member.



3. In an apparatus of the class described, a rotatable drum or casing provided with a liquid circuit, driving and driven members independent of said rotatable drum or casing, a multiple reciprocating piston pump cooperating with the driving member and the liquid circuit, a separate multiple reciprocating piston pump operating to drive the driven member and also cooperating with the liquid circuit, means operated at will for controlling the rotation of said drum or casing, and separate means for varying the capacity of either of said pumps.

4. In an apparatus of the class described, driving and driven members, a rotatable casing provided with a member intermediate its ends, said casing being independent of said driving and driven members, a liquid circuit in said member of the rotatable casing, pumps cooperating with the liquid circuit in said intermediate member of the casing, one of said pumps being operated by the driving member and the other pump cooperating with the driven member, and means for controlling the circulation of liquid in said circuit.

5. In an apparatus of the class described, a rotatable drum or casing provided with a member intermediate its ends, a liquid circuit in said member, driving and driven members, pumps incased in said drum or casing and cooperating with the liquid circuit in said intermediate member, means for regulating the circulation of liquid in said circuit, and means for arresting the rotation of said casing.

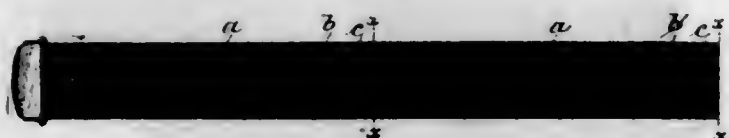
[Claims 6 to 39 not printed in the Gazette.]

1,080,283. INCASED CONCRETE PILING. JOHN KENNY, New York, N. Y., assignor to John Simmons Company, a Corporation of New York. Filed July 10, 1913. Serial No. 778,288. (Cl. 72-81.)



The aligning sleeve for joining the abutting ends of the metallic casing sections together, formed interiorly with longitudinal guides for holding vertical reinforcing rods, said guides having segmental openings toward the axis of the sleeve, substantially as described.

1,080,284. ELASTIC FABRIC. WALDEMAR KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed Sept. 27, 1911. Serial No. 651,551. (Cl. 139-70.)

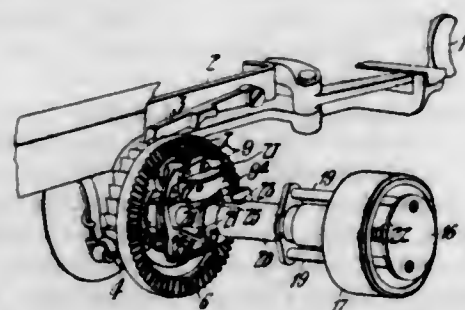


1. An elastic fabric or webbing having spaced elastic sections or parts which come at the respective ends of the webbing, and one of which is adapted to be employed as a sewing section, or section to be sewed or attached to a garment, and an intermediate section made inelastic by a dry adhesive incorporated in the fabric or webbing, whereby the elastic warps are held or anchored in the intermediate section and the tension applied to the other elastic section is not influenced by the condition of the elastic warps in the section that is attached in the garment.

2. An elastic fabric or webbing having spaced elastic sections or parts which come at the respective ends of the webbing, one of which is short and the other of which is long, and the short one of which is adapted to be employed as a sewing section or section to be sewed or attached to a garment, and an intermediate section made inelastic by a dry adhesive incorporated in the fabric or webbing, whereby the elastic warps are held or anchored in the intermediate section and the tension applied to the other elastic section is not influenced by the condition of the elastic warps in the section that is attached in the garment.

3. A length of elastic fabric or webbing treated at predetermined intervals and for a predetermined area with a foreign substance in liquid form which fills the interstices surrounding the elastic strands and is absorbed and surrounds the warp and weft threads and when dry locks the elastic strands in place and so forms the inelastic section, and said length of elastic webbing adapted to be severed at predetermined places to form varying lengths of elastic fabric, in which there are elastic sections, at each side of the inelastic section formed as described, and one of which elastic sections is adapted for attachment as a sewing section to a garment.

1,080,285. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 18, 1912. Serial No. 720,949. (Cl. 197-123.)



1. The combination with a platen axle and a ratchet wheel loose thereon, of a bevel gear connected to the ratchet wheel, a carrier connected to the axle, a planet wheel rotatably mounted on said carrier and engaging the bevel gear, a friction disk rotatable with said planet wheel, a friction seat for said disk, and means for moving the disk longitudinally of its axis to engage said friction seat.

2. The combination with a platen axle and a ratchet wheel loose thereon, of a bevel gear connected to the ratchet wheel, a carrier connected to the axle, a planet wheel engaging the bevel gear and rotatably mounted on said carrier on an axis radial to said axle, a friction disk rotatable with said planet wheel, a friction seat for said

disk, and means for moving the disk longitudinally of its axis to engage said friction seat.

3. The combination with a platen axle and a ratchet wheel loose thereon, of a gear connected to the ratchet wheel, a carrier connected to the axle, a planet wheel rotatably mounted on said carrier and engaging said gear, a friction disk rotatable with said planet wheel, a friction seat for said disk, said disk having a beveled edge, and a lever engaging said beveled edge to force the disk against its seat.

4. The combination with a platen axle and a ratchet wheel loose thereon, of a bevel gear connected to the ratchet wheel, a carrier connected to the axle, a planet wheel rotatably mounted on said carrier and engaging the bevel gear, a friction disk rotatable with said planet wheel, a friction seat for said disk, said disk having a beveled edge, and a lever having a short arm engaging said beveled edge to force the disk against its seat.

5. The combination with a platen axle and a ratchet wheel loose thereon, of a bevel gear connected to the ratchet wheel, a carrier connected to the axle, a planet wheel rotatably mounted on said carrier and engaging the bevel gear, a friction disk rotatable with said planet wheel, a friction seat for said disk, a pair of levers engaging said disk, and yielding means for impelling the levers toward each other to force the disk against its seat.

[Claims 6 to 26 not printed in the Gazette.]

1,080,286. BAG-LOCK. CLAUS ADAM LANDERHOLM, Phillips, Nebr. Filed Jan. 23, 1913. Serial No. 743,758. (Cl. 24-30.5.)



1. In a bag lock, a block formed with concavo-convex lateral edges and with an end edge formed with a depression and a recess leading into said depression, a spring terminally embedded in the concave lateral edge of said block, a lever mounted in the end edge of said block, locking means for said lever when in one position and a flexible member secured to said block and adapted to be passed partially thereabout and to engage said lever.

2. In a bag lock, a block formed with concavo-convex lateral edges and with an end edge formed with a depression and a recess leading into said depression, a spring terminally embedded in the concave lateral edge of said block, a lever mounted in the end edge of said block, springs embedded in said end edge for retaining said lever in one position and a flexible member secured to said block and adapted to be passed partially thereabout and to engage said lever.

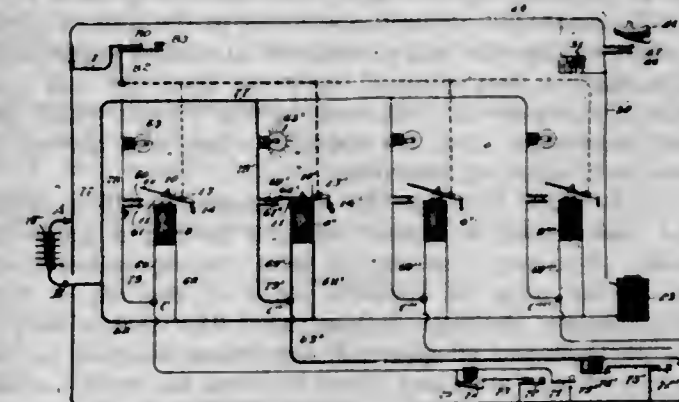
1,080,287. SIGNALING DEVICE. MAURICE LEVISON, Chicago, Ill., assignor, by direct and mesne assignments, to Chicago Signal Company, Chicago, Ill., a Corporation of Illinois. Filed May 19, 1911. Serial No. 628,177. (Cl. 177-339.)

1. In a signal device the combination of electro-responsive means responsive to changes in a circuit, timed means comprising a member movable at a predetermined speed, an annunciator-controlling part movable in one direction by said responsive means and in another direction by said timed means, and annunciator means controlled by said parts and operable in response to such dual movement of said parts.

2. In a signal device, the combination of an electro-responsive means responsive to changes in a circuit, timed means comprising a member movable at predetermined

197 O. G.-9

speed, an annunciator, and an annunciator-controlling part movable in one direction by said responsive means into engagement with said timed member, and in another direction through such engagement finally to reach a position to condition the annunciator for operation.



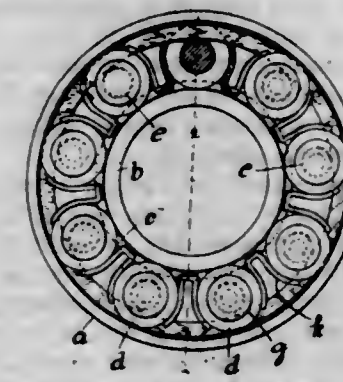
3. In a signal device, the combination of electro-responsive means responsive to changes in a circuit, timed means comprising a worm rotating at predetermined speed, an annunciator, a part movable in one direction by the responsive means into engagement with said worm and movable in another direction through engagement with said worm finally to reach effective position, and means controllable by said movable part in its effective position to condition an annunciator for operation.

4. In a signal device, the combination of a main circuit, means responsive to changes in said circuit, timed means movable at predetermined speed, an annunciator, an annunciator-conditioning part movable in one direction by the responsive means into engagement with said timed means, and in another direction through such engagement finally to reach effective position, and means to maintain the annunciator-conditioning part in such effective position independently of the condition in the main circuit.

5. In a signal device, the combination of a main circuit, means therein to change the condition of said circuit, means responsive to changes in said circuit, timed means comprising a member movable at predetermined speed, an annunciator, an annunciator-controlling part movable in one direction by the responsive means into engagement with said timed means and movable in another direction through such engagement with the movable timed means finally to reach effective position, retaining means to maintain the annunciator-controlling part in such effective position, independently of the condition of said main circuit, and means to release said retaining means.

[Claims 6 to 10 not printed in the Gazette.]

1,080,288. ROLLER-BEARING WITH ROLL-SEPARATORS. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed May 23, 1912. Serial No. 699,101. Renewed Oct. 24, 1913. Serial No. 797,098. (Cl. 64-62.)



1. In a roller bearing, the combination, with a cylindrical casing and a cylindrical hub having a guide-rib thereon, of a series of duplex rolls having roll-sections fitted to the hub at opposite sides of the rib, and a series of U-shaped sheet-metal separators having each a foot

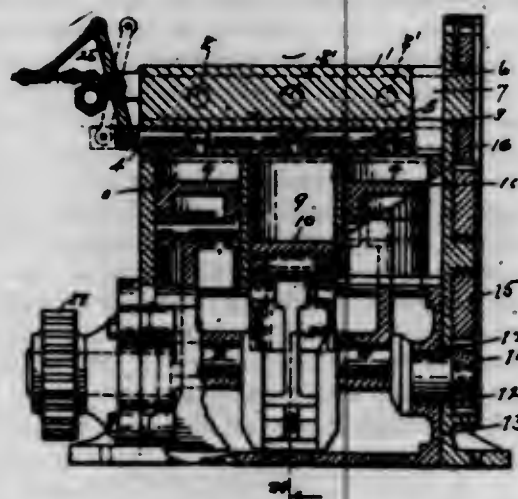
adapted to move upon the hub and notched to engage the rib, and having elastic wings extended outwardly from its opposite edges and curved to fit the outer sides of the rolls.

2. In a roller bearing, the combination, with the cylindrical casing and a cylindrical hub having a guide-rib thereon, of a series of duplex rolls consisting each of a pin with heads and roll-sections fitted to the hub at opposite sides of the ribs and a series of U-shaped separators, having each a foot adapted to move upon the hub and notched to engage the rib, and having elastic wings extended outwardly from its opposite edges and curved to fit the outer sides of the rolls.

3. In a roller bearing, the combination, with a cylindrical casing and a cylindrical hub having a guide-rib thereon, of a series of duplex rolls having roll-sections fitted to the hubs at opposite sides of the rib, a ring fitted between the roll-sections next the casing and a series of U-shaped sheet-metal separators notched to engage the rib and ring and fitted between the rolls, as and for the purpose set forth.

4. In a roller bearing, the combination, with a cylindrical casing and a cylindrical hub having a guide-rib thereon, of a series of duplex rolls having roll-sections fitted to the hubs at opposite sides of the rib, a loose ring fitted between the roll-sections adjacent to the casing and a series of U-shaped separators notched to engage the rib and the loose ring and fitted between the rolls, the separators being adapted for insertion within the ring in a group at one side of the ring and hub and subsequent shifting to their operative positions.

1,080,289. COMBINED AIR MOTOR AND COMPRESSOR FOR STARTING INTERNAL-COMBUSTION ENGINES. HARRY A. LORD, South Pasadena, Cal. Filed May 23, 1912. Serial No. 700,347. (Cl. 230—37.)



1. In an air compressor, in combination with a compressing cylinder and a valve way connected therewith, a one piece piston valve slidable in said way, a plurality of recesses in said piston and extending entirely around it, said recesses adapted to register with the ports of said cylinder for the admission or emission of air, and means to operate said piston, a compressed air tank, a conduit from said tank leading to said cylinder, inlet and outlet connections from said cylinder to said conduit, a valve in said conduit, and cooperating means between said conduit valve and said piston valve whereby they may be simultaneously operated.

2. In an air compressor and motor, in combination with a compression cylinder, a rotary valve, a piston valve, and an air conduit between said cylinder and compressed air tank, a valve in the air conduit, a lever on the valve, a lever on the piston valve, and connecting means between the two levers by which the valve may be closed and the piston valve opened or vice versa, simultaneously.

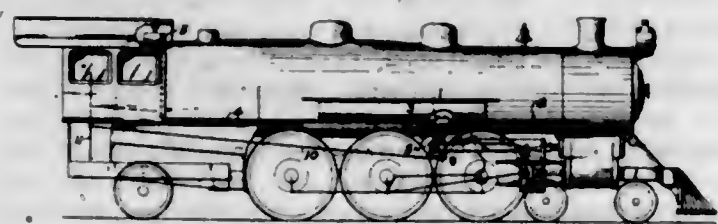
3. A combined air motor and compressor comprising a plurality of compression cylinders, pistons in the cylinders, a crank shaft casing, a crank shaft journaled in the casing and attached to the pistons, a head on the cylinders, inlet ports in the cylinder heads, outlet ports in the cylinder heads, ways in the head connecting with

the ports, a recessed piston in one of the ways, a recessed rotary valve in one of the ways, a gear on the rotary valve, a gear on the crank shaft adapted to engage the gear on the casing, a lever on the piston valve, an air tank, a conduit from the air tank to the inlet and discharge ports of the cylinders, a valve in the conduit, a lever on the valve, a connecting rod attached to the conduit, valve lever and the piston lever and adapted to operate both simultaneously, and means to connect the crank shaft of the cylinders with an engine, as specified.

4. In an air motor and compressor, in combination with compressor cylinders, pistons in the cylinders, a crank shaft attached to the pistons, gear means to connect the shaft with an engine and gear means to connect the shaft with an idler gear, a cylinder head on the cylinders, longitudinal valve ways in the head, a slidable piston valve in one of the ways, a rotary valve in the other way, air intake suction valves connecting the cylinders with atmospheric air, discharge valves adapted to connect the cylinders with a tank conduit to a storage tank, and means to connect the same operably with an automobile and to its mechanism.

5. A combined air motor and compressor comprising a plurality of compression cylinders, pistons in the cylinders, a crank shaft casing, a crank shaft journaled in the casing and attached to the pistons, a head on the cylinders, inlet ports in the cylinder head, outlet ports in the cylinder head, ways in the head connecting with the ports, a recessed piston in one of the ways, a gear train between the crank shaft and the rotary valve, the said gear being so speeded as to rotate the said valve in a ratio of 1 to 2 of the crank shaft and adapted to bring the recesses of the rotary valve into register with the cylinder ports twice in each revolution to cause admission and emission of air alternately through the same ports, means to supply atmospheric air to said cylinders, means to supply compressed air to said cylinders, and means to control the functions of said motor and compressor from the driver's seat of an automobile.

1,080,290. LOCOMOTIVE-DRIFTING-VALVE MECHANISM. FREDERICK W. MARTIN, New York, and JOHN L. MOHUN, Brooklyn, N. Y., assignors of one-third to Albert G. Elvin, Somerville, N. J. Filed July 30, 1913. Serial No. 781,944. (Cl. 121—14.)



1. In a locomotive drifting valve mechanism, the combination with the reverse gear, of a valve operated by the movement of said reverse gear for controlling the admission of a limited amount of steam to the engine cylinders.

2. In a locomotive drifting valve mechanism, the combination with the reverse gear, of a valve for controlling the admission of a limited amount of steam to the engine cylinders when the throttle is closed, and means operated by the movement of said reverse gear for actuating said valve.

3. In a locomotive drifting valve mechanism, the combination with the reverse gear, of a valve for controlling the admission of a limited quantity of steam to the engine cylinders when the throttle is closed, and a cam device operated by the movement of the reverse gear for actuating said valve.

4. In a locomotive drifting valve mechanism, the combination with the reverse gear, of a valve for controlling the admission of a limited quantity of steam to the engine

cylinders when the throttle is closed, and means operated from the reverse shaft for actuating said valve.

5. In a locomotive drifting valve mechanism, the combination with the reverse gear, of a valve for controlling the admission of a limited quantity of steam to the engine cylinders when the throttle is closed, and a cam mounted on the reverse shaft for operating said valve.

(Claims 6 to 11 not printed in the Gazette.)

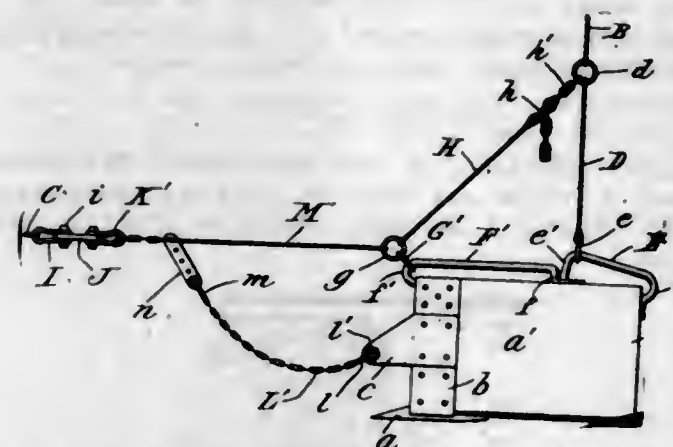
1,080,291. PILE FABRIC. WILLIAM H. MELLOR, Newton, N. J. Filed May 3, 1911. Serial No. 624,873. (Cl. 139—71.)



1. A terry fabric, consisting of a base comprising cotton, and pile loops composed of silk noil yarn, whereby the appropriate effects of both of said materials may be had by using one side of the fabric.

2. A terry fabric, consisting of a base composed entirely of cotton, and pile loops composed of silk noil yarn, whereby the appropriate effects of the cotton and noil may be had by using one side of the fabric.

1,080,292. EXCAVATING-SHOVEL. CHARLES A. MORRIS, Montclair, N. J., assignor to The Hayward Company, a Corporation of New York. Filed Apr. 8, 1911. Serial No. 619,646. (Cl. 37—54.)



1. In an excavating device, the combination with a shovel, of a suspending member slidably connected thereto and precluded from sliding forwardly of the center of gravity of the shovel, and a drag line on which tension is maintained for precluding the shovel from dumping during the operation of hoisting it, said shovel being movable bodily into a dumping position by slackening tension on the drag line.

2. In an excavating device, the combination with a shovel, of a suspending member, means for slidably connecting said suspending member to the shovel, said connecting means operating to arrest the slidable movement of the suspending member at a point substantially rearward of the center of gravity of the shovel, a draft member, and means cooperating with the suspending member, the draft member and the shovel for retaining the shovel in a nondumping position when tension is maintained on the draft member.

3. In an excavating device, the combination with a shovel, of a suspending member having slidable connection with said shovel for permitting the shovel to move lengthwise and to turn relative to said suspending member, a drag line, and a controlling member separate from the slidable connection of the suspending member with the shovel, said controlling member being operable by the ten-

sion of the drag line to preclude the shovel from sliding relative to the suspending member and by the slack of the drag line to secure the sliding and turning movement of the shovel to a dumping position.

4. In a device of the class described, a shovel, a suspending member slidably connected thereto, and a draft bridle also slidably connected to said shovel.

5. In a device of the class described, a shovel, a suspending member slidably connected thereto, and a draft bridle also slidably connected to said shovel at two points, said suspending member being slidable intermediate the points of connection of the draft bridle.

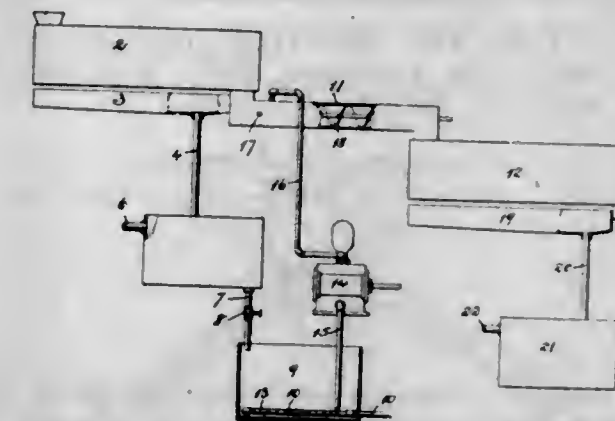
(Claims 6 to 26 not printed in the Gazette.)

1,080,293. BOTTLE. BURRIS M. MORTON, Koshkonong, Mo. Filed Mar. 15, 1911. Serial No. 614,606. (Cl. 215—113.)



A bottle prismatic in cross section having an integral hollow prismatic shaped foot extension, said extension and bottle forming a square, the upper portion of said extension being dishd to form a receptacle, the breast portion of the bottle sloping toward the face extending from said foot extension, the outer edge of said breast having a skirting bead, arranged as shown.

1,080,294. PROCESS OF EXTRACTING OIL FROM FISH. WILLIS E. OVERTON, Solomons, Md. Filed July 25, 1911. Serial No. 640,530. (Cl. 87—6.)



1. The process of extracting oil from fish consisting in subjecting a quantity of fish to a pressing operation to express oil and watery fluids therefrom, separating the oil from the watery fluid, returning the watery fluid to the mass and subjecting it to another pressing operation to express additional oil and the water and separating the oil from the water after the last pressing.

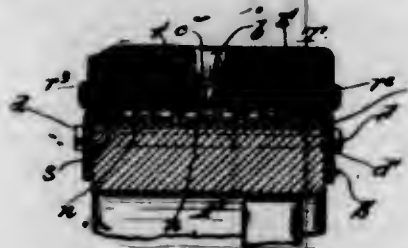
2. The process of extracting oil from fish consisting in subjecting a quantity of fish to a pressing operation to express oil and watery fluids therefrom, separating the expressed oil from the expressed watery fluid, loosening the pressed mass, returning the watery fluids to the loosened mass and again pressing the same to express additional oil and the water and finally separating the oil from the last expressed watery fluid.

3. The process of extracting oil from fish consisting in subjecting a quantity of fish to a pressing operation to express oil and watery fluids therefrom, separating the ex-

pressed oil from the expressed watery fluids, heating the watery fluids and return them to the pressed mass, again pressing the watered mass to express additional oil and the water and finally separating the oil from the last expressed watery fluid.

4. The process of extracting oil from fish consisting in subjecting a quantity of fish to a pressing operation to express oil and watery fluids therefrom, separating the expressed oil from the expressed watery fluids, heating the watery fluids and return them to the mass from which they came while agitating and loosening up the mass, again pressing the fish mass to express the water and enable the latter to act as a vehicle to carry off additional oil, and then separating the oil from the last expressed watery fluid.

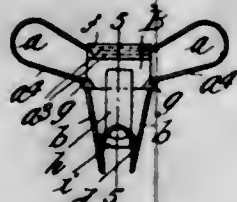
1,080,295. TIRE. JOHN J. PATTON, New York, N. Y. Filed Feb. 14, 1913. Serial No. 748,359. (Cl. 152-7.)



1. The combination with a wheel felly, of a tire rim in a single integral element formed on its underside with inclined annular marginal bearing surfaces and intermediate recesses and upon its opposite face with diagonal ribs, treads, cap plates embedded therein, bolts securing said cap plates in position, and nuts on said bolts disposed in said recesses.

2. The combination with a wheel felly, of a tire rim in a single integral element formed on its under side with inclined annular marginal bearing surfaces and intermediate recesses, and upon its opposite face with diagonal ribs, treads, cap plates embedded therein, bolts passing through said ribs and securing said cap plates in position, and nuts on said bolts and disposed in said recesses, said ribs acting in conjunction with the treads and bolts for the purpose set forth.

1,080,296. FORM FOR NECKTIES. LAWRENCE WILLMORE PENNINGTON, Springfield, Mass. Filed Dec. 16, 1912. Serial No. 736,886. (Cl. 2-84.)



1. In a neck tie form, the combination of a spring wire frame comprising oppositely extending loop members, the upper portions of which are composed of the free extremities of the wire, and extended to a lower position than the tops of the outer curved portions of the loops, the lower portions of said loop members being downwardly continued, and bent to produce an inwardly offset hook, the bill portion of which is in the form of a downwardly open loop, and a second frame having an eye formed upper part within which the free extremities of the wire included in said opposite loops are engaged and through which they are freely movable in the direction of their lengths, said frame also having eye formed lateral parts in which the said downward continuations of the wire are engaged and relatively to which said eye formed portions may freely vertically play.

2. In a neck tie form, the combination of a spring wire frame comprising oppositely extended loop members, the upper portions of which are composed of the free extremities of the wire, and extended to a lower position

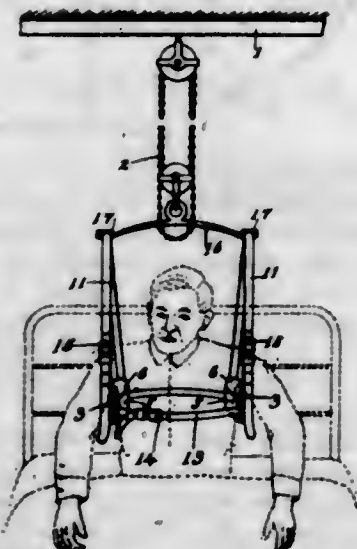
than the tops of the outer curved portions of the loops, the lower portions of said loop members being downwardly continued, in opposite relations and bent to produce an inwardly offset hook, the bill portion of which is in the form of a downwardly open loop, and a second frame having an eye formed upper part within which the free extremities of the wire included in said opposite loops are engaged and through which they are freely movable in the direction of their lengths, said frame also having eye formed lateral parts in which the said downward continuations of the wire are engaged and relatively to which said eye formed portions may freely play.

3. In a neck tie form, the combination of a spring wire frame comprising oppositely extended loop members, the upper portions of which are composed of the free extremities of the wire, and extended to a lower position than the outer curved portions of the loops, the lower portions of said loop members being downwardly continued, in opposite relations and bent to form a downwardly opening stud engagement loop, and a second frame having an eye formed upper part within which the free extremities of the wire included in said loops are engaged and through which they are freely movable in the direction of their lengths, said frame also having eye formed lateral parts in which the said downward continuations of the wire are engaged and relatively to which said eye formed portions may freely play.

4. A tie form consisting of a plate having a sleeve and guide eyes, a two winged tie form frame of yielding wire slidable in said sleeve and guide eyes and provided with a button engaging hook, and a member carried by said plate to engage the button with the hook.

5. A tie form comprising a plate having a button engaging finger on one end and a guide sleeve on the other end and provided with side guide eyes, and a wire form having wings slidably connected with the sleeve and a button hook slidably connected with the eyes and adapted to cooperate with the finger in gripping a button.

1,080,297. APPARATUS FOR HANDLING INVALIDS. JOHN A. PITTS and JOHN P. BOERMAN, Kalamazoo, Mich. Filed Oct. 28, 1912. Serial No. 728,171. (Cl. 5-44.)



1. In a structure of the class described, the combination of a pair of arm members adapted to be placed under the arms and comprising blocks having longitudinal grooves in their bottoms and outer sides and vertical and transverse grooves in their ends; hanger straps arranged in the grooves in the bottoms and the vertical grooves in the ends of said blocks; a hanger bar having loops at its ends in which said hanger straps are slidably arranged; and an adjustable body strap arranged in the grooves in the sides and the transverse grooves in the ends of said blocks, the hanger straps being crossed over the body straps and secured to said blocks at each side

thereof to provide retaining loops for the body strap whereby the body strap is adjustably secured to the arm members, all coacting for the purpose specified.

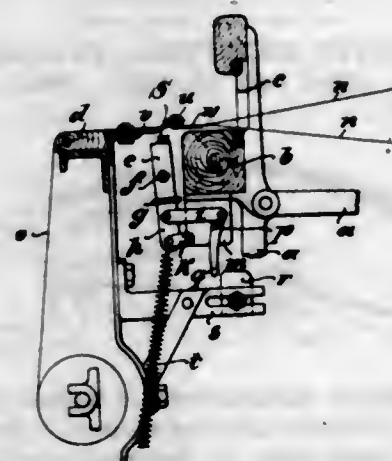
2. In a structure of the class described, the combination of a pair of arm members adapted to be placed under the arms and comprising blocks; hanger straps passed under said blocks and secured to the ends thereof; an equalizing hanger with which said hanger straps are slidably associated; and an adjustable body strap passed around the sides of said blocks and across the ends thereof under said hanger straps whereby the body strap is adjustably attached to the arm members, all coacting for the purpose specified.

3. In a structure of the class described, the combination with the hoisting means, of a pair of rigid arm members adapted to be placed under the arms; hanger straps secured to the said arm members; an equalizing hanger bar suspended from said hoisting means and having loops at its ends in which said hanger straps are slidably arranged; and an adjustable body strap adjustably secured to the said arm members, all coacting for the purpose specified.

4. In a structure of the class described, the combination with the hoisting means, of a pair of rigid arm members adapted to be placed under the arms; hanger straps secured to the said arm members; an equalizing bar suspended from said hoisting means; and an adjustable body strap adjustably secured to the said arm members, all coacting for the purpose specified.

5. In an apparatus for handling invalids, the combination of a pair of rigid arm members adapted to be placed under the arms, hanger straps connected to the ends of said arm members at the front and rear of the arms, an equalizing bar to which said hanger straps are connected, and an adjustable body strap connected to the ends of said arm members, whereby the same may be adjusted to and held against the sides of the body of the person to be supported.

1,080,298. APPARATUS FOR WEAVING FABRICS. EMIE PREIN, Hanover, Germany, assignor to Prein-Gewebe Actien-Gesellschaft, Hanover-Linden, Germany, a firm. Filed Aug. 21, 1913. Serial No. 785,833. (Cl. 139-82.)



1. The combination with a loom having a lay, of moistening means guided thereon, an arm pivoted on the lay and having operative connection with said moistening means, and a stop on the loom frame to engage the said arm to cause the moistening means to be raised on the backward movement of the lay.

2. The combination with a loom having a lay, of a bracket carried by said lay, a pair of links pivoted to said bracket, one of said links being longer than the other, a moistening device pivoted to said links, an arm pivoted on the bracket and having a projection engaging one of the links and a stop in the path of the free end of said arm adapted to engage the arm as the lay oscillates and thereby oscillate said moistening device.

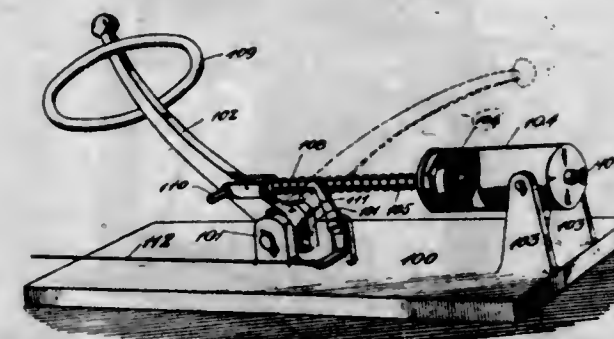
3. In an apparatus of the character described, a loom frame, a boss adjustably fixed on said frame, a catch-lever adapted to move over said boss, a lug on said catch-

lever, an arm engaged by said lug, a moisture holder engaged by said arm, a link connecting the lower part of said moisture holder to a block, and a spring drawing said container downward whereby said moisture holder is reciprocated into and out of contact with the threads at the weaving point.

4. In apparatus of the character described, and having a moistening body just below the weaving point, a protective band to prevent contact of the moistening body and the fabric.

5. In apparatus of the character described and having a moistening body, a bar disposed as a counter holder for the adjustment of said moistening body.

1,080,299. GAME. CARL A. RICHMOND, Chicago, Ill. Filed Apr. 30, 1910. Serial No. 558,566. (Cl. 46-59.)



1. In a game device, projectiles, a target, means to gradually increase the accessibility of the target, and means to adjust the rate of such increase.

2. In a game device, projectiles, a target, mechanism to gradually increase the accessibility of the target, and means under the control of a player of the game to start such mechanism in operation.

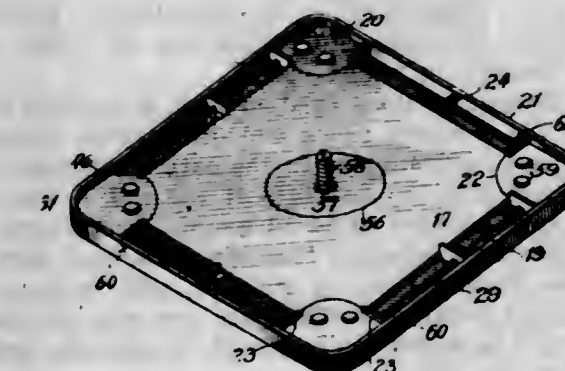
3. In a game device, a projectile to be thrown by a player of the game, a target to receive this projectile, means to increase the relative accessibility of the target, and means to retard said increase.

4. In a game device, a projectile to be thrown by a player of the game, a target to receive the projectile, and means gradually and slowly to increase the relative accessibility of the target as time progresses.

5. In a game device, a projectile to be thrown by a player of the game, a target to receive this projectile, means to enlarge the target, and means to retard the enlargement of the target.

[Claims 6 to 17 not printed in the Gazette.]

1,080,300. GAME. CARL A. RICHMOND, Chicago, Ill. Filed Dec. 2, 1910. Serial No. 595,240. (Cl. 46-61.)



1. In a game device, a board having two pockets, gates therefor, means to open the gates so as to expose the pockets gradually, and projectiles to enter the pockets.

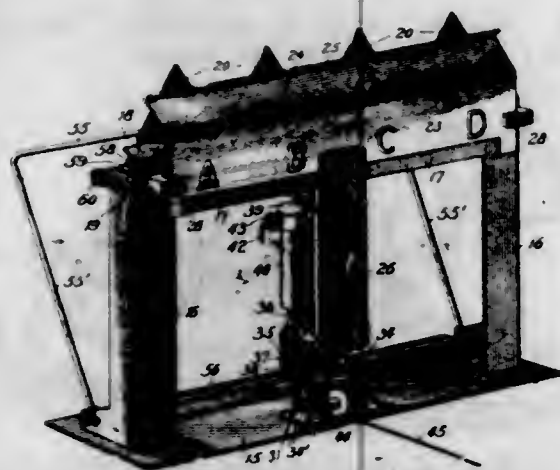
2. In a game device, a board having a pocket, a gate therefor, means to open the gate gradually, serially numbered projectiles, and other projectiles distinguished from the numbered ones.

3. In a game device, a board having a pocket, a gate therefor, projectiles adapted to slide across the board, and means to move the gate slowly to gradually open the pocket.

4. In a game device, a horizontal board, a target in connection therewith, means to gradually vary the accessibility of the target, and a projectile adapted to slide across the board and engage the target.

5. In a game device, a horizontal board, a target in connection therewith, means to gradually vary the accessibility of the target, and serially numbered projectiles adapted to slide across the board and engage the target. [Claims 6 to 22 not printed in the Gazette.]

1,080,301. TARGET-GAME APPARATUS. CARL A. RICHMOND, Chicago, Ill. Filed Feb. 21, 1911. Serial No. 809,889. (Cl. 40—59.)



1. In a game device, a plurality of targets, means to gradually increase the extent of their exposure, and means to displace all the targets when one is struck.

2. In a game, a plurality of targets, means to gradually increase the extent of their exposure, means to displace all the targets when one is struck, and means to indicate which target is struck.

3. In a game device, a plurality of targets, a shield in front thereof, means to gradually expose the targets from behind the shield, and means to throw all the targets behind the shield when one is struck.

4. In a game device, a plurality of targets, a shield in front thereof, means to gradually expose the targets from behind the shield, means to throw all the targets behind the shield when one is struck, and means to indicate which target is struck.

5. In a game device, a target, a shield in front of the target, means to gradually expose the target from behind the shield, and means to throw the target behind the shield when it is struck.

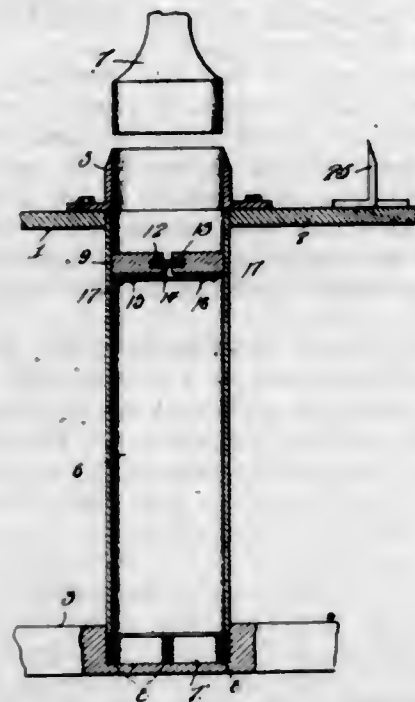
[Claims 6 to 28 not printed in the Gazette.]

1,080,302. HEEL-BUILDING MACHINE. PATRICK JAMES RILEY, St. Louis, Mo. Filed Apr. 12, 1912. Serial No. 690,251. (Cl. 164—29.)

1. In combination with a fixed support, a suitable heel-lift-forming die mounted above and discharging through the support, a tube positioned in the path of discharge of the die for receiving the heel-lifts at one end, a follower within the tube adapted to be advanced therethrough by the successive lifts discharged from the die, a fixed support engaging the discharge end of the tube, and resilient devices interposed between said support and said discharge end of the tube to permit retraction of the opposite end of the tube from the die.

2. In combination with a fixed support, a suitable heel-lift-forming die mounted on one side of said support and discharging therethrough, a tube mounted to form a continuation of the die but disposed on the opposite side of said support, a follower adapted to traverse the die and tube with successive accessions of lifts into the die, a second fixed support engaging the discharge end of the tube and provided with a pocket beyond the end of the tube, and resilient devices in said pocket engaging the adjacent end of the tube, whereby upon compression thereof, the intake end of the tube may be retracted out of engagement with the first fixed support.

3. In combination with a heel-lift-forming die, a tube or cylinder leading therefrom, a follower traversing said die and tube and comprising a pair of opposed and separable sections peripherally engaging the inner walls of the die and tube, the faces adjacent the plane of separation between the sections being provided with opposite depressions, a compression-spring confined in said depressions, suitable aligning eyes on the outer faces of the respective sections, and a headed rod loosely passed through the eyes, for the purpose set forth.



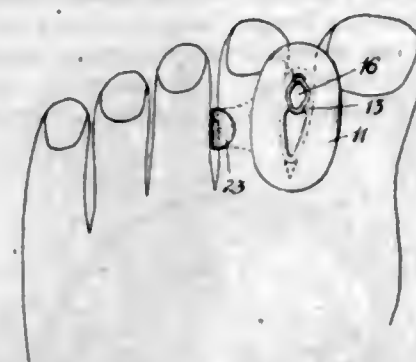
4. The herein described apparatus comprising a heel lift-forming die, a tube so located as to receive the lifts from the die, yielding means for sustaining the tube against the die, a yieldable support for the lifts frictionally engaging within the tube, said support comprising a pair of sections, spring members for forcing the sections away from each other and into frictional contact with the tube, and elements loosely arranged upon the sections to prevent the entire separation of the sections.

1,080,303. BUNION-RECTIFIER. WILLIAM M. SCHOLL, Chicago, Ill. Filed July 31, 1911. Serial No. 641,557. (Cl. 128—28.)



As an article of manufacture, a bunion rectifier comprising, in an integral rubber structure, a hollow upright toe spreading post ovate in horizontal section with its sides converging toward their rear portions, said post having horizontal top and bottom flanges; a longitudinally extended bunion shield, shaped to form a bunion pocket to overlie a bunion, having an uninterrupted interior surface, forming the inside of a continuous wall, and having its continuous wall very thin over the crest of the bunion pocket, thin throughout the portions from the crest of said pocket to the continuous side walls, and thickened in front of and in rear of the pocket, and a shank 7, connecting the lower edge of the thickened front portion to the base of the toe spreader, whereby the separated post and front thickened portion of the guard may receive the toe therebetween, mutually to position each other, and the thinness of the wall in a line transverse to the bunion-pocket-crest may permit flexion of the guard to retain the established relation of the spreader and front portion of the guard, without disturbing the relation of the front and rear thickened portions of said guard to the foot.

1,080,304. TOE-SPREADER. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 22, 1912. Serial No. 672,598. (Cl. 128—28.)



1. A toe-spreading appliance formed of a material having the essential qualities of rubber and comprising in a unitary structure a base, and a single hollow post, relatively long and narrow, rising above said base, said post being formed with a single uninterrupted ovate wall, thin and flexible throughout its rear portion and interiorly thickened for greater stiffness near the forward portion thereof.

2. A toe-spreader comprising a spreading post having transversely extending top and bottom flanges, and a toe-spreading appliance comprising a continuing ovate wall having thickened portions near its front end shaped to provide opposing seats, and a plug arranged for insertion into and retention by said seats.

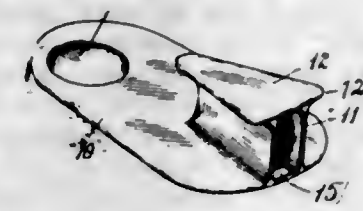
3. A toe-spreader comprising a spreading post having transversely extending top and bottom flanges, and a toe-spreading appliance comprising a continuing ovate wall having thickened portions near its front end shaped to provide dished opposing seats, and a hollow plug arranged for insertion into and retention by said seats.

4. A toe-spreader comprising a spreading post having transversely extending top and bottom flanges, and a toe-spreading portion comprising a continuing ovate wall having thickened portions near its front end shaped to provide a plug retaining seat, and a pneumatic plug.

5. The combination with a toe-spreader having resilient walls surrounding an opening, and a removable sealed air containing filler for said opening.

[Claims 6 and 7 not printed in the Gazette.]

1,080,305. TOE-STRAIGHTENING APPLIANCE. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 22, 1912. Serial No. 672,599. (Cl. 128—28.)



1. In a structure of the character described, the combination of a base, two substantially vertical walls rising from said base, spaced apart at their front ends to leave an end opening and converging from the front area of the base toward the rear, and a cover member overlying said vertical walls, all of said parts being permanently united and constituting a wedge shaped spreader of the character described.

2. In a structure of the character described, the combination of a base, two substantially vertical walls rising from said base and converging from the front area thereof toward the rear, a cover member overlying said vertical walls, all of said parts being permanently united and constituting a wedge spreader, open at its front end, and a yielding filler member for the insertion between said vertical walls through the front opening.

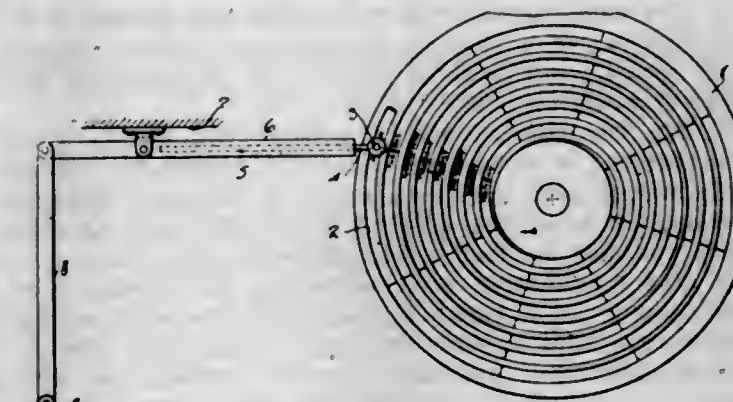
3. In a structure of the character described, the combination of a base and a spreader upon said base, said base extending rearwardly beyond said spreader and having formed therein a joint receiving recess suitably located with respect to said spreader.

4. In a structure of the character described, the combination of a base of extent in plan to underlie the ball of a human foot and the balls of two adjoining toes, and provided with a recess to receive the joint of one of the toes underlain by said base, two substantially vertical walls extending above the base to lie between the two toes underlain by said base, said walls converging toward the back to form a wedge spreader, and being open at its front, and a yielding filler member of suitable size for insertion between said walls through said front opening, and a cover member overlying and connecting said walls.

5. In a structure of the character described, a base having an upper surface shaped for conformity to a human foot under the enlarged joint of an affected toe, and means rising from said base for coaction between said affected toe and an adjacent toe comprising two substantially vertical walls integral with said base, said walls integrally connected at their rear edges and diverging forwardly to form a hollow wedge-shaped member open between its free front edges, and a horizontal top part spanning the space between said vertical walls and integral therewith, in combination with a suitable yielding filler adapted to fit between said vertical walls and beneath said top part, said walls and top part being of resilient material.

[Claims 6 and 7 not printed in the Gazette.]

1,080,306. RECORDING MECHANISM. BENJAMIN F. SILLIMAN, Cleveland, Ohio, assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 3, 1913. Serial No. 758,523. (Cl. 234—27.)



1. The combination of a guide plate provided with an open slot extending therethrough; a marker loosely received in such slot, said marker extending through said guide plate; a chart movably mounted in position to be contacted by said marker; and means adapted to move said chart in a direction substantially parallel to the longest dimension of such slot, whereby a continuous record is secured thereon, showing the movement of said marker.

2. The combination of a guide plate provided with a spiral slot therein, said plate rotatably mounted about an axis at substantially the center of said spiral slot; a marker loosely mounted in such slot; a chart rotatably mounted about the same axis as said plate and in position to be contacted by said marker; and means adapted to rotate said plate and said chart, whereby a continuous record is secured thereon, showing the movement of said marker.

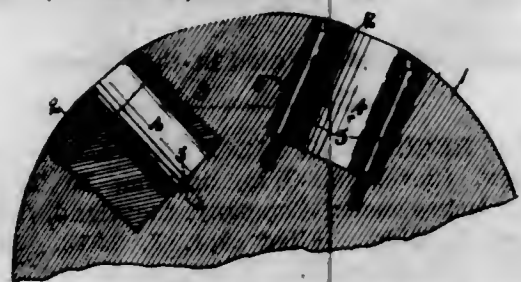
3. The combination of a guide plate provided with a spiral slot therein, said plate rotatably mounted about an axis at substantially the center of said spiral slot; an oscillatorily mounted holding member; a marker slidably held in said member and loosely mounted in such slot; and means adapted to rotate said plate and said chart, whereby a continuous record is secured thereon, showing the movement of said marker.

4. The combination of a guide plate provided with a spiral slot therein, said plate rotatably mounted about an axis at substantially the center of said spiral slot;

an oscillatory mounted holding member; a marker slidably held in said member and loosely mounted in such slot; and trimming means adapted to rotate said plate and said chart, whereby a continuous record is secured thereon, showing the oscillations of said holding member.

5. The combination of a guide plate provided with a spiral slot therein, said plate rotatably mounted about an axis at substantially the center of said spiral slot; a rocker shaft; an oscillatory mounted holding member; link mechanism suitably connecting said member and said shaft, whereby the oscillation of said shaft will be transmitted to said holding member; a marker slidably held in said member and loosely mounted in such slot; a chart rotatably mounted about the same axis as said plate and in position to be contacted by said marker; and trimming means adapted to rotate said plate and said chart, whereby a continuous record is secured thereon, showing the oscillations of said rocker shaft.

1,080,307. BOWLING-BALL. ALBERT SONDEHEIMER, Cleveland, Ohio. Filed Aug. 2, 1911. Serial No. 641,883. (Cl. 46-4.)



1. The combination with a bowling ball having a recess therein; of a bushing adapted to removably engage such recess, said bushing having an eccentrically disposed aperture therein.

2. The combination with a bowling ball having a recess therein; of a bushing adapted to removably engage such recess, said bushing having an aperture disposed therein, the axial lines of such recess and such aperture being mutually inclined with relation to each other.

3. The combination with a bowling ball having a recess therein; of a bushing adapted to removably engage such recess, said bushing having a substantially smooth-walled cylindrical aperture disposed therein, the axial lines of such recess and such aperture being mutually inclined with relation to each other.

4. The combination with a bowling ball having a recess therein; of a bushing adapted to removably engage such recess, said bushing having an eccentrically disposed aperture therein, and means adapted to prevent said bushing from turning during use.

5. The combination with a bowling ball having a plurality of recesses therein; of a plurality of bushings adapted to snugly engage said recesses; each of said bushings having an eccentrically disposed aperture therein; and means connecting said ball and said bushings, whereby the latter cannot rotate during use.

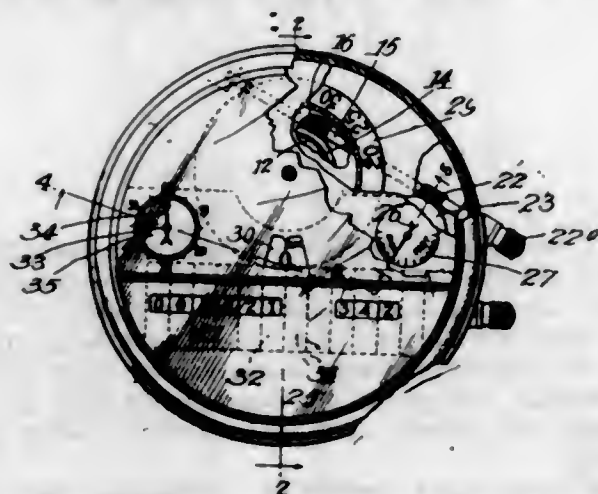
[Claim 6 not printed in the Gazette.]

1,080,308. SPEEDOMETER. JOHN K. STUART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, of Virginia. Filed Sept. 18, 1911. Serial No. 649,817. (Cl. 73-123.)

1. In a speedometer, in combination with a revolving shaft, a revolution indicating device consisting of a dial and an index hand which makes one revolution about such dial in one minute at a pre-determined speed, said dial and index hand being mounted visibly for reading the indications, and a speed indicating device mounted for simultaneous reading of the speed indications, the revolution indicating device being actuated by the revolving shaft, and the speed indicating device being controlled by the speed of said shaft.

2. In a speedometer, in combination with a revolving shaft, a revolution indicating device consisting of a dial and an index hand which makes one revolution about

such dial in one minute, at a pre-determined speed, said dial and index hand being mounted visibly for reading the indications, and a speed indicating device mounted for simultaneous reading of the speed indications, the revolution indicating device being actuated by the revolving shaft, and the speed indicating device being controlled by the speed of said shaft, and means for adjusting the speed-indicating device to compensate for errors.



3. In a speedometer, in combination with a revolving shaft whose speed is to be indicated, a revolution-indicating device consisting of a dial and an index finger which makes one revolution about such dial in one minute at a pre-determined speed, the dial being fractionally graduated, such dial and index hand being mounted visibly for reading their indication, and a speed-indicating device also mounted visibly for simultaneously reading the speed indication, the index hand being actuated by the revolving shaft and the speed-indicating device being controlled by the speed of the same shaft, and means for adjusting the speed-indicating device to compensate for errors.

4. In a speedometer, in combination with a revolving shaft, a speed-responsive device which derives rotative movement from said shaft; a helical spring coiled about the axis of said speed-responsive device and connected to the latter for biasing it against movement in response to the speed of the shaft; an annular guard encompassing said helical spring; a fixed member to which said guard is secured; a gear plate mounted for rotation about the axis of the biased device; a roller journaled on said plate for holding the outer coil of the spring against said guard; a pinion rigid with said roller, and an annular rack mounted on the guard-supporting member for engagement of the pinion, the diameter of the roller and the pitch diameter of the pinion being substantially equal, whereby the roller is positively rotated for rolling on the spring as the plate which carries it is rotated about its axis, and means for so rotating said plate.

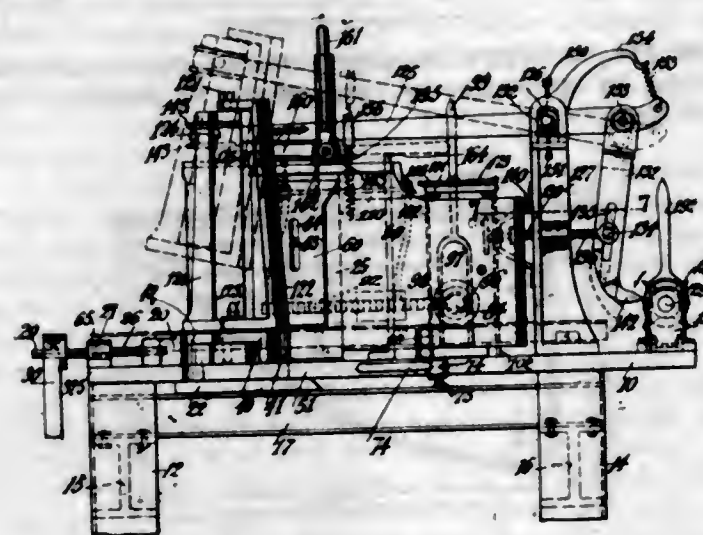
5. In a speedometer, in combination with a revolving shaft, a speed-responsive device which derives rotative movement from said shaft; a helical spring coiled about the axis of said speed-responsive device and connected to the latter for biasing it against movement in response to the speed of the shaft; an annular guard encompassing the spring; a fixed member by which the guard is carried; a roller and means by which it is carried for rotation about the axis of the biased device for holding the outer coil of the spring against said annular guard, and means for swinging said roller-carrying member about its axis, the guard being rigid with the plate at a portion not traversed by the roller, and being shaped for normally curving slightly inward from the path of the outer side of the roller for elastic gripping of the spring between the roller and the guard.

[Claims 6 to 8 not printed in the Gazette.]

1,080,309. METAL-BENDING MACHINE. WILHELM VOLLMER, New York, N. Y. Filed Oct. 2, 1911. Serial No. 652,388. (Cl. 20-34.)

1. In a metal-bending machine, the combination, with a forming-block, having a movable finger, a guide-block, and

a bending-lever, of a hammer located to strike the metal held by said blocks, and having a fixed head opposed to the forming-block, and a movable head opposed to the movable finger of the forming-block.



2. In a metal-bending machine, the combination, with a forming-block having a swinging-finger, a guide-block, and a bending-lever, of a hammer located to strike the metal held by said blocks, and having a fixed head opposed to the forming-block, and having a swinging-head opposed to the finger of the forming-block, and means for retaining the swinging head in juxtaposition to said finger during bending.

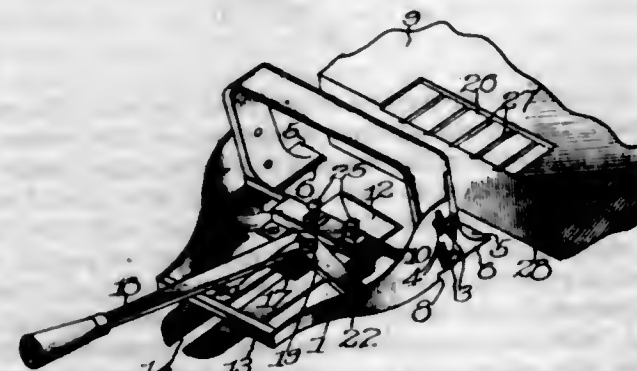
3. In a metal-bending machine, the combination, with a forming-block, a guide-block, and a bending-lever, of a hammer located to strike the metal held by said blocks, and having a movable head, and means for moving said head simultaneously with the metal during bending.

4. In a metal-bending machine, the combination, with a forming-block and a guide-block, of a bending-lever, means for moving the bending-lever, a hammer located to strike the metal held by said blocks and provided with a swinging head, means for moving said head toward the bending-lever, and means for actuating said hammer.

5. In a metal-bending machine, the combination, with a forming-block and a guide-block, of a bending-lever, means for moving the same, a hammer located to strike the metal held by said blocks and provided with a swinging head, means for guiding the hammer in a straight line for striking, means for swinging said head during the bending operation toward the bending-lever, and means for actuating the hammer during the bending operation.

[Claims 6 and 7 not printed in the Gazette.]

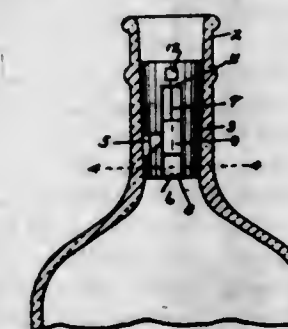
1,080,310. HINGE-SEAT-MORTISING TOOL. ALBERT WASSBERG, Coscob, Conn. Filed Apr. 17, 1911. Serial No. 621,554. (Cl. 144-27.)



In a hinge seat mortising tool, the combination with the stock, of apertured terminal lips extending transversely thereof, a box-loop made integral with one of the said terminal lips provided with a set-screw, a reciprocating plane-iron secured upon said stock, passing through said apertures and box loop and retained against said stock by the said set screw, a lever secured upon said

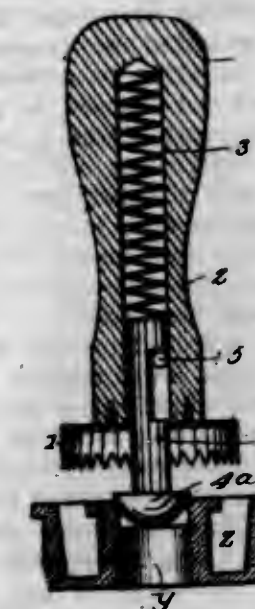
plane-iron and pivoted to said stock and means adjustably secured to said stock for regulating the cut of said plane-iron.

1,080,311. NON-REFILLABLE BOTTLE. AUGUSTUS C. WATTS, Columbus, Ohio, assignor of one-half to Andrew Winter and Frank Oestreich and one-half to Willard B. Forsythe, Columbus, Ohio. Filed Oct. 16, 1911. Serial No. 655,026. (Cl. 215-69.)



In a non-refillable bottle, a stopper having a tortuous longitudinal outlet passage in its periphery, a groove disposed in the periphery of said stopper parallel to said passage forming a valve seat and terminating short of the top of the stopper and communicating with the interior of said bottle, said groove having a V-shaped inner wall for a portion of its length and having a lateral extension to form a shoulder therein, a slide valve operating in said groove having a V-shaped base and limited in its movement to a position of closure by said shoulder, and a communicating passage between said outlet passage and said groove.

1,080,312. IMPLEMENT FOR DESTROYING REVENUE-STAMPS ON BEER-CASKS. CASPAR WEHNER, Central City, S. D. Filed Nov. 12, 1912. Serial No. 730,979. (Cl. 101-60.)



1. The improved revenue stamp cutter, comprising a part adapted to rest on a keg bushing during the cutting operation, a handle which is slidable on and guided by such part and provided at its lower end with a serrated circular cutting edge, a spring arranged between such part and the handle, and normally supporting the latter in raised position, and a cross pin attached to the handle and adapted to engage a shoulder on the fixed part for limiting the movement of the handle, as described.

2. The improved revenue stamp cutter, comprising a handle having a longitudinal bore and provided at its inner end with a circular cutter having a serrated edge, a centering device having a semicircular head and a shank adapted to slide in the bore of the handle and having a shoulder, a spring interposed between such shank and the outer end of the handle, and a stop-pin arranged transversely in the handle and adapted to engage the shoulder of the aforesaid shank, as described.

1,080,313. PERFORATOR FOR WELL CASINGS OR TUBES. PAUL F. YOUNGLING, Los Angeles, Cal. Filed Sept. 9, 1912. Serial No. 719,438. (Cl. 81-188.)



1. In a tool for perforating well casings, a lower member having grips associated therewith, frictional locks for the grips, a spring for moving a part associated with the frictional locks upward and the grips outward, means actuated by impact for releasing the frictional locks, an upper member maintained in movable relation with the lower member, inclined ways in said upper member, punch blocks seated in the ways and punches carried by the punch blocks to be projected when the members are moved one toward the other.

2. In a well casing perforator, a lower member having inclined ways for grips, grips seated in said inclined ways, means for holding the grips in a retracted position and means actuated by impact to release the means for holding the grips in a retracted position to move the grips upward and outward, an upper member having inclined ways for punch blocks, a bolt for holding the members in sliding engagement one with the other, and punches associated with the members to be projected by movement of the upper member toward the lower member.

3. In a perforator for well casings, two members maintained in longitudinally movable relation one to the other, punches associated with the members to be projected when one of the members is moved toward the other member, grips associated with the lower member to hold the same against downward movement when projected, a slidable bar associated with the grips, locks for frictionally holding the grips retracted and resilient means for moving the bar to project the grips upon release of the locks.

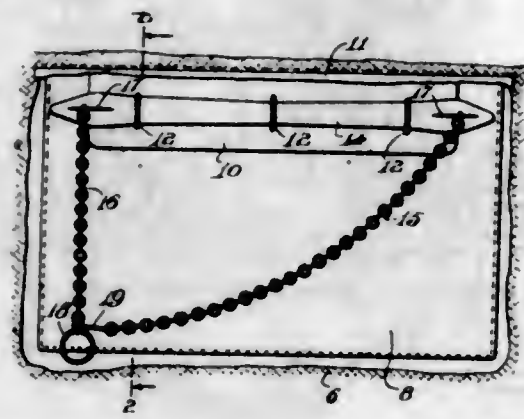
4. In a casing perforator, a lower member having inclined guideways which are intersected by a slot, grips associated with the guideways, a bolt having adjacent to its upper end recesses the lower end of the bolt extending beyond the lower member, a spring for moving the bolt in a direction to project the grips which are associated with the bolt, spring actuated means for engagement with the recesses in the bolt to hold the bolt in such position that the grips will be retracted, an upper member maintained in slidable relation with the lower member, inclined ways in said upper member, punch blocks slidable in the ways and arms connected to the punch blocks and to the lower member.

5. In a perforator for well casings, an upper member having a longitudinal bore and an opening at its lower portion of less diameter than diameter of the bore above, inclined ways in the lower portion of the upper member, a lower member, a bolt for connecting the upper member in slidable relation with the lower member, punch blocks mounted to slide upon the inclined ways, arms pivoted to the lower member and to the punch blocks, a grip-rod having recesses formed therein, spring projected balls that

engage the recessed portions of the grip-rod, a spring for retracting the grip-rod and grips associated with the grip-rod and the lower member.

(Claims 6 and 7 not printed in the Gazette.)

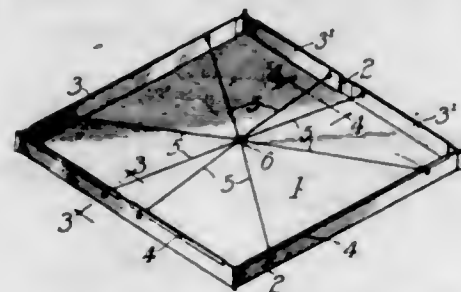
1,080,314. SAFETY-POCKET. JOSEPH ZABIELSKI, Chicago, Ill. Filed May 10, 1913. Serial No. 766,705. (Cl. 2-151.)



1. In combination, a garment pocket; a flap covering the opening of said pocket; perforated members carried by said pocket and extending through said flap; a strap locking said perforated members through said flap; a chain secured to said pocket and extending through said strap; a ring on the free end of said chain; a second chain secured to said pocket and extending through said strap; a ring secured to said second chain, slidably mounted on said first chain and adapted to lock said chains together, and a supplemental flap covering said first mentioned flap and the locking means, substantially as described.

2. In combination, a pocket; a flap covering the opening of said pocket; rings carried by said pocket and extending through said flap; a strap through said rings and provided with perforations near its ends; two chains carried by said pocket and extending through the perforations in said strap; a ring secured to each chain, one of said rings being slidably mounted on one of said chains; and a supplemental flap secured above said pocket covering said first mentioned flap and the means for locking the pocket, substantially as described.

1,080,315. BATH-MAT. WILLARD E. ALLEN, Toledo, Ohio. Filed May 6, 1910. Serial No. 559,660. (Cl. 4-27.)



1. A bath mat of flexible impervious material the edges of which are turned up and connected at the corners to form an upstanding rim around said mat, rigid strips attached to the edges of said upstanding rim, and flexible handles which connect different sides of said rim, said rigid strips being constructed and arranged to permit said mat to sag under the weight of water contained therein when raised by its handles, substantially as described.

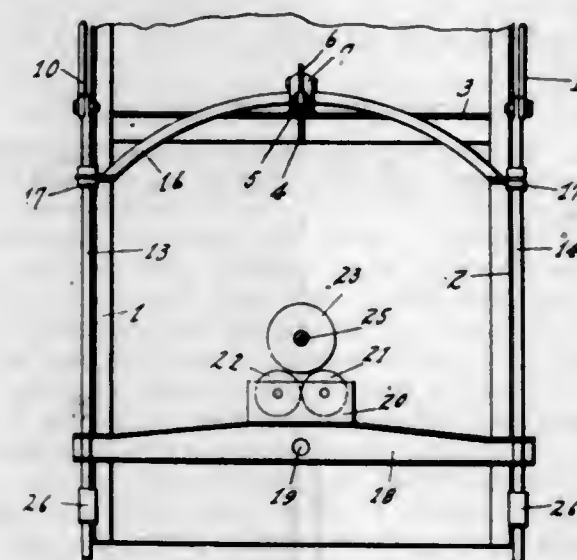
2. A bath mat, comprising a flexible, impervious body portion, the edges of which are upturned and connected at the corners of said mat to form an upstanding rim around said mat, rigid strips attached to the sides of said rim comprising strips at opposite sides thereof made in separate sections, whereby the sides of the rim to which said sectional strips are attached may fold inwardly and thus permit the body portion of the mat to sag, and flexible handles connected to and which connect different sides of the mat, substantially as described.

3. A bath mat comprising a flexible, impervious body portion the edges of which are upturned and connected at the corners or angles of said mat to form an upstanding rim around said mat and rigid strips attached to the sides of said rim comprising strips at opposite sides thereof made in separate sections, flexible handles connected to and which connect different sides of the mat rim and comprising handles connected adjacent to the middles of the sides of the rim which comprise a plurality of rigid sections, substantially as described.

4. A bath mat of flexible impervious material the edges of which are turned up to form an upstanding rim around said mat, rigid strips attached to the edges of said upstanding rim, and flexible handles which connect different sides of said rim, said rigid strips being constructed and arranged to permit said mat to sag under the weight of water contained therein when raised by its handles.

5. A bath mat, comprising a flexible impervious body portion, the edges of which are upturned to form an upstanding rim around said mat, rigid strips attached to the sides of said rim comprising strips at opposite sides thereof made in separate sections, whereby the sides of the rim to which said sectional strips are attached may fold inwardly and thus permit the body portion of the mat to sag, and flexible handles connected to and which connect different sides of the mat.

1,080,316. CONTROL DEVICE. GEORGE J. BAKER and FRANK E. BAKER, Royal Oak, Mich., assignors of one-half to Detroit Tractor Company, Detroit, Mich., a Corporation of Michigan. Filed June 20, 1912. Serial No. 704,772. (Cl. 21-90.)



1. A control, having in combination, a device, a movable member for controlling such device when the same is moved a prescribed distance, a second device, a second movable member for controlling such second device when the second movable member is moved a prescribed distance, a third device and an extra control device for controlling the third device, movable by simultaneous and conjoint actuation of the said first and second movable members short of the distance necessary to actuate the first or second device, substantially as described.

2. A control device, having in combination, a pair of movable rods, an oscillatory cross beam, a pair of members thereon by which two distinct devices may be controlled, an oscillatory cross bar connected with the said rods and a member upon which said cross bar can oscillate, but which is adapted to control a third device when said cross bar moves up and down, whereby actuation of either one of the rods oscillates the cross beam and operates either one or the other of the members on the cross beam, while simultaneous actuation of the rods operates the member connected with the cross bar, substantially as described.

3. A control device, having in combination, a pair of uprights, a bell crank lever pivoted to each upright and a movable rod connected with each bell-crank lever, a beam

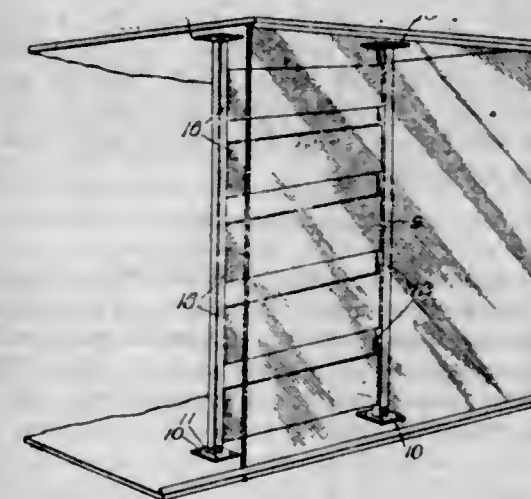
through which each rod passes, said beam having an oscillatory bearing, a cross bar through which each rod passes, a member through which cross bar can oscillate, but which is actuated by the vertical movement of said cross bar, a pair of controlled members on said beam operable by the oscillation of the beam, whereby actuation of the one bell-crank lever or the other tips the beam and operates either one or the other of the control members as the case may be, while pull on both of the bell-crank levers simultaneously operates the said member in connection with the cross bar, substantially as described.

4. A control device, having in combination, a pair of movable rods, a cross beam connected with the rods and a cross bar connected with each rod, a pair of collars on each rod, one of each pair being below the cross bar and the other being below the cross beam, the said cross beam having a pivotal bearing, a pair of control members on said cross beam and an extra control device through which the cross bar may oscillate, but actuated by the vertical movement of the cross bar, whereby pull on either one of the rods tips the cross beam by reason of the collar thereunder, encountering the same and bringing into operation one of the control members, while simultaneous pull on both the rods brings the collars below the cross bar into contact with the cross bar and moves it vertically to actuate the extra control member, while the cross beam is not actuated by reason of the spacing of the collars therebelow at somewhat more distant points than the collars below the cross bars, substantially as described.

5. In a control device, a cross bar, a pair of rods reciprocable through said cross bar, a member through which said cross bar may oscillate when only one or the other of the rods is actuated, but which is brought into operation by the simultaneous actuation of both rods, the said member comprising a slotted head and pivoted bell-crank member, substantially as described.

(Claims 6 to 13 not printed in the Gazette.)

1,080,317. DISPLAY-SIGN HOLDER. FRED W. BECKWITH, Chicago, Ill. Filed Apr. 28, 1913. Serial No. 764,167. (Cl. 40-64.)



1. A window display sign holder, comprising vertically extending hollow supporting members polygonal in cross section, means for anchoring each of said members, said members each being provided with a series of opposed slots along the adjacent faces thereof, each slot consisting of three sections, one section extending horizontally on the rear face of the supporting member and the second section extending vertically on inner side faces of the supporting members and below the first section and a third section extending between the vertical and horizontal section and lying at an angle to each, a rectangular plate adapted to be inserted within any selected pair of said slots, said slots receiving the side edges of the inserted plate, said plate when first inserted lying horizontally and turning to a vertical position by descent in said slots, substantially as described.

2. A window display sign holder comprising companion hollow vertical extending supporting members, each rec-

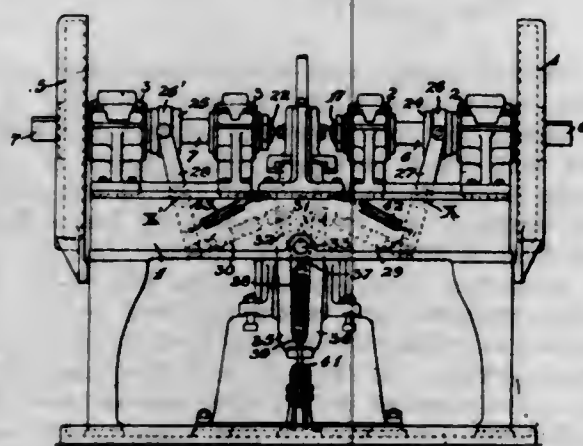
tangular in cross section, means for anchoring said members in position, said members each being provided with a series of opposed slots along the adjacent faces thereof, each slot consisting of three sections, one section extending horizontally on the rear faces of said members, a second section extending vertically on the inner side faces of said members and below the first section, and a third section extending between the vertical and horizontal sections and angularly disposed to each, and a rectangular plate adapted to be inserted in any selected opposed sets of slots, the side edges of said plate lying within said slots when inserted, each plate being placed horizontally at the initial insertion into said slots and turned to a vertical position by downward movement in said slots, substantially as described.

1,080,318. NON-REFILLABLE BOTTLE. JOHN BEHRINGER, Chicago, Ill. Filed Dec. 19, 1912. Serial No. 737,681. (Cl. 215—63.)



In a non-refillable bottle, the combination of a bottle neck; a two-part plug in said bottle neck, the lower of said parts having a valve seat in its upper face and the upper part having a laterally disposed central partition spaced concentrically from the bottle neck by ribs which extend downwardly and rest on said lower part, an outwardly flaring wall extending upwardly from said central partition with its top portion engaging the bottle neck and having perforations establishing communication between the interior of said flaring wall, through said perforations, around said central partition and to the valve seat in the lower part; and a valve in said valve seat, substantially as described.

1,080,319. REAMING AND RECESSING MACHINE. WILLIAM G. BENNINGHOFF, Pittsburgh, Pa., assignor to Taylor-Wilson Manufacturing Company, McKees Rocks, Pa., a Corporation of Pennsylvania. Filed Nov. 9, 1909, Serial No. 526,970. Renewed Aug. 15, 1913. Serial No. 784,973. (Cl. 77—3.)



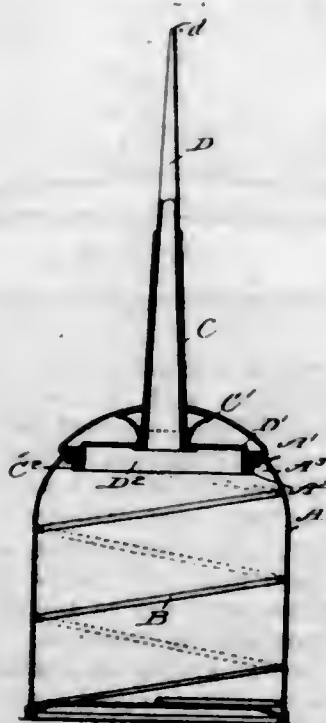
1. A machine of the class described, including a pair of oppositely positioned spindles mounted to have both a rotary and a longitudinal sliding movement and designed to carry cutting tools, shifting levers having operative

connection with the respective spindles, an intermediate abutment arranged between the shifting levers, two sets of toggle levers between the abutment and the respective shifting levers, a pivotally mounted foot lever, a pair of links between the foot lever and the two sets of toggle levers whereby the said toggle levers may be actuated through the foot lever to simultaneously move the spindles toward or away from each other, and means for normally holding the foot lever in an inoperative position.

2. A machine of the class described, including oppositely positioned spindles mounted to have both a rotary and longitudinal sliding movement and designed to carry cutting tools, shifting levers having an operative connection with the respective spindles, an abutment arranged between the shifting levers, two sets of toggle levers between the abutment and the respective shifting levers, a pivotally mounted foot lever arranged under the abutment, links extending upwardly from the foot lever on opposite sides of the abutment and connected to the respective toggle levers whereby the toggle levers may be actuated through the foot lever to simultaneously move the spindles toward or away from each other, and a spring between the foot lever and the abutment for normally holding the foot lever in an inoperative position.

3. A machine of the class described, including oppositely positioned spindles mounted to have both a rotary and longitudinal sliding movement and designed to carry the cutting tools, shifting levers having an operative connection with the respective spindles, a shaft, two sets of toggle levers between the shaft and the respective shifting levers, a foot lever arranged under the shaft, a spring between the foot lever and the shaft for normally holding the same in inoperative position, and links between the foot lever and the two sets of toggle levers whereby the said toggle levers may be actuated through the foot lever to simultaneously move the spindles toward or away from each other.

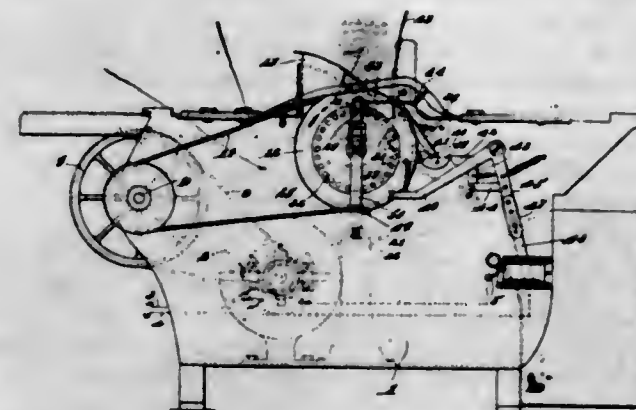
1,080,320. OILER. KIRKWOOD A. BOGGS, Fort Dodge, Iowa. Filed Oct. 31, 1911. Serial No. 657,760. (Cl. 221—56.)



1. An oil can consisting of a base and body portion, said body portion having an inwardly curved breast portion provided with an inwardly and downwardly turned flange at its upper end, an outer spout section having a dome shaped lower end and a vertical flange fitting within the aforesaid inwardly and downwardly turned flange of the breast portion of the body of the can, and a removable inner spout section having a horizontal base and a downwardly projecting flange adapted to fit frictionally within the downwardly projecting flange of the outer spout section.

2. An oil can consisting of a base and a body portion, said body portion having an inwardly curved breast portion provided with an inwardly and downwardly turned flange at its upper end, a coil spring having a lateral extension resting on the base of the can, the coils bearing against the inner walls of the can and the upper coil resting in the space between the breast and the inwardly and downwardly turned flange thereof, and a two-part spout, the outer section of the spout fitting frictionally within the breast flange and the inner section of the spout fitting frictionally within the outer spout section.

1,080,321. PRINTING-MACHINE. GEORGE M. BRECKENRIDGE, Chicago, Ill., assignor of one-third to James P. McManus, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,272. (Cl. 172—239.)



1. A machine of the class described comprising rotary printing mechanism and an electric motor for operating the same; a circuit for operating said motor; automatic means for breaking said circuit and disconnecting said printing mechanism; and an automatic stop arranged to stop said printing mechanism at the same point after each operation thereof, substantially as described.

2. A machine of the class described comprising printing mechanism and an electric motor for operating the same; a circuit for operating said motor; automatic means for first breaking said circuit and then disconnecting said printing mechanism and motor after each operation of said printing mechanism; and an automatic stop arranged to stop said printing mechanism at the same point after each operation thereof, substantially as described.

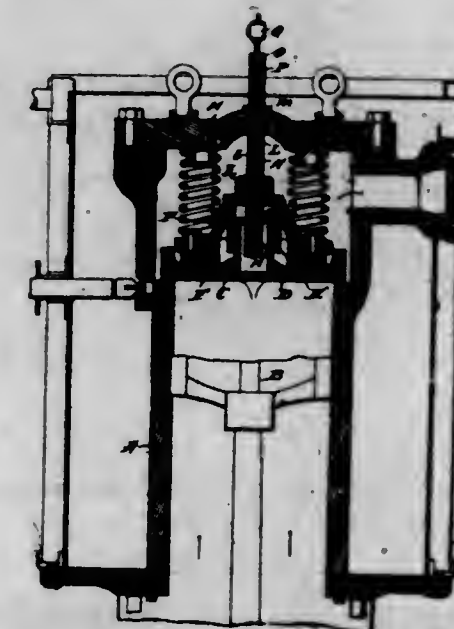
3. A machine of the class described comprising rotary printing mechanism and an electric motor for operating the same; an electric circuit for operating said motor; a switch controlling said circuit; a clutch mechanism for releasably connecting said motor and printing mechanism; means for connecting said clutch mechanism and throwing said switch to close said circuit; and automatic means for throwing said switch to break said circuit and disconnecting said clutch mechanism, substantially as described.

4. A machine of the class described comprising printing mechanism and an electric motor for operating the same; an electric circuit for operating said motor; a switch controlling said circuit; a clutch mechanism for releasably connecting said motor and printing mechanism; means for connecting said clutch mechanism and throwing said switch to close said circuit; and automatic means for first throwing said switch to break said circuit and then disconnecting said clutch mechanism, substantially as described.

5. A machine of the class described comprising rotary printing mechanism and an electric motor for operating the same; an electric circuit for operating said motor; a switch controlling said circuit; a clutch mechanism for releasably connecting said motor and printing mechanism; means for simultaneously connecting said clutch mechanism and throwing said switch to close said circuit; and automatic means for throwing said switch to break said circuit and disconnecting said clutch mechanism, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,080,322. DISCHARGE-VALVE. ALBERT L. BROWN, Little Rock, Ark. Filed Nov. 19, 1912. Serial No. 732,327. (Cl. 230—34.)



1. In a compressor, the combination with a cylinder, of a reciprocating discharge valve, a sleeve for guiding the valve, a cap on said sleeve, a removable member extending above the top of the compressor and down into said sleeve, said member fitting said cap and having a restricted passage opening above and below the cap, whereby said valve is cushioned as it moves to its seat by the formation of a partial vacuum in the sleeve behind the valve.

2. In a compressor, the combination with a cylinder, of a reciprocating discharge valve having a spring container in its upper end, a spring in said container, a sleeve for guiding the valve, a cap on said sleeve, and a removable member extending from above the top of the compressor down into said sleeve and forming an abutment for the spring.

3. In a compressor, the combination with a cylinder, of a reciprocating discharge valve, a sleeve for guiding the valve, the latter having an air-tight sliding joint with the sleeve, a cap on said sleeve, and a removable tubular member providing a restricted passage from the interior of the sleeve above the valve, whereby said valve is cushioned as it moves to its seat by the formation of a partial vacuum in said sleeve.

4. In a compressor, the combination with a cylinder, of a reciprocating discharge valve, means for guiding said valve, and a removable tubular member extending from above the top of the compressor into said guiding means for feeding oil to said valve from outside the cylinder.

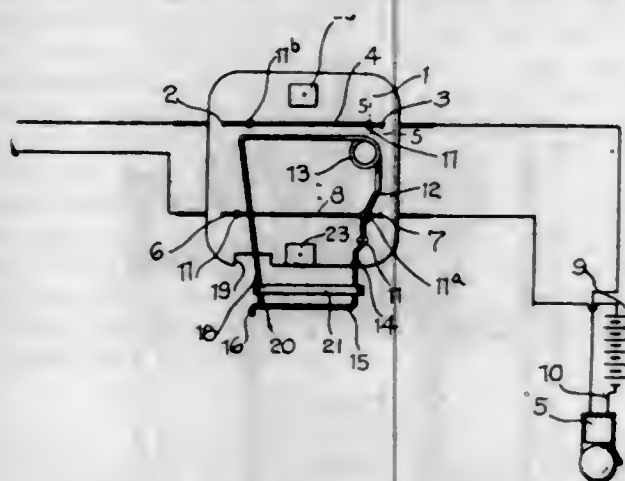
5. In a compressor, the combination with a cylinder, of a reciprocating discharge valve, a sleeve for guiding said valve, and a removable member extending above the top of the compressor and down into said sleeve for feeding oil from above the cylinder to the interior of said sleeve.

[Claims 6 to 11 not printed in the Gazette.]

1,080,323. AUTOMATIC FIRE-ALARM. LESTER J. BRYANT and JAMIE CASE, Bradford, Pa. Filed Mar. 19, 1913. Serial No. 755,462. (Cl. 177—303.)

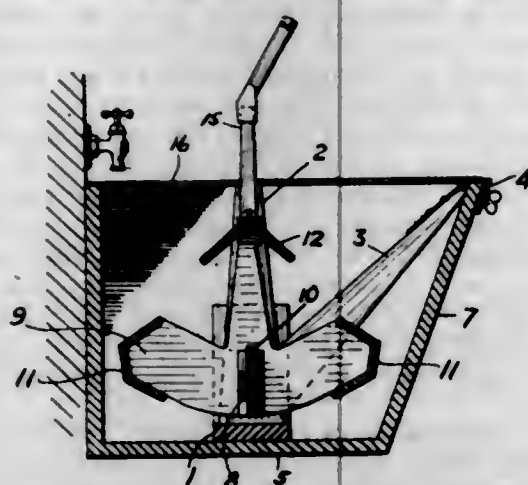
In an automatic fire alarm, a plate of non-conducting material, a pair of contact posts mounted thereon, a spring member also mounted on the plate and designed to provide a pair of arms, one of which is engaged with one of said contact posts and the other adapted for engagement with the other contact post, angular extensions formed on said arms for projection beyond one edge of said plate, fusible connecting means engaged with the angular extensions of said arms to temporarily retain one arm out of engagement with the one contact post, and a hook formed on the extension of the other arm of the spring member adapted for engagement

with the extension of the second mentioned arm, whereby to retain the latter out of engagement with the second



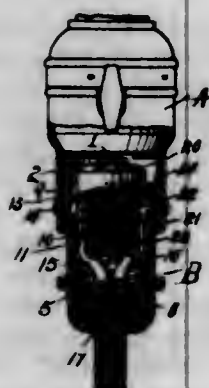
mentioned contact post, prior to the application of said fusible connecting means in position.

1,080,324. CLOTHES-WASHING ATTACHMENT FOR SET TUBS. EBEN CAVENDER, Philadelphia, Pa. Filed Sept. 2, 1911. Serial No. 647,322. (Cl. 68—20.)



A clothes washing attachment for set tubs comprising arms constituting a fixed frame and extending from the bottom of the tub and terminating at the top edge of the tub and whereof some clamp the front wall and some the end walls of the tub, in combination with a single swinging frame consisting of end pieces and rails and provided at its top edge with an upwardly extending handle, and a pivotal connection arranged at the bottom of the tub and connecting the fixed frame and the lower edge of the swinging frame, substantially as described.

1,080,325. ATTACHMENT-PLUG FOR ELECTRIC CIRCUITS. FRANK H. CHAPMAN and OWEN E. KENNEY, Toledo, Ohio, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 24, 1913. Serial No. 750,299. (Cl. 173—360.)



1. A coupling for electric circuits comprising a socket member having separate contact parts and a plug member, said plug member having two sections which are rela-

tively movable upon an insertion thereof into the socket member, one of said sections carrying a pair of contact parts for contact with the respective contact parts of the socket member when inserted therein, and means separate from said contact parts and automatically operable by a relative movement of the plug member sections when inserted within the socket member to hold the two members in coupled relation.

2. A coupling for electric circuits comprising a socket member having separate contact parts and a plug member, said plug member having sections which are relatively movable upon an insertion of the plug a predetermined extent into the socket member, contacts carried by the plug member for contact with the respective contact parts of the socket member when the plug is inserted therein, and means separate from said contact parts and automatically operable by a relative movement of the plug sections when inserted into the socket member to hold the two members in coupled relation.

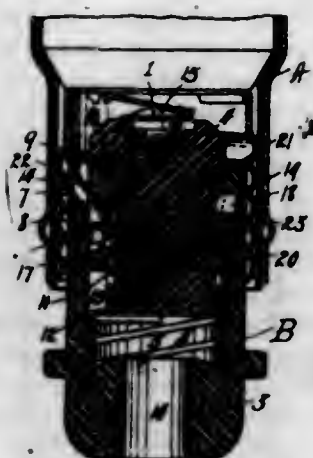
3. In a coupling of the class described, a plug member having a socketed portion and a plunger mounted in said socketed portion, a conductor element having a portion countersunk in the plunger and a portion which is radially offset relative to the plunger to form a contact part for side contact with the wall of a socket member into which the plug may be inserted.

4. In a coupling of the class described, a plug member having a socketed body part with a recess in the outer end portion of the socket wall, a plunger longitudinally movable in said socket, a contact part fixed to said plunger and projecting through said recess and a separate contact part carried by said plunger.

5. In a coupling of the class described, a plug having a body member provided with an end socket and having an opening in the wall of such socket, a plunger mounted for reciprocatory movements in said socket, means influencing an outward movement of the plunger relative to the socket and spring catch means carried by the plunger for engagement with said opening to limit the normal outward movements of the plunger relative to the socket and adapted to be depressed from within said opening by the insertion of an instrument into the latter.

[Claim 6 not printed in the Gazette.]

1,080,326. ATTACHMENT-PLUG FOR ELECTRIC CIRCUITS. FRANK H. CHAPMAN and OWEN E. KENNEY, Toledo, Ohio, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 24, 1913. Serial No. 750,300. (Cl. 173—360.)



1. A plug of the class described having two sections mounted for limited relative longitudinal movements one within the other, means influencing a relative outward movement of said sections, a conductor part carried by each section with the conductor part of the outer section in exposed position on a side thereof, and a spring brush conductor member connecting said parts and having sliding contact with one of them when the sections are relatively moved.

2. A plug of the class described having two telescoping sections mounted for limited relative axial movements,

means influencing a relative movement of the sections in one direction, a conductor part fixedly carried at the outer side of the outer section, a conductor part attached to the inner section, and a spring conductor member connected to one of said conductor parts and having permanent sliding contact with the other of said parts when the sections are assembled.

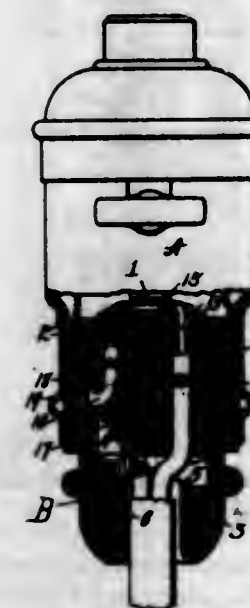
3. A plug of the class described comprising a body section having a hollow extension at one end, a contact member fixedly carried in externally exposed position by said extension and having an internally exposed part, a plunger mounted for limited reciprocatory movements within said extension, means influencing an outward movement of the plunger relative to the extension, a conductor member carried by the plunger, and a yieldable conductor element connected to one of said members and having sliding contact with the other.

4. A plug of the class described comprising a body section of insulating material provided in one end with a longitudinal socket the wall of which socket is provided with an opening, a conductor part fixedly carried in externally exposed position by said wall and having a portion exposed to the interior of the socket through said opening, a plunger mounted for limited longitudinal reciprocatory movements in said socket, a conductor part carried by the plunger, and a spring brush member projecting from one of said conductor parts through said opening and having sliding contact with the other part when the section and plunger are relatively moved.

5. A plug of the class described having a pair of telescoping sections mounted for relative reciprocatory movements, means influencing a relative outward movement of said sections, conductor members respectively carried by said sections, and means coacting with one of said members to limit the relative outward movements of the sections.

[Claims 6 to 15 not printed in the Gazette.]

1,080,327. ATTACHMENT-PLUG FOR ELECTRIC CIRCUITS. FRANK H. CHAPMAN and OWEN E. KENNEY, Toledo, Ohio, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Mar. 21, 1913. Serial No. 755,909. (Cl. 173—360.)



1. A plug of the class described having two relatively movable sections, and means carried by one of said sections and serving to limit the relative movements of the sections in one direction and automatically operable to project without the sections to form a thread engaging part when the sections are relatively moved in the opposite direction.

2. In combination, a socket member, a plug for fitting into said member and having two relatively movable sections, and means carried by one of said plug sections and serving to limit the relative movements of the plug sections in one direction and automatically operable, upon a relative movement of the plug sections in the opposite

direction when inserted into the socket member, to project without the sections and have holding engagement with the interior side wall of the socket member.

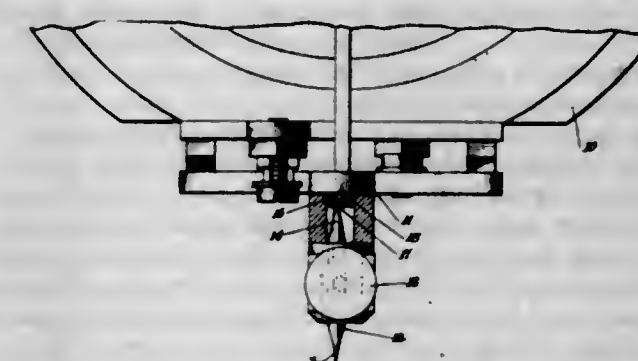
3. A plug of the class described comprising a socketed member having an opening in its side wall and a plunger reciprocally movable in said member and having a side recess in register with said opening, a pivoted part mounted in said recess and having a laterally projecting end portion normally projecting into said opening to coact with a wall thereof to limit the relative outward movements of said member and plunger, and means for influencing an outward movement of the free end portion of said part whereby it is caused to work outwardly through said opening to form an external thread engaging part when the plunger is moved from normal position into said member.

4. A plug of the class described having relatively movable telescoping sections the outer of which has an opening in its wall, a member pivotally carried by the inner section and normally coöperating with the outer section to limit the relative movements of the sections in one direction and having its free end laterally angled to adapt it to project into said opening, and means influencing an outward movement of the free end of said member through said opening to form an external thread engaging part when one section is moved a predetermined extent within the other.

5. In combination, a socket member, a plug for fitting into said member and having two sections mounted for relative longitudinal movements, and means carried by one of said plug sections and coacting with the other section to limit the relative outward movements thereof and automatically operable by a predetermined relative inward movement of the plug sections to engage the inner side wall of the socket member to retain the plug and socket member in assembled relation when the former has been inserted a predetermined extent into the latter.

[Claim 6 not printed in the Gazette.]

1,080,328. DOUBLE-POINTED REPRODUCING-STYLUS FOR TALKING-MACHINES, AND HOLDER THEREFOR. EDWARD T. CONDON, JR., New York, N. Y. Filed Sept. 30, 1912. Serial No. 723,012. (Cl. 181—11.)



1. In a talking machine, the combination with a stylus arm having a socket of sufficient depth to properly receive and retain the shank and inactive end of a double pointed stylus; of a frictionally held guard therein for the inactive end of the stylus and into which the same is adapted to pass.

2. The combination with a reproducing stylus for talking machines, having oppositely pointed ends; of a holder therefor, and a guard in said holder provided with a slot adapted to receive the temporarily inactive end of the stylus bottoming therein.

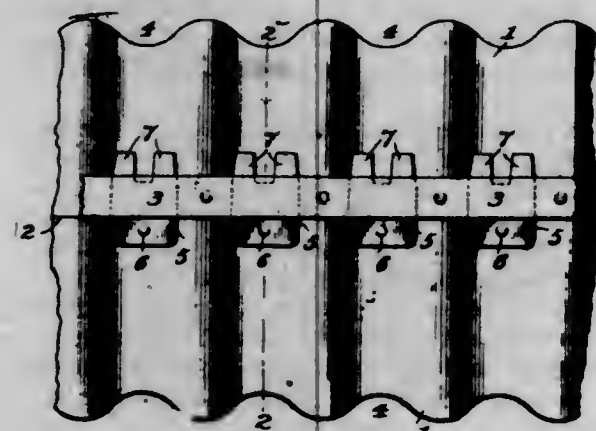
3. The combination with a reproducing stylus for talking machines, having oppositely pointed ends; of a holder therefor, and a guard at the bottom of said holder provided with a slot to receive the temporarily inactive end of the stylus bottoming therein, and with a recess in its under face, whereby styli of various tapers may be accommodated.

4. The combination with a reproducing stylus for talking machines, having oppositely pointed ends; of a holder therefor, and a guard in said holder provided with a

tapering slot adapted to receive the temporarily inactive end of the stylus bottoming therein.

5. The combination with a reproducing stylus for talking machines, having oppositely pointed ends; of a holder therefor, and a guard in said holder adapted to embrace the temporarily inactive end of the stylus without contacting with the point thereof.

1,080,329. SHEET-METAL CULVERT. JOHN H. DEAN, Birmingham, Ala. Filed Jan. 16, 1913. Serial No. 742,420. (Cl. 61-9.)



1. A sheet metal culvert comprising complementary corrugated sections having longitudinal abutting edges, a metal strip or bar secured to the convex corrugations of one of said sections thereby forming a space or passageway between each concave corrugation of said section and the metal strip, and fastening means rigidly and permanently secured to the other of said sections and adapted for engagement within the passageways referred to for holding and retaining the longitudinal meeting edges of said sections in abutting relation and fastening the sections together.

2. A sheet metal culvert comprising complementary sections having longitudinal abutting edges, a metal strip or bar secured to said section along the longitudinal edge thereof, said strip being so formed as to leave a space or passageway at intervals between the culvert and the strip, and fastening means rigidly and permanently secured to the other of said sections along the longitudinal edge thereof and adapted for insertion within said passageways to correctly position the longitudinal edges of the complementary sections and furthermore to hold said sections in connected relation.

3. A sheet metal culvert comprising complementary corrugated sections having longitudinal abutting edges, a metal strip or bar secured to the convex corrugations of said section along the longitudinal edge thereof, and a key or clip rigidly and permanently secured to the concave corrugation of the other of said sections and adapted to engage within a passageway formed between a concave corrugation of the first mentioned section and the metal strip secured thereto.

4. A sheet metal culvert comprising complementary corrugated sections having longitudinal abutting edges, a metal strip or bar secured to the convex corrugations of said section along the longitudinal edge thereof, and a key or clip rigidly and permanently secured to a concave corrugation of the other section, said key or clip being transversely curved to conform to the curvature of the concave corrugations of said sections and adapted to engage within a passageway formed between a concave corrugation of the first mentioned section and the metal strip.

5. A sheet metal culvert having longitudinal abutting edges, a metal strip or bar secured to said culvert along one of its longitudinal edges, said strip being so formed as to leave a space or passageway at intervals between the culvert and the strip, and fastening means rigidly and permanently secured to the culvert along another of its longitudinal edges and adapted for insertion within said passageways to correctly position the abutting longitudinal edges and furthermore to hold said edges in connected relation.

[Claim 6 not printed in the Gazette.]

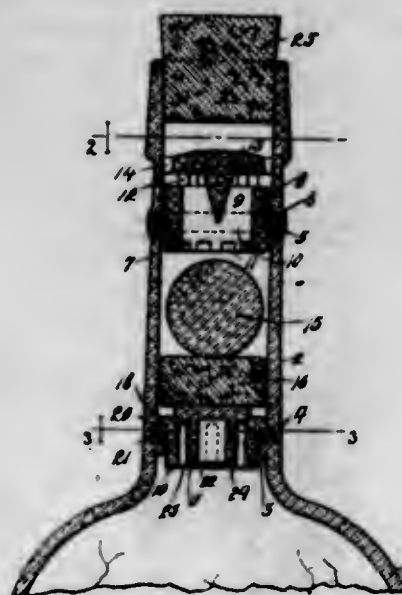
1,080,330. MATRIX FOR TYPE-SETTING AND LINE-CASTING MACHINES. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Original application filed Mar. 11, 1909, Serial No. 482,845. Divided and this application filed Apr. 20, 1910. Serial No. 558,651. (Cl. 199-12.)



1. A matrix for matrix setting and line casting machines provided with a groove arranged on the bottom of the matrix body, the position of which is different for different kinds of matrices and with a lateral angular recess for the receiving needles, the groove being adapted to engage with a sorting mechanism, shifting the different kinds of matrices laterally to such an extent that the lateral recesses are free to engage with the receiving needles.

2. A matrix for matrix setting and line casting machines provided with a groove arranged on the bottom of the matrix body, the position of which is different for different kinds of matrices and whereby they may be shifted laterally and with a lateral angular recess for the receiving needles, said recess being partly a straight groove.

1,080,331. BOTTLE-STOPPER. ELENA MAYOLINI DE VALDES, New York, N. Y. Filed Aug. 31, 1912. Serial No. 718,057. (Cl. 215-62.)



In a non-refillable bottle, the combination of a neck of a bottle provided with a groove, a guard comprising an integral body member having a central opening and a circumferential groove, an integral plate or disk covering the opening and spaced from the body member by longitudinally extending posts, radially extending legs on the integral plate or disk adapted to contact with the interior of the neck of the bottle, the body member being provided on its lower surface with a plurality of radiating apertures, and a locking member cooperating with the grooves in the neck and in the body member to secure the guard in the neck of the bottle, a valve, a float, and a weight adapted to cooperate with the float and also with the lower surface of the guard to permit the contents of the bottle when it is inverted, escaping through the radiating apertures in the body member.

1,080,332. LOCK-NUT. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1913. Serial No. 743,540. (Cl. 151-14.)

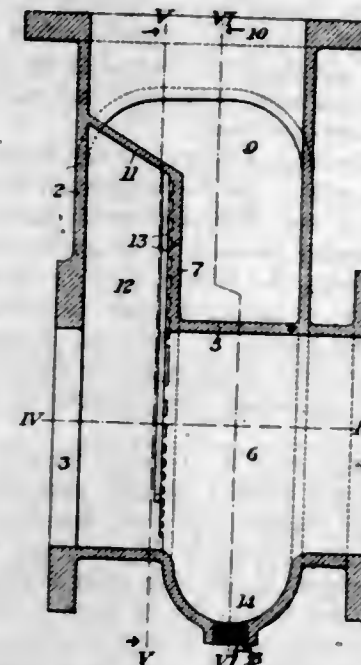


1. A nut-locking device, comprising an internally threaded longitudinally slitted sleeve or bushing adapted to seat and be secured within the bore of a nut, and having one edge of its slitted portion bent or inset inwardly to form an internal biting edge, substantially as described.

2. A nut-locking device comprising a sleeve or bushing threaded both internally and externally and having a longitudinal slot at one side, one edge portion of the sleeve adjacent to the slot being inset inwardly to form an internal biting edge for the thread of the bolt, and the other edge being offset outwardly to form an exterior biting edge for the thread of the nut, substantially as described.

3. A nut lock device comprising a cylindrical sleeve or bushing having a slit, one of the edges of the slit being inset inwardly to form an interior biting edge, and its other edge being bent outwardly to form an exterior biting edge, said sleeve being threaded both interiorly and exteriorly, substantially as described.

1,080,333. COMBINED PIPE-FITTING AND STEAM-SEPARATOR. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed Nov. 22, 1912. Serial No. 732,905. (Cl. 83-90.)



1. A combined pipe-fitting and steam separator, having a steam admission chamber therein, and an internal separator wall or partition forming the forward wall of said chamber, said wall or partition extending the full height of the chamber but being of less width than the chamber, there being a through steam outlet passage leading through the wall or partition, and another steam outlet passage around the wall or partition; substantially as described.

2. A combined pipe fitting and steam separator, comprising a member having a through steam passage, a separator wall at substantially right angles to the flow of steam through said passage, and another steam outlet passage around the side wall, the first named passage having a water collecting pocket in its bottom wall; substantially as described.

3. A combined pipe fitting and steam separator comprising a casting having a steam admission chamber, a steam passage leading from the said chamber through the opposite side of the casting, and steam passages leading from said chamber into another outlet opening, a portion of the

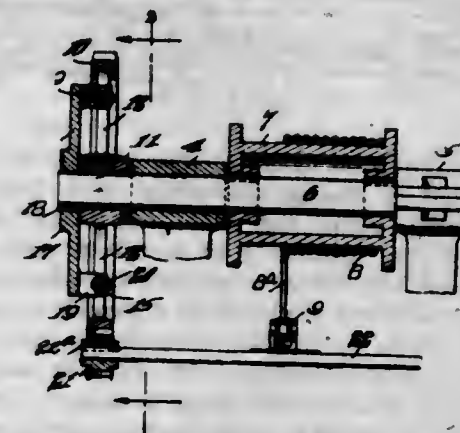
wall of said admission chamber forming the steam separator, substantially as described.

4. A combined pipe fitting and steam separator, comprising a casting having an inlet opening at one side and an outlet opening at the opposite side, a plate member in said casting and having an opening therethrough in line with the inlet and outlet openings, and also having an opening at each side, and an outlet chamber with which the side openings communicate and which leads to another outlet opening in the casting, substantially as described.

5. A steam separator comprising a member having inlet and outlet openings connected by a through steam passage, an internal separator wall through which said passage extends, the opening through said wall being in line with the inlet opening and at least as large in cross-section as the said inlet opening, said member also having a branch steam passage leading from the inlet side of said wall; substantially as described.

[Claim 6 not printed in the Gazette.]

1,080,334. SAFETY-GEARING FOR DRILLS. JOHN O. FOSTER, Peculiar, Mo., assignor of one-third to Abia J. Sharp, Harrisonville, Mo. Filed Apr. 2, 1913. Serial No. 758,330. (Cl. 265-12.)



1. The combination with a flexible member for lifting and dropping a drill, and a speeding lever for pulling and releasing said flexible member, of a drum for winding said flexible member, gearing for turning said drum, and spring mechanism connected with said gearing for alleviating shocks otherwise transmitted from said flexible member through said drum to said gearing.

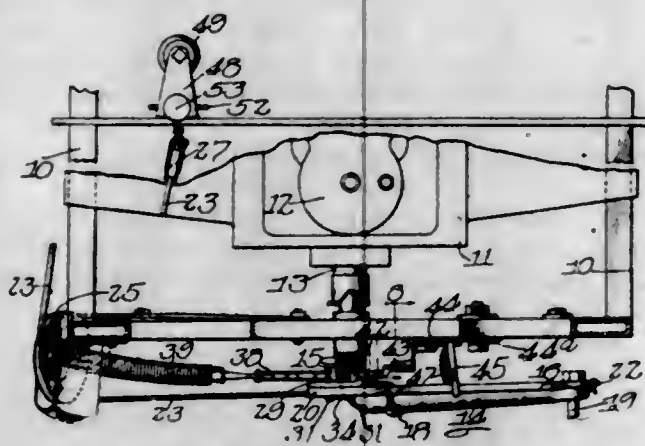
2. In a safety gearing for drills, the combination of a cable for lifting and dropping a drill and a speeding lever for pulling upon said cable and releasing the same in order to actuate said cable, a drum upon which said cable is partially wound, a revolvable gear member connected with said drum for turning the same, and spring mechanism interposed between said drum and said gear member for preventing the transmission of shocks from said cable through said drum to said gear member.

3. In a safety gearing for drills, the combination of a cable for lifting and dropping a drill, a speeding lever provided with a portion for engaging said cable in order to actuate the same, a revolvable drum connected with said cable for the purpose of winding the same in order to raise and lower said drill, a shaft connected rigidly with said drum, a power disk mounted rigidly upon said shaft and provided with lugs, a gear wheel loosely mounted upon said shaft and provided with spring seats, springs engaging said spring seats of said gear wheel and also engaging said lugs of said power disk, and means for turning said gear wheel.

4. A device of the character described comprising a cable for lifting and dropping a drill, a speeding lever provided with a portion for engaging said cable in order to actuate the same, a drum connected with said cable and adapted to be turned for the purpose of winding and unwinding said cable, a shaft connected rigidly with said drum, a power disk mounted rigidly upon said shaft, a revolvable gear member located adjacent to said power disk, spring connections extending from said gear member to said power disk and means for turning said gear member.

5. The combination of a revoluble shaft, a winding drum mounted thereupon, a cable connected with said drum and adapted to be wound and unwound as said drum and said shaft are turned back and forth, a gear member loosely mounted upon said shaft, a driving member secured rigidly upon said shaft, springs connected with said gear member and with said driving member for transmitting rotary motion from said gear member to said driving gear member.

1,080,335. ENGINE-STARTER. FRANK GAHM, Streator, Ill. Filed Aug. 14, 1912. Serial No. 714,995. (Cl. 123—185.)



1. The combination with an engine-shaft and a starting-crank adapted to engage the same, of a flexible connection connected at one end with said crank and adapted upon power being applied to it to rotate said crank, said flexible connection being automatically detachable from engagement with the crank after a partial rotation of the crank, and means for forcing said crank into engagement with the engine-shaft when said crank is rotated in one direction, said means comprising a finger connected with said crank and projecting from the inner end portion thereof and a guide attached to a fixed support and adapted to be engaged by said finger when the crank is rotated.

2. The combination with an engine-shaft and a starting-crank thereof, of a head connected with said crank and surrounding the inner end portion thereof that engages the engine-shaft, a flexible connection connected with said crank and adapted when pulled to rotate said crank, a finger connected with said head and projecting beyond the periphery thereof, a guide adapted to be engaged by said finger when said crank and head are rotated, such engagement causing the said crank to be moved into engagement with said engine-shaft.

3. The combination with an engine-shaft, a starting-crank thereof and a finger connected with and movable with said crank, of a guide in the path of said finger adapted to be engaged on one of its sides by the finger when the crank rotates in one direction and be engaged on its opposite side by the finger during the reverse rotation of the crank, means for permitting the guide to yield during the second-named engagement, a flexible connection connected with said crank and adapted when pulled to rotate said crank, and means for reversely rotating said crank to bring it to its original position.

4. The combination with an engine-shaft, a starting-crank thereof and a finger connected with and movable with said crank, of a guide attached to a fixed support and adapted to be engaged by said finger when said crank is rotated and move the inner end of the crank toward and into clutching engagement with said shaft, a flexible connection connected with said crank and adapted when pulled to rotate said crank, a spring acting to return said crank to normal position after the pull on said connection has been released, and a stop against which the said crank abuts and is brought to rest.

5. The combination with an engine-shaft, a starting-crank thereof, and a head connected therewith and surrounding the inner end portion thereof that engages the engine-shaft, of a ring at one side of said head, yielding means for attaching said ring and head together, a finger

connected to said ring, a guide adapted to be engaged by said finger when said crank, head, and ring are rotated, such engagement causing the crank to be moved into clutching engagement with said engine-shaft, a flexible connection connected with said crank and adapted when pulled to rotate said crank, and a spring connected at one end to a suitable support and at the other end connected with said ring.

[Claims 6 and 7 not printed in the Gazette.]

1,080,336. CLASP. OVE L. GAMMELGAARD, Attleboro, Mass., assignor to Electric Chain Company, Attleboro, Mass., a Corporation of Maine. Filed Aug. 23, 1913. Serial No. 786,236. (Cl. 24—258.)



1. A clasp comprising a U-shaped frame, one member of which is provided with an opening through it, a spring plate arranged to fit into said frame, the middle portion of said plate being cut to provide a spring tongue extending from the bend forwardly and having its free end slightly offset and projecting through said opening in the frame, and a lever for engaging and operating one member of said spring plate to close the clasp.

2. A clasp comprising a U-shaped frame, one member of which is provided with two openings having a bar between, a spring plate arranged to fit into said frame, the middle portion of said plate being cut to provide a spring tongue extending from the bend forwardly and having its free end forked with its branches slightly offset and projecting through said openings and straddling said bar, and a lever for engaging and operating one member of said spring plate to close the clasp.

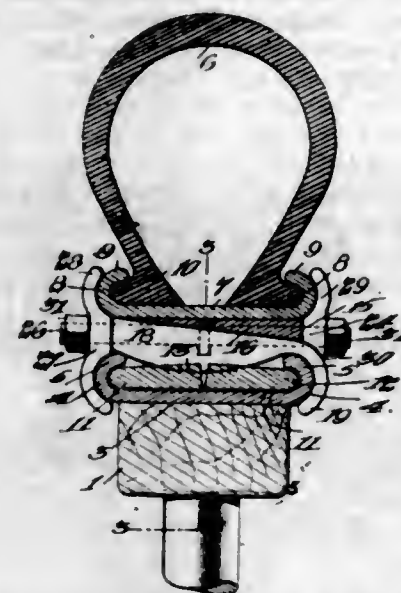
3. A clasp comprising a U-shaped frame one member of which is provided with a portion depressed below the plane of its outer surface and said depressed portion being provided with an opening through it, a spring plate arranged to fit into said frame, the middle portion of said plate being cut to provide a spring tongue extending from the bend forwardly and having its free end slightly offset and projecting through said opening in the frame, and a lever for engaging and operating one member of said plate to close the clasp.

4. A clasp comprising a U-shape frame, one member of which is provided with a portion depressed below the plane of the outer surface and said depressed portion being provided with a plurality of openings through it, a spring plate arranged to fit into said frame, the middle portion of said plate being cut to form a tongue and the free end of said tongue being forked and its branches offset outwardly and extending through said openings in said frame, and a lever for engaging and operating one member of said spring plate to close the clasp.

1,080,337. DEMOUNTABLE RIM. LEO A. GORDON, Fall River, Mass. Filed June 12, 1913. Serial No. 773,313. (Cl. 152—21.)

1. The combination with a vehicle wheel having a rim, of a demountable support for a pneumatic tire, said support comprising a rim of greater diameter than the first-named rim on which the pneumatic tire is supported, and a plurality of filling and clamping devices arranged between the rims at regular intervals for preventing lateral movement of the larger rim with respect to the smaller rim for connecting the said rims, and for holding the said rims in spaced relation, each of the said devices comprising a pair of blocks arranged transversely of the smaller rim and bearing at their ends against the flanges thereof, said blocks being of greater thickness at their inner ends than at their outer ends and gradually decreasing in thickness toward the said outer ends, each

block having a groove on its upper face at its inner end, the said grooves being in alignment, a shank having its lower surface convex from end to end and fitting the registering grooves of the blocks, said shank having at one end a hook for engaging outside the side edge of the inner rim, the upper face of the said shank inclining downwardly toward the hook, a wedge secured to the outer rim resting on the inclined face of the shank, and having that face remote from the shank bearing against the inner face of the outer rim, said shank and wedge having registering grooves on their meeting faces, said grooves cooperating to form an opening, that portion of the opening remote from the hook of the shank being within the shank, said wedge and shank each having at the center of the groove a transverse recess intersecting the groove, a bolt within the passage formed by the grooves and having each of its ends threaded and having at approximately its center a head for engaging the notches, a cross head at the end of the bolt remote from the hook of the shank, said cross head having a central opening for the bolt, and having each of its ends curved to engage outside of the adjacent edges of the rims, a hook engaging the opposite edge of the outer rim and having an opening for receiving the adjacent end of the bolt, and nuts threaded on to the opposite ends of the bolt.



2. The combination with a vehicle wheel having a rim, of a demountable support for a pneumatic tire, said support comprising a rim of greater diameter than the first-named rim on which the pneumatic tire is supported, and a plurality of filling and clamping devices arranged between the rims at regular intervals for preventing lateral movement of the rims with respect to each other and for connecting and holding the said rims in spaced relation, each of the said devices comprising a pair of blocks arranged transversely of the inner rim and bearing at their ends against the flanges thereof, said blocks being of greater thickness at their meeting ends and gradually decreasing in thickness toward their outer ends, each block having a groove on its upper face at the inner end thereof, said grooves being in alignment, a shank having at one end a hook and having its upper face beveled toward the hook, a wedge fitting the upper face of the shank, said shank and wedge being received between the blocks and the outer rim with the under face of the shank in the grooves of the blocks, said wedge and shank having registering longitudinally extending grooves, each groove having at the center thereof a transverse notch, a bolt having a head received in the notch and having its opposite ends threaded, a cross head at the end of the bolt remote from the hook of the shank for engaging the edges of both rims, a hook at the opposite end of the bolt for engaging the outer rim, the hook of the shank engaging the inner rim, and nuts threaded on to the bolt.

3. The combination with a vehicle wheel having a rim, of a demountable support for a pneumatic tire, said support comprising a rim of greater diameter than the first-named rim on which the pneumatic tire is supported, and a plurality of filling and clamping devices arranged be-

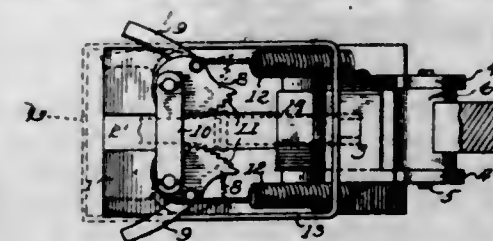
tween the rims at regular intervals for preventing lateral movement of the rims with respect to each other and for connecting and holding the said rims in spaced relation, each of the said devices comprising a pair of blocks arranged transversely of the inner rim, a shank having at one end a hook for engaging the inner rim, and having its upper face beveled toward the hook, a wedge fitting the said upper face, said wedge and shank having longitudinally extending grooves registering to form an opening, a bolt in the opening, said bolt having its opposite ends threaded, means in connection with the bolt, the shank and the wedge for anchoring the said bolt intermediate of its ends to the shank and the wedge, a cross head at the end of the bolt remote from the hook of the shank, a hook at the opposite end for engaging the outer rim, and nuts on the ends of the bolt.

4. The combination with a vehicle wheel having a rim, of a demountable support for a pneumatic tire, said support comprising a rim of greater diameter than the first-named rim on which the pneumatic tire is supported, and a plurality of filling and clamping devices arranged between the rims at regular intervals for preventing lateral movement of the rims with respect to each other and for connecting and holding the said rims in spaced relation, each of the said devices comprising a pair of blocks arranged in alignment transversely of the rim, a shank having at one end a hook for engaging the inner rim and having its upper face beveled toward the hook, a wedge seated on the shank, a cross head engaging both rims at the end of the shank remote from the hook, a hook engaging the outer rim at the opposite end of the shank, and means for drawing the said cross head and hook toward each other.

5. The combination with a vehicle wheel having a rim, of a demountable rim for a pneumatic tire of greater diameter than the first-named rim for supporting the pneumatic tire and a plurality of filling and clamping devices arranged between the rims at regular intervals for connecting and holding the rims in spaced relation and for preventing lateral movement of the rims with respect to each other, said means comprising wedges secured to the larger rim, filling blocks on the smaller rim, a shank having an inclined surface cooperating with the wedge arranged between the wedge and the blocks, means at each side of the rims for engaging outside of the same, and means for drawing the said engaging means toward each other.

[Claim 6 not printed in the Gazette.]

1,080,338. MACHINE FOR UPSETTING VEHICLE-AXLES. CHARLES W. GREEN, Cameron, N. Y. Filed Jan. 31, 1913. Serial No. 745,345. (Cl. 78—17.)



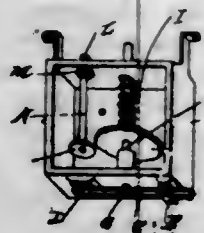
1. A machine for upsetting axles, having in combination a suitable base, a pair of oppositely-disposed gripping-jaws, pivoted upon said base, means for normally holding said jaws in gripping position, means for opening the jaws, a slidable die mounted upon the base in advance of said jaws, and means for operating said die.

2. A machine for upsetting axles, having in combination a suitable base, a pair of oppositely-disposed cam-shaped gripping-jaws pivoted upon said base, springs for normally holding said jaws in gripping position, means for opening the jaws to allow the work to be inserted therebetween, a die-guide mounted upon the base, a die slidable in said die-guide, and means for operating the die to perform the upsetting operation.

3. A machine for upsetting axles, having in combination a suitable base, a pair of oppositely-disposed gripping-jaws pivoted upon said base, said jaws being provided

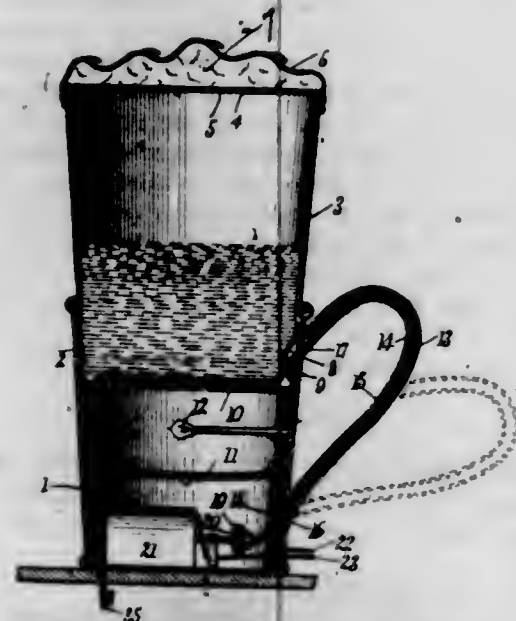
with rearwardly-extending arms, springs for normally holding the jaws in gripping position, means adapted to engage said arms to force the jaws apart, a die-guide mounted upon the base, a die slidable in said die-guide, and a pivoted cam-lever arranged to operate said die.

1,080,339. THERMOSTATIC CIRCUIT-CLOSER. JAMES HARTLEY, Philadelphia, Pa. Filed Sept. 21, 1908. Serial No. 454,125. (Cl. 177-303.)



In a thermostatic circuit closer, the combination of a casing a conducting rod supported by an insulator from the casing, a contact disk carried by the lower end thereof, a spring actuated plunger, fitted to slide in said casing, a contact disk carried by said plunger overlapping the first named disk, and adapted to contact therewith under certain conditions, and means for normally holding the contact disks apart, said means being susceptible to heat.

1,080,340. ADVERTISING APPARATUS. FREDERICK F. HEISSENBUETTEL, New York, N. Y. Filed Apr. 4, 1912. Serial No. 688,378. (Cl. 40-126.)



1. In a device of the kind described, the combination of a hollow opaque base, a transparent vessel carried by said base and inclosing a body of liquid, a hollow body inclosed in said vessel and having a plurality of discharge openings, means for supplying a gaseous medium to said body to agitate said liquid, an illuminating device in said base, and a reflector mounted in said base, said illuminating device being located between said reflector and said vessel, whereby all of the light emanating from said illuminating device will pass through said vessel.

2. In a device of the kind described, the combination of a base, a transparent vessel mounted therein to contain a quantity of liquid, a hollow body in said vessel and having a plurality of discharge openings, a motor mounted inside of said base, a fan operated by said motor, a conduit connecting said fan with said body, said conduit having a section located outside of said base, and a cover for said section, said cover having hinged connection with the base, and having an opening through one side to permit the cover to clear the conduit when the cover is moved.

3. In an improvement of the kind described, a liquid-containing vessel having an outer wall and an inner wall extending upward from its bottom, the inner wall being

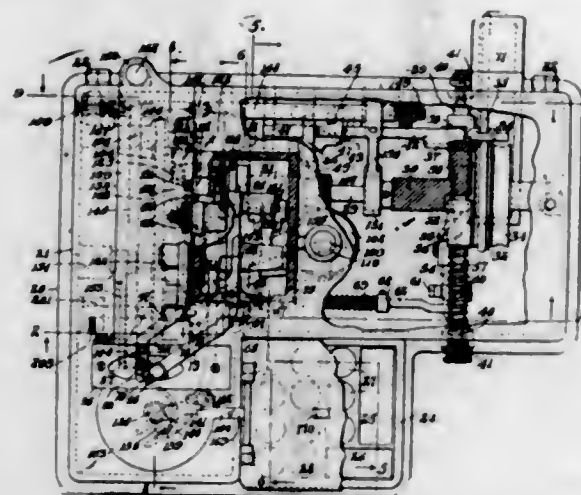
closed at its top and the outer wall likewise having a top, said last-named top having perforations therethrough, and a hollow body surrounding the inner wall and having openings through the same to supply air to the interior of said vessel.

4. In a device of the kind described, the combination of a base, a transparent vessel carried by said base to contain a quantity of liquid, a hollow body comprising a perforated ring in said vessel, means for supplying a gaseous medium to said ring to be discharged thereby into the liquid in the vessel, and an illuminating device and a reflector carried by the base to direct light through the vessel and the liquid therein.

5. In a device of the kind described, the combination of a transparent vessel to contain a quantity of liquid, a base therefor, a conduit extending outside the vessel and the base for supplying fluid to said vessel to agitate the contents, and a cover for said conduit having hinged connection with the base and having an open side to permit the cover to clear the conduit when the cover is moved.

[Claims 6 and 7 not printed in the Gazette.]

1,080,341. BUTTONHOLE-FINISHING MACHINE. GEORGE S. HILL, Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 24, 1910. Serial No. 539,756. (Cl. 112-4.)



1. A blind stitch sewing machine including in combination, a substantially flat work support having a hollow raised projection, a driving shaft mounted in bearings beneath the work support, stitch-forming mechanism located and operating beneath the work support, a bender, and a bender carrier extending from the interior of said projection to a point above the work support, and also extending beneath the work support, and having means for connection to the driving shaft, whereby the same is actuated by said driving shaft.

2. A blind stitch sewing machine including in combination, a hollow casing having a base and a work support located above and spaced from said base, a driving shaft, devices for operating said driving shaft, a stop mechanism, said driving shaft, operating devices and stop mechanism being located between the work support and said base and within said hollow casing, stitch-forming mechanism, including a needle, located beneath the work support and actuated from said driving shaft, feeding mechanism located beneath the work support and actuated from said driving shaft, a presser foot above said work support and cooperating with said feeding mechanism, a bender located above said work support for bending the material into the path of the needle, and means for operating said bender.

3. A blind stitch sewing machine including in combination, a base, a work support located above and spaced from said base, a driving shaft, a fast pulley carried by said driving shaft, a loose pulley adjacent said fast pulley, a belt shifter, and stop mechanism, said driving shaft, fast pulley, loose pulley, belt shifter and stop mechanism being located between the work support and said base, stitch-

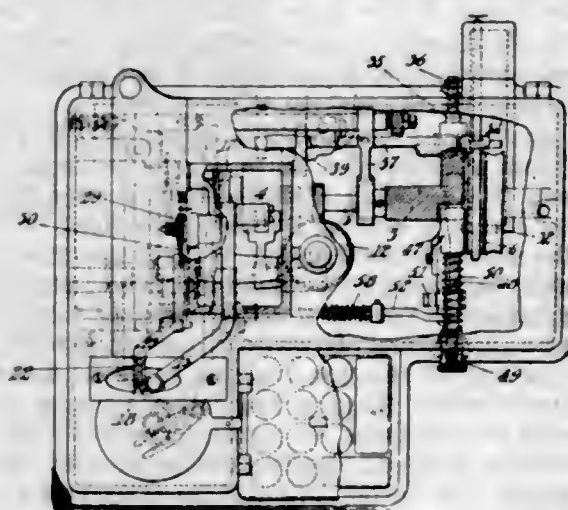
forming mechanism, including a needle, located beneath the work support and actuated from said driving shaft, feeding mechanism located beneath the work support and actuated from said driving shaft, a presser foot above said work support cooperating with said feeding mechanism, a bender located above said work support for bending the material into the path of the needle and a bender carrier extending beneath the work support and operated by said driving shaft.

4. A blind stitch sewing machine including in combination, a base, a work support spaced from said base, and hinged thereto, a driving shaft mounted in bearings carried by the work support, a fast pulley mounted on said driving shaft, a loose pulley carried by said base, a belt shifter carried by said base, stitch-forming mechanism mounted beneath the work support and actuated by said driving shaft, feeding mechanism located beneath the work support and actuated from said driving shaft, a bender located above the work support, a bender carrier extending beneath the work support and actuated from said driving shaft, and means for locking the belt shifter with the belt held on the loose pulley while said work support is swung about its hinge and the fast pulley moved from its position adjacent the loose pulley.

5. A buttonhole finishing machine including, in combination, a work support, work feeding mechanism, stitch-forming mechanism including a needle located and operating beneath the work support, a driving shaft also located beneath the work support and extending transversely to the line of feed and to the path of the needle, a crank adjacent to one end of said shaft and connections therefrom to the needle, a bender carrier fulcrumed adjacent to and extending through the work support, a bender adjustably fixed to said carrier and an actuating device on said driving shaft cooperating directly with said bender carrier to force the material positively into the path of the needle.

[Claims 6 to 61 not printed in the Gazette.]

1,080,342. SEWING-MACHINE. GEORGE S. HILL, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 7, 1911. Serial No. 612,844. (Cl. 112-4.)



1. The combination of a hollow casing comprising a supporting base and a work support movable relative to the base, stitch-forming mechanism supported by and movable with the work support, a power shaft for operating the stitch-forming mechanism, said power shaft being mounted to move with the work support, a fast pulley mounted on the power shaft, a loose pulley supported by the base and in axial alignment with the fast pulley when the work support is in normal position, a driving belt, a belt shifter, and means for locking the belt shifter when the work support is moved from its normal position.

2. The combination of a hollow casing comprising a supporting base and a work support mounted to swing relative to the base, stitch-forming mechanism supported by and movable with the work support, brackets carried by said work support, a power shaft journaled in said brackets, a fast pulley mounted on said power shaft, a

loose pulley supported by the base and in axial alignment with the fast pulley when the work support is in normal position, a driving belt, a belt shifter, and means for locking the belt shifter when the work support is moved from its normal position.

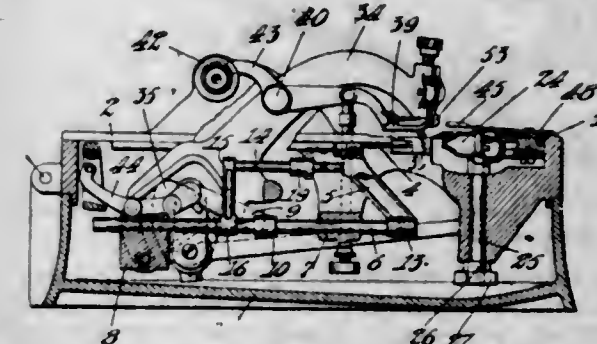
3. The combination of a hollow casing comprising a supporting base and a work support movable relative to the base, stitch-forming mechanism, a power shaft within said casing and supported by said work support and having a fast pulley thereon, a driving belt, a loose pulley supported within said casing and in axial alignment with said fast pulley when said work support is in normal position, and a belt shifter within said casing.

4. The combination of a hollow casing comprising a supporting base and a work support movable relative to the base, stitch-forming mechanism, a power shaft supported by said work support within said casing and having a fast pulley thereon, a driving belt, a loose pulley supported by said base within said casing and confronting said fast pulley when the work support is closed, a manually-actuated belt shifter within said casing, and means for locking said belt shifter when the work support is open.

5. The combination of a hollow casing comprising a supporting base and a work support movable relative to the base, stitch-forming mechanism, a power shaft within said casing supported by said work support and having a fast pulley thereon, a driving belt, a loose pulley supported by said base and confronting said fast pulley when the work support is closed, a manually-actuated belt shifter, and means controlled by said work support for locking said belt shifter with the belt in engagement with the loose pulley when said work support is open.

[Claims 6 to 21 not printed in the Gazette.]

1,080,343. SEWING-MACHINE. GEORGE S. HILL, Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 1, 1911. Serial No. 618,348. (Cl. 112-4.)



1. A sewing machine including in combination, a work support, a needle bar located and operating at one side of said work support and in substantially the same path, a needle carried thereby, a driving shaft located beneath the work support, means for reciprocating the needle bar from said shaft, and means for vibrating said needle laterally, including a second shaft located substantially at right angles to the first shaft, means for driving said second shaft from the first shaft, an eccentric member carried by said second shaft, and devices for connecting said eccentric member to said needle, whereby said needle is vibrated about the axis of the needle bar.

2. A sewing machine including in combination, a work support, a needle bar located and operating beneath said work support, a needle carried thereby, a driving shaft located beneath said work support, means for reciprocating said needle bar from said shaft, and means for vibrating said needle laterally including a worm gear carried by said shaft, a second worm gear cooperating with said first named gear, and having its axis located in a plane at right angles to the driving shaft, an eccentric member carried by said second gear and devices for connecting said eccentric member to said needle.

3. A sewing machine including in combination, a base, a work support spaced from said base, a driving shaft

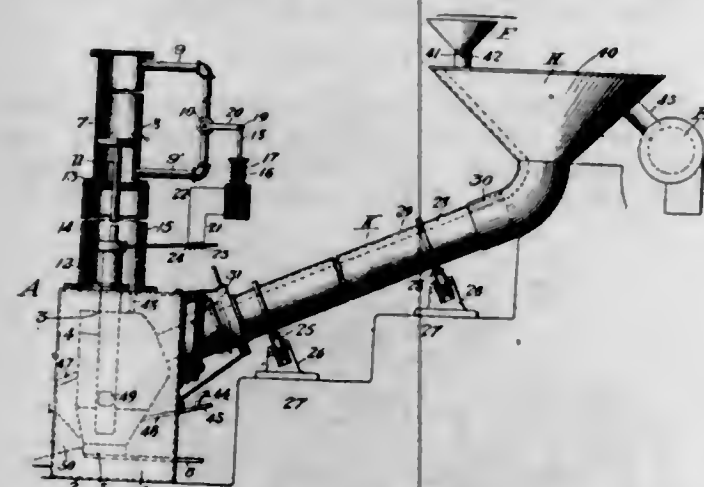
supported by and beneath the work support, a needle bar mounted in a bearing carried by said work support, means for reciprocating a needle bar from said driving shaft, a needle carried by said needle bar, and means for vibrating said needle laterally, including a worm gear carried by said driving shaft, a second worm gear co-operating therewith and having its axis located in a plane at right angles to the driving shaft, an eccentric member carried by said second gear, and a link for connecting said eccentric member to said needle.

4. A sewing machine including in combination, a work support, a needle bar mounted beneath the work support to reciprocate in a direction parallel therewith, means for reciprocating said needle bar back and forth in substantially the same path, a carrier mounted on said needle bar, a needle mounted in said carrier, and means for vibrating the carrier about the axis of the needle bar.

5. A sewing machine including in combination, a work support, a needle bar, means for supporting said needle bar whereby the same reciprocates in a plane parallel with the work support, means for reciprocating said needle bar, a carrier supported by said needle bar and projecting toward said work support, a needle mounted on said carrier, and means for vibrating said carrier about the axis of the needle bar.

[Claims 6 to 23 not printed in the Gazette.]

1,080,344. PROCESS OF SMELTING METALS. JOHN D. HILLIARD, Albany, N. Y., assignor to New England Metal & Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 26, 1907. Serial No. 403,925. (Cl. 204—63.)



1. The process of producing a purified metal which consists in the following steps: (1) mixing the necessary material directly at normal temperature; (2) feeding the mixture continuously directly into a constantly traveling body of heated gases; (3) maintaining a regular, continuous and retarded advance of the mixture for a considerable distance through and in opposite direction to the flow of heated gases, so as to progressively absorb heat therefrom; (4) continuously agitating the material throughout its entire path of travel so as to expose every portion thereof to the action of the gases; (5) passing the mixture in its final heated condition due to the action of the gases into an enlarged generating and reducing chamber, without interrupting or retarding the generation or flow of gases therefrom into the preheating space or kiln; and (6) raising the temperature of the heated mixture so as to effect complete reduction, by means of electrical energy continuously conducted therethrough, while maintaining constant, free and unimpaired flow of the gases therefrom over the incoming stream of material throughout its entire path of travel, to the point of introduction.

2. The process of producing a purified metal which consists in the following steps: (1) mixing the necessary material directly at normal temperature; (2) feeding the mixture continuously directly into a constantly traveling body of heated gases; (3) maintaining a regular, continuous and somewhat slow advance of the mixture for a considerable distance through and in opposite direction to

the flow of heated gases, so as to progressively absorb heat therefrom; (4) continuously agitating the material throughout its entire path of travel so as to expose every portion thereof to the action of the gases; (5) passing the mixture in its final heated condition due to the action of the gases into an enlarged generating and reducing chamber, without interrupting or retarding the generation or flow of gases therefrom into the preheating space or kiln; (6) raising the temperature of the heated mixture so as to effect complete reduction, by means of electrical energy continuously conducted therethrough, while maintaining constant, free and unimpaired flow of the gases therefrom over the incoming stream of material throughout its entire path of travel, to the point of introduction; and (7) expanding the gases so as to retard their flow at said point of introduction of the mixture, and free the same from dust and impurities.

3. The process of producing a purified metal which consists in the following steps: (1) mixing the necessary material directly at normal temperature; (2) feeding the mixture continuously directly into a constantly traveling body of heated gases; (3) maintaining a regular, continuous and retarded advance of the mixture for a considerable distance through and in opposite direction to the flow of heated gases, so as to progressively absorb heat therefrom; (4) continuously agitating the material throughout its entire path of travel so as to expose every portion thereof to the action of the gases; (5) passing the mixture in its final heated condition due to the action of the gases into an enlarged generating and reducing chamber, without interrupting or retarding the generation or flow of gases therefrom into the preheating space or kiln; (6) raising the temperature of the heated mixture so as to effect complete reduction, by means of electrical energy continuously conducted therethrough, while maintaining constant, free and unimpaired flow of the gases therefrom over the incoming stream of material throughout its entire path of travel, to the point of introduction; (7) expanding the gases so as to retard their flow at said point of introduction of the mixture, and free the same from dust and impurities, and (8) drawing off the gases and products of combustion when thus retarded and purified; the entire process of passing the mixture from its point of introduction to the point of final reduction, and the reverse travel of the gases from the point of generation to the final point of discharge, being conducted in continuously communicating preheating and heating chambers closed against the ingress of air.

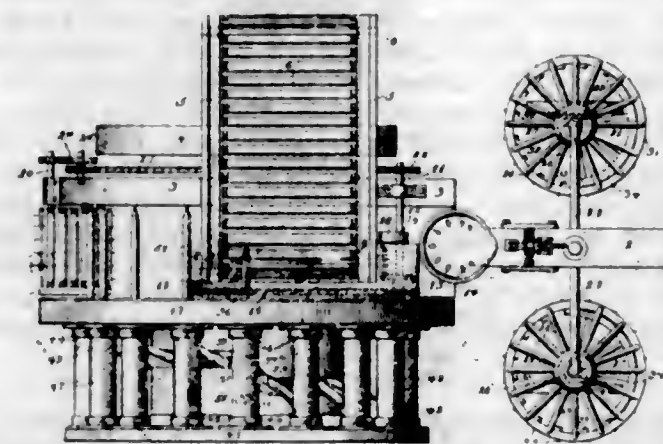
4. The process of producing a metal which consists in pre-mixing a subdivided mass of the material to be reduced and the reducing material, introducing the mixture at one end of a greatly elongated gas-tight inclosure, passing the same in interrupted or agitated progression through said inclosure, collecting the heating material at the end and further heating it to the required temperature of reduction by means of electric energy, causing the gaseous products of the last reaction to pass back freely and uninterruptedly through the inclosure over and in contact with the incoming stream of material to the point of introduction thereof, burning the same over the material whereby the latter will receive progressive increments of heat in an increasing ratio during its entire travel, and separating and removing the metal and the slag so as to maintain the continuity of the process.

5. The process of producing a metal which consists in pre-mixing the metallic material to be reduced and the reducing material in a subdivided mass, continuously feeding said mass of material containing the metal into one end of an elongated hot oven or kiln, passing the same continuously therethrough, gently agitating the material continuously during its travel, collecting the material at the end of the travel and heating to the required temperature by means of electric current induced in the smelting body through the walls of a gas-tight inclosure openly and freely communicating with the kiln or oven, causing the excess heat from the said current to be communicated to the combustible gases due to the reaction, causing said gases to pass backwardly over the traveling stream of material throughout its entire extent to the point of intro-

duction and to be burned during the passage, whereby the material will be preheated by receiving progressive increments of thermal energy in an increasing ratio as it travels, maintaining the charge continuously, and removing the slag and molten metal.

[Claims 6 to 9 not printed in the Gazette.]

1,080,345. SHOCK-LOADER. GEORGE A. IMHOFF, Grow, Okla. Filed Mar. 15, 1910. Serial No. 549,568. (Cl. 214—2.)



1. In a shock loader, the combination with a traction wheel, of a series of teeth separately mounted for successive projection, and means to project said teeth separately to engage and lift a shock.

2. In a shock loader, the combination with a traction wheel, of a series of teeth mounted on said wheel, for successive independent sliding movement and means to project said teeth successively.

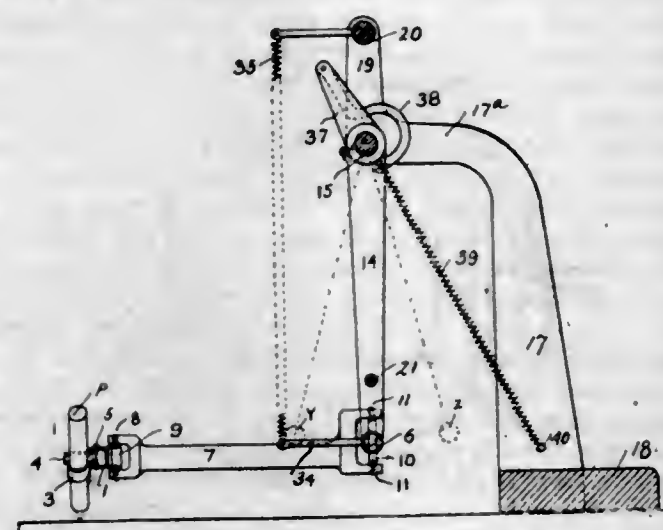
3. In a shock loader, the combination with a traction wheel, of a series of teeth each mounted on said wheel for separate independent and successive movement, and means to successively project each tooth.

4. In a shock loader, the combination with a traction wheel, of a series of teeth each mounted on said wheel for separate independent and successive movement, and means mounted on said wheel to successively project said teeth.

5. In a shock loader, the combination with a traction wheel, of a series of teeth each mounted on said wheel for separate independent and successive movement, and a means on said wheel to successively project and retract each tooth.

[Claims 6 to 20 not printed in the Gazette.]

1,080,346. MACHINE FOR WRITING A PLURALITY OF SIGNATURES. FRANK AMOS JOHNSON, Dunellen, N. J., assignor to The Signature Company, New York, N. Y., a Corporation of New York. Filed June 11, 1912. Serial No. 702,971. (Cl. 33—6.)



1. In a machine of the class described the combination of the following elements: a document support; a fixed

rock-shaft axially pivoted above said support; a pair of arms rigidly secured to said fixed rock-shaft; a swinging rock-shaft axially pivoted between the lower free ends of said arms; a pen-bar having a plurality of pens mounted thereon; a pair of links pivotally connecting said pen-bar to said swinging rock-shaft, and means for maintaining said arms and parts supported thereby approximately balanced in all positions.

2. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a fixed rock-shaft; intermediate connections between said pen-bar and said fixed rock-shaft comprising a pair of pivoted links, a swinging rock-shaft, and a pair of arms secured to said fixed rock-shaft; in combination with means for balancing said pen-bar; and means for balancing said intermediate connections upon said fixed rock-shaft.

3. In a machine of the class described, a fixed horizontal rock-shaft; a pen-bar having a plurality of pens mounted thereon; intermediate connections between said pen-bar and said rock-shaft which hold said pen-bar and permit a bodily movement right and left; in combination with a compensating balance device for maintaining said pen-bar and intermediate connections in a balanced position on said fixed rock-shaft, whereby said pen-bar is approximately balanced at all times.

4. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a horizontal rock-shaft; intermediate connections between said pen-bar and said rock-shaft; means for maintaining said pen-bar and said intermediate connections in a normally balanced position on said rock-shaft; in combination with independent means for balancing said parts on said rock-shaft when said rock-shaft is moved from said normally balanced position.

5. In a machine of the class described, a fixed horizontal rock-shaft; a pen-bar having a plurality of pens mounted thereon; intermediate connections between said pen-bar and said fixed rock-shaft; means for maintaining said pen-bar and said intermediate connections in a normally balanced position on said fixed rock-shaft; in combination with independent means for balancing said pen-bar and intermediate connections on said fixed rock-shaft when moved out of normally balanced position—said independent means comprising an arm secured to said fixed rock-shaft and a spring attached to the free end of said arm—said spring being adapted to pull in a direction which is toward the center of said fixed rock-shaft when said parts are in normal balanced position.

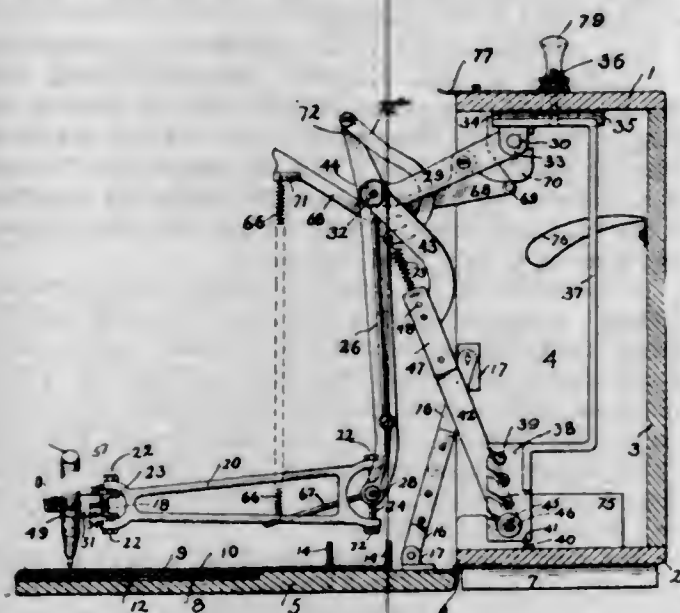
[Claims 6 to 18 not printed in the Gazette.]

1,080,347. MULTIPLE-WRITING MACHINE. FRANK AMOS JOHNSON, Dunellen, N. J., assignor to The Signature Company, New York, N. Y., a Corporation of New York. Filed Dec. 23, 1912. Serial No. 738,234. (Cl. 33—6.)

1. In a machine of the class described, the combination of the following elements: a pen-bar having a plurality of pens mounted thereon; a rock-shaft; intermediate connections between said pen-bar and said rock-shaft, by means of which said pen-bar is mounted for universal movement; a box-like housing having a cover portion—said cover being adapted for use as a document support or writing platen; locking means between said housing and its cover whereby said housing becomes rigidly fixed with relation to said document support; movable connections between said rock-shaft and said housing, whereby said rock-shaft and its connected parts may be maintained wholly inside or outside of said housing and locking means for said movable connections when said rock-shaft is outside of said housing—said locking means being adapted to secure said rock-shaft in a fixed position over said document support.

2. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a rock-shaft; intermediate connections between said pen-bar and said rock-shaft, by means of which said pen-bar is mounted for universal movement; a box-like housing, having a cover portion—said cover portion being adapted for use as a docu-

ment support or writing platen; locking means between said housing and its cover portion, whereby said document support becomes rigidly fixed with relation to said housing; a pair of arms pivotally joining said rock-shaft to said housing, in combination with means for locking said arms and said rock-shaft in a fixed position.



3. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a movable base in the form of a rectangular bar; intermediate connections between said pen-bar and said movable base, whereby said pen-bar is mounted for universal movement; a fixed base in the form of a box-like housing, in combination with a pair of clamps secured to said housing, which are adapted to clamp said movable base to said housing and to permit said movable base to be longitudinally adjusted on said housing.

4. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a movable base; intermediate connections between said pen-bar and said movable base, whereby said pen-bar is mounted for universal movement; a fixed base in the form of a box-like housing, in combination with a pair of clamps for adjustably securing said movable base to and inside of said fixed base—said movable base and its connected parts being detachably secured to said fixed base.

5. In a machine of the class described, a pen-bar having a plurality of pens mounted thereon; a rock-shaft; intermediate connections between said pen-bar and said rock-shaft, whereby said pen-bar is mounted for universal movement; a fixed base in the form of a box-like housing; a movable base, adjustably secured inside of said housing; a shaft mounted on said movable base; a pair of arms secured to said shaft, between the outer or free ends of which said rock-shaft is axially pivoted—the parts being so mounted that said rock-shaft may be held entirely inside of or outside of said housing and locking means for said arms, by means of which said shaft may be held in a fixed position outside of said housing.

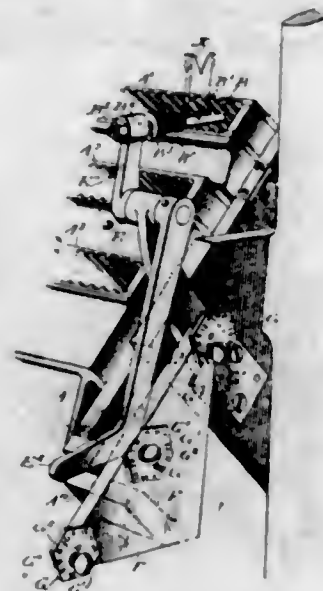
[Claims 6 to 29 not printed in the Gazette.]

1,080,348. TYPOGRAPHICAL COMPOSING-MACHINE. DAVID SHERWOOD KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 20, 1912. Serial No. 684,945. (Cl. 199—7.)

1. In a typographical composing machine, the combination of a plurality of shiftable magazines, a font-distinguisher, and mechanism for automatically adjusting the font-distinguisher to correspond with the magazine in operative position, the said adjusting mechanism comprising means shiftable at will to correspond to different styles of type or matrices in the selected magazine and thus to vary the extent of the adjustment.

2. In a typographical composing machine, the combination of a plurality of shiftable magazines, a font-distinguisher, a mechanism for automatically adjusting the font-distinguisher to correspond with the magazine in operative position, the said adjusting mechanism comprising an eccentrically-mounted polygonal contact plate G rotatable at will to correspond to different styles of type or matrices in the selected magazine and thus to vary the extent of the adjustment.

guisher, a mechanism for automatically adjusting the font-distinguisher to correspond with the magazine in operative position, the said adjusting mechanism comprising an eccentrically-mounted polygonal contact plate G rotatable at will to correspond to different styles of type or matrices in the selected magazine and thus to vary the extent of the adjustment.



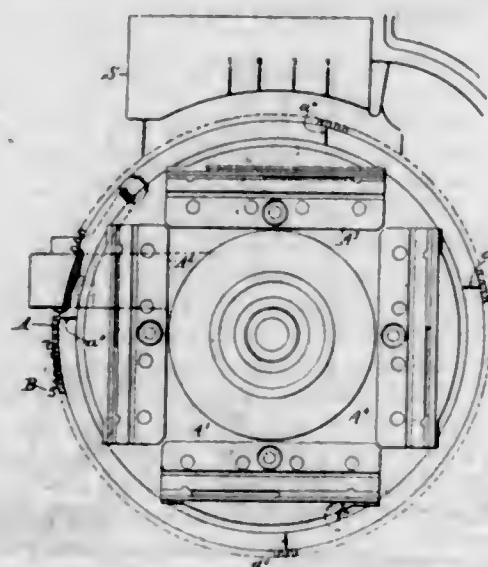
3. In a typographical composing machine, the combination of a plurality of shiftable magazines, the adjustable font-distinguisher, and connections actuated by the shifting of the magazine to adjust the font-distinguisher, the said connections comprising the rotatable eccentrically-mounted polygonal plate G.

4. In a typographical composing machine, the combination of a magazine for the type or matrices, a font-distinguisher, and mechanism for automatically adjusting the font-distinguisher, the said adjusting mechanism comprising also shiftable means that may be manipulated at will to adapt said mechanism to the particular style or font of the type or matrices contained in the magazine.

5. In a typographical composing machine, the combination of a magazine for the type or matrices, a font-distinguisher, and mechanism for automatically adjusting the font-distinguisher, the said adjusting mechanism comprising an eccentrically-mounted polygonal contact plate G rotatable at will to correspond to the particular style or font of the type or matrices contained in the magazine.

[Claim 6 not printed in the Gazette.]

1,080,349. TYPOGRAPHICAL MACHINE. LUTHER L. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 14, 1912. Serial No. 714,961. (Cl. 199—13.)



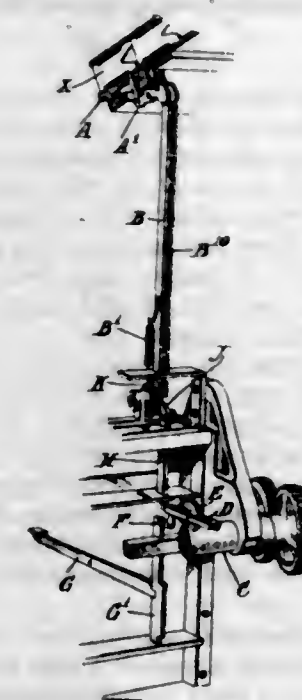
1. In a typographical casting machine, the combination of an adjustable mold carrier provided with a plurality

of molds, and having a like plurality of marks one for each mold, with a stationary scale having a corresponding series of marks, whereby the adjustment of the carrier to bring a mold into operative position simultaneously moves its mark into proper registry with the corresponding mark on the scale.

2. In a typographical casting machine, the combination of an adjustable rotary mold wheel provided with a plurality of molds, and having a like plurality of marks one for each mold and located out of contiguity thereto, with a stationary scale having a corresponding series of marks, whereby the rotation of the wheel to bring a mold into operative position simultaneously moves its mark into proper registry with the corresponding mark on the scale.

3. In a typographical casting machine, the combination of an adjustable rotary mold wheel provided with a plurality of molds, and having a like plurality of marks one for each mold, located out of contiguity thereto and in varied circumferential positions on the wheel, with a stationary scale having a corresponding series of marks, whereby the rotation of the wheel to bring a mold into operative position simultaneously moves its mark into proper registry with the corresponding mark on the scale.

1,080,350. TYPOGRAPHICAL COMPOSING-MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 15, 1912. Serial No. 690,853. (Cl. 199—7.)



1. In a typographical composing machine, the combination of a pair of escapements for the type or matrices, a corresponding pair of reeds to actuate the said escapements, and a periodically operated single actuating means for the said reeds, the said actuating means being formed with different members to engage the different reeds and so located that the reeds are engaged alternately thereby.

2. In a typographical composing machine, the combination of a pair of escapements for the type or matrices, a corresponding pair of reeds to actuate the said escapements, and a periodically rotated member formed with projecting portions arranged in staggered relation so as to engage the reeds alternately.

3. In a typographical composing machine, the combination of a pair of escapements for the type or matrices, a corresponding pair of reeds to actuate the said escapements, and a periodically rotated wheel formed with portions projecting from its opposite sides to engage the reeds alternately.

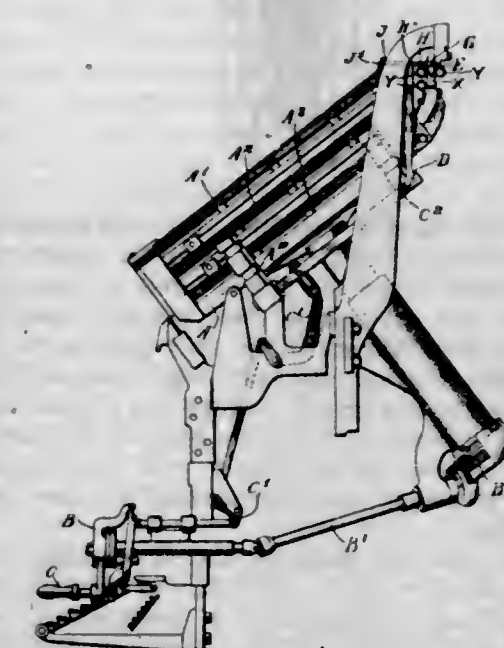
4. In a typographical composing machine, the combination of a pair of escapements A, a pair of actuating reeds B, B', and the periodically rotated wheel K formed with

the oppositely located pins L and M to engage the reeds B and B' respectively.

5. In a typographical composing machine, the escape-ment actuating mechanism comprising in combination, the reed, the wheel having an actuating portion to engage the reed, and an operating cam and suitable connections to rotate the wheel, the said cam being so formed as to bring the actuating portion into engagement with the reed, then to permit a dwell, and then to move the actuating portion out of engagement with the reed.

[Claim 6 not printed in the Gazette.]

1,080,351. TYPOGRAPHICAL MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 7, 1912. Serial No. 695,591. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines, means for shifting the magazines, and distributing mechanism, together with movable locking means to prevent the shifting of the magazines while any type or matrices remain undistributed, the movement from operative position of the said locking means being positively prevented by the presence of type or matrices in the distributing mechanism.

2. In a typographical machine, the combination of a plurality of magazines, means for shifting them and for bringing any selected one into operative position, locking means therefor, a distributing mechanism, and a device coöperating with the distributing mechanism and connected to said locking means to prevent positively their movement to unlocking position while any type or matrices remain undistributed.

3. In a typographical machine, the combination of a plurality of magazines, means for shifting the magazines, and a distributing mechanism, with locking means for the magazines, and means coöperating with the type or matrices in course of distribution to prevent positively the movement of the said locking means to inoperative position.

4. In a typographical machine, the combination of a magazine, means for shifting it, and a distributing mechanism, with locking means for the magazine, and connections whereby the type or matrices in course of distribution positively prevent the movement of the said locking means to inoperative position.

5. In a typographical machine, the combination of a shiftable magazine for the type or matrices, distributing mechanism, and locking means to prevent the shifting of the magazine while any type or matrices remain undistributed, together with devices for preventing positively the operation of said locking means, the said devices being controlled by the presence of type or matrices in the distributing mechanism.

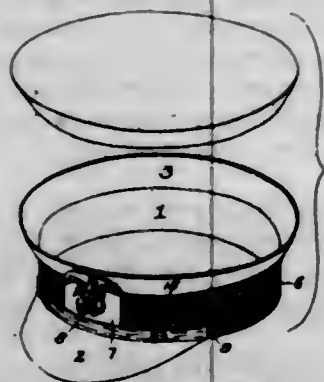
[Claims 6 to 15 not printed in the Gazette.]

1,080,352. LINE-CASTING MACHINE. DANA S. KNOX, Denver, Colo., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 2, 1910. Serial No. 553,125. (Cl. 199-7.)



1. In a line casting machine, the combination with means for guiding the spacers toward the matrix line, of a yielding buffer connected thereto and so located as to contact with the spacers in their passage therethrough and to arrest their descent before they pass to the line.
2. In a line casting machine, the combination with means for guiding the spacers toward the matrix line, of a yielding stop device located in the path of the descending spacers and in position to contact with their upper portions, so as to arrest them temporarily in their advance toward the line.
3. In a line casting machine, and in combination with double wedge spacers having shoulders at their upper ends, a pair of inclined, yielding buffers, arranged in the path of the spacers in position to engage the shoulders of the spacers and retard their advance toward the line.
4. In a line casting machine, the combination of spacers formed with laterally projecting portions, a guide therefor, and yielding buffers located in position to engage the said projecting portions and arrest the spacers in their advance toward the line.
5. In a line casting machine, the spacer A comprising the part *a* and the shouldered part *a'* connected by a sliding joint, in combination with yielding buffers adapted to engage the shoulders of the part *a'* and to retard the travel of the spacer toward the matrix line.

1,080,353. UNIFORM-CAP. JOHN J. KOHLER, Philadelphia, Pa., assignor to William H. Horstmann Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1913. Serial No. 761,708. (Cl. 2-106.)



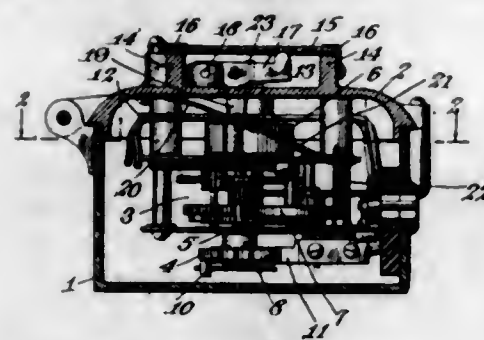
1. The combination of a uniform cap having a frame with trimming normally confined in position thereon, and a detachable crown terminating at the upper portion of the band of the trimming and removable without disturbing the latter.
2. A uniform cap comprising a frame with trimming normally confined thereto and a removable crown terminating at the upper portion of the band of the trimming,

whereby it can be removed without disturbing the latter, said frame having an external cord over which the lower portion of the crown is drawn and which thus aids in retaining the crown in place.

3. A uniform cap having a frame with a flexible flaring ring, trimming, including a band encircling said frame below said flaring ring, and a removable crown terminating at the upper portion of said band and fitted over the externally flaring ring of the frame.

4. A uniform cap having a frame including a flexible flaring ring with an external cord at the base of the same, trimming, including a band encircling said frame below said flaring ring, and a removable crown terminating at the upper portion of said band and fitted over the flaring ring of the frame and over the external cord at the base thereof.

1,080,354. FIRE-ALARM SIGNAL-BOX. WALTER J. LEVERIDGE, Plainfield, N. J., assignor to Charles W. Leveridge, New York, N. Y. Filed Mar. 12, 1913. Serial No. 753,072. (Cl. 173-50.)



1. In a break-glass fire alarm, the combination of a signal wheel, a spring adapted when released to rotate said wheel, a latch adapted to normally hold said spring and a glass adapted to maintain said latch in holding position, said latch being adapted to automatically free the spring when said glass is broken and a plate adapted to be engaged by and maintain said latch in inoperative position during the rotation of said signal wheel and until the alarm mechanism has been reset.

2. In a break-glass fire alarm, the combination of a signal wheel, a spring adapted when released to rotate said wheel, a latch adapted to normally hold said spring, a glass adapted to maintain said latch in holding position, said latch being adapted to automatically free the spring when said glass is broken and means actuated by said spring and adapted to maintain said latch in inoperative position at all times until the mechanism has been reset for a new signal.

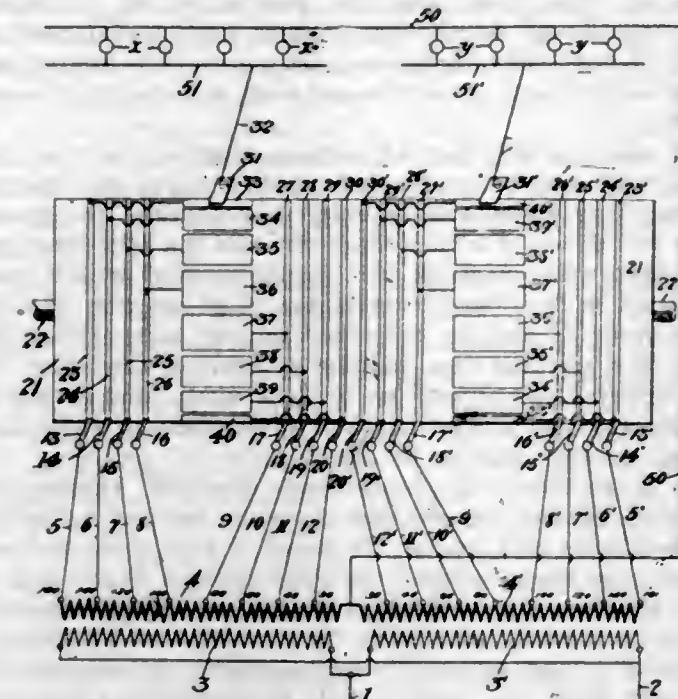
3. In a break-glass fire alarm, the combination of a signal wheel, a spring adapted when released to rotate said wheel, a movable plate actuated by said spring, means for normally holding said plate against the action of said spring and a glass adapted to maintain said means in holding position, said means being adapted to automatically release said plate when said glass is broken.

4. In a break-glass fire alarm, the combination of a signal wheel, a spring adapted when released to rotate said wheel, a movable plate actuated by said spring, a latch for normally holding said plate against the action of the spring, a glass adapted to maintain said latch in holding position and a spring adapted to force said latch from its holding position when the glass is broken, said latch riding on said plate during the rotation of the signal wheel.

5. In a break-glass fire alarm, the combination of a signal wheel, a spring adapted when released to rotate said wheel, a movable sector actuated by said spring, a latch for normally holding said sector against the action of said spring, a glass adapted to maintain said latch in holding position and a spring for rendering said latch inoperative when the glass is broken, said latch being maintained in inoperative position by said sector during the rotation of the signal wheel and at the time said signal wheel comes to rest.

[Claims 6 to 8 not printed in the Gazette.]

1,080,355. SYSTEM OF ELECTRICAL DISTRIBUTION. JOSEPH O. LUTHY, San Antonio, Tex. Filed Feb. 26, 1913. Serial No. 750,860. (Cl. 171-97.)



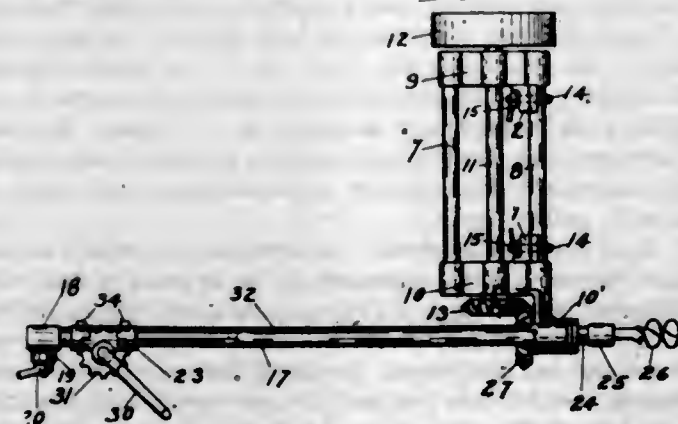
1. The method of distributing electrical energy to translating devices, which consists in supplying said devices with current, the voltage of which is in excess of that normally required by said translating devices, successively varying said voltage between predetermined limits, and rapidly reversing the order of the voltage variation.

2. The method of distributing electrical energy to a plurality of translating-device circuits, which consists in supplying said circuits with current, successively decreasing the voltage in one of said circuits and simultaneously and proportionately increasing the voltage in the other of said circuits, and rapidly reversing the order of voltage variation in the respective circuits.

3. The method of distributing electrical energy to a plurality of translating-device circuits, which consists in supplying said circuits with current, the maximum voltage of which is in excess of that required by the translating devices, successively decreasing the voltage in one of said circuits and simultaneously and correspondingly increasing the voltage in the other circuit, and rapidly reversing the order of voltage variation in the respective circuits.

4. Apparatus for distributing electrical energy to a plurality of translating-device circuits, comprising a source of supply, and mechanism interposed between said source and said circuits for successively and inversely varying the voltage in the respective circuits, said mechanism including means for rapidly reversing the order of voltage variation in said circuits.

1,080,356. BORING DEVICE. DONALD MACGREGOR, Portland, Ore., assignor of one-half to John Boyd, Portland, Ore. Filed Dec. 20, 1912. Serial No. 737,794. (Cl. 144-106.)



1. A portable boring device for boring stumps of trees, comprising a base, supporting standards mounted thereupon, a power frame with power shaft therein, a bor-

ing frame adjustably mounted upon said base, an angular bearing casting rigidly connecting said power frame and said boring frame with each other at right angles, said frames being hingedly connected to said standards, beveled gears in mesh with each other in the angle of said casting and driven from said power shaft, a driving shaft mounted in said boring frame, through one of said gears and movable longitudinally therethrough, said shaft being provided with holding means for an auger at its forward end and with a feed head slidably mounted upon said boring frame, at its rearward end, and means for mechanically moving said feed head and said boring shaft longitudinally through said boring frame and beveled gear, substantially as shown and described.

2. A boring device of the character referred to comprising in combination, a supporting base, supporting standards mounted thereupon, a power frame adjustably mounted upon said standards and provided with power shaft having a driving pulley and a gear, a boring frame connected at its forward end, at right angles, to said power frame and provided with a driving shaft rotatably mounted therein and adapted to be adjusted longitudinally therethrough, an auger carried by the forward end of said driving shaft, a driving gear meshing with said first gear and through which said driving shaft has a driving and sliding connection, and a feed mechanism connected at the rear end of said driving shaft in said boring frame, whereby to move said shaft longitudinally in either direction during the boring operation.

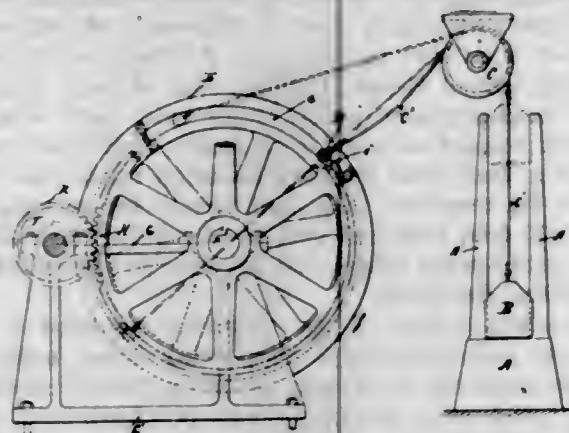
3. In a boring device of the character referred to, in combination, a supporting base, supporting standards mounted thereupon, a power frame adjustably and pivotally mounted on said standards and provided with a power shaft having a driving pulley and a beveled gear at its opposite ends; a boring frame connected at its forward end and at an angle thereto with said power frame, and provided with a driving shaft rotatably and slidably mounted therein, and provided at its forward end with an auger, a beveled gear having a bearing in said frame and meshing with said first mentioned beveled gear, to be driven therefrom, said driving shaft having a driving and sliding connection therethrough, whereby to be driven by said gear, said boring frame being vertically adjustable at its rear end, a supporting standard for the rear end of said boring frame and feed mechanism connected at the rear end of said driving shaft for moving it longitudinally, for the purpose mentioned.

4. A boring device, comprising in combination, a supporting base, supporting vertical standards mounted thereupon, a power frame adjustably and hingedly mounted on said standards and provided with a power shaft having a driving pulley and a beveled gear, a boring frame comprising parallel shafts secured together at their opposite ends and rigidly connected at their forward ends, at an angle to said power frame, and provided with a driving shaft rotatably and slidably mounted therein, and provided at its forward end with an auger, a feed head slidably mounted upon said parallel shafts and secured to the rear end of said driving shaft, a beveled driving gear upon said driving shaft and meshing with said first gear, whereby to be driven thereby, a sprocket chain secured at its opposite ends to the opposite ends of said boring frame, a sprocket wheel rotatably mounted upon said feed head, movable therewith and meshing with said sprocket chain, whereby to positively move said feed head and driving shaft longitudinally in either direction, with means for operating said sprocket wheel, and means for adjusting said boring frame and driving shaft vertically into different angular positions, substantially as described.

1,080,357. DROP-HAMMER MECHANISM. PAUL MARWUM, Shreve, Ohio. Filed June 24, 1913. Serial No. 775,539. (Cl. 78-25.)

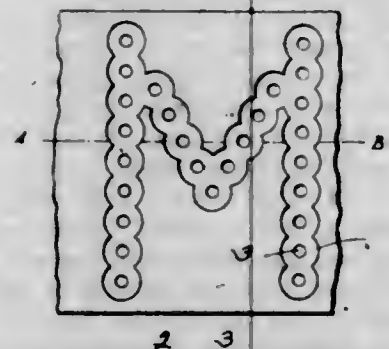
In a drop hammer mechanism the combination of an anvil, a hammer-weight, a pulley, a strap over said pulley having one end secured to said hammer-weight, a pair of wheels E, secured concentric and in spaced relation to each other upon independent shafts E', and having an-

nular grooves *c*, in the adjacent faces of their rims, spur-gear wheels *H*, secured on said shafts *E'*, a shaft *J*, mounted adjacent to said spur-gears *H*, gear pinions *K*,



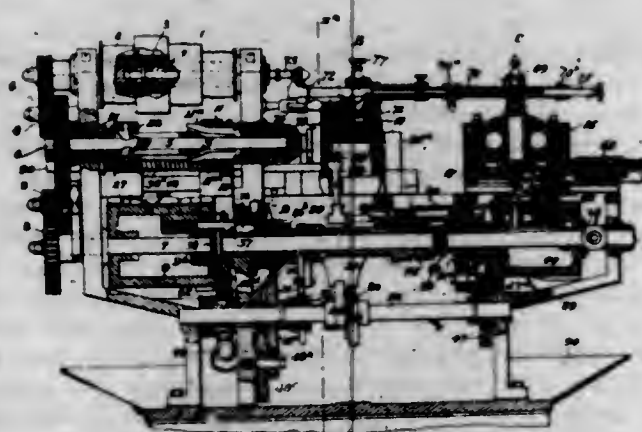
thereon intermeshing with said spur-gear wheels, and stops *c'*, in said annular grooves, substantially as set forth.

1,080,358. SIGN. RICHARD F. MASON, Bishopville, S. C., assignor of eighty-five one-hundredths to Charles A. Divlne, Bishopville, S. C. Filed June 21, 1912. Serial No. 705,039. (Cl. 40—125.)



A sign comprising a body in which the characters are formed and made up of a plurality of overlapping circular recesses, the sides of which merge into each other and are at right angles to the bases of said recesses, the sides and bases of the recesses being reflecting and other reflecting recesses in the bases of and coaxial with the first named reflecting areas.

1,080,359. FORMING-MACHINE. JAMES D. MATTISON, Holyoke, Mass. Filed Aug. 4, 1900. Serial No. 25,864. (Cl. 29—44.)



1. In a forming machine, the combination with the cutter-cylinders and cutters, the operating cam, and the rocking frame carrying said cylinders and operated by said cam, of means for regulating the depth of the cut of the cutters, said means comprising a gage-wheel rotatively mounted in the frame carrying the cutters, and a hinged arm on said frame interposed between the gage-wheel and the operating cam, substantially as set forth.

2. In a forming machine, the combination with the cutter-cylinders rotatively mounted in a rocking frame, the

said frame, the cutters in the cylinder, and the shaft and cam for feeding the cutters up to their work, of the hinged arm 20^c on the frame, the roller 20^b on said arm for the cam to bear upon, and the gage-wheel 86, rotatively mounted in the frame and provided with radial studs in its periphery, said studs being adapted to take behind and bear on the back of said hinged arm, substantially as set forth.

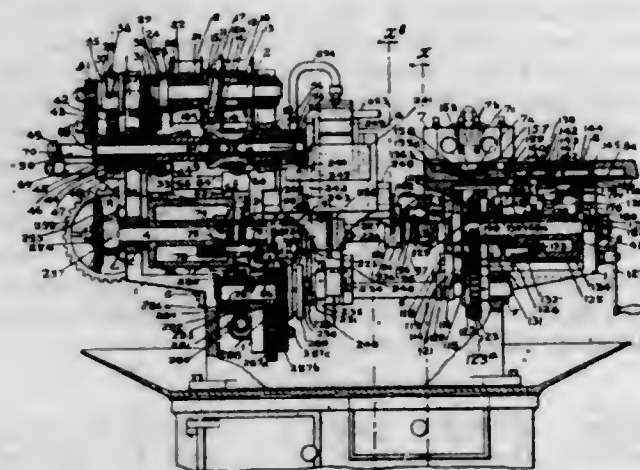
3. In a machine for the purpose specified, the combination with the cutter-cylinders and cutters, the rocking frame 20 in which said cylinders are mounted, the hinged arm 20^c, provided with a roller 20^b, and the gage-wheel 86, provided with studs in its periphery, said wheel being mounted in the frame 20 and adapted by rotation to bring said studs to bear in succession on the back of the arm 20^c, of a rotating cam adapted to bear on the roller 20^b for bringing the cutters up to their work, and automatic means for imparting intermittent rotation to said gage-wheel, substantially as set forth.

4. A machine for the purpose specified, having two parallel spindles for carrying the stock, means for rotating said spindles and feeding the stock, a fixed head disposed within the space between the prolongations of the axes of said spindles, two work-supports mounted in the respective opposite faces of said head, two cutter-carriers disposed opposite to the respective work-supports and movable up to and from the same, said work-supports extending throughout the entire working fields of the said cutters, and means for moving the cutter-carriers up simultaneously to the work.

5. In a machine for the purpose set forth, the combination with a cutter-cylinder or holder having a chamber to receive a cutter, and the said cutter, of a conical bolt which extends through said cutter, an expanding collet on said bolt and occupying said chamber, and a nut on said bolt.

[Claims 6 to 10 not printed in the Gazette.]

1,080,360. FORMING-MACHINE. JAMES D. MATTISON, Orange, N. J. Filed Dec. 29, 1905. Serial No. 293,864. (Cl. 29—44.)



1. In a forming machine, the combination with the cutter-carrier and cutters, the operating cam, and the rocking frame carrying said cutters and operated by said cam, of means for regulating the depth of the cut of the cutters, said means comprising a wheel having screw-studs in its periphery and rotatively mounted in the frame carrying the cutters, and a swinging member on said frame interposed between the star-wheel and the operating cam, substantially as set forth.

2. In a forming machine, the combination with the cutter-carriers rotatively mounted in a rocking frame, the said frame, the cutters in the cylinder, and the shaft and cam for feeding the cutters up to their work, of the swinging member on the frame, the anti-friction roller on said swinging member for the cam to bear upon, and the star-wheel, rotatively mounted in the frame and provided with radial screw-studs in its periphery, said studs being adapted to take behind and bear on the back of said swinging member substantially as set forth.

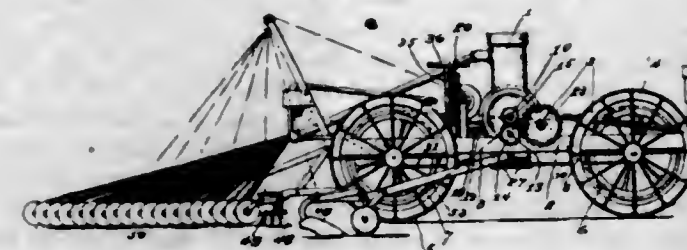
3. In a machine for the purpose specified, the combination with the cutter-carriers and cutters, the movable frame in which said carriers are mounted, the swinging member, provided with an anti-friction roller, and the star-wheel, provided with studs in its periphery, said wheel being mounted in the frame and adapted by rotation to bring said studs to bear in succession on the back of the swinging member, of a rotating cam adapted to bear on the anti-friction roller for bringing the cutters up to their work, and automatic means for imparting intermittent rotation to said star-wheel, substantially as set forth.

4. In a forming machine, the combination of a pair of spindles to carry and rotate the stock, a head disposed within the space between the prolongation of the axes of said spindles, anti-friction rolls carried by opposite sides of said head to serve as work supports, and a plurality of movable cutters for acting on the stock of each spindle.

5. A forming machine having two spindles for the stock abreast and at substantially the same level, a head disposed between the prolongations of the axes of the spindles, work-supports mounted in the respective outer faces of said head, and two sets of movable cutters and their carriers disposed oppositely to the respective work-supports.

[Claims 6 to 17 not printed in the Gazette.]

1,080,361. MOTOR-VEHICLE. THOMAS F. MCCALLISTER, Prineville, Oreg. Filed July 27, 1912. Serial No. 711,814. (Cl. 21—114.)

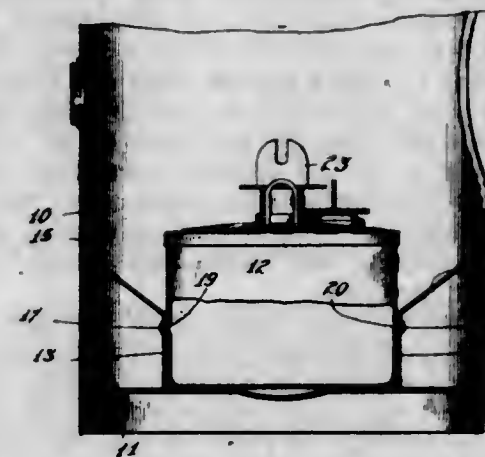


1. In a motor vehicle, the combination of two pairs of traction wheels, a sectional axle for each pair of said wheels, a bed carried by the axles, a power-supplying element mounted on the bed, a sprocket wheel central of each axle, an endless chain for the sprocket wheels, a pair of vertically aligned sprocket wheels operated by the power-supplying element in engagement with said chain, and power-transmitting means from one to the other of the said pair of sprocket wheels.

2. In a motor vehicle, the combination of two pairs of traction wheels, a sectional axle for each pair of said wheels, a bed carried by the axles, a sprocket wheel central of each axle and working through the bed, an engine mounted on the bed, a driven shaft projecting from the engine, a pair of vertically aligned sprocket wheels one of which is secured to the engine shaft, means for transmitting power from said shaft to the other of the pair of sprocket wheels, and an endless chain connecting the axle-sprocket wheels and driven by the said pair of sprocket wheels.

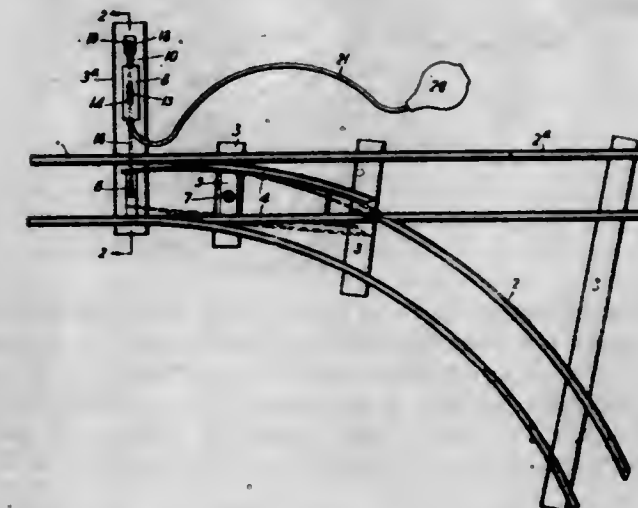
3. In a motor vehicle, the combination of two pairs of traction wheels, a sectional axle for each pair of said wheels, a bed carried by the axles, a sprocket wheel central of each axle and working through the bed, an engine mounted on the bed, a driven shaft projecting from the engine, a pair of vertically aligned sprocket wheels one of which is secured to the engine shaft, means for transmitting power from said shaft to the other of the pair of sprocket wheels, an endless chain connecting the axle-sprocket wheels and driven in one direction by the said pair of sprocket wheels, a reversing shaft operated by the said power transmitting means, a pair of sprocket wheels on the reversing shaft for driving the chain in the other direction, and means for coupling and uncoupling the reversing shaft with the sprocket wheels thereof.

1,080,362. LAMP. JOSEPH G. MCGREGOR, Oak Park, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed May 23, 1912. Serial No. 699,122. (Cl. 240—50.)



In a lamp, in combination, a body, parallel walls rising vertically from the bottom of the body and being spaced apart from the side walls thereof and having their upper portions extended laterally to the lamp body walls, a font having vertical sides and being of such width that it slidably engages the parallel walls, said parallel walls and the sides of the font engageable therewith having interengaging horizontal ribs and channels.

1,080,363. SWITCH MECHANISM FOR TOY TRACKS. ALBERT E. MILLER, Carnegie, Pa. Filed Oct. 23, 1912. Serial No. 727,326. (Cl. 104—26.)



1. In a toy track, the combination with fixed track sections, of a movable track member, and means for moving the same, comprising a cylinder, a piston movable in said cylinder and having a piston rod projecting through one end thereof and connected to said movable track member, a flexible conduit connected at one end to said cylinder, and a portable compressible device connected to the other end of said conduit and arranged when compressed to force air into said cylinder and when released to exhaust air therefrom to thereby shift said movable track member.

2. In a toy track, the combination with fixed track sections, of a movable track member, and means for moving the same, comprising a cylinder, a piston movable in said cylinder and having a piston rod projecting through one end thereof and connected to said movable track member, a conduit connected at one end to said cylinder, and a flexible elastic bulb connected to the other end of said conduit and arranged when compressed to force air into said cylinder and when released to exhaust air therefrom to thereby shift said movable track member.

3. The combination with fixed track sections and sleepers supporting the same, of a movable track member, and means for moving the same, comprising a cylinder supported on one of said sleepers and adjustable therealong toward and away from said movable track member,

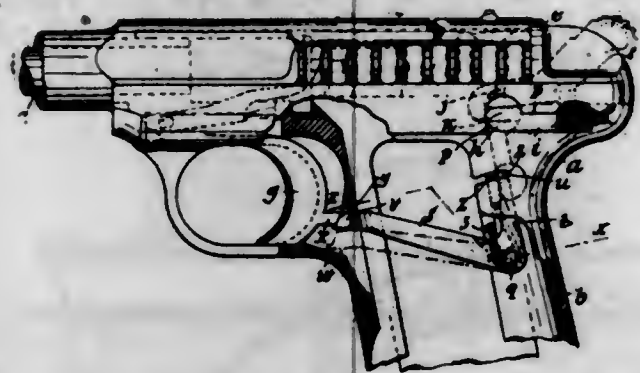
a piston movable in said cylinder, connections between said piston and said movable track member for moving the same, and means for forcing air under pressure into said cylinder to thereby shift said movable track member.

4. The combination with fixed track sections, of a movable track member adapted to be connected to either of said fixed track sections, a cylinder, a piston therein, means for forcing air under pressure into one end of said cylinder for moving the piston in one direction and for withdrawing the air from the same end of the cylinder to move the piston in the opposite direction, and an adjustable connection between said piston and the movable track member so arranged that movement of said piston in one direction will move said movable track member in either direction.

5. The combination with fixed track sections, of a movable track member adapted to be connected to either of said fixed track sections, a cylinder, a piston therein, means for forcing air under pressure into one end of said cylinder for moving the piston in one direction and for withdrawing the air from the same end of the cylinder to move the piston in the opposite direction, a double-armed pivoted lever connected to said movable track member, and means for connecting said piston to either end of said lever.

[Claim 6 not printed in the Gazette.]

1,080,364. FIREARM. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Oct. 15, 1912. Serial No. 725,949. (Cl. 42—70.)



1. In combination with a gun having a firing mechanism, means for releasing said mechanism and a locking device for said mechanism movable to locking and unlocking relation thereto, a detent movable independently of said device to locking and unlocking relation to said means and controlled by said device, substantially as described.

2. In combination with a gun having a firing mechanism, means for releasing said mechanism and a locking device for said mechanism movable to locking and unlocking relation thereto, a pivoted detent movable to locking and unlocking relation to said means and controlled by said device, substantially as described.

3. In combination with a gun having a firing mechanism, means for releasing said mechanism and a locking device for said mechanism movable to locking and unlocking relation thereto, a detent normally held in and movable out of locking engagement with said means and projecting in the path of movement of and actuable by the locking device, substantially as described.

4. In combination with a gun having a firing mechanism and means for releasing said mechanism, a detent movable into and out of locking engagement with said means and a locking device for the firing mechanism movable into and spring-pressed against and adapted to move said detent, substantially as described.

5. In combination with a gun having a firing mechanism and means for releasing said mechanism, a detent movable into and out of locking engagement with said means and normally held in locking engagement therewith, and a locking device for the firing mechanism movable into and spring-pressed against and adapted to move said detent, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,080,365. SAW. JOHN E. O'NEILL and WILLIAM G. MENIHAN, Corning, N. Y. Filed Apr. 29, 1913. Serial No. 764,336. (Cl. 145—33.)



1. The combination of a saw frame having the outer side of one end thereof cut away, an adjustable head piece disposed in the space in the saw frame thus formed, the outer extremities of the frame end and the end of the head piece being bifurcated to form blade seats and the contiguous edges of these parts being provided with pairs of opposing recesses of varying depths, a member adapted for placement in selected recesses whereby to selectively position the head piece with respect to the frame end, the outer edge of said head piece having recesses, a blade lever having a handle at one end and having its opposite end bifurcated and terminating in a relatively broad and substantially flat surface provided with projections for engagement in the last mentioned recesses of the head piece, said lever being also provided with curved side slots, and a blade having its end extended into the bifurcated end of the lever and provided with oppositely projecting pins engaged within the side slots thereof.

2. The combination of a saw frame having the outer side of its heel end cut away, an adjustable head piece in the space in the saw frame thus formed, the contiguous edges of the said frame and head piece being provided with pairs of opposing recesses of varying depths, a member adapted for placement in selected recesses whereby to selectively position the head piece with respect to the frame, a blade lever having a handle at one end and a curved side slot and having its opposite end terminating in a relatively broad and substantially flat surface adapted for bearing upon the outer side edge of the head piece, relatively engaging means carried by the said head piece and the said lever to prevent accidental displacement of the latter, and a blade having projecting pins for engagement in the side slot of the lever.

3. The combination of a saw frame, an adjustable head piece disposed along the outer side of the heel end of the frame and bearing against the same, the contiguous inner edges of the frame head and head piece being provided with pairs of recesses of varying depths, a spacing pin adapted for engaging within selected pairs of the recesses whereby to selectively position the head piece with respect to the frame, a blade lever having a handle at one end and having its opposite end terminating in a relatively broad, flat surface adapted for bearing upon the outer side edge of the head piece, and a blade detachably connected to the said lever, all for the purpose described.

4. The combination of a saw frame, an adjustable head piece disposed against the outer surface of the heel end of the frame and having bearing thereon, and a pivotal connection at one end therewith, the contiguous edges of said frame, and said head piece having opposing series of recesses, a spacing member adjustable between the frame and the head piece toward and away from the pivot of the head piece and seated in opposing recesses, whereby to adjustably position the head piece with respect to the frame, a blade lever for bearing at one end against the outer surface of the head piece, and a blade having removable connection with a blade lever, all for the purpose described.

1,080,366. BOTTLE-CLOSURE. HENRY V. PICK, New York, N. Y., assignor to Bernard Noonan, New York, N. Y. Filed Jan. 20, 1911. Serial No. 603,645. Renewed Sept. 23, 1913. Serial No. 791,404. (Cl. 215—34.)

1. In a bottle closure, a rim adapted to fit the neck of a bottle, a two-part circular cover, the parts of which are slidable in opposite directions on said rim, an L-shaped lug projecting from each of said parts, and a spring-pressed lever fulcrumed to said rim, having one end ex-

tending parallel to and along the neck of the bottle and having the other end intumed to form lugs to press on the top of said parts through recesses in the L-shaped lugs, whereby the closure is pressed into firm engagement with the rim to afford a dust-tight connection between said members.



2. In a bottle closure, a rim adapted to fit on the mouth of a bottle, a closure pivoted to the top of said rim, a lever fulcrumed to said rim and bearing on top of said closure, whereby said closure is kept tightly in contact with said rim, and resilient means pressing said lever in contact with said closure.

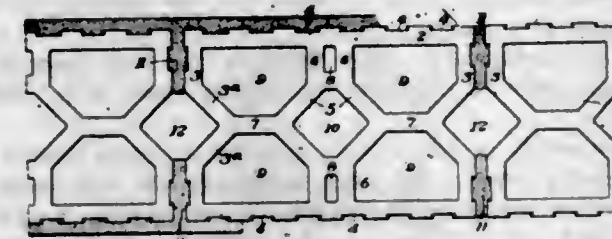
3. In a bottle closure, a pivoted cover, an L-shaped lug extending from said cover adjacent the pivot, and a lever within and bearing on the outer leg of said lug acting as a lever to swing said cover on its pivot.

4. In a bottle closure, a pivoted cover, an L-shaped lug extending from said cover adjacent the pivot, a lever bearing on the outer leg of said lug to swing said cover on its pivot, and a spring on said lever to press said lever out of engagement with said lug and to press the top of said lever on the top of said cover to hold the same in closed position.

5. In a bottle closure, a rim, a cover pivoted to the top of said rim, a bracket extending from said rim, a lever fulcrumed to said bracket and engaging said cover to the inside of its pivotal point, and a spring having one end affixed to said lever, the other end pressing against the bottle forcing said lever into engagement with said cover to hold the cover in position closing the mouth of the bottle.

[Claim 6 not printed in the Gazette.]

1,080,367. BUILDING-BLOCK. RICHARD W. RAFTIS, Chicago, Ill., assignor to National Fire Proofing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 4, 1913. Serial No. 758,782. (Cl. 72—41.)



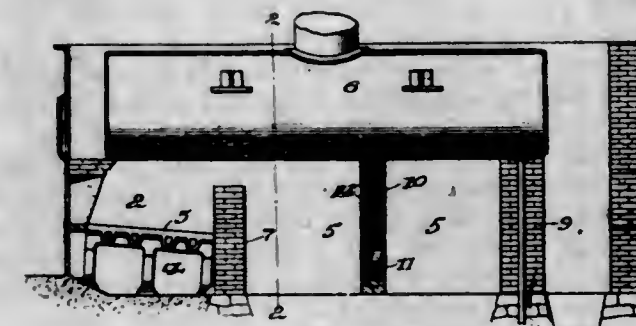
1. A hollow building block having a V-shaped inset in each of its end walls, a diamond web at the center, bracing webs connecting the apices of the insets with the adjacent apices of the diamond web, and short bracing webs connecting the other two apices of the diamond web with the side walls of the block; substantially as described.

2. A hollow building block having a V-shaped inset in each of its end walls, a diamond web at the center, bracing webs connecting the apices of the insets with the adjacent apices of the diamond web, and short bracing webs connecting the other two apices of the diamond web with the side walls of the block, the last named bracing webs having air spaces therein; substantially as described.

3. A hollow building block having a V-shaped inset in each of its end walls, a diamond web at the center, bracing webs connecting the apices of the insets with the adjacent apices of the diamond web, and short bracing webs connecting the other two apices of the diamond web with the side walls of the block, all of said webs being of substantially uniform thickness; substantially as described.

4. A hollow building block having a V-shaped inset in each of its end walls, a diamond web at the center, bracing webs connecting the apices of the insets with the adjacent apices of the diamond web, and short bracing webs connecting the other two apices of the diamond web with the side walls of the block, all of said webs being of substantially uniform thickness and of substantially the same thickness as the side and end walls of the block; substantially as described.

1,080,368. STEAM-BOILER FURNACE. JAMES REAGAN, Philadelphia, Pa. Filed Apr. 24, 1913. Serial No. 763,331. (Cl. 110—97.)

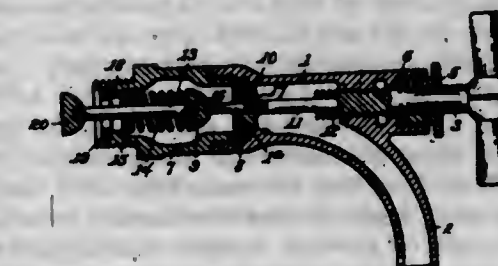


1. In a boiler-furnace, the combination with the combustion-chamber thereof, of a baffle or retarder wall constructed of interlocked tiles, laid loosely one upon the other, said tiles being of substantially rectangular shape provided with longitudinal, circular passages therethrough, and with grooved corners to provide circular passages at the intersection of the adjacent tiles.

2. A furnace tile of substantially rectangular shape, having a central, longitudinal passage therethrough; its corners grooved to form, when laid in a wall, circular passages at the intersection of the adjacent tiles, and two of its sides provided with tongues and the other sides with grooves for interlocking purposes.

3. An interlocking furnace-tile longitudinally divided into half-sections, each section having a semi-circular groove to form, when placed together, a circular passage therethrough, and the corners of the tile being grooved to provide circular passages at the intersection of the adjacent tiles when laid in a wall.

1,080,369. FAUCET. GEORG ROLLWING, Hanover, Germany, assignor to Heinrich H. C. Schnelle, Wheeling, W. Va. Filed Nov. 15, 1911. Serial No. 660,537. Renewed Sept. 18, 1913. Serial No. 790,568. (Cl. 137—4.)



1. In a faucet, a barrel, a faucet body detachably connected to said barrel, a valve seat at the entrance to said

body, detachably-connected oppositely-facing valves operating to seat against opposite faces of said seat, said valves being independently adapted to control the passage of fluid from said barrel to said faucet body, a stem upon the front end of which the rearmost of said valves is carried, a forwardly facing valve carried by the rear end of said stem, a valve seat at the entrance of said barrel, the last named valve being adapted to engage the last named valve seat simultaneously with the seating of the valve on the opposite end of said stem, a spring controlling the movement of all of said valves in one direction, and means for simultaneously moving all of said valves in the opposite direction.

2. A faucet comprising a body composed of two detachably connected parts having communicating water passages, an apertured removable member interposed between said parts whose opposite faces constitute valve seats, a valve for seating against the rear face of said member, a spring normally maintaining said valve seated, a valve for seating against the front face of said member, means for moving the last named valve to its seat, a valve seat at the entrance to the rearmost part of said body, a valve for seating on the last named seat carried in fixed relation to the first named valve, and a distance piece interposed between said valves whereby movement of said valves is rendered conjoint.

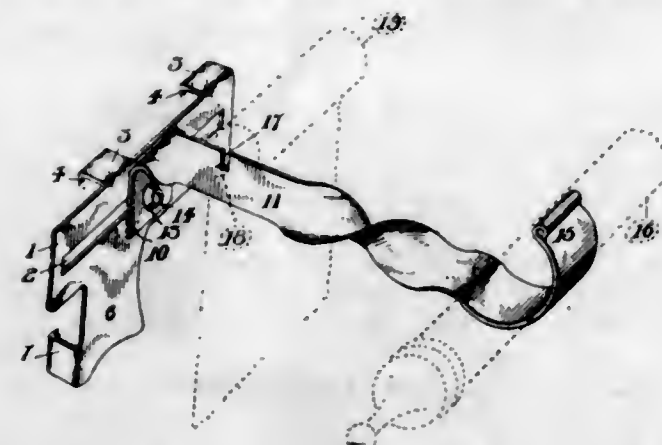
3. A faucet comprising a body composed of two detachably connected parts having communicating water passages, an apertured removable member interposed between said parts whose opposite faces constitute valve seats, a valve for seating against the rear face of said member, a spring normally maintaining said valve seated, a valve for seating against the front face of said member, means for moving the last named valve to its seat, a valve seat at the entrance to the rearmost part of said body, a valve for seating on the last named seat carried in fixed relation to the first named valve and adapted to seat simultaneously therewith, and a distance piece interposed between the two valves first named whereby movement of one of the latter is communicated to the other.

4. A faucet comprising a body composed of two detachably connected parts having communicating water passages, an apertured removable member interposed between said parts whose opposite faces constitute valve seats, a valve for seating against the rear face of said member, a spring normally maintaining said valve seated, a valve for seating against the front face of said member, means for moving the last named valve to its seat, a valve seat at the entrance to the rearmost part of said body, a valve for seating on the last named seat carried in fixed relation to the first named valve, the last named valve being seated automatically by said spring when the parts of the faucet body are disconnected, and a distance piece interposed between the two valves first named whereby movement of one of the latter effects a corresponding movement of the other.

1,080,370. CURTAIN AND SHADE FIXTURE. HENRY SCHEIDING, Homestead, Pa., assignor of one-third to Charles E. Berger, Munhall, Pa. Filed Feb. 23, 1912. Serial No. 679,331. (Cl. 153-24.)

1. A fixture for the purpose set forth comprising a supporting plate, an arm formed with a flat strip of material having its inner portion bent horizontally to provide a right angularly disposed depending portion positioned against the front of the plate, means extending through the depending portion of said arm for detachably connecting the latter to the plate, said arm at said bend torsionally twisted to provide a part disposed at right angles with respect to said depending portion and having an upper and a lower edge, the upper edge of said part arranged in a plane above the top of the supporting plate and provided with means for supporting the pinte of a shade roller, said arms further torsionally twisted intermediate its ends to provide a part with a pair of side edges, said last mentioned part curved upwardly to provide a seat, said arm having its outer terminus formed with a bead.

2. A fixture for the purpose set forth comprising a rectangular plate provided with a longitudinally extending slot, a rearwardly extending hanger at one end of the top edge of said plate and formed with a depending prong, a rearwardly extending hanger projecting from the top edge of the plate approximately centrally thereof and provided with a depending prong, an extension projecting



from the lower edge of the plate in proximity to one end thereof, a rearwardly extending hanger projecting from the outer edge of said extension at the lower edge thereof and provided with an inwardly extending tongue, said last mentioned tongue positioned inwardly with respect to one end edge of said plate, and a support connected to and projecting forwardly from said plate.

1,080,371. LOCKING DEVICE FOR CLASPS. MORRIS SCHIFF, New York, N. Y. Filed Feb. 11, 1913. Serial No. 747,713. (Cl. 24-230.)



1. A bracelet or other article of jewelry having one body member provided with a spring catch having a finger piece, a keeper on the other body member for engagement by the spring catch to fasten the body members together, the said finger piece having a perforation adjacent its inner edge and located at the rear of the keeper when the parts are in closed position, and pins connected together at one end and slidable transversely in the body member having the keeper, one of said pins being a guide pin and extending at the rear of the finger piece, and the other pin being a locking pin adapted to pass through the perforation in the finger piece.

2. A bracelet having a body made in sections hinged together, and a spring clasp for fastening the free ends of the sections together, the spring clasp having a spring tongue held on one section and provided with a finger piece having a transverse opening near its inner edge, and a keeper held within the hollow end of the other section and adapted to be engaged by the said spring tongue in combination with a locking device for the said spring clasp comprising a tubular bearing held transversely within the said hollow end adjacent the said keeper, the said keeper and bearing being divided for the passage of the said finger piece, and a locking pin slidable in the said bearing and adapted to pass through the said opening in the finger piece at the time the spring clasp is in closed position.

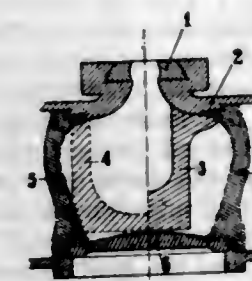
3. A bracelet having a body made in sections hinged together and a spring clasp for fastening the free ends of the sections together, the spring clasp having a spring tongue held on one section and provided with a finger piece having a transverse opening and a keeper held within the hollow end of the other section and adapted to be engaged by the said spring tongue, in combination with a locking device for the said spring clasp comprising a tubular casing held transversely within the said hollow end adjacent the said keeper, the said bearing being di-

vided for the passage of the said finger piece, a locking pin slidable in the said bearing and adapted to engage the said opening in the finger piece at the time the spring clasp is in closed position, a second tubular bearing alongside the said first-named tubular bearing, a guide pin parallel to the said locking pin and slidably engaging the said second tubular bearing, a finger piece connecting the outer ends of the said pins with each other and adapted to engage a recess in the outer face of the body of the article, and means to limit the outward movement of the said pins.

4. A bracelet having a body made in sections hinged together and a spring clasp for fastening the free ends of the sections together, the spring clasp having a spring tongue held on one section and provided with a finger piece having a transverse opening, and a keeper held within the hollow end of the other section and adapted to be engaged by the said spring tongue, in combination with a locking device for the said spring clasp comprising a tubular bearing held transversely within the said hollow end adjacent the said keeper, the said bearing being divided for the passage of the said finger piece, a locking pin slidable in the said bearing and adapted to engage the said opening in the finger piece at the time the spring clasp is in closed position, a second tubular bearing alongside the said first-named tubular bearing the bearings being open at both ends, a guide pin parallel to the said locking pin and slidably engaging the said second tubular bearing, the said second pin having its inner portion enlarged to form a shoulder, a projection on the outer end of the said second bearing and against which is adapted to abut the said shoulder to limit the outward sliding movement of the said pins, and a finger piece connecting the outer ends of the said pins with each other to move the pins inward into locking position or outward into unlocking position relative to the opening in the said finger piece of the spring tongue, the body of the article being provided with a recess in its outer face to receive the said finger piece.

5. A bracelet, or like article having one body member provided with a spring catch having a spring tongue and a finger piece provided with a perforation, a keeper on the other body member for engagement by the spring tongue to fasten the body members together, the said keeper being divided for the passage of the finger piece, the said perforation being adjacent the inner edge of the finger piece and at the rear of the keeper when the parts are in closed position, a locking pin slidable transversely in the body member at the rear of the keeper and adapted to pass through the perforation in the finger piece, a guide pin mounted to slide transversely in said member at the rear of the finger piece, and means for limiting the outward movement of the said pins, the said body member having a recess formed in its outer face at one side thereof, and a finger piece connecting the outer ends of said pins with each other and adapted to fit in the said recess.

1,080,372. MANUFACTURE OF GLOBULAR GLASS BOTTLES. ADOLF SCHILLER, Schöneberg, near Berlin, Germany. Filed Aug. 20, 1913. Serial No. 785,693. (Cl. 49-80.)



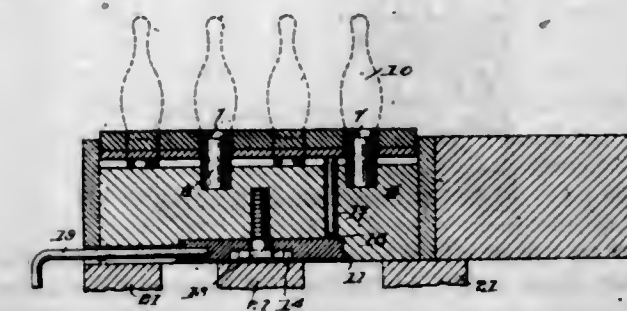
1. In the manufacture of glass bottles with a bulging body and narrow neck, the process which consists in blowing the glass in successive steps, in each of which

197 O. G.—11

steps successive portions of the laterally projecting upper wall of the bottle are given their final shape.

2. A glass mold having an upper blowing mold portion shaped to form the laterally projecting upper wall of a bottle with a bulging body and narrow neck, a lower body mold portion shaped to give with the upper mold portion final shape to the bottle, and having a removable bottom-closure and a series of detachable closed bottom preliminary blowing-mold portions shaped to expose successive portions of the upper wall molding-surface of the upper mold portion.

1,080,373. PIN-SETTER FOR BOWLING-ALLEYS. EMIL SCHLOSSBERG, New York, N. Y. Filed May 19, 1913. Serial No. 768,513. (Cl. 46-54.)



1. In a device of the class described, a bed; studs on said bed, each adapted to carry a pin; a platform comprising a fiber portion and a backing for said fiber portion, said fiber portion and backing having openings therein engaging said studs, and, normally, the upper surface of the platform being flush with the ends of the studs and supported by said bed; a rotatably mounted plate in said bed; and studs from said platform to said plate, said plate having means co-acting with said studs whereby said platform can be raised from said bed, thereby the openings in said platform forming recesses in combination with the studs substantially as set forth.

2. In a device of the class described, a bed; studs in said bed, each adapted to carry a pin; a platform having openings engaging said studs and normally resting on said bed; a plate in said bed, said platform having guiding means in said bed and in engagement with said plate; means for rotating said plate in said bed, said plate having means adapted to be engaged by the guiding means of the platform whereby the upper surface of the platform can be raised above the end of said stud, substantially as and for the purpose set forth.

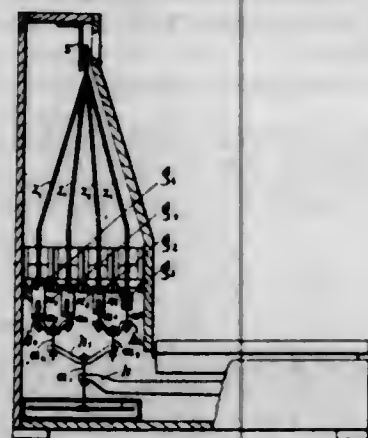
3. In a device of the class described, a bed; studs in said bed, each adapted to carry a pin; a platform having openings engaging said studs normally resting on said bed; a plate having cam surfaces positioned in said bed; means extending from the platform to said cam surface of said plate; and means for rotating said plate from the outside of said bed whereby said platform can be raised above the end of said studs substantially as and for the purpose set forth.

1,080,374. AUTOMATIC WEIGHING-SCALE. GUSTAV SCHNABL, Atzgersdorf, near Vienna, Austria-Hungary, assignor to C. Schember & Söhne, Atzgersdorf, near Vienna, Austria-Hungary. Filed Nov. 28, 1909. Serial No. 530,024. (Cl. 73-100.)

1. In an automatic weighing scale in combination with the main scale beam, a plurality of intermediate levers, a transmission system of a weighing mechanism adapted to be operated by said scale beam for actuating said intermediate levers, a plurality of mechanical scale devices, means for actuating said scale devices by said levers, a plurality of graduated weights arranged to oppose the effect of the weighing mechanism on said devices, means connected with said devices for indicating the weight thereon, and means influenced by said devices for recording said indicating weight.

2. In an automatic weighing scale the combination with the main scale beam, of a plurality of intermediate levers, a transmission system of a weighing mechanism adapted

to be operated by said scale beam, a plurality of mechanical scale devices, means for actuating said scale devices by said levers, a plurality of graduated weights disposed on said devices and arranged to oppose the effect of the weighing mechanism thereon, means on said devices for indicating the weight thereon, a recording device to print said indicated weight, and means for controlling the actuation of the recording device by the weighing device.



3. In an automatic weighing scale, in combination with the main scale beam, a plurality of intermediate levers, a transmission system of a weighing mechanism adapted to be operated by said scale beam for actuating said intermediate levers, a plurality of mechanical scale devices, means for actuating said scale devices by said levers, a plurality of graduated weights disposed on said devices and arranged to oppose the effect of the weighing mechanism thereon, means on said devices for indicating the weight thereon, means for recording said indicated weight, means for controlling the actuation of the recording device by the weighing device, and braking means for locking said device in a registering position.

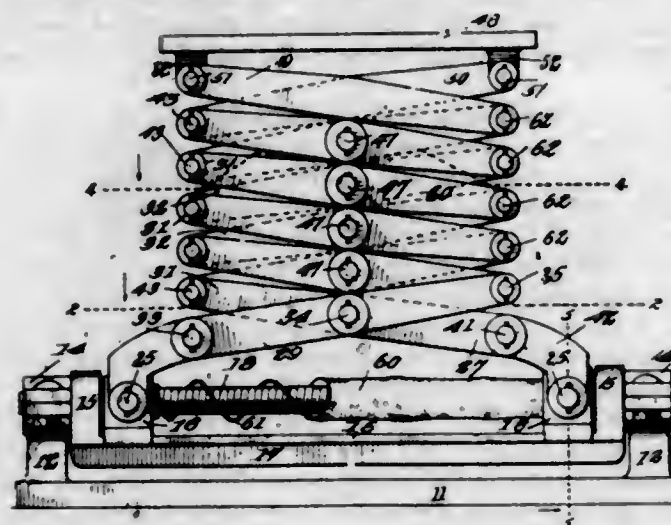
4. In an automatic weighing and registering scale in combination with the main scale beam, a plurality of intermediate levers, a transmission lever system of a weighing mechanism adapted to be operated by said scale beam for actuating said intermediate levers, a plurality of mechanical scale devices, means for actuating said scale devices by said levers, said devices having a plurality of arms thereon, a portion of said arms having segmental projections thereon provided with wedged shape grooves therein, a portion of said arms having means for indicating the weight thereon, a portion of said arms having graduated weights thereon, arranged to oppose the effect of said system on said device, and a portion of said arms having an adjustable weight thereon, a lever having a wedge projection thereon adapted to engage in said groove and lock said device in position, a recording mechanism, means for influencing said recording and said locking devices, and means for controlling the actuation of the recording device by the weighing device.

5. In a mechanical scale device in automatic weighing scales, the combination of a plurality of levers, a transmission system of a weighing mechanism adapted to be operated by said scale beam for actuating said levers, a plurality of mechanical scale devices, means for actuating said scale devices by said levers, a plurality of arms a portion of which having grooves therein arranged for brake members, a portion having means to counteract the effect of the weighing mechanism of the system of levers, a recording mechanism, means for influencing said braking and recording mechanism, and means for controlling the actuation of the recording device by the weighing device, substantially as described.

1,080,375. EXPANSION-LIFT. MARTIN L. SENDERLING, Jersey City, N. J. Filed Dec. 30, 1911. Serial No. 668,697. (Cl. 57—129.)

1. An expansion lift, comprising a screw-threaded shaft, a pair of nuts spaced apart on said shaft and in screw-threaded engagement therewith, a pair of upwardly- and inwardly-extending links carried by each of said nuts, one on each transversely opposite side thereof, and a bolt con-

necting the outside link fastened to one nut with the outside link fastened to the other nut, at a point substantially intermediate the length of said links, the upper end of one of the pair of links having a pair of links pivoted thereto, the free end of the other pair of links having a single link pivoted thereto and positioned between said last-mentioned pair of links.



2. In an expansion lift, a toggle joint, comprising two parallel links, a single link pivotally connected to the ends of said first-mentioned links and positioned in a plane extending between the same, and a second pair of links pivoted on opposite sides of the free end of said single link.

3. An expansion lift, comprising a screw-threaded shaft, means supporting said shaft at opposite ends thereof, a track supported by said means, adjacent its opposite ends, a nut in threaded engagement with said shaft, a housing carrying said nut, means permitting a vertical movement of said housing relative to said nut, and a sliding connection between said housing and said track.

4. In an expansion lift, a screw-threaded shaft, a toggle joint carried by said shaft, so that the rotation of the same will actuate said toggle joint, a supporting platform carried by said toggle, and a connection between said toggle and said platform, permitting said platform to assume an angular position with reference to the line of movement of said toggle.

5. In combination with a threaded shaft, nuts carried by said shaft, a toggle carried by said nuts, a housing for said nuts, and a track supporting said housing, said track rotatably mounted relative to said shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,080,376. HEEL-BREASTING MACHINE. RALPH C. SIMMONS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 19, 1910. Serial No. 593,229. (Cl. 12—47.)

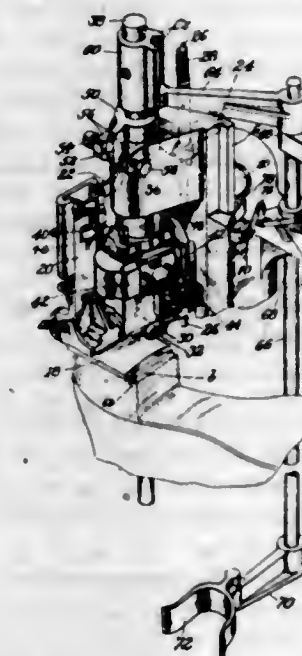
1. In a heel breasting machine, a breasting knife mounted for reciprocation and for positioning movement about its longitudinal axis and means tending to maintain the knife yieldingly in either of two positions of movement about said axis.

2. In a heel breasting machine, the combination of means for supporting a shoe in position to be operated upon, a breasting knife, means to reciprocate the knife longitudinally to do its work, means permitting adjustment of said knife about its longitudinal axis, and means tending to maintain the knife yieldingly in one or the other of two positions of adjustment about said axis.

3. In a machine of the class described, an operating tool adapted for angular adjustment, means for limiting such adjustment in opposite directions, a rocker for effecting such adjustment, and the bent spring 80 attached by one end to the rocker and by its other end to a fixed point so related to the rocker that said spring will be repositioned by and with said rocker to maintain the rocker yieldingly at either extreme of its movement alternatively.

4. In a heel breasting machine, the combination with a shoe support, of an adjustable breasting knife, means

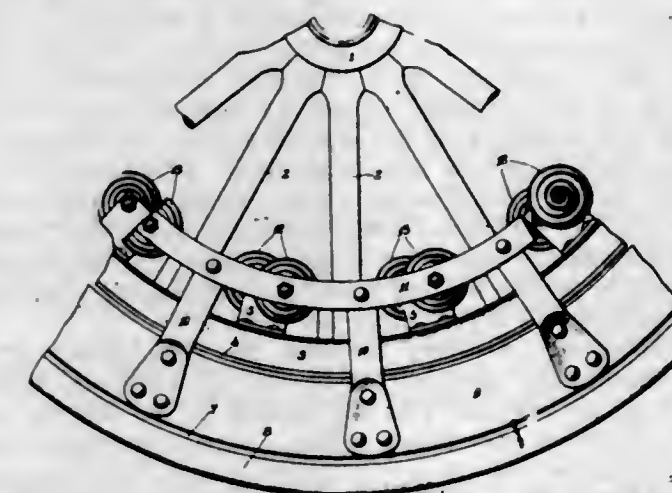
for reciprocating said knife in one plane and then upon adjustment in another plane, said planes making oblique angles with a fixed horizontal line, and yielding means for normally maintaining the knife alternatively in either of said plates at will.



5. In a heel breasting machine, a breasting knife, means to reciprocate said knife in a direction approximately perpendicular to the plane of the top lift, means for adjusting said knife into a plurality of positions such that the planes generated by the knife edge in its reciprocation are equally but oppositely inclined to a fixed vertical plane, manually operated means for shifting the knife from one position to the other, and means acting automatically to hold the knife in either position.

[Claims 6 to 11 not printed in the Gazette.]

1,080,377. SPRING-WHEEL FOR VEHICLES. JOHN F. SIPE and HARRY E. SIPE, New York, N. Y. Filed Dec. 7, 1909. Serial No. 531,762. (Cl. 152—32.)



1. In a spring wheel, the combination of a wheel member containing a hub, a wheel member containing a tread, a plurality of coiled springs set approximately parallel to the axis of the wheel and arranged in several series, the springs of one series being normally extended and the springs of another series being normally compressed, the end coils of the springs having the greatest strength and the strength of the coils being graduated from the ends of the springs toward the middle thereof, and the coils of the springs being separated so as to allow the middle coils to assume a position at an angle to the end coils, and one end of each spring being rigidly attached to the hub member, and the other end rigidly attached to the tread member, whereby the middle coils of the springs will have a much greater movement than the end coils.

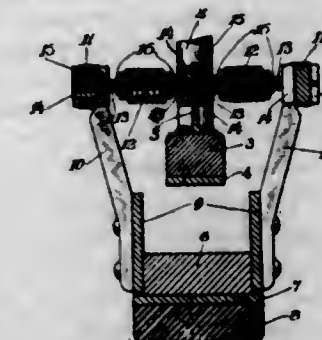
2. In a spring wheel, the combination of a wheel member, containing a hub, a wheel member containing a tread, a plurality of coiled springs set approximately parallel to the axis of the wheel, the end coils of the springs having the greatest strength, and the strength of the coils being graduated from the ends of the springs toward the middle thereof, and the coils of the springs being separated so as to allow the middle coils to assume a position at an angle to the end coils, and one end of each spring being rigidly attached to the hub member, and the other end rigidly attached to the tread member, and means operating independently of the springs for limiting the torsional movement between the two members, whereby the middle coils of the springs will have a much greater movement than the end coils.

3. In a spring wheel, the combination of a wheel member containing a hub, a wheel member containing a tread, a plurality of coiled springs set approximately parallel to the axis of the wheel, the end coils of the springs having the greatest strength, and the strength of the coils being graduated from the ends of the springs toward the middle thereof, and the coils of the springs being separated so as to allow the middle coils to assume a position at an angle to the end coils, and one end of each spring being rigidly attached to the hub member, and the other end rigidly attached to the tread member, and means operating independently of the springs for limiting the torsional movement between the two members, whereby the middle coils of the springs will have a much greater movement than the end coils.

4. In a spring wheel the combination of a wheel member containing a hub, spokes and felly, and brackets attached to the inside of said felly, a tread member containing a tire, a felly, and side plates attached to the felly, an annular plate on each side of the wheel, arms connecting the side plates of the tread member with the annular plates so as to support the latter, and coiled springs rigidly attached at their inner ends to the brackets and at their outer ends to the annular plates, the end coils of the springs being of greater strength than the main body thereof.

5. In a spring wheel, the combination of a wheel member containing a hub, spokes and felly, and brackets attached to the inside of said felly, a tread member containing a tire, a felly, and side plates attached to the felly, an annular plate on each side of the wheel, arms connecting the side plates of the tread member with the annular plates so as to support the latter, and coiled springs rigidly attached at their inner ends to the brackets and at their outer ends to the annular plates, the end coils of the springs being of greater strength than the main body thereof, and wires within said springs fastened at one end to the annular plates and at the other end to the brackets to limit the torsional movement of the hub member and the tread member.

1,080,378. SPRING-WHEEL FOR VEHICLES. JOHN F. SIPE and HARRY E. SIPE, New York, N. Y. Filed Dec. 14, 1909. Serial No. 532,978. (Cl. 152—32.)

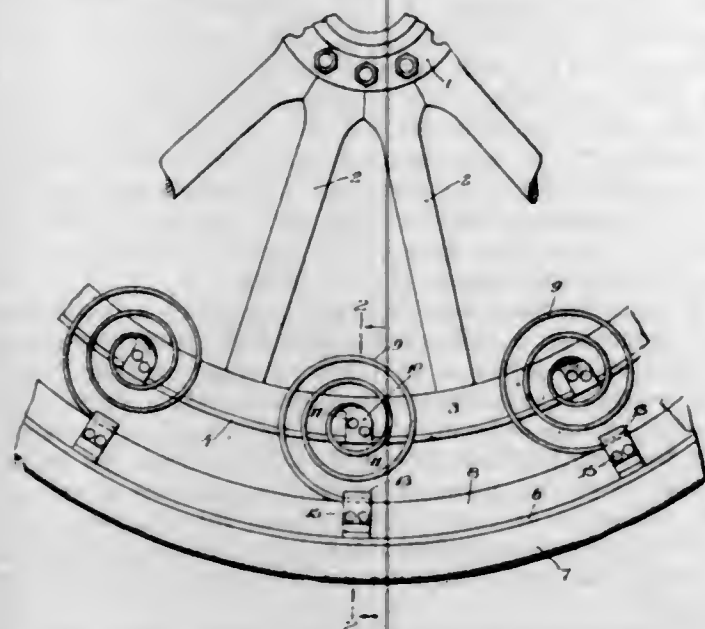


1. In a spring wheel the combination of a wheel member containing a hub, a wheel member containing a tread and two series of coiled springs, each coiled spring provided with two flexible members consisting of thin steel wires, one rigidly attached to each end of the spring, the springs set approximately parallel to the axis of the wheel, one series on each side of the plane of the wheel,

one flexible member of each spring rigidly attached to the hub member and the other flexible member of each spring rigidly attached to the tread member.

2. In a spring wheel the combination of a wheel member containing a hub, a wheel member containing a tread, the coiled springs 12; the flexible members 13 made of steel wires, the sockets 14 fastened to the hub member and to the tread member respectively, to which the outer ends of the flexible members are attached, the sockets 16 to which the inner ends of the flexible members are attached and to which the ends of the coiled springs are connected, the sockets 14 being provided with a rounded edge to afford a bearing for the flexible members.

1,080,379. SPRING-WHEEL FOR VEHICLES. JOHN F. SIFE and HARRY E. SIFE, New York, N. Y. Filed Dec. 24, 1909. Serial No. 534,820. (Cl. 152-32.)



1. In a spring wheel the combination of a wheel member containing a hub, the felly 3, connecting parts between the hub and the felly, the felly 5 made wider than the felly 3 and provided with a suitable tire, and the separate and independently operating strong flat coiled springs 9 having their inner ends bent inwardly and secured to the side of the felly 3, and having their outer ends secured to the felly 5 near the edges thereof so as to rest upon the inner face of the felly, whereby the hub member is suspended between the springs and the outer coils of the springs form stops to limit the lateral motion of the hub member and the springs are supported by the inner face of the felly, substantially as shown and described.

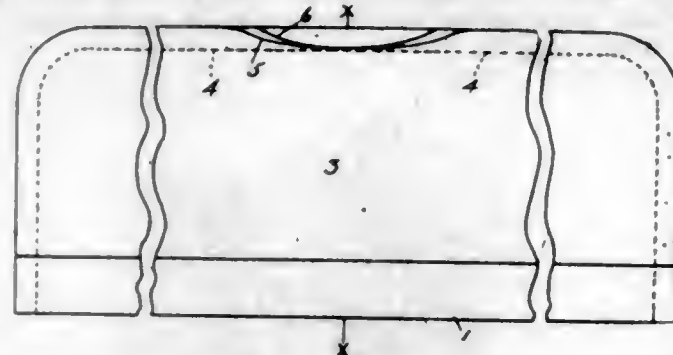
2. In a spring wheel the combination of a wheel member containing a hub, a felly 3, connecting parts between the hub and the felly, the felly 5 made wider than the felly 3 and provided with a suitable tire, the strong flat coiled springs 9 having several coils one within another, and having their inner ends bent inwardly and secured to the side of the felly 3 and having their outer ends bent outwardly so as to fit against the sides and inner face of the felly 5, and clamping plates 13 to clamp the outer ends of the springs to the felly 5, substantially as shown and described.

1,080,380. CUFF. CLINTON H. SMITH, East Orange, N. J. Filed Aug. 21, 1909, Serial No. 513,924. Renewed Oct. 25, 1913. Serial No. 797,328. (Cl. 2-79.)

1. A cuff provided with a reinforced edge and having one or more thicknesses of the inner material cut out between the running seam and the stitching seam, the interlinings at said cut out portion being fastened down by said running seam.

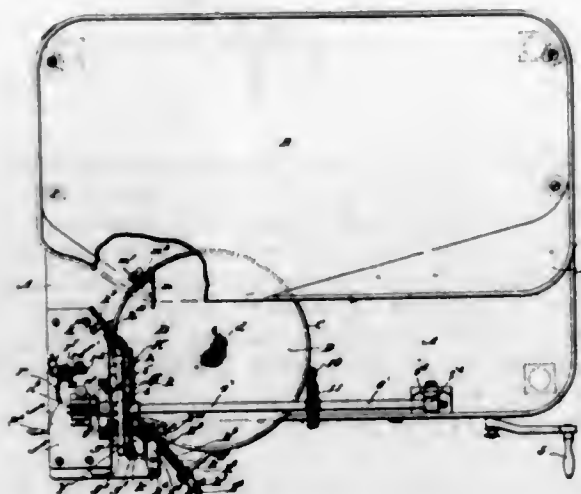
2. A cuff provided with a reinforced edge between the running seam and the stitching seam, said reinforcement consisting of superposed layers of inter-lining and having portions of said inter-lining between said seams cut away, whereby the thickness of the edge between said seams is

less at the middle of the cuff than at other points and the inter-linings gradually increasing in thickness as the



distance increases from the middle of the cuff as and for the purpose described.

1,080,381. COIN-COUNTING MACHINE. HERBERT K. SMITH, Jamaica, N. Y., assignor to Abbott Coin Counter Company, Wilmington, Del., a Corporation of Delaware. Filed Feb. 18, 1913. Serial No. 749,197. (Cl. 133-8.)



1. In a coin counting machine, the combination of a centrifugal coin container comprising a stationary shell and a rotary bottom, with an opening in the wall of the shell to expose the rotary bottom; a gate spanning said opening in the wall of the container so as to leave exposed a peripheral segment of the rotary bottom to receive the coins which pass one by one through the gate from the interior of the container; a runway having a floor which meets and is flush with the exposed segment of the rotary bottom to receive the coins discharged therefrom; and a rotary carrier wheel located in the runway in close proximity to the centrifugal coin container to contact with and take hold of each coin before it passes entirely beyond the rotary bottom of said container, substantially as and for the purposes hereinbefore set forth.

2. In a coin counting machine, the combination of a centrifugal coin container comprising a stationary shell, and a rotary bottom, with an opening in the wall of the shell to expose the rotary bottom; a gate spanning said opening in the wall of the container so as to leave exposed a peripheral segment of the rotary bottom to receive the coins which pass one by one through the gate from the interior of the container; a runway, the floor of which meets and is flush with the exposed segment of the rotary bottom, and receives the coins discharged therefrom; a rotary carrier wheel located in the runway in close proximity to the peripheral segment of said rotary bottom to contact with and take hold of each coin before it passes entirely beyond the rotary bottom; and a spring presser located between the carrier wheel and the gate, to bear with yielding pressure upon the rotary bottom, between which presser and the rotary bottom the coins as they pass beyond the gate are received and carried along, substantially as and for the purposes hereinbefore set forth.

3. In a coin counting machine, the combination with a centrifugal coin container comprising a stationary shell and a rotary bottom with an opening in the wall of the

shell to expose the rotary bottom; a gate spanning said opening in the wall of the container so as to leave exposed a peripheral segment of the rotary bottom; a runway, the floor of which meets and is flush with the exposed segment of the rotary bottom, and receives the coin discharged therefrom; a rotary carrier wheel located in the runway in close proximity to the centrifugal coin container to contact with and take hold of each coin before it passes entirely beyond the rotary bottom of said container; and actuating mechanism for said rotary carrier wheel and rotary bottom, whereby the rotary carrier wheel is driven at a peripheral speed higher than that of the rotary bottom, substantially as and for the purposes hereinbefore set forth.

4. The centrifugal coin container comprising a stationary shell and a rotary bottom, with an opening in the wall of the shell to expose the rotary bottom, and the runway for the passage of coins discharged by centrifugal action from said rotary bottom, in combination with the strip K, spanning the opening in said wall, and consisting of a central limb k forming one side of the runway, and end limbs k^2 k^3 inclined to the central limb in planes parallel to one another, the limb k^2 extending through a guide in the wall of the container, and having its lower edge cut away to form, in conjunction with the rotary bottom beneath, a slot s through which the coin will be discharged by centrifugal action, the wall of the container forming the outer boundary of said slot; and means for bodily moving the strip K lengthwise in the plane of inclination of the limbs k^2 k^3 and locking it in desired position, whereby at one operation the length of the slot s and the width of the runway may be adjusted to conform to the diameter of the particular denomination of coins to be passed through the machine, substantially as and for the purposes hereinbefore set forth.

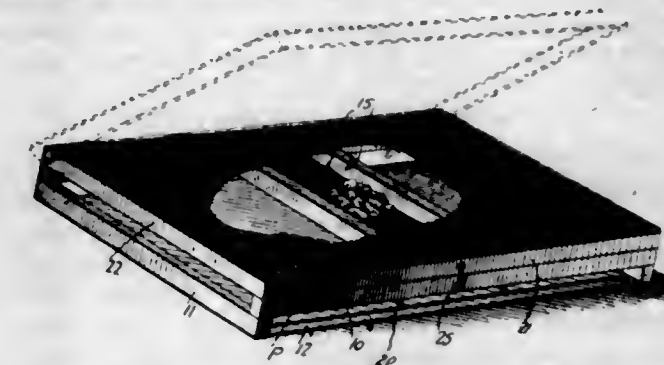
5. In a coin counting machine, a centrifugal coin container comprising a stationary shell and a rotary bottom, with an opening in the wall of the shell to expose the rotary bottom, and the runway for the passage of coins discharged by centrifugal action from said rotary bottom, in combination with the strip K, spanning the opening in said wall, and consisting of a central limb k forming one side of the runway and end limbs k^2 k^3 inclined to the central limb in planes parallel to one another, the limb k^2 extending through a guide in the wall of the container and having its lower edge cut away to form, in conjunction with the rotary bottom beneath, a slot s through which the coin will be discharged by centrifugal action, the wall of the container forming the outer boundary of said slot; means for moving the strip K lengthwise in the plane of inclination of the limbs k^2 k^3 and locking it in desired position, whereby at one operation the length of the slot s and the width of the runway may be adjusted to conform to the diameter of the particular denomination of coins to be passed through the machine; and a gate strip l mounted on the limb k^2 and vertically adjustable thereon to vary the width of the slot s to conform to the thickness of the coin to pass therethrough, and means for securing said gate strip in its adjusted position. [Claims 6 to 10 not printed in the Gazette.]

1,080,382. FLY-PAPER HOLDER. JOHN RANDOLPH SMITH, Stella, Mo. Filed Feb. 24, 1913. Serial No. 750,212. (Cl. 43-22.)

1. In a device of the character set forth, the combination of a main frame comprising two pairs of bars, one pair being secured upon the other pair in a rectangular position, thereby providing side and end spaces and adapted to inclose a sheet of fly paper, a bait tray within the main frame coöperating with the paper to temporarily hold it in place, and a cover coöperating with the main frame and holding said bait tray in position and including a screen to exclude the flies from the bait tray.

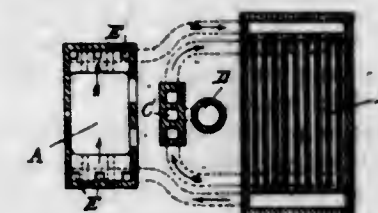
2. In a fly paper holder, the combination of a rectangular frame composed of a pair of end rails, a pair of side rails secured with their ends upon the ends of the end rails, and a bottom plate secured to the end rails whereby lateral and end spaces are provided, a bait tray comprising a

rectangular frame extending transversely within the main frame and having an open top and a reticulated bottom, means secured upon the side rails aforesaid for securing



the tray in place, and a cover coöperating with the side rails of the main frame and including a screen adapted to bear upon the upper edge of the bait tray, substantially as set forth.

1,080,383. RECUPERATOR. FRIEDRICH STAMMSCHULTE, Torgau, Germany, assignor to The Corporation of Deilwik-Flischer Wassergas Gesellschaft M. B. H., Frankfurt-on-the-Main, Germany. Filed Dec. 22, 1910. Serial No. 598,736. (Cl. 75-95.)



1. The combination of a smelting or heating furnace, a recuperator, passages connecting said furnace with said recuperator, said passages adapted to conduct either the waste gases or the air, and means to reverse the direction of flow of the waste gases and air in said passages.

2. The combination of a smelting or heating furnace, a recuperator having passages through which either the waste gases or the air may flow, a chimney connected with the recuperator, passages or conduits connecting the furnace with the recuperator, and means to reverse the direction of flow of the waste gases and the air in their travel through said passages.

3. The combination of a twin furnace, a recuperator connected therewith by gas conduits and constructed to act as a regenerator, as described, said furnace having at its ends and also at its intermediate portion openings for the entrance of air and for the escape of combustion gases, and means for interchangeably connecting said openings with said gas conduits to permit of running both hearths of the furnace alternately or only one of the same, as described.

4. The combination with a smelting or heating furnace, of a recuperator having one set of passages through which the air flows to the furnace and a second set of passages through which the waste gases from the furnace flow, said passages being so related that said gases heat the said air, passages connecting the recuperator with the furnace and means to reverse the direction of flow of the air and waste gases through said recuperator whereby the air is caused to travel through the passages through which the waste gases had previously traveled, said recuperator being thereby converted into a regenerator.

5. The combination with a furnace, of a recuperator provided with passages or flues therein, passages connecting the furnace with said recuperator, an inlet and an outlet associated with said recuperator, the air admitted through the inlet being conducted through the recuperator, then through the furnace where it is converted into waste gases, said waste gases being conducted back through the recuperator and discharged through said outlet, the passages in the recuperator being so arranged that the waste gases heat the incoming air, means to reverse the direction of flow of the air and the waste gases so that the incoming

air is admitted through the said outlet, then conducted through the recuperator by the passages which previously conducted the waste gases, then back through the furnace where it is converted into waste gases and thence through the recuperator again to the said inlet where they are discharged, the recuperator being thereby converted into a regenerator.

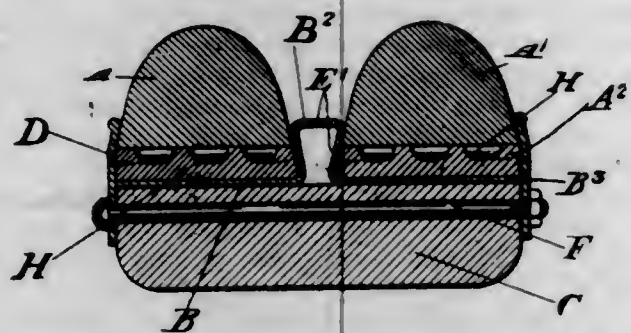
1,080,384. MEANS FOR LIFTING AND TURNING AUTOMOBILES. McELMER STEWART, Kansas City, Mo., assignor, by direct and mesne assignments, to Automatic Tire Rest Company, Kansas City, Mo., a Corporation. Filed Apr. 28, 1913. Serial No. 764,029. (Cl. 104—19.)



1. In an apparatus of the character described, a plurality of rails each having an upper surface inclined in opposite directions from a point intermediate its ends, rollers to traverse said rails, and means carried by said rollers and adapted to lift an automobile.
2. In an apparatus of the character described, a plurality of rails having inclined surfaces and raised terminals, rollers to traverse said rails and contact the raised terminals thereof, means carried by said rollers to lift an automobile, and means to check said rollers when the automobile is in raised position.
3. In an apparatus of the character described, a plurality of rails having surfaces inclined in opposite directions from a point intermediate their ends, rollers to traverse said inclined surfaces, standards carried by said rollers to engage the axles of an automobile to lift the same, an abutment adjacent said standards to hold the same in proper relation to the axles and actuate the rollers, said abutment being arranged in the path of the front axle, and means to check the rollers immediately after they have passed the apex of the inclined surfaces.
4. In an apparatus of the character described, means for raising an automobile, a truck for actuating said means, an abutment on said truck arranged in the path of the automobile, whereby said truck is moved forward with the automobile, and means to check the forward movement of said truck.
5. In an apparatus of the character described, lifting means for lifting an automobile, a truck to control said lifting means, latch-bars at the ends of said truck to limit the movement thereof, means to check the movement of said latch-bars, and abutments carried by said latch-bars, either one of said abutments being adapted to be arranged in the path of the automobile so that the truck will be actuated thereby.

[Claims 6 to 11 not printed in the Gazette.]

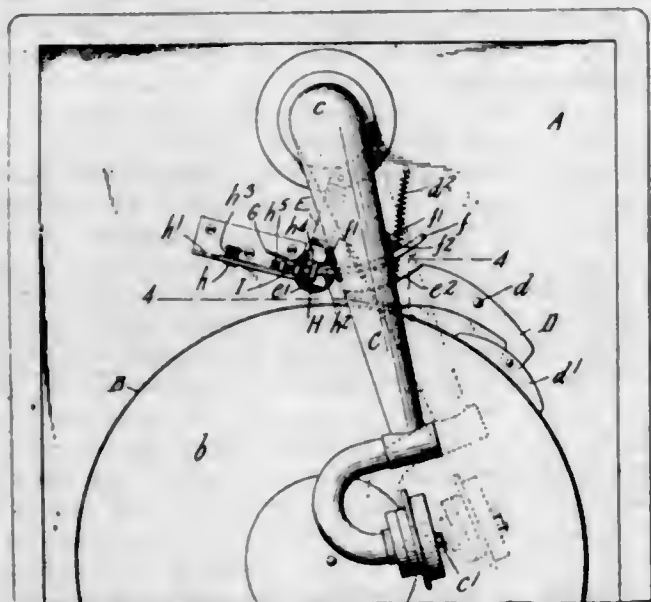
1,080,385. TIRE FOR VEHICLE-WHEELS. HERBERT L. STILLMAN, Westerly, R. I. Filed Feb. 23, 1911. Serial No. 610,376. (Cl. 152—1.)



In combination a wheel rim having a hollow raised middle portion, said raised middle portion being provided with spaced perforations along its periphery and sides, side plates, also provided with perforations, said raised portion forming with each of said side plates tire receiving

seats, rubber tires seated in said seats and provided on their inner sides with spaced parallel grooves forming air spaces, said grooves being aligned with said perforations in said side plates and raised portion of the rim in and for the purpose set forth.

1,080,386. STOP MECHANISM FOR PHONOGRAPHS. GEORGE H. TAGGART, Buffalo, N. Y. Filed Aug. 21, 1911. Serial No. 645,060. (Cl. 74—46.)



1. The combination with an instrument having a driven rotating device and an arm which traverses said rotating device, of stop mechanism for said rotating device comprising a pivoted spring-actuated brake lever adapted to swing on its pivot into and out of engagement with said rotating device, a releasing device pivoted on a stationary part of said instrument, a wheel of relatively large diameter pivoted on said releasing device, said releasing device being adapted to be swung on its pivot to move said wheel into and out of engagement with said brake lever for controlling respectively the releasing and applying of the same, and means operated by said arm for actuating said releasing device, said releasing device and wheel together acting as a toggle mechanism to facilitate the swinging of said brake lever on its pivot, substantially as set forth.
2. The combination with an instrument having a driven rotating device and a swinging arm which traverses said rotating device, of stop mechanism for said rotating device comprising a spring-actuated brake, a releasing arm pivoted at one end on a stationary part of said instrument, a wheel pivoted on the other end of said releasing arm, said brake having a face which is substantially concentric with the pivot of said brake releasing arm, said releasing arm being adapted to be swung on its pivot to move said wheel into and out of engagement with said concentric face for controlling respectively the releasing and applying of said brake, the concentric face of the brake being provided with a slightly raised end portion which resists the rolling off of said wheel from said face, and means connected to said swinging arm which move said releasing arm to cause the brake to be released when the swinging arm is moved to commence the operation of said instrument and to cause the brake to be applied, substantially as set forth.
3. The combination with an instrument having a driven rotating device and a swinging arm which traverses said rotating device, of stop mechanism for said rotating device comprising a spring-actuated brake, a releasing arm pivoted at one end on a stationary part of said instrument, a wheel pivoted on the other end of said releasing arm, said brake having a face which is substantially concentric with the pivot of said brake releasing arm, said releasing arm being adapted to be swung on its pivot to move said wheel into and out of engagement with said concentric face for controlling respectively the releasing and applying of said brake, the concentric face of the

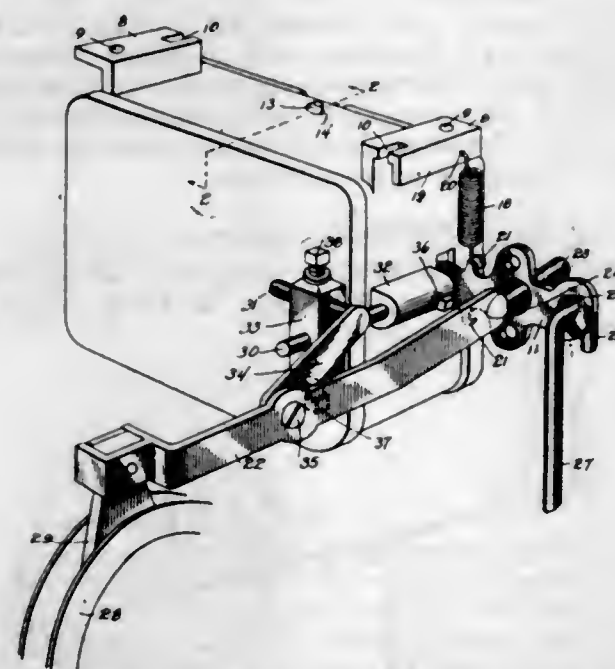
brake being provided with a slightly raised end portion which resists the rolling off of said wheel from said face, and means connected to said swinging arm which move said releasing arm to a position at which the point of contact of said wheel is beyond the raised position of the concentric face of the brake, to cause the wheel to roll out of engagement with the brake and thereby cause the brake to be applied, substantially as set forth.

4. The combination of an instrument having a driven rotating device and a swinging arm which traverses said rotating device, of stop mechanism for said rotating device comprising a brake, a releasing arm which is pivoted at one end on a stationary part of said instrument, a wheel pivoted on the other end of said releasing arm, said brake having a curved face on which said wheel is adapted to engage, and actuating devices carried by the swinging arm which are adapted to engage on opposite sides of said releasing arm and one of which actuates the releasing arm to cause the brake to be released when the swinging arm is moved in one direction, and the other of which actuates the releasing arm to cause the brake to be applied when the swinging arm is moved in the opposite direction, substantially as set forth.

5. The combination with an instrument having a driven rotating device and a swinging device which traverses said rotating device, of stop mechanism for the instrument comprising a stop device and actuating devices which are movable with the swinging device for causing the releasing and applying of said stop device by opposite movements of the swinging device, one of said actuating devices being slidably arranged on the swinging device and adapted to be held in a set position for causing said stop device to be applied to said rotating device at any desired position of said swinging device, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,080,387. BRAKE FOR ELECTRIC-MOTOR-OPERATED MACHINES. MAX TAIGMAN, New York, N. Y. Filed Mar. 24, 1913. Serial No. 756,419. (Cl. 172—179.)



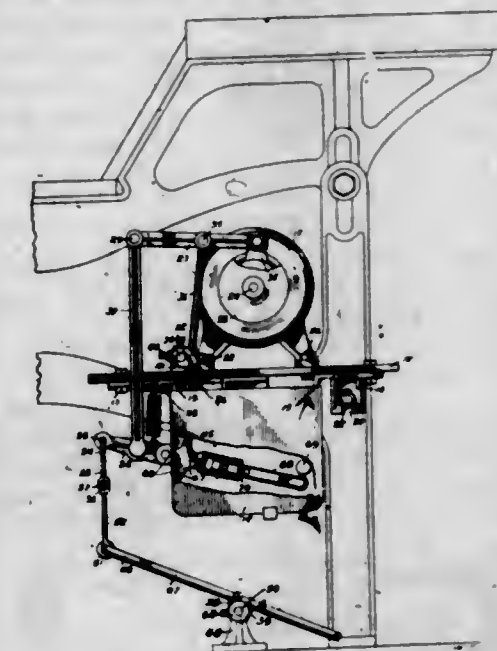
1. In combination, a starting box for electric motors; a starting lever mounted therein; a brake lever operatively connected with said starting lever; a pivot arm having an elongated pivot shaft and a fulcrum for said brake lever; a link block pivotally mounted on said box; and means for fastening said pivot shaft in said link block to adjust laterally the pivot arm and fulcrum mounted thereon.
2. In combination, a starting box for electric motors; a starting lever mounted therein; a brake lever operatively connected with said starting lever; a pivot arm, having at one end a fulcrum for said lever and at the opposite end an elongated pivot shaft; a boss mounted on said box, bored substantially parallel to said brake lever; a bracket shaft slidably mounted in said bore; and means pivotally uniting said bracket shaft and said pivot shaft.

means pivotally uniting said bracket shaft and said pivot shaft.

3. In combination, a starting box for electric motors; a starting lever mounted therein; a brake lever operatively connected with said starting lever; a pivot arm, having at one end a fulcrum for said lever and at the opposite end an elongated pivot shaft; a boss mounted on said box, bored substantially parallel to said brake lever; a bracket shaft slidably mounted in said bore; a pivot block operatively connecting said bracket shaft and said pivot shaft, said block having a plurality of perpendicularly-disposed bearings for said shafts; and fasteners mounted in said block, for fixing in adjusted relation said shafts.

4. In combination, a starting box for electric motors; a starting lever mounted therein; a brake lever operatively connected with said starting lever; a pivot arm having at one end a fulcrum for said lever and at the opposite end an elongated pivot shaft; a boss mounted on said box, bored substantially parallel to said brake lever; a bracket shaft slidably mounted in said bore; a pivot block operatively connecting said bracket shaft and said pivot shaft, said block having a plurality of perpendicularly-disposed bearings for said shafts; and a plurality of set screws mounted in said pivot block to fix in adjusted position said shafts therein.

1,080,388. ELECTRIC-MOTOR DRIVING UNIT. MAX TAIGMAN, New York, N. Y. Filed Mar. 24, 1913. Serial No. 756,420. (Cl. 172—179.)



1. In a unit as characterized, a base plate; a motor adjustably mounted on said plate; a brake lever having a shoe to engage said motor and to rest above the same; a pivot post for said brake lever; a link block pivotally mounted and definitely spaced apart from said base plate; means for holding said link block in fixed relation, when adjusted; and means for manually operating said brake lever.
2. A unit as characterized, comprising an electric motor having an elongated armature shaft and a driving pulley adjustably mounted thereon; a base plate adjustably secured to said motor to permit the shifting of said motor; a pivot block definitely mounted on said plate to rotate on a vertical axis thereon; an extension shaft movably mounted in said block; a brake lever having a shoe to engage the driving pulley of said motor from above; a post pivotally connected with said brake lever to support the same in service position; and a link block connecting said extension shaft and said post, said block having perforations therethrough to receive said shaft and post, said perforations being spaced apart and disposed in perpendicular relation each to the other.
3. A unit as characterized, comprising an electric motor having an elongated armature shaft and a driving pulley adjustably mounted thereon; a base plate adjustably secured to said motor to permit the shifting of said motor; a pivot block definitely mounted on said plate to rotate

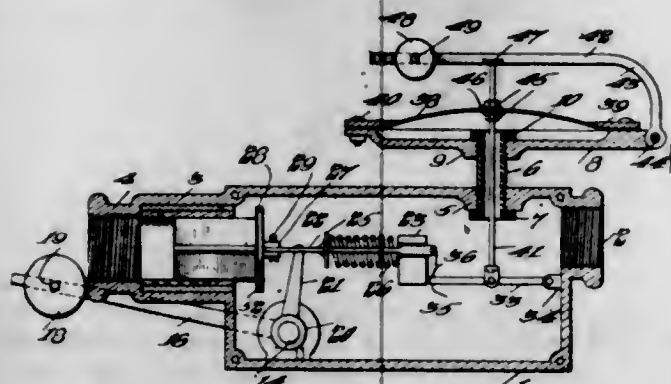
on a vertical axis thereon; an extension shaft movably mounted in said block; a brake lever having a shoe to engage the driving pulley of said motor from above; a post pivotally connected with said brake lever to support the same in service position; a link block connecting said extension shaft and said post, said block having perforations therethrough to receive said shaft and post, said perforations being spaced apart and disposed in perpendicular relation each to the other; and devices mounted in said link block for fixing the adjusted positions of said shaft and said post.

4. A unit as characterized, comprising an electric motor having an elongated armature shaft and a driving pulley adjustably mounted thereon; a base plate adjustably secured to said motor to permit the shifting of said motor; a pivot block definitely mounted on said plate to rotate on a vertical axis thereon; an extension shaft movably mounted in said block; a brake lever having a shoe to engage the driving pulley of said motor from above; a post pivotally connected with said brake lever to support the same in service position; a link block connecting said extension shaft and said post, said block having perforations therethrough to receive said shaft and post, said perforations being spaced apart and disposed in perpendicular relation each to the other; devices mounted in said link block for fixing the adjusted positions of said shaft and said post; and means for locking said pivot block in adjusted position.

5. In a unit as characterized, having a starting lever, a brake lever, and operating means connected with one of said levers; an oppositely-inclined centrally contracted orifice bearing formed in said starting lever; and a rod operatively connecting said levers, said rod having at the end adjacent said starting lever a curved dowel pin laterally extended for insertion through said orifice.

[Claims 6 and 7 not printed in the Gazette.]

1,080,389. GAS CUT-OFF. ELLIS TODD THAYER, JR., Charleston, W. Va. Filed Mar. 17, 1913. Serial No. 754,736. (Cl. 67-115.)



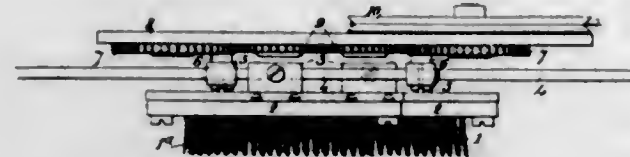
1. A device of the character specified, comprising a casing adapted to be interposed in a gas supply pipe and having openings at its opposite ends for receiving the ends of the pipe, said casing having a valve seat at one of the openings and a valve seating against the said seat, a link connected at one end to the valve, said casing having an inwardly extending lug provided with an opening through which the link extends, a spring normally pressing the valve toward its seat, a catch pivoted to the inner end of the link and adapted to take a position at right angles to the link and in engagement with the lug to hold the valve open when the said valve has been opened, a lever pivoted to the opposite end of the casing from the valve and engaging the arm to prevent the said arm moving into alignment with the link, a diaphragm acted upon by the pressure within the casing, a stem connecting the diaphragm with the lever, said diaphragm holding the lever in position to lock the arm when the pressure in the casing exceeds a predetermined point, and means outside the casing for opening the valve against the resistance of the spring.

2. A device of the character specified, comprising a casing adapted to be interposed in a gas pipe and having a valve seat and a valve cooperating with the seat for con-

trolling the passage of the gas through the casing, a shaft journaled in the casing and having an arm engaging the valve, said shaft having an arm outside the casing for oscillating the shaft for opening and closing the valve, said last named arm extending approximately horizontal, a weight adjustable on the arm to move the valve into closed position, a catch for holding the valve open and means controlled by the pressure in the casing for releasing the catch to permit the weight to close the valve when the pressure falls below a pre-determined point.

3. A device of the character specified, comprising a casing adapted to be interposed in a gas pipe and having a valve for controlling the flow of the gas through the casing, an arm outside the casing connected with the valve for opening and closing the said valve, means in connection with the arm and adjustable with respect thereto for moving the said arm to close the valve, releasable means for holding the valve open, and means controlled by the pressure in the casing for releasing the said means when the pressure falls below a pre-determined point.

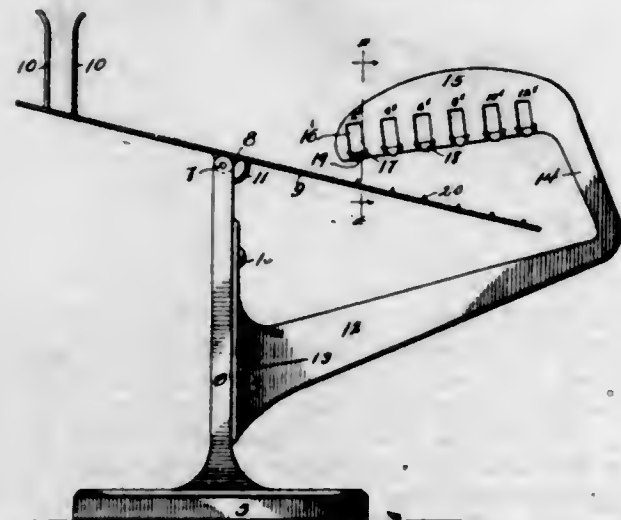
1,080,390. CONTROL OF BRUSHES. MARCEL VANDAL, Paris, France. Original application filed June 7, 1912, Serial No. 702,331. Divided and this application filed July 2, 1913. Serial No. 776,954. (Cl. 15-8.)



1. The combination of two crank plates the axes of which are parallel, two rods coupled respectively to the two crank plates, guiding means adapted to hold the rods parallel and always at the same distance from each other, means for revolving or turning the two crank plates the one in a direction inverse to the other, and brushes secured respectively to the said rods.

2. The combination of two crank plates the axes of which are parallel, two parallel rods, two blocks secured respectively to the said rods and eccentrically journaled to the crank plate, each block having a hole for the passage of the other rod, means for revolving the two crank plates the one in a direction inverse to the other and brushes secured respectively to the said rods.

1,080,391. POSTAL SCALE. JOHN W. VAUGHN, Noroton Heights, Conn. Filed Apr. 5, 1913. Serial No. 759,077. (Cl. 73-102.)



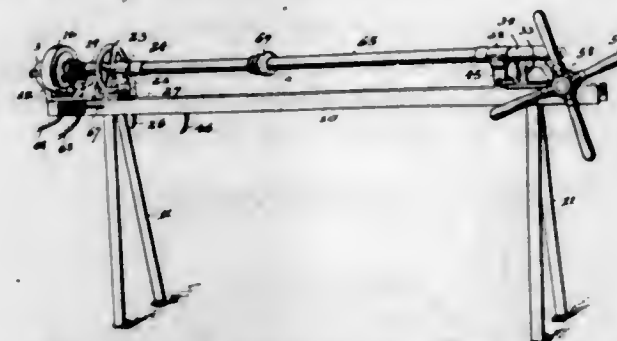
1. In a device of the character described, the combination with a support, of a beam tiltably mounted upon said support, a vertically disposed head plate located above and at one side of the line of travel of said beam, said head plate having a plurality of recesses formed in its under edge and which open at the bottom thereof and the side walls of which converge downwardly, a plurality of

wedge shaped weights supported within said recesses, the lower edge of said head plate lying at an angle with relation to the upper face of said beam when the latter is in a horizontal position, and means carried by said beam for successively engaging said weights.

2. In a device of the character described, the combination with a supporting member, of a beam tiltably mounted thereon, a bracket secured to said supporting member, a vertically disposed plane head plate carried by said bracket and having a plurality of openings formed therein which open at the bottom edge thereof, transverse wings carried by said head plate at the opposite sides of the lower portions of said openings, a series of wedge shaped weights having seatings upon said wings, and a plurality of weight engaging members extending transversely to and carried by said beam, the lower edge of said head plate lying at an angle with relation to the upper face of said beam when said beam is in a horizontal position, whereby said weight engaging members successively engage and lift said weights from the wings upon which they are seated.

3. In a device of the character described, the combination with a support, of a beam pivotally mounted upon said support, pocket forming members mounted upon one end of said beam, a plurality of transversely extending pins terminating in upturned ends, said pins projecting laterally from one side of said beam, a bracket secured to said support beneath said beam, said bracket carrying a vertically disposed plane head plate which lies above and to one side of the line of travel of said beam, the lower edge of said head plate lying at an angle with relation to the upper face of said beam when the latter is in a horizontal position, and said head plate having a plurality of openings formed therein which open at the lower edge of said head plate, transversely extending, oppositely inclined wings at the opposed lower edges of said openings and wedge shaped weights seated between said wings and having pockets in their under faces for engagement therein of the upturned ends of said pins when the beam rises, whereby said weights are successively lifted from their engagement with said wings.

1,080,392. LACQUERING-MACHINE. WILLIAM WRIGHT VINCENT, Kenosha, Wis., assignor to The Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Jan. 4, 1909. Serial No. 470,651. (Cl. 91-60.)



1. In a lacquering machine, the combination of a base, a pair of holders mounted thereon and adapted to support the piece to be lacquered between them, each of said holders having a concave face and a central pin or extension thereon adapted to engage and enter the end of the piece held thereby, means for bodily adjusting one of said holders on said base toward and from the other, spring means normally urging one of said holders toward the end of the piece engaged thereby, means for electrically heating the piece to be lacquered while held by said holders, and means for effecting rotation of the piece to be lacquered during the heating thereof, substantially as described.

2. In a lacquering machine, the combination of a base, a pair of holders mounted thereon and adapted to support at its ends the piece to be lacquered, one of said holders being bodily movable on said base toward and from the other, mechanism, including a handle, for moving said last-named holder toward its companion holder, automatically acting detent mechanism to prevent backward move-

ment of said movable holder in any of its adjusted positions, detent releasing means operated by a backward movement of said handle for permitting backward travel of said movable holder, means for effecting rotation of the piece to be lacquered while engaged by said holders, and means for passing an electrical heating current through the piece to be lacquered while engaged by said holders, substantially as described.

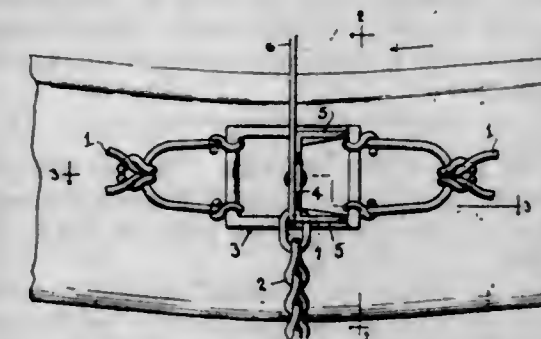
1,080,393. BALL-BEARING FOR SPINNING-MACHINE SPINDLES. ROBERT EMIL WALTHER, Werdau, Germany. Filed Oct. 25, 1912. Serial No. 727,757. (Cl. 118-25.)



1. An adjustable ball-bearing for spinning machine spindles, comprising a rigid sleeve, balls held in apertures in said sleeve so as to bear against the spindle, and a socket screwed on the outside of the sleeve and adapted to hold the balls in position, said socket having a conical surface with which it bears against the balls so that the latter can be adjusted when the socket is turned on its screw-thread.

2. An adjustable ball-bearing for spinning machine spindles, comprising a rigid sleeve, balls held in apertures in said sleeve so as to bear against the spindle, a socket screwed on the outside of the sleeve for holding the balls in position and adjusting them relative to the spindle, a box surrounding the sleeve and the socket, and a cover adapted to be pushed over the box so as to protect the bearing from dust.

1,080,394. TIRE-CHAIN. JESSE WEAVER, Oakland, Nebr. Filed Apr. 14, 1913. Serial No. 761,014. (Cl. 152-14.)

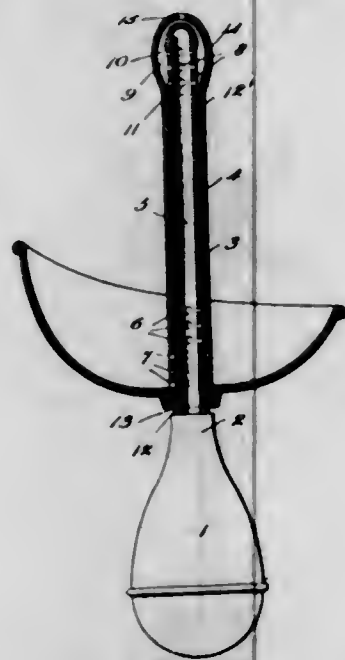


1. In a device of the character described, pairs of lug attaching chains adapted to be engaged with the opposite sides of a tire, a series of lug attaching frames secured in said chains, lug attaching brackets formed on said frames and projecting outwardly therefrom and laterally projecting mud lugs comprising plates secured to said brackets and having their lower edges disposed at right angles to the tire and spaced a suitable distance above the tread thereof.

2. In a device of the character described, a pair of side chains adapted to be engaged with the opposite sides of

a tire, lug attaching frames secured in said chains, laterally projecting mud lugs secured to said frames, and short tread chains arranged around the tread of the tire and having their ends secured to said frames and mud lugs.

1,080,395. SYRINGE. ARTHUR E. WILDE, New York, N. Y. Filed Feb. 19, 1913. Serial No. 749,490. (Cl. 128—25.)



1. A syringe having outer and inner nozzles and an outer chamber located between the outer ends of said nozzles, said inner nozzle having a series of discharge openings at its outer end and a series of inlet openings at its inner end, said outer nozzle surrounding the inner nozzle and provided with a discharge opening at its outer end and a series of inlet openings at its inner end, said inner nozzle adapted to be slidably operated for bringing the inlet openings into and out of registration and for bringing the outlet openings into and out of communication with the outlet chamber, and a compressible bulb attached to the inner nozzle.

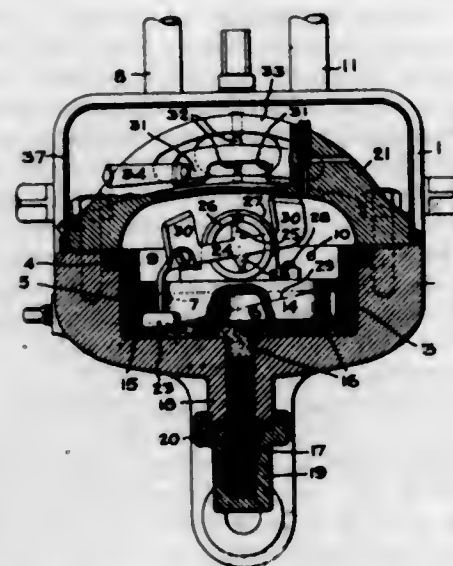
2. A syringe having outer and inner nozzles and an outer chamber located between the outer ends of said nozzles, said inner nozzle having a series of discharge openings at its outer end and a series of inlet openings at its inner end, said outer nozzle surrounding the inner nozzle and provided with a discharge opening at its outer end and a series of inlet openings at its inner end, said inner nozzle adapted to be slidably operated for bringing the inlet openings into and out of registration and for bringing the outlet openings into and out of communication with the outlet chamber, a compressible bulb attached to the inner nozzle, and a drain cup attached to the base of the outer nozzle.

1,080,396. FLUID-FLOW METER. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 21, 1912. Serial No. 705,000. (Cl. 73—31.)

1. A meter for measuring pressure differences, comprising a mass of mercury, a container therefor so constructed that the pressure differences will cause the rise and fall of the mercury, a float supported by said mercury, a lever connected to said float and journaled on an axis oblique to the vertical, and means for indicating the movements of said lever.

2. A meter for measuring pressure differences, comprising a structure containing two chambers communicating at the bottom, a mass of mercury in said chambers, a float in one of said chambers supported by said mercury, a lever connected to said float and journaled on an axis oblique to the vertical, and means for indicating the movement of said lever.

3. A meter for measuring pressure differences, comprising a body containing a recess, a block dividing said recess into two chambers communicating at the bottom, a mass of mercury in said chambers, a float in one of them supported by said mercury, a lever journaled on an axis oblique to the vertical and connected to said float, and means for visually indicating the movements of said lever.

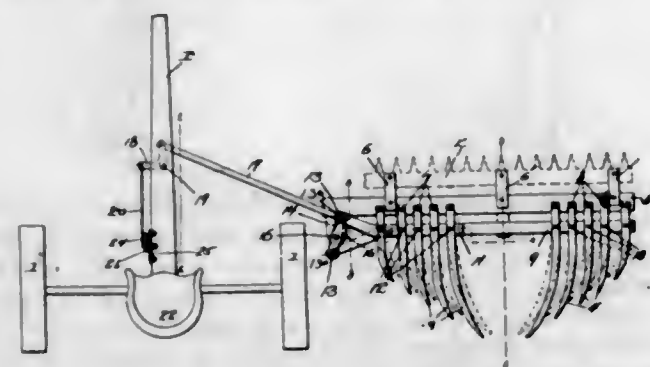


4. A meter for measuring pressure differences, comprising a body containing a circular recess, a block dividing said recess into inner and outer chambers communicating at the bottom, a mass of mercury in said chambers, a float in the inner chamber supported by said mercury, a lever connected to said float and mounted on an axis oblique to the vertical, and means for visually indicating the movements of said lever.

5. A meter for measuring pressure differences, comprising a body containing a circular recess, a block dividing said recess into inner and outer chambers communicating at the bottom, a mass of mercury in said chambers, a float in the inner chamber supported by said mercury, a lever connected to said float and mounted on an axis which is oblique to the vertical and intersects the vertical axis of said chambers, and means for indicating the movements of said lever.

[Claims 6 to 10 not printed in the Gazette.]

1,080,397. WINDROWER ATTACHMENT FOR MOWERS. ROBERT F. WILLIS, Gotebo, Okla. Filed Oct. 12, 1912. Serial No. 725,462. (Cl. 56—128.)



1. A windrower attachment for mowers including a frame bar adapted to be applied to the knife carrying bar of the mower, two sets of tines pivotally connected to the frame bar, a lever carried by the frame bar and pivotally mounted between the ends thereof, and the ends thereof, and the operating bars pivotally connected to the respective sets of tines and also connected to opposite ends of the before mentioned lever so that the two sets of tines can be moved toward and away from each other by manipulating the lever.

2. A windrower attachment for mowers including a frame adapted to be applied to the knife carrying bar of a mower, two sets of tines pivotally connected to the frame bar, a main operating lever upon the body portion of the

mower, and an operative connection between the said lever and the two sets of tines for moving the said two sets of tines toward and away from each other.

3. A windrower attachment for mowers including a frame bar adapted to be applied to the knife carrying bar of a mower, two sets of tines pivotally connected to the frame bar, a lever pivotally mounted between its ends and carried by the frame bar, the operating bars pivotally connected to the respective sets of tines and also connected to opposite ends of the lever, a main operating lever upon the body of the mower, and an operative connection between the said main operating lever and the lever carried by the frame bar whereby the latter lever can be moved to swing the two sets of tines toward and away from each other.

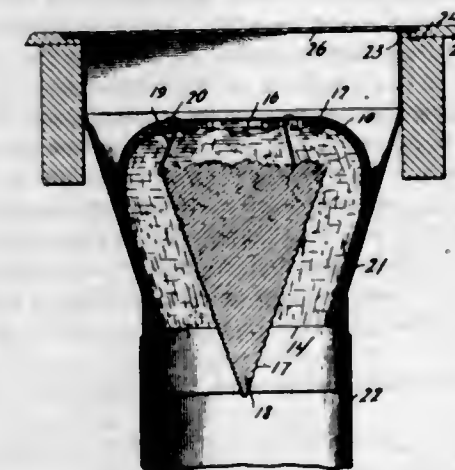
4. A windrower attachment for mowers including a frame bar adapted to be applied to the knife carrying bar of a mower, two sets of tines pivotally connected to the frame bar, a lever pivotally mounted between its ends and carried by the frame bar, the operating bars pivotally connected to the two sets of tines and connected to opposite ends of the said lever, a bell crank upon the tongue of the mower, a link between one arm of the bell crank and the before mentioned lever, a main operating lever upon the tongue of the mower, and a link between the opposite arm of the bell crank lever and the said main lever whereby when the said main lever is moved the lever carried by the frame bar is also moved to swing the two sets of tines toward or away from each other.

1,080,398. SCOOP-BALANCE SCALE. FRANK C. WRIGHT, St. Johnsbury, Vt., assignor to E. and T. Fairbanks & Company, St. Johnsbury, Vt., a Corporation of Vermont. Filed Aug. 26, 1912. Serial No. 717,046. (Cl. 73—41.)



In a scoop balance scale the combination with the scale fork or cross, of a scoop having its bottom portion formed to fit said cross and having also downward projections with a space between, to straddle the fork or cross.

1,080,399. DUST-CATCHER FOR AIR-PIPES. JOHN WILLIAM YOUNG, Memphis, Tenn. Filed Aug. 14, 1913. Serial No. 784,833. (Cl. 83—47.)

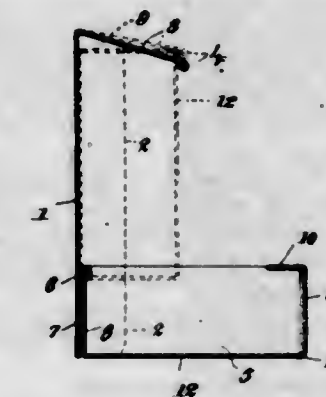


1. A dust catcher adapted to fit within an air pipe of a hot air furnace, to be concealed within said pipe, and comprising an outer casing having an inlet at one end and an outlet at the opposite end and flaring from the inlet toward the opposite end, and an inner reticulated cone adapted to receive a filling of fibrous material, the cone being disposed with its apex adjacent to the inlet of the outer casing, said casing having double walls spaced to receive a fibrous material, the inner wall being reticulated.

2. A dust catcher adapted to be received in an air pipe of a hot air furnace, to be concealed therein, and comprising an outer casing having an inlet at one end and an outlet at the opposite end, and an inner cone, there being an annular flaring space between the cone and casing, the cone being reticulated and adapted to receive a filling of fibrous material, the casing being formed of spaced walls adapted to receive a filling of fibrous material therebetween, the inner wall of the casing being reticulated, and the outer wall being composed of separate sections hinged to open and close.

3. A dust catcher adapted to be received in an air pipe of a hot air furnace, to be concealed therein, and comprising an inner member and an outer casing, the two forming a flaring annular air passage therebetween, the said member and casing having opposed, reticulated walls defining said passage and being hollow to receive dust-catching material, the casing having an outer shell formed of separate sections adapted to be opened and closed.

1,080,400. MATCH-BOX. SAMUEL J. ADAMS, Montclair, N. J. Filed Dec. 4, 1912. Serial No. 734,922. (Cl. 206—20.)



A match safe comprising a vertically disposed back plate, vertically disposed side flanges extending forwardly from the back plate, a transverse pivot pin carried by the flanges adjacent to and in advance of the back plate and above the lower end thereof, an oblong rectangular receptacle pivoted at the upper portion of its inner end to said pin so as to fold upwardly between the flanges parallel with the back plate and downwardly at right angles to the back plate, so as to abut at its inner end in the latter named position against the back plate below the pivot pin, said receptacle having a flange extending inwardly from the upper portion of its outer end, and a spring latch plate integral with and extending forwardly at a downward inclination from the upper edge of the back plate and movable upwardly under pressure from the outer end of the folded receptacle, said latch plate being provided at its free edge with a bead to bear against the outer surface of the folded receptacle.

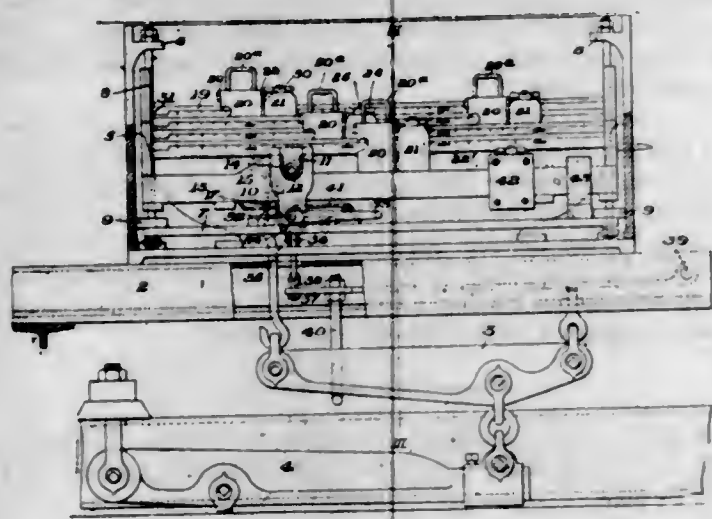
1,080,401. SCALE. ALBION P. AIKEN, Braddock, Pa. Filed Jan. 21, 1909. Serial No. 473,513. (Cl. 73—8.)

1. A scale comprising a scale beam having knife edges secured thereto, swinging bearing members for supporting the knife edges, forked supports for the swinging bearing members, a suspended platform on which the forked supports are mounted, and means by which said platform is supported to swing and move the supports in parallel lines; substantially as described.

2. A scale comprising a pivoted scale beam, a fifth lever, knife edges forming pivots for said scale beam and fifth lever, connections between the scale beam and fifth lever, means connecting said fifth lever to the scale levers, and yielding means arranged to place the scale beam under tension and hold the scale beam knife edges out of contact with the knife edge supports when the scale is not in use; substantially as described.

3. A scale comprising a pivoted beam, a lever, connections between the pivoted beam and the lever, a transverse

shaft having two sets of eccentrics thereon, springs overlying one set of eccentrics, a second spring in connection with the first set of eccentrics, a yoke connected to the second spring and straddling the beam lever, and means for adjusting the eccentrics to exert pressure on the springs and place the scale members under tension; substantially as described.

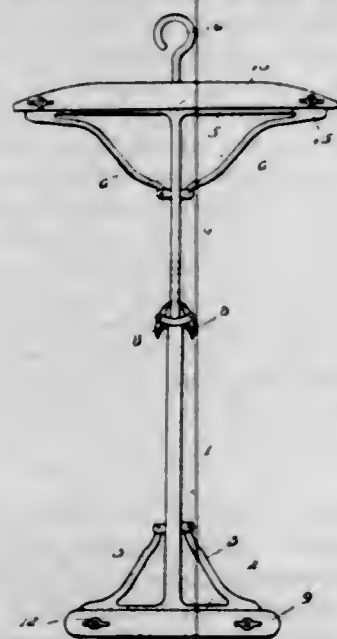


4. A scale comprising a pivoted beam, an adjustable stop on said beam, a movable poise on the beam and means on the opposite ends of the poise for retaining the poise in either of its extreme positions on the beam; substantially as described.

5. A scale having a scale beam, a scale lever mechanism operatively connected to said scale beam and means rotatably movable in horizontal directions relative to the lever mechanism on which the beam is pivotally supported; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,080,402. COMBINED TROUSERS-STRETCHER AND COAT-HANGER. JOSEPH AMATO, New York, N. Y. Filed Mar. 26, 1912. Serial No. 686,242. (Cl. 223-19.)

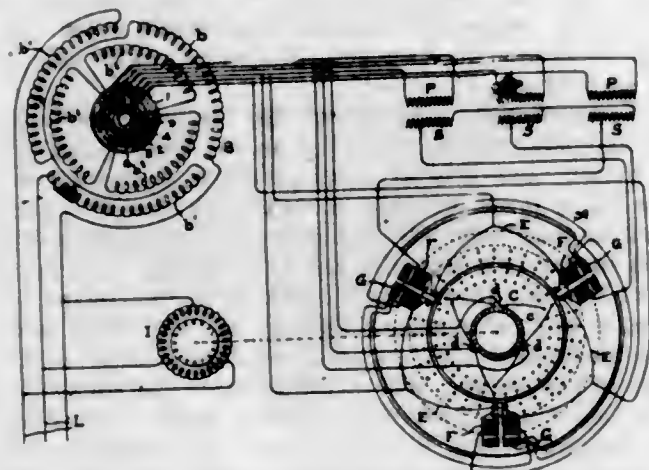


1. A device of the class described comprising a pair of telescoping members, means to hold said members in adjusted position, heads carried by said members, one of said heads being arranged to receive a coat, clamping plates arranged upon opposite sides of the heads, certain of said plates conforming to the coat receiving head, and a supporting device secured to one of the clamping plates.

2. A device of the class described comprising a pair of telescoping members, means to hold said members in adjusted position, heads carried by said members, one of said heads being arranged to receive a coat, means to brace the heads and the members, plates arranged upon opposite sides of the heads, certain of said plates conform-

ing to the coat receiving head, clamping bolts extending through the plates and heads, and a supporting hook carried by one of the plates.

1,080,403. MEANS FOR COMPENSATING POLYPHASE ALTERNATING-CURRENT COMMUTATOR-MOTORS. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 28, 1912. Serial No. 717,424. (Cl. 172-280.)



1. In combination, a source of polyphase alternating current, and a polyphase commutator motor having a polyphase compensating winding and an armature provided with a commutator and brushes, said source being interposed between said brushes and said compensating winding.

2. In combination, a source of polyphase alternating current having phase windings, and a polyphase commutator motor having a polyphase compensating winding and an armature provided with a commutator and brushes, each phase winding of said source being interposed between the compensating winding and a brush on said commutator.

3. In combination, a source of three-phase alternating current having phase windings, and a three-phase commutator motor having a delta connected compensating winding and an armature provided with a commutator and brushes, each phase of said compensating winding being spread over 120 electrical degrees, and each phase winding of said source being interposed between the compensating winding and a brush on said commutator.

4. In combination, a source of polyphase alternating current, and a polyphase commutator motor having a polyphase compensating winding and an armature provided with a commutator and brushes, said source being interposed between said brushes and points on said compensating winding, said points being equally distributed and opposite to the position of said brushes.

5. In combination, a source of three-phase alternating current, and a three-phase commutator motor having a delta connected compensating winding and an armature provided with a commutator and brushes, each phase of said compensating winding being spread over 120 electrical degrees, said source being interposed between said brushes and points on said compensating winding, said points being equally distributed and opposite to the position of said brushes.

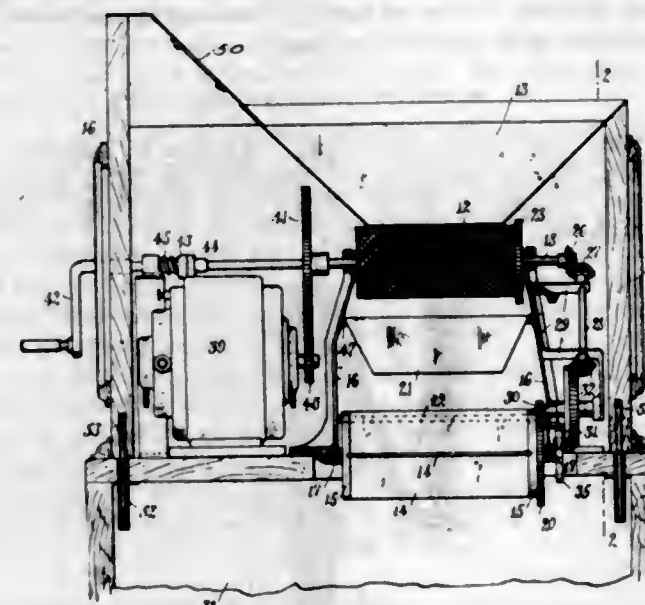
[Claims 6 to 9 not printed in the Gazette.]

1,080,404. TICKET-DEPOSIT BOX. JOSEPH ANDERSON, New York, N. Y. Filed Sept. 6, 1911. Serial No. 647,890. (Cl. 232-8.)

1. A ticket box, having cancelling rolls; an adjustable tray; and a driving mechanism for continuously rotating said rolls and for dumping said tray at fixed intervals, the operation of said means being uncontrollable by the attendant.

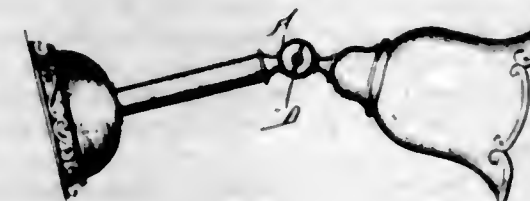
2. A ticket box, having cancelling rolls; an adjustable tray; a driving mechanism for continuously rotating said rolls and for dumping said tray at fixed intervals, the

operation of said means being uncontrollable by the attendant; and transmission members interposed between



said tray and said driving mechanism, for accelerating the movement of said tray.

1,080,405. BALL-JOINT. LAURITZ W. ANDERSEN, Waterbury, Conn., assignor to Plume and Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Sept. 6, 1913. Serial No. 788,418. (Cl. 240-78.)



1. A ball joint for fixtures comprising two hemispherical shells and means for connecting the same, each shell having a bushing or nipple connected thereto, and guard plates arranged within the hemispherical shells and projecting into the bushings or nipples for the purpose set forth.

2. A ball joint for fixtures comprising two hemispherical sections and means for connecting the same, each section having a bushing or nipple connected thereto, the inner end of each bushing being grooved to receive the spherical edge of a shell, as set forth.

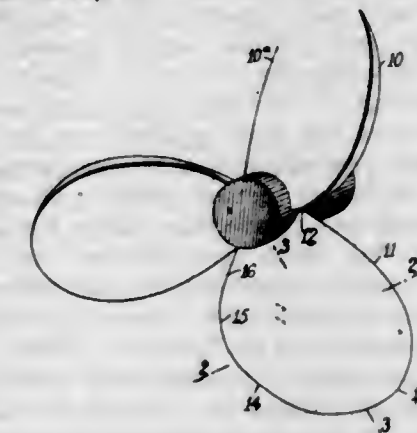
3. A ball joint for fixtures comprising two hemispherical sections and means for connecting the same, each section having a bushing or nipple connected thereto, the inner portion of said bushing or nipple being grooved or cut-away in curved or spherical fashion and adapted to receive the spherical edge of the section, as set forth.

4. A ball joint for fixtures comprising two hemispherical sections and means for connecting the same, each section having a bushing or nipple connected thereto, the inner portion of said bushing or nipple being grooved or cut-away in curved or spherical fashion and adapted to receive the edge of a section, the inner end of said bushing or nipple being swaged down upon the contacting portion of the section, one-half of the inner end of bushing being cut-away to receive the opposed section, as set forth.

5. A ball joint for fixtures comprising two hemispherical sections, each section having a bushing or nipple connected thereto, a bolt for connecting said sections and guard plates notched at their inner ends and adapted to contact with the connecting bolt, the outer ends of said guard plates extending into the bushings or nipples as set forth.

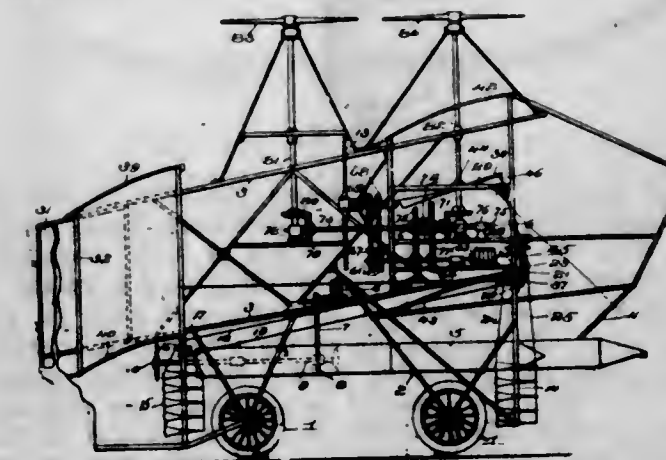
[Claim 6 not printed in the Gazette.]

1,080,406. PROPELLER. HERBERT D. F. BAGLEY, Holland, Mass. Filed July 26, 1912. Serial No. 711,657. (Cl. 170-159.)



A propeller, comprising a plurality of concavo-convex blades, the rear edge of a blade terminating at the base of the blade approximately in line with the forward edge of the following blade, the concave face of each blade presenting a curve of increasing radius from the base line outwardly to a point beyond the transverse center, from which point the curve is of decreasing radius to the outer edge, the concave face presenting transversely a curve of increasing radius from the forward edge to a point at about the longitudinal center, and then a curve of decreasing radius to the rear edge, the outer edge of each blade presenting a convex curve of increasing radius from the base to a point short of the longitudinal center and then presenting a curve of decreasing radius to a point on the rear edge inward beyond the transverse center of the blade, from which latter point the rear edge of the blade presents a concave curve extending to the base line.

1,080,407. HYDROPLANE. SAMUEL E. BAILEY, Scranton, Pa. Filed May 1, 1911. Serial No. 624,339. (Cl. 244-15.)



1. In a device of the character described, a frame, a plurality of fixed air engaging planes arranged near the front of said frame, a plurality of fixed air engaging planes arranged near the rear of said frame, a plurality of pivotally mounted water engaging planes arranged near the front of said frame, a plurality of pivotally mounted water engaging planes arranged near the rear of said frame, a pair of pivotally mounted air engaging planes, means for independently shifting the angle of said pivotally mounted air engaging planes together for shifting the angle thereof simultaneously, means connecting said water engaging planes with one of said pivotally mounted air engaging planes permitting all of said pivotally mounted planes to be shifted simultaneously, propelling means, and guiding means.

2. An air ship comprising a frame, propelling means mounted on said frame, a fixed lifting plane, a pair of pivotally mounted planes, an adjusting rod connected with each of said planes for adjusting the position thereof, a pair of rotatable shafts, means for connecting the

shafts with said adjusting rod for moving the same, a hand operated shaft operatively connected with each of said shafts for rotating the same, a gear wheel rigidly connected with said hand operated shaft, an idler engaging both of said gear wheels, hand operated means for rotating said idler whereby both of said gear wheels are rotated for shifting the position of said planes simultaneously, and means for disconnecting one of said gear wheels from its hand operated shaft for permitting said planes to have the angle thereof shifted independently.

3. In a steering and controlling means for airships, a pair of shafts having cranks thereon and connection with movable planes of an airship, of gears thereon, meshing with companion gears on a pair of parallel shafts, clutch members carried by said parallel shafts, gears carried by said clutch members and arranged to mesh with an idler, a hand wheel carried by each of the gears, and means to throw the clutch members out of register with clutch faces on said parallel shafts.

1,080,408. CLEANABLE HEAT-RADIATOR. WILLIAM E. BAHR, Lincoln, Nebr. Filed Oct. 4, 1910, Serial No. 585,336. Renewed Oct. 31, 1913. Serial No. 798,586. (Cl. 126—183.)



1. A heater for utilizing waste products of combustion, comprising an inlet and an outlet drum, heads on the inner ends of said drums, a plurality of tubes connecting said drums, the outlet drum provided with a plurality of notches in its outer end, a revoluble end plate on the outer end of said outlet drum having a flange fitting within the drum and projecting beyond said notches, a post carried by the inner head of said outlet drum and projecting through the revoluble end plate, an arm carried by said post and having a pin projecting through the plate to engage in said notches and hold the plate against turning, said plate provided with an opening aligning with the connecting tubes as the plate is revolved, a closure-member for said opening, and a cleaner carried by said closure member.

2. A heater for utilizing waste products of combustion comprising an inlet and an outlet drum, heads on the inner ends of said drums, a plurality of tubes connecting said drums, a post carried by the inner head of the outlet drum, a rotatable plate mounted on said post and constituting the outer head of said outlet drum, an arm mounted on said post and having a pin projecting through the rotatable plate and engaging the drum to hold the plate against rotation, and a cleaner carried by the rotatable plate.

3. A heater for utilizing waste products of combustion, comprising an inlet and an outlet drum, heads on the inner ends of said drums, tubes connecting said drums, a plate rotatable on the outer end of the outlet drum and constituting the outer head of said drum, said plate provided with a cleaner opening eccentric of the plate, a post

carried by the inner head of said drum and on which said rotatable plate is mounted for rotation, means carried by said post and engaging the drum to hold the plate against rotation, and a swinging closure plate mounted on the post for said cleaner opening.

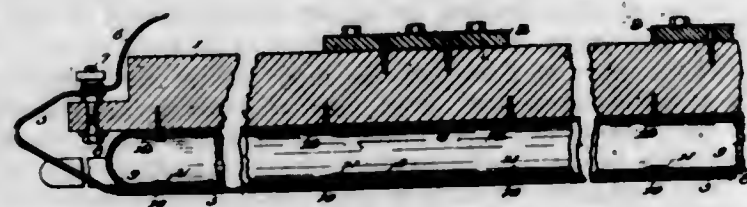
1,080,409. TRUNK-FASTENER. WALTER D. BARNES, Columbia, S. C., assignor of one-half to Mrs. Lois P. Barnes, Columbia, S. C. Filed Feb. 18, 1913. Serial No. 749,183. (Cl. 70—103.)



1. A trunk fastener comprising a plate constructed to be attached to the lid of a trunk and having a vertically arranged housing immovable with respect to said plate, the said housing having vertical, corresponding slots in opposite sides, a spring arranged in the housing, a link passing through the slots and housing and above said spring, a lever plate having side flanges, the lower part of said link being arranged to pass pivotally through said flanges, at a distance from either end of said lever-plate, the ends of the lever plate being detached from and freely movable with respect to the other parts, a plate having a lip and constructed to be secured to the body of a trunk, and the top of the lever plate being arranged to removably engage said lip.

2. A trunk fastener comprising a plate constructed to be attached to the lid of a trunk and having a vertically arranged housing immovable with respect to said plate, the said housing having vertical, corresponding slots in opposite sides, a spring arranged in the housing, a link passing through the slots and housing and above said spring, a lever plate having side flanges, the lower part of said link being arranged to pass pivotally through said flanges, at a distance from either end of said lever-plate, the ends of the lever plate being detached from and freely movable with respect to the other parts, a plate having a lip and raised fins and constructed to be secured to the body of a trunk, the top of the lever plate being arranged to removably engage said lip, and the flanges of the lever plate being constructed to rest next to said fins when the plate is closed thereby preventing sidewise movement of the plate.

1,080,410. SHOE OR SKATE FOR ELECTRIC RAILWAYS. ANTHONY W. BARNHART, Cairo, W. Va., assignor to Electric Undercurrent Company, Pennsboro, W. Va., a Corporation of West Virginia. Filed Jan. 31, 1913. Serial No. 745,488. (Cl. 191—47.)



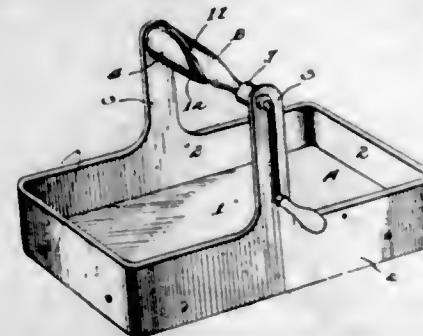
1. A shoe or skate for electric railways comprising a body, magnets carried thereby and having elongated horizontal pole pieces, an electric collector located between the vertical planes of the elongated portions of the pole pieces and extended upwardly between the ends of said pole pieces, and means yieldingly supporting said collector.

2. A shoe or skate for electric railways comprising a body, magnets carried thereby and having elongated horizontal pole pieces, an electric collector located between the vertical planes of the elongated portions of the pole pieces and extended upwardly between the ends of said pole pieces, and a pneumatic device for connecting said collector to said body.

3. A shoe or skate for electric railways comprising a body, magnets carried thereby and having elongated horizontal pole pieces, an electric collector located between the vertical planes of the elongated portions of the pole pieces and extended upwardly between the ends of said pole pieces, and a pneumatic casing located between said pole pieces and connected to said body, said collector being secured to said casing.

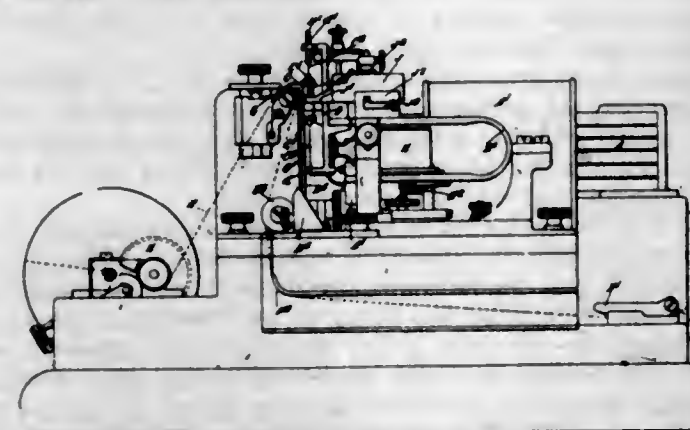
4. A shoe or skate for electric railways comprising a body, magnets carried thereby and having pole pieces extended inwardly toward each other at their lower ends, a pneumatic casing secured to said body and located between said ends of the pole pieces, and an electric collector secured to the under side of said casing.

1,080,411. PENCIL-SHARPENER. CHARLES F. BLOCH, California, Mo. Filed June 15, 1910. Serial No. 567,008. (Cl. 120—96.)



A device of the class described comprising a receptacle, a pair of parallel arms being formed on the said receptacle and projecting upwardly therefrom, the said arms being provided adjacent their upper ends with aligning openings, a rotary cutter disposed between said arms and having one of its ends reduced for the reception of the opening within the adjacent arm, the pencil opening in the cutter extending inwardly from the said end thereof, and an operating crank having its engaging shaft extremity rotatably mounted within the opening in the opposite arm and projecting inwardly therefrom, the cutter being provided with a recess in the adjacent end receiving the said crank end.

1,080,412. SIPHON-RECORDER. SIDNEY GEORGE BROWN, London, England. Filed Feb. 6, 1912. Serial No. 675,797. (Cl. 178—46.)



1. In siphon recording apparatus, a siphon tube only about one half of an inch in length, fibers suspending the tube with capability of oscillation about a vertical axis, means controlling the oscillatory recording movements of the tube, said means being proportionate to the small weight and inertia of the tube incidental to its short length, and siphon-tube-ink-supplying means preserving

constant surface tension conditions between the ink surface and the ink inlet of the tube notwithstanding the oscillatory recording movements of the said tube.

2. In siphon recording apparatus, a siphon tube, and means supporting the tube with its ink inlet end co-axial with the axis about which the oscillatory recording movements of the tube take place.

3. In siphon recording apparatus, a siphon tube, a siphon tube carrier, fibers suspending the said tube and carrier with freedom to oscillate about the inlet end of the siphon tube, and means supplying ink to the said inlet end.

4. In siphon recording apparatus, a light narrow rigid plate, a similar plate situated vertically below it, a pair of parallel fibers attached to and extending between the pairs of plates, upper and lower suspension fibers supporting and controlling the aforesaid plates and pair of parallel fibers, a siphon tube supported by one of the aforesaid rigid plates with its inlet end co-axial with the suspension fibers, and means to which the remote ends of the suspension fibers are attached.

5. In siphon recording apparatus, a light narrow rigid plate, a similar plate situated vertically below it, a pair of parallel fibers attached to and extending between the pair of plates, upper and lower suspension fibers supporting and controlling the aforesaid plates and pair of parallel fibers, a siphon tube supported by one of the aforesaid rigid plates with its inlet end co-axial with the suspension fibers, means to which the remote ends of the suspension fibers are attached, and means for keeping the aforesaid means in constant vibration.

[Claims 6 to 11 not printed in the Gazette.]

1,080,413. TRACER FOR PROJECTILES. PAUL D. BUNKER, Fort Hancock, N. J. Filed Apr. 30, 1913. Serial No. 764,657. (Cl. 102—29.)



1. The combination with a projectile, of a tracer therefor comprising a casing carried wholly on the exterior of the projectile and adapted to hold a combustible, the exterior surface of said casing conforming with the exterior surface of the projectile.

2. The combination with a projectile, of a tracer therefor comprising a casing mounted on the base of the projectile and wholly exterior thereof and adapted to hold a combustible, the exterior surface of said casing conforming with the exterior surface of the projectile.

3. The combination with a projectile, of a tracer therefor comprising a casing mounted wholly exterior of and on the base of the projectile and of decreasing cross section therefrom, and adapted to hold a combustible, the exterior surface of said casing conforming with the exterior surface of the projectile.

4. The combination with a projectile, of a tracer therefor comprising a casing mounted on the base of the projectile and exterior thereof, and of substantially parabolic design in longitudinal cross section.

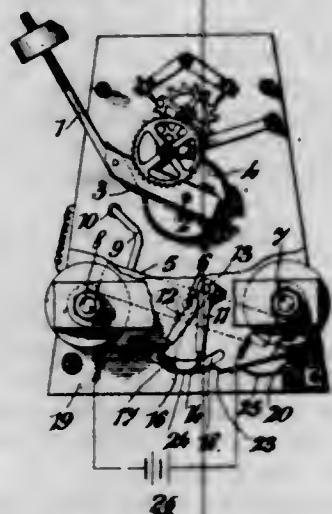
5. The combination with a projectile, of a tracer therefor comprising a casing adapted to hold a combustible; and a ring detachably connecting the casing to the base of the projectile, and lying flush with the exterior surfaces of said casing and the projectile.

[Claims 6 and 7 not printed in the Gazette.]

1,080,414. ELECTRIC CLOCK. FRANZ BRUNKE, Zurich, Switzerland. Filed Mar. 25, 1913. Serial No. 756,714. (Cl. 58—41.)

1. In an electric clock, a movable electric contact member, a metallic track upon which the said member is adapted

ed to bear, and vibratory means oscillated by the contact member and having a terminally insulated arm which slides on the track during the time the circuit is open, substantially as described.



2. In an electric clock, a movable electric contact member, a yielding metallic track upon which the said member is adapted to bear, and vibratory means oscillated by the contact member and having a terminally insulated arm which slides on the track and momentarily holds it apart from the said contact member, substantially as described.

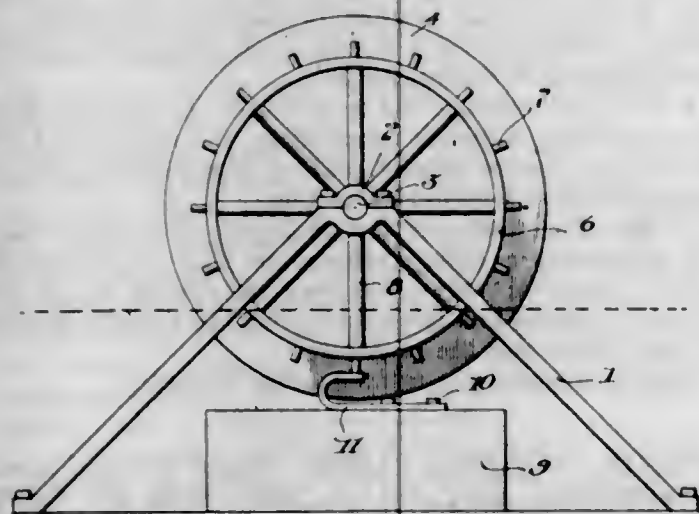
3. In an electric clock, a movable electric contact member, a yielding metallic track upon which the said member is adapted to bear, and vibratory means having two terminally insulated arms alternately engaged by the contact member, one of which arms slides on the track and momentarily holds it apart from the contact member, substantially as described.

4. In an electric clock, an oscillatory electric contact member, a yielding stepped metallic track upon which the said member is adapted to bear, and vibratory means having two terminally insulated arms alternately engaged by the contact member, one of which arms slides on the track and holds it apart from the contact member, but releases it on descending the step of the track substantially as described.

5. In an electric clock, in combination, an oscillatory electric contact member, a spring actuated metallic track upon which the said member is adapted to bear, means for swinging the contact member to and fro, and a vibratory device having two terminally insulated arms alternately engaged by the contact member in its oscillations, one of the arms sliding upon the track and holding it apart from the contact member until the latter pushes it off the track, substantially as described.

[Claim 6 not printed in the Gazette.]

1,080,415. FISH-GUARD. ROY CHANDLER, Hayre, Mont. Filed Sept. 8, 1913. Serial No. 788,764. (Cl. 61—5.)



1. A fish guard for water ways including a water wheel, a spring member, and means operated by the said wheel

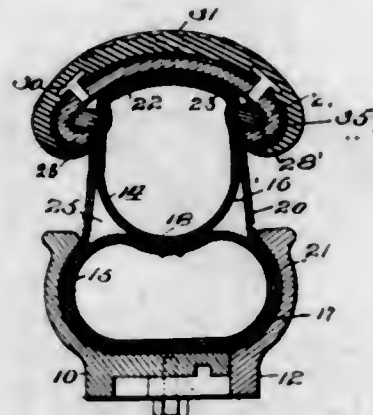
adapted to engage the said spring, as and for the purpose set forth.

2. A fish guard for water ways including a water wheel, a block member disposed beneath the said wheel, a spring fixedly secured to the said block member and means operated by the said wheel adapted to engage the said spring, as and for the purpose set forth.

3. A fish guard for water ways including a rotatable water wheel, an operating wheel mounted upon one side thereof, a plurality of uniformly spaced apart projections radiating from the periphery of the said operating wheel, and a leaf spring disposed for engagement with the said projection, as and for the purpose set forth.

4. A fish guard for water ways including a rotatable water wheel, an operating wheel secured to the said water wheel to one side thereof, a plurality of uniformly spaced apart projections radiating from the periphery of the said operating wheel, a block disposed directly beneath the said operating wheel, a leaf spring, one end of which is fixedly secured to the said block, the free end of the said spring engaging the said projection to produce a noise during the rotation of the said wheel, as and for the purpose set forth.

1,080,416. TIRE. WILLIAM G. CHIPLEY, Atlanta, Ga., assignor to Pneumatic Rim & Tire Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 31, 1912. Serial No. 718,120. (Cl. 152—33.)



1. In a device of the class described, a tire comprising an outer portion and an inner portion each of which is inflatable, one portion being mounted on the other, and a flexible device for forming an air chamber between the two portions, the flexible device being arranged for disposition approximately opposite the edges of a tire holding device.

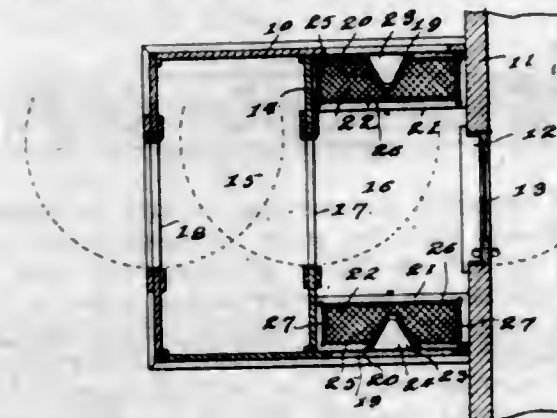
2. In a device of the class described, a tire comprising an outer portion and an inner portion each of which is independently inflatable, one portion being mounted on the other, connecting means for the contacting portions, a flexible device secured to each of said portions and defining an air space between the portions and the device last mentioned, a metallic rim for the outer tire portion, and a tread connected with the rim.

3. In a device of the class described, a tire comprising a plurality of portions independently compressible, flexible means defining with the outer surface of such portions, an annular air chamber on each side of the tire and a rim connected with the outer portion.

4. In a device of the class described, a tire comprising a plurality of portions which are independently compressible, an inner rigid rim for supporting one of said portions, an outer rim carried by the other of said portions and flexible means for defining an air chamber independent of the tire members proper, said outer rim constituting a truss member for portions of the tire, and means supported by other portions thereof.

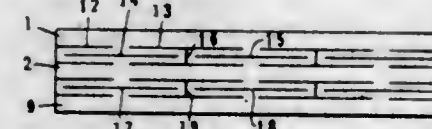
5. In a device of the class described, a tire comprising a plurality of portions which are independently compressible, a rim for supporting one of said portions, flexible means for forming annular air chambers adjacent to the line of contact of said portions and substantially on a line with the edges of the rim, and an outer rim carried by one of said tire portions.

1,080,417. INSECT-EXCLUDING ATTACHMENT FOR BUILDINGS. DAVID A. CLARK, Capay, Cal. Filed Jan. 17, 1912. Serial No. 671,557. (Cl. 20—1.)



In a device of the class described, the combination with a housing for attachment to a dwelling, of a darkened chamber and a fly screened ventilating chamber in the housing and separated by a partition supported therein, an entrance door for the said darkened chamber, and a door on the partition for connecting the darkened chamber with the said fly screened ventilating chamber.

1,080,418. EXPANDED METAL. DWIGHT G. CLARK, Plainville, Conn., assignor, by mesne assignments, to Corrugated Bar Company, St. Louis, Mo., a Corporation of Missouri. Filed May 20, 1908. Serial No. 433,958. (Cl. 72—117.)



1. An expanded metal fabric consisting of a plurality of parallel members connected by a plurality of integral diamond shaped frames each comprising strands arranged on edge, adjacent frames being spaced apart and disconnected between said parallel members.

2. An expanded metal fabric consisting of a plurality of parallel members arranged on edge and a plurality of integral connecting frames of diamond shape between each pair of adjacent members, adjacent frames being spaced apart and disconnected between said parallel members.

3. An expanded metal fabric consisting of a plurality of substantially parallel members integrally connected by a plurality of frames each consisting of two pairs of oppositely diverging strands all substantially in the general plane of the members, adjacent frames being spaced apart and disconnected between said parallel members.

4. An expanded metal fabric consisting of parallel members and a series of integral connecting frames each comprising four strands arranged in oppositely disposed pairs and disconnected between said parallel members.

5. An expanded metal made from a single sheet having substantially parallel sections of entire metal connected at intervals by reticulated metal sections which are disconnected from each other between the entire metal sections. [Claim 6 not printed in the Gazette.]

1,080,419. GAGE ATTACHMENT FOR DRAWING-KNIVES. WILLIAM H. CLEVELAND, Jr., Superior, Wis. Filed Mar. 26, 1913. Serial No. 756,920. (Cl. 145—28.)

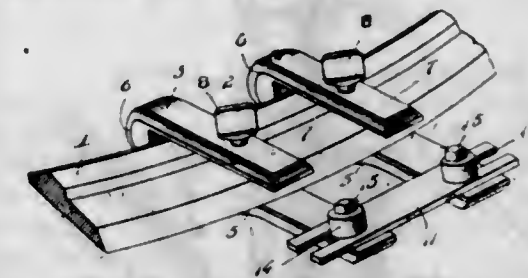
1. An attachment for drawing knives comprising a pair of members detachably connected with the knife, means whereby the members may be adjusted toward or away from each other and an adjustable gage plate carried by the members and arranged forward of the knife.

2. A gage for drawing knives comprising a pair of members removably and adjustably secured upon the knife and projecting beyond the cutting edge thereof, and a vertically and longitudinally adjustable gage plate connected with the forwardly extending portions of the said knife.

3. In combination with a drawing knife, of a gage therefor, said gage comprising a pair of members each hav-

197 O. G.—12

ing one of their ends upset and provided with a flange which overlies the said member, thumb screws for the overlying flanges and adapted to engage the blades of the drawing knife to retain the same upon the members, each of the members having its extremity provided with a threaded opening, a threaded bolt within each of the openings, each of the threaded openings being provided with an annular depression, a gage plate having its opposite ends bifurcated and engaging within the annular depressions of the bolts and means connected with the bolts for compressing the gage plate to retain the same immovably within the annular depressions of the bolts.



4. An attachment for drawing knives comprising a pair of substantially J-shaped members, means provided upon the upper and shorter arms of the J-shaped members for adjustably sustaining the said members upon the drawing knife, the sides of the lower arms of the members being inclined toward the central portion of the base thereof, the said lower arms being provided with threaded openings, threaded bolts within the openings, each of the said bolts being provided with an annular groove, a flattened gage plate having its opposite face bifurcated and engaging within the annular grooves, and means provided upon the bolts for engaging with the gage plate for immovably sustaining the same upon the bolts.

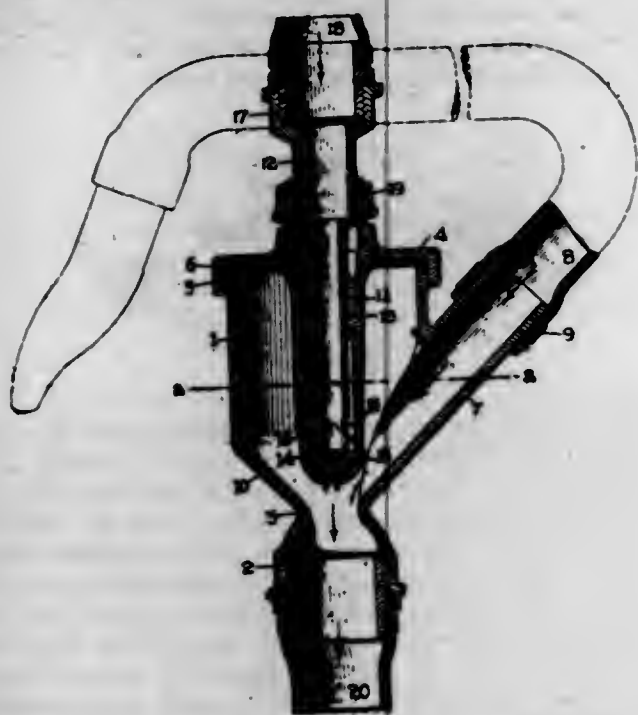
5. A gage attachment for drawing knives comprising a pair of substantially J-shaped members, the lower arms of the said J-shaped members having their sides inclined toward each other, thumb nuts upon the upper arms and engaging with the drawing knife, the lower arms being provided with threaded openings, threaded bolts engaging the openings, the said bolts being provided with an annular depression, a gage plate engaging within the annular depression, the said bolts being further provided with angular portions projecting above the said depressions, a collar having an angular bore engaging with each of the angular portions of the bolts, each of the bolts having a threaded stud projecting above their inclined portions and a nut co-acting with each of the studs, substantially as and for the purpose set forth.

1,080,420. VACUUM CLEANING APPARATUS. JAMES P. CLIFTON, Buffalo, N. Y., assignor, by direct and mesne assignments, to Water Power Vacuum Cleaner Co., Buffalo, N. Y., a Corporation of New York. Filed Jan. 17, 1911. Serial No. 603,060. (Cl. 230—13.)

1. In an apparatus of the class described, a suction producing element having a hollow one-piece body provided at one end with a removable cap and at the other end with a discharge opening, said hollow body being also provided with a tubular side inlet adjacent the discharge opening and directed toward the latter, the cap being provided with an axially extended tubular member terminating within the hollow body adjacent the discharge end in a contracted portion having a central opening, and a hollow fluid injecting nozzle carried by the tubular extension of the cap, said nozzle having means exterior to the hollow body for attachment to a source of fluid under pressure and within the tubular extension of the cap being provided with means for controlling the flow of liquid through the open terminal portion of the said hollow extension within the body.

2. In an apparatus of the class described, a suction producing element provided with a hollow body having a removable cap at one end and provided at the other end with a contracted discharge opening, said hollow body having a side neck opening thereinto between the cap and

the contracted discharge opening and directed toward the latter, said neck being shaped to receive a flexible tube, means at the discharge end of the hollow body for connecting a discharge pipe thereto, a fluid injecting nozzle carried by and extending adjustably through the cap in line with the discharge opening, and means on the nozzle exterior to the cap for coupling the nozzle to a source of fluid under pressure.



3. In an apparatus of the class described, a suction producing element having a hollow body and a removable cap and provided with a contracted discharge opening at the end remote from the cap, said body having a tubular neck extending from one side thereof and opening into the body between the cap and contracted discharge end and directed toward the discharge end at an angle to the longitudinal center line of the hollow body, a fluid injecting nozzle carried by the cap and adjustable therethrough, said nozzle being provided with a needle valve at one end and at the other end exterior to the cap with means for connecting the nozzle to a source of fluid under pressure, a discharge pipe connected to the discharge end of the hollow body, and a flexible tube connected to the side neck.

4. In an apparatus of the class described, a suction producing element having a hollow body provided with an outlet at one end and at the side provided with a tubular coupling or neck, a removable cap for the end of the body remote from the discharge end, said cap having a depending axially extended and internally screw-threaded portion terminating adjacent the discharge end of the body and there provided with an axial opening formed with a valve seat, a hollow fluid injecting nozzle having screw threads adapted to the internally threaded part of the depending portion of the cap and terminating at one end in a tapered valve adapted to the valve seat and also provided with side outlets adjacent the valve, the nozzle being provided at the end remote from the valve with means for connection to a source of fluid under pressure, and a flexible tube connected to the tubular coupling or neck at the side of the body.

5. In a device of the class described, a suction producing element having a hollow body with a contracted intermediate portion and a cylindrical lower portion depending from the contracted intermediate portion and also provided with a side inlet adjacent to and above the contracted intermediate portion, a removable top cap fitted on the hollow body and having a tubular depending interiorly screw threaded portion terminating adjacent to and above the contracted portion of the hollow body and there provided with an axial opening, and a tubular nozzle in part exteriorly screw threaded and fitted within the tubular depending portion, said tubular nozzle having side outlets.

[Claims 6 to 8 not printed in the Gazette.]

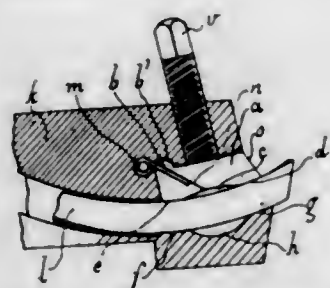
1,080,421. **TELEMETER.** VIRGILIO COLZI and FELICE BARDELLI, Turin, Italy. Filed Mar. 3, 1910. Serial No. 547,137. (Cl. 88—27.)



1. In a telemeter, the combination with an opaque sector, of a totally reflecting prism composed of two portions cemented together, the plane of cementation lying in the plane of reflection of said sector in said prism.
2. In a telemeter, the combination with an opaque sector of a totally reflecting prism composed of two portions cemented together, said sector positioned proximate the upper half of the emergent face of the prism, and the plane of cementation lying in the plane of reflection of said sector in said prism.
3. In a telemeter, the combination with an opaque sector, of a totally reflecting right-angular prism composed of two portions cemented together in a plane parallel its hypotenuse and the sector positioned opposite the end of said plane perpendicular to the hypotenuse.
4. In a telemeter, the combination with a thin opaque sector, of a totally reflecting right-angular prism composed of two portions cemented together in a plane parallel to its hypotenuse, said sector positioned perpendicular to and substantially bisecting one half of the hypotenuse or emergent face of the prism and opposite one end of the plane of cementation.
5. In a telemeter, the combination with a two part cemented totally reflecting prism, of an opaque sector co-operating in conjunction with the plane of cementation of said prism to separate the images distinctly into two portions and avoid the formation of phantom images.

[Claims 6 to 23 not printed in the Gazette.]

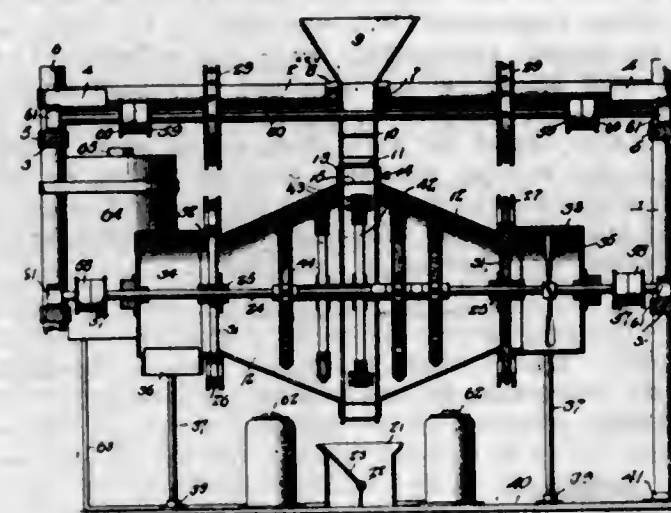
1,080,422. **TOOL-HOLDER.** ACHILLE COUSOT, Geneva, Switzerland. Filed Apr. 25, 1913. Serial No. 763,655. (Cl. 29—100.)



1. A device for removably securing in its holder a metal turning tool, comprising a centrally slotted tool holder, a tool engaged in the slot of said holder, a hollow at one end of said holder and opening in the central slot of same, a removable packing piece fitting said hollow, means provided at said packing piece and said holder for hingedly and resiliently connecting said packing piece with said tool holder, and means for firmly maintaining said tool between said packing piece and said holder.
2. A device for removably securing in its holder a metal turning tool, comprising a centrally slotted tool holder, a trapezoidal hollow at one end of said holder and opening in the central slot of said holder, a removable trapezoidal packing piece fitting said hollow, a semi-circular projecting lug at one of the upper edges of said packing piece, a correspondingly shaped groove provided on said holder for receiving said lug, a threaded bore on said holder and opening in said trapezoidal hollow, a clamping screw engaging said bore and bearing against said packing piece, arc-shaped hollows provided at the lower surface of said packing piece and at the slotted surface of said holder, ground out surfaces on both sides of each of said arc-shaped hollows for exactly fitting and pressing the adjacent portions of said tool when the clamping screw is operated, a triangular slot at one side of the near end of

said trapezoidal packing piece, and a spring secured on said holder and bearing against the edge of said triangular slot, in order to maintain said packing piece when the tool is removed from its holder.

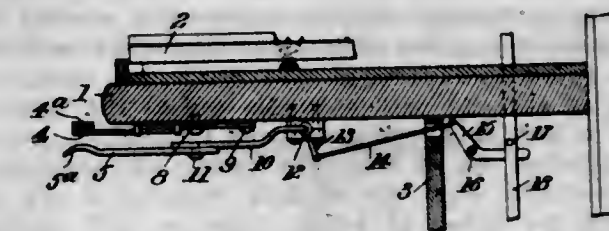
1,080,423. **GRAIN-CLEANING MACHINE.** JOSEPH C. CRAMER, Roseburg, Oreg. Filed Jan. 8, 1913. Serial No. 740,845. (Cl. 83—31.)



1. In a grain cleaning machine, the combination of a machine frame, a rotary casing revoluble on a horizontal axis and embodying reversely arranged frusto-conical sections having their larger ends arranged toward each other, a central cylindrical section interposed between the frusto-conical sections, and an annular screen in said central chamber in spaced relation to the outer wall thereof forming a peripheral screening chamber from which the foreign matter is discharged.
2. In a grain cleaning machine, the combination of a machine frame, a rotary casing revoluble on a horizontal axis and embodying reversely arranged frusto-conical sections having their larger ends arranged toward each other, a rotary shaft extending axially through said casing, a centrally arranged brush wheel fast on said shaft, and scouring wheels fast on said shaft and spaced apart to form annular grain spaces.
3. In a grain cleaning machine, the combination of a machine frame, a rotary casing revoluble on a horizontal axis and embodying reversely arranged frusto-conical sections having their larger ends arranged toward each other, a rotary shaft extending axially through said casing, scouring wheels fast on said shaft and spaced apart to form annular grain spaces, screens across the opposite ends of the casing, and a fan located beyond one of said screens.
4. In a grain cleaning machine, the combination of a machine frame, a rotary casing revoluble on a horizontal axis and embodying reversely arranged frusto-conical sections having their larger ends arranged toward each other, a rotary shaft extending axially through said casing, scouring wheels fast on said shaft and spaced apart to form annular grain spaces, screens across the opposite ends of the casing, a fan chamber at one end of the casing, a fan therein, and a discharge chamber at the opposite end of the casing.
5. In a grain cleaning machine, the combination of a machine frame, a rotary casing revoluble on a horizontal axis and embodying reversely arranged frusto-conical sections having their larger ends arranged toward each other, a rotary shaft extending axially through said casing, scouring wheels fast on said shaft and spaced apart to form annular grain spaces, screens across the opposite ends of the casing, a fan chamber at one end of the casing, a fan therein, and a discharge chamber at the opposite end of the casing, said fan and discharge chambers being stationary and forming bearing abutments for the rotary casing.

[Claim 6 not printed in the Gazette.]

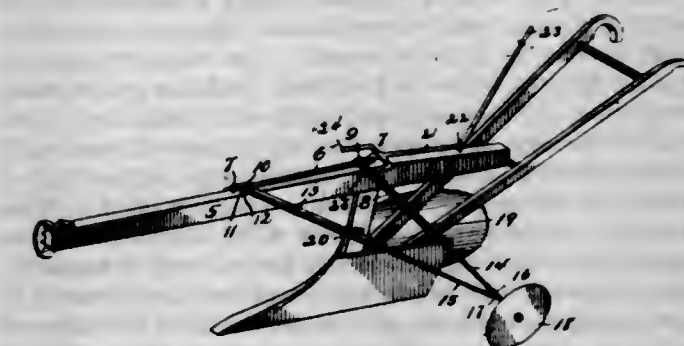
1,080,424. **EXPRESSION MECHANISM FOR AUTOMATIC PIANOS.** GEORGE HOWLETT DAVIS, Orange, N. J. Filed May 20, 1910. Serial No. 562,540. (Cl. 84—160.)



1. In an automatic piano, the combination with the usual manual key bed, of a pair of levers carried thereby, said levers being normally disposed adjacent each other in the same vertical plane, and pivoted about axes in the same vertical line, one of said levers being also pivoted to said key bed on a horizontal axis so as to swing toward and away from the other lever.
2. In an automatic piano, the combination with a suitable support, of a pair of levers carried thereby, one of said levers being pivoted on a vertical axis, and the other of such levers being pivoted on a horizontal axis, and connections whereby said levers serve to operate the expression mechanism of the piano, a section of the second of said levers being also pivoted for movement about a vertical axis without operating the other section of the lever to affect the expression mechanism, whereby said section of the second lever may swing together with the first lever about its vertical axis during the movement of the first of said levers.
3. In an automatic piano, the combination with the usual manual key-bed, a pair of controlling levers pivotally mounted thereon, one of said levers being movable about a horizontal axis, and the other of said levers being movable about a vertical axis, said levers being normally disposed substantially parallel with each other in the same vertical plane.
4. In automatic piano playing mechanism, the combination with a suitable support, of a pair of controlling levers carried thereby, said levers being pivoted about axes lying in planes disposed at right angles to each other, and said levers normally lying adjacent to and parallel with each other, so that they may be simultaneously grasped between the thumb and forefinger of the operator.
5. In automatic piano playing mechanism, the combination with a suitable support, of a pair of controlling levers carried thereby, one of said levers being pivoted about a vertical axis and the other of said levers being pivoted about a horizontal axis, said levers lying normally substantially parallel to and in close proximity to each other in the same vertical plane, so that the first mentioned lever may serve as a support for the hand of the operator in actuating the second lever.

[Claims 6 to 9 not printed in the Gazette.]

1,080,425. **MARKING ATTACHMENT FOR PLOWS.** WILLIAM V. DAVIS, Dealville, N. C. Filed Mar. 25, 1913. Serial No. 756,717. (Cl. 111—24.)

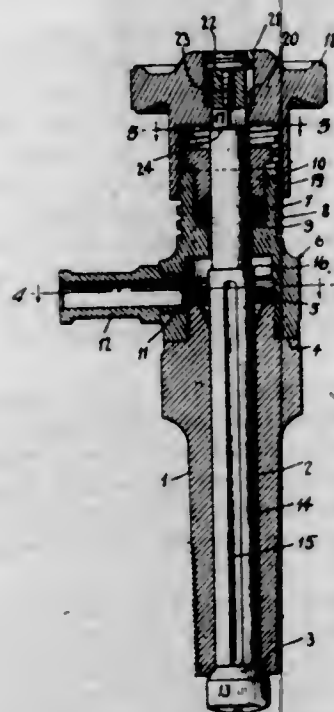


1. In a device of the character described, the combination with a plow, of a marking device comprising a transversely extending rod pivoted to the plow beam, a bell

crank lever pivoted upon the plow beam and underlying said rod, the opposite end of said bell crank lever being accessible by the operator when the plow is in use.

2. In a device of the character described, the combination with a plow beam, of a pivot rod mounted thereon, transversely extending supporting members carried by said pivot rod, a marking device carried by said supporting members, a bell crank lever pivoted to the plow beam, and provided at one end with a handle and at the opposite end with a fork, said fork comprising two fingers, one of which underlies one of said transversely extending supporting members when the marking device is in one position and the other of which underlies said member when the marking device is in the opposite direction.

1,080,426. GAGE-COCK. WILLIAM A. DITTMER, Tekoa, Wash. Filed Mar. 31, 1913. Serial No. 758,032. (Cl. 136—3.)



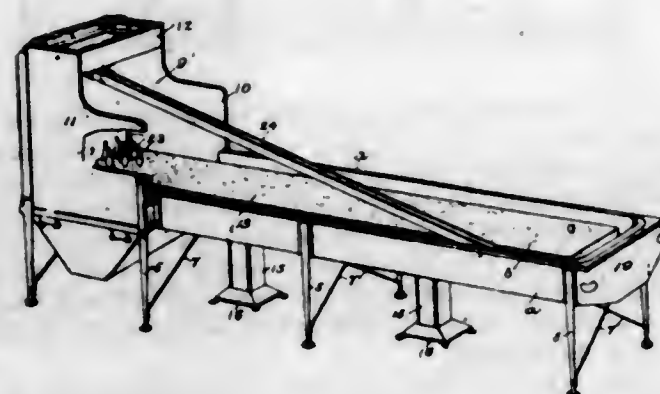
1. A gage cock comprising a tubular body having in its inner end a valve seat, a bonnet detachably engaged with the outer end of said body, a threaded extension on said bonnet having a passage therein arranged in line with the bore of said tubular body, a valve engaged with the seat in the inner end of the body of the cock, a stem on said valve, said stem having a revolvable and sliding engagement with the bore in the body and with the passage in the extension of the bonnet and having on its outer end a reduced squared handle engaging portion, a handle slidably mounted on said squared end, and an interiorly threaded socket on said handle adapted to be screwed onto the threaded extension of said bonnet whereby said valve is forced open against the pressure of the steam in the boiler.

2. A gage cock comprising a tubular body having in its inner end a valve seat, a bonnet having a detachable engagement with the outer end of said body, an exteriorly threaded extension on said bonnet, a valve to engage the valve seat in the inner end of said body, a valve stem revolvably and slidably engaged with said body and with the bonnet thereon, said stem having a squared outer end, a handle slidably mounted on said squared outer end of the stem, an interiorly threaded socket on said handle and having a threaded engagement with the extension on said bonnet whereby when said handle is screwed inwardly on said extension the valve will be opened and means to prevent the disengagement of the handle from the squared extension on said stem when the valve on the handle is unscrewed from the threaded extension of the bonnet.

3. A gage cock comprising a tubular body having in its inner end a valve seat and having its outer end reduced and threaded, a bonnet having in its inner end an in-

teriorly threaded socket adapted to be screwed onto the reduced threaded end of said body and forming a discharge chamber at the outer end of the latter, a discharge spout connected with said bonnet and communicating with said chamber, a threaded extension on said bonnet and having therein a passage communicating with the socket in the bonnet and arranged in line with the bore of said tubular body, a stuffing box and a packing gland arranged in the outer end of said threaded extension, a valve engaged with the seat in the inner end of the body of the cock, a stem on said valve, said stem having a revolvable and sliding engagement with the bore on the body and with the passage and stuffing box in the extension of the bonnet and having on its outer end a reduced squared handle engaging portion, a handle slidably mounted on said squared end of the valve stem, a stop screw in said handle adapted to be screwed onto the threaded extension of said bonnet whereby said valve is forced open against the pressure of the steam in the boiler.

1,080,427. GAME-TABLE. LOUIS DOSCH, Brooklyn, N. Y. Filed Jan. 27, 1913. Serial No. 744,483. (Cl. 46—62.)



1. In a device of the class described, the combination of a frame, a table arranged within the frame and having the sides and ends of its top spaced from the corresponding parts of the frame, and a pocket at one end of the frame and below one end of the table top.

2. In a device of the class described, the combination of a frame, having at one end a pocket and a compartment communicating with the pocket and located thereabove and opening into the frame, a table wholly arranged within the frame and having the sides and one end of its top arranged in spaced relation to the sides and one end of the frame and the other end of its top extending into the compartment and overlying the pocket.

3. In a device of the class described, the combination of a frame having at one end a compartment and a pocket communicating with and located below the compartment and further having inturned extensions on its sides, a table located wholly within the frame and having one end extending into the compartment and overlying the pocket and having its opposite sides arranged in spaced relation to the inturned extensions of the frame.

4. In a device of the class described, the combination of a frame having at one end a compartment and a pocket communicating with and located below the compartment and further having inturned extensions on its sides, a table located wholly within the frame and having one end extending into the compartment and overlying the pocket and having its opposite sides arranged in spaced relation to the inturned extensions of the frame, and a return extending from the compartment into the space between one side of the table and the adjacent side of the frame.

5. In a device of the class described, the combination of a frame, a table wholly arranged within the frame and having its sides and ends spaced from the corresponding portions of the frame and a flexible wall connecting one end of the pocket with the frame.

1,080,428. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa. Filed Apr. 4, 1912. Serial No. 688,570. (Cl. 246—20.)



1. A railway signal torpedo having a main clip attached thereto, an auxiliary clip attached to the outside of the main clip, and a rail strap passed between the said clips.

2. A railway signal torpedo comprising a torpedo case having a metallic foil covering, the covering projected beyond the case and formed into clip receiving flanges, a main clip having flanges embracing the said foil covering flanges and an auxiliary clip attached to the outside of the main clip, and a rail strap passing between the two clips.

3. A railway signal torpedo comprising an explosive containing case, a main clip attached thereto, an auxiliary clip having notches for the passage of a rail engaging strap, the auxiliary clip attached to the outside of the main clip, and a rail engaging strap passing between the clips, having projecting portions entering the notches of the auxiliary clip.

4. A railway signal torpedo comprising an explosive containing case, a main clip attached thereto, and an auxiliary strap attaching clip adapted to be attached to the main clip, the said auxiliary clip provided with notches in its ends and in its sides, whereby it is adapted to receive a strap between it and the main clip and support the strap either longitudinal or transverse the explosive case.

1,080,429. FLEXIBLE DRAW-BAR FOR TRACTION-ENGINES. CHARLES EDWARDS and HENRY H. JUNKIN, Drayton, N. D. Filed Mar. 10, 1913. Serial No. 753,375. (Cl. 97—68.)

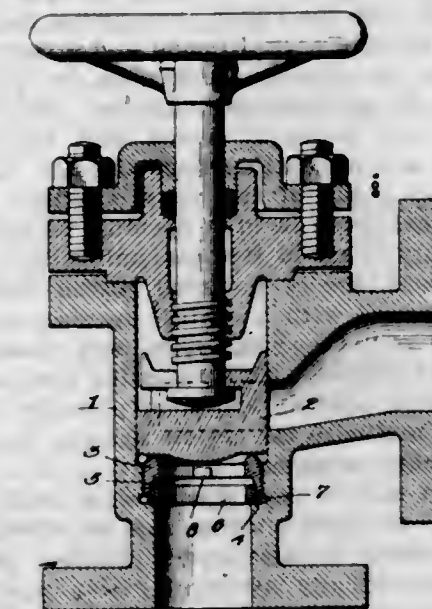


In a device of the character described, the combination with a centrally disposed yoke, of a wheel mounted thereon, a bar rigidly secured to and projecting at right angles from one side of said yoke, outwardly disposed lugs projecting from the opposite side of said yoke, a bar one end of which is pivoted to said lugs, whereby the last named bar is adapted to automatically adjust itself vertically, said bars being U-shaped in cross section and in alignment with one another, stub axles having projections adapted for sliding engagement with the outer portions of said bars, means for securing land treating devices, said means adjustable along the length of said bars between the wheels carried by the outer ends of the bars, and flexible means leading from the yoke and also diagonally from both beams with their outer ends secured to a clevis, the latter being adapted to be adjusted to the rear end of a traction engine or other draft appliance, whereby the device is adapted to ride over the ground and evenly support land operating devices.

1,080,430. JOINT-EXPANDING RING. HARRY FERRELL and CORNELIUS WITWEA, Barberton, Ohio. Filed Jan. 30, 1913. Serial No. 745,263. (Cl. 137—4.)

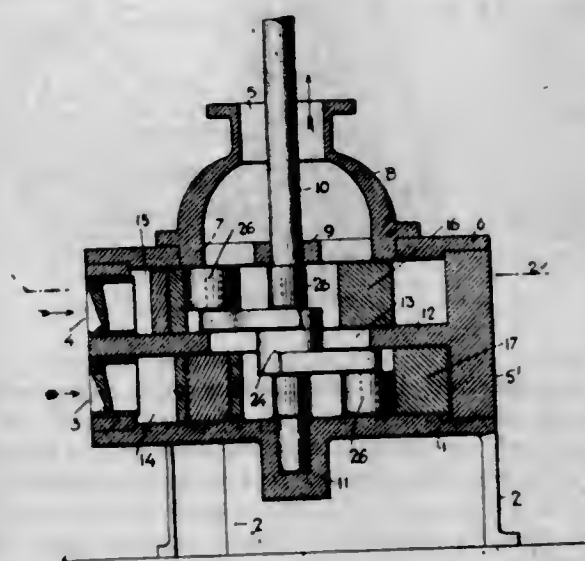
In an expanding device for valve seats, the combination with a valve casing having therein a stop shoulder

and a threaded valve receiving portion, of an exteriorly threaded valve seat adapted to be screwed into engagement with the threaded portion of the valve casing and having its threaded end chamfered on its inner surface, an expanding ring adapted to be engaged with the stop shoulder in said valve casing and having its outer surface tapered to fit in the outer end of the chamfered portion of



the valve seat whereby when the latter is screwed into the casing, the tapered surface of the expanding ring will expand the threaded end of the valve seat into absolutely fluid-tight engagement with the threaded surface of the valve casing.

1,080,431. ROTARY PUMP. ANDREW FRANCIS FORD, Walla Walla, Wash. Filed Feb. 21, 1913. Serial No. 749,855. (Cl. 103—44.)



1. In a pump of the class described, a casing provided with an inlet opening and an outlet opening, a rolling piston arranged in said casing formed with a central opening, and an aperture leading therefrom, an abutment pivotally connected with the casing and with the piston, and means for operating the piston for forcing water from said inlet through the aperture in the piston and from thence through the opening in the piston to said outlet opening.

2. In a pump of the class described, a casing formed with an inlet and an outlet, a piston arranged in said casing formed smaller than the interior bore of the casing, means for giving the piston an oscillatory movement in the casing, and an abutment co-acting with the casing and the piston, said abutment being hinged to said casing at one end and hinged to said piston at the opposite end, said piston having an aperture extending from the periphery to the center, said center being in free communication with the outlet opening in said casing whereby when said piston is moved fluid will be drawn in through said inlet

opening into the casing and forced through the aperture in the piston to the outlet opening in the casing.

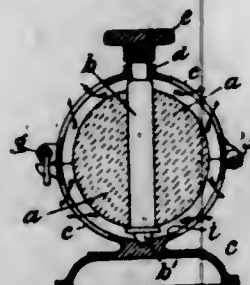
3. In a pump of the class described, a casing formed with an inlet opening and an outlet opening and a chamber in communication with said opening, a piston arranged in said chamber and mounted so as to have a rolling movement in the casing, means for moving said piston, and an abutment pivotally connected with the casing and also pivotally connected with the piston, said piston being formed with a central opening therethrough, and a radiating bore extending from the central opening to the piston, said radiating bore being arranged adjacent said abutment whereby when said piston is moved fluid will be drawn into the casing and forced therefrom through said piston.

4. In a rotary pump of the class described, a casing formed with a chamber, an inlet opening, an outlet opening, said openings being in free communication with said chamber, an eccentrically mounted piston arranged in said chamber formed with a central opening, said piston separating said outlet opening from said chamber, said piston being also formed with a radiating bore, means for moving said piston, and an abutment pivotally connected with the piston and with the casing whereby the piston is caused to roll when actuated.

5. In a pump of the class described, a casing formed with a chamber, an inlet opening and an outlet opening, said openings being in free communication with said chamber, an eccentrically arranged piston positioned in said casing and separating the chamber from the outlet opening, said piston being formed with a central bore, a radiating bore extending from the central bore to the periphery, means engaging said piston for moving the same, and a swinging abutment extending at a tangent to the piston, said abutment being pivoted at one end to the piston and at the opposite end to said casing.

[Claims 6 to 8 not printed in the Gazette.]

1,080,432. VAPORIZER. JOSEPH THOMAS FREESTONE, Liverpool, England. Filed Jan. 27, 1913. Serial No. 744,547. (Cl. 167-3.)



1. In a vaporizer, the combination of a cage having a plurality of openings, a base on which the cage is supported, a spindle extending from the base and to the top of the cage, the spindle adapted to receive a spherical solid block of vaporizing material, and a knob located above the cage and spindle, whereby a rotary motion may be imparted between the cage and the solid block of vaporizing material to agitate the air surrounding the vaporizing material to throw off the fumes from the latter through the openings in the cage.

2. In a vaporizer, the combination of a cage formed with a plurality of openings, a base for supporting the cage, a spindle mounted in the cage to receive a solid block of vaporizing material, and a knob on the upper end of the spindle to rotate the vaporizing material and agitate the air between the latter and the cage, whereby to throw the fumes through the openings in the cage.

3. In a vaporizer, the combination of a cage formed with openings, said cage comprising hinged sections, means for securing the two sections together, a spindle mounted to rotate in the cage and extending through the top of the latter, said spindle adapted to receive a solid block of vaporizing material, and a knob on the upper end of the spindle, whereby the solid block of vaporizing material may be rotated to agitate the air and throw off the fumes through the openings in the cage.

1,080,433. PROCESS OF PRODUCING PATTERNS ON FABRICS. MORITZ FREIBERGER, Budapest, Austria-Hungary. Filed Aug. 10, 1908. Serial No. 447,879. (Cl. 8-5.)

1. The process of figuring fabrics, which consists in applying to the fabric, in either sequence, a dyestuff giving the ground color, and a salt of an oxy-acid of nitrogen, said salt being printed on, and reacting on said salt with an acid reagent under conditions to discharge the color.

2. The process of figuring fabrics, which consists in applying to the fabric, in either sequence, a dyestuff giving the ground color, and a salt of an oxy-acid of nitrogen, said salt being printed on, and reacting on said salt with hot, strong, sulfuric acid under conditions to discharge the color.

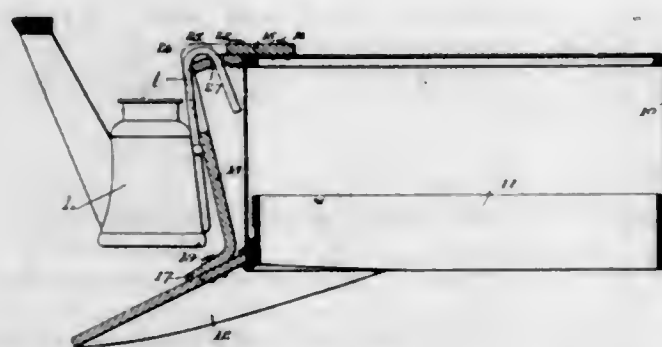
3. The process of producing patterns on fabrics, dyed with a ground color, which consists in printing on the fabric with a salt of a nitrogen oxy-acid, then subjecting the fabric thus treated to the action of a strong acid, and then washing the fabric.

4. The process of producing patterns on fabrics, dyed with a ground color, which consists in printing discharges comprising salts of the nitrogen oxy-acids, then subjecting the fabric thus treated to the action of a strong acid to set free the nitrogen oxy-acid in the fiber, and then washing the fabric.

5. The process of producing patterns by means of nitrogen oxy-acids on fabrics dyed with a ground color without affecting the firmness of the fiber, which consists in causing the salts of the nitrogen oxy-acids printed on the fabric to act by means of a short treatment with hot and strong acids.

[Claims 6 to 8 not printed in the Gazette.]

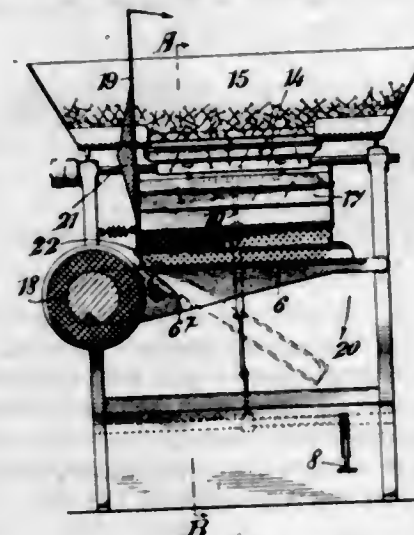
1,080,434. MINER'S LAMP-HOLDER. NICHOLAS FRIERAND, Shenandoah, Pa. Filed May 10, 1913. Serial No. 766,783. (Cl. 240-60.)



1. The combination with a miner's cap having a crown and a vizor, of a lamp holder constructed of one piece of flexible material, means to secure the upper and lower ends of said holder to the crown and vizor respectively the intermediate portion of the holder being spaced from the crown, and said intermediate portion being slitted to form a tongue having its upper end left integral with the main portion of the holder, the free end of the tongue being bent rearwardly and upwardly against the upper portion of the holder and formed with a hole therethrough, and a slot being formed in the holder adjacent the upper end of the tongue and in axial alignment therewith, said slot forming a pair of spaced shoulders in front of the tongue hole, substantially as and for the purposes set forth.

2. The herein described blank for a miner's lamp holder comprising a substantially rectangular single strip of material, said blank being formed with attachment holes at its opposite ends, the intermediate portion thereof being slitted to form a tongue having its upper end left integral with the holder and its free end provided with a central hole, and a slot being formed through the holder in axial alignment with said tongue and its hole, said slot extending across the point of attachment between the tongue and the main portion of the holder, substantially as set forth.

1,080,435. MACHINE FOR FACILITATING THE PACKING OF MAGNETIC OBJECTS OF OBLONG SHAPE. OTTO GAMPER, Zurich, Switzerland. Filed Dec. 3, 1912. Serial No. 734,792. (Cl. 10-102.)



1. In a device for facilitating the packing of slender magnetic objects of oblong shape, a horse-shoe electro-magnet, a canal of U-shaped cross-section arranged between the legs of the electro-magnet, and feeding means arranged above the open longitudinal side of said canal adapted to distribute the objects to be packed over the whole length of said canal.

2. In a device for facilitating the packing of slender magnetic objects of oblong shape, a horse-shoe electro-magnet, the legs of said magnet being adjustable to different distances from each other and forming a horizontally arranged groove, a hinged bottom member provided with a free end adapted to receive a packing box, and feeding means arranged above the open longitudinal side of said groove adapted to distribute simultaneously the objects to be packed over the whole length of said groove.

3. In a device for facilitating the packing of slender magnetic objects of oblong shape, a horse-shoe electro-magnet forming a horizontally arranged groove, a shallow trough hinged below the groove provided with a free end adapted to receive a packing box, into which the trough is emptied in the transverse direction of the feed, feeding means arranged above the open longitudinal side of said groove adapted to distribute simultaneously the objects over the whole length of said groove, and a device adapted to interrupt the current exciting the magnet and stop the feeding simultaneously.

1,080,436. POULTRY-FEEDING DEVICE. IRVING M. GRAHAM, Candia, N. H. Filed June 4, 1912. Serial No. 701,615. (Cl. 119-63.)



A poultry feeder comprising a forwardly inclined reservoir having an inwardly extending forwardly inclined chute provided with an upwardly curled lower edge form-

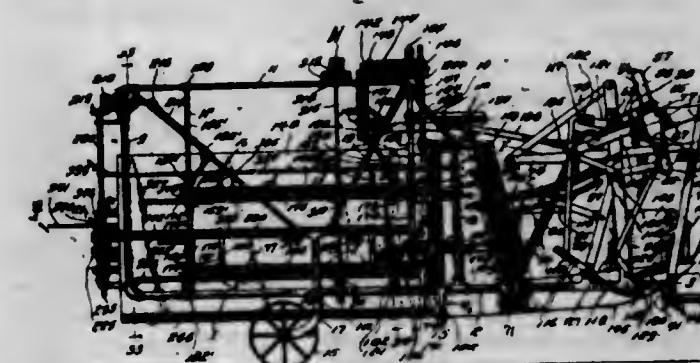
ing a trough interiorly of said reservoir, a screen connected with the reservoir at a point above the trough and extended downwardly to contact therewith, the said reservoir being provided with an open front, a gate swingingly connected to the reservoir for closing the upper portion of the open front, a slide mounted upon the reservoir and movable for opening and closing the lower portion of the open front, a plate mounted upon the reservoir and overhanging the said slide, and an inwardly and downwardly bent flange formed on the upper edge of the said plate and adapted to deflect the feed within the reservoir to prevent the falling of the same between the slide and the said screen.

1,080,437. FOLDABLE TABLE STRUCTURE. VALENTINE J. GRIESEMEIER, Chillicothe, Ohio. Filed Apr. 22, 1912. Serial No. 692,430. (Cl. 45-47.)



Foldable table structure comprising a center piece, a plurality of supplemental leaves, a plurality of swiveling braces pivoted to the center piece, pins disposed intermediate the ends of said swiveling elements on said center piece, and a locking loop carried by each of said braces for fitting through said pins and adapted to resist the downward movement of the supplemental leaves of said foldable table structure.

1,080,438. GRAIN-SHOCKING MACHINE. JESSE E. GRIFFITH, Albion, Nebr., assignor, by direct and mesne assignments, of one-fourth to Job E. Green and one-fourth to D. V. Blatter, Albion, Nebr. Filed Mar. 22, 1912. Serial No. 685,540. (Cl. 56-121.)



1. A shocking machine comprising an oblong open-ended box-like sheaf receiving pan including a tiltable longitudinally concaved bottom member, a rigid shock former of A-shaped cross section adjacent to the receiving pan, and means including an axial member supported for orbital movement and an upending fork supported for oscillation thereon, said upending fork performing a downward and rearward stroke for transferring the sheaves from the receiving pan to the shock former.

2. A shocking machine comprising an oblong open-ended box-like sheaf receiving pan including a tiltable bottom member concaved longitudinally, a rigid shock former of A-shaped cross section adjacent to the receiving pan, and means including an axial member supported for orbital movement and a swinging fork member carried thereon for upending sheaves and transferring them from the receiving pan to the shock former.

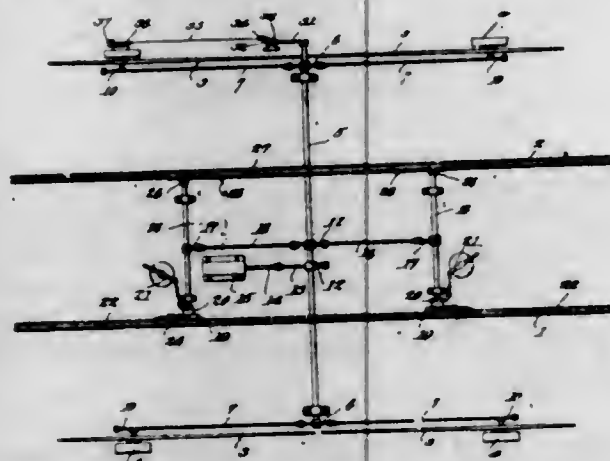
3. A shocking machine comprising a sheaf receiver, a non-yielding rigid shock former of A-shaped cross section supported adjacent to the receiver and means including an axial member supported for orbital movement and a swinging fork member carried thereon for upending sheaves and transferring them from the receiving pan to the shock former.

4. A shocking machine comprising a sheaf receiver, a rigid, non-yielding and relatively non-movable shock former of A-shaped cross section adjacent to the receiver, and means including an axial member supported for orbital

movement and a swinging fork member carried thereon for transferring sheaves on the receiver to the shock former.

5. In a shocking machine, the combination with a sheaf receiver and a shock former supported adjacent to said receiver, said shock former being of A-shaped cross section and of rigid non-yielding construction, of means for transferring sheaves from the receiver to the shock former including an axial member supported for orbital movement and a swinging fork member carried thereon, said fork member including a handle, brackets carried thereby, and sheaf engaging lines pivoted on said brackets. [Claims 6 to 67 not printed in the Gazette.]

1,080,439. AUTOMATIC RAILWAY-GATE. CHARLES GRUNOW, Sheboygan, Wis. Filed July 5, 1913. Serial No. 777,480. (Cl. 39-35.)



1. The combination with a railway track and crossing gates, of a pair of actuating means associated with the track at the opposite sides of the crossing, means for actuating the gates, and means for operatively connecting and disconnecting the respective actuating means to and from the gate-actuating means.

2. The combination with a railway track and crossing gates, of tread members associated with the track at the opposite sides of the crossing and yieldingly supported, means for actuating the gates, and means for operatively connecting and disconnecting the respective actuating means to and from the gate actuating means.

3. The combination with a railway track and crossing gates, of a main shaft operatively connected to the gates, counter shafts operatively connected with the main shaft, tread members disposed at the opposite sides of the crossing, and means for operatively connecting and disconnecting the respective tread members and counter shafts.

4. The combination with a railway track and crossing gates, of train actuated means disposed at the opposite sides of the crossing, means operatively connecting the said means whereby they operate simultaneously, and means connecting the second mentioned means and the gates, the second mentioned means including couplings for disconnecting either of the first mentioned means from the last mentioned means.

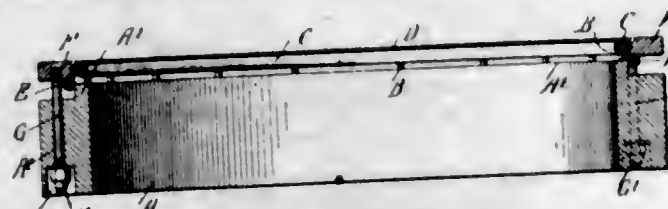
5. The combination with a railway track and crossing gates, of tread levers disposed at the opposite sides of the crossing and pivotally supported at their remote ends, the adjoining ends of the levers being raised, shafts disposed adjoining the adjacent ends of the respective levers, gear wheels mounted loosely on the shafts, racks carried by the adjoining ends of the levers and intermeshing with the gear wheels, clutches feathered upon the shafts to engage and disengage the respective gear wheels, and means operatively connecting the said shafts and operatively connected with the gates.

[Claims 6 to 11 not printed in the Gazette.]

1,080,440. BANJO, DRUM, OR SIMILAR MUSICAL INSTRUMENT. CHARLES HARTMANN, Jersey City, N. J., assignor to Oscar Schmidt, Jersey City, N. J. Filed Oct. 4, 1912. Serial No. 723,862. (Cl. 84-121.)

A banjo, drum or similar musical instrument, provided with a rim having an annular flange at the inner

portion of the upper end thereof, the outer or body portion of the rim having spaced apertures extending from the top to the bottom of the shell and countersunk at the bottom of the rim, a head, a resonant ring over which the head is stretched, the said ring being provided with spaced depending pins resting on the top of said annular



flange of the rim to hold the resonant ring directly above and spaced from the said flange, a tightening ring above the top of the body portion of the rim, and bolts screwing with their upper ends into the under side of the said tightening ring and extending through the said apertures, the nuts of the bolts being within the countersunk portions of the apertures and abutting against the rim.

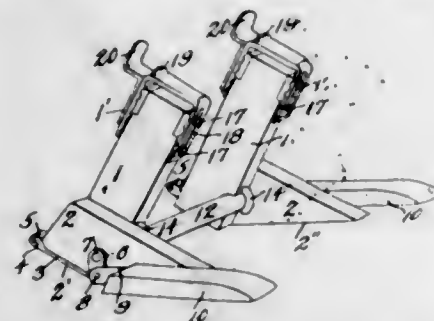
1,080,441. HAY CURING AND STACKING DEVICE. JOHN F. HARRIS, Pickens, S. C. Filed Mar. 7, 1913. Serial No. 752,778. (Cl. 34-26.)



1. A device of the character described comprising a spider having radial arms and legs pivotally connected with said arms, said legs being provided with upwardly extending obliquely disposed spikes.

2. A hay curing device comprising a spider having radially extending arms and a hub, legs connected pivotally with the arms and having outwardly extending obliquely disposed spikes, and a staff fitted in the hub of the spider and extending upwardly therefrom.

1,080,442. AUTOMOBILE-JACK. CHARLES A. HART, Findlay, Ohio. Original application filed Apr. 5, 1912. Serial No. 688,659. Divided and this application filed Apr. 14, 1913. Serial No. 761,045. (Cl. 57-15.)



1. An automatic jack of the class described comprising rocking standards adapted to automatically cooperate to raise a vehicle as the latter is moved into engagement therewith, said standards comprising adjustable sections, stops carried by said standards at their upper ends, and auxiliary stops associated with the first mentioned stops.

2. An automatic jack of the class described comprising rocking standards adapted to automatically cooperate to raise a vehicle as the latter is moved into engagement

therewith, said standards comprising adjustable sections, stops carried by said standards at their upper ends, auxiliary stops associated with the first mentioned stops, and fastening means for securing the sections of the standards and auxiliary stops at various adjustments.

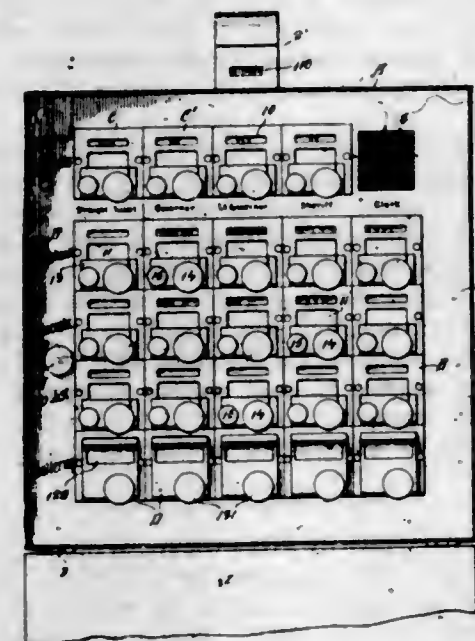
1,080,443. DRIVING-BELT. ALEXANDER HENDRY and MALCOLM ALLAN HENDRY, Bridgeton, Glasgow, Scotland. Filed Jan. 14, 1911. Serial No. 602,544. (Cl. 74-83.)



1. A driving belt comprising a series of lengths of leather contacting in a laminated state and transversely stitched together, each of said lengths being composed of a plurality of short sections secured together by stitching, said latter stitching being at either side of the middle of the width of each of said lengths.

2. A driving belt comprising a series of lengths of leather contacting in a laminated state and transversely stitched together, each of said lengths being composed of a plurality of short sections secured together by stitching, said latter stitching being at both sides of the middle of the width of each of said lengths.

1,080,444. VOTING-MACHINE. GEORGE W. HENNING, San Jose, Cal. Filed Feb. 11, 1911. Serial No. 607,967. (Cl. 235-50.)



1. In a voting machine, the combination of means for holding an impression receiving element, a voting element movable into engagement with the element, a canceling element, and means controlled by and dependent upon the operation of the canceling element for moving the impression receiving element after the voting element moves out of engagement therewith and before the canceling element engages the impression receiving element.

2. In a voting machine, the combination of a tape holding means, a voting element for impressing the tape, a vote canceling element movable into engagement with the tape, a winding drum for the tape, a pawl and ratchet mechanism between the voting element and drum for turning the latter step by step, and a locking device for releasably holding the drum and permitting the latter to turn upon the return movement of the voting element and the canceling movement of the canceling element.

3. In a voting machine, the combination of a record tape holding means, a voting push button including a stamp for impressing the tape, a canceling push button including means for impressing the tape, springs for returning the push button, the stamp and impressing means being so related to each other as to require the

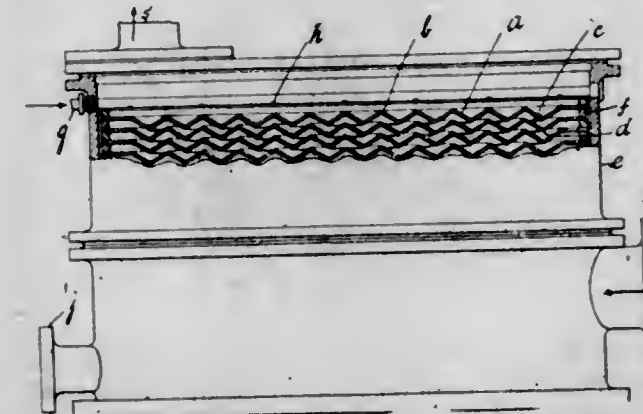
tape to move to bring the stamp impression into line with the canceling impression means, and an operating mechanism for moving the tape, said mechanism being operatively related with the push button to cause the tape to move prior to the engagement of the canceling element with the tape.

4. In a voting machine, the combination of a record element, a voting element for impressing the record element, a canceling element for impressing the record element, means dependent upon the movement of the voting element to move the record element, a lock for normally holding the record element against movement, means for releasing the lock by the canceling element, and means under the control of an election officer for releasing the lock when the voter does not use the canceling element.

5. In a voting machine, the combination of a record element holding means, a voting element for impressing the record element, a canceling element for impressing the record element, means dependent upon the movement of the voting element to move the record element, a lock for normally holding the record element against movement, means for releasing the lock by the canceling element, means under the control of an election officer for releasing the lock when the voter does not use the canceling element, and a device to prevent the canceling element from being operated while the voting element is being operated or vice versa.

[Claims 6 to 19 not printed in the Gazette.]

1,080,445. ABSORBER AND SEPARATOR FOR GASES AND VAPORS. HARRY HEY, Dewsbury, England. Filed June 16, 1913. Serial No. 774,026. (Cl. 48-133.)



1. In an absorber and separator for gases and vapors, a casing, superposed corrugated plates mounted in said casing with the depressions of one plate entering somewhat into the depressions of the plate immediately below and formed to permit the passage of fluids over and through them, spacing rings located between the adjacent plates, an inlet for the absorbent liquid consisting of a perforated pipe located over the corrugated plates, an outlet for the absorbent liquid and an inlet and outlet for the gases and vapors.

2. In an absorber and separator for gases and vapors, a casing, superposed corrugated plates mounted in said casing with the depressions of one plate entering somewhat into the depressions of the plate immediately below, a central shaft in said casing carrying alternate of said corrugated plates, means in the casing for carrying the other alternate plates, means for rotating said shaft together with the corrugated plates secured to it, an inlet and outlet for the gases and vapors and an inlet and outlet for the absorbent liquid.

3. In an absorber and separator for gases and vapors, a casing, superposed corrugated plates mounted in said casing with the depressions of one plate entering somewhat into the depressions of the plate immediately below, a central shaft in said casing carrying alternate of said corrugated plates, means in the casing for carrying the other alternate plates, means for rotating said shaft together with the corrugated plates secured to it, means for imparting a reciprocating motion to the said shaft in the direction of its length and to the corrugated plates secured to said shaft, an inlet and outlet for the gases

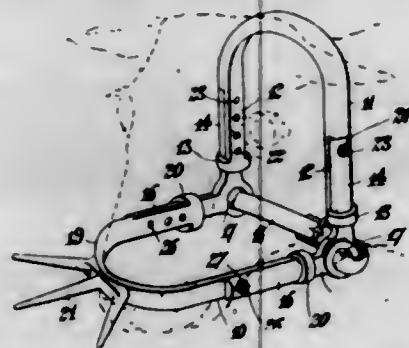
and vapors and an inlet and outlet for the absorbent liquid.

4. In an absorber and separator for gases and vapors, a casing, superposed corrugated plates mounted in said casing with the depressions of one plate entering somewhat into the depressions of the plate immediately below, a central shaft in said casing carrying alternate of said corrugated plates, means in the casing for carrying the other alternate plates, means for imparting a reciprocating motion to the said shaft in the direction of its length and to the corrugated plates secured to said shaft, an inlet and outlet for the gases and vapors and an inlet and outlet for the absorbent liquid.

5. In an absorber and separator for gases and vapors, a casing, a central shaft in the said casing, corrugated plates secured to said shaft with their outer peripheries a short distance from the casing, further corrugated plates secured to said casing arranged with the angles of their corrugations in a vertical line with the angles of the corrugations of the first mentioned corrugated plates and with their inner peripheries a short distance from the said central shaft, said first mentioned corrugated plates alternating with said second mentioned corrugated plates, an inlet and outlet for the gases and vapors and an inlet and outlet for the absorbent liquid and means for rotating said shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,080,446. MUZZLE. CHARLES HICKEY, Blackwell, Okla. Filed Jan. 17, 1913. Serial No. 742,855. (Cl. 119—130.)



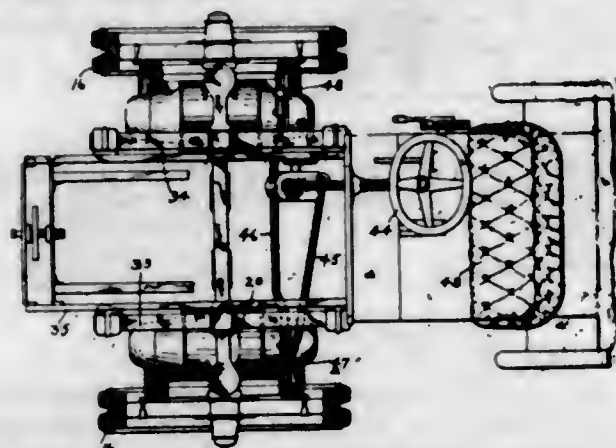
In a muzzle, the combination with a plurality of L-shaped attaching members, of a plurality of vertical uprights forming a part of the attaching members and integral therewith, a plurality of horizontal forwardly extending bars forming a part of the attaching members and integral therewith, a neck yoke mounted to slide on the said uprights, a guard member mounted to slide on the said bars, a strap on the said attaching member for attaching the same to the head of an animal, means for adjustably securing the said neck yoke on the uprights of the attaching member, and means for adjustably securing the said guard member on the bars of the said attaching member.

1,080,447. TRACTOR SYSTEM FOR MOTOR-VEHICLES. ALFRED H. HOADLEY, Providence, R. I. Filed Feb. 14, 1913. Serial No. 748,302. (Cl. 21—90.)

1. A tractor system for motor vehicle comprising a relatively stationary axle, a traction wheel pivotally journaled at each end of said axle, an electric motor operatively connected and adapted to swing with each of said wheels, each motor having its axis set at substantially a right angle to that of its wheel axle and offset to one side of the central plane of rotation of its wheel, and means carried by the vehicle for supplying operating energy to said motors.

2. In a motor vehicle, a relatively stationary axle, a steering knuckle pivotally mounted at each end of said axle, a motor and a traction wheel both mounted on each knuckle, the axis of said motor being substantially at a right angle to that of the wheel axle and offset to one side of the central plane of rotation of its wheel, means for operatively connecting each motor to its wheel, and means

carried by the vehicle for supplying energy to each motor to rotate its wheel and propel the vehicle.



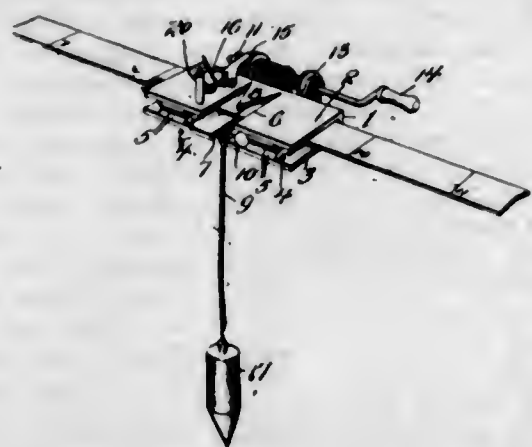
3. In a motor vehicle, a relatively stationary axle, a steering knuckle pivotally mounted at each end of said axle, a motor and a traction wheel both mounted on each knuckle and on opposite sides of the pivoting point, the axis of said motor being substantially at a right angle to that of the wheel axle and offset to one side of the central plane of rotation of its wheel, means for operatively connecting each motor to its wheel, and means carried by the vehicle for supplying energy to each motor to rotate its wheel and propel the vehicle.

4. In a motor vehicle, an axle, a steering knuckle pivotally mounted at each end of said axle, a motor and a traction wheel both mounted on each knuckle, the axis of said motor being set to one side of the central plane of rotation of its wheel, a gear connected to the wheel, a pinion driven from each end of said motor and engaging its gear, and means carried by the vehicle for supplying energy to each motor to rotate its wheel and propel the vehicle.

5. In a motor vehicle, an axle, a steering knuckle pivotally mounted at each end of said axle, an electric motor and a traction wheel mounted on each knuckle, the axis of said motor being substantially at a right angle to that of the wheel axle and offset to one side of the central plane of rotation of its wheel, a gear connected to the wheel, a pinion driven from each end of said motor and engaging its gear, a dust proof casing inclosing said gears and means for supplying energy to said motors to rotate its wheel and propel the vehicle.

[Claims 6 to 13 not printed in the Gazette.]

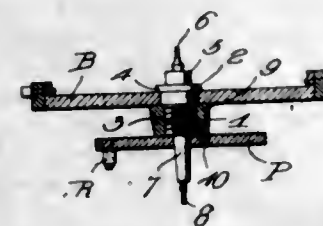
1,080,448. PLUMB-BOB SUPPORT. WILLIAM B. HONEY, Mount Rainier, Md., assignor of one-fourth to Ellis F. Wilson and one-fourth to Stella M. Wilson, Washington, D. C. Filed Apr. 2, 1912. Serial No. 688,002. (Cl. 73—71.)



A device of the class described comprising a support adapted to be slidably mounted upon a tape, a plumb bob line reel carried by the support, a plumb bob line wound upon the reel, releasable means for holding the reel in wound position, a guiding member for the line and a sighting pin carried on the support and arranged in the same

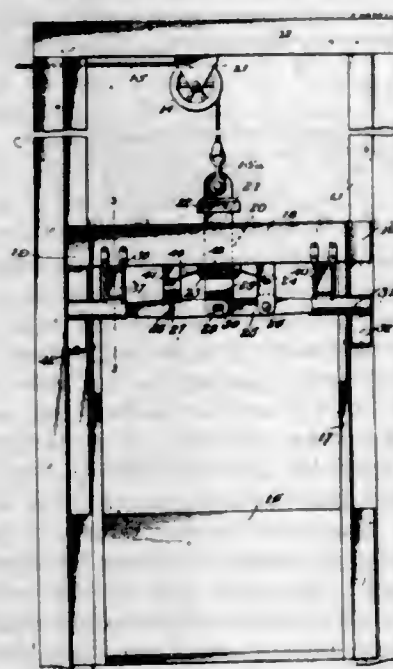
vertical plane with said line after the line passes over the guiding member said plane being parallel with a line drawn longitudinally through the tape.

1,080,449. BALANCE-STAFF FOR WATCHES. AARON E. HURWITZ and CHARLES W. GOODMAN, Portland, Oreg. Filed July 3, 1913. Serial No. 777,311. (Cl. 58—140.)



The combination with a balance wheel and a roller plate; of a balance staff having pivots at its extremities, a spring rest below the uppermost pivot, a flange below the rest, a surface below and of less size than the flange for entering the hole in the wheel, a reduced and threaded portion below said surface, and a still further reduced and tapered portion below the threaded portion, said tapered portion being adapted to frictionally enter the hole in the plate; and a nut of the same length as said threaded portion, the parts being assembled substantially as hereinbefore described.

1,080,450. SAFETY DEVICE FOR ELEVATORS. MARVIN CARLETON HUTCHINGS, Bozeman, Mont., assignor of one-third to George W. Baker, Bozeman, Mont. Filed June 3, 1913. Serial No. 771,383. (Cl. 187—86.)



1. The combination with an elevator car and guide rails for the same, of a movable member connected with the elevator cable, a pair of gripping jaws for each of said guide rails, levers connecting said member and said gripping jaws, spacers normally holding said jaws inoperative, guides for rendering said jaws operative when said levers are moved in a predetermined direction, said gripping jaws having fingers engaging said guides, and U-shaped members receiving said fingers between the sides thereof to direct the movement of said gripping jaws.

2. The combination with an elevator car and guide rails for the same, of a movable member connected with the elevator cable, means for limiting the movement of said member, a pair of gripping jaws for each of said guide rails, levers operatively connected with said member and said gripping jaws and having a limited freedom of movement with respect thereto, spacers normally holding said jaws inoperative, guides for rendering said jaws operative when said levers are moved in a predetermined direction, and U-shaped members receiving between the sides thereof parts of said jaws to direct their movements.

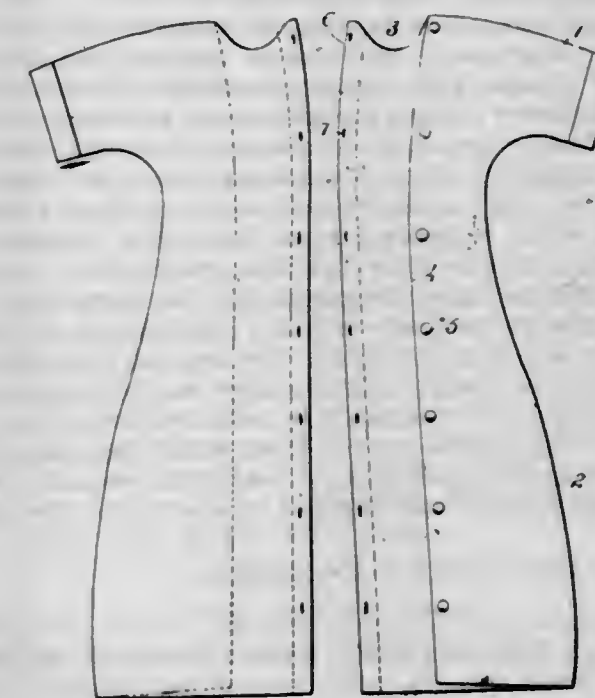
3. A device of the class described comprising a movable member adapted to be connected to the cable of an elevator, means for limiting the movement of said member, a grip having a serrated jaw adapted to engage a part of an elevator shaft and having a tapered finger, a guide having an inclined surface contacting with said finger, means for holding said jaw normally inoperative and for the purpose being provided with an inclined surface contacting with said jaw, a U-shaped member embracing said guide, receiving between the sides thereof said finger of said grip, and a lever operatively connecting said first-mentioned member and said grip.

4. In a device of the class described, gripping jaws having serrations adapted to engage an elevator guide-rail and provided with an adjustable point normally contacting with the rail; and a wedge-shaped block adapted to engage the jaws and cause the engagement of the serrations with the guide, substantially as and for the purpose set forth.

5. In a device of the class described, jaws each having a fixed projection and adjustable spurs; a wedge-shaped plate normally engaging the fixed projection; and a wedge-shaped block adapted to engage the jaws, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,080,451. INVALID BED-GOWN. MARTHA E. HUTCHINSON, Los Angeles, Cal. Filed Apr. 2, 1912. Serial No. 688,041. (Cl. 2—41.)

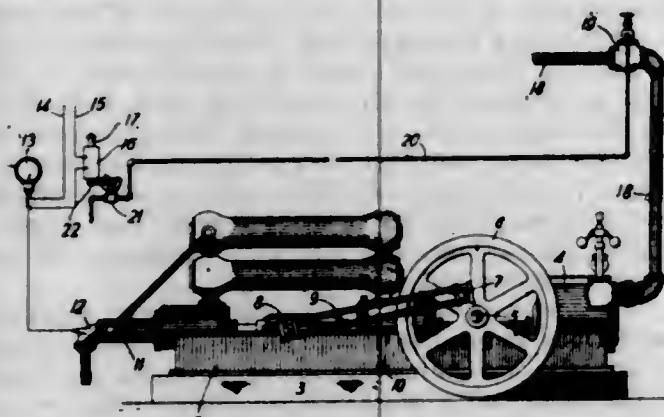


As a new article of manufacture, a garment comprising two similarly constructed reversible sections of substantially U-shape in cross sections, each section being provided with a sleeve at its upper end, the vertical marginal edges of these sections lying at opposite sides of the vertical median line of the garment, the marginal edge of the wide side being adapted to co-act with the marginal edge of the narrow side of the opposite section, fastening devices along the marginal edge of the narrow side of the sections and cooperating fastening devices along the marginal edges of the wide side of both sections.

1,080,452. APPARATUS FOR CONTROLLING AIR AND OTHER GAS COMPRESSORS. GUSTAVE E. HUTTELMAIER, Scottsdale, Pa. Filed Aug. 4, 1911. Serial No. 642,354. (Cl. 230—24.)

1. Apparatus for controlling the operation of gas compressors comprising mechanism for stopping the operation of the compressor, means for holding said mechanism in inoperative position and means actuated by an increase in temperature of the gases being compressed for releasing

the holding means and stopping the operation of the compressor.



2. Apparatus for controlling the operation of gas compressors comprising mechanism for stopping the operation of the compressor, means for holding said mechanism in inoperative position and means actuated by an increase in temperature above a predetermined limit of the gases being compressed for releasing the holding means and stopping the operation of the compressor.

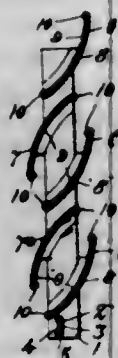
3. Apparatus for controlling the operation of gas compressors comprising a steam valve on the steam supply line to the compressor, a pilot valve arranged when opened to close said steam valve, means for normally holding the pilot valve in closed position, and means actuated by an increase in temperature of the compressed gases for releasing said pilot valve to thereby close the steam valve and stop the operation of the compressor.

4. Apparatus for controlling the operation of gas compressors comprising a steam valve, a pilot valve controlling the opening and closing movements of said steam valve, means for holding the pilot valve in closed position during the operation of the compressor, a solenoid arranged when energized to release the holding means and open the pilot valve, and means actuated by an increase in temperature of the compressed gases arranged to energize the solenoid and release said pilot valve to thereby close the steam valve and stop the operation of the compressor.

5. Apparatus for controlling the operation of gas compressors comprising mechanism for stopping the effective operation of the compressor, means for holding said mechanism in inoperative position and means actuated by an increase in temperature of the gases being compressed for causing the placing of said mechanism in operative position and stopping the effective operation of the compressor.

[Claim 6 not printed in the Gazette.]

1,080,453. VENTILATOR. EMIL O. JANECK, Madison, Wis. Filed July 10, 1912. Serial No. 708,826. (Cl. 95-31.)



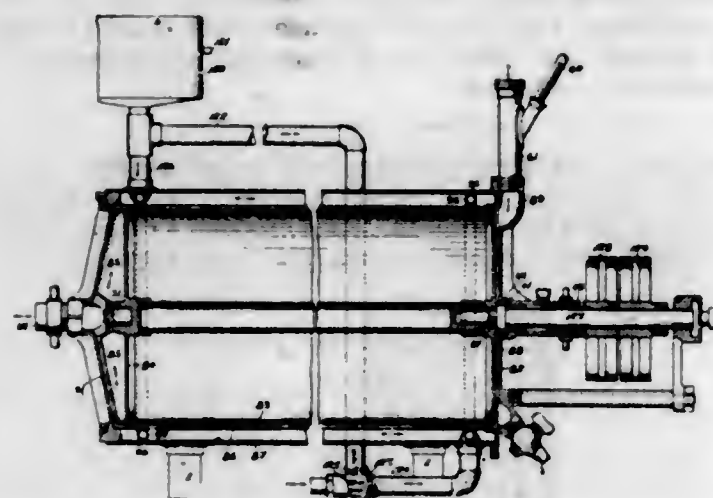
1. A ventilator of the class described including a pair of inclined slats having opposed concave faces and arranged in partially overlapping relation, one higher than the other, the concave face of the lower slat being presented to the outer side of the ventilator.

2. A ventilator including a pair of slats of arcuate form cross sectionally, said slats being arranged in partially overlapping relation, one in a higher plane than the other and with their concave faces opposed.

3. A ventilator including a pair of slats of arcuate form cross sectionally, said slats being arranged in partially overlapping relation, one in a higher plane than the other and with their concave faces opposed, the concave face of the lower slat being presented to the outer side of the ventilator and that of the upper slat being presented to the inner side of the ventilator.

4. A ventilator including a pair of slats of arcuate form cross-sectionally, said slats being arranged in partially overlapping relation, one higher than the other and with their concave faces opposed, the concave face of each lower slat being presented to the outer side of the ventilator and that of the upper slat being presented to the inner side of the ventilator, the lower edge of each upper slat projecting outwardly from the ventilator beyond the vertical plane of the lower edge of its companion lower slat and the inner upper lower edge of each lower slat projecting inwardly from the ventilator beyond the vertical plane of the inner edge of its companion upper slat.

1,080,454. HEATER. AAGE JENSEN, Oakland, Cal. Filed Mar. 21, 1911, Serial No. 615,952. Renewed June 10, 1913. Serial No. 772,914. (Cl. 210-20.)



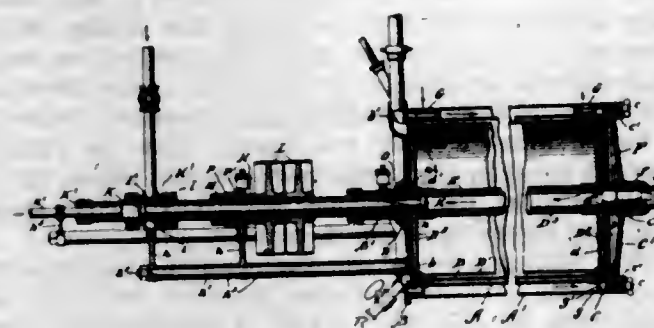
1. In an apparatus of the character described, the combination of a cylinder having closed ends, means for maintaining a circulation of water around said cylinder, a drum within said cylinder also having closed ends and a cylindrical wall closely adjacent to the inner wall of the cylinder, means connected to said drum and passing through one end of the cylinder for transmitting rotary movement to said drum, said cylinder having an inlet at the center of one end thereof, and the end of the drum adjacent to said latter end having thereon impeller vanes for impelling liquid to cause it to pass between said drum and cylinder wall, the other end of the cylinder being provided with an upwardly directed outlet conduit.

2. In an apparatus of the character described, the combination of a cylinder having closed ends, means for maintaining a circulation of water around said cylinder, a drum within said cylinder also having closed ends and a cylindrical wall closely adjacent to the inner wall of the cylinder, means connected to said drum and passing through one end of the cylinder for transmitting rotary movement to said drum, one end of said cylinder being removable and formed with an inlet opening, and provided with means for rotatably and removably supporting the corresponding end of the drum thereon, the other end of the cylinder being provided with an outlet conduit, one end of the drum being provided with impeller vanes causing the liquid to pass between the drum and the inner wall of the cylinder.

3. In an apparatus of the character described, the combination of a cylinder having closed ends, means for maintaining a circulation of water around said cylinder, a drum within said cylinder also having closed ends and a cylindrical wall closely adjacent to the inner wall of the cylinder, means connected to said drum and passing through one end of the cylinder for transmitting rotary movement to said drum, one end of the cylinder being

removable and having a central inlet conduit, and formed on its inner side with centrally located means for removably and rotatably supporting the corresponding end of the drum, said end being provided with impeller vanes for impelling the liquid to the other end of the cylinder, said cylinder being formed with an outlet conduit at said other end.

1,080,455. LIQUID PASTEURIZER AND COOLER. AAGE JENSEN, Oakland, Cal. Filed Sept. 3, 1913. Serial No. 787,995. (Cl. 210-20.)



1. A liquid treating apparatus embodying a cylinder, a drum mounted in the cylinder with its cylindrical wall spaced from the cylinder to form a narrow cylindrical chamber, both the cylinder and drum embodying means whereby a treating liquid may be circulated in contact with their cylindrical walls on both the outer and inner sides of the narrow cylindrical chamber, means for rotating the drum, an impeller mounted on one end of the drum to rotate in unison therewith, and cylinder heads at opposite ends of the drum, one of said heads being provided with an axial inlet for the admission of liquid to be treated centrally of the impeller and the other of said heads having an exit duct for the discharge of the treated liquid forced through the space between the drum and cylinder by the impeller.

2. In a liquid treating apparatus, the combination with the inclosing cylinder and drum mounted in the cylinder with their cylindrical walls spaced to form a narrow cylindrical chamber, and both embodying means whereby their walls may be heated, of impeller vanes on the end of the drum, a head for inclosing the end of the cylinder adjacent the impeller vanes, having a central bearing for the drum, and liquid admission openings at the base of the impeller vanes around the central bearing, a drum shaft, and means for rotating the drum mounted on the shaft at the opposite end of the cylinder from the impeller vanes.

3. A liquid treating apparatus embodying a cylinder, a rotary drum having its peripheral wall in proximity to the cylinder wall, cylinder heads in which the drum is journaled, ducts extending centrally through said heads and independently communicating respectively with the interior of the drum and with the space between the drum and cylinder, and an impeller between the end of the drum and head through which liquid is admitted to the space between the drum and cylinder.

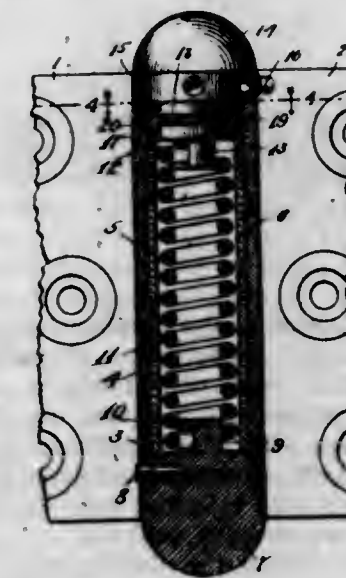
4. A liquid treating apparatus embodying a cylinder, a rotary drum having its peripheral wall in proximity to the cylinder wall, heads on the cylinder inclosing the drum and having shaft bearings therein, a drum shaft journaled in said bearings, an impeller mounted on said shaft between one end of the drum and one of said heads, and a centrally arranged liquid admission duct for supplying liquid to be treated to the center of the impeller, whereby said liquid will be forced through the space between the drum and cylinder walls.

5. A liquid treating apparatus embodying a cylinder, a rotary drum having its peripheral wall in proximity to the cylinder wall, a cylinder head having a centrally arranged duct for the liquid to be treated, an impeller mounted on the end of the drum intermediate the drum and said cylinder head, a head on the opposite end of the cylinder, a tubular shaft for the drum journaled in said last mentioned head, ducts for supplying liquid to the

interior of the drum extending through said shaft, and means for rotating the drum mounted on the shaft outside of the cylinder head.

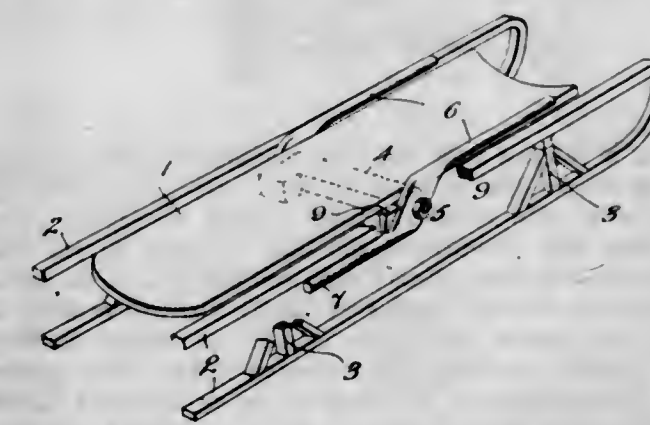
[Claims 6 to 13 not printed in the Gazette.]

1,080,456. SPRING-HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed July 24, 1913. Serial No. 780,923. (Cl. 16-25.)



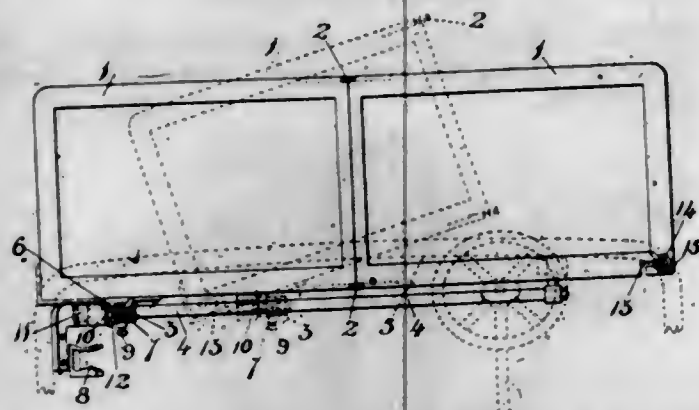
In a spring hinge of the class described, a pair of leaves formed with knuckles or barrel portions, a pindle for holding said knuckles in alignment, one of said knuckles having an annular groove therein, a head rigidly secured to the knuckle on the opposite end of the pindle to the knuckle having the annular groove, a removable head arranged in the end of the hinge having the annular grooved knuckle, said last mentioned head being formed with an annular groove, a spring connected with both of said heads adapted to give the heads a tendency to move in opposite directions, a split resilient ring arranged in the annular groove in said last mentioned head, said last mentioned groove being of a sufficient depth for accommodating the entire ring, and the annular groove in said knuckle being of a depth to accommodate substantially half of said ring, whereby when said ring expands the same is limited by the bottom of said last mentioned groove, and said last mentioned head is prevented from being removed while permitting free rotation, and a locking member connected with said last mentioned head acting on one of said leaves for holding said spring under tension.

1,080,457. SLED. ROBERT KELLY, West Hoboken, N. J. Filed Oct. 1, 1912. Serial No. 723,398. (Cl. 21-46.)



A sled provided with a seat, a support secured to the underside of the seat, cam surfaces on the ends of the support, operating levers pivotally connected to the ends of the support, and cams on the operating levers for frictionally contacting with the cam surfaces on the ends of the support, said levers adapted to be operated singly or collectively for braking or steering the sled substantially as described.

1,080,458. MOTOR-CAR SCREEN. JEROME FRANCIS KENNEDY and ERNEST NORBERT KENNEDY, London, England. Filed Oct. 20, 1911. Serial No. 655,856. (Cl. 21-148.)

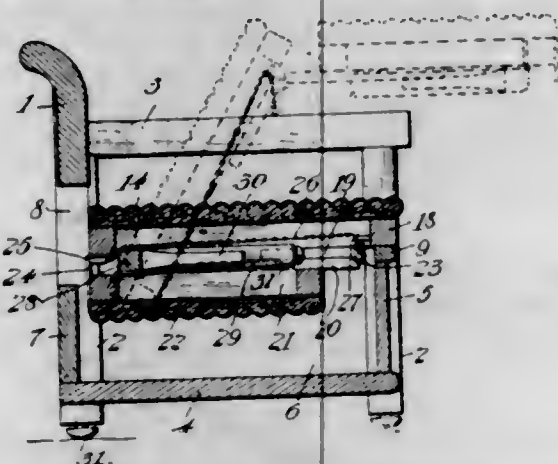


1. In a motor car screen, the combination, with a fixed rail; of a screen frame comprising a plurality of hinged sections foldable upon each other; and a sliding pivot joint connection between said rail and one of the lower corners of said frame, said joint consisting of an eye provided upon one of said sections, a collar slidably and rotatably mounted upon said rail, and a pivot pin secured to said collar and passed through said eye.

2. In a motor car screen, the combination, with a fixed rail, of a screen frame comprising a plurality of hinged sections foldable upon each other, said frame having a sliding, turning and swinging connection at one of its lower corners with said rail, and a slot formed in its other lower corner; and a pin removably engaged in said slot.

3. In a motor car screen, the combination, with a fixed rail, and a collar slidably and rotatably mounted thereon; of a screen frame pivotally connected at one of its lower corners to said collar; and means for detachably supporting the other lower corner of said frame.

1,080,459. FOLDING SOFA-BED. GEORGE MARTIN KIM, Pittsburgh, Pa. Filed Aug. 23, 1911. Serial No. 645,645. (Cl. 5-48.)



1. In a folding sofa bed, the combination with a supporting frame and a back member extending above the same, of a main cushion frame pivoted forwardly of its rear edge and forward of the back member to the rear portion of said supporting frame and adapted to be swung upward and rearward to a rearwardly inclined position so as to rest against said back member in raised position, and a foldable cushion frame pivoted to the main cushion frame and adapted to be folded below or extended beyond the same, said back member serving to support the main cushion frame during the manipulation of said foldable cushion frame.

2. In a folding sofa bed, the combination with a supporting frame having a receptacle in its lower portion, and upper and lower back members spaced apart to provide a ventilating opening for said receptacle, of a main cushion frame pivoted to the rear portion of said supporting frame below the upper edge of said upper back member whereby the latter is adapted to support said main cushion frame

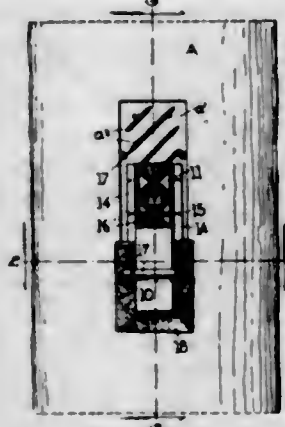
when raised, and a foldable cushion frame pivoted to the main cushion frame and adapted to be folded below or extended beyond the same.

3. In a folding sofa bed, the combination with a supporting frame, of a main cushion frame pivoted to the rear portion of said supporting frame, and a foldable cushion frame pivoted to the main cushion frame inward of the front edge of the latter whereby said main cushion frame is adapted to rest directly upon the front edge of the supporting frame while said foldable cushion frame is adapted to fold entirely within the same.

4. In a folding sofa bed, the combination of a main supporting frame, a cushion pivotally mounted in said frame, a hinge member secured to the under side of the cushion in rear of but adjacent the front edge thereof, a second hinge member connected to the front end of the first-mentioned hinge member, a supplemental cushion secured to said second hinge member and spaced from the point of connection between the hinge members, and means for detachably securing the supplemental cushion to the under-side of the pivotally mounted cushion.

5. In a folding sofa bed, the combination of a main supporting frame, a cushion frame pivotally mounted near its back edge in said main frame, a supplemental frame hinged to the under side of the cushion frame adjacent the front edge thereof, a locking mechanism adapted to secure the supplemental frame to the cushion frame at the back edge thereof, and releasing means extending from said locking mechanism between the cushion and supplemental frames to the front edge of the cushion frame.

1,080,460. DEVICE FOR APPLYING SUBSTANCES TO TREES, SHRUBS, AND VINES. WILLIAM RENATUS KLECKNER, Cowell, Cal. Filed Jan. 24, 1913. Serial No. 743,899. (Cl. 47-36.)



1. The herein-described device for applying a substance to trees, shrubs and vines, comprising a cap having an open side adapted to be presented to the tree or the like, and having projecting members to temporarily retain the device in position, additional fastening means to secure the cap in place, the caps at the open side having longitudinal edge flanges formed with incisions, and capsules constituting containers for the substance to be applied, the capsules being open at a portion thereof and presenting open ends at the open side of the cap to contact with the surface of the tree or the like.

2. The herein-described device for the application of a substance to a tree or the like, consisting of a receptacle adapted to contain a capsule, and having projecting members at the open end thereof for entering into the tree or the like, and with longitudinal flanges at the said open end to contact with the tree.

3. The herein-described device for the application of a substance to a tree or the like, consisting of a receptacle adapted to contain a capsule, the container being open at one side to present the capsules to the tree or the like, and having flanges along edges thereof at the open side to contact with the surface of the tree or the like.

4. The herein-described device for use in applying a substance to a tree, shrub or vine, to be taken up by the sap, and comprising a container adapted to contain the mate-

rial to be applied and having separate flange members at the open side of the cap, along the edges.

5. The herein-described device for use in applying a substance to a tree, shrub or vine, to be taken up by the sap, and comprising a receptacle adapted to hold the material to be applied, and having an open side formed with laterally bent flanges at the edges of the cap, at the open side thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,080,461. VARNISH. ANTHONY KUGEL, Jersey City, N. J. Filed May 4, 1912. Serial No. 695,158. (Cl. 134-26.)

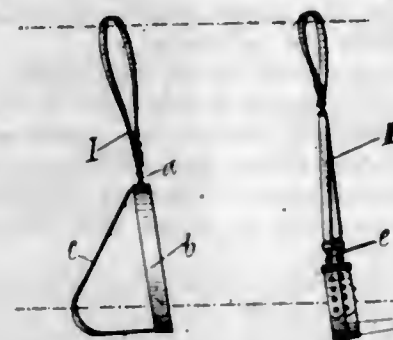
1. A varnish comprising a solvent which is a hydrocarbon derivative, ammonium, and a resinous substance.

2. A varnish comprising a resinous substance, ammonium, and a solvent composed of oxygen, hydrogen, and carbon.

3. A varnish including a resinous substance, an alcohol and ammonia.

4. A varnish comprising a resinous substance, and a solvent saturated with ammonia gas.

1,080,462. DRY-SWIMMING APPARATUS. RICHARD KUPFER, Gera, Reusa, Germany. Filed Dec. 4, 1912. Serial No. 734,961. (Cl. 46-69.)



In a dry swimming apparatus, a girdle to encircle the chest, two spaced straps whose ends are connected to the upper and lower parts of said girdle and extending in front thereof and adapted to lie against the wearer's shoulders, adjustable leg-bands adapted to encircle the thighs, links on said girdle and said leg-bands and hangers engaging said links, said hangers adapted to connect with suitable supports.

1,080,463. WRENCH. ABEL LAITINEN, Northland, Minn. Filed Mar. 3, 1913. Serial No. 751,783. (Cl. 81-157.)



1. In a wrench, the combination with the inner and outer jaws, one of them provided with a rack, and a worm whose threads are adapted to engage the teeth of said rack; of a hook whose shank is pivoted at one extremity within a recess in the handle-member of one jaw and on whose body said worm is rotatably mounted, a cam slidably mounted in this handle-member and with its face engaging the bill of said hook, an expansive spring pressing said cam in a direction to swing the hook and worm inward, and means for retracting the cam-head in opposition to the tendency of this spring.

ably mounted in this handle-member and with its face engaging the bill of said hook, an expansive spring pressing said cam in a direction to swing the hook and worm inward, and means for retracting the cam-head in opposition to the tendency of this spring.

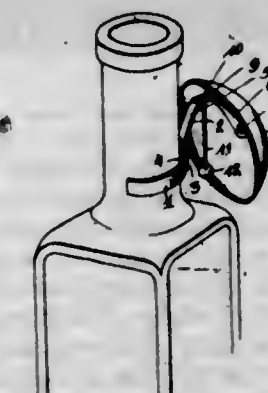
2. In a wrench, the combination with the inner and outer jaws, one of them provided with a rack and the other with a worm whose threads are adapted to engage the teeth of said rack; of a hook on whose body said worm is rotatably mounted, a spring pressing said body in a direction to throw the threads of the worm normally into engagement with said rack, a cam engaging the bill of said hook, a spring pressing said cam normally in a direction to move the hook and worm inward, and a button connected with the cam and extending to the exterior of said member.

3. In a wrench, the combination with the inner and outer jaws, one of them being tubular and the other having a shank sliding therein and provided with a rack, and a worm whose threads are adapted to engage the teeth of said rack; of a hook whose shank is pivoted at one extremity within a recess in the tubular handle-member and on whose body said worm is rotatably mounted, a cam slidably mounted in this handle-member and with its face engaging the bill of said hook, a shank depending from the head of the cam into a recess within this handle-member, an expansive spring pressing said shank in a direction to cause the cam face to swing the hook and worm inward, and means for retracting the cam-head in opposition to the tendency of this spring.

4. In a wrench, the combination with the inner and outer jaws, one of them being tubular and the other having a shank sliding therein and provided with a rack, and a worm whose threads are adapted to engage the teeth of said rack; of a hook whose shank is pivoted at one extremity within a recess in said tubular handle-member and on whose body said worm is rotatably mounted, a spring pressing said body in a direction to throw the threads of the worm normally into engagement with said rack, a cam slidably mounted in this member with its face engaging the bill of said hook, a spring pressing said cam normally in a direction to swing the hook and worm inward, and a button connected with the cam and extending to the exterior of said member.

5. In a wrench, the combination with the inner and outer jaws, one of them being tubular and the other having a shank sliding therein and provided with a rack, and a worm whose threads are adapted to engage the teeth of said rack; of a hook whose shank is pivoted at one extremity within a recess in the tubular handle-member and on whose body said worm is rotatably mounted, a spring swinging said hook normally inward, a cam movably connected with the wrench-handle with its face engaging the bill of said hook, a spring tending to move this cam normally in a direction to assist the first-mentioned spring and swing the hook inward, and means for retracting said cam in opposition to the last-named spring.

1,080,464. POISON-BOTTLE. AXEL L. LARSEN, St. Paul, Minn. Filed Mar. 21, 1913. Serial No. 756,029. (Cl. 116-58.)



An alarm for poison bottles comprising an elastic attaching member, an arm secured to and extending from the attaching member, a bell secured to one terminal of the arm, and a handle member adapted to be moved to swing the arm and bell into position to alarm.

the arm, a rubber element depending from the arm and located within the bell and a metallic sounding object carried by said element.

1,080,465. TOY. ERNST PAUL LEHMANN, Brandenburg-on-the-Havel, Germany. Filed May 2, 1913. Serial No. 764,977. (Cl. 46-48.)



1. In a toy adapted to travel by driving means of its own, a frame, an axle carried in bearings of the toy frame, one only of said bearings being elongated to admit of a lifting and lowering motion of the corresponding end of said axle within said bearing, driving means carried by said frame and operatively engaging said axle adjacent the other of said bearings, an eccentric carried by said axle in proximity to said elongated bearing, and a stop to be encountered by said eccentric when the axle descends to its lowered position, substantially as and for the purpose set forth.

2. In a toy adapted to travel by driving means of its own, a frame, an axle carried by bearings on said frame, one only of said bearings being elongated to admit of a lifting and lowering automatic motion of the corresponding end of said axle, a crank portion formed on said axle, driving means carried by said frame and operatively engaging said axle adjacent the other of said bearings, a flange on said frame, to receive the said crank, substantially as and for the purpose set forth.

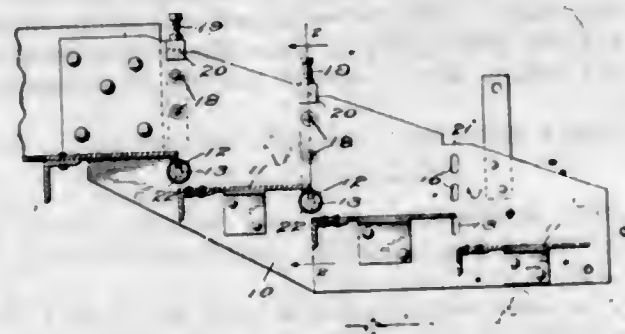
3. In a toy mounted on wheels, a frame, a coiled wire driving spring, gearing to transmit motion to the traveling wheels, a wheel axle carried in bearings on said frame, one only of said bearings being elongated to admit of a lifting and lowering motion of the corresponding end of said axle, an eccentric carried by said wheel-axle, and a stop projecting into the path of said eccentric in the lowered position of the said axle, substantially as and for the purpose set forth.

1,080,466. SCREEN. ELIZABETH LYNCH, Minneapolis, Minn. Filed May 8, 1912. Serial No. 695,973. (Cl. 156-37.)



A screen including a rectangular frame having a vertical stile, recesses to include an upper wall extending at a slight angle to the horizontal and a lower wall at an angle to the vertical, a screen cloth secured to the frame and following the walls of the recesses, and blocks of a size and shape to fit in said recesses overlying the screen cloth with the forward edges of said block flush with the surface of the screen cloth overlying the remaining length of the stile whereby to provide a comparatively unbroken surface from the sealing strip, and sealing strips of uniform thickness secured to the frame to overlie the edges of the screen cloth and securing said blocks within the recesses.

1,080,467. SEPARATING MECHANISM. FRED H. MARSON and JAMES ADLEN, Scranton, Pa. Filed May 23, 1913. Serial No. 769,510. (Cl. 83-54.)



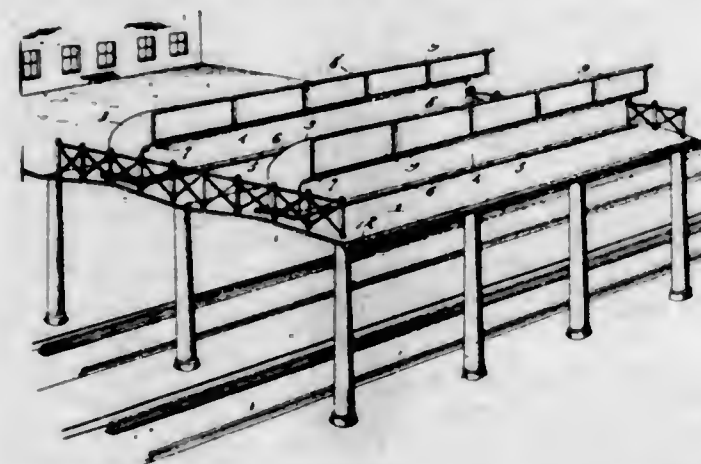
1. In a separating mechanism, a plurality of plates arranged in horizontal planes and stepped relation, hollow cylinders disposed in the intervals between the steps and means engaging a portion of the inner wall of the cylinders at a point remote from the longitudinal axis thereof, for varying the elevation of the cylinders.

2. In a separating mechanism, a plurality of substantially horizontal plates arranged in stepped relation with the rear of one step substantially beneath the forward edge of the step above, hollow cylinders disposed in the intervals between such upper and lower plates, and means engaging a portion of the inner wall of the cylinders at a point remote from the longitudinal axis thereof, for varying the elevation of the cylinders.

3. In a separating mechanism, a plurality of plates arranged in horizontal planes and stepped relation, rods extending in the interval between the plates and in parallelism with the edges thereof, cylinders mounted upon the rods and adapted to swing, said rods constituting means for directly elevating the cylinders, and adjustable means for mounting the rods.

4. In a separating mechanism, a plurality of horizontal plates arranged in stepped relation with the rear of one plate substantially beneath and spaced from the forward edge of the plate above, a rod extending between the edges of the plates in substantial parallelism therewith, and a cylinder mounted upon the rod and adapted to swing with the rod as an axis and means for mounting the rod comprising members having a right angled portion at one end with a slot therein, a plate member having slots therein, the edge of the plate being received by the slot first mentioned, an adjusting member in said slot and engaging said edge, means passing through certain of the slots of the plate and supporting the rod mounting means, and said rod passing through one of the slots at a point opposite the point at which the rod enters the mounting means.

1,080,468. HOOD. MARK G. MELVIN, Scranton, Pa. Filed Mar. 7, 1913. Serial No. 752,740. (Cl. 104-208.)

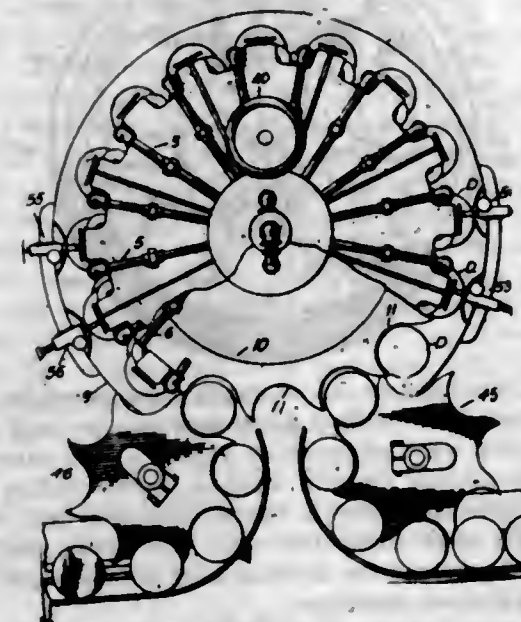


1. A train shed roof having a longitudinal opening above the track and a hood extending up from said opening and having a laterally deflected discharge portion and flaps in the discharge portion of the hood opening to pressure from within and closing to pressure from without.

2. A train shed roof having an opening above the track and also having a hood extending upwardly from said opening and provided with flaps opening to pressure from within and closing to pressure from without.

3. A train shed roof having an opening above the track and also provided with a hood extending up from said opening, the said hood having side walls provided with base flanges bearing on the roof on opposite sides of the opening and also having a laterally extending discharge mouth.

1,080,469. VACUUM SYRUPING-MACHINE. WILLIS GRANT MURRAY, San Francisco, Cal. Filed Aug. 26, 1912. Serial No. 717,151. (Cl. 226-9.)



In combination, a rotating syruping head with a double reservoir, comprising an upper syrup chamber and a lower vacuum chamber, a syrup supply source, a vacuum creating source, a filling head provided with a two-way valve, pipe connections leading from said syrup chamber with said vacuum chamber of the reservoir at its upper end and at its lower end communicating with said vacuum creating source, separate pipe connections between the syrup and vacuum reservoir chambers and said two way valve of the filling head, and means automatically operated by the rotation of the syruping head for controlling said two way valve comprising a star head carried by the valve, an arm for actuating said head held normally pressed outward, a second arm positively operated by the can, a lever between the arms to communicate the movement of the lower arm to the upper and force the upper inward, the said lower arm having means projecting into the path of the cans, to be actuated thereby when a can is in position on its supporting head, substantially as described.

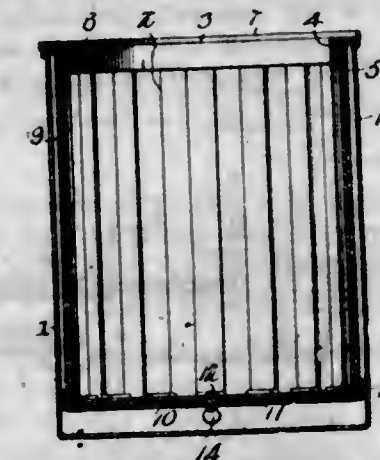
1,080,470. INNER KETTLE OR BOILER. WILLIAM H. NUTTER and ROBERT H. SIMS, Lebanon, Oreg. Filed Oct. 22, 1912. Serial No. 727,251. (Cl. 53-1.)

1. In an article for the purpose described, a receptacle comprising a top member providing a flanged annulus having its vertical wall provided with an outturned bead, slats secured to the horizontal member of the annulus, a cross sectional L-shaped member connecting the bottom of the slats, a ring member arranged upon the outer face of the vertical member of the annulus between the bead thereof and the horizontal member thereof, slats connected with the bead and adapted to contact with the first mentioned slats, and the second mentioned slats having their ends connected with an annular bottom, and the said bottom bearing upon the horizontal portion of the L-shaped ring.

2. In an article of the class set forth, an interior and an exterior member each having slatted walls and one revolvable around the other whereby the slats may provide a closed receptacle or an open receptacle, the top of the re-

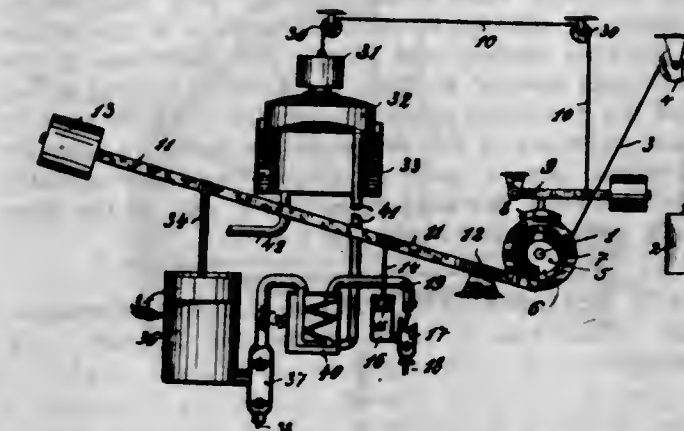
197 O. G.—13

ceptacle having an angular bead which is notched, spring fingers upon the top members, and said fingers adapted



to be forced over the bead to within the notches, substantially as and for the purpose set forth.

1,080,471. AIR-GAS APPARATUS. SVEND OLSEN, Halle-on-the-Saale, Germany. Filed July 24, 1912. Serial No. 711,379. (Cl. 48-145.)



1. In an apparatus for generating air-gas, the combination of fluid-supply pumps, a cam, pressure-controlled means to actuate said cam, and means actuated by said cam to operate said fluid-supply pumps.

2. In an apparatus for generating air-gas, the combination of fluid-supply pumps, a cam, pressure-controlled means to actuate said cam, an energy-controlled means actuated by said cam to operate said fluid-supply pumps in one direction and automatically operating the same in the opposite direction, when released by said cam.

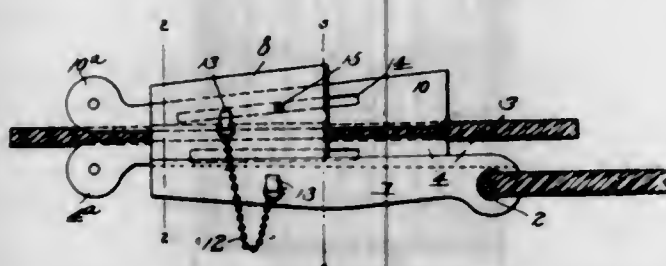
3. In an apparatus for generating air-gas, the combination of an air-pump, a liquid-supply device, a receiver for holding gas under pressure, a cam, means controlled by said receiver to actuate said cam, and means actuated by said cam to operate said air-pump and liquid-supply device.

4. In an apparatus for generating air-gas, the combination of an air-pump, a fuel-pump, a receiver for holding gas under pressure, a cam, means controlled by said receiver to actuate said cam, energy-controlled means actuated by said cam to operate said air-pump and fuel-pump in one direction and automatically operating said air-pump and fuel-pump in the other direction when released by said cam.

1,080,472. CABLE-GRIP. WILLIAM JOHNSON PARKER and ABRAHAM ANDRES STROM, Halifax, Nova Scotia, Canada. Filed Dec. 7, 1912. Serial No. 735,860. (Cl. 24-186.)

1. A cable grip including a base formed with a seat and provided upon opposite sides of the seat with flanges, said flanges being formed with longitudinal grooves which terminate at one end thereof in shoulders, a removable member formed with an opposed seat and with sides adapted to slidably engage the before-mentioned flanges, the said sides being provided with ribs adapted to enter

the longitudinal grooves of the flanges and engage the shoulders at the ends thereof to limit the sliding movement of the removable member and retain the same in position, the seats of the two members converging toward each other, and cooperating jaws slidably mounted upon the seats, one of the said jaws having a wedge shaped formation.



2. A cable grip including a base provided with a seat and formed with side flanges on opposite sides of the seat, the said side flanges extending from one end of the base to an intermediate point in the length thereof and being provided with longitudinal grooves which extend inwardly through the rear ends of the side flanges and terminate in shoulders, a removable stock member which is shorter than the base and is provided with a seat and with sides which embrace and slidably engage the before mentioned flanges, the said sides being provided with longitudinal ribs which are adapted to enter the grooves of the flanges from the rear thereof and engage the shoulders at the forward ends thereof to limit the forward sliding movement of the removable stock member and hold the same in position, the seats of the two members having a converging relation, and a pair of cooperating jaws slidably mounted between the converging seats, one of the jaws having a wedge shaped formation.

1,080,473. RAILWAY-TIE. PETER E. PERO, Dorchester, Mass. Filed Feb. 7, 1913. Serial No. 746,848. (Cl. 238-3.)

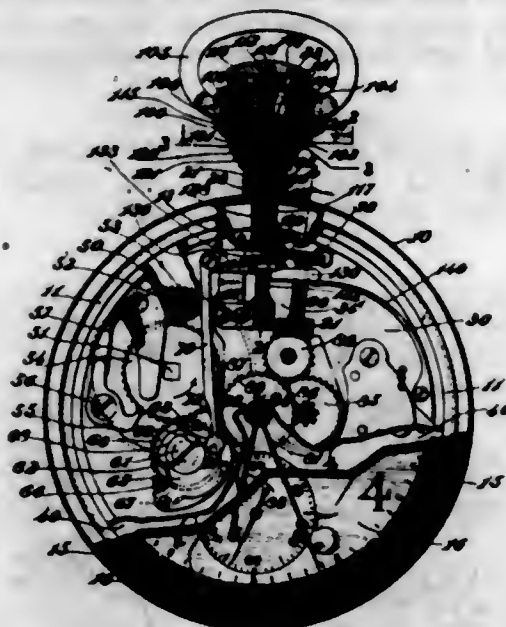


The combination of a tie body of plastic material having recesses in the upper face thereof within which the rail base of a railway rail is adapted to fit, a plurality of vertically extending tubular sockets inserted within the said body, one upon each side of the said recesses, the lower end of each of the said tubular sockets being split throughout a portion of its length, the split portion of the respective socket being bent oppositely to form anchors therefor, the said lower end of each socket being closed by forcing the walls thereof inwardly to form an indentation within which the plastic material is filled to prevent vertical movement of the said socket independent of the tie body, a plug fitting each of the said sockets, the said plug adapted to receive the rail fastening means, the said socket providing a reinforcement for the plastic body, as and for the purpose set forth.

1,080,474. IMPULSE AND ROTARY STEM WINDING AND SETTING WATCH. ABRAHAM PLEAN, New York, N. Y. Filed May 22, 1913. Serial No. 769,198. (Cl. 58-67.)

1. The combination of a watch case provided with a tubular pendent having guideways, a sliding knob on said pendent engaging said guideways, a watch bow carried on said knob, a crown guided in said knob, a sliding rotary stem connected with said crown and extending through said knob and pendent, a winding wheel, means connecting said stem with the winding wheel for imparting a winding action by an inward thrust of said crown, knob and stem, and adjustable connecting means between said stem and dial train for imparting a setting action thereto by a rotary motion of said stem.

2. The combination of a watch case provided with a hollow pendent, a sliding knob movable on said pendent and provided with an annular recess in its outer end, a watch bow pivoted on said knob, a crown sliding on said knob and provided with a flange engaging said recess, and a rotary push stem connected with said crown.



3. The combination of a watch case provided with a hollow pendent, a sliding knob movable on said pendent and provided with an annular recess in its outer end, a watch bow pivoted on said knob, a crown sliding on said knob and provided with a flange engaging said recess, a rotary push stem connected with said crown, and means within said pendent for holding said rotary push stem in different adjusted positions.

4. The combination of a watch case provided with a hollow pendent, a sliding knob movable on said pendent and provided with an annular recess in its outer end, a watch bow pivoted on said knob, a crown sliding on said knob and provided with a flange engaging said recess, a rotary push stem connected with said crown and provided with shoulders, and a collar supported in said pendent and provided with spring gripping jaws adapted to engage said shoulders or beads on said stem.

5. The combination of a watch works, a watch case provided with a hollow pendent, a sliding rotary stem adapted to reciprocate and rotate in said pendent and provided at its outer end with a crown and at its inner end with an angular projection, a rotary sliding shaft in said case having at its outer end an angular socket engaged by said stem, a pinion on said shaft, a slide provided with a perforated lug engaging said shaft, a pawl and ratchet mechanism connected with the winding mechanism of said works, a link connecting said slide with said pawl and ratchet mechanism, a setting train, and means for adjusting said shaft in outward position to bring said pinion in connection with said setting train.

[Claim 6 not printed in the Gazette.]

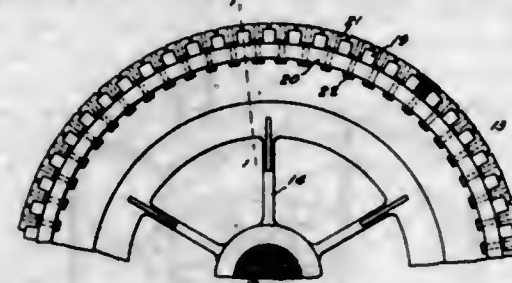
1,080,475. INDUCTION-MOTOR. WILLIAM H. POWELL, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Mar. 4, 1911. Serial No. 612,416. (Cl. 172-120.)

1. In an induction motor, a squirrel cage winding including conducting bars and short-circuiting rings, and means including members in electrical contact with the outermost sides and adjacent sides of adjacent conducting bars, securing said bars to said short-circuiting rings.

2. In an induction motor, a squirrel cage winding including conducting bars and short-circuiting rings, and members having wedge portions located between adjacent bars and being in electrical contact with the outer sides and with the adjacent sides of adjacent bars.

3. In an induction motor, a squirrel cage winding including conducting bars and short-circuiting rings, members having wedge portions located between adjacent bars,

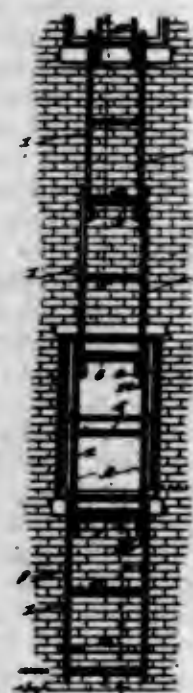
and means for drawing said members into electrical and mechanical engagement with the outer and with the radial sides of said bars.



4. In an induction motor, a squirrel cage winding including conducting bars and short-circuiting rings, and means in electrical engagement with the outer sides and with the adjacent substantially radial sides of adjacent bars for forcing said bars into engagement with said short-circuiting rings and securing said bars in place.

5. In an induction motor, an armature winding including a plurality of conducting bars at the periphery of said armature, a plurality of short-circuiting rings, and means for securing the end portions of said bars to said rings comprising members having portions engaging the outer sides of said bars and portions extending between adjacent bars, and means engaging said rings for drawing said members into engagement with the outer sides and with the substantially radial sides of adjacent bars and for securing said bars to said rings.

1,080,476. FIRE-ESCAPE. DEADERICK IGON REED, Knoxville, Tenn. Filed Oct. 15, 1912. Serial No. 725,899. (Cl. 228-24.)

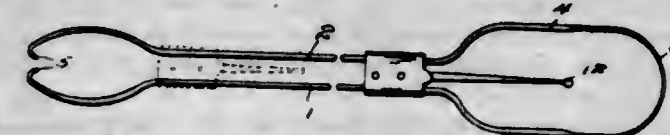


A telescoping ladder comprising a plurality of sections adapted to slide one within the other and each composed of side bars having longitudinal grooves in the confronting faces thereof and recesses each formed in one wall of one of the grooves and opening thereinto adjacent to the upper end thereof, rungs interconnecting said bars, blocks on the outer sides of said side bars of each sliding section adjacent to the lower ends thereof and disposed within the grooves in the next adjacent section, and dogs disposed within the recesses and normally lying within the grooves in the path of movement of the respective blocks whereby the sections may be locked in ladder formation.

1,080,477. OBSTETRICAL INSTRUMENT. WORTH B. REEVE and NELSON SIGLIN, Aurelia, Iowa. Filed Aug. 9, 1913. Serial No. 783,954. (Cl. 128-27.)

1. An instrument of the character described comprising substantially parallel blades, means defining a resilient

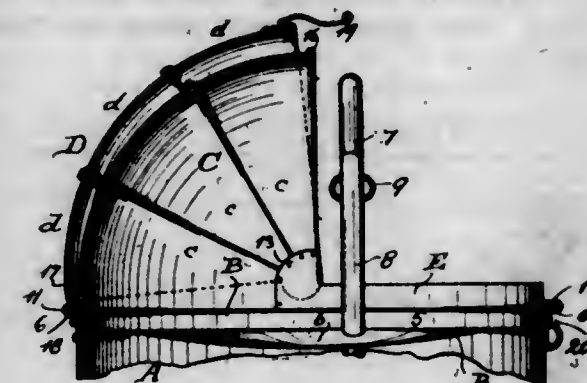
connection between adjacent ends of said blades, and a sliding fulcrum member mounted upon the blades adapted to slide away from the resilient connection.



2. An instrument of the character described, comprising substantially parallel blades resiliently connected together at one end, and a block slidably mounted upon the blades and adapted to move toward the free end of the blades to form a fulcrum.

3. An instrument of the character described, comprising substantially parallel blades resiliently connected at one end, a block slidably mounted upon said blades intermediate the ends thereof and forming a fulcrum member, the free ends of the blades adapted to separate as the resiliently connected ends of the blades are compressed.

1,080,478. HOOD FOR DISPENSING-TANKS. THEODOR REIS, Cincinnati, Ohio. Filed Jan. 23, 1913. Serial No. 743,712. (Cl. 221-73.)



1. In a vessel of the kind described, the combination of a top and of a hood permanently connected to each other, a body to which the top is fitted and which is provided with an opening near its upper edge, a pin on the top adapted to occupy this opening and complementary locking means provided respectively on the top and on the body and diametrically opposite the opening and pin mentioned and whereby the top is detachably held to the body.

2. In a vessel of the kind described, the combination of a cylindrical body, a drip pan provided at its upper end and a semi-globular hood for this pan consisting of two sections made up of a number of congruent segmental parts each curved in two directions so as to conform, when connected to each other, to the continuous curve of the hood of semi-globular shape, one of these sections being adjustably connected.

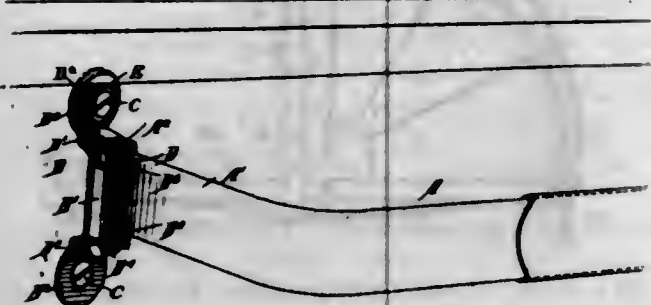
3. In a vessel of the kind described, the combination of a cylindrical body, a semi-globular hood above the top of the same, consisting of two sections each forming substantially one half of the hood and each made up of congruent segmental parts, diametrically opposite gussets on each section where the segmental parts thereof come together in the axial portions of the sections and pivots provided on the gussets of one of the sections adapted to occupy bearings in the gussets of the other section whereby one section is adjustably supported with reference to the other section.

4. In a vessel of the kind described, the combination of a cylindrical body, a circular drip-pan provided at the upper end of the same, a semi-globular hood for this pan consisting of two sections one of which has one of its semi-circular edges fitted to the pan and connected thereto, its other, upstanding, edge being provided with a bead around the outside of the section, a semi-circular curb extending from the lower end of this edge outwardly and around the drip-pan, and pivots whereby the other hood-section is adjustably supported, permitting it to assume a position in which one of its edges is adapted to drop over the curb mentioned, its other edge being provided with a bead around the inside of the section which is adapted to

contact with the bead on the outside of the other section whereby a snugly fitting closure is obtained at both edges of the adjustable section, said pivots being eccentrically located with reference to the axial portions of both sections so that, when the adjustable section is moved into open position, it swings away from and clears the outside of the other section.

5. In a vessel of the kind described, the combination of a cylindrical body, a top for the same, a semi-globular hood consisting of two complementary sections provided above this top, one of these sections at one of its edges being rigidly connected to said top, and pivots on which the other section is mounted in a manner to permit adjustment with reference to the section first mentioned and to the top and so as to either open or close access to this latter, said pivots being eccentrically located with reference to the axial centers of both sections so that the movable hood-section, when moved into the open position, is caused to swing clear of the other section and when moved into closed position, its edges align closely with the top and with the free edge of the other section respectively and form therewith the semi-globular hood.

1,080,479. CURTAIN-FIXTURE. HENRY REUBEL, New York, N. Y. Filed Sept. 28, 1912. Serial No. 722,891. (Cl. 156—22.)



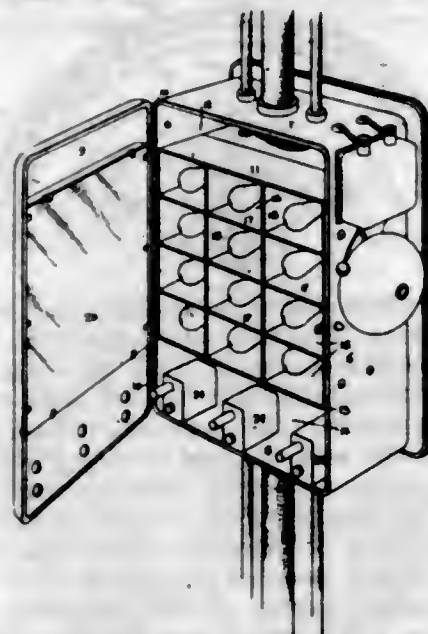
1. A curtain fixture, comprising a curtain rod provided at its ends with tubular heads, brackets having bearings for the reception of the said heads, and springs attached to the said brackets and extending within the said bearings and through the said tubular heads.

2. A curtain fixture, comprising a curtain rod provided at its end with tubular heads, brackets having bearings for the reception of the said heads, and springs attached to the said brackets and extending within the said bearings and through the said tubular heads, the free ends of the springs having offsets adjacent the ends of the heads.

3. A curtain fixture, comprising a flat curtain rod having its ends bent into tubular heads, brackets each having a tubular bearing and integral attaching members, the bearing being split at the front and in the direction of the length of the bearing, the said heads engaging the bearings on the said brackets and the portions of the rod adjacent the heads fitting into the splits of the bearings, and a spring secured at one end to one of the attaching members of a bracket and extending within the bearing of the bracket and through the tubular head, the free end of the spring having an offset immediately adjacent the end of the head.

4. A curtain fixture, comprising a flat curtain rod having its ends bent into tubular heads, brackets each having a tubular bearing and integral attaching members, the bearing being split at the front and in the direction of the length of the bearing, the said heads engaging the bearings on the said brackets, and the portions of the rod adjacent the heads fitting into the splits of the bearings, and a spring for each bracket and having one end attached to one of the attaching members of the bracket, the spring having an angular connection with the attached end adjacent one end of the bracket bearing, the spring extending through the bracket bearing and through the corresponding head, and the spring having a V-shaped terminal immediately outside the corresponding end of the tubular head.

1,080,480. ELECTRIC FIRE-ALARM. FREDERICK RECORDS and MAHLON LEWRY, New York, N. Y., assignors of one-third to Samuel Shapiro, Brooklyn, N. Y. Filed Dec. 27, 1912. Serial No. 738,832. (Cl. 177—339.)



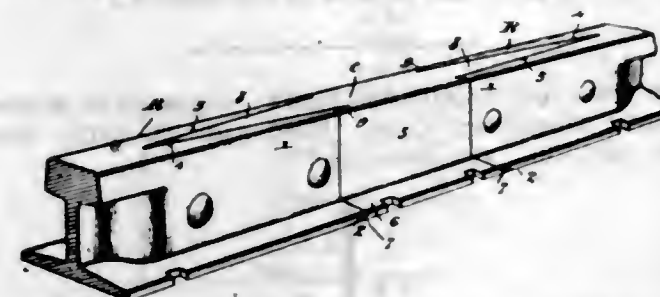
1. In a fire alarm, a box, a partition forming with the wall of the box a compartment, a second partition forming with the opposite wall of the box a second compartment, a third partition extending substantially from the first to the second partition, and having lamp sockets, partitions which with the third partition divide the space on one side of the third partition and between the first and second partitions into a plurality of compartments, electric lamps in the last-mentioned compartments, and seated in the lamp sockets, a face member in the box, covering the last-mentioned compartments, and having translucent portions, indicating predetermined locations, switches in one of the first-two-mentioned compartments, a bell, two main wires in the box on the other side of the third partition, wires extending from one of the main wires to the switches, wires on the last named side of the third partition connecting each of the switches with a terminal of one of the lamps, wires connecting the other terminals of the lamps with the other main wire, two bell wires on the last named side of the third partition, wires connecting one of the bell wires with the switches, and a wire connecting the other bell wire with the last-mentioned main wire.

2. In a fire alarm, a box, a partition forming with the wall of the box a compartment, a second partition forming with an opposite wall of the box a second compartment, a partition extending substantially from the first to the second partition, and having lamp sockets, partitions which with the third partition divide the space on one side of the third partition and between the first and second partitions into a plurality of compartments, electric lamps in the last-mentioned compartments, the electric lamps being seated in said lamp sockets, a face member for the box covering the last-mentioned compartments and having translucent portions indicating predetermined locations, switches in one of the first-two-mentioned compartments, a bell, two main wires in the box on the other side of the third partition, two bell wires in the box on the last named side of the third partition and connected with the bell, and wires connecting the main wires with the switches, the lamps and the bell wires, the last-mentioned wires extending to the first-two-mentioned compartments, where they may be readily connected and disconnected.

3. In a fire alarm, a box, a partition forming with a wall of the box a compartment, a second partition forming with another wall of the box a second compartment, a third partition connected with the first and second partitions intermediate of their front and rear edges, and having lamp sockets, partitions which divide the space in front of the third partition into a plurality of compartments, electric lamps in the last-mentioned compartments, the electric lamps being seated in said lamp sockets, a face member for the box covering the last-mentioned compart-

ments and having translucent portions indicating predetermined locations, switches in one of the first-two-mentioned compartments, a bell, two main wires in the box in the rear of the third partition, two bell wires in the box in the rear of the third partition, and connected with the bell, and wires connecting the main wires with the switches, the lamps and the bell wires, the third-mentioned wires extending to the first-two-mentioned compartments, whereby they may be readily connected and disconnected.

1,080,481. RAIL-JOINT. HENRY RIDDLE, North Liberty, Iowa, assignor of one-third to Frank Riddle, one-third to James Riddle, and one-third to Emil Riddle, North Liberty, Iowa. Filed Apr. 8, 1913. Serial No. 759,741. (Cl. 239—8.)



1. In a rail joint, two rails, each of said rails having its end enlarged and extending beyond its base, the said extending portions being inclined from their ends to the sides of the rails, the said rail ends being centrally slotted, the side walls of said slot being inclined toward each other and opening at the top of the rails to provide a substantially V-shaped pocket, a chair, said chair comprising a body portion conforming to the cross sectional contour of the enlarged rail ends, the body having its ends provided with centrally arranged longitudinally extending tongues, the opposite walls of said tongues being inclined toward each other, the opposite ends of the body adjacent its juncture with the tongues being depressed inwardly and angularly toward the tongues, the said tongues adapted to be received within the V-shaped pockets of the rail ends, the angular depressions at the corners of the body adapted to receive the inclined projecting ends of the rails, and means for securing the tongues within the V-shaped pockets.

2. In a rail joint, two rails having their ends enlarged, said ends projecting beyond the ends of the base flanges of the rails, the ends being slotted to provide V-shaped pockets, the side walls of which are vertically straight and open at the tops of the rails, and the lower wall of the pocket being horizontally straight, the projecting portions of the ends being inclined inwardly toward the sides or body of the rails, the underface of the base of the rails at the end thereof having a transverse groove, a chair, said chair including a body which is shaped to conform to the cross sectional formation of the enlarged ends of the rails, the ends of the body, at the base thereof, being formed with outwardly extending ledges, the ends, above the ledges, being centrally provided with longitudinally extending tongues, the side walls of which incline toward the ends of the tongues, the body, at its juncture with the tongues, having its corners undercut, the tongues of the body adapted to be received within the pockets of the rail ends, the inclined extending portions of the rail ends adapted to be received within the inclined recesses of the corners of the body of the chair, and the ledges of the body adapted to underlie the upper wall of the grooves of the ends of the rails when the joint is assembled, and means for securing the tongues within the pockets of the rails.

1,080,482. MOTOR-STARTING DEVICE. THOMAS J. ROBERTS, Atlanta, Ga. Filed Feb. 9, 1912. Serial No. 678,492. (Cl. 123—179.)

1. A starting device for motors comprising a spring-pressed cranking shaft, a cylinder in which the same is

mounted, a clutch upon said shaft, a hollow cylindrical member loosely mounted upon said shaft within said cylinder and having spiral grooves in its circumference, a piston mounted upon said cylindrical member, keys projecting from the piston and engaging said grooves, means for preventing the piston from rotation, automatically-operated valves regulating ports communicating with the cylinder on opposite sides of the piston through which ports compressed air is adapted to pass to act upon the piston, and means for controlling the compressed air which acts upon the piston, as set forth.



2. A starting device for motors comprising a spring-pressed cranking shaft, a cylinder in which the same is mounted, a clutch upon said shaft, a hollow cylindrical member loosely mounted upon said shaft within said cylinder and having spiral grooves in its circumference, a piston mounted upon said cylindrical member, keys projecting from the piston and engaging said grooves, means for preventing the piston from rotation, valves regulating ports communicating with the cylinder on opposite sides of the piston through which ports compressed air is adapted to pass to act upon the piston, a stem connecting said valves, a projection upon the stem against which the piston is adapted to contact to cause a longitudinal movement to be imparted to the stem, and means for controlling the compressed air which acts upon the piston, as set forth.

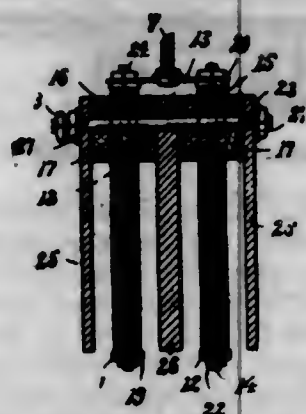
3. A starting device for motors comprising a spring-pressed cranking shaft, a cylinder in which the same is mounted, a clutch upon said shaft, a hollow cylindrical member loosely mounted upon said shaft within said cylinder and having spiral grooves in its circumference, a piston mounted upon said cylindrical member, keys projecting from the piston and engaging said grooves, a longitudinally disposed key projecting from the inner surface of the cylinder engaging a groove in the circumference of the piston, automatically-operated valves regulating ports communicating with the cylinder on opposite sides of the piston through which ports compressed air is adapted to pass to act upon the piston, and means for controlling the compressed air which acts upon the piston, as set forth.

4. A starting device for motors comprising a spring-pressed cranking shaft, a cylinder in which the same is mounted, a clutch upon said shaft, a hollow cylindrical member loosely mounted upon said shaft within said cylinder and having spiral grooves in its circumference, said member having a contracted portion movable through an opening in the head of the cylinder and terminating at its inner end in a shoulder, adapted to contact with the end of the cylinder to limit the longitudinal throw of said member in one direction, a piston mounted upon said member, keys fixed to the piston and projecting into said spiral grooves, means for holding the piston against rotation, automatically-operated valves regulating ports communicating with the cylinder on opposite sides of the piston through which ports compressed air is adapted to pass to act upon the piston, and means for controlling the compressed air which acts upon the piston, as set forth.

5. A starting device for motors comprising in combination with a motor shaft a spring-pressed cranking shaft, a cylinder in which the same is mounted, a clutch upon said cranking shaft, a hollow cylindrical member loosely mounted upon said cranking shaft within said cylinder and having a contracted portion movable through an opening in one end of the cylinder, teeth upon the contracted end of said member, a toothed clutch pinned to the cranking shaft and adapted to engage the teeth upon

said member, another clutch member carried by the cranking shaft and adapted to engage the motor shaft, the circumference of the cylindrical member having spiral grooves, a piston mounted upon said member having keys engaging said grooves, means for holding the piston against rotation, automatically-operated valves regulating ports communicating with the cylinder on opposite sides of the piston through which ports compressed air is adapted to pass to act upon the piston, and means for controlling the compressed air which acts upon the piston, as set forth.

1,080,483. PRIMARY BATTERY. CHARLES B. SCHOEN-MEHL, Waterbury, Conn. Filed Dec. 9, 1910. Serial No. 596,394. (Cl. 204—38.)



1. In a primary battery of the class described, the combination of an assembled element, comprising a pair of vertically arranged compressed oxides of copper negative electrodes, an insulating block attached to each of said electrodes, a vertically disposed positive plate arranged between the said blocks and the compressed oxide of copper negative electrodes, an additional vertically disposed positive electrode arranged on the opposite and outer side of each of the two said negative electrodes, means for mechanically and electrically connecting the positive electrodes, means for mechanically and electrically connecting the negative electrodes, and a single suspending means for suspending the assembled element within a battery jar.

2. In a primary battery of the class described, the combination of an assembled element, comprising a pair of vertically arranged compressed oxides of copper negative electrodes, an insulating block attached to each of said electrodes, a vertically disposed positive plate arranged between the said blocks and compressed oxide of copper negative electrodes, an additional vertically disposed positive electrode arranged on the opposite and outer side of each of the said negative electrodes, a bolt passing through the blocks and positive electrodes for connecting the same, a yoke for mechanically and electrically connecting the negative electrodes, and a single suspending rod for suspending the assembled element within a battery jar.

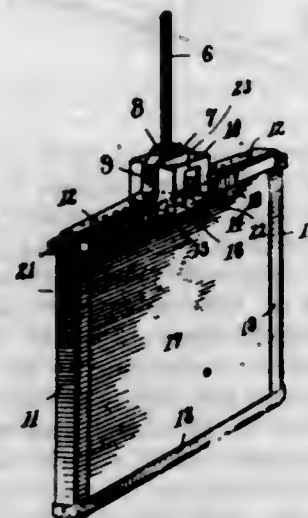
3. In a primary battery of the class described, the combination of an assembled element, comprising a pair of compressed oxides of copper negative electrodes, an insulating block attached to each of said electrodes, a positive electrode arranged between the said blocks and compressed oxide of copper negative electrodes, additional positive electrodes arranged on the opposite and outer sides of the two said negative electrodes, means for mechanically and electrically connecting the positive electrodes, means for mechanically and electrically connecting the negative electrodes, and a single suspending means for suspending the assembled element within a battery jar.

4. In a primary battery of the class described, the combination of an assembled element, comprising a negative electrode, a metal frame including in part two top cross pieces for engaging the edge thereof, an insulating block seated thereon, a metal clip attached to and covering the top portion of the block and the top member of the frame and having its yieldable end portions disposed against the under one of the top cross pieces to press

the same against the edge of the negative electrode, positive plates insulatively connected to the said frame, and means for supporting the said assembled elements within a battery jar.

5. In a primary battery of the class described, an assembled element, comprising a series of five or more electrodes, there being an odd number of positive electrodes and an even number of negative copper oxide electrodes alternately and vertically arranged side by side, the intermediate ones of said positive plates being thicker than the outer plates, means for insulatively separating such positive from the negative electrodes, means for mechanically and electrically connecting the negative electrodes, means for mechanically and electrically connecting the positive electrodes, and a single suspending means for supporting such assembled elements within a battery jar. [Claims 6 and 7 not printed in the Gazette.]

1,080,484. GALVANIC BATTERY. CHARLES B. SCHOEN-MEHL, Waterbury, Conn. Filed Apr. 23, 1912. Serial No. 692,735. (Cl. 204—38.)



1. In an electrode support for batteries, the combination of a sheet metal hanger, an insulating block mounted upon the hanger, a strip passing over the block and having its ends secured to the hanger, a plate electrode, a metal frame engaging the edges of the electrode and adapted to be supported within the hanger, and means for securing the plate and frame in said hanger.

2. In an electrode support for batteries, the combination of a sheet metal hanger, a block seated upon the hanger and having a recess therein, a plate electrode seated in the recess of the block, a channel frame engaging the several edges of the electrode and adapted to fit into the hanger, and means to engage the lower portions of the hanger and frame.

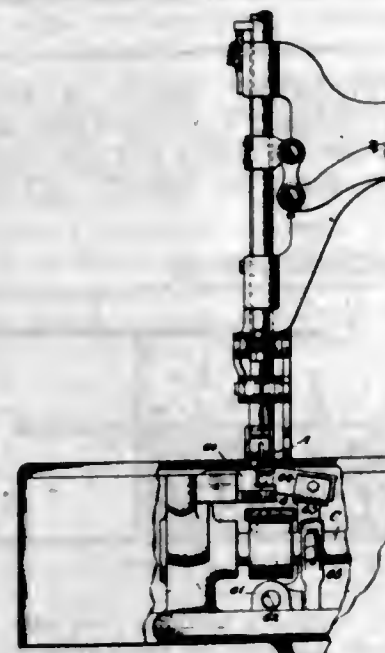
3. In an electrode support for batteries, the combination of a sheet metal hanger, a plate electrode, a frame for the electrode adapted to be retained within the hanger and comprising four separable sheet metal channel strips to engage the edges of the electrode, and having their end portions cut out to fit together and to form extensions to detachably secure the frame in said hanger.

4. In an electrode support for batteries, the combination of a sheet metal hanger having its two ends brought together at the top, a recessed insulating block seated on said end portions to support a positive electrode, a strip securing the said end portions of the hanger together, a plate electrode, separable sheet metal channel strips to engage the four edges of the electrode, said electrode and frame being adapted to be detachably retained in the said hanger.

5. An electrode support for batteries, comprising a loop like hanger, a plate electrode, a frame fitted around the edge portions of the electrode and adapted to be removably set into the hanger from either side and having integral extended parts to engage the hanger whereby the same may serve to detachably connect the frame and hanger.

[Claim 6 not printed in the Gazette.]

1,080,485. KNIFE-LUBRICATING DEVICE. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1906. Serial No. 294,258. (Cl. 112—6.)



1. A movable knife, a fixed knife, and a lubricant saturated pad held against the fixed knife and in contact also with a portion of the movable knife.

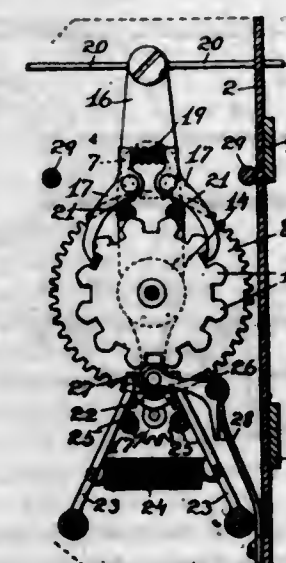
2. In combination, a fixed knife, a lubricant saturated pad, a clamp for holding the pad against the knife, and a movable knife coacting with said fixed knife.

3. In combination, a fixed knife having a finger projecting beyond its cutting edge, an L-shaped pad, a clamp for holding the pad against the knife, and a movable knife coacting with the fixed knife.

4. In combination, a pair of cutting knives, one of which is movable with respect to the other, one of said knives having a projecting finger in constant engagement with the other knife and maintaining said knives in proper relative position, and a lubricant saturated pad held in contact with a portion of the movable knife and also held against the other knife.

5. In combination, a pair of cutting knives, one of which is movable with respect to the other and having cutting edges, one of said knives having a projecting finger in contact with the other knife to maintain said knives in proper relative position, and a lubricant saturated pad held against said knives at a point below the cutting contact of said knives.

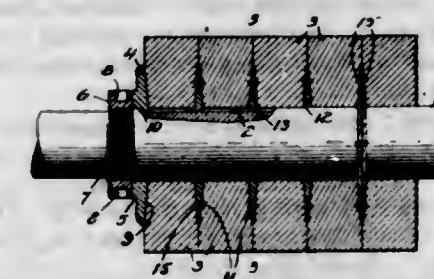
1,080,486. INTERMITTENT-GRIP DEVICE FOR EXHIBITORS. JOHN P. SHEAGREN, Burlington, Iowa. Filed Jan. 20, 1913. Serial No. 743,178. (Cl. 74—54.)



Reversible shifting means for changeable exhibitors, comprising a shaft, a ratchet wheel upon said shaft, a

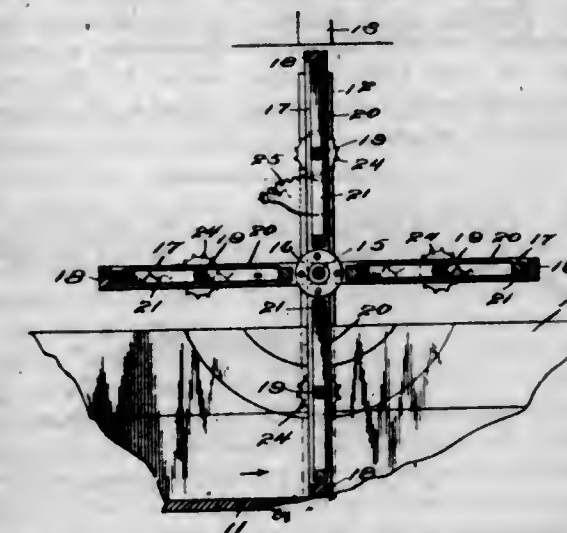
lever pivoted upon said shaft and carrying upon one arm thereof opposed pawls engaging said ratchet wheel and upon the other arm thereof an anti-friction roller, and means for returning said lever to normal position after operation in either direction, consisting of pivoted arms engaging opposite sides of said roller and a spring connecting said arms, and stops to limit the inward movement of the arms.

1,080,487. ROLLER FOR COTTON-GINS. SYLVANUS D. SHEPHERD, Newark, N. J., assignor to Southern Cotton Gin Company, a Corporation of Delaware. Filed July 14, 1911. Serial No. 638,521. (Cl. 13—20.)



A roller for cotton gins comprising a shaft, end clamping heads about the shaft and having convex inner clamping faces, felt washer disks about the shaft between said clamping heads and directly backed and sustained by the shaft, intermediate clamping heads feathered to the shaft and interposed between the felt disks, said intermediate heads being gradually and uniformly tapered from their inner to their outer edges to provide convexly beveled lateral clamping faces conforming to the convex faces of the end clamping heads and extending to thin edges at their peripheries, both the end and intermediate heads being of a diameter less than the diameter of the felt disks, but of a diameter greater than one-half the diameter of said disks, substantially as and for the purpose described, means for interlocking the compressed portions of the felt disks with the lateral faces of the intermediate heads, and means for securing said end clamping heads in position to clamp said disks and intermediate clamping heads together.

1,080,488. FISH-SCREEN. HARRY I. SHOTWELL, Wenatchee, Wash. Filed Sept. 2, 1913. Serial No. 787,756. (Cl. 61—5.)



1. In a fish screen, a main frame mounted to rotate; auxiliary frames mounted for planetary rotation upon the main frame; means to hold the main frame yieldingly against rotation; and means for imparting movement to one of the auxiliary frames when the main frame is moved by the action of the water.

2. In a fish screen, a main frame mounted to rotate; a plurality of screens mounted for planetary rotation upon the main frame; means to lock the main frame yieldingly against movement; means to lock the auxiliary frames yieldingly against movement; and means to rotate one of the auxiliary frames a half revolution at each quarter revolution of the main frame.

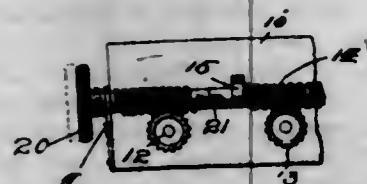
3. In a fish screen, a main frame mounted to rotate; screens mounted for planetary rotation upon the main frame; means to lock the main frame yielding against movement; means to lock the screens against rotary movement; and means to rotate each of the screens a half revolution at each complete revolution of the main frame.

4. In a fish screen, a rotating screen carrying frame; and means to reverse the screens at each presentation to the water.

5. In a fish-screen, a main frame provided with a plurality of radially extending frame sections; a plurality of auxiliary frames journaled in the radial frames; screens carried by the auxiliary frames; means to hold the auxiliary frames and screens in planes normally radial of the main frame; and means to reverse each of said auxiliary frames at each complete revolution of the main frame.

[Claims 6 and 7 not printed in the Gazette.]

1,080,489. EGG-SUPPORTING SURFACE FOR INCUBATORS. JAMES LOVELL SHUTE, Seattle, Wash. Filed Oct. 17, 1912. Serial No. 728,323. (Cl. 119-44.)



1. In an egg supporting device, a plurality of rollers, a flexible sheet covering the rollers and secured to certain of the latter, a pinion connected with each roller, means engaging the pinions and comprising a plurality of independent sections one of which is arranged to be operated separately, and means for operating the sections simultaneously.

2. In an egg supporting device, a plurality of rollers, a flexible sheet covering the rollers and secured to certain of the latter, a pinion connected with each roller, means engaging the pinions and comprising a plurality of independent sections one of which is arranged to be operated separately, and means for operating the sections simultaneously, said means last mentioned comprising interlocking members and a device for holding the members engaged.

3. In an egg supporting surface, a plurality of rollers spaced to support eggs therebetween, trunnions for said rollers, pinions carried upon the trunnions, a worm engaging all of said pinions, and means to disconnect a portion of said worm to rotate a part of said rollers independently of the others.

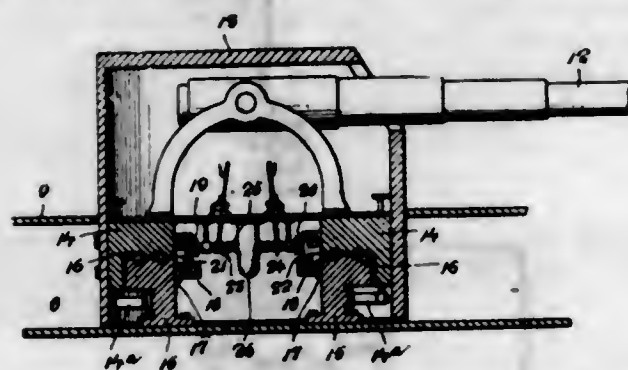
1,080,490. BATTLESHIP. HENRY M. SILVEIRA, Cambridge, Mass. Filed May 10, 1912. Serial No. 696,495. (Cl. 114-1.)



1. A battleship having a fighting deck extending on a continuous horizontal plane from bow to stern, a shield extending upwardly from the armored sides at the bow above the plane of the fighting deck, and a battery of guns arranged along the deck normally in the longitudinal plane of the shield and movable from side to side of the deck, said guns being arranged in overlapping pairs.

2. A battleship provided with a fighting deck and with a bow having its sides tapering to a point, a solid triangular shield at the apex of the bow rising above the fighting deck in the median line of the vessel, leaving clear spaces along the inclined sides of the bow between the same and the points of intersection of said sides of the bow with the sides of the body of the hull, and a longitudinal series of longitudinally disposed guns arranged in overlapping pairs and normally in the median line of the vessel and shield and mounted on tracks for movement athwart-ships to fire across the clear spaces of the inclined sides of the bow on either side of the plane of the shield.

1,080,491. BATTLESHIP. HENRY M. SILVEIRA, Cambridge, Mass. Original application filed May 10, 1912, Serial No. 696,495. Divided and this application filed Dec. 24, 1912. Serial No. 738,467. (Cl. 114-1.)

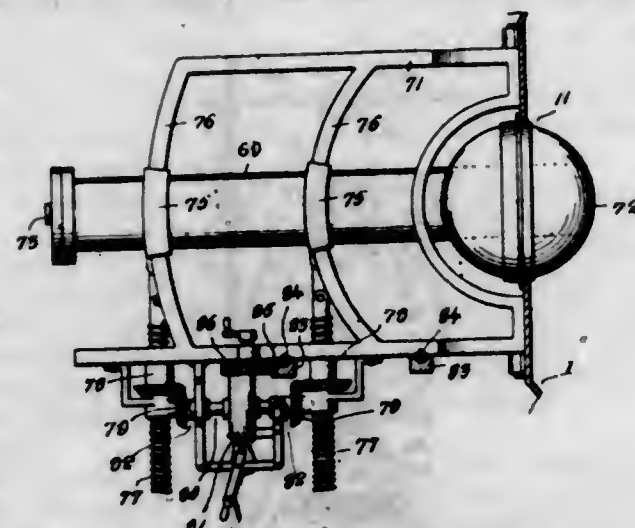


1. A battleship having a fighting deck and a deck below the same, carriages movable on trackways transversely of the vessel upon the lower deck, turrets supported by said carriages and extending therefrom upwardly through openings in the fighting deck, and guns mounted upon the carriages and projecting through the turrets.

2. A battleship having tapered bow and stern portions provided with upwardly projecting shields lying in the median line of the vessel, a battery of guns normally arranged to lie parallel with the vessel in the median line thereof and to be shifted laterally beyond said line to a firing position, said guns being arranged above the fighting deck of the ship, turrets extending through said deck within the ship, and means arranged below the fighting deck for shifting the guns laterally in either direction.

3. A battleship having a fighting deck and a deck below the same, and provided with tapering bow and stern portions having upstanding shields arranged in the median line of the vessel, transverse tracks upon the second named deck, carriages movable on said tracks laterally of the vessel beyond the zone protected by the shields, turrets supported by said carriages and extending upwardly through openings in the fighting deck, and guns mounted upon the carriages and projecting through the turrets.

1,080,492. BATTLESHIP. HENRY M. SILVEIRA, Cambridge, Mass. Original application filed May 10, 1912, Serial No. 696,495. Divided and this application filed Dec. 24, 1912. Serial No. 738,468. (Cl. 114-1.)



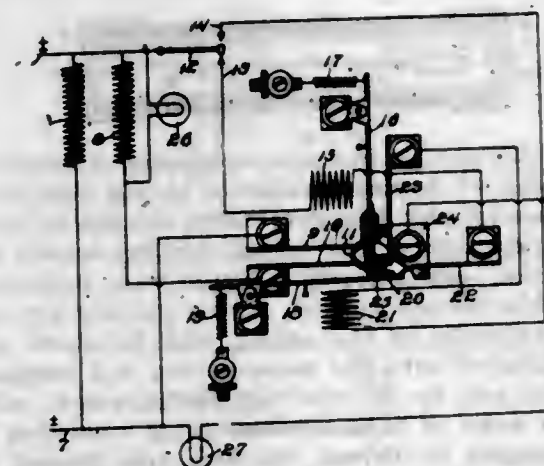
1. A battleship having its bow provided with forwardly converging sides, each having an opening therein, means disposed between the converging sides for charging torpedo tubes with a torpedo expelling fluid, and torpedo launching tubes movable into position to receive a charge of

fluid and thence into a position for the discharge of torpedoes through the openings.

2. A battleship having its bow provided with forwardly converging sides, each provided with a clearance recess and an opening communicating therewith, means disposed between said sides for supplying a motive fluid, torpedo launching devices pivotally mounted to swing to a position at right angles to the bow to receive a charge of fluid and to a position parallel with the openings to launch torpedoes therethrough, and means for vertically adjusting said torpedo launching devices.

3. A battle ship having a torpedo discharge port, a charging device, a trackway, a frame movable laterally with relation to the port and charging device, a universally mounted torpedo discharge tube vertically adjustable on said frame, spaced screw shafts pivotally connected with the tube, gear nuts engaging the respective shafts, gears engaging said gear nuts, a motor shaft, clutch devices for throwing said gears into and out of engagement with the motor shaft, and means movable to selectively adjust said clutch devices.

1,080,493. THERMOREGULATOR. WILLIAM J. SMITH, Urbana, Ill. Filed June 30, 1911. Serial No. 636,193. (Cl. 219-20.)



1. In an electrical system, the combination of a work circuit including a switch, an electromotive device for closing said switch, means for holding said switch in closed position, a winding for tripping said holding means, means for delivering current to said electromotive device and to said tripping winding to move said switch and means for limiting the flow of current through said electromotive device and through said tripping winding to currents of short duration.

2. A heating system comprising, in combination, an electric heater, a switch in circuit with said heater, a thermostat exposed to heat from said heater, a winding connected to receive current through said thermostat and having an armature adapted to close said heater switch, said armature having a spring effective for opening said switch, means for holding said switch in closed position, a winding arranged for tripping said holding means, said tripping winding being connected to said thermostat, and an auxiliary switch in circuit with each of said windings and movable automatically when said heater switch moves.

3. A heating system comprising, in combination, an electric heater, a switch in circuit with said heater, a thermostat exposed to heat from said heater, a winding receiving current through said thermostat and having a spring-pressed armature arranged to open and close said heater switch, means for holding said switch in closed position, a winding for tripping said holding means, and automatic means for cutting off the current through said windings immediately after movement of said switch, said thermostat and said windings being in a circuit which shunts the electric heater and its switch.

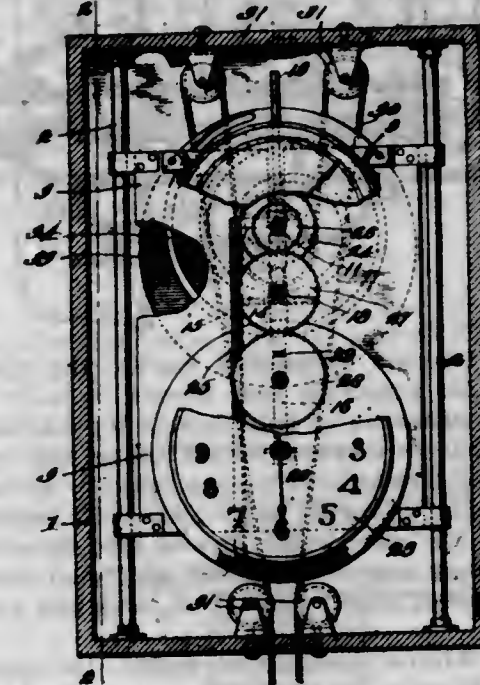
4. The combination, with a thermostat of a relay co-operatively related therewith, said relay having a winding connected with one pole of said thermostat, and an armature movable toward said winding when the current

flows through said winding, means for holding said armature close to said winding, a second winding connected with the other pole of said thermostat and in position to trip said holding means, a switch in circuit with each of said windings, one of said switches being arranged to open when said armature is attracted by its winding and the other of said switches being adapted to open when said armature moves away from its winding.

5. The combination of distributing conductors, an electric heater connected through a switch to said conductors, a thermostat heated by said electric heater, a winding adapted to receive current through said thermostat and having an armature for closing said switch, means for holding said switch in closed position, a winding for tripping said holding means, said tripping winding being connected to receive current through said thermostat, and an auxiliary switch for each of said windings, each of said auxiliary switches being movable automatically to open the circuit through its winding after a movement of said heater switch.

[Claim 6 not printed in the Gazette.]

1,080,494. AUTOMATIC SPEED INDICATING AND REGISTERING DEVICE. RICHARD STAR, U. S. Navy. Filed Sept. 30, 1912. Serial No. 723,153. (Cl. 235-91.)



1. In an automatic apparatus, the combination of an indicating device, a distance registering device, a clock mechanism for actuating said distance registering device, and a flexible element adapted to be operated by a speed indicating means and provided with a light supporting said apparatus for actuating said indicating device and governing the action of said distance-registering device.

2. In an automatic apparatus, the combination of an indicating device, a distance-registering device, a sprocket wheel for actuating said indicating device, a clock mechanism for actuating said distance-registering device, means actuated by said sprocket wheel for governing the action of said distance-registering mechanism, and a sprocket chain adapted to be operated by a speed indicating means and provided with a light supporting said sprocket wheel.

3. In an automatic apparatus, the combination of an indicating device, a distance-registering device, a sprocket wheel for actuating said indicating device, a clock mechanism for actuating said distance-registering device, means actuated by said sprocket wheel for governing the action of said distance-registering device, guides slidably supporting said automatic apparatus, and a sprocket chain adapted to be operated by a speed indicating means and provided with a light supporting said sprocket wheel.

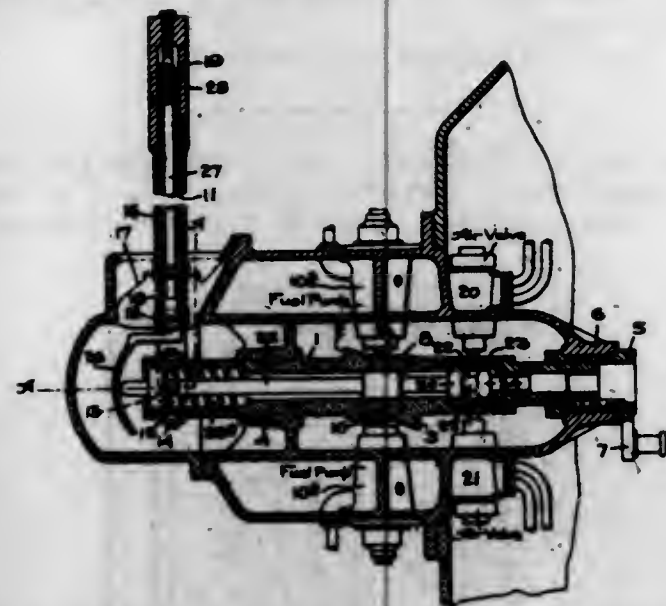
4. In an automatic apparatus, the combination of a registering device, clock mechanism for actuating said device, means for varying the extent of such actuation of said device, and means for automatically compensating for

the varying load on said clock mechanism due to such variation in the actuation of said device.

5. In an automatic apparatus, the combination of a registering device, clock mechanism for actuating said device, adjustable means for varying the extent of such actuation of said device, regulating means for automatically compensating for the varying load on said clock mechanism due to such variation in the actuation of said device, and a common means for actuating said adjustable means and regulating means.

[Claims 6 to 8 not printed in the Gazette.]

1,080,495. VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. KARL STEINBECKER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1912. Serial No. 683,500. (Cl. 123-181.)



1. In an internal combustion engine, the combination of a pump for supplying fuel thereto, a valve for controlling the admission of fluid thereto for starting, a hollow shaft that is common to the pump and valve and carries sets of forward and reverse cams for actuating the pump and valve, means for moving the shaft longitudinally to move all the corresponding cams into operative position, and means located within the shaft and acting independently thereof to put one set of cams into and out of operation.

2. In an internal combustion engine, the combination of a hollow shaft having fuel and starting cams, a casing in which the shaft is supported, a fuel pump supported by the casing and in alignment with the fuel cam, a starting valve also supported by the casing and in alignment with the starting cam, a means extending into the shaft for moving the starting cam into and out of action, and a device for actuating said means.

3. In an internal combustion engine, the combination of a hollow shaft having sets of fuel and starting cams arranged for forward driving and reversing, a casing for the shaft, a pair of oppositely disposed fuel pumps carried by the casing and registering with the fuel cams, a pair of oppositely disposed valves carried by the casing and registering with the starting cams, a lever for moving the shaft axially to cause one fuel cam or the other to register with the pumps and also to move the corresponding starting cam into register with the valves, a means extending into the shaft and movable longitudinally therein for moving the starting cams into operative relation to the valves, and means for rotating the shaft.

4. In an internal combustion engine, the combination of a longitudinally movable and rotatable shaft, a set of normally inactive cams driven by the shaft which are movable radially thereon, a rod in said shaft, wedges in the shaft for moving the cams radially that are actuated by the rod, valves arranged to cooperate with and be actuated by said cams, a second set of normally active cams mounted on the shaft and rotated thereby, members cooperating with and actuated by said second set of cams,

a lever for moving the shaft axially to position the first named cams and to move the second set of cams into operative relation to said members, and an actuator for moving the rod in a manner to cause said wedges to move the first named cams into operative relation with the cooperating valves.

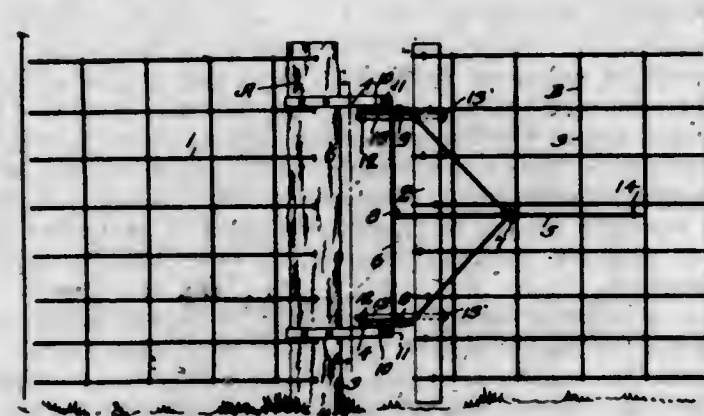
5. In an internal combustion engine, the combination of a longitudinally movable and rotatable shaft, a set of normally inactive cams driven by the shaft which are movable radially thereon, a rod in said shaft, wedges in the shaft for moving the cams radially that are actuated by the rod, valves arranged to cooperate with and be actuated by said cams, a second set of normally active cams mounted on the shaft and rotated thereby, members cooperating with and actuated by said second set of cams, a tubular lever for moving the shaft axially to position the first set of cams and to move the second set of cams into operative relation to said members, and an actuator located in the lever for moving said wedges in a manner to force said first set of cams into cooperative relation with the valves.

1,080,496. FUSE FOR ELECTRIC CUT-OUTS. LEWIS E. STEWARD, Muncie, Ind. Filed Dec. 10, 1912. Serial No. 735,989. (Cl. 175-273.)



A fuse for electric cut-outs comprising a tubular open ended casing of insulated material having vent openings formed therein, end caps detachably secured to and closing the open ends of the casing, binding screws carried by said caps, substantially L-shaped fuse terminals disposed within the casing, each having its long arm extending longitudinally of the casing, and its short arm extending parallel with the adjacent cap and engaged and fastened thereto by the coating binding screw, said long and short arms of each terminal being connected by an offset arranged to dispose the long arm thereof in the plane of the binding screws, in bent lugs upon the caps engaging the opposite sides of the short arms of the terminals and holding said terminals from rotation, and a fuse strip detachably connected with the long arms of the fuse terminals and supported thereby substantially in alignment with said binding screws.

1,080,497. FRAMELESS GATE. MARCUS A. STICKLEY, Strasburg, Va. Filed Nov. 11, 1912. Serial No. 730,769. (Cl. 39-101.)



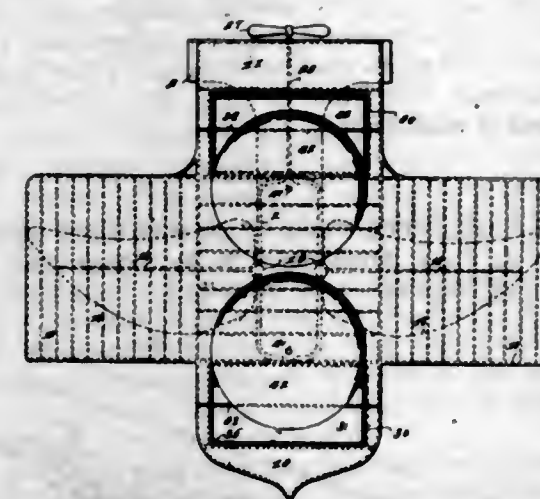
1. In combination, a relatively stationary member provided with spaced open hook journals, a gate comprising a relatively movable member, a lever comprising spaced fulcrum members projecting from the outer sides and adapted to be detachably connected in the hook journals aforesaid, and pivot members projecting from the sides opposite said fulcrum members and connected with the relatively movable member aforesaid.

2. In combination, a relatively stationary member provided with spaced journals, a gate comprising a relatively

movable member, a lever comprising a frame, fulcrum plates mounted upon the opposite ends of the frame and having trunnions projecting from one side thereof and adapted to be engaged with the journals aforesaid, and pivot pins projecting from the opposite side of said plates and connected with the end bar of the gate, said pivot pins being movable past the center of stress on the trunnions by movement of the lever aforesaid.

3. In combination, a relatively stationary fence post, spaced journals in the form of open hooks secured to said post, a relatively movable gate provided with an end bar, eye bolts secured to said end bar, a lever comprising a frame, fulcrum plates secured to the opposite ends of said frame, said plates being provided with trunnions projecting from one side thereof, and pivot pins projecting from the opposite side, the trunnions being located intermediate the pivot pins and the frame aforesaid and being adapted to be detachably connected with the hooked journals, whereby movement of the lever will move the pivot pins beyond the center of stress on the trunnions.

1,080,498. AIRSHIP. BENJAMIN FRANK STONER, Newark, N. J.; Ella V. Stoner, administratrix of said Benjamin F. Stoner, deceased. Filed Dec. 24, 1912. Serial No. 738,444. (Cl. 244-13.)



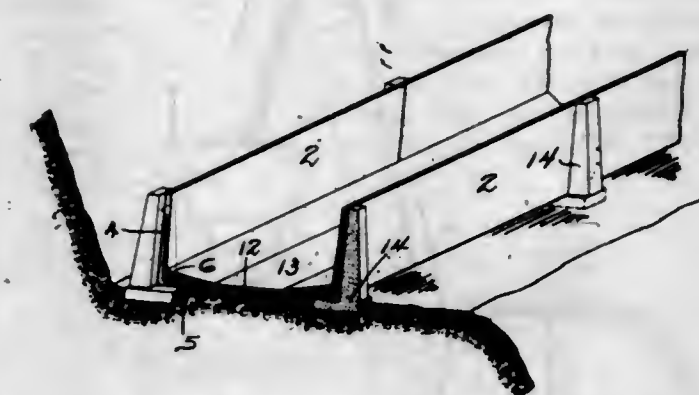
1. A flying machine including a main frame, a boat shaped car carried thereby and having an attenuated tail portion provided with a transverse portion carrying a transverse tail piece, an aeroplane surface of substantially cruciform shape supported by the frame, said surface presenting head and tail portions and transverse wing portions, flapping wings universally jointed to the frame and arranged beneath the transverse wing portions of the aeroplane surface, a propeller shaft extending longitudinally above the tail piece of the car, a propeller carried by said shaft, a motor for driving the propeller shaft, a second motor, and mechanism actuated by said second motor for vertically swinging and rocking the flapping wings.

2. A flying machine comprising a boat shaped car having an attenuated tail portion with a transverse tail piece, a frame rising from the car, an aeroplane surface of substantially cruciform shape supported by the frame, said surface presenting head and tail portions and transverse wing portions flapping wings universally jointed to the frame and arranged beneath the transverse wing portions of the aeroplane surface, a propeller shaft extending longitudinally above the tail piece of the car, a propeller carried by said shaft, a motor for operating the propeller shaft, a transverse transmission shaft on the frame, eccentric mechanism actuated by said shaft for vertically swinging and rocking the flapping wings, and a second motor for driving said transmission shaft.

1,080,499. CONCRETE DITCH. SMITH L. STOVALL, Visalia, Cal. Filed Nov. 27, 1912. Serial No. 733,798. (Cl. 61-5.)

1. In a concrete ditch, a separately molded side slab, a flange extending inwardly from the lower edge of said slab and bonding means extending laterally from said flange.

2. In a concrete ditch, a separately molded side slab, bonding means extending laterally from said slab adjacent the lower edge thereof, and a bottom of newly mixed concrete embedding said bonding means.



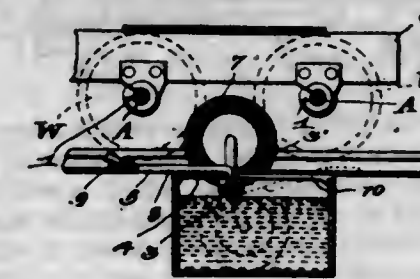
3. In a concrete ditch, a separately molded side slab provided on its lower edge with an intumed flange, and bonding means embedded in said slab and projecting from said flange and from the face of the slab above the flange.

4. A side for a concrete ditch comprising a separately molded slab provided on its lower edge with a flange, bonding means extending laterally from the face of said flange, and bonding means extending outwardly and downwardly from said slab immediately above said flange.

5. In a concrete ditch, a plurality of separately formed side slabs, an intumed flange on the lower edge of said slabs, bonding means extending from said slabs adjacent the lower edge, and a bottom of newly mixed concrete embedding said bonding means.

[Claims 6 to 9 not printed in the Gazette.]

1,080,500. MINE-CAR LUBRICATOR. JOSEPH HENRY THOMAS, Independence, Colo. Filed May 29, 1913. Serial No. 770,716. (Cl. 184-2.)



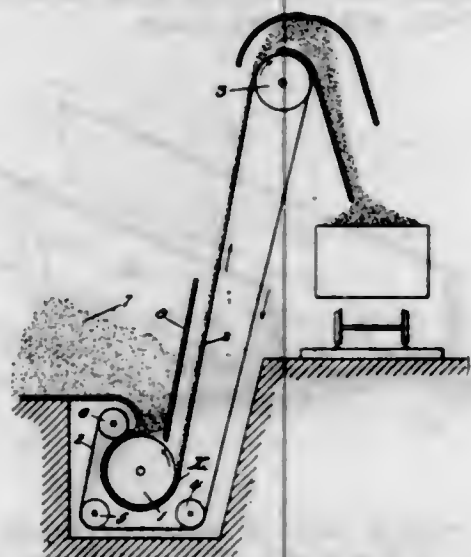
1. In a car axle lubricator, the combination with a casing sunk in the ground between the rails, and a top for said casing having three slots; of a shaft mounted for oscillation within the casing and having cranked ends, brushes carried by said ends and adapted to contact with the car-bearings when said ends and brushes are raised through two of the slots in the cover, and an arm projecting from said shaft through the remaining slot of the cover.

2. In a car axle lubricator, the combination with a casing sunk in the ground between the rails, and a top for said casing having three slots; of a shaft mounted for oscillation within the casing and having cranked ends, brushes carried by said ends and adapted to contact with the car-bearings when said ends and brushes are raised through two of the slots in the cover, an arm rising from the shaft parallel with said cranks and then bent at right angles thereto, and a weight at the other end of said arm, the latter adapted to be moved through the intermediate slot in the cover.

1,080,501. CONVEYER. LUIZ W. TIBYRICA, São Paulo, Brazil. Filed Dec. 13, 1912. Serial No. 736,453. (Cl. 193-4.)

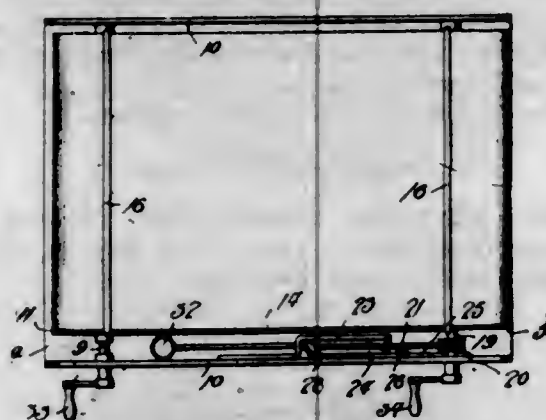
An elevating conveyer comprising a driving drum, an endless belt passing part way around the drum and up-

wardly therefrom with an inclination away from the vertical plane in which the axis of the drum lies, and means



for feeding material to be elevated between the belt and drum.

1,080,502. MANUSCRIPT-HOLDER. JAMES TRIPLETT, Columbia, Ky., assignor of one-half to A. D. Patterson, Columbia, Ky. Filed Apr. 20, 1912. Serial No. 692,105. (Cl. 11-22.)



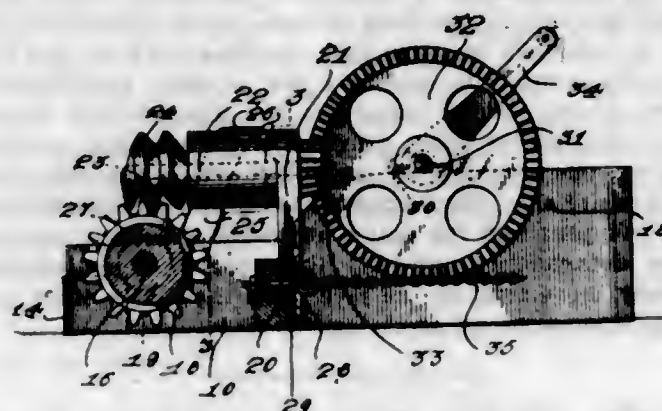
A manuscript holder including a supporting frame, a rotatable feed device mounted in one end of the frame and upon which the manuscript is coiled, a rotatable take-up device mounted in the opposite end of the frame to which one end of the manuscript is connected, a table arranged between and above said take up and feed device, a gear operatively connected with the take up device, a lever mounted in the frame, a push rod normally projecting above the table and connected to the lever, means intermediate the lever and gear to operate the gear a predetermined distance upon each depression of the push rod, said push rod being formed with a notch to frictionally cooperate with the shaft of the feed device to lock the same against rotation.

1,080,503. GEARING FOR STRETCHERS. SAMUEL A. ULRICH, Mendota, Mo. Filed Feb. 25, 1913. Serial No. 750,614. (Cl. 74-36.)

1. A device of the character described comprising side bars, bracing means connecting said side bars, a drum rotatably mounted between said side bars, said drum being provided at one end with an integral gear wheel, a standard secured to one of said bracing members, a bearing formed at the upper end of said standard, a shaft passing through said bearing and having a worm gear at its forward end, said worm gear meshing with the gear wheel of said drum, bracing means for said bearing for holding said worm gear in engagement with said gear wheel, and operating means secured to said side bars for rotating said shaft.

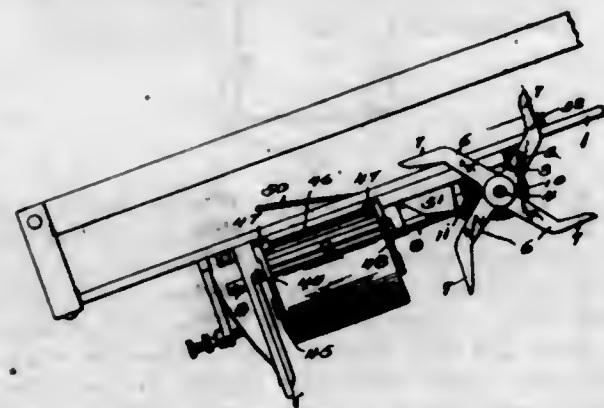
2. A device of the character described comprising a plurality of side bars, bracing members positioned between said side bars, a drum rotatably mounted between said side

bars, an integral gear wheel formed at one end of said drum, an upright standard mounted upon one of said bracing members, a cylindrical bearing made integral with said standard at its upper end, a shaft passing through said cylindrical bearing and having a worm gear positioned at one end, a brace provided with an angle foot at its lower end, said angle foot engaging one of said side bars, said brace having its upper end bent so as to fit snugly



against the outer face of said cylindrical bearing, operating means mounted upon the rear end portion of said side bars, a gear wheel mounted upon the rear end of said shaft mounted in said cylindrical bearing, said operating means rotating said worm gear by engagement with said gear wheel, said worm gear rotating said drum by means of its engagement with said integral gear wheel positioned at one end of said drum.

1,080,504. GRAVITY-FEED CAN-MARKING MACHINE. ELMER A. VARY, Middleport, N. Y. Filed Apr. 7, 1913. Serial No. 759,464. (Cl. 101-83.)



1. In combination with an inclined track for receptacles, means for passing one receptacle along the track at a time, a printing drum adapted to be operated by the receptacle as the latter passes along the tracks, a plurality of printing plates carried by the drum, and means for holding the plates in fixed position while the receptacle passes thereover.

2. In combination with an inclined track for receptacles, a rotatably mounted drum carrying printing plates, the axis of the drum being parallel to the tracks, a forked guiding member pivotally mounted and having the prongs adapted to lie upon each side of one of the printing plates, means carried by the fork adapted to check the passage of receptacles on the track when the prongs lie on each side of one of the printing plates, said means being thrown into position as the prongs are depressed by a receptacle.

3. The combination with an inclined track for receptacles, a drum rotatably mounted, a plurality of printing plates carried by the drum, a pivoted member adapted to pass one receptacle at a time, forks secured to the pivoted member and adapted to guide the receptacle.

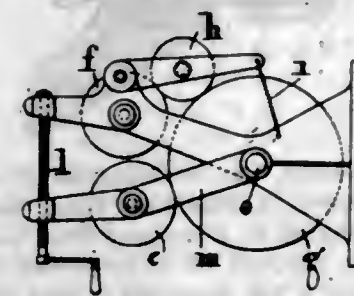
4. The combination with an inclined track for receptacles, of a rotatably mounted drum, a plurality of printing plates carried by the drum, means adapted to pass one receptacle at a time, means for rotating the drum a fixed distance as each receptacle passes, guides actuated by

the means for guiding the receptacle, and means actuated by the guides as the same are depressed for preventing passage of other receptacles.

5. The combination with an inclined track for receptacles, of a rotatably mounted drum carrying a plurality of printing plates, pivoted means for passing one receptacle at a time to the drum, guide forks rigid with said means adapted to surround a printing plate when the plate is printing a receptacle, the forks rising to permit the rotation of the drum and move the pivoted means to pass another can.

[Claims 6 to 8 not printed in the Gazette.]

1,080,505. GRINDING OF TOOTHED WHEELS, MILLING-CUTTERS, AND THE LIKE. ALBERT AICHELE, Baden, Switzerland. Original application filed Dec. 15, 1911, Serial No. 665,895. Divided and this application filed Aug. 8, 1913. Serial No. 783,745. (Cl. 51-7.)

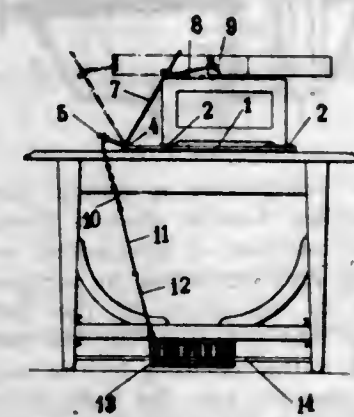


1. A method of mutually grinding toothed wheels or the like which consists in mounting two toothed wheels upon separate shafts, driving each of said shafts moving the wheels into mesh and supplying an abrasive to the same, as set forth.

2. A method of mutually grinding toothed wheels or the like which consists in mounting two toothed wheels upon separate shafts, driving each of said shafts moving the wheels into mesh, supplying an abrasive to the same, and imparting lateral movement to at least one of said wheels along the axis thereof, as set forth.

3. A method of mutually grinding toothed wheels or the like which consists in mounting two toothed wheels upon separate shafts, driving each of said shafts moving the wheels into mesh, supplying an abrasive to the same, displacing one of the wheels about its axis relatively to its driving means, as and for the purpose described.

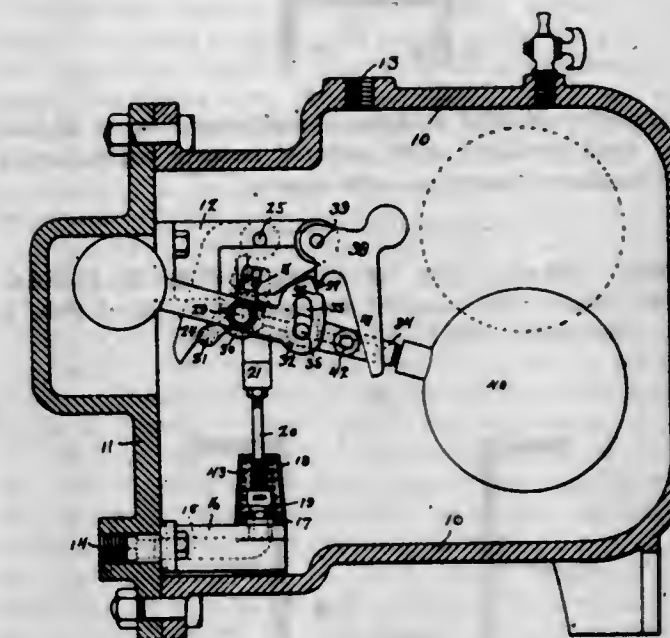
1,080,506. TYPE-WRITER ATTACHMENT. FREDERICK HENRY ALDER, Zurich, Switzerland. Filed Sept. 30, 1912. Serial No. 723,246. (Cl. 197-65.)



A device for operating carriages of type-writers and simultaneously line spacing, a base on which the type-writer may rest having bearings formed therewith, a shaft mounted in the bearings, and having an end portion extending at an angle to the main portion of the shaft, a member connected to the angular end of the shaft for oscillating the angular end of the shaft, a lever, means for securing the lever to the shaft, a link adapted for connection with either end of a carriage of a typewriter whereby the carriage may be pulled or pushed, and means

for adjustably connecting the link to the lever whereby the throw of the shaft may be made coextensive with the distance of travel of a carriage of a typewriter.

1,080,507. TRAP-VALVE MECHANISM. JOHN BAIN ARMSTRONG, Wilkes-Barre, Pa., assignor of one-third to William Lloyd, Drifton, Pa., one-third to John Lloyd, Wilkes-Barre, Pa., and one-third to W. H. Nicholson and Company, Inc., Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed May 31, 1913. Serial No. 770,985. (Cl. 137-103.)



1. In a valve control mechanism of the type described, a valve, a weighted lever for opening the same, a float cooperating with said lever, a common axis of said float and weighted lever, a gravity latch to hold the valve open while the float is falling, and means rendered operative by the descent of the float for moving said gravity latch out of engagement with the valve to permit the latter to close.

2. In a valve control mechanism of the type described, a valve, a weighted lever, a lost motion pin and slot connection between the same, a float cooperating with said weighted lever, a common axis of said float and weighted lever, a gravity latch to hold the valve open while the float is falling and means rendered operative by the descent of the float for moving said gravity latch out of engagement with the valve to permit the latter to close.

3. In a valve control mechanism of the type described, a valve having an upwardly extending stem, a latching element thereon, a gravity latch adapted to engage therewith when the valve is open, a weighted lever for opening the valve, a float cooperating with said weighted lever, a common axis of said float and weighted lever and means rendered operative upon the fall of the float to move said latch out of engagement with the latching element on the valve stem.

4. In a valve control mechanism of the type described, a valve having an upwardly extending stem, a latching element thereon, a gravity latch adapted to engage therewith when the valve is open, a weighted lever having a lost motion connection with said valve stem for opening the valve, a float cooperating with said weighted lever, a common axis of said float and weighted lever and means rendered operative upon the fall of the float to move said latch out of engagement with the latching element on the valve stem.

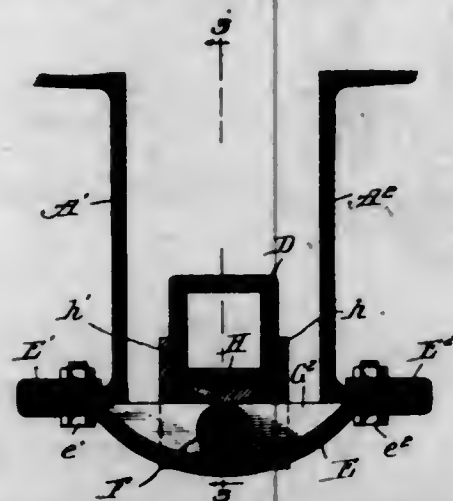
5. In a valve control mechanism of the type described, a valve having an upwardly extending stem, a latching element thereon, a gravity latch cooperating therewith to hold the valve open, a weighted lever to open the valve, a float cooperating with the weighted lever to raise the latter after it has fallen, a common axis of said float and weighted lever, and an arm moving with said weighted lever to free the gravity latch from the valve stem on the fall of the float, substantially as described.

1,080,508. ADHESIVE-PLASTER SPOOL. PERRY S. BAUER, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed Apr. 28, 1913. Serial No. 764,037. (Cl. 242-123.)



An adhesive plaster package comprising a spool having circular ends provided with serrated cutting edges, and a plaster bandage wound on said spool.

1,080,509. DRAW-BAR SUPPORT FOR RAILWAY-CARS. PERCY M. ELLIOTT, Chicago, Ill. Filed Feb. 4, 1913. Serial No. 746,115. (Cl. 213-42.)



1. The combination with a draw-bar having a convex under surface movable therewith, of an underlying supporting member having a concave upper surface, and a rolling element supported on the concave surface of said member and upon which is supported the convex surface carried by the draw-bar.

2. The combination with a draw-bar, of a carrier plate having a concave upper surface, a saddle in which the draw-bar is supported and having a convex under surface, and a rolling element interposed between the concave surface of said plate and the convex surface of said saddle.

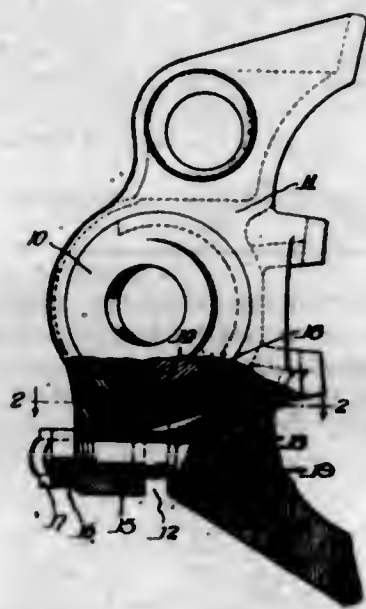
3. The combination with a draw-bar, of a carrier plate having a cylindrically concave upper surface, a saddle in which the draw-bar is supported and having a cylindrically convex under surface, and a bearing supported on the concave surface of said plate and upon which is supported the convex surface of said saddle.

4. The combination with a car having metal beam center sills arranged with the flanges thereon projecting outwardly, of a draw-bar having a lateral plate between the channel beam center sills, a carrier plate underlying the center sills and having a concave upper surface, means for securing the ends of the carrier plate to the bottom flanges of the center sills, a saddle in which the draw-bar is supported and having a convex under surface, and a rolling element supported on the concave surface of the carrier plate and upon which is supported the convex surface of the saddle.

1,080,510. BRAKE-BEAM. WILLIAM E. FOWLER, JR., Hammond, Ind., assignor to Simplex Railway Appliance Company, Chicago, Ill., a Corporation of Delaware. Filed June 25, 1913. Serial No. 775,829. (Cl. 188-28.)

1. In a brake beam, the combination of a sleeve having a peripheral groove, a brake head, a block in the lower portion of said head, said block being adapted to be seated

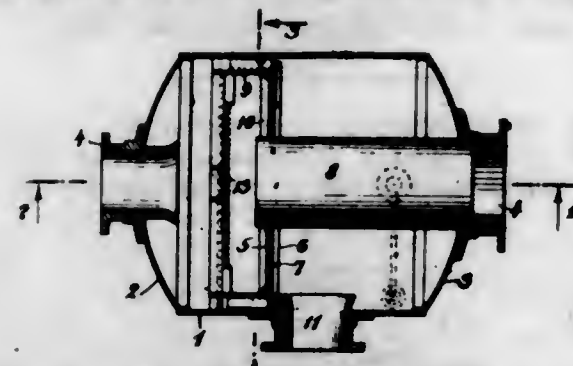
in said groove, and a key extended through the brake head and preventing the removal of the block and consequent disengagement of the head from the sleeve, substantially as described.



2. In a brake beam, the combination of a sleeve having a peripheral groove, a clamping brake head, a pair of wedge blocks mounted in a recess within said head, one of said blocks being adapted to be projected into the groove in said sleeve, and a key mounted in said head and adapted to prevent the removal of said wedge blocks and the consequent disengagement of said head from said sleeve, substantially as described.

3. In a brake beam, the combination of a sleeve having a peripheral groove, a clamping brake head, said head being provided with a recess in its lower portion, wedge blocks mounted in said recess, one of said blocks being adapted to be projected into the groove in said sleeve, and a key extending transversely of the head and barring the removal of said wedge blocks, substantially as described.

1,080,511. SEPARATOR. JOSEPH W. GAMBLE, Philadelphia, Pa., assignor to Harrison Safety Boiler Works, Philadelphia, Pa., a Copartnership of Pennsylvania. Filed May 10, 1910. Serial No. 560,493. (Cl. 83-90.)



1. A separator comprising a casing having an inlet opening, a baffle-plate located therein distant from said opening, a tubular member of substantial length mounted within the casing and extending in a direction substantially transverse to the plane of the baffle-plate from the inlet opening into proximity to the baffle-plate, said casing having an outlet opening in the wall thereof between the inlet opening and the baffle-plate, and means providing a passageway for steam from said tubular member around the baffle-plate to the side thereof distant from the inlet opening and back to the said outlet opening, substantially as set forth.

2. A separator comprising a casing having an inlet opening, a baffle-plate located therein distant from said opening, a tubular member of substantial length mounted within the casing and extending in a direction substantially transverse to the plane of the baffle-plate from the inlet opening into proximity to the baffle-plate, means providing a passageway for steam from said tubular

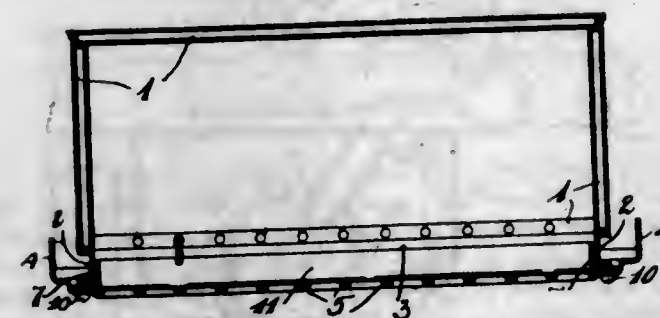
member around the baffle-plate to the distant side thereof, means providing a passageway for steam from the distant side of the baffle-plate to the space between the casing and said tubular member, said casing having an outlet opening therein between the baffle-plate and the inlet, and means for draining oil from the casing, substantially as set forth.

3. A separator comprising a casing having an inlet opening, a baffle-plate located therein distant from said opening, a tubular member of substantial length mounted within the casing and extending in a direction substantially transverse to the plane of the baffle-plate from the inlet opening into proximity to the baffle-plate, a support mounted within the casing and supporting the end of the tubular member near the baffle-plate, said casing having an outlet opening in the wall thereof between the inlet and the baffle-plate, and means providing a passageway for steam from the tubular member around and beyond the baffle-plate and back to said outlet opening, substantially as set forth.

4. A separator comprising a casing having an inlet and an outlet opening, a baffle-plate located therein distant from said inlet opening, a tubular member of substantial length mounted within the casing and extending in a direction substantially transverse to the plane of the baffle-plate from the inlet opening into proximity to the baffle-plate, a wall mounted within the casing substantially parallel to the baffle-plate and supporting the end of said tubular member adjacent to the baffle-plate, means providing a passageway for steam from said tubular member around the baffle-plate, and a strip secured to said wall and extending beyond the baffle-plate, said strip forming a passageway for steam between it and the casing, substantially as set forth.

5. A separator comprising a casing having an inlet opening, a baffle-plate located therein distant from said opening, a tubular member of substantial length mounted within the casing and extending in a direction substantially transverse to the plane of the baffle-plate from the inlet opening into proximity to the baffle-plate, said casing having two outlet openings in the wall thereof, one on the side of the baffle-plate distant from the inlet opening and one between the baffle-plate and the inlet opening, means providing a passageway for steam from said tubular member to said first-named outlet opening, and means providing a passageway for the steam leading from said passageway at a point beyond the baffle-plate to said second-named outlet, substantially as set forth.

1,080,512. REGISTER AND VENTILATOR CONSTRUCTION. EDWARD C. GOODWIN, New Britain, Conn., assignor to The Hart & Cooley Company, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 13, 1912. Serial No. 736,466. (Cl. 126-326.)



1. In a device of the character described, an air conducting pipe having an opening therein with a projecting flange at the border of said opening, a register frame arranged to cover said opening and flange having a perforated portion located in front of said opening and having within its edges and within the internal area of said flanged opening a supporting flange carried and fulcruming at the back of said frame to swing relatively thereto, and in one direction of movement to frictionally engage the inner face of said projecting pipe flange, and manually operable means for swinging and holding said frame flange

in frictional engagement with the inner face of said pipe flange to thereby support said frame upon said pipe flange.

2. In a device of the character described, an air conducting pipe having an opening therein with a projecting flange at the border of said opening, a register frame arranged to cover said opening and flange having a perforated portion located in front of said opening and having within its edges and within the internal area of said flanged opening a supporting flange carried and fulcruming at the back of said frame to swing relatively thereto, and in one direction of movement to frictionally engage the inner face of said projecting pipe flange, and manually operable means for swinging and holding said frame flange in frictional engagement with the inner face of said pipe flange to thereby support said frame upon said pipe flange, said manually operable means being positioned and arranged for access from the front of the frame.

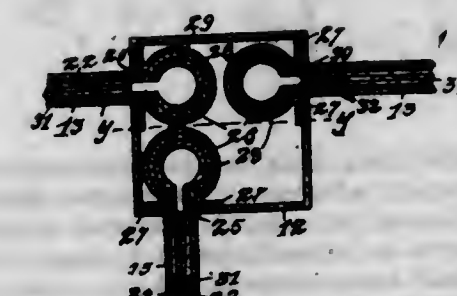
3. In a device of the character described, in combination, an air-conducting pipe having an opening therein and having a flange projecting outwardly therefrom, a frame adapted to be positioned in front of said opening, an angle bar carried by the inner face of said frame and provided with a clamping flange, spring means cooperating with said bar to position its flange within said pipe opening when said frame is applied thereto, and screw means cooperating with said frame and angle bar to move said clamping flange into clamping engagement with said pipe flange to thereby support said frame therefrom.

4. In a device of the character described, in combination, an air-conducting pipe having an opening therein and having a flange projecting outwardly therefrom, a frame adapted to be positioned in front of said opening, an angle bar forming an acute angle mounted on the inner face of said frame and having a threaded bore therein, a screw carried by said frame and cooperating with the threaded bore of said angle bar, and a spring between said frame and angle bar normally tending to position one of the flanges thereof within said pipe opening when said frame is applied thereto, said screw being adapted to be operated to move said bar flange against the pressure of said spring and into clamping engagement with said pipe flange to thereby support said frame thereon.

5. In a device of the character described, a register frame having a portion of its face perforated for the passage of air, and having a flanged portion extending inwardly and rearwardly from the inner face of said frame at the edges of said perforated portion, part of said flanged portion being expandable laterally relative to the frame, and manually operable means for expanding said part and for holding it in expanded position.

[Claim 6 not printed in the Gazette.]

1,080,513. SHEET-METAL FURNITURE. EMIL J. JONES, Jamestown, N. Y., assignor of one-half to John A. Jones, Jamestown, N. Y. Filed Mar. 24, 1913. Serial No. 756,279. (Cl. 45-48.)



1. A sheet metal joint comprising a sheet metal plate having a slot therein, a cleft tubular strip attached to said sheet metal plate each side of said slot, a panel plate having an edge to fit within said tubular strip and extending through said slot, and a tubular key to fit within said tubular strip and panel plate edge to attach said panel plate to said sheet metal plate.

2. A sheet metal joint comprising a sheet metal plate having a slot therein, a slotted tubular strip attached to said plate each side of said slot, panel plates having op-

positely bent edges to fit within said tubular strip and extending out through said slot, and a tubular key to fit within said panel plate edges and tubular strip to attach said panel plates to said sheet metal plate.

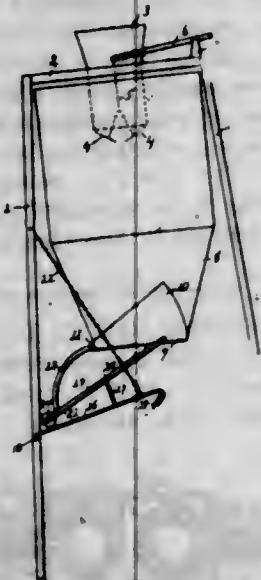
3. A sheet metal joint comprising a sheet metal plate having a slot therein, a tubular strip having a lengthwise slot therein, the edges of said tubular strip each side of said lengthwise slot attached to said sheet metal plate each side of the slot therein so that the slots in said strip and sheet metal plate register, panel plates having oppositely curved edges to fit within said tubular strip, and a resilient tubular key to fit within said curved edges of said panel plates to attach said panel plates to said sheet metal plate.

4. A sheet metal joint comprising a sheet metal post having an open ended lengthwise slot therein, a slotted tubular strip attached within said sheet metal post so that the slots in said strip and post register, sheet metal plates having curved edges to fit within said tubular strip and the plates extend out through said slots, and a tubular key to fit within said curved edges of said sheet metal plates to attach them to said post, said tubular key having a lengthwise slot and flanged edges each side of said slot to extend between said panel plates and hold the key in position.

5. A sheet metal joint comprising a metal plate having an open ended slot therein, a tubular strip having a lengthwise slot therein attached each side of the slot in said metal plate so that the slot in said plate and strip register, panel plates having curved edges to fit within said tubular strip and the plates extend out through said slot, the edges of said curved edges turned inward in an angular flange, and a tubular key to fit within said curved edges having a lengthwise curve to receive said angular flanges on said curved edges.

[Claims 6 to 8 not printed in the Gazette.]

1,080,514. DELIVERY MECHANISM FOR WEIGHING-MACHINES. ERNEST S. KNEELAND, Malden, Mass. Filed June 19, 1912. Serial No. 704,610. (Cl. 83-44.)



1. The combination with the receiver having an outlet near its lower end, of a movably supported door for controlling said outlet; a movably supported prop for holding said door in its closed position against the pressure of the contents of the receiver; and a movable container-support arranged to position the container relatively to the discharge from the receiver and adapted when shifted to operate the prop and free the door.

2. The combination with the receiver having an outlet near its lower end, of a movably supported door for controlling said outlet; a movably supported prop for holding said door in its closed position against the pressure of the contents of the receiver; a movable container-support arranged to position the container relatively to the discharge from the receiver and adapted when shifted to operate the prop and free the door, and means for automatically closing the door and restoring the prop to its

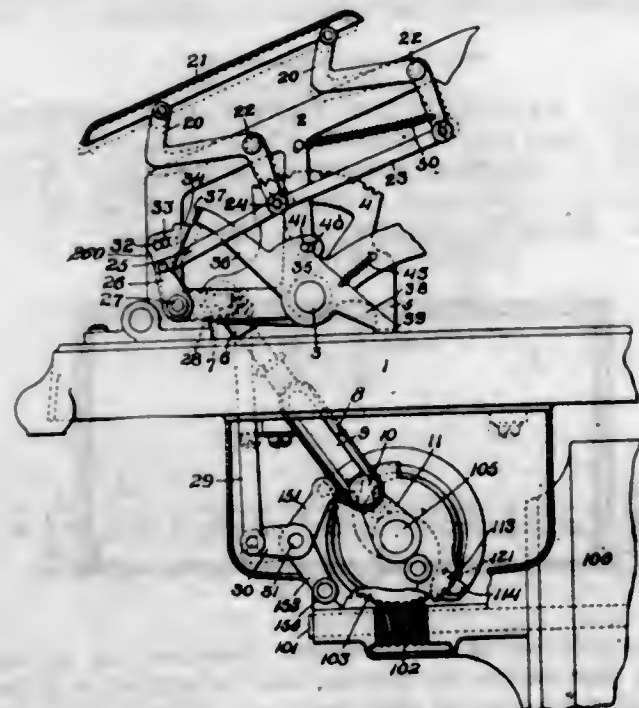
operative position when the receiver is emptied of its contents.

3. The combination with the receiver having an outlet near its lower end, of a pivoted door for controlling said outlet; a toggle-prop for holding said door in its closed position against the pressure of the contents of the receiver, said toggle-prop being pivotally connected at one end to the door; means pivotally supporting the opposite end of the toggle-prop; and a movable container-support for positioning the container so as to receive the material discharged from the receiver, said container-support being adapted when shifted to operate the toggle-prop to free the door.

4. The combination with the receiver having an outlet near its lower end, of a door pivotally mounted on said receiver in position to control said outlet; a toggle-prop for holding said door in its closed position against the pressure of the contents of the receiver, said toggle-prop being pivotally connected at one end to the door and at its opposite end to the receiver, and a movable container-support for positioning the container so as to receive the material discharged from the receiver, said container-support being adapted when shifted to operate the toggle-prop to free the door.

5. The combination with the receiver having an outlet near its lower end, of a pivoted door for controlling said outlet; a toggle-prop for holding said door in its closed position against the pressure of the contents of the receiver, said toggle-prop being pivotally connected at one end to the door; means pivotally supporting the opposite end of the toggle-prop; a movable container-support for positioning the container so as to receive the material discharged from the receiver, said container support being adapted when shifted to operate the toggle-prop to free the door, to permit the latter to be opened by the pressure of the contents of the receiver, and a weight for closing the door and restoring the toggle-prop to its operative position after the discharge of the contents of the receiver.

1,080,515. CRANK DRIVING MECHANISM FOR ADDING-MACHINES. HENRY KUNTZLER, Kingston, Pa., assignor, by mesne assignments, to Adder Machine Company, a Corporation of Pennsylvania. Filed June 30, 1908. Serial No. 441,218. (Cl. 235-60.)



1. In a device of the character described, comprising an operative rock shaft, a continuously running motor, an intermediate shaft, and a motor actuator, by the movement of which the intermediate shaft is temporarily coupled to the motor; means adapted to lock the motor actuator during the major portion of the stroke of the operative rock shaft, consisting of a locking arm moved by the actuator, and a locking plate moved in unison with

the operative rock shaft during its stroke and adapted to engage the locking arm.

2. In a device of the character described, comprising an operative rock shaft, a continuously running motor, an intermediate shaft, an operative connection between the operative rock shaft and the intermediate shaft, a clutch mechanism adapted to couple the intermediate shaft to the motor, means adapted to hold such mechanism inactive and means adapted to interrupt the function of the holding mechanism, consisting of a depressible actuator and a train of mechanism embodying an oscillating crank provided with a locking arm; means for locking the arm and the train of mechanism, consisting of a member moving in unison with the operative rock shaft and adapted to engage the locking arm.

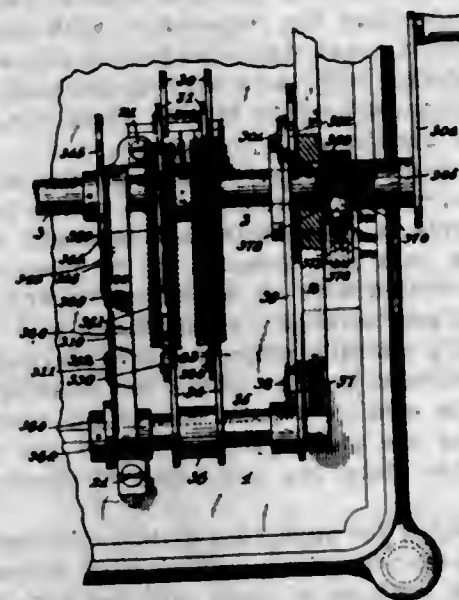
3. In a machine of the character described, comprising an operative rock shaft, an oscillating crank provided with a locking arm, an oscillating plate normally held out of engagement with such locking arm and means whereby it is moved into such engagement when the said operative shaft is rocked.

4. In a machine of the character described, comprising an operative rock shaft, an oscillating crank provided with a locking arm, a plate mounted to oscillate in harmony with the operative rock shaft and means normally tending to move the plate into engagement with the locking arm.

5. In a machine of the character described, comprising an operative rock shaft, an oscillating crank provided with a locking arm, a plate mounted to oscillate in harmony with the operative rock shaft and a spring normally tending to move the plate into engagement with the locking arm.

[Claims 6 to 19 not printed in the Gazette.]

1,080,516. FLEXIBLE DRAFT CONNECTION FOR ADDING-MACHINES. HENRY KUNTZLER, Wilkes-Barre, Pa., assignor, by mesne assignments, to Adder Machine Company, a Corporation of Pennsylvania. Filed Jan. 19, 1909. Serial No. 473,041. (Cl. 235-60.)



1. In a mechanism of the character described, comprising an oscillatory main shaft, an oscillatory auxiliary shaft and a flexible connection between them adapted normally to move the main shaft in unison with the auxiliary shaft when the latter is oscillated, means adapted to hold the auxiliary shaft against a reverse oscillation should the main shaft be detained, consisting of a rotating support on the main shaft, a detent normally resting inactive on said support, and a recess in said support whereby the detent will fall into a locking position.

2. In a mechanism of the character described, comprising an oscillatory main shaft, an oscillatory auxiliary shaft and a flexible connection between them adapted normally to move the main shaft in unison with the auxiliary shaft when the latter is oscillated, means adapted to hold the auxiliary shaft against a reverse oscillation should the main shaft be detained, consisting of a cam on the shaft, and a detent resting thereon in the normal operation of the

197 O. G.—14

machine, and adapted to engage therewith when the cam has rotated through a predetermined arc.

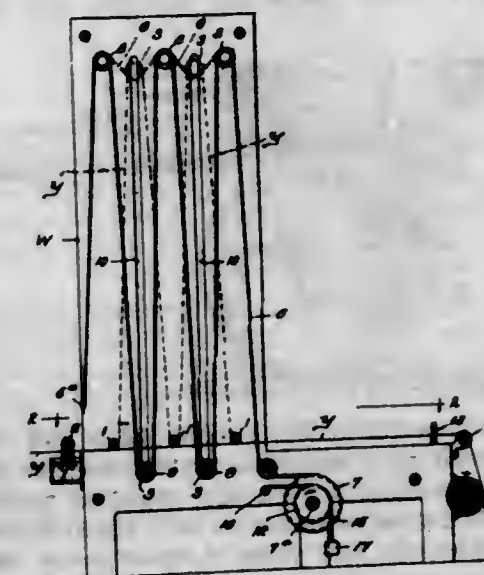
3. In a mechanism of the character described, comprising an oscillatory main shaft, an oscillatory auxiliary shaft and a flexible connection between them adapted normally to move the main shaft in unison with the auxiliary shaft when the latter is oscillated, means adapted to hold the auxiliary shaft against a reverse oscillation should the main shaft be detained, consisting of a snail back cam on the shaft, a hinged detent supported thereon against the force of gravity and a tip adapted to engage the shoulder of the cam when the latter has rotated beyond a predetermined point.

4. In a mechanism of the character described comprising an oscillatory main shaft, an oscillatory auxiliary shaft and a flexible connection between them adapted normally to move the main shaft in unison with the auxiliary shaft when the latter is oscillated, means adapted to hold the auxiliary shaft against a reverse oscillation should the main shaft be detained, consisting of a snail back cam on the shaft, a hinged detent yieldingly held against the edge of the cam and adapted to engage its shoulder when the cam is rotated.

5. In a mechanism of the character described, comprising an oscillatory main shaft, an oscillatory auxiliary shaft and a flexible connection between them adapted normally to move the main shaft in unison with the auxiliary shaft when the latter is oscillated, means adapted to hold the auxiliary shaft against the reverse oscillation should the main shaft be detained, consisting of a rotating support on the main shaft, a detent normally resting inactive on said support, and a recess in said support whereby the detent will fall into a locking position, and means adapted to limit the extent of the movement of the detent.

[Claims 6 to 19 not printed in the Gazette.]

1,080,517. DRYING-MACHINE. ALFRED K. MILLER, Worcester, Mass., assignor of fifty one-hundredths to Henry L. Wadsworth, Lexington, Mass. Filed Nov. 11, 1911. Serial No. 659,846. (Cl. 34-48.)



1. A drying machine comprising a plurality of fixed thread guides, an adjustable thread guide moving from a position on one side of the fixed guides to a position on the other side, means for engaging and moving the leading ends of threads interposed between the fixed guides and the adjustable guide and means for thus moving the adjustable guide, to cause the said threads to take a sinuous course.

2. A drying machine comprising a plurality of fixed thread guides, an adjustable thread guide, movable vertically from a position below to a position above the fixed guides, means for engaging and moving the leading ends of threads interposed between the fixed guides and the adjustable guide and means for elevating the adjustable guide, to cause the said threads to take a sinuous course.

3. A drying machine comprising a plurality of fixed yarn guides, an adjustable yarn guide, movable vertically

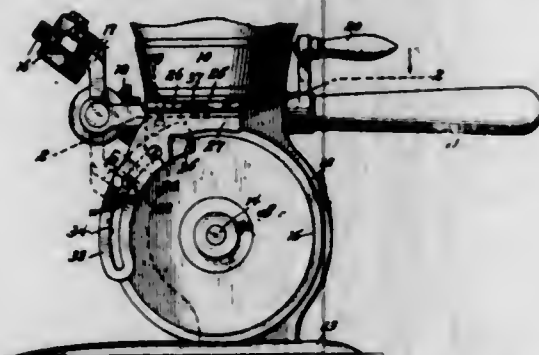
from a position below to a position above the fixed guides, a rotary roll arranged to engage and move the leading ends of threads interposed between the fixed guides and the adjustable guide and means for elevating the adjustable guide to cause the said threads to take a sinuous course through the machine.

4. A drying machine comprising a plurality of fixed thread guides, an adjustable thread guide, movable vertically from a position below to a position above the fixed guides, means for engaging and moving the leading ends of threads interposed between the fixed guides and the adjustable guide, means for elevating the adjustable guide, said means including a plurality of flexible cables each attached at one end to a fixed support, elevated pulleys engaged with said cables and supporting the same in bights or loops adapted to support the adjustable guide, and rotary pulleys to which the opposite ends of the cables are attached, said pulleys being adapted to wind up portions of the cables and thus elevate the adjustable guide.

5. A drying machine comprising a frame having side members provided with elongated substantially vertical ways, fixed thread guides located adjacent to and slightly above the lower ends of said ways, an adjustable thread guide movable in said ways from a position below to a position above the fixed guides, means for engaging and moving the leading end of threads interposed between the fixed guides and the adjustable guide, a plurality of flexible cables each attached at one end to a fixed support, elevated pulleys engaged with said cables and supporting the same in bights or loops adapted to support the adjustable guide and rotary pulleys to which the opposite ends of said cables are attached, said pulleys being adapted to wind up portions of the cables and thus elevate the adjustable guide in said ways.

[Claims 6 and 7 not printed in the Gazette.]

1,080,518. SAFETY DEVICE FOR CIRCULAR-KNIFE CLOTH-CUTTING MACHINES. DAVID PERLMAN, New York, N. Y., assignor of one-third to Martin Zawistowski and one-third to Nicolas Komow, New York, N. Y. Filed Apr. 1, 1913. Serial No. 758,205. (Cl. 164-76.)



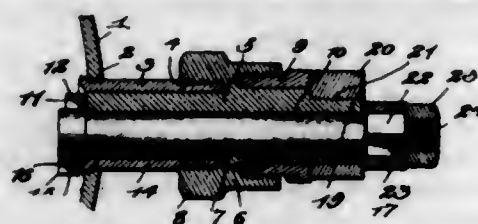
1. The combination with a circular knife and a support therefor of a laterally swinging plate hinged to said support, a spring tending to hold said swinging plate in protective position with reference to said circular knife, and means for swinging said plate outward away from said knife.

2. The combination with a circular knife and a support therefor of a laterally swinging plate hinged to said support, a spring tending to hold said swinging plate in protective position with reference to said circular knife, a laterally sliding pin movable in said support and engaging said hinged plate, a cam engaging said pin, and a shaft carrying said cam.

3. The combination with a circular knife and a support therefor of a laterally swinging plate hinged to said support, a spring tending to hold said swinging plate in protective position with reference to said circular knife, means for swinging said plate outward away from said knife, a grinding device movable into and out of engagement with said knife, a shaft, means connected with said shaft for shifting said grinding device, and means connected with said shaft for simultaneously swinging said plate laterally outward away from said knife.

4. The combination with a circular knife and a support therefor of a laterally swinging plate hinged to said support, a spring tending to hold said swinging plate in protective position with reference to said circular knife, an arc-shaped guard adjustable on said swinging plate, and means for swinging said plate outward away from said knife.

1,080,519. MEANS FOR ANCHORING NIPPLES. ANTON C. SCHUERMANN, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed Aug. 5, 1913. Serial No. 783,205. (Cl. 153-81.)



1. In apparatus for anchoring fittings, a sleeve adapted to be arranged in the fitting and provided with an eccentric bore, an expanding-tool having a laterally projecting expander-head arranged in said bore, and means for rotating the expanding-tool to expand the end of the fitting.

2. In apparatus for anchoring fittings, a sleeve provided with an eccentric bore and a pusher, an expanding-tool rotatably arranged in said bore and having a laterally projecting expander-head for coöperation with said pusher, means for rotating said expanding-tool in said bore, and means for rotating said sleeve for causing the expander-head, through the medium of said pusher, to revolve about the axial line of rotation of said sleeve.

3. In apparatus for anchoring fittings, the combination of a sleeve-carrying nut provided with means for connection to a nipple, a sleeve rotatably arranged in said nut, adapted to be inserted into a nipple, and provided with an eccentric bore and a pusher, an expanding-tool rotatably arranged in said bore and provided with a laterally projecting expander-head for coöperation with said pusher, means for rotating said expanding-tool in said sleeve, and means for rotating said sleeve whereby the pusher thereof causes the expander-head to revolve about the axial line of rotation of the sleeve.

4. In apparatus for anchoring fittings, the combination of a sleeve-carrying nut provided with means for connection to a nipple, a sleeve rotatably arranged in and removable from said nut, adapted to be inserted into a nipple, and provided with an eccentric bore and a pusher, an expanding-tool rotatably arranged in said bore and provided with a laterally projecting expander-head for coöperation with said pusher, means for rotating said expanding-tool in said sleeve, and means for rotating said sleeve whereby the pusher thereof causes the expander-head to revolve about the axial line of rotation of the sleeve.

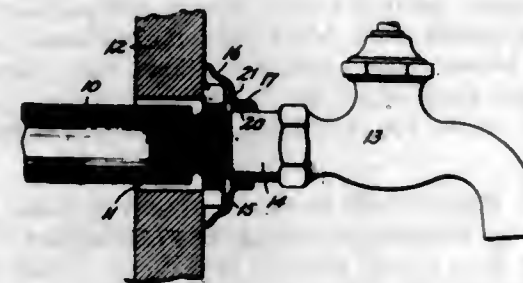
5. In apparatus for anchoring fittings, the combination with a sleeve-carrying nut provided with means for engagement with a nipple, a sleeve provided with an eccentric bore rotatably arranged in said nut and provided with a pusher, means for holding said sleeve in said nut, an expanding-tool rotatably arranged in the bore of the sleeve and provided with a laterally projecting expander-head for coöperation with said pusher, a wrench-grip mounted on said sleeve, a wrench-grip mounted on the shank of said expanding-tool, and means for maintaining said parts in an assembled operative condition.

[Claims 6 and 7 not printed in the Gazette.]

1,080,520. NO-SLIP FLANGE. ANTON C. SCHUERMANN, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed Aug. 22, 1913. Serial No. 786,191. (Cl. 37-94.)

1. A flange for encircling a faucet shank, pipe or the like and bear against a wall, formed with a projecting cylindrical neck through which said shank or pipe may

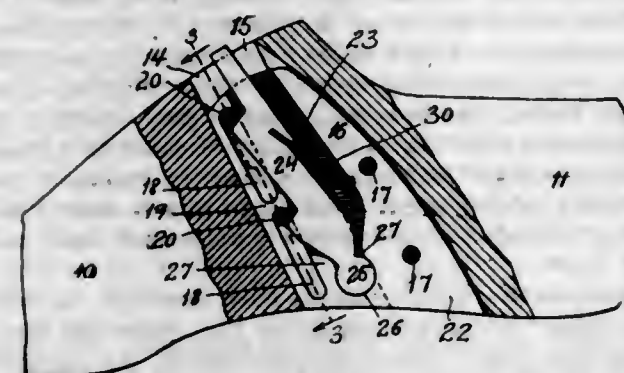
pass and having an intumed marginal end, a yielding friction member seated in said cylindrical neck and bearing at one end against the intumed margin thereof, and a cylindrical collar in said neck and retained therein solely by frictional contact with the inner surface thereof, said collar having an intumed edge bearing against the other end of said friction member.



2. A flange for encircling a faucet shank, pipe or the like and bear against a wall, formed with a projecting cylindrical neck through which said shank or pipe may pass, and having an intumed marginal end terminating in a further intumed holding lip, a yielding friction member seated in said cylindrical neck and bearing at one end against the intumed margin thereof and held in place by said lip, and an adjustable cylindrical collar within said neck and retained therein solely by frictional engagement with the inner wall thereof, said collar having an intumed edge bearing on the other end of said frictional member, and a holding lip for grasping the same.

3. A flange for encircling a faucet shank, pipe or the like and bear against a wall, formed with a projecting cylindrical neck through which said shank or pipe may pass and having an intumed marginal end, terminating in a further intumed holding lip, a yielding friction member to engage said shank or pipe seated in said cylindrical neck and bearing at one end against the intumed margin thereof and held in place by said lip, and an adjustable cylindrical collar in said neck retained therein solely by frictional engagement with the inner surface thereof, said collar having an intumed edge with a holding lip for engaging the outer end of said friction member, and adapted to be moved longitudinally in the neck to compress the friction member and cause it to hold more firmly on the shank or pipe, said collar being maintained in position after adjustment by its frictional engagement with the wall of said neck.

1,080,521. LAST. HARRIE A. BALLARD, Boston, Mass., assignor to The Boylston Mfg. Company, South Boston, Mass., a Corporation of New Jersey. Filed July 24, 1909. Serial No. 509,288. (Cl. 12-135.)



1. A last comprising a heel-part, a fore-part, a connecting member affixed to one part and having sliding relation with the other, a plurality of members affixed to the sliding part, and a member carried by said connecting member and provided with a plurality of shoulders to engage said fixed members respectively and lock the parts of the last against movement.

2. A last comprising a heel-part, a fore-part, a connecting member affixed to one part and having a slotted portion in sliding relation with the other, a plurality of pins embedded in said other part and extending through said slotted portion, and a locking member pivoted at one end

to said connecting member and having shoulders to engage and lock with said pins.

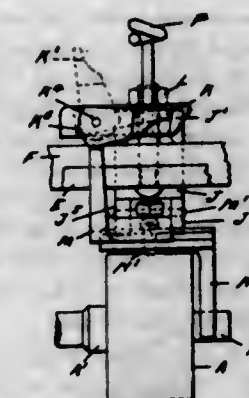
3. A last comprising a heel-part, a fore-part, a connecting member affixed to one part and having a slotted portion in sliding relation with the other, a plurality of pins embedded in said other part and extending through said slotted portion, said connecting member having a recess, and a locking member having a pivot arranged in said recess, and shoulders to engage said pins.

4. A last comprising a forepart, a heel-part, a connecting plate affixed to one part and having a slotted portion embedded in sliding relation in the other, a plurality of pins extending through said slotted portion into said sliding part, and a spring-actuated locking member carried by said connecting member and formed with shoulders to engage and lock said pins.

5. A last comprising a forepart, a heel-part, a connecting member affixed to one part and having a slotted portion in sliding relation with the other, means for connecting the slotted portion with the sliding part, said connecting member having a recess with a contracted throat, and a locking member formed with a head movably confined in said recess, and with one or more locking shoulders to engage said connecting means to lock the last.

[Claims 6 to 9 not printed in the Gazette.]

1,080,522. ROVE-STOPPING MECHANISM. JOHN BORD, Bothwell, Scotland. Filed Aug. 6, 1912. Serial No. 713,614. (Cl. 118-17.)



1. In textile apparatus of the character described, a slip roller and coöperating delivery roller, a separating device for opening said rollers, a pivoted rove clamp and a cam on said rove clamp for operating said roller separating device.

2. In textile apparatus of the character described, a slip roller and coöperating delivery roller, a pivoted lever bearing against one of said rollers, a pivoted rove clamp, a cam on the latter and means operated by said cam for actuating said lever to open said rollers.

3. In textile apparatus of the character described, a slip roller and coöperating delivery roller, a longitudinal stay bar, a bracket mounted thereon, a roller separating device pivoted on said bracket, a rove clamp also pivoted on said bracket, a cam on said clamp and means operated by said cam for rocking said pivoted separating device to open the rollers.

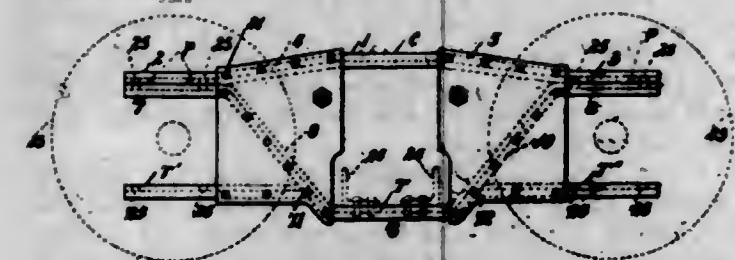
4. In a textile apparatus of the character described, a series of slip rollers, coöperating delivery rollers, a longitudinal stay bar, a series of brackets adjustably mounted on the latter, one for each slip roller, a roller separating device on each bracket for moving the corresponding slip roller out of engagement with its coöperating delivery roller, a rove clamp pivoted on each bracket and a cam on each clamp for operating the roller separating device on the bracket, substantially as described.

5. In textile apparatus of the character described, a pair of slip rollers on a single spindle capable of angular displacement, coöperating delivery rollers, a longitudinal stay bar, a bracket adjustably mounted thereon for each slip roll, a roller separating device on each bracket for effecting the separation of its slip roller for the coöperating delivery roller without interrupting the operative en-

gagement between the other slip roller and its delivery roller, a rope clamp pivoted on each bracket, and a cam on each clamp for operating the roller separating device on the bracket, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,080,523. CAR-TRUCK SIDE FRAME. WILLIAM D. FOSYTH, Youngstown, Ohio. Filed May 4, 1912. Serial No. 695,073. (Cl. 105-243.)



1. A car truck side frame comprising a flanged compression member with its central part connected by downwardly inclined parts to its ends, whose flangeless under surfaces are in the same plane; a flanged tension member with its central part connected by upwardly inclined parts to its ends, whose flangeless upper surfaces are in the same plane; the ends of said members being welded together by metal derived from a source other than said members fused into their respective masses.

2. A car truck side frame comprising a flanged compression member with its central part connected by downwardly inclined parts to its ends, whose flangeless under surfaces are in the same plane; a flanged tension member with its central part connected by upwardly inclined parts to its ends, whose flangeless upper surfaces are in the same plane; the ends of said members being welded together by metal derived from a source other than said members and fused into their respective masses; two journal box supporting branches welded to the inclined parts of the tension member at opposite sides of said frame, so that the ends of said branches will be substantially parallel to the welded ends of said frame.

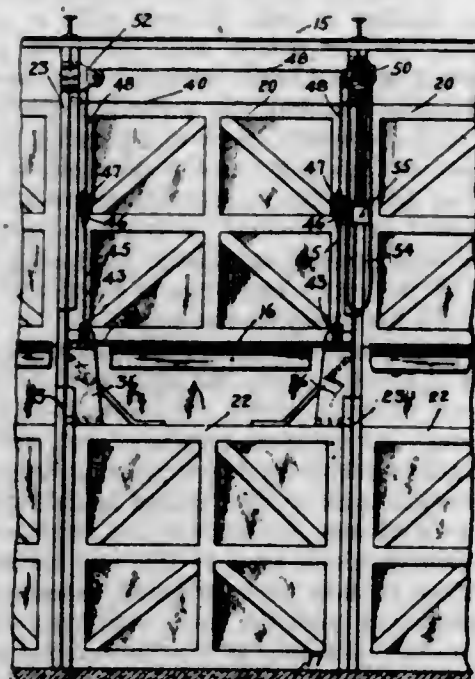
3. A car truck side frame comprising a flanged compression member with its central part connected by downwardly inclined parts to its ends, whose flangeless under surfaces are in the same plane; a flanged tension member with its central part connected by upwardly inclined parts to its ends, whose flangeless upper surfaces are in the same plane; the ends of said members being welded together by metal derived from a source other than said members and fused into their respective masses; two journal box supporting branches welded to the inclined parts of the tension member at opposite sides of said frame, so that the ends of said branches will be substantially parallel to the welded ends of said frame; plates welded to the front and back of said frame by metal derived from a source independent of said frame and plates and fused into their masses, so as to provide a bolster opening in said frame, said plates being flanged upon their upper and lower edges and shaped so as to conform to the upper and lower edges of said frame.

4. A car truck side frame comprising a compression member with its central part connected by downwardly inclined parts to its ends, whose under surfaces are in the same plane; a tension member with its central part connected by upwardly inclined parts to its ends, whose upper surfaces are in the same plane; the ends of said members being welded together by metal derived from a source other than said members and fused into their respective masses; two journal-box supporting branches welded to the inclined parts of the tension member at opposite sides of said frame, so that the ends of said branches will be substantially parallel to the welded ends of said frame.

5. A car truck side frame comprising a compression member with its central part connected by downwardly inclined parts to its ends, whose under surfaces are in the same plane; a tension member with its central part connected by upwardly inclined parts to its ends, whose

upper surfaces are in the same plane; the ends of said members being welded together by metal derived from a source other than said members and fused into their respective masses; two journal-box supporting branches welded to the inclined parts of the tension member at opposite sides of said frame, so that the ends of said branches will be substantially parallel to the welded ends of said frame; plates welded to the front and back of said frame by metal derived from a source independent of said frame and plates, and fused into their masses so as to provide a bolster opening in said frame, said plates being flanged upon their upper and lower edges and shaped so as to conform to the upper and lower edges of said frame.

1,080,524. PIER-SHED DOORS. HARRY T. GOSS, Rutherford, N. J., assignor to George H. Frothingham Co., New York, N. Y., a Corporation of New York. Filed Aug. 13, 1913. Serial No. 784,514. (Cl. 20-19.)



1. In combination with a pair of door openings one over the other, upper and lower doors for the respective openings, a floating means by which the doors are connected together, one to counterbalance the other, and holisting means for raising and lowering said means to vary the positions of the doors.

2. In combination with a pair of door openings one over the other, upper and lower doors for the respective openings, a floating means by which the doors are connected together, one to counterbalance the other, and a single holisting means for raising and lowering said means to either raise the lower door or lower the upper door.

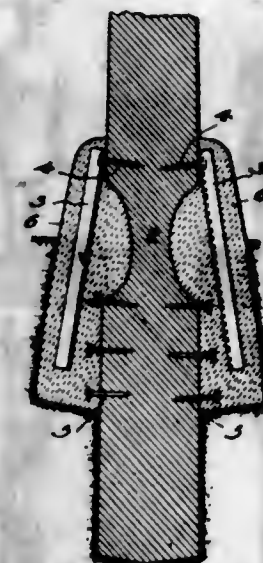
3. In combination with a pair of door openings one over the other, upper and lower doors for the respective openings, each being provided with means for limiting its movement in one direction from its closed position, a floating means by which the doors are connected together, one to counterbalance the other, and a single winch mechanism for raising and lowering said means to selectively open and close the doors.

4. In combination with a pair of door openings one over the other, upper and lower doors for the respective openings, provided with means for preventing an upward movement of one and a downward movement of the other from its closed position, a floating means by which the doors are connected together, one to counterbalance the other, and a single holisting means for raising and lowering said means; and a single counterweight acting on the holisting means for counteracting the combined weight of both doors.

5. In combination with two pairs of vertical guideways, a plurality of doors slidable in parallel planes in the guideways, a floating sheave, and a chain or cable over the sheave for connecting the doors together; and a holisting means for raising or lowering the sheave.

[Claims 6 to 15 not printed in the Gazette.]

1,080,525. REINFORCING POLE. ROBERT S. ORR, Pittsburgh, Pa., assignor to Pittsburgh Reinforcing Pole Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 5, 1909. Serial No. 488,083. (Cl. 72-83.)



combination with a pole having a weakened base portion of reduced cross-section, of a reinforce therefor, said reinforce comprising a body of concrete surrounding the pole from a point below its weakened portion to a point above the same, and anchored to the pole, and metallic bracing members secured to the pole at their upper ends and extending obliquely downwardly and outwardly within the concrete body to points below said weakened portion, said bracing members having laterally extended flanges which increase their compression strength, and which also engage the concrete to oppose the resistance of the latter to compression or buckling strains in the members; substantially as described.

1,080,526. COLLAR-SUPPORTER. CHARLES POULAIN, Paris, France. Filed July 9, 1913. Serial No. 777,992. (Cl. 2-91.)



1. A collar supporter comprising a single strip of wire-like material comprising a base length and a series of spaced fingers extending therefrom, each finger comprising two parallel lengths of wire twisted together.

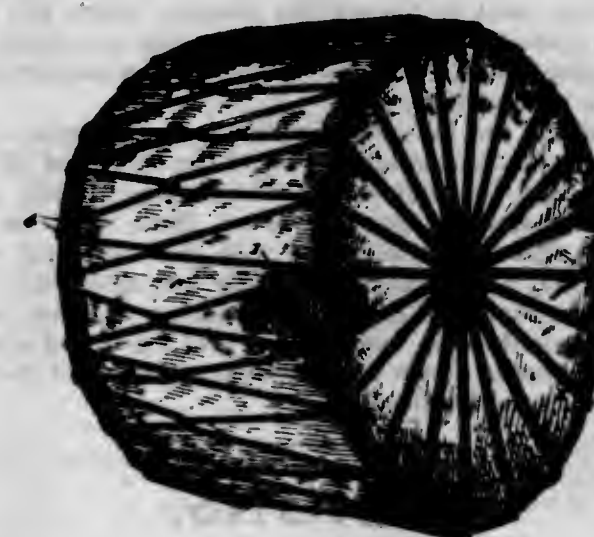
2. A collar supporter comprising a base length having a series of integral fingers projecting at intervals therefrom, said fingers being of pliable, but inelastic material.

3. An article of manufacture consisting of a length of inelastic wire having a number of integral fingers projecting therefrom at intervals sufficient to form a plurality of collar supporters, the device being adapted to be cut up into lengths each including a number of said fingers and each length adapted as a collar supporter, substantially as described.

1,080,527. PACKAGE OF CORDAGE AND METHOD OF MAKING SAME. KENNETH G. CARPENTER, St. Louis, Mo., assignor to American Manufacturing Company, St. Louis, Mo., a Corporation of Massachusetts. Filed June 20, 1913. Serial No. 774,827. (Cl. 242-159.)

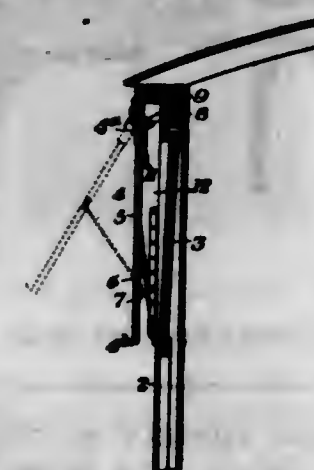
1. The improved process of packaging cordage which consists in first colling the cordage into a substantially cylindrical coil leaving an opening through the center thereof, and then lashing the coil with a suitable line by passing successive loops or rights of said line through the central opening in the coil of cordage and looping the still unused portion of the line successively through each of said loops as such loop is laid, drawing the interlooped portions of the line taut upon the circumferential face of the coil, and finally securing the ends of the lashing line.

2. An improved package of cordage comprising a substantially cylindrical coil having an opening through its center, said coil being lashed about with a continuous line which is looped through said central opening, the successive loops of said line being interlooped on the circumferential face of the coil, and disposed substantially equidistant from one another around the coil, the portions of said line forming said loops being drawn taut against the coil to hold the portions thereof in place, and forming a uniform tread upon the circumferential face of the coil.



REISSUES.

13,653. SHIELD FOR CAR-WINDOWS. WILLIAM B. HANLON, Pittsburgh, Pa. Filed Apr. 22, 1913. Serial No. 762,972. Original No. 993,061, dated May 23, 1911. Serial No. 554,732. (Cl. 20-40.5.)



1. The combination with a vehicle having an observation window at its forward end, of a frame hinged at its upper edge to the vehicle above and in front of said window and having a transparent pane or panel arranged to extend in a forwardly and downwardly inclined position in front of the upper part of said window, said angular pane or panel being positioned so that the line of vision of the driver is below its lower edge, the frame and its plane when in vertical position being separated from the observation window by a dead air space tending to prevent the formation of frost on the said window, and when in an angular position forming a storm shield to prevent the weather from beating against the window, said frame being movable on its hinged connection to its different positions; substantially as described.

2. The combination with a vehicle having an observation window at its forward end, of a frame hinged at its upper edge to the vehicle above and in front of said window and having a transparent pane or panel, together with means for securing said frame in different angular positions in front of the upper part of said window, said pane or panel being arranged to be secured in angular

position so that the line of vision of the driver is below its lower edge, and said frame and its pane when in vertical position being separated from the observation window by a dead air space tending to prevent the formation of frost on said window, and when in raised position forming a storm shield to prevent the weather from beating against that part of the window through which the line of vision passes, the adjusting and securing means for the frame being wholly exterior of the said window; substantially as described.

3. A shield for the motorman's window of cars, comprising a frame hinged or pivoted to the front end of the car above and in front of the motorman's window, and having a transparent pane or panel, there being an air space or chamber between the said pane or panel and said window, and means for holding the said frame in vertical position, and also in an angular position, with a shade secured to the inner side of said frame and adapted to be drawn across the transparent pane or panel; substantially as described.

DESIGNS.

44,951. GAS-RANGE. JOHN A. ALEXANDER and FRANK K. BERRY, Battle Creek, Mich., assignors to A. B. Stove Company, Battle Creek, Mich., a Corporation of Michigan. Filed Mar. 2, 1912. Serial No. 681,279. Term of patent 14 years.



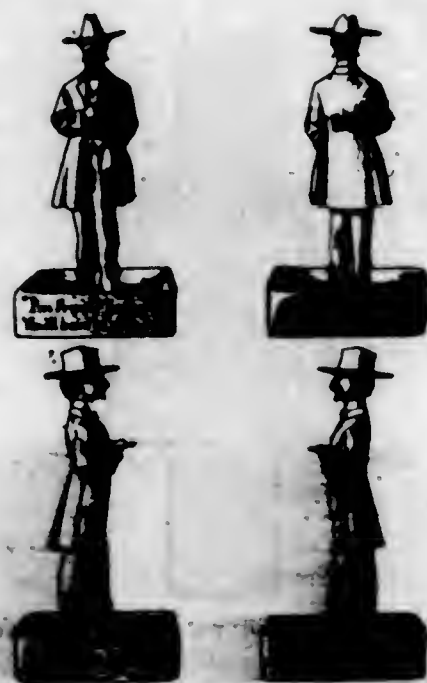
The ornamental design for a gas range, as shown.

44,952. SHOE OR PROTECTING-TIP FOR FURNITURE-LEGS. JOHANN JACOB BUSER, Pittsburgh, Pa. Filed Jan. 16, 1913. Serial No. 742,482. Term of patent 3½ years.



The ornamental design for a shoe or protecting tip for furniture legs, as shown.

44,953. PAPER-WEIGHT OR STATUETTE. ELMER DONNELL, Webster Groves, Mo. Filed Sept. 29, 1913. Serial No. 792,524. Term of patent 14 years.



The ornamental design for a paper weight or statuette, as shown.

44,954. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,130. Term of patent 3½ years.



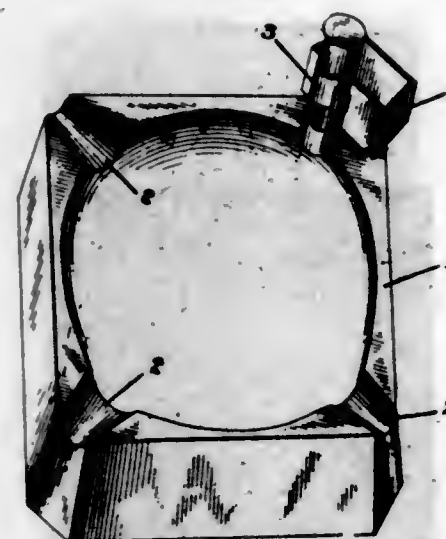
The ornamental design for a carpet, as shown.

44,955. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,131. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,956. COMBINATION ASH-TRAY. FREDERICK W. GOERDES, East Orange, N. J. Filed July 20, 1912. Serial No. 710,712. Term of patent 7 years.



The ornamental design for a combination ash tray as shown.

44,957. PAPER-CLIP. HENRY E. GRIZZARD, Franklin, Va. Filed June 21, 1913. Serial No. 775,145. Term of patent 7 years.



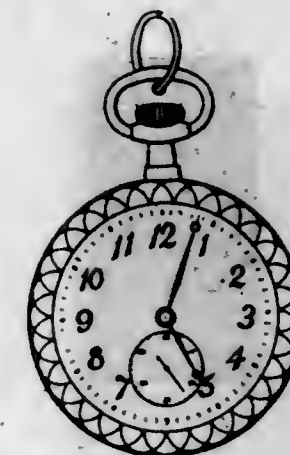
The ornamental design for a paper clip, as shown.

44,958. COMBINED TICKET OR LABEL HOLDER AND MATCH-STRIKER. WILLIAM D. HOOVER, Beaver Falls, Pa., assignor of one-half to Joseph T. Parks, McKees Rocks, Pa. Filed Sept. 8, 1913. Serial No. 788,751. Term of patent 14 years.



The ornamental design for a combined ticket or label holder and match striker, as shown.

44,959. KEY-TAG. FREDERICK C. HOWARD, Spokane, Wash. Filed May 13, 1913. Serial No. 707,450. Term of patent 7 years.



The ornamental design for a key tag, as shown.

44,960. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,544. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,961. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,545. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,962. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,546. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,963. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,127. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,964. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,128. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,965. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 21, 1913. Serial No. 796,538. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,966. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 21, 1913. Serial No. 796,539. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,967. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 21, 1913. Serial No. 796,540. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,968. CARPET. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,536. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,969. CARPET. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,537. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,970. CARPET. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,125. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,971. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,541. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,972. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,542. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,973. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,543. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,974. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,134. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,975. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,135. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,976. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,136. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,977. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,137. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,978. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,138. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,979. PROTECTION-BOARD BRACKET. ERNEST EM-MEL SCHMID, Jamaica, N. Y. Filed Dec. 31, 1912. Serial No. 739,578. Term of patent 7 years.



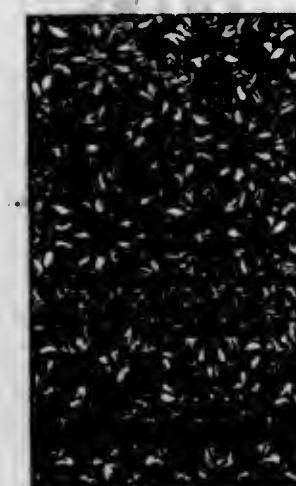
The ornamental design for a protection board bracket as shown.

44,980. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,533. Term of patent 3½ years.



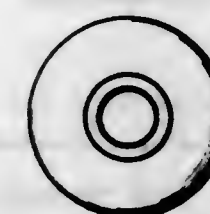
The ornamental design for a carpet, as shown.

44,981. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,534. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,982. CARAFE. WILLIAM D. SCOTT, New York, N. Y. Filed July 24, 1911. Serial No. 640,366. Term of patent 7 years.



The ornamental design for a carafe, as shown.

44,983. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,547. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,984. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,548. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,985. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,549. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,986. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,129. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,987. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,132. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,988. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,133. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,989. STAND. JOHN E. STENBERG, Chicago, Ill. Filed Oct. 22, 1913. Serial No. 796,740. Term of patent 7 years.



The ornamental design for a stand, as shown.

44,990. NET VEILING. ZEALIE VAN RAALTE, New York, N. Y. Filed Oct. 15, 1913. Serial No. 795,374. Term of patent 3½ years.



The ornamental design for a net veiling as shown herein.

44,991. CARPET. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 21, 1913. Serial No. 796,531. Term of patent 3½ years.



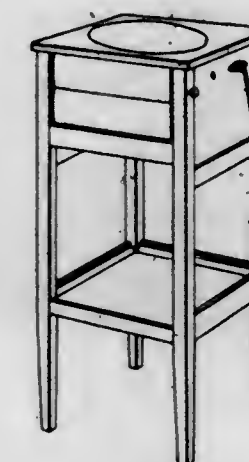
The ornamental design for a carpet, as shown.

44,992. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Oct. 24, 1913. Serial No. 797,139. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,993. CABINET FOR TALKING-MACHINES. STEPHEN M. WIRTS, Detroit, Mich., and EDWARD L. DUCKWALL, Salem, Ind., assignors to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Oct. 9, 1912. Serial No. 724,852. Term of patent 14 years.



The ornamental design for a cabinet for a talking-machine, as shown.

TRADE-MARKS

PUBLISHED DECEMBER 2, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 50,516. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNA NICOLINA ERIKA LINDAHL, Stockholm, Sweden, assignor to A. Lindahl, trading as Tekniska Helols, A. Lindahl, Stockholm, Sweden. Filed June 22, 1910.

LAZARIN

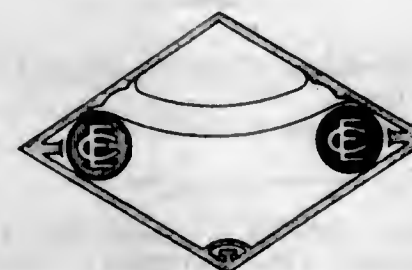
Particular description of goods.—Antiseptics.
Claims use since 1902.

Ser. No. 50,517. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNA NICOLINA ERIKA LINDAHL, Stockholm, Sweden, assignor to A. Lindahl, trading as Tekniska Helols, A. Lindahl, Stockholm, Sweden. Filed June 22, 1910.

LAZARD

Particular description of goods.—Antiseptics.
Claims use since 1905.

Ser. No. 52,207. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHARLES EICHBAUM, Port Jervis, N. Y. Filed Oct. 11, 1910.



The border and monograms being printed in gold and the circular medallions on which said monograms appear being printed in red.

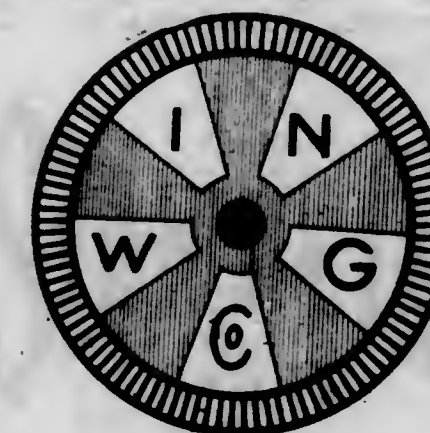
Particular description of goods.—Carbonated Beverages, including Ginger-Ale, Sarsaparilla, Cream-Soda, Lemon-Soda, Lemon-Sour, Orange-Soda, and Birch-Beer.
Claims use since Sept. 15, 1910.

Ser. No. 57,109. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ACETYLENE APPARATUS MANUFACTURING COMPANY, Chicago, Ill. Filed June 17, 1911.



No exclusive right to the use either of the words "Chicago" or "Star" is claimed.
Particular description of goods.—Acetylene-Generators.
Claims use since May 29, 1911.

Ser. No. 58,631. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) L. J. WING MFG. CO., New York, N. Y. Filed Sept. 11, 1911.



The words "Wing Co." being disclaimed, the vanes being printed in red.

Particular description of goods.—Ventilating Apparatus.
Claims use since Feb. 1, 1911.

Ser. No. 62,283. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE HALL-THOMPSON COMPANY, Hartford, Conn. Filed Mar. 19, 1912.

**WONDER
WORKER**

Particular description of goods.—Valve-Grinding Compounds, Fullers' Earth, Metal-Cleaning Compounds, and Glass-Polish.

Claims use since Sept. 15, 1911.

Ser. No. 63,186. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES ATWILL TYNDALL, New York, N. Y. Filed Apr. 29, 1912.

Sto-ma-sol

Consists of the word or name spelled "Sto-ma-Sol."

Particular description of goods.—Compounds or Preparations of Medicine as a Remedy for Stomach Disorders and Digestive Troubles.

Claims use since Sept. 1, 1911.

Ser. No. 63,187. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES ATWILL TYNDALL, New York, N. Y. Filed Apr. 29, 1912.

EN-SER-OL

Consists of the word or name spelled "En-Ser-Ol."

Particular description of goods.—Compounds or Preparations of Medicine as a Remedy for Ear Ailments and Diseases.

Claims use since Sept. 1, 1911.

Ser. No. 66,267. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE & CO., Baltimore, Md. Filed Oct. 12, 1912.

MONOGRAM

Particular description of goods.—A Compound Composed of Cotton-Seed Oil and Oleo-Stearin.

Claims use since October, 1906.

Ser. No. 66,284. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERT BROS. MILLING CO., San Francisco, Cal. Filed Oct. 14, 1912.



Wherein the picture shown is fanciful.

Particular description of goods.—A Compound Flour Whose Ingredients Comprise Middlings, Buckwheat-Flour, and Rye-Flour.

Claims use since Jan 1, 1900.

Ser. No. 66,425. (CLASS 39. CLOTHING.) EARL & WILSON, Troy, N. Y. Filed Oct. 21, 1912.



Particular description of goods.—Dress, Work, and Negligée Shirts and Collars.

Claims use since about Aug. 1, 1912.

Ser. No. 66,458. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Oct. 21, 1912. Under ten-year proviso.



Particular description of goods.—Photographic Plates.

Claims use since January, 1890.

Ser. No. 66,769. (CLASS 39. CLOTHING.) CHARLES EISENMAN COMPANY, Cleveland, Ohio. Filed Nov. 8, 1912.

Dynamette

Particular description of goods.—Sleeping-Garments.

Claims use since Nov. 4, 1912.

Ser. No. 66,816. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) E. H. ROBINSON CO., Salt Lake City, Utah. Filed Nov. 12, 1912.



Particular description of goods.—Cotton and Wool Bed-Blankets and Towels.

Claims use since Apr. 1, 1912.

Ser. No. 66,984. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL DICTOGRAPH CO., New York, N. Y. Filed Nov. 18, 1912.

DICTOPHONE

Particular description of goods.—Telephonic Apparatus.

Claims use since Aug. 15, 1906.

Vol. 197. No. 1.]

Ser. No. 67,838. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE COOK RAILWAY SIGNAL COMPANY, Denver, Colo. Filed Jan. 11, 1913.

"Re-Vivo"

Particular description of goods.—Storage Batteries.

Claims use since Oct. 1, 1912.

Ser. No. 68,185. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE MANTLE LAMP COMPANY OF AMERICA, Chicago, Ill. Filed Jan. 29, 1913.

LUMINEER

Particular description of goods.—Mantle Lamp-Burners and Parts Thereof.

Claims use since Nov. 1, 1912.

Ser. No. 69,190. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHERN PICKLE CO., Tacoma, Wash. Filed Mar. 19, 1913.

OLD FAITHFUL

Particular description of goods.—Pickles, Pork and Beans, Sauer-Kraut, Prepared Mustard, and Boiled Cider.

Claims use upon pickles since Aug. 11, 1912; upon pork and beans since Feb. 1, 1912; upon sauer-kraut since Feb. 1, 1912; upon prepared mustard since Sept. 1, 1912; upon boiled cider since Sept. 1, 1912.

Ser. No. 69,420. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed Mar. 29, 1913.

SHASTA

Particular description of goods.—Coffee.

Claims use since September, 1912.

Ser. No. 69,636. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Apr. 7, 1913.



Particular description of goods.—Tags, Paper Cards for the Display of Jewelry, Cards for Correspondence, Cards for Presentations, Cards for Congratulations, Cardboard, Labels, Paper Seals, Paper Napkins, Paper Handkerchiefs, Envelops, Rubber Bands, Pen-Cases, Tissue-Paper, Crape Paper, Wrapping-Paper, and Rolls of Plain Paper.

Claims use since August, 1910.

197 O. G.—15

[Vol. 197. No. 1.]

Ser. No. 69,643. (CLASS 17. TOBACCO PRODUCTS.) THE SUBBRUG COMPANY, Hoboken, N. J. Filed Apr. 7, 1913.

FLOSS CUT

No exclusive right to the word "Cut" is claimed herein.

Particular description of goods.—Smoking-Tobacco.

Claims use since January, 1912.

Ser. No. 69,682. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES N. MILLER, Boston, Mass. Filed Apr. 9, 1913.

Mary Janes

Particular description of goods.—Candy.

Claims use since Jan. 10, 1912.

Ser. No. 70,165. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SINCLAIR MANUFACTURING COMPANY, Toledo, Ohio. Filed May 1, 1913.



Particular description of goods.—Chlorid of Lime, Concentrated Lye, Powdered Borax, and Ammonia.

Claims use since Oct. 17, 1911.

Ser. No. 70,304. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed May 8, 1913.

STAN-OL-IND

Particular description of goods.—Motor-Spirits, a Substitute for Gasoline, to be Used in Internal-Combustion Engines.

Claims use since Mar. 13, 1913.

Ser. No. 70,568. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALLACE & Co., Brooklyn and New York, N. Y. Filed May 22, 1913.

MARCENO

Particular description of goods.—Candles.
Claims use since about May 15, 1913.

Ser. No. 70,772. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVERETT & TREADWELL Co., Kingston, N. Y. Filed May 31, 1913.

EVER-WELL

Particular description of goods.—Canned Fruits, Tapioca, Pepper, Coffee, Baked Beans, Alimentary Paste Products, Raisins, Sliced Beef, Peanut-Butter, Mustard, Cocoa, Salad-Dressing, Olives, Catsup, Canned Vegetables, Tea, Sauer-Kraut, and Succotash.

Claims use since September, 1912.

Ser. No. 71,045. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. BORGFELDT & Co., New York, N. Y. Filed June 12, 1913.

Anita

Particular description of goods.—Hair-Nets.
Claims use since about Jan. 1, 1913.

Ser. No. 71,138. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POWELL'S, New York, N. Y. Filed June 16, 1913.



Exclusive use of the word "Brand" being disclaimed.
Particular description of goods.—Candy.
Claims use since October, 1899.

Ser. No. 71,167. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) HERCULES POWDER COMPANY, Wilmington, Del. Filed June 18, 1913.

RED H

Consisting of the phrase "Red H."
Particular description of goods.—Dynamite.
Claims use since Jan. 21, 1913.

Ser. No. 71,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DENMARK CONDENSED MILK Co., Denmark, Wis. Filed June 23, 1913.

Every Meal

Particular description of goods.—Evaporated Milk.
Claims use since July 1, 1912.

Ser. No. 71,306. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KRAKAUER ZORK & MOVE'S SUCS. INC., El Paso, Tex. Filed June 23, 1913.



Particular description of goods.—Axes, Files, Nail-Hammers, Wrenches, and Agricultural Forks and Shovels.
Claims use since 1907.

Ser. No. 71,319. (CLASS 33. GLASSWARE.) THE PHOENIX GLASS Co., Pittsburgh, Pa. Filed June 23, 1913.

Phenixlite

Particular description of goods.—Lighting Units for Semi-Indirect Lighting.
Claims use since Mar. 1, 1913.

Ser. No. 71,523. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADVANCE NOVELTY CANDY MFG. Co., New York, N. Y. Filed July 5, 1913.

Imperator

Particular description of goods.—Candles.
Claims use since May 16, 1913.

Ser. No. 71,535. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDIBLE SEED OILS COMPANY, INC., New York, N. Y. Filed July 5, 1913.

ANTONIA

Consisting of the word "Antonia."
Particular description of goods.—Cotton-Seed Oil.
Claims use since Dec. 5, 1912.

Ser. No. 71,536. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDIBLE SEED OILS COMPANY, INC., New York, N. Y. Filed July 5, 1913.

AMANDA

Consisting of the word "Amanda."
Particular description of goods.—Cotton-Seed Oil.
Claims use since May 27, 1913.

Ser. No. 71,547. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE THEOBALD AND SON Co., Columbus, Ohio. Filed July 5, 1913.



Particular description of goods.—Brandy.
Claims use since June 1, 1913.

Ser. No. 71,690. (CLASS 38. PRINTS AND PUBLICATIONS.) JOSEPH T. RYERSON & SON, Chicago, Ill. Filed July 14, 1913.

STEEL-SERVICE

Particular description of goods.—Printed Books.
Claims use since May 28, 1913.

Ser. No. 71,727. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BENNETT MILLING Co., Geneva, Ill. Filed July 16, 1913.

EVEREADY



No claim being made to the exclusive use of the words "Ever Ready."

Particular description of goods.—Self-Rising Buckwheat-Flour and Wheat Compound.
Claims use since Oct. 1, 1902.

Ser. No. 71,828. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER KERN COMPANY, INC., Knoxville, Tenn. Filed July 18, 1913.



Particular description of goods.—Fruit Cakes.
Claims use since Nov. 12, 1912.

Ser. No. 71,880. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALRICK & CALLAHAN, Whitewater, Wis. Filed July 22, 1913.

SUM-BUM

The exclusive use of the word "Gum" not being claimed.
Particular description of goods.—Chewing-Gum.
Claims use since January, 1913.

Ser. No. 71,884. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GEORGE S. MCCREEDY, Brooklyn, N. Y. Filed July 22, 1913.

BABY KISS

Particular description of goods.—A Toilet Soap.
Claims use since July 17, 1913.

Ser. No. 72,104. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

FAMOUS

Particular description of goods.—Internal-Combustion Engines and Parts Thereof.
Claims use since July, 1904.

Ser. No. 72,142. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LORETTA B. MALLOY, Philadelphia, Pa. Filed Aug. 2, 1913.



Particular description of goods.—Toilet Preparations, Lotions, Powder, Ointment, and Cream for the Face.
Claims use since June 1, 1913.

Ser. No. 72,158. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILHELM PONNDORF, Cassel, Germany. Filed Aug. 4, 1913.

Halut

Particular description of goods.—Hop-Mills, Hop-Presses, Hop Monte-Jus, Hop-Strippers, Hop-Sorters, Husk-Presses, Elevators, Lifts, Winches, and Hoisting-Tackles and Parts Thereof.
Claims use since June 18, 1912.

Ser. No. 72,244. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ALBERT BEAG, Marysville, Cal. Filed Aug. 9, 1913.

GOLDEN GLOSS

The word "Gloss" not being claimed.

Particular description of goods.—A Preparation for Cleaning Windows, Cleaning and Shining All Kinds of Metal or Glassware, and for Removing Ink-Stains.
Claims use since July 1, 1913.

Ser. No. 72,254. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROCKEFELLER SOAP Co., Brooklyn, N. Y. Filed Aug. 9, 1913.



The picture shown being a likeness of Edgar Rockefeller.
Particular description of goods.—Laundry Soap.
Claims use since 1901.

Ser. No. 72,357. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MENTHACOL Co., Chattanooga, Tenn. Filed Aug. 15, 1913.

MENTHACOL

Particular description of goods.—A Remedy for Inflamed and Irritated Skin, Sore Throat, Headache, Earache, Catarrh, Bronchitis, Rheumatism, Cold-Sores, Chapped Hands, and Insect Bites or Stings.
Claims use since Jan. 13, 1913.

Ser. No. 72,453. (CLASS 47. WINES.) SOCIÉTÉ CIVILE DU VIGNOBLE DE CHATEAU-LATOIR, Pauillac, France. Filed Aug. 20, 1913.



The words "Mis en Bouteilles au Chateau" and the words "Grand Vin de" being disclaimed.
Particular description of goods.—Wines.
Claims use since June 9, 1891.

Ser. No. 72,514. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HYDRAULIC PRESS MANUFACTURING COMPANY, Mount Gilead, Ohio. Filed Aug. 25, 1913.



Particular description of goods.—Hydraulic Presses; Hydraulic Belt and Motor Driven Pumps, Vertical and Horizontal Types; Hydraulic Steam-Pumps; Hydraulic Accumulators; Hydraulic Intensifiers; Grape-Crushers; Apple-Graters; Grinders for Apple-Grater Knives; Pumps for Fruit-Juices; Valves Especially Designed for and Essential Parts of Hydraulic Presses and Pumps.
Claims use since June 1, 1913.

Ser. No. 72,520. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE MOWBRAY & ROBINSON Co., Cincinnati, Ohio. Filed Aug. 25, 1913.



Particular description of goods.—Hardwood Lumber.
Claims use since November, 1912.

Ser. No. 72,541. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY, Richmond, Cal. Filed Aug. 26, 1913.

CALOL

Particular description of goods.—Liquid Gloss and Furniture-Polish.
Claims use since the 13th day of June, 1913.

Ser. No. 72,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS ASPINALL, Bolton, England. Filed Sept. 5, 1913.

STEROLINE

Particular description of goods.—A Substance for Use in Manufacture as a Preservative in the Treatment of Starch, Size, Flour, and Similar Vegetable Substances.
Claims use since Aug. 3, 1912.

Ser. No. 72,709. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. Co., Richmond, Va. Filed Sept. 6, 1913.



Particular description of goods.—Blotting-Paper.
Claims use since Feb. 1, 1893.

Ser. No. 72,762. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DUPLAN SILK Co., New York, N. Y. Filed Sept. 10, 1913.

VIVACITE

Particular description of Goods.—Silk Piece Goods.
Claims use since on or about the 1st of August, 1913.

Ser. No. 72,769. (CLASS 10. FERTILIZERS.) PACIFIC BONE COAL & FERTILIZING Co., San Francisco, Cal. Filed Sept. 10, 1913.

"LUCERNA"

Particular description of goods.—Fertilizers.
Claims use since Sept. 1, 1913.

Ser. No. 72,872. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL Co., New York, N. Y. Filed Sept. 16, 1913.



Particular description of goods.—Fertilizer.
Claims use since November, 1894.

Ser. No. 72,910. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MALCOLM R. TIPTON, Portland, Oreg. Filed Sept. 16, 1913.



Particular description of goods.—Liniment, Tolu and Tar Compound for Coughs and Colds, Red-Mixture Blood Remedy, Laxative La Grippe Tablets for La Grippe and Colds, Poison Ivy and Oak Killer, Prune-Juice Compound for Babies, Diuretic (Liquid) and Kidney-Bean for Kidney and Bladder Trouble, Stomach-Tonic Tablets for the Stomach and Constipation, Remedy for Dandruff and Scalp, Remedy for Leucorrhea, Corn Remedy, and Essence of Jamaica Ginger.
Claims use since Jan. 1, 1912.

Ser. No. 72,947. (CLASS 39. CLOTHING.) AMERICAN LADY CORSET Co., Detroit, Mich. Filed Sept. 19, 1913.



Particular description of goods.—Corsets.
Claims use since July 1, 1910.

Ser. No. 72,962. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AMERICAN ROTARY VALVE COMPANY, Chicago, Ill. Filed Sept. 20, 1913. Under ten-year proviso.

JENNEY

Particular description of goods.—Direct-Current Motors, Horizontal and Vertical; Direct-Current Generators; Alternating-Current Motors, Horizontal and Vertical; Alternating-Current Generators; Two-Motor Drive Combinations; Special Switchboard for Newspaper-Press Motors; Electrical Speed-Controllers for Alternating-Current Motors; Direct-Current Linotype-Motors; Alternating-Current Linotype-Motors; Motor-Starting Rheostat, and Electrical Speed-Controller Devices.
Claims use since Mar. 4, 1890.

Ser. No. 72,985. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Sept. 20, 1913. Under ten-year proviso.



Particular description of goods.—Toilet Soap.
Claims use since on or about May, 1892.

Ser. No. 73,007. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) R. H. HOLTER & Co., New York, N. Y. Filed Sept. 23, 1913.



No claim being made to the words "Furniture Polish Trade-Mark."

Particular description of goods.—A Furniture-Polish. Claims use since July 5, 1913.

Ser. No. 73,061. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Sept. 25, 1913.

VARNOLENE

Particular description of goods.—A Substitute for Turpentine. Claims use since July, 1908.

Ser. No. 73,143. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK J. BRINKER, Pittsburgh, Pa. Filed Oct. 1, 1913.

GLUYAS

Particular description of goods.—Remedy for Frost-Bite. Claims use since Sept. 1, 1913.

Ser. No. 73,169. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FISHEL & GORMAN, INC., New York, N. Y. Filed Oct. 2, 1913.

PREMIER

Particular description of goods.—Embroidery Outfits Consisting of an Envelop Containing Fabric Stamped with a Pattern and Floss for Embroidering the Same. Claims use since July 1, 1913.

Ser. No. 73,225. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WHITTIER COBURN COMPANY, San Francisco, Cal. Filed Oct. 4, 1913.

ARGONAUT

Particular description of goods.—Ready-Mixed Paints. Claims use since about Aug. 1, 1901.

Ser. No. 73,230. (CLASS 39. CLOTHING.) GORDON & FERGUSON, St. Paul, Minn. Filed Oct. 6, 1913. Under ten-year proviso.

GORDON

Particular description of goods.—Fur Coats, Fur Caps, Fur Gloves, Fur Scarfs, and Fur Mitts. Claims use since on or about May 1, 1892.

Ser. No. 73,249. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Oct. 6, 1913.

DAISY

Particular description of goods.—Reapers and Parts Thereof. Claims use since June, 1882.

Ser. No. 73,275. (CLASS 39. CLOTHING.) JULIUS GARPINKLE, Washington, D. C. Filed Oct. 8, 1913.

ELINOR

Particular description of goods.—Gloves. Claims use since about Aug. 1, 1913.

Ser. No. 73,298. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONSOLIDATED TEXTILE MILLS Co., Baltimore, Md. Filed Oct. 10, 1913.

STYLETEX

Particular description of goods.—Woven Cotton-Fabric Piece Goods. Claims use since Sept. 10, 1913.

Ser. No. 73,302. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MYSTIC RUBBER COMPANY, Medford, Mass. Filed Oct. 10, 1913.

OMD

Particular description of goods.—Dress-Shields. Claims use since Dec. 16, 1912.

Ser. No. 73,324. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARROWHEAD HOT SPRINGS COMPANY, Arrowhead Springs, Cal. Filed Oct. 13, 1913.



Particular description of goods.—Mineral Water. Claims use since December, 1905.

Ser. No. 73,351. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WOLBERT GROCERY COMPANY, Tyler, Tex., and Chicago, Ill. Filed Oct. 13, 1913.

Squirrel Nut Cracker

The words "Nut Cracker" being hereby disclaimed as a part of the trade-mark.

Particular description of goods.—Nutcrackers. Claims use since Mar. 1, 1911.

Ser. No. 73,361. (CLASS 10. FERTILIZERS.) CARL TEERLING, Savannah, Ga. Filed Oct. 14, 1913.

"NITRA-GERM"

Particular description of goods.—A Fertilizer. Claims use since June, 1912.

Ser. No. 73,374. (CLASS 39. CLOTHING.) GASTON JULES GOUY, Chicago, Ill. Filed Oct. 15, 1913.

IROG

Particular description of goods.—Ladies', Misses', and Children's Shirt and Dress Waists, Dresses, and Silk Coats. Claims use since 1905.

Ser. No. 73,403. (CLASS 15. OILS AND GREASES.) SCHLIEMANN'S OIL & CERESINE COMPANY, INC., New York, N. Y. Filed Oct. 15, 1913.

DURESCO

Particular description of goods.—Lubricating Oils and Greases in Solid or Block-Like Form. Claims use since Apr. 10, 1913.

Ser. No. 73,415. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HOME CREAMERY MANUFACTURING COMPANY, Owatonna, Minn. Filed Oct. 16, 1913.

MINNETONKA

The same being the word "Minnetonka."
Particular description of goods.—Combined Churns and Butter-Workers. Claims use since Oct. 6, 1913.

Ser. No. 73,442. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913. Under ten-year proviso.

PENNA. SAW WORKS

"Penna. Saw Works."
Particular description of goods.—Saws. Claims use since 1888.

Ser. No. 73,443. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913.

ENTERPRISE

"Enterprise."
Particular description of goods.—Saws. Claims use since 1870.

Ser. No. 73,444. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913. Under ten-year proviso.

PHILA. SAW CO.

"Phila. Saw Co."
Particular description of goods.—Saws. Claims use since 1888.

Ser. No. 73,445. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913. Under ten-year proviso.

OUR SAW

"Our Saw."
Particular description of goods.—Saws. Claims use since 1870.

Ser. No. 73,446. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913.

CLIPPER

Particular description of goods.—Saws. Claims use since 1870.

Ser. No. 73,447. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913.

CHALLENGE

"Challenge."

Particular description of goods.—Saws.
Claims use since 1890.

Ser. No. 73,449. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISS-TON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913.

THE IMP

Particular description of goods.—Saws.
Claims use since 1870.

Ser. No. 73,488. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NOVO ENGINE COMPANY, Lansing, Mich. Filed Oct. 18, 1913.

NOVO

Particular description of goods.—Gasolene-Engines.
Claims use since about Apr. 1, 1908.

Ser. No. 73,534. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed Oct. 21, 1913. Under ten-year proviso.

U.S. RUBBER CO.

Particular description of goods.—Rubber Boots and Shoes.
Claims use since the year 1893.

Ser. No. 73,536. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN DURALUMIN Co., New York, N. Y. Filed Oct. 22, 1913.

DURALUMIN

Particular description of goods.—A Metallic Alloy.
Claims use since May 20, 1913.

Ser. No. 73,540. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE AMERICAN PAINT WORKS, New Orleans, La. Filed Oct. 22, 1913.

SHELLITE

Particular description of goods.—A Flat Wall-Finish.
Claims use since the year 1911.

Ser. No. 73,560. (CLASS 37. PAPER AND STATION-ERY.) SAN ANTONIO DRUG CO., San Antonio, Tex. Filed Oct. 22, 1913.

KINGFISHER



Particular description of goods.—Memorandum-Book.
Claims use since July 2, 1911.

Ser. No. 73,581. (CLASS 39. CLOTHING.) RICHARD-SON DRY GOODS CO., St. Joseph, Mo. Filed Oct. 23, 1913.

LADDIE AND LASSIE

Particular description of goods.—Hosiery.
Claims use since Sept. 1, 1913.

Ser. No. 73,582. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed Oct. 23, 1913.

STANOLIND

Particular description of goods.—Gas-Engine Tractor Oil.
Claims use since Mar. 13, 1913.

Ser. No. 73,602. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB GEORGE HUCK, Englewood, Colo. Filed Oct. 25, 1913.



Being a portrait of myself.

Particular description of goods.—A Medicine for Chills and Fever, Stomach and Bowel Trouble, Rheumatism, Gout, Indigestion, Biliousness, Constipation, Asthma, and for Blood-Purifying Purposes.
Claims use since Oct. 16, 1913.

Ser. No. 73,683. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) UNIVERSAL CAR-BOX CO., Dundee, Ill. Filed Oct. 27, 1913.



Particular description of goods.—Dry Battery-Cells.
Claims use since Sept. 4, 1913.

Ser. No. 73,671. (CLASS 39. CLOTHING.) COHN GOLDWATER & Co., Los Angeles, Cal. Filed Oct. 30, 1913.



Particular description of goods.—Knitted Underwear.
Claims use since Oct. 1, 1913.

Ser. No. 73,678. (CLASS 15. OILS AND GREASES.) AUGUST MIETZ, New York, N. Y. Filed Oct. 30, 1913.

M. & W.

Particular description of goods.—Lubricating-Oil.
Claims use since about May 1, 1903.

Ser. No. 73,735. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BURT NEULON PIERCE, Flint, Mich. Filed Nov. 1, 1913.

MARVEL

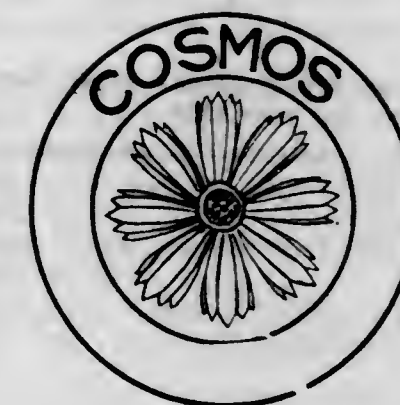
Particular description of goods.—Carbureters.
Claims use since about March, 1907.

Ser. No. 73,754. (CLASS 10. FERTILIZERS.) THE ROBERT A. WOOLDRIDGE Co., Baltimore, Md. Filed Nov. 3, 1913.



Particular description of goods.—Fertilizer.
Claims use since June 27, 1913.

Ser. No. 73,757. (CLASS 39. CLOTHING.) THE LA CROSSE KNITTING WORKS, La Crosse, Wis. Filed Nov. 3, 1913.



Particular description of goods.—Auto-Gloves.
Claims use since October, 1912.

Ser. No. 73,768. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL Co., New York, N. Y. Filed Nov. 3, 1913.

RED LINE

Particular description of goods.—Fertilizers.
Claims use since at least Nov. 1, 1897.

Ser. No. 73,786. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ARISTOS COMPANY, Wilmington, Del., and New York, N. Y. Filed Nov. 4, 1913.

MONDEX

Particular description of goods.—Gas-Mixers.
Claims use since the 17th day of March, 1911.

Ser. No. 73,787. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE AMERICAN PAINT WORKS, New Orleans, La. Filed Nov. 4, 1913.

Elimatic

Particular description of goods.—Mixed Paints.
Claims use since the year 1906.

Ser. No. 73,858. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. SONNEBORN SONS INC., New York, N. Y. Filed Nov. 7, 1913.



Particular description of goods.—Lubricators.
Claims use since July, 1913.

Ser. No. 73,896. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) A. H. PATCH INCORPORATED, Clarksville, Tenn. Filed Nov. 10, 1913.

A P A C H E

Particular description of goods.—Hand Grist or Grinding Mills.
Claims use since March, 1913.

[Vol. 197. No. 1.]

TRADE-MARKS

REGISTERED DECEMBER 2, 1913.

94,344. ALIMENTARY PASTE PRODUCTS. THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913. Serial No. 71,034. PUBLISHED SEPTEMBER 30, 1913.

94,345. AUTOMOBILE ACCESSORIES CONSISTING OF SIDE TIRE-HOLDERS AND REAR-END TIRE-HOLDERS. AUTO PARTS MFG. CO., Milwaukee, Wis. Filed May 6, 1912. Serial No. 63,382. PUBLISHED SEPTEMBER 30, 1913.

94,346. GOLD-PLATED AND PRECIOUS-METAL COLLAR-BUTTONS, CUFF-BUTTONS, AND SHIRT-STUDS. BACK-RACK COLLAR BUTTON CO., Providence, R. I. Filed June 16, 1913. Serial No. 71,116. PUBLISHED SEPTEMBER 30, 1913.

94,347. REMEDY FOR CERTAIN NAMED DISEASES. WILLIAM F. BENTE, Seattle, Wash. Filed March 17, 1913. Serial No. 69,083. PUBLISHED SEPTEMBER 23, 1913.

94,348. PORT-WINE. C. BERRY & CO., Boston, Mass. Filed September 6, 1913. Serial No. 72,700. PUBLISHED SEPTEMBER 30, 1913.

94,349. SHERRY-WINE. C. BERRY & CO., Boston, Mass. Filed September 6, 1913. Serial No. 72,701. PUBLISHED SEPTEMBER 30, 1913.

94,350. REMEDY FOR DISEASES OF HORSES. THE BRADBURY EQUALIZER COMPANY, Coxsack, N. Y. Filed May 21, 1912. Serial No. 63,691. PUBLISHED SEPTEMBER 30, 1913.

94,351. BOOK-PAPER, WRITING-PAPER, ENVELOPS, BOND-PAPER, AND BRISTOL-BOARD. BRADNER SMITH & CO., Chicago, Ill. Filed July 9, 1913. Serial No. 71,608. PUBLISHED SEPTEMBER 30, 1913.

94,352. CORNMEAL. SOLOMON C. BRINER, Middletown, Pa. Filed June 4, 1913. Serial No. 70,850. PUBLISHED SEPTEMBER 30, 1913.

94,353. STEEL CEILINGS. THE CANTON STEEL CEILING CO., New York, N. Y. Filed August 9, 1913. Serial No. 72,245. PUBLISHED SEPTEMBER 30, 1913.

94,354. COMPOUND FOR CLEANING THE CYLINDERS OF INTERNAL-COMBUSTION ENGINES. CARBON CLEANING COMPOUND CO., St. Louis, Mo. Filed August 11, 1913. Serial No. 72,282. PUBLISHED SEPTEMBER 30, 1913.

94,355. MOTOR-CYCLES AND BICYCLES. THE CONSOLIDATED MANUFACTURING COMPANY, Toledo, Ohio. Filed May 1, 1913. Serial No. 70,147. PUBLISHED SEPTEMBER 30, 1913.

94,356. CATAMENIAL BELTS. AUGUSTA P. COOLBROTH, Brookline, Mass. Filed June 14, 1913. Serial No. 71,099. PUBLISHED SEPTEMBER 30, 1913.

94,357. AUTOMOBILES. EMPIRE AUTOMOBILE CO., Indianapolis, Ind. Filed June 6, 1913. Serial No. 70,893. PUBLISHED SEPTEMBER 30, 1913.

94,358. ADHESIVE PASTES. ERNECKE & SALMSTEIN COMPANY, Chicago, Ill. Filed July 30, 1913. Serial No. 72,040. PUBLISHED SEPTEMBER 30, 1913.

94,359. PLAIN SOFT DRINK IN THE FORM OF A SWEET SYRUP. BENJAMIN R. FAUNCE, Riverside township, Burlington county, N. J. Filed August 4, 1913. Serial No. 72,154. PUBLISHED SEPTEMBER 30, 1913.

94,360. SHAVING-MIRRORS. FEDERAL SIGN SYSTEM (ELECTRIC), Chicago, Ill. Filed August 30, 1913. Serial No. 72,595. PUBLISHED SEPTEMBER 30, 1913.

94,361. CERTAIN NAMED HARDWARE, PLUMBING, AND STEAM-FITTING SUPPLIES. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 13, 1911. Serial No. 57,606. PUBLISHED APRIL 22, 1913.

94,362. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed March 2, 1912. Serial No. 61,884. PUBLISHED SEPTEMBER 30, 1913.

94,363. CERTAIN NAMED VEHICLES AND PARTS THEREOF. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed March 2, 1912. Serial No. 61,889. PUBLISHED SEPTEMBER 30, 1913.

94,364. PIANOFORTES, GRAND AND UPRIGHT PIANOS, AND GRAND AND UPRIGHT PLAYER-PIANOS. J. & C. FISCHER, New York, N. Y. Filed August 2, 1913. Serial No. 72,135. PUBLISHED SEPTEMBER 30, 1913.

94,365. GELATIN PREPARATION IN POWDERED FORM. THE FRANK PURE FOOD CO., Milwaukee, Wis. Filed August 2, 1911. Serial No. 57,978. PUBLISHED APRIL 22, 1913.

94,366. CERTAIN NAMED GLASS ARTICLES USED FOR ILLUMINATING PURPOSES. GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed December 13, 1912. Serial No. 67,393. PUBLISHED JANUARY 21, 1913.

94,367. METALLIC FILING CASES AND CABINETS IN BOTH SECTIONAL AND SOLID CONSTRUCTION. THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed June 6, 1913. Serial No. 70,894. PUBLISHED SEPTEMBER 30, 1913.

94,368. ASPHALT ROOFING, TARRED FELTS, AND BUILDING-PAPERS. GENERAL ROOFING MANUFACTURING CO., East St. Louis, Ill. Filed May 31, 1913. Serial No. 70,780. PUBLISHED SEPTEMBER 30, 1913.

94,369. JEWELERS' SAWS. PAUL H. GESSWEIN & COMPANY, New York, N. Y. Filed July 23, 1913. Serial No. 71,903. PUBLISHED SEPTEMBER 30, 1913.

94,370. LIVE POULTRY, DRESSED POULTRY, DRIED, FRESH, CANNED, AND PRESERVED FRUITS AND VEGETABLES. M. S. HALLOCK COMPANY, Rocky Point, N. Y. Filed September 23, 1912. Serial No. 65,940. PUBLISHED SEPTEMBER 30, 1913.

- 94,371. LAXATIVE CATHARTIC AND DIURETIC. SCOTT B. HAMBLY, Detroit, Mich.
Filed July 16, 1913. Serial No. 71,748. PUBLISHED SEPTEMBER 30, 1913.
- 94,372. ARTIFICIAL WOOD. HANNOVERSCHE STEIN-HOLZFABRIK "FAMA" GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Hanover, Germany.
Filed February 25, 1910. Serial No. 48,016. PUBLISHED JANUARY 30, 1912.
- 94,373. VACUUM-CLEANERS AND CARPET-SWEEPERS. BENJAMIN E. HARRIS, Chicago, Ill.
Filed August 29, 1912. Serial No. 65,493. PUBLISHED SEPTEMBER 30, 1913.
- 94,374. TOOTH-PASTE, TOOTH-POWDER, TALCUM POWDER, FACE-POWDER, FACE-CREAMS, AND PERFUMERY. HERB'S BOUDOIR CORPORATION, Minneapolis, Minn.
Filed December 17, 1912. Serial No. 67,460. PUBLISHED SEPTEMBER 30, 1913.
- 94,375. WHEAT-FLOUR. HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y.
Filed August 23, 1912. Serial No. 65,382. PUBLISHED MARCH 11, 1913.
- 94,376. PAPER TOWELS AND TOILET-PAPER. HECO ENVELOPE & PAPER COMPANY, Chicago, Ill.
Filed August 20, 1913. Serial No. 72,439. PUBLISHED SEPTEMBER 30, 1913.
- 94,377. [WITHDRAWN.]
- 94,378. CAPSICUM, ALMOND-MEAL, TURMERIC, CUBER, AND DRAGON'S-BLOOD. J. L. HOPKINS & CO., New York, N. Y.
Filed July 15, 1913. Serial No. 71,713. PUBLISHED SEPTEMBER 30, 1913.
- 94,379. STEEL PENS. GEORGE W. HUGHES, Birmingham, England.
Filed May 27, 1913. Serial No. 70,693. PUBLISHED SEPTEMBER 30, 1913.
- 94,380. SHEET-STEEL. INLAND STEEL COMPANY, Chicago, Ill.
Filed April 21, 1913. Serial No. 69,951. PUBLISHED SEPTEMBER 30, 1913.
- 94,381. SALVES AND COUGH-DROPS. FRED W. ISRAEL, Wichita, Kans.
Filed May 13, 1912. Serial No. 63,512. PUBLISHED AUGUST 26, 1913.
- 94,382. TONIC FOR ANIMALS AND POULTRY. THE W. A. JENKINS MFG. CO., London, Ontario, Canada.
Filed March 1, 1912. Serial No. 61,842. PUBLISHED SEPTEMBER 30, 1913.
- 94,383. BUTTER. KIEL BROTHERS, West New York, N. J.
Filed December 12, 1911. Serial No. 60,185. PUBLISHED DECEMBER 17, 1912.
- 94,384. COMPOUND TO BE USED IN EXTERMINATING RATS, MICE, GOPHERS, AND OTHER ANIMAL PESTS. OSCAR C. KRETSCHMAR, Minneapolis, Minn.
Filed July 7, 1913. Serial No. 71,566. PUBLISHED SEPTEMBER 30, 1913.
- 94,385. LIQUID AND PASTE FURNITURE-POLISHES AND FLOOR-DRESSINGS. JAMES V. LANE, Los Angeles, Cal.
Filed May 12, 1913. Serial No. 70,378. PUBLISHED SEPTEMBER 9, 1913.
- 94,386. CANDY. THE FREDERICK W. LIPPS COMPANY OF BALTIMORE CITY, Baltimore, Md.
Filed April 8, 1913. Serial No. 69,660. PUBLISHED SEPTEMBER 30, 1913.
- 94,387. ALIMENTARY PASTE AND OLIVE-OIL. ANTONIO MAGNANO, Seattle, Wash.
Filed September 9, 1911. Serial No. 58,612. PUBLISHED OCTOBER 15, 1912.
- 94,388. TALCUM POWDER, SACHET-POWDER, FACE-POWDER, FACE-CREAM, AND PERFUME. GEORGE S. MCCREEDY, Brooklyn, N. Y.
Filed July 22, 1913. Serial No. 71,885. PUBLISHED SEPTEMBER 30, 1913.
- 94,389. DISINFECTANT AND DEODORANT. MIDLAND CHEMICAL CO., Dubuque, Iowa.
Filed June 23, 1913. Serial No. 71,312. PUBLISHED SEPTEMBER 30, 1913.
- 94,390. TOILET-PAPER. ASAHEL U. MORSE, Kansas City, Mo.
Filed November 22, 1912. Serial No. 67,055. PUBLISHED SEPTEMBER 30, 1913.
- 94,391. FERTILIZER. MOUNT PLEASANT FERTILIZER COMPANY, INCORPORATED, Mount Pleasant, Tenn.
Filed July 29, 1913. Serial No. 72,029. PUBLISHED SEPTEMBER 30, 1913.
- 94,392. PIPES, TUBES, AND CASINGS. NATIONAL TUBE COMPANY, Pittsburgh, Pa.
Filed February 12, 1913. Serial No. 68,518. PUBLISHED SEPTEMBER 30, 1913.
- 94,393. OARS, SWEEPS, AND SCULLS. NEW YORK BOAT OAR COMPANY, East Orange, N. J., and New York, N. Y.
Filed June 28, 1913. Serial No. 71,402. Renewal of No. 10,467, July 24, 1888. PUBLISHED SEPTEMBER 30, 1913.
- 94,394. CERTAIN NAMED MUSICAL INSTRUMENTS AND PARTS THEREFOR. GUSTAV PIRAZZI & CO., Offenbach-on-the-Main, Germany.
Filed May 22, 1913. Serial No. 70,560. PUBLISHED SEPTEMBER 30, 1913.
- 94,395. PUNCTURE-PROOF COMPOSITION. JAMES A. POSEY, Waxahachie, Tex.
Filed April 24, 1913. Serial No. 70,045. PUBLISHED SEPTEMBER 30, 1913.
- 94,396. REMEDY FOR CORNS, WARTS, AND CALLI. R. W. B. CO., Buffalo, N. Y.
Filed June 21, 1913. Serial No. 71,273. PUBLISHED SEPTEMBER 23, 1913.
- 94,397. WOOD-PRESERVERS MANUFACTURED FROM COAL-TAR DISTILLED. THE REEVES COMPANY, New Orleans, La.
Filed October 19, 1912. Serial No. 66,374. PUBLISHED SEPTEMBER 30, 1913.
- 94,398. MANICURING HAND POLISHERS, BUFFERS, AND ENAMELERS. ROLLER POLISHER COMPANY, New York, N. Y.
Filed July 9, 1913. Serial No. 71,623. PUBLISHED SEPTEMBER 30, 1913.
- 94,399. GASOLENE-GAGES. C. F. ROPER & CO., Hopedale, Mass.
Filed August 16, 1913. Serial No. 72,385. PUBLISHED SEPTEMBER 30, 1913.
- 94,400. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed July 31, 1913. Serial No. 72,080. PUBLISHED SEPTEMBER 30, 1913.
- 94,401. SUBSTITUTE FOR LARD. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed May 24, 1913. Serial No. 70,638. PUBLISHED SEPTEMBER 30, 1913.
- 94,402. REFINED PETROLEUM FOR ILLUMINATING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed June 24, 1910. Serial No. 50,555. PUBLISHED MAY 28, 1912.
- 94,403. COVER-PAPER IN SHEETS. O. M. STEINMAN INC., New York, N. Y.
Filed July 22, 1913. Serial No. 71,892. PUBLISHED SEPTEMBER 30, 1913.
- 94,404. WRITING-TABLETS, ENVELOPS, PAPETERIES, AND WRITING-PAPER. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed August 19, 1913. Serial No. 72,425. PUBLISHED SEPTEMBER 30, 1913.

- 94,405. CLOTHES-LINES AND TWINE. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,266. PUBLISHED SEPTEMBER 30, 1913.
- 94,406. SMOKERS' PIPES. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,269. PUBLISHED SEPTEMBER 30, 1913.
- 94,407. REMEDY FOR CERTAIN LIVE-STOCK AILMENTS AND A TONIC. TESCRAWAS CHEMICAL COMPANY, Uhrichsville, Ohio.
Filed May 22, 1913. Serial No. 70,567. PUBLISHED SEPTEMBER 23, 1913.
- 94,408. FILTERING APPARATUS, REFRIGERATING SYSTEMS, AND FILTER MASSES OR MATERIAL FOR FILTER-PRESS. VULKAN-WERKE GESELLSCHAFT FÜR BRAUEREI-BEDARF M. B. H., Berlin, Germany.
Filed June 23, 1913. Serial No. 71,327. PUBLISHED SEPTEMBER 30, 1913.
- 94,409. OBJECTIVE-LENS SYSTEMS. CARL ZEISS, Jena, Germany.
Filed August 21, 1913. Serial No. 72,477. PUBLISHED SEPTEMBER 30, 1913.

DECISIONS

OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE SHER.

Decided October 28, 1913.

1. TRADE-MARK—SPECIMENS—PROOF—COPIES NOT SUFFICIENT.

Specimens which are proof-copies of the trade-mark do not satisfy the requirement of the statute, being merely duplicates of the drawing.

2. SAME—SAME—MAY BE REQUIRED FOR ALL GOODS CLAIMED.

Where the goods specified fall within the purview of the Food and Drugs Act, it is proper to require the applicant to file a specimen of the mark as used upon each of the goods claimed.

ON PETITION.

TRADE-MARK FOR COLD-CREAMS, SALVES, OINTMENTS, LOTIONS, POWDER, ETC.

Mr. Lester F. Dittenhoefer for the applicant.

EWING, Commissioner:

This is a petition from the action of the Examiner requiring further specimens.

Section 1 of the Trade-Mark Act provides that with his statement an applicant shall file—such number of specimens of the trade-mark as actually used, as may be required by the Commissioner of Patents.

Rule 22 (c) requires that five specimens be filed.

The alleged specimens filed are not the specimens of the trade-mark as actually used, but proof-copies. They are merely duplicates of the drawing, and if this were sufficient there would be no reason for the requirement in the Trade-Mark Act. The act obviously intended that the application should be accompanied by labels or specimens showing the mark as actually used in commerce.

The Examiner further required that applicant furnish one specimen showing use of the mark upon each of the goods named in the application. This has been the practice for several years, following the decision in *ex parte Barclay and Barclay*, (135 O. G., 217), where the goods are those which come within the purview of the Food and Drugs Act. The purpose of this requirement is to determine whether the mark is actually deceptively used. The recent decision in *ex parte American Tale Company* (195 O. G., 274) is not regarded as overruling this practice. It is believed to be proper for this Office to refuse registration where the specimens filed show a deceptive use of the mark, and in order to deter-

[Vol. 197.]

mine whether the mark is so used it is obviously necessary that labels be furnished corresponding to each of the goods claimed.

If applicant is actually using the mark on all the goods named, it is no hardship that he be required to furnish the labels. If he is not using it on these goods, then under the act itself he is not entitled to register a mark for such goods as he is not using it on.

The decision in *ex parte Moline Automobile Company* (193 O. G., 219) has no bearing on the present case, since the goods specified therein do not fall within the purview of the Food and Drugs Act.

The petition is denied.

EX PARTE IDDINGS AND IDDINGS.

Decided November 21, 1913.

APPLICATION—PROSECUTION—NON-RESPONSIVE AMENDMENT—ABANDONMENT.

At the end of the year following a rejection an amendment was filed making certain formal corrections, but making no reference to the rejected claims, and no action was taken until nearly ten months after the Office had notified the applicant wherein the amendment was incomplete, and no excuse is given for the delay. Held that the application is abandoned.

ON PETITION.

METAL BARREL.

Mr. George W. Upton for the applicant.

EWING, Commissioner:

This is a petition that the above-entitled application be held not abandoned.

On October 19, 1911, the Examiner rejected claims 1, 2, 4, and 5 in view of references, held that claim 6 was incomplete, and allowed claims 3 and 7. On October 18, 1912, an amendment was filed directing that certain corrections be made to the drawing and amending claim 6, but making no reference whatever to claims 1, 2, 4, and 5. On November 19, 1912, the Examiner held the application abandoned and on January 3, 1913, in response to a letter from the attorney, stated wherein the amendment was incomplete. The present petition was filed October 16, 1913, and an amendment canceling claims 1, 2, 4, and 5 was filed November 12, 1913.

The applicant argues that the amendment was complete, since the claims having been rejected they

No. 1.]

were out of the case. This argument is clearly without force. Applicant was entitled to ask for the reconsideration of this rejection and if the rejection was made final to take appeal from that action. The claims could be taken out of the case only by actual instructions by the applicant to cancel the same.

No excuse has been given for the failure to file a properly-responsive amendment within one year from October 19, 1911; nor has any excuse been given for the delay in presenting this petition after the receipt of the letter of January 3, 1913. There is nothing on the record, therefore, to show that the delay in the prosecution of the application was unavoidable.

The petition is denied.

BURLEIGH v. ELLIOT.

Decided September 30, 1913.

INTERFERENCE—MOTION TO DISSOLVE—INDEFINITENESS.

A motion to dissolve an interference between an application and a patent which merely alleges that the features common to the two are found in a prior patent, that the structure of the applicant is not patentable over that patent, and that the applicant does not disclose the features which impart patentability to the patent involved in the interference, *Held* too indefinite to be transmitted.

APPEAL on motion.

SIGN.

Messrs. Chappell & Earl for Burleigh.
Mr. Jas. L. Norris, Jr., for Elliot.

FRAZIER, First Assistant Commissioner:

This is an appeal from a decision of the Examiner of Interferences denying a motion by Burleigh filed August 18, 1913, to transmit a motion to dissolve the interference with respect to the fifth ground specified therein.

The motion for dissolution contains five distinct parts. It was transmitted as to the first four parts. The Examiner's denial of transmission as to the fifth part was because of indefiniteness.

The first three grounds of the motion clearly relate to the right of Elliot to make the claims constituting the issue. The fourth ground is based upon the allegation by Burleigh that the language of the counts constituting the issue has different meanings when applied to the two different structures involved.

The fifth ground stated as follows:

That the features common to the Burleigh patent and the application of Elliot are found in the Kitchen patent, No. 353,867, Dec. 7, 1886; that the structure disclosed in the Elliot application is not patentable over the said Kitchen patent; and that the Elliot application does not disclose the features which impart patentable novelty to the structure of the patent in suit.

This fifth ground, it will be noted, contains three distinct propositions.

The first asserts that the features common to the Burleigh patent and the application of Elliot are found in the Kitchen patent, No. 353,867, Dec. 7, 1886. This does not, and apparently is not intended to, relate to the features covered by the issue, but broadly to such features as are common to the two cases. Manifestly there may be many features common to cases involved in interference,

[Vol. 197.

and yet not capable of forming an issue of such interference. The points at which the two cases become common are not stated. Even if they were, it is not seen that such a ground so broadly stated is a proper one for consideration on a motion for dissolution. Under Rule 122 the ground there defined rests upon the question of patentability of the issue, not upon the question as to whether or not other features, which may be common to the disclosures of the interfering cases not involved in the issue in any way are patentable. The latter is purely an *ex parte* matter. It is only when the issue or some count thereof is assailed as not patentable that the rule confers the right to raise the question on a motion for dissolution. Burleigh contends that the invention is such a simple one and the disclosures of the two cases involved likewise so simple that it is an easy matter for counsel for Elliot to determine what features are common; but this is not believed to be a sufficient answer to the objection of Elliot to transmission of this part of the motion. If it is so simple, then it ought not to be difficult to specify in the motion itself the ground on which said motion is to be urged at the hearing before the Examiner. The fact that neither the junior party nor the Examiner of Interferences can ascertain from a reading of this part of the motion precisely the ground to be urged in support thereof is, in my judgment, persuasive evidence of the lack of definiteness, for which reason transmission was denied, and the consideration above outlined makes that evidence convincing.

The second part of this fifth ground alleges that the structure disclosed in the Elliot application is not patentable over the Kitchen patent. This proposition is open to a similar objection to that above noted, as it may or may not be intended to relate to the issue. In the latter event there is no reason why it should not distinctly assert non-patentability of the issue. If it is intended to cover the whole range of the question of patentability, it is open to the same objection above noted in reference to the first proposition.

The third proposition of the fifth ground asserts that the Elliot application does not disclose the features which impart patentable novelty to the structure of the patent in suit. This is again a general allegation and fails to disclose what specific ground is to be relied on in the argument in support of the motion.

In a comparison in detail of the two cases suggested by Burleigh as sufficient to advise Elliot when differences are found by such comparison resorting to said proposition does not advise, in my judgment, the opposite party as it should what bearing upon the issue or any count thereof, if any, the moving party intends to show in support thereof.

Considering the three propositions together it is further noted that if the moving party intended any one of them to utilize the only remaining two grounds under Rule 122 under which motions for dissolution can be brought there is nothing definitely stated therein to sufficiently indicate such intention to the opposing party. If it is intended to assert, as

No. 1.]

one interpretation may justify the opponent in assuming, a similar ground to that covered by the first four parts of the motion, then it is superfluous. Under these circumstances it is not believed to be an unreasonable requirement for a moving party in interferences where dissolution is sought to so state the grounds that the opposite party be fully advised as to the reasons which are to be urged in support of the motion at the hearing. This is not a question involving a mere technicality, as Burleigh urges in this case, but one which is intended to expedite rather than retard the prosecution of the case. It is no hardship to require the motion to be definitely clear in all of the allegations. I am satisfied that this requirement is not fulfilled as to the fifth ground of the motion presented therein.

The decision of the Examiner of Interferences is affirmed.

FLANDERS AND FLANDERS MANUFACTURING COMPANY
v. STUDEBAKER CORPORATION.

Decided October 30, 1913.

TRADE-MARK—NAME OF THE APPLICANT—MANNER OF WRITING.

The word "Flanders" written with a slight peculiarity in the letters, with a paraph thereunder and with the upper end of the "F" extending in a long flourish thereover, *Held* not written in such a distinctive and peculiar manner as to make the name registrable as a trade-mark.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR AUTOMOBILES.

Mr. Frank F. Reed, Mr. Edward S. Rogers, and Mr. Francis M. Phelps for Flanders and Flanders Manufacturing Company.

Messrs. Stewart & Stewart for the Studebaker Corporation.

FRAZIER, First Assistant Commissioner:

This is an appeal by the Studebaker Corporation from the decision of the Examiner of Interferences sustaining the opposition and adjudging that the applicant, the Studebaker Corporation, is not entitled to register the mark shown in its application.

Applicant filed a motion to dismiss the opposition, which was denied. No answer was filed within the time set, and the opposition was sustained on that ground.

While several questions are raised, the principal one is whether the name "Flanders" is written in such a particular and distinctive manner that it can be registered as a trade-mark. As shown in the drawing, this mark consists of the word "Flanders" written with a paraph thereunder and with the upper end of the "F" extending in a long flourish thereover. The word "Flanders" is an ordinary surname and is therefore not registrable unless written in a distinctive manner. In *re Artesian Manufacturing Company* (166 O. G., 988; 37 App. D. C., 113) the Court of Appeals of the District of Columbia in discussing the provision in section 5 of the Trade-Mark Act as to the registrability of names said:

"We think that the rule of determination in such cases has been well stated by the Commissioner in a former decision, (*ex parte Polar Knitting Mills*, C. D., 197 O. G.—16

[Vol. 197.

1910, 62; 154 O. G., 251, quoting *ex parte C. H. Allen Co.*, C. D., 1907, 423; 131 O. G., 2419,) as follows: "It is believed that the controlling principle underlying the requirement of the statute that a mere name unless written or printed in a distinctive manner may not be registered is that the distinctive manner in which the name is displayed must be of a character as to give such a distinct impression to the eye of the ordinary observer as to outweigh the significance of the mere name."

Tested by the rule thus laid down, in my opinion, the mark is clearly not registrable. The slight peculiarity in the letters themselves and the flourish above and below the word by no means subordinate the name. The distinctive feature of this mark is the word "Flanders" itself and not the manner in which it is written. The mark is written in no more distinctive a manner than the mark in the case above cited.

In view of this holding it is not necessary to consider the other grounds raised by the appeal.

The decision of the Examiner of Interferences is affirmed, and it is held that the Studebaker Corporation is not entitled to register the mark shown in its application.

EX PARTE BENACH.

Decided November 7, 1913.

1. TRADE-MARKS—CHANGE IN DRAWING—REFUSAL BY THE EXAMINER—REVIEWABLE ON PETITION.

Where the Examiner refuses to allow an applicant to amend his drawing by adding thereto a feature shown in the specimens originally filed, *Held* that his action is reviewable on petition.

2. SAME—DRAWING—MAY BE AMENDED TO SHOW FEATURES IN ORIGINAL SPECIMENS.

Where the drawing in an application for a trade-mark showed only one of the features of the original specimens, *Held* that it may be amended by adding thereto other features shown in such specimens.

ON PETITION.

TRADE-MARK FOR TOOTH POWDER, PASTE, AND ELIXIR.

Mr. Charles McC. Chapman for the applicant.

FRAZIER, First Assistant Commissioner:

This is a petition from a refusal of the Examiner of Trade-Marks to enter a substitute drawing showing in addition to the word "Spearmint," originally forming the sole illustration of the drawing, other features said to constitute part of the trade-mark disclosed in the specimens filed.

The Examiner suggests that applicant has mistaken his remedy, since an appeal from the Examiner's action is in order rather than a petition. This suggestion is based upon a presumed analogy to the practice in patent cases where the question of new matter is raised; but it is not thought an analogy can properly be drawn between the practice in those cases and trade-mark cases. They are rights which are founded upon entirely different laws. The mode of procedure and rules governing the same are necessarily different, as the basic principles are different. Patent rights are the creation of statute law; while trade-mark rights, as a matter of fact, are creations of common law. They are neither enlarged nor defined by the statute respecting the same, but come to this Office seeking a determination as to the right of registration under the provisions of the trade-mark statute. Both the rights themselves and the remedies for infringing the same are so entirely different, as well as the

No. 1.]

rules governing the examination of the papers purporting to cover such rights, that it is difficult to see how any true analogy between the two practices can be defined or outlined. The applicant in this case contends that the question at issue between himself and the Examiner is one which is reviewable upon petition rather than appeal, as urged by the Examiner, because the question is whether or not the rules and law permit a change in the drawings by the addition of features not originally shown therein, but disclosed in the application papers, and not whether or not the trade-mark shall be refused registration if so amended. The Examiner holds that there is an analogy between the facts presented here and the facts presented in a patent case where a question of new matter arises, a question reviewable by appeal and not by petition. As above indicated, it is not believed that such an analogy can be drawn. If there be no other objection to the entertaining of this position, I can see no reason for refusing to consider it. It is a question of practice and not of merits under the law.

The Examiner contends that one examination has already been made as to the registrability of this trade-mark, and a final refusal to so register it is of record. To permit a drawing to be altered as desired would entail a further search, thus giving applicant the benefit of two searches for one fee. Such a reason is not believed to be sufficient to control the question here presented. The real question is whether or not applicant should be entitled to amend his drawing to make it accord with the disclosure in his specimens. It may be said that if we followed the analogy presumed by the Examiner as to the practice in patent cases it would appear in these trade-mark cases that applicant would be entitled, as a matter of right, to make such amendment to the drawing, because in patent cases the drawings may be amended by including therein anything fairly disclosed in the original disclosure, and whatever is here covered by the declaration by such analogy should be permitted to be shown in the drawings at any time during the prosecution of the case. In this case the declaration distinctly declares that the description and drawing and specimens presented truly represent the trade-mark sought to be registered; and that the specimens show the trade-mark as actually used upon the goods.

Manifestly, whatever is shown in the specimens is a part of the original disclosure, and I can see no valid reason why applicant should not be permitted to amend the drawing as desired.

The refusal of the word "Spearmint," based upon a court adjudication as descriptive, was clearly right. As long as that word remains in the substitute drawing as part of the trade-mark applicant should be required to disclaim it before registration, on the amended showing, if found registrable.

The petition is granted.

[Vol. 197. No. 1.]

ADJUDICATED PATENTS.

(U. S. D. C.) The Watson patent, No. 559,642, for a corrugated metal culvert, *Held* void for lack of patentable invention and also not infringed if conceded validity. *Stillwell v. McPherson*, 207 Fed. Rep., 837.

(U. S. D. C.) The Olmstead patent, No. 819,373, for an ice-cream dipper, claim 1 construed and *Held* valid and infringed. *Walker v. Giles*, 207 Fed. Rep., 825.

Citation of Decisions.

Citation of decisions of the Court of Appeals of the District of Columbia rendered between February 3, 1913, and October 9, 1913, published in the OFFICIAL GAZETTE and in volume 40, *Appeal Cases of the District of Columbia*.

	O. G.		A pp. D. C.	
	Vol.	Page.	Vol.	Page.
Bower v. Gray	192	993	40	483
Boynston v. Taggart	190	795	40	82
Consumers Co. v. Hydrox Chemical Co.	192	744	40	284
Eastwood v. Rowell	192	744	40	280
Excelsior Shoe Co., <i>re</i>	196	805	40	480
Field v. Colman	193	221	40	598
Fullagar, <i>re</i>	192	1263	40	510
Herz v. Loewenstein	192	993	40	277
Hewlett v. Steinberger	190	270	40	287
Higgins, <i>re</i>	190	551	40	29
Hubbard v. Berg	195	818	40	577
Jameson v. Ellsworth	192	218	40	164
Jameson v. Ellsworth	192	220	40	168
Joseph Lay Co. v. Indianapolis Brush & Broom Mfg. Co.	190	269	40	36
Leonard v. Horton	189	781	40	22
Mehle v. Scott and Scott	190	1080	40	17
Moore v. United States, <i>ex rel.</i> Chott	192	520	40	591
Moore v. United States, <i>ex rel.</i> Colburn	191	293	40	201
Machine Glass Co.	193	513	40	487
Mottz Tire and Rubber Company <i>re</i>	191	588	40	160
Moulton, <i>re</i>	188	1055	40	32
Mygatt, <i>re</i>	192	217	40	125
Oliver Chilled Plow Works v. Wm. J. Oliver Mfg. Co.	192	519	40	423
Rowe, <i>re</i>	192	1262	40	273
Shaver v. Newdick	191	836	40	279
Taylor, <i>re</i>	191		40	

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 26, 1913.

J. Lichtenstein & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Corset H Company, 40 Jackson street, Worcester, Mass., for registration of a trade-mark and trade-mark registered October 9, 1894, No. 25,307, to J. Lichtenstein & Sons, 64-66 West Twenty-third street, New York, N. Y., and a notice of such declaration sent by registered mail to said J. Lichtenstein & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. Lichtenstein & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 197—No. 2.

TUESDAY, DECEMBER 9, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF DECEMBER 9, 1913.	243
DISCLAIMER.	243
PATENT No. 1,058,737—ADVERSE DECISION IN INTERFERENCE.	243
CORRECTION OF DRAWINGS.	243
APPLICATIONS UNDER EXAMINATION.	244
PATENTS GRANTED.	245
REISSUES.	502
DESIGNS.	503
TRADE-MARKS—REGISTRATION APPLIED FOR.	513
TRADE-MARKS—REGISTERED.	527
TRADE-MARKS CANCELED.	532
COMMISSIONER'S DECISIONS—	
Universal Motor Truck Co. v. The Universal Motor Co.	533
<i>Ex parte</i> Moore.	533
<i>Ex parte</i> Wheary.	534
<i>In re</i> Rosell.	535
DECISIONS OF THE U. S. COURTS—	
Universal Motor Truck Co. v. Universal Motor Co.	535
ADJUDICATED PATENTS.	536
INTERFERENCE NOTICES.	536
CHANGES IN CLASSIFICATION.	536

ISSUE OF DECEMBER 9, 1913.

Patents.	760—No. 1,080,528 to No. 1,081,287, inclusive.
Designs.	45—No. 44,994 to No. 45,028, inclusive.
Trade-Marks.	126—No. 94,410 to No. 94,535, inclusive.
Labels.	85—No. 17,376 to No. 17,410, inclusive.
Prints.	11—No. 3,432 to No. 3,442, inclusive.
Reissues.	3—No. 13,654 to No. 13,656, inclusive.

Total..... 980

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	3	.....	North Carolina.....	2	1
Arizona.....	2	.....	North Dakota.....	3	.....
Arkansas.....	2	.....	Ohio.....	42	10
California.....	22	6	Oklahoma.....	6	.....
Colorado.....	6	6	Oregon.....	7	1
Connecticut.....	22	1	Pennsylvania.....	78	3
Delaware.....	1	2	Rhode Island.....	6	1
Florida.....	1	.....	South Carolina.....	3	.....
Georgia.....	4	3	South Dakota.....	4	.....
Idaho.....	3	.....	Tennessee.....	4	.....
Illinois.....	76	16	Texas.....	15	2
Indiana.....	17	3	Utah.....	2	.....
Iowa.....	19	1	Vermont.....	4	1
Kansas.....	8	.....	Virginia.....	4	.....
Kentucky.....	1	.....	Washington.....	13	1
Louisiana.....	4	2	West Virginia.....	1	.....
Maine.....	2	1	Wisconsin.....	14	4
Maryland.....	6	.....	Wyoming.....	.....	.....
Massachusetts.....	47	7			
Michigan.....	33	3	Alaska, District of.	.....	.....
Minnesota.....	11	6	Canal Zone.....	.....	.....
Mississippi.....	26	7	District of Columbia.	2	.....
Missouri.....	2	.....	Hawaii Territory.....	.....	.....
Montana.....	4	2	Philippine Islands.....	.....	.....
Nevada.....	3	1	Porto Rico.....	.....	.....
New Hampshire.....	50	5	U. S. Army.....	.....	.....
New Jersey.....	.....	.....	U. S. Navy.....	.....	.....
New Mexico.....	123	58	Total to residents of the United States.	719	164
New York.....	.....	.....	

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....	.....	.....	Mexico.....	.....	.....
Austria-Hungary.....	3	.....	Netherlands.....	.....	.....
Azores.....	.....	.....	New South Wales.....	1	.....
Bahia.....	1	.....	New Zealand.....	1	.....
Bermuda.....	.....	.....	Norway.....	.....	.....
Brasil.....	.....	.....	Panama.....	.....	.....
British West Indies.....	.....	.....	Queensland.....	.....	.....
Canada.....	6	1	Russia.....	1	.....
Chile.....	.....	.....	Scotland.....	2	.....
Costa Rica.....	.....	.....	South Australia.....	.....	.....
Cuba.....	.....	.....	Spain.....	.....	1
Denmark.....	1	.....	Sweden.....	.....	.....
Egypt.....	1	.....	Switzerland.....	4	.....
Dutch East Indies.....	.....	.....	Transvaal, South Africa.....	2	.....
Ecuador.....	19	2	Victoria.....	2	.....
England.....	4	4	Wales.....	.....	.....
France.....	35	8	Western Australia.....	.....	.....
Germany.....	.....	.....	
Ireland.....	2	1	Total to residents of foreign countries.	85	18
Italy.....	1	.....		
Japan.....	.....	.....	

Disclaimer.

775,901.—John C. W. Greth, Pittsburg, Pa. WATER-PURIFYING APPARATUS. Patent dated November 22, 1904. Disclaimer filed November 24, 1913, by the assignee, William B. Scarfe and Sons Company.

Enters its disclaimer—

"To that part of the subject-matter covered by claim 10 of said patent, which is in the following words, to wit:

"In water purifying apparatus the combination in a single tank 8 of the various compartments for lime treatment and soda treatment and water settling, the settling tank being fed directly from the treatment tank and having an inclined bottom therein below the opening from the treatment tank, and having a filter at the top of the settling tank fed by overflow from said tank, substantially as described."

Patent No. 1,058,737—Adverse Decision in Interference.

On November 5, 1913, a decision was rendered that William S. Elliott was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,058,737, and no appeal having been taken within the time allowed such decision has become final.

Correction of Drawings.

RULE 72.
The drawing may be withdrawn only for such corrections as cannot be made by the Office; but a drawing cannot be withdrawn unless a photographic copy has been filed and accepted by the Examiner as a part of the application. Permissible changes in the construction shown in any drawing may be made only within the Office and after an approved photographic copy has been filed. Substitute drawings will not be admitted in any case unless required by the Office.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 6, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Fences; Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 1	Oct. 3	778
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatic; Presses; Store-Services; Tobacco.	Aug. 2	Sept. 25	723
175	3. Annealing and Tempering; Electro Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Nov. 7	Nov. 24	254
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Aug. 27	Sept. 10	866
167	5. Bookbinding; Harvesters; Jewellery; Music.	Aug. 22	Sept. 30	722
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Aug. 1	Sept. 6	875
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	June 16	Oct. 13	1037
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	July 26	Oct. 27	973
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	June 2	Oct. 13	721
235	10. Carriages and Wagons.	Aug. 11	Sept. 17	1392
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelet, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 4	Oct. 16	452
222	12. Elevators; Journal-Boxes, Pulleys, and Shafts; Lubrication; Machine Elements.	July 8	Aug. 7	1675
320	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 1	Oct. 4	713
207	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware; Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 11	Oct. 17	589
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogs; Manufacture; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 23	Sept. 9	1538
109	16. Radiant Energy; Telegraphy; Telephony.	July 18	Sept. 8	528
303	17. Matrix-Making; Paper Manufacture; Printing; Type-Bar Making.	Oct. 10	Oct. 29	344
227	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 13	Oct. 13	272
238	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	July 11	Oct. 9	776

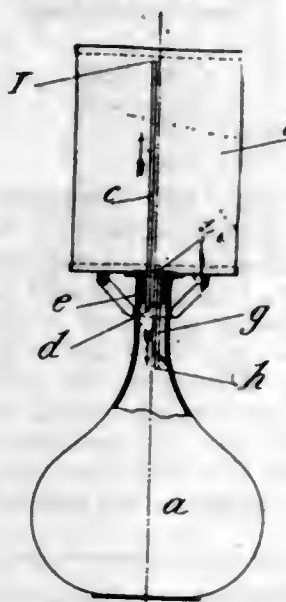
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	Sept. 27	Oct. 16	350
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	July 8	Sept. 3	712
240	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Aug. 21	Sept. 29	509
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 6	Oct. 6	572
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Oct. 2	Oct. 13	662
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 10	Nov. 1	361
106	26. Electricity; Generation; Motive Power.	July 14	Aug. 23	675
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 29	Oct. 14	548
65	28. Internal-Combustion Engines.	Aug. 23	Oct. 26	911
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	July 12	July 30	837
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 1	Nov. 19	290
172	31. Alcohol; Ammonia; Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Sept. 4	Sept. 18	540
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	July 10	Oct. 15	561
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 10	Oct. 4	533
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Sept. 26	Oct. 20	458
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Aug. 14	Oct. 28	787
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Sept. 19	Sept. 19	1021
107	37. Electric Lamps; Electricity; Conductors; Electricity, General Applications.	Apr. 21	July 1	990
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Sept. 17	1049
321	39. Water Distribution.	Aug. 27	Sept. 19	628
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 2	Oct. 9	1271
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Oct. 20	Oct. 7	545
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 2	July 3	1128
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 16	Oct. 21	329
Oldest new case, Apr. 21; oldest amended, July 1.				
Total number of applications awaiting action 31,607				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Aug. 15	Nov. 12	1051
	Designs.....	Oct. 18	Nov. 17	221
	Labels and Prints.....	Nov. 25	Nov. 11	41

PATENTS

GRANTED DECEMBER 9, 1913.

1,080,528. OPTICAL PROJECTING APPARATUS. GRAZIANO APPIANI, Treviso, Italy. Filed Aug. 13, 1912. Serial No. 714,767. (Cl. 88—17.)



1. In apparatus of the class described, in combination, a transparent vessel adapted to be positioned between the source of light of a kinematograph and the film, a vessel positioned at a higher level than said transparent vessel and tubes extending between said vessels whereby liquid contained within said vessels may circulate, the ends of the tubes which extend within said transparent vessel being positioned out of the path of the rays of light which pass from the source of light to the film.

2. In apparatus of the class described, in combination, a transparent vessel adapted to be positioned between the source of light of a kinematograph and the film, a vessel positioned at a higher level than said transparent vessel and tubes extending between said vessels whereby liquid contained within said vessels may circulate, the ends of the tubes which extend within said transparent vessel terminating in the upper part thereof, whereby said tubes will be positioned out of the path of the rays of light which pass from the source of light to the film.

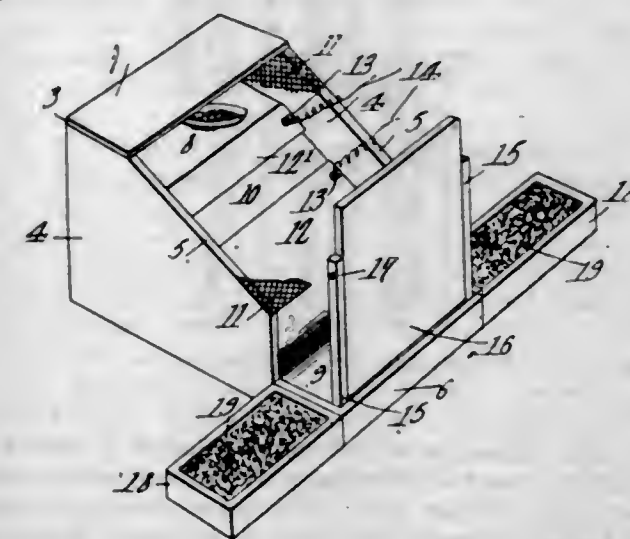
3. In apparatus of the class described, in combination, a transparent vessel adapted to be positioned between the source of light of a kinematograph and the film, a vessel positioned directly above said transparent vessel and tubes extending between said vessels whereby liquid contained within said vessels may circulate, the ends of the tubes which extend within said transparent vessel being positioned out of the path of the rays of light which pass from the source of light to the film.

4. In apparatus of the class described, in combination, a transparent vessel adapted to be positioned between the source of light of a kinematograph and the film, a vessel positioned at a higher level than said transparent vessel and tubes extending between said vessels whereby liquid contained within said vessels may circulate, said tubes being straight throughout their length, the ends of the tubes which extend within said transparent vessel being positioned out of the path of the rays of light which pass from the source of light to the film.

1,080,529. RODENT-EXTERMINATOR. ASA BAILEY, North Vernon, Ind. Filed Dec. 23, 1912. Serial No. 738,335. (Cl. 43—34.)

1. In a rodent exterminator, an inclined runway, spaced electrodes thereon, a bait holder at the upper end of the

runway, and a trap door hinged adjacent its upper end with its lower end suspended at the lower end of the runway, and providing entrance openings between the sides of the runway and the edges of the door leading to the lower end of the runway.



2. In a rodent exterminator, a casing including sides, an inclined runway secured therebetween, a platform secured to the lower end of the runway at the front of the sides, a bait holder arranged at the upper end of the runway, a trap door suspended over the edge of the platform, and providing entrance openings between the sides and door leading to the platform and spaced electrodes secured on the runway.

3. A rodent exterminator, including a casing having sides, an inclined runway secured between the sides, a platform secured to the lower end of the runway at the front of the sides, a bait holder arranged at the upper end of the runway, spaced electrodes secured on the runway, standards arranged at the corners of the platform, and a door hinged between the standards, so as to provide entrance openings between the standards and the sides leading to the platform.

4. In a rodent exterminator, a casing including sides, an inclined runway secured therebetween, a bait shelf secured between the sides at the upper end of the runway, a covering secured on the sides, spaced electrodes secured on the runway, and a trap door mounted at the lower end of the runway, and providing entrance openings between the door and sides leading to the lower end of the runway.

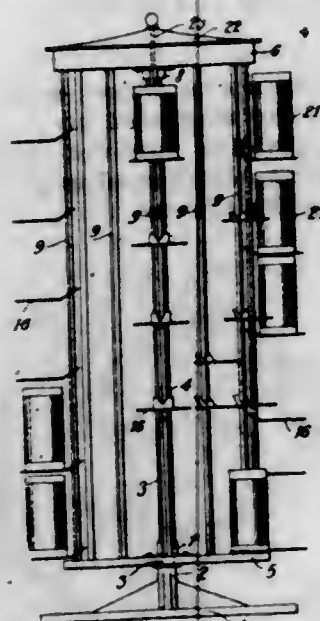
5. In a rodent exterminator, a casing including sides, and having a lower extension at its forward end, an inclined runway secured between the sides, a bait shelf secured between the sides at the upper end of the runway, a pair of spaced electrodes secured on the runway, a platform secured to the extension at the lower end of the runway, a covering mounted on the sides, and a trap door suspended over the edge of the platform, and providing entrance openings between the door and sides leading to the platform.

[Claim 6 not printed in the Gazette.]

1,080,530. DISPLAY-RACK. ARTHUR W. BAIR, Monroe, Mich. Filed Apr. 16, 1912. Serial No. 691,255. (Cl. 211—20.)

1. In a display rack the combination of a base, a rotatable rack mounted on the said base and comprising a plurality of rods having a substantially square cross section, two of the edges on the opposite sides of the rods lo-

cated in a radial line from the axis of the said rack, sheet metal supporting members mounted on the said rods and extending radially from the axis of the rack, the said supporting members having ears, the said ears having substantially square openings through which the said rods extend, the said ears being inclined with respect to the said rods.



2. In a display rack the combination of a base, a rotatable rack mounted on the said base and comprising an upper and a lower plate, the upper plate having openings having corners, the lower plate having holes having corners, a plurality of rods having edges extending lengthwise the said rods and mounted in the said plates and located in the said openings and in the said holes, two of the edges located on opposite sides of the said rods and two of the corners of the said openings and two of the corners of the said holes located in radial lines extending from the axis of the said rack, sheet metal supporting members mounted on the said rods and having openings, the said openings having corners corresponding to the edges of the said rods.

3. In a display rack the combination of a base, a rotatable rack mounted on the said base and comprising an upper and a lower plate, removable rods supported in said plates, adjustable supporting members mounted on the said rods and extending radially outward, one end of the said rods having inclined surfaces, springs adapted to press against the said inclined surfaces and press the said rods outward from the axis of the rack.

4. In a display rack the combination of a rotatable frame, a plurality of rods supported in the said frame and having edges extending lengthwise the said rods, sheet metal supporting members having ears, the sheet metal of the ears being bent at an angle to the body of the supporting members and having openings through which the rods extend, the said openings having corners corresponding to the edges of the said rods and preventing rotation of the said supporting members on the said rods.

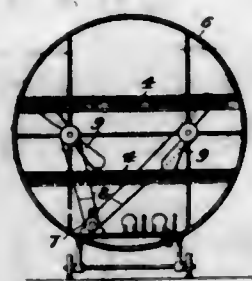
5. In a display rack the combination of a base, a rotatable rack mounted on the said base and comprising a plurality of square rods, sheet metal supporting members having ears, the sheet metal of the ears bent at an angle to the body of the supporting members and having square openings through which the rods extend, two opposite corners of the openings and two opposite edges of the rods being located in a radial line from the axis of the rack.

[Claim 6 not printed in the Gazette.]

1,080,531. AEROPLANE. LOUIS J. BERGDOLL, Philadelphia, Pa. Filed Nov. 25, 1912. Serial No. 733,501. (Cl. 244-14.)

1. An aeroplane comprising a sustentation-plane, a continuously-curved open-ended member surrounding said plane, and a propelling-motor below said plane and within said member.

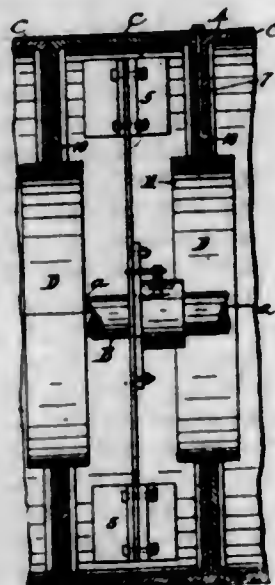
2. In an aeroplane, the combination of a propeller, guiding means, a sustentation-plane, a hollow continuously-curved open-ended protective member surrounding said plane laterally, and a propelling-motor connected with said propeller and positioned within said member and below said plane.



3. In an aeroplane, the combination of a propeller, guiding means, a hollow cylindrical open-ended member, therein a sustentation-plane having angular disposition with respect to the axial line of said member, and a propelling-motor connected with said propeller and positioned within said member and below said plane.

4. An aeroplane comprising the combination of a sustentation-plane, a continuously-curved open ended member surrounding said plane, a propelling-motor within said member, and below said plane and within said member a seat for a person carried by the aeroplane.

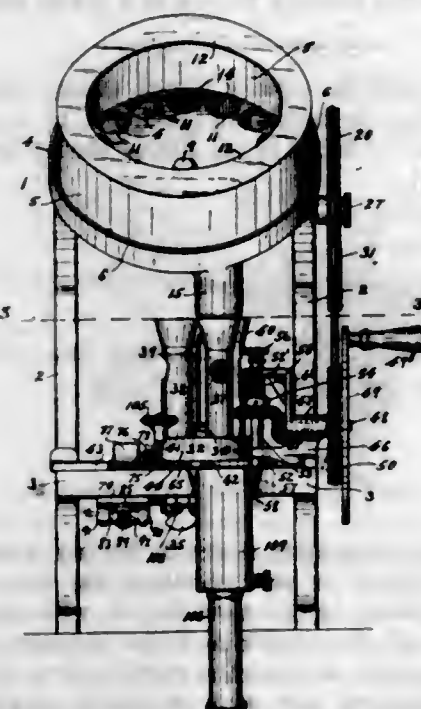
1,080,532. PULVERIZER. JOHN E. BLAKE, deceased, Pittsburgh, Pa., by Rebecca E. Blake, executrix, Pittsburgh, Pa., assignor to Blake Crusher and Pulverizer Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 14, 1913. Serial No. 760,938. (Cl. 83-11.)



1. In a rotary pulverizer, the combination of a casing containing a fan chamber and pulverizing chamber separated by annular partitions, a rotary shaft extending axially through said chambers, fan blades mounted on said shaft in said fan chamber, paddles mounted on said shaft within said pulverizing chamber, and lateral extensions on said partitions extending into said pulverizing chambers within the zone of travel of said paddles.

2. In a rotary pulverizer, the combination of a casing containing a fan chamber and pulverizing chambers contained in said casing, a rotary shaft extending axially through said chambers, fan blades mounted on said shaft in said fan chamber, paddles mounted on said shaft in said pulverizing chamber, and annular partitions separating said pulverizing chambers, said partitions having lateral extensions extending into said pulverizing chambers, for the purpose described.

1,080,533. COIN-COUNTING MACHINE. ALFRED C. O. BOCK, Brooklyn, N. Y., assignor of one-third to John J. Donnellan and one-third to James L. Donnellan, Brooklyn, N. Y. Filed Feb. 3, 1913. Serial No. 745,804. (Cl. 133-8.)



1. In a coin-counting and wrapping machine, a frame-work, a table supported thereby, a rotatable turret detachably connected with said table, said turret having a plurality of vertical openings, a plurality of stacker-tubes mounted in said vertical openings, each stacker-tube being adapted to accommodate coins of a different denomination from those accommodated by its fellow stacker-tubes, the bottom of said turret having cut-away portions adapted to provide a space between the surface of said table and the bottoms of said stacker-tubes, each space being slightly greater in height than the thickness of the coins contained in the stacker tube beneath which said space is located, means for feeding coins, said stacker-tubes being selectively registerable with said coin feeding means by turning said turret, means for holding said turret in its adjusted position against rotation, a coin-counting mechanism, and means for propelling the bottom coin from the operating stacker-tube and from beneath said turret into actuating contact with said coin-counting mechanism.

2. In a coin-counting and wrapping machine, a frame-work, a table supported thereby, an inclined bed-plate having an upwardly extending marginal flange supported on the upper end of said frame-work above said table, an inclined coin-conveying trough connected with the bottom of said bed-plate, said bed-plate having an opening communicating with said coin conveying trough, a discharge means at the lower end of said coin-conveying trough, a hopper rotatably arranged upon said bed-plate, means for rotating said hopper, said hopper having a plurality of openings in its bottom in which the coins lodge and through which the coins pass into said coin-conveying trough when said openings pass over the opening in said bed-plate communicating with said coin-conveying trough as said hopper rotates, a rotatable turret detachably connected with said table, a plurality of stacker-tubes supported by said turret, each stacker-tube being adapted to accommodate coins of a different denomination from those accommodated by its fellow stacker-tubes, said stacker tubes being selectively registered beneath said discharge means of said coin-conveying trough by turning said turret, a coin-counting mechanism, and means for propelling the bottom coin from the operating stacker-tube into actuating contact with said coin-counting mechanism.

3. In a coin-counting and wrapping machine, a frame-work, a table supported thereby, an inclined bed-plate having an upwardly extending marginal flange supported on the upper end of said frame-work above said table, an inclined coin-conveying trough connected with the bottom of said bed-plate, said bed-plate having an

opening communicating with said coin-conveying trough, a discharge means at the lower end of said coin-conveying trough, a centrally disposed vertical bearing portion connected with said bed-plate, a spindle journaled in said bearing-portion, a head of polygonal configuration connected with said spindle and exposed above the surface of said bed-plate, a hopper having a centrally disposed opening of polygonal configuration adapted to receive said head of said spindle to rotatably mount said hopper on said bed-plate, bearing-members depending from said bed-plate, a shaft journaled in said bearing members, a bevel-gear on said shaft, a bevel gear on the lower end of said spindle meshing with said shaft, a driving-pulley loosely mounted upon one end of said shaft, a clutch-means for operatively connecting said driving-pulley with said shaft, and said hopper having a plurality of openings in its bottom in which the coins lodge and through which the coins pass into said coin-conveying trough when said openings pass over the opening in said bed-plate communicating with said coin-conveying trough as said hopper rotates.

4. In a coin-counting and wrapping machine, a frame-work, a table supported thereby, an inclined bed-plate having an upwardly extending marginal flange supported on the upper end of said frame-work above said table, an inclined coin-conveying trough connected with the bottom of said bed-plate, said bed-plate having an opening communicating with said coin-conveying trough, a discharge-means at the lower end of said coin-conveying trough, a centrally disposed vertical bearing portion connected with said bed-plate, a spindle journaled in said bearing portion, a head of polygonal configuration adapted to receive said head of said spindle to rotatably mount said hopper on said bed-plate, bearing-members depending from said bed-plate, a shaft journaled in said bearing-members, a bevel-gear on said shaft, a bevel-gear on the lower end of said spindle meshing with said shaft, a driving-pulley loosely mounted upon one end of said shaft, a clutch-means for operatively connecting said driving-pulley with said shaft, said hopper having a plurality of openings in its bottom in which the coins lodge and through which the coins pass into said coin-conveying trough when said openings pass over the opening in said bed-plate communicating with said coin-conveying trough as said hopper rotates, a rotatable turret detachably mounted with said table, a plurality of stacker-tubes supported by said turret, each stacker-tube being adapted to accommodate coins of a different denomination from those accommodated by its fellow stacker-tubes, said stacker tubes being selectively registered beneath said discharge means of said coin-conveying trough by turning said turret, a coin-counting mechanism, and means for propelling the bottom coin from the operating stacker-tube into actuating contact with said coin-counting mechanism.

5. In a machine of the kind described, a coin-counting mechanism, means for propelling coins into actuating contact with said coin counting mechanism, means for supplying coins to said propelling means, said coin-counting mechanism comprising, a rotatable counter-disk provided with a plurality of marginal depressions adapted to receive contact from the perimeter of a passing coin whereby said counter-disk is rotated, a spindle upon which said counter-disk is mounted, a spur-gear fixed upon said spindle, a gear-wheel rotatably mounted to mesh with said spur-gear, said gear-wheel being adapted to make a complete revolution when said counter-disk has been actuated by a predetermined number of coins, a stop-pawl carried by said gear-wheel, a stop-post, a movable means for supporting said stop-post to project the same into the path of rotation of said stop-pawl, said stop-post being adapted to engage said stop-pawl in holding relation when said gear-wheel has made one revolution, and a spring for causing said stop-pawl to make a partial forward rotation independently of said gear-wheel when said stop-post is withdrawn from its holding relation thereto, and thereby positioning said stop-pawl to prevent the return of said

stop-post into its restraining position until said gear-wheel has made another revolution.

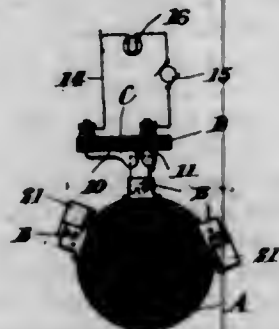
[Claims 6 to 16 not printed in the Gazette.]

1,080,534. SUSPENDERS. MICHELANGELO BONO, New York, N. Y. Filed Jan. 31, 1913. Serial No. 745,321. (Cl. 241—28.)



Suspenders comprising a webbing, a plunger depending therefrom, a duplex trouser-engaging tab having a centrally apertured shank that accommodates the plunger, a tubular drawers-engaging tab inclosing the plunger below the shank of the first named tab, and a spring interposed between the lower end of the plunger and the upper end of the tubular tab.

1,080,535. CIRCUIT-CONTROLLER FOR ELECTRIC SIGNS. FRANCIS COLIN BRODIE, Moose Jaw, Saskatchewan, Canada. Filed Apr. 3, 1913. Serial No. 758,542. (Cl. 177—348.)



1. A controller for electric circuits comprising in combination a plurality of pairs of fixed contact fingers, a rotary cylinder of insulating material, a plurality of contact devices thereon, each having an outwardly movable part adapted when extended to form a connection between the contact fingers of a determined pair when the cylinder is rotated.

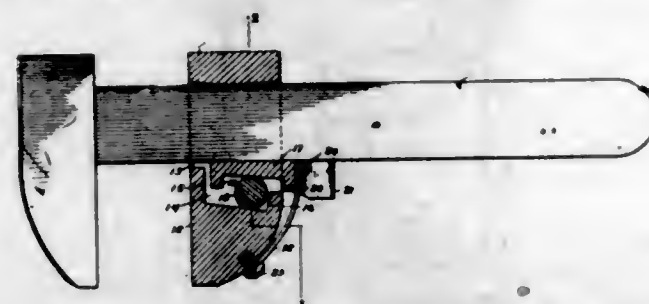
2. A controller for electric circuits comprising in combination a plurality of pairs of fixed contact fingers, a rotary cylinder of insulating material, a plurality of contact devices thereon arranged in transverse and peripheral rows, each having an outwardly movable part adapted when extended to form a connection between the contact fingers of a determined pair when the cylinder is rotated.

3. A controller for electric circuits comprising in combination a plurality of pairs of fixed contact fingers, a rotary cylinder of insulating material, a plurality of contact devices thereon, each having an outwardly movable pivoted blade adapted when extended to form a connection between the contact fingers of a determined pair when the cylinder is rotated.

4. A controller for electric circuits comprising in combination a plurality of pairs of fixed contact fingers, a separate electric circuit for each pair of fingers including an illuminating device and a source of power, a plurality of

contact devices, each comprising a socket, a blade pivoted in the socket, said socket having projections, and said blade having corresponding recesses whereby the blade is held in raised or lowered position, said blade being adapted, when the cylinder is rotated, to complete the electric circuit between the contact fingers of a given pair.

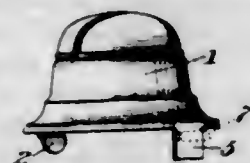
1,080,536. WRENCH. OMER PITTS CASE, Canandaigua, N. Y., assignor, by mesne assignments, to Case Wrench Company, Inc. Filed Apr. 4, 1913. Serial No. 758,812. (Cl. 81—154.)



1. A wrench, comprising a shank having a fixed jaw, a movable jaw slidable on said shank, a key slidable on the shank and relatively to the movable jaw and extending between the side of the shank and the opposite inner surface of the movable jaw, and a clutch roller between the key and the movable jaw, one of which presents an inclined surface to the clutch roller, the face of the key opposite the clutch roller being adapted to bind on the shank.

2. A wrench, comprising a shank having a fixed jaw, a movable jaw sliding on the shank, a key slidable on the shank and relatively to the movable jaw and extending between a side of the shank and an opposed inner surface on the movable jaw, a clutch roller arranged between opposed surfaces on the key and movable jaw, one of which surfaces is inclined to the other, the face of the key opposite the clutch roller being parallel with the shank and adapted to bind thereon, and a spring secured to the movable jaw and exerting a forward pressure on the key, said key, outside the movable jaw and at its rear end, having a handle.

1,080,537. LAMP-BURNER. WILLIAM COLINA, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 9, 1913. Serial No. 760,000. (Cl. 67—53.)



1. A lamp burner, having a cap provided with a slot, and a cone provided with a tongue passed through said slot and having its underlying end formed with an obstruction by which it is held against escape through said slot irrespective of the position of the cone.

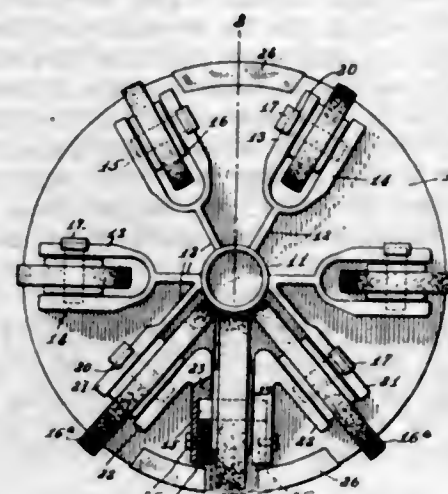
2. A lamp burner, having a cap provided with a slot, and a cone provided with a tongue passed through said slot and having its underlying end rolled upon itself to anchor the cone hingedly and inseparably on the cap.

3. A lamp burner, having a cap provided with a slot, and a cone having an integral tongue passed through said slot and provided with an integral obstruction underlying the cap and serving to prevent the escape of the tongue from said slot and to effect the hinging of the cone to the cap without recourse to extraneous hinge elements.

1,080,538. PNEUMATIC-DESPATCH-TUBE CARRIER. RODERICK G. COLLINS, JR., New York, N. Y. Filed Apr. 28, 1913. Serial No. 764,171. (Cl. 243—33.)

1. A pneumatic despatch tube carrier having a head, and a plurality of traveler-wheels mounted on the head,

the lower of said wheels being enlarged and weighted whereby to center said carrier in the tube and maintain the carrier in upright position.



2. In a pneumatic despatch apparatus, a cylindrical carrier otherwise free to revolve in a transit tube, and a weight at one portion of the carrier to maintain that portion of the carrier lowermost.

3. In a pneumatic carrier, a head, and a plurality of traveler-wheels carried on the head, the lower wheels on the head being weighted whereby to maintain the carrier in upright position during its travel through the tube.

4. In a pneumatic despatch apparatus, a carrier adapted to travel in a tube of greater diameter than the carrier, and a plurality of wheels mounted on the carrier and projecting therefrom to support the carrier, the circle of projection of the wheels beyond the carrier being eccentric to the carrier an amount approximately equal to the difference between the radii of the tube and the carrier whereby to support the carrier substantially centrally within the tube.

5. In a pneumatic carrier, a head, a plurality of traveler-wheels mounted on the head, the wheels at the lower side of said head being enlarged and adapted to support the weight of the carrier.

[Claim 6 not printed in the Gazette.]

1,080,539. CLASP. WILLIAM CONWAY, Montclair Heights, N. J. Filed Sept. 17, 1912. Serial No. 720,823. (Cl. 24—80.)



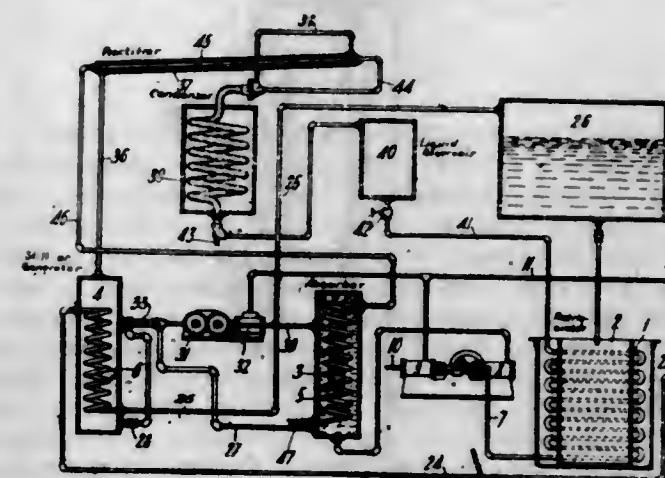
1. A device of the character described comprising a base having a stud button secured thereto, a clamping jaw hinged on said base, and a member embracing said base and jaw and slidably mounted on said base, said member having a spring tongue bearing against said jaw to positively close and open it when said member is moved.

2. A device of the character described comprising a base having a stud button secured thereto, a clamping jaw hinged on said base, and a movable member comprising a plate having a slot through which said button projects, and a spring tongue bent upward from said slotted plate and bearing against said clamping jaw to positively close and open it when said member is moved.

3. A device of the character described comprising a base having a stud button secured thereto, a clamping jaw

hinged on said base said jaw having an extension below the hinge, and a member embracing said base and jaw and slidably mounted on said base, said member having a spring tongue bearing against said jaw to positively close and open it when said member is moved.

1,080,540. REFRIGERATING APPARATUS. WILLIAM COOPER, Wilkesburg, Pa., assignor to General Refrigerating Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Jan. 27, 1910. Serial No. 540,421. (Cl. 62—6.)



1. In an absorption refrigerating system, the combination of an ammonia generator, an absorber connected thereto to deliver aqua ammonia to said generator, a steam driven pump in the connection between the absorber and generator, an expansion device, a steam driven compressor in the connection between the expansion device and the absorber for compressing the ammonia gas coming from the expansion device, water distilling apparatus and connections from said steam compressor and said steam pump to said apparatus, whereby the exhaust steam from the compressor and pump heats said apparatus.

2. In an absorption refrigerating system, the combination of an ammonia generator, an absorber, a pump and exchanger connecting the absorber and generator, an expansion device, and a compressor in the connection between the expansion device and the absorber for compressing the ammonia gas coming from the expansion device and producing a strong aqua solution in the absorber.

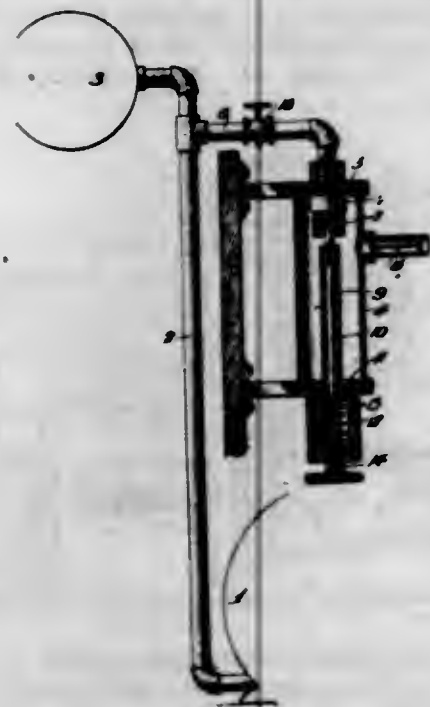
3. In an absorption refrigerating system, the combination of an ammonia generator, an absorber connected thereto to deliver aqua ammonia to said generator, an expansion device, a steam driven compressor in the connection between the expansion device and the absorber for compressing the ammonia gas coming from the expansion device and producing a strong aqua solution in the absorber, water distilling apparatus, and connections whereby the exhaust steam from said compressor heats the water distilling apparatus.

4. In an absorption refrigerating system, the combination of an ammonia generator, an absorber connected thereto to deliver aqua ammonia to said generator, an expansion device, a steam driven compressor in the connection between the expansion device and the absorber, water distilling apparatus, connections for conducting the exhaust steam from the compressor to said water distilling apparatus, and connections for conducting waste steam from the distilling apparatus to heating means for the ammonia generator.

1,080,541. VACUUM-ALARM. LUCIUS D. COPELAND, Camden, N. J. Filed Mar. 21, 1913. Serial No. 755,911. (Cl. 116—19.)

1. In a device of the character stated, a chamber provided interiorly with a valve-seat, an exterior suction-pipe open to said seat, a valve fitting said seat and having means for opening it against the suction through said pipe, and an alarm-signal communicating with said chamber and adapted to be actuated by suction from within said chamber.

2. In a device of the character stated, a chamber provided interiorly with a valve-seat, an exterior suction-pipe open to said seat, a valve fitting said seat, adjustable means for yieldingly drawing said valve from its seat, and an alarm-signal communicating with said chamber and constructed to be actuated by suction from within said chamber.

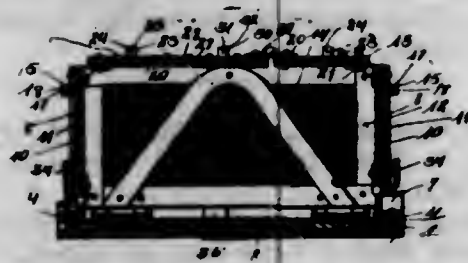


3. In a device of the character stated, a cylinder having a valve-seat on the inside of one of its heads, an exterior suction-pipe open to said seat, a valve fitting said seat, an adjustable spring drawing said valve from its seat, and an alarm signal communicating with said cylinder and constructed to be actuated by suction from within said chamber.

4. In a device of the character stated, a cylinder having a valve-seat on the inside of one of its heads, an exterior suction-pipe open to said seat, an axial tube in said cylinder and secured in the opposite head of the same, a rod slidable in said tube, a valve on the end of said rod and fitting the valve-seat, a spring engaging said rod and the head of the cylinder, and an alarm-signal communicating with said cylinder and constructed to be actuated by suction from within said chamber.

5. In a device of the character stated, a cylinder having a valve-seat on the inside of one of its heads, an exterior suction-pipe open to said seat, an axial tube in said cylinder and secured in the opposite head of the same, a casing on the outside of said head, a valve fitting the seat, a rod carrying said valve and slidable in said tube and casing and having a threaded outer end, a spring on said rod within the casing, a nut upon the threaded end of the rod and bearing against the spring, and an alarm-signal communicating with said cylinder and constructed to be actuated by suction from within said chamber.

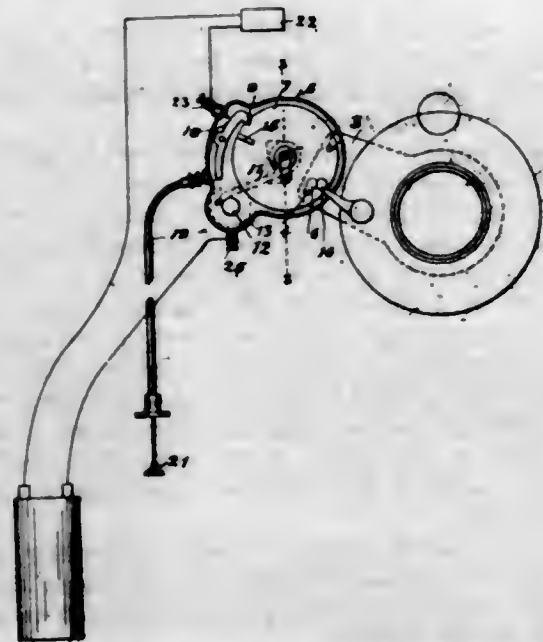
1,080,542. FOLDING CHICKEN-COOP. ARTHUR C. DANIELSON, Colfax, Wis. Filed May 8, 1913. Serial No. 766,372. (Cl. 217-47.)



A coop of the class described comprising a bottom, brackets connected to the side edges of said bottom, sides hingedly connected to the brackets, ends hingedly connected to the ends of the bottom, plates carried by the ends, slots formed in the sides for engagement by said

plates, top sections hingedly connected to the sides, and supplemental top sections hingedly connected to one of the top sections, knobs carried by one of the top sections and supplemental sections, vertical plates carried by the ends and adapted to engage the top sections and supplemental sections, means engaging said plates to hold the top sections and supplemental sections in their closed positions, straps connected to the under surface of the bottom, slots formed in the bottom, said straps being passable through the slots, said straps having their free ends adapted for detachable engagement with the knobs when the sides, ends, top sections and supplemental sections are folded.

1,080,543. FLASH-LIGHT ATTACHMENT FOR CAMERAS. PAUL DIETZ, Brooklyn, N. Y., assignor, by mesne assignments, to New Ideas Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1912. Serial No. 726,644. (Cl. 67-20.)



1. The combination with a camera provided with a shutter operating device, of an attachment including a weighted rotary member having a part for engaging and operating said device, means for setting said weighted member, means for holding said weighted member in its set position with its device-engaging part relatively remote from said device thereby to permit the momentum of the rotary member to be increased during its rotary movement, means for releasing said holding means thereby to release the weighted member and permit said part to operate the shutter operating device, and means for imparting a rapid movement to said weighted member thereby to increase the momentum thereof prior to its reaching its device-operating position.

2. The combination with a camera provided with a shutter operating device, of an attachment therefor comprising means for operating a flash-light and for thereafter operating the shutter operating device and including a shiftable weighted member, means for shifting said weighted member, and a device for holding said weighted member in its set position and effective on the release of said weighted member to effect the ignition of the flash-light prior to the release of the shutter.

3. The combination with a camera provided with a shutter operating device, of an attachment therefor comprising means for operating a flash-light and for thereafter operating the shutter operating device and including a spring-actuated weighted member, and a device for holding said weighted member in its set position and effective on the release of said weighted member to effect the ignition of the flash-light prior to the release of the shutter.

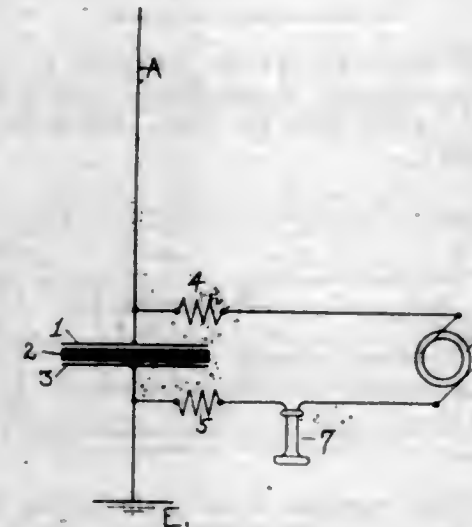
4. The combination with a camera provided with a shutter operating device, of an attachment therefor comprising means for operating a flash-light and for thereafter operating the shutter operating device and including a spring-actuated rotary weighted member, means for

setting said member, manually controlled means for releasing said member, and a device for holding said weighted member in its set position and effective on the release of said weighted member to effect the ignition of the flash-light prior to the release of the shutter.

5. The combination with a camera provided with a shutter operating device, of an attachment including a rotary weighted member having a part for engaging and operating said device, manually operative means for setting said weighted member, means for holding said weighted member in its set position with its device-engaging part relatively remote from said device thereby to permit the momentum of the rotary member to be increased during its rotary movement, manually operative means for releasing said holding means thereby to release the weighted member and permit the same to operate the shutter operating device, and a spring for imparting a rapid movement to said weighted member thereby to increase the momentum thereof prior to its reaching its device-operating position.

(Claims 6 to 25 not printed in the Gazette.)

1,080,544. WIRELESS SIGNALING SYSTEM. CORNELIUS D. EHRETT, Ardmore, Pa. Filed Dec. 7, 1903. Serial No. 184,223. (Cl. 250-20.)



1. In a wireless signaling system, receiving apparatus comprising a condenser wave responsive device, a receiving conductor or circuit associated therewith, a source of fluctuating current in a local circuit including said wave responsive device, and means responsive to changes in said fluctuating current for producing a signal.

2. In a wireless signaling system, receiving apparatus comprising an aerial conductor, a condenser associated therewith as a wave responsive device, and a local circuit including said condenser, a source of fluctuating current, and a signal translating instrument.

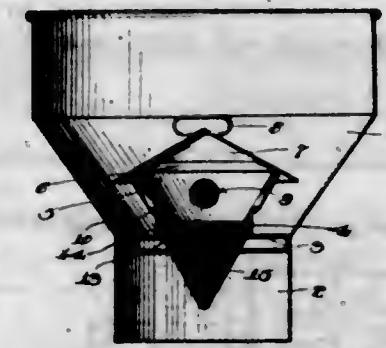
3. In a wireless signaling system, receiving apparatus comprising an aerial conductor, a condenser associated therewith as a wave responsive device, a local circuit including a source of fluctuating current for producing dielectric hysteresis in said condenser, and a signal translating instrument operative upon changes in the dielectric hysteresis effect caused by received electro-radiant energy.

4. In a wireless signaling system, an aerial conductor, a condenser wave responsive device associated therewith, a local circuit including said wave responsive device, a source of fluctuating current, and a telephone receiver.

5. In a receiver system for electro-radiant energy, the combination with a capacity exhibiting device, of means for subjecting the same to the received energy, and a circuit including said device, a source of current and a signal translating instrument.

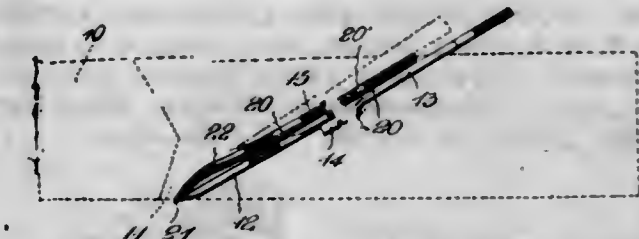
(Claims 6 to 13 not printed in the Gazette.)

1,080,545. MILK-STRAINER. CONRAD EKVAL, Higa, Ill. Filed Apr. 16, 1913. Serial No. 761,564. (Cl. 210-16.)



A device of the class described comprising a body, said body provided with a supporting platform having a vertically bent flange, said strainer body being flared toward its upper portion, a hood carried by said strainer body, said strainer body provided with a plurality of apertures, laterally bent lips formed adjacent said apertures, filters positioned upon said lips to cover said apertures, clamping bands positioned upon said filters and said lips for holding said filters in engagement with said lips, a conical filter detachably secured to the lower portion of said strainer body, said strainer body detachably supported on said flange whereby said strainer body may be easily removed for substituting new parts, when so desired.

1,080,546. ATTACHMENT FOR PLANES. OTIS S. FLANDERS, Chilmark, Mass., assignor of one-twentieth to James M. Vincent, Vineyard Haven, Mass. Filed June 6, 1911. Serial No. 631,588. (Cl. 145-5.)



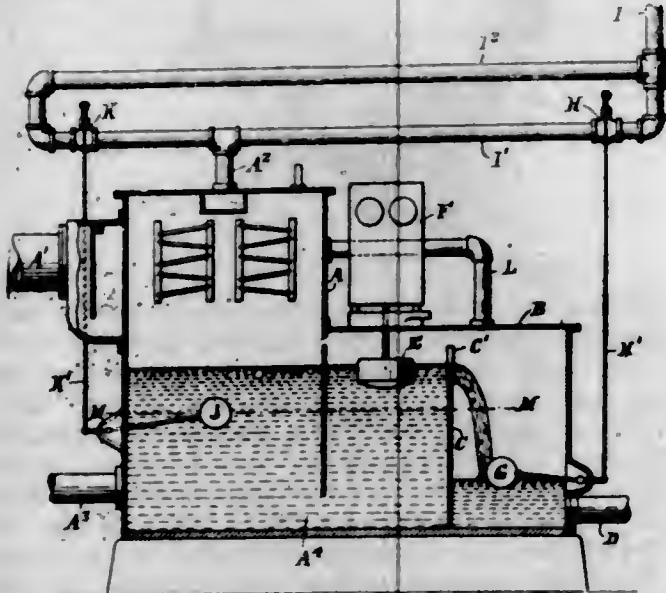
In a plane, the combination of a bit and regular cap plate secured thereto, of an auxiliary cap plate of metal much thinner than the said regular cap plate and having a blunt end edge projected beyond the lower end of the regular cap plate and adjusted in close parallel relation to the cutting edge of the bit.

1,080,547. LIQUID-MEASURING APPARATUS. JOSEPH W. GAMBLE, Philadelphia, Pa., assignor to Joseph S. Lovering Wharton, William S. Halliwell, and John C. Jones, Philadelphia, Pa., doing business as Firm of Harrison Safety Boiler Works, Philadelphia, Pa. Filed Feb. 20, 1913. Serial No. 749,663. (Cl. 137-68.)

1. In a liquid measuring apparatus, the combination of a weir, a weir chamber divided into inlet and outlet compartments by the said weir, separate liquid discharge outlets from the two compartments, a liquid supply connection to said inlet compartment, means responsive to the height of liquid level in said outlet compartment for opening and closing said connection as the liquid level in said outlet compartment falls below and rises to a predetermined height, a second liquid supply connection to said inlet compartment, and means responsive to the height of liquid level in said inlet compartment for opening and closing said second connection as the liquid in said inlet compartment falls below and rises to a predetermined level below the lowermost level of flow over the weir.

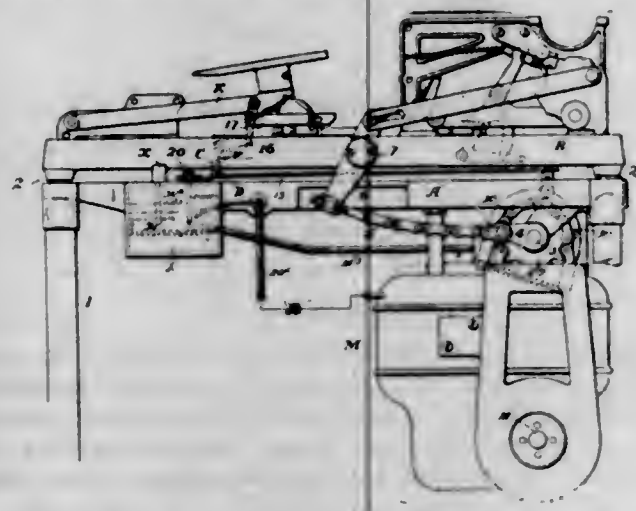
2. In a liquid measuring apparatus the combination of a weir, a weir chamber divided into inlet and outlet compartments by said weir, separate liquid discharge outlets

from the two compartments, a liquid supply connection to said inlet compartment, a valve controlling the flow through said connection, means responsive to the height of liquid level in said outlet compartment for opening and closing said valve as the liquid level in the outlet compartment falls below and rises to a predetermined



maximum, a by-pass connection about said valve, a second valve controlling the flow through said by-pass, and means responsive to the height of liquid level in said inlet compartment for opening and closing said second valve as the liquid level in said inlet compartment falls below and rises to a predetermined level below the lowermost level of flow over the weir.

1,080,548. MOTOR-STAND FOR ADDING-MACHINES. CLYDE E. W. GARDNER, Detroit, Mich., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 13, 1909. Serial No. 527,786. (Cl. 235-62.)



1. The combination with an adding machine, including an operating shaft, of a stand adapted to support said machine, a motor supported by the stand and having driving devices and a rotatable driven shaft, means for connecting said driven shaft operatively with the operating shaft of the adding machine, a shiftable device controlling connection of the driven shaft of the motor with the driving devices thereof, and means including a contact member on the adding machine for actuating said shiftable device.

2. The combination of a stand adapted to support a detachable adding machine, a motor, a driving member connected with the motor to be constantly rotated thereby, a driven member adapted to be connected with the actuating member of an adding machine supported by the stand, and means for connecting and disconnecting said driving and driven members, including a contact device arranged to coact with and be shifted by a contact device on the adding machine mounted on the stand.

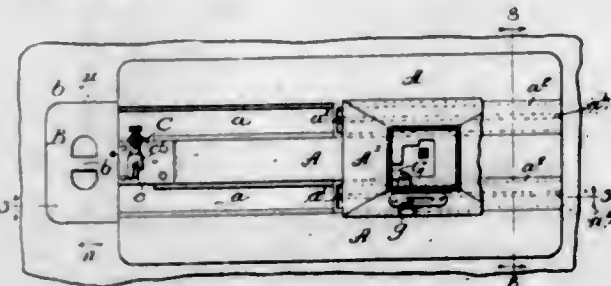
3. The combination of a stand adapted to support a detachable adding machine, a motor having a rotatable driving shaft, a driven shaft, means for connecting the latter shaft with the actuating member of an adding machine supported by the stand, and means for connecting said shafts and automatically disconnecting them at the termination of a rotation of the driven shaft including a shiftable member and an operating contact device arranged to coact with and be actuated by a contact device on the adding machine mounted on the stand.

4. The combination of a stand having a support for a detachable adding machine, a motor supported by the stand, a control device controlling the transmission of power to the motor, a shiftable contact device connected to operate the control device and in position to coact with a contact device on the machine to be shifted by the movement of the latter device.

5. The combination of a stand having a support for a detachable adding machine, a motor supported by the stand, a control device controlling the transmission of power to the motor, a shiftable contact device connected to operate the control device and in position to coact with a contact device on the machine to be shifted by the movement of the latter device, means for operating the machine from the motor, and devices connected with the shiftable contact device whereby to put said last named means into and out of connection with the motor by the adjustment of said shiftable contact device.

[Claims 6 to 21 not printed in the Gazette.]

1,080,549. SEWING-MACHINE. CHARLES T. E. GOULD, Chicago, Ill., assignor of one-third to Edward Hilker, Chicago, Ill. Filed Sept. 13, 1912. Serial No. 720,206. (Cl. 112-29.)



1. In a sewing machine, a bed plate having longitudinal openings upon each side of the center thereof extending a portion of the length of said bed plate, and recesses in said bed plate in line with the aforesaid openings, and sliding sections in said bed plate movable in said recesses and openings, substantially as described.

2. In a sewing machine, the combination of a bed plate having a longitudinal opening upon each side of the center slidable sections movable in said openings, with a casing inclosing the operative mechanism below said bed plate, an end cap fitting said casing and adapted to be held in position by frictional engagement therewith, substantially as described.

3. In a sewing machine, the combination of a bed plate having longitudinally sliding sections therein, an inclosing casing secured longitudinally to the bottom of said bed plate, an end cap detachably secured around one end of said casing and providing a groove between the closed end of the cap and the adjacent end of the casing, as and for the purpose specified.

4. In a sewing machine, the combination of the table having a bed plate mounted thereon, said bed plate having elongated longitudinally extended openings on each side of the longitudinal center thereof, a removable throat plate secured in said bed plate at the free end of the central section thereof, a casing inclosing the operative mechanism beneath the central section of the bed plate, and a removable block in the table opposite the free end of said central section and outwardly of the throat plate, substantially as described.

5. In a sewing machine, a bed plate having longitudinal openings upon each side of the center thereof, movable slides in said openings, a case secured to the under side

of the bed plate between the openings, and a cap detachably secured around one end of said case with its closed end at a distance from the adjacent end of the case, thereby forming a groove for the reception of oil, substantially as described.

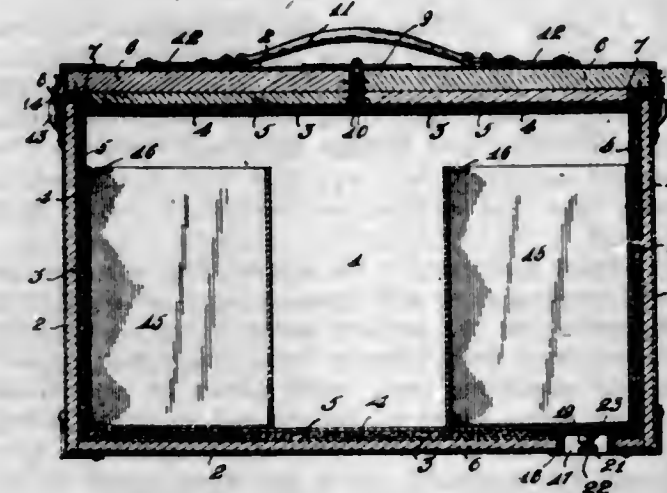
1,080,550. SHUTTLE EMBROIDERING-MACHINE. JULIUS GROETSCH, Plauen, Germany. Filed Feb. 4, 1913. Serial No. 746,185. (Cl. 112-7.)



1. In a shuttle embroidering machine having a supporting structure, a plurality of rows of needles supported by said structure, a plurality of rows of shuttles facing said needles, horizontal races on which said shuttles reciprocate, a receptacle including said horizontal races in which said shuttles are adapted to move horizontally, vertical rods to which said receptacle is secured, and a horizontally movable stepped track on which said rods are mounted and by which said rods are reciprocated.

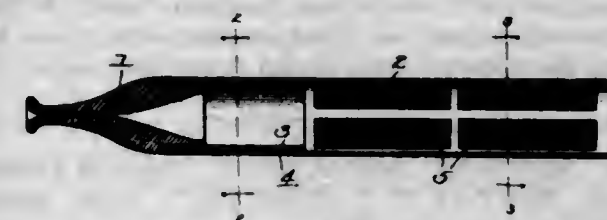
2. In a shuttle embroidering machine having a receptacle in which the shuttles move, a slide on the rear side of said receptacle and movable horizontally, fork-like drivers on said slide adapted to oscillate around a joint and a spring controlled button, which, when pressed, will actuate means to throw a shuttle through an aperture in the shuttle receptacle.

1,080,551. ICE-BOX. RALPH W. HARTWELL, Davenport, Iowa. Filed Feb. 19, 1912. Serial No. 678,445. (Cl. 62-10.)



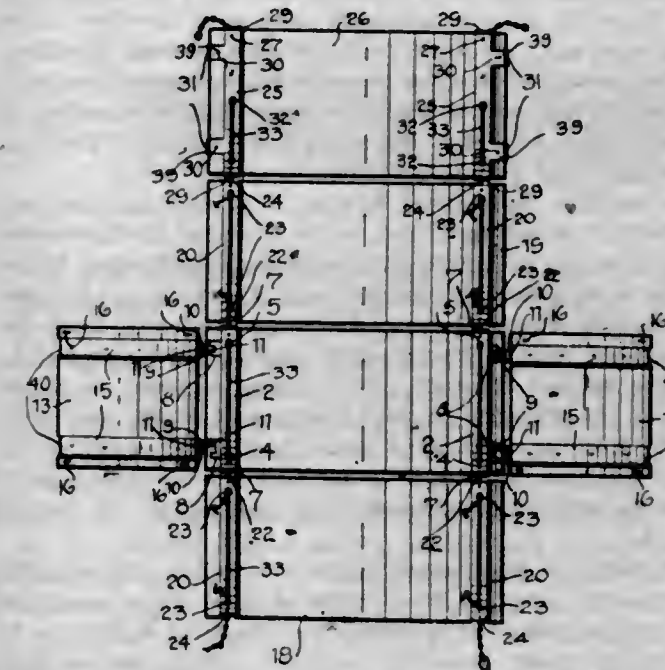
A device of the character described comprising a water-proof receptacle, a cover therefor, said receptacle having a portion of its bottom in the form of a recess, said bottom having a drain outlet tube disposed centrally within the recess, said tube being internally threaded, said tube terminating short of the outer surface of the bottom of the receptacle, a protecting casing fitting the recess and having its top provided with an opening through which the tube depends, the casing being provided with an out-turned base flange that is fastened to the outer surface of the bottom of the receptacle, and an externally threaded hollow plug engaging the threads of the tube and provided with a lateral discharge outlet.

1,080,552. CIGAR AND CIGARETTE HOLDER. JOHN HAUENSTEIN, Jr., New Ulm, Minn. Filed Nov. 8, 1911. Serial No. 659,122. (Cl. 131-51.)



A cigar or cigarette holder comprising a mouth piece having a reduced and shouldered forward end, said mouth piece being adapted to receive and hold the cigar or cigarette to be smoked, and a metallic tube closed at its forward end, the rear end of said tube being adapted to fit upon the reduced and shouldered end of the mouth piece, a packing of asbestos arranged within the rear end of the tube and a metallic sleeve or lining arranged within said rear end and adapted to hold the asbestos packing in place, that portion of the tube in advance of the packing and lining being provided with a series of reticulated portions arranged and adapted to operate, substantially as described.

1,080,553. FOLDING CRATE. WALTER HERZFELDT, Weyauwega, Wis. Filed Feb. 10, 1913. Serial No. 747,552. (Cl. 217-12.)

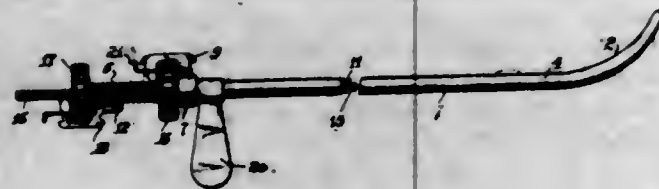


1. A crate comprising a bottom member having transverse reinforcing and bracing members adjacent its opposite ends, side members having transverse reinforcing and bracing members adjacent their opposite ends, a top member having transverse reinforcing and bracing members adjacent its opposite ends, a pair of end members hinged to the opposite ends of the bottom member, said reinforcing and bracing members carried by the top member having lateral projections extending to the opposite ends of said top member, said side members having cut-away portions along their opposite edges to accommodate the reinforcing and bracing members carried by the bottom member and top member, said end members having cut-away portions along their upper edges to accommodate the lateral projections of the reinforcing and bracing members carried by the top member, means for connecting the bottom, top and side members, and means carried by the side members for retaining the end members in proper position.

2. A crate comprising a bottom member having transverse reinforcing strips near its opposite ends, connecting cords engaged through the reinforcing strips, side members having reinforcing strips near its opposite ends, said connecting cords being threaded through the reinforcing strips of the side members, a top member having transverse reinforcing strips, said connecting cords being

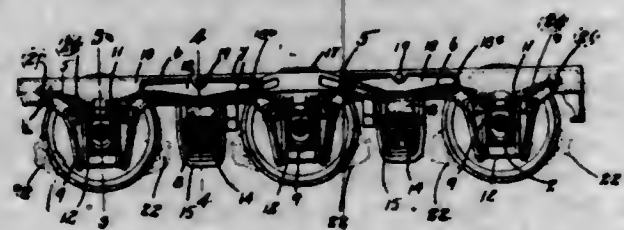
threaded through the transverse reinforcing strips of the top member, end members hinged to the bottom member, the reinforcing strips of the side and top members limiting inward movement of the end members, means for securing the end members in closed position, and means for connecting the opposite ends of the connecting cords.

1,080,554. SURGICAL INSTRUMENT. THOMAS ALBERT HOPKINS, New York, N. Y. Filed May 1, 1913. Serial No. 764,741. (Cl. 128—28.)



1. A device of the character described having a tubular member, provided with an enlarged portion, a screw-threaded portion and a spline extending through said enlarged and screw-threaded portions, and a key operable through said spline for the purpose set forth.
 2. The combination with a sound of ordinary construction and having certain movable parts of a plurality of keys for aligning said parts each of said keys being arched, and a plurality of nuts operable upon said movable parts and through said keys and said arches as herein specified.
 3. The combination of a sound with ordinary construction and having certain movable parts and a plurality of split adjusting nuts for operating said movable portions of said sound as herein specified.
 4. A surgical instrument having a tubular member one end of which is enlarged and screw-threaded and provided with a plurality of longitudinal splines, a knife and fender operable in said tubular member, said fender being provided with a longitudinal spline, and a recess and said knife being provided with a longitudinal recess, keys adapted to enter the splines through said tubular member to be received in the recesses in said fender and knife, and nuts operable through said keys, said nuts being adapted to reciprocate said knife and said fender by the rotation of said nuts and the movement of said keys as herein specified.
 5. A surgical instrument having a fender and a knife member, nuts adapted to operate each of these members and keys adapted to transmit a motion from said nuts to the first mentioned members, said keys extending on four sides of each nut adjacent thereto as herein specified and for the purpose set forth.
- [Claims 6 and 7 not printed in the Gazette.]

1,080,555. TRUCK CONSTRUCTION. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 18, 1912. Serial No. 732,099. (Cl. 105—244.)



1. In a truck construction, the combination of wheel carrying axles and a truck frame having hollow wheel pieces which are located wholly above the axles, of equalizing members located within said hollow wheel pieces.

2. In a truck construction, the combination with wheel carrying axles and a truck frame, the wheel pieces of which frame are located wholly above the axles and journal boxes, of equalizing members located within said wheel pieces.

3. In a truck construction, the combination with wheel carrying axles, journal boxes therefor, and a truck frame having wheel pieces located above the axles and journal boxes, of equalizing members located within said wheel pieces and arranged to yieldingly support the truck frame upon the journal boxes.

4. In a truck construction, the combination with wheel carrying axles, journal boxes therefor and a truck frame having hollow wheel pieces which are positioned wholly above the axles and journal boxes, of equalizing members arranged within the hollow wheel pieces of the truck frame, certain of which equalizing members rest upon the journal boxes.

5. In car truck construction, a truck frame having wheel pieces, portions of which are channel shape in cross section, and portions of which are box shape in cross section, which wheel pieces lie wholly above the axles and journal boxes of the truck.

[Claims 6 to 37 not printed in the Gazette.]

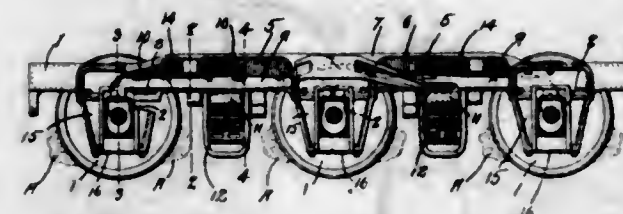
1,080,556. TRUCK CONSTRUCTION. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 25, 1912. Serial No. 733,413. (Cl. 105—244.)



1. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of an equalizing bar supported by each journal box, springs supported by the equalizing bars and a truck frame supported by said equalizing bars and springs the wheel pieces of which truck frame are hollow and contain the equalizing bars and springs.
2. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of equalizing bars fulcrumed upon the journal boxes, a truck frame having wheel pieces lying wholly above the axles and journal boxes, and springs interposed between the ends of said equalizing bars and said truck frame which equalizing bars and springs are positioned within said wheel pieces.
3. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of equalizing bars fulcrumed on the journal boxes, springs supported by the equalizing bars a truck frame supported by said springs and equalizing bars, wheel pieces on said truck frame which wheel pieces are hollow and lie wholly above the truck axles and journal boxes, which equalizing bars and springs are contained within the wheel pieces of the truck frame.
4. In a truck construction, a series of wheel carrying axles, journal boxes therefor, equalizing bars supported on the journal boxes, flexible connections between the equalizing bars, and a truck frame supported by said flexible connections and equalizing bars the wheel pieces of which truck frame are hollow and contain the equalizing bars and flexible connections.
5. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of an equalizing bar supported by each journal box, a truck frame flexibly carried by said equalizing bars and tubular wheel pieces for said truck frame, which wheel pieces are positioned above the car axles and journal boxes and contain the equalizing bars.

[Claims 6 to 22 not printed in the Gazette.]

1,080,557. TRUCK CONSTRUCTION. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 25, 1912. Serial No. 733,414. (Cl. 105—244.)



1. In a truck construction, a series of wheel carrying axles, journal boxes therefor, an equalizer bar supported upon an adjacent pair of journal boxes and lying in a plane wholly above said boxes, a flat flexible member supported by the equalizer bar, and a truck frame supported upon said member, the wheel piece of which truck frame is hollow and contains said equalizer bar and flexible member.

2. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of equalizer bars supported by the journal boxes, flat flexible equalizing members supported by said equalizer bars, and a truck frame supported by said flat equalizing members, which truck frame is provided with hollow wheel pieces which contain the equalizer bars and equalizing members.

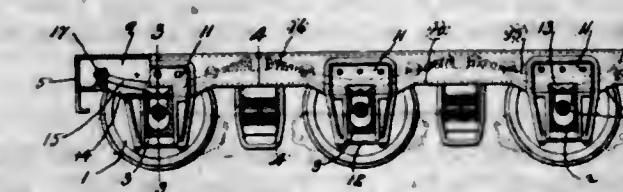
3. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of equalizer bars supported by the journal boxes, equalizer springs supported by said equalizer bars, and a truck frame supported by said equalizer springs and having substantially hollow wheel pieces, which equalizer bars and equalizer springs are contained within said hollow wheel pieces and arranged above the journal boxes and below the top of the truck frame.

4. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of rigid equalizer bars supported by the journal boxes, an equalizer spring mounted on each equalizer bar, and a truck frame having substantially hollow wheel pieces in which the equalizer bars and springs are located.

5. In truck construction, the combination with a series of wheel carrying axles and journal boxes, of rigid equalizer bars supported by the journal boxes, an equalizer spring mounted on each equalizer bar, and a truck frame the wheel pieces of which are provided with flanges which inclose the equalizer bars and springs.

[Claims 6 to 12 not printed in the Gazette.]

1,080,558. TRUCK CONSTRUCTION. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 25, 1912. Serial No. 733,415. (Cl. 105—244.)



1. In a truck construction, a truck frame having a wheel piece which is hollow throughout its entire length and adapted to contain truck equalizing members, the bottom wall of which wheel piece is cut away at certain points to accommodate the journal boxes of the truck and to permit the insertion and removal of said equalizing members.

2. In truck construction, a truck frame having a wheel piece which is substantially box shape in cross section throughout its entire length in order to receive truck

equalizing members, the bottom wall of which wheel piece is cut away at certain points to receive the truck journal boxes.

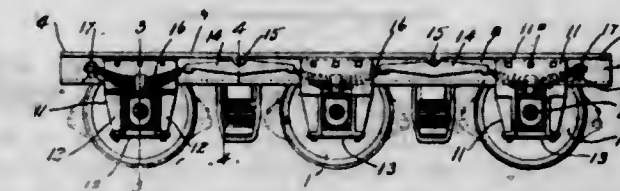
3. In truck construction, a truck frame having a wheel piece which is substantially box shape in cross section throughout its entire length in order to receive equalizing members of the truck, and the bottom walls of which wheel piece is provided with openings to permit the insertion and removal of said equalizing members.

4. In truck construction, the combination with wheel carrying axles and journal boxes, of a truck frame having wheel pieces which are substantially box shape throughout their entire length, which wheel pieces lie wholly above the axles and journal boxes, and equalizing members contained within the box-shaped wheel pieces, certain of which members are supported by the journal boxes.

5. In truck construction, a truck frame lying wholly above the axles and journal boxes of the truck and having wheel pieces which are substantially box shape throughout their entire length, and a series of equalizing members arranged within each box-shaped wheel piece.

[Claims 6 to 15 not printed in the Gazette.]

1,080,559. TRUCK CONSTRUCTION. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 25, 1912. Serial No. 733,416. (Cl. 105—244.)



1. The combination with a car truck frame having wheel pieces lying wholly above the journal boxes of the truck, which wheel pieces are provided with outwardly presented top flanges, and a series of equalizing members arranged adjacent to the vertical webs of the wheel pieces and between the journal boxes and the flanges thereof.

2. The combination with a car truck frame having flanged wheel pieces lying wholly above journal boxes of the truck, a series of flexible equalizing members mounted on the journal boxes of the truck, and rigid equalizing members fulcrumed on the flanges of the wheel pieces and cooperating with said flexible equalizing members.

3. In a car truck, the combination with wheel carrying axles and journal boxes, of a truck frame having wheel pieces lying wholly above the axles and journal boxes, which wheel pieces are provided with outwardly projecting flanges near their tops, equalizing bars positioned beneath said flanges and fulcrumed thereon, and equalizing springs supported by the journal boxes and engaging said equalizing bars.

4. In truck construction, the combination with wheel carrying axles and journal boxes, of a truck frame having wheel pieces which are Z-shape in cross section, and a series of equalizing members positioned between the journal boxes and the top flanges of the wheel pieces.

5. In a truck construction, the combination with a series of wheel carrying axles and journal boxes, of a truck frame having wheel pieces which are Z-shape in cross section, and a series of alternately arranged flexible and rigid equalizing members arranged between the journal boxes and the top flanges of the wheel pieces for yieldingly supporting said truck frame.

[Claim 6 not printed in the Gazette.]

1,080,560. UNIVERSAL TOOL-HOLDER. PETER ERIK JOHANSON, Warren, Pa. Filed Mar. 11, 1912. Serial No. 688,044. (Cl. 145—107.)

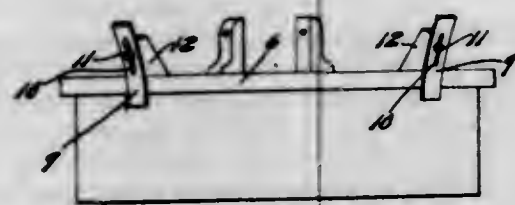
In a tool holder, a body having a tool holding socket at one end and a key hole slot passing transversely through

the body and connecting with the tool socket and a tool having a shank to fit said socket with retaining friction,



and including a projection from said shank to enter the flat portion only of said key hole slot.

1,080,561. POLISHING-WHEEL. JOSEPH JOSEPH, Cleveland, Ohio. Filed Sept. 25, 1913. Serial No. 791,871. (Cl. 51-1.)



1. A polishing wheel comprising a stone having openings therein, a plate having projections extending into said openings and engaging the stone, claws attached to the plate and depending beside the stone, and means to press said claws into biting engagement with the sides of the stone, to hold the stone to the plate.

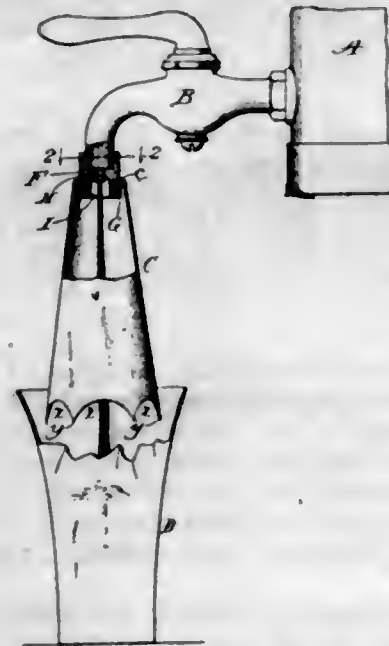
2. A polishing wheel comprising a stone having openings in the same, a top plate having projections on its upper and lower sides, the latter extending into the openings and engaging the stone, claws depending below the plate and engaging the periphery of the stone, and fastening devices between said claws and the projections on the upper side of the plate.

1,080,562. SANITARY ATTACHMENT FOR FAUCETS. CHARLES EDMUND KELLS, JR., New Orleans, La. Filed May 29, 1912. Serial No. 700,456. (Cl. 137-4.)

1. The combination of a faucet and a sanitary shield adapted to be attached to the mouth thereof and to surround the water flowing therefrom made of stiff rigid material and having openings or recesses at its lower edge with intervening sharp points or edges and the length of which between the lower edge of the mouth of the faucet and the bottom of the shield is considerably greater than the width of the shield at its lower edge, being thus so shaped that the hand or finger of the user cannot be inserted so far into it as to come in contact with the mouth of the faucet.

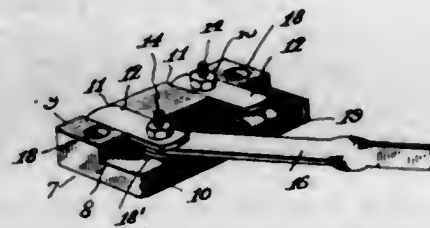
2. A faucet having at its mouth a closure provided with a restricted opening through which a jet of water passes and which is provided also with an enlarged opening or

recess through which the jet passes without coming in contact with its walls, in combination with a shield attached



to the mouth of the faucet and extending downwardly from said closure.

1,080,563. ELECTRIC SWITCH. OTTO M. KNOBLOCK, South Bend, Ind. Filed July 11, 1912. Serial No. 708,747. (Cl. 175-282.)



1. A switch, comprising a base having a grooved upper portion and a lower portion, the bottom of said grooves being above the surface of said lower portion, contact plates seated in said grooves and projecting over said lower portion, means for securing said plates in said grooves, a blade pivoted on one of said securing means between one of said plates and said lower portion, and a boss on the lower portion whose top surface lies in a plane lower than the bottom of said grooves and in alignment with one of the plates for forcing said blade into engagement therewith.

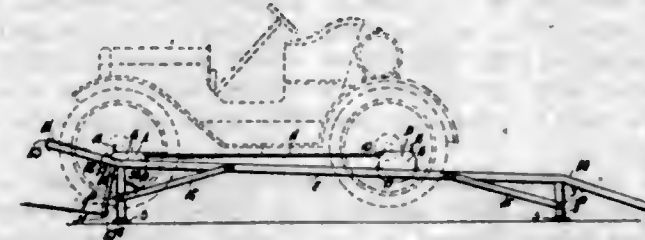
2. A switch, comprising a base having a grooved upper portion and a lower portion, the bottom of said grooves being above the surface of said lower portion, contact plates seated in said grooves and projecting over said lower portion, means for securing said plates in said grooves, a blade pivoted on one of said securing means between one of said plates and said lower portion, and a boss on said lower portion whose top surface lies in a plane lower than the bottom of said grooves and in alignment with one of said plates for forcing said blade into engagement therewith, said boss having an inclined front edge which ends beneath said plate.

1,080,564. AUTO-JACK. CHARLES KNUDSON and EDWARD J. BRUMBACH, Pontiac, Ill. Filed Apr. 30, 1913. Serial No. 764,875. (Cl. 57-15.)

1. A jack for raising vehicles comprising a frame, a pair of tracks carried by the frame and disposed in an inclined plane, the lower ends of the tracks being provided with downward extensions, a pair of forward trucks mounted on the tracks, a transverse rod connecting the trucks, a pair of rear trucks mounted in the tracks, rods connecting the adjacent front and rear trucks and the rear trucks adapted to seat in the downward extensions of the tracks.

2. A jack for raising vehicles comprising a frame, tracks carried by the frame and disposed in an inclined plane, a

pair of forward trucks mounted on the tracks, a transverse rod connecting the said trucks, a pair of rear trucks on the tracks, and rods secured to the transverse rod and having pivoted engagement with the rear trucks the height of the rear trucks being greater than the height of the front trucks.



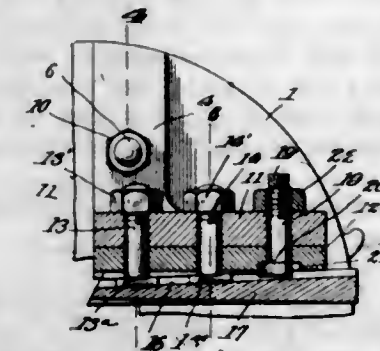
3. A jack for raising vehicles comprising a frame, tracks carried by the frame and disposed in an inclined plane, trucks mounted on the tracks, means connecting the trucks, the upper ends of the tracks being provided with upward extensions and buffer means carried by the said upper extensions for checking the momentum of the trucks.

4. A jack for raising vehicles comprising a frame, tracks carried by the frame and disposed in an inclined plane, a pair of forward trucks mounted on the tracks, a transverse rod connecting the trucks, a pair of rear trucks mounted on the tracks, rods connecting the front and rear trucks and a spring pressed pawl carried at the upper ends of the tracks to engage the said transverse rod to automatically lock the trucks against downward movement.

5. A jack for raising vehicles comprising a frame, a pair of tracks carried by the frame and disposed in an inclined plane, a pair of forward trucks mounted on the tracks, each of said trucks being provided at its forward end with an upwardly extending stop, a transverse rod connecting the trucks, a pair of rear trucks mounted on the tracks, each of said trucks being provided at its rear end with an upwardly extending stop, the lower ends of the tracks being provided with downward extensions and the rear trucks adapted to seat in the said extensions.

[Claim 6 not printed in the Gazette.]

1,080,565. TOOL-HOLDER. VICTOR R. KOONTZ, Waynesboro, Pa. Filed Jan. 4, 1913. Serial No. 740,246. (Cl. 10-104.)



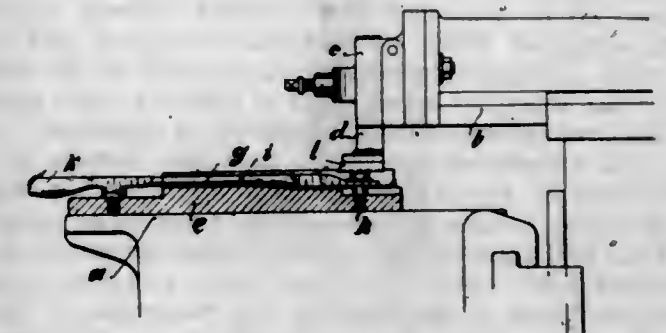
1. A tool holder, including a supporting member, a tool carrier, coacting means carried by the tool carrier and supporting member for swingingly connecting the carrier to the supporting member, coacting means also carried by the supporting member and carrier for adjusting the angular relation of the tool carrier to the supporting member, a tool mounted in the carrier, and means projecting through the supporting member and carrier and engaging the tool to lock the tool in the carrier and the carrier to the supporting member.

2. A tool holder, including a supporting member, a tool carrier, coacting means carried by the tool carrier and supporting member for swingingly connecting the carrier to the supporting member, coacting means also carried by the supporting member and carrier for adjusting the angular relation of the tool carrier to the supporting member, a tool mounted for longitudinal movement in the carrier, means for limiting the longitudinal movement, and

means piercing the supporting member and carrier and engaging the tool to lock the tool and carrier to the supporting member.

3. A tool holder, including a supporting plate, a circular projection carried upon one face thereof, a tool carrier having a circular socket in one end to fit upon the circular projection of the supporting plate, said circular projection and socket being the axis of the carrier, coöperative means carried by the opposite ends of the supporting plate and carrier for adjusting the carrier relatively to the supporting plate, a tool disposed in the carrier, and means piercing the supporting plate, carrier and engaging the tool to lock the parts together.

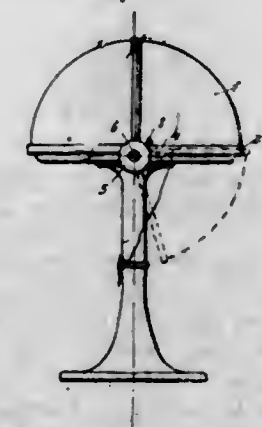
1,080,566. APPARATUS FOR REMOVING THE PROJECTING RIDGES FROM PRESSED METAL WHEELS. RUDOLF KRONENBERG, Ohligs, Germany. Filed June 28, 1913. Serial No. 776,346. (Cl. 164-34.)



1. In a device of the character described, a support, a slide movable thereon, a head on said slide, a tool holder clamped by said head, a double edged knife on said slide, clamps on said support to adjustably hold the outer end of each spoke when operated on, and a headed bolt to adjustably engage a slot in the spoke body.

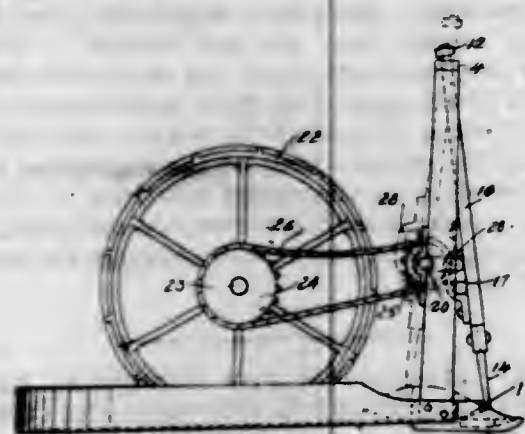
2. Apparatus of the character described comprising a support, a slide on said support, a head on said slide, a tool holder clamped by said head, two spaced knives on said support to receive a spoke between them, a vertical headed bolt on said support, a spoke holder adapted to be clamped at its inner end by pushing the spoke body under the head of said bolt and at its outer end by a revoluble hand lever adapted to engage that end, a double edged upper knife adapted to be moved to cut off the projecting ridges of said spoke.

1,080,567. SPRING-CASING. OTTO LAMPE, Königsberg, Germany, assignor to The Firm of Otto Zimmer Nachf., Königsberg, Germany. Filed Dec. 16, 1912. Serial No. 737,184. (Cl. 45-103.)



In a spring-casing for the trunnions of foldable bells of goods-stands, in combination, a spiral spring fixed with one end to the trunnion of the bell, a movable ring inserted in the casing and connected with the other end of the spring, and a disengageable pressure-screw to act on the ring and thus to fix the same in position within the casing, for the purpose set forth.

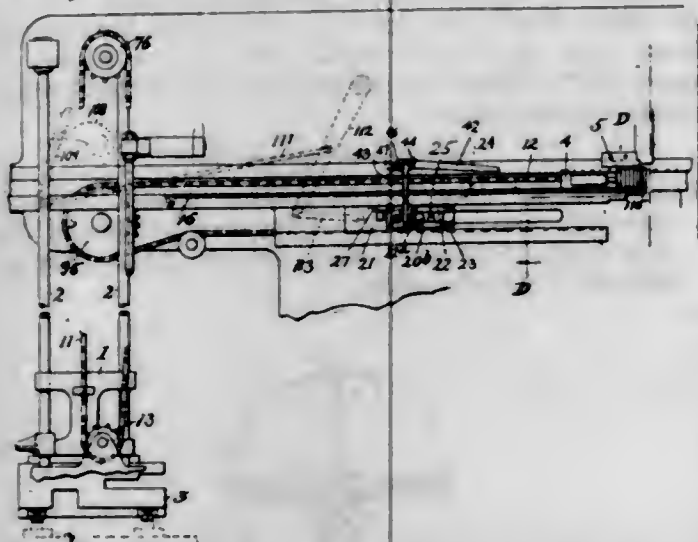
1,080,568. CUTTER-BAR RAKING DEVICE. JOHN J. LEMCKE, Jewell, Ohio. Filed Feb. 23, 1912. Serial No. 679,395. (Cl. 56-22.)



1. An attachment for raking the upper surface of the cutter-bar of mowers, the combination of an upright frame, of a swinging-frame attached thereto provided with elongated slots, a crank-shaft engaging said slots whereby a swinging movement is imparted to the swinging-frame when the crank shaft is revolved, teeth carried by said swinging-frame, substantially as described.

2. An attachment for raking the upper surface of the cutter-bar of mowers, comprising the following instrumentalities: an upright-frame, a swinging-frame suspended from said upright-frame, said swinging-frame also being provided with slotted portions, teeth attached to said swinging-frame in proximity to the cutter bar, a crank-shaft engaging said slots and imparting a simultaneous oscillating and upward movement to the swinging-frame, to cause the teeth of the swinging-frame to contact with and clean the upper surface of the cutter-bar when the crank shaft is revolved, substantially as described and set forth.

1,080,569. ELEVATOR MECHANISM. ARTHUR W. LE BOKUF, Woonsocket, and JOSEPH B. ARMITAGE, Pawtucket, R. I., assignors to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 15, 1911. Serial No. 665,912. (Cl. 199-7.)



1. In a line casting machine, the combination of a vertically movable elevator which is provided with a support for a matrix line, an elevated support which is adapted to guide a line of matrices toward the distributing mechanism, and which the elevator support will be aligned with when the elevator is raised, a horizontally movable line carrier adapted to sweep the matrix line from the elevator support onto and along the elevated support, a horizontally movable auxiliary line carrier, springs for moving said line carriers in the matrix distributing direction, cams for respectively moving said line carriers in the contrary direction, driving mechanism which includes a clutch for turning said cams, means for causing said clutch to close, and a cam turning with the other cams for operating said clutch.

2. In a line casting machine, the combination of a vertically movable elevator which is provided with a support for a matrix line, an elevated support which is adapted to

guide a line of matrices toward the distributing mechanism and which the elevator support will be aligned with when the elevator is raised, a horizontally movable line carrier adapted to sweep the matrix line from the elevator support onto and along the elevated support, a horizontally movable auxiliary line carrier, springs for moving said line carriers in the matrix distributing direction, cams for respectively moving said line carriers in the contrary direction, driving mechanism which includes a clutch for turning said cams, means for causing said clutch to close, and a cam turning with the other cams for operating said clutch.

3. In a line casting machine, an auxiliary line carrier comprising a slide movable in horizontal guideways, a sliding bar supported by and having a limited horizontal movement on said slide, mechanism connected with the said sliding bar for moving the auxiliary line carrier back and forth, a push arm movably connected with said slide and adapted to project into the path which a line of matrices must travel in going to the distributing mechanism, a spring normally holding said arm in operative position, and means operated by the sliding bar for drawing said arm to an inoperative position.

4. In a line casting machine, an auxiliary line carrier comprising a slide movable in horizontal guideways, a sliding bar supported by and having a limited horizontal movement on said slide, mechanism connected with the said sliding bar for moving the auxiliary line carrier back and forth, two parallel links pivoted to said slide, one being provided with an angle arm, a line carrier push bar pivotally connected to the free ends of said parallel links, a spring acting to swing said links in a direction which carries the push bar to an operative position, and a shoulder fixed to the sliding bar and adapted to engage the angle arm of one of said links whereby the same may be rocked to draw the push bar to an inoperative position.

5. In a line casting machine, an auxiliary line carrier comprising a slide movable in horizontal guideways, a sliding bar supported by and having a limited horizontal movement on said slide, mechanism connected with the said sliding bar for moving the auxiliary line carrier back and forth, two parallel links pivoted to said slide, one being provided with an angle arm, a line carrier push bar pivotally connected to the free ends of said parallel links, a spring acting to swing said links in a direction which carries the push bar to an operative position, and a shoulder fixed to the sliding bar and adapted to engage the angle arm of one of said links whereby the same may be rocked to draw the push bar to an inoperative position, a cam engaging a part of the mechanism which is connected with said sliding bar whereby the auxiliary line carrier may be retracted, and a spring acting upon said mechanism for moving the auxiliary line carrier in the contrary direction.

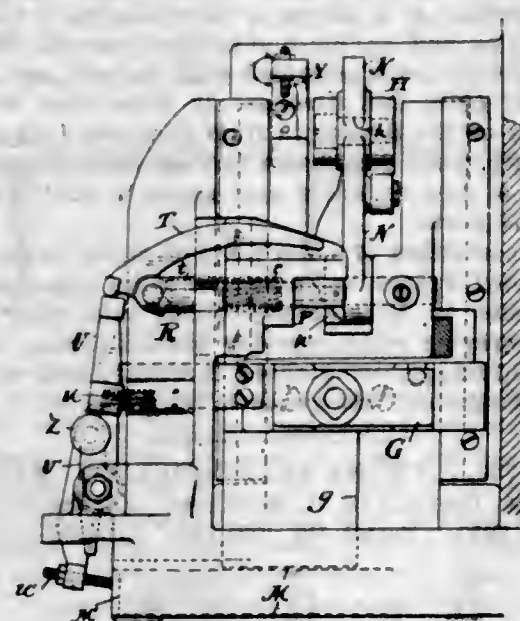
[Claims 6 to 10 not printed in the Gazette.]

1,080,570. SLUG-EXPELLER MECHANISM FOR LINE-CASTING MACHINES. ARTHUR W. LE BOKUF, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New-Jersey. Filed Jan. 15, 1913. Serial No. 742,088. (Cl. 199-13.)

1. In expeller mechanism for line casting machines, the combination of a movable mold, and an expeller slide carrying an expeller blade, with a movable slide-operating member, a hook movably secured to said slide and adapted to engage with said member, means which normally hold said hook out of such engagement, and a train of mechanism to release said hook, one member of said train of mechanism being extended into the path over which the mold must travel as it moves to the ejecting position.

2. In expeller mechanism for line casting machines, the combination of a movable mold, and an expeller slide carrying an expeller blade, with a movable slide-operating member, a hook movably secured to said slide and adapted to engage with said member and provided with a tail piece, a train of mechanism of which one terminal member lies in the path of and is adapted to be engaged by said tail piece when the slide is moving to its retracted

position and the other terminal member being extended into the path of the movable mold and adapted to be engaged thereby as the mold moves to the ejecting position.



3. In expeller mechanism for line casting machines, the combination of a movable mold, and an expeller slide carrying an expeller blade, with a rocking lever carrying pin, a hook movably secured to said slide, and adapted to engage with said pin, means which normally hold said hook out of such engagement, and a train of mechanism to release said hook, one member of said train of mechanism being extended into the path over which the mold must travel as it moves to the ejecting position.

4. In expeller mechanism for line casting machines, the combination of a movable mold, and an expeller slide carrying an expeller blade, with a movable slide-operating member, a hook movably secured to said slide and adapted to engage with said member and provided with a tail piece, a spring actuated plunger carrying an expeller preventer adapted to engage the said tail piece and so hold the hook out of engagement with said member, a pivoted lever having one end projected into the path over which the mold must travel in moving to the ejecting position, and mechanism intermediate of said lever and said plunger through which when the lever is moved by the mold the plunger will be moved to carry the expeller preventer out of engagement with said tail piece.

5. In expeller mechanism for line casting machines, the combination of a movable mold, and an expeller slide carrying an expeller blade, with a movable slide-operating member, a hook movably secured to said slide and adapted to engage with said member, and provided with a tail piece, a spring actuated plunger, an expeller preventer carried thereby for engaging the said tail piece to hold the hook out of engagement with said operating member, a lever of which one end is projected into the path over which the mold must travel in moving to the ejecting position, and a trigger pivoted to said plunger and adapted to be engaged by said lever.

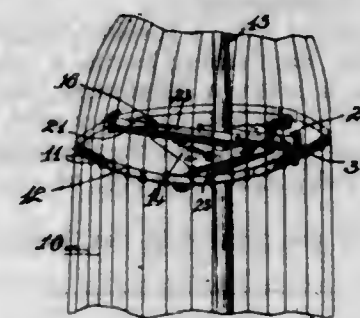
[Claims 6 to 8 not printed in the Gazette.]

1,080,571. DRESS-FORM. FREDERICK JOHN MADELL, Newark, N. J. Filed June 20, 1912. Serial No. 704,721. (Cl. 223-18.)

In a dress form comprising contour elements and a central support, a plate secured to the central support, ears struck up at the edges of the plate, the ears being perforated and slotted, wings struck up from the plate and having each a perforation in line with the perforation of an ear, rods passing through the perforations, each rod having its inner end bent to form a post, a locking strip pivoted to each post and extending through the slot of an ear and adapted to move therein, each locking strip having notches to engage the edge of the slot of its ear, clips on the ends of the rods to engage the contour elements, a bridge struck up from the plate, and a spring seat

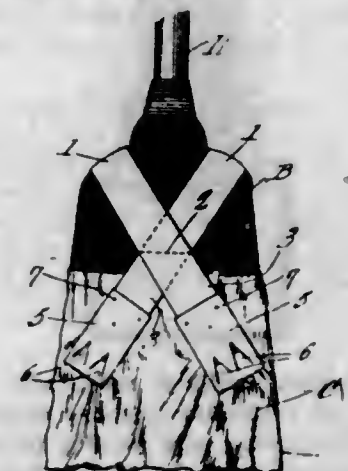
197 O. G.—18

ed in the bridge and bearing on the locking strip at an angle thereto to hold its notched edge in engagement with



the end of a slot and permit the free sliding of the locking strip.

1,080,572. BROOM ATTACHMENT. AMANDA McDONALD, Central City, S. D. Filed Sept. 26, 1912. Serial No. 722,544. (Cl. 15-20.)



A broom attachment embodying a pair of elastic strips folded into U-shape in intersecting planes with their limbs crossing each other, the crossed portions of the limbs being stitched together, and clips attached to the terminals of the strips and having broom cloth engaging teeth, the bights of the strips forming a collar to surround that portion of a broom head which is attached over the end of the broom stick and to rest on the shoulders of the broom head, and the crossed portions being designed to rest flatly against the sides of the broom head and to flex therewith.

1,080,573. STEAM-TURBINE. JOHN F. MERTEN, Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company, a Corporation of Pennsylvania. Filed Feb. 19, 1909. Serial No. 478,820. Renewed Nov. 9, 1912. Serial No. 730,493. (Cl. 121-58.)



1. The combination in a turbine with a rotor, a casing having a removable segment, and a dished diaphragm having a packing around the axis of the rotor, of a separate nozzle carrying element, and means whereby the nozzle carrying element engages the casing and the diaphragm to lock the latter against longitudinal movement.

2. The combination with a turbine casing, a portion of which is removable, of a rotor therein, a diaphragm, and an element slidably removable from between the casing and the diaphragm and locking the diaphragm when in place.

3. The combination with a turbine casing, a portion of which is removable, of a rotor therein, a diaphragm, and a divided nozzle carrying rings slidably and removably mounted between the casing and the diaphragm.

4. The combination with a turbine casing, a portion of which is removable, of a rotor, a diaphragm, and a nozzle

carrying ring slidably interlocking with both the casing and the diaphragm whereby the nozzle ring holds the diaphragm against displacement.

5. The combination with a turbine casing, a portion of which is removable, said casing having a groove around its inner surface, of a rotor, a diaphragm, and a segmental nozzle ring formed to slidably interlock with the diaphragm and the casing, whereby to hold the diaphragm in position and to be removable independently of the rotor or the diaphragm.

[Claims 6 to 22 not printed in the Gazette.]

1,080,574. FOUNTAIN-BRUSH. WILLIAM F. MOSS, Richmond, Tex. Filed Mar. 15, 1912. Serial No. 684,042. (Cl. 15-49.)



1. The combination with a receptacle having a discharge opening, of a tubular member closed at its inner end, means for supporting said tubular member within the discharge opening and with its closed end extending into the receptacle, said tubular member being provided with a plurality of perforations formed in that portion immediately within the receptacle and spaced from the closed end, and a plurality of bristles seated in said member and bearing by their inner ends against the closed end thereof and extending beyond the open end of the same.

2. The combination with a receptacle having a discharge opening, of a cap closing said opening and carrying a tubular member which, when the cap is in place, extends partially within the receptacle and partially without the same, the inner end of said tubular member being closed, a plurality of perforations formed in that portion of the tubular member which extends within the receptacle, and a plurality of bristles carried by the tubular member and extending beyond its free end.

1,080,575. HYDRAULIC ROTARY BIT AND HOLDER. JACOB R. MYERS, Philadelphia, Pa. Filed Apr. 25, 1913. Serial No. 763,629. (Cl. 255-61.)

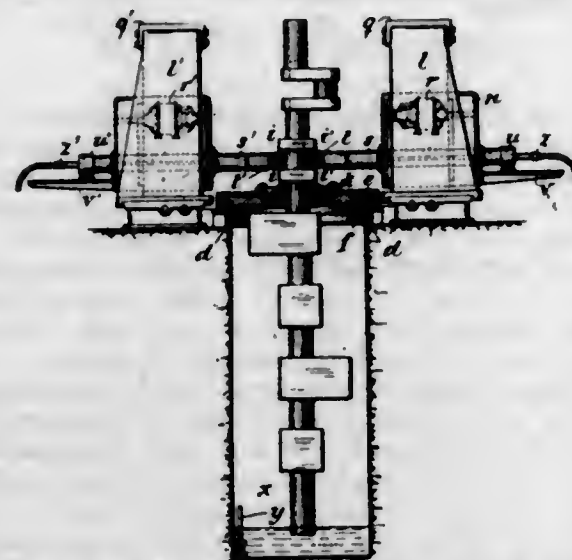


1. The combination with a bit consisting of a plate of metal having oppositely directed flanges extending from

opposite edges and sharpened to form cutting edges, said plate having its flange carrying edges tapering inwardly toward the point of the bit whereby said flanges are inclined inwardly; of a hollow holder adapted for connection to a pipe and having a diaphragm across its lower end, said holder being provided with spaced jaws engaging said bit plate and arranged in connection with the upper parts of the flanges to form channels adjacent the cutting edges, said diaphragm having fluid ports at the upper ends of said channels, and means to hold said plate between said jaws.

2. A bit consisting of a flat plate of metal having oppositely directed flanges extending from its opposite edges and sharpened to form cutting edges, said plate having its flange carrying edges tapering inward toward one end whereby said flanges are inclined inwardly, said end being free from flanges and sharpened to form a point.

1,080,576. CRANK-SHAFT-MILLING MACHINE. CHRISTEN OVERGAARD, Copenhagen, Denmark. Filed Dec. 16, 1911. Serial No. 666,279. (Cl. 90-15.)



1. In a crank shaft milling machine, the combination with a horizontally revoluble clamping table and a pit beneath said table adapted to take the major portion of the length of the shaft vertically fixed at one point in said clamping table, of end milling cutters disposed in the immediate vicinity of the point of support of said shaft, means for displacing said cutters in relation to each other, means for moving said cutters from different sides independent of each other toward, transversely to and parallel to the shaft, and means by which the rotary speed of said cutters can be varied independent of one another.

2. In a crank shaft milling machine, the combination of a horizontal table revoluble about a vertical axis, clamp elements for supporting at one point the shaft held vertically, which clamp elements can slide diametrically upon said table, and a pit beneath said table adapted to take the major portion of the length of the shaft, with end milling cutters, means for displacing said cutters in relation to each other, means for moving said cutters from different sides independent of each other toward, transversely to and parallel to the shaft, and means by which the rotary speed of said cutters can be varied independent of one another.

3. In a crank shaft milling machine, the combination of a clamp revoluble about a vertical axis, in which the shaft is adapted to be vertically held, with end milling cutters, spindles carrying said cutters, means for moving said spindles in three different directions perpendicularly to each other, means for rotating said spindles, frames for carrying said spindles and their rotating motive elements, and vertical guides for said frames, which guides are rigidly interconnected at the top and bottom.

1,080,577. COT. ANTHONY PAUL PASCALE and REINHARDT DAAR, Pittsburgh, Pa. Filed May 23, 1912. Serial No. 699,108. (Cl. 5-5.)

1. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting

all the sections, said sections having complementary ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs differing in length from the grooves.



2. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complementary ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs being of greater length than the grooves.

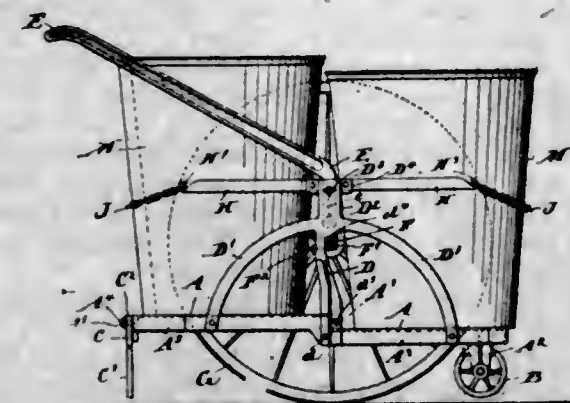
3. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complementary ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs being of greater length than the grooves, the grooves being located at the ends of the sections.

4. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complementary ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the end sections having corner connections to receive end frame members and supporting members, the intermediate sections having the ribs and grooves arranged to permit nesting with the connections retaining the common plane arrangement therebetween of the frame when in position for use.

5. In a bed or cot, a rectangular frame having groups of separable telescopic sections, successive sections of the same group being provided with interfitting ribs, extending longitudinally of the sections, one member of each two successive sections having a short rib with a stop at its inner end, and having also a longer rib and the other member having a long rib registering with the said short rib and engaging the said stop when the sections are assembled for use, and the two long ribs capable of registering to permit one section to telescope the other farther than the short rib would permit.

[Claim 6 not printed in the Gazette.]

1,080,578. CAN-CARRIER. ALPHONSO E. PEPPE, New York, N. Y. Filed Apr. 5, 1913. Serial No. 759,143. (Cl. 21-119.)

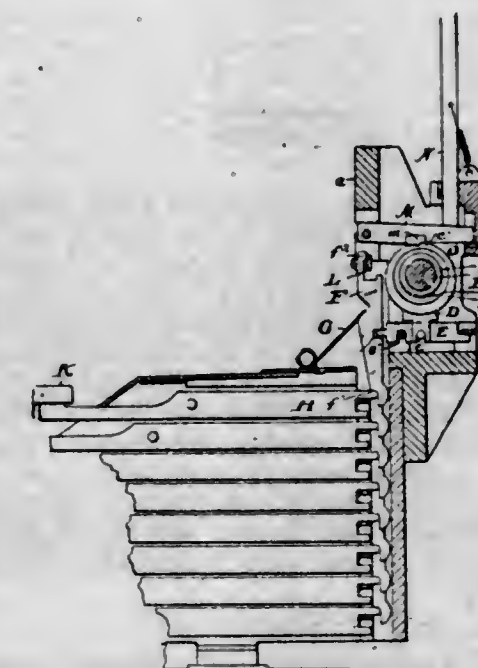


1. In a carrier of the character set forth, a platform comprising a single casting, an axle extending trans-

versely of and above said platform, wheels on said axle, standards secured to said axle and platform and suspending the latter, braces on said standards, attached at their lower ends to said platform at separated points, each of said standards and its braces comprising a single casting having a socket in its upper end, and handles adjustably mounted in such sockets.

2. In a carrier of the character set forth, a platform comprising a single casting and having one portion of its upper face higher than the remaining portion, and each of such portions adapted to support a can, an axle extending transversely of said platform above the latter, standards secured to said axle and platform and suspending such platform, braces on said standards cast in one therewith, a stiffening flange on the margins of said platform, a strut pivotally connected to such flange at the rear of the said higher portion of said platform, a head on the upper end of each standard and having an opening therein serving as a vertical socket, handles received in such sockets, and a screw on the side face of such head, said handles having a series of holes adapted to receive the ends of said screws and permit the height of said handles to be adjusted.

1,080,579. TRIGGER MECHANISM FOR KEY-OPERATING MACHINES. DAVID PETRI-PALMEDO, Bridgeport, Conn., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 13, 1912. Serial No. 738,577. (Cl. 199-7.)



1. In trigger actuated power relay mechanism, the combination of a rotatable shaft, an eccentric ring embracing said shaft loosely, means normally holding the ring up out of contact with said shaft, means to withdraw said holding means, and a device arranged to be engaged and moved by the eccentric ring when the latter is supported and turned by said shaft.

2. In trigger actuated power relay mechanism, the combination of a rotatable shaft, an eccentric ring embracing said shaft loosely, means normally holding the ring up out of contact with said shaft, means to withdraw said holding means, and a device arranged to be engaged and moved by the eccentric when the latter is supported and turned by said shaft, said shaft having an annular V groove and the ring having the margin of its eccentrically placed hole formed of corresponding V shape.

3. In trigger actuated power relay mechanism, the combination of a rotatable shaft having a plurality of circumferential V shaped grooves and the following mechanism associated with each groove, to wit, a circular ring having through it an eccentrically placed circular hole which is of larger diameter than the shaft, and has a V-shaped edge,—said ring being arranged in the same transverse plane as the associated groove on the shaft, means

normally holding the ring up out of contact with said shaft, means to withdraw said holding means and thereby allow the ring to drop onto the shaft whereby when the shaft is turned, said eccentric ring will also be turned, and a device arranged to be engaged and moved by the eccentric ring when the latter is supported and turned by said shaft.

4. In trigger actuated power relay mechanism, the combination of a rotatable shaft, an eccentric ring embracing said shaft loosely, a vertically movable shoe arranged below said ring and adapted to lift the same out of contact with shaft, mechanism for raising and lowering said shoe, and a device arranged above the eccentric ring and adapted to be engaged and moved thereby when the latter is supported and turned by said shaft.

5. In trigger actuated power relay mechanism, the combination of a rotatable shaft, an eccentric ring embracing said shaft loosely, a vertically movable shoe arranged below said ring and adapted to lift the same out of contact with shaft, mechanism for raising and lowering said shoe, a pivoted lever engaging said shoe and adapted to raise and lower the same, mechanism for actuating the last mentioned lever, and a device arranged above the ring and adapted to be engaged and moved thereby when the latter is supported and turned by said shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,080,580. AUTOMOBILE WHEEL-RIM. ORSON L. PICKARD, Columbus, Ohio. Filed Dec. 20, 1909. Serial No. 534,153. (Cl. 152-21.)



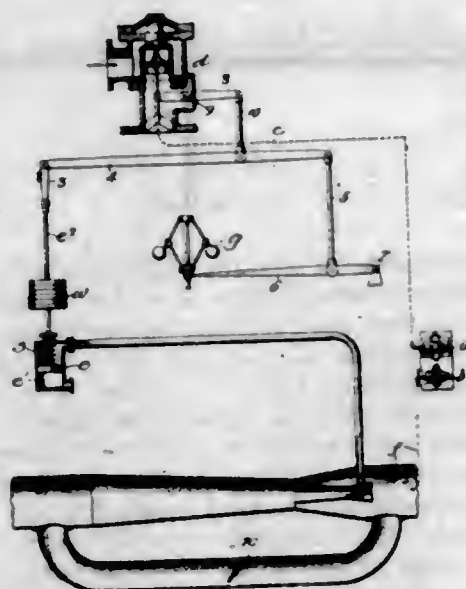
An automobile wheel rim comprising a flat metal band, a peripheral hook-shaped flange on one edge of said band, an integral peripheral flange of U-shape in cross-section on its other edge and having a slot therein, a removable split hook-shaped member fitting in said last named flange, an L-shaped hook on one end of said member constructed to engage one wall of said slot, a shoulder on said L-shaped hook, a complementary shoulder on the other end of said split hook-shaped member and having a threaded extension, the meeting ends of said split hook-shaped member being beveled, and a nut for said threaded extension and adapted to bear against said two shoulders to bring the free ends of said split hook-shaped member in abutting relation.

1,080,581. APPARATUS FOR RAISING AUTOMOBILES. JAMES JOHN PREECE, Potchefstroom, Transvaal, South Africa. Filed Aug. 26, 1912. Serial No. 717,184. (Cl. 57-15.)



Apparatus for raising automobiles, comprising in combination, a triangularly shaped base, an upright at the apex of the triangle, a screw pivotally mounted on said upright, an open platform adapted to afford a support for the wheels of an automobile and provided with a pivoted nut through which said screw works, legs connecting the platform to the base and adapted to swing about their points of attachment thereto whereby the platform is adapted to be raised or lowered in an arcuate path in relation to the base by means of the aforesaid screw and nut.

1,080,582. REGULATOR FOR FLUID-PRESSURE APPARATUS. AUGUSTE CAMILLE EDMOND RATEAU, Paris, France. Filed Jan. 19, 1907. Serial No. 353,040. Renewed Jan. 20, 1910. Serial No. 530,138. (Cl. 230-24.)



1. The combination with a fluid-impeller and a motor for driving the same, of a multiplier of pressure-difference arranged to be subjected to the varying fluid current driven by said impeller, a speed-regulator for said motor, and means for causing the operation of said speed-regulator to respond to the multiplied variations of pressure-difference produced by said multiplier of pressure-difference.

2. The combination with a fluid impeller and a motor for driving the same, of a regulator for said motor comprising a movable controlling part adapted to respond to changes in fluid-pressure to vary the speed of the motor, a series of converging-diverging tubes disposed in the fluid current driven by said impeller, said tubes being arranged concentrically one inside the other, the discharge mouth of each inner tube being located at the constricted portion of the tube next outside, and a pipe connecting the constricted portion of the innermost tube with the movable controlling part of the regulator, whereby said part is subjected to multiplied differences in pressure proportional to the current flow of the fluid, and the output from the impeller is thereby regulated.

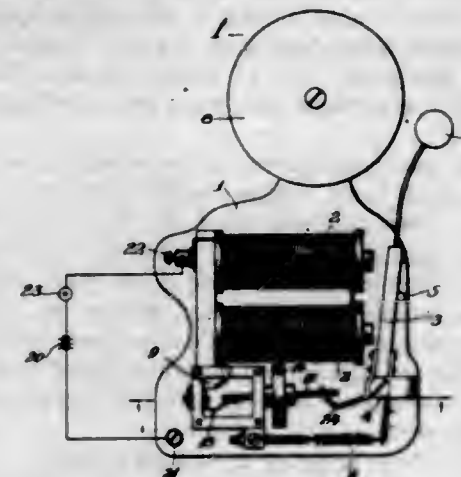
3. The combination with a fluid-impeller and a motor for driving the same, of a regulator for said motor comprising a movable controlling part adapted to respond to changes in fluid-pressure to vary the speed of the motor, a multiplier of pressure-difference arranged to be acted upon by the fluid current driven by said impeller, a by-pass for the fluid around said multiplier, a valve controlling said by-pass, and means for continuously subjecting said movable controlling part of the motor-regulator to the multiplied varying pressure-difference, whereby the output from the impeller is regulated.

4. The combination with a fluid-impeller and a motor driving the same, of a centrifugal governor controlling the supply of energy to said motor, and a supplementary regulator combined therewith, having a movable controlling part adapted to respond to changes in fluid-pressure, a multiplier of pressure-difference arranged to be acted on by the varying fluid current driven by said impeller, and means for continuously subjecting said movable controlling part to such multiplied variations of pressure-difference; whereby the supply of energy to the motor is governed according to the output of the impeller, as well as according to the speed of said motor.

5. The combination with a conduit conveying fluid, of a multiplier of pressure difference composed of a series of converging-diverging tubes one inside the other in said conduit, mechanism subjected to the multiplied pressure difference existing at the constricted portion of the inner tube, and a by-pass around said multiplier.

[Claims 6 and 7 not printed in the Gazette.]

1,080,583. ELECTRICAL APPARATUS. HENRY E. REEVE, New York, N. Y. Filed Sept. 25, 1908. Serial No. 454,736. (Cl. 177-7.)



1. Electrical apparatus comprising a casing containing electric contacts, a transmitting lever extending through one wall of said casing, a duplex elastic metallic diaphragm connecting said lever and casing, a magnet and an armature outside of said casing for oscillating said lever and guides connected to said armature for maintaining said lever in a given plane of oscillation.

2. Electrical apparatus comprising a casing containing the parts to be protected, a transmitting lever extending through one wall of said casing, an elastic metallic diaphragm connecting said lever and casing, a magnet and a pivoted armature for oscillating said lever, and means of connection between said armature and lever for restricting said lever to a single given plane of oscillation.

3. Electrical apparatus comprising a casing containing the parts to be protected, a transmitting lever extending through one wall of said casing, a duplex elastic metallic diaphragm connecting said lever and casing, a magnet and an armature for oscillating said lever and guides connected to said armature for maintaining said lever in a given plane of oscillation.

4. Electrical apparatus comprising a casing containing the parts to be protected, a transmitting lever extending through one wall of said casing, a duplex elastic metallic diaphragm connecting said lever and casing, a magnet and an armature for oscillating said lever, and a forked member connected to said armature for maintaining said lever in a given plane of oscillation.

5. Electrical apparatus comprising a casing containing the parts to be protected, a lever for transmitting motion through a wall of said casing, a duplex metallic diaphragm supporting said lever, a magnet and a pivoted armature member for vibrating said lever and maintaining and restricting the vibrations of said lever to a given plane.

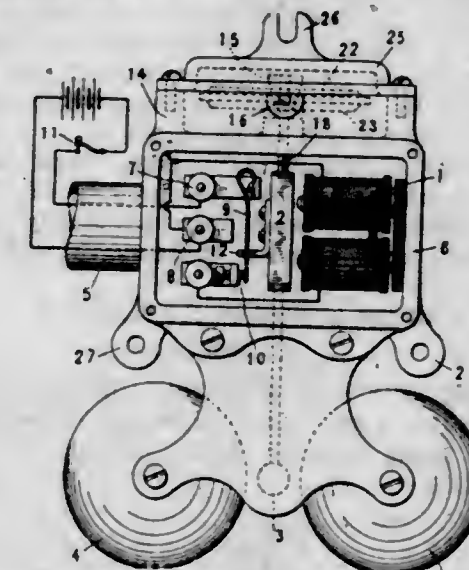
[Claim 6 not printed in the Gazette.]

1,080,584. ELECTRICAL APPARATUS. HENRY E. REEVE, New York, N. Y. Filed June 2, 1909. Serial No. 490,719. (Cl. 177-7.)

1. Apparatus comprising a casing containing the parts to be protected, a transmitting lever passing through one wall of said casing, a duplex elastic metallic diaphragm connecting said lever and said casing, said diaphragm being of substantially greater length than width and more flexible about its shorter axis, said lever being adapted to swing about said shorter axis in a plane at right angles thereto and means for swinging said lever in said plane and about said axis.

2. Apparatus comprising a casing containing the parts to be protected, a transmitting lever passing through one wall of said casing, a duplex elastic metallic diaphragm connecting said lever and said casing, said diaphragm being of substantially greater length than width and more flexible about its shorter axis, said lever being adapted to swing about said shorter axis in a plane at right angles thereto, means for swinging said lever in said plane and about said axis and means for preventing said lever from swinging in any other plane.

3. An electric bell construction comprising a casing, a plate detachably secured to the front thereof, an electromagnet and an armature therefor inside said casing, said casing having a passage through the upper wall thereof, a flange projecting outwardly from said casing around said passage, a protecting cover detachably secured to said flange over said passage, a yoke pivotally supported in the chamber formed between said flange and said cover, a flexible water tight connection between said yoke and said casing, said armature being connected to said yoke through said passage and a striker external to said casing connected to said yoke.

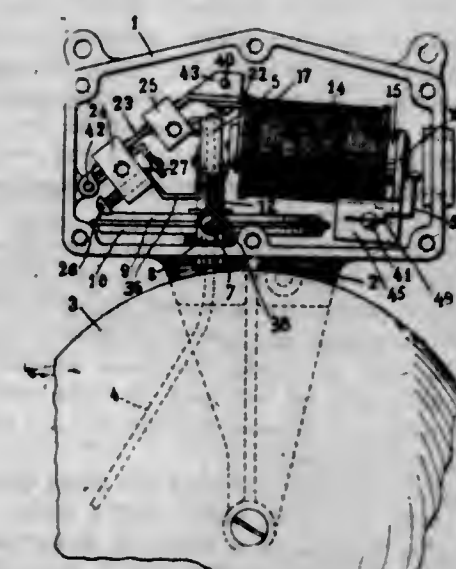


4. In an electric bell construction, a casing, a pivoted yoke, an armature inside said casing depending from said yoke, a flexible impervious disk-like connection between said yoke and said casing and a striker also depending from said yoke and outside of said casing, the pivotal axis of said yoke and the axis of flexure of said disk-like connection being substantially coincident.

5. In an electric bell construction, a casing, a transmitting lever extending through a wall of said casing, a resilient duplex metallic diaphragm connecting said lever to said casing and extending substantially parallel with said wall, a striker connected to said lever and a pivotal support for said striker.

[Claims 6 to 16 not printed in the Gazette.]

1,080,585. ELECTRICAL APPARATUS. HENRY E. REEVE, New York, N. Y. Filed Dec. 1, 1910. Serial No. 595,042. (Cl. 177-7.)



1. A casing having an opening, a cover therefor, a removable element including an electromagnet and cooperating pins and recessed portions carried by said casing and said element whereby said removable element including said magnet may be readily inserted and removed in and from the opening in said casing when the cover is removed.

2. A casing having an opening, a cover therefor, a removable element including an electromagnet and cooperating

ing pins and recessed portions carried by said casing and said element whereby said removable element including said magnet may be readily inserted and removed in and from the opening in said casing when the cover is removed and means for locking one of the cooperating pin and recessed portions.

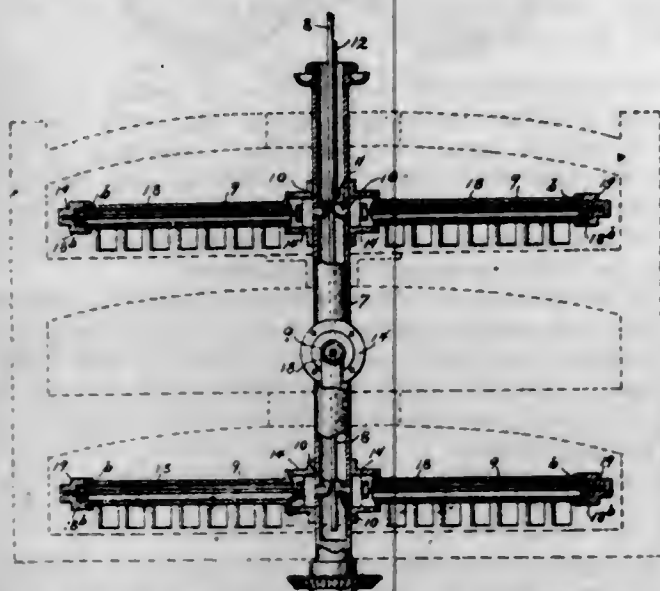
3. In electrical apparatus, a casing having an opening, a cover therefor, a plurality of posts projecting forwardly in said casing, a frame having perforated lugs adapted to slip on to said posts and an electromagnet and vibrator contacts carried by said frame and removable therewith.

4. In electrical apparatus, a casing having an opening, a cover therefor, a plurality of posts projecting forwardly in said casing, a frame having perforated lugs adapted to slip on to said posts and an electromagnet and vibrator contacts carried by said frame and removable therewith and means for locking said frame in place.

5. In an electrical apparatus, a casing, supporting posts therein, an electromagnet, parts secured to said magnet, said parts having perforated lugs detachably co-acting with said posts, and vibrator contacts carried by said parts.

[Claims 6 to 18 not printed in the Gazette.]

1,080,586. ROASTING-FURNACE. CHARLES W. RENWICK, Isabella, Tenn., and NICHOLAS L. HEINZ, La Salle, Ill. Filed Nov. 27, 1911. Serial No. 662,531. (Cl. 75—143.)



1. In an ore-roasting furnace of the class described, the combination with a hollow rabble-shaft and hollow rabble-arms of L-shaped tubular ports vertically extended in the shaft and arranged in different radial planes, connections for the arms with the shaft comprising slotted coupling pieces on the shaft in conjunction with rods extended through the arms, and means at the outer ends of the arms for putting the rods under tension in said coupling pieces and for releasing the same.

2. In an ore-roasting furnace of the class described, the combination with a hollow rabble-shaft and hollow rabble-arms of tubular pieces 14 mounted on the shaft at its junction with the arms and provided with a slot 15 and recesses 16, a rod 18 having a head adapted to pass through the slot and be engaged by said recesses, and means at the outer end of said rod for putting said rod under tension in said recesses.

3. In an ore-roasting furnace of the class described, the combination with a hollow shaft and a series of hollow rabble-arms, of a detachable connection which consists of a tubular piece, part of the shaft, and formed with a slot and recesses at the end adjacent to the arm and a screw rod, adapted to be inserted through the hollow arm and having a head adapted to pass through said slot and be turned to engage said recesses, as specified.

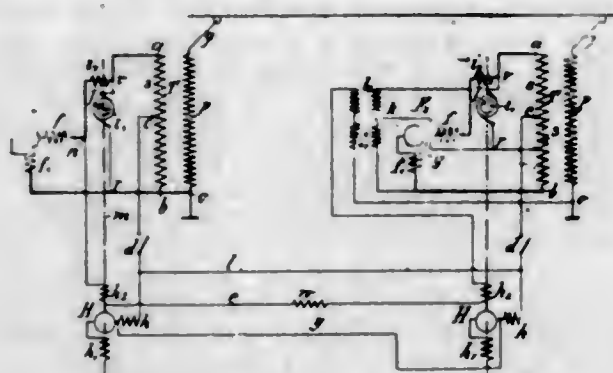
4. In an ore-roasting furnace of the class described, a hollow rabble-shaft provided with horizontal perforations and flanges around said perforations, L-shaped ports having one part threaded in said perforations and another part extended up in the hollow of the shaft, tubular

pieces flanged to match the flanges around the shaft-perforations and each provided with a slot and recesses, hollow rabble-arms having their inner ends formed to match the outer ends of said tubular pieces, a rod with a head adapted to pass through said slots and engage in said recesses, and means at the outer end of said rods for affording a bearing against the ends of the arms and putting the rods under tension.

5. In an ore-roasting furnace, the combination with a hollow rabble-shaft and hollow rabble-arms of L-shaped tubular ports vertically extended in the shaft and arranged in different radial planes, tubular coupling pieces mounted on the shaft and provided with slots, connecting rods extended through the same, means at the outer ends of the arms for affording access to said rods for putting them under tension in the coupling pieces and for releasing them therefrom, and means for separately plugging said ports through the shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,080,587. MULTIPLE CONTROL OF ELECTRIC MOTORS. RUDOLF RICHTER, Grünau, Germany, assignor to Maffel-Schwartzkopf Werke G. M. B. H., Berlin, Germany. Filed Apr. 9, 1912. Serial No. 680,589. (Cl. 172—179.)



1. In combination with a system for control of separately fed electric motors from one place, means for individually regulating the voltage of said motors, auxiliary motors for actuating said regulating means, compensating leads connecting the windings of said auxiliary motors to corresponding winding parts of the different main motors, the connection of said compensating leads to the windings of said auxiliary motors being such as to cause the currents flowing in said leads to strengthen the fields of said auxiliary motors for those motors absorbing too much power and to weaken the fields of the other auxiliary motors.

2. In combination with a system for the control of separately fed electric motors from one place, means for individually regulating the voltage of said motors, auxiliary motors for actuating said regulating means, compensating leads connecting the windings of said auxiliary motors to corresponding winding parts of the different main motors, the connection of said compensating leads to the windings of said auxiliary motors being such as to cause the currents flowing in said leads to strengthen the fields of said auxiliary motors for those motors absorbing too much power and to weaken the fields of the other auxiliary motors, and transformers inserted in said compensating leads.

3. In combination with an alternating current traction system of the type having a main transformer on each locomotive along with a rotary additional transformer as voltage regulator for the driving motor, auxiliary motors for driving said rotary transformers, additional field windings in said auxiliary motors, compensating leads containing said additional field windings and corresponding winding parts of the individual main motors, the connection of said communicating leads to said additional windings being such as to cause the currents flowing in said leads to strengthen the fields of said auxiliary motors for those motors absorbing too much power and to weaken the fields

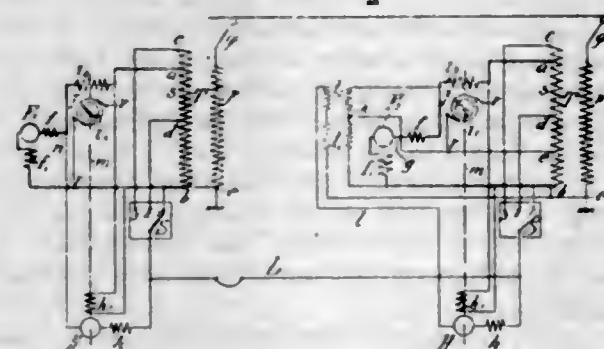
of the other auxiliary motors, switches on each locomotive for supplying said auxiliary motors from the secondaries of said main transformers, and leads connecting said switches to each other.

4. In combination with an alternating current traction system of the type having a main transformer on each locomotive along with a rotary additional transformer as voltage regulator for the driving motor, auxiliary motors for driving said rotary transformers, additional field windings in said auxiliary motors, compensating leads containing said additional field windings and corresponding winding parts of the individual main motors, the connection of said compensating leads to said additional windings being such as to cause the currents flowing in said leads to strengthen the fields of said auxiliary motors for those motors absorbing too much power and to weaken the fields of the other auxiliary motors, switches on each locomotive for supplying said auxiliary motors from the secondaries of said main transformers, leads connecting said switches to each other, and ohmic resistances inserted in said compensating leads in addition to said additional field windings.

5. In combination with an alternating current traction system of the type having a main transformer on each locomotive along with a rotary additional transformer as voltage regulator for the driving motor, auxiliary motors for driving said rotary transformers, additional field windings in said auxiliary motors, compensating leads containing said additional field windings and corresponding winding parts of the individual main motors, the connection of said compensating leads to said additional windings being such as to cause the currents flowing in said leads to strengthen the fields of said auxiliary motors for those motors absorbing too much power and to weaken the fields of the other auxiliary motors, switches on each locomotive for supplying said auxiliary motors from the secondaries of said main transformers, leads connecting said switches to each other, and inductive resistances in the armature circuits of said auxiliary motors.

[Claims 6 to 8 not printed in the Gazette.]

1,080,588. MULTIPLE CONTROL OF ELECTRIC MOTORS. RUDOLF RICHTER, Grünau, Germany, assignor to Maffel-Schwartzkopf Werke G. M. B. H., Berlin, Germany. Filed Apr. 9, 1912. Serial No. 680,590. (Cl. 172—179.)



1. A system for controlling separately fed electric motors from one place, comprising driving motors, an electric source therefor, means for changing the voltage impressed on said driving motors, means controlling said first named means, means whereby said second named means is under the control of an arbitrarily selected voltage, and connections whereby said second named means is rendered dependent upon the electromotive force of corresponding parts of the driving motors, so that the influence on the said last named means ceases as soon as the electromotive force becomes equal to the arbitrarily selected voltage.

2. A system for controlling separately fed electric motors from one place, comprising driving motors, an electric source therefor, means for changing the voltage impressed on said driving motors, auxiliary transformers in connection with some of the driving motors, said transformers being adapted to equalize the electromotive force of the corresponding driving motors with that of the driving motors not connected to the transformers, means

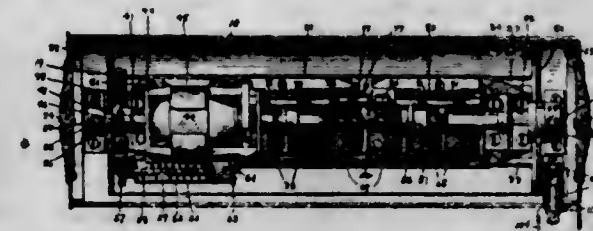
controlling said first named means, means whereby said second named means is under the control of an arbitrarily selected voltage and connections whereby said second named means is rendered so dependent upon the electromotive force of the secondary of the said transformers that the influence on the said second named means ceases as soon as the electromotive force becomes equal to the arbitrarily selected voltage.

3. In an alternating current traction system, the combination with locomotives, each including a main transformer, a driving motor, a rotary additional transformer as voltage regulator for the latter, control switches and auxiliary motors for driving said rotary transformers on each locomotive, means for connecting the armature windings of said auxiliary motors to said control switches and to corresponding parts of the windings of said driving motors and means connected with said control switches for switching in different points on said main transformers.

4. In an alternating current traction system, the combination with locomotives, each including a main transformer, a driving motor, a rotary additional transformer as voltage regulator for the latter, control switches and auxiliary motors for driving said rotary transformers on each locomotive, means for connecting the armature windings of said auxiliary motors to said control switches and to corresponding parts of the windings of said driving motors, means connected with said control switches for switching in different points on said main transformers and leads connecting said control switches to each other.

5. In an alternating current traction system, the combination with locomotives, each including a main transformer, a driving motor, a rotary additional transformer as voltage regulator for the latter, control switches and auxiliary motors for driving said rotary transformers on each locomotive, the windings of the driving motor and the secondary windings of the rotary transformer of each being inserted in a circuit, the ends of which are connected to different points of the secondary winding of the respective main transformers, a control switch having a plurality of contact plugs on each locomotive, one of said plugs being connected to one end of said circuit, the other one to a point of the secondary of the respective main transformer, and leads connecting the armature windings of said auxiliary motors to the respective control switches and to a point of the respective circuit between the windings of said driving motors and the secondaries of said rotary transformers, respectively, said first named connecting leads of each locomotive being connected to each other.

1,080,589. VEHICLE-SIGNAL. EDWARD BRUCE ROEDDING and GORDON E. ROEDDING, Detroit, Mich. Filed May 19, 1913. Serial No. 768,584. (Cl. 40—53.)



1. In a signal, the combination of a case having a longitudinal window, a pair of brackets mounted in the case, a support rigidly secured in said brackets and comprising journals adjacent the brackets, circular heads revolvably mounted on the journals, a cylindrical shell secured to said heads and having a plurality of groups of characters on its surface, which may be successively presented to said window, resilient means to return the shell to normal position, an electric motor mounted on said support within the shell, a series of stop devices mounted within the shell to control the revolutions of the motor and cylindrical shell, and means for controlling the action of said stop devices.

2. In a signal, the combination of a case having a window, a cylinder revolvably mounted in said case and having

a plurality of groups of transparent and opaque sections constituting its shell, which sections may be successively presented to said window, a gear concentric with said cylinder and secured thereto, stationary means to support the cylinder, means engaging the gear to return the cylinder to normal position, an electric motor mounted on said supporting means within the cylinder, a gear on the motor shaft meshing with the gear on the cylinder, and a plurality of devices each adapted for stopping the cylinder and motor when the cylinder has been turned the desired distance.

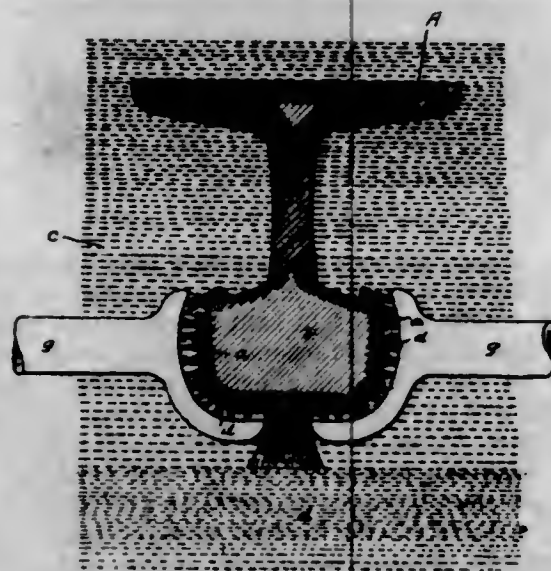
3. In a signal, the combination of a case having a window, a cylinder revolvably mounted in said case and having a plurality of groups of transparent and opaque sections constituting its shell, which sections may be successively presented to said window, a gear concentric with said cylinder and secured thereto, means engaging said gear to return the cylinder to normal position, stationary means to support the cylinder, an electric motor mounted on said supporting means within the cylinder, a gear on the motor shaft meshing with the gear on the cylinder, and a plurality of devices each adapted for stopping the cylinder and motor when the cylinder has been turned the desired distance, and a lamp mounted within the cylinder.

4. In a signal, the combination of a case having a window, a cylinder revolvably mounted in said case and having a plurality of groups of transparent and opaque sections constituting its shell, which sections may be successively presented to said window, a gear concentric with said cylinder and secured thereto, means engaging said gear to return the cylinder to normal position, stationary means to support the cylinder, an electric motor mounted on said supporting means within the cylinder, a gear on the motor shaft meshing with the gear on the cylinder, devices for stopping the cylinder and motor when the cylinder has been turned the desired distance, a bracket mounted on the motor support, and a lamp carried by said bracket within the cylinder.

5. In a signal, the combination of a case having a window, a cylinder revolvably mounted in the case and having a plurality of groups of transparent characters on its surface, which sections may be successively presented to said window, stationary means to support said cylinder, an electric motor mounted on said supporting means, a gear connected to said cylinder, a pinion mounted on the motor shaft and meshing with said gear, a spirally grooved shaft connected to said motor shaft, a nut slidable thereon, a series of electro-magnets and armatures therefor adapted to be swung into the path of said nut to stop it and the rotations of the motor and cylinder at any one of a plurality of predetermined points.

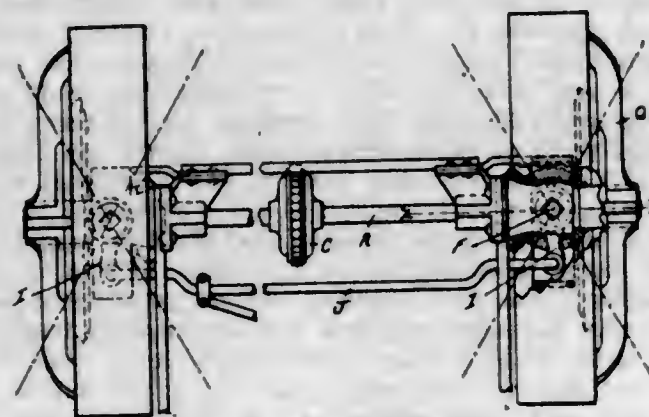
[Claims 6 to 10 not printed in the Gazette.]

1,080,580. METAL ARTICLE. JAMES C. RUSSELL, Pittsburgh, Pa. Filed Dec. 30, 1912. Serial No. 739,191. (Cl. 148-24.)



A steel article homogeneous as to its chemical characteristics having its exterior composed of tough material and its interior of hard material.

1,080,591. FRONT-WHEEL DRIVE AND STEER FOR MOTOR-VEHICLES. JOHN S. RUTKOWSKI and WILLIAM T. HUTCHISON, South Bend, Ind.; said Rutkowski assignor to said Hutchison. Filed Sept. 23, 1912. Serial No. 721,841. (Cl. 21-90.)



1. In a device of the character described, comprising a casting consisting of lateral extensions connected by vertical side walls, the lateral extensions provided with aligning openings, a transverse partition connecting the vertical side walls intermediate the lateral extension, said partition being provided with an opening in alignment with the openings in the lateral extensions with an annular rib surrounding the opening in the partition, a steering head supported on the partition of the casting, said steering head being provided in its bottom surface with an annular groove to receive the rib of the partition, pivots on which the steering head may turn, a stub shaft carried by the steering head, a traction wheel rotatively mounted on the stub shaft, means for swinging the steering head upon its pivots, and means for driving the traction wheel.

2. In a device of the character described, comprising a casting having upper and lower lateral extensions connected by vertical side walls, the lateral extensions provided with aligning openings, a transverse partition connecting the vertical side walls intermediate the lateral extensions and having an opening in alignment with the openings in said extensions, an annular rib surrounding the opening in the transverse partition, a steering head supported on the transverse partition and provided in its bottom surface with a circular socket and an annular groove concentric with said socket to receive the rib of the partition, a pivot member supporting the upper end of the steering head, a shaft supported on the lower lateral extension and its upper end extending through said partition into the socket in the steering head, a stub shaft carried by the steering head, a traction wheel mounted on the stub shaft, a driven gear on the traction wheel, a driving gear supported by the casting, and intermediate gears mounted on said shaft for mesh with said driving and driven gears.

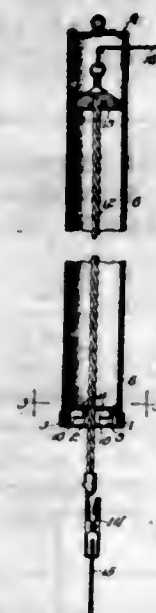
1,080,592. PLAYING-BALL. ADDISON T. SAUNDERS, Akron, Ohio, assignor to A. G. Spalding & Bros., Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 8, 1911. Serial No. 613,030. (Cl. 46-4.)



1. A playing ball having a core of a soft vulcanized compound of rubber impregnated with a non-volatile hydrocarbon softening agent, and a body formed thereon.

2. A playing ball having a core of a soft vulcanized compound of rubber impregnated with a non-volatile hydrocarbon softening agent, and a body of rubber thread wound thereon.

1,080,593. GRAVITY-MOTOR. JOHN M. SCHILLING and HARLEY A. BALDWIN, Chicago, Ill. Filed Mar. 21, 1912. Serial No. 685,167. (Cl. 185-27.)



1. In a gravity motor, an apertured base plate suitably supported, a spiral shaft extending therethrough and automatic feed mechanism carried by said base plate operatively engaging said spiral shaft whereby rotary motion is imparted to the latter in its descent but obviated in its return.

2. In a gravity motor, an apertured base plate suitably supported, a spiral shaft extending through said base plate and automatic feed mechanism carried by said base plate operatively engaging said spiral shaft whereby rotary motion is imparted to the latter.

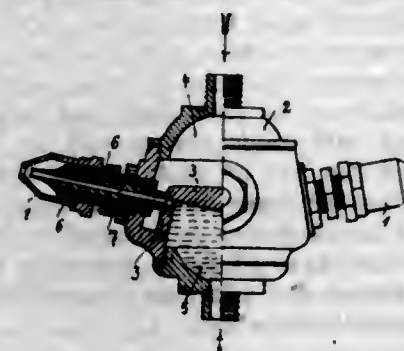
3. In a gravity motor, an apertured base plate suitably supported, a spiral shaft extending through said base plate and a pair of movable feed plates carried by said base plate whereby rotary motion is imparted to the said spiral shaft.

4. In a gravity motor, an apertured base plate suitably supported, a spiral shaft extending through the said base plate and a pair of movable feed plates carried by said base plate operatively engaging said spiral shaft whereby rotary motion is imparted to the latter.

5. In a gravity motor, an apertured base plate suitably supported, a spiral shaft extending therethrough, a pair of movable feed plates, formed with integral legs projecting through the said base plate, operatively engaging the said spiral shaft whereby rotary motion is imparted to the latter.

[Claim 6 not printed in the Gazette.]

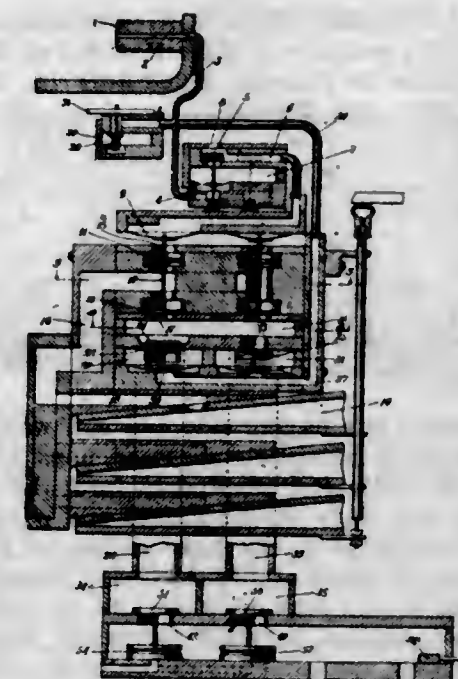
1,080,594. DEVICE FOR SPRAYING LIQUID INTO AIR. GUSTAV ADOLF SCHÜLLER, Venusberg/Erzgebirge, Germany. Filed May 29, 1913. Serial No. 770,560. (Cl. 137-80.)



In a device for spraying liquid into air, the combination of a casing, a bell-shaped partition to divide the latter into an upper compressed-air compartment and a lower liquid container, and a plurality of spraying nozzles on said casing comprising each a channel in direct communi-

cation with said compressed-air space and a channel in direct communication with the uppermost end of said liquid container, the latter channels being upwardly inclined toward the orifices of the nozzles, substantially as and for the purpose set forth.

1,080,595. AUTOMATIC PLAYING INSTRUMENT. JOSEPH SCHWERTNER, New York, N. Y., assignor, by direct and mesne assignments, to Heerwagen Company, a Corporation of New York. Filed June 5, 1911. Serial No. 631,409. (Cl. 84-168.)



1. In an apparatus of the class described, means for producing three variable pressures or tensions, means for causing a note to be sounded with any one of said pressures or tensions, said last mentioned means embracing three movable members, the movement of each of which causes the note to be sounded with one of said pressures or tensions, and means for automatically causing a return movement of one of said members when another is operated.

2. In an apparatus of the class described, two air bellows, means for producing one degree of pressure or tension in one bellows and another degree of pressure or tension in the other bellows, means for causing a note to be sounded with either of said pressures or tensions, said last mentioned means including two movable members, one for throwing into operation one pressure or tension, and the other for throwing into operation the other pressure or tension, means whereby said members are held in their thrown position, and means for automatically returning either of said members when the other is moved.

3. In an apparatus of the class described, means for producing a plurality of different air pressures or tensions, and means for causing a note to be sounded with either of said air pressures or tensions, said last mentioned means including a plurality of movable controlling members, one for each air pressure or tension, whereby when one controlling member is moved one air pressure or tension is thrown into operation, and when another controlling member is moved another air pressure or tension is thrown into operation, and means for automatically causing a return movement of either of said controlling members when another of said controlling members is moved.

4. In an apparatus of the class described, means for producing three different air pressures or tensions, and means for causing a note to be sounded with either of said air pressures or tensions, said last mentioned means including three hand operated movable controlling members, one for each air pressure or tension, whereby when one controlling member is moved one air pressure or tension is thrown into operation, and when another controlling member is moved another air pressure or tension is thrown into operation, means whereby when either of said controlling members is moved to throw its pressure or tension

into operation, it is automatically held in its thrown position, and means for automatically releasing either of said controlling members when another of said controlling members is moved.

5. In an apparatus of the class described, means for producing three different air pressures or tensions, and means for causing a note to be sounded with either of said air pressures or tensions, said last mentioned means embracing a plurality of controlling members, one for throwing each of said pressures or tensions into operation.

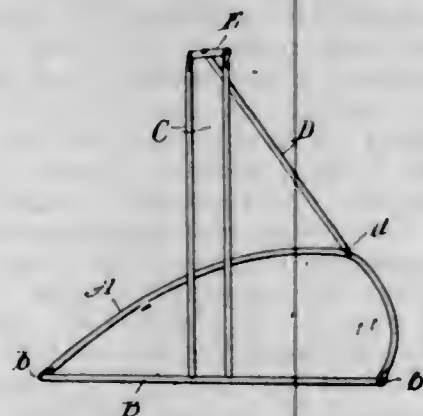
[Claims 6 to 40 not printed in the Gazette.]

1,080,596. FOLDING HAT-BOX. ABRAHAM I. SELCER, Chicago, Ill., assignor to Gage Hat Works, Chicago, Ill., a Corporation of Illinois. Filed July 12, 1912. Serial No. 709,021. (Cl. 229-41.)



A collapsible box having side and end walls hinged together, a pair of oppositely disposed flaps hinged to the opposite side walls and adapted to form the bottom wall of the box, said flaps having hinged end portions secured by hinge connections to the inner surface of the end walls at an angle of substantially forty-five degrees with the plane of the bottom edge of said walls, whereby said flaps will be held against outward movement but free to be moved inwardly against the side walls to permit the box to be collapsed and folded, substantially as described.

1,080,597. BOOK-SUPPORT. WILLIAM THOMAS SHEA, Chicago, Ill. Filed Sept. 14, 1910. Serial No. 581,959. (Cl. 45-57.)



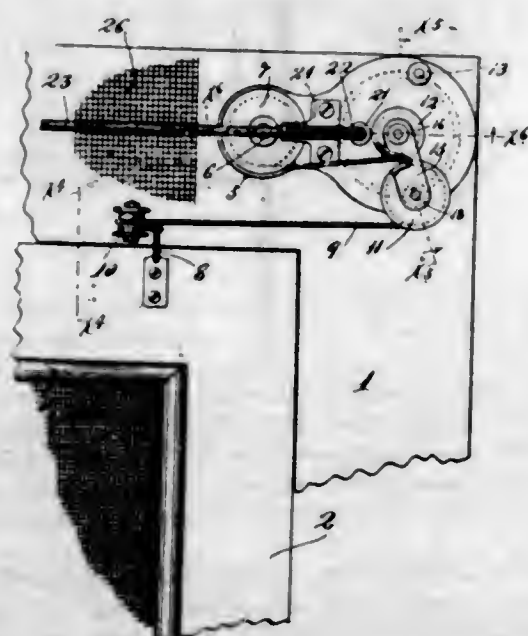
1. A book support comprising a base member, two supporting members extending upwardly from separated points on the base member to a common point above the base member, two of said members being hinged together, the third member having a screw threaded connection with one of the other members, and a compound hinge connecting said third member with the remaining member, said compound hinge being constructed and arranged to permit said third member to move angularly about two axes at an angle to each other.

2. A book support comprising a base formed of a wire bent into a frame having an open side, a rod journaled at its ends in the free ends of said wire inclosing said open side, two long parallel rods spaced a short distance apart and connected at their lower ends to the aforesaid rod, a brace having a head secured between the upper ends of said parallel rods, and cooperating shoulders on the lower end of said brace and on said frame.

3. A book support comprising a base formed of a wire bent into a frame having an open side, a rod journaled at its ends in the free ends of said wire inclosing said open

side, two long parallel rods spaced a short distance apart and connected at their lower ends to the aforesaid rod, a brace having a head secured between the upper ends of said parallel rods, and cooperating shoulders on the lower end of said brace and on said frame, said parallel rods together with the head on the brace and the first mentioned rod forming a frame having therein a long narrow unobstructed opening.

1,080,598. FLY-CHASING ATTACHMENT FOR DOORS. JOSEPH W. SHUMATE, Minneapolis, Minn. Filed Jan. 27, 1913. Serial No. 744,418. (Cl. 230-7.)



1. The combination with a door, of a relatively fixed casing secured adjacent to said door, a spring actuated drum journaled on said casing, an idle guide sheave journaled on said casing, a rotary agitator located adjacent to said door, a driven friction wheel mounted on said casing and connected to said agitator, a driving friction wheel associated with said casing, having concentric frictional surfaces relatively engageable with said driven friction wheel, said driving friction wheel having a limited oscillatory movement to effect said alternate engagement and having a projecting hub, and a cable connecting said spring actuated drum to said door and passing in one direction around said idle guide sheave and up the opposite direction around the hub of said driving friction wheel, the said casing having upper and lower bosses to either of which said idle guide sheave may be journaled whereby the said device is made reversible for doors swinging in either direction.

2. The combination with a door, of a relatively fixed casing secured adjacent to said door, a spring actuated drum journaled on said casing, an idle guide sheave journaled on said casing, a rotary agitator located adjacent to said door, a driven friction wheel mounted on said casing and connected to said agitator, a driving friction wheel associated with said casing, having concentric frictional surfaces relatively engageable with said driven friction wheel, said driving friction wheel having a limited oscillatory movement to effect said alternate engagement and having a projecting hub, a cable connecting said spring actuated drum to said door and passing in one direction around said guide sheave and up the opposite direction around the hub of said driving friction wheel, the said casing having upper and lower bosses to either of which said idle guide sheave is adapted to be journaled, and a bearing arm adapted to be pivotally connected to either of said bosses and affording an oscillatory support for said driving friction wheel.

1,080,599. SASH-FASTENER. FANNIE E. SLAPPEY, Atlanta, Ga. Filed Apr. 18, 1913. Serial No. 762,028. (Cl. 16-119.)

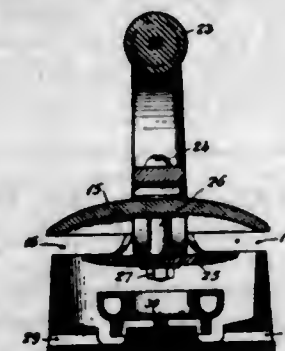
In combination with the upper sash of a window having one of its side rails provided with a plurality of vertically

aligned recesses, a fastener comprising a base plate adapted to be secured to the upper rail of the lower sash, said base plate having spaced ears, said ears having perforations formed therein, a tube secured to the base plate and having its ends in registry with said perforations, a bolt slidably mounted in the tube and having its inner end provided with a tapered nose, a coil spring surrounding the bolt to hold the nose extended from the tube, a knob



formed upon the outer end of the bolt, an aperture formed in one of the ears, a pin carried by the knob, brackets carried by the window frame, notches formed in the brackets and adapted to register with the recesses, said notches and recesses being engaged by the nose when the pin is engaged in the aperture, as and for the purpose set forth.

1,080,600. SELF-HEATING SAD-IRON. OTTO SPAHR, Philadelphia, Pa., assignor to Strause Gas Iron Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 19, 1912. Serial No. 732,220. (Cl. 158-23.1.)



1. In a self heating sad iron, a hollow body having air inlets and a burner located in said body above the bottom thereof and comprising spaced substantially parallel members adapted for connection with a source of fuel supply and provided with jet apertures directed toward said bottom, said air inlets extending through said bottom from opposite sides of said body and having their exit ends located substantially beneath said burner members.

2. In a self heating sad iron, a hollow body provided with parallel channels in its bottom and having air inlets extending through said bottom from opposite sides of the body and communicating with said channels, and a burner located in said body and adapted for connection with a source of fuel supply, said burner comprising spaced substantially parallel members having jet apertures directed toward said bottom, each of said burner members being located above and in registry with a channel.

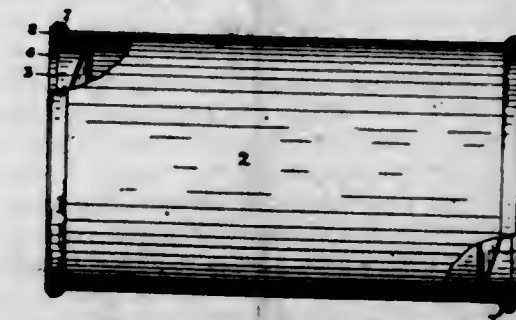
3. In a self heating sad iron, a hollow body provided with parallel channels in its bottom and air inlets communicating therewith, and a burner comprising spaced parallel members connected with a source of fuel supply and located in said body above and in registry with said channel and having jet apertures directed toward said bottom and ribs depending from each of said burner members and extending into said channels whereby the incoming air is divided.

4. In a self heating sad iron, a hollow body provided with parallel channels in its bottom and having air inlets extending transversely through said bottom and communicating with said channels, a burner located in said body and adapted for connection with a source of fuel supply, said burner comprising spaced substantially parallel members having jet apertures directed toward said bottom, each of said burner members being located above and in registry with a channel and a rib extending upwardly from said bottom between said channels and intermediate of said burner members.

5. In a self heating sad iron, a hollow body provided with parallel channels in its bottom and air inlets communicating therewith, and a burner comprising spaced parallel members connected with a source of fuel supply and located in said body above and in registry with said channels and having jet apertures directed toward said bottom, ribs depending from each of said burner members and extending into said channels and a single rib extending upwardly from the said bottom intermediate of said parallel members.

[Claims 6 and 7 not printed in the Gazette.]

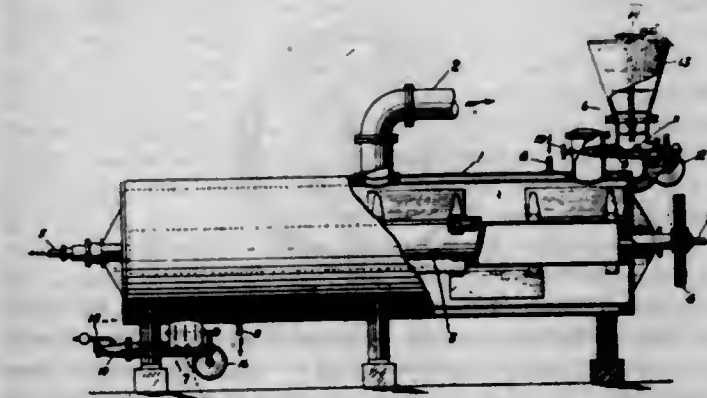
1,080,601. BARREL OR RECEPTACLE. LOUIS STECKEER, Brooklyn, N. Y. Filed Aug. 27, 1912. Serial No. 717,287. (Cl. 220-1.)



1. A barrel or receptacle comprising a body or drum, a flanged head fitting said drum, the edges of the drum and head being bent into engagement to curve outward beyond the side walls of the drum, and an annular clamping member having a part fitting inside of one of said members and having a curved hump extending beyond such part for the reception of the outwardly bent portions of the head and drum and also provided with a bendable clamping flange extending inwardly and transversely to the side walls of the drum to overlap the transversely extending face of said hump with the bent edges of the drum and head clamped therebetween.

2. A barrel or receptacle comprising a body or drum, a flanged head fitting said drum, the edges of the head and drum being bent into engagement to flare outwardly in relatively long ogee curved portions extending in the same general direction as the head flange and drum side, and an annular clamping member comprising a part fitting inside the flange of the head and having an ogee curved hump extending beyond such part and also having a bendable locking flange substantially corresponding in length with said ogee curved portion of the hump and extending inwardly and transversely to the side walls of the drum to overlap the transversely extending face of said hump with the bent edges of the drum and head clamped therebetween.

1,080,602. METHOD OF FEEDING MATERIAL TO AND FROM VACUUM-DRIERS. FRANCIS J. STOKES, Philadelphia, Pa. Filed Mar. 19, 1909. Serial No. 484,484. (Cl. 34-24.)



1. The process of feeding powdered material from the chamber of a vacuum drier through a passage sealed by an automatically closing valve adapted to open outwardly, which consists in packing or crowding the material in said

passage against the inlet side of the valve so as to normally hold the automatic valve open and act in lieu thereof to seal the passage.

2. The process of feeding powdered material to and from the chamber of a vacuum drier through a valved passage which consists in packing or crowding the material in said passage against the inlet side of the valve so as to compact the material, holding said valve open, and permitting the compacted material to act in lieu thereof to seal the passage.

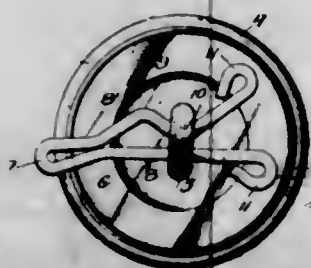
1,080,603. PEN AND PENCIL CLIP. ARTHUR W. STONE, Swanton, Vt. Filed Mar. 31, 1913. Serial No. 757,955. (Cl. 24—11.)



1. A pen or pencil clip formed from a single piece of wire twisted together for a portion of its length and bent at the inner end of such twisted portion to form rearwardly extending angularly disposed flaring loops adapted to receive a pen or pencil, the twisted portion of said wire in front of said loops being bent downwardly and inwardly to form a clasp adapted to take over the edge of the pocket in which the pen or pencil threaded through the loops is inserted, and thereby secure the same against loss.

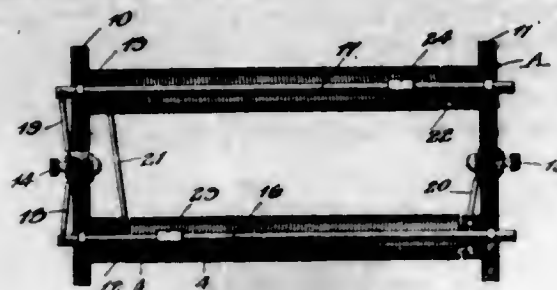
2. A pen or pencil clip formed of a single piece of wire twisted together for a portion of its length and bent at the inner end of such twisted portion to form rearwardly extending angularly disposed flaring loops adapted to receive a pen or pencil, the sides of said loops extending within and without the corresponding side of the companion loop, the twisted portion of said wire in front of said loop being bent downwardly and inwardly to form a clasp adapted to take over the edge of the pocket in which the pen or pencil threaded through the loops is inserted and thereby secure the same against loss, and the free ends of said wire being bent backward to form rounded projections.

1,080,604. BUTTON-FASTENER. ARTHUR W. STONE, Swanton, Vt. Filed Apr. 5, 1913. Serial No. 759,234. (Cl. 24—106.)



A button fastener composed of a single piece of wire bent intermediate its ends to form a rearwardly extending relatively straight section, and an opposed section bent intermediate its ends to form an outwardly extending or hump portion, and an inwardly bowed depressed portion adjacent to said hump, that portion of the opposed section beyond said depressed portion being bent outwardly, the free ends of said sections being bent to form eyes, for the purpose set forth.

1,080,605. INDUCTANCE-COIL. FORREST G. THACKABERRY, Tampico, Ill. Filed Aug. 7, 1912. Serial No. 713,887. (Cl. 219—56.)



In a device of the class described, a non-conducting frame including end members and core members connecting said end members, binding posts carried by said end members respectively, metallic rods connecting the end members and disposed above respective core members, an insulated wire having one end connected to one of said binding posts and then coiled about said core members successively, the insulation of the coils disposed beneath respective rods being removed to expose the wire, sleeves slidably mounted on each of said rods, contact fingers carried by the sleeves respectively, each of said fingers being U-shaped and having its outer arm extending substantially parallel to the adjacent coil and engaging the exposed portion of the latter throughout the greater portion of the extent of said arm and having its side edges in engagement with the walls formed by the adjacent removed portion of the insulation whereby the finger is guided in its movements, and an electrical connection between each of said rods and the other binding post.

1,080,606. CONVERTER PROCESS. OTTO THIEL, Landstuhl, Germany. Filed Aug. 4, 1910. Serial No. 575,481. (Cl. 75—27.)

1. A converter process which consists in introducing a portion of the pig metal into the converter, then subjecting the charge to the blast and allowing it to remain in the converter, then introducing more of the charge into the converter and then subjecting the combined charge to the blast to the end, until finished.

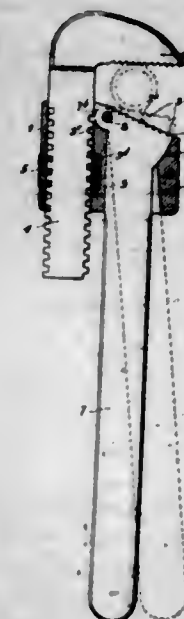
2. A converter process which consists in introducing a portion of the pig metal into the converter, then subjecting the charge to the blast and allowing it to remain in the converter, then introducing the remainder of the charge into the converter and then subjecting the combined charge to the blast to the end, until finished.

3. A converter process which consists in introducing a portion of the pig metal into the converter, then subjecting the charge to the blast and allowing it to remain in the converter, then introducing a portion of the remainder of the charge into the converter and then subjecting the combined charge to the blast, then introducing more of the charge into the converter, and subjecting the combined charge to the blast to the end, until finished.

1,080,607. PIPE-WRENCH. ROBERT L. UNDERWOOD, Denver, Colo. Filed Mar. 15, 1911. Serial No. 614,747. (Cl. 81—102.)

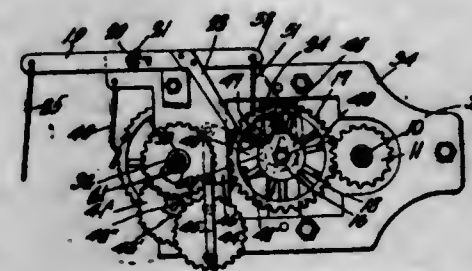
1. A pipe-wrench, comprising a jaw-block provided with shank and handle openings extending therethrough, said handle opening terminating in an enlarged jaw opening on the pipe-receiving side of said jaw-block and spaced from the marginal edges of the latter leaving smooth marginal pipe receiving portions thereon, said jaw opening terminating at its rear in a socket bearing in close proximity to said shank opening, a threaded shank adjustably mounted in said shank opening and carrying an overhanging jaw, and a handle extending through said handle opening and provided with a jaw having a cylindrical pivot bearing portion seated in said socket bearing, said last mentioned jaw having a free but limited movement in said jaw block and being retracted within the latter when moved to a pipe releasing position thereby bringing said

smooth marginal pipe receiving portions in contact with the pipe, the flare or inclination of said portions facilitating a new adjustment on the latter for the next engagement of the same by the wrench.



2. A pipe-wrench, comprising a flaring jaw block provided with shank and handle openings extending therethrough, said handle opening terminating in an enlarged jaw opening spaced from the marginal edges of the flaring or pipe receiving side of said jaw block, a threaded shank mounted in said shank opening and carrying an overhanging jaw extending at an acute angle to the said flaring or pipe receiving side of said jaw block, and a handle extending through said handle opening and provided with an enlarged jaw head pivoted on said jaw block in close proximity to said threaded shank, said handle having a limited movement whereby said jaw is retracted within said jaw block when moved to a pipe releasing position and is projected above the latter when moved to a pipe engaging position, thereby embedding the serrations of said jaws in the walls of the pipe to a limited extent only.

1,080,608. TIME-CONTROLLED MECHANISM FOR OPERATING ELECTRIC SWITCHES. JOHN C. VAN SLYKE, Fort Collins, Colo. Filed July 12, 1912. Serial No. 709,103. (Cl. 181—27.)



1. A mechanism for controlling an electric switch, including a time-piece, two gears mounted upon and rotatable clockwise by and with the hour hand arbor of the time-piece, a motor for operating an electric switch, means for controlling the motor, two mechanisms for operating the latter means, one mechanism being controlled by its respective gear of the hour hand arbor, and the other mechanism by the remaining gear of the hour hand arbor, whereby the motor operates to close the switch when one mechanism is operated and operates to open the switch when the other mechanism is operated, and adjustable means for varying the operation of the mechanism for closing the switch to compensate for the shortening or lengthening of the day and whereby the switch is closed at sundown.

2. A mechanism for controlling an electric switch, including a time-piece, two gears mounted upon and rota-

table clockwise by and with the hour hand arbor of the time-piece, a motor for operating a switch, a frame connected to the framework of the time-piece, a motor controlling lever pivoted to the frame and operably connected to the motor, two mechanisms for actuating the lever, one of said mechanisms being controlled by its respective gear of the hour hand arbor, whereby the motor is released to cause the closure of the switch when one mechanism is operated by the time-piece, said motor being operated to open the switch when the other mechanism is operated by the time-piece, and adjustable means for varying the operation of the mechanism for closing the switch to compensate for the shortening or lengthening of the day and whereby the switch is closed at sundown.

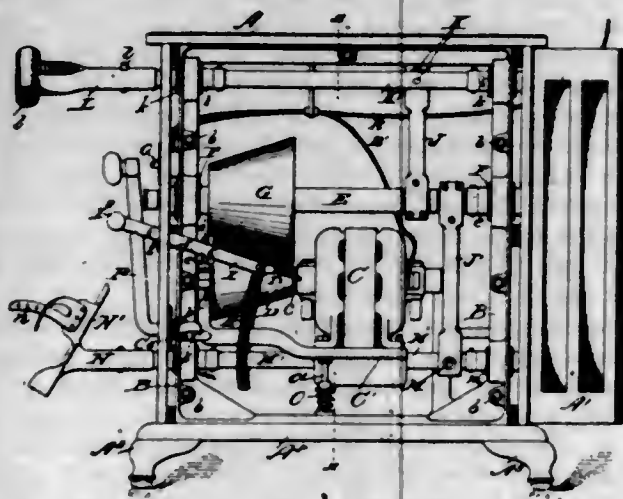
3. A mechanism for controlling a rotary electric switch, including a time-piece, two gears mounted upon and rotatable clockwise by and with the hour hand arbor of the time piece, a motor for operating the switch, a frame connected to the framework of the time-piece adjacent the hour hand arbor thereof, a motor controlling lever pivoted intermediate of its ends and carried by said frame, means for operably connecting one end of said lever to the motor, a gear in mesh with one of the two gears of the hour hand arbor of the timepiece, said single gear being rotated once every two revolutions of the hour hand arbor, coöperative means carried by said single gear and the lever at the end opposite to the motor control connecting means, whereby said lever is operated once every revolution of the latter gear to operate the lever to release the motor, said gear and the coöperative means constituting a mechanism for releasing the motor to open the switch, and a switch mechanism operably connected to the remaining gear of the hour hand arbor and to the lever for operating the control lever at a predetermined time to release the motor to close the switch.

4. A mechanism for controlling a rotary electric switch, including a time piece, two gears mounted upon and rotatable clockwise by and with the hour hand arbor of the time piece, a motor for rotating the switch, a frame connected to the framework of the time piece adjacent the hour hand arbor, a motor controlling lever pivoted intermediate of its ends to said frame, a spring for returning the lever to normal position, means for operably connecting one end of said lever to the motor, a gear operably connected to one of the gears of the hour hand arbor to be rotated once every two revolutions of the hour hand arbor, a secondary lever provided with a curved slotted end embracing the journal of the gear that is operated by one of the gears of the hour hand arbor, coöperative means carried by the latter lever and said last gear whereby said lever is operated once every twenty-four hours, means for operatively connecting said lever to the motor controlling lever, and a compensating mechanism operably connected to the slotted lever for regulating the time of actuation thereof.

5. A mechanism for controlling a rotary electric switch, including a time piece, two gears mounted upon and rotatable clockwise by and with the hour hand arbor of the time piece, a motor for rotating the switch, a frame connected to the framework of the clock adjacent the hour hand arbor, a motor controlling lever pivoted intermediate of its ends to said frame, a spring for returning the lever to normal position, means for operably connecting one end of said lever to the motor, a gear operably connected to one of the gears of the hour hand arbor to be rotated once every two revolutions of the hour hand arbor, a secondary lever provided with a curved slotted end embracing the journal of the gear that is operated by one of the gears of the hour hand arbor, coöperative means carried by the latter lever and the last gear whereby said lever is operated once every twenty-four hours, means for operatively connecting said lever to the motor controlling lever, a compensating mechanism operably connected to the slotted lever for regulating the time of actuation thereof, and means operably connected to the remaining gear of the hour hand arbor and the motor controlling means for operating such lever to cause the opening of said switch.

[Claim 6 not printed in the Gazette.]

1,080,609. DRIVING MECHANISM FOR VIBRATORS. JOSEPH VIZSON, Detroit, Mich. Filed June 19, 1912. Serial No. 704,543. (Cl. 74-26.)



1. In a machine of the character described, a supporting frame, a tilting platform journaled in the frame, a driving element journaled in said tilting platform, a crank shaft journaled in the frame, a driven element mounted upon the shaft adapted to be operated by the driving element, a rock shaft operably connected with the crank shaft, means for forcing the driving element out of driving relation with the driven element, and means for restoring it to its normal condition, substantially as described.

2. In a machine of the character described, a supporting frame, a tilting platform journaled in the frame, a driving element journaled in said tilting platform, an electric motor for operating the driving element, a crank shaft journaled in the frame, a driven element mounted upon the crank shaft adapted to be operated by the driving element, a rock shaft operably connected with the crank shaft, means for closing the circuit between the source of electrical energy and the motor prior to the operation of the rock shaft, and means adapted to automatically force the driving element into operable relation with the driven element following the starting of the motor, substantially as described.

3. In a machine of the character described, a supporting frame, a swinging platform journaled in the frame, an electric motor mounted upon said platform, a driving cone-shaped pulley mounted upon the armature shaft of the motor, a crank shaft journaled in the frame, a cone pulley mounted upon the crank shaft adapted to be operated by the pulley on the armature shaft, a belt interposed between said pulleys, means for shifting said belt whereby the speed of the driven pulley may be regulated, means for maintaining said pulleys in frictional relation, an electric switch for closing the circuit between the source of electrical supply and the motor, and means adapted to insure the closing of said switch and to force the pulleys out of driving relation with each other preceding the closing of the circuit, substantially as described.

4. In a machine of the character described, a frame, a vibrating means supported by the frame, a crank shaft for operating the vibrating means, a prime mover for driving the crank shaft, said prime mover being normally in driving engagement with the crank shaft, means for first disengaging the prime mover from the crank shaft and then starting the prime mover, and means for restoring the prime mover into driving contact with the crank shaft.

5. In a machine of the character described, a supporting frame, a swinging platform journaled in the frame, a motor mounted upon the platform, a cone-shaped pulley mounted upon its armature shaft, a crank shaft journaled in the frame, a cone-shaped pulley mounted upon the crank shaft adapted to be driven by the driving cone pulley on the armature shaft, a belt interposed between said pulleys, means adapted to close the circuit between the electric motor and its source of electrical supply and to release the driving pulley from driving relation with the driven pulley prior to the starting of the motor, and

means for restoring it to its driving relation with the driven pulley following the starting of the motor, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,080,610. FOLDING BOX. JOHN A. WAGNITZ, Columbus, Ohio. Filed May 13, 1912. Serial No. 696,870. (Cl. 229-31.)



A foldable box comprising a base, side walls, end walls, corner pieces connecting said end and side walls and having slots therein, rectangular locking strips for each end of the box formed independently of said end walls and being slotted in a manner to cooperate with the slots formed in said corner pieces to prevent spreading of the side walls, and staples for securing said locking strips intermediate their ends to said end walls.

1,080,611. LAMINATED CORE FOR ELECTRIC GENERATORS AND MOTORS. HENRY H. WAIT, Chicago, Ill., assignor, by mesne assignments, to Rateau Battu Smoot Company, a Corporation of New York. Filed Dec. 7, 1908. Serial No. 346,692. (Cl. 171-206.)



1. A core for electrical machines built up of iron laminations and plates of copper interspersed between said iron laminations, and a winding on said core, said copper plates projecting beyond the exterior surface of the core and its windings so as to form salient flanges adapted to dissipate heat.

2. A core for electric machines, built up of iron laminations, and plates of non-magnetic metal interspersed between said iron laminations, said core having slots receiving electric conductors, said non-magnetic plates extending over said slots to retain said conductors in place, and projecting beyond the iron laminations to form heat-radiating flanges.

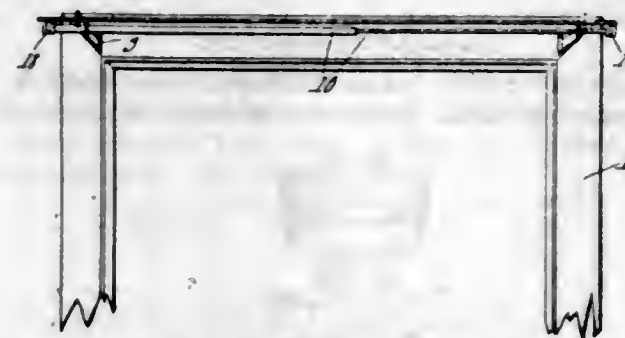
3. A core for the rotors of electric generators and motors, built up of iron laminations, interspersed with annular non-magnetic laminations, projecting radially beyond the iron, but extending only part way into the body of the core, the inner space circumscribed by said annular non-magnetic laminations being filled by concentric disks of iron; whereby a large heat radiating surface is secured without unduly increasing the self-induction of the armature or impairing the magnetic conductivity of the core.

1,080,612. CURTAIN-BRACKET. FREDERICK WASHBURN, Michigan City, Ind. Filed Apr. 28, 1913. Serial No. 764,234. (Cl. 156-23.)

1. In a device of the class described, an arm; a curtain rod extended therethrough; and a drape-rod support pivoted to the arm and resting upon the curtain rod.

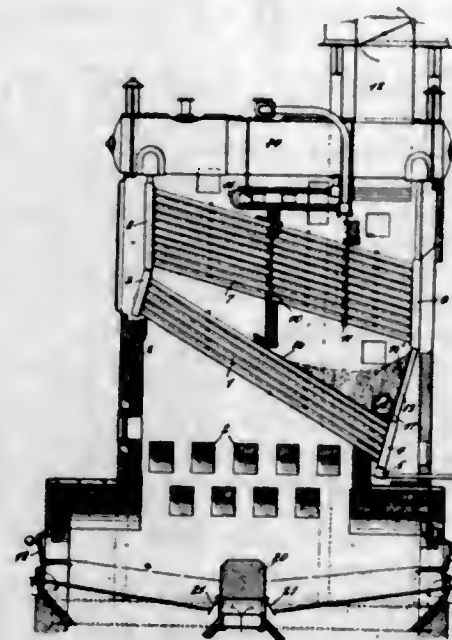
2. In a device of the class described, an arm; a curtain rod extended therethrough; and a drape-rod support pivoted to the arm and including angularly disposed edges, one of which rests on the curtain rod, the other edge of the support being adapted to engage the rod when the first specified edge is lifted off the rod.

3. In a device of the class described, an arm; a curtain rod extended therethrough, and a drape-rod support pivoted to the arm and resting on the curtain rod, the rod serving to uphold the support and the support serving



to limit the longitudinal movement of the rod, the support being movable into alignment with the arm, and having a cam engaging the rod to limit the longitudinal movement of the rod and to hold the support aligned with the arm.

1,080,613. WATER-TUBE BOILER. EDWARD H. WELLS, Montclair, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 3, 1912. Serial No. 688,131. (Cl. 122-265.)



1. A water tube boiler having two banks of inclined generating tubes one above the other, uptake and downtake headers into which the tubes of said banks are expanded, tubes connecting the downtake headers of said banks, a longitudinal baffle extending from the downtake headers of the lower bank, and a plate resting against said connecting tubes, said baffle and plate forming with the side walls of the setting a dust collecting chamber between the two banks of tubes, and means for removing the dust from said chamber.

2. A water tube boiler having two banks of inclined generating tubes one above the other, uptake and downtake headers into which the tubes of said banks are expanded, tubes connecting the downtake headers of said banks, a transverse baffle extending across the tubes of the upper bank to the lower bank, a longitudinal baffle extending from the downtake headers of the lower bank to said transverse baffle, a plate resting against said connecting tubes, said longitudinal baffle and plate forming with the side walls of the setting a dust collecting chamber between the two banks of tubes, and means for removing the dust from said chamber.

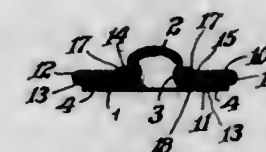
3. A water tube boiler having two banks of inclined generating tubes one above the other, and the lower bank inclined at a greater degree to the horizontal than the inclination of the upper bank, uptake and downtake headers into which the tubes of said banks are expanded, tubes connecting the downtake headers of said banks, a longitudinal baffle extending from the downtake headers

of the lower bank, and a plate resting against said connecting tubes, said baffle and plate forming with the side walls of the setting a dust collecting chamber between the two banks of tubes, and means for removing the dust from said chamber.

4. A water tube boiler having two banks of inclined generating tubes one above the other, uptake and downtake headers into which said tubes are expanded, tubes connecting the downtake headers of said banks, transverse baffles dividing the upper bank of tubes into a plurality of passes beginning at the steam uptake end, the baffle at the uptake end being continued to the lower bank of tubes, a longitudinal baffle over the lower bank of tubes extending from the downtake headers to the first transverse baffle, a plate resting against said connecting tubes, said longitudinal baffle and plate forming with the side walls of the setting a dust collecting chamber between the two banks of tubes, and means for removing the dust from said chamber.

5. A water tube boiler having two banks of inclined generating tubes one above the other, uptake and downtake headers into which the tubes of said banks are expanded, said uptake headers being nipped together, tubes connecting the downtake headers of said banks, a transverse baffle extending across the tubes of the upper bank to the lower bank, a longitudinal baffle extending from the downtake headers of the lower bank to said transverse baffle, a plate resting against said connecting tubes, said longitudinal baffle and plate forming with the side walls of the setting a dust collecting chamber between the two banks of tubes, and means for removing the dust from said chamber.

1,080,614. SNAP-FASTENER. JAMES P. WILLIAMS, Philadelphia, Pa., assignor to The De Long Hook and Eye Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 16, 1911. Serial No. 644,268. (Cl. 24-216.)



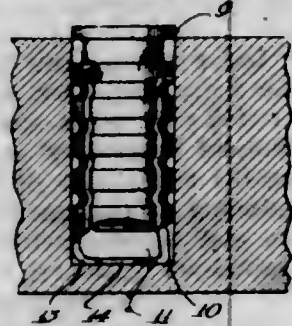
1. The socket member of a snap fastener comprising two centrally apertured plates one being of greater outside diameter than the other and having its outer edge portion folded over to inclose the corresponding edge of the other and said other plate carrying projections from its inner edge, said projections being bent outwardly then reversely and arranged to extend through the aperture in and engage the opposite side of the first plate, said projections being entirely free of the adjacent edge of said first plate.

2. The socket member of a snap fastener comprising two centrally apertured plates in parallel relation with each other, one being of greater outside diameter than the other and having its outer edge portion folded over to inclose the corresponding edge of the other, and said other plate carrying integral projections from its inner edge, said projections being bent outwardly then reversely and arranged to extend through the aperture in and to inclose the inner edge portion of the first plate, said projections being entirely free of the inner edge of said first plate.

1,080,615. EXPANSION-BOLT. LOTHAR R. ZIFFERER, Chicago, Ill. Filed Dec. 26, 1912. Serial No. 738,613. (Cl. 85-24.)

1. In an expansion bolt, a shield comprising a plurality of expansible segments having the interior faces thereof tapered from the inner toward the outer end thereof, a tapered expanding member located partly within the inner end of said shield adapted to be advanced toward the outer end thereof, a threaded bore extending longitudinally through said expanding member, and a lip formed at the inner end of one of said shield segments arranged to engage with the exposed end of said expanding member to retain the same within the shield, said lip being

also arranged to overlie the open end of the threaded bore in said expanding member to prevent the entrance of material thereinto, substantially as described.



2. In an expansion bolt, a shield comprising a plurality of expansible segments, an expanding member located partly within the inner end of said shield adapted to be advanced toward the outer end thereof, said expanding member having its exterior surface channeled near the inner end thereof, a web provided at the inner end of one of said segments, adapted to lie obliquely within said channel, and a lip formed at the extremity of said web arranged both to retain the expanding member within the shield prior to expansion thereof, and to prevent receding of said expanding member when the said member has been advanced by forcing the shield thereover, substantially as described.

3. In an expansion bolt, a shield comprising a plurality of expansible segments, an expanding member located partly within the inner end of said shield adapted to be advanced toward the outer end thereof, and means for retaining said expanding means within the shield, consisting of a web formed at the inner end of one of said shield segments, and a lip provided at the extremity thereof arranged to overlie the exposed end of said expanding member, said web being obliquely and inwardly inclined with respect to the shield segment with which it is formed, whereby it tends to bend inwardly and transversely when the expanding member has been advanced by forcing the shield thereover, substantially as described.

4. In an expansion bolt, a shield comprising a plurality of expansion segments, means for expanding said segments arranged prior to expansion to lie partly outside of the inner end of the said shield and to be advanced thereinto to produce a quick expansion, and a transversely disposed lip projecting from the inner end of said shield arranged to overlie the exposed end of said expanding means to retain the same within the shield, said lip serving also to prevent receding of said expanding means when the same have been advanced by forcing the shield thereover, substantially as described.

1,080,616. HICKEY. PAUL T. ZIZINIA, New York, N. Y. Filed Mar. 28, 1913. Serial No. 757,270. (Cl. 240—85.)



The combination with an insulating joint having a lower and internally threaded socket, of a hickey comprising

ing a tubular body having a closed top and an open lower end, an upstanding externally threaded neck projecting from the closed top and threaded into the socket of the insulating joint, said body having an opening through one side, and a fixture element threaded into the lower end of the body.

1,080,617. HICKEY. PAUL T. ZIZINIA, New York, N. Y. Filed Mar. 28, 1913. Serial No. 757,280. (Cl. 240—85.)



1. A hickey, comprising a hollow body and a plurality of spaced openings communicating with the interior of the body and extending through different sides of said body and having means for connection with a wire conduit, said body having a plurality of devices respectively for connection with a supporting member, the openings not in use in connection with the wire conduit constituting exits for wires extending into the body and wire conduit.

2. A hickey, comprising a hollow body and a plurality of spaced openings communicating with the interior of the body, extending through different sides thereof and having means for connection with a wire conduit, said body having a plurality of devices respectively for connection with a supporting member and being located between the openings, the openings not in use in connection with the wire conduit constituting exits for wires extending into the body and wire conduit.

3. A hickey, comprising a hollow body and a plurality of spaced openings communicating with the interior of the body, and extending through different sides thereof, means associated with the body for connection with a wire conduit, said body also having a plurality of devices respectively for connection with a supporting member and each being located opposite one of the openings and between other of the openings, the openings not in use with the wire conduit constituting exits for wires extending into the body and wire conduit.

4. A hickey comprising a hollow body with apertures symmetrically arranged in the walls thereof and all of the apertures intercommunicating through the hollow body projecting necks being provided between each pair of apertures in succession around the body.

5. A hickey comprising a hollow body with apertures therein, and provided with projecting necks one opposite each aperture and between other apertures, each aperture and neck being suitably threaded to connect with an insulating joint or fixture, the threads being of different sizes in the several apertures and on the several necks.

[Claim 6 not printed in the Gazette.]

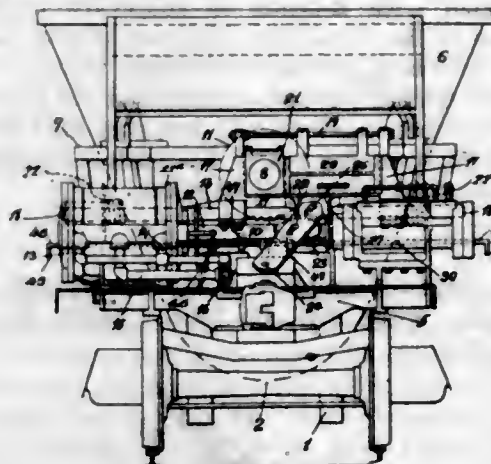
1,080,618. COATING COMPOUND FOR RAZOR-STROPS. ANTON ZOCHLING, Brooklyn, N. Y. Filed Sept. 10, 1913. Serial No. 789,058. (Cl. 51—1.)

1. A coating compound for razor stropps composed of powdered rottenstone, powdered emery and paraffin.

2. A coating compound for razor stropps composed of about eight parts of pulverized rotten stone, two parts of powdered emery and eight parts of paraffin.

3. Method of forming a coating compound for razor stropps, which consists in mixing powdered rottenstone with powdered emery, melting paraffin, stirring the mixture of powdered rottenstone and emery into the paraffin, and molding the resultant mass into tablets.

1,080,619. DUMPING-CAR. CARL P. ASTROM, East Orange, N. J., assignor to M. H. Treadwell Company, a Corporation of New York. Filed Jan. 9, 1911. Serial No. 601,502. (Cl. 105—190.)



1. The combination in a dumping car, with a tilting and movable car body, of a power cylinder and piston, a trunnion supporting the car body, and an actuating lever pivoted on the frame connecting the movable element of the cylinder and piston and the trunnion.

2. The combination in a dumping car, with a tilting and movable car body, of a power cylinder and piston, a trunnion supporting the car body, and an actuating lever connecting the movable element of the cylinder and piston and the trunnion, said lever being pivoted at one end on the car frame.

3. The combination in a dumping car, with a tilting and movable car body, of a power cylinder and piston, a trunnion supporting the car body, an actuating lever connecting the movable element of the cylinder and piston and the trunnion, said lever being pivoted at one end on the car frame, and means for shifting the lever independently of the trunnion to enable the car body to be oppositely dumped.

4. The combination in a dumping car, with a tilting and movable car body, of a power cylinder and piston, a trunnion supporting the car body, an actuating lever connecting the movable element of the cylinder and piston and the trunnion, said lever being pivoted at one end on the car frame, and means comprising a crosshead and movable block for changing the actuating connection from one side to the other.

5. The combination in a dumping car, with a tilting and movable car body, of a power cylinder and piston, a trunnion connected therewith, a checking cylinder and piston, one being connected to said trunnion, means for independently controlling the checking effect in each direction and means compensating in said checking cylinder for difference in fluid displacement on opposite sides of the checking piston.

[Claims 6 to 10 not printed in the Gazette.]

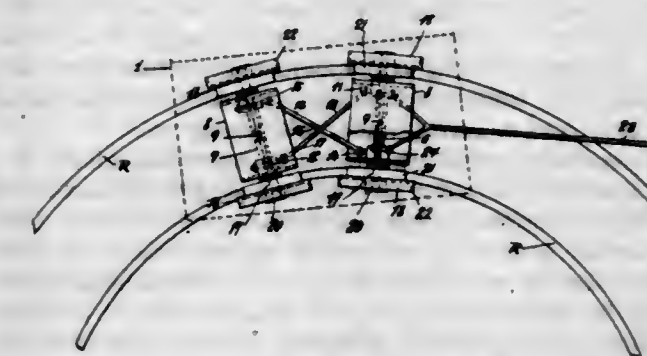
1,080,620. CAR. CARL P. ASTROM, East Orange, N. J., assignor to M. H. Treadwell Company, of New York, a Corporation of New York. Filed Apr. 3, 1912. Serial No. 688,263. (Cl. 105—137.)

1. A car comprising in combination a frame, a pair of axles pivotally mounted thereon, wheels positioned at the ends of said axles, and links connecting said axles at diagonally oppositely disposed points, each of said wheels comprising an inner tread portion and having but a single flange, said single flange being disposed exteriorly of said tread portion and of relatively greater diameter.

2. In a car, the combination of a frame, a plurality of axles pivotally connected thereto at central points thereof,

107 O. G.—19

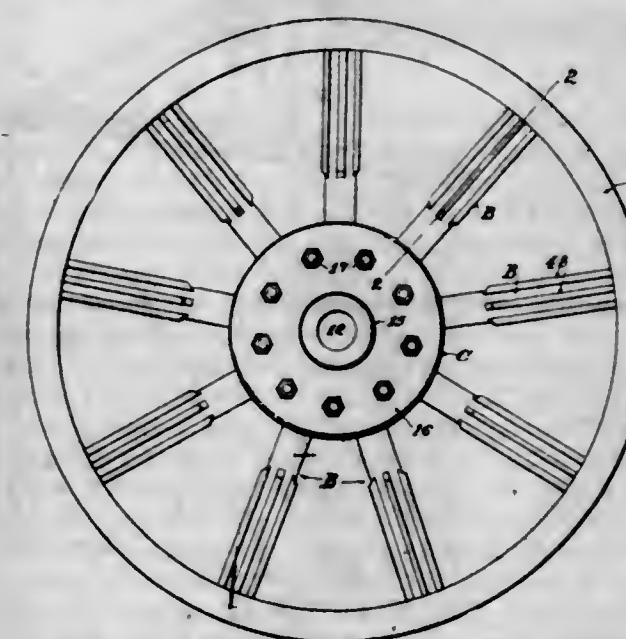
links for connecting said axles at diagonally oppositely disposed points, and wheels mounted at the extremities of said axles, said wheels having an inner tread portion and but a single flange portion, said flange portion being adapted to engage the exterior vertical face of a rail.



3. A car comprising in combination a body, wheel axles pivotally connected thereto, crossed links connecting said axles at oppositely disposed points, and wheels mounted at the extremities of said axles, certain of said wheels being loosely mounted on their respective axles each of said wheels comprising an inner tread portion and having but a single flange, said flange being of larger diameter and adapted to engage the rail on the outside thereof.

4. A car comprising in combination a body, wheel axles pivotally connected thereto, diagonally disposed links connecting said axles at points adjacent the ends thereof, one of said links being provided with a bent loop portion to provide limited resilience against thrusts, and wheels mounted at the ends of said axles, each of said wheels comprising a tread portion and having but a single rail engaging flange, said flange being positioned on the outer side of said tread portion.

1,080,621. RESILIENT WHEEL. JOSEPH RENE ATOTTE, Chicago, Ill., assignor to Alexander Airless Auto Wheel Co., Chicago, Ill., a Corporation of South Dakota. Filed Mar. 18, 1912. Serial No. 684,368. (Cl. 152—53.)



1. A resilient wheel comprising a rim, a plurality of rigidly attached tubular spokes extending radially inwardly of said rim, a hub comprising an axial shank and a pair of spaced apart flanges, the free ends of said spokes being located between said flanges, means on said flanges contacting with the exterior wall of each of said spokes at a plurality of points near the lower ends thereof, whereby driving force applied to said hub will be transmitted to said spokes at right angles to the axes thereof, plungers within said spokes having their free ends contacting with said axial shank, and compressible means in said spokes acting upon said plungers.

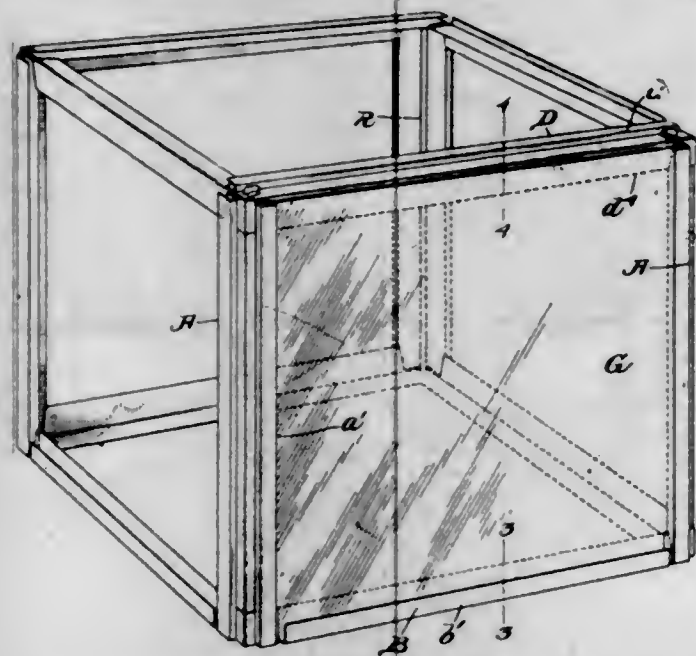
2. A resilient wheel comprising a rim, a hub possessed of an axial shank and an interior annular chamber sur-

rounding said shank, there being a plurality of radial openings in the periphery of said hub, communicating with said interior chamber, a series of tubular spokes rigidly fixed to said rim, entering said openings and slidable therein, means within said chamber adapted to contact with the exterior wall of each of said spokes near the lower ends thereof, whereby driving power applied to said hub will be transmitted to said spokes at right angles to the axes thereof, plungers within said spokes having their free ends contacting with said axial shank, and compressible means within said spokes acting upon said plungers.

3. A resilient wheel including a hub comprised of a hollow axial shank and a pair of cup shaped disks thereon with their marginal edges abutting, one of said disks being formed integrally with said shank, means to maintain the other of said disks in position, there being radial openings in the periphery of said disks, a rim, a plurality of tubular spokes rigidly attached to said rim, the free ends of said spokes entering said openings and being slidable therein, means between said disks contacting with the exterior wall of each of said spokes near the lower ends thereof, plungers in said spokes having their free ends contacting with said axial shank, and compressible means within said spokes acting upon said plungers.

4. In a resilient wheel, a hollow hub, said hub including side plates having inwardly extending marginal flanges, one of said side plates having a centrally located boss on which the other of said side plates is centered in spaced relation, means for removably connecting said side plates including bolts, a series of spokes radiating from said hollow hub, a rim to which the outer ends of said spokes are removably secured, compression means in said spokes constructed to resist inward movements of said spokes in said hub, and a series of guiding rollers in said hub near the ends of said spokes said rollers being journaled upon said bolts between each two adjacent spoke ends.

1,080,622. KNOCKDOWN STRUCTURE. GEORGE N. BARRIE, Brookline, Mass. Filed Nov. 7, 1912. Serial No. 729,989. (Cl. 47—22.)



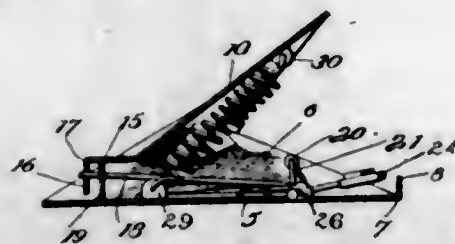
1. In a knock-down structure of the character indicated, the combination with polygonal top and bottom frames, of corner members, adapted to make sliding juncture with said top and bottom frames at the angles thereof, said corner members being of angle section, with the flanges thereof formed with an S-bend to provide channels for the reception of flanges of the frames and the side plates, and stay rods at the corners extending from the top to the bottom frame, to bind the members of the structure together.

2. In a knock-down structure of the character indicated, the combination of polygonal top and bottom frames of sheet material, and corner members of angle section, having the flanges of the angle bent back upon themselves to

form spaces for flanges of the frames, and again bent in the reverse direction to form channels for the reception of side plates, the material of the corner members being slitted at the ends at the first of said bends to admit the top and bottom frames, and stay rods at the corners extending from the top to the bottom frame, to bind the members of the structure together.

3. In a knock-down structure of the character indicated, the combination of polygonal top and bottom frames, of angle section, having flanges of said angles formed with S-bends, and corner members of angle section having flanges formed with S-bends to cooperate with similar bends on one of the frames for the reception of side plates said corner members slitted at the ends to admit a flange of one of the frames between portions of the corner pieces bent on each other as aforesaid, and stay rods at the corners extending from the top to the bottom frame, to bind the members of the structure together.

1,080,623. MOUSE-TRAP. JACOB I. BRORBY, Shenandoah, Iowa. Filed Feb. 13, 1913. Serial No. 748,126. (Cl. 43—23.)



1. An animal trap comprising a fixed jaw, a movable jaw, pivot connections on the edges of said jaws, a spring connected at one end to the movable jaw in front of said pivot and at its other end to the fixed jaw in the rear of said pivot, an angular extension on the rear of the movable jaw having an opening therethrough, a sliding latch having pivotal connection with means for actuating the same and adapted to enter the opening in the rear of the movable jaw when brought into registry therewith to hold said movable jaw in open position, and means adapted to be operated by the animal to cause rearward movement of said latch to withdraw the same from the opening in the movable jaw to spring the trap.

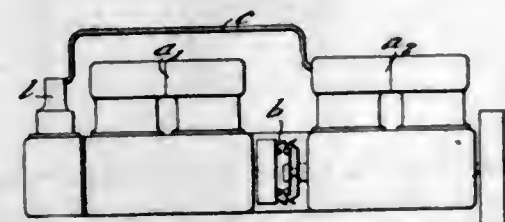
2. An animal trap comprising a fixed jaw, a movable jaw, pivot connections between said jaws, a spring attached at one end to the movable jaw and at its opposite end to the fixed jaw, an angular extension on the movable jaw having an opening therethrough, a latch having its rear end mounted adjacent the opening in the rear of the movable jaw and having its front end extending through the side of the fixed jaw and provided intermediate its ends with a looped portion forming a bearing, and a trigger having a looped portion intermediate its ends adapted to receive a bait-receiving plate and pivoted at one of its ends in a bearing formed in the fixed jaw and at its opposite end in the loop formed in the trigger, whereby the movement of the bait-receiving plate by the animal will cause said trigger to release said latch and spring the trap.

3. An animal trap comprising a fixed jaw having the upper edge of the front portion of its side walls cut at a lower plane than the rear portion of such walls and terminating at a point short of the center thereof, whereby to form a forwardly extending shoulder, and a movable jaw having portions struck from the edges of its side walls and bent to seat against said shoulders, and a spring having one of its ends connected to the stationary jaw and its other end connected to the movable jaw to hold said jaws in pivotal relation with each other.

4. An animal trap comprising a fixed jaw, a movable jaw, pivot connections on the edges of said jaws, a spring connected at one end to the fixed jaw and at its opposite end to the movable jaw, an angular extension on the movable jaw having an opening therethrough, a sliding latch having its rear end mounted adjacent the opening in the rear of the movable jaw adapted to be guided into said opening by the angular extension on the movable jaw

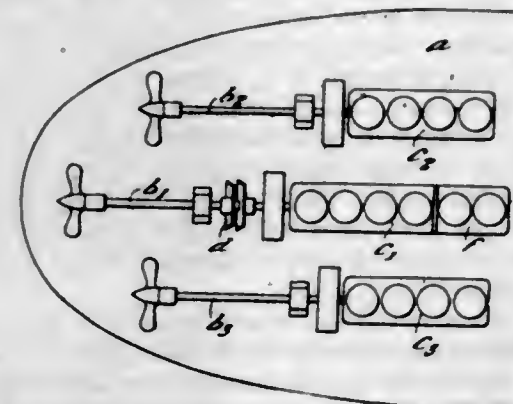
when the rear end of said jaw is depressed to set the trap, and means adapted to be operated by the animal to cause rearward movement of said latch to withdraw the same from the opening in the movable jaw to spring the trap.

1,080,624. DRIVING OF MOTOR-VEHICLES AND SIMILAR MOTOR PLANTS. RUDOLF DIESEL, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 19, 1910. Serial No. 582,653. (Cl. 123—2.)



In a power plant, in combination with a drive shaft, a divided internal combustion engine the parts of which are adapted to rotate the drive shaft by their combined impulses, a clutch for coupling and uncoupling the divisions of the engine, one part of the engine remaining connected to the drive shaft and the other part being disconnected from the shaft so as to run independently thereof when the clutch is uncoupled, an air pump permanently connected with the latter part, and means for supplying compressed air from said pump to the part which remains connected with the drive shaft.

1,080,625. INTERNAL-COMBUSTION PROPULSION APPARATUS. RUDOLF DIESEL, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 21, 1910. Serial No. 583,064. (Cl. 123—4.)



1. In apparatus of the kind described, an internal combustion engine plant comprising two divisions, an air compressor arranged for operation by one division and propelling mechanism adapted for operation by the other division, in combination with suitable means for driving the latter division by means of the air from the compressor, and means for combining both divisions to operate the said propelling mechanism.

2. In apparatus of the kind described, the combination with driven mechanism, of internal combustion engine groups adapted to drive said mechanism by their combined impulses, one of said groups being disconnectible from said driven mechanism and adapted to run independently of the other group or groups, an air compressor to be driven by said disconnectible group, and supply connections from said compressor to the other group or groups for operating the latter as compressed air engines.

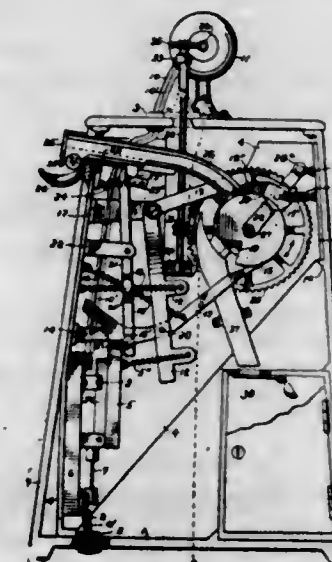
3. In a ship, the combination with propelling mechanism, of an internal combustion engine plant comprising parts adapted to propel the ship by their combined impulses, one of said parts being adapted to operate optionally as a combustion engine or as a compressed air engine and another part being disconnectible from the propelling mechanism and adapted to supply compressed air for the operation of the other part as a compressed air engine.

4. In apparatus of the kind described, propelling mechanism, an internal combustion engine plant comprising a divisional part adapted for driving connection with such mechanism and having an air pump for supplying itself with charging air, said part being adapted for operation as a compressed air engine or as a combustion engine, in combination with a second divisional part of said plant, an air compressor driven thereby having its suction line leading from said air pump supply of charging air and its force pipe leading to the cylinders of the first mentioned divisional part to operate the same.

5. In apparatus of the character described, the combination of an internal combustion engine plant comprising two divisions which when coupled act as one, means for uncoupling and coupling them, one of said divisions being capable of operating optionally either as an internal combustion or compressed air engine, and means whereby the other division may be employed to compress air to drive the aforesaid division.

[Claims 6 and 7 not printed in the Gazette.]

1,080,626. COIN-OPERATED MECHANISM. HENRY FACHS, New York, N. Y. Filed July 27, 1912. Serial No. 711,815. (Cl. 194—9.)



1. In a coin controlled electrically-operated actuating mechanism, a housing, a shaft mounted therein, an outer cam loosely mounted on said shaft and provided with a coin receiving pocket, an inner cam loosely mounted on the shaft, manually-operated means for imparting partial rotary movement to the outer cam, means actuated during said partial rotary movement of the outer cam to set said motor in operation, and drive connections between the motor and the inner cam for effecting a completion of the revolution of said cams.

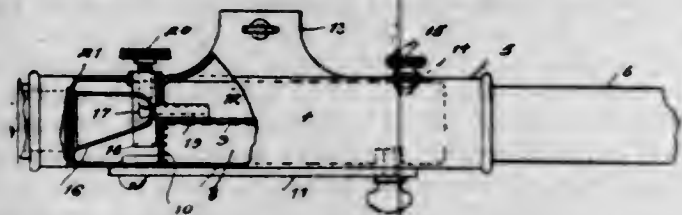
2. In a coin controlled electrically-operated actuating mechanism, a suitably mounted shaft, an outer cam loosely mounted thereon and provided with a coin receiving pocket, an inner cam loosely mounted on said shaft, manually-operated means for imparting partial rotation to the outer cam, a switch, a crank lever disposed to be actuated during the partial rotation of said outer cam to close said switch and set the motor in operation, and drive connections between the motor and the inner cam for effecting a complete revolution of said cams.

1,080,627. PIPE-STOCK. ARTHUR GORDON, Chicago, Ill. Filed Oct. 3, 1912. Serial No. 723,705. (Cl. 10—126.)

1. A pipe stock having a continuous chamber surrounding the die holding portion for holding oil or the like, and means in the chamber for collecting oil and feeding it intermittently from said chamber to the die or pipe by the turning of the stock.

2. A valve stock having a chamber surrounding the central die holding portion, a cup arranged in said chamber for collecting the oil by the turning of the stock, a pipe

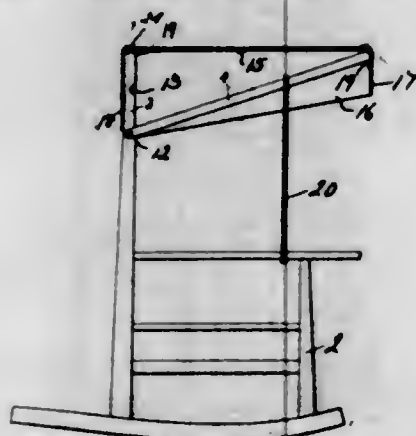
leading from said cup to the die and a valve for controlling the flow of oil from the cup through the pipe.



3. The combination with a pipe stock or the like having an oil supply chamber, of a receptacle arranged in said chamber for collecting the oil by the turning of the stock, and a valve for directing the oil from said chamber to the threading die.

4. A device of the character set forth having a central chamber through which a pipe or rod to be threaded may extend, an inwardly extending flange in said chamber dividing the same into front and rear portions, the front portion serving to receive the die, and the rear portion serving as an oil well, an oil supply chamber surrounding said central chamber, a cup or pocket fixed in said oil supply chamber and having its open portion toward the direction of rotation of the device, a pipe leading from said pocket to the oil well, and means for controlling the flow of oil through said pipe.

1,080,628. COLLAPSIBLE AWNING OR CANOPY FOR CHAIRS. JASPER GRASSIN, Philadelphia, Pa. Filed Mar. 5, 1912. Serial No. 681,684. (Cl. 135-5.)



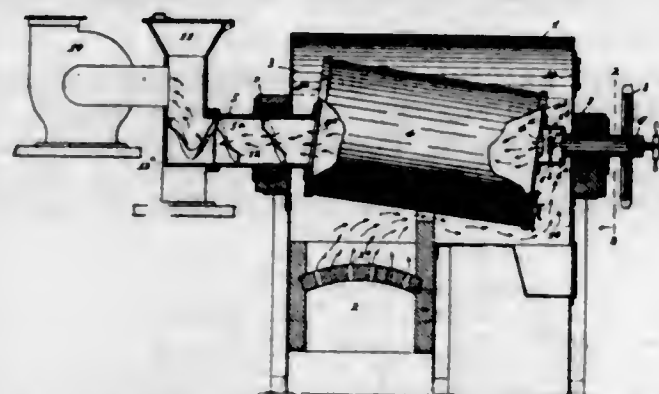
1. In combination with a chair, a frame comprising an upright member and an extension member, each of said members being bent from a single piece of metal to produce a rail and parallel side arms, means for securing the ends of said arms to a chair, a canopy covering the frame, and stops carried by the side posts of the chair back with which the upright member of the frame will contact to limit the forward movement of the awning.

2. In a collapsible awning for chairs, the combination with a chair of an upright frame formed from a single piece of metal bent to produce a rail and parallel side arms, means for pivoting the ends of the side arms of said upright frame to the back of a chair, said arms having notches formed therein between their pivoted ends and the rail, an extension frame also formed from a single piece of metal bent to produce a rail and parallel side arms, the ends of which are pivoted by the same means as the upright frame to the back frame, means carried by the back of the chair co-acting with notches in the arms of the upright frame for limiting the forward movement of the upright frame, a canopy secured upon the rails of both frames and cords attached to the extension frame through holes formed therein whereby said frames will be held rigid in their normal positions by tying said cords to the arms of the chairs.

1,080,629. ROTARY DRIER. LOUIS FRED GRISWOLD and CECIL BASS SMITH, Cleveland, Ohio; said Griswold assignor to said Smith. Filed Jan. 2, 1913. Serial No. 739,745. (Cl. 34-5.)

1. In a rotary drier, a drying cylinder adapted to rotate eccentrically and obliquely to the rotation of the driving

member, whereby the material to be dried is agitated, in combination with means for drawing a heating and drying medium through the interior of said cylinder.



2. In a rotary drier, a drying cylinder adapted to rotate eccentrically and obliquely to the rotation of the driving member whereby the material to be dried is agitated, in combination with an opening or openings for admitting heat to the interior of said cylinder, suction means for drawing the heat through the interior of the cylinder, and means for closing the admission openings, whereby the suction means will cause a partial vacuum in said cylinder.

3. In a rotary drier, a drying cylinder adapted to rotate eccentrically and obliquely to the rotation of the driving member whereby the material to be dried is agitated in combination with an inclosing chamber in which said cylinder rotates, means for supplying heat to said chamber, means for drawing heat from the chamber through the interior of the cylinder, and means for admitting and regulating a supply of non heated, exterior air to the chamber whereby the temperature of the medium within said chamber and the cylinder is reduced.

4. In a rotary drier, the combination of a drying cylinder, an inclosing chamber in which said cylinder is adapted to rotate, trunnions eccentrically and obliquely attached to the two heads of said cylinder and mounted in suitable bearings, a longitudinal opening in one of the trunnions and its attached cylinder head, suction draft means connected with the interior of the cylinder through the said opening, open communication from the chamber to the interior of the cylinder through the opposite trunnion and cylinder head, whereby heat from the chamber is drawn through the cylinder, means for feeding material to be dried to said cylinder, and means for discharging the dried material therefrom.

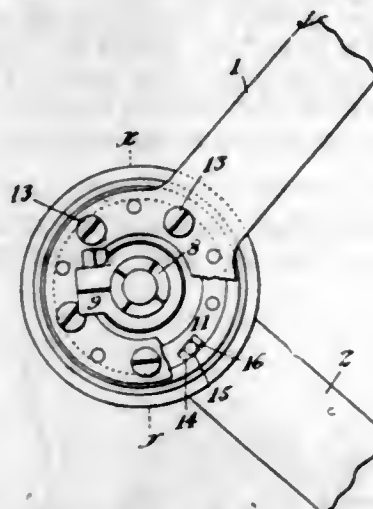
5. In a rotary drier, the combination of a drying cylinder, an inclosing chamber in which said cylinder is adapted to rotate, means for supplying heat to said chamber, a hollow trunnion eccentrically attached to one head of said cylinder, open communication from a suction draft means, through the hollow trunnion to the interior of the cylinder, means for feeding material to the interior of the cylinder through the said hollow trunnion, a trunnion attached eccentrically to the opposite head of the cylinder and in oblique relation to the first named trunnion, open communication from the chamber to the interior of the cylinder through the last named cylinder head, and means for closing said opening.

[Claim 6 not printed in the Gazette.]

1,080,630. ANTIVIBRATION DEVICE FOR VEHICLES. EDWARD V. HARTFORD, New York, N. Y. Filed Dec. 5, 1904. Serial No. 235,475. (Cl. 21-105.)

1. An antivibration device for vehicles comprising a plurality of outer friction disks, a hub connecting said disks, an inner friction disk moving freely upon said hub, friction material between the opposed faces of said outer disks and said inner disk, and connections between said outer disks and said inner disk to the body and running gear respectively of a vehicle, means whereby one of said connections may be moved freely in one direction and for interposing frictional resistance to its movement in the other direction.

2. An antivibration device comprising a recessed friction-disk, a second disk located partially within said recess, friction material between said disks, adjustable clamping means, a power member adjacent to one of said disks, oblique faced recesses in said member and rollers located in said recesses and adapted to transmit the movement of the power member in one direction only to the adjacent disk.



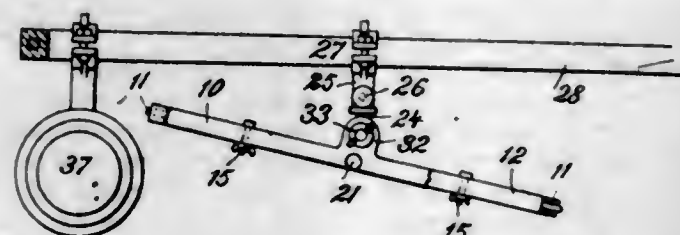
3. An anti-vibration device for vehicle body supporting springs permitting the free compression of the spring and retarding the expansion of the spring, comprising two frictionally-engaged parts, and a third part constructed and adapted to be clutched to and released from one of the frictionally-engaged parts according to the direction in which the said third part is moved.

4. An anti-vibration device for vehicle body supporting springs arranged to permit the free compression of the spring and to retard the expansion of said spring, comprising two frictionally-engaged parts, a third part, and a clutch interposed between the third part and one of the frictionally-engaged parts for locking and releasing the third part according to the direction of its movement.

5. An anti-vibration device for vehicle body supporting springs arranged to permit the free compression of the spring and to retard the expansion of said spring, comprising two frictionally-engaged parts, a third part and a roller clutch interposed between the third part and one of the frictionally-engaged parts for locking and releasing the third part according to the direction of its movement.

[Claims 6 to 13 not printed in the Gazette.]

1,080,631. AUTOMOBILE SIGN-HOLDER. HENRY OSBORNE HAVEMEYER, Mahwah, N. J. Filed Dec. 27, 1910. Serial No. 599,587. (Cl. 40-68.)



An automobile sign, comprising a tubular main support arm, means for securing said supporting arm upon a vehicle, an adjustable arm mounted in said tubular arm, a sign holder carried by said adjustable arm, a reversible sign support, and a series of signs mounted in said support.

1,080,632. PIGMENTED PLASTIC WATERPROOF TROWELING COMPOSITION. AARON CHARLES HORN, New York, N. Y. Filed May 15, 1913. Serial No. 767,855. (Cl. 106-27.)

1. The process of making a plastic waterproof troweling cement which comprises melting a varnish gum containing resin acids, incorporating therewith a drying oil and a fatty acid protector of said resin acids, adding

hydrated ammonium stearate, agitating and adding a basic body to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

2. The process of making a plastic waterproof troweling cement which comprises melting a varnish gum containing kauri, incorporating therewith a drying oil and a fatty acid protector of said resin acids, adding hydrated ammonium stearate, agitating and adding a basic body to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

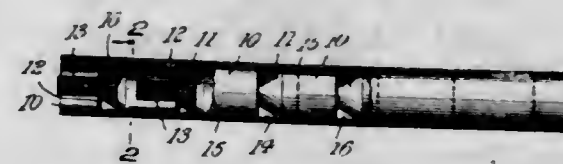
3. The process of making a plastic waterproof troweling cement which comprises melting a varnish gum containing kauri, incorporating therewith a drying oil and a fatty protector of said resin acids, said fatty acid having siccative properties, adding hydrated ammonium stearate, agitating and adding a basic body to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

4. The process of making a plastic waterproof troweling cement which comprises melting a varnish gum containing resin acids, incorporating therewith a drying oil and a fatty acid protector of said resin acids, adding a paste comprising ammonium stearate in a hydrated condition, agitating and adding a basic body to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

5. The process of making a plastic waterproof troweling cement which comprises melting a varnish gum resin containing resin acids, incorporating therewith a drying oil and a fatty acid protector of said resin acids, adding hydrated ammonium stearate, agitating and adding lime material to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

[Claims 6 to 14 not printed in the Gazette.]

1,080,633. TOOTH-BRUSH. SYLVESTER B. HUSCH and GEORGE S. HUSCH, New York, N. Y. Filed Apr. 5, 1913. Serial No. 759,015. (Cl. 15-39.)



1. A tooth brush comprising a plurality of bristle bundles arranged in axial alignment with each other, and of a breakable covering inclosing said bundles.

2. A tooth brush comprising a plurality of axially aligned bristle bundles, a separable shell inclosing the bundles, and a covering inclosing the separable shell.

3. A tooth brush comprising a plurality of axially aligned bristle bundles, a surrounding shell composed of alternating cylindrical and tapering sections, and a breakable covering that surrounds the shell.

4. A tooth brush comprising a shell composed of a series of longitudinally aligned separable sections, and a series of inclosed longitudinally aligned bristle bundles, each of the bristle bundles being carried by an individual shell section, whereby the detachment of such section will effect a simultaneous detachment of its bristle bundle.

5. A tooth brush comprising a continuous breakable shell composed of a series of cylindrical sections having annular backs and alternating tapering sections, the contracted front end of each tapering section opening into the annular back of the adjoining cylindrical section, a plurality of axially aligned bristle bundles having expanded heads, the head of each bundle being grasped by one of the tapering sections, while the main body of such bundle extends a distance into the adjoining cylindrical section.

1,080,634. TOOTH-BRUSH. SYLVESTER B. HUSCH and GEORGE S. HUSCH, New York, N. Y. Filed Apr. 5, 1913. Serial No. 759,016. (Cl. 15-39.)

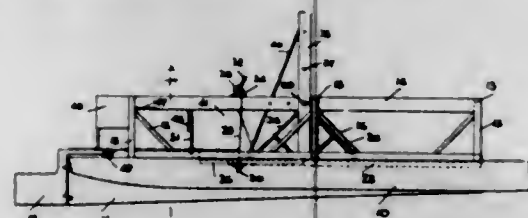


1. A tooth brush comprising a rigid tubular magazine having a nozzle and a plurality of inclosed bristle bundles, said bundles being adapted to be successively projected from said nozzle.

2. A tooth brush comprising a tubular casing having a curved nozzle, and a spring-influenced jaw, pivoted to the casing and cooperating with said nozzle, a plurality of bristle bundles inclosed within the casing, and a breakable wrapper encompassing the bristle bundles.

3. A tooth brush comprising a tubular casing having a curved nozzle, provided with an upper shortened section, a curved spring-influenced jaw pivoted to the casing and having a bent forward end extending in front of the shortened nozzle section, a plurality of bristle bundles inclosed within the casing, and a breakable wrapper encompassing the bristle bundles.

1,080,635. BATHING-BOAT. CLAUDE M. JOHNSON, New York, N. Y., assignor to Unsinkable Bathing Boat Company, Inc., a Corporation of New York. Filed Sept. 23, 1912. Serial No. 721,851. (Cl. 4-2.)



1. A boat of the character mentioned, comprising a plurality of hulls; a framing structure rigidly connecting said hulls in spaced-apart and parallel relation; a main deck rigidly mounted upon, and bridging the space between, said hulls; a bathing deck pivotally mounted upon said framing structure to move vertically between said hulls; means mounted upon said hulls for raising and lowering the rear end of said bathing deck to submerge the same; and an apron pivotally mounted upon said main deck and loosely connected with said bathing deck to extend across the space between said decks when the bathing deck is submerged.

2. A bathing boat, comprising a plurality of floating hulls, spaced apart; a deck member pivotally mounted upon and at the forward end of said hulls and at approximately the deck level thereof; means for lowering the free end of said deck member below the water in which said hulls are floated; hand holds mounted on said deck member to be gripped by a person bathing; and means for propelling said hulls to float the body of a bather from said deck member.

3. A bathing boat, comprising a plurality of floating hulls, spaced apart; an inclined deck connecting said hulls and rearwardly depressed, said deck being inclined, to form a rest for the body of a bather when the boat is at rest or slowly moved; hand-holds mounted on said deck to be gripped by a bather; and means for propelling said boat with force sufficient to lift the body of the bather from said deck.

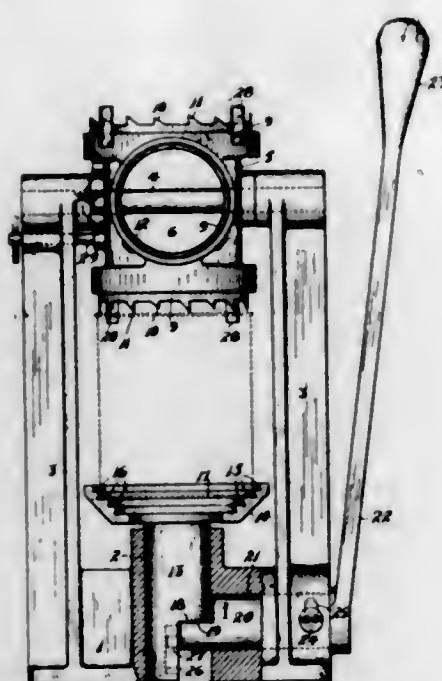
4. A bathing boat comprising a plurality of floating hulls, spaced apart in parallel relation; an inclined perforated deck connecting said hulls, the forward end of said deck being near the water-level, and the rear end of said deck being depressed; means provided on said deck for the convenience of a bather to grip the same; and means

for propelling said boat through the water with force sufficient to lift the body of the bather off said inclined deck.

5. A bathing boat, comprising a plurality of floating hulls, spaced apart in parallel relation; a deck uniting said hulls and having a rigid and a movable section, said sections being arranged longitudinally; means for depressing the rearward end of said movable section to extend the desired distance below the water-level, said movable section being perforated to permit the water to pass freely therethrough, means forming hand-grips for a bather to hold said movable section; and means for propelling the boat through the water with force sufficient to lift the body of the bather from said movable section.

[Claims 6 to 10 not printed in the Gazette.]

1,080,636. CAN-OPENER. GEORGE W. JOHNSON, Oakland, Cal. Filed Oct. 31, 1912. Serial No. 728,876. (Cl. 30-3.)



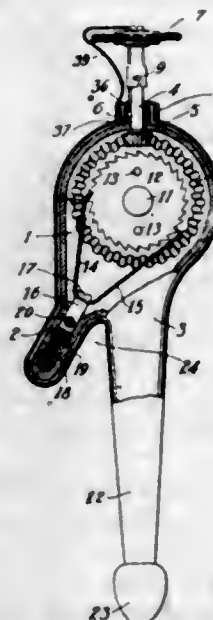
1. In a can opener, the combination with a frame provided with a pair of spaced vertically extending arms, a movable can support carried by said frame and provided with can seats of different diameters for the reception of the cans to be opened, a turret head rotatably carried between the upper ends of said arms, circular cutting knives of different diameters secured to said head and adapted for severing the head from a can adjacent its peripheral edge, means for retaining one of said knives in operative position to the can head to be severed, and an operating lever for moving said can support toward and from said turret head to force the cutting knife carried by the turret head into the can adjacent its peripheral edges and completely sever the same from its body.

2. In a can opener, the combination with a frame provided with a pair of parallel spaced vertically extending arms, a vertical movable can support carried by said frame between the lower ends of said arms, a plurality of can seats of different diameters formed in said base and each provided with an overhanging flange for engagement with the bottom flange of the can to be opened, a turret head rotatably carried between the upper ends of said arms, circular cutting knives of different diameters secured to said head and adapted for severing the head from the can adjacent its peripheral edge, means for retaining one of said knives in operative relation to the can head to be severed, a lever actuated cam for raising said can support to force the top of the can carried thereby into contact with one of said cutting knives, said knife completely severing the head from its body adjacent the peripheral edge thereof, and an independent cam controlled by said lever for lowering the can support to withdraw the can body from contact with said knife after the top has been severed therefrom.

3. In a can opener, the combination with a frame provided with a pair of spaced vertically extending arms, a can support carried by said frame at the lower ends of said

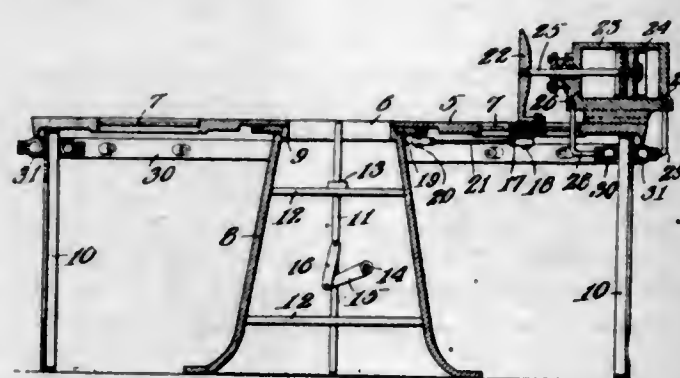
arms and provided with a plurality of semi-circular can seats of different diameters for the reception of cans to be opened, an overhanging flange associated with each of said can seats for engaging the bottom flange of a can to be opened, a turret head rotatably carried between the upper ends of said arms, circular cutting knives each of a different diameter detachably secured to said head and adapted for severing the head from a can adjacent its peripheral edge, a pin associated with one of said arms and adapted to engage said turret head for retaining one of said knives in operative relation to the can head to be severed, and an operating handle for raising and lowering said can support relative to said positioned cutting knife.

1,080,637. INTERMITTENT-GRIP DEVICE. CHARLES A. KENWORTHY, New York, N. Y. Filed Aug. 21, 1911. Serial No. 645,286. (Cl. 74-54.)



The combination of a casing and a driven member carried thereby, a ratchet for driving the said member, a spring whose ends are adapted to press against the said ratchet at opposite sides thereof, the said casing having a socket, a reciprocable element movable and guided by the said socket and secured to the said spring at the center thereof, the said spring adapted to hold the said reciprocable element in alignment with the center of the said ratchet, a second spring located in the said socket and adapted to press against the said reciprocable element whereby the said ratchet may be rotated continuously in the same direction upon alternate pressure and release of the reciprocable element.

1,080,638. WHEEL-ASSEMBLER. ORLANDO C. KETRING, Portland, Ind. Filed Sept. 4, 1912. Serial No. 718,596. (Cl. 157-2.)

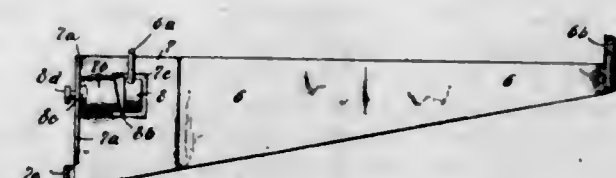


1. A wheel assembler embodying a bed plate having a central opening and a series of radial slots therethrough, a hollow pedestal supporting the bed plate, slides working in the slots, upstanding wheel engaging shoes carried by the slides, a ring mounted to rotate on the pedestal below the bed plate, pitmen connecting the ring and lower faces of the slides, and simultaneously operable independent

mechanisms mounted on the bed plate around the shoes and connected thereto for operating them.

2. A wheel assembler embodying a bed plate having a central opening and a series of radial slots therethrough, slides working in the slots flush with the upper face of the bed plate, the edges of the slides and slots having interengaging tongues and grooves, upstanding wheel engaging shoes detachably secured to the upper faces of the slides, a member rotatable below the bed plate, pitmen connecting the rotatable member and the lower faces of the slides, a series of fluid pressure cylinders mounted on the bed plate around the shoes, and pitmen working in the cylinders and having piston rods projecting inwardly and detachably connected to the respective shoes.

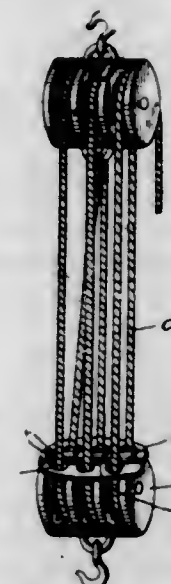
1,080,639. ADJUSTABLE BRACKET. MORRIS KURTZON, Chicago, Ill. Filed Dec. 28, 1912. Serial No. 739,008. (Cl. 248-19.)



1. An adjustable bracket comprising an arm having flanges extending at right angles thereto and laterally projecting lugs at its inner end, and provided with an apertured boss, in combination with a bolt rotatably mounted in said boss, and having a tongue at its inner end, and a head at its outer end, said boss and head having co-acting cam-face portions whereby the rotation of the bolt will cause a longitudinal movement of the bolt, a pin projecting from said head, and means for supporting said bracket, said means adapted to be clamped by said lugs and tongue.

2. A bracket consisting of an arm having lateral flanges and lugs at its inner end, and having an apertured boss near said inner end the forward edges of said boss being inclined, a bolt rotatably mounted in said boss and having a head with inclined edges adapted to cooperate with the inclined edge of said boss whereby the rotary movement of the bolt will cause it to move longitudinally relative to said bracket, means for facilitating the rotary movement of said bolt, and said bolt provided with a tongue at its inner end in combination with a supporting bar having apertures adapted to receive said tongue and the lugs on said arm, substantially as set forth.

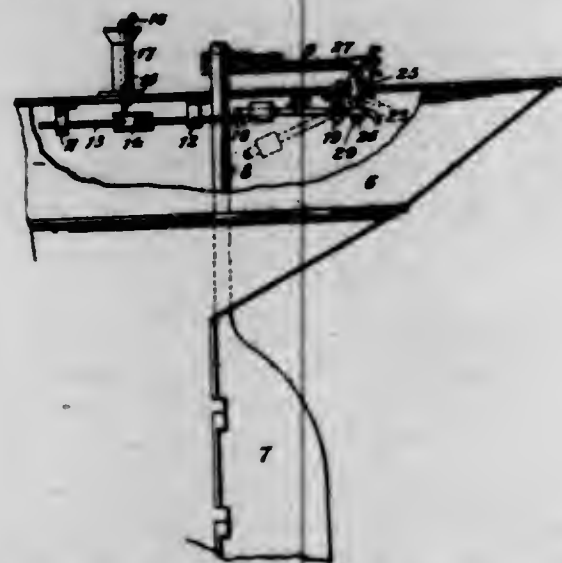
1,080,640. NON-TOPPLING BLOCK. ALLEN E. J. LUCK-HURST, Ridgewood, N. J. Filed July 18, 1912. Serial No. 710,243. (Cl. 57-34.)



The combination with a sheave block of a plate of sufficient weight to keep the ropes under tension, said weight being directly fitted upon and rigidly secured to the top of said block and extending at each side thereof free from

the block, each of said projecting portions being provided with a plurality of apertures corresponding in number with the number of sheaves in said block and in alignment therewith, the walls of said apertures being adapted to engage the rope above said block, as and for the purpose set forth.

1,080,641. RUDDER-LOCK. KJELD LUND, Southport, N. C. Filed Feb. 5, 1913. Serial No. 746,338. (Cl. 114—172.)



1. The combination of a rudder, a sector connected therewith and having an aperture therein, a stopper-block below the sector capable of movement to locking position of contact with the under side of the sector and into engagement with the aperture thereof, a lever in engagement with said stopper-block and movable to raise the latter to locking position, a slide normally in engagement with said lever and holding the lever and stopper-block out of locking position, and means whereby said slide is moved from locking position with respect to said lever.

2. The combination of a rudder, a sector connected therewith and having an aperture therein, a stopper-block below the sector capable of movement to locking position of contact with the under side of the sector and into engagement with the aperture thereof, a weighted lever in engagement with said stopper-block and operable to raise the latter to locking position, a slide normally in engagement with said lever and holding the lever and stopper-block out of operation, said slide comprising a yoke, and an eccentric in said yoke.

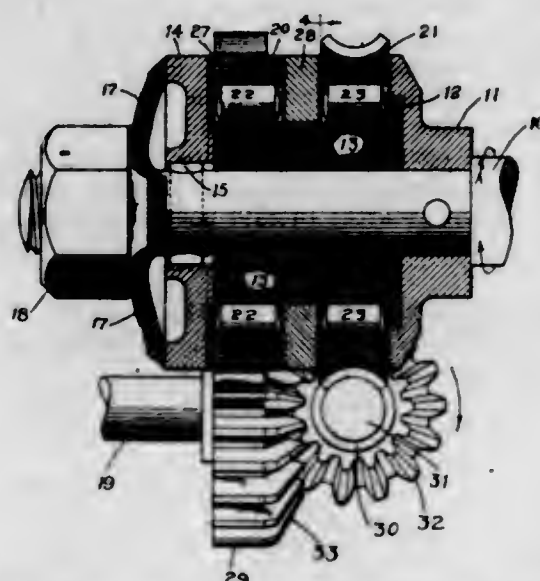
3. The combination of a rudder, a sector connected therewith and having an aperture therein, a vertically-movable stopper-block below the sector capable of movement to locking position of contact by its upper end with the under side of said sector and into engagement with the aperture thereof and having in its lower end a slot, a lever having an end disposed in the slot of said stopper-block and operable to raise the stopper-block to locking position, and means normally retaining said lever in inoperative position and operable to release said lever and permit said stopper-block to be moved to locking position.

1,080,642. STARTING MECHANISM. MERLE MACFARLAND, Maplewood, N. J., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed Jan. 6, 1913. Serial No. 740,411. (Cl. 74—59.)

1. Mechanism of the character described comprising a driving member having peripheral recesses with inclines extending in opposite directions, driving rings outside the driving member, rolls between the inclines and the rings, a driven member with which the driving member has frictional engagement, means for retaining said members in engagement and driving connections at fast and slow speeds engaging the driving rings respectively.

2. Mechanism of the character described comprising a driving member, a driven member, yielding means bearing against the driving member for locking said members

together by frictional engagement, driving rings, rolls intermediate said members and rings, and fast and slow speed driving connections engaging said rings respectively.



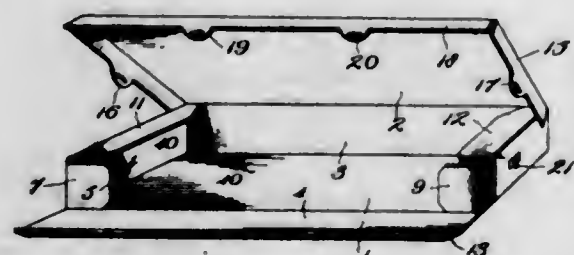
3. Mechanism of the character described comprising a driving member having peripheral recesses with inclines extending in opposite directions, driving rings, rolls between the inclines and the rings, a driven member with which the driving member has frictional engagement, a sliding disk bearing against the driving member, a retaining washer for the rolls, a spring bearing against the disk and fast and slow speed driving connections engaging said rings respectively.

4. Mechanism of the character described comprising a driving member having peripheral recesses with inclines extending in opposite directions, driving rings, rolls between the inclines and the rings, a driven member, a friction washer between said members, a sliding disk, a spring acting to hold the disk and the driving and driven members in frictional engagement, and fast and slow speed driving connections engaging the driving rings respectively.

5. Mechanism of the character described comprising a driving member having peripheral recesses with inclines extending in opposite directions, driving rings, rolls between the inclines and the rings, a driven member, a sliding disk, means for retaining the rolls in the driving ring contiguous to the sliding disk against endwise displacement, yielding means for locking the sliding disk and the driving and driven members together by frictional engagement and fast and slow speed driving connections engaging the driving rings respectively.

[Claims 6 to 17 not printed in the Gazette.]

1,080,643. COLLAPSIBLE BOX. DENNIS H. MAGUIRE, Williamsport, Pa., assignor to one-half to Carl W. S. Rothfuss, Williamsport, Pa. Filed Apr. 19, 1913. Serial No. 762,297. (Cl. 229—16.)



1. In a paper box made from a single blank, the combination of a bottom; side and end walls integral with and each of smaller dimensions than said bottom; a pair of flaps integral with each end wall and of the same height in the completed box as said side walls; an overlying holding flap also integral with each end wall adapted to rest on said first mentioned flaps and to extend over a portion

of said bottom when the box is formed; an overlying flap integral with one of said side walls adapted to lie loosely over a relatively small portion of said bottom; a top integral with the other of said side walls; fastening means on said end walls and on one of said side walls and flaps integral with said top on three sides thereof provided with securing means comprising integral perforated ears coacting with said fastening means and adapted to surround, reinforce and support said side and end walls, substantially as described.

2. In a paper box made from a single blank, the combination of a bottom; a pair of side and end walls integral with said bottom; a pair of flaps integral with each end wall and adapted to be folded at right angles thereto; and overlying flaps also integral with each end wall adapted to rest on said first mentioned flaps and extend over a portion of said bottom to provide a pocket when the box is formed; an overlying flap integral with one of said side walls also adapted to extend over a portion of said bottom to form a pocket; and a top integral with the other of said side walls, substantially as described.

1,080,644. SELF-HEATING SOLDERING-IRON. ROY W. MARVELL, Baltimore, Md., assignor, by mesne assignments, to Lyon, Conklin & Company, a Corporation of Delaware. Filed Jan. 24, 1912. Serial No. 673,269. (Cl. 158—27.)

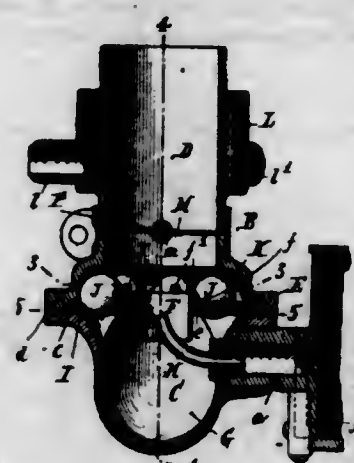


1. In a soldering iron, the combination with a valve body and valve, of a mixing tube provided with air ports immediately adjacent the valve, a combustion chamber at the opposite end of said tube, the inner diameter of the tube being restricted at the point of entry to said combustion chamber, a soldering tip at the outer end of said chamber, the chamber being provided with a multiplicity of fuel holes, the combined area of said holes decreasing from the base of said tip toward the opposite end of the chamber.

2. In a soldering iron, the combination of a mixing tube, a valve body at one end thereof, an enlarged inclosed combustion chamber at the other end of said tube, a solid soldering point screwed in the outer end of said chamber, said point having a solid substantially flat base exposed to flame in said chamber, a valve in the valve body for supplying fuel to the base of the mixing tube, air-supply openings in the tube adjacent to the valve, the mixing tube being unapertured from said openings to the combustion chamber, the mixing tube being also provided with a restricted throat or nozzle at the point of entry into the combustion chamber, the combustion chamber being provided on all sides with a multiplicity of fuel holes, the combined area of said holes decreasing from the base of the soldering point toward the other end of the chamber.

3. In a soldering iron, the combination of a reservoir, a fuel conduit, a valve body secured at one end of the fuel conduit, a mixing tube secured to the valve body, a valve within the valve body, said valve discharging into one end of the mixing tube, the mixing tube being provided with air supply openings adjacent to the valve, a combustion chamber at the end of the mixing tube, the mixing tube being provided with a constricted nozzle at the point of entry into the combustion chamber, a soldering point secured in the outer end of the combustion chamber, the combustion chamber being provided with a multiplicity of fuel holes, said holes being provided closer together and in greater number adjacent to the base of the soldering point, and decreasing in number and being spaced farther apart toward the opposite end of the combustion chamber.

1,080,645. CARBURETER. GODFRIED J. MAYER, Buffalo, N. Y. Filed June 1, 1909. Serial No. 499,489. (Cl. 48—155.2.)



1. In a carbureter, the combination with a casing having an air-inlet and a mixture-outlet, a horizontal wall located between said inlet and said outlet and provided with a central opening and a circular series of openings of different diameters surrounding said central opening, globular valves of equal diameter held by gravity in said circular series of openings, a reducing-sleeve removable in said central opening, an aspirating-nozzle extending into and terminating within said reducing-sleeve, and a throttle-valve between said aspirating-nozzle and said mixture-outlet.

2. In a carbureter, the combination with a casing having an air-inlet and a mixture-outlet and divided transversely between said inlet and outlet to provide two connected sections, one of which is enlarged at its connected end to provide an internal shoulder, of a disk held between said sections and having a central threaded opening and a circular series of valve openings of different diameters surrounding said central opening, globular valves of equal diameter seated in said valve-openings and limited in their opening movement by said internal shoulder, a reducing sleeve in said central opening, an aspirating-nozzle terminating within said reducing-sleeve, and a throttle-valve between said aspirating-nozzle and said mixture-outlet.

3. In a carbureter, the combination with a casing having an air-inlet and a mixture-outlet and divided transversely between said inlet and outlet by a horizontal wall provided with a central opening and a circular series of valve-openings surrounding said central opening, globular valves seated in said valve-openings, a reducing-sleeve removable in said central opening and having upstanding retainer elements guiding said globular valves and retaining them in alignment with said openings, an aspirating-nozzle terminating within said reducing-sleeve and a throttle-valve between said aspirating-nozzle and said mixture-outlet.

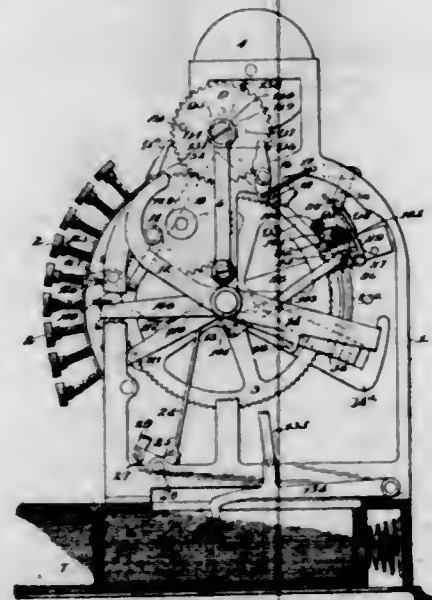
4. In a carbureter, the combination with a casing having an air-inlet and a mixture-outlet, of a wall dividing said casing into two chambers and having a central threaded opening and a series of valve-openings, gravity valves of equal size closing said valve-openings, a sleeve threaded into said central opening, an aspirating-nozzle terminating within said sleeve, and a throttle-valve between said aspirating-nozzle and said mixture-outlet.

1,080,646. CASH-REGISTER. JOHN H. MCCORMICK, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Dec. 30, 1907. Serial No. 664,602. (Cl. 235—3.)

1. In a cash register of the class described the combination with a registering mechanism, of an indicating device, a printer, operating devices for the register, and pivoted levers connected at their opposite ends to the indicator, and the printer and adapted to be operated by said operating devices.

2. In a cash register of the class described the combination with registering, indicating and printing mecha-

nisms, of operating yokes for said registering mechanism, levers connected to the indicating and printing mechanisms and adapted to be engaged by the said yokes, and locking devices for locking said levers to said yokes during a portion of the movements of the latter.



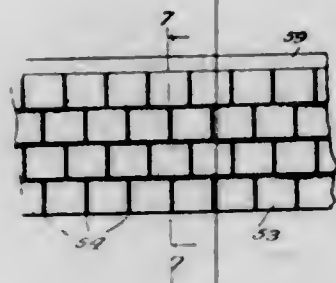
3. In a cash register of the class described the combination with a register, of a series of keys, a series of pivoted stop segments having step projections and arranged to be limited in their movements by abutting against said keys, a printer and connections between the latter and said stop segments, including intermeshing gearing.

4. In a cash register the combination with a register comprising a plurality of registering wheels, operating levers for said wheels, operating pawls mounted on said levers so as to engage said wheels, operating devices for said levers, racks independent of said devices but arranged to be operated by the same, and a check printing device operated by said racks.

5. In a cash register the combination with a register comprising a plurality of registering wheels, of operating devices for said wheels, indicators, a printer, and means connected to the indicators and printer and arranged to be set by the operating devices and left in said set positions while said devices subsequently operate the registering wheels.

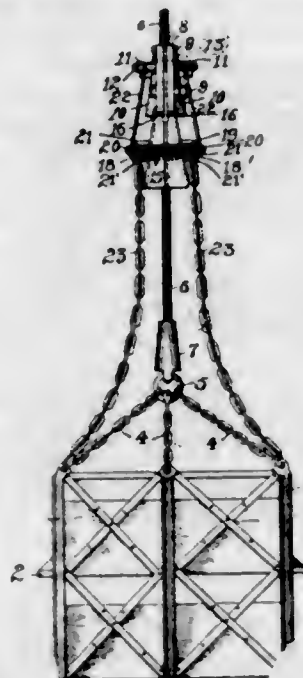
[Claims 6 to 79 not printed in the Gazette.]

1,080,647. ROOFING. WILLIAM F. MCKAY, La Grange, Ill. Filed Dec. 7, 1911. Serial No. 664,415. (Cl. 108-5.)



An article of manufacture comprising a continuous weather-proofed sheet of felt of uniform thickness having a deposit of mastic asphalt-like substance superposed thereon, said substance formed into a series of longitudinally-extending transversely-tapering courses, each course having impressed therein, at intervals, kerfs in staggering relation with reference to the adjoining courses, said kerfs extending through the mastic material to the weather-proofed felt sheet, and a marginal flat surface, provided by the felt sheet only at one edge for lap-joint association with a like adjoining structure.

1,080,648. SAFETY-CATCH FOR MINING-CAGES. COLIN METHVEN, Hermitage, Pa. Filed Nov. 14, 1912. Serial No. 731,300. (Cl. 187-71.)



1. In a safety device for hoist cables, a hoist cable, clamping members gripping the same, there being inclined ribs on the clamping members, a pair of cable-clamping members pivoted to the bottom of the first named clamping members and having their outer faces inclined, a pair of wedge-blocks cooperating with the inclined ribs, a pair of wedge-blocks cooperating with the inclined faces of the lower clamping members, links connecting the upper and lower pairs of wedge-blocks, a load attached to the cable, and bridle-chains connecting the load and the lower wedge-blocks.

2. In a safety device for hoist cables, a hoist cable, clamping members gripping the same, there being inclined ribs on the clamping members, a pair of cable-clamping members pivoted to the bottom of the first named clamping members and having their outer faces inclined, a pair of wedge-blocks cooperating with the inclined ribs, a pair of wedge-blocks cooperating with the inclined faces of the lower clamping members, links connecting the upper and lower pairs of wedge-blocks, a load attached to the cable, and bridle-chains connecting the load and the lower wedge-blocks, the pivotal connection between the upper and lower clamping members permitting lateral movement of each independently of the other.

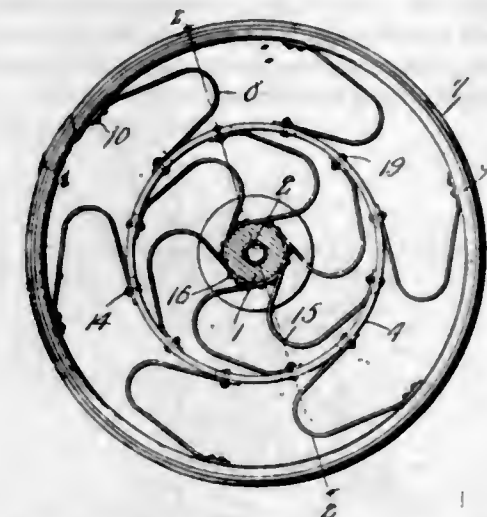
3. In a safety device for hoist cables, a hoist cable, two pairs of cable gripping members having diametrically opposite wedging surfaces, pairs of wedge-blocks adapted to cooperate with the said wedging surfaces to cause the gripping members to grip the cable, means connecting the members of each pair of wedge-blocks, means connecting the pairs of wedge-blocks, a load connected to the cable below the gripping members, and bridle-chains connecting the load and the gripping members.

4. In a safety device for hoist cables, a hoist cable, a pair of cable-clamping members having vertical slots at each side of the cable, there being a wedge-shaped surface on each clamping member, wedge-blocks slidable on the said surfaces, tie-bars extending through the slots and connected to the wedge-blocks, a load connected to the cable below the clamping members, and means connecting the load to the wedge-blocks.

5. In a safety device for hoist cables, a hoist cable, a pair of cable-clamping members having vertical slots at each side of the cable, there being a wedge-shaped surface on each clamping member, wedge-blocks slidable on the said surfaces, tie-bars extending through the slots and connected to the wedge-blocks, a load connected to the cable below the clamping members, and means connecting the load to the wedge-blocks, the cooperating faces of the wedge-blocks and the clamping members having tongue-and-groove connections.

[Claims 6 to 8 not printed in the Gazette.]

1,080,649. SPRING-WHEEL. ABRAHAM MORGAN, Independence, Mo. Filed Oct. 17, 1912. Serial No. 726,330. (Cl. 152-28.)



1. In a wheel, a hub; a rim; a resilient ring interposed between the hub and the rim; springs connecting the ring with the rim; springs connecting the ring with the hub; the adjacent ends of the springs being adjustable upon the ring, circumferentially of the ring, to vary the tension of the springs; and means for securing the adjacent ends of the springs to the ring.

2. In a wheel, a hub; a rim; a resilient ring interposed between the hub and the rim, springs interposed between the ring and the rim; springs interposed between the ring and the hub; the springs being provided with slots extending circumferentially of the ring and securing devices connected with the ring, the securing devices being adjustable in the slots to vary the tension of the springs.

3. In a wheel, a hub; a rim; a resilient ring interposed between the hub and the rim; arched springs located between the ring and the rim and connected at their outer ends with the rim; arched springs located between the ring and the hub and connected at their inner ends with the hub; the adjacent ends of the springs and the ring being provided with slots which extend circumferentially of the wheel; and securing devices adjustable in the slots of the springs and of the ring, thereby to permit the adjacent ends of the springs to be shifted circumferentially of the wheel, to vary the tension of the springs.

1,080,650. FILING-CABINET FOR CREDIT-SLIPS. WILLIAM H. MUZZY, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Filed Sept. 18, 1905. Serial No. 278,955. (Cl. 235-7.)



1. The combination with a cash register, of a series of independently accessible credit slip receptacles normally inaccessible, means for selecting and exposing a desired receptacle, and locking devices dependent upon the operation of the register for unlocking the selecting means.

2. The combination with an accounting machine, of an operating mechanism therefor, a series of independently accessible credit slip receptacles, keys for rendering a de-

sired receptacle accessible, and means controlled by the operating mechanism of the accounting machine for governing said keys.

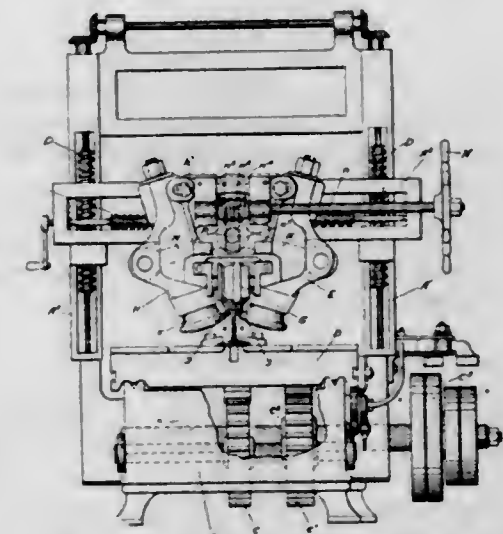
3. The combination with an accounting machine, of an operating mechanism therefor, a series of independently movable credit slip receptacles, a series of keys for moving the receptacles to render them accessible, and controlling devices for the keys governed by the operating mechanism of the accounting machine.

4. The combination with an accounting machine, of an operating mechanism therefor, a series of credit receptacles, a series of keys, means connecting the keys to the respective receptacles for exposing the latter, and a controlling means for the keys governed by the operating mechanism of the accounting machine.

5. The combination with a cash register, of a series of credit slip receptacles, controlling means for said receptacles, and electrical devices governing said means and controlled from the cash register.

[Claims 6 to 26 not printed in the Gazette.]

1,080,651. MACHINE FOR WORKING ON COMPOUND RAILS. JOHN NOLL, New York, N. Y., assignor to Continuous Rail Company, Wilmington, Del., a Corporation of Delaware. Filed May 20, 1912. Serial No. 698,607. (Cl. 153-28.)



1. In a device of the class described for working on compound rails, the combination of a longitudinally reciprocating bed, a pressing means for engaging and forcing work toward the bed, and operating tools for engaging opposite sides of a work-piece as it passes under the pressing means, said operating tools being mounted on a head which is free to move parallel to the bed and transversely relative to the bed when the tools are operating.

2. In a device for working on compound rails, the combination of a horizontally reciprocating bed, means for reciprocating the same, pressing means located above the bed which forces the work-piece against the bed, and rotary compression rollers opposed to each other for engaging the sides of the work-piece as it passes under the pressing means, said rollers being mounted on a head that is free to move transversely of the bed when operating on the work-piece.

3. In a device for working on compound rails, the combination of a reciprocating table, a head freely movable in a direction parallel to but transversely of the reciprocating table, said head carrying thereupon a pressing roller for forcing the work against the table and opposing rotary tools for engaging opposite sides of the rail passing under the pressing roller.

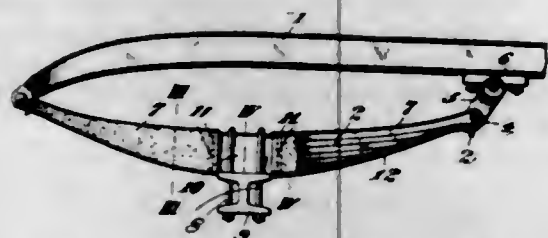
4. In a machine for working on compound rails, the combination of a reciprocating table serving as a holding and supporting member, a roller opposed thereto for forcing the rail sections together when on the supporting member, and opposing bending rollers to engage the side portions of the rail, the supporting member and rollers so arranged that the side portions of the rail can be progressively engaged by the bending rollers, the rollers being

on shafts that are mounted in bearings on a head which is free to move transversely relative to the table when the rollers are operating.

5. A machine for working on compound rails comprising a frame supporting a horizontally and longitudinally movable reciprocating bed provided with work piece securing means thereupon, and a head which is free to move horizontally and transversely relative to the bed, said head having a pressure roller whose axis extends horizontally and transversely relative to the bed and opposing rotary tools whose axes extend vertically and transversely relative to the bed and which tools have work engaging portions arranged to engage the sides of the work piece as the sections constituting the rail pass under the pressing rollers and at a time when one of said sections is secured to the bed by the securing means.

[Claim 6 not printed in the Gazette.]

1,080,652. SPRING-COVER. ARTHUR E. PETERS, Westmont borough, Pa. Filed May 13, 1913. Serial No. 767,246. (Cl. 21—50.)



1. A spring cover composed of flexible material adapted to closely inclose a leaf spring and provided with means for laterally and separate means for longitudinally securing the same in position.

2. A spring cover composed of flexible material adapted to closely inclose the end portions of a leaf spring, means for laterally securing the same thereon, and a comparatively inflexible central portion secured to said end portions.

3. A spring cover composed of flexible material adapted to closely inclose a leaf spring, and a stiffener secured to said cover and extending longitudinally of said spring adapted to prevent creeping or longitudinal movement of said cover.

4. A spring cover composed of end portions of flexible material adapted to closely fit the projecting resilient ends of a leaf spring, means for securing same laterally, and a stiff metallic portion adapted to fit the central portion of said spring and secured to said end portions, whereby said cover is retained in position laterally and longitudinally.

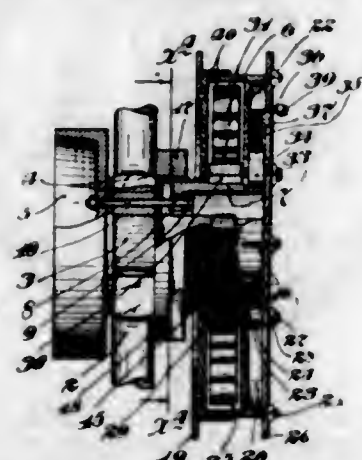
5. A spring cover composed of flexible material adapted to closely fit the projecting resilient part of a leaf spring, lacing holes in the adjoining edges of said material, a lace passed through said holes adapted to secure the same laterally, and a stiffening member secured to said flexible material and extending longitudinally of said spring.

[Claims 6 and 7 not printed in the Gazette.]

1,080,653. EMERGENCY-WINDLASS FOR AUTOMOBILES. LEONARD O. PILLSBURY, Crocker, S. D. Filed May 3, 1912. Serial No. 694,339. (Cl. 242—95.)

1. The combination with an automobile wheel, of a windlass drum hub secured to said wheel, a windlass drum loosely journaled on said hub, a cable secured to said drum and adapted to be anchored at a distant point, means for causing said drum to rotate with its hub during the winding of said cable thereon, but permitting rotation of the drum on its hub during the unwinding of said cable, and a spiral spring loosely coiled about said hub, at its inner end, and anchored at its outer end to said drum, said spring tending to rotate the drum on its hub, in advance of the speed at which it is being rotated by said hub, to take up the slack in the cable, but permitting said drum to be rotated on its hub during the unwinding of the cable, substantially as described.

2. The combination with an automobile wheel, of a clutch ring secured to said wheel, a hub equipped windlass drum, said hub having detachable interlocking engagement with said clutch ring, and a set nut having threaded engagement with the hub of said windlass drum and engageable with said wheel, as a base of resistance, to frictionally clamp the opposing faces of said hub and clutch ring together, substantially as described.



3. The combination with an automobile wheel, of a clutch ring having retaining lugs, bolts adjustably and detachably securing said clutch ring to said wheel, a hub equipped windlass drum, said hub having retaining lugs for detachable interlocking engagement with the lock lugs of said clutch ring, and stop pins on said hub engageable with said bolts to limit the rotary movement of said hub with respect to said wheel.

4. The combination with an automobile wheel, of a clutch ring having retaining lugs, bolts adjustably and detachably securing said clutch ring to said wheel, a hub equipped windlass drum, retaining lugs on said hub for detachable interlocking engagement with the lock lugs of said clutch ring, stop pins on said hub engageable with said bolts to limit the rotary movement of said hub with respect to said wheel, a set nut having threaded engagement with the hub of said windlass drum and engageable with said wheel, as a base of resistance, to frictionally clamp the opposing faces of said retaining lugs and said clutch ring together, substantially as described.

5. The combination with an automobile wheel, of a clutch ring having retaining lugs, bolts adjustably and detachably securing said clutch ring to said wheel, a thrust ring on said wheel, a hub equipped windlass drum, retaining lugs on said hub, for detachable interlocking engagement with the lock lugs of said clutch ring, stop pins on said hub engageable with said bolts to limit the rotary movement of said hub with respect to said wheel, a set nut having screw threaded engagement with the hub of said windlass drum and engageable with said thrust ring, as a base of resistance, to frictionally clamp the opposing faces of said retaining lugs and said clutch ring together, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

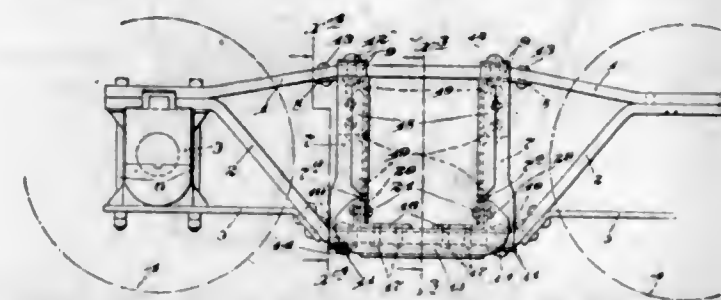
1,080,654. CAR-TRUCK. EDWARD POSSON, Chicago, Ill. Filed Mar. 15, 1913. Serial No. 754,629. (Cl. 105—105.)

1. In a truck side frame, top and bottom arch bars, and bolster columns, which columns have projecting ends lapped around said arch bars and overlapped with each other.

2. In a truck side frame, top and bottom arch bars, and bolster columns, which columns have projecting ends lapped around said arch bars and overlapped with each other, and rivets passed through said arch bars and the lapped ends of said columns.

3. In a truck side frame, top and bottom arch bars and channel-shaped pressed metal columns having the ends of their side flanges lapped around said arch bars and overlapped with each other, and having the upper and lower ends of their webs bent laterally to form head and foot flanges engaging, respectively, with the bottom of the top arch bar and with the top of the bottom arch bar.

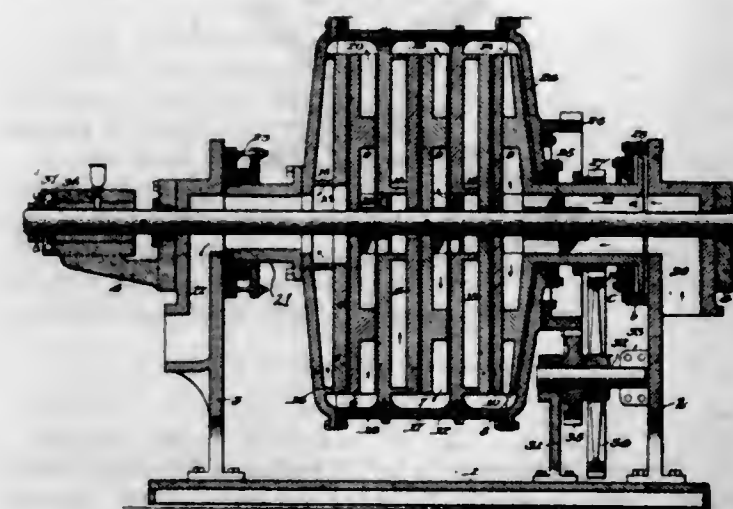
4. In a truck side frame, top and bottom arch bars and channel-shaped pressed sheet metal columns having the ends of their side flanges lapped around said arch bars and overlapped with each other, and having the upper and lower ends of their webs bent laterally to form head and foot flanges engaging, respectively, with the bottom of the top arch bar and with the top of the bottom arch bar, and rivets passed through the said arch bars and through the lapped end flanges and head and foot web flanges and rigidly uniting the said parts.



5. In a truck side frame, the combination with top and bottom arch bars, of pressed metal columns having flanged ends riveted to said arch bars, a column base having up-turned ends riveted to said columns, and transoms seated in the end angles of said column base and secured thereto and to the bottom arch bar and to the said columns by rivets.

[Claims 6 to 12 not printed in the Gazette.]

1,080,655. CENTRIFUGAL PUMP. WILLIAM KING RICHARDSON, Leavenworth, Kans. Filed Sept. 3, 1912. Serial No. 718,342. (Cl. 124—1.)



1. In a machine whose operation involves a moving fluid, the combination with a high speed driven rotor and a low speed fluid actuated rotor operating in the same direction and arranged to receive fluid delivered from said high speed rotor, said rotors having a fluid interposed between them, of a rotary casing inclosing said rotors and attached to one of them, and means for maintaining constant the relative speeds of said rotors.

2. In a machine whose operation involves a moving fluid, the combination with a driven element from which fluid in motion is delivered, of a structurally independent fluid actuated mechanism operated by the kinetic energy of the fluid due to friction, and also by the fluid delivered from the driven element and from which fluid is delivered under pressure, means for transmitting power from said fluid actuated mechanism and for maintaining constant the relative speeds of said elements.

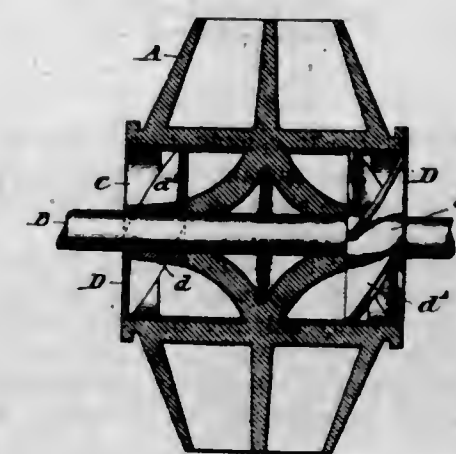
3. In a centrifugal machine, the combination with a high speed rotor from which fluid under motion and pressure is delivered, of a low speed fluid actuated rotor operated by the fluid so delivered and from which fluid is delivered under pressure, a rotary casing inclosing said rotor elements and attached to one of them, and positive means for transmitting power engendered by the kinetic energy of the fluid in contact with the fluid actuated rotor to the driving mechanism of the high speed rotor.

4. In a machine whose operation involves a moving fluid, the combination with a high speed driven rotor fixed upon a shaft, a low speed fluid actuated rotor journaled upon said shaft and operating in the same direction and arranged to receive fluid delivered from said high speed rotor and having a fluid interposed between them, a rotary casing inclosing said rotors and attached to one of them, and means for maintaining constant their relative speeds.

5. In a machine whose operation involves a moving fluid, the combination with a set of driven rotors from which fluid in motion is delivered, of a set of fluid actuated rotors alternately arranged with respect to the driven rotors, and operated by the fluid so delivered, a rotary casing inclosing said sets of rotors and secured to one set of them, and means for connecting said casing and the other set of rotors to the driving mechanism of the driven rotors and maintaining constant the relative speeds of said sets of rotors.

[Claim 6 not printed in the Gazette.]

1,080,656. CENTRIFUGAL PUMP. WILLIAM K. RICHARDSON, Leavenworth, Kans. Filed Apr. 23, 1913. Serial No. 763,175. (Cl. 103—43.)



1. In a centrifugal machine, the combination with a rotor adapted to subject fluid to pressure due to centrifugal force, of a plurality of blades in position to deliver fluid into the eye of said rotor and revolve therewith, said blades being inclined toward the rotor in a direction opposite to the direction of rotation, and having a calculated translatory displacement approximately twice the rated volume designed to pass the screw.

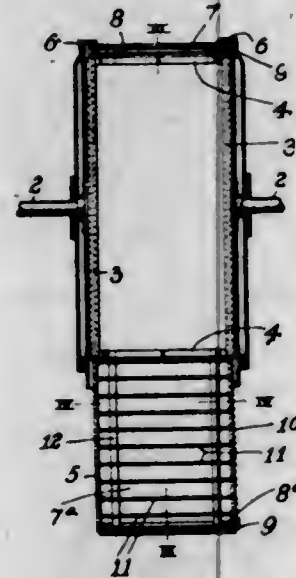
2. In a centrifugal machine, the combination with a rotor adapted to subject fluid to pressure due to centrifugal force, of a screw mounted on a shaft coaxial with said rotor and having blades in position to deflect fluid into the eye of said rotor and revolve therewith, said pitch of said screw being approximately such that twice the volume delivered past the screw according to the rated capacity of the machine is equal to the calculated translatory displacement of the screw.

3. In a centrifugal machine, the combination with a rotor adapted to subject fluid to pressure due to centrifugal force, of a screw mounted on a shaft coaxial with the said rotor and having blades in position to deflect fluid into the eye of said rotor, and revolve therewith, said blades having a total circumferential length such that they encircle the shaft, the pitch of said screw being approximately such that twice the volume delivered past the screw according to the rated capacity of the machine, is equal to the area of the cross section of the tubular space surrounding the shaft which is traversed by the blades in their revolution, multiplied by the pitch, multiplied by the number of revolutions.

4. In a centrifugal machine, the combination with a rotor adapted to subject fluid to pressure due to centrifugal force, of a screw in position to deliver fluid into the eye of said rotor and revolve therewith, the number of blades being equal to the pitch divided by the length of the screw, said blades having a total circumferential length such that they encircle the shaft, the pitch of said screw

being approximately such that twice the volume delivered past the screw according to the rated capacity of the machine, is equal to the calculated translatory displacement of the screw.

1,080,657. PROPELLER. EDWARD A. RICHTER, Pittsburgh, Pa. Filed Apr. 23, 1910. Serial No. 557,240. (Cl. 170-143.)



1. A propeller having in combination a driving member, a rigid skeleton element movably mounted in the driving member, a filling for the skeleton element variable in area by movement of said element.

2. A propeller having in combination a driving member, a rigid skeleton element mounted in the driving member, means for longitudinally shifting the said element whereby its opposite ends are caused to extend alternately beyond the driving member, fillings for the skeleton element oppositely variable in areas by the movement of the element.

3. A propeller having in combination a plurality of wings or blades having collapsible pressure or operative surfaces, means for moving such surfaces radially to vary their areas and means engaging the edges of the variable surfaces for maintaining the latter in planes substantially at right angles to the direction of rotation of the propeller.

4. A propeller having in combination a driving member, a skeleton element, means for shifting said element longitudinally of the driving member, fillings for said element, and a common means for simultaneously varying the areas of oppositely disposed fillings said means being operative by the skeleton element in its movements.

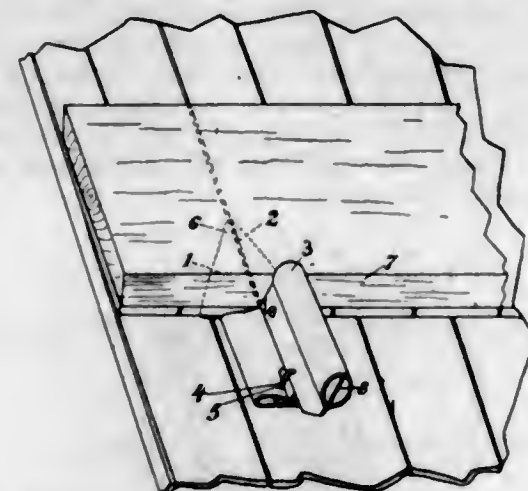
5. A propeller having in combination a plurality of wings or blades having variable pressure surfaces and a common positive operating means for radially increasing and decreasing respectively the areas of oppositely disposed surfaces.

1,080,658. BRACKET FOR USE IN SHINGLING ROOFS. HERBERT G. ROUNDS, Bay City, Mich. Filed Mar. 19, 1913. Serial No. 755,420. (Cl. 20-85.)

1. A shingling bracket comprising a flat base adapted to be inserted between two layers of shingles; a centrally disposed longitudinal rib on said base; a stop on said base; a lever pivotally secured near its front end to said rib and adapted when raised to project beyond said stop, a staple pivotally mounted on the lever near the rear end thereof, said staple passing through openings formed in the rear end of said base.

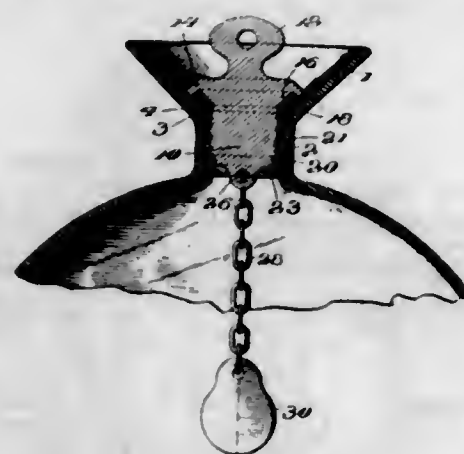
2. A shingling bracket comprising a flat pointed base formed with a centrally disposed longitudinal rib, the side members of the rear part of said base being folded upwardly and inwardly; a lever pivotally secured near its front end to said rib, the front end of the lever adapted to project beyond the said folded part of the base when the handle is raised, a staple pivotally mounted on the lever

near the rear end thereof, said staple passing through openings formed in the rear folded end of said base.



3. A shingling bracket comprising a flat base formed with a centrally disposed longitudinal rib, the side members of the rear part of said base being folded upwardly and inwardly; a lever pivotally secured near its front end to the base, a staple pivoted to the lever near its rear end, said staple passing through openings formed in the rear end of said base.

1,080,659. STOPPER FOR HOT-WATER BOTTLES. CHARLES F. SCHUH, Newark, N. J., assignor of one-half to Robert J. Wilkie, Saugus, Mass. Filed July 23, 1912. Serial No. 711,165. (Cl. 215-52.)



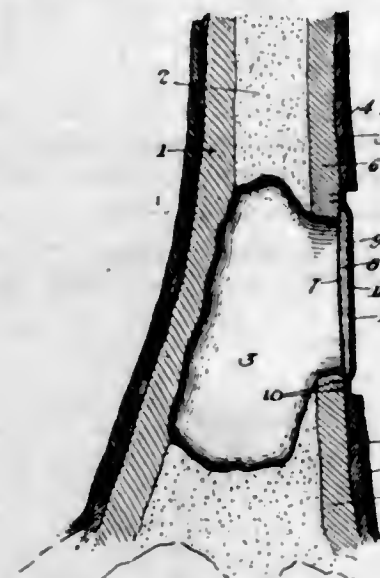
1. The combination of a bottle having a flared or funnel shaped neck, a screw threaded socket member secured therein having an outwardly flared portion at its upper end formed substantially at the same angle as the said funnel shaped neck of the bottle, a stopper arranged to screw in said screw threaded socket member having an annular seat for a gasket, and a gasket of flat form rectangular in cross section, located in said seat, said seat and said gasket being located substantially parallel with the outwardly flared portion of said socket member, and said outwardly flared portion extending substantially to the height of the gasket, whereby when the stopper is screwed into the socket member, the gasket will be moved against said outwardly flared portion, substantially as described.

2. The combination of a bottle having a flared or funnel shaped neck, a screw threaded socket member secured therein having an outwardly flared portion at its upper end formed at substantially the same angle as the said funnel shaped neck of the bottle, a stopper arranged to screw in said screw threaded socket member and having a seat for a gasket, and a gasket located in the seat in said stopper, said seat and said gasket being substantially parallel to the outwardly flared portion of said socket member, and the seat having a shoulder substantially under one edge of the gasket, whereby when the stopper is unscrewed the gasket, owing to its being inclosed in the stopper and having the shoulder of the seat under one of its edges, will be positively moved out of contact with

the outwardly flared wall of the socket member, substantially as described.

3. The combination of a bottle having a screw threaded neck, a stopper arranged to be screwed within said neck, and a retaining device hanging within the bottle from the inner end of the stopper, said retaining device being formed of a rigid piece of metal bent before its insertion through the neck of the bottle to a size to pass through said neck and after its insertion in the bottle bent to a size too large to pass through the bottle neck, substantially as described.

1,080,660. TREE SURGERY. ROGER B. SHERMAN, Pasadena, Cal. Filed Mar. 10, 1913. Serial No. 753,431. (Cl. 47-36.)



1. The method of tree surgery which consists of removing the decayed wood from the tree and then placing a covering over the mouth of the cavity thus formed and sealing the edges of the covering to exclude moisture.

2. The method of tree surgery which consists of removing the decayed portion from the interior and removing the bark and cambium to expose the sap wood around the edge of the opening, and then securing a flexible seal directly to the sap wood to facilitate the growth of the cambium and bark over the edges of the seal.

1,080,661. TABLEWARE. CHARLES F. SMITH, New Britain, Conn. Filed Mar. 17, 1911. Serial No. 615,022. (Cl. 30-9.)

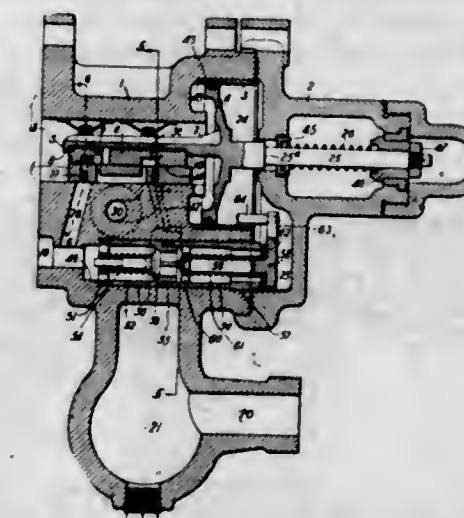


An article of table ware comprising a handle formed from a sheet metal blank, with two similarly shaped and oppositely arranged hollow side members, a blade provided with a short flat tang fitting within one end of said handle, oppositely extending projections from the sides of the handle near one end thereof adapted to engage the sides of said shank at spaced points to clamp it in position, projections from the edges of the handle, adjacent to the first mentioned projections and adapted to engage and interlock with notches in the edges of the shank, and a coating of fusible material covering the surfaces of the handle and the shank of the blade and adapted to unite the contacting surfaces both of the handle and of the shank and handle.

1,080,662. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed Jan. 23, 1912. Serial No. 672,945. (Cl. 188-15.)

1. In a triple valve, a casing provided with ports, a U-shaped bushing in said casing provided with a seat for

a valve and with ports matching the ports in the casing, and a valve cooperating with said seat.



2. In a triple valve, a casing, a U-shaped bushing therein contacting with the casing at the bottom of the U and at the ends of the legs or sides thereof and having a valve seat formed between the legs or sides of the U, and a valve cooperating with said seat.

3. In a triple valve, a casing having a circular bore formed therein and having a portion of the metal at each side of the bore cut out, and a U-shaped bushing fitting tightly in said bore and having the upper portions of the legs or sides occupying the spaces cut out in the sides of the bore.

4. In a triple valve, a casing having connections to the train pipe, brake cylinder, auxiliary reservoir and the atmosphere, a movable abutment and valve device actuated thereby, a passage in said casing connecting the train pipe to the brake cylinder, a shoulder in said passage, a valve cage in said passage abutting against said shoulder, a second valve casing secured in said passage and arranged to hold the first named casing against said shoulder, and a check valve in each valve casing, said check valves seating in opposite directions.

5. In a triple valve, a casing having connections to the train pipe, brake cylinder, auxiliary reservoir and the atmosphere, a movable abutment in said casing, a valve actuated by said abutment, said abutment and valve controlling communication from the train pipe to the auxiliary reservoir, from the auxiliary reservoir to the brake cylinder and from the brake cylinder to the atmosphere, a passage connecting the train pipe with the brake cylinder, a shoulder in said passage, a valve cage in said passage abutting against said shoulder, a check valve in said cage seating toward the train pipe, a second valve cage in said passage and secured therein and arranged to hold the first named casing against said shoulder, a check valve in said second cage seating away from the train pipe, and a projection on said second check valve in the path of movement of the movable abutment whereby said check valve is opened by said movable abutment at one end of its stroke.

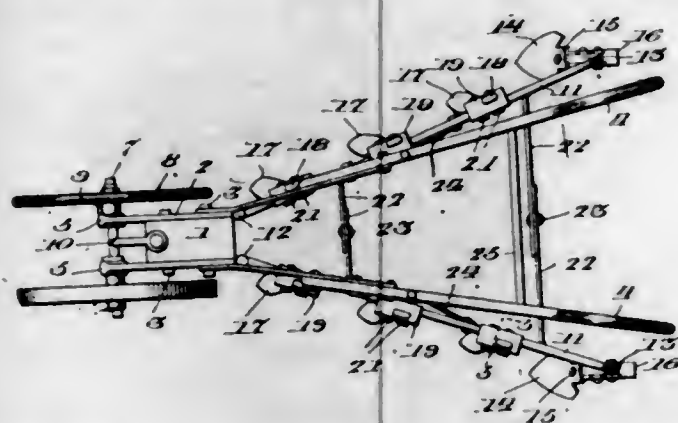
[Claims 6 to 11 not printed in the Gazette.]

1,080,663. HARROW AND CULTIVATOR. ADOLPH STAVINOH, Engle, Tex. Filed Nov. 13, 1912. Serial No. 731,137. (Cl. 97-34.)

1. A body block provided with transverse bolts, side bars mounted on the bolts and having downturned front ends provided with terminal sleeves, a wheel carrying shaft supported in the sleeves, implement carrying beams connected hingedly with the rear ends of the side bars, handles connected at their lower ends with one of the transverse bolts of the body block, link-braces connecting the handles with the beams, and means whereby the beams are connected together adjustably.

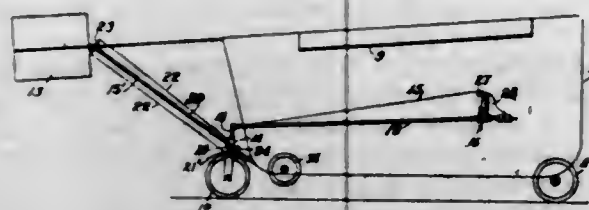
2. A body block having transverse bolts, side bars mounted on said bolts, a wheel carrying shaft supported at the front ends of the side bars, implement carrying beams connected hingedly with the rear ends of the side

bars, slotted overlapping braces connected with the beams, a fastening member adjustably connecting the overlapping ends of the slotted braces, handles connected at their



lower ends with one of the transverse bolts of the body block, handle braces connected at their lower ends with the beams, and interengaging eyes connecting the upper ends of the handle braces with the handles.

1,080,664. AEROPLANE. LOUIS A. VACHON, Newton Center, Mass. Filed Feb. 28, 1911. Serial No. 611,356. (Cl. 244-2.)



1. In combination, an aeroplane; a rudder therefor adapted to swing in the vertical plane; means normally holding one end of the apparatus at a fixed elevation when on the ground; a support for the other end on the ground; bearings whereby said support at the other end may move up and down with respect to the apparatus; a controller; and connections from the controller to said rudder and said support, whereby it moves both simultaneously in the vertical plane.

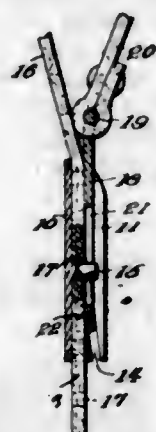
2. In combination, an aeroplane; a rudder, hung upon both horizontal and vertical axes; a supporting wheel for one end of the apparatus, adapted to run on the ground; a stem carrying the wheel and mounted on the apparatus on both horizontal and vertical axes; a controller, and bearings for it to have motion in two directions perpendicular to each other; connections from the controller to said rudder and stem, whereby the controller when moved in one of said directions operates the rudder and stem in unison about their horizontal axes, when moved in the other of its said directions operates said rudder and stem in unison about their vertical axes.

3. In combination, an aeroplane; means at each side of one end of the apparatus to support it on the ground and maintain it in equilibrium; a steering wheel at said end of the apparatus, and means whereby said steering wheel may be moved down to a position below or up to a position above said side supports; and a controller adapted to so move said wheel and to turn it for steering laterally.

1,080,665. CROSS-REIN BUCKLE. THOMAS J. VIRTUE, Chauncey, Pa. Filed Feb. 23, 1912. Serial No. 679,323. (Cl. 24-181.)

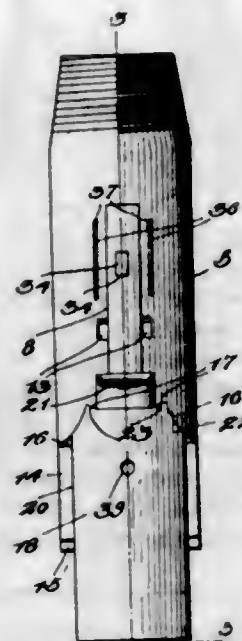
A buckle comprising a body having sides disposed at right angles to the body, said body being provided at a point midway between the sides with an upstanding tongue, the sides being of a height in excess of that of the tongue, the sides being formed with curved ends at one end of the body and straight ends at the other end of the body, the sides being formed with inclined slots adjacent

their straight ends, the slots extending from the straight ends of the side walls to a point beyond the tongue, intersecting the tongue intermediate its end portion and



the body, and a plate formed with offsets disposed to extend within the slots and engage the side walls of the body, the plate being formed with a strap receiving loop.

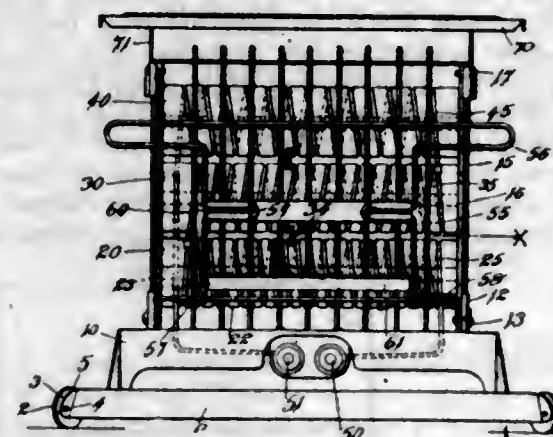
1,080,666. UNDERREAMER. WARREN WAGNER, Burkburnett, Tex. Filed Feb. 12, 1913. Serial No. 748,033. (Cl. 255-75.)



1. In an underreamer, a mandrel having a longitudinal bore and channels on opposite sides of said bore, the body of said reamer being further provided with longitudinal slots of less width than the channels and connecting the same with said bore, the lower ends of said slots being of greater width than the upper portions thereof, cutting bits movable in said channels, a removable key connecting said cutting bits and movable into the wider lower ends of said slots when the bits are extended, a spring pressed stem mounted in the bore of the mandrel, said stem being provided with an opening to receive said key, and means on the mandrel to force said cutting bits outwardly in opposite directions when the same are moved in one direction in said channels.

2. In an underreamer, a mandrel having a longitudinal bore and channels on opposite sides of said bore, the body of said reamer being further provided with longitudinal slots connecting said bore with the channels, the lower end portions of said slots gradually increasing in width, cutting bits movable in the channels in said mandrel, a spring pressed stem mounted in the bore of the mandrel, said stem and the cutting bits having rectangular openings corresponding in size and adapted to be brought into registering relation, and a removable key to detachably connect the bits to said stem adapted for insertion through said openings and having a relatively narrow portion for engagement in the opening in said stem, said key being movable in the wider lower ends of said slots when the bits are in their extended positions.

1,080,667. ELECTRIC TOASTER. ALONZO A. WARNER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed May 20, 1912. Serial No. 698,386. (Cl. 219-19.)



1. In a device of the character described, a base, a frame supported thereon, a sectional heating unit mounted in the frame, the sections of said unit being of similar shape and arranged closely together edge to edge in the same plane, with the adjacent edges of said sections approximately parallel, and means for electrically heating the lower part of said unit to a greater extent than the upper part thereof.

2. In a device of the character described, a base, a frame mounted thereon, a sectional heating unit supported in said frame, the sections being arranged one above the other in the same plane with their adjacent edges arranged closely together and approximately parallel to one another, said sections comprising cores of insulating material with a resistance wire wound thereon, the number of turns of said resistance material on the lower section being in excess of the number of turns of the resistance material on the upper section.

3. In a device of the character described, a base, a frame supported thereby, the sides of said frame being longitudinally corrugated and slotted in the top of the corrugation, and a heating unit comprising a thin wide core whose ends are adapted to fit within the slots, and a resistance material mounted on said core.

4. In a device of the character described, a base, a frame of inverted U-shape having its side arms secured to the base at their ends, longitudinally corrugated and slotted plates secured to the inner faces of said side arms, and a sectional heating unit supported in said frame, said sections being arranged one above the other, and each section comprising a thin wide core whose ends are adapted to fit in the slots and resistance material mounted on the core.

5. In a device of the character described, a base, a frame of inverted U-shape having its side arms secured to the base at their ends, longitudinally corrugated and slotted plates secured to the inner faces of said side arms, and a sectional heating unit supported in said frame, said sections being arranged one above the other, and each section comprising a thin wide core whose ends are adapted to fit in the slots and a resistance wire wound upon said cores, said wire being wound more closely upon the lower core than upon those above it.

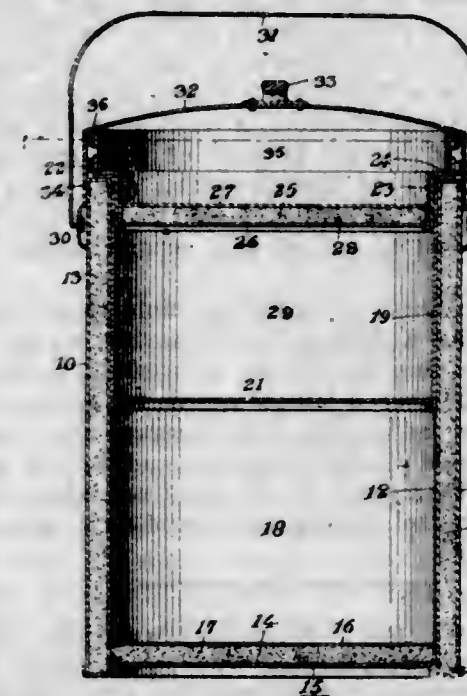
[Claims 6 and 7 not printed in the Gazette.]

1,080,668. PAIL. HENRY L. WINSLOW, Fall River, Mass. Filed Dec. 16, 1911. Serial No. 666,149. (Cl. 62-23.)

In a pail, the combination with a main receptacle having its walls of a considerable thickness, a second receptacle adapted to be received within the main receptacle, a laterally extended annular flange projecting from the upper edge of the said second receptacle and adapted to rest upon the upper peripheral edge of said main receptacle, the free end of said annular flange being extended upwardly at right angles thereto, a third receptacle adapted to be received within the said second receptacle, a laterally extended annular flange projecting outwardly from the upper

197 O. G.—20

edge of said third receptacle and adapted to rest upon the annular flange of the second receptacle, the free end of said annular flange of the third receptacle being extended upwardly at right angles thereto and projecting beyond the end of the upturned end of the annular flange of the second receptacle, U-shaped handles provided on the up-



turned ends of said annular flanges and projecting radially therefrom and adapted to lie within the plane of the side wall of the said main receptacle, a cover for the pail provided with a downwardly projecting annular flange adapted to engage the outer face of the side wall of the main receptacle and adapted to inclose the handles of said second and third receptacles.

1,080,669. FOUNTAIN-BRUSH. WILLIAM FLOYD ZIEGLER, Los Angeles, Cal. Filed May 8, 1912. Serial No. 695,424. (Cl. 15-51.)



1. A fountain brush comprising a hollow metallic brush holder, provided on two of its oppositely disposed edges with fluid outlets; said brush holder being provided in its upper wall with a fluid inlet, a hollow adjustable handle telescopically secured to said brush holder in communication with the fluid inlet of said holder, said hollow handle being adapted for the passage of a fluid therethrough to the hollow brush holder, and a rotative fluid cut-off mounted within said handle and operated by a rotation thereof, means to control the fluid supply flowing through said handle, the outer end of said handle being connected to a source of fluid supply.

2. A fountain brush comprising a metallic brush holding structure provided with a fluid chamber and having on the lower walls of its oppositely disposed sides fluid outlets, a hollow exteriorly threaded nipple secured to the top wall of said brush holder and forming a fluid inlet thereinto, a hollow curved socket adjustably secured to said nipple, a hollow curved member mounted in said socket and secured in adjustable relation thereto, a hollow handle

movably secured to said member mounted in said socket and means to control the flow of fluid passing through said hollow handle to said brush holding structure.

3. A fountain brush comprising a rectangular metallic brush holding structure provided with a fluid chamber and having fluid outlets leading therefrom, a brush member detachably secured to said holder, said holder being further provided with a fluid inlet in the top wall thereof, an adjustable hollow handle secured to said brush holder and adapted to deliver a fluid from a source of supply through the fluid inlet to said chamber, a longitudinally extending partition mounted in the interior of said chamber and forming a plurality of compartments, and valve means mounted in one of the walls of said chamber to control the supply of fluid to one of said compartments in said chamber.

4. A fountain brush, comprising a fluid receiving chamber provided with a fluid inlet and having a plurality of fluid outlets leading therefrom, a brush detachably secured to said chamber, a hollow handle for conveying fluid to said chamber adjustably and telescopically connected to the inlet of said chamber, means to adjust the angle of said handle with respect to the fluid receiving chamber, and means to control through said handle the flow of fluid to said chamber.

1,080,670. TOY. JOHN WILLIAM ZIMMERMAN, Chicago, Ill., assignor to Zimmerman Novelty Company, a Corporation of Illinois. Filed Mar. 14, 1912. Serial No. 683,660. (Cl. 124—1.)



1. A device of the character described comprising a member having a chamber to accommodate a pellet, and a plurality of super-imposed springs secured to the member and having end portions intersecting the chamber.

2. A device of the character described comprising a member having a chamber to accommodate a pellet, and a plurality of super-imposed springs secured to the member and having end portions intersecting the chamber, one of such springs being of greater length than the remainder.

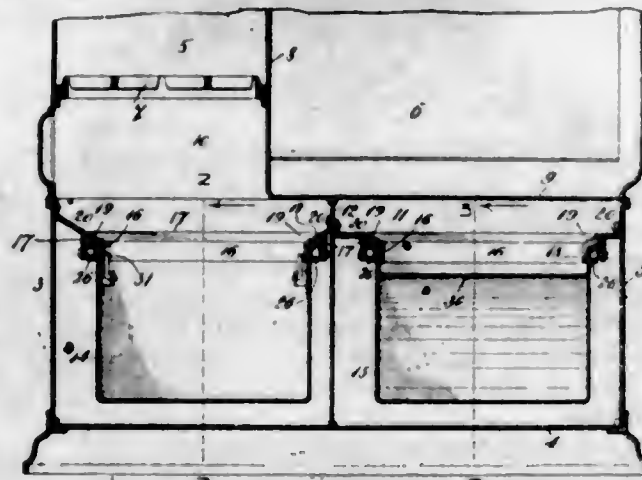
3. A device of the character described comprising an elongated member having a recess in one of its ends affording a chamber to contain a pellet and a plurality of super-imposed springs, each of said springs having one end angular to the elongated member while the opposite end portions of such springs extend across the recess in the elongated member, one of such springs being of a greater extent than the other.

1,080,671. STOVE. EDGAR W. ANTHONY, Brookline, Mass. Filed Feb. 20, 1912. Serial No. 680,677. (Cl. 126—1.)

1. In a stove, the combination with a grate and walls forming an ash chamber below said grate, of an ash pan located in said chamber and having outwardly-turned upper flanged edges, ways upon which said ash pan is slidably mounted, said ways being secured to the walls of said ash chamber and presenting inwardly-extending parts closing the space between the side walls of said chamber and said ash pan, and parts downwardly extending from said inwardly-extending parts and provided with inwardly-extending edges upon which the outwardly-turned upper flanged edges of said ash pan are mounted.

2. In a stove, the combination with a grate and walls forming an ash chamber below said grate, of an ash pan

located in said chamber and having outwardly-turned upper flanged edges, ways upon which said ash pan is slidably mounted, said ways being secured to the walls of said ash chamber and presenting inwardly-extending parts closing the space between the side walls of said chamber and said ash pan, and parts downwardly extending from said inwardly-extending parts and provided with inwardly-extending edges presenting top surfaces upon which the outwardly-turned upper flanged edges of said ash pan are mounted, each of said ways being provided also with a roller bearing at the front end thereof and arranged to extend above the top surfaces presented by the inwardly-extending edges upon which the outwardly-turned upper flanged edges of the ash pan are mounted as aforesaid.



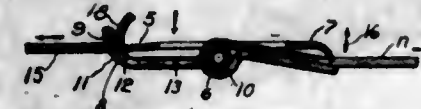
3. In a stove, the combination with a grate and walls forming an ash chamber below said grate, of an ash pan located in said chamber and having outwardly-turned upper flanged edges presenting top inclined surfaces having a downward inclination into said ash pan, ways upon which said ash pan is slidably mounted, said ways being secured to the walls of said ash chamber and presenting inwardly-extending parts downwardly inclined closing the space between the side walls of said chamber and said ash pan, and parts downwardly extending from said inwardly-extending parts and provided with inwardly-extending edges upon which the outwardly-turned upper flanged edges of said ash pan are mounted, the inclination of the inwardly-extending parts of said ways being such as to present top surfaces in substantial continuation of the inclined surfaces to the upper flanged edges of said ash pan.

4. In a stove, the combination with a grate and walls forming an ash chamber below said grate, of an ash pan located in said chamber and having outwardly-turned upper flanged edges presenting top inclined surfaces having a downward inclination into said ash pan, ways upon which said ash pan is slidably mounted, said ways being secured to the walls of said ash chamber and presenting inwardly-extending parts downwardly inclined closing the space between the side walls of said chamber and said ash pan, and parts downwardly extending from said inwardly-extending parts and provided with inwardly-extending edges presenting top surfaces upon which the outwardly-turned upper flanged edges of said ash pan are mounted, the inclination of the downwardly-extending parts of said ways being such as to present top surfaces in substantial continuation of the inclined surfaces to the upper flanged edges of said pan, and a roller bearing secured to each of said ways at the front end thereof and arranged to extend above the top surfaces presented by the inwardly-extending edges upon which the outwardly-turned upper flanged edges of the ash pan are mounted as aforesaid.

1,080,672. BUCKLE. LUTHER S. AYER, Winchester, Mass., assignor, by mesne assignments, to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Feb. 26, 1908. Serial No. 417,961. (Cl. 24—101.)

1. A buckle comprising, in combination, a body-portion having a jaw recessed to provide separated strap-engaging surfaces; a U-shaped tongue providing a substantially

straight inelastic strap-engaging bar extending across said separated surfaces to cooperate with said jaw; intumed pivot-members of extensive length formed by the extremities of the tongue, said members being inclined rearwardly away from said jaw, substantially in the plane of the buckle; and a transverse barrel formed on the body portion to receive the pivot-members and supply therefor extended journal bearings, whereby the pivot-members may be partly withdrawn from said bearings under pull on the tongue, while preserving effective pivotal support therefor.

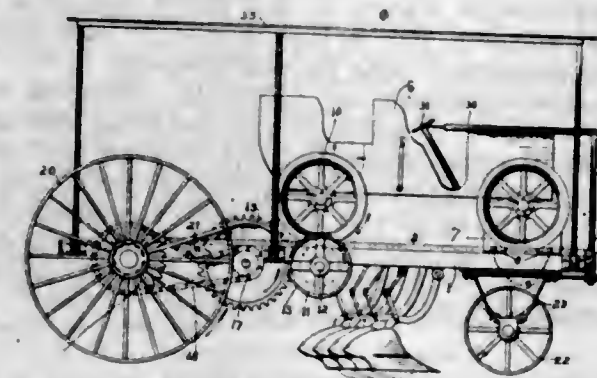


2. A buckle, having a body portion comprising a lever end, a jaw at the opposite end formed on its outer edge with a transverse lip projecting upwardly at an angle thereto, and an intermediate transverse socket, combined with a U-shaped tongue pivotally mounted in the socket and underlying the body portion and having upturned necks and a transverse bar supported by said necks with its bottom substantially in advance of and opposite the upper edge of the lip, the tongue being capable of yielding longitudinally with relation to the frame and adapted to grip a strap between its bar and the lip of the jaw.

3. A buckle, having a body portion 5 comprising lever end 7, a jaw end 8 provided with an upturned lip 18 extending transversely of the jaw, and an intermediate tongue-receiving means, combined with a U-shaped tongue pivoted in said means below the body portion and having its sides parallel with the sides of the body portion and extended beyond the upturned lip and terminating in a transverse bar in advance of the jaw end, said tongue capable of yielding longitudinally under stress of a tightening strap to be engaged and at such time to be drawn into gripping relation with the jaw end.

4. A buckle comprising, in combination, a body-portion having a jaw recessed to provide separated upwardly projecting strap-engaging surfaces, a U-shaped tongue providing a substantially straight inelastic strap-engaging bar extending across said separated surfaces outside of the body portion to cooperate with said jaw, intumed pivot-members of extensive length formed by the extremities of the tongue, and a transverse barrel formed on the body portion to receive the pivot members and supply therefor extended journal bearings, the tongue having a yielding motion in the direction of its length as it is put under tension by the strap and thereby drawn into gripping relation to the jaw.

1,080,673. TRACTION-PLOW. SIMON BELANGER, Warroad, Minn. Filed Jan. 10, 1913. Serial No. 741,169. (Cl. 21—114.)



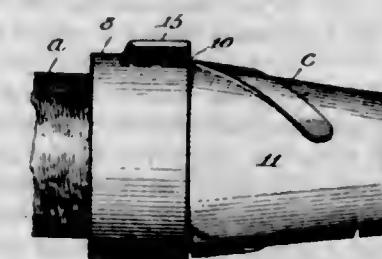
1. In a device of the character described, a frame, grooved compound tracks adapted to receive the wheels of an automobile, means for placing the automobile on the said tracks, adjustable blocks to secure the automobile in place, friction drive wheels at the proximate longitudinal center of the said tracks, and adapted to be engaged by the wheels of the automobile, and means for propelling the said frame operated by the automobile wheels.

2. In a device of the character described, a frame mounted on wheels, parallel compound grooved rails on top of the said frame and adapted to receive the wheels of an automobile, inclined rails pivotally secured to the front ends of the first mentioned rails, an automobile mounted on top of the said frame on the said rails, friction drive wheels in engagement with the hind wheels of the automobile, a shaft rotated by the said friction drive wheels, belt wheels mounted on the outer ends of the said shaft, a gear wheel mounted at the longitudinal center of the said shaft, a second gear wheel in mesh with the first mentioned gear wheel, a shaft parallel with and in back of the first mentioned shaft and rotated by the second mentioned gear wheel, sprocket wheels mounted on the outer ends of the said shaft, and sprocket chains passing around the said sprocket wheels and around the sprocket wheels secured around the hubs of the hind wheels of the frame, for the purpose of propelling the said frame.

3. In a device of the character described, a wheel mounted frame, compound grooved tracks on top of the said frame, means for propelling the frame by the power of an automobile secured in the said rails on top of the said frame, and means for guiding the device, consisting of a large and small sprocket wheel, a sprocket chain passing around the said sprocket wheels, a jointed vertical rod on the lower end of which the small sprocket wheel is mounted, and a horizontal lever pivoted to the top of the said vertical rod so as to be free to move in a vertical plane only and of such length as to be easily operated by any one sitting in the seat of the automobile.

4. In a device of the character described, a wheel mounted frame, an automobile secured in grooved, compound, parallel rails on top of the said frame, adjusting blocks provided with binding screws for securing the automobile in position, grooved, rubber padded, friction drive wheels adapted to receive the hind wheel of the automobile and to be rotated thereby, and spur, and chain and sprocket propelling gear operated by the said friction drive wheels.

1,080,674. THREADLESS HOSE-COUPLING. PETER BERG, Enderlin, N. D. Filed Jan. 14, 1913. Serial No. 741,926. (Cl. 137—28.)



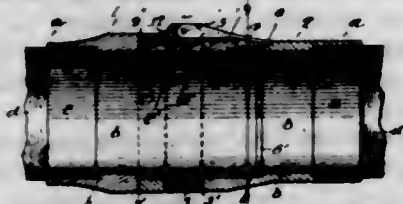
1. A threadless hose coupling having, in combination, a male member constructed with a conical spigot end provided with a plurality of quick pitch spiral projections tapered as to radial thickness and having flat outer surfaces, a female member having a matching socket and provided with spiral recesses fitted to and substantially coextensive with said spiral projections, and a rotation resisting locking device.

2. An improved threadless hose coupling having, in combination, a male member constructed with a hose-attaching end, a conical spigot end and an interposed gasket-supporting shoulder, said spigot end being provided with a plurality of quick pitch spiral projections extending from said shoulder toward the extremity of the spigot; a female member constructed with a conical socket fitted to said spigot end, spiral recesses fitted to and substantially coextensive with said spiral projections and a hose-attaching end; a rotation resisting locking device and a gasket supported by said shoulder on the male member and contacting with the extremity of the female member.

3. An improved threadless hose coupling having, in combination, a male member constructed with a hose-attaching end, a conical spigot end and an interposed gasket-supporting shoulder, said spigot end being provided with a plurality of quick-pitch spiral projections extending from said shoulder toward the extremity of the spigot; a

female member constructed with a conical socket fitted to said spigot end, spiral recesses fitted to and substantially coextensive with said spiral projections, a hose-attaching end and an interposed gasket supporting shoulder; a rotation resisting locking device; and gaskets supported by said shoulders and contacting with the extremities of said members respectively; substantially as hereinbefore specified.

1,080,675. THREADLESS HOSE-COUPLING. PETER BERU, Enderlin, N. D. Filed Apr. 18, 1913. Serial No. 762,077. (Cl. 137-28.)



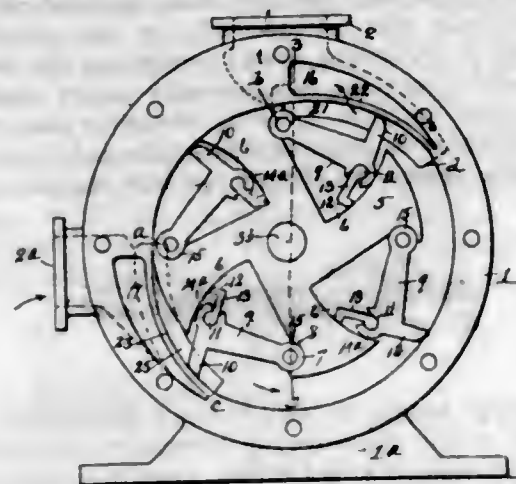
1. An improved threadless hose coupling having, in combination, a spigot member constructed with a circumferential main shoulder, a plurality of peripheral spiral projections extending toward said shoulder and constructed with shoulders inclined with reference to said main shoulder; and a socket member having spiral recesses in its socket wall fitted to said spiral projections, and provided with a rotatable locking ring having internal projections forming inclines matching said inclined shoulders and interacting therewith to tighten and lock the coupling.

2. An improved threadless hose coupling having, in combination, a spigot member constructed with a circumferential main shoulder, a plurality of peripheral spiral projections extending toward said shoulder and constructed with shoulders inclined with reference to said main shoulder; and a socket member having spiral recesses in its socket wall fitted to said spiral projections, and provided with a rotatable locking ring having internal projections forming inclines matching said inclined shoulders and interacting therewith to tighten and lock the coupling; said ring being provided with a foldable key lever, and the body of said socket member having a groove to admit said lever in its folded position when the coupling is locked.

3. An improved threadless hose coupling having, in combination, a spigot member constructed with a circumferential main shoulder, a plurality of peripheral spiral projections extending toward said shoulder and constructed with shoulders inclined with reference to said main shoulder; and a socket member having spiral recesses in its socket wall fitted to said spiral projections, and provided with a rotatable locking ring having internal projections forming inclines matching said inclined shoulders and interacting therewith to tighten and lock the coupling; said ring being provided with a foldable key lever, and the body of said socket member having a pair of grooves to admit the folded lever when the coupling is locked and when it is unlocked respectively.

4. An improved threadless hose coupling having, in combination, a spigot member and a socket member, each having a hose attaching end, and provided respectively with the members of a tight joint at the inner extremity of said spigot member, and with the members of an outer joint at the extremity of said socket member; said spigot member having a plurality of peripheral spiral projections extending toward said outer joint and constructed with reduced portions and shoulders, the latter inclined with reference to said outer joint; and said socket member having spiral recesses in its socket wall fitted to said spiral projections, and provided with a rotatable locking ring having internal locking projections forming inclines matching said inclined shoulders, and a pair of external stop-engaging projections; the body of said socket member being further provided with a stop arranged to contact with one of said external projections when the coupling is locked and with the other when the coupling is unlocked, substantially as hereinbefore specified.

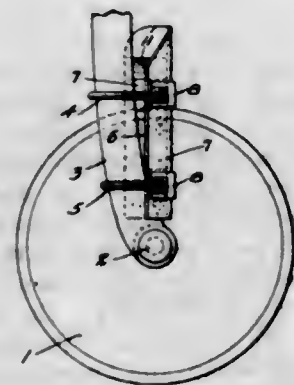
1,080,676. ROTARY PUMP. ROBERT M. BLACKMER, Monongahela, Pa. Filed Feb. 11, 1911. Serial No. 607,926. (Cl. 103-44.)



1. In a rotary pump, in combination with a bucket carrier provided with bucket sockets having an arched bearing face, a bucket adapted to swing in said socket and a packing member pivotally connected to said bucket and adapted to swing thereon always in contact with said arched bearing face, substantially as described.

2. In a rotary pump, a bucket carrier provided with a pocket, a bucket provided with a pivot and adapted to oscillate in said pocket, a wing pivotally connected to said bucket, and adapted to bear against a face of said pocket, substantially as described.

1,080,677. COLTER-CLEANER. HERMAN J. BOWLER, Litchville, N. D. Filed Mar. 31, 1913. Serial No. 758,019. (Cl. 97-79.)



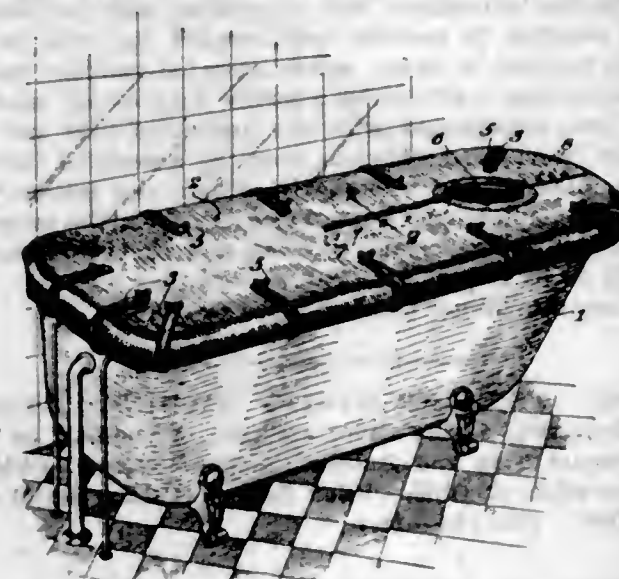
1. In a colter cleaner, the combination with the colter tines, of a bifurcated shield adjustably secured thereto, integral angular lips formed on said shield and disposed in planes parallel to the plane of rotation of the colter, a frictional scraper for each lateral face of said colter, flexible metallic bands secured to said shield supporting said frictional scrapers and springs carried by said lips for frictional engagement with the said scrapers.

2. In a colter cleaner the combination with the colter tines, of a bifurcated shield, braces connecting said shield and tines, spacing blocks disposed between said shield and tines, integral angular lips formed on said shield disposed in planes parallel to the plane of rotation of the colter, frictional scrapers for said colter, supporting means connecting said scrapers and shield and flexible adjusting means connecting said lips and scrapers.

1,080,678. VAPOR-BATH APPARATUS. ALVINA BRUNGEMAN, St. Louis, Mo. Filed Mar. 15, 1913. Serial No. 754,553. (Cl. 4-13.)

1. An apparatus of the character described comprising a sheet having pockets disposed around its marginal edge, slotted clamping hooks slidably arranged in each of said pockets, and a clamping bolt passing through the walls of the pockets and the sheet and through the slots in said clamps to adjustably hold the clamps in position.

2. An apparatus of the character described comprising a sheet, clamping member adjustably secured in pockets to the marginal edges of said sheet and having curved



outer ends, which curved outer ends are also located in said pockets, and means whereby the marginal edges of the sheet are held by said curved clamping ends in close engagement with the outwardly rolling edge of the bath tub.

1,080,679. GUN-CLEANING ROD. THEODORE W. COOK, Philadelphia, Pa., assignor of one-half to Herbert B. Painter, Philadelphia, Pa. Filed Feb. 14, 1913. Serial No. 748,853. (Cl. 42-91.)



1. A gun cleaning device comprising a rod having a plurality of prongs around which a rag is adapted to be wrapped, said prongs being arranged in two groups, one on each side of an intermediate portion, and all of the prongs in each group being inclined in a direction away from said intermediate portion.

2. A gun cleaning device comprising a rod having a plurality of prongs integrally formed therein, and a rag adapted to be wrapped about said prongs, said prongs being arranged in two groups, one on each side of an intermediate portion, and all of the prongs in each group being inclined in a direction away from said intermediate portion.

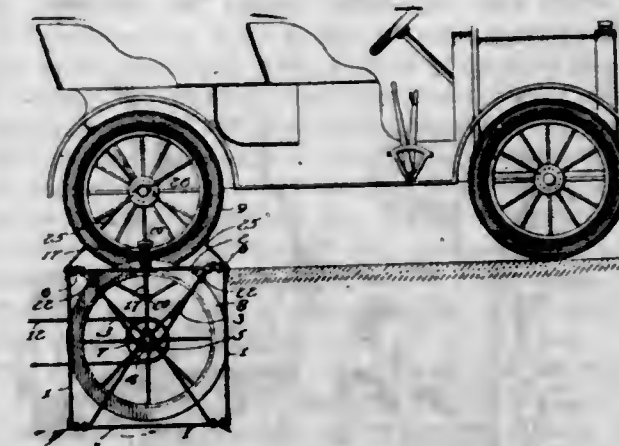
3. A gun cleaning device comprising a round rod having a plurality of rigid prongs at one portion, said prongs being arranged in two groups, one on each side of an intermediate portion, and all of the prongs in each group being inclined in a direction away from said intermediate portion.

4. A gun cleaning device comprising a round rod having a plurality of rigid prongs at one portion, said prongs being arranged in two groups, one on each side of an intermediate portion, and all of the prongs in each group

being inclined in a direction away from said intermediate portion, said prongs being formed by reducing the rod to a square cross-section and notching the corners of said section.

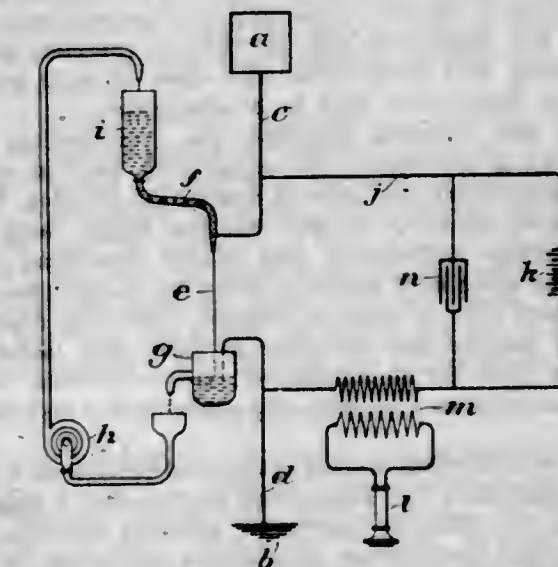
5. A gun cleaning device comprising a round rod having a plurality of rigid prongs at one portion, said prongs being arranged in two groups, one on each side of an intermediate portion, and all of the prongs in each group being inclined in a direction away from said intermediate portion, said prongs being formed by reducing the rod to a square cross-section and notching the corners of said section, and the faces of the section from which one group of prongs is formed being at an angle of 45° to the faces of the section from which the other group of prongs is formed.

1,080,680. MOTOR-CAR ATTACHMENT. ANDREW J. CRIST, Amorita, Okla. Filed June 17, 1912. Serial No. 704,230. (Cl. 21-90.)



A device of the class described comprising a quadrangular frame having reinforced corners, diagonal braces anchored at their outer ends adjacent said corners, their inner ends bent to form opposing portions bolted together at the middle part of said frame, a bearing on said opposing portions, a transverse shaft in said bearing, wheels on said shaft having concave rims adapted for engagement with the tires on the wheels of an auto car, means to releasably connect said frame to the axle of said car, brake shoes pivoted near the upper corners of said frame, a hanger composed of links each having one end pivoted to a shoe and its other end pivoted to the lower end of a vertically movable rod and a spring supported tread on the upper end of said vertical rod, as specified.

1,080,681. WAVE-DETECTOR. JOHN H. CUNTZ, Hoboken, N. J. Filed Oct. 1, 1903. Serial No. 175,292. (Cl. 250-28.)



1. In a wave detector a detecting circuit composed in part of a progressively moving element normally of me-

tallic conductivity, and means for maintaining continuous circulation thereof.

2. In a wave detector a detecting circuit composed in part of a continuously circulating element, normally of metallic conductivity, moving in a definite path in a continuous cycle.

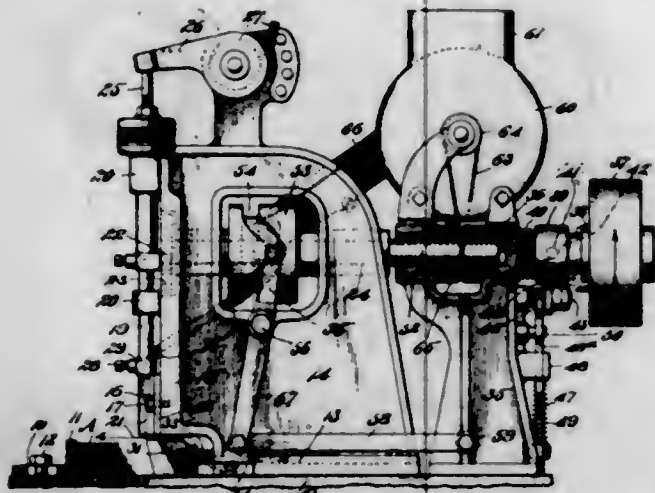
3. A wave detector having detecting means comprising a circulating fluid stream normally of metallic conductivity.

4. A wave detector having detecting means including mercury in continuous circulation.

5. A wave detector having a liquid stream element normally of metallic conductivity and mechanical means for restoring the same to its original position.

[Claims 6 to 12 not printed in the Gazette.]

1,080,682. HEEL-BUILDING MACHINE. GEORGE A. DOBYNE, St. Louis, Mo., assignor; by mesne assignments, to William Wolfe and Max Koehler, trustees, St. Louis, Mo. Filed Dec. 19, 1910. Serial No. 598,080. (Cl. 1—33.)



1. In a heel building machine, the combination of a table forming a stationary support for the lifts, a gage on said table for positioning the lifts in assembled relation on a portion of said table, fastener inserting mechanism, and automatic means for moving said fastener inserting mechanism into position over the assembled lifts to drive a fastener, and away from and clear of said portion and gage to permit the lifts to be assembled.

2. In a heel building machine, the combination of a table forming a stationary support for the lifts, a gage on said table for positioning the lifts in assembled relation on a portion of said table, fastener inserting mechanism including a driver, means for automatically loading and feeding a fastener to said driver, and automatic means for moving said fastener inserting mechanism into position over the assembled lifts to drive a fastener so fed to the driver, and away from and clear of said portion and gage to permit the lifts to be assembled.

3. In a heel building machine, the combination of a table having a stationary lift supporting portion and a gage for positioning the lifts in assembled relation thereon, the table laterally of said portion being clear, fastener inserting mechanism, and means operating automatically to move said fastener inserting mechanism over the assembled lifts to drive a fastener, and away from the supporting portion and the gage to clear said parts and permit the lifts to be assembled, said operating means being constructed to stop with the parts in the last named position.

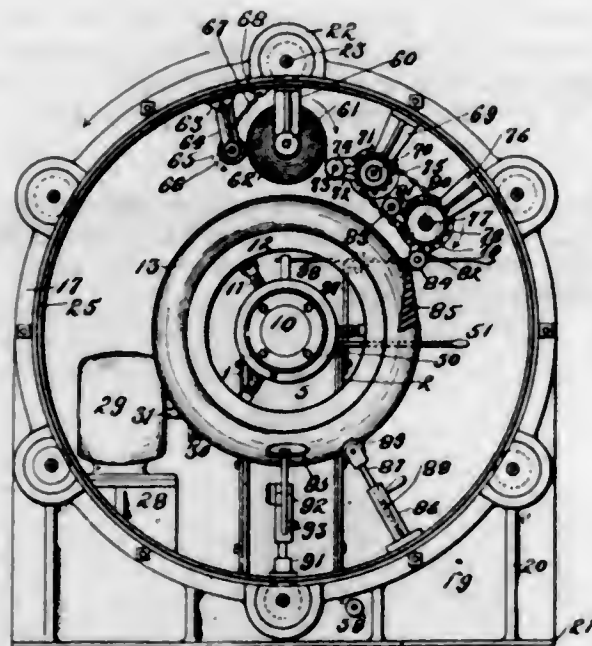
4. In a heel building machine, the combination of a table having a stationary lift supporting portion and a gage for positioning the lifts in assembled relation thereon, fastener inserting mechanism, and means operating in succession to move the fastener inserting mechanism over the assembled lifts, drive a fastener, and to move the fastener inserting mechanism away from the supporting portion

and the gage to clear said parts and permit the lifts to be assembled.

5. In a heel building machine, the combination of a table having stationary lift supporting and positioning means adapted to position and support the lifts in assembled relation, a clamp, power operated fastener inserting mechanism, and means whereby said clamp may be moved into engagement with the assembled lifts and the fastener inserting mechanism over the assembled lifts to drive a fastener, and whereby the clamp and fastener inserting mechanism may be moved away from the supporting and positioning means to clear said parts and permit the lifts to be assembled.

[Claims 6 to 29 not printed in the Gazette.]

1,080,683. TIRE-SHOE-MAKING MACHINE. CHARLES A. EDMONDS, Akron, Ohio, assignor of one-half to The Swinehart Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Dec. 5, 1912. Serial No. 735,080. (Cl. 154—10.)

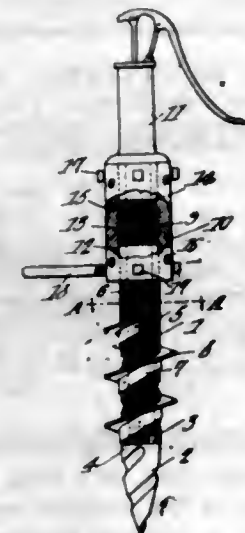


1. A tire-shoe-making machine comprising a normally-irrevolvable ring-core, an annulus arranged to revolve about said core in substantially the plane thereof, a stock-roller for carrying a supply of stock secured to the inner face of said annulus, means for leading the material from said stock-roller to said core, means for imposing tension on said material during its placement on said core, and a plurality of inwardly-projecting and radially-positioned tire-shoe shaping-tools secured to said annulus and engaging the material on said core during the placement of said material.

2. A tire-shoe-building machine embodying a normally-non-rotatable shaft, a core-holding chuck thereon, supporting means for said shaft, an annulus revoluble about said core, means for revolving it, a stock-roller for carrying a supply of tire-shoe building material on said annulus to permit the placement of the material on said core during the revolution of said annulus, tire-shoe shaping-tools on said annulus and adapted to engage the tire-shoe building material during its placement on said core, a lever pivotally mounted on said frame, means connecting said lever with said tire-shoe shaping-tools arranged to operate the latter inwardly and outwardly over the surface of the material on said core during the placement of the former and during the revolution of said annulus.

3. A tire-shoe building machine comprising a normally-irrevolvable ring-core, an annulus arranged to revolve about said core in the plane of its diameter, a stock roller for carrying a supply of tire-building stock carried by said annulus, and means carried by said annulus embodying shaping tools for placing said tire-building material on said core.

1,080,684. SAND-POINT. PAUL E. ERICKSON, Courtland, Kans. Filed Apr. 14, 1913. Serial No. 761,087. (Cl. 166—5.)



1. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, a screen wrapped around the said body portion and covering the said apertures, an auger tip disposed at the lower extremity of said hollow cylindrical body portion, and a helical member rigidly secured to said body portion and overlying the said screen.

2. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, a screen wrapped around the said body portion and covering the said apertures, an auger tip detachably secured to the lower extremity of said hollow cylindrical body portion, and a helical member rigidly secured to the said body portion and overlying the said screen.

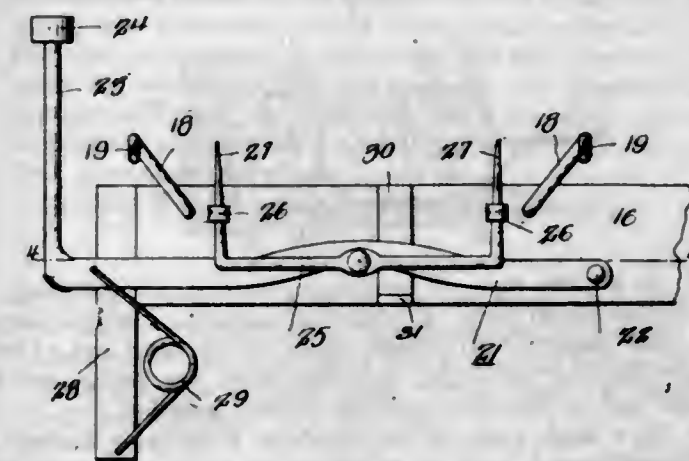
3. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, an auger tip detachably secured to the lower extremity thereof, means for preventing foreign material from entering through the said body portion side wall apertures, a helical member rigidly secured to the said body portion, the lower extremity thereof terminating adjacent the upper extremity of said auger tip, and a coupling member threadedly engaging the upper extremity of said body portion and means for locking the same thereto.

4. In a sand point, the combination of a hollow cylindrical body portion provided with a plurality of water inlet openings extending through the side walls thereof, an auger tip detachably secured to the lower extremity of said body portion, means for preventing the entrance of foreign material through the said body portion apertures, a helical flange member rigidly secured to the said body portion and terminating adjacent the upper extremity of the said auger tip, a coupling member with an internally threaded central portion adapted to engage the upper extremity of said body portion, and means for locking the same thereto.

5. In an apparatus of the class described, the combination of a hollow cylindrical body portion with a plurality of water inlet apertures in the side walls thereof, an auger tip comprising a point and shank detachably secured to the lower extremity of the body portion, a screen wrapped around the outer periphery of the said body portion adapted to exclude foreign material therefrom, a helical strip rigidly secured to the said body portion and provided with an outstanding flange at the upper edge thereof, a coupling member with an internally threaded central portion adapted to engage the upper extremity of said body portion, and a pump provided with a portion projecting downwardly therefrom adapted to threadedly engage the said coupling member, and means for holding the said coupling member against movement relative to the said pump and body portion.

[Claims 6 and 7 not printed in the Gazette.]

1,080,685. SACK-HOLDER ATTACHMENT FOR POTATO-SORTERS. FRED S. FULLER, Eaton, Colo. Filed Nov. 22, 1911, Serial No. 661,741. Renewed Apr. 28, 1913. Serial No. 764,263. (Cl. 83—26.)



1. The combination with a bar, of rods movable there-through, hooks upon said rods, a lever pivoted to the said bar, a sliding bar operated by the lever, prongs formed upon the ends of said bar, and guides engaging the prongs.

2. The combination with a bar, of a bracket secured thereto, rods movable through the bar and bracket, a lever pivoted to the bar, a sliding bar operated by the lever, prongs formed upon the sliding bar, eyes secured to said bar surrounding the prongs hooks upon the rods, a wear plate for the lever, and a stop provided upon the wear plate for the lever.

3. The combination with a frame bar, of a bracket secured thereto, rods passing through the bracket and bar, hooks upon the rods, springs engaging the rods, a lever pivoted to the bar, a sliding bar carried by the lever, prongs formed upon the sliding bar, eyes carried by the frame bar and engaging the prongs, a wear plate for the lever, a stop formed upon the wear plate to limit the movement of the lever, and springs engaging the lever substantially as and for the purposes set forth.

1,080,686. METHOD OF SECURING THROAT-BRACES. JOHN FRANCIS GERO, Newark, Ohio. Filed May 2, 1913. Serial No. 765,180. (Cl. 29—148.)



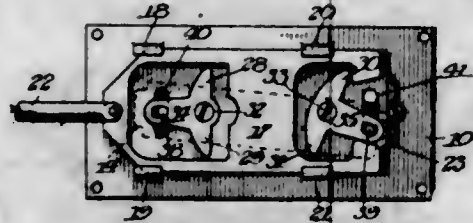
1. The herein described method of securing throat braces to boilers consisting of primarily threading a throat brace and leaving the tap therein, temporarily attaching the brace to the boiler with the operating end of the tap disposed through the aperture of the flue sheet, and then withdrawing the tap from the brace through the sheet aperture and threading the aperture during the withdrawal of the tap.

2. The herein described method of securing throat braces to boilers consisting of primarily threading a throat brace and leaving the tap therein, temporarily attaching the brace to the boiler with the operating end of the tap disposed through the aperture of the flue sheet, then withdrawing the tap from the brace through the sheet aperture and threading the aperture during the withdrawal of the tap, and finally permanently securing the brace to the boiler and threading a bolt through the aperture and brace.

1,080,687. SASH-LOCK. JAMES A. GIESE and BERNARD S. FIELD, Chicago, Ill., assignors to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed July 14, 1913. Serial No. 778,957. (Cl. 16—51.)

1. In a sash lock, in combination, a suitable casing, a spring-advanced bolt, a laterally movable tiltable finger bar, and independent means actuated by each end of the finger bar for retracting the bolt.

2. In a sash lock, in combination, a suitable casing, a spring-advanced bolt, a laterally movable tiltable finger bar, and independent means actuated by each end of the finger bar for retracting the bolt upon the movement of the bar in either direction from its normal position.



3. In a sash lock, in combination, a suitable casing, a spring-advanced bolt, a laterally movable tiltable finger bar, and independent means actuated by each end of the finger bar for retracting the bolt upon the movement of either end of the bar from its normal position.

4. In a sash lock, in combination, a suitable casing, a spring-advanced bolt, a reciprocable plate to which the bolt is attached, such bolt having forwardly projecting shoulders, a pair of three-arm levers, two arms of each lever engaging shoulders of the plate, a laterally movable finger bar mounted upon the casing, and studs carried by the finger bar and being in engagement one with the third arm of each of the levers.

5. In a sash lock, in combination, a suitable casing, a spring-retracted bolt, a reciprocable plate attached to the bolt and having two pairs of forwardly directed shoulders, two levers fulcrumed upon the casing and each having two arms cooperating with one pair of shoulders, a laterally movable finger bar, and actuating connection between each end of the finger bar and one of the levers.

[Claim 6 not printed in the Gazette.]

1,080,688. HYDROCARBON-BURNER. EDWIN P. HARMS, Detroit, Mich. Filed Mar. 2, 1912. Serial No. 681,142. (Cl. 158-37.)



1. In a hydrocarbon burner, a burner base having a fuel trough therein, a burner wall, the said burner wall and the said trough movable with respect to each other, apertures formed in the said trough and in the said burner wall and adapted to register, thereby forming air openings in the said trough, the area of which may be varied.

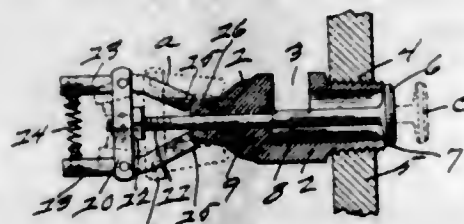
2. In a hydrocarbon burner, a burner base having a fuel trough therein, a burner wall rotatably seated on the said trough, the said trough and the said burner wall having apertures, the area of the said apertures being varied by rotary movement of the said burner wall with respect to the said trough.

3. In a hydrocarbon burner, a base having a fuel trough therein, the upper edge of the said trough having a plurality of notches, a burner wall mounted on the said trough, the said burner wall having notches in its lower edge adapted to cooperate with the notches in the edge of the trough, the area of the said openings being variable by a rotary movement of the said wall with respect to the said trough.

4. A hydrocarbon burner comprising a base having a fuel trough therein, the edges of the said fuel trough having spaced notches, a burner wall rotatably mounted on the said trough, the said wall normally closing a portion of the notches in the said trough, the lower edge of the said burner wall having notches adapted by rotary movement of said wall with respect to the said trough to register with the notches in the trough, the portions of the margin of the trough between the notches being adapted

to close the notches in the lower edge of the burner wall when said wall is rotated to carry the notches therein out of alignment with the notches in the base.

1,080,689. GAS-ENGINE STARTER. CHESTER E. HENNING, Rudolph, Ohio. Filed Nov. 11, 1912. Serial No. 730,550. (Cl. 123-182.)



1. In a gas engine starter, the combination with the cylinder or admission chamber, of a body having a passage connecting the interior of the cylinder or admission chamber with the outer air, a reduced portion upon said body having a shouldered end, a valve carried upon a stem slidably mounted in the body, the valve adapted to seat by pressure within the cylinder or admission chamber to close the passage, and a catch carried at the outer end of the valve stem adapted to slide along the reduced portion of said body and engage the shouldered end of said reduced portion, substantially as described.

2. In a gas engine starter, the combination with the cylinder or admission chamber, of a body having a passage connecting the interior of the cylinder or admission chamber with the outer air, a reduced portion upon said body having a shouldered end, a valve carried upon a stem slidably mounted in the body, the valve adapted to seat by pressure within the cylinder or admission chamber to close the passage, and a spring actuated catch carried at the outer end of the valve stem adapted to ride along the reduced portion of said body and engage the shouldered end of said reduced portion.

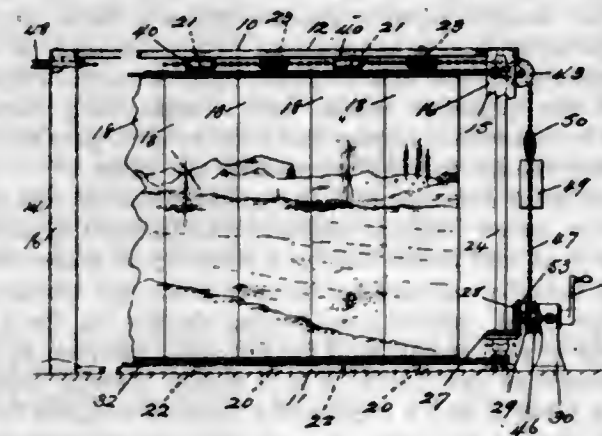
1,080,690. FOOT-BALL HELMET. SAMUEL HIPKISS, Stoneham, Mass. Filed Apr. 28, 1913. Serial No. 764,057. (Cl. 2-192.)



1. A football helmet having an integral shaped unseamed leather shell, an integral shaped unseamed felt interlining, and an integral shaped unseamed lining having its edge bent or upturned about the lower edge of the felt interlining, the parts being united by a single seam of stitches around the margin of the helmet and passing through the leather shell, the felt interlining and the upturned edge of the lining, substantially as described.

2. A football helmet having an integral shaped unseamed leather shell, an integral shaped unseamed felt interlining, and an integral shaped unseamed lining having its edge bent about the lower edge of the felt interlining, the parts being united by a single seam of stitches around the margin of the helmet, and passing through the leather shell, the felt interlining and the upturned edge of the lining, the several parts of the structure being provided with ventilating holes aligned therethrough.

1,080,691. STAGE-SCENERY APPARATUS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Dec. 7, 1912. Serial No. 735,456. (Cl. 46-70.)



1. In an apparatus adapted to serve as a plurality of curtains or the like, the combination with a frame, of a number of aligned sections adapted to be spaced apart, then rotated, and subsequently moved so as to be in abutting arrangement, said sections being of angular shapes so that the corresponding faces thereof form a plurality of distinct surfaces which provide the curtains for displaying separate scenery or the like thereon, means adapted to simultaneously spread the sections apart and conversely move said sections together, and means serving to rotate the sections in unison after being spread apart so that the scenes may be changed from one to the other.

2. In an apparatus adapted to serve as a plurality of curtains or the like, the combination with a frame, of a number of aligned sections, each being adapted to be spaced apart, then rotated, and subsequently moved so as to be in abutting arrangement, said sections being of angular shapes so that the corresponding faces thereof form a plurality of distinct surfaces which provide the curtains for displaying separate scenery or the like thereon, an adjusting device adapted to simultaneously spread the sections apart and conversely move said sections together, means adapted to operate the adjusting device, and means serving to rotate the sections in unison after being spread apart so that the scenes may be changed from one to the other.

3. In an apparatus adapted to serve as a plurality of curtains or the like, the combination with a frame, of a number of aligned sections adapted to be spaced apart, then rotated, and subsequently moved so as to be in abutting arrangement, said sections being angular in shape so that the corresponding faces thereof form a plurality of distinct surfaces which provide the curtains for displaying separate scenery or the like thereon, a plurality of adjusting devices adapted to simultaneously spread the sections apart and conversely move said sections together, means adapted to manually operate the adjusting devices simultaneously, and means serving to rotate the sections in unison after being spread apart so that the scenes may be changed from one to the other.

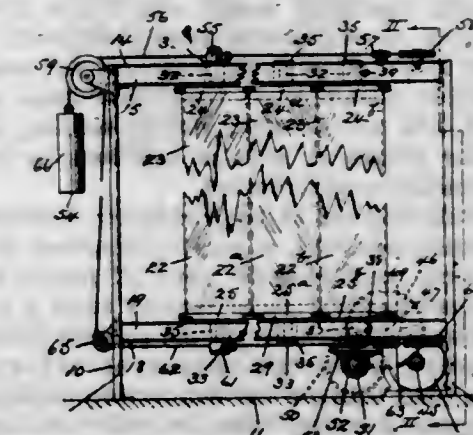
4. In an apparatus adapted to serve as a plurality of curtains or the like, the combination with a frame, of a number of aligned pillars adapted to be spaced apart, then rotated, and subsequently moved so as to be in abutting arrangement, said pillars being of angular shapes so that the corresponding faces thereof form a plurality of distinct surfaces which provide the curtains for displaying separate scenery or the like thereon, means adapted to simultaneously spread the pillars apart and conversely move said pillars together, means provided upon the frame and adapted to guide the pillars when being spaced apart, and means serving to rotate the pillars in unison after being spread apart so that the scenes may be changed from one to the other.

5. In an apparatus adapted to serve as a plurality of curtains or the like, the combination with a frame, of a number of aligned pillars, each being adapted to be spread apart, then rotated, and subsequently moved so as to be

in abutting arrangement, said pillars being of angular shape so that the corresponding faces thereof form a plurality of distinct surfaces which provide the curtains for displaying separate scenery or the like thereon, an adjusting device adapted to simultaneously spread the pillars apart and conversely move said pillars together, means adapted to operate the adjusting device, means provided upon the frame and adapted to guide the pillars when being spaced apart, and means serving to rotate the pillars in unison after being spread apart so that the scenes may be changed from one to the other.

[Claims 6 to 13 not printed in the Gazette.]

1,080,692. SHIFTABLE SCREEN FOR MOVING PICTURES. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Mar. 12, 1913. Serial No. 753,783. (Cl. 88-24.)



1. In a shiftable screen of the character described, two spaced supporting members, a screen composed of a plurality of sections, said sections being of angular shapes whereby the corresponding faces thereof form a plurality of distinct surfaces which provide the screens for displaying separate scenery, or the like thereon, all of the sections being rotatably held between the supporting members, and a number of said sections being slidable therebetween, means serving to hold one of the sections against slidable movement, electrically operative means adapted to rotate the non-slidable section, and a plurality of cams, one provided upon each of the sections, each of the cams having a number of curved projecting parts corresponding to the number of the faces of the sections, and the cams of all of the sections being disposed whereby each cam of each section will movably engage in succession the corresponding cam of the adjoining section for slidably shifting the sections apart and for rotating all of the slidable sections when the non-slidable section is being revolved.

2. In a shiftable screen of the character described, two spaced supporting members, a screen composed of a plurality of sections, said sections being of angular shapes whereby the corresponding faces thereof form a plurality of distinct surfaces which provide the screens for displaying separate scenery, or the like thereon, all of the sections being rotatably held between the supporting members, and a number of said sections being slidable therebetween, means serving to hold one of the sections against slidable movement, electrically operative means adapted to rotate the non-slidable section, a plurality of cams, one provided upon each of the sections, each of the cams having a number of curved projecting parts corresponding to the number of the faces of the section, and the cams of all of the sections being disposed whereby each cam of each section will movably engage in succession the corresponding cam of the adjoining section for slidably shifting the sections apart and for rotating all of the slidable sections when the non-slidable section is being revolved, and an adjusting device serving to yieldingly retain the cams in engagement.

3. In a shiftable screen of the character described, two spaced supporting members, a screen composed of a plurality of pillars, said pillars being of angular shapes where-

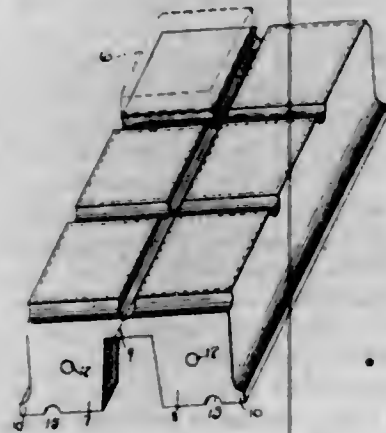
by the corresponding faces thereof form a plurality of distinct surfaces which provide the screens for displaying separate scenery or the like thereon all of the pillars being rotatably held between the supporting members, and a number of said pillars being slidable therebetween, means serving to hold one of the pillars against slidable movement, electrically operative means adapted to rotate the non-slidable pillar, and means serving to slidably shift the pillars apart and to simultaneously rotate at the same time all of the slidable pillars when the non-slidable pillar is being revolved.

4. In a shiftable screen of the character described, two spaced supporting members, a screen composed of a plurality of pillars, said pillars being of angular shapes whereby the corresponding faces thereof form a plurality of distinct surfaces which provide the screens for displaying separate scenery or the like thereon, all of the pillars being rotatably held between the supporting members, and a number of said pillars being slidable therebetween, means serving to hold one of the pillars against slidable movement, electrically operative means adapted to rotate the non-slidable pillar, means serving to slidably shift the pillars apart and to simultaneously rotate at the same time all of the slidable pillars when the non-slidable pillar is being revolved, and an adjusting device serving to yieldingly retain the pillars in relative positions so as to be shifted and simultaneously rotated.

5. In a shiftable screen of the character described, two spaced supporting members, a screen composed of a plurality of sections, said sections being of angular shapes whereby the corresponding faces thereof form a plurality of distinct surfaces which provide the screens for displaying separate scenery, or the like thereon, all of the sections being rotatably held between the supporting members, and a number of said sections being slidable therebetween, means serving to hold one of the sections against slidable movement, a motor, an electric circuit for operating the motor, a switch for controlling the supply of electricity to the motor, means adapted to transmit rotation from the motor to the non-slidable section, and a plurality of cams, one provided upon each of the sections, each of the cams having a number of curved projecting parts corresponding to the number of the faces of the section, and the cams of all of the sections being disposed whereby each cam of each section will movably engage in succession, the corresponding cam of the adjoining section for slidably shifting the sections apart and for rotating all of the slidable sections when the non-slidable section is being revolved.

[Claims 6 to 12 not printed in the Gazette.]

1,080,693. MOLD FOR SIDEWALK CONSTRUCTION. JOSEPH W. HOLMAN, Cleveland, Ohio. Filed Feb. 3, 1912. Serial No. 675,337. (Cl. 23—131.5.)



1. In mold construction, the combination of two complementary molds disposed adjacent and parallel to each other, each of said molds having a laterally projecting flange on the side adjacent said other mold, said flanges being adapted to contact throughout the length of the molds, thereby forming a trough, and a supporting member disposed at either end of said molds and adapted to removably engage, and support said molds.

2. In mold construction, the combination of a plurality of complementary molds, disposed adjacent and parallel to each other, each pair of said molds having laterally projecting complementary flanges a short distance below the top on the adjacent faces of the same, and other laterally projecting flanges on the exterior faces of the same, said other flanges being a greater distance from the top than said first-named flanges and being adapted to contact similarly formed and disposed flanges on the exterior faces of the adjacent molds, and a supporting member adapted to removably engage the ends of each pair of complementary molds, thereby supporting the same.

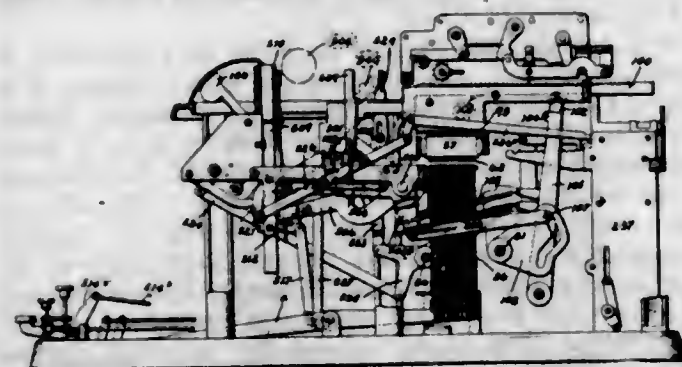
3. In a mold construction, the combination of two complementary molds disposed adjacent and parallel to one another, each of said molds having a plurality of transversely disposed troughs adapted to register with the troughs of said other mold, laterally projecting flanges on the adjacent faces of said molds, said flanges being adapted to contact throughout the length of said molds, thereby forming a second trough, and a supporting member adapted to removably engage the ends of each pair of complementary molds, thereby supporting the same.

4. In a mold construction for forming side walks, the combination of a series of molds disposed adjacent to each other, each of said molds having a plurality of transversely disposed troughs adapted to register with the troughs of the other molds, and laterally projecting flanges on the adjacent faces of said molds adapted to contact throughout the length of said molds, thereby forming other troughs, each of said molds having apertures between said transverse troughs adapted to receive a light of glass, said glass extending slightly over the edges of said mold into said troughs.

5. A mold member for sidewalk construction, comprising a rectangular mold member having a laterally projecting flange on either side thereof, such flanges being at unequal heights on such sides, said mold member having transversely disposed troughs at equal intervals throughout its length.

[Claims 6 and 7 not printed in the Gazette.]

1,080,694. CALCULATING MACHINE. HUBERT HOPKINS, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation. Filed Apr. 10, 1911. Serial No. 620,184. (Cl. 235—60.)



1. In a calculating machine, the combination of a totalizer, actuating devices therefor, and type carrying devices movable at substantially right angles to the movement of said actuating devices, said actuating devices and type carrying members being provided with cooperating stops for limiting the movement of the type carrying members.

2. In a calculating machine, the combination of a totalizer, actuating devices therefor, type carriers whose movement is controlled by said actuating devices, and means for moving said actuating devices and type carriers; said means retarding the movement of said type carriers until after the actuating devices have started to move.

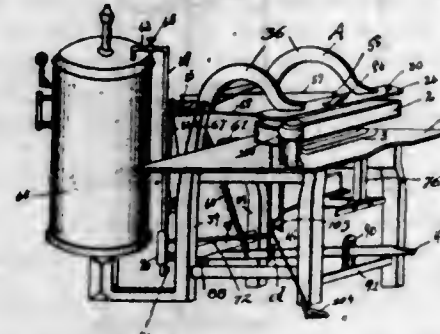
3. In a calculating machine, the combination of a totalizer, actuating devices therefor, type carriers whose position is controlled by said actuating devices, means for moving said parts, said means retarding the movement of said type carriers until after the actuating devices have started to move and means for restoring said parts to normal position after movement; said means moving said type carriers before the actuating devices are moved.

4. In a calculating machine, the combination of a totalizer, actuating racks therefor, type carriers whose position is controlled by said actuating racks, and means for moving said parts to position the racks and said type carriers; said means moving the racks before the type carriers are moved.

5. In a calculating machine, the combination of a totalizer, actuating racks therefor, type carriers whose position is controlled by said actuating racks, means for moving said parts; said means causing the actuating racks to move before the type carriers are moved, and said means also restoring parts to normal position, such restoration causing the type carriers to move before the actuating racks are moved in the restoring movement.

[Claims 6 to 15 not printed in the Gazette.]

1,080,695. GARMENT STEAMING AND PRESSING MACHINE. CLARENCE B. HOWE, Utica, N. Y. Filed June 3, 1910. Serial No. 564,761. (Cl. 68—9.)



1. In a garment pressing and steaming machine, a buck provided with detachable partitions having apertures, and said partitions arranged in inclined zig zag formation adapted to render the steam passing through said buck dry.

2. In a garment steaming and pressing machine, a buck having steam pipes along its base, and partition members arranged in inclined zig zag formation, said partition members being provided with apertures adapted to render the steam passing therethrough dry.

3. In a machine of the character described, a buck provided with steam pipes and partition members disposed in inclined zig zag formation, cone shaped apertures in said partition members, said apertures adapted to render the steam passing therethrough dry.

4. In a garment steaming and pressing machine of the character described, a buck having steam pipes therein, means for admitting steam to said buck, means for automatically shutting off said steam from said buck, partition members disposed in inclined zig zag formation in said buck, and said partition members having apertures adapted to render the steam passing therethrough, dry, substantially as described.

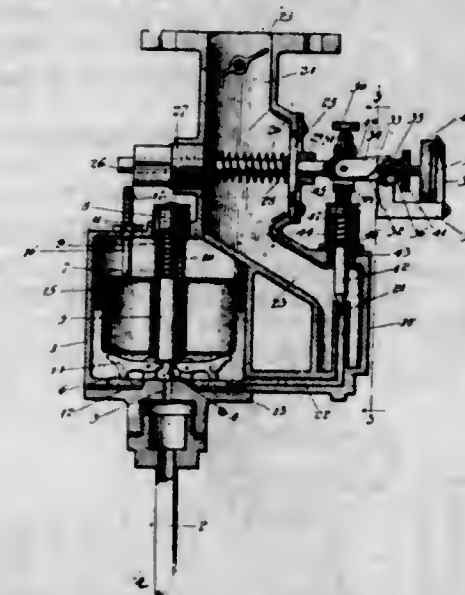
5. In a garment steaming and pressing machine, a buck having steam pipes disposed along its base said base being inclined for the drainage of the condenser steam, means for opening and closing the valves to said pipes, and partition members disposed in inclined zig zag formation in said buck and having cone shaped apertures adapted to render the steam passing therethrough, dry, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,080,696. CARBURETER. WILLIAM P. HUGUELET, Chicago, Ill., assignor, by mesne assignments, to Muir Company, Incorporated, Baltimore, Md., a Corporation of Delaware. Filed Sept. 27, 1912. Serial No. 722,580. (Cl. 48—154.1.)

1. In a carbureter, a carbureting passage having a primary air-inlet port, a mixing passage off-set relatively to said carbureting passage and communicating therewith, a fuel supply nozzle in said carbureting passage, an auxiliary air-valve in the mixing passage, a valve-controlling the fuel supply nozzle, the stems of said valves intersecting one another, and co-acting interengaging means on said respective valve-stems for transmitting movement from the air-valve to the nozzle valve.

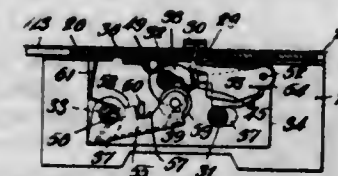
2. In a carbureter, a carbureting passage having a primary air-inlet port, a mixing passage off-set relatively to said carbureting passage and communicating therewith, a fuel supply nozzle in said carbureting passage, an auxiliary air-valve in the mixing passage, a valve controlling the fuel supply nozzle, the stems of said valves intersecting one another, and a cam-member carried by the air-valve stem and engaging the fuel valve-stem for transmitting movement of the air-valve to the fuel valve.



3. In a carbureter, a carbureting passage having a primary air-inlet port, a mixing passage off-set relatively to said carbureting passage and communicating therewith, a fuel supply nozzle in said carbureting passage, an auxiliary air-valve in the mixing passage, a valve controlling the fuel supply nozzle, the stems of said valves intersecting one another, a cam-member carried by the air-valve stem and engaging the fuel valve-stem for transmitting movement of the air-valve to the fuel valve, and means on said air-valve stem for adjusting said cam-member for varying the throw of the said fuel valve.

4. In a carbureter, a normally automatically closed fluid-pressure actuated reciprocable valve controlling an air-inlet port and having a stem, a projection on said stem externally of the carbureter housing having an inclined face, means for adjusting said projection for varying the cant of its inclined face, a reciprocable valve controlling the supply of hydro-carbon liquid and having a stem provided with a longitudinal slot through which the stem of the air-inlet valve passes and through which said projection travels, a part of said stem of said valve controlling the liquid supply disposed in the path of the inclined face of said projection for transmitting movement of the first-named valve to the last-named valve.

1,080,697. TIME-RECORDING MECHANISM. CHARLES E. JOHNSON, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Apr. 13, 1912. Serial No. 690,604. (Cl. 234—39.)



1. In mechanism of the character described, having a time-controlled record-receiver, a record-making mechanism, and means for shifting it to a locked inoperative position.

2. In mechanism of the character described having a time-controlled record-receiver, a series of key-selectable recorders, and means for shifting them bodily independently of the recording operation.

3. In mechanism of the character described having a time-controlled record-receiver, a frame having recorders

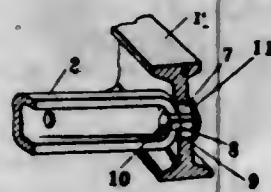
movably mounted therein, and key-operable means for shifting the frame to carry the recorders to and from operative position.

4. In mechanism of the character described having a time controlled record-receiver, a frame having recorders movably mounted therein, means for shifting the frame to carry the recorders to and from operative position, and means for locking the frame in inoperative position.

5. In mechanism of the character described having a time-controlled record-receiver, a bodily movable recorder, a stationary barrier to prevent operation of the recorder when occupying its normal position, and key-operable means for shifting the recorder relatively to said barrier to permit it to be operated.

[Claims 6 to 14 not printed in the Gazette.]

1,080,698. HARROW-BAR. JOHN KIEL, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 2, 1912. Serial No. 681,020. (Cl. 55-103.)



1. A harrow comprising side-bars and tooth-carrying bars, the latter having their ends formed into journals of diminished diameter adapted to rock in bearings on the side-bars, a longitudinal opening in said journals and means in said openings to secure said tooth-carrying bars from lateral movement.

2. A harrow comprising side-bars and tooth-carrying bars, the latter having their ends journaled in bearings on the side-bars, and means projecting through said journaled ends and secured outside of said bearings to secure said tooth-carrying bars from lateral movement.

3. A harrow comprising side-bars and tooth-carrying bars, the latter having their ends journaled in bearings on the side-bars, rivets projecting through said journaled ends and outside said bearings, washers on said rivets engaging with the outer side of said bearings and means to secure said washers on the rivets to prevent lateral movement of the tooth-carrying bars.

1,080,699. LISTER-HARROW. JOHN KIEL, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 19, 1913. Serial No. 762,357. (Cl. 55-103.)



1. In a lister-harrow, the combination with a frame, of tooth-carrying bars thereon, said tooth-carrying bars from their longitudinal center to their ends varying in height above a horizontal line.

2. In a lister harrow, the combination with a frame, of tooth-carrying bars thereon adapted to be rocked to vary the inclination of the teeth, said tooth-carrying bars varying in height above a horizontal line from their longitudinal center to their ends.

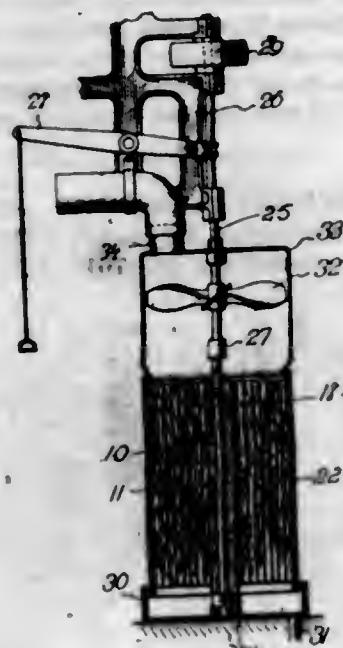
3. In a lister-harrow, the combination with a frame, having side-bars, of curved tooth-carrying bars mounted on the side-bars.

4. In a lister-harrow, the combination with a frame having side-bars, of upwardly curved tooth-carrying bars mounted on the side-bars.

5. In a lister-harrow, the combination with a frame having side-bars, of upwardly curved tooth-carrying bars mounted on the side-bars and rockable thereon.

[Claims 6 to 11 not printed in the Gazette.]

1,080,700. CENTRIFUGAL DRIER. JOHN V. KRANE-BIEL, Williamsville, N. Y. Filed Jan. 16, 1913. Serial No. 742,371. (Cl. 127-3.)



1. A centrifugal drier including a core, a flexible strip adapted to be wound upon the core with articles to be dried between the turns of the strip, and means for rotating said core with the strip thereon to centrifugally dry the articles.

2. In a centrifugal drier, the combination of a shaft, an imperforate flexible strip adapted to be wound around the shaft with articles to be dried interposed between turns of the strip, and means for applying power to the shaft to rotate the same with the strip wound thereon.

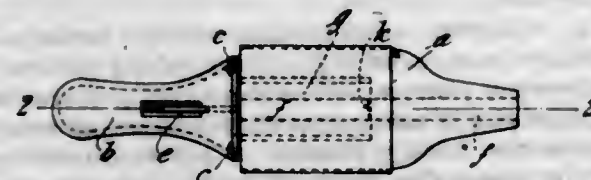
3. In a centrifugal drier, the combination of a strip adapted to be wound upon itself, with articles to be dried interposed between the turns of the strip, means for holding the wound strip against unwinding, and means for rotating the core.

4. In a centrifugal drier, the combination of a core, a flexible strip adapted to be wound upon the core with articles to be dried interposed between the turns of the strip, an imperforate casing having open ends and inclosing the strip when wound upon the core, means for securing the casing in place, and actuating means rotating the core with its strip and casing.

5. In a centrifugal drier, the combination of a core, a flexible imperforate strip adapted to be wound upon the core with articles to be dried interposed between the turns of the strip, said strip having transverse grooves extending across the same, and means for rotating the core with the strip wound thereon.

[Claims 6 to 11 not printed in the Gazette.]

1,080,701. TOY PISTOL. GEORGE C. LASARES, Springfield, Mass., assignor of one-half to Leonard E. White, Springfield, Mass. Filed Sept. 6, 1912. Serial No. 718,880. (Cl. 124-13.)

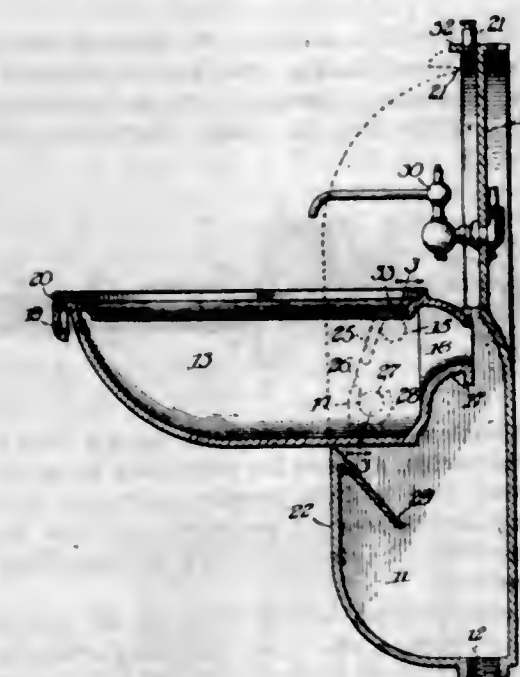


1. In a toy pistol, the combination with the barrel member which is formed with a magazine or receptacle cham-

ber at its rear end portion to receive cylindrical-shaped projectiles, the walls of the magazine being curved and passing through the axis of the barrel-member and eccentric to the axis of the barrel to permit the projectiles to roll downward thereon toward each other and transverse to the axis, the barrel being formed with a concentric bore therethrough and in communication with the magazine, an elastic strip member secured to the forward end of the magazine and extending into the bore of the barrel, whereby the lowermost projectile is prevented from falling from the barrel when the pistol is held with the muzzle of the barrel downward, and means for expelling said lowermost projectile, as described.

2. In a magazine toy pistol of the type described, the combination with a barrel member formed with a bore therethrough, a stock secured to the barrel member, an elastic projectile-expelling member located between the barrel and stock to expel the projectile from the barrel member, said barrel member being formed with a magazine or receptacle chamber to receive a large number of cylindrical-shaped projectiles, the walls of which chamber are oppositely curved to permit the projectiles to automatically roll to the lowermost position, a stop device extending partially across the bore of the barrel member and designed to retain the lowermost projectile in place until fired or driven through the barrel by means of the elastic member.

1,080,702. LAVATORY. THOMAS A. LEGGE, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed May 17, 1913. Serial No. 768,368. (Cl. 4-1.)



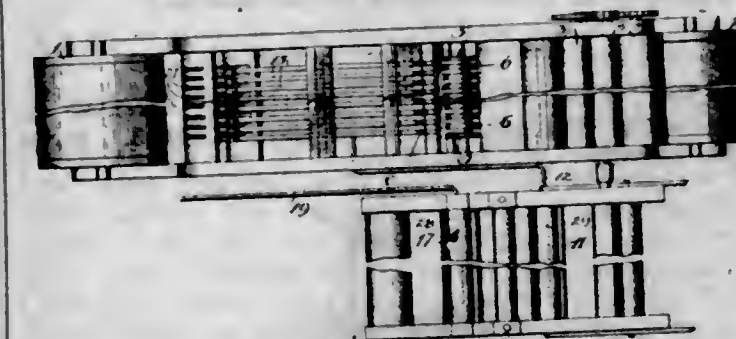
1. In a device of the class described, in combination, a pair of side walls each having an instanding flange at its forward edge, a basin adapted to enter between the flanges and having at each side a pair of studs, one above the other, and a socket back of each flange for receiving the lower one of a pair of the studs, each flange being interrupted to permit the entry of the studs in assembling the parts.

2. In a lavatory, in combination, an upright waste receiver having front, side and rear walls, the latter being constructed to be secured against an upright fixed support and the front wall being lower than the side walls, an instanding flange extending along the front edge of that part of each of the side walls of the waste receiver which is above the said front wall, an upwardly opening hinge socket in rear of each of said flanges, a basin constructed to be entered between the said flanges, and a pair of laterally projecting pins at each side of the basin, one for entering the corresponding socket to form a hinge and the other for engaging the corresponding flange above the socket to limit the turning of the basin in one direction, each of the said flanges being interrupted adjacent to and

above the corresponding socket to provide an opening for the passage therethrough of the two adjacent pins.

3. In a lavatory, in combination, an upright waste receiver having front, side and rear walls, the latter being constructed to be secured against an upright fixed support and the front wall being lower than the side walls, an instanding flange extending along each of the said side walls upwardly from the level of the upper edge of the said front wall and thence horizontally rearward, a swinging basin constructed to be detachably entered between the said flanges, and a laterally projecting lug at each side of the basin, each of said lugs being engageable with the upright and horizontal portions of the corresponding flange to prevent outward and upward movement of the basin when the latter is in service position, and a part of the upright portions of each of said flanges being omitted to provide an opening for the passage therethrough of the corresponding lug when the basin is turned to upright position.

1,080,703. PERFORATING-MACHINE. CHARLES L. LIL-LEBERG, Chicago, Ill., assignor to William Herbert Johnson, Chicago, Ill. Filed Mar. 31, 1909. Serial No. 486,916. Renewed July 7, 1911. Serial No. 637,324. (Cl. 164-114.)



1. A perforating machine including a cutter for partially forming perforations in a traveling sheet, a power storage device for operating the cutter, mechanism for storing power in said device, a cutter actuating device moved by said mechanism and escaping the cutter when thus moved and moved in a reverse direction by the power storage device when the power storage device is free and then serving to operate and thereafter escape the cutter to permit its return, a second cutter cooperating with the former in forming the perforations, and means for maintaining the second cutter in and bringing it out of action.

2. A perforating machine including a cutter for partially forming perforations in a traveling sheet, a power storage device for operating the cutter, pneumatic mechanism for storing power in said device, a cutter actuating device moved by said pneumatic mechanism and escaping the cutter when thus moved and moved in a reverse direction by the power storage device when the power storage device is free and then serving to operate and thereafter escape the cutter to permit its return, a second cutter cooperating with the former in forming the perforations, pneumatic mechanism for maintaining the second cutter in and bringing it out of action, two tracker boards, one for each pneumatic mechanism, and master sheet material cooperating with the tracker boards to govern the operation of the cutters.

3. A perforating machine including a cutter for cutting a traveling sheet, a power storage device for operating the cutter, pneumatic mechanism for storing power in said device, a cutter actuating device moved by said pneumatic mechanism and escaping the cutter when thus moved and moved in a reverse direction by the power storage device when the power storage device is free and then serving to operate and thereafter escape the cutter to permit its return, a tracker board for said pneumatic mechanism, and master sheet material cooperating with the tracker board to govern the operation of the cutter.

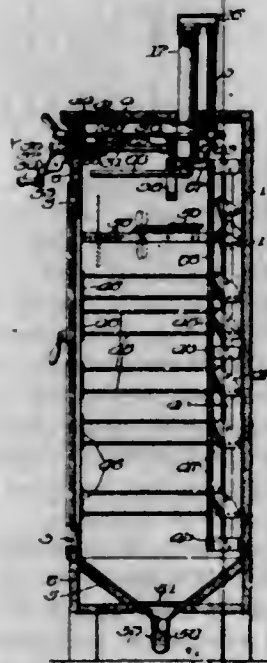
4. A perforating machine including a cutter for partially forming perforations in a traveling sheet, a power storage device for operating the cutter, mechanism for

storing power in said device, a cutter actuating device moved by said mechanism and escaping the cutter when thus moved and moved in a reverse direction by the power storage device when the power storage device is free and then serving to operate and thereafter escape the cutter to permit its return, a second cutter cooperating with the former in forming the perforations, a roller having an annular groove therein, and means for moving said latter cutter into, maintaining it in and withdrawing it from said groove.

5. A perforating machine including a cutter for partially forming perforations in a traveling sheet, a power storage device for operating the cutter, pneumatic mechanism for storing power in said device, a cutter actuating device moved by said pneumatic mechanism and escaping the cutter when thus moved and moved in a reverse direction by the power storage device when the power storage device is free and then serving to operate and thereafter escape the cutter to permit its return, a second cutter cooperating with the former in forming the perforations, a roller having an annular groove therein, pneumatic mechanism moving said latter cutter into, maintaining it in and withdrawing it from said groove, two tracker boards, one for each pneumatic mechanism, and master sheet material cooperating with the tracker boards to govern the operation of the cutters.

[Claims 6 to 17 not printed in the Gazette.]

1,080,704. DISH-WASHING MACHINE. CHARLES L. LILLEBERG, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,620. (Cl. 141-9.)



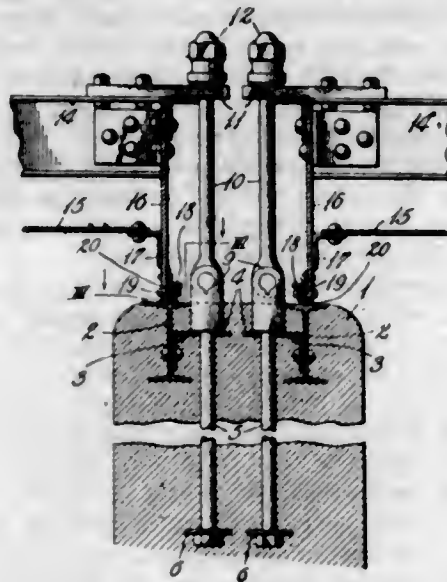
A dish washing machine including a water spraying device; a cabinet containing the spraying device; supporting means within the cabinet for holding the pieces to be washed; and mechanism for effecting bodily travel of the spraying device up and down relatively to the pieces being washed.

1,080,705. CURB AND HOLDFAST FOR GAS-PURIFIERS. ERNEST F. LLOYD, Detroit, Mich. Filed Dec. 8, 1912. Serial No. 735,201. (Cl. 72-9.)

1. The combination with the curb of a tank or the like and a closure therefor having a yielding gasket between it and the curb, of sill members embedded in the curb, anchor rods in the curb passing through apertures in the extensions of the sill members, anchor bolts pivoted to the rods and clamping plates on the closure engaged by the bolts.

2. The combination with the curb of a tank or holder of cementitious material, and a closure, of means for forcing the closure to seat consisting of sill beams embedded in the curb, lateral extensions thereon, anchor

rods in the curb passing through apertures in the extensions, bolts pivoted to the rods and clamping plates on the closure engaged by the bolts.



3. The combination with the curb of a tank or holder of cementitious material, a closure therefor, and a gasket sealing the joint between the closure and sill, of sill beams embedded in the curb, lateral extensions thereon, anchor rods in the curb passing through apertures in the extensions, bolts pivoted to the rods and clamping plates on the closure engaged by the bolts.

1,080,706. ROCK-DRILL. EDWIN M. MACKIE and PERCIVAL F. DOYLE, Franklin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 19, 1909. Serial No. 473,149. (Cl. 121-10.)



1. In combination with a rock drill, an air feed device cooperating therewith, a valve for admitting pressure fluid to the air feed, and a fluid pressure actuated governor for controlling the degree of pressure admitted to such device, said governor having provision for releasing such pressure therefrom.

2. In combination with a rock drill, an air feed device cooperating therewith, a valve for admitting pressure fluid to the drill and to the air feed device, and a fluid pressure actuated governor interposed between such valve and said device for controlling the degree of pressure admitted to such device, said governor having provision for releasing such pressure therefrom.

3. In a rock drill, the combination with a motive fluid operated motor and motive fluid operated feeding means therefor, of means for delivering motive fluid under pressure to the motor and to the feeding means, and mechanism for varying the pressure of the motive fluid delivered to the feeding means relative to that delivered to the motor, said mechanism having provision for releasing such motive fluid therefrom.

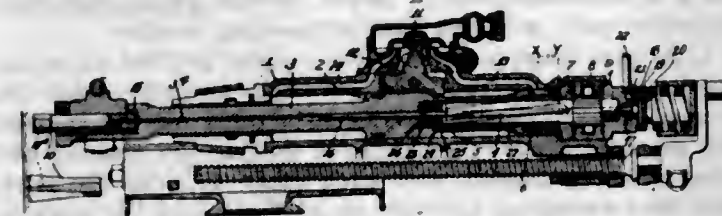
4. In a rock drill, the combination with a motive fluid operated motor and motive fluid operated feeding means therefor, of means for delivering motive fluid under pressure to the motor and to the feeding means, and mechanism for varying the pressure of the motive fluid delivered to the feeding means without affecting the pressure of the fluid delivered to the motor, said mechanism having provision for releasing the motive fluid delivered to the feeding means.

5. In a rock drill, the combination with a motive fluid operated motor, and motive fluid operated feeding means

therefor, of a supply conduit having branches leading respectively to the motor and to the feeding means, and variable pressure reducing means located in the branch that leads to the feeding means, said means having provision for releasing the motive fluid delivered to the feeding means.

[Claims 6 to 15 not printed in the Gazette.]

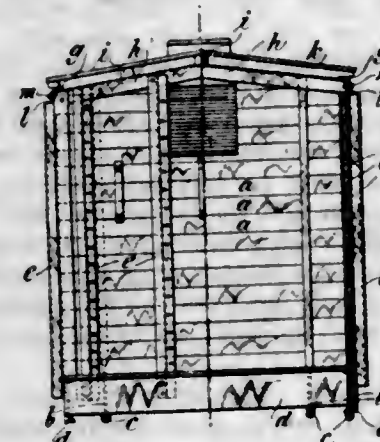
1,080,707. ROCK-DRILL. EDWIN M. MACKIE and PERCIVAL F. DOYLE, Franklin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 8, 1909. Serial No. 470,616. (Cl. 121-10.)



1. In a rock drill, the combination of the cylinder, piston and rifle bar of such a drill, both the piston and bar having longitudinal passages and the piston having a rifle bar chamber, a tube arranged in said passages and adapted to communicate with a source of fluid under pressure, and means for preventing back flow around the tube within the piston consisting of a removable box located at the front end of the rifle bar chamber and having an opening for said tube, and packing arranged within said box and around the tube said box and packing being formed as a unit.

2. In a rock drill the combination of a cylinder, piston, and rifle bar, both the piston and rifle bar having longitudinal passages and the piston having a rifle bar chamber, a tube arranged in said passages and adapted to communicate with the source of fluid under pressure, packing means at the front end of the rifle bar chamber, means engaging the rear end of said packing means and holding the same in position and means engaging the piston head at the rear end and engaging said first named means to hold it firmly against the packing.

1,080,708. BOX-CAR. ROBERT J. MAGOR, Passaic, N. J. Filed July 10, 1911. Serial No. 637,673. (Cl. 105-78.)

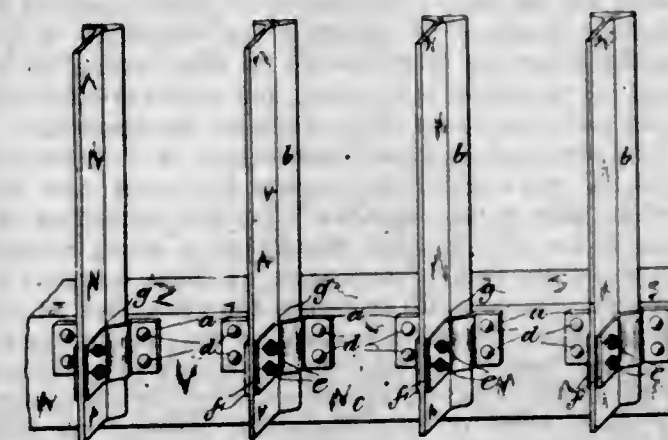


1. A collapsible box car superstructure having an iron secured along each edge of the roof to serve as a frame member to prevent injury and distortion to the roof while detached, and an iron secured along the top of each side serving a similar purpose while the sides are detached, the two irons on the same side of the car fitting together when the roof and sides are in position, and means to unite said two irons on each side when the car is assembled.

2. A collapsible box car superstructure having an angle-plate along each edge of the roof with its horizontal flange directed inwardly and its other flange directed downwardly, said angle-plate being secured to the roof to serve as a frame member to prevent injury and distortion to the roof while detached, and an angle-plate along the top of each side with its horizontal flange directed outwardly and its

other flange directed upwardly, said second angle-plate serving as a frame member for the corresponding side while detached, and means to unite the upwardly and downwardly projecting flanges on each side when the car is assembled.

1,080,709. CAR. ROBERT J. MAGOR, Passaic, N. J. Filed Apr. 23, 1913. Serial No. 762,994. (Cl. 105-183.)

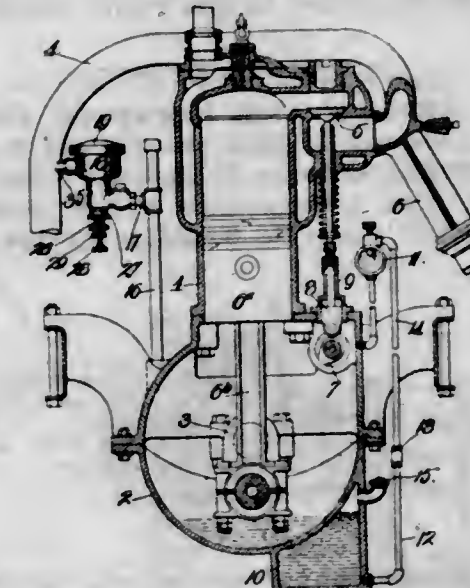


1. In a car, the combination with a stake having a flange and a rib, of a fastening device comprising a pair of angles each having one side fixed to the car and their other sides embracing said rib with the corner portion of at least one of said angles pressed in against said flange.

2. In a car, the combination with a stake having a flange and a rib, of a fastening device comprising a pair of angles deformed to fit substantially around the flange and embrace the rib, means to secure one side of each angle to the car, and means to draw the other sides of the angles together about the rib, the last named sides diverging before being drawn together whereby the corner portions of the angles may be forced inwardly during fastening.

3. In a car, the combination of a T-shaped stake, angle plates secured to the side member of the car, the fixed sides of said angle plates being deformed to fit the flange of the stake and the free sides embracing the rib of the stake, and a fastening member passing through said free sides and said rib.

1,080,710. LUBRICATING-OIL-CONSERVATION ATTACHMENT FOR GAS-ENGINES. CHAMPION MAXFIELD, Brookings township, Jackson county, Mo. Filed Aug. 21, 1911. Serial No. 645,086. (Cl. 123-196.)



1. The combination with a gas engine, of a connection establishing communication between the crank case and the intake pipe of the engine, and means whereby the capacity of the said connection is caused to vary inversely as the speed of the motor.

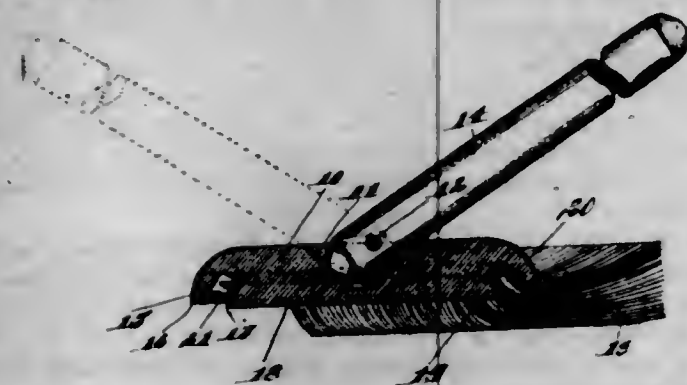
2. The combination with a gas engine, of a connection establishing communication between the crank case and

the intake pipe of the engine, a valve for controlling the passage of air through said connection, a spring holding the valve off its seat, and a diaphragm at times operated by atmospheric pressure to overcome the resistance of the spring and force the valve toward its seat.

3. The combination with a gas engine, of a connection establishing communication between the crank case and the intake pipe of the engine, a valve for controlling the passage of air through said connection, a spring holding the valve off its seat, a diaphragm at times operated by atmospheric pressure to overcome the resistance of the spring and force the valve toward its seat, means for increasing the tension of said spring, and means to positively limit the action imparted to the valve by the diaphragm.

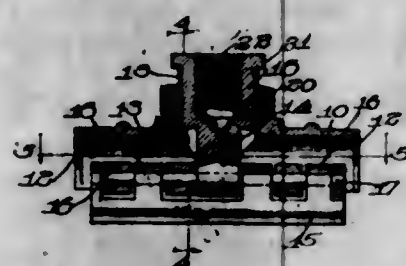
4. The combination with a gas engine, of a connection establishing communication between the crank case and the intake pipe of the engine, a valve for controlling the passage of air through said connection, a spring holding the valve off its seat, a diaphragm at times operated by atmospheric pressure to overcome the resistance of the spring and force the valve toward its seat, means for increasing the tension of said spring, means to positively limit the action imparted to the valve by the diaphragm, and a check valve in said connection between the first-named valve and the crank case and adapted to be unseated by the pull of the vacuum in the intake pipe.

1,080,711. DUST-MOP. SAMUEL B. McHENRY, Chicago, Ill. Filed June 22, 1912. Serial No. 705,196. (Cl. 15-13.)



In combination, a mop head comprising a disk having an annular groove opening upon the bottom face of the head and extending therein from its lower peripheral edge obliquely toward the center of the upper face, the side of said groove nearer the periphery of said disk being convex and the other side of said groove being concave; and mop material secured in said groove, substantially as described.

1,080,712. TROLLEY-WIRE CLAMP OR FASTENING DEVICE. GEORGE A. MEAD and FRANCIS S. DENNEEN, Mansfield, Ohio, assignors to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed July 19, 1909. Serial No. 508,367. (Cl. 191-43.)



1. A clamp for overhead electric conductors comprising a pair of separate clamp jaws, a supporting member to which the jaws are separately pivoted on an axis extending transversely of said member, a housing for the jaws and pivot through which the supporting member loosely passes, and means adjustable on the support and movable toward the jaws for forcing said housing and jaws into engagement with each other for closing the jaws.

2. A clamp for electric conductors comprising a pair of

pivottally connected clamping jaws, a support to which the jaws are pivoted on an axis extending transversely thereof, a housing through which the support passes, the clamping edges only of the jaws protruding from the housing, and means adjustable on the support and movable toward the jaws for forcing the housing and jaws into engagement with each other for closing the jaws.

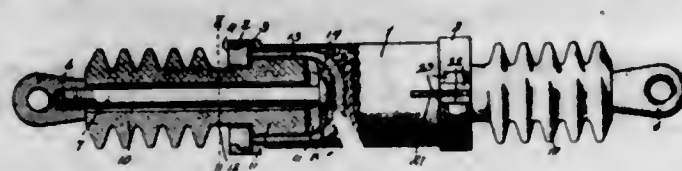
3. The combination of a wire clamp comprising a pair of clamping jaws, a supporting member to which the jaws are pivoted on an axis extending transversely of the member, a housing through which the supporting member loosely passes, and means adjustable on the support and movable toward the jaws for forcing said housing and jaws into engagement with each other for closing the jaws, and a separate suspension means for the clamp removably connected only with the said supporting member.

4. A wire clamp comprising a pair of pivoted clamping jaws, a support for the jaws, a member through which the support loosely passes, means adjustable on the support and movable toward the jaws for forcing the member and jaws into engagement with each other to close the jaws, said jaws extending laterally on both sides of the support, and said member engaging the jaws throughout the entire length and below the pivot thereof.

5. A wire clamp comprising a pair of separate pivoted clamping jaws, a supporting member to which the jaws are pivoted on an axis extending transversely of the member, a housing for the jaws and pivot separate from and loosely surrounding the support, said housing standing astride of and being supported by the jaws and having faces engaging the jaws, said faces converging toward a line below the jaws, and an adjustable member on the support for forcing the jaws and housing toward each other to cause the jaws to be forcibly closed by the inclined faces.

[Claims 6 to 8 not printed in the Gazette.]

1,080,713. STRAIN-INSULATOR. GEORGE A. MEAD and WILLARD H. KEMPTON, Mansfield, Ohio, assignors to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed July 13, 1910. Serial No. 571,778. (Cl. 173-366.)



1. A strain insulator comprising an integral shell with expansible open ends and provided with a plurality of inwardly projecting segmental lugs and an internal annular recess inside of the lugs in each of said end openings, an insulating block with an enlarged inner end projecting through each of said end openings into said shell, said blocks being provided with means for attaching cables or supports thereto, and a locking ring with outwardly projecting segmental lugs adapted to be inserted beneath said lugs on the shell at each end to lock said insulating block in position.

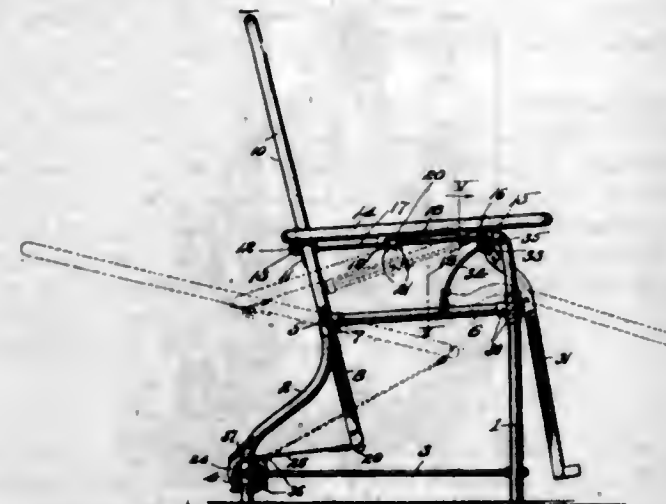
2. A strain insulator comprising an integral shell open at both ends, each of said open ends being slotted to make them adjustable in size, an insulating block protruding from each end, a locking ring between the shell and the block, said blocks being provided with means for attaching a support thereto, and means for contracting the slotted ends to clamp the insulating blocks therein.

3. A strain insulator comprising an integral shell open at both ends, each of said open ends being provided with inwardly projecting lugs arranged at intervals around the inside of said open ends, an insulating block mounted in each end of said shell, said blocks being provided each with an annular shoulder within the shell of a size to be inserted between the lugs, and a locking ring mounted within each open end and in abutment with the shoulder on said insulating block, each of said rings being provided with outwardly projecting segmental lugs adapted to be passed through the spaces between the lugs on the shell

and to be rotated under the last said lugs, and means for rigidly securing the several parts together.

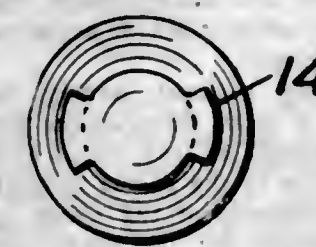
4. A strain insulator comprising an integral shell provided with a contractible end portion, an insulating block having an end portion of smaller diameter than said shell, said reduced end portion being provided with a neck forming a shoulder, means inter-engaging between the shoulder formed by said neck and said contractible portion of the shell, and a member projecting from said block for engaging a conductor, support or the like.

1,080,714. RECLINING-CHAIR. FERDINAND MEYERSE, St. Louis, Mo. Filed Aug. 5, 1912. Serial No. 713,216. (Cl. 155-16.)



In a reclining chair, the combination of a supporting or leg frame, a back pivottally mounted adjacent its lower end in the said frame, resting arms pivottally connected with said chair back, rods pivottally connected with the front portion of said supporting frame adjacent the under side of said resting arms, said resting arms being slidably mounted on said rods, adjustable stops mounted on said rods for limiting the sliding movement of said resting arms and said chair back, spring actuated means mounted on said chair and connected to said chair back for returning said chair back and said resting arms to their forward position when the weight of the occupant is removed therefrom.

1,080,715. REFRACTORY TILE AND PLUG FITTING. HAROLD H. NEVANS, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1913. Serial No. 743,098. (Cl. 75-95.)



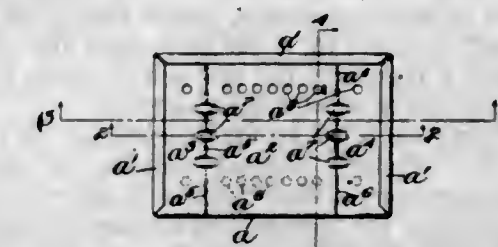
1. A refractory tile-and-plug flue or furnace fitting comprising the combination of a tile having a circular opening through it and having a concavity the bottom of which constitutes a seat, a refractory sight plug having a cylindrical stem adapted to the circular opening and a head adapted to said seat, screw-and-thread connection integral with the stem of the plug and the tile, a washer encircling the stem of the plug between said head and seat, and means whereby the plug may be turned, substantially as described.

2. A refractory tile-and-plug flue or furnace fitting comprising the combination of a refractory wall fitting having a circular opening through it, a tile having a circular opening through it and having an externally cylindrical stem adapted to the circular opening of the fitting and having a concavity the bottom of which constitutes a seat, a screw-and-thread connection integral with the

197 O. G.—21

fitting and tile, a refractory sight plug having a cylindrical stem adapted to the circular opening in the tile and a head adapted to said seat, screw-and-thread connection formed on the stem of the plug and on the tile, a washer encircling the stem of the plug between said head and seat, and means whereby the plug may be turned, substantially as described.

1,080,716. GERMICIDE-INSERT FOR POCKET-BOOKS AND THE LIKE. JAMES H. RAND, Jr., Newton, Mass. Filed Feb. 21, 1912. Serial No. 679,131. (Cl. 167-3.)



1. A germicide insert comprising a casing having apertures in its opposite walls, and a pad consisting of a body of pasty disinfecting composition containing formaldehyde covered with and confined by porous fabric on both sides, said fabric extending beyond the ends of said pad and being bent over on said pad to form spacers between said pad and the walls of said casing.

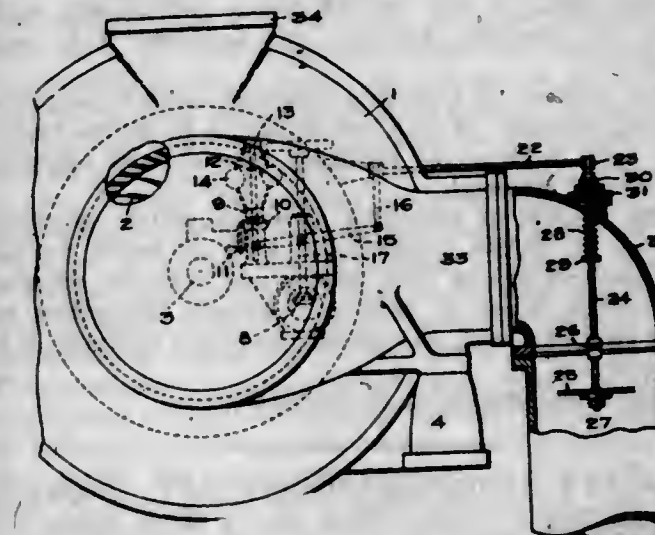
2. A germicide insert comprising a casing having at least two compartments, provided with apertures, a body of material containing formaldehyde for the generation of gas in one of said compartments, and a humidifier pad in the other compartment.

3. A germicide insert comprising a casing having at least two compartments, provided with apertures, a body of material containing formaldehyde for the generation of gas in one of said compartments, a humidifier pad in the other compartment, and a passage connecting said compartments to permit circulation therebetween.

4. A germicide insert comprising a metal casing, the walls of which are indented and bent to form at least two compartments, a pad of pasty disinfecting composition containing formaldehyde in one of said compartments, and a humidifier pad in the other compartment.

5. A germicide insert comprising a metal casing the walls of which are indented and bent to form a partition dividing the casing into at least two compartments, a pad of pasty disinfecting composition containing formaldehyde in one of said compartments, a humidifier pad in the other compartment, and a passage across said partition connecting said compartments to permit circulation therebetween.

1,080,717. GOVERNOR FOR CENTRIFUGAL AIR-COMPRESSORS. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 15, 1910. Serial No. 555,613. (Cl. 230-24.)



1. The combination with a centrifugal apparatus for imparting pressure to a fluid, of a motor for driving it,

a mechanism for controlling the speed of said motor, a fluid conveying conduit having a straight portion, a float located in said portion of the conduit, means including a rod for transmitting the movements of said float to the controlling mechanism and an adjusting spring that acts on said rod to vary the action of the float.

2. The combination with an air compressor, of a motor for driving it, a straight cylindrical conduit conveying air to said compressor, a connection between the conduit and the compressor, a float located in the cylindrical conduit, a rod connected to the float and extending through said connection, a spring that surrounds the rod and is located in said connection, means supported by the connection and external to it for adjusting the effect of the spring, and a regulator for the motor which is sensitive to the movements of said float and rod.

3. The combination with an air compressor, of a motor for driving it, a straight vertical conduit for conveying air to said compressor, a float located in said conduit, a spring for opposing the upward movements of said float means for adjusting the spring and a regulator for the motor which is responsive to movements of said float.

4. The combination with an air compressor, of a motor for driving it, a conduit through which the air acted upon by the compressor passes, said conduit having a straight sided portion, a device located in said portion and moved by the fluid flowing through it, a spring opposing movement of the device in one direction, means for adjusting the spring, a regulator for the motor, and means for causing movements of the device to modify the position of the regulator.

5. The combination with an air compressor, of a motor for driving it, a conduit through which the air acted upon by the compressor passes, said conduit having a straight cylindrical portion and an elbow connected thereto, a float located in the straight portion, an axially movable rod on one end of which the float is mounted, the other end of said rod extending outwardly through the wall of the elbow, an adjustable and removable abutment mounted on the wall of the elbow and through which the rod passes, an abutment on the rod, a spring having its ends in engagement with said abutments, a regulator for the driving motor, and means connecting the outer end of the rod with the regulator.

1,080,718. PROCESS FOR BLEACHING ARTICLES. AUGUST J. ROSSI, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Jan. 31, 1912. Serial No. 674,544. (Cl. 8—2.)

1. The method of bleaching materials which comprises applying thereto a solution containing sesquichloride of titanium (Ti_2Cl_3) and ferrous chloride.

2. The method of bleaching materials which comprises applying thereto a solution containing titanous chloride and ferrous chloride.

3. The method of bleaching materials which comprises dissolving titanium and iron in dilute hydrochloric acid, filtering the resulting solution, and applying it to said material.

4. The method of bleaching materials which comprises dissolving an alloy of iron and titanium in dilute hydrochloric acid, filtering the resulting solution, and applying it to the said material.

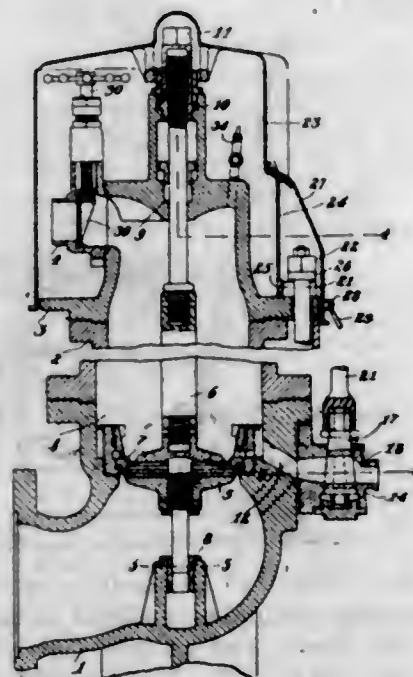
5. The method of bleaching materials which comprises dissolving in dilute hydrochloric acid at below normal boiling temperature an alloy of iron and titanium, filtering the resulting liquor to remove therefrom impurities including titanium oxide, and carbon, and then applying it to said materials.

[Claim 6 not printed in the Gazette.]

1,080,719. COMPRESSION-HYDRANT. JOSEPH A. ROUREN, Boston, Mass. Filed Apr. 6, 1912. Serial No. 689,036. (Cl. 137—13.)

1. A compression hydrant, having, in combination, a stand-pipe, a valve casing, a main valve normally forced

against its seat to close the valve by the pressure of water in the main pipe, an operating spindle for the main valve, extending up through the stand-pipe, means at the top of the stand-pipe for manually operating the spindle, a main valve chamber located adjacent to the main valve and having passages leading therefrom above and below the main valve, and also provided with a drip passage, a valve supported in the valve chamber and provided with ports arranged to close the drip passage and connect the passages above and below the main valve to form a bypass, or to close the passage below the valve and connect the passage above the valve with the drip passage, and mechanism for actuating the valve.



2. A compression hydrant, having, in combination, a stand-pipe, a valve casing, a main valve normally forced against its seat to close the valve by the pressure of water in the main pipe, an operating spindle for the main valve extending up through the stand-pipe, means at the top of the stand-pipe for manually operating the spindle, a valve chamber located adjacent to the main valve and having passages leading therefrom above and below the main valve and a drip passage, a valve supported in the valve chamber and provided with ports arranged to close the drip passage and connect the passages above and below the main valve to form a bypass, or to close the passage below the valve and connect the passage above the valve with the drip passage, or to close the passage above the valve and connect the passage below the valve with the drip passage, and mechanism for actuating the valve, substantially as described.

3. A compression hydrant, having, in combination, a fixed stand-pipe, a main valve casing provided with passages leading through its wall above and below the main valve, a main valve in the casing normally forced toward its seat by the pressure of the water against the valve, an operating spindle for the main valve extending up through the stand-pipe, means at the top of the stand-pipe for manually operating the spindle, an auxiliary valve casing secured to the main valve casing and provided with a drip passage and with passages registering with the passages through the wall of the main valve casing, a combined bypass and drip valve in the auxiliary valve casing provided with ports arranged to close the passage leading to the lower side of the valve and to connect the drip passage with the passage leading to the upper side of the main valve, or to close the drip passage and connect the passages leading to the opposite sides of the main valve, and means for operating the drip and bypass valve, substantially as described.

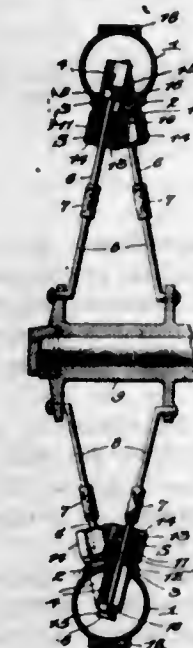
4. A compression hydrant, having, in combination, a fixed stand-pipe, a main valve casing provided with passages leading through its wall above and below the main valve, a main valve in the casing normally forced toward

its seat by the pressure of water against the valve, an operating spindle for the main valve extending up through the stand-pipe, means at the top of the stand-pipe for manually operating the spindle, an auxiliary valve casing secured to the main valve casing and provided with a drip passage and with passages registering with the passages through the wall of the main valve casing, a combined bypass and drip valve in the auxiliary valve casing provided with ports arranged to close the passage leading to the lower side of the valve and to connect the drip passage with the passage leading to the upper side of the main valve, or to close the drip passage and connect the passages leading to the opposite sides of the main valve, or to close the passage leading to the upper side of the main valve and to connect the drip passage and the passage leading to the lower side of the main valve, and means for operating the drip and bypass valve, substantially as described.

5. A compression hydrant, having, in combination, a stand-pipe, a main valve, an operating spindle for the valve extending up through the stand-pipe, operating mechanism at the upper end of the stand-pipe for said spindle, an equalizing valve, operating means therefor, and a hood covering the top of the hydrant the removal of which is controlled by the operating means for the equalizing valve, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,080,720. RESILIENT VEHICLE-WHEEL. LEM H. SCHOONOVER, Boise, Idaho. Filed Aug. 23, 1913. Serial No. 786,291. (Cl. 152—28.)



1. In a resilient vehicle wheel, the combination of a rim, radially-disposed cylinders secured thereto, pistons having longitudinal grooves and a circumferential groove out of which the first-named grooves open to form air conduits to the interior of the cylinders, stuffing boxes forming air-tight closures for the inner-ends of the cylinders, piston rods secured to the pistons, knuckle joint members secured to the piston rods, spokes secured to the knuckle joint members, and a hub to which the spokes are attached.

2. In a resilient vehicle wheel, the combination of a metallic tubular rim, a flat rubber tire shrunk over the rim and forming the tread, radially-disposed cylinders extending partly within and partly without the tubular rim, felly mechanism to securely fasten the cylinders in position, pistons having one or more longitudinal grooves and a circumferential groove out of which the aforesaid longitudinal grooves open to form air conduits to the interior of the cylinders, stuffing boxes forming air-tight closures for the cylinder ends, piston rods secured to the pistons, knuckle joint members secured to the piston rods, spokes secured to the knuckle joint members, and a hub to which the spokes are attached, substantially as set forth.

1,080,721. METHOD OF TREATING MATERIALS WITH SOLUTIONS OF TITANOUS SALTS. CHRISTIAN M. EDWARD SCHROEDER, Rutherford, N. J., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Jan. 28, 1913. Serial No. 743,724. (Cl. 8—2.)

1. The method of bleaching materials which comprises immersing them in a bath containing metallic titanium and an acid solvent of titanium.

2. The method of bleaching materials which comprises immersing them in a bath containing metallic titanium and hydrochloric acid.

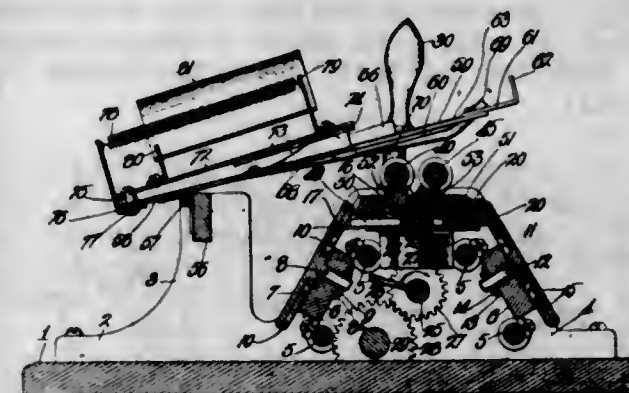
3. The method of bleaching materials which comprises immersing them in a bath containing metallic titanium, metallic iron and an acid solvent of titanium and of iron.

4. The method of bleaching materials which comprises immersing them in a bath containing metallic titanium, metallic iron and hydrochloric acid.

5. The method of bleaching materials which comprises immersing them in a bath containing an alloy of iron and titanium and an acid solvent thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,080,722. PENCIL-PRINTING MACHINE. JESSE B. SCOTT, Kansas City, Kans., assignor to The Ad-Pencil Company, Kansas City, Mo., a Corporation of Missouri. Filed Nov. 9, 1912. Serial No. 730,415. (Cl. 101—83.)



1. In a machine for printing cylindrical objects a supporting plate for a pair of printing forms, a pair of inking rollers, means for moving said rollers back and forth over said forms, guiding means whereby one of said rollers shall be permitted to engage one of said forms and be lifted to clear the other form, and the companion roller will be lifted to clear the first-named form and permitted to engage the other form, and means for rolling a cylindrical object over said forms.

2. In a machine for printing cylindrical objects, a supporting plate for a pair of printing forms, a pair of inking rollers, means for moving said rollers back and forth toward said forms, yielding means for pressing the rollers toward the forms in their passage over the latter, guiding means whereby one of said rollers shall be permitted to engage one of the forms and prevented from engaging the other, guiding means whereby the companion roller shall be prevented from engaging the form engaged by the first-named roller and permitted to engage the other form, and means for rolling a cylindrical object over said forms.

3. In a machine for printing cylindrical objects, a supporting plate for a pair of printing forms, a pair of inking devices, a pair of inking rollers, means for moving said rollers back and forth over said forms and inking devices, guiding means whereby one of said rollers shall be permitted to engage one of the inking devices and one of the forms and raised above the other form and inking device in each of the movements of the said roller, and the other roller shall be caused to travel over the first-named inking device and form without contact therewith and lowered to engage the other form and inking device in both movements of said roller, and means for rolling a cylindrical object over said forms.

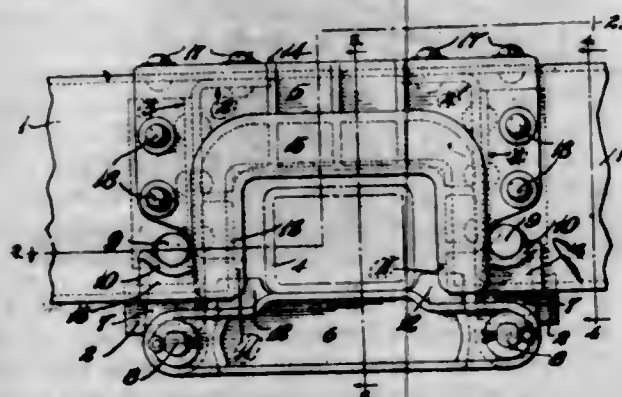
4. In a machine for printing cylindrical objects, a supporting plate for a pair of printing forms, a pair of inking

devices, a pair of inking rollers, means for moving said rollers back and forth over said forms and inking devices, guiding means whereby one of said rollers shall be permitted to engage one of the inking devices and one of the forms and raised above the other form and inking device in each of the movements of the said roller, and the other roller shall be caused to travel over the first-named inking device and form without contact therewith and lowered to engage the other form and inking device in both movements of said roller, and means for automatically imparting rotary movement to one of the devices as the rollers travel in one direction and similar movement to the other inking device as the rollers travel in the other direction.

5. In a machine for printing cylindrical objects, a supporting plate for a pair of printing forms, a pair of inking devices, a pair of inking rollers, means for moving said rollers back and forth over said forms and inking devices, yielding means tending to constantly press the rollers toward the inking devices and forms in the passage of the former over said devices and forms, guiding means whereby one of said rollers shall be permitted to engage one of the inking devices and one of the forms in both movements of the said roller, guiding means whereby the other roller in both of its movements shall be permitted to engage the other inking device and form, and means for rolling a cylindrical object over said forms.

[Claims 6 to 13 not printed in the Gazette.]

1,080,723. CENTERING DEVICE. VINTON E. Sisson, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Aug. 31, 1911. Serial No. 646,998. (Cl. 213-42.)



1. The combination with a recessed end sill of a center casting having an external flange adjacent the end sill and adapted to be attached thereto, an internal flange following the contour of the recess of the end sill to position the casting with respect thereto, bifurcations symmetrically arranged on either side of the center line of the casting, pivoted links mounted between said bifurcations with their pivotal axes parallel to the center line of the car, and a carry-iron pivotally supported by said links, said carry-iron being provided with lugs engaging between the bifurcations in said casting.

2. A centering device for railway draft rigging comprising a center casting having a central passage for the draw-bar formed between two bifurcated projecting portions, bearings in said bifurcated portions, links having trunnions, said links being suspended by said trunnions on said bearings to swing between said bifurcations, and a carry-iron pivotally supported by said links.

3. A centering device for railway draft rigging comprising a center casting having two bifurcated projecting portions forming a central passage for the draw-bar, bearings in said bifurcated portions, links pivotally mounted in said bearings to swing between said bifurcations, and a carry-iron pivotally supported by said links, said carry-iron having parts adapted to slidably engage between said bifurcations.

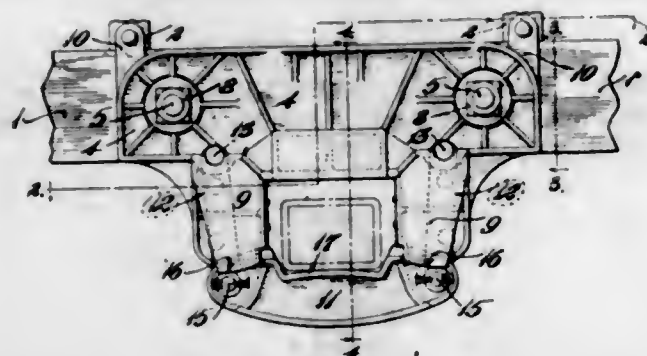
4. The combination with spaced longitudinal draft girders and an end sill, of a striking-casting secured to said end sill and to said draft girders to form a rigid bridge across the ends of said draft girders, and a carry-

iron supported from said striking-casting for movement in a transverse direction with respect to the car, said carry-iron being provided with parts adapted to slidably engage with transverse walls of said striking-casting at points substantially in longitudinal alignment with said draft girders.

5. In a centering device for railway cars, a carry-iron, supporting links pivotally connected to said carry-iron at its ends, said links being provided with trunnions at the ends remote from said carry-iron, and a striking-casting having depending portions on its under side terminating over the ends of said carry-iron, said striking-casting having notches forming part bearings for said trunnions, the depth of the notches being greater than the space between the ends of the carry-iron and the under side of the depending portions of the striking-casting so that the links cannot be raised sufficiently for the trunnions to clear the sides of the notches in any position of the carry-iron.

[Claims 6 to 10 not printed in the Gazette.]

1,080,724. CENTERING DEVICE. VINTON E. Sisson, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Aug. 31, 1911. Serial No. 646,999. (Cl. 213-42.)



1. A carrier for draw-bars, said carrier comprising members pivotally supported at the ends by trunnions and positioned obliquely, a draw-bar support carried thereby for swinging movement, and lugs on said draw-bar support which are adapted to slidably engage with fixed portions of the car.

2. In a carrier for draw-bars, a member fixed at the end of the car, a carry-iron pivotally supported at each end to said member by links positioned obliquely, said carry-iron slidably engaging in notches provided in said member.

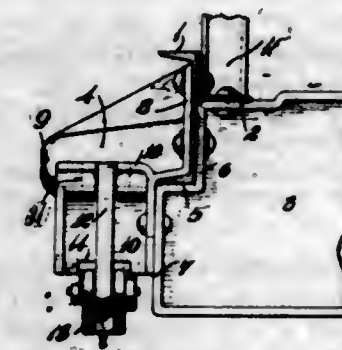
3. In a centering device for draw-bars, a carry-iron having end bifurcations and a middle portion adapted to support a draw-bar, supporting members mounted in said end bifurcations and axially pivoted at fixed points of support on the car to swing transversely thereof, said fixed points being spaced equidistant from the center line of the car and at a total distance apart different from the length of the carry-iron between its points of support.

4. In a centering device for draw-bars, a carry-iron having end bearings and a middle portion adapted to support a draw-bar, supporting members having ends pivotally mounted in said end bearings and journaled at the opposite ends in bearings fixed on the car, said last mentioned bearings being at a greater distance apart than the distance between the end bearings of the carry-iron so said supporting members are inclined inwardly in their normal position.

5. In a car, the combination of draft sills, a member connecting said draft sills and provided with depending portions, a carry-iron pivotally suspended from said member and slidably engaging said depending portions, said carry-iron comprising a convex part adapted to support a drawbar, and said carry-iron suspending means yieldingly holding said convex part in central alignment with the center line of the car.

[Claims 6 and 7 not printed in the Gazette.]

1,080,725. CAR END FRAMING. VINTON E. Sisson, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Aug. 31, 1911. Serial No. 647,000. (Cl. 213-42.)



1. In a car end framing, end sills and draft girders, and a striking-casting comprising a bumper having an upwardly extending flange portion adapted to be secured to the sill, and two depending arms offset from the ends of said bumper and arranged at the extremities of the draft girders and rigidly secured thereto, said arms being provided with inside and outside walls connected by web portions terminating at their lower ends in bifurcations, and said striking-casting being formed with pivot bearings spaced laterally from both ends of said bumper above said bifurcations.

2. In a car end framing comprising end sills, end posts and draft girders, a striking-casting having a flange portion rigidly secured to the sill and end posts, two depending arms arranged at either extremity of said striking-casting and provided with web portions rigidly secured to the ends of the draft girders, said arms terminating in bifurcations between which the carry-iron for the draw-bar may be positioned, and an integral connection between said arms and flange portion substantially in line with the end posts.

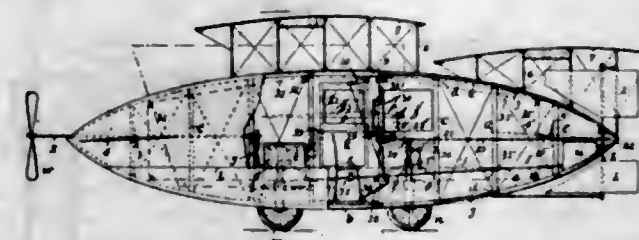
3. A striking-casting for railway cars comprising a bumper, an upwardly extending flange portion adapted to be secured to the car, two depending hollow arms arranged at each extremity of said bumper, the inner walls of said arms being adapted to be secured to the ends of the draft girders of the car, each of said arms terminating in bifurcations adapted to receive the ends of a draw-bar carry-iron, and the top walls of said arms being recessed to receive and hold in position supports for the ends of said draw-bar carry-iron.

4. In a car end framing comprising draft sills, a metal end sill, and a striking-casting secured thereto, end posts terminating below the top of said end sill and supported on a flange secured thereto, said end posts being secured to said striking-casting and to said flange, and said striking-casting being directly secured to said draft sills, whereby a rigid connection between said parts is secured.

5. In a car end framing comprising a metal end sill, and a striking-casting secured thereto, end posts terminating below the top of said end sill, said end posts being secured to said striking-casting whereby a rigid connection between said parts is secured.

[Claims 6 and 7 not printed in the Gazette.]

1,080,726. FLYING MACHINE. CHARLES E. SMITH, Paterson, N. J. Filed June 17, 1910. Serial No. 567,389. (Cl. 244-14.)



1. The combination of a planiform supporting means arranged substantially horizontally and a hollow carrier for the aviator sustained by the supporting means and having its exterior walls closed at substantially all points

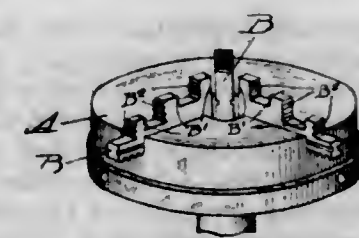
and its side walls vertical and substantially parallel with each other from end to end thereof and its top wall sloping downwardly and its bottom wall upwardly at each end of the carrier, substantially as described.

2. The combination of a planiform supporting means arranged substantially horizontally and a hollow carrier for the aviator sustained by the supporting means and having its exterior walls closed at substantially all points and its side walls vertical and substantially parallel with each other from end to end thereof and its top wall sloping downwardly and its bottom wall upwardly at each end of the carrier, and said carrier being arranged in pendant relation to the supporting means, substantially as described.

3. The combination of a planiform supporting means arranged substantially horizontally, a hollow carrier for the aviator sustained by the supporting means and having its exterior walls closed at substantially all points and its side walls vertical and substantially parallel with each other from end to end thereof and its top wall sloping downwardly and its bottom wall upwardly at each end of the carrier, and said carrier being arranged in pendant relation to the supporting means, planes pivotally movable around transversely extending axes and projecting laterally from the carrier and means for controlling said planes, substantially as described.

4. The combination of a carrier for the aviator, frames each pivoted therein on a transversely extending axis, and separate planiform supporting means each projecting laterally from the carrier and pivoted to one of said frames on an axis extending transversely of the axis of pivotal movement of said frame, substantially as described.

1,080,727. CHUCK. FRANK L. SMITH, Chicago, Ill., and THOMAS B. WILLIAMS, Orange, Mass., assignors to Leavitt Machine Company, Orange, Mass., a Corporation of Massachusetts. Filed Mar. 26, 1913. Serial No. 756,853. (Cl. 10-108.)



1. A chuck comprising a body portion and jaw members mounted radially therein for converging and diverging movement, said members having each a plurality of shoulders forming pipe-gripping surfaces parallel with the axis toward which the jaw members converge, said shoulders being provided with serrations constituting segments of screw threads formed about said axis, the threads of said pipe-gripping surfaces being successively coarser and coarser as said surfaces are successively more and more remote from the axis, and corresponding substantially to standard threads of the pipe sizes, adapted to be gripped by said surfaces respectively.

2. A chuck comprising, a body portion and a plurality of jaw members adjustably carried thereby for movement toward and from a central axis, each of said jaw members having a plurality of projections extending parallel to the aforesaid axis, the inner and outer faces of such projections with respect to said axis being serrated, and such serrations constituting segmental portions of screw threads.

3. A chuck comprising, a body portion and a plurality of jaw members adjustably carried thereby for movement toward and from a central axis, each of said jaw members having a series of steps and having a projection extending from each step parallel with the aforesaid axis, the inner and outer faces of such projections with respect to said axis being serrated, and such serrations constituting segmental portions of screw threads.

4. A chuck comprising, a body portion and a plurality of jaw members adjustably carried thereby for movement

toward and from a central axis, each of said jaw members having a projection extending parallel to the aforesaid axis, the inner face of said projection with respect to the axis being concave and the outer or opposite face being convex, and said inner and outer faces having serrations constituting segmental portions of female and male threads, respectively.

5. A chuck comprising, a body portion and a plurality of jaw members adjustably carried thereby for movement toward and from a central axis, each of said jaw members having a plurality of projections extending parallel to the aforesaid axis, the gripping surfaces of each projection having serrations constituting segments of a screw thread, and the threads of the several projections being of different pitches corresponding to various sizes of standard threads.

1,080,728. STREET-CAR ADVERTISING APPARATUS. MARTIN P. SMITH, St. Louis, Mo., assignor to Welcome F. Sweet, St. Louis, Mo. Filed Apr. 10, 1913. Serial No. 760,250. (Cl. 40-79.)



1. In an advertising apparatus of the class described, a wall provided with a series of openings, a plurality of display members arranged in series behind each opening, and means for shifting the front display member of each series to a position in the rear of the next adjacent series.

2. In an advertising apparatus of the class described, a wall provided with a series of openings, a plurality of display members arranged in series behind each opening, means for shifting the front display member of each series to a position in the rear of the next adjacent series, and means for transferring the display members from the series at one end of the apparatus to the series at the other end.

3. In an advertising apparatus of the class described, a wall provided with a series of openings, a plurality of display members arranged behind the wall with a series opposite each opening, and fluid-pressure-actuated means for shifting the front display member of each series to a position in the rear of the next adjacent series.

4. In an advertising apparatus of the class described, a wall having a series of openings, a plurality of display members arranged behind said wall with a series opposite each opening therein, fluid-pressure-actuated means for shifting the front display member of each series to a position in the rear of the next adjacent series, and gravity-actuated means for transferring the display members from the series at one end of the apparatus to the series at the other end.

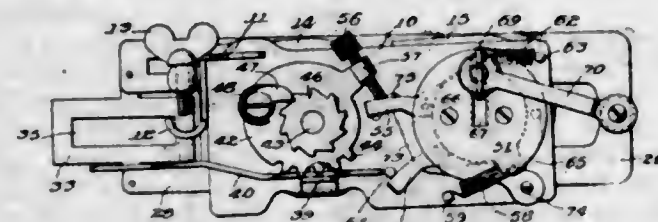
5. In an advertising apparatus of the class described, a wall provided with a series of openings, a plurality of display members arranged behind the wall with a series opposite each opening therein, a member arranged for reciprocation behind the wall, and means connected to said reciprocating member for engaging and shifting the front display member of each series to a position in the rear of the next adjacent series.

[Claims 6 to 14 not printed in the Gazette.]

1,080,729. BUTTONHOLE-WORKING ATTACHMENT FOR SEWING MACHINES. FRANKLIN SPAULDING, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,055. (Cl. 112-4.)

1. In a buttonhole-working attachment, a cloth feeder plate, means for oscillating said plate including an oscillatory member, a screw threaded in said member, a rotary clutch wheel having a removable top plate, said top plate having a radial slot therein provided with undercut sides, a member mounted in said slot, a thumb screw mounted in said member, a link attached at one end to said screw and at its other end to said cloth feeder plate, and a

clutch device including a dog adapted to engage said clutch wheel for imparting intermittent partial rotations thereto, said dog being adapted to be directly engaged and moved by the screw threaded in said oscillatory member.



2. A buttonhole-working attachment comprising a cloth feeder plate and means for advancing said plate including a rotary wheel and a link connecting said wheel to said plate, a cam fixed with relation to said wheel, a pivoted arm arranged to bear against said cam, a clutch device including a dog arranged to engage said wheel for rotating it, the backward and return movement of said dog being limited by said arm, and means for swinging said dog.

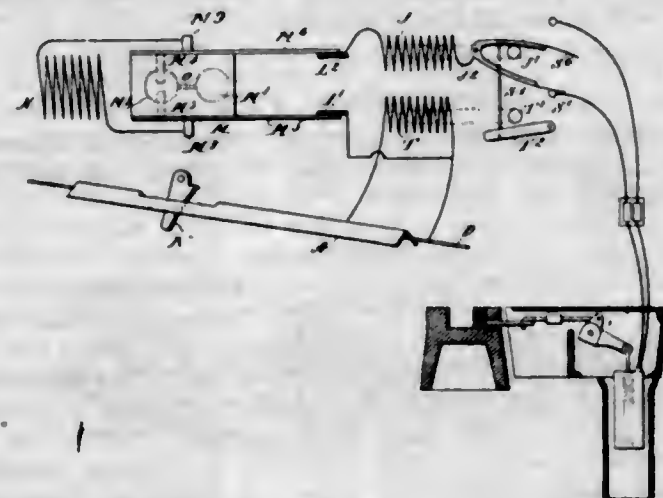
3. In a buttonhole-working attachment, a cloth feeder plate, a clutch wheel operatively connected thereto, an oscillatory device arranged to intermittently rotate said clutch wheel and means for limiting the return movement of said oscillatory device to control its arc of feeding movement, said means comprising a cam fixed with relation to said clutch wheel, and a member arranged to engage said cam and to limit said oscillatory device.

4. In a buttonhole-working attachment, a base plate, a cloth feeder plate slidably mounted thereon, a rotary clutch wheel operatively connected to said feeder plate, a clutch device including a dog adapted to engage said wheel and rotate it, means for moving said dog back and forth, means for limiting the return movement of said dog comprising a cam fixed with relation to said clutch wheel, and an arm pivoted to said base plate and adapted to bear against said cam, said arm having a portion against which said dog stops in its return movement.

5. In a buttonhole-working attachment, a base plate, an oscillatory plate pivoted to the underside of said base plate and having an opening therein, a cam fitting in said opening, means for driving said cam, a cloth feeder plate mounted for traveling movement beneath said oscillatory plate, said oscillatory plate and said feeder plate having longitudinal slots therein extending in the same general direction, the slot in said oscillatory plate having undercut side walls, a block in the latter slot engaging said side walls, and a screw threaded in said block and adapted to secure said block in place, said screw projecting into the slot in said feeder plate for communicating motion thereto.

[Claim 6 not printed in the Gazette.]

1,080,730. CIRCUIT-CONTROLLING MECHANISM FOR ELECTRIC RAILWAY SWITCHES. CHARLES W. SQUIRES, Beverly, Mass. Filed July 25, 1911. Serial No. 640,521. (Cl. 104-155.)



1. A track switch operating mechanism comprising a main circuit, a circuit locking magnet, two track switch connections and a switch member operable to connect

either of the two track switch connections with the main circuit, means operable by said circuit locking magnet while energized to hold said switch member in fixed position, a car circuit, a magnet comprised therein, and an operable connection between said car circuit magnet and the switch member of the track switch operating circuit whereby said switch member may be moved, substantially as described.

2. A track switch operating mechanism in which is comprised a main circuit, a circuit locking magnet, two track switch connections and a switch member operable to connect the main circuit with either of the two track switch connections, means operable by the said circuit locking magnet when energized to hold said switch member in fixed position during the passage of current through either of the track switch connections, a car circuit magnet connectible to the car and adapted to be energized when the circuit through the car is closed, an armature therefor and a connection between said armature and said switch member adapted to throw said switch member from one to the other of the track switch connections, substantially as described.

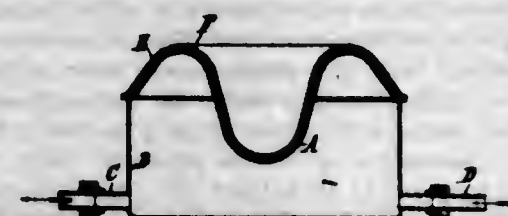
3. In a track switch mechanism, a normally open circuit, a contact member, a trolley actuated member adapted to impart movement to said contact member to effect the closing of said normally open circuit, an electro-magnet in said normally open circuit and an armature operable by said magnet and adapted to cause said contact member to again open the normally open circuit, a second electro-magnet comprised in said normally open circuit, adapted when energized to prevent movement of the said armature, automatic means adapted to be operated by the movement of said contact member to effect the shunting of said second magnet within a predetermined time limit, substantially as described.

4. A trolley wire, a circuit controlling device supported thereon, comprising a normally open circuit, a contact member, an actuating lever suitably supported and operable by the trolley wheel of a passing car to move said contact member whereby it will close said normally open circuit, an electro-magnet comprised in a track switch operating circuit, automatic means operable with said contact member to shunt said magnet coil, and means adapted to operate said contact member to reopen said normally open circuit, substantially as set forth.

5. In a mechanism of the kind described, the combination of a normally open circuit, a trolley operated contact member adapted to close said circuit, an electro-magnet comprised in the normally open circuit, and means comprising an armature adapted to be operated by said magnet whereby the energization of said magnet will cause the opening of the normally open circuit.

[Claims 6 to 23 not printed in the Gazette.]

1,080,731. PROCESS AND APPARATUS FOR RAPIDLY SHAPING HATS. FERNAND STOFFEL, Paris, France, assignor, by mesne assignments, to Vacuum Hand Blocking Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 25, 1912. Serial No. 722,227. (Cl. 223-31.)



1. A process for shaping hats consisting in first softening the hat, and then pressing it by a vacuum against a perforated mold by means of an elastic and impermeable membrane, substantially as hereinbefore described.

2. An apparatus for shaping hats, comprising a perforated metal mold made of the form of a hat to be shaped, a metal case in which steam can be admitted and a vacuum created in succession, and an elastic membrane which may be placed upon the hat to be shaped when the

latter is in place upon said mold and which is adapted to press said hat firmly against the mold when a vacuum is created in said case, substantially as hereinbefore described.

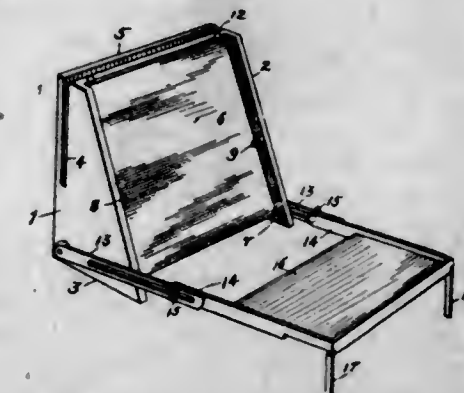
3. An apparatus for shaping hats comprising a metal case having a flat perforated top, a mold or block adapted to fit upon said case top, valve controlled steam and vacuum pipes, and a flexible and impervious membrane fixed upon the periphery of the case, whereby said membrane may be pressed against said mold or block on which is placed the hat during the vacuum operation, substantially as hereinbefore described.

4. A process for shaping and pressing hats, comprising placing a hat-shape between a mold or form and a flexible diaphragm, and producing a vacuum on the under side of said diaphragm to press the same against said mold and interposed hat-shape.

5. A process for shaping and pressing hats, comprising placing a hat-shape between a perforated mold or form and a flexible diaphragm, and producing a vacuum on the under side of said diaphragm to press the same against said mold and interposed hat-shape.

[Claims 6 to 13 not printed in the Gazette.]

1,080,732. HEAD AND ARM REST. LUCY STYVE, Albert Lea, Minn. Filed July 15, 1912. Serial No. 709,527. (Cl. 5-43.)



In a device of the class described, tapered slotted lateral walls, a slotted back wall connecting the said lateral walls, a pillow rest pivoted terminally to the said lateral walls, means secured to the said lateral walls and pillow rest whereby the latter may be adjusted with relation to the back wall, slotted arms pivotally secured to the said lateral walls and an arm rest provided with pivoted legs secured to the said slotted arms.

1,080,733. VALVE MECHANISM FOR ENGINES. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 27, 1906. Serial No. 303,174. (Cl. 121-97.)

1. An engine having a cylinder, a piston, a crank shaft driven by the piston, a main valve controlling the passage of fluid through the cylinder, a lever for operating the valve, and a normally fixed fulcrum for the lever which is mounted on the cylinder, in combination with means for actuating the lever comprising members capable of relative movement and a body of normally quiescent fluid for transmitting motion from one to the other, a valve controlled passage for locking and unlocking the fluid between the members, a means for moving one of the members, and a speed responsive device for adjusting the valve in said passage.

2. In an engine having a stationary and a movable element, a main shaft driven by the movable element, a valve controlling the passage of motive fluid, a lever for operating the valve and a normally fixed fulcrum for the lever which is mounted on the stationary element, the combination of a divided actuator for the lever between the parts of which motion is imparted by a body of liquid, and a means for rendering the liquid ineffective when it is desired to leave the valve in a given position and for rendering it effective when it is desired to have the parts of the actuator move together.

3. In an engine having a cylinder, a piston, a main shaft driven thereby, and a main valve controlling the passage of motive fluid through the cylinder, the combination of a piston and a cylinder for operating the main valve through the medium of a body of liquid, a second valve for releasing the liquid on opposite sides of the piston when it is desired to leave the main valve idle and for confining said liquid when it is desired to actuate the main valve, a device which tends to close the second valve at all times, and governor mechanism for controlling the action of the device on the second valve.



4. In an engine having a cylinder, a piston, a main shaft driven thereby, a valve controlling the passage of motive fluid through the cylinder, a lever for operating the valve, and a fixed fulcrum for the lever which is mounted on the cylinder, the combination of a divided actuator for actuating the lever, a cam for moving the parts of the actuator through a fluid medium, and a governor-controlled means regulating the action of the fluid medium for connecting and disconnecting the parts of the actuator.

5. In an engine having a movable and a stationary element, a main shaft driven by the movable element, a valve controlling the passage of fluid, a lever for operating the valve, a normally fixed fulcrum for the lever which is mounted on the stationary element, and a secondary shaft driven at a lower speed than the main shaft, the combination of a divided actuator for the lever comprising parts that are connected through a body of liquid, a cam on the secondary shaft for moving one part of the actuator, and means for connecting and disconnecting the parts of the actuator through the medium of the liquid.

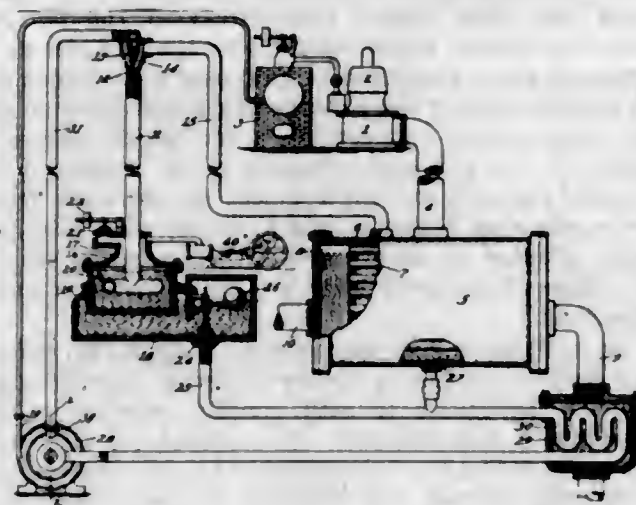
[Claims 6 to 16 not printed in the Gazette.]

1,080,734. CONDENSING APPARATUS. ELI THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 2, 1908. Serial No. 418,763. (Cl. 82-24.)

1. In combination, a prime mover, a surface condenser that receives all of the exhaust vapor from the prime mover and condenses it, means for supplying cooling water to the condenser and maintaining it separate from the water of condensation, a means separate from the condenser and connected to its vapor space that acts solely to extract air and uncondensed gases from the condenser and comprises a fall column, and a pump which receives water of condensation only from the condenser and discharges it into the upper end of said column, the cooling water and the water of condensation being separately maintained.

2. In combination, a prime mover, a surface condenser that receives all of the exhaust vapor from the prime mover and condenses it, means for supplying cooling wa-

ter to the condenser and maintaining it separate from the water of condensation, a means which acts solely to extract air and uncondensed gases from the condenser that comprises a fall column, a connection from the top thereof to the vapor space at the top of the said condenser, a centrifugal pump that receives water of condensation only from the condenser and discharges it into the upper end of said column, and an air trap located at the bottom of the column in which the water and vapors separate.



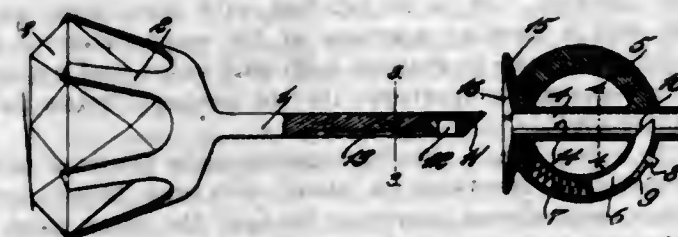
3. In combination, a prime mover, a surface condenser that receives all of the exhaust vapor from the prime mover and condenses it, means for supplying cooling water to the condenser and maintaining it separate from the water of condensation, a means which acts solely to extract air and uncondensed gases from the condenser that comprises a fall column, a connection from the top of the column to the vapor space at the top of said condenser, and an automatically acting trap with which the lower end of the column communicates, which trap discharges air when the pressure therein reaches a certain predetermined value and discharges the water of condensation when the level thereof exceeds a certain predetermined point.

4. In combination, a prime mover, a surface condenser that receives all of the exhaust vapor from the prime mover and condenses it, means for supplying cooling water to the condenser and maintaining it separate from the water of condensation, a means which acts solely to extract air and uncondensed gases from the condenser that comprises a fall column, a connection between the upper end of the column and the vapor space of said condenser, an automatic trap into which the lower end of the column extends, said trap being constructed and arranged to release the air contained therein when the pressure exceeds a predetermined value and to discharge water of condensation when the level thereof exceeds a certain point, a cooler for the water of condensation, a connection between the trap and the lower part of the condenser and the cooler, and a centrifugal pump which receives water of condensation unmixed with the cooling water from the cooler and discharges it into the upper end of the column.

5. In combination, a prime mover, a boiler for supplying vapor thereto, a surface condenser that receives all of the vapor exhausted from the prime mover and condenses it, means for supplying cooling water to the condenser, said cooling water being maintained entirely separate from the water of condensation, a means separate from the condenser that acts solely to extract air from the condenser and comprises a fall column, a connection between the vapor space at the upper part of the condenser and the top of the column, and a trap connected to and receiving the water of condensation from the column, said trap acting to control the escape of air from the water, and a centrifugal pump connected to and receiving water from the lower part of the condenser and from the trap after air has been separated therefrom which pump discharges water of condensation at different pressures to the upper end of the column and to the boiler respectively.

[Claims 6 to 8 not printed in the Gazette.]

1,080,735. EAR-STUD FASTENER. RUBY TOLCHIN, St. Louis, Mo. Filed Mar. 8, 1913. Serial No. 752,919. (Cl. 24-155.)



1. The combination with an ear stud, of a detachable fastener therefor, said fastener comprising a tubular member sleeved on said stud, said stud and tubular member having counterpart cooperating portions arranged so that they fit only when placed endwise in one particular relation to each other and whereby they are permitted relative longitudinal movement but are prevented from turning independently of each other when assembled, an arcuate tubular member secured at its opposite ends to said first-mentioned tubular member and opening at one end into said first-mentioned tubular member, and a correspondingly curved spring-pressed latch pin working in said arcuate tubular member so as to normally project transversely into said first-mentioned tubular member, said ear stud having a transverse opening adapted to receive the end of said latch pin.

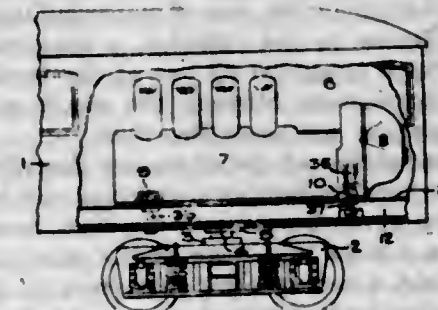
2. The combination with an ear stud, of a detachable fastener therefor, said fastener comprising a tubular member sleeved on said stud, said stud and tubular member being relatively grooved and ribbed longitudinally on one side so that they fit only when placed endwise in one particular relation to each other and whereby they are permitted relative longitudinal movement but are prevented from turning independently of each other when assembled, an arcuate tubular member secured at its opposite ends to said first-mentioned tubular member and opening at one end into said first-mentioned tubular member, and a correspondingly curved spring-pressed latch pin working in said arcuate tubular member so as to normally project transversely into said first-mentioned tubular member, said ear stud having a transverse opening adapted to receive the end of said latch pin.

3. The combination with an ear stud, of a detachable fastener therefor, said fastener comprising an integral structure including a tubular member, two semi-circular members merging at their ends with said tubular member on opposite sides thereof, a collar at the inner end of said tubular member and merging with the adjacent ends of said semi-circular members, said tubular member being sleeved on said ear stud, said stud and tubular member having counterpart cooperating portions arranged so that they fit only when placed endwise in one particular relation to each other and whereby they are permitted relative longitudinal movement but are prevented from turning independently of each other when assembled, one of said semi-circular members being tubular and opening at one end into said first-mentioned tubular member near the outer end thereof, and a spring-pressed arcuate latch pin working in the tubular portion of said semi-circular member so as to normally project transversely into said first-mentioned tubular member, said ear stud having a transverse opening adapted to receive the end of said latch pin.

1,080,736. MEANS FOR SUPPORTING ENGINES IN SELF-PROPELLED VEHICLES. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 23, 1912. Serial No. 692,747. (Cl. 105-17.)

1. In combination, a car body, a truck therefor, an engine mounted on the body, coiled compression springs seated at different points on the body and sustaining a portion of the weight of the engine, which have lower periods of vibration than the engine, means for anchoring the engine on the support, and cushions interposed be-

tween the anchoring means and the engine which are under relatively low compression.



2. In combination, a support, an engine, coiled compression springs seated at different points on the support and sustaining the weight of the engine which have lower periods of vibration than the engine, and cushioning means interposed between the engine and the support to prevent engine movements of any appreciable magnitude with respect to the support.

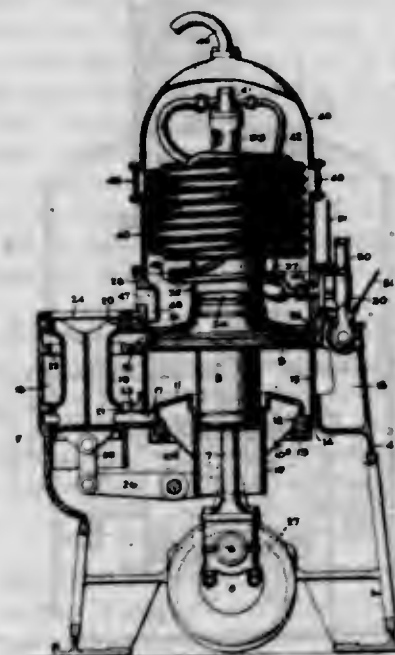
3. In combination, a support, an engine, coiled compression springs seated on the support and sustaining the weight of the engine which have lower periods of vibration than the engine, and means for restricting fore and aft and sidewise movements of the engine with respect to the support.

4. In combination, a support, an engine, springs seated on the support and partially sustaining the weight of the engine, said springs having different periods of vibration than the engine, cushioning means interposed between the engine and the support which assist in supporting the engine and are under low compression, and anchoring means which engage said cushioning means and limit the movements of the engine with respect to the support.

5. In the combination, a support, an engine, coiled compression springs seated on the support and partially sustaining the weight of the engine, said springs being distributed at different points under the engine and having lower periods of vibration than said engine, cushioning means interposed between the engine and the support which assist in supporting the engine and are under low compression, and anchoring means which are separated from the support by said cushioning means and serve to limit the fore and aft, side-wise and upward movements of the engine with respect to the frame.

[Claims 6 to 14 not printed in the Gazette.]

1,080,737. AIR-COMPRESSOR. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Feb. 20, 1913. Serial No. 749,609. (Cl. 230-32.)



1. In an apparatus of the character described, the combination of a base containing a receiver, a removable

cylinder located therein which forms a wall of the receiver and has ports communicating therewith, valve means controlling the ports, heads for the cylinder that are supported by the base, one of which holds said cylinder in place, a piston in the cylinder, a member carried by the piston which is guided by one of the heads, a driving shaft, and connections between the shaft and the valve means and pistons for actuating them.

2. In an apparatus of the character described, the combination of a base containing a receiver and having internal shoulders, a removable cylinder that rests on one of the shoulders, a head that rests on the other and supports a tubular guide, a second head that rests on the base and holds the cylinder in place, a piston in the cylinder, a member carried thereby which moves in the guide and is attached to the piston, a driving shaft, and a connection between the shaft and piston.

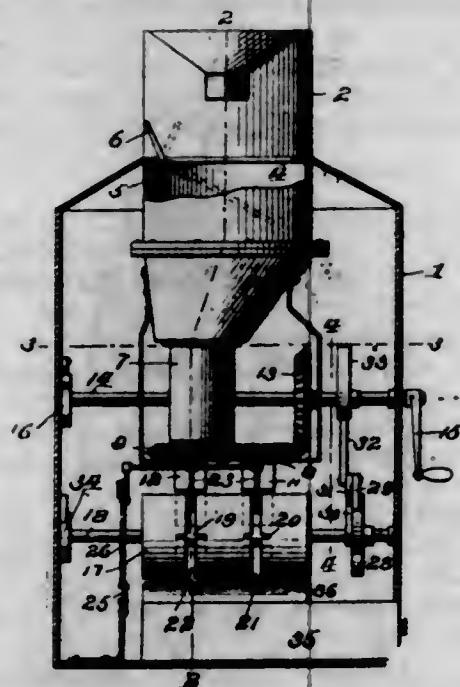
3. In an apparatus of the character described, the combination of a base having shoulders, a cylinder that is supported by one of the shoulders, a head therefor which is supported by another shoulder, a guide that is carried by the head, a piston, a member moving with the piston and engaging the guide, a second head for the cylinder that carries a second cylinder, a piston for the second cylinder that is connected to the first and in addition to acting as such forms a guide for the first piston, a driving shaft, and a connecting rod means between the shaft and the pistons.

4. In an apparatus of the character described, the combination of a base containing a receiver, ports in the cylinder, a valve that controls the admission of fluid to the cylinder and its passage therefrom to the receiver, means for actuating the valve, a piston in the cylinder, guides on opposite sides of the piston, heads for the cylinder that are directly supported by the base and also receive and direct the movements of the guides, a main shaft, a connection between the piston and the shaft, and means actuated by the shaft for moving the valve.

5. In an apparatus of the character described, the combination of a base, a ring supported thereby, a cylinder supported by the ring, conduits for conducting fluid to and from the cylinder that pass through the ring, a cover that rests on the ring and incloses the cylinder, a piston in the cylinder, a driving shaft, and connecting means between the piston and shaft.

(Claims 6 to 13 not printed in the Gazette.)

1,080,738. FARE-BOX. CLYDE C. VOGLESONG, Oakland, Cal., assignor to himself, and Peter A. McKensie, San Francisco, Cal., trustees. Filed Apr. 7, 1913. Serial No. 759,396. (Cl. 235-32.)



1. A fare box comprising a cylindrical chute adapted to hold coins in a superimposed relation, a horizontal

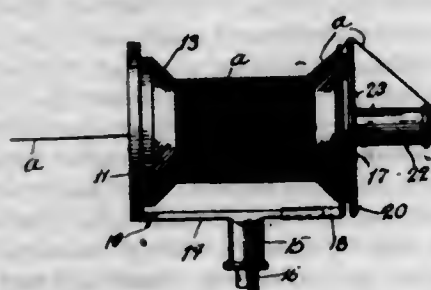
rotatable plate of the thickness of the thinnest coin to be handled, arranged below and in close relation to said chute, the lower surface of said plate being spaced from the bottom of the chute a distance equal to the thickness of the thickest coin to be handled, said plate being provided with a circular aperture of the same diameter as the chute adapted to register with said chute and a plate having segregating apertures therein arranged below said rotatable plate.

2. In a fare box, a coin segregating plate provided with differentiating apertures, a chute arranged below each aperture, said chutes operating to turn the coins from a horizontal to a vertical position, a drum adapted to rotate about a horizontal axis arranged below said chutes and provided with radial slots adapted to receive the coins from said chutes, a registering mechanism, and means operative by the rotation of the drum during the presence of a coin in one of said slots to operate the registering mechanism.

3. In a fare box, a segregating plate provided with differentiating apertures, chutes arranged below said apertures adapted to turn the coins from a horizontal to a vertical position, the longitudinal sides of the bottom of said chutes lying in the same vertical plane, a drum adapted to rotate about a horizontal axis arranged below said chutes, the axis of the drum lying in said vertical plane, said drum being provided with a plurality of radial slots adapted to register with said chutes and receive the respective coins therefrom, and with annular grooves intersecting said slots; a lever disposed in each groove arranged to be actuated by the rotation of the drum during the presence of a coin in one of said slots and a registering mechanism operatively connected to said lever.

4. In a fare box, a coin segregating mechanism, chutes for conducting the separate coins from the segregating mechanism, the longitudinal edges of the bottom of said chutes lying in the same vertical plane, a drum mounted on a horizontal shaft arranged below said chutes, said shaft lying in said vertical plane, a plurality of radial slots in said drum, adapted to register with the respective chutes, and means for giving said drum a step by step motion whereby the slots are successively halted in alignment with said chutes.

1,080,739. UNWINDING DEVICE FOR SPOOLS. JOHN L. WALSH, Chicago, Ill., assignor, by direct and meane assignments, to Ideal Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 21, 1912. Serial No. 737,948. (Cl. 242-128.)



1. An unwinding device of the class described, comprising a spool holder arranged to non-rotatively support a spool of thread, a stationarily supported check ring surrounding a free end of the spool, and a thread guiding device secured upon said free end of the spool, and having a circular, unbroken edge projecting beyond the spool flange, and cooperating with said check ring to form tension mechanism for the thread, said thread guiding device having also a thread-receiving opening, registering with the hollow of the spool, said unbroken edge of the thread guiding device acting as a smooth track, across which the thread may pass from the spool to and through said opening in the thread guiding device.

2. An unwinding device of the class described, comprising a spool holder arranged to non-rotatively support a spool of thread, a stationarily supported check ring surrounding a free end of the spool, and a disk secured to said

free end of the spool and having a circular, unbroken edge projecting beyond the spool flange, and cooperating with said check ring to form tension mechanism for the thread, said disk having also a central opening, registering with the hollow of the spool, and through which the thread may pass to and through the hollow of the spool, said unbroken edge acting to direct the thread from the spool toward said opening.

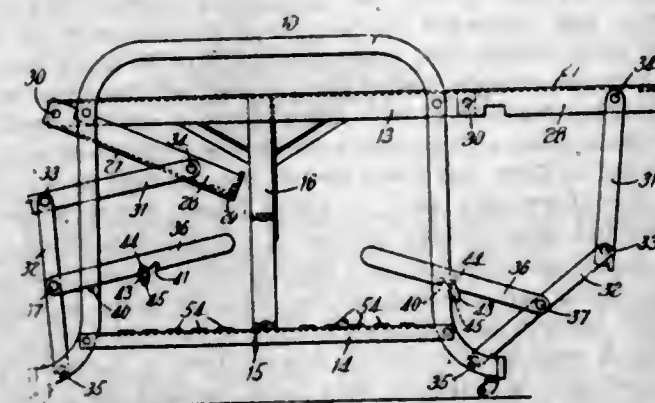
3. An unwinding device of the class described, comprising a spool holder arranged to non-rotatively support a spool of thread, a check ring surrounding a free end of the spool, a support therefor, and a thread guiding device secured to said end of the spool, and comprising a circular disk of greater diameter than the check ring, and a tubular extension registering with the hollow of the spool, said check ring and disk cooperating to check the movement of the thread coming from the spool, and the tubular extension acting to direct the thread to and through the hollow of the spool.

4. An unwinding device of the class described, comprising a spool holding disk and a tubular stem arranged to enter the hollow of the spool and non-rotatively secure said spool to the disk, a bar and secured to said disk and extending lengthwise to the spool, a check ring carried by said bar and surrounding the free end of the spool, a circular disk having a hollow stem frictionally secured in the hollow of the spool, and a tubular extension on its outer face and registering with said hollow stem, said disk being of greater diameter than the check ring and cooperating therewith to check the movement of the thread coming from the spool.

5. An unwinding device of the class described, comprising a spool holding disk having a tubular stem adapted to enter the hollow of the spool and frictionally hold said spool on said disk, a supporting bar secured to said disk and extending lengthwise to the spool, a check ring surrounding the free end of the spool and adjustably mounted on said bar whereby it may be moved lengthwise of the spool, and a thread-guiding device having a circular disk arranged to be secured against the end face of the spool adjacent the check ring, said disk being of greater diameter than the check ring, and said thread guiding device having also a tubular extension registering with the hollow of the spool.

(Claims 6 and 7 not printed in the Gazette.)

1,080,740. COUCH-BED. NATHAN WEBSTER, Melrose, Mass. Filed May 10, 1913. Serial No. 766,702. (Cl. 5-16.)



1. A couch bed having, in combination, a main frame, a bed spring supported on said main frame and an auxiliary bed spring and frame pivoted to swing from a horizontal position in alignment with said main bed spring to a reversed position therebeneath and means to lock said auxiliary bed spring and frame in each of said positions respectively.

2. A couch bed having, in combination, a main frame, a bed spring supported on said main frame and an auxiliary bed spring and frame pivoted to swing from a horizontal position in alignment with said main bed spring to a position therebeneath and means to lock said auxiliary bed spring and frame in said horizontal position, said means consisting of a pair of toggle links pivoted to each other

at one end thereof and to said auxiliary and main frames at the other ends thereof and a brace pivoted to one of said links and detachably connected to said main frame.

3. A couch bed having, in combination, a main frame, a bed spring supported on said main frame and an auxiliary bed spring and frame pivoted to swing from a horizontal position in alignment with said main bed spring to a position therebeneath, means to lock said auxiliary bed spring and frame in said horizontal position, said means consisting of a pair of toggle links pivoted to each other at one end thereof and to said auxiliary and main frames at the other ends thereof and a brace pivoted to one of said links and provided with a notch in its lower end and a projection on said auxiliary frame adapted to engage said notch.

4. A couch bed having, in combination, a main frame, a bed spring supported on said main frame and an auxiliary bed spring and frame pivoted to swing from a horizontal position in alignment with said main bed spring to a position therebeneath, means to lock said auxiliary bed spring and frame in said horizontal position, said means consisting of a pair of toggle links pivoted to each other at one end thereof and to said auxiliary and main frames at the other ends thereof, a brace pivoted to one of said links and provided with a notch in its lower edge and a projection on said auxiliary frame adapted to engage said notch, and a latch pivoted to said brace adjacent to said notch and adapted to close said notch.

5. A couch bed having, in combination, a main frame, a bed spring supported on said main frame and an auxiliary bed spring and frame pivoted to swing from a horizontal position in alignment with said main bed spring to a reversed position therebeneath and means to lock said auxiliary bed spring and frame in said last named position consisting of an arm pivoted to said auxiliary bed spring frame and adapted to engage a portion of said main frame.

(Claims 6 to 12 not printed in the Gazette.)

1,080,741. BRAKE-BEAM THIRD-POINT-SUSPENSION MOUNT. CHARLES H. WILLIAMS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 23, 1913. Serial No. 769,458. (Cl. 188-70.)



1. The combination, with a part of a car truck, of a third point suspension spring mounted thereon, and means for holding said spring in position, said means permitting the third point suspension spring to be moved whereby the brake beam may be unhung or hung.

2. The combination with a part of a car truck, of a third point suspension spring mounted thereon, and means for holding said spring in position, said means permitting the third point suspension spring to be moved laterally whereby the brake beam may be unhung or hung.

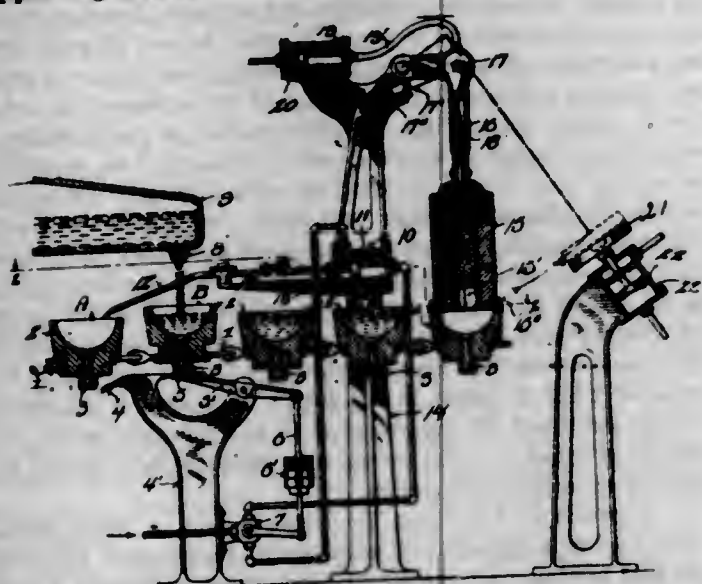
3. The combination with a part of a car truck, of a third point brake beam support pivotally mounted thereon, and means for holding said support in operative position.

4. The combination with a part of a car truck, of a third point brake beam support pivotally mounted thereon, and means cooperating therewith on each side of said pivotal point for holding said support in operative position, said means permitting said support to be swung on its pivot out of the way of the brake beam.

1,080,742. MACHINE FOR FORMING HOLLOW GLASS-WARE. ROMEO WILLIAMSON, Milwaukee, Wis., assignor to Williamson Machinery Company, Milwaukee, Wis. Filed Sept. 23, 1912. Serial No. 721,988. (Cl. 49-55.)

1. A machine of the character described comprising a molten glass reservoir having a flow mouth, a series of

shiftable hoppers adapted to be moved successively in alignment with the hopper flow-mouth, a weight-controlled mechanism for the support of that hopper which is in alignment with the aforesaid flow-mouth, shear-blades interposed between the flow-mouth and said hopper, the shear-blades being downwardly inclined to form a trough for deflecting molten glass to the mouth of the succeeding hopper co-incident to closure of said blades and actuating means for the shear-blades under control of the hopper supporting means.



2. A machine of the character described comprising a molten glass reservoir having a flow mouth, a series of shiftable gravity-controlled vertically movable hoppers arranged to be brought into successive alignment with the flow mouth, fixed means for lifting the hoppers successively upon higher planes, a weight-controlled lever mechanism for the support of each of said hoppers in their elevated positions, shiftable inclined blade mechanism disposed between the flow mouth and aligned hopper, for cutting the supply of molten glass from said aligned hopper and directing the same into the succeeding hopper, actuating mechanism for the blade mechanism, and an air-supply valve under control of the weighted lever mechanism, whereby the blades are actuated.

3. A machine of the character described comprising a molten glass reservoir having a flow mouth, a series of shiftable hoppers adapted to be moved successively in alignment with the hopper flow-mouth, pivoted shear-blades having their free ends inclined downwardly interposed between the flow-mouth and said hopper, the shear-blades being adapted to close and form a trough for cutting off the molten glass from the aligned hopper and deflecting the same to the succeeding hopper, and actuating means for the shear-blades.

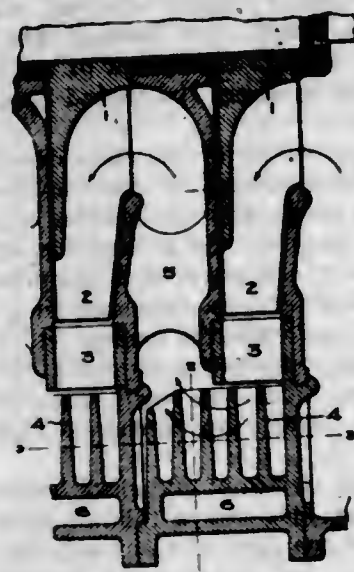
1,080,743. ROTARY COMPRESSOR. KARL AHLQUIST, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed May 17, 1910. Serial No. 561,813. (Cl. 230—6.)

1. A rotary compressor comprising a casing provided with a plurality of stages and an impeller for each stage, there being fluid conducting passages between the stages that are arranged within the casing and other passages within the casing for circulating a cooling medium, said cooling passages being provided with radiating members that project into the conducting passages.

2. A multi-stage rotary compressor comprising impellers, a casing therefor containing passages for conducting fluid from one stage to the next, and means also located within the casing for circulating a cooling medium and conveying away heat due to compression, said means including radiating ribs that extend into the conducting passages.

3. A multi-stage rotary air-compressor, having a casing containing ribs forming passages for conducting the air from one stage to the next, said ribs being adapted to absorb heat from the air.

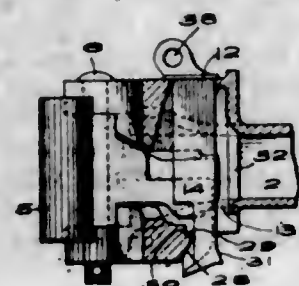
4. A multi-stage rotary air-compressor, having a casing containing helically arranged ribs forming passages for conducting the air from one stage to the next.



5. A multi-stage rotary air-compressor, having a casing containing helically arranged ribs forming passages for conducting the air from one stage to the next, and a water jacket surrounding said air passages.

[Claims 6 and 7 not printed in the Gazette.]

1,080,744. CAR-COUPLING. JOHN W. BARTH and JAMES F. ROBERTSON, Pittsburgh, Pa. Filed Mar. 5, 1909. Serial No. 481,493. (Cl. 213—10.)



1. In a car coupler, the combination of a recessed head, a knuckle pivoted thereto and provided with a tail projecting into said head, a vertically movable locking member in said head having a substantially straight rear face, projections on the front and rear face of said locking member at the lower end projecting beyond the body thereof and arranged to contact with the walls of said head when lifted, the projection on the forward face of the locking member underlying a wall of the head when the locking member is in locking position, said projections and contacting wall portions being relatively inclined and arranged to force the lower end of the pin first backwardly and then forwardly as it is being lifted, and a ledge for supporting said locking member in lock-set position.

2. In a car coupler, the combination with a recessed head having an opening in the floor thereof, a knuckle pivoted therein and provided with a tail projecting into the head, and having a side locking face, a locking member vertically movable in said head through said opening and cooperating with said locking face, cooperating portions on the front of the locking member and on one side of said opening in the head, one of which is beveled, and that on the head overhanging that on the locking member when the latter is in full lock position, and a beveled projection on the rear face of the locking member at its lower end, said projection extending beyond the body of the member and arranged when the locking member is lifted to contact with an edge of said opening in the head and positively move the lower end of the locking member forwardly, and a ledge on said head arranged to support said locking member in lock-set position.

3. In a car coupler, the combination of a recessed head, a knuckle pivoted therein and provided with a tail adapted to project into said head, said tail having a segmental

end portion having its end face uniformly curved and eccentric to its pivot, said tail having its longer radius toward the center line of the coupler, a vertically movable locking member in said head and provided with a shoulder adapted to ride on the knuckle tail, a ledge for supporting said locking member in lock-set position, and a cam on the upper face of the knuckle tail arranged when the knuckle swings open to permit the locking member to ride over the cam and to reseat upon the said ledge but when the knuckle swings to closed position to push the locking member rearwardly to clear said ledge.

4. In a car coupler, the combination of a recessed head, a knuckle pivoted thereto and provided with a tail projecting into the head and having an inclined lower face, a vertically movable locking member guided in said recessed head, said locking member being cut away to form a recess to permit the knuckle tail to pass when the locking member is fully elevated and providing a shoulder which rides on the knuckle tail when the latter swings open, and a projection below the recess which engages the inclined lower face of the knuckle tail when the locking member is fully elevated and serves to throw the knuckle open, a ledge for supporting said locking member in lock-set position, and a cam projection on the upper face of the knuckle tail arranged when the knuckle swings open to permit the shoulder on the locking member to ride over the cam and reseat upon said ledge and when the knuckle swings toward closed position to push the locking member rearwardly to clear said ledge but remain with its shoulder seated upon the knuckle.

1,080,745. SHOCK-ABSORBER. GEORGE C. BECK, Spokane, Wash. Filed Jan. 28, 1913. Serial No. 744,660. (Cl. 21—105.)



1. A shock-absorber comprising a pair of supporting members each comprising two spaced parallel arms, said arms being arranged in alternate order, a bolt pivotally connecting said supporting members, a spring interposed between the bolt-head and the adjacent outer arm of one of the supporting members, the bolt projecting from the outer arm of the other supporting member, a cam mounted on the projecting end of the bolt and coupled to the last-mentioned arm, a second cam mounted on the bolt in contact with the other cam, an arm extending from the second-mentioned cam and adjustably connected to the other arm of the first-mentioned supporting member, a nut screwed on the bolt against the second-mentioned cam, friction members interposed between the arms of the supporting members at the pivot joint, wear plates on opposite sides of the friction members, said plates having inturned marginal flanges overlapping the peripheries of the friction members, the flanges of the wear plates of one of the friction members overlapping each other, and a ring covering the flanges of the other wear plates.

2. A shock-absorber comprising a pair of supporting members each comprising two spaced parallel arms, said arms being arranged in alternate order, a bolt pivotally connecting said supporting members, a bushing on the bolt, said bushing passing loosely through one of the arms of one of the supporting members and the bolt

passing loosely through the other arm of said member, means for coupling the bushing to the arms of the other supporting member, a spring interposed between the head of the bolt and the outer one of the last-mentioned arms, said spring being coupled to said arm and to the bolt-head, a nut screwed on the bolt, said bolt having a lubricant duct provided with a lateral branch, and the bushing having an aperture registering with said branch, the aperture opening to the arm through which the bushing loosely passes, a cam on the bolt and coupled to the arm through which the bolt loosely passes, a second cam on the bolt in contact with the other cam, an arm extending from the second-mentioned cam and adjustably connected to one of the arms to which the aforesaid bushing is coupled, the aforesaid nut being screwed on the bolt against the second-mentioned cam, and friction members interposed between the arms of the supporting members at the pivot joint.

3. A shock-absorber comprising a pair of supporting members each comprising two spaced parallel arms, said arms being arranged in alternate order, a bolt pivotally connecting said supporting members, a spring interposed between the bolt-head and the adjacent outer arm of one of the supporting members, the bolt projecting from the outer arm of the other supporting member, a cam mounted on the projecting end of the bolt and coupled to the last-mentioned arm, a second cam mounted on the bolt in contact with the other cam, an arm extending from the second-mentioned cam and adjustably connected to the other arm of the first-mentioned supporting member, a nut screwed on the bolt against the second-mentioned cam, friction members interposed between the arms of the supporting members at the pivot joint, and wear plates on opposite sides of the friction members, said plates having inturned marginal flanges overlapping the peripheries of the friction members.

4. A shock-absorber comprising a pair of supporting members each comprising two spaced parallel arms, said arms being arranged in alternate order, a bolt pivotally connecting said supporting members, a spring interposed between the bolt-head and the adjacent outer arm of one of the supporting members, the bolt projecting from the outer arm of the other supporting member, a cam mounted on the projecting end of the bolt and coupled to the last-mentioned arm, a second cam mounted on the bolt in contact with the other cam, an arm extending from the second-mentioned cam and adjustably connected to the other arm of the first-mentioned supporting member, a nut screwed on the bolt against the second-mentioned cam, friction members interposed between the arms of the supporting members at the pivot joint, wear plates on opposite sides of the friction members, said plates having inturned marginal flanges overlapping the peripheries of the friction members, the flanges of the wear plates of one of the friction members overlapping each other, and a ring covering the flanges of the other wear plates.

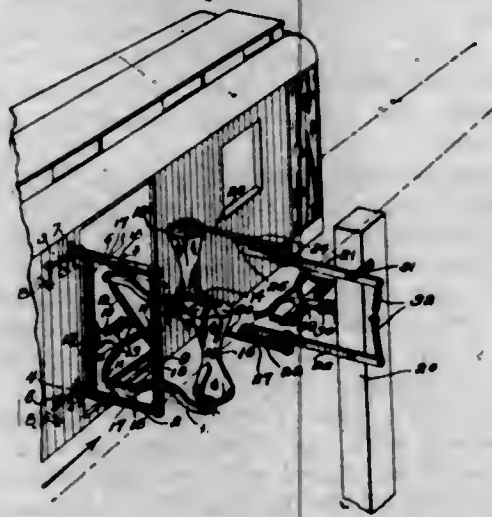
1,080,746. MAIL-BAG CATCHING AND DELIVERING APPARATUS. HENRY W. BROWN, Logtown, Miss. Filed Apr. 24, 1913. Serial No. 763,238. (Cl. 105—231.)

1. A mail bag catching and delivering apparatus comprising a rectangular frame, a mail bag catcher positioned within the frame and secured to one side member thereof, the other side member comprising a rotatable shaft, and mail bag supporting arms carried thereby.

2. In a mail bag catching and delivering apparatus, a frame comprising top and bottom members having one side member rigidly secured thereto and the other side member formed by a rotatable shaft mounted in bearings upon the upper and lower members, a mail bag catcher within the frame secured to the rigid side member, mail bag supporting arms passing through slots provided therefor in the rotatable shaft and pivoted thereto, said arms extending on each side of the shaft and springs attached to the interior ends of the arms normally drawing them together.

3. In a mail bag catching and delivering apparatus, a frame comprising top and bottom members having one

side member rigidly secured thereto and the other side member formed by a rotatable shaft mounted in bearings upon the upper and lower members, a mail bag catcher within the frame secured to the rigid side member, mail bag supporting arms passing through slots provided therefor in the rotatable shaft and pivoted thereto, said arms extending on each side of the shaft, springs attached to the interior ends of the arms normally drawing them together, lugs upon the interior sides of the upper and lower members, and grooved extensions upon the corresponding sides of the inner ends of the arms adapted to engage therewith respectively.



4. A mail bag catching and delivering apparatus comprising a rigid rectangular frame, adapted to be pivotally supported within the door of a car and to swing out therethrough, means for securing the frame in the outer position, a rigid side member of the frame adjacent the car, a mail bag catcher secured thereto, a rotatable shaft forming the outer side member of the frame having longitudinal slots provided therethrough adjacent the top and bottom respectively, mail bag supporting arms passing through said slots and pivoted therein to said shaft, springs normally drawing the inner ends of said arms together, internally extending lugs upon the top and bottom members of the frame, grooved projections upon the inner ends of the arms adapted to engage said lugs respectively, said upper lug retaining said upper arm in horizontal when supporting a mail bag, and both lugs and projections co-acting to retain the arms in the plane of the frame to be delivered against the wind pressure when carrying a mail bag.

1,080,747. METAL CONTAINER. THOMAS J. BUCKLEY, New Brunswick, N. J. Filed June 20, 1912. Serial No. 704,705. (Cl. 221-60.)



1. A device of the character described, comprising a hollow container proper, a hollow neck, a plug or stopper extending therefrom and a weak portion connecting the stopper and the neck and disposed at an angle to the longitudinal axis of the stopper.

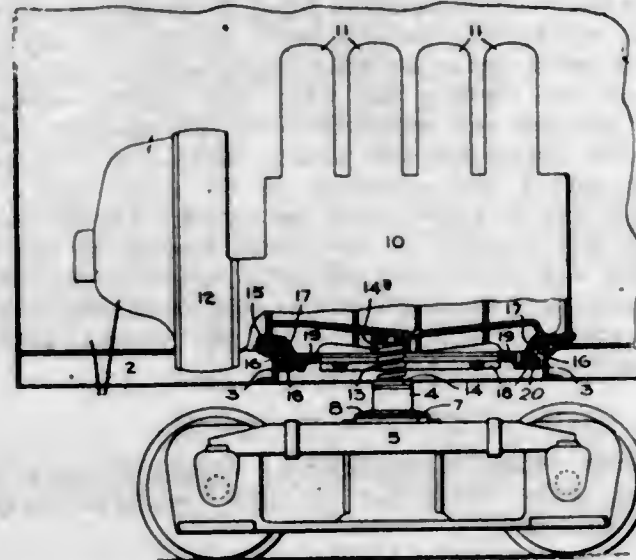
2. A device of the character described, comprising a hollow container, a hollow neck, a plug or stopper having a portion the external diameter of which is less than the internal diameter of the neck, and a relatively thin connecting portion extending inwardly from the neck to the exterior of the stopper.

3. In a device of the character described, the combination with a container proper of a hollow neck communi-

cating with the interior of the said container proper, a plug mounted on said hollow neck and normally closing the same, and a connecting film between the inner walls of the neck and the outer part of the plug.

4. In a device of the character described, the combination with a container proper of a hollow neck communicating with the interior of the said container proper, a plug mounted on said hollow neck and normally closing the same, and a connecting film extending from the outer part of the plug to the neck at an angle to the longitudinal axis of said plug.

1,080,748. MEANS FOR SUPPORTING ENGINES. HENRI G. CHATAIN, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 23, 1912. Serial No. 692,584. (Cl. 105-17.)



1. In combination, an engine, coiled spring means for sustaining a large part of the weight of the engine, a cushion for the engine extending along its sides and ends and supporting a part of the weight thereof, a support which carries the means and cushion, and anchoring means for securing the engine to the support.

2. In combination, an engine, a coiled spring that is located under the center of gravity of the engine for supporting it, a support upon which the spring is mounted, anchoring means for securing the engine to its support, and cushions between the support and anchoring means that are under low compression.

3. In combination, an engine, coiled spring means located under the engine for sustaining the weight thereof and preventing the transmission of engine vibrations, a support for the spring means, and anchoring means at the sides and ends of the engine to limit the fore-and-aft, side-wise and lifting movements thereof with respect to the support.

4. In combination, an engine, a spring means located under the engine for sustaining the weight thereof, a support for the spring means, anchoring means to limit the fore-and-aft, side-wise and lifting movements of the engine with respect to the support, and a cushion which carries a certain portion of the weight of the engine and is itself carried by the support.

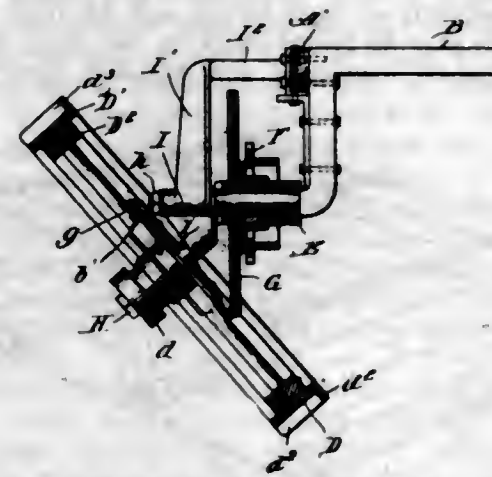
5. In combination, an engine, coiled spring means located under the engine for sustaining a large part of the weight thereof, a support for the spring means, anchoring means at the sides and ends of the engine to limit the fore-and-aft, side-wise and lifting movements thereof with respect to the support, and a resilient means located between the anchoring means and the support carrying a part of the weight of the engine to prevent the transmission of engine vibrations from one to the other.

[Claims 6 to 10 not printed in the Gazette.]

1,080,749. COMBINED MOTOR-TRUCK AND PLOW. CHARLES W. CLARK, Chicago, Ill. Filed Jan. 6, 1911. Serial No. 601,212. (Cl. 97-30.)

1. A truck having an axle provided with a journal to receive a wheel, and an attachment for the axle ar-

ranged to support the wheel so as to revolve about an axis at an angle to said journal.



2. A truck having an axle provided at its ends with journals to receive wheels, and an attachment removably secured to the truck for supporting one of said wheels with its axis at an angle to the corresponding journal.

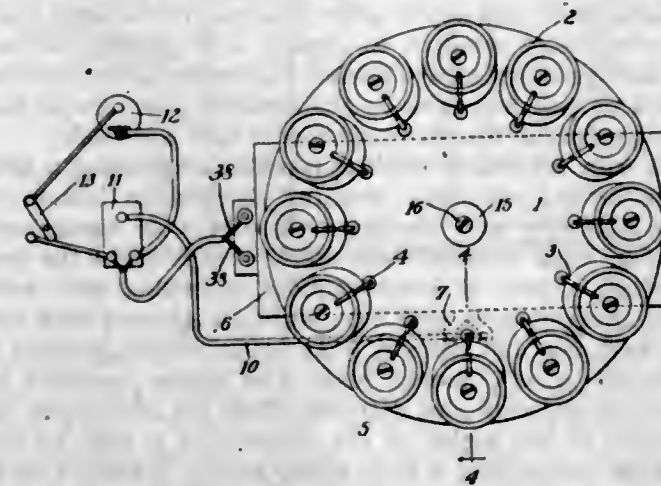
3. A truck having an axle provided with journals to receive wheels, and an attachment arranged to be secured upon one of said journals, said attachment having a wheel receiving journal arranged at an angle to the latter journal when the attachment is secured upon the journal.

4. A truck having an axle provided with journals to receive wheels, an attachment having an opening therein to receive one of said journals, an auxiliary wheel receiving journal on said attachment arranged at an angle to the latter journal, and means for locking said attachment against movement on the axle.

5. A truck having an axle provided with a journal to receive a wheel, a wheel, a driven member revolvably mounted on the axle and having a detachable driving connection with said wheel, an attachment for the axle arranged to support said wheel so as to revolve about an axis at an angle to said journal, and devices on said wheel and on said driven member for transmitting motion from said member to the wheel when the wheel is supported on the said attachment.

[Claims 6 to 9 not printed in the Gazette.]

1,080,750. FLASH-MACHINE. JAMES L. COURSON, Barberton, Ohio. Filed Jan. 24, 1913. Serial No. 743,922. (Cl. 67-31.)



1. In a flash machine, the combination of a revolving plate, a plurality of vessels for receiving flash materials arranged around the periphery of said plate, a plurality of electrodes extending through said plate and insulated therefrom, each of said electrodes extending into one of said vessels, a corresponding electrode in each of said plates grounded upon said plate, a brush mounted below said revolving plate, a source of high tension current connected to said brush, and means for revolving said plate to bring each electrode into contact with said brush by turns to ignite the materials in the vessel associated therewith.

2. The combination of a plurality of vessels for receiving flash materials, means for igniting said flash materials, and means for energizing said igniting means and simultaneously shifting the relative position of the vessels, whereby each of said vessels will be brought by turns into operative position.

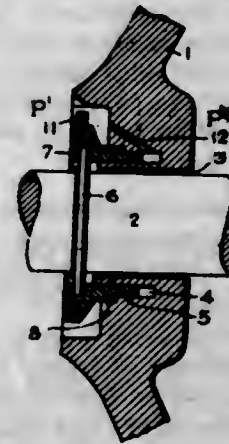
3. The combination of a plurality of vessels for receiving flash materials, a movable support for said vessels, a ratchet for controlling the movements of said support, a pawl to engage said ratchet at one end to prevent the movement thereof, means for moving said end out of engaging relation, the pawl having its opposite end extending into proximity to said ratchet, and means carried by the ratchet to engage the opposite end of the pawl to move the first-named end back into engaging relation and prevent further movement of said ratchet.

4. The combination of a plate, a plurality of vessels mounted upon said plate to receive flash materials, means for igniting the materials in each of said vessels, means for connecting said igniting means in turn to a source of energy, a ratchet for moving said plate to bring each of said igniting means by turns in connecting relation with said source, a pawl having one end to engage the ratchet and having its other end extending into proximity thereto, means carried by the ratchet for engaging the opposite end of the pawl, whereby when the first-named end is moved out of engaging relation the ratchet will be turned a certain distance and will engage the opposite end of the pawl so as to bring the first-named end back into engagement with the ratchet, and means in circuit with said source for moving the first-named end of the pawl.

5. In a flash machine, the combination of a rotating plate, a plurality of vessels arranged around the periphery of said plate, a plurality of electrodes extending through said plate, each of said electrodes extending into one of said vessels, a corresponding electrode extending into each of said vessels and grounded upon said plate, means for rotating said plate, a ratchet disk for controlling the movements of said plate, a pawl mounted adjacent said ratchet to engage the same at one end, a magnet to attract the pawl, means carried by the ratchet to engage the opposite end of the pawl, a brush mounted below said plate in position to contact with the electrodes by turns, a source of high tension current connected to said brush, and means for energizing said magnet and said source, whereby when the energizing means is in action the electrode in circuit with the brush will spark and the magnet will move the pawl out of engagement with the ratchet to permit the plate to turn, the means on the ratchet then engaging the opposite end of the pawl after the plate has turned a certain distance to move the first-named end of the pawl back into engagement with the ratchet and prevent the further movement thereof until the next flash is to be produced.

[Claims 6 and 7 not printed in the Gazette.]

1,080,751. SHAFT-PACKING. OSKAR DAHLKE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 20, 1912. Serial No. 704,836. (Cl. 121-109.)



1. Means for regulating the pressure between fixed and rotating members of a joint packing between chambers

containing elastic fluid of different pressures, which comprises means for enabling the movement of friction between said members to separate them automatically; and means biasing them toward each other.

2. The combination with chambers containing elastic fluid under different pressures, of a shaft passing through said chambers, a joint packing for said shaft comprising members in frictional contact, and means responsive to variations in friction between said members for maintaining a substantially uniform contact between them.

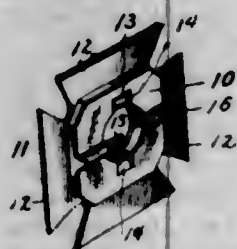
3. The combination with chambers containing elastic fluid under different pressures, of a shaft passing through said chambers, a joint packing for said shaft comprising a member rotatable with said shaft, a member in frictional contact therewith, means urging said members together, and means whereby an increase of friction will effect a separation of said members.

4. The combination with chambers containing elastic fluid under different pressures, of a shaft passing through said chambers, a sleeve concentric with said shaft and movable longitudinally thereof, a packing surface carried by said sleeve, another packing element cooperating therewith, means urging said sleeve toward said packing element, and means whereby an increase of friction between said elements effects a longitudinal movement of said sleeve in the opposite direction to lessen the frictional pressure.

5. The combination with a diaphragm separating two chambers containing elastic fluid of different pressures, of a shaft passing through said diaphragm, a groove in said diaphragm concentric with said shaft, a sleeve in said groove and movable longitudinally of said shaft, a collar on said shaft, a ring on said sleeve making frictional contact with said collar, and means whereby an increase of frictional pressure produces a separation of said ring and collar.

[Claims 6 and 7 not printed in the Gazette.]

1,080,752. NUT AND BOLT LOCK. ISAAC L. EDWARDS, Aurora, Ill. Filed Jan. 23, 1909. Serial No. 473,850. (Cl. 151-53.)

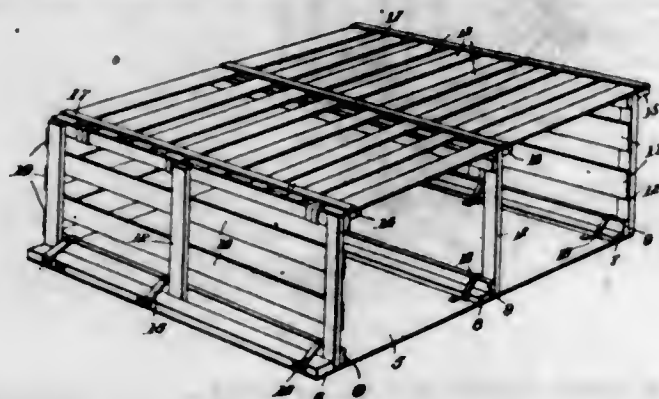


A two part bolt and nut lock comprising in combination a stiff or rigid plate perforated to receive the bolt and formed with a series of radial recesses around the bolt hole extended radially farther from the axis on the face opposite from the companion part, said face being provided with engaging points or projections for engaging the surface of the structure to which the device is applied, and a flexible or bendable part perforated to receive the bolt and provided with tongues which are received and embedded in the recesses of the rigid part with their points engaging the outwardly extending radial enlargements thereof to clamp the parts securely together and hold them against displacement relative to each other, the said flexible part being provided with separate exterior tongues extended in the plane of the part beyond the edges of the rigid plate, and adapted to be bent over upon and into engagement with the sides of a nut.

1,080,753. COLLAPSIBLE SHIPPING-CRATE. JOSEPH E. EDWARDS, Sharon, Tenn. Filed Feb. 16, 1911. Serial No. 608,878. (Cl. 217-47.)

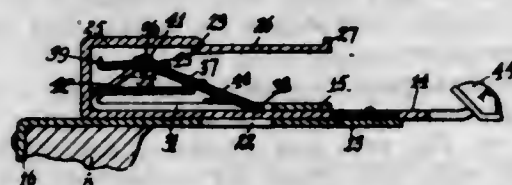
In a crate, a bottom provided with a plurality of cleats on its upper face, vertical members composed of slats bearing against side edges of said cleats, metallic straps coiled tightly around the cleats and also around the slats of the vertical members which rest against the cleats, said straps being clamped between the cleats and the

bottom of the crate and each having its ends secured to the respective cleat, whereby the vertical members are hingedly connected to the bottom and held against movement longitudinally of their length and whereby the vertical members may be folded down on the cleats to which they are hingedly connected and disposed parallel with



the bottom of the crate, a top for the crate, the top having cleats on its under side, and straps passed between said cleats of the top and the inner side of the top and around the uppermost slats of said vertical members so that the cleats of the top may be folded down on the vertical members.

1,080,754. COIN-CONTROLLED VENDING-MACHINE. WALTER T. FOSTER, Los Angeles, Cal. Filed May 8, 1913. Serial No. 766,382. (Cl. 194-93.)



1. A coin controlled vending machine including a cabinet, an article magazine arranged therein, a delivery slide, a coin slide, said delivery and coin slides being formed integrally in the nature of a U-shaped plate, a base plate for said coin slide, a pair of longitudinally extending side walls for said base plate, said coin slide being adapted for movement over said base plate and between said side walls, a bifurcated plate mounted on said side walls and between said coin and delivery slides, a locking pawl pivotally mounted on said bifurcated plate, a locking rib carried on said delivery plate, a retractive spring for said pawl, said spring being secured at one end to a bight portion of said U-shaped plate and at its other terminal to the said pawl, said pawl being adapted to engage said locking rib and hold said delivery slide against movement into receiving relation to said magazine in the absence of a coin in said coin slide during the manipulation of said coin slide.

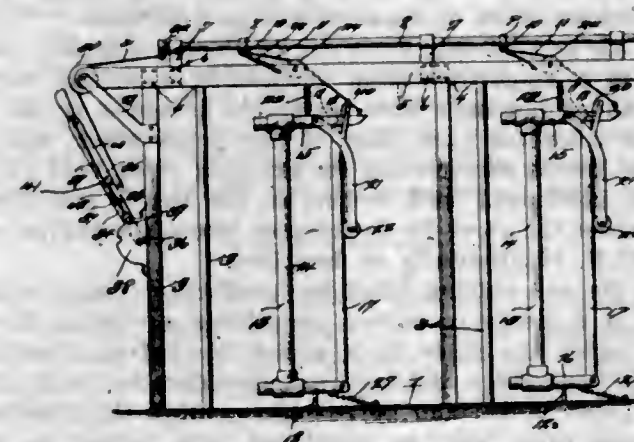
2. A coin controlled vending machine comprising a cabinet, an article magazine mounted therein, an article delivery slide for said magazine, a coin slide operatively connected with said delivery slide, a base plate for said coin slide, a pair of longitudinally extending side walls formed integral with said base plate for guiding said coin slide, said coin and delivery slide being formed integral in the nature of a U-shaped plate, and means mounted between the said coin and delivery slides for preventing the operation of the slides in the absence of a coin in said coin slide comprising a fixed substantially V-shaped plate, a locking pawl mounted upon said V-shaped plate and a locking rib formed on the under side of said delivery slide adapted for engagement with said locking pawl to hold said delivery slide against movement into receiving relation to said magazine in the absence of a coin in said coin slide during the manipulation of said coin slide.

3. A coin controlled vending machine comprising a cabinet, an article magazine arranged therein, an article delivery slide for said magazine, a coin slide for operating said delivery slide, a base plate for supporting said coin slide, a pair of longitudinally extending guide walls formed integral with said base plate for guiding said coin

slide, a substantially V-shaped fixed plate mounted between said delivery and coin slides, means carried by the guide wall for securing said V-shaped plate in fixed position, a locking pawl pivoted upon said V-shaped plate, a locking rib formed on said delivery slide and said V-shaped plate slotted to permit access of said pawl to said coin slide whereby the locking pawl is disposed so as not to engage the locking ribs when a coin is within said coin slide and to permit one terminal of said locking pawl to drop down through the opening in the coin slide during the absence of a coin in the coin slide whereby the other terminal of said locking pawl is disposed for engagement with the locking rib and prevents the moving of the delivery slide into registration with the magazine upon the manipulation of said coin slide.

4. A coin controlled vending machine comprising a cabinet, an article magazine disposed with said cabinet, a delivery slide adapted to be moved into registration with the article magazine and out of registration therewith, a coin slide formed integral with said delivery slide, a base plate for said coin slide, guiding means carried by said base plate and adapted for engagement with the coin slide, a locking pawl, a locking pawl supporting plate rigidly secured to said base plate, means carried by said guiding means for securing said pawl supporting plate to said base plate, a pair of spaced upstanding angularly disposed arms formed integral with said pawl supporting plate, said pawl pivotally mounted between said arms, said delivery slide offset adjacent its outer terminal and forming an article receiving portion adapted for registration with the magazine and forming a locking rib at the beginning of its offset portion, said locking pawl adapted for engagement with the locking rib upon the absence of a coin within the coin slot and the manipulation of the coin slot whereby said delivery slide is held against registration with the magazine and a spring secured to said locking pawl and adapted to move said locking pawl into engagement with the locking rib upon the absence of a coin in said coin slide and upon the manipulation of said coin slide.

1,080,755. STANCHION. GUNARD G. FRIBERG, Frederic, Wis. Filed Apr. 10, 1913. Serial No. 760,245. (Cl. 119-148.)



1. In an apparatus as set forth, a pivoted stanchion frame having a pivoted stanchion bar, a U-shaped stanchion holding member pivoted to the upper portion of said frame, a latch member to be engaged by said stanchion bar, said holding member having an extension to be engaged by the latch member subsequently to releasing the stanchion bar for operating the holding member upon further movement of the latch member to allow the stanchion bar to open automatically by gravitation, and means for actuating the latch member.

2. In an apparatus as set forth, a pivoted automatically gravity opening stanchion bar, a latch member therefor, and a U-shaped holding member actuated by the latch member to allow the stanchion bar to automatically open, and means for actuating the latch member.

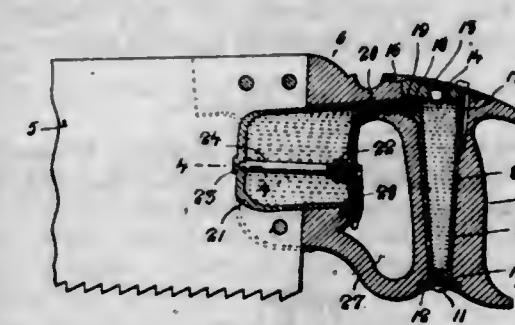
3. In an apparatus as set forth, a pivoted automatically gravity opening stanchion bar, a latch member therefor, and a U-shaped holding member actuated by the latch

197 O. G.-22

member to allow the stanchion bar to automatically open, and means for actuating the latch member, said latch member when released by said means restoring the holding member to its normal position by gravitation, and the weight of said holding member closing the stanchion bar.

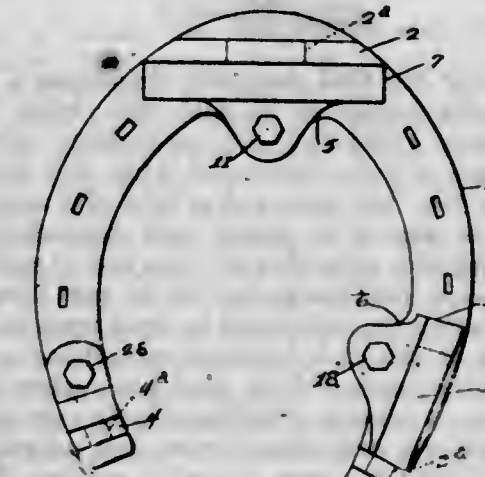
4. In an apparatus as set forth, a pivoted stanchion frame having a pivoted stanchion bar, a U-shaped stanchion holding member pivoted to the upper portion of said frame, a latch member to be engaged by said stanchion bar, said holding member having an extension to be engaged by the latch member subsequently to releasing the stanchion bar for operating the holding member upon further movement of the latch member to allow the stanchion bar to open automatically by gravitation, a reciprocating rod, a lever mechanism having connections with said rod to operate the same, and connections between the rod and the latch member.

1,080,756. HANDSAW-OILER. LELON W. GARNER, Charleston, S. C. Filed Nov. 30, 1912. Serial No. 734,394. (Cl. 145-35.)



An attachment for hand saws comprising an oil container having a tapered bearing recess in one wall thereof, the said container being provided with discharge ports opening into the recess and adapted to deliver oil on to opposite faces of the blade of the saw, a turning stem having a tapered end fitted in the bearing recess, the said tapered end of the stem being provided with a vent duct for alignment with either of the ports for establishing communication between the same and the container, and a lever for operating the stem.

1,080,757. DETACHABLE CALK FOR HORSESHOES. IRA H. GILLILAND, Erie, Pa. Filed Aug. 28, 1912. Serial No. 717,160. (Cl. 168-33.)



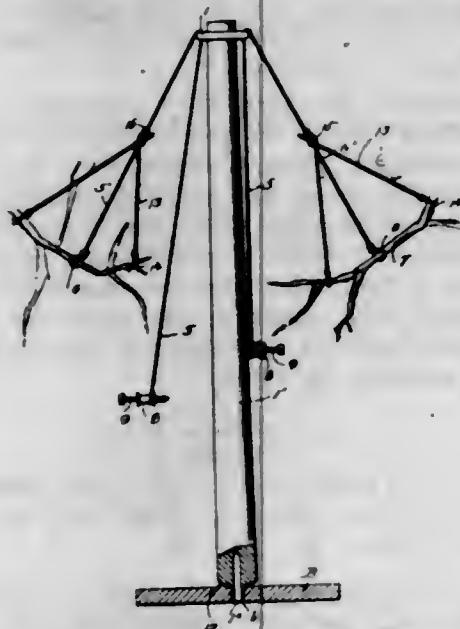
1. The combination with a horse shoe having an integrally formed downwardly projecting perforate lug arranged adjacent one heel terminal, of a heel calk including a beveled body member, a laterally extending securing plate carried thereby and formed flush with the shoe engaging face of said body member, said plate being adapted to be secured to an inwardly extending laterally disposed lug formed integrally with said shoe, means for detachably securing said plate to said inwardly extending laterally disposed lug, a tenon projecting laterally from said calk and seated in the assembled position of the calk in

the said perforation of said perforate lug, and an integral L-shaped locking tongue formed on said calk and adapted to be seated in a corresponding mortise formed in said shoe.

2. The combination with a horse shoe having a mortised vertical lug and a perforate lateral lug formed adjacent one heel terminal, of a heel calk including a beveled body member, a lateral tenon formed on said body member, a securing plate carried by said body member, means for securing said plate to said lateral lug, and an L-shaped locking tongue formed integrally with said body member and adapted to be seated in a receiving mortise formed in said shoe.

3. The combination with a horse shoe of an integral downwardly extending mortised lug, and a lateral inwardly extending lug, said lugs being formed integrally with one heel terminal of said shoe, and a heel calk including a beveled body member, a securing plate formed on said body member, means for attaching said plate to said lateral lug, a tenon formed on said body member, and seated in the assembled position of the calk in the said mortise of the downwardly extending lug, and an integral L-shaped locking tongue formed on said member and adapted to be seated in a receiving mortise formed in said shoe.

1,080,758. FRUIT-TREE PROP. SAMUEL WASHINGTON GLASCOCK, Charlottesville, Va. Filed Oct. 23, 1911. Serial No. 656,168. (Cl. 47—31.)



1. A device of the kind described comprising a pole; a collar removably supported by said pole, wires doubled over said collar, a doubled wire dependingly carried by one end of each of said first named wires and secured to the limbs of a tree, the other end of said first named wire arranged to be drawn to adjust said depending wires, means for removably attaching the free end of said drawn wire to said post, and means carried by said first named means for winding the wire so as to draw upon it.

2. A device of the kind described comprising a pole, a collar removably supported by said pole, wires doubled over said collar, a doubled wire dependingly carried by one end of each of said first named wires and adapted to be secured to the limbs of a tree, means for drawing the other end of said first named wire to adjust said depending wires, and means engaging said post and said first named means for holding said depending wires in adjusted position.

3. A device of the kind described comprising a pole, a collar removably supported by said pole, a plurality of wires dependingly carried by said collar and adapted to be secured to the limbs of a tree, a depending wire for adjusting said first named wires, a spike having a cylindrical shank and forward polysided enlarged extension, and a spool revoluble upon the shank of said pin around which the free end of each adjusting wire is wound, said spool

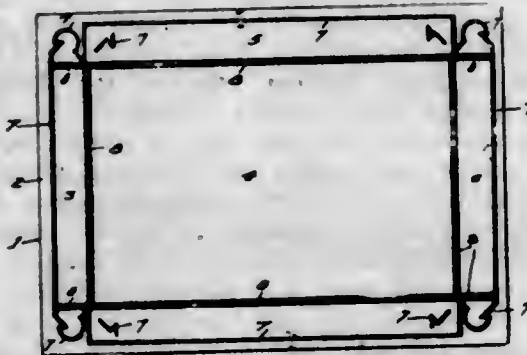
arranged to engage said polysided extension of the spike to be locked against rotation, and said spike arranged to engage said post.

4. A device of the kind described comprising a pole, a collar removably supported by said pole, a plurality of wires dependingly carried by said collar and adapted to be secured to the limbs of a tree, a depending wire for adjusting said first named wires, a spike engaging said pole, a spool revoluble around said spike upon which the adjusting wire may be wound, and means for locking said spool against rotation on said spike.

5. In a device of the kind described in combination with limb-supporting flexible members, and means for holding said members in position, a spike having a cylindrical shank and forward polysided enlarged extension, and a spool revoluble upon the shank of said spike around which one end of one flexible member is wound, said spool arranged to engage said polysided extension to be locked against rotation, and said spike arranged to engage a fixed abutment.

[Claims 6 to 8 not printed in the Gazette.]

1,080,759. DIE FOR MAKING FOLDING PAPER BOXES. RAUL J. GRUENBERG, San Francisco, Cal. Filed Aug. 21, 1912. Serial No. 716,191. (Cl. 93—58.)



1. A die and cutting block for producing complete box blanks in a single operation comprising a cutting block higher under the rules than under the knives, a series of knives and creasing rules for each edge of the paper stock, said rules being so positioned with respect to the edges of the knives as to gather the stock before the knives cut and hold it, substantially as described.

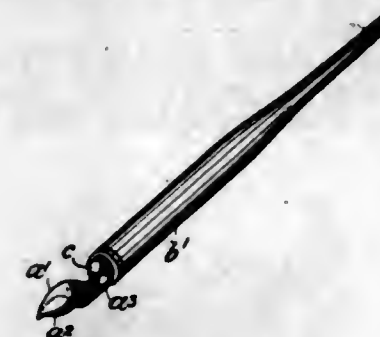
2. A die and cutting block for producing complete box blanks in a single operation comprising a cutting block higher under the rules than under the knives, a series of creasing rules for each edge of the paper stock, and a series of knives surrounding the creasing rules, said rules being so positioned with respect to the knives and block as to gather the stock for the creases before the knives cut and hold it, substantially as described.

3. A die and cutting block for producing complete box blanks in a single operation comprising a cutting block higher under the rules than under the knives, creasing rules having a ridge and narrower shoulders for each edge of the paper stock, and knives surrounding the creasing rules, said rules being so positioned with respect to the knives and block as to gather the stock for the creases before the knives cut and hold it, substantially as described.

4. A die and cutting block for producing box blanks in a single operation comprising a flat cutting block having a central portion raised the thickness of the paper stock to be cut and in which raised portion grooves are formed, a creasing rule carried by the die over each of said grooves, and a series of knives entirely surrounding the creasing rules.

5. A die cutting block for producing box blanks in a single operation comprising a flat cutting block having a central portion raised the thickness of the paper stock to be cut and in which raised portion a series of grooves are formed, a creasing rule carried by the die over each groove, each creasing rule having a ridge adapted to force the paper to be cut into said grooves and having narrower shoulders at each side of the ridge to press the paper to be cut against the cutting block, and a series of knives entirely surrounding the creasing rules.

1,080,760. WRITING-PEN. GOTTLIEB BERNHARDT HAUG, Philadelphia, Pa. Filed May 28, 1910. Serial No. 563,987. (Cl. 120—109.)



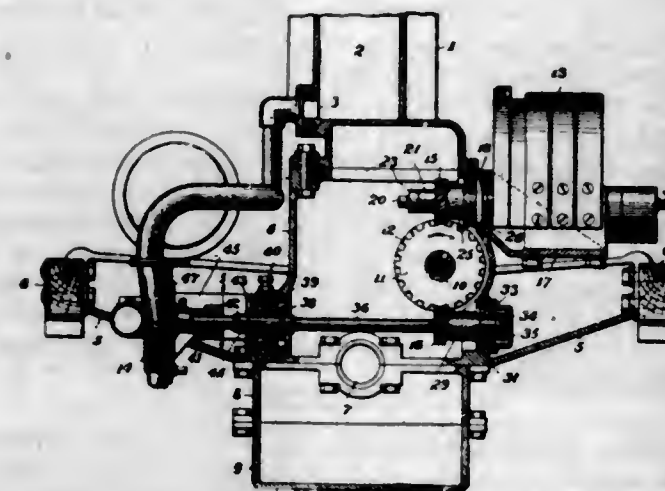
1. A writing pen having its shank portion convex in cross-section and adapted to enter a penholder below the center line thereof, a writing point on said pen approximately parallel with the said shank portion but located above the center line of the penholder, and a bent-up portion of reduced cross-section between said writing point and shank portion to render the writing point flexible in the direction of the length of the pen and transversely, substantially as and for the purposes set forth.

2. A writing pen comprising a writing point, a bent-up portion and a shank-portion, the latter being adapted to enter a circular slot of a penholder near the bottom of the holder, while the writing point is parallel with the shank-portion but located in line with the top of the penholder, and the bent-up portion connecting the writing point with the shank-portion is of reduced cross-section, and in which the weakest point of this cross-section is located at the junction with the shank-portion to render the pen flexible, substantially as and for the purpose set forth.

3. A writing pen, comprising a writing point, a shank-portion, a bent-portion between the writing point and shank-portion, and a bending point, formed by reducing the sectional area of the bent-portion at its lowest point, so that said bending point is located very much below the line of the writing point, substantially as and for the purposes set forth.

4. A writing pen composed of an upper and lower blade, each having a shank portion and a writing point, the shank portions of both blades being united and formed to fit the slot of a penholder, the writing point of both blades being in contact with each other, and a curved portion in each of the blades between the respective shank portion and writing point to render the pen flexible longitudinally and transversely, and to form an ink container, substantially as and for the purposes set forth.

1,080,761. HYDROCARBON-MOTOR. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 20, 1909. Serial No. 484,833. (Cl. 123—195.)



1. In a motor, the combination with the crank case provided with a shaft opening in one side, of a bracket

secured to said case having a sleeve fitting in said shaft opening and adapted to support a magneto.

2. In a motor, the combination with the crank case provided with a shaft opening in one side, of a bracket secured to said case having a sleeve fitting in said shaft opening, a magneto carried by said bracket, and a shaft for said magneto having a bearing in said sleeve.

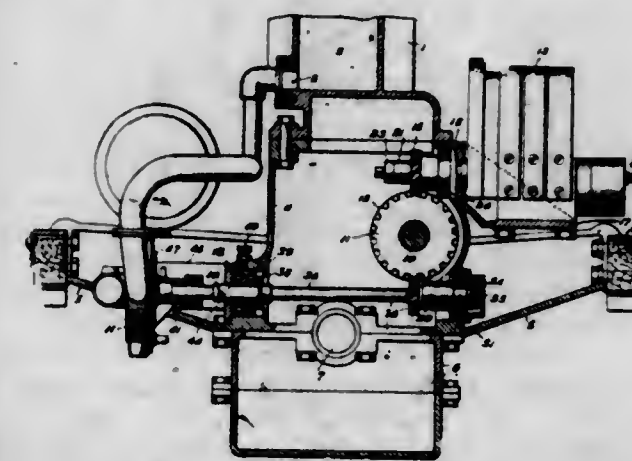
3. In a motor, the combination with the crank case provided with a shaft opening in one side, of a bracket secured to said case having a sleeve fitting in said shaft opening, a magneto carried by said bracket, and a shaft for said magneto having a bearing in said opening.

4. In a motor, the combination with the crank case provided with a shaft opening in one side, of a bracket secured to said case having a sleeve fitting in said shaft opening and adapted to support operating mechanism, and a shaft for operating said mechanism having a bearing in said sleeve.

5. In a motor, the combination with the crank case provided with a shaft opening in one side, of a bracket secured to said case having a sleeve fitting in said shaft opening and adapted to support operating mechanism, a shaft for operating said mechanism having a bearing in said sleeve, and an end thrust bearing on said shaft engaging said sleeve.

[Claims 6 to 9 not printed in the Gazette.]

1,080,762. HYDROCARBON-MOTOR. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed Mar. 20, 1909. Serial No. 484,833. Divided and this application filed Dec. 22, 1910. Serial No. 598,853. (Cl. 123—195.)



1. In a motor, the combination with the crank case, of a spiral driving gear therein, brackets secured to said case, parallel shafts mounted to turn in said brackets, spiral gears on said shafts engaging said first mentioned gear, and end thrust bearings for said shafts engaging said brackets, said shafts and bearings being removable from the crank case with said brackets.

2. In a motor, the combination with the crank case, of a spiral driving gear therein, a removable bracket having an elongated sleeve secured in an opening in the wall of said gear case, a shaft in said sleeve, an end thrust bearing between said shaft and bracket, and a spiral gear on said shaft engaging said first mentioned gear, said bracket, the shaft with the gear thereon, and the thrust bearing being removable from the crank case while assembled.

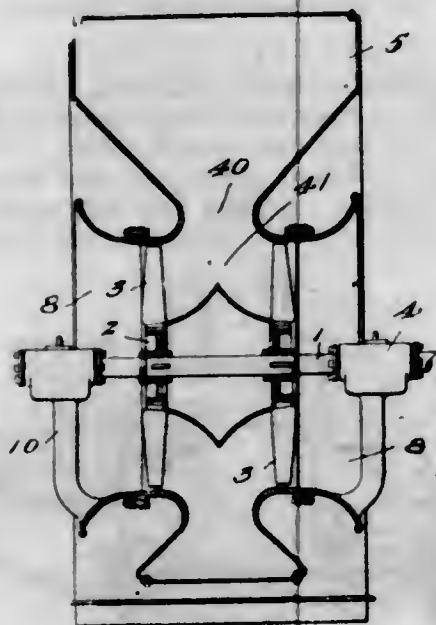
3. In a motor, the combination with a driving shaft having a spiral gear thereon, of a wall adjacent said gear and provided with openings, elongated parallel bearing sleeves carried by said wall in said openings and at the periphery of said gear and on opposite sides thereof, short transverse shafts mounted in said sleeves, gears on said shafts meshing with said first mentioned gear, thrust bearings between said transverse shafts and sleeves, and means at the end of said transverse shafts for making longitudinal sliding connection with aligned shafts, said shafts and gears being removable with said sleeves through said openings.

4. In a motor, the combination with a driving shaft having a spiral gear thereon, of a wall adjacent said gear and provided with openings, elongated parallel bearing sleeves carried by said wall in said openings and at the periphery of said gear and on opposite sides thereof, short transverse shafts mounted in said sleeves, gears on said shafts meshing with said first mentioned gear, and thrust bearings between said transverse shafts and sleeves, the said transverse shafts being provided with noncylindrical end sockets at their inner ends and removable with their gears and sleeves through said openings.

5. In a motor, the combination with a driving shaft at one side thereof, of a transverse driven shaft, gear connections between said shafts producing end thrust, a thrust bearing for said driven shaft, a shaft extending to the opposite side of the motor in line with said transverse shaft, and end driving connection between said last mentioned shafts permitting slight universal movement and slight relative longitudinal movement.

[Claims 6 to 8 not printed in the Gazette.]

1,080,763. BLOWER. CHARLES V. KERR, Wellsville, N. Y., assignor to McEwen Bros., Wellsville, N. Y. Filed Dec. 14, 1911. Serial No. 665,785. (Cl. 230—11.)



1. In a blower, the combination of a volute casing, a shaft therein, a disk impeller on the shaft, a deflector at the discharge side of the impeller, a bearing for the shaft at the suction side of the impeller, and a stuffing box for the bearing about the shaft to prevent oil loss due to fan suction.

2. In a blower, the combination of a volute casing, a shaft therein, two disk impellers on the shaft arranged to discharge toward each other, and a deflector between the impellers, bearings for the shaft outside the impellers and stuffing boxes for the bearings about the shaft to prevent oil loss due to fan suction.

3. In a blower, the combination of a volute casing, a shaft, two disk impellers on the shaft, one at each side of the casing, each impeller comprising a hub and blades, said blades having curved faces, the average pitch-angle of the blades with relation to the plane of rotation increasing from the tip toward the base, and a deflector within the casing about the shaft between the impeller hubs.

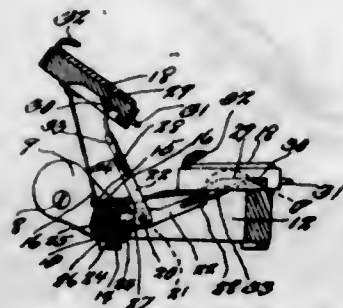
4. In a blower, the combination of a volute casing, a shaft, two disk form impellers on the shaft, one near each side of the casing, the casing being provided with opposite inlet openings leading to said impellers, and a double conoidal deflector within the casing and about the shaft between the impellers, the conoid bases adjoining each other centrally within the casing.

5. The combination of a volute casing, a shaft there-through, a deflector thereon centered in the casing, the casing being provided with annular air inlets one at each side, disk impellers on said shaft one within each of the inlets and working toward the center, the blades of said impellers having curved working faces, the curvature of

the faces increasing from the tip toward the base and the average pitch-angle of the blades also increasing from the tip toward the base of the blades.

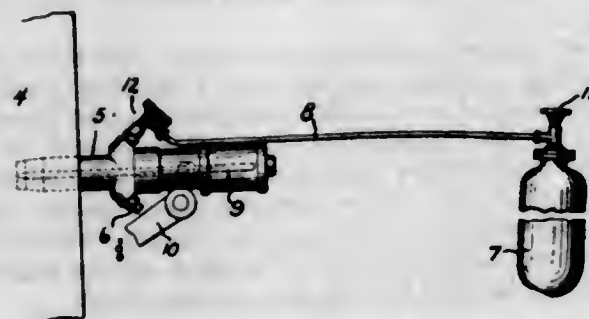
[Claims 6 to 8 not printed in the Gazette.]

1,080,764. COMBINATION MOVABLE KNEE-PAD AND FOOT-REST FOR CHURCH-PEWS. MOSES LAVIGNE, Ferrisburg, Vt. Filed May 2, 1913. Serial No. 785,092. (Cl. 155—0.)



In combination with a church pew, a pivoted skeleton frame constituting a foot rest pivoted to the sides of the pew and adapted to be thrown up out of position, a knee pad having a link connection with the foot rest adapted to be thrown up out of position independently of the foot rest, said foot rest having one of its bars provided with ears, a lever pivoted to the under face of the knee pad, and terminating in a cam member at the other end which is pivoted between said ears, the bar of the foot rest having the ears provided with a bore, a spring-tensioned plunger mounted in said bore, and adapted to cooperate with said cam for offering resistance as the knee pad is raised and lowered.

1,080,765. SAFETY DEVICE FOR INTERNAL-COMBUSTION ENGINES. HERMANN LEMP, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Dec. 30, 1912. Serial No. 739,205. (Cl. 123—142.)



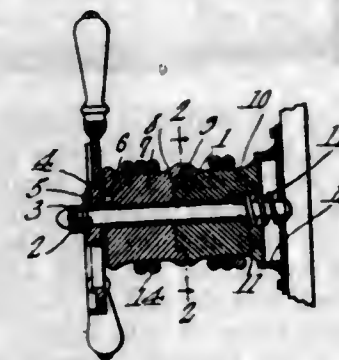
1. An internal combustion engine having a fuel pulverizer, and a blast bottle connected thereto for introducing fuel into the engine cylinder in combination with a safety device interposed between the pulverizer and bottle which comprises a casing, a thin metallic diaphragm which is normally exposed to the pressure in the blast bottle and under abnormal conditions to the pressure in the cylinder, and a check valve which is opened by the fluid flowing from the bottle to the engine and is closed by fluid tending to flow in the opposite direction.

2. An internal combustion engine having a fuel pulverizer and a blast bottle connected thereto, in combination with a safety device comprising a casing containing a chamber, a passage leading therefrom to the pulverizer, a thin metallic diaphragm forming one wall of the chamber, a second passage communicating with the chamber and the blast bottle, said passages being offset to prevent direct flow of fluid from one to the other, and a check valve which is located in the second passage between the chamber and the bottle.

1,080,766. STEERING-GEAR. WILLIAM LUND, Cathlamet, and WILLIAM B. LLOYD, Skamokawa, Wash. Filed Feb. 11, 1913. Serial No. 747,826. (Cl. 114—180.)

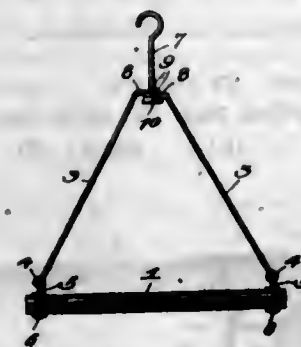
1. A steering gear including a spindle, a socketed support for one end of the spindle, a wheel mounted upon the

spindle for rotation, two detachable and interlocking spools detachably connected to the wheel, the inner end of the inner spool being disposed to move into and out of the socket of the support, and a spring disposed within the socket of the support about the spindle and abutting the inner spool for holding the spools interlocked and whereby the sections may be disconnected and the spools rotated independently to remove the slack in the steering cable.



2. A steering gear, including a stationary socketed base, a fixed spindle, having one end secured in the base, a wheel controlled spool rotatably mounted on the spindle, a second spool slidably and rotatably mounted on the spindle, the face of the first spool adjacent the second spool being provided with radial slots, a plurality of radial ribs carried by the second spool for engagement with the slots of the first spool to lock the spools for movement in unison, and a spring mounted within the socket of the base and upon the spindle and exerting a pressure upon the second spool to maintain the spools interlocked and to permit the inner spool to be moved longitudinally to separate the spools for independent rotation.

1,080,767. GARMENT-HANGER. ALICE LYELL MANN, New York, N. Y. Filed Mar. 15, 1913. Serial No. 754,480. (Cl. 211—13.)



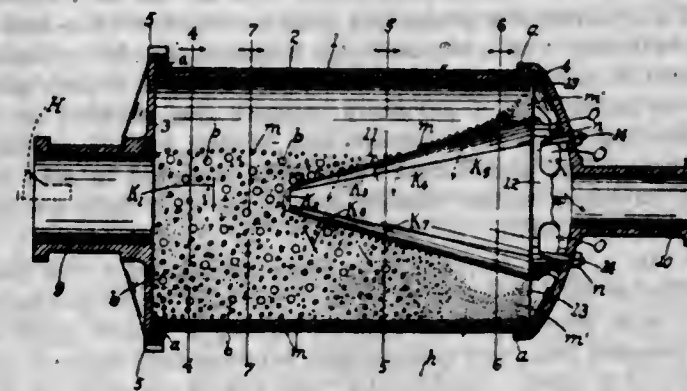
A garment hanger comprising a garment support, arms pivotally connected therewith to be foldable thereagainst, said arms provided with horizontal free extremities having registering eyes, and a hanger hook with a stem having swivel connection with said eyes, the curved end of said hanger hook being adapted to be passed through said eyes for assembly and disassembly of the hanger.

1,080,768. BALL-MILL. FRANK E. MARCY, Salt Lake City, Utah. Filed Feb. 26, 1913. Serial No. 750,893. (Cl. 83—9.)

1. In combination with a tumbling-barrel or container rotatable about an axis and having a crushing compartment provided with intake and discharge openings disposed about said axis, a member having walls converging toward the intake opening and terminating substantially within the crushing compartment for segregating the fine from the coarse particles and operating to effect a migration of the fines toward the discharge opening.

2. In combination with a tumbling-barrel rotatable about an axis and having a crushing compartment provided with intake and discharge openings disposed about said axis, a member having walls converging toward the intake opening and terminating at each end in the crushing compartment, for segregating the fine particles from the coarse

particles, and operating to effect a migration of the fines toward the discharge opening and a counter migration of the coarse particles away from said discharge opening.



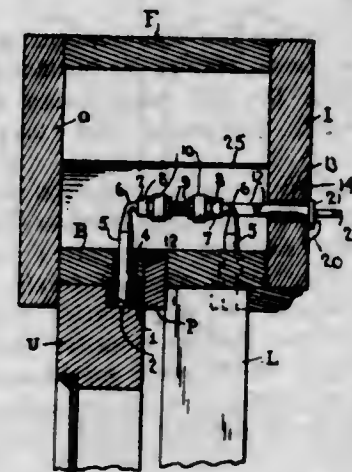
3. In combination with a tumbling-barrel rotatable about an axis and having a crushing compartment provided with intake and discharge means at respectively opposite ends of the barrel, a sorting member disposed about the rotation axis and having peripherally continuous walls terminating at each end within the crushing compartment, said walls converging from the discharge toward the intake end of the compartment, and operating to segregate the fine from the coarse particles and effect a migration of the fines toward the discharge end.

4. In a tumbling vessel rotatable about a fixed axis and provided with a crushing compartment, a sorting member having its terminals in said compartment and having tapering peripherally continuous walls traversed by the material between said terminals, and operating to impart to the material during its traverse along said walls and while being crushed, motions about independent axes inclined to the axis of rotation of the vessel.

5. In combination with a tubular vessel rotating about its axis and provided with a crushing compartment having respectively intake and discharge openings located at opposite ends of the vessel, a sorting member disposed about said axis and terminating within the crushing compartment, said member having peripheral walls operating to cause a migration of the fines toward the discharge opening while the material is being crushed, the walls of the sorting member converging from the discharge toward the intake end of the vessel, whereby the coarse particles are caused to migrate away from the discharge end.

[Claims 6 to 10 not printed in the Gazette.]

1,080,769. SASH-FASTENER. HARRY J. MARTIN, Glidden, Iowa. Filed Aug. 4, 1913. Serial No. 782,880. (Cl. 16—10.)

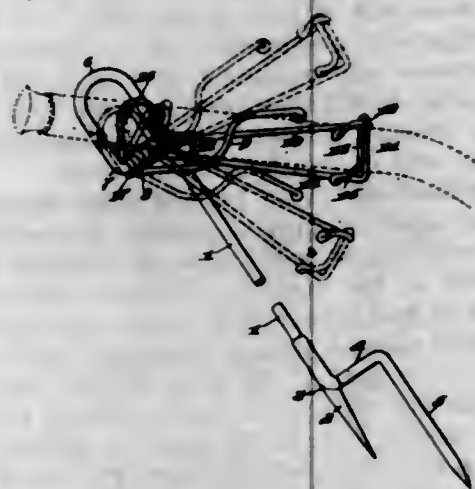


1. In a device of the character described, the combination with a tubular guide, and a bolt having a round body slidably and rotatably mounted in said guide and a transversely projecting neck at one end carrying a ball at its outer extremity; of an arm swinging in an upright plane parallel with but out of the plane of said guide and having a socket loosely engaging said ball, a horizontally disposed spindle carrying the arm, and means for oscillating the spindle.

2. In a sash fastener, the combination with a sash having a series of holes in its edge, a tubular guide opposite said edge, and a bolt having a round body slidably and rotatably mounted in said guide and having at its outer end a transversely projecting neck provided with a ball at its extremity; of a horizontally disposed spindle rotatably mounted in the window frame and having a thumb piece at its inner end, a normally upright arm secured at its lower end upon said spindle and having an eye through its upper end, and a bolt adjustably mounted in said eye and having a socket loosely embracing said ball, for the purpose set forth.

3. In a sash fastener, the combination with the sash having a hole in its edge, a bolt adapted to be projected into said hole, a rotary spindle having a thumb piece at its exposed end, and connections between said spindle and bolt; of a plate countersunk into the inner trim of the sash-frame and having a boss in which said spindle is journaled and a tongue struck from its body adjacent said boss, and a flange on the spindle under its thumb-piece and having a portion of its periphery formed on a spiral, for the purpose set forth.

1,080,770. ADJUSTABLE HOSE-HOLDER. WILLIAM H. MATTHEWS, Dayton, Ohio, assignor of one-half to Robert D. Funkhouser, Dayton, Ohio. Filed Apr. 20, 1912. Serial No. 692,119. (Cl. 248—29.)



1. In a hose-holder the combination with a supporting standard, of a hose clamp, and an opening and closing friction coil turning on the standard supporting the clamp.

2. In a hose-holder the combination with a supporting standard, of a hose clamp, a friction coil turning on the standard supporting the clamp, and a handle for opening the coil at will.

3. In a hose-holder the combination with a supporting standard, of a hose clamp, a horizontal friction coil, means connecting the coil and clamp whereby the coil resists downward movement but may move upward freely.

4. In a hose-holder the combination with a support of a nozzle device a supporting friction coil for the same mounted on the support and which resists downward movement but may move upward freely.

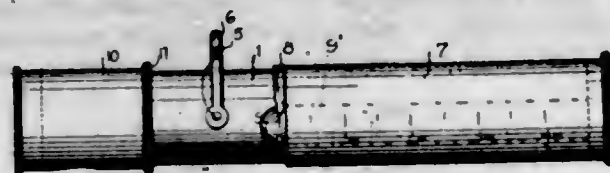
5. In a hose-holder the combination with a ground support, of hose holding devices mounted thereon and including a friction coil which opens on pressure in one direction but closes on pressure in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

1,080,771. POCKET POSTAL SCALE. HENRY AUGUST MYERS, Helena, Mont. Filed Feb. 24, 1913. Serial No. 750,315. (Cl. 73—3.)

1. In a device of the character described, the combination with a tubular body having a graduated scale upon one end thereof, said body being provided with an open end, a plug arranged therein, a hook member having its shank arranged between the plug and the inner wall of the

body, a handle member pivotally secured to the body adjacent one end thereof, a tubular member slidably mounted upon one end of the body opposite the hook, and an indicator carried by the tubular member and adapted to be disposed opposite the graduations upon the body.



2. In a device of the character described, the combination with a tubular body member having graduated scales thereon and open at one end, a plug arranged within the open end of the body, a hook member having its shank arranged between the plug and the inner wall of the body, an annular flange formed on the body adjacent the open end, a cap arranged over the end of the body and having its inner end abutting against said flange.

3. In a device of the character described, the combination of a tubular body member having graduated scales upon one end and open at its other end, a plug arranged within the open end, a hook member having its shank arranged between the plug and the inner wall of the body, a cap arranged over the end of the body inclosing the hook, a handle member pivotally secured to the body adjacent the open end, a tubular member slidably mounted upon the body, and an indicator formed at the inner end of the tubular member and adapted to be disposed opposite the graduations.

4. In a device of the character described, the combination of a tubular body member having a longitudinal cavity at one end thereof and graduated scales arranged therein, a hook member carried by one end of the body member, a handle member pivotally secured to the body member adjacent one end, a tubular member slidably mounted upon one end of the body and an indicator carried by one end of the tubular member and adapted to be disposed adjacent the graduations upon the body.

1,080,772. ENGINE-STARTER. CHARLES H. MYERS, Buffalo, N. Y. Filed Feb. 24, 1910, Serial No. 545,777. Renewed Mar. 8, 1913. Serial No. 753,075. (Cl. 123—180.)



1. A starter for explosion engines comprising an elongated reservoir for compressed air, a carburetor structure in axial alignment therewith and comprising a casing connected to one end of the compressed air reservoir, said carburetor casing being provided with an annular cartridge having inner and outer walls of reticulate material and a filler of fibrous material between said walls, an axially located conduit connecting the compressed air reservoir with the interior of the carburetor cartridge and including a one-way check valve opening toward the carburetor, means for the introduction of hydro-carbon liquid into the carburetor exterior to the cartridge, and a valved conduit leading from the carburetor casing for connection with the intake of the engine to be started.

2. A starter for explosion engines comprising an elongated container having one end formed into a reservoir for compressed air and at the other end a cartridge of absorbent material having a passage therethrough defined by an axially extended reticulated cage and the exterior of the absorbent material being confined by a reticulated cage adapted to space the absorbent material from the inner walls of the container, means for establishing one-way constant communication between the compressed air reservoir and the inner cage of the cartridge, means for the

introduction of liquid hydro-carbon into the portion of the container inclosing the cartridge, and a conduit leading from the last named portion of the container and adapted to be connected to the intake of the explosion engine to be started.

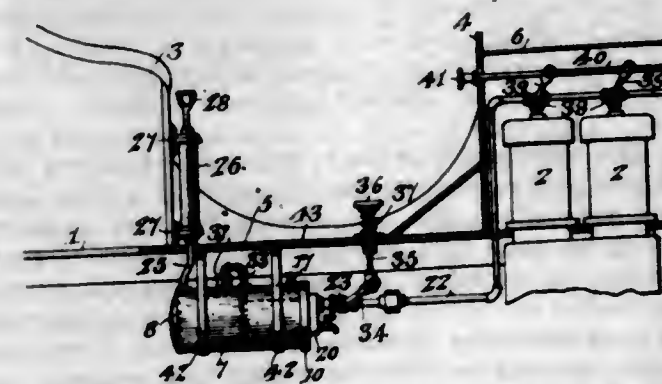
3. A starter for explosion engines comprising an elongated container having one end formed into a reservoir for compressed air and at the other end a cartridge of absorbent material having a passage therethrough defined by an axially extended reticulated cage and the exterior of the absorbent material being confined by a reticulated cage adapted to space the absorbent material from the inner walls of the container, means for establishing one-way constant communication between the compressed air reservoir and the inner cage of the cartridge, means for the introduction of liquid hydro-carbon into the portion of the container inclosing the cartridge, and a conduit leading from the last named portion of the container and adapted to be connected to the intake of the explosion engine to be started, the said last named portion of the container being also provided with a controllable outlet in line with the inner cage.

4. In a starter for automobiles, a unitary member comprising an elongated casing with a compressed air reservoir in one end, a cartridge of absorbent material in the other end, means for the introduction of liquid hydro-carbon to the cartridge, and a one way valve structure constituting the only means of communication between the air reservoir and the end of the casing containing the cartridge, said last named end of the casing having means for the outflow of enriched air.

5. In a starter for automobiles, a unitary member comprising an elongated casing with a compressed air reservoir in one end, a cartridge of absorbent material in the other end, and a one way valve structure constituting the only means of communication between the air reservoir and the end of the casing containing the cartridge, said last named end of the casing having means for the outflow of enriched air, and controllable means for the introduction of liquid hydro-carbon to the cartridge, the means for the outflow of air including a valve with means constraining the valve normally to the closed position, and means for the manual operation of said valve to the open position.

[Claim 6 not printed in the Gazette.]

1,080,773. ENGINE-STARTER. CHARLES H. MYERS, Buffalo, N. Y. Filed Mar. 1, 1912, Serial No. 680,801. Renewed June 21, 1913. Serial No. 775,131. (Cl. 123—180.)



1. An engine starter installation comprising a casing having a compressed air reservoir at one end and a cartridge of absorbent material in the other end with a division wall completely separating the compressed air chamber from the cartridge receiving end of the casing, a one-way valve exterior to the compressed air chamber and provided with a pipe leading into the interior of the cartridge of absorbent material, an air pump connected to the casing to deliver air to the compressed air chamber, a pipe leading from the interior of the casing within the cartridge, a valve in said pipe, means for operating said valve at will, other valves in the pipe leading to respective engines, and a common manipulating means for the last named valves, the air pump, the operating means for the first named valve and the operating means for the valves

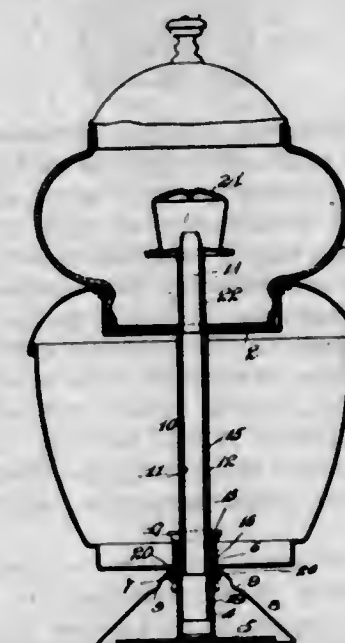
leading to the engines being all associated within ready reach of an operator and each separately controllable from the others.

2. An engine starter installation comprising a compressed air reservoir, means within ready reach of the operator for compressing air into the reservoir, means associated with and connected to the reservoir for supplying hydrocarbon vapor, a duct leading therefrom and provided with a valve, means for the operation of the valve by the operator at will, and means operable at will for the introduction of the hydrocarbon vapor and air from the air reservoir in the form of an explosive mixture into the engine.

3. An engine starter for automobiles comprising a compressed air reservoir, means accessible from the driver's seat of an automobile for compressing air into the reservoir, means for supplying hydrocarbon vapor connected to and associated with the compressed air reservoir, a duct leading therefrom to the automobile engine, valves in the duct for connecting the same to the automobile engine, manually operable means connected to the valves and within ready reach of an operator on the operator's seat of the vehicle, and another valve in the duct between the means for supplying hydrocarbon vapor and the first named valves and provided with manipulating means within ready reach of an operator's seat on the vehicle.

4. An engine starter installation for automobiles comprising a compressed air reservoir, and means for supplying hydrocarbon vapor associated in one structure and adapted to be supported beneath the body of the automobile, a duct leading therefrom to the engine of the vehicle and provided with valves adjacent to the engine, manipulating means for the valves within ready reach of the operator's seat of the vehicle, and another valve in the duct adjacent to the reservoir and vapor supplying means and having manipulating means within ready reach of the operator's seat and distinct from the operating means for the first-named valves.

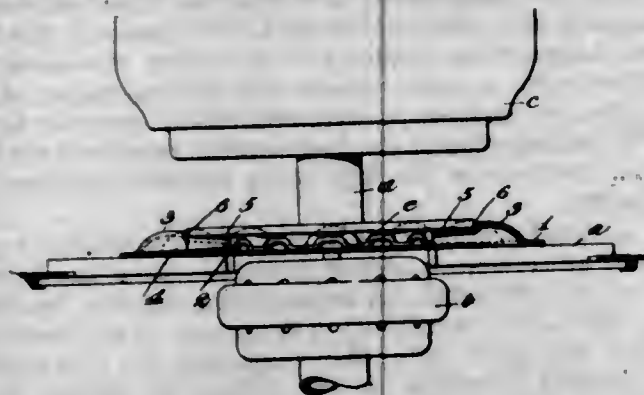
1,080,774. COFFEE-MACHINE. CHARLES NELSON, Brooklyn, N. Y., assignor to S. Sternau & Co., New York, N. Y., a Copartnership composed of Sigmund Sternau and Lionel Strassburger. Filed July 17, 1907. Serial No. 384,201. (Cl. 53—3.)



1. A percolator for a coffee machine having an inner tube, an outer tube forming an air space between the two and a base fitting, the outer tube being constricted adjacent to the base fitting, there being a notch in the base fitting and a groove in the outer tube, both communicating with the constricted portion.

2. A coffee machine having a receptacle and a heating chamber, the said heating chamber having a flange outside of the receptacle and a nut inside of the receptacle, there being a skirt clamped between the flange and bottom of the receptacle, said skirt being perforated adjacent to its upper portion.

1,080,775. SUPPORT FOR CULINARY ARTICLES. CHARLES NELSON, Brooklyn, N. Y., assignor to S. Sternau & Company, New York, N. Y., a Copartnership composed of Sigmund Sternau and Lionel Strassburger. Filed Sept. 10, 1910. Serial No. 581,372. (Cl. 126—215.)



A support for culinary articles which comprises a disk with a central opening, arched portions on the disk with radiating passages between the arched portions, an inclined table on the inner portion of each arched portion and an interrupted, circular flange on the arched portions for centering the bottom of the utensil, the cavities formed by the arched portions communicating with the central opening.

1,080,776. RAZOR-STROPPING MACHINE. RALPH S. ORIS, West Hartford, Conn. Filed Feb. 4, 1913. Serial No. 746,147. (Cl. 51—16.)



1. A razor stropping machine comprising a frame, a spirally grooved shaft, stationary in said frame, a rocking shaft journaled at its ends in said frame, said shaft having a lug extending toward the spirally grooved shaft, a razor blade-holder rigidly attached to said rocking shaft, a friction roller encompassing the spirally grooved shaft, said roller having nuts or studs engaged in the spiral groove of said shaft to effect endwise travel of said roller during its rotation, a carriage with bearings fitting the ends of said roller, a strop folded over said roller, shafts and holder, and guided in said carriage, and means to be actuated by the strop for turning the blade-holder to the reach of the strop pulled outwardly; substantially as set forth.

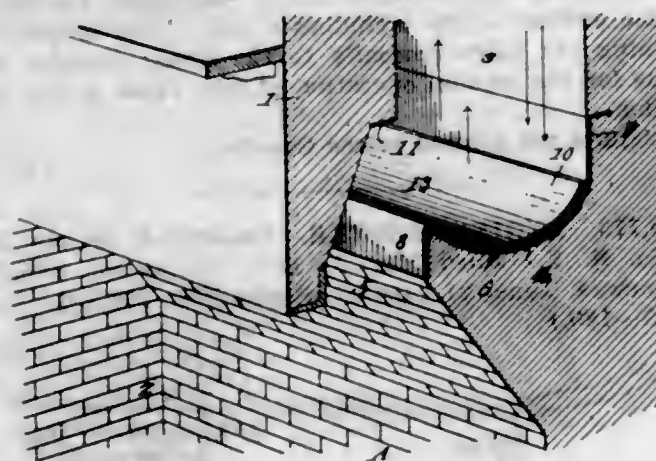
2. A razor stropping machine comprising a frame, a spirally grooved shaft stationary in said frame, a rocking shaft journaled in said frame, said shaft having a lug extending toward the spirally grooved shaft, a blade holder firmly attached to said rocking shaft, a movable friction roller surrounding a portion of the spirally grooved shaft, said roller having a part engaged in the spiral groove of said shaft to effect endwise movement of said roller during its rotation, a sleeve freely fitting a reduced portion of said roller, said sleeve having lugs to engage with the lug extending from the rocking shaft, thereby transmitting motion to the rocking shaft, and through said rocking shaft an oscillating motion to the blade holder, a carriage with bearings fitting the friction roller and rocking shaft, a strop folded over said roller, sleeve, shafts and holder, and guided in said carriage,

said strop when actuated, causing the blade holder to turn to the reach of the strop pulled outwardly; substantially as set forth.

3. A razor stropping machine comprising a frame, a rocking shaft with firmly attached razor-blade holder, in said frame, a spirally grooved, stationary shaft in said frame, a friction roller somewhat shorter than the frame, surrounding a portion of said shaft, an operative connection between the roller and shaft, a sleeve fitting a portion of said roller, but allowing said roller to rotate within the sleeve, an operative connection between said sleeve and rocking shaft, a carriage mounted on the roller and guided in the frame, a strop threaded through said carriage and folded over the blade holder, shafts and roller, said strop when reciprocated, actuating the roller, thereby causing the carriage to reciprocate within the frame, through the connection of said carriage and roller, substantially as set forth.

4. A razor stropping machine comprising a frame, a rocking shaft with firmly attached razor-blade holder, in said frame, a spirally grooved, stationary shaft in said frame, a movable friction roller surrounding a portion of said shaft, an operative connection between the roller and shaft, a sleeve fitting a portion of said roller, an operative connection between the sleeve and rocking shaft, a reciprocating carriage mounted on the friction roller and slidable on the rocking shaft, a strop threaded through the carriage and folded over the blade holder, shafts and roller, said strop when actuated, moving diagonally within the frame, through the rotary and simultaneous endwise movement of the friction roller, thereby causing a diagonal stropping of the razor blade, substantially as set forth.

1,080,777. CHIMNEY-DAMPER. THOMAS PODMORE, Wilkes-Barre, Pa. Filed Mar. 28, 1913. Serial No. 757,439. (Cl. 126—288.)



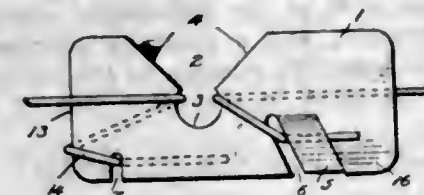
1. The combination with a flue and a fireplace offset therefrom and communicating therewith by a throat, of a casing disposed at the base of said flue and comprising an arcuated plate with end members extending upwardly therefrom, a segmental damper comprising an arcuated plate similar in contour to the casing plate and provided with arms extending upwardly from the ends thereof and pivotally secured to the said casing end members, said segmental damper adapted to rotate in front of said throat to close the same, means for securing the said segmental damper in adjusted position, said segmental damper presenting a concaved surface to the upper portion of the chimney and a convex surface to the fireplace.

2. The combination with a flue and a fireplace offset therefrom and communicating therewith by a throat, of a casing disposed at the base of said flue and including an arcuated plate presenting a concaved surface to the said flue, a segmental arcuated damper with arms projecting outwardly from the ends thereof, pivotally secured to the said casing, said segmental arcuated damper gravitating into an open position and when situated in said open position presenting a concaved surface to the flue extending thereabove to thereby prevent any back drafts from enter-

ing the fireplace, means for moving said damper in front of said throat to close the same and presenting a concaved surface to the upper portion of the chimney and a convex surface to the fireplace.

3. The combination with a flue and a fireplace offset therefrom and communicating therewith by a throat, of a casing comprising an arcuated plate, presenting a concaved surface to the upper portion of the flue, end members carried by the said arcuated plate and extending upwardly therefrom, a segmental damper comprising an arcuated plate with arms projecting upwardly from the ends thereof and pivotally secured to the end members of said casing, said segmental damper arcuated plate provided with a transversely extending peripheral groove, means fitting within said peripheral groove for moving the said segmental damper in front of said throat to close the same, said damper presenting a concaved surface to the upper portion of the chimney and a convex surface to the fireplace, said means allowing the damper to move away from said throat to present a concaved surface to the upper portion of the chimney.

1,080,778. BALE-TIE. CHARLES E. PULVER, Cosmopolis, Wash. Filed Dec. 12, 1911. Serial No. 665,337. (Cl. 24—28.)



1. A bale tie consisting of a plate having an opening with a reduced neck, oppositely inclined edges leading to said opening whereby a bale wire may be directed to said opening, slots on said plate located on the opposite sides of said opening whereby the ends of said wire may be bent around said plate and caught in said slots, a struck up tongue adjacent one of said slots under which one end of said wire is adapted to pass said tongue adapted to be driven down to a plane with said plate to bend said end into one of said slots, said tongue being adapted to coact with one edge of said last slot to form a shear to cut off the extreme projecting end of said wire set thereunder.

2. A bale tie consisting of a plate having slots adapted to receive the ends of a bale wire and a tongue adapted to be bent down thereby bending one end of said wire into one of said slots and clipping off the extreme end thereof.

3. A bale tie consisting of a plate having a series of slots and an upstruck tongue adapted to coact with said plate to shear a wire held thereby, certain of said slots being formed in the opposite edges of said plate.

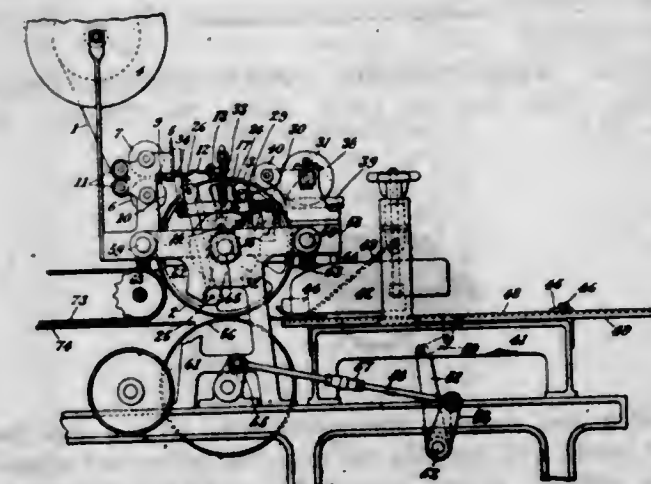
4. A bale tie consisting of a plate having a series of slots, certain of said slots adapted to receive the ends of a wire, and a struck up tongue adapted to be bent down thereby bending one of said wires into one of said slots and clipping off the extreme end thereof, said plate being flat after said tongue is bent in.

1,080,779. TAPING-MACHINE. TOBIAS E. RAFFEL, New York, N. Y., assignor to Paper Working Machines Co., a Corporation of New York. Filed Feb. 4, 1913. Serial No. 746,108. (Cl. 93—56.)

1. In a machine of the character described, the combination of a rotary device for conveying a strip of tape to and applying it upon a blank; said device being mounted for continuous rotation in a fixed position, means for bodily adjusting said device around its axis, and means for supporting and advancing a blank along a plane tangential to the periphery of said rotary device.

2. In a machine of the character described, the combination of means for supporting a pile of blanks, means for successively delivering the lowermost blank from the pile, a rotary device for conveying a strip of tape to and

applying it upon a blank, said device being supported for continuous rotation in a fixed position and being bodily adjustable around its axis, and a feed roll associated with the blank delivering means for advancing the delivered blank along a plane tangential to the periphery of said rotary device.

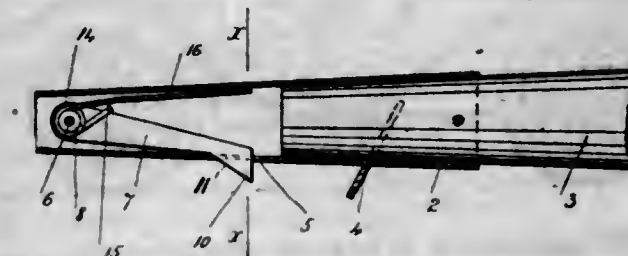


3. In a machine of the character described, the combination of means for feeding a tape, means for severing the tape into strips of desired length, a rotary taping device, means for rotatively adjusting said device about its axis, and means for feeding a blank along a plane tangential to the periphery of the rotary device, said taping device being mounted for continuous rotation in a fixed position relative to the blank feeding means and being adapted to successively engage the tape, convey the severed strip to the blank and apply it on a given line thereon, during each cycle of its operation.

4. In a machine of the character described, the combination of blank feeding means, means for intermittently feeding a tape, a rotary device having a tape severing mechanism associated therewith, said device being continuously rotated in a fixed position and being organized to successively engage the fed end of the tape, draw the tape, sever a strip of desired length therefrom while the tape is being drawn, convey the severed strip to the blank, and apply it on a given line on the blank as the latter is being fed along a plane tangential to the periphery of the rotary device, during each cycle of operation of said device, and means for rotatively adjusting the position of said device upon its axis.

5. In a machine of the character described, the combination of blank feeding means, means for feeding a tape, means for severing the tape into strips of desired length, a rotary drum provided with a gripper for engaging the tape, a trip for throwing the gripper open to release the tape at the point of contact with the blank, and means for manually turning the drum around its axis to adjust the position of the gripper relative to the trip and thereby position the drum for depositing the tape upon any given point on the blank.

1,080,780. POLE-TIP. HAROLD W. RANDALL, Quincy, Iowa. Filed Jan. 21, 1913. Serial No. 743,308. (Cl. 21—92.)



In a pole tip, the combination, with a tube having a projection at its rear part and a slot at its middle part, of a pin secured crosswise of the center of the tube at its front end, a catch having a sleeve at its front end which is pivoted on the said pin and which extends between the sides of the tube, said catch having a retaining tooth at its extreme rear end which projects downwardly through

the said slot, and a spring provided with helical coils which encircle the end portions of the said sleeve, said spring having a short loop at its middle part which bears on the catch close behind its sleeve, and having straight portions at its ends which project rearwardly and bear against the top of the tube.

1,080,781. HEEL-CUSHION. JOHN RAZNTCH, Cloquet, Minn. Filed July 10, 1913. Serial No. 778,408. (Cl. 36-37.)



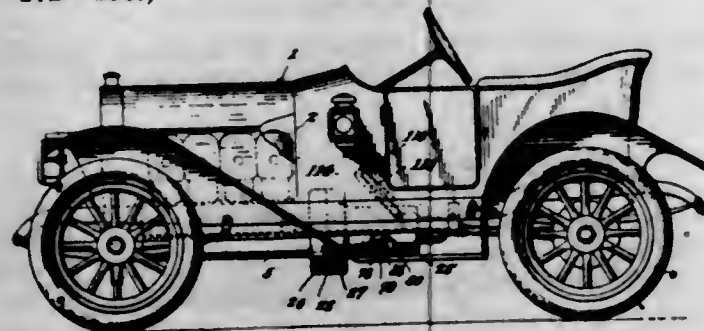
1. In a heel cushion, the combination with a shoe having an insole, and tongues cut from the latter and upbent; of the cushion proper comprising a frame including a lower leaf lying in the heel of the shoe and an upper leaf spring-supported from the lower leaf, the cushion having openings passing over said tongues when the device is inserted in the shoe.

2. The herein described heel cushion for shoes and the like, comprising a wire frame bent into the form of an oblong loop, a ring, and a narrow neck connecting these elements and bent transversely so that the ring shall underlie the loop, a pad disposed within said loop, and a casing consisting of a cord wound around and across said loop and inclosing the pad, the whole for use substantially as described.

3. The herein described heel cushion consisting of a pad; a frame composed of a single piece of wire bent at its center into an elongated loop surrounding the pad, the sides of the loop converging at its inner end, and thence diverging and bent into a ring smaller than the width of said loop; a clip connecting the arms of the wire frame where they converge; and a flexible casing embracing said loop and pad and holding the latter in place.

4. A cushion for the purpose described, comprising a wire frame bent substantially in the manner set forth; combined with a clip composed of a single piece of sheet metal stamped with oppositely extending flaps at its sides and oppositely extending arrow-heads at its ends, the flaps being bent inward into contact with each other and the arrow heads bent inward over the flaps and into contact with each other to produce openings embracing the sides of said wire frame, and a sling mounted within said frame.

1,080,782. VARIABLE-SPEED MECHANISM FOR MOTOR-VEHICLES. JOHN CLINTON RIEGEL, Pottsville, Pa. Filed Nov. 30, 1912. Serial No. 734,375. (Cl. 172-239.)



1. The combination of a drive member, a driven member, differential gearing between the drive and driven members, and a two part electromagnetic coupling between the differential gearing and the drive member, with each part of the coupling arranged for connection with a respective part of the differential gearing.

2. The combination of a drive member, a driven member, differential gearing between the drive and driven

members, and an electromagnetic coupling between the differential gearing and the drive member, said electromagnetic coupling comprising two members in inductive relation and at all times out of mechanical contact, and each part of the electromagnetic coupling being arranged for connection to a respective part of the differential gearing.

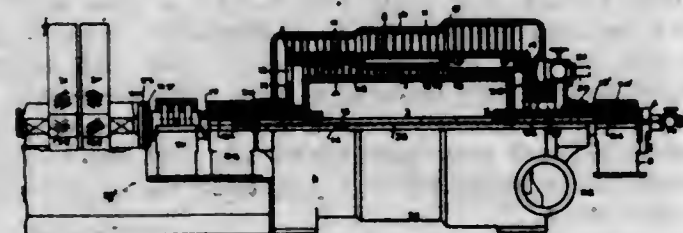
3. The combination of a drive shaft, a driven shaft, differential gearing connected to the driven shaft, an electromagnetic structure fast to the drive shaft for rotation thereby, and also provided with means for coupling it to one side of the differential gearing and a rotatable member fast to the other side of the differential gearing and in inductive relation to and at all times out of mechanical contact with the electromagnetic structure.

4. The combination of a drive shaft, a driven shaft, differential gearing between the shafts, an electromagnetic structure fast to the drive shaft for rotation thereby, and also provided with means for coupling it to one side of the differential gearing, and a member of magnetic material fast to the other side of the differential gearing and in inductive relation to and at all times out of mechanical contact with the electromagnetic structure.

5. The combination of a drive shaft, an electromagnetic structure fast thereto, a clutch member fast to the electromagnetic structure, a driven shaft, differential gearing connected to the driven shaft, a clutch member for coupling one side of the differential gearing to the other clutch member, and a rotatable member of magnetic material in inductive relation to the electromagnetic structure and connected to the other side of the differential gearing.

[Claims 6 to 30 not printed in the Gazette.]

1,080,783. STEAM-TURBINE. SOREN C. ROCKMAN, Philadelphia, Pa. Filed Apr. 17, 1912. Serial No. 691,529. (Cl. 121-58.)



1. In a turbine, an inner stator, a sectional inner rotor, an outer stator, an outer rotor, reaction moving blades on the rotors, and reaction guide blades on the stators, said outer rotor forming a retaining casing for the sectional parts of the inner rotor, a steam inlet and an exhaust outlet for the turbine.

2. In a prime mover of the type indicated, a sectional driving member, a driving member surrounding and supporting said sectional member, the hollow shafts, means for connecting the said driving members with the hollow shafts and a coupling means on the end of one of said shafts.

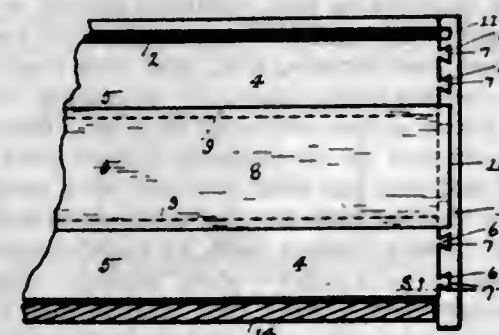
3. In a prime mover of the type indicated, a rotatable sectional member, a rotatable member incasing and supporting firmly said sectional member, the rotatable shafts, means for connecting the said shafts with the said members.

4. In a reaction turbine, an inner stator, an outer stator, a compound rotor between said stators, bladed passages between the inner stator and the rotor, and bladed passages between the outer stator and the rotor, hollow shafts secured to said compound rotor, bearings exterior to and separate from the turbine for said hollow shafts, a bracket on one of said bearings, a non-rotatable spindle for carrying the inner stator, and bearings in the hollow shafts for the said spindle, said spindle being secured to said bracket.

5. In a prime mover of the type indicated, a rotatable sectional member, a rotatable member incasing and sup-

porting firmly said sectional member, the rotatable shafts, means for connecting the said shafts with the said members, one of said shafts being a driving member.
[Claims 6 to 14 not printed in the Gazette.]

1,080,784. KNOCKDOWN SECTIONAL CASE. OLIVER B. ROWLETTE, Grand Rapids, Mich. Filed Apr. 13, 1911. Serial No. 620,895. (Cl. 45-78.)



1. In a knockdown sectional case, the combination of the two ends of a section, such ends having mortises, two structurally independent spaced connecting strips extending between such ends and having rabbets and having tenons registering with the mortises and adapted to be removably inserted into the mortises to hold said parts together, and a shelf member intermediate the connecting strips and supportingly held thereby in the rabbets.

2. In a knockdown sectional case, the combination of four section ends comprising two ends for each of two adjoining sections, said section ends having in their ends mortises and the section ends of one section having rabbets, two structurally independent spaced connecting strips extending between the sides of the case and having rabbets and having tenons registering with the mortises and adapted to be removably inserted into the mortises to hold the said parts together, and a shelf member intermediate the connecting strips and supportingly held in the strips' rabbets and in the section ends' rabbets.

3. In a knockdown sectional case, the combination of four section ends comprising two ends for each of two adjoining sections, said section ends having in their ends mortises, two structurally independent spaced connecting strips extending between the sides of the case and having tenons registering with the mortises and adapted to be removably inserted into the mortises to hold the said parts together, and a shelf member intermediate the connecting strips and supportingly held thereby and between the adjoining section ends.

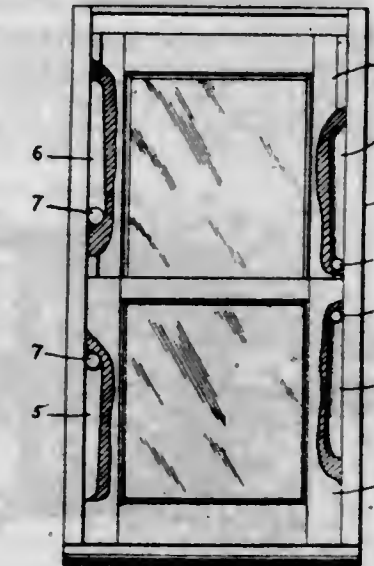
1,080,785. BUTTON-TAB END. JOHN B. RUSS, Shelton, Conn., assignor to Robert N. Bassett Company, Derby, Conn., a Corporation of Connecticut. Filed May 20, 1913. Serial No. 768,776. (Cl. 24-245.)



In a button tab end for button-and-loop hose supporters, a button, a base plate therefor having three transverse slots, one of said slots being near the lower edge of the base plate, two of said slots being near the upper edge of the base plate, combined with a strip of webbing threaded through said slots as follows—through the uppermost slot from the rear to the front, thence down to and through the next adjacent slot from the front to the rear, thence down to and through the lowermost slot from the rear to the front, thence down to and around the lower edge of the plate and up along the back thereof to and again through the uppermost slot from the rear to the front, thence downwardly again toward the button, the

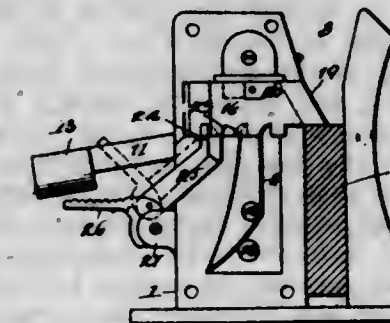
extreme end terminating on the outer face of the plate between the two uppermost slots, the bar between the two uppermost slots being of sufficient width to adequately support said extreme end of the webbing.

1,080,786. ROLLER-BEARING SASH-HOLDER. WILLIAM S. SCARBURY, Sedro Woolley, Wash. Filed June 13, 1911. Serial No. 632,903. (Cl. 16-54.)



In a window construction, the combination with a frame; of a sliding sash therein having longitudinal channels in the outer faces of the stiles thereof, said channels being wider and deeper at one end than the other, the wider and deeper ends of said channels being disposed at opposite ends of the latter, and resilient balls loosely disposed in said channels adapted to project beyond the outer faces of the stiles for engagement with the frame.

1,080,787. AUTOMATIC DOUBLE LOCK. MARTIN C. SLODOWBUECK, Marion, Ind., assignor of one-third to Edward E. Leapley and one-third to William A. Leapley, Marion, Ind. Original application filed Oct. 30, 1911, Serial No. 657,689. Divided and this application filed Feb. 1, 1913. Serial No. 745,646. (Cl. 104-25.)



1. An automatic double lock for switch levers comprising a casing having a lever-receiving slot, a weight-actuated bolt mounted in said casing normally held in extended position over said slot, a spring-actuated bolt mounted in said casing held in extended position over said slot, and a key for actuating said spring-actuated bolt.

2. An automatic double lock for switch levers comprising a casing provided with a lever-receiving slot and a pair of compartments, one compartment being provided with an inclined guide, a bolt slidably mounted upon said guide, and a weighted lever for actuating said bolt.

3. An automatic lock for switch levers comprising a casing provided with a lever-receiving slot, a bolt slidably mounted in said casing extending across said slot, a spring for holding said bolt in extended position, said bolt being provided with a notch, and a key having a bit co-acting with said notch for locking said bolt in extended position.

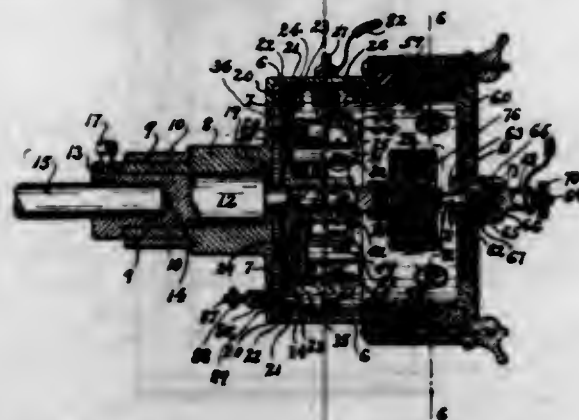
4. A lock for switch levers comprising a casing provided with a lever-receiving slot, a bolt slidably mounted in said

casing, a spring for holding said bolt in extended position across said slot, a pivoted lever, and a dog carried by said lever co-acting with said bolt.

5. A lock for switch levers comprising a casing provided with a lever-receiving slot, a spring-actuated bolt provided with notches, a pivoted treadle, and a dog pivotally carried by said treadle provided with a lug co-acting with said notches.

[Claims 6 to 8 not printed in the Gazette.]

1,080,788. TIMER AND DISTRIBUTING DEVICE. JAMES M. SMITH, Philadelphia, Pa., assignor of one-half to Charles Adsit Magruder, Bryn Mawr, Pa. Filed May 17, 1912. Serial No. 697,880. (Cl. 123-108.)



1. In a device of the class described, a casing, a plate mounted within said casing so as to be capable of rotary oscillation, a ring-member mounted on said plate but insulated therefrom, a plurality of contact-posts mounted on said ring-member, means for connecting said ring-member and said contact-posts in an electrical circuit, a movable contact-device, and a contact means stationary with relation to said movable contact-device, said contact means being connected in said electrical circuit, means for rotating said movable contact-device and said stationary contact means, whereby the former successively engages said contact-posts so as to be moved into circuit-closing contact with said stationary contact means, and means for oscillating said plate and ring-member to shift the position of said contact-posts to advance or retard the operation of said movable contact device.

2. In a device of the kind described, a plurality of contact-posts connected in an electrical circuit, a rotating disk, a stationary contact-device carried by said rotating disk, rotating-disk and stationary contact device being included in said electrical circuit, a supporting plate connected with said rotating disk, but insulated from said rotating disk and said stationary contact-device, a movable contact device pivotally supported upon said supporting plate, means connected with said movable contact-device adapted to successively engage said contact-posts when said rotating disk is rotated in a proper direction, to move said removable contact-device into circuit-closing engagement with said stationary contact-device, but yieldable to said contact-posts without moving said movable contact-device when said rotating disk is rotated in an opposite direction.

3. In a device of the kind described, a plurality of contact-posts connected in an electrical circuit, a rotating disk, a stationary contact-device carried by said rotating disk, said rotating-disk and stationary contact device being included in said electrical circuit, a supporting plate connected with said rotating disk, but insulated from said rotating disk and said stationary contact-device, a movable contact device pivotally supported upon said supporting plate, means connected with said movable contact-device adapted to successively engage said contact-posts when said rotating disk is rotated in a proper direction, to move said movable contact-device into circuit-closing engagement with said stationary contact device, but yieldable to said contact posts without moving said movable contact-device when said rotating disk is rotated in an opposite

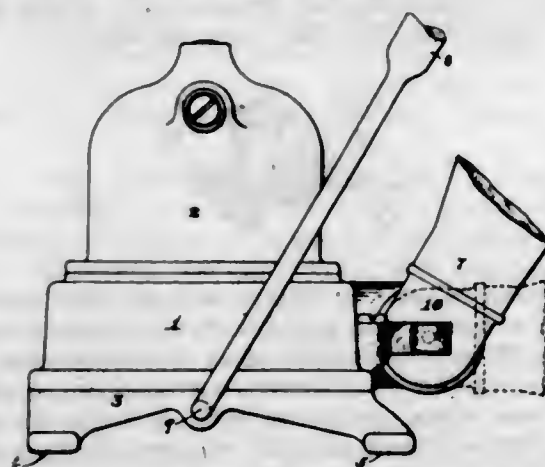
direction, and means for shifting the position of said contact-posts to advance or retard the circuit-closing movement of said movable contact-device.

4. In a device of the kind described, a plate, a ring-member carried by said plate, but electrically insulated therefrom, a plurality of contact-posts supported upon said ring-member, means for connecting said ring-member and contact-posts in an electrical circuit, a rotating-disk, a post provided with an adjustable contact-screw carried by said rotating disk, said rotating disk, post and contact-screw being included in said electrical circuit, a supporting plate connected with said rotating disk, but electrically insulated from said rotating-disk, post and contact-screw, a movable contact-device pivotally supported upon said supporting plate, means connected with said movable contact-device adapted to successively engage said contact-posts when said rotating disk is rotated in a proper direction to move said movable contact-device into circuit closing relation to said contact-posts and said contact-screw, but yieldable to said contact-posts without moving said movable contact device, when said rotating-disk is rotated in an opposite direction, and means for oscillating said plate, ring-member and contact-posts to shift the position of the latter so as to advance or retard the circuit-closing or bridging movement of said movable contact-device.

5. In a device of the kind described, a casing, a plate movably mounted within said casing, a stud connected with said plate and projecting through an opening with which said casing is provided, levers connected with said stud for shifting said plate, a ring-member carried by said plate but electrically insulated therefrom, a plurality of contact-posts supported upon said ring-member, means for connecting said ring-member and contact-posts in an electrical circuit, a spindle journaled in said casing, a rotating disk connected with and operated by said spindle, a contact-receiving means connected with said rotating disk and included in said electrical circuit, a supporting plate connected with said rotating disk but electrically insulated from said rotating disk and said contact-receiving means carried thereby, a movable contact-device pivotally supported upon said supporting plate, and means connected with said movable contact-device adapted to successively engage said contact-posts to move said movable contact-device into circuit-closing and bridging contact with said contact-posts and said contact-receiving means when said rotating disk is rotated in a proper direction, but yieldable to said contact-posts without moving said movable contact-device when said rotating disk is rotated in an opposite or wrong direction.

[Claims 6 to 8 not printed in the Gazette.]

1,080,789. DISCHARGING DEVICE FOR VACUUM-CLEANERS. JOSEPH H. TEMPLIN, Philadelphia, Pa. Filed Nov. 1, 1912. Serial No. 729,137. (Cl. 83-47.)



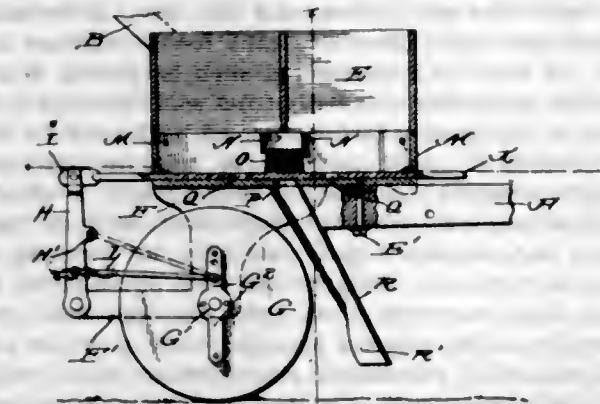
1. In a suction cleaner, a dust discharging outlet, a dust receptacle provided with an elbow inlet, said elbow revolvably seated on said outlet, and resilient means for retaining said elbow on said seat.

2. In a suction cleaner, a discharging outlet, a receptacle provided with a swivel inlet, and resilient means at-

tached to said discharging member, said means adapted to retain said swivel member seated on said discharging member.

3. In a suction cleaner, a discharging device, which comprises an air current generator provided with an outlet member, a dust receptacle provided with a swivel elbow member, and resilient means attached to said generator, said means adapted to retain said swivel elbow member on said discharging outlet member.

1,080,790. PLANTER. CHARLES B. THOMAS, Watts, S. C. Filed Sept. 10, 1912. Serial No. 719,638. (Cl. 111-32.)



1. A planter of the kind described comprising a plow stock, of a box mounted thereon, said box having an opening in the bottom thereof, brush holding means arranged centrally of the box, a brush arranged therein, a reciprocating slide arranged in the box and working through the ends thereof, said slide having a plurality of feed openings arranged therein, a depending hanger bracket integral with the box, an operating wheel journaled in said hanger, a lever also connected to said hanger, a pitman connecting said operating wheel and lever and a detachable link connecting the lever and slide together with the furrow opener and delivery chute as set forth.

2. In a planter of the kind described comprising a plow stock, a box bolted thereon and having positioning flanges at the forward end thereof, an integral depending hanger bracket extending downwardly from the rear portion of said box, a slide working in said box, a brush arranged in the box and means for holding said brush in position, an operating wheel journaled in the depending bracket and a lever pivotally connected to the rear end of said bracket, a pitman adjustably connecting the operating wheel and lever and a detachable link connecting said lever and slide.

3. In a device of the kind described, the combination with a slide operating in a box, having a plurality of openings, an operating wheel, a pitman connected thereto, a lever operated by said pitman, said lever having an adjustable connection with reference to said pitman, whereby a long or short stroke can be obtained, and a link connecting said lever and slide, as set forth.

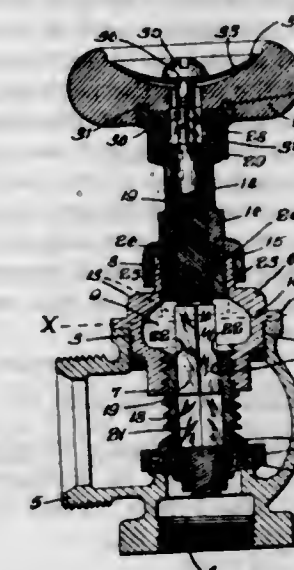
4. In a planter of the kind described, the combination with a box having a central opening and a brush positioned above the same, a slide working in the bottom of said box and having a plurality of openings, said openings being so positioned as to drop twice upon one turn of the wheel upon the short stroke of the operating wheel and four hills to each revolution of the wheel upon the long stroke of said slide, in combination with a lever and link connecting the same with the slide, an operating wheel and the adjustable pitman connecting said wheel and lever whereby a long or short stroke may be obtained for the purpose set forth.

5. In a device of the kind described, the combination with a slide, an operating lever, of the detachable spring link having openings in its ends, its forward end being adapted to engage the lugged slot in the rear end slide, as set forth.

1,080,791. VALVE. CLAUDE E. TRINDER, Manlius, N. Y. Filed Feb. 24, 1912. Serial No. 679,564. (Cl. 137-4.)

1. In a valve, a casing including a body formed with a valve seat, the casing comprising a neck having a passage

aligned with the valve seat, the neck also having oppositely facing bearing-surfaces, a valve head coacting with the valve seat, a stem consisting of a single member for co-operating with the valve head and extending through the passage, spaced apart bearing rings encircling the stem and coacting with the stem and said oppositely facing surfaces, the periphery of the lower bearing ring also co-acting with the casing, a part mounted on the outer end of the stem and connected thereto to permit slight endwise relative movement of said part and the stem, said part having a bearing upon the end and the periphery of the upper bearing ring, and a spring mounted on said part and connected to the stem to pull upwardly on the stem, and press downwardly on said part and clamp the bearing rings against said oppositely facing surfaces, substantially as and for the purpose described.



2. In a valve, a casing provided with a valve seat and a neck, a valve head movable toward and from the valve seat, a stem for operating the valve head, the stem extending lengthwise of the neck and projecting beyond the outer end of the same, a member mounted on the outer end of the stem to turn the same, said member being movable relatively to the neck with the stem and having a cupped portion encircling the upper end of the stem, the stem and said member having slight relative axial movement, a ring fitting within said cupped portion and interposed between the bottom thereof and the upper end of the neck, an end face of the ring and one of the faces between which the same is interposed, having interfitting means whereby the ring is held centered during the turning movement of said member and the stem, said ring holding said member and the stem in axial alignment and preventing lateral movement thereof relatively to the neck, and a spring between said member and the stem tending to move the same in opposite directions, substantially as and for the purpose specified.

3. In a valve, a casing provided with a valve seat, and a neck, a valve head movable toward and from the valve seat, a stem for operating the valve head, the stem extending lengthwise of the neck and projecting beyond the outer end of the same, a member mounted on the outer end of the stem to turn the same, said member being movable relatively to the neck with the stem and having a cupped portion encircling the upper end of the stem, and a ring fitting within said cupped portion and interposed between the bottom thereof and the upper end of the neck, an end face of the ring and one of the faces between which the same is interposed having interfitting means whereby the ring is held centered during the turning movement of said member and the stem, said ring holding said member and the stem in axial alignment and preventing lateral movement thereof relatively to the neck, substantially as and for the purpose described.

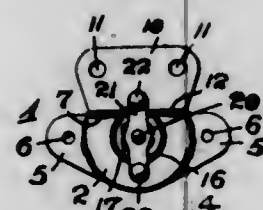
4. In a valve, a casing provided with a valve seat, and a neck, a valve head movable toward and from the valve seat, a stem for operating the valve head, the stem extending lengthwise of the neck and projecting beyond the outer end of the same, a member mounted on the outer end of the stem to turn the same, said member having a

cupped portion encircling the upper end of the stem, the lower part of said cupped portion being movable relatively to the periphery of the contiguous part of the neck, and a ring within said cupped portion between the bottom thereof and the upper end of the neck, the periphery of the ring engaging a part of the inner face of the cupped portion, and the end faces of the ring engaging the bottom of said cupped portion, and the upper end of the neck, substantially as and for the purpose specified.

5. In a valve, a casing provided with a valve seat, and a neck, a valve head movable toward and from the valve seat, a stem for operating the valve head, the stem extending lengthwise of the neck and projecting beyond the outer end of the same, a member mounted on the outer end of the stem to turn the same, said member having a cupped portion encircling the upper end of the stem, the lower part of said cupped portion being movable relatively to the periphery of the contiguous part of the neck, and a ring within said cupped portion between the bottom thereof and the upper end of the neck, the periphery of the ring engaging a part of the inner face of the cupped portion, and the end faces of the ring engaging the bottom of said cupped portion, and the upper end of the neck, an end face of the ring and the face engaged therewith being formed with interfitting means for holding the stem centered during the turning movement thereof and preventing lateral movement of said stem relatively to the neck, substantially as and for the purpose set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,080,792. BAG-FASTENER. HUGO TUECKMANTEL, Irvington, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Aug. 18, 1913. Serial No. 785,062. (Cl. 70-116.)



1. A catch for port-folios, and the like, comprising a lower and an upper member, said lower member being made in the form of a chambered shell or casing, a plate-like member extending upwardly from said chambered shell or casing, a retaining means connected with said plate-like member and said upper member for bringing said lower and upper members into locked engagement, a pivot-pin rotatably connected with said chambered shell or casing, a holding bar mounted upon said pin for rotating said pin, and a retaining disk within said chambered shell or casing also mounted upon said pin, and means connected with said disk in slidable retaining engagement with the inner surface-portion of said shell or casing for retaining said holding bar in its variously rotated positions.

2. A catch for port-folios, and the like, comprising a lower and an upper member, said lower member being made in the form of a chambered shell or casing, a plate-like member extending upwardly from said chambered shell or casing, a retaining means connected with said plate-like member and said upper member for bringing said lower and upper members into locked engagement, a pivot-pin rotatably connected with said chambered shell or casing, a holding bar mounted upon said pin for rotating said pin, and a retaining disk within said chambered shell or casing also mounted upon said pin, and spring-fingers connected with said disk, said fingers being provided at their free ends, with retaining elements in slidable engagement with the inner surface portions of said shell or casing for retaining said holding bar in its variously rotated positions.

3. A catch for port-folios, and the like, comprising a lower and an upper member, said lower member being made in the form of a chambered shell or casing, a plate-like member extending upwardly from said chambered shell or casing, a retaining means connected with said

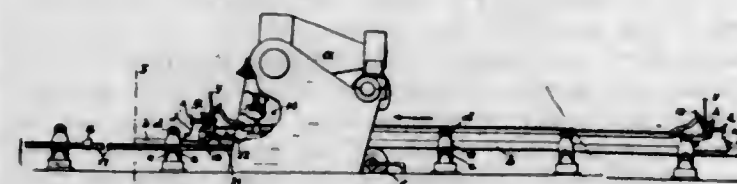
plate-like member and said upper member for hinging said lower and upper member into locked engagement, a pivot-pin rotatably connected with said chambered shell or casing, a holding bar mounted upon said pin for rotating said pin, and a retaining disk within said chambered shell or casing also mounted upon said pin, and said chambered shell or casing being provided with a series of inwardly projecting arc-shaped ribs formed with retaining depressions between said ribs, and means connected with said disk in slidable engagement with said ribs and adapted to be brought into retaining engagement with said retaining depressions for retaining said holding bar in its variously rotated positions.

4. A catch for port-folios, and the like, comprising a lower and an upper member, said lower member being made in the form of a chambered shell or casing, a plate-like member extending upwardly from said chambered shell or casing, a retaining means connected with said plate-like member and said upper member for bringing said lower and upper members into locked engagement, a pivot-pin rotatably connected with said chambered shell or casing, a holding bar mounted upon said pin for rotating said pin, and a retaining disk within said chambered shell or casing also mounted upon said pin, and said chambered shell or casing being provided with a series of inwardly projecting arc-shaped ribs formed with retaining depressions between said ribs, and spring-fingers connected with said disk, said fingers being provided at their free ends with retaining elements in slidable engagement with said ribs and adapted to be brought into retaining engagement with said retaining depressions for retaining said holding bar in its variously rotated positions.

5. A catch for port-folios, and the like, comprising a lower and an upper member, said lower member being made in the form of a chambered shell or casing, a plate-like member extending upwardly from said chambered shell or casing, a retaining means connected with said plate-like member and said upper member for bringing said lower and upper members into locked engagement, said shell or casing being provided in its face-plate with an outwardly extending arc-shaped rib, a pivot-pin rotatably connected with said chambered shell or casing, a holding bar mounted upon said pin for rotating said pin, said bar being in slidable frictional engagement with said outwardly extending rib, and a retaining disk within said chambered shell or casing also mounted upon said pin, and means connected with said disk in slidable retaining engagement with the inner surface-portion of said shell or casing for retaining said holding bar in its variously rotated positions.

[Claims 6 to 12 not printed in the Gazette.]

1,080,793. WORK-FEEDING MECHANISM. LARS H. VOLD, Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 1, 1913. Serial No. 764,768. (Cl. 164-88.)



1. In a machine of the character described, the combination with a longitudinally movable carriage, of a gripper comprising a pair of jaws extending in the direction of movement of the carriage and hinged together near their gripping points, the end of the lower jaw opposite the gripping end being hinged to the carriage and abutting against the same, back of its hinged support, thereby limiting the downward movement of the gripping end of the lower jaw and enabling the gripping end of the jaw to properly support the work while permitting said gripping end to rise under stress, and manually actuated means, pivotally supported independently of the hinged support of the lower jaw, to move the upper jaw into and out of gripping relation to the lower jaw including means co-

operating with the hinged support of the lower jaw, permitting the gripping end of the upper jaw, when in gripping position, to rise, under stress, with the gripping end of the lower jaw.

2. In a machine of the character described, the combination with a longitudinally movable carriage, of a gripper comprising a pair of jaws extending in the direction of movement of the carriage and hinged together, a lever on the carriage mounted to turn on one transverse axis, one jaw being pivoted on another transverse axis and a member connecting the lever and the other jaw and turnable on transverse axes thereon and adapted, with the lever, to form a toggle joint, thereby, when the lever is turned to bring said axes in line, maintaining the second jaw in gripping position while permitting the gripping ends of both jaws to rise under stress of the work.

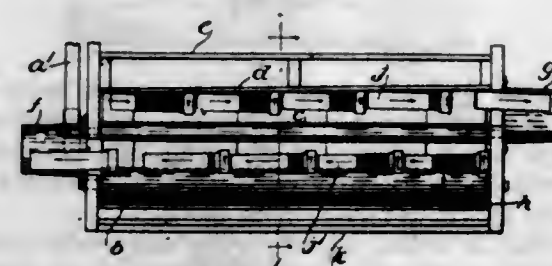
3. In a machine of the character described, the combination with a longitudinally movable carriage, of a gripper comprising a pair of jaws extending in the direction of movement of the carriage and hinged together near their gripping points, the end of the lower jaw opposite the gripping end being fulcrumed on one transverse axis on the carriage and abutting thereagainst, a lever on the carriage mounted to turn on another transverse axis, and a member connecting the lever and the end of the upper jaw opposite the gripping end and turnable on transverse axes on said lever and upper jaw and adapted with the lever to form a toggle joint.

4. In a machine of the character described, the combination with a longitudinally movable carriage, of a gripper comprising a pair of jaws hinged together near their gripping points, a lever on the carriage mounted to turn on a transverse axis, a block swiveled on the end of one jaw opposite the gripping end, a bolt secured to said block, a pin connecting the bolt with the lever, and a stop fixed relatively to the shaft and limiting the movement of the lever when the same is moved to bring the center of the swiveling block, the axis of the pin and the axis of the lever into alignment.

5. In a machine of the character described, the combination with a longitudinally movable carriage, of a stand transversely adjustable on the carriage, a pair of jaws extending in the direction of movement of the carriage and hinged together, the end of the lower jaw opposite the gripping end hinged to the stand on one transverse axis and abutting against the stand back of its hinged connection therewith to afford a support for the work, a lever turnable on another axis extending transversely through the stand, and a member connecting the lever and the end of the upper jaw opposite the gripping end and turnable on transverse axes on said lever and jaw and adapted with the lever to form a toggle joint.

[Claims 6 to 21 not printed in the Gazette.]

1,080,794. BOBBIN-STRIPPING MACHINE. RICHARD WALWORTH, Waltham, Mass. Filed Dec. 8, 1908. Serial No. 466,553. (Cl. 118-26.)



1. In a bobbin stripping machine, the combination of a frame, a main roller mounted therein, a roller in contact with the main roller, and adapted to cooperate therewith in guiding and feeding longitudinally of the said rollers one or more bobbins applied thereto, the action of the two rollers tending to grip the thread or roving carried by a bobbin and unwind the same from the bobbin and feed the latter to one end of the rollers.

2. In a bobbin stripping machine, the combination of a frame, a main roller having a friction surface, a smaller

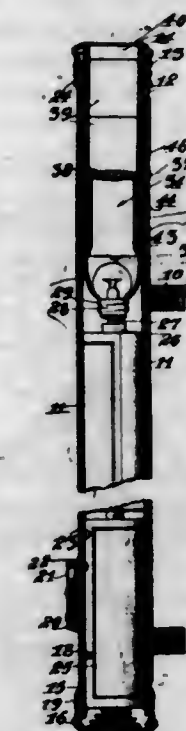
roller cooperating with the main roller, said rollers adapted to traverse longitudinally a bobbin to be stripped and acting to strip the thread or roving from the bobbin during the passage of the latter along the rollers, and means for clearing the thread or roving from the said rollers.

3. A bobbin stripper, comprising a frame, a series of longitudinal stripper rolls having operative contact with each other and adapted to receive and traverse longitudinally a bobbin, said rolls by their rotation acting to strip the thread or roving from the bobbin during the passage of the same along the rolls.

4. A bobbin stripper comprising a rotating stripper roller and means for guiding a bobbin in contact with the periphery of the said roller longitudinally of the latter with the bobbin axis inclined with relation to the roller axis, whereby the thread or roving is stripped from the bobbin and the latter fed lengthwise.

5. A bobbin stripper comprising a rotating stripper roller, means adapted to guide a bobbin in contact with the surface of the said roller longitudinally of the latter, with the bobbin axis inclined with relation to the roller axis, and means adapted for similarly guiding a second bobbin in contact with said surface with its axis inclined in the opposite direction with relation to the roller axis, whereby the thread or roving is stripped from each bobbin and the respective bobbins are fed lengthwise, oppositely with relation to each other.

1,080,795. SEARCH-LIGHT ATTACHMENT FOR SHOT-GUNS AND THE LIKE. EUGENE S. WARD, Portland, Oreg. Filed Mar. 6, 1913. Serial No. 752,324. (Cl. 42-81.)



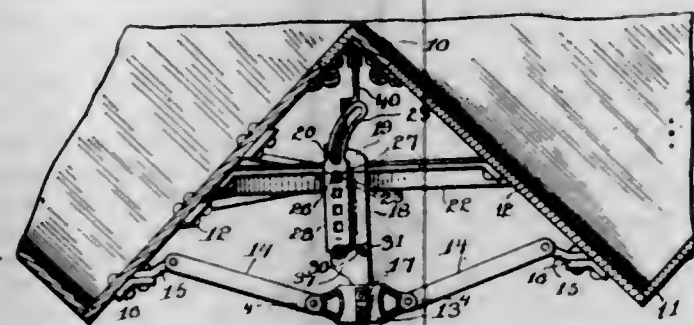
1. An attachment for shot guns, including a tubular case, a set of batteries mounted in said case, a relatively fixed lens carrier held in said case, a lamp base and reflector removably interlocked with and supported by said relatively fixed lens carrier, a relatively movable lens carrier telescopically mounted on said relatively fixed lens carrier, a lens mounted in said relatively movable lens carrier, means for holding said relatively fixed lens carrier in position in the casing, means for holding said relatively movable lens carrier in its adjusted position in the casing, and means for retaining the lens in said lens carrier, said means including a cap on the case and cooperating connections between said cap and said lens for holding the same immovable in the adjustable lens carrier, together with a lamp bulb mounted in the lamp base, and means for completing the lamp circuit between the batteries and the bulb.

2. An attachment for shot guns which comprises a tubular case, a closure cap removably mounted on the rear end of said case, a set of batteries mounted in the case,

a relatively fixed lens carrier immovably mounted within the case, a relatively movable lens carrier adjustably mounted within the case, a lamp bulb holder removably mounted on said fixed lens carrier, a bulb mounted in said holder and in electric contact with a battery terminal, said adjustable lens carrier having an internal shoulder, a lens held against said shoulder, retaining sleeves mounted in said adjustable lens carrier to engage said lens, a ring engaging the outer end of said adjustable lens carrier and the adjacent end of one of said sleeves to hold said sleeves in place, and a cap mounted on the corresponding end of the holder, and having a flange to engage said retaining ring to hold it in place, said last named cap having an aperture registering with the bore of said ring, means for completing the electric circuit between the batteries and the bulb, and means for mounting the attachment on a shot gun.

3. An attachment for shot guns, including a tubular case, a set of batteries mounted in said case, a lens and light carrier also mounted in said case and removable therefrom as a unit, the same comprising a relatively fixed member, a lamp base and reflector having a bayonet joint connection with said relatively fixed member, a lamp mounted in said base, said relatively fixed member having an external bore of two diameters to provide a shoulder, a relatively movable member having an internal bore of two diameters to provide an internal shoulder, said movable member being telescopically mounted on said relatively fixed member, a lens held in said movable member against the internal shoulder, sleeves loosely mounted in said movable member to engage said lens and retain it against said shoulder, means for holding said relatively fixed member and said movable member in position in the case, and means carried by the case and cooperatively connected with said lens holding sleeve for holding the same from movement, together with circuit connections between said lamp bulb and said batteries, and means for securing the attachment on the barrel of the shot gun.

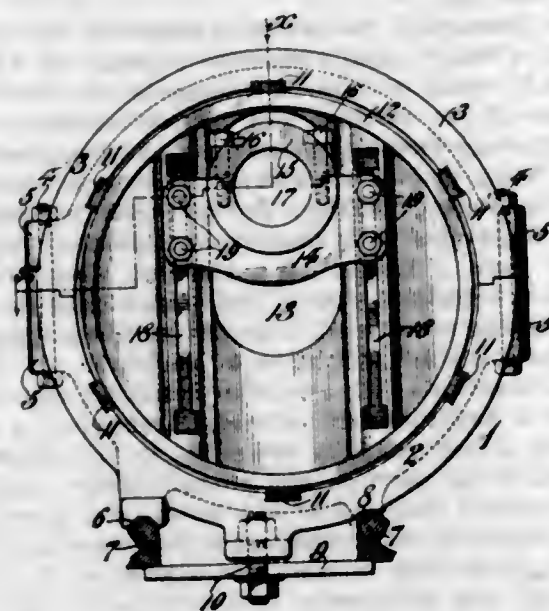
1,080,796. AUTOMATIC DROP-DOOR RIGGING. CHARLES C. T. WILLSON, Altoona, Pa. Filed July 15, 1912. Serial No. 709,600. (Cl. 105-185.)



1. In a device for operating the doors of hopper bottom cars, vertically and laterally moving stems, heads carried by the lower ends of the stems, pivotal connections between the heads and doors, a transverse shaft mounted in the car, members mounted on the shaft and having pivotal and slidable connections with the stems and means carried by the members for engagement with means on the stems for holding said members and stems against movement.

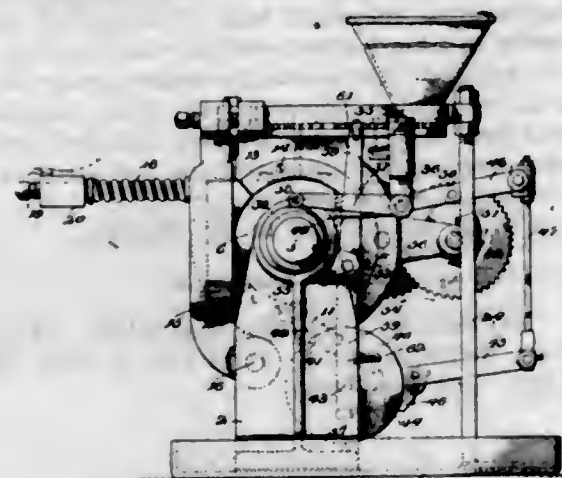
2. In a door operating device for hopper bottom cars, a sectional shaft mounted transversely in the car, an elongated and bifurcated member mounted on each of the sections and rotatable therewith, vertically moving operating stems carrying transverse pins in their upper ends, the furcations of each of the elongated members being provided with arcuate slots for the reception of one of the pins, a head on the lower end of each of the stems, a link pivotally connected to each of the heads and to the doors, means for moving one of the shaft sections out of engagement with the other, means for rotating the shaft and means carried by the elongated members for holding them in engagement with the stems.

1,080,797. CRANK-SHAFT SUPPORT. ADAM P. WITTEMAN, Philadelphia, Pa. Filed May 9, 1912. Serial No. 696,055. (Cl. 82-9.)



In a device of the character stated, an annular sectional bearing frame adapted to be fixedly secured to the ways of a lathe, wear blocks disposed at suitable intervals about the inner periphery of said frame, a disk journaled to rotate on said blocks as bearings, said disk having a radial opening and provided with an undercut slot at each side of said opening and parallel to the walls forming said opening, a block located in said radial opening, clamping devices slidably mounted in said slots and connecting with said block to adjust the radial position of said block, a cap for said block, and clamping means for said block and cap, whereby a part is fixedly secured between said cap and block.

1,080,798. PROCESS OF MAKING SOLID BALLS. JAMES P. APPLEBY, Ottumwa, Iowa, assignor to Johnston & Sharp Manufacturing Company, Ottumwa, Iowa, a Corporation of Iowa. Filed Nov. 25, 1912. Serial No. 733,471. (Cl. 29-148.)



1. A method of truing and reducing solid balls consisting in subjecting each ball to pressure sufficient to condense the outer layers and directing said pressure in lines tangential to successive portions of the surface and thereby flake off the layers to true the ball.

2. A method of truing and reducing solid balls consisting in rotating each ball while subjecting it to pressure sufficient to condense the outer layers and directing said pressure in lines tangential to successive portions of the surface and thereby flake off the layers to true the ball.

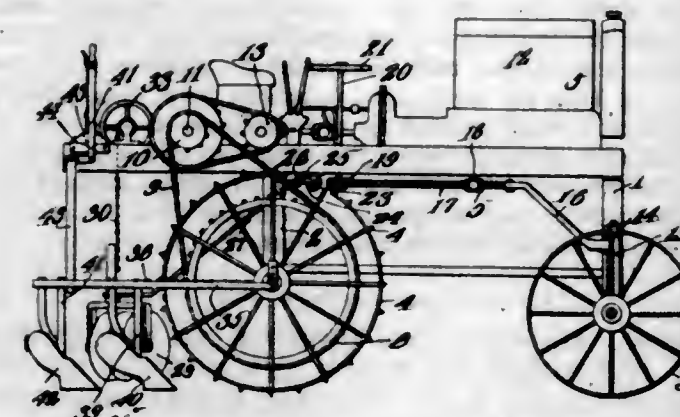
3. A method of truing and reducing solid balls consisting in rotating each ball while subjecting it to pressure sufficient to condense the outer layers and directing said pressure in lines tangential to successive portions of the surface and thereby flake off the layers to true the ball and separating adhering flakes from the balls by rattling them together.

4. A method of truing and reducing solid balls consisting in rotating each ball while subjecting it to pressure sufficient to condense the outer layers and directing said pressure in lines tangential to successive portions of the surface and thereby flake off the layers to true the ball, separating adhering flakes from the balls by rattling them together and polishing the surfaces by abrasions.

5. A method of truing and reducing solid balls consisting in subjecting each ball to a yielding pressure sufficient to condense the outer layers without disturbing the interior mass and directing said pressure in lines tangential to successive portions of the surface and thereby flake off the layers to true the ball.

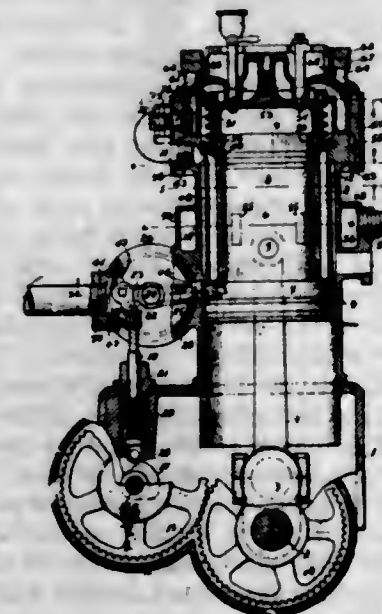
[Claims 6 to 8 not printed in the Gazette.]

1,080,799. AGRICULTURAL MACHINE. WILLIAM ROLAND ARBOUR and JOSEPH WILSON LEPIE, Lafourche Crossing, La. Filed Oct. 30, 1912. Serial No. 728,716. (Cl. 97-35.)



An agricultural machine including a rear arched axle, propelling wheels supporting the same, a frame straddling each of the wheels and mounted to swing about that portion of the axle engaged by the wheel, soil engaging devices carried by the frame for loosening the soil depressed by the wheel, levers, a non-flexible connection between each lever and one of the frames, said lever and connection constituting means for forcing the soil engaging devices into the soil, means for locking the lever against movement, a yoke interposed between the frames, soil engaging devices carried thereby, and means for raising and lowering the yoke, said yoke and the frames being separately adjustable upwardly and downwardly, the yoke being adapted to swing laterally between the frames.

1,080,800. INTERNAL-COMBUSTION ENGINE. ANTON M. BACH, San Francisco, Cal. Filed Sept. 9, 1912. Serial No. 719,426. (Cl. 123-193.)



1. In an internal combustion engine, the combination of a cylinder having a shoulder, a head therefor, an out-

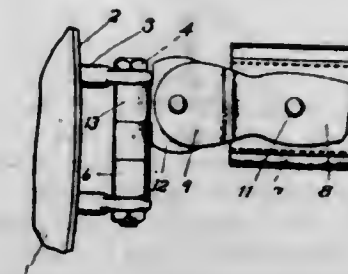
197 O. G.—23

wardly threaded cap for securing said head upon said cylinder, the cap having inwardly extending teeth, and the cylinder having outwardly extending teeth, the teeth of the cap being constructed to permit the passage thereof between the teeth of the cylinder, a nut screwed on said threaded cap, and means extending upwardly from the cap against which said nut abuts when so screwed on said cap.

2. In an internal combustion engine, the combination of a cylinder having a shoulder, a head therefor, an outwardly threaded cap for securing said head upon said cylinder, the cap having inwardly extending teeth, and the cylinder having outwardly extending teeth, the teeth of the cap being constructed to permit the passage thereof between the teeth of the cylinder, the head having upwardly extending lugs, and the cap having holes through which said lugs pass, and a nut screwed on said cap and bearing against said lugs.

3. In an internal combustion engine, the combination of a cylinder having a shoulder, an outwardly threaded head therefor, said cylinder and cylinder head having water-cooling chambers, tubes screwed into said cylinder and cylinder head respectively and communicating with the water-cooling chambers therein and having flanges arranged to abut when said cylinder head is placed upon the cylinder, a cap for securing said head upon said cylinder, the cap having inwardly extending teeth, and the cylinder having outwardly extending teeth, the teeth of the cap being constructed to permit the passage thereof between the teeth of the cylinder, a nut screwed on said threaded cap, and means extending upwardly from the cap against which said nut abuts when so screwed on said cap.

1,080,801. HAME-CLIP. AUGUST C. BACK, Spring Hill, Kans. Filed July 8, 1912. Serial No. 708,230. (Cl. 54-31.)

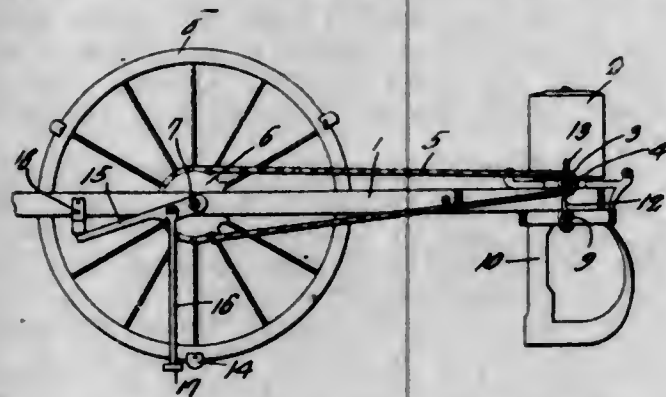


In combination, a tug attaching clip comprising a single piece of metal having a plurality of flattened enlarged end portions, each approximately in the form of a half circle, and a reduced central portion, and a metallic trace attaching member comprising a plurality of attaching ears pivoted concentrically upon the enlarged flattened end portions of the clip, the reduced central portion of the clip being bent in the form of a cylinder and arranged to receive a suitable hame bracket, the enlarged end portions of the clip being brought into juxtaposition and held in said position by the concentrically pivoted ears of the trace attaching member, there being vertical faces on the said flattened end portions formed at right angles to the said reduced central portion to provide flat surfaces on the clip for abutment on a suitable hame bracket.

1,080,802. PLANTER. JOHN M. BAKER, Nelson, Mo. Filed Oct. 28, 1912. Serial No. 728,191. (Cl. 111-24.)

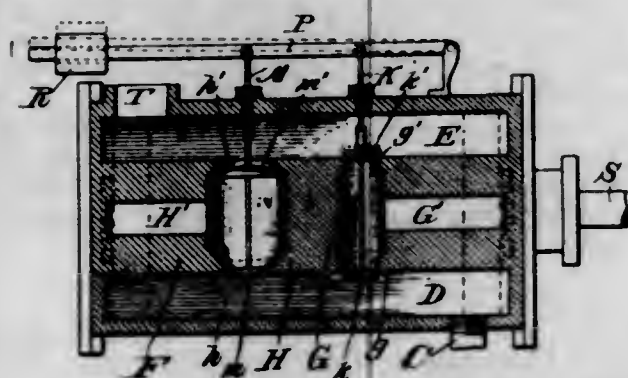
A planter including an operating shaft, a valve shaft, cooperating fingers upon the shafts for transmitting intermittent movement from the operating shaft to the valve shaft, supporting wheels, marking plates arranged in pairs and secured to the rim of one of the supporting wheels, said plates extending laterally beyond the rim, means for transmitting motion from said wheel to the operating shaft, a lever pivotally connected to the axle of the supporting wheel, a hanger depending therefrom, means for engaging the lever to hold the hanger out of

contact with the soil, said lever being movable downwardly to force the hanger against the soil and elevate



the supporting wheel, and means for holding the lever in its lower position.

1,080,803. AUTOMATIC DAMPER-REGULATOR. HENRY V. BARRON, Little Rock, Ark. Filed May 15, 1913. Serial No. 767,941. (Cl. 236-6.)



1. An automatic regulator of the character described comprising a cylinder, a piston therein, said cylinder having a pressure chamber, two passages leading therefrom to exhaust ports, and branch passages leading from the respective passages to opposite ends of the cylinder, a governor member, rods connected to said governor member and extending into said passages, valve disks on said rods adapted to simultaneously close the exhaust port of one passage and the other passage to the pressure chamber, and other valve disks on said rods for simultaneously closing the first passage to the pressure chamber and the exhaust port of the second passage when the first mentioned valve disks are moved to open positions.

2. An automatic regulator of the character described comprising a cylinder, a piston therein, said cylinder having a pressure chamber, two passages leading therefrom to exhaust ports, and branch passages leading from the respective passages to opposite ends of the cylinder, a governor member, rods connected to said governor member and extending into said passages, valve disks on said rods adapted to simultaneously close the exhaust port of one passage and the other passage to the pressure chamber, and other valve disks on said rods for simultaneously closing the first passage to the pressure chamber and the exhaust port of the second passage when the first mentioned valve disks are moved to open positions, one of said valve disks being adjustable on its rod for the purpose specified.

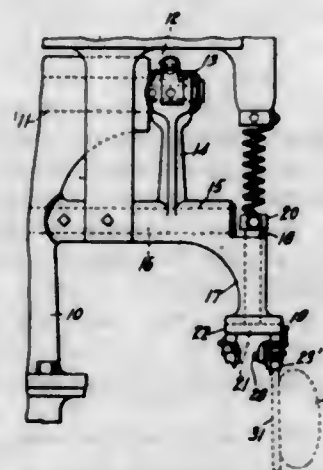
3. An automatic regulator of the character described comprising a cylinder, a piston therein, said cylinder having a pressure chamber, two passages leading therefrom to exhaust ports, and branch passages leading from the respective passages to opposite ends of the cylinder, a governor member, rods connected to said governor member and extending into said passages, valve disks on said rods adapted to simultaneously close the exhaust port of one passage and the other passage to the pressure chamber, and other valve disks on said rods for simultaneously closing the first passage to the pressure chamber and the exhaust port of the second passage when the first mentioned valve disks are moved to open positions, one of said passages being flared and the valve disks on the rod which extends into it being arranged within said passage.

4. An automatic regulator of the character described comprising a cylinder, a piston therein, said cylinder having a pressure chamber, two passages leading therefrom to exhaust ports, and branch passages leading from the respective passages to opposite ends of the cylinder, a governor member, rods connected to said governor member and extending into said passages, valve disks on said rods adapted to simultaneously close the exhaust port of one passage and the other passage to the pressure chamber, and other valve disks on said rods for simultaneously closing the first passage to the pressure chamber and the exhaust port of the second passage when the first mentioned valve disks are moved to open positions, one of said passages being flared and the valve disks on the rod which extends into it being arranged within said passage, while the valve disks on the other rod are arranged externally of the other passage.

5. An automatic regulator of the character described comprising a cylinder, a piston therein, said cylinder having a pressure chamber, and an exhaust chamber separated by a partition through which two passages are formed and in which there are also formed branch passages leading from the respective passages to opposite ends of the cylinder, a governor, rods connected to said governor and extending into the respective passages, said rods passing through and being guided by perforations in the wall of said exhaust chamber, and valve disks on said rods adapted to alternately close the passages at either side of the branch passages for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,080,804. MACHINE FOR BURNISHING THE EDGES OF THE SOLES OF BOOTS AND SHOES. ZOTIQUE BEAUDRY, Lynn, Mass. Filed Aug. 3, 1911. Serial No. 642,147. (Cl. 12-78.)



1. A machine for burnishing the edges of the soles of boots and shoes having, in combination, a burnishing iron, a holder on which said burnishing iron is pivoted, a carrier on which said holder is pivoted, and mechanism adapted to impart a reciprocatory motion to said carrier, the pivotal axial line of said carrier and substantially in alignment with the working face of said burnishing iron and the pivotal axial lines of said holder and iron extending substantially at right angles to each other, both of said pivotal axial lines being parallel to a plane extending transversely of said path of travel, said plane being substantially at right angles to the working face of said burnishing iron when the latter is in its central position.

2. A machine for burnishing the edges of the soles of boots and shoes having, in combination, a burnishing iron, a holder on which said burnishing iron is pivoted, a carrier on which said holder is pivoted, and mechanism adapted to impart a reciprocatory motion to said carrier, the pivotal axial line of said burnishing iron extending transversely of the path of travel of said carrier and substantially in alignment with the working face of said burnishing iron and the pivotal axial lines of said holder and iron intersecting each other.

3. A machine for burnishing the edges of the soles of boots and shoes having, in combination, a pair of burnish-

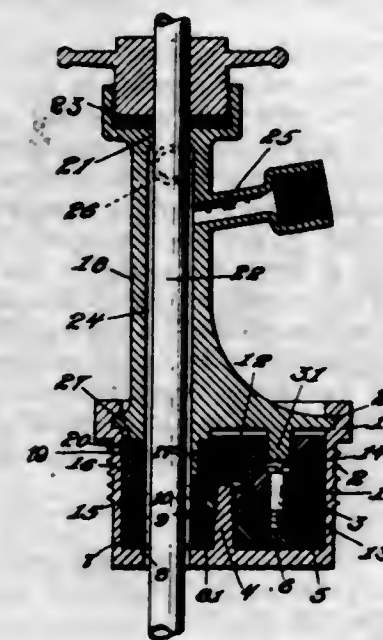
ing irons, a pair of holders on each of which, respectively, one of said burnishing irons is pivoted, a carrier on which said holders are pivoted, a holder on which said carrier is pivoted and mechanism adapted to impart a reciprocatory motion to said carrier and its holder, the pivotal axial lines of said burnishing irons and carrier extending transversely of the path of travel of said carrier and the pivotal axial lines of said irons and their respective holders extending substantially at right angles to each other.

4. A machine for burnishing the edges of the soles of boots and shoes having, in combination, a pair of burnishing irons, a pair of holders on each of which, respectively, one of said burnishing irons is pivoted, a carrier on which said holders are pivoted, a holder on which said carrier is pivoted, the pivotal axial line of said carrier located in a plane extending transversely of the path of travel of said carrier between the pivotal axial lines of said burnishing irons and substantially parallel to the pivotal axial line of said last-named holder, and mechanism adapted to impart a reciprocatory motion to said carrier and its holder, the pivotal axial lines of said burnishing irons and carrier extending transversely of the path of travel of said carrier and the pivotal axial lines of said irons and their respective holders extending substantially at right angles to each other.

5. A machine for burnishing the edges of the soles of boots and shoes having, in combination, a pair of burnishing irons, a carrier on which said burnishing irons are mounted, a holder on which said carrier is pivoted, a support upon which said holder is pivoted and mechanism adapted to impart a reciprocatory motion to said support, the pivotal axial line of said carrier extending transversely of the path of travel of said holder, and the pivotal axial lines of said holder and carrier extending substantially at right angles to each other.

[Claims 6 to 21 not printed in the Gazette.]

1,080,805. FAUCET-BUNG. DILLON BEEBE, Newark, N. J. Filed May 10, 1912. Serial No. 696,348. (Cl. 225-3.)



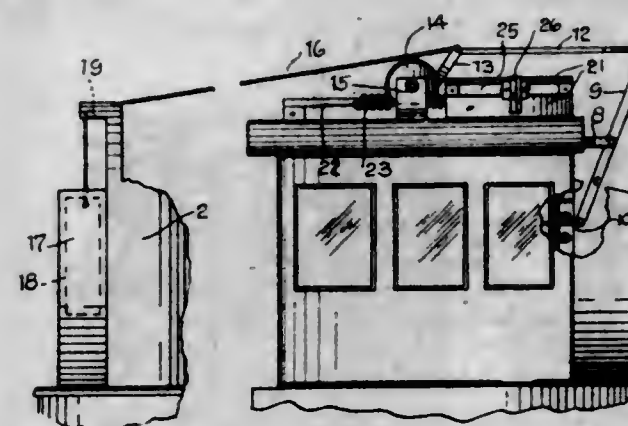
1. In a faucet bung for barrels and similar packages, the combination with a cup-shaped bushing formed with a central integral projection rising upward from the bottom of its inner surface and with an eccentric opening in its bottom, said bushing having opposite inclined grooves in its inner side walls and being threaded on its outer side walls, a valve disk with a central aperture adapted to be held and ride rotatively upon said projection of said bushing, and means upon the outer end of said projection for securing said valve disk with an impervious bearing against the floor of the bushing, said valve disk having an eccentric aperture adapted to register with said opening in the bottom of the bushing, of an outer valve portion covering said projection and securing means and adapted to receive a tap or faucet, said outer valve portion exposing the said inclined grooves of the bushing, and

means for securing said outer valve portion fixedly and detachably to said valve disk.

2. In a faucet bung for barrels and similar packages, the combination with a cup-shaped bushing exteriorly threaded and having a central projection rising upward from the bottom of its inner surface, said bushing having an eccentric opening in its bottom and opposite inclined grooves in its side wall, a valve disk rotatably mounted on said projection and having an aperture adapted to turn into and out of registration with said opening in the bottom of the bushing, and means upon the outer end of said projection for securing an impervious relation of said valve disk to the bottom inner surface of the bushing, of an outer valve portion covering said projection and securing means thereon adapted to receive a tap or faucet, said outer portion exposing said inclined grooves of the bushing and having an opening adapted to place the tap or faucet in communication with the said eccentric aperture of the valve, the upper end of said opening being stepped or enlarged to connect with the tap or faucet and overlying the said means for securing the valve disk on the boss or projection, and means detachably securing said outer valve portion to the valve disk in fixed relation thereto.

3. The combination with a faucet bung comprising a cup-like bushing having an eccentric opening in its bottom and inclined grooves in its side wall, and a valve in said bushing having an opening adapted to turn into and out of registration with said bottom opening, the outer end of said valve exposing said inclined grooves and having engaging means diametrically opposite its said opening, of a tap or faucet having a reduced end to enter said opening of the valve and opposite lugs adapted to engage the said inclined grooves, one of said lugs being adapted to engage the said engaging means on the valve to turn said valve with the tap or faucet.

1,080,806. AUTOMATIC BRAKE-OPERATING MEANS FOR LOCOMOTIVES. DOUGLASS E. BEERS, Northampton, Pa. Filed Feb. 5, 1913. Serial No. 746,358. (Cl. 246-59.)

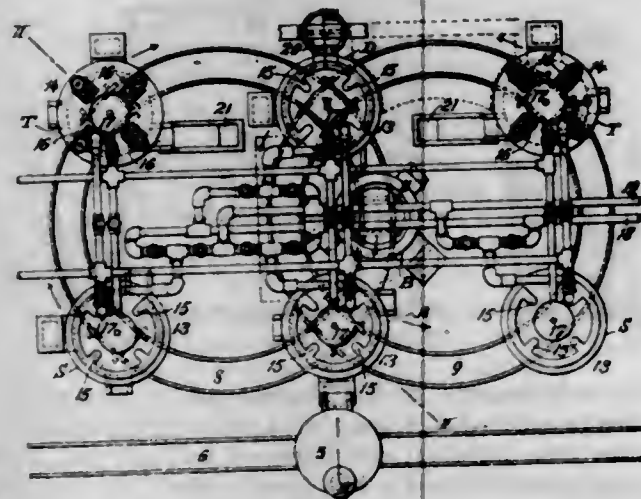


1. The combination with a movable object having operating levers carried thereon; of a lever fulcrumed on a horizontal axis adjacent the forward end of the object, connecting means between the lower end of said fulcrum lever and the aforesaid levers, a rock shaft mounted on a horizontal axis on said movable object and provided with an upwardly extending arm, linking means between said arm and the upper end of said fulcrum lever, an additional arm carried on said rock shaft having the free end thereof bifurcated, a transversely extending trip lever fulcrumed on the object and having the free end thereof disposed on the one side of the same, said lever being adapted to be received in the bifurcated end of the arm on said rock shaft, spring means engaged with the inner end of said lever to normally dispose the same to a predetermined position, means adapted to be disposed in the path of the trip lever to disengage the same from the aforesaid arm, and means engaged with the first mentioned arm on said rock shaft to rock the latter upon the disengagement of said trip lever, whereby said operating levers will be effectively operated.

2. The combination with a movable object having operating levers thereon; of a lever fulcrumed on a horizontal axis at the forward end of said object, the lower end of said fulcrum lever having connection with the aforesaid levers, a rock shaft mounted on a horizontal axis on said movable object, means engaged with said rock shaft having a tendency to rock the same rearwardly, connecting means between said rock shaft and the upper end of said fulcrum lever, a latch member carried on said rock shaft, a spring held trip lever fulcrumed on said object and adapted to be engaged with said latch member to normally retain the rock shaft against the tendency of the aforesaid means engaged with the same, said lever having one end thereof projected beyond the side of said object, and means on the road-bed of the movable object adapted to engage said trip lever and disengage the same from said latch member, whereby said rock shaft will be rocked on its pivot and the operating levers effectually disposed.

3. The combination with a movable object having operating levers thereon; of a lever fulcrumed on a horizontal axis at the forward end of said object, the lower end of said fulcrum lever having connection with the aforesaid levers, a rock shaft mounted on a horizontal axis on said movable object, means engaged with said rock shaft having a tendency to rock the same rearwardly, connecting means between said rock shaft and the upper end of said fulcrum lever, a latch member carried on said rock shaft, a spring held trip lever fulcrumed on said object and adapted to be engaged with said latch member to normally retain the rock shaft against the tendency of the aforesaid means engaged with the same, a pivoted extension carried on said lever projected beyond the inner side of said object and having its outer free end weighted, means to limit the swinging movement of said extension in one direction, to dispose the same to a substantially horizontal position, means to raise said extension from the movable object, and means on the road-bed of the movable object adapted for engagement with the extension on said lever to trip the latter and disengage the same from said latch member.

1,080,807. ART OF MANUFACTURING STEEL. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Jan. 4, 1913. Serial No. 740,103. (Cl. 204-64.)



1. An improvement in the art of manufacturing steel which consists in charging molten bessemerized iron on to a heated hearth, introducing a flux, subjecting the iron and flux to the action of a gaseous atmosphere and a temperature due to the combustion of gas and air, then removing the slag produced, then moving the hearth and the metal out of the gaseous atmosphere and temperature, then introducing a different flux, then subjecting the purified iron and flux to a high temperature due to the effect of an electric current, then introducing carbon, and finally pouring steel.

2. An improvement in the art of manufacturing steel which consists in charging molten iron from which phosphorus, carbon and silicon have been partially removed by oxidation on to a heated hearth, introducing a basic flux and then subjecting the iron and flux to the action

of a gaseous atmosphere and a temperature sufficiently high to effect a further removal of the phosphorus, carbon and silicon, then removing the slag produced, then moving the hearth and the purified iron thereon out of the gaseous atmosphere and temperature, then introducing lime, then subjecting the purified iron and the lime to a temperature sufficiently high to bring about combination of the remaining phosphorus, carbon and silicon with the lime, then removing the slag, then introducing the required percentage of carbon, and finally pouring steel.

3. An improvement in the art of manufacturing steel which consists in charging molten bessemerized iron on to a heated hearth, then introducing a flux, then subjecting the iron and flux to a gaseous atmosphere and temperature due to the combustion of gas and air sufficient to bring about a partial combination with the flux of the phosphorus, carbon and silicon carried by the iron, then slagging, then moving the hearth and the purified iron thereon out of the gaseous atmosphere and temperature, then introducing a lime flux, then subjecting the purified iron and flux to the temperature effects of an electric current, then slagging, then moving the hearth and purified iron thereon into a reducing atmosphere due to the combustion of gas and air, then introducing carbon, and finally pouring the steel.

4. An improvement in the art of manufacturing steel which consists in charging molten bessemerized iron on to a heated hearth heated by a gas and air flame, then introducing the flux, then moving the hearth and the purified iron thereon and again subjecting the iron to the action of a gas and air flame having a different temperature; then moving the hearth and the iron thereon out of the influence of the gaseous atmosphere and temperature, then slagging, then moving the hearth and purified iron thereon, then introducing lime, then subjecting the purified iron and lime to the action of a temperature due to a transmitted electric current, then slagging, then again moving the hearth and the purified iron thereon, then introducing carbon, then again subjecting the purified iron and carbon to a gaseous atmosphere and temperature, and finally pouring steel.

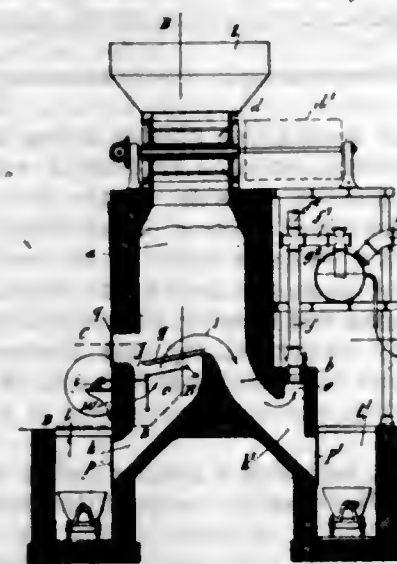
5. The herein described method of converting bessemerized iron into steel, which consists in first subjecting the iron to the action of a flux, a reducing atmosphere and the temperature effects due to the combustion of gas and air, then slagging, then moving the purified iron from the reducing atmosphere and out of the presence of any bodies which would tend to combine again with the iron, and subjecting it to a temperature due to the combustion of gas and air, then introducing lime, then subjecting it to the high temperature effects of a transmitted electric current, then slagging, and then finally introducing sufficient carbon and at the same time maintaining a sufficient temperature and the required atmosphere to maintain the iron fluid and prevent absorption of oxygen from the atmosphere.

1,080,808. APPARATUS FOR THE PRODUCTION OF GAS FROM SEWAGE. CAMILLE BIRAULT, Paris, France. Filed Aug. 15, 1912. Serial No. 715,157. (Cl. 48-82.)

1. A sewage destructor, embodying therein a vertical cell having a relatively short vertical partition at its base whereby the base of said cell is divided into two opposite compartments, a grate in said cell, means whereby said grate is supported over one of said compartments only with one end of the grate spaced away from said partition and its other end spaced away from one of the side walls of said cell, means whereby the material to be treated is fed onto said grate and into the compartment adjacent that over which the grate is supported, and means whereby combustion of the material on the grate is effected and the gases of combustion are passed through the material in the compartment adjacent that over which the grate is supported.

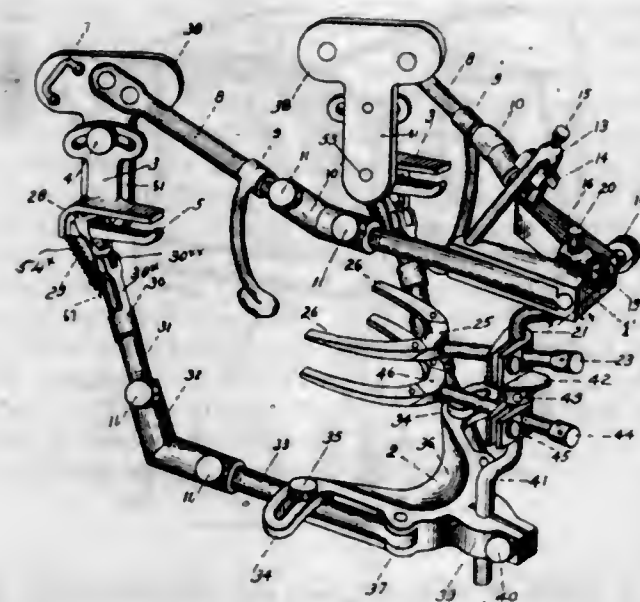
2. A sewage destructor, embodying therein a vertical cell unobstructed throughout the greater part of its

length and provided with a relatively short vertical partition at its base dividing the latter into two parallel inclined compartments, a grate having widely spaced grate bars positioned over one of said compartments whereby the gases of combustion from material on said grate pass through the material in the adjacent compartment, means for supporting said grate in an inclined position with its higher end adjacent the top of said partition and there



being a gap between the lower end of said grate and the adjacent cell wall, there being a feed opening at one end of said cell through which material to be treated may be fed simultaneously onto said grate and into the compartment adjacent thereto, means for intermittently oscillating said grate vertically and horizontally, and means for abruptly terminating said oscillations whereby said grate is subjected to periodical jolts and shocks.

1,080,809. DENTAL ARTICULATOR. RAY W. BURCH, Hart, Mich. Filed Feb. 10, 1911. Serial No. 607,887. (Cl. 32-1.)



1. A dental articulator comprised of two U shaped frames designed to superimpose the jaws, pivoted together at their extremities and each having means whereby trial-wax-plates may be secured to said frames, and means whereby plaster models of the jaws may be attached thereto, substantially as set forth.

2. A dental articulator and face bow comprising an upper and lower section, the upper section comprising temple pads with means of clamping said pads upon the head, extension rod for securing the trial-wax-plates to said upper section, adjustable braces for securing plaster models to said section, the lower section comprising a U shaped frame, an extension post from said frame for the

securing of trial-wax-plates, gliding surfaces pivoted to said upper frame upon which move the pivotal extremities of said lower frame.

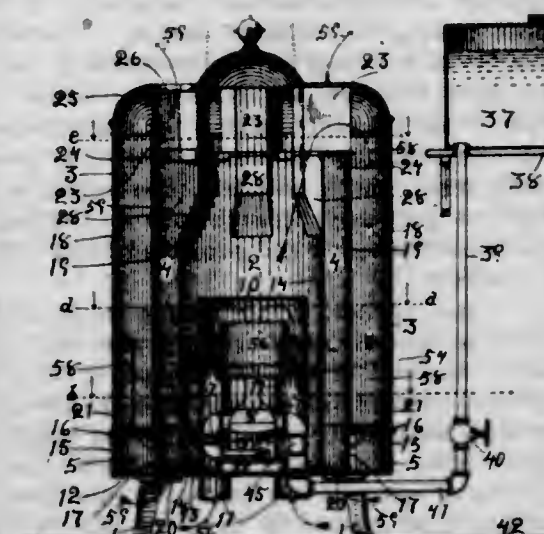
3. The upper U shaped frame having temple pads at its extremities, joints interposed between said pads and a clamping device, nose pads attached to said clamping device, extension for supporting trial-plates, gliding surfaces pivoted to said upper frame, a lower U shaped frame having upturned extremities engaging with said gliding surfaces, a chin piece and trial-plate holders, as and for the purpose set forth.

4. A dental articulator comprising essentially two U shaped frames, the lower frame having upwardly extending arms with pivotal extremities, gliding surfaces pivoted to the upper section engaging with said pivotal extremities to complete the joints between the two sections, extension rod passing downward from said upper frame in contact with extension post from said lower frame, said extension rod and post each supplying a means whereby trial-wax-plates may be secured to said frames, and a means whereby plaster models may be attached to each frame, all substantially as set forth.

5. A dental articulator comprised of two pivoted sections, one of which forming substantially a horizontal bow to fit about the face, having temple pads at each extremity, joints interposed between said pads and a hinge or closing device, extension rod passing downward to which may be secured trial-wax-plate holders, a nose pad adjustably mounted at the center of said bow, the other section of which having upwardly extending arms with pivotal extremities, joints interposed between said extremities and a chin piece, extension post passing upward from said chin piece, plate mounted upon said post, an intermediate member pivoted to one of said sections and having gliding surfaces which completes the joints, springs secured to one section detachably secured to the other section, as and for the purposes set forth.

[Claims 6 to 14 not printed in the Gazette.]

1,080,810. HOT-BLAST OIL-BURNER HEATER. RICHARD B. CARTER, Blair, Nebr. Filed Aug. 8, 1910. Serial No. 576,126. (Cl. 158-63.)



1. A hot-blast oil vapor-burner, comprising a combustion chamber having an exhaust opening, an oil supply pipe leading into said combustion chamber, and a filter in the oil supply pipe in said chamber; a retort consisting of a pipe disposed in the combustion chamber and having one end communicably connected to the filter and at its opposite end a return bend having a jet orifice opening toward a central portion of said pipe, a metal heating-block flame-spreader and hot-blast-deflector disposed centrally on said pipe by casting on and having a frusto-conical face, its opposite face disposed toward said jet orifice and troughed in alignment with said filter and said return bend; and a hot-blast device consisting of an air-heating drum disposed in the combustion chamber at the

side of the retort opposite to said jet orifice, air pipes in the combustion chamber spaced around said retort and communicably connected with the outer air and with said air-heating drum, and a discharge-pipe disposed part way through said drum and its discharge-end projected from the drum toward the frusto-conical deflecting face of the retort.

2. A hot-blast oil vapor-burner, comprising a combustion chamber having an exhaust outlet, an oil supply pipe leading upwardly in said chamber, a filter in said upwardly leading pipe, a horizontally disposed retort duct communicably connected at one end with the top of said filter its opposite end having a downwardly-disposed return bend and its underside troughed in alignment with said filter and bend, a vapor gas-pipe communicably connected to said return bend and having a jet orifice opening upwardly toward the center of the troughed underside of the retort, an air-heating drum disposed in the combustion chamber and over the retort, vertical air pipes in the combustion chamber and spaced around said retort their lower open ends disposed through the bottom of said chamber and their top ends communicably connected to said heating drum, and a vertical hot-blast pipe disposed through the bottom of said heating drum its receiving end projected upwardly into the drum and its discharging end projected downwardly toward the top of the retort.

3. A hot-blast oil vapor-burner comprising a combustion chamber having an exhaust opening, a duct-retort disposed in said chamber and having a frusto-conical top and a horizontally troughed bottom and the bottom and adjacent peripheral edge smoothly polished, a vertical oil supply pipe disposed in said chamber in alignment with the trough in the bottom of the retort and communicably connected with the duct thereof, a pipe communicably connected to the opposite end of the retort duct by a downwardly disposed return bend in alignment with said trough and said pipe having a jet orifice opening upwardly toward the center of said trough, an air-heating drum disposed in said chamber and above said retort, vertical air pipes in the chamber spaced around said retort and communicably connected with the outer air and to said heating drum, and a hot-blast pipe leading downwardly from said heating drum to discharge on the top of said retort.

4. A hot-blast oil vapor-burner comprising a combustion chamber having an exhaust outlet, a hot-blast oil vapor retort having a fuel supply connection and a jet disposed in said chamber, an air-heating drum in said chamber, air pipes in said chamber spaced around said burner and communicably connected with the outer air and with said drum, and a hot-blast pipe having a receiving end disposed part way through said air-heating drum and its opposite discharging end projected from said drum toward said burner.

5. An oil vapor burner, comprising a horizontally-disposed retort-pipe, a vertical oil supply pipe connected at its top end to one end of the retort pipe, a filter in the top end of the vertical oil supply pipe, a downwardly-disposed return bend duct connected to the opposite end of the retort pipe, a circular heating-block and flame-spreader of metal cast on the center of said retort pipe and its bottom face shaped to form an inverted trough disposed in alignment with said oil supply pipe and said return bend, said bottom face and the adjacent peripheral circular edge of the heating-block and flame-spreader smoothly polished, and a gas-pipe connected to said return bend, disposed beneath the retort and having a jet orifice opening upwardly toward the center of the trough in the bottom face of the flame-spreader.

[Claim 6 not printed in the Gazette.]

1,080,811. SLIDE-RULE. ROBERT CAMERON COLWELL, Beaver Falls, Pa. Filed Feb. 7, 1913. Serial No. 746,871. (Cl. 235-70.)

1. A slide rule, including a tubular casing having a plurality of longitudinal scales, a cylindrical member rotatably and longitudinally slidable within the casing and

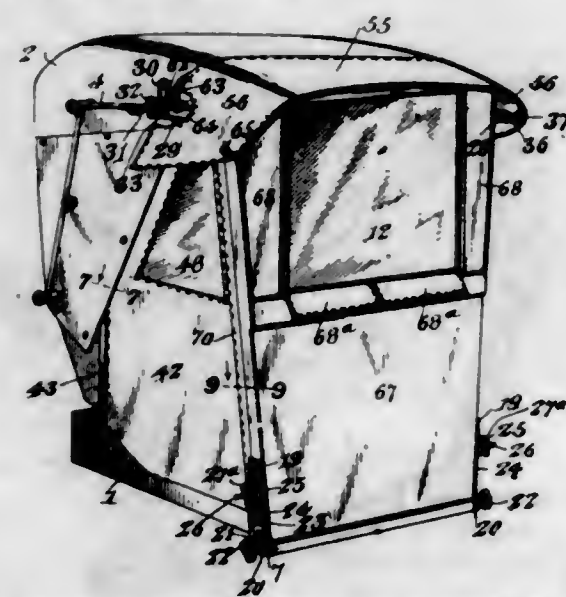
provided with a longitudinal recess, said member also being provided with scales for coaction with the scales of the casing, a cursor slidably mounted upon the casing for coaction with the scales of the casing and member, and a band provided with a projection, said band being rotatably mounted on the casing, whereby the projection may be placed into and out of registration with the recess.



2. A slide-rule, including a tubular casing having a plurality of longitudinal scales, a cylindrical member rotatably and longitudinally slidable within the casing, said member being provided with a longitudinal recess and scales for coaction with the scales of the casing, a cursor slidably mounted upon the casing for coaction with the scales of the casing and member, and rotatable means having an inwardly projecting lug and disposed upon the tubular casing and in coactive relation with the cylindrical member for locking the tubular member in selected position.

3. A slide rule, including a tubular casing having a plurality of longitudinal scales, a cylindrical member rotatably and longitudinally slidable within the casing, said member being provided with scales for coaction with the scales of the casing, a cursor slidably mounted upon the casing for coaction with the scales of the casing and the member, a band mounted on the casing for rotary movement concentrically of the cylindrical member, and co-operating means carried by the cylindrical member and band, whereby when said means are aligned the cylindrical member is locked against rotation but can be moved longitudinally and when not aligned the cylindrical member is held against longitudinal movement but can be rotated.

1,080,812. STORM-FRONT FOR VEHICLES. JESSE B. CRETORS, St. Paris, Ohio. Filed Aug. 29, 1912. Serial No. 717,762. (Cl. 21-81.)



1. A storm front attachment for vehicles having tops, comprising a frame substantially rigid throughout and of a length substantially equal to the full height of the storm front and also of a width greater than the body of the vehicle, said frame being provided with curtains, clamp members carried by and interior to the side members of the frame and adjustable to move one toward the other to grip the body of the vehicle, side curtains carried by the clamp members and participating in the movements of adjustment toward and from the body of the vehicle, and means for connecting the frame to the vehicle top when the latter is extended.

2. A storm front attachment for vehicles having tops, comprising a frame substantially rigid throughout and of a length substantially equal to the full height of the storm front and also of a width greater than the body of

the vehicle, said frame being provided with curtains, clamp members carried by and interior to the side members of the frame and adjustable to move one toward the other to grip the body of the vehicle, side curtains carried by the clamp members and participating in the movements of adjustment toward and from the body of the vehicle, and means for connecting the frame to the vehicle top when the latter is extended, the frame being also provided with a member extending transversely thereof between its sides and adjustable lengthwise of the sides of the frame, and positioned to engage the upper edges of the sides of the vehicle.

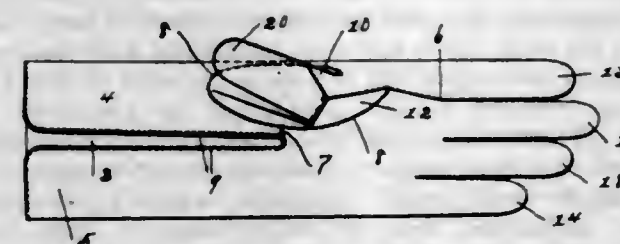
3. A storm front attachment for vehicles having tops, comprising a substantially rigid frame of a length substantially equal to the full height of the storm front and of a width greater than the width of the body of the vehicle and also provided with curtains, clamp members on opposite sides of the frame each hinged at the upper end to a respective side member of the frame near the upper end thereof at the inner side of the side member and at the lower ends said clamp members being constructed to engage the outer faces of the respective sides of the body of the vehicle to which the storm front is applied, a side curtain carried by each hinged clamp member and participating in the movements thereof, connecting members carried by the frame at the end thereof remote from that to be attached to the vehicle body, and means for attachment thereof to the top of the vehicle.

4. In a storm front for vehicles, a frame comprising side members and top and bottom members, longitudinally slotted toothed plates carried by the frame near one end thereof, a clamp screw carried by each plate near one end thereof, a rod extending through the slotted plates and between the side members of the frame, clamp blocks and nuts carried by the rod to engage the toothed plates of the frame, and a bar interior to each side member of the frame and hinged thereto near the end of the frame remote from the clamp screws, each bar being provided with a slotted passage for the rod and with an engaging member at the end remote from the hinge to contact with the vehicle body and at said end being located in the path of the clamp screw on the adjacent side member.

5. In a storm front for vehicles, a frame comprising side members and top and bottom members, longitudinally slotted toothed plates carried by the frame near one end thereof, a clamp screw carried by each plate near one end thereof, a rod extending through the slotted plates and between the side members of the frame, clamp blocks and nuts carried by the rod to engage the toothed plates of the frame, and a bar interior to each side member of the frame and hinged thereto near the end of the frame remote from the clamp screws, each bar being provided with a slotted passage for the rod and with an engaging member at the end remote from the hinge to contact with the vehicle body, each of said hinge bars being provided with a spring roller and a side curtain attached thereto and also at the slotted end being located in the path of the clamp screw on the adjacent side member.

[Claims 6 to 18 not printed in the Gazette.]

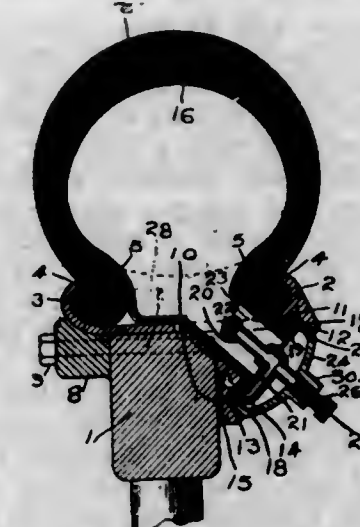
1,080,813. GLOVE. EDWARD DACORSI, Gloversville, N. Y., assignor of one-third to Peter Cinelli and one-third to Frank Finizio, Gloversville, N. Y. Filed Feb. 7, 1912. Serial No. 675,934. (Cl. 2-9.)



A glove comprising front and back formed of a single piece of material folded along the line of the outer edge of the first finger and along the line of the outer edge of

the little finger to form front flaps, a wrist-opening and an inclosed thumb-opening, said front flaps being secured together by two short seams, one extending from the wrist-opening to the inner side of the thumb-opening and the other extending from the crotch between the first and second fingers to the base of the thumb-opening at a slight angle to the inner side-line of the first finger; and a thumb-piece formed of a single piece of material folded for a portion of its length along its longitudinal middle line with its edges stitched together to form a thumb-pocket and having an angular projection extending a substantial distance beyond the pocket-forming portion of the thumb-piece, said thumb-piece being secured within the thumb-opening, one of said front flaps of the body extending continuously along the front side of the first finger past the crotch of the thumb and terminating in a quirk for the thumb.

1,080,814. RIM FOR MOUNTING PNEUMATIC TIRES. EDWARD FREDERICK DREGER, Oakland, and FRANK ELVIN PFISTER, Piedmont, Cal. Filed Mar. 2, 1912. Serial No. 681,053. (Cl. 152-22.)



1. In combination with an outer casing having a series of simultaneously inflatable tube sections therein, of a rim for mounting the same, said rim being divided longitudinally into sections, means for clamping said sections together, one of said rim sections being provided with a plurality of circumferentially disposed openings communicating with the interior of said outer casing for the insertion of the tube sections therein, a valve controlled closure for each of said tube sections, said rim section being further provided with an annular bore therein communicating with each of said valve controlled closures, an inflating valve common to all of said inflatable tube sections, and means for retaining said valve controlled closures in said tube sections.

2. In combination with an outer casing having a series of simultaneously inflatable circumferentially disposed inflatable tube sections therein, of a rim for mounting the same, said rim being provided with a plurality of circumferentially disposed openings therein communicating with the interior of said outer casing for the insertion of the tube sections therein, said rim being further provided with an annular bore arranged circumferentially thereof and communicating with each of said openings, a disk adapted to be seated in each of said openings and close the open end of said tubes, a valve controlled channel in said disk and communicating with said annular bore and said inflatable tube sections, an inflating valve extended from one of said disks and communicating with each of said inflatable sections through said annular bore and means for retaining said disk in said openings.

3. In combination with an outer casing having a series of simultaneously inflatable circumferentially disposed tube sections therein, of a rim for mounting the same, said rim being provided with a plurality of circumferentially disposed openings therein communicating with the interior of said outer casing for the insertion of said tube sections therein, one of said tubes being seated within

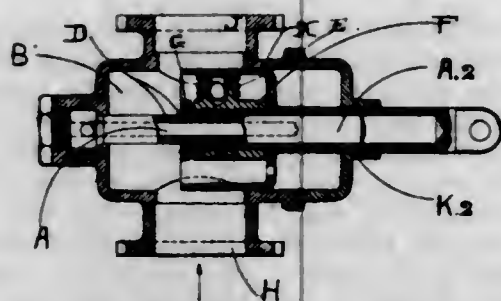
each of said openings and capable of withdrawal from said outer casing through said openings, a valve containing closure for each of said tube sections, said closure seating said tube sections within said openings, said rim being further provided with a communicating duct between each of said valve controlled closures and an inflating valve common to all of said inflatable tube sections.

4. In combination with an outer casing having a series of simultaneously inflatable circumferentially disposed tube sections therein, of a rim for mounting the same, said rim being provided with a plurality of circumferentially disposed openings therein communicating with the interior of said casing for the insertion of said tube sections therein, said rim being provided with an annular bore arranged circumferentially therein, said bore communicating with each of said openings, a disk adapted to close the open end of each of said tubes and retain the same in said openings, an inwardly opening valved channel formed in said disk and communicating with said tube and said annular bore, a cap for securely clamping said disk in said opening and providing a closure for the outer end of said opening, and an inflating valve common to all of said inflatable tube sections.

5. In combination with an outer casing having a plurality of circumferentially disposed simultaneously inflatable tube sections therein, of a rim for mounting the same, an enlarged annular bead on one side of said rim, said rim being provided with a plurality of downwardly inclined circumferentially disposed cylindrical openings extending through said enlarged annular bead and communicating with the interior of said casing for the insertion of said tube sections therein, said openings being enlarged adjacent their outer ends to form annular shoulders, said rim being further provided with an annular bore arranged circumferentially thereof and communicating with each of said openings at the shoulders thereof, disks adapted to close the outer end of said tubes and seat the edges of said tubes against said shoulders, a valved channel in said disks and communicating with said tube and said annular bore, a cap for inserting into the outer end of said openings, said cap adapted to clamp said disk to said tube and provide a closure for the outer end of said openings, and an inflating valve projecting outwardly from one of said valved channels and extending through a suitable aperture in one of said caps, said valve being common to all of said inflatable tubes.

[Claim 6 not printed in the Gazette.]

1,080,816. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. ERNEST PERCIVAL EVEREST, Coventry, England. Filed Nov. 11, 1911. Serial No. 659,769. (Cl. 48-155.1.)



1. In a spray carbureter, the combination of a spray chamber, a fuel supply tube projecting into said spray chamber, fuel outlets in the upper surface of said tube, a slide mounted on said upper surface and adapted to cover and uncover said fuel outlets, and a spring holding said slide on to said jet tube and maintaining a liquid tight joint between said slide and the upper surface of said tube substantially as set forth.

2. In a spray carbureter, the combination of a spraying chamber, a throttle valve movable in said chamber, a fixed fuel tube projecting into said chamber, fuel outlets in the upper surface of said tube, a slide mounted exteriorly on said tube and adapted to cover and uncover

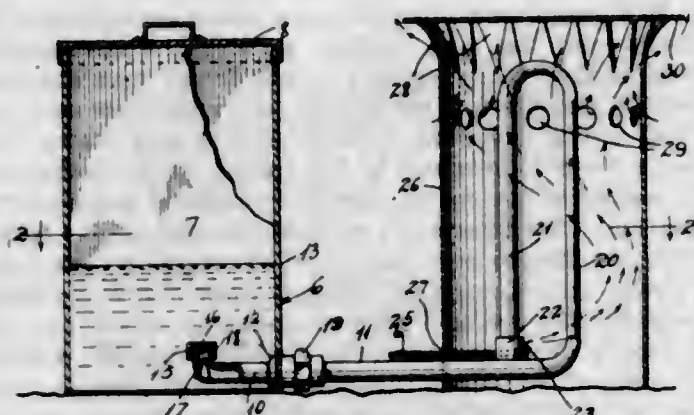
said fuel outlets, a spring arranged between the slide and the throttle valve and exerting downward pressure on the slide to maintain a close joint between the latter and the fuel tube, and an adjustable connection between said slide and said throttle valve.

3. In a spray carbureter, the combination of a spraying chamber, an air inlet to said spraying chamber, a gas outlet from said spraying chamber, a throttle valve adapted to cover and uncover said inlet and outlet, a fuel tube projecting into said chamber, fuel outlets in the upper surface of said tube, a slide mounted on said tube, and adapted to cover and uncover said fuel outlets, an adjustable connection between said slide and said throttle valve, and a spring between said slide and the throttle valve, substantially as set forth.

4. In a spray carbureter, the combination of a spraying chamber, an air inlet to said spraying chamber, a gas outlet from said spraying chamber, a throttle valve adapted to cover and uncover said inlet and said outlet, a fuel tube projecting into said chamber, fuel outlets in the upper surface of said tube, an inner sleeve mounted on said tube, an outer sleeve having an adjustable connection with said inner sleeve, a connection between the said outer sleeve and the throttle valve, and a spring between said outer sleeve and the throttle valve, substantially as set forth.

5. In a spray carbureter, the combination of a spraying chamber, an air inlet to said spraying chamber, a gas outlet from said spraying chamber, a throttle valve adapted to slide across said spraying chamber and uncover said inlet and outlet, a fuel tube projecting into said chamber, an eccentric passage in said fuel tube, fuel outlets therefrom, an inner sleeve adapted to slide on said tube, an outer sleeve having a screwed connection with said inner sleeve, a connection between said outer sleeve and the throttle valve, and a spring between said outer sleeve and the throttle valve, substantially as set forth.

1,080,816. ORCHARD-HEATER. HARRY K. FAIRALL, JOHN D. BOLEY, and JOHN M. CLEGHORN, Highland, Cal. Filed Oct. 19, 1912. Serial No. 726,676. (Cl. 153-57.)



1. An orchard heater, comprising a container adapted to form reservoirs for a plurality of vaporizable fluids, pipes leading from each reservoir of said container and extending with a bend above the level of fluid in said reservoirs to terminate in valved exits placed adjacent to each other, and an inclosure surrounding said bends and their adjacent valved exits.

2. An orchard heater, comprising a container adapted to form reservoirs for a plurality of fluids of different characteristics, pipes leading one from each reservoir of said container, and terminating in a parallel return bend having its bend above the level of fluid in said reservoirs, and valves controlling the outlets in the ends of said pipes.

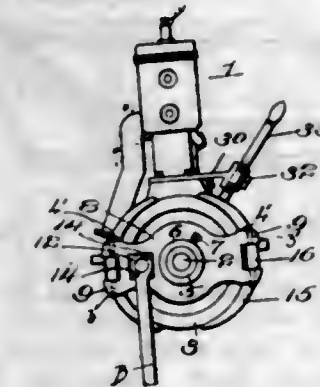
3. An orchard heater, comprising an apertured container for different fluids, pipes for said container means for securing said pipes to said container forming exits for fluids from said apertures, said pipes having valved extremities and a return bend in their outer portions having their loops above the level of fluid in said reservoirs and the limbs of said bend placed adjacent one another, and an apertured inclosure adapted to straddle and inclose said pipes and their adjacent return bends.

4. An orchard heater, comprising a plurality of reservoirs adapted to contain fluids of different characteristics, a plurality of return bend pipes having gas generating portions, the limbs of the return bend of said pipes being placed adjacent to each other their terminal ends also being adjacent and provided with orifices, valves to control entrance of fluid into said pipes, valves to control the orifices provided for the exit of gases from the terminal end of said return bend, and an apertured closure surrounding the said return bends of said pipes.

5. An orchard burner, comprising a container divided to form a pair of reservoirs, having an aperture in the lower portion of each reservoir, a pipe elbow connected to each of said apertures, and affording an exit from said reservoirs, a check valve on the inner end of each of said pipe elbows, a return bend pipe secured to the outer end of each of said elbows, having a dependent end, valves secured one to each dependent end of said return bends having an orifice directed outwardly so that the flow therefrom will be intermediate the oppositely disposed limbs of said return bends, and an apertured casing inclosing said adjacent return bends of said pipes.

[Claim 6 not printed in the Gazette.]

1,080,817. CLUTCH. PHILLIP FARWELL, Sunapee, N. H. Filed Mar. 31, 1911. Serial No. 618,091. (Cl. 192-5.)



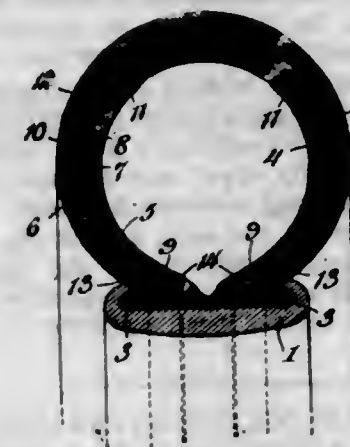
1. In combination, an engine shaft having a fly wheel secured thereto, a sleeve fixed to the outer end of said shaft with a stop flange held against said wheel, a collar upon said sleeve, a carrier plate revolvably held upon said sleeve between said flange and collar with spaced ears at opposite ends projecting beyond said wheel, two friction shoes for co-action with said wheel each having a lug, each of said lugs held between two of said ears, means to hold said lugs to said ears, a stud extending from each of said shoes, a shifting collar revolvable upon said shaft opposite said sleeve having ears, a pivotally held lever engaging said sleeve, and two curved resilient bars each connected at one end to a friction shoe stud and at the other to a sleeve ear.

2. In combination, an engine shaft having a flywheel secured thereon, a sleeve fixed to the outer end of said shaft with a stop flange held against said wheel, a collar upon said sleeve, a carrier plate revolvably held upon said sleeve between said flange and collar with spaced ears at opposite ends projecting beyond said wheel, two friction shoes for co-action with said wheel each having an apertured lug each of said lugs held between two of said ears, pins to hold said lugs to said ears, a stud extending from each of said shoes, a shifting collar revolvable upon said shaft opposite said sleeve having ears, a pivotally held lever engaging said sleeve, and two curved resilient bars each connected at one end to a friction shoe stud and at the other to a sleeve ear.

1,080,818. AUTOMOBILE-TIRE. ALBERT H. FISHER, Lincoln, Nebr. Continuation of application Serial No. 622,098, filed Apr. 19, 1911. This application filed June 25, 1912. Serial No. 705,890. (Cl. 152-18.)

1. In an automobile tire, the combination with a formed outer casing having a thickened tread, of an inner or sub-casing composed of superimposed united layers of fabric of less number at the tread portion than at the sides.

2. In an automobile tire, the combination with a formed outer casing having a thickened tread, of an inner or sub-casing composed of superimposed united layers of fabric of less number at the tread portion than at the sides, and the inner layer of fabric of the subcasing being continued to a substantially equal extent beyond the edge portions of the inner casing and thereby uniting to form a bridge between the beads of the outer casing.



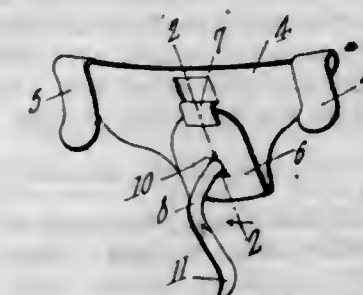
3. A subcasing for introduction into the formed outer casing of an automobile tire, comprising superposed layers of fabric of substantially nonextensible and substantially even texture throughout, the number of layers at the tread portion of the subcasing being less than at the sides thereof.

4. A subcasing for introduction into a formed outer casing of an automobile tire, comprising superposed layers of substantially nonextensible fabric of substantially even thickness throughout, said layers comprising an inner layer of a length cross-sectionally of the subcasing to meet between the beads of the outer casing when in place therein, another layer exterior to the first layer and having its ends returned on themselves toward the tread portion of the tire and stopping short thereof, metal bands lodged in the loops so formed in position to bear against the inner walls of the bead portions of the outer casing, another layer of fabric exterior to the rim portion of the second-named layer and traversing the tread portion of the subcasing and the sides thereof and stopping short of the metal bands, and an exterior layer of fabric extending across the tread portion of the subcasing and along the sides and beyond the loops formed by the return portions of the second-named layer to house said loop portions between the innermost and outermost layers of the sub-casing.

5. In an automobile tire, the combination with the outer casing thereof having the tread part stiffer than the side walls, of an inner or subcasing having the tread portion of greater flexibility than the side walls in substantially inverse order to the outer casing and having marginal members adapted to engage the beads of the outer casing in locking relation thereto under the action of air pressure when the tire is inflated.

[Claim 6 not printed in the Gazette.]

1,080,819. COLLAR-FASTENER. JOHN E. FITZGERALD, Boston, Mass. Filed Feb. 21, 1913. Serial No. 749,988. (Cl. 24-98.)



1. A collar button embodying a plate having ears bent back from its upper edge adjoining the ends to hook over the edge of a neck band and having a flap bent back therefrom.

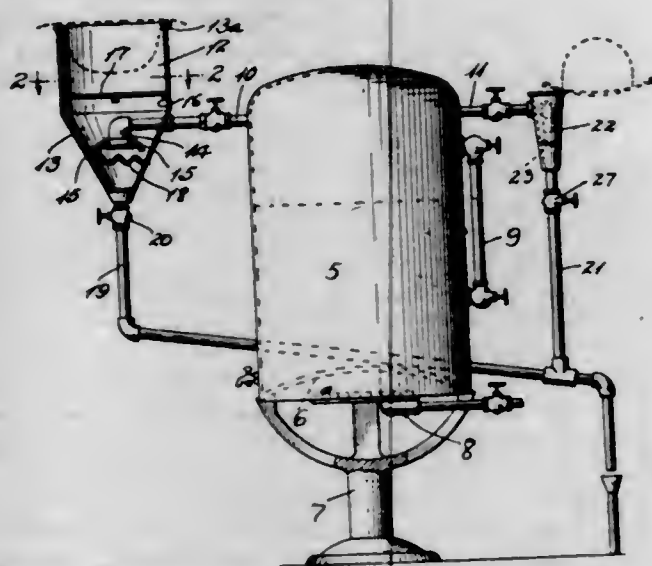
on between the ears, and an angular button hole member having a head at one end swiveled between the body and flap.

2. A collar button embodying a plate having a flap bent back thereon, and an angular button hole member having a head at one end swiveled between the flap and body, the plate having a member engaging the end of the flap.

3. A collar button embodying a plate having a flap bent back against the front face, an angular button hole member having one end piercing the flap and provided with a head swiveled in back of the flap, and a lip struck from the plate and engaging over the end of the flap.

4. A collar button embodying a plate having a pair of ears bent back from its upper edge to hook over the edge of a neck band, having a lower flap bent back against the front face between the ears, and having a lip struck therefrom and engaging the end of the flap, and an L-shaped button hole member having one arm piercing the flap and provided with a head swiveled in back of the flap.

1,080,820. HAT-BLOCKING APPARATUS. MICHAEL FLICKER, Los Angeles, Cal. Filed Sept. 16, 1912. Serial No. 720,598. (Cl. 223-23.)



1. In a device of the class described, a steam boiler, a steam pipe extending therefrom, a cylindrical cup supported on said pipe, a nozzle having a plurality of downwardly disposed openings connected to the end of said pipe in said cup, a perforated deflector plate mounted below said nozzle, and steam distributing screens mounted adjacent and above said nozzle, and extending from side to side thereof.

2. In a device of the class described, a steam boiler, a steam pipe connected thereto, a flattened conical brim heating cup secured to said pipe, a steam nozzle secured to said pipe having a plurality of downwardly extending orifices mounted in said brim heating cup, a corrugated deflector plate mounted below and in the path of the steam issuing from said nozzle, and a distributing screen mounted adjacent the top of said cup.

3. In a device of the class described, a steam boiler, a plurality of cups secured thereto, pipes to convey live steam connecting said cups to said boiler, intermediate of their top and bottom, nozzles to discharge steam carried thereby, having downwardly projecting openings, distributing screens mounted in said cups above said nozzles, perforated deflector plates below said nozzles, and drain pipes leading from the dependent central portion of said cups.

1,080,821. VEHICLE-TIRE. CHARLES F. FORSTER, Oak Park, Ill. Filed Oct. 4, 1912. Serial No. 723,887. (Cl. 152-17.)

A vehicle tire comprising a casing, a filler therefor, said casing having provided in the tread thereof an annular channel, a separable insert adapted to fit within said channel, tire retaining bands adapted to surround

the tire and felly, aligning eyes upon the ends of said bands, a rod adapted to extend through the aligning eyes



of the several retaining bands, and means for securing the ends of said rod together.

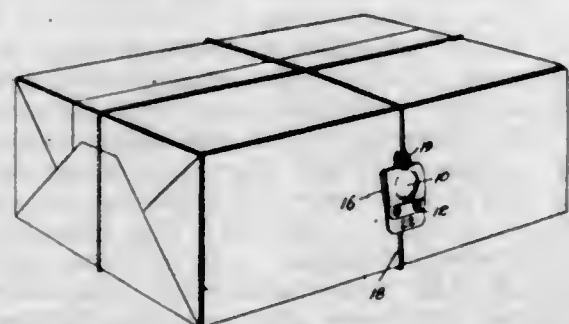
1,080,822. FLY-PAPER. NATHANIEL L. FOSTER, New Rochelle, N. Y. Filed Mar. 30, 1909. Serial No. 486,698. (Cl. 43-22.)



1. The combination with a sheet of paper having a coating of adhesive on one side thereof, of a flexible connection having one end attached to the uncoated side of such sheet adjacent each end thereof and, after passing around the edges of such sheet, extending between the opposite ends thereof, such connection being slightly shorter than said sheet, whereby it serves to bend the same into the form of a segment of a cylinder.

2. The combination with a sheet of paper having one side only coated with an adhesive, of a strip secured permanently at one end to one end of said sheet, and having a free end adapted to be secured to the other end of said sheet, said strip adapted to lie flat on the uncoated side of said sheet to facilitate packing of the sheets for shipment, and means for retaining the strip in such position.

1,080,823. PACKAGE-SEAL. WILLIAM W. FRESCHL, New York, N. Y. Filed Mar. 12, 1913. Serial No. 753,740. (Cl. 70-101.)



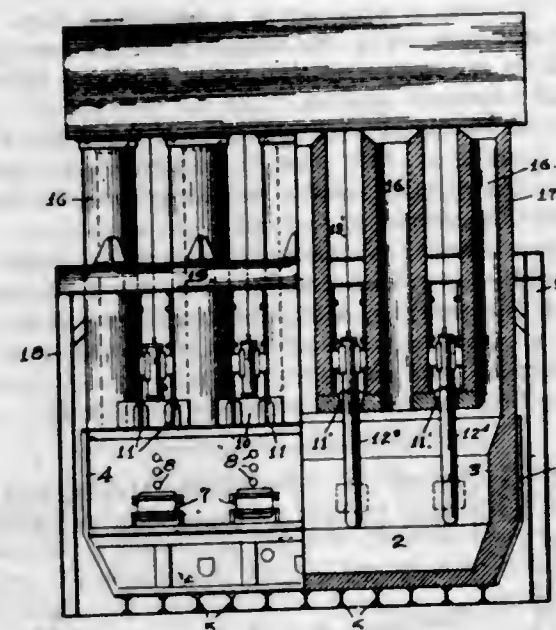
1. The herein described package seal comprising a one piece sheet metal blank apertured for the passage of the ends of a cord, means adjacent the opposite ends of the blank adapted to be brought into register to secure the same over and inclose a knot formed of said cord ends, and means associated with the lateral edges of the seal after it is formed into locking position to prevent the knot from being withdrawn therefrom, said last mentioned means comprising pairs of internal flanges.

2. The combination with a cord, of a one piece sheet metal seal comprising a blank apertured for the passage of

the cord ends, means at the opposite ends of the blank adapted to register and lock said ends together, and pairs of flanges along the edges of the blank adapted to be folded over upon the main portion thereof, said flanges when the seal is locked lying opposite each other in pairs and having their free edges extending inwardly toward the knot, substantially as and for the purposes set forth.

3. The herein described package seal comprising a unitary sheet metal blank apertured for the passage of the ends of a cord, a hole at one end, an integral stud at the other end adapted to pass through and interlock with said hole when the seal is applied, and pairs of flanges along the lateral edges of the blank which are folded over upon the main portion of the blank and which substantially engage each other by pairs when the seal is in use, substantially as set forth.

1,080,824. ELECTRICAL REDUCTION-FURNACE. ROYAL E. FRICKEY, Heroult, Cal., assignor to Noble Electric Steel Company, San Francisco, Cal., a Corporation of California. Filed Apr. 29, 1912. Serial No. 693,772. (Cl. 204-64.)



1. In an electrical reduction furnace of the long and narrow type, the combination with a crucible, of feed stacks through which ores are fed to said crucible, end electrodes, and a plurality of middle electrodes extending downwardly through a conducting charge into said crucible, said electrodes arranged in spaced relation and in alignment with each other, a source of electric energy, said electrodes being so connected to the said source of electric energy that the energy delivered by the middle electrode is greater than that delivered by the end electrodes substantially as shown and for the purpose described.

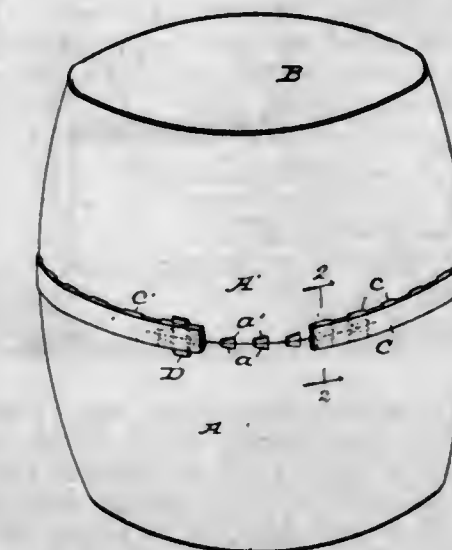
2. In an electrical reduction furnace of the long and narrow type, the combination with a crucible, of feed stacks through which charges of ore are fed to said crucible, a pair of central electrodes and a pair of end electrodes extending downwardly through a conducting charge into said crucible, said electrodes arranged in spaced relation and in alignment with each other, a plurality of transformers associated with said electrodes the primary circuits of which are connected to a three phase system whereby a concentrated zone of energy is produced under the central electrodes.

3. In an electrical reduction furnace of the long and narrow type, the combination with a crucible, of feed stacks through which charges of ore are fed to said crucible, a plurality of electrodes arranged in a row and extending into said crucible, said electrodes connected to a three phase system in such a manner that the phase-angle is 60 degrees between voltages supplied to adjacent pairs of electrodes.

4. In an electrical reduction furnace of the long and narrow type, the combination with a crucible, of feed

stacks through which charges of ore are fed to said crucible, a pair of central electrodes and a pair of end electrodes extending downwardly through a conducting charge into said crucible, said electrodes arranged in spaced relation and in alignment with each other, a plurality of transformers associated with said electrodes, the primary circuits of which are connected to a three phase system in "star" fashion whereby a concentrated zone of energy is produced under the central electrodes.

1,080,825. METAL BARREL. GEORGE G. FRYER, Syracuse, N. Y. Filed Jan. 3, 1912. Serial No. 669,248. (Cl. 220-4.)



1. The combination with a metal barrel, formed in separated halves, of a band secured to each half adjacent the central circumference of the barrel, lugs on said bands arranged to be joined in pairs when the barrel sections are together and a circumferential band provided with separated lugs between which the said first mentioned lugs are adapted to engage.

2. As a means of joining together the parts of a metal barrel made in separable sections a series of lugs secured to the two sections of the barrel adjacent their joining edges and arranged to be joined in pairs to form wedge-shaped members when the barrel sections are together and a circumferential band rotatable upon the barrel and provided with separated lugs between which the first mentioned pairs of lugs are adapted to be engaged by the rotation of the band.

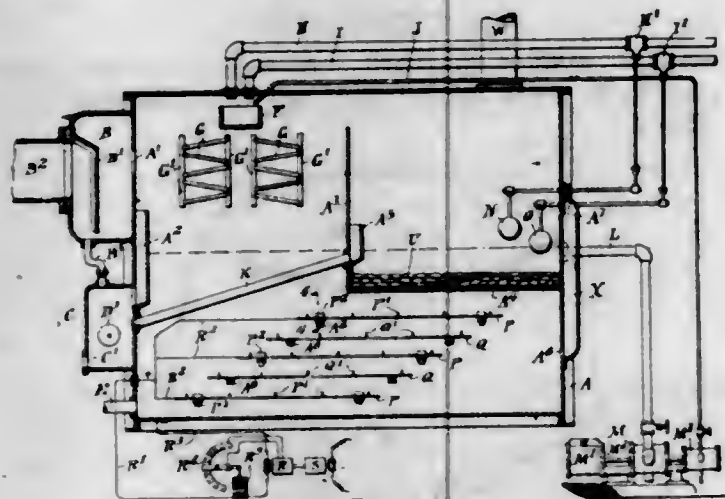
3. In a metal barrel made in separable sections, the combination of a series of lugs secured to the two sections of the barrel adjacent their joining edges and arranged to be joined in pairs when the barrel sections are together, a circumferential band provided with separated lugs between which the first mentioned pairs of lugs are adapted to be engaged by a rotary movement of the band and means for preventing the rotation of the band on the barrel when the sections thereof are engaged.

4. In a metal barrel composed of separable sections the combination of a circumferential band adapted to surround the exterior of the barrel on the line of separation between the sections and having on its interior surface lugs arranged to provide V shaped slots, and lugs secured to the two sections of the barrel adjacent their joining edges and arranged to engage in said slots when the barrel sections are together.

1,080,826. HEATING AND PURIFYING WATER. GEORGE H. GIBSON, Montclair, N. J., assignor to Joseph S. Lovering Wharton, William S. Halliwell, and John C. Jones, Philadelphia, Pa., doing business as The Firm of Harrison Safety Boiler Works, Philadelphia, Pa. Filed May 27, 1911. Serial No. 629,876. (Cl. 204-25.)

1. The method of preparing heated and purified water suitable for boiler feed purposes out of the oil containing condensate from steam engines and raw makeup water, which consists in mixing with the oil containing conden-

sate, raw makeup water in amount sufficient to supply the demand for heated and purified water, and heating the water from the two sources and adding a chemical reagent for increasing the electrical conductivity of the water and for precipitating or converting the boiler incrusting impurities in the raw water component of the heated water and subjecting the heated and chemically treated water to electrolytic action and thereafter filtering the water.



2. The method of preparing heated and purified water suitable for boiler feed purposes out of the oil containing condensate of steam engines and raw makeup water which consists in mixing with the oil containing condensate, raw makeup water in amount sufficient to supply the demand for heated and purified water, and heating the water from the two sources and adding a chemical reagent adapted for increasing the electrical conductivity of the water and for precipitating or converting the boiler incrusting impurities in the raw water component of the heated water and electrolyzing the mixture in such manner as to generate therein positively charged colloidal hydrate ions and thereafter filtering the water.

3. The method of preparing heated and purified water suitable for boiler feed purposes out of the oil containing condensate of steam engines and raw makeup water which consists in mixing with the oil containing condensate, raw makeup water in amount sufficient to supply the demand for heated and purified water and heating the water from two sources and adding a chemical reagent for increasing the electrical conductivity of the water and for precipitating or converting the boiler incrusting impurities in the raw water component of the heated water and electrolyzing the mixture in such manner as to generate therein positively charged iron hydrate ions.

4. Apparatus for heating and purifying water having in combination a water heater comprising a heating chamber and means for supplying water to be treated, steam for heating the water, and a chemical purifying agent to said chamber, and for discharging hot water therefrom, said means including provisions for limiting the height of the water level in the heater, electrode surfaces located in said heating chamber below the water level therein and means for causing an electric current to flow between said surfaces through the water contacting them.

5. Apparatus for heating and purifying water having in combination a water heater formed with a main heating chamber and a filter chamber and provided with a filter bed through which water may flow from said main chamber into said filter chamber, means for supplying water to be treated, steam for heating the water and a chemical purifying agent to said heater and for discharging hot water therefrom, said means including a hot water service discharge outlet from the filter chamber, separate overflow provisions for the two chambers and provisions for discharging water to be treated into the upper end of said main chamber, electrode surfaces located in said heater below the normal water level and means for causing an electric current to flow between said surfaces through the water between them.

[Claims 6 to 8 not printed in the Gazette.]

1,080,827. CABLEWAY. FERNANDO HALTERMAN, Oso, Wash. Filed Jan. 16, 1913. Serial No. 742,471. (Cl. 214-14.)



1. The combination with a cableway of a snubbing line having traveling engagement by one end with the cableway, the other end being free and securable at will to any fixed object.
2. The combination with a cableway of a plurality of snubbing lines secured by one end to and extendible laterally from the cableway adjacent and at each side of the carriage, the other ends of said snubbing lines being free and securable at will.
3. In a cableway, in combination, a trackway cable, a carriage thereon, a haul line, a haul-back line, and a snubbing line secured by one end to hold the carriage, the other end of the snubbing line being free and adapted to be secured wherever desired.
4. In a cableway, in combination, a trackway cable, a carriage thereon, a haul line, a guide for the haul line carried by the carriage, and a snubbing line extending laterally from the carriage.
5. In a cableway, in combination, a cable trackway, a carriage thereon, a haul line, a guide for said haul line carried by the carriage, and snubbing lines having guides adapted to travel upon the cable trackway and to be placed alongside the carriage.

[Claims 6 to 12 not printed in the Gazette.]

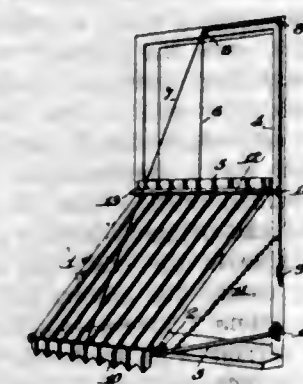
1,080,828. CABLEWAY. FERNANDO HALTERMAN, Oso, Wash. Filed Jan. 16, 1913. Serial No. 742,472. (Cl. 214-14.)



1. The combination with a cableway and a hauling line, of a snubbing line having traveling engagement with the haul line between the cableway and the load.
2. In a cableway, the combination with the trackway cables, a carriage thereon having a guide for a haul line, a haul line passing over said guide, and a snubbing line having traveling engagement with the haul line beyond the carriage.
3. The combination with a cableway having a carriage thereon and a cable guide upon the carriage, a haul line passing over said guide on the carriage, a sheave upon the haul line beyond said guide, and a snubbing line secured to said sheave.
4. The combination with a cableway comprising a trackway cable, a carriage movable upon said trackway, a guide sheave on the carriage adapted to receive a haul line, a back-haul line connected with the carriage by a loop extending from the vicinity of the tail mast, a guide for said back-haul line carried by the carriage, a distant and movable guide for the back-haul line between the carriage and the end of said line, a haul line passing over its guide on the carriage, and a snubbing line having a running engagement with the haul line between the carriage and the end of said line.
5. The combination with a cableway having a haul line, of a snubbing line provided at one end with means for a running engagement with the haul line, the other end of the snubbing line being free for temporary engagement with any convenient snubbing object.

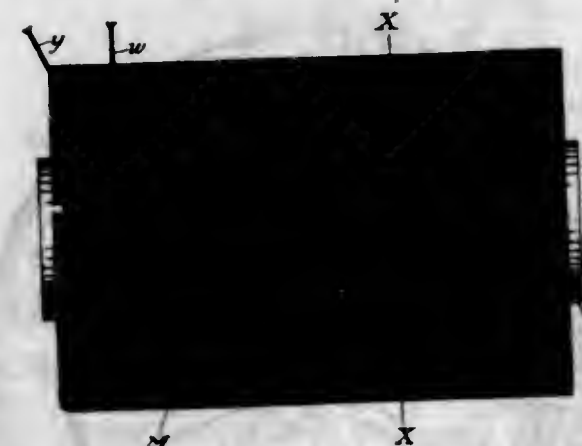
[Claims 6 and 7 not printed in the Gazette.]

1,080,829. AWNING. EDMUND F. HARTSHORN, Newark, N. J., assignor to Stewart Hartshorn Company, East Newark, N. J., a Corporation of New Jersey. Filed July 1, 1912. Serial No. 706,876. (Cl. 156-44.)



1. An awning having a spreader; a shade; and a spring roller, mounted in the spreader, and connected with one end of the shade; a slat in the other end of the shade; means connected to the slat, for raising the latter; and a second means directly connected to the spreader, for raising the latter.
2. An awning having a spreader; a shade; and a spring roller, mounted in the spreader, and connected with one end of the shade; a slat in the other end of the shade; a halyard connected to the slat, for raising the latter; and a second halyard directly connected to the spreader, for raising the latter.
3. An awning having a spreader; a shade; a spring roller mounted in the spreader, and connected to one end of the shade; the other end of the shade being free; a rod connected to the building, and engaging with the shade; a halyard for raising the spreader and a halyard for raising the shade, so that, when the shade is furled on the roller, the rod, the roller and the free end of the shade will be together.

1,080,830. ELECTRICAL COIL AND METHOD OF WINDING SAME. MAX HELM, Pankow, near Berlin, Germany, assignor to Joseph Robert Loeson, Boston, Mass. Filed Jan. 4, 1913. Serial No. 740,266. (Cl. 175-21.)



1. A coil for electrical purposes comprising layers of helically wound conducting material, and windings of insulating material intermingling therewith, with the strands of insulating material interwoven over and under the separate turns of conducting material in the layers to bind the latter in place and reinforce the structure.
2. A coil for electrical purposes consisting of layers of helical wire windings, and windings of insulating material wound diagonally or crosswise thereof and interwoven over and under separate turns of wire in the layers to bind the latter in place and reinforce the structure.
3. A coil for electrical purposes consisting of layers of helical wire windings and intermingling cross-windings of yarn or thread, with the yarn windings interwoven over and under the separate turns of wire in the layers to bind the latter in place and reinforce the structure.
4. An improved method of manufacturing electrical coils consisting in winding conducting material in layers

of helical turns and simultaneously winding insulating material diagonally or crosswise thereof, with the windings of insulating material passing over two or more turns and under the remaining turns in each layer of conducting material to bind the latter in place and reinforce the structure.

5. An improved method of manufacturing electrical coils consisting in depositing wire on a core in layers of helical windings and simultaneously depositing yarn or thread in cross-windings intermingling with the wire windings and passing through the layers of wire to bind the latter in place.

[Claim 6 not printed in the Gazette.]

1,080,831. DISPLAY DEVICE. AARON HENDON, New York, N. Y., assignor to Hendon & Rappaport, a Partnership composed of Aaron Hendon and Samuel Rappaport, New York, N. Y. Filed June 14, 1913. Serial No. 773,585. (Cl. 211-28.)



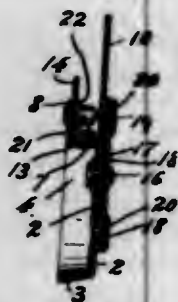
1. In a device of the character described, in combination, a box comprising a head and a flange, a movable carrier guided on said head within said flange adapted to be set at different points relative to said flange, and an article support loosely articulated with said carrier.
2. In a device of the character described, in combination, a box comprising a head and a flange, a movable carrier guided on said head within said flange adapted to be set at different points relative to said flange, an article support loosely articulated with said carrier, and means to yieldingly maintain said support in different adjusted positions relative to said carrier.
3. In a device of the character described, in combination, a box comprising a head and a flange, a movable carrier guided on said head within said flange adapted to be set at different points relative to said flange, and an article support pivoted to said carrier.
4. In a device of the character described, in combination, a box comprising a head and a flange, guideways fixed to said head within said flange, a slide movable in said guideways toward and from said flange and having a slot, an article support pivotally connected to said slide, and a resilient tongue flexibly connected to said support, and comprising a portion passing through said slot and frictionally engaging said head and slide.
5. In a device of the character described, in combination, a box comprising a head and a flange, a confining partition upstanding from said head and shaped to conform with a portion of an article to be displayed, a movable carrier on said head within said partition adapted to be set at different points relative to said flange, and an article support loosely articulated with said carrier.

[Claims 6 to 8 not printed in the Gazette.]

1,080,832. CATCH FOR PORTFOLIOS AND THE LIKE. JOSEPH S. ISIDOR, Newark, N. J., assignor to R. Neumann Hardware Co., a Corporation of New Jersey. Filed Sept. 8, 1913. Serial No. 788,729. (Cl. 70-103.)

1. In a device of the kind described, a lower and an upper member, each provided with means for attaching the same to a portfolio or the like, a plate-like receiving member extending upwardly from the body of said lower member upon which said upper member is registered, means for retaining said upper member against lateral movement when registered upon said plate-like receiving member comprising projections connected with said plate-like receiving member adapted to engage the side edges of said upper member, a rotatable locking bar mounted on said lower member, a holding means connected with said

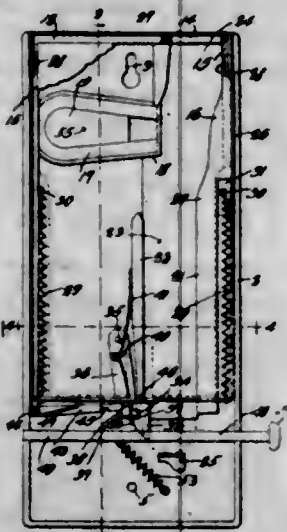
upper member, and means connected with the free ends of said rotatable locking bar for engaging said holding means of said upper member to retain said upper member in locked engagement with said lower member.



2. In a device of the kind described, a lower and an upper member, each provided with means for attaching the same to a portfolio or the like, a plate-like receiving member extending upwardly from the body of said lower member upon which said upper member is registered, means for retaining said upper member against lateral movement when registered upon said plate-like receiving member, comprising projections connected with said plate-like receiving member adapted to engage the side edges of said upper member, a movable locking means connected with said lower member, and a holding means connected with said upper member adapted to be engaged by said movable locking means to retain said upper member in locked engagement with said lower member.

3. In a device of the kind described, a lower and an upper member, each provided with means for attaching the same to a portfolio or the like, a plate-like receiving member extending upwardly from the body of said lower member upon which said upper member is registered, a rotatable locking bar mounted on said lower member, an arc-shaped rib formed on said upper member and adapted to be positioned concentrically to the pivotal connection of said locking bar when said upper member is registered with said lower member, recessed portions connected with the free ends of said locking bar adapted to receive and engage said arc-shaped rib when said locking bar is turned to extend over said upper member, and means for retaining said upper member against lateral movement when registered upon said plate-like receiving member of said lower member comprising projections connected with said plate-like receiving member adapted to engage the side edges of said upper member.

1,080,833. VENDING-MACHINE. SANFORD CLINTON JONES, Marion, Ind. Filed Oct. 2, 1912. Serial No. 723,616. (Cl. 194-59.)



1. In a vending machine, a case; angularly disposed primary and secondary latches pivotally supported within the case and provided with interlocking elements; a movable merchandise carrier having means to engage directly with the primary latch, to hold the carrier against movement; and a coin actuating member movable in the case,

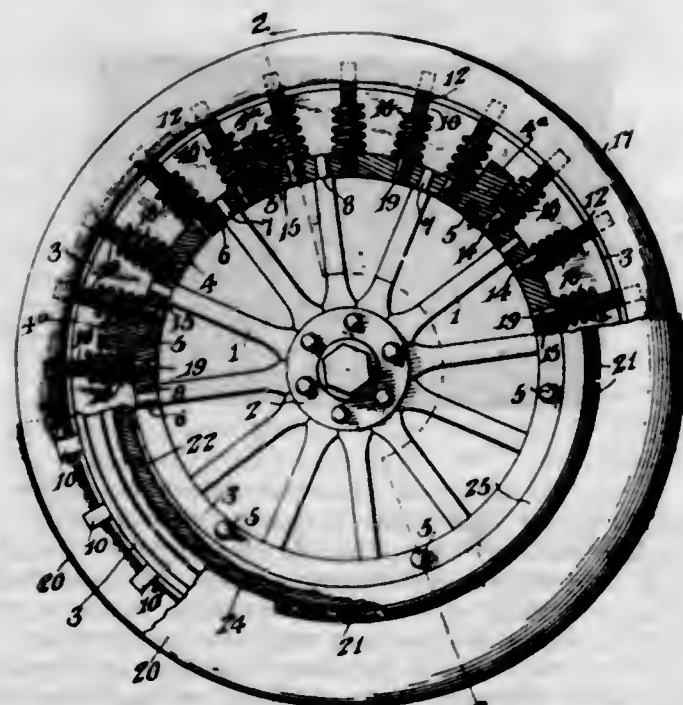
the coin actuating member being adapted to advance the coin against the primary latch, to disengage the primary latch from the carrier and to bring the interlocking elements of the latches into cooperative relation, thereby to hold the primary latch out of the path of the carrier.

2. In a vending machine, a case; a primary latch pivotally supported in the case, the primary latch being provided with an outstanding shoulder having a projecting lip; a secondary latch pivoted in the case and resting upon the lip, the secondary latch having a shoulder adapted to engage the lip; a merchandise carrier movable in the case and provided with means to engage directly with the shoulder of the primary latch; and a coin controlling member slidable in the case, the coin controlling member constituting means for advancing a coin against the shoulder of the primary latch, to disengage the said shoulder from the carrier and to bring the lip of the primary latch into engagement with the shoulder of the secondary latch.

3. In a vending machine, a case; a coin deck thereon; a coin actuating member mounted for right line movement in the case and provided with a coin receiving shoulder located adjacent the coin deck; a merchandise carrier mounted to slide in the case; a latch pivoted in the case and adapted to engage directly with the carrier to hold the carrier within the case, the latch being disengageable from the carrier, by direct contact with a coin, when the coin is advanced along the deck by direct contact with the shoulder upon the coin actuating member.

4. In a vending machine, a case; a merchandise carrier movable within the case; a detent projecting from the carrier; a latch pivoted in the case and adapted to engage the detent to hold the carrier within the case; a coin deck carried by the case; a coin actuating member slidable in the case between the coin deck and the latch; the coin actuating member being provided with a shoulder, adapted to advance the coin along the deck, and into engagement with the latch, to disengage the latch from the carrier, the coin actuating member having an opening adapted to receive the detent.

1,080,834. RESILIENT WHEEL. WILLIAM J. JONES, Martinsville, Va. Filed May 16, 1912. Serial No. 697,757. (Cl. 152-8.)



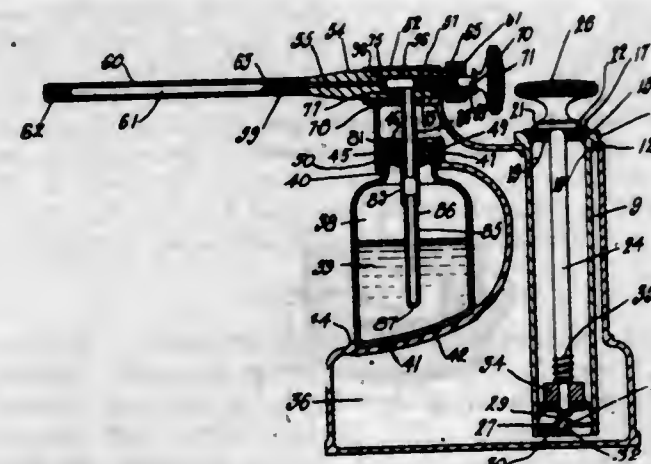
1. A wheel of the class described including a rim having a circumferential channel and provided in the opposite walls thereof with radial guide grooves, an annular series of shoes consisting of transverse plates having recesses in their outer edges and provided with inwardly extending radially arranged side arms having straight side edges and guided in the grooves of the side walls of the channel, said shoes being also provided between the arms with radially arranged stems, springs mounted on the stems

and cushioning the shoes, and a tire seated in the recesses of the shoes.

2. A wheel of the class described including a rim composed of side sections, and a central section arranged between the inner portions of the side sections and spacing the same to form a circumferential channel and provided therein with spacing lugs formed integral with the central section and projecting into the channel and extending entirely across the same, transverse fastening devices piercing the central section and passing through the side sections adjacent to the inner edges thereof, an annular series of shoes provided with inwardly extending radially arranged side arms having straight inner side edges and guided in the side sections, said shoes being also provided between the arms with radially arranged stems slidable through the central section of the rim, springs disposed on the stems and seated against the central section of the rim and arranged to urge the shoes outwardly, and a tire supported by the shoes.

3. A wheel of the class described including a rim composed of annular side sections having radial grooves in their inner faces and provided at their outer faces with exterior projecting annular ribs having annular grooves opening outwardly, a central section secured between the side sections and spacing the same to form a circumferential channel, radially movable shoes operating in the channel and guided in the inner radial grooves of the side sections, a tire mounted on and supported by the said shoes, means located within the channel for cushioning the shoes, a flexible covering extending across the outer face of the tire and having its side portions arranged within the annular grooves of the said exterior ribs, and fastening means for securing the flexible covering to the side sections, said fastening means being located within the annular grooves of the ribs and protected by the latter.

1,080,835. ATOMIZER. GEORGE J. KELLEY, Attleboro, Mass. Filed Sept. 20, 1912. Serial No. 721,440. (Cl. 128-2.)



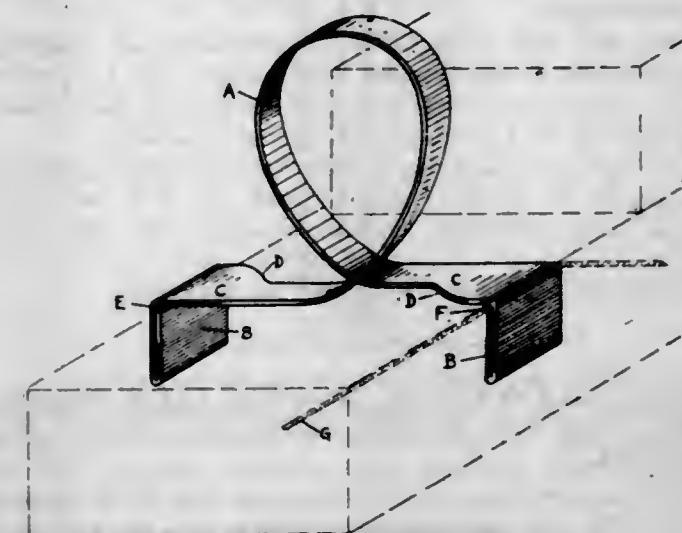
1. In an atomizer, the combination of a hollow casing comprising a vertical body portion, a base integral with the body portion and extending beyond the same, and an extension integral with the upper portion of the body and in the plane of the extended portion of the base, a depression in the base, a recess in the extension, a hollow cylindrical gasket of resilient material mounted in the recess, a ring frictionally engaging the gasket in the opening, a flask mounted in the depression and pressing against the lower portion of the gasket, a discharge tube mounted in the extension, a valve in the discharge tube, and a vertical tube in the flask passing concentrically through the ring in the gasket and fixed in the discharge tube.

2. In an atomizer, the combination of a casing comprising a vertical body, a base integral with the body and extending to one side of a body, an extension integral with the upper portion of the body and extending in vertical alignment with the extended portion of the base, said base being provided with a depression upon its upper face, a shoulder upon the base adjacent the depression, a flask provided with an inclined base resting in the depression,

the upper extension being provided with a recess, a rubber gasket of cylindrical contour mounted in the recess, a ring concentric with the gasket and mounted therein, said flask being adapted to press upon the gasket, a discharge tube mounted in the extension, a discharge valve in the tube, a second tube fixed in the extension and extending at right angles thereto concentric with the ring in the gasket and extending into the flask, said tube being provided with an upper section, a lower metallic section, and an elastic hollow section connecting the upper and lower tubes.

3. In an atomizer, the combination of a hollow casing comprising a vertical body portion, a base upon the body portion and extending beyond the same, and an extension integral with the upper portion of the body and above the extended portion of the base, said extension being provided with a recess, a gasket of resilient material mounted in the recess, a flask resting upon the base and pressing against the gasket, a discharge tube mounted in the extension, and a second tube fixed in the extension and opening into the discharge tube and extending into the flask.

1,080,836. BRICK-MASON'S STEEL TRIG. CLYDE A. LAKE, Dallas, Tex. Filed Apr. 15, 1912. Serial No. 690,962. (Cl. 72-132.)



1. A trigging device comprising a strip of metal having a resilient center portion of reduced width bent to the form of a loop, and having its end portions bent at right angles and doubled inwardly upon themselves, channels being formed between the ends of strips and the portions of the strips lying between the loop and the downturned end portions.

2. A trigging device comprising a strip of metal having a resilient central portion of reduced width bent to form a loop with projecting ends, said ends beyond the loop being bent at right angles to form clamping jaws, the internal angle of each jaw being grooved for the purpose specified.

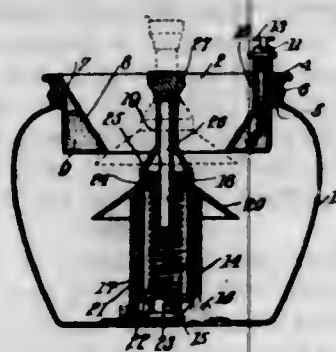
3. In a device of the class specified, a resilient strip comprising a reduced central portion and projecting ends, the strip being bent at its central portion to form a loop and cross adjacent to the ends of the reduced portion, the said projecting ends being bent at right angles to form clamping jaws, and the internal angle of the jaws being grooved.

4. A mason's guide line holder comprising a pair of spring-pressed right angular jaws adapted to embrace the opposite upper corners of a brick, each jaw having a line-receiving groove at the internal angle thereof.

1,080,837. ASH-POT. HENRY LEIDEL, New York, N. Y. Filed Sept. 24, 1912. Serial No. 722,064. (Cl. 131-59.)

1. A device such as described, comprising a receptacle, a top member removably carried by the receptacle and permitting access to the interior thereof, the said top

embodying spaced walls whereby a container is provided, and a burner carried by the said container.



2. A device such as described, comprising a receptacle having a removable top, the top being provided with an opening whereby access to the interior of the receptacle is permitted, the said top embodying spaced side walls forming a container, and a burner carried by the said container.

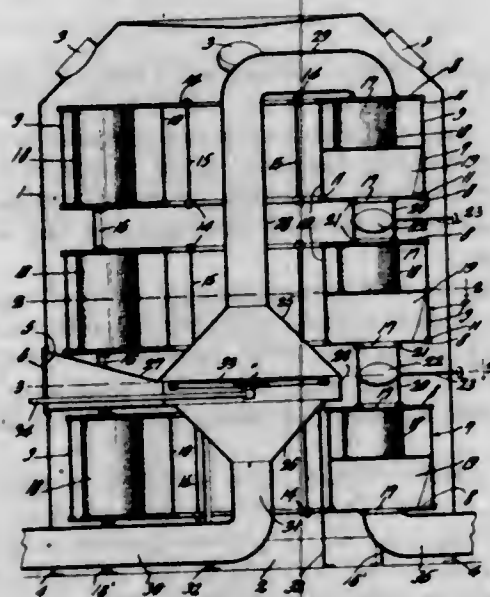
3. In an ash pot, a top member of substantially cylindrical formation and provided with a tapering inner wall, the space between the inner and outer walls forming a container, and a burner carried by the member, the container being adapted to hold a liquid to be consumed by the said burner.

4. An ash pot comprising a receptacle, an opening whereby access to the interior is permitted, and a movable member adapted to close the said opening, the said member partaking of a turning action when moved.

5. An ash pot embodying a receptacle, an opening whereby access to the interior is permitted, and a downwardly movable and revoluble closure member for the said opening.

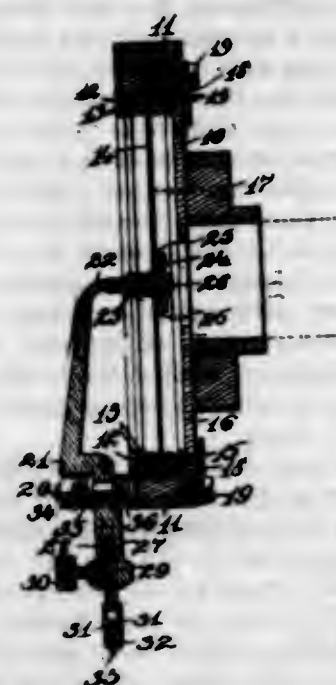
[Claims 6 to 15 not printed in the Gazette]

1,080,838. GAS-FURNACE. ALBERT H. LEWIS, Bellevue, Ohio. Filed June 25, 1913. Serial No. 775,792. (Cl. 126—116.)



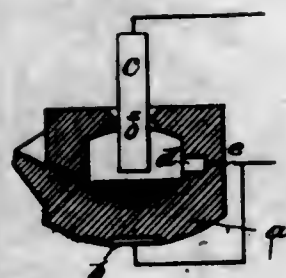
In a furnace, a jacket having a door, a lower air inlet and upper air outlets, a plurality of superimposed annular radiating chambers, pipe sections connecting the respective chambers, a central fire box disposed within the jacket intermediate two of the radiating chambers and having an air inlet passage extending between the said radiating chambers to the door, a vertical pipe extending axially upward from the fire box and connected to the upper radiating chamber, a fresh air supply pipe entering the lower portion of the casing, extending axially upward and attached to the fire box, and a discharge pipe extending through the jacket to the lower radiating chamber.

1,080,839. PHONOGRAPH-REPRODUCER. ACHILLE LUCIANO, Bloomfield, N. J., assignor to Nightingale Reprod. Co., Newark, N. J. Filed Sept. 18, 1912. Serial No. 720,950. (Cl. 181—11.)



A reproducer having a sound box casing, a diaphragm arranged in the sound box casing, a post extending from the edge of the sound box casing and at right angles to the diaphragm, a stylus rod secured to the center of the diaphragm and extending to embrace the post to slide thereon and having its projecting end provided with a stylus, a nut on the outer end of the post, a spring encircling the post and abutting on the nut and the stylus rod, and a second spring encircling the post and abutting on the stylus rod and the sound box casing, the springs alternately acting as fulcrums for the stylus rod.

1,080,840. ELECTRIC FURNACE. GEORGES MASSIP, Levallois-Perret, France. Filed Aug. 21, 1912. Serial No. 716,269. (Cl. 204—64.)

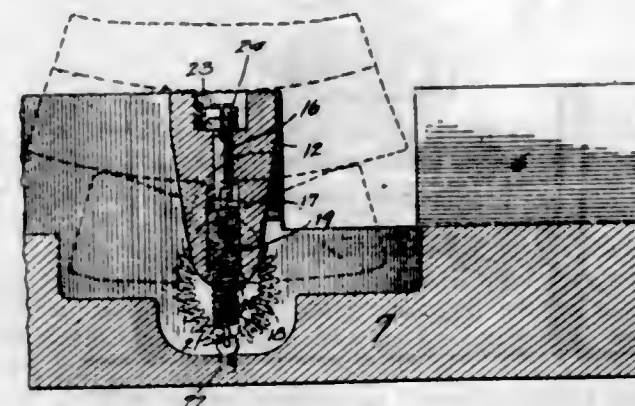


1. A tilting electric furnace of the character described, comprising a roof provided with an opening for the passage of an electrode and for allowing a tilting of the furnace about said opening as a center, a second electrode at the bottom of the furnace, means embedded in the furnace walls for forming an auxiliary arc with said first electrode for heating the furnace walls and making the same electrically conductive, and means for producing an arc between said first and second electrode through the charge and the furnace wall upon the return of the furnace into its normal position.

2. In a tilting electric furnace or crucible having walls of a refractory material which is a non-conductor of electricity when cold, a stationary electrode at the bottom of the furnace, a movable electrode passing through an opening in the roof of the furnace allowing a tilting of the furnace about said electrode without displacing the same, and an auxiliary electrode in the side wall of the furnace for forming an arc with said movable electrode during the tilting of the furnace for heating the walls of the furnace to the requisite temperature for making them conductors of electricity after the furnace has been swung into its normal, non-tilted position.

3. In a tilting electric furnace or crucible having walls of a refractory material which is a non-conductor of electricity when cold, a metal plate upon which the bottom of the furnace rests forming the lower electrode, a carbon electrode passing through an opening in the roof of the furnace allowing a tilting of the same about said opening as a center, an auxiliary metal electrode in the side wall of the furnace opposite the spout thereof, for forming an arc with said movable carbon electrode during the tilting of the furnace for heating the walls of the same to the requisite temperature for making them conductors of electricity when the furnace has been tilted back into its normal position.

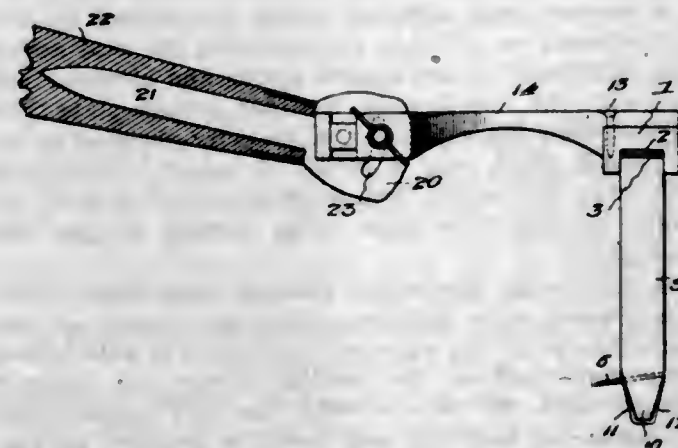
1,080,841. RAILWAY-CROSSING. ROBERT D. MILLHOLLAND, Redlands, Cal. Filed June 11, 1913. Serial No. 773,046. (Cl. 104—116.)



1. A railroad crossing in combination with the separated ends of a rail having recessed and registering slots in said ends, of a block provided with a tread recess and a bore therethrough together with flattened trunnions pivotally mounted in said slots, and adjustable resilient means carried in said bore for maintaining said block in position to form a continuous tread intermediate the ends of said rail.

2. A railroad crossing in combination with the interrupted ends of a rail in said crossing to provide a flanged groove, said rails having slots cut in their adjacent ends, of a filler block provided with a recess and a bore therewith, said block also having a tread surface adapted to form a continuous tread between the adjacent ends of said rails, a threaded rod mounted in said bore, a spring connecting said rod and said rail, a nut threaded to said rod and means to pivot said filler block to said rail.

1,080,842. COMBINATION AGRICULTURAL IMPLEMENT. HERMAN E. E. MOKENTHIN, Coeur d'Alene, Idaho, assignor of one-half to William B. Monti, La Crosse, Wis. Filed Dec. 9, 1912. Serial No. 735,724. (Cl. 55—45.)



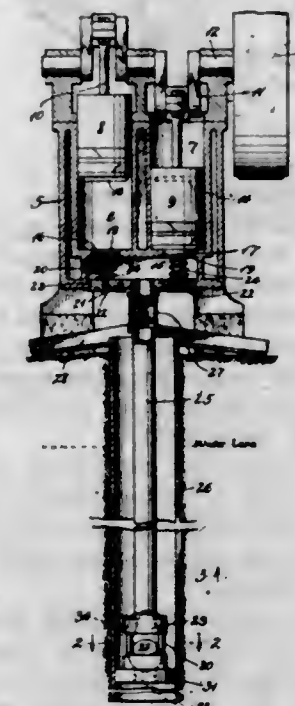
1. In a combination hand agricultural implement, the combination with a head or bar of channel form, of independent earth treating devices having angularly arranged attachment members received in the channel of the bar and independently detachably fastened thereto and provided

197 O. G.—24

with downwardly extending shank members, said shank members being provided with knife members arranged laterally in an angular relation to the shank members and overlapping each other in the direction of their length.

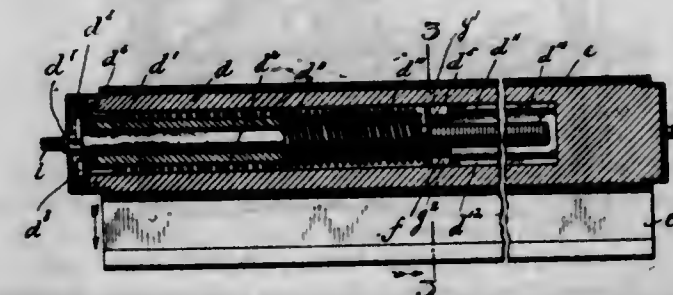
2. In a combination hand agricultural implement, the combination with a head or bar, of shanks depending therefrom provided with generally horizontally arranged knives which are disposed in overlapping relation to each other, and an additional shank depending from the bar and provided with a tip extending below the knife members afore-said.

1,080,843. DEER-WELL AIR-PUMP. WILLIAM L. MORROW, Los Angeles, Cal. Filed Apr. 1, 1912. Serial No. 687,595. (Cl. 103—84.)



In a mechanism for lifting water from deep wells, in combination with the casing of a well and a continual source of air under pressure, of a reservoir for receiving said air, an automatic valve in said reservoir controlling the passage of air into the well, a pipe connected to said valve to deliver the air from said reservoir, into the well, a valve cage mounted on the lower end of said pipe, valve seats to said cage, one valve seat on the end of said pipe, the other of said seats provided with an opening, its peripheral walls engaging said casing of the well, and locating the air pipe therein, and a ball valve mounted in said cage to close the pipe to prevent fluid from entering the same and to alternately close the well to prevent the air pressure acting on the water below the valve seat engaging the walls of the casing.

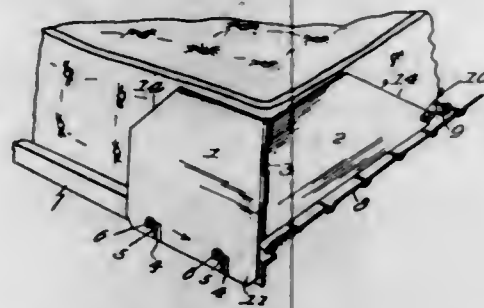
1,080,844. WINDOW-SHADE. IVER NIELSEN, New Rochelle, N. Y. Filed Mar. 21, 1912. Serial No. 685,250. (Cl. 156—36.)



In a window shade, a hollow roller having a reduced hollow extension at its inner end, a spindle extending centrally through said hollow roller, and having a screw threaded end, a sleeve around said spindle, a coil spring around said sleeve, the outer end of said spring being fastened to the roller and the inner end of said spring being fastened to the said spindle, the threaded end of said spindle extending through said hollow extension, a nut

working on said spindle and having two diametrically opposed projections engaging longitudinal grooves in said extension of the roller, the inner end of said spring acting as a stop for the nut at the outward stroke of the latter.

1,080,845. MATTRESS-GUARD. FREDERICK A. PALMER, Middletown, Conn. Filed Oct. 6, 1913. Serial No. 793,665. (Cl. 5-39.)



1. A corner attachment for mattresses embodying members adapted to extend at substantially right angles to each other, and having means for attachment to a mattress support and means for attachment to a bed-bottom-fabric.

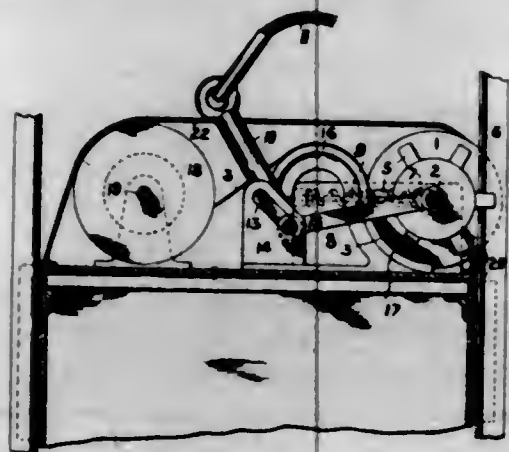
2. A corner attachment for mattresses embodying members adapted to extend at substantially right angles to each other, and having means for attachment to a mattress support and means for attachment to a bed-bottom-fabric, one of said members being rigid.

3. A corner attachment for mattresses embodying members adapted to extend at substantially right angles to each other, and having means for attachment to a mattress support, one of said members being rigid and the other movably connected thereto.

4. A mattress attachment comprising members disposed at substantially right angles to each other, one of said members having means for attachment to a member of a spring frame and the other provided with means for attachment to a bed-bottom-fabric.

5. A mattress attachment comprising members disposed substantially at right angles to each other, one of said members having means for attachment thereof to a bed-bottom-fabric and the other member having a downward extension provided with means for its attachment to a member of the bed-bottom frame.

1,080,846. SAFETY DEVICE FOR ELEVATORS. HARRY PHILLIPS, Randfontein, Transvaal, South Africa. Filed Aug. 19, 1912. Serial No. 715,778. (Cl. 187-85.)

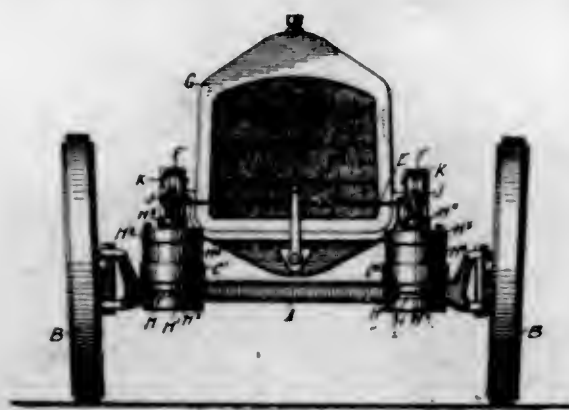


1. Apparatus for stopping runaway conveyances for elevators, comprising normal sustaining means and fixed parts such as the shaft guides in which the skip runs, a wheel movable upon failure of the normal sustaining means to engage said fixed parts and to revolve thereon, a drum revolved by said wheel, a belt connected to the drum, to be coiled thereon, and means on the skip opposing increase of the diameter of the coil so formed, said last named means being so positioned as to cause the wheel to

be thrust more closely into contact with the fixed parts as the coil increases in diameter.

2. Apparatus for stopping runaway conveyances for elevators, comprising fixed parts such as the shaft guides in which the skip runs, a wheel secured to a shaft, a draw-bar, links connecting the draw-bar of the skip with said shaft, means tending to force the wheel into contact with said fixed parts to revolve thereon, a drum on the shaft, a belt connected to the drum to be coiled thereon, and means operating to oppose increase in the diameter of the coil.

1,080,847. VEHICLE-MOUNTING. ALLISON A. PRATT, New York, N. Y. Filed Nov. 18, 1912. Serial No. 731,977. (Cl. 21-101.)



1. In combination, a vehicle body, an axle, a lever pivoted on the vehicle body, a spring on the axle and on which the said lever is fulcrumed, a casing, an arm attached to the axle and carrying the said casing, a member movable in the said casing and connected with the free end of the said lever, and a series of compressible balls within the said casing and engaged by the said movable member.

2. In combination, a vehicle body, an axle, a lever pivoted on the vehicle body, a spring on the axle and on which the said lever is fulcrumed, a casing, an arm attached to the axle and carrying the said casing, a presser plate movable in the said casing and provided with a stem pivotally connected with the free end of the said lever, and a series of hollow compressible balls within the casing and pressed by the said presser plate.

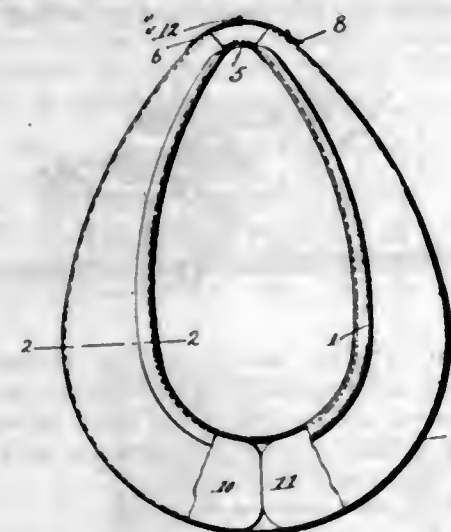
3. In combination, a vehicle body, an axle, a lever pivoted on the vehicle body, a spring on the axle and on which the said lever is fulcrumed, a cushioning device having a casing, an arm attached to the axle and carrying the said casing, a member movable in the casing and connected with the said lever, the said lever having guiding means engaging the said spring, and cushioning means interposed between the said casing and the said movable member.

4. A cushioning device for vehicles, comprising a casing, a presser plate slidable within the casing, an arm for attachment to the axle and carrying the said casing, a lever fulcrumed on the vehicle spring and pivotally connected with the vehicle body, the said presser plate being connected with the said lever, a pressure chamber in the said presser plate, and a series of hollow compressible balls within the casing and in communication with the pressure chamber, the balls being pressed by the said presser plate.

5. A cushioning device for vehicles, comprising a casing, a presser plate slidable within the casing, an arm for attachment to the axle and carrying the said casing, a lever fulcrumed on the vehicle spring and pivotally connected with the vehicle body, the said presser plate being connected with the said lever, a pressure chamber in the said presser plate, a series of hollow compressible balls within the casing and in communication with the pressure chamber, the balls being pressed by the said presser plate, and an air pump controlled by the said presser plate for pumping air into the said balls.

[Claims 6 to 9 not printed in the Gazette.]

1,080,848. INFLATABLE HORSE-COLLAR. JOHN F. PRUDEN, Carnegie, Pa. Filed July 29, 1913. Serial No. 781,852. (Cl. 54-19.)



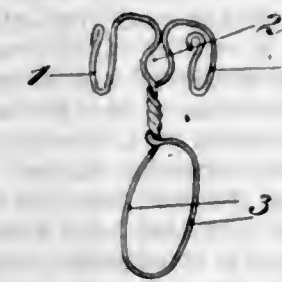
1. A horse collar comprising a casing having open ends, an inflatable bladder formed with wings extending into said casing, said bladder having an extension at the junction of said wings.

2. A horse collar having fore and after wales, a stiffening member arranged in the forewale, said afterwale being hollow, an inflatable bladder arranged within said hollow afterwale, said bladder having an extension forming a neck pad.

3. A horse collar comprising a casing having open ends, an inflatable bladder having wings arranged within said casing and having an extension at the junction of said wings arranged between the ends of said casing, an inflating valve carried by said bladder at the junction of said wings, and inner and outer flaps carried by one end of said casing extending over and under said extension.

4. A horse collar comprising a casing provided with open ends, inner and outer flaps carried by one of said ends, means for connecting the outer flap to the opposite end of said casing, said outer flap being provided with an extension, and an inflatable bladder having wings extending into said casing, said bladder having an extension arranged under the extension of said outer flap, and an inflating valve carried by said bladder at the junction of said wings extending upwardly through the outer flap.

1,080,849. HOLDER FOR TIES. WALTER RADL, Gustavsburg, near Mainz, Germany. Filed Apr. 7, 1913. Serial No. 759,469. (Cl. 24-56.)

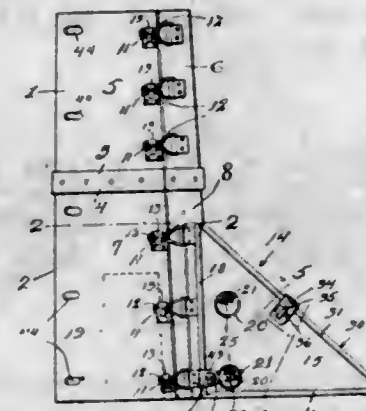


A tie holder or the like formed of a single piece of wire twisted to form a permanently closed ring, the wire being bent to form a resilient eye adapted to engage a collar stud, said eye being separated from said ring by the twisted portion of the wire, the ends of the wire being spread laterally from said eye on opposite sides thereof and then bent to form clips, each of said clips being adapted to embrace the lower edge of the collar.

1,080,850. MOLD. SAMUEL E. SHAFER, Elkhart county, Ind. Filed Aug. 20, 1912. Serial No. 716,063. (Cl. 25-118.)

1. A post mold comprising a cylindrical shell provided with a plurality of openings extending upwardly from its lower edge, and brace molds connected with said shell in alignment with said openings, said brace molds comprising spaced parallel side plates, a detachable closure plate, and means for locking said plates in their spaced relation.

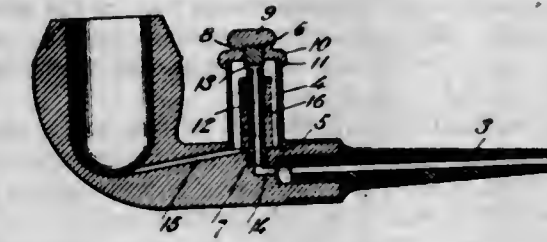
2. A post mold comprising a cylindrical shell provided with openings extending upward from its bottom edge, guides secured upon said shell adjacent said openings, and brace molds detachably connected with said shell, each of said brace molds comprising triangular side plates extending upward to the top of said openings, flanges on the edges of said plates slidable within said guides, a detachable top closure plate, and collapsible means for holding said side plates in their spaced relation, either of said openings being adapted to be closed by an arcuate plate slidable in said guides.



3. In a device of the character described, comprising a cylindrical shell provided with a number of openings in the lower part, a brace mold comprising flanged triangular plates adapted to slidably engage guides secured upon the lower portion of said shell, a plate for closing the upper portion of said brace mold and means for locking said triangular plates in their spaced relation, said locking means comprising split tapered tubes having one edge bent inwardly to form a pocket and expanding means comprising a tapered strip having one edge adapted to engage within said pocket and the other edge bent to form a pocket for engagement with the free edge of said locking tube.

4. In a mold, an upright portion having openings therein extending upwardly from its lower edge, retaining strips secured to said upright portion on each side of the openings aforesaid, triangular plates having one of their edges formed to engage said retaining strips, and also having openings therein, said triangular plates extending laterally from the upright portion of the mold, expansible tubular pieces inserted through oppositely disposed holes in said plates, a rod extending through the lowermost of said tubes, and means to secure the ends of the rod to the upright portion of the mold.

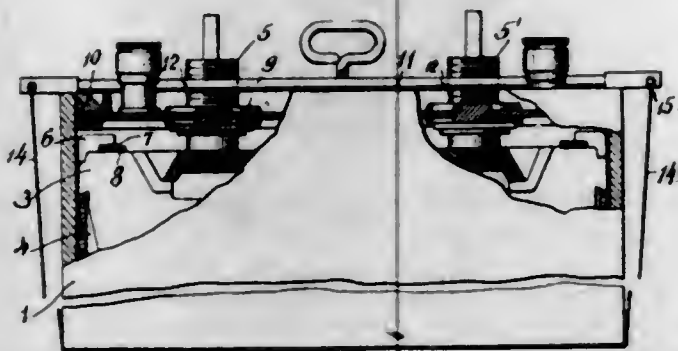
1,080,851. TOBACCO-PIPE. VICTOR SIMONIN, Camden, N. J. Filed Sept. 19, 1911. Serial No. 650,079. (Cl. 131-12.)



The combination with a pipe having its stem provided at a point adjacent to the bowl with a threaded passage and a relatively large recess opening into said passage, a post extending from said passage and threaded to fit therein and rising from the stem and provided through a portion of its length with a smoke-conducting bore having a lateral branch opening onto one side of the post, a circular tube embracing said post and lying wholly within the ends thereof and spaced vertically from the sides of the post and seated at its lower end in said recess, an absorbent cartridge extending around said post, said post having a threaded portion extending above the tube, and a closure fitted to said threaded portion and extending entirely over the upper end of the tube and operable to

bear thereagainst to seal the joints between the closure and said tube and operable also to advance the lower end of the tube against the bottom wall of the recess to seal the joint between the stem and tube respectively, the stem having a duct leading from the bowl to the tube and a duct leading from the bore of the post to the mouth-piece of said pipe.

1,080,852. STORAGE BATTERY. ALMOND H. SNYDER, Lancaster, and JOSEPH STARKENSTEIN, New York, N. Y., assignors to Gould Storage Battery Company, a Corporation of New York. Filed Aug. 28, 1912. Serial No. 717,433. (Cl. 204-53.)



1. The combination with a storage battery jar, battery plates and terminals extending up therefrom, of a rigid bar extending across the top of the jar and provided with openings for receiving the terminals from the plates, means for detachably securing the bar to the terminals, and a detachable sling extending from the ends of the bar around beneath the jar, whereby the plates may be lifted out of the jar or the whole jar lifted, depending upon whether the sling is secured to the cross bar.

2. The combination with a storage battery jar, battery plates and terminals extending up therefrom, of a rigid bar extending across the top of the jar and provided with openings for receiving the terminals from the plates, a flexible band extending from the ends of the bar around beneath the jar, and means for detachably securing the ends of the band to the extremities of the bar.

3. The combination with a storage battery jar, battery plates and terminals extending up therefrom, of a rigid bar extending across the top of the jar and provided with openings for receiving the terminals from the plates, a flexible metallic band extending from the ends of the bar around beneath the jar, the band being provided with enlarged portions, and means at the extremities of the bar for detachably securing the enlarged ends of the band thereto.

4. The combination of a storage battery jar, a series of negative and positive plates respectively connected to common terminals, a rigid bar extending across the top of the jar and provided with openings through which the terminals project, means for removably securing the bar on the terminals, and a detachable sling extending from the ends of the bar around beneath the jar.

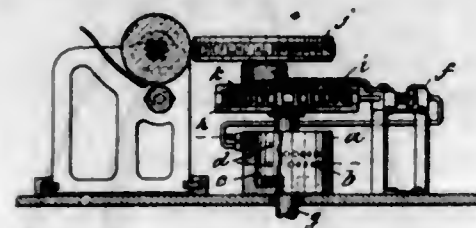
5. The combination of a storage battery jar, a series of negative and positive plates respectively connected to common terminals, a rigid bar extending across the top of the jar and provided with openings through which the terminals project, means for removably securing the bar on the terminals, a detachable sling extending from the ends of the bar around beneath the jar, the ends of the sling being reinforced, and means at the extremities of the bar for detachably securing the reinforced ends of the sling thereto.

[Claims 6 to 9 not printed in the Gazette.]

1,080,853. PNEUMATIC TYPE-WRITER. MAX SOBLIK, Dresden-Klotzsche, Germany, assignor to Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung, Düsseldorf, Germany, a Corporation of Germany. Filed Jan. 10, 1913. Serial No. 741,145. (Cl. 197-15.)

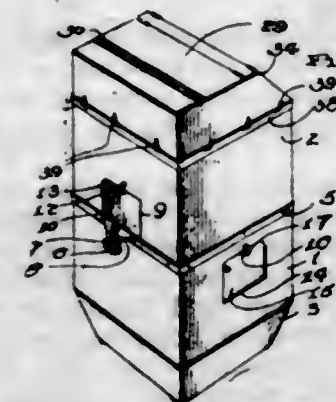
In a pneumatic typewriter, a distributor, a series of pipes arranged within a section of a circle around said

distributor and leading therefrom to the keys, a revoluble cylinder in said distributor, said cylinder having orifices corresponding to said pipes and arranged within a like section of a circle, a type-wheel, and a ratchet wheel at-



tached to said cylinder and positively geared to said type-wheel, said gearing being proportioned to give the type-wheel a speed ratio equal to the ratio between a full circle and the section thereof occupied by said series of pipes.

1,080,854. ASH-SIFTER. MARQUERITE L. BONRA, Chicago, Ill. Filed Apr. 2, 1912. Serial No. 687,999. (Cl. 83-60.)



1. A receptacle of the class described comprising a base and an upper ash sifting section, said ash sifting section provided with a cylinder discharge opening, a door slidably mounted within said base of said lower section and capable of being moved upwardly to close said cylinder discharge opening, and means carried by said ash sifting section for holding said door in a closed position upon said discharge opening.

2. A receptacle of the class described comprising a body, a sifter carried by the upper end of said body, said body provided with a cylinder discharge opening in substantial alignment with the lower wall of said sifter, and bucket supporting means supported adjacent said cylinder discharge opening in substantial alignment with said discharge opening and the lower wall of said sifter and constituting a continuation of the discharge opening and sifter for guiding cinders into a bucket adapted to be carried by said bucket supporting means.

3. A receptacle of the class described comprising a body, a sifter carried by said body, said body provided with a discharge opening in substantial alignment with the lower wall of said sifter, a bucket supporting hook carried adjacent said discharge opening and in substantial alignment with the bottom of said opening and the bottom wall of said sifter, said bucket supporting hook provided with a supporting notch adjacent its outer end adapted to receive the ball of a bucket, and means formed adjacent said hook for directing cinders into a bucket adapted to be carried thereby.

4. A receptacle of the class described comprising a lower section and an upper section, said upper section provided with a sifter, said upper section provided with a cylinder discharge opening in alignment with the bottom wall of said sifter, a bucket supporting hook carried by said lower section in substantial alignment with the lower edge of said discharge opening and the lower wall of said sifter, and means formed adjacent said hook for directing cinders into a bucket adapted to be carried thereby as the cinders are discharged from the discharge opening in said upper section.

5. A device of the class described comprising a casing, a rotating screen carried by said casing, said casing provided with a discharge opening, a door for closing said discharge opening, a receptacle supporting hook formed below said discharge opening and provided with widened flanges for constituting a continuous discharge chute from said receptacle for delivering cinders into a receptacle adapted to be supported by said hook.

1,080,855. SAFETY TOWEL-CABINET. HARRY SOLOMON, St. Joseph, Mo., assignor of forty-nine one-hundredths to Frederick Elliscu, St. Joseph, Mo. Filed Dec. 31, 1912. Serial No. 739,528. (Cl. 45-32.)



1. A cabinet of the class described including a flat platform adapted to receive a stack of towels and being of greater area than the stack and provided with a raised portion located at an intermediate point between opposite edges of the towels and adapted to elevate an intermediate portion of the latter to enable the top towel of the stack to be easily grasped, and a hood having an opening exposing the uppermost towel of the stack.

2. A cabinet of the class described including a relatively fixed platform adapted to support a stack of towels, a hood exteriorly telescoping the cabinet and slidable upwardly and downwardly thereon with respect to the platform and removable therefrom to expose the said platform, said hood being provided with a slot arranged to permit the removal of the top towel of the stack, and a receptacle arranged to receive the soiled towels removed from the platform.

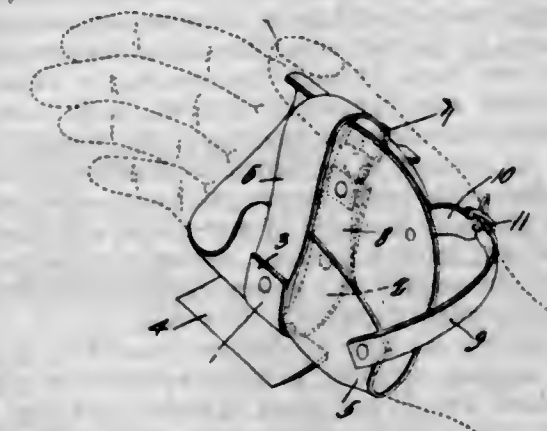
3. A cabinet of the class described provided at the top with an opening and having a platform located in rear of and adapted to support a stack of towels, and a vertically movable hood guided on the casing and forming a cover for and adapted to rest upon and be supported by the stack of towels, said hood having a slot arranged to permit the top towel of the stack to be removed from the hood.

4. A cabinet of the class described provided with a front towel receiving portion and having a rear guiding portion and provided at the top thereof with a towel receiving platform, and a hood open at the bottom and fitted over and slidable vertically on the said rear guiding portion of the cabinet and covering the platform or support, said hood being adapted to rest upon a stack or pile of towels and provided with a slot or opening arranged to permit the towels to be removed successively from the stack or pile.

5. A cabinet of the class described provided at the top at a point intermediate of its front and back with a transverse slot and having vertical slots located at opposite sides of the cabinet and extending downwardly from the transverse slot, a vertically movable hood fitting over and embracing the rear portion of the cabinet and slidable vertically in the said slots, said hood forming a cover for

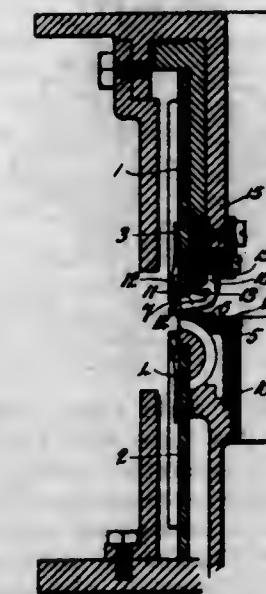
and adapted to rest upon a stack of towels, and provided with an opening arranged to permit the towels to be removed successively from the stack or pile.
[Claims 6 to 17 not printed in the Gazette.]

1,080,856. CORN-HEADER. FRANCIS E. SPENCER, Dover, Okla. Filed Nov. 16, 1912. Serial No. 731,899. (Cl. 30-9.)



A corn header including a relatively narrow strip of metal bent to form opposed arms adapted to receive one side of a hand therebetween, one of said arms being shorter than the other and adapted to project into the palm of the hand, the longer arm being adapted to extend across the back of the hand, a cutting blade fixedly secured to an intermediate portion of said strip and lying in a plane at right angles to the plane occupied by the hand, said blade being projected laterally beyond the short arm of the strip, attaching means secured to the strip, and a relatively broad strip constituting a flexible pad and secured to the inner or active face of the metal strip for contacting with the hand throughout practically the entire length of the palm and back thereof, and means connected to said pad and separate from the cutting blade, for engaging the thumb portion of the hand.

1,080,857. CIRCULAR-KNITTING MACHINE. WILLIAM SPIEAS, Leicester, England. Filed Apr. 29, 1910. Serial No. 558,475. (Cl. 66-26.)



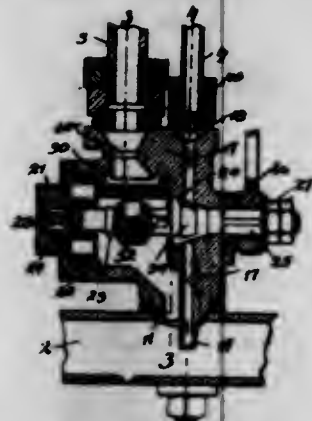
1. In a knitting machine of the class described, in combination, a ribbing cylinder, a plain cylinder, a ring or plate positioned within said plain cylinder, said ring having two faces, one a flat upper face disposed at right angles to the needles and extending inwardly therefrom for a considerable distance, to form a flat fabric supporting platform, and the other of said faces extending approximately at right angles to the flat upper face from the inner edge thereof, the two faces of said ring serving to cause the fabric to follow a rectangularly shaped track from the

needles, whereby backward movement of the fabric by the pull of the rib needles is prevented, web holders movably mounted in the upper cylinder intermediate the rib needles, and means for actuating said web holders to move the same between the hooks of said rib needles.

2. In a knitting machine of the class described, in combination, a ribbing cylinder, a plain cylinder, a ring or plate positioned within said plain cylinder, said ring having two faces, one a flat upper face disposed at right angles to the needles and extending inwardly therefrom for a considerable distance, to form a flat fabric supporting platform, and the other of said faces extending approximately at right angles to the flat upper face from the inner edge thereof, the two faces of said ring serving to cause the fabric to follow a rectangularly shaped track from the needles whereby backward movement of the fabric by the pull of the rib needles is prevented, said ribbing cylinder being provided with tricks intermediate the rib needles, web holders pivotally mounted in said tricks, whereby said web holders will have a rocking movement between the hooks of said rib needles, and a cam operatively associated with said web holders to actuate the same.

3. In a knitting machine of the class described, in combination, a ribbing cylinder, a plain cylinder, a ring or plate positioned within said plain cylinder, said ring having two faces, one a flat upper face disposed at right angles to the needles and extending inwardly therefrom for a considerable distance, to form a flat fabric supporting platform, and the other of said faces extending approximately at right angles to the flat upper face from the inner edge thereof, the two faces of said ring serving to cause the fabric to follow a rectangularly shaped track from the needles whereby backward movement of the fabric by the pull of the rib needles is prevented, said ribbing cylinder being provided with tricks intermediate the rib needles, web holders pivotally mounted in said tricks, whereby said web holders will have a rocking movement between the hooks of said rib needles, and a fixed cam within said ribbing cylinder operatively associated with said web holders to actuate the same.

1,080,858. RADIATOR-VALVE. WILHELM STABY, Ludwigshafen-on-the-Rhine, Germany. Filed July 5, 1912. Serial No. 707,954. (Cl. 237-19.)

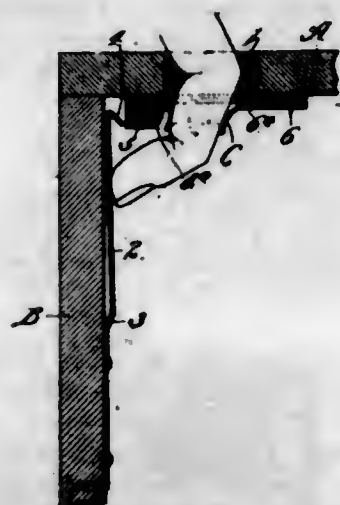


The combination of a main steam pipe, a radiator, a steam connection leading from said main steam pipe to said radiator, a water connection leading from said radiator to said steam pipe, a connection leading from said water connection to the atmosphere, and a unitary valve structure provided with means for simultaneously closing said steam and water connections against said main steam pipe and opening said water connections to the atmosphere.

1,080,859. BOX-FASTENER. ERNEST W. STAMM, St. Louis, Mo. Filed May 7, 1912. Serial No. 695,645. (Cl. 70-80.)

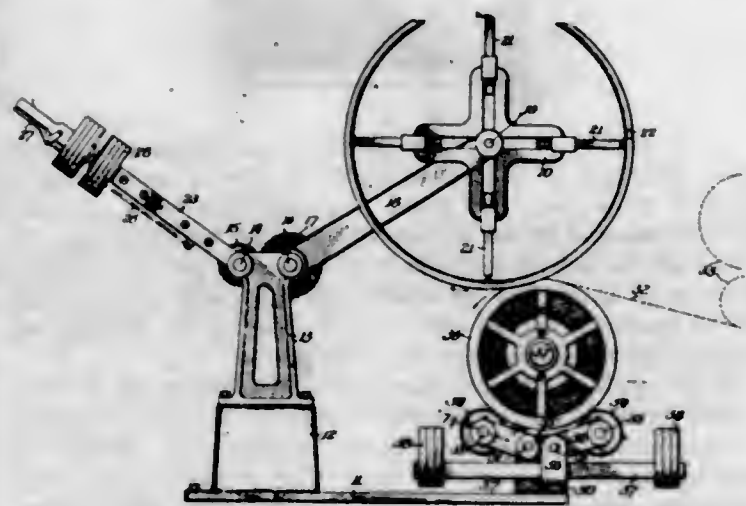
A box fastener comprising a seal-holder arranged on the under side of the lid of the box in proximity to an opening in said lid and stamped from a piece of metal that is bent so as to form a pocket, a substantially U-shaped

member at the front of said pocket, and flanges through which fastening devices pass to secure the holder to the lid, and a resilient member on the inner side of the front



wall of the box provided at its upper end with a hook that projects into the U-shaped member on said holder when the lid is closed.

1,080,860. DEVICE FOR BUILDING TIRES ON RIMS. WILLIAM C. STEVENS, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Jan. 13, 1913. Serial No. 741,681. (Cl. 154-9.)



1. The combination with a recessed body, and means to apply successive layers of plastic material thereto, of compacting means comprising members disposed side by side and being movable toward and from the recesses and in alignment therewith and means to exert yielding pressure upon the members, substantially as described.

2. The combination with a grooved rim, and means to apply successive layers of rubber thereto, of compacting means comprising yielding members disposed side by side and in alignment with the grooves, and means to exert yielding pressure upon the members, substantially as described.

3. The combination with a grooved rim, and means to apply successive layers of rubber thereto, of compacting means comprising rotatable independently yielding members disposed upon a common axis and in alignment with the grooves, and means to exert yielding pressure upon the members, substantially as described.

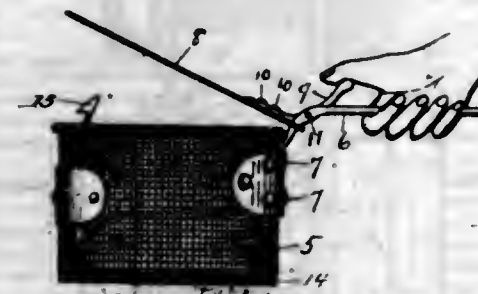
4. The combination with a grooved rim, and means to apply successive layers of rubber thereto, of compacting means comprising a series of yielding rotatable members disposed in planes parallel to the grooves and intervening ridges, and means to exert pressure upon the said series and through them upon the layers of material, substantially as described.

5. The combination with a grooved rim, and means to apply successive layers of rubber thereto, of compacting means comprising a series of alternating yielding and

rigid rotatable disk members disposed in alignment with the grooves and intervening ridges respectively, and means to exert pressure upon the said series and through them upon the layers of material, substantially as described.

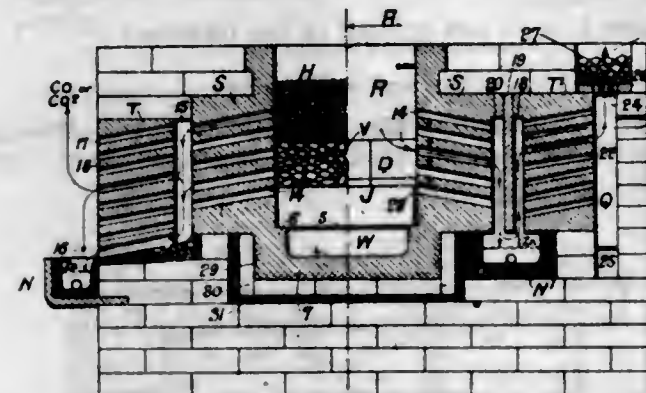
(Claims 6 to 17 not printed in the Gazette.)

1,080,861. COOKING UTENSIL. LEE ROY ST. JOHN, Seattle, Wash. Filed May 2, 1912. Serial No. 694,770. (Cl. 53-1.)



A cooking utensil comprising a receptacle, a foraminous container adapted for reception therein, an upwardly bent handle upon said container, a cover pivoted to said handle above the top edge of said container, means upon said container for retaining the cover in closed position thereon, said cover being of greater diameter than the receptacle and adapted to position the container above the bottom of the latter when closed and positioned therein.

1,080,862. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,788. (Cl. 204-64.)



1. An electric furnace having a horizontal carbon resistor, two sets of terminals each comprising a plurality of carbon terminal members the inner ends of said terminal members being in contact with the resistor and located within the walls of the furnace, the outer ends of said terminal members being located in the walls of the furnace and two sets of metallic strips which protrude from the walls to the exterior of the furnace, one set of said metallic strips connecting the outer ends of carbon members constituting one set of terminals and the other set of said metallic strips connecting the outer ends of carbon members in the other set of said terminals.

2. In an electric zinc furnace having perforated reaction chamber walls contiguous and connected to vertical extraneous spaces or galleries, the combination therewith of an underlying receptacle for receiving products of the reaction.

3. An electric zinc furnace having reaction chamber side walls provided with a plurality of outwardly extending side openings, a connecting portion having vertical space or spaces through which products of the reaction pass downwardly after having passed the chamber side wall openings, and another space or spaces through which portions of the products of the reaction flow upwardly and subsequently pass to the atmosphere.

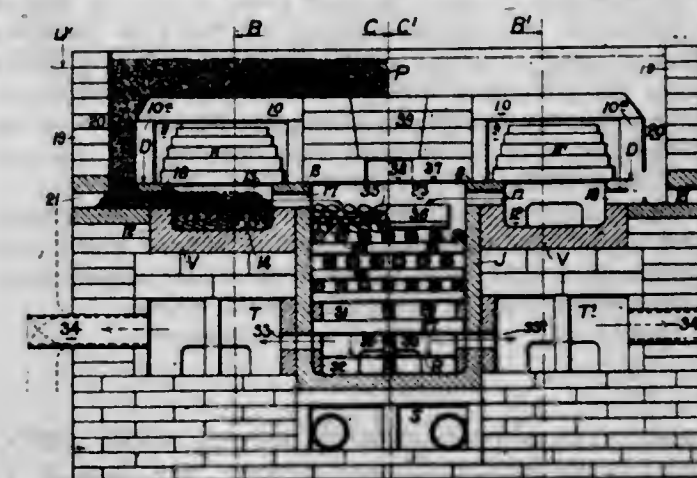
4. A furnace having reaction chamber walls and outer walls with vertical spaces or galleries between them, the reaction fume producing chamber being located between the chamber walls.

5. A condenser of the class described comprising the reaction chamber walls of a furnace and outer walls and having interposed between said walls vertical up-flow and down-flow spaces or galleries.

(Claims 6 to 12 not printed in the Gazette.)

1,080,863. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,789. (Cl. 204-64.)

1. In an electric zinc furnace, a rod-resistor resting upon side supports containing transverse ports.



2. In an electric zinc furnace, a rod-resistor resting upon side supports containing transverse ports with an intervening trough or sump.

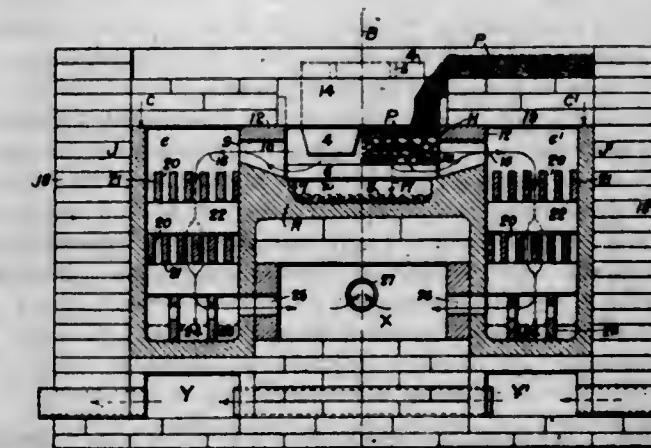
3. In an electric zinc furnace, a rod-resistor resting upon side supports, its lower face being exposed to an underlying trough or sump and its upper and side surfaces being incased.

4. An electric furnace having outer walls set to form a gallery or galleries extending along the outer side or sides, of an inclosed resistor, and ports in said walls in axial alignment with corresponding ports in the resistor support or supports.

5. In an electric zinc furnace, an inclosed rod-resistor or resistors whose casing or casings are sheathed with the material to be charged.

(Claims 6 to 23 not printed in the Gazette.)

1,080,864. ELECTRIC ZINC-FURNACE WITH INTEGRAL COMPOUND CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,792. (Cl. 204-64.)



1. In an electric smelting furnace, a bed-of-carbon resistor supported on a grate above an underlying residue sump and located between confining side walls having a series of lateral openings or ports leading to condensers on opposite sides of the resistor.

2. An electric zinc smelting furnace having a bed-of-carbon resistor supported on spaced grate members above a residue sump, condensers located on opposite sides of the resistor, a resistor retaining side wall providing a part of the inner wall of the condenser and having openings there-

in through which fumes can pass directly from the resistor to the condensers.

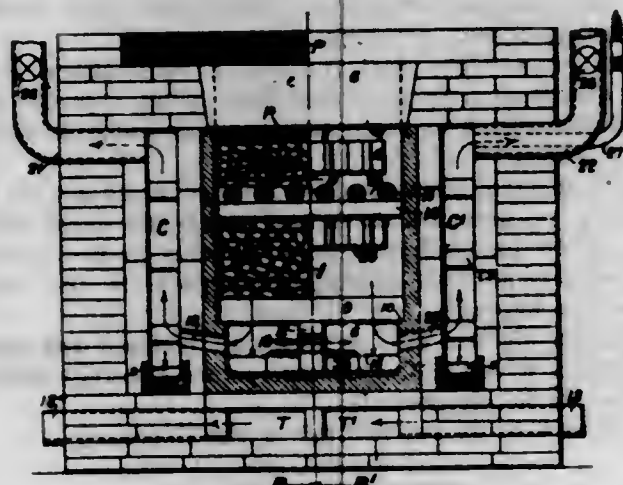
3. A combined electric furnace and condenser having a resistor, resistor retaining walls contiguous to the sides of the resistor, said walls being provided with openings through which fumes can pass directly from the resistor to the upper portion of the condensers which are arranged on opposite sides of the resistor.

4. An electric furnace having a resistor supported on spaced grate bars below which is a sump, the resistor being retained in place by walls having therein openings for conducting the fumes and gases to a condenser or condensers, the top portions of said openings being below the top of that portion of the resistor adjacent thereto and the lower portion of said openings communicating with the space between the grate bars whereby any fumes or gases which pass through the resistor to the space between the grate bars can flow directly through said openings to the condenser or condensers.

5. In an electric zinc smelting furnace, a resistor casing having a series of resistor supporting spaced grate bars and perforated side walls which form a part of the walls of condensers along the sides of the said casing.

[Claims 6 to 14 not printed in the Gazette.]

1,080,865. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,794. (Cl. 204-64.)



1. In an electric zinc furnace, a bed of carbon reaction resistor supported on a filter bed.

2. In an electric zinc furnace, a bed of carbon reaction resistor, a carbon filter bed and an interposed spaced grill formed of rods.

3. In an electric zinc furnace, a bed of carbon reaction resistor and an underlying carbon filter bed supporting the resistor, said bed resting upon a grate.

4. In an electric zinc furnace a zinc receptacle, a spaced grating above said receptacle, a filter bed resting upon said grating, and a carbon resistor supported on said filter bed.

5. In an electric zinc furnace, a bed of carbon reaction resistor, a carbon filter bed and an interposed spaced grill or grating of lesser electrical conductivity than the overlying and underlying carbon.

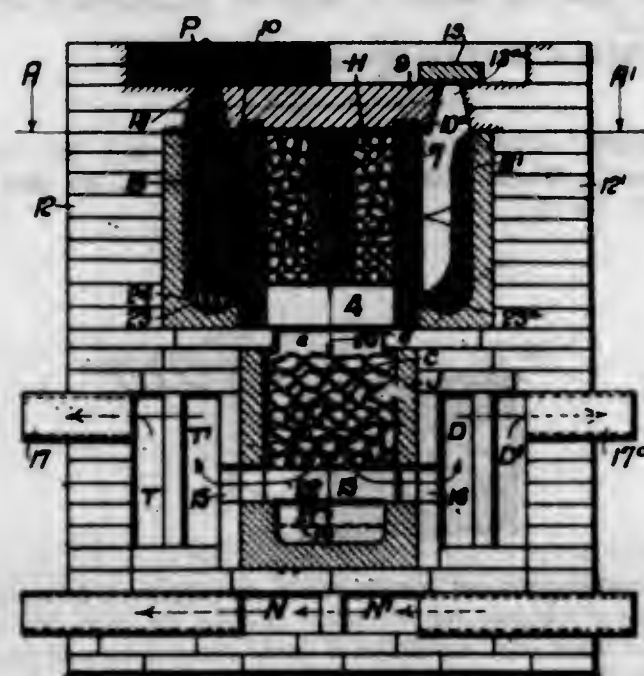
[Claims 6 to 17 not printed in the Gazette.]

1,080,866. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,795. (Cl. 204-64.)

1. In an electric zinc furnace a bed of carbon resistor whose lower surface rests on a grate and whose side surfaces are retained by spaced rods.

2. In an electric furnace a bed of carbon resistor which when the furnace is in operation is embedded in a charge of reacting material, the said resistor being suitably supported by a grate or hearth and the furnace having sides which are formed of or sheathed with material immune to the effect of the primary reaction.

3. In an electric zinc furnace a bed of carbon resistor resting upon a grate or perforated hearth with a reaction chamber disposed along the side of the said resistor.



4. An electric zinc furnace having a bed of carbon resistor suitably supported by a grating or hearth and constructed and arranged so that when the furnace is in operation the charge of reacting materials will be disposed along the sides of the resistor and so that the reaction will occur primarily along the vertical sides of the resistor.

5. In an electric zinc furnace a carbon resistor adapted to act either by conducted heat or radiated heat or both upon charge-material disposed along the vertical sides of the said resistor.

[Claims 6 to 18 not printed in the Gazette.]

1,080,867. FOLDING BED. HARRIS A. TRACY, Boston, Mass. Filed Nov. 20, 1911. Serial No. 661,412. (Cl. 5-37.)

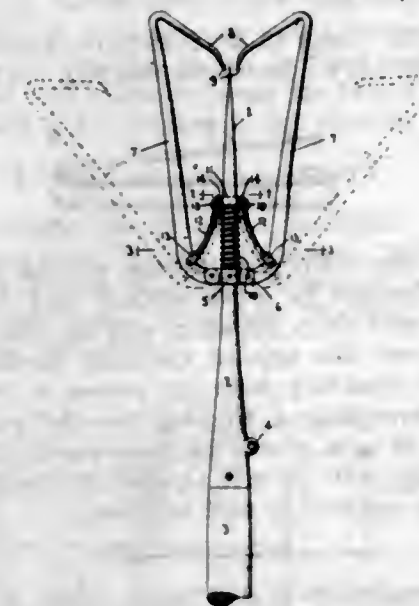


1. In a folding bed, the combination with a spring, of a frame for said spring, a headpiece pivotally secured to said frame whereby it may be turned to occupy either a horizontal position over the face of said spring or a vertical position, means for pivotally securing said headpiece to said frame, and a guard carried by said headpiece and adapted to form an auxiliary headpiece to said frame when said headpiece is in its horizontal position as afore-said.

2. In a folding bed, the combination with a spring, of a frame for said spring, the same comprising side bars and raised end bars, the said bars being arranged to leave a space between the plane of said side bars and that of said spring, and a holder connecting with the side bars of said frame for retaining objects interposed between said holder and said spring.

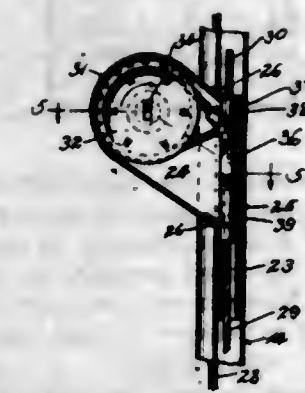
3. In a folding bed, the combination with a spring, of a frame supporting said spring, the same comprising side bars and raised end bars, said bars being arranged to leave a space between the plane of said side bars and that of said spring, a supporting fixture for the inner end of said frame from which the side bars thereof extend in part to rest and turn thereon, means for pivotally securing said frame to said fixture, and a holder connecting with the side bars of said frame and supplementing said fixture in the retention of objects placed beneath said spring.

1,080,868. FISH-SPEAR. GEORGE T. TURNER, Ione, Wash., assignor of one-half to Robert B. Hall, Ione, Wash. Filed Apr. 18, 1913. Serial No. 762,142. (Cl. 43-6.)



The herein described fish spear comprising a handle, a point carried thereby, a ferrule fast on the point, a collar slidably mounted on the point between the ferrule and the tip of the point, an expansive spring coiled on the latter between said ferrule and collar, gripping members whose inner ends are pivoted to said ferrule and whose outer ends are turned inward into barbs having tips coacting with the tip of said point, and links pivotally connecting said members near their tips with said collar, the whole constructed substantially as and for the purpose described.

1,080,869. ADJUSTABLE WINDOW-SHADE HANGER. WALTER T. VALENTINE, Los Angeles, Cal. Filed Aug. 10, 1912. Serial No. 714,378. (Cl. 156-27.)



1. A window shade hanger comprising a pair of guides, a pair of brackets slidably mounted in said guides, a shade roller mounted in said brackets, and crossed cables connected with said roller and said brackets, whereby a sliding movement of the brackets actuates the roller.

2. A window shade hanger comprising a pair of guides, a pair of brackets slidably and coöperatively mounted in said guides, a fixed cable for operating the shade roller by the sliding movement of said brackets, and means to actuate said brackets in their guides.

3. A window shade hanger comprising a pair of guideways adapted to be supported on a window casing, a pair of brackets coöperatively and slidably mounted in said guides, a cross bar connecting said brackets, a shade roller mounted in said brackets, and fixed cables carried through said guides and brackets whereby the roller shade is actuated.

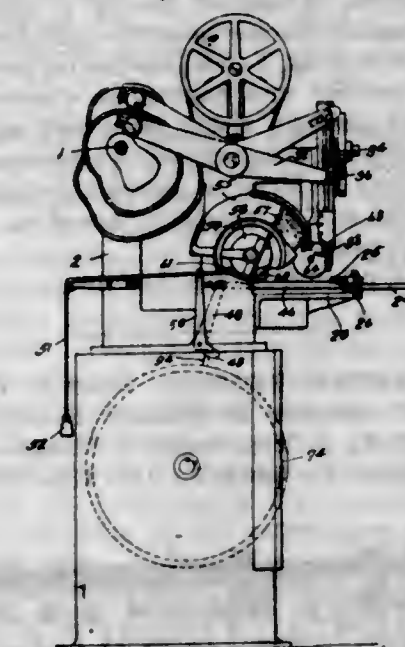
4. A window shade hanger comprising a pair of guideways adapted to be supported on a window casing, slides mounted in said guideways, shade rollers supporting brackets mounted on said slides, a shade roller revolvably

mounted on said brackets, and actuating cables for said roller shade carried through said brackets and said guideways, whereby when the slide is moved the shade roller is actuated, but the exposed shade preserves a fixed relation to said window casing.

5. A window shade hanger comprising a pair of guideways adapted to be mounted on a window casing, slides mounted in said guideways, means for sliding said slides, a cross bar connecting said slides, a shade roller having a spring trunnion mounted adjacent said cross bar and having bearings in said brackets, a pulley mounted on one of said brackets to engage and register with the spring trunnion of said roller, and flexible means connected with said guideway and said pulley to actuate the shade roller when the slides are moved.

[Claims 6 to 8 not printed in the Gazette.]

1,080,870. AUTOMATIC STOP MECHANISM FOR POWER-DRIVEN MACHINES. ANTHONY VANDERVELD, Grand Rapids, Mich. Filed Jan. 29, 1913. Serial No. 745,036. (Cl. 74-46.)



1. In a power driven machine, starting means operatively connected therewith whereby in one position thereof power may be supplied to operate the machine and in another position the power will be disconnected from the machine, means normally holding the starting means in power disconnected position, means to hold the starting means in power supplying position, a reciprocating member driven by the machine said means carrying an element adapted to lie in two different positions and means connected to the holding means and positioned to be engaged by said element in one of its positions and be operated thereby to disengage the holding means from the starting means.

2. In a power driven machine, starting means operatively connected therewith whereby in one position thereof power may be supplied to operate the machine and in another position the power will be disconnected from the machine, means to hold the starting means in power supplying position, a member driven by the machine and having movement back and forth between two extreme positions, and means connected to the holding means and lying in proximity to the member and adapted to be engaged to be actuated by the member thereby operating the holding means to disengage it from the starting means.

3. In a power driven machine, starting means operatively connected therewith whereby in one position thereof power may be supplied to operate the machine and in another position the power will be disconnected from the machine, means to hold the starting means in power supplying position, a member driven by the machine and having reciprocating movement, means connected to the holding means and normally lying in close proximity to but

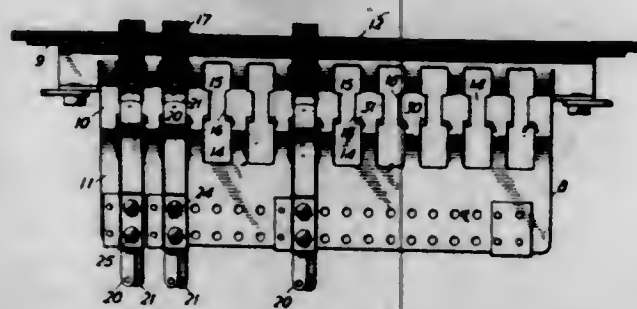
out of engagement with the reciprocating member, and means whereby the reciprocating member may actuate the means connected to the holding means to thereby effect the disengagement of the holding means and the starting means.

4. In a power driven machine, starting means operatively connected therewith whereby in one position thereof power may be supplied to operate the machine and in another position the power will be disconnected from the machine, means to hold the starting means in power supplying position, a member driven by the machine and having back and forth movement between two extreme positions, a pawl pivotally connected to said member and normally lying within the planes of the sides of said member, means connected to the holding means and lying adjacent to the side of the reciprocating member whereby if the pawl is moved out of normal position, it will engage with said means.

5. In a power driven machine, starting means operatively connected therewith whereby in one position thereof power may be supplied to operate the machine and in another position the power will be disconnected from the machine, means to hold the starting means in power supplying position, a member having a central passage therein said member connected to the machine and having reciprocatory movement, a pawl connected pivotally to the reciprocating member and having an element extending into the central passage, means connected to the holding means and positioned adjacent the reciprocating member whereby when any material is passed through the central passage the pawl will be pivotally turned to engage with said connecting means.

[Claim 6 not printed in the Gazette.]

1,080,871. ELECTRIC SWITCH. JOHN N. WALLACE, La Crosse, Wis., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Feb. 15, 1910. Serial No. 544,047. (Cl. 178-176.)



1. A switch key comprising a frame plate having a flat vertical portion with an opening therein, a plunger slidably engaging the edges of said opening, said plunger being movable in a plane parallel with said flat vertical portion, and switch springs mounted adjacent said plunger and adapted to be controlled thereby.

2. A switch key comprising a frame plate having a flat vertical portion with an opening therein, a plunger grooved to slide in said opening between the edges of said opening, and switch springs mounted upon the lower part of the frame plate and arranged to be actuated by said plunger.

3. A switch key comprising a supporting plate having a vertical web and a horizontal flange provided with openings, a plunger grooved to slide in the opening in said vertical web and projecting through the opening in said flange, and contact springs mounted upon the lower portion of said web and arranged to be actuated by said plunger.

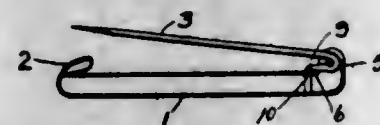
4. A switch key comprising a supporting plate having an integrally formed vertical web and horizontal flange provided with openings, a plunger grooved to slide in the opening in said web and projecting through the opening in said flange, and contact springs upon the lower portion of said web and arranged to be actuated by said plunger.

5. A switch key comprising a frame plate having an offset flat vertical portion with an opening therein, a plunger

slidably mounted in said opening between the edges of said flat portion, and switch springs extending through said opening and adapted to be actuated by said plunger.

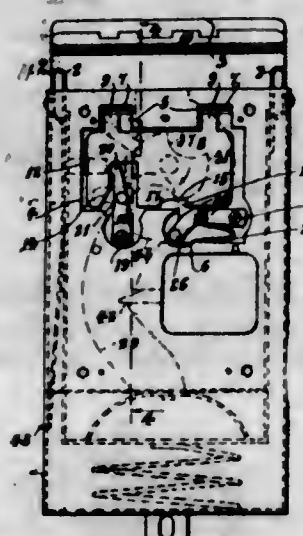
[Claims 6 and 7 not printed in the Gazette.]

1,080,872. PIN. NILS C. WALLENTIN, Attleboro, Mass. Filed Dec. 11, 1911. Serial No. 664,974. (Cl. 24-180.)



A one-piece pin comprising a body portion having substantially a U-shape in cross section, said body having integral joint ears for a pin-stem, and an arm integral at one end with one side edge of the body portion adjacent said ears and extending laterally across to the opposite edge thereof providing a fulcrum for the pin-stem, the free end of said arm extending downward along the inside of the body wall to rest against the bottom thereof to assist in the support of said fulcrum.

1,080,873. VENDING MACHINE. JOHN A. WEBSTER, Rutherford, N. J., assignor to Autosaes Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Filed Jan. 19, 1910. Serial No. 538,859. (Cl. 194-65.)



1. In a vending machine, the combination with a slidable passive locking bolt, a pawl to hold the bolt in its locked position, and a lever adapted to move said bolt when released to its unlocked position, of means to force an insertible element between said lever and pawl, whereby said pawl is operated to release the bolt and said lever is operated to move the released bolt.

2. In a vending machine, the combination of a locking bolt provided with a pair of slots or recesses, a movable lever adapted to engage in one of said slots, a pawl constructed to engage the wall of the other slot, said lever and pawl having portions arranged to be engaged by an insertible element, and means to force said insertible element between said portions, whereby said pawl is operated to release the bolt and said lever is operated to move the released bolt.

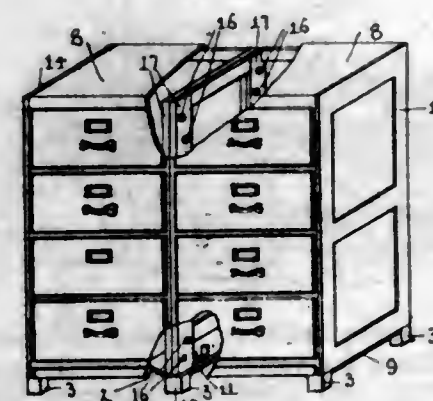
3. In a vending machine, a locking bolt having a slot near one end, and a slot near the other end, a lever movable in one of said slots, a pawl constructed to engage the wall of the other slot, knobs projecting from said lever and pawl, and means to force an insertible element between said knobs, whereby the bolt is operated.

4. In a vending machine, the combination with a slidable locking bolt having a transverse slot near one end and a slot in its under face near the other end, a passive lever movable in said transverse slot, and a detent adapted to engage the wall of the other slot, knobs on said lever and detent, and means to force an insertible element between said knobs, whereby the bolt is free to be thrown into unlocked position.

5. In a vending machine, the combination with a slidable locking bolt having a transverse slot near one end and a slot in its under face near the other end, of a passive lever movable in said transverse slot, a detent adapted to engage the wall of the other slot, knobs on said lever and detent projecting in the path of an insertible element, a detent holding the manually operated device against a retrograde movement, and means to force said insertible element against said knobs, whereby the bolt is operated.

[Claims 6 and 7 not printed in the Gazette.]

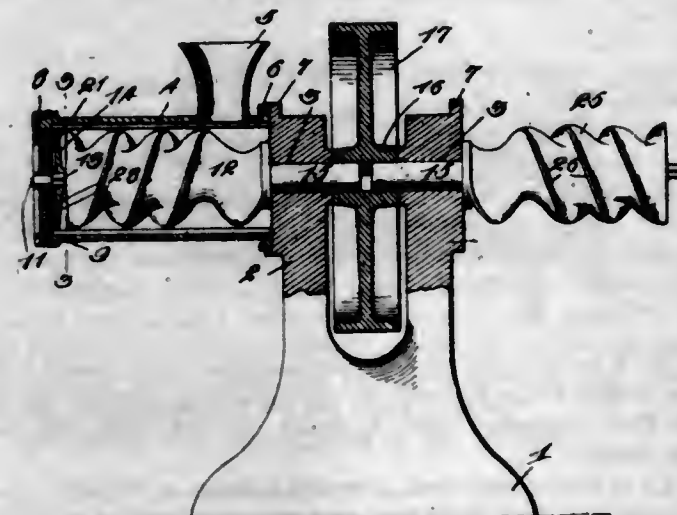
1,080,874. BASE FOR FILING-CABINETS AND THE LIKE. CHARLES E. WILSON, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a Corporation of Michigan. Filed Apr. 22, 1912. Serial No. 682,431. (Cl. 45-78.)



1. In a device of the character described, three body members each provided with legs, two of said members having each a bar connected thereto provided with a longitudinal slot, and the third said member being arranged between said other members and having a threaded bolt adapted to move in the slots and provided with a nut adapted to clamp the bars to the said third member, to adjustably connect the said members at a desired distance apart.

2. In a device of the character described, three body members, two of said members having each a laterally-extending bar, and the third body member being arranged between said other members and having means for clamping both the bars to said third body member, to adjustably connect the said members at a desired distance apart.

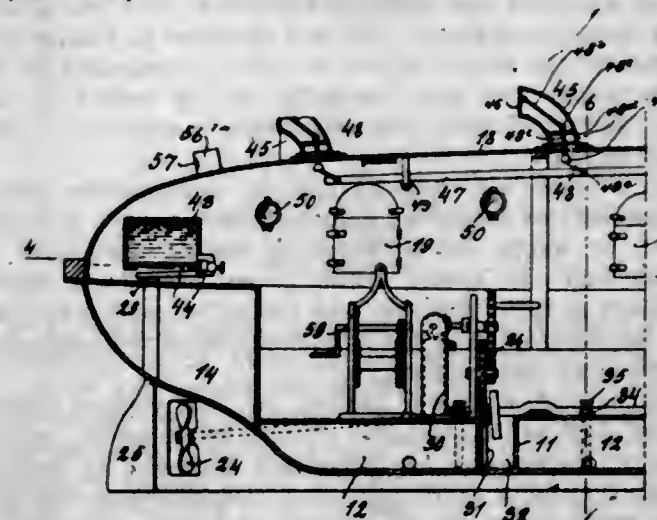
1,080,875. MEAT-CUTTING MACHINE. JAMES F. MAYFIELD and HIRSH B. ALGER, Lakeview, Oreg. Filed Oct. 5, 1911. Serial No. 653,077. (Cl. 17-20.)



In a cutting machine, the combination of a perforated plate, a revoluble cutter having oppositely directed cutting edges arranged to move both simultaneously in close proximity to said plate, means for revolving said cutter in either direction in proximity to said plate, and means for feeding the material to be cut past said cutter and through

said plate when said means is operated in the direction of one cutting edge and means for feeding the material to be cut past said cutter and through said plate when said means is operated in the direction of the other cutting edge.

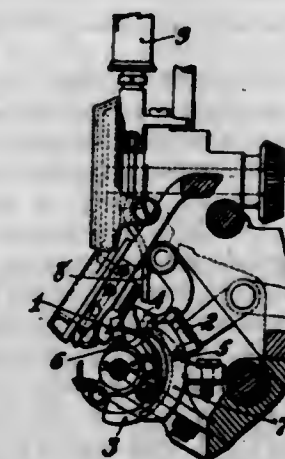
1,080,876. LIFE-BOAT. ANDREAS B. ANDREASSEN, Brooklyn, N. Y. Filed Aug. 26, 1912. Serial No. 717,080. (Cl. 9-4.)



1. A boat having a hull provided with transverse bottom compartments for water ballast, a pipe passing through one of the compartments and opening through the sides of the hull below the water line, a pipe connected to said pipe, a valve for shutting off and establishing communication between said pipes, the second-mentioned pipe having branches extending respectively into the transverse compartments, a valve in each of said branches, and a pump having its inlet connected to the second-mentioned pipe.

2. A boat having a hull provided with transverse bottom compartments for water ballast, a pipe passing through one of the compartments and opening through the sides of the hull below the water line, a pipe connected to said pipe, a valve for shutting off and establishing communication between said pipes, the second-mentioned pipe having branches extending respectively into the transverse compartments, a valve in each of said branches, a pump having its inlet connected to the second-mentioned pipe, and a second pump connected to the compartments for emptying the same.

1,080,877. SEWING-MACHINE. FRED ASHWORTH, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 3, 1910, Serial No. 585,116. Divided and this application filed May 23, 1912. Serial No. 699,137. (Cl. 112-20.)



1. A sewing machine, having, in combination, stitch forming devices including a curved hook needle, a needle carrier, and a movably supported needle oiling device arranged to contact with the needle and means actuated by the needle carrier for moving the oiling device away from the needle during the advancing movement of the carrier.

2. A sewing machine, having, in combination, stitch forming devices including a curved hook needle, a needle carrier, and a pivotally mounted arm provided with an oiling pad arranged to contact with the needle, said arm extending into the path of the needle carrier so as to be actuated thereby during the advancing movement of the needle carrier to raise the pad from the needle.

3. A sewing machine, having, in combination, stitch forming devices including a curved hook needle, a needle carrier, an oiling pad arranged to contact with the needle, and a movable carrier for the pad mounted to extend into the path of the needle carrier so that it is engaged by the needle carrier and moved away from the needle by the needle carrier during the advancing movement of the needle carrier.

4. A sewing machine, having, in combination, stitch forming devices including a curved hook needle, a needle carrier, an oiling pad arranged to remain stationary in contact with the needle during a portion of the needle movement in each direction, and means for raising the pad from the needle during the latter portion of the advancing movement of the needle.

5. A sewing machine, having, in combination, stitch forming devices including a curved hook needle, needle actuating mechanism, an oiling pad arranged to contact with the needle, a carrier therefor mounted independently of the needle actuating mechanism, and means for raising the pad from the needle during the latter portion of the advancing movement of the needle.

1,080,878. DENTAL APPLIANCE. CURTIS M. BAL-LENGER, Lubbock, Tex. Filed Mar. 25, 1913. Serial No. 756,783. (Cl. 32—10.)



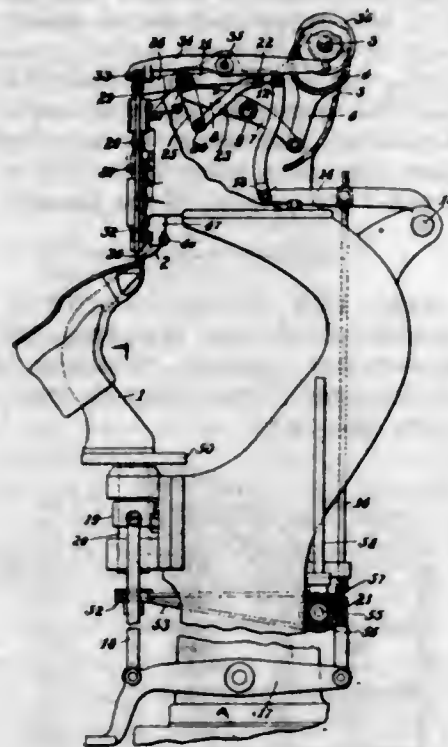
An attachment for the tool holder of a dental engine, including an elongated casing closed at one end, a nozzle extending beyond said closed end of the casing and along the wall of the casing, said nozzle opening into the casing, a tubular valve mounted for rotation in the casing and having an annular enlargement abutting against the open end of the casing, there being a port within the valve adapted to establish communication between the interior of the valve and the nozzle, means engaging the casing and the annular enlargement for holding the valve against longitudinal displacement in the casing, a flexible tube connected to one end portion of the valve for directing fluid into the valve, and a finger piece extending outwardly from the valve and constituting means for rotating the valve within the casing.

1,080,879. SOLE-SEWING MACHINE. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 17, 1911. Serial No. 633,750. (Cl. 112—20.)

1. A shoe sewing machine, having, in combination, a needle, mechanism for actuating the needle comprising a series of relatively movable parts acting to maintain the needle under positive control throughout its stroke, a fixed presser foot, a work support movable toward and from the presser foot, and a connection between the work support and needle actuating mechanism acting to vary the work penetrating stroke only of the needle upon a change in the position of the work support.

2. A shoe sewing machine, having, in combination, a needle, mechanism for actuating the needle, a fixed presser foot arranged to engage the work in line with the needle transversely to the direction of feed, a work support movable toward and from the presser foot, and a connection between the work support and needle actuating mechanism acting to vary the work penetrating stroke only of

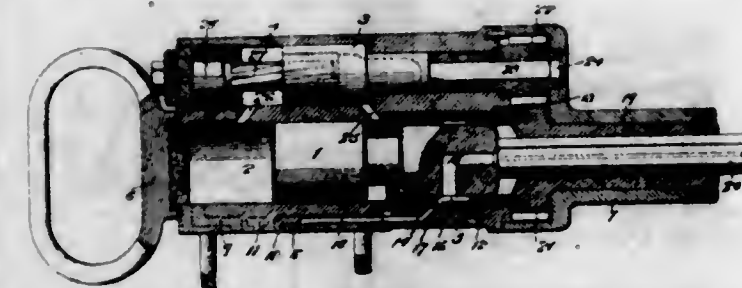
the needle upon a change in the position of the work support.



3. A shoe sewing machine, having, in combination, a needle, mechanism for actuating the needle comprising an oscillating lever, two pivotally connected links, a pivotal connection between one of said links and said oscillating lever, connections between the other link and the needle, a presser foot, a work support, and a connection acting upon a change in the relative position of the presser foot and work support to swing the pivotal connection of said links about the pivotal connection with the oscillating lever to vary the needle stroke.

4. A shoe sewing machine, having, in combination, a needle, mechanism for actuating the needle comprising pivotally connected links movable about different centers during the movement of the needle, and means for moving said centers into alignment at one limit of the needle stroke, a presser foot, a work support, and a connection acting upon a change in the relative position of the presser foot and work support to swing the pivotal connection of said links about one of said centers to vary the other limit of the needle stroke.

1,080,880. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,286. (Cl. 121—20.)



1. In a percussive tool, a work piston, a rotation piston arranged along the side of the same and parallel therewith, their chambers and a chuck rotated from the rotation piston.

2. In a percussive tool, a work piston, a rotation piston, their chambers, a chuck, and a pinion geared thereto, said pinion being in axial alignment with and rotated by the rotation piston.

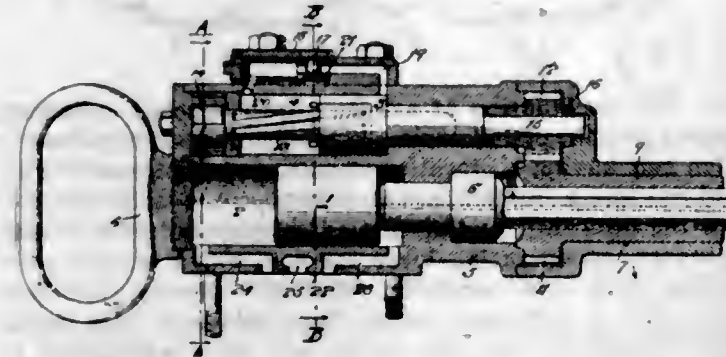
3. In a percussive tool, a work piston, a rotation piston arranged along the side of the same and parallel therewith, their chambers, a chuck and a pinion geared thereto, said pinion being in axial alignment with and rotated by the rotation piston.

4. In a percussive tool, a work piston and a rotation piston arranged along the side of the same and parallel therewith, both being under the same motive fluid control and a chuck rotated by the rotation piston.

5. In a percussive tool, a work piston and a rotation piston both being under the same motive fluid control, their chambers, a chuck and a pinion geared thereto, said pinion being in axial alignment with and rotated by the rotation piston.

[Claims 6 to 13 not printed in the Gazette.]

1,080,881. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,287. (Cl. 121—20.)



1. In a percussive tool, a work piston, a rotation piston arranged along the side of the work piston and reciprocating lengthwise of the tool, means for imparting a step by step rotary movement to the rotation piston, a chuck rotated by the rotation piston and means for controlling the reciprocations of the rotation piston independently of the work piston.

2. In a percussive tool, a work piston, a rotation piston arranged along the side of the work piston and reciprocating lengthwise of the tool, means for imparting a step by step rotary movement to the rotation piston, a chuck rotated by the rotation piston and a valve for controlling the reciprocations of the rotation piston independently of the reciprocations of the work piston.

3. In a percussive tool, a work piston, a chuck provided with a gear, a pinion meshing therewith, a rotation piston having a sliding interlocked engagement with said pinion, means for imparting a step by step rotary movement to the rotation piston and means for controlling the reciprocations of the rotation piston independently of the work piston.

4. In a percussive tool, a work piston, a chuck provided with a gear, a pinion meshing therewith, a rotation piston arranged along the side of a work piston and reciprocating lengthwise of the tool, the said rotation piston having a sliding interlocked engagement with said pinion, means for imparting a step by step rotary movement to the rotation piston and means for controlling the reciprocations of the rotation piston independently of the work piston.

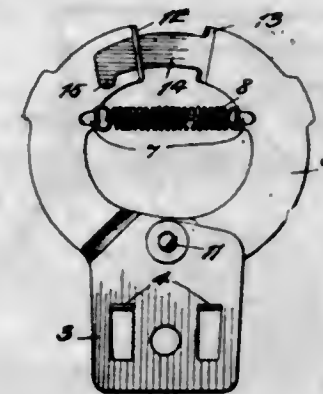
5. In a percussive tool, a work piston, a rotation piston, their cylinders, a chuck, a pinion geared thereto, a rifle bar alternately clutched to and released from the rotation piston cylinder, said rotation piston having a sliding interlocked engagement with the rifle bar and engaging said pinion for imparting a rotary movement to the chuck and means for controlling the reciprocations of the rotation piston independently of the work piston.

[Claims 6 to 8 not printed in the Gazette.]

1,080,882. OIL-CAN HOLDER. CHARLES W. BECK, Detroit, Mich. Filed Mar. 25, 1913. Serial No. 756,673. (Cl. 248—30.)

1. An oil can holder comprising a main holding arm, a supporting lug, a swinging holding arm pivotally connected to and carried by the main holding arm, the two ends of said arms abutting together, a spring connecting said two arms, upstanding lugs carried by said arms and

adapted to engage an oil can, a supporting tongue formed at the outer end of one of said arms and a supporting and limiting stop carried by the other arm and engaged by the supporting tongue.



2. An oil can holder comprising a main holding arm, a supporting lug, a swinging holding arm pivotally connected to and carried by the main holding arm, the two ends of said arms abutting together, a spring connecting said two arms, upstanding lugs carried by said arms and adapted to engage an oil can, and interlocking means carried by the holding arms at their outer ends and adapted to limit the separating movement of said arms.

3. An oil can holder comprising a main holding arm, a supporting lug, a swinging holding arm pivotally connected to and carried by the main holding arm, the two ends of said arms abutting together, a spring connecting said two arms, upstanding lugs carried by said arms and adapted to engage an oil can, and interlocking means carried by the holding arms at their outer ends and adapted to limit the separating movement of said arms, said interlocking means serving to maintain the outer ends of the holding arms in the same horizontal plane.

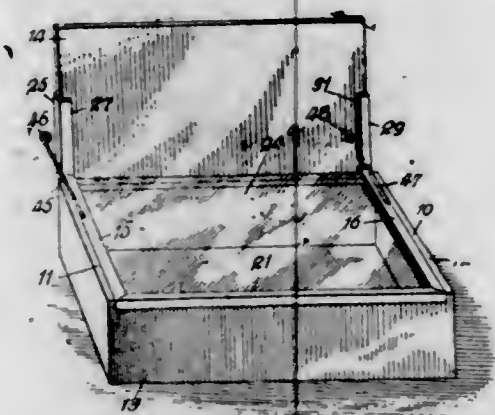
4. A two-part oil can holder consisting of a supporting lug, an integral horizontal holding arm provided with integral upstanding can holding lugs, a pivoted arm connected to the rigid arm near the holding lug, said pivoted arm being also formed with integral upstanding holding lugs, a supporting tongue carried by one of said arms, a supporting and limiting stop carried by the other arm and adapted to be engaged by the supporting tongue to limit the separating movement of said arms and to maintain them in the same horizontal plane.

5. An oil can holder formed of sheet metal comprising a main holding arm and a supporting lug integral therewith, the said supporting lug being depressed and carrying a pair of depending stops, a swinging holding arm pivoted on the depressed part of the holding lug, the main portion of said swinging arm being in the same plane with the main holding arm, the two ends of said arms abutting together on a radial line diametrically opposite the pivot of the swinging arm, a spring connecting said two arms together, upstanding lugs carried by said arm and adapted to engage an oil can, a supporting tongue carried by one of said arms, a supporting and limiting stop carried by the other arm and adapted to be engaged by the supporting tongue to limit the separating movement of said arms and to maintain them in the same horizontal plane.

1,080,883. KNOCKDOWN DISPLAY-LID. PHILIP A. BECKER, New York, N. Y. Filed Feb. 15, 1913. Serial No. 748,595. (Cl. 217—58.)

1. In a knock-down display lid adapted to be applied upon a box having an open top and a hinged lid thereon, a frame comprising a front cross bar and two side bars integrally formed with the front bar, and having a continuous channel formed in the inner side of each part of said frame, said channel being adapted to removably admit a plate of glass, or other transparent material to serve as a cover, and a holding member integrally formed with each of the said side bars of the frame at the rear end thereof, each of said holding members having a channel on the inner side thereof adapted to admit the edge of the hinged

lid of the box, whereby the frame and the transparent plate may be swung to open or closed positions upon the box when the box lid is moved accordingly.



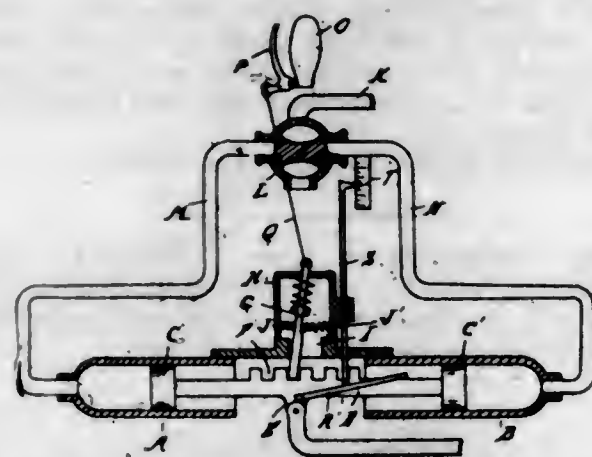
2. In a knock down display lid adapted to be applied upon a box having an open top and a lid hinged thereon, a frame comprising a front cross-bar, two side bars having one of the ends thereof integrally formed with the front bar, and two holding clamps, one integrally formed upon the rear end of each side bar, said frame having a continuous channel provided in the inner surface thereof for admitting a transparent plate, and said clamps each having a channel therein adapted to admit one of the side edges of the hinged lid, whereby the frame and the transparent plate may be swung to open or closed positions upon the box when the box lid is moved accordingly.

3. In a knock down display lid adapted to be applied upon a box having a lid hinged thereon, a frame adapted to be movably positioned upon the box in the place of said lid when the lid is open, said frame comprising a front bar and two side bars integrally formed with the ends of the front bar, each of said side bars having a clamp integrally formed therewith and upon the opposite end thereof, said clamps being disposed at an angle with relation to the side bars, and said clamps having each a channel therein adapted to admit one of the side edges to the hinged lid of the box and support it in an upright position, and said side bars and front cross bar being adapted to removably retain a transparent plate upon the box in the place of the hinged lid when the lid is open, and means provided on said clamps for detachably securing the clamps upon the lid.

4. In a knock down display lid adapted to be applied upon a box having a hinged lid thereon, an integrally formed frame of channel metal having three inclosed sides, and one open side, said frame serving as a retaining means for a transparent plate to serve as a cover for the box when the lid is open, and said frame having integrally formed channel-metal supports adapted to support the lid of the box at a desired angle relatively to the frame, and a removable plate extending across the lid of the box and serving to display a sign thereon, said plate having at each end thereof a groove adapted to admit the side edges of the lid of the box, whereby said plate may be disposed upon the box lid in a manner so as to secure the supports provided upon the channel-metal frame.

5. In a knock down display lid, adapted to be applied to the open top of a box having a lid hinged thereon, an integrally formed frame of channel-metal having a front bar, two side bars, and an open rear, the channel of said frame forming a groove in the inner surface thereof, and said groove being adapted to admit and removably retain a transparent plate which is inserted from the rear opening of the frame, each of said side bars having a clamp integrally formed upon the rear end thereof, and both of the clamps being disposed at an angle with relation to the side bars, said clamps being made of channel-metal, and each having a groove to admit one of the side edges of the lid of the box whereby the lid may be held at an angle relatively to the transparent plate when open, and an arm held upon each of said side bars, whereby the transparent plate may be hingedly swung to open or closed positions upon the box.

1,080,884. REVERSING-GEAR FOR ENGINES. WINZOR A. BIRCHETT, Detroit, Mich. Filed May 25, 1912. Serial No. 699,617. (Cl. 121-98.)



1. The combination of axially aligned opposed cylinders, pistons in said cylinders, a rod connecting said pistons, a latch bolt having a plurality of points of engagement with said rod and a limited lateral adjustment, a valve controlling the alternative admission of compressed fluid to said cylinders, an operating lever for said valve, means associating with said operating lever for withdrawing said latch bolt to disengage same from said rod, and means for laterally shifting said latch bolt when withdrawn to prevent reengagement of the same at the same point.

2. The combination with a cylinder and a piston therein of a rod for actuating the reverse mechanism connected to said piston and provided with a series of notches, a latch bolt for engaging said notches and provided with a limited lateral adjustment, means for centering said latch bolt between the limits of its adjustment when withdrawn from said notches, and associated means for admitting compressed fluid to said cylinders to actuate said piston and adjust said rod.

3. The combination with a cylinder and a piston therein of a rod for actuating the reverse gear connected to said piston and provided with a series of notches, a latch bolt for engaging said notches and limiting the movement of said rod, said bolt being provided with a limited lateral movement, means operating upon the withdrawal of said bolt for centering the same between its limits of lateral movement, and thereby shifting the same out of registration with the notch previously engaged, and associated means for admitting compressed fluid in said cylinder to adjust the piston and rod until another notch is in registration with said latch bolt and engaged thereby.

4. The combination with a cylinder and piston therein of a rod connected to said piston for operating the reverse gear and provided with a series of notches, a spring pressed latch bolt for engaging said notches, a bearing in which said latch bolt is secured providing a limited lateral adjustment of the same, opposed springs for centering said bolt when withdrawn from said notches, means for withdrawing said bolt from said notches, and associated means for admitting compressed fluid to said cylinder.

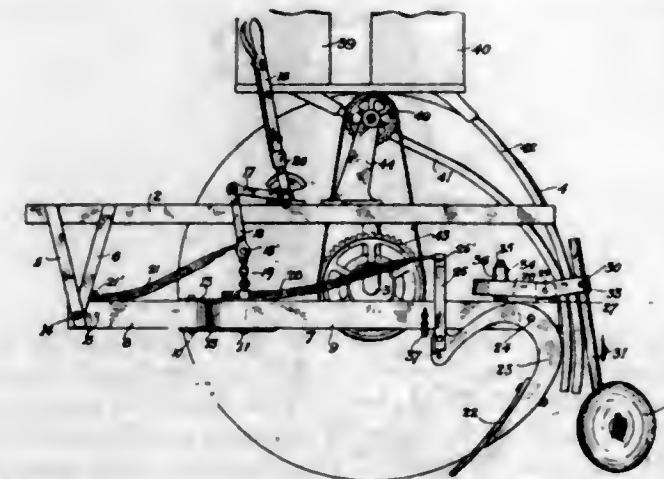
5. The combination of opposed axially aligned cylinders, pistons in said cylinders, a rod connecting said pistons and provided with a series of notches, a spring pressed latch bolt for engaging said notches, a supporting member for said latch bolt, providing a limited lateral adjustment thereof, opposed springs for normally centering said bolt between its limits of adjustment, means for withdrawing said bolt and associated means for admitting compressed fluid alternatively to said cylinders.

[Claim 6 not printed in the Gazette.]

1,080,885. PLANTER ATTACHMENT. WILLIAM OSCAR BOSTROM, Rising Fawn, Ga. Original application filed May 22, 1912, Serial No. 698,976. Divided and this application filed Feb. 10, 1913. Serial No. 747,448. (Cl. 111-11.)

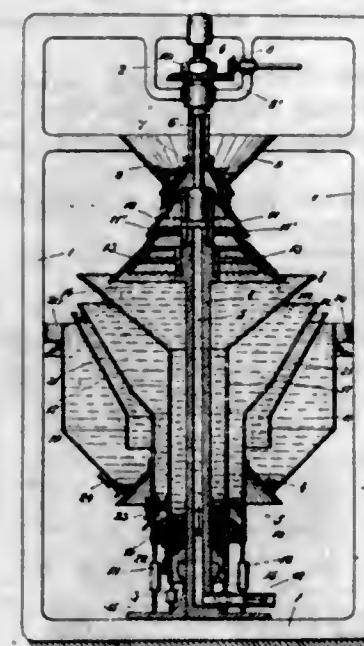
In combination with a wheeled implement, of a drag beam carried thereby, disk coverers, a standard carried by

said beam, a U-shaped bracket pivotally carried by said standard intermediate its ends, and adapted to carry said disk coverers adjacent the open ends of said bracket, a cap, a spring interposed between said cap and beam and em-



braced by the closed end of said bracket, and ties operatively connecting said cap and bracket, to normally position said disks to yield rearwardly upon encountering obstructions, substantially as and for the purpose set forth.

1,080,886. APPARATUS FOR WASHING ORE. HERMANN ALEXANDER BRACKELBERG, Hagen, Germany. Filed July 2, 1913. Serial No. 776,960. (Cl. 83-85.)



1. In a float separator for minerals, a plurality of receptacles adapted to overflow into one another, the overflow walls being at progressively lower levels, and each overhanging the surface of liquid in the next receptacle at an angle adapted to cause a film of liquid to flow along the overhanging surface of said wall, and means for gently feeding the material and liquid across the series of receptacles.

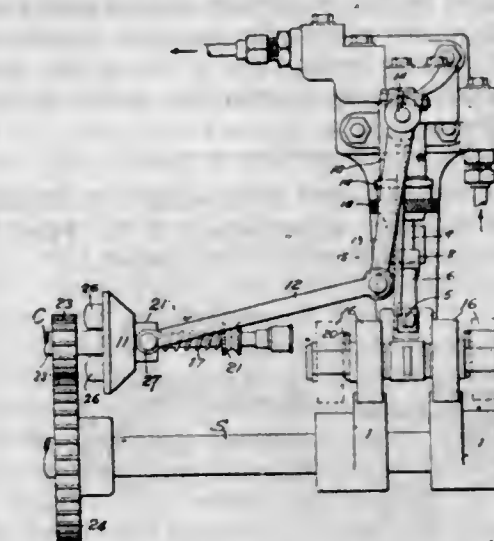
2. In a float separator for minerals, a plurality of nested receptacles adapted to overflow into one another, the overflow walls being at progressively lower levels, and each overhanging the surface of liquid in the next receptacle at an angle adapted to cause a film of liquid to flow along the overhanging surface of said wall, and means for simultaneously feeding liquid and material to be separated across the series of receptacles.

3. In a float separator, a receptacle adapted to contain liquid and present an exposed surface thereof, means for feeding a layer of liquid and material, to be separated thereto, consisting of an overflow wall overhanging the surface of the liquid in the receptacle, at an inclination adapted to cause the overflowing material to flow along the overhanging walls.

4. In a float separator for minerals, a plurality of nested receptacles adapted to overflow into one another, and

present an exposed surface, means for feeding a layer of liquid and material to be separated to the said receptacle consisting of an overflow wall overhanging the surface of the liquid in the said receptacles at an inclination adapted to cause the overflowing material to flow along the overhanging walls.

1,080,887. FUEL-SUPPLY REGULATOR FOR INTERNAL-COMBUSTION ENGINES. ALFRED EDWIN BRAY, Lubertzy, Russia. Filed Jan. 21, 1911. Serial No. 603,841. (Cl. 123-139.)



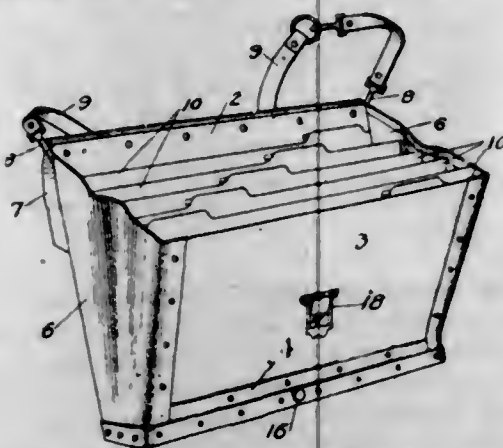
1. In a device for regulating the fuel supply of internal combustion engines, the combination with the fuel pump, a piston rod therefor, and a distributing shaft of the engine, of a cam rotating therewith, a rotary spindle adapted to be rotated by said distributing shaft, a lever pivoted to the frame of the engine, adapted to be engaged by said cam, a bracket pivoted to said lever, two plates fastened to said bracket, one of said plates adapted to engage the piston rod of the fuel pump, a stop arranged to be moved into the path of the other plate to prevent the first mentioned plate from engaging the piston rod, a hollow cone rotatably connected with said rotary spindle, but adapted to move axially thereon, weights pivoted to said cone and adapted to move the same lengthwise on said rotary spindle, a spring arranged to resist said movement and means connecting said hollow cone and said stop and adapted to move said stop into the path of said plate upon a predetermined increase of the speed of rotation of said rotary spindle above normal.

2. In a device for regulating the fuel supply of internal combustion engines, the combination with the fuel pump, a piston rod therefor, and a distributing shaft of the engine, of a cam rotating therewith, a rotary spindle, adapted to be rotated by said distributing shaft, a lever pivoted to the frame of the engine, means on said lever adapted to be engaged by said cam to lift said lever about its pivot, a bracket pivoted to said lever, two plates fastened to said bracket, one of said plates adapted to engage the piston rod of the fuel pump, a stop arranged to be moved into the path of the other plate to prevent the first mentioned plate from engaging the piston rod, a hollow cone rotatably connected with said rotary spindle, but adapted to move axially thereon, weights pivoted to said cone and adapted to move the same lengthwise on said rotary spindle, a spring arranged to resist said movement and means connecting said hollow cone and said stop and adapted to move said stop into the path of said plate upon a predetermined increase of the speed of rotation of said rotary spindle above normal, and an adjustable nut on said rotary spindle for regulating the tension of said spring, thereby determining the period of shutting off the fuel supply.

3. In a device for regulating the fuel supply of internal combustion engines, the combination with the fuel pump, a piston rod therefor, and a distributing shaft of the engine, of a cam rotating therewith, a rotary spindle adapted to be rotated by said distributing shaft, a lever pivoted to

the frame of the engine, means on said lever adapted to be engaged by said cam to lift said lever about its pivot, a bracket pivoted to said lever, two plates fastened to said bracket, one of said plates adapted to engage the piston rod of the fuel pump, a stop arranged to be moved into the path of the other plate to prevent the first mentioned plate from engaging the piston rod, a hollow cone rotatably connected with said rotary spindle, but adapted to move axially thereon, weights pivoted to said cone and adapted to move the same lengthwise on said rotary spindle, a spring arranged to resist said movement and means connecting said hollow cone and said stop and adapted to move said stop into the path of said plate upon a predetermined increase of the speed of rotation of said rotary spindle above normal, and a nut at the lower end of the pump cylinder for varying the stroke of the piston of the fuel pump.

1,080,888. LETTER AND DOCUMENT DISTRIBUTER. FREDERICK BAISTOW, East Orange, N. J. Filed Dec. 12, 1912. Serial No. 736,305. (Cl. 150—14.)



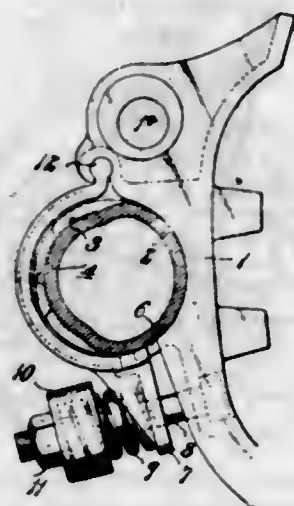
1. A portable letter and document distributor comprising a wide stiff bottom, a stiff back wall rigidly secured along the rear edge of said wide bottom, a stiff front wall hinged along the front edge of said wide bottom, upwardly-flaring bellows ends connecting said stiff back and front walls for permitting inward and outward swing of the latter to closed and open positions about its hinged connection to the front edge of said wide bottom, a plurality of partitions swingingly and slidably connected to the bottom and adapted to be closely confined by the upper edge of said stiff front wall in the inner position of the latter, means for securing said stiff front wall in its inner position, and carrying means adapted to be attached to said stiff back wall.

2. A portable letter and document distributor comprising a wide stiff bottom provided medially with a lateral recess, a stiff back wall rigidly secured along the rear edge of said wide bottom, a stiff front wall hinged along the front edge of said wide bottom, upwardly-flaring bellows ends connecting said stiff back and front walls for permitting inward and outward swing of the latter to closed and open positions about its hinged connection to the front edge of said wide bottom, a plurality of interior swinging partitions adapted to be closely confined by the upper edge of said stiff front wall in the inner position of the latter, perforated ears on said partitions fitting within such bottom recess, a bolt engaging said perforated ears for loosely locking said partitions in position, means for securing said stiff front wall in its inner position, and carrying means adapted to be attached to said stiff back wall.

1,080,889. BRAKE-HEAD. EDWIN G. BUSS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1908. Serial No. 433,058. (Cl. 188—28.)

1. A brake head provided with a socket, one wall of which socket is yielding, and means integral with said yielding wall for engaging the brake beam and securing said brake head in position thereon; substantially as described.

2. A brake head provided with a socket, one wall of which socket is yielding, and means integral with said yielding wall for holding said brake head against circumferential displacement on the beam; substantially as described.



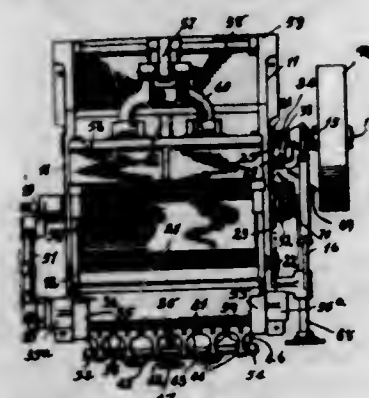
3. A brake head provided with a socket, one wall of which socket is yielding, and means integral with said yielding wall for adjustably holding said brake head in adjusted position on the beam; substantially as described.

4. A brake head provided with a socket, one wall of which socket is yielding, means integral with said yielding socket wall for securing the brake head in position on the beam, and means cooperating with said yielding socket wall for moving said wall; substantially as described.

5. A brake head having a hinged socket wall, locking means carried by said hinged socket wall, and means for forcing said hinged socket wall inwardly; substantially as described.

[Claims 6 to 45 not printed in the Gazette.]

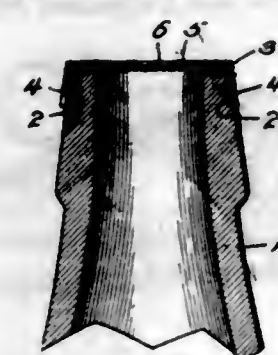
1,080,890. DOUGH-DIVIDER. PHILIP F. CARROLL, Joliet, Ill., assignor to Champlon Machinery Company, Joliet, Ill., a Corporation of Illinois. Filed Dec. 6, 1909. Serial No. 531,625. (Cl. 107—15.)



1. In a dough divider, a hopper, a roller arranged to feed the dough from said hopper, a dough feed piston arranged below said feed roller, a main drive shaft, and means for intermittently operating said feed roller, said means comprising a gear loosely mounted on said shaft and connected with said roller, a clutch on the drive shaft adapted to engage the gear, a countershaft connected with the drive shaft, and means on the countershaft for intermittently operating said clutch.

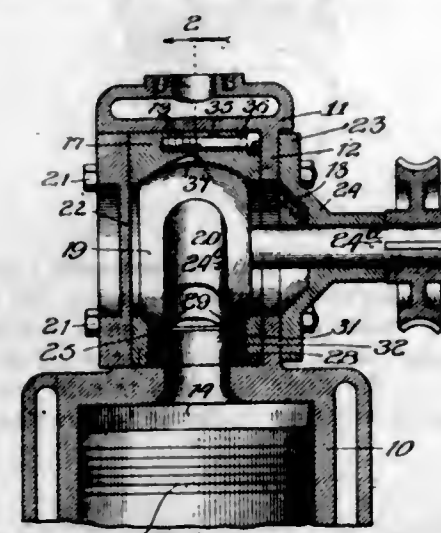
2. In a dough divider, a hopper, a roller arranged to feed the dough from said hopper, a dough feed piston arranged below said feed roller, a drive shaft, and means for intermittently operating said feed roller, said means comprising a sprocket loosely mounted on said shaft, a chain connecting the sprocket with the feed roller, a clutch on the drive shaft adapted to engage the gear, a countershaft connected with the drive shaft, a cam on the countershaft, and a lever pivoted on the frame of the machine and operatively connecting the cam with said clutch.

1,080,891. STOPPER FOR CLOSING AND SEALING BOTTLES. JOSEPH P. CARSON, Chesterfield, Va. Filed Jan. 22, 1913. Serial No. 743,014. (Cl. 215—12.)



A sealing device for bottles containing liquids under pressure, comprising a disk of easily puncturable material, impervious to liquids and rendible, said disk being capable of withstanding a pressure from within sufficient to rend the same after a puncture is made and means for locking and holding said disk over the mouth of the bottle to seal the same, said disk having a portion of the disk intermediate its edges exposed.

1,080,892. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINES. MILFORD G. CHANDLER, Chicago, Ill., assignor to Chandler Engine Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 1, 1912. Serial No. 687,760. (Cl. 123—190.)



1. The combination with an internal combustion engine having a port, of a rotatory valve for controlling said port adapted to be operated in timed relation to the piston of the engine, and a packing member surrounding said port and bearing at an end thereof against said valve, that portion of said valve which traverses said packing member being of spherical form and the end of said packing member which bears against said valve conforming to the spherical surface of the latter and the bearing diameter of said member being substantially less than the spherical diameter of the valve, for the purpose set forth.

2. The combination with an internal combustion engine having a port, of a rotatory valve for controlling said port adapted to be operated in timed relation to the piston of the engine, and a packing member surrounding said port and bearing at an end thereof against said valve, and means for forcing the end of said packing member against said valve, that portion of said valve which traverses said packing member being of spherical form and the end of said packing member which bears against said valve conforming to the spherical surface of the latter and the bearing diameter of said member being substantially less than the spherical diameter of the valve, for the purpose set forth.

197 O. G.—25

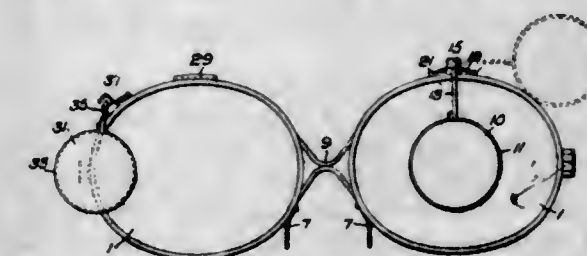
3. The combination with an internal combustion engine having a ported valve-casing, of a rotatory valve in said casing adapted to be operated in timed relation to the piston of the engine, and a packing member surrounding the port in said casing and bearing at an end thereof against said valve, that portion of said valve which traverses said member being of spherical form and the end of said member which bears against said valve conforming to the spherical surface of the latter and the bearing diameter of said member being substantially less than the spherical diameter of the valve, for the purpose set forth.

4. The combination with an internal combustion engine having a ported valve-casing, of a rotatory valve in said casing adapted to be operated in timed relation to the piston of the engine, and a packing ring surrounding the port in said casing and bearing at an end thereof against said valve, that portion of said valve which traverses said ring being of spherical form and the end of said ring which bears against said valve conforming to the spherical surface of the latter and the bearing diameter of said ring being substantially less than the spherical diameter of the valve, for the purpose set forth.

5. The combination with an internal combustion engine having a ported valve-casing, of a rotatory valve in said casing adapted to be operated in timed relation to the piston of the engine, a packing member surrounding the port in said casing, and means for pressing the end of said member against said valve, that portion of said valve which traverses said member being of spherical form and the end of said member which bears against said valve conforming to the spherical surface of the latter and the bearing diameter of said member being substantially less than the spherical diameter of the valve, for the purpose set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,080,893. GOGGLES. GUY B. COLLIER, Kinderhook, N. Y. Filed May 25, 1911. Serial No. 629,347. (Cl. 2—149.)



1. In automobile goggles the combination of rims; transparent means therein; a shutter; and means adjustably to secure said shutter on one of said rims, said means having provision for automatically holding said shutter in operative and inoperative predetermined fixed positions.

2. In automobile goggles the combination of transparent means; a shutter; and means adjustably to connect said shutter to said transparent means including provision for yieldingly holding said shutter in different predetermined fixed positions.

3. In automobile goggles the combination of transparent means; a shutter; and means to connect said parts including means formed to present flat faces and a spring for engagement with one or another of said faces for securing said shutter in different predetermined positions.

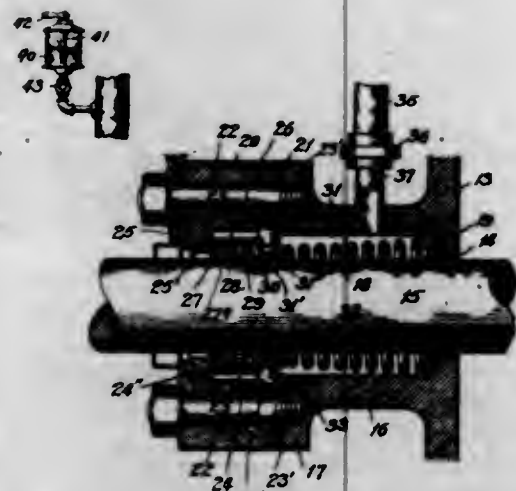
4. In automobile goggles the combination of transparent means; a shutter; and means adjustably to connect the same comprising a bracket, a stem for said shutter fulcrumed in said bracket and having flat faces, and a spring interposed between said flat faces and the base of said bracket for holding said shutter in different positions.

5. In automobile goggles the combination of glass carrying means; a mirror; and means for adjustably supporting said mirror a substantial distance in front of the plane

of one of the glasses of the goggles to permit the wearer to look through said glass at said mirror and visualize objects at the rear of the wearer without interference from said glass carrying means; said mirror supporting means having provision for automatically holding the mirror in operative and inoperative fixed, predetermined positions.

[Claims 6 to 12 not printed in the Gazette.]

1,080,894. ENGINE-CYLINDER. JOSEPH W. CRUZAN, Mattoon, Ill. Filed Mar. 25, 1913. Serial No. 756,638. (Cl. 121-109.)



1. In a device of the class described, a cylinder, a cylinder head, a reciprocating piston rod extending through said cylinder head, said head being enlarged to form a chamber about said rod, means to prevent leakage of steam around said rod through said head, and means to supply saturated steam to said chamber.

2. In a device of the class described, a cylinder, a cylinder head, a reciprocating piston rod extending through said cylinder head, said head being enlarged to form a chamber about said rod, means to prevent leakage of steam around said rod through said head, and means to supply saturated steam and lubricant to said piston rod in said chamber.

3. In combination, a boiler adapted to generate steam, a cylinder, a cylinder head, a piston rod reciprocating in the said cylinder and extending through said cylinder head, said head being provided with a chamber surrounding said rod, a pipe communicating with said boiler and with said chamber, said pipe being adapted to supply saturated steam from the former to the latter.

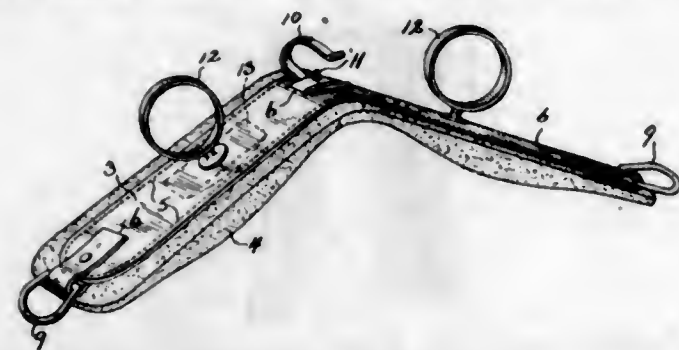
4. In combination, a boiler adapted to generate steam, a cylinder, a cylinder head, a piston rod reciprocating in the said cylinder and extending through said cylinder head, said head being provided with a chamber surrounding said rod, a pipe communicating with said boiler and with said chamber, said pipe being adapted to supply saturated steam from the former to the latter, and means to regulate the flow of saturated steam through said pipe.

5. In combination, a boiler adapted to generate steam, a cylinder, a cylinder head, a piston rod reciprocating in the said cylinder and extending through said cylinder head, said head being provided with a chamber surrounding said rod, a pipe communicating with said boiler and with said chamber, said pipe being adapted to supply saturated steam from the former to the latter, and an oil supply communicating with said pipe and adapted to feed lubricating oil thereinto, to be conveyed with said steam to said chamber.

1,080,895. HARNESS BACK-PAD. JAPHET S. CUSSON, De Kalb, Ill. Filed Dec. 5, 1912. Serial No. 735,100. (Cl. 54-38.)

A harness back pad comprising a leather upper part provided with a plurality of slits therethrough, a leather strap threaded through said slits, a flexible pad to which

the upper part is stitched, a terret-supporting block having a convex base and a substantially flat upper surface interposed between said upper part and pad with the strap passing beneath and in contact with substantially



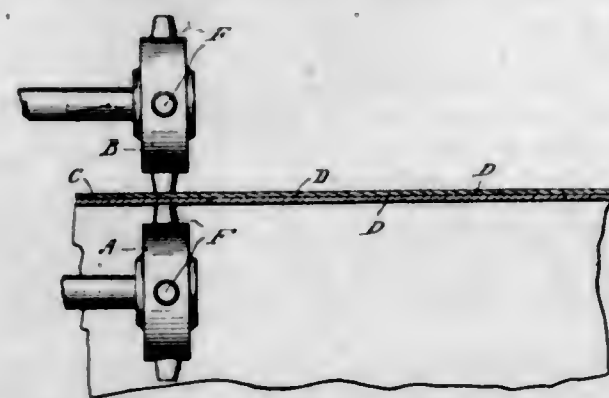
the entire convex base of said block, a terret passing through the upper part and secured in the block, and a check-rein hook having its base interposed between said upper part and the strap and provided with a post extending through an opening in the strap.

1,080,896. ESCAPEMENT. STANISLAW CZAPAS, Brockton, Mass. Filed Jan. 2, 1913. Serial No. 739,653. (Cl. 58-123.)



The combination of a toothed escapement wheel and a pivoted anchor, one end of said anchor and one side of said tooth of said wheel being curved on a circle with the pivot of the anchor as a center and the other end of the anchor being on the same curve as is said curved side of the tooth, and interfitting the same in one position of the anchor.

1,080,897. MANUFACTURE OF DOUBLE HELICAL METALLIC TUBING. HAROLD JOHN DAVIES and THOMAS ALFRED JUDGE, Sheffield, England. Filed Jan. 20, 1913. Serial No. 743,146. (Cl. 219-10.)



The herein described method of manufacturing metallic double strip helically wound tubing which consists in forming the tube with the outer strip overlapping the junction of the edges of the inner strip causing said tube during its manufacture to travel in the direction of its length and simultaneously causing it to rotate about its longitudinal axis and at the same time producing intermittent electric welds or fusions between the inner and outer strips in a line parallel with and spaced from the edge of the outer strip by means of a pair of rotating electrical terminals provided with registering stud shaped electrodes, one of

said terminals being located inside and the other outside the walls of the tube, the peripheral speed of said rotating terminals being equal to the speed of the portion of the tube which passes between the terminals.

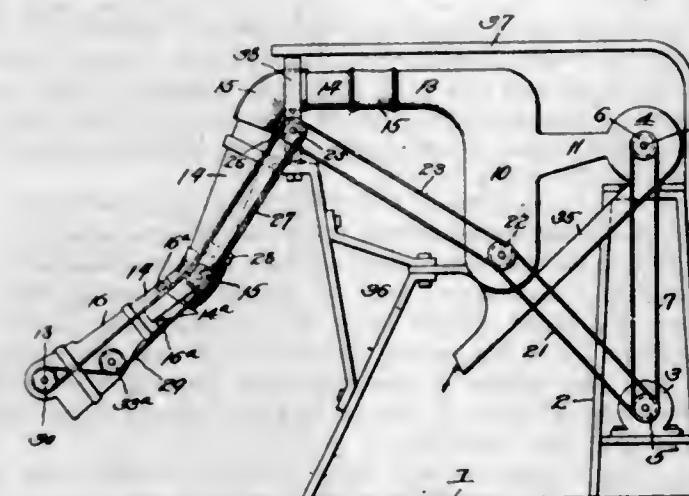
1,080,898. CLOTHES-TONGS. WILLIAM CLARK DENNIS, Litchfield, Minn. Filed Oct. 7, 1911. Serial No. 653,429. (Cl. 68-6.)



1. A gripping device of the character described, consisting of a single piece of wire bent to form connected handle portions and gripping loops the loops being so proportioned and arranged that one will pass through the other when the loops are brought into operative position.

2. A gripping device, consisting of a single piece of wire bent midway its length to form a coil, and each section of wire from said coil bent to form a spiral and a loop and twisted to form a rigid portion connecting the loop with the spiral.

1,080,899. COTTON-PICKER. JAMES W. DINSMORE, Lookaba, Okla. Filed Sept. 9, 1912. Serial No. 719,375. (Cl. 56-117.)



1. In a cotton picker, a flexible tube, means for creating a current of air therethrough, a collector, said collector being cylindrical at its inner end and rectangular at its outer end, the cylindrical end being rotatably mounted in said flexible tube, and a rotatable reticulated drum arranged in the outer end of said collector, the air current passing into said collector through said drum.

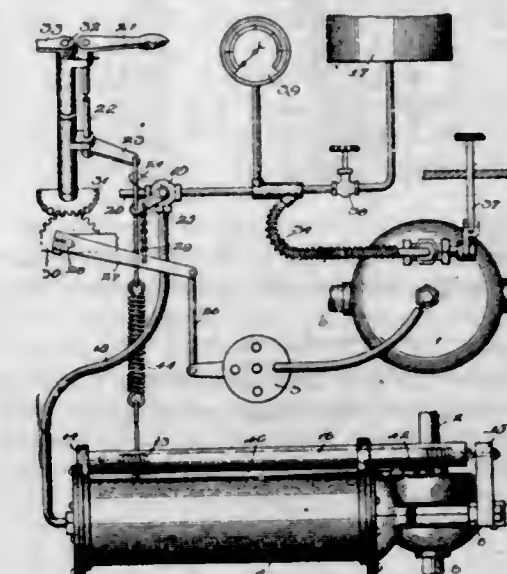
2. In a cotton picker comprising a flexible tube, means for creating an air suction in said tube, a collector rotatably mounted upon the end of the tube, a rotatable reticulated drum carried in the outer end of the collector, rollers transversely journaled in said collector and adjacent said drum and a belt running over said rollers.

3. A collector for cotton pickers consisting of a casing cylindrical at its rear end and enlarged and rectangular at its front end, the front end being cut away upon its under side, and said cut-away portion being closed at the end, a rotatable reticulated drum mounted in the upper portion of the collector, and projecting in advance of the closed end portion, and an endless belt arranged in the lower portion and adjacent said drum, said belt being adapted to travel longitudinally with respect to the collector, as and for the purpose set forth.

1,080,900. ENGINE-STARTING MECHANISM. JOHN H. DURNON, Rochester, N. Y. Filed Oct. 11, 1911. Serial No. 654,132. (Cl. 123-179.)

1. In an engine starting mechanism, the combination with an engine shaft, of a motor shaft, a clutch element movable longitudinally of the engine shaft and adapted to

connect the latter to the motor shaft, a fluid pressure cylinder, a piston movable in said cylinder and arranged to actuate said motor shaft, a valve controlling the admission of fluid to the cylinder, a spring controlled arm arranged to actuate the clutch element, a spring connection between said arm and the aforementioned valve, an ignition timer, a yieldable connection between said valve and the ignition timer, and means for operating the valve.



2. In an engine starting mechanism, the combination with an engine shaft, of a motor shaft, a clutch element movable longitudinally of the engine shaft and adapted to connect the latter to the motor shaft, a fluid pressure cylinder, a piston movable in said cylinder and arranged to actuate the motor shaft, a valve controlling the admission of fluid to the cylinder, an arm adapted to actuate the clutch element, a yieldable connection between the arm and the aforesaid valve, and means for operating the valve.

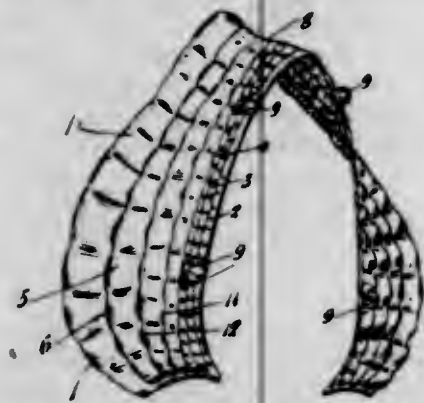
3. In an engine starting mechanism, the combination with an engine shaft and a motor shaft, of a clutch element movable longitudinally of the engine shaft and adapted to connect the latter to the motor shaft, a fluid pressure cylinder, a reciprocating piston movable in said cylinder and adapted to actuate the motor shaft, a valve controlling the admission of fluid to the cylinder for moving the piston, means for returning the piston to its normal position upon cutting off the fluid pressure supply, an arm arranged to actuate the clutch element, connections between the arm and the aforesaid valve, and means for operating the valve.

4. In an engine starting mechanism, the combination with an engine shaft, of a motor shaft, a clutch element adapted to connect the motor shaft and the engine shaft, a fluid pressure cylinder, a reciprocating piston movable in said cylinder and adapted to actuate the motor shaft, a valve controlling the admission of fluid to the cylinder for moving said piston, means for returning the piston to its normal position after the fluid pressure supply is cut off, connections between the clutch element and the valve whereby the clutch is operated simultaneously with the movement of the valve, and means for operating the latter.

1,080,901. SWEAT COLLAR-PAD. JOHN M. EILERS, Cincinnati, Ohio, assignor to James N. Ramsey, Cincinnati, Ohio. Filed Aug. 22, 1910. Serial No. 578,316. (Cl. 54-67.)

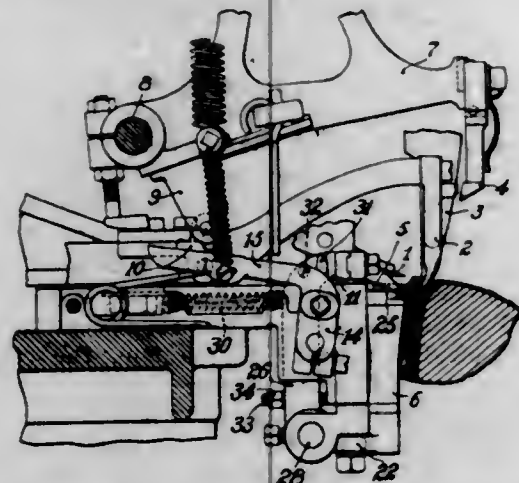
As an article of manufacture, a sweat pad, comprising a flexible covering and padding therein, said padding being very thin at the front edge portion of the pad and becoming gradually thicker toward the rear edge portion thereof, fastening devices mounted on the said front edge portion, a series of closely arranged seams running approximately parallel to each other and to the front edge of the pad and extending through the covering and padding near the front edge whereby the said front edge portion is closely quilted to form a rigid reinforced support for said fastening devices and to prevent shifting of the

padding, and other parallel seams in the thicker portion of said padding each a considerable distance apart to hold



said padding in fixed relation to the covering, substantially as set forth, and for the purposes specified.

1,080,902. ROUNDING AND CHANNELING MACHINE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 1, 1911. Serial No. 636,493. (Cl. 12—18.)



1. A rounding and channeling machine having, in combination, a crease guide, a trimming knife and a channeling knife for respectively rounding the edge of the sole and cutting a channel in the surface of the same, and an auxiliary knife arranged to be moved into and out of an operative position during the continuous operation of the trimming and channeling knives.

2. A rounding and channeling machine comprising a crease guide, a trimming knife for rounding the edge of the sole and an auxiliary knife for beveling the margins of the sole arranged to be moved into and out of an operative position during the continuous operation of the trimming knife.

3. A rounding and channeling machine having, in combination, a trimming knife and a channeling knife for respectively rounding the edge of the sole and cutting a channel in the surface of the same, a crease guide, a forepart guide, an auxiliary knife, and connections between the auxiliary knife and forepart guide for moving the knife into an inoperative position upon a movement of the forepart guide into engagement with the shoe.

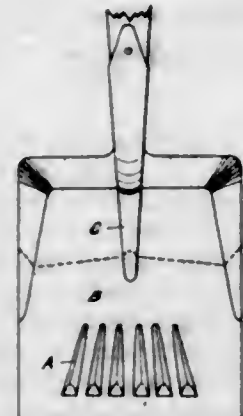
4. A rounding and channeling machine comprising a channeling knife for cutting a channel in the surface of the sole, a forepart guide, connections between the forepart guide and channeling knife for moving the channeling knife vertically upon a downward movement of the forepart guide, an auxiliary knife arranged to move vertically with the channeling knife, and means for moving the auxiliary knife into and out of operation during the continuous operation of the channeling knife.

5. A rounding and channeling machine having, in combination, trimming and channeling knives, a crease guide, a forepart guide, an auxiliary knife, a pivoted arm supporting the auxiliary knife, means normally tending to retain the auxiliary knife in operative position, and con-

nections between the arm and forepart guide arranged to move the knife out of operative position upon the downward movement of the forepart guide.

[Claims 6 to 10 not printed in the Gazette.]

1,080,903. SHOVEL FOR STOKERS' USE AND OTHER PURPOSES. CLARENCE ARNOLD FELL, Dronfield, England. Filed Nov. 16, 1912. Serial No. 731,853. (Cl. 55—14.)



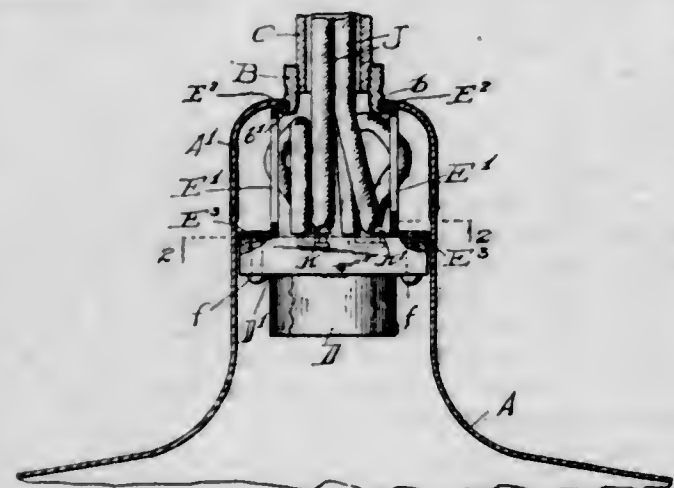
1. A shovel comprising a body portion provided with a plurality of longitudinally extending radially disposed shallow ribs, all of said ribs radiating from a common point on the central longitudinal axis of said body portion.

2. A shovel comprising a body portion provided with a plurality of longitudinally extending radially disposed shallow ribs, all of said ribs radiating from a common point on the central longitudinal axis of said body portion, each of said ribs being spaced from the ribs adjacent thereto throughout its entire length.

3. A shovel comprising a body portion provided with a plurality of longitudinally extending radially disposed shallow ribs, all of said ribs radiating from a common point on the central longitudinal axis of said body portion, each of said ribs being spaced from the ribs adjacent thereto throughout its entire length, the length of said ribs being less than the length of the said body portion and each of the ends of each of said ribs being spaced from the ends of said body portion.

4. A shovel comprising a body portion provided with a plurality of longitudinally extending radially disposed shallow ribs, all of said ribs radiating from a common point on the central longitudinal axis of said body portion, said ribs being inclined downwardly toward the rear of said body portion.

1,080,904. ELECTRIC LAMP HOLDER AND REFLECTOR. LAURENCE M. FLUHART, Des Plaines, Ill. Filed July 12, 1912. Serial No. 708,989. (Cl. 240—109.)



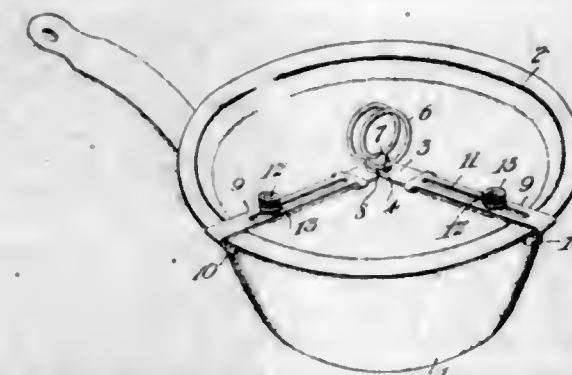
1. A combined socket and reflector base, comprising, in combination with the hub, a reflector base having a deep neck and a central opening at the top thereof; a socket hanger comprising an annular head, and hanger arms extending from the margin thereof longitudinally of the

neck, the central opening of said annular head being coincident with the opening at the top of the reflector base, the hub having a reduced end entered through said coinciding apertures, the margin of the hub being swaged down inside the neck on to the margin of the central aperture of said annular hanger head, whereby said hanger head and reflector base are bound tightly on to said reduced end of the hub, and a socket or lamp receptacle mounted on the lower ends of the hanger arms within the neck.

2. In combination with the hub having a reduced end forming a shoulder, the reflector base having a deep neck apertured at the top; a socket hanger having a central aperture coincident with the top aperture of the reflector base, and hanger arms extending therefrom longitudinally of the neck, the reduced end of the hub being entered through the coincident apertures of the reflector base and socket hanger and clenched down on to the margin of the aperture of the latter for binding both said parts against said shoulder, the three parts united by such clenching being exteriorly enameled over their junction and adjacent interior and exterior areas.

3. In combination, a reflector having a combined base and lamp receptacle formed as a deep neck extending off from the reflecting surface and having a central opening at the top, a hub interiorly threaded for connection with a wire conduit pipe and permanently secured in the central opening of the reflector base, and hanger arms extending from said hub into the neck of the base for supporting a lamp socket in said neck intermediate the reflecting surface and the top of the neck to afford space between said lamp socket and the top of the neck for extra length of lead wire, said hanger arms being permanently and rigidly connected with the reflector base, said hangers, hub and reflector base having all exposed surfaces coated with enamel both exteriorly and interiorly.

1,080,905. COOKING-POT COVER. CHARLES A. FORD, Newark, N. J. Filed Dec. 16, 1912. Serial No. 737,152. (Cl. 53—8.)



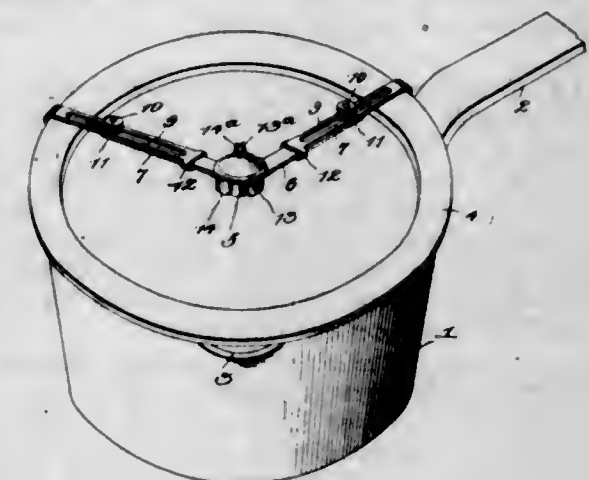
1. An attachment for the covers of pots and kettles including an integral stock comprising a pair of arms disposed at an angle to each other, means at the junction of the arms for securing the stock to the central portion of the top of the cover so that the arms will radiate from the center of the cover upon one side thereof, and hooked fingers carried by the extremities of the arms, the said hooked fingers extending around the edge of the cover and being adapted to engage the beaded upper edge of the pot upon the side thereof remote from the turning spout of the pot so as to retain the cover in position when the pot is tilted to drain the contents thereof.

2. An attachment for the covers of pots and kettles including an integral stock comprising a pair of arms disposed at an angle to each other, means at the junction of the arms for securing the stock to the top of the cover at the center thereof so that the arms will radiate from the center of the cover toward one side thereof, a slide adjustably mounted upon each of the arms, and a hooked finger at the extremity of each of the slides, the said hooked fingers being adapted to extend around the edge of the cover and to engage the beaded upper edge of the kettle upon the side thereof remote from the turning spout so as to retain the cover in position when the kettle is tilted to drain the contents thereof.

3. An attachment for the covers of pots and kettles, including a stock comprising a pair of arms disposed at an angle to each other, means at the junction of the arms for securing the stock to the top of the cover at the center thereof so that the arms will radiate from the center of the cover toward one side thereof, a slotted slide slidably mounted upon each of the arms, clamping screws projecting from the arms and received within the slots of the slides, nuts applied to the clamping screws, and a hooked finger at the extremity of each of the slides, the said hooked fingers extending around the edge of the cover and being adapted to engage the bead at the upper edge of the kettle upon the side thereof remote from the turning spout so as to retain the cover in position when the kettle is tilted to drain the contents thereof.

4. An attachment for the covers of pots and kettles, including an integral stock comprising a pair of arms disposed at an angle to each other and constructed at their junction for engagement with the handle of the cover so that the arms will radiate from the center of the cover upon one side thereof, and hooked fingers carried by the extremities of the arms, the said hooked fingers extending around the edge of the cover and being adapted to engage the beaded upper edge of the pot upon the side thereof remote from the turning spout of the pot so as to retain the cover in position when the kettle is tilted to drain the contents thereof.

1,080,906. POT-COVER ATTACHMENT. CHARLES A. FORD, Newark, N. J. Filed Apr. 18, 1913. Serial No. 761,883. (Cl. 53—8.)



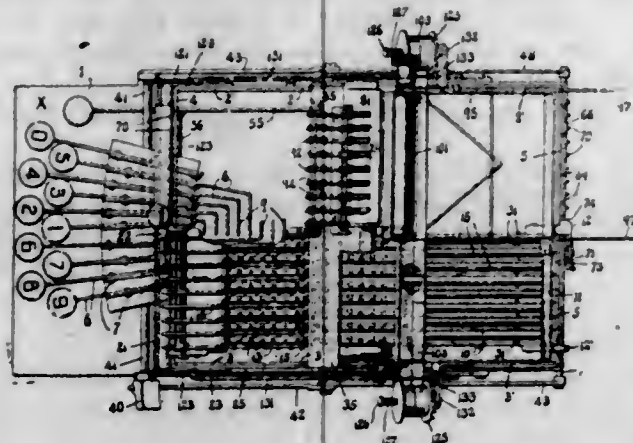
1. An attachment for the covers of cooking pots and the like, including a stock formed with a pair of angularly disposed arms, a pair of clamping jaws mounted upon the stock at the intersection of the angularly disposed arms, said clamping jaws being adapted to detachably engage the knob of the cover to retain the stock in position thereon, and hooked fingers carried by the arms of the stock and adapted to project downwardly over the edge of the cover to engage the rim of the cooking pot.

2. An attachment for the covers of cooking pots and the like, including a stock formed with a pair of angularly disposed arms, a fixed jaw at the intersection of the arms, a movable jaw mounted for cooperation with the fixed jaw to engage the knob of the cover for the purpose of retaining the stock in position thereon, and hooked fingers carried by the arms of the stock, said hooked fingers being adapted to project downwardly from the edge of the cover and engage the rim of the cooking pot.

3. An attachment for the covers of cooking pots and the like, including a stock formed with a pair of angularly disposed arms, a bracket projecting from the stock, a fixed jaw carried by the bracket, a cooperating movable jaw hinged between the bracket and the stock, a spring for forcing the movable jaw toward the fixed jaw, the said jaws being adapted to engage the knob of the cover to hold the attachment in position thereon, and hooked

fingers carried by the angularly disposed arms of the stock, said hooked fingers being adapted to project downwardly from the edge of the cover and to engage the rim of the pot.

1,080,907. CALCULATING MACHINE. WILLIAM F. GATEWOOD, Pierce City, Mo., and JOHN D. MCADAMS, Alton, Ill. Filed Nov. 9, 1910, Serial No. 591,425. Renewed May 31, 1913. Serial No. 771,085. (Cl. 235—60.)



1. In a calculating machine, a totalizer, numeral keys, a laterally movable carriage movable step by step toward said totalizer in response to movements of the numeral keys, totalizer actuating devices carried by said carriage, springs for actuating said actuating devices, means for locking said actuating devices in their normal positions, means for releasing said actuating devices independently, and means for releasing all of said actuating devices collectively.

2. In a calculating machine, a totalizer, numeral keys, a laterally movable carriage movable step by step toward said totalizer in response to movements of the numeral keys, totalizer actuating devices carried by said carriage, springs for actuating said actuating devices, means for locking said actuating devices in their normal positions, means controlled by the numeral keys for releasing said actuating devices independently, and means for releasing all of said actuating devices collectively.

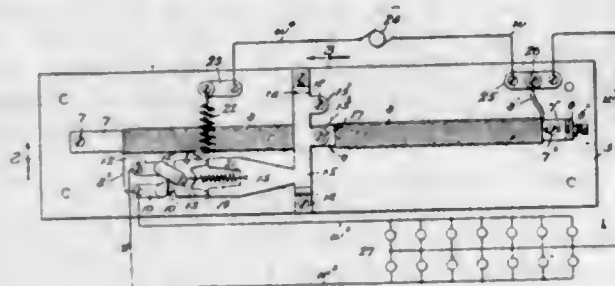
3. In a calculating machine, a totalizer, numeral keys, a laterally movable carriage movable step by step toward said totalizer in response to movements of the numeral keys, totalizer actuating devices carried by said carriage, springs for operating said actuating devices, pawls for locking said actuating devices in their normal positions, a tripping device controlled by the numeral keys adapted to release said pawls independently, a total key, and means controlled by the total key for releasing said pawls collectively.

4. In a calculating machine, a totalizer, numeral keys, a carriage movable step by step toward the totalizer in response to movements of the numeral keys, totalizer actuating devices carried by said carriage, springs for operating said actuating devices, locking means associated with each actuating device for holding it in its normal position, a tripping device adapted to release said actuating devices consecutively while the carriage is being moved toward the totalizer, a total key, and means controlled by the total key for releasing said actuating devices collectively.

5. In a calculating machine, a totalizer, numeral keys, a carriage movable step by step in response to movements of the numeral keys, slidable totalizer actuating devices carried by said carriage normally out of alignment with the operation of the numeral keys, springs for operating said actuating devices, locking means associated with each actuating device for holding it in its normal position, a tripping device operable by said numeral keys adapted to release said actuating devices consecutively, and a tripping device adapted to release the actuating devices aligned with the totalizer.

[Claims 6 to 27 not printed in the Gazette.]

1,080,908. THERMO-ELECTRIC SWITCH. HARLEIGH GILLETTE, Chicago, Ill. Filed Aug. 1, 1912. Serial No. 712,727. (Cl. 177—347.)



1. In a thermo-electric switch, a make-and-break device comprising, in combination with opposing electric contact-points, two members with a spring connecting them in end-to-end abutment to work pivotally at their abutting junction, one member forming a contact-head extending between said points, and movable by the other member in turning in either direction to snap said head, by the recoil of the spring, against a contact-point in its path in the opposite direction.

2. In an electric switch of the character described, a make-and-break device comprising, in combination with opposing contact-members, a rocker-bar having a spring-supported bifurcated arm, a bifurcated contact-head extending between said members, and a spring connecting said arm and head with their bifurcated extremities in pivotal abutting engagement with each other.

3. In an electric switch of the character described, a make-and-break device comprising, in combination with opposing contact-members, a rocker-bar having a spring-supported bifurcated arm having grooves in its extremities, a bifurcated contact-head extending between said members and having pointed extremities, and a spring connecting said arm and head with the points of the latter pivotally confined in said grooves.

4. In a thermo-electric switch, the combination with an electric circuit and a contact-point therein, of a wire-wound thermostat-bar, a rocker-arm actuated by warping and straightening said bar, and a contact making-and-breaking head spring-connected with said arm, in abutting end-to-end pivotal engagement therewith, to be snapped into and out of contact with said point by the rocking movements of said arm in tensioning and releasing said spring-connection therewith.

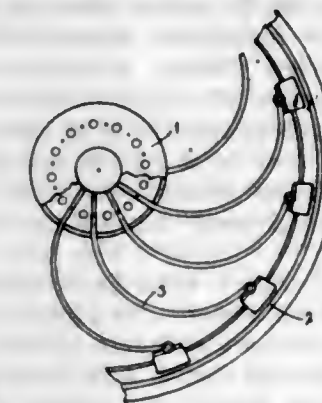
5. A device of the character described, comprising, in combination, a double electric circuit, a base with a metal bar secured thereon, a wire-wound thermostat-bar secured at its ends to said bar and included in one branch of said circuit, a contact-member in said branch, a second contact-member in the other branch of said circuit, a rocker-bar crossing the thermostat-bar and having a stop depending over the rocker-bar between its ends, a bifurcated spring-supported arm extending from the rocker-bar, a bifurcated contact-head extending between said contact-members, and a spring connecting said arm and head pivotally together with their bifurcated extremities in abutting engagement, for the purpose set forth.

1,080,909. RESILIENT WHEEL. RALPH B. GRAY and WILLIAM B. GRAY, Chicago, Ill. Filed Mar. 20, 1913. Serial No. 755,719. (Cl. 152—50.)

1. In a resilient wheel, a hub, a rim, spring spokes extending between the hub and the rim and fixed at their inner ends to the hub, shoes pivotally connected to the outer ends of the spokes so as to be movable relative thereto about axes parallel with the axis of the wheel, and resilient members on each shoe engaging with the two sides of the rim and clamping the rim between them.

2. In a resilient wheel, a hub, a rim, spring spokes extending between the hub and the rim and fixed at their inner ends to the hub, the width of the rim measured parallel with the axis of the wheel decreasing from the inner surface of the rim outwardly, shoes pivotally connected to the

outer ends of the spokes so as to be movable relative thereto about axes parallel with the axis of the wheel, and



spring members on each shoe yieldingly gripping the sides of the rim.

1,080,910. AWNING. EDMUND F. HARTSHORN, Newark, N. J., assignor to Stewart Hartshorn Company, East Newark, N. J., a Corporation of New Jersey. Filed July 1, 1912. Serial No. 706,877. (Cl. 156—44.)



1. An awning which comprises a shade; and a spreader; connections for the spreader, permitting it to be raised; a spring roller, carried by the spreader, and around which the shade is wound; means for swinging and raising the spreader and a halyard for raising the shade.

2. An awning which comprises a shade; and a spreader; connections for the spreader, permitting it to be raised; a spring roller, carried by the spreader, and around which the shade is wound; an intermediate rod against which the shade bears; connections for the rod, permitting it to be raised; and means for swinging and raising the spreader and raising said rod.

3. An awning which comprises a shade; and a spreader; a spring roller, carried by the spreader, and around which the shade is wound; means for raising the other end of the shade; and means for swinging the spreader upward, and raising it upward, when so swung.

4. An awning which comprises a shade; and a spreader; a spring roller, carried by the spreader, and around which the shade is wound; means for raising the other end of the shade; an intermediate rod, against which the shade bears; and means, for swinging the spreader upward, and raising it upward, when so swung, said rod also being raised.

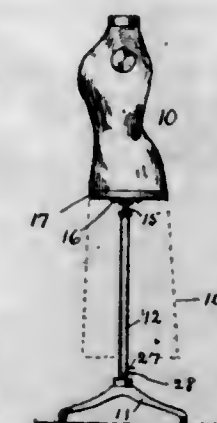
5. An awning which comprises a shade; and a spreader; a spring roller, carried by the spreader, and around which the shade is wound; fly rods; supports for the spreader on the fly rod; said supports sliding on the fly rods; and a halyard, for raising the spreader.

[Claims 6 to 10 not printed in the Gazette.]

1,080,911. SUPPORT FOR DRESS-FORMS. WALTER E. HUME, East Rutherford, N. J., assignor of one-half to Jacques Pollak, New York, N. Y. Filed Dec. 18, 1912. Serial No. 737,492. (Cl. 223—18.)

1. A dress form support comprising a base, a tubular and longitudinally slotted member supported on the base,

a second member sliding in and protruding from the top of the lower member, said second member being arranged to support a dress form, a locking device carried at the lower part of the second member and adapted to automatically lock the two members together, and handle mechanism protruding through the slot of the first member and arranged to control the locking device and slide the second member.



2. A dress form support comprising a lower tubular member having a longitudinal slot therein, a slide block movable up and down in the said tubular member, a locking device to secure the slide block to the said tubular member, means extending through the slot in the tubular member for releasing the slide block, an inner extension member rotatably mounted on the slide block and projecting from the upper end of the tubular member, and means for securing the extension member to a dress form.

3. A dress form support comprising a lower tubular member, an upper member extending into the tubular member and adapted to support a dress form, a slide block movable up and down in the lower member, opposed gripping blocks mounted on the slide block and adapted to engage the walls of the tubular member, a wedge member carried by the aforesaid extension member and adapted to force the gripping blocks into firm contact with the walls of the tubular member and handle mechanism sliding in a slot of the tubular member and operatively connected with the slide block and wedge to move the block and release the wedge.

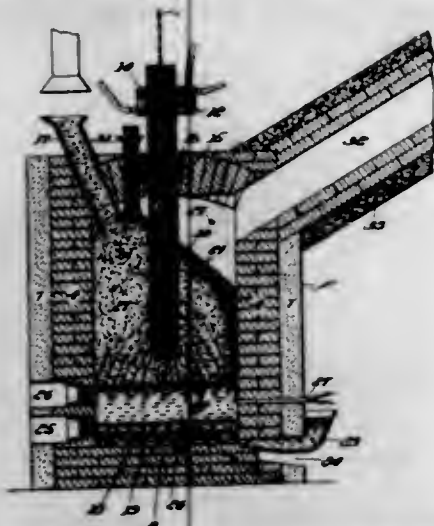
4. A dress form support comprising a longitudinally slotted tubular member, an extension member sliding in and projecting from the top of the tubular member and adapted to support a dress form, a slide block movable in the tubular member and serving as a journal for the extension member, opposed gripping blocks carried by the slide block and adapted to engage the walls of the lower member, a wedge carried by the extension member and adapted to enter between the gripping blocks, and a lever mounted in the slide block and projecting through the slot in the lower member, said lever being adapted to raise the aforesaid wedge.

5. A dress form support comprising a longitudinally slotted lower member, a slide block movable up and down in said lower member, an extension member projecting from the upper part of the lower member and adapted to support a dress form, said extension member being rotatably mounted on the slide block, opposed gripping members carried by the slide block and adapted to engage the wall of said lower member, a collar within the extension member, a wedge below the collar adapted to enter between the gripping blocks, a resilient backing for the wedge, and a lever pivoted on the slide block and projecting through the slot in the lower member to raise the said wedge.

1,080,912. METHOD OF ELECTRICALLY SMELTING VOLATILE METALS. WOOLSEY MCA. JOHNSON, Hartford, Conn. Filed Jan. 17, 1911. Serial No. 603,078. (Cl. 204—63.)

1. The method of smelting ores yielding a volatile metal, which consists in electrically heating a charge propor-

tioned to yield a fusible slag, conducting the volatile reaction products into contact with carbon heated to its temperature of maximum reductivity, continuously replacing the carbon and condensing the metal, substantially as described.



2. A continuous smelting process of the nature disclosed, which consists in superposing a heat reducible charge containing a volatile metal upon a molten electrode, and causing an electric current to pass through the charge and through the evolved metallic vapors, and also through the electrode.

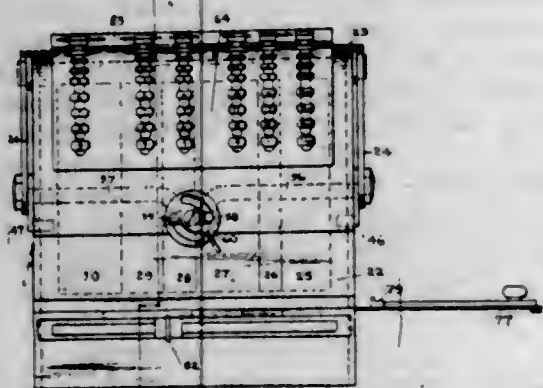
3. The method of smelting ores yielding a volatile metal which consists in progressively heating, in the absence of extraneous air, a charge proportioned to yield a fusible slag, conducting the volatile reaction products through the charge, thereby progressively cooling the same, and condensing the metal apart from the charge.

4. The method of smelting ores yielding a volatile metal which consists in heating, in the absence of extraneous air, a charge comprising a reducing agent and proportioned to yield a fusible slag, preventing the escape from the charge with the volatilized metal of an agent capable of combining with the volatilized metal, and condensing the volatilized metal apart from the charge.

5. The method of smelting ores yielding a volatile metal which consists in heating, in the absence of extraneous air, a charge comprising a reducing agent and proportioned to yield a fusible slag, preventing the escape from the charge with the volatilized metal of a gaseous agent capable of combining with the volatilized metal, and condensing the volatilized metal apart from the charge.

[Claims 6 to 17 not printed in the Gazette.]

1,080,913. PRINTING MECHANISM. BENJAMIN F. JO-LINE, Tottenville, N. Y., assignor to American Ever Ready Company, a Corporation of New York. Filed May 3, 1910. Serial No. 559,077. (Cl. 101-37.)



1. A rotatable shaft, a typewheel mounted thereon and yieldingly connected thereto, and a plurality of stops, each of which is movable into engagement with said typewheel wholly by the operator and is held yieldingly either

in or out of engagement with said typewheel, substantially as described.

2. A rotatable shaft, means whereby it may be oscillated, one or more typewheels mounted on said shaft and yieldingly connected thereto, a plurality of stops for each typewheel, each of which is movable into engagement with said typewheel wholly by the operator and is held yieldingly either in or out of engagement with said typewheel, and means to move the said stops out of engagement with the said typewheels, substantially as described.

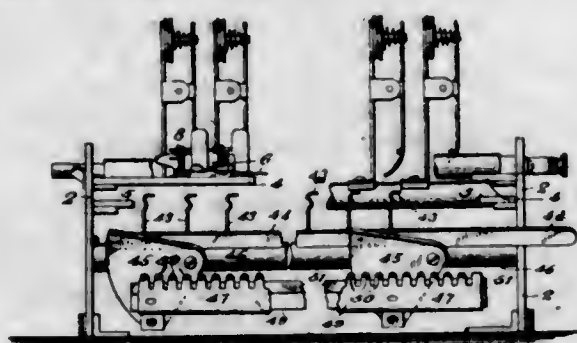
3. A rotatable shaft, a typewheel mounted thereon and yieldingly connected thereto, and a plurality of stops, each of which is movable into engagement with said typewheel wholly by the operator and is held yieldingly either in or out of engagement with said typewheel, and means to automatically move said stops out of engagement with the said typewheel, substantially as described.

4. An oscillatory shaft and means whereby it may be oscillated, a typewheel mounted thereon and yieldingly connected thereto, a stop adapted to be moved from its normal position so as to co-act with the typewheel to limit the rotation of the latter with the shaft in its forward movement and means mounted on said shaft and adapted to restore the stop to its normal position during the backward movement of the shaft.

5. An oscillatory shaft and means whereby it may be oscillated, a plurality of typewheels mounted thereon and yieldingly connected thereto, a stop for each typewheel adapted to be moved from its normal position so as to co-act with its typewheel to limit the rotation of the latter with the shaft in its forward movement, and a single means mounted on said shaft and adapted to restore all of the stops to their normal positions during the backward movement of the shaft.

[Claims 6 to 33 not printed in the Gazette.]

1,080,914. THREAD CATCHING AND SEVERING DEVICE FOR EMBROIDERY-MACHINES. ANTON KELLER, New York, N. Y., assignor to Improved Schiffli Machine Company, New York, N. Y., a Corporation of New York. Original application filed Feb. 16, 1912, Serial No. 677,895. Divided and this application filed June 26, 1912. Serial No. 705,914. (Cl. 112-7.)



1. In a shuttle embroidery machine, the combination of a reciprocating needle bar having a series of needles, a series of independent, shiftable hook-shaped thread catchers for catching the threads of all of the needles simultaneously and pulling them away from the embroidery work while the latter remains stationary, and severing means for simultaneously cutting all of said threads, and means for supporting said thread catchers and severing means for independent operation on the threads.

2. In a shuttle embroidery machine, the combination of a reciprocating needle bar having a series of needles shiftable in a horizontal plane, a series of independent, shiftable hook-shaped thread catchers for catching the threads of all of the needles simultaneously and pulling them away from the embroidery work while the latter remains stationary, severing means for simultaneously cutting all of said threads, and a shiftable member carrying said catchers and thread-cutting means whereby said catchers and severing means are thrown into operation

on the shifting of said member and in a plane transverse to the plane of movement of the needles.

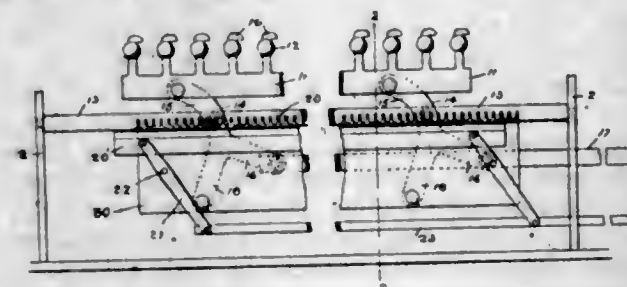
3. In a shuttle embroidery machine, the combination of a reciprocating needle bar having a series of needles, a series of independent shiftable hook-shaped thread catchers for catching the threads of all of the needles simultaneously and pulling them away from the embroidery work while the latter remains stationary, severing means for simultaneously cutting all of such threads, and a shiftable member carrying said catchers and thread cutting means whereby said catchers and severing means are thrown into operation on the shifting of said member, with the catchers operating on the needle threads in advance of the severing means operating on such threads.

4. In a shuttle embroidery machine, the combination of a reciprocating needle bar having a series of needles, thread catching and severing mechanism for simultaneously catching all of the threads of the needles and simultaneously severing the same and comprising a supporting member, a series of swinging members pivotally secured thereto, a bar pivotally connected with said swinging members and carrying the thread catchers, one for each needle, and severing means also carried by said swinging members.

5. In a shuttle embroidery machine, the combination of a reciprocating needle bar having a series of needles, thread catching and severing mechanism for simultaneously catching all of the threads of the needles and simultaneously severing the same and comprising a supporting member, a series of swinging members pivotally secured thereto, a bar pivotally connected with said swinging members and carrying the thread catchers, one for each needle, and severing means also carried by said swinging members, said severing means being located below the thread catchers whereby the thread catchers will operate on the needle threads in advance of the severing means operating on such threads.

[Claims 6 to 26 not printed in the Gazette.]

1,080,915. THREAD CATCHING AND SEVERING MEANS FOR SHUTTLE EMBROIDERY-MACHINES. ANTON KELLER, New York, N. Y., assignor to Improved Schiffli Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 3, 1912. Serial No. 734,658. (Cl. 112-7.)



1. In a shuttle embroidery machine, the combination of a series of needles carrying threads, a series of thread catchers one for each needle thread for catching the threads of all the needles simultaneously, means for actuating said thread catchers, severing means independent of the thread catchers for simultaneously cutting all of said threads, means for carrying the thread severing means into position to sever the threads, and means for shifting the severing means independently of its carrying means.

2. In a shuttle embroidery machine, the combination of a series of needles carrying threads, a series of thread catchers one for each needle thread for catching the threads of all the needles simultaneously, means for actuating said thread catchers, severing means independent of the thread catchers for simultaneously cutting all of said threads, means for carrying the thread severing means into position to sever the threads, and means for shifting the severing means independently of its carrying means, said thread catchers and severing means operating in sequence upon the thread.

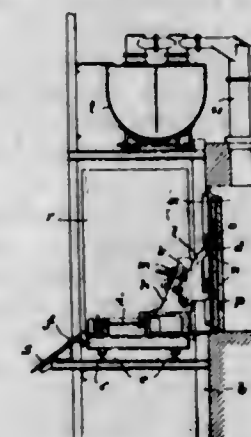
3. In a shuttle embroidery machine, the combination of a series of needles carrying threads, a series of thread catchers one for each needle thread for catching the threads of all the needles simultaneously, means for actuating said thread catchers, severing means independent of the thread catchers for simultaneously cutting all of said threads, means for carrying said severing means into position to sever the threads, and means for shifting the severing means independently of its carrying means in the arc of a circle.

4. In a shuttle embroidery machine, the combination of a series of needles carrying threads, a series of thread catchers one for each needle thread for catching the threads of all the needles simultaneously, means for actuating said thread catchers, severing means independent of the thread catchers for simultaneously cutting all of said threads, means for carrying said severing means into position to sever the threads, and means for shifting the severing means independently of its carrying means in an arc of a circle first in one direction and then in the opposite direction.

5. In a shuttle embroidery machine, the combination of a series of needles carrying threads, a series of thread catchers one for each needle thread for catching the threads of all the needles simultaneously, severing means independent of the thread catchers for simultaneously cutting all of said threads, means for carrying the severing means into position to sever the threads, means for shifting the thread catchers in a curved path, and means for shifting the severing means independently of its carrying means in an arc of a circle.

[Claims 6 to 40 not printed in the Gazette.]

1,080,916. CLOSING MEANS FOR OVENS. HEINRICH KOPPERS, Essen, Germany, assignor to H. Koppers Company, Chicago, Ill., a Corporation. Filed Apr. 26, 1910. Serial No. 557,676. (Cl. 57-15.)

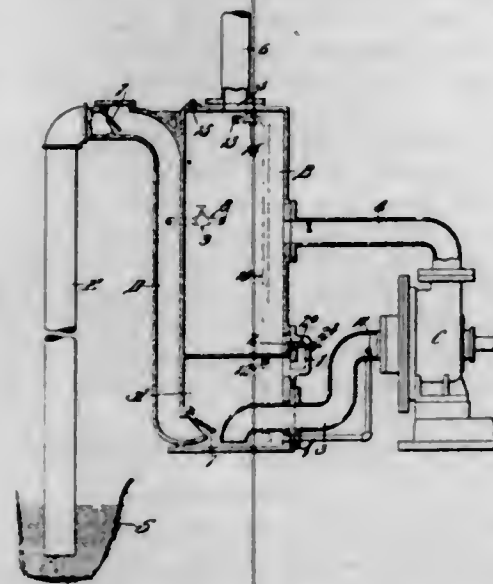


1. A device of the character described, comprising an oven having a plurality of horizontal coking chambers, door frames at the mouths of said chambers, doors fitted into said frames and provided at their front with engaging means, a lifter adapted to travel in front of said doors and provided with means adapted to successively cooperate with the engaging means of the doors, said engaging means and means on the lifter being so constituted as to prevent a tilting movement of the door on the lifter, movable means for supporting the lifter which means are so constituted as to prevent a tilting movement of the lifter relatively to the door frames, means for retracting the lifter on the supporting means to withdraw the door from the frame, and means for moving the supporting means together with the lifter and door sidewise to expose the mouth of the opened coking chamber.

2. A device of the character described, comprising an oven having a plurality of horizontal coking chambers, door frames at the mouths of said chambers, doors fitted into said frames and provided at their front with engaging means, a lifter adapted to travel in front of said doors and provided with means adapted to successively cooperate with the engaging means of the doors, said engaging means and means on the lifter being so constituted as

to prevent a tilting movement of the door on the lifter, movable means for supporting the lifter which means are so constituted as to prevent a tilting movement of the lifter relatively to the door frame, means for raising the lifter on said supporting means to ease a lifter-engaged door within its frame, means for retracting the lifter on the supporting means to withdraw the eased door from the frame, and means for moving the supporting means together with the lifter and door sidewise to expose the mouth of the opened coking chamber.

1,080,917. PUMP-PRIMING MECHANISM. CHARLES S. LEWIS, St. Louis, Mo. Filed Oct. 26, 1912. Serial No. 727,880. (Cl. 103-43.)



1. An apparatus for the purpose described, comprising a chamber adapted to be arranged in communication with a liquid supply line, or a vacuum line, a pump for drawing liquid out of said chamber so as to reduce the pressure in same, and means separate and distinct from the pump for causing liquid to flow into said chamber so as to prime the pump while it is in motion after it has become air or gas-bound.

2. An apparatus for the purpose described, comprising a chamber adapted to be arranged in communication with a liquid supply line or a vacuum line, a pump for drawing liquid out of said chamber so as to reduce the pressure in same, means separate and distinct from the pump for holding a supply of liquid, and means for causing liquid from said source of supply to enter said chamber at a lesser quantity per minute than the capacity of the pump so as to prime the pump while it is in motion after it has become air or gas-bound.

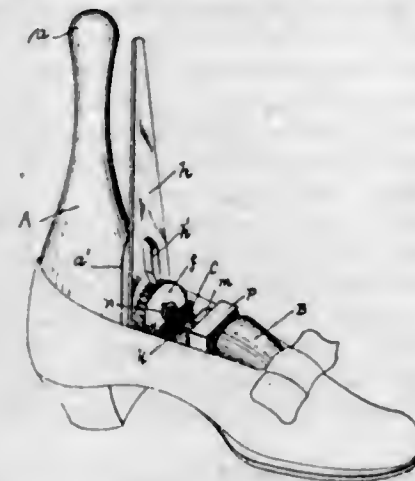
3. An apparatus for the purpose described, comprising a chamber adapted to be arranged in communication with a liquid supply line or a vacuum line, a pump for drawing liquid out of said chamber so as to reduce the pressure in same, and a passageway for establishing communication between said chamber and a supply of liquid that is separate and distinct from the liquid in the pump, the volumetric capacity of the pump being relatively greater than that of said passageway.

4. An apparatus for the purpose described comprising a chamber having an inlet, a check-valve for said inlet, a pump suction pipe terminating inside of said chamber, and a fluid duct or conduit communicating with said chamber for supplying a fluid to said chamber, the cross sectional area of said fluid supply duct being less than the cross sectional area of the pump suction pipe.

5. An apparatus for the purpose described comprising two chambers arranged at different levels, a pump suction pipe terminating inside of the lower chamber, a pump discharge pipe communicating with the upper chamber, and means for permitting liquid to flow from the upper chamber into the lower chamber so as to prime the pump while it is in motion after the pump has sucked the liquid out

of the lower chamber to create a partial vacuum in said chamber, said lower chamber being adapted to communicate with a liquid supply line or a vacuum line.
[Claims 6 to 11 not printed in the Gazette.]

1,080,918. PORTABLE SHOE-ELONGATING IMPLEMENT. HERBERT E. MAINE, Providence, R. I. Filed July 7, 1913. Serial No. 777,815. (Cl. 12-130.)



1. A portable shoe-elongating implement or tool, comprising a main standard or body member having its lower part shaped to conform approximately to the backstay and side wall of the heel portion of the shoe cavity, the upper part of the standard being extended to form a handle element, means, including a screw and its nut mounted in said standard for normally actuating the tool, and having the forward portion of the screw extending from the corresponding face of the standard and disposed at substantially right angles to it and longitudinally of the shoe, a head or follower element connected to and movable bodily with said screw, said follower arranged, when in normal use, to engage the rear face of a last removably positioned in the forward part of the shoe cavity, and manually controlled means for moving the screw, said controlled means consisting of a toothed wheel fixed to said nut and an operating lever having a member engageable with the wheel.

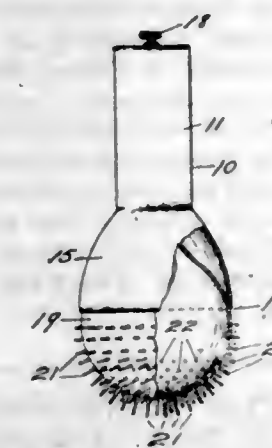
2. In a shoe-elongating implement, the combination of a main standard body member arranged to be removably positioned in the shoe cavity and bear against the backstay thereof, and a screw and nut mounted for movement in said body, said screw having an end extending forwardly from said body, a supporting frame or guard secured to the body part, a slidable guide element, a follower having the forward end of said screw and guide mounted therein, thereby insuring parallelism of movement of said parts, said follower arranged, when in normal use, to bear against the rear end of a last, and manually controlled means, including a toothed wheel, a nut, and an angularly movable lever coöperable with said screw for actuating the device to elongate the upper portion of a shoe.

3. The combination with a standard member having its lower part arranged to bear against the backstay of a shoe, and a form or last member arranged to be removably positioned in the front portion of the shoe, of a screw element movably supported in said standard and extending therefrom at substantially right angles, a toothed wheel tapped to fit said screw, a follower interposed between the forward end of said screw and the rear end of the last, and an operating lever having a member thereof arranged to engage the said toothed wheel, whereby in normal use the screw is actuated to increase the distance between the faces of said standard and last-members.

4. In a shoe-expanding device of the general character described, the combination with the vertically extending standard member A arranged to be removably inserted in the rear part of the shoe cavity, of a non-revoluble endwise movable screw mounted in said standard, a revolubly mounted nut engageable with said screw, said nut having a toothed periphery, a longitudinally slotted manually

operable oscillatory working lever constructed and arranged to engage and rotate the nut in either direction at will and having said lever capable of being readily disengaged from the nut's rim.

1,080,919. MASSAGE SHAVING-BRUSH. WILLIAM MORRISON, Troy, N. Y. Filed July 22, 1911. Serial No. 640,029. (Cl. 15-50.)



In a shaving brush, the combination of a hollow cylindrical handle provided with an open lower end and a closed upper end having an aperture therethrough communicating with the interior of the handle and a substantially spherical receptacle having walls of flexible material, with an elongated neck at its upper portion projecting through the aperture in the upper end of the handle and having a removable cap for closing the end thereof, and retaining the parts in proper position, said receptacle being disposed within and partially inclosed by the open end of said handle and closely engaging the inner wall thereof and having on its lower hemispherical surface a plurality of projections and having apertures through the walls thereof between said projections, substantially as and for the purposes set forth.

1,080,920. MANUFACTURE OF ALIMENTARY PRODUCTS. PHILIPP MÜLLER, Frankfurt-on-the-Main, Germany. Filed Mar. 7, 1910. Serial No. 547,771. (Cl. 90-11.)

1. The herein described process for the manufacture of an alimentary product which consists in adding cane sugar to milk, souring the milk, mixing the resulting product with flour, heating and boiling the mixture, then subjecting the product to sterilization in a closed vessel, substantially as and for the purpose described.

2. The herein described process for the manufacture of an alimentary product which consists in adding cane sugar to milk from which the fat has been removed, souring the milk, mixing the resulting product with flour, heating and boiling the mixture, then subjecting the product to sterilization in a closed vessel, substantially as and for the purpose described.

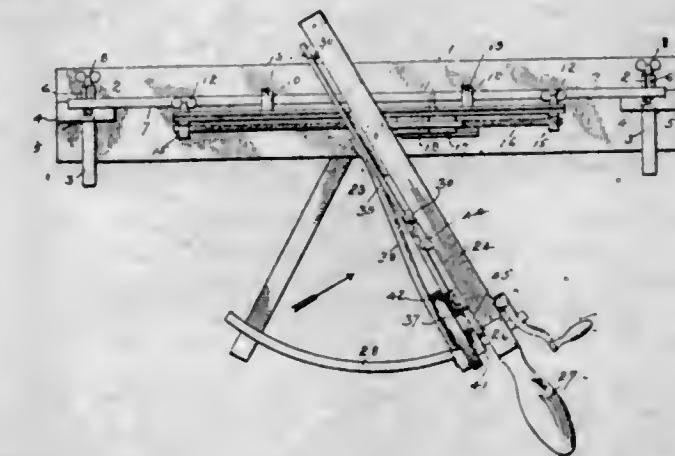
3. The herein described process for the manufacture of an alimentary product which consists in adding cane sugar to buttermilk, souring the milk, mixing the resulting product with flour, heating and boiling the mixture, then subjecting the product to sterilization in a closed vessel, substantially as and for the purpose described.

4. The herein described process for the manufacture of an alimentary product which consists in adding cane sugar to milk from which the fat has been removed, souring the milk, mixing the resulting product with flour, heating and boiling the mixture, adding sugar during the heating operation and subjecting the product to sterilization in a closed vessel, substantially as and for the purpose described.

5. The herein described process for the manufacture of an alimentary product which consists in adding cane sugar to buttermilk, souring the milk, mixing the resulting product with flour, heating and boiling the mixture,

adding sugar during the heating operation and subjecting the product to sterilization in a closed vessel, substantially as and for the purpose described.
[Claims 6 and 7 not printed in the Gazette.]

1,080,921. SAW-FILING MACHINE. WILLIAM T. NELSON, Dayton, Ohio. Filed Aug. 17, 1909. Serial No. 513,317. (Cl. 76-34.)



1. In a machine of the character described, a base, a saw carriage movably mounted on said base, means for automatically advancing the carriage through a step by step movement comprising a reciprocating head, a pawl carried by said head, a rack bar carried by the carriage and engaged by the pawl, a swinging frame pivotally supported on said base and adjustable to different degrees of inclination therewith, a reciprocating file carried on said frame and adapted to engage the saw in an angular direction according to the adjustment of said frame, swinging arms on which the file is supported, means to oscillate the arms to lift the file during its retrograde movement and means carried upon the swinging frame to reciprocate the pawl carrying head during the retrograde movement of the file regardless of the angular adjustment of the swinging frame, substantially as specified.

2. In a saw filing machine, a two part main frame the parts of which are adjustable to different angular positions in relation with each other, a saw carriage adjustably mounted on one of the frame members, a rack bar connected with said carriage, a reciprocating head, a pawl carried thereby and engaging the rack bar, actuating means carried by the other portion of the two part frame adapted to cause the reciprocation of said head in all positions of relative angular adjustment of the frame parts, substantially as specified.

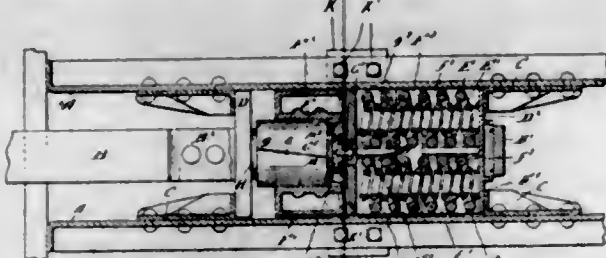
3. In a saw filing machine, a two part frame, the parts of which are adjustable to different angular positions in relation to each other, a saw carriage adjustably mounted on one of the frame parts, means to advance the carriage through a step by step movement including a rack bar, a reciprocating head and pawl carried thereby engaging the rack bar, a pivoted actuating lever carried on the portion of the frame with the carriage and adapted by its oscillation to actuate the reciprocating head, a second actuating lever carried upon the other portion of the two part frame and engaging the first mentioned lever, whereby the oscillatory movement of the second mentioned lever will be transmitted to the first mentioned lever, a reciprocating file, and means to oscillate the second lever during the retrograde movement of the file, substantially as specified.

4. In a machine of the character described, a base, a longitudinal supporting bar carried on the base, a movable saw carriage, gibbed supports on the carriage engaging the supporting bar, spring members carried by the carriage and engaging the bar to afford resistance to the advance movement of the carriage.

5. In a machine of the character described, a base, a movable saw carriage, a reciprocating file, parallel pivoted swinging arms, a supporting bar carried thereby on which the file is reciprocated, means to move the arms about their pivotal points at predetermined points in the

sequence of operation of the machine comprising a longitudinal reciprocating bar pivotally connected to both the swinging arms moving in unison with and in parallel relation to the supporting bar, and a cam member adapted to reciprocate said bar whereby the file will be elevated out of contact with the saw during its retrograde movement.

1,080,922. FRICTION DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor, by mesne assignments, to William H. Miner, Chicago, Ill. Filed Aug. 4, 1909. Serial No. 511,082. (Cl. 213-64.)

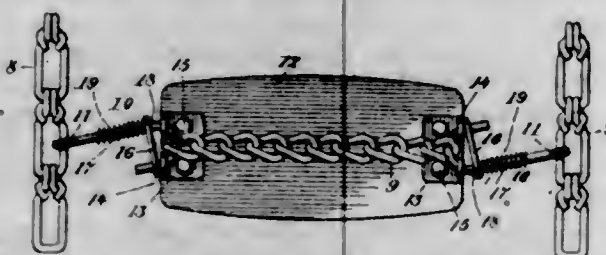


1. In a friction draft rigging, the combination with a draw-bar, draft yoke and stop members, of a friction cushioning mechanism comprising a friction shell and friction shoes, two parallel simultaneously acting springs, a twin spring follower between the springs and the friction shoes, and a central bearing cap interposed between said twin spring follower and said friction shoes, substantially as specified.

2. In a friction draft rigging, the combination with a draw-bar, draft yoke and stop members, of a front follower, an externally rectangular friction shell having a central cylindric friction face, a rear follower integral with said friction shell, longitudinal extensions integrally connecting said friction shell and rear follower, said extensions being provided at the rear portion thereof with curved stiffening walls adapted to partially embrace twin springs, friction shoes within the shell and simultaneously acting twin springs, substantially as specified.

3. In a friction draft rigging, the combination with a draw-bar, draft yoke and stop members, of a front follower, an externally rectangular friction shell having a central cylindric friction face, a rear follower integral with said friction shell, longitudinal extensions integrally connecting said friction shell and rear follower, said extensions being provided at the rear portion thereof with curved stiffening walls adapted to partially embrace twin springs, friction shoes within the shell and simultaneously acting twin springs, and a twin spring follower interposed between the springs and friction shoes and having laterally open curved pockets to receive and partially embrace the twin springs, and a central bearing cap between said friction shoes and said twin spring follower, substantially as specified.

1,080,923. GRIP-TREAD FOR VEHICLE-TIRES. CHARLES J. OHLSSON, New York, N. Y. Filed Sept. 21, 1910. Serial No. 582,993. (Cl. 152-14.)



1. A grip tread for vehicle tires comprising a pair of annular attaching members, a plurality of transverse gripping members intermediate the same, flexible protecting members for said gripping members, lugs arranged at the opposite ends of said protecting members, hook members permanently secured to said attaching members and detachably engaging said lugs and the ends of said gripping members, and means for closing the opening of said hook members, substantially as specified.

2. A grip tread for vehicles comprising a pair of annular attaching members, a plurality of transverse gripping members intermediate the same, flexible protecting members for said gripping members, a pair of angle plates having apertures therein, and secured to the opposite ends of said protecting members, and hook members secured at their outer ends to said annular attaching members, and having their inner ends engaging the apertures in said angle plates and the ends of said gripping members, substantially as specified.

3. A grip tread for vehicles comprising a pair of annular attaching members, a plurality of transverse gripping members intermediate the same, flexible protecting members for said gripping members, a pair of angle plates having apertures therein, and secured to the opposite ends of said protecting members, hook members secured at their outer ends to said annular attaching members, and having their inner ends engaging the apertures in said angle plates and the ends of said gripping members, and means for closing the opening of said hook members, substantially as specified.

1,080,924. STYLUS FOR SOUND-REPRODUCING MACHINES. JAMES W. OWEN, Lansdowne, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed June 7, 1913. Serial No. 772,225. (Cl. 181-11.)



1. A stylus for sound reproducing machines composed of tungstenic material.

2. A stylus for sound reproducing machines having a record engaging tip composed of tungstenic material.

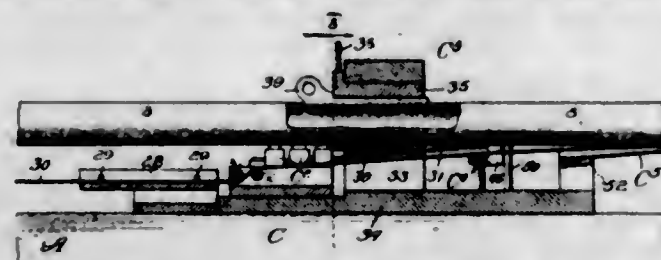
3. A stylus for sound reproducing machines having a record engaging tip composed of tungsten.

4. A stylus for sound reproducing machines composed of tungsten.

5. A stylus for sound reproducing machines having a tip substantially elliptical in transverse cross-section, having an end adapted to engage and cooperate with a sound record groove and composed of a tungstenic material.

[Claim 6 not printed in the Gazette.]

1,080,925. TUBE FORMING AND SHEATHING APPARATUS. FRANCIS N. PALMER, Kenosha, Wis. Filed Oct. 22, 1910. Serial No. 588,428. (Cl. 113-33.)



1. In apparatus of the character set forth, the combination with mechanism for forming an externally grooved tube, of mechanism for forming locking-tongues at the lateral edges of a sheathing-strip and forming the sheathing-strip about said tube, bringing said tongues into interlocking engagement and forcing the seam thus formed into the groove in said tube.

2. In apparatus of the character set forth, the combination with mechanism for forming an externally grooved tube, of mechanism for forming locking-tongues at the lateral edges of a sheathing-strip, guiding means for said tube, including a device entering the groove of

said tube, means for forming locking-tongues at the lateral edges of the sheathing-strip, means for bending said strip into tubular form about said tube and bringing said tongues into interlocking engagement at the groove in said tube, and means for mashing the seam into said groove.

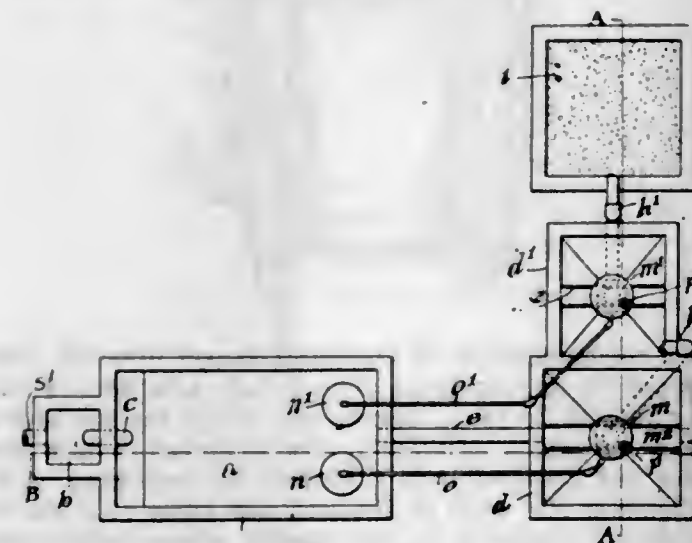
3. In apparatus of the character set forth, the combination with mechanism for forming a strip of sheet metal into tubular form and providing an external groove therein, of means entering said groove to maintain the tube against angular displacement, and means for forming an enveloping jacket with interlocking-tongues and applying said jacket with the seam thereof compressed into said groove.

4. In apparatus of the character set forth, the combination with tube-forming rolls and grooving-rolls associated therewith and adapted to form a strip of sheet metal into a tube having an external groove, of means for drawing a sheathing-strip, forming locking-tongues thereon and bringing said tongues into interlocking engagement over said groove, and means for mashing the seam thus formed into said groove.

5. In apparatus of the character set forth, the combination with preliminary tube-shaping rolls and finishing-rolls, of groove-forming rolls interposed between said first-named and said second-named rolls, means adapted to enter the groove of the tube to be sheathed to maintain the tube in proper angular relation, tongue-forming dies adapted to form locking-tongues at the lateral edges of a sheathing-strip passing therethrough, means for forming the sheathing-strip about the tube and bringing said tongues into interlocking relation adjacent the groove in said tube, and means for mashing the seam into said groove.

[Claims 6 to 15 not printed in the Gazette.]

1,080,926. METHOD OF TREATING SEWAGE. ALBERT PRIESTMAN, Philadelphia, Pa. Filed Mar. 14, 1911. Serial No. 614,311. (Cl. 210-18.)



1. The herein described method of treating sewage to precipitate and remove sludge, which consists in allowing the denser part of the sewage to remain for comparatively long periods in a settling-tank to precipitate the solid matter in suspension, discharging the denser portions of the sludge from the bottom of said portion of the sewage in relatively small quantities at intervals in relation to the flow of the sewage to or from the apparatus, and supplying fresh sewage to the top of such portion.

2. The herein described method of treating sewage to precipitate and remove sludge, which consists in allowing the denser part of the sewage to remain for comparatively long periods in a settling-tank to precipitate the solid matter in suspension, discharging the denser portions of the sludge from the bottom of said portion of the sewage in relatively small uniform quantities at regular intervals in relation to the flow of the sewage to or from the apparatus, and supplying fresh sewage to the top of such portion.

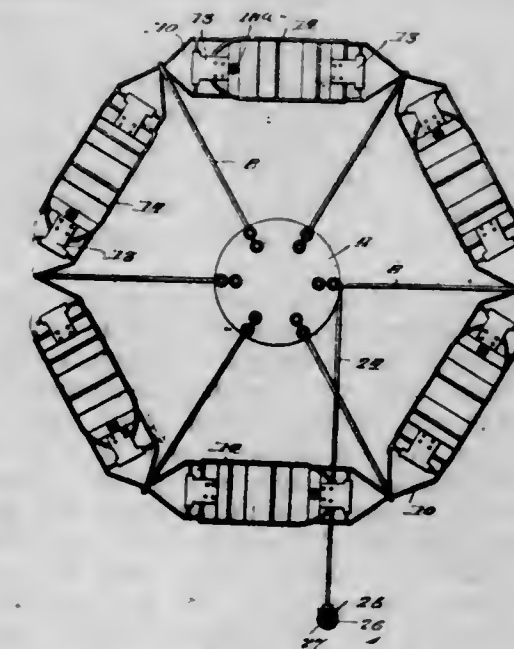
3. The herein described method of treating sewage to precipitate and remove sludge, which consists in allowing the denser part of the sewage to remain for comparatively long periods in a settling-tank to precipitate the solid matter in suspension, discharging the denser portions of the sludge from the bottom of said portion of the sewage in relatively small quantities for equal periods at regular intervals in relation to the flow of the sewage to or from the apparatus, and supplying fresh sewage to the top of such portion.

4. The herein described method of treating sewage, which consists in supplying the sewage to a settling-tank at the top, discharging the denser portions of the sludge in relatively small quantities at intervals from the lower portion of the body of liquid in said tank, and controlling said discharge by the overflow of the sewage from said tank.

5. The herein described method of treating sewage, which consists in allowing the sewage to remain for comparatively long periods in a settling-tank to precipitate the solid matter in suspension, discharging the denser portions of the sludge in relatively small quantities and at intervals from the lower portion of the body of liquid into the top of a second tank, allowing said sludge to remain for comparatively long periods in said second tank, discharging the denser portions in relatively small quantities and at intervals from the lower portion of the sludge in said second tank, and supplying fresh sewage to the upper portion of the liquid in the first tank.

[Claims 6 to 11 not printed in the Gazette.]

1,080,927. ROUNDABOUT. REUBEN G. REEVES, Massillon, Ohio. Filed Jan. 22, 1913. Serial No. 743,518. (Cl. 46-27.)



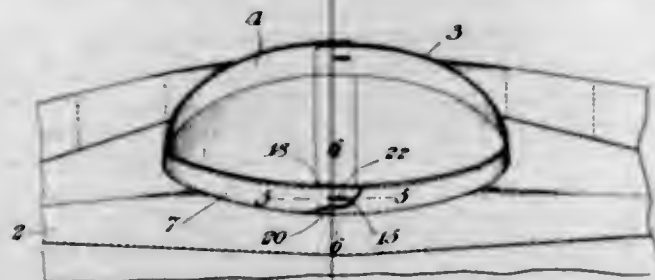
1. The combination in a roundabout, of a suitably supported center post or upright, upper and lower devices revoluble about the said post or upright, a continuous frame surrounding the post or upright and connected with the said revoluble devices, journal boxes carried by the said continuous frame, boats each arranged between two of the journal boxes and having lengthwise disposed journals bearing in the said boxes, and pairs of retractile springs arranged transversely of each boat at opposite sides of the transverse center thereof and connected at their upper and inner ends with the boats and at their outer ends with the said continuous frame.

2. The combination in a roundabout, of revoluble carrying means, a boat having trunnions journaled in the said carrying means, said trunnions being disposed lengthwise of the boat, and pairs of retractile springs disposed at opposite sides of the transverse center of the boat and connected with the boat and the said carrying means, substantially as specified.

3. The combination in a roundabout, of revoluble carrying means, a boat having trunnions journaled in the said means, a bracket fixed with respect to the boat and having hooks, and retractile springs each connected at one end with one of said hooks and at its opposite end with the carrying means.

4. The combination in a roundabout, of revoluble carrying means, boats spaced apart on said carrying means and each mounted to swing laterally, and springs relatively arranged to each boat to yieldingly maintain the same in a horizontal position.

1,080,928. SHIRT. EDWIN C. ROAT, Philadelphia, Pa. Filed Apr. 25, 1912. Serial No. 693,015. (Cl. 2—41.)



1. In a closed-back shirt, a shirt body, and a neck-band comprising an inner strip of fabric and an outer strip of fabric, said outer strip having a longitudinal fold therein providing inner and outer members extending upwardly from the fold, the central portion of the inner member being cut away from its free edge to a line near its longitudinal fold, said outer strip having two vertical folds therein forming a longitudinally-extending flap lying normally against the back of the body of the outer strip and having a buttonhole formed therein, the cut portion of said inner member being within said flap and between the said outer member and said inner strip, stitching securing the bottom of that portion of said outer strip beneath said flap and the bottom of said inner strip and the top of said body together, stitching securing the top of said flap, the top of the adjacent portion of said outer strip and the top of said inner strip together, and stitching securing the bottoms of the inner and outer members of said flap together.

2. In a closed-back shirt, a shirt body, and a neck-band comprising an inner strip of fabric and an outer strip of fabric, said outer strip having a longitudinal fold therein providing inner and outer members extending upwardly from the fold, the central portion of the inner member being cut away from its free edge to a line near its longitudinal fold, said outer strip having two vertical folds therein forming a longitudinally-extending flap lying normally against the back of the body of the outer strip and having a buttonhole formed therein, the cut portion of said inner member being within said flap and between the said outer member and said inner strip, the upper edge of said flap and the upper edge of the adjacent body portion of said outer strip and the upper edge of said inner strip being turned inwardly between said outer strip and said inner strip, stitching securing said inwardly turned edges together, stitching securing the bottom of that portion of said outer strip beneath said flap and the bottom of said inner strip and the top of said body together, and stitching securing the bottoms of the inner and outer members of said flap together.

1,080,929. CURETTE. PASQUALE ROMEO, Rome, Italy, assignor to The Surgical Supply Importing Company, New York, N. Y., a Corporation of New York. Filed Aug. 16, 1912. Serial No. 715,357. (Cl. 128—28.)

1. A curette having a convex face provided with a plurality of stepped blades.

2. A curette having a concave face at one side and a convex face at the other side, and provided with a plurality of stepped blades on its convex face.

3. A curette having a convex face and a concave face, and provided on its convex face with a plurality of stepped blades, one of said blades having a working edge on the concave face of the curette.

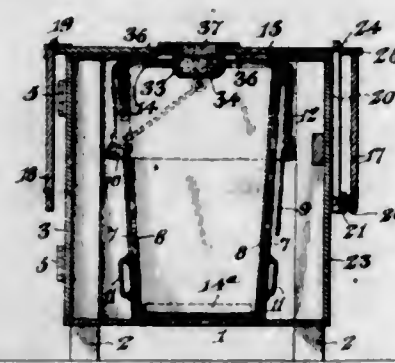


4. A curette having a plurality of stepped blades each of an arched formation, one above a companion blade.

5. A curette having a plurality of stepped arched formed blades, one wider than a companion blade.

[Claims 6 to 12 not printed in the Gazette.]

1,080,930. DRY CLOSET. WILLIAM SCHIERDING, Wallace, Idaho, assignor of one-half to Peter J. Scoles, Mullan, Idaho. Filed Dec. 24, 1912. Serial No. 738,502. (Cl. 4—33.)

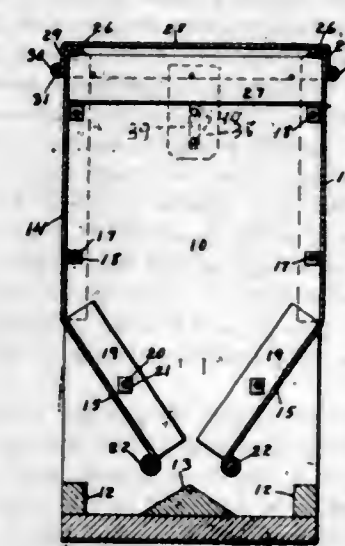


The combination of an excrement bucket provided with a hinged lid and having a pivoted ball, said lid and ball being adapted to swing downwardly below the top of the bucket, an inner removable sack arranged within the bucket and provided with a flexible top consisting of an extension of the walls of the sack and being of a size to be drawn downwardly on the exterior of the bucket over the said lid and ball and adapted to protect and hold the same against the sides of the bucket, and a draw string for the said flexible top, said draw string being adapted to close the flexible top over the sack when the bucket is to be emptied.

1,080,931. STOCK-FEEDING DEVICE. FERDINAND H. SCHULTZ, Treynor, Iowa. Filed Feb. 24, 1913. Serial No. 751,146. (Cl. 119—52.)

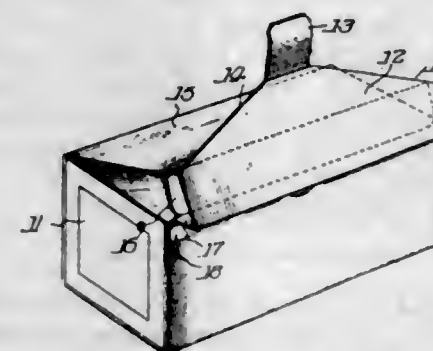
1. In a device of the class described, a frame comprising upright end members, side members each having laterally extending flanges secured to the outer surfaces of said end members, said side members having downwardly and inwardly extending portions provided with flanges secured to said end members and a cover having downwardly extending flanges, the downwardly extending flanges of one side being rolled to form a cylinder having notches cut out to receive hinge members and a rod received in said cylinder, portions of the flanges of

the main body of one of said side members being extended through said notches and then around said rod to form hinges.



2. In a device of the class described, a frame, comprising upright end members, side members, each having laterally extending flanges secured to the outer surfaces of said end members, said side members having downwardly and inwardly extending portions provided with flanges secured to said end portions and a cover having downwardly extending flanges and cylinders formed at the lower edges in said flanges, a rod received in said cylinders, portions of one of said cylinders being cut away to receive hinge members, portions of said first described flanges of one of said side members being extended around said rod to form hinges.

1,080,932. MEANS FOR OPENING CARTONS AND THE LIKE. OTTO C. SCHULZ, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed Dec. 14, 1911. Serial No. 665,594. (Cl. 229—51.)



1. In a carton, the combination of a sealing sheet, and a device for opening said carton comprising a relatively stiff element positioned within the carton with a portion projecting outside thereof and having edges adapted to sever said sealing sheet upon withdrawal of the device, said element being formed to lift the lid of the carton after the seal has been broken.

2. In a carton, the combination of a body portion, a cover therefor, a sheet of readily severable material disposed over adjoining edges of said cover and body to seal the carton, and a device for opening said carton, said device comprising a relatively stiff element positioned within the carton and having a portion projecting outside thereof and provided with edges adapted to break the seal of the carton upon withdrawal of the device, said element and cover of the carton being formed of a single sheet of suitable material.

3. In a carton, the combination of a body portion, a cover therefor, a sheet of severable material disposed over adjoining edges of said body and cover to seal the carton, and a device for opening said carton, said device comprising a relatively stiff element positioned within the carton and having a portion projecting outside the carton, said element and cover being formed of a single sheet folded upon itself a plurality of times.

1,080,933. DROP-END BOX. MINNIE SHELTON SELLMAN, Bridgeport, Conn. Filed Aug. 13, 1912. Serial No. 714,826. (Cl. 229—7.)



1. A drop-end box comprising a case open at one end, a box slidably mounted in said case, a drop-end independent of said case and having a hinged connection with the forward end of said slidable box, said end having a portion slidably engaging said case, said drop end being provided with means whereby the box and drop end may be withdrawn from the case, and a flexible pulling connection between the box and the rear end of the case and located wholly within the latter, whereby the case may be drawn along with the box after the latter has been partially withdrawn from said case.

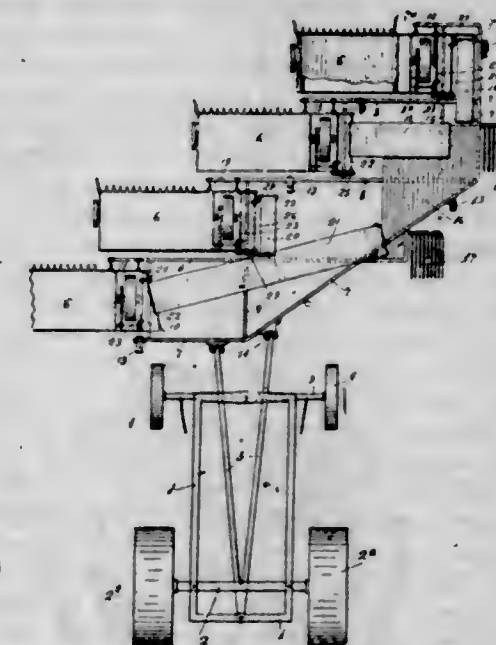
2. A drop end box comprising a case open at one end, a box slidably mounted in said case, a drop end pivotally connected with said box and provided with means whereby the box may be withdrawn from the case, an internal flap hinged to the case, and a flexible pulling connection between the box and said flap and located wholly within the case, whereby the case may be drawn along with the box after the latter has been partially withdrawn from said case.

1,080,934. RECTAL TUBE. WALTER L. SHACKLEFORD, Kennedy, Ala. Filed Aug. 19, 1912. Serial No. 715,891. (Cl. 128—25.)



In an instrument of the character described, a main tube, a cap formed with a peripheral flange at one end thereof, and a coupling connecting the tube and cap and centrally formed with a peripheral flange, said flange co-acting with the first mentioned flange to form a seat for the sphincter ani muscle.

1,080,935. GANG-FRAME ATTACHMENT FOR DRIVING HARVESTERS FROM TRACTION-ENGINES. ALBERT H. SIEMEN, Appleton, Minn. Filed June 12, 1912. Serial No. 703,211. (Cl. 56—33.)



1. The combination with a traction engine running gear and a push bar having its rear end pivotally connected to the rear portion of the frame thereof, of a gang coupling frame having connections to the front end of said push bar for lateral angular adjustments therewith, caster

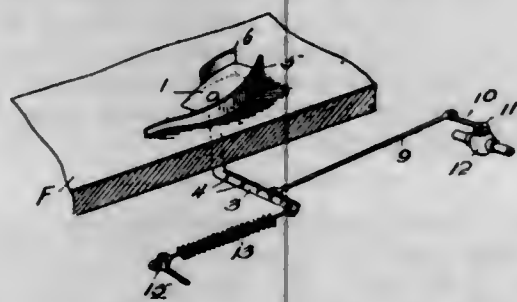
wheels supporting said frame, and a plurality of harvesters connected to said gang frame in offset arrangement, one ahead of the other.

2. The combination with a traction engine running gear and a push bar having its rear end pivotally connected to the rear portion of the frame thereof, of a gang coupling frame having connections to the front end of said push bar for lateral angular adjustments therewith, caster wheels supporting said frame, a plurality of harvesters connected to said gang frame in offset arrangement, one ahead of the other, the said traction gang frame having an operator's platform and conveyers delivering from the several harvesters to said platform, and a shock carrier attached to said gang frame adjacent to said operator's platform.

3. A traction gang frame of oblique elongated form having means for connecting a plurality of harvesters in offset arrangement one ahead of the other, said frame having supporting caster wheels adapting the said frame to be moved forward with the harvesters attached thereto and adapting the same to be moved in the direction of its oblique elongation, when the harvesters are disconnected therefrom.

4. A traction gang frame of oblique elongated form having means for connecting a plurality of harvesters in offset arrangement one ahead of the other, said frame having supporting caster wheels adapting the said frame to be moved forward with the harvesters attached thereto and adapting the same to be moved in the direction of its oblique elongation when the harvesters are disconnected therefrom, and a push bar pivotally connected to said gang frame and extended therefrom and adapted to be attached to a traction engine, substantially as described.

1,080,936. FOOT-OPERATED CONTROL DEVICE. JOHN ATKINSON STAPLES, Newburgh, N. Y. Filed June 10, 1912. Serial No. 702,900. (Cl. 74—81.)



1. A foot operated control device for automobiles comprising a torsionally movable pedal, adapted to engage a portion of the bottom of the foot of an operator, said pedal being of less length than the foot to permit portions of the bottom thereof not engaged by said pedal to frictionally engage the adjacent flooring, said pedal being provided with means for connecting it to the foot for imparting a torsional movement to the pedal, a pivotal support for said pedal located beneath the same and substantially perpendicular thereto, and means adapted to connect said pedal to the part to be controlled whereby said pedal may be operated by swinging the portion of the foot in engagement with the flooring laterally on a circle concentric with said pivotal axis, without raising any portion of the foot.

2. A foot operated control device for automobiles comprising a torsionally movable pedal having a supporting surface for engaging the sole portion of the foot of an operator, said pedal being of less length than the foot to permit the heel to frictionally engage the adjacent flooring, said pedal being provided with means for connecting it to the foot for imparting a torsional movement to the pedal, a pivotal support for the pedal disposed perpendicularly thereto, and located beneath, approximately, the portion of the supporting surface thereof which is engaged by the ball of the foot and means adapted to connect said pedal with the part to be controlled, whereby said pedal may be operated by swinging the heel laterally on a circle concentric with said pivotal support, without raising any portion of the foot.

3. A foot operated control device for automobiles comprising a torsionally movable pedal having a supporting surface for engaging the sole portion of the foot of an operator, said pedal being of less length than the foot to permit the heel to frictionally engage the adjacent flooring, said pedal being provided with means for connecting it to the foot for imparting a torsional movement to the pedal, a pivotal support for the pedal disposed perpendicularly thereto and located beneath, approximately, the portion of the supporting surface thereof which is engaged by the ball of the foot and means adapted to connect said pedal with the part to be controlled, whereby said pedal may be operated by swinging the heel laterally on a circle concentric with said pivotal support, without raising any portion of the foot, said pedal being provided with means for preventing the longitudinal movement of the foot with respect thereto.

4. A foot operated control device for automobiles, comprising a torsionally movable pedal having a supporting surface inclined to a plane perpendicular to its axis of oscillation adapted to be engaged by the sole portion of the foot of an operator, and being of less length than the foot to permit the heel to frictionally engage the adjacent flooring, said pedal being provided with laterally disposed portions projecting above the foot engaging surface for engaging lateral portions of the foot to impart a torsional movement to the pedal, a pivotal support for the pedal having its axis disposed perpendicularly to its lower face, and located beneath approximately the portion of said supporting surface engaged by the ball of the foot, and means adapted to connect said pedal with the part to be controlled thereby, whereby said pedal may be operated by swinging the heel laterally on a circle concentric with said pivotal support, without raising the foot.

5. A foot operated control device for automobiles comprising a torsionally movable pedal having a supporting surface adapted to be engaged by the sole of the foot and being of less length than the foot to permit the heel to frictionally engage the adjacent flooring, a pivotal support for said pedal having its axis disposed substantially perpendicularly thereto and located beneath approximately the portion of said supporting surface engaged by the ball of the foot, and means adapted to connect said pedal to the part to be controlled, said pedal being provided with lateral opposed portions extending above said supporting surface, for enabling the foot to impart a torsional movement to the pedal, one of said projecting portions being adjustable laterally with respect to the other.

[Claims 6 and 7 not printed in the Gazette.]

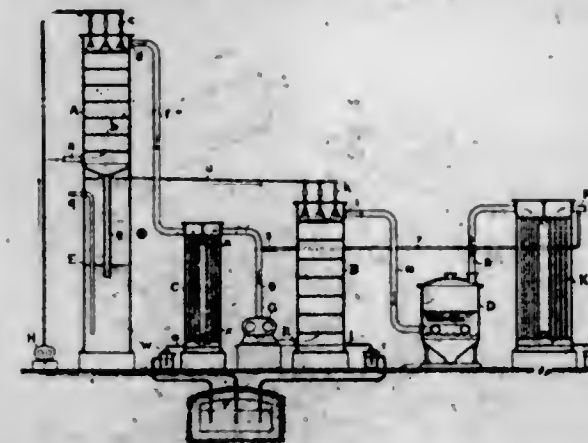
1,080,937. DYNAMOMETER FOR CASING-SCREWERS AND OTHER PURPOSES. ROSCOE WILLIAM STEPHENS, Maricopa, Cal. Filed Nov. 1, 1911. Serial No. 658,055. (Cl. 73—15.)



A dynamometer comprising a cylinder, having one end closed, and a pressure gage communicating with the interior of the cylinder, a piston slidably mounted in said cylinder, and having extensions at its outer end, a U-

formed stirrup having bars extending alongside the cylinder and through said extensions on the cylinder, a member extending beneath the cylinder, a U-formed stirrup having bars extending alongside the cylinder and through said member, and nuts on said bars respectively engaging the extensions and the said member, said cylinder having longitudinal grooves in which said bars engage to hold the parts in alignment.

1,080,938. RECOVERY OF TAR AND AMMONIA FROM COAL-GAS. CARL STILL, Recklinghausen, Germany. Filed Dec. 3, 1912. Serial No. 734,708. (Cl. 48—220.)



1. The process for recovering tar and ammonia from coal gas, which consists in cooling the hot crude gas by water brought directly in contact therewith for separating out the tar and, after a special intermediate cooling of the gas, reheating the latter by water used previously for direct cooling of the gas, the water itself being used in circulation alternately for cooling and reheating the gas, then conducting the reheated gas through a saturation bath for absorbing the ammonia, and finally cooling the gas free from tar and ammonia to the temperature necessary for further use, substantially as specified.

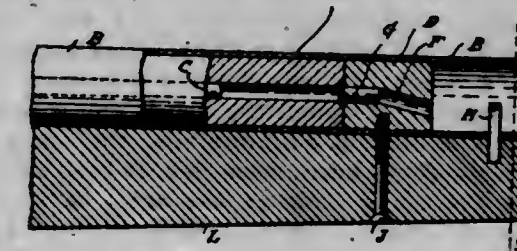
2. The process for recovering tar and ammonia from coal gas, which consists in cooling the hot crude gas by water brought directly in contact therewith for separating out the tar and, after a special intermediate cooling of the gas, reheating the latter by water used previously for direct cooling of the gas, the water itself being used in circulation alternately for cooling and reheating the gas, then conducting the reheated gas through a saturation bath for absorbing the ammonia, finally cooling the gas free from tar and ammonia to the temperature necessary for further use, and reconducting continuously a certain volume of the finally cooled gas to the main flow of gas to be led into the direct heater and afterward into the saturation bath, substantially as specified.

3. The process for recovering tar and ammonia from coal gas, which consists in cooling the hot crude gas by water brought directly in contact therewith for separating out the tar and, after a special intermediate cooling of the gas, reheating the latter by water used previously for direct cooling of the gas, the water itself being used in circulation alternately for cooling and reheating the gas and a part of the water being continuously taken off and conducted into the hydraulic main of the ovens from which the gas is originally obtained, then conducting the reheated gas through a saturation bath for absorbing the ammonia, and finally cooling the gas free from tar and ammonia to the temperature necessary for further use, substantially as specified.

1,080,939. CADET GUN AND RIFLE. EDWARD L. TIFANY and FREDRICK S. LOOMIS, Hoboken, N. J. Filed June 5, 1912. Serial No. 701,940. (Cl. 42—2.)

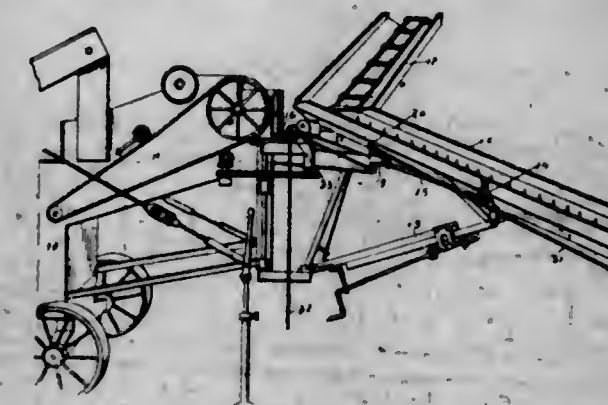
A cadet gun having a shoulder stock, a firing means and a tubular barrel, in combination with a removable cartridge holding member incapable of receiving a ball cartridge interposed between said firing means and said barrel, said member having a laterally inclined passage-

way communicating with the interior of said tubular barrel, an obstructing member in the barrel in advance of



the cartridge holding member, with provision for the passage of gases as shown and described.

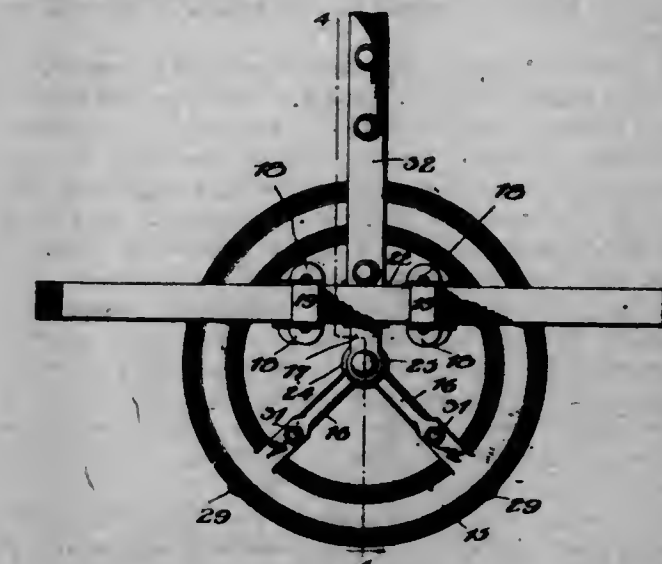
1,080,940. ATTACHMENT FOR LATERAL CONVEYERS. ARTHUR C. VAN HOUWELING, Pella, Iowa. Filed Feb. 10, 1913. Serial No. 747,572. (Cl. 193—16.)



1. In a device of the class described, the combination of a main frame, a conveyer frame pivoted thereto to swing in a horizontal plane, two rods slidably connected with each other, one being attached to the main frame and the other being attached to the conveyer frame, and means for gripping said rods together to prevent lateral movements of the conveyer frame and for releasing said rods so that one may freely slide within the other, and the conveyer frame may be freely moved laterally.

2. In a device of the class described, the combination of a main frame, a conveyer frame pivoted thereto to swing in a horizontal plane, two rods slidably connected with each other, one being attached to a main frame at a point spaced apart from the pivotal point of the conveyer frame, the other being attached to the conveyer frame, means for securing said rods together against sliding movement with relation to each other and means for operating said first means from either end of the conveyer.

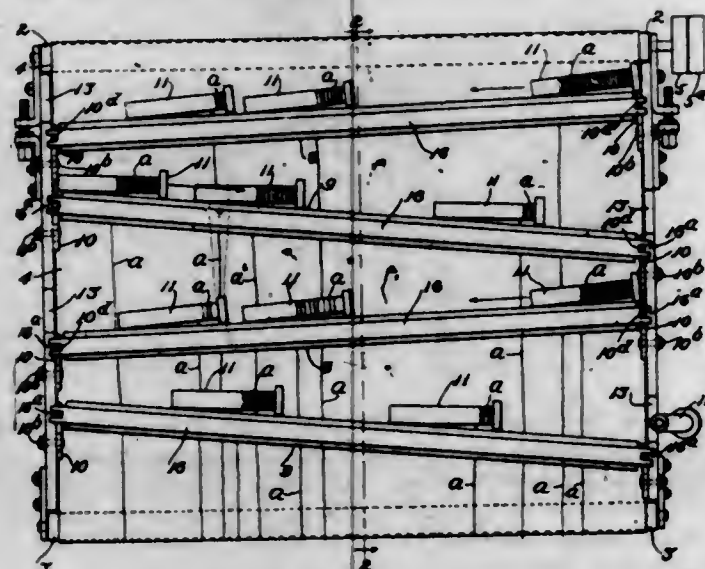
1,080,941. FIFTH-WHEEL. MYRON E. WAGNER, Bridgeport, Ill. Filed Dec. 11, 1911. Serial No. 665,022. (Cl. 21—24.)



In a fifth wheel, a pair of concavo-convex rings, anti-friction rollers between the rings, one of said rings

being mounted on the axle, a pair of radial spokes formed on the upper of said rings, a cross bar extending across the rear portion of said upper ring, and connected to the spokes at their intersection thereof, said bar being provided with a vertical opening at the point of juncture with the spokes, a bracket mounted below the axle, a pivot bolt passed vertically through the spokes and said bracket, a hub below the bracket and receiving the lower end of the bolt therethrough, arms connected at their inner ends to the hub, the upper ends of the arms embracing the lowermost of the rings, and being secured to said spokes, a bracket mounted on the reach, an arm on the bracket extending under the said hub and receiving the lower end of said bolt therethrough, and means on said arm for bracing and supporting the lower ring.

1,080,942. BOBBIN-STRIPPER. RICHARD WALWORTH, Waltham, Mass. Filed Nov. 20, 1912. Serial No. 732,435. (Cl. 118—26.)



1. A bobbin-stripping machine comprising, essentially, an endless flexible traveling surface having a working run extended in a direction to receive and support spools or bobbins to be stripped, and bobbin-rests extending transversely across the said working run and arranged to maintain a spool-axis or bobbin-axis inclined with reference to the direction of travel of the said working run, said endless traveling surface acting to unwind rovings or yarns from said spools or bobbins and feed the latter lengthwise.

2. A bobbin-stripping machine comprising, essentially, an endless traveling apron having a working run extended at an inclination and adapted to receive and support spools or bobbins to be stripped, and bobbin-rests extending transversely across the said working run, and adapted to maintain the axis of a spool or bobbin at an inclination to the direction of movement of said run, whereby endwise travel and a discharge of the spools or bobbins are produced.

3. A bobbin-stripping machine comprising, essentially, an endless traveling apron having a working run adapted to receive and support spools or bobbins to be stripped, bobbin-rests extending transversely across said working run, and means to adjust said bobbin-rests angularly with relation to the direction of travel of said run, said apron acting to unwind rovings or yarns from said spools or bobbins and feed the latter lengthwise.

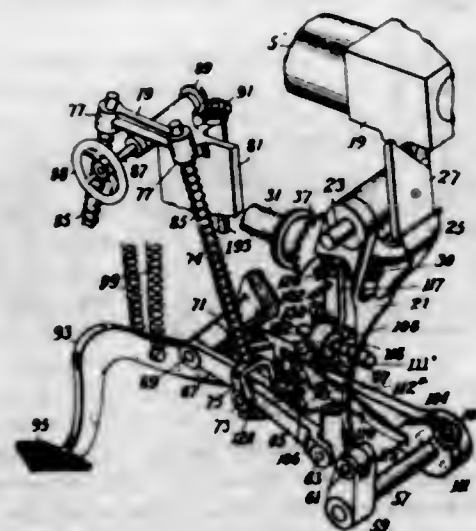
4. A bobbin-stripping machine comprising, essentially, an endless flexible traveling surface having a working run extended in a direction to receive and support spools or bobbins to be stripped, and bobbin rests constituted by rolls extending transversely across the said working run, resting thereon, and arranged to maintain a bobbin-axis inclined with reference to the direction of travel of the said working run, said endless traveling surface acting to unwind rovings or yarns from said spools or bobbins and feed the latter lengthwise.

5. A bobbin-stripping machine comprising, essentially, an endless traveling apron having a working run extended at an inclination and adapted to receive and support

spools or bobbins to be stripped, and bobbin-rests constituted by rolls extending transversely across the said working run, resting thereon, and adapted to maintain the axis of a spool or bobbin at an inclination to the direction of movement of said run, whereby endwise travel and a discharge of the spools or bobbins are produced.

[Claim 6 not printed in the Gazette.]

1,080,943. LEATHER-ROLLING MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 28, 1910. Serial No. 551,822. (Cl. 149—23.)



1. In a machine of the class described, the combination with pressure rolls, of movable bearings for one of said rolls, bell-crank levers to sustain said bearings, toggles connected with said levers, and yielding means acting on said toggles for holding said roll in a position of pressure.

2. In a machine of the class described, the combination with pressure rolls, of movable bearings for one of said rolls, levers to sustain said bearings, toggles connected with said levers, and yielding means acting on said toggles, the parts being so arranged that the pressure exerted by said means through said connections is substantially uniform in all positions of the toggles.

3. In a machine of the class described, the combination with pressure rolls, of movable bearings for one of said rolls, levers to sustain said bearings, means for determining the distance between the rolls, toggles connected with said levers, and yielding means acting to extend said toggles for holding the movable roll in a position of pressure.

4. In a machine of the class described, the combination with pressure rolls, of movable bearings for one of said rolls, levers to sustain said bearings having independently movable arms, means for relatively adjusting said arms to vary the distance between the rolls, toggles connected with said levers, and yielding means acting on said toggles to hold the movable roll in a position of pressure.

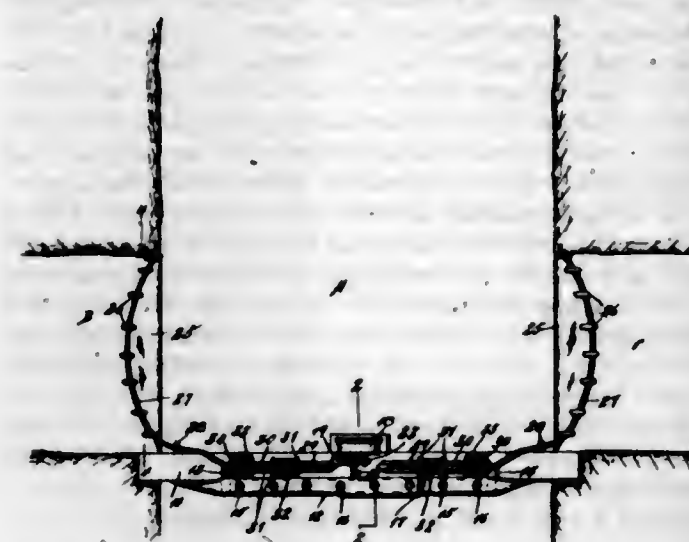
5. In a machine of the class described, the combination with pressure rolls, of movable bearings for one of said rolls, levers to sustain said bearings, toggles connected with said levers, independent compression springs acting to straighten the toggles and thereby hold the movable roll in a position of pressure, a treadle, and connections including an intermittent clutch, for relieving the pressure of said springs on said roll.

[Claims 6 to 23 not printed in the Gazette.]

1,080,944. IRRIGATING-DAM. PORTER C. BAKER, Morrill, Nebr., assignor of one-third to Valentine Thomas, Morrill, Nebr. Filed Oct. 9, 1912. Serial No. 724,823. (Cl. 137—66.)

1. The combination with an irrigating canal, of a dam for controlling the flow of water therethrough, said dam including a beam spanning the canal, a fabric gate supported by said beam, said gate having a greater width than the canal, means for securing the gate in a folded state to

close the canal, and means for releasing the upper edge of the gate and the folds thereof whereby said upper edge will move downwardly and permit the flow of water through the canal.

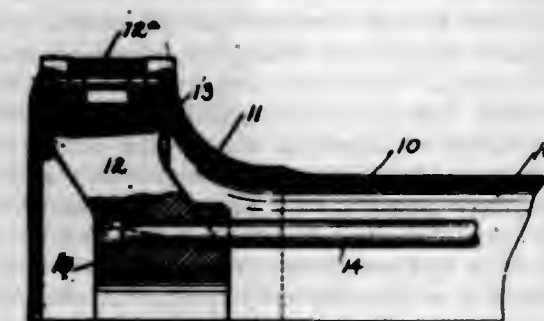


2. The combination with an irrigating canal, of a dam for controlling the flow of water therethrough, said dam including a beam spanning the canal, a fabric gate having the outer ends of its upper edge anchored to the beam, means for detachably supporting the intermediate portions of the upper edge of the gate from the beam; and means for disengaging the intermediate portion of the upper edge of the gate from its supporting means whereby said intermediate portion of the upper edge will move downwardly and permit the flow of water through the canal.

3. The combination with an irrigating canal, of a dam for controlling the flow of water therethrough, said dam including a beam spanning the canal, a fabric gate having the outer ends of its upper edge anchored to the beam, and the intermediate portion of its upper edge provided with a plurality of openings, a shaft rotatably mounted on the beam, a plurality of radially disposed fingers carried by the shaft, and adapted to be engaged through the openings in the gate to support the upper edge of the latter at a predetermined elevation, means for locking the shaft against rotation and in position to support the upper edge of the gate through the medium of said fingers, and means for releasing the shaft for rotation to a position to effect the disengagement of the gate from said fingers.

4. The combination with a main irrigating canal and a lateral discharge canal leading therefrom, of a dam controlling the flow of water through the main canal, a dam for controlling the flow of water through the lateral discharge canal, said last named dam including a fabric gate having its upper edge supported by a flexible cable spanning the lateral discharge canal, means for holding said cable slack when the main canal dam is closed, and means operated by the opening of the main canal dam for drawing said cable taut.

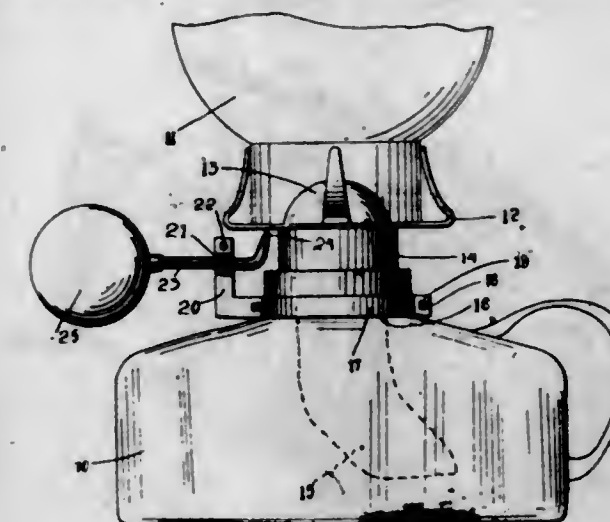
1,080,945. PISTON-VALVE. CLARENCE J. BARLEY, Altoona, Pa. Filed Mar. 26, 1913. Serial No. 757,023. (Cl. 138—5.)



The combination of a piston valve body having a recessed flanged end whose wall is of greater cross section

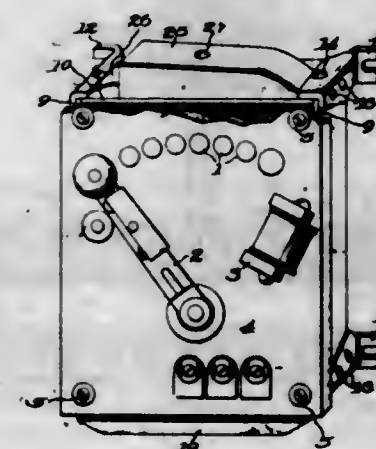
than the wall of the body of said stem, and a spider fitting in said recess portion, a bull ring held by the spider and means for securing the spider.

1,080,946. LAMP-EXTINGUISHER. ISAAC C. BERGEN, Waldheim, Saskatchewan, Canada. Filed Oct. 28, 1912. Serial No. 728,134. (Cl. 67—75.)



In a lamp extinguisher, the combination with a lamp having a neck portion, and a base having an open bottom; of a clamping member engaged around the neck, means for securing the same in position, said clamping member having an upwardly extending portion provided with a clamp, a tube having an upwardly directed inner end extended beneath the base and a compressible bulb mounted on the outer end of the tube.

1,080,947. CASING FOR RESISTANCES. ARTHUR W. BERRESFORD, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 10, 1909. Serial No. 506,934. (Cl. 219—48.)



1. An inclosing casing for resistances having a reflex ventilating flue.

2. A rheostat comprising a resistance element, an inclosing casing therefor, said casing having ventilating openings in its top and bottom and solid vertical walls and top and bottom guard pieces for said casing, said top guard piece serving to confine flames emerging from said casing and said bottom guard piece serving as a receptacle for descending substances.

3. An inclosing casing for resistances having a tortuous ventilating flue at the top thereof, ventilating apertures at the bottom thereof and a hollow receptacle disposed beneath the ventilating apertures.

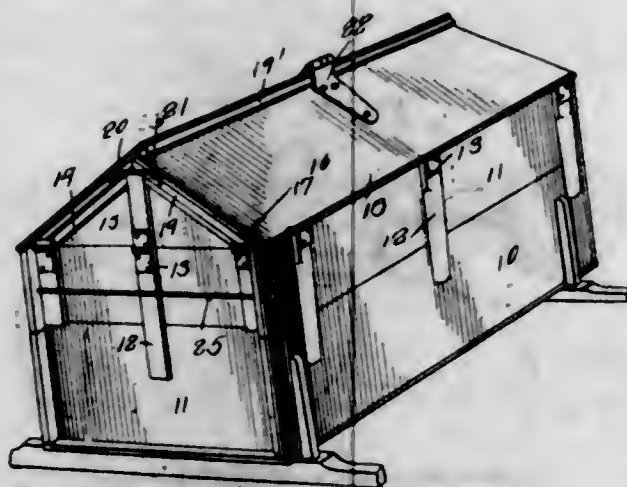
4. An inclosing casing for resistances having ventilating apertures in the top thereof and a hood arranged on the top thereof, said hood having a tortuous flue therein.

5. An inclosing casing for resistances comprising a box portion having ventilating apertures in the top and bottom thereof, a hood arranged on the top of said box por-

tion and having a baffle plate arranged therein and a hollow receptacle disposed below the apertures in the bottom of said box portion.

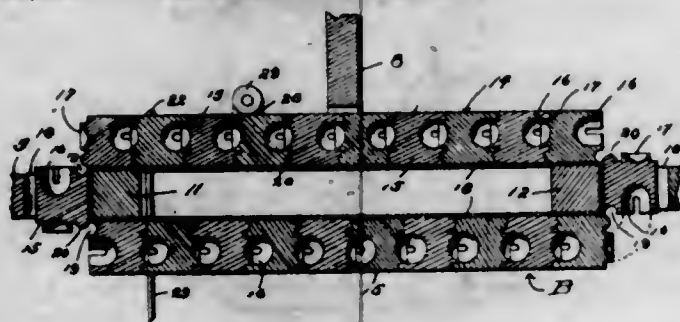
[Claims 6 to 11 not printed in the Gazette.]

1,080,948. REMOVABLE WAGON COVER. CHARLES H. BIGBIE and FRANK G. TANNER, Lone Grove, Okla. Filed May 20, 1912. Serial No. 698,498. (Cl. 21-7.)



The combination with a wagon body, of a rectangular frame having inner and outer spaced fingers secured upon the sides and ends thereof, said fingers having their lower ends extending below said frame for detachably engaging the body, end members hingedly connected to the outermost fingers of the frame ends, said members having beveled upper ends, side members having their lower edges hingedly connected to the outermost fingers carried by the sides of the frame, one of said side members having a longitudinal strip carried by its free edge and adapted to engage the outer surface of the free edge of the other side member when said members engage the beveled upper edges of the end members, and means for locking the side members at their meeting edges.

1,080,949. CIGAR-MAKING MACHINE. CHRISTIAN F. BREMER, Tampa, Fla. Filed Apr. 15, 1912. Serial No. 690,884. (Cl. 131-9.)



1. In a cigar making machine, the combination of a pair of spaced rectangular shafts, a conveyer trained around said shafts including a series of transversely arranged abutting mold sections, and a guide roller disposed transversely above the conveyer for engagement by the sections said roller being wholly above the plane of movement of the sections.

2. In a cigar making machine, the combination with a pair of spaced rectangular shafts, of a conveyer trained around said shafts, said conveyer including a flexible belt and a series of abutting mold sections carried by the belt, said sections and shafts being of uniform size and rectangular in cross section, and operating means for the conveyer connected to one of the shafts.

3. In a cigar making machine, the combination with a pair of spaced rectangular shafts, of a conveyer trained around said shafts, said conveyer including a flexible belt and a series of abutting mold sections carried by the belt, said sections and shafts being of uniform size and rectangular in cross section, the adjacent faces of adjacent sec-

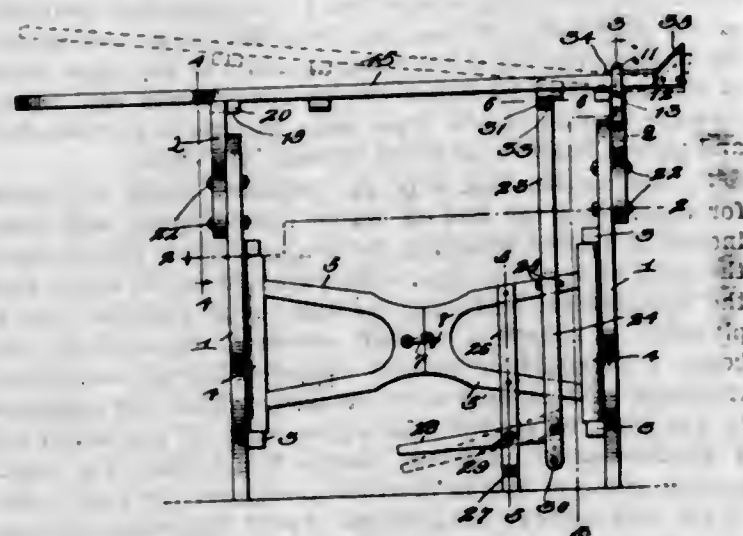
tions being respectively formed with a recess and a projection, and operating means for the conveyer connected to one of the shafts.

4. In a cigar making machine, the combination with a pair of spaced rectangular shafts, of a conveyer trained around said shafts, said conveyer including a flexible belt and a series of abutting mold sections carried by the belt, said sections and shafts being of uniform size and rectangular in cross section, a ratchet wheel fixed on one end of one of the shafts, a lever fulcrumed upon said shaft, a pawl carried by the lever for engagement with the ratchet, and actuating means for the conveyer connected to the lever.

5. In a cigar making machine, the combination with a pair of spaced rectangular shafts, of a conveyer trained around said shafts and including a flexible belt and a series of abutting mold sections carried by the belt, said mold sections being formed only upon their mutually adjacent faces for co-action to perform a molding function, the outer faces of the sections being closed, said sections and shafts being of uniform size and rectangular in cross section, and means for intermittently imparting rotation through ninety degrees to the shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,080,950. IRONING-TABLE. LUTHER R. BREWER, Hickory, N. C. Filed Dec. 27, 1912. Serial No. 738,926. (Cl. 68-10.)



1. In a device of the character described, the combination of supporting standards, a board mounted upon the upper ends of said standards and pivotally secured at one of its ends, spaced bearings mounted upon said standards, vertically disposed posts pivotally mounted in said bearings, U-shaped members having their ends secured to said posts and hingedly secured together at their intermediate portions, means for securely holding said U-shaped members in their operative position, a vertical bar having its lower end bifurcated to form two spaced arms, said arms being disposed upon opposite sides of one of the U-shaped members and adapted for sliding movement, and a pivoted lever arranged beneath the U-shaped member having one of its ends pivotally connected to the lower ends of the spaced arms whereby pressure upon the outer end of lever will reciprocate said bar and raise and lower the free end of the board.

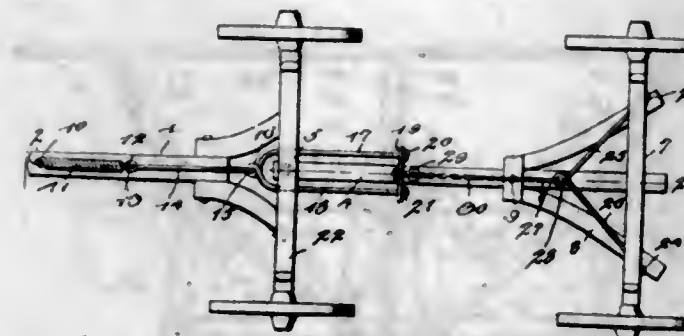
2. In a device of the character described, the combination of spaced supporting standards, a board mounted upon said standards and having one end pivotally secured to one of said standards, oppositely disposed U-shaped members hingedly connected at their inner ends and having their other ends pivotally secured to said standards, a reciprocating bar supported by one of said members and adapted to engage the board and means for reciprocating said bar to raise and lower the free end of the board.

3. In a device of the character described, the combination of spaced supporting standards, brackets secured to the upper ends of said standards, a board mounted upon said brackets and having one end pivotally mounted upon one of said brackets, oppositely disposed U-shaped mem-

bers having their inner ends hingedly connected and their other ends pivotally secured to the standards, a reciprocating bar supported by one of said members and adapted to engage the board, and a pivotally mounted lever having one of its ends secured to the lower end of said bar whereby the manipulation of said lever will reciprocate the bar and raise and lower the free end of the board.

4. In a device of the character described, the combination of spaced supporting standards, brackets mounted upon the upper ends thereof, resilient bearings carried by one of said brackets, a board mounted upon said brackets and having one end removably arranged between said bearings and mounted for pivotal movement, oppositely disposed U-shaped members having their inner ends hingedly connected and their other ends pivotally connected to the supporting standards, a reciprocating bar supported by one of said members and adapted to engage the board and means for reciprocating said bar to raise and lower the free end of the board.

1,080,951. TONGUE-SWING. WILLIE L. BUCKNER, Humboldt, Tenn. Filed Mar. 25, 1912. Serial No. 686,050. (Cl. 21-63.)



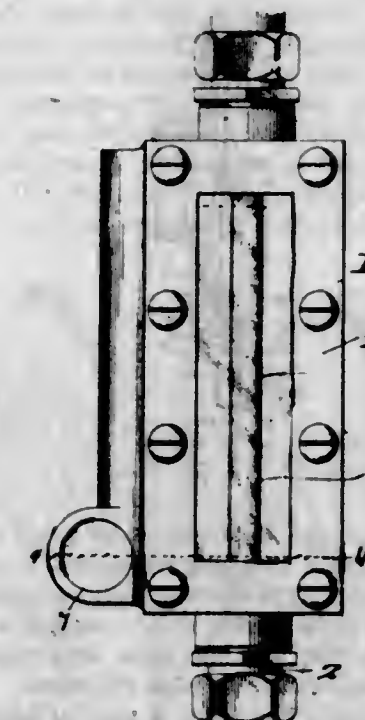
The combination with a wagon consisting of a reach, front and rear super-structures carried thereon, and a tongue therefor; of a pair of yokes, each consisting of a continuous rod bent mid-way of its ends and crossed to form an eye, the arms formed from one of said yokes diverging rearwardly and having their extremities rigidly mounted in the rear super-structure, the arms of the other yoke continuing from the eye formed thereon being arranged parallel and slidably disposed through the forward super-structure, those portions of the parallel arms continuing from the super-structure to the rear ends thereof being inclined downwardly, a coil spring member having the forward ends thereof engaged with said tongue, a linking member connecting the rear end of said coil spring with the eye of the last mentioned yoke, a plate removably applied to and connecting the rear ends of the last mentioned yoke, said plate resting loosely on the aforesaid reach, an eye bolt adjustably carried on the plate, a flexible connection having one end thereof engaged with said eye bolt, and a hook carried in the eye of the first mentioned yoke and adjustably engaging a link of said flexible connection.

1,080,952. SHIELD FOR WATER-GAGE GLASSES. THOMAS F. CARRERY, St. Louis, Mo. Filed Apr. 3, 1913. Serial No. 758,676. (Cl. 73-54.)

1. A shield for water gage glasses, comprising a hollow body constructed and arranged to hold and contain a gage glass and having a chamber at its side connected through a plurality of ports with its interior and also having an outlet connected with one end of said chamber; holders connected to the opposite sides of the said body and panels of transparent material arranged in said holders.

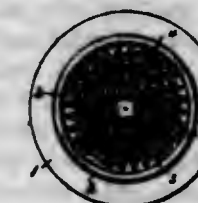
2. A shield for water gage glasses, comprising a hollow body constructed and arranged to hold and contain a gage glass and having at one side a chamber connected through a plurality of ports with its interior, said chamber being provided with an offset; an outlet pipe connected with said offset; panel-holders connected to opposite sides of the body; and panels arranged in said holders.

3. A shield for water gage glasses, comprising a hollow body constructed and arranged to hold and contain a gage glass and having transparent means to display the glass and also having a chamber at its side connected



through a port with its interior and also having an outlet leading from said chamber; said outlet being adapted to be connected with means for conveying steam and hot water to a point of discharge.

1,080,953. DIAPHRAGM FOR SOUND-BOXES. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed Mar. 22, 1911. Serial No. 616,171. (Cl. 181-10.)



1. A diaphragm for sound boxes comprising a disk, having a plurality of sets of intersecting corrugations formed in its face, said corrugations being so arranged as to form a large number of comparatively small supplemental plane diaphragms.

2. A diaphragm for sound boxes, comprising a thin metal disk, having a circular corrugation therein, and a large number of closely arranged angularly disposed, intersecting corrugations within said corrugation, whereby a plurality of supplemental plane polygonal diaphragms are formed.

3. A sound box for sound recording and reproducing devices comprising a box body and a diaphragm secured within said box body, said diaphragm having a large number of closely arranged angularly disposed, intersecting corrugations in its face whereby a plurality of supplemental plane polygonal diaphragms are formed.

4. A diaphragm for sound boxes, comprising a metallic disk having a plurality of sets of intersecting corrugations formed in its face, said corrugations being so arranged as to form a large number of comparatively small supplemental diaphragms.

5. A diaphragm for sound boxes, comprising a thin metal disk, having a circular corrugation therein and a grid formed within said circular corrugation by a plurality of sets of angularly disposed corrugations whereby a plurality of small supplemental plane diaphragms are formed.

1,080,954. SOUND-BOX. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed June 15, 1912. Serial No. 703,802. (Cl. 181-11.)



1. In a sound box, the combination of a box body, a pair of knife edge fulcrums integral therewith, a stylus lever having a pair of laterally projecting, torsionally flexible supporting lugs integral therewith and clamping washers having cambered lugs for bearing upon and clamping said flexible lugs against said knife edge fulcrums.

2. In a sound box, a box body, a pair of knife edge fulcrums upon the edge of said body, a stylus lever, laterally projecting, flexible lugs integral with said stylus lever, and clamping washers having cambered lugs for bearing upon and clamping said lugs against said fulcrums to permit torsional flexure of said lugs.

3. In a sound box, a circular box body, having a flange at its circumference, a pair of supporting lugs upon said flange, a pair of knife edge fulcrums upon said lugs, a stylus lever, flexible supporting arms projecting laterally from and integral with said lever, and clamping washers having cambered lugs for bearing upon and clamping said arms to said supporting lugs against said fulcrums to permit torsional flexure of said arms.

4. In a sound box, a shallow cup shaped box body, a pair of supporting lugs integral with and projecting laterally from said box body, a pair of knife edged fulcrums upon said lugs, said fulcrums having their edges in alignment with each other and with the planes of the faces of said lugs, and a stylus lever secured to said lugs and adapted to oscillate slightly upon said fulcrums.

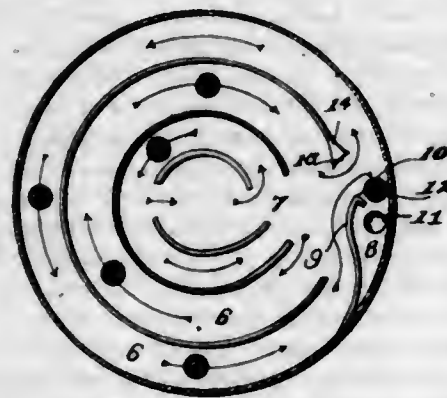
5. In a sound box, a shallow cup shaped box body, having an annular ledge or shoulder upon the interior thereof, a ring loosely fitted within said ledge or shoulder, said ring being of greater width than the height of said ledge or shoulder, a pair of gaskets with a diaphragm located therebetween, said gaskets and diaphragm being located within said ring and a flat clamping ring secured to said ledge or shoulder, said clamping ring overlapping said loosely fitted ring and gaskets and rigidly clamping said parts to the box body.

[Claims 6 to 14 not printed in the Gazette.]

1,080,955. PUZZLE. ALFRED J. B. CLEMENT, Plainfield, N. J. Filed Sept. 11, 1912. Serial No. 719,841. (Cl. 46-41.)

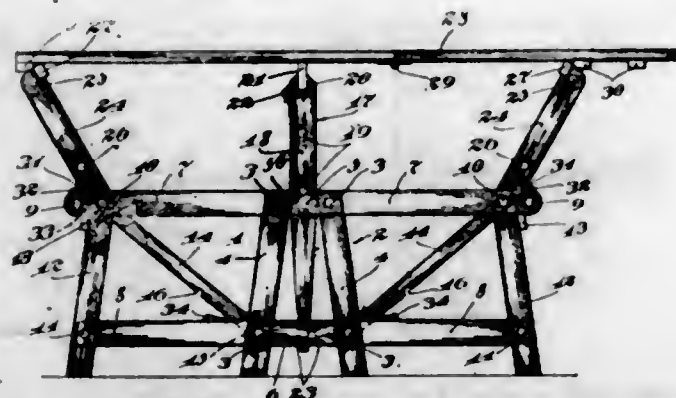
In a device of the character described, the combination of a base board, a vertically extending annular flange formed integral with the outer periphery thereof, a transparent cover mounted upon said flange, a series of vertically extending rings mounted upon said bars and provided with openings at one side thereof, which open in alignment from the center of the base board toward one side of the vertical flange, said rings forming a series of runways providing a direct passage from the central ring to the vertical flange, a goal arranged adjacent the flange and openings in the rings, said goal comprising a strip of metal bent inwardly and outwardly, an inwardly projecting flange formed upon the inner end thereof, in combination with the

balls or spheres, and one end of the outer of said rings being provided with an enlarged portion having a curved surface against which the balls or spheres are adapted to strike to be guided into the goal.



face against which the balls or spheres are adapted to strike to be guided into the goal.

1,080,956. FOLDING COMBINED WASHBENCH AND IRONING-BOARD SUPPORT. CHARLES DANIELSON, Cannon Falls, Minn. Filed Nov. 9, 1912. Serial No. 730,406. (Cl. 68-35.)



1. A device of the kind described, comprising a bench having folding sections, supporting arms, pivotally secured to the folding sections of said bench, said arms, when turned in one position, affording supports for an ironing board and, when turned into another position, affording braces for the folding sections of said bench, and rest legs for adjusting said arms in different positions, to support said ironing board in different elevations, substantially as described.

2. A device of the kind described, comprising a bench having folding sections, stops on said bench, supporting arms pivotally secured to the folding sections of said bench, said arms, when turned upward, affording supports for an ironing board and, when turned downward into engagement with said stops, affording braces for the folding sections of said bench, and rest legs carried by said arms and engageable with said bench for adjusting said arms in different positions when turned upward, to support said ironing board in different elevations, substantially as described.

3. In a device of the kind described, the combination with a standard, comprising a pair of laterally spaced A-frames, connected by tie rods, of folding bench sections pivotally secured to said standards, each of said bench sections comprising horizontal parallel bars arranged in pairs, connected by tie rods, and supporting legs pivotally connecting the free ends of said parallel bars, stops on said bench sections, supporting arms pivotally secured to said bench sections, said arms, when turned upward, affording supports for an ironing board, and, when turned downward, into engagement with said stops, affording braces for said bench sections, substantially as described.

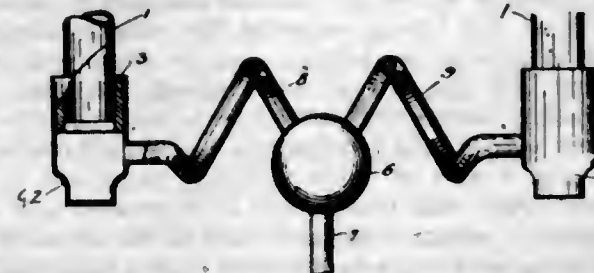
4. In a device of the kind described, the combination with a standard comprising a pair of laterally spaced A-frames, connected by tie rods, of folding bench sections pivotally secured to said standard, each of said bench sections comprising horizontal parallel bars arranged in pairs, connected by tie rods, and supporting legs pivotally connecting the free ends of said parallel bars, a wringer support mounted on said A-frames, stops on said bench sec-

tions, supporting arms pivotally secured to said bench sections, said arms, when turned upward cooperating with said wringer support, to afford supports for an ironing board, and, when turned downward into engagement with said stops, affording braces for said bench sections, substantially as described.

5. In a device of the kind described, the combination with a standard, comprising a pair of laterally spaced A-frames, connected by tie rods, of folding bench sections pivotally secured to said standards, each of said bench sections comprising horizontal parallel bars arranged in pairs, connected by tie rods, and supporting legs pivotally connecting the free ends of said parallel bars, stops on said bench sections, supporting arms pivotally secured to said bench sections, said arms, when turned upward, affording supports for an ironing board and, when turned downward into engagement with said stops, affording braces for said bench sections, rest legs, pivotally secured to said arms, and engageable with said bench sections to hold said arms in different elevations, substantially as described.

[Claim 6 not printed in the Gazette.]

1,080,957. FLUID-MIXING ATTACHMENT FOR FAUCETS. LOUIS DAVIS, New York, N. Y. Filed Apr. 7, 1913. Serial No. 759,379. (Cl. 137-26.)



1. The combination with fluid conducting faucets, of metallic helical coils of pipe capable of fixed adjustment in length and direction to fit between said faucets, means attached between said coils for mixing said fluids and means for discharging the fluids from said coils.

2. The combination with fluid conducting faucets, of metallic coils of pipe capable of fixed adjustment manually in length and direction, a ball attached between said coils and an outlet pipe attached to said ball.

3. The combination with fluid conducting faucets, of metallic helical coils of pipe capable of fixed adjustment manually in length and direction, means removably attached to said faucets for conducting the fluids to the outer ends of said coils, a ball attached to the opposite ends of said coils and an outlet pipe attached to said ball.

4. The combination with hot and cold water faucets, of a metallic coil of pipe of low elastic limit, capable of fixed adjustment in length and direction to fit between said faucets, means removably attached to said faucets for conducting the water to the ends of said coil, means for mixing the water attached near the central part of said coil and means for discharging the water from said mixing means.

5. The combination with hot and cold water faucets, of metallic coils of pipe of low elastic limit capable of adjustment in length and direction to the space between said faucets, means removably attached to said faucets for conducting the water to said coils, a water mixing ball secured to the said coils, and means for discharging the water from said ball.

[Claim 6 not printed in the Gazette.]

1,080,958. ABDOMINAL SUPPORTER. ELIZABETH M. DHALE, Fruitvale, Cal. Filed July 29, 1912. Serial No. 712,002. (Cl. 2-188.)

1. An abdominal supporter comprising a main body portion, flaps 11, each having a vertical edge secured to each side of the body portion, an extension detachably secured to another vertical edge of said flap and comprising, detachably secured together, inner and outer portions 12, 13,

the outer portions 13 of the two extensions being provided at their outer edges with means 27, 28, for securing them together, a gore-shaped piece 30 inserted between said outer edges and detachably connected to said last-named portions, two elongated pads 37, each having an approximately vertical portion and a horizontal portion, the ends of the horizontal portions being detachably connected to each other, means 38 for connecting each pad to the lower ends of the corresponding extension, and padded bands 42 adapted to pass between the legs of the wearer, and detachably connected at their ends to the side and back respectively of the supporter, and at their mediate portions to the lower end of the extension on the corresponding side.



2. An abdominal supporter comprising a main body portion, flaps 11, each having a vertical edge secured to a side of the body portion, an extension detachably secured to another vertical edge of said flap and comprising, detachably secured together, inner and outer portions 12, 13, the outer portions 13 of the two extensions being provided at their adjacent edges with means 27, 28, for securing them together, a gore-shaped piece 30 inserted between said outer edges and detachably connected to said last-named portions, two elongated pads 37, each having an approximately vertical portion and a horizontal portion, the ends of the horizontal portions being detachably connected to each other, loops 38 around the pads connected to the lower ends of the extensions, padded bands 42 adapted to pass between the legs of the wearer, and detachably connected at their ends to the side and back respectively of the supporter, a loop 45 around the mediate portion of each band, and a second loop 46 around the first loop, one end of which is detachably connected to the lower end of the extension on the corresponding side.

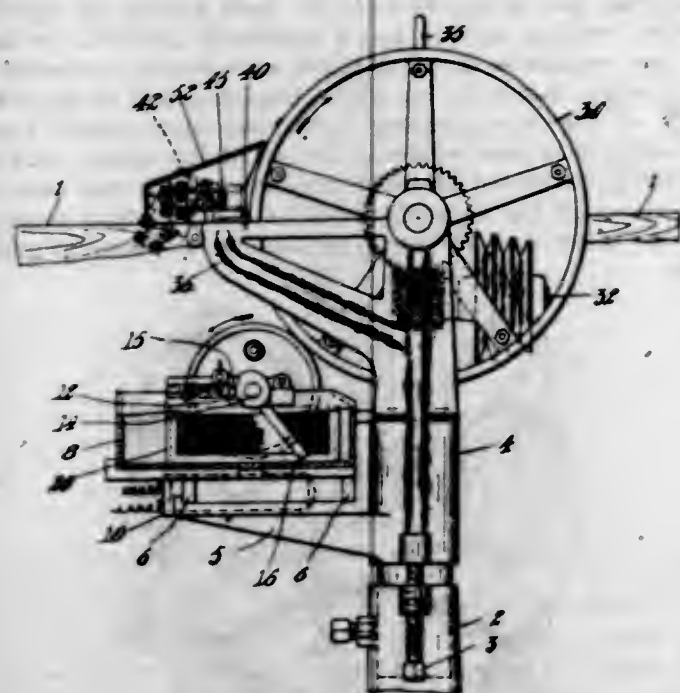
1,080,959. CEMENTING-MACHINE. WILLIAM G. EATON, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 19, 1908. Serial No. 453,817. (Cl. 91-50.)

1. A machine for applying liquid cement, having in combination, a cement applying roll, a shedder therefor arranged in approximate contact with the roll to limit at all times to a thin film the cement carried by the roll and means for driving the roll, said machine having provision for intermittently varying the relation between the shedder and the adjacent portion of the periphery of the roll to dislodge obstructions.

2. A machine of the class described, having in combination, a cement applying roll, a shedder therefor and means for driving the roll, said machine having provision for automatically varying at intervals the space between the shedder and the adjacent portion of the periphery of the roll.

3. A machine of the class described, having in combination, a cement receptacle, a cement supplying roll,

and a cement applying roll, one of said rolls having a cement carrying face and an annular radially extended portion adapted to engage and have driving connection with the other roll.

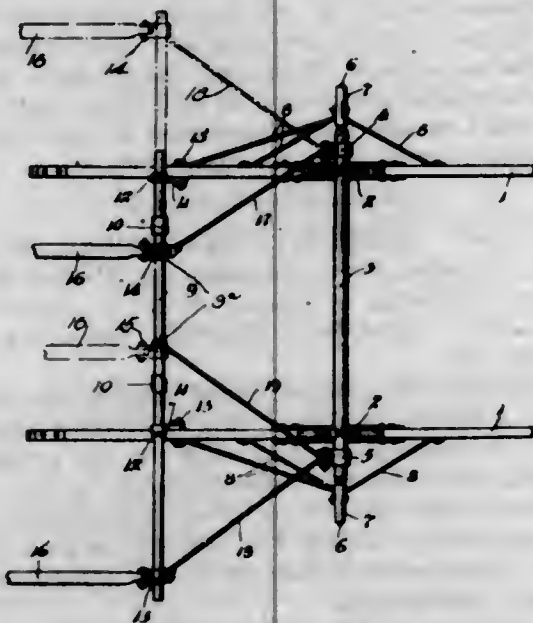


4. A machine of the class described, having in combination, a cement receptacle, a cement supplying roll, and a cement applying roll, one of said rolls having a cement carrying face and a raised driving face at each end adapted to form a driving connection with the other roll and to hold the cement carrying face of the two rolls separated a predetermined distance.

5. A machine of the class described, having in combination, a cement applying roll, means for driving it, a cement supplying roll, a cement receptacle, means for yieldingly holding the supplying roll toward the applying roll, and a rim or raised surface on each end of the supplying roll adapted to hold the cement carrying faces of the two rolls spaced apart and to form a driving connection between the two rolls.

[Claims 6 to 8 not printed in the Gazette.]

1,080,960. MEANS FOR ATTACHING DRAFT-BARS TO SLEIGH-RUNNERS. CHARLES M. ERICKSON, Clarkfield, Minn. Filed Feb. 24, 1912. Serial No. 679,565. (Cl. 21-95.)



1. The combination with a pair of sleigh runners mounted for independent oscillatory movements with respect to each other, of a draft bar, diagonal brace rods connecting said draft bar to said runners in a manner to permit said independent oscillatory movements thereof, and a pair of thills mounted for lateral adjustments on said draft bar, said brace rods being made in duplicates

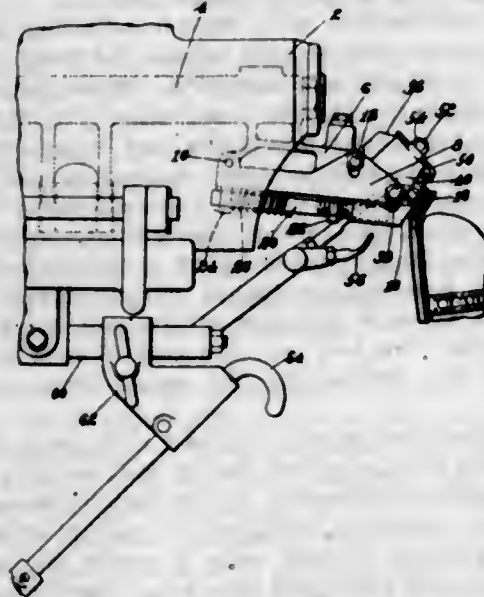
and interchangeable to permit said draft bar to be adjusted endwise to bring said thills in different lateral positions, substantially as described.

2. The combination with a pair of sleigh runners mounted for independent oscillatory movements with respect to each other, of eye-bolts attached to said runners, a draft bar loosely mounted for endwise movement in the eyes of said eye-bolts, diagonal brace rods connecting said draft bar to said runners in a manner to permit said independent oscillatory movements thereof, and a pair of thills connected to said draft bar, said brace rods being made in duplicates and interchangeable to permit said draft bar to be adjusted endwise to bring said thills in different lateral positions, substantially as described.

3. The combination with a pair of sleigh runners mounted for independent oscillatory movements with respect to each other, of eye-bolts attached to said runners, a draft bar loosely mounted for endwise movement in the eyes of said eye-bolts, diagonal brace rods connecting said draft bar to said runners in a manner to permit said independent oscillatory movements thereof, and a pair of thills adjustably connected to said draft bar, said brace rods being made in duplicates and interchangeable to permit said draft bar to be adjusted endwise to bring said thills in different lateral positions, substantially as described.

4. The combination with a pair of sleigh runners mounted for independent oscillatory movements with respect to each other, of a pair of eye-bolts attached to said runners, a draft bar loosely mounted for endwise movement in the eyes of said eye-bolts, a pair of clips mounted on said draft bar for lateral adjustments, diagonal brace rods pivotally connecting said clips to said runners in a manner to permit said independent oscillatory movements thereof, and a pair of thills pivotally connected to said clips, said brace rods being made in duplicates and interchangeable to permit said draft bar to be adjusted endwise to bring said thills in different lateral positions, substantially as described.

1,080,961. WHEELING AND EDGE-SETTING MACHINE. LOUIS W. G. FLYNT, Chicago, Ill., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1913. Serial No. 750,432. (Cl. 12-78.)



1. In a machine of the class described the combination of a rocker frame, a tool carrier mounted to rock with said frame, a tool supporting member carried by said tool carrier and mounted for movement relatively to said carrier, and a draw bolt arranged to engage said member to lock the member and tool in operative position on the carrier.

2. In a machine of the class described the combination of a rocker frame, a tool carrier mounted to rock with said frame, a tool supporting member carried by said tool carrier and mounted for adjustment relatively to said carrier, a spring tending to move said member relatively

to the carrier, and a draw bolt arranged to engage said member to lock it in adjusted position.

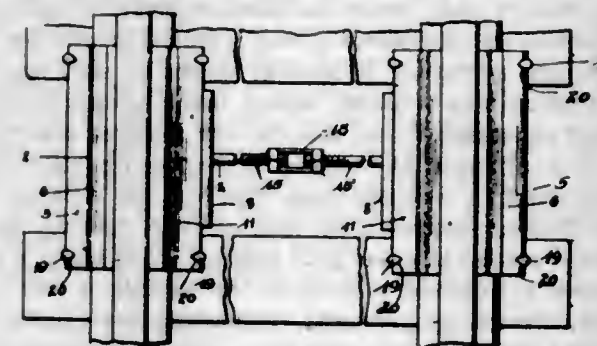
3. In a machine of the class described the combination of a rocker frame, a tool carrier mounted to rock with said frame, a tool supporting rod mounted at one side of said carrier, an edge setting tool having a flat surface to engage the side of the carrier and having a socket to receive said rod, and means arranged to act upon said rod to clamp the flat surface of the tool against the side of the tool carrier.

4. In a machine of the class described the combination of a rocker frame, a tool carrier mounted for limited pivotal movement on said frame, a spring interposed between said frame and carrier, an indenting wheel supported by said tool carrier, a tool supporting rod mounted on said carrier for movement toward and from said indenting wheel, a spring acting on said rod to move it toward said wheel, an edge setting tool mounted on said wheel, a draw bolt engaging said rod, and a spring acting on said draw bolt to clamp said rod and tool in adjusted position on the carrier.

5. In a machine of the class described, the combination of a rocker frame, a tool carrier mounted to rock with said frame, an edge setting tool supported by said carrier, a casing supported on said carrier for angular adjustment relatively to said tool, a slide mounted in said casing for movement toward and from the tool, a spindle removably supported in said slide, an indenting wheel mounted on said spindle adjacent to said edge setting tool, and a draw bolt carried by the slide and arranged to engage said spindle to lock it in adjusted position in the slide.

[Claims 6 to 8 not printed in the Gazette.]

1,080,962. COMBINED RAIL CHAIR AND ANTI-SPREADING DEVICE. STEWART N. FRASER, Green Bay, Wis. Filed May 23, 1913. Serial No. 769,502. (Cl. 238-5.)



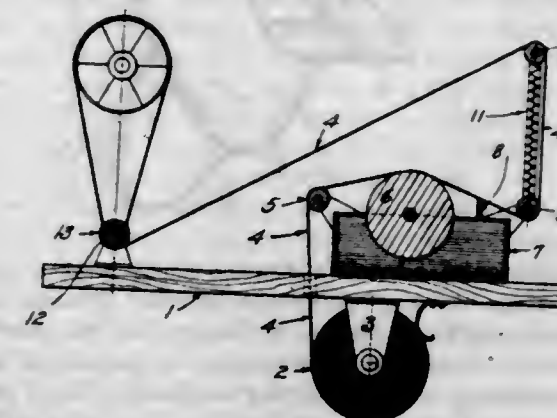
1. A combined railroad chair and anti-spreading device consisting of an outer brace member adapted to have its ends seated upon two adjacent ties and having a horizontal plate formed thereon and extending inwardly under a rail of the railroad, the inner end of said plate being provided with an upstanding flange and an aperture contiguous to the flange, an inner brace member having a depending and laterally extending apertured lug passing through the aperture of said plate, a bolt extending through said aperture, and means connecting said bolt with the opposite rail of the railroad.

2. A combined rail chair and anti-spreading device consisting of a plate extending under and against the rail and having a brace member on one end and an upstanding flange on its other end and having an aperture there-through adjacent to said upstanding flange, a brace member having a lug thereon which extends through said aperture, and means connecting said lug with the opposite rail of the railroad and coacting therewith for holding the second said brace in its normal position against the rail web.

3. The combination in a railway, of an anti-spreading device, comprising a pair of rail chairs, each consisting of an outer brace member spanning the space between two adjacent ties and having its ends resting upon the respective ties and secured thereto, each said outer brace

member being formed with a horizontally extending plate having its upper surface flush with the lower surface of said brace member and having a railway rail seated thereon and extending inward beyond said rail and being provided with an upstanding flange and a contiguous aperture, an inner brace member having an apertured lug extending through the aperture of said plate, a bolt extending inwardly through each of the apertured lugs, and a turnbuckle fitted on the adjacent ends of the bolts.

1,080,963. PAPER FILE-HANDLE. KARL ALFRED OTTO FRINDT, Chicago, Ill. Filed Aug. 21, 1912. Serial No. 716,146. (Cl. 145-61.)



1. The art of making paper file handles which consists in wrapping a strip of glue coated paper upon a rapidly revolving mandrel which is partially angular and partially round in cross section, to produce a cylindrical blank having a round core at one end and an angular core at the other end, and then turning the exterior of the blank to proper shape.

2. The art of making paper file handles which consists in wrapping a strip of glue coated paper upon a rapidly revolving mandrel which is partially square and partially round in cross section, to produce a cylindrical blank having a round core at one end and a square core at the other extremity, then turning the exterior of said blank to shape, and finally closing the end of said round core by upsetting the fiber thereabout.

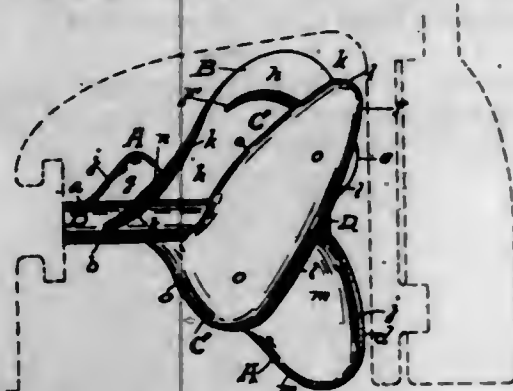
3. As a new article of manufacture, a paper file handle comprising a blank composed of a single strip of glue coated paper wrapped upon itself in a plurality of successive convolutions and turned to proper exterior shape, there being an axial core throughout said blank, one end of which core is of angular cross section and the other of round cross section.

4. As a new article of manufacture, a paper file handle comprising a blank composed of a single strip of glue coated paper wrapped upon itself in a plurality of successive convolutions and turned to proper exterior shape, there being an axial core throughout said blank, one end of which core is of square cross section, merging into a round cross section at the other end, the outer extremity of said round portion of the core being closed.

1,080,964. PROPELLER. GIUSEPPE GAYS, Los Angeles, Cal. Filed Nov. 13, 1912. Serial No. 731,118. (Cl. 170-159.)

1. A propeller comprising a plurality of blades in which the revoluble effective propelling surface conforms to a spiral, each blade overlapping one and underlapping another of such blades; said spiral blades being of different lengths of spiral and of different depths of concave curvature; the lengths of spirals and the depths of the concave surfaces being such that each blade exerts equal propulsive thrust from a given mass of water in an equal duration of time; a shaft on which the propeller is mounted; each of said blades having its edge of helical conformation and being of equal distance from the shaft at a given point as it recedes from said shaft; and a circular rib on each of said water resisting surfaces for retarding the flow of water in the spaces between the blades, substantially as described.

2. An improved propeller having a plurality of blades, each of which overlaps one and underlaps another of such blades; and a circular rib of varying dimensions of projection on the thrust producing water resisting surfaces of each of such blades, to retard the deflecting water in motion over said surfaces, said ribs being circumferential of the center of the shaft, substantially as described.



3. An improved propeller having three blades, each of which overlaps one and underlaps another of such blades; a propelling shaft on which the blades are fastened; and a circular rib of varying dimensions of projection on the thrust producing, water resisting surfaces of each of such blades, to retard the flow of the water over said surfaces; said ribs extending circumferential of the axial center of said propeller, substantially as described.

4. An improved propeller having three blades, each of which overlaps one and underlaps another of such blades; a propelling shaft carrying the blades; and a circular rib of varying dimensions of projection on the thrust producing water resisting surfaces of such blades, to retard the flow of a given mass of water over said surfaces; said blades being of spiral conformation longitudinally of the shaft, and each conforming to a helix of equal depth of the spiral screw, as at a given point it recedes from said shaft; said blades each being of concave curvature of slightly varying degrees, so that a given mass of water is productive of equal thrust in each blade in an equal duration of time, substantially as described.

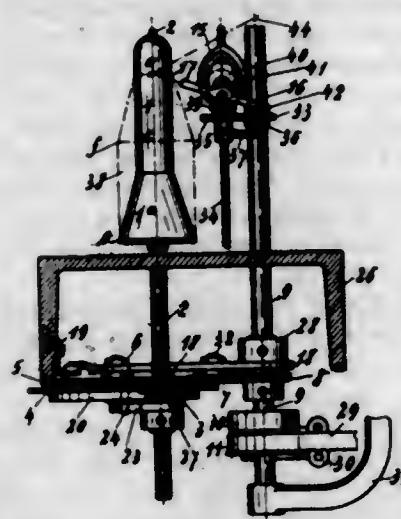
5. An improved propeller having three blades each of which overlaps one and underlaps another of such blades; a propelling shaft carrying the blades; and a circular rib of constantly increasing dimensions of projection on the thrust producing water resisting surfaces of each of such blades, to retard the flow of water over said surfaces; said blades being of spiral conformation of different lengths longitudinally of the shaft and having their starting points one leading the other and each conforming to a helix at a given point of equal depth of the spiral screw in relation to each other as it recedes from said shaft; said blades each being of concave curvature, of slightly different depth, so that a given mass of water is productive of equal thrust in each blade in an equal duration of time and thereby produces equal propulsive effect, substantially as described.

1,080,965. DIFFERENTIAL MOTION FOR SPOOLING-MACHINES. PAUL GROSSER, Markersdorf, Germany. Filed Feb. 11, 1913. Serial No. 747,692. (Cl. 242-31.)

1. In a differential motion for spooling machines, a driving shaft, a circular gear fast on the driving shaft, a lever loosely mounted to rock on the driving shaft, a spindle adapted to receive a spool, a second circular gear fast on the spindle, a second lever loosely mounted to rock on the spindle, a third circular gear adapted to mesh with said first gear, means for pivotally connecting the center of said third gear with the first said lever, a fourth circular gear rigidly connected with the third gear eccentrically thereto and adapted to mesh with the second gear, and means for pivotally connecting the center of said fourth gear with the second lever.

2. In a different motion for spooling machines, a driving shaft, a circular gear fast on the driving shaft, a lever

loosely mounted to rock on the driving shaft, a spindle adapted to receive a spool, a second circular gear fast on the spindle, a second lever loosely mounted to rock on the spindle, a third circular gear, means for pivotally connecting the center of said third gear with the first said lever, means for transmitting rotation from said first gear to the third gear, a fourth circular gear rigidly connected with the third gear eccentrically thereto, means for pivotally connecting the center of said fourth gear with the second lever, and means for transmitting rotation from the fourth wheel to the second wheel.



3. In a differential motion for spooling machines, a driving shaft, a circular gear fast on the driving shaft, a lever loosely mounted to rock on the driving shaft, a spindle, a second circular gear fast on the spindle, a second lever loosely mounted to rock on the spindle, a third circular gear adapted to mesh with the first gear, means for pivotally connecting the center of the third gear with the first lever, a fourth circular gear rigidly connected with the third gear eccentrically thereto and adapted to mesh with the second gear, means for pivotally connecting the center of the fourth gear with the second lever, a spool with conical head on said spindle, and winding means for winding the yarn or thread in conical layers on said spool, the several gears and winding means being proportioned and arranged substantially as and for the purpose described.

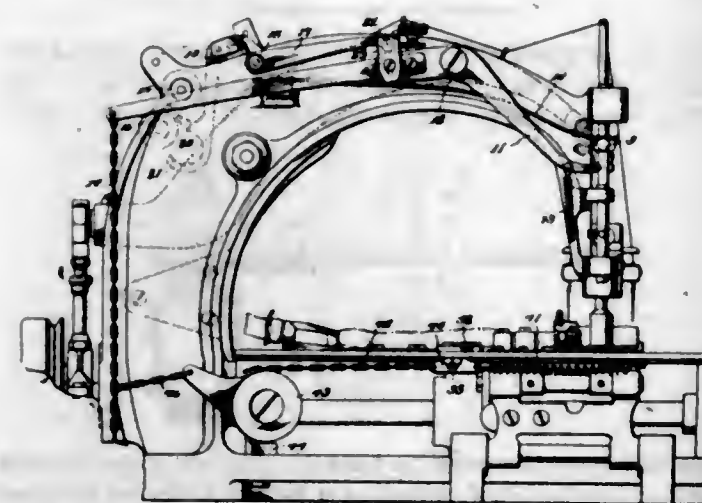
4. In a differential motion for spooling machines, a driving shaft, a circular gear fast on the driving shaft, a lever loosely mounted to rock on the driving shaft, a spindle, a second circular gear fast on the spindle, a second lever loosely mounted to rock on the spindle, a third circular gear, means for pivotally connecting the center of the third gear with the first said lever, means for transmitting rotation from the first gear to the third gear, a fourth circular gear rigidly connected with the third gear eccentrically thereto, means for pivotally connecting the center of said fourth gear with said second lever, means for transmitting rotation from the fourth wheel to the second wheel, a spool with conical head on the spindle, and winding means for winding the yarn or thread in conical layers on the spool, the several gears and winding means being proportioned and arranged substantially as and for the purpose described.

1,080,966. FIREPROOFING COMPOSITION. WILLIAM A. HALL, New York, N. Y., assignor to William A. Hall Lumber & Fibre Company, a Corporation of Vermont. Filed Nov. 3, 1909. Serial No. 526,028. (Cl. 99-12.)

1. A fireproofing composition consisting of a salt having fireproofing properties and having an acid reaction, and a salt having an alkaline reaction, mixed together in approximately equal proportions, resulting in an alkaline mixture.

2. A fireproofing composition consisting of sulfate of ammonia and trisodium phosphate, mixed together in approximately equal proportions, resulting in an alkaline mixture.

1,080,967. SEWING-MACHINE. JOHN HAYES, Amsterdam, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 10, 1911. Serial No. 660,579. (Cl. 112-1.)



1. The combination of a binder, stitching mechanism, a presser foot, and means common to the binder and presser foot for moving the binder away from the stitching mechanism and for raising the presser foot.

2. The combination of a binder, stitching mechanism, a presser foot, and means common to the binder and the presser foot for moving the binder away from the stitching mechanism and for raising the presser foot, said means being constructed so that the binder may be withdrawn a short distance from the stitching mechanism before the presser bar is raised.

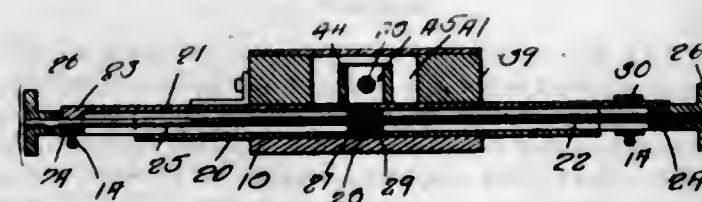
3. The combination of a binder, stitching mechanism, a presser foot, means for moving the binder in a transverse direction with respect to the line of seam at the will of the operator during the stitching operation, said means including devices for raising the presser foot after the movement of the binder has taken place.

4. The combination of a binder, stitching mechanism, a presser foot, means for moving the binder in a transverse direction with respect to the line of seam at the will of the operator during the stitching operation, said means including devices for raising the presser foot, and devices for releasing the tensions on the needle threads.

5. The combination of a binder, stitching mechanism, a lever for withdrawing the binder from the stitching mechanism, a lever for raising the presser foot, and means for simultaneously swinging said levers.

[Claims 6 to 14 not printed in the Gazette.]

1,080,968. MECHANICAL MICROSCOPE-STAGE. HENRY HAYES, Baltimore, Md. Filed Feb. 14, 1913. Serial No. 748,449. (Cl. 88-39.)



1. A microscope attachment comprising a slide carrier, micrometrical adjusting means, connections between the adjusting means and the slide carrier admitting a coarse adjustment of the carrier with respect to the micrometrical adjusting means, and attaching devices connected with the micrometrical adjusting means.

2. A microscope attachment comprising attaching devices, a member movable with respect to the attaching devices, means for adjusting the said member, said member being movable with respect to the adjusting means, a slide carrier carried by the first-named member, said slide carrier being shiftable with respect to the first-named member at right angles to the movement of said member, and means for moving the slide carrier, said carrier being shiftable with respect to its moving means.

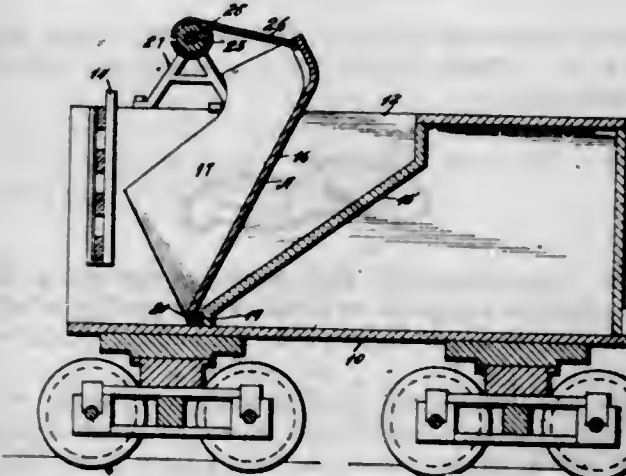
3. A microscope attachment comprising attaching devices, a member movable with respect to the attaching devices, means for adjusting the said member, said member being movable with respect to the adjusting means, a slide carrier carried by the first-named member, said slide carrier being shiftable with respect to the first-named member at right angles to the movement of said member, and means for holding the movable member and the slide carrier yieldably against movement with respect to their moving means.

4. A microscope attachment comprising means for holding and moving a slide, pins carried by said slide holding and moving means, one of said pins being shiftable toward and away from the other, and apertured members corresponding in number with the pins, said pins being removably engaged in the apertures of said members, said members being constructed and arranged for attachment to the stage plate of a microscope, by which construction the distance between the stage plate engaging members may be varied to suit stage plates of different sizes.

5. In a microscope attachment, the combination with a slide carrier, of an attaching member, means located between the slide carrier and the attaching member for movement of the slide carrier with respect to the attaching member, said slide carrier being movable with respect to the moving means, and means for holding the slide carrier yieldably against such last-named movement.

[Claims 6 to 11 not printed in the Gazette.]

1,080,969. LOCOMOTIVE-TENDER. JAMES B. HOAR, Scranton, Pa. Filed June 19, 1912. Serial No. 704,617. (Cl. 105-260.)



A locomotive tender having a coal pit provided with an opening to permit access to the coal and also having an uninterrupted water compartment at the rear of the coal pit, a fuel-moving member having its lower end pivotally mounted in the coal pit at the bottom of the latter and normally resting against the entire rear wall of the pit, aligned brackets mounted on the top of respective sides of the tender between the front and rear limits of the coal pit, an overhead shaft journaled in said brackets, a connection having one end secured to the shaft and its other end to the upper free end of the member whereby the rotation of the shaft in one direction will move the upper end of the member toward the forward end of the coal pit.

1,080,970. TANNING MATERIAL AND METHOD OF MAKING SAME. MAX HÖNIG, Brünn, Austria-Hungary. Filed Mar. 31, 1910. Serial No. 552,553. (Cl. 149-4.)

1. A process for the manufacture of tanning substance from sulfite cellulose waste lyes, consisting in mixing the lyes with an acid which forms insoluble calcium salts in necessary proportion for freeing a portion only of the ligno-sulfonic acids, and adding a soluble salt of said first mentioned acid in the proportion required to convert the remaining calcium salts into other soluble salts and an insoluble calcium salt.

2. A process for the manufacture of tanning substance from sulfite cellulose waste lyes, consisting in mixing the

lyes with an acid which forms insoluble calcium salts in necessary proportion for freeing a portion of the ligno-sulfonic acids, and adding a soluble salt of said first mentioned acid in the proportion required to convert the remaining calcium salts into other soluble salts and an insoluble calcium salt then filtering the product through a tanning material which forms insoluble compounds with iron.

3. A process of converting waste sulfite liquor into a useful tanning agent, which comprises reacting upon said liquor with an acid, of which the calcium salt is substantially insoluble, in amount sufficient to decompose a part only of the calcium ligno-sulfonate therein, and in reacting upon said liquor with a sufficient amount of a soluble salt, containing an acid capable of forming a calcium salt which is substantially insoluble, to convert the remaining soluble calcium into insoluble salts.

4. A process of making a tanning agent from sulfite waste liquor, which comprises reacting upon said liquor with sulfuric acid in amount sufficient to decompose a part only of the calcium ligno-sulfonate therein; and thereafter reacting upon said liquor with a sufficient amount of a solution of a salt of an acid whose calcium salt is insoluble, to decompose the remainder of the calcium ligno-sulfonate.

5. A process of making a tanning agent from sulfite waste liquor, which comprises reacting upon said liquor with sulfuric acid, in amount sufficient to decompose a part only of the alkaline earth ligno-sulfonates therein, and in reacting upon said liquor with an amount of a solution of a soluble sulfate sufficient to decompose the remainder of the alkaline earth ligno-sulfonates.

[Claims 6 to 8 not printed in the Gazette.]

1,080,971. FOOD PRODUCT. HERBERT M. ISAACS, Newark, N. J. Filed Apr. 7, 1911. Serial No. 619,460. (Cl. 127-4.)



1. The herein-described food product, consisting of a portion of edible nut meat or kernel and a portion of other edible matter inclosed together in the natural shell of a nut.

2. The herein-described food product, consisting of an edible nut meat or kernel and a piece of candy inclosed together in the natural shell of a nut normally containing two meats or kernels.

3. The herein-described food product, consisting of a portion of edible nut meat remaining in natural position in the shell of a nut from which the rest of the edible meat has been removed and a piece of edible matter of another kind inclosed within said shell in the cavity formed by the said removal of a portion of the edible nut meat.

1,080,972. PLAYING-SURFACE. GEORGE P. JACKSON, New York, N. Y. Filed Apr. 1, 1913. Serial No. 753,218. (Cl. 46-81.)



1. A playing surface of flexible material, and means for shifting said surface into undulations.

2. A playing surface of flexible material, and means for variably shifting said surface into undulations.

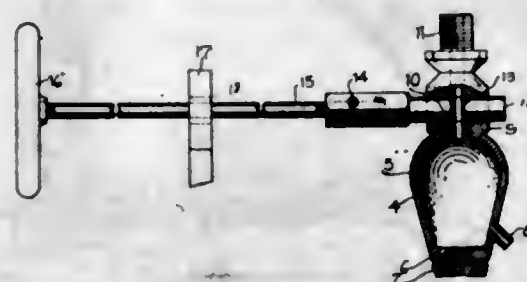
3. A playing surface of flexible material normally flat, and means for shifting said surface into undulations.

4. A playing surface of flexible material normally flat, and means for variably shifting said surface into undulations.

5. In combination with a frame, a playing surface of flexible material supported within said frame, and means for shifting said surface into undulations.

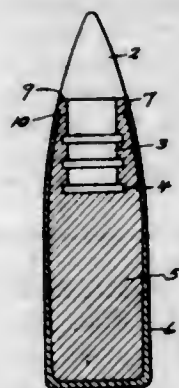
[Claims 6 to 9 not printed in the Gazette.]

1,080,973. FROST-COCK FOR LOCOMOTIVE-BOILERS. HENRY JAGIELSKI and JOHN J. HOLOHAN, Gibson, Ind. Filed June 9, 1913. Serial No. 772,727. (Cl. 137-69.)



The combination with a branch pipe of a locomotive boiler, of a relief cock including a body having an interior chamber, a tube removably engaged with one side of the body and having communication with the chamber, said body being provided at its lower end with an opening, a threaded plug removably engaged within said opening, an extension formed on the body and provided with a central opening, a reduced threaded portion formed upon said extension and adapted for engagement with the branch pipe, a transverse valve stem arranged within said extension and having a transverse opening adapted for communication with the central opening, said valve having an internally threaded socket at one end and an operating rod having one end removably engaged with the socket whereby the valve stem may be readily actuated from the cab of the locomotive to establish communication between the branch pipe and the chamber.

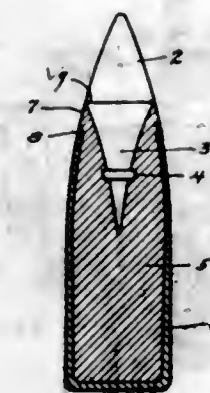
1,080,974. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 8, 1913. Serial No. 788,647. (Cl. 102-28.)



1. As a new article of manufacture, a sharp-nosed, solid point mushroom bullet the rear end of which is cylindrical and the forward end of which tapers to a point, the said bullet having a soft metal core, a jacket therefor, and a solid conical point projecting beyond the forward end of the said jacket and continuing the taper of the forward end thereof to a sharp point, adapted at its inner end to be anchored in the metal of the core, and formed at the inner end of its pointed portion with an annular shoulder overhanging the forward edge of the jacket from which it is separated by a circumferential accommodation space into which a portion of the soft metal core is exuded.

2. A mushroom bullet having a soft metal core, a jacket therefor, and a solid point formed with a shank by which the point is anchored in the soft metal core, the overhanging inner end of the point being separated from the edge of the jacket by a circumferential accommodation space into which a portion of the soft metal of the core is exuded, and the edge of the jacket being beveled to coast at the time of mushrooming with the overhanging inner end of the point in spreading the jacket open.

1,080,975. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 10, 1913. Serial No. 789,055. (Cl. 102-28.)



1. A sharp-nosed, mushroom bullet cylindrical at its rear end and tapering to a point at its forward end, the said bullet having a soft metal core, a jacket therefor, and a solid, conical tip projecting beyond the tapered forward end of the said jacket and continuing the exterior lines thereof to a point, and having a wedge-shaped anchor embedded in the forward portion of the core, a circumferential accommodation space filled with metal exuded from the core being formed between the inner corner of the projecting portion of the tip and the forward edge of the jacket.

2. A sharp-nosed, mushroom bullet cylindrical at its rear end and tapering to a point at its forward end, the said bullet having a soft metal core, a jacket therefor, and a solid tip projecting beyond the tapered forward end of the said jacket and continuing the lines thereof to a point and having a concentric, conical anchor embedded in the forward end of the said core and provided with a retaining-rib, a circumferential accommodation space being formed between the inner corner of the projecting portion of the said tip and the forward edge of the jacket and filled with a band of metal exuded from the core and directly interposed between the corner of the tip and the edge of the jacket.

1,080,976. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,603. (Cl. 102-28.)



1. A sharp-nosed mushroom bullet having a soft metal core, and a sheet-metal jacket entirely inclosing the said core, tapered at its forward end to a point and formed in its tapering forward portion with a downwardly inclined indentation struck from the outside of the jacket and entering the core and weakening the jacket so that it breaks down in the neighborhood of the indentation.

2. A sharp-nosed mushroom bullet having a soft metal core, and a sheet-metal jacket entirely inclosing the said core, tapered at its forward end to a point and formed in its tapered forward portion with a circumferential downwardly inclined groove extending into the soft metal core of the bullet, the metal of the jacket being stretched and

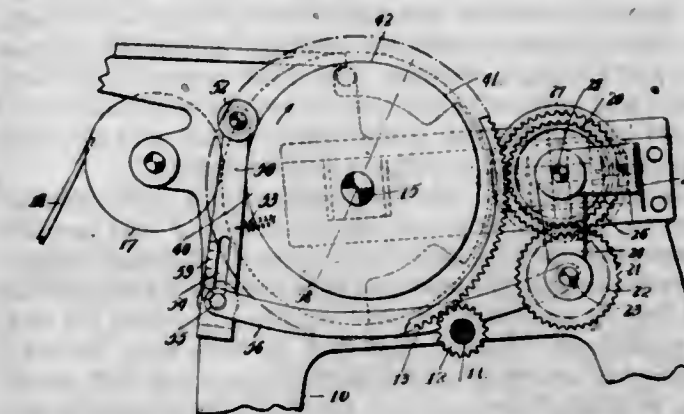
weakened in the groove, whereby it initially breaks down in the neighborhood of the groove and facilitates the mushrooming of the bullet.

1,080,977. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,604. (Cl. 102-28.)



A full jacketed, sharp-nosed mushroom bullet, comprising a one-piece sheet-metal jacket closed at its front end, and a soft-metal core, the jacket being virtually divided into a top-portion and a body-portion by the formation on the exterior surface of its tapering point of a circumferential cut groove the bottom wall of which serves to unite the said tip and body portions of the jacket, whereby the jacket is weakened by the said groove so as to readily mushroom on impact.

1,080,978. COMPENSATING AND RETRIEVING MEANS FOR PRINTING-MACHINES. ROBERT T. JOHNSTON, Scotch Plains, N. J., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1908. Serial No. 415,143. (Cl. 101-111.)



1. In a printing machine, the combination of an impression member, a rotary printing member, means for moving the contacting surfaces of said members at the same speed, comprising planetary gearing constructed and adapted to vary the relative surface speeds of said members positively and automatically but uniformly throughout a complete revolution to compensate for any variation from the normal in the size of the printing member.

2. In a printing machine of the two-revolution type, the combination of an impression cylinder, a printing cylinder and means for rotating the printing cylinder a plurality of times during a single rotation of the impression cylinder and constantly at the same circumferential speed, comprising adjustable means for varying the relative speeds of said member automatically and positively to compensate throughout a complete revolution for any variation from the normal in the size of the printing cylinders.

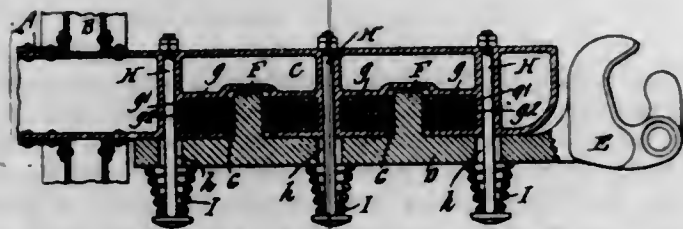
3. In a printing machine, the combination of an impression cylinder, a printing cylinder or shell, and means connecting said cylinders for positively and uniformly varying the speed of one of them and retrieving the same during the time of impression.

4. In a printing machine, the combination of an impression cylinder, a printing cylinder, and means operated by one of said cylinders for positively rotating the other cylinder during the entire revolution thereof, and for moving it circumferentially for bringing the two cylinders into proper registration once during each revolution of the impression cylinder.

5. In a printing machine, the combination of an impression cylinder, and a printing cylinder with positive means connected with one of said cylinders for rotating the other cylinder throughout a revolution, and bringing it into proper registration therewith once during each revolution of the impression cylinder.

[Claims 6 to 25 not printed in the Gazette.]

1,080,979. DRAFT-GEAR. JOHN J. KANANE, Buffalo, N. Y., assignor to Buffalo Draft Gear Company, Inc., Buffalo, N. Y. Filed Oct. 18, 1912. Serial No. 728,429. (Cl. 213-64.)



1. In a draft gear, the combination of a fixed member on the car, a drawbar arranged at one side of said member and adapted to move endwise relatively thereto, yielding resisting means arranged between said fixed member and said drawbar operating in the line of movement of said drawbar for resisting the endwise movements of said drawbar, and separate yielding means for securing said drawbar to said fixed member, substantially as set forth.

2. In a draft gear, the combination of a fixed member on the car, a drawbar which is rigid throughout its length and is arranged at one side of said member and horizontally movable endwise and transversely relative thereto, means for yieldingly resisting endwise movement thereof which are arranged between said fixed member and said drawbar and operate in the line of movement of said drawbar, and spring pressed means for securing said drawbar to said fixed member, substantially as set forth.

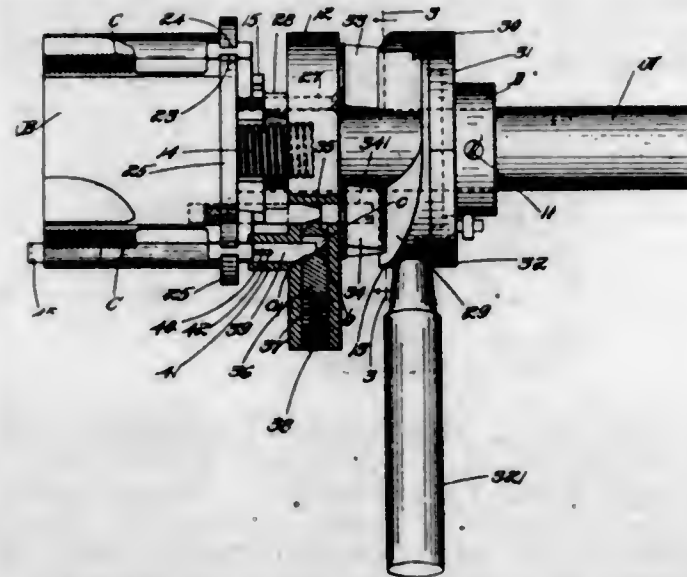
3. In a draft gear, the combination of a fixed member on the car, a drawbar arranged at one side of said member and movable endwise relatively thereto, yielding connections between said drawbar and said member which operate in the line of movement of said drawbar to resist the endwise movements thereof relatively to said fixed member, and separate spring pressed means for securing said drawbar to said fixed member but permitting a rocking movement of said drawbar relatively to said fixed member, substantially as set forth.

4. In a draft gear, the combination of a fixed member on the car, a drawbar arranged at one side of said member and movable endwise and transversely relative thereto, yielding connections between said drawbar and said member to permit limited endwise movement of said drawbar relative to said member, springs arranged on the outer side of said drawbar, and bolts passing loosely through openings in said drawbar and said member and engaging said springs, said springs and bolts securing said drawbar to said member but permitting a rocking movement of said drawbar relative to said fixed member, substantially as set forth.

5. In a draft gear, the combination of a casing, a drawbar arranged at one side of said casing and movable endwise relative thereto, said drawbar having a part which projects into said casing, and resistance devices located in said casing and engaging said projecting part of the drawbar to yieldingly oppose the endwise movement thereof, and means for permitting the lateral horizontal movement of said drawbar, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,080,980. TAP. THOMAS F. KERN, Boston, Mass., assignor of one-half to William A. Macleod and Eldon Macleod, Westwood, Mass., and Charles W. McConnell, Boston, Mass., trustees. Filed Mar. 9, 1912. Serial No. 682,708. (Cl. 10-143.)



1. In a tap, the combination of an arbor, a body having radial slots therein T-shape in cross section, metal plates on said body forming corresponding slots between their adjacent edges, wedges T-shape in cross section movable longitudinally of said slots and interlocking cutters having slots therein engaging the sides of the slots in said plate and movable radially therein, and a rotatable cam on said arbor for actuating said wedges.

2. In a tap, the combination of an arbor, a body, cutters in the said body movable radially, wedges moving the said cutters radially by movement longitudinally of the arbor, a head secured to said wedges and slidable longitudinally of the arbor, a rotatable cam moving said head in one direction, a spring moving the said head in the other direction, and a latch.

3. In a tap, the combination of an arbor, a body, cutters in the said body movable radially, wedges moving the said cutters radially by movement longitudinally of the arbor, a head secured to said wedges and slidable longitudinally of the arbor, a rotatable cam moving said head in one direction and a spring moving the said head in the other direction, a latch to secure the head in operative position, a trigger passing through said body and engaging said latch.

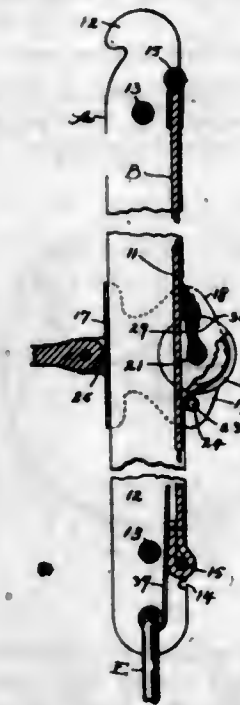
4. In a tap, the combination with a body having a T-shaped slot therein, cutters in the said slot, radially movable wedges having ribs engaging the groove forming parts of said T-shaped slot, said cutters and said wedges being interlocked by means of corresponding grooves and ribs.

5. In a tap, the combination of a body, radially movable cutters contained in slots in the said body, moving means to operate the said cutters, a head to which the said moving means are secured, springs moving said head in one direction, a cam moving said head in the other direction, an adjustable latch stud, a latch on said head to engage said latch stud and a trigger passing through said body to disengage the latch from the said latch stud and release the head.

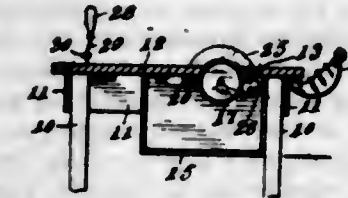
1,080,981. RAZOR-STROPPING DEVICE. JOSEPH KEBOLA, New Britain, Conn. Filed Nov. 27, 1912. Serial No. 733,791. (Cl. 51-16.)

A razor stropping device comprising a frame having side bars, a carriage slidably mounted thereon and having a shaft, and a driving pulley and blade holding devices on the said shaft, and a strop mounted on the said frame, a belt engaged with the said pulley, one end thereof being fixed to one end of the said frame, and a combined frame support and tension device positioned at the other end of the said frame and comprising a shaft portion pivotally mounted between the said side bars, and a handle portion extending radially from the said shaft portion, and the other end of the said belt being attached to the said shaft

portion, whereby the said handle portion may be grasped by the hand and serve to support the corresponding end

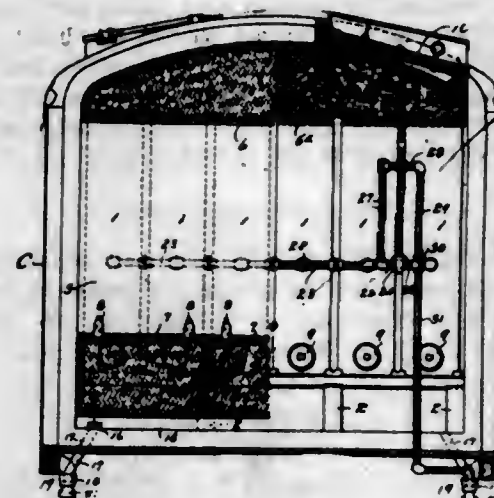


1,080,982. FISH-SCALER. FRANK KNAFF, Ripon, Wis. Filed July 31, 1912. Serial No. 712,558. (Cl. 17-10.)



A fish scaler including a support having an opening therein, a fish supporting grating forming one side of said opening, a roughened cylinder in said opening having the longitudinal edges disposed in close proximity to said grating and to the opposite side of said opening from said grating, means for rotating said cylinder toward said grating, and a cleaning brush disposed on the underneath face of said support and bearing against said cylinder on the opposite side thereof from said grating.

1,080,983. REFRIGERATOR-CAR. GEORGE E. KNEPPER, Altoona, Pa. Filed Nov. 11, 1912. Serial No. 730,673. (Cl. 62-12.)



1. A refrigerator car having a plurality of refrigerant containing tanks, a supporting base therefor, drain plugs for each of said tanks, a bead provided with openings secured to the floor of the car body, the latter having a gutter adjacent the said bead, a water seal trap secured to the underside of the car body, a drain pipe line in communication with the intermediate portion of each of said tanks, an outlet pipe leading from the drain pipe to the said trap, a valved liquid level elevating device interposed between the drain and outlet pipes, a protecting element adjacent the piped sides of the tanks, and outlet means in communication with the gutter in the car body and the said water seal trap.

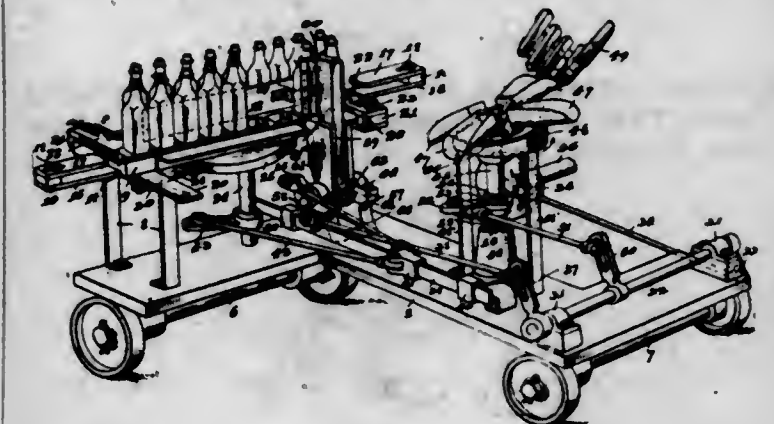
therewith for regulating the volume of the refrigerating agent therein, and means for draining each individual tank.

2. A refrigerator car comprising in combination with a car body, a plurality of refrigerant containing tanks installed therein, cross-beams extending transversely of the car body and bracing the tanks, drain plugs located near the bottom of each tank, a drain pipe line in communication with each of said tanks, a valved device connected with said pipe line for regulating the volume of refrigerating agent within the tanks, and a valve operating mechanism secured to the said cross-beams, said mechanism comprising a valve operating rod, a handle pivoted thereto, and a link having operative connection with the said valve.

3. A refrigerator car comprising in combination with a car body, a plurality of refrigerant containing tanks, drain plugs located near the bottom of each of said tanks, a drain pipe line common to all of the tanks and communicating therewith at the intermediate portions thereof, an angular outlet pipe in communication with the drain pipe, a valve interposed between the drain and outlet pipes, a liquid level elevating piping in fixed communication with one side of the valve, and also in fixed communication with the outlet pipe on the other side of the valve, and means for opening and closing said valve.

4. A refrigerator car comprising in combination with a car body, a plurality of refrigerant containing tanks, a supporting base therefor, drain plugs for each of said tanks, a bead provided with openings secured to the floor of the car body, the latter having a gutter adjacent the said bead, a water seal trap secured to the underside of the car body, a drain pipe line in communication with the intermediate portion of each of said tanks, an outlet pipe leading from the drain pipe to the said trap, a valved liquid level elevating device interposed between the drain and outlet pipes, a protecting element adjacent the piped sides of the tanks, and outlet means in communication with the gutter in the car body and the said water seal trap.

1,080,984. BOTTLE-HANDLING DEVICE. THOMAS F. LAMB, Newark, Ohio, assignor to The American Bottle Company, Newark, Ohio, a Corporation of Ohio. Filed May 16, 1913. Serial No. 768,019. (Cl. 193-1.)



1. In a bottle-handling device, the combination with a table having an endless guide-way formed in its upper surface, of bottle-seats slidably mounted in said guide-way in edge contact with each other, means for delivering the bottles from a bottle-forming machine to said bottle-seats successively, a pair of pushers at opposite ends of said table, respectively, acting to shift said bottle-seats lengthwise of said table, and another pair of pushers at opposite sides of said table, respectively, acting to shift said bottle-seats crosswise of said table.

2. In a bottle-handling device, the combination with a table having an endless rectangular guide-way formed in its upper surface, of bottle-seats slidably mounted in said guide-way in edge contact with each other, means for delivering the bottles from a bottle-forming machine to said bottle-seats successively, a pair of simultaneously acting pushers at opposite sides of the ends of said table, respectively each acting to shift a group of said bottle-seats

lengthwise of said table, and another pair of simultaneously acting pushers at opposite ends of the sides of said table, respectively, each acting to shift a bottle-seat crosswise of said table; said pairs of pushers acting alternately upon said bottle-seats.

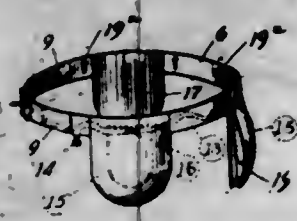
3. In a bottle-handling device, the combination with a table having an endless rectangular guide-way formed in its upper surface, of bottle-seats slidably mounted in said guide-way in edge contact with each other, means for delivering the bottles from a bottle-forming machine to said bottle-seats successively at a fixed point on one side of said guide-way, a pair of pushers slidably mounted in opposite ends of said table lengthwise of the latter, another pair of pushers slidably mounted in opposite ends of said table crosswise of the latter, and operating means for said pushers serving to effect simultaneous inward movements of said first-named pushers alternately with simultaneous inward movement of said last-named pushers.

4. In a bottle-handling device, the combination with a table having an endless rectangular guide-way formed in its upper surface, of bottle-seats slidably mounted in said guide-way in edge contact with each other, means for delivering the bottles from a bottle-forming machine to said bottle-seats successively at a fixed point on one side of said guide-way, a pair of pushers slidably mounted in opposite ends of said table lengthwise of the latter, another pair of pushers slidably mounted in opposite ends of said table crosswise of the latter, a vertical rock-shaft disposed centrally beneath said table, a crank-disk fast on said rock-shaft, link connections between said crank-disk and said first-named pushers for operating the latter, and link and lever connections between said crank-disk and said last-named pushers for operating the latter; said operating connections serving to effect simultaneous inward movements of said first-named pushers alternately with simultaneous inward movements of said last-named pushers.

5. In a bottle-handling device, the combination with a table, and means for arranging in a row a plurality of bottles successively received at a fixed point thereon, of means for successively delivering bottles from a bottle-forming machine to said table comprising a pan mounted for both lateral and vertical pivotal movement, and a pivoted cradle receiving the bottles from said pan and advancing them onto said table.

[Claims 6 to 9 not printed in the Gazette.]

1,080,985. INFLATABLE SUPPORTER FOR TROUSERS AND THE LIKE. HARRY LEAP, Chicago, Ill. Filed Apr. 21, 1913. Serial No. 762,497. (Cl. 241-9.)



1. In an inflatable supporter for garments, the combination with a belt, of a flexible tube laxly mounted along the same, and a plurality of inflatable bags having communication with said tube and extended below the belt.

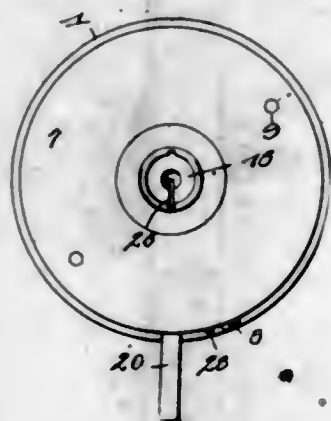
2. In an inflatable supporter for garments, the combination with a belt, of a flexible tube laxly mounted along the same, and a plurality of inflatable bags having communication with said tube and extended below the belt and each enlarged downwardly when inflated.

3. In an inflatable supporter for garments, the combination with a belt, of a flexible tube mounted along the same, means communicating with said tube to control the intake and exhaust of air therefrom, and a plurality of inflatable bags having communication with said tube and extended below the belt.

4. In an inflatable supporter for garments, the combination with a belt, of a plurality of pads supported thereon and depending therefrom, a tube laxly mounted on and ex-

tended along said belt, an inflatable bag located on each of said pads and having communication with said tube, and a covering for each of said bags secured to each of said pads.

1,080,986. SWITCH-LOCK. ORA M. LOCKWOOD and ADISON A. STOUT, Rochester, N. Y. Filed July 29, 1912. Serial No. 712,158. (Cl. 70-16.)

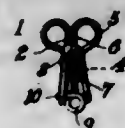


1. In a device of the character described, the combination of a base comprising a ring, oppositely disposed hook members formed on the inner side of said ring, one of which is provided with an opening, a body member rotatably mounted upon the base and provided with an outwardly extending flange adapted to engage over said ring, said flange being provided with an opening, lugs carried by said flange and adapted to be engaged by said hooks, means for holding said hooks into engagement with the lugs, a lock arranged within the body, a sliding bolt within the lock, a rod secured to one end of said bolt and adapted to be projected through the opening in the hook and the flange of the body to prevent rotary movement of the body when the bolt is in its unlocked position.

2. In a device of the character described, the combination of a base comprising a ring provided with an opening, a body member having an outwardly extending flange adapted to engage over said ring, said flange being provided with an opening to register with the opening in the ring, a lock within the body, a sliding bolt within the lock, and a rod secured to one end of the bolt and adapted to be projected through the openings in the ring and the flange of the body to prevent rotary movement of the body when the bolt is in its unlocked position.

3. In a device of the character described, the combination of a base comprising a ring having an inwardly extending annular flange formed thereon, opposite hook members formed integral with the ring, a body rotatably mounted upon the base and provided with a flange extending downwardly over said base and having an opening formed therein, inwardly extending lugs formed integral with the flange on the body and adapted to be engaged by the hooks on the base, means for holding said hooks into engagement with the lugs, a lock arranged within the body, a sliding bolt within the lock and means secured to the bolt and adapted to project through the openings in the body and the flange of the base to prevent rotary movement of the body when the bolt is in its unlocked position.

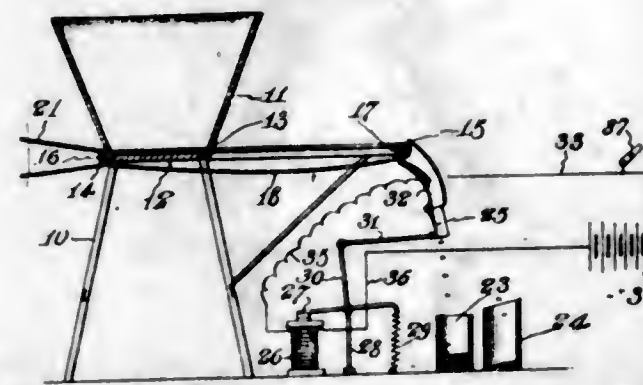
1,080,987. GARMENT-HOOK. PHILIP MARQUAND, New York, N. Y., assignor, by mesne assignments, to Tri-Eye Hook & Eye Company, a Corporation of New York. Filed Jan. 12, 1910. Serial No. 537,584. (Cl. 24-228.)



A garment hook comprising two side bars provided with rear sewing eyelets, and extended to form an upturned bill, an intermediate bar extending from one of the said eyelets and provided with a hump, a coil between the side

bars at their front ends and having its lower end connected to the intermediate bar and a stop bar connected at one end to the upper end of the coil to cross the intermediate bar and to hold it down at a point between the thread engaging front portion of the coil and the hump and extended to cross a side bar at the front end thereof, a portion of the stop bar between the coil and side bar constituting a sewing bar to hold down the bill end of the hook.

1,080,988. BEAN-ASSORTER. RAY F. MCWILLIAMS, Barryton, Mich. Filed Apr. 3, 1912. Serial No. 688,336. (Cl. 83-49.)



1. A device of the character described, comprising a spout, means for delivering particles differentiated as to light reflecting power singly to said spout, a chute pivoted to the discharge end of said spout and movable to direct the passage of the particles upon leaving the same and means operable by the reflected light from the particles for actuating said chute.

2. A device of the character described, comprising a spout, means for delivering particles differentiated as to light reflecting power singly to said spout, a chute carried by the lower end of said spout and movable to direct the particles upon their passage from the same, means including an electric circuit for moving said chute, and means actuated by the light reflected from the particles for varying the current in said circuit.

3. An assorter for particles differentiated as to light reflecting power, comprising a hopper having a discharge opening, an endless belt movable beneath said opening and provided with pockets proportioned to receive a single particle, a spout positioned to receive the particles as they pass from said belt, a movable chute pivoted to the lower end of said spout and means dependent upon the quality of the particles passing from the spout for swinging said chute, said means comprising a selenium cell positioned in the spout and adapted to receive light reflected from the particles, a battery circuit including said cell, an electromagnet in said circuit, an armature for said magnet, and connecting means between said armature and chute.

1,080,989. TRANSLUCENT PANEL FOR SIGNS AND ORNAMENTAL PURPOSES. GEORGE R. MEYERCORD, Chicago, Ill. Filed Aug. 17, 1910. Serial No. 577,668. (Cl. 41-21.)



1. A panel comprising a wire screen bearing directly thereon a decalcomania film having numerous small cup-like portions extending into the interstices of the screen, and an adhesive coating covering the screen and filling the interstices behind said cup-like portions.

2. A panel comprising a wire screen bearing directly thereon a decalcomania film having numerous small cup-

197 O. G.—27

like portions extending into the interstices of the screen, and an adhesive coating covering the screen and filling the interstices and engaging with both sides of the film.

1,080,990. METHOD OF PRODUCING TRANSLUCENT PANELS. GEORGE R. MEYERCORD, Chicago, Ill. Filed Aug. 17, 1910. Serial No. 577,700. (Cl. 41-21.)

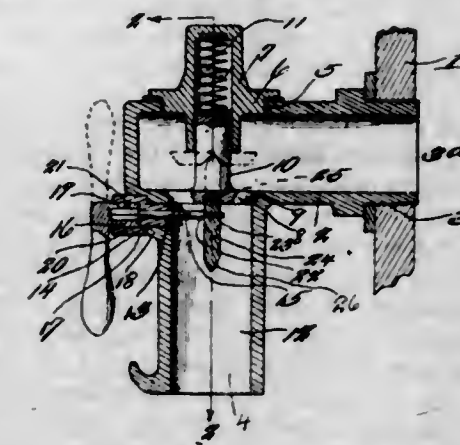


1. The process of making a decorated translucent panel which consists in pressing a decalcomania film in a dampened condition upon a wire screen so as to cause the film to stretch into cup-like sections extending into the interstices of the screen, and then applying an excess of varnish to the screen before the film dries and allowing the surplus of varnish to run off.

2. The process of making a decorated translucent panel which consists in pressing a decalcomania film in a dampened condition upon a wire screen so as to cause the film to stretch into cup-like sections extending into the interstices of the screen, and then dipping the screen in varnish or shellac and holding it so as to permit the excess of varnish or shellac to run off.

3. The process of making a decorated translucent panel which consists in pressing a decalcomania film upon a wire screen so as to cause the film to stretch into cup-like sections extending between the wires of the screen, and then dipping the screen in varnish or shellac before the film becomes hard and dry and permitting the excess of varnish or shellac to run off so as to restore the cup-like configurations of any sections which may have become flattened.

1,080,991. VALVE. JOHN FOY MILTON, Texarkana, Tex. Filed Jan. 15, 1913. Serial No. 742,117. (Cl. 137-4.)

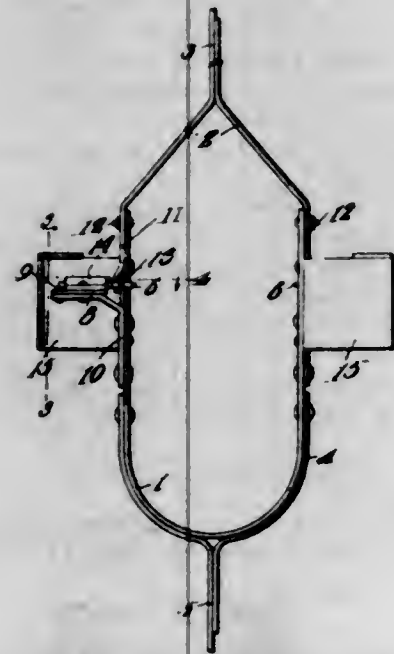


1. In combination, a valve casing provided with an inlet end and a discharge end and provided with a valve seat therebetween, a tubular guide arranged axially with the discharge portion of the casing, a spring tensioned valve mounted in said guide and cooperating with the valve seat, the under face of the valve having a V-shaped recess, a bushing bearing threaded in the wall of the casing adjacent the valve seat and provided with a socket to receive the head of a detachable valve handle, a shaft mounted in said bushing bearing and provided with an enlargement at one end rectangular in cross section located in the socket to receive the head of the valve handle, said enlargement preventing movement of the shaft in one direction, means threaded on the shaft and engaging the inner end of said bushing bearing to prevent movement of the shaft in the opposite direction, a cam member replaceably mounted on the shaft and provided with a V-shaped periphery to engage the V-shaped recess of the valve and acting to lift

the valve when the shaft is partially rotated, the V-shaped recess and the V-shaped periphery of the cam constituting combined means to retain the cam on the shaft.

2. In combination, a valve casing having a valve seat and provided with a threaded opening in registration with the outlet end of the casing, a box nut having a flange threaded in the threaded opening, a valve cooperating with the valve seat and provided with a stem to fit in the box nut, a spring in the box nut to act against the stem to automatically close the valve, the box nut constituting a guide for the stem, said valve having a V-shaped recess in its under surface, said casing having a replaceable bushing bearing, a shaft mounted in said bushing bearing and provided with a detachable valve handle, and a replaceable disk eccentrically mounted on one end of said shaft and provided with a V-shaped periphery to engage the V-shaped recess of the valve, said disk acting to lift the valve when the shaft is partially rotated, the V-shaped recess and the V-shaped periphery of the disk constituting combined means to retain the disk on the shaft.

1,080,992. ANIMAL-POKE. JOHN S. MURCHISON, Rocky, Okla. Filed May 3, 1912. Serial No. 695,000. (Cl. 119-138.)

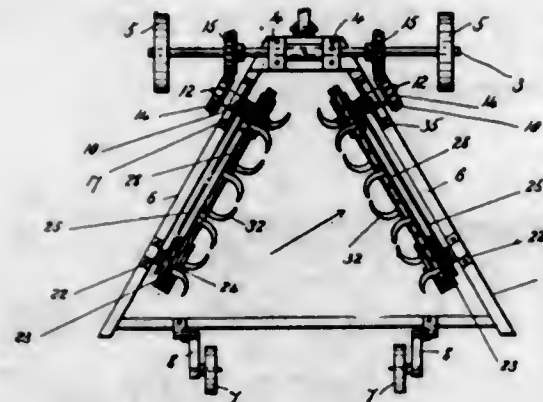


1. An animal poke, including a U-shaped member having an arm, the two spaced terminals of the member being provided each with an aperture, two brackets, one connected to the outer face of each terminal of the member at a point below the aperture, a lever pivoted to each bracket, a pin connected to each lever and having its free end disposed for projection through the aperture, a spring embracing each pin and exerting a tension upon the lever to retract the pin, a clamping plate carried by each lever, a pin having an eye upon one end connected to the lever by the clamping plate, and a bridging member connected to the free ends of the U-shaped member and operably connected to the eyes of the two pins to simultaneously operate both levers to project the first pins when the U-shaped and bridging members are flexed.

2. An animal poke, including a U-shaped member having an arm, the two spaced terminals of the member being provided each with an aperture, two brackets, one connected to the outer face of each terminal of the member at a point below the aperture, a lever pivoted to each bracket, a pin connected to each lever and having its free end disposed for projection through the aperture, a spring embracing each pin and exerting a tension upon the lever to retract the pin, a clamping plate carried by each lever, a pin having an eye upon one end connected to the lever by the clamping plate, and a bridging member having two terminals pivotally connected to the extreme terminals of the U-shaped member, the extreme ends of the terminals of the last member being reduced and introduced into the eyes of the respective last mentioned pins, whereby the

flexing of the U-shaped and bridging members will actuate the levers to project the first pins against the action of the springs and whereby the springs tend to hold both members in aligned relation and the first pins retracted.

1,080,993. CULTIVATOR. HENRY NAGEL, Ritzville, Wash. Filed Aug. 12, 1913. Serial No. 784,344. (Cl. 97-25.)



1. In a cultivator, the combination, with a wheeled frame, of a pair of diverging drive chains supported from the said frame, driving mechanism for operating the drive chains, and curved blades carried by the drive chains and projecting laterally toward the center line of draft at the lower stretches of the drive chains.

2. In a cultivator, the combination, with a wheeled frame, of a pair of diverging drive chains supported from the said frame, driving mechanism for operating the drive chains, and curved sickle-shaped blades carried by the drive chains and projecting laterally toward the center line of draft at the lower stretches of the drive chains with their points toward the front end of the machine.

3. In a cultivator, the combination, with a frame, a driving shaft journaled at the front part of the frame and provided with ground wheels, and ground wheels which support the rear part of the frame; of a pair of diverging drive chains supported from the said frame, beveled toothed wheels arranged in pairs and operating the respective drive chains from the driving shaft, and curved blades carried by the drive chains and projecting laterally toward the center line of draft at the lower stretches of the drive chains.

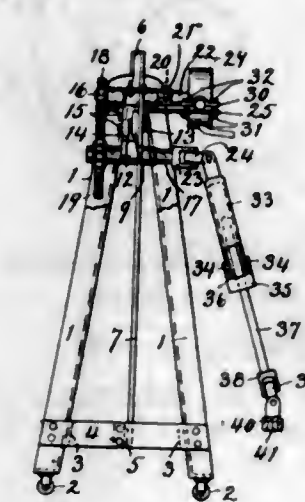
4. In a cultivator, the combination, with a supporting frame, of a rearwardly and outwardly inclined drive chain, a sprocket wheel journaled in the frame and engaging with the drive chain, two levers pivoted to the frame, one lever being pivoted concentric with the sprocket wheel, guide sheaves for the drive chain carried by the said levers and arranged below the sprocket wheel, a connecting-rod between the said levers, means for locking the levers to the frame, curved blades carried by the drive chain and projecting laterally of the line of draft, and driving mechanism for revolving the sprocket wheel.

5. In a cultivator, the combination, with a drive chain provided with center links having vertically-projecting channel-shaped sockets, of means for supporting and driving the drive chain, and curved blades formed of sheet metal and having channel-shaped shanks which are secured in the said sockets, said blades being curved to project laterally of the line of draft of the machine.

1,080,994. NUT AND BOLT TIGHTENING MACHINE. GEORGE A. O'CONNOR, West Springfield, Mass. Filed Jan. 13, 1913. Serial No. 741,687. (Cl. 81-57.)

1. In a machine of the class specified, a portable horse having perforated vertical supporting members, a perforated horizontal supporting member provided with spindle-supporting bearings, and means to adjust said last-mentioned member to said vertical supporting members at different elevations and at different points in a horizontal direction.

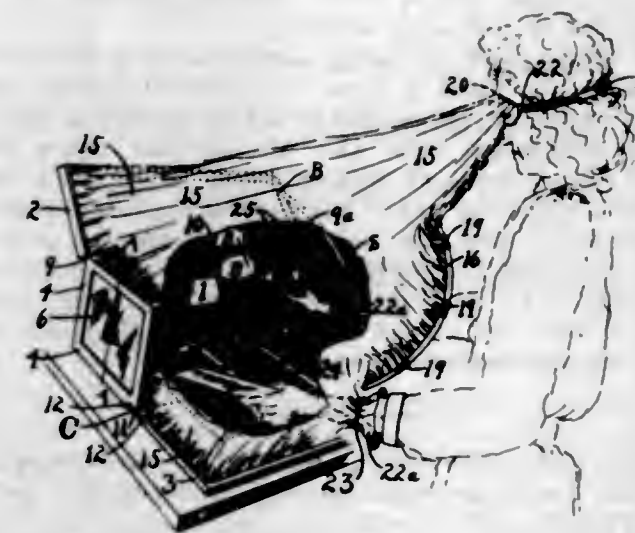
2. In a machine of the class specified, a portable frame having vertical supporting members, a horizontal supporting member secured to said vertical supporting members and provided with spindle-supporting bearings, motor-supporting members, and means to adjust said last-mentioned members vertically on and to secure them to said horizontal supporting member.



3. In a machine of the class specified, a portable frame having vertical supporting members, a horizontal supporting member provided with bearings, means to adjust said last-mentioned member vertically and horizontally on and to secure the same to said vertical supporting members, forwardly-extending motor-supporting members provided with motor-supporting means and means to adjust said motor-supporting members vertically on and to secure them to said horizontal supporting member.

4. In a machine of the class specified, a frame mounted on rolling members and having perforated vertical supports, a perforated horizontal bar, one of the perforations in said bar being a slot, means to attach perforated portions of said bar to perforated portions of said supports, a spindle-supporting bearing block secured to said bar, and motor-supporting brackets secured to said bar, such brackets being slotted for vertical adjustment.

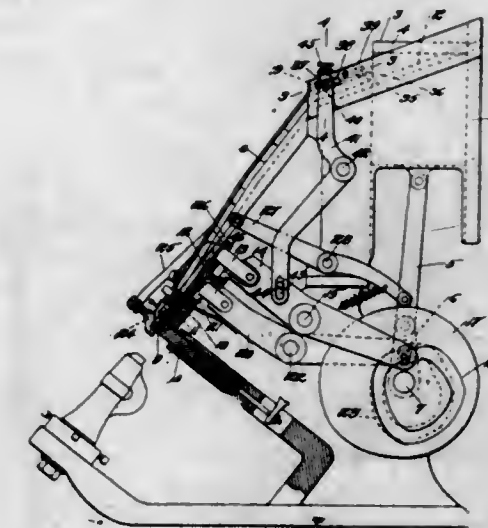
1,080,995. PORTABLE PHOTOGRAPHIC DEVELOPING DEVICE. JOSEPH C. OLIVER, San Jose, Cal. Filed Nov. 6, 1912. Serial No. 729,798. (Cl. 95-91.)



In a portable photographic developing cabinet, the combination of a cabinet case having a hinged cover adapted to open upward, a hinged front adapted to open downward, and having a window frame in one end provided with two gasketed compartments to receive colored glass, a rod attached to said case to hold the cover in open position, a curtain adapted to be drawn over said window and carried by a roller mounted at the bottom of said window frame, an opaque hood attached to the top, ends, and front of said

case, said hood being provided with a light excluding eye-piece having means of attachment to the head of the operator, with light excluding flowing sleeves, and with an opening provided with a gasketed closing frame and means for holding said frame closed, as shown and described.

1,080,996. ANTICLOGGING ATTACHMENT FOR BUTTON-FASTENING MACHINES. GEORGE W. PERKINS, Boston, Mass., assignor to Heaton-Peninsular Button Fastener Company, Boston, Mass., a Corporation of Maine. Filed Apr. 2, 1913. Serial No. 758,298. (Cl. 218-12.)



1. In combination with a button raceway, a clearance switch above the raceway movable in a path parallel with the runway for the buttons in the raceway and over the heads of the buttons properly seated in the raceway, said switch member being formed with its upper end extending across the width of the raceway and beveled at an angle diagonally with the line of movement of the buttons in the raceway, and means for reciprocating said switch member in a path parallel with and above the path of movement of the buttons properly seated in the raceway.

2. In combination with a button raceway, a switch block holder, means for holding said switch block holder above the raceway, said switch block holder being formed with a guideway parallel with the line of movement of the buttons in the raceway, a switch block having a shank which is seated in said guideway and slidable therein, said switch block having a head which extends transversely above said raceway at the upper end of said holder block, and means for reciprocating said switch in a path parallel with the line of movement of the buttons in the raceway and at an elevation slightly above said raceway.

3. In combination with a button raceway, a clearance switch above the raceway movable in a path parallel with and above the upper surface of the raceway, said switch member being formed with its upper end beveled at an angle diagonally with the line of movement of the buttons in the raceway, means for reciprocating said switch member in a path parallel with and above the path of movement of the buttons properly seated in the raceway, means for positioning a button at the foot of the raceway to receive a fastener, means for forming a fastener, and means for actuating the forming and positioning mechanism and for reciprocating said switch member whereby their movements are timed with relation to each other.

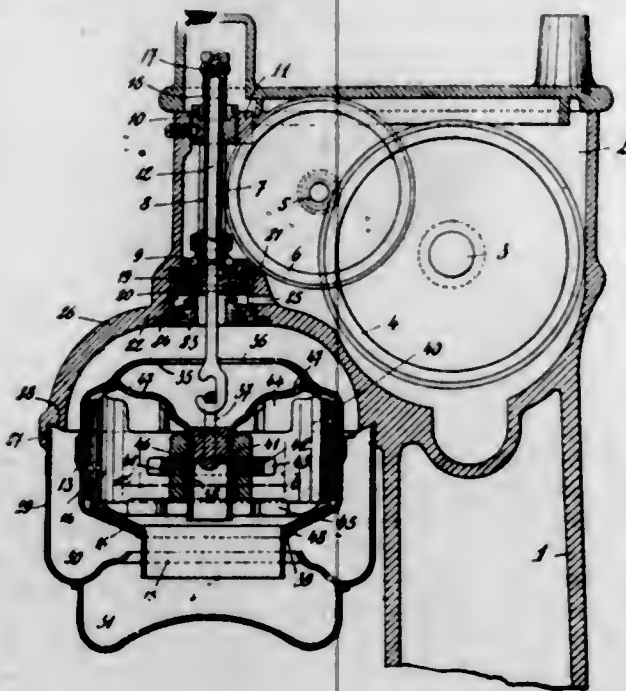
4. In combination with a button raceway, a clearance switch above the raceway movable in a path parallel with and above the upper surface of the raceway, said switch member being formed with its upper end beveled at an angle diagonally with the line of movement of the buttons in the raceway, one side of said raceway being open and the other side being formed with a side wall rising above the raceway, said side wall being formed with an elongated slot, said switch member being formed with a stud which projects through the slot in the side of said wall, a ful-

crumpled lever which engages with said stud, and means for rocking said lever on its fulcrum whereby reciprocating movement is given to said switch member.

5. In combination with a button raceway, a stationary switch holder mounted over the raceway, a clearance switch slidably mounted on said holder, having its upper end diagonally inclined crosswise of the raceway at a slight elevation above the raceway, and means for reciprocating said clearance switch in a path above said raceway and parallel with the path of movement of the buttons in the raceway.

[Claim 6 not printed in the Gazette.]

1,080,997. CENTRIFUGAL CREAM-SEPARATOR. JULIEN PERSOONS and ALPHONSE PERSOONS, Thildonck, near Louvain, Belgium. Filed Feb. 21, 1912. Serial No. 679,127. (Cl. 127-20.)



1. In a centrifugal cream separator, a hollow drum substantially circular in cross-section, said drum being provided with an opening of less diameter than the diameter of the drum, a collapsible liner adapted for insertion in and removal from said drum through said opening in its collapsed position.

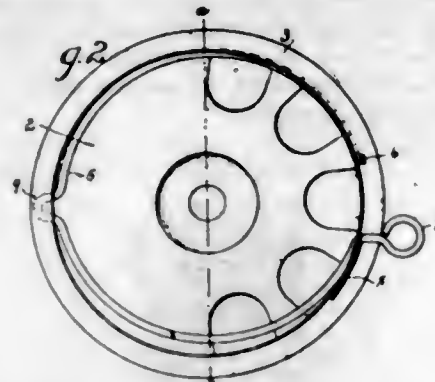
2. In a centrifugal cream separator, a hollow drum substantially circular in cross-section, having an opening therein of less diameter than the diameter of the drum, a collapsible liner comprising a plurality of rotatably mounted blades adapted for insertion and removal through said opening in its collapsed position, and means for positively rotating the blades of said liner to their operating position when in the drum.

3. In a centrifugal cream separator, a hollow drum substantially circular in cross-section having an opening therein of less diameter than the diameter of the drum, a collapsible liner adapted for insertion and removal through said opening, said liner comprising a plurality of rotatably mounted blades, means for preventing relative concentric rotation of the liner and drum, and means for positively rotating the blades to their operating position when the liner is in place in said drum.

1,080,998. SHADE-HOLDER. ADOLPH C. RECKER, Oakville, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Oct. 30, 1912. Serial No. 728,646. (Cl. 240-115.)

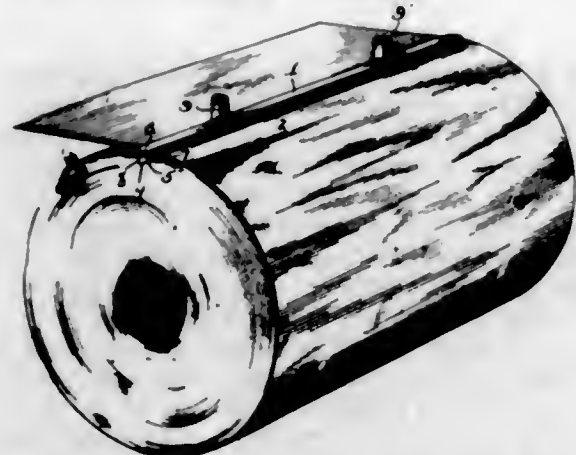
A shade holder comprising a cup-shaped body formed at its outer end with an inwardly curved flange, the junction of the body and flange forming an annular groove, said flange formed with a clearance slot, a ring-shaped wire having one end fixed to the flange adjacent to said slot, the

other end of the wire projecting through the said slot, and the central portion of the wire formed with a U-shaped



foot extending into and having a bearing in the groove formed between the body and flange.

1,080,999. CLASP FOR RIBBON-BOLTS. BERNATH ROSENFELD, Tucson, Ariz. Filed June 26, 1913. Serial No. 775,997. (Cl. 206-55.)



1. A ribbon clasp or holder consisting of a flat metal strip bent upon itself to form two parallel members the upper one of which is provided with a right angle bend adjacent its free end, the said bent end having a slot open at one side and the free edge of said bent end being inclined downwardly from said slot, the lower member provided at its free end with a tongue adapted to rest within the slot, said lower member normally projecting to one side of the upper member so that a pressure is required to force the tongue on the lower member into the slot in the bent end of the upper member.

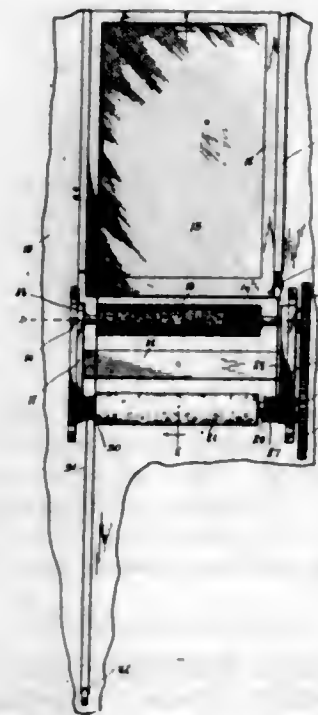
2. A ribbon clasp or holder consisting of a flat metal strip bent upon itself to form two parallel members, the upper one of which is provided with two inverted U-shaped folds forming finger holds, and also provided with a bent end the latter having an inclined lower face and an open slot at the upper end of the incline, and the lower member provided at its free end with a tongue adapted to rest within said slot, the lower member normally projecting to one side of the upper member so that a pressure is required to force the tongue on the lower member into the slot in the bent end of the upper member.

1,081,000. CAR-WINDOW CLEANER. JOHN WOLDEMARE RUBEN, Portland, Oreg. Filed Jan. 24, 1912. Serial No. 673,159. (Cl. 15-59.)

1. In a cleaner for slidable windows, a plurality of cleaner rollers rotatably supported, intergeared connections between the rollers, said rollers being adapted for transverse movement toward and away from a window to be cleaned and means carried by the roller supports for resiliently holding the rollers in contact with the window.

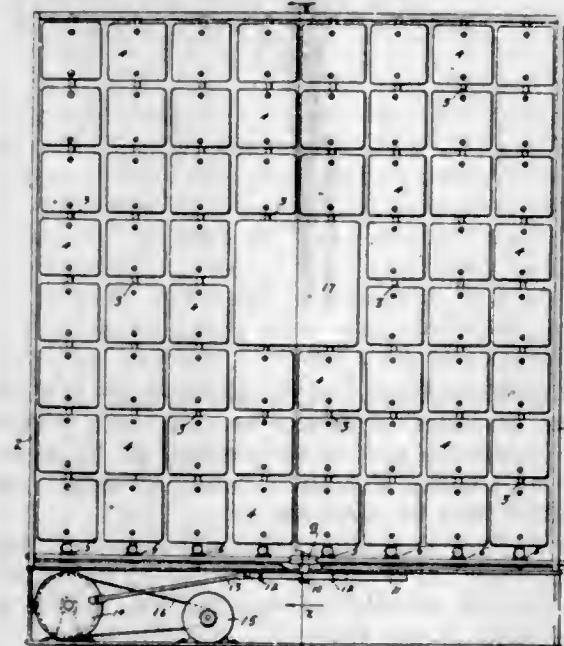
2. In a cleaner for slidable windows, spaced vertical supports adapted for connection to a wall and having transverse slots therethrough, upper and lower rollers having their end portions engaged in said slots, cleaning ele-

ments upon the said rollers, inside supports intimately adjacent the aforementioned vertical supports, a brace between the said inside supports, a spring member carried by said brace and adapted to contact with said wall when



the device is in position, an operative connection between the rollers, and oppositely wound cables upon the end portions of the lower roller adapted for connection to a window frame, whereby shifting of the frame will cause said rollers to be driven in opposite directions.

1,081,001. ADVERTISING-DISPLAY MECHANISM. ARTHUR L. RUNYAN, Huron, S. D. Filed Jan. 20, 1912. Serial No. 672,512. (Cl. 40-33.)

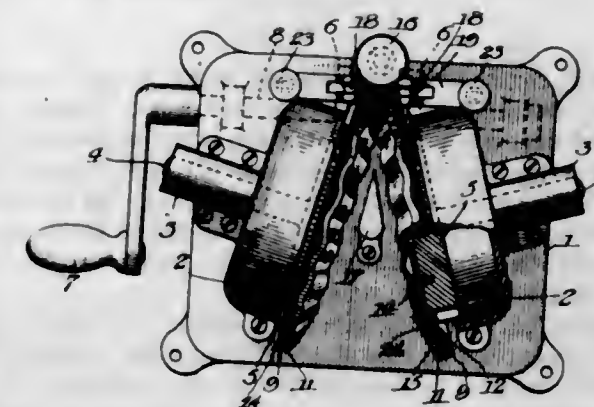


1. In a mechanism of the class described, a frame, a plurality of parallel shafts revolubly mounted therein, a series of plates secured to each of the shafts, the shafts being normally in such positions that all of the plates lie in the same plane, means for intermittently rotating the shafts to alternately present to view the opposite sides of the plates, and a stationary plate supported upon more than one of the revoluble shafts so as to be retained thereby in a fixed plane parallel to the axes of said shafts and to the normal plane of the plates secured to the shafts.

2. In a mechanism of the class described, a frame, a series of vertically extending shafts journaled therein, means for intermittently rotating said shafts so that adjoining ones are turned in opposite directions, plates secured to the shafts so that all the plates lie normally in

the same plane, and a fixed plate supported upon two of the shafts, said plate being arranged in the normal plane of the movable plates so that some of the movable plates adjoin each side thereof, and the movement of the shafts being such that opposite sides of the movable plates are alternately presented to view coincidently with the one side of the fixed plate.

1,081,002. POLISHING DEVICE. CHARLES F. SPERY, Chicago, Ill., assignor of one-half to Seth Catlin, Chicago, Ill. Filed Jan. 30, 1913. Serial No. 745,291. (Cl. 51-6.)



1. In a machine of the character described, the combination with a pair of disks having polishing material thereon, driving means to which said disks are removably secured, pressure adjusting means to press the said disks together at a portion of their periphery and to control the degree of pressure; an annular leather ring secured to the periphery of each of said disks, and means countersunk within the leather to hold said leather in place on said disks.

2. In a machine of the character described, the combination with a pair of corrugated disks with registering opposed apices having polishing material thereon, driving means to which said disks are removably secured, pressure adjusting means to press the said disks together at a portion of their periphery and to control the degree of pressure, and bearings within which said driving means are rotatable and slidably mounted.

3. In a machine of the character described, the combination with a pair of disks having polishing material thereon, driving means to which said disks are removably secured, pressure adjusting means to press the said disks together at a portion of their periphery and to control the degree of pressure, and a bayonet slot attaching device for mounting said disks upon said driving means.

4. In a machine of the character described, the combination with a pair of disks having polishing material thereon, driving means to which said disks are removably secured, pressure adjusting means to press the said disks together at a portion of their periphery and to control the degree of pressure, resilient material riveted to said disks, and means countersunk in said resilient material to hold said material in place on said disks.

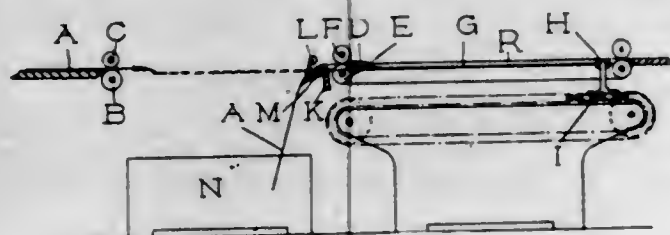
5. In a machine of the character described, the combination with a pair of corrugated disks with registered opposed apices having polishing material thereon, driving means to which said disks are removably secured, pressure adjusting means to press the said disks together at a portion of their periphery and to control the degree of pressure, a ring of leather riveted to the outer face of each disk, a facing of polishing material fastened to said leather, and rivets countersunk in the leather to hold the same in place on the disks.

[Claims 6 to 12 not printed in the Gazette.]

1,081,003. DEVICE FOR REMOVING SCRAPS OF PAPER IN SHEET-SORTING MACHINES. GEORG SPIESS, Leipzig-Reudnitz, Germany. Filed Feb. 20, 1912. Serial No. 678,786. (Cl. 101-36.)

1. Device for removing scraps of paper in sheet sorting machines, comprising travelling grippers for seizing and

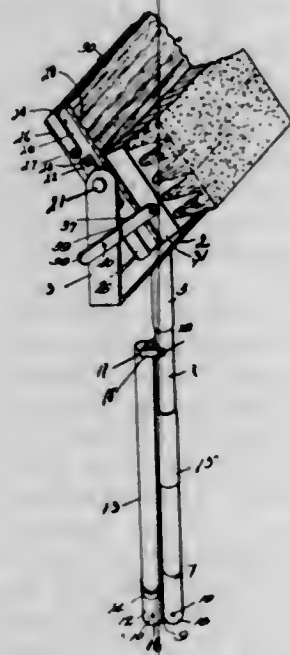
transporting the sheet, a scraper below with top edge for removing the scraps of paper from the lower surface of the sheet, and blowers arranged above and below the sheet near the scraper.



2. Device for removing scraps of paper in sheet sorting machines, comprising traveling grippers for seizing and moving the sheet, a member with top edge underneath the sheet, for removing the scraps from the lower surface of the sheet and over which the free portion of the sheet hangs down, said grippers and edged member being so arranged that the space underneath the road traversed by the grippers is left completely free.

3. Device for removing scraps of paper in sheet sorting machines, comprising traveling grippers for seizing and moving the sheet, a scraper with top edge underneath the sheet for removing scraps of paper from the lower surface of the sheet and over which the free portion of the sheet hangs, and blowers adjoining said edged scraper above and below the sheet, said edged scraper and blowers being so arranged that the space underneath the road traversed by the grippers is kept completely free.

1,081,004. WINDOW-CLEANER. FRANK J. STEINHAUSER, Philadelphia, Pa. Filed Feb. 7, 1912. Serial No. 675,988. (Cl. 15-59.)

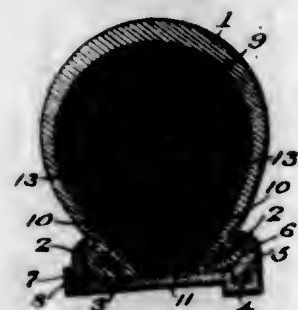


In a window cleaner the combination of a frame, a base block, having perforations in one edge thereof and carrying a pin upon the opposite edge for securing a brush thereto, plates secured to the ends of the base block, means passing through a portion of the frame and into the plates for pivoting the base block to the frame, clamps pivoted to the ends of the base block for detachably securing a wash cloth in place and a handle secured to said frame.

1,081,005. CUSHIONING DEVICE FOR TIRES. JAMES EDWIN STRONG, Wilmington, Del. Filed Feb. 25, 1913. Serial No. 750,473. (Cl. 152-5.)

In a device of the character described, an outer shoe and a plurality of flat cushioning devices of substantially

oval shape in cross section, having arc-shaped outer edges and inner edges adapted to seat against a retaining device for said shoe, in combination with a plurality of bonding wires extending through said cushioning devices and located on each side of the center thereof and intermediate



of the centers of said disks and said inner edges thereof, whereby when said bonding wires are tightened the inner contiguous, juxtaposed edges of said cushioning devices are compressed in a direction longitudinally of said bonding wires, whereby the outer arcs of said cushioning devices are left in a somewhat pliable condition.

1,081,006. ELASTIC WEBBING AND METHOD OF PRODUCING SAME. FRANK H. FRISSELL, Middletown, Conn., assignor to Russell Mfg. Co., Middletown, Conn., a Corporation. Filed Aug. 18, 1913. Serial No. 785,309. (Cl. 139-70.)



1. The method of weaving sectional strips of elastic and non-elastic material consisting in weaving a plurality of strips and shifting the rubber threads at intervals from one strip to another whereby sections of elastic and non-elastic fabric will be produced.

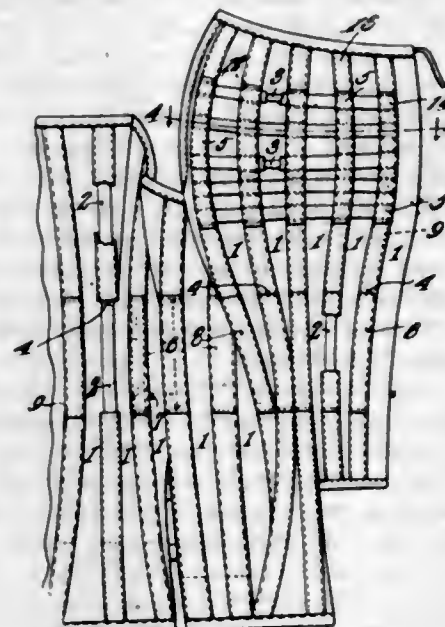
2. The method of weaving sectional strips of elastic and non-elastic material consisting in weaving an upper and a lower strip and alternately shifting the rubber threads from one strip to the other.

3. A double strip of fabric having alternating elastic and non-elastic sections, the rubber thread of the elastic sections extending at intervals from one layer to the other.

1,081,007. CORSET. ROSE YEGANIAN, Yonkers, N. Y. Filed June 17, 1911. Serial No. 633,867. (Cl. 2-73.)

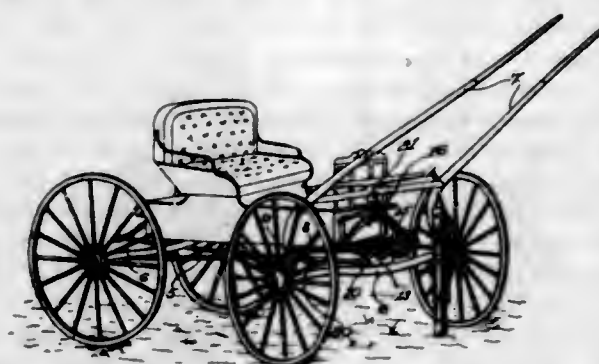
A corset including longitudinal pockets, longitudinal stays therein, tapes arranged longitudinally along the pockets and of the same width as the pockets, there being spaced transverse rows of stitches for securing said tapes to the pockets said tapes forming keepers, and a series of transverse stays extending through the keepers, those tapes engaged by the ends of the transverse stays, having their outer edge portions folded inwardly and secured upon the pockets to constitute abutments for the

ends of the stays, the thickness of the pockets and of the longitudinal stays therein being such as to hold the



transverse stays out of contact with the fabric of the corset body.

1,081,008. COMBINED JACK AND THILL-SUPPORT. GEORGE ADAMS, Franklin Centre, Quebec, Canada. Filed July 1, 1912. Serial No. 707,079. (Cl. 21-108.)



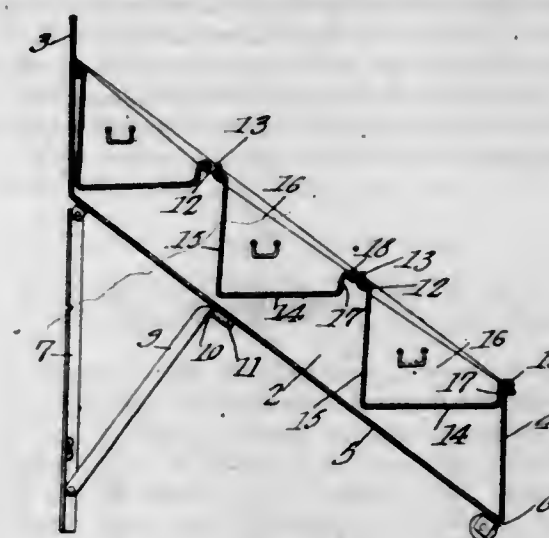
1. In a device adapted to be used at will as a wagon jack or thill support, the combination of a lever having a concavity in its outer end with a post to which it is pivoted and which is arranged to bear upon the ground when used for jacking up the wagon, means connected to and operated by said lever and movable on said post for that purpose and means attached to said post for engaging the wagon gearing when said post is approximately in a horizontal position, the said lever being adapted to be turned up when the post is in this latter position, to fit its concave end under and against the cross bar of the thills, thereby supporting the same.

2. In a device adapted to be used at will as a wagon jack or thill support, the combination of a lever having a concavity in its outer end with a post to which it is pivoted, means attached to said post for engaging the wagon gearing, a carrier longitudinally movable on said post and connected to said lever to be moved thereby and a block adjustably mounted on said carrier substantially as set forth.

1,081,009. DISPLAY-STAND. HENRY E. BARTINDALE and FRED S. SCOTT, Oxford, Ind. Filed July 2, 1913. Serial No. 777,069. (Cl. 211-14.)

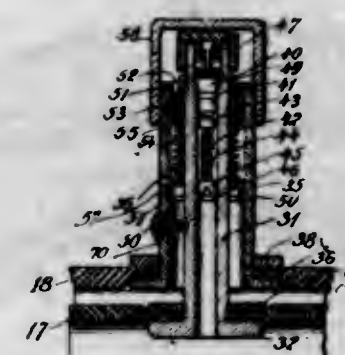
A display stand comprising a trough-like casing, means for supporting the same at an angle to the horizontal, the upper edges of said casing flared, a plurality of supporting bars extending transversely across said casing, each of said supporting bars including a central upstanding ridge-like abutment, a plurality of removable bins substantially triangular in cross section, said triangular bins including bottom, rear, and side walls, the bottom walls of said bins extending upwardly and then flared outwardly and adapted to contact with and rest upon one of the

supporting bars, the rear walls of the bins extending outwardly at their upper extremities and contacting with the supporting bars and resting thereupon, the said supporting bars adapted to hold the bottom and rear walls of the



bins substantially horizontal and vertical respectively, the bottoms of the bins spaced a distance above the bottom of the said trough-like casing and defining ice receiving compartments therebetween.

1,081,010. AUTOMOBILE-TIRE. EDWARD NICKLAS BREITUNG, Marquette, Mich. Filed Jan. 27, 1913. Serial No. 744,329. (Cl. 152-12.)



1. A vehicle tire comprising a shoe, tire tubes located one within the other, and a valve mechanism comprising substantially concentric tubular members respectively secured to the tire tubes and forming independent inlet passages therefor, a hollow valve seat within the inner tubular member, a spring-pressed valve adapted to close the opening in the inner tubular member, cooperating annular projections on the outside of the inner tubular member and the inside of the outer tubular member constituting an annular valve seat; and a spring-pressed annular valve adapted to close the opening in the outer member.

2. A vehicle tire comprising a shoe, tire tubes located one within the other, and a valve mechanism having a single inlet and comprising a pair of substantially concentric tubular members secured to the respective tire tubes and forming independent inlet passages therefor, a bushing within the inner tubular member constituting a valve seat, a spring-pressed plug valve adapted to close the opening in the inner tubular member, a collar on the outside of the inner tubular member, and an annular projection on the inside of the outer tubular member cooperating with the collar to constitute an annular valve seat; and a spring-pressed annular valve adapted to close the opening in the outer tubular member whereby the tire tubes may be independently inflated.

1,081,011. GARMENT-STAY. HENRY S. BREWINGTON, Baltimore, Md. Filed Jan. 12, 1912. Serial No. 670,753. (Cl. 2-76.)

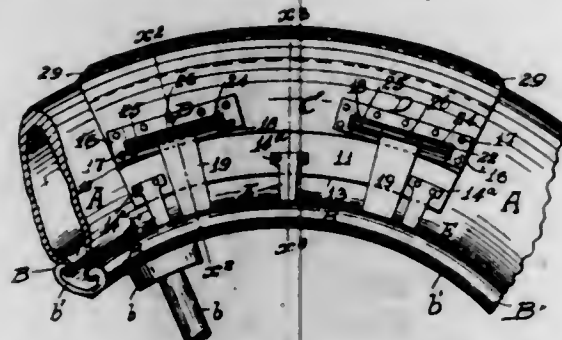
1. A garment stay, comprising a single continuous wire bent at intervals to form a series of uniformly shaped,

single coil, overlapping loops arranged in two substantially close parallel rows, said loops being consecutively formed on opposite sides of the stay, in staggered relation to each other, and joined together with contacting zigzag extending connections which connect the front sides of one row to the rear sides of the opposite row of loops, said connections being made at the sides of the loops nearest the center of the stay, whereby a central body-portion is provided formed of connections of equal length bearing against each other.



2. A garment stay, comprising a single continuous wire bent at intervals to form a central body-portion and a plurality of uniformly shaped loops arranged in two substantially parallel rows, each consecutive loop being alternately formed with respect to the sides of the stay, the portion of the wire terminating each loop being wound about the wire, and each consecutive loop being connected by a portion of the wire bent in zigzag relation to the loops with which it connects as to render the loops on each side of the stay disposed in staggered relation to those formed on the opposite side.

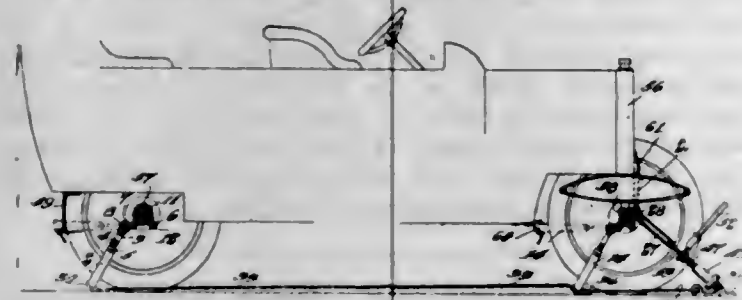
1,081,012. BLOW-OUT PATCH. CHARLES E. BROWN, Los Angeles, Cal. Filed Oct. 26, 1912. Serial No. 728,014. (Cl. 152-24.)



1. A patch for pneumatic vehicle tires comprising two separable sections; hooks on each section for fastening them to the wheel; a hinged lever on one of the sections; and an opening in the other section admitting the lever and separably fastening said sections together.

2. A covering for blow-outs in pneumatic tires, comprising a patch of two separable sections; means for fastening the sections to a wheel containing the tire; an opening in one of said sections; a hinge on the other of said sections having a lever for engagement in said opening to tighten the patch on the tire surface and to bring the hinge in registration with said opening.

1,081,013. AUTOMOBILE JACK. JOSEPH DE HAVEN BUNN, York, Pa., assignor of one-half to Philip Rankin Koons, Mechanicsburg, Pa., and one-half to Annie Bunn and Mala Atlee Bunn, Philadelphia, Pa. Filed Nov. 14, 1912. Serial No. 731,371. (Cl. 57-15.)



1. A device of the character specified, comprising front and rear axle supports, each of the said supports consisting of a body adapted to be arranged below the axle in

rear thereof and approximately parallel therewith and upwardly extending telescoping arms, means for securing each arm in adjusted position, an axle plate pivoted to the upper end of each of the said arms, a clip for each plate fitting over the axle and detachably connected with the plate, flexible connections between the bodies of the support, a jack support, a rigid connection between the body of the front support and the jack support, a jack comprising a fixed and a movable member, the fixed member being pivoted to the jack support, each of the axle plates of the front support having an upwardly extending lug at its front end in front of the axle, and an approximately V-shaped bracket having its arms pivoted to the said lugs, the body portion of the bracket being connected with the movable member of the jack.

2. A device of the character specified, comprising front and rear axle supports, each of the said supports consisting of a body adapted to be arranged below the axle in rear thereof and approximately parallel therewith and upwardly extending telescoping arms, means for securing each arm in adjusted position, an axle plate pivoted to the upper end of each of the said arms, a clip for each plate fitting over the axle and detachably connected with the plate, flexible connections between the bodies of the supports, a jack support, a rigid connection between the body of the front support and the jack support, a jack comprising a fixed and a movable member, the fixed member being pivoted to the jack support, and a connection between the movable member of the jack and the axle plates of the front support.

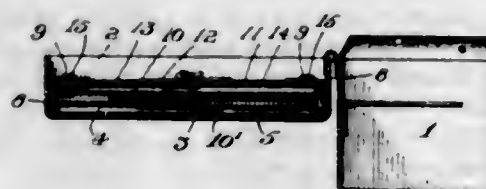
3. A device of the character specified, comprising front and rear axle supports, each of the said supports consisting of a body adapted to be arranged below the axle in rear thereof and approximately parallel therewith, upwardly extending telescoping arms, means in connection with each arm for securing the arms in adjusted position, an axle plate pivoted to the upper end of each of the said arms, flexible connections between the bodies of the supports, a jack support in front of the front axle, a rigid detachable connection between the front support and the jack support, and a jack arranged between the axle plates of the front support and the jack support.

4. A device of the character specified, comprising front and rear axle supports, each of the said supports consisting of a body adapted to be arranged below the axle in rear thereof and approximately parallel therewith, upwardly extending telescoping arms, means in connection with each arm for securing the arm in adjusted position, an axle plate pivoted to the upper end of each of the said arms, and flexible connections between the bodies of the supports.

5. A device of the character specified, comprising front and rear axle supports, each of the said supports comprising a body adapted to be arranged in rear of the axle and approximately parallel therewith, and arms, each of the said arms being extensible and contractible and having means for securing the arm in adjusted position, an axle plate pivoted to the upper end of each of the said arms and adapted to engage beneath the axle, means for detachably securing each plate to the axle, a jack support detachably connected with the body of the front support, and a jack arranged between the said jack support and the axle plates of the adjacent support.

[Claims 6 to 14 not printed in the Gazette.]

1,081,014. SUITCASE. HERMAN BURCHESS, Chicago, Ill. Filed Apr. 17, 1913. Serial No. 761,655. (Cl. 190-51.)



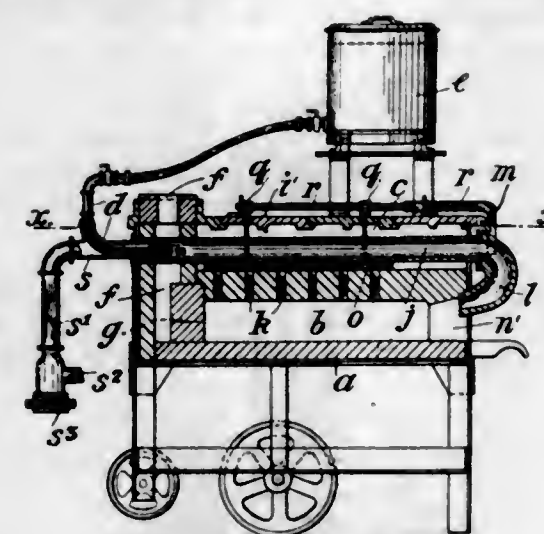
1. The combination with a suitcase, of a pocket arranged in the top thereof; straps secured in said top around the edges of said pocket; snap-fasteners on said

straps; a sheet of stiff material loosely fitting within said top; a pocket arranged on the back of said sheet; overlapping flaps on the face of said sheet; and snap-fasteners on said sheet adapted to engage those on said straps, substantially as described.

2. The combination with a suitcase, of a pocket arranged in the top thereof; straps secured in said top around the edges of said pocket; snap-fasteners on said straps; a sheet of stiff material loosely fitting within said top; a pocket on the back of said sheet; overlapping flaps on the face of said sheet; buckled straps arranged to hold said flaps closed; and snap-fasteners on said buckled straps adapted to engage those on said first mentioned straps, substantially as described.

3. The combination with a suitcase, of a pocket arranged in the top thereof; straps secured in said top around the edges of said pocket; snap-fasteners on said straps; a sheet of stiff material loosely fitting within said top; a pocket on the back of said sheet; overlapping flaps on the face of said sheet; buckled straps arranged to hold said flaps closed; snap-fasteners on said buckled straps adapted to engage those on said first mentioned straps; and a finger strap on said sheet adapted to facilitate removal thereof, substantially as described.

1,081,015. LIQUID-FUEL FURNACE. JOHN BURDON, WILLIAM MURRAY BURDON, and MATTHEW MURRAY BURDON, Bellshill, Scotland. Filed Feb. 24, 1911. Serial No. 610,548. (Cl. 158-5.)



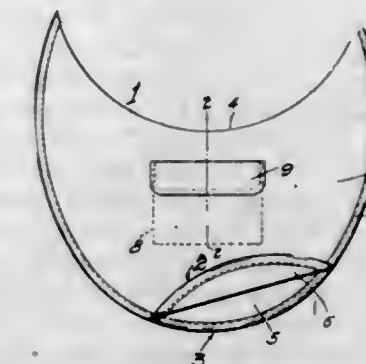
1. In a liquid fuel furnace, a firing chamber having an opening in the wall thereof, a heating chamber above said firing chamber, a wall separating said chambers, a vaporizing chamber in said heating chamber and adjacent the said wall, the latter having a series of passages therein arranged to direct the heat along the length of said vaporizing chamber, whereby a uniform temperature is maintained therein, means for supplying liquid fuel and air to said vaporizing chamber, and a separable return bend communicating with said vaporizing chamber, situated exterior of said furnace and discharging into said opening, the discharge end of said bend being located exterior of said firing chamber.

2. In a liquid fuel furnace, a firing chamber having an opening in the wall thereof, a heating chamber above said firing chamber, a wall separating said chambers, a vaporizing chamber in said heating chamber and spaced from the said separating wall, the latter having a series of passages therein arranged to direct the heat along the length of said vaporizing chamber, whereby a uniform temperature is maintained therein, dampers arranged to control said passages whereby the heat to said heating chamber is regulated and a uniform temperature in the vaporizing chamber is maintained, means for supplying liquid fuel and air to said vaporizing chamber, and a return bend communicating with said vaporizing chamber situated exterior of said furnace and discharging into said opening.

3. In a liquid fuel furnace, a firing chamber, a heating chamber adjacent said firing chamber, a wall separating

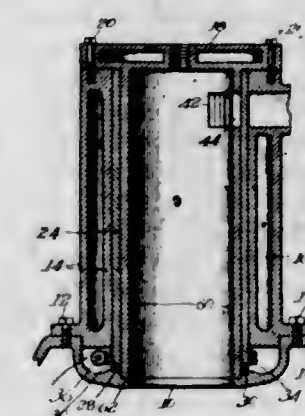
said chambers, a vaporizing chamber in said heating chamber and spaced from the said separating wall, the latter having a series of passages therein arranged to direct the heat along the length of said vaporizing chamber, whereby a uniform temperature is maintained therein, dampers arranged to control said passages whereby the heat to said heating chamber is regulated and a uniform temperature in the vaporizing chamber is maintained, means for supplying liquid fuel and air to said vaporizing chamber, and a return bend communicating with said vaporizing chamber and discharging into said firing chamber.

1,081,016. DRESS-SHIELD. FRANK A. BUSH, Oakland, Cal. Filed Mar. 22, 1913. Serial No. 756,105. (Cl. 2-34.)



A dress shield, comprising in combination, two crescent shaped members hinged together at the top, each of said members comprising two layers of material secured together at the edges, one of said layers of material of one of the crescent shaped members having a slit therein, a pocket formed from the same material as the said crescent shaped members and adapted to lie between the two layers of material forming the crescent shaped member having the slit therein, said pocket being so disposed that its opening lies along the slit in said layer of material forming part of one of the crescent shaped members, said pocket being secured to the material forming the crescent shaped member in which it is disposed, and a flap adapted to cover said slit and pocket opening, substantially as described.

1,081,017. COMBUSTION-ENGINE. JAMES A. CHARTER, Chicago, Ill. Filed Aug. 7, 1912. Serial No. 713,766. (Cl. 123-80.)



1. In a device of the class described, in combination with a base, a cylinder secured to said base, a second cylinder inside the first cylinder, spaced apart from it to form an annular recess between the two cylinders, a valve in said recess, means connecting the end of the inner cylinder to the base member, means connecting the opposite end of said cylinder to the outer cylinder, and means located within a space formed between a portion of the end of the outer cylinder, a portion of the end of the inner cylinder and the base member for driving said valve.

2. In a device of the class described, in combination with a base member, an outer cylinder secured to and rising from the base member, an inner cylinder smaller than the outer cylinder adapted to be inserted through the outer cylinder into engagement with a guiding support on the

base, a flanged head on the upper end of the inner cylinder fitting over the upper end of the outer cylinder, means securing said flanged head to the outer cylinder, and a rotatable cylindrical valve member in an annular space formed between said two cylinders.

3. In a device of the class described, in combination with a base member, an outer cylinder secured to and rising from the base member, an inner cylinder smaller and longer than the outer cylinder adapted to be inserted through the outer cylinder into engagement with a guiding projection on the base, a flanged head on the upper end of the inner cylinder fitting over the upper end of the outer cylinder, means securing said flanged head to the outer cylinder, a rotatable cylindrical valve in the annular space formed between said two cylinders adapted to control ports for the admission and exhaust of gas to the inner cylinder, and means for rotating said valve member.

4. In a device of the class described, in combination with a base member, an outer cylinder secured to and rising from the base member, an inner cylinder smaller and longer than the outer cylinder adapted to be inserted through the outer cylinder into engagement with a guiding projection on the base, a flanged head on the upper end of the inner cylinder fitting over the end of the outer cylinder, means securing said flanged head to the outer cylinder, a rotatable cylindrical valve member in the annular space formed between said two cylinders adapted to control entrance and exhaust ports leading into the inner cylinder and means located immediately adjacent to the base and adjacent to the lower end of the inner cylinder for rotating said valve member.

1,081,018. EASEL OR HOLDER FOR PHOTOGRAPHS, CARDS, PRICE-TICKETS, AND THE LIKE. WILLIAM ROCKWELL CLOUGH, Alton, N. H. Filed Feb. 21, 1911. Serial No. 610,078. (Cl. 40—151.)



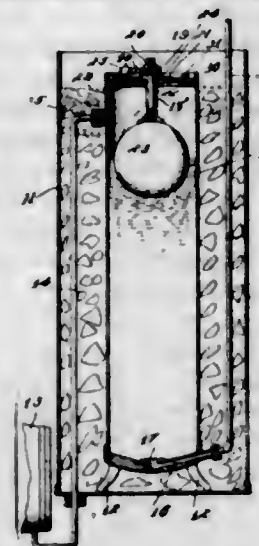
1. An easel or holder for cards and the like comprising integrally a base and a pair of substantially co-equal clip-members arching centrally across from one edge to the other of said base, said base and clip-members being in one integral rod of wire, with said clip-members in cooperative relation to grip a card placed between them and said base representing a single horizontal coil of said rod of wire and said clip-member being arched directly therefrom.

2. An easel or holder for cards and the like comprising integrally a base and a pair of clip-members arching across the same and adapted to receive and grip between them a card, said holder being of a continuous rod of wire which, commencing with one end, extends, substantially, along the line of a horizontal half circle to form one-half of the base, then along the line of a vertical half-circle to the point of beginning to form one of the clip-members, then reversely along the line of a horizontal half-circle to form the other half of said base, and then along the line of a vertical half-circle to form the other clip-member.

1,081,019. LIQUID-DISPENSING DEVICE. ROBERT J. CONWELL, Buffalo, N. Y. Filed Dec. 28, 1912. Serial No. 739,138. (Cl. 225—20.)

A liquid dispensing device comprising a ported container, an internal flange adjacent the top thereof, a removable cover positioned upon said flange and having a central opening therein, a lock ring engaging the container over said cover, a depending boss carried by said cover and having a central bore aligning with said opening, an upwardly extending threaded collar concentric with said opening and of greater diameter than the opening, said cover provided with an oblique port therethrough communicating between the interior of said collar and the container, a closely fitting plunger mounted for reciprocation

in said boss, a float upon the lower end of said plunger, a nipple threaded exteriorly upon said collar and having a central outlet therethrough, a conical needle valve of greater diameter than said bore and positioned upon the



upper end of said plunger within the inclosure formed by said nipple collar and cover and adapted for seating over said outlet, and said container adapted to receive beer at a point above the level of said float.

1,081,020. PUMP. WILLIAM COVNE, Kewanee, Ill., assignor of one-half to De Clark Brothers, Kewanee, Ill., a Copartnership. Filed Apr. 8, 1912. Serial No. 689,239. (Cl. 103—67.)



In a device of the class described, two aligned pumping cylinders each having a port in the outer end thereof, pistons in said cylinders, a source of compressed air supply, a piston valve arranged to control the admission and exhaust of said compressed air to and from said ports, a second valve arranged to control said piston valve, said second valve operating in alignment with said pumping cylinders, a block connected with said second valve, a rod connected to said pistons and slidably extending through said block, and stops on said rod adapted to alternately engage said block for operating said second named valve, substantially as described.

1,081,021. ADVERTISING DEVICE. JOHN F. CUNNINGHAM, San Francisco, Cal. Filed Nov. 16, 1907. Serial No. 402,567. (Cl. 58—50.)



1. An advertising clock with a non-transparent dial located in a light-giving aperture, a casing therefor having

a tortuous channel and means for holding said dial in a position whereby the view through the aperture is obstructed and light is admitted beyond the dial through said tortuous channel.

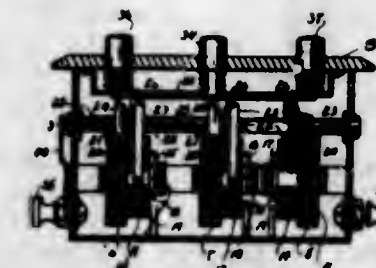
2. A device of the character described comprising a casing provided with tortuous passages set within an aperture in a sidewalk laid over a vault, an advertising clock therein positioned face up in the aperture and adapted to close the same save one or more of said tortuous passages permitting the transmission of light beyond the clock, and a transparent glass cover common to both the clock and the aperture.

3. An advertising device comprising an apertured surface, a clock in the aperture, a transparent glass cover for the aperture and clock therein, a ring adapted to prevent the direct passage of light through the glass cover beyond the clock's dial, said ring being cut away to form one or more pockets in its inner side and under surface, and one or more lamps lodged in the pocket or pockets.

4. An advertising device comprising an apertured surface, a clock in the aperture, a transparent glass cover closing the aperture at a suitable distance from the clock's dial, a ring extending inward over the edge of the dial and outwardly under the cover, said ring having one or more recesses in its inner edge and under surface forming one or more pockets therein, a reflective surface in each pocket, and a lamp lodged in the pocket opposite said reflective surface.

5. An advertising device comprising a suitably-apertured surface over a vault, an inwardly-flanged curb in the aperture, a transparent glass cover seated flush with the surface on the flange of said curb, a ring within the curb partly under its flange and partly level therewith, a clock suspended in the aperture with its dial extending to the inner edge of said ring, lamps in cutaway portions of the ring, and reflectors for said lamps to direct the rays emanating therefrom across the face of the clock's dial and into the vault beneath.

1,081,022. ELECTRICAL SWITCH. OTIS L. DAVIS, Iowa City, Iowa. Filed July 14, 1913. Serial No. 778,910. (Cl. 175—282.)



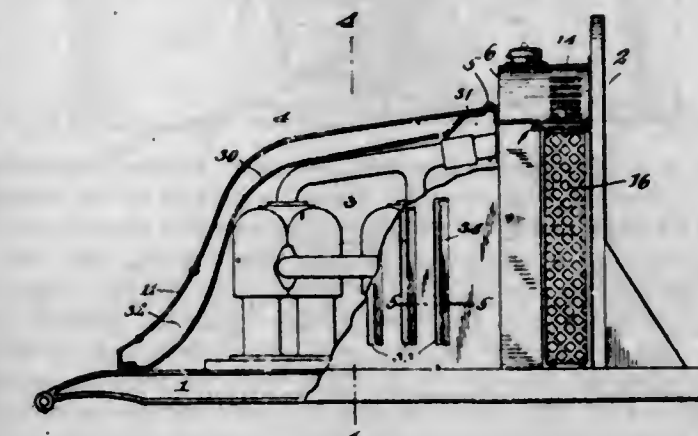
1. In an electrical switch, the combination with the casing, of a fixed shaft and a rock shaft mounted therein, ratchet wheels and disks mounted on said fixed shaft and connected therewith by springs, contact arms and pawls mounted on the rock shaft, means for turning the ratchet wheels, and means for releasing the pawls and contact arms.

2. In an electrical switch, the combination with a casing, of a fixed shaft in electrical contact therewith, a rock shaft insulated from the casing, a series of ratchets mounted on the rock shaft and insulated therefrom, a series of disks mounted on the shaft and connected with the ratchets from which they are insulated, said disks yieldingly connected with the said fixed shaft, a series of push-buttons adapted to separately operate the several ratchet wheels, a series of pawls mounted on the rock shaft in line with said ratchets, a series of contact arms also mounted on the rock shaft and adapted to be brought into electrical contact with said disks, and means for releasing said ratchets and contact arms.

3. In an electrical switch, the combination with the casing, of a fixed shaft in electrical contact with the casing, a rock shaft insulated from the casing, a series of ratchet wheels mounted on the said fixed shaft but insulated therefrom, a series of disks also mounted on the rock shaft in

electrical contact therewith, but insulated from the ratchets, insulated flanges surrounding said ratchets, said flanges formed with notches, means for turning the disks and ratchets to a predetermined position, a series of contact arms in electrical contact with the rock shaft and adapted to be brought into contact with said disks through the insulation surrounding them, a series of pawls also mounted on the rock shaft and in engagement with said ratchets, and means for moving said pawls and contact arms out of engagement with the ratchets and disks.

1,081,023. AUTOMOBILE. GEORGE DE FEVRE and JAMES E. WOODBRIDGE, New York, N. Y., assignors to The A-Z Company, a Corporation of New York. Filed May 21, 1909. Serial No. 497,397. (Cl. 21—90.)



1. In a cooling apparatus for automobiles, the combination with a motor, a casing covering said motor and completely hooding the same, a cooling device cooperating with the rear end of said casing and having a portion of its radiating-section exposed and a portion covered by said casing, a chamber in rear of said cooling device cooperating with the latter and having openings through which air entering the chamber from the cooling device may be expelled, and means located in said chamber for expelling the air from the latter and preventing the air from reaching the motor casing.

2. In combination with the chassis of an automobile, a motor supported by said chassis, a hood covering said motor and having means cooperating with the chassis to lock the hood to the latter, a cooling device in rear of said hood having a portion of its radiating-section covered by the end of said hood and a portion exposed outside of said hood, and means in rear of said cooling device for drawing air through its radiating-section.

3. In combination with the motor of an automobile, a hood for protecting said motor comprising an inner casing and an outer casing, the casings being secured together in spaced-apart relation so as to provide an air chamber between the same and inclosing the motor in a chamber; and a radiator arranged in rear of the motor and closing the rear end of the motor chamber; and means for exhausting the heat from the motor chamber through said radiator.

4. In combination with the motor of an automobile, a hood for protecting said motor comprising an inner casing and an outer casing, the casings being secured together in spaced apart relation so as to provide between the same an air chamber; and means whereby said double hood may be lifted clear of the motor to permit inspection of the latter.

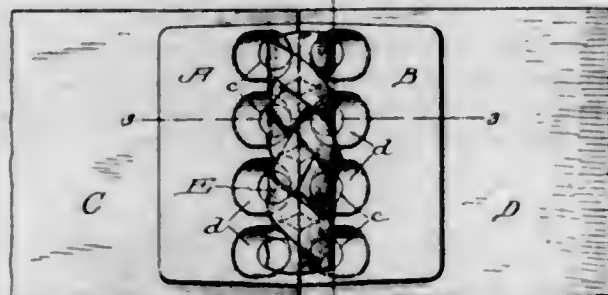
5. A motor car having in combination with its frame, motor and cooling device, a double hood covering the motor, and having a chamber through which air may pass to the cooling device and through the same without coming into contact with the motor.

[Claims 6 to 14 not printed in the Gazette.]

1,081,024. BELT-FASTENER. OTIS WM. DODGE, Spokane, Wash. Filed Sept. 27, 1911. Serial No. 651,586. (Cl. 24—34.)

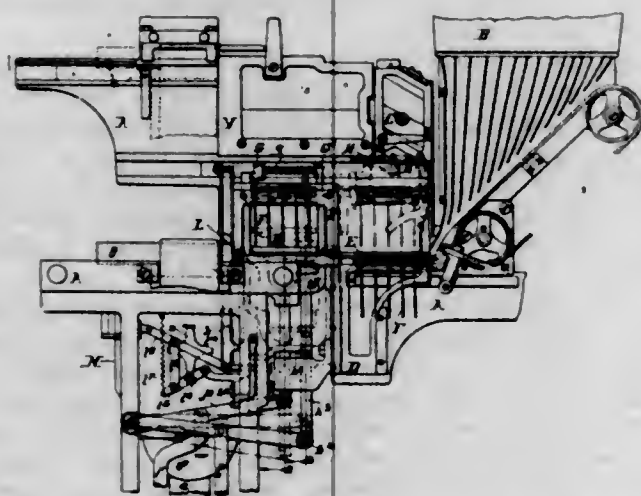
1. A belt fastener comprising opposite members adapted to be attached to the meeting ends of a belt, and having

straight vertical abutting meeting edges adapted to lie close together throughout their length and extend from the belt outwardly when the members are attached to the ends of the belt, each member being provided with vertical eyelets adjacent its meeting edge, and with longitudinal grooves on its under side extending from the eyelets to and through the abutting edge of the member; and a lacing engaging the eyelets and grooves of the opposed members and connecting them without distorting the belt.



2. A belt fastener comprising opposite similar members each provided with integral tangs or prongs in its under side whereby it may be attached to one end of the belt, and each having a straight vertical abutting meeting edge resting flat against the belt, and provided with vertically opening eyelets adjacent its meeting edge, and with grooves on its under side communicating with the eyelets and extending therefrom through the meeting edge, the grooves being parallel with the length of the belt, and means engaging said eyelets and grooves to hingedly connect the members while permitting their meeting edges to rest directly against the belt.

1,081,025. TYPE CASTING AND COMPOSING MACHINE. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 28, 1909. Serial No. 504,720. (Cl. 101—200.)



1. In a machine for casting and setting type in justified lines, expansible spacers, and matrices having their operative edges of a thickness equal to the setwise thickness of the type required, in combination with means for assembling said matrices and spacers in line, means for adjusting the spacers in the line to justify the same, a type mold variable in width, and means for presenting the parts of the composed line successively edgewise to the mold, the adjustment of the mold being determined by the setwise thickness of the matrices and spacers, substantially as described.

2. In a machine for casting and composing justified lines of type, the combination of circulating matrices and spacers, means for selecting and assembling them in line, means for adjusting the spacers in line to justify the same, a series of successively operative type molds, each controllable in width by the matrices or spacers presented thereto, and means for presenting the individual matrices and spacers from the composed line to the successive molds.

3. In a type casting machine, a series of type molds vari-

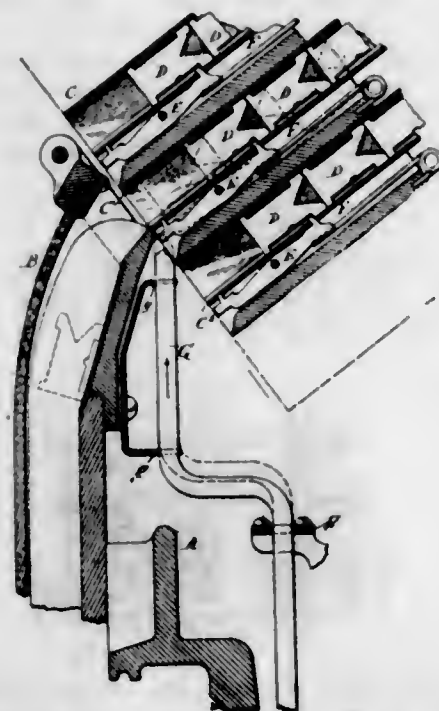
able in width by matrices and spacers presented thereto, and means for presenting to said molds in succession the individual spacers and matrices from a composed line; whereby the molds are caused to cast type and spaces corresponding in width to those in the matrix line.

4. In a type casting and composing machine, the combination of a rotary series of molds, each variable in width setwise, a series of flat matrices each having the matrix proper in one edge, and having said edge of a thickness equal to that of the type required therefrom, and means for presenting the matrices in order to the successive molds.

5. In a type casting and composing mechanism, a composed line of expansible spacers, and matrices having their operative edges of thicknesses corresponding to the width of the type required, said line having a length equal to that of the required line of type, in combination with means for casting individual type, and means for transferring the matrices and spacers one at a time from the composed line to the casting mechanism and presenting them edgewise thereto, said casting mechanism including a mold controlled in width by the setwise width of each matrix and spacer presented thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,081,026. LINE-CASTING MACHINE. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 18, 1912. Serial No. 671,893. (Cl. 199—7.)



1. In a machine of the class described, a series of magazines movable upward and downward, and each provided with escapements, in combination with reeds engaging directly with the escapements and guided in a path angular to the path in which the magazines are moved, whereby they are caused to recede from the escapements and the magazines, leaving the latter normally free for adjustment.

2. In a machine of the class described, the combination of assembling devices, a series of magazines movable in an inclined path to bring a selected one into operative relation to the assembling devices, each of the magazines being provided with escapements, and a series of vertically guided reeds to engage directly with and actuate said escapements.

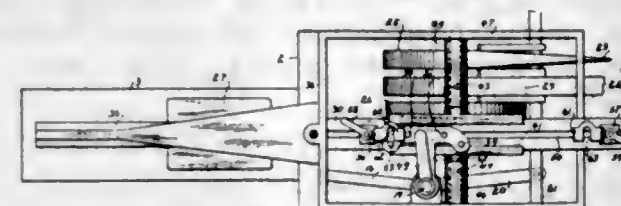
3. In a machine of the class described, the combination of the stationary throat B, the magazines provided with escapements, and movable upward and downward in an inclined path, and reeds G guided in the main frame and arranged to directly engage the escapements, and to retreat from the escapements and from the magazines.

4. In combination with the main frame, the throat B thereon, the magazines provided with escapements, and movable upward and downward in an inclined path, and the escapement-actuating reeds G, vertically guided, to

engage the escapements, having their lower portions bent or deflected rearward to avoid the main frame, as shown.

5. In a machine of the class described, a series of escapements, and a corresponding series of actuating reeds engaging directly therewith, the said reeds being vertically guided in the main frame, and their upper ends being deflected or bent forward and then upward, whereby their lower portions are adapted to avoid the main frame and their upper ends adapted to engage the escapements directly.

1,081,027. IRONING-MACHINE. RAYMOND E. DODGE, New Haven, Conn. Filed June 30, 1913. Serial No. 776,694. (Cl. 68—9.)



1. In an ironing machine, the combination with the frame, of a vertically movable table connected therewith, an iron adapted to be moved back and forth over said table, automatic means operating to move the iron back and forth, and lower and raise the table at the end of each stroke of the iron.

2. In an ironing machine, the combination with the frame, of a vertically movable table connected therewith, a guide-frame above the table, a longitudinally movable iron above said table and guided by said guide-frame, means operating to move the iron, and lower and raise the table at the end of each stroke of the iron.

3. In an ironing machine, the combination with the frame, of a vertically movable table connected therewith, an iron longitudinally movable above said table, adjustable stops for regulating the length of the stroke of said iron, and means operating to move the iron and lower and raise the table at the end of each stroke.

4. In an ironing machine, the combination with the frame, of a vertically movable table connected therewith, a longitudinally movable arm above said table, an iron connected with the outer end of said arm, a rigid guide-frame for guiding the outer end of said arm, and means operating to move said arm back and forth over said table, and lower and raise the table at the end of each stroke of the iron.

5. In an ironing machine, the combination with a frame, of a vertically movable table connected therewith, a longitudinally movable arm, an iron connected with the outer end of said arm, said arm formed in its under face with a rack, a gear for engagement with said arm, means for moving the gear in opposite directions whereby the arm is moved back and forth, a sliding cam adapted to lower and raise said table, connections between the arm and cam whereby the table is lowered and raised at the end of each stroke of the arm.

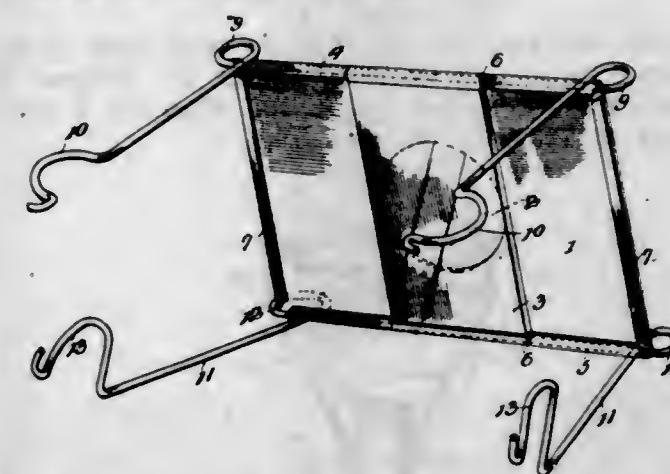
[Claim 6 not printed in the Gazette.]

1,081,028. LANTERN ATTACHMENT. WALTER W. EASTMAN, Hill, N. H., assignor to Frank R. Woodward, Hill, N. H. Filed Jan. 28, 1913. Serial No. 744,650. (Cl. 240—39.)

1. A signal attachment for lanterns comprising a plate having an opening, a pocket formed on said plate to each side of said opening, a signal glass arranged over said opening in said pockets, and a pair of spring frames pivotally mounted upon said plate, said frames being provided with gripping portions at their free ends for engaging the frame of a lantern.

2. An attachment for lanterns comprising a plate having an opening, a glass arranged over said opening, the upper and lower edges of said plate being bent back upon the glass, said bent-back portions forming horizontal eyes, and spring frames mounted in said eyes having gripping portions at their free ends for engaging the frame of a lantern.

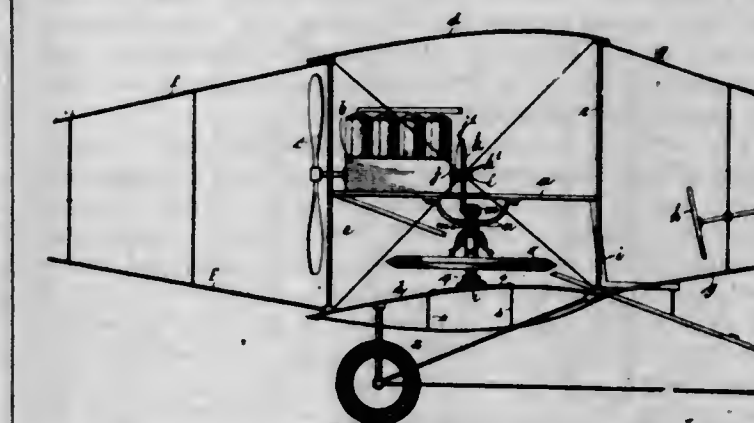
3. A lantern attachment comprising a signal plate having its upper and lower edges bent back to form eyes, said bent-back portions being offset to form pockets, said plate having an opening formed therein between said pockets, a glass arranged in said pockets, substantially U-shaped spring frames pivotally mounted in said eyes, the free ends of said frame being provided with gripping portions for engaging the frame of a lantern.



4. A lantern attachment comprising a signal plate, frames pivotally carried by said plate, the free ends of one of said frames being provided with semi-circular portions for engaging the vertical tubes of a lantern frame, the free ends of the other frame being provided with substantially U-shaped portions arranged at an angle to the semi-circular shaped portions, and subjected to a torsional stress when placed in position upon a lantern frame.

5. A lantern attachment comprising a plate having its edges turned back upon itself and provided with a central opening, a signal glass arranged over said opening and secured in position thereon by two of the bent-back edges thereof, wire frames arranged under the bent-back portions of said plate, having coil portions and provided at their free ends with gripping portions for engaging the frame of a lantern.

1,081,029. AEROPLANE. THEODOR EISING, Hoboken, N. J. Filed Oct. 31, 1912. Serial No. 728,782. (Cl. 244—25.)



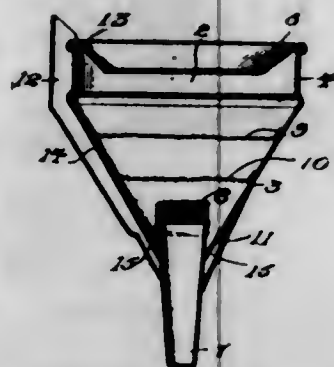
1. A safety device for aeroplanes for preventing the upsetting of the machine comprising a power engine, a gyroscopic wheel below, and intermediary drive mechanism normally out of engagement with the gyroscopic wheel comprising means for automatically establishing connection with said wheel when the engine starts and automatically disengage therefrom when the engine suddenly stops or breaks down.

2. A safety device for aeroplanes for preventing the upsetting of the machine comprising a power engine, a gyroscopic wheel in the lower part of the aeroplane, and intermediary drive mechanism normally out of engagement with said wheel comprising a centrifugal governor adapted to automatically establish connection with said wheel when the engine starts and automatically disengage therefrom when the engine suddenly stops or breaks down.

3. A safety device for aeroplanes for preventing the upsetting of the machine comprising a power engine, a horizontal gyroscopic wheel below with short vertical shaft having teeth at the top portion, and intermediary drive

mechanism comprising a toothed bottom portion normally above the teeth of the gyroscope shaft, and a centrifugal governor adapted to automatically establish connection with said wheel when the engine starts and automatically disengage therefrom when the engine suddenly stops or breaks down permitting of a free movement of the gyroscope by momentum.

1,081,030. WATER-SEPARATING FILTER FOR GASOLINE. CHARLES A. ENTORF, Amboy, Ill., assignor to Entorf Filter Company, Amboy, Ill. Filed Oct. 3, 1912. Serial No. 723,803. (Cl. 210-18.)



1. A filter of the character described including a hollow body, a discharge pipe leading from the hollow body and having its inlet opening disposed above the bottom of said body, a plurality of filter screens extending horizontally across the hollow body, the inlet end of the discharge pipe being also provided with a filtering screen, and a receiving duct forming a drainage passage and communicating with the hollow body at the bottom thereof below the level of the inlet end of the discharge pipe and with the hollow body above each screen of the series.

2. A filter of the character described including a hollow body, a discharge pipe leading from the hollow body and extending above the bottom thereof, a plurality of filtering screens extending horizontally across the hollow body, the upper end of the discharge pipe being also provided with a filtering screen, and a water duct forming a drainage passage and communicating with the hollow body at the bottom thereof below the level of the upper end of the discharge pipe and with the hollow body immediately below the first screen of the series and near the upper end of the hollow body.

3. A filter of the character described including a hollow tapering body, a discharge pipe leading from the small end of the hollow body and having its inlet opening disposed above the bottom of said body, a transverse, horizontally arranged, finely reticulated filtering screen disposed within the body, and a receiving chamber carried at one side of the hollow body, said chamber having an opening leading into the interior of the hollow body and said opening being spaced a distance above said screen, said chamber also having an opening leading into the body below the upper end of the discharge pipe.

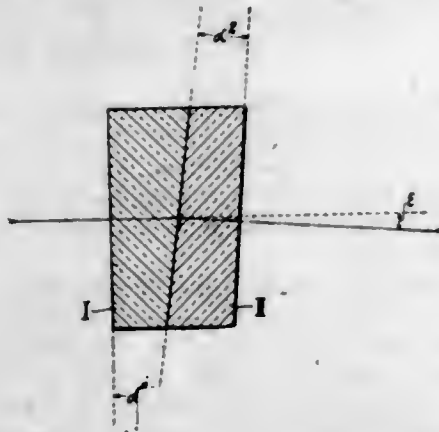
4. A filter of the character described comprising a hollow body, a pair of filtering screens arranged in superposed relation, a discharge pipe leading from the hollow body and extending above the bottom of the same, a filtering screen extending across the upper end of the discharge pipe, a water collecting chamber formed below the hollow body and communicating with the same below the upper end of the discharge pipe, and a duct forming a passage and extending from the water collecting chamber along the side of the hollow body and above the same and having an opening into the hollow body immediately below the first screen of the pair and also having an opening into the hollow body near the top thereof.

5. A filter of the character described comprising a conical receiver having vertical upper walls, a discharge pipe entering the bottom of the conical receiver and projecting above the same, a cap of filtering material covering the top of the discharge pipe, a water collecting chamber surrounding the discharge pipe and disposed at the lower

end of the conical receiver, said chamber communicating with the interior of the receiver at a point below the upper end of the discharge pipe, and a water duct leading from the collecting chamber and attached to the walls of the receiver and open at its upper end, and upper and lower filtering screens arranged within the conical portion of the receiver and in spaced relation to each other, the wall of the receiver having an opening at its upper end leading into the upper portion of the duct, and an opening disposed below the first screen of the series leading into said duct.

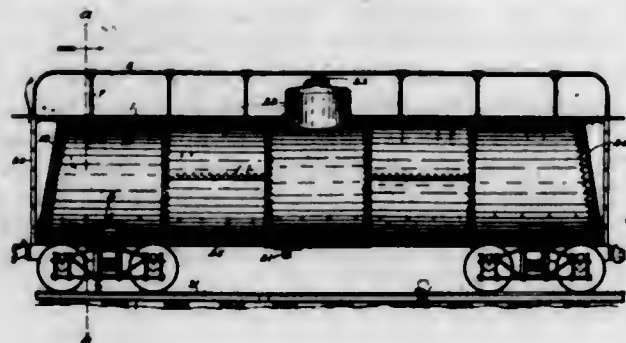
[Claims 6 and 7 not printed in the Gazette.]

1,081,031. REFRACTING-PRISM. OTTO EPPENSTEIN, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed May 22, 1913. Serial No. 769,276. (Cl. 88-1.)



Refracting prism consisting of two members cemented together, the refractive index and the refractive angle of each member being so chosen, that those rays of a pencil system of parallel rays entering the prism in a chosen direction, which are reflected at the surface of emergence and again at the surface of entrance, finally emerge parallel to those rays emerging directly.

1,081,032. TANK-CAR. LEO E. EVENS, Waterloo, Iowa, assignor of one-half to John A. Cutler, Osage, Iowa. Filed Feb. 1, 1913. Serial No. 745,714. (Cl. 105-264.)



1. A tank car, comprising carrying-means, and a tank supported thereon, whose lower portion is wider than its upper portion and longitudinally dished.

2. A tank car, comprising carrying-means, and a tank supported thereon, whose lower portion is of greater capacity than its upper portion and longitudinally dished in its entire width.

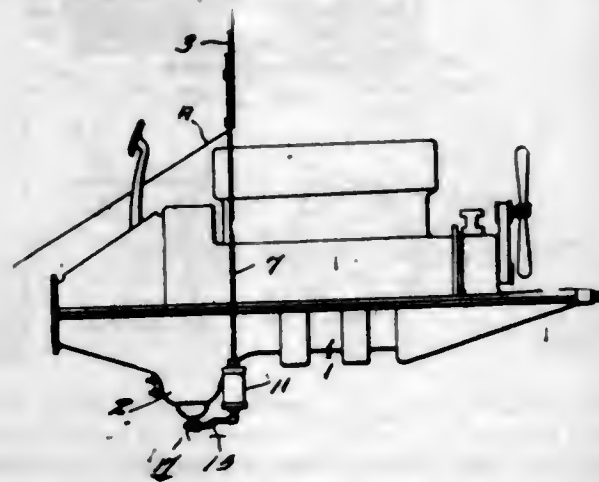
3. A tank car, comprising carrying-means, and a tank supported thereon, having a triangular prismoidal form.

4. A tank car, comprising carrying-means, and a tank supported thereon, having a triangular prismoidal form with its side walls and their connecting parts at the side outwardly curved.

5. A tank car, comprising carrying-means, and a tank supported thereon, having a triangular prismoidal form, with its ends sloped downwardly outwardly.

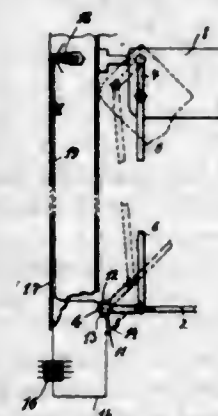
[Claims 6 to 11 not printed in the Gazette.]

1,081,033. MEASURING INSTRUMENT. D. EARL FERGUSON, Vernon, Mich. Filed Jan. 16, 1913. Serial No. 42,424. (Cl. 73-82.)



The combination with the oil reservoir of an automobile, of a coupling box secured thereto and provided with a drain plug, an oil cup and a bent pipe connecting the cup and box, a float in the cup, a tube opening into the cup and extending upwardly therefrom, an indicator plate attached to the dash of the automobile and held in adjusted position on the tube, and a stem on the float extending through the tube having its end in operative relation to the indicator plate.

1,081,034. CHAIR FOR THEATERS OR THE LIKE. ANDREAS FORSTER and HANS WANKE, Vienna, Austria-Hungary. Filed Nov. 7, 1912. Serial No. 729,925. (Cl. 240-4.)



In a chair for theaters, concert rooms or the like, having a seat and back automatically and positively rotatable together out of the position of use, an incandescent lamp arranged in the chair frame, the circuit of which is closed by a switch controlled by the movement of the said rotatable parts when turned out of the position of use, substantially as described.

1,081,035. HEATING APPARATUS FOR DRYING DAMP MASONRY. HANS GEYER, Munich, Germany. Filed Dec. 12, 1911. Serial No. 665,356. (Cl. 126-271.2.)

1. An apparatus of the character specified, embodying therein a casing and partitions therein, torches within said casing, supports for said torches carried by said partitions, doors carried by said casing, and means carried by said doors for locking the torches in position.

2. An apparatus of the character specified, embodying therein a casing having a wall thereof formed of fire proof material, torches within said casing, partitions in said casing, supports on said partitions for retaining said torches in position to have their nozzles project through the said fire proof wall, doors carried by said casing, and means carried by said doors for engaging said supports and torches to lock the latter in position.

3. An apparatus of the character specified, embodying therein a casing and horizontal partitions therein, torches within said casing, supports for said torches carried by

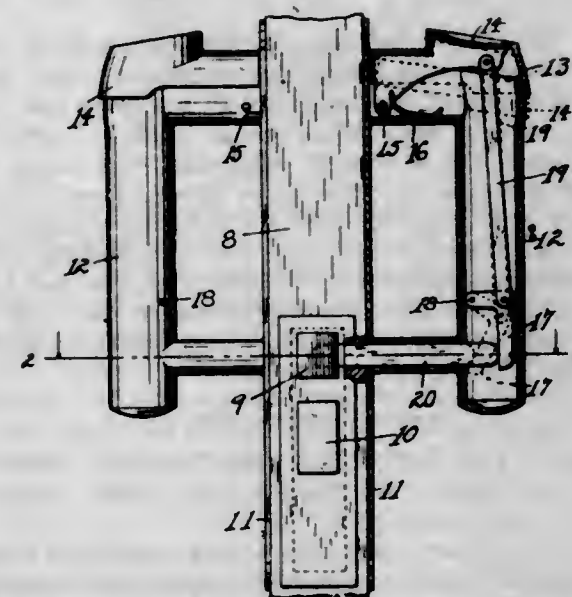
said partitions, each of said supports comprising an arm adapted to engage the torch and a rearwardly extending arm, and means for engaging said rearwardly extending arm to lock the torches in position.



4. An apparatus of the character specified, embodying therein a casing having a plurality of horizontal partitions therein, torches within said casing, supports on said partitions adapted to support said torches with their nozzles projecting through one wall of said casing, and deflectors supported by said casing adjacent the wall through which the torches project.

5. An apparatus of the character specified, embodying therein a casing and a plurality of horizontal partitions therein, said casing having one of its walls formed of fire proof material, torches within said casing, a plurality of supports on each partition adapted to support said torches with their nozzles projecting through said fire proof wall, each of said supports comprising a pair of bifurcated arms adapted to engage the torch and a rearwardly extending bifurcated arm, doors hinged to the rear part of said casing, spring loops projecting from said doors and adapted to engage said rearwardly extending arms of the torch supports, and a deflector supported adjacent the outer surface of said fire proof wall.

1,081,036. DOOR-LOCK. JOHN GRANDITS, Chicago, Ill. Filed Jan. 24, 1913. Serial No. 743,925. (Cl. 70-42.)

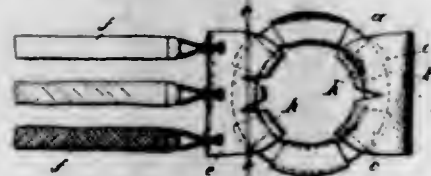


1. In a lock, a casing; a bolt slidably mounted therein and having a bevel actuating surface; a handle consisting of a stationary portion and a movable portion pivoted to said stationary portion; a lever pivoted in said handle; a connecting link connecting said movable portion with said lever; and a push rod operated by said lever and having a bevel end adapted to engage the bevel actuating surface of said bolt, substantially as described.

2. In a lock, a casing; a bolt slidably mounted in said casing; a hollow handle having an opening in one side; a cap portion hinged to said handle over said opening; an L-shaped lever in said hollow handle and having one end pivoted thereto; a connecting link connecting the angular portion of said L-shaped lever with said cap portion; and

a push rod engaging the other end of said L-shaped lever and provided with a bevel face in engagement with said bolt to operate the latter, substantially as described.

1,081,037. TOY PROJECTILE. EUGEN HACKH, Stuttgart, Germany. Filed Jan. 24, 1913. Serial No. 743,931. (Cl. 102-26.)



1. A toy projectile comprising a frame body; straps around said frame body; and a protecting buffer around said frame body and said straps and secured to the latter, substantially as described.

2. A toy projectile comprising a frame body; closely fitting straps around said frame body; and a loosely fitting protector buffer covering around said body and said straps and secured to the latter, substantially as described.

3. A toy projectile comprising a frame body; closely fitting straps around said frame body; a loosely fitting protecting buffer covering of sheet material having triangular portions cut away from its edges and said edges fitted to the ends of said straps; and means securing the edges of said buffer covering and the ends of said straps securely together, substantially as described.

1,081,038. CLEANING DEVICE FOR TOBACCO-PIPES AND THE LIKE. CHARLES H. HAIG, New York, N. Y. Filed Dec. 7, 1911. Serial No. 664,475. (Cl. 131-13.)



As a new article of manufacture, a cleaning device of the class described comprising a resilient wire having guiding means near the outer end of the same and terminating forward of the guiding means in an enlarged blunt entering-point, the said wire extending backwardly from said guiding means and shaped to approximately conform to the bore of a pipe, and having a securing means located at the inner end of the wire, in combination with a fibrous material detachably engaged with the said securing means and being of greater thickness than the wire, whereby the cleaning device may be introduced and pulled through the pipe in one direction.

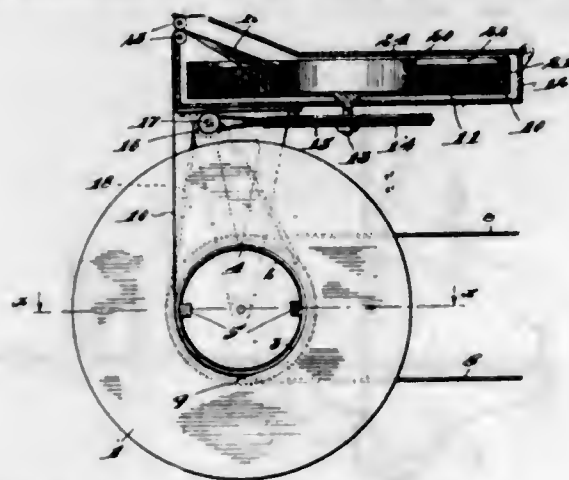
1,081,039. FILM-WINDING APPARATUS. HENRY J. HAMANN, Chicago, Ill. Filed Aug. 30, 1912. Serial No. 717,879. (Cl. 242-70.)

1. A winding reel comprising a disk having an annular recess therein and an inwardly compressible outwardly expanding broken spring ring inserted in said recess and frictionally engaging the outer wall of said recess, substantially as described.

2. A winding reel comprising a disk having an annular recess therein and an inwardly compressible outwardly expanding broken spring ring inserted in said recess and frictionally engaging the outer wall of said recess; and finger pieces on the interior of said ring adapted to facilitate inward compression thereof, substantially as described.

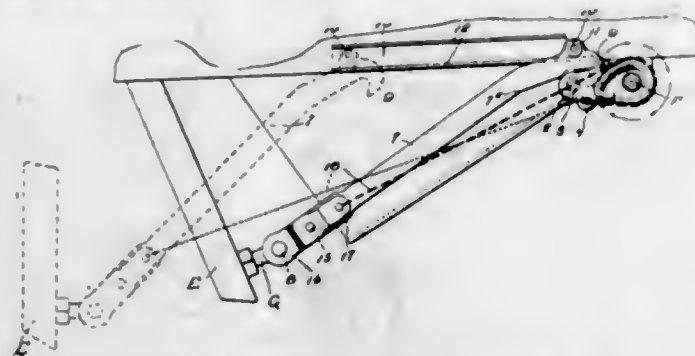
3. A winding reel comprising a disk having an annular recess therein and an inwardly compressible outwardly expanding broken spring ring inserted in said recess and frictionally engaging the outer wall of said recess; finger

pieces on the interior of said ring adapted to facilitate inward compression thereof; and a projection on the



periphery of said ring adapted to engage a perforation in the end of a strip, substantially as described.

1,081,040. HOPPER-DOOR-OPERATING DEVICE. LEVIN GOOSFORD HANDY, Rutherford, N. J., assignor, by mesne assignments, to William H. Woodin, New York, N. Y. Filed July 11, 1910. Serial No. 571,429. (Cl. 105-185.)



1. In a device of the character described, an operating shaft, a door and means for closing and locking said door in closed position comprising a crank arm, a locking arm separably connected therewith when the parts are in predetermined positions, and a track for guiding said locking arm to engaging position.

2. The combination of a pair of sills, a hinged door, a sliding rigid connection between the free edge of said door and said sills, and means disengaging said connection from said sills to lock said door in position.

3. In a device of the class described, a shaft having a fixed axis of rotation, a door, a flexible connection between said shaft and door adapted to support said door during its initial closing movement, a rigid means supporting said door in its final closing movement, and an eccentric drum carried by the shaft for taking up the slack in said flexible connection during said final closing movement.

4. In a device of the class described, a door, a locking arm pivoted to said door and having a free end, a rotating shaft, a crank pin carried by said shaft, adapted to engage said free end and thereby to carry said arm into position to rest on said shaft.

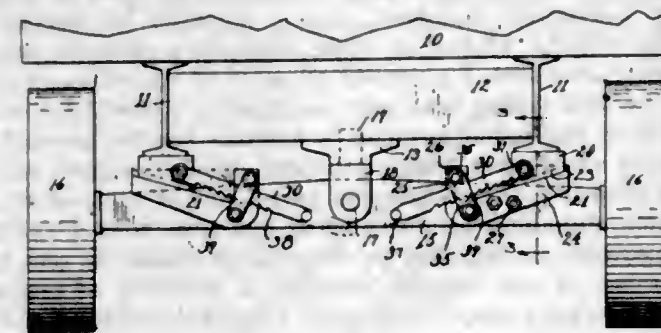
5. In a device of the character described, spaced apart supporting members, a door, an arm pivoted to said door, a transversely extending shaft centering said arm between said supports, a locking mechanism including an actuating shaft supported from said members adapted to engage said arm to close said door.

[Claims 6 to 22 not printed in the Gazette.]

1,081,041. TRUCK. HOLLIS H. HARRIS, Lorain, Ohio, assignor to The Thew Automatic Shovel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 16, 1913. Serial No. 761,548. (Cl. 21-186.)

1. In a truck, the combination, with a superstructure, of an axle connected therewith, a seat mounted on the axle

and providing inclined guideways on the front and rear faces of the axle, and a wedge slidable on said guideways and adapted to coact with the under side of the superstructure, said wedge being recessed on its under side to straddle the axle.



2. The combination, with an axle and a superstructure, of a seat secured to the axle and having a pair of inclined guideways lying on opposite sides of the axle and extending above it and having a connecting portion resting on the upper face of the axle, and a wedge resting on the guideways and adapted to engage the superstructure.

3. In a truck, the combination, with the superstructure and axle, of means including a wedge designed to form a distance piece between the superstructure and axle, a bar for moving the wedge and provided with a ratchet rack on its lower edge, a handle projecting from its side, and a stationary tooth adapted to engage such rack and hold the wedge in adjusted position.

4. The combination, with the axle and superstructure, of a seat straddling the axle and providing inclined guideways on its front and rear sides, a wedge slidably mounted on such guideways, a link connected with the wedge provided with a handle and with a rack, a guide for the link, and a tooth designed to cooperate with the rack in various positions on the wedge.

5. In a truck, the combination of an axle, a superstructure swiveled thereon, a seat in the form of a U-shaped strap extending onto the front and rear sides of the axle, a wedge slidably mounted on such seat, a link connected with the wedge and provided with a handle, and a stirrup on the side of the strap forming a guide for the link.

[Claims 6 to 10 not printed in the Gazette.]

1,081,042. AWNING. EDMUND F. HARTSHORN, Newark, N. J., assignor to Stewart Hartshorn Company, East Newark, N. J., a Corporation of New Jersey. Filed Feb. 5, 1913. Serial No. 746,283. (Cl. 156-44.)



1. An awning having a shade; a slat for one end and a spring roller for the other; spreaders supporting the spring roller; fly-rods; sliders on the fly-rods; connections between the spreaders and fly-rods; an intermediate roller

197 O. G.—28

or bar connecting the sliders and engaging with the outer side of the shade; and means for raising the sliders.

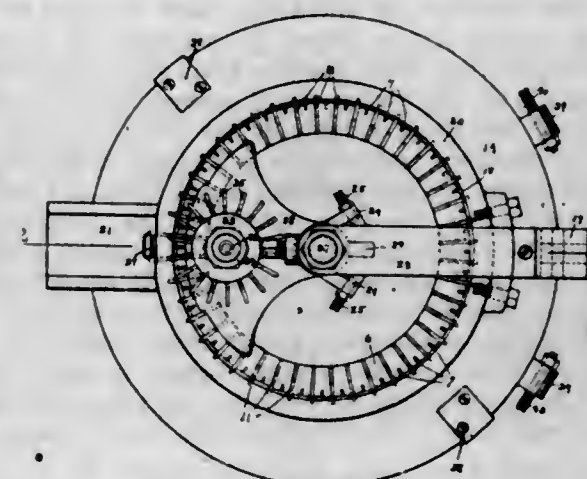
2. An awning having a shade; a spring roller therefor; spreaders supporting the roller; fly-rods; sliders on the fly-rods; ears on the sliders; a pivot for a spreader between the ears; and a pin connecting the ears and supporting the spreader when lowered.

3. An awning having a shade; a spring roller for the shade; spreaders supporting the spring roller; fly-rods; a slider on each fly-rod; a pivotal connection on each slider for a spreader at the lower part of the slider; and a roller on the slider intermediate its ends, said roller engaging with the fly-rod and serving as a stop for the spreader when raised.

4. An awning having a shade; a spring roller for the shade; spreaders carrying the spring roller; fly-rods; a slider on each fly-rod, said sliders being made of sheet metal, each with a plurality of opposed ears, the lowermost ears supporting the spreaders; a friction roller supported by the intermediate ears; and a roller supported by the upper ears and engaging with the outside of the shade.

5. An awning having a shade; a spring roller for the shade; a spreader carrying the spring roller; fly-rods; connections between the spreader and the fly-rods, the spreader being composed of side bars and a cross bar, with an angle at the junction of the side bars and a cross bar. [Claims 6 to 9 not printed in the Gazette.]

1,081,043. KNITTING-MACHINE. FRANK D. HOLMES, Detroit, Mich., assignor to Detroit Alaska Knitting Mills, Detroit, Mich., a Corporation of Michigan. Filed June 19, 1913. Serial No. 774,499. (Cl. 66-26.)



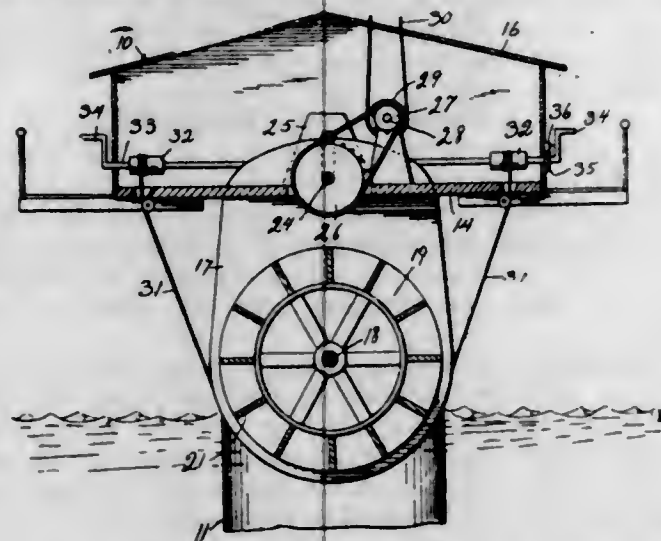
1. In a knitting machine, the combination of a needle-cylinder, needles mounted on the same, a cam-cylinder, brackets connected diametrically opposite to each other to the cam-cylinder and extending upward therefrom, a ring pivoted to one bracket and resting on the other, said ring having two openings for yarns at different levels, an arm mounted on said ring, a shaft extending downwardly therefrom, a looper-support freely slidable and revoluble on said shaft, and a looper revolubly mounted on said support, eccentric to said shaft and having radially projecting points adapted to extend between said needles.

2. In a knitting machine, the combination of a needle-cylinder, a cam-cylinder, brackets connected diametrically opposite each other on the cam-cylinder and extending upward therefrom, a ring pivoted to one of said brackets and resting on the other and formed with a plurality of openings for the passage of yarns at different levels, an arm connected to said ring and a shaft rigidly mounted on the arm, and a looper-support slidable and revolubly mounted on said shaft comprising a hub and clamping members slidable on said pin, and a series of points projecting radially from said clamping members, the outer edge of the looper-support extending laterally beyond the points to hold down the knitted material as the points of the looper disengage.

3. In a knitting machine, the combination of a needle-cylinder, needles slidably mounted therein, a cam-cylinder,

a shaft mounted above and concentric with the needle-cylinder, a loop-support mounted on said shaft, an upright stem on said support positioned nearer to the needles than to said shaft, and a loop revolubly and slidably mounted on the stem and comprising a series of radially extending points adapted to extend between said needles.

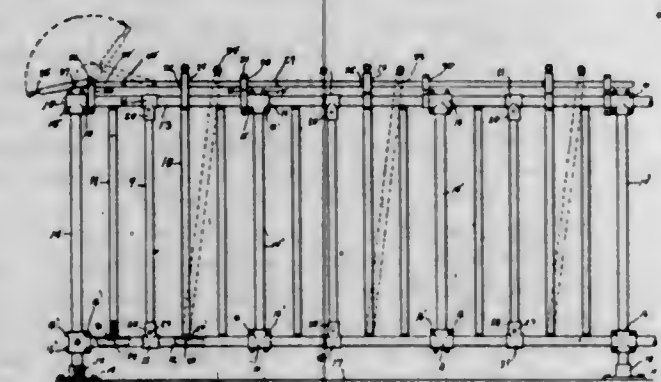
1,081,044. MOTOR. ISAAC HURLEY, Ontario Center, N. Y. Filed Mar. 29, 1913. Serial No. 757,633. (Cl. 170—131.)



1. In a motor of the type described, the combination with a support, of a platform carried by the support and having spaced openings, a shaft journaled upon said platform, plates slidably engaged in the openings of the platform, means secured to the shaft and engaged around the lower ends of the plates for raising and lowering the same through said openings, an operating shaft mounted in the upper ends of the plates, means for guiding the opposite ends of the operating shaft, water wheels mounted between the lower ends of the plates, gears connecting the operating shaft and the water wheels, drums mounted upon the platform, connections between the operating shaft and the drums, and means for transmitting power from the drums.

2. In a motor of the type described, the combination with a support, a platform carried by the support, a shaft journaled upon said platform, plates slidably supported by the platform, flexible connecting members secured to the plates and shaft, an operating shaft, gears connecting the operating shaft and water wheels, drums mounted upon the platform, a connection between the operating shaft and the drums and means for transmitting power from the drums.

1,081,045. STANCHION. WILLIAM D. JAMES, Fort Atkinson, Wis. Filed Nov. 26, 1909. Serial No. 529,880. (Cl. 119—148.)



1. In a device of the described class, the combination of a stanchion supporting frame, comprising a pair of stationary horizontal members, and a plurality of vertical members rigidly affixed at their respective ends to said horizontal members, a plurality of pairs of stanchions supported by said frame, each pair comprising a vertical member and an inclinable member, means for simultaneously moving all of said inclinable stanchion members to either their open or closed position and for simultaneously lock-

ing all of said members in their closed position, and means for disengaging any one of said inclinable members from the operating means whereby such inclinable member may be operated independently of all the others.

2. In a device of the described class, the combination of a stanchion supporting frame, comprising a pair of stationary horizontal members, and a plurality of vertical members rigidly affixed at their respective ends to said horizontal members, a plurality of pairs of stanchions supported by said frame, each pair comprising a vertical member and an inclinable member, a slidable bar horizontally supported above said frame provided upon its upper edge with a plurality of notches, the upper end of each of said inclinable stanchion members being provided with a vertically movable pin adapted to detachably engage in one of the notches of said slidable member, a plurality of transversely arranged stops projecting from the sides of said slidable bar and adapted to limit and stop the movement of the inclinable stanchion members when they reach the vertical, a handle pivotally connected at one end with said stationary supporting frame and at an intermediate point between its ends with said slidable member, all substantially as and for the purpose specified.

1,081,046. BRAKE-SHOE. BENJAMIN A. JOHNSON, Chicago, Ill. Filed July 1, 1913. Serial No. 776,769. (Cl. 188—82.)



1. A brake shoe comprising the combination with a cast metal body and a ductile metal reinforcing back, of a ductile metal fastening lug having integral top, sides and bottom, said bottom having a transverse, open-ended slot therein and a part extending up from said reinforcing back through said slot and serving to unite the back and lug together.

2. A brake shoe comprising the combination with a cast metal body and a ductile metal reinforcing back, of a ductile metal fastening lug having integral top, sides and bottom, and a pin or rivet extending through the bottom of said lug between the sides thereof and serving to unite said back and lug together.

3. A brake shoe comprising the combination with a cast metal body and a ductile metal reinforcing back, of a ductile metal fastening lug having an integral top, sides and bottom, the bottom being formed of inwardly turned parts, and a pin or rivet extending through the bottom of said lug and through said ductile metal back and serving to unite said parts together.

4. A brake shoe comprising the combination with a cast metal body and a ductile metal reinforcing back, of a ductile metal fastening lug having an open-ended slot in its bottom, and a pin or rivet extending through the slot of said lug and through said ductile metal back, the ends of said pin or rivet being expanded, and serving to unite said parts together.

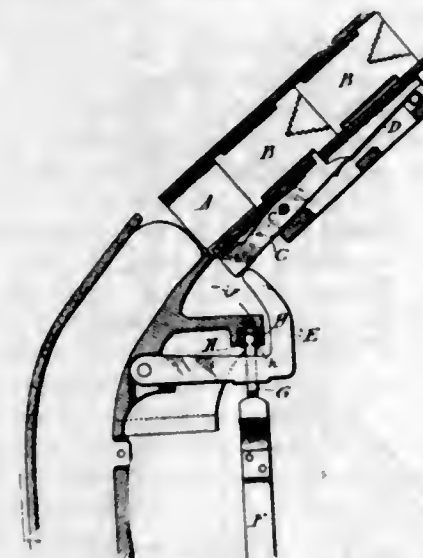
1,081,047. LINE-CASTING MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,650. (Cl. 199—7.)

1. The combination of two escapements, an actuating reed, and an intermediate independently supported dog to communicate motion from the reed to the two escapements alternately, said dog arranged to move laterally from one operative position to another under the influence of the reed.

2. In combination, the two escapements, the levers for communicating motion thereto, the forked reed, the inter-

mediate dog operated thereby, and means for shifting the dog to the right and left as it is operated by the reed.

3. In combination, the two escapements C and C', actuating levers E and E', the reed, the laterally movable and independently supported dog located between the reed and the levers, and a switch mechanism whereby the operation of the reed shifts the dog into operative relation to the two levers alternately.

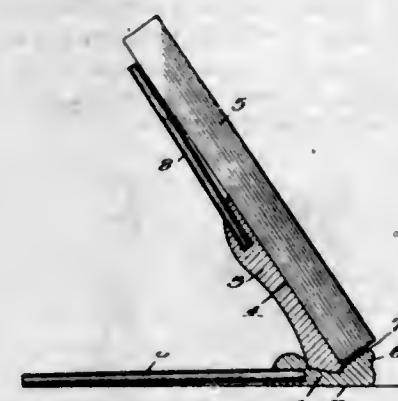


4. As a means of communicating motion to two escapements alternately, a lifting reed, a pendant dog, and a switch by which the dog is supported and thrown to the right and left by successive movements of the reed.

5. In combination with the reed, the pendant dog G, the grooved or notched plate J, and the spring switch H, whereby the actuation of the reed shifts the dog from one operative position to another.

[Claim 6 not printed in the Gazette.]

1,081,048. DISPLAY-HOLDER. WILLIAM C. KLEE, Rochester, N. Y. Filed Mar. 24, 1913. Serial No. 756,277. (Cl. 211—24.)

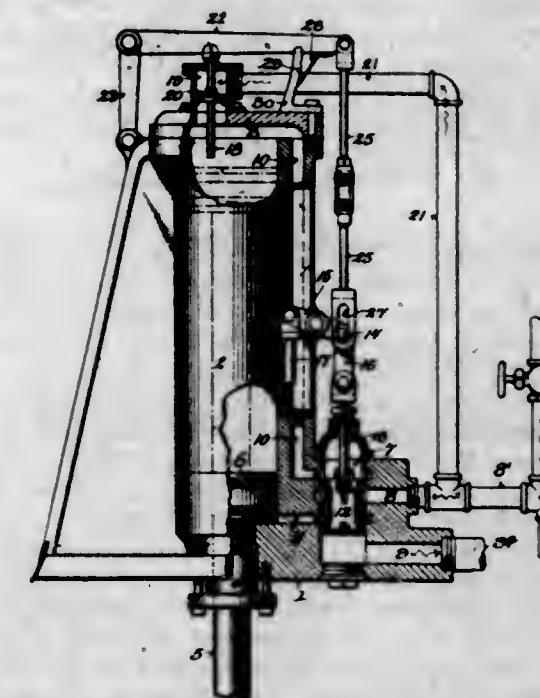


1. A display holder comprising a base having a lower face to rest upon a supporting surface and also having a pocket at its rear extending in the direction of the base face in proximity to said face near the center of the latter but above the same, a supporting member having a supporting face at an oblique angle to the base face and also having a pocket at its upper portion extending in the direction of the supporting face in proximity to but in rear of said face near the center of the latter, a rest at the lower end from the supporting face, and rods fitted in the pockets of the base and the supporting member to extend the supporting faces of the latter.

2. A display holder comprising a base having a lower face to rest upon a supporting surface and also having a pocket at the rear thereof extending in the direction of the base face and at an acute angle to the plane thereof, a supporting member having a supporting face at an oblique angle to the base face and also having a pocket at the upper portion thereof extending in the direction of the supporting face at an acute angle to the plane of

the latter, a rest at the lower end of the supporting face, and extensions fitted in the pockets and serving to extend the supporting faces of the base and the supporting member.

1,081,049. SAFETY DEVICE FOR FLUID-ACTUATED PISTONS. WALTER B. KOLLAR, Lansing, Mich. Filed June 17, 1912. Serial No. 704,013. (Cl. 121—18.)

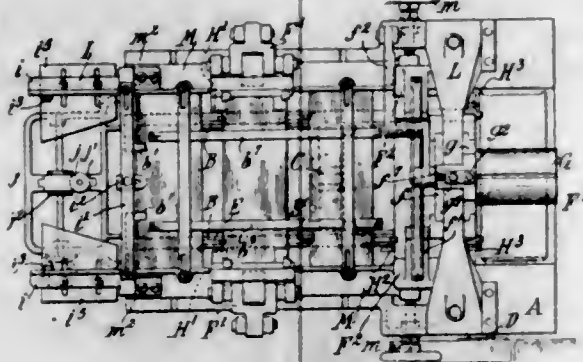


1. In an engine having a cylinder, a head therefor, a piston mounted in the cylinder, a piston-rod carried by the piston, steam channels connecting the opposite ends of the cylinder, a controlling valve for the steam channels, and valve-gear for the controlling valve; the combination of a by-pass in communication with the cylinder head, an auxiliary valve therefor, means in connection with the auxiliary valve for engagement with the piston incidental to abnormal movement of the latter, and means connecting the auxiliary valve and engine valve-gear whereby said valves are simultaneously opened by engagement of the piston with said auxiliary valve mechanism to admit separate volumes of steam over the aforesaid piston.

2. In an engine having a cylinder, a head therefor, a piston mounted in the cylinder, a piston-rod carried by the piston, steam channels connecting the opposite ends of the cylinder, a controlling valve for the steam channels, and valve-gear for the controlling valve; the combination of a by-pass in communication with the cylinder head, an auxiliary valve therefor, means depending from the auxiliary valve for engagement of the piston incidental to abnormal movement of the latter, and a lever in connection with the auxiliary valve and engine valve-gear whereby said valves are simultaneously opened incidental to overthrow of the piston to admit separate volumes of steam over said piston.

3. In an engine having a cylinder, a head therefor, a piston mounted in the cylinder, a piston-rod carried by the piston, steam channels connecting the opposite ends of the cylinder, a controlling valve for the steam channels, and a valve-gear for the controlling valve; the combination of a by-pass in communication with one of the steam channels and cylinder, an auxiliary valve mounted in the by-pass for controlling the admission of steam to said cylinder, means in connection with the auxiliary valve for engagement with the piston incidental to abnormal movement of the latter, and means in connection with said auxiliary valve and the aforesaid engine valve-gear, whereby said valves are positively opened simultaneously by engagement of the piston with the auxiliary valve mechanism to simultaneously admit steam from the by-pass and one of the steam channels to the cylinder.

1,081,050. SHEET-METAL-WORKING MACHINE. PETER KRUSE, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Feb. 24, 1913. Serial No. 750,347. (Cl. 113—113.)



1. In sheet metal working machines, the combination of reciprocating feeding means adapted to positively grip and advance a sheet of metal, and means for stripping said sheets from the positive grip of said feeding means upon the backward movement of said feeding means.

2. In sheet metal working machines, the combination of reciprocating feed fingers adapted to positively grip and advance a sheet of metal, and stops adapted to strip said sheets from the positive grip of said feed fingers upon the backward movement of said fingers.

3. In sheet metal working machines, the combination of mechanism adapted to operate upon sheets of metal, a reciprocating feed bar, fingers thereon adapted to positively grip the sheet of metal and advance it to said mechanism, and means for stripping said sheets from the positive grip of said fingers at a definite position with respect to said mechanism upon the backward movement of said fingers.

4. In sheet metal working machines, the combination of a hopper having bottom plates constituting a bottom support for the sheets of metal in the hopper, said plates being adjustable on said hopper transversely toward and away from one another, whereby the amount of sag of the sheets between the supported ends thereof may be regulated.

5. In sheet metal working machines, the combination of a hopper comprising side plates and adjustable guides for the front and rear edges of the pile of sheets, and bottom plates constituting a bottom support for the sheets of metal in the hopper, said bottom plates being adjustable independently of the side plates transversely toward and away from one another, whereby the amount of sag of the sheets between the supported ends thereof may be regulated.

[Claims 6 to 14 not printed in the Gazette.]

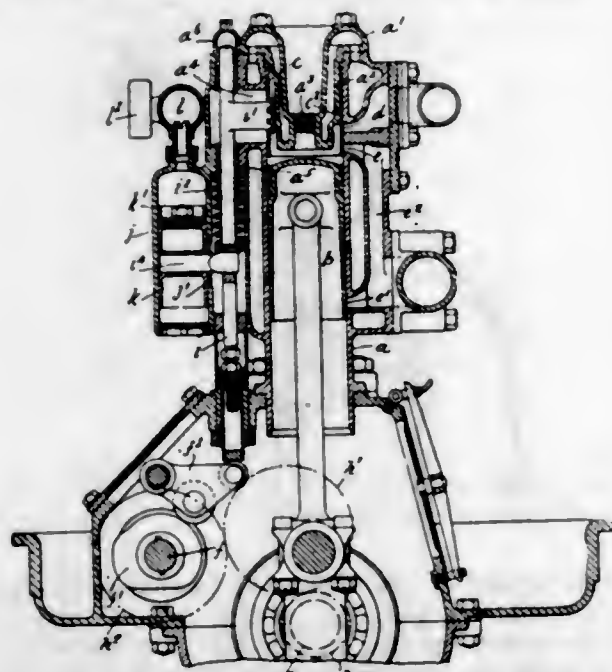
1,081,051. VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. FREDERICK LAMPLUGH, Willesden Junction, England. Filed Dec. 27, 1911. Serial No. 668,055. (Cl. 123—92.)

1. In means for operating the sleeve valve of an internal combustion engine, the combination of means for moving the sleeve valve in one direction, a closed compressed gas chamber having constant pressure therein, a cylinder connected to said chamber, a closed piston located in said cylinder and means operated by the piston for moving the sleeve valve in the opposite direction.

2. In means for operating the sleeve valve of an internal combustion engine, the combination of means for moving the sleeve valve in one direction, and pneumatic means and a spring acting together for moving the sleeve in the opposite direction.

3. In means for operating the sleeve valve of an internal combustion motor, the combination of a finger stepped into the valve, a sliding rod carrying said finger, means for raising said rod, a chamber containing compressed gas, a cylinder connected to said chamber and a piston in said cylinder acting upon the sliding rod for lowering this latter, substantially as set forth.

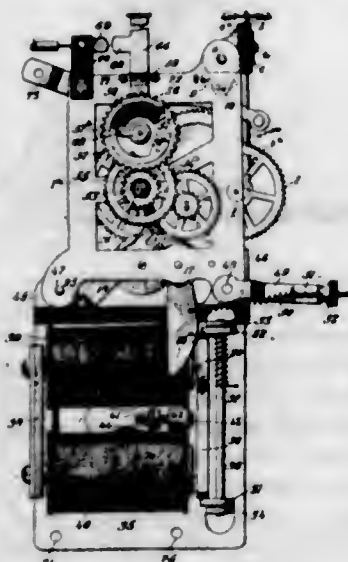
4. In means for operating the sleeve valve of an internal combustion motor, the combination of a finger stepped into the valve, a sliding rod carrying said finger, means for raising the sliding rod, a chamber containing compressed gas, a cylinder connected to said chamber, a piston in said cylinder acting upon the sliding rod to lower the same and a spring surrounding the sliding rod which also assists to lower the sliding rod, substantially as set forth.



5. In means for operating the sleeve valve of an internal combustion motor, the combination of a finger stepped into the valve, a sliding rod carrying said finger, a lever for raising said rod, a cam for operating the lever, a chamber containing compressed gas, a cylinder connected to said chamber and a piston in said cylinder acting upon the sliding rod for keeping this latter in contact with the lever substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,081,052. ELECTRICALLY-OPERATED ALARM-CLOCK. WILLIAM P. LOCKE, Chicago, Ill., assignor of one-third to Jacob A. Kress and one-third to Frank A. McGowan, Canton, Ohio. Filed May 10, 1912. Serial No. 696,317. (Cl. 58—19.)



1. In an electrically wound clock, the combination of a clock train, an alarm timing gear revolving in a twenty-four hour cycle, a circumferential contact spring on said gear, a narrowed section on said spring, an insulating section on said spring, an exposed contact section at the end of said insulating section on said spring, substantially as and for the purpose specified.

2. In an electrically wound clock, the combination of a clock train, an intermittent alarm contact device with an alarm timing gear revolving in a twenty-four hour cycle,

a circumferential contact spring on said gear, an alarm stop in frictional contact with said gear, an angle on said stop, the end of said angle projecting through the clock case, a lateral extension on said stop, a switch making contact with said extension, an insulating support for said switch, insulating stop pins for said alarm stop, substantially as described.

3. In an electrically wound clock, the combination of a clock train, an intermittent alarm contact device with a frictional alarm hand carrying staff, a contact finger secured to said staff, an insulating bushing revolving on said staff, a sleeve on said bushing, an alarm timing gear revolving on said sleeve, an alarm stop in frictional contact with said gear, a retaining washer and a frictional disk washer on said sleeve, retaining flanges on said sleeve, substantially as and for the purpose described.

4. In a clock, an electrically operated alarm mechanism including an alarm timing gear making a revolution in twenty-four hours, a contact spring carried by said gear, a staff upon which the gear revolves and through which the circuit is made, the gear being insulated from the staff, a contact finger carried by said staff, and a circuit controlling switch, the movable element of which is frictionally bound to said gear so as to be moved thereby toward the stationary element of the switch.

1,081,053. HAND-ATTACHED BLOTTER. HYOKICHI MARUI, New York, N. Y. Filed Nov. 29, 1912. Serial No. 734,181. (Cl. 120—24.)



1. A blotter having a hollow rigid member, a compressible member arranged in the hollow of said rigid member and a blotter secured over said compressible member for the purpose set forth.

2. A blotter having a hollow supporting member the lower end of which is open, a flange surrounding said open end, a resilient member secured within said hollow member by means of said flange, and a blotting member arranged over the open end of said hollow member for the purpose set forth.

3. A new article of manufacture comprising a metal body in box-section, a semi-flexible member across the base of said body, a blotter cupped and adapted to be secured over said semi-flexible member, a ring for securing said blotter in operable position while allowing it to be readily removed and another substituted and an adjustable strap for securing the whole to the hand or wrist of the operator all combined for joint operation and for the purpose set forth.

1,081,054. HARNESS ATTACHMENT FOR SECURING NETS AND BLANKETS. FRANCIS HENRY MCCORMICK, Hillsdale, Mich. Filed Dec. 30, 1912. Serial No. 739,251. (Cl. 24—73.)

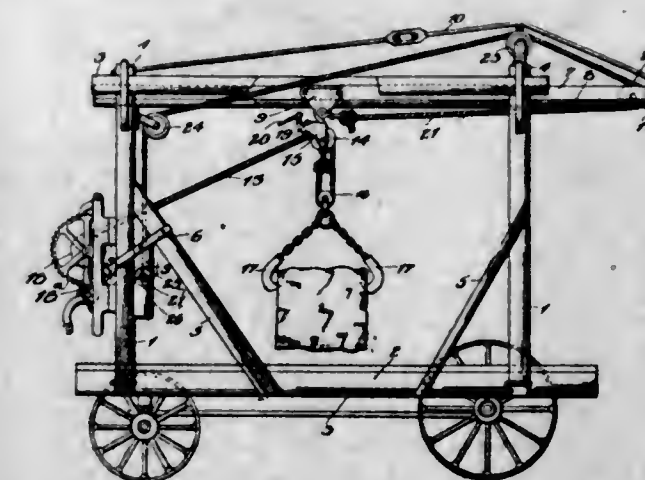


1. The improved device, comprising a buckle-like frame having end portions provided with notches and side por-

tions constructed with openings having lateral extensions, a plate spring applied to the frame with its ends engaging said notches, and a pivoted prong having a rocking base against which the spring presses, said prong being journaled in the openings of the frame and having lateral lugs adapted to enter the lateral extensions of said openings, as described.

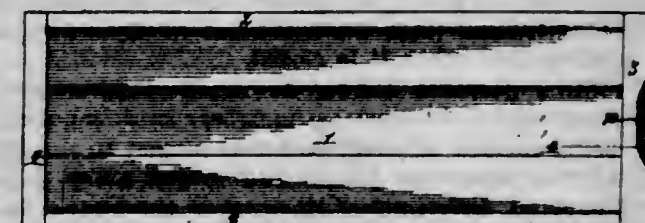
2. The device comprising a buckle-like frame having a central transverse bar provided with a stud and parallel cheeks provided with openings, a prong having a rocking base-bar which is journaled in said openings and constructed intermediately with flat portions, and a plate spring extending lengthwise of the frame and detachably engaging the ends of the latter, it being supported in contact with the said base bar, as described.

1,081,055. PORTABLE HOIST. THOMAS F. MOORE, Winchester, Ky. Filed Oct. 16, 1912. Serial No. 726,091. (Cl. 212—91.)



In a portable crane, the combination of a frame comprising uprights connected by front and rear top cross members, a longitudinal beam secured medially beneath said cross members and projecting rearwardly beyond said frame, a triangular bracket secured on said rear cross member, a truss rod anchored at its respective ends to said front cross member and the projecting end of said beam and bearing on said bracket, parallel track rails secured to the opposite sides of said beam, a trolley carriage on said track rails, guide sheaves secured to the projecting end of said beam and to the front frame uprights, said latter mentioned sheave being located to one side of the track rails to provide a clearance; an intermediate guide sheave supported above said rear cross member, a cable secured to said trolley carriage and extending over said guide sheaves, a winding arbor on the front frame uprights for winding said cable to shift said trolley carriage rearwardly on its tracks, a sheave block carried by said trolley carriage, a cable extending over said sheave block for supporting a load, and a windlass mounted on said frame for winding said cable to raise and lower the load and to shift the trolley carriage forwardly.

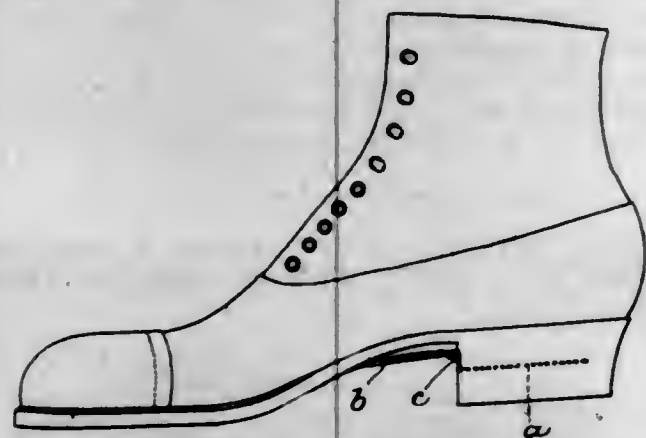
1,081,056. VEHICLE-BODY. CHARLES D. OLCUTT, North Tonawanda, N. Y., assignor to Buffalo Sled Company, North Tonawanda, N. Y., a Corporation of New York. Filed May 16, 1913. Serial No. 768,029. (Cl. 21—7.)



A vehicle body comprising a bottom having an opening, a wall mounted on said bottom and provided with a hook adapted to pass through said bottom and interlock its bill with the same, and a retaining device comprising a curved

wedge pivoted to turn vertically on the front side of the front cross piece of said body and engaging its inclined face with an abutment arranged on the upper side of the bottom in front of said wall.

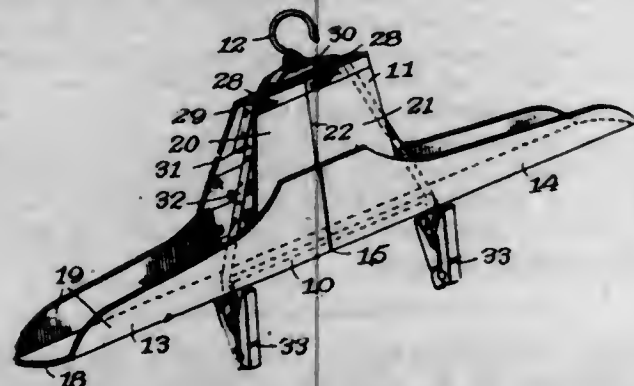
1,081,057. **INSTEP-SUPPORT.** MICHAEL J. O'ROURKE, Salem, Mass. Filed Feb. 25, 1913. Serial No. 750,505. (Cl. 36—78.)



1. In combination, a shoe including in its construction an outer sole having a shank portion and a rigidly attached heel, and an instep support rigidly secured to the heel and having a tongue projecting therefrom forwardly and upwardly to bear with a resilient pressure against the under side of the outer sole at the shank portion thereof, said support being incapable of movement relatively to the heel, and its tongue being free to move relatively to the sole.

2. The combination with a shoe having an outer sole and a rigidly attached heel, of an instep support comprising a plate located between the top and bottom of the heel and rigidly connected thereto so as to be incapable of movement with relation to the heel, said support having also a web extending upwardly adjacent to the breast face of the heel toward the shank portion of the said outer sole, and having also a tongue projecting forwardly from said web along the under surface of the said outer sole and under sufficient tension to cause it to press upwardly against the same, said tongue being free with respect to the sole and capable of moving relatively thereto.

1,081,058. **FOLDING GARMENT-HANGER.** HARVEY M. OWENS, Leominster, Mass. Filed Sept. 2, 1913. Serial No. 787,873. (Cl. 211—13.)



1. A folding garment hanger comprising a body portion and supporting means therefor, said body portion being formed of sheet material and folded upwardly along two parallel, longitudinal lines when the hanger is in use, and folded transversely when it is closed.

2. A folding garment hanger having in combination a body portion and a connecting member, said connecting member being formed of sheet material hinged to the body portion at two separated points and folded along a plurality of parallel, longitudinal lines when the hanger is in use, and along a single transverse line when it is closed.

3. A folding garment hanger having in combination a body portion and a connecting member, said body portion and member being each folded longitudinally when the hanger is in use, and folded transversely when it is closed.

4. In a garment hanger, in combination, a body portion and a connecting member, said body portion being formed of two parts hinged together transversely of said body, and each part being formed with a middle section and two side sections standing substantially at right angles to said middle section when the device is in use and extending in the same plane as said middle portion when the device is closed.

5. In a garment hanger in combination, a body portion, a hook, a connecting member, and a cord so securing said hook to said member that when the hanger is closed, the hook may lie flat between the folded sections of the body portion and beyond the folded portions of the connecting member.

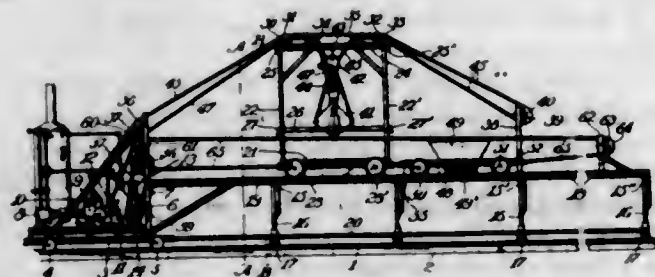
[Claim 6 not printed in the Gazette.]

1,081,059. **LUBRICANT FOR WHEELS.** LYMAN DEE PETTIT, Everett, Wash., assignor to Pacific Lubricating Company, a Corporation. Filed May 20, 1909. Serial No. 497,339. (Cl. 87—9.)

1. A lubricant having as ingredients commingled petroleum, water, and freshly slaked lime containing a small percentage of bicarbonate of soda, all intimately mixed with rosin dissolved in gasoline.

2. A lubricant having as ingredients brought together in its manufacture, in volume percentages as follows, viz: crude petroleum, 40%; water, 40%; unslaked lime containing approximately two per cent. of bicarbonate of soda, 10%; and rosin dissolved in petroleum distillate, 10%.

1,081,060. **EXCAVATING AND CONVEYING APPARATUS.** JOSEPH L. POTTER, Indianapolis, Ind. Filed June 21, 1911. Serial No. 634,587. (Cl. 37—14.)



1. Excavating and conveying apparatus including a plurality of track rails, two supported winding drums, a tail sheave supported above the plane of the track rails, a hoisting car movable on the track rails toward the drums, two cables operatively connected respectively with the two drums and the car and movably guided on the top of the car, one of the two cables extending about the tail sheave, a dumping excavating implement operatively connected with one of the cables, and conveying means movably supported to travel from the hoisting car on a plane below the cable that extends about the tail sheave.

2. In excavating and conveying apparatus, the combination with two supported winding drums, two track rails, a supported tail sheave, and a dumping excavating implement having dumping apparatus, of an uprightly supported frame, two guide sheaves mounted on the frame, a hoisting car movable on the rails between the frame and the tail sheave, and two cables operatively connected respectively with the two winding drums and the hoisting car and extending over said two sheaves respectively, one of said cables extending about the tail sheave, one of said cables carrying the excavating implement, the remaining one of the cables being operatively connected with the dumping apparatus of the implement, said two cables being movably guided on the top portion of said car.

3. In excavating and conveying apparatus, the combination with two supported winding drums, two track rails, an uprightly supported frame, two guide sheaves mounted on the frame, and a supported tail sheave, of a hoisting car movable on the track rails toward or from the frame or the tail sheave, a hoisting cable connected with one of the

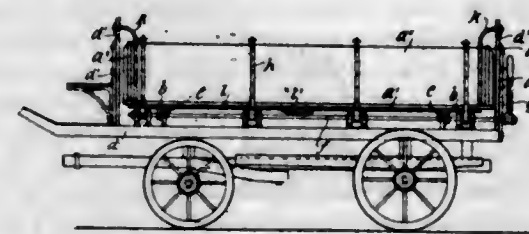
winding drums and extending over one of said guide sheaves and also over said hoisting car and about the tail sheave, said cable being movably guided on the top portion of said car, a dumping excavating implement carried by said cable, and a second cable connected with the remaining one of the winding drums and extending over the remaining one of the guide sheaves, said second cable being movably guided also on the top portion of said car and connected with the dumping apparatus of said implement.

4. In excavating and conveying apparatus, the combination of an engine car, two winding drums mounted on said car, a supported tail sheave, a track extending under the tail sheave, a hoisting car movable on the track between the engine car and the tail sheave, conveying means movable on the track from the hoisting car under and beyond the position of the tail sheave, a cable connected with one of the winding drums and extending beyond said hoisting car and about the tail sheave, the cable being movably guided on the top portion of the hoisting car, a dumping excavating implement carried by said cable, and a second cable connected with the remaining one of the winding drums and also with the dumping apparatus of the implement, said second cable being movably guided also on the top portion of said hoisting car.

5. In excavating and conveying apparatus, the combination of an engine car, two winding drums mounted on the engine car, a trestle, a supported tail sheave, a hoisting car movably supported on the trestle between the engine car and the tail sheave, a plurality of guide sheaves mounted upon the top portion of the said hoisting car, a cable connected with one of said winding drums and extending over two of said guide sheaves and about the tail sheave, said cable extending back and also over another one of said guide sheaves and secured to the top portion of said hoisting car, a dumping excavating implement carried by said cable, and a second cable connected to the remaining one of said drums and also with the dumping apparatus of the implement, said second cable being movably guided on two others of the said guide sheaves.

[Claims 6 to 9 not printed in the Gazette.]

1,081,061. **TILTING CAR.** AUGUST PREUSSLER, Kletten-dorf, near Breslau, Germany. Filed Oct. 25, 1912. Serial No. 727,874. (Cl. 21—20.)

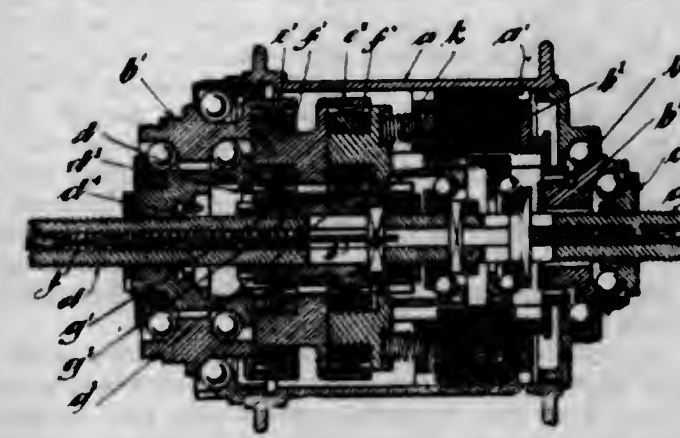


In a tilting-car, the combination of a roller-mounted tilting receptacle, a toothed gearing to move same, end walls for said receptacles rigidly fixed to the bottom of same, side walls with their lower edges pivoted in an easily disengageable way to the bottom plate of the receptacle, arms to engage the ends of the upper edges of said side walls, and auxiliary end walls fixed on the car frame and connected with said arms, all for the purpose set forth.

1,081,062. **VARIABLE-SPEED GEARING.** WILLIAM HENRY RAVEN, Lenton, Nottingham, England. Filed Sept. 24, 1912. Serial No. 722,071. (Cl. 74—34.)

1. In variable speed gearing, the combination with a relatively fixed axle and relatively fixed axle supports, one of said axle supports having two rings of clutch teeth, of a driving member journaled on one of said axle supports, an internally toothed wheel connected to said driving member, two sets of planetary pinions and axles for said pinions, a further internally toothed wheel between the two sets of planetary pinions and having clutch teeth, a further driving member also having clutch teeth, the axles of one set of planetary pinions being carried by the second-named internally toothed wheel, and the axles of

the other set of planetary pinions being carried by the second-named driving member, two sun pinions encircling the first named axle and one having a lateral extension upon which the other pinion is rotatably mounted, means for moving the two sun pinions simultaneously in the same direction along the said axle, said sun pinions being movable endwise to respectively and successively move into and out of engagement with said rings of clutch teeth, and a final driven member with which the second-named driving member is connected, substantially as herein set forth.



2. In variable speed gearing, the combination with a tubular casing, a relatively fixed axle for such casing and relatively fixed axle supports, one of said axle supports having two rings of clutch teeth, of a driving member rotatably mounted between one of the axle supports and the casing, an internally toothed wheel connected to said driving member, two sets of planetary pinions within the casing and axles for said pinions, a further internally toothed wheel between the two sets of planetary pinions and having clutch teeth, a further driving member also having clutch teeth, the axles of one set of planetary pinions being carried by the second-named internally toothed wheel and the axles of the other set of planetary pinions being carried by the second-named driving member, two sun pinions, respectively designed to engage the said clutch teeth, encircling the axle of the casing and one having a lateral extension upon which the other pinion is rotatably mounted, means for moving the two sun pinions simultaneously in the same direction along the said axle, said sun pinions being movable endwise to respectively and successively move into and out of engagement with said rings of clutch teeth, friction clutch devices between the second-named driving member and the casing, means for operating the friction clutch devices to connect the second-named driving member to the casing and means for disconnecting the same, substantially as herein set forth.

3. In variable speed gearing, the combination with a relatively fixed axle and relatively fixed axle supports, one of said axle supports having two rings of clutch teeth, of a driving member journaled on one of said axle supports, an internally toothed wheel connected to said driving member, two sets of planetary pinions and axles for said pinions, a further internally toothed wheel between the two sets of planetary pinions and having clutch teeth, a further driving member also having clutch teeth, the axles of one set of planetary pinions being carried by the second-named internally toothed wheel, and the axles of the other set of planetary pinions being carried by the second named driving member, two sun pinions, one of larger diameter than the other encircling the said fixed axle, and the smaller pinion having a lateral extension upon which the larger pinion is rotatably mounted, the said larger pinion being designed to engage the clutch teeth on the second-named driving member, means for moving the two sun pinions simultaneously in the same direction along the said axle, said sun pinions being movable endwise to respectively and successively move into and out of engagement with said rings of clutch teeth, substantially as herein set forth.

4. In variable speed gearing, the combination with a relatively fixed axle and relatively fixed axle supports, one of

said axle supports having two rings of clutch teeth, of a driving member journaled on one of said axle supports, an internally toothed wheel connected to said driving member, two sets of planetary pinions and axles for said pinions, a further internally toothed wheel between the two sets of planetary pinions and having clutch teeth, a further driving member also having clutch teeth, the axles of one set of planetary pinions being carried by the second-named internally toothed wheel, and the axles of the other set of planetary pinions being carried by the second-named driving member, two sun pinions encircling the first named axle and one having a lateral extension upon which the other pinion is rotatably mounted, means for moving the two sun pinions simultaneously in the same direction along the said axle, said sun pinions being movable endwise to respectively and successively move into and out of engagement with said rings of clutch teeth, a final driven member with which the second-named driving member is connected, which serves to inclose the gearing, and which has a brake surface, a brake band, and motion-transmitting means on the said final driven member, substantially as herein set forth.

5. In variable speed gearing, the combination with a tubular casing, a relatively fixed axle for such casing and relatively fixed axle supports, one of said axle supports having two rings of clutch teeth, of a driving member rotatably mounted between one of the axle supports and the casing, an internally toothed wheel connected to said driving member, two sets of planetary pinions within the casing and axles for said pinions, a further internally toothed wheel between the two sets of planetary pinions and having clutch teeth, the axles of one set of planetary pinions being carried by the second-named internally toothed wheel and the axles of the other set of planetary pinions being carried by the second-named driving member, two sun-pinions, respectively designed to engage the said clutch teeth, encircling the axle of the casing and one having a lateral extension upon which the other pinion is rotatably mounted, means for moving the two sun pinions simultaneously in the same direction along the said axle, said sun pinions being movable endwise to respectively and successively move into and out of engagement with said rings of clutch teeth, friction clutch devices between the second-named driving member and the casing, means for operating the friction clutch devices to connect the second-named driving member to the casing and means for disconnecting the same, the second-named driving member being made in two parts and intermediate free-wheeling devices between such parts, substantially as herein set forth.

1,081,063. MECHANISM FOR NODULIZING MATERIALS. LEWIS P. ROSS, Standish, N. Y., assignor of one-half to Northern Iron Company, a Corporation of New York. Filed Aug. 1, 1912. Serial No. 712,099. (Cl. 75-138.)

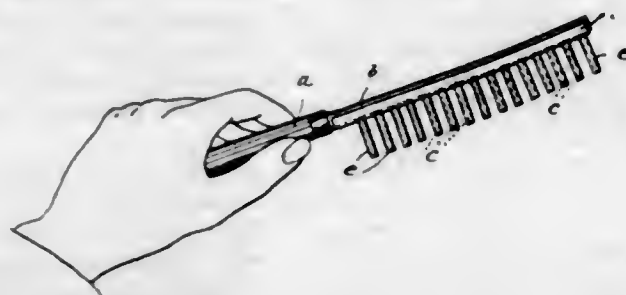


1. A rotary kiln having a shell, separable sections fixed to said shell and containing water circulating passages, means for connecting the passages of the several sections, and means for supplying water to said sections during the rotation of said kiln, said means comprising a hollow ring fixed on said kiln and a hollow ring within which said first named ring revolves.

2. A rotary kiln containing separable sections provided with communicating water passages, a hollow ring fixed to said kiln in communication with said passages, and a stationary hollow ring encircling said ring first named and communicating therewith.

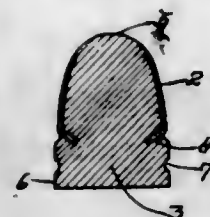
3. A rotary kiln having longitudinal sections each containing blocks provided with communicating water passages, hollow rings fixed to said kiln in communication with the ends of the respective water passages, and stationary hollow rings within which said rings first named rotate, said stationary and movable rings having communicating passages.

1,081,064. APPARATUS FOR DRYING WET HAIR. AUGUST SCHRIEVER, Cossebaude, near Dresden, Germany. Filed Nov. 24, 1911. Serial No. 662,243. (Cl. 34-26.)



An apparatus for drying wet hair, comprising a handle of non-conducting material, a solid metal comb on said handle, consisting of a round rod and cylindrical prongs thereon designed to be heated, and a hollow nickel-plated metal comb of similar shape but of somewhat larger size and with open back designed to be tightly fixed from below over the heated cylindrical prongs of the solid comb for intended use of the apparatus, substantially as and for the purpose set forth.

1,081,065. MUSHROOM-BULLET. HENRY W. STARK-WEATHER, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,597. (Cl. 102-28.)

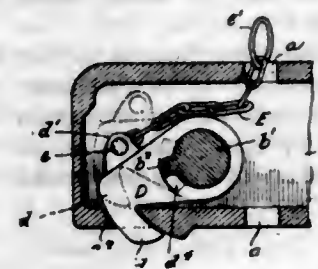


As a new article of manufacture, a mushroom bullet having a soft-metal body made cylindrical at its rear end to take into the rifling of a gun-barrel and tapering forward from its cylindrical portion to form a rounded nose, and a band-like jacket swaged upon the said soft-metal body and narrower in width than the length thereof to expose the cylindrical rear end thereof and the rounded nose thereof, and the inner edge of the said band being turned inward to form a retaining-flange or crimp which is embedded in the metal of the body at a point in front of the cylindrical portion thereof and where the body begins to taper forward.

1,081,066. CAR-COUPLING. HENRY R. SWAN, Huntington, W. Va. Filed Nov. 6, 1912. Serial No. 729,771. (Cl. 213-12.)

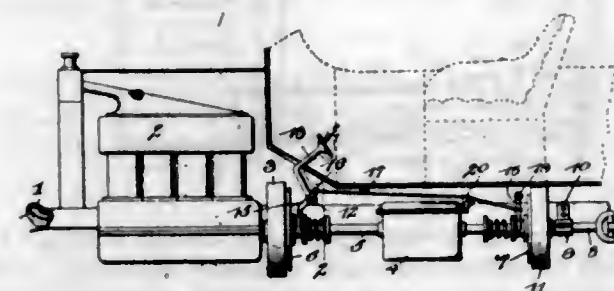
The combination of a drawhead having an opening through its lower wall at one side of its center, a knuckle pivoted in the drawhead and provided with a tail extension forming a bearing, a latch member movable upon the said bearing and having a depending hook for engagement in the drawhead opening, and also having a curved recess, a lug carried by the said tail extension and working in

the said recess to limit the movement of the latch member with respect to the said tail extension, and a pull chain



having connection with the said latch member, all for the purpose described.

1,081,067. MECHANISM TO PREVENT THE STRIPPING OF TRANSMISSION-GEARS. HARRY M. THORSON, Yankton county, near Irene, S. D. Filed Aug. 10, 1912. Serial No. 714,457. (Cl. 21-90.)



1. In a device of the character described, a transmission shaft, means for detachably connecting said transmission shaft with the crank shaft of an engine, means for detachably connecting said transmission shaft to the drive shaft of a vehicle, a pair of levers, means for connecting said levers with said detachable means, and foot pedals mounted on said levers, said pedals being arranged closely adjacent each other, whereby the pedals may be operated singly or both pedals may be operated by one foot of the operator, as and for the purpose described.

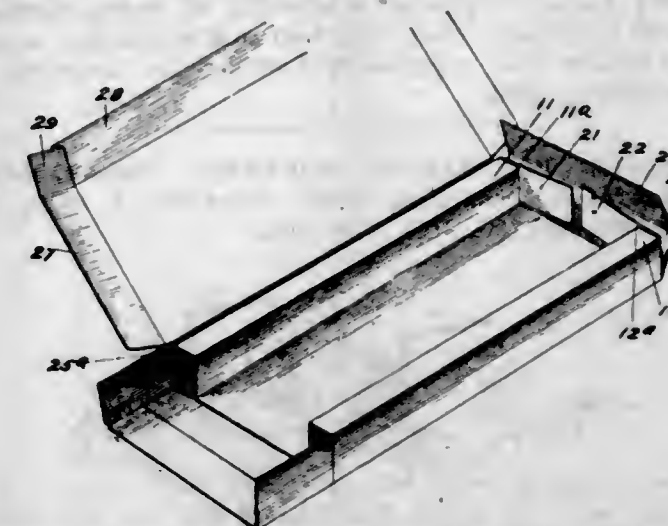
2. The combination with a vehicle frame, of a transmission shaft journaled thereupon, a clutch connecting one end of said transmission shaft with the crank shaft of an engine, a clutch connecting the opposite end of said transmission shaft with the drive shaft of a vehicle, a shaft journaled within the frame of a vehicle, a pair of parallel extending foot levers mounted upon the last mentioned shaft, a link extending from one lever for operating the first mentioned clutch, a flexible member extending from the other lever for operating the last mentioned clutch, and means whereby said levers may be operated independently or simultaneously, as and for the purpose described.

3. The combination with an automobile frame, of a transmission shaft journaled thereupon, a clutch connecting one end of said transmission shaft with the crank shaft of an engine, a clutch connecting the opposite end of the transmission shaft with a drive shaft, a shaft journaled within the frame of the automobile, a pair of foot levers mounted upon said second shaft, a link extending from one lever for operating the first mentioned clutch, and a flexible member extending from the other lever for operating the last mentioned clutch, foot pedals arranged on said levers, said pedals being arranged closely adjacent each other, whereby the pedals may be operated singly or both pedals may be operated by one foot of the operator.

1,081,068. FOLDING PAPER BOX. ALBERT J. VANCE, Chicago, Ill. Filed Oct. 25, 1912. Serial No. 727,721. (Cl. 229-34.)

1. An integral blank for forming a knockdown box, comprising a central portion to form the bottom of the box, strips along opposite edges of said central portion to form

the sides of the box, a portion adjoining one of said strips adapted to be folded over said bottom portion and to form tubes along each side thereof, flaps at the ends of said strips adapted to be folded across the ends of said tubes, and flaps at the ends of said central portion adapted to be folded over said first flaps and to be inserted between the same and the ends of said tubes.



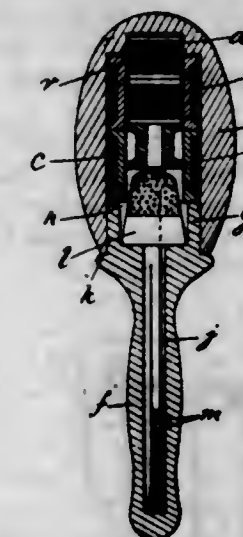
2. In a knock-down paste-board box, a body portion comprising a bottom formed of two superposed layers of paste-board, closed hollow portions along two opposite edges of and formed integrally with the upper layer of said bottom, end flaps folded across the ends of said hollow portions, enveloping flaps formed integrally with the lower layer of said bottom and folded around said end flaps between the same and the ends of said hollow portions, and a cover formed integrally with the lower layer of said bottom.

1,081,069. MEDICINAL COMPOSITION. ALOIS VIGUERAT, Lausanne, Switzerland; widow and heirs of said Alois Viquerat, deceased, assignors to Société générale pour l'exploitation de la catalysine et autres produits pharmaceutiques. Filed Dec. 11, 1911. Serial No. 665,142. (Cl. 167-7.)

1. A medicinal composition for internal use containing chemically prepared creatinin, guanidin and allantoin.

2. A medicinal composition for internal use comprising the following ingredients: 0.20 part by weight of creatinin, 0.01 part by weight of guanidin, 0.10 part by weight of allantoin, 100.00 parts by weight of water, with which is mixed an excipient substance.

1,081,070. SEWING KIT. GEORGE WALTERS, Dixfield, Me. Filed Feb. 23, 1912. Serial No. 679,422. (Cl. 223-14.)

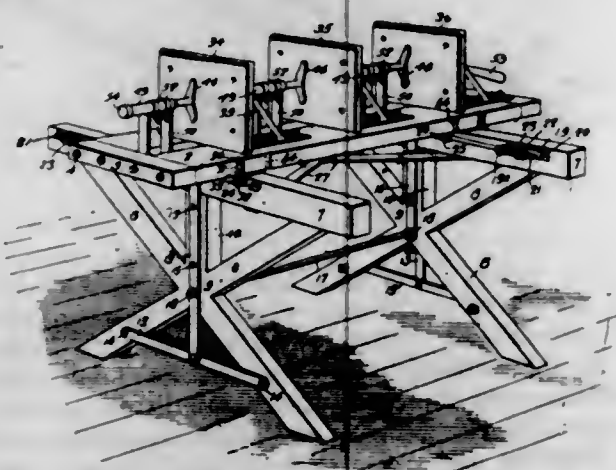


1. In combination in a sewing kit, a head having a chamber adapted to hold spools, and a handle having a chamber adapted to hold needles and opening into the spool chamber when the handle is in place, said handle having a resilient flange which fits the said head and is

internally adapted to engage and resiliently hold a thimble in position to separate the contents of the two chambers.

2. A sewing kit comprising a bulbous head forming one receptacle, and a handle forming a second receptacle, the mouths of the said receptacles being opposed and open into each other, and a separating means dividing the receptacles comprising a thimble, the said handle having a spring flange comprising a plurality of spring members which frictionally clasp and hold said separating means, said handle also engaging and fitting the receptacle in the bulbous head.

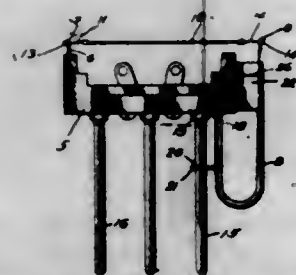
1,081,071. BOX-MAKING MACHINE. GEORGE MOODY WESTLAND, Wenatchee, Wash. Filed Feb. 1, 1912. Serial No. 674,700. (Cl. 144-295.)



1. In combination, a support, a table on the support, a plurality of guides arranged transversely of the table, a clamping means for cooperating with each guide, means for simultaneously moving the clamping means toward and from the guides, and means for connecting the table to the support to permit the table to rest in horizontal position on the support, or in vertical position with either edge upward, said means comprising a pair of links pivoted to each side of the table, said links being of a length equal to the width of the table, and the members of each pair extending transversely of the table beneath the same, a rod pivoted to the free end of each link, a slidable connection between each rod and the support, and a spring interposed in the connection.

2. In combination, a support, a table on the support, a plurality of guides arranged transversely of the table, a clamping means for cooperating with each guide, means for simultaneously moving the clamping means toward and from the guides, and means for connecting the table to the support to permit the table to rest in horizontal position on the support or in vertical position with either edge upward, said means comprising a pair of links connected to each edge of the table, each of the said links lying transversely of the table beneath the same and being of a length equal to the width of the table, and a yielding connection between the free end of each link and the support.

1,081,072. GUARD FOR SPRINGS. SAMUEL P. WILBUR, Pittsburgh, Pa., assignor to Nernst Lamp Company, a Corporation of Pennsylvania. Filed Dec. 23, 1909. Serial No. 534,685. (Cl. 176-39.)

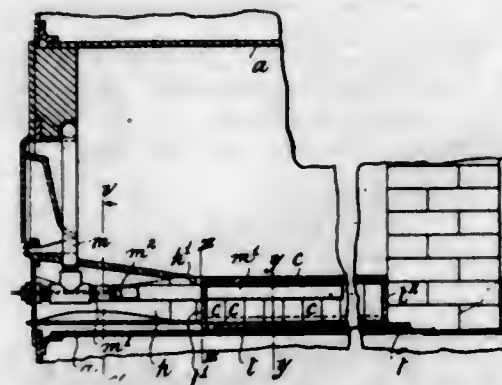


1. The combination with a light emitting member of an electric lamp, a spring included in the member circuit, and serving as a support therefor and a guard or housing for said spring.

2. In a device of the class described, the combination with a base of a guard, one end of which is fastened to said base and the other end of which removably engages a groove in said base.

3. A guard for glowers supports for electric lamps comprising an approximately U shaped body portion, one leg of which is shorter than the other, means on the short leg for engaging a lamp base, means on the longer leg for engaging a lamp base, and spacing means for the glowers supports on one of said legs.

1,081,073. FURNACE. GEORGE WILTON, Hendon, England. Filed June 14, 1912. Serial No. 703,600. (Cl. 110-74.)

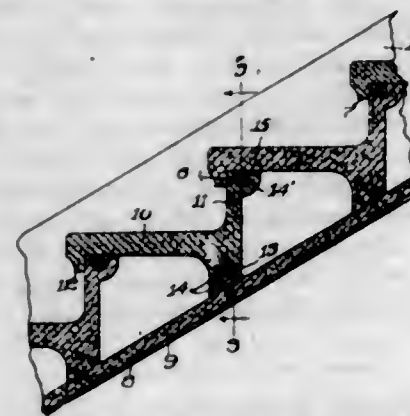


1. In a furnace, in combination, a trough member and a plurality of perforated grate members extending transversely thereof, each of said grate members being provided with a depending web extending in the direction of the length of the trough, the web of each member being in alignment with the webs of adjacent members whereby the space between the grate members and the trough member will be divided into a plurality of passages.

2. In a furnace, in combination, a trough member and a plurality of perforated grate members extending transversely thereof, each of said grate members being provided with a depending web extending in the direction of the length of the trough adapted to engage said trough member, the web of each member being in alignment with the webs of adjacent members whereby the space between the grate members and the trough member will be divided into a plurality of passages.

3. In a furnace, in combination, a trough member and a plurality of perforated grate members extending transversely thereof, each of said grate members being provided with a depending web extending in the direction of the length of the trough, the web of each member being in alignment with the webs of adjacent members whereby the space between the grate members and the trough member will be divided into a plurality of passages, and means for introducing a blast of air into one of said passages.

1,081,074. STAIR. FRANCIS A. WINSLOW, Chicago, Ill. Filed Nov. 20, 1909. Serial No. 529,033. (Cl. 72-96.)



1. A previously formed stair unit formed of cementitious material and comprising a tread and a riser at the rear edge of said tread, said riser extending both above and below said tread, and truss shaped reinforcing rods disposed in the downwardly extending part of said riser.

2. A stair comprising a gang of units previously formed of cementitious material, each of said units comprising a tread, a riser at the rear edge of said tread, said riser extending both above and below said tread, a depending nosing at the forward edge of said tread for locking over the preceding riser, and reinforcing rods in the downwardly extending portion of said riser.

3. A stair comprising a pair of side plates, and a gang of cementitious units each comprising a tread and a riser, each riser having a transverse groove in the top thereof, and a tie rod lying in said groove and secured between said side plates.

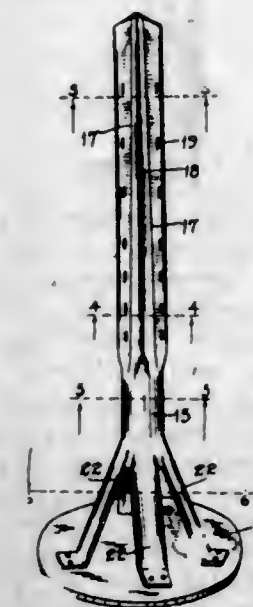
4. In a stair, an oblique support, and a gang of units previously formed of cementitious material resting on said oblique support, each of said units consisting of a tread, a riser at the rear edge of said tread, and a depending nosing at the forward edge of said tread, the forward edge of said tread resting on the preceding riser, the depending nosing locking over it, a plate on each side of said gang of units, and a series of tie rods connecting said plates, each of said tie rods being disposed in a transverse groove in the top of one of said risers.

1,081,075. COLLAR-FASTENER. ALBAN C. WOODWARD, Detroit, Mich. Filed Apr. 22, 1912. Serial No. 692,243. (Cl. 24-101.)



A collar fastener comprising a body portion having a flat rear face, flat hook-shaped portions for engaging the edge of the collar extending upwardly from the lower edge of the body across the front face thereof and arranged at opposite ends of the body, and a wide flat button-hole engaging lip of hook-shaped form depending from the upper edge of the body portion across the front face thereof and arranged mid-way between the hook-shaped portions, the distance between the bends of the latter members and the bend of the lip being substantially equal to the lower edge of the collar and the button-hole, said hook-shaped portions being of a length to extend upwardly the greater portion of said distance between the bends thereof and that of the lip and being spaced a considerable distance from the lip, for the purpose described.

1,081,076. FENCE-POST. THOMAS W. WRIGHT, Anderson, Ind. Filed Jan. 27, 1913. Serial No. 744,438. (Cl. 189-23.)



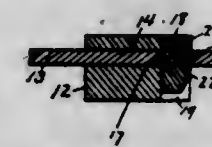
A hollow metal post with the lower portion thereof cylindrical and with the portion above the lower portion provided with a flat surface on one side and with a longitudinal rib on the opposite side which diminishes from the upper end of the post downward until it vanishes in the cylindrical portion of the post.

1,081,077. POST FOR FENCING AND THE LIKE. THOMAS W. WRIGHT, Anderson, Ind. Filed Jan. 27, 1913. Serial No. 744,439. (Cl. 189-23.)



A hollow metal post with the lower portion thereof cylindrical and with the portion above the lower portion provided with one side curved transversely and the opposite side having a plurality of longitudinal ribs, the creases between said ribs diminishing from the upper end of the post downward until they vanish into the cylindrical portion of the post.

1,081,078. CUTTER-BAR FOR MOWING-MACHINES. ALFRED D. ABBENZELLER, Randolph, Mass., assignor to Brockton Mowing Machine Cutter Bar Company, Brockton, Mass., a Corporation of Massachusetts. Filed Mar. 12, 1913. Serial No. 753,820. (Cl. 56-44.)



1. In a device of the character described, a cutter bar having a transverse shank-receiving socket, a cutter blade having a shank formed to enter said socket, said shank being provided with a slot, and a locking key formed to enter said slot to prevent withdrawal of the shank from the socket, said key having means on one face thereof to engage the shank above and below said slot.

2. In a device of the character described, a cutter bar having a transverse shank-receiving socket, a cutter blade having a shank to enter said socket, said shank being provided with a slot, and a locking key to enter said slot to prevent withdrawal of said shank, said key having a seat formed in one face thereof to engage one edge of the slot and projections above and below said seat to engage said shank.

3. In a device of the character described, a cutter bar having a transverse shank-receiving socket and a recess in one edge extending across said socket, a cutter having a shank formed to enter said socket, said shank being provided with a slot to coincide with said recess, and a locking key formed to enter said slot and recess to retain said shank in said socket, said key having projections on one face thereof to engage the upper and lower sides of said shank to prevent removal of said key.

4. In a device of the character described, a cutter bar having a transverse shank-receiving socket and a recess in one edge of the cutter bar extending across said socket, a cutter having a shank formed to enter said socket, said shank being provided with a slot to coincide with said recess, and a locking key adapted to enter said slot and recess to retain said shank in the socket, said key having projections on one face thereof to engage the upper and lower sides of said shank to prevent the removal of said key.

5. In a device of the character described, a cutter bar having a transverse shank-receiving socket and a recess in

one edge extending across said socket, a cutter having a shank formed to enter said socket, said shank being provided with a slot to coincide with said recess, and a locking key adapted to enter said slot and recess to retain said shank in the socket, said key having a seat on one face to engage one edge of said slot and projections above and below said seat to engage the upper and lower sides of said shank to retain said key in position.

[Claim 6 not printed in the Gazette.]

1,081,079. ART OF MAKING DERIVATIVES OF DINITRO-METHYLNITRAMINO-PHENYL-ARSINIC ACIDS. LORENZ ACH, Mannheim, and ALBERT ROTHMANN, Heidelberg, Germany, assignors to C. F. Boehringer & Soehne, a firm doing business at Mannheim-Waldhof, Germany. Filed Mar. 26, 1912. Serial No. 686,343. (Cl. 23-24.)

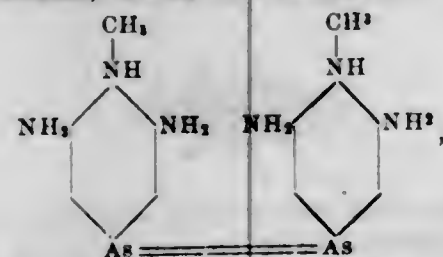
1. The process of preparing a derivative of dinitro-methylnitramino-phenyl-arsinic acid which consists in treating a dinitro-methylnitramino-phenyl-arsinic acid with reducing agents.

2. The process of preparing a derivative of dinitro-methylnitramino-phenyl-arsinic acid which consists in reducing a dinitro-methylnitramino-phenyl-arsinic acid with tin and hydrochloric acid.

3. The process which consists in adding concentrated hydrochloric acid to dinitro-methylnitramino-phenyl-arsinic acid and then adding tin thereto, cooling and separating the resultant tin salt.

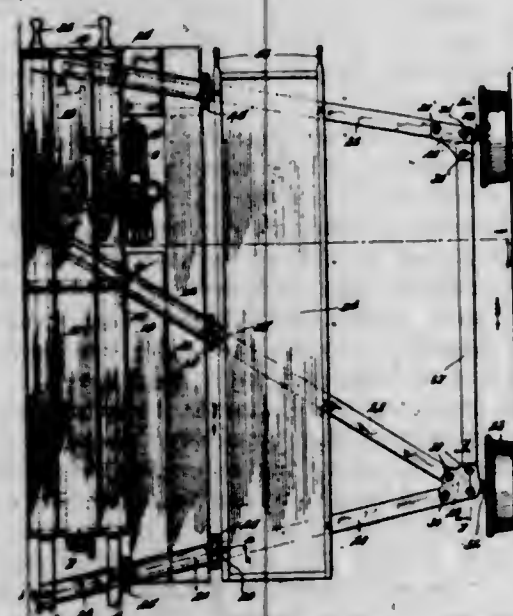
4. The process which consists in adding concentrated hydrochloric acid to dinitro-methylnitramino-phenyl-arsinic acid and then adding tin thereto, cooling and separating the resultant tin salt, dissolving the said tin salt in water and adding sodium hydrate solution in excess.

5. As a new chemical compound, dimethyl-amino-tetramino-arseno-benzene, having the formula:



having a yellowish-green color which darkens in the air, soluble in acetone and acetic acid, soluble with difficulty in alcohol and insoluble in water, and melting with decomposition at substantially 95° centigrade.

1,081,080. MOTOR-CAR. PHINEAS H. ADAMS, Chicago, Ill. Filed Sept. 11, 1913. Serial No. 789,373. (Cl. 105-16.)



1. In a motor car, a body and third and fourth wheels, said body comprising a framework; a platform arranged along one side of said framework; channel-irons connected with and projecting from said framework for sup-

porting said platform; and cross rails for the third and fourth wheels having their inner ends fitted in and detachably connected with said channel-irons.

2. In a motor car, a body and third and fourth wheels, said body comprising a framework; a platform arranged along one side of said framework; supports for said platform connected with and projecting from said framework; cross rails for the third and fourth wheels having their inner ends overlapped with said platform supports; and clamps detachably connecting said rails and supports.

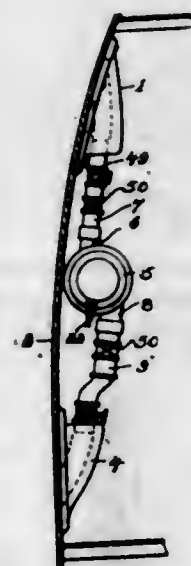
3. In a motor car, a body and third and fourth wheels, said body comprising a framework; a platform arranged along one side of said framework; supports for said platform connected with and projecting from said framework; cross rails for the third and fourth wheels having their inner ends overlapped with said platform supports; and manually adjustable clamps detachably connecting the overlapping ends of said rails and supports.

4. In a motor car, a body and third and fourth wheels, said body comprising a framework; a platform arranged along one side of said framework; supports for said platform connected with and projecting from said framework; cross rails for the third and fourth wheels having their inner ends overlapped with said platform supports; and inverted substantially U-shaped clamps detachably connecting the overlapping ends of said rails and supports.

5. In a motor car, a body and third and fourth wheels, said body comprising a framework; a platform arranged along one side of said framework; supports for said platform connected with and projecting from said framework; cleats arranged at the under sides of said supports, said platform being positioned between said supports and said cleats; and cross rails for the third and fourth wheels detachably connected with said platform supports.

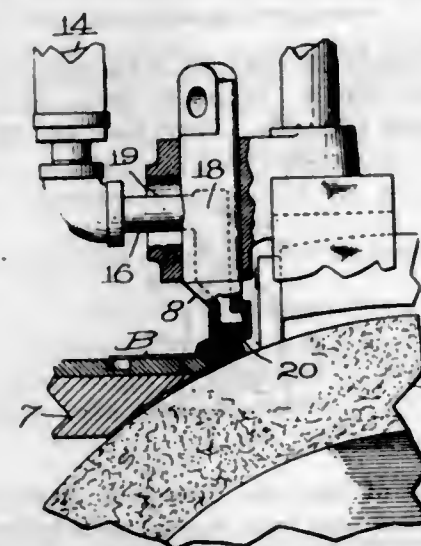
[Claims 6 to 8 not printed in the Gazette.]

1,081,081. SHIP'S LOG. EARL C. AKERS, Port Huron, Mich. Filed Sept. 1, 1909. Serial No. 515,686. (Cl. 73-122.)



The combination with the hull of a vessel and a conduit secured therein having an inlet through the skin of the hull below the ship's water line, and an outlet through the skin abaft the inlet, of a casing having an inlet in communication through the conduit with the inlet of the latter and an outlet in communication through the conduit with the outlet of the latter, a paddle wheel rotatably mounted in the casing and adapted to be operated by water passing through the casing, a water tight chamber on the casing over the paddle wheel, a reduction gear train in the chamber, a shaft from the paddle wheel extending into the chamber and into operative connection with the train, an indicator mounted on the hull remote from the conduit including a revoluble pointer traversing a dial plate, and means for turning the pointer, means operatively connecting the speed reduction mechanism in the chamber with the indicator operating means, the indicator operating means being adjustable to regulate the speed of the indicator relative to the speed of the paddle wheel.

1,081,082. METHOD OF GRINDING. GEORGE I. ALDEN, Worcester, Mass., assignor to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 11, 1910. Serial No. 543,298. (Cl. 51-7.)



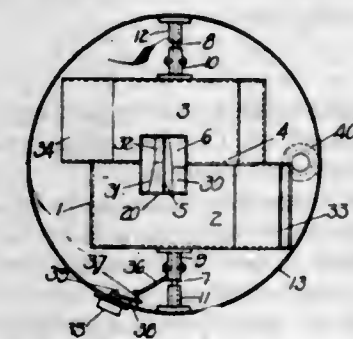
1. A method of grinding cutter blanks which consists in applying them to a grinding wheel and forcing a cooling liquid under high pressure and velocity against the blank on the side opposite the wheel in a thin stream along a line parallel with and at a short distance from the extreme edge being ground.

2. A method of grinding cutter blanks which consists in applying them to a grinding wheel and forcing a cooling liquid under high velocity against the blank along a line parallel with the extreme edge being ground.

3. A method of grinding mowing machine knife-section blanks, which consists in applying first one edge and then the other to a pair of grinding wheels, and while the edges are in contact with the wheels applying a thin stream of water under pressure near said edges.

4. A method of grinding blanks, which consists in applying the cutting edge thereof to the surface of a quick cutting grinding wheel, holding the blank in substantially stationary position until ground, and constantly forcing cooling fluid under pressure of more than one hundred pounds per square inch against the blank in a thin stream parallel with, and uniformly throughout the extent of the cutting edge and at a slight distance therefrom, in position to run over the cutting edge on the wheel.

1,081,083. LIQUID-METER. HARLEY C. ALGER, Chicago Heights, Ill. Filed Oct. 2, 1912. Serial No. 723,566. (Cl. 73-28.)



1. In a liquid meter, a movable member comprising two measuring compartments, a partition separating the compartments, said partition being positioned so that any excess of liquid delivered to either of the measuring compartments will spill over said partition into the other measuring compartment.

2. In a liquid meter, a member adapted to oscillate about an axis, said member comprising measuring compartments adapted to deliver liquid on opposite sides of the axis of oscillation, said measuring compartments being positioned so that any excess of liquid delivered to one measuring compartment will pass into another measuring compartment.

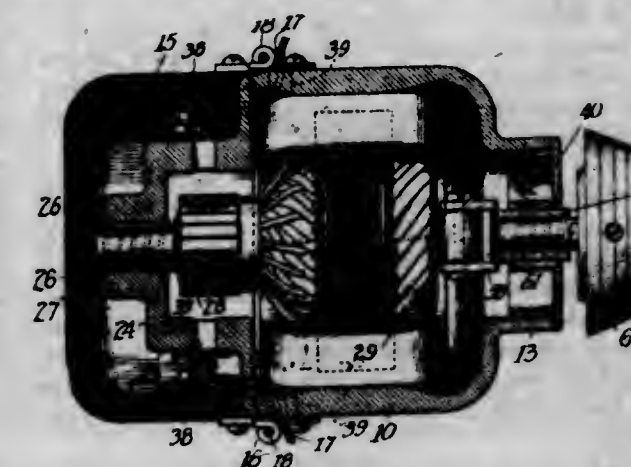
3. In a liquid meter, an oscillating member, means dividing the oscillating member into measuring compartments, a spout for delivering liquid to the measuring compartments and discharge conduits leading from the measuring compartments, such conduits being adapted to receive liquid from the liquid will pass from one measuring compartment into another measuring compartment and being positioned so that liquid will pass over the dividing means before passing out of the conduit.

4. In a liquid meter, an oscillating member comprising measuring compartments, means for supplying liquid to the compartments successively, discharge conduits leading from the compartments and means for conveying excess liquid from one compartment to the other compartment when the first compartment is filled.

5. In a liquid meter, an oscillating member comprising measuring compartments, dividing means separating the compartments and discharge conduits adapted to receive liquid from the measuring compartments to cause the oscillating member to move, such discharge conduits being positioned so that liquid will pass over the dividing means before the conduit is filled.

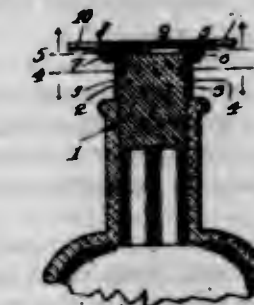
[Claim 6 not printed in the Gazette.]

1,081,084. DYNAMO-ELECTRIC MACHINE. VINCENT GROBY APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Nov. 27, 1908. Serial No. 464,522. (Cl. 171-252.)



In a dynamo electric machine, a single piece frame comprising a pole ring and a spider projecting beyond one end of said pole ring, shaped to receive within it the commutator in position projecting beyond an edge of the pole ring for accessibility, and to afford support to the commutator brushes, a hinged cap closure overlying said spider and commutator, said frame having at its other end an opening through which the armature and commutator may be inserted, and a detachable closure for the driving end of the frame supporting a shaft bearing for the armature shaft.

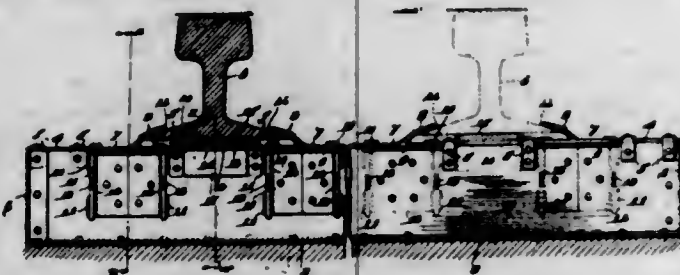
1,081,085. BOTTLE-STOPPER. GEORGE F. BARLOW, East Long Meadow, Mass. Filed May 6, 1913. Serial No. 765,882. (Cl. 215-113.)



1. A stopper for poison bottles, a manipulating member embracing the stopper and secured thereto and arranged at its upper end with an annular bead, and a disk hingedly mounted at one side of the bead of said member and normally resting thereon and provided with spaced radial projections extending laterally from the sides of the stopper.

2. A stopper for poison bottles, a manipulating member embracing the stopper and provided with an annular bead at its upper end, a reinforcing wire embraced by the walls of the bead and having lateral portions, and a disk hingedly connected with the lateral portion of said reinforcing wire and provided with radial projections extending beyond the sides of the stopper, the disk when swung to one position being adapted to wholly expose the upper beaded portion of the manipulating member.

1,081,086. RAILWAY-TIE. SHERMAN BAUGHMAN, Ada, Ohio, assignor of one-half to Alfred Reichman, Ada, Ohio. Filed July 11, 1913. Serial No. 778,456. (Cl. 238-5.)



1. A rail tie comprising a hollow metallic body; engaging members detachably mounted upon said body and adapted to engage opposite sides of the flange of the rail mounted upon the tie; means for releasably locking said engaging members in operative positions, said last mentioned means comprising vertically movable keepers engaging over opposite edges of said engaging members; and keys for releasably locking said keepers in operative positions, substantially as described.

2. A rail tie comprising a hollow metallic body; engaging members detachably mounted upon said body and adapted to engage opposite sides of the flange of the rail mounted upon the tie; means for releasably locking said engaging members in operative positions, said last mentioned means comprising vertically movable keepers engaging over opposite edges of said engaging members; and tapering keys engaging slots in said keepers for releasably locking the latter in operative positions, substantially as described.

3. A rail tie comprising a hollow metallic body; engaging members detachably mounted upon said body and adapted to engage opposite sides of the flange of the rail mounted upon the tie; means for releasably locking said engaging members in operative positions, said last mentioned means comprising keepers mounted for vertical movement in guides rigidly secured in said tie body, the upper ends of said keepers engaging over opposite edges of said engaging members; and keys engaging slots in said guides and in the opposite sides of the tie body for releasably locking said keepers in operative positions, substantially as described.

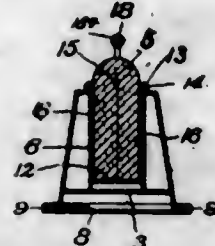
4. A rail tie comprising a hollow metallic body; engaging members detachably mounted upon said body and adapted to engage opposite sides of the flange of the rail mounted upon the tie; means for releasably locking said engaging members in operative positions, said last mentioned means comprising keepers mounted for vertical movement in guides rigidly secured in said tie body, the upper ends of said keepers engaging over opposite edges of said engaging members; and tapering keys engaging aligning slots in said guides and in the opposite sides of the tie body for releasably locking said keepers in operative positions, substantially as described.

5. A rail tie comprising a hollow metallic body; means for securing the rail to said body, said means comprising engaging members each consisting of a base plate and an angularly disposed flange on said base plate adapted for engagement with the flange of the rail mounted upon the tie; means for releasably securing said engaging members in operative positions, said last mentioned means comprising keepers mounted for vertical adjustment in guides provided in said tie body, the upper ends of said keepers being adapted to engage over opposite edges of the base

plates of said engaging members; and means for releasably locking said keepers in operative positions, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,081,087. COMBINED PAPER-WEIGHT AND AUTOMATIC MOISTENER. LOUIS F. BAUM and NICHOLAS MASSIE, Kansas City, Mo. Filed Nov. 13, 1912. Serial No. 731,124. (Cl. 120-75.)



1. In a device of the kind described, an outer case, a pad projecting above the case, and an attachment comprising an inverted U shaped wire, tubular guides on said case, lifting-springs in said guides, the legs of said wire being slidably mountable in said guides, and said wire having a portion thereof parallel with the surface of the pad and normally held thereabove.

2. In a device of the kind described, an outer case, a pad projecting above the case, and an attachment comprising an inverted U shaped wire, an antifriction roller mounted on said wire, tubular guides on said case, lifting-springs in said guides, the legs of said wire being slidably mountable in said guides, and said wire having a portion thereof parallel with the surface of the pad and normally held thereabove.

3. In a device of the character described, a rectangular reservoir having a longitudinal opening in its top portion, vertical guides extending inwardly from the ends of said reservoir, a holder adapted to extend down through the opening in the reservoir and engage the guides therein, and a moistening pad within said holder and projecting above the upper portion thereof and the reservoir.

4. In a device of the character described, a rectangular reservoir having a longitudinal opening in its top portion, a perforated U-shaped holder adapted to extend down through the opening in the reservoir and provided with beads along its upper edges which rest on top of said reservoir and thereby support the holder, a rectangular wire extending through said beads and uniting the oppositely-disposed ends thereof, a wire arranged centrally between the beads and rigidly connected at its ends to said rectangular wire, and a pad folded over the centrally disposed wire and extending downward into the holder, substantially as described.

1,081,088. PROCESS OF SOLDERING CHAIN. CHARLES A. BECKER, Newark, N. J. Filed Sept. 18, 1913. Serial No. 790,451. (Cl. 113-112.)

1. A process of soldering chain made from solder wire, consisting in applying a soldering salt or flux to the chain, subjecting the chain to heat sufficient to fuse the soldering salt or flux but insufficient to melt the solder, removing the soldering salt or flux from the surface of the chain other than the joint surfaces of the links, and closing the joints by heating the chain.

2. A process of soldering chain made from solder wire, consisting in applying a soldering salt or flux to the chain, subjecting the chain to heat sufficient to fuse the soldering salt or flux but insufficient to melt the solder, removing surplus soldering salt or flux, and closing the joints by heating the chain.

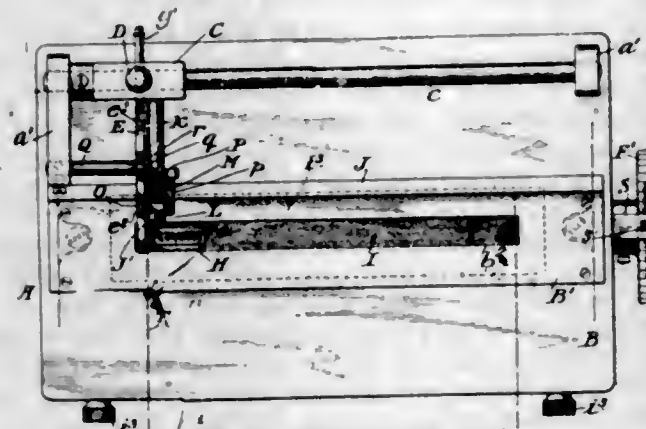
3. A process of soldering chain made from solder wire, consisting in applying a soldering salt or flux to the joints of the chain, subjecting the joints to heat sufficient to fuse the soldering salt or flux but insufficient to melt the solder, removing surplus soldering salt or flux, and closing the joints by heating them.

4. A process of soldering chain made from solder wire, consisting in applying a soldering salt or flux to the joints of the chain, subjecting the joints to heat sufficient to fuse the soldering salt or flux but insufficient to melt the solder, mechanically removing surplus soldering salt or flux, and closing the joints by heating them.

5. A process of soldering chain made from solder wire, consisting in applying a soldering salt or flux to the joints of the chain, subjecting the joints to heat sufficient to fuse the soldering salt or flux but insufficient to melt the solder, frictionally removing surplus soldering salt or flux with a granular substance, and closing the joints by melting them.

[Claims 6 to 8 not printed in the Gazette.]

1,081,089. CALCULATING-MACHINE. CLARENCE A. BISHOP, New York, N. Y. Filed Feb. 8, 1912. Serial No. 676,229. (Cl. 234-53.)



1. In a calculating machine, the combination of a suitable printing surface adapted to print various predetermined values, a platen cooperating therewith, means for effecting movement of the platen to different operative positions with respect to the various parts of said printing surface, and means whereby the printing position of said platen is determined by a suitable predetermined designation on a card upon which the printing is to be effected.

2. In a calculating machine, the combination of a suitable printing surface adapted to print predetermined amounts, a platen cooperating therewith, said printing surface and the platen being each movable relative to the other so as to assume different printing positions, and means whereby the said printing positions are determined by a predetermined designation on the element on which the imprint is to be made.

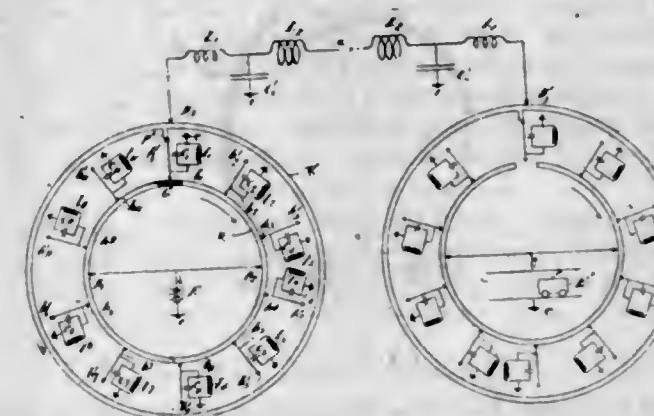
3. In a calculating machine, the combination of a suitable printing surface provided with a plurality of series of printing characters representing wage scales, a platen cooperating therewith, means for positioning the printing surface with reference to the platen whereby any of the said characters may be printed, means for effecting movement of the platen to different operative positions with respect to the printing surface, and means whereby the position of the platen is determined by a designation on an element on which the imprint is to be made.

4. In a calculating machine, the combination of a printing cylinder containing wage scales, means for adjusting said cylinder whereby any of said scales may be printed, a platen cooperating with said printing cylinder, a carriage on which the platen is mounted, and a member on said carriage adapted to cooperate with a predetermined designation on a time card on which the wage value is to be printed, whereby the position of said platen is determined for effecting the desired printing operation.

5. In a calculating machine, the combination of a printing surface, a platen movable to various operative positions relative to said printing surface, and means cooperating with the platen and a predetermined designation on a card on which the printing is to be effected, whereby the particular printing position of said platen is determined.

[Claims 6 to 20 not printed in the Gazette.]

1,081,090. ELECTRIC CONVERSION. SEWALL CABOT, Brookline, Mass. Filed Dec. 4, 1909. Serial No. 531,306. (Cl. 171-253.)



1. An electrical conversion system having in combination an oscillation circuit, a source of electrical energy therefor, means creating electrical oscillations therein, a working circuit, and mechanically operated means periodically conveying the energy of said oscillations during a definite portion only of each cycle thereof from said oscillation circuit to said working circuit for obtaining a unidirectional current in said working circuit.

2. Means for obtaining a unidirectional current in a working circuit which consist of the combination of an oscillation circuit, a source of electrical energy therefor, means creating electrical oscillations therein, a working circuit, means for conveying the energy of said oscillations from said oscillation circuit to said working circuit and mechanically operated means disconnecting the oscillation circuit from the working circuit at the instant when the current at the point of disconnection is substantially at a minimum.

3. Means for obtaining a unidirectional current in a working circuit which consists in the combination of an oscillation circuit, a source of electrical energy therefor, means creating electrical oscillations therein, a working circuit, and mechanically operated means periodically connecting said oscillation circuit with said working circuit at the times when the energy in said oscillation circuit is substantially all in static form.

4. An electrical conversion system having in combination an oscillation circuit, a source of electrical energy therefor, a second oscillation circuit, and mechanically operated means periodically connecting and disconnecting said oscillation circuits to and from one another whereby a unidirectional current in said second oscillation circuit is obtained.

5. An electrical conversion system having in combination a source of electrical energy, an oscillation circuit, means periodically connecting said circuit to said source, a second oscillation circuit, means periodically connecting said second oscillation circuit to the first oscillation circuit and mechanically operated means disconnecting the two oscillation circuits at the instant when the current at the point of disconnection is substantially at a minimum.

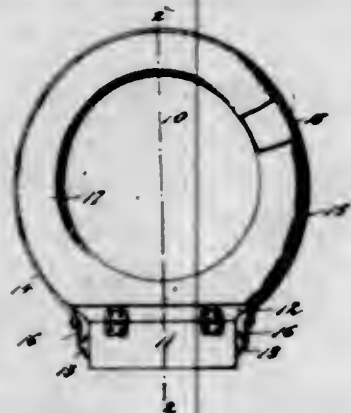
[Claims 6 to 41 not printed in the Gazette.]

1,081,091. SANITARY COVER FOR CLOSET-SEATS. NICHOLAS CAMELO, Utica, N. Y. Filed Mar. 7, 1913. Serial No. 752,706. (Cl. 4-18.)

1. In a closet seat having a cover reposing thereon, a securing member consisting of a plurality of hingedly connected sections, one of said sections having connection with the closet and the other said section being arranged to swing on the first mentioned section and adapted to engage the cover and encircle the same to secure the cover on the seat.

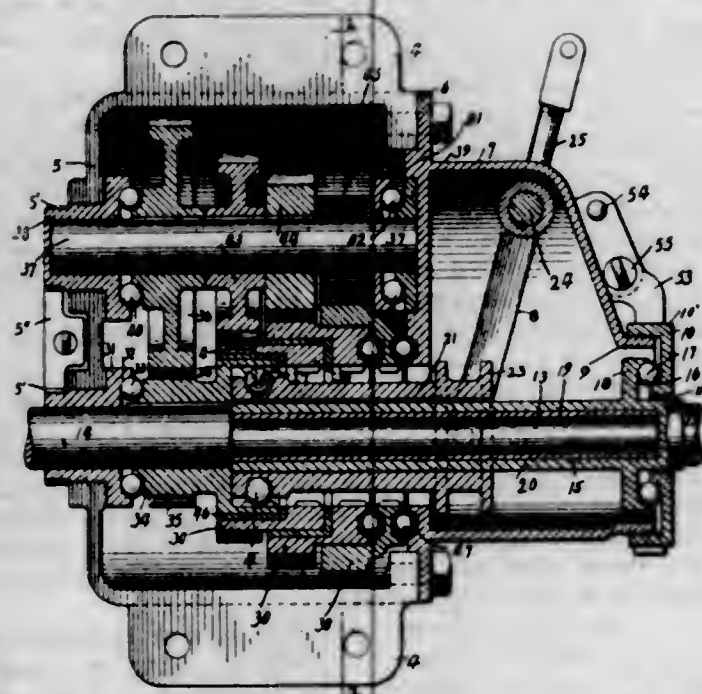
2. In a closet seat having a cover reposing thereon, a plurality of sockets carried by the closet and a securing member consisting of a plurality of hingedly connected sections, one of said sections having swinging connection with the said socket and consisting of two similar parts,

one for each socket, and the other said section being mounted to swing on the first mentioned section and



adapted to engage the cover to secure the same on the said closet seat.

1,081,092. TRANSMISSION-GEARING. JOHN CHALMERS, Quincy, Mass. Original application filed Feb. 16, 1911, Serial No. 608,958. Divided and this application filed Aug. 8, 1912. Serial No. 714,028. (Cl. 74-59.)



1. In a transmission gear mechanism, a driving member, a driving gear rigidly secured to said driving member, an overhanging tubular member formed with internal projections, said overhanging member being rigidly connected with said driving gear, a master gear wheel meshing continually with said driving gear, a shaft for supporting said master gear, means for rigidly connecting said master gear and said shaft, a speed reducing gear rigidly secured to said shaft, a gear ring formed with internal spaced projections, said gear ring overlapping said overhanging tubular member, said gear ring continually meshing with said speed reducing gear, a driven member, a sliding member splined to said driven member, projecting means extending from said sliding member adapted to be moved to a position between the projections on said overhanging tubular member and the spaced projections on said gear ring at will, and means for sliding said sliding member causing said projecting means to move into the space between the projections on said overhanging tubular member at will for directly connecting said driven member with said driving member and connecting said driven member and said driving member through said reducing gear at will.

2. In a transmission gear mechanism, a driving shaft, a driven shaft, a gear wheel connected with said driving shaft, a master gear wheel meshing with said first-mentioned gear wheel, a shaft for said master gear wheel, a plurality of reducing gear wheels rigidly secured to said last-mentioned shaft, a gear ring meshing with each of

said reducing gears, a pair of reversing gear wheels, one of which meshes continually with one of said reducing gears and the other of which meshes continually with one of said gear rings, and a sliding member designed to at different times connect the gear wheel rigidly secured to the driving shaft, and the respective gear rings to said driven shaft, whereby the driven shaft is moved at different speeds without varying the speed of the driving shaft, and moved in a reverse direction without varying the direction of rotation of the driving shaft.

3. In a transmission gear mechanism, a driving shaft, a driven shaft extending axially from the driving shaft, a gear wheel connected with said driving shaft, a master gear wheel meshing with said first mentioned gear wheel, an auxiliary shaft for said master gear wheel, a plurality of reducing gear wheels rigidly secured to said auxiliary shaft, a gear ring meshing with each of said reducing gears, a pair of reversing gear wheels rigidly secured together, a gear ring continually meshing with one of said reversing gear wheels, means for holding the other of said reversing gear wheels continually in mesh with one of said reducing gear wheels, and a clutch mechanism adapted to at different times connect the gear wheel rigidly secured to said driving shaft and the respective gear ring to said driven shaft whereby the driven shaft may be moved at different speeds without varying the speed of the driving shaft and in a reverse direction without varying the direction of rotation of the driving shaft.

4. In a transmission gear mechanism, a driving shaft, a driven shaft, a gear wheel connected with said driving shaft, a master gear wheel meshing with said first mentioned gear wheel, said first mentioned gear wheel telescopically fitting over the end of said driven shaft, a plurality of gear rings surrounding said driven shaft and formed with overhanging portions, the first gear ring overhanging a part of said first mentioned gear which telescopically fits over the end of said driven shaft so as to use the same as a bearing surface and the remaining gear rings overlapping the next preceding gear ring in a similar manner, an auxiliary shaft for said master gear wheel, a plurality of reducing gear wheels mounted on said auxiliary shaft and continually meshing with certain of said gear rings, a pair of reversing gear wheels, one of which is adapted to mesh with one of said gear rings and the other of which is adapted to mesh with the gear rings on said auxiliary shaft, said reversing gear wheels being rigidly secured together, and a clutch mechanism adapted to connect the telescoping portion of said first mentioned gear wheel and said respective gear rings with said driven shaft at different times whereby said driven shaft may be moved at different speeds without varying the speed of said driving shaft and may be rotated in a reverse direction without changing the direction of rotation of said driving shaft.

5. A transmission gearing comprising a gear casing, a driving shaft projecting therein, a driven shaft, a hub secured to said driving shaft, a series of gears surrounding said driving shaft, one of said gears being mounted on said hub, a countershaft, a series of gears of different sizes secured to said countershaft, the gears surrounding said driving shaft having clutch portions, a clutch slidable on said driven shaft and adapted to engage said clutch portions and temporarily lock said gears on said driven shaft, the engagement of said clutch with the clutch portion of the gear on said hub causing the direct transmission of power to said driven shaft, and the engagement of said clutch with the clutch portions of the other gears causing an indirect transmission of power through said countershaft to said driven shaft from said hub gear.

1,081,093. TRUCK. EUGENE M. CHAPMAN and CHARLES E. COWAN, Holyoke, Mass. Filed Aug. 20, 1912. Serial No. 716,027. (Cl. 21-65.)

1. The combination with a truck having its body wheel supported at the rear, and provided at its forward portion with one or more legs, of a handle provided with a wheel at its lower portion and with a projection extending obliquely upwardly relatively to the length of the handle,

and the body having beneath its forward portion, a downwardly opening recess formed with a forward vertical wall and a wall to the rear thereof, having its lower edge located approximately as far to the rear of the forward vertical wall as the diameter of said handle projection, said handle projection being detachably engageable, and adapted to swivel in said recess.

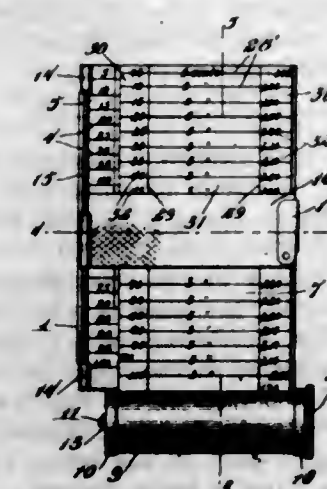


2. The combination with a truck having its body wheel supported at the rear, and provided at its forward portion with one or more legs, of a handle provided with a wheel at its lower portion and with a projection extending obliquely upwardly relatively to the length of the handle, and the body having beneath its forward portion, a downwardly opening recess formed with a forward vertical wall, and a wall to the rear thereof, having surfaces angular to each other, one being downwardly and rearwardly inclined and the other downwardly and forwardly inclined, and terminating at the mouth of the recess at a distance to the rear of the forward vertical wall, approximately equal to the diameter of said handle projection, said handle projection being detachably engageable, and adapted to swivel in said recess.

3. A truck having its body wheel supported at one end, and provided at the other end with a socket opening downwardly, and a wheeled handle member provided with an upwardly extending projection inclined to the handle, the socket having the wall adjacent the end of the body arranged to engage the said projection at its upper end portion, the opposite wall of the socket being arranged to engage the base of the upright projection on the side opposite to that engaged by the other wall, whereby to pivotally support the body on the handle member with the handle in an inclined position.

4. A truck having its body wheel supported at one end, and provided at the other end with a socket opening downwardly with its axis inclined to the vertical and the mouth of the socket higher at the portion adjacent the end of the body than at the opposite side, and a wheeled handle member provided with a projection inclined to the handle, the projection being arranged to enter said socket when the handle member is advanced to the body with the handle in an upright position, and to engage opposite portions of said socket mouth upon the handle being inclined away from the body, to thereby lift the body and pivotally support such end of the body.

1,081,094. RAILROAD-SCRIPT HOLDER. GEORGE H. CLEVELAND, San Antonio, Tex. Filed Apr. 13, 1912. Serial No. 690,493. (Cl. 211-37.)



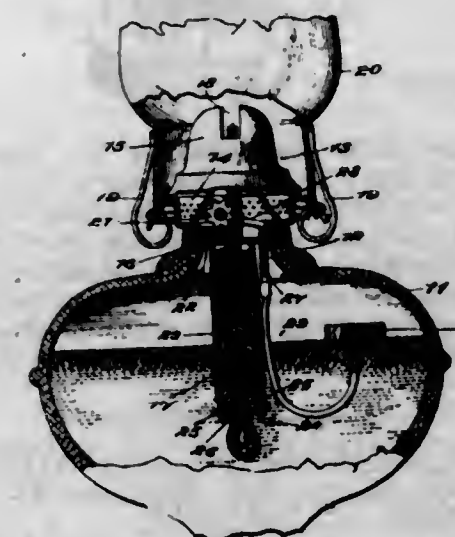
1. A script holder comprising a flat plate having its edges turned into retaining flanges, an identification card secured to the rear of the plate by said flanges, a guiding bar connected with the plate, a cutter member slidably mounted upon said guiding bar, and a cylinder formed at

197 O. G.—29

the end of the plate for holding a roll of script whereby it may be fed over the plate.

2. A script holder comprising a flat plate having its edges turned into retaining flanges, an identification card secured to the rear of the plate by said flanges, a guiding bar connected with the plate, a cutter member slidably mounted upon said guiding bar, a cylinder formed at the end of the plate for holding a roll of script whereby it may be fed over the plate, removable ends for closing the cylinder, and a winding shaft journaled in said removable ends.

1,081,095. BURNER FOR LAMPS. JOHN CLIFFORD, Colfax, Wash., assignor of one-half to William Byrd, Colfax, Wash. Filed Mar. 7, 1913. Serial No. 752,712. (Cl. 67-86.)



1. In a burner for lamps, the combination with a lamp body, of a burner member carried thereby, a gas tube supported on the burner member and depending in the lamp body, a float reposing on the surface of the fuel in the lamp body, and a hose having connection with the float and the gas tube for conveying any gas in the lamp body exteriorly of the said burner member.

2. In a burner for lamps, the combination with a lamp body, of a burner member carried thereby, a wick tube depending from the burner member, means carried by the burner for adjustably supporting a wick thereon, with the lower portion of the said wick confined in the said wick tube and an end of the wick projecting exteriorly of the wick tube and depending in the fuel in the lamp body, and a stopper closing the lower end of the wick tube and consisting of a plurality of similar semicylindrical members spaced apart to provide a slot through which the projecting end of the said wick extends.

1,081,096. BUTTON. ARTHUR B. COMMERFORD and SUSAN E. WATSON, Newport, R. I. Filed Apr. 23, 1913. Serial No. 763,056. (Cl. 24-90.)

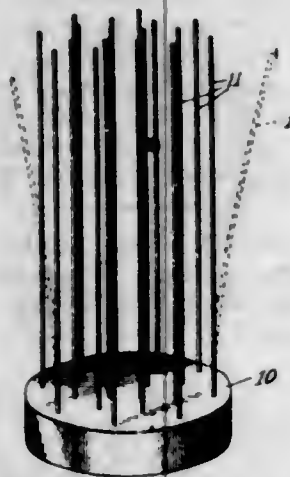


1. A button composed of a cord doubled upon itself and knotted for forming a hard center, and having a ring formed around said center and a coil formed continuously around said ring and constituting the rim for the button the loops of said coil being interwoven with said center.

2. A button composed of a cord and having a central knot and a loop extending therefrom, a ring formed around said knot and having loops passed around said ring and forming a continuous rim for said button.

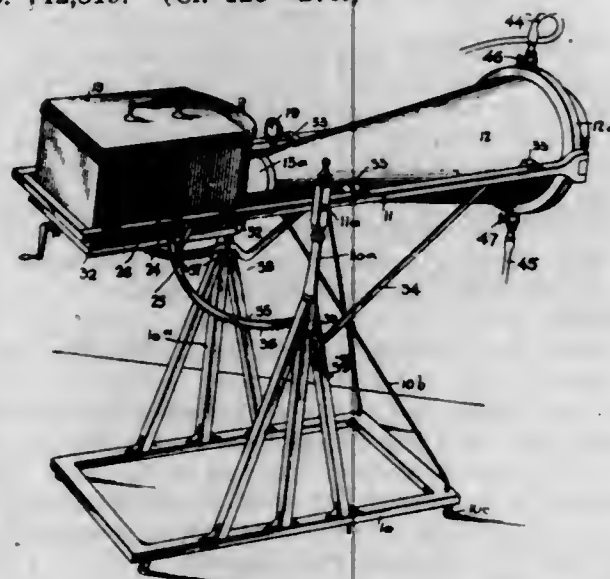
3. A button composed of a cord doubled upon itself and knotted to form a knot and a loop extending therefrom, a ring formed around said knot, and a continuous coil passing around said ring whereby said ring forms a rim for said button, said knot forms the center therefor, and said loops constitutes a shank or stem for the button.

1,081,097. FLOWER-HOLDER. WALTER S. DANIELS, New York, N. Y. Filed July 1, 1912. Serial No. 708,945. (Cl. 47-18.)



A flower holder comprising a flat, non-floating base adapted to stand upon the bottom of the vessel, and a plurality of rods having their lower ends attached to said base, and the upper ends projecting above the upper surface of said base, and having predetermined, normal positions relative to one another, said rods being evenly distributed within the periphery of the upper surface of said base, and being formed of pliable material for the purpose specified.

1,081,098. SOLAR-HEATING APPARATUS. MARCOS DE LA GARZA, El Paso, Tex. Filed Jan. 18, 1913. Serial No. 742,819. (Cl. 126-270.)

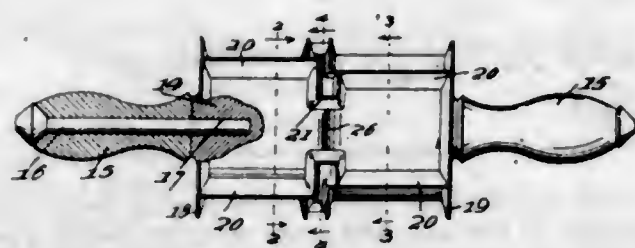


1. A solar heating apparatus, comprising a support adapted to be turned about a vertical axis, a frame pivotally mounted in said support at points between the ends of the frame, to rock vertically, a lens and lens tube carried by said frame, a casing carried by the frame and having a light-ray opening in axial alignment with the lens tube, a heating vessel in said casing serving to receive light rays from the lens tube and the opening in the casing, and means for adjusting said pivotally mounted frame, said means comprising a bar connected by its ends with the mentioned frame at points forward and back of the center of movement of the frame, said bar being in the form of a sector from a point at the approximate center of the bar rearwardly, and there being a drop in the bar at the forward end of the sector, forming a shoulder, rollers on which the sectors rest, keepers guiding the sectors adjacent to the rollers, and means to hold the bars in adjusted position.

2. In a solar heater, the combination of a support adapted to be turned about a vertical axis, a frame pivoted between its ends in said support to rock vertically, a lens, lens tube and heater casing carried by said frame, bars depending from the frame at the sides thereof and secured at their ends to the frame at points in front of and in rear of the center of movement of the frame, rear portions of the said bars being in the form of sectors and there being bends in the bars at the forward terminals of

the sectors, presenting stop shoulders, and rollers on which the sectors rest and against which the stop shoulders may contact.

1,081,099. BREAD OR DOUGH CUTTER. MANASSES DEVINE, Jackson, Cal. Filed Feb. 3, 1913. Serial No. 745,980. (Cl. 107-51.)



1. In a dough cutter, a roller, cutters thereon extending circumferentially thereof at the ends of the roller, cutters extending longitudinally of the roller, one portion of each cutter being staggered with relation to the other portion thereof, looped blades connecting the staggered portions of each blade, the looped blades extending transversely of the roller in opposite directions, the portion of the roller between the blades at one end thereof being depressed with relation to the surface of the roller between the same blades at the opposite end.

2. In a dough cutter, a roller, circumferential blades thereon, blades extending longitudinally of the roller, the said blades each having a portion offset with relation to the other portion thereof and in such relation that parallel portions of the blades are closer together at one end of the roller than at the opposite end thereof, the offset portions of the longitudinal blade being opposite one another, looped cutters associated with each blade extending transversely where said blades are offset, said roller being of a configuration for reducing the thickness of one portion of each section of the material cut by the blades.

3. In a rotary cutter, a roller, circumferential blades near the ends thereof, blades extending longitudinally of the roller in spaced relation to each other, portions of said blades opposite one another being offset and more widely separated than other portions thereof, cutting means effecting a junction of the offset portions of the blades, and means for reducing the thickness of material cut by said blades at the junction of the offset portions of the blades.

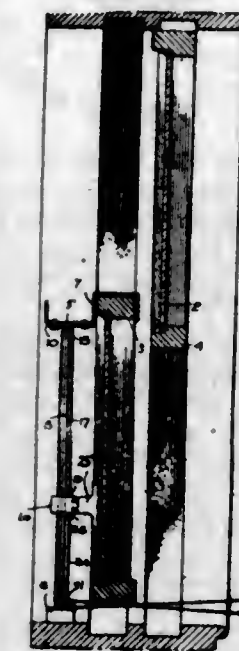
4. In a cutter a body having cutters at the ends thereof and extending parallel with said ends, cutters on the body extending approximately at right angles to those at the ends thereof, the cutters extending from one end being offset with relation to the cutters extending from the opposite end, the offset portion of the cutters being opposite one another, cutters connecting the ends of the cutters extending from one end with the cutters extending from the opposite end, the said body having means for reducing the thickness of material acted on thereby at points between the first mentioned pairs of cutters alternately at the opposite ends of the body.

1,081,100. WINDOW-WASHER. GAETANO DI GIOVANNI, New York, N. Y., assignor of one-fourth to Salvatore Zito and one-fourth to James W. Saitta, Brooklyn, N. Y. Filed Oct. 1, 1912. Serial No. 723,291. (Cl. 15-59.)

1. In a window washer of the class described, a scrubbing tool, a framework for guiding the scrubbing tool, means for giving the scrubbing tool a back and forth movement, means arranged at the upper end of the framework engaging the lower part of the upper sash of a window when the lower pane is being washed, and means for engaging the upper part of the upper sash of a window when the upper pane is being cleaned.

2. In a window washer of the class described, a frame, a base for the frame adapted to rest against the window casing when the device is in use, a pivotally mounted hook member adapted to fit over the upper part of a sash when the device is being operated upon the upper window pane, a reciprocating member mounted on said frame, a

cleaning tool connected with said reciprocating member, a pair of pulleys supported by said frame near the upper end, a pair of pulleys supported by said base, a pair of cables connected at one end to said reciprocating member and extending therefrom over the pulleys at the upper end of said frame and from thence down and under the pulleys on said base, a roller arranged on said base adjacent said pulleys and beneath said pulleys, and a single cable connected at the lower edge of said reciprocating member arranged so as to pass beneath said roller to a point near the ends of said first mentioned cables whereby upon a movement of said first mentioned cables said reciprocating member will be moved upwardly and upon a movement of said last mentioned cable said reciprocating member will be moved downwardly.



3. In a window washer of the class described, a guiding framework, a plate rigidly secured to the upper end of said guiding framework, a reversible double hooked member mounted on said plate and formed with a slot, clamping means extending through said plate and through said slot for adjustably clamping said double hooked member in place, said double hooked member being adapted to engage the sash of the window for holding the upper end of the guiding frame in place, a base connected with the lower end of the guiding frame for holding the same in place, a reciprocating cleaning tool mounted on said guiding frame, and means for causing said tool to move longitudinally of said guiding frame.

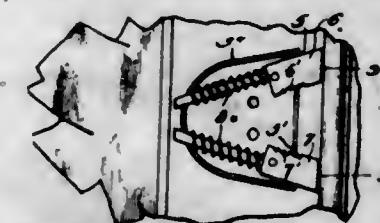
4. In a window washer of the class described, a guiding frame, means for connecting the upper end of the guiding frame to a window sash, a base slidably engaging said frame, said base being formed with an adjustable plate for spacing said frame from the window being cleaned, a cleaning tool slidably mounted on said frame, and means for causing a reciprocatory movement of said cleaning tool longitudinally of the guiding frame.

5. In a window washer of the class described, a guiding frame, a supporting member at the upper end of the guiding frame for holding the upper end of the guiding frame in proper position adjacent a window, a base connected with said guiding frame, means for holding the base a predetermined distance from the window being cleaned, a reciprocating tool slidably mounted on said guiding frame, said reciprocating tool comprising a body, a cleaning member, means for holding the cleaning member on the body, a support, and resilient means for acting on the support for resiliently holding said body in a predetermined position, and means for causing a proper reciprocatory movement of said cleaning tool.

1,081,101. WINDOW-SASH FASTENER. SPURGEON E. DRISCOLL, Shiro, Tex., assignor of one-fourth to Lucy Driscoll and one-fourth to A. B. Farris, Shiro, Tex. Filed Sept. 10, 1913. Serial No. 789,175. (Cl. 16-122.)

1. In a fastening device of the class described, the combination of relatively movable and stationary members, a

casing mounted upon one of said members, a locking member slidably mounted in said casing and disposed at an oblique angle, means normally holding said member in contact with one of said first mentioned members and yieldable to permit free movement of the movable member in one direction, and locking teeth on said locking member adapted to cooperate with the casing upon movement of the movable member in the opposite direction.



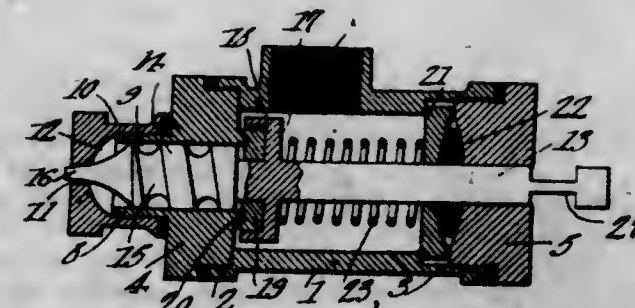
2. In a sash lock for windows, the combination with a casing, a longitudinally movable plunger mounted in said casing, said plunger being also movable laterally, and locking teeth on said plunger for cooperating with the casing upon lateral movement of the plunger whereby to prevent longitudinal movement of the latter.

3. In a sash lock for windows, the combination with a casing having an opening therein, a locking plunger projecting from said opening and disposed on an incline in said casing, teeth formed on one side of said plunger and adapted to interlock with the edge of the opening in the casing upon lateral movement of the plunger whereby to prevent movement of the plunger within the casing.

4. In a locking device of the class described, the combination of stationary and movable members, a casing carried by one of said members, a pair of locking plungers disposed therein at opposite inclinations, means for moving said plungers inwardly of the casing to permit free movement of the movable member, means for normally holding said plungers in contact with one of said first mentioned members, and locking means on each of said plungers adapted to interlock with the casing whereby to prevent movement of the movable member in either direction.

5. In a sash lock for windows, the combination of a casing having openings at one side thereof, a pair of convergently arranged locking plungers disposed in said casing for longitudinal movement, springs wound about said plungers within the casing for normally holding said plungers projected through the openings aforesaid, teeth formed on the ends of said plungers, and locking teeth formed on the sides of said plungers, said last mentioned teeth being adapted to interlock with the contiguous edge portions of the openings of said casing upon lateral movement of the plungers and finger pieces on each of said plungers for retracting the latter within the casing.

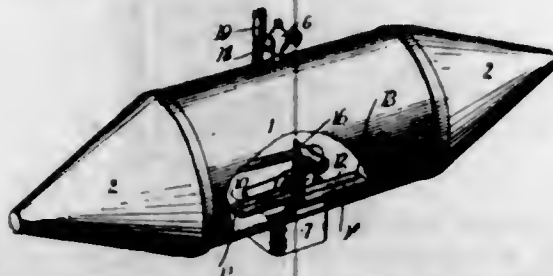
1,081,102. SPRAYING-NOZZLE. AREND K. DYKE, Traverse City, Mich., assignor to Potato Implement Co., Traverse City, Mich. Filed Apr. 23, 1913. Serial No. 763,151. (Cl. 137-86.)



In a spraying nozzle, a cylinder having a side port, a head attached to one end of the cylinder, the head having a nipple and a bore extending through the nipple, a cap engaging over and seating against the nipple, the cap having a central outlet aperture and an inner counter-sunk portion surrounding the aperture, and a stem disposed axially within the cylinder, and having a cylindrical enlargement almost coextensive with and fitting snugly

within the said bore, the cylindrical enlargement having a spiral groove and a conical tip cooperating with said aperture, and the stem having a valve directly adjoining the cylindrical enlargement and normally seatable against the said head.

1,081,103. BUOYANCY-TANK. ADOLPHE EHINGER, New York, N. Y. Filed Mar. 28, 1912. Serial No. 686,789. (Cl. 114—52.)



1. A buoyancy tank comprising a hollow body, said body having a hollow boss projecting laterally therefrom, and a conduit leading through the wall of said body, said conduit being returned upon itself for a short distance inside of the body and then being bent to extend in a direction opposite to the return portion and toward said boss, said conduit then being bent toward the point of entrance and then in the opposite direction toward said boss a second time, and then toward first one end of said tank and then the other and then being bent down to enter the interior of the boss, and finally being bent so as to be returned upon said last-named bent portion and present its open inner end toward where the same enters the body.

2. A buoyancy tank comprising a hollow body having a hollow boss extending laterally from one side, said body having an aperture therethrough, and a pipe leading from said aperture, said pipe extending away from the interior surface of the tank and then extending toward said interior surface, and then extending first toward one end of the tank and then toward the other end, and having a section which extends to the open inner end of the boss, said oppositely-extending sections and said last-named section being connected by transversely-extending sections, and the last-named section having its inner end extending toward the bottom of said boss.

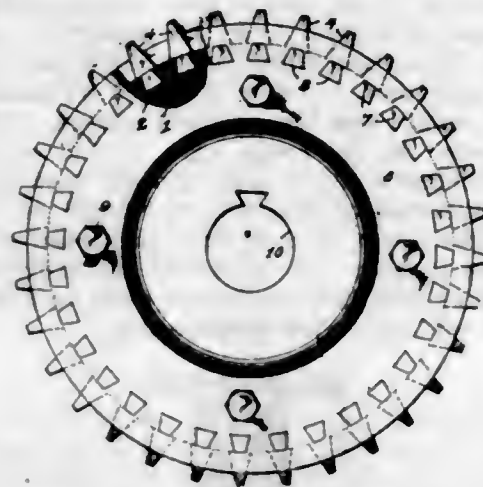
3. A buoyancy tank comprising a hollow body having a discharge opening, and having a hollow internal recess in the wall thereof, a pipe connected with said discharge opening and having a portion extending away from the wall of the body inside of the same and another portion extending at an acute angle to the first portion, said second-named portion terminating at the wall of the body adjacent the edge of the recess, the conduit then being bent first toward one end of the body and then toward the other and having its inner end located within said recess.

4. A buoyancy tank comprising a hollow body having an internal recess in the wall thereof, and a conduit leading through the wall of said body, said conduit being returned upon itself for a short distance inside of the body, and then being bent to extend in a direction opposite the return portion and toward said recess, said conduit then being bent toward the point of entrance and then in the opposite direction toward said recess a second time, and then first toward one end of said tank and then the other, and then being bent to enter the recess, and finally being bent so as to be returned upon said last-named bent portion and present its open inner end toward the point where the same enters the body.

5. A buoyancy tank comprising a hollow body, a conduit leading into the tank and terminating adjacent the bottom thereof, said conduit having its upper portion formed into a compound coil extending transverse to the axis of the tank and consisting of oppositely-disposed connected S-shaped portions, and the lower portion of the conduit being formed into a coil extending approximately parallel with the axis of the tank, and means through which the contents of the tank discharges when fluid pressure is supplied to the tank through said conduit.

[Claim 6 not printed in the Gazette.]

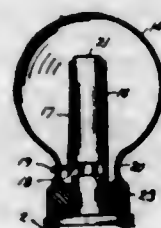
1,081,104. GEAR-WHEEL. ARTHUR S. FINCH, Passaic, N. J. Filed May 24, 1913. Serial No. 769,592. (Cl. 74—28.)



1. A gear wheel of the class described comprising a body having slots in its periphery, teeth in the said slots and having base extensions projecting from opposite sides of the body, and side plates secured to the said body and having openings for receiving the base extensions of the teeth.

2. A gear wheel of the class described comprising a body having in its periphery dove-tailed slots extending from one side to the other, gear teeth having dove-tailed bases slidable into the said slots, the bases being longer than the teeth to form base extensions at opposite ends of the latter, and devices secured to opposite sides of the body and having means for receiving the said base extensions of the teeth.

1,081,105. BEDSTEAD-KNOB. SAMUEL JAMES FLETCHER, Ashfield, New South Wales, Australia. Filed Mar. 11, 1913. Serial No. 753,492. (Cl. 5—4.)



1. A bedstead attachment comprising a stud for projecting from a bed post, a tubular guide for engaging said stud, a knob secured to said tubular guide, a spring detent carried by said tubular guide for engaging said stud in order to hold said tubular guide upon said stud, and a finger piece mounted upon said spring detent and extending externally of said knob to enable said spring detent to be disengaged from said stud.

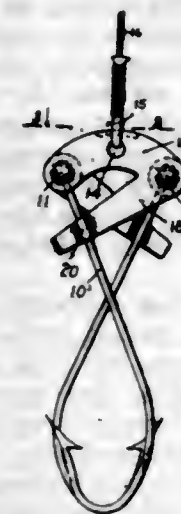
2. In a device of the character described, the combination of a supporting stud, a tubular guide for encircling said stud, a knob fitted upon said tubular guide, a detent carried by said guide for gripping said stud in order to hold said guide upon said stud, and a finger piece connected with said detent and extending through the wall of said knob for the purpose of enabling the pressure upon said finger piece to disengage said detent from said stud.

1,081,106. AUTOMATIC FISH-HOOK. FREDERICK FOERSTER, Elizabeth, N. J. Filed July 9, 1913. Serial No. 778,055. (Cl. 43—31.)

1. The herein described automatic fish hook comprising a yoke, a pair of fish hooks pivoted independently of each other to said yoke, and a pair of spring triggers extending diagonally from the opposite ends of said yoke and cooperating each with the shank of the opposite hook, maintaining the hook shanks in substantially crossed relation.

2. In a device of the character set forth, the combination of a yoke, a hanger pivotally connected intermediate the ends thereof, a pair of hooks pivotally connected inde-

pendently of each other to the ends of the yoke and having their shanks in crossed relation in normal position, and a pair of spring fingers extending from the opposite ends of the yoke and interlocking with said hook shanks.



3. In a device of the character set forth, the combination of a yoke comprising a pair of spaced plates, a pair of pivots extending through the ends of the plates, and a pair of fish hooks pivoted independently of each other within said space on said pivots, each of said plates having an integral finger terminating in a spring trigger interlocking with the shank of the opposite fish hook, substantially as set forth.

1,081,107. PROCESS OF MAKING AMMONIUM NITRATE BY THE AMMONIA-SODA PROCESS. FRANCIS A. FREETH, Great Crosby, and HERBERT E. COCKSLEDGE, London, England. Filed June 5, 1911. Serial No. 631,401. (Cl. 23—21.)

1. The process for the manufacture of commercially pure ammonium nitrate, which consists in causing to react with formation of ammonium nitrate, such quantities of sodium nitrate and a suitable reagent or reagents in presence of such quantity of water as will yield when the reaction is finished a precipitate of sodium bicarbonate and a solution saturated with respect to that salt, and also practically saturated with respect to ammonium bicarbonate and ammonium nitrate at the temperature of the reaction; removing the precipitated sodium bicarbonate from the solution at the temperature of the reaction, and washing it to remove adherent mother liquor; treating the solution from which the precipitated sodium bicarbonate has been removed in such a way as to remove practically all the remaining bicarbonate, and subsequently cooling it; separating from the cooled solution the ammonium nitrate which falls out; washing it with a substantially saturated solution of ammonium nitrate; and drying it.

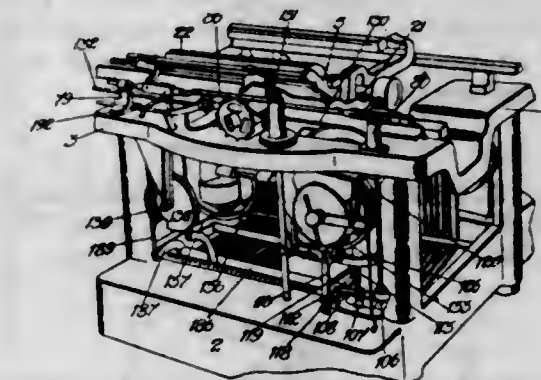
2. The process for the manufacture of commercially pure ammonium nitrate, which consists in causing to react with formation of ammonium nitrate, such quantities of sodium nitrate and ammonium bicarbonate in presence of such quantity of water as will yield, when the reaction is finished, a precipitate of sodium bicarbonate and a solution saturated with respect to that salt, and also practically saturated with respect to ammonium bicarbonate and ammonium nitrate at the temperature of the reaction; removing the precipitated sodium bicarbonate from the solution at the temperature of the reaction, and washing it to remove adherent mother liquor; treating the solution from which the precipitated sodium bicarbonate has been removed, in such a way as to remove practically all the remaining bicarbonate, and subsequently cooling it; separating from the cooled solution the ammonium nitrate which falls out; washing it with a substantially saturated solution of ammonium nitrate; and drying it.

3. The improvement in the process of manufacturing commercially pure ammonium nitrate, which consists in causing to react with formation of ammonium nitrate, such quantities of sodium nitrate and a suitable reagent or reagents in the presence of such quantities of a solution containing ammonium nitrate and sodium nitrate as will yield, when the

reaction is finished, a precipitate of sodium bicarbonate and a solution saturated with respect to that salt, and also practically saturated with respect to ammonium bicarbonate and ammonium nitrate at the temperature of the reaction; removing the precipitated sodium bicarbonate from the solution at the temperature of the reaction, and washing it to remove adherent mother liquor; treating the solution from which the precipitated sodium bicarbonate has been removed in such a way as to remove practically all the remaining bicarbonate, and subsequently cooling it; separating from the cooled solution the ammonium nitrate which falls out; washing it with a substantially saturated solution of ammonium nitrate; and drying it.

4. The process for the manufacture of commercially pure ammonium nitrate, which consists in stirring together 200 parts of sodium nitrate, 210 parts of ammonium bicarbonate, and 100 parts of water, at a temperature of about 22° C., separating the precipitated sodium bicarbonate at the conclusion of the reaction at the same temperature, destroying the bicarbonates in the remaining solution and cooling it to -1° C., washing the precipitated ammonium nitrate with a substantially saturated solution of the same salt, and drying it.

1,081,108. TYPE-WRITING MACHINE. LESLIE HAROLD FRIEDMAN, St. Kilda, Melbourne, Victoria, Australia. Original application filed Feb. 12, 1912. Serial No. 677,064. Divided and this application filed Feb. 4, 1913. Serial No. 746,181. (Cl. 197—65.)



1. A typewriting machine having a sliding carriage, a paper roller carried thereby, mechanism for returning said carriage to its starting position, means for automatically operating the roller with each return of the carriage, and means for manually and simultaneously operating the return mechanism, turning the said roller and disengaging the automatic roller turning means.

2. A typewriting machine having a sliding carriage, a paper roller carried thereby, mechanism for returning said carriage to its starting position, means for automatically operating the roller with each return of the carriage, and means for manually operating the return mechanism, turning the said roller and disengaging the automatic roller turning means.

3. A typewriting machine having a sliding carriage, a rotatable paper roller carried thereby, mechanism for returning the carriage to its starting position, means for manually operating said return mechanism, and means for manually operating said paper roller, the latter means being capable of independent operation, but the operation of the carriage returning means also causing the operation of the roller operating means.

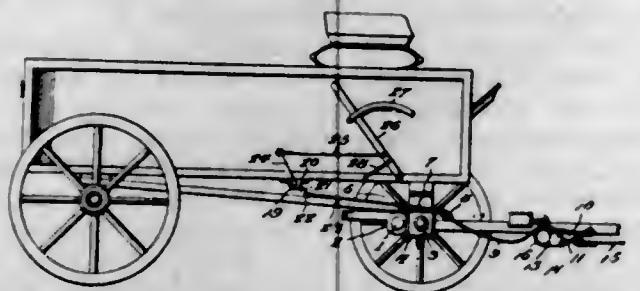
4. A typewriting machine having a sliding carriage, a rotatable paper roller carried thereby, mechanism for returning the carriage to its starting position, means for manually operating said return mechanism, means for manually operating said paper roller, a key lever for operating the last mentioned means independently of the carriage returning means, and a second key for operating the carriage returning means and also adapted to operate the key for actuating the roller operating means.

5. A typewriting machine having a sliding carriage, a rotatable paper roller carried thereby, mechanism for returning the sliding carriage to its starting position, means for manually operating said return mechanism, means for

manually operating said paper roller, a key lever for operating said first mentioned means, a second key lever pivoted to the first key lever adapted to be operated thereby but capable of independent operation, and a yielding connection between said key levers, the second key lever actuating the roller operating means.

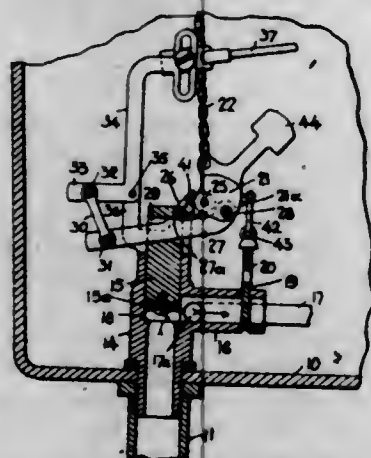
[Claims 6 to 9 not printed in the Gazette.]

1,081,109. WAGON-BRAKE. JOSHUA GIBBS, Furrh, Tex. Filed Mar. 19, 1912. Serial No. 684,667. (Cl. 21—75.)



A horse detaching mechanism for vehicles, comprising shaft supporting brackets adapted to be secured to the front axle of the vehicle, a rock shaft mounted in said brackets, crank arms fixed on said shaft, brackets secured to the swingletrees of the vehicle, trace connecting and releasing members, comprising heads pivoted in said brackets, operating levers formed on said heads, eccentrically arranged trace fastening hooks also formed on said heads, flexible connections between said levers and the crank arms on said rock shaft, whereby when the shaft is rocked said trace releasing members will be actuated to release the traces and means to rock said shaft.

1,081,110. FLUSHING DEVICE. NICHOLAS JOSEPH GONDOLF, New Orleans, La. Filed Jan. 23, 1913. Serial No. 743,752. (Cl. 4—5.)



1. In a device of the character described, a float, a fitting having an inlet, a main outlet and an auxiliary outlet, a main valve commanding the inlet, an auxiliary valve commanding the main outlet and having movements the reverse of the main valve, a valve actuating device movable in one direction independently of the float, a manually-controlled means for moving said actuating device in said one direction, a connection between the said actuating device and the auxiliary valve, a member connected with the said actuating device and engaging the main valve, and means connected with the float and said member to move the latter in the opposite direction from the manually-controlled means.

2. In a device of the class described, the combination with a fitting having an inlet and two outlets, of a valve commanding the inlet and one outlet, a second valve controlling the second outlet, valve-actuating means for the valves, float controlled operating means operatively connected with the said valve-actuating means, and a manually-controlled operating means for the said valve-actuating means, the movement of the manually-controlled operating means serving to open the first-mentioned valve and close the second valve independently of the float-controlled

means, the float-controlled means serving upon lowering of the float to open the second valve, and serving upon a rising movement of the float to close the first mentioned valve.

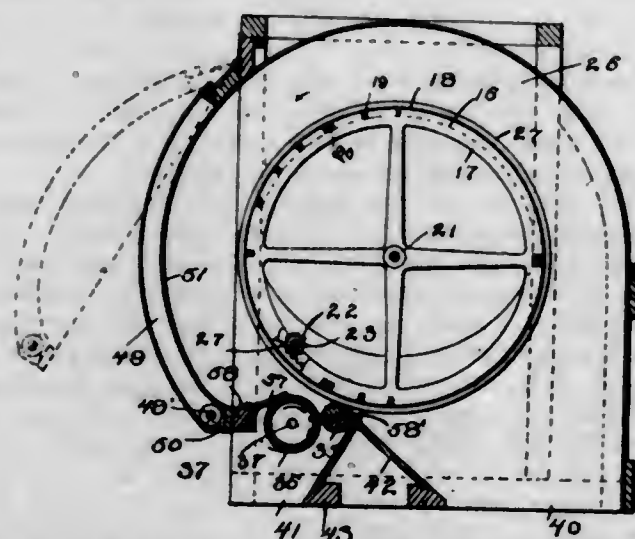
3. The combination with a tank, of a valve casing having an inlet, a main outlet to the tank, and an auxiliary outlet to supply a siphon-starting jet, valve means commanding communication between the inlet main and auxiliary outlets, a float operatively connected with the valve means to close the inlet, and manually-controlled means also connected with the said valve means and operable independent of the float to open the inlet and establish communication with the auxiliary outlet without affecting the float.

4. In a device of the class described, the combination of a fitting having an inlet and an outlet, a valve commanding communication between the inlet and outlet, a valve-actuating member engaging the valve, a manually-controlled lever pivotally connected with the said member near one end of the latter, and float-controlled operating means connected with the said member near the opposite end, the manually-controlled lever being movable to operate the actuating member independently of the float-controlled means, to raise the valve, and the float-controlled means being operable to rock the said member on its pivotal connection with the lever to move the valve independently of the lever.

5. In a flushing device, the combination with a fitting having an inlet, a lateral branch for discharging water to a tank, and a second outlet to supply a jet to a siphon, of a piston valve for opening and closing the inlet and commanding the second outlet, a gate valve commanding the mentioned branch outlet and formed with an opening to register with the said branch, a bar extending through the piston valve, an angle lever having one arm connected with the said bar, near one end of the latter, the other arm of the angle lever constituting an operating arm and provided with means for its manual operation, connections between the said lever and the gate valve, a float, a lever rockable by the float, and a link connecting the float lever with the mentioned bar, near the end opposite the lever.

[Claim 6 not printed in the Gazette.]

1,081,111. COTTON-CONDENSER. THADDEUS STOW GRIMES, Columbus, Ga., assignor to Lummus Cotton Gin Company, Columbus, Ga., a Corporation of Georgia. Filed June 20, 1911. Serial No. 634,373. (Cl. 13—17.)



1. In a device of the class described, a casing, a drum having perforate walls arranged to rotate therein, an inlet for introducing air and cotton at a tangent with the drum, a lint outlet extending in substantially the same direction as the inlet and alongside of the latter and rollers on opposite sides of the lint outlet of the casing, one of said rollers being located between the inlet of the casing and the other roller, and between said outlet and the drum, and serving in part as a partition member between said inlet and lint outlet.

2. In a device of the class described, a casing, a drum having perforate walls arranged to rotate therein, an inlet

and a lint outlet for said casing arranged to permit the unobstructed passage of the main stream of lint about the drum without coming into contact therewith, and rollers on opposite sides of the lint outlet of the casing, one of said rollers being located between the inlet of the casing and the other roller, and between said outlet and the drum, and serving in part as a partition member between said inlet and lint outlet.

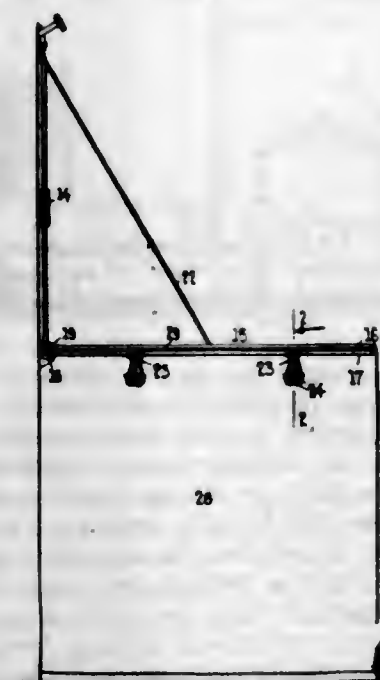
3. In a device of the class described, a casing, a drum having perforate walls arranged to rotate therein, an inlet and a lint outlet for the casing, rollers on opposite sides of the lint outlet of the casing, one of said rollers being located between the inlet of the casing and the other roller, and between said outlet and the drum, and serving in part as a partition member between said inlet and lint outlet, and a cleaning device constituting a part of the casing and arranged adjacent to said rollers.

4. In a device of the class described, a casing, a drum having perforate walls mounted therein, an inlet and a lint outlet for said casing, rollers on opposite sides of the lint outlet of the casing, one of said rollers being located between the inlet of the casing and the other roller, and between said outlet and the drum, and serving in part as a partition member between said inlet and lint outlet, and the other of said rollers being mounted to swing in a direction transversely of its axis.

5. In a device of the class described, a casing, a drum having perforate walls arranged to rotate therein, an inlet and an outlet for said casing, a plurality of rollers arranged adjacent to the outlet, one of said rollers constituting a portion of the partition wall of the outlet, the other of said rollers being arranged to swing laterally with reference to the adjacent roller, a pinion for driving the drum, a pinion carried by the shaft of each of the rollers and means for driving all of said pinions.

[Claims 6 to 8 not printed in the Gazette.]

1,081,112. COLLAPSIBLE WARDROBE. JOHN AUSTIN HAZZARD and ARTHUR BENJAMIN JONES, Cambridge, Mass. Filed Jan. 22, 1913. Serial No. 743,561. (Cl. 45—118.)

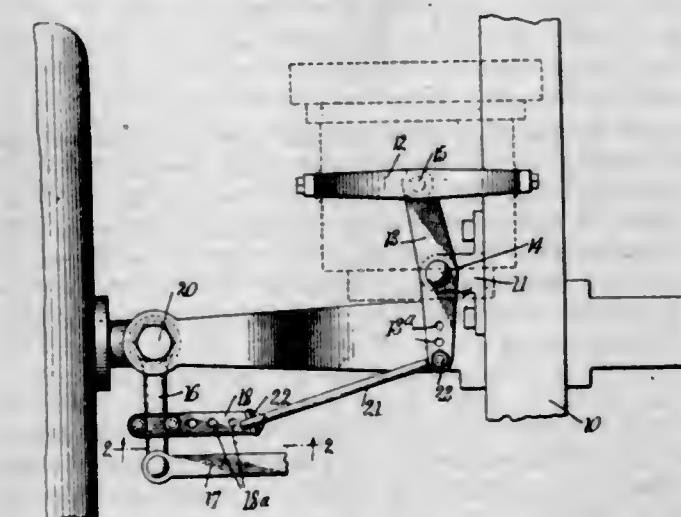


1. In a collapsible wardrobe, a frame comprising a pair of superposed U-shaped members; a coil spring connecting each of the adjacent free ends of the U member and normally forcing the U members toward each other, thereby forming a clamp of the said U-shaped members; a sheet or sheets of flexible material engaged between said U members and forming a dustless compartment below the upper of said U-shaped members; cross bars connecting the sides of the lower U-shaped member and in the same plane with it and having means for carrying objects within said compartment; another U-shaped member engaging the first mentioned U-shaped members and having suspension means; and a pair of arms connecting the sides of the

lower U-shaped member, forming the clamp to the U-shaped member having the suspension means and whereby said U-shaped members carrying the flexible sheets are maintained in a predetermined position.

2. In a collapsible wardrobe, a frame comprising a pair of superposed U-shaped members; a coil spring connecting each of the adjacent free ends of the U members and normally forcing the said U members toward each other, thereby forming a clamp of the said two U-shaped members; a sheet or sheets of flexible material engaged between said U-shaped members and forming a dustless compartment below the said U-shaped members, the lower of said U-shaped members having depressions in the sides thereof; cross bars connecting the sides of said lower U-shaped member and engaging the depressions in the said sides and whereby said cross bars are in the same plane with the said U-shaped member; means for suspending said U-shaped member; and means for maintaining said U-shaped members in a predetermined position.

1,081,113. DIRIGIBLE HEADLIGHT. ARLEIGH C. HENDRY, Harpersfield, N. Y. Filed Apr. 2, 1912. Serial No. 687,965. (Cl. 240—62.)



The herein described dirigible headlight comprising, in combination, a stationary frame bracket, a lever pivoted in a horizontal plane on said bracket on a vertical axis and having at one end a series of holes, a lamp yoke carried rigidly and bodily at the other end of said lever, a steering knuckle, a horizontal plate connected to said knuckle and adjustable toward or from the axis of said knuckle, said plate extending toward the aforesaid lever but in a plane below the plane of the lever and having a series of holes, a pair of eye bolts adjustably connected respectively in any of said bar and lever holes, and an upwardly inclined connecting bar having loose pivotal connection with said eye bolts, substantially as and for the purposes set forth.

1,081,114. APPARATUS FOR HEATING LIQUIDS BY ELECTRICITY. JOHANN VON HENTZEL, Zurich, Switzerland. Filed Dec. 26, 1912. Serial No. 738,578. (Cl. 219—40.)

1. Apparatus for heating liquids by electricity comprising an outer cylindrical casing, an insulated layer within said casing, a closed cylindrical casing within said first casing but insulated therefrom, a central rod extending through one end of second chamber but insulated therefrom, a cylindrical electrode mounted on said rod, a hollow electrode surrounding said first electrode and pressed against the internal surface of the inner casing, electrical connections one to said rod and one to said inner casing, and means for causing water to flow through the space between said electrodes and serve as a resistance, substantially as described.

2. Apparatus for heating liquids by electricity comprising an outer cylindrical casing, closure caps at each end of said casing, a heat insulating layer within said casing and within one of said closure caps, an electrical insulating layer within said heat insulating layer, a

closed cylindrical casing inside said first casing but insulated therefrom, a central rod extending through one end of said inner casing but insulated therefrom, a cylindrical electrode mounted on said rod, and pressed against the internal surface of said inner casing, an annular space between said electrodes, an annular chamber between each end of the electrodes and the ends of said inner casing,



electrical connections one to said rod and one to said inner casing, a water delivery pipe carried by first chamber but insulated therefrom and leading to one of the said annular spaces, and a discharge pipe insulated from both casings and leading from the other of said annular spaces, said discharge pipe passing through the closure cap provided with said heat insulating layer; substantially as described.

1,081,115. LIFE-SAVING DEVICE. ERNEST E. HILLS, Medina, Wis., assignor of one-third to Harvey B. Blue, Medina, Wis. Filed Apr. 7, 1913. Serial No. 759,375. (Cl. 9—20.)



1. In a life preserver of the character described, the combination of a cylindrical body having a lower permanently closed end and gradually enlarging in diameter from said lower end, and having an upper and outwardly flaring end, a cover having a truncated conical form, the lower open end of which is adapted to telescopically engage the flared open end of the body, the said cover and body being formed of non-flexible material, and a hinge connecting the cover and body at one point and permitting of their relative movement in a true axial line whereby

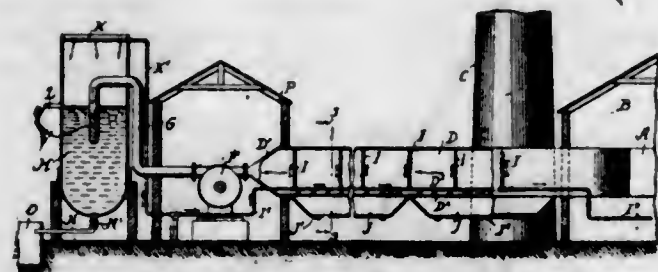
the cover may be secured firmly and evenly in water-tight relation upon the body.

2. In a life preserver of the character described, the combination of a cylindrical body having a lower permanently closed end and gradually enlarging in diameter from said lower end, and having an upper and outwardly flaring end, a cover having a truncated conical form, the lower open end of which is adapted to telescopically engage the flared open end of the body, the said cover and body being formed of non-flexible material, a hinge connecting the cover and body at one point and permitting of their relative movement in a true axial line whereby the cover may be secured firmly and evenly in water-tight relation upon the body, pivoted locking bars carried by the cover upon its inner side, and means carried by the cover to receive and hold the locking bars against movement when not in use.

3. In a life preserver, a container comprising a body and a cover therefor, the adjoining edges of which are provided with telescoping portions, locking bars having pivotal connections with the cover at spaced points therearound, rigid hook members carried by the body at spaced points therearound, and cam levers pivoted upon the free ends of the said locking bars and adapted for engagement with the said hooks whereby to firmly and evenly unite the cover and body in fluid-tight relation.

4. In a life preserver, a container comprising a body and a cover therefor, the adjoining edges of which are provided with telescoping portions, locking bars having pivotal connections with the cover at spaced points therearound, rigid hook members carried by the body at spaced points therearound, and cam levers pivoted upon the free ends of the said locking bars and adapted for engagement with the said hooks whereby to firmly and evenly unite the cover and body in fluid-tight relation, the cover being provided with spring clips connected thereto above the locking bars and adapted to receive and hold the same when the cover is removed from the body and the container is in disuse.

1,081,116. SMOKE-SEPARATOR. CLAYTON FLOYD HOLMES, Beaumont, Tex., assignor of one-half to Joseph Frieblis, Beaumont, Tex. Filed Apr. 12, 1913. Serial No. 760,648. (Cl. 75—30.)



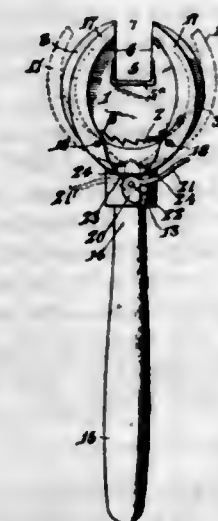
1. A smoke separator for smelter furnaces and like apparatus, comprising a cooling flume connected at one end with the apparatus, a suction fan connected with the other end of the said cooling flume, a series of connected and vertically extending cooling coils arranged transversely within the said flume to retard the passage of the smoke and gases through the flume and to cool the said smoke and gases, and a precipitating tank charged with a cooling medium and into which discharges the said suction fan.

2. A smoke separator for smelter furnaces and like apparatus, comprising a cooling flume connected at one end with the apparatus, and having openings in its bottom, a suction fan connected with the other end of the said cooling flume, a series of connected and vertically extending cooling coils arranged transversely within the said flume to retard the passage of the smoke and gases through the flume to cool the said smoke and gases, means for delivering water to the coil adjacent to the outlet end of the flume, a precipitating tank charged with a cooling medium and into which discharges the said suction fan, the tank being open at the top, and means for delivering a cooling medium in jets in the open top of the said precipitating tank.

3. A smoke separator for smelter furnaces and like apparatus, comprising a flume leading from the apparatus to a stack, a cooling flume connected at one end with the flume of the apparatus and provided at its entrance end with a valve, which when open, closes communication between the stack and apparatus, a suction fan connected with the other end of the said cooling flume, a series of connected and vertically extending cooling coils arranged transversely within the said flume to retard the passage of the smoke and gases through the flume and to cool the said smoke and gases, means for delivering water to the coil adjacent to the outlet end of the flume, a precipitating tank charged with a cooling medium and into which discharges the said suction fan, a settling tank and a valved connection between the bottom of the said precipitating tank and the said settling tank.

4. A smoke separator for smelter furnaces and like apparatus, comprising a cooling flume connected at one end with the apparatus and provided in its bottom with openings and transversely-extending inclined deflecting plates, soot-receiving receptacles arranged under the said flumes and into which lead the said openings, vertically extending and connected cooling coils arranged transversely within the said flume and connected at one end with a source of water supply, a suction fan connected with the outer end of the said flume, a precipitating tank charged with water, and a discharge pipe leading from the said suction fan and extending into the water contained in the said precipitating tank.

1,081,117. RATCHET-WRENCH. LEE W. HOOVER, Nebraska, Pa. Filed June 20, 1913. Serial No. 774,891. (Cl. 81—59.)



1. A ratchet wrench including a casing having a bearing and open at one of its faces, said casing being also provided at the outer end of the wrench with an entrance opening, a rotary ratchet head removably fitted in the bearing, means carried by the casing for coacting with the ratchet head in the operation of the wrench, a pair of retaining levers pivotally mounted at the open side of the casing at opposite sides of the said bearing and extending inwardly over the bearing to confine the ratchet head therein and terminating at their outer ends at opposite sides of the entrance opening, and means for simultaneously opening the levers and for securing the same in their closed or engaged position.

2. A ratchet wrench including a casing having a bearing and open at one of its faces, a rotary ratchet head removably fitted in the bearing, means carried by the casing for coacting with the ratchet head in the operation of the wrench, curved retaining levers pivoted at a point intermediate of their ends to the casing at opposite sides thereof and projecting inwardly over the bearing to confine the ratchet head in the casing, said levers having inner arms, a spring connected with the inner arms of the levers for moving the same in one direction, and a pivotally mounted cam lever carried by the wrench and arranged to move the said levers in the opposite direction.

3. A ratchet wrench including a casing having a bear-

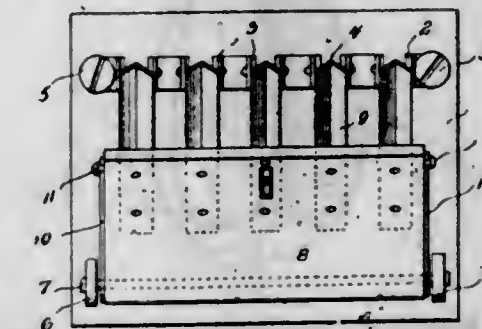
ing and open at one of its faces, a rotary ratchet head removably fitted in the bearing, means carried by the casing for coacting with the ratchet head in the operation of the wrench, retaining levers pivoted at a point intermediate of their ends to the casing at opposite sides thereof and projecting inwardly over the bearing to confine the ratchet head in the casing, said levers having inner arms, a substantially straight spring extending across the space between and connecting the inner arms of the said levers, and a cam lever pivotally mounted on the wrench and having a head arranged to engage and bow the spring to oscillate the retaining levers.

1,081,118. CURRENT-MOTOR. OLAF L. HOWE, Missoula, Mont. Filed Oct. 11, 1912. Serial No. 725,303. (Cl. 170—90.)



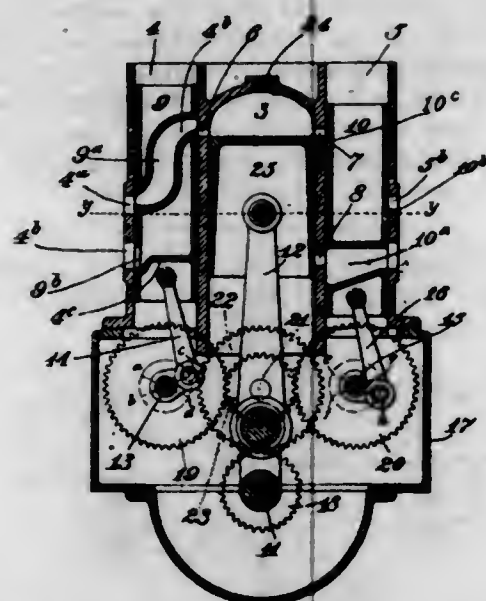
In a current motor; the combination with a supporting structure; of parallel shafts; cable pulleys on said shafts; parallel endless cables passing around said pulleys; and a series of feathering blade units carried by said cables, each unit comprising a feathering blade, knuckles on the inner edge of said blade in line with said cables, combined cable grips and hinge members secured to and carried by said cables and each provided with a knuckle, each of said hinge members being formed of a metal strap folded upon itself, given a quarter twist, and bent to provide terminal eyes at right angles to each other, one of which forms the knuckle and the other the cable grip, detachable hinge pins passing through said knuckles parallel to the inner edge of said blade and connecting the knuckles of the blade to the knuckles of the cables, stay holding clips on said cables movable toward and away from said grip and hinge members and embodying clamping means permitting them to be adjusted lengthwise of said cables and fastened thereon, and flexible stays connecting the outer portion of said blade with said clips.

1,081,119. SWITCH. ARCHER W. JOHNSON, Holland, Mich. Filed Dec. 20, 1912. Serial No. 737,904. (Cl. 177—10.)



A circuit closer comprising a base, a plurality of pairs of contacts upstanding from the base adjacent to one longitudinal edge thereof, pivot lugs on the base adjacent to the opposite longitudinal edge thereof, a block pivotally mounted within said lugs, a plurality of blades carried by said block and extending outwardly from one edge thereof and spaced apart, said blades coöperating with said contacts, a casing inclosing said blades and contacts and formed with a depression in the top wall thereof and an opening in the bottom wall of the depression, a button slidably mounted within the depression, a shank on said button and extending through the opening, a connection between said shank and block whereby upon the depression of the button, the block will be moved to circuit closing position, and springs holding said blocks normally in circuit opening position.

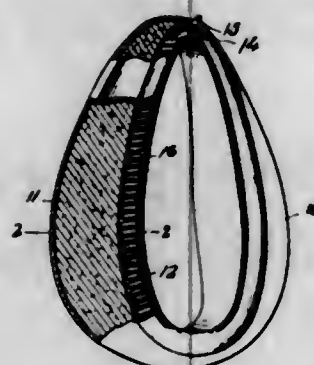
1,081,120. EXPLOSIVE-ENGINE. DAVID W. JONES and WILLIAM J. MILLER, Columbus, Ohio, assignors of one-third to Julius F. Stone, Columbus, Ohio. Filed Mar. 31, 1910. Serial No. 552,606. (Cl. 123-188.)



1. In an explosive engine, the combination of a work cylinder having a suitable intake and a main and scavenging exhaust, two valve chests for said cylinder, a piston-like valve in each chest for controlling respectively said intake and exhausts, the valve for controlling the exhausts having a port for the main exhaust and a passage for the scavenging exhaust, a main crank, a crank shaft for each of said valves, and gearing between the main and valve crank shafts for actuating said valve crank shafts each at a ratio of one revolution to four revolutions of the main crank shaft.

2. In an explosive engine, a valve chest open at one end to the atmosphere, a hollow piston-like valve for controlling a cylinder port opening at said chest, said piston-like valve also being open at one end to the atmosphere and vented at a point remote from said open end to permit a circulation of cooling air therethrough.

1,081,121. COLLAR. WILLIAM G. KENNEDY, Matador, Tex. Filed Nov. 21, 1911. Serial No. 661,550. (Cl. 54-19.)

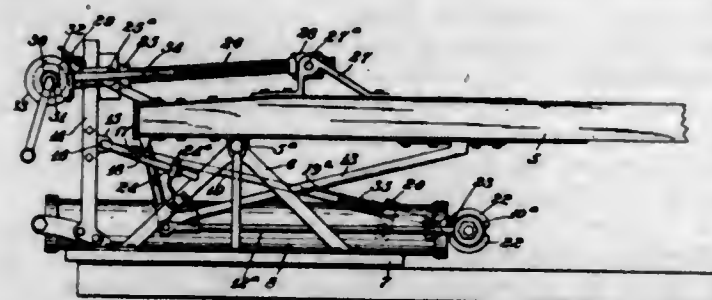


As a new article of manufacture, a collar comprising a collar casing, a helical spring mounted within the said casing and terminating in flattened apertured ends, a buckle secured to one of the apertured ends of the spring, a strap secured to the other apertured end of the spring, with the said strap and buckle adapted for connection with each other, and a U-shaped flexible reinforcing rod arranged in the said casing and encircled by the said spring, with the ends of the said rod lying adjacent to the flattened ends of the said spring.

1,081,122. AERIAL LADDER. CHARLES F. KINSEY, Columbus, Ohio, assignor to The Seagrave Company, Columbus, Ohio, a Corporation of Ohio. Filed Feb. 7, 1911. Serial No. 607,143. (Cl. 228-28.)

1. In a ladder of the kind described, the combination with the ladder proper, of a fulcrum on which the same

can be elevated, a screw 26, a nut on the ladder to engage said screw, a spring of a strength adapted to operate on the ladder to automatically move the same to elevated position notwithstanding the engagement of said nut with the screw, means for turning said screw to depress the ladder, means for locking the ladder in prone position, and means independent of the said locking means for locking the ladder in other positions.



2. In a ladder of the kind described, the combination with the ladder proper, a fulcrum on which the same can be elevated, a pair of springs, plunger rods operated by the springs, a bar connecting the plunger rods, link rods connecting said bar with the ladder, and means for engaging said bar to lock the ladder in prone position including a pair of gripping jaws, a rod for operating the same to grip said bar to lock the ladder in prone position, means for operating said rod, and means for locking said last named means.

3. In a ladder of the kind described, the combination with the ladder proper, a fulcrum on which the same can be elevated, a pair of springs, plunger rods operated by the springs, a bar connecting the plunger rods, link rods connecting said bar with the ladder, and means for engaging said bar to lock the ladder in prone position including a pair of gripping jaws, a rod for operating the same to grip said bar to lock the ladder in prone position, means for operating said rod in one direction to close the jaws and a spring for urging said rod to open the jaws.

4. In a ladder of the kind described, the combination with the ladder proper and a fulcrum on which the same can be elevated, a screw 26, a nut on the ladder to engage said screw, and means adapted to operate on the ladder to elevate the same and automatically cause the nut to move longitudinally on the screw, means for positively depressing the ladder, means for locking the ladder in prone position and means independent of said locking means for locking the ladder in other positions.

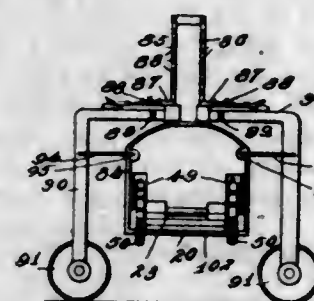
1,081,123. RAZOR-GUARD. WINFIELD L. KING, Indiana, Pa. Filed Mar. 25, 1913. Serial No. 756,677. (Cl. 30-12.)



1. A guard attachment for razor blades, comprising a clamp presenting a pair of jaws adapted to embrace the opposite side faces of the razor blade, one of said jaws being laterally flexible to be flexed toward the opposite jaw for contracting the space between the jaws, and a guard pivoted to the clamp for swinging movement and having a member disposed adjacent to the flexible jaw, and movable upon the swinging of the guard into engagement with the flexible jaw to flex the same in the direction of the companion jaw of the pair.

2. A guard attachment for razors, comprising a clamp presenting at one side an elongated jaw and at the opposite side spaced jaws united to the elongated jaw near the ends of the latter by U-bends, and a swinging guard pivoted to the elongated jaw between the top and bottom of the latter, the said guard having a flange at an angle thereto, and the elongated jaw having protuberances against which said flange has frictional engagement to flex the jaw laterally and for pressing the same against the side of the razor blade.

1,081,124. MANURE-LOADER. JOSEPH KULHANEK, Chasaning, Mich. Filed Sept. 19, 1912. Serial No. 721,257. (Cl. 87-24.)

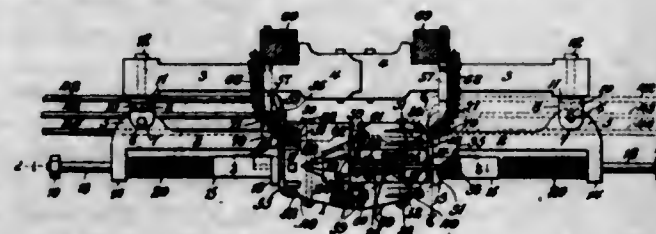


1. A manure loader comprising a pivotally mounted supporting frame, spaced vertical racks carried by said frame adjacent to one end thereof, adjustably positioned boxes slidably mounted upon said racks, angular supporting members carried by said boxes and hingedly positionable transversely and longitudinally of said frame, ground wheels journaled upon the lower ends of said supporting members and an upper and a lower securing means for each of said supporting members operable with the loader positioned for use.

2. A loader comprising a pivotally mounted machine frame, an encircling frame rigidly secured to one end of the machine frame, a contracted rack extension upon said encircling frame, vertically shiftable boxes mounted upon said rack, rack engaging locking means carried by said boxes, depending angular supporting members shiftable hinged to said boxes, ground wheels journaled to the lower ends of said members normally positioned rearwardly of the machine during a forward movement thereof, and forked levers pivoted to said encircling frame adapted for engaging said supporting members to outwardly position said wheels transversely of said machine frame.

3. In a manure loader, a freely pivoted frame, vertically adjustable angular supports hinged for rearward movement at opposite points upon said frame, ground wheels journaled at the bottoms of said supports positionable rearwardly of said frame upon a longitudinal movement thereof and upon opposite sides of said frame upon a transverse movement thereof and retaining means for said supports.

1,081,125. AUTOMATIC TRAIN-PIPE COUPLING. WILLIAM D. LEITCH, Wilkinsburg, Pa. Filed Feb. 7, 1912. Serial No. 876,094. (Cl. 188-13.)



1. A train pipe coupling including a longitudinally disposed bracket having spaced depending front and rear guides, means arranged at the inner or rear end of the bracket for pivotally supporting the same, flexible supporting means connected with the outer or front portion of the bracket, a bar slidable in the guides, a spring mounted on the bar and engaging the same and the rear guide, a coupling head arranged at the outer end of the said bar and carried by the same and provided at one side with a socket, said coupling head being also provided at the front with a forwardly projecting tapered arm to fit the socket of a coacting coupling head or member, and locking means for retaining the arm in the socket, said means comprising a locking lever pivotally mounted on the coupling head and projecting into the socket, and connections between the lever and the supporting bracket for oscillating the lever when the coupling head moves inwardly or outwardly with respect to the bracket.

2. A train pipe coupling including a coupling head or member having a flat face at one side and provided with a socket, said coupling head or member being also

provided at the front with a forwardly projecting arm tapered to fit the socket of a co-acting coupling head or member and having a flat inner side face to fit the flat face of such coupling head or member, and locking means for retaining the arm in the socket, said means comprising a locking lever pivotally mounted on the coupling head or member and arranged to project from the flat side face thereof, and connections between the lever and the supporting bracket for oscillating the lever when the coupling head or member moves inwardly or outwardly with respect to the bracket.

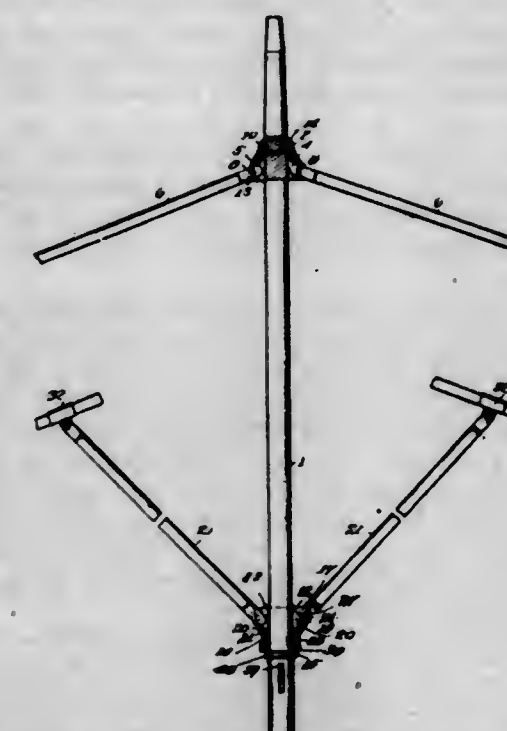
3. A train pipe coupling including a supporting bracket, a coupling head slidably mounted in the supporting bracket and provided at one side with a loop forming a socket, said coupling head having a transverse opening extending through it and communicating with the socket, a forwardly extending arm adapted to fit in the socket of a coacting coupling head, a locking lever pivotally mounted in the transverse opening of the coupling head and arranged to project into the socket for locking the arm of the coacting coupling head in the said socket, and a link connecting the lever with the supporting bracket.

4. A train pipe coupling including a supporting bracket provided with a flange having a slot, a coupling head or member slidably mounted in the supporting bracket and provided at one side with a socket and having a forwardly projecting guiding arm, a locking lever pivotally mounted in the coupling head or member and arranged to project therefrom, a link pivotally connected with the locking lever and having a pin slidable in the slot of said flange.

5. A train pipe coupling including a coupling head or member having a transverse opening and provided at one side thereof with a socket and having a forwardly projecting arm adapted to fit in the socket of a coacting coupling head and having a recess to register with the opening thereof, a locking lever having a substantially segmental head and pivotally mounted in the opening of the coupling head or member and projecting into the socket for engaging the recess of the arm of a coacting coupling head, and means for oscillating the locking lever for carrying the same to and from its projecting position.

[Claims 6 to 8 not printed in the Gazette.]

1,081,126. UMBRELLA. JOHN W. LEWIS, San Francisco, Cal. Filed June 26, 1911. Serial No. 635,267. (Cl. 135-30.)

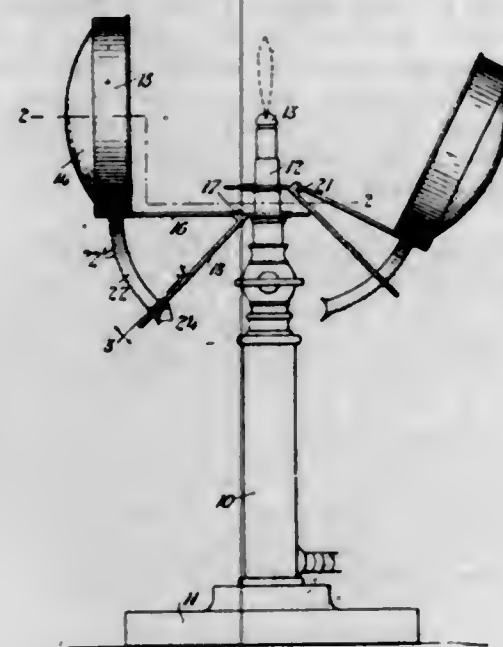


1. In an umbrella frame, a connector comprising a pair of substantially frusto-conical sleeves fitting one within the other, the outer sleeve having at its large end resilient catches engaging the adjacent end of the inner sleeve for preventing disengagement of the said sleeves, said sleeves

having laterally spaced notches extending from the large end toward the small end, and the inner sleeve having an external annular groove intersecting the notches intermediate their ends, the said sleeves being adapted to engage a stick, and ribs and stretchers engaging the notches at one end and having lateral lugs for engaging the groove of the inner sleeve.

2. In an umbrella frame, a connector comprising a pair of substantially frusto-conical sleeves fitting one within the other, said sleeves having laterally spaced notches extending from the large end toward the small end, and the inner sleeve having an external annular groove intersecting the notches intermediate their ends, the said sleeves being adapted to engage a stick, and ribs and stretchers engaging the notches at one end and having lateral lugs for engaging the groove of the inner sleeve, and means for detachably connecting the sleeves.

1,081,127. LIGHT-INTENSIFIER. GEORGE LINDE, Newark, N. J. Filed Sept. 19, 1913. Serial No. 790,684. (Cl. 240—111.)



1. In a light intensifier, the combination with a gas jet, of a bracket having an annular extension fitted to said jet and capable of adjustment around the jet, means to lock the bracket to the jet, a lens adapted to transmit the light rays from the gas jet, a frame supporting the lens, an arm rigidly connected to the frame extending at an angle therefrom, means pivotally connecting the opposite end of the arm to the bracket whereby the lens and its frame may be moved vertically around the horizontal axis of said pivotal connection, and a brace extending between the lens frame and the lower end of the bracket serving to support the lens in any position of vertical adjustment.

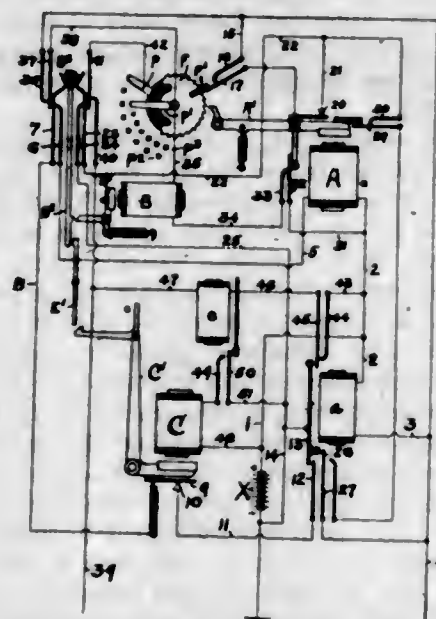
2. In a light intensifier, the combination with a gas jet, of a bracket constructed of thin sheet metal and having its edges bent into stiffening flanges, said bracket including a substantially disk-shaped extension having a hole through which the gas jet extends, a flat cam pivoted in the rear of said extension and adapted to lock the bracket from rotation on the jet, said bracket and cam being so constructed and arranged as to closely nest with other brackets and cams of the same character, and a light transmitting lens adjustably supported for movement in vertical planes upon said bracket.

3. In a light intensifier, the combination of a bracket formed of thin sheet metal and having a pair of ears bent upwardly along its lateral edges forming oppositely arranged sockets, a lens, a frame supporting said lens, an arm secured to the frame and extending therefrom at an angle and having a pair of oppositely extending lugs formed on the end of the arm opposite the frame and said lugs being seated in the aforesaid sockets and constituting a horizontal pivot around which the lens and its frame

may swing, and means to control such swinging movement of the lens with respect to the bracket.

4. In a light intensifier, the combination of a bracket, an arm having one end pivoted to a portion of the bracket, a lens rigidly secured to the other end of the arm, another portion of the bracket being formed with a slot, a brace in the form of a serrated arc secured at one end to the lens frame and having its other end extending through said slot, and a spring pressed locking pawl coöperating automatically with the brace to control the position of the lens with respect to the bracket, the curvature of the brace corresponding to the radius from the pivotal connection of the arm and the bracket.

1,081,128. SWITCHING MECHANISM FOR TELEPHONE-EXCHANGES. FRANK A. LUNDQUIST, Chicago, Ill., assignor, by mesne assignments, to Western Electric Company, a Corporation of Illinois. Filed Feb. 1, 1905. Serial No. 243,664. (Cl. 179—27.5.)



1. The combination with two magnets arranged to act as relays for each other so as to produce a continuous motion, and a battery provided with connections to said magnets, of a circuit finding contact maker moved by one of said magnets, a third magnet provided with connections to said battery and said contact maker, means by which upon said contact maker finding a circuit an impulse will flow through said third magnet to cause its operation, and means by which the operation of the third magnet will stop the operation of the first two magnets.

2. The combination with two magnets, and means by which they keep each other in continuous operation, of a circuit finding contact maker moved by one of said magnets, a third magnet arranged to have its circuit closed by said contact maker, and means by which upon said contact maker closing such circuit, the operation of the third magnet will stop the operation of the first two magnets.

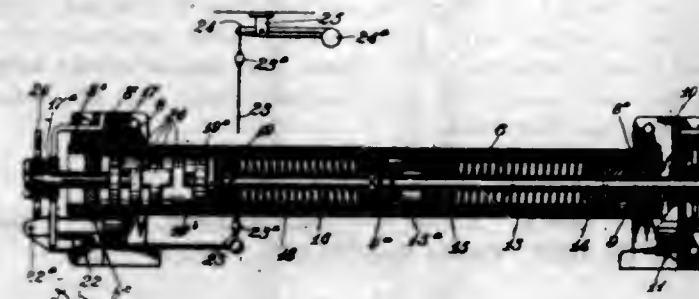
3. The combination with a battery, two magnets, and connections for said magnets so arranged that upon an initial movement being given to one of said magnets the two will start upon an automatically continuous series of operations, of a circuit finding contact maker operated by one of said magnets, a third magnet connected in an incomplete circuit, means by which the contact maker will complete the circuit for the third magnet so as to cause its operation, and means by which the operation of the third magnet will stop the automatic operation of the first mentioned magnet.

4. The combination with a contact maker, and a pair of interacting magnets arranged to automatically advance said contact maker step by step, of a series of contact points in the path of said contact maker, some of which points represent busy lines and some of which represent idle lines, of automatically operating means by which the automatic advance of said contact maker is stopped when said contact maker comes into contact with a point representing an idle line.

5. The combination with a contact maker, and a pair of interacting magnets arranged to automatically advance said contact maker step by step, of a battery provided with a connection to said contact maker, a series of contact points in the path of said contact any one of which may serve as a path for an impulse from said battery, and automatically operating means for stopping said magnets when an impulse flows from said battery, through one of said points.

[Claims 6 to 16 not printed in the Gazette.]

1,081,129. AUTOMATIC FIRE-RESISTING SHUTTER. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Mar. 18, 1912. Serial No. 684,387. (Cl. 189—58.)



1. In a rolling fire shutter, the combination of a suitably mounted shutter-receiving member, a normally operable tension member connected with a fixed part and the shutter-receiving member, an opposing tension member connected at one end with a fixed part, releasable means for holding the other end of said opposing tension member, clutch members between said opposing tension member and the shutter-receiving member for causing said opposing tension member to act on the shutter-receiving member, said clutch members being capable of idle motion with reference to each other when the shutter is lowered from raised position.

2. In a rolling fire shutter, the combination of a suitably mounted shutter-receiving member, a normally operable tension member connected with a fixed part and the shutter-receiving member, an opposing tension member connected at one end with a fixed part, releasable means for holding the other end of said opposing tension member, clutch members between said opposing tension member and the shutter-receiving member for causing said opposing tension member to act on the shutter-receiving member, and normally idle members interposed between said clutch members adapted to effect proximate operative connection between the clutch members in the raised position of the shutter.

3. In a rolling fire shutter, the combination of a suitably mounted shutter-receiving member, a normally operable tension member connected with a fixed part and the shutter-receiving member, an opposing tension member connected at one end with a fixed part, releasable means for holding the other end of said opposing tension member, clutch members between said opposing tension member and the shutter-receiving member for causing said opposing tension member to act on the shutter-receiving member, and normally idle members interposed between said clutch members adapted to effect proximate operative connection between the clutch members in the raised and lowered position of the shutter.

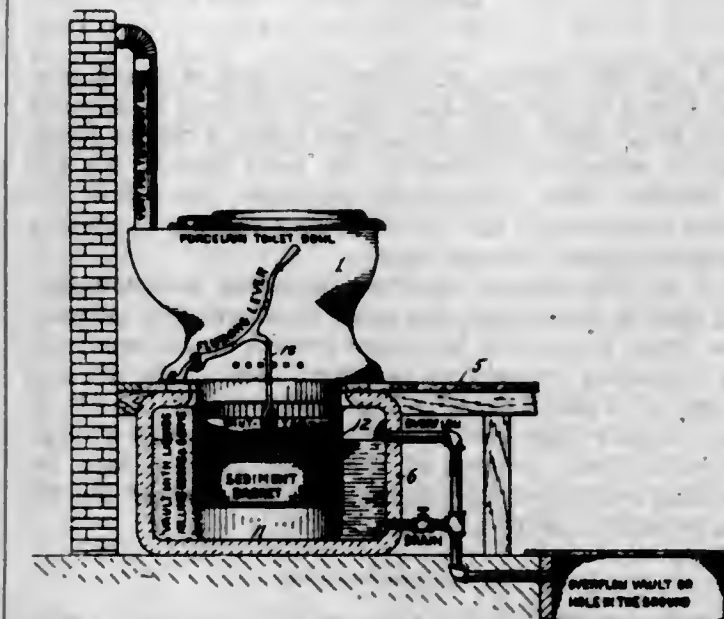
4. In an automatic rolling fire shutter, the combination of a suitably mounted shutter-receiving member, a normally operable tension member connected with a fixed part and the shutter-receiving member, an opposing tension member connected at one end with a fixed part, releasable means for holding the other end of said tension member, clutch members between said opposing tension member and shutter-receiving member for causing said opposing tension member to act on the shutter-receiving member, and a tumbler between the clutch members.

5. In an automatic rolling fire shutter, the combination of a suitably mounted shutter-receiving member, a nor-

mally operable tension member connected with a fixed part and the shutter-receiving member, an opposing tension member connected at one end with a fixed part, releasable means for holding the other end of said tension member, clutch members between said opposing tension member and shutter-receiving member for causing said opposing tension member to act on the shutter-receiving member, said clutch members being in operable contiguity in the elevated position only of the shutter.

[Claims 6 to 9 not printed in the Gazette.]

1,081,130. SYSTEM OF CLOSET SANITATION. EUGENE L. MILLER, Portland, Oreg. Filed May 28, 1913. Serial No. 770,291. (Cl. 4—20.)



1. In a device of the class described, a tank arranged to receive excrement from a closet and adapted to contain a liquid chemical for decomposing purposes, an overflow duct for said tank, a receptacle disposed in the tank to contain deposits in the latter and comprising foraminous walls, a shutter normally closing the receiving portion of said receptacle and tank and movable into the liquid in the latter for the purpose described, and means for actuating said shutter accessible from a point exterior to the tank.

2. A decomposing tank open at the top, said tank having an overflowing duct and drain at the bottom, and an opening to communicate with a closet, a shutter mechanism for said opening, and a springheld handle rising at the side of the closet for operating said shutter mechanism.

3. A decomposing tank open at the top, a receptacle fixed in said opening, said receptacle having screened sides and a cupshaped bottom, a shutter mechanism mounted in said receptacle for the purpose of normally retaining said tank opening closed, and lever devices extending above said opening for operating said shutter.

4. A device of the character described, comprising a tank adapted to contain a decomposing liquid, said tank having an overflow duct and a drain near the bottom and being adapted for connection with a closet, a screened receptacle in the tank, a shutter mechanism pivotally fixed in said receptacle, a spring held hand lever above said tank, and connections intermediate the lever and said shutter mechanism.

5. In a device of the character described, a tank containing decomposing liquids, said tank open at the top, a receptacle placed in said opening and reaching to the bottom of the tank, said receptacle having screens adjustably fixed so as to vary the height of the receptacle to suit the height of the tank, a shutter mechanism pivotally fixed in said receptacle, manually operated means for opening and closing said shutter, said means extending above the tank and having a resilient member for normally retaining said shutter in closed position.

[Claims 6 to 10 not printed in the Gazette.]

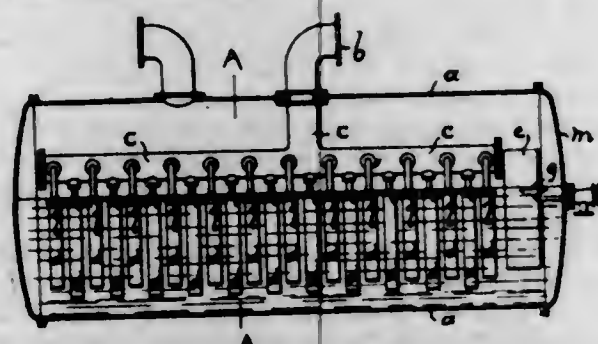
1,081,131. BIT FOR MINING MACHINES. JUSTUS J. MOORE, Springfield, Ill., assignor of one-third to W. A. Brewerton, Chicago, Ill., and one-third to Harry Thomas, Harrisburg, Ill. Filed Nov. 15, 1912. Serial No. 731,613. (Cl. 125-14.)



1. A bit for mining machines including a shank provided with a curved end, the point of which is in advance of the front face of the bit, there being a single longitudinally extending channel in the front face of the bit, said channel being transversely concaved, one end of the channel intersecting the active end of the bit to form a rearwardly bowed cutting edge.

2. A bit for mining machines including a shank provided with a curved end, the point of which is in advance of the front face of the bit, there being a single longitudinally extending channel in the front face of the bit and one end of which intersects the active end of the bit to form a cutting edge, the opposed portions of which diverge forwardly, those portions of the point between said intersecting portion of the channel and the sides of the bit being straight and in alignment.

1,081,132. STEAM-REGENERATIVE ACCUMULATOR AND WATER-HEATER. DONALD BARNES MORISON, Hartlepool, England. Filed Aug. 23, 1912. Serial No. 716,646. (Cl. 210-5.)



1. A steam regenerative accumulator having submerged steam condensing and water circulating devices, consisting of circulating tubes, steam discharge outlets disposed within said circulating tubes for directing a surface flow of water toward one end of the accumulator, water outlets in said circulating tubes arranged at one side thereof adapted to cooperate with said discharge outlets for establishing a surface flow in one direction, substantially as described.

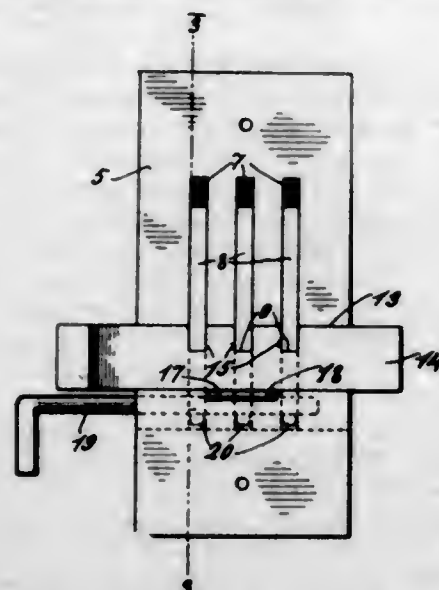
2. A steam regenerative accumulator having submerged steam condensing and water circulating devices consisting of vertical circulating tubes open at the bottom and having an outlet near the surface of the water disposed at one side of the tubes, steam pipes extending centrally into said circulating tubes and provided at their lower ends with steam discharge nozzles having outlets formed at one side adapted to cooperate with the water outlets of said circulating tubes for establishing a surface flow directed toward one end of the accumulator, an oil receiving chamber provided at the end of the accumulator to which the surface flow is directed, substantially as described.

3. A steam regenerative accumulator having submerged steam condensing and water circulating devices consisting of vertical circulating tubes open at the bottom and having an outlet near the surface of the water disposed at one side of the tube, steam pipes extending into said circulating tubes and arranged concentrically therewith, provided

at their lower ends with steam discharge nozzles, said nozzles having outlets formed at one side thereof adapted to cooperate with the water outlets of said circulating tubes for establishing a surface flow directed toward one end of the accumulator, other outlets in said steam pipes formed near the water surface and on the side in line with the water outlet of the circulating tubes, an oil receiving chamber provided at the end of the accumulator to which the surface flow is directed and means within said chamber for collecting and concentrating said oil, substantially as described.

4. A steam regenerative accumulator having submerged steam condensing and water circulating devices, consisting of vertical circulating tubes, steam discharge nozzles disposed within said tubes, steam discharge openings in said nozzles and water outlets in said circulating tubes cooperating with each other for directing a surface flow toward one end of said accumulator, an oil receiving chamber located at the end to which the surface flow is directed, said chamber provided with a non-return valve automatically closed when the surface flow ceases, and means within said chamber for collecting and concentrating the oil, substantially as described.

1,081,133. LOCK. ADOLF MOUREK, Rathbun, Iowa. Filed Sept. 13, 1913. Serial No. 789,664. (Cl. 70-76.)



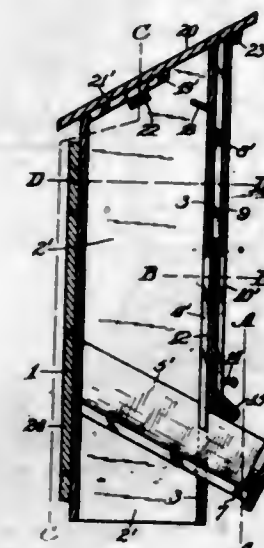
1. A lock comprising a casing having a plurality of slots, and a passage intersecting one end of the slots, said passage having an undercut portion forming a key-hole which crosses the last-mentioned ends of the slots, a bolt slidable in the passage and having notches, and tumblers slidably mounted in the slots and having shouldered portions entering the notches of the bolt when said notches are in alignment with the slots, said tumblers having reduced portions extending from the shoulders and lying in the slots back of the bolt and terminating adjacent to the key-hole.

2. A lock comprising a casing having a plurality of slots, and a passage intersecting one end of the slots, said passage having an undercut portion forming a key-hole which crosses the last-mentioned ends of the slots, a bolt slidable in the passage and having notches, said bolt projecting from opposite sides of the housing and being reversible, and tumblers slidably mounted in the slots and having shouldered portions entering the notches of the bolt when said notches are in alignment with the slots, said tumblers having reduced portions extending from the shoulders and lying in the slots back of the bolt and terminating adjacent to the key-hole.

3. A lock comprising a casing having a plurality of slots, and a passage intersecting one end of the slots, said passage having an undercut portion forming a key-hole which crosses the last-mentioned ends of the slots, a bolt slidable in the passage and having notches, and tumblers slidably mounted in the slots and having shouldered portions entering the notches of the bolt when said notches are in alignment with the slots, said tumblers having reduced portions extending from the shoulders and lying in the slots back of the bolt and terminating adjacent to the key-hole.

duced portions extending from the shoulders and lying in that portion of the slots which is intersected by the passage, and spaced from the ends of said slots which are crossed by the key-hole.

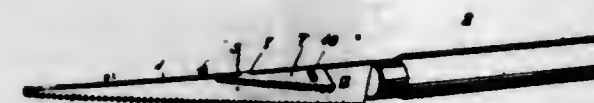
1,081,134. SALT-FEEDER FOR LIVE STOCK. ELISHA E. MYER and OSCAR P. HAWKINS, Jackson township, Fayette county, Ind. Filed May 18, 1911. Serial No. 628,001. (Cl. 119-53.)



1. In a salt-feeder for live stock, the combination with a box back and two sides secured to the back, of a front secured to the sides and having an opening therein below the middle portion and above the lower end thereof, portions of the front at opposite sides of the opening forming two guide bars, a trough-like bottom extending from the back above the lower end thereof and downward through said opening and comprising two sides that are secured together at their lower edges and extend divergently upward, the upper portions of the sides of the bottom being slotted and receiving said guide bars, and an end board secured to the ends of said two bottom sides.

2. In a salt-feeder for live stock, the combination with a box back and two sides secured to the back, of a box front secured to the sides and having an opening therein, portions of the front at opposite sides of the opening forming two rear guide bars, a bottom extending from the back forward and downward through said opening and resting upon said front at the bottom of said opening, said bottom comprising two inclined parts the outer edge portions of which are slotted and receiving portions of said guide bars, two side guides secured to said guide bars, two front guide bars secured to said side guides, a weather-board secured to said side guides above said front guide bars, a gate movable between said front and rear guide bars and between said side guides and extending upward between said box front and said weather-board, and a watershed secured to the lower forward portion of said gate and normally resting upon the upper side edges of said bottom.

1,081,135. SAW. DANIEL R. NELSON, Redlands, Cal. Filed Jan. 16, 1913. Serial No. 742,507. (Cl. 143-134.)

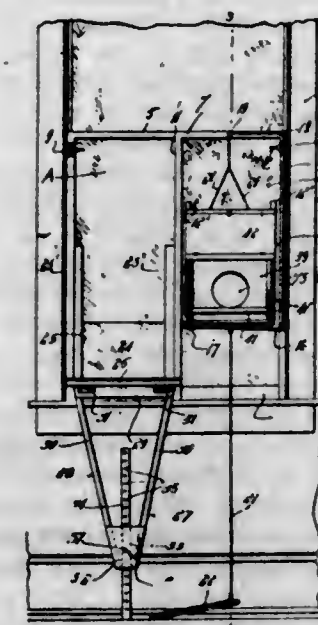


1. A saw of the character described comprising a main blade having in its upper edge a notch and having there-through a transverse passage, a supplemental saw blade having therein near its inner end a transverse aperture, a locking lug formed on the inner edge of said supplemental

blade and adapted to be engaged with the notch in the main blade, a catch engaged with the apertures in said main and supplemental blades whereby the latter is secured in operative engagement with the main blade, and means whereby said catch is held in position to fasten the supplemental blade to the main blade.

2. A saw of the character described comprising a main blade having in its upper edge a notch and having there-through a transverse passage, a supplemental saw blade having therein near its inner end a transverse aperture, a locking lug formed on the inner edge of said supplemental blade and adapted to be engaged with the notch in the main blade, a catch comprising a shank having a right angular end adapted to be engaged with the aperture in said main saw blade, a hook-shaped extremity on said angular end adapted to be engaged with the aperture in said supplemental blade whereby when said shank is sprung into engagement with the main blade, said supplemental blade will be fastened in operative position on the main blade and a spring catch on said main blade to receive said shank and hold said catch in operative position for fastening the supplemental blade to the main blade.

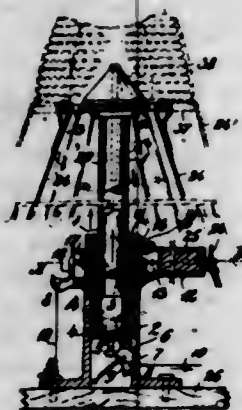
1,081,136. PRINTING APPARATUS. WILLIAM L. NOE and CLYDE M. MESNER, East Pleasant Plain, Iowa. Filed Dec. 16, 1912. Serial No. 737,153. (Cl. 95-73.)



1. In a photographic apparatus, the combination with a main frame adapted to fit a window casing, of a back board covering the frame and formed with a light opening, a printing frame supported on the main frame in rear of and in spaced relation to the opening, a vertically movable shutter arranged between the back board and the printing frame, a lever pivoted at one end to the main frame below the printing frame, a roller carried by the main frame and disposed above the shutter, and a flexible connection trained over the roller and connected at one end to the shutter and at the other end to the free end of the lever for raising the shutter above the opening upon movement in one direction of the lever.

2. In a photographic apparatus, the combination with a main frame adapted to fit a window casing, of a back board covering the frame and formed with a light opening, a printing frame supported on the main frame in rear of and in spaced relation to the opening, a vertically movable shutter arranged between the back board and the printing frame, a lever pivoted at one end to the main frame below the printing frame, a roller carried by the main frame and disposed above the shutter, a flexible connection trained over the roller and connected at one end to the shutter and at the other end to the free end of the lever, a foot lever, and a flexible connection connected at one end centrally of the first mentioned lever and at the free end of the foot lever for elevating the shutter upon downward movement of the foot lever.

1,081,137. PARACHUTE. ADOLF ODKOLEK VON AUGEDZ, Baden, near Vienna, Austria-Hungary. Filed July 31, 1912. Serial No. 712,435. (Cl. 244—21.)



1. The combination of a parachute, cords connected to the outer edge of the parachute, a plurality of tubes arranged substantially radial to the axis of the parachute, projectiles contained in said tubes and connected with the said cords, the said projectiles being adapted to be driven out by an explosive charge, and means for simultaneously firing the explosive charges in all of the radial tubes.

2. The combination of a parachute, a shooting device for opening out the parachute comprising a set of tubes, substantial radial to the axis of the parachute and adapted to receive explosive charges, plungers in such tubes being adapted to be driven out by such shooting device, means for connecting such plungers with the edges of the parachute, and means for simultaneously firing the explosive charges in all of the radial tubes.

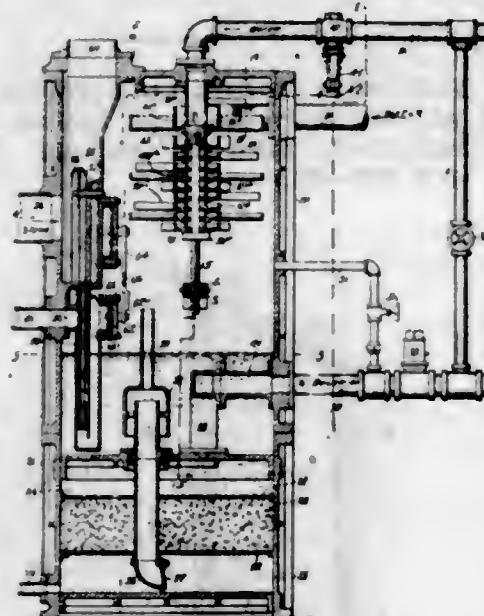
3. The combination of a parachute, a shooting device for opening out the parachute comprising a set of tubes substantial radial to the axis of the parachute and adapted to receive explosive charges, plungers in such tubes being adapted to be driven out by such shooting device, means for connecting such plungers with the edges of the parachute and means for simultaneously firing the explosive charges in all of the radial tubes, such latter means comprising a channel communicating with all the tubes of the shooting device and adapted to receive an explosive charge, a firing mechanism for the explosive charge in the said channel and means for actuating this firing mechanism.

4. The combination of a parachute, a shooting device for opening out the parachute comprising plungers being adapted to be driven out by such shooting device, means for connecting such plungers with the edges of the parachute and means for shooting off the parachute from a stationary support, such means comprising a tube adapted to receive a driving charge, a sleeve adapted to slide along the said shooting off tube, the shooting device for opening out the parachute being secured to such sleeve.

5. The combination of a parachute, a shooting device for opening out the parachute comprising a set of tubes substantial radial to the axis of the parachute and adapted to receive explosive charges, plungers in such tubes being adapted to be driven out by such shooting device, means for connecting such plungers with the edges of the parachute and means for simultaneously firing the explosive charges in all of the radial tubes, such latter means comprising a channel communicating with all the tubes of the shooting device and adapted to receive an explosive charge, a firing mechanism for the explosive charge in the said channel, means for shooting off the parachute from a stationary support, such means comprising a tube adapted to receive a driving charge, a sleeve adapted to slide along the said shooting off tube, the shooting device for opening out the parachute being secured to such sleeve, a firing cord having attached one of its ends to the firing mechanism for the explosive charge in the communicating channel and its other end to the stationary support.

[Claims 6 to 14 not printed in the Gazette.]

1,081,138. FEED-WATER HEATER AND PURIFIER. THOMAS OPIN ORGAN, Philadelphia, Pa. Filed Apr. 22, 1910. Serial No. 556,970. (Cl. 62—31.)



1. A feed water heater provided with a shell, means for supplying water to the interior of the shell, a steam inlet, a passage for leading a portion of the steam into contact with the water to be heated, a sliding valve for varying the amount of steam admitted through said passage, an outlet for the remaining portion of the steam, an overflow, a valve arranged to slide in the same direction as the first-named valve and controlling the connection from the interior of the shell to the overflow, a yoke connecting said sliding valves, and means for operating the yoke.

2. A heater provided with an oil separator having an inlet for impure steam and an outlet for purified steam, said outlet being located in the wall of the separator which is opposite to the inlet, and being provided with a flange projecting toward the inlet, a chest, the inlet of which is formed by the outlet of the separator, said chest having an outlet to the interior of the heater, and a valve located within said chest and controlling its outlet.

3. A heater provided with an oil separator having an inlet for impure steam and an outlet for purified steam, said outlet being located in the wall of the separator which is opposite to the inlet, and being provided with a flange projecting toward the inlet and also with an oil outlet forward of the steam outlet, a chest, the inlet of which is formed by the purified steam outlet of the separator, said chest having an outlet to the interior of the heater, and a valve located within said chest and controlling its outlet.

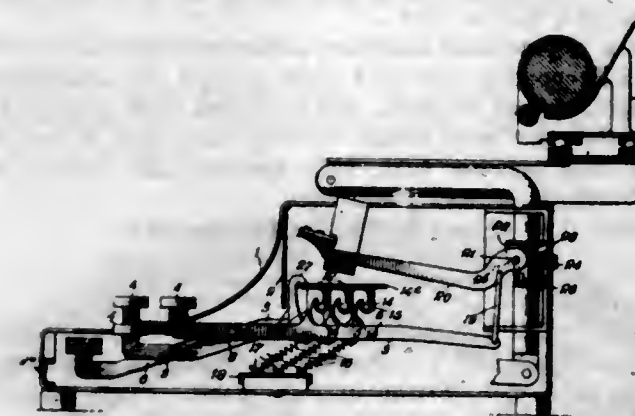
1,081,139. THERMOMETER. LAWRENCE E. PARLIMAN, Sea Cliff, N. Y. Filed Aug. 13, 1912. Serial No. 714,833. (Cl. 73—52.)



A thermometer comprising a base adapted to be fastened to the inside wall of a room and provided with a graduated scale, a tube mounted on the base and arranged for cooperation with the scale to indicate the temperature

of the room, a second tube having its bulb portion extending through the wall and into the external atmosphere, packing around the tube within the house-wall, a bushing forming a plug to retain the packing and further forming a collar for the tube, a basket fitted over the outside bulb and forming a guard therefor, and means securing the basket and bushing to the outside wall, substantially as described.

1,081,140. KEYBOARD FOR TYPE-WRITING MACHINES. OTTO PETERMANN, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company, a Corporation of New York. Filed June 12, 1909. Serial No. 501,853. (Cl. 197—98.)



1. In a typewriting machine, the combination of a key-lever, a bearing bar attached thereto and extending from opposite sides thereof, knife-edged bearings carried by the bar, and a support for said bearing bar.

2. In a typewriting machine, the combination of a key-lever, a bearing plate having grooves, a bearing bar attached to the key-lever and having knife-edged bearing portions arranged in said grooves.

3. In a typewriting machine, the combination of a base plate, a grooved bearing plate secured thereto, a series of key-levers, and bearing bars connected with the key-levers having knife-edged bearing portions arranged in the grooves on opposite sides of the key-levers.

4. In a typewriting machine, the combination with a transverse bar extending across the machine and having its ends mounted in the sides thereof, of key-levers having suspension members, and hooked members on said transverse bar for suspending said levers in sets.

5. In a typewriting machine, the combination with a transverse bar extending across the machine, of a plurality of supports having upwardly curved lower edges, and key-levers suspended from the curved edges of said supports.

[Claims 6 to 23 not printed in the Gazette.]

1,081,141. BAR MECHANISM FOR TYPE-WRITING MACHINES. OTTO PETERMANN, Groton, N. Y., assignor to Standard Typewriter Company, Groton, N. Y., a Corporation of New York. Filed Feb. 16, 1910. Serial No. 544,209. (Cl. 197—38.)



1. The combination of a hanger, and a type-bar having a pivotal connection in said hanger at the central portion thereof and on one side only and a relatively large and

197 O. G.—80

concentric plane surface bearing directly against the hanger on the opposite side of said type-bar.

2. The combination of a hanger, and a type-bar having a pivotal connection in said hanger at the central portion thereof and on one side only, and a relatively large and concentric rib forming a plane surface bearing directly against the hanger on the opposite side only of said type-bar.

3. The combination of a hanger having two relatively adjustable members, a type-bar having a central opening, a pivot entering said opening and bearing on said bar at one side only, and a relatively large and concentric surface bearing directly against the hanger on the side of said type-bar opposite the pivot, and means in alignment with the pivot whereby the two members may be adjusted to take up any wear.

4. The combination of a hanger having two members, a type-bar having a central opening, a pivot entering said opening and bearing on said bar at one side only and a relatively large concentric rib on the type-bar forming a bearing surface between the bar and the hanger on the side of said type-bar opposite the pivot, and means in alignment with the pivot whereby the two members may be adjusted to take up any wear.

5. The combination of a hanger having two opposed members, a type-bar, a pivot for said type-bar bearing against said bar at one side only and a relatively large and concentric surface bearing directly against the hanger on the side of said type-bar opposite the pivot, and means whereby the two members may be adjusted to take up any wear.

[Claims 6 to 22 not printed in the Gazette.]

1,081,142. KEYBOARD. OTTO PETERMANN, Groton, N. Y., assignor to Standard Typewriter Company, Groton, N. Y., a Corporation of New York. Filed Jan. 17, 1911. Serial No. 603,121. (Cl. 197—98.)



1. In a typewriting machine, the combination with a plurality of transversely-extending supporting rods, of a plurality of key-levers suspended from said rods in groups and each key-lever having its body portion formed with an integral suspending head intermediate its ends and comprising an upwardly-projecting bearing part, an integral reach bar arranged at right angles to said part, an integral bearing portion at right angles to said reach bar and in alignment with the first-mentioned bearing part, said aligned bearing parts having apertures therein to fit the rods and arranged to bear directly against the bearing parts of the key-lever next adjacent thereto.

2. In a typewriting machine, the combination with a support, of key-levers each provided with a horizontally arranged body having an integral suspending head intermediate the ends and extending laterally on one side only of the body of the lever.

3. In a typewriting machine, the combination with a support, of a plurality of key-levers each provided with an integral suspending head located above the body of the key-lever intermediate the ends and extending on one side only of said body, said head having spaced bearing parts and a bar connecting said parts at the vertical edges thereof.

4. In a typewriting machine, a key-lever having a substantially horizontally-extending body portion, a bearing part extending from one edge and intermediate the ends thereof and provided with an aperture, an integral reach and spacing bar located at the front edge of said bearing portion and at right angles thereto, and a lug at right angles to the reach bar and having an aperture in alignment with the aperture of the projecting part.

5. In a typewriting machine, a key-lever provided with a suspending head intermediate the ends of said lever and having spaced and apertured integral bearing parts in substantial alignment.

[Claims 6 to 8 not printed in the Gazette.]

1,081,143. BAR MECHANISM FOR TYPE-WRITING MACHINES. OTTO PETERMANN, Groton, N. Y., assignor to Standard Typewriter Company, Groton, N. Y., a Corporation of New York. Filed Jan. 17, 1911. Serial No. 603,123. (Cl. 197—39.)



1. The combination of a support, a type-bar having an annular bearing surface bearing directly against the support on one side thereof, a single ball forming a bearing for the other side of said type-bar and serving as a pivot therefor, and means for adjusting the ball in the direction of wear.

2. The combination of a support, a type-bar having a plane bearing surface bearing directly against the support on one side thereof, and a single ball held partly by the support and forming a bearing for the other side of said type-bar and serving as a pivot therefor.

3. The combination of a support having a plurality of relatively adjustable members, a type-bar having a plane bearing surface bearing directly against one of the members of the support on one side thereof, a body engaging the type-bar on one side thereof opposite the bearing surface and forming a pivot for the type-bar, and means for adjusting the members and moving the pivoting body in the direction of wear.

4. The combination of a support, a type-bar having a plane annular bearing surface bearing directly against the support on one side only thereof, a body engaging the type-bar on one side thereof opposite the bearing surface and forming a pivot for the type-bar, and means for adjusting the body in the direction of wear.

5. In a typewriting machine, the combination with a type-bar having a plane bearing portion, of a hanger comprising two members forming a space between them for the end of the type-bar, a central single ball bearing for the type-bar between one surface thereof and one member of the hanger, and a relatively large and concentric plane wearing surface between the type-bar and the other member of the hanger.

[Claims 6 to 20 not printed in the Gazette.]

1,081,144. KEYBOARD. OTTO PETERMANN, Groton, N. Y., assignor to Standard Typewriter Company, Groton, N. Y., a Corporation of New York. Filed May 12, 1911. Serial No. 626,729. (Cl. 197—106.)



1. In a typewriting machine, a key-lever having a body provided with a rib lengthwise thereof, two aligned bearing lugs arranged above said body, and integral bearings projecting from said bearing lugs.

2. In a typewriting machine, a key-lever having a corrugated body and two aligned integral and suspending bearing lugs each having an extended integral bearing.

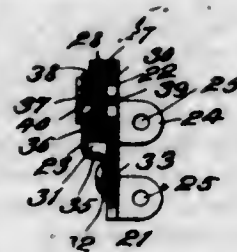
3. In a typewriting machine, a key-lever having a corrugated body, and integral corrugated and suspending bearing lugs.

4. In a typewriting machine, a key-lever formed of a single piece of metal and comprising a thin sheet metal body provided with an angular end for attachment to a type-bar and its other end provided with means as a key portion for said lever, bearing lugs located above the body, a bar projecting from one bearing lug on one side of the body for spacing said bearing lugs apart, said bearing lugs having extended bearings pressed therefrom, and corrugations extending along the body portion, the bearing lugs and the spacing bar.

5. In a typewriting machine, a key-lever having a sheet metal body portion provided with an end for attachment to a type-bar and its other end provided with means as a key portion for said lever, bearing lugs, and a bar for spacing said bearing lugs, said bearing lugs having annular bearings pressed therefrom.

[Claims 6 to 11 not printed in the Gazette.]

1,081,145. TYPE-WRITING MACHINE. OTTO PETERMANN, Groton, N. Y., assignor to Standard Typewriter Company, a Corporation of New York. Filed Sept. 13, 1913. Serial No. 789,625. (Cl. 197—38.)



1. The combination of a plate-like hanger member having means for securing the same to a support and having an annular rib on one side thereof, a plate-like spring member secured at one end to the first-mentioned member and offset therefrom and provided with an integral cup-shaped body forming a bearing, a type-bar having an annular rib on one side bearing directly against the rib of the first-mentioned member and having a tapering opening receiving the body of the spring member, and a screw passing centrally through the cup-shaped bearing, the body of the spring member, and the type-bar, and held to the first-mentioned hanger member for adjusting the plate-like spring member and bearing portion in the direction of wear.

2. The combination of a plate-like member having means for securing the same to a support and having an annular rib on one side thereof, a plate-like yielding member secured at one end to the first-mentioned member and offset therefrom, a body forming a bearing carried by the yielding member at its free end, a type-bar having an annular rib on one side bearing directly against the rib of the first-mentioned member and having a tapering opening receiving the body of the yielding member, and means passing through the body and serving as means for forcing the members toward each other.

3. The combination of a member having means for securing the same to a support and having an annular rib on one side thereof, and a plate-like member secured at one end to the first-mentioned member and offset therefrom and provided with a cup-shaped body forming a bearing at its free end, a type-bar having an annular rib on one side bearing directly against the rib of the first-mentioned member and having a tapering opening receiving the body of the plate-like member, and a screw passing centrally through the cup-shaped bearing, the type-bar and said members.

4. The combination of a plate-like member having means for securing the same to a support and provided with a bearing rib, a plate-like member secured at one end to the first-mentioned member and offset therefrom and

provided with an integral cup-shaped body forming a bearing, a type-bar bearing directly against the rib of the first-mentioned member and having a tapering opening receiving the body of the second member, and means for adjusting the members in the direction of wear.

5. The combination of a member having means for securing same to a support and having an annular rib on one side thereof, a second member secured at one end to the first mentioned member and offset therefrom and provided with a cup-shaped body forming a bearing at its free end, a type-bar bearing directly against the rib of the first-mentioned member and receiving the cup-shaped body of the second member, and a screw passing centrally through the cup-shaped body, the type-bar and the said member.

[Claims 6 to 16 not printed in the Gazette.]

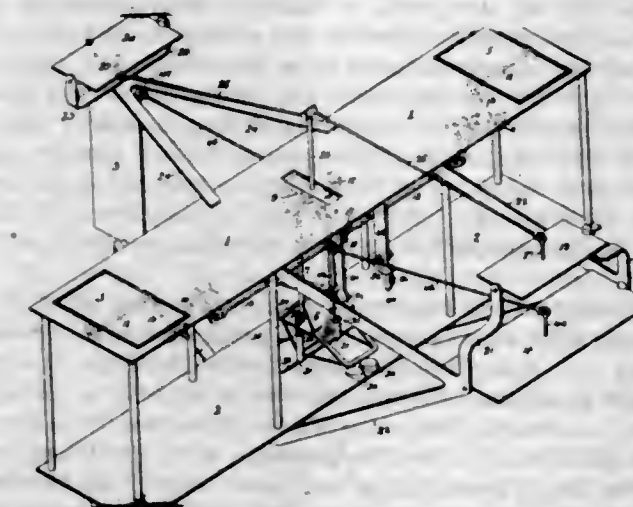
1,081,146. SPRING-WHEEL. FRANZ W. PRAMSCHÜFER, Baltimore, Md. Filed Nov. 20, 1912. Serial No. 732,500. (Cl. 152—37.)



1. A wheel, comprising a hub, spokes, a rim embodying side flanges, a tire embodying side flanges sliding in contact with the rim flanges, an endless chain extending circumferentially around the rim and within the tire, springs arranged alternately at opposite sides of said chain and interposed between said chain and the rim and tire, and spring holding caps included in and forming parts of said chain.

2. A wheel, comprising a hub, spokes, a rim embodying side flanges, a tire embodying side flanges sliding in contact with the rim flanges, an endless chain extending circumferentially around the rim and within the tire, springs arranged alternately at opposite sides of said chain and interposed between said chain and the rim and tire, and spring holding caps included in and forming parts of said chain and provided with recessed seats in which the ends of the springs are held.

1,081,147. AEROPLANE. BURT J. PRESSEY, Newport News, Va. Filed Nov. 19, 1908. Serial No. 463,460. (Cl. 244—29.)



1. An aeroplane having a universally-swinging and gravity-influenced weight, means for correcting lateral dip of the main plane, means for correcting longitudinal dip of said main plane, connections between said dip-correct-

ing means and said universally-swinging weight whereby the latter constitutes the motive power for operating said dip-correcting means, and manually operated longitudinal dip-controlling means independent of the dip-correcting means, all of said dip-correcting and controlling means comprising surfaces adjustable to different angles of incidence to the air flowing past the plane.

2. An aeroplane having fore and aft supplemental planes, a swinging and gravity-influenced aviator's seat connected to said planes and causing them to act together to correct longitudinal dip of the main plane, and a manually operated plane for controlling such longitudinal dip.

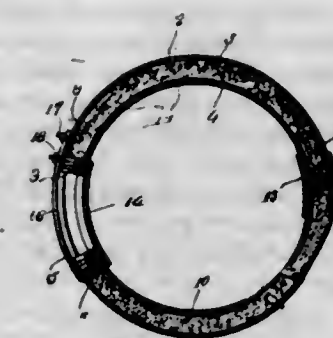
3. An aeroplane having means for correcting lateral dip thereof, means for correcting longitudinal dip, a universally-swinging weight, means connecting said weight to said longitudinal and lateral dip-correcting means, whereby it serves as the motive power for operating the same and permits operation of the longitudinal-dip-correcting means independently of the lateral-dip-correcting means and vice-versa, and manually operated longitudinal dip-controlling means, independent of the dip-correcting means, all of said dip-correcting and controlling means comprising surfaces adjustable to different angles of incidence to the air flowing past the plane.

4. An aeroplane having, at port and starboard, means for correcting lateral dip of the main plane, a transverse rod connecting said means, and a universally-swinging and gravity-influenced weight for operating the same, the suspending devices for the weight having a rod-operating arm concentric with the transverse axis of said suspending devices, whereby the longitudinal dip of the main plane is prevented from affecting the position of the lateral-dip-correcting means.

5. An aeroplane having, in combination, a main plane, a gravity-influenced and universally-swinging weight, a bolt carried by one of said parts and adapted to engage the other part so as to prevent forward or aft dip of the plane independently of the weight, means connected with the weight for correcting lateral dip of the main plane, means connected with the weight for correcting longitudinal dip of the main plane, and means for engaging and disengaging the bolt, whereby, while the weight is continuously operative to actuate the means for correcting lateral dip, it may be rendered operative or inoperative to actuate the means for correcting longitudinal dip.

[Claims 6 to 19 not printed in the Gazette.]

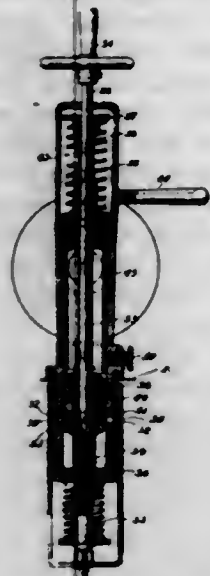
1,081,148. REMEDIAL APPLIANCE. SIDNEY QUAYLE, Hillsboro, Tex. Filed Dec. 17, 1912. Serial No. 737,238. (Cl. 128—39.)



A remedial appliance comprising a hollow annular body formed of substantially counterpart sections, each of said sections being permanently closed at one end and provided with a removable plug for closing the opposite end thereof, the closed ends of said sections being hingedly connected and the inner faces of the respective sections having perforations formed therein, a covering strip secured to the closed end of one of the sections to extend across the joint and overlap the closed end of the other section on the inner surface of the hollow body, a covering and guide strip upon the inner face of the open end of one of the sections adapted to bridge the intervening joint and overlap the open end of the other section, a fastening strip secured at one end to the outer surface of the closed end of one section and adapted to overlap the outer surface

of the closed end of the other section, said strip having a longitudinal slot therein, threaded projections upon the closed end of the latter named section adapted to project through said slot, nuts carried by said threaded projections to engage said slotted strip and adjustably fasten the sections together, and a body of absorbent medicament carrying material within each body section.

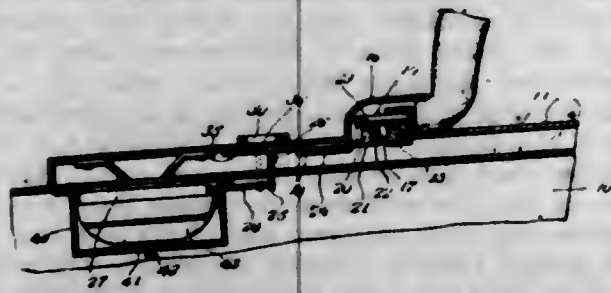
1,081,149. APPARATUS FOR CONTROLLING THE DELIVERY OF LIQUIDS. ALFRED ARTHUR QUICK, Chilton Hill, Victoria, Australia. Filed Apr. 12, 1909. Serial No. 489,427. (Cl. 226-18.)



1. In an apparatus for controlling the delivery of liquids from a supply vessel into a receiving vessel; a tap device for connecting said vessels with each other comprising a casing adapted for connection with the supply vessel and having an intake opening; a socket attached to the cover of the receiving vessel, and provided with a pin; a cup connected to said casing and adapted to project into said socket, said cup being formed with a spiral groove for engagement by said pin; a hollow plug valve arranged within said casing; and a handle for operating said plug, said cup and socket being provided with co-acting means for permitting communication between the cup and the interior of the receiving vessel.

2. In an apparatus for controlling the delivery of liquids from a supply vessel into a receiving vessel; a tap device for connecting said vessels with each other comprising a casing adapted for connection with the supply vessel and having an intake opening; a socket attached to the cover of the receiving vessel; a slotted screw projecting into said socket; a cut-off device to which said screw is connected; a cup connected to said casing and adapted to project into said socket, said cup and socket being provided with co-acting means for permitting communication between the cup and the interior of the receiving vessel; a valve arranged within said cup for coaction with said screw; and a rod extending longitudinally through said tap device and provided at one end with an operating handle and at its other end with a key adapted for reception in the slot in said screw.

1,081,150. AUTOMATIC SUITCASE-ALARM. PATRICK H. EAD, New Philadelphia, Ohio. Filed May 3, 1913. Serial No. 765,314. (Cl. 116-44.)



1. An alarm attachment comprising a casing adapted to be mounted on a traveling bag, a swinging handle connected

with the casing, a sounding device fixed to the casing and depending within the traveling bag, a plunger movably connected with the casing interiorly thereof, a spring held latch member engageable with the plunger to hold the same retracted, a tap arm formed on the said plunger and adapted to actuate the sounding device, means for moving the plunger in operative relation to the said sounding device, and means operative by the handle for releasing the latch from the plunger and also freeing the latter whereby its tap arm will be brought into operative relation to the sounding device for actuating the same.

2. An alarm attachment comprising a casing adapted to be mounted on a traveling bag, a swinging handle connected with the casing, a sounding device fixed to the casing and depending within the traveling bag, a plunger movably connected with the casing interiorly thereof, a spring held latch member engageable with the plunger to hold the same retracted, a tap arm formed on the said plunger and adapted to actuate the sounding device, means for moving the plunger in operative relation to the said sounding device, means operative by the handle for releasing the latch from the plunger and also freeing the latter whereby its tap arm will be brought into operative relation to the sounding device for actuating the same, and a key receiving barrel mounted upon the casing and adapted to receive a key for effecting the retracting of the plunger after operating the sounding device.

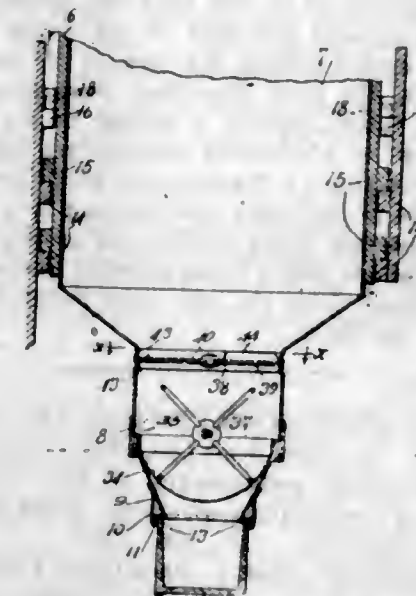
3. An alarm attachment comprising a casing adapted to be mounted on a traveling bag, a swinging handle connected with the casing, a sounding device fixed to the casing and depending within the traveling bag, a plunger movably connected with the casing interiorly thereof, a spring held latch member engageable with the plunger to hold the same retracted, a tap arm formed on the said plunger and adapted to actuate the sounding device, means for moving the plunger in operative relation to the said sounding device, means operative by the handle for releasing the latch from the plunger and also freeing the latter whereby its tap arm will be brought into operative relation to the sounding device for actuating the same, a key receiving barrel mounted upon the casing and adapted to receive a key for effecting the retracting of the plunger after operating the sounding device, and a safety device movable into the path of movement of the plunger and adapted to be operated by the key when inserted in the barrel on the turning of the said key in one direction.

4. An alarm attachment comprising a casing adapted to be mounted on a traveling bag, a swinging handle connected with the casing, a sounding device fixed to the casing and depending within the traveling bag, a plunger movably connected with the casing interiorly thereof, a spring held latch member engageable with the plunger to hold the same retracted, a tap arm formed on the said plunger and adapted to actuate the sounding device, means for moving the plunger in operative relation to the said sounding device, means operative by the handle for releasing the latch from the plunger and also freeing the latter whereby its tap arm will be brought into operative relation to the sounding device for actuating the same, a key receiving barrel mounted upon the casing and adapted to receive a key for effecting the retracting of the plunger after operating the sounding device, a safety device movable into the path of movement of the plunger and adapted to be operated by the key when inserted in the barrel on the turning of the said key in one direction, and means on the casing for guiding the plunger in its movement.

5. An alarm attachment comprising a casing adapted to be mounted on a traveling bag, a swinging handle connected with the casing, a sounding device fixed to the casing and depending within the traveling bag, a plunger movably connected with the casing interiorly thereof, a spring held latch member engageable with the plunger to hold the same retracted, a tap arm formed on the said plunger and adapted to actuate the sounding device, means for moving the plunger in operative relation to the said sounding device, means operative by the handle for releasing the latch from the plunger and also freeing the latter whereby its tap arm will be brought into operative re-

lation to the sounding device for actuating the same, a key receiving barrel mounted upon the casing and adapted to receive a key for effecting the retracting of the plunger after operating the sounding device, a safety device movable into the path of movement of the plunger and adapted to be operated by the key when inserted within the barrel on the turning of the said key in one direction, means on the casing for guiding the plunger in its movement, and means on the casing for guiding the safety device in its movement.

1,081,151. KITCHEN-CABINET. HENRY J. RITTER, Tippecanoe City, Ohio, assignor to The Tipp Building and Manufacturing Company, Tippecanoe City, Ohio, a Corporation of Ohio. Filed June 20, 1911. Serial No. 636,041. (Cl. 45-16.)



1. In a kitchen cabinet, a flour bin, means for slidably supporting said bin within said cabinet, and stops to limit the forward movement of said bin and permit the tilting thereof, said stops being separable to permit said bin to be removed when in its foremost position and said supporting means holding said bin against tilting until said stops become operative.

2. A kitchen cabinet having a compartment, a flour bin mounted in said compartment, bars rigidly secured to the walls of said compartment on opposite sides of said bin, said bars terminating at a point removed from the front of said compartment, bars rigidly secured to the opposite sides of said bin above said first-mentioned bars and terminating at points removed from the rear wall of said bin, a stop block rigidly secured to the side walls of said compartment above said bars, and stops carried by said bin and arranged to engage said stop blocks to limit the forward movement of said bin and to form a center about which the bin may be tilted, the rearward movement of the lower portion of said bin being limited by the rear ends of the bars carried by said bin engaging the forward ends of the bars secured to the walls of said compartment.

3. A cabinet having a compartment, an ice receptacle movably supported in the upper portion of said compartment, ventilating openings formed near the top and bottom of said compartment, tubular linings mounted in said openings and projecting beyond the outer ends thereof, sleeves surrounding the projecting ends of said tubular linings having turned flanges at the outer ends thereof to engage the ends of said tubes and outturned flanges at the inner ends thereof to be secured to the walls of said cabinet, and caps removably mounted on said sleeves to close the ends of said tubular linings.

4. In a kitchen cabinet, a flour bin having a hopper, a cylindrical extension to said hopper having a pair of annular beads and provided with a circumferential slot between said beads, a plate mounted within said extension and between said beads and having openings therein, a second plate pivotally mounted on the first-mentioned plate between said beads and having wings adapted to close said openings and upwardly extending flanges to en-

gage the flour on those portions of said first-mentioned plate between said openings, a thumb piece secured to said pivoted plate and extending through said slot, a screen detachably secured to the lower end of said extension, and an agitator mounted within said extension.

5. In a kitchen cabinet, a flour bin, means for slidably supporting said bin within said cabinet, and stops to limit the forward movement of said bin and to act as a center about which said bin may be tilted, said stops being in a different plane than said supporting means and separable to permit said bin to be removed when in its foremost and tilted position.

[Claims 6 to 9 not printed in the Gazette.]

1,081,152. ADJUSTABLE CONCEALED AUTO-STRAP FASTENER. GEORGE E. ROBINSON, Medford, Oreg. Filed May 27, 1912, Serial No. 699,984. Renewed Aug. 13, 1913. Serial No. 784,611. (Cl. 24-206.)



1. A device of the character described comprising a body portion, bars carried by the side walls of said body portion and provided with aligned notches, said bars being provided with curved ends, the curved ends of said bars being in spaced relation to the bottom of said body portion, a pivot pin passing through the side walls of said body portion, a cover with the side walls at one end separated from the central portion to form pivot ears pivotally connected with said pivot pin and the central portion being curved to form a stop passing between the side walls of said body portion and engaging the curved ends of said bars to limit the pivotal movement of said cover, a strap fitting within said body portion, and a bar carried by the inner end of said strap and having its ends fitting within said notches whereby said strap will be held in an adjusted position when said cover is closed.

2. A device of the character described comprising a body portion, bars extending along the side walls of said body portion, a pivot pin passing through said body portion, a cover with the side walls at one end separated from the central portion to form pivot ears pivotally connected with said pivot pin and the central portion being bent to form a stop passing between the side walls of said body portion and engaging said bars to limit the pivotal movement of said cover, a strap fitting within said body portion, and means at the inner end of said strap to adjustably connect said strap with said bars and held in its adjusted position by the closing of said cover.

1,081,153. RING-SETTING. RUBIN ROSENTHAL, New York, N. Y. Filed Mar. 14, 1913. Serial No. 754,218. (Cl. 63-27.)

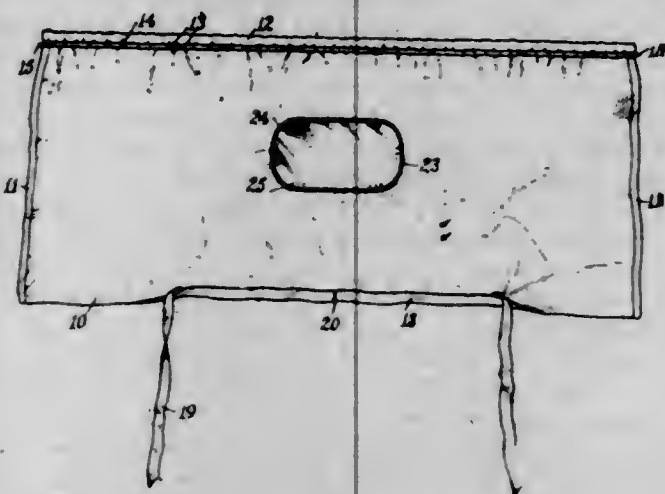
1. A ring setting comprising a body portion formed with retaining prongs, and a tapering tubular extension at the base of the body portion, an integral external downwardly facing shoulder being formed at the juncture of the body and extension and aiding in securing a coincidence and merger between the lines of the outer side of the body of

the setting and those of the ring to which the setting is applied, the wall of the extension being of less thickness than that of the body portion, and the setting having a bore extending from end to end through the body portion and extension and tapering toward its inner end on an uninterrupted line, all substantially as described, whereby the thickness and strength is secured in the body of the setting, the uninterrupted bore is unaffected and the desired strength of connection with a ring is aided by the shouldered construction of the setting, substantially as set forth.



2. In a setting of the class described, the combination with a ring having a shouldered portion in which is arranged a tapering aperture, said shouldered portion having a flat annular upper face, of a setting comprising a body portion formed with retaining prongs, and a tapering tubular extension at the base of the body portion, an integral external downwardly facing shoulder being formed at the juncture of the body and extension and aiding in securing a coincidence and merger between the lines of the outer side of the body of the setting and those of the ring to which the setting is applied, the wall of the extension being of less thickness than that of the body portion, and the setting having a bore extending from end to end through the body portion and extension and tapering toward its inner end on an uninterrupted line, all substantially as described, whereby the thickness and strength is secured in the body of the setting, the uninterrupted bore is unaffected and the desired strength of connection with a ring is aided by the shouldered construction of the setting, substantially as set forth.

1,081,154. AUTOMOBILE-VEIL. MAX SALTZ, New York, N. Y. Filed June 23, 1913. Serial No. 775,226. (Cl. 2—118.)



1. An automobile veil comprising a rectangular blank, a continuous elastic band arranged at the top portion of the blank, a transparent front portion mounted in the blank and totally surrounded by the material thereof, and a tying member mounted at the bottom portion of the blank.

2. An automobile veil comprising a rectangular blank, a continuous elastic band arranged at the top portion of the blank, a transparent front portion mounted in the blank and totally surrounded by the material thereof, and a tying member mounted at the bottom portion of the blank, said transparent front portion being of such width

as to project beyond the sides of the head and having a plurality of spaced apertures near its edge portion.

3. A veil of the class described, comprising a blank section of cloth, a sight section for the front portion of the veil, an elastic of continuous form carried by the top edge of the veil, and means at the bottom edge of the veil for securing the same around the neck of the wearer.

4. An automobile veil, consisting of a rectangular blank of partially transparent cloth having end folds and a top fold with an adjacent casing, an endless elastic carried in the casing to permit the end folds to be joined or separated and said top edge to be shirred, a section of transparent celluloid secured in an opening in the front portion of the blank and provided at spaced points with openings near its edge, a fold centrally of the bottom edge of the blank, and a tape disposed in the fold and anchored centrally, the ends of the tape projecting beyond the fold and being adapted to be tied back for bunching the parts of the blank beyond the ends of the latter fold and for securing the device around the neck of the wearer.

5. A veil of the class described, comprising a blank of close woven fabric having a casing at its top portion, means engaged in the casing for drawing the top portion of the veil together, a transparent front portion secured in an aperture in the blank and inclosed by the latter, said transparent portion being flexible and provided with a plurality of openings, and a tying member at the bottom portion of the blank with the free ends terminating short of the ends of the blank.

1,081,155. WATERPROOF CEMENT AND METHOD OF MAKING. ROBERT SCHULER, New York, N. Y., assignor, by mesne assignments, to The Gibraltar Stone Company, a Corporation of Ohio. Filed Mar. 18, 1913. Serial No. 755,244. (Cl. 106—43.)

1. A water-proof cement comprising Portland cement, alum, a soluble soap, pozzuolana cement and hydrated lime, mixed together.

2. A water-proof cement mixture comprising 200 parts, Portland cement, 3 parts alum, 3 parts potash soap, 28 parts pozzuolana cement, and 24 parts hydrated lime, thoroughly intermixed.

3. The process of producing a water-proof Portland cement, which comprises mixing separate portions of the cement with suitable amounts of alum, soluble soap, pozzuolana cement and hydrated lime, and thereafter mixing these portions together.

4. The process of producing a water-proof Portland cement, which comprises thoroughly mixing separate portions of the cement with 3 parts alum, 3 parts potash soap, 28 parts pozzuolana cement and 24 parts hydrated lime, and thereafter mixing the separate portions thoroughly with each other, the total amount of Portland cement being 200 parts.

1,081,156. LOCK-SEAL BOTTLE. JOHN SHARP, San Bernardino, Cal., assignor of one-half to Clifford A. Greenleaf, San Bernardino, Cal. Filed Feb. 10, 1913. Serial No. 749,414. (Cl. 215—108.)



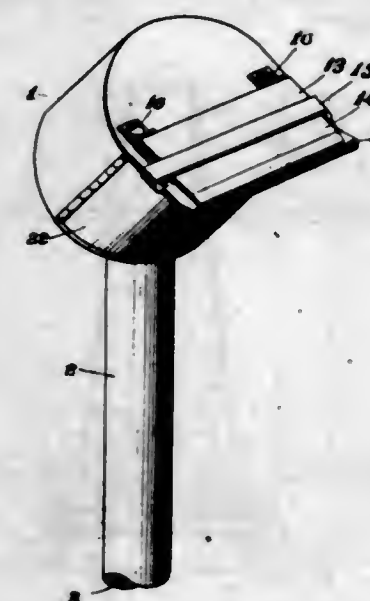
1. A device of the class described including a receptacle having a neck provided with opposite interiorly arranged sockets and having a frangible portion constituting the outer wall of the socket, a stopper provided with an opening, a sleeve arranged on the stopper and having opposite

openings registering with the opening of the stopper, and a resilient locking device extending through the openings of the stopper and the sleeve and expansible to engage the interior sockets of the neck and adapted to be removed by breaking the said frangible portion, said stopper and sleeve having coacting portions, whereby the sleeve is adapted to be rotated by the stopper to carry an imperforate portion of the said sleeve to the frangible portion when the locking device is removed.

2. A device of the class described including a receptacle having a neck provided with interiorly arranged sockets and having a frangible portion constituting the outer wall of one of the sockets, a stopper provided with an opening and having a projecting head and provided beneath the same with a lug, a sleeve surrounding the stopper and having opposite openings to register with that of the stopper and provided in its upper edge with a recess receiving the lug of the stopper, whereby the sleeve is adapted to be rotated by the stopper to carry an imperforate portion of the former opposite the frangible portion of the neck, and a resilient locking device extending through the openings of the stopper and the sleeve and adapted to engage the recesses of the neck.

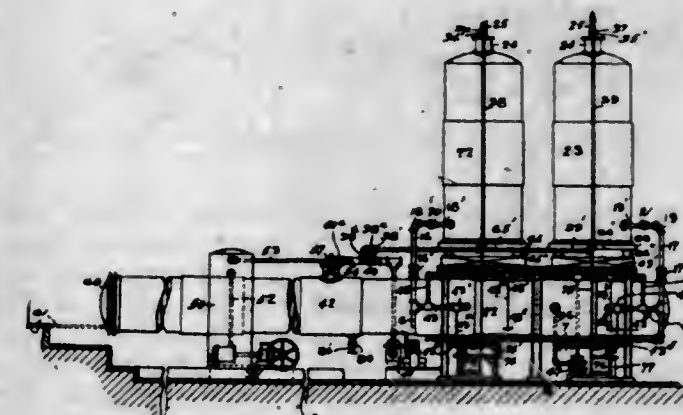
3. A device of the class described including a receptacle having a neck provided with an interiorly arranged socket and having a frangible portion constituting the outer wall of the socket, a stopper provided with an opening, a sleeve arranged on the stopper and having an opening registering with the opening of the stopper and with the said socket, a resilient locking device arranged in the openings of the stopper and the sleeve and engaging the said socket and being of a size to permit it to be removed through the socket when the outer wall thereof is broken, said stopper and sleeve being provided with coacting interlocking parts, whereby the sleeve is adapted to be rotated by the stopper to carry an imperforate portion of the sleeve to the said socket to cover the same when the locking device is removed.

1,081,157. SAFETY-RAZOR. MATTHEW C. SHARPNECK, Cornville, Ariz., assignor of one-half to E. Block, Prescott, Ariz. Filed Mar. 4, 1911. Serial No. 612,234. (Cl. 30—12.)



In a safety razor, a casing, motor driven gear mechanism arranged therein, a guard projecting outwardly from the casing, a strap formed from a narrow strip of uniform width throughout bridging the casing, a razor blade slidable on the guard and working within the strap, cleats detachably mounted in spaced relation to each other and also to the strap on the casing, and a substantially U-shaped shuttle detachably embracing one edge of the blade and reciprocatingly movable by the driven gearing and working against the strap and cleats respectively, the said cleats being arranged to sustain the shuttle in frictional engagement with one edge of the yoke.

1,081,158. APPARATUS FOR PRESERVING WOOD. GRANT B. SHIPLEY, Milwaukee, Wis. Filed July 31, 1911. Serial No. 641,463. (Cl. 99—12.)



1. In apparatus for preserving wood, the combination with a retort for wood, a source of preservative fluid, a measuring tank, means for conveying fluid from said source to said tank, means for weighing the contents of said tank, means for producing uniform pressures in said tank and retort in excess of atmospheric pressure, means for conducting preserving fluid after weighing the same in said tank to said retort, and separate pressure means for conveying additional fluid to said retort under pressure in excess of that existing in said retort.

2. In apparatus for preserving wood, the combination with a retort for wood, a source of preservative fluid, a measuring tank, means for conveying fluid from said source to said tank, means for weighing the contents of said tank, means for producing uniform pressures in said tank and retort in excess of atmospheric pressure, means for conducting preserving fluid after weighing the same in said tank to said retort, and means for conveying additional fluid to said retort under pressure in excess of that existing in said retort, and means for returning excess fluid from said retort to said source.

3. In apparatus for preserving wood, the combination with a retort for wood, a source of preservative fluid, a measuring tank, means for conveying fluid from said source to said tank, means for weighing the contents of said tank, means for producing uniform pressure in said tank and retort in excess of atmospheric pressure, means for conducting preserving fluid after weighing the same in said tank to said retort, and means for conveying additional fluid to said retort under pressure in excess of that existing in said retort, and means for returning excess fluid from said retort to said measuring tank for reweighing.

4. In apparatus for preserving wood, the combination with a retort for wood, a source of preservative fluid, a measuring tank, means for conveying fluid from said source to said tank, means for weighing the contents of said tank, means for producing uniform pressures in said tank and retort in excess of atmospheric pressure, means for conducting preserving fluid after weighing the same in said tank to said retort, and means for conveying additional fluid to said retort under pressure in excess of that existing in said retort, and means for returning excess fluid from said retort to said measuring tank for reweighing, and means for returning the reweighed fluid to said source.

5. In apparatus for preserving wood, the combination of a retort for wood and a source of preservative fluid, a measuring tank for said fluid, a source of pressure for conveying fluid from its source to said tank, a weighing scale supporting said tank whereby the varying weights of fluid within said tank may be determined, a second source of pressure for producing uniform pressures in said tank and retort in excess of atmospheric pressure, means for conveying fluid from said tank to said retort under said uniform pressures, and means for conveying additional quantities of said fluid from said tank to said retort at a pressure in excess of said uniform pressure.

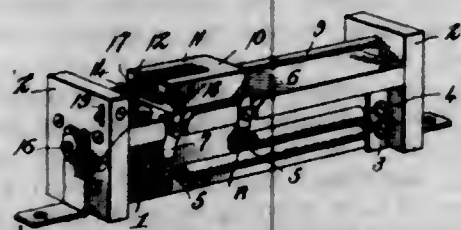
[Claims 6 and 7 not printed in the Gazette.]

1,081,159. AMMONIA-COMPRESSOR. THOMAS SHIPLEY, York, Pa. Filed Mar. 19, 1913. Serial No. 755,498. (Cl. 230-27.)



1. The combination of the compressor cylinder and frame in which it is mounted; the center brace and guide G mounted and secured in said frame and having an annular portion in axial alignment with the barrel of the cylinder; the cylinder head, bolted to the cylinder; and the stuffing box F on the cylinder head fitting and taking a sliding bearing in said center brace, whereby during the operation of setting up the bolts by which the cylinder head is fastened in place, the stuffing box will be maintained and held in accurate axial alignment with the cylinder barrel, as hereinbefore shown and described.
2. The combination with the compressor cylinder and frame in which the same is mounted, of the bridge A² connecting, and cast in one with, the portions A' and A² of the frame in which the cross head and the cylinder respectively are mounted, the center brace and guide G secured at its ends to seats H formed on the bridge A² above and on the body of frame A below respectively, and having an annular intermediate portion in axial alignment with the cylinder barrel, the cylinder head bolted to the cylinder, and the stuffing box thereon fitting and taking a sliding bearing in said center brace, whereby during the operation of setting up the bolts by which the cylinder head is fastened in place, the stuffing box will be maintained and held in accurate alignment with the cylinder barrel, as hereinbefore shown and described.

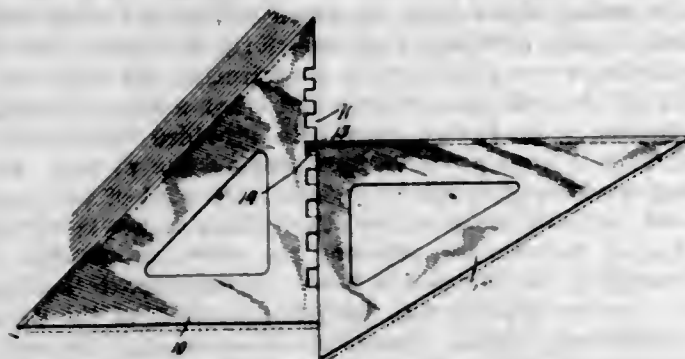
1,081,160. MULTIPLE-FUSE DEVICE. GEORGE S. SHOUPPE and WILLIAM H. PALMER, Cleveland, Ohio. Filed Dec. 20, 1912. Serial No. 737,890. (Cl. 175-278.)



1. In a multiple fuse device, a body, fusible elements disposed at the opposite sides of said body, a binding post common to said fusible elements, a contact, means holding said contact for sliding movement, a second binding post, electrical connections between said last-named post and sliding contact, trip levers pivoted to the opposite sides of said body and staggered relatively to one another and each having one end connected to the free end of one of said fusible elements, and the opposite end disposed in the path of movement of said contact whereby the fusible elements may be placed in circuit successively as the same become burned out or mutilated, and means for sliding said contacts.
2. In a multiple fuse device, a body of substantially T-shape in cross section, end pieces fastened to the opposite extremities of said body, a plurality of fusible elements disposed at the opposite sides of the body, a terminal common to said fusible elements, a rod connected to said end pieces and disposed longitudinally of said body in a plane above the head thereof, a contact carried by said rod and adapted for sliding movement thereon, a second binding post, connections between said last post and sliding contact, trip levers pivotally connected to the opposite side edges of the head of said T-shaped body and staggered relatively to one another, and each having one end connected to the free end of one of the fusible elements and the opposite end disposed in the path of movement of said

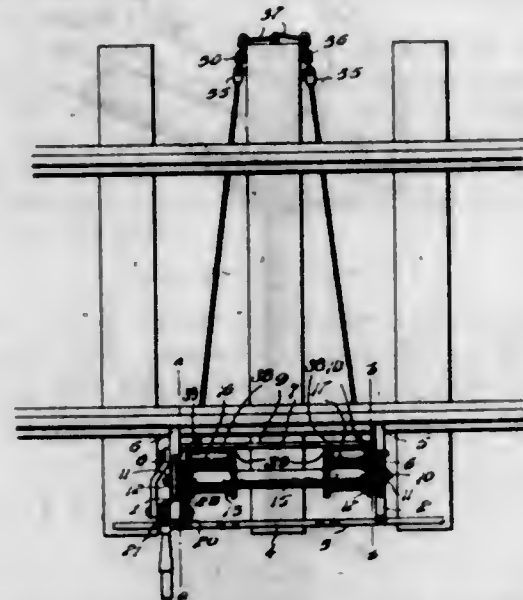
contact whereby the fusible elements may be placed in circuit successively as the same become burned out or mutilated, and means for sliding said contact.

1,081,161. SECTION-LINER. BERNARD SILVERSTON, New York, N. Y. Filed Feb. 26, 1913. Serial No. 750,803. (Cl. 33-110.)



1. A device of the class described comprising a member having a series of notches of different predetermined widths, and a triangle having a projection adapted to operate in any of the said notches.
2. A device of the class described comprising a triangle having notches in one side, said notches being of different sizes, another triangle having a projection at its vertex and normal to one of its sides and adapted to engage the side of any desired notch, the side normal to the projection bearing against the side of the first named triangle having the notches when said projection operates in one of said notches.
3. In combination, a 45° right triangle having rectangular notches of different sizes in one of its sides, and a 60-30° right triangle having a rectangular projection of a predetermined width and at the vertex of the right angle and normal to the shorter leg, adapted to engage the sides of any of the said notches in said 45° right triangle, whereby sets of parallel lines of same or different spacing may be drawn.

1,081,162. RAILROAD-TIE RENEWER. JESSE R. SMITH, Benton, Ill. Filed Apr. 18, 1913. Serial No. 762,141. (Cl. 104-16.)



1. A tie renewer comprising a winch, a frame in which the winch is mounted, the said frame being arranged to be placed on a railroad on one side of a rail, cables connected to the winch for winding thereon, guide rollers for the cables to bear against the cables on the winch, and spring supports for the guide rollers and carried by the said frame.
2. A tie renewer comprising a winch, means for mounting the same on a railroad on one side of a rail, flexible members for winding on the winch and attachment to a tie, a gear fixed to the winch for rotation therewith, a smaller gear engaging the first-mentioned gear, a ratchet

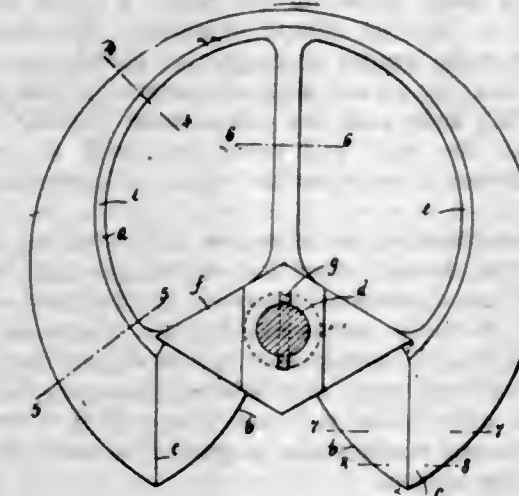
wheel connected to the smaller gear for rotation therewith, a lever and pawl carried thereby, to coast with the ratchet gear to impart a step-by-step rotation to the larger and smaller gears and hence also to the winch, and means to prevent reverse rotation of the winch.

3. A tie replacer comprising a frame, a winch mounted for rotation in the frame, means to operate the winch, cables attached to the winch for winding thereon, a cable controlling bar with which the frame is provided, said bar having guides for the cables, spring supports carried by said bar and rollers to bear against the cables and mounted in said spring supports.

4. In a railway tie renewer, a frame comprising side members and a supporting bar connected to the side members at one end, a winch arranged between the side members and carried thereby, cables attached to the winch, a gear at one end of the winch and revoluble therewith, an operating shaft, bearings therefor with which the frame is provided, a small gear and a ratchet wheel carried by the operating shaft, said small gear being engaged with the gear of the winch, a lever mounted for pivotal movement on the operating shaft, a pawl carried by said lever and for engagement with the ratchet wheel, and means to prevent reverse rotation of the winch.

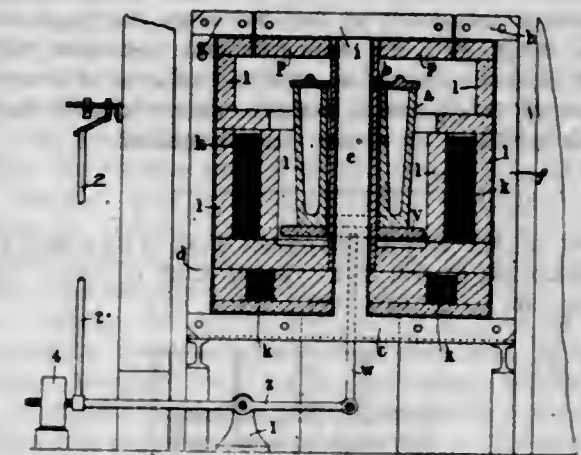
5. In a tie renewer, a frame comprising a supporting bar, side members arranged on one side of and extending from the supporting bar, a cable controlling bar connecting said side members and spaced from the supporting bar, a winch mounted between the side members, a gear mounted for rotation with the winch and at one end thereof, standards carried by the supporting bar and arranged at opposite sides of one of the side members, an operating shaft mounted in said standards and also in said last-mentioned side member, a small gear and a ratchet wheel on said operating shaft for rotation therewith, the small gear engaging the gear of the winch, a lever having a fork pivotally mounted on the operating shaft and astride of the ratchet wheel, a pawl carried by said lever to engage the ratchet wheel, a forked brace connected to the last named side member and also having a bearing for the operating shaft, and means to prevent reverse rotation of the winch.

1,081,163. ANCHOR. VINCENT PERCY SMITH, Gillingham, England. Filed Feb. 5, 1913. Serial No. 746,268. (Cl. 114-206.)



1. An anchor comprising, a substantially circular disk or head having points or flukes thereon at one side thereof, and a shank attached eccentrically to the disk in the manner and for the purpose described.
2. An anchor comprising, a substantially circular disk or head having points or flukes thereon at one side thereof, and a weight or block forming a boss for the reception of a shank and for effecting the eccentric loading of the disk, substantially as described.
3. An anchor comprising in combination, a substantially circular disk or head having points or flukes thereon at one side thereof and provided with apertures serving to lighten the disk on the opposite side to that at which the points are formed, and a shank eccentrically attached to the disk, substantially as described.

1,081,164. SMELTING OR REFINING OF METALS AND THE LIKE IN CRUCIBLES. HENRY G. SOLOMON, London, England. Filed Apr. 9, 1912. Serial No. 689,478. (Cl. 204-64.)



1. An induction furnace comprising a transformer the secondary of which is formed by an annular crucible, a casing surrounding the transformer, a movable device adapted to close said casing and a bridge-piece for the transformer connected to and movable with said movable device.
2. An induction furnace comprising a transformer the secondary of which is formed by an annular crucible, a casing surrounding the crucible, a movable device for closing said casing, a bridge-piece for the transformer connected to and movable with said movable device, and means for automatically withdrawing the crucible from the crucible chamber when required.
3. An induction furnace comprising a transformer the secondary of which is formed by an annular crucible, a casing surrounding the crucible and means for automatically closing the electric supply circuit of a transformer only when the crucible with its charge is in position.
4. An induction furnace comprising a transformer the secondary of which is formed by an annular crucible, a casing surrounding the crucible, a movable device for closing said casing, a bridge-piece for the transformer connected to and movable with said movable device and means for closing the electric supply circuit of the transformer only when the crucible is in position in the crucible chamber.
5. An induction furnace comprising a transformer the secondary of which is formed by an annular crucible, a casing surrounding said crucible, a movable device adapted to close said casing, a bridge-piece for the transformer, connected to and movable with said movable device and means for automatically raising the crucible out of the crucible chamber when required.

[Claims 6 to 9 not printed in the Gazette.]

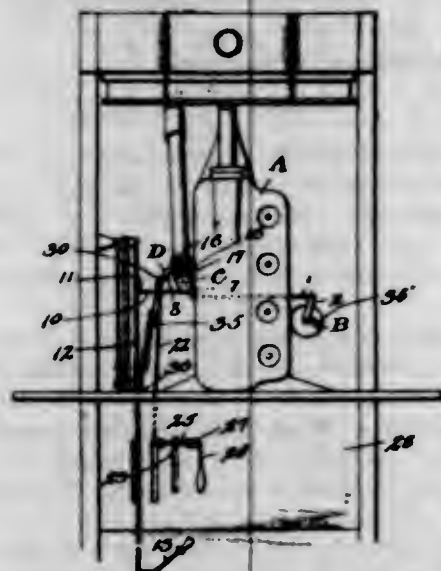
1,081,165. DEVICE FOR AUTOMATICALLY LIFTING AND SUPPORTING AUTOMOBILES AND OTHER VEHICLES. THOMAS H. SPARKS, Wichita, Kans. Filed July 3, 1913. Serial No. 777,363. (Cl. 57-15.)



1. In combination with pivoted vehicle supporting timbers, inclined tracks, bell crank lever mechanism connected with the tracks, a trip lever pivotally connected with the bell crank lever, a bumper carried by the trip lever and adapted, by contact with the vehicle, to automatically lower the tracks and transfer the weight of the vehicle to the vehicle supporting timbers, substantially as shown and described.
2. In a device of the character described, in combination with pivoted vehicle supporting timbers, pivoted

tracks, fixed inclined tracks upon opposite sides of said timbers, track sections having hinge connection at their rear ends with the fixed tracks and at their opposite ends connected to a crank lever, a trip lever pivoted at its lower end to the support of the crank lever, a tripping arm pivotally connected at one end with the upper end of the said lever and its opposite end provided with a U-shaped hook or keeper to receive the arm of the crank lever when elevated, and a bumper connected with the trip lever, substantially as shown and described.

1,081,166. FOOT-ACCELERATOR FOR AUTOMOBILES. ORA SPENCER, Cuero, Tex. Filed Aug. 5, 1913. Serial No. 783,145. (Cl. 123-98.)



1. A foot accelerator for automobiles comprising in combination with an internal combustion engine and carbureter, a bell crank lever, a supporting bracket for said lever located on the opposite side of the engine from the carbureter, clamping means on said bracket for fastening the latter to the water connection of said engine, a cross rod connecting said lever with the throttle valve of the carbureter, a pedal shaft, an arm on said shaft, a push rod connecting said arm and bell crank lever, and a spring acting on said lever to hold the throttle normally closed.

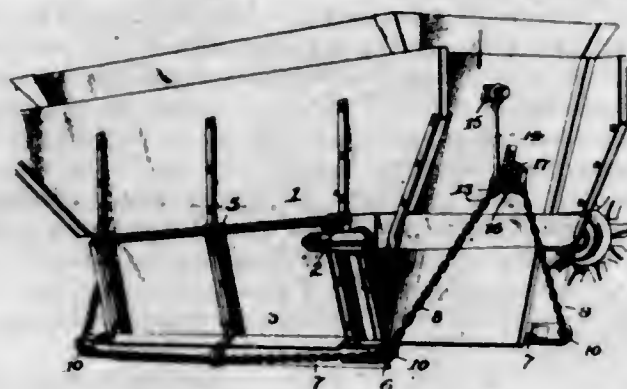
2. A foot accelerator for automobiles comprising in combination with an internal combustion engine and carbureter, a bell crank lever, a supporting bracket for said lever located on the opposite side of the engine from the carbureter, clamping means on said bracket for fastening the latter to the water connection of said engine, a cross rod connecting said lever with the throttle valve of the carbureter, a pedal shaft, an arm on said shaft, a push rod connecting said arm and bell crank lever, a spring acting on said lever to hold the throttle normally closed, said bell crank lever being formed with a slot, and a keeper for said push rod pivotally connected to and carried by said bell crank lever and having a hooked extremity movable in said slot and having said spring attached thereto.

3. A foot accelerator for automobiles comprising in combination with an internal combustion engine and carbureter, a bell crank lever, a supporting bracket for said lever located on the opposite side of the engine from the carbureter, clamping means on said bracket for fastening the latter to the water connection of said engine, a cross rod connecting said lever with the throttle valve of the carbureter, said rod having an end portion thereof bent to form a spring arm which is terminally connected to said bell crank lever, a pedal shaft, an arm on said shaft, a push rod connecting said arm and bell crank lever, and a spring acting on said lever to hold the throttle closed.

4. A foot accelerator for automobiles comprising in combination with an internal combustion engine and carbureter, a bell crank lever, a supporting bracket for said lever located on the opposite side of the engine from the carbureter, clamping means on said bracket for fastening the latter to the water connection of said engine, a cross rod connecting said lever with the throttle valve of the

carbureter, a pedal shaft, an arm on said shaft, a push rod connecting said arm and bell crank lever, a spring acting on said lever to hold the throttle normally closed, and a flexible connection operated by said bell crank lever and operatively connected with said hand throttle lever.

1,081,167. DUMPING-WAGON. JAMES R. STEELE, JR., Owego, N. Y., assignor to Champion Wagon Company, Inc., Owego, N. Y., a Corporation of New York. Filed June 20, 1910. Serial No. 567,890. (Cl. 21-20.)



1. The combination of a wagon body having doors; a link pivotally connected at one end to the wagon body; a guide attached to the wagon body to one side of the link; operating chains, one for each door, each connected to the free end of the link, one chain passing directly from its door to the link, the other passing around the guide between the door and its connection to the link, whereby the second chain pulls in a direction transverse to the normal line of pull of the link and the first chain; and means for drawing in the chains to close the doors.

2. In combination with a wagon body; doors hinged to said body, one of said doors having a portion adapted to overlap the other; operating chains for the doors; a member pivoted to the wagon body, attached to both chains and forming an extension to one chain; and a guide supported on the wagon body and adapted to cause the other chain to pull in a direction transverse to the first chain and said pivoted member.

3. The combination of a body; a pair of doors hinged at their outer edges to the body, one of said doors having a portion adapted to overlap the other; chain guides on the doors; a chain guide on the body; a chain winding mechanism; a pair of chains extending therefrom and through the chain guides on respective doors, one of said chains terminating in an inelastic extension link-portion pivoted to the body and the other chain passing around the guide on the body and being connected to the first chain at its point of junction with the extension link-portion.

4. The combination of a wagon body having doors; guides on the doors; operating cables passing through said guides; an extension connected to the ends of both cables and pivotally connected to the wagon body; a guide on the wagon body located to one side of the normal line of pull of one cable and said extension and adapted to guide the other cable to cause it to pull in a direction transverse to said normal line of pull; and mechanism for drawing in the cables.

1,081,168. BATON, STAFF, OR CANE. JAMES H. SUTLIVE, Keokuk, Iowa. Filed Dec. 7, 1912. Serial No. 735,565. (Cl. 46-48.)

1. In a device of the character specified, a staff, and an instrument of percussion carried thereby embodying a vibratory member to be set into motion by the vibration of the staff.

2. In a device of the character specified, a staff, an instrument of percussion carried thereby and embodying an open resonance chamber, a vibratory diaphragm closing said chamber, and means for holding the diaphragm in position, the diaphragm being designed to be set into vibratory motion by the vibration of the staff.

3. In a device of the character specified, a staff, and an instrument of percussion carried thereby and embodying an open resonance chamber and a diaphragm yieldably held over the opening of the resonance chamber and designed to be set into vibratory motion by the vibration of the staff.

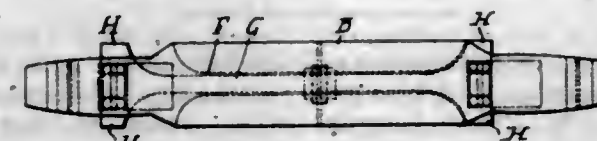


4. In a device of the character specified, a staff, and an instrument of percussion carried thereby and embodying an open resonance chamber, a diaphragm fitting over the said opening, and a contractile spring connecting the diaphragm and the bottom of the resonance chamber.

5. In a device of the character specified, a staff, a sounding box having one end open, the other end being secured to one end of the staff, and a diaphragm yieldably held on the edge of the sounding box over the opening.

[Claims 6 to 9 not printed in the Gazette.]

1,081,169. SHUTTLE. NOBORU TERASHIMA, Shinnakadori, Japan. Filed Dec. 10, 1911. Serial No. 666,303. (Cl. 139-27.)



1. A shuttle for looms comprising a base section; a gripper member pivoted to the base section; and an actuating member for the gripper member movable independently of the base section, said actuating member having a portion arranged to strike and be arrested by a stop on the loom during the passage of the shuttle across the shuttle race, said actuating member having a portion adapted to move the gripper member after the actuating member has been arrested by the stop.

2. A shuttle for a loom, comprising a base section; a gripping section rockably secured to the base section; and a longitudinally movable actuating member for moving each end of the gripping section toward and away from the base section to respectively grip and release a weft; said actuating member having a projection at each end arranged to strike a stop adjacent each end of the shuttle race, whereby the movement of the body of the shuttle will cause the jaws to be actuated to receive a weft at one end and to release a weft at the opposite end.

3. The combination in a shuttle for looms, of a body portion having two sections rockably secured together; an actuating member slidable within the body portion; cams formed within the body portion and adjacent each end; and cam-engaging means carried by the actuating member, said member being placed to strike stops adjacent the shuttle race prior to the stopping of the said body portion,

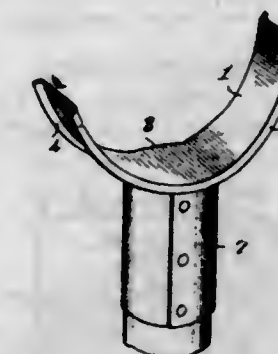
said cams alternately engaging the said latter means and thereby alternately separating respective adjacent ends of the sections and simultaneously moving together opposite ends of the sections.

4. The combination in a shuttle for looms of a body portion having two sections rockably secured together; an actuating member slidable within the body portion; anti-friction rollers adjacent each end of the actuating member; and cams formed adjacent each end of the body portion; said actuating member being placed to strike stops adjacent the shuttle race prior to the stopping of the said body portion, said cams alternately engaging adjacent anti-friction rollers and thereby alternately separating respective adjacent ends of the sections and simultaneously moving together opposite ends of the sections.

5. A shuttle for looms comprising a base section; a gripper section mounted on the base section; an actuating member for the gripper section; weft stops interposed between the gripper section and arranged one adjacent each end of the gripper section; and frictional gripper means adjacent each end of the base and the gripper sections.

[Claims 6 and 7 not printed in the Gazette.]

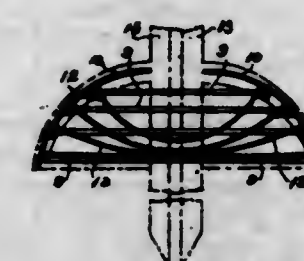
1,081,170. FRUIT-TREE PROP. CLIFFORD R. THOMPSON, Jay, Me. Filed June 19, 1912. Serial No. 704,628. (Cl. 47-31.)



1. A prop head made in one piece from a sheet metal blank, said blank being cut and bent to form a cylindrical prop receiving ferrule, and an integral semi-circular crotch continuous from end to end extending across and closing the top of the ferrule and projecting to opposite sides of the ferrule.

2. A prop head made in one piece from a sheet metal blank, said blank being cut and bent to form a cylindrical prop receiving ferrule, and an integral semi-circular crotch continuous from end to end extending across and closing the top of the ferrule and projecting to opposite sides of the ferrule, the longitudinal edges of the crotch being turned down to form stiffening flanges.

1,081,171. PILE, PIER, WHARF, AND LIKE STRUCTURE. ROBERT THOMSON, Pollokshields, Glasgow, Scotland. Filed Jan. 15, 1912. Serial No. 671,162. (Cl. 72-81.)



1. A reinforced concrete structure comprising a pile having a central metallic core, a concrete casing therefor, and spaced above the entering end of the pile and attached thereto an inverted bowl-like member adapted to rest substantially at ground level, as described.

2. A reinforced concrete structure comprising a pile having a central metallic core, a concrete casing therefor, and spaced above the entering end of the pile and at-

tached thereto an inverted bowl-like member adapted to rest substantially at ground level, said bowl-like member being apertured to admit concrete after the pile is in position.

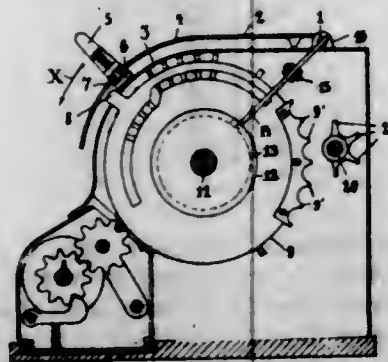
3. A reinforced concrete structure comprising a pile having a central metallic core, a concrete casing therefor, and spaced above the entering end of the pile and attached thereto an inverted bowl-like member adapted to rest substantially at ground level, said bowl-like member being apertured to admit concrete after the pile is in position, together with pier-forming concrete material surrounding said pile above and resting on said bowl-like member, substantially as described.

4. In a pile or pier for use in wharves, bridges, and like structures; a pile or pier part of reinforced concrete, an axial metallic core therein, a lateral inverted bowl-like projection of concrete thereon, metal rings and curved radially disposed rods in the body of the bowl-like part, radial webs within that part and curved hook-ended rods in the webs the hook ends of which engage the rings.

5. A reinforced concrete pile, having a hollow metallic core with concrete casing, and spaced above the lower end thereof and attached thereto an inverted bowl-like base of reinforced concrete, together with a concrete pier body surrounding the core above said bowl-like base only, substantially as described.

[Claim 6 not printed in the Gazette.]

1,081,172. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Aug. 14, 1913. Serial No. 784,777. (Cl. 235-79.)



In a calculating machine, the combination with the setting mechanism comprising cam disks which are equipped with projecting finger pieces, and the operating mechanism for the machine, of a member carrying devices located in position for operating said finger pieces, and an operative connection between said operating mechanism and said member arranged to remove the said member with its devices out of position for engagement with said finger pieces.

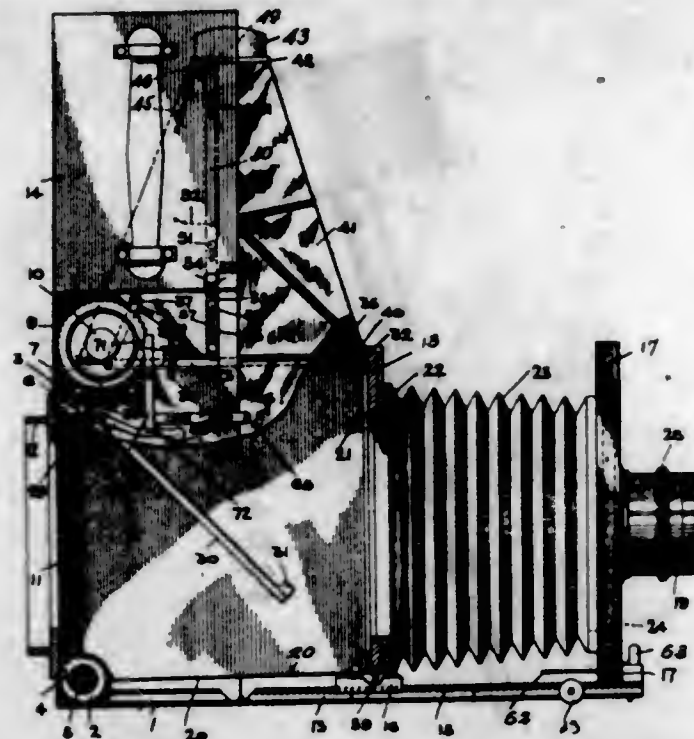
1,081,173. CAMERA. ANTHONY VORIS, New York, N. Y. Filed Dec. 31, 1912. Serial No. 739,470. (Cl. 95-42.)

1. In a camera, a housing, a bellows connected to the rear part of said housing and adapted to extend therefrom when unfolded, a front for said bellows, a second bellows removably connected in front of said first mentioned bellows, means for connecting said front with said second mentioned bellows, means arranged on said front for supporting a lens, and means for supporting a sensitive member to receive an image formed by the lens.

2. In a camera, a housing formed with means for supporting a sensitive member, a folding bellows arranged to be folded in said housing and to extend therefrom at will, a front arranged on said bellows, a second bellows adapted to be inserted and removed at will between said front and said first mentioned bellows, and a lens fitting into said front.

3. A camera comprising a housing, means for supporting a sensitive member, and bellows arranged at one end connected with said housing adapted to be folded into said housing and extended therefrom, a front for said bellows, a second bellows connected with said front,

means for supporting a lens on said second mentioned bellows, and means mounted on the front of said second mentioned bellows adapted to engage the front of said first mentioned bellows whereby said first mentioned bellows may be unfolded first and said second mentioned bellows unfolded second.

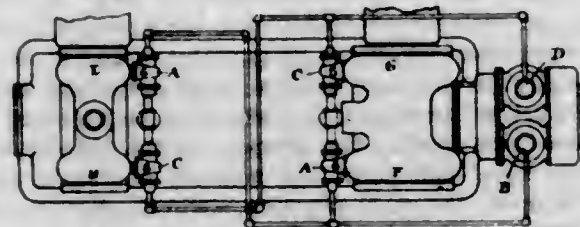


4. A camera comprising a housing, means for supporting a sensitive member, a lens, a shutter mechanism, a plurality of folding bellows, and manually operated means whereby one bellows is first caused to unfold and then another bellows is caused to unfold.

5. A camera comprising a housing, means for supporting a sensitive member, a shutter mechanism, a lens, a plurality of folding bellows, a stop projecting from the front of one inner bellows, and pivotally mounted means carried by another bellows adapted to engage said stop for causing the former bellows to be unfolded first when said bellows are being moved from said housing, said pivotally mounted means being in engagement with said stop.

[Claims 6 to 23 not printed in the Gazette.]

1,081,174. COMBINED VACUUM-BREAKER AND PROPORTIONAL UNLOADER. CHARLES WAINWRIGHT, Erie, Pa. Filed Aug. 15, 1911. Serial No. 644,111. (Cl. 230-24.)



1. In a fluid compressor, the combination with the pump mechanism, and an intercooler connected to the cylinder of the pump mechanism; of a fluid operated vacuum breaker connected to the cylinder and to the intercooler, a choking controller arranged to operate on the intake of the pump mechanism and adapted to be operated with a predetermined pressure in the receiver of the compressor and connected with the vacuum breaker whereby to control the operation of the same.

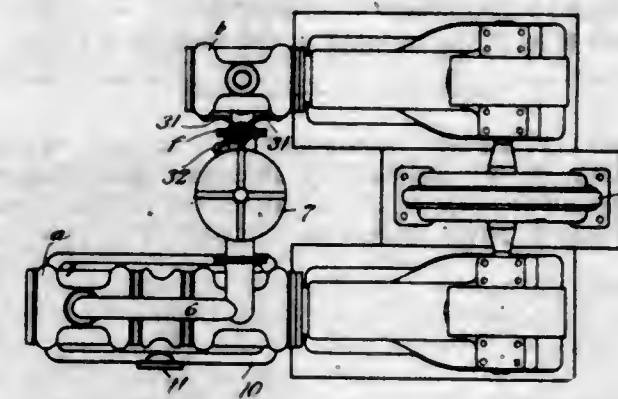
2. In a multiple-stage fluid compressor, the combination with the pump mechanism and an intercooler connected to the cylinders of the pump mechanism; of fluid operated vacuum breakers connected to the cylinders of the pump mechanism and to the intake, and a choking controller adapted to be operated with a predetermined pressure in the receiver of the compressor and arranged for operating on the intake of the pump mechanism and

connected to the vacuum breakers for controlling the operation of the same.

3. In a double-acting fluid compressor, the combination with the pump mechanism, and an intercooler connected to the cylinder of the pump mechanism; of fluid operated vacuum breakers connected to the cylinder of the pump mechanism and to the intercooler, a plurality of choking controllers each adapted to be operated with a different predetermined pressure in the receiver of the compressor and positioned so as to control the intake of the pump mechanism, and a connection between said controllers and said vacuum breakers for the purpose described.

4. In a double-acting multiple stage fluid compressor, the combination with the pump mechanism, and an intercooler connected to the high and low pressure cylinders of the pump mechanism; of a plurality of fluid operated vacuum breakers connected to the high and low pressure cylinders and to the intercooler, a plurality of choking controllers arranged to operate on the intake of the low pressure cylinder and adapted to be operated with different predetermined pressures in the receiver of the compressor, and connections between said choking controllers and said vacuum breakers for the purpose described.

1,081,175. FLUID-COMPRESSOR. CHARLES WAINWRIGHT, Erie, Pa. Filed Aug. 28, 1911. Serial No. 646,349. (Cl. 230-24.)



1. In a fluid compressor, the combination of a cylinder adapted to discharge into a container and having an intake chamber divided into a plurality of compartments, and an unloader connected with each of said compartments and controlled by the container pressure for the purpose described.

2. In a fluid compressor, the combination of a cylinder adapted to discharge into a container and having an intake chamber divided into a plurality of compartments, and a plurality of unloaders controlled by the container pressure and connected to the compartments of the cylinder and adjustable so as to operate successively at predetermined increasing pressures in the container.

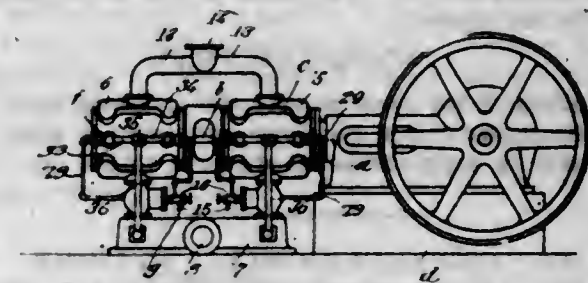
3. In a multiple-stage fluid compressor, the combination with the low and high pressure cylinders, the intake chamber of one of which is divided into a plurality of compartments; of a plurality of unloaders controlled by the final pressure and connected with the said compartments.

4. In a multiple-stage fluid compressor, the combination with the low and high pressure cylinders, the intake chamber of one of which is divided into a plurality of compartments; of a plurality of unloaders controlled by the final pressure and connected with the compartments and adjustable so as to operate successively at predetermined increasing pressures.

5. In a fluid compressor, the combination of an intake box, a fluid-operated unloader superimposed on the said intake box, and opening at one end into the box, and a cylinder superimposed on the unloader and having its intake in communication with the unloader.

[Claims 6 and 7 not printed in the Gazette.]

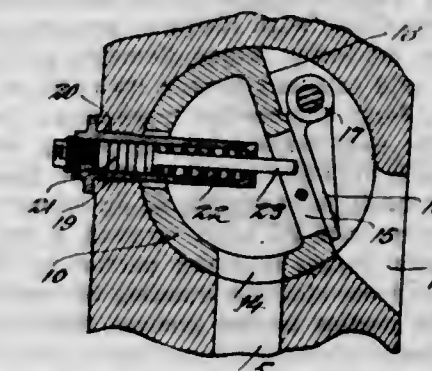
1,081,176. FLUID-COMPRESSOR. CHARLES WAINWRIGHT, Erie, Pa. Filed Dec. 20, 1911. Serial No. 666,946. (Cl. 230-24.)



1. In an air compressor, the combination of an intake box, a cylinder superimposed on the box and having an intake port, a choking controller interposed between the cylinder and the intake box and communicating with the intake of the cylinder, a relief device directed into one end of the cylinder and operatively connected to the choking controller.

2. In a double acting air compressor, the combination of an intake box, a cylinder superimposed upon the box and having spaced intake ports and a pair of choking controllers interposed between the cylinder and the intake box and communicating with the intakes of the cylinder, a plurality of relief devices directed into the opposite end portions of the cylinder and operatively connected to the said choking controllers.

1,081,177. GOVERNING DEVICE FOR FLUID-COMPRESSORS. CHARLES WAINWRIGHT, Erie, Pa. Filed May 8, 1912. Serial No. 695,889. (Cl. 230-24.)

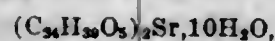


1. In a fluid compressor, the combination with the pump mechanism having a valve chamber and a plurality of fluid passages communicating with said valve chamber; of a barrel arranged in said chamber and having a flattened side portion and also ports communicating with said fluid passages, one of said ports being arranged in the said flattened side portion and a pivoted gravity valve for controlling the passage through the said ports.

2. In a fluid compressor, the combination with the pump mechanism having a valve chamber and a plurality of fluid passages communicating with said valve chamber; of a barrel arranged in said chamber and having a flattened side portion and also having ports communicating with said fluid passages, one of said ports being arranged in the said flattened side portion, and a valve pivoted to the outer surface of the barrel and arranged for controlling the passage through the said ports.

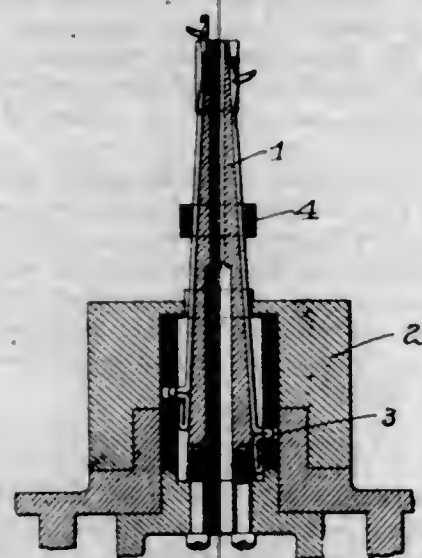
3. In a fluid compressor, the combination with the pump mechanism having a valve chamber and a plurality of fluid passages communicating with said valve chamber; of a barrel arranged in said chamber and having a flattened side portion and also having ports communicating with said fluid passages, one of said ports being arranged in the said flattened side portion of the barrel, a valve pivotally connected to the barrel for controlling the passage through the said ports, and means extending into the barrel and operable with a predetermined pressure in the receiver of the compressor to control the operation of said valve.

1,081,178. STRONTIUM SALT OF CHOLIC ACID. ROBERT WERNER, Ludwigshafen-on-the-Rhine, Germany. Filed Nov. 29, 1912. Serial No. 734,200. (Cl. 23—24.) The herein described strontium salt of cholic acid, which answers the formula



crystallizes in the form of very fine colorless hair bushes, loses its water when standing over sulfuric acid, and is split into its components by stronger acids.

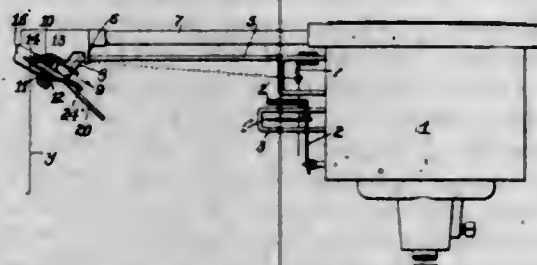
1,081,179. CIRCULAR-KNITTING MACHINE. FRANK B. WILDMAN, Norristown, Pa. Filed Oct. 7, 1912. Serial No. 724,376. (Cl. 66—21.)



1. A knitting machine consisting of an elongated needle bed of conical form, with its taper upward and a cam box surrounding the lower larger diameter portion of the taper cylinder, said cam box having its cams arranged in plain cylindrical form, the needles traversing a path out of parallel with the cam surface, and inclining toward the center of the plain cylinder, substantially as described.

2. A knitting machine consisting of an elongated needle bed of conical form with its taper upward, a cam box surrounding the lower larger diameter portion of the conical needle bed, and a loose ring surrounding the conical needle bed to hold the needles in the grooves thereof, substantially as described.

1,081,180. STOP-MOTION FOR KNITTING-MACHINES. FRANK B. WILDMAN and GEORGE L. BALLARD, Norristown, Pa., assignors to Wildman Mfg. Co., a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,799. (Cl. 66—7.)



1. In combination in a stop motion for knitting machines, a guide for the thread, a sweep finger pivoted to swing in a plane inclined downwardly from its upper position toward the guide, a connection between the sweep finger and guide, a releasing finger, and a guard arranged in an inclined plane parallel to the plane of movement of the sweep, said sweep moving substantially within the limits of the guard from its thread holding to its thread releasing position, substantially as described.

2. In combination in a stop motion for knitting machines, a guide for the thread, a sweep finger pivoted to swing in a plane inclined downwardly from its upper position toward the guide, a connection between the sweep and guide, a releasing finger, and a guard extending in an

inclined plane substantially parallel to the plane in which the sweep finger swings, said guard having a bearing for the thread at its lower end extending in a direction transverse to the plane of the path of the thread from the sweep finger to the guide, said bearing receiving the thread when it falls from the guide, substantially as described.

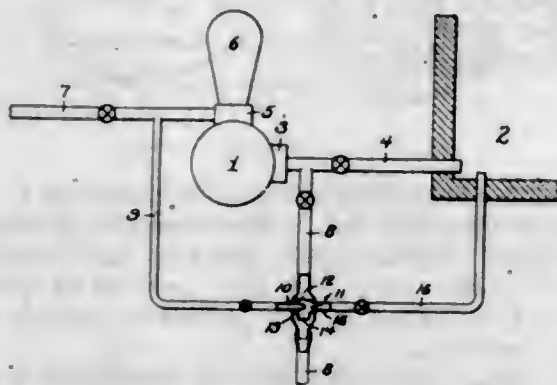
3. In combination in a stop motion for knitting machines, a guide for the thread, a sweep finger pivoted to swing in a plane inclined downwardly from its upper position toward the guide, a connection between the sweep and guide, a releasing finger, and a guard extending in an inclined plane substantially parallel to the plane in which the sweep finger swings, said guard having a bearing for the thread at its lower end extending in a direction transverse to the plane of the path of the thread from the sweep finger to the guide, said bearing receiving the thread when it falls from the guide, said bearing being below the low thread releasing limit of the swinging movement of the sweep finger, substantially as described.

4. In combination in a stop motion for knitting machines, a guide, a sweep finger pivoted to swing in an inclined plane downwardly toward the guide, a connection between the sweep finger and guide, a guard extending substantially parallel with the plane of movement of the sweep finger, said guard having an opening therein to receive the thread over which opening the sweep finger moves, substantially as described.

5. In combination in a stop motion for knitting machines, a sweep finger pivotally mounted, a guard extending substantially parallel with the plane of movement of the sweep finger and having an unbroken edge except an opening for the passage of the thread to or from the sweep finger, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,081,181. PUMPING APPARATUS. LELAND WILLIS, Grenloch, N. J., assignor to Bateman Manufacturing Company, Grenloch, N. J., a Corporation of New Jersey. Filed May 2, 1913. Serial No. 765,045. (Cl. 103—79.)



1. The combination of a pump and a supply tank therefor, with a pipe for supplying the pump from a source independent of the tank, and means whereby the pump may be caused to force into the tank liquid derived from said independent supply pipe.

2. The combination of a pump and a supply tank therefor, with a pipe for supplying the pump from a source independent of the tank, said pipe being also in communication with the tank and being provided with an injector in communication with the discharge from the pump, whereby a portion of the liquid flowing through said pipe may be diverted and forced into the tank.

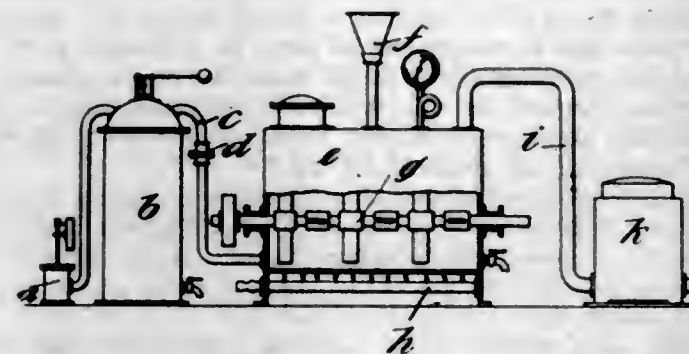
3. The combination of a pump and a supply tank therefor, with a pipe for supplying the pump from a source independent of the tank, an injection chamber casing communicating with said pipe and with the tank, and an injector communicating with the discharge of the pump and serving to cause flow of liquid into and through the injection chamber and thence to the tank.

4. The combination of a pump and a supply tank therefor, with a pipe for supplying the pump from a source independent of the tank, an injection chamber casing crossing said pipe and having an inlet communicating with the interior of the pipe and an outlet communicating with

the tank, and an injector in communication with the discharge of the pump and serving to cause passage of the fluid from said supply pipe into and through said casing and thence to the tank.

5. The combination of a pump and a supply tank therefor, with a pipe for supplying the pump from a source independent of the tank, an injection chamber casing crossing a portion of said pipe which is enlarged in size so as to provide a passage around said casing, an inlet in said casing communicating with the interior of the enlarged portion of the pipe, a delivery branch on said casing communicating with the tank, and an injector communicating with the discharge of the pump and serving to cause flow of liquid from the pipe into and through the injection chamber casing and thence to the tank.

1,081,182. PROCESS FOR THE REDUCTION OR HYDROGENATION OF ORGANIC COMPOUNDS, ESPECIALLY THE FATTY ACIDS AND THEIR COMPOUNDS. KARL HEINRICH WIMMER, Bremen, Germany, and ERIC BERKELEY HIGGINS, Wallasey, England. Filed Mar. 12, 1912. Serial No. 683,294. (Cl. 87—12.)



1. The process for the reduction of organic compounds by a reducing gas and by catalysis, which consists in treating such a compound with an organic metal salt and a reducing gas, substantially as described.

2. The process for the reduction of organic compounds by hydrogen and by catalysis, which consists in treating such a compound with an organic metal salt and hydrogen, substantially as described.

3. The process for the reduction of organic compounds by gas mixtures containing hydrogen and by catalysis, which consists in treating such a compound with an organic metal salt and gas mixtures containing hydrogen, substantially as described.

4. The process for the reduction of fatty acids by a reducing gas and by catalysis, which consists in treating such an acid with an organic metal salt and a reducing gas, substantially as described.

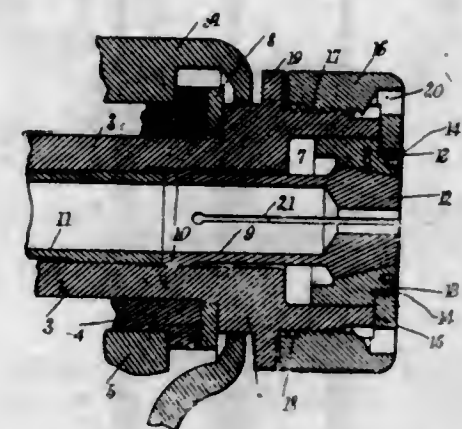
5. The process for the reduction of glycerids of fatty acids by a reducing gas and by catalysis, which consists in treating such a compound with an organic metal salt and a reducing gas, substantially as described.

1,081,183. AUTOMATIC CHUCK. DAVID WILSON WOOD, Brazil, Ind. Filed May 9, 1912. Serial No. 696,091. (Cl. 29—112.)

1. A chuck comprising a hollow rotating spindle having a pocket at one end, a collet master slidably mounted in said pocket, said collet master having a frusto-conical bore concentrically disposed relative to the axis of said spindle, a collet slidably mounted in said spindle and having a frusto-conical split nose disposed within the bore of said master, and a hood in screw-threaded engagement with said spindle and bearing on said master to force the same into said pocket, thereby to collapse the nose of said collet, whereby the latter may grip the work carried thereby.

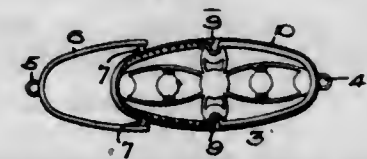
2. A chuck comprising a rotatable spindle, a collet rotated by said spindle, a master engaging said collet, and means carried by the spindle and independent of said collet, acting on said master to center said collet in said spindle.

3. In combination, a hollow spindle having an enlarged head at one end thereof, said head having a bore communicating with the bore of said spindle and concentrically disposed relative to the axis thereof, a cylindrical master fitting within the bore of said head, said master having a bore centrally disposed therein, said bore having an inclined wall, a collet mounted within the bore of said spindle, said collet having a nose fitting the bore of said master, and means in screw-threaded engagement with said spindle, engaging said master to hold the same in engagement with said collet.



4. A chuck comprising a rotating spindle, a split nose collet carried by said spindle, a member encompassing the split nose of said collet, and a member in screw-threaded engagement with said spindle, acting through said first-mentioned member to collapse the nose of said collet, thereby to bind the work in the same.

1,081,184. NECKLACE-CLASP. FRANZ X. ZIRNKILTON, Philadelphia, Pa. Filed May 28, 1913. Serial No. 770,424. (Cl. 24—230.)



1. The combination in a clasp of a member having grooves in opposite sides, each provided with a recess; a U-shaped piece of spring material having projections adjacent its ends formed to enter the recesses; and means for causing the disengagement of said projections from the recesses when said U-shaped member is moved successively in opposite directions on said projections as pivots.

2. The combination in a clasp of a member having grooves in opposite sides provided with slots opening in lines substantially at right angles to the plane of said grooves; with a U-shaped spring piece formed to fit the grooves and having projections removably entering the slots.

3. The combination in a clasp of a member having a groove formed in a portion of two of its opposite sides, there being oppositely placed slots communicating with said groove and opening at right angles thereto; with a U-shaped spring piece having projections extending toward each other and removably fitting the slots.

4. The combination in a clasp of a member having two cavities in its opposite sides; a U-shaped piece having projections removably fitting said cavities; and means for causing said projections to be forcibly removed from the cavities when said piece is successively moved in opposite directions on the projections as pivots.

5. The combination in a clasp of a member having a groove extending from the middle of two of its opposite sides to one end and a bead complementary to said groove, extending from the middle of said two sides to its opposite end, there being a cavity opening on the bottom face of said member between the end of the groove and the end of the bead on each side thereof; with a U-shaped piece of spring material having projections at its

ends extending toward each other and formed to removably fit into the said cavities, said U-shaped piece being formed to fit within the groove.

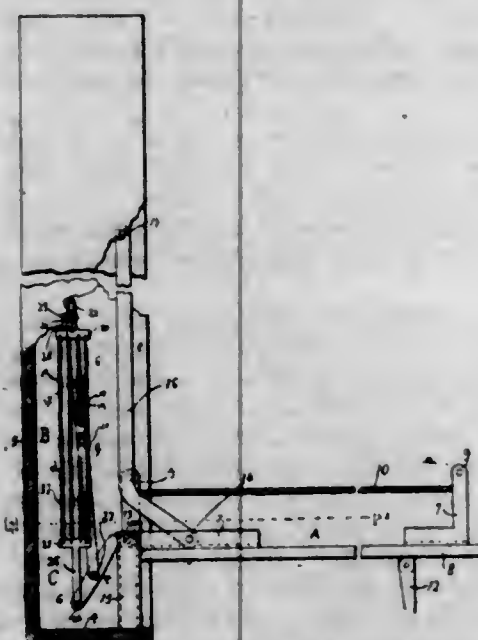
[Claim 6 not printed in the Gazette.]

1,081,185. ATTACHMENT FOR TYPE-WRITERS. MABEL AARON, Stockton, Cal. Filed Aug. 17, 1912. Serial No. 715,625. (Cl. 120—28.)



A device of the character described comprising supporting members, three upwardly projecting rods on said supporting members, the central one of said rods being threaded, a central frame member movable vertically over said threaded rod, a thumb screw mounted on said threaded rod and adapted to engage said central frame, a frame movable vertically on each outer rod, each of said last named frames being telescoped over said central frame in sliding relation therewith, as described.

1,081,186. FOLDING AND DISAPPEARING BED AND MOVEMENT THEREOF. AMBROSE EDGAR ABBOTT, Los Angeles, Cal. Filed Feb. 1, 1913. Serial No. 745,648. (Cl. 5—54.)



1. A folding bed including a cabinet, a swinging closure upon which the bed is mounted, shifting fulcrum members to which the pivot end of the closure is pivotally connected, a balancing lever pivoted between its ends and having one end thereof loosely connected to the closure at a point spaced from the pivotal connection between the closure and the shifting fulcrum members, and means con-

nected to the opposite end of the balancing lever for co-operation therewith to counter-balance the weight of the closure and bed.

2. A folding bed including a cabinet, a swinging closure upon which the bed is mounted, hangers having the lower ends thereof pivotally connected to the closure so as to provide a shifting supporting fulcrum for the same, a balancing lever pivotally mounted between its ends and having one end thereof loosely connected to the closure at a point spaced from the pivotal connection between the closure and the hangers, and tension means connected to the opposite end of the balancing lever for counter-balancing the weight of the closure and bed.

3. A folding bed including a cabinet, a swinging closure therefor adapted to have the bed mounted upon the same, hangers having the lower ends thereof pivotally connected to the closure to provide a shifting fulcrum for the same, guide means engaging the inner end of the closure for causing the same to travel in a straight path, a balancing lever connected to the inner end of the closure, and means co-operating with the balancing lever for counter-balancing the weight of the closure and bed.

4. A folding bed including a cabinet, a swinging closure adapted to have a bed mounted thereon, hangers mounted upon the cabinet and engaging the closure to provide a shifting fulcrum for the same, guide means for causing the inner end of the closure to move in a vertical path, a balancing-lever connected to the inner end of the closure, a shifting fulcrum for the balancing lever, and means co-operating with the balancing lever for counter-balancing the weight of the closure and bed.

5. A folding bed including a cabinet, a swinging closure adapted to have a bed mounted thereon, hangers mounted upon the cabinet and engaging the closure to provide a shifting fulcrum for the same, vertical guide means upon the cabinet for causing the inner end of the closure to travel in a vertical path as it is swung into and out of a closed position, a balancing lever having one end thereof connected to the inner end of the closure, a head plate upon the cabinet, a swinging fulcrum bar connected to the head plate, the balancing lever being pivoted at a point between its ends at the lower end of the swinging fulcrum bar, a foot plate connected to the opposite end of the balancing lever, and tension means between the head plate and foot plate for co-operation with the balancing lever to counter-balance the weight of the closure and bed.

[Claims 6 and 7 not printed in the Gazette.]

1,081,187. SHOVEL-HANDLE EXTENSION. GEORGE ALBERT, Salda, Colo. Filed Jan. 14, 1913. Serial No. 741,976. (Cl. 55—116.)



1. A shovel provided with a fixed handle, and an extensible handle including a gripping portion lying parallel

with the gripping portion of the fixed handle and including companion clamping portions adjustable against the opposite sides of said fixed handle.

2. A shovel provided with a fixed handle, an extensible handle including a gripping portion lying parallel with the gripping portion of the fixed handle and including companion clamping portions adjustable against the opposite sides of said fixed handle, and a connecting element extending through the fixed handle and connecting the clamping portions.

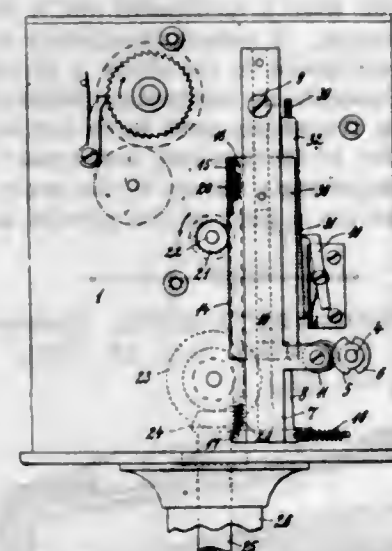
3. A shovel provided with a fixed handle, an extensible handle including a gripping portion lying parallel with the gripping portion of the main handle and including companion clamping portions adjustable against the opposite sides of said main handle, a connecting element extending through the main handle and connecting the clamping portions and comprising threadedly connected members and means for holding the members against relative separation on adjustment of the members to prescribed positions.

4. A shovel provided with a fixed handle having a gripping portion and a hand receiving opening, and a removable handle having a gripping portion lying parallel with the gripping portion of the fixed handle and including clamping portions lying against the opposite sides of the fixed handle and an adjusting element extending through the hand receiving opening of the fixed handle.

5. A shovel provided with a fixed handle having a hand receiving opening and a gripping portion, clamping plates disposed at the opposite sides of the fixed handle and having toothed surfaces operable to engage therewith, and a clamping device extending through the handle receiving portion of the fixed handle and operatively connected with the companion plates whereby to adjust the plates with relation to the opposite sides of said main handle.

[Claims 6 and 7 not printed in the Gazette.]

1,081,188. TACHOMETER. ARNOLD ALLEMAN, Berne, Switzerland, assignor to Firma Schweiz. Kommissions- und Aufbewahrungs-Haus für das in- und Ausland Tomasehpolksky & Weidenfeld, Berne, Switzerland, a Corporation of Switzerland. Filed June 10, 1913. Serial No. 772,744. (Cl. 235—104.)



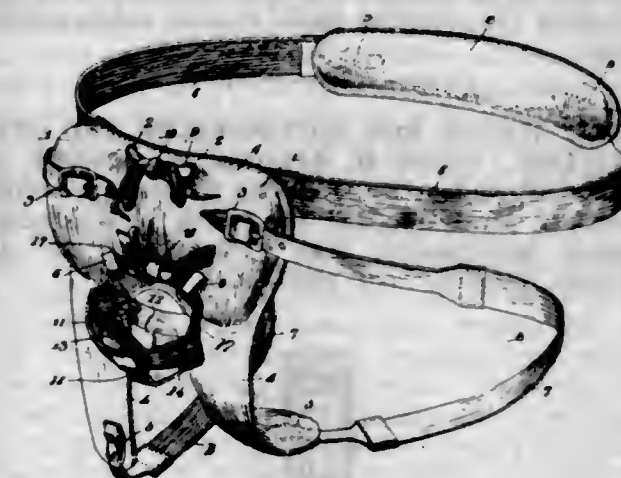
In a tachometer, the combination with two rocking levers, a toothed rack mounted to move longitudinally on each lever, and a pinion for driving said racks when the levers are rocked into one end position, of a toothed slide mounted to move longitudinally on each lever, locking means for arresting the slides when the levers are rocked into the other end position, and indicating means controlled by said slides.

1,081,189. TRUSS. THOMAS AMENDOLA, Pawtucket, R. I. Filed Mar. 31, 1910. Serial No. 552,569. (Cl. 128—26.)

In a device of the character described, the combination with a front pad, of a waist encircling belt supporting the same, said belt having ends projecting through the body of

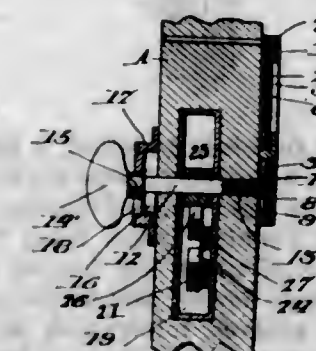
197 O. G.—31

the pad and joined together in front thereof, said pad being also provided with two depending tabs, and leg en-



circled straps, each of said straps being detachably connected at one end with one of said tabs and at the other end with the front face of the pad.

1,081,190. INDICATING-LOCK. MOTO ARITA, Boston, Mass. Filed Jan. 21, 1913. Serial No. 743,392. (Cl. 40—66.)



1. In an indicating lock, the combination with a door, a plate upon the door provided with a key hole opening, a lock for the door, a casing arranged upon the door, said casing having a compartment provided with an annular wall and an opening communicating with the compartment, a disk within the compartment and bearing upon the annular wall thereof, a friction member connected with the disk, a headed spindle co-operating with the lock bolt actuating mechanism, said spindle being provided with a lug adapted to be positioned adjacent the inner face of the plate, and the said spindle having its end provided with an opening which is adapted to receive the frictional member of the disk.

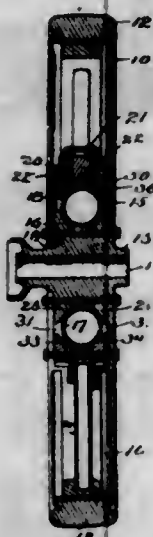
2. In a device for the purpose set forth, a chambered casing provided with an opening, a disk having a hub and arranged within the chamber and bearing upon the side wall thereof, a removable pin connected with the disk, a plate having a key hole opening, a spindle arranged within the key hole opening, said spindle being further provided with a lug adapted to engage with the inner face of the plate, and the said spindle having its end formed with a depression for the reception of the hub of the disk and the spindle having its recessed end provided with an orifice for the reception of the pin of the disk.

1,081,191. PROCESS FOR THE ELECTROLYTIC MANUFACTURE OF PERBORATES. KURT ARNDT, Charlottenburg, Germany, assignor to The Chemische Fabrik Grünau Landshoff and Meyer Aktiengesellschaft, Grünau, near Berlin, Germany. Filed Dec. 30, 1912. Serial No. 729,369. (Cl. 204—9.)

1. The process for the electrolytic manufacture of perborates from a borate solution, which consists in electrolyzing a borate solution to which has been added a soluble carbonate, substantially as described.

2. The process for the electrolytic manufacture of sodium perborate, which consists in electrolyzing an aqueous solution of a mixture of sodium carbonate and borax, and allowing the resulting liquid to cool, substantially as described.

1,081,192. WHEEL FOR AUTOMOBILES AND OTHER VEHICLES. OLIVER H. ATTRIDGE, Montgomery, Ala., assignor of one-fourth to William N. Cox, one-fourth to Cadwalder W. Beale, and one-fourth to Frederick G. Bennett, Montgomery, Ala. Filed Aug. 22, 1912. Serial No. 716,568. (Cl. 152-42.)



1. In a device of the class described, a hub, a housing, connected therewith, a resilient device within the housing, annular means within said housing bearing upon the resilient device, said annular means being provided with a channel, the walls of which are formed to engage the surface of the resilient device, said walls having a series of circumferential grooves interrupted at intervals to form transverse channels and a series of transverse members at the deepest portion of the channel first mentioned and arranged to engage the tube when the latter is highly compressed.

2. In a device of the class described, a hub, a housing having an outer circumferential channel connected with the hub, a tubular member within the housing, an annular member surrounding the tubular member, said annular member having an outer central flanged portion entering the channel of the housing, the housing being provided with air chambers on the sides of the tube between the latter and the annular member, additional air chambers between the side air chambers and the aforesaid channel, means for connecting certain of the air chambers along the walls of the housing, the annular member being grooved circumferentially for engaging the tube and having a series of transverse members at the deepest portion of the groove with transverse channels between the transverse members, and annular channels interrupted at intervals on each side of the transverse members.

1,081,193. WRENCH. STEPHEN R. AUDIBERT, Fort Kent, Me. Filed Mar. 22, 1913. Serial No. 756,194. (Cl. 81-147.)

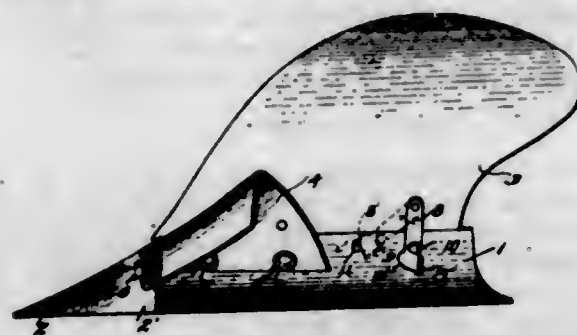
A wrench comprising a shank having a fixed jaw, a slidable jaw mounted on said shank, a rack bar positioned upon said shank for moving said slidable jaw, a handle carried by said shank and engaging said rack bar for operating the same, of a collar encircling said shank and said rack bar, said collar provided with an enlarged pocket in its forward portion for allowing said rack bar to slide there-through, said collar provided with a notched rear portion thereby forming a bridge, said shank provided with a transverse groove adjacent the inner end of said handle, a rib formed upon said shank adjacent said groove, the bridge formed upon said collar fitting in said groove, said rib of said shank fitting within the notched portion of

said collar, whereby said collar will be held in position independent of secondary securing means, said collar



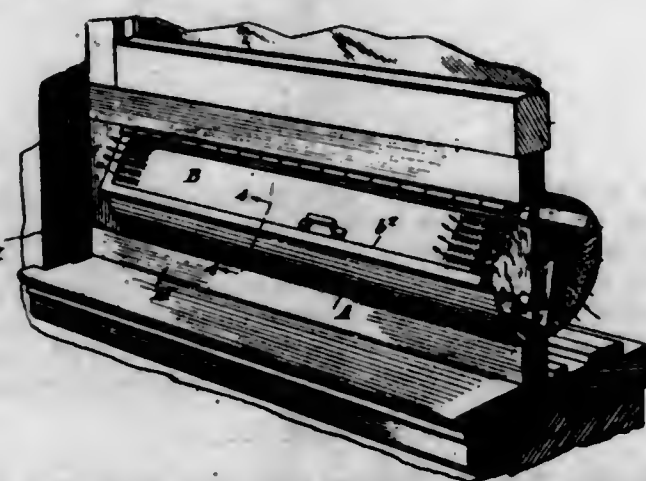
adapted to hold said rack bar in engagement with said handle.

1,081,194. PLOW. HANS J. AUNE, Crookston, Minn. Filed Aug. 10, 1912. Serial No. 714,459. (Cl. 97-21.)



The combination with a moldboard and a share detachably mounted thereon, of means detachably connecting a portion of the moldboard to the share, a pivotally mounted latch bar for detachably connecting another portion of the moldboard to the share, said latch bar being formed with a cam portion at its free end, and means in the path of the cam for imparting a thrust to the share away from the moldboard during a part of the pivotal movement of the latch bar.

1,081,195. WINDOW-VENTILATOR. FREDERICK C. AUSTIN, Chicago, Ill. Filed Jan. 13, 1911. Serial No. 602,372. (Cl. 98-31.)



1. In a window ventilator, an outwardly facing and perforated intake, a screen inside of said air intake, a deflector inside of said screen, to deflect the air upward, a seat for the lower edge of said deflector, means for removably holding the deflector in position in said seat, an adjustable air

outlet, and a dust-arrester interposed between said deflector and outlet, receiving the air from the screens.

2. In a window ventilator, an outwardly facing and perforated intake, a screen inside of said air intake, a deflector inside of said screen, to deflect the air upward, a seat for the lower edges of said screen and deflector, an adjustable air outlet, and a dust-arrester interposed between said deflector and outlet, receiving the air from the screens, said dust-arrester comprising a vertically disposed sheet of material for deflecting the air downward, and said ventilator having means for causing the air to pass below the lower edge of said sheet of material and then upwardly to said outlet.

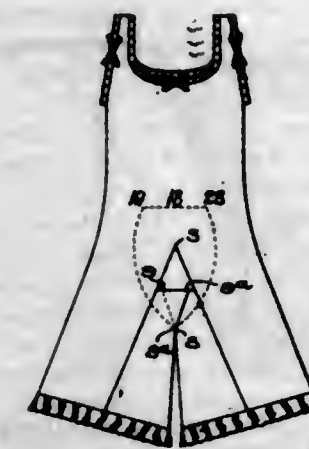
3. In a window ventilator, an outwardly facing and perforated intake, a screen inside of said air intake, a deflector inside of said screen, to deflect the air upward, an adjustable air outlet, and a dust-arrester interposed between said deflector and outlet, receiving the air from the screens, said outlet comprising an outwardly swinging door, and a damper in said door, said screen and deflector being removable through said outlet when the door is open.

4. In a window ventilator, a box for insertion in the window, having an outwardly facing and perforated intake, a screen inside of said air intake, a seat for the lower edge of said screen, a deflector inside of said screen, to deflect the air upward, an adjustable air outlet, and a dust-arrester interposed between said deflector and outlet, receiving the air from the screens, said deflector and screen and intake being disposed outside of the vertical plane of the window sash, the screen being removable and inclined outward, and the dust-arrester being disposed substantially in the vertical plane of the window-sash, the screen and deflector and dust-arrester being removable through said outlet.

5. In a window ventilator, an outwardly facing and perforated intake, a screen inside of said air intake, a deflector inside of said screen, to deflect the air upward, an adjustable air outlet, and a dust-arrester interposed between said deflector and outlet, receiving the air from the screens, said dust-arrester comprising a swinging and imperforate curtain for deflecting the air downward and under the lower edge thereof, which curtain is removable through said outlet.

[Claims 6 to 27 not printed in the Gazette.]

1,081,196. UNDERGARMENT. CHARLES J. BAKER, Phoenixville, Pa. Filed Feb. 28, 1913. Serial No. 751,303. (Cl. 2-144.)



1. A union garment made from a tubular fabric cut at its front and rear throughout a portion of its length to form leg portions; gussets inserted in the leg portions, each of said gussets being divided for a portion of its length downwardly from its upper end and having edges secured respectively to the edges formed by the front and rear cuts of the fabric, one of the portions formed by the division of each gusset extending upwardly and being secured to the front of the fabric, the other of said latter portions extending upwardly and being secured to the rear of said fabric.

2. An open crotch union garment made from a tubular fabric cut at its front and rear throughout a portion of

its length to form leg portions; a gusset inserted in each leg portion, each of said gussets being divided for a portion of its length downwardly from its upper end and having edges secured respectively to the edges formed by the said front and rear cuts of the fabric, one of the portions formed by the division of each gusset extending upwardly and being secured to the front of said fabric in a position overlapping the other, the other of said portions extending upwardly and being secured to the rear of said fabric also in an overlapped position.

3. An open crotch union garment made from a tubular fabric cut at its front and rear throughout a portion of its length to form leg portions; a gusset inserted in each leg portion, each of said gussets being divided for a portion of its length downwardly from its upper end and having edges secured respectively to the edges formed by the said forward and rear cuts of the fabric, one of said portions formed by the division of one of the gussets terminating in an angular section and having its edges secured to the upper part of the edges forming the front leg portions of the garment, another portion of each gusset formed by the division extending upwardly and being secured to the rear of the said fabric in a position overlapping the other, said angular portion and a portion formed by the revision of the other gusset extending upwardly in an overlapped position, the latter portion being also secured to the said fabric.

4. An open crotch union garment made from a tubular fabric cut at its front and rear throughout a portion of its length to form leg portions; a crotch gusset inserted in each leg portion, each of said gussets being divided into two sections partway down from its upper end and having edges secured respectively to the edges formed by the said front and rear cuts, one of said sections in one gusset having a free edge coincident at the crotch with a free edge of one of said sections of the other gusset, said free edges flaring upwardly in overlapped positions, said latter sections being secured to the front of the fabric, the other of said sections having free edges extending from the crotch upwardly in the rear in overlapped positions and being secured to the rear of the fabric.

1,081,197. SEAM FOR SEWED ARTICLES. JACOB BARNETT, New York, N. Y. Filed Mar. 7, 1912. Serial No. 682,096. (Cl. 112-34.)



1. A seam for sewed articles comprising two layers of cloth, a row of zigzag stitches uniting the edge of one of the layers of cloth to the body of the other layer of cloth adjacent the edge thereof, and a row of straight stitches which are run along the row of zigzag stitches through the other layer of cloth along the edge of the one layer to secure each of the zigzag stitches to the other layer at a point between the ends of the stitches, whereby when the layers are turned, folding the other layer along its edge, only a small portion of the threads forming the stitches will be visible.

2. A seam for sewed articles comprising two layers of cloth, a row of zigzag stitches joining the edge of one layer of cloth to the body of another layer adjacent the edge thereof, said zigzag stitches crossing the edge of the one layer and passing through the other layer, these zigzag stitches on the opposite face of the other layer being even with the edge of the one layer, and a row of straight stitches passing through the other layer of cloth along the edge of the one layer of cloth, to secure each of the zigzag stitches which cross the edge of the one layer to the other layer intermediate the ends of the said stitches, whereby when the layers are turned, folding the other layer along

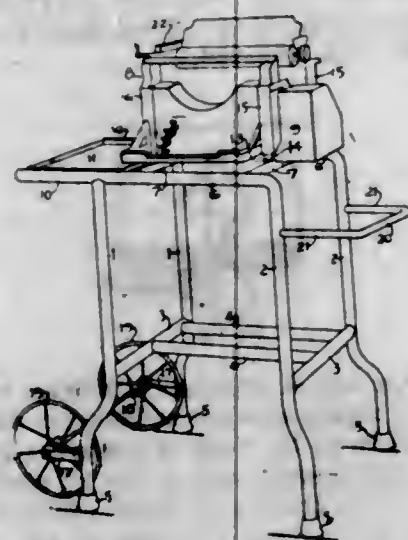
a line adjacent the edge of the one layer, only a very small portion of the threads forming the stitches will be visible.

3. A seam for sewed articles comprising two layers of cloth, a row of stitches uniting the edge of one of the layers of cloth to the body of the other layer of cloth adjacent the edge thereof, and means passing along the edge of the one layer of cloth to secure the threads of said stitches to the body of the other layer adjacent the one layer, whereby when the layers are turned to fold the other layer along a line adjacent the edge of the one layer, only a small portion of threads forming the said stitches will be visible.

4. A seam for sewed articles comprising two layers of cloth, stitches uniting the edge of one of the layers to the body of the other layer adjacent the edge of the other layer, the portions of the lengths of the threads forming said stitches being greater on the side of the other layer to which the one layer is applied than the portions of the lengths of the threads on the opposite side of the other layer, and means extending along the edge of the one layer and engaging the threads forming the stitches to secure the same to the body of the other layer along the edge of the one layer, whereby, when the layers are turned to fold the other around a line adjacent the edge of the one layer, only a small portion of the threads forming said stitches will be visible.

5. A seam for sewed articles comprising two layers of cloth, a row of zigzag stitches uniting the edge of one of the layers of cloth to the body of the other layer of cloth, and a row of straight stitches which are run along the row of zigzag stitches through the other layer of cloth along the edge of the one layer to secure each of the zigzag stitches to the other layer at a point between the ends of the stitches, whereby when the layers are turned, folding the other layer along its edge, only a small portion of the thread forming the stitches will be visible.

1,081,198. STAND FOR TYPE-WRITING MACHINES. HARRY BATES, Albany, N. Y., assignor to Underwood Automatic Typewriter Pay Station Company, New York, N. Y., a Corporation of New York. Filed Apr. 1, 1909. Serial No. 487,213. (Cl. 21—85.)



1. A machine stand comprising a support for a machine at which an operator may sit and work and provided at one end with a carriage-wheel device having a fixed relation to the stand, the latter having at both ends legs or feet to rest directly upon the floor to prevent the stand from rolling along the floor, and a handle to lift all of said legs or feet from the floor and enable the stand to be used as a hand truck; certain of said legs having arms upon which said wheel device is mounted.

2. A stand having a top upon which may be fastened a typewriting machine at such a height that an operator may sit and operate said machine, and having legs to rest directly upon the floor, and having only at one end a carriage-wheel device, and at the other end a handle, to enable the frame to be used as a hand-truck to transport the typewriting machine; said carriage wheel device having a

fixed relation to said stand, the lower edges of said wheel device being close to the feet of the nearest pair of legs.

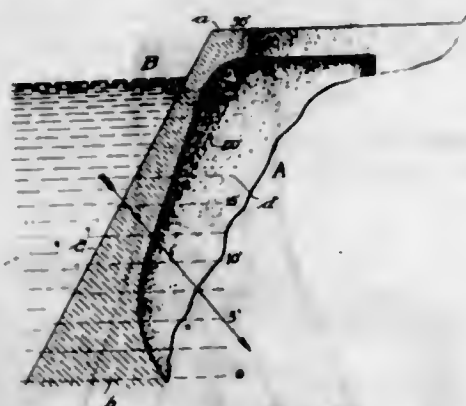
3. A skeleton machine stand provided with a set of four legs or feet all resting directly on the floor, a pair of wheels mounted upon the stand at one end thereof to enable it to be used as a hand-truck, the treads of said wheels being just above and very near to the nearby pair of feet, and a handle upon the other end of the stand, said wheel device having a fixed relation to the stand and the latter being tiltable upon said wheels to clear all four feet from the floor so that the stand will rest only on the wheels; said stand having a top upon which a suitable machine may be mounted and said wheels mounted beneath said tray.

4. A skeleton stand provided with a top upon which a rentable typewriting machine may be fastened, said stand being provided with a tray or table on one side of the typewriting machine and also provided with a set of legs or feet to afford a complete support for the stand, a pair of wheels mounted upon the stand at one end thereof to enable it to be used as a hand-truck, the treads of said wheels being just above and very near to the nearby pair of feet, and a handle upon the other end of the stand, said wheels having a fixed relation to or position on said stand, and out of contact with the floor when the stand rests upon its feet, and said stand being tiltable upon said wheels to enable all of said feet to clear the floor so that the stand will rest only on the wheels.

5. A skeleton frame comprising two pairs of legs, a pair of longitudinal top bars integral with one pair of legs and attached to the other pair, end bars to which a typewriting machine may be attached connecting said top bars, at such a height that an operator may sit and operate said machine, said top bars prolonged at one end to carry a table or tray, means connecting the lower parts of the legs, a handle projecting from a pair of the legs at the end opposite from said tray, and a pair of wheels mounted upon the other pair of legs beneath the tray with their treads just above and near to the supporting faces of the nearby feet to enable the frame to be used as a hand-truck to transport the typewriting machine.

(Claims 6 and 7 not printed in the Gazette.)

1,081,199. DAM. GEORGE SYDNEY BINCKLEY, Oceanpark, Cal., assignor of one-third to Tracy C. Becker and Raymond Ives Blakeslee, Los Angeles, Cal. Filed July 12, 1909, Serial No. 507,246. Renewed May 6, 1913. Serial No. 765,908. (Cl. 61—24.)



A dam having a horizontal curvature the radius of each face of which increases downwardly through a portion of the height thereof.

1,081,200. TEMPERATURE-REGISTER FOR CARS. ROBERT FRANKLIN BLOW and GREEN W. SANDFORD, Mobile, Ala., assignors of nine twenty-fourths to Paul P. Locking, three twenty-fourths to Jacob Markstein, one twenty-fourth to William C. Baumhauer, and one twenty-fourth to Jacob Rubel, Mobile, Ala. Filed July 2, 1912. Serial No. 707,847. (Cl. 73—52.)

A temperature register for refrigerator cars, comprising a frame of a depth equal to the thickness of the car wall, said frame being set flush in said wall, a vacuum cham-

bered outer wall for said register defined by spaced outer and inner panes of glass, an exhaust valve communicating with the vacuum chamber, a thermometer located back of said chamber, a perforated sealing wall closing the back of said frame and forming a thermometer compartment behind the chambered outer wall, the marginal wall



of the frame being provided with an opening leading into the thermometer compartment and an air duct leading to said opening and affording communication between the thermometer compartment and the outside atmosphere, and an outwardly opening spring seated valve controlling said air duct.

1,081,201. STALK-CUTTER. ROBERT A. BLUNCK, Grand Mound, Iowa. Filed Oct. 31, 1911. Serial No. 657,879. (Cl. 55—118.)



1. In a stalk cutter, the combination with a main frame, of a supplemental frame, means for swinging the supplemental frame upwardly and rearwardly relative to the main frame, downwardly converging digging disks carried by the supplemental frame, and a revoluble wiper supported by the supplemental frame above the disks.

2. In a stalk cutter, the combination with a main frame, of a supplemental frame, means for swinging the supplemental frame upwardly and rearwardly relative to the main frame, downwardly converging digging disks carried by the supplemental frame, and a revoluble wiper supported by the supplemental frame and above the disks, said wiper and disks being adjustable together relative to the supplemental frame.

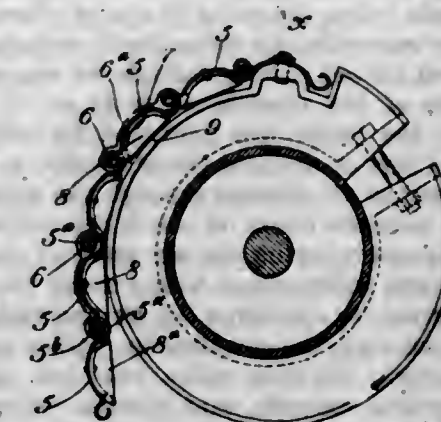
3. In a stalk cutter, the combination with a main frame, of a supplemental frame, means for swinging the supplemental frame upwardly and rearwardly relative to the main frame, downwardly converging digging disks carried by the supplemental frame, and a revoluble wiper supported by the supplemental frame and above the disks, said wiper and disks being adjustable together relative to the supplemental frame, said disks being also adjustable relative to the wiper.

4. In a stalk cutter, the combination with a main frame, of a supplemental frame, gathering scrapers converging rearwardly and carried by the supplemental frame, rearwardly converging deflecting arms back of the scrapers and yieldable upwardly, and digging disks converging downwardly under said arms and carried by the supplemental frame, and means for shifting said sup-

plemental frame upwardly and rearwardly relative to the main frame to disengage the disks from the soil.

5. In a stalk cutter, the combination with a main frame, of a supplemental frame, gathering scrapers converging rearwardly and carried by the supplemental frame, rearwardly converging deflecting arms back of the scrapers and yieldable upwardly, digging disks converging downwardly under said arms and carried by the supplemental frame, an apron extending between and over the disks, a revoluble wiper supported above the apron for directing cut stalks rearwardly along the apron, and cutting mechanism for receiving the stalks from the apron. [Claims 6 to 8 not printed in the Gazette.]

1,081,202. END MEMBER FOR THE SLATS OF FIRE-SHUTTERS. WILLIAM M. BRUNST, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Mar. 22, 1912. Serial No. 685,544. (Cl. 189—58.)

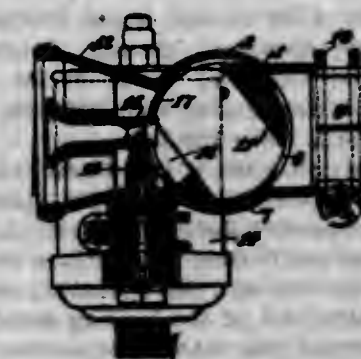


1. An end member for a slat of a rolling fire shutter consisting of a shank constructed to be applied to the inner side of the slat, said shank having a transverse projection or web remote from the ends of the shank.

2. An end member for a slat of a rolling fire shutter consisting of a shank to be applied to the end portion of a slat and having a head or projection at one end to afford an abutment to prevent longitudinal movement in one direction of an adjoining slat and also a web or projection inset and spaced from said head to contact with the side of another slat to keep the coils regularly disposed on each other.

3. A spacing member for a slat of a rolling fire shutter consisting of a metallic body having a concave side, said metallic body adapted to be applied to the slat and having a segmental web in its concave side transversely of the slat and adapted to contact with another slat and keep the coils of the shutter spaced, substantially as described.

1,081,203. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. GEORGE FREDERICK BULL, Birmingham, England. Filed Dec. 16, 1912. Serial No. 737,084. (Cl. 48—155.1.)



1. In a carbureter for internal combustion engines, the combination with a rotary cylindrical throttle valve mounted upon trunnions at opposite ends and having a

straight-through passage at right-angles to its axis, of a spraying nozzle arranged at right-angles to the said axis so as to direct the sprayed fuel through the inlet end of the throttle valve into the interior thereof, an angularly-movable segmental air valve freely mounted upon the outside of and curved correspondingly to the periphery of the inlet side of the throttle valve so as to work independently of the latter and arranged to cooperate only with the inlet port of the said throttle valve so as to regulate the amount of air passing through the said inlet port, a radial arm mounted freely on one of the trunnions of the throttle valve and carrying the air valve at its outer end, and separate and independent means under the direct control of the driver for operating the air and throttle valves.

2. In a carburetor for internal combustion engines, the combination with a rotary cylindrical throttle valve mounted upon trunnions at opposite ends and having a straight-through passage at right-angles to its axis, of a spraying nozzle arranged at right-angles to the said axis so as to direct the sprayed fuel through the inlet end of the throttle valve into the interior thereof, said throttle valve being provided with a slot which registers with the spraying nozzle when the valve is nearly closed, an angularly-movable segmental air valve freely mounted upon the outside of and curved correspondingly to the periphery of the inlet side of the throttle valve so as to work independently of the latter and arranged to cooperate only with the inlet port of the said throttle valve so as to regulate the amount of air passing through the said inlet port, a radial arm mounted freely on one of the trunnions of the throttle valve and carrying the air valve at its outer end, and separate and independent means under the direct control of the driver for operating the air and throttle valves.

3. In a carburetor, the combination with a sprayer, of a rotary cylindrical throttle valve into one open end of which the sprayer extends, said throttle valve being provided with a slot which registers with the sprayer when the valve is nearly closed, an angularly movable air valve mounted upon and movable over the periphery of the throttle valve to regulate the quantity of air entering the said inlet side of the throttle valve, and means under the control of the driver for directly operating the air valve independently of the throttle valve.

4. In a carburetor for internal combustion engines, the combination with a rotary throttle valve, of a sprayer arranged at right angles to the axis thereof, an air valve mounted upon and movable over the periphery of the throttle valve to regulate the amount of air entering the inlet end thereof, a spring for moving said throttle and air valves in one direction, and means for positively moving said valves in the opposite direction.

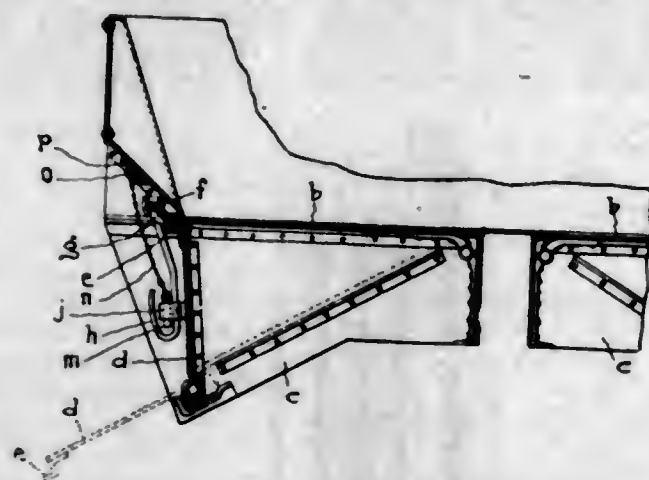
5. In a carburetor for internal combustion engines, the combination with a rotary throttle valve, of a sprayer arranged at right angles to the axis thereof, an air valve mounted upon and movable over the periphery of the throttle valve to regulate the amount of air entering the inlet end thereof, a volute-coiled spring having its ends connected respectively to the throttle and air valves so as to tend to take same into their closed positions, and means for positively and independently moving said valves toward their fully open positions.

1,081,204. LOCK FOR DUMP-CAR DOORS. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Original application filed Oct. 17, 1911, Serial No. 855,253. Divided and this application filed Mar. 25, 1912. Serial No. 686,106. (Cl. 105-186.)

1. The combination with a car frame and a series of dump doors, of individually manually operative locking devices for the respective doors, an operating member and a series of permanent flexible connections between the individual locking devices and the operating member for the purpose of operating all of the locking devices simultaneously and permitting the manual operation thereof individually.

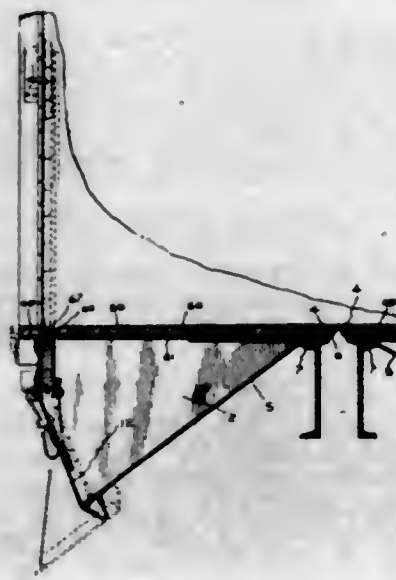
2. The combination with a car frame and a series of dump doors, of a series of clamping handles or levers engaging the doors, brackets upon the doors with which the

handles or levers register, keys locking the handles or levers in the brackets, a shaft rotatably mounted upon the



car frame, and a series of flexible connections between the keys and shaft.

1,081,205. CONVERTIBLE FLAT AND HOPPER BOTTOM DUMPING CAR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed July 18, 1912. Serial No. 710,264. (Cl. 105-184.)



1. In a car for loose commodities, the combination with a side sill and center-sill, of a discharge hopper comprising vertical walls hung from the car body, a diagonal hopper floor member carried by the walls and extending substantially the full length and width of the hopper, such diagonal floor member consisting of a pair of parts constituting the floors of the respective hoppers and a central part uniting the said floor parts and having an angular rib presenting opposite diagonal door-jams and a pair of combined door members and grain-doors hinged contiguous to the sides of the car and having beveled free edges for engagement with the door-jams.

2. In a convertible car the combination with the under framing and body, of a pair of combined floor and grain-door members hinged contiguous to the sides of the car and collectively extending from side to side of the car, discharging hoppers beneath the floor having diagonal fixed floors consisting of a member extending transversely of the car and including an angular middle part extending longitudinally of the car and mounted on the under framing, the said part presenting oppositely inclined door-jams for engagement by the combined floor and grain-door members.

3. In a convertible car the combination with the under-framing and body, of a pair of extensible combined floor and grain-door members hinged contiguous to the sides of the car and collectively extending from side to side of the car, discharging hoppers beneath the floor having diagonal fixed floors consisting of a member extending transversely of the car and including an angular middle part extending

longitudinally of the car and mounted on the under framing, the said part presenting oppositely inclined door-jams for engagement by the combined floor and grain-door members.

1,081,206. FABRIC-FOLDING DEVICE. HARRY S. BURNHAM, Brant, N. Y. Filed Mar. 13, 1913. Serial No. 753,974. (Cl. 112-10.)



1. In a device of the class described, a pair of superposed converging rotating members for engaging and turning the free edges of a seam about and between said members.

2. In a device of the class described, a pair of superposed rotary members for engaging and turning the edges of a seam about and between said members preparatory to stitching the seam, and means for continuously rotating said members in opposite directions.

3. A device of the class described, comprising a continuously operable rotary member of tapered form and angular cross section for engaging continuously and turning under the edge of a piece of fabric, and a concave guide for directing the edge of the fabric to and around said member.

4. A device of the class described, comprising a continuously driven rotary member of tapered form and angular cross section for engaging and turning under the edge of a piece of fabric, a concave guide for directing the edge of the fabric to and around said member, and means for resiliently pressing said guide toward said member.

5. A device of the class described, comprising a continuously driven rotary member of tapered form and angular cross section for engaging and turning under the edge of a piece of fabric, a concave guide for directing the edge of the fabric to and around said member, means for resiliently pressing said guide toward said member, and means for limiting the width of fabric turned under by said first member.

[Claims 6 to 9 not printed in the Gazette.]

1,081,207. GEOGRAPHICAL GLOBE. BERNARD J. S. CAHILL, San Francisco, Cal. Filed Feb. 11, 1913. Serial No. 747,717. (Cl. 35-5.)



A soft rubber hollow ball having thereon a representation of the earth's surface, severed along a line extending meridionally from pole to pole, and having other meridional incisions extending from the poles and spaced a right angle, those of one pole extending therefrom each way more than a quadrant, and those of the other pole extending therefrom each way less than half a quadrant, said ball being formed with incisions less than half a quadrant extending along the equator each way from the first-named incision, said rubber being sufficiently thick to cause the ball to re-assume a spherical form from an extended form when permitted.

1,081,208. STOP-BLOCK FOR VEHICLES. HEINRICH CARDUCK, Saarbrücken, and JACOB MATTES, Brebach-on-the-Saar, Germany. Filed Aug. 26, 1913. Serial No. 786,761. (Cl. 104-49.)

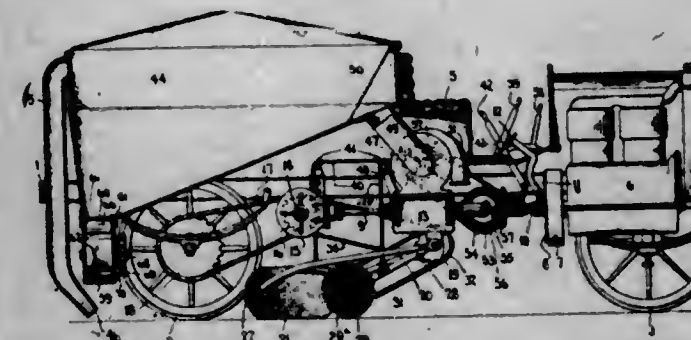


1. A throw off device for vehicle stop blocks, having a pivoted arm adapted to compress a spring by means of the weight of the vehicle, and a locking device for holding said arm in a depressed position against the pressure of said spring, which on the weight being removed from the stop block, expands toward the rail and causes a cup shaped spring retainer to protrude beneath the sole of the block, thereby raising same from the rail and throwing it aside, substantially as described.

2. A vehicle stop block provided with an opening in the sole thereof, a cup fitted to slide in the opening, an arm pivoted in the block, a spring arranged between said cup and arm adapted to normally maintain the latter in extended position to be encountered and depressed by the vehicle wheel, a gravity pawl pivoted in the block above said arm and cooperating with the latter to retain the same in retracted position when the weight is removed whereby the spring may eject the cup to raise the block and throw same aside.

3. A vehicle stop block provided with an opening in the sole thereof, a cup slidably fitted in the opening, an arm pivoted in the block, a spring arranged between said cup and arm for normally maintaining the latter in an extended position to be encountered and depressed by the vehicle wheel, a pawl pivoted in the block and adapted to engage said arm and retain the same in retracted position, and means for holding said pawl out of operative engagement with said arm.

1,081,209. STREET-CLEANING MACHINE. HUGH CARR, Smyrna, Mich. Filed June 6, 1912. Serial No. 702,093. (Cl. 15-17.)



1. In a street sweeping machine, the combination with a framework, a dirt receptacle thereon, and a suction tube depending from said receptacle at the rear end of the machine and having a mouth-piece at its lower extremity; of a plurality of brushes carried by said framework, one disposed directly forward of said mouth-piece and the others standing oblique to the first and disposed also forward of the mouth-piece but rearward and to the sides of the first-mentioned brush, and means for rotating said first-mentioned brush in a direction to sweep the dust toward the mouth-piece and the other brushes in the opposite direction.

2. In a street sweeping machine, the combination with a framework, a dirt receptacle thereon, and a suction tube depending from said receptacle at the rear end of the machine and having a mouth-piece at its lower extremity; of a plurality of brushes carried by said framework, one disposed directly forward of said mouth-piece and the others to the sides of and rearward of the first-mentioned brush with their axes oblique and converging toward each other to the rear of the machine, and means for rotating said first-mentioned brush in a direction to sweep the dust

toward the mouth-piece and the other brushes in the opposite direction.

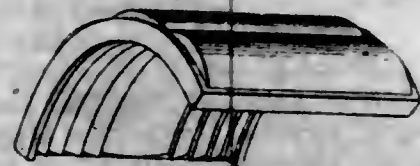
3. In a street sweeping machine, the combination with a framework, a dirt receptacle thereon, and a suction tube depending from said receptacle at the rear end of the machine and having a mouth-piece at its lower extremity; of a plurality of brushes, one disposed directly forward of said mouth-piece and others at opposite sides of the first-mentioned brush with their axes oblique and converging toward each other to the rear of the machine, a frame supporting each brush and movably connected with said framework, the frames of the side brushes partly overlying the frame of the other brush, means for lifting the intermediate frame, and means for rotating said first-mentioned brush in a direction to sweep the dust toward the mouth-piece and the other brushes in the opposite direction.

4. In a street sweeping machine, the combination with a main framework, a shaft journaled across the same, an intermediate brush, and two side brushes; of an H-shaped intermediate frame whose front end is journaled on said shaft and whose rear end carries said intermediate brush, two side frames each of which has its front end journaled on said shaft, its body overlying a portion of said H-shaped frame, and its rear end carrying one of the side brushes, means for elevating either side frame, and independent means for elevating the H-shaped frame.

5. In a street sweeping machine, the combination with a main framework, a shaft journaled across the same, an intermediate brush, and two side brushes; of an H-shaped intermediate frame whose front end is journaled on said shaft and whose rear end carries said intermediate brush, two side frames each of which has its front end journaled on said shaft, its body overlying a portion of said H-shaped frame, and its rear end carrying one of the side brushes, connections between the shaft and the intermediate brush for rotating the latter in one direction, connections between the shaft and the side brushes for rotating the latter in the other direction, means for elevating the side frames independently, and means for elevating the intermediate frame.

[Claims 6 and 7 not printed in the Gazette.]

1,081,210. FRESNEL LENS. WILLIAM CHURCHILL, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y. Filed Mar. 6, 1913. Serial No. 752,424. (Cl. 240-106.)



1. A Fresnel lens the outer surface of which is provided with a series of connected segmental panels each having a radius of curvature less than the radius of curvature of the cylinder passing through the points of intersection of said panels, substantially as set forth.

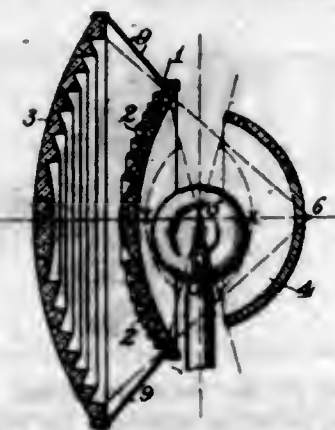
2. A Fresnel lens the outer surface of which is provided with a series of connected segmental panels each having a radius of curvature common to all and less than the radius of curvature of the cylinder passing through the points of intersection of said panels, substantially as set forth.

3. A Fresnel lens the outer surface of which is provided with segmental panels each having a radius of curvature less than the radius of curvature of said outer surface, substantially as set forth.

1,081,211. OPTICAL SYSTEM. WILLIAM CHURCHILL, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y. Filed Mar. 22, 1913. Serial No. 756,266. (Cl. 240-41.)

1. In an optical system, the combination of two corrugated lenses of different diameters and a source of illumination, the smaller lens being located next to the source of illumination and the larger lens farther therefrom, the

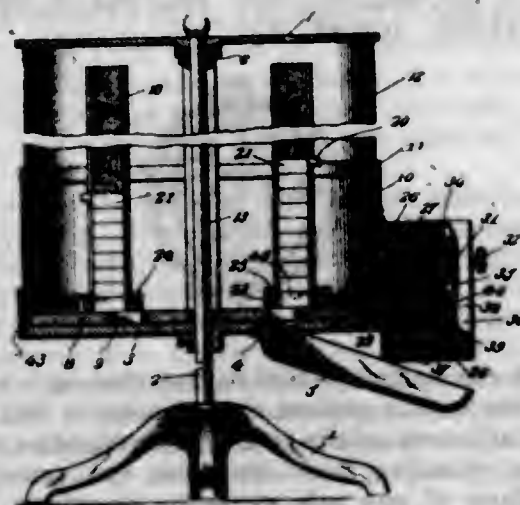
smaller lens having its inner face smooth and zones of spherical curvature disposed upon its outer face, and the larger lens having its outer face smooth and zones disposed upon its inner face, the construction and arrangement being such that the smaller lens shall produce an apparent focus behind the source of illumination and the larger lens shall focus at the apparent focus of the smaller lens, substantially as set forth.



2. In an optical system, the combination of two corrugated lenses of different diameters, a source of illumination and a mirror in the rear thereof, the smaller lens being located next to the source of illumination and the larger lens farther therefrom, the smaller lens having its inner face smooth and zones of spherical curvature disposed upon its outer face, and the larger lens having its outer face smooth and zones disposed upon its inner face, the construction and arrangement being such that the smaller lens shall produce an apparent focus behind the source of illumination and the larger lens shall focus at the apparent focus of the smaller lens, substantially as set forth.

3. In an optical system, the combination of two corrugated lenses of different diameters, a source of illumination and a spherical mirror in the rear thereof, the smaller lens being located next to the source of illumination and the larger lens farther therefrom, the smaller lens having its inner face smooth and zones of spherical curvature disposed upon its outer face, and the larger lens having its outer face smooth and zones disposed upon its inner face, the construction and arrangement being such that the smaller lens shall produce an apparent focus behind the source of illumination and the larger lens shall focus at the apparent focus of the smaller lens, substantially as set forth.

1,081,212. VENDING-MACHINE. ALBERT K. COLLINS, Lancaster, S. C. Filed Jan. 24, 1913. Serial No. 744,009. (Cl. 211-8.)



1. In a vending machine, the combination with a carrier adapted for rotary movement, of article holders within said carrier and rotatable therewith, releasing plungers for said article holders, stems on said plungers, and an operating device stationary relatively to said carrier and including a shank adapted to align with said stems and common to all of said stems.

2. In a vending machine, the combination with a carrier adapted for rotary movement and provided with discharge openings therein, of a table mounted below said carrier and having an opening therein adapted to register with the first-mentioned openings, article holders within said carrier and rotatable therewith, plungers controlling communication between said holders and discharge openings, and an operating device stationary relatively to said carrier and common to all of said plungers.

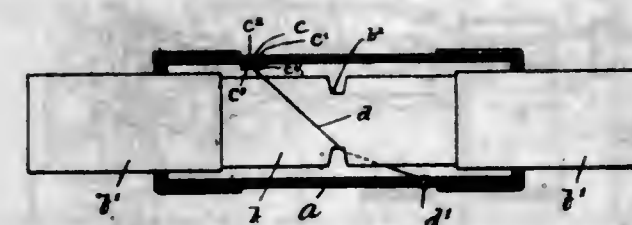
3. In a vending machine, the combination with a carrier adapted for rotary movement, and comprising sections of various materials, each section composed of a number of segments, and a strap having pivotal connections with said segments whereby the carrier may be opened, article magazines within said carrier, and means controlling the discharge of the articles from said magazines.

4. In a vending machine, the combination with a carrier adapted for rotary movement and provided with openings adjacent to the lower end thereof and spaced apart about the carrier, of article holders within said carrier and rotatable therewith, releasing plungers controlling the discharge of articles from said holders, a stem on each plunger and registering with one of said openings, means normally holding said plungers in non-discharge position, an operating device stationary relatively to said carrier and including a shank common to all of said stems and adapted to register therewith in the operation of the carrier, and means for operating said shank whereby the plungers will be moved to discharge position.

5. In a vending machine, the combination with a carrier adapted for rotary movement and provided with openings adjacent to the lower end thereof and spaced apart about the carrier, of article holders within said carrier and rotatable therewith, releasing plungers controlling the discharge of articles from said holders, a stem on each plunger and registering with one of said openings, means normally holding said plungers in non-discharge position, an operating device stationary relatively to said carrier and including a shank common to all of said stems and adapted to register therewith in the operation of the carrier, means for operating said shank whereby the plunger will be moved to discharge position, and means for automatically indicating and holding the respective stem in axial alignment with said shank.

[Claims 6 and 7 not printed in the Gazette.]

1,081,213. INCLOSED ELECTRIC FUSE. FRANKLIN N. CONANT, Newburyport, Mass., assignor to Chase-Shawmut Company, Boston, Mass., a Corporation of Maine. Filed Feb. 28, 1910. Serial No. 546,431. (Cl. 175-273.)



1. In an inclosed electric-fuse, a spring-indicator consisting of a cylindrical case having a flanged head with a hole through its head, said case being arranged in a hole in the fuse-case, an indicating-plug contained in said case and held therein by frictional engagement therewith, an actuating spring loosely contained in said case and unattached thereto, an indicator controlling-wire extended through the hole in the head of the case and through the actuating-spring, and means coextensive with the area of the opening in the case which is arranged in the case beneath the indicating-plug and connected with said wire and which engages the outer end of said spring and is held by said wire in position to hold the spring compressed, and which forms a seat for determining the position of the indicating-plug in the case, substantially as described.

2. In an inclosed electric-fuse, a spring-indicator consisting of a cylindrical case having a flanged head with a hole through its head, said case being arranged in a hole in the fuse-case, an actuating-spring loosely contained in

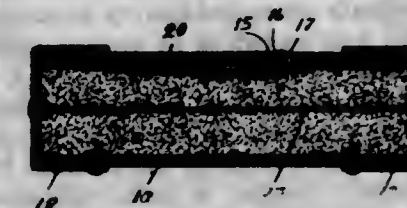
said case and unattached thereto, a disk coextensive with the area of the opening in the case which is arranged in the case above said spring, said disk having two holes through it, an indicator controlling-wire made as a loop which is extended through the holes in said disk and through the spring and through the hole in the head of the case, its ends being held fixed, said wire holding said disk with the actuating-spring compressed, and said disk adapted to be expelled by the actuating-spring when pressure upon said spring is relieved, substantially as described.

3. In an inclosed electric-fuse, a spring-indicator consisting of a case, an indicating-plug contained in said case and held therein by frictional engagement therewith, an actuating-spring loosely contained in said case and unattached thereto, an indicator controlling-wire extended into the case, and means contained in the case and connected with one end of said wire and engaging said actuating-spring to hold said spring compressed, said means forming a seat for determining the position of the indicating-plug in the case without exerting pressure thereupon while holding the actuating-spring compressed, substantially as described.

4. In an inclosed electric-fuse, a spring-indicator having an indicating-plug held in place by frictional engagement with its support, an actuating-spring, an indicator controlling-wire extended through the actuating-spring and a disk connected with one end of said wire above said spring and engaging said spring to hold it compressed, said disk forming a seat for determining the position of the indicating-plug without exerting pressure thereupon while holding the spring compressed and adapted to be expelled by the spring and to in turn expel the indicating-plug when pressure upon the spring is relieved, substantially as described.

5. In an inclosed electric-fuse, a spring-indicator having an actuating-spring, an indicator controlling-wire extended through the spring, a disk arranged above the spring and connected with one end of said wire and engaging said spring to hold it compressed, said disk being held by the wire a short distance below the level of the fuse-case, and an indicating-plug fitted into the space above said disk and held therein by friction, said plug bearing upon said disk, whereby its position is determined by said disk, substantially as described.

1,081,214. INCLOSED ELECTRIC FUSE. FRANKLIN N. CONANT, Newburyport, Mass., assignor to Chase-Shawmut Company, Boston, Mass., a Corporation of Maine. Filed Jan. 2, 1912. Serial No. 668,834. (Cl. 175-273.)



1. In an inclosed electric-fuse, a fuse-case having metallic end-pieces and having an aperture in its side, a fuse-strip arranged in the case and electrically connected with the end-pieces, a spring-indicator arranged in said aperture comprising a case, an actuating spring and plug engaging said spring, a high resistance indicator controlling-wire arranged in the case and connected at one end with one of the end-pieces, its other end passing through a hole in the indicator-case and through the actuating-spring and attached to the plug, and a metallic conducting-strip arranged within the case and extended lengthwise thereof, having a perforation at its inner end to receive the indicating-case and form electrical engagement therewith, its outer end being attached to the other end-piece of the fuse-case, substantially as described.

2. An inclosed filled fuse of the cartridge type having a non-conducting casing, metallic end caps and a main fuse-strip extending from one to the other end cap through the filling, said fuse case having a circular hole within which is contained a metallic indicator chamber rearwardly flanged so as to resist expulsion from the case,

said indicator chamber containing a coiled spring held under tension by an indicating disk which is held normally at the level of the exterior of the case by the indicating controlling device consisting of a German silver wire attached to said disk, extending through the bottom of the indicator chamber and thence along the inner wall of the casing to one of the end caps of the fuse, said indicator controlling wire being electrically connected with a strip of low resistance metal extending from the indicator chamber to the other metallic end cap of the fuse and electrically connected therewith, thus forming an interior shunt so that the indicator controlling device will be fused and the indicating disk released when the main fuse wire breaks, substantially as described.

3. An inclosed electric fuse having a spring-indicator consisting of a case, the outer end of which is flared outwardly to form a seat, a plug adapted to engage said seat, an actuating-spring contained in the case and adapted to be held compressed by said plug when the latter is in engagement with its seat, and an indicator controlling-wire connected to said plug to hold it in engagement with its seat with the spring compressed, substantially as described.

4. An inclosed electric-fuse having a spring-indicator consisting of a case adapted to be arranged in an aperture in the side of the fuse-case having a flanged head at its inner end and having its outer end flared outwardly to form a seat, a plug to engage said seat, an actuating-spring contained in the case and held compressed by said plug when the latter is in engagement with its seat, an indicator controlling-wire made as a loop, the end of which passes through a hole in the head of the indicator case and through the actuating-spring and through two holes in the indicator-plug, said indicator controlling-wire holding the plug in engagement with its seat with the spring compressed, substantially as described.

1,081,215. LENS. WILLIAM THOMAS COULSON, Penge, England. Filed Sept. 17, 1910. Serial No. 582,496. (Cl. 240-106.)



1. A lens reflector the body of which is provided with a hole extending entirely therethrough to accommodate an illuminating device and operative to project light rays in parallelism therefrom.

2. A lens reflector having a hole extending axially therethrough to accommodate an illuminating device and operative to project light rays in parallelism therefrom.

3. A lens reflector having a hole extending therethrough coincident with the optical axis of the lens to accommodate an illuminating device and operative to project light rays in parallelism therefrom.

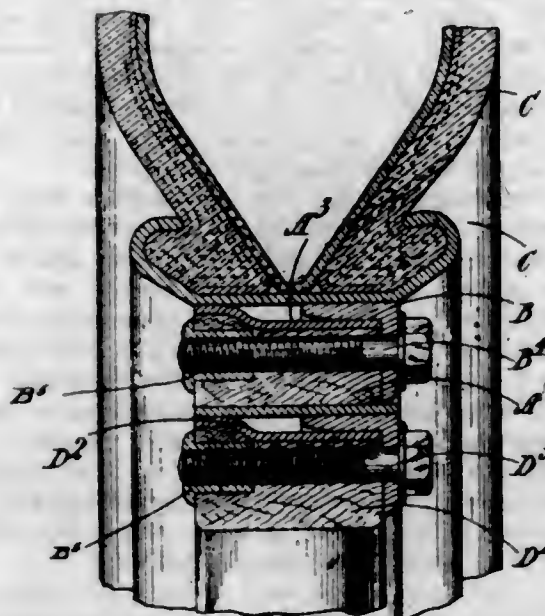
4. The combination of a lens having a hole extending axially therethrough, and an illuminating device positioned in said hole, the rays from the illuminating device being reflected in parallelism by a surface of the lens.

5. A lens reflector composed of a plurality of sections united on planes which intersect the axis of the lens, the latter being provided with a hole which extends axially therethrough, and the lens being operative to project light rays in parallelism from an illuminating device located in said hole.

1,081,216. VEHICLE-WHEEL. SYDNEY ALLEN CURBIN, Bristol, England. Filed Dec. 27, 1911. Serial No. 668,072. (Cl. 152-21.)

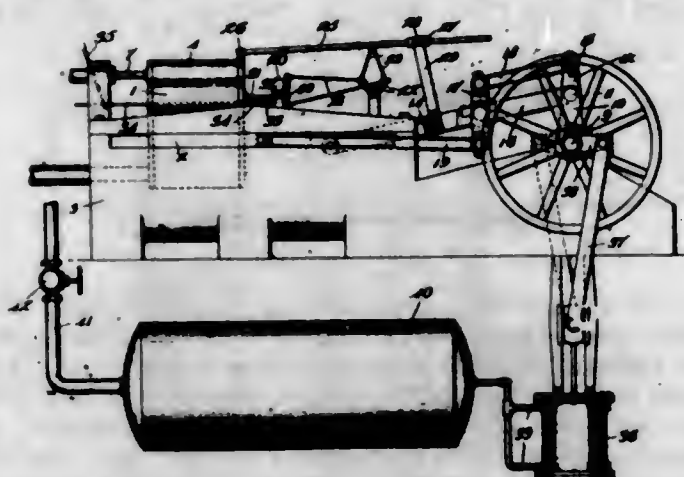
1. The combination with a wheel felly having a felly band, of a tire supporting and securing means therefor comprising a supporting ring mounted on said felly band; a second felly mounted on said supporting ring; a ring

of angle iron construction secured to said supporting ring and having one portion thereof disposed inwardly and against the side of the first-named felly; screw-threaded socket pieces set within the first-named felly; bolts passing through the inwardly disposed portion of said angle iron ring and the felly and engaging with said screw-threaded socket pieces for securing said supporting ring and the second-named felly; and a tire engaging rim mounted on said second felly, substantially as described.



2. The combination with a wheel felly having a felly band with a raised peripheral portion, of a multi-tire supporting means mounted thereon comprising a relatively broad annular plate mounted between its side edges on the felly; a ring of angle iron construction secured to said annular plate between said plate and the felly and disposed against one side of the felly; socket pieces set within said felly; bolts passing through said inwardly disposed portion of the ring, and engaging with said socket pieces for holding said annular plate secure to the felly; a pair of second fellyes mounted on said annular plate at either side of the first-named felly and each having a means for securing a tire rim thereto.

1,081,217. ENGINE. JOHN BENJAMIN DONOVAN, Yellow Pine, La., assignor of one-half to Henry C. Walter, Yellow Pine, La. Filed July 19, 1912. Serial No. 710,532. (Cl. 121-46.)



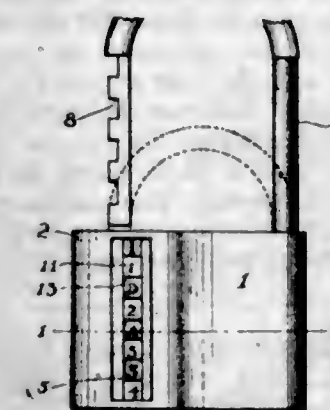
1. In an engine, the combination of a reciprocatingly-mounted power cylinder and piston, a main crank comprising a pair of parallel members provided with coaxial inwardly-extending crank pins, a pair of spaced crank extensions rigidly secured on the inner ends of said coaxial crank pins, an auxiliary crank pin connecting said spaced crank extensions, a main connecting rod pivoted to said power piston and provided with a bifurcated portion journaled on said pair of coaxial crank pins, levers pivoted on said connecting rod, a link connecting said levers to said auxiliary crank pin, and rods connecting said levers and reciprocatingly-mounted power cylinder.

2. In an engine, the combination of a reciprocatingly-mounted power cylinder and piston, a main crank comprising a pair of parallel members provided with coaxial inwardly-extending crank pins, a pair of spaced crank extensions rigidly secured on the inner ends of said coaxial crank pins, an auxiliary crank pin connecting said spaced crank extensions, a main connecting rod pivoted to said power piston and provided with a bifurcated portion journaled on said pair of coaxial crank pins, a pair of levers pivoted between the arms of said bifurcated portion of the connecting rod, a pin connecting the outer ends of said levers, a link connecting said pin and said auxiliary crank pin, and rods connecting said levers and reciprocatingly-mounted power cylinder.

3. In an engine, the combination of a reciprocatingly-mounted power cylinder and piston, a main crank comprising a pair of parallel members provided with coaxial inwardly-extending crank pins, a pair of spaced crank extensions rigidly secured on the inner ends of said coaxial crank pins, an auxiliary crank pin connecting said spaced crank extensions, a main connecting rod pivoted to said power piston and provided with a bifurcated portion journaled on said pair of coaxial crank pins, levers pivoted on said connecting rod, a link connecting said levers to said auxiliary crank pin, rods connecting said levers and reciprocatingly-mounted power cylinder, a guide pivotally mounted on said main connecting rod, an actuating bar pivoted to said reciprocatingly-mounted power cylinder and extending slidably through said guide, a valve carried by said reciprocatingly-mounted power cylinder, and connections between said actuating bar and valve.

4. In an engine, the combination of a reciprocatingly-mounted power cylinder and piston, a main crank comprising a pair of parallel members provided with coaxial inwardly-extending crank pins, a pair of spaced crank extensions rigidly secured on the inner ends of said coaxial crank pins, an auxiliary crank pin connecting said spaced crank extensions, a main connecting rod pivoted to said power piston and provided with a bifurcated portion journaled on said pair of coaxial crank pins, levers pivoted on said connecting rod, a link connecting said levers to said auxiliary crank pin, rods connecting said levers and reciprocatingly-mounted power cylinder, a guide pivotally mounted on said main connecting rod, an actuating bar pivoted to said reciprocatingly-mounted power cylinder and extending slidably through said guide, a valve carried by said reciprocatingly-mounted power cylinder, and adjustable connections between said actuating bar and valve.

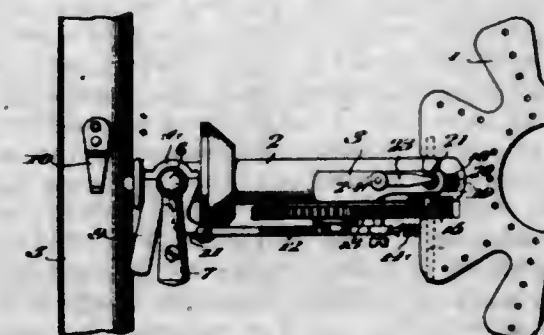
1,081,218. PERMUTATION-PADLOCK. ROBERT DRUMMOND, Philadelphia, Pa. Filed Mar. 30, 1912. Serial No. 687,367. (Cl. 70-113.)



A lock comprising a body portion having a cylindrical enlargement at one side bored to form a tubular chamber having a lower open end and a reduced opening in the upper end of the body portion communicating with the bore, the other side of the body portion provided with a vertical socket, a grooved spindle within the tubular chamber and having a reduced upper end passing through the reduced opening in the upper end of the body portion, a plurality of spaced members fixed to the spindle and snugly fitting the tubular chamber and provided with recesses, rotary members interposed between the said fixed members and

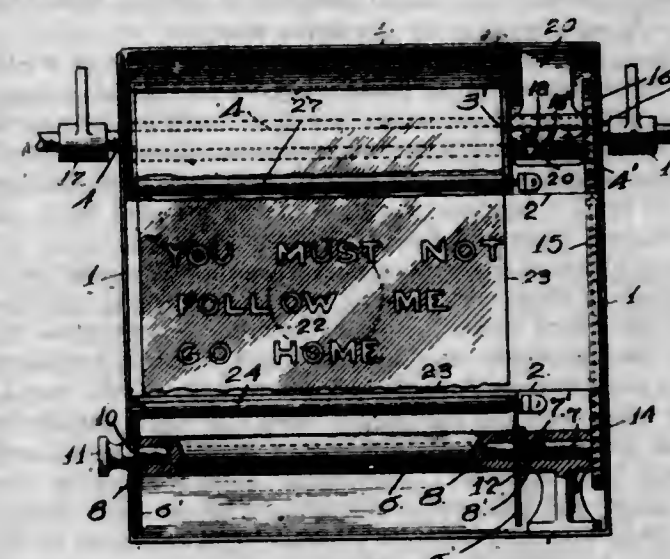
having recesses adapted to register with the recesses in the fixed members, a disk closing the lower end of the tubular chamber and having a central opening, a pin carried by the spindle passing through said opening, and a shackle having one end rotatably and slidably secured within the socket and the other end of said shackle being notched and entering the groove in the spindle and to fit said recesses.

1,081,219. GAS-IGNITER. JOSEPH L. DUCHARME, Schenectady, N. Y. Filed July 1, 1913. Serial No. 776,876. (Cl. 67-20.)



In combination with a fixture including a burner portion and a pipe, a valve connected to the pipe and adapted to be connected with a service pipe, a spring pressed detent carried by a movable part of the valve, a lever fulcrumed upon the valve and extending across the path of movement of the detent, means for releasing the lever from the detent when the valve is opened, a bracket carried by the first mentioned pipe and provided with a guide, a sparking element movably mounted within the guide, a spring pressing upon said element, a wheel journaled at the burner and provided upon its periphery with file teeth which engage the sparking element, a train of gear wheels one of which is provided with means for engagement with the first mentioned wheel, a rod pivotally connected with said lever and with one of said gear wheels, a return spring for holding the last mentioned gear wheel in a normal position.

1,081,220. MECHANICAL PROMPTER. JAMES DUKIN, Denver, Colo. Filed Nov. 23, 1912. Serial No. 733,178. (Cl. 46-70.)



1. In a mechanical prompter the combination of a plurality of suitable hollow boxes each box having a winding and rewinding cylinder rotatably mounted therein; a clutch member secured to the winding cylinders; a transparent table between the cylinders; a transparent manuscript attached to each rewinding cylinder and adapted to travel over the transparent table; means for illuminating the transparent manuscript; a continuous shaft suitably mounted in bearings and running through each of the winding cylinders in each box; a sprocket loosely mounted, in each box, upon the said continuous drive shaft and adjacent to the cylinder thereon; a sprocket

on the shaft of the other cylinder; suitable driving connections between said sprockets; a clutch member secured to the continuous drive shaft and adapted to engage the cylinder mounted thereon when said drive shaft is rotated in one direction and adapted to automatically release the cylinder and engage the sprocket when the shaft is rotated in the opposite direction; and means for maintaining a uniform tension on the cylinders and sprockets.

2. In a mechanical prompter the combination of a plurality of suitable hollow boxes; a detachable rewinding cylinder rotatably mounted in each box and having a sprocket secured to the shaft thereof; a continuous drive shaft running through each box and having a plurality of clutch members secured thereto, one within each box; a winding cylinder having a clutch integral with one end thereof, and loosely mounted upon the continuous drive shaft and in each box; a transparent manuscript rolled upon the rewinding cylinder and secured to the winding cylinder; a sprocket in each box loosely mounted upon the drive shaft and adjacent to the clutch member; suitable driving connections between said sprocket and the sprocket on the rewinding cylinder; means for automatically engaging the winding cylinder when the shaft is rotated in a forward direction and for engaging the rewinding cylinder when the shaft is rotated in the opposite direction; and means for maintaining a uniform tension on the cylinders and sprockets.

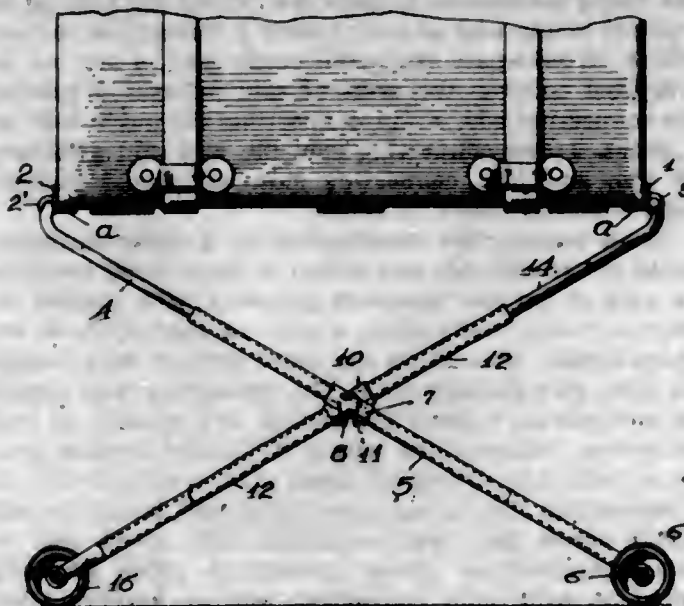
3. In a mechanical prompter the combination of a plurality of suitable hollow boxes arranged at intervals upon a continuous drive shaft; a shaft having a sprocket at one end thereof rotatably mounted within each hollow box; a flanged cylinder detachably secured to each rotatable shaft; a second flanged cylinder within each box having a clutch integral with one end thereof and loosely mounted upon the continuous drive shaft; a sprocket in each box having a clutch member integral therewith and loosely mounted upon the continuous drive shaft; suitable connection between the sprocket on the continuous drive shaft and the sprocket on the rotatable shaft within the other end of the box; a clutch member having a spiral slot therein and loosely mounted, in each box, upon the continuous drive shaft; transverse pins secured to the continuous drive shaft and adapted to engage the spiral slots of the clutch member and cause the said member to be disengaged from the clutch integral with the sprocket; and means for retarding the rotation of the cylinder, sprocket or clutch member when the same are not positively engaged by the drive shaft.

4. In a mechanical prompter the combination of a plurality of suitable hollow boxes; a shaft having a sprocket at one end thereof rotatably mounted within one end of each box; a cylinder detachably secured to each shaft; a continuous drive shaft running through the opposite end of each box; a cylinder having a clutch integral with one end thereof loosely mounted in each box and upon the continuous drive shaft; a sprocket having a clutch member integral therewith loosely mounted in each box and upon the drive shaft; suitable driving connections between the sprockets on the drive shaft and the sprockets on the rotatable shafts in the opposite ends of the boxes; clutch members having spiral slots in the peripheries thereof and secured to the drive shaft between each sprocket and cylinder; transverse pins secured to the drive shaft and adapted to engage the spiral slots within the clutch members; and a friction plate adapted to engage the hubs of the receiving cylinders and sprockets and the clutch members and retard the rotation of said members until positively engaged by the driving shaft.

1,081,221. CARRIAGE FOR HAND-LUGGAGE. MAUDE DUKIN, Denver, Colo. Filed Dec. 26, 1912. Serial No. 738,737. (Cl. 190—38.)

1. A carriage for suitcases comprising telescoping supports pivotally secured to either end of the suitcase; wheels rotatably secured to the bottom of the telescopic supports; and lateral connections between the supports adapted to prevent the said supports from telescoping.

2. In a carriage for suitcases, the combination of parallel supports pivotally secured to one end of the suitcase; a central support pivotally secured to the opposite end of the suitcase; wheels rotatably secured to the lower ends of the supports; and means for retaining the supports in either an extended or folded position.



3. In a carriage for suitcases, the combination of parallel telescopic supports pivotally secured to one end of the suitcase; a pair of wheels rotatably secured to the lower ends thereof; a central telescopic support pivotally secured to the other end of the suitcase and having a wheel rotatably secured to the lower end thereof; and a lateral connection between the parallel supports adapted to engage and retain the central support.

4. In a carriage for suitcases, the combination of parallel supporting rods pivotally secured to one end of a suitcase; a central supporting rod pivotally secured to the opposite end of the suitcase; tubes having apertures in the under surface thereof and slidably mounted upon the parallel and central supporting rods; T's slidably mounted upon the outer parallel tubes and having a rotatable connection between them adapted to engage the central tube; and means secured to the T's and the rotatable connection, adapted to engage the apertures in the lower surfaces of the tubes and the rods within the tubes.

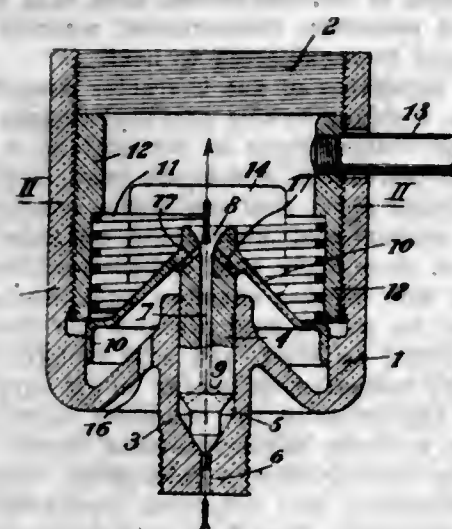
5. In a carriage for suitcases, the combination of parallel supporting rods pivotally secured to one end of a suitcase; a central supporting rod pivotally secured to the opposite end of the suitcase; tubes slidably mounted upon the parallel and central supporting rods and having apertures in the lower surfaces thereof; T's slidably mounted upon the parallel tubes and having thumb screws adapted to engage the apertures in the lower surfaces of the said tubes and the rods within the tubes; a lateral connection rotatably mounted between the T's on the parallel tubes and adapted to receive the central rod and tube therein; and a thumb screw on the lateral connection adapted to engage the apertures in the under surface of the central tube and the central rod therein; and wheels secured to the lower end of each of the tubes.

1,081,222. CARBURETER. FRITZ DÖRR, Heidelberg, Germany. Filed Aug. 29, 1912. Serial No. 717,767. (Cl. 48—154.1.)

1. In a carbureter, the combination of a casing formed with air inlet openings, a spraying nozzle vertically and centrally disposed in the casing, a valve for controlling the openings in the casing, a spring interposed between the valve and the nozzle, means for admitting a supply of liquid fuel and air to the nozzle, means for operating the valve to close the openings and prevent operation of the nozzle, including screw threads between the casing and the valve, and a handle extending from the valve.

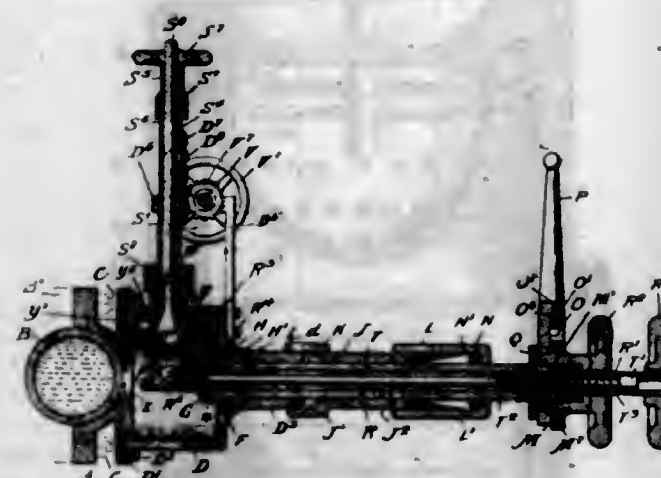
2. In a carbureter, the combination of a casing formed with air inlet openings, a vertical seat and an opening in the bottom of the latter, a vertically movable element

having a flanged portion which operates in the casing, and a centrally disposed stem which operates in the seat, the stem having a reduced portion at its end to normally close the bottom opening, said stem having a duct which extends through from near the bottom to the top of the element, the duct being flared at its upper end, the stem having inclined air inlet openings which communicate with the flared portion of the duct and a space formed between the element and the casing, the casing having an air inlet port for the passage of air to said space, a valve for controlling the admission of air to the casing, and resilient means for holding the element down to normally close the bottom opening in the bottom of the seat.



3. In a carbureter, the combination of a casing, a vertical extension in the bottom of the casing formed in its bottom with a fuel inlet opening, a circular conical shell having a central vertical stem reduced at its lower end to normally close the fuel inlet opening, said stem having an opening extending from the bottom to the top of the stem and shell, the upper end of the opening flaring outwardly, the stem having inclined openings below the top of the shell and communicating with the flared portion of the opening, the outlets of the inclined openings being disposed out of alignment with each other to whirl the fluid passing through the opening to the casing, the casing having an opening for the admission of air to the inclined openings in the stem, and a spring acting on the shell for normally closing the fuel inlet opening.

1,081,223. APPARATUS FOR TAPPING WATER-MAINS UNDER PRESSURE. ALEXANDER FAIRFIELD, Harrisville, N. Y., assignor of one-half to Joseph B. Weeks, Harrisville, N. Y. Filed Feb. 6, 1913. Serial No. 746,661. (Cl. 77—39.)

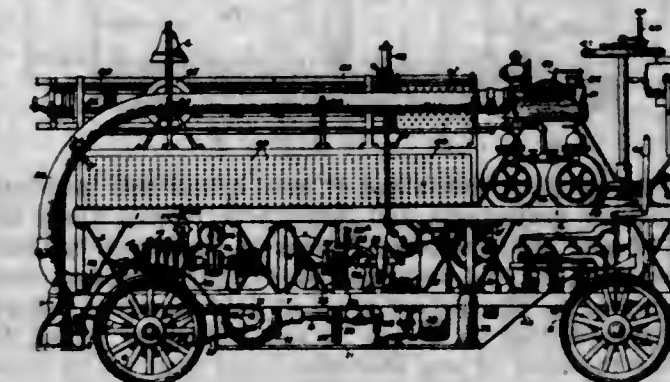


1. An apparatus for tapping mains comprising a housing adapted to be clamped to a main, a longitudinally movable shell mounted to move within a suitably packed boss projecting from the housing, a shaft movable within said shell, jaws pivotally connected to said shaft and adapted to hold a valve, means for imparting a longi-

tudinal movement to the shell, a drill chuck movable within suitable bearings within said housing and at right angles to said shaft, a drill in said chuck, means for rotating the latter, and feeding mechanism for the chuck, as set forth.

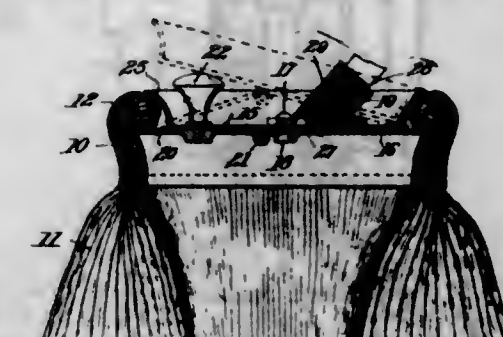
2. An apparatus for tapping mains comprising a housing adapted to be clamped to a main, a longitudinally movable shell mounted to move within a suitably packed boss projecting from the housing, a shaft movable within said shell, jaws pivotally connected to said shaft and adapted to hold a valve, means for imparting a longitudinal movement to the shell, a drill chuck movable within suitable bearings within said housing and at right angles to said shaft, a drill in said chuck means for rotating said chuck, an open-ended tube mounted movable within said drill chuck, the inner end of said tube adapted to engage a recess formed in the inner end of the shank portion of the drill, and a hand wheel fitted to said tube, as set forth.

1,081,224. FIRE-FIGHTING APPARATUS. ALBERT C. FARRAND, Atlantic City, N. J., assignor of one-half to Frank C. Stover, Chicago, Ill. Filed Mar. 25, 1909. Serial No. 485,654. (Cl. 160—19.)



A self-contained fire fighting apparatus comprising a body, running gear therefor, upper and lower platforms carried by said body; the running-gear being connected to and supporting the lower platform, an internal combustion engine carried at the forward part of said body and forming a prime mover, a dynamo directly driven thereby, a motor driven by said dynamo, a centrifugal pump carried at the rear of said body, means whereby said pump may be directly driven by the motor, gearing operatively connected with a portion of the running gear whereby the apparatus may be propelled, a shaft operatively connected to said gearing, and means disposed between the dynamo and motor whereby the latter may drive said shaft, said means being cut out of action when the pump is being operated, all of said mechanism being supported by the lower platform of said structure.

1,081,225. MOP. HARRY J. FEASEL, Philadelphia, Pa. Filed Sept. 11, 1913. Serial No. 780,274. (Cl. 15—13.)



1. The combination with a mop formed of flexible material, of a head provided with means for engaging the interior of said mop with an unyielding expanding pressure.

2. The combination with a mop provided with a flexible ring-like binding, of a head provided with a toggle member for engaging the inner wall of said binding.

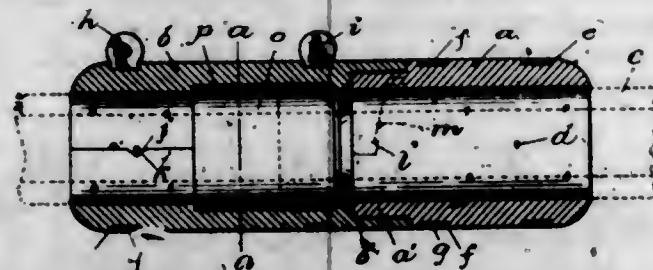
3. As an improvement in mops, a mop head comprising a carrier plate, a mop engaging plate formed of articulated sections, and means for holding said articulated sections in alignment.

4. As an improvement in mops, a mop head comprising a carrier plate of angular form, a mop engaging plate of similar form secured thereto and formed of articulated sections provided with mop-engaging corners, and means for holding the sections of said mop-engaging plate in alignment.

5. As an improvement in mops, a mop-head comprising a carrier plate, a mop engaging plate provided with an articulated section, and a set screw connecting said articulated section and said carrier plate.

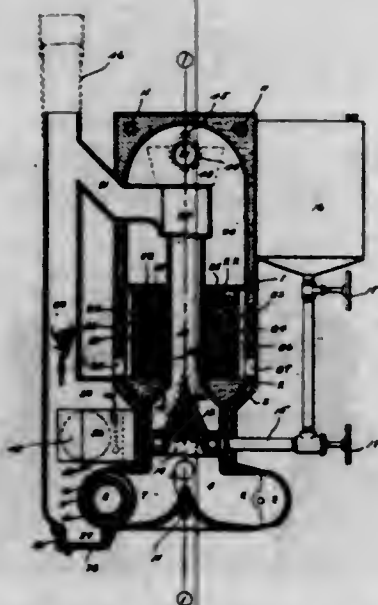
[Claims 6 to 9 not printed in the Gazette.]

1,081,226. TUBE-COUPLING. SAMUEL G. FORST, Toronto, Ontario, Canada. Filed June 17, 1912. Serial No. 704,227. (Cl. 137-28.)



A tube coupler, consisting of semi-cylindrical members, interlocking projections and indentures formed along the edges of said semi-cylindrical members, said semi-cylindrical members adapted to engage in cylindrical form, channels formed in the convex faces of said members, clamping rings adapted to engage in said channels, means for drawing the ends of said clamping rings together to maintain said members in cylindrical form, the inner walls of said members being roughened or having points projecting therefrom, socket and head ends formed on the said members, flanges formed in helical relation on the said head ends, and locking lugs formed in helical relation on the said socket end, said head end adapted to engage in the said socket end, and said locking lugs adapted to engage with said flanges, as and for the purpose specified.

1,081,227. DESICCATING APPARATUS. PERCY W. FOSTER, Peoria, Ill. Filed Mar. 29, 1913. Serial No. 757,520. (Cl. 34-1.)



1. In an apparatus of the character described, and in combination, a casing having provided therein an air and gas discharge compartment at the bottom, a combustion compartment thereabove, a moisture extracting and absorbing compartment above said combustion compartment, and a heating compartment above said moisture extracting compartment, said heating compartment having an outlet, said air and

gas discharge compartment having an inlet, and said moisture extracting and absorbing compartment having an air supply inlet.

2. In an apparatus of the character described, and in combination, a casing having provided therein an air and gas discharge compartment at the bottom, a combustion compartment thereabove, a moisture extracting and absorbing compartment above said combustion compartment, and a heating compartment above said moisture extracting compartment, said heating compartment having an outlet, said air and gas discharge compartment having an inlet, and said moisture extracting and absorbing compartment having an air supply inlet, said heating compartment being in communication with said moisture extracting and absorbing compartment whereby the air is first dried and then subjected to heat.

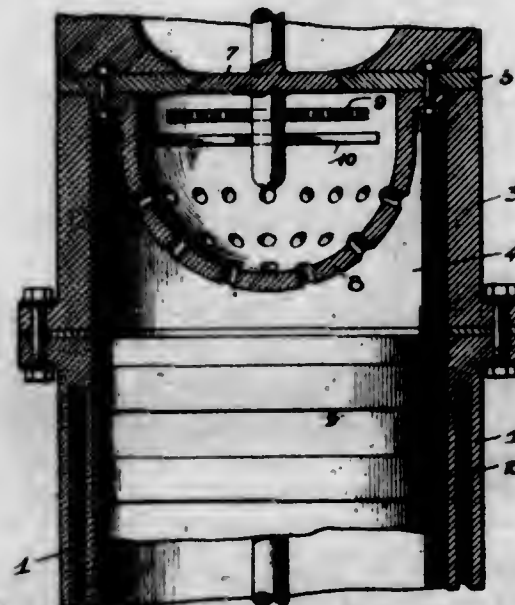
3. In an apparatus of the character described, and in combination, a casing having provided therein an air and gas discharge compartment at the bottom, a combustion compartment thereabove, a moisture extracting and absorbing compartment above said combustion compartment, and a heating compartment above said moisture extracting compartment, flues from said combustion chamber passing through said heating chamber, said heating compartment having an outlet, said air and gas discharge compartment having an inlet, and said moisture extracting and absorbing compartment having an air supply inlet.

4. In an apparatus of the character described, and in combination, a casing having provided therein an air and gas discharge compartment, a combustion compartment, a moisture extracting and absorbing compartment, and a heating compartment, flues from said combustion chamber passing through said heating chamber, said heating compartment having an outlet, said air and gas discharge compartment having an inlet, and said moisture extracting and absorbing compartment having an air supply inlet, said heating compartment being in communication with said moisture extracting and absorbing compartment whereby the air is first dried and then subjected to heat.

5. In an apparatus of the character described, and in combination, a casing having provided therein an air and gas discharge compartment, a combustion compartment, a moisture extracting and absorbing compartment, and a heating compartment, said heating compartment having an outlet, said air and gas discharge compartment having an inlet, and said moisture extracting and absorbing compartment having an air supply inlet, and a disinfectant and deodorant compartment.

[Claims 6 to 13 not printed in the Gazette.]

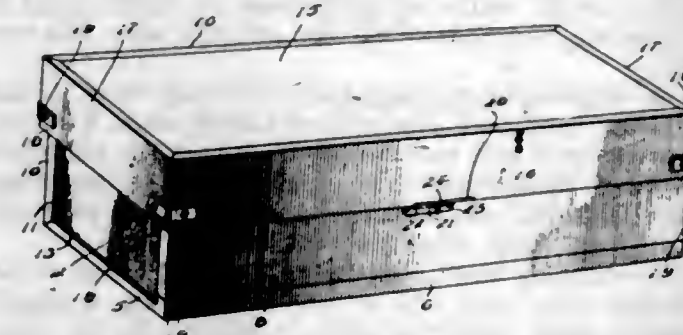
1,081,228. FUEL-GASIFIER FOR INTERNAL-COMBUSTION ENGINES. HERMAN FUCHS, St. Louis, Mo. Filed Dec. 11, 1912. Serial No. 736,181. (Cl. 123-30.)



In an internal combustion engine, the combination of a cylinder provided with a fuel inlet, a chamber arranged within the cylinder and extending over the fuel inlet and

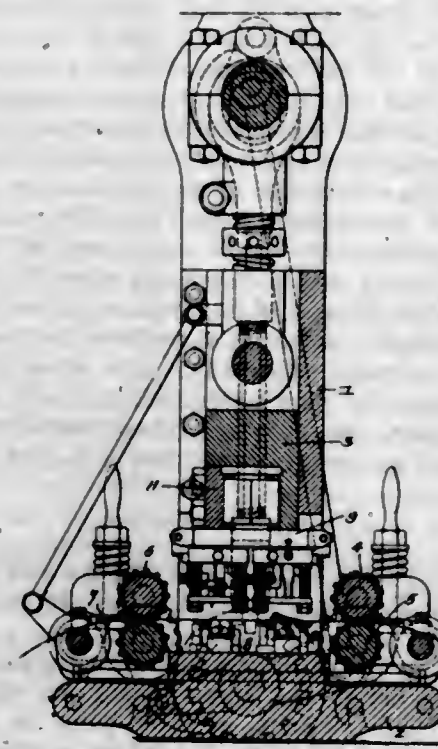
provided in its sides with a plurality of openings, an inwardly opening valve for closing the fuel inlet and the perforated plate connected with the valve and arranged within the chamber and a spider comprising a hub and radiating fingers connected with said valve and likewise arranged within the chamber.

1,081,229. COLLAPSIBLE EGG-CASE. MADISON L. FUNK, Madison, Okla. Filed June 28, 1912. Serial No. 706,015. (Cl. 217-15.)



A crate comprising a box like body including a bottom, sides hinged thereto and adapted to be folded onto the bottom in superimposed relation, ends removably secured to the bottom and adapted when in folded position to overlap and rest upon the uppermost side, and a cover having depending side and end walls, said side and end walls being spaced apart a distance corresponding to the full transverse and longitudinal dimensions of the bottom, the side and end walls being permanently secured in fixed cover forming relation, the height of said side and end walls of the cover corresponding to the thickness of the body portion in folded relation whereby said body portion in inverted condition will be wholly housed within the cover with the lower surface of the bottom flush with the free edges of the side and end walls of the cover, and catches carried by the cover to engage the side walls of the body portion when the parts are in crate forming position and to overlap the lower surface of the bottom when the parts are in folded position.

1,081,230. PEN-MAKING MACHINE. JOHN FRANKLIN GEORGE, Camden, N. J., assignor to C. Howard Hunt Pen Company, Camden, N. J., a Corporation of New Jersey. Filed Jan. 7, 1913. Serial No. 740,655. (Cl. 113-32.)



1. The combination in a punching machine, of a head having a punch; a die mounted to cooperate therewith; a

pilot pin rigidly mounted on the head and having substantially the form of said punch; and feeding means for moving a body of material through the distance between the punch and the pilot pin at each operation of the machine.

2. The combination in a punching machine, of a head having a punch; a die mounted to cooperate with said punch; a pilot pin in the form of a member rigidly carried by the punch head so as to project below the punch and having substantially the shape of the same; with means for feeding material through the machine.

3. The combination in a pen blank punching machine, of a punch and die for forming the pierce hole of a pen blank; a pilot pin mounted to enter the hole formed by said punch; and a second punch and die mounted to cooperate to cut out the pen blank.

4. The combination in a pen blank forming machine, of a punch for forming the pierce hole in a pen blank; a second punch for cutting out a blank; dies mounted to cooperate with said punches; a pilot pin projecting beyond the punches and mounted to enter the pierce hole previously formed by the first punch; with means for intermittently feeding a strip of material between the punches and their dies.

5. The combination in a pen blank forming machine, of two oppositely mounted sets of punches and dies, each including a punch and a die for forming the pierce hole in a pen blank and a punch for cutting out the blank; with a pilot pin formed to enter the previously formed pierce hole made by the punch of one of said sets so as to position a strip of material prior to its being engaged by said punches and dies.

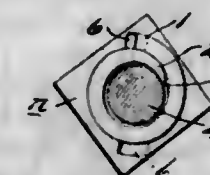
[Claims 6 to 16 not printed in the Gazette.]

1,081,231. SHOE AND GLOVE FASTENER. JAMES W. FARMON, Lawrenceburg, Tenn. Filed Mar. 26, 1912. Serial No. 686,234. (Cl. 24-219.)



In a device of the character described, a head, a stem therefor, a base plate at the bottom of said stem, and a narrow elongated securing eye beneath said base plate formed from a strip of material bent to form the body portion of the eye of less length than the diameter of the base plate and having its end portions bent to form a contracted neck connected with said base plate and holding the end portions of said eye in spaced relations to said base.

1,081,232. NUT-LOCK. HUGH T. HUGHES, Youngstown, Ohio, assignor of one-half to W. H. McGranaghan, Youngstown, Ohio. Filed Feb. 25, 1913. Serial No. 750,673. (Cl. 151-36.)



1. A nut lock, comprising in combination with the nut and the bolt, a spring split washer-ring arranged at the inner side of the nut and having wedging terminals one within the other which respectively have a locking engagement with the nut and bolt upon application of pressure.

2. A nut lock, comprising in combination with the nut and the bolt, a spring split washer-ring tapered in cross section and also in the direction of one terminal, the latter terminal having a wedging fit within the other terminal.

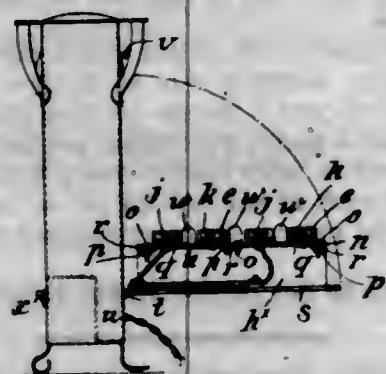
3. A nut lock, comprising in combination with the nut and the bolt, a spring split washer-ring tapered in cross

section and also in the direction of one terminal, the latter terminal having a bolt thread-engaging point and also having a wedging engagement within the other terminal.

4. A nut lock, comprising in combination with the nut and the bolt, a spring split washer-ring arranged at the inner side of the nut and tapered in cross section and also in the direction of one terminal, the latter terminal having a wedging engagement within the other terminal, and said other terminal having a stud for engagement with the nut.

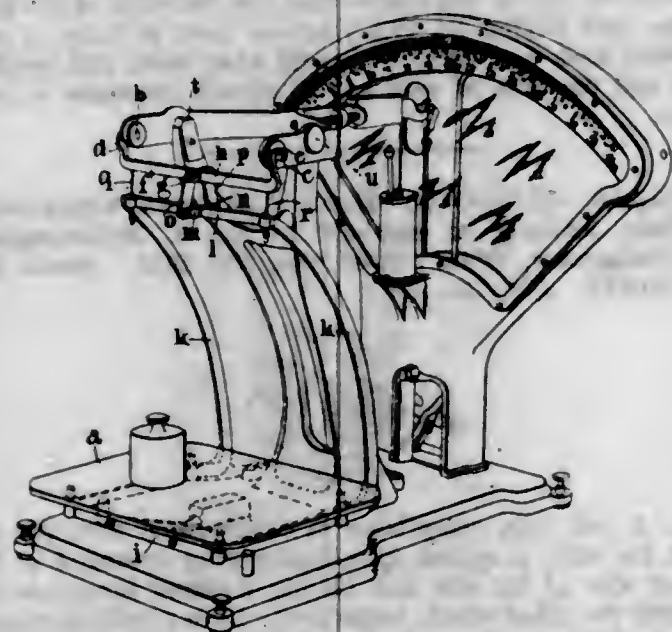
5. A nut lock, comprising in combination with the nut and the bolt, a spirally coiled spring split washer-ring having one end engaged with the nut and a free terminal locking tongue fitting within the other end portion, said end portions of the ring having opposing wedging faces that crowd the tongue onto and into the bolt threads upon application of pressure.

1,081,233. ELECTRIC HEATING ELEMENT. DAVID HUNTLEY, London, England. Filed Feb. 8, 1913. Serial No. 747,174. (Cl. 219-34.)



In an electric radiator stove, the combination with a casing, of a member hinged therein, a base plate carried by said member, a plurality of bars upon said base plate and projecting upwardly therefrom, a series of conducting units removably mounted upon the base plate between the said upwardly projecting bars and insulated from the base plate and the bars, means for securing said conduction units to the base plate and means for controlling the electric supply.

1,081,234. WEIGHING-SCALE. GEORGE HUTCHINSON, Christchurch, New Zealand. Filed Aug. 25, 1911. Serial No. 645,973. (Cl. 73-29.)



1. A weighing scale comprising a forked beam, a load knife edge upon each arm of the forked beam, a shackle supported upon said knife edges, a support for the device upon which the material to be weighed is placed, and means for securing the shackle to said support which as a whole are flexible only in the direction of the length of the shackle.

2. A weighing scale comprising a forked beam, a load knife edge upon each arm of the forked beam, a shackle supported upon said knife edges, a support for the device upon which the material to be weighed is placed, means for securing the shackle to said support which as a whole are flexible only in the direction of the length of the shackle while allowing rotation of the support, and stops for limiting the amount of such rotative movement.

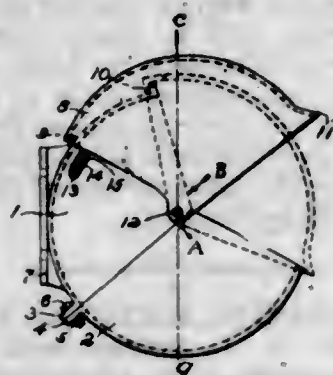
3. A weighing scale, comprising a forked beam, a load knife edge upon each arm of the forked beam, a shackle supported upon said knife edges, a support for the device upon which the material to be weighed is placed, and flexible metallic strips set in a plane at right angles to said shackle, and connecting said shackle with said support.

4. A weighing scale comprising a forked beam, a load knife edge upon each arm of said forked beam, a shackle supported upon said knife edges, a support for the device upon which the material to be weighed is placed, two strips of flexible metal connecting said shackle with said support and diverging from one another.

5. A weighing scale, comprising a forked beam, a load knife edge upon each arm of said forked beam, a shackle supported upon said knife edges, a support for the device upon which the material to be weighed is placed, two strips of flexible metal connecting said shackle with said support and diverging from one another in such a way that their center lines form the sides of an imaginary triangle whose apex is upon the knife edge line.

[Claims 6 to 15 not printed in the Gazette.]

1,081,235. AUTOMATIC STOCK-SALTING DEVICE. JOHN I. IRLINGS, Cedar Falls, Iowa. Filed Jan. 15, 1912. Serial No. 671,260. (Cl. 119-62.)

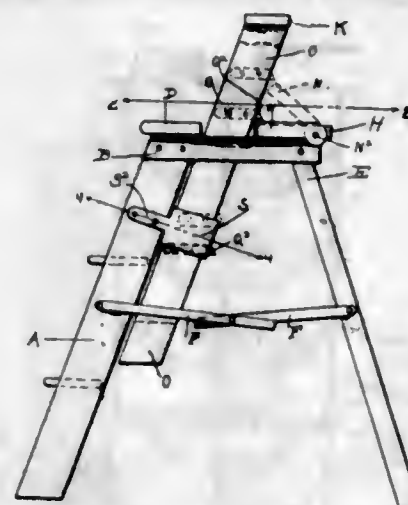


An automatic stock-salting device, comprising a cylindrical trough with closed ends and opening upwardly and to one side, an arcuate cover with integral ends fitted over said trough and its ends and pivoted to the trough-ends eccentrically to lift up from the trough in spaced relation when swung open thereover, the upper longitudinal edge of the trough having an outwardly-projecting rib, and the rear edge of said cover having an integral inwardly-directed rib, said ribs contacting when the cover is closed over the opening of the trough to seal the joint therebetween, a slide-piece adjustably secured to one end of said trough and adapted to act as an adjustable stop for said cover, said trough being formed of two connected sections having fitting longitudinal edges, said sections having abutting longitudinal outwardly-directed flanges along their fitting joint, and means for detachably securing said flanges and sections together, one of said sections having an integral bracket orificed to permit of its being secured to some supporting-body.

1,081,236. SLIDABLE-SECTION STEP-LADDER. GLEN W. INENIT, Goshen, Ind. Filed Apr. 10, 1913. Serial No. 760,251. (Cl. 228-19.)

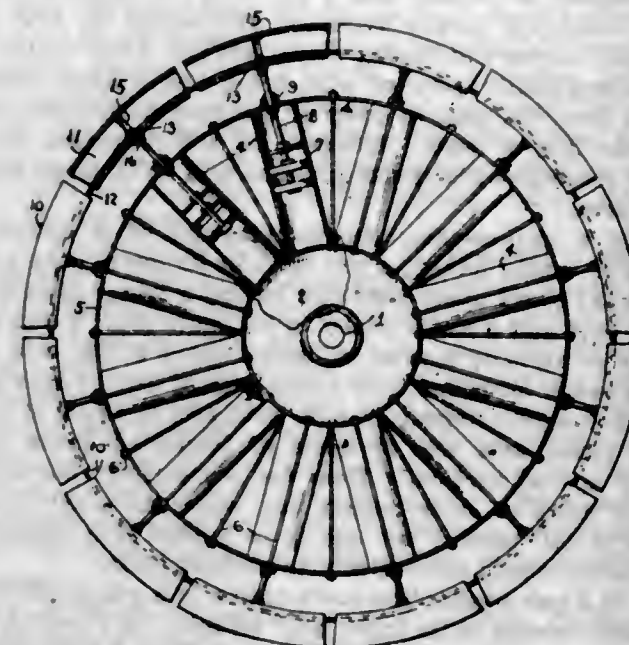
A slidable section ladder comprising a stationary section with bars projecting from the opposite sides thereof, legs pivoted to said bars, a shelf with its inner edge notched and supported upon the latter, a ball pivoted to the opposite ends of said shelf and adapted to swing over the inner edge of the latter and normally rest upon said

bars, a slidable section ladder mounted to have a longitudinal movement between said shelf and the stationary ladder section, atop lugs upon the slidable ladder section and having ends projecting beyond the edges thereof and



beveled and adapted to contact with the under edge of the ball and pass through the notches in the shelf, said lugs adapted to rest upon the ball to support the slidable section, as set forth.

1,081,237. AUTOMOBILE-WHEEL. JAMES A. KOLBY, LOUIS P. LARSEN, and CHRISTIAN P. NELSEN, Ephraim, Utah. Filed May 28, 1913. Serial No. 770,395. (Cl. 152-29.)



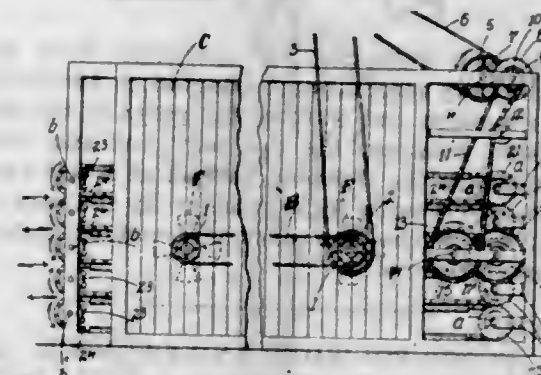
1. A spring wheel comprising a hub having an annular air chamber, a series of cylinders projecting radially from the hub and with their inner ends communicating with said chamber, a band around the outer ends of said cylinders and pierced with openings opposite them, a piston in each cylinder, a piston rod passing through said opening, packing in the latter around the rod, a rim made up of hollow segmental sections whereof each is pivoted at its mid-length to the outer end of a rod and has internal radial grooves at its sides and opposite the pivot point, and a ring passing through all said sections and having enlargements movably mounted in said grooves.

2. In a spring wheel, the combination with a hub, a series of cylinders radiating therefrom, a band connecting the outer ends of the cylinders, pistons in the latter, and rods leading from the pistons radially outward through said band; of a rim made up of hollow segmental sections whereof each is pivoted at its mid-length to the outer end of a rod and has internal radial grooves at its sides opposite the pivot point, and a ring passing through all said sections and having enlargements movably mounted in said grooves.

3. A spring wheel comprising a hub having an annular air chamber, a series of cylinders projecting radially from the hub and with their inner ends communicating with

said chamber, a piston in each cylinder, a piston rod therefor, a rim made up of hollow segmental sections whereof each is pivoted at its mid-length to the outer end of a rod and has internal radial grooves at its sides opposite the pivot, and a ring passing through all said sections and having enlargements movably mounted in said grooves.

1,081,238. FEED MECHANISM FOR DRYING APPARATUS. FREDERICK KUKKUCK, St. Louis, Mo., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 13, 1906. Serial No. 334,448. (Cl. 193-2.)



1. In a feed mechanism, an endless conveyer comprising a pair of link chains, sockets formed on the adjacent inner surfaces of the links having peripheral slots on the side toward the inner edges of the links, longitudinally split spacing tubes inserted into the sockets, the splits having bounding arch ribs tapering toward the end of the tubes, the ends of the ribs being passed through the slotted portions of the sockets, the peripheral lines of the sockets being substantially flush with the upper edges of the links.

2. In a machine for drying sheet material, feed mechanism comprising a pair of juxtaposed endless conveyers having series of transverse ribs or bars, the ribs of the lower run of the upper conveyer cooperating with the ribs of the upper run of the lower conveyer to confine between them the material to be dried, with means secured to the outer edges of the conveyers for spacing said cooperating ribs a fixed distance apart.

3. The combination in a veneer drying machine, of endless conveyers arranged one above another, the contiguous runs of said conveyers coacting to confine between them the veneer to be dried, with spacing means for maintaining said contiguous runs apart a greater distance than the thickness of the veneer and in parallel relation, whereby freedom of movement of the veneer will be permitted, but warping restricted.

4. The combination in a drier for drying sheet material, of endless conveyers disposed one above another, the contiguous runs of said conveyers co-acting to confine between them the material to be dried, with spacing means for maintaining the body portions of said contiguous runs apart a greater distance than the thickness of said sheet material and in parallel relation, whereby freedom of movement of said material will be permitted, but warping restricted.

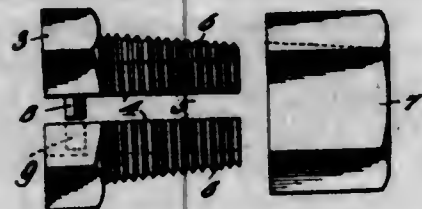
5. The combination in a drying apparatus, of two endless conveyers one mounted above another, each consisting of linked members at each side and body portions supported by the linked members, the linked members of the lower run of the upper conveyer resting directly upon the link members of the upper run of the lower conveyer, the body portion of the conveyers being spaced apart.

[Claims 6 to 19 not printed in the Gazette.]

1,081,239. NUT-LOCK. CHARLES J. LARTZ, Gowrie, Iowa. Filed Jan. 28, 1913. Serial No. 744,696. (Cl. 151-19.)

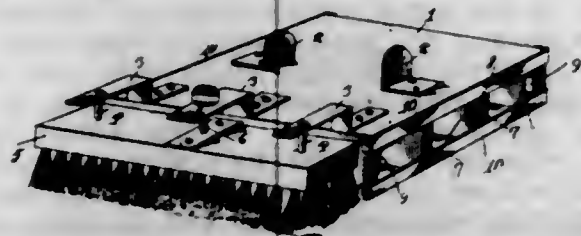
In a device of the character described, a two part longitudinally divided nut, a two part longitudinally divided externally threaded extension carried thereby, said extension and nut provided with a threaded aperture extending

therethrough, a plurality of cylindrical projections carried by the contacting faces of one of said nut parts, the opposite portion of said nut provided with a plurality of cylindrical bores adapted to receive said cylindrical projections therein, said cylindrical projections interlocking with the said cylindrical bores and holding the two parts of the nut and extension against relative transverse and longitudinal



movements, and a locking nut provided with internal threads extending therethrough adapted to threadedly engage said extension and to force the parts of the said nut and extension together, the two part nut and extension adapted to engage the threaded portion of a bolt and to be securely and frictionally locked thereto by the said locking nut which forces the two part nut and extension into forced contact therewith.

1,081,240. FLOOR POLISHER AND SWEEPER. MORRIS LARY, Syracuse, N. Y. Filed July 2, 1913. Serial No. 777,025. (Cl. 15-13.)



1. A floor polisher and sweeper comprising a head block, resilient strips secured to the head block, a cloth detachably connected at its edges with the edges of the head block and passing under said strips and elastic strips connected with the ends of said resilient strips.

2. A floor polisher and sweeper comprising a head block, resilient strips secured to the block, a cloth detachably connected at its edges with the edge portions of the block and passing under said strips, and springs attached to the block and bearing at their free ends against the sides of said strips.

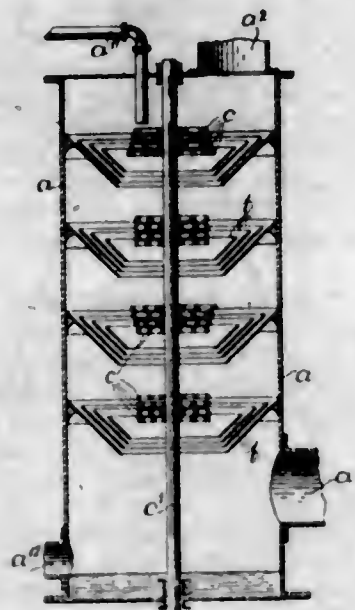
3. A sweeper and polisher comprising a head block, resilient strips secured to the head block, a cloth connected at its edges with the edges of the head block and passing under the strips, springs connected to the head block and bearing at their free ends against the inner surfaces of the terminal members of the strips and elastic strips secured to the edges of said resilient strips.

1,081,241. GAS-WASHER. ARTHUR HENRY LYNN, Westminster, England. Filed May 1, 1913. Serial No. 764,947. (Cl. 48-133.)

1. In a gas washer, the combination of a container-vessel or casing having at its upper end a water inlet and a gas outlet and having at its lower end a water outlet and a gas inlet, a plurality of inverted truncated cones fixed at different levels within said container vessel or casing, and disks arranged coaxially and alternately with said cones, each of said disks being of a diameter not substantially greater than the lower or smaller diameter of the respective cone immediately above it and being located at such a distance below said respective cone as to admit a relatively tall tubular column or film of water between it and said respective cone.

2. In a gas washer, the combination of a container-vessel or casing having a gas inlet in its lower part and a gas outlet at its upper part and having a water inlet at its upper part and a water outlet at its lower part, a plurality of centrally disposed distributing means within said container-vessel or casing, and a plurality of annularly dis-

posed collecting means arranged alternately with said distributing means, said collecting means being so shaped and dimensioned as to guide the liquid collected thereby toward the outer edges or peripheries of the respective distributing means.



3. In a gas washer the combination of a container-vessel or casing having a gas inlet in its lower part and a gas outlet in its upper part, and having a water inlet in its upper part and a water outlet in its lower part, a plurality of centrally disposed distributing means within said container-vessel or casing and a plurality of annularly disposed collecting means arranged alternately to said distributing means and having their lesser or lower diameters not substantially smaller and being respectively widely spaced from the next in order of the distributing means so that the film of water delivered by the collecting means to the respective distributing means will be of large superficial area.

4. In a gas washer, the combination of a container-vessel or casing having a gas inlet in its lower part and a gas outlet in its upper part and having a water inlet in its upper part and a water outlet in its lower part, a plurality of sets or nests of coaxial truncated cones within said container-vessel or casing, and a plurality of sets of apertured disks arranged alternately with said sets or nests of truncated cones, said sets or nests of truncated cones being widely spaced vertically from the respectively succeeding sets of disks so as to permit any water collected by said cones to fall toward but not to be guided into immediate proximity to said respectively succeeding disks.

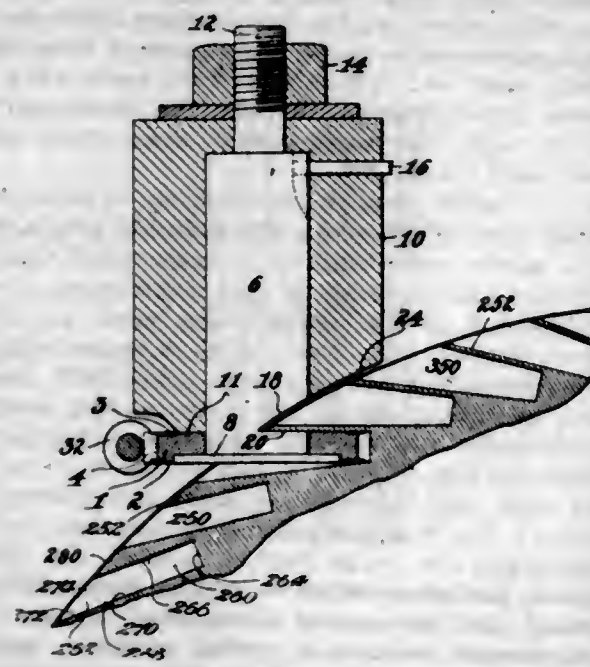
5. In a gas washer, the combination of a container-vessel or tower having at its upper part an inlet for liquid and an outlet for gas and at its lower part an inlet for gas and an outlet for liquid, a plurality of liquid collecting devices comprising inverted truncated cones and a plurality of rotatably mounted distributing devices respectively arranged alternately to said collecting devices, the lower or smaller diameters of the collecting devices being not substantially smaller than the outer diameters of the respective distributing devices and being spaced therefrom at distances such as not materially to retard the momentum of an upward current of gas and so as to cause the descending stream of liquid to present a large superficial area to said current of gas so that said liquid may be thoroughly broken up by the momentum of the gas.

[Claims 6 to 12 not printed in the Gazette.]

1,081,242. MACHINE FOR MILLING TURBINE-BUCKETS. JOHN F. LYONS, Hyde Park, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 25, 1912. Serial No. 673,366. (Cl. 29-23.5.)

1. A machine for milling turbine buckets, having, in combination, a circular milling center, a stud forming a supporting journal for the cutter and having its side next the work cut away adjacent the cutter to permit the cutter

to mill a bucket having its bottom portion forming a substantially semi-cylindrical cavity with unbroken substantially semi-circular end walls, a work support, and means for causing a relative feeding movement between the work and the milling cutter, substantially as described.



2. A machine for milling turbine buckets, having, in combination, a circular milling cutter, a stud forming a supporting journal for the cutter and having its side next the work cut away adjacent the cutter to permit the cutter to mill a bucket having its bottom portion forming a substantially semi-cylindrical cavity with unbroken substantially semi-circular end walls, means engaging the cutter on the side opposite the work for driving the cutter, a work support, and means for causing a relative feeding movement between the work and the milling cutter, substantially as described.

3. A machine for milling turbine buckets, having, in combination, a circular toothed milling cutter, a stud forming a supporting journal for the cutter and having its side next the work cut away adjacent the cutter to permit the cutter to mill a bucket having its bottom portion forming a substantially semi-cylindrical cavity with unbroken substantially semi-circular end walls, a power driven rotary member meshing with the teeth of the cutter on the side opposite the work for driving the cutter, a work support, and means for causing a relative feeding movement between the work and the milling cutter, substantially as described.

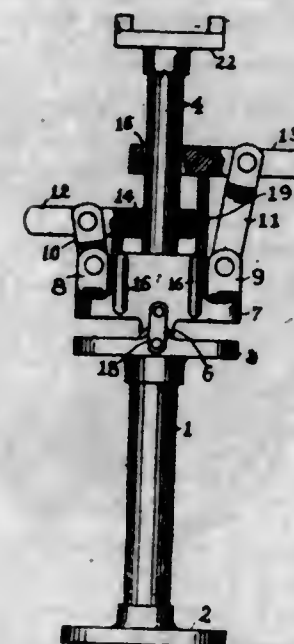
4. A machine for milling turbine buckets, having, in combination, a circular milling cutter having a countersunk bearing, a headed stud forming a supporting journal for the cutter, having its head received in the countersink to leave one face of the cutter entirely free of projections and having its side next the work adjacent the other face of the cutter cut away to leave the second face of the cutter entirely free of projections for a complete semicircular sector next the work, means for driving the cutter, a work support, and means for causing a relative feeding movement between the work and the milling cutter, substantially as described.

5. A machine for milling turbine buckets, having, in combination, a circular milling cutter having a countersunk bearing, a headed stud forming a supporting journal for the cutter, having its head received in the countersink flush with one face of the cutter to leave said face entirely free of projections and having a notch cut in its side adjacent the other face of the cutter, one face of the notch being substantially flush with the side of the cutter to leave said face of the cutter free of projections for a substantially complete semi-circular sector next the work, whereby the cutter is permitted to cut a bucket inclined to the surface of the work and having its bottom portion forming a substantially semi-cylindrical cavity with unbroken substantially semi-circular end walls, means engaging the cutter on the side opposite the work for driving

the cutter, a work support, and means for causing a relative feeding movement between the work and the milling cutter, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,081,243. LIFTING-JACK. CHARLES M. MARKHAM, San Diego, Cal. Filed Oct. 4, 1912. Serial No. 723,867. (Cl. 57-98.)



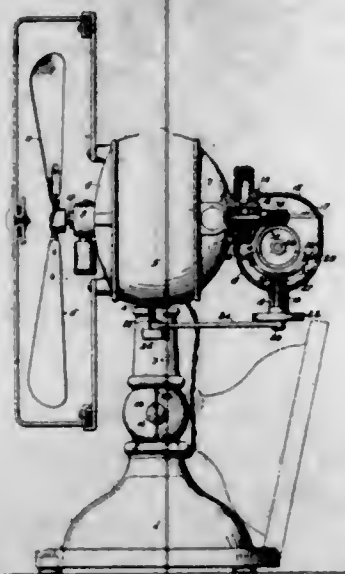
1. In a lifting jack, the combination with a standard having a base and a table member, of a rib extending transversely upon the table member, a rocker engaging with said rib, said rocker being adapted to oscillate upon said rib, loops on said rocker adapted to receive a detachable handle, bifurcated members mounted on opposite ends of said rocker, links pivotally connected to said bifurcated members, gripping levers connected to said links having a limited oscillating movement, a central supporting member slidably mounted in and extending from said standard and engaging with said gripping levers, and a handle adapted to be inserted in said loops on the rocker for manually operating the device, substantially as set forth.

2. In a lifting jack the combination of a standard, a base on the lower end thereof, a table on the top end, a rib extending transversely on said table, a rocker operating upon said rib, bifurcated members carried by the opposite ends of said rocker, links pivoted to said bifurcated members, loop gripping levers carried by said links and having an obliquely extending opening therein, means mounted on each end of said rocker engaging with said gripping levers for releasing same, a central member telescopically mounted in said standard and extending therefrom and engaging with said gripping levers, and a handle mounted in loops on said rocker for manually operating said rocker.

3. In a lifting jack, the combination with a standard having a flanged base member at the bottom and a flanged table member at the top, of a rib extending transversely on said table member, a rocker having a grooved bottom adapted to engage with said rib and prevent lateral displacement of the rocker, loops on one side of said rocker adapted to receive the operating handle, a detachable handle adapted to be inserted in said loops and operate the rocker, bifurcated members secured to opposite ends of said rocker, links pivotally connected to said bifurcated members, gripping levers pivotally connected to said links and adapted to a limited oscillating movement, said gripping levers having obliquely disposed openings in their inner extremities, a central member slidably mounted in said standard and extending upward therefrom and through said openings in the gripping levers and normally engaging with the edges of said openings to lock said central member against a downward movement, and means for releasing said gripping levers comprising releasing levers pivotally mounted on said rocker and hav-

ing their inner extremities extending upward and beneath said gripping levers and normally resting against them. the said releasing levers having their outer extremities projecting from a side of the rocker, elongate loops on the same side of the rocker, and an operating lever adapted to be inserted in said elongate loops and normally rest upon the outer extremities of the releasing levers, the said releasing levers alternately lifting and thereby disengaging said gripping levers from the central member when said operating lever is depressed to actuate the releasing levers, substantially as set forth.

1,081,244. ELECTRIC FAN. GUSTAVE C. MARX and ADOLPH F. BECKER, Elizabeth, N. J., assignors to Diehl Manufacturing Company, a Corporation of New Jersey. Filed Feb. 23, 1910. Serial No. 545,291. (Cl. 230—1.)



1. In an electric fan, having a shaft, a motor, a motor casing provided with bearings for rotatably supporting said shaft at both ends, and a standard on which the motor casing is pivotally mounted, a fan-oscillating unit, including a gear-case having means for removably attaching it to the motor casing, a train of gearing thereon, means for separably connecting said train of gearing with the fan shaft, and means for separably connecting said train of gearing with the standard, whereby said fan-oscillating unit is adapted to be detached from the motor casing without affecting the operativeness of the fan independently of the fan-oscillating unit.

2. An electric fan, having a shaft, a motor, and a motor casing in which said shaft is supported at both ends, and a standard on which the motor casing is pivotally mounted, combined with a fan-oscillating mechanism, comprising essentially a gear-case provided with means for attaching it to and removing it from the motor casing without affecting the support of the fan-shaft, and a train of gearing connected with the standard and adapted to be operatively connected with the fan-shaft.

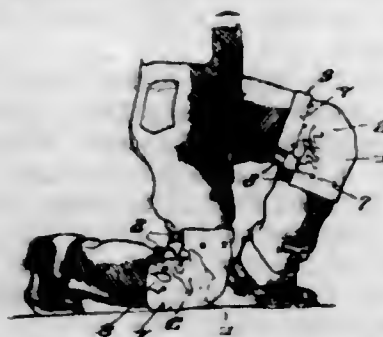
3. In an electric fan, in combination, a motor-frame provided with a projecting bearing boss, a standard upon which said motor-frame is pivotally supported, a motor comprising an armature-shaft journaled in said bearing boss, a gear-case adapted to be removably fitted to and secured upon said bearing boss, speed-reducing gearing mounted within said gear-case and adapted to be operatively connected with the armature-shaft, and an operative connection between said speed-reducing gearing and the supporting standard whereby the motor-frame is oscillated upon the standard, the said gear-case and its contained gearing being adapted to be removed from the motor-frame without interfering with the operation of the motor.

4. In an electric fan, in combination, a motor-frame, a standard upon which said motor-frame is pivotally supported, a motor comprising an armature-shaft journaled in said motor-frame, a crank-shaft supported by the motor-frame upon an axis in intersecting relation with that of the armature shaft, an operative connection between said crank-shaft and the standard, an intermediate shaft be-

tween said armature- and crank-shafts and mounted upon the motor-frame in transverse relation to both of said shafts and in axially intersecting relation with said crank-shaft, and a train of speed-reducing gearing connecting said intermediate shaft with the armature- and crank-shafts and comprising a worm on the armature-shaft, a worm-wheel on the intermediate shaft meshing with said worm and a pinion also mounted upon the intermediate shaft and spaced from said worm-wheel, and a concave crown-wheel fixed upon the crank-shaft and having its teeth surrounding said worm-wheel and in mesh with said pinion.

5. In an electric fan, in combination, a motor-frame, a standard upon which said motor-frame is pivotally supported, a motor comprising an armature-shaft having a worm thereon and journaled in said motor-frame, a crank-shaft supported by the motor-frame upon an axis in transverse relation with that of the armature-shaft, an operative connection between said crank-shaft and the standard, an intermediate shaft between said armature- and crank-shafts and mounted upon the motor-frame in transverse relation to both of said shafts, a worm-wheel mounted upon said intermediate shaft and meshing with the worm on the armature-shaft, a crown-wheel having a hub fixed upon the crank-shaft, a toothed rim disposed adjacent to the intermediate shaft and surrounding said worm-wheel, and a concave connecting web into which said worm-wheel extends, a pinion mounted upon the intermediate shaft and meshing with said crown-wheel, and a casing closed at the bottom and surrounding said worm-wheel, crown-wheel and its operating pinion and adapted to hold a supply of lubricant in which the latter operate.

1,081,245. KNEE-PROTECTOR. DOUGLAD BELL McCALL, Rogers, Tex. Filed June 3, 1913. Serial No. 771,475. (Cl. 2—130.)



A knee protector comprising an outer facing of canvas, an inner layer of cotton batting forming a pad secured marginally to the outer layer, the latter being provided at its top and bottom with hems, rivets passing through the layers and edges of the hems and firmly uniting the portions together and resilient split bands extending through the hems and adapted for engagement with the leg of the wearer above and below the knee.

1,081,246. RECORDING APPARATUS. THOMAS D. McCALL, Imperial, Cal. Filed Oct. 19, 1911. Serial No. 655,499. (Cl. 234—10.)

1. Apparatus of the character described, comprising a water supply flume or the like, a vertically movable gate therein, a casing having two compartments separately communicating with the flume at either side of the gate respectively, floats in the compartments, actuators connected with the floats, a record receiving member, means for actuating the same, record making members co-acting with the record receiving member, and means whereby the actuators in their vertical movement cause the record making members to traverse the record receiving member.

2. Apparatus of the character described, comprising a water supply flume or the like, a vertically movable gate therein, a casing having two compartments separately communicating with the flume at either side of the gate respectively, floats in the compartments, actuators connected with the floats, a record receiving member, means

for actuating the same, record making members co-acting with the record receiving member, and means whereby the actuators in their vertical movement cause the record making members to traverse the record receiving member; said gate being provided with an actuator, a further record making member, and means whereby said last named actuator causes said last named record making member to traverse said record receiving member.



3. Apparatus of the character described, comprising a water supply flume or the like, a vertically movable gate therein, a casing having two compartments separately communicating with the flume at either side of the gate respectively, floats in the compartments, actuators connected with the floats, a record receiving member, means for actuating the same, record making members co-acting with the record receiving member, and means whereby the actuators in their vertical movement cause the record making members to traverse the record receiving member; said actuators having vertically inclined portions; and slidable tensionally retracted mountings for said record making members.

4. Apparatus of the character described, comprising a water supply flume or the like, a vertically movable gate therein, a casing having two compartments separately communicating with the flume at either side of the gate respectively, floats in the compartments, actuators connected with the floats, a record receiving member, means for actuating the same, record making members co-acting with the record receiving member, and means whereby the actuators in their vertical movement cause the record making members to traverse the record receiving member; said actuators having vertically inclined portions; and slidable tensionally retracted mountings for said record making members being provided with rollers co-acting with said actuators.

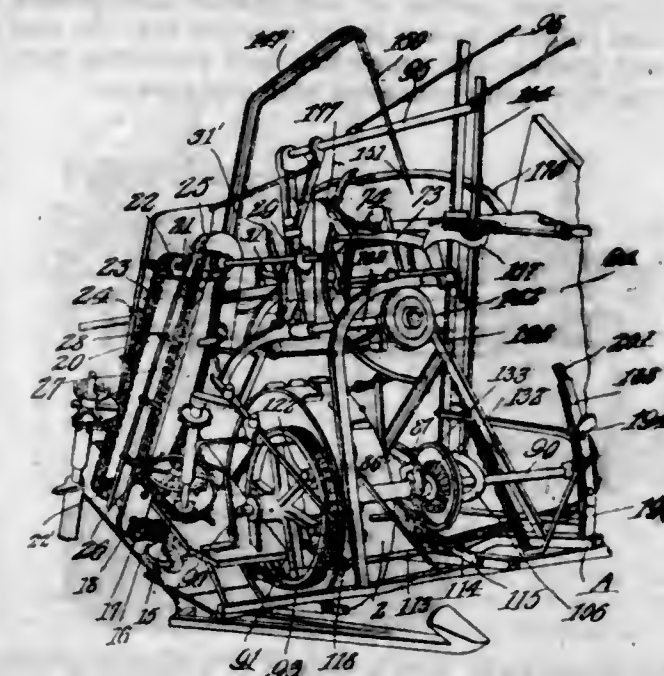
5. Apparatus of the character described, comprising a water supply flume or the like, a vertically movable gate therein, a casing having two compartments separately communicating with the flume at either side of the gate respectively, floats in the compartments, actuators connected with the floats, a record receiving member, means for actuating the same, record making members co-acting with the record receiving member, and means whereby the actuators in their vertical movement cause the record making members to traverse the record receiving member; said compartments being provided with baffles at their points of communication with said flume or the like and whereby the water entering said compartments is laterally deflected.

[Claims 6 to 10 not printed in the Gazette.]

1,081,247. SHOCKING-MACHINE. WILLIAM R. McHILL, Eureka, Kans. Filed Apr. 24, 1909. Serial No. 491,975. (Cl. 56—119.)

1. In a harvester a bundle receptacle, means for successively delivering bundles in horizontal position to the receptacle, means for compressing the bundles into a shock while in horizontal position in the receptacle, means for binding the shock while in horizontal position, means for turning the receptacle and opening the same to deposit

the shock, and trip arms operating in the receptacle to operatively connect the receptacle turning and opening means to a source of power at the completion of the assembling of bundles in the receptacle.



2. A harvester comprising a bundle receptacle, means for successively delivering bundles to the receptacle, means for binding the accumulation of bundles in the receptacle, trip arms operating over the receptacle and means operatively connecting the trip arms with the binding means to actuate the latter, means for swinging the trip arms out of the path of movement of the bundle receptacle, as the said receptacle assumes dumping position and means for dumping the receptacle.

3. In a harvester a tiltable bundle receptacle, means for delivering bundles successively to the bundle receptacle, a needle for binding the accumulation of bundles in the receptacle, trip arms operating over the receptacle and adapted to be moved by the accumulation of bundles, means for operatively connecting the trip arms with the needle for actuating the same, and means for swinging the trip arms beyond the path of movement of the receptacle as the receptacle assumes dumping position.

4. In a harvester a bundle receptacle, means for successively depositing bundles in the receptacle, means for compressing the assembled bundles in the receptacle, a binding needle, trip arms adapted to operate over the receptacle, means operatively connecting the trip arms with the binding needle whereby the latter is actuated as a result of the movement of the former, means for releasing the shock compressor, means for tilting the bundle receptacle and means for swinging the trip arms beyond the path of movement of the bundle receptacle as the receptacle assumes dumping position.

5. In a harvester a bundle receptacle, means for tilting said receptacle, means for successively delivering bundles to the said receptacle when the same is in receiving position, means for interrupting the delivering of the bundles when the said receptacle is in depositing position, means for binding bundles in the receptacle in the form of a shock, trip arms operating over the receptacle and adapted to be moved by the accumulation of bundles therein and means for operatively connecting said trip arms with said binding needle.

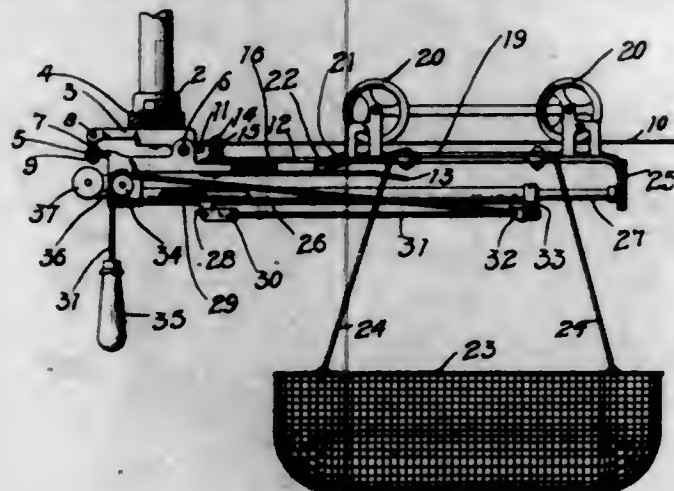
[Claims 6 and 7 not printed in the Gazette.]

1,081,248. [WITHDRAWN.]

1,081,249. STORE-SERVICE APPARATUS. CHARLES J. MILLER, Minneapolis, Minn., assignor, by mesne assignments, to The Lamoine Company, Boston, Mass., a Corporation of New Jersey. Filed Dec. 18, 1911. Serial No. 666,403. Renewed May 8, 1913. Serial No. 766,430. (Cl. 186—8.)

1. In a store service apparatus, the combination, with a carrier station, of a line wire and carrier, said carrier

having a depending part near its outer or forward end, a reciprocating plunger arranged to contact with said depending part, a guide for said plunger, a pulley mounted on the outer portion of said guide, a propelling cord attached to the rear portion of said plunger and passing around said pulley, a second pulley mounted near the rear end of said plunger and supporting said propelling cord, and a retracting spring connected with said plunger.



2. The combination, with a hanger, of a bracket mounted thereon, a line wire connected with said bracket, a carrier, a tube mounted in said bracket parallel, substantially, with said line wire, a propelling plunger slidable in said tube and having a forward end adapted to contact with said carrier to project it from the station, a spring device for retracting said plunger, and a propelling cord connected with said plunger and operating to project said plunger against the tension of said spring.

3. The combination, with a hanger and a line wire connected therewith, of a carrier, a tube supported by said hanger parallel, substantially, with said line wire, a plunger slidable in said tube and having a forward end adapted to contact with and project said carrier from the station, a drum mounted near the rear end of said tube, a cord wound on said drum and attached to said plunger, a spring normally tending to wind said cord on said drum and retract said plunger, and means for projecting said plunger against the tension of said spring.

4. The combination, with a hanger and a line wire connected therewith, of a carrier, a tube supported by said hanger beneath and parallel substantially with said line wire and having open ends, a plunger slidable in said tube, a spring-actuated drum arranged near the rear open end of said tube, a cord attached at one end to said drum and normally wound thereon and having its other end extending into the open rear end of said tube and connected to said plunger, and a propelling cord attached to said plunger.

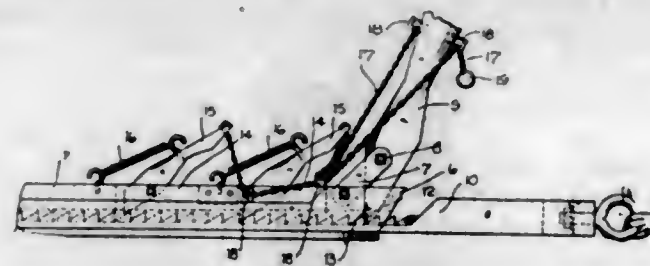
5. The combination, with a hanger, of a structure supported thereby which comprises a plate secured to said hanger, a frame having a pivotal connection at one portion thereof with said plate, an adjustable connection between another portion of said frame and said plate for tilting said frame with respect to said plate, a line wire attached to said structure, a carrier therefor, a sliding, spring-retracted plunger and a guide therefor, and a propelling cord operating to project said plunger into contact with said carrier.

[Claims 6 to 10 not printed in the Gazette.]

1,081,250. WIRE-STRETCHER. JOHN E. MILLER, Coffey, Mo. Filed Feb. 8, 1913. Serial No. 747,117. (Cl. 39—127.)

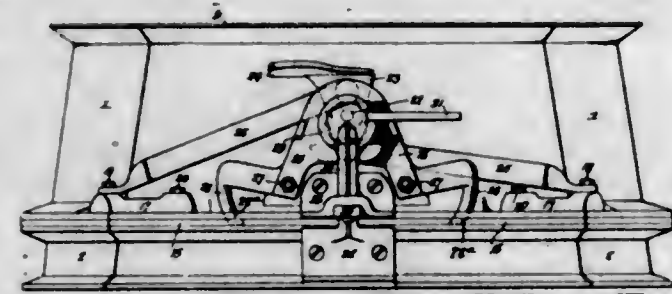
A device of the character described including a body member having wire engaging means, a rack movable longitudinally relatively to the body member and having wire engaging means, link members pivotally engaging the body member, an actuating lever pivotally held between the outer ends of said links and having its inner end engageable with the rack to impart movement thereto in one direction, a plurality of upwardly directed pawls piv-

otally supported intermediate their lengths by the body member and alternately engageable with the rack to prevent retrograde movement thereof, flexible members each having one end connected to the outer end of one of said pawls, loops on the body member through which the flexi-



ble members are directed, loops on the lever member above the links through which the flexible members are directed after being passed through the loops of the body member, and means carried by the flexible members whereby the same are prevented from being released from the loops of the lever.

1,081,251. MOLDING-FLASK. ABRAM C. MOTT, JR., Philadelphia, Pa., assignor to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 19, 1912. Serial No. 691,793. (Cl. 22—48.)



1. The combination in a flanged flask, of a sand support mounted on the flask, said support being made in four sections arranged to slide on the flask, one of said sections being perforated and the others being slotted; blocks arranged to slide on the flange of the flask, each block having two pins, one pin of each block entering the perforation in one of said sections, the other pin entering a slot in one of the other sections; and means for moving the blocks in unison so as to cause the support to be projected beyond the inner line of the flask and to be retracted.

2. The combination of a flask made in two sections; each section having flanges; a sand support slidably mounted on one end of one section; said sand support being made in four sections; blocks arranged to slide on the lower flange of the said section on which the sand support is mounted; each block having pins engaging the said sections of the sand support; levers pivotally mounted on opposite sides of the flask; rods connecting the levers with the sliding blocks so that when the levers are operated the sliding blocks so that when the levers are operated the sand support will be projected or retracted.

3. The combination in a flask; of a sand support mounted at one end of the flask; means for retracting the sand support; levers on opposite sides of the flask; and cams for actuating the levers so as to raise the flask, with its sand mold, clear of the match board and of the pattern.

4. The combination in a flask, of a flanged cope section; a flanged extension thereon, one of said parts having undercut lips adapted to engage the flanges of the other part; and a pin for locking the two parts of the flask together.

5. The combination of a flanged cope section; an extension mounted thereon; undercut lips on three sides of the extension engaging the flange of the cope section; with a pin adapted to a way in the extension and arranged to rest upon the flange of the cope section, whereby the two sections are firmly locked together.

[Claims 6 and 7 not printed in the Gazette.]

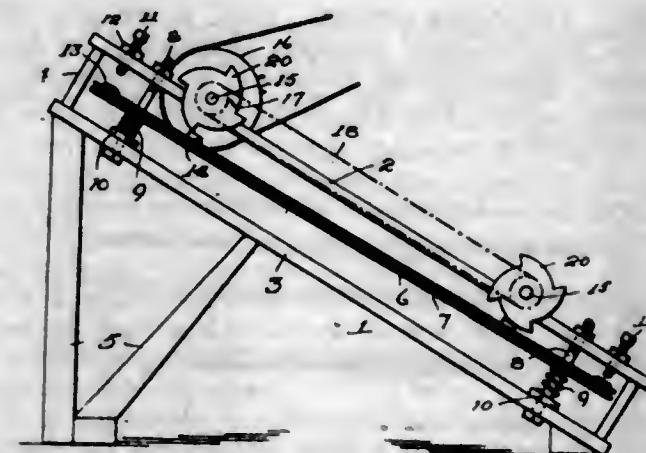
1,081,252. GAS-ENGINE. ANDREW A. PATSEN, Clinton, Iowa. Filed Apr. 23, 1912. Serial No. 692,669. (Cl. 123—190.)



1. An engine provided with a power cylinder and power shaft, intake and exhaust valve structures each comprising a casing having a substantially cylindrical bore provided with a port communicating directly and independently of the port of the other casing with the interior of the power cylinder, a pair of concentrically arranged valves in each casing and each provided with a port movable into coincidence one with the other and with the port in the casing, both valves extending beyond the same end of the casing and the inner valve extending beyond the corresponding extended end of the other valve, and driving connections between the power shaft at one end of the engine and both valves at the same end of the engine where extended beyond the corresponding end of the casing, said driving connections being constructed to cause the rotation of the valves simultaneously in opposite directions.

2. In a multi-cylinder engine, intake and exhaust valve structures each comprising a valve casing and an inner and outer valve member arranged concentrically within the casing, said valve members being each provided with as many ports as there are cylinders and the casing being similarly provided, and means for rotating the valve members within each casing in opposite directions one to the other to bring the valve ports into coincidence one with the other and with the port in the casing, the inner valve of the intake valve structure being provided with chambers individual to the cylinders, and the inner valve of the exhaust valve structure having its interior free from obstruction to receive the exhaust and convey it to one end of the engine.

1,081,253. SAND-SCREEN. DANIEL REINERT, Temple, Pa. Filed Sept. 9, 1912. Serial No. 719,266. (Cl. 83—56.)

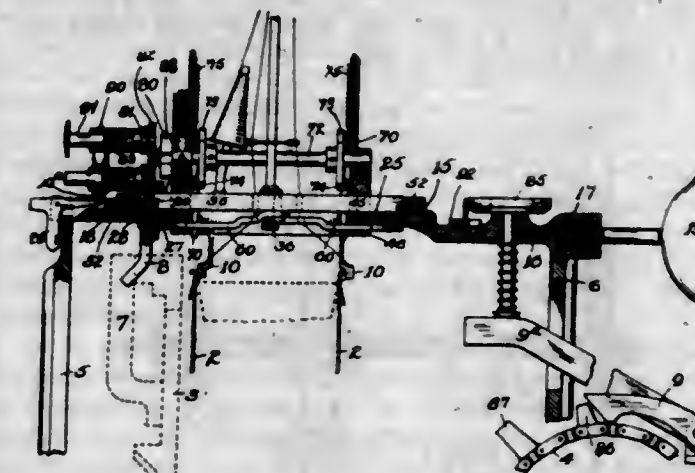


The combination with a support having superimposed pairs of rails, of spacing devices interposed between both pairs of rails at the ends thereof, bolts passing through both pairs of rails and securing the same against said spacing devices, a vibrating screen movable bodily in the space between the superimposed rails and slidably connected with said bolts, and means wholly carried by the upper rails for vibrating said screen.

1,081,254. CLOTHING ATTACHMENT FOR CIRCULAR-KNITTING MACHINES. FRANK W. ROBINSON, Reading, Pa., assignor to The Nolde & Horst Co., Reading, Pa., a Corporation of Pennsylvania. Filed May 20, 1912. Serial No. 698,360. (Cl. 66—12.)

1. A clothing attachment for circular knitting machines comprising a fixed frame-ring, a rotary cam-ring supported

thereby, and cooperating thread-finger bars diametrically mounted within said cam-ring at right-angles to each other and reciprocally operated by the latter to respectively carry the thread between and crosswise of the needles substantially as set forth.



2. A clothing attachment for circular knitting machines comprising a fixed frame-ring, a rotary cam-ring supported thereby, a non-rotatable inner-ring, and cooperating thread-finger bars guided in said inner-ring at right-angles to each other and reciprocally operated by said cam-ring to respectively carry the thread between and crosswise of the needles substantially as set forth.

3. A clothing attachment for circular knitting machines comprising a fixed frame-ring, a rotary cam-ring supported thereby, an inner-ring supported by said rotary cam-ring, and cooperating thread-finger bars guided in said inner-ring at right angles to each other and reciprocally operated by said cam-ring to respectively carry the thread between and crosswise of the needles, and fixed locking-devices adapted to be respectively engaged by the ends of one of said reciprocating bars so as to prevent rotation of said inner-ring.

4. In a clothing attachment for circular knitting machines comprising a fixed frame-ring and a rotary cam-ring; thread-finger bars diametrically mounted within said cam-ring at right-angles to each other and adapted to be reciprocally operated by the latter, and thread-finger arms carried by one of said reciprocating bars and capable of lateral movement thereon; said arms being operatively connected to the other bar.

5. In a clothing attachment for circular knitting machines comprising a fixed frame-ring and a rotary cam-ring; thread-finger bars diametrically mounted within said cam-ring at right-angles to each other and adapted to be reciprocally operated by the latter, thread-finger arms carried by one of said reciprocating bars and capable of lateral movement thereon, spring connections between said arms and the other bar, and stop devices for limiting the lateral movement of said arms.

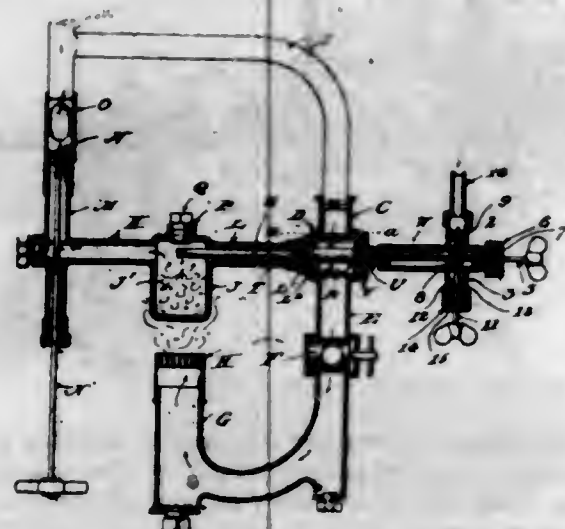
[Claims 6 to 8 not printed in the Gazette.]

1,081,255. VAPOR-GENERATOR. EDWARD SEITZ, Peoria, Ill., assignor of one-half to James E. Lockwood, Peoria, Ill. Filed July 30, 1909. Serial No. 510,438. (Cl. 158—58.)

1. In an apparatus of the class described the combination of a vapor generator, a vapor discharge nozzle communicating therewith, a pipe extending into said generator and having an opening at its inner end for the discharge of a combustible fluid, a conduit including a mixing chamber for air and vapor communicating with the said nozzle, a burner beneath the generator and a pipe connecting the conduit with the burner and having the first named pipe extending therethrough.

2. The combination with a pipe, of a vapor generator with which the pipe is connected, a conduit for vapor communicating with said generator, a second pipe leading from the conduit and terminating with an open end beneath the generator, said pipe having the first named pipe extending laterally and substantially centrally there-through.

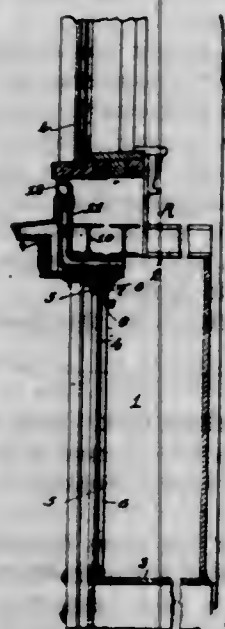
3. The combination with a vapor generator, of a conductor for vapor communicating therewith and leading to and terminating beneath the said generator, and a pipe for a combustible fluid smaller in diameter than the conductor and extending laterally through the same into the generator and separated from the walls of the said conductor by a space whereby the vapor in said conductor is made to flow around said pipe.



4. The combination with a vapor generator consisting of a hollow member, a tubular fitting adjacent to and abutting against an extension of said generator, a pipe extending through the fitting and in engagement with it and the said extension of the generator, and terminating within the latter.

5. The combination with a vapor generator consisting of a member provided with a cavity and a tubular extension communicating with said cavity, of a tubular fitting abutting against said tubular extension, a pipe extending through the fitting and in engagement with it and extending also into the said tubular extension and engaging the same and terminating within the cavity of the generator. [Claims 6 to 16 not printed in the Gazette.]

1,081,260. WINDOW-VENTILATOR. JAMES B. SHERRIDAN, Pittsburgh, Pa. Filed July 5, 1913. Serial No 777,441. (Cl. 98—32.)



1. In combination, a window having a glass therein and an air passage-way above the glass leading from the atmosphere and communicating with the interior of the window, a deflector for directing the air from said passage-way down and along the interior surface of the glass, and means above said first named passage-way for conducting the heated air arising from within the window to the atmosphere.

2. In combination, a window having a glass therein and an air passage-way above the glass leading from the atmosphere and communicating with the interior of the

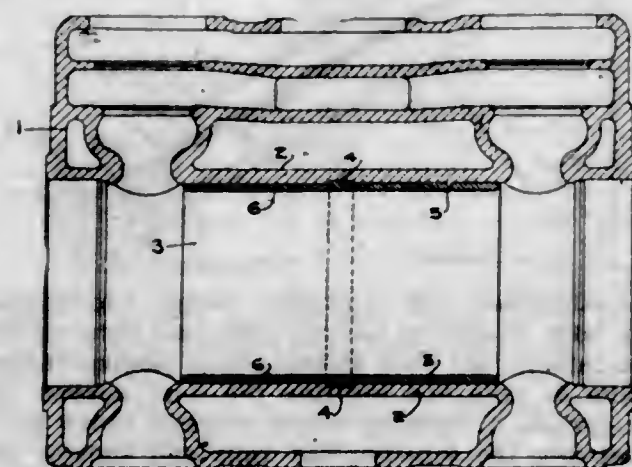
window, a deflector for directing the air from said passage-way down and along the interior surface of the glass, and a conductor above said passage-way for conducting the heated air arising from within the window to the atmosphere.

3. In combination, a window having an upper and lower glass therein and an air passage-way above the upper glass leading from the atmosphere and communicating with the interior of the window, a deflector for deflecting the air from said passage-way down and along the interior surface of the upper glass, means supported between said glasses and adapted to form a passage-way between the same and its support for directing the air from the upper glass down and along the interior surface of the lower glass, and means above said first named passage-way for conducting the heated air arising from within the window to the atmosphere.

4. In combination, a window having an upper and lower glass therein and an air passage-way above the upper glass leading from the atmosphere and communicating with the interior of the window, a deflector for deflecting the air from said passage-way down and along the interior surface of the upper glass, a conductor supported between said glasses and adapted to form a passage-way between the same and its support for directing the air from the upper glass down and along the interior surface of the lower glass, and means above said first named passage-way for conducting the heated air arising from within the window to the atmosphere.

5. In combination, a window having an upper and lower glass therein and an air passage-way above the upper glass leading from the atmosphere and communicating with the interior of the window, a deflector for deflecting the air from said passage-way down and along the interior surface of the upper glass, a deflector plate supported between said glasses and adapted to form a passage-way between the same and its support for directing the air from the upper glass down and along the interior surface of the lower glass, said deflector plate having upper and lower portions thereon turned in toward said upper and lower glasses to direct said air into and from said last named passage-way, and means above said first named passage-way for conducting the heated air arising within the window to the atmosphere. [Claim 6 not printed in the Gazette.]

1,081,257. CYLINDER-LINER. CARL G. SPRADO, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 12, 1910. Serial No. 560,795. (Cl. 121—105.)

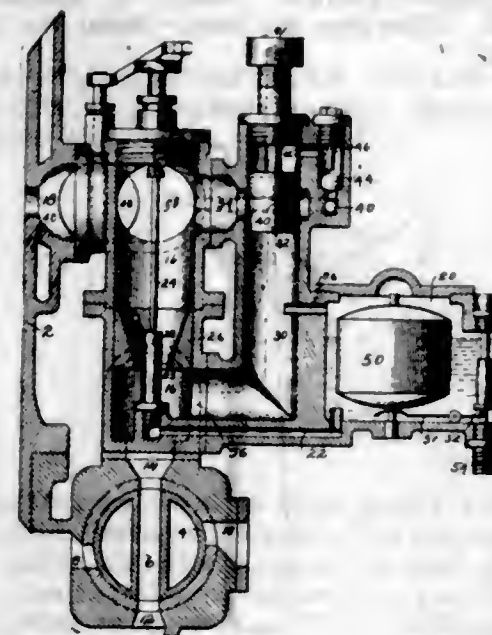


1. In a cylinder, a liner having an outer flange and portions of different diameters immediately adjacent said flange and on either side thereof, and a circumferentially continuous wall member locked to said liner and closely fitting the portions of said liner of different diameters.

2. In a cylinder, a liner having an outer flange and portions of different diameters immediately adjacent said flange and on either side thereof, and a circumferentially continuous wall member locked to said liner and closely

fitting the portions of said liner of different diameters, said liner being insertible within said wall member through one end thereof only.

1,081,258. CARBURETER. JULIUS M. ULRICH and WILLIAM RAHR, Jr., Manitowoc, Wis.; said Ulrich assignor to said Rahr. Filed Aug. 27, 1910. Serial No. 579,324. (Cl. 48—155.1.)



1. A carbureter for internal combustion engines comprising the combination with a mixing chamber provided with a valved air inlet, a vapor outlet and a fuel inlet at an intermediate point, of an obstruction in said chamber, located between the air and fuel inlets and adapted to direct a portion of the air to the fuel entering through the fuel inlet, a by-pass leading around said obstruction, a fuel supply chamber provided with an outlet communicating with the fuel inlet of the mixing chamber, and also having an open connection between its upper portion and the by-pass, and a yielding obstruction in said by-pass between said open connection with the fuel chamber, and the point of air delivery to the mixing chamber beyond the obstruction therein, together with a posterior throttle controlling the delivery of the mixture through the outlet.

2. A carbureter for internal combustion engines, comprising the combination with a mixing chamber provided with a valved air inlet, a vapor outlet and a fuel inlet, of a by-pass connecting the inlet and outlet portions of the mixing chamber, around the portion occupied by the fuel inlet, means for restricting the passage of air through that portion of the mixing chamber occupied by the fuel inlet, a yielding obstruction to the passage of air through the by-pass, and means for utilizing the air in the by-pass in advance of said obstruction, to develop a pressure upon the fuel in advance of the fuel inlet, together with a posterior throttle controlling the delivery of the mixture through the outlet.

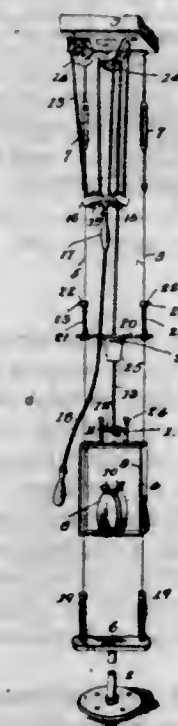
3. A carbureter for internal combustion engines, comprising the combination with a mixing chamber provided with a valved air inlet, a vapor outlet and a fuel inlet, of a by-pass connecting the inlet and outlet portions of the mixing chamber, around the portion occupied by the fuel inlet, means for restricting the passage of air through that portion of the mixing chamber occupied by the fuel inlet, a yielding obstruction to the passage of air through the by-pass, and means for utilizing the air in the by-pass in advance of said obstruction, to develop a pressure upon the fuel in advance of the fuel inlet, said means comprising a fuel chamber having its lower portion in communication with the fuel inlet and its upper portion in communication with said by-pass, together with a posterior throttle controlling the delivery of the mixture through the outlet.

4. A carbureter for internal combustion engines, comprising the combination with a mixing chamber provided

with a valved air inlet, a vapor outlet and a fuel inlet, of a by-pass connecting the inlet and outlet portions of the mixing chamber, around the portion occupied by the fuel inlet, means for restricting the passage of air through that portion of the mixing chamber occupied by the fuel inlet, a yielding obstruction to the passage of air through the by-pass, and means for utilizing the air in the by-pass in advance of said obstruction, to develop a pressure upon the fuel in advance of the fuel inlet, said means comprising a fuel chamber having its lower portion in communication with the fuel inlet and its upper portion in communication with said by-pass, and said yielding obstruction comprising an automatically closing valve, located in the by-pass and adapted to be actuated to open position by the pressure of air thereon, together with a posterior throttle controlling the delivery of the mixture through the outlet.

5. A carbureter for internal combustion engines, comprising the combination with a fuel supply chamber, a mixing chamber provided with a valved air inlet, a vapor outlet, and an intermediate fuel inlet of a by-pass connecting the air inlet and the outlet portions of said chamber around the portion occupied by the fuel inlet, means for restricting the passage of air past the fuel inlet, an automatically closing valve in the by-pass, a duct connecting the by-pass in advance of said valve with the upper portion of the fuel chamber, and a duct connecting the lower portion of the fuel chamber with the fuel inlet, said valve being adapted to open under a predetermined pressure in the by-pass, together with a posterior throttle controlling the delivery of the mixture through the outlet. [Claims 6 to 8 not printed in the Gazette.]

1,081,259. PARCEL-ELEVATOR MECHANISM. HARRY L. WILSON, Cleveland, Ohio, assignor, by mesne assignments, to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 27, 1912. Serial No. 680,243. (Cl. 186—22.)



1. Store service apparatus comprising a receptacle supporting-frame, provided with laterally extending parts, means for elevating said frame, a catch with which said parts engage having a hook for engaging therewith rotatable about a substantially vertical axis, and resilient means for yieldingly holding said hook in position to engage with the said parts.

2. The combination with a receptacle supporting-frame, means for moving it and means for guiding it steady during a portion at least of its movement, a cross-piece carried by said frame, a catch with which the cross-piece engages having a hook for engaging therewith rotatable about an axis substantially parallel with the line of said guided movement of the frame, and means for yieldingly holding the hook in position to engage with said cross-

piece, said last mentioned means maintaining said cross-piece in locked relationship with said hook when said parts have been operatively engaged.

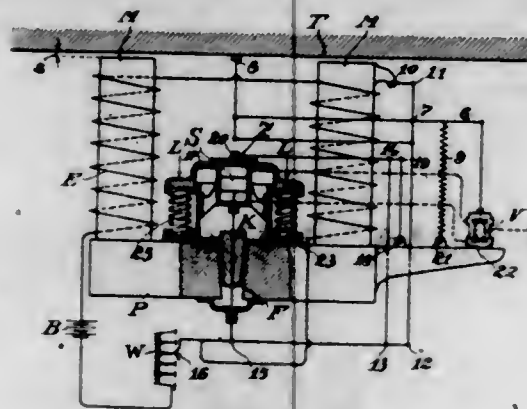
3. The combination with an elevating member movable up and down in a determined path, of a cross-piece carried by said member, and a catch having a hook for engaging with the cross-piece, said catch being oscillatable about a vertical axis, provisions for limiting the oscillatory movement of said hook in one direction at least, and means for yieldingly holding said hook in position to engage with the cross-piece.

4. The combination with a carrier and means for moving it in a directed path, of a catch for engaging with and holding the carrier, comprising a pair of concentric slotted cylinders, one movable relative to the other and arranged when adjusted to certain positions to grip the carrier, and a spring for yieldingly holding the parts of the catch in the said locking position.

5. The combination with a carrier and means for moving it in a directed path, of a catch for engaging with and holding the carrier comprising a pair of concentric slotted cylinders one of the cylinders being movable relative to the other about an axis parallel with the lines of movement of the carrier, and one cylinder carrying hooks adapted to engage with a part of the carrier and arranged to lie across the slot in the other cylinder, and means tending to hold the cylinders in the position just described.

[Claims 6 to 14 not printed in the Gazette.]

1,081,260. DEVICE FOR ELECTROMAGNETIC SUSPENSION. HEINRICH ZOELLY, Zurich, Switzerland. Filed Oct. 29, 1912. Serial No. 728,358. (Cl. 175-21.)



1. The described device for electromagnetic suspension, comprising in combination, a support, a load-carrying means magnetically attracted to said support and adapted to move freely over said support and means for regulating the magnetic attraction of said load-carrying means for said support to maintain an air-space between them.

2. The described device for electromagnetic suspension, comprising in combination, a support, a load-bearing magnet adapted to free lateral movement, and means for varying the magnetic strength of said load-bearing magnet to maintain an air-space between said magnet and said support.

3. The described device for electromagnetic suspension, comprising in combination, a support, a load-bearing magnet adapted to free lateral movement, and means operative between said support and magnet for varying the magnetic strength of said load-bearing magnet to maintain a substantially constant space between said magnet and said support.

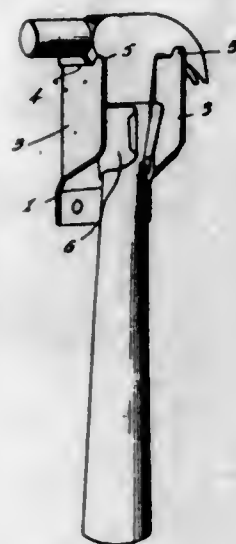
4. The described device for electromagnetic suspension, comprising in combination, a support, a load-carrying means magnetically attracted to said support and adapted for free movement over the latter, and maintaining an air-space between said support and itself, and means for regulating the magnetic attraction of said support and load-carrying means to hold the air-space substantially constant under varying loads.

5. The described device for electromagnetic suspension, comprising in combination, a support, a magnet carrying

the load to be suspended and leaving an air-space between itself and said support, said magnet being adapted to free lateral movement over the latter, and means to change the lifting magnetic force according to the size of the air-space between said magnet and said support, substantially as, and for the purpose, set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,081,261. TOOL-HANGER. SEBERT C. BARRETT, Medina, N. Y. Filed Feb. 27, 1913. Serial No. 751,070. (Cl. 24-3.)



A tool hanger comprising a body having flanges extending at right angles thereto at opposite sides thereof forming a support for the head of a tool the forward upper edges of said flanges being extended upwardly to form lugs to prevent lateral movement of said tool, and a curved spring retaining clip disposed upon the face of said body intermediate the flanges thereof having the side portions thereof substantially parallel with said wings.

1,081,262. TOOL-HOLDER. SEBERT C. BARRETT, Medina, N. Y. Filed Feb. 27, 1913. Serial No. 751,072. (Cl. 24-3.)



1. A substantially cruciform tool holder comprising a cross arm provided at its ends with protecting flanges, a long arm provided at its upper end with a protecting flange and at its lower end with a point receiving socket, and a spring clip disposed upon the face of said holder intermediate the flanges at the ends of the cross arms thereof.

2. A substantially cruciform tool holder adapted for attachment to a garment, said holder comprising a cross arm provided at its ends with projecting flanges, a long arm provided at its upper end with a protecting flange, and inwardly tapering guard flanges at opposite sides of the long arm of said holder merging at their lower end into a tubular point receiving socket.

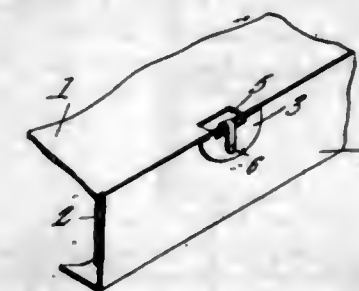
1,081,263. HIGH-SPEED TOOL-STEEL. REINHOLD BECKER, Crefeld, Germany. Filed Dec. 3, 1912. Serial No. 734,796. (Cl. 75-1.)

1. A high speed tool steel containing chromium, tungsten, and cobalt.

2. A high speed tool steel containing a low percentage of carbon, and containing chromium, tungsten and cobalt.

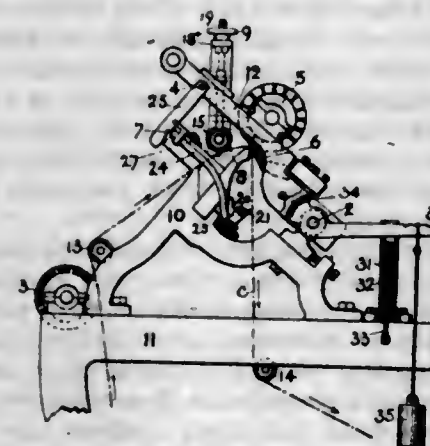
3. A high speed tool steel containing a low percentage of carbon, and containing chromium, tungsten, and up to 15 per cent. of cobalt.

1,081,264. PAPER RECEPTACLE. CHARLES T. BLOOMER, Newark, N. Y. Filed Jan. 17, 1912. Serial No. 671,636. (Cl. 229-47.)



A paper box embodying a cover having a tuck flap insertible within the opposite wall of the box, said flap having a U-shaped slit terminating at the base of the flap to provide a tab foldable over the outer face of the said wall, the tab having an aperture at its butt end extending well into the cover, and a metallic tongue having its butt end clenched to the inner face of the said wall with its tip projecting upwardly and adapted to pass through the said aperture when the cover is closed, the tip of the tongue being bendable against the outer face of the said wall with the said tab, and that portion of the aperture extending into the cover and the opening provided in the flap by the tab, permitting direct access to the butt end of the tongue, whereby the butt end and tip of the tongue may be clamped together.

1,081,265. CLOTH-SHEARING MACHINE. EDWARD F. BUTLER, Sr., Cavendish, Vt., assignor to Curtis & Marble Machine Co., Worcester, Mass., a Corporation of Massachusetts. Filed May 21, 1913. Serial No. 768,921. (Cl. 26-8.)



1. In a cloth-shearing machine, in combination, with a shear-rest over which the cloth is run, and means for automatically lifting the cutter-supporting frame and shearing cutters, controlled by the approach of a seam or obstruction in the cloth; means for engaging and positively retaining said cutter-supporting frame elevated, and means for releasing such engagement to permit said cutter-supporting frame and shearing cutters to assume normal working position, said releasing means being controlled by said seam or obstruction after it has passed to a determined position beyond the shear-rest.

2. In a cloth-shearing machine of the character described, the combination, with the hinged cutter-supporting-frame having the shearing revolver and ledger-blade

mounted thereon, the shear-rest over which is adapted to run cloth, and means for directing the cloth as it passes away from said shear-rest, of a catch-bar attached to said cutter-supporting frame and having an engaging notch or lug for retaining the cutter-supporting frame elevated away from the shear-rest, a rocker member journaled in bearings at the rear of said shear-rest and having a fin adjacent to the surface of the cloth, and a connection actuated by said rocker-member for disengaging said catch-bar when said fin is depressed.

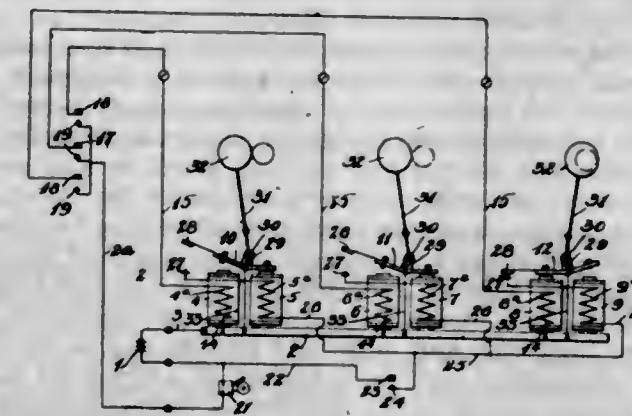
3. In a cloth-shearing machine, the combination of shearing cutters, a shear rest, means for automatically elevating the shear cutters, means for retaining said shearing cutters in elevated position, and means controlled from the cloth for releasing said shearing cutters to permit their return to normal working position.

4. In a cloth-shearing machine of the character described, the combination, with the swinging cutter-supporting frame having the shearing-revolver and ledger-blade mounted thereon, a shear-rest, and means for automatically lifting said cutter-supporting frame, actuated by the passing of a seam or obstruction in the cloth; of an arm connected with said cutter-supporting frame, a slotted stationary tubular guide through which said arm extends, and a coiled spring within said tubular guide adapted for contacting with said arm and for exerting an initial impulse for returning the cutter-supporting frame to normal working position.

5. In a cloth-shearing mechanism, the combination with a revolver-frame having the shearing cutters carried thereon, and the hinging axis connecting said revolver-frame with its stand; of a backwardly extended arm united with said revolver-frame at its hinging axis, the head of said arm having a recessed or indented segment, and a releasable locking member connecting the same with the revolver-frame, a guide fixed upon the stationary frame and embracing the sides of said arm, and a spring disposed beneath said arm, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,081,266. RESETTING-CIRCUIT FOR ANNUNCIATORS. JOSEPH O. CADIEUX, Meriden, Conn., assignor to The Connecticut Telephone and Electric Company, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 7, 1912. Serial No. 729,953. (Cl. 177-339.)



1. In a device of the character described, in combination, a plurality of groups of electro-magnets, each group embodying a calling magnet and a reset magnet, an armature for each magnet group, an indicator movable into two tell-tale positions by the movements of its armature, a source of electric current, normally open electric circuits through said call magnets and current source, a call circuit closer for each call circuit adapted to close its certain circuit to energize the call magnet thereof, thereby attracting its armature and moving its indicator into calling position, an interrupted resetting circuit through each reset magnet, means whereby the attraction of an armature to its call magnet closes a break in a resetting circuit to prepare it for operation, and a single resetting circuit closer in common to at least two resetting circuits and adapted to energize the reset magnets of only such resetting cir-

cuits as have been prepared for operation by the attraction of the armatures to the call magnets, to thereby attract the armatures thereof and reset their indicators.

2. In a device of the character described, in combination, a plurality of groups of electro-magnets, each group embodying a calling magnet and a reset magnet, an armature for each magnet group, an indicator movable into two tell-tale positions by the movements of its armature, a source of electric current, normally open electric circuits through said call magnets and current source, a call circuit closer for each call circuit adapted to close its certain circuit to energize the call magnet thereof, thereby attracting its armature and moving its indicator into calling position, an interrupted resetting circuit through each reset magnet, said call and reset circuits having a portion of their circuits overlapping by means of a conducting member in common thereto, means whereby the attraction of an armature to its call magnet closes a break in a resetting circuit to prepare it for operation, and a single resetting circuit closer in common to at least two resetting circuits and adapted to energize the reset magnets of only such resetting circuits as have been prepared for operation, to thereby attract the armatures thereof and reset their indicators.

3. In a device of the character described, in combination, a plurality of groups of electro-magnets, each group embodying a call magnet and a reset magnet, a pivoted armature for each magnet group, an indicator controlled by each armature having two tell-tale positions and moved from one to the other of said positions by the movement of its armature, a source of electric current, a bus bar, a connection between said current source and said bus bar, a connection between said bus bar and the call magnet of each group, a circuit closer for each call magnet in connection therewith and with said current source whereby each call magnet may be energized to attract its armature thereto and move its indicator, a connection between said bus bar and each armature, a resetting circuit closer, a connection between said resetting circuit closer and said current source, a connection between said resetting circuit closer and each reset magnet and its armature, closed only when said armature is moved by the energizing of its call magnet, whereby, when said resetting circuit closer is operated, current flows only through such reset magnets whose connections have been closed by the movement of their armatures, and attracts said armatures thereto to move the indicators controlled thereby into their first position.

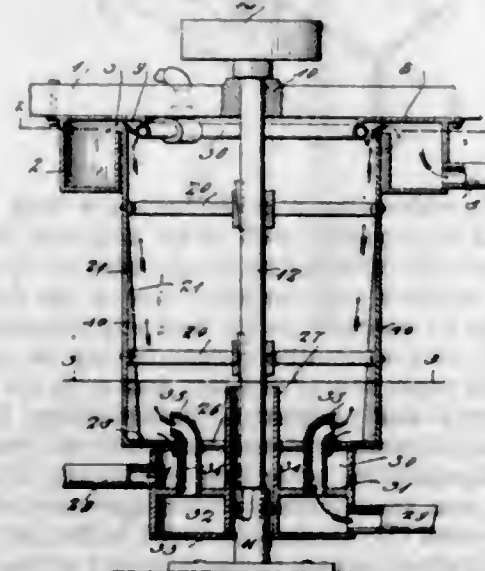
4. In a device of the character described, in combination, a plurality of groups of electro-magnets, each group embodying a call magnet and a reset magnet, a pivoted armature for each magnet group, an indicator controlled by each armature having two tell-tale positions and moved from one to the other of said positions by the movement of its armature, a source of electric current, a bus bar, a connection between said current source and said bus bar, a connection between said bus bar and the call magnet of each group, a circuit closer for each call magnet in connection therewith and with said current source whereby each call magnet may be energized to attract its armature thereto and move its indicator, a connection between said bus bar and each armature, a resetting circuit closer, a connection between said resetting circuit closer and said current source, a connection between each reset magnet and its armature closed by said armature when its armature is moved by the energizing of its call magnet whereby each resetting circuit is closed at one point only when its call magnet has been energized, and whereby, when said resetting circuit closer is operated, current flows only through such reset magnets as have been so closed by the movement of their armatures, and attracts said armatures thereto to move the indicators controlled thereby into their first position.

5. In a device of the character described, a plurality of signal controlling armatures, a calling electro-magnet and a complementary resetting electro-magnet for controlling each of said armatures, each calling magnet being arranged to shift its armature to signaling position and its comple-

mental resetting magnet being arranged to shift said armature to a non-signaling position, a source of electric current, a circuit therefrom having branches leading through each of the calling magnets, each branch including a manually operable circuit closer, another circuit from said current source, said last mentioned circuit having interrupted branch circuits leading through the resetting magnets of each set, each of said branch circuits being closed by its respective armature through its call magnet, and a single resetting circuit closer in common to at least two resetting branches of said resetting circuit.

[Claim 6 not printed in the Gazette.]

1,081,267. CENTRIFUGAL CONCENTRATOR. CHRISTOFFER A. CHRISTENSEN, Portland, Oreg., assignor to The International Mining & Milling Co., Portland, Oreg. Filed June 20, 1912, Serial No. 704,830. Renewed June 2, 1913, Serial No. 771,337. (Cl. 83—87.)

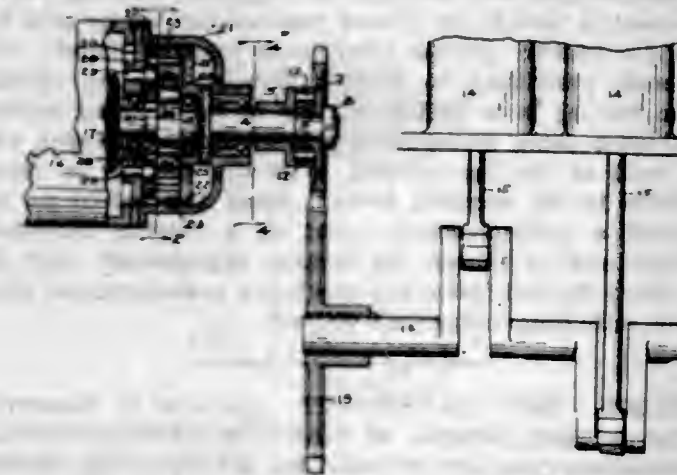


1. In a centrifugal separator, the combination with an upright rotary cylinder whose lower end carries a ring-shaped head, and an axial shaft supporting said cylinder; of an open-topped pan disposed below the cylinder with its upper edge standing under said head, a false bottom therein producing a lower space, a feed pipe communicating with this space, a plurality of pipes extending through said false bottom from this space upward through the opening in said ring-shaped head of the cylinder and having their upper ends directed radially outward within the latter, an outlet pipe for the values opening through the wall of the pan above said false bottom, an upstanding sleeve rising from the true bottom of the pan through its false bottom and closing the lower end of said shaft, and a bearing within said sleeve in which the lower extremity of said shaft is stepped.

2. In a centrifugal separator, the combination with an upright rotary cylinder whose lower end carries a ring-shaped head, of an open-topped pan beneath the cylinder whose upper end stands beneath said head, a false bottom therein producing a lower space, a feed pipe communicating with this space, a plurality of pipes extending through said false bottom from this space upward and communicating with the interior of the cylinder, and an outlet pipe for the values opening through the wall of the pan above said false bottom, substantially as described.

3. In a centrifugal separator, the combination with an upright rotary cylinder, and an axial shaft supporting the same, of an open-topped pan disposed below the cylinder and having a central upstanding sleeve surrounding the lower end of said shaft, a false bottom within said pan producing a lower annular space around said sleeve, a feed pipe communicating with this space, a plurality of feed pipes rising from said space through this false bottom and extending upward into the cylinder, and an exhaust pipe for the values communicating with the annular space around said sleeve and above said false bottom, substantially as described.

1,081,268. ENGINE-STARTER. THOMAS J. GRAY, Indianapolis, Ind., assignor to Gray Engine Starter Company, Indianapolis, Ind., a Corporation of Indiana. Original application filed Mar. 25, 1913, Serial No. 756,702. Divided and this application filed Aug. 28, 1913, Serial No. 787,225. (Cl. 74—35.)



1. The combination with an electric motor and an internal combustion engine of gear means transmitting power at a reduced speed from the motor to the engine to start the engine comprising automatic means operated by the speed of the engine to release the engine when the engine races and to connect the engine and motor when the latter acts as the driving agent.

2. In an engine starter, an electric motor having a driving shaft, a driven shaft, speed reducing gearing drivingly connecting the two shafts, an internal combustion engine having a crank-shaft, means for automatically connecting the driven shaft with the crank-shaft, and for automatically disconnecting them when the engine is racing.

3. An electric motor having a driving shaft, a driven shaft, a crank-shaft, speed reducing mechanism transmitting motion from the driving shaft to the driven shaft, transmission means between the driven shaft and the crank shaft comprising automatic means for disconnecting the crank-shaft at a predetermined speed of the latter and for automatically connecting the crank-shaft when the motor acts as the driver.

4. An electric motor having a driving shaft, a driven shaft, an internal combustion engine having a crank-shaft, speed reducing mechanism transmitting motion from the driving shaft to the driven shaft, transmission means between the driven shaft and crank-shaft comprising automatic means for disconnecting the crank-shaft when its speed has reached approximately one hundred and twenty revolutions a minute and for automatically connecting the crank-shaft when the motor acts as the driver.

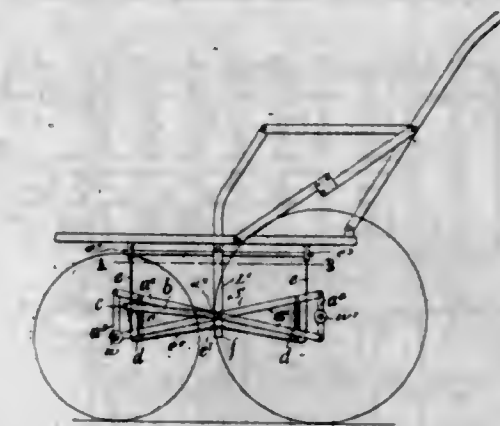
5. An electric motor having a driving shaft, a driven shaft, an internal combustion engine having a crank-shaft, speed reducing mechanism transmitting motion from the driving shaft to the driven shaft, transmission means between the driven shaft and crank-shaft and means connecting said driven shaft with the crank-shaft comprising a wheel loosely mounted on said driven shaft and having a peripherally notched hub, a female clutch member mounted in a fixed manner on the driven shaft and having a bore receiving the notched hub, said bore having a greater number of pockets than the number of notches in the hub, and a roller loosely mounted in each of said pockets.

[Claims 6 to 9 not printed in the Gazette.]

1,081,269. SPRING-MOUNTING FOR GO-CARTS. FREDERICK HAGER HEADLEY, Edgbaston, Birmingham, England. Filed June 3, 1912, Serial No. 701,357. (Cl. 21—83.)

1. In spring mountings for children's go-carts the combination of wheel carrying longitudinal members on opposite sides of the vehicle with co-acting vertical guides on the vehicle which while permitting free vertical relative movements in the planes of the wheels prevent lateral

or twisting movements, and springs interposed between said members and guides and providing the required constraint to said members and the wheels thereon, substantially as described.



2. In spring mountings for children's go-carts the combination of two wheel bearing frames, co-acting vertical guides on the sides of the vehicle, which guides while permitting free vertical movements in the planes of the wheels prevent lateral or twisting movements, a constraining radius bar for each said frame, and load carrying springs joining each said frame and guides substantially as described.

3. In spring mountings for children's go-carts, the combination comprising two pairs of diagonally arranged members forming a wheel carrying frame, vertical guide bars situated between said members, a radius bar pivoted to the intersection of the members of the wheel carrying frame and to one of the vertical guide bars, and springs, substantially as described.

4. In spring mountings for children's go-carts, the combination comprising two pairs of diagonally arranged members forming a wheel carrying frame, a pair of vertical guide bars situated between said members of the wheel carrying frame and attached at their upper ends to the vehicle, a member joining the lower ends of the guide bars, a radius bar pivoted at the intersection of the said diagonally arranged members and to one of the guide bars, and springs connecting the wheel carrying frame to the horizontal member of the guide bars, substantially as described.

5. A child's go-cart comprising longitudinally disposed wheel bearing members, in combination with a seat bearing body and parallel vertically movable side frames, supporting said body and themselves spring supported upon and vertically guiding respective wheel bearing members for the purposes described.

[Claims 6 to 25 not printed in the Gazette.]

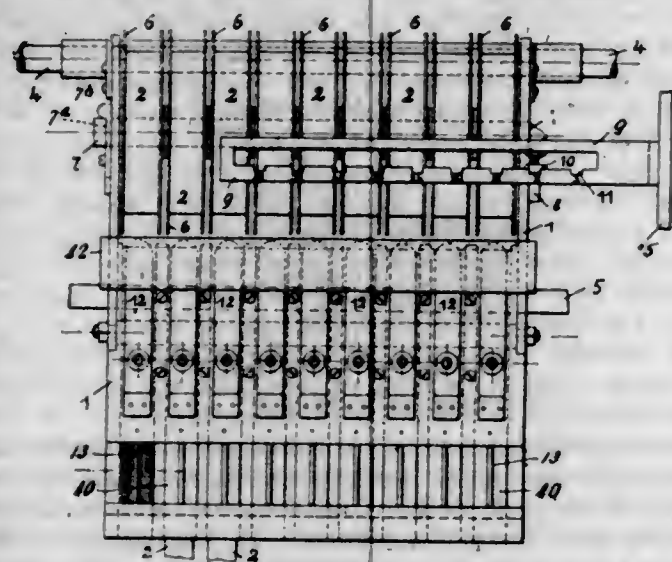
1,081,270. STAMP FEEDING AND AFFIXING DEVICE. HEINRICH ISSELHORST, Bielefeld, and HERMANN ANGERSTERN, Berlin, Germany. Filed Apr. 26, 1909, Serial No. 492,417. (Cl. 216—11.)

1. In a stamp-feeding and affixing device, the combination with stamp-affixing means, of a series of stamp reels arranged side by side in a row, means for effecting a relatively lateral adjustment between said stamp-affixing means and said stamp reels to bring any reel of the series in line with the stamp-affixing means, and locking means for the stamp-affixing means and the row of stamp reels adapted to interlock the reels to the affixing means when the same are adjusted.

2. In a machine of the character described, a stamp-affixing mechanism, a stamp-feeding mechanism, a laterally adjustable carriage movable relative to said stamp-feeding mechanism, and a series of stamp-strip carrying reels arranged side by side in a row on the carriage and being adapted to be brought one at a time into line with said stamp-feeding mechanism.

3. In a stamp-feeding and affixing machine, a stamp-affixing mechanism, a stamp-feeding mechanism, a manually adjustable carriage associated with the feeding mechanism, a plurality of stamp strip reels carried upon

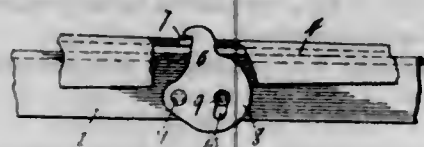
the carriage and adapted to be brought one at a time into register with said stamp-feeding mechanism, and means for locking said carriage to said feeding mechanism when adjusted whereby to prevent movement of the carriage during the operation of the feeding mechanism.



4. In a stamp-feeding and affixing machine, a stamp-feeding mechanism, a stamp-feeding mechanism associated with the affixing mechanism, a laterally adjustable carriage, a plurality of stamp strip reels arranged side by side in a row on the carriage, a plurality of ways one for each stamp strip reel mounted on the carriage, and means for laterally moving the carriage whereby to bring any one of said ways into register with the feeding mechanism.

5. In a stamp-feeding and affixing device, a stamp-feeding mechanism, a stamp-feeding mechanism stationary relative to the affixing mechanism, a laterally movable carriage associated with the feeding mechanism, a series of stamp strip reels arranged in a row upon said carriage, a corresponding series of ways extending from the reels and mounted on said carriage, and means for effecting a lateral movement of the carriage to bring any one of said ways into register with said feeding mechanism. [Claims 6 to 17 not printed in the Gazette.]

1,081,271. LEG-LOCKING MEANS FOR FOLDABLE BED-FRAMES OR THE LIKE. ADOLPH C. KLOPPING, Toledo, Ohio, assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio, a Corporation of Ohio. Filed May 15, 1913. Serial No. 767,752. (Cl. 5-50.)



1. The combination with a section of a folding frame, and a member carried by said section for pivotal folding movements relative thereto, of means movable with said member and section during the folding movements thereof and automatically operable independently of the relative movements of the member and section to lock and release the member with relation to said section when at different predetermined points in folding and unfolding movements of the frame.

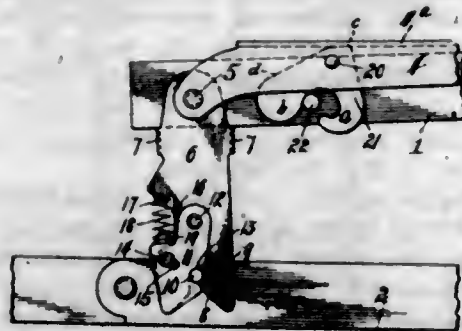
2. The combination with a foldable multiple section frame, and a member carried by one of the frame sections for pivotal folding movements relative thereto, of means automatically operable by gravity action to secure said member and its carrying section in folded relation when the frame has been folded a predetermined extent and to release the leg relative to its carrying section when the frame has reached a predetermined point in an unfolding movement thereof.

3. The combination with a section of a foldable bed-frame, and a supporting leg carried by said section for folding movements thereagainst, of a latch member carried by said section and automatically operable to lock the leg and section in folded relation at a predetermined

point in a folding movement of the frame and to release the leg to permit it to have free pivotal movements relative to said section when the frame has been unfolded a predetermined extent.

4. The combination with a section of a foldable multiple section bed-frame, and a supporting leg pivotally carried by said section and foldable thereagainst, said leg having an opening therein, of a latch member carried by said section for limited pivotal movements relative thereto with its nose positioned to project through the leg opening when the leg is in folded relation to its carrying section, said latch being movable by gravity action to coact with the wall of the leg opening to secure the leg in folded relation to its carrying section when the bed-frame has reached a predetermined point in a folding movement thereof and to release its locking engagement with the leg when the bed-frame has reached a predetermined point in an unfolding movement thereof.

1,081,272. BED-DAVENPORT. ADOLPH C. KLOPPING, Toledo, Ohio, assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio, a Corporation of Ohio. Filed June 2, 1913. Serial No. 771,136. (Cl. 5-50.)



1. The combination with a foldable multiple section frame and a member carried by one of the frame sections for pivotal folding movements relative thereto, of means carried by said member and automatically operable by gravity action to engage a part of the section carrying the member and to secure the member and the section carrying the same in folded relation when the frame has been folded a predetermined extent and to release the section when the frame has reached a predetermined point in an unfolding movement thereof.

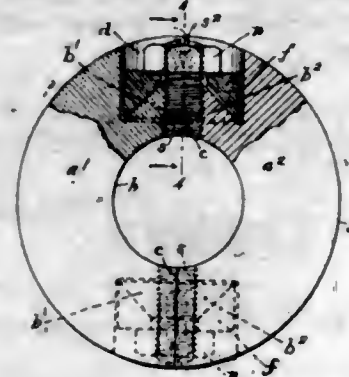
2. The combination with a section of a foldable bed frame, said section having a projecting part, and a supporting leg carried by said section for folding movements thereagainst, of a catch-member pivotally carried by said leg and automatically operable by gravity action to engage said projecting part and lock the leg and section in folded relation at a predetermined point in a folding movement of the frame and to release the leg from its locked position when the frame has been unfolded a predetermined extent.

3. The combination with a section of a foldable bed-frame, said section having a projecting part, and a supporting leg carried by said section for folding movements thereagainst, of a catch-member pivoted to the leg and having diverging arms projecting transversely from its pivot in position to straddle said projecting part, one of said arms being inwardly hooked to adapt it to swing into hooked engagement with said projecting part and the other arm being of greater weight than the hooked arm to cause it to control by gravity action the engaging and releasing movements of the hooked arm relative to the projecting part whereby the catch is automatically engaged with said part when the bed-frame has been folded a predetermined extent.

1,081,273. COMBINED SEPARABLE COLLAR AND FASTENING MEANS THEREFOR. JOHN McLELLAN, Providence, R. I., assignor of one-half to William A. Millard, Jr., Providence, R. I. Filed Apr. 2, 1913. Serial No. 758,364. (Cl. 74-8.)

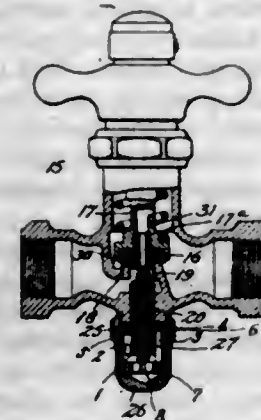
A laterally separable split collar, comprising a pair of centrally bored, oppositely disposed semi-circular main sections interchangeably alike, the meeting faces or joint

portion of the semi-circular sections being radially counter-bored with respect to the longitudinal axis of the collar, the base of each counterbore having a split cone-like member integral with the respective collar sections through which cone member radially extends a centrally tapped screw-threaded hole intersecting the main bore of the collar, an adjustably mounted screw fitting said tapped hole.



a centrally apertured washer or clamping member superimposed upon said slit cone-like member and snugly engaging its beveled sides, and a manually actuated nut adapted to operatively engage said screw and, when in normal use, for securing the collar in position on the shaft and at the same time further serving to snugly clamp the collar to the shaft.

1,081,274. DEVICE FOR CONTROLLING THE FLOW OF FLUID. PHILIP MUELLER and ANTON C. SCHUERMANN, Decatur, Ill., assignors to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed June 5, 1913. Serial No. 771,984. (Cl. 137-4.)



1. The combination with a valve, of adjustable means independent of said valve for regulating the flow of fluid past said valve when open, separate adjustable means for regulating a constant flow of fluid past said valve when seated, and a common means for locking both regulating means in adjusted position.

2. A stop-cock formed with a port and containing a valve for controlling said port, combined with an adjustable valve in the cock to choke said port, and a second adjustable valve within said first adjustable valve to further choke said port.

3. A stop-cock formed with a port and a valve for controlling said port having a by-pass therethrough, combined with an adjustable valve to choke said port, and a second adjustable valve carried by said first adjustable valve to control said by-pass.

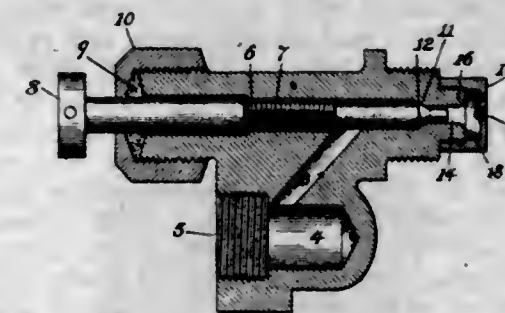
4. A stop-cock formed with a port and a valve for controlling said port having a by-pass therethrough, combined with a screw-valve threaded in the body of the cock to choke said port, a needle valve within said screw valve to control said by-pass, and means on said body detachably engaging said screw and needle valves for locking the same in different points of adjustment.

5. A stop-cock formed with a port and containing a valve for controlling said port, combined with an adjustable screw valve threaded into the cock adapted to choke the flow of a stream through said port, a by-pass through the first mentioned valve opening at one end into said port, an adjustable needle valve threaded longitudinally in said

screw valve to regulate the flow of a continuous stream through said by-pass, and means for locking the valves in adjusted position.

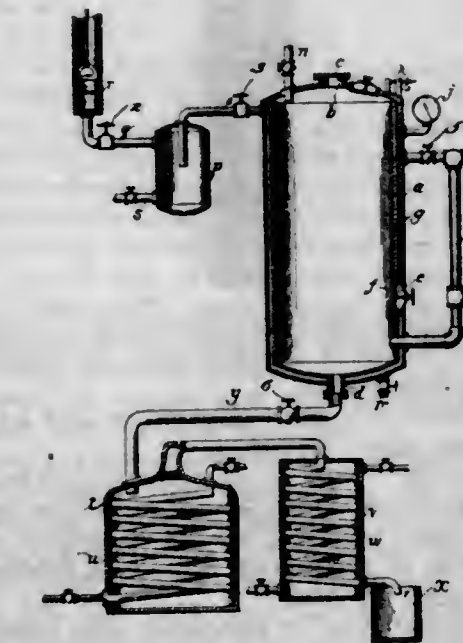
[Claims 6 to 9 not printed in the Gazette.]

1,081,275. GAS-BURNER. GEORGE E. NICKOL, Baltimore, Md., assignor to Lyon, Conklin & Co., Baltimore, Md., a Corporation of Delaware. Filed Mar. 7, 1913. Serial No. 752,546. (Cl. 158-120.)



In a gas burner, the combination of a body-part having a bore provided therein with a valve-seat; a valve having a stem screw-threaded and working in said bore; and a cap taking over and covering the end of said body-part and forming a chamber larger than said bore and said cap provided at its inner side with an inward projection or point, 19, and said cap having an aperture which extends through the cap and through said inward projecting point.

1,081,276. PROCESS FOR EXTRACTING TURPENTINE AND ROSIN FROM WOOD. BENJAMIN F. A. SAYLOR, Rome, Ga., assignor, by mesne assignments, to Standard Turpentine & Wood Pulp Company, Atlanta, Ga., a Corporation of Arizona. Filed Aug. 5, 1909, Serial No. 511,410. Renewed Oct. 21, 1913. Serial No. 796,517. (Cl. 203-6.)



1. The process of treating resinous wood to recover the products thereof which consists in collecting fine particles of such wood in a closed cylinder, heating said cylinder by externally applied heat and simultaneously therewith creating a vacuum in the cylinder; admitting steam under pressure into the cylinder at the bottom thereof and then allowing said steam to escape and carry off a portion of the turpentine and substantially all of the air, and closing said cylinder when the pressure therein is reduced; again heating the cylinder by externally applied heat and admitting the steam into the cylinder until the required pressure is obtained to separate the rosin and turpentine from the wood in the absence of air; allowing said steam to escape during the maintenance of said last-named pressure by the continued injection of steam and carrying off the separated turpentine; stopping the introduction of the steam and allowing the pressure in the cylinder to subside; and finally opening the bottom of the cylinder and allowing

the residual steam therein to carry off the turpentine product, substantially as described.

2. The process of treating resinous wood to recover the products thereof which consists in collecting fine particles of such wood in a closed cylinder, heating said cylinder to about 212° F. by externally applied heat and simultaneously therewith creating a vacuum in the cylinder amounting to about 26 inches of mercury; injecting dry caustic soda into the cylinder; admitting steam under pressure into the cylinder and then allowing said steam to escape and carry off a portion of the turpentine and substantially all of the air, and closing said cylinder when the pressure therein has been reduced to about 20 pounds per square inch; again heating the cylinder by externally applied heat and admitting steam into the cylinder from the bottom until a pressure of about 100 pounds per square inch is obtained whereby to speedily separate the rosin and turpentine from the wood in the absence of air; allowing said steam to escape during the maintenance of said last-named pressure by the continued injection of steam until all of the turpentine is recovered; stopping the introduction of steam and allowing the pressure in the cylinder to subside; carrying off the turpentine product by the residual steam pressure; and then removing the wood pulp, substantially as described.

1,081,277. BATTERY-ELECTRODE. JOHN JAMES AURINGER, Cohoes, N. Y. Filed Jan. 17, 1913. Serial No. 742,571. (Cl. 204-65.)

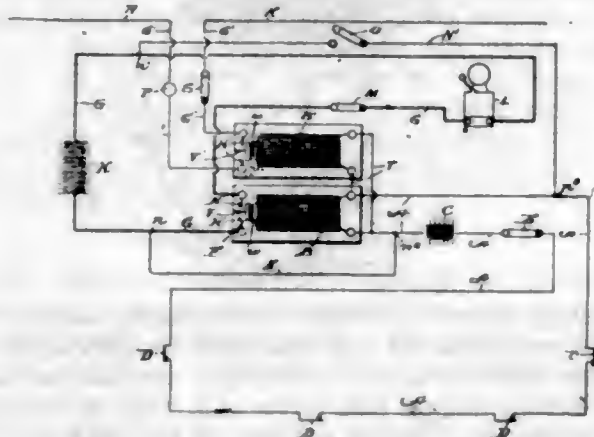


1. An electrolytic electrode formed of a body of gas carbon and a separate exposed body of retort carbon bonded to the gas carbon.
2. An electrode formed of gas carbon and an exposed surface of flake retort carbon.
3. An electrode formed of gas carbon and an exposed surface of flake retort carbon bonded to the gas carbon.
4. An electrode having a surface formed of alternate succeeding areas of carbon, one such area having greater conductivity than the other.
5. An electrode formed of gas carbon and retort carbon, having a center rod of carbon, with peripheral longitudinal grooves, and strips of carbon embedded in the grooves, the rod and strips being of different kinds of carbon.

1,081,278. ELECTRIC BURGLAR-ALARM. HERVEY S. BIRTING, Lancaster, Pa. Filed Dec. 30, 1912. Serial No. 739,280. (Cl. 177-314.)

1. The combination with an electric magnet and an armature lever therefor, of a normally closed property circuit including said magnet and a generator, a normally open alarm circuit including said armature lever and a second generator, and means for automatically moving the armature lever away from the magnet to close the alarm circuit when the property circuit is opened, the generator of the property circuit being incapable of exciting said magnet sufficiently to overcome said means.
2. The combination with an electric magnet and an armature lever therefor, of a normally closed property circuit including said magnet and a generator, a normally open alarm circuit including said armature lever and a second generator, and means for automatically moving the armature lever away from the magnet to close the alarm circuit when the property circuit is opened, the generator of the property circuit being incapable of exciting said magnet sufficiently to overcome said means.

circuit including said magnet and a generator, a normally open alarm circuit including said armature lever and a second generator, means for automatically moving the armature lever away from the magnet to close the alarm circuit when the property circuit is opened, the generator of the property circuit being incapable of exciting said magnet sufficiently to overcome said means, and means for cutting the generator of the alarm circuit into the property circuit for energizing said magnet sufficiently to overcome said means.



3. The combination with an electric magnet and an armature lever therefor, of a normally closed property circuit including said magnet and a generator, a normally open alarm circuit including said armature lever and a second generator, means for automatically moving the armature lever away from the magnet to close the alarm circuit when the property circuit is opened, the generator of the property circuit being incapable of exciting said magnet sufficiently to overcome said means, electric conductors connected to the alarm circuit at opposite sides of the generator therein and to the property circuit adjacent the terminals of the magnet, and a circuit closer in said conductor, whereby said generator in the alarm circuit may be cut into the property circuit for energizing said magnet sufficiently to overcome said means.

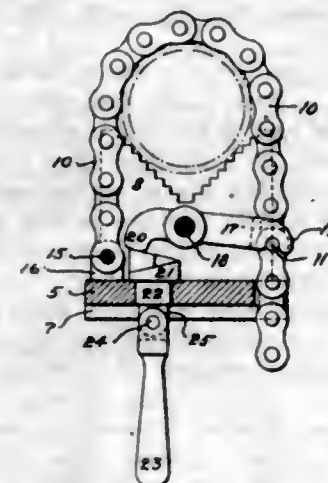
4. The combination with an electric magnet and an armature lever therefor, of a normally closed property circuit including said magnet and a generator, a normally open alarm circuit including said armature lever and a second generator, a second magnet and armature lever therefor, said magnets being electrically connected to one another, a second alarm circuit including the second armature lever, and means to automatically move the armature levers away from their respective magnets for closing said alarm circuits when the property circuit is opened, the generator of the property circuit being incapable of exciting either of said magnets sufficiently to overcome said means, and means for cutting the generator in the alarm circuit into the property circuit for energizing said magnets sufficiently to overcome said means.

5. The combination with an electric magnet and an armature lever therefor, of a normally closed property circuit including said magnet and a generator, a normally open alarm circuit including said armature lever, a bell, and a second generator, a second magnet and armature lever therefor, said magnets being electrically connected to one another, a second alarm circuit including the second armature lever and a lamp, means to automatically move the armature levers away from their respective magnets for closing said alarm circuits when the property circuit is opened, the generator of the property circuit being incapable of exciting either of said magnets sufficiently to overcome said means, and means for cutting the generator in the alarm circuit into the property circuit for energizing the magnets sufficiently to overcome said means.

1,081,279. PIPE-VISE. FRANK W. HEDDEN, Jersey City, N. J. Filed May 14, 1912. Serial No. 697,179. (Cl. 81-19.)

1. In a pipe vise and the like, the combination with a pipe holding jaw and a cooperating chain suitable to embrace pipes of various sizes, of a lever adapted to engage

said chain at one end, a solid faced cam bearing against said lever to draw the chain by its other end for gripping pipes, and means for rotating said cam from the side opposite the solid face.



2. In a pipe vise and the like, the combination with a base having spaced holding jaws, and a chain coacting therewith to include pipes of different sizes, of a pivot bolt bridging the space between said jaws, a lever journaled on said bolt bearing against said chain, a solid faced cam actuating said lever for gripping pipes, and a handle for operating said cam in a plane at right angles to the axis of said bolt.

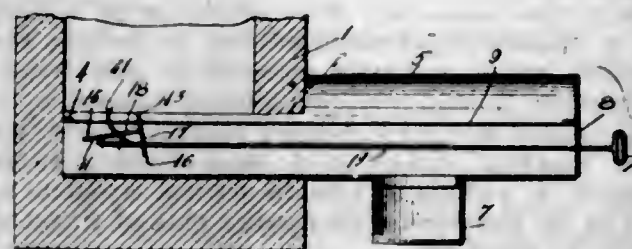
3. In a pipe vise and the like, the combination with a base having pipe holding jaws, and a pipe engaging chain thereover having link-pins, of a lever pivotally supported between said jaws and having one end engaging said chain, a solid faced cam having a single helical step journaled with its face upward in the top of said base, the other end of said lever bearing fully and acting directly against the upper face of said cam, said cam being capable by a partial rotation of exerting a thrust against the lever sufficient to draw the chain the distance between its adjacent link-pins whereby pipes of various sizes placed in the jaws are gripped.

4. In a pipe vise and the like, the combination with a support, pipe holding jaws thereon and a flexible clamping member for coöperation with pipes of various sizes, of a lever operatively maintained between said jaws adapted to engage the flexible clamping member, a cam coacting with said lever, and a handle to operate said cam whereby the latter causes the lever to pull said flexible member for gripping pipes.

5. In a pipe vise and the like, the combination with a body part, pipe holding jaws extending therefrom and a chain co-acting with said jaws to include pipes of various sizes, of a lever between the jaws fulcrumed intermediate its ends, one end of said lever being adapted to engage a link in the chain, a cam pressing against the opposite end of said lever and means for actuating said cam to force the lever to draw the chain into clamping position.

[Claims 6 to 8 not printed in the Gazette.]

1,081,280. CHIMNEY-CLEANER. LAWRENCE MOELLER, Maquoketa, Iowa. Filed Mar. 27, 1913. Serial No. 757,196. (Cl. 15-41.)

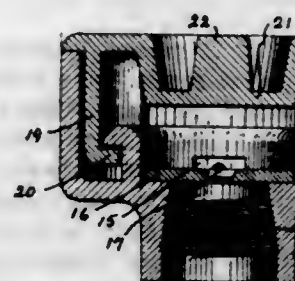


In a chimney cleaner, the combination with a trough, of a scraper mounted therein, said scraper having at its top a pair of inwardly extending flanges and an outwardly extending flange, the scraper being provided with slots which extend into the flanges, a pair of supporting rods extending

197 O. G.—33

through the slots in the inwardly extending flanges, and an operating rod pivotally connected to the outer surface of the scraper and provided with a hook extending through the slot in the outwardly directed flange, the latter serving as a stop for the hook when the scraper is pulled through the trough.

1,081,281. CURB-BOX. CLARENCE E. TYLER, Newark, N. J., assignor to S. E. T. Valve & Hydrant Company, New York, Inc., New York, N. Y., a Corporation of New York. Filed Feb. 8, 1913. Serial No. 747,147. (Cl. 137-17.)



1. A curb box open at the top and provided with a lower extension adapted for a pipe connection, a raised annular rib rising from the floor of the box around the pipe opening, said rib having lateral flanges spaced apart from each other, said rib also being provided with drainage openings therethrough, and a cover adapted to lie on the top of the box, said cover having depending flanges spaced apart and provided with intumed portions adapted to drop between the aforesaid rib flanges and then be turned into locking engagement with said flanges.

2. A curb box adapted to connect with a stand pipe, said box having a raised annular perforated rib on the floor thereof, said rib being provided with lateral flanges spaced apart from each other, a loose cover lying within the aforesaid rib, and a main cover adapted to lie on the box top, said main cover having depending intumed flanges adapted to drop between the aforesaid box flanges and be turned into locking engagement beneath said box flanges.

3. A curb box open at the top and provided at the bottom with a reduced extension adapted for a pipe connection, a raised annular rib rising from the floor of the box around the pipe opening, said rib being spaced apart from the side walls of the box and having lateral flanges spaced apart from each other, and a cover adapted to lie flat on the box top, said cover having depending flanges spaced apart and provided with intumed portions adapted to drop between the aforesaid rib flanges and then be turned into locking engagement with the said rib flanges.

4. A curb box open at the top and provided with a separable floor having a pipe connection on the under side and a raised annular rib on the inner side, said rib being spaced apart from the side walls of the box and having laterally extending flanges spaced apart from each other, and a cover for the box, said cover having depending flanges spaced apart and provided with intumed portions adapted to drop between the aforesaid rib flanges and then be turned into locking engagement with said rib flanges.

1,081,282. SEPARATOR. NEWTON C. WESTERFIELD, Oregon City, Oreg. Filed Apr. 29, 1912. Serial No. 694,029. (Cl. 83-54.)

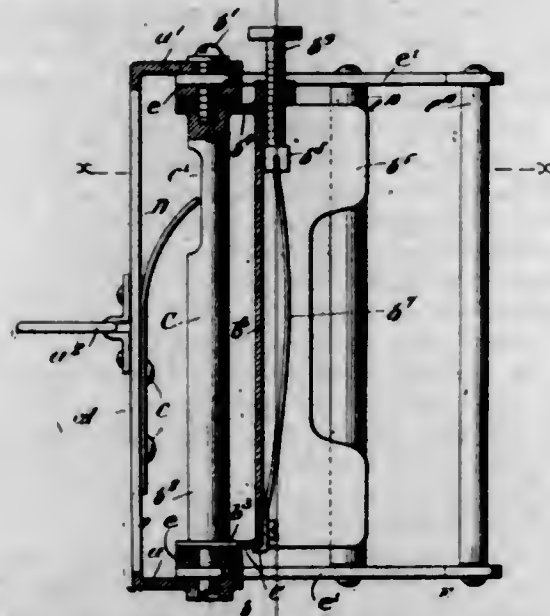
1. A separator comprising a frame, a shaker mounted to vibrate therein, cylindrical screen bars mounted transversely in said shaker, means of conducting a current of air upwardly through said bars under pressure, for sustaining the material in suspension between the upper portions of adjacent bars, and means for controlling the angle at which said current strikes the material through said bars.
2. A separator comprising a frame, a shaker mounted to vibrate therein, cylindrical screen bars mounted transversely in said shaker, an air chamber arranged beneath said shaker, a chamber having converging upper sides leading from the air chamber to said screen bars, a receptacle

fixed centrally therein, a conduit leading from each side of the receptacle and opening beneath its respective inclined wall, and a cut-off disposed in each conduit to control the flow of air from the air chamber.



3. A separator comprising a frame, a shaker mounted to vibrate therein, cylindrical screen bars mounted transversely in said shaker, means for conducting a current of air upwardly through said bars under pressure, for sustaining the materials in suspension between the upper portions of adjacent bars, means for controlling the angle at which the current strikes said bars, and means for recovering the lighter particles carried upward by the current, comprising a covering for the frame, a receptacle at the rear of said bars, and a back wall rising from the receptacle well toward said covering.

1,081,283. RAZOR STROPPING AND SHARPENING MECHANISM. LEON A. FLINKER and JOHN SCHADE, Jr., New York, N. Y., assignors, by direct and mesne assignments, to The Keenoh Company, Detroit, Mich., a Co-partnership. Filed May 25, 1906. Serial No. 318,619. (Cl. 51-16.)



1. In a razor sharpening device, a frame, a movable blade holder, a strop, two strop guides at one end of said frame, other guides at the opposite end of said frame, and rollers intermediate the respective ends of said frame, said rollers operating to direct the respective lengths of the strop inwardly with respect to the frame and at points intermediate the ends of said frame.

2. In a razor sharpening device, a frame, a movable blade holder, a strop, two rollers at one end of said frame, two pairs of rollers at the opposite end of said frame, and additional rollers intermediate the said rollers at the respective ends of the frame, said additional rollers operating to support the respective lengths of the strop at points intermediate the ends of the frame and operating, also, to deflect said lengths of the strop inwardly toward the positions adapted to be assumed by the blade holder.

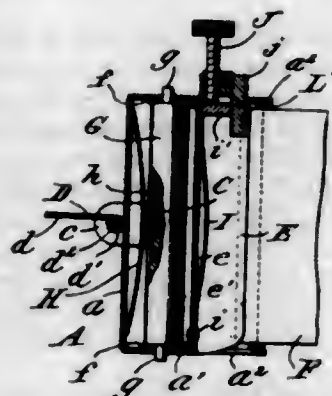
3. The combination of a back plate or support, a shaft pivoted thereto and carrying blade-holding devices, and frame members pivoted to said back plate or support, said frame members being adjustable relative to said blade-holding devices, a connecting rod located on each side of said shaft and in the upper portion of said frame members, said rods being separate from the pivotal con-

nections between the frame members and the back plate or support, the upper surface of said rod being above the under surface of said shaft and extending across from one end frame member to the other, and a strop arranged over such rods and under the shaft, said strop having frictional engagement directly with the shaft, substantially as described.

4. The combination, with a razor blade holding device constructed with a base plate and two jaws extending outward therefrom and gradually approaching each other at their outer ends, of a flexible plate arranged in such holder, and an adjusting screw acting upon such flexible plate to cause its middle portion to flex more or less to adapt the holder to hold razor blades of different widths and forms, substantially as described.

5. The combination, with the back plate or support, and a shaft carrying the razor blade holding devices and provided with a flattened surface, of a spring carried by the said back plate or support and bearing at its free end upon such flattened surface, whereby to return such shaft to its middle or normal position with the razor holding devices when rotated therefrom, substantially as described.

1,081,284. STROPPING-MACHINE. LEON A. FLINKER, New York, N. Y., assignor to The Keenoh Company, Detroit, Mich., a Corporation of Michigan. Filed May 4, 1909. Serial No. 493,824. (Cl. 51-16.)



1. In a stropping machine, a blade holder, a roller co-operating therewith, and locking mechanism rearwardly and intermediate the ends of the roller for securing said blade holder in its inoperative position.

2. In a stropping machine, the combination of a frame, a roller journaled in said frame, a blade-holder supported by said roller and movable therewith relative to the frame, a strop positioned intermediate the blade-holder and the roller, said strop partially covering that surface of the roller which is in opposing relation to said blade-holder, and a locking device positioned for locking engagement with that surface of the roller which is uncovered by the strop.

3. In a stropping machine, the combination of a frame, a roller journaled in said frame, a blade-holder carried by and movable with said roller, a strop engaging frictionally with that part of the surface of the roller which is in opposing relation to the blade-holder, the remainder of the surface of said roller being uncovered by the strop, and a spring positioned rearwardly of the roller and co-operating with the exposed surface thereof intermediate the ends of said roller.

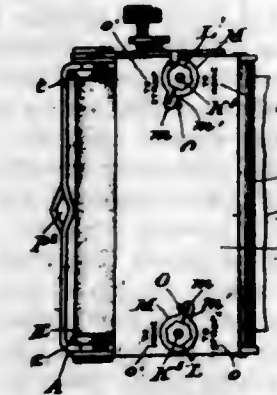
4. In a razor sharpener, the combination of a holding frame, a blade-holding member adapted to oscillate therein, bearing rollers rotatably mounted in said frame, a strap member passing over said rollers, adapted to frictionally engage said blade holding member, and a spring member engaging against said blade holding member, whereby it is yieldingly held in neutral position with respect to the extremes of its possible path of travel, substantially as described.

5. In a razor sharpener, in combination with a blade-holding member, a frame wherein said member is journaled in position to oscillate along a limited path of travel, a strap member adapted to engage said blade-holding member whereby it is alternately actuated against

the extremes of its possible path of travel, rollers journaled in the frame, and over which said strap is drawn, and a spring member mounted in said frame and adapted to yieldingly engage against said blade-holding member, thereby causing it to return to the middle of the possible path of travel upon the cessation of actuating strain upon the strap member, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,081,285. HONING AND STROPPING MACHINE. LEON A. FLINKER, Detroit, Mich., assignor to The Keenoh Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 31, 1910. Serial No. 579,920. (Cl. 51-16.)



1. In a device of the class described, a supporting frame, a strop, a blade holder, strop guides positioned with reference to the holder so as to be approximately opposite to the edge of a blade adapted to be carried in said holder, means for adjusting said guides whereby the angle of the strop with reference to the blade may be changed, and means for indicating the positions of said strop guides.

2. In a device of the class described, a supporting frame, a strop, a blade holder operated by the movement of the strop, strop guides positioned on the frame, and co-operating screws and nuts operatively related to the strop guides for adjusting the same.

3. In a device of the class described, a supporting frame, a strop, a blade holder positioned within the frame and adapted to be operated by the movement of the strop, a plurality of strop guides on the frame, one of the strop guides in each series being positioned substantially opposite to the edge of a blade adapted to be held in the blade holder, means for adjusting each of the last mentioned strop guides toward and from the blade holder whereby the angle of the strop relative to the blade may be changed, and means for indicating said adjustment of the strop guides.

4. In a device of the class described, a supporting frame, a strop, a blade holder operated by the movement of the strop, strop guides supported on the frame, threaded stems connected one to each strop guide, adjusting nuts rotatably connected to the frame and engaging with said threaded stems, and means for indicating the adjustment of the nuts and the strop guides.

5. In a device of the class described, a supporting frame, a strop, a blade holder operated by the movement of the strop, strop guides positioned on the frame, adjusting means including rotatable nuts for changing the positions of the strop guides relative to the frame, and indicating means including a finger movable with said rotatable nuts.

[Claims 6 to 18 not printed in the Gazette.]

1,081,286. BELT-TIGHTENER. JOHN P. GERMAN, Springfield, Mass. Filed Feb. 8, 1913. Serial No. 747,180. (Cl. 64-52.)

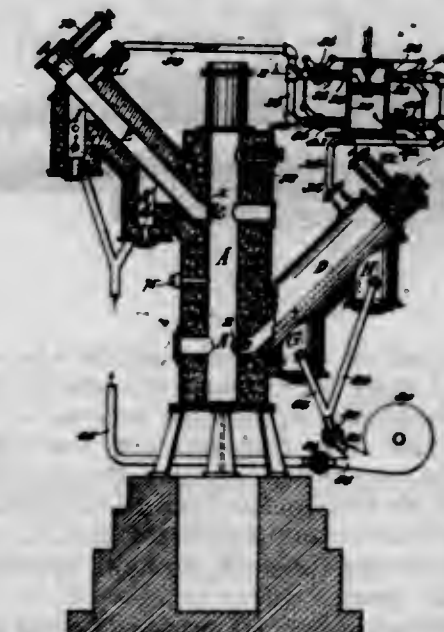
1. A shaft hanger device comprising a pair of hangers, a carrier rotatively mounted in each of the hangers with their axes coincident, a pulley shaft bearing eccentrically located on each carrier, a depending bar fast to each carrier, a transverse bar rigidly connecting said bars to maintain said carriers relatively immovable and the bearings in alignment, a depending arm rigidly connected to

said transverse bar to swing the carriers in unison and shift them both vertically and horizontally, a pawl on each of the depending bars, each of the hangers having teeth engaged by the pawls, a handle on the lower end of said arm, and connections between the handle and the pawls to swing the pawls in unison to lock the carriers to the hangers.



2. A shaft hanger device comprising a pair of hangers, a carrier rotatively mounted on each of the hangers with their axes coincident, a pulley shaft bearing eccentrically mounted on each carrier, each carrier having a flange on one side engaging the hanger, a depending bar fast to each carrier on the side opposite the flange and engaging the hanger to retain the carrier on the hanger, a transverse bar rigidly connecting said bars to maintain said carriers relatively immovable and the bearings in alignment, a depending arm rigidly connected to said transverse bar to swing the carriers in unison and shift them vertically and horizontally, a pawl on each of the depending bars, each of the hangers having teeth engaged by the pawls, a handle on the lower end of said arm, and connections between the handle and the pawls to swing the pawls in unison and lock the carriers to the hangers.

1,081,287. APPARATUS FOR REDUCING COMPOUNDS. HERMANN NIEWERTH, Berlin, Germany. Filed Oct. 21, 1913. Serial No. 796,419. (Cl. 75-14.)



1. In an apparatus for reducing compounds, the combination of a closed main shaft adapted to contain the material to be reduced, auxiliary closed shafts directly connected therewith and adapted to contain carbon, means for introducing air into one of the auxiliary shafts and

circulating means adapted to take the combustion gases from the other auxiliary shaft and deliver them to the first auxiliary shaft.

2. In an apparatus for reducing compounds, the combination of a main shaft adapted to contain the material to be reduced, auxiliary shafts directly connected therewith and adapted to contain carbon, means for introducing air into one of the auxiliary shafts, means for maintaining a pressure of gases in said shafts, and circulating means adapted to take the combustion gases from the other auxiliary shaft and deliver them to the first auxiliary shaft.

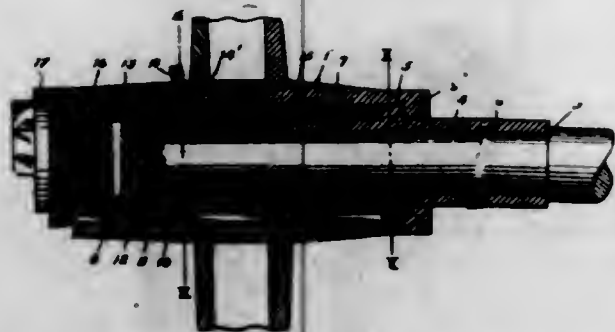
3. In an apparatus for reducing compounds, the combination of a closed main shaft adapted to contain the material to be reduced, auxiliary closed shafts directly connected therewith and adapted to contain carbon, means for introducing air into one of the auxiliary shafts, means for introducing air into the main shaft, and circulating means adapted to take the combustion gases from the other auxiliary shaft and deliver them to the first auxiliary shaft.

4. In an apparatus for reducing compounds, the combination of a main shaft adapted to contain the material to be reduced, inclined auxiliary shafts directly connected therewith, one near the top and the other near the bottom of said main shaft and adapted to contain carbon, means for introducing air into one of the auxiliary shafts, means for maintaining a pressure of gases in said shafts, and circulating means adapted to take the combustion gases from the other auxiliary shaft and deliver them to the first auxiliary shaft.

5. In an apparatus for reducing compounds, the combination of a main shaft adapted to contain the material to be reduced, auxiliary shafts directly connected therewith and adapted to contain carbon, means for maintaining a pressure of the gases contained in said shafts, means for introducing air into either of said auxiliary shafts, circulating means adapted to take the combustion gases from either of said auxiliary shafts and deliver them into the other auxiliary shaft, and means for reversing the direction of the circulatory current.

REISSUES.

13,654. HUB. JOHN D. JONES, Walla Walla, Wash. Filed Oct. 23, 1913. Serial No. 796,974. Original No. 1,045,298, dated Nov. 26, 1912, Serial No. 675,161. (Cl. 21-2.)



1. The combination with an axle spindle and a hub, of a rigidly secured skeln surrounding the spindle, said skeln having an integral annular shoulder between its ends, said hub being slidable upon the spindle and provided with an internal annular projection abutting the shoulder of the skeln to retain the hub against outward movement, an axle box fixedly secured to and within the hub and concentric with and surrounding the skeln, its inner end abutting the shoulder of the skeln.

2. The combination with an axle spindle and a hub, of a rigidly secured skeln surrounding the spindle, said skeln having an integral annular shoulder between its ends, said hub being slidable upon the spindle and provided with an internal annular projection abutting the shoulder of the skeln to retain the hub against outward movement, an axle box fixedly secured to and within the hub and concentric

with and surrounding the skeln, its inner end abutting the shoulder of the skeln, and a dust excluding cap fitted in the end of the hub and free from the ends of the spindle and skeln.

3. The combination with an axle spindle and a hub, of a skeln secured to the spindle, said skeln having an integral annular shoulder between its ends, said hub being slidable upon the spindle and provided with an internal annular projection abutting the shoulder of the skeln to retain the hub against outward movement, an axle box carried by the hub and concentric with the skeln, its inner end abutting the shoulder of the skeln, and a dust excluding cap fitted in the end of the hub and locking the box against outward movement.

4. The combination with an axle spindle and a hub, of means for securing the hub upon the spindle, having a tubular member incasing the spindle and provided with an annular shoulder between its ends, one portion of said tubular member being a bearing sleeve, means for locking the tubular member upon the spindle, the hub being provided with an annular inwardly projecting shoulder surrounding the other portion of the tubular member and held against outward movement by the annular shoulder of the tubular member, an outer bearing sleeve longitudinally slidable within the hub and having its inner end abutting the opposite side of the annular shoulder of the tubular member, co-acting means carried by the hub and outer bearing sleeve to prevent the sleeve from rotating independently of the hub, and a dust excluding and locking cap mounted in the outer end of the hub and retaining the outer bearing sleeve against longitudinal movement.

13,655. UNDERFRAME FOR CARS. BASIL MAGOR, Hamilton, Ontario, Canada. Filed July 3, 1913. Serial No. 777,337. Original No. 1,016,185, dated Jan. 30, 1912, Serial No. 627,210. (Cl. 105-76.)



1. A steel underframe for cars having a center-sill, a pair of draft-sills one on each side of the center-sill, and a Z-iron between each draft-sill and the center-sill to secure the one to the other.

2. A steel underframe for cars having an I-beam center-sill, a pair of channel iron draft-sills one on each side of the center-sill, and a Z-iron between each draft-sill and the center-sill and riveted thereto.

3. A steel underframe for cars having a center-sill, a pair of channel iron draft-sills at each end of the center-sill, and a Z-iron between each draft-sill and the center-sill to secure the one to the other.

4. A steel underframe for cars having a center-sill consisting of an I-beam, a pair of draft-sills one on each side of the I-beam and extending beyond the I-beam at each end thereof, and a Z-iron between each draft-sill and the I-beam to secure the draft-sills to the I-beam.

5. A steel underframe for cars having an I-beam center-sill terminating at points intermediate the ends of the frame, a pair of draft-sills one on each side of the center-sill at each end of the center-sill and continuing the center-sill to the ends of the frame, a Z-iron riveted between each draft-sill and the center-sill, and transverse I-beams extending from the inner ends of the draft-sills to the sides of the frame.

6. A steel underframe for cars having an I-beam center-sill terminating at points intermediate the ends of the frame, a pair of draft-sills one on each side of the center-sill at each end of the center-sill and continuing the center-sill to the ends of the frame, a Z-iron riveted between each draft-sill and the center-sill, transverse I-beams extending from the inner ends of the draft-sills to the sides of the frame, and diagonal braces extending from the inner ends of the draft-sills to the corners of the frame.

7. The combination of a car body having a single center sill extending at each end beyond the central line of the

body bolster, with a pair of draft sills at each end of the car body extending from the end of the car to the rear edge of the body bolster, the said center sill and draft sills being suitably bound together by filler blocks into a continuous girder from end to end of the car body.

13,656. LAND-MARKER. GEORGE BROWN RANDOLPH, Anniston, Ala. Filed Feb. 18, 1909. Serial No. 478,750. Original No. 898,602, dated Sept. 15, 1908, Serial No. 432,938. (Cl. 125-15.)



1. A marker comprising a body having a shaft portion with a reduced conical shank and a base merging with the smaller end of the shank and being of greater transverse dimensions than the superposed portions and having a groove which lies beyond vertical lines coincident with the extremities of the transverse dimensions of the superposed portions.

2. A marker comprising a body having a shaft portion with a reduced conical shank and a hollow bell-shaped base merging with the smaller end of the shank and being of greater transverse dimensions than the superposed portions, said base being grooved at its outer portions, the under surface of the base beyond the bounds of the hollow therein occupying a plane.

3. A marker comprising a body, having a shaft portion and a base, the said base being of greater transverse dimensions than the superposed portions, and having a groove which lies beyond vertical lines coincident with the extremities of the transverse dimensions of the superposed portions.

4. A marker comprising a body having a shaft portion and a base, the said base being of greater transverse dimensions than the superposed portions, and having a groove which lies beyond vertical lines coincident with the extremities of the transverse dimensions of the superposed portions, said base having in its lower side a conical hollow for the reception of earth.

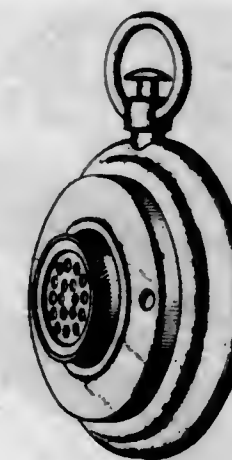
DESIGNS.

44,994. HANDLE FOR HAND-ACTUATED WARNING-SIGNALS. EMANUEL AUFIERO, Brooklyn, N. Y. Filed July 15, 1913. Serial No. 779,225. Term of patent 7 years.



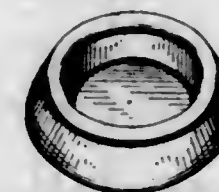
The ornamental design for a handle for hand actuated warning signal as shown.

44,995. CIGAR-LIGHTER. JOHN BEBO, Chicago, Ill. Filed Sept. 19, 1913. Serial No. 790,797. Term of patent 14 years.



The ornamental design for a cigar-lighter, as shown and described.

44,996. SHOE OR PROTECTING-TIP FOR FURNITURE-LEGS. JOHANN JACOB BUSER, Pittsburgh, Pa. Filed Jan. 16, 1913. Serial No. 742,484. Term of patent 3 1/2 years.



The ornamental design for a shoe or protecting tip for furniture legs, as shown.

44,997. TOOTH-BRUSH. CHARLES E. CARROLL, Newport, Ark. Filed Sept. 23, 1913. Serial No. 791,437. Term of patent 14 years.



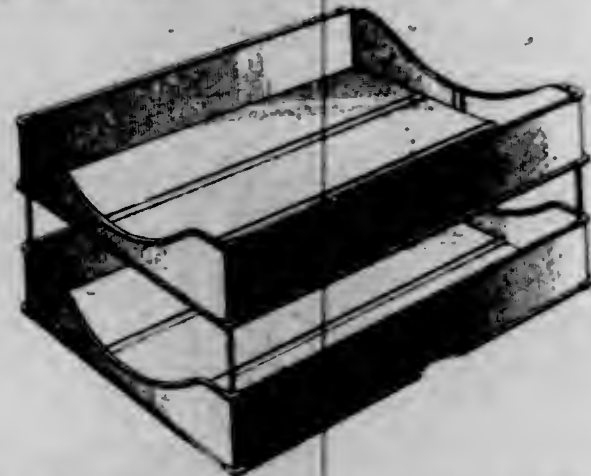
The ornamental design for a tooth-brush as shown.

44,998. BOAT. ALBERT W. CROUCH, Milwaukee, Wis., assignor to Milwaukee Yacht & Boat Company, Milwaukee, Wis. Filed Apr. 30, 1913. Serial No. 764,692. Term of patent 7 years.



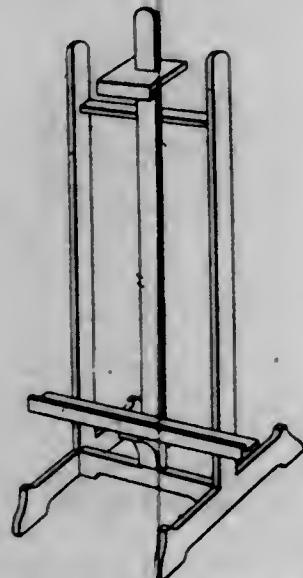
The ornamental design for a boat as shown.

44,999. DESK-TRAY. JOHN A. FRASER, Benton Harbor, Mich., assignor to Baker-Vawter Company, Benton Harbor, Mich., a Corporation of Maine. Filed July 9, 1913. Serial No. 778,220. Term of patent 7 years.



The ornamental design for a desk tray, as shown.

45,000. STAND FOR DISPLAYING PICTURES OR OTHER ARTICLES. JOHN R. FOSTER, Arlington, Mass. Filed Sept. 2, 1913. Serial No. 787,811. Term of patent 3½ years.



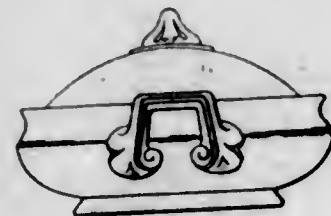
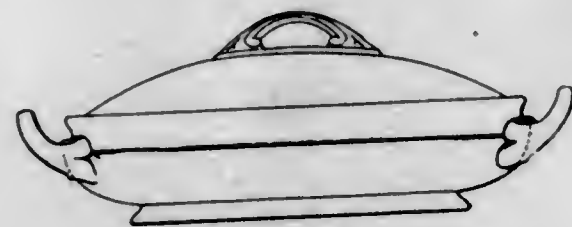
The ornamental design for a stand for displaying pictures, or other articles, as shown.

45,001. ROAD-SIGN. CYRUS A. GEAS, Edwardsville, Ill. Filed Sept. 10, 1913. Serial No. 789,181. Term of patent 14 years.



The ornamental design for a road sign, as shown.

45,002. COVERED DISH. WILLIAM P. GRAHAM, Brooklyn, N. Y. Filed Feb. 1, 1913. Serial No. 745,746. Term of patent 7 years.



The ornamental design for a covered dish as shown.

45,003. BUTTON. JOHN H. HAWLEY, New York, N. Y., assignor to American Enamel Co., a Corporation of Rhode Island. Filed Sept. 24, 1913. Serial No. 791,660. Term of patent 3½ years.



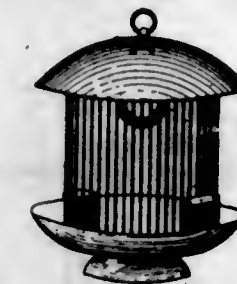
The ornamental design for a button, substantially as shown.

45,004. BUTTON. JOHN H. HAWLEY, New York, N. Y., assignor to American Enamel Co., a Corporation of Rhode Island. Filed Sept. 24, 1913. Serial No. 791,662. Term of patent 3½ years.



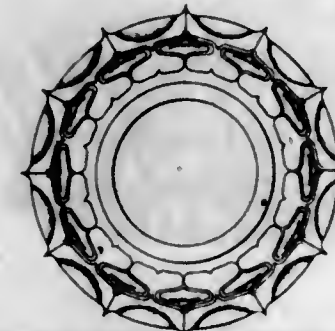
The ornamental design for a button, substantially as shown.

45,005. BIRD-CAGE. NATHAN W. HENDRYX, New Haven, Conn., assignor to The Andrew B. Hendryx Co., New Haven, Conn., a Corporation. Filed Oct. 6, 1913. Serial No. 793,769. Term of patent 14 years.



The ornamental design for a bird cage, as shown.

45,006. LAMP-SHADE. ERNEST W. HATTIG, Pittsburgh, Pa., assignor to Jefferson Glass Co., Hollandsbee, W. Va., a Corporation. Filed Sept. 23, 1913. Serial No. 791,438. Term of patent 7 years.



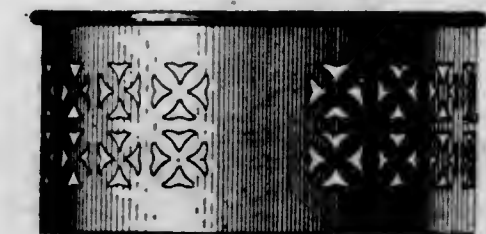
The ornamental design for a lamp shade as shown.

45,007. STOVE-DRUM. WILLIAM R. JEA VONS, Cleveland, Ohio. Filed Aug. 12, 1911. Serial No. 643,806. Term of patent 7 years.



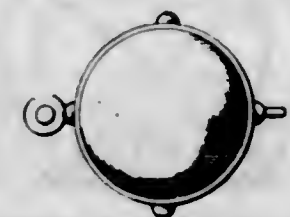
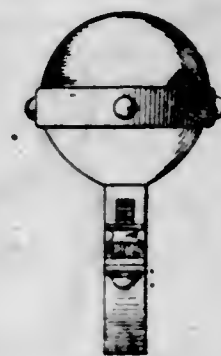
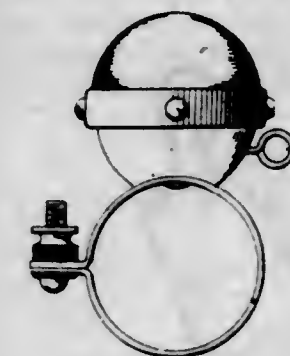
The ornamental design for a stove drum, as shown.

45,008. DRUM-BASE FOR STOVES. WILLIAM R. JEA VONS, Cleveland, Ohio. Filed Aug. 12, 1911. Serial No. 643,807. Term of patent 7 years.



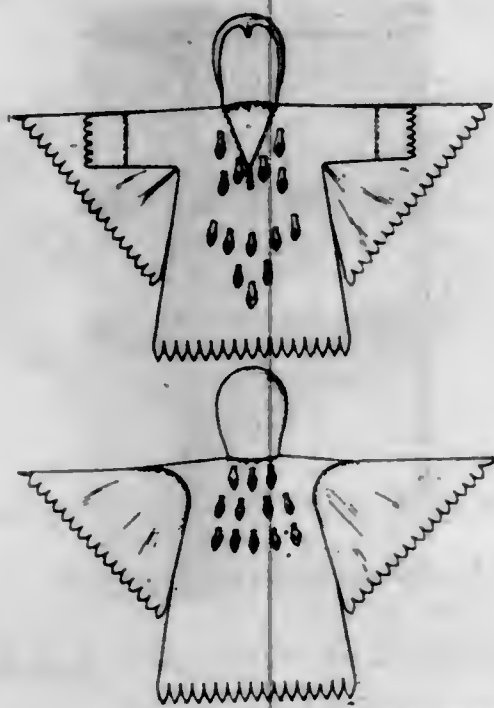
The ornamental design for a drum base for stoves, as shown.

45,009. PINCUSHION. JERRY JIROUSEK and EDWARD HOLAN, Verdigre, Nebr. Filed May 19, 1913. Serial No. 768,675. Term of patent 7 years.



The ornamental design for a pin cushion as shown.

45,010. CEREMONIAL GOWN. MAY F. LANIER, Greenwich, Conn., assignor to Camp Fire Girls, an Association incorporated in the District of Columbia. Filed Oct. 9, 1913. Serial No. 794,340. Term of patent 3½ years.



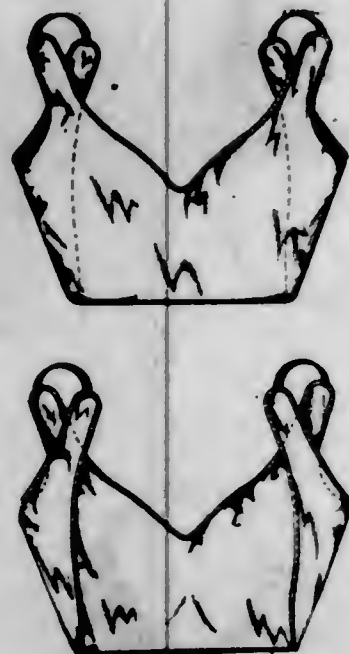
The ornamental design for a ceremonial gown as shown.

45,011. FINGER-RING. WILLIAM L. LARNED, New York, N. Y. Filed Oct. 24, 1913. Serial No. 797,140. Term of patent 14 years.



The ornamental design for a finger ring, as shown.

45,012. GARMENT-PROTECTOR FOR NURSING MOTHERS. SADIE LUTINGER, New York, N. Y. Filed Oct. 16, 1913. Serial No. 795,573. Term of patent 3½ years.



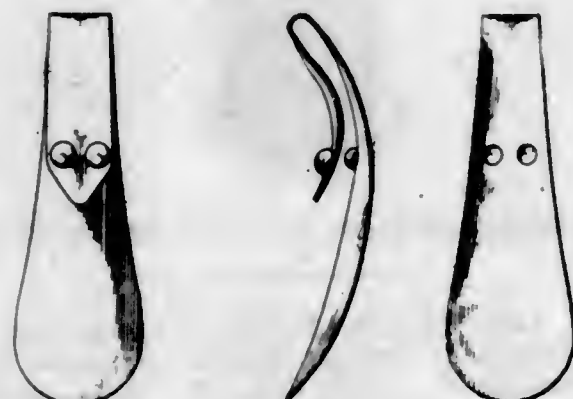
The ornamental design for a garment protector for nursing mothers, as shown.

45,013. CIGAR-CUTTER. BRYCE W. McClymont, Detroit, Mich., assignor to Penberthy Injector Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 16, 1913. Serial No. 785,160. Term of patent 14 years.



The ornamental design for a cigar cutter, as shown.

45,014. SHOE-HORN. JAMES E. MCGINN, Covina, Cal. Filed Sept. 22, 1913. Serial No. 791,235. Term of patent 7 years.



The ornamental design for a shoe horn, as shown.

45,015. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio. Filed June 10, 1913. Serial No. 772,922. Term of patent 14 years.



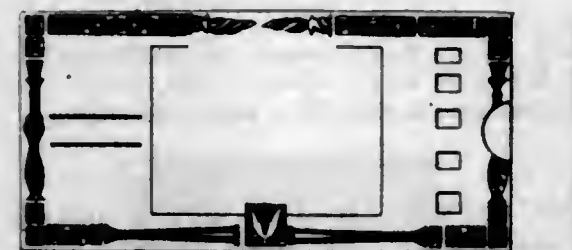
The ornamental design for a bathing cap, as shown and described.

45,016. TENT. WARREN H. MILLER, Interlaken, N. J. Filed July 10, 1913. Serial No. 778,390. Term of patent 7 years.



The ornamental design for a tent, as shown.

45,017. ENVELOP. NICHOLAS JOSEPH PAULY, Dubuque, Iowa. Filed Oct. 10, 1913. Serial No. 795,572. Term of patent 3½ years.



The ornamental design for an envelop as shown.

45,018. ELECTROLIER. HERMAN PLAUT, New York, N. Y. Filed Sept. 18, 1913. Serial No. 790,542. Term of patent 7 years.



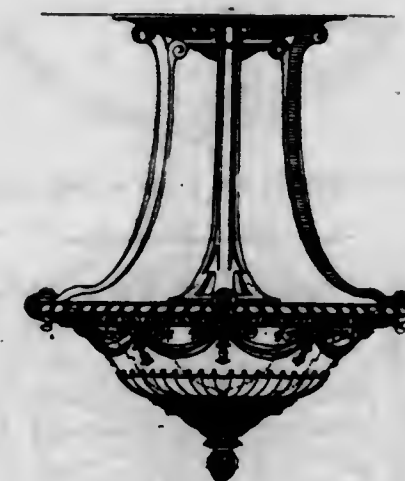
The ornamental design for an electrolier, substantially as shown and described.

45,019. ELECTROLIER. HERMAN PLAUT, New York, N. Y. Filed Sept. 18, 1913. Serial No. 790,543. Term of patent 7 years.



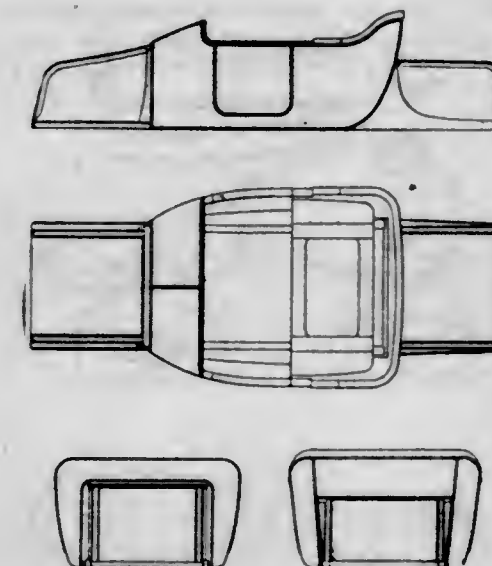
The ornamental design for an electrolier, substantially as shown and described.

45,020. ELECTROLIER. HERMAN PLAUT, New York, N. Y. Filed Sept. 18, 1913. Serial No. 790,544. Term of patent 7 years.



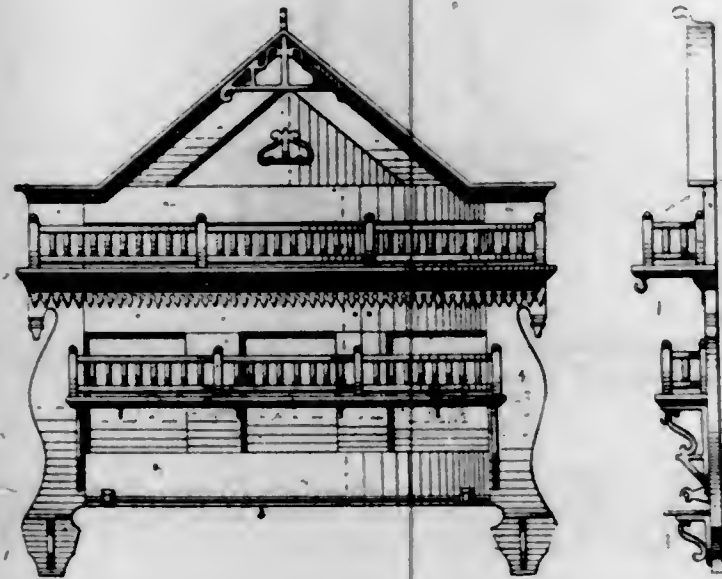
The ornamental design for an electrolier, substantially as shown and described.

45,021. VEHICLE-BODY. EDWARD H. REMDE, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 22, 1913. Serial No. 791,233. Term of patent 7 years.



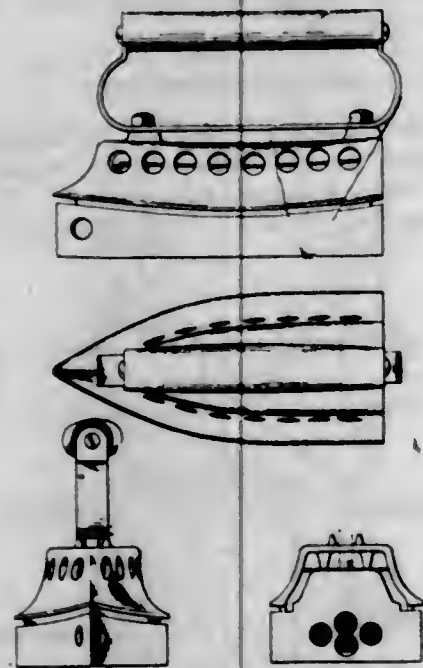
The ornamental design for a vehicle body, as shown.

45,022. PLATE-RACK. GOTTFRIED SCHICK, Tampa, Kans. Filed Sept. 29, 1913. Serial No. 792,523. Term of patent 14 years.



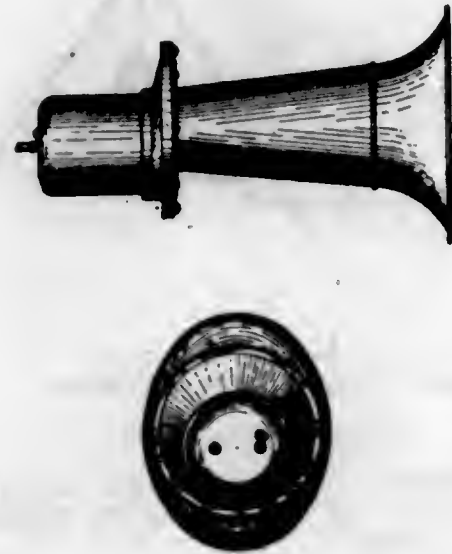
The ornamental design for a plate rack, as shown.

45,023. IRON. WILLIAM W. SHOE, Philadelphia, Pa. Filed Sept. 27, 1913. Serial No. 792,210. Term of patent 14 years.



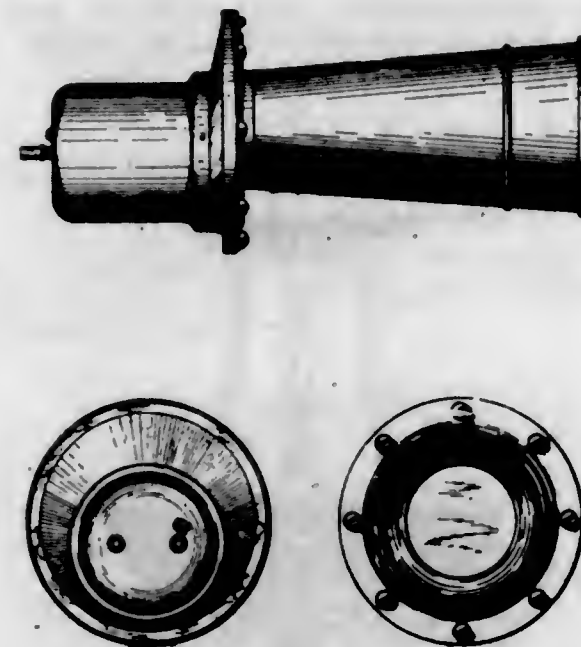
The ornamental design for an iron, as shown and described.

45,024. SIGNAL. WILLIAM SPARKS, Jackson, Mich. Filed Aug. 27, 1913. Serial No. 787,036. Term of patent 7 years.



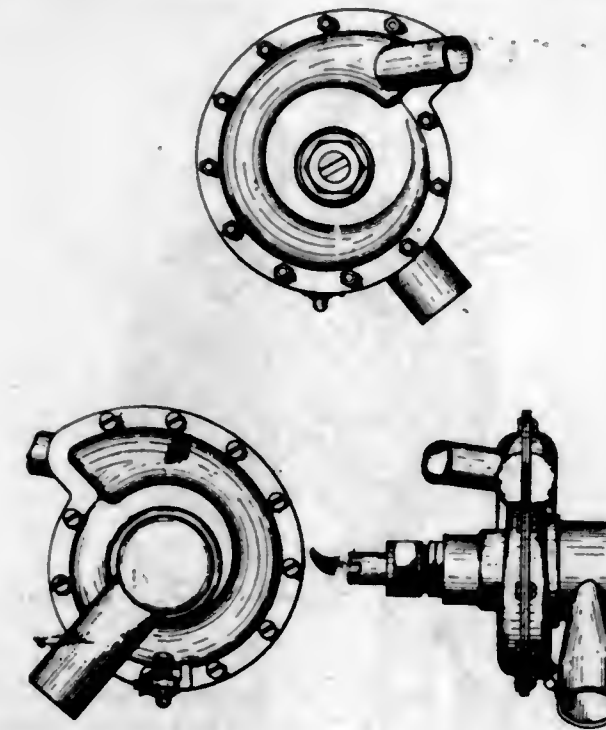
The ornamental design for a signal as shown.

45,025. SIGNAL. WILLIAM SPARKS, Jackson, Mich. Filed Aug. 27, 1913. Serial No. 787,037. Term of patent 7 years.



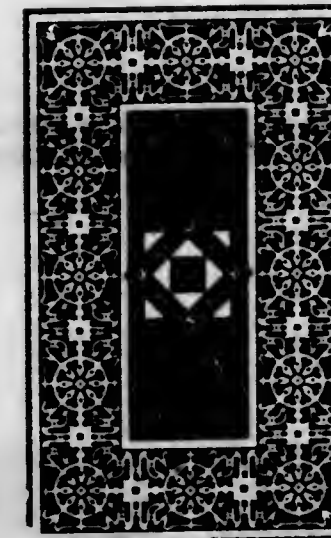
The ornamental design for a signal as shown.

45,026. PUMP-CASING. WILLIAM SPARKS, Jackson, Mich. Filed Sept. 17, 1913. Serial No. 790,368. Term of patent 7 years.



The ornamental design for pump casing, as shown.

45,027. RUG. PEREZ H. STARR, Toledo, Ohio. Filed Oct. 25, 1913. Serial No. 797,348. Term of patent 7 years.



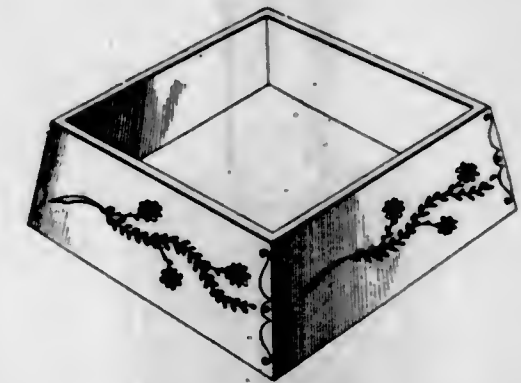
The ornamental design for a rug, as shown.

45,028. LAMP. MEYER STEIN, Springfield, Ill. Filed July 2, 1913. Serial No. 777,090. Term of patent 7 years.



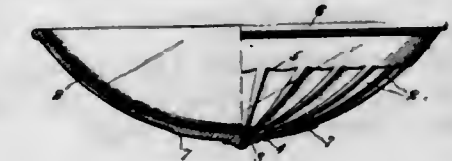
The ornamental design for a lamp, as shown.

45,029. STOVE-BASE. JAMES J. STEWART, Marshalltown, Iowa. Filed Sept. 17, 1913. Serial No. 790,369. Term of patent 7 years.

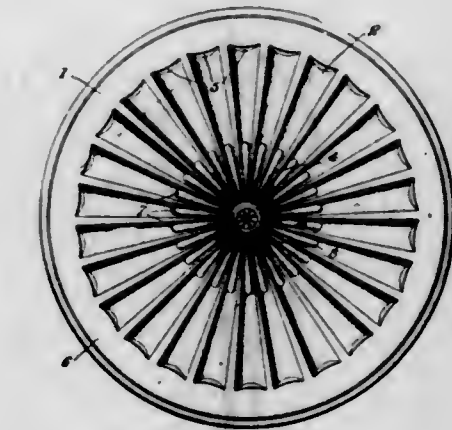


The ornamental design for a stove base, as shown.

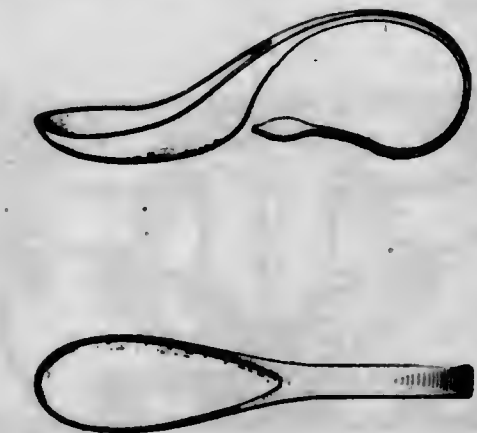
45,030. SHADE-BOWL. JAMES HARVEY STRONG, Steubenville, Ohio. Filed Oct. 15, 1913. Serial No. 795,372. Term of patent 7 years.



The ornamental design for a shade bowl substantially as shown and described.



45,031. BABY-SPOON. HENRY TAYLOR, Chicago, Ill. Filed July 14, 1913. Serial No. 779,057. Term of patent 14 years.



The ornamental design for a baby spoon, as shown.

45,032. SYRUP-DISPENSING APPARATUS. JOHN M. TRAVIS, St. Louis, Mo. Filed Sept. 26, 1913. Serial No. 792,058. Term of patent 7 years.



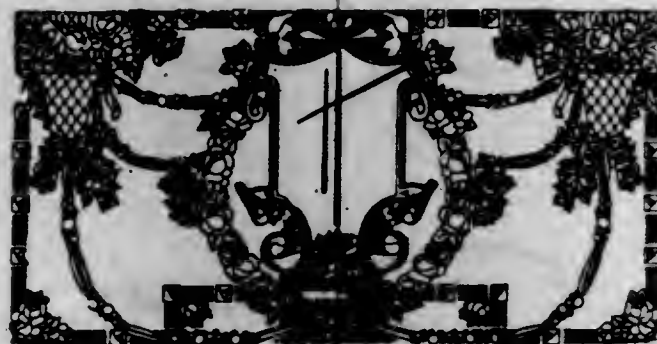
The ornamental design for a syrup dispensing apparatus, as shown.

45,033. SYRUP-DISPENSING APPARATUS. JOHN M. TRAVIS, St. Louis, Mo. Filed Sept. 26, 1913. Serial No. 792,057. Term of patent 7 years.



The ornamental design for a syrup dispensing apparatus, as shown.

45,034. CARD-CASE. OTAKAR VALASEK, Chicago, Ill. Filed Oct. 27, 1913. Serial No. 797,690. Term of patent 14 years.



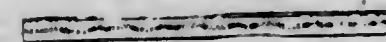
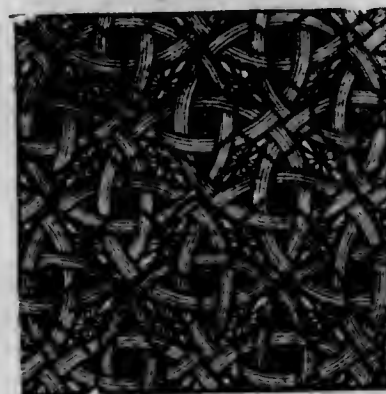
The ornamental design for a card case, as shown.

45,035. OUTDOOR WINTER PLAY-GARMENT FOR CHILDREN. LUCILLE VAN SLYKE, New York, N. Y. Filed Sept. 19, 1913. Serial No. 790,800. Term of patent 14 years.



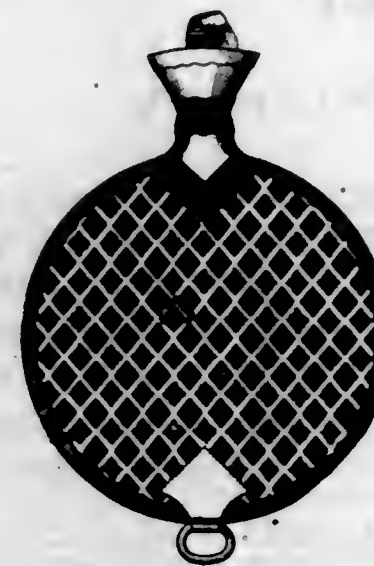
The ornamental design for an outdoor winter play garment for children as shown.

45,036. SHEET-GLASS. EDWARD J. WALSH, St. Louis, Mo. Filed May 20, 1913. Serial No. 768,875. Term of patent 14 years.



The ornamental design for sheet glass as shown.

45,037. WATER-BOTTLE, SYRINGE-BAG, OR SIMILAR ARTICLE. FRED O. WILLIAMS, Brookline, Mass., assignor to United Drug Company, Boston, Mass., a Corporation of New Jersey. Filed Aug. 28, 1913. Serial No. 787,210. Term of patent 7 years.



The ornamental design for a water bottle, syringe bag or similar article, as shown.

45,038. WATER-BOTTLE, SYRINGE-BAG, OR SIMILAR ARTICLE. FRED O. WILLIAMS, Brookline, Mass., assignor to United Drug Company, Boston, Mass., a Corporation of New Jersey. Filed Aug. 28, 1913. Serial No. 787,211. Term of patent 7 years.



The ornamental design for a water bottle, syringe bag, or similar article, as shown.

TRADE-MARKS

PUBLISHED DECEMBER 9, 1913.

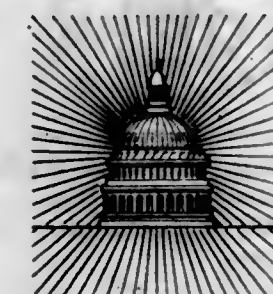
The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 43,827. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH D. DONNOHUE, Sedalia, Mo. Filed July 27, 1909.

"SUN-SHINE"



Particular description of goods.—An Insecticide.
Claims use since June 1, 1909.

Ser. No. 44,829. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) STEIMER & MOORE WHIP CO., Westfield, Mass. Filed Sept. 20, 1909.

WOLLOPER

Particular description of goods.—Whips.
Claims use since on or about Feb. 18, 1907.

Ser. No. 45,928. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, N. Y. Filed Nov. 16, 1909.

KLENSA

Particular description of goods.—Paint and Varnish Removers.
Claims use since Nov. 9, 1909.

Ser. No. 47,690. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KENTUCKY REFINING CO., Louisville, Ky. Filed Feb. 9, 1910.

SNOWFLAKE

Particular description of goods.—Cotton-Seed Oil.
Claims use since about May, 1897.

Ser. No. 51,371. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LOUIS V. ARONSON, Newark, N. J. Filed Aug. 12, 1910.

PIST-O-LITER

Particular description of goods.—Spark-Pistols, Cigar and Gas Lighting Devices in Which a Spark-Producing Alloy is Used for Igniting Purposes.
Claims use since the 1st of July, 1910.

Ser. No. 54,470. (CLASS 47. WINES.) CHANDON ET CIE., Epernay, France. Filed Feb. 13, 1911.



Particular description of goods.—Champagne-Wines.
Claims use since Sept. 23, 1908.

Ser. No. 55,735. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTON HERRER, Spring Valley, Ill. Filed Apr. 13, 1911.



Consisting of the word "Asmena" arranged both vertically and horizontally in the form of a cross, the two words intersecting at the letter "M," which is printed in larger type and answers for both words when read either vertically or horizontally, the letters "A. H." appearing on each side of the letter "M" at the top.

Particular description of goods.—A Liquid Remedy for Asthma, Coughs, Colds, Croup, Whooping-Cough, Chills, Influenza, Pneumonia, La Grippe, Bronchitis, Constipation, and Indigestion.

Claims use since Mar. 2, 1911.

Ser. No. 60,873. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. A. GRACEY, Philadelphia, Pa. Filed Jan. 16, 1912.

Pi-ne-del

Particular description of goods.—A Remedy for Coughs, Colds, Consumption, and other Bronchial Affections, Also for a Tonic and Expectorant.

Claims use since Jan. 10, 1907.

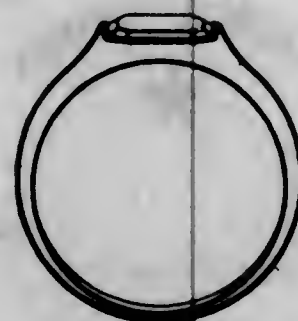
Ser. No. 62,601. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. FRY AND SONS, LIMITED, Bristol, England. Filed Apr. 2, 1912.



Particular description of goods.—Milk-Chocolate.

Claims use since December, 1902.

Ser. No. 63,234. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HARRINGTON CUTLERY Co., Southbridge, Mass. Filed May 1, 1912.



Particular description of goods.—Banana-Knives, Blade-Handles, Cloth-Blades, Rubber-Blades, Extension-Blades.

[Vol. 197. No. 2.]

Bread-Knives, Broom-Knives, Butcher-Knives, Carving-Knives, Cigar-Knives, Cigar-Blades, Cigar-Box Openers, Grape-Pruners, Grape-Fruit Knives, Kitchen-Knives, Meat-Knives, Oil-Cloth Knives, Oyster-Knives, Paper-Hangers' Knives, Putty-Knives, Slicers, Shoe-Knives, Tuck-Cutters, Cleavers, Steels, and Knife-Blades.

Claims use since March, 1912.

Ser. No. 64,054. (CLASS 33. GLASSWARE.) OESTERREICHISCHE GLASHÜTTEN GESELLSCHAFT, Aussig-on-the-Elbe, Austria. Filed June 8, 1912.

MONOPOL

Particular description of goods.—Hollow Glassware and Articles for Illumination Made of Glass, and Particularly of Hard Glass—Namely, Chimneys for Stationary and Suspended Incandescent Lamps, Perforated Chimneys, Perforated Lamp-Globes, Globes, Lamp-Shades.

Claims use since Apr. 10, 1909.

Ser. No. 64,500. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE F. W. KETTERER MEDICINE Co., Jacksonville, Fla. Filed July 1, 1912.



Particular description of goods.—A Liver-Cleanser Used as a Remedy for Biliousness, Constipation, Jaundice, Sick Headache, and Forms of Indigestion Caused by an Inactive and Torpid Liver.

Claims use since January, 1911.

Ser. No. 64,519. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE NORTH BRITISH RUBBER COMPANY, LIMITED, Edinburgh, Scotland. Filed July 1, 1912.

CHICK

Particular description of goods.—Golf-Balls.

Claims use since Sept. 20, 1911.

Ser. No. 64,749. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WM. H. HOEGER COMPANY, Los Angeles, Cal. Filed July 15, 1912.



Particular description of goods.—Playground-Slides, Horizontal Bars, Parallel Bars, Rowing-Machines, Teeter-Boards, Spring-Boards, Surf-Boards, and Gymnasium-Mats.

Claims use since Jan. 31, 1901.

[Vol. 197. No. 2.]

Ser. No. 64,876. (CLASS 33. GLASSWARE.) ÖSTERREICHISCHE GLASHÜTTENGESELLSCHAFT, Aussig-on-the-Elbe, Austria-Hungary. Filed July 23, 1912.

MIRAKEL

Particular description of goods.—Hollow Glassware and Articles for Illumination Made of Glass, Especially of Hard Glass—Namely, Chimneys for Stationary and Suspended Incandescent Gas-Lamps, Perforated Chimneys, Perforated Lamp-Globes, Globes, Lamp-Shades.

Claims use since Jan. 10, 1912.

Ser. No. 64,877. (CLASS 33. GLASSWARE.) ÖSTERREICHISCHE GLASHÜTTENGESELLSCHAFT, Aussig-on-the-Elbe, Austria-Hungary. Filed July 23, 1912.

MONO

Particular description of goods.—Hollow Glassware and Articles for Illumination Made of Glass, Especially of Hard Glass—Namely, Chimneys for Stationary and Suspended Incandescent Gas-Lamps, Perforated Chimneys, Perforated Lamp-Globes, Globes, Lamp-Shades.

Claims use since Jan. 18, 1912.

Ser. No. 65,420. (CLASS 10. FERTILIZERS.) WILLIAM BRUESER, Kansas City, Mo. Filed Aug. 26, 1912.

Magic

Particular description of goods.—Plant Food.

Claims use since Sept. 1, 1911.

Ser. No. 65,429. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. ZACHARY TAYLOR, Baltimore, Md. Filed Aug. 26, 1912.



Particular description of goods.—Ice-Cream of Assorted Flavors.

Claims use since May 15, 1912.

197 O. G.—34

[Vol. 197. No. 2.]

Ser. No. 65,455. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FEODOR BURGMANN, Dresden-Lauegast, Germany. Filed Aug. 27, 1912.

Janos

Particular description of goods.—Asbestos Packing Materials for Machinery of All Kinds.

Claims use since April, 1895.

Ser. No. 65,596. (CLASS 31. FILTERS AND REFRIGERATORS.) LEN A. BANTA, Clearfield, Pa. Filed Sept. 5, 1912.



No claim being made to the words "Refrigerator Co." and "Double Air Lock Doors" and the geographical words "Clearfield, Penna." and the word "Banta."

Particular description of goods.—Refrigerators, Ice-Chests, Refrigerator-Counters, Storage-Refrigerators, and Display-Refrigerators.

Claims use since July 1, 1912.

Ser. No. 65,647. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MALT FOOD PRODUCTS Co., of Oswego, N. Y., Oswego, N. Y. Filed Sept. 9, 1912.

MELLAMALT

Particular description of goods.—Candy.

Claims use since Aug. 26, 1912.

Ser. No. 65,676. (CLASS 48. MALT EXTRACTS AND LIQUORS.) UNITED STATES BREWING Co. OF CHICAGO, Chicago, Ill. Filed Sept. 10, 1912.

New Life

Particular description of goods.—Beer.

Claims use since Aug. 15, 1912.

Ser. No. 65,899. (CLASS 39. CLOTHING.) ROBERT L. SUMMERS, Brookline, Mass. Filed Sept. 20, 1912.

PELS.

Particular description of goods.—Leather Boots and Shoes.
Claims use since Aug. 24, 1912.

Ser. No. 65,909. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE DIAMOND MATCH Co., Chicago, Ill. Filed Sept. 21, 1912.

HOME

Particular description of goods.—Matches.
Claims use since the year 1889.

Ser. No. 66,118. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SHELDON AXLE COMPANY, Wilkes-Barre, Pa. Filed Oct. 3, 1912.

RESISTA

Particular description of goods.—Vehicle-Springs.
Claims use since September, 1911.

Ser. No. 66,268. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE & Co., Baltimore, Md. Filed Oct. 12, 1912.

OLD PLANTATION

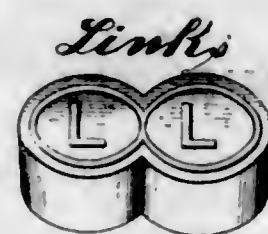
Particular description of goods.—A Lard Substitute.
Claims use since October, 1906.

Ser. No. 66,994. (CLASS 27. HOROLOGICAL INSTRUMENTS.) JACOB KIENZLE, Schwenningen, Germany. Filed Nov. 18, 1912.



Particular description of goods.—Clocks.
Claims use since June 5, 1910.

Ser. No. 67,046. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BORO SALICINE Co., Philadelphia, Pa. Filed Nov. 21, 1912.



Particular description of goods.—Medicinal Tablets for a Laxative and Indigestion.
Claims use since May 10, 1909.

Ser. No. 68,043. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULIUS SCHMID, INC., Astoria, N. Y. Filed Jan. 21, 1913.

Hanna

Particular description of goods.—Hot-Water Bottles, Fountain-Syringes, Ladies' Bulb-Syringes, Hard-Rubber Syringes, Invalids' Air-Cushions, Ear-Syringes, Infant-Syringes, Bulb-Syringes, Pacifiers, Ice-Bags, Breast-Pumps, and Nipples.
Claims use since July 1, 1912.

Ser. No. 68,086. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITY SALES COMPANY, Chicago, Ill. Filed Jan. 23, 1913.

UNITY RESTORE R

Exclusive use of the word "Restorer" is disclaimed.
Particular description of goods.—A Therapeutic Device for Treating Male Generative Organs.
Claims use since Dec. 1, 1912.

Ser. No. 68,261. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX HEISELE & SONS, St. Louis, Mo. Filed Feb. 1, 1913.



The portrait being that of Max Heisele.
Particular description of goods.—A Preparation for the Treatment of Piles.
Claims use since Dec. 1, 1910.

Ser. No. 68,324. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) OTTO J. DE MOLL & Co., Washington, D. C. Filed Feb. 5, 1913.

MELOCHORD

Particular description of goods.—Self-Playing Pianos.
Claims use since Jan. 1, 1913.

Ser. No. 68,437. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MONON COAL COMPANY, Chicago, Ill. Filed Feb. 10, 1913.

BIRCHWOOD

Particular description of goods.—Coal, and Particularly Washed Coal.
Claims use since Jan. 15, 1913.

Ser. No. 68,741. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GERMAN-AMERICAN STONEWARE WORKS, New York, N. Y. Filed Feb. 26, 1913.



Particular description of goods.—Acid-Proof Chemical Stoneware, Pitchers, Jugs, Evaporation-Dishes, Subliming-Dishes, Stoneware Funnels, Retorts, Carboys, Acid-Pots, Acid Storage and Transportation Pots, Colls, Tourills, Stone Balls, Stone Stirrers, Acid Stone Elevator, Stone Dishes, and Stone Crystallizing-Dishes.
Claims use since the beginning of September, 1912.

Ser. No. 68,805. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES J. MARKHAM, Houghton, Mich. Filed Mar. 1, 1913.



Particular description of goods.—Candy.
Claims use since September, 1912.

Ser. No. 68,869. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MONNIE DRY GOODS Co., Fort Worth, Tex. Filed Mar. 6, 1913.

BLUE BANNER

Particular description of goods.—Cotton, Silk, and Woolen Piece Goods for Men's, Women's, and Children's Clothing.
Claims use since February, 1911.

Ser. No. 69,251. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HERMANN DIECK, Magdeburg, Germany. Filed Mar. 22, 1913.

Anker

Particular description of goods.—Rice-Flour as Food for Cattle.
Claims use since the month of April, 1900.

Ser. No. 69,281. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAUDIE DICKINSON, Brighton, England. Filed Mar. 24, 1913.

DONGOR

Consists of the invented word "Dongor."
Particular description of goods.—Disinfectants, Insecticides, Lotions for the Hair, for Preventing Sunburn, and for Insect-Bites; Also for Face-Cream and Preparations for Cleansing the Teeth.
Claims use since about 1910.

Ser. No. 69,335. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ERNST SCHEFFLER, Zwota, Germany. Filed Mar. 25, 1913.



Disclaiming the words "Brand, Trade Mark, Strings No., Each" and "Feet Long."
Particular description of goods.—Prepared Wire or Catgut Strings, Plain or Covered, for Musical Instruments.
Claims use since 1907.

Ser. No. 69,336. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ERNST SCHEFFLER, Zwota, Germany. Filed Mar. 25, 1913.



Disclaiming the words "Brand" and "Trade Mark" and "---- Strings No. ---- each ---- feet long."

Particular description of goods.—Catgut, Sewing-Silk, and Similar Surgical Sewing and Ligation Means Made from Vegetable, Animal, Metallic, or Artificial Substances, Either in a Raw or Sterilized or Prepared State; Further, Strings, Threads, and Cords of All Kinds, Made from Intestines, for Surgical or Curative Purposes, in a Raw or Sterilized or Prepared State.

Claims use since 1907.

Ser. No. 69,999. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE H. B. CLAPLIN COMPANY, New York, N. Y. Filed Apr. 21, 1913.



The background surrounding the elliptical figure and within the outer defining edge presenting the ends of two crossed ovals being in blue.

Particular description of goods.—Handkerchiefs.

Claims use since Mar. 7, 1913.

Ser. No. 70,091. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) JOHN DEWSBURY & SON LIMITED, Walsall, England. Filed Apr. 28, 1913.



No claim being made to the exclusive right to the use of the word "Brand."

Particular description of goods.—Bridle-Bits, Stirrups, Spurs, Harness and Saddlery Buckles, Harness and Saddlery Rings, Terrets, Hames, Hame and other Dees, Swivels, and Harness and Saddlery Chain.

Claims use since Aug. 17, 1912.

Ser. No. 70,094. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) RESISTO LUGGAGE CO., Newark, N. J. Filed Apr. 28, 1913.

RESISTO CASE

No claim being made to the word "Case."

Particular description of goods.—Suitcases, Trunks, and Travelling-Bags.

Claims use since Mar. 17, 1913.

Ser. No. 70,515. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEINRICH PRINZ, Gensungen, Germany. Filed May 20, 1913.



No claim being made to the exclusive right to the words "Marke Gesetzlich Geschützt," "Prinz-Camembert & Six Pièces," and "Garantiert Vollfett."

Particular description of goods.—Cheese.

Claims use since Feb. 20, 1911.

Ser. No. 70,629. (CLASS 10. FERTILIZERS.) PATAPSCO GUANO COMPANY, Baltimore, Md. Filed May 24, 1913.

GRANGE

Particular description of goods.—Fertilizers.

Claims use since February, 1874.

Ser. No. 70,630. (CLASS 10. FERTILIZERS.) PATAPSCO GUANO COMPANY, Baltimore, Md. Filed May 24, 1913. Under ten-year proviso.

PATAPSCO

Particular description of goods.—Fertilizers.

Claims use since August, 1865.

Ser. No. 70,643. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. J. WHITE CHICLE CO., Niagara Falls, N. Y. Filed May 24, 1913.

Poinsetta

Particular description of goods.—Chewing-Gum.

Claims use since May 16, 1913.

Ser. No. 70,711. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CONSOLIDATED GROCERY COMPANY, Tampa, Jacksonville, and Pensacola, Fla. Filed May 28, 1913.



FANCY RACE HORSE

Particular description of goods.—Oats for Feeding Horses and Cattle.

Claims use since Sept. 15, 1911.

Ser. No. 70,760. (CLASS 37. PAPER AND STATIONERY.) THE MUNROE FELT & PAPER COMPANY, Boston, Mass. Filed May 29, 1913.



The picture being fanciful.

Particular description of goods.—Writing-Paper, Printing-Paper, Wrapping-Paper, and Packing-Paper.

Claims use since Mar. 1, 1913.

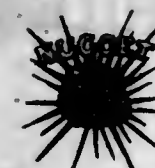
Ser. No. 70,839. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RAMON ANTONIO DELGADO CARBONELL, New York, N. Y., and Ponce, Porto Rico. Filed June 3, 1913.



Particular description of goods.—A Liquid Remedy for Diseases of the Skin and Blood.

Claims use since May 1, 1913.

Ser. No. 70,847. (CLASS 39. CLOTHING.) LAMONT, CORLISS & COMPANY, New York, N. Y. Filed June 3, 1913.



Particular description of goods.—Rubber Heels for Shoes of All Kinds.

Claims use since Apr. 9, 1913.

Ser. No. 71,107. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) HERCULES POWDER COMPANY, Wilmington, Del. Filed June 14, 1913.



Consisting of the figure of Hercules.

Particular description of goods.—Dynamite and Gelatinous Explosives, Sporting and Blasting Powder, Fuses, Caps, &c.

Claims use for dynamite since Jan. 10, 1913; for blasting-powder since Jan. 13, 1913; for fuses since Jan. 24, 1913, and for caps since Jan. 24, 1913.

Ser. No. 71,165. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) HERCULES POWDER COMPANY, Wilmington, Del. Filed June 18, 1913.

HERCULES

Consisting of the word "Hercules."

Particular description of goods.—Dynamite and Gelatinous Explosives, Sporting and Blasting Powder, Fuses, Caps, &c.

Claims use for dynamite and gelatinous explosives since 1874; for fuses since Jan. 24, 1913; for blasting-powder since Jan. 13, 1913; for caps since Jan. 24, 1913.

Ser. No. 71,166. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) HERCULES POWDER COMPANY, Wilmington, Del. Filed June 18, 1913.

XPDITE

The trade-mark consisting of the word "Xpdite."

Particular description of goods.—Dynamite.

Claims use since Apr. 15, 1913.

Ser. No. 71,262. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

EDEN

Particular description of goods.—Biscuit.

Claims use since at least June 25, 1900.

Ser. No. 71,308. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) KOKO COMPANY OF AMERICA, St. Louis, Mo. Filed June 23, 1913.



Particular description of goods.—A Refreshing Non-Alcoholic Beverage Not in the Nature of a Food and a Soda-Fountain Syrup.

Claims use since about May 1, 1888.

Ser. No. 71,400. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CRESCENT TOOL CO., Jamestown, N. Y. Filed June 27, 1913.

- MOTOR KIT

Particular description of goods.—Pliers.
Claims use since the 12th day of June, 1913.

Ser. No. 71,503. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) ATLAS POWDER COMPANY, Wilmington, Del. Filed July 3, 1913.



No claim being made to the word "Explosives."
Particular description of goods.—Powder, Dynamite, and Blasting-Caps.
Claims use since Jan. 1, 1913.

Ser. No. 71,602. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE BARTELDES SEED COMPANY, Denver, Colo. Filed July 9, 1913.



No claim is made to the word "Trade Mark," and no claim is made to the exclusive use of the phrase "Western Seeds for Western Planters."

Particular description of goods.—Agricultural and Horticultural Seeds—Namely, Garden, Flower, Grass, Grain, Fruit, Field, and Farm Seeds.

Claims use since June, 1901.

Ser. No. 71,606. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed July 9, 1913.

NIFTY

Particular description of goods.—Table Sets; Dolls; Marbles; Toy Watches; Whistles; Trumpets; Rattles; Toy Boxes of Paints; Transparent Toy Slates; Balls; Mechanical Boats and Trains; Children's Base-Ball Outfits, Consisting of Base-Balls, Bats, Chest-Protectors, Masks, Gloves, and Mitts; Toy Tools; Stuffed Animals.

Claims use since June 1, 1913.

Ser. No. 71,638. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MAX KLAAS, Montclair, N. J., and New York, N. Y. Filed July 10, 1913.

YELLOWBACK

Consisting of the word "Yellowback."
Particular description of goods.—Razors, Pocket-Knives, Scissors, Shears, and Table-Cutlery Not of Precious Metal.
Claims use since about April, 1913.

Ser. No. 71,718. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ACHILLE STARACE, New York, N. Y. Filed July 15, 1913.



No claim being made to the words "Diano Marina."
Particular description of goods.—Olive-Oil.
Claims use since December, 1903.

Ser. No. 71,730. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NICHOLAS BURKE CO. LTD., New Orleans, La. Filed July 16, 1913.

LEN-BE-GO

Particular description of goods.—Canned Vegetables, Wheat-Flour, Spices, and Syrup and Flavoring Extracts for Foods.

Claims use since December, 1912.

[Vol. 197. No. 2.]

Ser. No. 71,733. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROSS, ABBOTT CO., White River Junction, Vt. Filed July 16, 1913.

HURRICANE

Particular description of goods.—Canned Vegetables, Canned Fruits, Canned Salmon, Coffee, and Tea.
Claims use since about June 1, 1912.

Ser. No. 71,804. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YATES & DONELSON CO., Memphis, Tenn. Filed July 16, 1913.



Particular description of goods.—Cornmeal.
Claims use since 1912.

Ser. No. 71,805. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YATES & DONELSON CO., Memphis, Tenn. Filed July 16, 1913.



OLE MISS

The picture shown being fanciful.
Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since 1912.

[Vol. 197. No. 2.]

Ser. No. 71,826. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAM WALL CHACE, Brooklyn, N. Y. Filed July 18, 1913.



The following wording, "Jennings Lace Works, Brooklyn, N. Y.; Trade Mark," and "Bobbin & Carriage of Lace Machine," being disclaimed.

Particular description of goods.—Laces.
Claims use since July 15, 1912.

Ser. No. 71,859. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HALLIDAY ELEVATOR CO., Cairo, Ill. Filed July 19, 1913.



No claim being made to the words "Halliday" and "Elevator."

Particular description of goods.—Corn and Oats for Feeding and Milling Purposes.
Claims use since June 1, 1913.

Ser. No. 72,035. (CLASS 39. CLOTHING.) JAMES E. ADAMS, Boston, Mass. Filed July 30, 1913.

RE-LEVE-U

Particular description of goods.—Men's, Boys', Youths', Women's, Misses', and Children's Leather, Canvas, and Cloth Boots, Shoes, and Sandals.
Claims use since July 1, 1913.

Ser. No. 72,063. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GAFFNEY BROTHERS, New York, N. Y. Filed July 31, 1913.



Particular description of goods.—Wheat-Bran.
Claims use since June 14, 1913.

Ser. No. 72,111. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Aug. 1, 1913.

M1026

Particular description of goods.—Knife-Heads for Mowers.
Claims use since January, 1905.

Ser. No. 72,157. (CLASS 32. FURNITURE AND UPHOLSTERY.) J. OSIASON, Fall River, Mass. Filed Aug. 4, 1913.



Particular description of goods.—Mattresses, Springs, Pillows, and Couches.
Claims use since July 1, 1913.

Ser. No. 72,250. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN E. LEIKAUF, Bedford Park and New York, N. Y. Filed Aug. 9, 1913.

Regular

Particular description of goods.—Candy.
Claims use since June 7, 1913.

Ser. No. 72,296. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN A. MURRAY, Brooklyn, N. Y. Filed Aug. 11, 1913.

MONARCH

Particular description of goods.—Carbureters, Vaporizers or Mixers, Pump Suction Connections, Stuffing-Boxes, Stern-Bearings, and Bilge-Pumps.
Claims use since about Jan. 21, 1904.

Ser. No. 72,333. (CLASS 32. FURNITURE AND UPHOLSTERY.) DETROIT WIRE SPRING CO., Detroit, Mich. Filed Aug. 14, 1913.



Particular description of goods.—Seat and Bed Springs.
Claims use since about December, 1912.

[Vol. 197. No. 2.]

Ser. No. 72,513. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) HYMAN GALLERT, New York, N. Y. Filed Aug. 25, 1913.

CINDERELLA

Particular description of goods.—Hand-Bags.
Claims use since May 1, 1913.

Ser. No. 72,523. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PREVENTIT CO., Dallas, Tex. Filed Aug. 25, 1913.



Particular description of goods.—A Preventive of Venereal Diseases.
Claims use since Aug. 18, 1913.

Ser. No. 72,792. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Sept. 11, 1913.



Particular description of goods.—Work-Shirts.
Claims use since June 20, 1913.

Ser. No. 73,064. (CLASS 39. CLOTHING.) WALL, STREETER AND DOYLE COMPANY, North Adams, Mass. Filed Sept. 25, 1913.

*Streeter
System
Shoe*

The words "Streeter" and "Shoe" being disclaimed.
Particular description of goods.—Leather Shoes.
Claims use since May 1, 1913.

Ser. No. 73,202. (CLASS 39. CLOTHING.) ELEANOR M. BEEBE, New York, N. Y. Filed Oct. 4, 1913.

KLINGNIT

The word "Klingnit."
Particular description of goods.—Hosiery and Knitted Under and Outer Wear—Namely, Undershirts and Drawers, Combination-Suits, Jerseys, and Sweaters.
Claims use since Sept. 30, 1912.

Ser. No. 73,386. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. METZENAUER BAKING POWDER CO., St. Louis, Mo. Filed Oct. 15, 1913.

LEADING LADY

Particular description of goods.—Baking-Powder.
Claims use since July 11, 1913.

Ser. No. 73,421. (CLASS 39. CLOTHING.) SAMUEL MITCHELL AND BRO., New York, N. Y. Filed Oct. 16, 1913.

SAM BRO

The word "Sambro."
Particular description of goods.—Muslin and Flannelette Underwear—viz., Ladies' Underskirts, Gowns, Combinations, Princesse Slips, Chemise, Skirt-Chemise, Drawers, Corset-Covers, Brassières, Children's and Misses' Drawers, Shirts, Combinations, Gowns, and Princesse Slips, Ladies' Misses', Children's, and Infants' White and Colored Dresses, Kimonos, Shirt-Waists, Middy-Blouses, Black and Colored Silk and Cotton Undershirts, and Children's and Infants' Coats.
Claims use since Oct. 10, 1913.

Ser. No. 73,422. (CLASS 15. OILS AND GREASES.) OILIO COMPANY, New York, N. Y. Filed Oct. 16, 1913.

OILIO

Particular description of goods.—Lubricating Oils and Greases.
Claims use since Mar. 19, 1913.

Ser. No. 73,434. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. H. WILLIAMS & CO., New York, N. Y. Filed Oct. 16, 1913.

AGRIPPA

Particular description of goods.—C-Clamps, Strap-Clamps, Lathe-Dogs, Crank-Handles, Balance-Handles,

[Vol. 197. No. 2.]

Machine-Handles, Wire-Rope Sockets, Tool-Posts, Tool-Post Rings, Tool-Post Wedges, Lathe-Tools, Planer-Tools, Boring-Tools, Lathe-Tool Holders, Planer-Tool Holders, Boring-Tool Holders, Grinding-Tools, Cutting-Tools, Grinding-Tool Holders, Cutting-Tool Holders, Threading-Tools, Pipe-Tools, Chain Pipe-Wrenches, Pipe-Wrenches, Wrenches, Chain Pipe-Vises, Pipe-Vises, Machine-ists' Clamps, Clamp Lathe-Dogs.
Claims use since 1905.

Ser. No. 73,470. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARGRITH BAUMANN, New York, N. Y. Filed Oct. 18, 1913.

RENAISSANCE

Particular description of goods.—Hair-Tonic.
Claims use since Aug. 1, 1910.

Ser. No. 73,474. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) F. HOFFMANN & SONS INC., Newark, N. J. Filed Oct. 18, 1913.



No claim being herein made to the representation of the cherries and cherry leaves and branches.
Particular description of goods.—A Carbonated Non-Alcoholic Beverage.
Claims use since July 12, 1911.

Ser. No. 73,469. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE RUSSELL MANUFACTURING CO., Middletown, Conn. Filed Oct. 18, 1913.

RUSCO

Particular description of goods.—Brake-Lining for Automobile-Brakes.
Claims use since July 30, 1913.

Ser. No. 73,490. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE RUSSELL MANUFACTURING CO., Middletown, Conn. Filed Oct. 18, 1913.

BULL-DOG

Particular description of goods.—Brake-Lining for Automobile-Brakes.
Claims use since Aug. 1, 1913.

[Vol. 197. No. 2.]

Ser. No. 72,111. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Aug. 1, 1913.

M1026

Particular description of goods.—Knife-Heads for Mowers.
Claims use since January, 1905.

Ser. No. 72,157. (CLASS 32. FURNITURE AND UPHOLSTERY.) J. OSIASON, Fall River, Mass. Filed Aug. 4, 1913.



Particular description of goods.—Mattresses, Springs, Pillows, and Couches.
Claims use since July 1, 1913.

Ser. No. 72,250. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN B. LEIKAUF, Bedford Park and New York, N. Y. Filed Aug. 9, 1913.

Regular

Particular description of goods.—Candy.
Claims use since June 7, 1913.

Ser. No. 72,296. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN A. MURRAY, Brooklyn, N. Y. Filed Aug. 11, 1913.

MONARCH

Particular description of goods.—Carbureters, Vaporizers or Mixers, Pump Suction Connections, Stuffing-Boxes, Stern-Bearings, and Bilge-Pumps.
Claims use since about Jan. 21, 1904.

Ser. No. 72,333. (CLASS 32. FURNITURE AND UPHOLSTERY.) DETROIT WIRE SPRING CO., Detroit, Mich. Filed Aug. 14, 1913.



Particular description of goods.—Seat and Bed Springs.
Claims use since about December, 1912.

Ser. No. 72,513. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) HYMAN GALLERT, New York, N. Y. Filed Aug. 25, 1913.

CINDERELLA

Particular description of goods.—Hand-Bags.
Claims use since May 1, 1913.

Ser. No. 72,523. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PREVENTIT CO., Dallas, Tex. Filed Aug. 25, 1913.



Particular description of goods.—A Preventive of Venereal Diseases.
Claims use since Aug. 18, 1913.

Ser. No. 72,792. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Sept. 11, 1913.



Particular description of goods.—Work-Shirts.
Claims use since June 20, 1913.

Ser. No. 73,064. (CLASS 39. CLOTHING.) WALL, STREETER AND DOYLE COMPANY, North Adams, Mass. Filed Sept. 25, 1913.

*Streeter
System
Shoe*

The words "Streeter" and "Shoe" being disclaimed.
Particular description of goods.—Leather Shoes.
Claims use since May 1, 1913.

[Vol. 197. No. 2.]

Ser. No. 73,202. (CLASS 39. CLOTHING.) ELEANOR M. BEEBE, New York, N. Y. Filed Oct. 4, 1913.

KLINGNIT

The word "Klingnit."
Particular description of goods.—Hosiery and Knitted Under and Outer Wear—Namely, Undershirts and Drawers, Combination-Suits, Jerseys, and Sweaters.
Claims use since Sept. 30, 1912.

Ser. No. 73,386. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. METZENAUER BAKING POWDER CO., St. Louis, Mo. Filed Oct. 15, 1913.

LEADING LADY

Particular description of goods.—Baking-Powder.
Claims use since July 11, 1913.

Ser. No. 73,421. (CLASS 39. CLOTHING.) SAMUEL MITCHELL AND BRO., New York, N. Y. Filed Oct. 16, 1913.

SAMBRO

The word "Sambro."
Particular description of goods.—Muslin and Flannelette Underwear—viz., Ladies' Underskirts, Gowns, Combinations, Princesse Slips, Chemise, Skirt-Chemise, Drawers, Corset-Covers, Brassières, Children's and Misses' Drawers, Shirts, Combinations, Gowns, and Princesse Slips, Ladies' Misses', Children's, and Infants' White and Colored Dresses, Kimonos, Shirt-Waists, Middy-Blouses, Black and Colored Silk and Cotton Undershirts, and Children's and Infants' Coats.
Claims use since Oct. 10, 1913.

Ser. No. 73,422. (CLASS 15. OILS AND GREASES.) OILIO COMPANY, New York, N. Y. Filed Oct. 16, 1913.

OILIO

Particular description of goods.—Lubricating Oils and Greases.
Claims use since Mar. 19, 1913.

Ser. No. 73,434. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. H. WILLIAMS & CO., New York, N. Y. Filed Oct. 16, 1913.

AGRIPPA

Particular description of goods.—C-Clamps, Strap-Clamps, Lathe-Dogs, Crank-Handles, Balance-Handles,

[Vol. 197. No. 2.]

Machine-Handles, Wire-Rope Sockets, Tool-Posts, Tool-Post Rings, Tool-Post Wedges, Lathe-Tools, Planer-Tools, Boring-Tools, Lathe-Tool Holders, Planer-Tool Holders, Boring-Tool Holders, Grinding-Tools, Cutting-Tools, Grinding-Tool Holders, Cutting-Tool Holders, Threading-Tools, Pipe-Tools, Chain Pipe-Wrenches, Pipe-Wrenches, Wrenches, Chain Pipe-Vises, Pipe-Vises, Vises, Machinists' Clamps, Clamp Lathe-Dogs.
Claims use since 1905.

Ser. No. 73,470. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARJORITH BAUMANN, New York, N. Y. Filed Oct. 18, 1913.

RENAISSANCE

Particular description of goods.—Hair-Tonic.
Claims use since Aug. 1, 1910.

Ser. No. 73,474. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) F. HOFFMANN & SONS INC., Newark, N. J. Filed Oct. 18, 1913.



No claim being herein made to the representation of the cherries and cherry leaves and branches.
Particular description of goods.—A Carbonated Non-Alcoholic Beverage.
Claims use since July 12, 1911.

Ser. No. 73,489. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE RUSSELL MANUFACTURING CO., Middletown, Conn. Filed Oct. 18, 1913.

RUSCO

Particular description of goods.—Brake-Lining for Automobile-Brakes.
Claims use since July 30, 1913.

Ser. No. 73,490. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE RUSSELL MANUFACTURING CO., Middletown, Conn. Filed Oct. 18, 1913.

BULL-DOG

Particular description of goods.—Brake-Lining for Automobile-Brakes.
Claims use since Aug. 1, 1913.

[Vol. 197. No. 2.]

Ser. No. 73,497. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) CHARLES J. BAILEY, Boston, Mass. Filed Oct. 20, 1913.

Wizard

Particular description of goods.—Nail-Brushes.
Claims use since Sept. 3, 1913.

Ser. No. 73,539. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Oct. 22, 1913. Under ten-year proviso.



The trade-mark is not the portrait of a living individual.
Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 1, 1890.

Ser. No. 73,543. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CHAMBERLAIN COMPANY, Pittsburgh, Pa. Filed Oct. 22, 1913.

Champion

Particular description of goods.—Sprays for Plants, Shrubs, and Trees.
Claims use since about June 1, 1912.

Ser. No. 73,544. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASIL D'EMO, Chicago, Ill. Filed Oct. 22, 1913.

DAME NATURE

Particular description of goods.—Skin Lotion and Powder.
Claims use since Oct. 1, 1913.

Ser. No. 73,555. (CLASS 48. MALT EXTRACTS AND LIQUORS.) S. LIEBMAN'S SONS BREWING CO., Brooklyn, N. Y. Filed Oct. 22, 1913.

Imperator

Particular description of goods.—Beer.
Claims use since Oct. 1, 1913.

Ser. No. 73,583. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SARAH M. WELDON, Dighton, Mass. Filed Oct. 23, 1913.

SAROLA

Particular description of goods.—A Chemical Preparation for the Removal of Hair.
Claims use since Sept. 26, 1913.

Ser. No. 73,606. (CLASS 47. WINES.) LUIGI CALISANO & FIGLI, INC., New York, N. Y. Filed Oct. 25, 1913.

Bura d'Alba

The words "Duca d'Alba."
Particular description of goods.—Sparkling Wines.
Claims use since Oct. 14, 1913.

Ser. No. 73,609. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) POSTUM CEREAL CO., LIMITED, Battle Creek, Mich. Filed Oct. 25, 1913.

POSTUM

Particular description of goods.—Flavoring Extract for Non-Alcoholic Beverages.
Claims use since Dec. 26, 1911.

Ser. No. 73,611. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Oct. 25, 1913.

ROPECO

The word "Ropeco."
Particular description of goods.—Men's and Boys' Dress, Sporting, Negligée, and Outing Outer Suits and Pieces Thereof, Overcoats and Rain-Coats, Men's and Boys' Underwear, Union Suits or Two-Piece Suits, Hosiery, and Sporting, Dress, Common-Wear Hats, and Sporting, Dress, and Common-Wear Shoes.
Claims use since February, 1913.

Ser. No. 73,753. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNION SPECIAL MACHINE COMPANY, Chicago, Ill. Filed Nov. 3, 1913.

R

Particular description of goods.—Machine-Needles.
Claims use since Oct. 14, 1913.

Ser. No. 73,770. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL PRESERVE CO., St. Louis, Mo. Filed Nov. 3, 1913.

HUNEEMEL

Particular description of goods.—Table-Syrups and Fruit Preserves.
Claims use since Mar. 13, 1913.

Ser. No. 73,784. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KNOLL & CO., New York, N. Y. Filed Nov. 3, 1913.

Paracodin

Particular description of goods.—A Remedy Employed as a Sedative in Cough and Asthmatic Affections.
Claims use since Nov. 19, 1912.

Ser. No. 73,814. (CLASS 38. PRINTS AND PUBLICATIONS.) BENJAMIN S. ELROD, Omaha, Nebr. Filed Nov. 5, 1913.

WE

Particular description of goods.—A Weekly Newspaper.
Claims use since Oct. 14, 1913.

Ser. No. 73,830. (CLASS 15. OILS AND GREASES.) MALONEY OIL & MANUFACTURING COMPANY, Scranton, Pa. Filed Nov. 6, 1913.



The words "Maloney Oil and Mfg. Co.," "Non Carbon," "Auto Oil," "Scranton, Pa.," are disclaimed.
Particular description of goods.—Lubricating-Oil.
Claims use since Jan. 30, 1910.

Ser. No. 73,883. (CLASS 48. MALT EXTRACTS AND LIQUORS.) EVERETT BREWING CO., Everett, Wash. Filed Nov. 10, 1913.

Edelrein

Particular description of goods.—Beer.
Claims use since Nov. 1, 1913.

Ser. No. 73,901. (CLASS 17. TOBACCO PRODUCTS.) WAYNE TOBACCO COMPANY, Fort Wayne, Ind. Filed Nov. 10, 1913.

Lincoln Highway

Particular description of goods.—Cigars and Smoking and Chewing Tobacco.
Claims use since Nov. 1, 1913.

Ser. No. 73,992. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

VENUS.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,993. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

MERCURY.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,994. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

JUPITER

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,995. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

MAGNET.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,996. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

JUNO.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,997. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

PLANET.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,998. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

BEACON.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 73,999. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

LOTUS.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 74,001. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

DIANA.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 74,002. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

SATURN.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

Ser. No. 74,004. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 14, 1913.

NEPTUNE.

Particular description of goods.—Moving-Picture Films.
Claims use since Sept. 1, 1913.

[Vol. 197. No. 2.]

TRADE-MARKS

REGISTERED DECEMBER 9, 1913.

94,410. HAND SOAP PASTE COMPOSED OF CERTAIN NAMED INGREDIENTS. THE ENOS ADAMS CO., Bennington, Vt.
Filed July 5, 1913. Serial No. 71,525. PUBLISHED SEPTEMBER 23, 1913.

94,411. MEDICINAL PREPARATION FOR TREATING CERTAIN NAMED DISEASES. ALLEN & HANBURY, LIMITED, London, England.
Filed June 17, 1913. Serial No. 71,146. PUBLISHED OCTOBER 7, 1913.

94,412. MAGAZINE ISSUED SEMIMONTHLY. AMERICAN ASSOCIATION OF FOREIGN LANGUAGE NEWSPAPERS, INC., New York, N. Y.
Filed July 29, 1913. Serial No. 72,019. PUBLISHED SEPTEMBER 23, 1913.

94,413. FELT IN THE PIECE. AMERICAN FELT COMPANY, Boston, Mass.
Filed June 28, 1913. Serial No. 71,421. PUBLISHED SEPTEMBER 23, 1913.

94,414. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. THE AMERICAN PHOTOGRAPHIC TEXT BOOK COMPANY, Scranton, Pa.
Filed March 18, 1913. Serial No. 69,146. PUBLISHED MAY 27, 1913.

94,415. MACHINE-KNIVES USED IN AND FORMING OPERATIVE PARTS OF CUTTING-MACHINES. E. C. ATKINS & COMPANY, Indianapolis, Ind.
Filed July 21, 1913. Serial No. 71,868. PUBLISHED OCTOBER 7, 1913.

94,416. PERFUMERY. AUTRAN & ARDISON, Paris, France.
Filed July 3, 1912. Serial No. 64,563. PUBLISHED OCTOBER 7, 1913.

94,417. CALENDAR AND COLLECTION OF MOTTOES. BARSE & HOPKINS, New York, N. Y.
Filed June 12, 1913. Serial No. 71,049. PUBLISHED SEPTEMBER 23, 1913.

94,418. CALENDAR AND COLLECTION OF MOTTOES. BARSE & HOPKINS, New York, N. Y.
Filed June 12, 1913. Serial No. 71,050. PUBLISHED SEPTEMBER 23, 1913.

94,419. CERTAIN NAMED PRINTS AND PUBLICATIONS. BARTLETT-ORR PRESS, New York, N. Y.
Filed May 29, 1913. Serial No. 70,742. PUBLISHED SEPTEMBER 23, 1913.

94,420. PREPARATION FOR CLEANING CERTAIN NAMED ARTICLES, AND CERTAIN POLISHES. BLYTH & PLATT, LIMITED, Watford, England.
Filed July 1, 1913. Serial No. 71,456. PUBLISHED OCTOBER 7, 1913.

94,421. COAL. BUCHANAN COAL COMPANY, Chicago, Ill.
Filed June 30, 1913. Serial No. 71,437. PUBLISHED SEPTEMBER 23, 1913.

94,422. HOSE, BELTING, PACKING, AND JAR-RINGS MADE OF CERTAIN MATERIALS. J. W. BUCKLEY RUBBER CO., New York, N. Y.
Filed June 12, 1913. Serial No. 71,040. PUBLISHED SEPTEMBER 23, 1913.

94,423. HOSE, BELTING, PACKING, AND JAR-RINGS COMPOSED OF CERTAIN MATERIALS. J. W. BUCKLEY, RUBBER CO., New York, N. Y.
Filed June 26, 1913. Serial No. 71,374. PUBLISHED SEPTEMBER 23, 1913.

94,424. TOILET SOAPS. FRANK GAUS BURKE, New York, N. Y.
Filed July 3, 1913. Serial No. 71,504. PUBLISHED SEPTEMBER 30, 1913.

94,425. DETERGENT PREPARATION IN CRYSTAL FORM. CHASE-O MANUFACTURING COMPANY, Camden, N. J., and Philadelphia, Pa.
Filed February 15, 1913. Serial No. 68,553. PUBLISHED SEPTEMBER 30, 1913.

94,426. SMOKING-TOBACCO AND CIGARETTES. COMPAGNIE LAFERME TABAK-UND CIGARETTEN-FABRIKEN, Dresden, Germany.
Filed May 29, 1913. Serial No. 70,743. PUBLISHED SEPTEMBER 23, 1913.

94,427. LEATHER MADE OF GOATS', COLTS', CALVES', COWS', AND STEERS' SKINS. CORONA KID MANUFACTURING COMPANY, Portland, Me., and Boston, Mass.
Filed June 14, 1913. Serial No. 71,101. PUBLISHED OCTOBER 7, 1913.

94,428. CERTAIN NAMED ELECTRICAL APPARATUS AND ACCESSORIES. DESPESAILLES & CIE., Paris, France.
Filed May 10, 1913. Serial No. 70,345. PUBLISHED OCTOBER 7, 1913.

94,429. GRINDING-WHEELS. DETROIT EMERY WHEEL COMPANY, Detroit, Mich.
Filed July 16, 1913. Serial No. 71,740. PUBLISHED SEPTEMBER 23, 1913.

94,430. ALFALFA. THE ALBERT DICKINSON COMPANY, Chicago, Ill.
Filed June 5, 1913. Serial No. 70,873. PUBLISHED SEPTEMBER 23, 1913.

94,431. DRY, PASTE, AND READY-MIXED PAINTS. J. W. DUNFORD, Atlanta, Ga.
Filed March 8, 1913. Serial No. 68,935. PUBLISHED OCTOBER 7, 1913.

94,432. CLEANSING FLUID. JESSIE ELVIRA LEAVENWORTH DUNN, Chicago, Ill.
Filed June 28, 1913. Serial No. 71,425. PUBLISHED SEPTEMBER 30, 1913.

94,433. NEWSPAPERS. THE EDITOR & PUBLISHER CO., New York, N. Y.
Filed June 5, 1913. Serial No. 70,875. PUBLISHED SEPTEMBER 23, 1913.

94,434. WHISKY. EVANS-SMITH DRUG CO., Kansas City, Mo.
Filed July 16, 1913. Serial No. 71,743. PUBLISHED OCTOBER 7, 1913.

94,435. CERTAIN METALS IN VARIOUS SHAPES AND CERTAIN NAMED GOODS MADE THEREFROM. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.
Filed March 2, 1912. Serial No. 61,885. PUBLISHED OCTOBER 7, 1913.

94,436. CERTAIN ARTICLES COMPOSED OF VEGETABLE SUBSTANCES, MINERAL SUBSTANCES, COMBINATIONS THEREOF, AND LEATHER PACKING. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.
Filed March 2, 1912. Serial No. 61,886. PUBLISHED SEPTEMBER 23, 1913.

94,437. CERTAIN VEGETABLE SUBSTANCES AND PRODUCTS. FELTEN & GUILLEAUME CARLSWEEK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.

Filed March 2, 1912. Serial No. 61,888. PUBLISHED SEPTEMBER 23, 1913.

94,438. REMEDY FOR FISTULA, POLL-EVIL, OLD SORES, AND SWELLINGS. THE FISTUPOLE COMPOUNDING CO., Latham, Ill.

Filed June 16, 1911. Serial No. 57,083. PUBLISHED OCTOBER 7, 1913.

94,439. WEEKLY PUBLICATION FOR FLORISTS, NURSERYMEN, AND SEEDSMEN. FLORISTS' PUBLISHING COMPANY, Chicago, Ill.

Filed July 2, 1913. Serial No. 71,479. PUBLISHED SEPTEMBER 30, 1913.

94,440. CERTAIN NAMED MACHINES, PARTS THEREOF, AND TOOLS. GENERAL COMPOSING COMPANY, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.

Filed May 9, 1913. Serial No. 70,315. PUBLISHED OCTOBER 7, 1913.

94,441. SALVE. GOOSE GREASE CO., Greensboro, N. C.

Filed June 5, 1912. Serial No. 64,000. PUBLISHED OCTOBER 7, 1913.

94,442. WOOD-PULP. M. GOTTESMAN & SON, New York, N. Y.

Filed July 19, 1913. Serial No. 71,856. PUBLISHED SEPTEMBER 23, 1913.

94,443. WOOD-PULP. M. GOTTESMAN & SON, New York, N. Y.

Filed July 19, 1913. Serial No. 71,857. PUBLISHED SEPTEMBER 23, 1913.

94,444. WHISKY. THE GOVERNOR AND COMPANY OF ADVENTURERS OF ENGLAND TRADING INTO HUDSON'S BAY, Winnipeg, Manitoba, Canada.

Filed August 26, 1913. Serial No. 72,527. PUBLISHED OCTOBER 7, 1913.

94,445. AUTOMOBILE-POLISH. ROSE GREENWALD, Dhauba, Cal.

Filed July 14, 1913. Serial No. 71,681. PUBLISHED OCTOBER 7, 1913.

94,446. SALVES AND OINTMENTS. HAARER & SONS, Ann Arbor, Mich.

Filed November 15, 1911. Serial No. 59,728. PUBLISHED MAY 13, 1913.

94,447. VALVE-GRINDING PASTE. ELMER W. HILL, Portland, Oreg.

Filed June 10, 1913. Serial No. 70,997. PUBLISHED SEPTEMBER 30, 1913.

94,448. GRAIN-SEPARATORS, FANNING-MILLS, AND GRAIN-CLEANING MACHINES. HIRSCH BROTHERS, Milwaukee, Wis.

Filed August 13, 1913. Serial No. 72,318. PUBLISHED OCTOBER 7, 1913.

94,449. SOAP POWDER FOR SCOURING AND CLEANING PURPOSES. THE HOLBROOK MFG. CO., Jersey City, N. J.

Filed May 13, 1912. Serial No. 63,517. PUBLISHED OCTOBER 7, 1913.

94,450. GAS-MANTLES. THE IMPERIAL MERCHANDISE CO., Perry, Ohio.

Filed July 23, 1913. Serial No. 71,906. PUBLISHED SEPTEMBER 30, 1913.

94,451. GAS-MANTLES. THE IMPERIAL MERCHANDISE CO., Perry, Ohio.

Filed July 23, 1913. Serial No. 71,911. PUBLISHED SEPTEMBER 30, 1913.

94,452. JAR-RINGS. THE IMPERIAL MERCHANDISE CO., Perry, Ohio.

Filed July 23, 1913. Serial No. 71,913. PUBLISHED OCTOBER 7, 1913.

94,453. GUARD-PLATES FOR MOWERS. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.

Filed August 1, 1913. Serial No. 72,110. PUBLISHED OCTOBER 7, 1913.

94,454. COMPOSITION MEAL OR FLOUR OF CERTAIN NAMED GRAINS FOR COOKING PURPOSES. ROBT. G. JACKSON, Tacoma, Wash.

Filed October 2, 1912. Serial No. 66,088. PUBLISHED MAY 20, 1913.

94,455. REMEDY FOR PILES. WILLIAM S. JOHNSON, Baxley, Ga.

Filed March 26, 1913. Serial No. 69,359. PUBLISHED SEPTEMBER 30, 1913.

94,456. LINIMENT, COUGH-SYRUP, OINTMENT, AND REMEDIES FOR CERTAIN NAMED DISEASES. CHARLES KERNS, Logansport, Ind.

Filed June 23, 1913. Serial No. 71,307. PUBLISHED OCTOBER 7, 1913.

94,457. GAS AND VAPOR MANTLES. KING LIGHT CO., Peoria, Ill.

Filed July 24, 1911. Serial No. 57,790. PUBLISHED SEPTEMBER 30, 1913.

94,458. OUTER COATS, SUITS, DRESSES, AND SKIRTS. CHAS. LAVINE, New York, N. Y.

Filed July 21, 1913. Serial No. 71,874. PUBLISHED OCTOBER 7, 1913.

94,459. BROKEN GLASS. MAXWELL LEVY, Chicago, Ill.

Filed August 6, 1913. Serial No. 72,190. PUBLISHED SEPTEMBER 30, 1913.

94,460. SHEET-GLASS AND LEADED-GLASS LAMP SHADES, DOMES, AND GLOBES. LIGHTING STUDIOS COMPANY, New York, N. Y.

Filed July 30, 1913. Serial No. 72,046. PUBLISHED SEPTEMBER 23, 1913.

94,461. CARBURETERS FOR EXPLOSION-ENGINES. LYMA VERGASERFABRIK DIETZ UND COMPAGNIE, Dresden, Germany.

Filed July 3, 1913. Serial No. 71,517. PUBLISHED OCTOBER 7, 1913.

94,462. SHAMPOO PREPARATIONS, PERFUMES, SACHETS, AND TOILET WATERS. JAMES MACDONALD, New York, N. Y.

Filed February 3, 1913. Serial No. 68,285. PUBLISHED OCTOBER 7, 1913.

94,463. EMBROIDERIES. MACHENBACH IMPORTING CO., New York, N. Y.

Filed July 19, 1913. Serial No. 71,861. PUBLISHED OCTOBER 7, 1913.

94,464. IMITATION WOOD. MANNING, BOWMAN & CO., Meriden, Conn.

Filed July 9, 1913. Serial No. 71,621. PUBLISHED OCTOBER 7, 1913.

94,465. MEN'S AND BOYS' LEATHER SHOES. MARION SHOE COMPANY, Marion, Ind.

Filed July 16, 1913. Serial No. 71,765. PUBLISHED OCTOBER 7, 1913.

94,466. HOSE COMPOSED OF RUBBER AND RUBBER COMBINED WITH FABRIC. THE MECHANICAL RUBBER COMPANY, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio.

Filed June 10, 1913. Serial No. 71,004. PUBLISHED SEPTEMBER 23, 1913.

94,467. CIGARETTES. MESSUDIAH TURKISH TOBACCO COMPANY, INC., New York, N. Y.

Filed June 13, 1913. Serial No. 71,092. PUBLISHED OCTOBER 7, 1913.

94,468. TYPE-WRITERS AND THEIR PARTS. METALL-INDUSTRIE SCHÖNEBECK ACTIEN-GESELLSCHAFT, Schönebeck-on-the-Elbe, Germany.

Filed July 5, 1912. Serial No. 64,578. PUBLISHED OCTOBER 7, 1913.

94,469. WATERPROOF FABRICS WOVEN OF COTTON AND OF COTTON AND SILK. JOHN H. MEYER & CO., New York, N. Y.

Filed June 23, 1913. Serial No. 71,318. PUBLISHED SEPTEMBER 30, 1913.

94,470. DRILL-STEEL. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y.

Filed July 31, 1913. Serial No. 72,073. PUBLISHED OCTOBER 7, 1913.

94,471. FRICTION-TAPE FOR INSULATION, DRY-CELL BATTERIES, FUSES, AND FUSE-WIRE. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y.

Filed July 31, 1913. Serial No. 72,074. PUBLISHED OCTOBER 7, 1913.

94,472. SCORIFIERS, MUFFLES, AND CERTAIN NAMED FURNACES AND BURNERS. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y.

Filed July 31, 1913. Serial No. 72,076. PUBLISHED OCTOBER 7, 1913.

94,473. GLASSWARE—NAMESLY, FUNNELS, BEAKERS, FLASKS, BURETTES, AND GRADUATED CYLINDERS. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y.

Filed July 31, 1913. Serial No. 72,077. PUBLISHED SEPTEMBER 23, 1913.

94,474. CRUCIBLES, LEVELS, AND ASSAY-BALANCES. THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y.

Filed July 31, 1913. Serial No. 72,079. PUBLISHED OCTOBER 7, 1913.

94,475. PERIODICALS ISSUED MONTHLY. THE MODEL AMERICAN KITCHEN COMPANY, New York, N. Y.

Filed July 26, 1913. Serial No. 71,991. PUBLISHED SEPTEMBER 23, 1913.

94,476. MEDICINAL REMEDY FOR CERTAIN NAMED DISEASES. EDWARD F. MONTGOMERY, Burkeville, Tex.

Filed July 11, 1913. Serial No. 71,662. PUBLISHED SEPTEMBER 23, 1913.

94,477. CERTAIN NAMED CLOTHING MADE OF RUBBER OR RUBBER SUBSTITUTES. MYSTIC RUBBER COMPANY, Medford, Mass.

Filed May 26, 1913. Serial No. 70,670. PUBLISHED OCTOBER 7, 1913.

94,478. METAL-WORKING AND AUTOMATIC MULTIPLE-SPINDLE SCREW-MACHINES. THE NATIONAL-ACME MANUFACTURING COMPANY, Cleveland, Ohio.

Filed July 26, 1913. Serial No. 71,993. PUBLISHED OCTOBER 7, 1913.

94,479. DRY CELLS, BRUSHES FOR DYNAMO-ELECTRIC MACHINES, AND ARC-LIGHT CARBONS. NATIONAL CARBON COMPANY, Cleveland, Ohio.

Filed August 30, 1913. Serial No. 72,602. PUBLISHED OCTOBER 7, 1913.

94,480. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.

Filed September 12, 1913. Serial No. 72,822. PUBLISHED OCTOBER 7, 1913.

94,481. MEDICINAL PREPARATION USED EXTERNALLY FOR CERTAIN NAMED DISEASES. NATIONAL REMEDY COMPANY, Boston, Mass.

Filed April 30, 1913. Serial No. 70,139. PUBLISHED OCTOBER 7, 1913.

94,482. EXTRACT OF MALT. DAVID NICHOLSON GROCER COMPANY, St. Louis, Mo.

Filed July 18, 1913. Serial No. 71,837. PUBLISHED OCTOBER 7, 1913.

94,483. COLD-CREAM, HAIR-TONIC, AND COUGH MIXTURES. THE PARK PHARMACY, Fitchburg, Mass.

Filed August 27, 1912. Serial No. 65,445. PUBLISHED OCTOBER 7, 1913.

94,484. REMEDY FOR COUGHS AND COLDS. THE PISO COMPANY, Warren, Pa.

Filed July 10, 1913. Serial No. 71,641. Renewal of No. 10,471, July 31, 1883. PUBLISHED OCTOBER 7, 1913.

94,485. VARIOUS FORMS OF BURNERS FOR BURNING FUEL-OIL. PRODUCTION ENGINEERING CO., Philadelphia, Pa.

Filed June 12, 1913. Serial No. 71,076. PUBLISHED SEPTEMBER 23, 1913.

94,486. KNITTED, NETTED, AND WOVEN SHOULDER-SCARFS AND SHAWLS. RICE-STIX DRY GOODS COMPANY, St. Louis, Mo.

Filed April 15, 1913. Serial No. 69,803. PUBLISHED OCTOBER 7, 1913.

94,487. CERTAIN NAMED PLUMBING AND STEAM-FITTING SUPPLIES. THE RICKERSBERG BRASS COMPANY, Cleveland, Ohio.

Filed April 12, 1912. Serial No. 62,859. PUBLISHED OCTOBER 7, 1913.

94,488. CORN REMEDY, HAIR-TONIC, AND TOILET WATER. TONY RIPLESE, Cleveland, Ohio.

Filed September 5, 1913. Serial No. 72,605. PUBLISHED SEPTEMBER 30, 1913.

94,489. SOAP. ROYAL TEA COMPANY, Chicago, Ill.

Filed June 26, 1913. Serial No. 71,387. PUBLISHED SEPTEMBER 23, 1913.

94,490. CREAM FOR THE RELIEF OF FOOT TROUBLES AND CHAFING. THE B. A. RUSSELL PHARMACAL CO., Ithaca, N. Y.

Filed April 10, 1912. Serial No. 62,823. PUBLISHED FEBRUARY 4, 1913.

94,491. CERTAIN NAMED PAINTERS' MATERIALS AND PREPARED PAINTS. OSCAR SCHLEGEL MFG. CO., New York, N. Y.

Filed December 21, 1912. Serial No. 67,549. PUBLISHED OCTOBER 7, 1913.

94,492. LADIES' DRESSES. PHILIP SCHLESSEL, New York, N. Y.

Filed December 11, 1912. Serial No. 67,340. PUBLISHED OCTOBER 7, 1913.

94,493. RAW GLASS FOR CERTAIN NAMED PURPOSES. SCHOTT & GEN., Jena, Germany.

Filed January 14, 1913. Serial No. 67,922. PUBLISHED OCTOBER 7, 1913.

94,494. SHOES MADE OF LEATHER AND CANVAS. SHAFIT-PIERCE SHOE CO., Faribault, Minn.

Filed July 23, 1913. Serial No. 71,918. PUBLISHED SEPTEMBER 30, 1913.

94,495. ARMOR-PLATES AND IRON AND STEEL. SOCIETA ANONIMA ITALIANA GIO. ANSALDO ARMSTRONG & C., Rome and Genoa, Italy.

Filed September 8, 1911. Serial No. 58,580. PUBLISHED OCTOBER 7, 1913.

94,496. CIGARS. STANDARD CIGAR COMPANY, INCORPORATED, Wilmington, Del., and Norristown, Pa.

Filed July 26, 1913. Serial No. 71,996. PUBLISHED OCTOBER 7, 1913.

94,497. LUBRICATING OILS AND GREASES, REFINED OIL, AND GASOLINE. STANDARD OIL COMPANY, Richmond, Cal.

Filed June 26, 1913. Serial No. 71,388. PUBLISHED OCTOBER 7, 1913.

94,498. REFINED PETROLEUM FOR ILLUMINATING, HEATING, AND POWER PURPOSES. STANDARD OIL CO. OF NEW YORK, New York, N. Y.

Filed July 19, 1913. Serial No. 71,863. PUBLISHED OCTOBER 7, 1913.

94,499. VARNISHES. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.

Filed July 23, 1913. Serial No. 71,919. PUBLISHED OCTOBER 7, 1913.

94,500. DRY PAINTS, PASTE PAINTS, AND READY-MIXED PAINTS. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.

Filed July 23, 1913. Serial No. 71,920. PUBLISHED OCTOBER 7, 1913.

- 94,501. NEWSPAPER-SECTION PUBLISHED PERIODICALLY. STAR COMPANY, New York, N. Y. Filed August 1, 1913. Serial No. 72,118. PUBLISHED SEPTEMBER 30, 1913.
- 94,502. CLEANSER COMPOUND AND METAL-POLISH. CHARLES J. STEVENOT, New York, N. Y. Filed May 24, 1913. Serial No. 70,637. PUBLISHED SEPTEMBER 23, 1913.
- 94,503. MINERAL WAX. STROHMEYER & ARPE COMPANY, New York, N. Y. Filed August 15, 1913. Serial No. 72,365. PUBLISHED OCTOBER 7, 1913.
- 94,504. LAXATIVE. F. H. STRONG COMPANY, New York, N. Y. Filed July 22, 1913. Serial No. 71,893. PUBLISHED OCTOBER 7, 1913.
- 94,505. READY-MIXED PAINTS. SUNSET PAINT CO., Los Angeles, Cal. Filed July 7, 1913. Serial No. 71,589. PUBLISHED OCTOBER 7, 1913.
- 94,506. CAN-OPENERS. C. C. TRUAX & COMPANY, Toledo, Ohio. Filed August 9, 1913. Serial No. 72,257. PUBLISHED OCTOBER 7, 1913.
- 94,507. POLISH FOR FLOORS AND FURNITURE. THE VARN-O-WAX AND OIL COMPANY, Detroit, Mich. Filed July 1, 1912. Serial No. 64,518. PUBLISHED NOVEMBER 19, 1912.
- 94,508. REMEDY FOR CERTAIN NAMED DISEASES. AUGUST H. VORDICK, St. Louis, Mo. Filed July 16, 1913. Serial No. 71,790. PUBLISHED SEPTEMBER 30, 1913.
- 94,509. COTTON PIECE GOODS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 5, 1913. Serial No. 71,526. PUBLISHED OCTOBER 14, 1913.
- 94,510. LEATHER SHOES. BROCKTON PEOPLES SHOE CO., Brockton, Mass. Filed May 26, 1913. Serial No. 70,651. PUBLISHED OCTOBER 14, 1913.
- 94,511. COTTON PIECE GOODS. BURTON BROS. & CO., New York, N. Y. Filed August 1, 1913. Serial No. 72,095. PUBLISHED OCTOBER 14, 1913.
- 94,512. CARBONATED TONIC BEVERAGE AND SYRUP AND POWDER FOR MAKING SAME. C. M. & R. MANUFACTURING COMPANY, St. Joseph, Mo. Filed May 12, 1913. Serial No. 70,366. PUBLISHED OCTOBER 14, 1913.
- 94,513. LEATHER GLOVES. CARSON GLOVE CO., San Francisco, Cal. Filed April 21, 1913. Serial No. 69,943. PUBLISHED OCTOBER 14, 1913.
- 94,514. PAPER ADAPTED FOR CERTAIN PURPOSES. THE COTT-A-LAP COMPANY, Somerville, N. J. Filed May 14, 1913. Serial No. 70,416. PUBLISHED AUGUST 5, 1913.
- 94,515. HOOKS AND EYES. CHARLES H. CROWLEY, New York, N. Y. Filed August 4, 1913. Serial No. 72,150. PUBLISHED OCTOBER 14, 1913.
- 94,516. HAIR-NETS. EMIL DAVID, New York, N. Y. Filed September 20, 1913. Serial No. 72,967. PUBLISHED OCTOBER 14, 1913.
- 94,517. SATIN, SILK, AND SILK AND COTTON PIECE GOODS. SAMUEL EISEMAN & CO., New York, N. Y. Filed September 12, 1913. Serial No. 72,811. PUBLISHED OCTOBER 14, 1913.
- 94,518. BEER-COLORING. EMKEN CHEMICAL CO., New York, N. Y. Filed April 15, 1910. Serial No. 49,117. PUBLISHED OCTOBER 14, 1913.
- 94,519. YARNS. JACOB FRANK MERCANTILE CO., St. Louis, Mo. Filed February 4, 1913. Serial No. 68,305. PUBLISHED OCTOBER 14, 1913.
- 94,520. CERTAIN NAMED ARTICLES TO BE USED IN EMBROIDERING. JACOB FRANK MERCANTILE CO., St. Louis, Mo. Filed February 4, 1913. Serial No. 68,306. PUBLISHED OCTOBER 14, 1913.
- 94,521. SILK, SILK AND COTTON, AND COTTON-MIXED FABRICS. FRIED, MENDELSON & CO., New York, N. Y. Filed September 6, 1913. Serial No. 72,703. PUBLISHED OCTOBER 14, 1913.
- 94,522. CIDER. JOSE CIMA Y GARCIA, Oviedo, Spain. Filed August 8, 1912. Serial No. 65,156. PUBLISHED OCTOBER 14, 1913.
- 94,523. HAIR-NETS. JULIEN GIGUET, Lyon, France, and New York, N. Y. Filed August 30, 1913. Serial No. 72,599. PUBLISHED OCTOBER 14, 1913.
- 94,524. FABRIC FOR VEHICLE-TOPS. HERCULES RUBBER COMPANY, New York, N. Y. Filed September 18, 1913. Serial No. 72,941. PUBLISHED OCTOBER 14, 1913.
- 94,525. SEWING-THIMBLES MADE OF PRECIOUS METAL. KETCHAM & McDONOUGH, New York, N. Y. Filed July 24, 1913. Serial No. 71,052. PUBLISHED OCTOBER 7, 1913.
- 94,526. CORSETS. KOPS BROS., New York, N. Y. Filed June 11, 1913. Serial No. 71,018. PUBLISHED OCTOBER 14, 1913.
- 94,527. KNITTED FABRICS. MARINETTE KNITTING MILLS, Marinette, Wis. Filed June 30, 1913. Serial No. 71,448. PUBLISHED OCTOBER 14, 1913.
- 94,528. LEATHER SHOES. LOYD MCGINNIS, Canton, Ill. Filed July 28, 1913. Serial No. 72,009. PUBLISHED OCTOBER 14, 1913.
- 94,529. OVERALLS. MECHANICS UNION OVERALL CO., New York, N. Y. Filed July 22, 1913. Serial No. 71,886. PUBLISHED OCTOBER 14, 1913.
- 94,530. PRESERVATIVE OF RUBBER PRODUCTS. JAMES M. MUNYON, JR., New York, N. Y. Filed July 31, 1913. Serial No. 72,069. PUBLISHED SEPTEMBER 23, 1913.
- 94,531. COTTON CLOTH IN THE PIECE. PEMBERTON COMPANY, Lawrence, Mass. Filed June 11, 1912. Serial No. 64,124. PUBLISHED NOVEMBER 19, 1912.
- 94,532. EMBROIDERY FOUNDATIONS. G. REIS & BRO., New York, N. Y. Filed September 3, 1913. Serial No. 72,668. PUBLISHED OCTOBER 14, 1913.
- 94,533. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed May 21, 1913. Serial No. 70,544. PUBLISHED OCTOBER 7, 1913.
- 94,534. BOOTS, SHOES, SLIPPERS, AND OVERSHOES OF CERTAIN MATERIALS OR COMBINATIONS THEREOF. SHIVERTS & SIMON, New York, N. Y. Filed July 12, 1913. Serial No. 71,675. PUBLISHED OCTOBER 14, 1913.
- 94,535. ENVELOPS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed August 19, 1913. Serial No. 72,427. PUBLISHED OCTOBER 7, 1913.

LABELS

REGISTERED DECEMBER 9, 1913.

- 17,376.—Title: "SATISFACTION SOX." (For Socks.) WILBUR M. ALLING, New York, N. Y. Filed November 1, 1913.
- 17,377.—Title: "TOURIST'S TABLET." (For Writing-Tablets.) THE ARMS MFG. CO., South Deerfield, Mass. Filed July 21, 1913.
- 17,378.—Title: "ATLAS FLOOR OIL." (For a Preparation Used on Hardwood Floors.) BARCAL & BARTA, Chicago, Ill. Filed November 24, 1913.
- 17,379.—Title: "EVANGELINE TABASCO SAUCE." (For Tabasco Sauce.) ED. BULLIARD, St. Martinville, La. Filed October 27, 1913.
- 17,380.—Title: "DA HA MA BLUE PENNANT." (For Writing-Tablets.) THE DAVIS BROTHERS DRUG CO., Denver, Colo. Filed September 8, 1913.
- 17,381.—Title: "ROBERT WATT." (For Cigars.) ANDY DEHNER CIGAR CO., Burlington, Iowa. Filed November 1, 1913.
- 17,382.—Title: "EGYPTIAN CIGARETTES." (For Cigarettes.) LEOPOLD ENGELHARDT, G. M. B. H., Cairo, Egypt. Filed July 26, 1913.
- 17,383.—Title: "THE NEW WHITE HEATHER HANDKERCHIEF." (For Handkerchiefs.) A. HARDEN COMPANY, New York, N. Y. Filed November 11, 1913.
- 17,384.—Title: "RIP." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed Nov. 20, 1913.
- 17,385.—Title: "CONSUELA." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed November 20, 1913.
- 17,386.—Title: "HI-PO WATER-PROOF GUARANTEED DRY BATTERY." (For a Dry Battery.) HI-PO WATERPROOF BATTERY CO., Brooklyn, N. Y. Filed July 16, 1913.
- 17,387.—Title: "HUBER'S SUN-BEAM BREAD." (For Bread.) HUBER BAKING CO., Wilmington, Del. Filed November 15, 1913.
- 17,388.—Title: "KRONBERGER'S CALIFORNIA MENTHOLATED EUCALYPTUS DROPS." (For Eucalyptus Drops.) ISRAEL B. KRONBERGER, Oakland, Cal. Filed October 28, 1913.
- 17,389.—Title: "RHUM TIPO INGLESE." (For Rum.) MARIANI BROS., New York, N. Y. Filed March 6, 1912.
- 17,390.—Title: "LIQUORE CANNELLA." (For Alcoholic Liquors.) MARIANI BROS., New York, N. Y. Filed March 6, 1912.
- 17,391.—Title: "SAMBUCA PURISSIMA." (For Alcoholic Liquors.) MARIANI BROS., New York, N. Y. Filed March 6, 1912.
- 17,392.—Title: "SAG-PERU HAIR TONIC." (For a Hair-Tonic.) REXFORD J. MARTIN, New York, N. Y. Filed November 2, 1911.
- 17,393.—Title: "BLUE AND GOLD." (For Canned Corn.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed September 20, 1913.
- 17,394.—Title: "VALLEY PRIDE." (For Sugar-Corn.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed September 20, 1913.
- 17,395.—Title: "ARTESIAN." (For Canned Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed September 20, 1913.
- 17,396.—Title: "LE SUEUR." (For Canned Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed September 20, 1913.
- 17,397.—Title: "MINNESOTA VALLEY." (For Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed September 20, 1913.
- 17,398.—Title: "GOLD BOND." (For Japan Tea.) F. D. FARMER COMPANY, Omaha, Nebr. Filed November 18, 1913.
- 17,399.—Title: "GOLD BOND." (For Coffee.) F. D. FARMER COMPANY, Omaha, Nebr. Filed November 18, 1913.
- 17,400.—Title: "PLATT'S CHLORIDES." (For a Liquid Disinfectant.) MARY ESTELLA PLATT, New York, N. Y. Filed November 10, 1913.
- 17,401.—Title: "LITTLE PRINCESS." (For Brooms.) PREMIER BROOM & BRUSH CO., Amsterdam, N. Y. Filed November 7, 1913.
- 17,402.—Title: "MO-GO-CO." (For Brooms.) PREMIER BROOM & BRUSH CO., Amsterdam, N. Y. Filed November 7, 1913.
- 17,403.—Title: "MAYFLOWER." (For Brooms.) PREMIER BROOM & BRUSH CO., Amsterdam, N. Y. Filed November 7, 1913.
- 17,404.—Title: "MENA." (For Cigars.) REMQUERA & BERENGHER, New Orleans, La. Filed November 19, 1913.
- 17,405.—Title: "PYRAMID BRAND." (For Figs.) ROSENBERG BROS. & CO., San Francisco, Cal. Filed November 12, 1913.
- 17,406.—Title: "BON TON THE MOST PERFECT FITTING CORSET IN THE WORLD." (For Corsets.) ROYAL WORCESTER CORSET CO., Worcester, Mass. Filed November 15, 1913.
- 17,407.—Title: "VITTEL SOURCE SALÉE." (For Mineral Water.) SOCIÉTÉ GÉNÉRALE DES EAUX MINÉRALES DE VITTEL, Vittel, France. Filed November 12, 1913.
- 17,408.—Title: "O-U MOLASSES." (For Molasses.) VICTORIA SYRUP & COFFEE COMPANY, Victoria, Tex. Filed August 22, 1913.
- 17,409.—Title: "WALTER'S BEST QUALITY FLOUR." (For Flour.) J. A. WALTER MILLING CO., INC., Buffalo, N. Y. Filed November 13, 1913.
- 17,410.—Title: "RADAM'S." (For a Medicinal Preparation.) THE WILLIAM RADAM MICROBE KILLER COMPANY, New York, N. Y. Filed November 10, 1913.

PRINTS

REGISTERED DECEMBER 9, 1913.

- | | |
|--|---|
| <p>3,432.—Title: "GIRL CARRYING THE BOTTLE." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> <p>3,433.—Title: "GIRL HUGGING THE BOTTLE." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> <p>3,434.—Title: "GIRL WITH BOTTLE ON ICE." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> <p>3,435.—Title: "GIRL TAKING BOTTLE OUT OF BOX." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> <p>3,436.—Title: "GIRL ON THE BOTTLE." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> <p>3,437.—Title: "GIRL CARRYING TRAY." (For Grape-Juice.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 7, 1913.</p> | <p>3,438.—Title: "ANOKA." (For Collars.) CLUETT, PEABODY & Co., INC., Troy, N. Y. Filed October 15, 1913.</p> <p>3,439.—Title: "ARROW SHIRTS THERE IS AN ARROW SHIRT FOR EVERY INDOOR AND OUTDOOR OCCASION." (For Shirts.) CLUETT, PEABODY & Co., INC., Troy, N. Y. Filed November 20, 1913.</p> <p>3,440.—Title: "THE GAME OF SONG AND STORY." (For Games.) G. ROSS KORNE, Newark, Ohio. Filed October 23, 1913.</p> <p>3,441.—Title: "RUMFORD 'THE WHOLESOME' BAKING POWDER." (For Baking-Powder.) RUMFORD CHEMICAL WORKS, Providence, R. I. Filed November 15, 1913.</p> <p>3,442.—Title: "THE S. S. S. GIRL." (For a Blood Remedy.) THE SWIFT SPECIFIC COMPANY, Atlanta, Ga. Filed August 30, 1913.</p> |
|--|---|

TRADE-MARKS CANCELED.

- 57,862. PIANOS HAVING PLAYING ATTACHMENTS. THE AUTOPIANO Co., Newcastle, Ind. Registered November 13, 1906. Canceled November 10, 1913.

DECISIONS

OF THE COMMISSIONER OF PATENTS AND OF UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

UNIVERSAL MOTOR TRUCK CO. v. THE UNIVERSAL MOTOR CO.

Decided October 29, 1913.

TRADE-MARK—OPPOSITION—ANSWER UNDER OATH—DOES NOT HAVE EFFECT AS EVIDENCE.

Held that under the new equity rules an answer under oath does not have effect as evidence. If the applicant would have any weight given at final hearing to the allegations in the answer, he must substantiate them by proper proof.

ON PETITION.

TRADE-MARK FOR VEHICLES.

Messrs. Barthel & Barthel for Universal Motor Truck Co.

Mr. Harry Lea Dodson and Mr. Frank S. Appleman for The Universal Motor Co.

EWING, Commissioner:

This is a petition by The Universal Motor Co. that the Commissioner, in the exercise of his supervisory authority, review the decision of the Examiner of Interferences in this opposition rendered June 28, 1913, which was a decision denying a motion by the Universal Motor Truck Co. that the opposition be "dissolved."

The motion was based on the ground that an answer under oath not having been waived the sworn answer of the applicant was evidence and that the proofs introduced by the opposer were insufficient to overcome this sworn answer.

The Examiner of Interferences did not decide what weight should be given to a sworn answer where the answer under oath was not waived, but stated that the applicant would have a time fixed for the taking of its proofs and must assume the responsibility of either taking proofs at that time or of standing upon its answer.

Rule 41 of the former equity rules read in part as follows:

If the complainant, in his bill, shall waive an answer under oath, or shall only require an answer under oath with regard to certain specified interrogatories, the answer of the defendant, though under oath, except such part thereof as shall be directly responsive to such interrogatories, shall not be evidence in his favor, unless the cause be set down for hearing on bill and answer only.

It is contended that because this rule is not embodied in the new equity rules a sworn answer under oath is evidence in all cases whether the answer under oath be waived or not.

The notice of opposition was filed prior to the time when the new equity rules went into effect; but the answer was not filed until after that date, and un-

[Vol. 197.]

der Rule 81 the procedure in this case should follow the new rules.

Neither Rule 25 nor Rule 30 makes any reference to the filing of an answer under oath. Rule 31, however, provides that—

the cause shall be deemed at issue upon the filing of the answer, and any new or affirmative matter therein shall be deemed to be denied by the plaintiff.

Rule 53 provides for the filing of interrogatories and states that such interrogatories may be filed by the plaintiff at any time after filing the bill and not later than twenty-one days after the joinder of issue and that each interrogatory shall be answered separately in writing and under oath.

In view of the general character of the new equity rules and the provisions above pointed out it is my opinion that the effect of an answer under oath as evidence has been abolished, and since under Rule 31 the allegations of the answer are deemed to be denied upon the filing thereof the applicant must substantiate these allegations by proper proof if he would have any weight given to them at the final hearing.

The Examiner therefore properly refused to decide the case at this time upon the opposer's proofs and the pleadings.

EX PARTE MOORE.

Decided December 2, 1913.

1. APPLICATION—PROSECUTION—FINAL REJECTION.

Where in response to the rejection of a claim of the ground that it covers new matter the applicant filed an argument, an amendment to the specification, and a "supplemental" oath, Held that if the Examiner were still of the opinion that the claim covered new matter he properly made his rejection final.

2. SAME—SAME—SAME—PETITION TO SET ASIDE NOT BROUGHT WITHIN A YEAR—APPLICATION ABANDONED.

Where after a final rejection the proceedings before the Examiner are not such as would save the case from abandonment under the provisions of Rule 171, a petition brought more than a year after that rejection to have it set aside as premature raises a moot question.

ON PETITION.

HEATING AND VENTILATING SYSTEM.

Messrs. C. A. Snow & Co. for the applicant.

EWING, Commissioner:

This is a petition from the action of the Examiner refusing to enter an amendment filed after a final rejection and holding the case abandoned.

After each rejection applicant canceled the claims and presented others. On March 23, 1912, the Examiner rejected the claim then in the case as copy No. 2.]

ering new matter, pointing out specifically what features were not described in the application as originally filed. The specification was then amended to describe the features held to constitute new matter, and it was stated that certain of these features were shown in the drawing. As to others it was said:

In view of the fact that the drawings and specification fail to disclose whether or not the spaces are open or closed at their upper and lower ends, it is thought that the Examiner should accept applicant's statement to the effect that the spaces are open at their ends particularly if said statement is accompanied by a supplemental oath.

An affidavit of the applicant was attached to the amendment.

On September 12, 1912, the Examiner made his rejection final.

An amendment was filed August 1, 1913, canceling the previous amendment to the specification and the claim which had been finally rejected and presenting a new claim. This amendment the Examiner refused to enter. On September 11, 1913, a request for reconsideration was filed. The Examiner then held the case abandoned for lack of responsive prosecution.

Applicant contends that the final rejection was premature, since his second amendment was accompanied by a supplemental oath which it was presumed would overcome the Examiner's rejection, and that he should have been given an opportunity either to insist upon the admission of the matter referred to in the supplemental oath or to acquiesce in the Examiner's position and eliminate this matter.

The contention is not well taken. The office of a supplemental oath is not to justify the introduction of new matter, but to cover matter disclosed but not substantially embraced in the statement of invention or in the original claims. (*Stewart v. Ellis*, 49 O. G., 1933; *ex parte Latta*, 53 O. G., 2041.) The Examiner being still of the opinion that the claim included new matter properly made his rejection final.

Rejection having been properly made final and no appeal having been taken within one year from the date thereof, the application now stands abandoned.

This petition has been considered, though not brought within one year of the final rejection, because of the ruling in *ex parte Fowler*, (127 O. G., 1578.) in which it was held that in a case like the present the fact that applicant asked for reconsideration of the Examiner's refusal to admit an amendment within the year from the final rejection was sufficient to entitle his petition to consideration, even though not brought until more than a year after that rejection.

That ruling, however, is, in my opinion, not in conformity with Rule 171, which reads in part as follows:

Prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require. The admission of an amendment not responsive to the last official action, or refusal to admit the same, and any proceedings relative thereto, shall not operate to save the application from abandonment under section 4894 of the Revised Statutes.

When the proceedings before the Examiner do not operate to save a case from abandonment, a petition brought after the expiration of the year from the final rejection that such rejection be set aside

[Vol. 197. No. 2.]

raises a moot question. If the fact that applicant asked for reconsideration within the year is sufficient, as held in *ex parte Fowler*, it will only be necessary to bring the petition within a year from the Examiner's second refusal to set aside his final rejection. The result of such a practice would be a two years' delay after the final rejection.

The decision in *ex parte Fowler*, *supra*, is overruled to the extent indicated.

The petition is denied.

EX PARTE WHEARY.

Decided November 4, 1913.

APPLICATION—PROSECUTION—RESPONSIVE ACTION.

Where at the end of the year following a rejection a telegram was received stating that the reference did not show certain features of the claim and asking for a specific application of the references, which telegram was confirmed by a letter received a few days later, Held that in view of the record of the case the action was responsive and the application not abandoned.

ON PETITION.

CLOTHES-RETAINER.

Messrs. Morsell and Caldwell for the applicant.

FRAZIER, First Assistant Commissioner:

This is a petition from an action of the Primary Examiner holding the above-entitled case abandoned for failure to properly prosecute within one year from the last Office action.

The record shows that under date of March 30, 1912, the Examiner rejected all of the claims in the case on certain references. A formal objection to claim 3 was made to the effect that it is not clear how the projecting portions of the engaging member can brace the trunk portions. On March 29, 1913, a telegram was received from the attorneys of record and entered in the file, reading as follows:

Reconsideration of Examiner's action dated March thirtieth nineteen hundred twelve in George H. Wheary application clothes retainer six hundred thirty six nine thirty requested as reference do not show a retainer bar which also serves to brace the trunk body. Application of Clements (elements) as in responding to an appeal requested.

This telegram was confirmed by a letter received from the attorneys on April 4, 1913.

The response by telegram, if in substance sufficient to satisfy the requirements of the last official letter, would be, in my judgment, a responsive action within the meaning of the rules. It is to be observed that applicant in this telegram gives as a specific reason for his request for reconsideration of the claims that the—

references do not show a retainer bar which also serves to brace the trunk body.

With the amendment filed March 15, 1912, applicant said:

These three claims recite a structure in which the bar engaging member is formed with a rear portion having forwardly extending side portions which are engaged by the locking means of the retainer, thereby providing, in substance, a rectangular inner reinforcing frame for the trunk which is adapted to brace the trunk in all directions of strain, both inwardly and outwardly. In the references cited, the bar engaging means is formed in two parts which are fastened to opposite sides of the trunk and are not connected together and braced on their inner ends, and on their outer end portions are only braced by the retainer bar with relation to a crushing strain from the outside, as no means are provided for preventing the sides from spreading away from each other. This feature is of great importance in trunk manufacture and is not shown in the references cited.

In all the claims this specific form of retainer, also serving to brace the trunk-body, is the feature on which applicant relies for insisting upon the patentability of the claims. In view of this fact it is believed that applicant's telegraphic response, containing, as it does, the reason why applicant does not regard the references as negating patentable novelty of the claims, is sufficient response.

As to the formal criticism, it would seem that the specification and applicant's argument with his amendment of March 30, 1912, fairly answer or at least attempt to answer that objection. This objection, it may be noted, tends to question the validity of the function claimed for the retainer. If such were the intention of the Examiner, it would seem that such criticism should have been applied not to claim 3 only but to all of the claims, since the retainer-bar and its cooperating elements are found in all the claims. The function is not expressed in the same words. That function, however, must necessarily follow from the construction defined.

The concluding sentence of the official letter of March 30, 1912, moreover, appears to have called for the expression in the last sentence of applicant's telegram and amendment confirmatory thereof. Under all the circumstances of the case, therefore, the Examiner, in my judgment, could have treated the telegram and its confirmatory amendment as a sufficient response to the last official action and given the necessary action to put the case in condition for appeal, if his judgment still remained the same as to the pertinency of the references.

It is further noted that applicant appears to have been reasonably diligent in his previous prosecution and shows no disposition to make merely dilatory actions. Under these circumstances a liberal rather than a restricted view should be taken of his attempt to meet the Examiner's views in his last Office action.

The petition is therefore granted.

IN RE ROSELL.

Decided November 10, 1913.

POWER OF ATTORNEY—REVOCATION—CAN BE REFUSED RECOGNITION ONLY IF COUPLED WITH INTEREST.

A power of attorney may be revoked at any time during the prosecution of the application unless the power is coupled with an interest.

ON PETITION.

FRAZIER, First Assistant Commissioner:

On October 31, 1913, a petition was filed by Claude A. O. Rosell asking, first, that his powers of attorney in all of the applications Serial Nos. 767,890, 769,323, and 770,044 be reinstated and recognized in such cases; second, that no final Government fees be accepted and applied to any of the said applications unless and until the petitioner's bill for services be paid and settled by the applicant or certain parties mentioned as obligated to bear the expenses for the preparation of said applications; third, that the petitioner be held, in fact, to have irrevocable powers of attorney in said cases, and, fourth, that as the revocation of his powers of attorney were made *ex parte* the restoration

[Vol. 197.

thereof would be merely *ex parte*, subject, if necessary, to the result of any hearing *inter partes*.

By direction of the Commissioner the Office refused to entertain this petition on the ground that there is no provision of law under which the Commissioner can discipline inventors or applicants who fail to meet their just obligations to their attorneys, and the petitioner was so informed by letter of November 3, 1913.

In response to this letter the petition is renewed under date of November 7, 1913, in which renewal the Commissioner's attention is called to the disposition of the petition filed by G. R. Hamlin, of Washington, D. C., dated June 14, 1913. The latter case has been carefully considered by the Office; but no reason is found therein for altering the judgment heretofore reached in this matter.

There is no provision of law giving to the Commissioner authority to refuse to accept the revocation of a power of attorney and the appointment of another attorney at any time during the prosecution of the application for patent.

As was said in *ex parte Gallatin*, (59 O. G., 1104:)

The Commissioner of Patents has no judicial authority to take action in disputed questions of title under an assignment, nor is it ordinarily within his discretion to interfere to prevent the revocation of a power of attorney by an applicant.

The only exception known under which the Commissioner may act as desired in this case is where the power of attorney is coupled with an interest.

There is no such condition in the present case. The failure of the applicant to pay his just obligations to the attorney does not couple with the power of attorney, under which the latter acts, an interest which the Commissioner can so recognize as to invest him with discretion in this matter. The Office is not supplied by law with either the power or the machinery to try the question of the kind here presented. It is purely a question arising under a contract and can only be tried as ordinary civil actions in a proper court. In a somewhat similar case the Commissioner, in *ex parte Morley*, (37 O. G., 337,) said:

Where the plain and unquestioned relation simply of principal and agent, or attorney in fact, and applicant exists, and there is nothing to indicate that such attorney in fact has any interest whatever in the subject-matter of the application, I know of no right or authority on the part of the Office to refuse to recognize the cancellation of the power theretofore given. The Office can only decline to recognize and act upon the same arbitrarily and without legal reason.

For the foregoing reasons the Commissioner is compelled to deny the petition.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

UNIVERSAL MOTOR TRUCK Co. v. UNIVERSAL MOTOR Co.

Decided December 1, 1913.

1. COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—INTERLOCUTORY DECISION OF THE COMMISSIONER OF PATENTS—SPECIAL APPEAL THEREFROM NOT GRANTED.

The act organizing the Court of Appeals of the District of Columbia contains no provision for allowing appeals from interlocutory orders of the Commissioner

No. 2.]

of Patents. Only final decisions of the Commissioner of Patents in certain cases can be appealed.

2. SAME—SAME—WRIT OF CERTIORARI NOT GRANTED TO REVIEW.

A writ of certiorari will not be granted by the Court of Appeals of the District of Columbia to review an interlocutory order of the Commissioner of Patents.

SHEPARD, C. J.:

This is an application for appeal by the Universal Motor Co. from an interlocutory decision of the Commissioner of Patents.

The litigation in the Patent Office is between the applicant for, and the opposer of the registration of a trade-mark.

Appeals from interlocutory orders of the Supreme Court of the District of Columbia may, by special provision of section 7 of the act organizing this court, be allowed from interlocutory orders; but no such provision is to be found in section 9 which confers appellate jurisdiction over the Patent Commissioner. Only final decisions of the Commissioner of Patents in certain cases can be appealed.

Falling the power to grant an appeal, the applicant prays for a writ of certiorari. The grant of a writ of certiorari is the function of a court of original jurisdiction when its purpose is to obtain review of a final order of an inferior tribunal acting in a judicial capacity in a particular case. And in such cases, when allowable at all, there must be no other remedy. (*Dege v. Hitchcock*, 229 U. S., 162, 171.)

This court has only appellate jurisdiction in such cases.

The petition is dismissed.

Dismissed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Daley patent, No. 644,664, for a furnace, *Held* valid and infringed on motion for preliminary injunction. *Underfeed Stoker Co. of America v. Riley*, 207 Fed. Rep., 963.

(U. S. C. C. A.) The Monahan and Kieren patents, Nos. 638,739 and 785,070, for grass-twine machines, *Held* valid, but not infringed. *Oshkosh Grass Matting Co. v. Waste Grass Carpet Co.*, 207 Fed. Rep., 937.

(U. S. C. C. A.) The Welin patent, No. 825,784, for an automatic playing attachment for musical instruments, *Held* not valid on its face. *Krell Auto Grand Piano Co. of America v. Story & Clark*, 207 Fed. Rep., 946.

(U. S. D. C.) The Sulman, Picard, and Ballot patent, No. 835,120, for a process of ore concentration, *Held* valid and infringed. *Minerals Separation v. Hyde*, 207 Fed. Rep., 956.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 28, 1913.

Samuel K. Elliott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Weigel, Hoshaw & Heare, North

Yakima, Wash., for registration of a trade-mark and a trade-mark registered May 22, 1906, No. 53,071, to Samuel K. Elliott, 222 East Pico street, Los Angeles, Cal., and a notice of such declaration sent by registered mail to said Samuel K. Elliott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Samuel K. Elliott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 28, 1913.

J. Lichtenstein & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Corset H Company, 40 Jackson street, Worcester, Mass., for registration of a trade-mark and trade-mark registered October 9, 1894, No. 25,307, to J. Lichtenstein & Sons, 64-66 West Twenty-third street, New York, N. Y., and a notice of such declaration sent by registered mail to said J. Lichtenstein & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. Lichtenstein & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

Changes in Classification.

(ORDER No. 2,084.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 20, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 105, Railway Rolling Stock, (Division XXXIV,) abolish the following subclasses, the patents formerly contained therein having been placed in class 258, Railway Mail Delivery, hereinafter established:

Mail-bag delivery—

- 230. Car forks,
- 231. Catchers and cranes,
- 232. Cranes,
- 261. Projectors.

Establish in Division IV—

CLASS 258.—RAILWAY MAIL DELIVERY,

with the following subclasses and definitions, this class being composed of the patents formerly contained in the four subclasses of class 105, Railway Rolling Stock, hereinbefore abolished:

CLASS 258.—RAILWAY MAIL DELIVERY. (IV.)

Subclasses.

- 8. Car-positioned receiver or support.
- 11. Combined receiver and support—
- 12. Fork and other receiver—
- 13. Retaining feature,
- 14. Fork receiver only—
- 15. Receiver engaging feature,
- 16. Retaining feature—
- 17. Impact operated load release,
- 18. Receiver engaging feature,
- 19. Impact operated load release.
- 2. Hand tools.
- 9. Laterally sliding receiver or support.
- 10. Longitudinally extending auxiliary track.
- 4. Magnetic.
- 1. Miscellaneous.
- 5. Projectors—
- 6. Automatically actuated—
- 7. Spring.
- 20. Receivers—
- 21. Fork—
- 22. Retaining feature.
- 2. Signaling feature.
- 23. Supports—
- 25. Impact operated load release,
- 24. Interconnected arms,
- 26. Receiver engaging feature.

R. T. FRAZIER,
Acting Commissioner

[Vol. 197. No. 2.]

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 197—No. 3.

TUESDAY, DECEMBER 16, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF DECEMBER 16, 1913.....	537
ADVERSE DECISIONS IN INTERFERENCE.....	537
AMENDMENTS.....	537
DATE OF PATENT.....	538
APPLICATIONS UNDER EXAMINATION.....	539
PATENTS GRANTED.....	786
REISSUES.....	787
DESIGNS.....	761
TRADE-MARKS—REGISTRATION APPLIED FOR.....	777
TRADE-MARKS—REGISTERED.....	778
PRINTS.....	778
COMMISSIONER'S DECISIONS—	
Ex parte Croveling.....	779
Ex parte Richard Hudnut.....	779
Ex parte William R. Moore Dry Goods Company.....	780
Ex parte The U. S. Cereal Company.....	780
DECISIONS OF THE U. S. COURTS—	
J. H. Sager Co. v. Emil Grossman Co.....	781
ADJUDICATED PATENTS.....	781
INTERFERENCE NOTICES.....	782
CHANGES IN CLASSIFICATION.....	782

ISSUE OF DECEMBER 16, 1913.

Patents.....	652—No. 1,081,288 to No. 1,081,940, inclusive.
Designs.....	14—No. 45,089 to No. 45,092, inclusive.
Trade-Marks.....	34—No. 94,588 to No. 94,599, inclusive.
Labels.....	None.
Prints.....	1—No. 3,443.
Reissues.....	2—No. 13,687 to No. 13,688, inclusive.
Total.....	704

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	6	1	North Carolina.....	6	1
Arizona.....	5	1	North Dakota.....	1	1
Arkansas.....	5	1	Ohio.....	28	3
California.....	25	1	Oklahoma.....	4	1
Colorado.....	13	1	Oregon.....	5	1
Connecticut.....	15	1	Pennsylvania.....	54	3
Delaware.....	4	1	Rhode Island.....	2	1
Florida.....	4	1	South Carolina.....	4	1
Georgia.....	1	1	South Dakota.....	6	1
Idaho.....	3	1	Tennessee.....	3	1
Illinois.....	63	1	Texas.....	10	1
Indiana.....	14	1	Utah.....	1	1
Iowa.....	9	1	Vermont.....	1	1
Kansas.....	13	1	Virginia.....	10	1
Kentucky.....	1	1	Washington.....	7	1
Louisiana.....	3	1	West Virginia.....	4	1
Maine.....	2	1	Wisconsin.....	19	2
Maryland.....	10	1	Wyoming.....	1	1
Massachusetts.....	66	1			
Michigan.....	18	3	Alaska, District of.....		
Minnesota.....	8	1	Canal Zone.....		
Mississippi.....	1	1	District of Columbia.....	10	1
Missouri.....	19	1	Hawaii Territory.....		
Montana.....	5	1	Philippine Islands.....		
Nebraska.....	5	1	Porto Rico.....		
Nevada.....	2	1	U. S. Army.....		
New Hampshire.....	2	1	U. S. Navy.....		
New Jersey.....	40	1			
New Mexico.....	1	1	Total to residents of the United States.....	600	26
New York.....	81	7			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....			Netherlands.....	1	
Austria-Hungary.....	4		Newfoundland.....		
Belgium.....	1		New South Wales.....	2	
British India.....			New Zealand.....	1	
Brasil.....			Norway.....	1	
British West Indies.....			Portugal.....	1	
Canada.....	11		Queensland.....		
Cape Colony.....			Roumania.....	1	
Chile.....			Russia.....	1	
Cuba.....			Scotland.....		
Czechoslovakia.....	1		South Australia.....		
Denmark.....	1		Spain.....		
Dominican Republic.....	8	2	Sweden.....	2	
England.....	1	3	Switzerland.....	3	
France.....	26	1	Transvaal, South Africa.....		
Germany.....	1	1	Victoria.....	1	
India.....			Wales.....		
Ireland.....					
Italy.....	2		Total to residents of foreign countries.....	67	6
Japan.....					
Mexico.....					

Adverse Decisions in Interference.

PATENT No. 1,004,515.

On November 15, 1913, a decision was rendered that Joseph Willmann was not the first inventor of the subject-matter covered by claims 1, 2, and 3 of his Patent No. 1,004,515, and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,069,436.

On November 26, 1913, Harry A. Lacerda was held not the first inventor of the invention covered by claims 1 and 3 of his Patent No. 1,069,436 in view of a concession of priority as to the subject-matter filed by him and his assignee November 22, 1913.

Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

Date of Patent.

RULE 207. The weekly issue closes on Thursday, and the patents of that issue bear date as of the fourth Tuesday thereafter. If the final fee in any application is not paid on or before Thursday, the patent will not go to issue until the following week.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 13, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct.	Oct. 7	774
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Frames; Store-Service; Tobacco.	Aug. 2	Oct. 1	714
178	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Nov. 7	Nov. 24	234
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Sept. 6	Sept. 15	915
167	5. Bookbinding; Harvesters; Jewellery; Music.	Sept. 3	Oct. 7	710
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Aug. 4	Sept. 10	931
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	June 28	Oct. 17	1015
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 7	Nov. 1	982
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	June 16	Oct. 22	700
236	10. Carriages and Wagons.	Aug. 16	Oct. 1	1388
184	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Nail-making; Leather Manufacture; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 6	Oct. 17	449
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 25	Aug. 15	1620
339	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting; Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 16	Oct. 6	709
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 17	Oct. 17	619
308	15. Bread, Pastry, and Confection Making; Cooking; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	June 9	Sept. 17	1513
100	16. Radiant Energy; Telegraphy; Telephony.	July 29	Sept. 11	512
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Oct. 11	Nov. 6	340
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 13	Nov. 1	277
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	July 19	Oct. 20	777

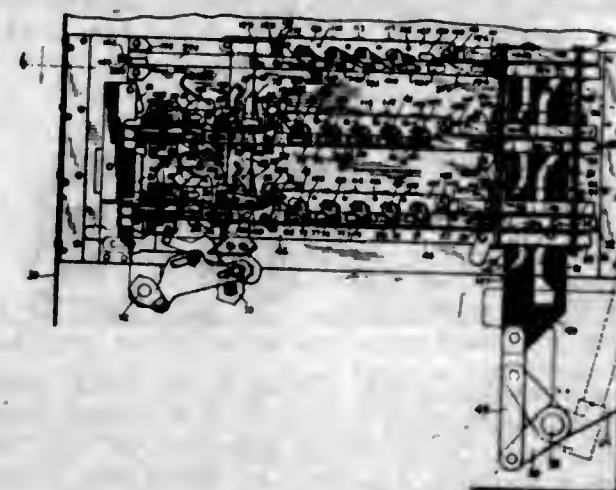
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Saws; Undertaking.	Oct. 11	Oct. 18	357
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	July 21	Sept. 23	687
249	22. Aeronautics; Air-Guns, Cata-pults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Sept. 2	Sept. 29	484
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 10	Oct. 6	587
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Oct. 2	Oct. 14	689
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 10	Oct. 23	364
106	26. Electricity, Generation; Motive Power.	July 21	Sept. 4	716
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 1	Oct. 21	676
65	28. Internal-Combustion Engines.	Aug. 19	Oct. 7	932
147	29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	July 19	Aug. 1	834
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 6	Nov. 25	283
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils, Oils, Fats, and Glue.	Sept. 4	Sept. 25	522
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Aug. 1	Oct. 28	562
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 25	Oct. 11	506
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Oct. 25	Oct. 28	428
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Aug. 23	Nov. 7	747
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Sept. 16	Oct. 2	995
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 24	July 8	900
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	Sept. 22	1001
321	39. Water Distribution.	Sept. 6	Sept. 25	653
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 7	Oct. 16	1231
125	41. Railway Draft Appliances; Re-entrant Tires and Wheels.	Oct. 20	Oct. 14	531
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 2	July 3	1112
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 20	Nov. 7	341
Oldest new case, Apr. 24; oldest amended, July 3.				
Total number of applications awaiting action				31,264
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Sept. 11	Oct. 16	1051
	Designs	Oct. 21	Nov. 24	235
	Labels and Prints	Nov. 25	Nov. 11	101

PATENTS

GRANTED DECEMBER 16, 1913.

1,081,288. VOTING MECHANISM FOR VOTING-MACHINES. CHARLES C. ABBOTT, Pittsfield, Mass., assignor to Triumph Voting Machine Company, Pittsfield, Mass., a Corporation of New Jersey. Filed Jan. 6, 1913. Serial No. 740,423. (Cl. 235-54.)



1. The combination with counters, voting members movable to engage and disengage said counters respectively, a bodily movable carrier for said counters, and means to actuate said counter carrier to cause the operation of all counters engaged by voting members, of automatic means for positively insuring the complete engagement or disengagement of each voting member with its counter.

2. The combination with counters, voting members having counter dogs, said voting members being movable to cause said counter dogs to engage and disengage said counters respectively, a bodily movable carrier for said counters, and means to actuate said counter carrier to cause the operation of all counters engaged by counter dogs, of automatic means directly engaging and moving said counter dogs for positively insuring the complete engagement or disengagement of each counter dog with its counter.

3. The combination with counters, a cam bar, and voting members movable to engage and disengage said counters, of means actuated by said cam bar for resetting operated voting members, and means actuated by said cam bar for positively insuring the proper cooperation of said voting members and counters.

4. The combination with counters and voting members movable to engage and disengage said counters, of an actuating bar, pivoted dogs carried by said bar, and means for operating said bar to cause said dogs to engage said voting members.

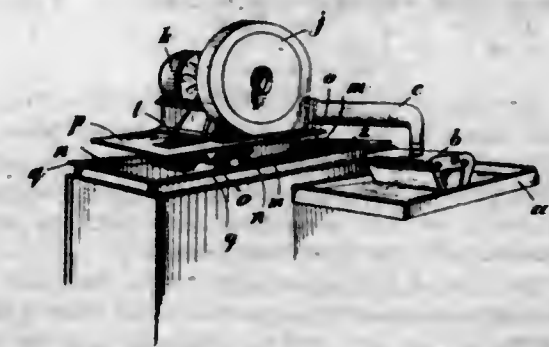
5. The combination with counters and voting members movable to engage and disengage said counters, of an actuating bar, pivoted dogs carried by said bar, said dogs and bar being provided with cooperating means for limiting the movement of said dogs on their pivots, and means for operating said bar to cause said dogs to engage the voting members.

[Claims 6 to 84 not printed in the Gazette.]

1,081,289. ETCHING-MACHINE. EUGEN ALBERT, Munich, Germany. Filed May 25, 1912. Serial No. 699,689. (Cl. 41-9.)

1. The combination in an etching machine, of a blast nozzle having an outlet just beneath the surface of a considerable bulk of acid in a tray or tub, means for holding the particular part of the object which is to be etched

adjacent to but below the level of the blast nozzle, and means for causing longitudinal movement of the said surface and the blast nozzle in regard to each other.



2. The combination in an etching machine, of a blast nozzle having an outlet just beneath the surface of a considerable bulk of etching fluid in a tray or tub, means for holding the particular part of the object which is being etched in such a position below the surface of the fluid that it interposes a resistance to the current of fluid driven by the blast, and means for causing longitudinal movement of the surface being etched and the blast nozzle in regard to each other, substantially as and for the purpose set forth.

3. The combination in an etching machine, of a blast nozzle having an outlet just beneath the surface of a considerable bulk of etching fluid in a tray or tub, means for holding the particular part of the object being etched adjacent to, but below the surface of the fluid, a second blast nozzle in similar but relatively opposite location to the first blast nozzle in relation to the object to be etched, which projects a second air blast in opposition to the first, for the purpose of creating a resistance thereto in the fluid, and means for causing longitudinal movement of the surface being etched and the blast nozzles in regard to each other, substantially as described herein.

4. The combination in an etching machine, of a blast nozzle having an outlet just beneath the surface of a considerable bulk of etching fluid in a tray or tub, means for holding the particular part of the object being etched adjacent to, but below the surface of the fluid, means for supplying a blast of air to said nozzle, and means for causing longitudinal movement of the surface being etched and the blast nozzle in regard to each other, substantially as described.

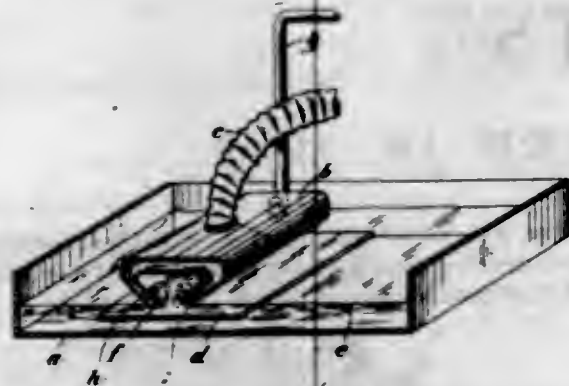
5. In an etching machine, the combination of a two passage blast nozzle having downwardly directed converging outlets just beneath the surface of a considerable bulk of etching fluid, means for bringing compressed air to the said nozzle, an exhaust pipe connected to the space between the outlet branches of the blast device, and means for causing longitudinal movement of the surface being etched and the blast nozzles in regard to each other, substantially as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,081,290. ETCHING PROCESS. EUGEN ALBERT, Munich, Germany. Filed May 25, 1912. Serial No. 699,690. (Cl. 41-42.)

1. The process of etching consisting in directing a current of compressed air on to the etching acid, producing a resistance to the said air current by the deformation of the liquid surface into a furrow, or air groove, placing a part of the object to be etched just beyond the

surface of the acid in said furrow, and displacing the etched portion of said object and the air current in relation to each other, substantially as and for the purpose set forth.



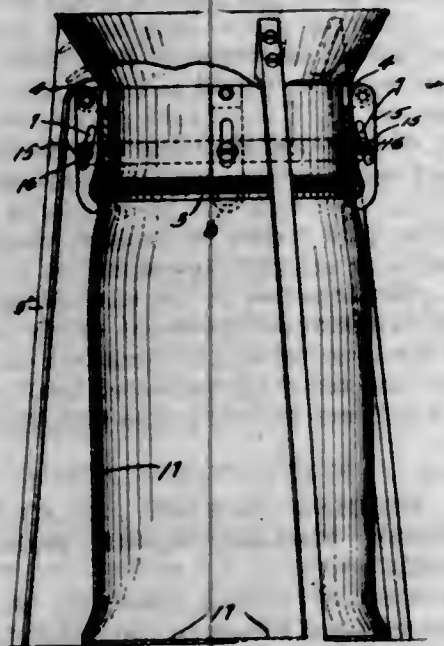
2. The process of etching consisting in directing a current of air against the object to be etched placed just beneath the surface of the etching acid, and in opposing a resistance to the movement of the liquid displaced by the air current so that the liquid is broken up and agitated, substantially as described herein.

3. The process of etching consisting in directing a current of air against the object to be etched placed just beneath the surface of the etching acid, and in opposing a direct resistance to the movement of the liquid displaced by the air current by means of a second air current, substantially as and for the purpose set forth.

4. The process of etching consisting in directing a current of air against the object to be etched placed just beneath the surface of the etching acid, and in opposing a direct resistance to the movement of the liquid displaced by the air current by means of a second air current the two said air currents converging toward the surface of the object to be etched, substantially as described herein.

5. The process of etching consisting in directing a current of air against the object to be etched placed just beneath the surface of the etching acid, and in opposing a direct resistance to the movement of the liquid displaced by the air current by means of a second air current the two said air currents converging toward the surface of the object to be etched and being of a concentrated lineal character applied transversely of the object, and in producing relative to each other a movement between said object and the air blast, which movement has a longitudinal direction as regards the plate.

1,081,291. BAG-HOLDER. OLAF ANDERSON, Erskine, Minn. Filed June 9, 1913. Serial No. 772,687. (Cl. 83-26.)

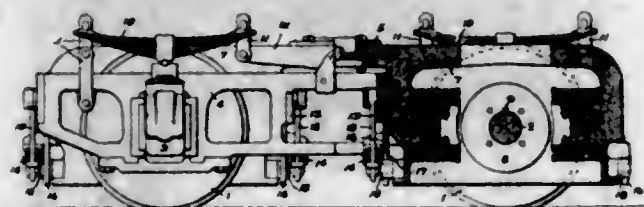


1. In a bag holder, a cone formed with a bulged annular base and suitably supported, clamps pivotally secured

to said cone and provided with angular slots, slotted springs secured to said cone, a ring disposed about said cone and provided with means for slidably engaging the slotted portions of said clamps and springs, and lugs formed integral with said springs.

2. In a bag holder, a cone formed with a bulged annular base and suitably supported, clamps pivotally secured to said cone and provided with angular slots and recessed terminations for engagement with the said bulged annular base, springs secured to said cone and slotted in the plane of the slotted portions of said clamps, a ring disposed about said cone and provided with means for slidably engaging the slotted portions of said clamps and springs, and lugs formed integral with said springs.

1,081,292. LOCOMOTIVE-TRUCK. ASA F. BATCHELDER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 3, 1913. Serial No. 739,926. (Cl. 105-259.)



1. In a locomotive truck, a truck frame, axles, journal boxes for said axles slidably mounted in said truck frame, said truck frame being spring supported on said journal boxes, a platform, a member on which said platform is supported, said member being spring supported on said truck frame, and means for pivoting said member on said truck frame about an axis disposed longitudinally of said truck.

2. In a locomotive truck, a truck frame, axles, journal boxes for said axles slidably mounted in said truck frame, said truck frame being spring supported on said journal boxes, a platform, a member on which said platform is supported, said member being spring supported on said truck frame, and a pivotal connection between said member and said truck for pivoting said member about an axis disposed longitudinally of said truck.

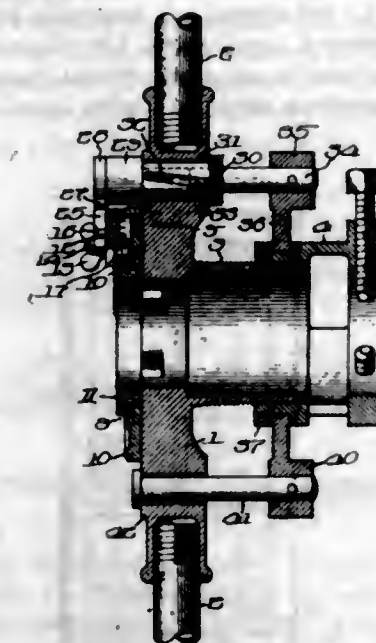
3. In a locomotive truck, a truck frame, axles, journal boxes for said axles slidably mounted in said truck frame, said truck frame being spring supported on said journal boxes, a platform, a member on which said platform is supported, said member being spring supported on said truck frame and having a projecting portion, and a member projecting from said truck frame and engaged by the projecting portion of the first mentioned member for pivoting said first mentioned member about an axis disposed longitudinally of said truck.

4. In a locomotive truck, a truck frame, axles, electric motors comprising armatures surrounding said axles and field portions, journal boxes for said axles slidably mounted in said truck frame, a system of spring suspension for supporting said truck frame on said journal boxes, a platform, a member on which said platform is supported comprising said field portions of the motors, a system of spring suspension for supporting said member on said truck frame, and means for pivoting said member on said truck frame about an axis disposed longitudinally of said truck.

5. In a locomotive truck, a truck frame, axles, electric motors comprising armatures surrounding said axles and field portions, journal boxes for said axles slidably mounted in said truck frame, a system of spring suspension for supporting said truck frame on said journal boxes, a platform, a member on which said platform is supported comprising said field portions of said motors, a system of spring suspension for supporting said member on said truck frame, and a pivotal connection between said member and said truck frame for pivoting said member about an axis disposed longitudinally of said truck.

[Claim 6 not printed in the Gazette.]

1,081,293. DIE-STOCK. CHARLES T. BENSON, Chicago, Ill., assignor to The Nye Tool and Machine Works, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1912. Serial No. 681,524. (Cl. 10-122.)



1. In a die stock, the combination of a work holder, a stock body having screw connection therewith, chasers radially movable in said stock body, a cam plate rotatable relatively to the stock body and adapted to control the chasers radially, an interfitting rod and sleeve mechanism connected to said cam plate for rotating it relatively to the stock body, said rod and sleeve mechanism comprising two cooperating parts having a cam and pin connection, and means connected to said work holder for producing relative movement between the said two cooperating parts of the rod and sleeve mechanism to thereby cause one of said two cooperating parts to operate the other.

2. In a die stock, the combination of a work holder, a stock body having screw connection therewith, chasers radially movable in said stock body, a cam plate rotatable relatively to the stock body and adapted to control the chasers radially, a sleeve connected to said cam plate for rotating it relatively to the stock body, a controlling rod having a cam and pin connection with said sleeve for operating it, and a ring mounted on said work holder for operating said controlling rod.

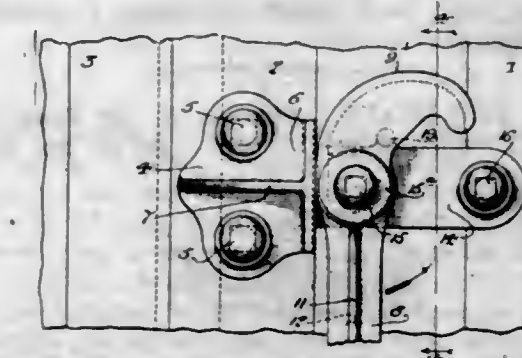
3. In a die stock, the combination of a work holder, a stock body having screw connection therewith, chasers radially movable in said stock body, a cam plate rotatable relatively to the stock body and adapted to control the chasers radially, a rider adjustably attached to said cam plate, and means for operating said rider to rotate the cam plate relatively to the stock body, said operating means comprising a ring on the work holder, and an interfitting rod and sleeve, one of which is connected to said ring and the other to said rider, said rod and sleeve having a slot and pin connection with each other.

4. In a die stock, the combination of a work holder, a stock body having screw connection therewith, chasers radially movable in said stock body, a cam plate rotatable relatively to the stock body and adapted to control the chasers radially, a rider slidably mounted on said cam plate, means for clamping said rider to said cam plate, a rotatable sleeve connected to said rider, a controlling rod having a slot and pin connection with said sleeve, and a rotatable longitudinally fixed ring for operating said controlling rod.

5. In a die stock the combination of a work holder, a stock body having screw connection therewith, chasers radially movable in said stock body, a cam plate rotatable relatively to the stock body and adapted to control the chasers radially, said cam plate having a narrow mouth slot concentric with the work, a rider slidably mounted on said cam plate, a clamping device entering partially into said slot for holding the rider adjustably to the cam plate,

a ring on the work holder, an interfitting rod and sleeve, one connected to said ring and the other to said rider, and a slot and pin connection between said rod and sleeve. [Claims 6 and 7 not printed in the Gazette.]

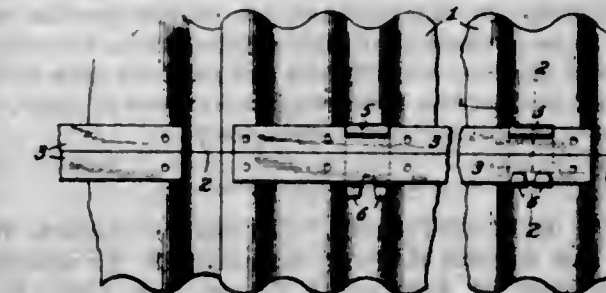
1,081,294. MECHANISM FOR OPENING DOORS OF FREIGHT-CARS. WILLIAM W. DARROW, Chicago, Ill. Filed June 27, 1913. Serial No. 776,154. (Cl. 80-92.)



1. The combination with a car door and its frame, of a stop plate mounted upon one of said parts and an operating lever pivotally mounted upon the other of said parts, said operating lever being provided with a cam-shaped projection to contact with said stop plate, the weight of said operating lever being arranged to normally hold the parts of said lever at one side of the edge of the part whereon the lever is mounted to avoid obstructing the door opening.

2. The combination with a car door and its frame, of a stop plate mounted upon one of said parts and an operating lever pivotally mounted upon the other of said parts, said operating lever being provided with an end projecting beyond its pivot to contact with said stop plate, a plate having formed integrally therewith a boss passing through said operating lever and a stop to engage said lever, and a retaining bolt passing through said lever and said boss, said lever being arranged so that when in normal position all parts thereof shall be at one side of the edge of the part whereon the lever is mounted.

1,081,295. FASTENING MEANS FOR BUTT-JOINT METAL CULVERTS. JOHN H. DEAN, Birmingham, Ala. Filed Apr. 15, 1913. Serial No. 761,310. (Cl. 61-9.)



1. A key or clip adapted to engage the sides of butt joint culverts for holding and retaining the longitudinal meeting edges of said culvert in abutting relation, said key having a flange across its top portion and also provided at its lower portion with a plurality of bendable fingers for the purpose specified.

2. A key or clip adapted to engage the sides of butt joint culverts for holding and retaining the longitudinal meeting edges of said culvert in abutting relation, said key having a flange at its top portion, a plurality of bendable fingers at its lower portion, and a bulged portion intermediate its ends.

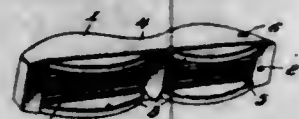
3. A key or clip adapted to engage within passageways formed between the sides of butt joint culverts and metal strips secured thereto, said key provided with a flange at its top portion and a plurality of bendable fingers for the purpose specified.

4. A key or clip adapted for insertion within passageways formed between the sides of a butt-joint culvert and metal strips secured along the longitudinal edges thereof,

said key having a flange adapted to engage one of the strips, and also provided with a plurality of fingers capable of being bent up into engagement with the other strip, substantially as and for the purpose described.

5. A key or clip adapted to engage within passageways formed between the sides of butt-joint culverts and metal strips secured along the longitudinal edges thereof, said key serving to retain the longitudinal meeting edges of said culvert in true abutting relation and provided with means which serve to tie the metal strips together for completing the joint, such means including a plurality of bendable fingers.

1,081,296. JAW-BRACE. ADDISON R. DE PASS, Columbia, S. C. Filed Apr. 12, 1912. Serial No. 690,400. (Cl. 32—16.)



1. A jaw brace adapted to hold the mouth of a patient open, composed of an elongated body portion of soft elastic rubber thinner at the center than toward the ends and adapted to be folded with the end portions resting against the upper and lower rows of teeth.

2. A jaw brace adapted to hold the mouth of a patient open, composed of an elongated body portion of soft elastic rubber adapted to be folded with the end portions resting against the upper and lower rows of teeth, the said end portions having means for preventing them from slipping off of the teeth.

3. A jaw brace adapted to hold the mouth of a patient open, composed of an elongated body portion of soft elastic rubber adapted to be folded with the end portions resting against the upper and lower rows of teeth, the said end portions having longitudinal side flanges to prevent lateral displacement.

4. A jaw brace adapted to hold the mouth of a patient open, composed of an elongated body portion of soft elastic rubber adapted to be folded with the end portions resting against the upper and lower rows of teeth, the said end portions having longitudinal side flanges to prevent lateral displacement and a roughened portion between said side flanges.

5. A jaw brace adapted to hold the mouth of a patient open, comprising an elongated body portion of soft elastic rubber reduced in thickness at its central portion and adapted to be doubled on itself longitudinally, bending at the reduced portion, whereby the end portions may fit longitudinally against the upper and lower rows of teeth.

[Claim 6 not printed in the Gazette.]

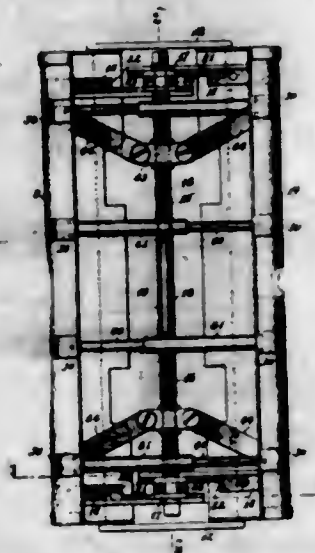
1,081,297. BINDER-FRAME. LAURENS P. DIXON, New York, and GEORGE E. POST, Brooklyn, N. Y., assignors to The Firm of Anderson & Prigge, New York, N. Y. Filed June 2, 1911. Serial No. 630,803. (Cl. 129—13.)

1. A binder frame comprising a back; two blocks formed separate from said back and secured thereto and each of which blocks is provided with two transversely extending open grooves; two binder plates movable toward and from one another and transverse to said back; two guiding members secured to each of said binder plates and the free ends of which slide in the grooves aforesaid; and means for moving said binder plates.

2. A binder frame comprising a back; two blocks formed separately from said back and secured thereto and each of which blocks is provided with two transversely extending open grooves located in opposite sides thereof; two binder plates movable toward and from one another and transverse to said back; two guiding members right angular in cross-section secured to each of said binder plates and the free ends of which slide in the grooves aforesaid and move in contact with the sides of said blocks; and means for moving said binder plates.

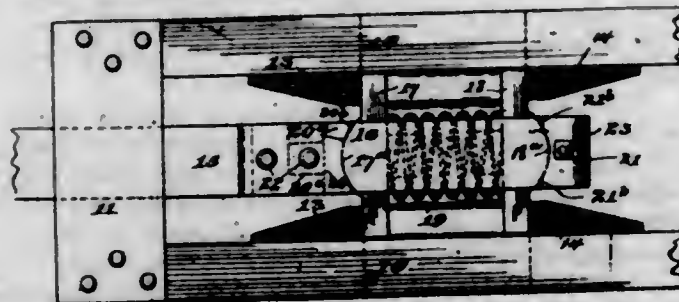
3. A binder frame comprising a back; two blocks formed separate from said back and secured thereto and each of

which blocks is provided with two transversely extending open grooves and with a bearing in the base thereof; two binder plates movable toward and from one another and transverse to said back; two guiding members secured to each of said binder plates and the free ends of which slide in the grooves aforesaid; a shaft having journal portions adapted to lie within the bearings aforesaid of said blocks and having a right and a left thread formed thereon; a traveling nut upon each of said threaded portions; and links connecting each nut with each of said binder frames.



4. In a binder frame, binder plates movable toward and from one another; blocks secured to each of said binder plates and each of which blocks is provided with a lug upon one face adapted to extend through said binder plate and to be upset upon the inner surface thereof, and with a second lug upon another face adapted to extend through said binder plate and to be bent into contact with the inner surface thereof; and telescoping members, the outer ends of which are secured in said blocks.

1,081,298. RAILWAY DRAFT-RIGGING. GEORGE H. FORSTYTH, Chicago, Ill., assignor to Waugh Draft Gear Company, a Corporation of Illinois. Filed July 16, 1904. Serial No. 216,829. (Cl. 213—42.)



1. In a draft-rigging mechanism, the combination with a resistance medium and an angularly-movable draw-bar, of a follower interposed between said draw-bar and resistance medium and provided with a curved convex surface engaged by the draw-bar, when the latter is moved laterally, on the side opposite that to which the draw-bar is moved, substantially as described.

2. In a draft-rigging mechanism, the combination with a draw-bar, of a member adapted to receive therefrom the strains of buffing, said member having a convex inset surface coöperating with the draw-bar, substantially as described.

3. In a draft-rigging mechanism, the combination with a draw-bar, of a member adapted to receive therefrom the strains of buffing, said member having an inset surface coöperating with the draw-bar, said inset surface being of less than the full height of the member, substantially as described.

4. In a draft-rigging mechanism, the combination with a draw-bar and a follower having respectively concave and convex engaging surfaces so formed and coöperating

that when the draw-bar is under strains of buffing in a sidewise position the strains are distributed on both sides of the axis of the resistance medium, said coöperating surfaces lying within the thickness of the follower and being of less than the full height of the follower, substantially as described.

5. In a draft-rigging mechanism, the combination with a draw-bar, of a filling-block having a stem or shank entering an aperture in said draw-bar and secured by a pin passed therethrough, substantially as described.

[Claim 6 not printed in the Gazette.]

1,081,299. ELASTIC-TUBE-SPLICING DEVICE. EDWARD A. FRANKLIN, Austin, Tex. Filed May 31, 1912. Serial No. 700,733. (Cl. 18—45.)



1. A splicing device for flexible tubular articles, composed of a male and a female member, each member consisting of a plurality of telescopic tubes slotted longitudinally, the outer tube having means for receiving and gaging the turn-back of the articles to be spliced.

2. A splicing device for flexible tubular articles, composed of a male and a female member, each member consisting of a plurality of telescopic tubes provided with an article withdrawal slot, the outer tube having guiding and locking lugs fitting in the slot of the inner tube, and also having means for receiving and gaging the fold-back of the article to be spliced.

3. A splicing device for flexible tubular articles, composed of a male and female member, the male member consisting of three telescopic tubes, each provided with a longitudinal slot, the inner tube having a reduced portion forming a horn for carrying the turn-back of the article for insertion within the female member, the outer tube being provided with means for receiving and gaging the extreme turn-back of the article.

4. A splicing device for flexible tubular articles, composed of a male and female member, the female member consisting of two telescopic tubes provided each with a longitudinal slot for the insertion and withdrawal of the articles to be spliced, the outer tube having means for receiving and gaging the turn-back end of the article.

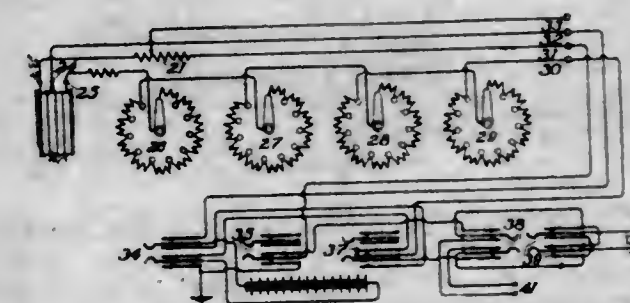
5. A splicing device for flexible tubular articles, composed of a male and female member, the male member consisting of three telescopic tubes, each provided with a longitudinal slot, the inner tube having a reduced portion forming a horn for carrying the turn-back of the article for insertion within the female member, the outer tube being provided with means for receiving and gaging the extreme turn-back of the article; and the female member consisting of two telescopic tubes provided each with a longitudinal slot for the insertion and withdrawal of the article to be spliced, the outer tube having means for receiving and gaging the turn-back end of the article.

[Claims 6 and 7 not printed in the Gazette.]

1,081,300. METHOD OF TESTING ELECTRICAL CONDUCTORS. HERBERT M. FRIENDLY, Portland, Oreg. Filed May 31, 1911. Serial No. 630,533. (Cl. 175—183.)

1. In a testing instrument, a pair of line terminals; an active meter winding having two sections connected in series; a resistance connected between one of said line terminals and one side of said meter winding; an adjustable resistance between the other of said line terminals and the other side of said meter winding; a source of current; circuit conductors, and a switching device adapted to connect said source alternately for differential current flow through the two sections of said active winding for null methods of observations, and in series with

said active winding and said resistance for direct deflection observations.



2. In a testing instrument, a pair of line terminals; an active meter winding having two sections; a fixed resistance on one side and an adjustable resistance on the other side of said meter winding, said winding and resistances being connected together in series between said line terminals; a source of current; circuit conductors, and a switching device adapted to connect said source alternately for differential current flow through the two sections of said winding in multiple for null methods of observations, and in series with said winding and said resistances for direct deflection observations.

3. In a testing instrument, a pair of line terminals; an active meter winding having two sections; a fixed resistance on one side and an adjustable resistance on the other side of said meter winding, said winding and resistances being connected together in series between said line terminals; a ground terminal; a source of current; circuit conductors, and switching devices adapted to connect said source alternately between said ground terminal and the point of intersection of said meter windings for null methods of observation, and in series with said winding and said resistance for direct deflection methods.

4. In a testing instrument, an active meter winding; a fixed and an adjustable resistance connected in series with said winding on opposite sides thereof; means for connecting said winding and said resistances in series across the two terminals of a faulty circuit to be tested; a source of current, and means for alternately connecting said source of current in series with said meter winding and resistances for direct deflection observations, and between an intermediate point in said meter winding and ground for null methods of observation.

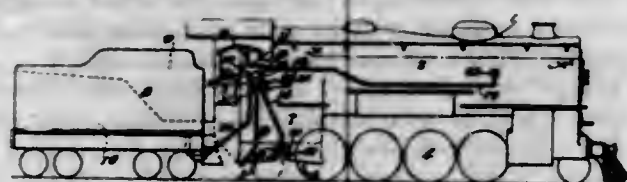
5. In a testing instrument, an active winding; a fixed and an adjustable resistance connected in series with said winding on opposite sides thereof; means for connecting said winding and said resistances in series across the two terminals of the circuit to be tested; a source of current; switching devices for alternately connecting said source of current in series with said meter winding and resistance for direct deflection observations, and means for alternately connecting said source between an intermediate point in said meter winding and a third conductor for null methods of observation, the two resistances on the two sides of said meter winding being so proportioned to each other and to the respective sections of the active winding as to produce a balance with respect to the differential flow in the portions of said active winding when said adjustable resistance is in its normal condition and when no external resistance is in circuit.

[Claim 6 not printed in the Gazette.]

1,081,301. ATTACHMENT FOR LOCOMOTIVE-INSPIRATORS. WILLIAM HENRY GARDNER, Sutherland, Saskatchewan, Canada. Filed Oct. 14, 1912. Serial No. 725,806. (Cl. 110—171.)

1. In a locomotive the combination with the inspirator supplied with a suitable overflow pipe and the ash pans thereof, of a drip pipe leading to the ash pan, a drip pipe leading to the ground and adjustable means releasably connected to the overflow pipe and to the drip pipes, said means being provided with a single duct designed to connect one or other of the drip pipes with the overflow

pipe in the adjusted position of said means, as and for the purpose specified.

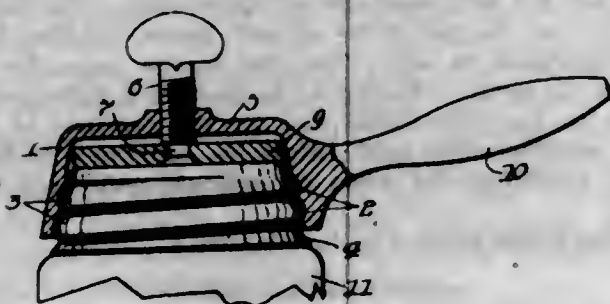


2. In a locomotive the combination with the inspirator supplied with a suitable overflow pipe and the ash-pans thereof, of a stationary drip pipe carried by the locomotive and leading to the ash pans, a second stationary drip pipe carried by the locomotive and leading to the ground and an adjustable casting releasably secured to the overflow pipe and to the drip pipes, said casting being provided with a duct arranged to connect the overflow pipe with one or other of the drip pipes in the adjusted position of the casting, as and for the purpose specified.

3. In a locomotive the combination with the inspirator supplied with a suitable overflow pipe and the ash-pans thereof, of a stationary drip pipe carried by the locomotive and leading to the ash-pans, a second stationary drip pipe carried by the locomotive and leading to the ground and an adjustable casting provided with two branches one branch having a duct therein and the other branch being permanently closed or solid, a coupling securing the casting releasably to the overflow pipe and couplings carried by the drip pipes designed to connect the branches of the casting releasably with the drip pipes, as and for the purpose specified.

4. In a locomotive the combination with the inspirator supplied with a suitable overflow pipe and the ash-pans thereof, of a stationary drip pipe carried by the locomotive and leading to the ash-pans, a second stationary drip pipe carried by the locomotive and leading to the ground, said drip pipes having their upper ends provided with outwardly directed flanges, interiorly threaded coupling pieces carried by the upper ends of the drip pipes and receiving the flanges, a casting supplied with two branches arranged to span the ends of the drip pipes one of said branches being provided with a duct and the other of the branches being closed to solid and both of said branches having their lower ends exteriorly threaded to receive the couplings aforesaid, a short pipe threaded into the casting and opening to the upper end of the duct, said pipe having the upper end thereof outwardly flanged and a coupling receiving the flange of the pipe and threaded onto the lower end of the overflow pipe, as and for the purpose specified.

1,081,302. CAN-TOP HOLDER. GEORGE GEDDIS, Detroit, Mich. Filed Nov. 4, 1912. Serial No. 729,515. Renewed Oct. 29, 1913. Serial No. 798,135. (Cl. 65-26.)

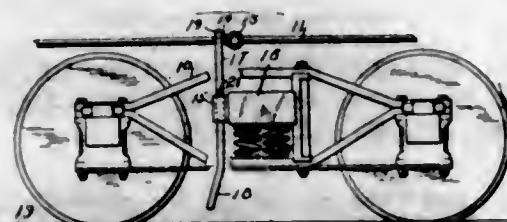


1. A can top holder comprising a cup-shaped member having a threaded socket into which a can top may be screwed, a movable plate in the socket of the holder, and means for moving said plate against the can top to jam the threads between the can top and holder to lock the can top therein.

2. A can top holder comprising a cup-shaped member, having a threaded socket therein to receive a can top, a screw threaded in the top of said holder and passing into said socket, and a movable plate in the socket engaged by said screw.

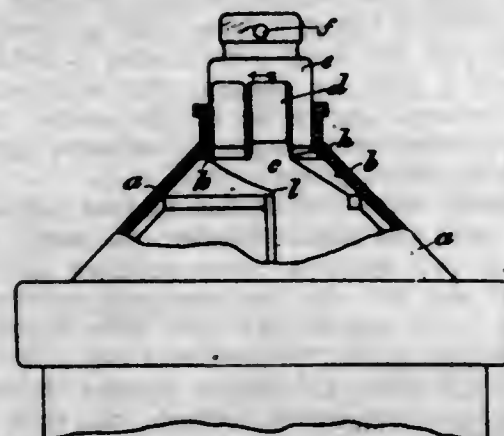
3. In a device for the purpose set forth, a holder having a threaded socket therein adapted to receive a can top, a set screw threaded in said holder and extending into said socket, a movable plate within the socket mounted on the inner end of said screw, and a handle for manipulating said holder.

1,081,303. AUTOMATIC AIR-BRAKE APPLIER. CHARLES E. HALL, Childress, Tex. Filed Aug. 12, 1913. Serial No. 784,413. (Cl. 188-2.)



An automatic air brake applier including the combination with a train pipe and car truck, of an angle cock connected to said train pipe, an arm slidably attached to said truck and equipped with a shoe normally held raised from the rail, a head on said arm provided with an arcuate slot, and a crank on the angle cock stem engaging in said slot, said shoe striking said rail upon derailment of the truck with a resultant lifting of said arm and actuation of said crank by said slot to open said angle cock and release the air in said train pipe to apply the brakes.

1,081,304. CENTRIFUGAL MILK-SEPARATING MACHINE. SOPHUS CHRISTOPHER HAUBERG, Copenhagen, Denmark. Filed May 8, 1913. Serial No. 766,398. (Cl. 127-20.)



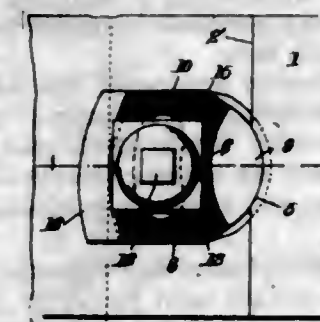
In a centrifugal milk separating machine means provided on the centrifugal drum which serve for regulating the ratio between the quantity of skimmed milk and cream by restricting or enlarging the outflow ducts for the skimmed milk said means comprising a revoluble ring (a) arranged between the neck of the drum and the neck of the cream removing plate and provided with, preferably two, apertures d for the passage of the skimmed milk, which apertures so coact with curved ducts (c) provided on the cream removing plate, that by turning the ring the cross sectional passage area in the ducts (c) for the skimmed milk may be varied.

1,081,305. ANTICREEPING DEVICE. WILLIAM W. HOLLAND, Roland Park, Md. Filed Sept. 12, 1913. Serial No. 789,412. (Cl. 238-2.)

1. In an anti-creeping device for traction rails, abutments on each side of the rail having arcuate sockets disposed toward the rail, cam shaped clamping members having heels in the sockets, the cam surfaces engaging the opposite sides of the rail, and means for locking the clamping members in clamped position.

2. In an anti-creeping device for traction rails, abutments on each side of the rail having arcuate sockets disposed toward the rail, cam shaped clamping members hav-

ing curved heels in the sockets, the cam surfaces engaging the opposite sides of the rail, the clamping members having an arcuate slot concentric with the socket, and a bolt engaging the slot for holding the clamping members in clamped position.



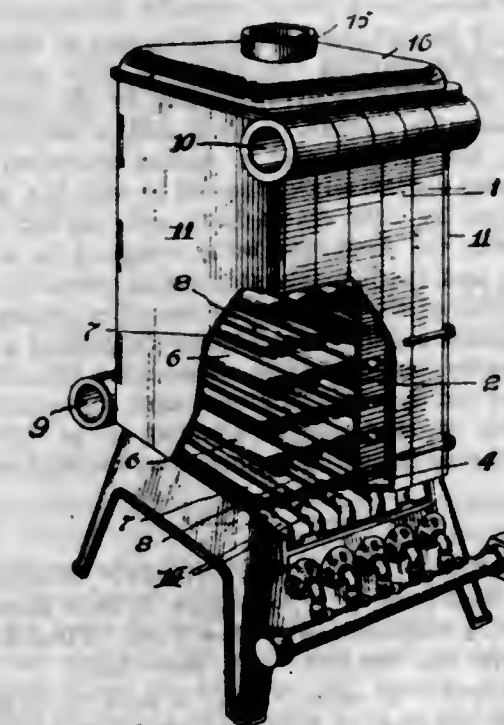
3. In an anti-creeping device for traction rails, abutments on each side of the rail having arcuate sockets disposed toward the rail, cam shaped clamping members having curved heels seated in the sockets, the cam surfaces engaging the opposite sides of the rail, the clamping members having arcuate slots concentric with the sockets, and a serrated surface on the clamping members, a block and a corresponding serrated surface on the bottom of the block to engage the surface on the clamping member, and a bolt passing through each block and through the arcuate slot in the clamping member, and engaging the tie to lock the clamping members in clamped position.

4. In an anti-creeping device for traction rails, tie plates, abutments on each end of each tie plate and on opposite sides of the rail, sockets in the abutments, cam-shaped clamping members having heels in the sockets, the cam surfaces engaging the opposite sides of the rail, and means for locking the clamping members in clamped position.

5. In an anti-creeping device for traction rails, tie plates, abutments on each end of each tie plate and on opposite sides of the rails, sockets in the abutments, cam-shaped clamping members having heels in the sockets, the cam surfaces engaging the opposite sides of the rail, the clamping members having an arcuate slot concentric with the socket and a bolt engaging the slot for holding the clamping members in clamped position.

[Claims 6 to 10 not printed in the Gazette.]

1,081,306. HEATER. CHARLES HOWARD HOOK, Pittsburgh, Pa. Filed Oct. 11, 1912. Serial No. 725,187. (Cl. 122-225.)



1. A heater comprising a plurality of units, each of said units consisting of a pair of hollow end walls, one of

said walls provided with means to constitute an inlet and the other of said walls provided with means to constitute an outlet, superposed pipes connecting said inner walls together and each substantially heart-shaped in cross section, said pipes communicating with said conduits, pairs of hollow bars arranged below each of said pipes and communicating with said conduits, the pipes of each pair being spaced from each other and each pipe of a pair gradually decreasing in height outwardly.

2. A heater comprising a plurality of units, each of said units consisting of a pair of hollow end walls, one of said walls provided with means to constitute an inlet and the other of said walls provided with means to constitute an outlet, superposed pipes connecting said inner walls together and each substantially heart-shaped in cross section, said pipes communicating with said conduits, pairs of hollow bars arranged below each of said pipes and communicating with said conduits, the pipes of each pair being spaced from each other and each pipe of a pair gradually decreasing in height outwardly, and the pairs of bars of one unit abutting against the pairs of bars of the other unit.

1,081,307. INTERCHANGEABLE ARTIFICIAL TOOTH. JAMES W. IVORY, Philadelphia, Pa. Filed Oct. 26, 1912. Serial No. 727,834. (Cl. 32-9.)



1. In an artificial tooth, an anchor plate having free edges forming lips engaging and overhanging recesses in the body of the tooth, and means extending in opposite directions from a backing to engage the free edges of the anchor plate.

2. In an artificial tooth, a backing plate adapted for the lingual side of the tooth, and an embedded anchor plate on the tooth flush therewith and projecting upon opposite sides, said anchor and backing plates being provided with engaging means for firm connection thereof and admitting of said plates being seated even with the surface of the tooth.

3. An artificial tooth having an embedded anchor plate flush thereon with portions projecting upon opposite sides, and a removable backing plate for the lingual side of the tooth, said backing plate and anchor plate having engaging members and the tooth provided with recesses for the engaging members of said backing plate, and the free edges of said anchor plate therein.

4. In an artificial tooth, a backing plate for the lingual side thereof, said plate having intumed lips thereon, and an anchor plate fixed on said tooth, said anchor plate having outturned lips extending in opposite directions, said lips of the anchor and backing plates being engageable, and said tooth having recesses therein adapted for the reception of the lips of the backing plate and the projection of the free edges of the anchor plate.

5. An artificial tooth having recesses on the side thereof, a backing and an anchoring plate having outturned lips and inward deflections embedded in the recesses of the tooth, said recesses being set in from the lateral terminals of said lips and providing space for the intumed lips of the backing plate.

1,081,308. VAPOR ELECTRIC APPARATUS. ALEXANDER MCL. JACKSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 9, 1904. Serial No. 188,339. (Cl. 176-50.)

1. The combination of a container, a non-vaporizable electrode therefor, a conductor sealed into said container and mechanically supporting said electrode, and an insulating member surrounding said conductor spaced therefrom, and mechanically engaging with one end of the electrode.

2. The combination of an electrode, an insulating tube having one end sunk in the electrode, and a wire or con-

ductor extending loosely through the tube and making electrical connection with the electrode.



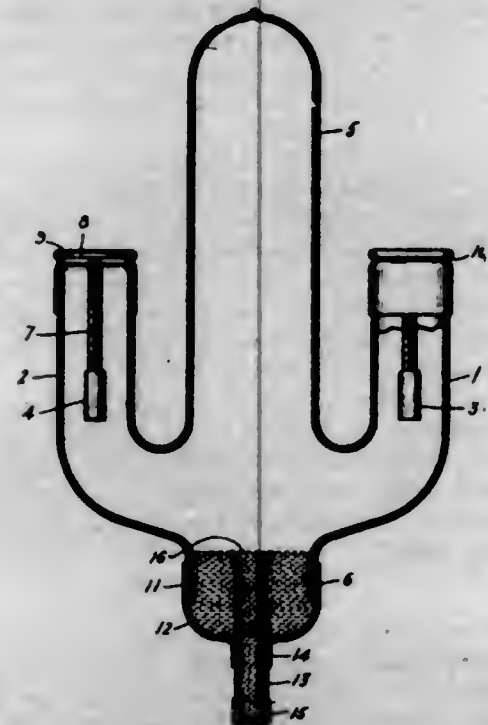
3. The combination of a source of single phase alternating current, a highly exhausted U shaped envelop provided with solid electrodes, connections between said electrodes and said source, and energy storing means associated with said electrodes and said source so as to prevent an interruption in the current flow in said envelop.

4. The combination of an exhausted envelop consisting of tubular members communicating with each other, solid electrodes located respectively in said tubular members, a vaporizable electrode located in that part of the envelop connecting said members, and a circuit extending from the vaporizable electrode through energy storing means to an alternating current supply source.

5. The combination of an exhausted envelop comprising tubular upright chambers and a chamber communicating with said upright chambers, electrodes extending downward near the junction points of said chambers and a mercury electrode situated in the communicating chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,081,309. VAPOR ELECTRIC APPARATUS. ALEXANDER M. JACKSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 31, 1904. Serial No. 230,719. (Cl. 176-50.)



1. A vessel a part at least of which is formed of vitreous material, a seal therefor consisting of a cap of metal tightly inclosing a portion of the vessel, and a conductor having an electrically conductive disk held in contact with the cap.

2. A vessel formed in part at least of vitreous material, a seal therefor consisting of a cap of metal tightly inclosing a portion of the vessel, a conductor having an elec-

trically conductive disk held in contact with the cap, and an electrode connected to said conductor.

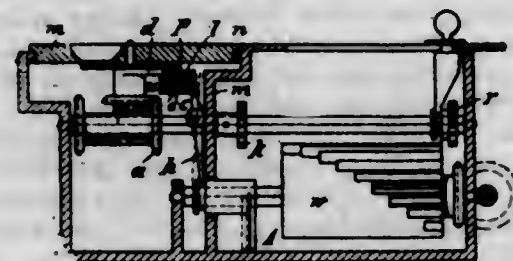
3. In a vapor electric apparatus, the combination of a vitreous envelop, a metal cap forming a tight joint with a portion of the envelop, a tube of vitreous material forming a tight joint with an opening in said cap and projecting into the envelop and electrode material in the tube and also surrounding the tube.

4. In a vapor electric apparatus, the combination of a vitreous envelop, a metal cap forming a tight joint with a portion of the envelop, a tube of vitreous material forming a tight joint with an opening in said cap and projecting into the envelop, and a metal cap closing the outer end of said tube.

5. The combination of a tubular vitreous member, a thin metal cap forming a tight joint therewith, and a conducting disk or plate inside said cap and in fixed relation to said cap.

[Claims 6 to 9 not printed in the Gazette.]

1,081,310. CALCULATING-MACHINE. ERWIN JAHNZ, Zurich, Switzerland. Filed June 28, 1913. Serial No. 776,402. (Cl. 235-63.)



1. In a Thomas calculating machine comprising a frame, a slide movable longitudinally therein, a plurality of numeral disks journaled in the slide, a plurality of pairs of differential bevel-gears axially displaceable in the frame, each pair of bevel-gears being normally disengaged from, but adapted in its end position to drive, one of side disks, a bar for axially shifting the pairs of bevel-gears; the combination of a crank-shaft journaled in the frame and axially displaceable therein, and an intermediate member operated by the displacement of the crank-shaft and operating said bar to bring the bevel-gears from their middle position into their plus or minus position.

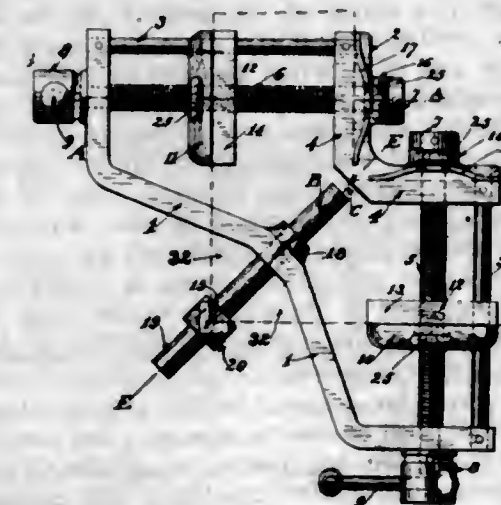
2. In a Thomas calculating machine comprising a frame, a slide movable longitudinally therein, a plurality of numeral disks journaled in the slide, a plurality of pairs of differential bevel-gears axially displaceable in the frame, each pair of bevel-gears being normally disengaged from, but adapted in its end position to drive, one of side disks, a bar for axially shifting the pairs of bevel-gears; the combination of a crank-shaft journaled in the frame and axially displaceable therein, a fixed and a movable stop mounted on the frame, and a spring-controlled intermediate member operatively connected to said bar, adapted to be displaced by said crank-shaft and having two V-shaped recesses, the fixed stop being normally in a vertex of one recess and the movable stop being normally at one side or the other of the entrance of the other recess.

3. In a Thomas calculating machine comprising a frame, a slide movable longitudinally therein, a plurality of numeral disks and appertaining tens-cams, the combination of a plurality of tens-tappets adapted to be driven by means of said tens-cams and arranged on the said movable slide.

1,081,311. ANGLE OR MITER CLAMP. MARTIN JOACHIMSON, New York, N. Y., assignor to Bass Bros., New York, N. Y., a Corporation of New York. Filed June 15, 1910. Serial No. 566,995. (Cl. 144-293.)

1. In an angular or miter clamp, a base or frame, two pairs of jaws adapted to hold two strips of material at an angle to each other, the outer jaws of each pair being movable toward the opposed inner jaw, said inner jaws being resilient to permit the clamped piece to move later-

ally to a perfect seat upon the complementary piece while preventing longitudinal movement of said piece.



2. In a clamping device adapted to clamp pieces of material into angular relation, a movable jaw, which shifts the material against a surface which recedes under pressure of said material and thereby permits the clamped piece to move laterally to a perfect seat upon a complementary piece, without longitudinal movement of either piece.

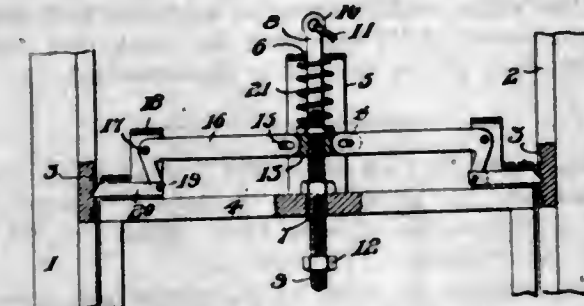
3. In an angular or miter clamp, a base or frame adapted to hold strips of material, two jaws at an angle to each other slidable toward two stationary posts, and resilient means between said posts and the work which has to be clamped to permit the clamped piece to move transversely to a perfect seat upon the complementary piece, while preventing longitudinal movement of said piece.

4. In an angular clamp, a base or frame, two pairs of jaws arranged at an angle to each other, means to operate the outer jaws perpendicularly to the face of the inner jaws, a separate working face, movably attached to each inner jaw, which protects the material from indentation and permits a lateral movement of the clamped pieces, to form a perfect connection at the joining line.

5. In a miter clamp a base or frame, two pairs of jaws arranged at an angle to each other, means to operate said jaws, and movably attached face plates on the inner jaws which recede parallel to the faces of the outer jaws, during the operation of clamping and allow the clamped piece to move laterally to a perfect seat upon the complementary piece, while preventing longitudinal movement of said piece.

[Claims 6 to 16 not printed in the Gazette.]

1,081,312. SAFETY DEVICE FOR ELEVATORS. ANDY KALNASI, Forbes Road, Pa. Filed Nov. 4, 1912. Serial No. 729,436. (Cl. 187-84.)



In a safety device for elevators, the combination with guides having teeth, an elevator cage movable between said guides and a hoisting cable for said cage, of an inverted yoke-shaped strap fixed to the top of said cage, a vertically movable bolt loosely extending through the top of the cage and through said strap and provided with upper and lower stops for limiting the upward and downward movement thereof, a cross head fixed to said bolt above the upper stop and having each end bifurcated, a pair of bell crank levers each including a short and a long arm, said elongated arms having their inner ends pivotally con-

nected in the bifurcated ends of said cross head, housings carried by the top of said cage, longitudinally extending gripping arms mounted in said housings, means for pivotally connecting said levers in said housings, means for pivotally connecting the free ends of the short arms of said levers in the inner ends of said arms, and a coiled spring carried by the bolt and interposed between said cross head and the top of said strap.

1,081,313. ADJUSTABLE GARMENT-FORM. JACOB SATIN, BERNARD MOESSON, and MANDEL GARFINKEL, Brooklyn, N. Y., assignors to The Simplex Adjustable Dress Form Co., Brooklyn, N. Y. Filed Nov. 5, 1912. Serial No. 729,700. (Cl. 223-18.)



1. The combination with a support, of an adjustable garment form having a sectional bust portion, collar adjusting mechanism carried by the support for expanding and contracting the collar and incidentally the sections of the bust portion, said mechanism comprising a casing, a sleeve carried by the support upon which the casing is threaded, a rotatable member consisting of a disk having a spiral cam formed thereon, said disk being mounted in the casing aforesaid, rack members connected with the bust sections and projecting into the casing and meshing with said spiral cam, and means for rotating the sleeve aforesaid to cause vertical movement of the casing and bust sections.

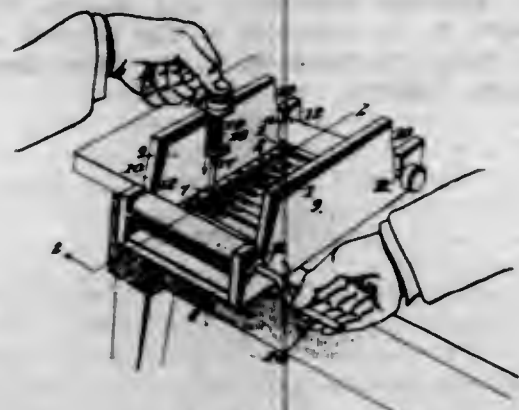
2. The combination with a support, of an adjustable garment form comprising sectional bust and skirt portions, said bust portion comprising neck and shoulder sections, means for adjusting the bust portion, a sleeve loosely mounted upon the support, laterally extending arms journaled in the sleeve, said arms being threaded in opposite directions, cross bars threaded upon the arms, link members connecting the bars and the shoulder sections, and means for operating the arms to adjust the shoulder sections through the links aforesaid.

1,081,314. BALLOTING SYSTEM. WILLIAM FRANK LEGG, Portland, Ore. Filed Feb. 19, 1913. Serial No. 749,402. (Cl. 235-56.)

1. A ballot consisting of a sheet having a continuous line of ballot of like designations and divided by separating spaces, the said ballot sheet including a designating line that extends its full length, and is located near one edge, the said edge having notches, one for each candidate or measure space, combined with a tallying means consisting of a body spaced and divided so it has candidate and measure spaces similar to the spaces of each individual ballot on the sheet, and means for holding a number of ballots on the tallying means with their notched edge set back relatively to each other whereby the notched edge of one ballot is positioned over the indicating line of a preceding ballot, and the tallying member.

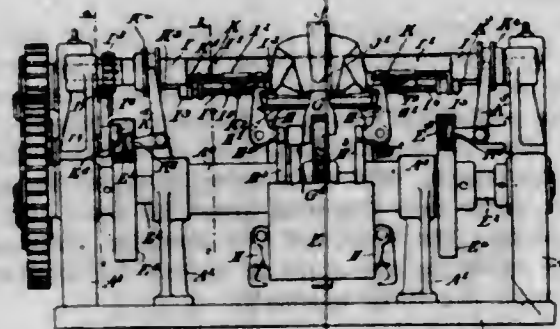
2. In a balloting system, a set of ballots each consisting of a sheet having candidates' names arranged in column

formation, said sheet having an indicating line extending along one edge of the sheet adjacent to the column of names to set off a column of spaces corresponding in number to the number of names, said sheet adapted to be notched in said spaces for the candidates voted, a tally having a duplicate ballot form on its face, said ballots adapted to lie on said tally and overlap each other whereby the indicating line of one ballot will be exhibited only through the cut away portion or portions of the next ballot beneath and thereby form the vote counters.



3. In a balloting system, a set of ballots each consisting of a sheet having candidates' names arranged in column formation, said sheet having an indicating line extending along one edge of the sheet adjacent to the column of names to set off a column of spaces corresponding in number to the number of names, said sheet adapted to be notched in said spaces for the candidates voted, a tally having a duplicate ballot form on its face, said ballots adapted to lie on said tally and overlap each other whereby the indicating line of one ballot will be exhibited only through the cut away portion or portions of the next ballot beneath and thereby form the vote counters, and a transparent covering over said ballots and indicator forming a seal, and serving to retain said ballots in position on said indicator.

1,081,315. PAPER-BAG MACHINE. WILLIAM A. LORENZ, Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1909. Serial No. 474,379. (Cl. 93-30.)



1. In a machine for diamond folding a tucked bag blank, the combination with means for engaging the lower ply of, and transporting, the bag blank, of cooperating mechanism for opening the end of the blank and turning back its upper ply, comprising devices adapted to engage the upper ply of the blank at the corners of the diamond square while leaving a portion of the ply between the main crossfold line and the portion engaged by said mechanism free to accommodate itself to the stresses set up in it during the folding operation, and means operating said devices to give said engaged portion of the upper ply a turning back movement during an early stage of the folding operation, which is in excess of that given to the entire portion of the upper ply turned back, whereby the upper ply of the blank is concaved during said early stage and is thereby prevented from kinking.

2. In a machine for diamond folding a tucked bag blank, the combination with means for engaging the lower ply

of, and transporting, the bag blank, of cooperating mechanism for opening the end of the blank and turning back its upper ply, comprising devices adapted to engage the upper ply of the blank at the corners of the diamond square while leaving a portion of the ply between the main crossfold line and the portion engaged by said mechanism free to accommodate itself to the stresses set up in it during the folding operation, and means for operating said devices to give said engaged portion of the upper ply a turning back movement during an early stage of the folding operation, which is in excess of that simultaneously given to the entire portion of the upper ply turned back, whereby the upper ply of the blank is concaved during said early stage and is thereby prevented from kinking, and means for weakening the portion of the ply concaved to facilitate such concaving.

3. In a machine for diamond folding a tucked bag blank, the combination with means for engaging the lower ply of, and transporting, the bag blank, of cooperating mechanism for opening the end of the blank and turning back its upper ply, comprising devices adapted to engage the upper ply of the blank at the corners of the diamond square while leaving a portion of the ply between the main crossfold line and the portion engaged by said mechanism free to accommodate itself to the stress set up in it during the folding operation, and means for operating said devices to give said engaged portion of the upper ply a turning back movement during an early stage of the folding operation, which is in excess of that given to the entire portion of the upper ply turned back, whereby the upper ply of the blank is concaved during said early stage and is thereby prevented from kinking and means for creasing the blank in front of the crossfold line prior to the concaving operation.

4. In a machine for diamond folding a tucked bag blank, the combination with means for engaging the lower ply of, transporting, the bag blank, of cooperating mechanism for opening the end of the blank and turning back its upper ply, comprising devices adapted to engage the upper ply of the blank at the corners of the diamond square while leaving a portion of the ply between the main crossfold line and the portion engaged by said mechanism free to accommodate itself to the stresses set up in it during the folding operation, and means operating said devices to give said engaged portion of the upper ply a turning back movement during an early stage of the folding operation, which is in excess of that simultaneously given to the entire portion of the upper ply turned back, whereby the upper ply of the blank is concaved during said early stage and is thereby prevented from kinking, and means for creasing the blank at the crossfold line and in front of the crossfold line prior to the concaving operation.

5. In a machine for diamond folding a tucked bag blank, the combination with the diamond folding mechanism, of mechanism cooperating therewith to transversely crease each blank passing to said folding mechanism at the line at which the folding mechanism forms the main crossfold line in the blank, and in front of said line at a distance therefrom substantially less than the blank tuck depth.

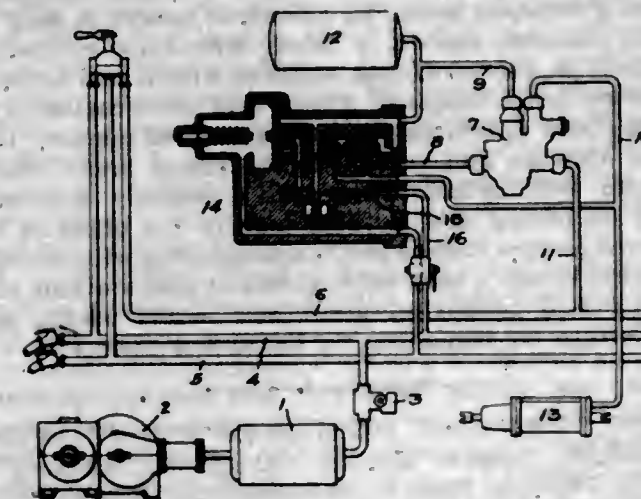
[Claims 6 to 10 not printed in the Gazette.]

1,081,316. AIR-BRAKE SYSTEM. GEORGE MACLOSKE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 30, 1912. Serial No. 728,739. (Cl. 188-1.)

1. The combination with an automatic air brake system, of a straight air pipe and a valve mechanism, the latter being connected to a source of air in the automatic system and direct to the brake cylinder and being provided with means to establish a path for air from the said source to the brake cylinder when air is supplied to the brake cylinder by the straight air pipe.

2. The combination with an automatic air brake system, of a straight air pipe and a valve mechanism, the latter being connected to a source of air in the automatic system, to the straight air pipe and direct to the brake cylinder and being provided with means to establish a path for air from the said source to the brake cylinder

actuated by air supplied by the straight air pipe to the brake cylinder.



3. The combination with an automatic air brake system of a straight air pipe, a valve mechanism connected to the exhaust port of the triple valve and a valve mechanism connected to a source of air in the automatic system and direct to the brake cylinder, said valve mechanisms being operable when air is supplied to the brake cylinder by the straight air pipe, the first for closing the triple valve exhaust port and the second for establishing a path from the said source of air to the brake cylinder.

4. The combination with an automatic air brake system, of a straight air pipe, a valve mechanism connected to the exhaust port of the triple valve and a valve mechanism connected to a source of air in the automatic system and direct to the brake cylinder, said valve mechanisms being connected to the straight air pipe and controlled by air supplied through the straight air pipe, the first being held in a position closing the triple valve exhaust port and the second being operated to establish a path from the said source of air to the brake cylinder.

5. The combination with an automatic air brake system, of a straight air pipe, a valve mechanism connected to the exhaust port of the triple valve and a valve mechanism connected to a source of air in the automatic system and direct to the brake cylinder, said valve mechanisms being connected to the straight air pipe and controlled by air supplied through the straight air pipe to the brake cylinder, the first being held in a position closing the triple valve exhaust port and the second being operated to establish a path from the said source of air to the brake cylinder.

[Claims 6 to 29 not printed in the Gazette.]

1,081,317. POULTRY-TRAP-NEST FRONT. WILLIAM F. MAHONY, Washington, D. C. Filed Mar. 8, 1913. Serial No. 752,883. (Cl. 119-49.)



1. In combination with a nest box, a frame secured over the open end of the box, a gate hung in the frame, a locking device on the frame, and supporting means connected to the gate and normally engaging the locking device to

hold the locking device restricted, said gate being adapted to be swung open by the fowl entering the nest box to release the supporting means from the locking device whereby the locking device may operate to lock the gate closed when the gate swings to closed position.

2. In a device as specified, a frame, a gate hinged in the frame, a locking bar movable on the frame, and a supporting device carried by the gate and engaging the locking bar, said gate being adapted to be opened whereby to release said supporting device from the locking bar, said locking bar when released being adapted to drop into locked position.

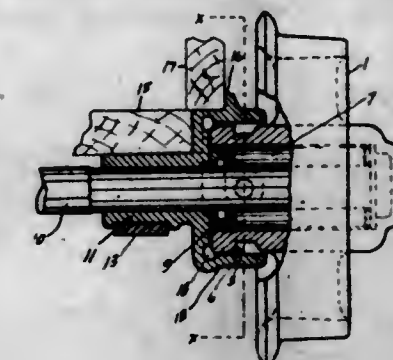
3. In a device as specified, a frame, a locking bar slidable vertically upon the frame, a gate hinged in the upper end of the frame and adapted to hang down within the frame, a hook carried upon the upper end of the gate and adapted to engage said locking bar to hold the same in the upper end of the frame, said locking bar having sliding engagement with the gate, said gate being adapted to be swung open whereby to release said hook from said bar, said bar being adapted to drop to the lower end of the frame and hold said gate closed.

4. In a device as specified, a pair of side bars, a gate hinged between the side bars and having depending fingers, a locking bar looped about said side bars and said fingers and being adapted for vertical sliding movement upon the same, and a retaining device connected to said gate and engaging the locking bar to hold the same at the upper ends of the side bars of the frame whereby said gate is free to swing into open position, said gate being adapted to be swung into open position to release the retaining device from said locking bar whereby said bar is adapted to fall to the lower ends of the side bars and the fingers to lock the gate.

5. In a trap nest, a gate, side bars arranged at the sides of the gate, a locking bar slidable upon said side bars and engaging said gate, and retaining means for the side bars to hold the same at the upper hinged end of the gate whereby to admit of the swinging of the gate, said retaining means being adapted to be tripped by the opening of said gate whereby to release said bar to slide down upon said side bars and said gate.

[Claims 6 to 8 not printed in the Gazette.]

1,081,318. MINE-CAR WHEEL. WALTER MORTON MCCOY, Birmingham, Ala., assignor to Charles Ellis Foust, Birmingham, Ala. Filed July 3, 1913. Serial No. 777,350. (Cl. 105-87.)



1. The combination of a wheel having the inner end of its hub provided with an external circumferential shoulder, a boxing connected to a car, an axle passing through said boxing and wheel hub, the shouldered portion of said hub being adapted to rotate in the boxing which is circumferentially recessed to receive it, and a plurality of radially disposed circular pins which are rotatably and detachably mounted in said boxing with their inner ends projecting into the path of outward movement of said shoulder on the hub when the latter is in running position and which are adapted to hold the wheel in running position on the axle, substantially as described.

2. The combination with a wheel having the inner end of its hub provided with a circumferential shoulder having an outwardly facing annular wall which stands parallel with the wheel, a boxing which is recessed to receive the

shouldered end of the hub, an axle, means to hold the wheel in running position on said axle comprising diametrically opposite circular pin seats which are bored radially through the sides of the boxing, circular steel pins which are loosely mounted for rotation in said seats, and detachable retaining means which hold the inner ends of said pins disposed in the path of outward movement of said shoulder when the wheel is in running position, substantially as described.

3. In combination, an integral boxing having a circular open ended chamber at one end, an axle in said boxing and projecting through and beyond said chamber, a wheel having a hub closed at its outer end and mounted on said axle, the inner end of the hub being provided with a circumferential offset shoulder which turns with a close running fit in said chamber in the boxing which has radial circular openings bored therethrough, circular reversible retaining pins mounted for rotation in said openings in the boxing, and means to detachably hold said pins with their inner ends projecting into said chamber in position to engage said shoulder as it tends to move outwardly and hold the wheel in running position on said axle.

4. In combination, a wheel having the inner end of its hub grooved to form an outwardly facing shoulder, a boxing into which said grooved end of the wheel hub projects with a close running fit, and an axle upon which said hub is mounted, said boxing having radial circular openings bored therethrough, circular pins inserted in said openings and adapted at each end to be engaged by a tool for withdrawing them from said openings, and detachable retaining means which loosely hold said pins free for rotation in the boxing with their inner ends projecting into the path of outward movement of said shoulder on the wheel hub, substantially as described.

5. In combination, an integral boxing having an outwardly opening cylindrical chamber, a wheel having its inner end provided with a shoulder and adapted to make a close running fit in said chamber, an axle on which the wheel is mounted, an annular packing gland arranged at the inner end of said chamber, and radial retaining pins detachably mounted for rotation in said boxing and having their inner ends projecting into the path of outward movement of said shoulder on the wheel hub, substantially as described.

1,081,319. SHAVING-BRUSH. ERNEST MENTOR, New Britain, Conn. Filed June 9, 1913. Serial No. 772,668. (Cl. 15—50.)

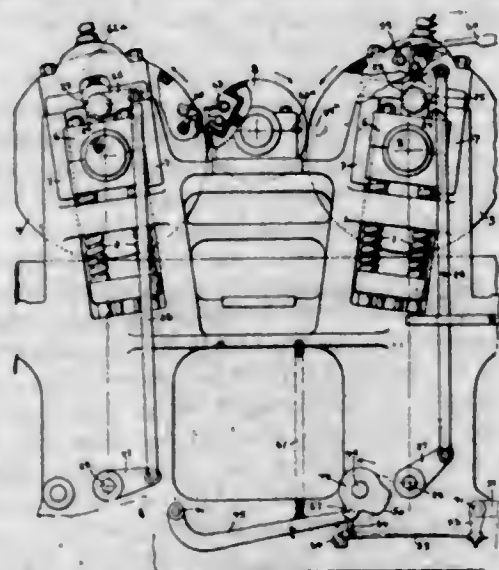


1. In a fountain brush, an apertured handle, a shell removably secured thereto, a brush terminally carried by said shell, an apertured tube disposed within said brush, a cylindrical brush disposed within said shell communicating with said apertured tube, an apertured movable tube passing through and beyond the aforesaid brush handle and partly through said cylindrical brush, liquid-transmission means connecting the apertured portion of said movable tube and the said cylindrical brush, a soap cake car-

ried by said movable tube engaging said cylindrical brush and means within said movable tube for regulating the liquid flow therefrom into said liquid-transmission means.

2. In a fountain brush, an apertured handle, a shell removably secured thereto, a brush terminally carried by said shell, an apertured tube disposed within said brush, a cylindrical brush disposed within said shell communicating with said apertured tube, an apertured movable tube passing through and beyond the aforesaid brush handle and into said cylindrical brush, a radially apertured washer encircling said movable tube in the plane of the apertured portion thereof and communicating with the said cylindrical brush, a soap cake carried by said movable tube engaging said cylindrical brush and means within said movable tube for regulating the liquid flow therefrom.

1,081,320. TRIPPING MECHANISM FOR PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1906. Serial No. 338,144. (Cl. 101—87.)



1. In a cylinder tripping mechanism for multi-cylinder printing presses, the combination of two cylinders, means for raising and lowering the first cylinder, means for raising and lowering the second cylinder in alternation with the raising and lowering movement of the first cylinder, independent cylinder tripping means for the cylinders respectively, embodying separate operating keys arranged for simultaneous as well as independent operation, said tripping means of the two cylinders being so related and timed that when they are moved simultaneously to tripping position that of the second cylinder will trip after that of the first cylinder, retaining means for holding the tripping means of the second cylinder in tripping position, and means for releasing said retaining means at about the time of the second lowering movement of the said raising and lowering means of the second cylinder, reckoned from the time of the release of the tripping means of the first cylinder.

2. In a cylinder tripping mechanism for multi-cylinder printing presses, the combination of two impression cylinders, means for raising and lowering said cylinders in alternation, cylinder tripping means for the cylinders respectively, the tripping means for the second cylinder embodying a tripping cam, retaining means for holding said cam in tripping position, embodying a retaining cam and stud, and a releasing device movable with said retaining cam for disengaging said retaining cam and stud.

3. In a cylinder tripping mechanism for multi-cylinder printing presses, the combination of two impression cylinders, means for raising and lowering the cylinders in alternation, cylinder tripping means for the cylinders respectively, the tripping means for the second cylinder embodying a tripping cam, a retaining cam for holding said tripping cam in tripping position, having a notched periphery, a retaining stud movable into the plane of said cam operatively connected with said tripping cam, means carried by said retaining cam for engaging said stud and

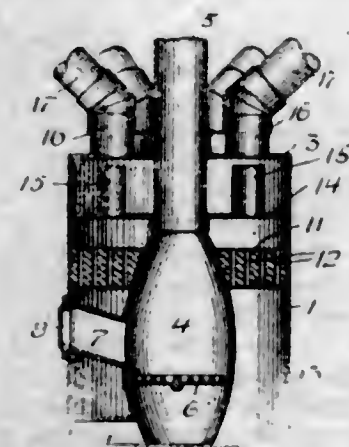
deflecting it out of its plane of said retaining cam when the stud drops into said cam.

4. In a cylinder tripping mechanism for multi-cylinder printing presses, the combination of two impression cylinders, means for raising and lowering the cylinders in alternation, cylinder tripping means for the cylinders respectively, the tripping means for the second cylinder embodying a tripping cam, a retaining cam for holding said tripping cam in tripping position, a stud operatively related to the tripping cam and movable into and out of engagement with its retaining cam and means carried by the retaining cam for shifting said stud.

5. In a cylinder tripping mechanism for multi-cylinder printing presses, the combination of the first and second impression cylinders, a transferring cylinder, sheet grippers on all of said cylinders, gearing connecting all of said cylinders together, and means for raising and lowering each of the impression cylinders, the raising and lowering means for the second cylinder embodying means for causing the cylinder to dwell in its rising and falling movement at an intermediate point in such movement when the grippers of the transferring cylinder and of the second impression cylinder are contiguous, and means for tripping said cylinder raising and lowering means.

[Claim 6 not printed in the Gazette.]

1,081,321. FURNACE. ALBERT MT. JOY, Greensburg, Pa., assignor of one-half to John Robb Clarke, Greensburg, Pa. Filed Feb. 19, 1913. Serial No. 749,422. (Cl. 126—90.)



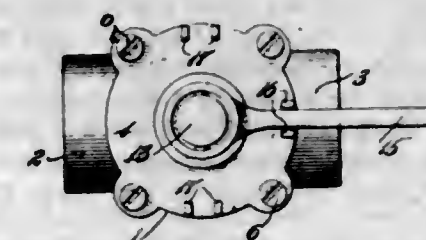
1. A furnace comprising a shell provided with a top and a cold air inlet, a closed hollow heat retaining element arranged within the said casing and constituting a fire-box, an exhaust stack opening into the top of the said element and projecting through the top of the casing, a horizontally disposed heat retainer arranged within the casing and surrounding and supported by the upper portion of said hollow retainer, said heat retainer provided with vertical openings, a hot air divider consisting of a plate surrounding said stack and arranged above said heat retainer and provided with vertical flues, flue connections carried by said top and aligning with said vertical flues, and means whereby access can be had to said fire-box.

2. A furnace comprising a shell provided with a top plate and a cold air inlet, a closed hollow element arranged within the said casing, an exhaust stack opening into the top of said hollow element and projecting through the top of the casing, a horizontally disposed heat retainer arranged within the casing and surrounding and supported by the upper portion of said hollow element, said retainer provided with vertical openings, a hot air divider consisting of a plate surrounding said stack and arranged above said heat retaining element and provided with vertical flues, flue connections carried by said top and aligning with said vertical flues, and means whereby access can be had to said fire-box, said heat retainer being of greater thickness than said plate.

1,081,322. VALVE. ALBERT C. MURPHY, New York, N. Y. Filed Dec. 18, 1911. Serial No. 666,506. (Cl. 137—7.)

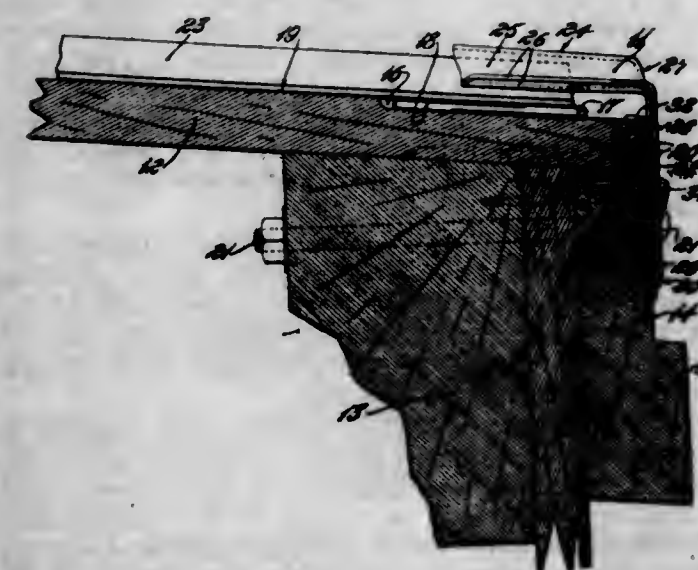
1. In a train pipe valve, a valve casing having cylindrical walls formed with interchangeable inlet and outlet

ports, a reversible rotary valve therein, said valve comprising a yoke having two branches forming a passage for fluid between them and a spring-pressed part-cylindrical valve segment loosely carried by each branch of said yoke, said yoke having its ends journaled in said casing, one end being solid and having a short stem projecting through said casing and being provided with an annular shoulder bearing against a seat in the casing, and the other end having an axial bore communicating with said passage and formed with an annular recess at its extremity, a spring in said recess bearing against the casing, and external means coöperating with said casing for positioning said valve in open, closed and reversed positions.



2. In a train pipe valve, a cylindrical casing forming a valve chamber and having interchangeable inlet and outlet ports in its side wall diametrically opposite each other, said casing being formed with a closed bottom having a cylindrical recess axially disposed therein, a cover for the top of said casing, said cover having a flush inner face with a countersunk seat therein surrounding a central hole for the valve stem, a rotatable valve axially arranged in said casing, said valve comprising a yoke and spring positioned valve segments loosely mounted thereon, the upper end of said yoke extending through the hole in said cover and having a beveled shoulder seated in the countersunk seat therein, the lower end of said yoke being journaled in the recess in the bottom of said casing and having a hollow bore therein, a spring positioned within said hollow bore and bearing against the bottom of said casing to maintain said yoke with its beveled shoulder against its seat in said cover, and means for admitting fluid pressure from said valve chamber to said recess whereby said fluid pressure will assist in maintaining said beveled shoulder in contact with its seat in said cover and one of said valve segments tight against the outlet port.

1,081,323. HOOD-CAP FOR OUTSIDE METAL CAR-ROOFS. DWIGHT MURPHY, Pittsburgh, Pa. Filed May 23, 1913. Serial No. 769,377. (Cl. 108—5.)



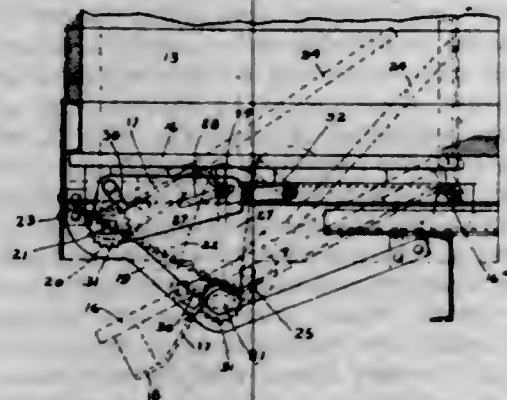
1. A sheet metal hood cap having a base portion provided with an opening for a securing member, the metal surrounding said opening being spaced above and at an angle to the plane of said base portion to form a spring seat for said securing member, the high side of said spring seat being toward the hood and the metal immediately ad-

jaacent thereto at the side thereof toward said hood being pressed up to form a watershed for said opening.

2. A hood cap for a car roof comprising metal roof sheets joined by raised seams terminating short of the eaves, said cap having a hood portion adapted to span a seam and close its open end and a base portion adapted to be secured to the side of the car, said base portion being provided with an inwardly projecting shelf adapted to bear upon the top of the car, between the end of a hollow seam and the eaves, said shelf being of a length not less than the width of the hollow seam with which it is adapted to cooperate.

3. A hood cap for a car roof comprising metal roof sheets joined by raised seams, said cap having a hood portion adapted to span a seam and a base portion adapted to be secured to the side of the car, said hood portion having lateral flanges spaced below its top a distance slightly less than the height of said raised seams, and said base portion being provided with an inwardly projecting shelf adapted to bear upon the top of the car, said shelf being spaced below the plane of the lower faces of said flanges.

1,081,324. DUMPING-DOOR-OPERATING MECHANISM. JOHN O. NEIKIRK, Morgan Park, Ill., assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 12, 1908. Serial No. 420,735. (Cl. 105—14.)



1. In a dump car, a door supporting shaft adapted to be reciprocated by rotation thereof, an inclined supporting track for said shaft, a ratchet wheel secured to said shaft, a creeper having a pivotal and sliding connection with a fixed part of the car, a detent pivoted to said creeper and adapted to engage said ratchet, and means for rotating said shaft.

2. In a dump car, a floor provided with hinged dump doors, a door supporting shaft adapted to be reciprocated by rotation thereof, a ratchet wheel secured to said shaft, an inclined supporting track for said shaft, a creeper, a pin and slot connection between said creeper and a fixed part of the car, a detent pivoted to said creeper and adapted to engage said ratchet, and means for rotating said shaft.

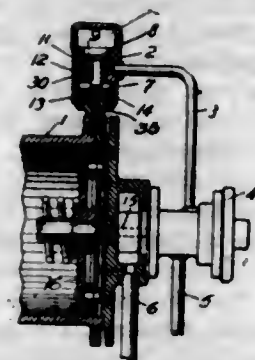
3. In a dump car, a door supporting shaft adapted to be reciprocated by rotation thereof, a plate loosely engaging the shaft at one end, a slot in the opposite end of the plate, a pin on the car framework engaging said slot, and coacting means carried by the plate and shaft adapted to hold the latter against rotation.

4. In a dump car, a door supporting shaft adapted to be reciprocated by rotation thereof, a member loosely engaging the shaft and also engaging the car framework at one side of the path of movement of the shaft, and a pawl adapted to drop behind the said member when the shaft is in a position corresponding to a closure of the door, and thus lock the door in closed position.

5. In a dump car, a reciprocating door supporting shaft, and a pawl adapted to hold the shaft in a position corresponding to a complete closure of the door, said pawl being always out of engagement when the door is in other positions.

[Claims 6 and 7 not printed in the Gazette.]

1,081,325. FLUID-PRESSURE BRAKE. GREGG OPPERMANN, Hanover, Germany, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 25, 1910. Serial No. 573,797. (Cl. 189—1.)



1. In a fluid pressure brake, the combination with a brake cylinder, of means for supplying fluid from the train pipe to the brake cylinder in applying the brakes and operating at a predetermined degree of pressure in the brake cylinder to restrict the flow of air from the train pipe to the brake cylinder.

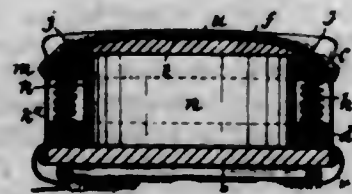
2. In a fluid pressure brake, the combination with a brake cylinder, of a valve device for controlling the supply of air from the train pipe to the brake cylinder and operated by a predetermined degree of pressure in the brake cylinder for restricting the flow of air to the brake cylinder.

3. In a fluid pressure brake, the combination with a brake cylinder, of a valve device for regulating the flow of air to the brake cylinder, comprising a platon having differential piston heads subject on its differential area to the flow of fluid to the brake cylinder tending to maintain open communication for the flow of fluid to the brake cylinder and to the opposing pressure of the brake cylinder tending to close said communication.

4. In a fluid pressure brake, the combination with a brake cylinder and a triple valve device for controlling the supply of air to the brake cylinder, of a valve device having differential piston heads subject to the opposing pressure of the brake cylinder and that of the fluid flowing to the brake cylinder for restricting the flow of air from the triple valve device to the brake cylinder.

5. In a fluid pressure brake, the combination with a brake cylinder, of a differential piston device having its differential area subject to the flow of air to the brake cylinder and subject on one side to the pressure in the brake cylinder for controlling the supply of air to the brake cylinder, said device operating at a predetermined degree of pressure in the brake cylinder to restrict the flow of air to said brake cylinder.

1,081,326. LUGGAGE-CARRIER. FRED G. PARKER, Paterson, N. J., assignor of one-half to Henry Smith, Acquackanonk, N. J. Filed June 9, 1913. Serial No. 772,604. (Cl. 224—32.)



1. A hollow, receptacle-forming luggage carrier for a cycle including, in combination, a lower member, an upper member arranged in spaced relation to the lower member, and a system of springs arranged between said members and affording cushion-support for the upper member, the receptacle-portion of said structure being substantially U-shaped in plan and open at one end and having removable means to cover the open end thereof, substantially as described.

2. A hollow, receptacle-forming luggage-carrier for a cycle including, in combination, a lower member, an upper

member arranged in spaced relation to the lower member, a system of springs arranged between said members and affording cushion-support for the upper member, flexible sheet material stretched between said members and extending the major part of the way around the receptacle portion of the carrier, whereby to leave an opening at one side of said receptacle portion, and a removable cover for said opening, substantially as described.

3. A combined luggage receptacle and auxiliary seat for cycles including, in combination, a base member, a seat member arranged above and spaced from the base member, a system of springs arranged between opposite marginal portions of said members and affording cushion-support for the seat member on the base member, flexible sheet material stretched between said members and extending partway around the same, whereby to leave an opening between said members at one side, and a removable cover for said opening, substantially as described.

4. In combination, upper and lower plate-like members, other upper and lower members each U-shaped in plan and respectively secured to the under and upper sides of the plate-like members, springs interposed between said U-shaped members, a flexible piece of sheet material extending partway around the several members, leaving an opening at the open ends of the U-shaped members and a removable cover for said opening, substantially as described.

5. A seat structure including, in combination, a lower member, an upper member arranged in spaced relation to the lower member, a system of springs arranged between said members and affording cushion-support for the upper member, inclosing means extending the major part of the way around the space between said members and forming between them a receptacle, said means affording a relatively limited opening leading to said receptacle, and a removable cover for said opening, substantially as described.

1,081,327. COSMETIC. LEMUEL S. PENN, Dayton, Ohio. Filed Sept. 17, 1909. Serial No. 518,153. (Cl. 167—9.)

1. As a composition of matter, a cosmetic comprising a mixture of fullers' earth and water in a semi-liquid state capable of effecting a drawing action upon the skin, produced by a slow boiling of said earth and water with the gradual addition of the water during the said boiling process.

2. As a composition of matter, an ointment comprising a mixture of fullers' earth and water in a semi-liquid state, produced by a slow boiling of said earth and water with the gradual addition of the water during the said boiling process, in combination with a sufficient proportion of alcohol to produce a skin tightening effect supplemental to the massage effect of the earth, as described.

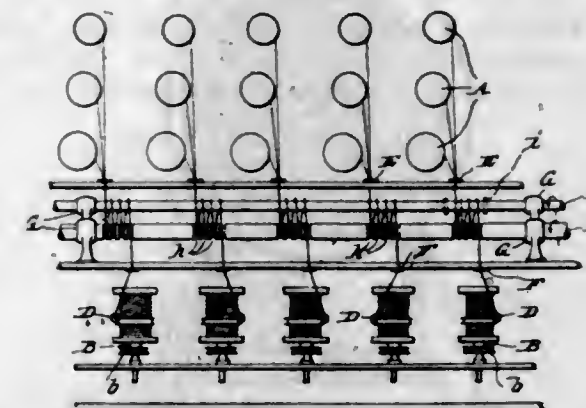
3. A process for producing a skin massage cosmetic comprising mixing fullers' earth with water to reduce the same to a semi-liquid state, then slowly boiling this mixture, then gradually adding more water during the boiling process to replace the evaporated water and to retain the mass at a muddy consistency and at the boiling point during the gradual addition of water.

1,081,328. YARN-TWISTING MECHANISM. DANIEL PORTER, New Brookland, and SEWALL K. OLIVER, Columbia, S. C. Filed Feb. 13, 1913. Serial No. 748,140. (Cl. 118—16.)

1. The combination with the series of spindles, rings and travelers, the creel and yarn guide eyes between the creel and travelers, of yarn feeding mechanism intermediate the yarn guide eyes embodying a long horizontal positively driven roller, a corresponding second roller spaced therefrom, said rollers both cooperating with the yarns for a series of spindles and being mounted in fixed bearings and out of frictional contact with other rollers and adapted to both be included in a succession of spaced loops of yarn between the creel and each spindle, respectively, and means for maintaining the individual loops of yarn spaced from each other.

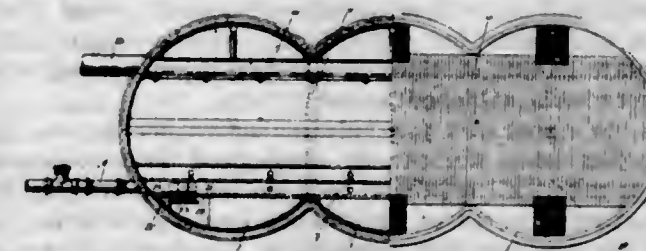
197 O. G.—37

2. The combination with the spindles, rings, travelers, creel and yarn guide eyes between the creel and travelers, of yarn feeding mechanism intermediate the creel and travelers embodying a pair of proximate positively driven rollers each having a free and unobstructed space around the same, whereby the yarn may be freely wrapped in loops



around the two rollers, one of said rollers having a series of grooves therein, each for the reception of a single loop of yarn, whereby the individual loops will be spaced from each other, the yarn engaging portions of the two rollers being of the same diameter whereby the yarn will be fed uniformly by both rollers.

1,081,329. PROCESS OF OPERATING SETTLING-TANKS. ALEXANDER POTTER, New York, N. Y. Filed July 23, 1912. Serial No. 711,045. (Cl. 210—5.)



1. The process of settling sewage comprising admitting sewage to one side of a tank and drawing off water from the opposite side thereof, permitting the heavier matter to settle into a lower chamber through an opening in the bottom of said tank, and causing an artificial circulation from said tank to said lower chamber.

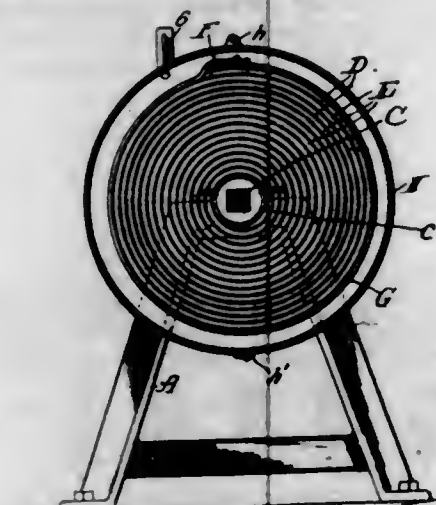
2. The process of settling sewage comprising admitting sewage to one side of a tank and drawing off water from the opposite side thereof, permitting the heavier particles to settle into a lower chamber through an opening in the bottom of said tank, and causing an artificial local circulation through said upper tank and opening into said lower chamber and back into said upper tank without passing through said opening.

3. The process of settling sewage, comprising admitting sewage to one side of a hopper bottom chamber, drawing off the water from the opposite side thereof, permitting the sludge to settle into a lower chamber through an opening in said hopper bottom, and causing an artificial circulation from said upper chamber to said lower chamber.

4. The process of settling sewage, comprising admitting sewage to one side of a hopper bottom chamber, drawing off the water from the opposite side thereof, permitting the sludge to settle into a lower chamber through an opening in said hopper bottom, and causing a circulation from said upper chamber to said lower chamber, by drawing water from said lower chamber and delivering it into said upper chamber.

5. The process of settling sewage, comprising admitting sewage to one side of a hopper bottom chamber, drawing off the water from the opposite side thereof, permitting the sludge to settle into a lower chamber through an opening in said hopper bottom, and causing a circulation from said upper chamber to said lower chamber, by drawing water from the upper portion of said lower chamber and delivering it into the inlet portion of said upper chamber.

1,081,330. -APPARATUS FOR VULCANIZING RUBBER. RAYMOND B. PRICE, Chicago, Ill. Filed Mar. 3, 1905. Serial No. 248,244. (Cl. 18-5.)



1. An apparatus for vulcanizing rubber, comprising a long, flexible conducting plate adapted to be convolutely coiled with the layer of rubber to be vulcanized between the several coils thereof, said plate being provided at its ends with terminals for the passage of an electric current through the body of said plate and means for holding the coils of said conductor plate and of the rubber to be vulcanized thereby under pressure during the vulcanizing operation, substantially as described.

2. An apparatus for vulcanizing rubber, comprising a thin metal plate having sections of different electrical resistance, and electric terminals connected to said plate.

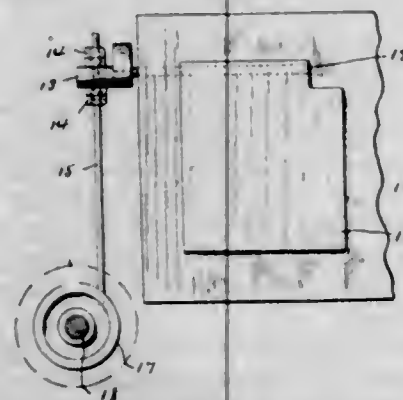
3. An apparatus for vulcanizing rubber, comprising a metal plate having sections of varying thickness and electrical terminals attached to said plate.

4. In an apparatus for vulcanizing rubber layers, the combination of a number of superposed thin resistance layers of metal all arranged in a common circuit for the passage therethrough of an electric heating current, and means for holding the superposed resistance layers of metal with a plurality of layers of rubber between them under pressure during the vulcanizing process, the layers of rubber separating and holding the resistance layers of metal apart, substantially as described.

5. An apparatus for vulcanizing rubber, comprising a drum, a long strip of thin, flexible metal adapted to be coiled about said drum with the rubber to be vulcanized between the coils of said strip, and electrical terminals connected to the ends of said metal strip.

[Claims 6 and 7 not printed in the Gazette.]

1,081,331. AUTOMATIC SHUTTER-WORKER. BARTON A. PROCTOR, New York, N. Y., assignor to Picturegraph Company, New York, N. Y., a Corporation of New York. Filed Sept. 19, 1912. Serial No. 721,199. (Cl. 88-19.4.)



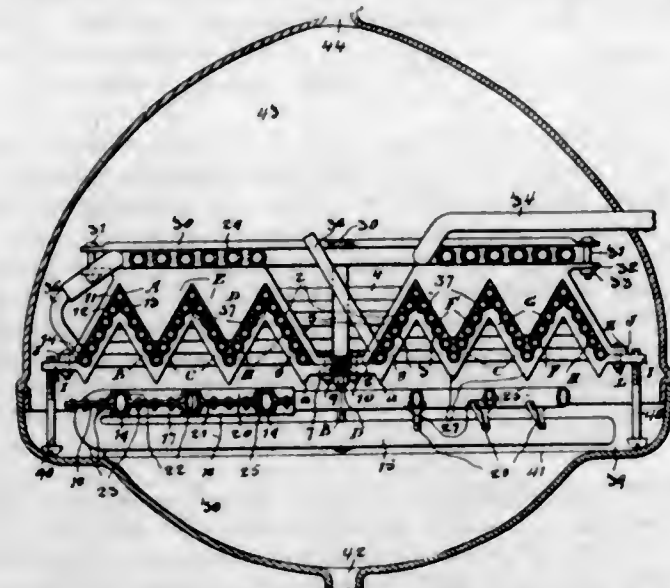
1. The combination with a shutter, of a driving shaft, a member loose on the shaft and operatively connected with the shutter so that the turning of the member moves the shutter, a second member tight on the shaft and in close proximity to the first member, and a liquid between the two members.

2. A shutter working mechanism comprising a driving shaft, tight and loose members on the shaft in close relation to each other and with liquid between them, a shutter, and an operative connection between the aforesaid loose member and the shutter.

3. A shutter working mechanism comprising a crank shaft having a shutter attached thereto, a driving shaft, tight and loose members in close proximity on the driving shaft, a liquid between said members, and an operative connection between the loose member and the crank shaft.

4. A shutter working mechanism comprising a driving shaft, a cup shaped member loose on the driving shaft, a second member fast to the driving shaft and entering the cup shaped member, a liquid between the tight and loose members, a movable shutter, and an operative connection between the shutter and the loose member whereby the turning of the member works the shutter.

1,081,332. WATER-COIL. REGINALD FOWLER REED, Toronto, Ontario, Canada. Filed Aug. 12, 1912. Serial No. 714,747. (Cl. 122-248.)



1. A new article of manufacture consisting of a water coil composed of piping formed into a plurality of sections spaced apart and each section composed of a plurality of convolutions, the contiguous convolutions being spaced apart and laterally disposed from the vertical whereby any given convolution extends a sufficient distance beneath the convolution immediately thereabove and whereby the condensation may pass by capillary attraction from one convolution to another and collect on the lower-most convolution.

2. As a new article of manufacture, a water coil composed of a length of piping formed into a plurality of sections spaced apart and each composed of a plurality of convolutions, the contiguous ones being spaced a short distance apart and laterally displaced from the vertical sufficiently so that any given convolution extends a sufficient distance underneath the one immediately thereabove in order that the condensation may drain from one convolution to another, and means for clamping said convolutions in relationship and constructed with portions extending therebelow and shaped to cause any condensation on said means to collect thereon in given positions.

3. As a new article of manufacture, a water coil composed of a length of piping formed into a plurality of sections spaced apart and each composed of a plurality of convolutions, the contiguous ones being spaced a short distance apart and laterally displaced from the vertical sufficiently so that any given convolution extends a sufficient distance underneath the one immediately thereabove in order that the condensation may drain from one convolution to another, and suitable means for clamping said convolutions and holding them in relationship.

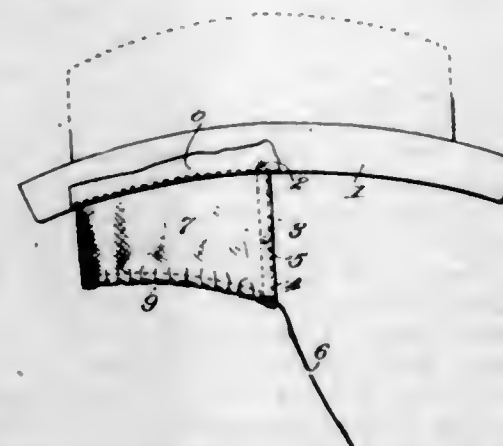
4. As a new article of manufacture, a water coil composed of a length of piping formed into a plurality of two-sided sections spaced apart, and each composed of a plurality of convolutions, the contiguous ones being spaced

a short distance apart and progressively increasing in diameter from the top to the bottom of the coil in one side of the sections, and decreasing in diameter from the top to the bottom of the coil in the other side of the said sections, so that any given convolution extends sufficiently underneath the one immediately thereabove in order that the condensation may drain from one convolution to another, and collect on the lowermost convolution, and suitable means for clamping said convolutions, and holding them in relationship.

5. As a new article of manufacture, a water coil composed of a plurality of two-sided sections spaced apart, the central section being provided with a central opening therethrough, and each composed of a plurality of convolutions, the contiguous ones being spaced a short distance apart, and progressively increasing in diameter from the top to the bottom of the coil, in one side of the sections, and decreasing in diameter from the top to the bottom of the coil in the other side of the said sections, so that any given convolution extends sufficiently underneath the one immediately thereabove in order that the condensation may drain from one convolution to another and collect on the lowermost convolution, and means for clamping said convolutions in relationship and constructed with portions extending therebelow and shaped to cause any condensation on said means to collect thereon, as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,081,333. HAT ATTACHMENT. WILLIAM DAVID REESE, Taylor, Pa. Filed Nov. 25, 1912. Serial No. 733,365. (Cl. 2-107.)



1. In a head and ear shield attachment for hats, a sheet of material having a free lower margin and an upper margin secured to the inside of the hat and projecting downwardly toward the neck of the wearer and over but not appreciably forwardly of the ears, pivotally connected upper and lower links of flexible material inclosed in the forward margins of said shield, the upper ends of the upper links being pivoted to the hat, an elastic strip inclosed in the lower margin of the shield and having its ends connected with the lower links, and fastening cords secured to the lower ends of the lower links, substantially as described.

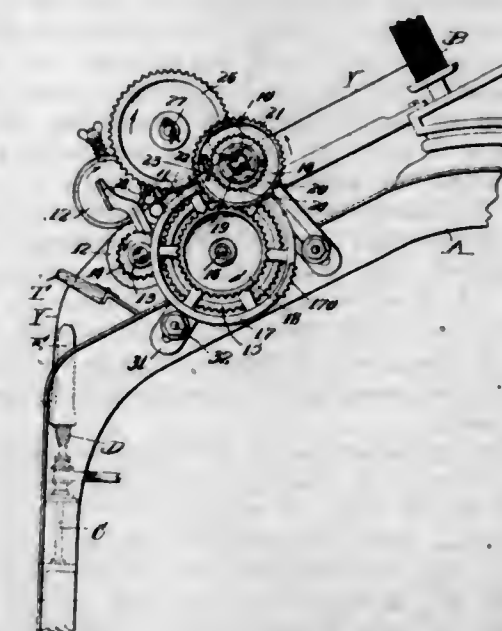
2. In a head and ear shield attachment for hats, a shield of material having an upper margin secured to the inside of the hat and projecting downwardly toward the neck of the wearer and over but not appreciably forwardly of the ears, jointed links pivoted to the hat and secured to the forward margins of the shield, an elastic strip secured to the lower margin of the shield and to said jointed links, and fastening cords connected with said links, substantially as described.

3. In a head and ear shield attachment for hats, a shield of material having its upper margins secured to the hat and projecting downwardly toward the neck of the wearer and over the ears but not appreciably forwardly thereof, jointed link means secured to the hat and to the forward margins of said shield, and fastening means secured to said links, substantially as described.

4. In a head and ear shield attachment for hats, a shield of material having an upper margin secured to the inside of the hat and projecting downwardly and over the

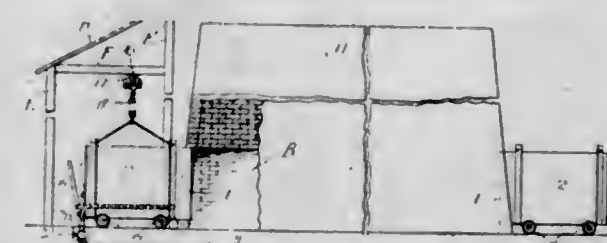
ears but not appreciably forwardly of the latter, flexible stiffening devices secured to the forward margins of the shield and to the hat and fastening to the lower margins of the shield, and fastening cords connected with said stiffening devices, substantially as described.

1,081,334. GEARING FOR SPINNING OR TWISTING MACHINES. SYLVANUS B. ROY, Worcester, Mass. Filed Dec. 17, 1907. Serial No. 406,859. (Cl. 118-7.)



In a spinning or twisting machine, the combination of feeding rolls, intermediate rolls and drawing rolls, with a shaft connected with one of the drawing rolls, to rotate at constant speed, an idle gear driven constantly from said shaft, a wheel loose on the shaft of one of the feed rolls meshing with said idle gear, driving connections between said shaft and wheel whereby said wheel will rotate said shaft at a constant speed but will permit the shaft to be intermittently rotated at a higher speed, means for intermittently rotating said shaft at said higher speed, means connected with said drawing roll shaft for rotating some of the intermediate rolls positively therefrom at constant speed, and means for driving the other intermediate rolls from the feed roll shaft and thereby varying their speed simultaneously with that of said feed roll.

1,081,335. BRICK-KILN. CHARLES E. SCHOLL and JOHN S. SCHOLL, Detroit, Mich. Filed Feb. 3, 1913. Serial No. 745,965. (Cl. 25-151.)



1. The combination with an arch formed of brick to be burned and having passages therein at the bottom thereof, of a series of portable furnaces having extended rear ends projecting into the ends of said passages, and means for supplying air under pressure to the several furnaces comprising air supply pipes located beneath the surface upon which the furnaces are supported, and flexible means for connecting each furnace with an air supply pipe to supply air thereto.

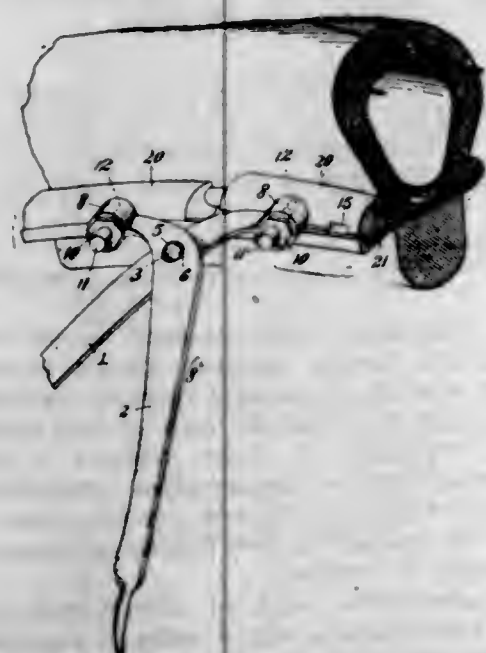
2. The combination with an arch formed of brick to be burned and provided with a series of passages opening through the side of the arch, of a plurality of furnace structures each having an open end projecting into one of the passages, and means for supplying air under pressure to the several furnaces comprising a supply pipe beneath the surface upon which the arch is supported and beneath the several passages therein to be heated by

heat from said passages, branches leading from said pipe to points adjacent to the forward ends of the several furnaces, a shut-off valve in each branch, and a flexible connection between each branch and one of the furnaces to supply air to the furnaces for maintaining combustion therein.

3. The combination with an arch formed of brick to be burned having a series of passages extending therethrough and open at their outer ends at the sides of the arch at its bottom, a series of furnace structures having rear ends projecting into the open ends of the passages in the arch and sealed therein, said structures each provided with an outlet in its rear end opening into the passage in the arch, a hollow grate structure in each furnace, means carried by each furnace for conducting air to its grate structure, a main for supplying air under pressure extending beneath the arch and located below the surface upon which the arch rests, branches leading from said main below the surface upon which the furnaces are supported, a shut-off valve in each branch below said surface adjacent to the forward end of each furnace, a flexible connection between each branch and the means for conducting air to the grate structure of each furnace, and overhead carrying means above the several furnaces for moving the same.

4. The combination of an arch formed of brick to be burned with transverse passages extending therethrough and recesses in the sides of the arch at the open ends of the passages, a series of portable furnaces each having an open rear end projecting into one of said recesses in the arch and sealed therein around said end, a hollow grate structure in each furnace, an air pipe for conducting air to the grate structure carried by each furnace, an air supply main laid within the ground beneath the arch longitudinally thereof, branches extending laterally from the main within the ground to a point adjacent to the forward ends of the furnaces, shut-off valves for the branches located beneath the surface of the ground, flexible connections between the ends of the several branches and the several air pipes carried by the furnaces, a roof structure over the arch having supports, a track carried by said supports and extending longitudinally of the arch above the several furnaces, and hoisting means movable along said track for raising and transporting the furnaces.

1,081,336. TOOL. EDWIN C. SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed May 2, 1910. Serial No. 558,975. (Cl. 29-84.)



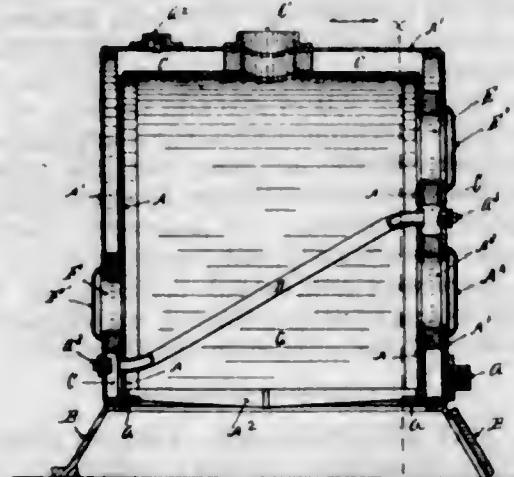
1. A tire tool comprising a pair of crossed bars pivoted together, one arm of each bar having projecting therefrom oppositely disposed studs of different diameters.
2. A tire tool comprising a pair of members pivoted together, each of said members carrying at one end a re-

versible plug having a stud projecting from each end thereof.

3. A tire tool comprising a bar having at one end thereof an eye and a reversible plug mounted in said eye, said plug having a stud projecting from each end thereof.

4. A tire tool comprising a pair of bars pivoted together, each bar having at one end thereof an internally threaded eye, a reversible threaded plug screwed into each eye, and a stud projecting from each end of said plug.

1,081,337. COMBINED WATER-HEATER AND GARBAGE-BURNER. HENRY SIMS, Erie, Pa. Filed Feb. 13, 1913. Serial No. 748,136. (Cl. 122-2.)



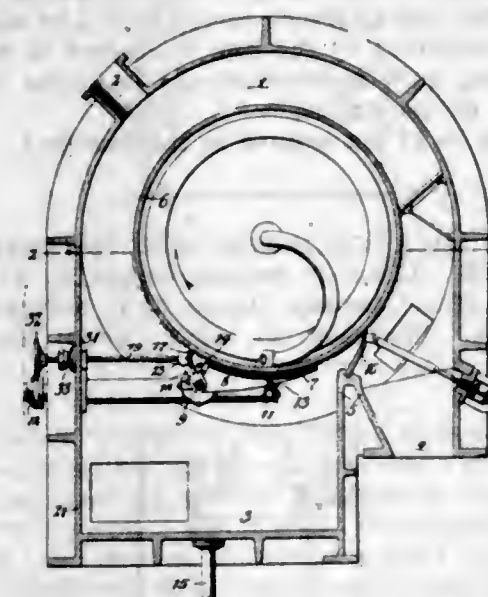
1. In a combined water-heater and garbage-burner, the combination of two shells forming a heating chamber, one shell so arranged within the other as to form a water-chamber between them; a fuel-grate in the bottom of the heating-chamber, a door to supply fuel to said grate, a garbage-grate above the fuel-burning grate having parallel bars, extending from above the fuel door in the front wall of the heating-chamber at an inclination downwardly to a point in the rear wall of the heating-chamber slightly above the rear end of the fuel grate adapted to permit garbage placed thereon to move downwardly so as to insure a free passage through the upper end of said garbage grate for the products of combustion from the fuel grate, doors in the front and rear of the heating-chamber above the ends of the garbage-grate, and a smoke exit opening in the top of the heating-chamber, substantially as set forth.

2. In a combined water-heater and garbage-burner, the combination of two shells forming a heating-chamber, one shell so arranged within the other as to form a water-chamber between them, a fuel-grate in the bottom of the heating chamber, a door to supply fuel to said grate, a series of parallel water-tubes above the fuel-burning grate, extending from above the fuel door in the front wall of the heating-chamber at an inclination downwardly to a point in the rear wall of the heating-chamber slightly above the rear end of the fuel-grate, and communicating at their front and rear ends with the water-chamber, and forming a garbage-grate in said heating-chamber adapted to permit garbage placed thereon to move downwardly so as to insure a free passage through the upper end of said garbage grate for the products of combustion from the fuel grate, doors in the front and rear ends of the heating-chamber above the ends of the garbage-grate, water inlet and outlet openings in the outer shell of the heating-chamber, and a smoke exit from the top of the heating-chamber, substantially as set forth.

1,081,338. DRIER. OLIVER S. SLEEPER, Buffalo, N. Y., assignor to Buffalo Foundry & Machine Company, Buffalo, N. Y., a Corporation of New York. Filed Sept. 1, 1911. Serial No. 647,189. (Cl. 127-9.)

1. A drier comprising a rotatable heating drum, means for depositing the material to be dried on said drum, a leveling blade arranged adjacent to the surface of the drum and adapted to spread the material to be dried

evenly over the surface of the drum, and means for adjusting said blade relatively to said drum comprising an adjusting rod pivotally connected with said blade and a stationary sleeve having an internal thread which receives an external thread on said rod.



2. A drier comprising a rotatable heating drum, means for depositing the material to be dried on said drum, a leveling blade arranged adjacent to the surface of the drum and adapted to spread the material to be dried evenly over the surface of the drum, and means for adjusting said blade relatively to said drum comprising an adjusting rod, a ball connected by a reduced neck with said rod, a lug arranged on said blade and provided with a socket having a conical bottom which is engaged by one side of said ball and a slot at its side which receives said neck, and a screw engaging with an internal thread in the outer part of the socket and bearing against the other side of the ball.

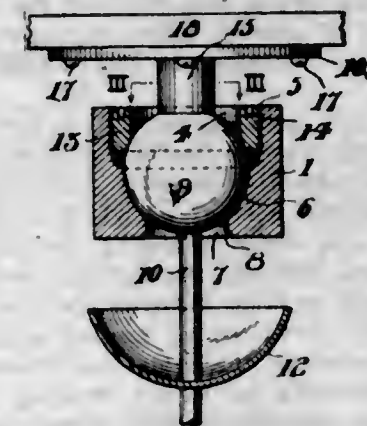
3. A drier comprising a rotatable heating drum, means for depositing the material to be dried on said drum, a leveling blade arranged adjacent to the surface of the drum and adapted to spread the material to be dried evenly over the surface of the drum, and means for adjusting said blade relatively to the drum comprising an adjusting rod connected with said blade and provided with a handle and an external thread, an internally threaded sleeve which receives the threaded part of the rod and which has a flange adapted to be secured to one side of a support, and a screw nut arranged on said sleeve and bearing against the other side of said support.

4. A drier comprising a rotatable heating drum, means for depositing the material to be dried on said drum, a leveling blade arranged adjacent to the surface of the drum and adapted to spread the material to be dried evenly over the surface of the drum, and means for adjusting said blade relatively to the drum comprising an adjusting rod connected with said blade and provided with a handle and an external thread, an internally threaded sleeve which receives the threaded part of the rod and which has a flange adapted to be secured to one side of a support, a screw nut arranged on said sleeve and bearing against the other side of said support and a stuffing box arranged on said sleeve and surrounding said rod.

1,081,339. SELF-LEVELING TABLE. CHARLES A. SMITH, Scalp Level, Pa. Filed June 2, 1913. Serial No. 771,141. (Cl. 114-195.)

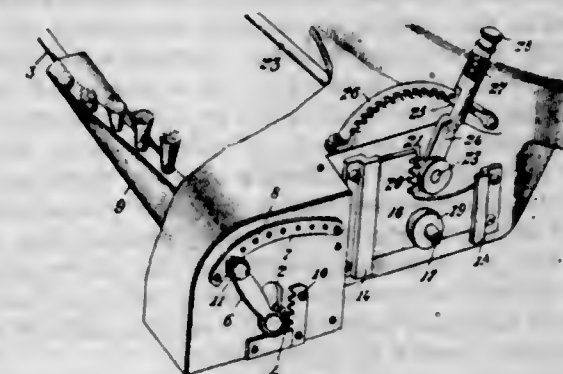
A self-leveling table comprising a cylindrical member formed with a cylindrical recess having the wall thereof threaded, said member further provided with a concave socket opening into said recess and said member further having an opening centrally of its bottom communicating with said socket, a spherical body mounted in said socket and projecting into said recess, said body engaging the wall of said socket throughout, a peripherally threaded collar engaging with said threads for maintaining said

body in said socket, said collar flush with the top of said member, a weighted pendulum depending from said body, a cylindrical post projecting from said body and of greater



diameter than said pendulum, a plate carried by the post, a table top secured to said plate, and a plurality of legs for supporting said member.

1,081,340. CARPET-SWEEPER. JAMES M. SPANGLER, Canton, Ohio, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio, a Corporation of Ohio. Filed July 24, 1911. Serial No. 640,261. (Cl. 15-60.)



In a carpet sweeper, a sweeper body, said sweeper body provided with vertically adjustable plates, means for holding said adjustable plates upon the sweeper body, bearings secured to said adjustable plates and traveling wheels mounted upon said bearings, a shaft located above the bearings carried by the adjustable plates, a lever fixed to the shaft, the plates being provided with rack-bar portions, segments fixed to said shafts and adapted to mesh with said rack-bar portions and means for holding the lever in fixed adjustment, substantially as and for the purpose specified.

1,081,341. PROCESS FOR THE MANUFACTURE OF COLOR-SCREENS. CARL SPÄTH, Steglitz, near Berlin, Germany, assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 14, 1910. Serial No. 587,062. (Cl. 95-81.5.)

1. The improvement in the process for manufacturing color screens for color-photography on converted cellulose films by means of a protective coating which is progressively changed to expose different parts of the surface to the effect of staining solutions which improvement consists in successively immersing the film in the different staining solutions, the solvents of which are progressively diluted.

2. The improvement in the process for manufacturing converted cellulose color screen films by means of a protective coating which is changed to expose different parts of the surface for successive staining operations which improvement consists in successively immersing the film in the different staining solutions the solvents of which contain progressively increasing percentages of water.

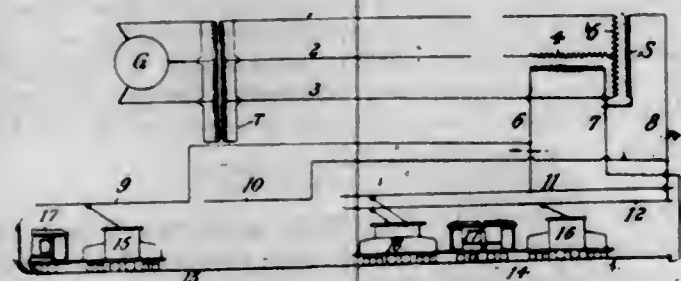
3. The improvement in the process for manufacturing nitro-cellulose color screen films by means of a protective coating that is changed to expose different parts of the surface for successive staining operations which improve-

ment consists in successively immersing the film in alcoholic staining solutions of different colors using progressively increasing percentages of acetone and water for successive coloring baths, the ratio of the quantities of acetone to those of alcohol being increased as the percentage of camphor contained in the nitro-cellulose is diminished.

4. A process for manufacturing nitro-cellulose color screen films which process consists in partially covering the film with a protective coating immersing in a blue staining solution, the solvent of which is a mixture of alcohol, acetone and water, changing the protective coating so as to expose different parts of the surface and immersing in a green staining solution the solvent of which contains a larger percentage of acetone and water than the preceding, removing the remainder of the protective coating and immersing in a red staining solution the solvent of which contains a still larger percentage of acetone and water than the first mentioned one, the ratio of the percentage of alcohol to that of acetone being decreased according to the percentage of camphor contained in the film.

5. A process for manufacturing nitro-cellulose color screen films which process consists in printing parallel lines of a protective resist on the surface of the film, immersing in a solution of a blue staining substance in alcohol, acetone and water, removing the protective printing by washing in a solvent, printing a second system of parallel lines of protective substance inclined toward the first system on the surface of the film, immersing the film in a solution of a green staining substance in alcohol, acetone and water the percentage of acetone and water employed being greater than with the blue solution, removing the protective printing by washing in a solvent and finally immersing in a solution of a red staining substance in alcohol, acetone and water, the percentage of acetone and water in the solvent being greater than that used with the green staining solution, the percentage of acetone employed in the solvents being increased as the percentage of camphor contained in the film diminishes. [Claim 6 not printed in the Gazette.]

1,081,342. ELECTRIC TRACTION SYSTEM. LEWIS B. STILLWELL, Lakewood, and FRANK N. WATERMAN, Summit, N. J. Filed Jan. 11, 1905. Serial No. 240,586. (Cl. 191-2.)



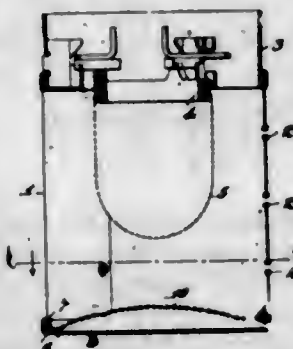
1. A power transmission system having a polyphase generating source, in combination with translating means at times consuming, and at times supplying energy, and means for absorbing energy applied to the system in excess of the demand therefor.
2. In an alternating current power transmission system, the combination of a source of polyphase current, a motor operating when driving a load to draw energy from the system and when driven by the load to return energy to it, and means for absorbing such returned energy in excess of the requirements of the system.
3. In an electric railway system the combination of a source of polyphase currents, an electrically propelled vehicle, a motor attached to said vehicle operating, when driven by the load, to return energy to said system, and means for absorbing said returned energy in excess of the requirements of the system.
4. In an alternating current power transmission system, the combination of a source of polyphase current, a motor operating when driving a load to draw energy from the system and when driven by the load to return energy to

it, and automatic means for absorbing such returned energy in excess of the requirements of the system.

5. In an alternating current power transmission system, the combination of a source of polyphase current, translating devices operable therefrom, a motor operating when driving a load to draw energy from the system and when driven by the load to return energy to it, and means automatically controlled by the flow of current in the system for absorbing such returned energy in excess of the requirements of the system.

[Claims 6 to 12 not printed in the Gazette.]

1,081,343. MICA CYLINDER FOR INVERTED GAS-MANTLES. AARON P. STORRA, Owego, N. Y., assignor to Storrs Mica Company, Owego, N. Y., a Corporation of New York. Filed Dec. 21, 1912. Serial No. 737,924. (Cl. 240-121.)

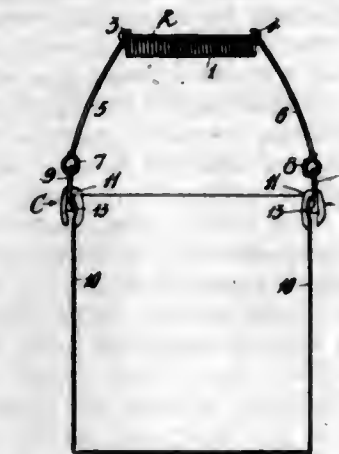


1. A cylinder for inverted incandescent burners, having walls of mica, a bottom of gauze, distorted inwardly beyond the plane of its periphery, in the direction toward the mantle, and means for preventing the perimeter of the gauze from increasing.
2. A cylinder for inverted incandescent burners, having walls of mica, with a metal annular nosing at the bottom, said nosing having a flange, and a circular gauze bottom, distorted inwardly beyond the plane of its periphery, in the direction toward the mantle, resting upon the flange and bearing against the nosing.
3. A cylinder for inverted incandescent burners, comprising a body of mica, a metal nosing at the bottom with a gutter grasping the mica, and an annular flange, with a lip or lips therein, and a bottom of wire gauze, convex in shape, resting upon the flange, and abutting against the nosing, with a wire or wires below each lip, for retaining the gauze in position.
4. A cylinder for inverted incandescent burners, having walls of mica, a metal annular nosing at the bottom thereof of inclosing the edge of the mica and having an inwardly extending flange, a circular gauze bottom distorted inwardly beyond the plane of its periphery, in the direction toward the mantle, resting on the flange and bearing against the nosing.

1,081,344. HANDLE FOR KEROSENE-TINS AND THE LIKE. JOHN HENRY TINK, Mordialloc, Victoria, Australia. Filed Oct. 17, 1912. Serial No. 726,237. (Cl. 220-24.)

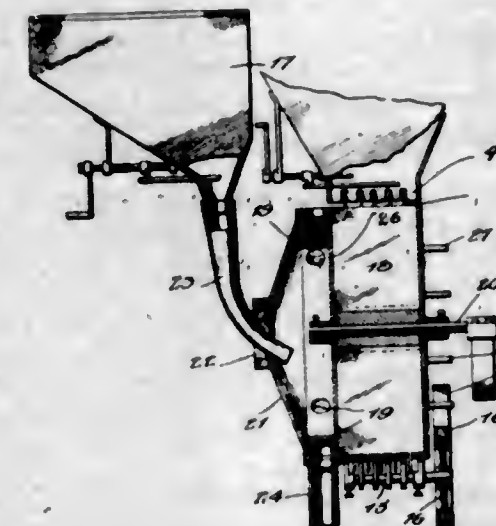
1. A handle clamp for tin receptacles consisting of a jaw member to embrace the edge of the receptacle, a cam member consisting of a cam proper and an eyelet to engage the handle, the cam having its greatest dimension normal to the wall of the receptacle at that point, and at right angles to the line connecting the eyelet and the cam, and equal to the greatest distance between the jaws, decreased by the thickness of the tin.
2. A handle clamp for tin receptacles consisting of a jaw member to embrace the edge of the receptacle, a cam member consisting of a cam proper and an eyelet to engage the handle, the cam having its greatest dimension normal to the wall of the receptacle at that point, and at right angles to the line connecting the eyelet and the cam, and equal to the greatest distance between the jaws, decreased by the thickness of the tin, the jaw opening being reduced

at the mouth and of greater dimension at a point back from the mouth.



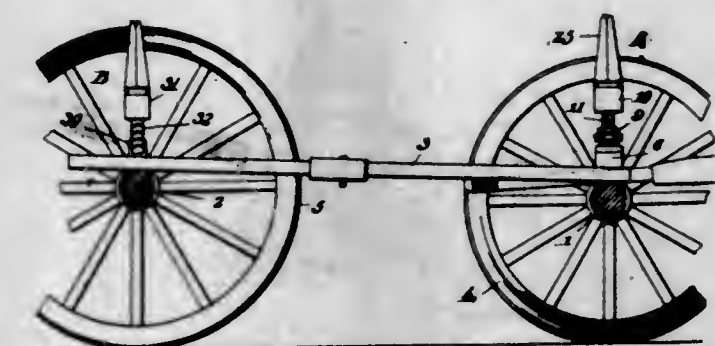
3. A handle clamp for sheet metal receptacles, consisting of two rigid jaw members to embrace the edge portion of the receptacle, a member coöperating with each jaw member and having a cam portion, and means for engaging a handle, the greatest dimension normal to the wall of the receptacle at that point, and of the cam member being at right angles to a straight line joining the center of the cam to the handle engaging means, and said dimension being equal to the greatest distance between the jaws decreased by the thickness of the sheet metal.

1,081,345. COMBINATION-PLANTER. FREDERICK A. TONEY, Greenacres, Wash. Filed Sept. 6, 1912. Serial No. 718,949. (Cl. 111-18.)



1. A wheeled planter including a frame, a drive shaft, a hopper on the frame, a rotatable pocketed potato drum adjacent the hopper and provided with outlet openings, knives on the drums at the outlet openings, a driven shaft adjacent the hopper, a chain for communicating motion from the drive shaft to the driven shaft, means on the chain for engagement with means on the feed drum for intermittently moving the feed drum, and cutting knives, on the driven shaft coöperating with the first knives to cut the potatoes as they fall through the opening.
2. A wheeled planter which includes a hopper, a rotatable feed drum adjacent the hopper, a driven chain, lateral projections on the feed drum, and projections on the chain for engagement with the drum projections for intermittently rotating the feed drum.
3. A wheeled planter including a frame, a drive shaft, a hopper, a rotatable pocketed feed drum adjacent the hopper, said feed drum having outlet openings in its periphery, connections between the hopper and drum for delivering seed centrally into the side of the drum, seed boots for conveying seed from the drum to the soil, and means directly engaging the drum for intermittently rotating the drum.

1,081,346. WAGON-BOLSTER. CHARLES TRAMEL, Hotchkiss, Colo. Filed Feb. 5, 1912. Serial No. 675,495. (Cl. 21-102.)

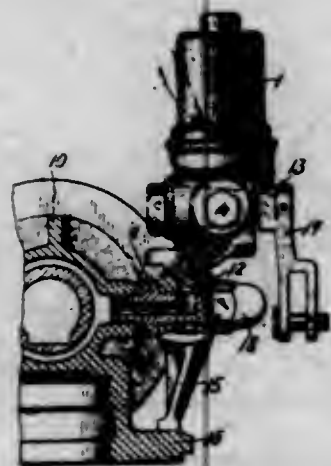


1. A wagon bolster comprising an upper section and a lower section, stops on said lower section, and a spring interposed between said sections, said upper section comprising an inverted channel member of sufficient width to pass down over said lower section and engage said stops, and having its ends contracted to substantially fit the ends of said springs, substantially as described.
2. A wagon bolster comprising a lower section and an upper section, and a spring interposed between said sections, said upper section comprising an inverted channel member, socket members detachably secured over the ends of said upper section, said springs being secured to said lower section and having its ends bent upwardly to extend within the ends of said upper section and within said socket member, rollers in the ends of said upper section resting upon said spring ends, and the lower ends of said socket members limiting the upward movement of said upper section, substantially as described.
3. A wagon bolster comprising a lower section, an upper section and a spring interposed between said sections, said lower section comprising a pair of detachably connected reversely arranged channel members adapted to receive the central portion of said spring between them, and the edges of said members being extended outwardly to form stops for said upper section, and means for securing said lower section to the axle, substantially as described.
4. A wagon bolster comprising a lower section, consisting of a pair of detachably connected members, a spring clamped between said members and having its ends curved upwardly, an upper section resting on said spring ends, a plate secured to the bottom of said lower section the ends of said plate extending beyond the ends of said section and curved upwardly, a plate adapted to be secured to the wagon frame to support the first mentioned plate and a king-bolt extending through said lower section and said plates, substantially as described.
5. A wagon bolster comprising a bottom section, consisting of a pair of superimposed channel members, the uppermost of which is inverted, outwardly extending flanges on the adjacent edges of said members, strap bolts spanning the upper members and extending through said flanges, nuts threaded upon the ends of said bolts and impinging under said flanges, a spring secured between said members and having its ends curved upwardly and an upper bolster section resting upon the ends of said spring and adapted to pass down into engagement with said flanges, substantially as described.

1,081,347. PRESSURE-RETAINING-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 14, 1910. Serial No. 586,771. (Cl. 188-12.)

1. In a fluid pressure brake, the combination with a triple valve device having an exhaust port, of a plug secured in said exhaust port and having a passageway therein and a projecting portion forming a bearing, a pressure retaining valve device mounted on said bearing and including a controlling cock, a passage connecting the cock with the passageway of the plug, and means located at a

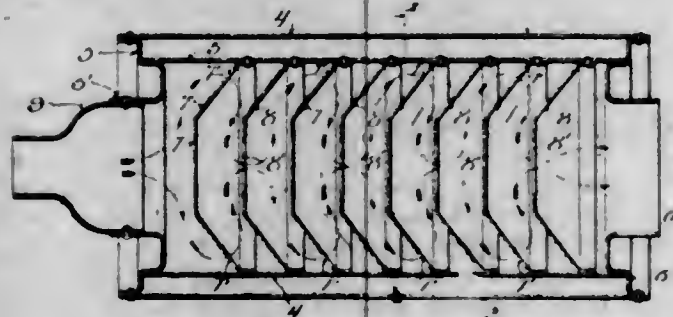
point distant from the retaining valve device for controlling the same.



2. In a fluid pressure brake, the combination with a triple valve device, of a plug secured in the exhaust port of the triple valve device, a pressure retaining valve device mounted on said plug and provided with a supporting foot, and means adapted to be manually operated from the end of the car for cutting said retaining valve device into and out of service.

3. In a fluid pressure brake, the combination with a triple valve device, of a plug secured in the exhaust port of the triple valve device, a pressure retaining valve device mounted on said plug and provided with a supporting foot adapted to rest on a flange of the triple valve device, and a system of rods and levers for manually controlling said retaining valve device from the end of the car.

1,081,348. EXHAUST-SILENCER. WILLIAM H. UNKE and OTTO C. UNKE, Milwaukee, Wis., assignors, by mesne assignments, to Yale Steel Stamping Company, Oostburg, Wis., a Corporation of Wisconsin. Filed Oct. 17, 1912. Serial No. 726,243. (Cl. 121-116.)



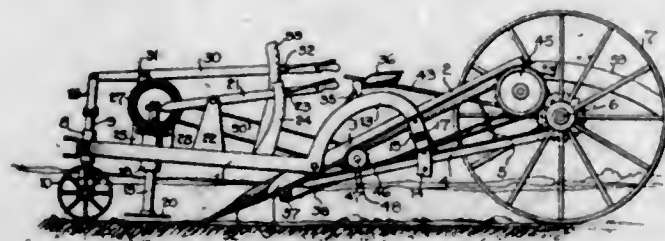
1. An exhaust-silencer comprising a pair of concentric jackets, centrally open heads closing space between the jackets to thereby provide a dead air cushion in said space, a series of conical partition-plates at intervals within the inner jacket constituting breakers apertured at intervals circumferentially thereof adjacent to their ends of greatest diameter, and another series of centrally open similar plates within said inner jacket also constituting breakers alternating with those aforesaid, said breakers being approximately equidistant apart, their ends of least diameter parallel to the rear head toward which they extend and the area of opening approximately the same in each.

2. An exhaust-silencer comprising a pair of concentric jackets, centrally open heads closing space between the jackets to thereby provide a dead air cushion in said space, a series of conical partition-plates at intervals within the inner jacket constituting breakers apertured at intervals circumferentially thereof adjacent to their ends of greatest diameter, and another series of centrally open similar plates within said inner jacket also constituting breakers alternating with those aforesaid, said breakers being approximately equidistant apart, their ends of least diameter parallel to the rear head toward which they extend, the area of opening approximately the same in each and their disposition such that a breaker of the first series is first in opposition to the exhaust.

3. An exhaust-silencer comprising a pair of concentric jackets, centrally open heads closing space between the jackets to thereby provide a dead air cushion in said space, a bushing engaging an outwardly extending annular flange with which the rear head is provided, the bushing being for engagement with an exhaust-pipe of an engine, a series of conical partition-plates at intervals within the inner jacket constituting breakers apertured at intervals circumferentially thereof adjacent to their ends of greatest diameter, and another series of centrally open similar plates within said inner jacket also constituting breakers alternating with those aforesaid, said breakers being approximately equidistant apart, their ends of least diameter parallel to said rear head toward which they extend and the area of opening approximately the same in each.

4. An exhaust-silencer comprising a pair of concentric jackets, heads closing space between the jackets to provide a dead air cushion in said space and having central openings as well as outwardly extending annular flanges, a series of conical partition-plates at intervals within the inner jacket constituting breakers apertured at intervals circumferentially thereof adjacent to their ends of greatest diameter, and another series of centrally open similar plates within said inner jacket also constituting breakers alternating with those aforesaid, said breakers being approximately equidistant apart, their ends of least diameter parallel to the rear head toward which they extend and the area of opening approximately the same in each.

1,081,349. BEET-HARVESTER. MENNE VAN VOORST, Herreid, S. D. Filed Mar. 1, 1913. Serial No. 751,661. (Cl. 55-9.)



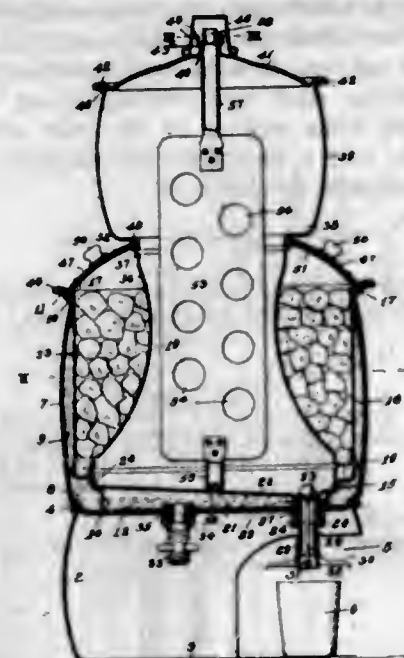
In a harvester of the class described, a pair of frame sections pivoted to one another in longitudinal alignment, supporting wheels carried on the forward frame section, enlarged supporting wheels carried on the rear end of said rear frame section to normally dispose the latter in an inclined position with respect to the forward frame section, said rear frame section consisting of pairs of forwardly converging side bars, and connecting means between said side bars, arcuate and rearwardly extending arms formed on the rear ends of the forward frame section, for disposition on the sides of said rear frame section, means in connection with said arcuate arms, and the bracing means for the converging arms of the rear section to retain the latter in various adjusted positions with respect to the forward frame section, and harvesting means carried on said frame sections.

1,081,350. BUTTERMILK-COOLER. GEORGE VINEX, Pittsburgh, Pa. Filed Dec. 17, 1912. Serial No. 737,286. (Cl. 31-86.)

1. In a buttermilk cooler, the combination with an outer ice containing vessel, of an inner milk container having an upper reservoir portion, a middle contracted portion, and a flaring enlarged bottom sloping toward an opening within the walls of the container, an outlet connection extending from said opening downwardly through the outer ice containing vessel, and a valve controlling the flow through said outlet operable from below the valve, substantially as set forth.

2. In a buttermilk cooler, the combination with an ice containing vessel, of an outermost surrounding vessel, intervening insulating packing, an inner milk container having an upper reservoir portion, a middle contracted portion, and a flaring enlarged bottom sloping toward an outlet within the cross area of the container, and an outlet

conduit communicating therewith extending through the bottoms of all of said vessels and provided with a valve having a depending stem, substantially as set forth.



3. In a buttermilk cooler, the combination of an outer casing of sheet metal, an inner ice containing vessel of sheet metal, intervening insulating packing material between said vessels, an innermost milk container within the ice containing vessel with an intervening ice cavity, said milk container having an upper reservoir portion, a middle contracted portion, and a flaring enlarged bottom sloping to an outlet opening within the cross area of the container, and a valve-controlled outlet extending downwardly from said opening through and fixedly connecting all of said vessels and having a valve provided with a depending operative device, substantially as set forth.

4. In a buttermilk cooler, the combination of an outer casing of sheet metal, an inner ice containing vessel of sheet metal, intervening insulating packing material between said vessels, an innermost milk container within the ice containing vessel with an intervening ice cavity, said milk container having an upper reservoir portion, a middle contracted portion, and a flaring enlarged bottom sloping to an outlet opening within the cross area of the container, a valve-controlled outlet extending downwardly from said opening through and fixedly connecting all of said vessels and having a valve provided with a depending operative device, and a supplemental water withdrawal outlet extending through and connecting the bottom of the outer vessel and ice containing vessel respectively, substantially as set forth.

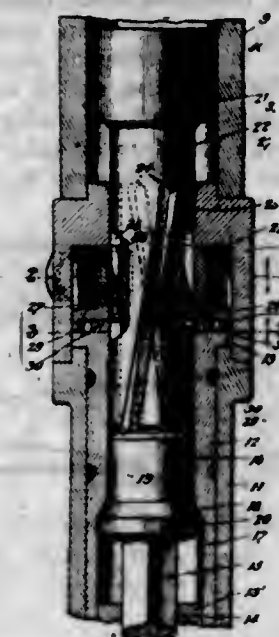
5. In a buttermilk cooler, the combination of an outer insulating casing, an ice containing vessel within said casing, insulating packing material between said vessels, an innermost milk container having an upper reservoir portion, a middle contracted portion, and a flaring enlarged bottom sloping to an outlet opening within the cross area of the container, a valve-controlled conduit therefor extending downwardly through the bottoms of said vessels and having a valve provided with a depending operative device, a supplemental valve controlled water outlet extending through the bottoms of the outer casing and ice container respectively, and a two-part cover resting upon the upper portion of the outer casing and around the upper neck portion of the milk container respectively, substantially as set forth.

(Claims 6 to 19 not printed in the Gazette.)

1,081,351. DRILL-ROTATING MECHANISM. DANIEL S. WAUGH, Denver, Colo., assignor, by mesne assignments, to The Denver Rock Drill Manufacturing Company, a Corporation of Delaware. Filed Feb. 20, 1913. Serial No. 749,758. (Cl. 121-20.)

1. In apparatus of the character described, the combination with a cylinder member and a reciprocatory piston operating therein, of a rotatable tool-holding chuck, a rotatable ring detachably interlocked with the

front end of the piston and the rear end of the chuck, and means for rotating the piston.



2. In apparatus of the character described, the combination with a cylinder member and a reciprocatory piston operating therein, of a rotatable tool-holding chuck, a rotatable ring detachably interlocked with the front end of the piston and the rear end of the chuck, and means interlocked with the front end of the piston for effecting a step-by-step rotation of said piston.

3. In apparatus of the character described, the combination with a cylinder member and a reciprocatory piston operating therein, of a rotatable chuck, a pair of rotatable rings, one being mounted on the other, one of said rings being connected to the chuck and piston, the other to the piston only, and means for effecting a step-by-step rotation of the latter ring.

4. In apparatus of the character described, the combination with a cylinder member and a reciprocatory piston operating therein, of a rotatable chuck, a rotatable ring detachably interlocked with the rear end of the chuck and having extending portions slidably interlocked with the piston, and a ratchet ring rotatable on said extended portions and slidably interlocked with the piston.

5. In apparatus of the character described, the combination with a cylinder member and a reciprocatory piston operating therein, of a rotatable chuck, a rotatable ring, said ring and chuck being provided, one with sockets and the other with lugs engaged in the sockets, said ring being also provided with spaced extensions slidably interlocked with the piston, and a ratchet ring surrounding the extensions and having portions arranged between the same and slidably interlocked with the piston.

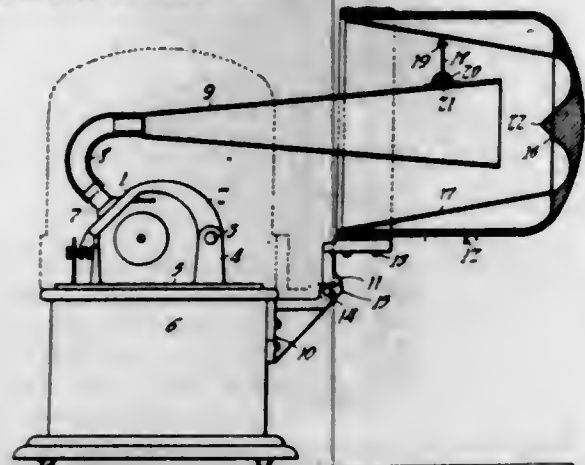
(Claims 6 to 14 not printed in the Gazette.)

1,081,352. PHONOGRAPH. PETER WEBER, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed July 22, 1909. Serial No. 509,061. (Cl. 181-2.)

1. In a phonograph, the combination of a movable reproducer, a pivoted cover for the same, the interior of which forms a deflector and sound amplifier, a tube connected to the reproducer and suspended within the cover with its open end opposite the center of the deflector when the cover is open, the suspending means permitting the tube to partake of the motion of the reproducer, substantially as described.

2. In a sound reproducing apparatus, the combination with a reproducer, of a cover therefor movable into open and closed positions with respect to the same, means for supporting said cover in open position, said cover being provided in the interior thereof with sound deflecting and amplifying means, and a sound conveyer in communication with said reproducer and adapted to extend into said cover through the exit of said sound deflecting and amplifying means when the cover is in open position, substantially as described.

3. In a sound reproducing apparatus, the combination with a reproducer, of a pivoted cover therefor movable into open and closed positions with respect to the same, means for supporting said cover in open position, said cover being provided in the interior thereof with sound deflecting and amplifying means, and a sound conveyer in communication with said reproducer and adapted to extend into said cover through the exit of said sound deflecting and amplifying means when the cover is in open position, substantially as described.

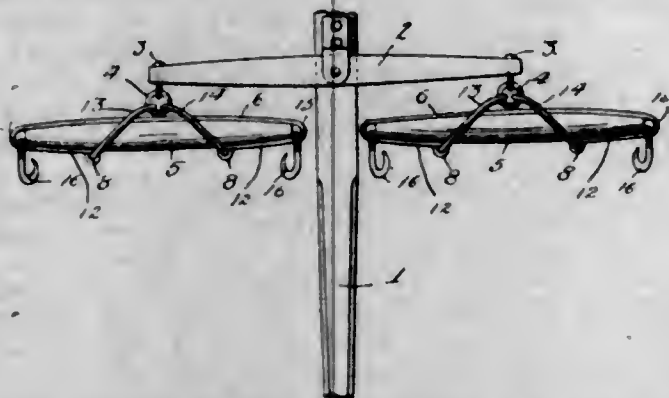


4. In a sound reproducing machine, the combination with a reproducer and a support for the same, of a cover for the reproducer, a bracket mounted upon the side of the support, a hinged connection between said bracket and cover, constructed to support said cover in open position at an angle to its closed position, said cover being provided with a sound amplifier in the interior thereof, and means for conveying and directing sound from said reproducer to said amplifier, said means comprising a sound conveying tube connected at one end to the reproducer and having its other end directed at the center of the amplifier when the cover is open, and means within said cover for supporting said tube, said last named means permitting movement of the tube relatively to said cover, substantially as described.

5. In a sound reproducing machine, the combination with a reproducer and a support for the same, of a movable cover for the reproducer, the interior of which is provided with a deflector and sound amplifier, said deflector having inwardly tapered sides, the inner surfaces of which terminate in a central elevated apex, a connection between said cover and support, said connection being constructed to support said cover with the axis of said amplifier in a substantially horizontal plane, and means for conveying and directing sound from said reproducer to said deflector, said means comprising a sound conveying tube connected at one end to the reproducer and having its other end directed at the center of the deflector when the cover is open, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

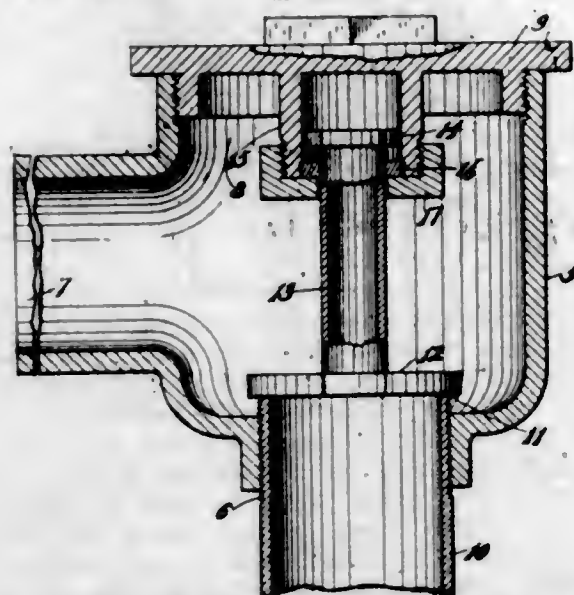
1,081,353. WHIFFLETREE. FRED WILLARD WEBSTER, Spooner, Wis. Filed Apr. 25, 1912. Serial No. 693,034. (Cl. 21-78.)



The combination with a whiffletree, of a strap metal member secured to the rear edge thereof and having its

ends looped over the ends of said whiffletree each end of said metal member terminating in an eye, said eyes being located approximately one-quarter the distance from the ends of said whiffletree, bolts passing through said strap member, whiffletree and said ends, a trace hook upon each loop portion of said metal member, a resilient curved link within each eye encompassing said whiffletree said curved links ending at the rear and center of said whiffletree, and a securing ring engaging said links, as and in the manner set forth.

1,081,354. SEWER-TRAP. HENRY C. WILLIAMS, Milwaukee, Wis. Filed Jan. 17, 1910. Serial No. 538,388. (Cl. 137-32.)



1. A sewer trap valve, comprising a casing provided with inlet and outlet openings, a screw cap forming part of the casing and provided with a threaded depending tubular guide portion, a tube threaded to the casing at the inlet opening and forming a valve seat, a valve resting on the valve seat, a valve stem connected to the valve and extending into the tubular guide portion, a head threaded to the upper end of the valve stem, a nut threaded to the inner portion of the tubular guide and provided with an opening through which the valve stem extends and which is adapted and constructed to engage the head of the valve stem and prevent its withdrawal from the tubular guide, and another nut also provided with an opening through which the valve stem extends threaded to the outer portion of the tubular guide portion.

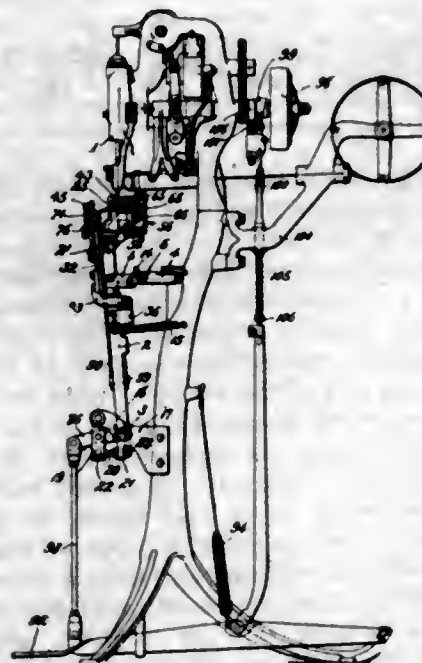
2. A sewer trap valve, comprising a casing provided with inlet and outlet openings, a screw cap forming part of the casing and positioned above one of the openings and provided with a threaded depending tubular guide portion, a disk valve covering the opening beneath the cap and provided with an upstanding stem having a head formed on its upper end which is guided in the tubular guide portion, and a nut threaded on the lower end of the tubular guide and provided with an opening through which the valve stem extends, said guide being of sufficient length to permit the free vertical play of said valve and the said nut serving to engage the head of the stem and lift said valve from its seat when the cap is unscrewed from the casing.

1,081,355. SOLE-LAYING MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Nov. 18, 1908. Serial No. 463,137. (Cl. 12-33.)

1. A sole laying machine, having, in combination, a nail driving mechanism, devices for locating a sole on the bottom of a shoe in position for receiving a securing nail, a support for said devices and means for withdrawing the support from working relation with the nail driving mechanism, substantially as described.

2. A sole laying machine, having, in combination, a nail driving mechanism, devices for locating a sole on the

bottom of a shoe movable at the will of the operator into working relation with the nail driving mechanism, and mechanism for withdrawing the locating devices from working relation with the nail driving mechanism between two successive operations of the nail driving mechanism, substantially as described.



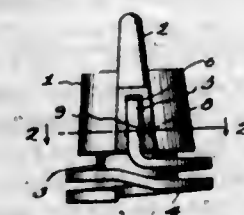
3. A sole laying machine, having, in combination, a nail driving mechanism, devices for locating the sole in position for receiving a securing nail, and mechanism acting automatically to withdraw the locating devices between two successive operations of the nail driving mechanism, substantially as described.

4. A sole laying machine, having, in combination, a nail driving mechanism, a shoe support provided with gages arranged to engage and position a shoe upper, and with gages arranged to engage and locate a sole with relation to the upper, and mechanism for withdrawing the support between two successive operations of the nail driving mechanism, substantially as described.

5. A sole laying machine, having, in combination, a nail driving mechanism, devices for relatively locating a sole and upper in position for receiving a securing nail, shoe clamping devices, and mechanism for withdrawing the locating devices from the shoe upon the release of the clamping devices, substantially as described.

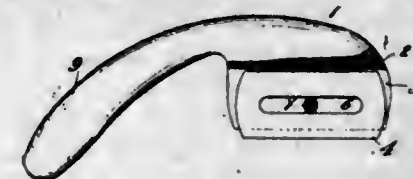
[Claims 6 to 32 not printed in the Gazette.]

1,081,356. LOCK-NUT. FREDERICK A. WITTICH, Ashtabula, Ohio, assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio, a Corporation of Ohio. Filed Sept. 13, 1911. Serial No. 649,127. (Cl. 151-38.)



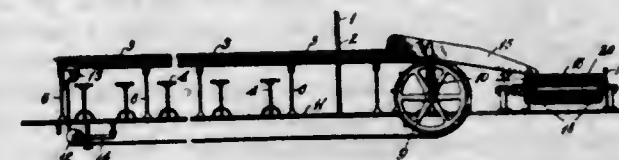
A lock nut, comprising a nut having an internally threaded extension of equal bore with the main portion of said nut; and a laterally projecting shoulder formed at the inner end of said nut; said nut being formed with a longitudinally disposed slot; and a normally extended coiled spring disposed about and in contact with such extension and resting against such shoulder, said spring having one end bent up into such slot and the latter being indented to positively hold the same, whereby said spring is held on such extension against rotary or longitudinal movement, said lock nuts being adapted to engage and operate upon a bolt of standard type.

1,081,357. SAFETY SEAM-RIPPER. CHARLES C. WOODWORTH, Portland, Oreg. Filed Jan. 17, 1913. Serial No. 742,873. (Cl. 30-14.)



A safety seam-ripper comprising a holder having a head provided with a longitudinally-extending open-ended slot, a blade provided with a longitudinal slot, a screw for securing said blade in the slot of said head, said screw passing through the slot in the blade, and a handle for said head, said handle being curved downwardly toward the blade-side of said head and constituting a longitudinal extension thereof.

1,081,358. RESTAURANT EQUIPMENT. LEWIS E. ZERBE, Flint, Mich. Filed Oct. 16, 1912. Serial No. 726,142. (Cl. 186-1.)



1. The combination of a plurality of dining tables arranged end to end in a continuous row and having smooth upper surfaces adapted to support dishes, means for supporting and guiding said tables, means connecting said tables for moving the entire row longitudinally, a rotary member at one end of the row of tables around one side of which the tables are carried by said means, a receiving member adjacent to said rotary member, and power transmitting mechanism for actuating said connecting means and automatically stopping the same as each of the tables reaches a predetermined tilted position to discharge its load upon said receiving member during its travel around said rotary member.

2. The combination of a plurality of dining tables arranged in a continuous row and having an upper surface on which dishes are adapted to be supported, means for connecting said tables and moving the row longitudinally, a rotary member at one end of the row of tables around which the tables pass when moved by said means, an inclined chute, and means for automatically stopping said means for moving the row as each table is tilted in passing around said rotary member into alignment with said chute to discharge its load thereon.

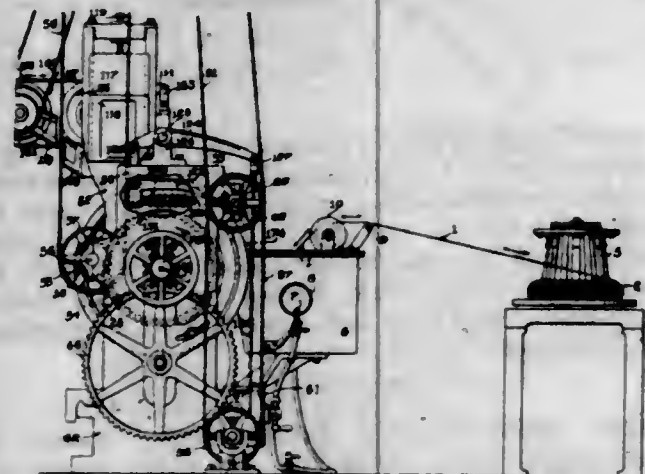
3. The combination of a row of dining tables having an upper surface upon which dishes are adapted to be supported, means for supporting and guiding said tables, a rotary member at one end of the row of tables downward around which the tables are adapted to pass, an inclined chute adjacent the rotary member, and means for intermittently actuating the tables to stop each table in alignment with said chute as it travels around the rotary member.

4. The combination of a row of separate dining tables arranged end to end, a chain for actuating the row of tables, to which each table is attached, a rotary member at the end of the row around which the chain passes to move the tables horizontally and carry them downward and beneath said member in an inverted position, means for intermittently operating the chain to stop each table in an inclined position during its travel around the rotary member, and an inclined chute having sides extending at the sides of the tables and a bottom in alignment with the tables when tilted.

5. The combination of a plurality of parallel rows of dining tables, a carrier extending at right angles to said rows adjacent to one end thereof, means at the end of each row for consecutively tilting the tables, one at a time, means for actuating the carrier, and means for intermittently moving the several rows longitudinally.

[Claims 6 to 9 not printed in the Gazette.]

1,081,359. APPARATUS FOR FORMING WIRE HOOPS. EDWARD I. BRADDOCK, Winchester, Mass., assignor of one-half to Henry W. Lamb, Brookline, Mass. Filed July 22, 1912. Serial No. 710,766. (Cl. 140-1.)



1. In an apparatus of the character described, in combination, an expansible and contractible former provided with a plurality of sets of circumferentially arranged grooves, means for expanding and contracting said former, a vessel for containing a bath of coating metal, a carriage upon which said vessel is supported, means for guiding a wire through the bath to said former, means for rotating said former, means for feeding the carriage longitudinally of the former as the latter is being rotated, and means movable with the carriage for heating the bath of coating metal, substantially as described.

2. In an apparatus of the character described, in combination, an expansible and contractible former provided with a plurality of sets of circumferentially arranged grooves, means for expanding and contracting said former, a vessel for containing a bath of coating metal, a carriage upon which said vessel is supported, means for guiding a wire through the bath to said former, means for rotating said former, means for feeding the carriage longitudinally of the former as the latter is rotated, means movable with the carriage for heating the bath of coating metal, and a cutting mechanism to cut the wire between adjacent sets of grooves.

3. In an apparatus of the character described, in combination, an expansible and contractible former upon which the wire is wound into the form of a hoop, a rotatable support for said former within the latter, means carried by said support for expanding the former, and means to rotate said support.

4. In an apparatus of the character described, in combination, an expansible and contractible former upon which the wire is wound into the form of a hoop, a rotatable support for said former, means to rotate said support, a kettle for containing a bath of coating material, a carriage supporting said kettle, and means for feeding said carriage in the direction of the length of the former as the latter is rotated, substantially as described.

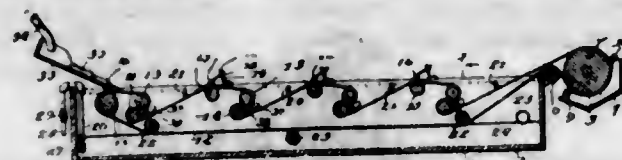
5. In an apparatus of the character described, in combination, an expansible and contractible former upon which the wire is wound into the form of a hoop, a rotatable support for said former, means to rotate said support, a kettle for containing a bath of coating material, a carriage supporting said kettle and means for feeding said carriage in the direction of the length of the former as the latter is rotated, a guide for the wire movable with said kettle and independently thereof, and means for effecting said independent movement.

[Claims 6 to 12 not printed in the Gazette.]

1,081,360. ORE-SEPARATOR. CHARLES HENRY BROWN, Magdalena, N. Mex., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 27, 1911. Serial No. 451,502. (Cl. 83-85.)

1. In apparatus of the class described, the combination of a liquid tank; a plurality of transversely extending guides secured in the tank in a longitudinal series and

disposed alternately above and below the designed level of the liquid; a longitudinally movable conveyor guided by the guides and passing alternately upwardly and downwardly angularly through the surface of the liquid; and a device at one end of the series of guides for feeding material to the conveyor in the direction of its movement.



2. In apparatus of the class described, the combination of a liquid tank; a plurality of transversely extending rolls secured in the tank in a longitudinal series and disposed alternately above and below the designed level of the liquid; a longitudinally movable conveyor guided by the rolls and passing alternately upwardly and downwardly angularly through the surface of the liquid; and a device at one end of the series of rolls for feeding material to the conveyor in the direction of its movement.

3. In apparatus of the class described, the combination of a liquid tank; a plurality of spaced rolls in the tank disposed alternately above and below the designed level of the liquid; a roll disposed outside of the tank beyond one of the end rolls within the tank; a movable conveyor guided by the rolls; a device adjacent the roll at the end opposite the outside roll for feeding material to the conveyor in the direction of its movement; and a plurality of spreaders respectively disposed transversely of and above the conveyor adjacent the several rolls disposed above the liquid level.

4. In apparatus of the class described, the combination of a liquid tank; a plurality of spaced rolls in the tank disposed alternately above and below the designed level of the liquid; a roll disposed outside of the tank beyond one of the end rolls within the tank; a movable conveyor guided by the rolls; a device adjacent the roll at the end opposite the outside roll for feeding material to the conveyor in the direction of its movement; a plurality of spreaders respectively disposed transversely of and above the conveyor adjacent the several rolls disposed above the liquid level; and means for varying the temperature in the tank.

5. In apparatus of the class described, the combination of a liquid tank; a plurality of spaced rolls in the tank disposed alternately above and below the designed level of the liquid; a roll disposed outside of the tank beyond one of the end rolls within the tank; a movable conveyor guided by the rolls; a device adjacent the roll at the end opposite the outside roll for feeding material to the conveyor in the direction of its movement; a plurality of spreaders respectively disposed transversely of and above the conveyor adjacent the several rolls disposed above the liquid level; a steam pipe extending within the tank; and a launder at the side of the conveyor adjacent the liquid level.

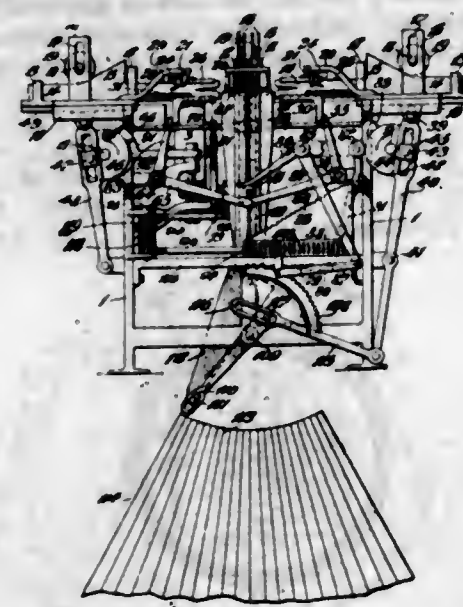
[Claims 6 and 7 not printed in the Gazette.]

1,081,361. GRADING, STAMPING, AND SELECTING MACHINE. HENRY C. BROWN, Brooklyn, N. Y., assignor to Henry Stockman, Englewood, N. J. Filed Sept. 25, 1912. Serial No. 722,215. (Cl. 101-186.)

1. In a machine of the character stated, a plurality of sets of irons, each having an article measuring slot leading from an end thereof, means for moving the irons until stopped by the walls of the measuring slots thereof coming into contact with the article being measured, a gage mounted for movement along the measuring slot of each iron by contact with the article, and stamping mechanism controlled by that gage which has measured the thinnest part of the article and adapted to mark the article with a character corresponding with the thickness of the article at the thinnest part.

2. In a machine of the character stated, a plurality of sets of irons, each having an article measuring slot leading from an end thereof, means for moving the irons until

stopped by the walls of the measuring slots thereof coming into contact with the article being measured, a gage mounted for movement along the measuring slot of each iron by contact with the article, stamping mechanism controlled by that gage which has measured the thinnest part of the article and adapted to mark the article with a character corresponding with the thickness of the article at the thinnest part, and means controlled by the stamping mechanism to distribute the articles in accordance with their thickness.



3. In a machine of the character stated, a plurality of sets of irons each having an article measuring slot leading from an end thereof, means for moving the irons until stopped by the walls of the measuring slots thereof coming into contact with the article being measured, a gage for each iron and mounted for movement along the measuring slot thereof by contact with the article being measured, and selecting mechanism controlled by that gage which has measured the thinnest part of the article to separate the articles in accordance with their measurement.

4. In a machine of the character stated, a plurality of sets of irons, each having an article measuring slot leading from an end thereof, means for moving the irons until stopped by the walls of the measuring slots thereof coming into contact with the article being measured, a gage for each iron mounted for movement along the measuring slot thereof by contact with the article being measured, means to interlock each gage with its respective iron at the point measured, a series of article stamps, and means controlled by that gage which has measured the thinnest part of the article to cause that stamp having a character corresponding with the thinnest part measured to engage the article.

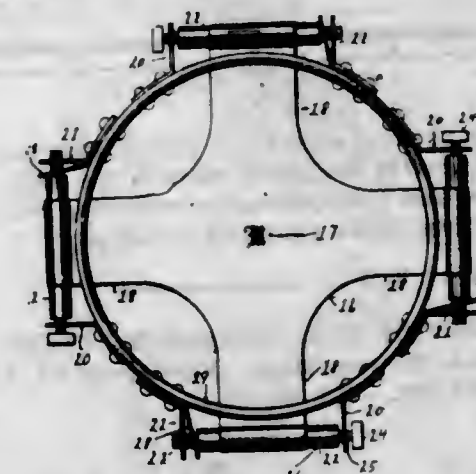
5. In a machine of the character stated, a plurality of sets of irons, each having an article measuring slot leading from an end thereof, means for moving the irons until stopped by the walls of the measuring slots thereof coming into contact with the article being measured, a gage for each iron mounted for movement along the measuring slot thereof by contact with the article being measured, means to interlock each gage with its respective iron at the point measured, a series of article stamps, means controlled by that gage which has measured the thinnest part of the article to cause that stamp having a character corresponding with the thinnest part measured to engage the article, a series of bins, and a distributor controlled by the positioning of the proper article stamp to discharge an article after being stamped into the bin corresponding to the thickness of the article.

[Claims 6 to 20 not printed in the Gazette.]

1,081,362. ENGRAVER'S TRANSFER DEVICE. ISAAC N. CASSITY, Topeka, Kans. Filed Oct. 4, 1912. Serial No. 723,873. (Cl. 101-171.)

1. In a device of the kind described, the combination of a hoop, a series of pairs of brackets secured to, projecting outwardly from, and arranged equidistantly around,

said hoop, a roller mounted in and extending between the brackets of each pair, one end of said roller being formed with a ratchet tooth adjacent to one of the brackets of its pair and said adjacent brackets being formed with ratchet teeth engaging the first-named tooth, and said roller being mounted so as to have lengthwise movement between the brackets, a spring for each roller for holding said teeth normally engaged; and a thin transparent rubber sheet having a series of radially extending straps, one strap for each roller and wound upon the respective rollers, said ratchet teeth being arranged to hold the roller against unwinding under the tension of the rubber.



2. In a device of the kind described, the combination of a hoop, a series of pairs of brackets secured to, projecting outwardly from, and arranged equidistantly around, said hoop, a roller mounted in and extending between the brackets of each pair, one end of each roller being formed with a ratchet tooth adjacent to one of said brackets of its pair, and said adjacent bracket being formed with a ratchet tooth engaging, respectively, the first-named ratchet tooth; a thin transparent and elastic sheet having a series of pairs of radially extending straps, said sheet extending across the central portion of the hoop with the straps corresponding with and wound upon the respective rollers; and means for holding the ratchet teeth in engagement for holding the straps against unwinding.

3. In a device of the kind described, the combination of a frame having a central opening, a series of pairs of brackets secured to said frame and arranged substantially equidistantly around said central opening, a roller mounted in each pair of brackets, a sheet of thin, transparent, and elastic material extending across said central opening and having a series of pairs of straps the straps in each pair extending in diametrically opposite directions, said straps being wound upon the respective rollers, together with means for preventing the unwinding of said straps from said rollers.

4. In a device of the kind described, the combination of a frame having a central opening, a series of pairs of rollers mounted in said frame equidistantly around said central opening, the rollers of each pair being diametrically opposite to each other, a transparent and elastic sheet extending across said central opening and having radially extending straps corresponding with and wound upon the respective rollers, and means for holding the rollers against unwinding.

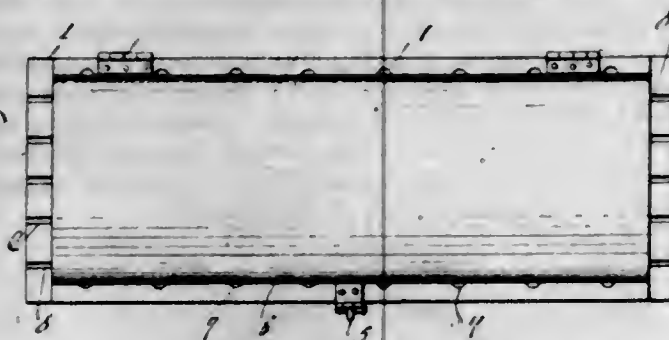
5. In a device of the kind described, the combination of a frame having a central opening, a series of pairs of rollers mounted in said frame around said central opening, the rollers of each pair being on opposite sides, respectively, of said central opening, a transparent and elastic sheet extending across said opening and having radially extending straps corresponding with and wound upon the respective rollers, and means for preventing the unwinding of said straps from said rollers.

[Claims 6 to 8 not printed in the Gazette.]

1,081,363. VERMIN-TRAP. CHARLES CELENE, Port Orchard, Wash., assignor of one-half to Mamie Auburn, Seattle, Wash. Filed Jan. 3, 1913. Serial No. 740,061. (Cl. 43-22.)

A vermin trap comprising a base; and a cover including flanges resting on top of the base and a body spaced from

the base, the cover being shorter than the base to define, with the flanges, a marginal platform surrounding the body; the base having a longitudinal groove in its upper face and extended from one end of the base to the other,



there being a vertical opening in each flange, the openings communicating with the space beneath the body, the ends of the groove and the openings constituting vermin-intercepting apertures in the marginal platform.

1,081,364. DEVICE FOR DESTROYING FLIES. OLIVER E. CHAPMAN, Sharon, Mass. Filed June 12, 1912. Serial No. 703,188. (Cl. 43-1.)



1. An insect destroyer having, in combination, a supporting rod having its upper end arranged to rest against the wall at a point removed from the insect to be destroyed in order to position and steady the device, a striking member having a plane face supported upon the upper portion of the rod and arranged in parallel relation with the wall at the completion of the striking operation, and an operative connection for moving the striking member relative to the rod into a striking position.

2. An insect destroyer having, in combination, a supporting rod, a bat pivotally connected to the rod below the upper end and having the fulcrum located at one side of the plane of the striking face in order to position the bat substantially parallel with the surface upon which the insect is located at the completion of the striking operation, and an operating cord connected to the bat.

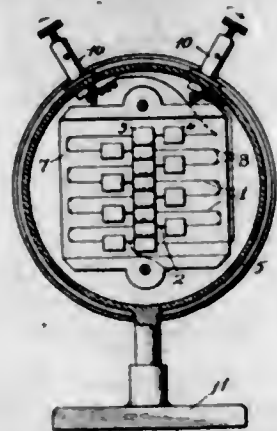
3. An insect destroyer having, in combination, a supporting rod, a bat having a striking face, a curved arm extending from the bat and fulcrumed upon the supporting rod at one side of the face of the bat and intermediate its ends to support the bat at the completion of the striking operation parallel to the surface upon which the insect is located, and an operating connection secured to the free end of the arm.

4. An insect destroyer having, in combination, a supporting rod, a bat pivotally connected to the upper portion of the rod and arranged to swing upwardly into a striking

position, a receptacle secured to the rod beneath the bat and arranged to receive the insects which have been killed as they slide off the bat when the bat is swung into a retracted position, and a cord operatively connected to the bat and arranged to be readily manipulated by the operator to swing the bat into a striking position.

5. An insect destroyer having, in combination, a supporting rod, a frame having an arm extending therefrom and pivotally connected intermediate its ends to the rod, a close mesh screen secured to the under side of the frame to prevent crushing the insects, and an operating cord connected to the free end of the arm and arranged to be readily manipulated by the operator to swing the bat into a striking position.

1,081,365. THERMOPILE. WILLIAM W. COBLENTZ, Washington, D. C. Filed Oct. 28, 1913. Serial No. 797,912. (Dedicated to the public.) (Cl. 171-73.)



1. In a thermal generator, a shield provided with an aperture, a series of thermal elements supported behind said shield, said thermal elements being joined to form hot junctures and cold junctures, receivers of heat conducting material joined to said elements at the hot junctures, said receivers being overlapped to form an opaque curtain arranged behind said aperture.

2. In a thermal generator, a plurality of receivers, wires of dissimilar metals joined to said receivers, a plurality of ends of similar wires being joined near the ends of each receiver and supporting means for said wires.

3. In combination, a plurality of adjacent holders, a plurality of thermal elements, arranged on three sides of each of said holders, said elements being joined to form hot junctures and cold junctures, heat conducting receivers joined to said elements at the hot junctures, the receivers on each holder overlapping one another to form a curtain on each holder and the curtains on adjacent holders overlapping each other.

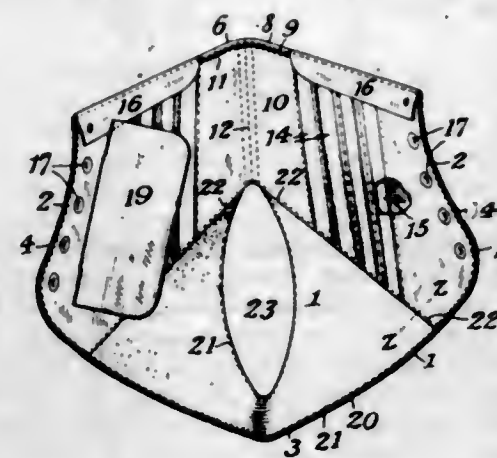
4. In combination, a plurality of adjacent holders, a plurality of thermal elements, arranged on three sides of each of said holders, said elements being joined to form hot junctures and cold junctures, said hot junctures being arranged on sides of said holders between the sides on which the said cold junctures are arranged, heat conducting receivers joined to said elements at said hot junctures, the receivers on each holder overlapping one another to form a curtain on each holder and the curtains on adjacent holders overlapping each other to shield the cold junctures from radiation.

5. A plurality of joined thermal elements, receivers attached to said thermal elements at certain of the junctures, some of the said receivers overlapping.

1,081,366. ANKLE SUPPORT AND PROTECTOR. HENRY JAMES COLLIS, Taunton, Mass. Filed Apr. 4, 1912. Serial No. 688,429. (Cl. 128-52.)

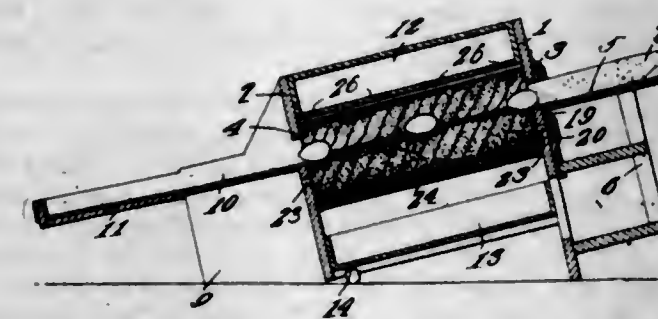
1. An improved ankle support and protector of the class described, comprising a pliable outside main portion formed of a one-piece blank and forming compositely the side portions of the upper part of the body of the device which extend at each side the ankle and at the front and the bottom strip or portion which extends downwardly from said

side portions and passes under the instep, the upper part of said outside main portion terminating in rear edges which are respectively in front of the back section of the device which surrounds the rear of the ankle above the heel, whereby the one-piece blank which forms said outside main portion does not extend to the rear of the ankle, a seamless pliable strip corresponding to the space between the rear edges of the upper part of said outside main portion and secured in connection with said edges, and an inner pliable body strip formed of a one-piece seamless blank and extending continuously over the inner face of the upper portion of said outside main portion above the bottom strip or portion which passes under the instep and also continuously over the inner face of said seamless back strip so that both the outer and inner members of the body of the device present a smooth and seamless surface at the back section which surrounds the ankle above the heel.



2. An improved ankle support and protector of the class described, comprising a pliable outside main portion forming compositely the side portions of the upper part of the body of the device which extend at each side the ankle and at the front and the bottom strip or portion which extends downwardly from said side portions and passes under the instep, an inner pliable body strip extending over the inner face of the upper portion of said outside main portion above the bottom strip or portion which passes under the instep, and a sweat-proof strip of water-proof material extending over the inner face of said bottom instep strip or portion of said outside main portion below the bottom edges of said inner body strip, said sweat-proof member forming a reinforce for the bottom instep strip portion of said main outer portion which extends below the inner body-strip member of the device.

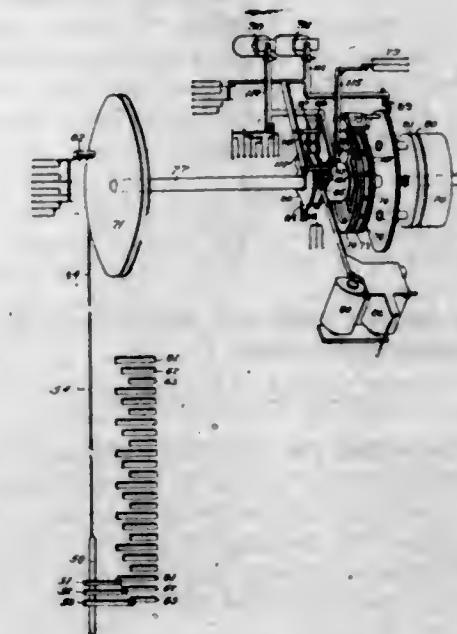
1,081,367. MACHINE FOR WASHING EGGS. ELMER B. COOK, Gilroy, Cal. Filed July 5, 1911. Serial No. 636,886. (Cl. 146-14.)



A machine for cleaning eggs including an inclined revolvable brush, parallel inclined upper brushes adjacent the first named brush, the space between the upper brushes being in vertical alignment with the axis of the lower brush and having its end unobstructed, said upper and lower brushes cooperating to hold an egg normally supported between the brushes, means for directing eggs into the unobstructed receiving end of said space, and means for receiving eggs from the unobstructed delivery end of

said space, and downwardly converging oppositely disposed similar retaining strips contacting with opposed portions of the first named brush and with the lower portions of the upper brushes.

1,081,368. SELECTOR MECHANISM. EDWARD B. CRAFT and AMOS F. DIXON, New York, N. Y., assignors to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 11, 1908. Serial No. 410,320. (Cl. 179-27.5.)



1. In a selector switch controlling device, the combination with a plurality of relatively adjustable controller members, of a part having relative movement with respect to said controller members, and stop means brought into action by the mechanical cooperation of said relatively-movable part with said controller members jointly, according to their adjustment.

2. In a selector switch controlling mechanism the combination with a plurality of relatively adjustable controller parts, of selectively operated step-by-step mechanism for imparting such relative adjustment, and stop means controlled by the relative adjustment of said parts.

3. In a selector controlling mechanism, the combination with relatively-adjustable controlling members having scales of different length, of selective setting-mechanism for causing relative adjustment of said parts to determine the coinciding point of said scales, an actuating member adapted to respond to a coincidence of said scales, and means for causing relative movement of said member with respect to said scales.

4. A selector switch controlling mechanism comprising relatively adjustable parts adapted to act in combination, electromagnetic selective mechanism for setting said controller parts in definite combination, a stop means, and means responsive to the combination of controller parts for actuating said stop means.

5. A selector switch controlling mechanism comprising relatively-adjustable stop-setting parts, a stop device, and means adapted to cooperate with said stop-setting parts jointly to actuate said stop device.

[Claims 6 to 15 not printed in the Gazette.]

1,081,369. SCREEN-DOOR TRAP. LAWRENCE W. CRITZER and HANS J. H. KOSTER, Protection, Kans. Filed Aug. 19, 1912. Serial No. 715,866. (Cl. 43-22.)

The combination with a screen closure including a frame having a rabbet run around the inner edge, of an insect trap comprising a rectangular frame having a marginal external flange adapted to seat in said rabbet, means to removably secure said trap to said closure, parallel screen members on the opposite faces of said trap frame, entrance cones carried by one of said members, a discharge slot formed in the bottom of said trap frame, and a leaf hinged

at one end on the bottom face of said trap frame and normally closing said discharge slot, said leaf being clamped



between said bottom face and the bottom wall of said recess and thereby held closed.

1,081,370. PROCESS OF MANUFACTURING SILICON-STEEL PRODUCTS. OTTO H. CUNNINGHAM, Leechburg, Pa., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Continuation of application Serial No. 620,478, filed Apr. 11, 1911. This application filed Dec. 13, 1911. Serial No. 665,484. (Cl. 29—18.)

1. The process of finishing silicon sheet steel which consists in giving the sheets finishing passes in rolls, and intermediate some of the finishing passes giving the sheets a reheat.

2. The process which consists in completing the final mechanical reduction of silicon sheet steel above the ordinary finishing temperature.

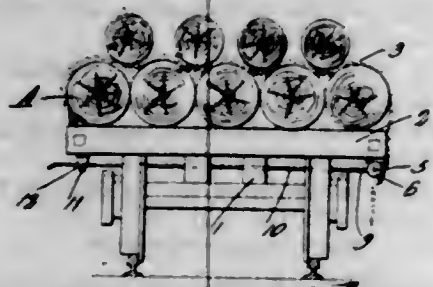
3. The process which consists in completing the final mechanical reduction of silicon sheet steel at orange heat.

4. The process which consists in reheating a pack of silicon sheet steel to a temperature not lower than the ordinary reheating temperature and quickly passing the pack between reducing rolls so as to discharge the pack at a temperature above the ordinary discharging temperature.

5. The process which consists in so reheating and passing a pack of silicon sheet steel between reducing rolls as to discharge the finally reduced product above the ordinary discharging temperature.

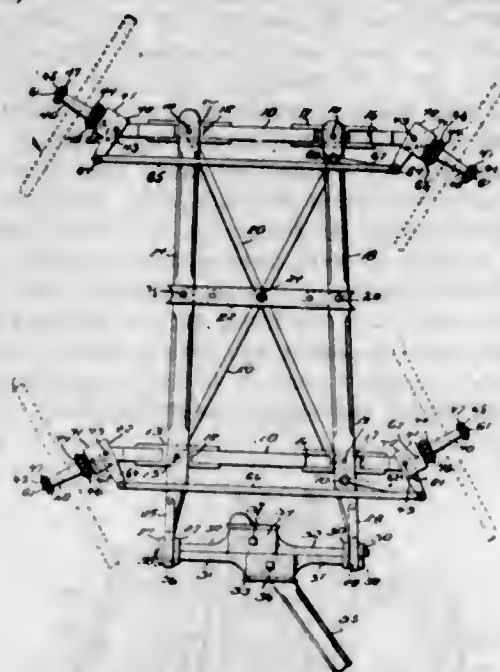
[Claims 6 to 20 not printed in the Gazette.]

1,081,371. CHAIN-RELEASE FOR LOGGING-CARS. JOHN DODD, Merryville, La. Filed Nov. 4, 1912. Serial No. 729,517. (Cl. 214—5.)



A chain holding device including a member mounted for rotation, a series of spaced fingers radiating therefrom and normally extending downwardly, an arm revoluble with said member, an actuating bar pivotally connected to the arm, a bracket, and means on the bar for engaging the bracket to hold said member and arm against rotation and with the fingers extending downwardly in chain engaging position, said bar, when disengaged from the bracket, constituting means for rotating said member to swing the fingers upwardly to release the chain.

1,081,372. VEHICLE. JAMES W. DREW, Brackettville, Tex. Filed June 29, 1911. Serial No. 636,073. (Cl. 21—140.)



1. In a vehicle, a supporting frame including forward and rearward bolsters each having a longitudinally extending recess, a bearing member slidable in each of said recesses, an axle mounted to swing upon each end of each bolster, a reach member mounted to swing intermediate the ends upon said frame and engaging in said bearing members, connecting means between said reach member and said axles, and a draft tongue mounted to swing relative to said frame and connected to said reach member, whereby the axles are simultaneously cramped by the lateral movements of the tongue.

2. In a vehicle of the class described, a supporting frame, pivoted axles turning on said frame and adapted to carry bearing wheels, a reach rigidly connected with said frame, another reach movably supported on said frame, connecting means between the movable reach and the pivoted axles, and roller bearing members 31 and 32 arranged side by side and operating to vibrate the movable reach and simultaneously cramp the wheels, and a draft tongue pivotally connected with both said bearing members, as shown and described.

3. In a vehicle of the class described, a supporting frame, pivoted axles turning upon said frame and adapted to carry bearing wheels, a stationary reach supported upon said frame, a movable reach supported upon said frame, said reaches having bearings at their forward ends, connecting means between said movable reach and said pivoted axles, a half roller member connected to said stationary reach and slidable through the bearing of the movable reach, another half roller member connected to the movable reach and slidable through the bearing of the stationary reach, and a draft tongue pivotally connected to both of said roller members and operating to vibrate the movable reach and effect the simultaneous cramping of said wheels.

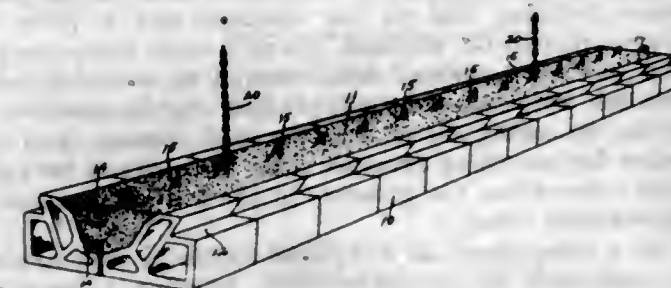
4. In a vehicle of the class described, a forward bolster and a rearward bolster, pivoted axles swingingly connected respectively to said bolsters and each adapted to carry a bearing wheel, a reach rigidly connected to said bolsters, a transverse member extending from said rigid reach, a movable reach pivotally supported intermediate the ends and extending loosely through said bolsters, means for coupling said movable reach to said pivoted axles, and a draft tongue connected to said movable reach and operating to effect the cramping of the wheels simultaneously with the lateral movement of the tongue.

5. In a vehicle of the class described, a forward bolster and a rearward bolster, a stationary reach connected to said bolsters, a movable reach pivotally supported intermediate its ends from said stationary reach and extending through said bolsters, a pivoted axle connected to turn upon each end of each of said bolsters and each adapted to carry a bearing wheel, means for coupling

said movable reach to said pivoted axles, and a draft tongue connected to said movable reach and operating to effect the cramping of the wheels simultaneously with the lateral movement of the tongue.

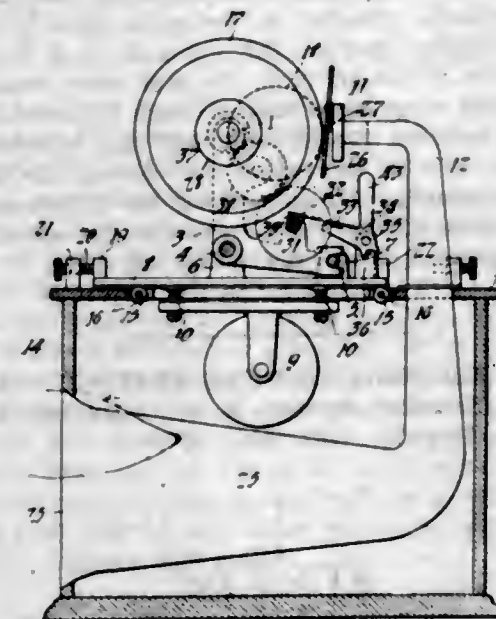
[Claims 6 to 8 not printed in the Gazette.]

1,081,373. CONCRETE FLOORING. HENRY H. DUPONT, Indianapolis, Ind. Filed May 26, 1910. Serial No. 563,516. (Cl. 72—66.)



A concrete beam consisting of an opposing series of tiles that constitute the sides and bottom of the beam and longitudinally recessed upon their upper sides to form a space between them, concrete filled in between said series of tiles, a rod embedded longitudinally in the lower part of said concrete, and a wire connected with said rod at intervals and having looped projections which extend above the concrete.

1,081,374. PHONOGRAPH. FRANK L. DYER, Montclair, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed July 22, 1909. Serial No. 509,039. (Cl. 181—2.)



1. In a phonograph, the combination of a reproducer, means for rotatably supporting cylindrical sound records, a support for said means, said support being movable toward and away from said reproducer to bring cylindrical sound records of different external diameters in operative relation to said reproducer, and means carried by said support for producing a relative feeding movement between said reproducer and said first named means, substantially as described.

2. In a phonograph, the combination of a movable bed plate, means carried thereby for supporting cylindrical sound records, and a reproducer adapted to operate upon records carried by said means, said bed plate being movable toward and away from said reproducer to bring cylindrical records of different external diameters in operative relation to said reproducer, substantially as described.

3. In a phonograph, the combination with a reproducer and a stationary support therefor, of a bed-plate movable toward and away from said reproducer, a traveling carriage carried by said movable bed-plate, a support for cylindrical sound records carried by said traveling carriage, and mounted with its axis at right angles to the

197 O. G.—38

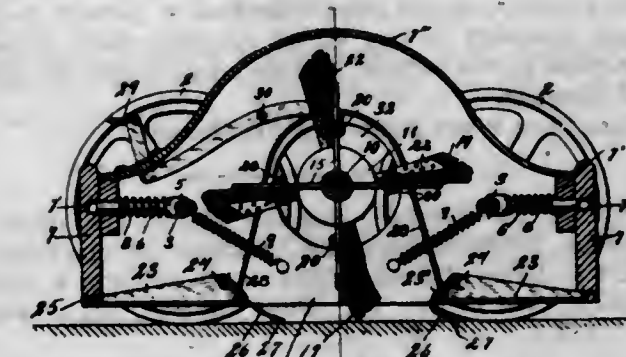
direction of movement of said movable bed-plate, whereby cylindrical records of different external diameters may be brought into operative relation to said reproducer upon movement of said bed plate toward and away from said reproducer, and means for progressing said traveling carriage axially of said mandrel, substantially as described.

4. In a phonograph, the combination with a reproducer mounted in an approximately vertical plane and a stationary sound conveyer supporting said reproducer and connected to the neck thereof, of a movable bed-plate mounted to move in a horizontal plane toward and away from said reproducer, a mandrel for carrying cylindrical sound records supported by said bed-plate with its axis at right angles to the direction of movement of the latter whereby cylindrical sound records of different external diameters may be brought into operative relation to said reproducer upon the movement of said bed plate toward and away from said reproducer, and means for rotating said mandrel and feeding it past the reproducer, substantially as described.

5. In a phonograph, the combination with a reproducer and a stationary support therefor, of a bed-plate movable toward and away from said reproducer, a traveling carriage carried by said movable bed-plate, a mandrel for supporting cylindrical sound records carried by said traveling carriage, and mounted with its axis at right angles to the direction of movement of said bed-plate whereby cylindrical records of different external diameters may be brought into operative relation to said reproducer upon the movement of said bed plate toward and away from said reproducer, rotating feed means carried by said traveling carriage, stationary feed means coacting with said rotating means, and means carried by said movable bed-plate for rotating said mandrel and said rotating feed means, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,081,375. CARPET-SWEEPER. JOHN F. EVERT, Mendon, Mich. Filed June 10, 1912. Serial No. 702,877. (Cl. 15—60.)



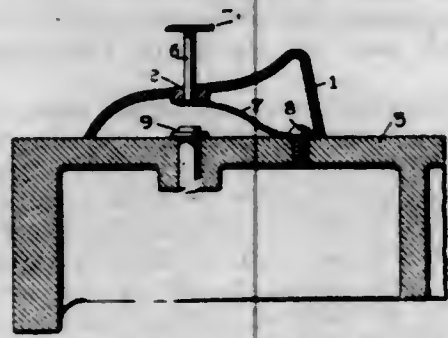
1. In a carpet sweeper, the combination with a suitable case with a central opening in the end and screened apertures at each side; a skeleton fan brush, the blades of which are of spiral form, centrally disposed with its axis lengthwise of said case; driving traction wheels suitably connected to drive the said brush; and dust pans supported in the lower part of said case beneath the screened openings in the sides of the case to receive the dust collected by said fan brush.

2. In a carpet sweeper, the combination with a suitable case with a central opening in the end and screened apertures at each side; a skeleton fan brush centrally disposed with its axis lengthwise of said case; driving traction wheels suitably connected to drive the said brush; and dust pans supported in the lower part of said case beneath the screened openings in the sides of the case to receive the dust collected by said fan brush.

3. In a carpet sweeper, the combination of a suitable case; a rotatable brush therein; traction driving wheels for actuating the said brush; a pivoted dust pan supported in the lower part of said case and disposed to receive the dust collected by said brush; flexible dust aprons secured to said dust pans on the sides toward the brush and disposed to contact with the floor beneath and to coact with said brush, as specified.

4. In a carpet sweeper, the combination of a suitable case; a rotatable brush therein; traction and driving wheels for actuating the said brush; suitable axles on which said driving wheels revolve, disposed in suitable slots at the ends of the case; spring pressure bolts connected to the centers of said axles and supported on the sides of the case for putting tension thereon; oblique springs connected to said axles toward each end and disposed to draw the same inwardly; and suitable dust pans for collecting the dust, as specified.

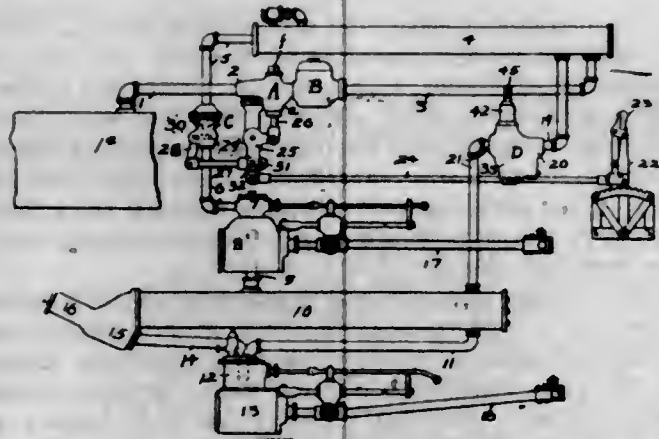
1,081,376. PATTERN AND CHAPLET THEREFOR PRODUCING MOLDS. JESSE A. FIELD, Dunkirk, N. Y. Filed Nov. 10, 1910, Serial No. 591,615. Renewed May 7, 1913. Serial No. 766,206. (Cl. 22—184.)



1. In a device of the class described, a pattern and a spring tensioned chaplet movably mounted in said pattern.
2. In a device of the class described, a pattern, and a spring tensioned chaplet movably mounted in the top surface of said pattern.
3. In a device of the class described, a pattern provided with an opening in the top surface thereof and a spring tensioned chaplet movably mounted in said opening.
4. In a device of the class described, a hollow pattern having openings, chaplets movably mounted in said openings and springs arranged within the hollow of the pattern for yieldingly maintaining said chaplets normally in an elevated position.
5. In a device of the class described, a pattern having openings, chaplets having stems movably fitted through the openings in the pattern and springs beneath the stems of said chaplets.

[Claims 6 to 9 not printed in the Gazette.]

1,081,377. COMPRESSED-AIR LOCOMOTIVE. JOHN A. FOSSYTH, Fredericktown, Pa., assignor of one-third to Robert E. Drum, California, Pa., and one-third to Harry C. Drum, Coal Center, Pa. Filed June 23, 1913. Serial No. 775,315. (Cl. 60—13.)



1. In a compressed air compound engine, a tank to contain compressed air, a high-pressure cylinder, a low-pressure cylinder, an interheater connected to the exhaust of the high-pressure cylinder, to the valve-chest of the low-pressure cylinder, and to the air tank, and an automatic valve in the connection to the air-tank for closing the said connection when the pressure in the tank exceeds a predetermined pressure.
2. In a compressed air compound engine, a tank to contain compressed air, a high-pressure cylinder, a low-pressure cylinder, an interheater connected to the exhaust of the high-pressure cylinder, to the valve-chest of the low-pressure cylinder, and to the air-tank, and a valve in the connection to the air-tank, the said valve comprising a casing, having a passage therethrough to establish communication between the air-tank and the interheater, a valve in the casing for closing the said passage, and by-passes for admitting pressure from the air-tank and from the interheater for closing the valve when the pressure in the air-tank exceeds a predetermined value and when the high-pressure cylinder is exhausting into the interheater.

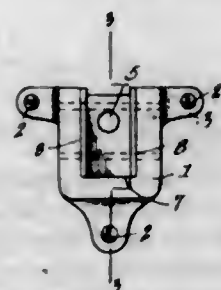
3. In a compressed air compound engine, a tank to contain compressed air, a high-pressure cylinder, a low-pressure cylinder, an interheater connected to the exhaust of the high-pressure cylinder, to the valve-chest of the low-pressure cylinder, and to the air-tank, and a valve in the connection to the air-tank, the said valve comprising a casing, having a passage therethrough to establish communication between the air-tank and the interheater, a valve in the casing for closing the said passage, and by-passes for admitting pressure from the air-tank for closing the valve when the pressure in the air-tank exceeds a predetermined value.

4. In a compressed air compound engine, a tank to contain compressed air, a high-pressure cylinder, a low-pressure cylinder, an interheater connected to the exhaust of the high-pressure cylinder, to the valve-chest of the low-pressure cylinder, and to the air-tank, and a valve in the connection to the air-tank, the said valve comprising a casing, having a passage therethrough to establish communication between the air-tank and the interheater, a valve in the casing for closing the said passage, and by-passes for admitting pressure from the air-tank and from the interheater for closing the valve when the pressure in the air-tank exceeds a predetermined value and when the high-pressure cylinder is exhausting into the interheater.

5. In a compressed air compound engine, a tank to contain compressed air, a high-pressure cylinder, a low-pressure cylinder, an interheater connected to the exhaust of the high-pressure cylinder, to the valve-chest of the low-pressure cylinder, and to the air-tank, and a valve in the connection to the air-tank, the said valve comprising a casing, having a passage therethrough to establish communication between the air-tank and the interheater, an unbalanced valve in the casing for closing the said passage, and a passage for connecting the interheater with the larger area of the valve, whereby the exhaust from the high-pressure cylinder may close the valve.

[Claims 6 to 11 not printed in the Gazette.]

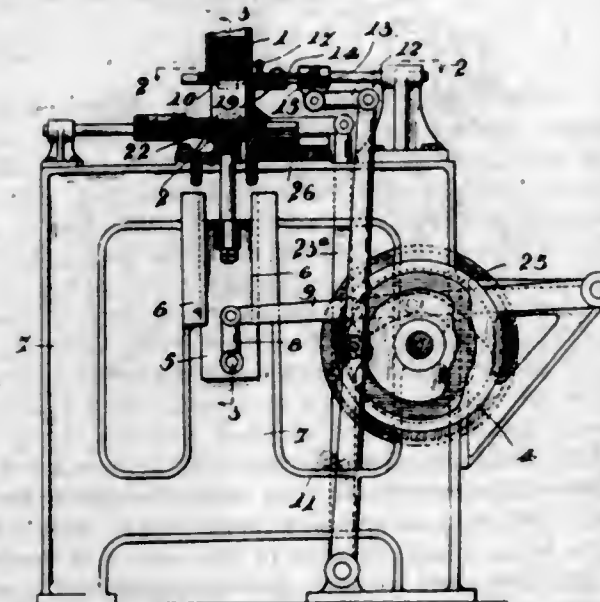
1,081,378. ELECTRIC-FIXTURE SUPPORT. ALVIN L. FREEMAN, Saratoga Springs, N. Y. Filed July 10, 1912. Serial No. 708,658. (Cl. 240—85.)



1. In a device of the character described, a bracket having a rear opening and side and bottom walls, a projecting member on one of said walls distant from the rear face of the bracket, providing between the same and said face a space, a fixture-supporting insert member slidable into said space abutting against said projecting member, said insert member having parallel side walls, said bottom wall of the bracket thereby supporting said insert member against displacement, the rear face of said insert member distant from the rear face of said bracket to provide a wire retaining space, said bottom wall of said bracket in addition to supporting said insert member forming a closure for said wire retaining space.
2. In a device of the character described, a bracket provided with a fastening flange thereon, said bracket having a rear opening through which circuit wires are adapted to pass, side and bottom walls on said bracket, a projecting member on one of said side walls distant from the rear face of the bracket, providing between the same and said face a space, a fixture-supporting insert member slidable into said space abutting against said projecting member and provided with a screw-threaded opening for the purpose specified, a fastening member passing through one of said side walls and into said insert member, the rear face of said insert member distant from the rear face of said bracket to provide a circuit wire retaining space, said bottom wall of said bracket extending across the bottom of said space and forming a closure therefor.

jecting member on one of said side walls distant from the rear face of the bracket, providing between the same and said face a space, a fixture-supporting insert member, slidable into said space abutting against said projecting member and provided with a screw-threaded opening for the purpose specified, a fastening member passing through one of said side walls and into said insert member, the rear face of said insert member distant from the rear face of said bracket to provide a circuit wire retaining space, said bottom wall of said bracket extending across the bottom of said space and forming a closure therefor.

1,081,379. PACKING APPARATUS FOR MACHINES FOR PACKING MATCHES IN BOXES. HENRY ALFRED GSELL, Paris, France. Filed June 11, 1912. Serial No. 703,088. (Cl. 144—61.)

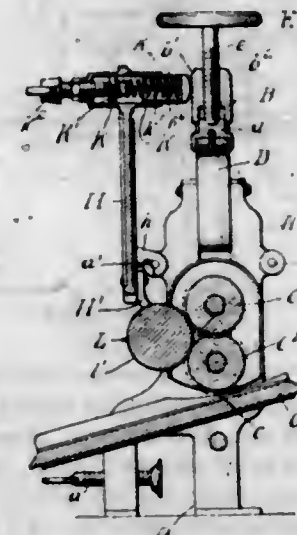


1. In an apparatus for packing matches in boxes, wherein the store of matches is measured off by knives pushed in between the matches from the ends or heads of the latter, a reciprocating bar, knives pivoted horizontally in pairs on said bar and means for closing completely the knives of each pair after they have passed beyond the heads of the matches.
2. In an apparatus for packing matches in boxes wherein the store of matches is measured off by knives pushed in between the matches from the ends or heads of the latter, a reciprocating bar, knives having a dish-shaped front end and pivoted horizontally in pairs on said bar, a sloping edge on the shank of each knife, a roller arranged between the knives and springs moving the knives of each pair toward each other after the slipping edge of the knife engages said roller.

1,081,380. CLOTHES-WRINGER. JOHN F. GUBBINS, Chicago, Ill. Filed Nov. 28, 1911. Serial No. 662,818. (Cl. 68—32.)

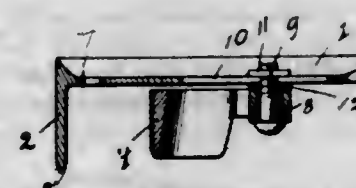
1. The combination with a clothes wringer, comprising oppositely rotating rollers, of a feed roller comprising cylindrical frictional surfaces and an intermediate reduced portion having clothes engaging projections thereon, and means for yieldingly supporting the cylindrical frictional surfaces of the feed roller in frictional contact with one of the wringer rollers, whereby the feed roller is rotated in an opposite direction to that of the wringer roller which it engages.
2. The combination with a clothes wringer, comprising a pair of oppositely rotating rollers and a supporting frame consisting of side members and a top cross member, of an auxiliary feed roller, a support adjacent the lower edge of which the feed roller is journaled, means for detachably mounting said support intermediate its top and bottom upon the side members of the wringer frame, a spring actuated plunger mounted upon said support adjacent its top and removably engaging the cross member of the wringer frame, and means for adjusting the tension of the spring of said plunger.

3. The combination with a clothes wringer comprising a pair of oppositely rotating rollers and a supporting frame, of a feed roller, a vertical oscillating support adjacent the lower edge of which said feed roller is journaled, pairs of brackets on the opposite sides of said supporting frame, hooks adjacent the opposite sides of said support adapted to removably engage the pair of brackets on either side of said supporting frame, and spring mechanism interposed between said support and said supporting frame for oscillating said support to move the feed roller into operative relation with respect to the wringer rollers.



4. The combination with a clothes wringer comprising a pair of oppositely rotating rollers and a supporting frame consisting of side members and a top cross member, of an auxiliary feed roller, a support adjacent the lower edge of which the feed roller is journaled, means for detachably mounting said support intermediate of its top and bottom upon the side members of the wringer frame, and a spring actuated plunger mounted upon said support adjacent its top and removably engaging the cross member of the wringer.

1,081,381. BROOM OR MOP HOLDER. GEORGE GETMAN HAKES, Illon, N. Y. Filed Nov. 29, 1911. Serial No. 663,078. (Cl. 24—249.)

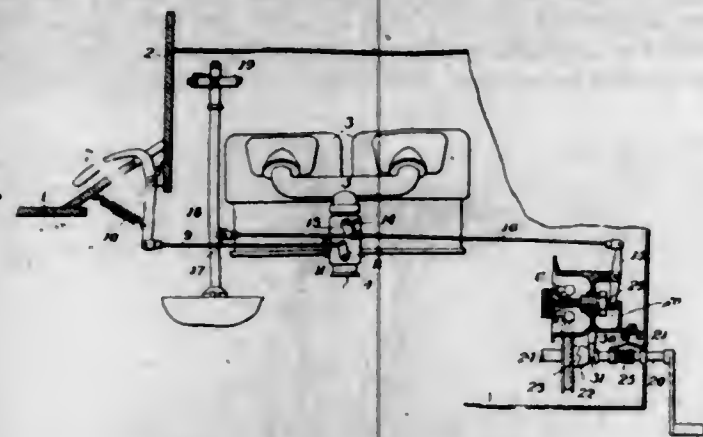


A device of the character described comprising a channeled arm provided with a lateral extension forming a fixed jaw, said arm being also provided with a longitudinal slot, a threaded bolt adjustable within the slot, a nut confined within the channel of the arm for engaging the threaded end of the bolt to secure the latter in adjusted positions in the slot, a movable jaw swingingly mounted on the bolt for cooperation with the fixed jaw, and means for spacing the movable jaw from the arm, the movable jaw having laterally projecting lugs at its ends for engagement with opposite sides of channeled arm to limit the movement of the movable jaw.

1,081,382. STARTING MEANS FOR MOTOR-VEHICLES. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 30, 1907. Serial No. 404,523. (Cl. 123—99.)

1. In controlling means for motor vehicles, the combination with a throttle valve, a circuit closer and a governor, of connections whereby the throttle valve may be closed and the spark advanced automatically by the governor, a starting crank, and means connected with the starting crank for opening the throttle valve and retarding the spark.

2. In controlling means for motor vehicles, the combination with a throttle valve, a circuit closer and a governor, of connections whereby the throttle valve may be closed and the spark advanced automatically by the governor, a starting crank, and means connected with the starting crank for positively restoring the governor to normal inoperative position when cranking the engine.



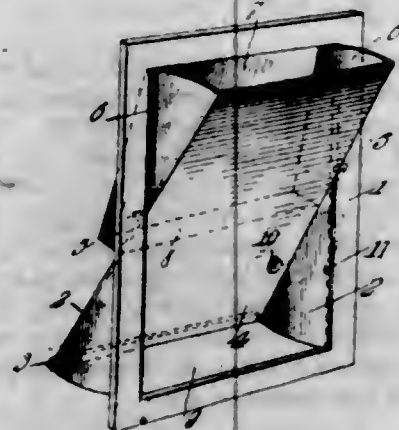
3. In controlling means for motor vehicles, the combination with a throttle valve, a circuit closer and a governor, of connections whereby the throttle valve may be closed and the spark advanced automatically by the governor, a starting crank, and means operated by the starting crank for positively opening the throttle valve, retarding the spark and restoring the governor to its normal inoperative position.

4. In controlling means for motor vehicles, the combination with a governor and with a starting crank, of intermediate connections whereby the governor is positively restored to normal inoperative position in moving the starting crank to engage the engine.

5. In controlling means for motor vehicles, the combination with a circuit closer, a governor, and a connection between the governor and circuit closer, of a throttle valve, a spring connected to the throttle valve, and connections between said spring and the governor whereby the spring comes into action to retard the movement of the governor after the governor has partly shifted the circuit closer, for the purpose set forth.

[Claims 6 to 14 not printed in the Gazette.]

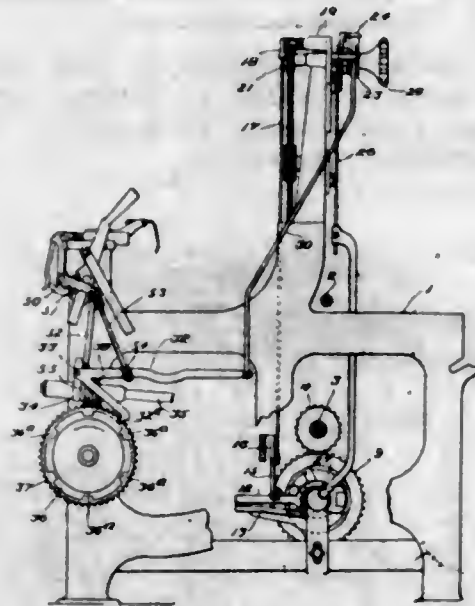
1,081,383. MAIL-BOX. THOMAS B. HYATT, Connellsville, Pa. Filed Mar. 14, 1913. Serial No. 754,325. (Cl. 232-19.)



A mail delivering and receiving device comprising a frame adapted to fit flush with a supporting surface, rearwardly projecting wings at the lower extremities of the sides of the frame, a flat plate, trunnions extending therefrom and pivotally engaging the sides of the said frame and mounting the said plate for rotation, a receptacle formed upon the rear upper portion of the said plate, said plate when rotated in one direction exposing the receptacle and providing an opening at the lower portion of the frame defined by the front wall of the frame, the two wings, and the said plate, and a bar extending between the lower extremities of said wings adapted to limit

the rotation of said plate in one direction, and a lock for limiting the rotation of the said plate in the opposite direction.

1,081,384. LOOM FOR WEAVING BAGS, &c. SIMMONS S. JACKSON, Readville, Boston, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed Feb. 2, 1912. Serial No. 675,032. (Cl. 130-1.)



1. In a loom, the combination with take-up mechanism, a series of harness-cams, and pattern-devices having a moving pattern-surface and controlling said harness-cams to bring about changes in the weave in conformity with the indicators of said pattern-surface, of a master-pattern moved by said take-up mechanism in predetermined ratio to the taking-up and operatively controlling the actuating means of said pattern-surface, whereby the feeding of the pattern-surface is intermitted and the extent of the pattern-surface is reduced.

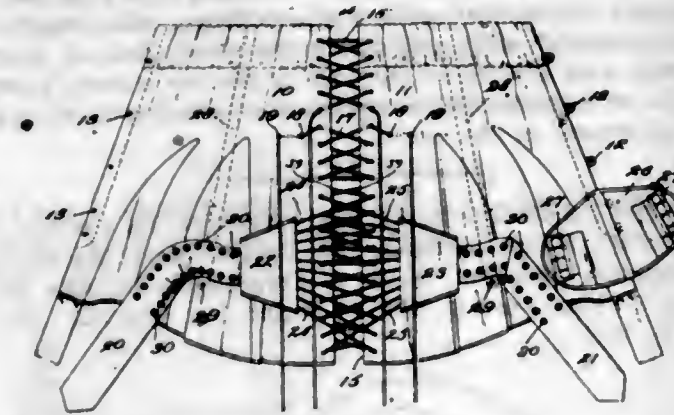
2. In a loom, the combination with take-up mechanism, a series of harness-cams, and pattern-devices controlling said harness-cams to bring about changes in the weave in conformity with the indicators of a pattern-surface and having a feed-pawl for said pattern-surface, of a master-pattern moved by said take-up mechanism in predetermined ratio to the taking-up, and a pawl-controller operatively combined with said master-pattern and through which the latter controls and intermits the feeding of the pattern-surface.

3. In a loom, the combination with take-up mechanism, a series of harness-cams, a cam-shifter, pattern-devices in operative control of said cam-shifter and having a pattern-surface by which the shifting of the cams is controlled, and also feeding means for said pattern-surface, of a master-pattern operated by the take-up mechanism, and means through which said master-pattern controls and intermits the actuation of said pattern-surface by its feeding means.

4. In a loom, the combination with take-up mechanism, a series of harness-cams, a cam-shifter, pattern-devices having a pattern-surface in operative control of the cam-shifter and an actuating pawl for said pattern-surface, a pawl-controller, a master-pattern operated by the take-up mechanism, and a lever controlled by said master-pattern and controlling the pawl-controller to suspend and restart the actuation of said pattern surface.

5. In a loom, the combination with take-up mechanism, a series of harness-cams, a cam-shifter, pattern-devices having a pattern-surface in operative control of the cam-shifter and means for feeding the said pattern-surface, a master-wheel having depressions and operated by said take-up mechanism, a movable member engaging with said master-wheel and through which the action of said feeding means is controlled, and a self-detector mechanism operatively connected to simultaneously arrest the taking-up and disengage said member from the master-pattern.

1,081,385. CORSET. SARAH ANN JENYNS, Brisbane, Queensland, Australia, assignor of one-tenth to Harold S. MacKay, Yonkers, N. Y. Filed Feb. 21, 1912. Serial No. 679,113. (Cl. 2-73.)



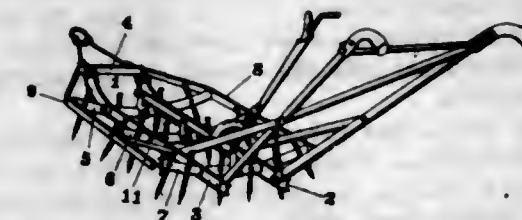
1. In a corset, two independent belt portions, independent lacings connecting each belt portion separately with the opposed rear edges of the corset, means for securing the ends of said belt portions in front, attaching means at each side of the corset, and a row of cooperating attaching means between the ends of each belt portion, whereby the rear and front tensions on the belt may be independently adjusted, substantially as described.

2. In a corset, two independent belt portions, independent lacings connecting each belt portion separately with the opposed rear edges of the corset, means for securing the ends of said belt portions in front, stiffening means at the sides of the corset, buttons on each stiffening means, and rows of holes in each belt portion between its ends adapted to fit over said buttons, substantially as described.

3. In a corset, two independent belt portions, independent lacings connecting each belt portion separately with the opposed rear edges of the corset, means for securing the ends of said belt portions in front, stiffening means at the sides of the corset, buttons on each stiffening means, and two parallel rows of holes in each belt portion between its ends adapted to fit over said buttons, substantially as described.

4. In a corset, a belt, separate fastening means in front for each belt end, and a resilient retainer for the pendant belt ends fixed to the corset between said fastening means, substantially as described.

1,081,386. LISTER-HARROW. JOHN KIEL, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed July 11, 1913. Serial No. 778,586. (Cl. 55-103.)

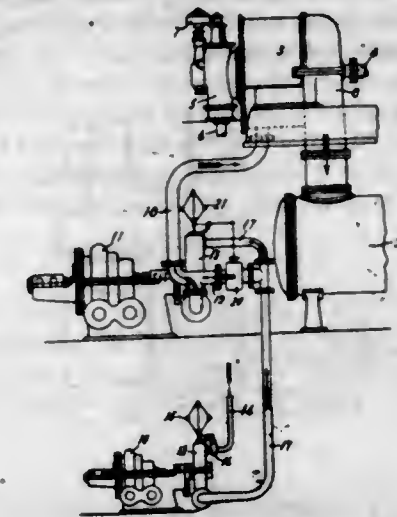


1. In a lister-harrow, the combination of a frame having side-bars, tooth-carrying bars mounted on the side-bars and having their ends in a plane higher than the side-bars, and fender-bars secured to the frame and in the same plane as the ends of the tooth-carrying bars.

2. In a lister-harrow, the combination of a frame having side-bars, tooth-carrying bars mounted on the side-bars and having their ends in a plane higher than the side-bars, and fender-bars secured to the frame parallel with the side-bars, and in the same plane as the ends of the tooth-carrying bars.

3. In a lister-harrow, the combination of a frame having side-bars, tooth-carrying bars mounted on the side-bars and having their ends in a plane higher than the side-bars, fender-bars secured forwardly to the frame, and braces secured to said side-bars and fender-bars and supporting the latter in the same plane as the ends of the tooth-carrying bars.

1,081,387. TURBINE SYSTEM. WALTER KIESER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 13, 1909. Serial No. 472,062. (Cl. 121-58.)



1. In combination, a main turbine, auxiliary turbines, a conduit supplying motive fluid to the main turbine, a conduit means supplying motive fluid to the auxiliary turbines in series and conveying the exhaust therefrom into the main turbine at an intermediate pressure region, and a regulator for one of said auxiliary turbines which changes the pressure difference to which another of said auxiliary turbines is subjected.

2. In combination, independent turbines working at different pressures and through which the motive fluid passes in series relation in performing work, and a regulator for one turbine which varies the pressure difference to which the preceding turbine is subjected.

3. In combination, independent turbines working at different pressures and through which the motive fluid passes in series relation in performing useful work, a regulator for one turbine which varies the pressure difference to which the preceding turbine is subjected, and a governing mechanism for regulating the speed of the last mentioned turbine.

4. In combination, independent turbines working at different pressures and through which the motive fluid passes in series relation in performing useful work, a governor for one turbine which controls the exhaust pressure of the preceding turbine, and a governor for said latter turbine which controls the admission of fluid thereto.

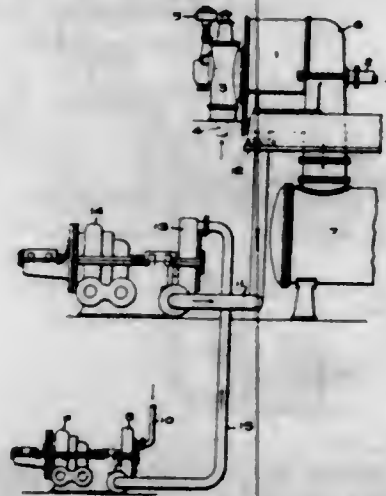
5. In combination, a prime mover, a plurality of auxiliary turbines arranged in series relation, a conduit supplying steam to the first turbine of the series from a suitable source of supply, a conduit between the exhaust of the last turbine of the series and a region of suitable pressure in the prime mover, conduits leading exhaust steam from the outlet of each auxiliary turbine to the inlet of the next turbine in the series, a speed responsive device for controlling the supply of steam to the first turbine of the series, speed responsive devices actuated by the other turbines of the series, and means controlled by said devices for varying the pressure in said conduits leading exhaust steam from one auxiliary turbine to the next when the pressure in said region of the prime mover varies.

[Claims 6 to 11 not printed in the Gazette.]

1,081,388. TURBINE SYSTEM. WALTER KIESER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 7, 1908, Serial No. 419,652. Renewed Oct. 31, 1912. Serial No. 728,913. (Cl. 121-118.)

1. In combination, a main turbine, and secondary turbines connected in series which are subjected to a smaller pressure difference than the main turbine, the secondary turbines being operated by a portion of the same motive fluid which passes through and operates the main turbine and exhausting into it.

2. In combination, a main turbine wherein a given drop in pressure of the motive fluid takes place, and secondary turbines wherein a drop in pressure takes place that is less than in the main turbine, the secondary turbines being connected in series and arranged in shunt to a portion of the main turbine and exhausting into it and operating by a portion of the same motive fluid which passes through and operates said main turbine.



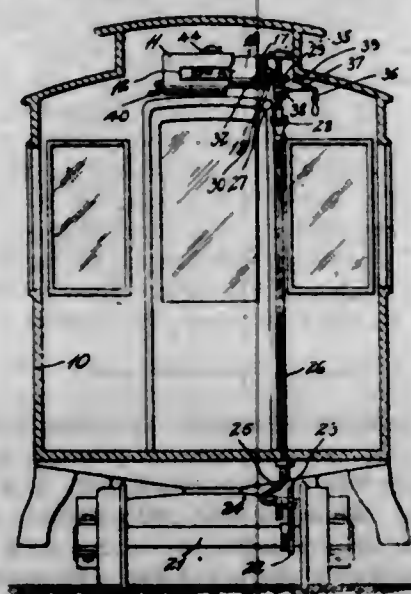
3. In combination, a high-speed turbine, low-speed turbines connected in series, means causing a portion of the same motive fluid which passes through and operates the high-speed turbine to pass through and operate the low-speed turbines, and means discharging the exhaust from the turbine of lowest pressure into the high-speed turbine at a region of intermediate pressure.

4. In combination, a high-speed multi-stage turbine, an exhaust conduit therefor, a low-speed turbine, an exhaust conduit therefor, means admitting high pressure motive fluid to the turbines, means conveying the exhaust from the low speed turbine into an intermediate stage in the multi-stage turbine so that said exhaust will perform useful work as it flows to the exhaust conduit of the multi-stage turbine, and a governing mechanism for controlling the passage of said exhaust into the high-speed turbine.

5. In combination, a high-speed turbine, low-speed turbines, conduit means for connecting the low-speed turbines in series relation, and means for causing a portion of the same motive fluid which passes through the high-speed turbine and performs useful work to pass through and operate the low-speed turbines.

[Claims 6 to 15 not printed in the Gazette.]

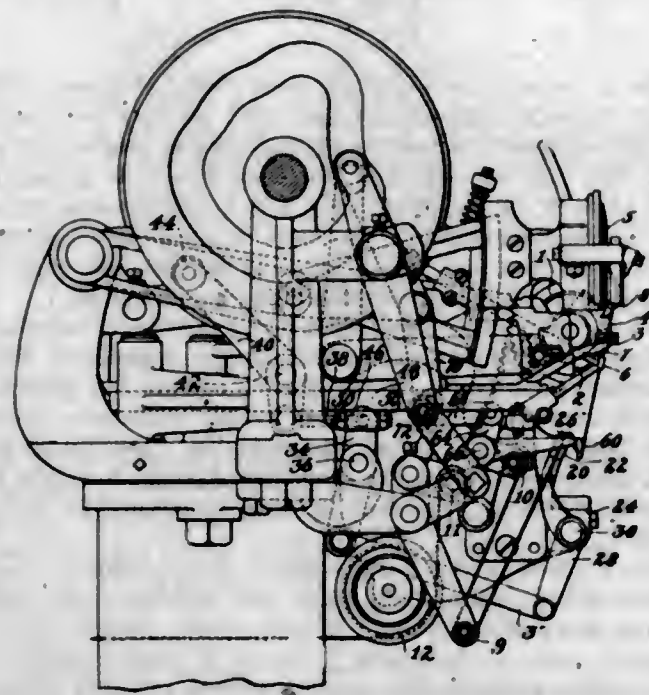
1,081,389. STREET-CAR INDICATOR. HEINRICH KLARMAN, Los Angeles, Cal. Filed Feb. 24, 1912. Serial No. 679,544. (Cl. 40-42.)



A street indicator for cars, comprising a web having indications thereon, rollers for carrying said web, sprockets mounted on and adapted to revolve said rollers, a sprocket chain connecting the said sprockets, a plurality

of gear shafts, one of said shafts being swingingly mounted, interrupted gears mounted on said shafts and adapted to move the said sprocket chain, one intermeshing gear mounted on said shaft adapted to swing in a plane away from the co-operating gear, an actuating shaft having a universal connection with said swinging gear shaft, a gear connected with said actuating shaft, and an intermeshing gear carried by the axle of the car wheels whereby the mechanism will be operated automatically through the movement of the car.

1,081,390. SEWING-MACHINE. FRED N. LA CHAPPELLE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 6, 1911. Serial No. 664,153. (Cl. 112-20.)



1. A lock stitch wax thread shoe sewing machine, having, in combination, stitch forming devices including a hook needle, a take-up, means for operating the take-up to draw back thread from the loop drawn out by the needle, a stitch setting device including a thread clamp for gripping the needle thread between the take-up and the work and a pull-off acting against said thread clamp to pull off thread for the next succeeding stitch.

2. A lock stitch wax thread shoe sewing machine, having, in combination, stitch forming devices including a hook needle, a take-up, means for actuating the take-up to draw back thread from the loop drawn out by the needle, and a stitch setting device comprising a thread clamp for gripping the thread between the take-up and the work and a thread engaging member for exerting a tension on the length of thread between the thread clamp and the work to set the stitch.

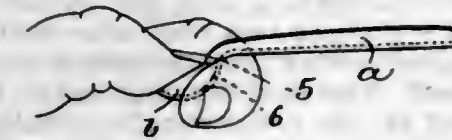
3. A lock stitch wax thread shoe sewing machine, having, in combination, stitch forming devices including a hook needle, a take-up, means for actuating the take-up to draw back thread from the loop drawn out by the needle, and a stitch setting device comprising a stationary thread clamp for gripping the thread between the take-up and the work and a movable thread engaging finger for exerting a tension on the length of thread between the thread clamp and the work to set the stitch.

4. A lock stitch wax thread shoe sewing machine, having, in combination, stitch forming devices including a hook needle, a take-up, means for actuating the take-up to draw back thread from the loop drawn out by the needle, and a stitch setting device comprising a stationary thread clamp arranged to grip the thread between the take-up and the work, a thread finger for engaging the thread between the thread clamp and the work, and means for moving the thread finger in a direction away from the work with the thread extending in an approximately direct line from the thread finger to the work so as to exert a stitch setting pull on the needle thread in an approximately direct line to the work.

5. A lock stitch wax thread shoe sewing machine, having, in combination, stitch forming devices including a hook needle, a looper, a take-up, means for actuating the take-up to draw back thread from the loop drawn out by the needle, and a stitch setting device having provision for gripping the needle thread between the looper and the take-up and for exerting a stitch setting pull on the thread.

[Claims 6 and 7 not printed in the Gazette.]

1,081,391. SHOE-HORN. JOHN D. LANE, Cambridge, Mass. Filed Jan. 31, 1913. Serial No. 745,390. (Cl. 132-30.)



A shoe-horn comprising a blade, and a cupped or concavo-convex shank at one end of the blade, said shank presenting a finger-rest, and a thumb-rest at opposite sides of the horn, said shank being offset from the blade, so that the rests project outwardly from alignment with the blade, all portions of the shank and the blade presenting their concave surfaces toward one and the same side.

1,081,392. ADHESIVE PLASTER. FRED N. LANG, Bayfield, Wis. Filed Dec. 13, 1912. Serial No. 736,548. (Cl. 167-8.)

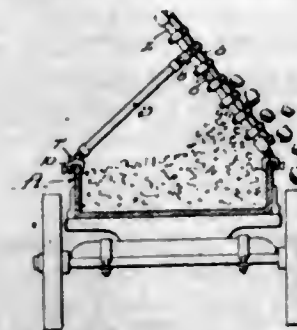


1. In a plaster, the combination with an adhesive surface, and a covering therefor upon which portions of the plaster may be cut and easily removed from the covering without cutting through the covering.

2. A plaster having an adhesive surface and a hard, impenetrable substantially solid covering therefor.

3. A plaster having an adhesive surface and a covering therefor of aluminium.

1,081,393. CARRIER-SCREEN. WALTER E. LODDELL, Mukwonago, Wis. Filed Mar. 29, 1913. Serial No. 757,556. (Cl. 83-56.)

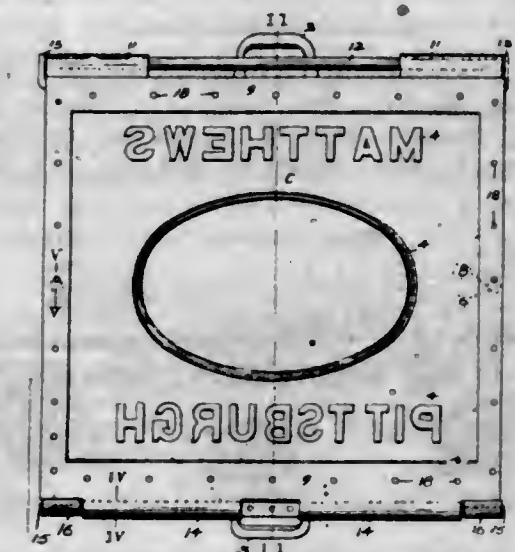


1. A screen comprising a pair of vertical tube members and a pair of horizontally disposed tube members, upper and lower corner elbows connecting the tube members to form a rigid frame, ears extending from the lower set of elbows, clamping feet hingedly secured to the ears, a series of heads carried by each tube member having lugs extending therefrom and in the same direction, corresponding series of vertical and horizontally disposed interwoven rods connecting the head lugs to form a screen, a leg in hinge

connection with one of the series of heads carried by the vertical tube members, and clamp-carrying feet hingedly secured to the free ends of the legs.

2. A screen comprising a pair of vertical and a pair of horizontally disposed tube members, upper and lower corner elbows connecting the tube members to form a rigid frame, ears extending from the lower set of elbows, clamping feet hingedly secured to the ears, a series of heads carried by each tube member having apertured lugs extending therefrom and in the same direction, a corresponding series of vertical and horizontally disposed interwoven rods having ends fitting into the lug apertures of the heads to form a screen, and retaining bolts for the series of rod ends.

1,081,394. STAMP. JAMES H. MATTHEWS and JOSEPH STEIN, Pittsburgh, Pa., assignors to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 12, 1913. Serial No. 767,001. (Cl. 101-58.)



1. In combination with a rocker stamp having an impression face, dowel pins extending outwardly from said impression face, a flexible die laid upon said impression face and provided with positioning holes engaged by said dowel pins, and an open metal frame adapted to be clamped down on said impression face, said frame bearing on said dowel pins and on the non-printing portion of said die, for the purposes described.

2. In combination with a rocker stamp having an impression face, resiliently extended dowel pins extending outwardly from said impression face, a flexible die laid upon said impression face and provided with positioning holes through which said dowel pins extend, and an open metal frame adapted to be clamped down on said impression face, said frame bearing on the non-printing portion of said die and depressing said dowel pins, for the purposes described.

3. In combination with a stamp having a convex impression face, a flexible die mounted on said face, a holding frame pivoted at one end of said impression face and provided with curved ears on its free end, and a rocking eccentric locking-bar journaled at the other end of said face and adapted to engage said ears and clamp said frame down upon said die.

4. In combination with a stamp having a convex impression face, a flexible die mounted on said face, a holding frame pivoted at one end of said impression face and provided with curved ears on its free end, and a rocking eccentric locking-bar, of rectangular cross-section, journaled at the other end of said face and adapted to engage said ears and clamp said frame down upon said die.

1,081,395. GATE. GEORGE WILLIAM MILLER, Toronto, Ontario, Canada, assignor of one-half to Albert E. Dyment, Toronto, Ontario, Canada. Filed Jan. 24, 1913. Serial No. 780,995. (Cl. 39-5.)

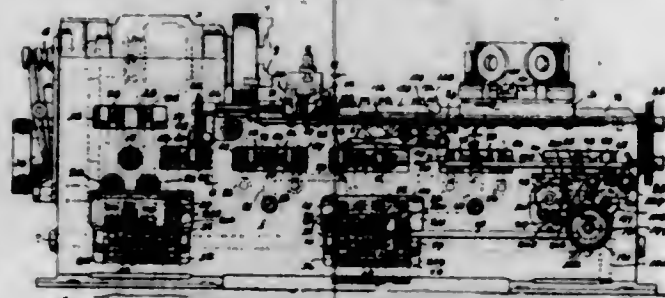
1. A gate comprising a frame, a plurality of vertical bars secured to said frame, a plurality of vertical wires

secured to said frame, a plurality of horizontal wires secured to said frame, a plate of sheet material having curled edges and a wire string through said edges and behind said vertical and horizontal bars and wires.



2. A gate comprising a frame, a plurality of vertical bars and wires secured to said frame, a plurality of horizontal wires secured to said frame and slightly offset behind said vertical bars and said vertical wires, a suitable center plate secured in center of said frame and having curled edges cut away at said bars and wires and a wire string through said curled edge and behind said bars and wires.

1,081,396. AUTOMATIC TURRET-LATHE. WILLIAM L. MILLER, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed Feb. 27, 1911. Serial No. 611,037. (Cl. 29—47.)



1. In a machine of the character described, the combination with a machine bed and a tool-carrier mounted thereon, of means, including a clutch, for transmitting movement to said tool-carrier, a clutch-shifting lever, an intermittently movable drum-shaft, a drum fast thereon carrying a series of cams adapted to act successively upon said lever, drum-shaft rotating means, means independent of said drum-shaft normally maintaining said drum-shaft rotating means idle, and means actuated by the tool-carrier during its travel for tripping out of action said last named means, substantially as described.

2. In a machine of the character described, the combination with a machine bed and a tool-carrier mounted thereon, of means, including a plurality of clutches, for transmitting traverse and feed movements to said tool-carrier, clutch-shifting levers, an intermittently movable drum-shaft, a drum fast thereon carrying cams adapted to act upon said levers, respectively, drum-shaft rotating means, means independent of said drum-shaft normally maintaining said drum-shaft rotating means idle, and means actuated by the tool-carrier during its travel for tripping out of action said last named means, substantially as described.

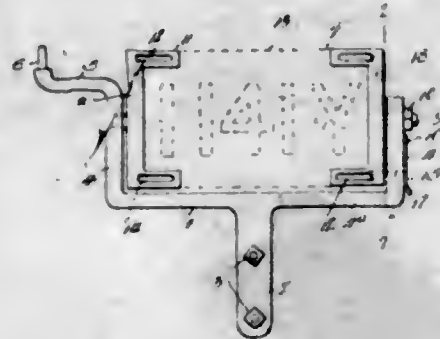
3. In a machine of the character described, the combination with a machine bed and a tool-carrier mounted thereon, of means, including a plurality of clutches, for transmitting in-and-out traverse movements and a plurality of feed movements to said tool-carrier, a clutch-shifting lever controlling said traverse movements, a plurality of clutch-shifting levers controlling said feed movements, an intermittently movable drum-shaft, a drum fast thereon carrying cams adapted to act upon said levers, drum-shaft rotating means, means independent of said drum-shaft normally maintaining said drum-shaft rotating means idle, and means actuated by the tool-carrier during its travel for tripping out of action said last named means, substantially as described.

4. In a machine of the character described, the combination with a machine bed and a tool-carrier mounted thereon, of a drive-shaft, an intermediate shaft, clutch-controlled devices for driving said intermediate shaft in

either direction from said drive-shaft, clutch-controlled devices on said intermediate shaft for transmitting different rates of feed or speed thereto, power-transmission mechanism between said intermediate shaft and said tool-carrier, a plurality of levers controlling the clutches of said devices, an intermittently movable drum carrying cams adapted to act upon said levers, normally idle means for rotating said drum, and means actuated by the tool-carrier during its travel for tripping into action said drum-rotating means, substantially as described.

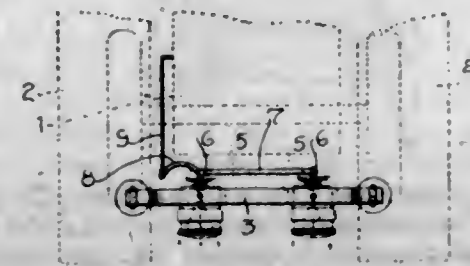
5. In a machine of the character described, the combination with a machine bed and a tool-carrier mounted thereon, of a chuck-spindle, a variable speed mechanism, including a clutch, for transmitting rotary movement to said chuck-spindle, a clutch-shifting lever, an intermittently movable drum-shaft, a drum fast thereon carrying a cam adapted to act upon said lever, drum-shaft rotating means, means independent of said drum-shaft normally maintaining said drum-shaft rotating means idle, and means actuated by the tool-carrier for tripping out of action said last named means, substantially as described. [Claims 6 to 24 not printed in the Gazette.]

1,081,397. REVERSIBLE-SIGN STRUCTURE. CHARLES B. MOHR, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,041. (Cl. 40—68.)



In a reversible sign structure, supporting arms in spaced relation with respect to each other and provided with aligned bearings, separate end sign-holding frames each having slotted portions for engagement with sign bodies and their attaching devices, a plurality of sign bodies mounted in said frames and having means extending through said slotted portions to anchor the sign bodies to said frames with the face of one sign-body exposed on one side of said frames and the face of another sign body exposed on the other side of said frames, each frame having a stud journaled in one of said bearings, and means for independently adjusting said studs longitudinally in said bearings to afford sign body attaching adjustment in addition to the adjustment afforded by said slotted portions, and means carried by one of said arms for locking the frames in a position to display either of the exposed signs, substantially as described.

1,081,398. DIRIGIBLE HEADLIGHT. BYRON F. MOYE, Dupuyer, Mont. Filed June 23, 1913. Serial No. 775,378. (Cl. 240—62.)

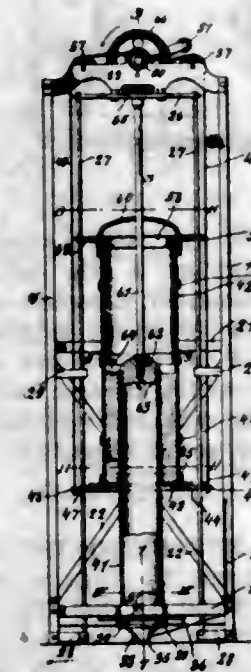


1. In a device of the class described, the combination with the fenders of an automobile; of a frame consisting of upper and lower horizontal bars, pivotally mounted at their ends to the aforesaid fenders, lamp supporting frames mounted to oscillate between the bars of said

frame, and means to actuate said lamp supporting frames simultaneously.

2. In an automobile having front mud-fenders projecting beyond the radiator thereof, a frame composed of a pair of spaced apart horizontal bars, the ends of which are pivoted to the projecting portions of the mud-fenders, lamp supporting frames mounted for oscillation between the pair of bars, each frame being provided with an integral and rearwardly extending arm, the arm on one of said supporting frames terminating in an arcuate and outwardly disposed extension, connecting means between said arms to operate the frames simultaneously, and means engaged with the free end of the arcuate extension of the one arm for actuating said lamp supporting frames as the vehicle is operated.

1,081,399. MOLDING-MACHINE. ISAAC M. NEWMAN, Hewins, Kans. Filed Sept. 6, 1912. Serial No. 718,871. (Cl. 25—36.)



1. A molding machine comprising spaced inner and outer shells, the inner shell being stationary and the outer shell being movable longitudinally over the inner shell, a lever being movable longitudinally over the inner shell, a lever comprising pivotally connected sections, means on one of the sections for supporting the inner shell, said shell being releasable, means for locking the lever, a carrier for the outer shell, a compacting device operating in the outer shell above the inner shell, and means for operating the carrier and the compacting device.

2. A molding machine comprising spaced inner and outer shells, the inner shell being stationary and the outer shell being movable longitudinally over the inner shell, a carrier for the outer shell, hoisting lines connected to the carrier, a compacting device operating in the outer shell above the inner shell, a shaft carrying the compacting device, a drive shaft geared to said shaft, a coupling between the hoisting lines and the drive shaft, a pawl-and-ratchet connection between the coupling and the drive shaft, and a support for the inner shell disengageable therefrom.

1,081,400. HAIR-CURLER. HERBERT N. NORTHROP and GUSTAVUS A. TOWLE, Somerville, Mass.; said Northrop assignor to said Towle. Filed Dec. 23, 1912. Serial No. 738,143. (Cl. 132—18.)

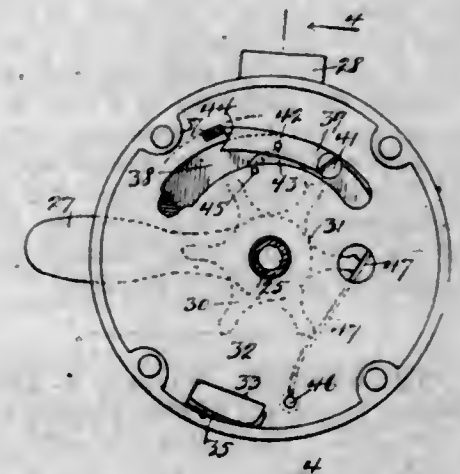


1. A hair curler formed of a single piece of wire bent to form a frame consisting of two end portions and two side

portions, each of said side and end portions consisting of a single straight section of wire and together forming a rectangle, said side and end portions lying in a common plane, one end of said wire bent to form an eye encircling and fast to the body portion of said wire adjacent to one corner of said rectangular frame, the other end of said wire extending beyond said corner to form an arm, the free end of said arm being bent to form a hook adapted to engage the body portion of said wire adjacent to a corner of said rectangular frame at the end thereof opposite to that end at which said eye portion is located, said arm adapted to swing in a plane substantially parallel to said common plane.

2. A hair curler formed of a single piece of wire bent to form a frame consisting of two end portions and two side portions, each of said end and side portions consisting of a single straight section of said wire and together forming a rectangle, said side and end portions lying in a common plane, one end of said wire being bent to form an eye encircling the body portion of said wire adjacent to one corner of said rectangular frame, the portion of said wire encircled by said eye being offset to form a notch therein, the other end of said wire extending beyond said corner to form an arm, the free end of said arm being bent to form a hook adapted to engage the body portion of said wire adjacent to a corner of said rectangular frame at the end thereof opposite to that end at which said eye portion is located, said arm adapted to swing in a plane substantially parallel to said common plane.

1,081,401. COIN MECHANISM FOR VENDING-MACHINES. HENRY PRIN, Jersey City, N. J., assignor to Sanitary Fountain Co., Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 8, 1912. Serial No. 669,953. (Cl. 194—72.)



1. A device of the character described, comprising a movable element of a vending machine, and means for operating the same, embodying a manually operated oscillating member, a pawl moving therewith and normally traveling out of operative relation with the vending machine element, means for directing a coin, a revolvable coin holder having a plurality of coin holding pockets to receive coins from said directing means, and arranged to receive and hold a coin in such position as to cause said pawl to engage the periphery thereof so that the pawl will be placed into operative relation with the vending machine element, said coin holder being successively advanced in the same direction by said manually operated member to bring its said receiving pockets successively into position to receive coins from the directing means.

2. A device of the character described, comprising a movable element of a vending machine and means for operating the same, comprising a coin chute arranged to receive coins of a predetermined maximum diameter, a revolvable cam holder having a plurality of coin holding pockets, a manually operated member having a pawl, said pawl being arranged to engage the periphery of a coin in said holder, and adapted to be moved into operative rela-

tion with said vending machine element upon the operation of said manually operated device, by a coin of said predetermined diameter, and to remain out of operative relation when it engages a coin of lesser diameter, said coin holder being successively advanced in the same direction by said manually operated device, said pawl being adapted to engage a coin of less than said maximum diameter, whereby said coin holder will be advanced notwithstanding the failure of the pawl to engage the vending machine element.

3. A device of the character described, comprising coin directing means, a movable element of a vending machine and means for operating the same, comprising a movable coin holder having a plurality of coin pockets, a hand operated member having a pawl arranged to engage the periphery of a coin in said holder, a spring for resisting the movement of the coin holder sufficiently to cause the pawl to be moved into operating relation with the vending machine element, said coin holder being successively advanced in the same direction by said hand operated member to present said coin pockets successively to the coin directing means and to discharge the coins.

4. A device of the character described, comprising a vending machine element, and means for operating the same, comprising a revolvable coin holder, a hand operated member, having a pawl, said pawl being arranged to engage a coin in said holder and to be caused to move thereby into operative engagement with the vending machine element, whereby the latter may be operated by said hand operated member, said pawl being arranged to engage a coin at a place nearer the fulcrum of the pawl than the point at which the pawl engages the vending machine element, whereby the pawl will have a greater movement where it engages the vending device element than where it engages the coin.

5. A device of the character described, comprising a revolvable element of a vending machine having engaging members, and means for operating the same comprising a revolvable coin holder having a plurality of coin pockets, a hand operated oscillating member having a pawl normally traveling out of the path of said engaging members, and adapted to engage the periphery of a coin in said holder and to be moved thereby into engagement with said engaging members, said pawl having a notched end arranged to straddle said engaging member, so that said pawl will be retained in engagement with said engaging member independently of the coin, after being initially engaged with one of said engaging members by the coin.

1,081,402. TIME-SWITCH. WILLARD E. PORTER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 14, 1907. Serial No. 373,605. (Cl. 161-27.)

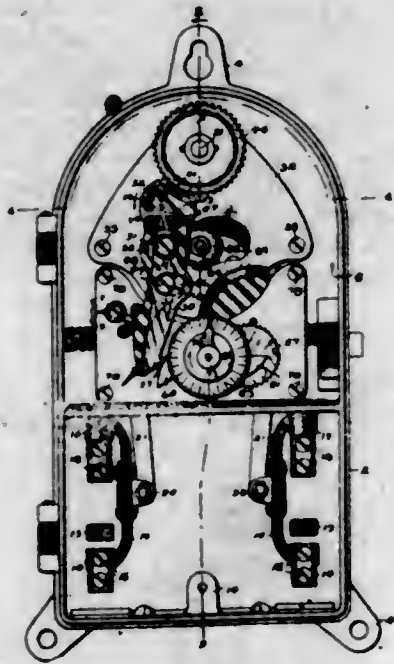
1. The combination of a switch, a shaft for operating said switch, means for biasing said shaft, an escapement gear operatively connected to said shaft and provided with an eccentric projection, a lever having a cam slot provided with a holding shoulder adapted to arrest and absorb the impact of said projection, and an independent time controlled lever adapted to receive said projection from said holding shoulder and determine its release.

2. The combination of a switch, a shaft for operating said switch, means for biasing said shaft, an escapement gear operatively connected to said shaft and provided with a spring-tensioned crank plate, a lever having a holding shoulder and an opposed circular shoulder for engaging said crank, and an independent time controlled lever controlling the movement of said holding lever and adapted to receive the crank therefrom and determine its ultimate release.

3. The combination of a trip cam, a staff section on which said cam is mounted, a second staff section, clutch mechanism for connecting said staff sections, and means operated by the second staff section for periodically releasing said clutch.

4. In a time switch, the combination of an electric switch, a timing mechanism, a trip cam, a staff section on

which said cam is mounted, a second staff section, a clutch mechanism for connecting said staff sections, means for operating said clutch, and means for arresting the movement of the first staff section.



5. In a time switch, the combination of an electric switch, a timing mechanism, a trip cam, a staff section on which said cam is mounted, a second staff section positively driven, means for clutching said staff sections together, means actuated by the second staff section for controlling the said clutching means, and means for preventing movement of the cam staff section while uncoupled. [Claim 6 not printed in the Gazette.]

1,081,403. METHOD FOR REMOVING SULFUR FROM CAST-IRON. WALTER F. PRINCE, Elizabeth, N. J. Filed May 8, 1912. Serial No. 696,019. (Cl. 75-49.)

1. The herein described method of removing sulfur from cast iron containing manganese which consists in introducing the molten metal into a ladle or chamber, then oxidizing a part of the manganese and agitating the mass to hasten the combination of manganese and manganese oxide with the sulfur.

2. The herein described method of removing sulfur from cast iron which consists in introducing the molten metal into a ladle or chamber; adding a quantity of manganese; then introducing air to oxidize a part of the manganese and to agitate the mass to hasten the combination of manganese and manganese oxide with the sulfur.

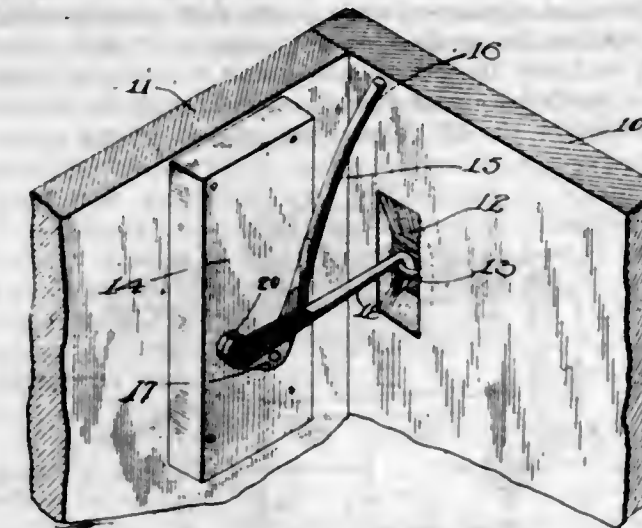
3. The herein described method of removing sulfur from cast iron which consists in introducing the molten metal into a ladle or chamber; adding a quantity of manganese; then introducing an oxidizing agent to oxidize the manganese and to agitate the mass to hasten the combination of manganese oxide and sulfur.

4. The herein described method of removing sulfur from cast iron containing manganese, which consists in introducing the molten cast iron into a ladle or chamber; then introducing an oxidizing agent to oxidize a part of the manganese and to agitate the mass to hasten the combination of manganese and manganese oxide with the sulfur and also to hasten the separation of the manganese sulfide and the manganese oxide thus formed from the mass.

1,081,404. DOOR-FASTENER. WALTER I. RANDALL, Genoa, Nebr. Filed Jan. 18, 1913. Serial No. 742,922. (Cl. 70-83.)

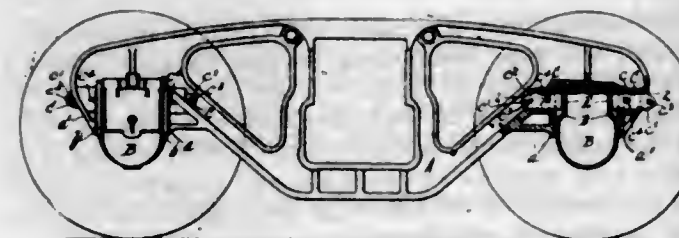
The combination with a door and its jamb; of a staple carried by said door, an elbow lever pivoted at its angle to said jamb and provided on one end with a handle, the other end being flattened, a latch hook provided with a flattened end, and a screw head bolt passing through said hook

and lever to frictionally hold the flattened end of the latch hook against the flattened end of the lever, whereby



the lever may be turned to swing the hook out of engagement with said staple.

1,081,405. RAILWAY-CAR TRUCK. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Dec. 19, 1912. Serial No. 737,590. (Cl. 105-243.)



1. A car truck side frame having jaws adapted to straddle a journal box, one of said jaws having a pocket therein, and a locking member which is confined within said pocket and is adapted to be moved into a recess in the journal box for preventing the removal of said box from said jaws, substantially as set forth.

2. A car truck side frame having jaws adapted to straddle a journal box, one of said jaws having a pocket therein, a locking member which is confined within said pocket and is adapted to be moved into a recess in the journal box for preventing the removal of said box from said jaws, and means for retaining the locking member in its locking position, substantially as set forth.

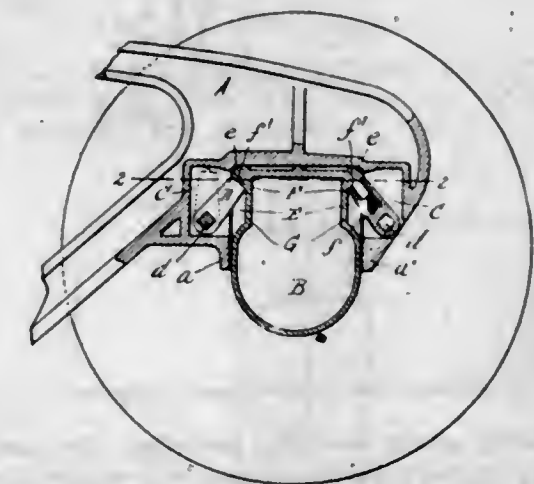
3. A car truck side frame having jaws adapted to straddle a journal box, one of said jaws having a pocket therein, and a locking member slidably arranged in said pocket and adapted to project into a recess in said journal box for preventing the removal of said box from said jaws, said locking member being held against removal from said pocket by the walls of said pocket and by said journal box, substantially as set forth.

4. A car truck side frame having jaws adapted to straddle a journal box, one of said jaws having a pocket therein, and a locking member slidably arranged in said pocket and adapted to project into a recess in said journal box for preventing the removal of said box from said jaws, said locking member having a part projecting out through a hole in said pocket for actuating said locking member, said locking member being held against removal from said pocket by the walls of said pocket and by said journal box, substantially as set forth.

5. The combination of a car truck side frame having jaws, a journal box adapted to be held between said jaws and having an inwardly extending projection and a recess in the outer face of the journal box coinciding with said projection, and locking means on the side frame adapted to enter said recess for holding the journal box in said jaws, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,081,406. RAILWAY-CAR TRUCK. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Dec. 19, 1912. Serial No. 737,591. (Cl. 105-243.)



1. A car truck side frame having jaws adapted to straddle a journal box, a shoulder formed on the journal box, and an arm pivoted on the side frame and adapted to be swung into engagement with said shoulder to retain the journal box between said jaws, substantially as set forth.

2. A car truck side frame having jaws adapted to straddle a journal box, one of which jaws has a pocket, the open side of which faces the journal box, a shoulder formed on the journal box, and an arm pivotally mounted in said pocket and adapted to be swung into engagement with said shoulder to retain the journal box between the jaws, substantially as set forth.

3. The combination of a car truck side frame having jaws, a journal box adapted to be held between said jaws and having an inwardly extending projection and a recess in the outer face of the journal box coinciding with said projection, and locking means pivoted on said side frame and adapted to be swung into said recess for holding the journal box in place between the jaws, substantially as set forth.

4. A car truck side frame having jaws adapted to straddle a journal box, a shoulder formed on the journal box, an arm pivoted on the side frame and adapted to be swung into engagement with said shoulder to retain the journal box between said jaws, and means for retaining said arm in holding engagement with said journal box, substantially as set forth.

5. A car truck side frame having jaws adapted to straddle a journal box, a shoulder formed on the journal box, an arm pivoted on the side frame and adapted to be swung into engagement with said shoulder to retain the journal box between said jaws, and a retaining member mounted on said arm and adapted to be pressed into engagement with said journal box for releasably holding the arm in its holding position, substantially as set forth.

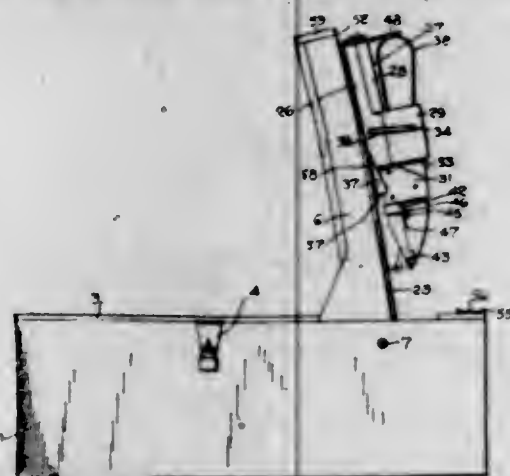
[Claims 6 and 7 not printed in the Gazette.]

1,081,407. MATCH-SAFE. OTTO RISON, Sebeka, Minn. Filed Mar. 24, 1913. Serial No. 756,532. (Cl. 206-25.)

1. In a device of the character described, the combination of a body having a match receptacle arranged therein, a pivotally mounted guide board arranged within the body and disposed above the match receptacle, and a resiliently held pusher plate slidably mounted upon said guide board and arranged within said receptacle.

2. In a device of the character described, the combination of a body having a match receptacle arranged therein, a pivotally mounted guide board arranged within said body, guide plates slidably mounted upon said guide board, a finger loop secured to one of the guide plates upon the upper side of said board, a hook member formed integral with said finger loop and adapted to engage the rear of the guide board when inserting the match receptacle within the body, a pusher plate formed integral with the plate upon the lower side of the guide board and means for re-

silently holding said plate into engagement with the matches in the receptacle.



3. In a device of the character described, the combination of a body having a match receptacle arranged therein, an upright mounted upon said body, a guide board pivotally secured to the lower end of said upright and arranged within the body, a pusher plate slidably mounted upon said guide board and adapted to be arranged within the receptacle at the rear of the matches, and means for resiliently holding said pusher plate into engagement with the matches.

4. In a device of the character described, the combination of a body having a match receptacle arranged therein, an upright mounted upon said body, a guide board pivotally secured to the lower end of said upright and arranged within said body, a pusher plate slidably mounted upon said guide board, means for resiliently holding said pusher plate into engagement with the matches in the receptacle, a finger hold secured to the pusher plate, a hook member formed integral with said finger hold and adapted to engage the rear end of the guide board, as and for the purpose set forth.

5. In a device of the character described, the combination of a body having a match receptacle arranged therein, an upright mounted upon said body, a vertically movable carriage mounted upon said upright and normally disposed at the upper end of the upright, a beveled plate secured to the upright and arranged adjacent the travel of the carriage, grasping jaws carried by said carriage, and means mounted upon the carriage and adapted to engage the beveled plate upon the downward travel of the carriage to open said jaws, said jaws being provided with means for engagement by a match for closing the jaws, at the lower end of the travel of the carriage and means for returning said carriage to its normal position.

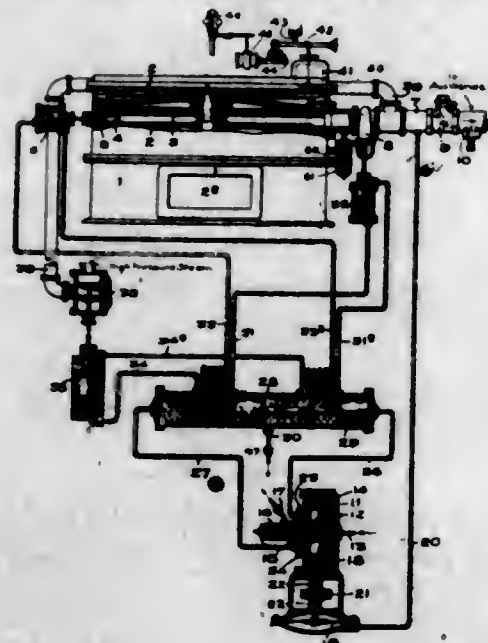
[Claim 6 not printed in the Gazette.]

1,081,408. MEANS FOR SUPPLYING STEAM FOR INDUSTRIAL PURPOSES FROM PRIME MOVERS. LEWIS SANDERS, South Nyack, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 12, 1909. Serial No. 489,517. (Cl. 121-118.)

1. In combination, a prime mover having a high pressure admission and a low pressure exhaust, a conduit separate from said exhaust and receiving steam from the prime mover at an intermediate pressure for industrial purposes, passages in the turbine leading from the region of intermediate pressure, valve means for controlling the passages and for maintaining the supply of steam to the conduit at a substantially constant pressure, and a regulating mechanism for automatically controlling the action of the valve means.

2. In combination, a prime mover having a high pressure admission and a low pressure exhaust, a conduit taking steam from a region in the prime mover intermediate the admission and exhaust, a working passage within the turbine, means sensitive to a condition of the steam withdrawn by the conduit, and a valve for regulating the flow of steam through the passage from said region to the low pressure portion of the turbine and for controlling the pressure in said region.

3. In combination, a prime mover, a conduit receiving fluid from the prime mover at a point intermediate its supply and exhaust and after it has performed work in said prime mover, means acting on the fluid passages within the turbine for controlling the passage of fluid there-through and also into the conduit, and a regulator sensitive to a condition of the fluid flowing through the conduit for determining the effective action of said means.

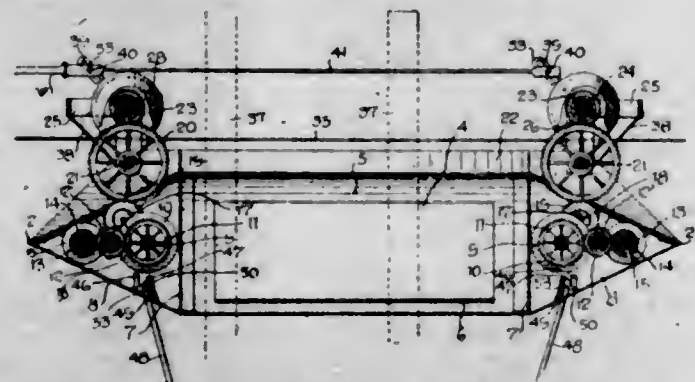


4. In combination, a prime mover that is divided into stages and has fluid discharging devices for each stage, a conduit receiving elastic fluid from one of the stages after it has performed work in the prime mover, means for regulating the passage of fluid through the device leading from the stage that supplies the conduit, and a regulator sensitive to the passage of fluid through the conduit for modifying the position of said means.

5. In combination, a turbine wherein a drop in pressure takes place between the supply and the exhaust, a conduit receiving steam from the turbine at a point intermediate the supply and exhaust, valve means carried by the turbine for controlling the flow of steam through a passage therein and also through the conduit, and a regulator sensitive to a condition of the steam flowing through the conduit for regulating the action of the valve means.

[Claims 6 to 29 not printed in the Gazette.]

1,081,409. AUTOMATIC MAIL-CARRIER. JOHN M. SCHWENDEMANN, Douglas, Okla. Filed Sept. 10, 1913. Serial No. 789,210. (Cl. 104-146.)



1. A device of the class described comprising a car, a trolley, a pair of spaced trolley wheels above the opposite ends of the car, means for supporting the wheels in proper position, the opposite ends of the car being pointed and separated from the main portion of the car by partitions, thereby forming a main compartment and end compartments, means for closing the main compartment, a motor within each end compartment, means for suspending the car below the trolley wire, and means for operating either trolley wheel from the motor below the same.

2. A device of the class described comprising a car having a main compartment and end compartments, a motor

within each end compartment, means for closing the main compartment, a trolley wheel above each end compartment, means for supporting the trolley wheels, connections between the trolley wheels and the motors therebeneath, and means for disconnecting either trolley wheel from its motor while the other trolley wheel is connected with its motor.

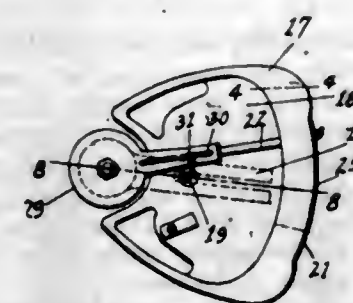
3. A device of the class described comprising a car, a trolley wire above the car, means for suspending the car from the trolley wire, means for resiliently retaining the suspending means in normal position, a spring motor within the car, a stop member, means for engagement with the stop member to stop operation of the motor, said stop member projecting through the bottom of the car, a trolley wheel above the car and engaged upon the trolley wire, transmission mechanism between the motor and the trolley wheel, and means for throwing the transmission mechanism out of operation.

4. A device of the class described comprising a car, a motor in one end of the car, a trolley above the car, a trolley wheel mounted on the trolley, means carried by the car for supporting the trolley wheel, means for operatively connecting the trolley with the motor, means for automatically stopping operation of the motor, means for retaining the last mentioned means in inoperative position, and means for releasing the motor stopping means.

5. A device of the class described comprising a car, independent motors within the car, a trolley above the car, trolley wheels mounted upon the trolley, means carried by the car for supporting the trolley wheels, connections between the motors and the trolley wheels, means for disconnecting one of the trolley wheels from its motor, stop members projecting from the car, means for resiliently retaining the stop members in position, means for reversing the position of the stop members, and means connected with the stop members for engagement with the motors to stop the same upon reversal of the position of the stop members.

[Claims 6 to 8 not printed in the Gazette.]

1,081,410. KNITTING-MACHINE. HARRY D. SHIMER, Muskegon, Mich., assignor to Shimer, Powell & Company, a Partnership composed of M. H. Powell, W. C. Powell, Louis Lunsford, Wm. Duquette, Louis Brown, and Harry Shimer, Muskegon, Mich. Filed June 24, 1912. Serial No. 705,373. (Cl. 66-7.)



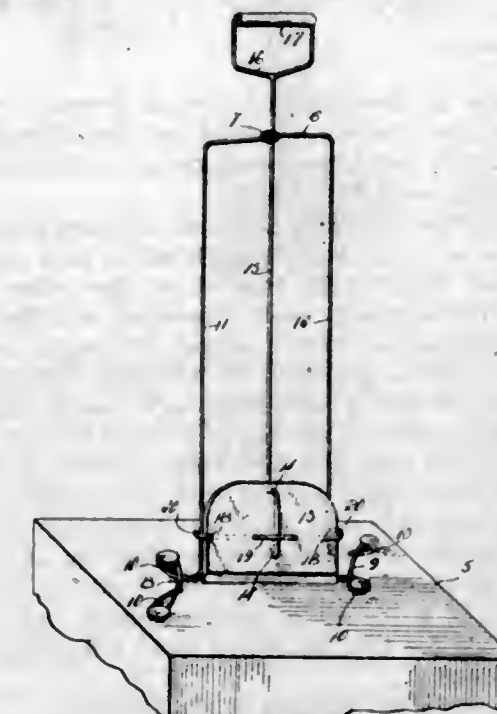
1. In a knitting machine, a stop-motion device, having in combination, a spreader provided with a pair of depressed portions, an oscillatory finger adapted to oscillate through each of said depressed portions and normally resting in the depressed portion near the end of the spreader with which the web first contacts, the said finger being adapted to be caught by an imperfect web passing over the depressed portion and oscillated to the other depressed portion which is arranged to allow the web to free itself from the finger, substantially as described.

2. A stop-motion device, having in combination, a spreader provided with three points where the web contacts, an oscillatory finger movable between the two outside points of contact, whereby one of the outside points of contact serves to drop an imperfect web into engagement with the finger and the other outside point of contact serves to free the web from the finger, substantially as described.

3. A stop-motion device, having in combination, a spreader provided with a hump at each end and an inter-

vening point of contact, an oscillatory finger movable from one hump to the other and adapted to be caught by an imperfect web passing over one of the humps and adapted to be freed from the web as it passes over the other hump, and means for returning it to its initial position after being freed from the web, substantially as described.

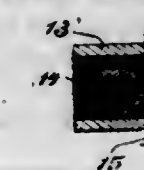
1,081,411. FOWL-DECAPITATING DEVICE. HARVEY T. SWANTON, Rubicon, Wis. Filed Jan. 19, 1911. Serial No. 603,528. (Cl. 17-30.)



1. A fowl decapitating device comprising an inverted U-shaped frame formed with an upper blight portion twisted to form an eye, the extremities of the frame being bent to form spaced eyes to receive an anchoring means, a handle having a shank movable vertically through the first named eye, a knife blade carried by the lower end of the shank and a guide member carried by the blade and passing sinuously therethrough to serve as a brace means for the blade, the ends of the guide member engaging the arms of the frame.

2. The combination with a frame having a guide opening and a handle having a shank movable therethrough and between the side portions of the frame; of a blade to which said shank is attached, said blade having vertically spaced apertures through which the shank is sinuously bent and transversely spaced apertures intersecting the same and a securing member passed sinuously through the last named apertures to brace the blade and having its ends coiled around the side portions of the frame to guide the knife during its sliding movements.

1,081,412. SHOE-HEEL PROTECTOR. FRANK S. TUCKER and FRED M. LAXTON, Charlotte, N. C. Filed Apr. 25, 1911. Serial No. 623,262. (Cl. 36-75.)

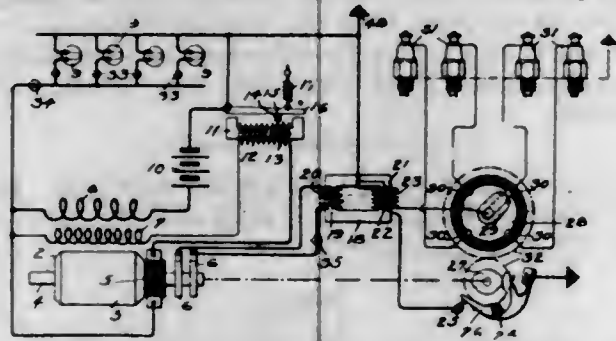


An anti slip and noise insert for treads, comprising a steel tube and a lead insert in said tube flush with one end of the tube and having an annular flange overhanging the other end of the tube and constituting a packing for the said tube.

1,081,413. ELECTRICAL SYSTEM. RICHARD VARLEY, Englewood, N. J. Filed June 16, 1913. Serial No. 773,807. (Cl. 123-148.)

1. A source of energy and a circuit therefor, a coil inductively related thereto, means for short circuiting said

coil, and a second coil inductively related to the first coil and having a spark gap in circuit therewith.



2. A source of energy and a circuit therefor, a coil inductively related thereto, a second coil inductively related to the other coil, and means comprising an interrupter for short circuiting said first coil.

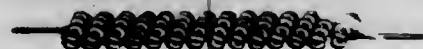
3. The combination with a source of energy and a circuit therefor, a coil inductively related to said circuit and a second coil inductively related to the other coil, of means for intermittently short circuiting said first coil.

4. The combination with a source of energy and a circuit therefor, and a plurality of windings inductively related thereto, of means comprising said source and one of said coils, for causing a discharge of high tension current in another of said coils and following the same by low tension current inductively derived from said source.

5. The combination with a source of alternating current, and a transformer provided with a plurality of windings one of said windings being connected to said source, a circuit comprising a second of said windings and a spark gap, and means for intermittently short circuiting a third of said windings.

[Claims 6 to 28 not printed in the Gazette.]

1,081,414. ELECTRIC HEATING ELEMENT. ALONZO A. WARNER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed May 8, 1913. Serial No. 765,816. (Cl. 219—71.)



1. An electrical heating element in the form of a self-supporting pliable coil formed from a suitable resistance wire, the length of the wire in each convolution being greater than the circumference of the convolution.

2. An electrical heating element in the form of a self-supporting pliable compound coil, the convolutions of the major coil being out of contact.

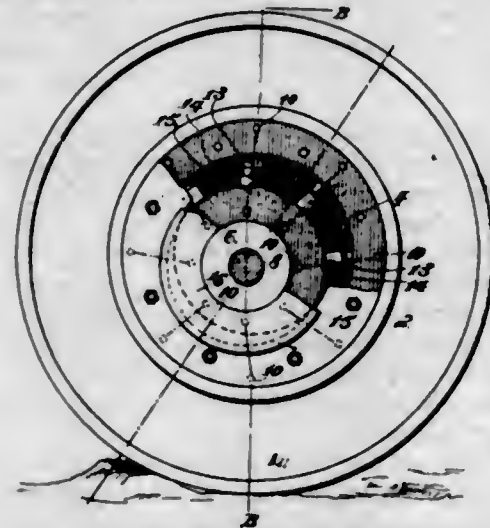
3. An electrical heating element in the form of a self-supporting pliable compound coil, the adjacent convolutions of the minor coil having points of contact with one another, and those of the major coil being out of contact.

4. The herein described method of forming an electrical heating element which consists, first in forming a strand of resistance material into a closed coil with its convolutions in contact, and second in winding this coil about a temporary mandrel into a second coil whose convolutions are out of contact, the first coil being subjected to a slight tension while being wound into the second coil in order to open up the outer parts of its convolutions.

1,081,415. SPRING VEHICLE-WHEEL. CHARLES WARWICK, Vancouver, British Columbia, Canada. Filed Aug. 20, 1912. Serial No. 715,970. (Cl. 152—44.)

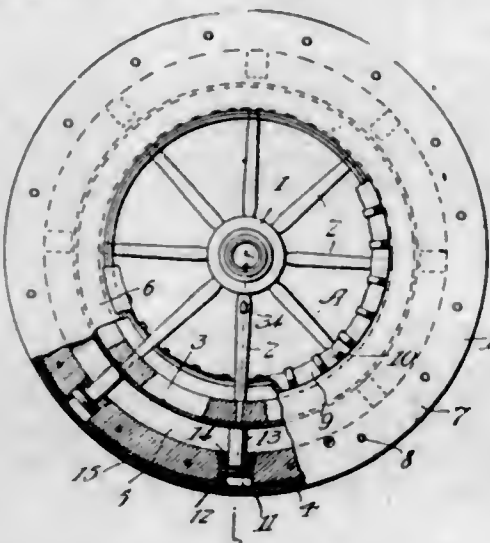
A spring vehicle wheel, comprising the combination with an outer ring on which is the tire, said outer ring provided with an inner circumferential groove, a hub the middle portion of which corresponds in thickness to that of the wheel and is provided with a corresponding outer circumferential groove, springs one end of each of which is pin-connected within the groove of the wheel and the other end within the groove of the hub, the end of each spring

being secured to a bearing tube through which the connecting pin passes, and a spring inclosing tube secured to each



bearing tube, that of one end of the spring being telescopically slidable within that of the other.

1,081,416. VEHICLE-WHEEL. ALLEN R. WEAVER, Batesville, Ark. Original application filed Feb. 17, 1910. Serial No. 544,386. Divided and this application filed Oct. 11, 1911. Serial No. 654,071. (Cl. 152—11.)



1. A wheel comprising relatively movable parts, one part having a chamber for containing air under pressure, a piston therein having a bore leading into the chamber, a check valve between the piston and chamber for admitting air from the former to the latter, a plunger adapted to reciprocate in the piston by the relative movement of the said parts of the wheel and having a bore through which air is admitted to the latter, and a check valve carried by the plunger to admit air thereto.

2. A wheel comprising relatively movable parts, one part having a chamber for containing air under pressure, a piston therein having a bore leading into the chamber, a valve between the piston and chamber for admitting air from the former to the latter, a plunger adapted to reciprocate in the piston by the relative movement of the said parts of the wheel and having a bore through which air is admitted to the latter, a check valve carried by the plunger to admit air thereto, and pressure-responsive means for interrupting movement of the plunger when the pressure in the chamber reaches a predetermined point.

3. A wheel comprising an outer non-deformable tread section, an inner section of smaller diameter to permit the sections to assume an eccentric relation to each other, pneumatic cushioning means between the sections, an air pump cylinder carried by one of the sections, a piston in the cylinder bearing constantly against the other section for reciprocation by the relative changing eccentricity of the sections as the wheel rotates.

4. The combination of a pneumatic resilient wheel, with a combined cushioning and air replenishing device

comprising a cylinder, a piston movable therein and provided with a bore, a check valve for said bore, a hollow plunger working in said bore, a plunger valve, and a plunger retracting spring.

5. The combination of a pneumatic resilient wheel, with a combined cushioning and air replenishing device comprising a cylinder, a piston movable therein and provided with a bore, an air compressing plunger working in said bore, a pressure regulating piston carried by the cylinder piston, and plunger locking means controlled by the regulating piston and carried by the cylinder piston.

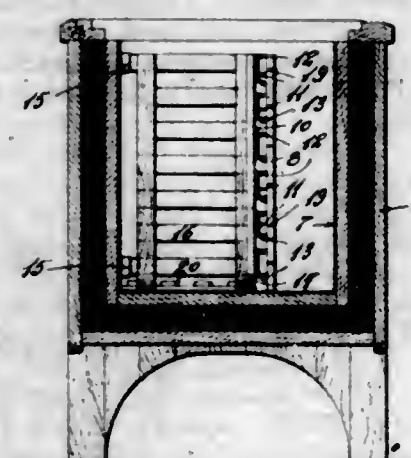
[Claims 6 to 12 not printed in the Gazette.]

1,081,417. SMOKE-CONSUMER. ALBERT J. WILKINS, Coal Center, Pa. Filed Feb. 7, 1913. Serial No. 746,839. (Cl. 240—120.)



A smoke bell comprising a substantially cup-shaped body having an internally threaded nipple extension at its smaller end, a bell-shaped section having a nipple detachably engaged in the internally threaded nipple on the body, a foraminous disk seated within the nipple on the body, a removable cover for the said body, and fire-proof material entirely filling the body.

1,081,418. PARTITION FOR REFRIGERATORS AND THE LIKE. GUSTAVE F. WITTKOPF, St. Louis, Mo., assignor to Western Refrigerator & Mfg. Co., St. Louis, Mo., a Corporation of Missouri. Filed Sept. 16, 1912. Serial No. 720,686. (Cl. 189—34.)



In a partition for refrigerators, a pair of vertically disposed sheet metal strips, oppositely arranged on opposing walls of the refrigerator, each strip comprising a right angled flange and a channel, a plurality of sheet metal slats arranged to be held by said strips, each slat having a vertically disposed body portion having inclined margins at its top and bottom, and right angled flanges at each of its ends, and means for securing said flanges and said strips to the walls of the refrigerator, substantially as shown and for the purposes stated.

1,081,419. LUBRICANT-DISTRIBUTER. WILLIAM H. YOUTSEY, Monroe township, Miami county, Ohio. Filed Feb. 20, 1909. Serial No. 479,064. (Cl. 184—3.)



1. In a lubricating distributor the combination with an oil reservoir; of an operating valve communicating with said oil reservoir; means for controlling said valve so as to cut off or turn on the flow of oil; a continuous channel leading from said valve and a nozzle for distributing the oil upon the rail; a revolving disk adapted to bear against the side of the rail; a supporting roller projecting from the body of the device, and adapted to travel or run on the rail; and means for permitting of sufficient play to allow said roller to pass over any obstruction on the rail; all substantially as and for the purposes described.

2. The combination in a lubricating distributor, of a supply receptacle for the oil or lubricant; a valve communicating with said supply receptacle; means connected to said valve for operating the same so as to turn on or cut off the flow of oil; a conduit leading from said valve to the rail; a wheel for supporting the movable parts and permitting same to travel on the rail; means for allowing said movable parts to pass over any slight obstruction; and means also for distributing the lubricant on the inner flange of a double rail; all substantially as described.

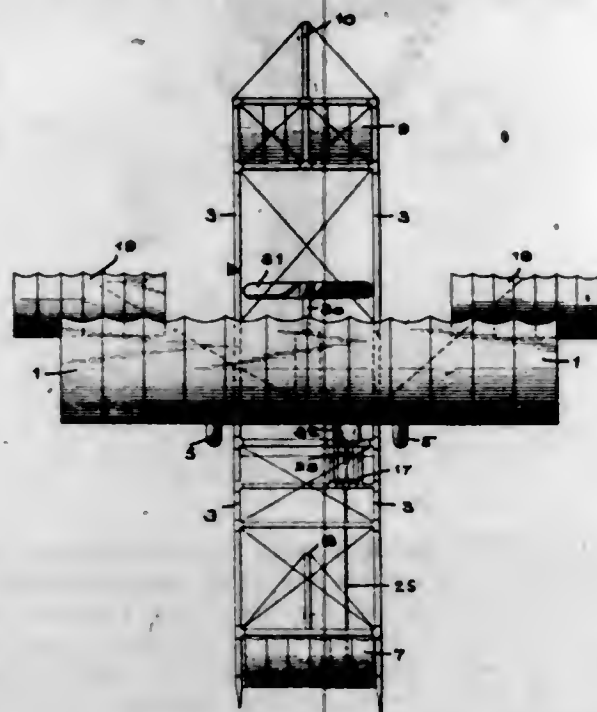
3. The combination in a lubricating distributor with an oil supply tank, of a controlling valve connected to said tank for regulating the flow of oil; a lever for forcing the movable parts of the device into operative position, and a large spring for holding said parts when in their normal position; of a discharge nozzle for lubricating the rail; of a supporting wheel adapted to travel on the rail; of a revolving disk adapted to bear against the rail; of means for permitting the device to pass over any slight obstruction on the rail; all substantially in the manner and for the purposes described.

4. A lubricant distributor comprising a reservoir adapted to receive and hold a supply of lubricant; a cut-off valve communicating with said reservoir; a hollow cylindrical portion having a knuckle-joint connection with a hollow stock and a discharge pipe telescoping in said stock, all forming a continuous and open channel from said valve when in an operative position, or closing said valve when in their normal position; a supporting-roller adapted to travel on the rail; a revolving disk adapted to bear against the rail; means for permitting the distributor to pass over any slight obstruction on the rail; and a lever for throwing the movable parts into operative position, and a large spring for holding said parts in normal position when released by said lever; all substantially as described.

1,081,420. AEROPLANE. JOSEPH E. G. ALEXANDER, Philadelphia, Pa. Filed July 23, 1912. Serial No. 711,074. (Cl. 244—29.)

An aeroplane comprising two main planes, a fore-and-aft frame extending in front and rear of the main planes, a horizontal plane at the forward end of said frame, a vertical plane mounted in the said frame and in rear of the

horizontal plane, a second horizontal plane rigidly mounted near the rear end of the fore-and-aft frame, a second vertical plane rigidly mounted in rear of the said second horizontal plane, ailerons mounted between the main planes, a post, a bar mounted between its ends on the



post, vertical foot rests on the ends of the bar, and flexible devices connecting the right and left foot rests and the right and left ailerons respectively, whereby an oscillating movement of the bar operates the ailerons, substantially as described.

1,081,421. ORE-CONCENTRATING MACHINE. GEORGE W. ARNOLD, Denver, Colo., assignor of one-third to Harry Hertzberg, Denver, Colo. Filed June 26, 1913. Serial No. 775,920. (Cl. 83-54.)



1. In an ore concentrator, a rotating adjustably inclined flat pan, with a rim at right angles to the surface of the pan, a central hollow shaft, involute riffling secured to said pan and a base supporting said pan, with adjustable means secured to said base for adjusting the angle of inclination of said pan.

2. In an ore concentrator, a rotating adjustably inclined flat pan, with a rim at right angles to the surface of the pan, a central hollow shaft, involute riffling secured to said pan, extending from said rim to said hollow shaft and means on the hollow shaft for rotating the pan.

3. In an ore concentrator, a rotating adjustably inclined flat pan, with a rim at right angles to the surface of the pan, a central hollow shaft, riffling secured to said pan extending from the rim to the central hollow shaft, said riffling diminishing in height as they approach the central hollow shaft.

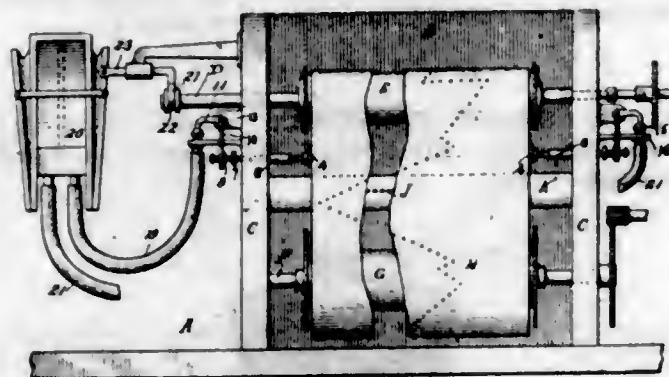
4. In an ore concentrator, a rotating adjustably inclined flat pan with a rim at right angles to the surface of the pan, a central hollow shaft, riffling secured to said pan extending from the rim to the central hollow shaft, said riffling being involute and diminishing in height as they approach the central hollow shaft.

5. In an ore concentrator, a rotating adjustably inclined flat pan with a rim at right angles to the surface of the pan, a central hollow shaft, riffling secured to said pan

extending from the rim to the central hollow shaft, square involute riffling diminishing in height as they approach the central hollow shaft.

[Claim 6 not printed in the Gazette.]

1,081,422. SHEET-MUSIC-TRACKING DEVICE. CARL BERGLAND, East Orange, N. J., assignor to Lauter Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 25, 1912. Serial No. 693,023. (Cl. 84-161.)

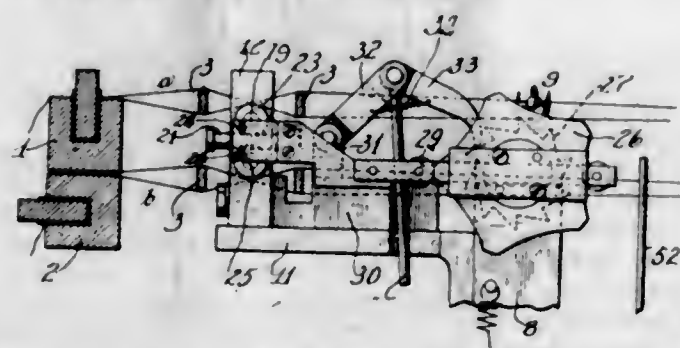


1. The combination of a tracker bar and a traveling music sheet, means including a pneumatic for maintaining said sheet in operative position relative to said tracker bar, and a bell crank lever valve controlling said pneumatic, a plunger having an end contacting with the edge of the traveling sheet and the other end contacting with an arm of said lever, and means regulating the contact of said plunger with said arm thereby to adjust the bearing of said plunger on the edge of said sheet.

2. In a self-playing piano, sheet shifting means including a freely mounted revolving and reciprocating shaft having sheet engaging means on one end and a valve engaging means on the other end and a valve adjustable relative to said shaft.

3. In a player piano, the combination with a traveling music sheet, of pneumatic means for actuating said sheet transversely of its line of travel, said means including a valve opening, a valve in the form of a bell crank lever having a pendant arm and an arm normally extending from the vertical, said extending arm having a valve head on the under side thereof, the weight of said headed arm tending to maintain said head on said opening to close the same and a connection between said sheet and said pendant arm.

1,081,423. TEXTILE-MACHINE. THOMAS ERNEST BINGHAM, Manchester, England, assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Mar. 30, 1911. Serial No. 617,868. (Cl. 139-95.)



1. In a warp-untilting machine, in combination, means for supporting two leased warps in parallel planes; two spindles located between said planes, both of said spindles being located in a plane passing through the crossing points of the threads of both warps; two oppositely-extending fingers, one on each of said spindles; means for rocking said spindles to swing said fingers from one side to the other of the crossing points of the respective warps; and means for causing relative approaching movement between the warp supports and the spindles.

2. In a machine for operating upon leased warps, a separating finger located adjacent to the crossing point of the threads, means for pressing the finger against the threads, means for swinging said finger across the crossing point of the threads to engage alternately the two sheds formed by the leasing of the warp, and means for causing relative approaching movement between the warp and the finger.

3. A thread-separating finger for use in machines for operating upon leased warps, the opposite sides of the finger at the forward face thereof being beveled, said finger having a tapered end, the sides of which at the forward face of the finger are beveled.

4. In a warp-untilting machine, in combination, means for supporting two leased warps in parallel planes; two spindles located between said planes, both of said spindles being located in a plane passing through the crossing points of the threads of both warps; a finger on each of said spindles, each finger extending toward one of the warps; springs tending to press the fingers against the threads; means for rocking said spindles to swing said fingers from one side to the other of the crossing points of the respective warps; and means for causing relative approaching movement between the warp supports and the spindles.

5. In a warp-untilting machine, stationary means for supporting two warps; thread-separating mechanism and thread-untilting mechanism; a carriage for supporting said mechanisms and the operator; a pedal on said carriage; a driving connection between said pedal and said mechanisms; and carriage-moving means also arranged to be driven by said pedal.

[Claims 6 to 8 not printed in the Gazette.]

1,081,424. MAGAZINE-PENHOLDER. SAMUEL O. BOYD, Dongola, Ill. Filed Sept. 12, 1912. Serial No. 720,068. (Cl. 120-101.)



1. In a magazine pen holder, a staff having a pen receiving recess and an adjacent magazine recess, a magazine holder comprising a single section of material bent to form a longitudinal slot, spring means engaged in the holder to force a plurality of pens toward the top thereof and a sleeve slidable on the stock and having a catch to engage the uppermost pen point and feed the same to the receiving recess.

2. In a magazine pen holder, a staff having a pen receiving recess and an adjacent magazine recess, a magazine holder comprising a single section of metal bent to form a longitudinal slot, spring means engaged in the holder to force a plurality of pens toward the top thereof, a sleeve slidable on the stock and having a catch to engage the uppermost pen point and feed the same to the receiving recess, said sleeve being rearwardly movable on the stock to free an old pen point and means for limiting the movement of the sleeve in the last named direction.

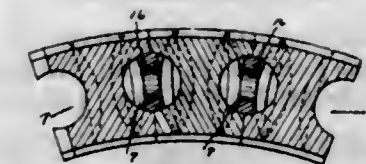
3. A magazine pen holder embodying a staff having a pen recess and a rectangular magazine recess communicating therewith, a pen point holder fitted in the recess, said holder comprising a single section of sheet metal bent in substantially rectangular form to provide open ends and inclined top portions having an intermediate slot, a sleeve slidable on the staff, a catch movably carried near the rear end of the sleeve for feeding a pen to the first named recess by operating through the slot upon forward displacement of the sleeve and a spring pressed follower supported on the bottom of the holder for forcing the pen points to a feeding position.

4. A magazine pen holder embodying a staff having a pen recess and a rectangular magazine recess communicating therewith, a pen point holder fitted in the recess, said holder comprising a single section of sheet metal bent in substantially rectangular form to provide open ends and inclined top portions having an intermediate slot, a sleeve slidable on the staff, a catch movably carried near the rear

107 O. G.—39

end of the sleeve for feeding a pen to the first mentioned recess by operating through the slot upon forward displacement of the sleeve, a spring pressed follower supported on the bottom of the holder for forcing the pen points to a feeding position, said sleeve being rearwardly displaceable on the staff by raising the catch and a shoulder for limiting such displacement of the sleeve.

1,081,425. CUSHION-TIRE. COLONEL E. BRIGHT, Columbus, Ohio. Filed Dec. 1, 1911. Serial No. 663,364. (Cl. 152-5.)



1. A cushion tire comprising a casing, a plurality of longitudinally extending sections abutting each other and forming an annular web around the interior of the casing, lateral wing formations carried by each section, and a plurality of transverse sections carrying complementary wing formations.

2. A cushion tire comprising a casing, a plurality of longitudinally extending sections abutting each other and forming an annular upright web around the interior of the casing, said web having a horizontal aperture there-through at each point of abutment, lateral wing formations carried by each section, and a plurality of transverse sections extending through said apertures and carrying complementary wing formations.

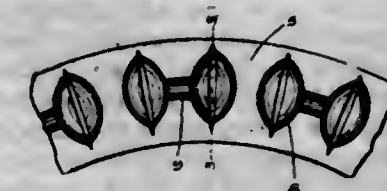
3. A cushion tire comprising a casing, a plurality of longitudinally extending sections abutting each other and forming an annular web around the interior of the casing, said sections carrying lateral wing formations the latter being undercut, a plurality of transverse sections carrying complementary wing formations the latter being undercut, said two wing formations being adjacent each other when in assembled condition, said undercut portions forming air pockets.

4. A cushion tire comprising a casing, a plurality of longitudinally extending sections abutting each other and forming an annular upright web around the interior of the casing, said web being apertured at each point of abutment, lateral undercut wing formations carried by said sections and a plurality of transverse sections mounted within said apertures and carrying complementary wing formations.

5. A cushion tire comprising a casing, a plurality of longitudinally extending sections abutting each other and forming an annular web around the interior of the casing, lateral undercut wing formations carried by each section, and a plurality of transverse sections carrying complementary wing formations and being centrally apertured.

[Claims 6 and 7 not printed in the Gazette.]

1,081,426. CUSHION ELEMENT FOR RESILIENT TIRES. COLONEL E. BRIGHT, Columbus, Ohio. Filed Jan. 11, 1912. Serial No. 670,665. (Cl. 152-5.)



1. A cushion element for tires comprising a body portion provided with a plurality of chambers which are provided with passages between pairs, and with slotted openings through the lateral walls of said body portion.

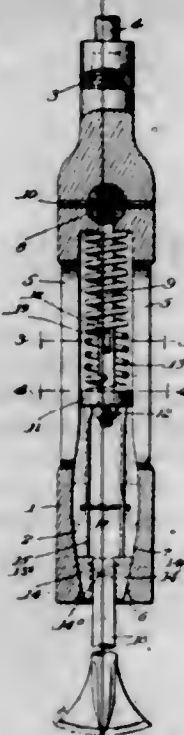
2. A cushion element for tires comprising an annular body portion formed with spaced air chambers partially open, said open portions being elliptical slots in the side

walls of said body portion and extending radially of said body portion.

3. A cushion element for tires comprising an annular body portion formed with spaced air chambers partially open and provided with longitudinal bores between certain of said chambers, said open portions being elliptical slots in the side walls of said body portion and extending radially of said body portion.

4. A cushion element for tires comprising a body portion having a longitudinal main piece, and wings having their outer edges separated by elliptical slots, said wings having their sides undercut and said main piece provided with longitudinal bores at intervals.

1,081,427. COMBINATION SLIP-SOCKET. WILLIAM S. BRUMMETT and LAMECH S. METZ, Coalinga, Cal. Filed Feb. 6, 1913. Serial No. 746,506. (Cl. 57—9.)



1. A drill rod grab including a socket, a guide rod projecting into the socket, a slide mounted upon the guide rod, tongs carried by the slide, yielding means engaging the slide and normally forcing the same downwardly to hold the tongs in an operative position, and a detent on the guide rod for engaging the slide to hold the tongs in an inoperative position when the slide has been pushed rearwardly against the action of the spring.

2. A drill rod grab including a socket, a guide rod projecting into the socket from the base thereof, a slide mounted upon the guide rod, spring arms projecting from the slide, cooperating jaws carried by the spring arms, a spring surrounding the guide rod and engaging the slide for normally moving the same outwardly to hold the jaws in operative position, and a detent upon the guide rod for engaging the slide to hold the jaws in an inoperative position when the slide has been moved rearwardly against the action of the spring.

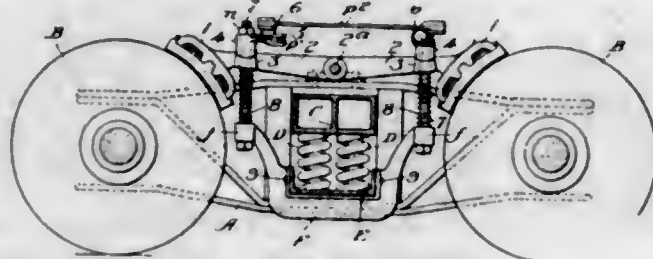
3. A drill rod grab including a socket, a guide member projecting into the socket from the base thereof, a slide mounted upon the guide rod, spring arms projecting from the slide, cooperating jaws carried by the spring arms, a spring surrounding the guide rod and normally forcing the slide downwardly to hold the jaws in operative position, an abutment upon the spring arms for engagement with the member being operated upon to force the slide and jaws upwardly against the action of the spring, and a detent upon the guide rod for engaging the slide to hold the members in an inoperative position when the slide has thus been moved upwardly upon the guide rod.

4. A drill rod grab including a socket, a guide member projecting into the socket from the base thereof, a slide mounted upon the guide rod, a pair of spring arms projecting from the slide, cooperating jaws carried by the spring arms, a cross pin loosely connecting the spring arms, a

spring engaging the slide and normally moving the same downwardly to hold the jaws yieldingly in operative position, the before mentioned transverse pin being adapted to engage the member being fished for to force the jaws upwardly and move the slide upwardly upon the guide rod, and a detent upon the guide rod for engaging the slide to lock the members in an inoperative position when the slide has thus been moved upwardly upon the guide rod.

5. A drill rod grab including a socket member provided with a socket opening and also formed with a transverse opening disposed above the base of the socket opening, a plug fitted within the transverse opening, a guide rod projecting longitudinally into the socket from the base thereof and having its upper end fitted within the plug, a locking pin extending transversely through the plug and guide rod, a slide mounted upon the guide rod, tongs carried by the slide, and means engaging the slide for normally moving the same downwardly to hold the tongs in operative position.

1,081,428. BRAKE MECHANISM. HARRY C. BURHUP, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,782. (Cl. 188—43.)



1. In a brake mechanism for car trucks, the combination with a truck side frame and bolster, of a brake shoe movably connected with the side frame of the car truck, mating cam devices for transmitting braking power to the brake shoe, and yielding means operatively interposed between the bolster and the cam devices for limiting the pressure of the cam devices on each other.

2. In a brake mechanism for car trucks, the combination with a car truck side frame, a bolster, and bolster springs, of a brake shoe movably connected with the side frame, mating cam devices for actuating the brake shoe, and means interposed between one of the cam devices and the bolster, whereby the load on said bolster may be transmitted to said cam device.

3. In a brake mechanism for car trucks, the combination with a car truck side frame, a bolster, and bolster springs, of a brake shoe movably connected with the side frame, mating cam devices for actuating the brake shoe, and means interposed between one of the members of the cam device and the bolster, whereby the load on said bolster may be transmitted to the cam devices.

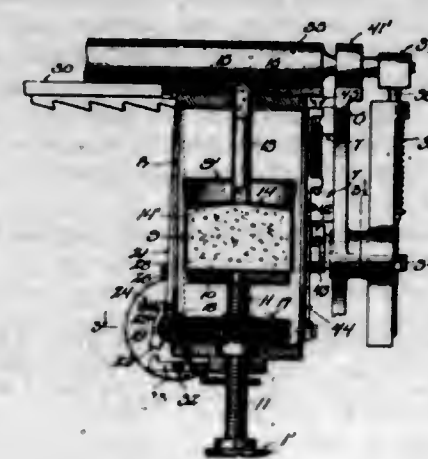
4. In a brake mechanism for car trucks, the combination with a side frame and bolster, of a brake shoe, a brake shoe lever pivoted on the side frame, mating cam devices for actuating the brake shoe lever, and means operatively interposed between the bolster and the mating cam devices, for transmitting the load on the bolster to the cam devices.

5. In a brake mechanism for car trucks, the combination with a side frame, a bolster and bolster springs, of a brake shoe lever pivoted on the side frame, mating cam devices for actuating the brake shoe, one of said cam devices being located on the brake shoe lever, and means interposed between one of the cam devices and the bolster whereby the load on said bolster may be transmitted to the cam devices. [Claims 6 to 9 not printed in the Gazette.]

1,081,429. PRINTING-PRESS ATTACHMENT. HENRY M. BULLIS, Milwaukee, Wis. Filed Apr. 10, 1913. Serial No. 760,208. (Cl. 101—74.)

1. The combination of a support attachable to a printing press, a jack having vertically adjustable connection with the support and serving as a stand for a can of printers-ink, means for automatic intermittent lift of the jack, a pressure-cap designed to occupy the can over the

contents thereof, a spout extending upward from the cap, an intermittently rotary disk upon which the spout discharges centrally thereof, and a distributing roller reciprocative on said disk and an adjacent inking-disk of said press.



2. The combination of a support attachable to a printing-press, a jack having a screw-threaded shank extending through the lower end of the support, a nut in said support engaged by said shank, means for automatic intermittent rotation of the nut to elevate the jack, a pressure-cap designed to occupy a can of printers-ink seated on said jack, a spout extending upward from the cap, an intermittently rotary disk upon which the spout discharges central thereof, and a distributing-roller reciprocative on said disk and an adjacent inking-disk of said press.

3. The combination of a support attachable to the frame of a printing-press, a jack vertically adjustable in the support, means for automatic intermittent lift of the jack and for predetermined stop of the lift, a pressure-cap designed to occupy a can of printers-ink seated on said jack, a spout extending upward from the cap, an intermittently rotary disk upon which the spout discharges central thereof, and a distributing-roller reciprocative on said disk and an adjacent inking-disk of said press.

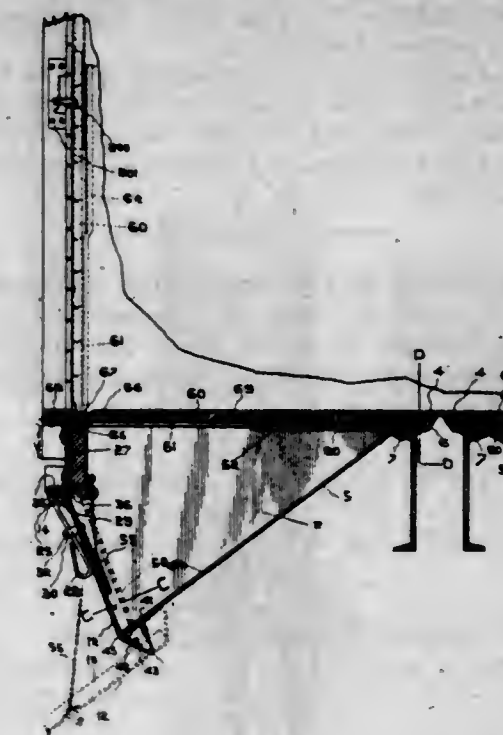
4. The combination of a support attachable to the frame of a printing-press, a jack having a screw-threaded shank extending through the lower end of the support and provided with a hand turning device, a worm-wheel that is also a nut on said shank within said support, a worm engaging said wheel, pawl-and-ratchet worm-drive-mechanism, means for intermittent action of the pawl and for regulating its throw, a pressure-cap designed to occupy a can of printers-ink seated on the jack, a spout extending upward from the cap, an intermittently rotary disk upon which the spout discharges central thereof, and a distributing-roller reciprocative on said disk and an adjacent inking-disk of said press.

5. The combination of a support attachable to the frame of a printing-press, a jack having a screw-threaded shank extending through the lower end of the support and provided with a hand turning device, a worm-wheel that is also a nut on said shank within said support, a worm engaging said wheel, pawl-and-ratchet worm-drive-mechanism, means for intermittent action of the pawl and for regulating its throw, means for predetermined automatic stop of said mechanism, a pressure-cap designed to occupy a can of printers-ink seated on the jack, a spout extending upward from the cap, an intermittently rotary disk upon which the spout discharges central thereof, and a distributing-roller reciprocative on said disk and an adjacent inking-disk of said press. [Claims 6 and 7 not printed in the Gazette.]

1,081,430. CONVERTIBLE CAR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Oct. 17, 1911. Serial No. 655,253. (Cl. 105—186.)

1. In a car for loose commodities the combination with a side sill and center-sill, of a discharge hopper comprising vertical walls hung from the car body, a diagonal hopper floor member carried by the walls and extending

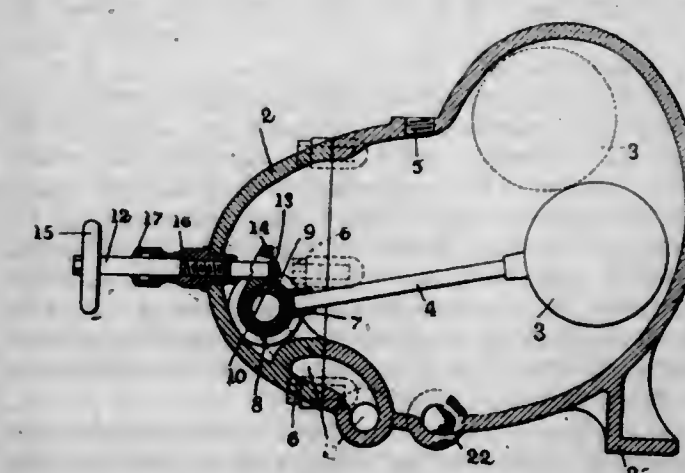
substantially the full length and width of the hopper, a door hinged to the floor member and adapted to close to an angular position close to a vertical plane, and means for locking the free edge of the door to the side sill.



2. In a car for loose commodities, a discharge hopper consisting of parallel vertical walls, a fixed diagonal floor member, and a door hinged to the discharge edge of the floor member, each wall having secured thereon an offset plate forming therewith a pocket and the door having flanges adapted to be enveloped by the pockets when the door is closed, and means for supporting the door in closed position.

3. In a car for loose commodities, the combination with the discharging door frame thereof one side of which has a part presenting a flat bearing surface and the opposite side has a flat surfaced door-jamb and the remaining sides have pockets extending throughout their length, of a trough door hinged to the door frame contiguous to the said bearing surface and having a surface adapted to bear upon the same when the door is closed the free edge of the door simultaneously bearing upon the door-jamb and the flanges of the trough entering the pockets and means for supporting the door in closed position.

1,081,431. STEAM-TRAP. EUGENE S. CALDWELL, Philadelphia, Pa. Filed Nov. 5, 1909. Serial No. 526,336. (Cl. 137—103.)

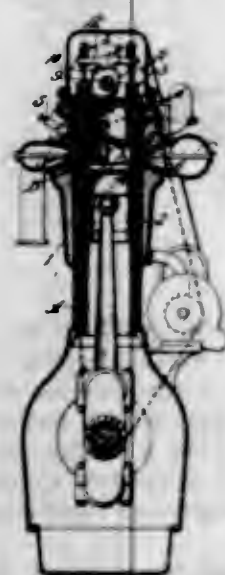


1. In a steam trap having a trap casing, a valve plug fixed in an opening in a wall of the trap casing, a cylindrical valve turning on said plug, an actuating float connected to said valve, an arm extending radially from the rotary element of the valve and an operating stem having a head engaging said arm.

2. In a steam trap of the float operated type, a hollow valve plug seated in an opening in the trap casing and having an outlet in its side registering with an outlet passage formed in the valve casing, a valve turning around the longitudinal axis of said plug, an external jam nut for holding the plug and a positioning key as and for the purpose described.

3. In a steam trap, the combination with a float, float arm and a rotary valve mounted on the trap cover, of an operating stem extending through the trap cover and engaging the arm to operate the valve and hold the same in place on its seat.

1,081,432. INTERNAL-COMBUSTION ENGINE. WILLIAM C. CARTER, St. Louis, Mo., assignor to Carter Carburetor Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 17, 1911. Serial No. 644,532. (Cl. 123—188.)



1. An internal combustion engine whose cylinder is provided with admission and exhaust ports through which the gases enter and escape, a reciprocating expansion valve, separate and distinct from the piston of the engine and arranged inside of the cylinder, for controlling the flow of the gases through said ports, and a carrying member for said valve that forms the top of the compression space of the cylinder.

2. An internal combustion engine provided with admission and exhaust ports formed in the sides of its cylinder, a piston for drawing the gases into the cylinder and compressing the gases, a reciprocating expansion valve arranged inside of said cylinder in sliding engagement with the sides thereof for controlling the flow of the gases through said ports, and a carrying member for said valve that forms the top of the compression space of the cylinder.

3. An internal combustion engine provided with a cylinder that has admission and exhaust ports formed in the sides thereof, means for igniting the gases that are drawn into the cylinder and compressed, a ring-shaped expansion valve, separate and distinct from the piston of the engine, and arranged inside of the cylinder in sliding engagement with the inner surface of the side walls of the cylinder for controlling the admission and exhaust of the gases through said ports, and an actuating member for said valve that forms the top of the compression space of the cylinder.

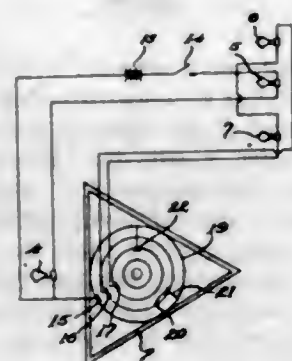
4. An internal combustion engine having admission and exhaust ports formed in the sides of its cylinder, a reciprocating valve-carrying member, separate and distinct from the piston of the engine and arranged inside of the cylinder, said member forming the top of the compression space of the cylinder, a ring-shaped expansion valve on said member for controlling the flow of the gases through said ports, and means for preventing said valve from mov-

ing longitudinally of the cylinder relatively to said valve-carrying member.

5. An internal combustion engine having a port formed in its side walls, a ring-shaped expansion valve arranged inside of said cylinder in sliding engagement with the inner face thereof, a reciprocating valve-carrying member for said valve, separate and distinct from the piston of the engine, and a projection on one of said parts which fits in a recess in the other part so as to prevent the valve from moving longitudinally of the valve-carrying member but not interfering with the radial or outward movement of the valve into snug engagement with the sides of the cylinder.

[Claims 6 to 15 not printed in the Gazette.]

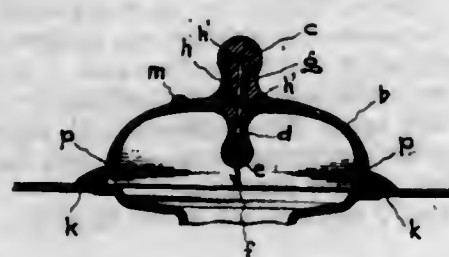
1,081,433. AUTOMOBILE SIGNALING APPARATUS. JOSEPH L. CAYEY, Chicago, Ill. Filed Oct. 16, 1912. Serial No. 726,040. (Cl. 177—311.)



1. The combination with a vehicle, of a front signal device adapted to be set to indicate in advance changes in the course of the vehicle and a rear signal device comprising a series of tail lights adapted to be displayed in different arrangements to indicate changes in the direction of the vehicle corresponding to those of said front signal device, means controlled from the seat of the operator for operating said front signal device, and a series of electrical contacts controlling said tail lights and being movable through the act of changing the indication of said front signal device.

2. The combination with a vehicle, of a front signal device adapted to be set to indicate in advance changes in the course of the vehicle and a rear signal device comprising a series of tail lights adapted to be displayed in different arrangements to indicate changes in the direction of the vehicle corresponding to those of said front signal device, means controlled from the seat of the operator for operating said front signal device, said front signal device being provided with electrical contacts for controlling said tail lights through movements of said front signal device.

1,081,434. SINK-STOPPER. GEORGE A. COTÉ, Montreal, Quebec, Canada. Filed Oct. 18, 1913. Serial No. 795,898. (Cl. 4—35.)



1. A sink stopper consisting of an india-rubber device of inverted saucer form with an aligned exterior knob and interior boss, the boss extending to a point in close proximity to the plane or level of the rim of the device and a hook having a shank extending upwardly into the boss and knob.

2. A sink stopper consisting of an india-rubber device of inverted saucer form with an aligned exterior knob and interior boss, the boss extending to a point in close proximity to the plane or level of the rim of the device, and a hook having a shank extending upwardly into the boss and knob, and the rim of the said device being formed with a flat foot.

3. A sink stopper consisting of an india-rubber device of inverted saucer form with an aligned exterior knob and interior boss, the boss extending to a point in close proximity to the plane or level of the rim of the device, a hook having a shank extending upwardly into the boss and knob, the body of such device having an exterior boss indicating the direction in which the hook faces, and the rim of the said device being formed with a flat foot.

4. A sink stopper consisting of an india-rubber device of inverted saucer form with an aligned exterior knob and interior boss, the boss extending to a point in close proximity to the plane or level of the rim of the device and a hook having a shank extending upwardly into the boss and knob and having a retaining disk rigidly secured for preventing longitudinal displacement of such hook.

5. A sink stopper consisting of an india-rubber device of inverted saucer form having a hook located at the middle of the interior thereof and the body of such device having an exterior boss indicating the direction in which the hook faces and the portion of the body contiguous to the boss of increased thickness.

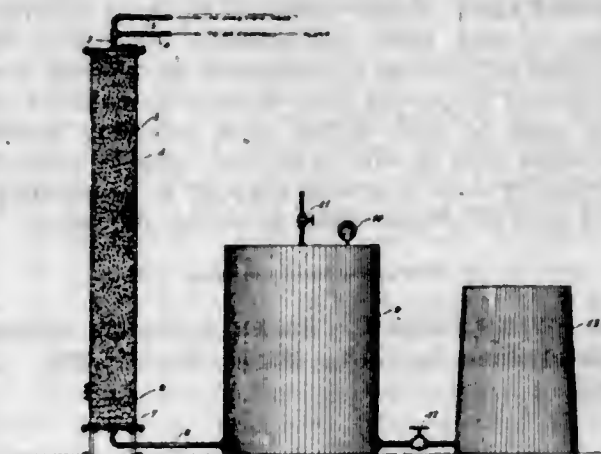
1,081,435. FISHING-LINE-DRYING REEL. CAPRES M. COVINGTON, Harrison, Ark. Filed May 10, 1913. Serial No. 766,867. (Cl. 242—104.)



1. In a device of the character described, the combination of a hollow interiorly threaded hub, a plurality of radially disposed rods threaded in the body wall of said hub, a pin threaded in one end of said hub and engaging said rods, said pin having a head formed on one end provided with an annular groove, a tubular interiorly threaded member detachably connected to the opposite end of said hub, a crank removably threaded in said member, and a line supporting arm detachably connected upon the outer end of each of said rods and extending at right angles to the longitudinal axis thereof.

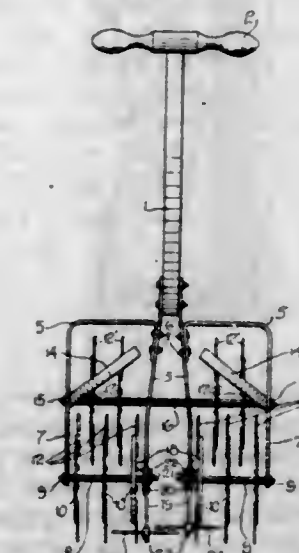
2. In a device of the character described, the combination of a hub provided with interior threads in one end, and a reduced threaded extension on its other end, a plurality of radiating arms removably threaded in the body wall of said hub, a pin engaged in the threaded end of said hub and binding against said rods, a member threaded upon the extension of the hub, a crank detachably connected to said member, heads removably threaded upon the outer ends of said radially disposed rods, and a line supporting arm carried by each of the heads extending at right angles to the longitudinal axis of the rod.

1,081,436. METHOD OF AERATING SOLUTIONS. WILTON E. DARROW, Amador City, Cal. Filed Oct. 14, 1912. Serial No. 725,726. (Cl. 75—185.)



A process of aerating a cyanid solution consisting in forming the said solution into a film and admitting air under pressure into contact with said film, as described.

1,081,437. WEEDER AND SOIL-PULVERIZER. JOHN S. DE LONG, Osborn, Ohio. Filed July 2, 1913. Serial No. 777,083. (Cl. 97—42.)



1. A weeder including a handle member, spaced parallel arms secured thereto, angular supporting brackets secured to said arms, the outer ends of said brackets and arms being downwardly curved and arranged in longitudinal alignment, shafts rotatably mounted in the outer ends of the arms and brackets and arranged upon opposite sides of the center of the handle, and cultivator disks mounted upon said shafts and adapted to rotate therewith.

2. A weeder including a handle member, spaced parallel arms secured thereto, angular supporting brackets secured to said arms, cultivator disks rotatably mounted between the outer ends of the arms and brackets, a rotatable shaft supported by said brackets and arranged at the rear of the cultivator disks, and a second set of cultivator disks mounted upon said shaft and adapted for rotation therewith.

3. A weeder including a handle member, spaced parallel arms secured thereto, supporting brackets secured to the arms, the outer ends of said arms and brackets being curved and arranged in longitudinal alignment, shafts rotatably mounted between the outer ends of the arms and brackets and disposed on opposite sides of the center thereof, cultivator disks mounted upon said shafts and adapted for rotation therewith, weeding knives, the shank portions of said knives being adjustably mounted upon the side portions of the brackets, a shaft journaled in the lower ends of said shank portions and arranged at the rear of the cultivator disks, and a second set of cul-

tivator disks mounted upon said shaft and adapted for rotation therewith.

4. A weeder including a handle member, spaced parallel arms secured thereto, angular supporting brackets secured to said arms, shafts rotatably mounted within the outer ends of said arms and brackets, cultivator disks mounted upon said shafts and adapted for rotation therewith, outwardly projecting arms removably mounted upon the inner ends of said shafts, hubs rotatably mounted upon the outer ends of said arms, and radially projecting teeth carried by said hubs and adapted to be engaged by certain of said cultivator disks to rotate the same.

1,081,438. WIRE FABRIC. FRANK P. DOOLEY, Chicago, Ill. Filed June 2, 1913. Serial No. 771,365. (Cl. 245-5.)



1. A wire fabric including a plurality of adjacent rows of adjacent units, each unit being in the form of a V-shaped loop having straight sides, which sides terminate, where farthest apart, in hooks and which sides are joined at their ends opposite the hooks by a minor loop in-turned toward the hooks and affording two separated bights between its sides and the aforesaid sides of the larger loop, these bights formed in each fabric unit of each row being engaged by the hooks in which the adjacent sides of adjacent fabric units in an adjacent row terminate, the sides of each fabric unit in each row forming with the adjacent sides of adjacent fabric units in an adjacent row connected therewith by the hooks of the first fabric unit figures of substantially diamond shape.

2. A wire fabric including a plurality of adjacent rows of adjacent units, each unit being in the form of a V-shaped loop having sides, which sides terminate, where farthest apart, in hooks and which sides are joined at their ends opposite the hooks by a minor loop in-turned toward the hooks and affording two separated bights between its sides and the aforesaid sides of the larger loop, these bights formed in each fabric unit of each row being engaged by the hooks in which the adjacent sides of adjacent fabric units in an adjacent row terminate, the sides of each fabric unit in each row forming with the adjacent sides of adjacent fabric units in an adjacent row connected therewith by the hooks of the first fabric unit figures of substantially diamond shape.

1,081,439. CRADLE FOR LOG-RAFTS. PATRICK F. DUNDON, San Francisco, Cal. Filed June 24, 1912. Serial No. 705,444. (Cl. 9-15.)

1. A cradle for logs having side-frames between which the logs are confined, each side-frame comprising two logs, bolts connecting said logs, thimbles around said bolts adjacent to the extremities of said logs and having

rounded portions, and cables passing around the rounded portions of said thimbles.



2. A cradle for logs comprising front and rear portions, each having side-frames between which the logs are confined, each side-frame comprising two logs, means for spacing said logs apart, and bolts connecting said logs, and cables passing between logs of the side-frames and surrounding the logs.

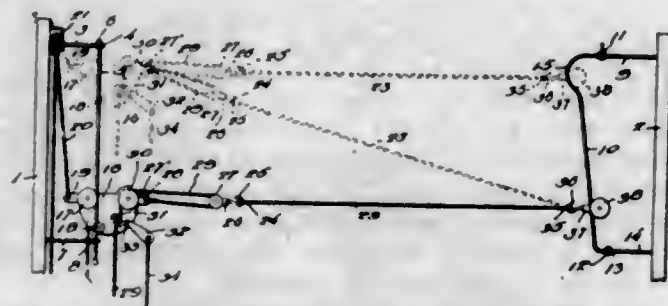
3. A cradle for logs comprising front and rear sections, each having side-frames between which the logs are confined, each side-frame comprising two logs, means for spacing said logs apart, and bolts connecting said logs, and cables passing between logs of the side-frames and connecting the side-frames of the front portion with the side-frames of the rear portion.

4. A cradle for logs comprising front and rear sections, each having side-frames between which the logs are confined, each side-frame comprising two logs, means for spacing said logs apart, and bolts connecting said logs, and passing through said spacing means.

5. A cradle for logs having a frame comprising front and rear portions, each having side-frames between which the logs are confined, each side-frame comprising two logs, bolts connecting said logs, cables passing between logs of the side-frames and connecting the side-frames of the front portion with the side-frames of the rear portion, thimbles around bolts adjacent to the extremities of said logs, and cables passing around said thimbles for connecting the portions with one another.

[Claim 6 not printed in the Gazette.]

1,081,440. ADJUSTABLE CLOTHES-LINE SUPPORT. ALFRED S. ERICKSON, Ames, Iowa. Filed Mar. 27, 1912. Serial No. 686,658. (Cl. 68-3.)



1. The combination with a substantially vertical track and an inclined track disposed a suitable distance from the same, of a clothes line support mounted upon the substantially vertical track, a second clothes line support mounted upon the inclined track, a clothes line connecting the clothes line supports, and means to vertically move the first named clothes line support.

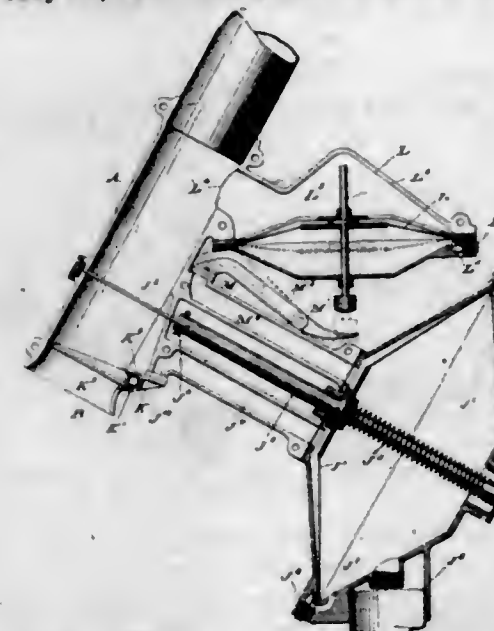
2. In apparatus of the character described, a vertically movable clothes line support, an inclined track disposed a suitable distance from the clothes line support, a second clothes line support engaging the inclined track to

travel along the same, a clothes line connecting the two clothes line supports, means to move the vertically movable clothes line support, and means to tighten the clothes line whereby the second clothes line support is made to travel upwardly along the inclined track.

3. In apparatus of the character described, an inclined track, a second track disposed a suitable distance therefrom, a support, a wheel carried by the support and engaging the second track, manually operated means to move the support along the second track, a supporting element, a wheel carried thereby and traveling in engagement with the inclined track, a clothes line connected with the supporting element, and stretching means connecting the opposite end of the clothes line with the first named support.

4. In apparatus of the character described, an inclined track, a second track disposed a suitable distance therefrom, a support, a wheel carried by the support and engaging the second track, manually operated means to move the support along the second track, a supporting element, a wheel carried thereby and traveling in engagement with the inclined track, a clothes line connected with the supporting element, and a block and tackle structure connecting the opposite end of the clothes line with the first named support.

1,081,441. PNEUMATIC-DESPATCH-TUBE APPARATUS. EDMOND A. FORDYCE, Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed May 18, 1907. Serial No. 374,444. (Cl. 243-15.)



1. A pneumatic despatch tube apparatus, having, in combination, a transit tube provided at one end with a single inlet to admit carriers for transmission and also outside air to propel the carriers, means through which air is exhausted from the transit tube, a valve, mounted for substantially unrestrained movement toward its open position regardless of the disposition of a carrier inserted in said inlet preparatory for transit, said valve controlling the inlet of the transit tube, and pneumatic mechanism operating normally to hold said valve closed and actuated by a fluctuation of pressure to open said valve to admit a carrier and also the outside air to propel such carrier.

2. A pneumatic despatch tube apparatus, having, in combination, a transit tube provided at one end with an inlet to admit outside air to propel carriers, means through which air is exhausted from the transit tube, a single normally closed valve controlling the inlet of the transit tube, pneumatic mechanism actuated by a fluctuation of pressure to open said valve to admit outside air through the inlet into the transit tube, carrier-introduction means at the other end of the transit tube operating when opened to cause a variation of pressure in the transit tube, and an auxiliary pneumatic mechanism actuated by a variation of pressure in the transit tube to cause a fluctuation of pressure in the valve operating mechanism to actuate

the latter to open the valve to admit outside air to the transit tube, said auxiliary mechanism including means for insuring that said pneumatic mechanism shall be rendered operative by said variation in pressure in the transit tube only when said variation has persisted a determined and material period of time.

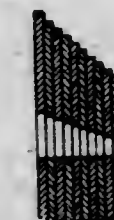
3. A pneumatic despatch tube apparatus, having, in combination, a transit tube through which carriers are transmitted, a central or sending station into which carriers are inserted for transmission, means through which air is exhausted from said tube, a valve at said central or sending station normally closing the carrier inlet and adapted to open to admit air into said tube for driving carriers, a casing communicating with said tube, a valve opening means mounted in said casing and connected with said valve, mechanism for rendering operative said valve opening means through an excessive fluctuation of pressure in the tube which persists for a determined and material period of time, said valve opening means being so rendered operative by said mechanism only by such a persisting fluctuation, and means through which air may be exhausted from both sides of said valve operating means.

4. A pneumatic despatch tube apparatus, having, in combination, a transit tube through which carriers are transmitted, a central or sending station into which carriers are inserted for transmission, means through which air is exhausted from said tube, a valve at said central or sending station normally closing the carrier inlet and adapted to open to admit air into said tube for driving carriers, a casing communicating with said tube, valve opening means mounted in said casing and connected with said valve, mechanism for rendering operative said valve opening means through a fluctuation of pressure in the tube which persists for a determined and material period of time, said valve opening means being so rendered operative by said mechanism only by such a persisting fluctuation, means through which the air pressure may be equalized upon both sides of said valve opening means, and co-acting means for timing the closure of the valve.

5. A pneumatic despatch tube apparatus, having, in combination, a transit tube through which carriers are transmitted, a central or sending station into which carriers are inserted for transmission, means through which air is exhausted from said tube, a reciprocably mounted gate at said central or sending station normally closing said tube and adapted to open to admit air into said tube for driving carriers, a casing communicating with said tube, gate opening means mounted in said casing adapted to open said gate through an effective fluctuation of pressure in the tube, means whereby the fluid pressure in the casing may be equalized on both sides of the gate opening means and maintained at a pressure lower than atmospheric, and means operated by the insertion of a carrier for permitting an increase of pressure on one side of said diaphragm to operate the same to open the gate.

[Claims 6 to 9 not printed in the Gazette.]

1,081,442. PIECED HEEL. ADOLPH GEIGER, Brooklyn, N. Y. Filed May 20, 1912. Serial No. 698,573. (Cl. 36-34.)



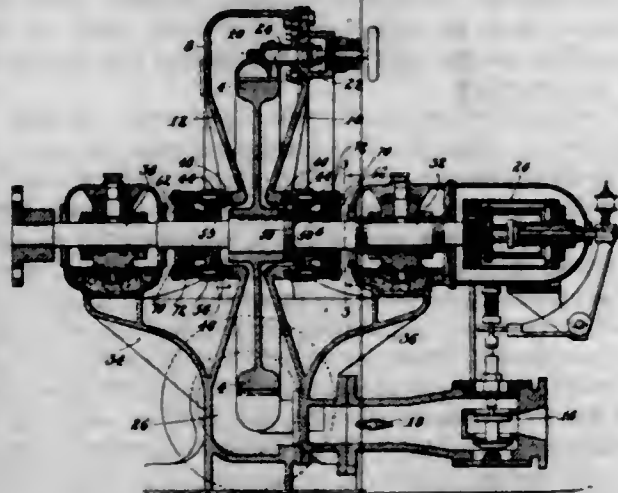
1. A pieced heel comprising a plurality of lifts of two pieces each, each piece of each lift having a straight edge perpendicular to the breast of the heel, and two oblique edges, one extending from said straight edge to the breast and the other from said straight edge to the curved back of the heel, each edge of each piece being substantially perpendicular to the surface of that piece and of the lift of which the piece forms a part.

2. A pieced heel comprising a plurality of lifts of two pieces each, each piece of each lift having a straight edge perpendicular to and, if produced, bisecting the breast of the heel, and two oblique edges, one extending from said straight edge to the breast and the other from said straight edge to the curved back of the heel, each edge of each piece being substantially perpendicular to the surface of that piece and of the lift of which the piece forms a part.

3. A pieced heel comprising a plurality of lifts of two pieces each, each piece of each lift having a straight edge perpendicular to and, if produced, bisecting the breast of the heel, and two oblique edges, one extending from said straight edge to the breast and the other from said straight edge to the curved back of the heel, each edge of each piece being substantially perpendicular to the surface of that piece and of the lift of which the piece forms a part, said pieces being secured together by two nails, one nail being on one side of said edge which is perpendicular to the breast, and the other nail being on the other side of said edge.

4. A pieced heel composed of a plurality of lifts each of which is formed of two pieces, each piece having an edge which if produced would bisect the breast of the heel and extend perpendicularly thereto, each piece having also two edges extending outwardly from said first-mentioned edge and obliquely thereto, and a pair of nails driven through the heel, there being one nail on each side of said first-mentioned edge, the line connecting said nails being substantially parallel to the breast of the heel, each edge of each piece being substantially perpendicular to the surface of the lift.

1,081,443. ELASTIC-FLUID ENGINE. WILLIAM A. GODFREY, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 17, 1912. Serial No. 691,342. (Cl. 121-109.)



1. An elastic-fluid engine having, in combination, a casing for holding fluid under pressure, a movable member extending through an opening in the casing, and means for forming a fluid-tight joint around the movable member including a stuffing box mounted on the casing, and means for supporting the stuffing box so as to permit it to move bodily with respect to the casing, substantially as described.

2. An elastic-fluid engine, having, in combination, a movable shaft, a casing for holding the elastic fluid under pressure having in one of its walls an opening for the passage of the shaft, a stuffing box for holding a fluid-tight packing around the shaft, and means for securing the stuffing box to the casing having provision for a limited lateral bodily movement of the stuffing box relatively to the casing so that the stuffing box may follow the lateral movements of the shaft relative to the casing, substantially as described.

3. An elastic-fluid engine, having, in combination, a movable shaft, a casing for holding the elastic fluid under pressure having in one of its walls an opening for the passage of the shaft and having a smooth surface around the mouth of the opening, a stuffing box for holding a fluid-tight packing around the shaft having a cooperating

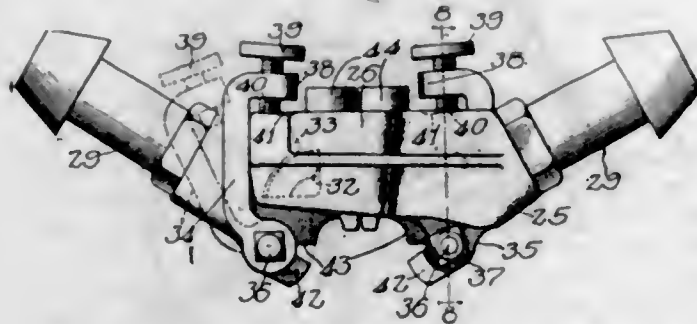
smooth surface adapted to fit against and form a fluid-tight sliding joint with the surface around the opening, and means for securing the stuffing box to the casing with the two smooth surfaces in sliding contact to permit the stuffing box to follow the lateral movements of the shaft relative to the casing, substantially as described.

4. An elastic-fluid engine, having, in combination, a movable shaft, a casing for holding the elastic fluid under pressure having in one of its walls an opening for the passage of the shaft and having a smooth surface around the mouth of the opening, a stuffing box for holding a fluid-tight packing around the shaft having a cooperating smooth surface adapted to fit against and form a fluid-tight sliding joint with the surface around the opening, and means, including a spring, for securing the stuffing box to the casing with the two smooth surfaces in sliding contact to permit the stuffing box to follow the lateral movements of the shaft relative to the casing, substantially as described.

5. An elastic-fluid engine, having, in combination, a movable shaft, a casing for holding the elastic fluid under pressure having in one of its walls an opening for the passage of the shaft and having a bearing surface around the mouth of the opening, a stuffing box for holding a fluid-tight packing around the shaft having a cooperating bearing surface adapted to fit against and form a fluid-tight joint with the bearing surface on the casing, and means for securing the stuffing box to the casing with the two bearing surfaces in yielding engagement so that the stuffing box may act as a relief valve when the pressure in the casing becomes excessive, substantially as described.

(Claims 6 to 15 not printed in the Gazette.)

1,081,444. HOSE-COUPLING. EGBERT H. GOLD, Chicago, Ill. Filed Feb. 29, 1912. Serial No. 686,686. (Cl. 137-89.)



1. In a hose coupling, the combination with mating coupler heads each formed with a coupling arm adapted to engage with the side of the other coupler head, of a supplemental locking arm pivotally engaged at the lower end with one of the heads, so that it may stand either in an engaging or a disengaged position with respect to the coupling arm of the other head, and formed at its upper end with an angular projection adapted to extend over the end of said coupling arm of the other coupler head when the said locking arm is in engaging position, and a screw in said projection adapted to bear against the upper surface of said coupling arm.

2. In a hose coupling, the combination with mating coupler heads each formed with a coupling arm adapted to engage with the side of the other coupler head, of a locking arm pivotally engaged at the lower end with one of the heads, so that it may stand either in an engaging or a disengaged position with respect to the coupling arm of the other head, and formed at its upper end with an angular projection adapted to extend over the end of said coupling arm of the other coupler head when the said locking arm is in engaging position, a screw in said projection adapted to bear against the upper surface of said coupling arm, and a stop lug on the lower end of said locking arm adapted to come into contact with the head on which said arm is pivoted so as to hold said arm in an oblique, non-locking position.

3. In a hose coupling, the combination with a pair of mating coupler heads, each formed with a coupling arm adapted to interlock with the side of the complementary

coupler head, of a supplemental locking arm pivotally engaged to one of said heads, so that it may stand either in an engaging or a disengaged position with respect to the coupling arm of the other head, and formed so as to extend over said coupling arm of the other head when the said locking arm is in engaging position, and an adjustable member connected with said pivoted arm and adapted to be brought to bear upon the coupling arm thereunder.

4. In a hose coupling, the combination with a pair of mating coupler heads, the opposed faces of which are adapted to be abutted one against the other, each of the heads being formed with a coupling arm adapted to interlock with the side of the complementary coupler head, of a supplemental locking arm pivotally engaged to one of said heads, so that it may stand either in an engaging or a disengaged position with respect to the coupling arm of the other head, and formed so as to extend over said coupling arm of the other head when the said locking arm is in engaging position, and an adjustable member connected with said pivoted arm and adapted to be brought to bear upon the coupling arm thereunder.

5. In a hose coupling, the combination with a pair of mating coupler heads each formed with a coupling arm adapted to interlock with the side of the complementary coupler head, of a supplemental locking arm pivoted to the side of one of said heads so as to swing in a direction longitudinally of the coupling and take a position over the end of the coupling arm of the complementary head, and an adjustable member connected with said pivoted arm adapted to be brought to bear upon the coupling arm thereunder.

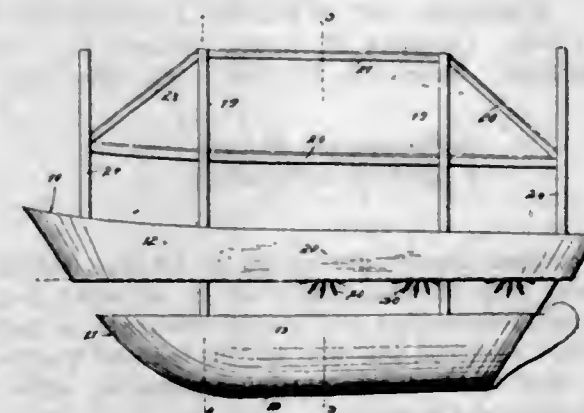
(Claims 6 to 10 not printed in the Gazette.)

1,081,445. COMPOUND FOR PROTECTING PLANTED SEED - GRAINS. LEOPOLD EDMUND HANCZEWSKI, Kreuzburg, Germany, assignor to Stanley Hanczewski, Chicago, Ill. Filed Aug. 26, 1913. Serial No. 786,703. (Cl. 167-6.)

The herein described seed coating compound, consisting of materials in proportions substantially as follows:

Wood tar.....	4 pounds.
Animal oil.....	6 "
Sulfate of copper.....	4 "
Coal tar.....	20 "
Aqua ammonia.....	8 "
Phosphate of lime.....	2 "
Nitrate of potash.....	9 ounces.

1,081,446. STEAMSHIP. WILLIS HARGROVE, Blocton, Ala. Filed Feb. 29, 1912. Serial No. 680,740. (Cl. 115-53.)

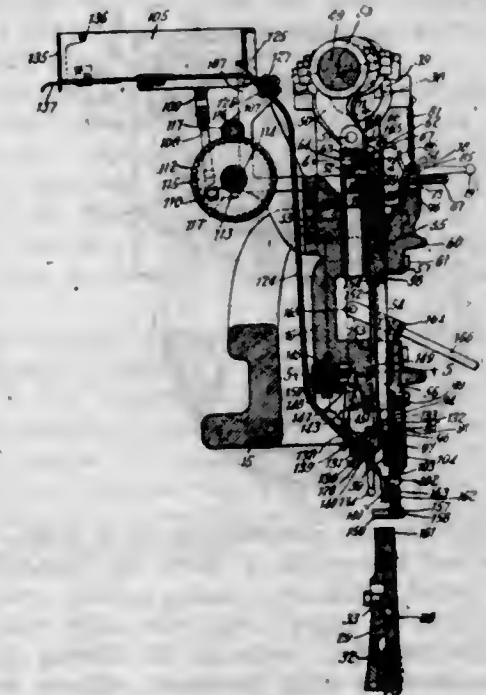


1. In a vessel of the class described, the combination of a completely submerged hull, a surface hull, means rigidly maintaining the two hulls in spaced relation, the surface hull having a series of slots formed in the bottom thereof, a paddle wheel working in each slot, and means for driving the paddle wheels.

2. The combination with a submerged hull, of a surface hull having a series of slots formed in the bottom portion thereof, means connecting the submerged hull and sur-

face hull in spaced relation, a series of paddle wheels mounted within the body of the surface hull and working through the slots in the bottom of such hull, and means within the surface hull for driving the paddle wheels.

1,081,447. RIVETING-MACHINE, MULTIPLE DRIVE. ARTHUR R. HAVENER, Waltham, Mass., assignor to Judson L. Thomson M'fg. Co., a Corporation of Maine. Filed July 22, 1912. Serial No. 710,821. (Cl. 218-0.5.)



1. A riveting machine having, in combination, a driver bar, a driver bar slide, means to impart a reciprocatory motion to said driver bar slide, means mounted on said driver bar adapted to lock said driver bar to said driver bar slide and means mounted on a stationary support adapted to engage said locking means and actuate the same to unlock said driver bar from said driver bar slide.

2. A riveting machine having, in combination, a driver bar, a driver bar slide, means to impart a reciprocatory motion to said driver bar slide, means mounted on said driver bar adapted to lock said driver bar to said driver bar slide, and means mounted on a stationary support adapted to engage said locking means during the downward movement of said driver bar and driver bar slide and actuate the same to unlock said driver bar from said driver bar slide, said actuating means adapted to be set in position to be cleared by said locking means during said downward movement.

3. A riveting machine having, in combination, a driver bar, a driver bar slide, a pin slidable on said driver bar transversely thereof into and out of engagement with said driver bar slide, a lever pivoted on said driver bar having one arm engaging said pin, and a tripper adapted to engage said lever during the downward movement of said driver bar and driver bar slide to actuate said lever to disengage said pin from said driver bar slide.

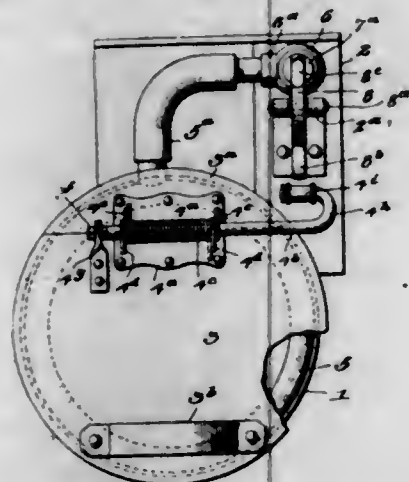
4. A riveting machine having, in combination, a driver bar, a driver bar slide, a pin slidable on said driver bar transversely thereof into and out of engagement with said driver bar slide, a lever pivoted on said driver bar having one arm engaging said pin, and a tripper adapted to engage said lever during the downward movement of said driver bar and driver bar slide to actuate said lever to disengage said pin from said driver bar slide, said tripper adapted to be set in position to be cleared by said lever during said downward movement.

5. A riveting machine having, in combination, a driver bar, a driver bar slide, a pin slidable on said driver bar transversely thereof into and out of engagement with said driver bar slide, a lever pivoted on said driver bar having one arm engaging said pin, a tripper adapted to engage said lever during the downward movement of said driver bar and driver bar slide to actuate said lever to disengage

said pin from said driver bar slide, said tripper adapted to be set in position to be cleared by said lever during said downward movement, and means to hold said tripper in either of said positions.

[Claims 6 to 27 not printed in the Gazette.]

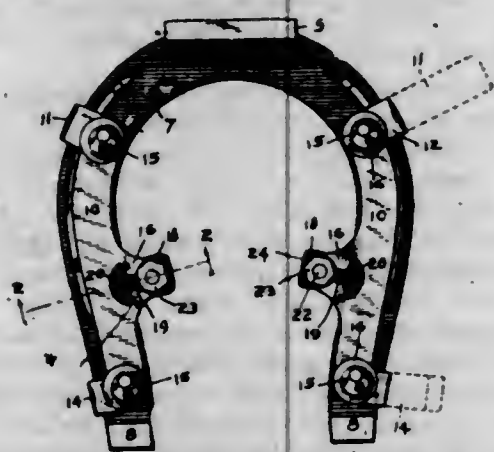
1,081,448. CUSPIDOR. CHARLES E. HUNT, Thomasville, Ala. Filed June 19, 1913. Serial No. 774,606. (Cl. 4-40.)



1. In a cuspidor, the combination of a body, a water supply connected therewith, a valve for controlling the admission of water to the body, and a pivoted lever having one end arranged to engage and open said valve; with a cover for the cuspidor, a spring for closing the cover, a rock-shaft connected with the cover adapted to engage the free end of said lever and rock the latter as the cover is closing so as to open the valve temporarily; said spring being tensioned by the opening of the cover.

2. In a cuspidor, the combination of a body, a water supply connected therewith, and a valve for controlling the admission of water to the body; with a pivoted lever for operating the valve, a rock-shaft connected with the cover having a curved arm adapted to engage the free end of said lever, a spring coiled on said shaft and adapted to close the cover, said rock-shaft actuating said lever during the closing movement of the cover and opening the valve temporarily, substantially as described.

1,081,449. HORSESHOE ICE-CREEPER. FRANK F. JACOBS and MINNIE S. JACOBS, Indianapolis, Ind. Filed Mar. 17, 1913. Serial No. 754,903. (Cl. 168-34.)

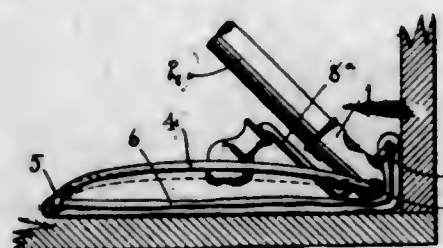


1. The combination with a horseshoe of a calk-bearing plate having upwardly bent portions to engage the outer edge of a shoe, and having a lip projecting from its inner edge, said lip being slotted and bent above the face of the shoe and having a plurality of notches at different distances from the shoe, and a clamping plate bolted to the lip having a hook at one end to engage one of the notches in the lip, the other end of the clamping plate contacting the shoe and having an oblique portion near said last end to contact with the upper edge of the shoe.

2. The combination with a horseshoe of a calk-bearing plate having upwardly bent portions to engage the outer

edge of the shoe and having a lip projecting from its inner edge, said lip being slotted and bent above the face of the shoe and having notches, the front one of said upwardly bent portions being extended up against the hoof and terminating with barbs to be driven into the hoof, and a clamping plate bolted to the lip having a hook at one end to engage a notch in the lip and having an oblique opposite end to contact with the shoe and an adjacent more oblique portion to contact with the upper edge of the shoe to cause the plate to be drawn in the direction of the lip to tighten the upward bent portions against the outer edge of the shoe.

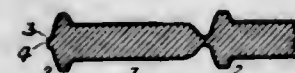
1,081,450. MOP. CHARLES A. KELLY, Muskegon, Mich. Filed Apr. 24, 1913. Serial No. 763,225. (Cl. 15-43.)



1. In a device of the class described, a socket adapted to receive a handle at one end and having a transverse bar fixed at its other end, a loop attached to the socket adjacent the said bar, a frame pivotally attached at one end to the transverse bar and provided with a loop at its other end and a mop cloth having its respective ends attached to the said loops and extending loosely between the same when the socket is in one position relative to the frame and adapted to be folded over the said transverse bar to present two mopping surfaces substantially at right angles to each other when the socket is in another position relative to the frame.

2. In a device of the class described, a socket adapted to receive a handle at one end and having a transverse bar fixed at its other end, a loop attached to the socket adjacent the said transverse bar, a longitudinally yieldable frame pivotally connected at one end to the transverse bar and having a loop at its other end, and a mop cloth attached at its respective ends to the said loops and extending loosely between them when the socket is in one position relative to the frame and adapted to be folded over the said transverse bar and tensioned to present two mopping surfaces at substantially right angles to each other when the socket is in another position relative to the frame, said frame being adapted to yield longitudinally when the mop cloth is tensioned to retain it in such tensioned condition.

1,081,451. PROCESS OF MAKING PLATINUM-COVERED PINS. CHARLES H. KERK, Wayne, Pa. Filed Mar. 31, 1913. Serial No. 757,958. (Cl. 29-148.)

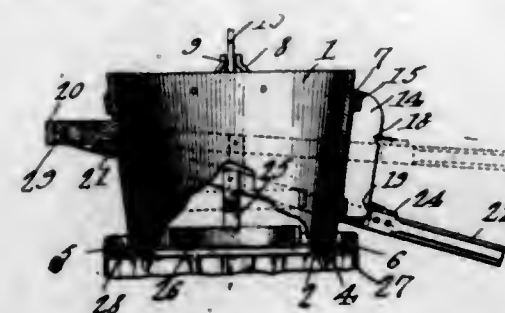


1. The process herein described, of making platinum coated pins; said process consisting in covering a core with platinum; indenting the pin at intervals to reduce its diameter; severing the pin at the reduced portions; and then turning over the platinum covering onto the exposed portion of the core.

2. The process herein described, of making platinum coated pins; said process consisting in covering a core with platinum; making annular indentations at intervals in the core and its platinum covering; severing the pin at the reduced portions, leaving an annular flange of platinum surrounding the exposed portion of the core, then applying an acid to the exposed portion of the core to remove the projecting portion thereof; and turning down the flange onto the core, thereby inclosing the end of the core and making a completely covered article.

3. The process herein described, of manufacturing platinum coated dental pins; said process consisting in covering a core with platinum; pressing the core at intervals to form annular projections and making a deep recess between the two adjoining projections; severing the core and the platinum covering at the depressions, leaving the reduced portion of the core exposed surrounded by a flange of platinum; reducing the projecting portion of the core; and turning down the flange onto the core so as to entirely inclose the core within the platinum covering.

1,081,452. BAG-HOLDING DEVICE FOR SCALES. ERNEST S. KNEELAND, Malden, Mass. Filed Oct. 3, 1913. Serial No. 793,190. (Cl. S3-26.)

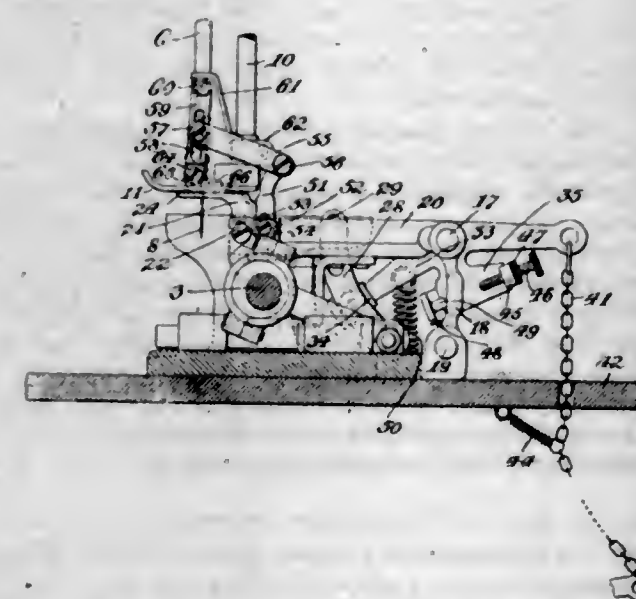


1. In a bag holding attachment, a chute having a flange disposed approximately at right angles to the axis of the chute; supporting means carried by the chute; a lever fulcrumed on the chute and movable substantially parallel to the axis of the chute; means carried by the lever for cooperating in gripping relation with the flange; and latch mechanism connecting the lever with the chute.

2. In a bag holding attachment, a chute provided at its lower end with an upwardly opening groove; supporting means carried by the chute; a lever fulcrumed on the chute and movable substantially parallel to the axis of the chute; means carried by the lever for engaging within the groove; and latch mechanism connecting the lever with the chute.

3. In a bag holding attachment, a chute; a loop-shaped lever fulcrumed upon the chute and inclosing the chute; a jaw carried by the lever and cooperating with the bottom portion of the chute; a fin carried by the chute and operating within the contour of the lever; and a yieldable latch carried by the lever and cooperating with the fin.

1,081,453. FEEDING MECHANISM FOR SEWING-MACHINES. LOUIS KRUG, Nyack, N. Y., assignor to Metropolitan Sewing Machine Company, Nyack, N. Y., a Corporation of New York. Filed May 29, 1905. Serial No. 262,793. (Cl. 112-8.)



1. A feeding mechanism comprising a main-feed-bar carrying a dog, and a top feed-foot cooperating therewith,

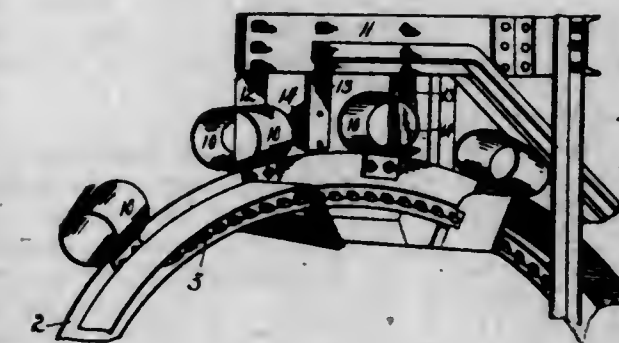
means above the feed-bar for supporting the feed-foot, means for connecting said foot with the said bar whereby the former will be actuated by the latter, and means whereby adjustments of the foot may be made independently of the adjustments of the bar to regulate the stroke of the foot relatively to the cooperating dog.

2. A feeding mechanism for sewing machines comprising a main feed-bar carrying a dog, a feed-foot cooperating with said dog, a lever pivotally supported at one end and pivotally supporting said foot at its other end; means connecting the said bar with said lever including a device adjustable lengthwise of said lever between its ends to regulate the movement of said foot.

3. A feeding mechanism for sewing machines comprising a main feed-bar carrying a dog, a feed-foot cooperating with said dog, a lever pivotally supported at one end and pivotally supporting said foot at its other end, and means connecting the said bar with the said lever including a device by means of which the feed-foot may be caused to have feed movements cooperative with those of said feed-dog.

4. A feeding mechanism for sewing machines comprising a main feed-bar carrying a dog and an auxiliary feed-bar carrying a dog, a feed-foot cooperating with the dog of the main feed-bar, means for actuating the feed-foot from the main feed-bar, and means for actuating the main and auxiliary bars, the said means including a device by which the auxiliary bar may be actuated differentially relatively to the main feed-bar.

1,081,454. EXCAVATOR. LEO A. KRUPP, Findlay, Ohio, assignor to The Buckeye Traction Ditcher Company, Findlay, Ohio, a Corporation of Ohio. Filed July 18, 1913. Serial No. 779,696. (Cl. 37-29.)



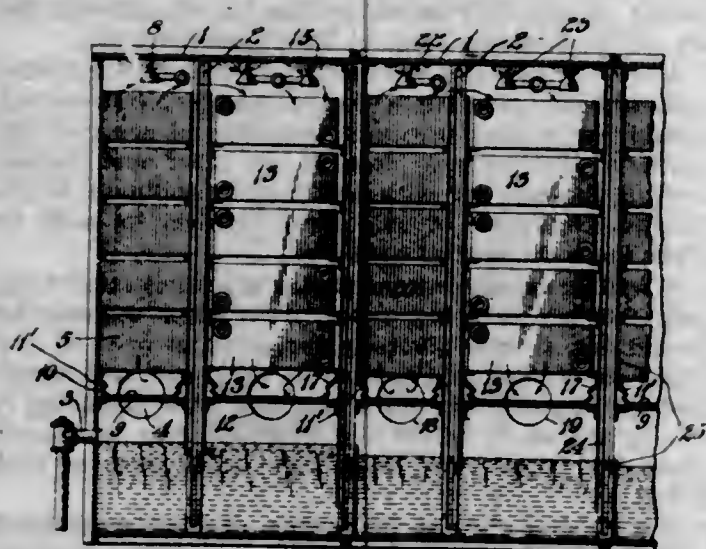
1. In combination, bucket carrying means, a plurality of sets of blades carried by said means with the blades of each set spaced apart at their free edges and cooperating to form an excavating bucket, means for working between the blades at a predetermined point in a movement of said carrying means to sever into sections a soil slug carried between the blades, and means for ejecting a severed soil slug from between a set of blades.

2. In combination, an excavating wheel, a bucket carried by said wheel and comprising two separated side portions, and means for working between the bucket sides to sever soil carried by the buckets and to eject the severed sections therefrom.

3. In combination, an excavating wheel, buckets carried by said wheel, said buckets being open at front and rear and having their opposite side portions spaced apart, a blade for passing through each bucket at a predetermined point in a revolution thereof to longitudinally sever soil carried thereby, and separate means operating to successively eject the severed sections from each bucket.

4. In combination, a plurality of excavating buckets comprising spaced apart blades, carrying means for said buckets, a blade and two ejector members projecting into the path of movement of the buckets for passing through the same as the buckets are moved, and successively operable to sever the soil carried by a bucket and to eject first one and then the other of the severed sections therefrom.

1,081,455. METHOD OF AND APPARATUS FOR WASHING AND COOLING GAS. ERNEST F. LLOYD, Detroit, Mich. Filed Nov. 3, 1911. Serial No. 658,316. (Cl. 48-220.)



1. A method of washing and cooling gas which consists in bringing the gas and a washing liquor of lower temperature to substantially the same temperature by passing them through a scrubber and through each other in opposite directions and in then passing them together through a cooler in the same direction and gradually lowering the temperature of the confluent fluids from the point of reunion to the desired degree at the point of final separation.

2. A method of washing and cooling gas which consists in bringing the gas and a washing liquor of lower temperature to substantially the same temperature by passing them through a scrubber and through each other in opposite directions and in trapping the impurities carried away by the liquor thus used, and in then passing the washed gas and decanted liquor together through a cooler in the same direction and gradually lowering the temperature of the confluent fluids from the point of reunion to the desired degree at the point of final separation.

3. A method of washing and cooling gas which consists in bringing gas and a washing liquor of lower temperature to substantially the same temperature by passing them through a scrubber and through each other in opposite directions and baffling the intermingling fluids to trap and remove impurities therefrom, and in then passing the washed gas and decanted liquor together through a cooler in the same direction and gradually lowering the temperature of the confluent fluids from the point of union to the desired degree at the point of final separation.

4. A method of washing and cooling gas which consists in bringing the gas and a washing liquor of lower temperature to substantially the same temperature by passing them through a scrubber and through each other in opposite directions and baffling the intermingling fluids to trap and remove impurities therefrom, and in then passing the washed gas and decanted liquor together through a cooler in the same direction, and in baffling the confluent fluids by means adapted to gradually lower the temperature thereof from the point of union to the desired degree at the point of final separation.

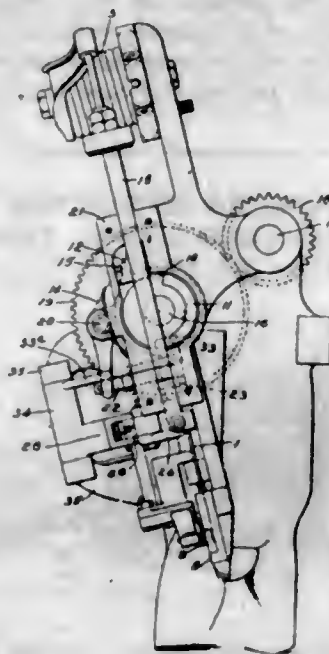
5. Apparatus for washing and cooling gas comprising means for passing gas and a washing liquor through each other in opposite directions, a cooler, means for passing them together through the cooler while moving in the same direction, and means for gradually reducing the temperature of the confluent fluids from the point of union to the required degree at the point of final separation.

[Claims 6 to 9 not printed in the Gazette.]

1,081,456. TACK-DRIVING MACHINE. FRED L. MACKENZIE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 11, 1911. Serial No. 601,954. (Cl. 1-18.)

1. A tack driving machine having, in combination, a spring actuated tack driving plunger, continuously oper-

ated means for raising the plunger, means normally tending to hold the plunger in raised position, mechanism under the control of the operator to release the holding means, and means to render the mechanism inoperative after a single working stroke of the tack driving plunger, substantially as described.



2. A tack driving machine having, in combination, a spring actuated tack driving plunger, continuously operated means for raising the plunger, means normally tending to hold the plunger in raised position, power actuated mechanism for releasing the holding means, and mechanism to control the operation of the power actuated mechanism to allow a single working stroke of the tack driving plunger, substantially as described.

3. A tack driving machine having, in combination, a spring actuated tack driving plunger, continuously operated means for raising the plunger, means for holding the plunger in raised position, a continuously oscillated arm, a spring pressed dog mounted upon the arm, a rod normally held out of engagement with the dog, operative connections between the rod and holding means, and means under the control of the operator to move the rod into the path of the dog in order to move the rod and release the holding means, substantially as described.

4. A tack driving machine having, in combination, a spring actuated tack driving plunger, continuously operated means for raising the plunger, means for holding the plunger in raised position, a continuously oscillated arm, a spring pressed dog mounted upon the arm, a rod normally held out of engagement with the dog, operative connections between the rod and holding means, means under the control of the operator adapted to move the rod into the path of the dog in order to move the rod and release the holding means, and means for returning the rod to its normal inoperative position out of engagement with the dog after the holding means has been released, substantially as described.

5. A tack driving machine having, in combination, a spring actuated tack driving plunger, continuously operated means for raising the plunger, means for holding the plunger in raised position, a continuously oscillated arm, a spring pressed dog mounted upon the arm, a rod, operative connections between the rod and holding means, a yoke-shaped member embracing the rod and adapted to normally hold the rod out of engagement with the dog, and means under the control of the operator adapted to actuate the yoke and move the rod into the path of the spring pressed dog, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,081,457. LUBRICATING-CUP FOR WAGONS. GEORGE E. MARREL, Dubuque, Iowa. Filed Feb. 25, 1913. Serial No. 750,617. (Cl. 184-88.)

1. In a device of the character described, a cup, a plunger in the cup, a plate over the top of the cup, a cap over the plate and in engagement with the cup, and means for

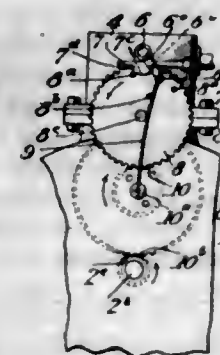
exerting a continuous and unvarying pressure on the plate and cap to hold the plate on the cup and the cap in engagement with the cup.



2. In a device of the character described, a cup, a plunger in the cup, a cap over the cup and in engagement with the cup, a plate within the cap over the cup and plunger, and a spring engaging the cap and plate to hold the plate on the cup and the cap in engagement with the cup.

3. In a device of the character described, a cup provided with screw threads on its inner side, lugs on the outer side of the cup, a plunger provided with threads on its outer side adapted to engage the threads in the cup, a stem secured to the plunger, a cap provided with hooks on its outer side adapted to be engaged by the lugs on the cap and set over the cup and around the stem, a plate over the plunger and cup and within the cup, and a spring around the stem and engaging the inside upper end of the cap and top of the plate.

1,081,458. AUTOMATIC REVERSIBLE MOTOR. JOHN MCKENNEY, Anaconda, Mont. Filed July 7, 1913. Serial No. 777,699. (Cl. 121-97.)



1. In combination, an engine, and a valve adapted to control the engine; with a rock shaft and connections for operating the valve, a lever on said rock shaft, a spring connected with said lever adapted to throw it in either position, a rotary member adapted to engage the spring and flex same until it causes the shift of the valve; gearing for actuating said member, a catch for holding the valve locked in either position, and means on said rotary member for disengaging the catch.

2. In combination, an engine, and a valve for controlling the engine; with a rock shaft and connections for actuating said valve, and a lever on said rock shaft; with a rotary member beside said lever, gearing for operating said rotary member from the main engine shaft, a spring beside said member connected with said lever, and a stud on said member adapted to engage and flex said spring until the latter throws the lever and shifts the valve.

3. In combination, an engine, a valve for controlling the inlet of fluid to the engine, a rock shaft and connections for actuating said valve, and a lever on said rock shaft; with a rotary member beside said lever, gearing for operating said rotary member from the main engine

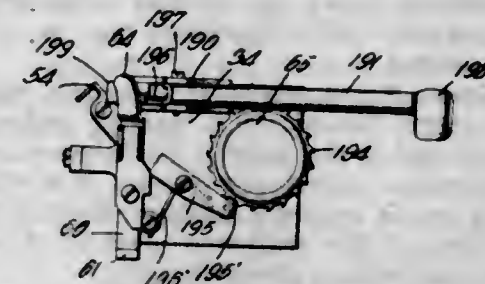
shaft, a spring beside said member connected with said lever, a stud on said member adapted to engage and flex said spring until the latter throws the lever and shifts the valve; a catch for locking the lever to hold the valve in either extreme position, and means on said rotary member adapted to release the catch to permit the spring to shift the lever.

4. In combination with an engine, and a valve adapted to control the inlet of fluid to the engine; a rock-shaft and connections for operating the valve; a lever on said rock-shaft, a device connected with said lever and adapted to throw said lever in either position, a gear adjacent said device, gearing for actuating said gear, and a stud on said gear adapted to engage said device alternately on opposite sides and cause it to shift the valve.

5. In combination with an engine, a valve chamber, and a valve in said chamber, a rock-shaft and connections for operating the valve, a lever on said rock-shaft, a flat-spring engaging said lever and adapted to throw it in either position, and a rotary member adjacent said means adapted to engage said spring alternately on opposite sides to cause it to shift the valve, and gearing for actuating said member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,081,459. LINE-SPACING MECHANISM FOR TYPEWRITERS. JOHN E. MOLLE, Wausau, Wis. Original application filed Aug. 3, 1908, Serial No. 446,677. Renewed Dec. 12, 1911, Serial No. 665,378. Divided and this application filed Feb. 10, 1913. Serial No. 747,506. (Cl. 197-114.)



1. In a typewriter, a platen mounted for rotation, a ratchet wheel revoluble therewith, a line-spacing lever movable with the carriage, a pawl connected to said lever adapted to engage the ratchet wheel, a regulating lever adjacent the line-spacing lever and adjustable to either of two positions for limiting the movement of the line-spacing lever and the pawl, and a spring for holding said regulating lever in adjusted position and for holding the pawl and line-spacing lever in normal position.

2. In a typewriter, a carriage, a platen, a ratchet wheel, a line-spacing lever movable with the carriage, a pawl carried thereby, an adjusting lever, and a spring mounted on the pivot of the line-spacing lever and having its legs in engagement with the pawl and adjusting lever respectively to hold the pawl and line-spacing lever in normal positions and to hold the adjusting lever in adjusted position.

3. The combination with a typewriter carriage, a platen mounted to rotate thereon, and a ratchet wheel connected with the platen, of a bracket, a line-spacing lever pivotally mounted within the bracket and having spaced wings constituting one arm thereof, a pawl pivotally mounted between the wings, an adjusting lever pivoted within the bracket and movable angularly to limit the movement of the line-spacing lever and pawl in one direction, and a spring mounted on the pivot of the line-spacing lever and having its ends engaging said adjusting lever and the pawl respectively to hold the adjusting lever in any position to which it may be shifted and to hold the pawl and line-spacing lever in normal positions.

4. Platen rotating mechanism for typewriters, including a ratchet wheel revoluble with the platen, a bracket movable with the carriage, a line-spacing lever fulcrumed within the bracket, a pawl pivotally connected to one arm of said lever, an adjusting lever mounted within the bracket and adjustable angularly to limit the movement of

the pawl in one direction, and a spring engaging the pivot of the line-spacing lever and having its legs engaging the pawl and the adjusting lever respectively for holding the pawl normally disengaged from the ratchet wheel and for holding the adjusting lever against accidental movement about its axis.

5. Platen rotating mechanism for typewriters, including a ratchet wheel revoluble with the platen, a bracket movable with the carriage, a line-spacing lever fulcrumed within the bracket, a pawl pivotally connected to one arm of said lever, an adjusting lever mounted within the bracket and adjustable angularly to limit the movement of the pawl in one direction, a spring engaging the pivot of the line-spacing lever and having its legs engaging the pawl and the adjusting lever respectively for holding the pawl normally disengaged from the ratchet wheel and for holding the adjusting lever against accidental movement about its axis, and a stop device extending across the bracket for limiting the movement of the pawl under the action of said spring.

1,081,460. TOBACCO-HANDLING IMPLEMENT. ELVEN NORBO, Cashton, Wis. Filed May 28, 1913. Serial No. 770,030. (Cl. 131-21.)



1. A device of the character described comprising a handle socket, said socket being provided with spaced oppositely disposed hooks, one of said hooks being formed with an inwardly offset sharpened dog, as and for the purpose described.

2. A device of the character described comprising a handle, a socket comprising a pair of plates connected to the outer end of the handle, the forward ends of said plates projecting beyond the forward extremity of said handle, and spaced inwardly extending hooks formed on the opposite edges of the projecting portions of said plates, as and for the purpose described.

3. A device of the character described comprising a handle, a socket connected to the outer end of said handle, said socket comprising a pair of plates the forward ends of which project longitudinally from said handle, the projecting portions of said plates converging and being secured together, and the opposite edges of each plate being provided with a spaced pair of inwardly extending hooks, as and for the purpose described.

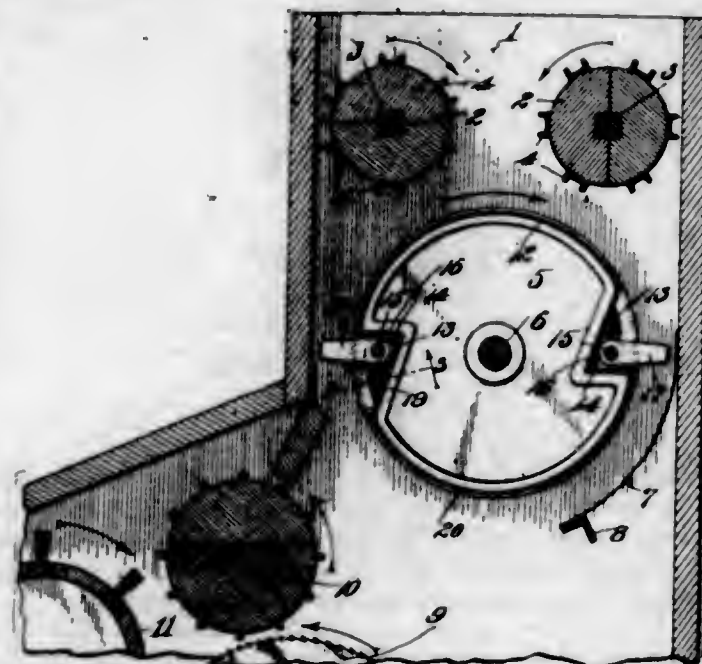
4. A device of the class described comprising a handle having a socket connected to its outer end, said socket comprising a pair of plates having laterally extending apertured ears whereby the plates are connected together, the forward ends of said plates projecting longitudinally from said handle, the opposite edges of each plate being provided with a pair of spaced inwardly extending hooks, and the outer hook of each plate being provided with an inwardly offset sharpened dog, as and for the purpose described.

1,081,461. FEEDING MECHANISM FOR COTTON-CLEANING MACHINES. DENNIS PARKS, St. Louis, Mo. Filed July 19, 1912. Serial No. 710,391. (Cl. 13-12.)

1. In a cotton cleaning machine, in combination with mechanism for separating hulls from cotton, means for feeding cotton into the machine in substantially compact form, and a boll-crusher comprising a rotatable cylinder mounted beneath said feeding means and provided at two or more points on its circumference with longitudinal series of independent, pivoted beater-arms, and adapted in operation to deliver the mixed cotton and hulls to the separating mechanism.

2. In a cotton cleaning machine, in combination with mechanism for separating hulls from cotton, means for feeding cotton into the machine in substantially compact form, a boll-crusher comprising a rotatable cylinder

mounted beneath said feeding means and provided at two or more points on its circumference with longitudinal series of independent pivoted beater-arms, and adapted in operation to deliver the mixed cotton and hulls to the separating mechanism, and a screen partially surrounding said cylinder.

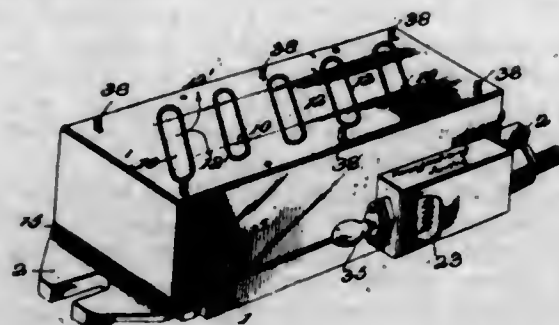


3. In a cotton cleaning machine, in combination with mechanism for separating hulls from cotton, feeding mechanism comprising a pair of feed rolls and a rotatable pod-crushing cylinder mounted beneath the same having yielding beater-arms, and adapted in operation to deliver the mixed cotton and hulls to the separating mechanism.

4. In a cotton cleaning machine, in combination with the saw cylinder and a pod-exPELLER cooperating therewith, feeding mechanism comprising a pair of feed rolls revolving toward each other and a rotatable pod-crushing cylinder located beneath said rolls having a plurality of series of independent beater-arms pivotally mounted thereon, and adapted in operation to deliver the mixed cotton and hulls to the saw cylinder.

5. In a cotton cleaning machine, a combined pod crushing and cotton detaching and delivering device comprising a cylinder provided at two or more points around its circumference with longitudinal recesses, a series of supports fixedly secured in said recesses and having aligning apertures, rods secured in said supports extending from end to end of the cylinder, and a plurality of hubs pivotally mounted in endwise relation on said rods and having beater-arms projecting therefrom.

1,081,462. MAGNETIC CHUCK. RALPH C. PATTON, Providence, R. I., assignor to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 25, 1912. Serial No. 693,252. (Cl. 90-59.)



1. In a magnetic chuck, the combination of a magnetizing coil and a core for the same, one end of which is provided with a plurality of pole projections the faces of which are arranged parallel with each other and transversely of and at acute angles with the longest dimension of said core.

2. In a magnetic chuck, the combination of a magnetizing coil and a core for the same, one end of which is pro-

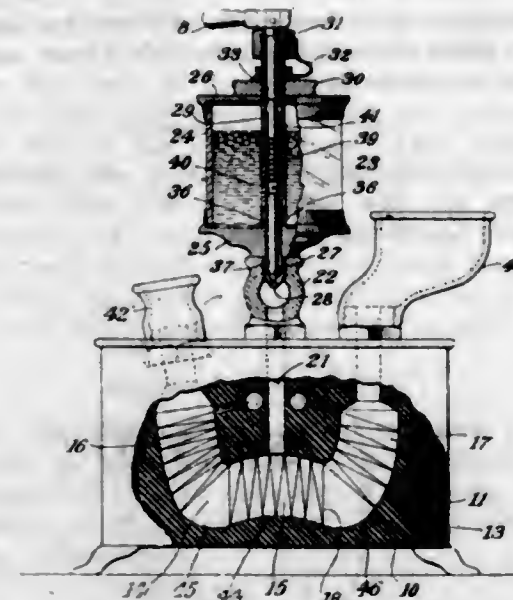
vided with a plurality of pole projections the faces of which are elongated and arranged parallel with each other and transversely of and at acute angles with the longest dimension of said core.

3. In a magnetic chuck, the combination of a magnetizing coil, a core for the same, one end of which is provided with a plurality of pole projections the faces of which are arranged transversely of and at acute angles with the longest dimension of said core and a casing having one wall provided with openings for receiving the ends of said projections.

4. In a magnetic chuck, the combination of a magnetizing coil, a core for the same, one end of which is provided with a plurality of pole projections the faces of which are arranged transversely of and at acute angles with the longest dimension of said core, and a rectangular casing having one face provided with openings for receiving the ends of said projections, the longitudinal axis of the chuck making acute angles with said elongated projections.

5. A magnetic chuck having a rectangular holding face comprising a plurality of elongated areas of one polarity surrounded by an area of opposite polarity, the elongated areas being arranged parallel with each other and making acute angles with the edges of said holding face.

1,081,463. APPARATUS FOR GENERATING STEAM. JAMES B. PENTZ, New York, N. Y. Filed Mar. 15, 1913. Serial No. 754,471. (Cl. 219-38.)



1. In an apparatus for generating steam, in combination, a body of refractory and insulating material having a vaporizing chamber and a superheating chamber connected with the former chamber and provided with an outlet, means for heating both chambers, and means for supplying water to the vaporizing chamber drop by drop.

2. In an apparatus for generating steam, in combination, a body of refractory and insulating material having a vaporizing chamber and a vertical superheating chamber, connected with the latter and having an outlet, means for delivering water in requisite amount to the vaporizing chamber, and means for heating both chambers, whereby water vapor flowing from the vaporizing chamber into the superheating chamber will be superheated in the latter.

3. In an apparatus for generating steam, in combination, a body of insulating and refractory material having a vaporizing chamber and a superheating chamber connected therewith and provided with an outlet, electric heating means in the chambers, adapted for connection with a source of current, and means for delivering water to the heating means in the vaporizing chamber.

4. In an apparatus for generating steam, in combination, a body of insulating and refractory material having a substantially horizontal vaporizing chamber and a vertical superheating chamber connected therewith and provided with an outlet, electric heating means in the chambers, adapted for connection with a source of current, a water reservoir connected with the vaporizing chamber to

supply water thereto, and means for controlling the rate of water supply.

5. In an apparatus for generating steam, in combination, a body of insulating and refractory material having an open-topped U-shaped chamber, a resistance element in the horizontal and vertical portions of the chamber, adapted to be connected with a source of current, and means for supplying water to the horizontal portion of said chamber.

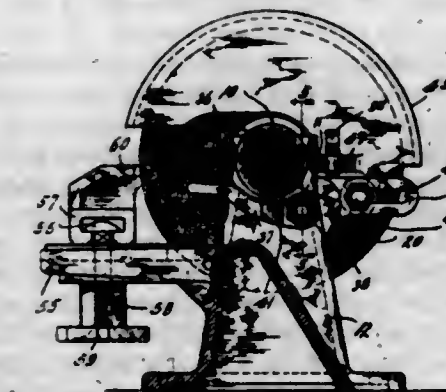
[Claims 6 to 12 not printed in the Gazette.]

1,081,464. NIPPLE FOR NURSING-BOTTLES. JACOB PFEIFFER, Akron, Ohio, assignor to Miller Rubber Company, a Corporation of Ohio. Filed Sept. 16, 1913. Serial No. 790,089. (Cl. 128-18.)



A nipple for nursing bottles having a stem integral with the head or dome thereof, provided with an elongated transverse passage extending entirely through the same and extending to the head or dome, the said head having an outlet orifice in line with said passage, substantially as described.

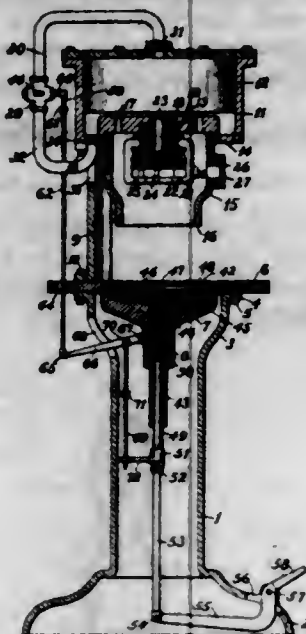
1,081,465. EMERY-WHEEL BENCH-GRINDER. JOHN F. PRIBNOW, Mellen, Wis. Filed Oct. 21, 1912. Serial No. 726,902. (Cl. 51-7.)



1. A grinding device, comprising an abrasive wheel, an internally threaded sleeve on which said wheel is permanently mounted, a threaded shaft upon which said sleeve may be removably mounted, said sleeve and said shaft being provided with engaging shoulders for locking the two together against accidental displacement, a projecting lug carried by said shaft, and a movable pawl which may be moved into and out of the path of movement of said lug to cooperate therewith to produce a sudden stoppage of the shaft.

2. A grinding device, comprising an abrasive wheel, a flanged sleeve extending through said wheel with the flange bearing against the side thereof, and a clamping plate screw-mounted on said sleeve and bearing against the other side of said wheel to clamp the latter between it and the flange on the sleeve, said sleeve being internally screw-threaded and provided with a shoulder, in combination with a screw-threaded shaft upon which said sleeve may be threaded, said shaft being provided with a shoulder for cooperating with the shoulder on the sleeve to lock the sleeve and shaft together, a projecting lug carried by said shaft, and a movable pawl which may be moved into and out of the path of movement of said lug to cooperate therewith to produce a sudden stoppage of the shaft to force said two shoulders together or apart by the momentum of the sleeve and wheel.

1,081,466. BOTTLE-CAPPING MACHINE. JOSEPH F. PROSSER, Cleveland, Ohio, assignor to Prosser Engineering Co., Cleveland, Ohio, a Corporation of Ohio. Filed June 16, 1913. Serial No. 778,952. (Cl. 92-12.)



1. In a bottle-capping machine, the combination of a cylinder, a piston in the cylinder, capping means actuated by the piston, means for admitting pressure to the cylinder for reciprocating the piston, means for moving a receptacle into position for being capped, and means for controlling the means for admitting pressure to the cylinder from the last mentioned means, substantially as described.

2. In a bottle-capping machine, the combination of a cylinder, a piston in the cylinder, capping means actuated by the piston, a valve for controlling a vacuum at one end of the piston and admitting pressure at the other, a table for supporting a receptacle, means for moving the table to bring the receptacle into position for being capped, and means for operating said valve from the movement of the table, substantially as described.

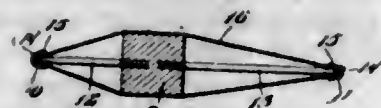
3. In a bottle-capping machine, the combination of a cylinder, a piston in the cylinder, capping means actuated by the piston, a vacuum chamber inclosing the capping means and having an open end, means for establishing communication between one end of the cylinder and the vacuum chamber, a valve for controlling a vacuum at one end of the piston and admitting pressure at the other, a movable table for supporting a receptacle, means for moving the table to close the open end of the vacuum chamber and to bring the receptacle into position for being capped, and means for operating said valve from the movement of said table, substantially as described.

4. In a bottle-capping machine, the combination of a cylinder, a piston in the cylinder, capping means actuated by the piston, a vacuum chamber inclosing the capping means, and having an open end, means for establishing communication between one end of the cylinder and the vacuum chamber, a valve for controlling a vacuum at one end of the piston and admitting pressure at the other, a table for supporting a receptacle, the table being fixed to a slidably mounted tube, a rod slidably mounted in the tube, a spring within the tube for resiliently supporting the same on the rod, means for moving said rod to move the table against the open end of the vacuum chamber and bring the receptacle into position to be capped, and means for operating said valve from the movement of said rod after the closing of the vacuum chamber, substantially as described.

5. In a bottle-capping machine, the combination of a cylinder, a piston in the cylinder, capping means actuated by the piston, a vacuum chamber inclosing the capping means, and having an open end, means for establishing communication between one end of the cylinder and the vacuum chamber, a valve for controlling a vacuum at one end of the piston and admitting pressure at the other, a table for supporting a receptacle, the table being fixed

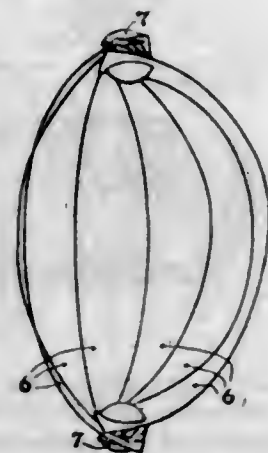
to a slidably mounted tube, a rod slidably mounted in the tube, a spring within the tube for resiliently supporting the same on the rod, means for moving said rod to move the table against the open end of the vacuum chamber and bring the receptacle into position to be capped, a pivoted lever bar, a connecting bar pivoted to the lever bar for operating said valve, a push rod pivotally connected to said lever bar, a stop on the push rod, and an arm carried by said rod for engaging the stop to cause said lever bar to swing on its pivot and operate said valve after the closing of the vacuum chamber, substantially as described. (Claims 6 and 7 not printed in the Gazette.)

1,081,467. STRUT FOR AEROPLANES, &c. GUSTAV RUDOLF E. REINERS, Bellingham, Wash. Filed June 28, 1912. Serial No. 706,481. (Cl. 244-31.)



A strut for aeroplanes comprising a strut proper, a frame formed of rods extending forwardly and rearwardly from the strut proper, the front rods of less length than the rear rods, and said rods being arranged in alignment centrally of the strut, folded frame elements connected with the outer ends of the rods, and a strip of material enveloping the strut, rods and frame elements, said strip forming therewith a strut of greatest transverse dimensions in advance of its transverse center and having its sides respectively converging from such point to its lead and trail edges.

1,081,468. DRINKING-CUP. HENRY M. RUSSELL, JR., Wheeling, W. Va. Filed Oct. 21, 1912. Serial No. 726,905. (Cl. 65-58.)



1. In a drinking cup the combination of a plurality of thin flat narrow leaves each leaf having a hole in it near each end, said holes being so placed that the middle point of a line joining them will be unequally distant from the edges of such leaf, two connecting members holding the leaves together, one of said connecting members passing through one hole and the other of said connecting members passing through the other hole in each leaf.

2. In a drinking cup a plurality of flat narrow elastic leaves a hole near each end of each leaf and two suitable connectors, one passing through one hole of each leaf, the said holes being of such size and shape with respect to said connectors that the latter shall have lateral play in at least one direction in said holes.

3. A drinking cup comprising a pack of flat leaves so shaped that they may be sprung in either of two directions and then spread out into a cup shape, and connectors adapted to hold said leaves together in either the pack or the cup form and to permit the change from one form to the other.

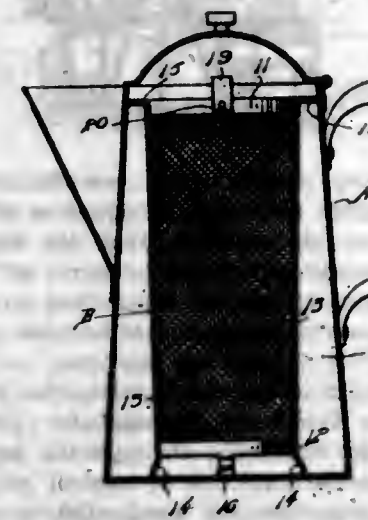
4. In a drinking cup the combination of a plurality of thin flat elastic leaves, rivets connecting the ends of said leaves, said leaves being so shaped that they may be sprung into a substantially semicircular pack and

then spread out to form a cup and that when so spread out they shall remain extended.

5. In a drinking cup a plurality of flat leaves adapted to form a flat pack when not under tension or to be bent and spread into cup form and to remain in such form under tension.

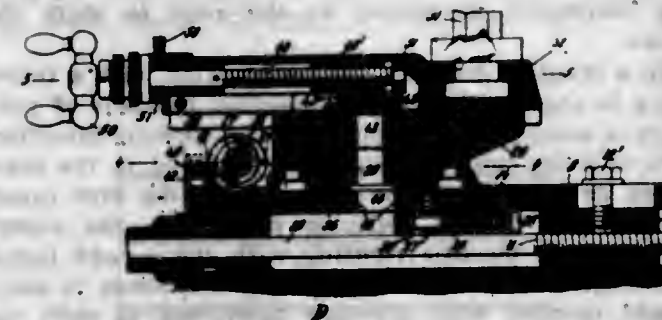
(Claims 6 to 15 not printed in the Gazette.)

1,081,469. STRAINER. JOHN C. W. SCHOPKE, Lennox, S. D. Filed May 16, 1913. Serial No. 768,161. (Cl. 53-3.)



A strainer of the class described comprising upper and lower rings the latter being of less diameter than the former, a side wall of foraminous material, the upper edge of the upper ring being intumed and crimped upon the upper end of the wall and the lower edge of the lower ring intumed and crimped upon the lower end of the side wall, legs formed integral with the lower ring, bars connecting the upper and lower rings and having their lower ends extended beyond the lower ring to form legs and their upper ends bent laterally, and a ball secured to the upper ring and having its ends directed laterally.

1,081,470. RELIEVING ATTACHMENT FOR LATHES. AUGUSTUS M. SOGA, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 24, 1913. Serial No. 769,758. (Cl. 82-19.)



1. A relieving mechanism of the nature disclosed combining a swivel support, a tool post carrier adapted to be reciprocated thereon in various directions, mechanism for reciprocating said carrier in a predetermined cycle of movements, a power transmitting shaft for actuating said mechanism, and adjusting means coöperating with said mechanism for enabling the cycle of movements to be reversed in any direction of reciprocation of said carrier.

2. A relieving mechanism of the nature disclosed combining a swivel support, a tool post carrier mounted thereon, an actuating member arranged coaxially with said support, means for moving said member in a predetermined cycle, and means connecting said member with said carrier whereby the latter may be reciprocated either in direct or reverse relation with said member.

3. A relieving mechanism of the nature disclosed combining a swivel support, a tool carrier slidably mounted

197 O. G.—40

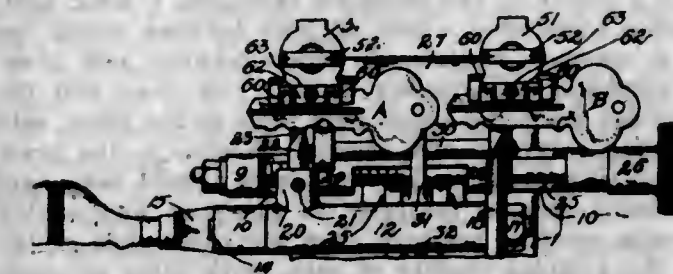
thereon, an actuating shaft coaxially arranged with said support, means for actuating said shaft in a constant cycle, and an adjustable connection between said shaft and said carrier whereby the latter may be reciprocated in strokes of any predetermined length, and whereby the cycle of said reciprocations may be reversed.

4. A relieving mechanism of the nature disclosed combining a swivel support, a tool carrier reciprocating thereon, a rock-shaft mounted on said support, means for rocking said shaft at a constant rate, and an adjustable connection between said shaft and said carrier adapted to be eccentrically related to said shaft on either side of the axis thereof and at any desired distance from said axis.

5. A relieving mechanism of the nature disclosed combining a support, a tool carrier slidably mounted thereon, a rock-shaft extending vertically through said support, means for rocking said shaft, and a slotted cross-arm fixed to the upper end of said rock-shaft having a slot crossing the axis thereof, and a member laterally movable on said carrier having a pin entering said slot, said member being adjustable to bring the axis of said pin to either side of the axis of said shaft.

(Claims 6 to 27 not printed in the Gazette.)

1,081,471. KEY-DUPLICATING MACHINE. HARRY TUCKER, Philadelphia, Pa., assignor of one-half to Philip Kovsky, Philadelphia, Pa. Filed Oct. 29, 1912. Serial No. 728,396. (Cl. 90-13.2.)



1. In a device of the character described, a standard, a tracer and cutter thereon, key and key-blank holding means slidably pivoted in the standard, a guide member carried by said means, a forked lever slidably engaged therewith, and spring pressure means engaged with said lever.

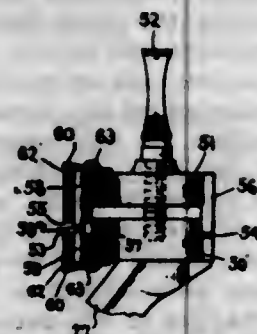
2. In a device of the character described, a standard, a horizontal feed screw thereon, a tracer and cutter horizontally aligned with respect to the feed screw, key and key-blank holding means movable along the screw and having pivotal movement thereon toward and from the tracer and cutter, a guide member on the said means extending in parallelism with the feed screw, a forked lever slidably engaged with said guide member, and a spring lever engaged with the forked lever.

3. In a device of the character described, a standard, a horizontal feed screw thereon, a tracer and cutter horizontally aligned with respect to the feed screw, key and key blank holding means movable along the screw and having pivotal movement thereon toward and from the tracer and cutter, a guide member on the said means extending in parallelism with the feed screw, a forked lever pivoted in the standard and being slidably engaged with said guide member at the fork end and at the other end being provided with projections, and a spring pressed lever provided with a slot receiving said forked lever and engaged with the said projections.

1,081,472. KEY-DUPLICATING CLAMP. HARRY TUCKER, Philadelphia, Pa., assignor of one-half to Philip Kovsky, Philadelphia, Pa. Original application filed Oct. 29, 1912. Serial No. 728,396. Divided and this application filed May 31, 1913. Serial No. 770,831. (Cl. 90-13.2.)

1. In a device of the character described, a work holding clamp comprising a pair of jaws between which the work is clamped, means for forcing the jaws together, and rotatable gripping teeth protruding from the gripping surfaces of said jaws and being yieldable under gripping pres-

sure, the gripping surface of each tooth being eccentric to the axis of said tooth.

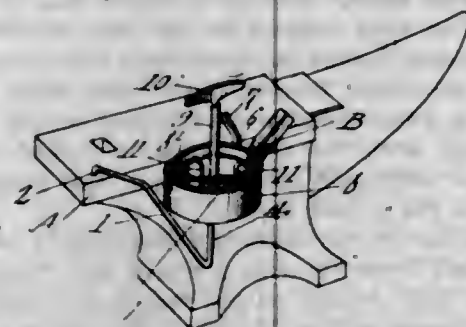


2. In a device of the character described, a work holding clamp comprising a pair of jaws, a clamping screw, teeth extending transversely through the jaws and being aligned with each other, the teeth being rotatable and slidable in the jaws, and spring means pressing the teeth at one jaw toward those of another, the gripping surface of each tooth being eccentric to the axis of said tooth.

3. In a device of the character described, a work holding clamp comprising a pair of jaws between which the work is clamped, means for forcing the jaws together, teeth extending transversely through the jaws and being endwise movable and rotatable therein, and springs secured to the outer faces of the jaws and forming yielding backing pressure means for said teeth, the gripping surface of each tooth being eccentric to the axis of said tooth.

4. In a device of the character described, a work holding clamp comprising a pair of jaws between which the work is clamped, a clamping screw between said jaws, teeth extending transversely through the jaws and the teeth of one jaw being aligned with those of the other, said teeth being rotatable and endwise slidable in the jaws, spring plates secured to the outer faces of said jaws, said plates being secured centrally to the jaws and having their ends exerting pressure upon the outer ends of the teeth, the gripping surface of each tooth being eccentric to the axis of said tooth.

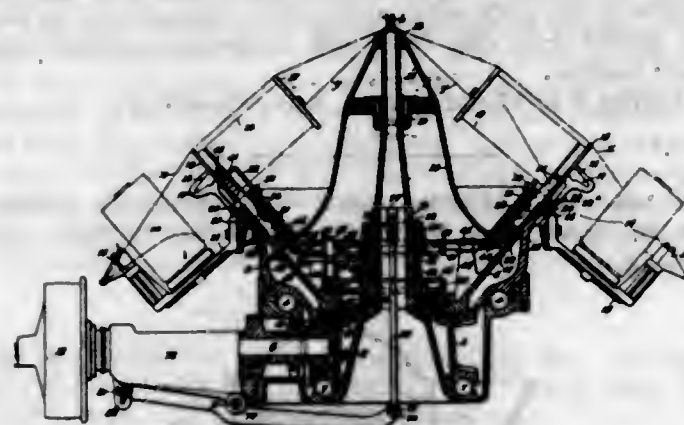
1,081,473. TEMPERING-VAT. ALVA T. UPTON, Mount Vernon, Ill. Filed Aug. 3, 1912. Serial No. 713,128. Renewed Apr. 17, 1913. Serial No. 761,803. (Cl. 148—34.)



1. A tempering apparatus, having a supporting member, a circular vat, rotatably mounted thereon, a ring mounted within the vat below and concentrically of the rim thereof, said rim and ring co-acting to support a tool during tempering, means for rotating the vat, and an upstanding arm carried by the supporting member exteriorly of the vat and above the rim thereof and in the path to engage the tool during the rotation of the vat to eject tools.

2. A tempering apparatus, having a supporting member, for attachment to an anvil, said supporting member being provided with an upstanding cylindrical spindle, a circular vat provided with a concentrically disposed tube rotatably mounted upon said spindle, means connected to said tube for rotating the vat, a ring mounted within the vat below and concentrically of the rim of the vat, said rim and ring co-acting to support a tool during tempering, and an upstanding arm carried by the supporting member exteriorly of the vat, the upper end of said arm being disposed above the rim and in position to engage a tool at a time to eject the same during the rotation of the vat.

1,081,474. BRAIDING-MACHINE. SIMON W. WARDWELL, Providence, R. I. Filed Jan. 12, 1910. Serial No. 537,742. (Cl. 28—4.)



1. In a braiding machine, the combination with two sets of yarn supplies revolving in opposite directions, the yarns from one set sinuating through the supplies of the other set, of separate switches to control all of the sinuating yarns, a single member connected to each of the switches, and means to oscillate said member with a rotary movement about the axis of the machine.

2. In a braiding machine, the combination with two sets of yarn supplies revolving in opposite directions, the yarns from one set sinuating through the supplies of the other set, of separate switches to control all of the sinuating yarns, a ring member connected to each of the switches, and means to oscillate said ring with a rotary movement about the axis of the machine.

3. In a braiding machine, the combination with a moving member supporting two sets of yarn supplies, of a second member moving adjacent the first in an opposite direction, means whereby one set of supplies is propelled with and by the second member, a plurality of switches on the second member adapted to control the yarns passing by the supplies carried with said member, a ring carried on said second member and connected to each of the switches, and means to impart a rotary oscillating movement to the ring to shift the switches.

4. In a braiding machine, the combination with two sets of yarn supplies, of a moving member to carry one set of supplies, a second member moving in the opposite direction, means to move the other set of supplies by and with the second member, switches pivoted on the second member and adapted to be shifted to control the braiding of the yarns, a ring carried by the second member and connected to each of the switches, and means to impart a rotary oscillating movement to the ring to shift the switches.

5. In a braiding machine, the combination with a turret rotating in one direction and supporting two sets of yarn supplies, a second turret rotating in the opposite direction, drivers whereby one set of supplies is moved in the same direction as the second turret, means on the first turret to actuate the drivers, switches pivoted on the second turret, a single member rotating with the second turret and connected to all of the switches, and means to oscillate said member with a rotary movement to shift the switches.

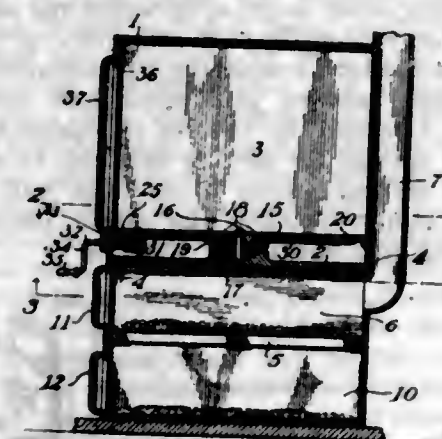
(Claims 6 to 23 not printed in the Gazette.)

1,081,475. OVEN. KATE WEBB, West Conshohocken, Pa. Filed Nov. 17, 1910. Serial No. 592,806. (Cl. 126—338.)

1. In a stove, the combination with an exterior casing, of a substantially horizontal imperforate partition arranged within said casing and forming the upper wall of a combustion chamber and the bottom of an oven, and a rotary false bottom arranged within said oven and carried by said partition.

2. In a stove, the combination with an exterior casing, of a substantially horizontal imperforate partition arranged within said casing and forming the upper wall of a combustion chamber and the bottom of an oven, and a

rotary false bottom arranged within said oven and spaced above and carried by said partition.



3. In a stove, the combination with an interior casing, of an imperforate partition arranged within said casing and forming the top wall of a combustion chamber and the bottom of an oven, a substantially horizontal rotary false bottom arranged within and spaced above said first mentioned bottom, and means arranged between said bottoms for rotating said false bottom.

4. In a stove, the combination with an exterior casing, of a substantially horizontal imperforate partition within said casing and forming the top wall of a combustion chamber and the bottom of an oven, and arranged to prevent gases from passing from the combustion chamber into the oven, a stationary false bottom within said oven spaced above said first mentioned bottom and provided with a circular opening, and a rotary false bottom arranged within said opening and carried by said first mentioned bottom.

5. In a stove, the combination with an exterior casing, of a substantially horizontal imperforate partition within said casing and forming the top wall of a combustion chamber and the bottom of an oven, and arranged to prevent gases from passing from the combustion chamber into the oven, a stationary false bottom within said oven and spaced above said first mentioned bottom and provided with a circular opening, and a rotary false bottom arranged within said opening and carried by said first mentioned bottom, and means arranged between said bottoms for rotating said rotary bottom.

(Claim 6 not printed in the Gazette.)

1,081,476. GRATING, LATTICE STRUCTURE, OR THE LIKE. CARL WELLEN, Düsseldorf, Germany. Filed Dec. 14, 1912. Serial No. 736,733. (Cl. 189—82.)

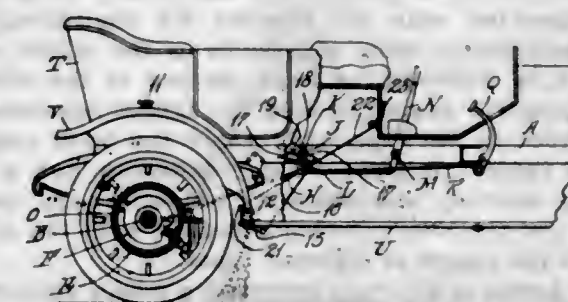


In the construction of gratings, lattice structures or the like, a plurality of groups of metal strips arranged in crosswise direction and assembled by interengaging slots, the groups interengaging one with the other by means of further slots, and the crossing points of each group being staggered with regard to the crossing points of another group.

1,081,477. SANDING DEVICE FOR AUTOMOBILES. JOHN F. WILLIAMS, Detroit, Mich. Filed Jan. 20, 1913. Serial No. 743,036. (Cl. 105—263.)

1. The combination with a motor vehicle having service brake operating mechanism and emergency brake operating

mechanism, of a receptacle on the vehicle having an outlet positioned to discharge material in the path of the vehicle wheel, and means for controlling said outlet operated by each of said mechanisms independently of the other.



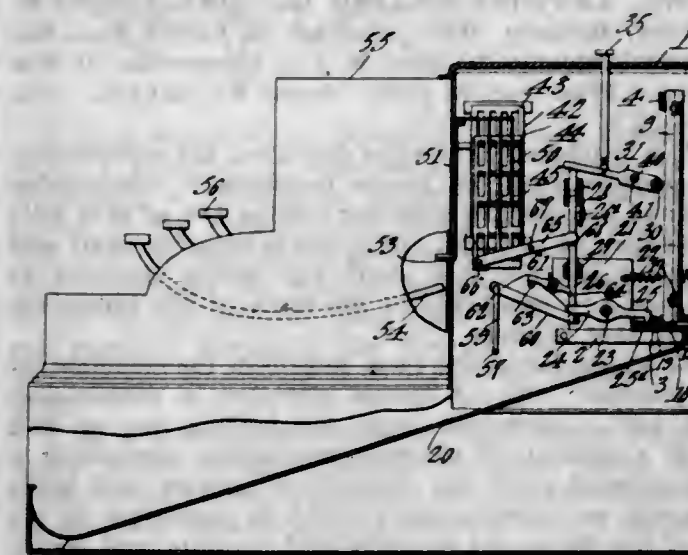
2. The combination with a motor vehicle having a plurality of controlling mechanisms, of a receptacle on the vehicle having an outlet adjacent to the forward side of the vehicle wheel for the discharge of material into the path of said wheel, and means controlling said outlet operated by the actuation of one of said mechanisms to discharge a limited amount of material and operated independently by the actuation of the other of said mechanisms to discharge a greater volume.

3. The combination with a motor vehicle having traction wheels and brake mechanism for said wheels, of a receptacle having an outlet in the path of the wheels, a valve actuated by the operation of the brake mechanism to control the discharge of material from said receptacle, and a shut-off for said outlet.

4. The combination with a motor vehicle having a motor exhaust pipe, of a receptacle on the vehicle for material to be discharged in the path of the vehicle wheels, means for conducting hot gases from the exhaust pipe to said receptacle to heat the same, and means for controlling the discharge of material from said receptacle.

5. The combination with a motor vehicle, having controlling means, of a receptacle on the vehicle having an outlet passage, a controlling valve in said passage, means for automatically operating said valve by the actuation of the controlling means, an auxiliary passage, and a manually operated valve controlling said auxiliary passage. [Claim 6 not printed in the Gazette.]

1,081,478. ATTACHMENT FOR CASH-REGISTERS. JOHN G. WILICH, Elm Creek, Nebr., assignor of one-fourth to Charles Steele, Elm Creek, Nebr. Filed Sept. 9, 1912. Serial No. 719,415. (Cl. 133—2.)



1. In a device of the class described, a case; bars extended transversely of the case and having limited movement on the case; plates through which the bars extend, the plates having a movement transversely of the bars, and independent of the bars; means for actuating each plate independently of the bars; means for actuating each bar to pick up certain of the plates; money receptacles; closures therefor; means for connecting the closures with the plates to withdraw the closures when the plates are

actuated; and tender indicating mechanism for selectively rendering the connecting means inoperative.

2. In a device of the class described, a case; a support mounted to slide therein; a slidably movable tappet; means for upholding the tappet upon the support; a money receptacle; a closure for the money receptacle; means connected with the support for controlling the closure; said means being engageable by the tappet when the tappet is depressed; a latch pivoted to the support and engaging the tappet to hold the tappet depressed; a fixed member in the case with which the latch engages when the support is slid; a tender-indicator and a sale registering member; and means for connecting the tender-indicator and the sale registering member with the tappet to actuate the tappet at different times.

3. In a device of the class described, a money receptacle; a closure operating beneath the money receptacle; a support mounted to slide toward and away from the money receptacle; a latch pivoted on the support and adapted to engage the closure; a tappet mounted to slide upon the support and engaging the latch; a sale indicating member; a tender-indicating member; and means for connecting the sale indicating member and the tender-indicating member with the tappet to actuate the tappet at different times.

4. In a device of the class described; a case; a shaft journaled in the case; a support mounted to slide in the case; a shaft journaled in the support; a tappet mounted to slide in the shaft; a tender-indicating member; a sale registering member; means for connecting the sale registering member and the said tender-indicating member with the tappet to actuate the tappet at different times; a money receptacle; a closure for the money receptacle; a latch carried by the support and adapted to engage the closure, the latch being engageable by the tappet; and means for moving the support.

5. In a device of the class described, a case; a shaft journaled in the case; a support mounted to slide in the case; a shaft journaled in the support; a tappet mounted to slide in the shaft; a latch fulcrumed on the support and engaged with the tappet; a fixed member in the case with which the latch engages to hold the tappet depressed when the support is slid; means for actuating the tappet; a money receptacle; a closure for the money receptacle; and a latch on the support adapted to engage the closure; the last specified latch being engageable by the tappet when the tappet is depressed.

[Claims 6 to 8 not printed in the Gazette.]

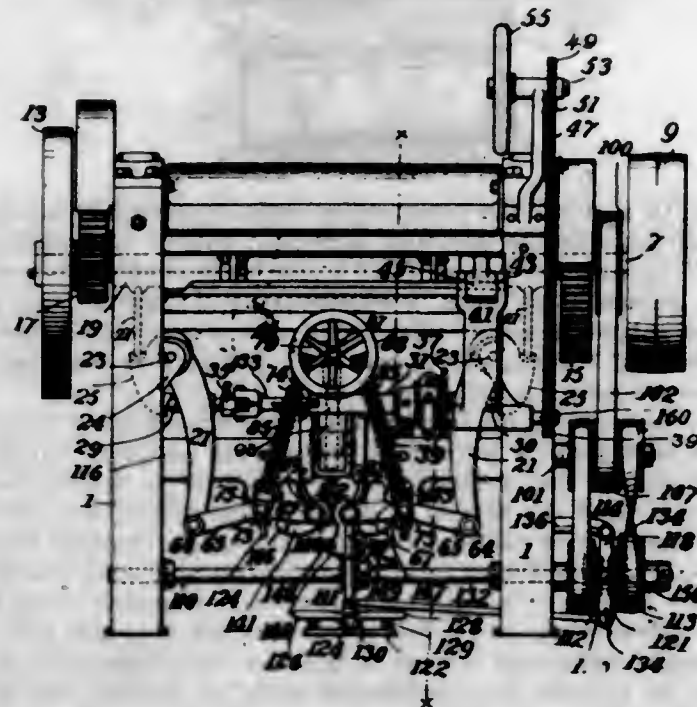
1,081,479. LEATHER-ROLLING MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 8, 1910. Serial No. 554,131. (Cl. 149—23.)

1. In a machine of the class described, the combination with pressure rolls, of means including a compression spring and a compound lever for holding one of said rolls in a position of pressure, and a power-actuated shaft and connections between said shaft and spring arranged to apply power in opposition to the force of the spring for releasing said pressure.

2. In a machine of the class described, the combination with pressure rolls, of means including a compression spring and a compound lever for holding one of said rolls in a position of pressure, mechanism comprising a power-actuated shaft and connections between said shaft and spring arranged to apply power in opposition to the force of the spring for releasing said pressure, and manually operable means to control the application of said power at the will of the operator.

3. In a machine of the class described, the combination with pressure rolls, of means including a compression spring and a compound lever for holding one of said rolls in a position of pressure, and mechanism comprising a power-actuated shaft and connections between said shaft and spring constructed and arranged to operate in opposition to the stress of said spring for releasing said pressure.

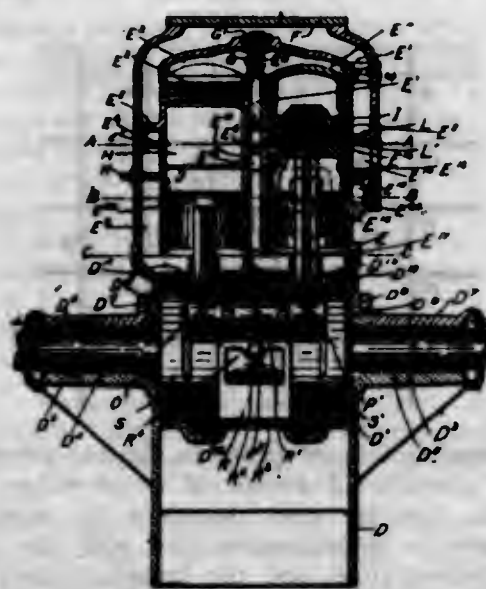
4. In a machine of the class described, the combination with pressure rolls, of means including compression springs and compound levers upon which the compression springs act for holding one of said rolls in a position of pressure, mechanism comprising a power-actuated shaft and connections between said shaft and springs constructed and arranged to operate in opposition to the stress of said springs for moving said roll to release the pressure, and manual means to effect at will a reverse movement of said mechanism and permit the springs to restore said roll to a position of pressure.



5. In a machine of the class described, the combination with pressure rolls, of means including compression springs and compound levers upon which the compression springs act for holding one of said rolls in a position of pressure, mechanism including a power-actuated shaft for rotating said rolls, and devices actuated by power derived from said shaft and operating in opposition to the stress of said springs for moving said roll to release the pressure.

[Claims 6 to 22 not printed in the Gazette.]

1,081,480. GAS-ENGINE. BAXTER M. ASLAKSON, Salem, Ohio. Filed July 9, 1908. Serial No. 442,643. (Cl. 123—53.)



1. A gas engine comprising a base forming the lower half of a crank chamber and having projections forming bearings, caps provided with flanged portion and inward projections for said bearings, a casting provided with two chambers provided with openings in their lower ends suitably secured to said base and adapted to fit over the inner ends of said caps, and forming the upper half of the

crank case a casing forming two cylinders having communication at their upper end suitably secured on said casting, one of said cylinders being provided with air inlet ports and the other cylinder with outlet ports in communication with the atmosphere, and a gas inlet port in communication with the compression chamber, a piston in each of said cylinders adapted to control said ports and compress air and gas respectively in said chambers, one of said pistons being arranged to begin its stroke in advance of the other, substantially as described.

2. A gas engine comprising a base forming the lower half of a crank chamber and provided with projections upon each side thereof, caps secured on said projections, a casting forming the upper half of the crank case and having a flange suitably secured to said base, a casting having two parallel cylinders formed therein, suitably secured upon said first mentioned casting, said cylinders being in open communication with each other respectively at their upper ends and in communication with the crank chamber, one of said cylinders being provided with inlet ports and the other with outlet ports in communication with the working chamber, the piston in each of said cylinders adapted to control the respective ports, one of said pistons being arranged to begin its stroke in advance of the other piston, crank pins suitably mounted in said base, rods connecting said pistons with said crank pins, a drum comprising two halves rigidly secured together, mounted on one of said crank pins between said rod connections and provided with a series of peripheral grooves adapted to fit in the chamber formed in the base, substantially as described.

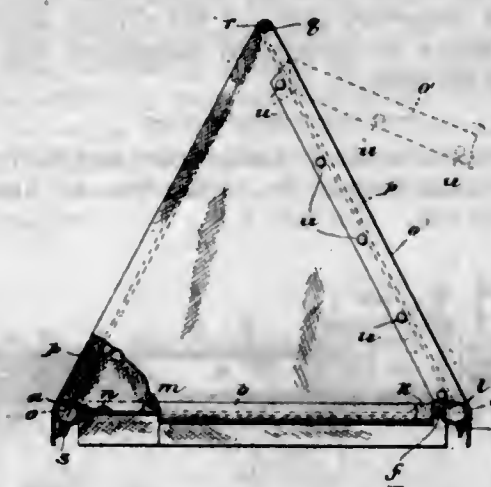
3. A gas engine comprising a casting having a crank chamber, and provided with projections forming bearings on opposite sides thereof, caps for said projections having inwardly projecting portions, a crank shaft mounted in said bearings, a crank case secured upon said first mentioned casting, and a casing forming two cylinders suitably secured upon said crank casing, said cylinders having communication at their upper ends, one of said cylinders being provided with inlet ports and the other with outlet ports in communication with the crank chamber, pistons mounted in said cylinders, rods connecting said pistons with the crank shaft, a drum carried by said crank shaft provided with peripheral grooves and serving as a partition within the crank case to form separate crank chambers, as and for the purpose set forth.

4. A gas engine comprising a base and casting forming a crank chamber and provided with projecting bearing portions upon opposite sides thereof, caps for said projecting bearing portions provided with inwardly extending projections, a casing adapted to fit over said inwardly extending projections, a main shaft mounted in said bearings, cranks mounted on said main shaft, a rotating drum having a series of peripheral grooves mounted on said cranks forming a separate crank chamber at each side thereof, a casting having two cylinders in open communication at their upper ends, and having communication at their lower ends with the crank chamber, suitably secured on said crank casing, a piston in each of said cylinders, and connecting rods extending from said pistons to said cranks, substantially as described.

5. A gas engine comprising a base and casting forming a crank chamber therein and provided with projections upon opposite sides, said projections forming bearings, a crank shaft mounted in said bearings, caps having inward projections for said bearings, a crank casing suitably secured upon said base casting, a casing forming two cylinders having communication at their upper ends and having communication at their lower end with the crank chamber and provided with inlet and exhaust ports in communication with the atmosphere, a piston in each of said cylinders, rods connecting said pistons with said crank shaft, a partition carried by said crank shaft and forming two crank chambers, a crank disk mounted on each of said cranks and comprising an inner portion having an opening in which the crank rests, and an outer band adapted to hold the disk and band together, as and for the purpose set forth.

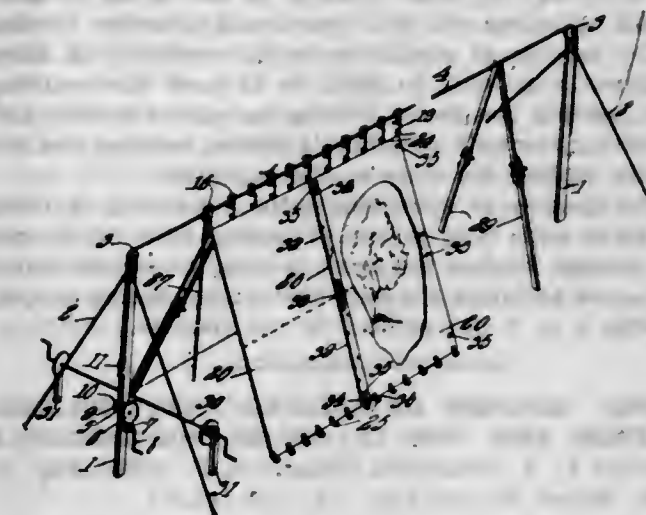
[Claims 6 to 8 not printed in the Gazette.]

1,081,481. HANGING TENT. CASSIUS B. AVERY, MAGNUS C. ALVESEN, and LOMAN A. ALVESEN, Duluth, Minn. Filed Jan. 24, 1913. Serial No. 744,048. (Cl. 5—10.)



A hanging tent, comprising a floor-frame embodying side-bars, adjustable end-bars, and a flexible floor, a tent cover for said frame, and means for suspending said frame above the ground, said suspending means consisting of a ridge-rope and suspension-ropes supported by said ridge-rope and having their free ends secured to said side-bars inside of said end-bars, whereby said end-bars can be adjusted outside of said tent-cover.

1,081,482. TREE-PROTECTOR. WILLIAM BARBOTT, Manhattan Beach, Cal. Filed July 8, 1913. Serial No. 777,921. (Cl. 47—33.)



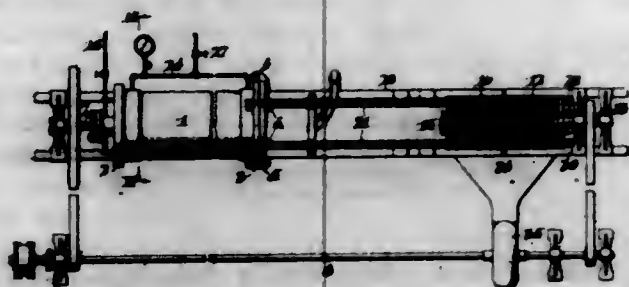
1. In a device of the character described, a supporting cable, a plurality of members carried thereby to move therealong, a plurality of canopy sections, members attached to the ridges of the canopy sections and engageable with the first mentioned members, means for detachably connecting the canopy sections together, the ends of the canopy sections being adapted to be folded back, and members carried by the free portions of the canopy sections and engageable with the second mentioned members.

2. In a device of the character described, a supporting cable, pulley blocks engaging the cable, hooks carried by the pulley blocks, a plurality of canopy sections, means for securing the adjoining edges of the canopy sections together, eyes attached to the ridges of the canopy sections and engageable by the said hooks, the ends of the canopy sections being adapted to be folded back, and hooks secured to the ends of the canopy sections engageable with the aforesaid eyes.

3. In a device of the character described, posts, a cable carried thereby, a plurality of canopy sections, hinged straps secured to the adjoining edges of the canopy sections, means for attaching the respective straps together, and means for supporting the canopy sections from the cable.

4. In a device of the character described, a supporting cable, a plurality of canopy sections, hinged straps secured to the respective edges of the canopy sections, certain of the straps having key-hole openings and the others having studs to engage through the key-hole openings for attaching the respective edges of the canopy sections together, and means for detachably supporting the canopy sections from the cable.

1,081,483. PROCESS OF STERILIZING MILK. CHARLES E. BONINE, Philadelphia, Pa. Filed Dec. 17, 1912. Serial No. 737,195. (Cl. 99-8.)



1. The process of sterilizing milk, consisting in heating the milk to sterilizing temperature, agitating the milk during heating and maintaining, during heating, a surface pressure on the milk in excess of the normal vapor pressure of the milk.
2. The process of sterilizing milk, consisting in heating the milk to approximately 130° C., agitating the milk during heating and maintaining, during heating, a surface pressure on the milk in excess of the normal vapor pressure of the milk.
3. The process of sterilizing milk, consisting in filling a container with milk to 85% to 92% of the container volume, sealing the same, heating to sterilizing temperature and agitating the milk continually during heating.
4. The process of sterilizing milk, consisting in filling a container with milk to 85% to 92% of the container volume, sealing the same, heating to approximately 130° C., agitating the milk continually during heating and subsequently cooling the same in the container.
5. The process of sterilizing milk, consisting in filling a container with milk to approximately 90% of the container volume, sealing the same, heating to approximately 130° C., and agitating the milk continually during heating. (Claims 6 to 8 not printed in the Gazette.)

1,081,484. METHOD OF MAKING PARTY-COLORED SCREENS FOR USE IN COLOR PHOTOGRAPHY. CHARLES I. A. BRASSEUR, Orange, N. J. Filed Aug. 20, 1909. Serial No. 513,895. (Cl. 95-81.5.)



1. The method, substantially as herein set forth, of making party-colored screens for use in color photography, consisting in forming separate threads of different colors, compacting the same to form a fibrous block, cutting the block transversely of the threads to form a party-colored sheet, and thinning down said sheet to form the screen.
2. The method, substantially as herein set forth, of making long party-colored screens for use in conjunction

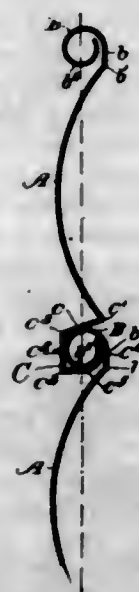
with moving picture films in color photography, consisting in forming separate threads of different colors, compacting the same to form blocks, forming fibrous sectors from said blocks, forming a circular block from said sectors, cutting the circular block circumferentially into a ribbon, and thinning down said ribbon.

3. The method, substantially as hereinbefore set forth, of making party-colored screens for use in color photography, consisting in forming threads of different colors, compacting the same to form a fibrous block, cutting the block transversely of the length of the threads to form a party-colored sheet, mounting said sheet on a compensating screen, and then thinning down said sheet to form the screen.

4. The method, substantially as hereinbefore set forth, of making party-colored screens for use in color photography, consisting in forming threads of different colors, compacting the same into fibrous blocks, forming sectors from said blocks with the threads of each sector running in the direction of a radius thereof, forming a circular block from said sectors, cutting the circular block transversely of all the threads to form a ribbon, mounting said ribbon on a compensating screen, and then thinning down said ribbon to form the color-sifter.

5. The method, substantially as hereinbefore set forth, of making party-colored screens for use in color photography, consisting in forming party-colored threads by twisting three threads, each of its own color, into one thread, uniting a series of such twisted threads into a mass having such threads lying substantially in one direction therein, and cutting said mass in a direction at right angles to said direction to form a party-colored screen. (Claims 6 to 10 not printed in the Gazette.)

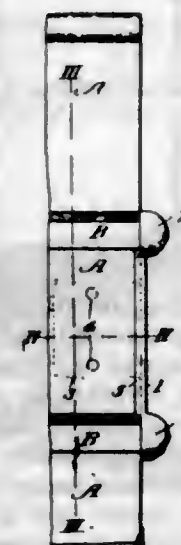
1,081,485. ROLLING BLIND. EDWARD CAHILL, New York, N. Y. Filed May 9, 1913. Serial No. 766,528. (Cl. 189-56.)



1. A rolling blind comprising a plurality of interlocking slats or sections, each having a bead which is generally circular in cross-section fitting within a generally angular box on the adjacent slat or section, said box having a curved upwardly extending inner wall spaced from its upper wall a distance less than the diameter of the bead, said bead adapted to engage the inner walls of said box on all four sides in the roller as well as the unrolled state of the blind.
2. A rolling blind comprising a plurality of interlocking slats or sections, each having an outwardly extending bead which is generally circular in cross-section fitting within an outwardly extending generally angular box on the adjacent slat or section, said box having an upper downwardly and outwardly inclined wall and an outer vertical wall terminating in an abrupt lower edge for shedding water and excluding moisture from the joint.
3. A slat for rolling blinds, comprising a body having outwardly extending interlocking members at its opposite edges, one of said members consisting of a vertical portion

and a curved portion extending first outward, then downward, then inward and then upward, forming substantially a complete circle in cross section terminating adjacent to but spaced away from said vertical portion, the other member consisting of an upper outwardly and downwardly inclined portion, a horizontal portion connected to said vertical portion by a sharp bend and extending inwardly, and an upwardly curved portion conforming to the curved portion of the first member and of a size to slidably fit between the same and the vertical portion of said first member.

1,081,486. STOP AND RUNNER FOR ROLLING BLINDS. EDWARD CAHILL, New York, N. Y. Filed May 20, 1913. Serial No. 768,889. (Cl. 189-56.)

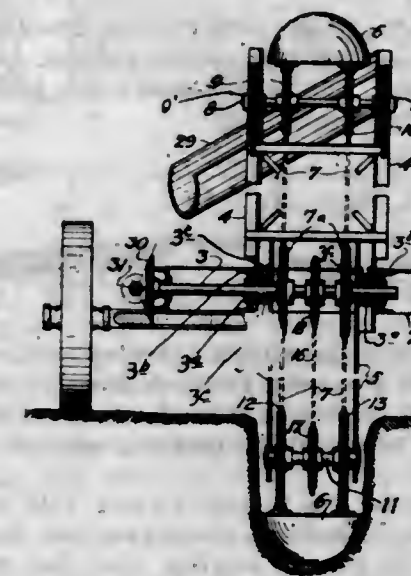


1. The combination with a rolling blind composed of slats hinged together at their edges, of stops and runners attached to the ends of alternate slats, said stops and runners each comprising an intermediate portion having a lug projecting from its inner face and secured to one surface of a slat, and end portions overlapping the hinged edges of the slats, there being a rib formed on the inner face of the intermediate portion side by side with but spaced from the lug, forming a groove to receive the end of the slat.
2. The combination with a rolling blind composed of slats hinged together at their edges, of stops and runners attached to the ends of alternate slats, said stops and runners each comprising an intermediate portion secured to a slat and having a flat outer face, and end portions overlapping the hinged edges of the adjacent slats and having rounded knobs projecting outwardly in the direction of the longitudinal axis of the slats, beyond the flat outer face of the intermediate portion for the purpose specified.
3. The combination with a rolling blind composed of slats hinged together at their edges, of stops and runners attached to the ends of alternate slats, said stops and runners each comprising an intermediate portion having a lug projecting from its inner face and secured to one surface of a slat, and end portions overlapping the hinged edges of the slats, there being a rib formed on the inner face of the intermediate portion side by side with but spaced from the lug, forming a groove to receive the end of the slat, said rib extending onto the inner faces of the end portions and into juxtaposition to the hinged edges of the slats for the purpose specified.

1,081,487. PORTABLE EXCAVATING-MACHINE. JOHN H. CARR, Alhambra, Cal., assignor of one-half to Howard E. Marsh, Palms, Cal. Filed Apr. 13, 1912. Serial No. 690,588. (Cl. 37-24.)

1. In an excavating machine, a vehicle body, a frame mounted thereon, a shaft to pivotally support said frame, said frame having an upwardly extending portion consisting of two side pieces and a downwardly extending por-

tion having two side pieces which are placed nearer together than those of the upper section of said frame, the upper and lower sections of the frame overlapping each other, spacing members secured between the inner and outer frames where they overlap, the aforementioned shaft having its bearings within said spacing members, an endless connection carried by said frame, a series of buckets carried by said connection, said buckets traveling along the edges of the lower side pieces and passing between the upper side pieces, means to drive said connection, and means to adjust said frame to and from the digging position.



2. In an excavating machine, a vehicle body, a frame mounted thereon, a shaft to pivotally support said frame, said frame having an upwardly extending portion consisting of two side pieces and a downwardly extending portion having two side pieces which are placed nearer together than those of the upper section of said frame, the upper and lower sections of the frame overlapping each other, spacing members secured between the inner and outer frames where they overlap, the aforementioned shaft having its bearings within said spacing members, an endless connection carried by said frame, a series of buckets carried by said connection, means to drive said connection, and means to move said frame to and from the digging position.

1,081,488. SEWER-CLEANING DEVICE. EDMUND B. CULVER, Great Barrington, Mass. Filed June 10, 1913. Serial No. 772,858. (Cl. 182-2.)



1. A sewer-cleaning implement consisting of a handle section, a triangular cutting member mounted thereon, a prong mounted on said handle member and passing through a suitable opening in said cutting member, and a hoe member detachably hinged to said cutting member and

adapted to rest against said prong when in operative position.

2. A sewer-cleaning hoe comprising a handle section, a cutting member mounted thereon said cutting member being provided with a recess, a prong carried by said handle section and passing through said recess, a hoe member hinged to said cutting member and resting against the point of said prong when in operative position, and means carried by said handle section for adjustably limiting the movement of said hoe member between said prong point and said handle section.

1,081,489. BOAT. ALEXANDER CURRIE, Los Angeles, Cal., assignor of one-third to Alex. H. Lidders, Los Angeles, Cal. Filed Apr. 11, 1910. Serial No. 554,863. (Cl. 114—66.5.)



1. A boat having its bottom provided with a plurality of upwardly and forwardly inclined laterally stepped surfaces having varying angles of inclination, one of said surfaces arranged substantially centrally of and above the others.

2. A boat having its bottom formed with a series of inclined surfaces, including a central surface, and side surfaces arranged in stepped relation with the central surface, the central surface being higher than the side surfaces.

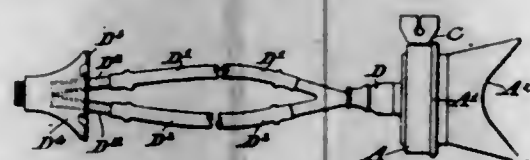
3. A boat having its bottom formed with a series of inclined surfaces arranged adjacent to each other and comprising higher and lower surfaces, the higher surfaces having greater angles of inclination to the horizontal than the lower surfaces.

4. A boat having its bottom formed with a series of inclined surfaces, including a central surface, and side surfaces arranged in stepped relation with the central surface, the central surface being higher than the side surfaces and having a greater angle of inclination than the latter.

5. A boat having its bottom provided with a plurality of laterally stepped surfaces including a surface 5 formed with a plurality of curved surface-sections 5^a, 5^b and 5^c arranged one behind the other with the front surface-section 5^a highest and each succeeding surface-section lower than the one in front of it.

[Claims 6 to 20 not printed in the Gazette.]

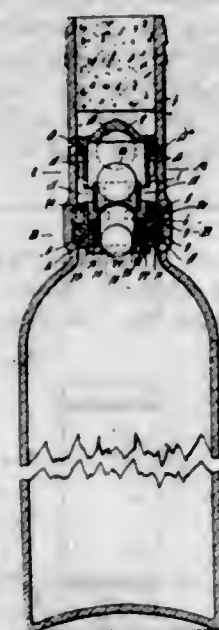
1,081,490. DEVICE FOR MUFFLING SOUNDS. ARTHUR DARE, Philadelphia, Pa. Filed Mar. 15, 1912. Serial No. 634,059. (Cl. 179—188.)



1. A sound transmitting device, comprising a casing provided with a mouth piece and a sound discharge passage, a muffler mounted upon the casing and provided with oppositely disposed discharge orifices, a diaphragm arranged within the casing, spring means for adjusting the tension of the diaphragm and one or more tubes leading from the discharge passage to a sound transmitting mechanism.

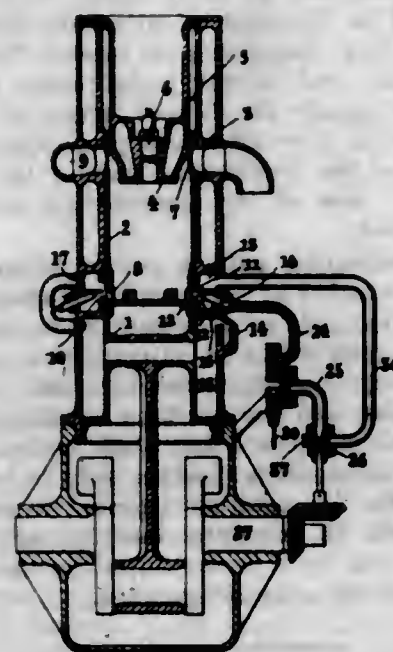
2. A sound transmitting device comprising a casing provided with a mouth piece and a sound discharge passage, an exhaust-head mounted upon the casing and provided with oppositely disposed discharge orifices, and one or more non-resonant tubes leading from the casing to the mouth piece or horn of a telephone instrument, substantially as described.

1,081,491. NON-REFILLABLE BOTTLE. CLARENCE FREDERIC DAVY and THOMAS RICHARDSON, Fitzroy, New Zealand. Filed June 20, 1912. Serial No. 704,760. (Cl. 215—65.)



A non-refillable bottle, including a cylinder having circumferential ports intermediate of its length, said cylinder being provided around its upper edge with a flange having a plurality of mutilations therein and a short interval below said flange with a second flange also having a plurality of mutilations therein, alternating with the mutilations of the aforesaid flange, said cylinder also having arranged in its lower end a sleeve provided with ports out of register with the aforesaid ports of said cylinder, said sleeve having arranged within itself a closed upper end hollow piston and provided with a port in its bottom, a buoyant valve seated in said port and arranged within said piston, said piston itself controlling the ports in said sleeve, and a non-buoyant valve arranged within the upper end of said sleeve and adapted to engage the closed upper end of said piston and limited in its upward movement by the upper end of said cylinder.

1,081,492. TWO-CYCLE EXPLOSION-MOTOR. JULES D'HARVENG, Liege, Belgium. Filed Apr. 1, 1911. Serial No. 618,415. (Cl. 123—29.)

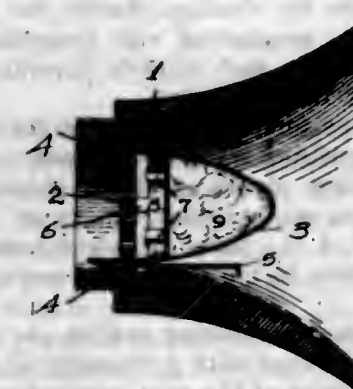


1. The combination with an explosion engine having a charging reservoir; of a casing, an elastic diaphragm in the casing, a fuel inlet and a fuel discharge in the casing on one side of the diaphragm, communicating means between the casing and reservoir on the other side of the diaphragm, and means to apply and release the pressure of said reservoir periodically on said other side of the diaphragm.

2. The combination with an explosion engine having a charging reservoir; of a casing, an elastic disk in the casing, a fuel inlet and a fuel outlet in the casing on one side of the disk communicating means between the casing on the other side of the disk and the reservoir, and a valve to control the application and release of reservoir pressure on said other side of the diaphragm.

3. The combination with a plural cylinder explosion engine each cylinder having a charging reservoir, and piston-controlled ports between reservoir and cylinder; of a fuel injector for each cylinder comprising a casing, a diaphragm therein, a valve-controlled fuel inlet and valve-controlled fuel outlet for said casing on one side of the diaphragm and means to connect a casing of one cylinder on the other side of its diaphragm with the reservoir of another cylinder.

1,081,493. ANTISEPTIC CONTAINER. EDWARD M. DOERINGER and AMIE C. ST. MARIE, San Francisco, Cal.; said Doeringer assignor to said St. Marie. Filed Nov. 23, 1912. Serial No. 733,177. (Cl. 179—185.)



1. An antiseptic container comprising a hollow conoidal body; a perforated plate secured within the base of the hollow conoidal body and adapted to retain an absorbent material therein; and lugs integral with the hollow conoidal body adapted to retain the said body adjacent to the perforated partition of a telephone mouth piece.

2. An antiseptic container comprising a hollow conoidal body having shouldered spring lugs integral therewith and adapted to retain the said hollow conoidal body within and concentric with the mouth piece of a telephone transmitter and adjacent to the perforated partition thereof; a perforated plate secured within the hollow conoidal body; and an absorbent material within the hollow conoidal body adapted to absorb a volatile antiseptic.

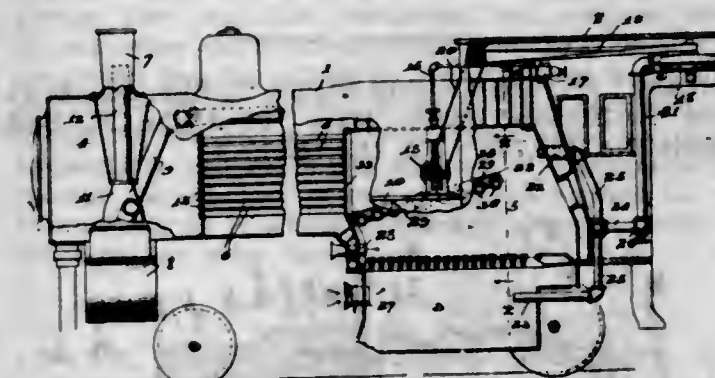
3. An antiseptic container comprising a hollow conoidal body having shouldered spring lugs integral therewith and adapted to retain the said hollow conoidal body within and concentric with the mouth piece of a telephone transmitter and adjacent to the perforated partition therein; means for releasing the shouldered spring lugs; a perforated plate secured within the hollow conoidal body; and an absorbent material within the hollow conoidal body adapted to absorb a volatile antiseptic solution.

4. An antiseptic container comprising a hollow conoidal body having shouldered spring lugs integral therewith and adapted to secure the hollow conoidal body within and concentric with the mouth piece of a telephone transmitter and adjacent to the perforated partition therein; means for releasing the shouldered spring lugs; a perforated hollow conoidal body having an annular flange and secured within the hollow conoidal body; lugs integral with the hollow conoidal body and adapted to engage the annular flange of the perforated hollow conoidal body; and an absorbent material in the space between the hollow conoidal and the hollow perforated conoidal body.

1,081,494. LOCOMOTIVE. FRANCIS J. DOYLE, Chicago, Ill. Filed Feb. 21, 1910. Serial No. 545,120. (Cl. 110—76.)

In a locomotive, the combination with a fire chamber, an ash pit, and a grate between said ash pit and fire chamber, of an arch extending transversely across said

fire chamber rearwardly and upwardly from the front wall thereof and terminating a short distance of the rear end of the fire chamber to divide the latter into a fuel space below the arch and a combustion space above the arch, flues extending from said combustion space, means for forcing air into the ash pit and into the fire chamber adjacent the rear end of said arch, means for forcing air into the front end of said fuel space and into the fuel



therein, the fuel within said fuel space being distilled and the gases of distillation being mingled with the air delivered into the fuel body and said combined air and gas being restricted to flow rearwardly through said fuel chamber and about the rear edge of said arch before reaching the combustion chamber, and receiving further air supply from the air inlet adjacent the rear end of said arch.

1,081,495. VETERINARY FILE HOLDER. SOLA B. DUNN, Chicago, Ill. Filed July 2, 1909. Serial No. 505,544. (Cl. 128—27.)



1. A veterinary file holder comprising in combination a holder for the file provided with an end flange and side flanges, a shank therefor, a screw threaded rod adjustable in said shank, and a swinging locking device, the axis of which is at a right angle to the axis of the rod below the same and in the rear of the inner end of the side flanges, substantially as described.

2. A veterinary file holder comprising in combination a holder for the file provided with an end flange and side flanges, a screw threaded rod adjustable in the holder, a pivoted pawl between the end of said rod and adjacent end of the flanged holder, the axis of which pawl is at a right angle to that of the rod below the same and in the rear of the inner end of the side flanges, substantially as described.

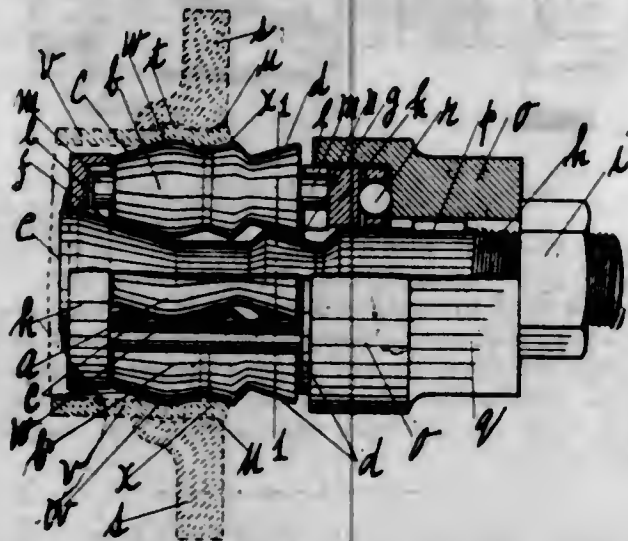
3. A veterinary file holding implement comprising in combination a file holder open at one end, means for confining a file inserted therein against a lateral movement in either direction and a longitudinal movement in one direction, a handle rod screwed into the shank of said holder and a pivoted pawl interposed between said rod and the open end of the holder, the pivot of said pawl being bodily in a plane below the file supporting surface of the holder and of the axis of said rod, substantially as described.

4. A veterinary file holder device comprising in combination a file holder, means for retaining a file supported by the holder against a lateral movement, and also an endwise movement in one direction, a rearwardly projecting shank for said holder, a handle rod screwed therein and adapted to be projected into said recess, and a pivoted locking device the axis of which is in a plane below the holder and the axis of said rod whereby when the locking device is moved to a position opposing the end of a file supported by the holder the handle rod serves to maintain said device in its locking position and a file against accidental movement, substantially as described.

5. A veterinary file holder device comprising in combination a file holder, means limiting the lateral movement

and an endwise movement in one direction of a file inserted therein, a shank for said holder provided with a recess, a handle rod screwed into said shank and adapted to be projected into said recess, a locking pawl pivoted in said recess in a plane below said handle, said pawl being provided with a curved surface opposing the end of said handle rod whereby the pawl has a shifting bearing on the handle rod throughout the movement of the pawl, substantially as described.

1,081,496. EXPANDER FOR PIPES, TUBES, &c. HORATIO G. GILLMOR, Quincy, Mass. Filed Mar. 23, 1908. Serial No. 422,769. (Cl. 153-82.)



1. The combination of a plurality of rolls constructed with a plurality of parallel conical surfaces, and a mandrel having a plurality of parallel conical surfaces adapted to bear upon the parallel conical surfaces of said rollers.

2. An expander, including, in combination with a plurality of rollers constructed with a plurality of parallel conical surfaces, a mandrel constructed with a plurality of parallel conical surfaces adapted to bear upon the parallel conical surfaces of said rollers, and a means for forcibly changing the longitudinal position of said mandrel with respect to said rollers, and thereby forcing said rollers outwardly from the axis of said mandrel.

3. An expander, including, in combination with forming rolls having bodies constructed to shape by rolling surfaces of a tube and a plurality of parallel conical surfaces, a mandrel constructed with a plurality of parallel conical surfaces adapted to have rolling contact with conical surfaces of said rolls, and means whereby the relative positions of said rolls in relation to said mandrel may be changed endwise to change the positions of the axes thereof radially from the axis of said mandrel.

4. The combination of a plurality of rolls constructed with a plurality of parallel conical surfaces, a spindle having a plurality of parallel conical surfaces adapted to bear upon conical surfaces of said rolls, means for retaining said rolls in position circumferentially about said spindle, and means for changing the longitudinal position of contact of said rolls with said spindle, substantially as described.

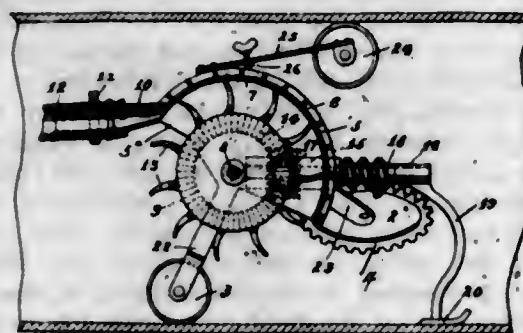
5. The combination of rolls and a mandrel having a plurality of parallel conical surfaces adapted to contact with and drive said rolls, with secondary rolls, contacting with and driven by the conical surfaces of said mandrel, constructed with surfaces adapted to expand and flare the end of a pipe.

[Claims 6 to 11 not printed in the Gazette.]

1,081,497. SEWER CLEANER AND FLUSHER. HENRY A. GORTZ, New Albany, Ind. Filed Jan. 24, 1910. Serial No. 539,544. (Cl. 182-2.)

1. In a machine for cleaning sewers the combination of a hydraulic motor, means for supplying water to the motor, propelling means connected to the motor, and the exhaust opening of said motor directed to discharge water

against the sewer surface in a direction inclined oppositely to the direction of motion of the machine, substantially as set forth.



2. In a device for cleaning sewers the combination of propelling means, means for supplying water to the device and means for discharging water from the device against the sewer surface in a direction inclined oppositely to the direction of motion of the device, substantially as set forth.

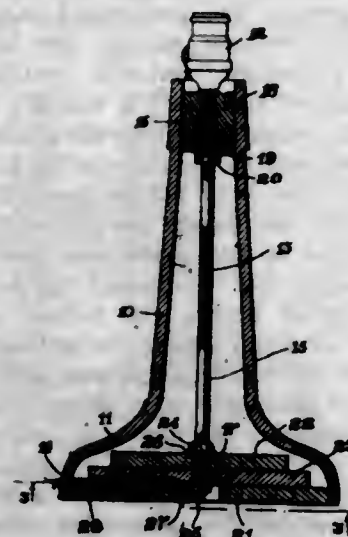
3. In a machine for cleaning sewers, the combination of a motor and two supporting and propelling wheels connected to said motor and lying in diverging planes, substantially as set forth.

4. In a machine for cleaning sewers the combination of a motor, two propelling wheels connected to the motor and lying in diverging planes, and an elastically mounted wheel adapted to engage with the upper surface of the sewer, the axes of the three wheels located in the same plane perpendicular to the axis of the sewer, substantially as set forth.

5. In a machine for cleaning sewers, the combination of suitable cleaning means with a plurality of supporting and guiding wheels, three of the said wheels located in diverging planes with their axes in the same plane perpendicular to the axes of the sewer, said wheels located at the forward end of the machine, and a follower guide wheel mounted at the rear end of the machine.

[Claims 6 to 8 not printed in the Gazette.]

1,081,498. ELECTRIC-LIGHT FIXTURE. LEO GUDMAN, New York, N. Y. Filed Jan. 27, 1913. Serial No. 744,315. (Cl. 240-81.)

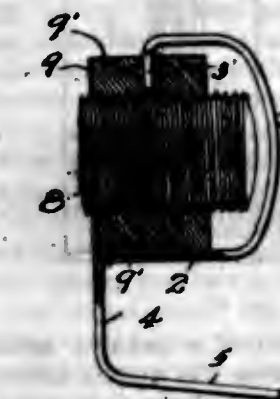


1. An electric light fixture embodying therein a base carrying an upright standard, a block of compressible material frictionally engaging the inner wall of said standard below its upper end, a plate in the base of said fixture, a pipe passing through said block and said plate, means for adjusting the position of said pipe within the standard, means for retaining the pipe in adjusted position in the standard, and a socket threaded to one end of said standard and adapted to take against said block.

2. An electric light fixture embodying therein a base carrying an upright standard, a pair of superposed plates within the base, a block near the upper end of said standard, a pipe within said standard and passing through said plates and said block, said pipe having an external screw

thread formed thereon near each end thereof, means engaging the threads near one end of said pipe for clamping the same to said superposed plates, means engaging the threads near the other end of said pipe for adjusting said pipe within the standard, and a socket engaging said last named thread and adapted to take against the block in said standard.

1,081,499. NUT-LOCK. HOLLY HALL and JOHN THOMAS WRIGHT, Slocomb, Ark. Filed Apr. 24, 1913. Serial No. 763,405. (Cl. 151-44.)



1. The combination with a bolt and slotted nut of a locking device comprising an integral member embracing the nut and provided with a brace, and a flexible tongue having its end inserted in the slot of the nut.

2. The combination with a bolt and slotted nut and a fish plate of a rail joint, of a locking device having side wings and a bottom plate engaging the nut and a web and foot brace engaging the fish plate, and a flexible tongue properly bent and having its end inserted in the slot of the nut.

1,081,500. FLASH-LIGHT APPARATUS. THOMAS E. HALLDORSON, Omaha, Nebr. Filed Jan. 31, 1913. Serial No. 745,338. (Cl. 67-30.)



1. A flash-light apparatus of the specified class, comprising two mutually registering box sections, hinged together and adjustable by an intermediate brace, a smoke door in one of the box sections, a thimble set in the wall of the other of those sections, a flexible screen having its margin continuously attached to the separable margins of the box sections, and forming with those sections when distended a closed explosion chamber, and a tubular igniter which is adapted to be removably inserted in the thimble and held thereby partly within and partly without the explosion chamber and also alternatively to be contained within the box and outside the screen when the box is closed.

2. A flash-light apparatus of the specified class, comprising two mutually registering box sections hinged together, and shutting together into the form of a single closed box, a spacing brace between the sections, a screen

connecting the sections and collapsible within the box, a tubular igniter removably inserted in a retaining hole through the side wall of one of the box sections when opened apart, and containable outside the screen and within the box when closed, a socket in one of the sections, and a collapsible supporting stand removably fitted to the socket and adapted to be placed outside the screen and within the box when closed.

3. A flash-light apparatus of the specified class, comprising two mutually registering box sections hinged to each other and shutting together in the form of a single closed box, an adjustable spacing brace between the sections, a screen connecting the sections and collapsible within the box, and a tubular igniter adapted not only to be partially and removably inserted in a retaining hole through the side wall of one of the box sections but also alternatively to be placed outside the collapsed screen and inside the box when closed.

1,081,501. CLASP. FRED HIRSH, New Haven, Conn. Filed Mar. 23, 1911. Serial No. 616,345. (Cl. 24-248.)



1. A clasp comprising a substantially U-shaped body-piece, a clamping member hinged at one end to the upper side of the body-piece and provided with lateral jaws which are bent at substantially right angles therewith and are adapted to swing downwardly through an opening in that side of the body-piece, and a spring-tongue which is formed within and as a part of the lower side of the body-piece with sides extending parallel to the lateral jaws of the clamping member and which is adapted to cooperate with the clamping member.

2. The combination, in a clasp, of a substantially U-shaped body-piece, a clamping member which comprises a lever-arm pivoted at one end to the upper side of the body-piece and provided with lateral jaws extending downwardly at substantially right angles thereto and adapted to be swung through an opening in the upper side of the body-piece, a longitudinal slot formed in the lever-arm between the lateral jaws and extending nearly the entire length of the lever-arm, and a spring-tongue formed within and as a part of the lower side of the body-piece with sides extending parallel to the sides of and adapted to cooperate with the clamping member.

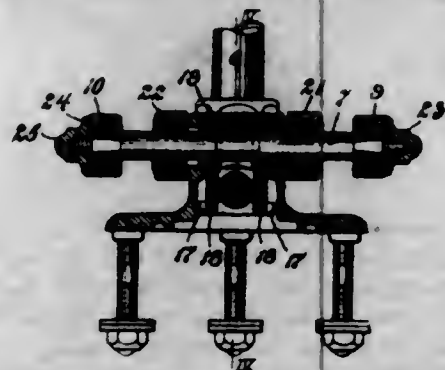
3. The combination, in a clasp, of a substantially U-shaped body-piece, a clamping member which comprises a lever-arm pivoted at one end to the upper side of the body-piece and provided with lateral jaws extending downwardly at substantially right angles thereto and adapted to be swung through an opening in the upper side of the body-piece, a longitudinal slot formed in the lever-arm between the lateral jaws and extending nearly the entire length of the lever-arm, an outwardly projecting catch or detent upon one of the said lateral jaws below the plane of the lever-arm adapted to snap past and into engagement with an edge of the opening in the upper side of the body-piece, and a spring-tongue formed within and as a part of the lower side of the body-piece with sides extending parallel to the sides of and adapted to cooperate with the clamping member.

4. A clasp comprising a substantially U-shaped body-piece having an opening in its upper side which is inclosed on all sides, a lever-arm pivotally mounted at one end upon the upper side of the body-piece and provided with lateral jaws bent at right angles therewith and adapted to swing downwardly through the opening in the upper side of the body-piece and a catch projecting outwardly from one of said lateral jaws below the plane of the lever-arm and adapted to snap past and into engagement with an edge of the said opening when the hinged lever-arm is swung downwardly to closed position upon the upper side of the body-piece.

5. The combination, in a clasp, of a substantially U-shaped body-piece having formed in its upper side an opening which is inclosed on all sides and a clamping member which comprises a lever-arm pivoted at one end upon the upper side of the body-piece and provided with lateral jaws extending downwardly at substantially right angles thereto and adapted to be swung through the opening in the upper side of the body-piece, a longitudinal slot formed in the lever-arm between the lateral jaws and extending nearly the entire length of the lever-arm, and an outwardly projecting catch or detent upon one of the said lateral jaws below the plane of the lever-arm and adapted to snap past and into engagement with an edge of the said opening in the upper side of the body-piece.

[Claim 6 not printed in the Gazette.]

1,081,502. CLOSET-FLUSHING MECHANISM. ARTHUR M. HOUSER, Chicago, Ill., assignor to Crane Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1910. Serial No. 548,254. (Cl. 4-18.)



1. A valve operating mechanism comprising a casing in which the valve is mounted, a transverse operating shaft extending through opposite sides of the casing, and a member for imparting a rotary movement to the shaft extending on opposite sides of the casing and provided with openings to receive the ends of the shaft, one of said openings being large enough to permit the passage of the shaft therethrough in assembling, and a bushing for fitting in such opening and securing the shaft against rotation in the said member.

2. A valve operating mechanism comprising a casing in which the valve is mounted, a transverse operating shaft extending through opposite sides of the casing, and having a polygonal end, and a member for imparting rotary movement to the shaft having two arms extending on opposite sides of the casing, one of said arms having an opening large enough to permit the passage of the shaft therethrough in assembling and the other arm having a polygonal shaped opening to receive the polygonal end of the shaft, and a filling block in the first hole and surrounding the shaft.

1,081,503. ACETYLENE-GENERATOR. ALEXANDER F. JENKINS, Baltimore, Md., assignor to The Alexander Milburn Company, Baltimore, Md., a Corporation of Maryland. Filed Apr. 16, 1912. Serial No. 691,141. (Cl. 48-56.)

1. The combination of a water-containing tank, a gas generating means submerged and sealed therein and from which gas tends to escape during the period of after-generation, a chamber communicating with the tank whereby water in both is at the same level, an outlet pipe leading from the generating means, a vent pipe connected with the outlet pipe at a point above the water level and leading therefrom into the chamber and water-sealed therein at a pressure less than the water seal of the generating means, and an escape pipe for conveying away from the chamber the vented gas.

2. The combination of a tank, a generator therein, a conduit connected with the generator and composed of two telescoping sections sealed by the water in the tank, an outlet pipe receiving gas from the conduit, a vent pipe connected with the outlet pipe and having a water

seal of a less pressure than the water seal of the said conduit, and means for conveying away the gas escaping from the said vent pipe.



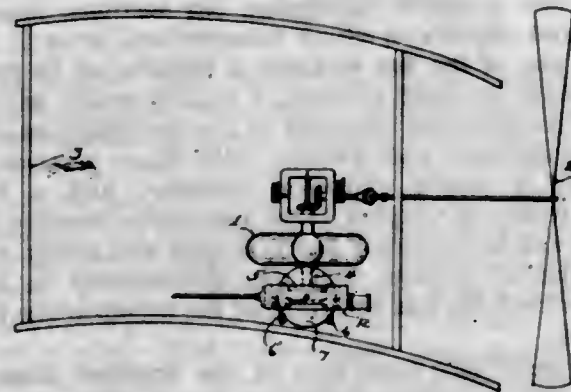
3. The combination of a tank, a generator submerged therein and from which gas during after-generation tends to escape at the bottom of the generator, a chamber communicating with the tank for holding water at the same level, an outlet pipe receiving gas from the generator, a pipe connected with the outlet pipe at a point above the water level and leading downwardly into the chamber with its lower end terminating above the bottom of the generator, and means for conveying away from the chamber the vented gas.

4. The combination of a tank, a generator submerged therein and from which gas during after-generation tends to escape at the bottom of the generator, a conduit connected with the generator and composed of two telescoping sections sealed by the water in the tank, an outlet pipe, a vent chamber containing a column of water, a pipe leading from the outlet pipe downwardly into the vent chamber and having its lower end terminating in the bottom portion of the said chamber, and means for conveying away from the said chamber the vented gas.

5. The combination of a tank, a generator submerged therein, a washer at the bottom of the tank, a conduit leading from the generator to the washer and composed of telescoping sections sealed by the water in the tank, an outlet pipe leading from the washer, a chamber communicating with the tank whereby both will contain water at the same level, a vent pipe leading downwardly into the chamber from the outlet pipe and having its lower end terminating at such a point that the pressure of the water sealing the same is less than the pressure of the water sealing the telescoped sections of the said conduit, and means for conveying away the gas vented through the said vent pipe and chamber.

[Claim 6 not printed in the Gazette.]

1,081,504. FLYING-MACHINE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed July 18, 1910. Serial No. 572,589. (Cl. 244-29.)



1. The combination with a flying machine provided with gyroscopic driving apparatus and with stabilizing devices

normally free from the driving apparatus, of automatic means whereby the gyroscopic action of said driving apparatus causes corrective application of the force of the driving apparatus to the stabilizing devices when the machine tilts from its normal plane of movement.

2. The combination with a flying machine provided with fore and aft and transverse stabilizing devices, of a gyroscopic propelling motor, for the machine, the stabilizing devices operable by said motor and normally disconnected therefrom, and means whereby the gyroscope upon tilting of the machine automatically produces corrective operation of the stabilizing devices by the motor.

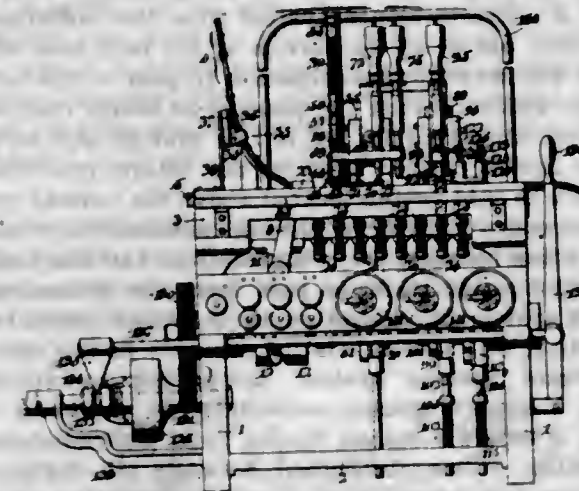
3. The combination with a flying machine having a gyroscopic driving motor, of fore and aft and lateral stabilizing devices operable by the motor and normally free therefrom, and means whereby the tilting of the machine in any direction causes the gyroscopic action of the motor to correctively connect the motor with the stabilizing devices and thus correct the tilting.

4. The combination with a flying machine and its driving motor, of stabilizing devices operable by the motor and normally free therefrom, a power driven gyroscopic disk, means whereby the tilting of the machine causes said disk to connect the motor with the stabilizing devices correcting the tilting, and means for at will varying manually the point at which corrective action begins.

5. The combination with a flying machine provided with a motor, fore-and-aft and transverse stabilizing devices, and a power driven gyroscopic disk, of devices carried by the machine frame and adapted for contact with said disk at quadrantal points when the machine is correspondingly tilted, and means whereby such contact operates the corresponding stabilizing devices and corrects the tilting.

[Claims 6 and 7 not printed in the Gazette.]

1,081,505. BOTTLE-SEAL-ASSEMBLING MACHINE. ALBERT K. KELLER, Philadelphia, Pa., assignor to American Cork and Seal Company, Philadelphia, Pa., a Corporation of Maine. Filed Apr. 18, 1912. Serial No. 691,642. (Cl. 113-80.)



1. In a machine of the class described, the combination of means for placing a sealing gasket in a cap; devices for applying solder to the cap; devices for forming and applying a retainer to the cap, and for soldering the same thereto.

2. In a machine of the class described, the combination of means for placing a sealing gasket in a cap; means for subsequently applying solder to the cap; means for forming and cutting a retainer and for placing the same in the cap; and means for heating the solder to secure the retainer to the cap.

3. In a machine of the class described, the combination with means for applying a gasket to a cap; devices for applying solder to the cap; devices for forming and applying a retainer to the cap and soldering the same thereto; and means for successively presenting a cap to the gasket-applying means, the solder-applying devices and the retainer forming and applying devices.

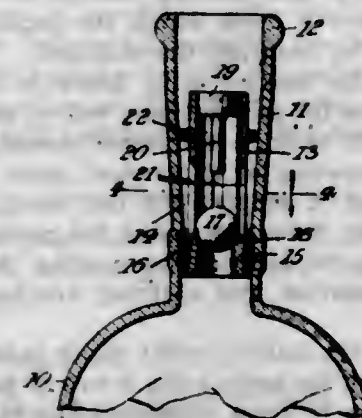
4. In a machine of the class described, the combination with means for applying a gasket to a cap; devices for

applying solder to the cap; devices for forming and applying a retainer to the cap and soldering the same thereto; and means for successively presenting a cap to the gasket-applying means, the solder-applying devices, and the retainer forming and applying devices, said presenting means including a reciprocating bar and yielding stops carried thereby.

5. In a machine of the class described, the combination with means for applying a gasket to a cap; devices for applying solder to the cap; devices for forming and applying a retainer to the cap and soldering the same thereto; means for successively presenting a cap to the gasket-applying means, the solder-applying devices, and the retainer forming and applying devices, said presenting means including a reciprocating bar and yielding stops carried thereby, and yielding chucks for holding the caps from rearward movement with the feed bar.

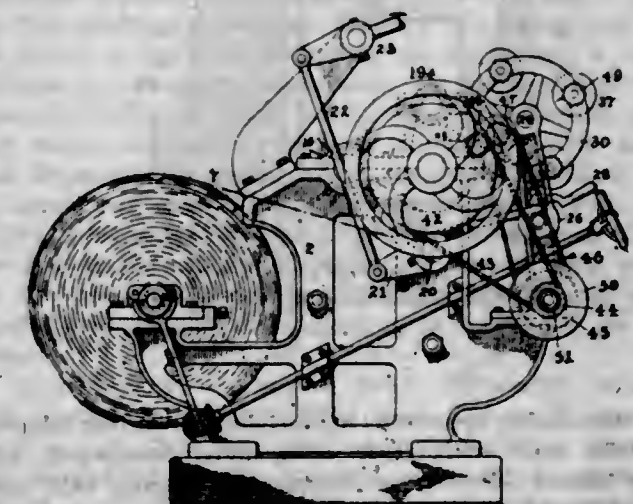
[Claims 6 to 17 not printed in the Gazette.]

1,081,506. NON-REFILLABLE BOTTLE. FRIEDRICH KUHLES, Maywood, N. J. Filed July 12, 1913. Serial No. 778,708. (Cl. 215-65.)



A nonrefillable bottle having a neck, a valve casing within the neck and of a diameter to form a discharge passage between said neck and casing, a valve seat at the lower end of the casing, a ball valve engaging said seat, a plug sunk within the valve casing, a pin depending from said plug and constituting a valve-stop, and a plurality of longitudinal slots that are formed in the valve casing and extend continuously upward from the valve seat to points a substantial distance above the lower end of the pin, the upper portions of said slots remaining uncovered during an engagement of the valve with the pin in the inverted position of the bottle, whereby any injected liquid will enter through said uncovered portions and force the valve against its seat.

1,081,507. MACHINE FOR MAKING TOILET-PAPER ROLLS. HARRY LIEBECK, Philadelphia, Pa., assignor to Scott Paper Company, a Corporation of Pennsylvania. Filed Aug. 5, 1908. Serial No. 447,007. (Cl. 164-65.)



1. In a machine for winding toilet paper into rolls, the combination of means for producing a series of transverse

cuts across the paper web and repeated at intervals in the length of the web and in which the adjacent cuts of each series are out of alignment, and means for slitting the paper web longitudinally on lines intermediate of the transverse cuts of each series.

2. In a machine for winding toilet paper into rolls, the combination of means for producing a series of transverse cuts across the paper web and repeated at intervals in the length of the web and in which the adjacent cuts of each series are out of alignment, means for slitting the paper web longitudinally on lines intermediate of the transverse cuts of each series, and means for winding the series of narrow perforated webs of paper so formed into rolls.

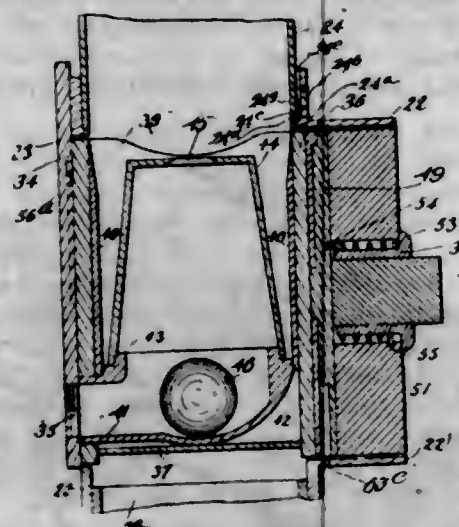
3. In a machine for winding toilet paper into rolls, the combination of means for producing a series of transverse cuts across the paper web and repeated at intervals in the length of the web in which the adjacent cuts of each series are out of alignment, means for slitting the paper web longitudinally on lines intermediate of the transverse cuts of each series, and means for winding the series of narrow perforated webs of paper so formed into rolls consisting of an adjustable supporting frame movable to and from the perforating and slitting means, a detachable mandrel carried thereby upon which the paper webs are wound, and means for rotating the mandrel.

4. In a machine for making toilet paper into rolls, the combination of means for perforating a web of paper transversely of its length to form connected sheets, with roll making devices consisting of a mandrel upon which the paper web is wound, a support for the mandrel permitting it to move away from the means for perforating the web, and means on the support for moving the mandrel out of operative position and shifting another mandrel into position.

5. In a machine for making toilet paper into rolls, the combination of means for perforating a web of paper transversely of its length to form connected sheets, with roll making devices consisting of a mandrel upon which the paper web is wound, a support for the mandrel permitting it to move away from the means for perforating the web, means on the support for moving the mandrel out of operative position and shifting another mandrel into position, and locking devices for locking the last mentioned means on the support during the winding operation of the machine.

[Claims 6 to 17 not printed in the Gazette.]

1,081,508. DISPENSING APPARATUS. LAWRENCE W. LUMLEN, New York, N. Y. Original application filed Apr. 2, 1908, Serial No. 424,732. Divided and this application filed Nov. 22, 1909. Serial No. 529,203. (Cl. 211—8.)



1. A dispensing apparatus comprising a receiver adapted to contain cups with their open sides downward, and delivery means adapted to successively engage said open sides and invert the cups.

2. An apparatus for dispensing flanged cups comprising a receiver for a series of said cups, and a delivery mem-

ber provided with a withdrawing surface for engagement with one face of a cup-flange and with a supporting surface for engagement with the opposite face of a flange.

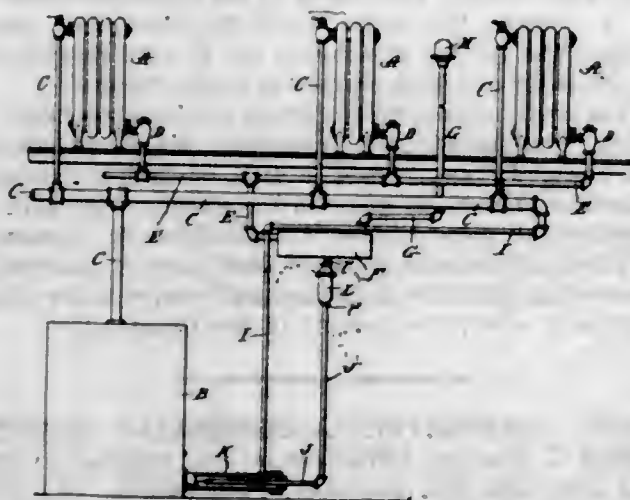
3. A dispensing apparatus for nested cups comprising means for storing a series of cups in nested relation, means for withdrawing the terminal cup from the nested series and movable means for supporting the companion cups.

4. A dispensing apparatus comprising means for storing a series of cups, and a movable member having a surface for withdrawing a terminal cup from the series and a surface for supporting the companion cups, said surfaces diverging from one another.

5. The combination with a cup receiver for holding a series of nested cups, of a delivery member provided with a cup recess, and means for separating a terminal cup from said series and dropping said cup into said recess.

[Claims 6 to 54 not printed in the Gazette.]

1,081,509. STEAM-HEATING SYSTEM. JOHN G. MIDGLEY, Salt Lake City, Utah. Filed Feb. 24, 1913. Serial No. 750,220. (Cl. 237—9.)



1. A steam heating system, comprising radiators, a generator, a supply system connecting the generator with the radiators, a separate return system from the radiators to the generator, valves at the bottom of the radiators which permit air and water of condensation to pass to the return system but which prevent the passage of steam thereto, a valve casing connected in the return system and located above the normal water level in the return pipe and a valve device in said casing located above the normal water level in the return system for closing communication above said water line between the return system and the generator whenever water tends to pass from the generator to the return system by reason of an increased pressure in the generator, or a differential of pressure in the system.

2. A steam heating system, comprising radiators, a generator, a supply system connecting the radiators with the generator, a separate return system from the radiators to the generator, valves interposed between the bottom of the radiators and the return system for permitting air and water of condensation to pass to the return system but which prevent the passage of steam thereto, a separator into which the air and water of condensation passes, means for conveying the separated air to the atmosphere, devices for preventing air from passing from the atmosphere to the return system, a connection between the separator and the generator, a valve casing in said connection between the separator and the generator, and a valve device in said casing located above the normal water level in the return system for closing communication above said water line between the separator and generator whenever water tends to pass from the generator to the separator.

3. A steam heating system, comprising radiators, a generator, a supply system connecting the radiators with the generator, a separate return system from the radiators to the generator, valves interposed between the bottom of the radiators and the return system for permitting the passage of air and water of condensation to the return system but which prevent the passage of steam thereto, a separator in the return system to which air and water

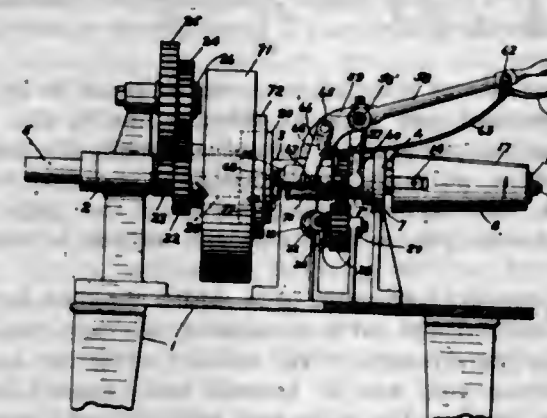
of condensation are delivered, means for conveying air from the separator to the atmosphere, devices for preventing the entrance of air to the separator, a pipe connection between the separator and the generator, a valve casing in said pipe connection located below the separator and above the normal water level in the return system and a valve in said casing for closing communication above said water line between the separator and generator whenever water tends to pass from the generator to the separator.

4. A steam heating system, comprising radiators, a generator, a supply system connecting the radiators with the generator, a separate return system from the radiators to the generator, valves interposed between the bottom of the radiators and the return system for permitting air and water to pass from the radiators to the return system but which prevent the passage of steam thereto, a separator in the return system to which air and water are delivered, means for conducting air from the separator to the atmosphere, devices for preventing the entrance of air to the return system, a connection between the separator and the generator and a float valve interposed in such connection located above the normal water level in the return system and which closes when water passes from the generator toward the separator before such water reaches the point of closure.

5. A steam heating system, comprising radiators, a generator, a supply system connecting the radiators with the generator, a separate return system from the radiators to the generator, valves interposed between the bottom of the radiators and the return system for permitting air and water of condensation to pass from the radiators to the return system but which prevent the passage of steam thereto, a separator in the return system where air and water of condensation are separated, connections between the separator and the generator whereby water of condensation passes back to the generator, a valve device located above the normal water level in the return system for closing communication above said water line between the generator and the separator when the water from the generator tends to pass to the separator and a pipe connected with the separator provided with a valve which permits air to pass from the separator to the atmosphere but prevents the entrance of air thereto and which pipe is adapted to receive a head of water from the return system which when sufficient opens communication between the separator and the generator.

[Claims 6 to 10 not printed in the Gazette.]

1,081,510. TUBE-WINDING MACHINE. JOHN NAZEL, Philadelphia, Pa., assignor to Sanitary Paper Bottle Company, Wilmington, Del., a Corporation of Delaware. Filed July 15, 1909. Serial No. 507,734. (Cl. 93—79.)



1. In a machine of the character described, a revoluble shaft, a mandrel revolved thereby, mechanism carried by said mandrel for engaging therewith a blank sheet to be wound thereon, mechanism carried by said mandrel for ejecting a tube therefrom, a collar movable longitudinally on said shaft, a lever for operating said collar, and means whereby said collar effects the operation of said mechanisms.

2. In a machine of the character described, a revoluble shaft, a mandrel revolved by said shaft and longitudinally

movable thereon, a wedge having a limited movement in said mandrel and adapted for engaging a blank sheet thereto, means carried by and movable relatively to said mandrel for ejecting a tube therefrom, a collar movable on said shaft and connected with said wedge, and a lever connected with said collar and adapted for moving it on said shaft.

3. In a machine of the character described, a revoluble shaft, a mandrel revolved thereby and movable longitudinally thereon, a spring for moving said mandrel longitudinally on said shaft, one or more reciprocating devices carried by said mandrel for ejecting a tube therefrom, a spring or springs for moving said device or devices relatively to said mandrel, and means whereby said mandrel and said devices are moved against the actions of their respective springs.

4. In a machine of the character described, a revoluble mandrel having means for engaging a blank sheet to be wound thereon, a revoluble roller for applying an adhesive to said sheet, means for holding said sheet on said roller, and means for throwing said sheet away from said roller.

5. In a machine of the character described, a revoluble mandrel having means for engaging a blank sheet to be wound thereon, a revoluble roller for applying paste to said sheet, a reciprocating device for holding said sheet on said roller during a part of its course, and a revoluble device having means for lifting said sheet from said roller when said reciprocating device has been withdrawn therefrom.

1,081,511. STREET-SWEEPER. WILLIAM C. NIEMANN, Waltham, Mich. Filed May 12, 1911. Serial No. 626,778. (Cl. 15—17.)



1. In a sweeper, a frame, angle-levers mounted to rock in the frame, hangers supported from the angle-levers, a conveyer supported by the hangers, a rock-shaft, arms upon the shaft, connections between the arms and the angle levers, a lever for operating the rock-shaft, a power-shaft, a shaft mounted for rotation and for sliding movement upon the frame, means transmitting power from the power shaft to the last mentioned shaft, means for transmitting power from the last mentioned shaft to the conveyer, a brush at the lower end of the conveyer, means transmitting power from the last mentioned shaft to the brush, and a receptacle into which the conveyer is arranged to discharge.

2. In a sweeper, a frame, angle-levers mounted to rock in the frame, hangers suspended from the angle-levers, a conveyer supported by the hangers, a rock-shaft, arms upon the shaft, connections between the arms and the angle levers, a lever for operating the rock-shaft, a frame supported for swinging movement, guides upon the first mentioned frame, a shaft journaled in the second mentioned frame and sliding in said guides, a power shaft, means transmitting power from the power-shaft to the first mentioned shaft, means transmitting power from the first mentioned shaft to the conveyer, a brush at the lower end of the conveyer, means for transmitting power from the first mentioned shaft to the brush, and a receptacle into which the conveyer is arranged to discharge.

3. In a sweeper, a frame, a shaft adjustably mounted in the frame, angle-levers fixed upon the shaft, hangers depending one from one arm of each lever, a conveyer frame supported by the hangers, a conveyer carried in the frame, a brush mounted for rotation in the lower end of the conveyer frame, a rock-shaft carried in the first mentioned frame, means for rocking the shaft, connections

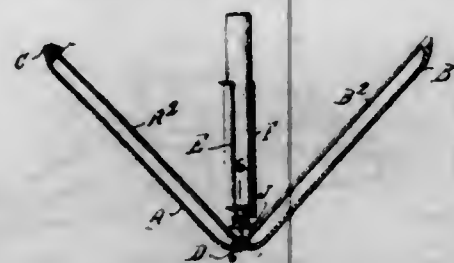
between the shaft and the other arms of the angle-levers, guides carried by the frame, a movable support mounted in the guides, power transmitting means extending between the support and conveyor and its brush, connections between the conveyor frame and the said supports, and a receptacle into which the conveyor is arranged to discharge.

4. In a sweeper, a frame, a shaft adjustably carried in the frame, levers fixed upon the shaft, hangers depending from the levers, a conveyor frame, a conveyor mounted in the frame, a brush mounted for rotation in the lower end of the conveyor frame, means adjustably connecting the hangers with the conveyor frame, a rock-shaft mounted in the frame, means for rocking the shaft, connections between the shaft and the levers, and a receptacle into which the conveyor is arranged to discharge.

5. In a sweeper, a frame, a shaft adjustably carried in the frame, levers fixed upon the shaft, hangers depending from the levers, a conveyor frame, a conveyor, a brush carried for rotation in the lower end of the conveyor frame, arms adjustably carried upon the conveyor frame and having connections with the hanger, a rock-shaft mounted in the frame, means for rocking the shaft, connections between the rock shaft and levers, and a receptacle into which the conveyor is arranged to discharge.

[Claims 6 to 12 not printed in the Gazette.]

1,081,512. CIGARETTE-CASE. HARALD C. PEDERSEN, New York, N. Y., assignor to The Firm of Alsenstein & Schiller, New York, N. Y. Filed Mar. 11, 1913. Serial No. 753,483. (Cl. 206-41.)



1. A case of the character described, comprising a pair of hinged lids forming a case, a holder secured to the hinge of the lids, a slotted stud secured to the bottom of the holder, a spring extending through the slot of the stud and bearing against the bottom of the holder, and a shoe fitted to slide on said stud and pressed by said spring against the lids adjacent to the hinge so as to normally keep the holder equidistant from the lids.

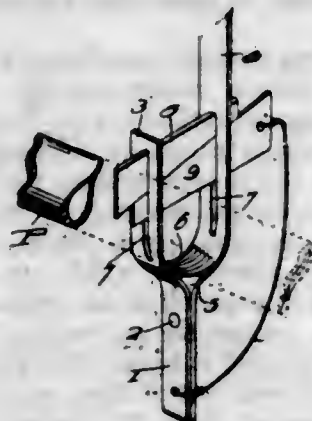
2. A case of the character described, comprising a pair of hinged lids forming a case, a holder secured to the case, a slotted stud secured to the bottom of the holder, a spring extending through the slot of said stud and bearing against the bottom of the holder, the portion of the spring which is within the stud being narrowed to prevent endwise movement of the spring, and a shoe fitted to slide on said stud and pressed by said spring against the lids adjacent to the hinge so as to normally keep the holder equidistant from the lids.

3. A case of the character described, comprising a pair of hinged lids forming a case, a holder secured to the hinge of the lids, a slotted stud extending from said holder toward the hinge, a spring extending through the slot of the stud and bearing against the holder, and a shoe notched to receive the spring and to prevent the shoe from turning relatively to the spring, said shoe being fitted to slide on the said stud and pressed by said spring against the lids adjacent to the hinge so as to normally keep the said holder equidistant from the lids.

1,081,513. PIPE JACK OR HOLDER. JACOB PETERSON, Webster, S. D. Filed Feb. 1, 1913. Serial No. 745,636. (Cl. 81-18.)

1. In a pipe jack, a holder proper formed of a strip of metal doubled over upon itself and riveted to form a

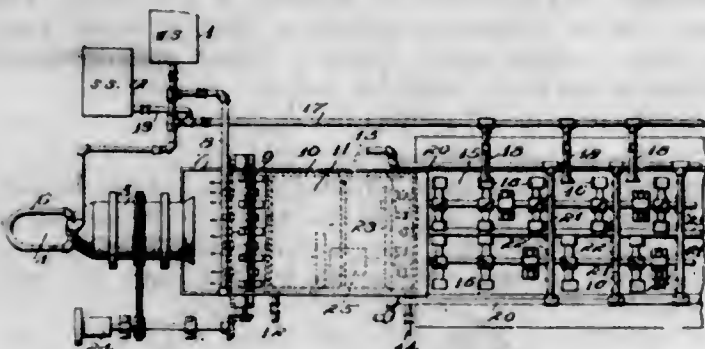
shank, the free ends of the strip being curved outwardly and forming parallel arms, one of the arms being extended beyond the other to provide a hand grip, the shank also providing a hand grip located opposite to the said arm, a curved serrated jaw at the juncture of the arms, each of said arms being longitudinally slotted, a pair of abutting wedges in the slots, and a flexible connection between one of the wedges and the shank.



2. In a pipe jack, a holder formed of a strip of metal doubled upon itself and riveted to form a shank, the free ends of the strip being curved outwardly to form a pair of spaced arms, one of the arms being extended beyond the other to provide a hand grip, the shank also providing a hand grip, each of the arms being longitudinally slotted, and a wedge in the slot.

3. In a pipe jack a holder of substantially U-shape having a depending shank, a curved serrated jaw at the base of the U, the arms of the U being slotted, and a wedge received in the slots of said arms, one of the arms being extended to form a hand grip, the shank providing a second hand grip.

1,081,514. PROCESS OF TREATING ORES FOR SEPARATING PRECIOUS METALS. DAVID C. REINOLD, Washington, D. C. Filed Mar. 7, 1911. Serial No. 612,952. Renewed May 10, 1912. Serial No. 696,502. (Cl. 75-185.)



1. The process of treating ores, which consists in saturating pulverized ore with a solvent, moving the pulp, maintaining the strength of the solvent while the ore and the solvent or pulp are in transit and exposed to the atmosphere, and agitating and aerating the pulp until contact between the solvent and the values is consummated.

2. The process of treating ores, which consists in saturating pulverized ore with a solvent, moving the pulp, maintaining the strength of the solvent while the ore and the solvent or pulp are in transit and exposed to the atmosphere, heating the pulp, and agitating and aerating the pulp until contact between the solvent and the values is consummated.

3. The process of treating ores, which consists in saturating pulverized ore with a cyanid solution, augmenting the strength of the solution and maintaining agitation and aeration of the pulp while in transit and exposed to the atmosphere until contact between the cyanid and the precious metals is consummated.

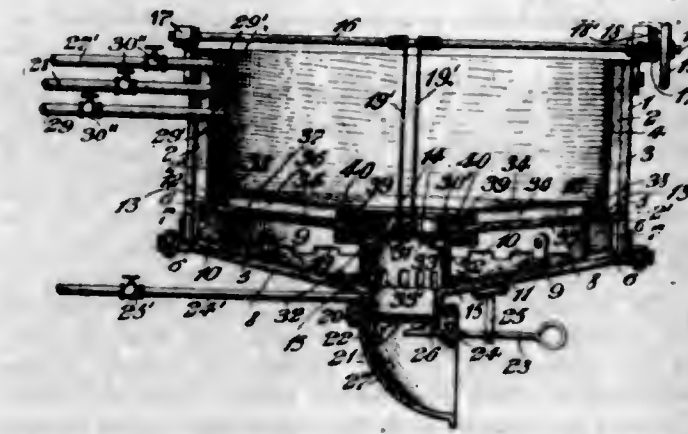
4. The process of treating ores, which consists in saturating pulverized ore with a cyanid solution, augmenting the strength of the solution, heating the pulp, and main-

taining agitation and aeration of the pulp while in transit and exposed to the atmosphere until contact between the cyanid and the precious metals is consummated.

5. The process of treating ores, which consists in saturating pulverized ore with a cyanid solution, agitating and aerating the pulp, augmenting the strength of the solution progressively and maintaining the agitation and aeration of the pulp while in transit and exposed to the atmosphere until contact between the cyanid and the precious metals is consummated.

[Claims 6 to 14 not printed in the Gazette.]

1,081,515. COMBINED SETTLING-TANK AND FILTER. DAVID C. REINOLD, Washington, D. C. Filed Mar. 7, 1911. Serial No. 612,951. Renewed May 10, 1912. Serial No. 696,503. (Cl. 75-86.)



1. A settling tank for treating pulp and separating a solution containing values from the tailings, comprising an outer impermeable wall, an inner filtering wall forming an annular filter chamber between said walls, a converging perforated bottom, a filtering bottom above said perforated bottom, a filter chamber formed by said bottoms, a converging solid bottom, a filtered liquid chamber between said perforated and said solid bottom, means of communication between said annular filter chamber and the latter liquid chamber, a discharge passage in the center of the tank, a valve controlling said passage for discharging tailings, means extending through the annular filter chamber for decanting clarified liquid above the tailings, and means for drawing off filtered liquid below the tailings.

2. A settling tank for treating pulp and separating a solution containing values from the tailings, provided with a concentric filter wall, an annular filter chamber, a converging filter in the bottom of the tank, a liquid receptacle below said chamber and filter, means of communication between the filter chamber and the liquid receptacle, means for decanting liquid from the tank above the tailings progressively, means for drawing off filtered liquid below the tailings, a converging bottom and means for discharging the tailings through the center of the bottom of the tank by gravity.

3. A settling tank for treating pulp and separating a solution containing values from the tailings, provided with a converging filter bottom, and an extension forming a filtered liquid receptacle between said bottom and said extension, a concentrically arranged valve in said filter bottom, means for drawing clarified liquid containing values from above and below the tailings, and a discharge valve in said extension for discharging tailings.

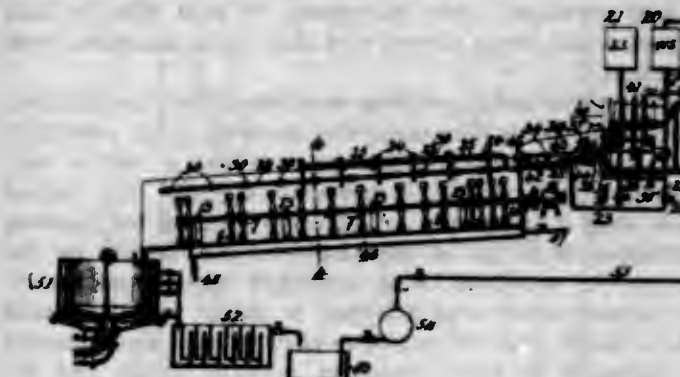
4. A settling tank for the purpose described, provided with a converging filtering bottom, a concentrically arranged valve in said bottom, a conical extension beyond said bottom provided with a valve whose area is equal to the area of its discharge opening for discharging tailings from the tank through said extension, and a movable support for the latter valve.

5. A tank for the purpose described having a filtering bottom converging toward its center and provided with a concentrically arranged discharge passage, a valve controlling said passage, a filtered liquid receptacle below said bottom having a central discharge passage and a valve controlling the latter passage.

[Claims 6 to 9 not printed in the Gazette.]

197 O. G.—41

1,081,516. APPARATUS FOR TREATING ORES. DAVID C. REINOLD, Washington, D. C. Filed May 13, 1912. Serial No. 697,003. (Cl. 75-86.)



1. Means for treating ore for the recovery of values, comprising a continuous open conveyor or conduit, means for supplying ore to the conveyor, means for supplying a solvent to the ore, means for agitating and aerating the pulp while in transit and exposed to the atmosphere, and means for maintaining the strength of the solvent and increasing the fluidity of the pulp being treated.

2. Means for treating ore for the recovery of values, comprising a continuous open conveyor or conduit, means for supplying ore to the conveyor, means for supplying a solvent to the ore, means for heating the pulp, means for agitating and aerating the pulp while in transit and exposed to the atmosphere, and means for maintaining the strength of the solvent and increasing the fluidity of the pulp being treated.

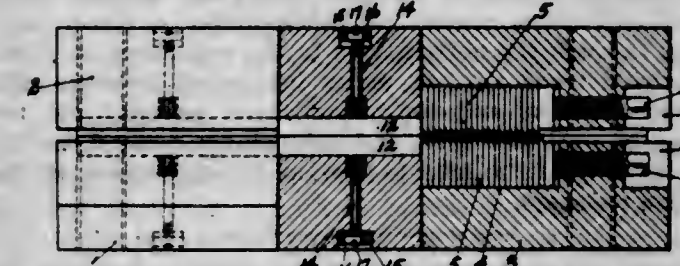
3. Means for treating ore for the recovery of values, comprising a continuous open conveyor or conduit, means for supplying ore to the conveyor, means for supplying a solvent to the ore, a revoluble agitator and aerator in and approximately the length of said conveyor, and means for maintaining the strength of the solvent and increasing the fluidity of the pulp being treated while in transit and exposed to the atmosphere.

4. Means for treating ore for the recovery of values, comprising a continuous open conveyor or conduit, means for supplying ore to the conveyor, means for supplying a solvent to the ore, means for heating the pulp, a revoluble agitator and aerator in and approximately the length of said conveyor, and means for maintaining the strength of the solvent and increasing the fluidity of the pulp being treated while in transit and exposed to the atmosphere.

5. Means for treating ore for the recovery of values, comprising a continuous open conveyor or conduit, means for supplying ore to the conveyor, means for supplying a solvent to the ore, means for uninterruptedly agitating and aerating the pulp while in transit and exposed to the atmosphere, and means for supplying additional solvent to the pulp progressively as it travels along the conveyor.

[Claims 6 to 32 not printed in the Gazette.]

1,081,517. PUNCHING-DIE. EDWARD E. ROBERTS, Wheeling, W. Va., assignor to Steel Fireproofing Company, a Corporation of West Virginia. Filed Mar. 1, 1911. Serial No. 611,639. (Cl. 164-6.5.)



1. In a sheet-metal slitting machine, the combination of upper and lower die members movable with reference to each other and each comprising, a holder, a plurality of cutters, a stripper bar seated in the holder, and springs for moving said stripper bar out of its recess in said holder,

the cutters on the respective die members being arranged to shear parallel closed slits in a sheet, and the stripper bars in said die members being disposed opposite to each other and arranged upon movement of said dies to hold said sheet while being slitted and then strip the same from said cutters.

2. In a sheet-metal slitting machine, the combination of upper and lower die members movable with reference to each other and each comprising, a holder, a row of parallel knife-edged cutters, a movable stripper bar seated on each side of said row of cutters, springs for moving said stripper bars out of said holders, the cutters on the respective die members being arranged in coöperative relation to each other and adapted to shear parallel closed slits in a sheet, and the stripper bars in said die members being disposed in pairs opposite to each other and arranged upon movement of said dies to hold said sheet while being slitted and to then strip the same from said cutters.

3. In a sheet-metal slitting machine, the combination of upper and lower die members movable with reference to each other and each comprising a holder, two sets of knife-edged cutters, said cutters being disposed parallel to and in row with each other, stripper bars between and on either side of said sets of cutters and movable in said holder, springs for moving said stripper bars out of said holders, the cutters on the respective die members being arranged in coöperative relation to each other and arranged to shear parallel closed slits in a sheet, and the stripper bars in said die members being disposed opposite to each other and arranged upon movement of said dies to hold said sheet while being slitted and strip the same from said cutters.

1,081,518. CUSHION-TIRE FOR VEHICLES. JAMES SEADLER, Sacramento, Cal. Filed Mar. 28, 1913. Serial No. 757,293. (Cl. 152-9.)



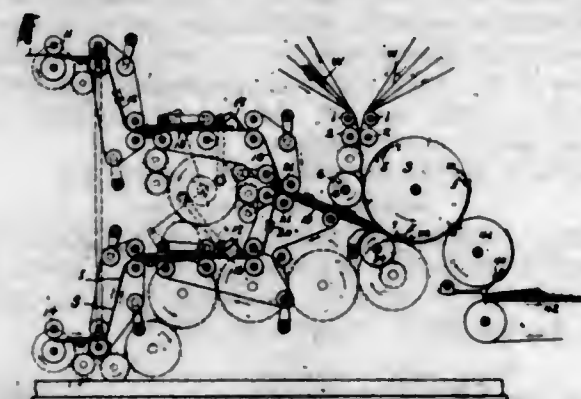
1. In a vehicle tire, the combination with the metallic tire and felly of a wheel, of an interlocking tread ring spaced in concentric relation with same, perforations formed in the interlocking tread ring, resilient hexagonal shaped block members interposed between the rings, tread portions formed on the block members projecting through the perforations in the interlocking ring, shims interposed between the resilient block members and the tire to vary the resiliency of the block members, and means for securing the resilient block members against side movement on the tire.

2. In a vehicle tire, the combination with the metallic tire and felly of a wheel, of an interlocking tread ring spaced in concentric relation with same, perforations formed in the interlocking tread ring, independent resilient members interposed between the rings having knob-shaped extensions formed on their outer surface, projecting through the perforations in the outer ring to form an antiskid tread surface, shims interposed between said resilient members and the metallic tire to vary the resiliency of said members, and side plates secured to the opposite sides of the felly to prevent side movement of the resilient members.

1,081,519. ASSEMBLING MECHANISM. EDWARD P. SHELDON, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Jan. 25, 1910. Serial No. 539,961. (Cl. 101-120.)

1. The combination with means for forming a product of predetermined length, of means for assembling with

said product a product differing slightly in length and derived from a different source, the products being assembled with their transverse centers in register, and means for securing the products together.



2. The combination with means for forming a product consisting of a plurality of sheets of predetermined length, of means for forwarding and assembling therewith a slightly longer outer sheet derived from a different source, the sheets being assembled with their transverse centers in register, and means for securing the products together.

3. The combination with an assembling cylinder, of means for presenting thereto a product of a predetermined length, taking devices on the cylinder for said product, means for presenting to the cylinder a second longer product derived from a different source with its transverse center in register with the transverse center of said first product, taking devices on the cylinder for the second product, and means for securing the products together.

4. The combination with an assembling cylinder, of means for presenting thereto a product of a predetermined length, grippers on the cylinder for taking the product, means for presenting to said cylinder a second longer product derived from a different source with its transverse center in register with the transverse center of said first product, grippers on the cylinder for taking said second product, and means for securing the products together.

5. The combination with an assembling cylinder, of means for presenting a product of predetermined length thereto, side grippers on the cylinder for taking said product, means for presenting to said cylinder a second longer product derived from a different source with its transverse center in register with the transverse center of the first product, edge grippers on the cylinder for taking said second product, and means for securing the products together.

(Claims 6 to 18 not printed in the Gazette.)

1,081,520. LIFE-PRESERVER. AUGUST SOMMERFELD, St. Louis, Mo. Filed Oct. 21, 1912. Serial No. 726,874. (Cl. 9-17.)



1. A life preserver comprising a continuous casing to entirely encircle the body, a vertical wall and an inclined wall connected together at the base, a top portion connecting the vertical and inclined walls, and stays attached

to the inner and outer walls for retaining the casing in conical form when inflated, substantially as specified.

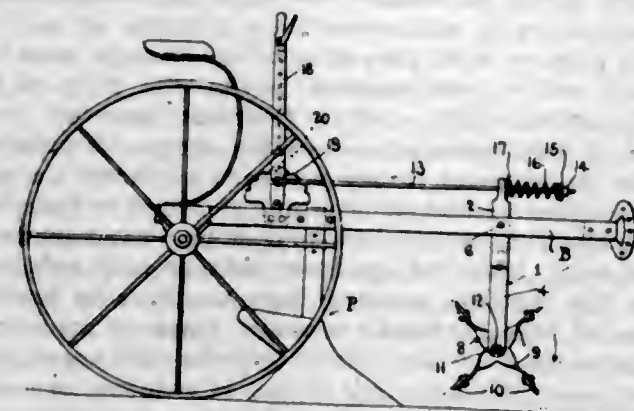
2. A life preserver comprising a casing composed of an inner vertical wall, an outer angular wall, said walls connected together at the base forming a sharp edge stays connected to the inner wall and located at intervals apart, stays located on the outer wall, fastening devices for supporting the casing around the body of the wearer and shoulder straps for supporting the same, substantially as specified.

3. A life preserver comprising a conical casing having a vertical inner wall and a slanting outer wall, the lower ends connected together, a top separating the upper edges thereof, means for adjusting the width of the upper edge and stays for retaining the casing in conical form when inflated, substantially as specified.

4. A device of the class described comprising an inflated casing arranged to encircle the body and extend from the hips to the arm pits, the wider portion of the casing being at the top the bottom forming a sharp edge, stays for supporting the casing in conical position when inflated and straps for adjusting the breadth of the wider portion, substantially as specified.

5. A life preserver of the class described comprising an inflated conical shaped casing separated for application and arranged to encircle the body of a person, means for fastening the same around the body, means for retaining the casing in conical form when inflated and means for regulating the width of the upper portion of the casing.

1,081,521. STALK-CUTTING ATTACHMENT FOR PLOWS. NAVADA W. SUMRALL and ROBERT C. BIGHAM, Rogers, Tex. Filed Apr. 21, 1913. Serial No. 762,685. (Cl. 55-61.)

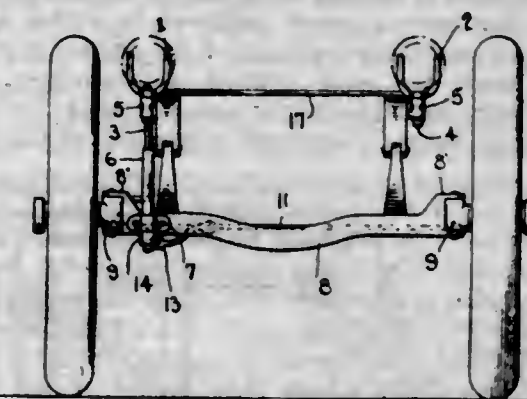


In a stalk cutting attachment for plows, the combination with the cutter cylinder; of a ball-shaped supporting frame having at its center a looped shank whose sides are pierced with aligned bolt holes and whose bent upper end is cut away on its opposite edges, the cylinder being journaled between the pendent arms of said frame and said shank adapted to be pivoted to the plow beam, an adjusting rod passing loosely through said shank and having a nut at its forward end and actuating mechanism at its rearward end, and an expansive spring between said nut and shank, for the purpose set forth.

1,081,522. AUTOMATIC LAMP-ADJUSTER. JOHN THOMAS, Kingman, Ind. Filed Sept. 12, 1912. Serial No. 720,039. (Cl. 240-62.)

The herein described lamp-adjusting attachment for automobiles comprising an upright sleeve longitudinally slotted at its upper end and having a lateral arm at its lower end adapted to be connected with the steering mechanism for the front wheels of said automobile, a bearing for said sleeve adapted to be connected with the fixed portion of the front axle, bearings adapted to be attached to the automobile frame above its springs, one of them directly above the bearing on the axle, two lamp-forks whose stems are rotatably mounted in said last-named bearings and one of which extends down into and fits

slidably within said sleeve, a stud in this stem engaging the slot in the sleeve and causing said parts to rotate in



unison, and connections between the two stems for causing them to turn in unison in their bearings.

1,081,523. DEVICE FOR MODIFYING THE PHYSICAL STATE OF AIR. FORTUNATO BERARDI, Naples, Italy. Filed Jan. 20, 1909. Serial No. 473,394. (Cl. 237-1.)



1. In a device for modifying the physical state of air, the combination of a fan wheel; a cylindrical wheel of fine wire-netting coaxial with the fan wheel and extending forward of and to the rear thereof; a spaced pair of walls of wire netting behind the fan wheel; an absorbing material between the walls; a perforated coil of pipe between the fan wheel and the front wall; means for feeding gas to said pipe; means for feeding liquid to said material.

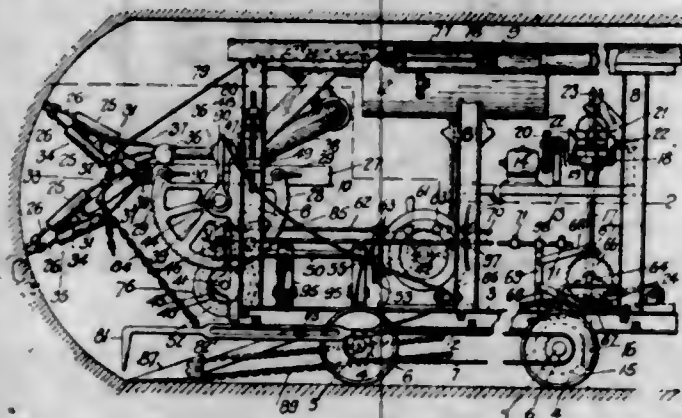
2. In a device for modifying the physical state of air, the combination of a fan wheel; a cylindrical wheel of fine wire netting coaxial with the fan wheel and extending forward of and to the rear thereof; a spaced pair of walls of wire netting behind the fan wheel; an absorbing material between the walls; a perforated coil of pipe between the fan wheel and the front wall; means for feeding gas to said pipe; means for feeding liquid to said material, said pipe being provided with nozzles and deflectors surrounding the same.

3. In a device of the class described, the combination of a fan; a heating means and a moistening means both situated behind the fan for simultaneous treatment of the air, the heating means comprising an annular burner tube having gas escaping apertures in the front thereof and deflectors surrounding the apertures.

1,081,524. TUNNELING-MACHINE. HERMAN H. BORN and HENRY A. REGEN, Denver, Colo., assignors, by direct and mesne assignments, of one-sixth to said Regen, one-sixth to Phillip A. Peregrine, and two-thirds to Frank V. Goetz, Denver, Colo. Filed Oct. 25, 1911. Serial No. 656,690. (Cl. 125-14.)

1. In a tunneling machine, a carrier, a head having an oscillatory movement about a horizontal axis at the forward end thereof, a battery of cutting-tools on said head, an element having an inclined surface, connected with said carrier to engage a surface upon which the latter is supported, a scraper adapted to move muck produced by action of said cutting-tools, rearwardly across said surface, and a conveyer for moving the muck falling from said surface to the rear end of the carrier, the said scraper being connected with said head to be operated thereby during its downward movement.

2. In a tunneling machine, a carrier, a head having an oscillatory movement about a horizontal axis at the forward end thereof, a battery of cutting tools on said head, a conveyor for moving muck produced by action of said cutting tools toward the rear end of the carrier, a scraper adapted to move the muck toward said conveyor, and a connection between said scraper and the head for operating the former during downward movement of the latter.



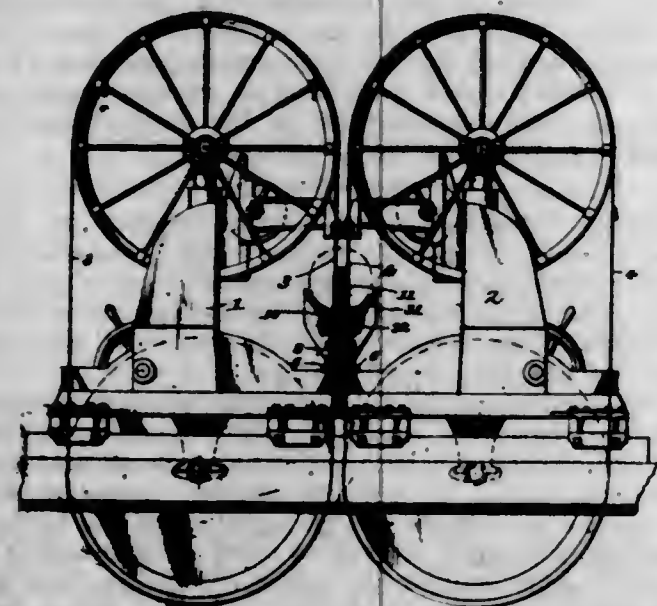
3. In a tunneling machine, a carrier, a head having an oscillatory movement about a horizontal axis at the forward end thereof, a battery of cutting tools on said head, a conveyor for moving muck produced by action of said cutting tools toward the rear end of the carrier, a device for moving the muck onto said conveyor, and connections between said head and said device whereby the latter is raised during upward movement of the head and lowered and actuated during downward movement of the same.

4. In a tunneling machine, a carrier, a head having an oscillatory movement about a horizontal axis, at the forward end thereof, a battery of cutting tools on said head, a conveyor for moving muck produced by action of said cutting tools toward the rear end of the carrier, a scraper adapted to move the muck toward said conveyor and connections between said head and said scraper whereby the latter is raised and moved forwardly during upward movement of the head and lowered and moved rearwardly during downward movement of the same.

5. In a tunneling machine, a support, a head having an oscillatory movement thereon, convergent plates articulately connected with said head, series of cutting tools on said plates, and means for adjusting the angle of convergence between said plates by moving them about their axes of articulation.

[Claims 6 to 14 not printed in the Gazette.]

1,081,525. TWIN BAND-SAW MILL. CHARLES E. CLEVELAND. Fond du Lac, Wis. Filed June 19, 1908. Serial No. 439,382. (Cl. 143—22.)



1. In combination with a pair of oppositely-disposed band saw mills; a pair of channel bars extending between the saws of said mills and to each side thereof; a series

of rollers interposed between said channel bars; a narrow carriage mounted upon said rollers; a fixed abutment mounted upon the carriage; a movable abutment mounted upon the carriage; an actuating cylinder for the movable abutment, likewise mounted upon the carriage; and a power cylinder for traversing the carriage.

2. In combination with a pair of oppositely-disposed band saw mills; a pair of channel bars located between the saws of said mills and extending outward to each side thereof; a series of rollers mounted between said channel bars; a carriage resting upon said rollers; a fixed abutment mounted upon the carriage; a movable abutment mounted upon the carriage; an actuating cylinder for the movable abutment, likewise mounted upon the carriage; a trough-shaped member secured upon the upper face of the channel bars to one side of the saw-line, said trough-shaped member being adapted to receive a log or the like and to properly position the same with reference to the fixed and movable abutments of the carriage; and means for traversing the carriage.

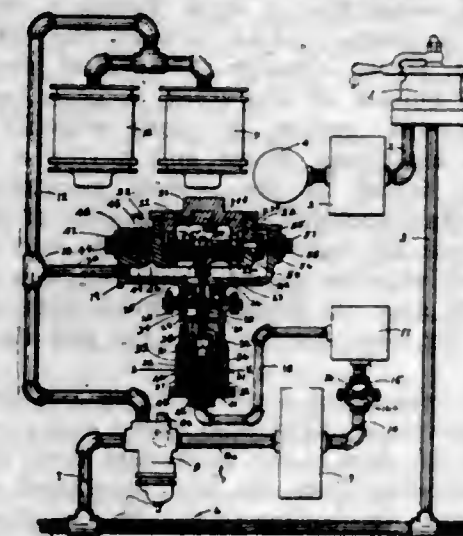
3. In combination with a pair of oppositely-disposed saw-mills; a pair of channel bars extending between said mills and to each side thereof; a plurality of rollers mounted between said channel bars; a carriage mounted upon said rollers, said carriage having the form of an inverted railroad rail; a fixed abutment mounted upon one end of said carriage; a movable abutment mounted upon the opposite end of said carriage; a cylinder; a piston-rod working in said cylinder and connected to the movable abutment; means for admitting steam to and exhausting the same from the opposite ends of said cylinder, whereby the movable abutment may be advanced toward and receded from the fixed abutment; and means for actuating said carriage.

4. In combination with a pair of oppositely-disposed saw-mills; a pair of channel bars extending between said mills and to each side thereof; a plurality of rollers mounted between said channel bars; a carriage mounted upon said rollers, said carriage having the form of an inverted railroad rail; a fixed abutment mounted upon one end of said carriage; a movable abutment mounted upon the opposite end of said carriage; a cylinder; a piston-rod working in said cylinder and connected to the movable abutment; means for admitting steam to and exhausting the same from the opposite ends of said cylinder, whereby the movable abutment may be advanced toward and receded from the fixed abutment; a pair of segmental members secured on the channel bars in advance of the saws, one upon the outer face of each of said bars; an outwardly and downwardly inclined deflector plate supported upon each of the channel bars in rear of the saws; and means for traversing the carriage, said means being independent of the means employed to clamp the log upon the carriage.

1,081,526. FLUID-PRESSURE-MAINTAINING SYSTEM. FRANK H. DUKESMITH, Buffalo, N. Y., assignor, by direct and mesne assignments, to The United States Air Brake Corporation, Buffalo, N. Y., a Corporation of New York. Filed Nov. 27, 1912. Serial No. 733,856. (Cl. 188—1.)

1. A pressure maintaining system of devices in combination with an air brake cylinder and means for supplying fluid pressure, said system of devices consisting of, a valve mechanism having a variable pressure chamber connected with said cylinder and a pressure control chamber separated from said variable pressure chamber by a movable wall, there being a passage connecting said chambers, a check valve in said passage adapted to permit air to flow through said passage into said control chamber, pressure releasing means connected with said control chamber, a supply valve adapted to be operated by said movable wall, a stop valve between said supply valve and said means for supplying fluid pressure, said stop valve having a port in its seat and a disk adapted to close said port, there being a restricted opening through said disk, out of alignment with said port, means affording channels from said

stop valve to said supply valve apart from the ports in the seats of said valves, and means adapted to close said channels during the opening of said supply valve.



2. In combination with an air brake cylinder and means for supplying fluid pressure, a pressure maintaining system of devices comprising a supplemental reservoir, a check valve between said means for supplying fluid pressure and said supplemental reservoir, a valve mechanism having two chambers separated by a movable wall, one of said chambers being connected with said cylinder, the other chamber being a control chamber, there being a passage connecting said chambers, a check valve in said passage adapted to permit air to pass into said control chamber, a supply valve adapted to be operated by said movable wall, pressure releasing means connected with said control chamber, means affording connections between said means for supplying pressure and said supply valve, and interposed means in said connections adapted to pass small quantities of air to replenish leakage in said cylinder and to shut off said air to said supply valve upon a sudden diminution of pressure in said cylinder.

3. In combination with an air brake cylinder and means for supplying fluid pressure, a pressure maintaining system of devices comprising a supplemental reservoir, a check valve between said means for supplying fluid pressure and said supplemental reservoir, a valve mechanism having two chambers separated by a movable wall, one of said chambers being connected with said cylinder, the other chamber being a control chamber, there being a passage connecting said chambers, a check valve in said passage adapted to permit air to pass into said control chamber, a supply valve adapted to be operated by said movable wall, pressure releasing means connected with said control chamber, means affording connections between said means for supplying pressure and said supply valve, interposed means in said connections adapted to pass small quantities of air to replenish leakage in said cylinder and to shut off said air to said supply valve upon a sudden diminution of pressure in said cylinder, and means for equalizing pressure within said connections on either side of said interposed means upon the closure of said supply valve.

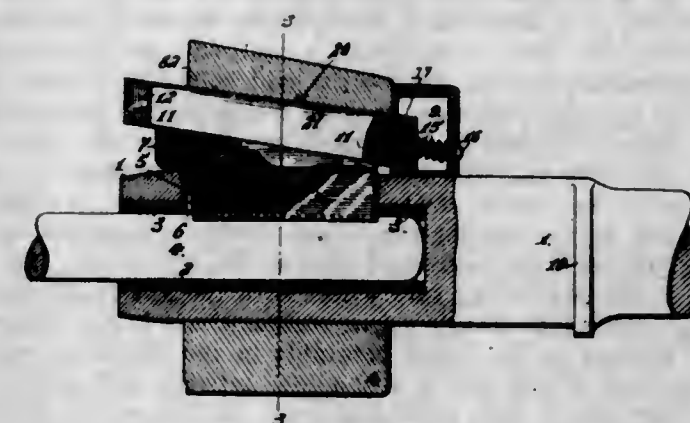
4. A pressure maintaining system of devices in combination with an air brake cylinder and means for supplying fluid pressure, said system of devices consisting of a valve mechanism having a variable pressure chamber connected with said cylinder and a pressure control chamber separated from said variable pressure chamber by a movable wall, there being a passage connecting said chambers, a check valve in said passage adapted to permit air to flow through said passage into said control chamber, a manually controlled release valve connected with said control chamber, a supply valve adapted to be operated by said movable wall, a stop valve between said supply valve and said means for supplying fluid pressure, said stop valve having a port in its seat and a disk adapted to close said port, there being a restricted opening through said disk, out of alignment with said port, means affording channels from said stop valve to said supply valve apart from the ports in the seats of said valve, and means

adapted to close said channels during the opening of said supply valve.

5. A pressure maintaining system of devices in combination with an air brake cylinder, an engineer's automatic brake valve, and means for supplying fluid pressure, said system of devices consisting of, a valve mechanism having a variable pressure chamber connected with said cylinder and a pressure control chamber separated from said variable pressure chamber by a movable wall, there being a passage connecting said chambers, a check valve in said passage adapted to permit air to flow through said passage into said control chamber, pressure releasing means connected with said control chamber, said releasing means being actuated by said engineer's brake valve, a supply valve adapted to be operated by said movable wall, a stop valve between said supply valve and said means for supplying fluid pressure, said stop valve having a port in its seat and a disk adapted to close said port, there being a restricted opening through said disk, out of alignment with said port, means affording channels from said stop valve to said supply valve apart from the port in the seat of said valve, and means adapted to close said channels during the said opening of said supply valve.

[Claim 6 not printed in the Gazette.]

1,081,527. ROCK-DRILL CHUCK. FRANK FRANZ, WALTER S. TOWER, and ARCHIBALD H. WELLS, Wallace, Idaho. Filed Dec. 9, 1912. Serial No. 735,787. (Cl. 255—57.)



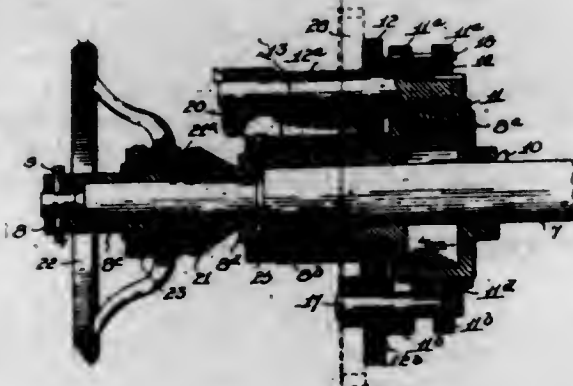
1. A drill chuck comprising a bit receiving body having a longitudinal slot in the bit holding end, a bit engaging gib having a rearwardly inclined upper wedging face, a sleeve slidable upon the bit holding body, and including a socket portion having an inclined wedging face that inclines in the same direction as the wedge face of the gib, a wedge key that tapers from the inner toward the outer end adapted for fitting in the socket for engaging the gib and the wedge face of the socket.

2. A drill chuck comprising a bit receiving body having a longitudinal slot in the bit holding end, a bit engaging gib held in the said slot, the said gib having a rearwardly inclined upper face, a sleeve slidable on the bit holding body and including a main socket portion having an inclined bearing surface, a key having the cross sectional shape of the space between the inclined faces of the sleeve and the gib, the said key being endwise insertible in the said space for engaging the inclined surfaces of the gib and the sleeve bearing surfaces, a socket member mounted on said sleeve and in communication with the wedge space of the same, and a spring held within said socket member and engaging said key at its inner end to continuously tend to push said key to its wedging position; said key having a recess to receive the end of said spring.

1,081,528. FRICTION-CLUTCH. JOHN B. GILSON, Port Washington, Wis., assignor to Gilson Manufacturing Company, Port Washington, Wis., a Corporation of Wisconsin. Filed June 10, 1912. Serial No. 702,784. (Cl. 192—14.)

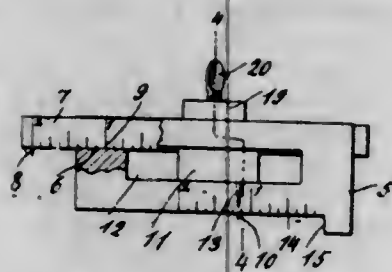
1. In a friction-clutch, the combination with the driving-shaft, of a drum fixed thereon and having a bearing-

sleeve at one side of the same, a split-ring on the drum to frictionally engage the same, said split-ring having a pair of apertured ears on one end and a lug on the other end, apertured ears on the split-ring opposite the aforesaid ears and lug, a wheel mounted on the bearing-sleeve and having a long bearing on a line with the apertured ears at one of the adjoining ends of the split-ring, a pin projecting from the wheel through the other apertured ears of the split-ring, a rocking-shaft in the aforesaid bearing on the wheel rotatable in the adjoining ears of the split-ring and having a shoulder between said ears, a bolt extending from the lug on the split-ring and having a shoulder with which the shoulder on the rocking-shaft coöperates, and means for operating the rocking-shaft.



2. In a friction-clutch, the combination with the driving-shaft, of a drum fixed thereon and having a bearing-sleeve at one side of the same, a split-ring on the drum to frictionally engage therewith, said split-ring having a pair of apertured ears on one end and a lug on the other end, apertured ears on the split-ring opposite the aforesaid ears and lug, the ring being cut transversely on a line with the center of the last mentioned ears, a wheel mounted on the bearing-sleeve and having a long bearing on a line with the apertured ears at the end of the split-ring, a pin connecting said wheel with the apertured ears hereinbefore last mentioned, a rocking-shaft in the aforesaid bearing on the wheel rotatable in the adjoining ears at one end of and having a shoulder between said ears on the split-ring, a bolt extending from the lug of the split-ring and having a shoulder with which the shoulder on the rocking-shaft coöperates; together with an arm projecting from the other end of the rocking-shaft, and a sliding cone on the sleeve engaging the outer end of the arm, substantially as shown and described.

1,081,529. CARPENTER'S GAGE. HALVOR E. HAUKOM, Minot, N. D. Filed June 19, 1913. Serial No. 774,614. (Cl. 33—42.)



1. A gage comprising a stock, having a longitudinal groove and a recess, a gage bar slidably mounted in the groove, a block slidably mounted in the recess and carrying a scribing point projecting from the stock, said stock having a shoulder to guide the scribing point, the block and the gage bar being in contact with each other, and means for clamping the gage bar and the block together.

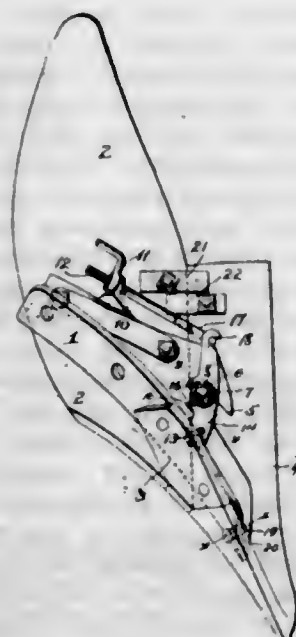
2. A gage comprising a stock having a graduated side, and provided with a longitudinal groove and a recess, a gage bar slidably mounted in the groove, a block slidably mounted in the recess and having a pointer indicating on the graduations of the stock, a scribing point carried by the block and projecting from the stock, said stock having

a shoulder to guide the scribing point, the block and the gage bar being in contact with each other, and means for clamping the gage bar and the block together.

3. A gage comprising a stock having a longitudinal groove and a recess opening through the sides of the stock and a recess extending therefrom and opening through the bottom of the stock, a gage bar slidably mounted in the groove, a block slidably mounted in the first mentioned recess and having a depending rib slidably fitting in the second mentioned recess, a scribing point extending from the bottom of the rib and projecting from the bottom of the stock, said stock having a bottom shoulder to guide the scribing point, the block and the gage bar being in contact with each other, and means for clamping the gage bar and the block together.

4. A gage comprising a stock having a graduated side and provided with a longitudinal groove and a recess opening through the sides of the stock, said stock also having a recess extending from the first mentioned recess and opening through the bottom of the stock, a gage bar slidably mounted in the groove, a block slidably mounted in the first mentioned recess and projecting from the graduated side of the stock, the projecting end of the block having a pointer indicating on the graduations of the stock, and said block having a depending rib slidably fitting in the second mentioned recess, a scribing point extending from the bottom of the rib and projecting from the bottom of the stock, said stock having a bottom shoulder to guide the scribing point, the block and the gage bar being in contact with each other, and means for clamping the gage bar and the block together.

1,081,530. PLOW. EDWARD M. HEYLMAN, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed May 15, 1913. Serial No. 787,937. (Cl. 97—18.)



1. In a plow, the combination with a frog, mold board and blade, the frog having an open slot in its front lower end, and the blade provided with a projection to enter said slot, of a lever pivoted to said frog and adapted to engage said projection and lock the same in the slot in the frog, a rod connected with said lever and means for locking the rod.

2. In a plow, the combination with a frog, mold board and blade, the frog having an open slot in its front lower end and the blade provided with a projection to enter said slot, of a lever pivoted at one end to the frog and provided with a slot to receive the projection on the blade, and a screw rod connected with the opposite end of said lever for locking the latter in contact with the projection on the blade.

3. In a plow, the combination with a frog, moldboard and blade, the frog having an open slot in its front lower end and the blade provided with a headed projection to

enter said slot, of a lever pivoted at one end to the frog and provided with a slot, the side walls of which are wedge shaped to engage the head of the projection and draw the blade into close contact with the foot of the frog, a screw rod detachably secured to the free end of said lever and means for locking the screw rod and lever against accidental movement.

4. In a plow, the combination with a frog, mold board and blade, the frog having an open slot in its front lower end, and the blade provided with a lug adapted to take under the foot of the frog on the landside of the plow, and with a headed projection to enter the slot in the foot of the frog, a lever pivoted to the frog and adapted to rest in front of the projection in the slot of the frog, a link rod detachably secured to the free end of said lever and passing through a fixed abutment and a nut screwed onto said rod for locking it in place.

5. In a plow, the combination with a frog having an open slot in its lower end, a moldboard, a blade, a projection on the mold board overlapping the rear face of the blade, a projection on the blade overlapping the rear face of the moldboard, a bolt carried by the mold board and adapted to rest in the slot in the frog, a lever pivoted to the frog and crossing the slot in front of the bolt, a link rod detachably engaging the free end of said lever and passing through a fixed abutment and a nut for locking said rod and lever in place.

[Claim 6 not printed in the Gazette.]

1,081,531. METHOD OF MAKING STORAGE-BATTERY ELECTRODES. HARRY C. HUBBELL, Newark, N. J. Filed Apr. 11, 1910. Serial No. 554,710. (Cl. 204—29.)

1. The method of making a storage battery electrode, which consists in first forming a thread-like material from a mixture of powdered nickel or cobalt with their respective hydroxides, then drying such thread like material, then depositing a metallic nickel or cobalt coating on portions thereof and finally forming a matted cake therefrom.

2. The method of making a storage battery electrode, which consists in first forming a thread-like material from a mixture of powdered metallic nickel or cobalt or both, then mixing intimately with hydroxide of nickel or cobalt, then drying such thread-like material, then depositing a metallic nickel or cobalt coating on the exposed surface of such thread-like material, then forming this thread-like material into a matted cake, and finally surrounding such cake by a suitable conducting envelop or container.

3. A storage battery electrode comprising a matted cake of thread-like material, composed of a mixture of powdered nickel or cobalt with their respective hydroxides, having a coating of metallic nickel or cobalt on a portion of the surface of each thread, and said matted cake being surrounded by a suitable conducting envelop or container.

1,081,532. PURIFYING STEEL. ERNEST HUMBERT, South Chicago, Ill. Filed Jan. 3, 1913. Serial No. 739,963. (Cl. 75—27.)

1. The method of purifying steel which consists in pouring it into a finishing vessel containing a molten silico-calcium-carbid slag so as to convert the silicates of iron and manganese therein into a readily fusible silicate of lime.

2. The method of purifying steel which consists in melting a mixture of silica and lime, adding carbon thereto, pouring the steel upon the same and thereby converting the silicates of manganese and iron in the steel into a readily fusible silicate of lime.

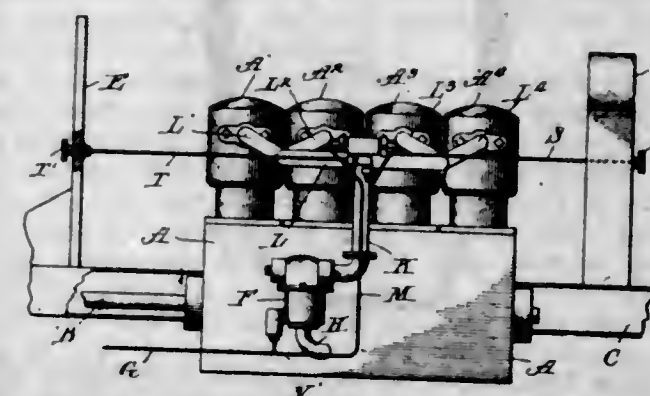
3. The method of purifying steel which consists in melting a mixture of silica sand (10% to 30%) and lime (70% to 90%) adding carbon thereto (about 10% to 30% of the total lime and sand), and pouring the steel to be purified upon said melted mixture so as to convert the silicates of manganese and iron therein into a readily fusible silicate of lime.

1,081,533. VALVE FOR PLAYER-PIANOS. CHARLES V. JAMESON, Chicago, Ill. Filed Sept. 2, 1911. Serial No. 647,356. (Cl. 84—156.)



A valve, upper and lower seats therefor, an elongated axial opening in the stem of the valve, a felt or other soft bushing in said opening, and a fixed pin adapted to enter said bushing and fit therein so as to guide said valve.

1,081,534. PRIMING ATTACHMENT FOR EXPLOSIVE-ENGINES. WEBB JAY, Chicago, Ill. Filed Jan. 31, 1912. Serial No. 674,549. (Cl. 123—180.)



1. The combination with an explosive engine, of a closed reservoir containing liquid fuel for priming the cylinder, means connecting said reservoir with a supply of liquid fuel and with the engine cylinder, whereby the suction created in the cylinder by the reciprocation of the piston therein automatically stores liquid fuel in said reservoir preparatory to subsequently starting the engine, and means for supplying fuel from said reservoir to the engine cylinder.

2. The combination with an explosive engine of a closed reservoir containing liquid fuel for priming the engine cylinder, a conduit leading to said reservoir from a supply of liquid fuel, and from said reservoir to the engine cylinder, whereby the suction created in the cylinder by the reciprocation of the piston stores liquid fuel in said reservoir, and a conduit leading from said reservoir to the engine cylinder.

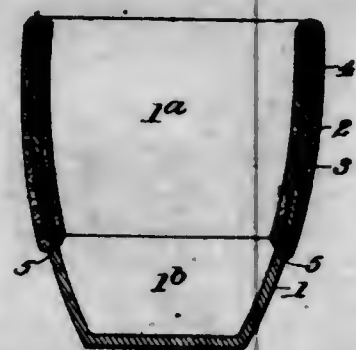
3. The combination with an explosive engine having a manifold communicating therewith of a reservoir containing liquid fuel for priming the engine cylinder, a conduit leading to said reservoir from a supply of liquid fuel and from said reservoir to the manifold of the engine cylinder, whereby the suction created in the cylinder by the reciprocation of the piston therein stores liquid fuel in said reservoir, a second conduit leading from a point adjacent the bottom of said reservoir and communicating with the engine cylinder through the manifold, and means for separately controlling said two conduits.

4. The combination with an explosive engine, comprising a cylinder, a manifold communicating therewith and a reciprocating piston therein, of a carbureter, a conduit leading from the carbureter and communicating with the manifold for normally supplying an explosive mixture to the cylinder, a conduit independent of the conduit from the carbureter leading from a supply of hydrocarbon and communicating with the manifold, a reservoir forming part of said last mentioned conduit located adjacent to the engine cylinder, a valve in said last named conduit intermediate said reservoir and engine cylinder, another conduit leading from a point adjacent the bottom of said

reservoir and communicating through the manifold with the cylinder, and a valve for controlling said last conduit.

5. The combination with an explosive engine, comprising a cylinder, a manifold communicating therewith and a reciprocating piston therein, of a carbureter, a conduit leading from the carbureter for normally supplying an explosive mixture through the manifold to the cylinder, a priming conduit by-passing the carbureter and leading from a fuel supply to the manifold, a reservoir forming part of said priming conduit for automatically trapping therein a priming supply of fuel adjacent the engine cylinder, and means for controlling the flow of said trapped fuel to the engine cylinder.

1,081,535. CRUCIBLE. GEORGE N. JEFFSON, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 7, 1911. Serial No. 642,830. (Cl. 75—182.)



1. As a new article of manufacture, a porous crucible or other article having glazed and unglazed portions, said glazed portions isolated from the unglazed portions by a septum of glazing composition.
2. As a new article of manufacture, a porous container having glazed marginal portions, said glazed portions isolated from the unglazed portions by a septum of glazing composition.

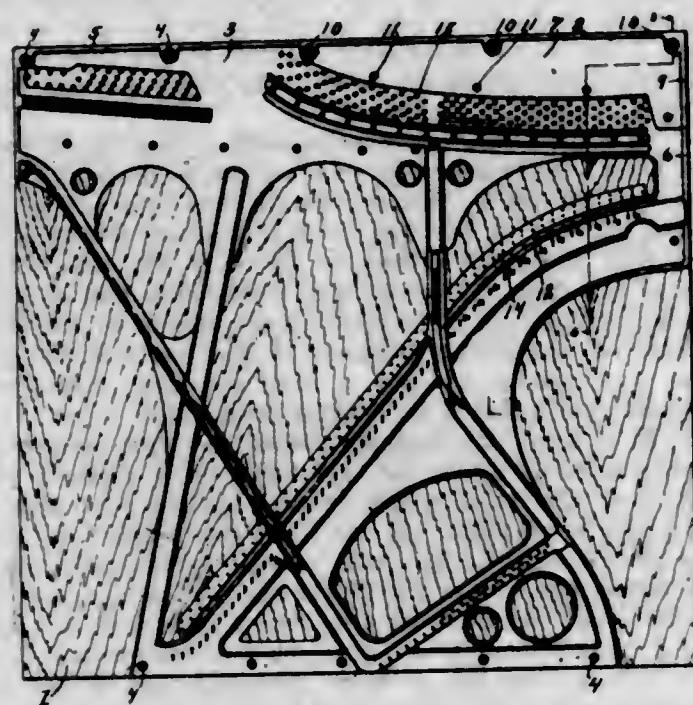
1,081,536. REFRACTORY COMPOSITION. GEORGE N. JEFFSON, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 21, 1911. Serial No. 645,221. (Cl. 104—9.)

As a new composition of matter, a loose or dry mixture containing as its essential components grains of previously molten alumina and a refractory material adapted to serve as a bond, the former in predominating proportion, said mixture forming with water a plastic mass which is capable at high temperatures of binding previously burned portions of like composition without fluxing the same.

1,081,537. PIANO. FRANK A. KNIGHT, Brazil, Ind., assignor to Knight-Brinkerhoff Piano Company, Brazil, Ind. Filed Aug. 6, 1910. Serial No. 575,985. (Cl. 84—144.)

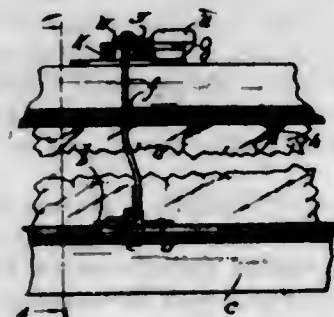
In an upright piano, the combination with the sounding board and wrest plank, of a metal string-plate having strings and tuning pins thereon of substantially the full dimension of the sounding board at its top and having a rib at the margin and having a plane surface at the upper treble end beyond the tuning pins, a metal cap-plate with a plane surface conformed to closely fit the said plane surface of said string-plate when clamped thereagainst and provided with a rib at its outer margin in alignment with the margin of said string-plate, the said cap-plate and string plate being of substantially the same thickness and their combined thickness being proportioned to withstand the strain, and screws disposed through said cap-plate and said string-plate into the wrest plank whereby the whole is snugly conformed to

the wrest plank and the cap-plate forced against the string-plate and the parts intimately clamped together,



thus reinforcing and strengthening and stiffening the said string-plate, substantially as described.

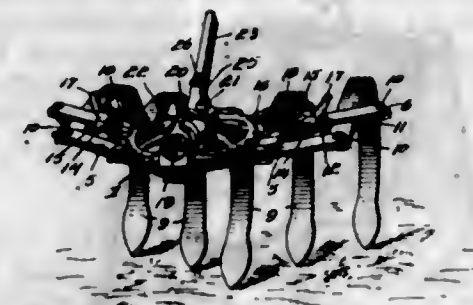
1,081,538. SASH-LOCK. JACOB LARSEN, Chicago, Ill. Filed Oct. 2, 1912. Serial No. 723,529. (Cl. 16—30.)



1. In a sash lock, the combination of two rigidly joined arm members arranged at right angles to each other, and one of which is longer than the other, said arm members being provided with a plurality of notches, means for pivotally connecting said arm members to a sash at their joined ends, adapted to permit either arm member to be placed in upright position, a base plate adapted to be secured to an adjacent sash, and a locking member pivotally mounted on the base plate, said locking member having a lateral projection at its free end and adapted to have swinging and endwise movement to bring said projection in locking engagement with a notch of the arm member which is placed in an upright position, and to draw the arm member against the adjacent margin of the base plate.

2. In a sash lock, the combination of two rigidly joined arm members arranged at right angles to each other, and one of which is longer than the other, said arm members being provided along their rear margins with a plurality of notches, means for pivotally connecting said arm members to a sash at their joined ends, adapted to permit either arm member to be placed in upright position, a base plate adapted to be secured to an adjacent sash, a locking member pivotally mounted on the base plate, said locking member having a lateral projection at its free end and adapted to have swinging movement to bring said projection into position for locking engagement with a notch of the arm member which is placed in an upright position, and means acting on said pivoted locking member to give endwise movement to the same to engage the said lateral projection of said locking member and to draw the forward margin of the arm member against the rear margin of the base plate.

1,081,539. CULTIVATOR ATTACHMENT. WILLIAM H. LINDBETTER, Dallas, Tex., assignor to Southern Plow Company, Dallas, Tex., a Corporation of Texas. Filed Jan. 24, 1912. Serial No. 673,206. (Cl. 97—10.)



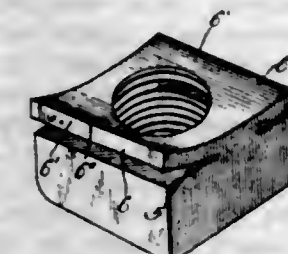
1. In a device of the class described, the combination with spring teeth for a cultivator of upper and lower bars between which said teeth pass, means for pivotally holding said teeth in position between said bars and one of said bars having spacing bends between said teeth making contact with the other bar whereby a free pivotal movement of the teeth is permitted.

2. In a device of the class described, the combination with spring teeth for a cultivator, of upper and lower bars between which said teeth pass, means for holding said bars together, the lapping portions of said bars and teeth having integral interlocking pivot means and one of said bars having spacing bends between said teeth holding said bars apart to permit a pivotal movement of said teeth.

3. In a device of the class described, the combination with a front bar pivotally supported, of upper and lower rear strengthening bars pivotally mounted, means for holding said bars together, teeth pivotally connected at their front ends to the front bar and extending between the upper and lower strengthening bars and pivotally connected thereto and the lower strengthening bar having spacing bends therein between said teeth.

4. In a device of the class described adapted to be secured to plow beams of various shapes, the combination with a lower clamping member having bearing surfaces at its top in a single plane adapted to fit against the flat under surface of a plow beam and a longitudinal groove or socket in its upper face having inward projections, the ends of which are in the plane of a cylinder whereby a cylindrical beam may fit in said socket against said ends and said projections being separated on longitudinal lines whereby the edge of an angular beam may fit between them, an upper clamping member fitting against said lower member having a corresponding socket, and means for securing said members together.

1,081,540. SELF-LOCKING NUT. EUGENE E. MAHER, Chicago, Ill., assignor to K Nut Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 9, 1912. Serial No. 719,486. (Cl. 151—21.)



1. As an article of manufacture, a self-locking nut of substantially standard nut dimensions, comprising a nut body portion and a nut locking portion integral therewith, said nut having a bolt hole, the said locking portion comprising two "locking wings" flaring away from the body portion and formed substantially without removal of metal by transverse cuts which enter the bolt hole from two opposite nut faces, the "locking wings" when brought into contact with the load surface adapted to be restored to positions contacting the body portion substantially throughout the surfaces of the wings.

2. As an article of manufacture, a self-locking nut comprising a body portion and a nut locking portion integral

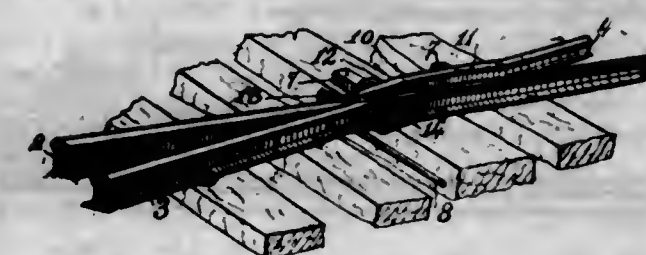
therewith, a threaded hole being provided in both portions, said nut locking portion comprising two "locking wings" flared away from the nut body portion forming a concave load surface, the walls of the wings and adjacent body of the nut being substantially tangential at the juncture of the wings with the body portion.

3. The herein described locking nut comprising a body portion and a nut locking portion, the nut locking portion comprising two wings of nut side length and being formed by transverse cuts which enter two opposite sides of the nut perpendicular to the vertical axis of the bolt hole, said wings being flared away from the body portion to form a substantially concave load surface, the walls of the wings and adjacent body of the nut being substantially tangential at the juncture of the wings with the body portion.

4. A self-locking nut of substantially standard nut dimensions comprising a body portion and an integral locking portion, said locking portion comprising two oppositely flared wing members, the walls of the wing members and the adjacent body of the nut being substantially tangential at the juncture of the wings with the body portion, said bolt hole being threaded, and the wing members being adapted to be brought into substantially full engagement with the body portion for the purpose of locking the nut upon the bolt.

5. In a self-locking nut, the combination of a nut body portion with a nut locking portion, the nut body and locking portion being provided with a bolt hole, the nut locking portion comprising two locking wings flaring away from the nut body portion and displaced by a cutting tool entering transversely from opposed nut faces to points within the bolt hole, said wing portions having outer faces slightly removed from the plane of the nut body faces, said bolt hole being threaded after the formation of the "locking wings" and the "locking wings" being adapted for restitution by engagement with the load surface, thereby assuming substantially the same planes as the side faces of the body portion and forming therewith a wrench fit throughout substantially the thickness of the nut.

1,081,541. RAILWAY-CROSSING. DANIEL H. MAHONEY, Vincennes, Ind. Filed Mar. 5, 1913. Serial No. 752,085. (Cl. 104—99.)



1. In a crossing for railways, an unbroken main track rail having its outer side of its upper flange reduced, a siding rail connected to the main track rail at the reduced portion thereof, a block having an inclined way opposite the point of connection of the main and siding rails, a complementary siding rail having a ramp end portion which extends beyond the end of the other siding rail and means for moving the end of the rail having the ramp to and from the inner side of the main track rail.

2. In a crossing for railways, the combination with an unbroken main track rail the outer side thereof at the crossing being reduced in width transversely, of a siding rail associated with the main track rail, and a complementary siding rail having a raised portion and an inclined end which extends to the end of the siding rail on the opposite side of the main track rail for the purpose of providing means for transferring wheels across the main track rail organized so that such siding rail does not overlie the main track rail.

3. In a crossing for railways, a main unbroken track one of the rails thereof having a transversely reduced portion, a siding rail joined to said main track rail, a

block associated with the rails and provided with an inclined way to guide the wheels before reaching the main track rail, a sliding rail movable toward the main track rail, and provided with an inclined end portion to receive the tread of the wheel and to carry the same over the main track rail onto the movable siding rail.

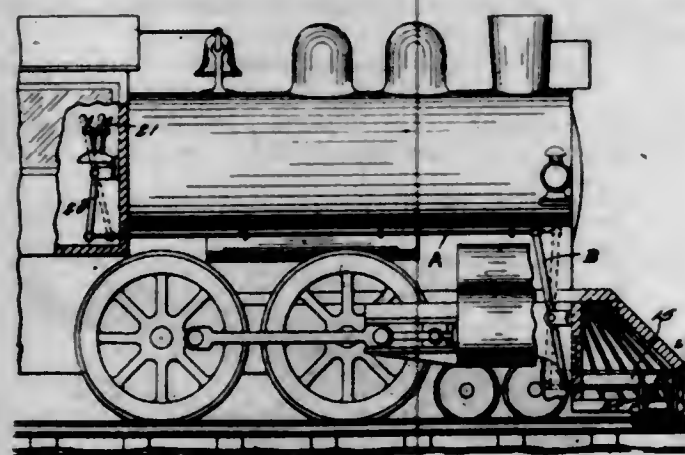
4. In a crossing for railways, a main unbroken track rail having a reduced outer side, a siding rail joined to the outer side of the main track rail at a point where said rail is reduced, a block having an incline which has its highest point adjacent to the main track rail, a complementary siding rail having a reduced upper flange on the side adjacent to the main track rail, a ramp and an extended curved part beyond the tread of the movable siding rail and means for moving the complementary siding rail toward the main track rail.

1,081,542. GLAZED REFRACTORY ARTICLE. ARTHUR T. MALM, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 29, 1912. Serial No. 700,468. (Cl. 75-182.)

1. As a new article of manufacture, a crucible or other article consisting of a body portion comprising alumina grain and a ceramic bond, and a porcelain glaze for said body portion, the coefficient expansion of said glaze closely approximating that of the body portion.

2. As a new article of manufacture, a crucible or other article consisting of a body portion comprising alumina grain and a ceramic bond, and a glaze for said body portion, the coefficient expansion of said glaze closely approximating that of the body portion.

1,081,543. RAILROAD-DERAILER. CHARLES T. MARTIN, JR., Wolcott, Ind. Filed Oct. 2, 1913. Serial No. 792,971. Cl. 104-161.)



1. A railroad de-railer consisting of a short section of a bridge rail formed with a longitudinally rectangular groove through its lower part, a corrugated steel sheet seated in said groove, vertical sockets in the sides of the bridge rail, guide pins passing through said sockets, lateral sockets fitted to receive retaining pins, springs to operate said pins secured in the sides of the bridge rail, said bridge rail being formed with a groove sloping obliquely from one end and along the upper part of one side of the same, substantially as and for the purposes specified.

2. In a railroad de-railer, the combination of the bar, 15, secured on the pilot of a locomotive, the guide pins, 13, secured to said bar, the twin trigger, 19, secured on the sliding bar, 15, and the chains, 24, connected with said trigger, substantially as and for the purposes specified.

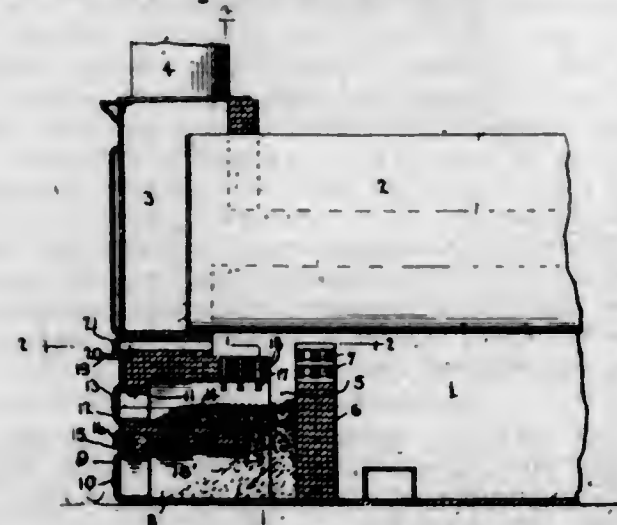
3. In a railroad de-railer, the combination of a section of bridge rail formed substantially as above described, the guide pins, 13, secured in vertical slots at the sides of the bridge rail and the chains, 24, suspending the bridge rail, the trigger, 19, and the lever, 20, and its connecting rods A and B, substantially as and for the purposes specified.

1,081,544. WATCH-DISPLAY CASE. BAPTISTE A. MASSON, New Castle, Pa. Filed Mar. 11, 1912. Serial No. 683,073. (Cl. 211-28.)



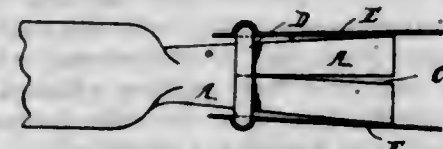
The herein described watch display case comprising a casing including a flat bottom and an upright back, a flat mirror overlying the forward portion of the bottom, an oblique mirror extending from the rear edge of the flat mirror upward to and supported by said back, an L-shaped rod having one end carried by the upper edge of said back and a hook at its other end for receiving the watch ring, and a wire loop connecting the sides of the casing and extending across the oblique mirror for supporting the lower edge of the watch, the whole for use as hereinbefore set forth.

1,081,545. FURNACE. ROBERT D. McMANIGAL, Logan, Ohio, assignor to The McManigal Grateless Furnace Company, Columbus, Ohio. Filed Sept. 26, 1912. Serial No. 722,460. (Cl. 110-85.)



The combination with a coking chamber and ash pit of a furnace, of a division wall separating the same and provided with a longitudinal draft passage open to the atmosphere, an arch also provided with a longitudinal draft passage leading therethrough, an upstanding bridge wall located in rear of the coking chamber and arch and separated from the rear end of the division wall, the upper end of the upstanding wall being provided with vertical and horizontally arranged passages for the purposes described.

1,081,546. HANDLE-FASTENING. FREDERICK DUTSON Moss, Hororata, New Zealand. Filed Nov. 7, 1912. Serial No. 730,113. (Cl. 145-83.)

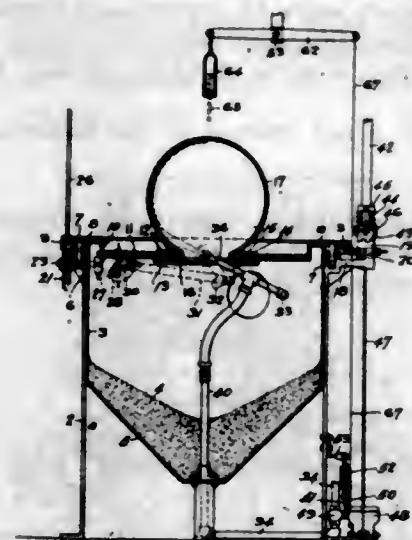


1. The combination with a tool provided with a split handle receiving socket formed integrally with the tool; of

means slidably mounted on the socket and permanently attached thereto and arranged to compress the split end of the socket when moved toward said end.

2. The combination with a tool provided with an integral tapering handle socket, said socket being provided with longitudinal slits extending from the larger end; of a ring of less diameter than the tool body and larger end of the socket and slidable between the tool body and said larger end, and means carried by the ring for securing the ring in adjusted position on a handle.

1,081,547. SAND-BLAST MACHINE. CHARLES F. MOTZ, Monaca, Pa., assignor to Phoenix Glass Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Feb. 10, 1913. Serial No. 747,365. (Cl. 51-3.)



1. In a sand-blast machine, the combination of a suitable receptacle, a rotary cover-plate for said receptacle having an opening therein, and forming a support for the article to be sand-blasted, and means within said receptacle for directing the sand through said opening into said article.

2. In a sand-blast machine, the combination of a suitable receptacle, a rotary plate forming a cover for same having an opening therein and forming a support for the article to be sand-blasted, a nozzle within said receptacle, and means for directing the sand-blast through said nozzle into said article.

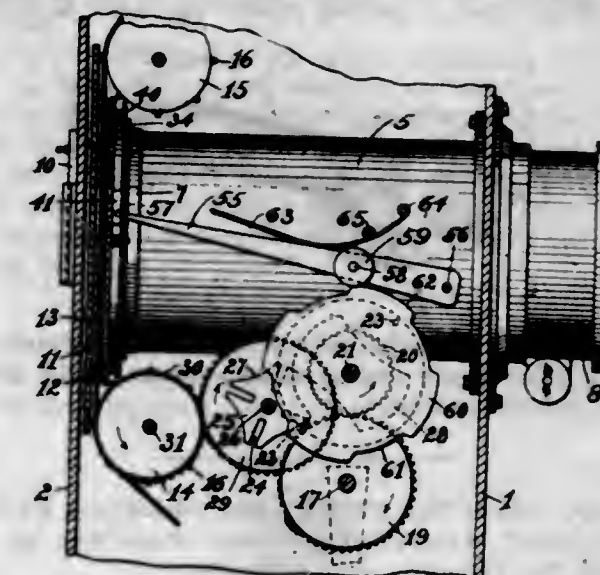
3. In a sand-blast machine, the combination of a suitable receptacle, a rotary plate forming a cover for same, a centrally located freely movable plate having an opening therein and forming a support for the article to be sand-blasted, and means within said receptacle for directing the sand-blast through said opening into said article.

1,081,548. MEANS FOR OPERATING EXPOSURE SHUTTERS. PETER J. MUKAUTZ, Chicago, Ill. Filed Sept. 9, 1912. Serial No. 719,404. (Cl. 88-19.3.)

1. In mechanism of the class described, the combination with means for advancing a film step by step, of means for directing light transversely through the film, shutters arranged between the film and the light directing means, a rotatably mounted ring, means connecting the shutters to the ring, and means for operating said ring from the means for advancing the film to open said shutters between the advance step by step movements of the film, substantially as described.

2. In mechanism of the class described, the combination with means for advancing a film step by step, of means for directing light transversely through the film, shutters arranged between the film and the light directing means, a rotatably mounted ring, pivotally anchored bell-cranks, the bell-cranks being pivotally connected to the shutters and to the ring, a lever arm for operating said ring, and means cooperating with the means for advancing the film step by step to actuate the lever arm to open the shutters when the film is at rest and to

close them when the film advances, substantially as described.



3. In mechanism of the class described, the combination with means for advancing a film step by step, of means for directing light transversely through the film, shutters arranged between the film and the light directing means, a rotatably mounted ring, pivotally anchored bell-cranks, the bell-cranks being pivotally connected to the shutters and to the ring, an arm projecting from the ring, a lever arm engaging the arm of the ring, a roller wheel carried by the lever arm, a cam having alternately low and raised surfaces for engaging the roller wheel, a spring bearing on said lever arm for holding said roller wheel in contact with the cam, and the cam being operated from the means for advancing the film step by step so that its raised surfaces will be in engagement with said roller wheel to hold the shutters open when the film is at rest and its low surfaces will be in engagement therewith to permit the keeping of the shutters closed by said spring when the film is being advanced, substantially as described.

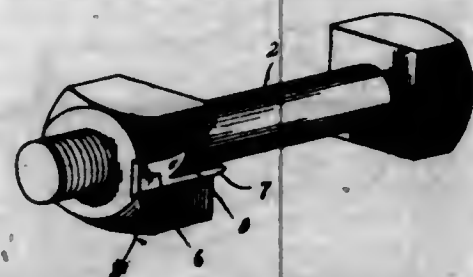
4. In mechanism of the class described, the combination with means for advancing a film step by step, of means for directing light transversely through the film, a fixed bearing ring, shutters arranged within the bearing ring between the film and the light directing means, a sliding ring rotatably mounted on the bearing ring, pivotally anchored bell-cranks, the bell-crank being pivotally connected to the shutters and to the sliding ring, an arm projecting laterally from the sliding ring, the arm being provided with a recess, a lever arm pivoted at one end and its free end engaging said recess of the arm, a roller wheel carried by the lever arm, a cam having alternately low and raised surfaces for engaging the roller wheel, a spring bearing on said lever arm for holding said roller wheel in contact with the cam, and the cam being operated from the means for advancing the film step by step so that its raised surfaces will be in engagement with said roller wheel to hold the shutters open when the film is at rest and its low surfaces will be in engagement therewith to permit the keeping of the shutters closed by said spring when the film is being advanced, substantially as described.

1,081,549. NUT-LOCK. ROBERT MULON, Jacksonville, Fla. Filed Nov. 5, 1912. Serial No. 729,632. (Cl. 151-37.)

1. A nut for the purpose set forth having one of its sides formed with a substantially V-shaped depression, the side walls provided thereby being inwardly beveled, a key embodying a V-shaped body having beveled sides arranged within the depression and engaging with the beveled edges thereof, and said key being provided with a spring finger which extends beyond one of the faces of the nut.

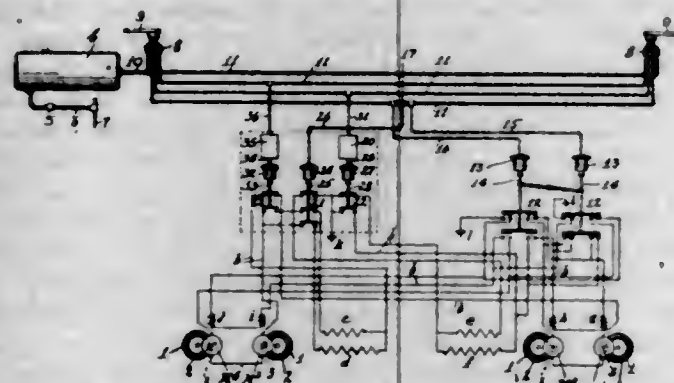
2. A nut, for the purpose set forth having one of its sides provided with a V-shaped depression forming a pocket, a key member secured within the pocket and

occupying approximately one-half of the pocket, the said key having a spring finger extending from one of the side edges thereof and projecting beyond the inner face of the



nut, and the inner edge of the key being inclined from its side toward the spring finger, substantially as and for the purpose set forth.

1,081,550. ELECTROPNEUMATIC BRAKING SYSTEM. WILLIAM C. MYERS, Oakland, Cal. Filed May 22, 1913. Serial No. 789,331. (Cl. 172-179.)



1. An electro-pneumatic braking system comprising electric motors; a supply reservoir for air under pressure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; an air-actuated instrumentality for operating said polarity-switch; a separate air-actuated instrumentality for operating the electric-switch; an air connection leading from the supply-reservoir; operator's valves at separated points in said connection; separate branch connections leading from said air-connection, at points intermediate said valves, to said instrumentalities; and means automatically controlling the communication of the branch connections with said air connection from either operator's valve.

2. An electro-pneumatic braking system comprising electric motors; a supply-reservoir for air under pressure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; a pair of air-actuated instrumentalities each adapted to operate the polarity-switch; a separate air-actuated instrumentality for operating the electric-switch; an air connection leading from the supply-reservoir; operator's valves at separated points in said connection; a pair of branch connections each leading from said air-connection, at points intermediate said valves, to the air-actuated instrumentalities of the polarity switch; a double-check valve in said air connection between the communications therewith of the said pair of branch connections; and a branch connection from said valve to operate the air-actuated instrumentality of the electric-switch.

3. An electro-pneumatic braking system comprising electric motors; a supply-reservoir for air under pressure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; air-actuated instrumentalities for operating said polarity-switch and electric-switch; air connections from the air-supply reservoir to operate said instrumentalities; an operator's valve to control said connections, and means for automatically controlling the voltage and current during the braking operation.

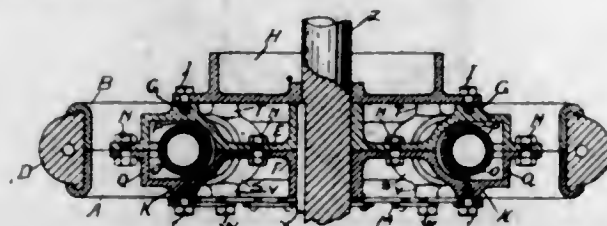
4. An electro-pneumatic braking system comprising electric-motors; a supply-reservoir for air under pressure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; air-actuated instrumentalities for operating said polarity-switch and electric-switch; air connections from the air-supply reservoir to operate said instrumentalities; an operator's valve to control said connections; and means for automatically successively cutting out the resistances in the electric circuits during the braking operation.

sure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; said circuits having a resistance therein; air-actuated instrumentalities for operating said polarity-switch and electric-switch; air connections from the air-supply reservoir to operate said instrumentalities; an operator's valve to control said connections; and means for automatically cutting out the resistance in the electric circuits during the braking operation.

5. An electro-pneumatic braking system comprising electric-motors; a supply-reservoir for air under pressure; a polarity-switch; an electric-switch; electric circuits including said motors, polarity-switch and electric-switch; said circuits having a plurality of resistances therein; air-actuated instrumentalities for operating said polarity-switch and electric-switch; air connections from the air-supply reservoir to operate said instrumentalities; an operator's valve to control said connections; and means for automatically successively cutting out the resistances in the electric circuits during the braking operation.

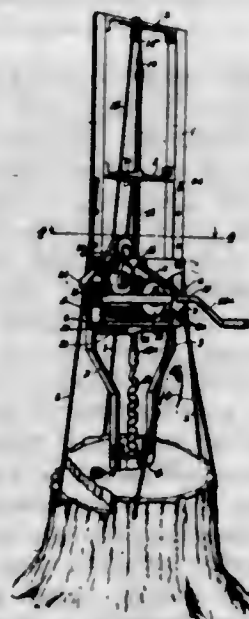
[Claims 6 to 8 not printed in the Gazette.]

1,081,551. RESILIENT VEHICLE-WHEEL. FRANK ALEXANDER PEARL, Madison, Wis. Filed Mar. 27, 1913. Serial No. 757,267. (Cl. 152-42.)



In a resilient vehicle wheel of the kind described, a hub member mounted on a shaft, four flat radial spokes terminating in stirrups integral therewith, a pneumatic rubber tube mounted on a metal rim loosely disposed within the said stirrups, an outer felly carrying a solid rubber tire on its periphery and four inwardly projecting flat spokes containing circular apertures near their inner ends, the aforesaid pneumatic rubber tube and metal rim passing through said apertures and securely fastened within the same, a chain consisting of twenty-four flat plates, every third plate hingedly secured to a stirrup or spoke of the outer rim alternately, substantially as described and set forth.

1,081,552. BORING-MACHINE. CHARLES F. PENN and FRANK P. RAND, Spokane, Wash. Filed Nov. 11, 1912. Serial No. 730,588. (Cl. 144-104.)



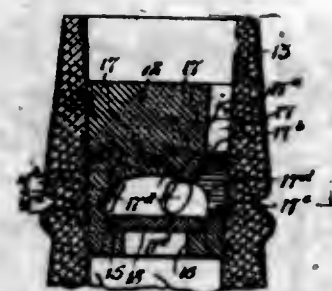
1. In a boring machine, a main frame, brace anchor rods detachably connected thereto, a supporting yoke adjustably secured to the lower end of said main frame and ter-

minating in anchor points, and an adjustable auger guide-head carried by said yoke in proximity to said anchor points.

2. In a boring machine, a main frame, a supporting yoke adjustably and detachably connected thereto and provided at its lower end with anchor-points, and an adjustable auger guide-head carried by said yoke in proximity to said anchor points.

3. In a boring machine, a main frame consisting of side members and cross members, and an adjustably mounted supporting yoke secured to the side members of said main frame and consisting of supporting side members terminating in anchor points adapted to be driven into the article to be operated upon, and an auger guide head adjustably secured to said side members in proximity to said anchor points.

1,081,553. NON-REFILLABLE BOTTLE. JARED H. PLAISTED, Melrose, Mass. Filed Jan. 17, 1911, Serial No. 603,132. Renewed May 31, 1913. Serial No. 771,084. (Cl. 215-85.)



An anti-refilling attachment for bottles, comprising a plug adapted for insertion in a bottle neck and having a valve seat in its inner end portion surrounding a passage communicating with the interior of the bottle, and a circular valve chamber between said valve seat and the outer end of the plug, a disk valve in said chamber, the wall of the chamber being inclined outwardly from the valve seat partly to the outer end of the chamber and from thence inwardly to form a concave chamber top, whereby the valve will tilt on one edge when the bottle is inclined, said plug being also provided with a series of longitudinal ducts in its periphery extending through the outer end of the plug partly to its inner end, abutments being provided at the inner ends of the ducts to arrest a tampering instrument, the bottoms of said ducts intersecting the concave top of the valve chamber at points within the wall of said chamber and forming ports.

1,081,554. PUBLIC-AMUSEMENT DEVICE. GEORGE CARL RODECK, Pansdorf, near Lübeck, Germany. Filed Sept. 7, 1912. Serial No. 719,169. (Cl. 46-27.)



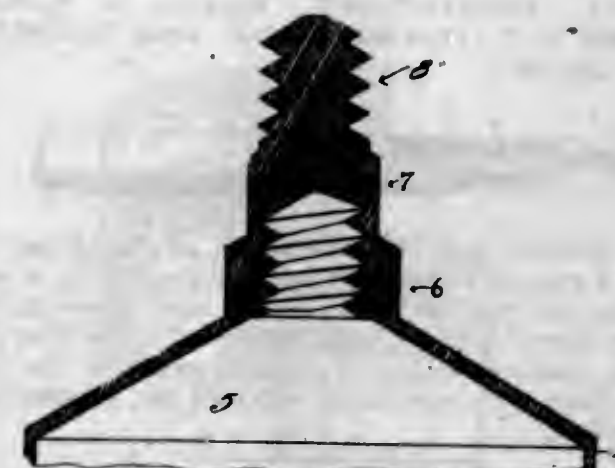
1. A public amusement apparatus comprising a rotatable base, an inflatable envelop disposed on said base, means for rotating said base, and means for inflating the envelop whereby persons resting on the envelop when in deflated condition are raised during such inflation and at a subsequent stage thereof are forced off the envelop on to said base.

2. A public amusement apparatus comprising a base in the form of a circular plate rotatable about a vertical axis, means for rotating said base, an inflatable envelop disposed on said base, and means for inflating the envelop

whereby persons resting on the envelop when in deflated condition are raised during such inflation and at a subsequent stage thereof are forced off the envelop on to said base.

3. A public amusement apparatus comprising a rotatable base, an inflatable envelop disposed on said base, a motor and connections for rotating said base, and means operated by said motor for simultaneously inflating the envelop whereby persons resting on the envelop when in deflated condition are raised during such inflation and at a subsequent stage thereof are forced off the envelop on to said base.

1,081,555. CLOSURE FOR COLLAPSIBLE TUBES AND THE LIKE. HENRY M. RUSSELL, Jr., Wheeling, W. Va. Filed Feb. 10, 1912. Serial No. 678,922. (Cl. 221-60.)



1. A collapsible tube formed of soft metal and comprising a body, a breast integral with one end of said body, a neck integral with said breast, a tip formed integral with said neck and of smaller diameter than said neck, the outer end portion of said tip being screw-threaded, a similarly screw-threaded opening being formed in said neck, said opening extending through the neck and into the adjacent end of the tip, whereby the juncture between the neck and the tip is weakened.

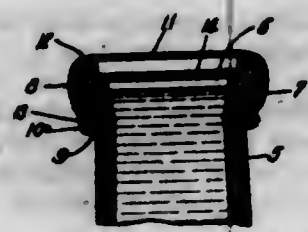
2. A collapsible tube formed of soft metal and comprising a body, a breast integral with one end of said body, a neck integral with said breast, a tip formed integral with said neck and of smaller diameter than said neck, whereby a shoulder so formed between the neck and the tip, said shoulder being helical, the outer end portion of said tip being screw-threaded, a similarly screw-threaded opening being formed through said neck, said opening extending into the adjacent end of the tip, whereby the juncture between the neck and the tip is weakened.

3. A collapsible tube formed of soft metal and comprising a body, a breast integral with one end of said body, a neck integral with said breast, a tip formed integral with said neck and of smaller diameter than said neck, the outer end portion of said tip being screw-threaded, a similarly screw-threaded opening being formed in said neck, said opening extending through the neck and into the adjacent end of the tip, whereby the juncture between the neck and the tip is weakened, and a part of the threaded portion of the tip being longitudinally grooved to form an outlet.

4. A collapsible tube formed of soft metal and having an internally threaded neck, and an externally similarly threaded tip integral with said neck, the juncture between the neck and the tip being weakened by the internal threads, whereby the tip may be broken off and screwed into the neck.

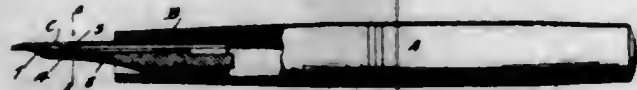
5. A collapsible tube formed of soft metal and having a hollow internally threaded neck and an externally similarly threaded tip integral therewith, the tip being of smaller diameter than the neck and the hollow of the neck extending beyond the junction of the neck and tip, whereby the latter may be broken from the former, at the juncture.

1,081,556. BOTTLE-CLOSURE. FRED E. SANDERS, Chelsea, Mass. Filed May 17, 1913. Serial No. 768,243. (Cl. 215-11.)



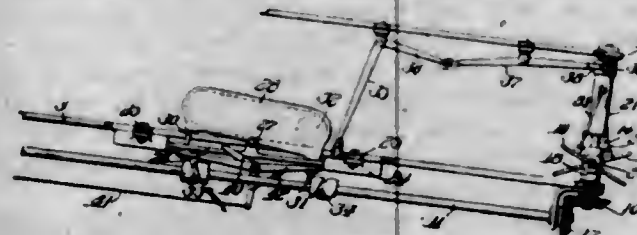
A closure for bottles embodying in its construction top and side members formed of rubber integral with each other and textile material embedded in said top member and adapted to yield laterally thereof.

1,081,557. FOUNTAIN-PEN. WILLIAM W. SANFORD, Newark, N. J. Filed May 3, 1913. Serial No. 765,226. (Cl. 120-50.)



In a fountain pen, the combination of a solid feed bar having a grooved ink channel on its upper surface, a hood inclosing said feed bar, a slit in said hood connecting the interior thereof with the under surface of the writing pen, and ink chambers formed by the coöperation of the sides of said hood with recesses in said feed bar, substantially as described.

1,081,558. AEROPLANE. WILLIAM E. SHOULER, Rockford, Ill. Filed Dec. 9, 1912. Serial No. 735,756. (Cl. 244-25.)



1. An air-craft comprising, a motor, a plurality of horizontal propellers located at points distant from the center of the craft, adapted to be constantly driven by the motor and the blades of the propellers being oscillatory thereon, and independent means for each propeller having connection with the blades of each propeller and adapted to automatically oscillate its blades when that portion of the craft at which it is located is tipped downward to a predetermined angle, and means driven by the power means and coöperating with said independent means to oscillate the blades and hold them in their oscillated position.

2. In an air craft, a motor power, a propeller having blades oscillatory thereon, and the propeller adapted to be continuously driven by said motor power with the blades substantially parallel with the plane of rotation, and means for oscillating said blades at an angle to said plane, said means being operated by said motor power.

3. An air craft comprising, balancing means, a propeller having oscillatory blades, an operable connection between the blades and balancing means, the balancing means adapted to be actuated automatically by the tipping of the craft to different angles, and a motor power having an operable connection coöperating with said balancing means to positively actuate said means when they have been automatically tipped to an angle and thus positively oscillate said blades, and to maintain said blades positively oscillated during said angled position of said balancing means.

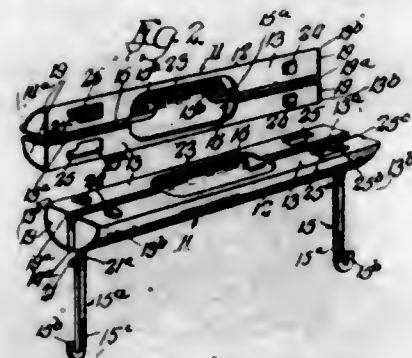
4. In an air craft, the combination with a propeller having oscillatory blades, rockable means adapted to be

rocked when the craft is tipped to an angle, said rockable means having a connection with said oscillatory blades, and a means adapted to be continuously driven, said rockable means when the craft is tipped to a predetermined angle adapted to be actuated by said continuously driven means to oscillate said blades.

5. In an air craft, the combination with a propeller having oscillatory blades, a rockable means including a member movable from one side to the other side of the pivot of said member to rock said means and adapted to be so moved by the tipping of the craft to an angle, means for oscillating said blades and having connection with said rockable means, and power driven means having connection with said blade oscillating means and adapted to oscillate the blades when said rockable means have been rocked by movement of the craft, to oscillate the blades.

(Claim 6 not printed in the Gazette.)

1,081,559. BUNDLE-CARRIER. THOMAS E. SOMERVILLE, Glenellyn, Ill. Filed Mar. 10, 1913. Serial No. 753,191. (Cl. 224-57.)



1. A bundle carrier comprising a tubular handle member having a semi-cylindric wall and a flat top wall provided with a central longitudinal slot, a pair of carrying arms having hooked ends, pivoted to swing at the ends of said handle member in the plane of said slot, and a bearing member which is of semi-cylindric form at its central part and provided at its ends with parallel walls, forming longitudinally extending spaces located in the plane of said slot, said bearing member fitting within said handle member, and the carrying arms being pivoted between the said parallel walls of the bearing member at the ends of the same.

2. A bundle carrier comprising a tubular handle member open at its ends and having a semi-cylindric wall and a flat top wall provided with a central, longitudinal slot, a pair of carrying arms having hooked ends pivoted to swing at the ends of said handle member in the plane of said slot, and a bearing member which is of semi-cylindric form at its central part and has parallel walls at its ends forming longitudinal spaces located in the plane of said slot, said bearing member being fitted within said handle member, and having at the ends of its parallel walls laterally extending wings serving to close the ends of the tubular handle member, and the carrying arms being pivoted between the said parallel walls of the bearing member at the ends of the same.

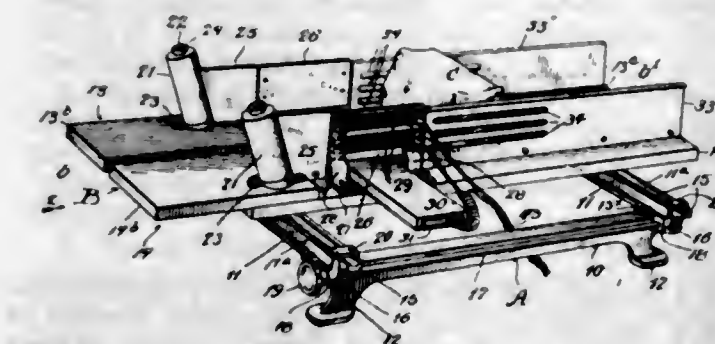
3. A bundle carrier comprising a tubular handle member consisting of a piece of sheet metal bent to form a semi-cylindric wall and a flat top wall provided with a central longitudinal slot, a pair of carrying arms having hooked ends, pivoted to swing at the ends of said handle member in the plane of said slot, and a bearing member consisting of a piece of sheet metal bent into semi-cylindric form at its central part and into U-form at its ends to constitute parallel walls, said bearing member being inserted in said handle member, and the carrying arms being pivoted between the said parallel walls of the bearing member at the ends of the same.

4. A bundle carrier comprising a tubular handle member open at its ends and consisting of a piece of sheet metal bent to form a semi-cylindric wall and a flat top wall provided with a central, longitudinal slot, a pair of carrying arms having hooked ends pivoted to swing at the ends of said handle member in the plane of said slot, and

a bearing member bent into semi-cylindric form at its central part and bent into U-form at its ends to form parallel walls, said bearing member being fitted within said handle member, and having, at the ends of said parallel walls, laterally bent wings serving to close the ends of the tubular handle member; the carrying arms being pivoted between the said parallel walls of the bearing member at the ends of the same.

5. A bundle carrier comprising two separable tubular handle members, each having a semi-cylindric wall and a flat top wall and provided with a longitudinal slot in said top wall, a pair of carrying arms having hooked ends for each handle member, pivoted to swing at the ends of each handle member in the plane of the slot thereof, bearing members, each having a semi-cylindric, central part and two parallel walls at its ends, said bearing member being inserted endwise into its corresponding handle member, with a space between said parallel walls in the plane of said longitudinal slot, and said carrying arms being inserted between and pivotally connected with said parallel walls of the bearing member, and means for removably locking said handle members together with the flat walls thereof in engagement with each other.

1,081,560. BREAD-WRAPPER SEALER. FRANK STREICH, Joliet, Ill. Filed May 13, 1913. Serial No. 767,327. (Cl. 93-2.)



1. A wrapper sealer, containing a table having a receiving end and adapted to support wrappers and articles to be sealed therein, and a pair of oppositely disposed flap folding rollers, mounted upon and projecting up from said table toward its receiving end in lines, oblique with respect to the face of said table.

2. A wrapper sealer, containing a table having a receiving end and adapted to support wrappers and articles to be sealed therein, said table comprising two laterally separable leaves, and means for moving said leaves toward and away from each other, and a pair of oppositely disposed flap folding rollers, one mounted on each leaf and projecting toward said receiving end in lines, oblique with respect to the face of said table.

3. A wrapper sealer, comprising a table adapted to receive and support wrappers and articles to be sealed therein, said table comprising two relatively separable leaves and means for holding said leaves stationary, two oppositely disposed heat applying plates, one supported on each leaf, a transverse heat applying plate located underneath said oppositely disposed plates, and of a length capable of spanning the gap between said oppositely disposed plates when separated to their greatest extent, and means for heating all of said plates in unison.

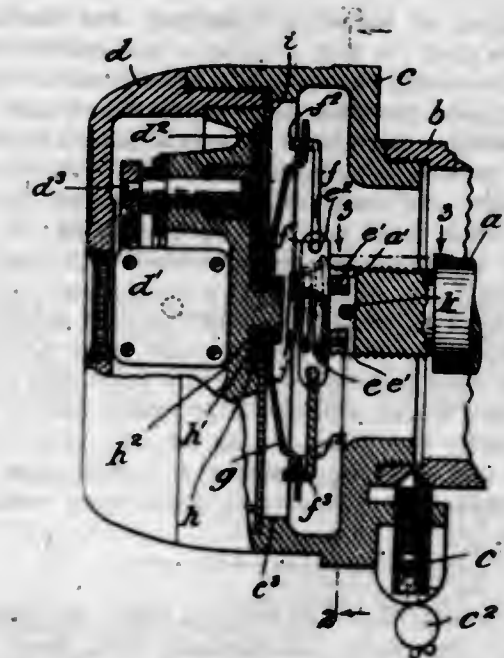
4. A wrapper sealer, comprising a table adapted to receive and support wrappers and articles to be sealed therein, said table comprising a stationarily supported leaf and a laterally movable leaf, means for moving said movable leaf toward or away from said stationary leaf, a pair of oppositely disposed heat applying plates, one being supported by each leaf, a transverse heat applying plate below said oppositely disposed plates, and supported by said stationary table leaf, said transverse plate being of a length capable of spanning the gap between said oppositely disposed plates when separated to their greatest extent, and resistance coils, at least one being secured to each plate for heating the same.

5. A wrapper sealer, comprising a table adapted to receive and support wrappers and articles to be sealed

therein, said table comprising laterally adjustable leaves, and means for moving said leaves to and from each other, heat applying plates for the end flaps and bottom of said wrappers, the bottom heat applying plate being of a length capable of spanning the gap between the end heat applying plates, when separated to their greatest extent, and a pair of oppositely disposed cooling plates spaced away from said heat applying plates, between which said wrappers are moved after heat has been applied thereto, one plate being supported by each leaf, and each having air holes through which the end flaps are exposed to the air, whereby they may be rapidly cooled.

(Claims 6 to 12 not printed in the Gazette.)

1,081,561. HUB-ODOMETER. CURTIS HUSSEY VEEDER, Hartford, Conn. Filed Mar. 21, 1913. Serial No. 755,846. (Cl. 235-95.)



1. A driving connection for hub odometers comprising a driving gear, a coupling member secured thereto and a second coupling member adapted to engage the axle, said coupling members being elastically connected to permit relative movement between the axle and the odometer in the direction of the axis.

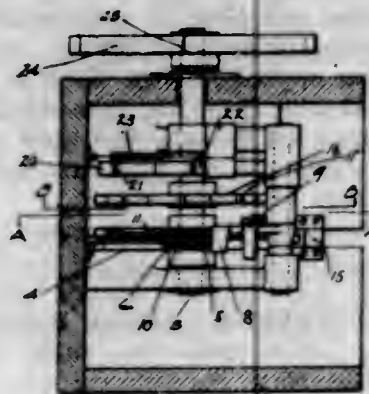
2. The combination with a hub odometer and a cap therefor, of a gear mounted in the cap and connected to the operating parts of the odometer, and a driving connection comprising a nonrevolvable driving gear in mesh with the first named gear, a coupling member secured to the driving gear and a second coupling member adapted to engage the axle, said coupling members being elastically connected to permit relative movement between the axle and the odometer in the direction of the axis.

3. A driving connection for hub odometers comprising a driving gear, an arm secured to the driving gear and a plate adapted to engage the axle, the arm and the plate being elastically connected to permit relative movement between the axle and the odometer in the direction of the axis.

4. In combination with a hub odometer, driving means therefor, means to support the driving means in the odometer cap, a yielding connection between the driving means and the axle to permit relative movement between the axle and the driving means in the direction of the axis including an arm secured to the driving means, a plate in engagement with the axle, links hingedly connected to the plate and engaging loosely the arm to connect yieldingly the plate and the arm.

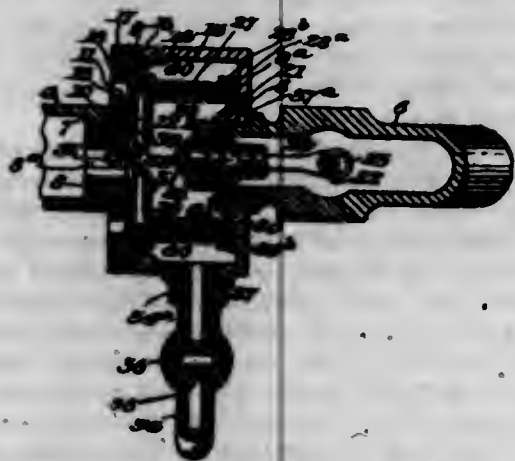
5. In combination with a hub odometer, a driving gear therefor, means to support the gear in the odometer cap, a yielding connection between the gear and the axle including an arm secured to the gear, a plate having projections on its inner face, a transverse slot in the end of the axle to receive said projections, means to connect yieldingly the plate and the arm and a spring disposed therebetween to hold the projections removably in the slot.

1,081,562. COIN-CONTROLLED MECHANISM. JAMES E. ALLISON, St. Louis, Mo., assignor to Hoyt V. Bright, Cleveland, Ohio. Filed Feb. 1, 1911. Serial No. 605,852. (Cl. 194-61.)



In mechanism of the class described, the combination of a rotatable shaft; a disk secured to said shaft and provided with forwardly facing substantially radial teeth; a pawl normally in position to engage one of said teeth, said disk having a peripheral groove adjacent each tooth designed to receive a coin adapted, on rotation of said shaft, to move said pawl from such position; a spring tending to retain said pawl in such position; a second disk secured to said shaft and provided with rearwardly facing substantially radial teeth; a second pawl normally in engagement with one of the teeth of said second disk; a spring tending to retain said second pawl in such engagement; a third disk secured to said shaft and provided with forwardly facing substantially radial teeth; a lever contacting with the face of one of the teeth of said third disk; and a spring tending to continuously press said lever against the successive teeth upon rotation of said shaft.

1,081,563. COMBINED SELF-CLEANING FILTER AND FAUCET. HENNING ALSTERBERG, St. Paul, Minn. Filed Apr. 7, 1913. Serial No. 759,553. (Cl. 210-7.)



1. In combination, a filtering device for water or other liquids, the same comprising a hollow body having an inlet and two outlets, the latter provided each with a faucet, a filtering means held within the hollow body, means for directing the water through the filtering means when passing to one of the faucets, and means normally in contact with the filtering means for directing the water into a cleansing contact with and partly through the filtering means when passing to the other faucet.

2. The combination with a supply pipe for water or other fluid, of a faucet for drawing water from the pipe, a filter adapted to be inserted between the pipe and the faucet, a second faucet on the filter, a filtering element in the filter, said filter having a passage leading the water through the filtering element to the second faucet, and a passage directing the water, a solid element in the latter passage and normally contacting with the filtering element, so that the water must force its way between the two elements and partly through the filtering element and thereby cleanse the latter to the main faucet.

3. In combination, a cylindrical shell having one fixed bottom and one removable bottom, a faucet secured in one side of the shell, a faucet secured in the center of one of the bottoms, centrally located means in the other bottom for readily connecting the bottom with a supply pipe, said bottom having a central opening, means for securing said bottom firmly to the shell; a perforated metal tube placed concentrically in the shell, a cylindrical tubular filtering element fitting in the perforated tube and having its ends spread outward and held between the ends of the perforated tube and the bottoms of the shell, a water spreading device of cylindrical form loosely fitted within the filtering tube and extending almost the entire length thereof, said spreading tube having one end closed by a bottom bulged outward in the middle so as to spread the water coming from the supply pipe, and the other end open and provided with notches for the water to pass through to the central faucet, and means on the bottom of the spreading device for taking hold of in extracting it from the filtering element.

1,081,564. HORSESHOE. THEODORE CHRISTIAN AMOTH, Madison, Wis. Filed Sept. 29, 1913. Serial No. 792,503. (Cl. 168-24.)



In a horseshoe of common form, a bar connecting the sides at the heel, the sides curving downward, forward of and adjacent to the said bar, the curved portions beveled from the center outward and inward forming a rib, a threaded hole through the crown of the curved portions for the purposes described and set forth.

1,081,565. COMPOSITION OF MATTER FOR PLASTER AND SIMILAR MATERIALS. WADE W. BAKER, London, Ohio. Filed Sept. 18, 1912. Serial No. 720,966. (Cl. 106-28.)

A wall plaster comprising a quick drying base of gypsum rock, sand and water, in combination with a combined binder and retarder consisting of comminuted leather said leather possessing marked moisture absorbent and retaining qualities, the retention of moisture by said leather retarding the drying of the mass, substantially as described.

1,081,566. PROCESS OF TREATING TUNGSTEN ORES. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Oct. 22, 1912. Serial No. 727,215. (Cl. 75-18.)

1. The process of purifying ores of the iron-tungstate type, which consists in subjecting the same to the action of a suitable acid reagent, under conditions to increase the ratio of tungsten to phosphorus.

2. The process of purifying ores of the iron-tungstate type, which consists in heating the ores, and then subjecting the same to the action of a suitable acid reagent, under conditions to increase the ratio of tungsten to phosphorus.

3. The process of purifying ores of the iron-tungstate type, which consists in subjecting the same to the action of sulfuric acid under conditions to increase the ratio of tungsten to phosphorus.

4. The process of purifying ores of the iron-tungstate type, which consists in heating the ores and then subjecting the same to the action of sulfuric acid under conditions to increase the ratio of tungsten to phosphorus.

1,081,567. METHOD OF PREPARING TUNGSTEN AND ALLOYS THEREOF. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Oct. 29, 1912. Serial No. 728,498. (Cl. 75-17.)

1. The method of treating crude ferrotungsten, which consists in subjecting the same to an oxidizing roast and thereafter reducing the oxidized product.

2. The method of preparing tungsten or its alloys, which consists in subjecting crude ferrotungsten to an oxidizing roast, concentrating the tungsten-content of the oxidized product, and thereafter reducing said product.

3. The method of treating crude ferrotungsten, which consists in subjecting the same to an oxidizing roast, removing phosphorus from the oxidized product, and thereafter reducing said product.

1,081,568. METHOD OF PREPARING TUNGSTEN AND ALLOYS THEREOF. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Oct. 29, 1912. Serial No. 728,499. (Cl. 75-17.)

1. The method of preparing tungsten or its alloys, which consists in subjecting crude ferrotungsten to an oxidizing roast, reducing the resulting oxides without substantial fusion of the reduced product, and concentrating the tungsten-content of said product.

2. The method of preparing tungsten or its alloys, which consists in subjecting crude ferrotungsten to an oxidizing roast, reducing the resulting oxides without substantial fusion of the reduced product, and removing phosphorus from said reduced product.

3. The method of preparing tungsten or its alloys, which consists in subjecting crude ferrotungsten to an oxidizing roast, reducing the resulting oxides without substantial fusion of the reduced product, and removing iron and phosphorus from said reduced product by an acid-treatment.

1,081,569. METHOD OF DEPHOSPHORIZING FERROTUNGSTEN. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Apr. 24, 1913. Serial No. 763,258. (Cl. 148-12.)

1. The method of dephosphorizing ferrotungsten, which consists in bringing the ferrotungsten in solid form into presence of a molten basic oxidizing bath.

2. The method of dephosphorizing ferrotungsten, which consists in bringing the ferrotungsten in solid form into presence of a molten basic oxidizing bath maintained at a temperature approximating or above the fusing-point of the ferrotungsten.

3. The method of dephosphorizing ferrotungsten, which consists in bringing the ferrotungsten in solid form into presence of a molten basic oxidizing bath containing an oxygen compound of tungsten.

4. The method of dephosphorizing ferrotungsten, which consists in bringing the ferrotungsten in solid form into presence of a molten basic oxidizing bath containing an oxygen compound of tungsten, said bath maintained at a temperature approximating or above the fusing-point of the ferrotungsten.

5. The method of dephosphorizing ferrotungsten, which consists in feeding solid ferrotungsten in subdivided form to the surface of a molten basic oxidizing bath.

[Claims 6 to 8 not printed in the Gazette.]

1,081,570. METHOD OF PREPARING TUNGSTEN AND ALLOYS THEREOF. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, Niagara Falls, N. Y., a Corporation of West Virginia. Filed May 26, 1913. Serial No. 770,031. (Cl. 75-17.)

1. The method of preparing low-phosphorus tungsten or ferrotungsten, which consists in subjecting phosphorus-

bearing ores of the iron-tungstate type to a reducing operation, and treating the reduced product to increase the ratio of tungsten to phosphorus.

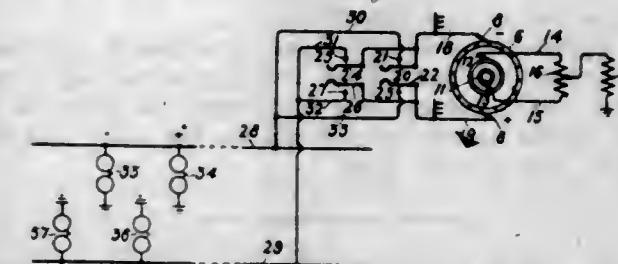
2. The method of preparing low-phosphorus tungsten or ferrotungsten, which consists in partially reducing ores of the iron-tungstate type, treating the reduced product to increase the ratio of tungsten to phosphorus, and thereafter completing the reduction.

1,081,571. METHOD OF TREATING TUNGSTEN ORES. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, Niagara Falls, N. Y., a Corporation of West Virginia. Filed Sept. 25, 1913. Serial No. 791,733. (Cl. 75-18.)

1. The method of treating tungsten ores, which consists in subjecting a low-phosphorus, manganese-bearing ore of the iron-tungstate type to a reducing operation, and treating the reduced product to increase the ratio of tungsten to manganese.

2. The method of treating tungsten ores, which consists in subjecting a low-phosphorus, manganese-bearing ore of the iron-tungstate type to a reducing operation, treating the reduced product to increase the ratio of tungsten to manganese, and thereafter completing the reduction.

1,081,572. ELECTRICAL SIGNALING SYSTEM. HENRY BEWLAY, Newark, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 2, 1912. Serial No. 707,155. (Cl. 179-86.)



1. In an electrical signaling system, a common source of direct and alternating currents, distributing lines conductively connected to said common source, and a transformer conductively and inductively connected to said distributing lines and common source.

2. In an electrical signaling system, a common source of direct and alternating currents, distributing lines conductively connected to said common source, and a transformer comprising a primary and secondary, the primary being conductively connected to said common source and the secondary thereof inductively and conductively connected to said primary.

3. In a three conductor electrical signaling system, the combination of two distributing mains, a common source of direct and alternating currents connected thereto, a third conductor, and a transformer conductively and inductively connected to said common source and the third conductor.

4. In an electrical signaling system, the combination of three conducting mains, a common source of direct and alternating currents connected to two of said mains, and a transformer the windings thereof being conductively and inductively connected together and the primary thereof being connected to the common source and the secondary to said third conductor.

5. In an electrical signaling system, the combination of a common source of direct and alternating currents comprising a dynamo electric machine equipped with a commutator and slip rings; three conducting mains two of which are connected to the commutator; and a transformer comprising a primary winding connected to said slip rings, and a secondary winding conductively connected to said primary and the third conductor.

[Claim 6 not printed in the Gazette.]

1,081,573. POROUS ARTICLE. PERCY ALBERT BOECK, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 29, 1912. Serial No. 700,398. (Cl. 75-182.)

1. A thin-walled porous article adapted for use as a filter and consisting essentially of alumina grain in conjunction with a small proportion of a ceramic bond.

2. A thin-walled porous article adapted for use as a filter and consisting essentially of grains of a highly-refractory material in conjunction with a small proportion of a ceramic bond.

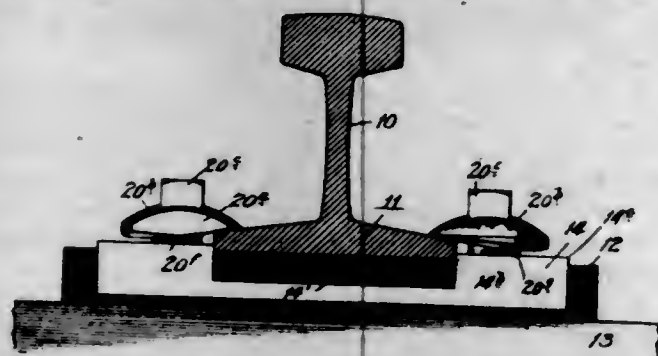
1,081,574. FILTERING APPARATUS FOR LABORATORY USE. PERCY A. BOECK, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed July 15, 1912. Serial No. 709,526. (Cl. 210-16.)



1. A filtering apparatus comprising a funnel, an elastic band extending into the same, and a porous cone located within the funnel wholly below the top thereof and supported by said elastic band.

2. A filtering apparatus comprising a funnel, an elastic band covering the rim of the funnel and extending into the same, and a porous cone conforming in shape to the interior of the funnel located within the same and supported by said elastic band.

1,081,575. RAIL SUPPORTING AND FASTENING DEVICE. DANIEL L. BRAINE, New York, N. Y., assignor, by meane assignments, to Composite Tie-Plate Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 15, 1913. Serial No. 754,502. (Cl. 238-2.)



1. In combination, a rail supporting means, a frame having a top portion adapted to rest on said means and said top portion being provided with an aperture and a reinforcing means, a screw spike adapted to be inserted through said aperture and screwed down to secure a rail base in position, said spike being provided with means to coact with said reinforcing means when in secured position to reinforce said spike against bending, said means being constructed to permit further screwing down of said spike as said rail base is lowered.

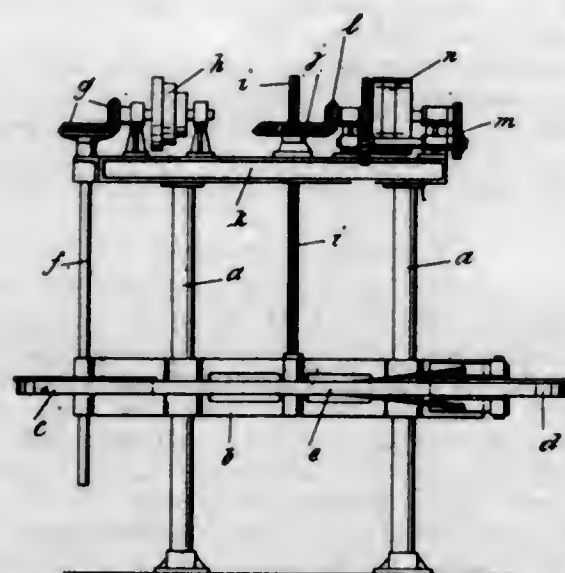
2. In combination, a supporting block, a supporting member, a reinforcing member carried on said supporting member, a shoulder carried by said member, a screw spike having a head adapted to secure a rail base on said supporting block, said head having means coacting with said shoulder to reinforce said head when in secured position with respect to said rail base, said means and said shoulder being constructed to permit further screwing

down of said spike when said rail base is lowered, at the same time maintaining said reinforcement.

3. In combination, a supporting block, a frame having a top portion adapted to rest on said block, a spiking aperture in said top portion, a portion of the periphery of said aperture being offset with respect to the remainder thereof to form a shoulder, a spike adapted to be inserted through said aperture, said spike being provided with a screw-threaded stem and a circular head, and means carried by said head adapted to co-act with said shoulder to support said head when said spike is in holding position.

4. In combination, a supporting block, a frame having a top portion adapted to rest on said block, a spiking aperture in said top portion, a portion of the periphery of said aperture being offset with respect to the remainder thereof to form a shoulder, a spike adapted to be inserted through said aperture, said spike being provided with a screw-threaded stem and a circular head, said spike being provided with a helically inclined supporting shoulder, located on the under side of said head, the pitch of said shoulder being approximately equal to the pitch of the thread of said stem, said shoulder of said spike being adapted to co-act with the shoulder of said top portion to support said head of said spike when in holding position, the under surface of said head being helically inclined in a direction reverse to that of said supporting shoulder and thread.

1,081,576. STONE-CUTTING MACHINE. PAUL BURGER, Baumholder, Germany. Filed Sept. 26, 1911. Serial No. 651,429. (Cl. 125-18.)



1. A tool for making narrow smooth sided cuts in blocks of stone of non-homogeneous structure in respect of hardness having a narrow cutting edge provided with a multiplicity of closely spaced fine transverse notches and comminuted loose abrading material mixed with a binder anchored in said notches.

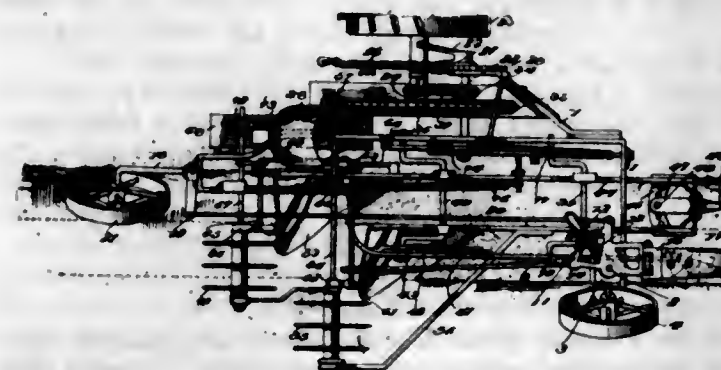
2. A tool for making narrow smooth sided cuts in blocks of stone of non-homogeneous structure in respect of hardness having a narrow cutting edge provided with a multiplicity of closely spaced fine notches and a mixture of diamond dust and oil filling said notches, the notches being partially closed to retain the mixture by upsetting the metal of the tool adjacent the edges of the notches.

1,081,577. GANG-PLOW. OSCAR CARLSON, Weedville, Pa. Filed May 28, 1912. Serial No. 700,342. (Cl. 97-44.)

1. A plow comprising a frame, beams attached to the frame, plow bodies carried by the beams, pulverizers connected with the beams and arranged in rear of and laterally beyond the respective plow bodies, and means for adjusting the pulverizers vertically with relation to the plow bodies.

2. A plow comprising a frame, beams connected to the frame, means for adjusting the beams with relation to the

frame, plow bodies carried by the beams, pulverizers connected with the respective beams and arranged in rear of the plow bodies, and means for adjusting the pulverizers vertically with relation to the plow bodies.



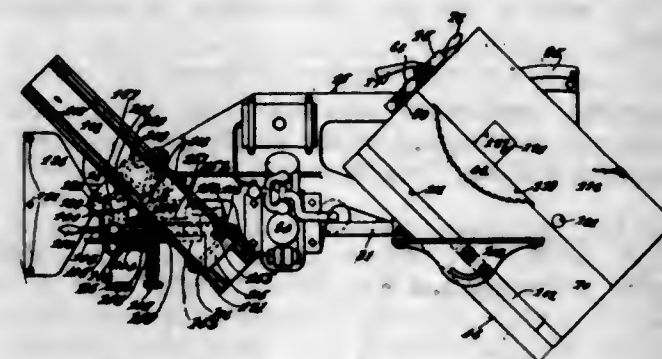
3. A plow comprising a wheel mounted frame, beams connected to the frame, plow bodies carried by the beams, pulverizers journaled for rotation behind the respective plow bodies and arranged laterally beyond the same, means for rotating the pulverizers from one of the supporting wheels of the frame, and means for adjusting the pulverizers vertically with relation to the plow bodies.

4. A plow comprising a wheel mounted frame, beams connected to the frame, plow bodies mounted upon the beams, pulverizers journaled for rotation behind the respective plow bodies, means for rotating the pulverizers from one of the supporting wheels of the frame, and means for vertically adjusting all of the pulverizers simultaneously with relation to the plow bodies.

5. A plow comprising a wheel mounted frame, crank shafts journaled thereon, beams pivoted upon the cranks of the shafts, a lever mechanism for turning the shafts, a two-armed treadle fulcrumed on the frame and connected with the beams, yieldable connections between the arms of the lever and the frame, plow bodies carried by the beams, pulverizers pivotally connected with the beams, means for operating the pulverizers from one of the supporting wheels of the frame, and means for adjusting the pulverizers with relation to the plow bodies.

[Claims 6 to 9 not printed in the Gazette.]

1,081,578. WOODWORKING MACHINERY. JOHN C. CASEY, Cincinnati, Ohio. Filed Aug. 22, 1912. Serial No. 716,449. (Cl. 143-36.)



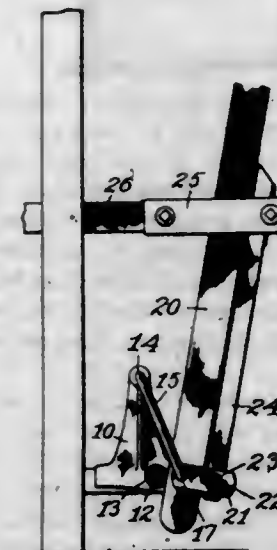
1. In a circular saw machine, the combination of a material-support having a substantially horizontal material-supporting surface, a mandrel journaled under the horizontal plane of said material-supporting surface, said mandrel arranged for having a circular saw-blade attached thereto projecting above said last-named plane into operative positions, and means for adjusting said mandrel at an angle to a horizontal plane and at an angle to a vertical plane for adjusting said circular saw-blade into said operative positions whereby material on said material-supporting surface is cut crosswise at angles both to its sides and edges by coöperative cutting movement between said saw-blade and material.

2. In a circular saw machine, the combination of a material-support having a substantially horizontal mate-

rial-supporting surface, a mandrel arranged for having a circular saw-blade attached thereto, means for adjusting said mandrel at angles to a horizontal plane and at angles to a vertical plane, and for rotatively adjusting said material-support in its plane during adjusted positions of said mandrel at angles to said horizontal plane, for the purpose described.

3. In a circular saw machine, the combination of a circular saw-blade, a material-support through which said circular saw-blade projects from below into operative positions, and means for adjusting said circular saw-blade at inclinations to both horizontal and vertical planes into said operative positions.

1,081,579. PICKER-STICK. EUGENE CHEVRETTE, Shirley Center, Mass. Filed Feb. 27, 1912. Serial No. 680,307. (Cl. 139-48.)



1. In a construction of the class described, the combination with a lay, of a picker stick supported and freely movable outwardly therefrom to swing on a pivot at the bottom, and a rocker piece mounted to swing about the same pivot and extending along and in contact with the picker stick throughout the length of the rocker-piece and arranged to impart an unyielding forward stroke at an intermediate point of the picker stick.

2. In a construction of the class described, the combination with the lay, a member connected therewith and freely movable away from the lay at each beat thereof, said member having a pivot thereon, a picker stick and sweep arm, the picker stick being pivoted on said pivot, of a rocker piece mounted to swing about said pivot and to extend along the picker stick, and slide pieces for connection with the sweep arm pivotally connected with said rocker piece near the upper end thereof.

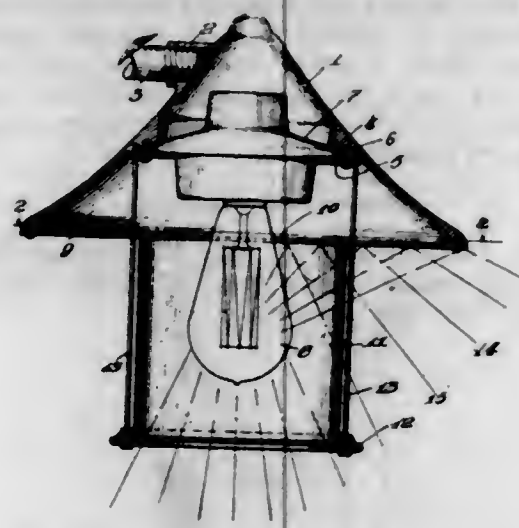
3. In a construction of the class described, the combination with a picker stick and sweep arm, of a member having a pivot about which the picker-stick is adapted to swing, a link pivoted on said pivot, a rocker piece connected with said link and extending along and arranged to engage the picker stick substantially all the way from the pivot to the sweep arm, means for connecting the rocker-piece with the sweep arm, and means for adjusting the bottom of the rocker piece longitudinally of said link.

4. In a construction of the class described, the combination of a rocking bracket, a link pivoted thereto and provided with a pivot, a picker-stick connected with said pivot, a link pivoted on said pivot and having a longitudinal slot therein, and a rocker piece adjustably connected with said link through said slot for connection with a sweep arm.

5. In a construction of the class described, the combination of a bracket having a horizontal bearing near the top thereof, a member mounted to swing in said bearing and having a pivot at the lower end thereof, a picker-stick mounted to swing on said pivot, a link pivoted on

the pivot, and a rocker piece for operating the picker-stick adjustably secured at its lower end to said link.
[Claims 6 to 9 not printed in the Gazette.]

1,081,580. LANTERN. JAMES R. CRAYATH, Chicago, Ill. Filed Sept. 24, 1913. Serial No. 791,489. (Cl. 240—11.)



1. A lighting appliance including a lamp, a support therefor, a reflector, a translucent inclosure for the lamp open at one end and abutting at its said end against the reflector, the said reflector extending both inwardly and outwardly of the said end of the inclosure, and means for supporting the said inclosure independently of the reflector.

2. A lighting appliance including a lamp, a reflector, a translucent inclosure for the lamp open at one end and abutting at its said open end against the reflector, the said reflector extending both inwardly and outwardly of the said abutting end of the inclosure, and a plurality of supports for the other end of the inclosure, the said supports coacting to support the inclosure independently of the reflector.

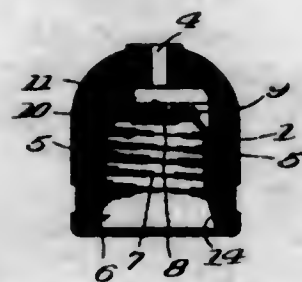
3. A lighting appliance including a lamp, a support therefor, a reflector, a translucent inclosure for the lamp abutting at one end against the reflector, the said reflector extending both inwardly and outwardly of the said abutting end of the said inclosure, an annular member engaging the other end of the inclosure, and a plurality of auxiliary members connecting the annular member with the said support, the said auxiliary members coacting with the annular member to support the inclosure and being adjustable to permit the distance between the annular member and the support to be varied to move the inclosure into and out of its said abutting engagement with the reflector.

4. A lighting appliance including a hood, a lamp supported thereby and depending vertically therefrom, a horizontally disposed perforated reflector carried by the hood, the neck of the said lamp projecting through a perforation in the said reflector, a translucent inclosure for the lamp abutting at its upper end against the said reflector intermediate of the periphery of the latter and the said perforation therein, and means carried by the hood for supporting the said inclosure in its said abutting engagement with the reflector.

5. A lighting appliance including a lamp, a socket therefor, a hood covering and supporting the said socket, a reflector carried by the hood and provided with a perforation, the neck portion of the said lamp projecting through the said perforation and being adjacent to the edge thereof, a substantially cylindrical inclosure for the lamp abutting at its upper end against the reflector intermediate of the said perforation and of the periphery of the reflector, and supporting means carried by the hood for supporting the said inclosure in its said abutting engagement with the reflector, the said supporting means being adjustable to permit the inclosure to be moved into and out of its said abutting engagement with the reflector.

[Claim 6 not printed in the Gazette.]

1,081,581. RECEPTACLE FOR INCANDESCENT ELECTRIC LAMPS. JAMES S. CROSSLEY, Solvay, N. Y., assignor to Pass & Seymour, Inc., Solvay, N. Y., a Corporation. Filed Dec. 31, 1910. Serial No. 600,304. (Cl. 173—358.)



1. In a water proof receptacle for incandescent electric lamps, a cup-shaped body of insulating material having a plurality of ribs on its inner surface extending from about the base nearly, but not quite, to the margin of the cup, said ribs having their marginal ends beveled, a substantially tubular outer lamp terminal, having a flaring outer end, said terminal being set in the body substantially in contact with the ribs and having said flaring end arranged in engagement with the beveled ends of the ribs and the margin of said end fitting snugly the inner wall of the cup, a central lamp terminal suitably secured in the base of the cup, and insulating cement filling the space within the cup around the outer terminal and between the ribs.

2. In a water-proof receptacle for incandescent electric lamps, a cup-shaped porcelain body provided with a recess for the lamp terminals, the wall of said recess being provided with a series of ribs for engaging with and maintaining in correct position the outer lamp terminal, said ribs being continuous and of equal length and extending from the upper, closed end of the recess down nearly to the mouth of the recess and terminating a short distance within said mouth in beveled ends.

3. A water-proof receptacle for incandescent electric lamps comprising a porcelain cup having an open mouth at its lower end and three holes through the wall which closes its upper end, a series of integral ribs on the inner surface of the cup terminating a short distance within the mouth of the cup in beveled ends, a threaded, tubular, lamp terminal set in the cup and having a flaring end engaging with said ends, a small center terminal suitably insulated and arranged at the upper end of the tubular terminal, conductors extending in through two of said holes and connected to the respective terminals and insulating cement filling the spaces between the terminals and the wall of the cup, substantially as described and shown.

1,081,582. MOISTENING-MACHINE. CHARLES H. CROWELL, Swampscott, Mass. Filed Dec. 22, 1911. Serial No. 667,383. (Cl. 91—14.)



1. In a machine of the character described, the combination of a container for a roll of gummed tape, a moistener, a retractor intermediate the said container and the said moistener and operating to draw the tape longitudinally thereof away from the moistener.

2. In a machine of the character described, the combination of a container for a roll of gummed tape, a moistener, a retractor intermediate the said container and the said

moistener and operating to draw the tape longitudinally thereof away from the moistener, and tension control mechanism acting on the tape at a point between the retractor and the container whereby the gummed tape on the side of the retractor toward the container is held immovable against the action of the retractor.

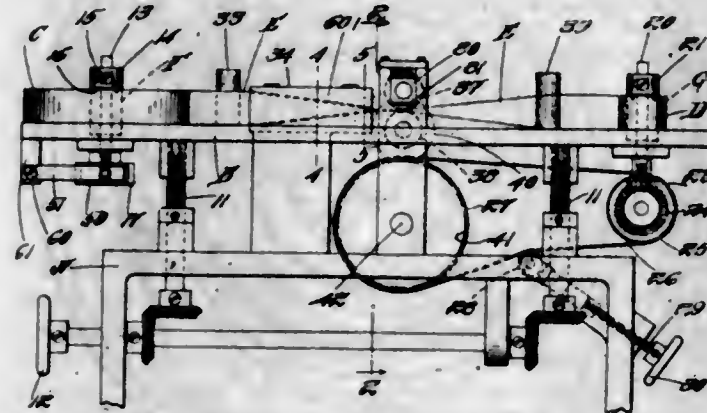
3. The improved moistener comprising a container for a roll of gummed tape, moistening means and a retractor comprising a member movable bodily across the path of the gummed tape when it is drawn out and operating to draw the tape longitudinally thereof away from the moistener.

4. In a machine of the character described, the retractor which consists in a member normally resting on the tape at a point below the line occupied by the tape as it is being pulled out, said member being moved up across said line by the said tape when it is being pulled out, and itself moving the portion of said tape which is adjacent the retractor down out of said line when the tension on the tape is relaxed and thereby moving the end of the tape longitudinally.

5. In a machine of the character described, the retractor which consists in a movable member normally at rest at one side of the line occupied by the tape as it is being pulled out and a guide for the said member and across the line of movement of the tape, said movable member being moved by the tape across the line of movement of the tape as it is pulled out, and itself moving the portion of the tape which is adjacent the said movable member out of said line when the tension on the tape is relaxed and thereby moving the end of the tape longitudinally.

[Claims 6 to 8 not printed in the Gazette.]

1,081,583. MACHINE FOR PREPARING STAY-STRIPS. CHARLES H. CROWELL, Swampscott, Mass. Filed Feb. 4, 1913. Serial No. 746,163. (Cl. 93—84.)



1. In a machine of the character described, in combination with a spindle to receive a roll of stay strip, a folding die, pressing rolls, rewinding mechanism, and means for adjusting said folding die and rewinding mechanism with relation to said pressing rolls for various widths of stay strip.

2. In a machine of the character described, the combination with a table having thereon a spindle to receive a roll of stay strip, a folding die and rewinding mechanism of independently supported pressing rolls, and means for adjusting said table with relation to said pressing rolls for different widths of stay strip.

3. In a machine of the character described, the combination with a vertically adjustable table carrying a spindle for a roll of stay strip, guide rolls and a rewinding mechanism for said stay strip, of a die having a passage therethrough with gradually converging sides and pressing rolls adjacent the mouth of said die, said die and said rolls being mounted on the frame of the machine independently of the vertically adjustable table.

1,081,584. HIDE-STRETCHER. WILLIAM C. DAVIS and JOHN MILLER, Freeport, Me., assignors, by direct and mesne assignments, of one-half to said Miller, and one-half to William K. Sanderson, Portland, Me. Filed Apr. 16, 1913. Serial No. 761,439. (Cl. 149—21.)

1. A hide stretcher including a pair of side bars, a pair of end bars pivoted to said side bars and to each

other, a center bar, toggle bars pivoted to said side bars and center bar and stretching springs secured to said side bars for engaging the feet of the stretched hide.



2. A hide stretcher including a pair of side bars, a pair of end bars pivoted to the side bars and to each other, a center bar, toggle bars pivoted to the center bar and the side bars and an adjustable fastening device connecting the side bars with the center bar to hold the latter in a fixed position longitudinally.

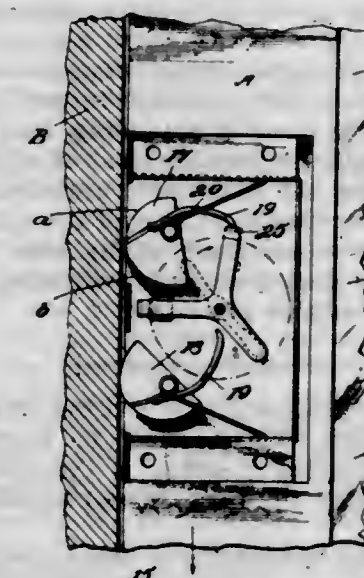
3. A hide stretcher including a pair of side bars, a pair of end bars pivoted to the side bars and to each other, a center bar having a loop therein, toggle bars pivoted to the center bar and the side bars and an adjustable fastening device for connecting the side bars with the center bar consisting of a flexible member secured to the side bars and extending through said loop.

4. A hide stretcher including a pair of side bars and a pair of end bars each made of a folded metal strip U-shape in cross section, said end bars being pivoted to the end bars and to each other, a center bar composed of two metal strips, toggle bars pivoted between the two parts of the center bar and to the side bars and means to secure the side bars and center bar from movement longitudinally with relation to each other.

5. A hide stretcher including a pair of side bars, a pair of end bars pivoted to each other and to the side bars, a center bar, toggle bars pivoted to the center bar and to the side bars, the end of the center bar abutting against the joint formed by the ends of the end bars when the toggle bars are at right angles to the center bar.

[Claim 6 not printed in the Gazette.]

1,081,585. SASH-LOCK. IRVING L. DEMPSEY, Galena, Md. Filed Mar. 7, 1913. Serial No. 752,900. (Cl. 16—19.)



1. A window sash lock including a casing, opposed cams eccentrically mounted, springs for urging said cams to a projected position beyond the edge of the lock casing, and a rotatable handle including an actuating device

having outwardly divergent arms engageable respectively with said cams to rotate one of the cams to an inoperative position when the handle is turned in one direction and rotate the other of said cams to an inoperative position when the handle is turned in the other direction, and means on the actuating device for holding the cam with which the arm is engaged from accidental return movement.

2. A window sash lock including a casing, opposed cams eccentrically mounted therein, each having a rearwardly projecting tail, the tails normally extending toward each other, springs for urging said cams to a projected position beyond the edge of the casing, and an actuating member including outwardly diverging arms engageable with the tails of the said cams, said handle when rotated in one direction engaging the tail of one of the cams and rotating it to a retracted position and when rotated in the opposite direction engaging the tail of the other cam and rotating it to a retracted position, each of said arms having means thereon engageable with the tail of the cam to hold the cam in retracted position from accidental return movement.

3. A window sash lock including a casing, an eccentrically mounted cam disposed in the casing, a spring rotating the cam to a projected position beyond the edge of the casing, a tail projecting from the cam and having a laterally bent end, and a rotatable handle having a radially projecting arm formed with a lug at its extremity, said lug when the handle is rotated engaging with the tail to rotate the cam from a projected to a retracted position, the casing being formed with a stop limiting the rotation of the arm to a position where the extremity of the tail will engage with the face of the lug.

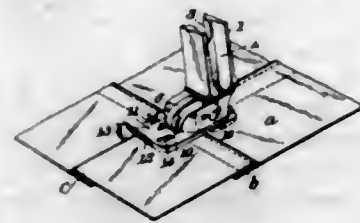
4. A window sash lock including a casing, opposed eccentrically mounted cams pivotally supported within the casing, that portion of the peripheral face of each cam which is most concentric to its axis of rotation being smooth, while that portion of each peripheral face which is eccentric to the center of rotation being roughened, a tail projecting rearward from each cam, said tails being extended rearward and curved toward each other and the middle plane of the casing, a stop formed upon the front of the casing with which said tails contact when the cams are projected, springs urging the cams to a projected position, and an actuating device including a handle, a rotatable post mounted within the casing, and radially projecting arms, each arm having a downwardly bent lug at its extremity normally extending in front of the corresponding tail, the face plate being provided with stops limiting the rotative movement of the handle to such position in either direction as will bring one of the lugs into engagement with the end of the corresponding tail.

5. A window sash lock including a casing, the face of the casing being formed with a depressed central portion, opposed cams eccentrically mounted within the casing and each having a rearwardly projecting tail, said tails extending toward the middle plane of the casing, a rotatable handle mounted within the depressed portion of the face of the casing and having a post entering the casing, radial arms mounted upon the post and extending over said tails and toward the front of the casing, each arm having a lug at its extremity disposed in front of a corresponding tail, springs urging the cams to a projected position, a stop limiting the forward movement of the tails, and stops limiting the rotative movement of the arms rearward in either direction to such position as will bring the lugs in contact with the ends of the tails.

1,081,586. SEWING-MACHINE PRESSER-FOOT. ALBERT H. DE VON, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 27, 1912. Serial No. 686,480. (Cl. 112-13.)

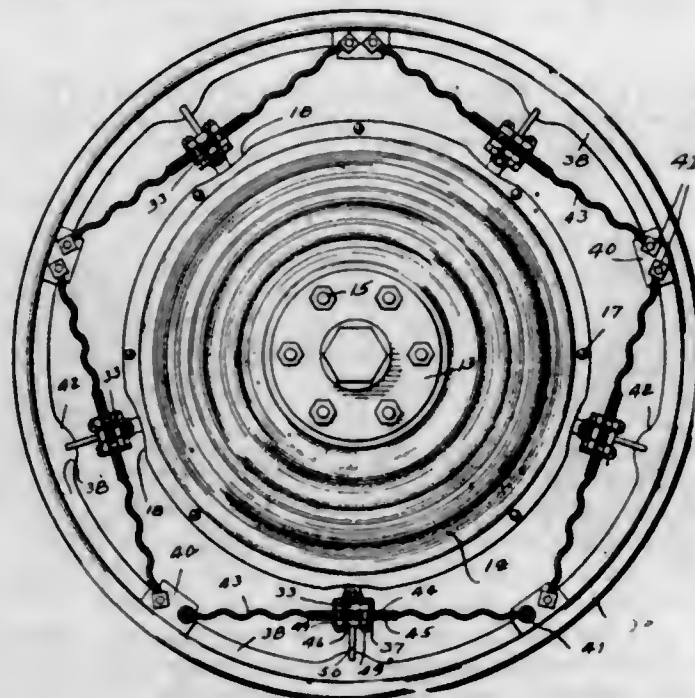
1. A presser-foot comprising a shank-portion carrying a pivotal pin disposed crosswise of the presser-foot, a tilting fulcrum-block mounted upon said pin, fulcrum-pins carried by said fulcrum-block upon the opposite sides of said pivotal pin and disposed parallel with the latter, and

independent tilting foot-plates each mounted upon one of said fulcrum-pins and arranged transversely to said pivotal pin.



2. A presser-foot comprising a shank-portion formed intermediate its side-faces with a vertical parallel-sided and open-bottomed slot disposed lengthwise of the foot, a transverse pivotal pin extending crosswise of said slot, a fulcrum-block of less width than that of said slot and journaled upon said pin, fulcrum-pins sustained by said block upon opposite sides of and parallel with said pivotal pin, and independent foot-plates arranged in a line parallel with said parallel-sided slot and formed with ears embracing said fulcrum-block and occupying the spaces between the same and the opposite walls of said slot and apertured to receive said fulcrum-pins.

1,081,587. VEHICLE-WHEEL. PETER B. DONAHOO, Oakland, Cal. Filed Mar. 20, 1912. Serial No. 684,996. Renewed Mar. 13, 1913. Serial No. 754,130. (Cl. 152-28.)



1. A device of the character described comprising a hub, resilient plates secured to said hub, a hoop connecting the outer edges of said resilient plates, links pivotally connected with said hoop, a rim, springs carried by said rim, clamping plates pivotally connected with said links and positioned adjacent the centers of said springs, and bracing webs extending from the outer clamping plates and provided with slots in their outer end portions in which said rim is positioned.

2. A wheel comprising a hub, side plates carried by said hub, a hoop carried by said side plates, said hoop having a pocket formed around its circumference, a web in the bottom of each of said pockets, a link pivotally connected with each of said webs, a clamping plate pivotally connected with each of said links, a rim, springs carried by said rim, a second clamping plate connected with said first mentioned plate and adapted to secure one of said springs adjacent the center thereof, and means carried by said second clamping plate for preventing relative lateral movement of said rim and hub structure.

3. A wheel comprising a hub, a rim surrounding said hub, leaf springs carried by said rim, clamps carried by said springs and pivotally connected with said hub structures, and plates carried by said clamps and having their

outer end portions bifurcated whereby said plates may be slidably connected with said rim.

4. A wheel comprising a hub structure, a rim surrounding said hub structure, corrugated spring strips carried by said rim, links pivotally connected with said hub structure, clamps pivotally connected with said links and engaging the central portions of said springs, and means carried by said clamps for slidably connecting said clamps with said rim.

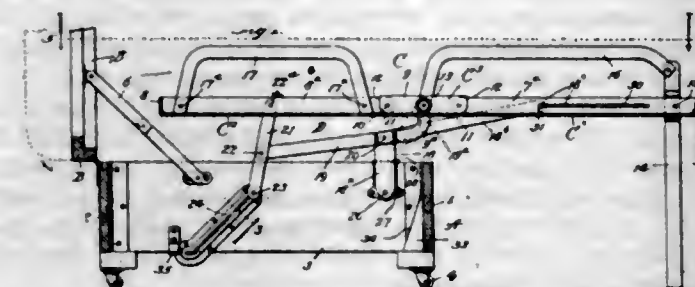
1,081,588. STOCK-CAR. HOWARD H. DUDLEY, Kansas City, Mo. Filed Jan. 28, 1911. Serial No. 605,308. (Cl. 119-9.)



1. In a stock car, a car body having vertical sides, a vertically movable deck between said sides, and horizontally adjustable means supported by said sides for engaging with and holding said deck against horizontal movement.

2. In a stock car, a car body having vertical sides, a vertically movable deck between said sides, and horizontal screws having threaded connection with said sides and adapted to bear against and hold said deck against horizontal movement.

1,081,589. SOFA-BED, COUCH-BED, &c. DARRELL FRANK DYKE, Chicago, Ill., assignor to The Seng Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 8, 1913. Serial No. 759,629. (Cl. 5-51.)



1. In a structure of the character set forth, the combination with a folding bed-frame comprising a plurality of foldably-related sections, including a rear section and a forwardly disposed section, of a supporting-frame, levers mounted to turn on said frame and having controlling connections with the forwardly-disposed bed-section, levers mounted on said first-named levers and having a section of said bed mounted thereon, and connections between said second-named levers, said frame and the rear bed-section, whereby the rear bed-section is actuated and controlled in the operations of folding and unfolding the structure.

2. In a structure of the character set forth, the combination with a supporting frame, of a pair of levers mounted to turn thereon, a second pair of levers mounted on said first-named levers, a folding bed-frame having an intermediate section mounted on said second-named levers and a rear section and a forwardly disposed section flanking said intermediate section, links connected with the rear bed-section and with said second-named levers, supporting and controlling means for said links connected with said frame, and controlling connections between said first-named levers and the forwardly-disposed bed-section.

3. In a structure of the character set forth, the combination with a supporting-frame, of a pair of bent levers having short arms mounted on the front portion of said frame, levers mounted on the elbow portions of said first-named levers, a folding-bed comprising an intermediate section and flanking forwardly disposed and rear sections pivotally connected therewith, said intermediate section being pivotally mounted on the front ends of said second-named levers, controlling connections between the long arms of said first-named levers and the forwardly-

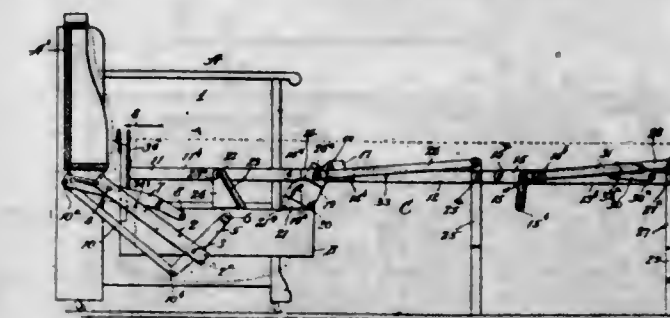
disposed bed-section, links connected with the rear bed-section and with the rear end of said second-named levers, and connections between said links and the supporting-frame.

4. In a structure of the character set forth, the combination with a supporting frame and a folding-bed comprising a plurality of foldably-related bed-sections, including a rear section and a forwardly disposed section, of compound levers mounted on said frame and having sliding connections with the forwardly-disposed bed-section and link connections with the rear bed-section and frame.

5. In a structure of the character set forth, the combination with a supporting-frame and a folding-bed comprising an intermediate section and flanking rear and forwardly disposed sections pivotally connected therewith, of a pair of bent levers having one arm pivotally connected with the frame and the other arm shiftably connected with the forwardly-disposed bed-section, a second pair of levers mounted on the elbow-portion of the first-named levers and having up-turned front ends on which said intermediate bed-section is pivotally mounted, and controlling means connected with the rear portions of said second-named levers.

(Claims 6 to 13 not printed in the Gazette.)

1,081,590. SOFA-BED, LOUNGE-BED, &c. DARRELL FRANK DYKE, Chicago, Ill., assignor to The Seng Company, Chicago, Ill., a Corporation of Illinois. Filed July 21, 1913. Serial No. 750,228. (Cl. 5-50.)



1. In a sofa-bed, the combination of a frame, an invertible seat mounted thereon, and a folding-bed mounted in the seat, comprising a head-section, a main intermediate section, a foot-section, and spacing sections, standards pivotally connected with the seat and capable of limited movement with relation thereto, and spacing sections between the head section and main intermediate section being pivotally connected with said standards, and supporting means between the seat and head-section adapted to permit the head-section to rise with relation to the seat in the operation of unfolding the bed.

2. In a sofa-bed, the combination with a supporting frame, of brackets attached thereto, standards pivotally connected with said brackets and having lost-motion connection therewith, permitting limited pivotal movement of the standards with relation to the supporting frame, and a folding-bed comprising a plurality of foldably-related sections, one section being pivotally connected with said standards, and another section having connections with the supporting frame adapted to support the last-named section when it is elevated with relation to the supporting frame.

3. In a sofa-bed, the combination with a supporting frame, of brackets applied thereto, rocking standards mounted on said brackets and capable of limited rocking movement, brackets mounted on the supporting frame and provided with cam-grooves and a folding-bed comprising three main-sections and spacing sections between them, one spacing section being pivotally mounted on said rocking standards, studs on the inner main section engaging said cam-grooves, levers connected with the intermediate and the outer main sections, and links serving to automatically extend and fold said legs in the operations of unfolding and folding the bed.

4. In a sofa-bed, the combination with a main frame and an invertible seat mounted thereon, of brackets at the front upper corners of the reversed seat-frame, rocking

standards mounted on said brackets and capable of limited rocking movement, a folding-bed comprising a head-section, a main intermediate section, a foot-section, and spacing sections, the inner spacing sections being mounted on said rocking standards, connections between the head-section and the seat-frame serving to aid in elevating the head-section when the bed is unfolded, legs connected with the main intermediate section and linked to said rocking standards, and legs connected with the foot-section and linked to the intermediate section.

5. In a sofa-bed, the combination with a main frame and an invertible seat mounted thereon, of a folding-bed carried by the seat and comprising a head-section, a main intermediate section, a foot-section and spacing sections, rocking standards mounted on the seat and capable of limited rocking movement, connections between the head-section and the seat, legs connected with the main intermediate section, links serving to actuate said legs, legs connected with the foot-section, links adapted to actuate said last-named legs, latch-members connected with said foot-section, and actuating links for said latch-members connected with one of the other bed-sections.

[Claims 6 to 11 not printed in the Gazette.]

1,081,591. AUTOMATIC EMBROIDERING-MACHINE. KARL EGGART, Arbon, Switzerland, assignor to The Firm of Adolph Saurer, Arbon, Switzerland. Filed June 19, 1911. Serial No. 633,958. (Cl. 112-7.)



1. In a mechanism for imparting movement to embroidery frames of automatic embroidery machines, a driving shaft for transmitting variable movement to the frame, rotating mechanism to selectively positively and negatively rotate said shaft in accordance with any member of an arithmetical series, a second rotating mechanism to selectively positively and negatively rotate said shaft in accordance with any member of another arithmetical series either independently of or simultaneously with the aforesaid mechanism, whereby the algebraic sum of the rotary movements of the two mechanisms is imparted to said shaft.

2. In mechanism for imparting movement to embroidery frames of automatic embroidery machines, a driving shaft for transmitting variable movement for one component of the movement of the frame; mechanism including rotating means to selectively positively and negatively rotate said shaft in accordance with any member of an arithmetical series, and a second rotating mechanism to selectively positively and negatively rotate said shaft in accordance with any member of another arithmetical series whose common difference is a multiple of the common difference of the first mentioned series, said second mechanism imparting its motion of rotation to the driving shaft either independently of or simultaneously with the first mechanism.

3. In mechanism for imparting movement to embroidery frames of automatic embroidery machines, a driving shaft, means to selectively positively and negatively rotate said shaft, comprising a pair of parallel oppositely rotating shafts each having pinions thereon corresponding to a short arithmetical series and a single pinion representing a term which is the multiple of the common difference of said series, an actuating shaft having differential mechanism thereon and gear wheels with which the corre-

sponding pinions on said parallel shafts are arranged to engage, said single pinion engaging a wheel on one side of the differential mechanism and the remaining pinions engaging wheels on the other side of said mechanism.

4. In mechanism for imparting movement to embroidery frames of automatic embroidery machines, a driving shaft, a differential mechanism for actuating the same, reversing gear wheels connected to said mechanism, a pair of actuating shafts, a differential mechanism on each of said actuating shafts, one of which shafts is arranged to operate said reversing gear wheels at a low speed and the other of which shafts is arranged to operate the first mentioned differential mechanism at a higher speed, gear wheels on said actuating shaft reversing mechanisms, a pair of shafts parallel to each actuating shaft, pinions on said parallel shafts arranged to selectively engage the gear wheels on said actuating shaft reversing mechanism, said pinions on each parallel shaft representing a short arithmetical series arranged to engage said gear wheels on one side of the differential mechanism and one pinion engaging a wheel on the opposite side of said differential mechanism, and means to impart opposite step-by-step rotation to the shafts of a pair of parallel shafts.

5. In mechanism for imparting movement to embroidery frames of automatic embroidery machines, a driving shaft, a differential mechanism for actuating the same, reversing gear wheels connected to said mechanism, a pair of actuating shafts, a differential mechanism on each of said actuating shafts, one of which shafts is arranged to operate said reversing gear wheels at a low speed and the other of which shafts is arranged to operate the first mentioned differential mechanism at a higher speed, gear wheels on said actuating shaft reversing mechanisms, a pair of shafts parallel to each actuating shaft, gear wheels on said parallel shafts gearing them together to rotate in unison, pinions on said parallel shafts arranged to selectively engage the gear wheels on said actuating shaft reversing mechanism, said pinions on each parallel shaft representing a short arithmetical series arranged to engage said gear wheels on one side of the differential mechanism of the actuating shaft and one pinion engaging a wheel on the opposite side of said differential mechanism, and a pawl and ratchet mechanism to operate one of said parallel shafts step-by-step, whereby all of said shafts are synchronously rotated, the shafts of a pair being rotated in opposite directions.

[Claim 6 not printed in the Gazette.]

1,081,592. MEDICINAL PREPARATION. PAUL EHRLICH and ALFRED BERTHEIM, Frankfurt-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Aug. 6, 1912. Serial No. 713,509. (Cl. 167-7.)

1. An ampul hermetically sealed containing amino-oxyarsenobenzenes in an atmosphere of a non-oxidizing gas.

2. An ampul hermetically sealed containing polyamino-dioxyarsenobenzene in an atmosphere of a non-oxidizing gas.

3. An ampul hermetically sealed containing diamino-dioxyarsenobenzene in an atmosphere of a non-oxidizing gas.

4. An ampul hermetically sealed containing a hydrochlorid of an amino-oxyarsenobenzene in an atmosphere of a non-oxidizing gas.

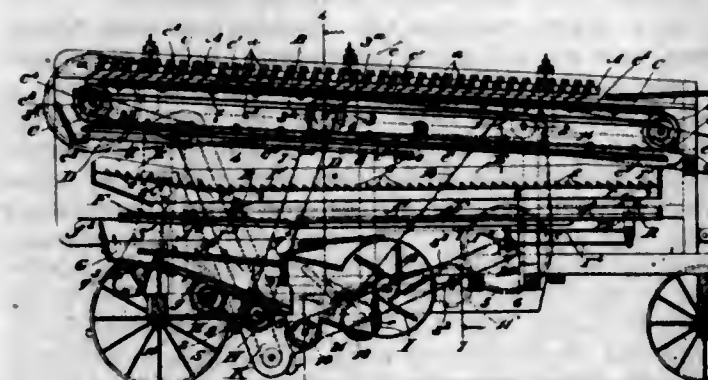
5. An ampul hermetically sealed containing a hydrochlorid of a polyaminodioxyarsenobenzene in an atmosphere of a non-oxidizing gas.

[Claims 6 to 8 not printed in the Gazette.]

1,081,593. PEANUT PICKER AND STEMMER. HENRY WOLF EISENHART and MILLS W. DARDEN, York, Pa., assignors to A. B. Farquhar Company, Limited, York, Pa. Filed Oct. 9, 1913. Serial No. 794,271. (Cl. 130-30.)

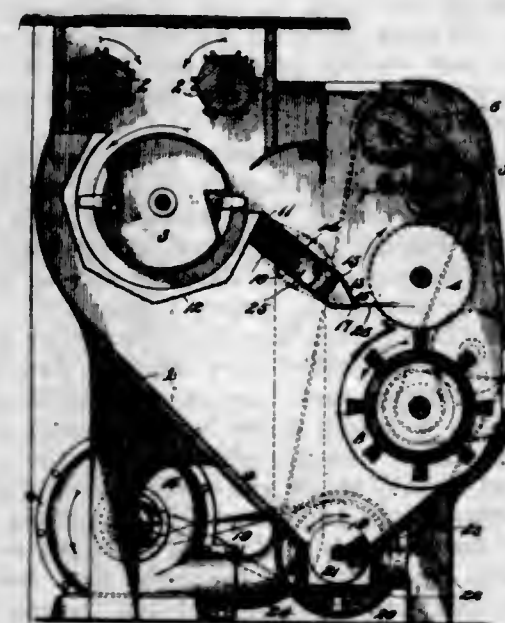
1. In a peanut picker and stemmer, the combination with the picker mechanism, the shoe provided with slatted

bottom, and the stemming saws projecting therethrough, of the two shakers E and F, placed one above the other in the order named; mechanism for imparting to the shakers a combined up and down and to and fro movement, simultaneously but in opposite directions; mechanism for vibrating the shoe; a fan and mechanism for operating the same; and a riddle interposed between the lower shaker and the slatted bottom of the shoe, and mounted in and moving with the shoe—these parts being constructed and arranged together for joint operation, substantially as and for the purposes hereinbefore set forth.



2. In a peanut picker and stemmer, the combination of the picking mechanism, the chute for delivering the material acted on by the picking mechanism; the upper shaker E, to which said material is delivered from said chute, having a transversely ribbed bottom, with openings between adjoining ribs; the lower shaker F located directly beneath the upper shaker, and having a bottom composed of a front perforated section f, a middle transversely ribbed, imperforate section f', and a rear transversely ribbed and perforated section f"; the shoe located directly beneath the said rear section f"; the riddle mounted in the shoe and interposed between said rear section f" and the bottom of the shoe; the stemming saws projecting up through slits in the bottom of the shoe; the fan; and mechanism for actuating the two shakers, the shoe, the stemming saws and the fan—all substantially as and for the purposes hereinbefore set forth.

1,081,594. COTTON EXTRACTING AND CLEANING MACHINE. BRUCE S. ELLIOTT, St. Louis, Mo., assignor to Alsop Process Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 23, 1912. Serial No. 738,115. (Cl. 13-12.)



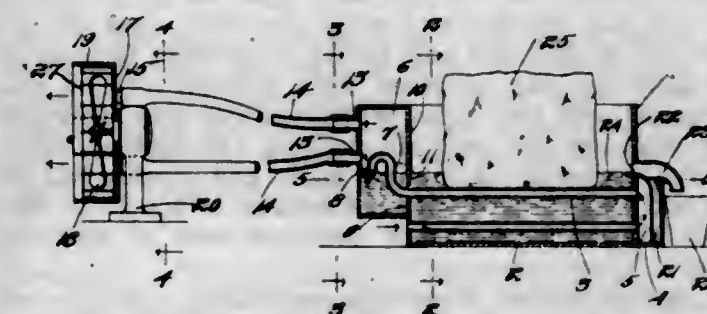
1. In a cotton extracting and cleaning machine, a saw cylinder, a hull board, the lower end of which defines the size of an opening past the saw cylinder, and means for directing a blast of air from the hull board toward the saw cylinder.

2. In a cotton extracting and cleaning machine, a saw cylinder, a hull board, the lower end of which defines the size of an opening past the saw cylinder, and means for directing a blast of air from the lower end of the hull board toward the saw cylinder.

3. In a cotton extracting and cleaning machine, a saw cylinder, a hollow hull board having its lower end defining the size of an outlet past the saw cylinder and provided with an opening, and means for continuously forcing a blast of air into said hull board and through said opening.

4. In a cotton extracting and cleaning machine, a saw cylinder, a hollow hull board directed toward said saw cylinder and having its lower end portion inclined at a less angle thereto, said hull board being provided at its lower end with a discharge opening, and means for forcing air under pressure into said hull board whereby a blast of air will be directed through said opening toward the saw cylinder.

1,081,595. AIR-COOLER. ARTHUR ELSON, Boston, Mass. Filed Apr. 5, 1913. Serial No. 759,024. (Cl. 62-21.)



1. An air cooling apparatus comprising a box, air chambers connected with two ends of the box, a plurality of air tubes in two sets, one set being at a higher elevation than the other set, both sets of which pass entirely through said box, and open at one end into one of said air chambers, the other ends of the lower set of air tubes being open to the atmosphere and the corresponding ends of the upper set of tubes leading into the second of said air chambers, outlet tubes leading from said second air chamber above the mouth of said upper set of air tubes, the ice box having a water inlet into said second air chamber and having a discharge outlet at a level above the open ends of said upper set of air tubes and below the said air outlet tubes.

2. An air cooling apparatus comprising a box having a compartment to receive ice, air chambers connected with two ends of the box, a plurality of air tubes in two sets, one set being at a higher elevation than the other set, both sets of which pass entirely through said ice box and open at one end into one of said air chambers, the other end of the lower set of air tubes being open to the atmosphere and the corresponding ends of the upper set of tubes leading into the second of said air chambers, said upper set of air tubes having a bent extension within said second air chamber, means whereby the water formed by the melting ice is allowed to pass into the said second air chamber and form a water seal for the ends of said bent air tubes, means for permitting the discharge of the excess of water at an elevation higher than the mouths of said bent air tubes and air outlet tubes leading from said second air chamber above the mouth of said upper set of air tubes and at a higher level than the said water outlet.

3. An air cooling apparatus comprising a box to receive ice, air chambers connected with two ends of the box, a plurality of air tubes in two sets, one set being at a higher elevation than the other set, both sets of which pass entirely through said ice box and open at one end into one of said air chambers, the other end of the lower set of air tubes being open to the atmosphere and the corresponding ends of the upper set of tubes leading into the second of said air chambers, said upper set of air tubes forming the seat for the ice in the ice box,

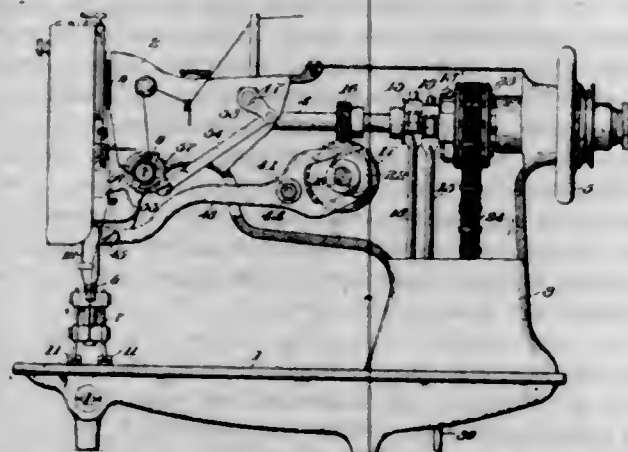
and having a bent extension within said second air chamber, air outlet tubes leading from said second air chamber above the mouth of said upper set of air tubes, the said air chamber into which the bent arms of the upper set of air tubes lead having a partition between it and said box and provided with apertures below the mouths of said bent tubes whereby water may circulate from said box into said air chamber and form a water seal for the mouth of said air tubes and means for permitting a discharge of excess water at a level above the mouth of said bent ends of the air tubes and below the level of said air outlet tubes.

4. An air cooling apparatus comprising a box, air chambers connected with two ends of the box, a plurality of air tubes in two sets, one set being at a higher elevation than the other set, both sets of which pass entirely through said box, and open at one end into one of said air chambers, the other end of the lower set of air tubes being open to the atmosphere and the corresponding ends of the upper set of tubes leading into the second of said air chambers, said upper set of air tubes having a bent extension within said second air chamber, air outlet tubes leading from said second air chamber above the mouth of said upper set of air tubes, the said air chamber into which the bent arms of the upper set of air tubes lead having a partition between it and said box and provided with apertures below the mouths of said bent tubes whereby water may circulate from said box into said air chamber and form a water seal for the mouth of said air tubes, and another end of said box being formed with a discharge orifice at an elevation above the mouth of the bent ends of said air tubes.

5. An air cooling apparatus comprising a box to receive ice, air chambers connected with two ends of the box, a plurality of air tubes in two sets, one set being at a higher elevation than the other set, both sets of which pass entirely through said box and open at one end into one of said air chambers, the other end of the lower set of air tubes being open to the atmosphere and the corresponding ends of the upper set of tubes leading into the second of said air chambers, said upper set of air tubes forming a seat for the ice in said box and having a bent extension open at the end within said second air chamber, means for allowing discharge of the excess of water at a level above the open end of said bent extension, air outlet tubes leading from said second air chamber above the mouth of said upper set of air tubes, and a suction device connected with said air outlet tubes.

[Claims 6 to 10 not printed in the Gazette.]

1,081,596. THREAD-CONTROLLER FOR SEWING-MACHINES. JOHN S. FINCH, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Apr. 23, 1912. Serial No. 692,600. (Cl. 112-7.)



1. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanism, said stitch-forming mechanism including a needle thread take-up and means for controlling the movements of the needle-bar in different vertical planes, of means including a thread-controller spring and spring stop, the latter operatively

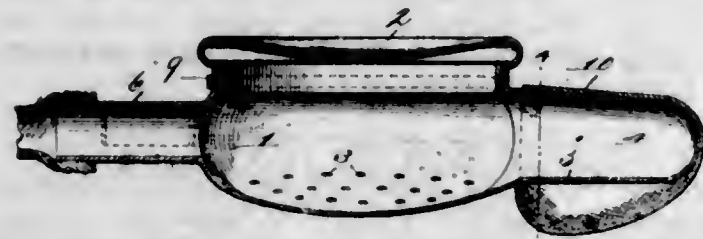
connected with said needle-bar-controlling means for controlling the slack of the needle-thread in the formation of stitches of different character.

2. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanism, said stitch-forming mechanism including a needle-thread take-up means for controlling the movements of the needle-bar in different vertical planes, of means including a thread-controller spring and a spring stop, the latter operatively connected through a rock-shaft mounted on the sewing machine bracket arm, with said needle-bar-controlling means for controlling the slack of the needle-thread in the formation of stitches of different character.

3. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanism, said stitch-forming mechanism including a needle-thread take-up a needle-thread tension and means for controlling the movements of the needle-bar in different vertical planes, of a thread-controller spring and spring stop, the latter located between said needle-bar and said needle-thread tension and operatively connected with said needle-bar-controlling means for controlling the slack of the needle-thread in the formation of stitches of different character.

4. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanism, said stitch-forming mechanism including a needle-thread take-up, a needle-thread tension, means for controlling the movements of the needle-bar in different vertical planes, a needle-thread controller spring and an adjustable spring stop located between said take-up and tension, of means for adjusting said spring stop with respect to said controller spring to change the extent of movement of the latter to correspond to the changes in amplitude of the vibrations of the needle-bar in the formation of stitches of different character.

1,081,597. CLEANING DEVICE. PYRMA E. FISCHER, New York, N. Y. Filed July 14, 1913. Serial No. 778,905. (Cl. 141-9.)



1. A dish washer comprising a hollow body having a laterally projecting nose, said body being perforated upon one side so as to direct streams of water toward said nose, the said nose being perforated upon one side, a water inlet tube carried by said body upon the side opposite the nose, and means for securing a dish cloth upon said nose.

2. A dish washer comprising a shallow cylindrical body having a perforated concavo convex bottom, a detachable concavo convex top carried by said body, a flattened nose leading from one side of the body a water supply tube opening into the opposite side of the body, said nose being adapted to receive a dish cloth.

3. A device of the kind described comprising a shallow cylindrical body perforated upon one side and having a projecting perforated nose, means for admitting water into said body a fabric sleeve loosely closing the nose, said body having a circumferential groove, and a holding tape secured to said fabric and resting in said groove.

4. A device of the kind described comprising a cylindrical body the under face of which is bulged outwardly, a detachable top depressed inwardly, said body being reduced in diameter adjacent said top thereby forming a circumferential groove when the top is in place, a flattened nose projecting from one side of the body, the under face of the body and the nose having perforations directing streams of water in the direction of the outer end of the nose, a water inlet tube carried by the body, and handle members carried by said tube as and for the purpose set forth.

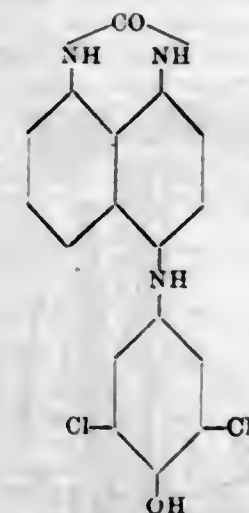
1,081,598. GREEN SULFUR DYE. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 3, 1912. Serial No. 723,702. (Cl. 8-1.)

1. The herein described new sulfur dyes being sulfur-containing derivatives of leucoindophenols of the formula:



in which X means a phenolic radical, which are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a green coloration; being with difficulty soluble in concentrated sulfuric acid with a greenish-blue coloration; and dyeing unmordanted cotton green shades fast to light and to boiling, substantially as described.

2. The herein described new sulfur dye being a sulfur-containing derivative of the leucoindophenol of the formula:



which dye is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a dark green coloration; soluble with difficulty in concentrated sulfuric acid with a greenish-blue coloration; and dyeing unmordanted cotton in pure green shades fast to light and to boiling, substantially as described.

1,081,599. GREEN COLORING-MATTER CONTAINING SULFUR. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 3, 1912. Serial No. 723,703. (Cl. 8-1.)

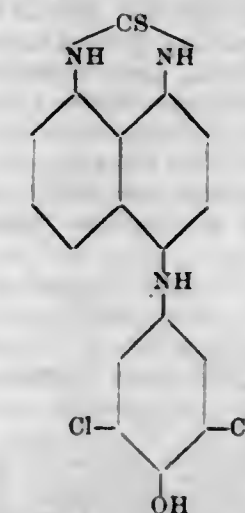
1. The herein described new sulfur dyes being sulfur-containing derivatives of leucoindophenols of the formula:



in which X means a phenolic radical, which are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a green coloration.

tion, being with difficulty soluble in concentrated sulfuric acid with a greenish-blue coloration; and dyeing unmordanted cotton green shades fast to light and to boiling, substantially as described.

2. The herein described new sulfur dye being sulfur-containing derivatives of the leucoindophenol of the formula:



which dye is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a dark green coloration; soluble with difficulty in concentrated sulfuric acid with a greenish-blue coloration; and dyeing unmordanted cotton in pure green shades fast to light and to boiling, substantially as described.

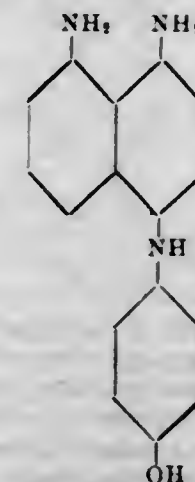
1,081,600. OLIVE-GREEN SULFUR DYE. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 8, 1912. Serial No. 724,628. (Cl. 8-1.)

1. The herein described new sulfur dyes being sulfur-containing derivatives of leucoindophenols of the formula:



in which X means a phenolic radical, which are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a green coloration; being practically insoluble in concentrated sulfuric acid; and dyeing unmordanted cotton olive-green shades fast to light and to boiling, substantially as described.

2. The herein described new sulfur dye, being a sulfur-containing derivative of the leucoindophenol of the formula:

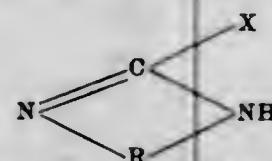


which dye is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a bluish-

green coloration; practically insoluble in concentrated sulfuric acid; soluble in hot caustic soda lye (30° B_é) with a dark green coloration; and dyeing unmordanted cotton in pure olive-green shades fast to light and to boiling, substantially as described.

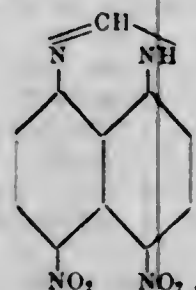
1,081,601. CATECHU-BROWN SULFUR DYE. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 10, 1912. Serial No. 725,029. (Cl. 8—1.)

1. The herein described new sulfur dyes being sulfur-containing derivatives of pyrimidin compounds containing the radical:



with a free bond shown in place X, in which R stands for a naphthalene ring containing at least one nitro group, which dyes are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a red-brown coloration; being scarcely soluble in concentrated sulfuric acid with a yellowish-brown coloration; dyeing unmordanted cotton catechu-brown shades fast to light, substantially as described.

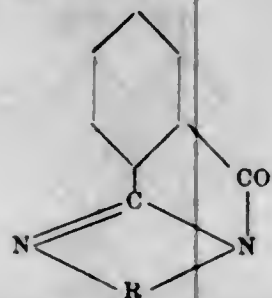
2. The herein described new sulfur dye being a sulfur-containing derivative of dinitropyrimidin having most probably the formula:



which is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a reddish-brown coloration and scarcely soluble in concentrated sulfuric acid with a yellowish-brown coloration; dyeing unmordanted cotton in pure catechu-brown shades fast to light, substantially as described.

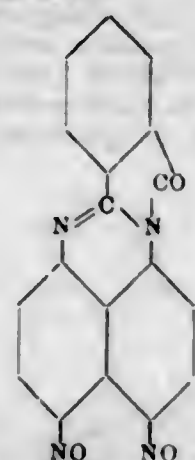
1,081,602. BROWN SULFUR COLORING-MATTERS. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 10, 1912. Serial No. 725,030. (Cl. 8—1.)

1. The herein described new sulfur dyes being sulfur-containing derivatives of phthaloperinone compounds having most probably the formula:



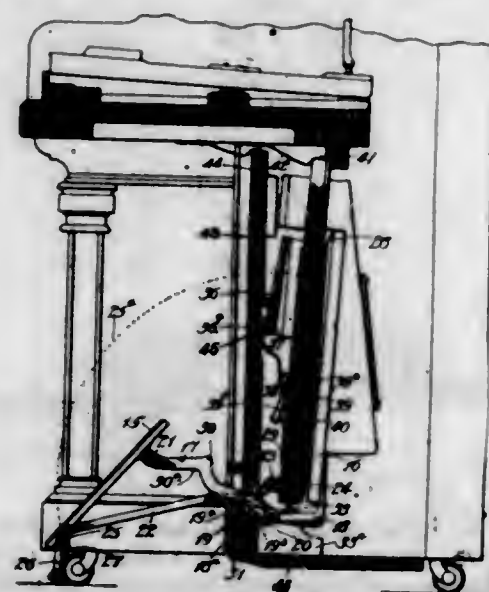
in which R stands for a naphthalene ring containing at least one nitro group, which dyes are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a yellowish-brown to red-brown coloration; being soluble in concentrated sulfuric acid with a brown coloration; and dyeing unmordanted cotton bloomy catechu-brown shades fast to light, substantially as described.

2. The herein described new sulfur dye being a sulfur-containing derivative of dinitrophthaloperinone having most probably the formula:



which is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a reddish-brown coloration and soluble in concentrated sulfuric acid with a brown coloration; dyeing unmordanted cotton in pure catechu-brown shades fast to light, substantially as described.

1,081,603. PNEUMATIC PIANO. CHARLES FIEBORG, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company, a Corporation of Illinois. Filed Sept. 21, 1909. Serial No. 518,729. (Cl. 84—169.)



1. In an instrument of the character described, a treadle, a bellows, a bellows arm slotted in its outer end, and a connecting rod having one end pivotally attached to the treadle and its other end pivotally attached to said arm and having a limited slidable engagement with said arm.

2. In an instrument of the character described, a treadle, a bellows, a bellows arm slotted in its outer end, a connecting rod having one end pivotally attached to the treadle and its other end pivotally attached to said arm and having a limited slidable engagement with said arm, and a fulcrum for said treadle adapted to be raised to an elevated position.

3. In an instrument of the character described, a treadle, a bellows, a bellows arm slotted in its outer end, a connecting rod having one end pivotally attached to the treadle and its other end pivotally attached to said arm and having a limited slidable engagement with said arm, a fulcrum for said treadle adapted to be raised to an elevated position, and links by which said fulcrum is pivotally mounted on the instrument adjacent the pivotal connection of said arm and connecting rod.

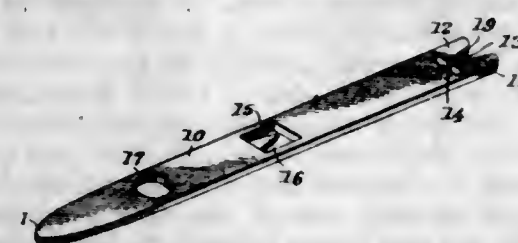
4. In an instrument of the character described, a treadle, a bellows, a bellows arm slotted in its outer end, a connecting rod having one end pivotally attached to the treadle and its other end pivotally attached to said arm and having a limited slidable engagement with said

arm, links to which said treadle is pivoted, and feet on said links.

5. In an instrument of the character described, the combination with a treadle and bellows, of a bellows arm having a slot at its end substantially parallel to the direction of movement of the bellows arm, and a connecting rod having one end pivotally attached to the treadle and its other end pivotally attached to said arm and having a limited slidable engagement therewith.

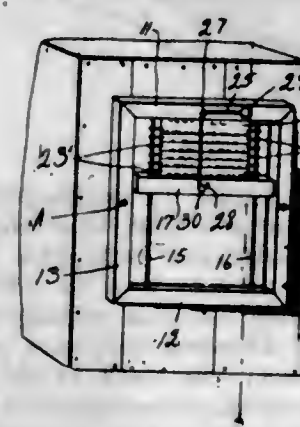
[Claims 6 to 25 not printed in the Gazette.]

1,081,604. BODKIN. ALBERT C. GAULT, Kalamazoo, Mich., assignor to Arthur R. Cross, Kalamazoo, Mich. Filed Nov. 20, 1912. Serial No. 732,479. (Cl. 223—38.)



As a new article of manufacture, a bodkin consisting of a single piece of material terminating at the front end thereof in a point and having an integral securing member struck therefrom at the medial portion of the piece of material and projecting into an opening at the medial portion of the piece of material, the said securing member lying in the horizontal plane of the said piece of material and being adapted to extend through the free end of a ribbon passed through the medial opening, with the said ribbon passing through an opening adjacent the forward end of the piece of material and lying flat upon the upper face of the piece of material, with another portion of the ribbon passing through an opening formed at the rear end of the piece of material by spaced prongs providing flanges, and a tapering slot terminating in the said opening at the rear end of the said piece of material.

1,081,605. NEST-TRAP. CHARLES LEWIS GRANT, Merchantville, N. J. Filed Apr. 26, 1913. Serial No. 763,864. (Cl. 119—49.)



1. A trap for nests including a main frame, parallel guide rods disposed within the inclosure of said frame, a gravitating slide bar secured to said guide rods, a curtain secured to said frame and to said slide bar, a right-angular trigger pivoted at the elbow on said frame above said slide bar and having a hook at one end and a weight at the opposite end whereby the hook is normally held rocked upwardly, and a pin carried by said slide bar, said hook being adapted to be rocked downwardly into engagement with said pin for yieldably holding said slide bar raised.

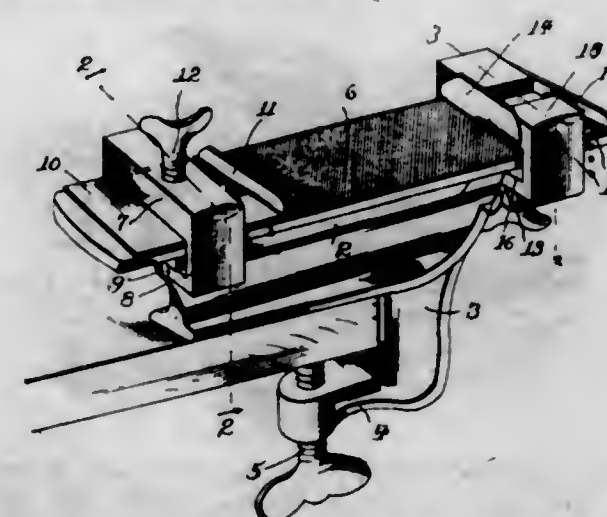
2. A trap for nests including a main frame, parallel guide rods carried within the inclosure of said frame, a slide bar having bearing tubes near the ends encircling said guide rods, a curtain secured to said frame and to said slide bar, a pivot pin disposed at substantially the center of the upper bar of said frame, a rightangular trigger having an eye at the elbow encircling said pin, said trigger being formed with a hook at one end, and with

a counterbalancing weight at the opposite end serving to hold said hook rocked upwardly, and a pin disposed at substantially the center of said slide bar, said trigger being adapted to be manually rocked on said pivot pin until said hook engages with said pin whereby to yieldably hold said slide bar raised.

3. A trap for nests, including a main frame, parallel guide rods carried within the inclosure of said frame, a slide bar movable on said guide rods, a curtain secured to said frame and to said slide bar, rings connected to the sides of the curtain and encircling and slidably mounted upon the guide rods, a pivot pin disposed at substantially the middle of the upper bar of said frame, a right angular trigger having an eye at the elbow encircling said pin, said trigger being formed with a hook at one end and provided at its opposite end with a counterbalancing weight serving to hold said hook rocked upwardly, and a pin disposed at substantially the center of said slide bar, said trigger being adapted to be manually rocked on said pivot pin until said hook engages with said pin, whereby to yieldably hold the slide bar raised.

4. A nest trap comprising a main frame, vertical guide elements secured to the frame, a gravitating bar movably connected to the guide elements, a curtain secured to said frame and to said bar, a right angular trigger pivotally connected at its elbow to the frame above said bar and having means on one end for engaging the bar and being provided with means at its other end for swinging it through an angle of approximately 90 degrees when released from its engagement with the bar.

1,081,606. KNIFE AND SCISSORS SHARPENER. WILLIAM P. GRAY and JAMES H. DUNCAN, Campbellton, New Brunswick, Canada. Filed Apr. 30, 1912. Serial No. 694,300. (Cl. 78—88.)



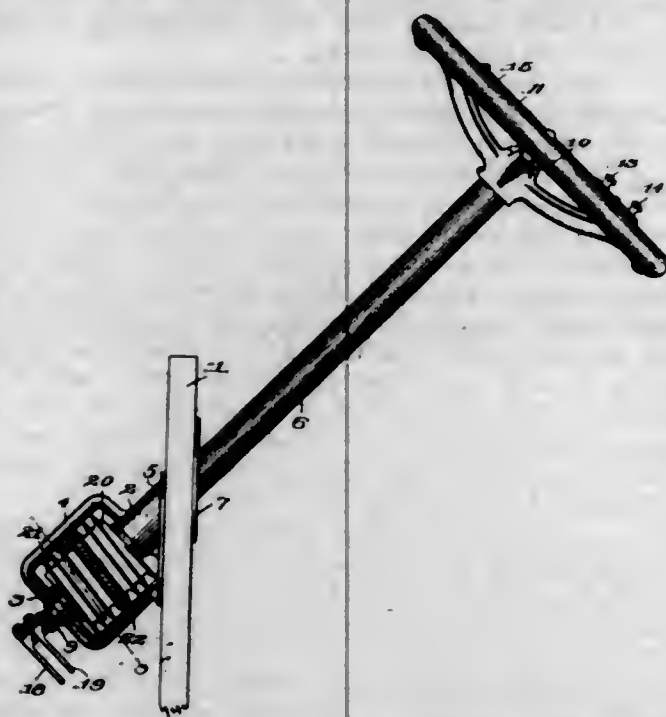
A device for the purposes set forth comprising a supporting body having a flat top, a file resting upon said flat top, a guide plate resting upon the file and having an upstanding flange disposed at an angle to the teeth of the file, a clamping member fitted around the supporting body, the file and the guide plate, and means mounted in said member to secure the file to the support and the guide plate to the file.

1,081,607. STEERING MECHANISM. WILLIAM S. HALL, Rochester, N. Y. Filed Sept. 7, 1912. Serial No. 719,101. (Cl. 114—160.)

1. In a steering mechanism, the combination with a bulkhead or similar partition wall, of a bearing member comprising a main bearing portion having a bracket plate extension secured to the bulkhead and an auxiliary bearing portion on the same side of the latter and a yoke connecting them, of a steering post extending through both bearing portions, through the bracket plate and through the bulkhead and winding means fixed to the post between the bearing portions and within the yoke.

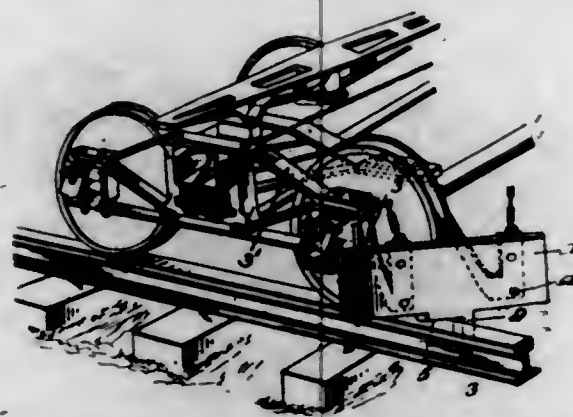
2. In a steering mechanism, the combination with a bulkhead or similar partition wall, of two bearing members secured respectively to opposite sides of the bulk-

head, one comprising a main bearing portion and an auxiliary bearing portion and a yoke connecting them, and a steering post extending through both bearing portions.



tions of one bearing member and through the bulkhead and the other bearing member and winding means fixed to the post within the yoke.

1,081,608. TRACK-CLEANER. JOHN HENRY HALLER, New Canaan, Conn. Filed May 22, 1912. Serial No. 699,016. (Cl. 104-100.)



The combination with truck bars of a wheel truck of a car, said bars extending one upon either side of each wheel, of brackets engaging the truck bars, downwardly and forwardly extending arms formed integrally with said brackets, and a fender plate secured upon the free ends of said arms and extending in a vertical plane, the outer end of the fender plate being directed rearwardly at an angle, said plate being provided at its lower edge with a downwardly formed shoulder substantially equal in width to the width of the tread of a rail and positioned to extend across the same and in close proximity thereto, said shoulder having a downwardly depending lug extending below the tread of the rail and directly in the path of the wheel flange.

1,081,609. ADJUSTABLE LOOP ATTACHMENT. HARRY C. HAZARD, Baltimore, Md. Filed Jan. 22, 1913. Serial No. 743,525. (Cl. 24-200.)

1. An adjustable loop attachment device consisting of the combination with an article or garment, of a loop consisting of a doubled strip of fabric the two ends of which are permanently attached at the same point to the article or garment, and a buckle permanently attached to the article or garment and provided with two slots forming inner and outer side bars and a central bar, a portion of the said loop being passed through one of the said

slots, over the said central bar and thence through the other one of the said slots and around the said outer side bar, and thence again over the said central bar, and then again through the first-named or inner slot; whereby the said loop may be permanently held in any desired position of adjustment and the loop may be lengthened or shortened to let out or take up the article or garment to which the device is secured.



2. An adjustable loop attachment device consisting of the combination with an article or garment, of a loop consisting of a doubled strip of fabric the two ends of which are permanently attached at the same point to the article or garment, and a buckle permanently attached to the article or garment and provided with two slots forming inner and outer side bars and a raised or outwardly bent central bar, a portion of the said loop being passed through one of the said slots, over the said central bar and thence through the other one of the said slots and around the said outer side bar, and thence again over the said central bar, and then again through the first-named or inner slot; whereby the said loop may be permanently held in any desired position of adjustment and the loop may be lengthened or shortened to let out or take up the article or garment to which the device is secured.

1,081,610. ADJUSTABLE FASTENING DEVICE. HARRY C. HAZARD, Baltimore, Md. Filed Jan. 23, 1913. Serial No. 743,869. (Cl. 24-197.)

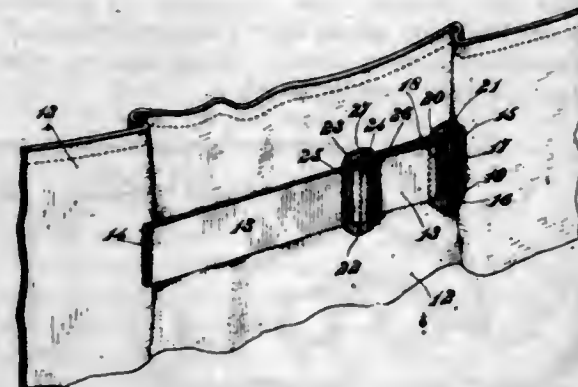


1. An adjustable fastening device comprising the combination with a garment or article, of a loop formed of a doubled strip of material and both piles of which are attached at one end of said loop to said garment or article, a buckle member mounted on said loop and provided with two slots affording side bars and a central bar around which latter the bight of the loop passes, and a second buckle member secured to the garment or article and provided with a slot or opening through which the first-named buckle member with its bight of fabric may be passed; so that the said first-named buckle member will overlie the said second buckle member in such a manner that the outer limb or ply of the loop may be clamped between proximate bars of said buckle members.

2. An adjustable fastening device comprising the combination with a garment or article, of a loop formed of a doubled strip of material and both piles of which are attached at one end of said loop to said garment or article, a buckle member mounted on said loop and provided with two slots affording side bars and a central bar around which latter the bight of the loop passes, and a second buckle member secured to the garment or article and provided with a slot or opening through which the first-named buckle member with its bight of fabric may be passed; so that the said first-named buckle member will overlie the said second buckle member in such a manner that the outer limb or ply of the loop

may be clamped between proximate bars of said buckle members, said second buckle member being directly secured to the garment or article by stitching passing over an outer bar thereof.

1,081,611. ADJUSTABLE CONNECTION FOR GARMENTS AND THE LIKE. HARRY C. HAZARD, Baltimore, Md. Filed Jan. 29, 1913. Serial No. 744,976. (Cl. 2-143.)



An adjustable connection for garments and the like, consisting of a flexible strip permanently attached at or near its opposite ends to the garment or article, combined with a fixed buckle attached at one edge to the garment or article and having near its other or free edge a slot through which a bight of said strip runs, and a loose buckle mounted on said strip and having two slots forming a central bar and two side bars, said strip being so disposed that two bights or piles thereof overlie said central bar and the upper ply passes beneath both of said side bars, and also so that two piles thereof pass through the slot of said loose buckle nearest said fixed buckle and underlie that one of said side bars of said loose buckle nearest said fixed buckle.

1,081,612. PROPELLER. SPENCER HEATH, Washington, D. C. Filed Dec. 26, 1911. Serial No. 667,657. (Cl. 170-158.)



1. A propeller built of multiple laminations assembled in step formation, the laminations being distorted with a wind out of a plane normal to the propeller axis.

2. A propeller built up of multiple laminations assembled in step formation, the laminations being distorted to increase the pitch of the propeller.

3. A propeller built up of multiple laminations assembled in step formation, the laminations being distorted to diminish the pitch of the propeller.

4. A propeller built up of multiple laminations assembled in step formation, the laminations being formed with a wind out of a true plane normal to the propeller axis.

5. A propeller having its blades reinforced by veneer inserted in the blades substantially parallel to the front and back faces thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,081,613. VULCANIZED CAOUTCHOUC AND PROCESS OF MAKING SAME. FRITZ HOFMANN and KONRAD DELBRÜCK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 5, 1912. Serial No. 688,761. (Cl. 106-23.)

The herein described new material being a vulcanized autopolymerization product of beta-gamma-dimethylbutadiene combined with a small amount of a basic substance,

being a whitish nonadhesive substance, containing sulfur, and which on treatment with ozone, forms an ozonid which upon decomposition with water yields among its decomposition products acetylacetone.

1,081,614. CAOUTCHOUC SUBSTANCE AND PROCESS OF MAKING SAME. FRITZ HOFMANN and KONRAD DELBRÜCK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 5, 1912. Serial No. 688,762. (Cl. 106-23.)

1. The process for the production of a caoutchouc like substance which comprises treating with an alkaline agent the autopolymerization product of beta-gamma-dimethylerythrene, substantially as described.

2. The process for the production of a caoutchouc-like substance which comprises treating with a nitrogenous base the autopolymerization product of beta-gamma-dimethylerythrene, substantially as described.

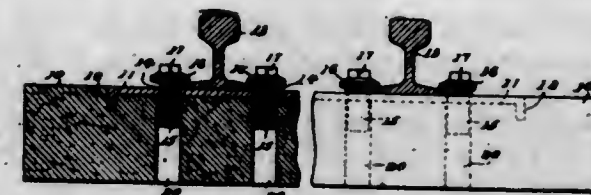
3. The process for the production of a caoutchouc-like substance which comprises treating with an amine the autopolymerization product of beta-gamma-dimethylerythrene, substantially as described.

4. The process for the production of a caoutchouc-like substance which comprises treating with an aromatic amine the autopolymerization product of beta-gamma-dimethylerythrene, substantially as described.

5. The process for the production of a caoutchouc-like substance, which comprises treating with aniline the autopolymerization product of beta-gamma-dimethylerythrene, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,081,615. RAILWAY-RAIL TIE AND FASTENER. FRANK HOLIK, Prague, Okla. Filed July 25, 1913. Serial No. 781,238. (Cl. 238-2.)



The combination with a railway tie having a concrete body, of a plate embedded in the upper face of the tie and with down-turned terminals engaging in the material of the body, said plate having threaded apertures and said tie body having recesses registering with the apertures of the plate, and threaded pins engaging in said threaded apertures of the plate and in the recesses of the tie and formed with laterally enlarged heads adapted to bear over the flanges of railway rail when disposed upon the plate and the tie.

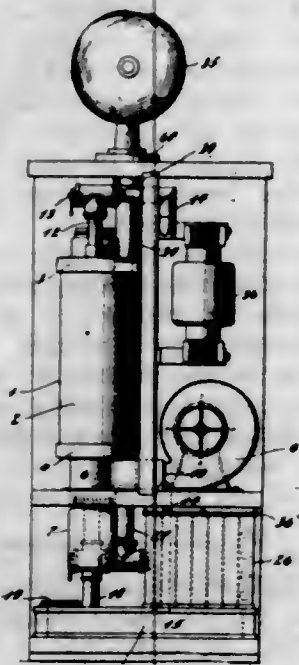
1,081,616. MUSHROOM-BULLET. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,602. (Cl. 102-28.)



As a new article of manufacture, a full-jacketed, sharp-nosed mushroom bullet cylindrical at its rear end and tapering at its forward end to a point, the said bullet

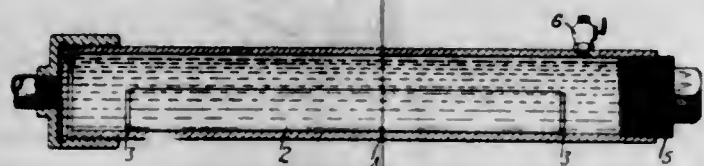
comprising a soft-metal core and a jacket of uniform thickness therefor, and the bullet being provided in its tapering point and forward of its largest diameter with a circumferential groove formed in the jacket and extending into the core and virtually dividing the one-piece jacket into tip and body-portions, whereby the tip-portion of the jacket is adapted to be telescoped into the body-portion thereof and the same disrupted, and the bullet mushroomed.

1,081,617. GASEOUS OZONIDS AND THEIR PRODUCTION. WILLIAM JOHN KNOX, New York, N. Y., assignor to Knox Terpezone Company of America, a Corporation of West Virginia. Filed Dec. 2, 1911. Serial No. 663,602. (Cl. 23-24.)



1. The process of producing gaseous ozonids which consists in commingling a vapor of a substance to be ozonized, and ozone out of contact with the body of said substance.
 2. The process of producing gaseous ozonids, which consists in forming a vapor of the substance to be ozonized, and commingling said vapor and ozone.
 3. The process of producing gaseous ozonids, which consists in forming a saturated vapor of the substance to be ozonized, and commingling said vapor and ozone.
 4. The process of producing gaseous ozonids, which consists in evaporating an ozonizable substance, and commingling the vapor so formed and ozone.
 5. The process of producing gaseous ozonids, which consists in evaporating an ozonizable substance, and commingling the vapor so formed and ozone out of contact with the body of said ozonizable substance.
- [Claims 6 to 16 not printed in the Gazette.]

1,081,618. PROCESS OF PREPARING BILLETS OF REFRACTORY MATERIALS. HARRY D. MADDEN, Bloomfield, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed Mar. 28, 1912. Serial No. 686,944. (Cl. 29-148.)

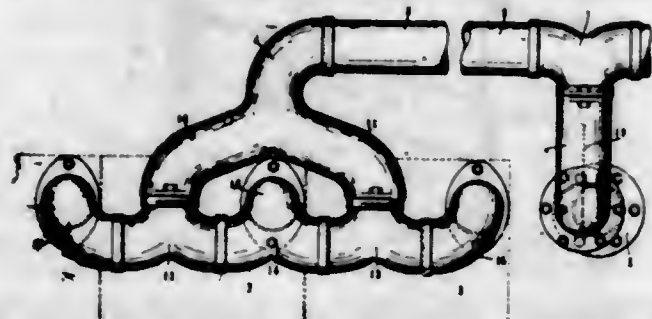


1. The process of manufacturing coherent metallic billets which consists in subjecting bodies of powdered metal to high pressure substantially uniformly exerted thereon in all directions.
2. The process of manufacturing coherent metallic billets from powdered metal which consists in placing the same in pliable molds and subjecting the molds to hydraulic pressure.

3. The process of manufacturing coherent metallic billets from powdered metal which consists in subjecting bodies of the powdered metal to high fluid pressure.

4. The process of manufacturing coherent metallic billets from powdered abrasive metals which consists in placing the same in rubber molds and subjecting the molds to fluid pressure.

1,081,619. SYSTEM OF GAS DISTRIBUTION FOR INTERNAL-COMBUSTION ENGINES. WILLIAM R. McKEEN, Jr., Omaha, Nebr., assignor, by mesne assignments, to McKeen Motor Car Company, Omaha, Nebr., a Corporation of New Jersey. Filed Feb. 19, 1907. Serial No. 358,318. (Cl. 123-59.)



1. In combination with an internal combustion engine having two groups of three cylinders each, a carburetor located between the two groups of cylinders; a conduit proceeding from said carburetor, and divided adjacent the carburetor into a plurality of smaller conduits or passages; branches extending in opposite directions from said conduit to points opposite the admission points of the intermediate cylinders of the respective groups and there bifurcated, the two forks of each branch extending to points midway between the admission points of the several cylinders of a group; and further branch conduits connecting with the branches of the bifurcated conduit, and extending thence in opposite directions to the inlets of the cylinders at each side of the points of connection with the bifurcated branch, the bodies of the several conduits lying in a common plane parallel with the general plane of the two groups of cylinders.

2. In combination with an internal combustion engine comprising three cylinders arranged in common plane, a carburetor; a conduit extending from said carburetor to a point opposite the admission point of the intermediate cylinder of the group and there bifurcated, its branches extending to points intermediate the admission points of the three cylinders of the group; and a further conduit connecting with both branches of the bifurcated conduit, and having two branches extending toward each other and communicating with the inlet of the intermediate cylinder, and similar but reversely extending branches respectively communicating with the inlets of the outer cylinders of the group, the walls of the several branch conduits each being formed with a reentrant angle opposite the mouth of the pipe or conduit which supplies it.

3. In combination with an internal combustion engine having two groups of three cylinders each, a carburetor located between the two groups of cylinders; a conduit proceeding from said carburetor; branches extending in opposite directions from said conduit to points opposite the admission points of the intermediate cylinders of the respective groups and there bifurcated, the two forks of each branch extending to points midway between the admission points of the several cylinders of the group; and further branch conduits connecting with the branches of the bifurcated conduit, and extending thence in opposite directions to the inlets of the cylinders at each side of the points of connection with the bifurcated branch, the bodies of the several conduits lying in a common plane parallel with the general plane of the two groups of cylinders.

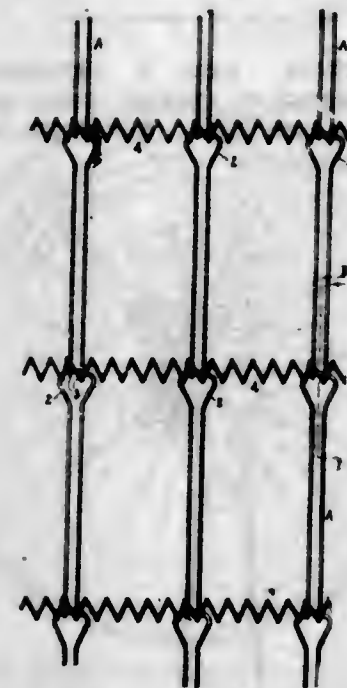
4. In a multi-cylinder engine, in combination, carbureting means; an upwardly curved conduit leading from said carbureting means; a bifurcated conduit, the arms of which curve away from each other, leading from said first conduit, the inner ends of said arms being curved down-

wardly with respect to said first conduit; a plurality of cylinders; means connecting one of said arms with one of said cylinders; a conduit leading from the other of said arms, and curved downwardly and bifurcated into two arms; means connected with each of said two arms and branched to form two passages; means connected with one of the passages of each of said last-mentioned means and curved upwardly into a single passage leading to one of said cylinders; and separate means connected with each of the remaining passages, each being curved upwardly and toward one of said cylinders and connected therewith.

5. In a multi-cylinder engine, in combination, carbureting means; an upwardly curved conduit leading from said carbureting means; a bifurcated conduit, the arms of which curve away from each other, leading from said first conduit, the inner ends of said arms being curved downwardly with respect to said first conduit; a plurality of cylinders; means connecting one of said arms with one of said cylinders; a conduit leading from the other of said arms and curved downwardly and bifurcated into two arms; means connected with each of said two arms and branched to form two passages; means connected with one of the passages of each of said last-mentioned means, and curved upwardly into a single passage leading to one of said cylinders; and separate means connected with each of the remaining passages, each being curved upwardly and into one of said cylinders, said several conduits being so formed and disposed as to provide passages substantially equal in length from said carbureting means to each of said cylinders.

[Claims 6 and 7 not printed in the Gazette.]

1,081,620. BED-BOTTOM FABRIC. GEORGE A. MELLON, St. Louis, Mo., assignor to Link Fabric Company of America, St. Louis, Mo., a Corporation. Filed May 31, 1913. Serial No. 771,006. (Cl. 245-5.)



1. A bed bottom fabric comprising longitudinal strands, and helical connections having interwoven engagement with said longitudinal strands.
2. A bed bottom fabric comprising longitudinal strands, and helical transverse connections having interwoven engagement with said longitudinal strands, the said connections extending throughout the width of the fabric.
3. A bed bottom fabric comprising longitudinal strands, each strand being composed of a plurality of links joined to each other, and helical transverse connections joining said links.
4. A bed bottom fabric comprising longitudinal strands, each strand being composed of a plurality of links joined to each other, and helical connections interwoven with said links at their junctions.
5. A bed bottom fabric comprising longitudinal strands, each strand being composed of links having eyes at one

197 O. G.—43

end and hooks at the other end, the eyes and hooks being interengaged with each other, and helical connections woven through the eyes of said links to join said longitudinal strands.

1,081,621. PROCESS OF DYEING AND PRINTING. CARL MÖLLENHOFF, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Nov. 23, 1909. Serial No. 529,517. (Cl. 8-5.)

1. The process of producing fast shades on textile fibers which comprises preparing a dye-bath containing the reduction products of alizarin substances which contain in the central nucleus only one atom of oxygen, and in which products both keto groups have been reduced, immersing the fibers in said bath, and fixing the dyes on the fibers by heating.

2. The process of producing fast shades on textile fibers which comprises preparing a dye-bath containing the reduction products of alizarin substances which contain in the central nucleus only one atom of oxygen and which are substituted in the outside nuclei by hydroxyl, and in which products both keto groups have been reduced, immersing the fibers in said bath, and fixing the dyes on the fibers by heating.

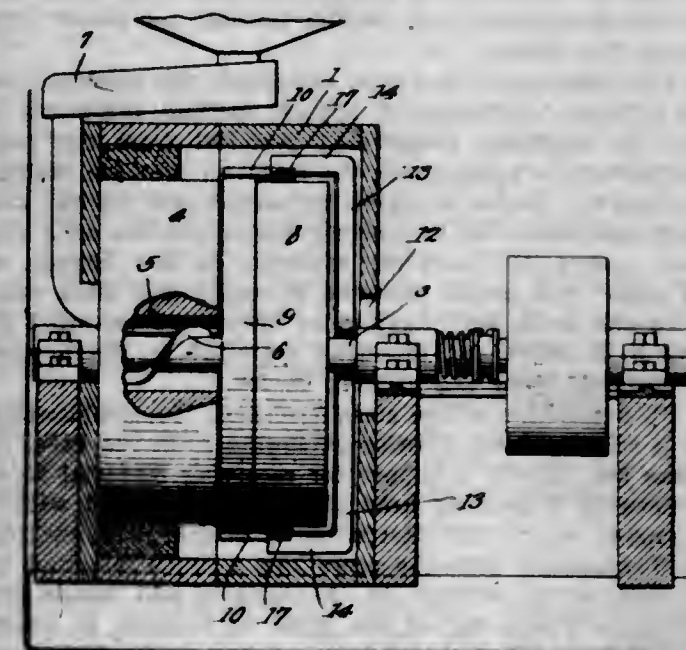
3. The process of producing fast shades on textile fibers which comprises preparing a dye-bath containing the reduction products of alizarin substances which contain in the central nucleus only one atom of oxygen, and in which products both keto groups have been reduced, immersing the fibers in said bath, and fixing the dyes on the fibers by heating in the presence of chromium compounds.

4. The process of producing fast shades on textile fibers which comprises preparing a dye-bath containing the reduction products of alizarin substances which contain in the central nucleus only one atom of oxygen and which are substituted in the outside nuclei by hydroxyl groups, and in which products both keto groups have been reduced, immersing the fibers in said bath, and fixing the dyes on the fibers by heating in the presence of chromium compounds.

5. The process of producing fast shades on textile fibers which comprises treating the fibers with the reduction products of alizarin substances which contain in the central nucleus only one atom of oxygen, and in which products both keto groups have been reduced, and fixing the dyes upon the fibers by heating in the presence of chromium compounds.

[Claims 6 to 10 not printed in the Gazette.]

1,081,622. GRINDING-MILL. JAMES D. MOORE, North Wilkesboro, N. C. Filed June 12, 1913. Serial No. 773,258. (Cl. 83-8.)



A grinding mill including a casing having an air inlet at the center of one end and a peripheral outlet, a sta-

tionary bur, a revoluble bur, a band adjustably mounted on the revoluble bur, peripheral blades carried by the band, and a diametrically disposed supplemental blade adjustably connected to the peripheral blades and extending between the revoluble bur and the apertured end of the casing.

1,081,623. PROCESS OF CLARIFYING WINE. ANNA ORNSTEIN, Vienna, Austria-Hungary. Filed Mar. 10, 1912. Serial No. 684,904. (Cl. 195-38.)

A process of clarifying wine consisting in adding to the wine the flour of ground soy-beans (*Soja hispida*) from which the fatty matter has been extracted.

1,081,624. HAY-BALING MACHINE. LAYTON W. PALMER, Siloam Springs, Ark., assignor of one-half to Elting Miller, Wyoming, Ill. Filed June 6, 1913. Serial No. 772,156. (Cl. 100-65.)



1. In a machine of the class described, the combination with a press box and a hopper for directing material therein, of a stationary guide, a feeding element mounted to slide and swing relative to the guide, and means for moving the lower end of said feeding element in a circle within the hopper.

2. In a machine of the class described, the combination with a press box and a hopper for directing material therein, of a packing element normally supported within the hopper, means for directing material into the hopper, a guide, a feeding element mounted to slide and swing relative to the guide, means for moving the lower end of said feeding element in a circle to direct material within said hopper under the packing device, and means for intermittently moving said packing device into the press box.

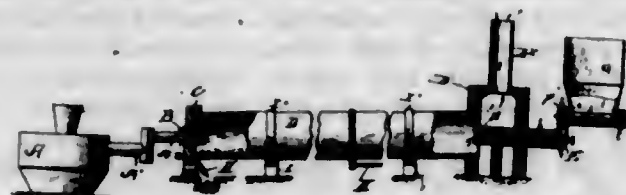
3. In a machine of the class described, the combination with a press box and a hopper for directing material therein, of a packing device normally supported in the hopper, means for intermittently shifting said device into the press box, means for elevating material to the hopper, and means mounted for oscillation within the hopper for directing the material in the hopper into position under the packing device, said means having its lower end movable in a circle.

4. In a machine of the class described, the combination with a press box having a hopper opening thereto, a casing for receiving compressed material from the box, and a piston for compressing the material into the casing, of a packing device mounted to reciprocate within the hopper and press box in properly timed relation with the piston, means for elevating material to the hopper, a fixed guide, and means mounted to swing and slide relative to the guide and having its lower end mounted to travel in a circle for directing material in the hopper into position below the packing device.

5. In a machine of the class described, the combination with a rake, and an elevator extending from the rake, of a press box having a hopper for receiving material from the elevator, a packing head yieldingly supported within the hopper, means for intermittently shifting the packing head downwardly into the press box, a blade mounted to slide and swing relative to the hopper, and means for moving the lower end of the blade in a circle to direct material from the elevator into position under the packing head.

[Claims 6 to 9 not printed in the Gazette.]

1,081,625. PROCESS OF MAKING ALKALI-CHROMATE SOLUTIONS. JAMES H. PAYNE, Yorktown, Va., assignor to Fred E. Gignoux, Cape Elizabeth, Me. Filed Aug. 26, 1911. Serial No. 646,248. (Cl. 23-13.)



1. The process of making an alkali chromate solution which consists in passing a mixture of chrome iron ore, a basic refractory material and an alkaline material through an inclined rotary cylinder in a direction toward its lower end against a current of oxidizing gases moving toward the higher end of the cylinder and heated to a temperature such as to heat the mixture to a point not exceeding that of incipient fusion, and leaching the resultant porous nodules.

2. The process of making an alkali chromate solution which consists in passing a mixture of chrome iron ore, lime and soda ash through an inclined rotary cylinder in a direction toward its lower end against a current of oxidizing gases moving toward the higher end of the cylinder, and heated to a temperature such as to heat the mixture to a point not exceeding that of incipient fusion, and leaching the resultant porous nodules.

3. The process of making an alkali chromate solution which consists in passing a wet mixture of chrome iron ore, a basic refractory material and an alkaline material through an inclined rotary cylinder in a direction toward its lower end against a current of oxidizing gases moving toward the higher end of the cylinder and heated to a temperature such as to heat the mixture to a point not exceeding that of incipient fusion, and leaching the resultant porous nodules.

1,081,626. WRENCH. AXEL W. PETERSON, San Francisco, Cal., assignor to Charles Groos, San Francisco, Cal. Filed Mar. 19, 1912. Serial No. 684,733. (Cl. 81-149.)



1. A wrench comprising a shank one side of which has transverse corrugations, a fixed jaw, a movable jaw having an angular recess, wedging means in said recess having transverse corrugations for engaging the corrugations in the shank, a spring in said recess arranged to press said wedging means into the angle of the recess, a stem projecting rearwardly through said movable jaw, and a head on said stem, said stem being provided with means whereby, when said head is turned, said movable jaw is moved relatively to the corrugated part of said wedging means.

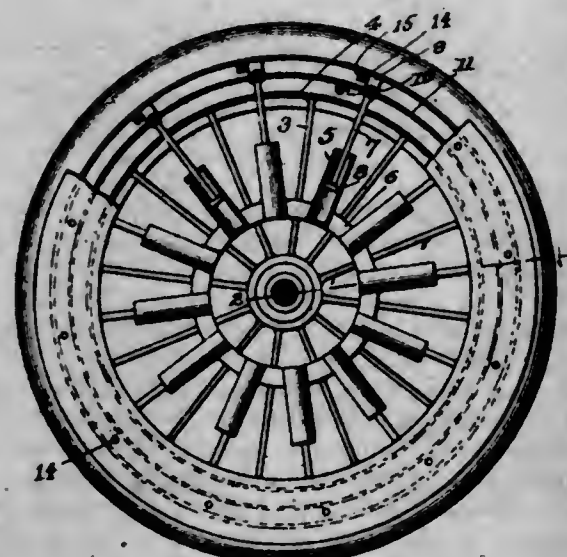
2. A wrench comprising a shank one side of which has transverse corrugations, a fixed jaw, a movable jaw having an angular recess, wedging means in said recess having transverse corrugations for engaging the corrugations in the shank, a spring in said recess arranged to press said wedging means into the angle of the recess, a stem projecting rearwardly through said movable jaw, the projecting portion of said stem being provided with means whereby said movable jaw may be moved relatively to the corrugated part of said wedging means.

1,081,627. KEY-CARRIER. ANTON REZNICEK, Jersey City, N. J. Filed Mar. 27, 1912. Serial No. 686,680. (Cl. 150-40.)



A key carrier composed of an outer case open at one end, a flap covering said opening, a spring frame therein composed of sides and a top, the top being inset so as to be spaced from the end of the case, fitting closely within the case, the ends of the sides being embedded in the inner edges of the sides of the outer case, flexible key retaining means secured to the inset top of the frame and key attaching means at the free ends of the retainers.

1,081,628. CUSHION-WHEEL. ERNEST H. SCHUB, Hibbing, Minn., assignor of one-fourth to Moritz Keller and one-fourth to Bailey Keller, Hibbing, Minn. Filed Jan. 11, 1912. Serial No. 670,623. (Cl. 152-48.)



1. A cushion wheel comprising a hub, an outer rim, a series of radially disposed cushioning devices around the hub and including radial spokes extending toward but not connected with the outer rim, and an annular member independent of the rim and disposed within the same loosely connected to said spokes for radial movement and shiftable longitudinally with relation thereto.

2. A cushion wheel comprising a hub, a series of air-containing cylinders radially disposed about the hub, radial piston spokes projecting from said cylinders, and an annular member passing loosely through said spokes radially shiftable with relation thereto and shiftable longitudinally therein.

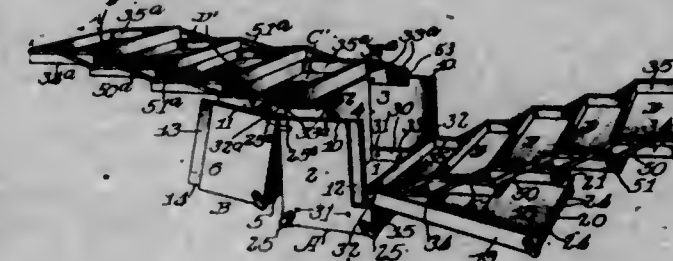
3. A cushion wheel comprising a hub, an inner rim, rigid spokes connecting the hub and inner rim, a series of air cylinders disposed between the rigid spokes, a series of radially extending piston spokes disposed in said cylinders and passing loosely through the inner rim, an outer rim disconnected from the piston spokes, and an annular

member passing loosely through the extremities of the piston spokes and shiftable therein both radially and longitudinally.

4. A cushion wheel comprising a central hub, an inner rim concentric with the hub, rigid spokes connecting the inner rim and the hub, a series of air-containing cylinders radially disposed, one between each pair of rigid spokes, supporting means for the same connected to said spokes, radially disposed piston spokes mounted in the cylinders and each having a piston head in its corresponding cylinder, said piston spokes extending loosely through the inner rim, an outer rim against which the extremities of the piston spokes contact, abutments carried by the outer rim with which the extremities of the piston spokes engage in the revolution of the wheel, and a ring disposed between the outer and inner rims and passing loosely through the extremities of the piston spokes, said ring being radially and longitudinally shiftable with relation thereto.

5. A cushion wheel comprising a hub, an inner rim, rigid spokes connecting the hub and inner rim, a series of air-containing cylinders disposed, one between each pair of rigid spokes, a series of piston spokes projecting radially from said cylinders and passing loosely through the inner rim, said spokes each including a piston head within the cylinder, the extremities of the spokes being formed with a sectional yoke providing an eye extending transversely of the plane of the wheel, a ring passing loosely through the eyes of all of said spokes and longitudinally shiftable with relation thereto, and an outer rim formed in lateral sections and having lateral flanges, said outer rim resting against but disconnected from the extremities of the spokes, lugs projecting inward from the outer rim in position to abut against the side faces of the yokes, and bolts passing through the side flanges of the outer rim and through said lugs.

1,081,629. SAMPLE-CASE HAVING LINK-CONNECTED TRAYS. WILLIAM SCHWEITZER and HARRY H. LABADIE, Chicago, Ill. Filed Aug. 5, 1912. Serial No. 713,438. (Cl. 190-17.)



1. A sample case including an outer casing having a bottom, back, ends and a narrow strip at its front, plates secured to the upper portions of the ends and extending above the latter, a series of movably connected trays pivotally supported from said plates, plates connected to the lower end portions of the casing ends, a second series of movably connected trays pivotally connected to the last named plates and being movable across the upper side of said narrow strip, a section hinged to the back, and a cover hinged to the strip and adapted to engage the ends of the outer casing and the hinged section.

2. A sample case including an outer casing having a bottom, back, ends and a narrow strip at its front, a series of movably connected trays pivotally supported from the upper portions of the casing ends, a second series of movably connected trays pivotally connected to the lower portions of the ends and being movable across the upper side of the narrow strip, a section hinged to the back, and a cover hinged to the strip and adapted to engage the outer casing and the hinged section.

1,081,630. HAT-CARD HOLDER. ALBERT M. SHIVE, Wilkes-Barre, Pa. Filed Apr. 26, 1912. Serial No. 693,369. (Cl. 40-9.)

1. A hat tag and guard including a resilient plate having its end portions oppositely bent in spaced relation

to the body portion, the body portion and one end portion forming spaced jaws, holding means carried by said latter end portion and coacting with the body portion, a display holder having a rigidly formed ball seated in the right portion between the jaws, and means carried by the other end portion engaging the ball and acting through the resiliency of said other end portion to clamp the ball against turning movement.



2. A hat tag and guard including a resilient plate having its end portions oppositely bent in spaced relation to the body portion, the body portion and one end portion forming spaced jaws, holding means carried by said latter end portion and coacting with the body portion, a display holder having a rigidly formed ball seated in the right portion between the jaws, that portion of the ball seating between the jaws being flattened, and means carried by the other end portion engaging the ball and coacting with the flattened faces thereof through the resiliency of the said other end portion to clamp the ball against turning movement.

3. A hat tag and guard including a resilient plate of sheet metal having its end portions oppositely bent in parallel spaced relation with the body portion, means coacting with one of said end portions and the body portion to form a clasp, a display holder, an offset ball rigidly secured to said holder and having a flat central portion, said ball bearing in the right portion of the clasp formed by the body portion and one of the end portions, and means coacting with the flattened faces of the ball to yieldably hold the same against rotation, said means including a wire secured by one end to one of the end portions of the body member and bearing over one of the ends thereof and having a hooked terminal engaging through a slot in the body member and about the ball.

4. A hat tag including a resilient plate having one end bent in parallel spaced relation to the body to form a ball receiving loop, a tag having a rigidly attached ball seating in said loop, and a hook carried by the other end of the plate and through the resiliency thereof held in engagement about the ball to normally hold the ball and tag in certain positions relative to the body.

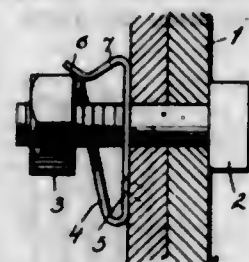
5. A hat tag including a plate adapted for attachment to a hat band, one end of the plate being bent into parallel spaced relation to the body portion to form a ball receiving loop, the central portion of said loop being slotted, a tag having a ball seating in said loop and extending across the slot thereof, and a hook carried by the other end of the plate and passing through the slot and resiliently engaging about the ball to normally hold the ball and tag in certain positions.

[Claim 6 not printed in the Gazette.]

1,081,631. NUT-LOCK. CHARLES M. SIEVER, Holton, Kans. Filed Feb. 11, 1913. Serial No. 747,746. (Cl. 151-49.)

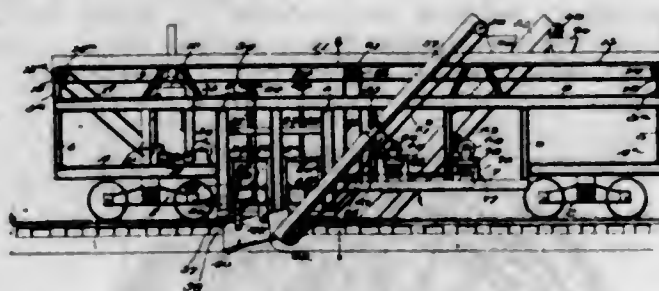
1. The combination with a bolt and nut, of a locking plate bent upon itself so as to form legs, said legs being provided with aligning openings to receive the shank of said bolt, and a nut engaging lip formed upon one of said legs, said lip being adapted for engagement with the free edge of the other leg.

2. The combination with a bolt and nut, of a spring locking plate bent upon itself to form legs, said legs being provided with aligning openings to receive the shank of the bolt, and a spring nut engaging lip formed upon the free end of one of said legs and projecting toward the other of said legs, the lip being provided with oppositely inclined sections, one of said sections being adapted for engagement with that leg which is opposed to the nut, whereby the lip will be forced outwardly as the nut is tightened, said last mentioned leg being adapted to move from engagement with the last mentioned lip section, whereby said lip may spring into engagement with the nut.



3. The combination with a bolt and nut, of a spring locking plate bent upon itself to form legs which are provided with aligned openings to receive the shank of the bolt, and an inwardly curved nut engaging lip formed upon the free extremity of one of the legs, said lip being forced outwardly by an inward movement of the other leg, a further movement of said last mentioned leg permitting the lip to spring into engagement with the nut.

1,081,632. RAILWAY DITCHING-MACHINE. HENRY F. SINK, Greensboro, N. C. Filed Mar. 9, 1912. Serial No. 682,631. (Cl. 37-25.)



1. An excavator of the character described including a wheeled frame, oppositely disposed, laterally projecting shovel supporting members pivotally mounted at their inner ends, said members being laterally slidable on the wheeled frame, and means for laterally sliding said members to adjust the same.

2. An excavator of the character described, including a wheeled structure, a vertically slidable member mounted on the wheeled structure, a shovel supporting beam, members transversely slidable in the vertically slidable member and pivotally connected to said beam, and means for supporting the free end of the shovel supporting beam.

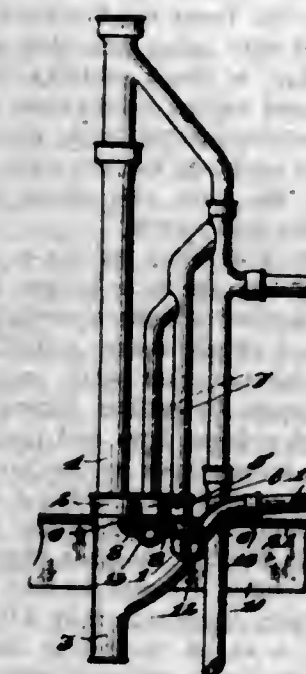
3. An excavator of the character described, including a wheeled structure, vertical guides mounted upon the structure, a vertically shiftable frame movable in said guides, a screw for raising said frame, laterally extending racks mounted in said frame and slidable laterally, gearing whereby said racks may be operated through the frame, a shovel supporting beam pivotally connected to said racks, and means connected to said structure and to the extremity of the shovel supporting beam whereby the free end of the beam may be supported at any desired elevation.

4. An excavator of the character described, including a wheeled structure, vertically and horizontally adjustable shovel supporting beams mounted on the wheeled structure and projecting laterally therefrom, a main conveyor mounted in the upper portion of the structure and extending horizontally therealong, and laterally adjustable auxiliary conveyers supported on each side of the structure and coacting with the shovels and with the main conveyor.

5. An excavator of the character described, including a wheeled structure, oppositely disposed, laterally projecting shovel supporting members mounted on the structure, means for raising and lowering said members, shovels supported on and depending from the outer ends of said members, a main conveyor mounted on the structure, and auxiliary conveyers coacting with the shovels and the main conveyor to carry the excavated material from the shovels to the main conveyor, said auxiliary conveyers being shiftable transversely and rotatable in vertical planes.

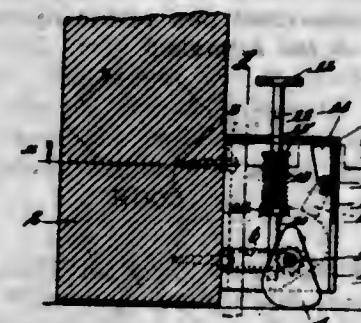
[Claims 6 to 8 not printed in the Gazette.]

1,081,633. SOIL-PIPE FITTING. SAMUEL M. SMITH, Chicago, Ill. Filed June 3, 1912. Serial No. 701,317. (Cl. 4-21.)



As an article of manufacture, a fitting of the class described, comprising a hollow casing having an upwardly inclined bottom and a horizontal top, the top being provided with a series of hubs to receive pipe ends and the bottom at its lowermost end being provided with an opening in alignment with the corresponding end hub in the top, reduced necks connecting said hubs and said casing forming recesses to receive supporting members, there being hubs in the side wall of said casing and the smaller end of said casing terminating in an upwardly and outwardly inclined neck extending beyond the casing proper and terminating in a substantially horizontal position above the level of said necks, substantially as described.

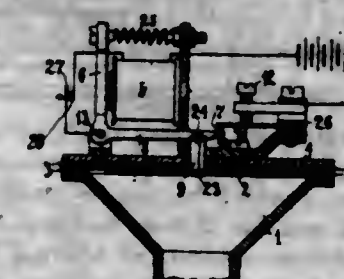
1,081,634. DOOR-STOP. WALTER SMITH, Chicago, Ill. Filed Aug. 6, 1913. Serial No. 783,274. (Cl. 16-82.)



1. The combination with a door, of an eccentric locking dog pivotally mounted on said door in position to contact with the floor; a pinion operatively connected with said dog; a vertically reciprocating rack bar meshing with said pinion and arranged to throw said dog into inoperative position upon depression thereof; and a spring normally tending to return said dog to operative position, substantially as described.

2. A door stop comprising a casing adapted to be secured to a door; an eccentric locking dog pivoted in said casing and arranged to project from the lower end thereof to contact with a floor; a pinion operatively connected with said dog; a vertically reciprocating rack bar in said casing meshing with said pinion and arranged to throw said dog into inoperative position upon depression thereof; a compression spring arranged to hold said rack bar normally in elevated position; and a keeper arranged to hold said dog in inoperative position, substantially as described.

1,081,635. ELECTRICAL MEANS FOR PRODUCING SOUND. OTTO STRATTE, Schöneberg, near Berlin, Germany, assignor to Akt. Ges. Mix & Genest, Telephon & Telegraphenwerke, Schöneberg-Berlin, Germany. Filed Nov. 9, 1911. Serial No. 659,429. (Cl. 177-7.)



1. In electrical means for producing sound, the combination with a diaphragm, of an electromagnet, an armature coacting with said electromagnet and operatively engaging said diaphragm, a contact piece carried by said armature, and a tensioned interrupting spring carrying a contact piece normally depressing said first mentioned contact piece and thereby tensioning the diaphragm, the said armature being electrically connected in series with the winding of the electromagnet.

2. In electrical means for producing sound, the combination with a diaphragm, of an electromagnet having an armature in the form of a bell-crank lever, an abutment carried by the diaphragm supporting one arm of the armature, a tension spring attached to the other arm of the armature and tending to depress the former arm, the former arm carrying a contact piece, and an interrupting spring carrying a contact piece normally coacting with the former contact piece, the said armature being electrically connected in series with the winding of the electromagnet.

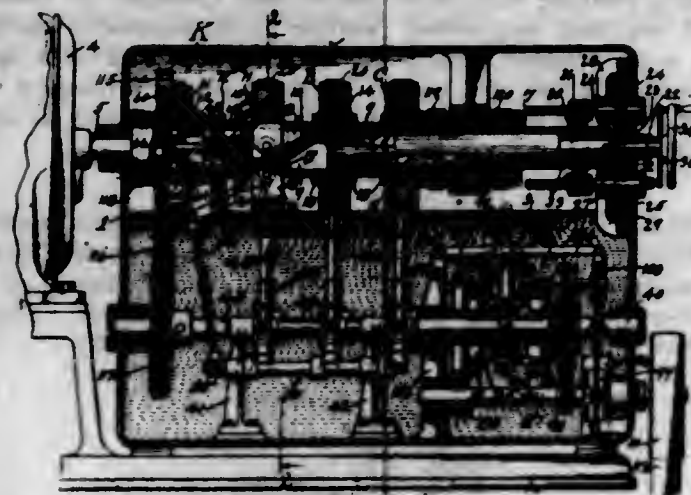
3. In electrical means for producing sound, the combination with a diaphragm, of an electromagnet, an armature coacting with said electromagnet and operatively engaging said diaphragm, a contact piece carried by said armature, and a regulatably tensioned interrupting spring carrying a contact piece normally depressing said first mentioned contact piece and thereby tensioning the diaphragm, the said armature being electrically connected in series with the winding of the electromagnet.

4. In electrical means for producing sound, the combination with a diaphragm, of an electromagnet having an armature in the form of a bell-crank lever, an abutment carried by the diaphragm supporting one arm of the armature, a regulatable tension spring attached to the other arm of the armature and tending to depress the former arm, the former arm carrying a contact piece, and a regulatably tensioned interrupting spring carrying a contact piece normally coacting with the former contact piece, the said armature being electrically connected in series with the winding of the electromagnet.

5. In electrical means for producing sound, the combination with a diaphragm, of an abutment carried by said diaphragm, an electromagnet, an armature having an arm resting on said abutment, a contact piece carried by said arm, and a tensioned interrupting spring carrying a contact piece normally depressing said first mentioned contact piece and thereby tensioning the diaphragm, the said armature being electrically connected in series with the winding of the electromagnet.

[Claims 6 and 7 not printed in the Gazette.]

1,081,636. MECHANICAL VARIABLE POWER AND SPEED GEAR FOR TRANSMISSION. AUGUST SONDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 16, 1909. Serial No. 517,962. (Cl. 74-54.)



1. The combination with a drive shaft, of a driven member, pawl and ratchet mechanism between said shaft and driven member, a clutch having its members connected to the drive shaft and the driven member respectively, a clutch operating device, means for holding the pawl and ratchet mechanism in inoperative position, and a connection between said means and said clutch operating device.

2. The combination with a drive shaft, of a driven shaft, a plurality of pawl and ratchet devices, a clutch connected to the drive shaft, a connection between the clutch and the driven shaft, a clutch operating device, means for lifting the pawls out of operative position connected to said clutch operating device.

3. The combination with a drive shaft and driven mechanism, of pawl and ratchet devices for operating said mechanism, eccentrics mounted on the drive shaft and connected to the pawl and ratchet devices, a friction clutch having its members operatively connected to the drive shaft and driven mechanism respectively, means for adjusting the eccentrics and operating the clutch, and a device connected to said means for rendering the pawl and ratchet devices inoperative.

4. The combination of a drive shaft, a driven shaft, a ratchet wheel connected to the driven shaft, a pawl, a lever carrying said pawl, means for operating the lever and pawl from the drive shaft, a driving connection between the shafts comprising a clutch, means for operating the clutch, and mechanism operated by said clutch operating means for holding the lever and pawl out of operative position and stationary while said shafts are connected through said clutch.

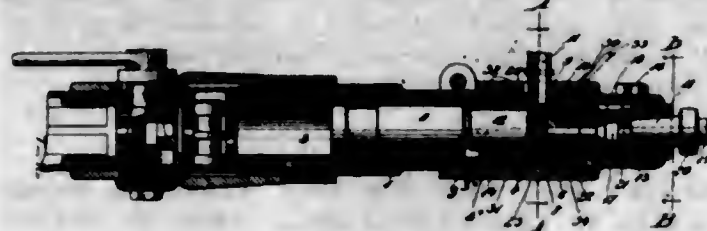
5. The combination of a driving member, an eccentric connected thereto, a ratchet wheel, a shaft on which said wheel is mounted, a lever, a pawl connected to the lever and operable to impart a forward movement to the ratchet wheel when the lever is rotated in one direction, a second pawl connected to the lever and operable to impart a forward movement to the ratchet wheel when the lever is rotated in the reverse direction, a connection between the eccentric and the lever for reciprocating the latter, means for connecting and disconnecting the driving member to and from said ratchet wheel shaft, and means for automatically moving the lever and pawls to an inoperative position when the driving member is connected to said ratchet wheel shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,081,637. HAMMER-DRILL. ALBERT H. TAYLOR, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 5, 1909. Serial No. 476,266. (Cl. 121-20.)

1. In combination, a cylinder, a hollow front head having a pressure fluid feeding chamber therein beyond the outer end of the cylinder, a chuck slidably mounted in the cylinder and front head having a drill receiving socket in open communication with said chamber, separated fluid tight packings for the ends of said chamber and a hammer piston fitted to strike said chuck.

2. In combination, a cylinder, a hollow front head having a pressure fluid feeding chamber therein beyond the outer end of the cylinder, a chuck slidably mounted in the cylinder and front head, having a drill steel receiving socket in open communication with said chamber, separated fluid tight packings for the ends of said chamber and a hammer piston fitted to strike said chuck.



3. In combination, a cylinder, a hollow front head, a tube located within the front head beyond the outer end of the cylinder, said tube being provided with a pressure fluid feeding chamber, a chuck slidably mounted in the cylinder and front head having a drill steel receiving socket therein in open communication with the said chamber, separated fluid tight packings for the ends of the chamber interposed between the tube and chuck and a hammer piston fitted to strike said chuck.

4. In combination, a cylinder having a reduced bore at its outer end, a hammer piston, a hollow front head having a pressure fluid feeding chamber therein beyond the outer end of the cylinder, a chuck having a drill steel receiving socket in open communication with said chamber and provided with a shank extending through and slidably mounted in the said reduced bore and projecting into the cylinder in position to be struck by the hammer piston.

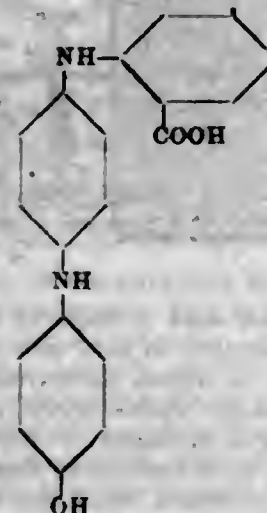
5. In combination, a cylinder having a reduced bore at its outer end, a hammer piston, a hollow front head having a pressure fluid feeding chamber therein beyond the outer end of the cylinder, a chuck having a drill steel receiving socket in open communication with said chamber and provided with a shank extending through and slidably mounted in the said reduced bore and projecting into the cylinder in position to be struck by the hammer piston, and separated fluid tight packings for the ends of said pressure fluid feeding chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,081,638. BLUE SULFUR DYE. ALFRED THAUSS, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 22, 1912. Serial No. 698,941. (Cl. 8-1.)

1. The herein described new sulfur dyes being sulfur containing derivatives of indophenols derived from a nitrosophenol and diaryl-amin-carboxylic acids which are after being dried and pulverized dark powders, soluble in a solution of sodium sulfid generally with a blue coloration, soluble in concentrated sulfuric acid generally with a blue to green coloration; and dyeing unmordanted cotton blue shades, substantially as described.

2. The herein described new sulfur dye obtained from leucoindophenol of the formula:



which is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a blue coloration

and soluble in concentrated sulfuric acid with a greenish-black coloration; dyeing unmordanted cotton in pure blue shades fast to washing, substantially as described.

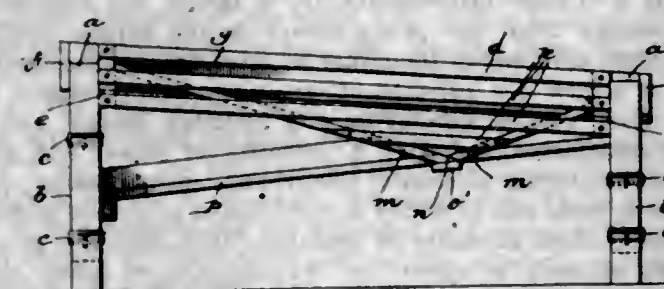
1,081,639. BEDSTEAD. JOHN W. VAIL, Chicago, Ill. Filed July 11, 1913. Serial No. 778,552. (Cl. 5-55.)



1. The combination with an end-standard of a bed, of a plate applied thereto and equipped with headed studs, and a bar forming a single side-rail equipped with a fitting, said side-rail comprising an angle-bar and said fitting comprising a vertical plate equipped with T-slots adapted to engage said studs and equipped also with a shank extending at right-angles to the plate, said shank being narrower than the plate and the end of the rail embracing and riveted to the shank and abutting against the plate.

2. The combination with an end-standard of a bed, of a bar forming a single side-rail, and a plate provided with upper and lower T-slot openings, the lower T-slot opening being open at its lower end, and a bar-form shank formed integrally with and projecting at right-angles to the intermediate portion of said plate, said shank being narrower than said plate, and having fillets on the lower side of the shank at its junction with the plate.

1,081,640. APPLE SORTER AND CLEANER. JOSEPH A. WALTERS, Poages Mill, Va., assignor of one-half to Robert L. Ferguson, Poages Mill, Va. Filed Aug. 18, 1913. Serial No. 785,213. (Cl. 130-32.)



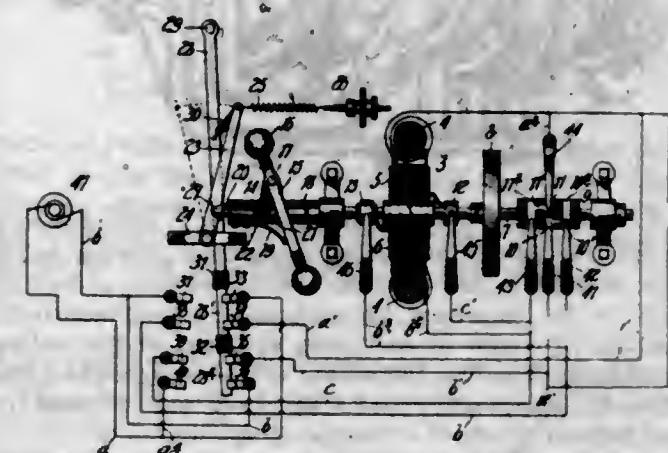
In combination, a downwardly inclined screening table, an oppositely inclined supplemental screening table, a longitudinal channel extending along each side of said screening table, both said channels having inclined bottoms and being open at their inner sides so as to discharge the culled fruit upon the lower screening table, said discharge openings of the channels being located at the upper end of the supplemental screening table, so as to discharge the culls at that point irrespective of the point where they are dropped into the channels.

1,081,641. ALTERNATING-CURRENT RECTIFIER. EDWARD J. WIGGINS, Chicago, Ill., assignor to D. A. Heyman, Chicago, Ill. Filed May 12, 1913. Serial No. 767,126. (Cl. 171-253.)

1. In combination with an electric circuit, an alternating-current generator and a rectifier for said current, comprising a magnet, a rotary shaft carrying an armature to rotate in the field of the magnet and a commutator, a set of commutator-brushes and armature-brushes connected with members of said set, a direct current line leading from the rectifier, and a switch-device operating in one position to start the rectifier by the current from

said generator, and in its other position to send said current through the rectifier upon the direct-current line.

2. In combination with an electric circuit, an alternating-current generator and a rectifier for said current, comprising a wire-wound magnet, a rotary shaft carrying an armature to rotate in the field of the magnet and a commutator, a set of commutator-brushes and armature-brushes connected with members of said set, a direct current line leading from the rectifier, and a switch-device operating in one position to start the rectifier by the current from said generator and in its other position to send said current through the rectifier upon the direct-current line.



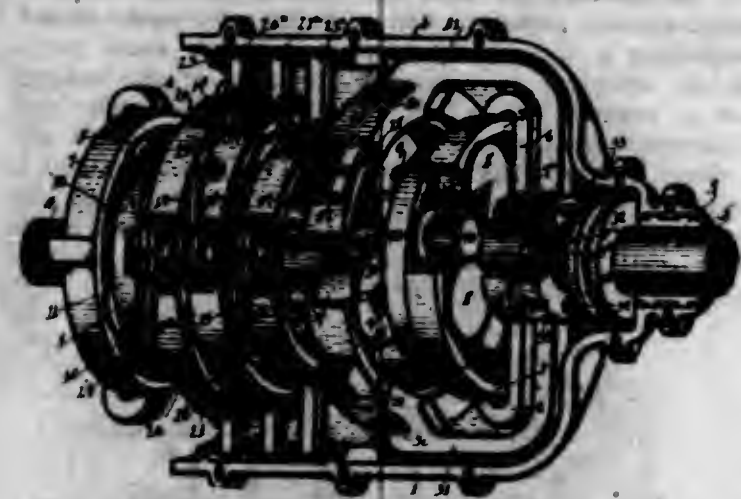
3. In combination with an electric circuit, an alternating-current generator and a rectifier for said current, comprising a magnet, a rotary shaft carrying an armature to rotate in the field of the magnet and a commutator formed of a pair of segments each having a ring about and insulated from the shaft and connected with the segment by a neck, a pair of brushes contacting the opposite segments and connected with the field, a pair of brushes contacting said rings and brushes on opposite sides of the armature connected with said ring-contacting brushes, a direct current line leading from the rectifier, and a switch-device operating in one position to start the rectifier by the current from said generator and in its other position to send said current through the rectifier upon the direct-current line.

4. In combination, with an electric circuit, opposite sets of contact members, an alternating-current generator, and a rectifier for said current comprising a magnet, a rotary shaft carrying an armature to rotate in the field of the magnet and a commutator, a set of commutator-brushes and armature-brushes connected with members of said set, a direct current line leading from the rectifier, a switch supported to be moved from engagement with one set of said contact members, to start the rectifier by current from said generator, into engagement with the other set thereof, to send said current through the rectifier upon the direct-current line, a governor on the shaft, and means controlled by the governor for throwing the switch from one to the other of its positions.

5. In combination with an electric circuit, opposite sets of contact members, an alternating-current generator, and a rectifier for said current, comprising a magnet, a rotary shaft carrying an armature to rotate in the field of the magnet and a commutator, a set of commutator-brushes and armature-brushes connected with members of said set, a direct current line leading from the rectifier, a switch-lever having insulating sections and supported to be turned from engagement with one set of said contact members, to start the rectifier by current from said generator, into engagement with the other set thereof, to send said current through the rectifier upon the direct-current line, a throw-lever having a throwing spring-connection with the switch-lever, and a governor device on the shaft engaging the throw-lever to turn it and throw the switch-lever by a predetermined speed of the shaft's rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,081,642. GEARING. ALBERT P. WILLS, New York, N. Y. Filed Jan. 22, 1913. Serial No. 743,603. (Cl. 74-26.)



1. A gearing-structure including a rolling-instrumentality, means for producing tangential driving action thereon including an instrumentality having a surface adapted to be traversed by said rolling-instrumentality and having its center of curvature and that of the rolling-instrumentality on the same side of the tangential plane of contact, and means operating upon one of said instrumentalities to effect a change of speed.

2. A gearing-structure including a plurality of rolling-instrumentalities, means for producing tangential driving action thereon including an instrumentality having a surface adapted to be traversed by said rolling-instrumentalities, its center of curvature and that of each of the rolling-instrumentalities being on the same side of the tangential plane of contact, and means operating upon one of said instrumentalities to effect a change of speed.

3. A gearing-structure including a drive-instrumentality, a plurality of rolling-instrumentalities supported independent of journals, and means for producing tangential driving action on said rolling-instrumentalities, said means having a curved surface adapted to be traversed by said rolling-instrumentalities its center of curvature and that of each of the rolling-instrumentalities being on the same side of the tangential plane of contact, said rolling-instrumentalities being rotative around said drive-instrumentality and on their own axes.

4. A gearing-structure including a drive-instrumentality provided with a plurality of spaced annular elements, and rolling-instrumentalities, said elements having contact surfaces adapted to produce tangential action on said rolling-instrumentalities, their centers of curvature and those of each of the rolling-instrumentalities being on the same side of the corresponding tangential plane of contact.

5. A gearing structure including a primary instrumentality, a secondary instrumentality, a plurality of roll-retaining instrumentalities, rolling instrumentalities some of which contact with the primary instrumentality and some with the secondary instrumentality, and means for producing motion specifically of rolling at all surfaces touched by each of the rolling instrumentalities.

[Claims 6 to 46 not printed in the Gazette.]

1,081,643. GEARING. ALBERT P. WILLS, New York, N. Y. Filed Feb. 25, 1913. Serial No. 750,669. (Cl. 74-34.)

1. A structure of the kind described, including a primary instrumentality, a secondary instrumentality, a plurality of power and motion-transmitting elements comprising encompassing elements at least one of which is deformable to act on certain of said motion elements to maintain said elements in operative relationship to effect the transmission of power and energy, and efficient means for subjecting one of said encompassing elements

to external control to vary the velocity and torque ratios between the primary and secondary instrumentalities.

2. A structure of the kind described, including a prime mover, a driven part, a plurality of power and motion-transmitting elements comprising encompassing elements at least one of which is deformable to act on certain of said motion elements to maintain said elements in operative relationship to effect the transmission of motion and power, and efficient means for subjecting one of said encompassing elements to external control to vary the velocity and torque ratios between the primary and secondary instrumentalities.



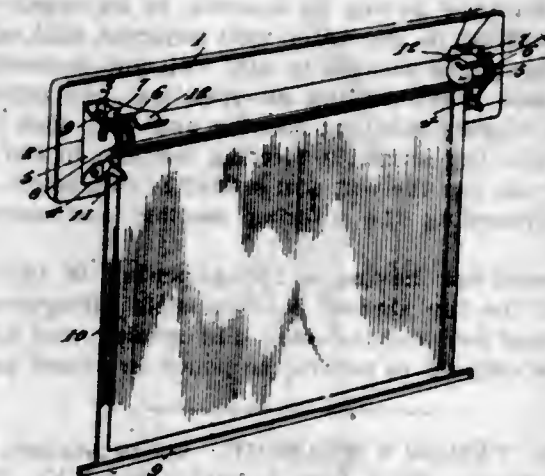
3. A structure of the kind described, including a prime mover, a driven instrumentality, and a device adapted to transmit energy from the prime mover to the driven instrumentality, said device involving at least three components, two of which are capable of movement with respect to each other and of generating and utilizing energy, and a third component including a plurality of power and motion-transmitting elements comprising encompassing elements at least one of which is deformable to act on certain of said motion elements to maintain said elements in operative relationship to effect the transmission of power and energy, and efficient means for subjecting one of said encompassing elements to external control to vary the velocity and torque ratios between the prime mover and the driven instrumentality.

4. A structure of the kind described, including a prime mover, a driven instrumentality, a device for transmitting energy from the prime mover to the driven instrumentality, said device including at least three components, two of which are capable of movement with respect to each other and of generating and utilizing energy, and a third component including a plurality of power and motion-transmitting elements comprising encompassing elements at least one of which is deformable to act on certain of said motion elements to maintain said elements in operative relation to effect the transmission of power and energy, efficient means for subjecting one of said encompassing elements to external control to vary the velocity and torque ratios between the prime mover and the secondary instrumentality, and means for storing energy generated in the structure and for restoring such energy to the structure to effect a variation of the speed and torque ratios.

5. A structure of the kind described, including a prime mover; a driven instrumentality; a device capable of transmitting energy from the prime mover to the driven instrumentality, said device including at least one dynamo-electric machine and at least three other components, two of which are capable of movement with respect to each other and of generating and utilizing energy, and a third component including a plurality of motion and transmitting elements comprising encompassing elements at least one of which is deformable to act on certain of said motion elements to maintain said elements in operative relationship to effect the transmission of power and energy; efficient means for subjecting one of said encompassing elements to external control to vary the velocity and torque ratios between the prime mover and the driven instrumentality; and a storage battery connected to said device.

[Claims 6 to 17 not printed in the Gazette.]

1,081,644. MAP ROLLING AND REVERSING DEVICE. FRANK E. WILSON, Dayton, Ohio. Filed Aug. 26, 1910. Serial No. 579,073. Renewed Oct. 11, 1913. Serial No. 794,749. (Cl. 40-85.)



1. The combination with a map or shade having a binding strip mounted thereon and projecting beyond the side edges thereof, of a bracket having a laterally extending support for engagement with the binding strip, a roller journaled in said bracket, and means carried by the roller and adapted to engage and clamp the binding strip on said roller when the latter is rotated.

2. The combination with a map or shade having a binding strip secured to each end thereof and projecting beyond the side edges of said map or shade, of a bracket having a laterally extending finger forming a support for the upper binding strip, a roller journaled in said bracket, and a hook carried by the roller and adapted to engage and clamp the upper binding strip on said roller when the latter is rotated, said finger, by engagement with said binding strip also forming a stop for limiting the winding movement of the shade or map on the roller.

3. The combination with a map or shade having a binding strip mounted thereon and projecting beyond the side edges thereof, of a bracket having a laterally extending finger forming a support for engagement with said binding strip, a roller journaled in the bracket, and a lug secured to one end of the roller and having a recess formed therein adapted to receive the binding strip when said roller is rotated.

4. The combination with a shade or map having a binding strip secured to each end thereof and projecting laterally beyond the adjacent longitudinal edges thereof, of a bracket having a laterally extending stop finger adapted to form a support for the extended end of one of the binding strips, a roller journaled in the bracket, and means carried by said roller and adapted to engage and clamp the extended end of the upper binding strip on the roller when the latter is rotated.

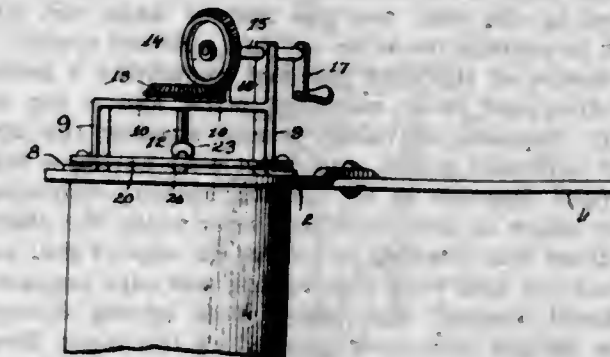
5. The combination with a shade or map having oppositely disposed binding strips projecting laterally from the opposite longitudinal edges thereof, of a bracket having a laterally projecting finger, the upper face of which is adapted to support one of the binding strips, a roller journaled in the bracket, and a hook mounted on said roller and adapted to engage the extended end of the binding strip and clamp said strip on the roller when the latter is rotated, the lower face of said finger, by contact with the extended end of the lower binding strip, serving to limit the winding movement of the shade or map.

[Claims 6 to 9 not printed in the Gazette.]

1,081,645. CAN-OPENER. FRED C. WILSON, Palouse, Wash. Filed Sept. 5, 1912. Serial No. 718,765. (Cl. 30-3.)

A can opener comprising a pair of jaws adapted to clamp around the upper end of a can, one of said jaws having posts rising therefrom, extensions having slots for adjustably engaging said posts, means engaging said posts for holding the extensions in adjusted positions, said extensions terminating in uprights which in turn terminate in converg-

ingly arranged arms, a bearing formed in the meeting ends of said arms, a shaft mounted in the bearing and having its lower end provided with a point to engage a can top upon adjustment of said extensions, a gear fixed to the upper end of said shaft, a second gear meshing with the



same, a crank for rotating the last named gear, a wheel fixed to the lower end of the shaft, a cutting blade adjustably mounted upon one of the spokes of said wheel for severing the can top when rotary movement is imparted to said wheel through the said gears.

1,081,646. ILLUMINATING DEVICE. ROBERT K. WITZ, Chicago, Ill. Filed July 22, 1912. Serial No. 710,875. (Cl. 240-6.)



1. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, and a deflector mounted upon said rear wall.

2. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, a hood removably mounted on said top wall and covering said sockets, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, and a reflector mounted upon said rear wall.

3. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, a reflector mounted upon said rear wall, said reflector on said rear wall adapted to reflect some of the rays of light from said lamps upon said front wall and the remainder thereof substantially parallel with said wall, and said reflectors on said top wall adapted to reflect the rays from said lamps divergently from the open end of the housing.

4. In an illuminating device, a housing having lamps disposed therein, and means for removably securing reflectors to a wall of the housing, comprising flexible plates secured to said wall, the edge portions of said plates being free and adapted to be bent by hand, and reflector plates alternated with said flexible plates and adapted to be supported by the edge portions thereof when the latter are bent to overlap the edges of said reflector plates.

5. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, channels in the outer edges of said front and rear walls, the channel in said front wall adapted to receive an edge of said pane, a reflector for said rear wall having one edge engaged in the channel thereof, and plates each having divergent side-edge flanges removably secured to the inner face of the top wall, the respective flanges of said plate parallel with the front and rear walls respectively and engaging said pane and reflector plate respectively along the edge portions opposite those engaged in said channels for holding the same in place.

[Claim 6 not printed in the Gazette.]

1,081,647. EXPANDED-METAL REINFORCING STRUCTURE AND METHOD OF PRODUCING SAME. BENJAMIN WOLHAUPTER, New York, N. Y. Filed Feb. 10, 1910. Serial No. 543,132. (Cl. 72-113.)

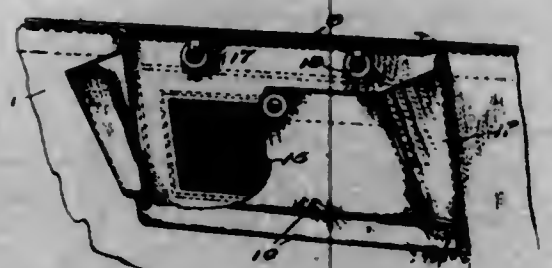


1. A metallic structure comprising a body having opposite sets of reversely disposed elongated diagonal openings therein, with an opening between the sets, and a chord connecting the portions of the body containing the separate sets of openings and comprising sections having intumed ends located in the intermediate opening.

2. A metallic structure comprising a flanged bar having oppositely beveled ends, elongated oppositely disposed sets of diagonal openings therein, the central portion of said bar having a triangular opening, and a chord bridging said opening and comprising sections having intumed terminals.

3. An expanded metal structure comprising a Z-bar having opposite reversely arranged sets of diagonally and regularly spaced web portions lying within the longitudinal plane of the body, the latter having a part of its web cut away to form a center opening between the said sets and being shortened longitudinally and widened laterally from its original dimensions, to bring the opposite sets of webs to a more nearly perpendicular position without displacing them from within the longitudinal plane of the body, the said body also having one of its marginal chords bridging the center opening.

1,081,648. SHOULDER-BAG WATER-SPRAYING APPARATUS. DANIEL W. ADAMS, Glendale Springs, N. C. Filed Apr. 17, 1913. Serial No. 761,685. (Cl. 210-12.)



1. A water-bag having an opening in its upper end, a filtering medium in one outer wall adjacent said opening, and a collapsible pouch secured to said wall and inclosing said medium, said pouch having an open top.

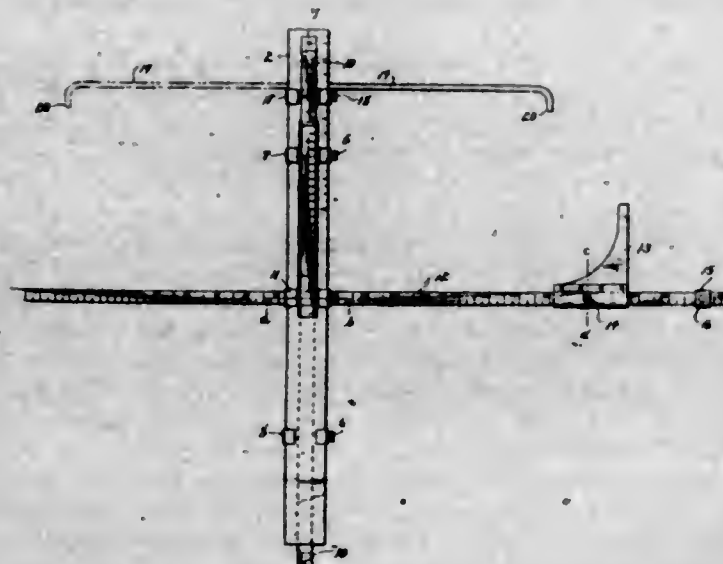
2. A water-bag having an opening in its upper end, a filtering medium in one outer wall adjacent said opening, a collapsible pouch secured to said wall and inclosing said medium, said pouch having an open top, and detachable means for closing said bag opening.

3. A water-bag having an opening in its upper end, a filtering medium in one outer wall adjacent said opening, a collapsible pouch secured to said wall and inclosing said medium, said pouch having an open top, and detachable means for closing said bag opening and said open top.

4. A water-bag having a filtering medium in the casing wall near the top thereof, and a flexible collapsible filling-pouch surrounding the filtering medium and secured to said wall.

5. A water-bag having a filling-opening in the casing wall near the top thereof, a collapsible filling-pouch secured to said wall and inclosing said opening, and a fastening device adapted to secure the pouch in closed position.

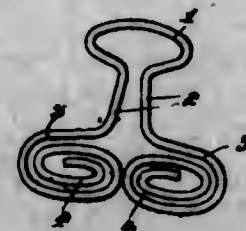
1,081,649. TAILOR'S MEASURE. LOUIS ALFANO, Southington, Conn. Filed June 2, 1913. Serial No. 771,207. (Cl. 33-8.)



1. A tailor's measure comprising a vertically adjustable rod formed at its upper end with a transverse opening, a horizontally movable gage extending through said opening, a chest tape connected with said rod, a scye arm sliding on said chest tape, and a shoulder gage pivotally mounted on said rod and adapted to swing from one side to the other.

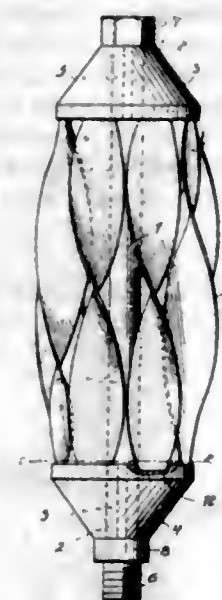
2. A tailor's measure comprising a rod, arms by which the rod is held in a vertical position, said rod formed at its upper end with a neck gage movable at right angles to said rod, a tape connected at the outer end of said gage, a chest tape slidably connected with said rod, a scye arm slidably mounted on said chest tape, a shoulder gage adjustably connected with said rod and adapted to be swung from one side to the other.

1,081,650. COLLAR-STUD. MARCUS AUERBACH, Montreal, Quebec, Canada, assignor of one-half to Joseph Frederic Poirier, St. Hyacinthe, Quebec, Canada. Filed Apr. 2, 1912. Serial No. 688,028. (Cl. 24-101.)



A collar stud of wire bent in the shape of an eye and having its base ends intumed in convolvent arrangement and forming oval flat surfaces of a plurality of strands of wire, adapted to lie closely under the shirt band and at the same time be flexible to the touch or to the movement of the wearer.

1,081,651. BOILER-TUBE CLEANER. JAMES F. BAILEY, Jacksonville, Fla., assignor of one-half to Franklin T. Sutherland, Jacksonville, Fla. Filed Apr. 24, 1913. Serial No. 763,414. (Cl. 83-64.)



1. A tube cleaner including an axial rod, an enlarged squared portion formed on each terminal of said rod, a longitudinally extending V-shaped lug formed on said enlarged portion, said lugs being disposed in a common radial plane of the said axial rod, a head member detachably mounted on each terminal of said rod, each head member being provided with a squared central opening, and a V-shaped longitudinally extending groove on one side of said opening, said groove being adapted to receive said V-shaped lug for holding the said heads against rotation on said rod, and a plurality of spiral cleaner blades having their terminal portions seated in grooves formed in said head members.

2. A boiler tube cleaner including an axial rod, a pair of head members splined on said rod and terminally thereof, a plurality of cleaning blades removably mounted in said head members, and means for securing said head members in assembled position on said rod.

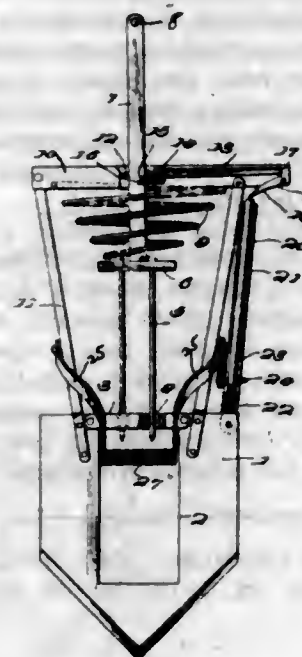
3. A boiler tube cleaner including an axial rod, a pair of head members splined on said rod, said head members being each provided with an equal number of slots formed in the nature of chords of a circle of which the said rod is the center, said slots being longitudinally aligned when said head members are in position, a plurality of cleaner blades having their terminals seated in said slots when in assembled position, and means for securing said head members in assembled position.

4. A boiler tube cleaner including an axial rod, a pair of terminal head members splined on said rod, each head member being provided with an equal number of slots, the slots of each head member being arranged in the nature of chords of a circle of which the said rod is the center, said slots being disposed to be longitudinally aligned in pairs when said heads are in assembled position on said rod, and a plurality of removable cleaner blades, each of said cleaner blades being mounted when in assembled position with its terminal seated in a pair of said aligned slots, said blades being twisted longitudinally through an arc of 180 degrees, and means for holding said head members and cleaner blades in assembled relation.

1,081,652. MOLE-TRAP. JOSEPH C. BARKER, Oblong, Ill. Filed Apr. 30, 1913. Serial No. 764,611. (Cl. 43-21.)

1. In a trap, a support, an impalement member mounted thereon, means for moving the impalement member, a detent arranged to hold the said member in set position, a trigger engageable with the detent to hold the same against movement to release position, a trigger-bolt arranged for cooperation with the said trigger, means for moving the trigger bolt, and means for holding it against movement comprising a trip member pivoted to the sup-

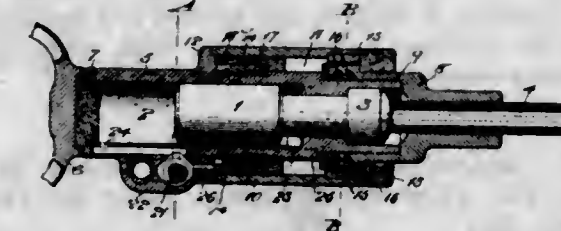
port and arranged upon forward swinging movement to release the bolt.



2. In a trap, a support, an impalement member mounted thereon, means for moving the impalement member, a detent arranged to hold the said member in set position, a trigger engageable with the detent to hold the same against movement to release position, a trigger bolt arranged for cooperation with said trigger means for moving the trigger bolt, a stop carried by the trigger-bolt, and means for holding the trigger-bolt against movement comprising a trip member mounted upon the support for swinging movement and having a finger adapted, when the trip member is in lowered position, to engage with the stop upon the trigger-bolt.

3. In a trap, a support, an impalement member mounted thereon, means for moving the impalement member, a detent arranged to hold the said member in set position, a trigger engageable with the detent to hold the same against movement to release position, a trigger-bolt arranged for cooperation with said trigger, means for moving the trigger-bolt, and trip members pivoted on the support and extending at opposite sides thereof and arranged to hold the trigger-bolt in set position and to release the same when successively swung upwardly.

1,081,653. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,289. (Cl. 121-20.)



1. In a percussive tool, a work piston, a chuck, an oscillating rotation controlling ring having a driving connection with the chuck, a reciprocating annular rotation controlling piston movable longitudinally of the tool and having a driving connection with said ring and means arranged to control the admission of the motive fluid to the two pistons for operating them.

2. In a percussive tool, a work piston, a chuck, a reciprocating annular rotation controlling piston having a driving connection with the chuck and movable longitudinally of the tool and a valve arranged to control the admission of the motive fluid to the two pistons for operating them.

3. In a percussive tool, a work piston, a chuck, an oscillating rotation controlling ring having a driving connection with the chuck, a reciprocating annular rotation controlling piston movable longitudinally of the tool and

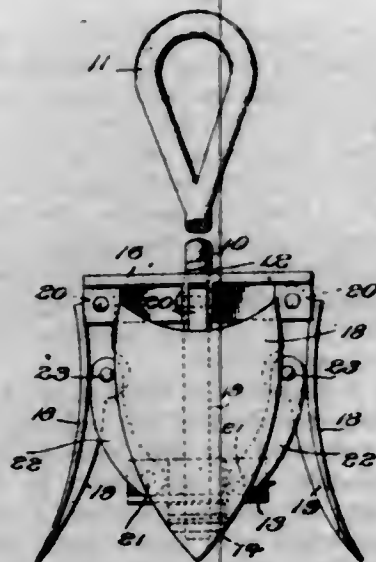
having a driving connection with the ring, and a valve arranged to control the admission of the motive fluid to the two pistons for operating them.

4. In a percussive tool, a cylinder, a work piston, a chuck, an oscillating rotation controlling ring having a driving connection with the chuck, a reciprocating annular rotation controlling piston movable longitudinally of the tool and having a sliding interlocked connection with both said cylinder and said rotation ring and means for operating said pistons.

5. In a percussive tool, a cylinder, a work piston, a chuck, an oscillating rotation controlling ring having a driving connection with the chuck, a reciprocating annular rotation controlling piston movable longitudinally of the tool and having a spiral tongue and groove sliding connection with the rotation controlling ring and a straight tongue and groove sliding connection with the cylinder and means for operating the pistons.

[Claims 6 to 10 not printed in the Gazette.]

1,081,654. GUY-ANCHOR. GEORGE E. BECK, Toledo, Ohio. Filed Jan. 22, 1913. Serial No. 743,447. (Cl. 189-92.)



1. In a device of the class described, a threaded rod, a step member in which said rod is rotatably mounted, a traveler threaded upon said rod above said step member, anchor plates swinging upon said traveler and covering and protecting the step member and coupling means between said anchor plates and step member.

2. In a device of the class described, a threaded rod, a step member in which said rod is rotatably mounted, a traveler threaded upon said rod above said step member and having a plurality of radial sockets, an anchor plate mounted to swing in each of said sockets and formed with its lower end curving outwardly, and links coupling said anchor plates respectively to said step member.

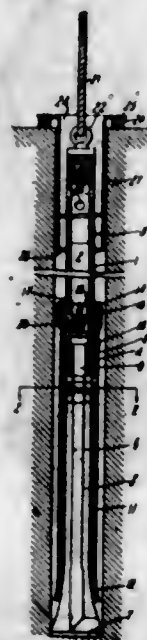
1,081,655. SELF-CLEANING DRILL. ROBERT BINNIE, Bolivar, Pa. Filed Jan. 27, 1913. Serial No. 744,463. (Cl. 255-24.)

1. A rock drill, comprising a hollow shank, a hollow bit secured thereto and provided with a transverse passage therethrough, said bit having a longitudinally extending channel communicating at one end with said transverse passage, and a tubular shield surrounding said bit, whereby when the drill is reciprocated liquid will flow through said hollow shank and bit and along said channel between said shield and bit.

2. A rock drill, comprising a hollow drill rod, a drill bit secured thereto and provided with a passage communicating with the passage in said drill rod, a shield surrounding said drill bit, and a non-return check valve in one of said passages arranged to permit the flow of liquid in one direction only through said passages and within said shield as the drill rod is reciprocated.

3. A rock drill, comprising a hollow drill rod, a drill bit secured to said drill rod, a tubular shield surrounding said

drill bit, said drill being fluted to provide a longitudinal channel and having a passage communicating at one end with said channel and at the other end with the passage in said drill rod, and a non-return check valve in one of said passages arranged to permit the flow of liquid in one direction only therethrough.

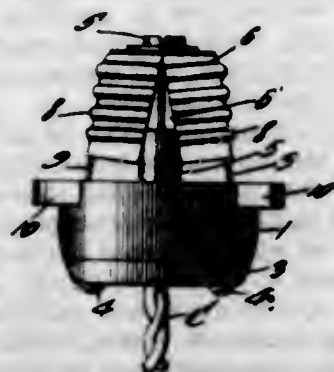


4. A rock drill, comprising a hollow drill rod, a drill bit secured thereto and provided with a passage therethrough communicating with the passage in said drill rod, a shield surrounding said drill bit, and a non-return check valve in one of said passages arranged to seat upwardly and to permit the flow of liquid downwardly through said passages and between the shield and drill bit to the cutting edges of the bit.

5. A rock drill, comprising a hollow drill rod, a fluted drill bit secured thereto and provided with a passage therethrough for conducting liquid to the drill point, a shield surrounding said drill bit, and a jacket surrounding the upper portion of the drill rod and arranged to supply liquid to the passage therein.

[Claim 6 not printed in the Gazette.]

1,081,656. ATTACHMENT-PLUG. ALBERT M. BRADLEY, Napoleon, Ohio. Filed Mar. 13, 1913. Serial No. 754,117. (Cl. 173-356.)



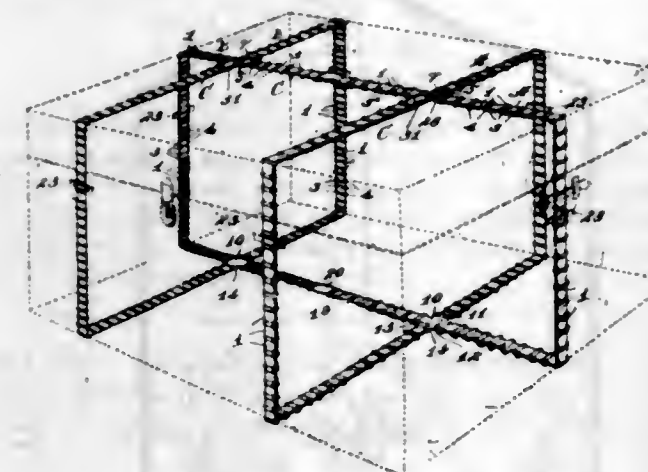
1. An attachment plug, including a body of insulation having a gripping portion provided with oppositely disposed grooves, a socket contact member carried by the body and having two oppositely disposed sections, a spring within the socket and holding the free ends of the sections extended, and two finger blocks connected one to the terminal of each section and slidably mounted in the grooves for collapsing the sections, said blocks being extended by the sections when released.

2. An attachment plug, including a body of insulation having a gripping portion, a socket contact member carried by the body and having two oppositely disposed sections, a spring disposed within the socket and engaging the sections to hold said sections extended, each section having a reduced terminal, and two finger blocks one engaging each terminal of the sections and slidably mounted in the grooves, said blocks being moved toward each other to

collapse the sections and themselves being moved outwardly by the sections when released.

3. An attachment plug, including a body of insulation having a gripping portion provided with oppositely disposed grooves, a socket contact member carried by the body and having oppositely disposed sections, a spring disposed within the socket and engaging the sections to hold said sections extended, each section having a reduced terminal, and two finger blocks engaging the terminals of the sections and slidably mounted in the grooves whereby the blocks are moved inwardly, for collapsing the sections and are held resiliently outwardly by the sections.

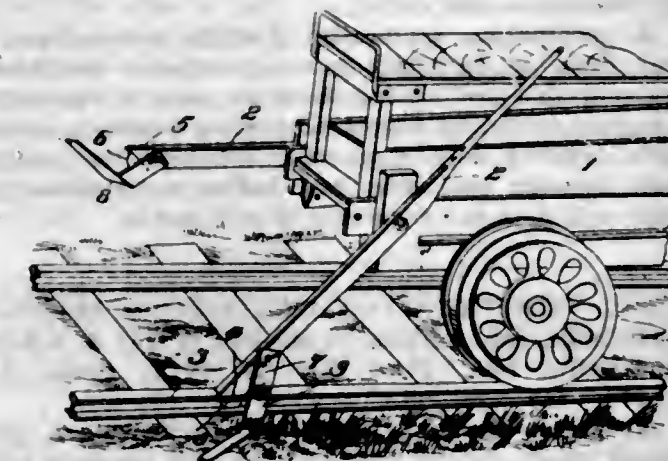
1,081,657. TRUNK-BINDER. WILLIAM IVY BRAY, Tonopah, Nev., assignor of one-half to Moses M. Cohn, Tonopah, Nev. Filed Apr. 16, 1912. Serial No. 691,252. (Cl. 190-27.)



1. In a trunk binder locking means comprising a plate having eyes at each end one of said eyes being engaged by the binder, a toggle lever having a hinged connection with the other eye of said plate, said lever having an elongated slot, a loop secured to said plate, and a lock secured to the binder and constructed to swing over the lever and engage said loop.

2. In a trunk binder, the combination with two binding members, and a division corner plate consisting of two arms at right angles to each other, each terminating in an eye in which the binders are secured, one of said arms having an elongated slot intermediate its ends of a toggle plate secured at one end to another binder, a toggle lever hinged to one end of said plate and constructed to pass through the said slot in the arm of the division corner plate, said lever having an elongated slot, a loop on said plate constructed to pass through said slot, and a lock hinged to the same binder with the toggle plate and constructed to engage said loop.

1,081,658. WEED-CUTTER. WICKLIFF M. BROADY, Broadwater, Nebr. Filed Aug. 6, 1912. Serial No. 713,653. (Cl. 56-16.)

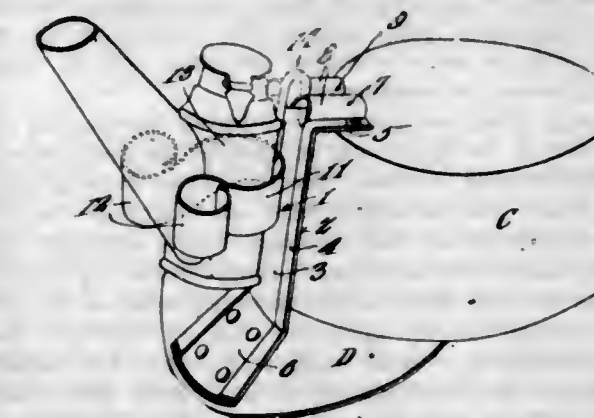


1. A railway weed cutter comprising in combination with a car a blade-carrying arm mounted on the car, a

track-engaging lip depending from the lower end of said arm, and a blade secured to and projecting laterally from the said arm near the lower end thereof.

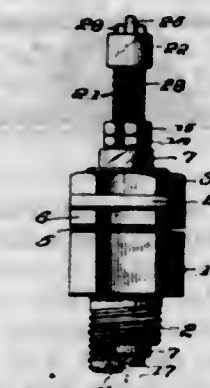
2. A railway weed cutter comprising in combination with a car a blade-carrying arm mounted on the car, a socket secured around the lower end of said arm and having a depending track-engaging guiding lip, and a blade secured to said arm near the lower end thereof and projecting laterally therefrom.

1,081,659. MINER'S CAP. DAVID F. BRUBAKER, Glen Campbell, Pa. Filed June 1, 1912. Serial No. 701,060. (Cl. 240-80.)



The combination with a cap, of a supporting element including connected strips having rearwardly extending non-yielding portions arranged one above the other and secured upon the crown portion of the cap, there being registering openings within said portions, a combined spacing and reinforcing element interposed between the rearwardly extending portions of the strips and in front of the opening therein whereby said openings are spaced apart, a spring clip extending forwardly from the supporting element, a lamp engaging the clip, a guide plate secured upon the upper rearwardly extending portion and having parallel corrugations forming beads with a channel therebetween, there being an opening in the bottom of the channel and registering with the other openings, said channel being extended longitudinally of the rearwardly extending portion on which the guide plate is mounted, and a stem having a downwardly extending pointed terminal portion bearing downwardly upon and engaging solely the wall of the lowermost one of the spaced openings, that portion of the stem above the pointed terminal being held against swinging movement by the wall of the upper opening.

1,081,660. SPARK-PLUG. GEORGE L. COUTER, Cumberland, Md. Filed July 17, 1912. Serial No. 709,931. (Cl. 123-169.)



1. A spark plug comprising a bushing having an electrode formed on its inner end, a terminal tube disposed within the bushing and having an electrode formed on its lower extremity spaced from the electrode on the bushing, a blade mounted slidably within the terminal tube and adapted to be housed and prevented from rotating by said tube, and means for projecting the said blade between the electrodes.

2. A spark plug comprising an outer electrode, an inner terminal tube provided at its lower end with an enlarged slotted head and having an electrode depending from the said head, a blade slidably mounted in said terminal tube and engaging the slots of said head and held against rotation thereby and arranged in a longitudinal plane of the spark plug passing between the opposed adjacent faces of the electrodes, and means for reciprocating the said blade.

3. A spark plug comprising an outer electrode, an inner terminal tube having an enlarged head at its lower end provided with longitudinal slots, and an electrode depending from said head a rod slidably fitted in the said terminal tube and carrying at its lower end a blade engaging the said longitudinal slots, and held against rotation thereby means for holding the said rod yieldably retracted within the terminal tube, and means acting on the said rod to project the same whereby the blade will be caused to pass between the electrodes.

4. A spark plug comprising a bushing having an electrode formed on its inner end, an insulating sleeve secured within said bushing, an inner terminal tube secured within the said sleeve and provided with an electrode co-acting with the electrode on the bushing, a rod slidably fitted within the said terminal tube, a blade carried by said rod and guided by said tube to be projected between the electrodes, a spring acting upon the rod to hold the same normally retracted, a post supported above the bushing, and an angle lever fulcrumed in said post and bearing upon the slidable rod to project the blade between the electrodes.

5. A spark plug comprising a bushing having an electrode at its inner end, an insulating sleeve fitting within the bushing, said sleeve having an internal annular shoulder near its lower end, a casing secured in the upper end of the bushing and adapted to clamp the insulating sleeve therein, a terminal tube inserted through the insulating sleeve and provided with an internal shoulder, an enlarged head on the lower end of the terminal tube adapted to engage the internal annular shoulder of the insulating sleeve, and provided with longitudinal slots, means on the upper end of the terminal tube to secure the same within the insulating sleeve, a slidable rod mounted within the terminal tube and constructed to engage the internal shoulder of the same, a blade carried by the said rod and having its side edges playing in the slots in the head of the terminal tube, said rod being adapted to be projected to carry the blade between the terminals, and means acting on the said rod to hold the same normally retracted.

1,081,661. NUT-LOCK. LOU C. DASHNER and HENRY E. JACOBS, Point Pleasant, W. Va., assignors of one-third to Alonzo Walker, Point Pleasant, W. Va. Filed June 26, 1912. Serial No. 706,012. (Cl. 151-48.)

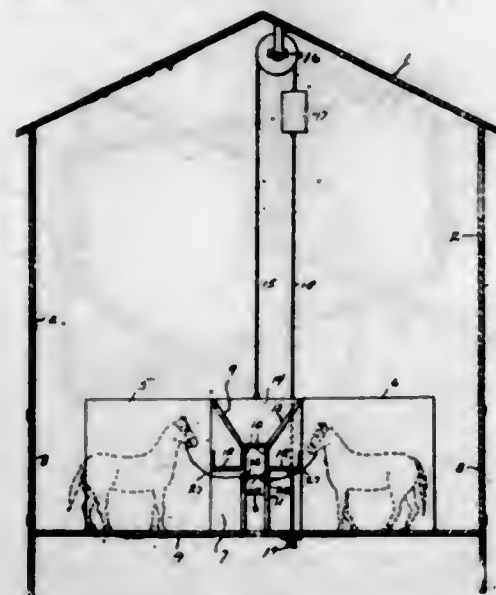


1. The combination with a rail joint, comprising rails and fish plates secured thereto, of a bolt extending through said fish plates and said rails, a member disposed about said bolt and having its under side bent at right angles to the body portion thereof, a washer disposed upon said bolt, said washer being provided with a squared collar, a nut carried by the said collar and rotatable with said washer, teeth formed upon said washer, a pawl pivoted upon said member and having a portion thereof in engagement with said bent portion, a portion of said pawl adapted to engage said teeth, whereby the reverse movement of said washer and said nut is prevented, for the purpose described.

2. The combination with a rail joint, comprising rails and fish plates attached thereto, of a bolt extending

through said rails and said fish plates, a member disposed about said bolt and having its under side bent at right angles to the body portion thereof, a washer disposed upon said bolt and in engagement with said member, said washer being provided with a squared collar, a nut disposed within said collar and operative upon said bolt, said nut being rotatable with said washer, a pawl pivoted upon said member, the lower side of said pawl adapted to engage said bent portion, a tongue formed upon the upper end of said pawl adapted to engage said teeth, whereby reverse movement of said washer is prevented, for the purpose described.

1,081,662. MEANS FOR REMOVING ANIMALS FROM BURNING STRUCTURES. CHARLES DOHERTY, Brooklyn, N. Y. Filed Dec. 21, 1912. Serial No. 738,106. (Cl. 119-111.)



1. The combination with a plurality of stalls communicating with a central aisle, of a manger extending longitudinally of said aisle and closing the inner ends of the stalls, and means for raising said manger from the aisle.

2. The combination with a plurality of stalls arranged upon opposite sides of a central aisle and communicating therewith, of a manger positioned within said aisle and closing the inner ends of the stalls, means for raising said manger, and means for leading animals from said stalls into and through said aisle.

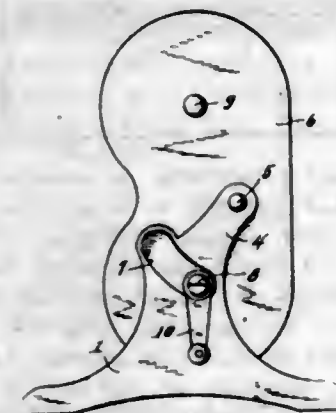
3. In a device of the character described, the combination with a building having a series of vertical partitions arranged along opposite sides thereof, said partitions forming stalls which communicate with an aisle, a manger positioned within said aisle and closing the inner ends of the stalls, flexible members connected to said manger, sheaves secured to the top of the stable over which said flexible members pass, weights connected to the free ends of said flexible members, means connected with said weights for lowering the same whereby the manger will be raised, an endless cable running through said aisle, and means to secure animals to said cable.

4. In combination, a plurality of stalls opening upon a central aisle, a vertically movable manger positioned within said aisle and closing the inner ends of the stalls, said manger including slotted supporting members, means movable between said supporting members for leading animals through the aisle, and halter ropes extending through said slots and connected to said means.

1,081,663. COMPUTING DEVICE. CLOYCE D. DUFFIELD, Kendallville, Ind., assignor of one-half to Guy A. Schutt, Kendallville, Ind. Filed Mar. 27, 1913. Serial No. 757,174. (Cl. 235-86.)

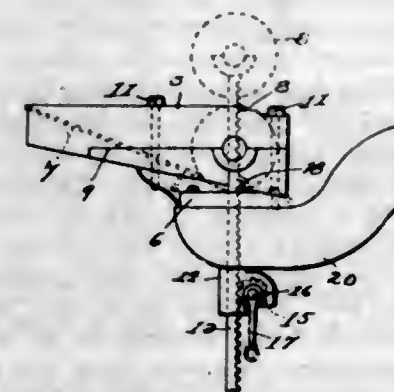
A calculating device including in combination a pair of spaced apart upright supports, the said supports each having an arcuate aligned slot formed therein, a casing eccentrically pivoted between the said supports, the said casing having eight openings formed therein, a pair of

parallel spaced apart rollers mounted within said casing, shafts upon which said rollers are rigidly mounted, one of said shafts adapted to extend through the said slots to provide for the tilting of the casing from the eccentric pivot point, means including meshing gears mounted one upon each of the said shafts for simultaneously rotating the said rollers in an opposite direction, means for rotat-



ing one of said shafts, and a calculating sheet having numerals arranged upon each side thereof, the said sheet adapted to be wound oppositely upon the said rollers for exposing to view the said numerals through the said eight openings of the casing during the rotation of the rollers, as and for the purpose set forth.

1,081,664. INK-FOUNTAIN-ROLLER LIFTER. WILLIAM EBEN and WILLIAM CALDWELL, Chicago, Ill. Filed May 19, 1913. Serial No. 768,613. (Cl. 101-74.)



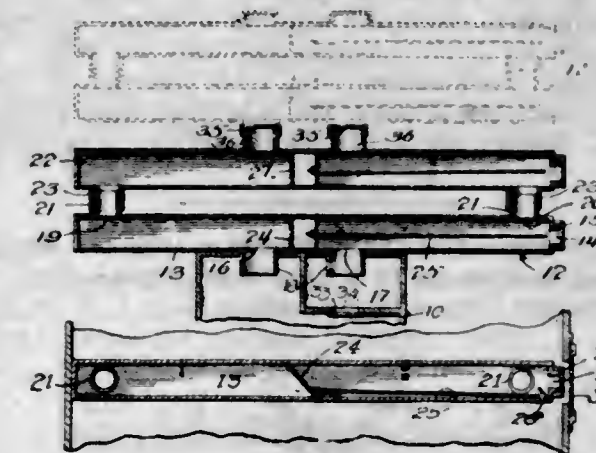
1. A device of the kind described comprising a frame; an ink trough on said frame; an ink roller journaled in said ink trough and having its supporting shaft projected beyond the ends of said trough; vertical rack bars, each having a socket at its upper end engaging one of the projected ends of said supporting shaft; a spur gear meshing with each rack bar; a manually operative shaft carrying said spur gears; and guide casings guiding said rack bars and inclosing said spur gears, substantially as described.

2. A device of the kind described comprising a frame; an ink trough on said frame; an ink roller journaled in said ink trough and having its supporting shaft projected beyond the ends of said trough; vertical rack bars, each having a socket at its upper end engaging one of the projected ends of said supporting shaft; a spur gear meshing with each rack bar; a manually operative shaft carrying said spur gears; guide casings guiding said rack bars and inclosing said spur gears; and pawls pivoted on said frame and lockingly engaging said rack bars, substantially as described.

1,081,665. SECTIONAL RADIATOR FOR CLOTHES-DRYING APPARATUS. CHARLES L. ESTERLY and BENJAMIN A. HORWITZ, Cleveland, Ohio. Filed Feb. 6, 1913. Serial No. 746,470. (Cl. 126-183.)

1. A sectional radiator of the character described, comprising one or more units, each of said units consisting of a pair of communicating pipes, said pipes being formed with flanged inlet and outlet openings, the ends of the pipes being apertured, caps closing said apertures, and

division plates hinged within said pipes between said inlet and outlet openings.



2. A sectional radiator unit comprising a pair of elongated pipes, the opposed faces of said pipes being formed adjacent their ends with openings, telescoping flanges surrounding said openings and adapted to connect the two pipes, the outer sides of the pipes being formed adjacent their center with inlet and outlet openings, flanges surrounding said openings, caps adapted to be positioned upon the flanges of one of the pipes, the ends of the pipes being formed with flanged openings, caps adapted to close said last mentioned openings, and hinged division plates positioned within said pipes between said inlet and outlet openings.

3. A sectional radiator unit of the character described, comprising a coil consisting of a pair of communicating pipes, the outer sides of said pipes being formed adjacent their centers with inlet and outlet openings, division plates pivoted adjacent their upper edges within said pipes between the inlet and outlet openings, and actuating rods connected to said pivoted plates, whereby the same may be raised or lowered.

4. A sectional radiator unit comprising a plurality of pipes, each of said pipes being provided with an opening in one end thereof, a longitudinally projecting flange surrounding said opening, a cap adapted to fit upon said flange to close the opening, a division plate hinged adjacent its upper edge within each of said pipes between the inlet and outlet openings thereof, and an actuating rod secured to each of said division plates, the free ends of the actuating rods being hooked for engagement with said flanges, whereby the division plates may be held in a raised position.

5. The combination with a stove having a flue chamber formed therein, of a radiator comprising a plurality of elongated pipes, each of said pipes being formed upon one side adjacent its center with a pair of flanged openings and upon its opposite side adjacent its ends with a second pair of flanged openings, opposed flanges being adapted to telescope, whereby the pipes are connected, the flanged openings which are opposed to the stove being in communication with the interior thereof, one of said last mentioned openings communicating with the flue chamber, and a hinged division plate positioned within each of said pipes centrally of its ends.

[Claims 6 to 8 not printed in the Gazette.]

1,081,666. RAILROAD-TIE. EDWARD FRITSCH, Minonk, Ill. Filed Apr. 16, 1913. Serial No. 761,594. (Cl. 238-5.)



A rail tie comprising a body portion having transversely extending recesses adjacent each end, tongues formed integrally with said body portion and overlying a portion of the recesses, said recesses having two spaced V-shaped depressions extending transversely thereof,

blocks removably secured in the recesses, said blocks having tongues formed along one edge, two spaced ribs formed on the bottom of each of the blocks, said ribs being adapted to cooperate with the V-shaped depressions in the bottom of the recesses and hold the blocks from longitudinal displacement, and bolts adapted to extend through apertures between the V-shaped depressions and the ribs, whereby the blocks are held firmly in position on the tie.

1,081,667. SPRAYING-NOZZLE. HENRY WILLIAM GRANN, Bedford Hills, N. Y. Filed July 18, 1913. Serial No. 779,786. (Cl. 137-80.)



A spraying nozzle formed from a piece of flexible tubing, said tubing being slit longitudinally adjacent one end and spread to form a lip extending across the discharge end of the unsplit portion of the tubing, diverging cheek pieces extending from the split end of the tube to the lip, and a reinforcing strip extending across the outer surface of the lip to hold the same in its spread position.

1,081,668. BOLT AND NUT LOCK. JOHN ANDREW HARTZ, Vicksburg, Miss., assignor of one-half to Nathaniel Vick Robbins, Vicksburg, Miss. Filed May 12, 1913. Serial No. 767,131. (Cl. 151-52.)

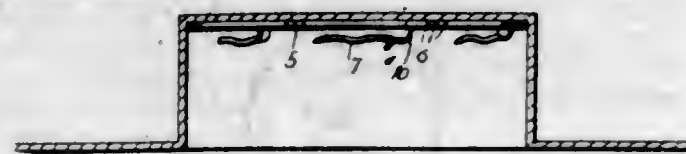


A nut lock comprising a rectangular plate having a circular opening formed therethrough centrally of the plate and adapted to receive the bolt shank, a resilient tongue formed in the plate adjacent the opening by slitting the plate, said tongue adapted to engage the member to which said plate is applied in advance of said plate, a U-shaped tool engaging member formed integrally with said plate at one end of one of the longitudinal edges thereof, an angularly disposed locking tongue formed integral with said U-shaped member and disposed in spaced relation to the adjacent longitudinal edge of the plate, said locking tongue notched intermediate its ends to receive one of the corners of the nut and said U-shaped tool engaging member provided with a beveled face to facilitate the rotation of the nut.

1,081,669. HAT-FASTENER. ADOLF HOMBERG, Passaic, N. J. Filed Apr. 18, 1913. Serial No. 762,147. (Cl. 132-25.)

1. A hat fastener comprising a flat rim adapted to be secured within the crown of a hat, and a plurality of

hair engaging prongs rigidly secured to the underside of said rim, the prongs extending essentially circumferentially of the rim in the same direction in spaced relation to the under side thereof, the extremities of the prongs being bent downwardly, rotation of the hat in one direction causing the prongs to be embedded within the hair of the wearer.



2. A hat fastener comprising an annular band formed of flat material and adapted to be secured in the crown of a hat, a plurality of hair engaging prongs stamped from said band and remaining attached thereto at their rear ends, the prongs extending essentially circumferentially of the band in the same direction, being spaced from the under side thereof, and having their extremities bent downwardly, rotation of the hat in one direction causing the prongs to enter the hair, and rotation in the reverse direction causing the prongs to be withdrawn from the hair.

1,081,670. COMBINATION SACHEL, CART, AND CAMP-STOOL. HARNEY H. JAMES, Los Angeles, Cal. Filed May 20, 1913. Serial No. 768,824. (Cl. 190-38.)



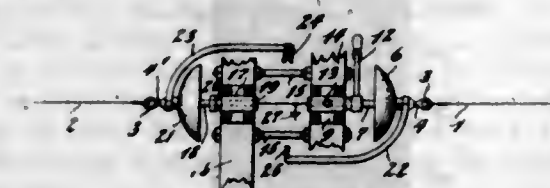
1. A satchel adapted to be employed as a camp stool or a baby carriage, said satchel including a metallic frame, a covering for said frame, a U-shaped member pivoted at one end of said metallic frame and adapted to be secured in a position of parallel relation to the longitudinal or vertical axis of the satchel, a U-shaped handle pivoted on said satchel and normally disposed for engagement with the two sides and one end wall thereof, said handle being adapted to be swung into a position of longitudinal extension from the satchel when the device is employed as a baby carriage, a pair of spring clips for holding said handle in extended position, a pair of wheels arranged on each side of one terminal of the said steel frame, a substantially rectangular housing formed in each side of said steel frame, a fork for each of said wheels, each fork being pivotally mounted in one of the said housings, and a spring pressed bracing arm for holding said fork in an extended position, a laterally extending lug mounted within the housing and arranged for engagement with a notch formed in said bracing arm, said wheel, fork and bracing arm being adapted to be disposed interiorly of the said housing when the satchel is employed in its normal capacity.

2. In a device of the character described, the combination with a metallic frame having a covering therefor, of a U shaped member pivoted at one end of said metallic frame, a substantially rectangular housing formed in each side of said frame, a fork pivotally mounted within each of said housings, a wheel secured to each of said forks and means for locking said wheel within said housing, comprising a curved arm secured to each of said forks, a spring secured to each of said arms and said forks and a lug formed within said housings.

3. In a device of the character described, the combination with a metallic frame having a covering therefor, of a U shaped member pivoted at one terminal of said frame, a pair of spring clips, a substantially rectangular housing formed in each side of said frame, a fork pivotally mounted within each of said housings, a wheel secured to each of said forks and means for locking said wheels within said housings, comprising a curved arm

secured intermediate the ends of each of said forks and provided with a notch adjacent its free terminal, a spring secured to each of said arms and said forks and a laterally extending lug formed in each of said housings adapted for engagement with the notch in said arm.

1,081,671. HIGH-TENSION DISCONNECTING-SWITCH. ARION S. KALENBORN and AUGUST J. PAHL, San Francisco, Cal., assignors to K-P-F Electric Co., a Corporation of California. Filed Dec. 30, 1911. Serial No. 668,655. (Cl. 175-282.)



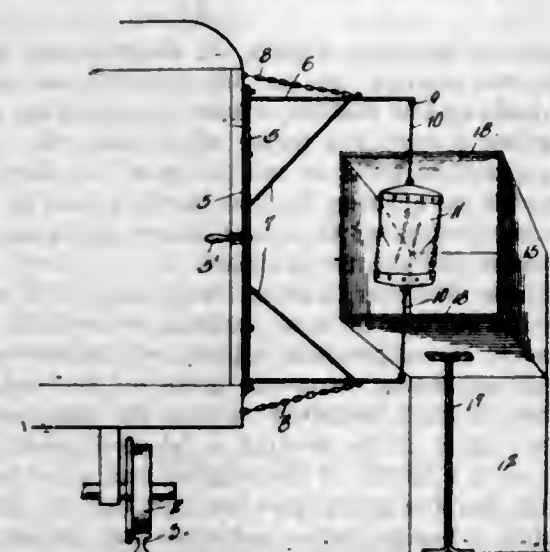
1. A high tension disconnecting switch comprising a fixed element and a rotatably mounted conductive element, means for connecting said elements both mechanically and electrically to adjacent aligned line wires, the axis of rotation of said rotatably mounted element being in alignment with said line wires, and insulating supporting means for said elements.

2. A high tension disconnecting switch comprising a fixed element and a rotatably mounted conductive element, means for connecting said elements both mechanically and electrically to adjacent aligned line wires, the axis of rotation of said rotatably mounted element being in alignment with said line wires, and insulating supporting means for said elements, said insulating supporting means including a fixed insulator and a rotatably mounted insulator.

3. A high tension disconnecting switch comprising a fixed element and a rotatably mounted conductive element, means for connecting said elements both mechanically and electrically to adjacent aligned line wires, the axis of rotation of said rotatably mounted element being in alignment with said line wires, and insulating supporting means for said elements, said insulating supporting means including a fixed insulator and a rotatably mounted insulator, the axis of rotation of said rotatably mounted insulator being the same as that of said rotatably mounted conductive element.

4. A high tension disconnecting switch comprising two axially aligned petticoat insulators, one of which is rotatably mounted, mechanical connections between said insulators, conductive switch elements carried by said insulators, and means for connecting aligned line wires to said insulators.

1,081,672. MAIL-BAG-TRANSFERRING DEVICE. DALAS F. KELLER, Lamoni, Iowa. Filed Nov. 25, 1912. Serial No. 733,360. (Cl. 105-231.)



A device of the character described comprising a body portion having a pair of upward divergent hollow members connected to the sides thereof, upwardly and out-

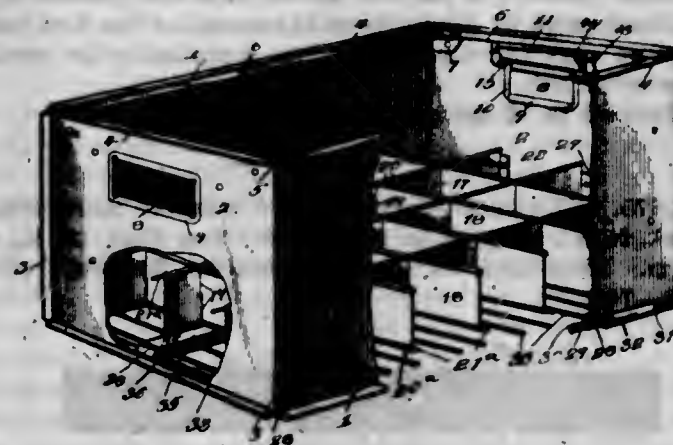
wardly extending hollow arms continuing from said members, knife members secured to the upper outer edges of said arms, the outer edges of said arms being secured in parallelism with the sides of the body portion, a bracing rod having its outer extremities upturned and secured to the upper sides of said arms, and standards secured to the bottom of said arms adjacent the sides thereof, substantially as described and for the purpose set forth.

1,081,673. TAPE. WILLIE L. E. KUFFEL, Hoboken, N. J., assignor to The Keuffel & Esser Company, Hoboken, N. J., a Corporation of New Jersey. Filed Jan. 2, 1913. Serial No. 739,614. (Cl. 33-137.)



A tape measure suitably graduated and provided with numbers in consecutive order indicating the main divisions and sets of intermediate numbers, those of each set being in consecutive order and respectively indicating the subdivisions between the adjacent main divisions, the numbers indicating each main division being repeated in connection with numbers indicating the subdivisions of the next succeeding main division and said repeated numbers being placed to read in a different direction from the numbers indicating either the main or subdivisions.

1,081,674. PACKING-CASE. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, a Corporation of Ohio. Filed Dec. 21, 1908. Serial No. 468,579. (Cl. 220-111.)



1. A cellular structure for a packing case, comprising vertical intersecting transverse and longitudinal sets of partition plates having intersecting edges, each plate of one set having at each line of intersection a slot extending vertically from its intersecting edge and receiving a part of the body of the intersecting plate, and each plate of the other set having at each line of intersection a notch in its intersecting edge and a slot extending vertically from the other edge and receiving a part of the body of the intersecting plate, and means on the plates of the first set arranged to lie within the notches of the plates of the second set whereby the edges of the plates of the first set are supported.

2. A cellular structure for a packing case, comprising vertical intersecting transverse and longitudinal sets of partition plates having intersecting edges, each plate of one set being provided at its said intersecting edge with a bead and having at each line of intersection a slot extending vertically through the bead and receiving a part of the body of the intersecting plate, and each plate of the other set having at each line of intersection a notch in its intersecting edge and a slot extending vertically from the other edge of the plate receiving a part of the body of the intersecting plate, and wires in the said beads, each wire engaging the edges of the notches in the intersecting plates.

3. A cellular structure for a packing case, comprising vertical intersecting transverse and longitudinal sets of

partition plates having intersecting beaded edges, each plate of one set having at each line of intersection a notch in its bead and a vertical slot extending from the said notch and receiving a part of the body of the intersecting plate, and each plate of the other set having at each line of intersection a notch in its bead and a vertical slot extending from the other edge of the plate and receiving a part of the body of the intersecting plate, the notches in the beads of the plates of one set being larger than those in the beads of the plates of the other set and adapted to receive the said beads.

4. A cellular structure for a packing case, comprising vertical intersecting transverse and longitudinal sets of partition plates having intersecting beaded edges, each plate of one set having at each line of intersection a notch in its bead and a vertical slot extending from the said notch and receiving a part of the body of the intersecting plate, and each plate of the other set having at each line of intersection a notch in its bead and a vertical slot extending from the other edge of the plate and receiving a part of the body of the intersecting plate, the notches in the beads of the plates of one set being larger than those in the beads of the plates of the other set, and wires in the beads having the larger notches, each wire engaging the edges of the smaller notches in the other beads.

5. A cellular structure for packing cases, comprising vertical intersecting transverse and longitudinal sets of partition plates having intersecting beaded edges, each plate of one set having at each line of intersection a notch in its bead receiving the intersecting bead, and a vertical slot extending from the said notch and receiving a part of the body of the intersecting plate, and each plate of the other set having at each line of intersection a notch in its bead narrower than the notch in the intersecting bead and a vertical slot extending from the other edge of the plate and receiving a part of the body of the intersecting plate, and wires in the beads of the plates of the first set, each wire engaging the edges of the notches in the beads of the other set.

[Claims 6 to 12 not printed in the Gazette.]

1,081,675. ELASTIC WEBBING. WALDEMAR KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed Apr. 15, 1912. Serial No. 691,066. (Cl. 139—70.)



1. An elastic fabric comprising warp and weft threads and elastic strands, woven to have an elastic section and an inelastic section and in which in the inelastic section the wefts and warps are all closely interlaced and in the elastic section are interlaced only in groups.

2. An elastic fabric woven throughout with the elastic strands at substantially the same tension and in which there are elastic sections and alternate inelastic or sewing sections and in which in the inelastic or sewing sections the weft thread is closely interlaced with all the cotton and elastic warps and in the elastic section is interlaced only with groups of the cotton and elastic warps so that the threads lie close together in the inelastic or sewing sections and are spaced apart in the elastic sections.

1,081,676. ELASTIC FABRIC. WALDEMAR KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed May 7, 1912. Serial No. 695,633. (Cl. 139—70.)

1. A flat length elastic fabric adapted to be severed into suitably shaped sections with intermediate elastic and opposite marginal inelastic sewing sections, and in which said shaped sections are woven continuous and reversed in position, and also in which the weft thread extends all the way across the fabric strip and in the inelastic sections is interlaced over and under every cotton warp and

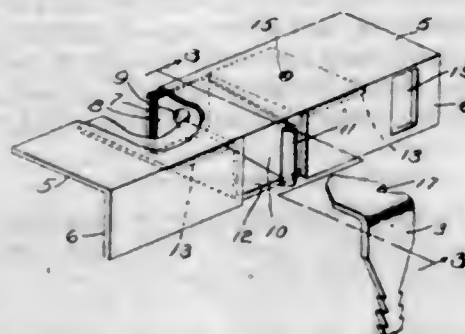
elastic warp, and in the elastic sections over and under groups of at least two of the cotton warps and elastic warps.



2. A flat length elastic fabric comprising elastic and inelastic warps, and inelastic wefts woven to have inelastic sections extending at predetermined angles across the same and intermediate elastic sections and in which the inelastic sections are woven continuous in reversed positions throughout the fabric, and also in which in the inelastic sections the wefts are closely interlaced with all the warps and in the elastic sections the wefts are interlaced only with groups of warp threads.

3. A flat length elastic fabric adapted to be severed into suitably shaped sections with intermediate elastic and opposite marginal inelastic sewing sections and in which said shaped sections are woven continuous and reversed in position, and also in which, in the inelastic sections, the weft thread is interlaced over and under each cotton warp and elastic warp and in the elastic sections is interlaced over and under groups of at least two of the cotton warps and elastic warps.

1,081,677. FASTENER FOR SHUTTERS. DANIEL STANISLAS LAGASSE, Lynn, Mass. Filed Apr. 12, 1912. Serial No. 690,410. (Cl. 16—128.)



1. A shutter fastener, having, in combination, a plate carried on the shutter, an ear depending from the plate on the outside of the shutter, a latch mounted on the ear and extending toward the inside of the shutter, a flange depending from the plate on the inside of the shutter and provided with an opening for the latch, a box to inclose the sides and bottom of the latch, and a catch to engage the latch when the shutter is closed.

2. A shutter fastener, having, in combination, a catch to secure the shutter in open position, a catch to secure the shutter in closed position, a plate carried on the shutter, an ear depending from the plate on the outside of the shutter, a latch mounted on the ear and extending toward the inside of the shutter, a flange depending from the plate on the inside of the shutter and provided with an opening for the latch and an opening for the first named catch, a box to inclose the sides and bottom of the latch, and single means for securing the box and plate to the shutter.

3. A shutter fastener having, in combination, a catch to hold the shutter closed, a plate forming an extension to

the bottom of the shutter and provided with an opening to receive the catch, a latch carried by the shutter and coacting with said catch, a casing to inclose the latch on all sides except toward the inside when the shutter is closed and a catch constructed to engage the plate to hold the shutter in open position.

4. A shutter fastener having, in combination, a catch mounted on the window sill, a plate carried by the shutter provided with a catch-receiving opening and extending from the bottom edge of the shutter substantially to the window sill, a casing to inclose the catch when the shutter is closed, and a latch mounted inside the casing to coact with the catch.

5. A shutter fastener comprising a plate attached to the shutter having a depending flange 6 provided with openings 10 and 19, a box 12 to form an inclosure back of the opening 10, a latch 8 mounted inside of the box, a catch 3 to coact with the latch 8 and a catch 4 to coact with the flange 6 adjacent the opening 19, substantially as described.

1,081,678. SHOE. MEYER LANGERAK, Knoxville, Iowa. Filed July 6, 1911. Serial No. 637,229. (Cl. 36—50.)



1. In combination, a shoe made in front and heel sections, rearward extensions formed upon the sides of said front section, means for detachably securing said extensions to the sides of the counter of said heel section, a member secured to the bottom of said front section, a member hinged to said first named member and secured to the bottom of said heel section, and cooperating means carried by said members adapted to hold said members against relative movement with said heel section in operative relation to said front section.

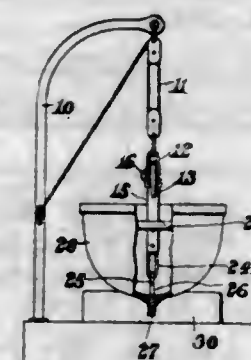
2. In combination, a shoe made in front and heel sections, a member having an elongated portion secured to the bottom of the front section, a second member hinged to the first named member and connected to the heel section, said second named member having an opening therein, a lug depending from said first named member, and adapted to project through said opening, and means carried by said second named member adapted to engage said lug to hold said members against relative movement with said heel section in operative relation to said front section.

3. In combination, a shoe made in front and heel sections, rearward extensions formed upon the sides of said front section, means for detachably securing said extensions to the sides of the counter of said heel section, a member having an elongated portion adapted to be secured between the insole and outsole of the front section, a second member hinged to the first named member and connected to the heel section, said second named member having an opening, a latch lug depending from said first named member and being provided with a latch notch, said second named member being provided with an opening to receive said lug, and means carried by said second named member for engagement with the notch of said lug to hold said members against relative movement with the heel section in operative relation to said front section.

1,081,679. ATTACHMENT FOR LIFE-BOATS. CHARLES H. LANGILL, Boston, Mass. Filed Sept. 3, 1912. Serial No. 718,412. (Cl. 9—23.)

1. In a device of the class described, the combination of a supporting member including an eye; a telescopic supporting member; a downwardly extending hook pivoted

thereto adapted to engage said eye, said hook having its pivotal axis in the same plane with said hook; and a weight adapted to turn said hook about its pivotal axis to release said eye.



2. In a device of the class described, the combination of a supporting member provided with a flanged projection; a link through which said projection extends and secured to a member to be supported; a hook pivoted to said supporting member and adapted to engage an eye; and a weight on said hook adapted to turn about its pivotal axis to release said eye.

3. In a device of the class described, the combination of a supporting member provided with a flanged projection; a link through which said projection extends and secured to a member to be supported; a hook pivoted to said supporting member and adapted to engage an eye; a weight on said hook adapted to turn about its pivotal axis to release said eye; and locking means to prevent movement of said hook about its pivot under normal conditions.

4. In a device of the class described, the combination of a boat; davits therefor provided with the usual tackle having an eye suspended therefrom; a slotted member secured to said boat; a member provided with a flanged projection extending through said slotted member; a hook pivotally mounted therein adapted to extend normally through said eye; and a weight on said hook member adapted to turn said hook and release said eye when the weight of said boat is removed therefrom.

5. In a device of the class described, the combination of a boat; davits therefor provided with the usual tackle having an eye suspended therefrom; a slotted member secured to said boat; a member provided with a flanged projection extending through said slotted member; a hook pivotally mounted therein adapted to extend normally through said eye; a weight on said hook member adapted to turn said hook and release said eye when the weight of said boat is removed therefrom; and locking means to prevent movement of said hook about its pivot under normal conditions.

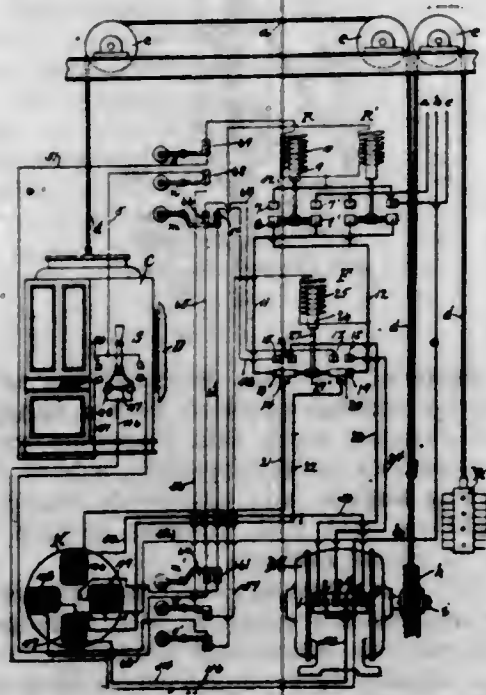
[Claims 6 to 8 not printed in the Gazette.]

1,081,680. FOUNTAIN-BRUSH. HANS L. LARSEN, Chicago, Ill. Filed July 25, 1912. Serial No. 711,564. (Cl. 15—51.)



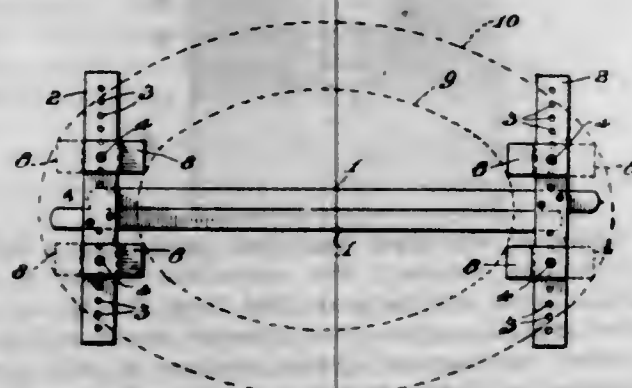
A device of the class described comprising a hollow cylindrical oil chamber; two concentric flanges of substantially equal heights projecting from the top of said chamber and forming an outer annular groove and an inner recess; an annular fibrous member in said groove and projecting slightly therefrom; and a discharge spout for said chamber in said inner recess lower than said flanges, there being considerable space between said inner flange and said spout, substantially as described.

1,081,661. ALTERNATING-CURRENT-MOTOR CONTROL. DAVID LARSON, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 31, 1910. Serial No. 579,872. (Cl. 172-152.)



1. The combination of an alternating current motor, mechanism for starting and stopping the same, and electro-responsive means controlled by said mechanism automatically to oppose a sudden reduction in the speed of the motor.
 2. The combination of an alternating current motor, electromagnetically controlled means for changing the speed of the same by changing the number of field poles of the motor, and means to automatically offer a gradually diminished opposition to the said change in the speed.
 3. The combination with an alternating current motor, of inductive apparatus for automatically controlling the current to said motor, and means for retarding the action of said apparatus.
 4. The combination with an alternating current motor, of inductive apparatus for automatically controlling the current to said motor, and fluid controlled mechanism for controlling the operation of said inductive apparatus.
 5. The combination with an alternating current motor, of means for changing the number of field poles of said motor to vary the speed thereof, and means for controlling the current to said motor and automatically preventing a sudden change in the speed of the motor when the number of field poles is changed.
- (Claims 6 to 25 not printed in the Gazette.)

1,061,662. DEVICE FOR FINDING THE AXES OR CENTERS OF CIRCULAR BODIES, OPENINGS, OR PLANE FIGURES. CHARLES G. LUNDSTROM, Chicago, Ill. Filed May 10, 1913. Serial No. 766,689. (Cl. 33-191.)



1. A device of the kind described comprising two substantially T-shaped members each consisting of a stem and a cross piece, said stems when said members are ar-

anged in operative relation being positioned with longitudinal edges contiguous; and means on said cross pieces equally distant from said contiguous edges and adapted for registration with the periphery of the object or figure acted upon, substantially as described.

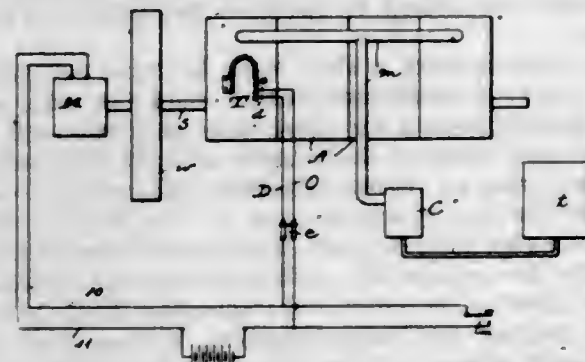
2. A device of the class described comprising two substantially T-shaped members each consisting of a stem and a cross piece, said stems, when said members are in operative relation, being positioned with longitudinal edges contiguous and movable longitudinally relative to each other; and means adjustably mounted on said cross pieces adapted when adjusted equally from said contiguous edges for registration with the periphery of the object or figure acted upon, substantially as described.

3. A device of the class described comprising two substantially T-shaped members each consisting of a stem and a cross piece, said stems, when said members are in operative relation, being positioned with longitudinal edges contiguous and movable longitudinally relative to each other; said cross pieces being provided with spaced perforations; and means cooperating with such of said perforations as are equally distant from said contiguous edges adapted for registration with the periphery of the object or figure acted upon, substantially as described.

4. A device of the class described comprising two substantially T-shaped members each consisting of a stem and a cross piece, said stems, when said members are in operative relation, being positioned with longitudinal edges contiguous and movable longitudinally relative to each other, said cross pieces being provided with perforations spaced equally in either direction from the contiguous edges of said stems; means adjustably mounted upon said cross pieces adapted for registration with the periphery of the object or figure acted upon; and means engaging said perforations for releasably securing said registering means in position, substantially as described.

5. A device of the class described comprising two substantially T-shaped members each consisting of a stem and a cross piece, said stems, when said members are in operative relation, being positioned with longitudinal edges contiguous and movable longitudinally relative to each other, said cross pieces being provided with perforations spaced equally in either direction from the contiguous edges of said stems; angular plates adjustably mounted upon said cross pieces adapted for registration with the periphery of the object or figure acted upon; and means engaging said perforations for releasably securing said plates in position, substantially as described.

1,081,683. AUTOMATIC CIRCUIT-CONTROLLING MECHANISM FOR ELECTRICAL SELF-STARTERS FOR AUTOMOBILES. WILLIAM A. LURIE, Chicago, Ill. Filed Mar. 12, 1913. Serial No. 753,707. (Cl. 123-198.)



1. In combination, an explosive engine, a starting motor therefor, a current supply circuit for the motor and a battery therefor, a switch for controlling said circuit, and thermostat mechanism responsive to the temperature at said engine to automatically control said circuit independently of said switch.
2. In combination, an explosive engine, a starting motor therefor, a current supply circuit for the motor and a battery, a main switch for controlling said circuit, a shunt circuit around said switch, and a thermostat switch responsive to the temperature at said engine for controlling said shunt circuit.

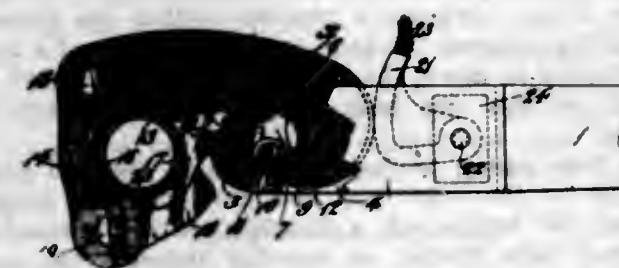
3. In combination, an explosive engine, a starting motor therefor, main mechanism for controlling the operation of said motor, and auxiliary mechanism controlled by the temperature of the engine for controlling said motor independently of said main mechanism.

4. In combination, an explosive engine, a starting motor therefor, a supply circuit for the motor including a source of current, and a thermostat device for controlling said circuit.

5. In combination, an explosive engine, a starting motor therefor, a supply circuit for the motor including a source of current, and a thermostat switch placed near the engine for automatically controlling the opening and closing of said circuit.

(Claim 6 not printed in the Gazette.)

1,081,684. COMPRESSION-WRENCH. WILLIAM H. LUTZ, Philadelphia, Pa., assignor to Lutz-Webster Engineering Co. Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 24, 1913. Serial No. 743,919. (Cl. 81-67.)

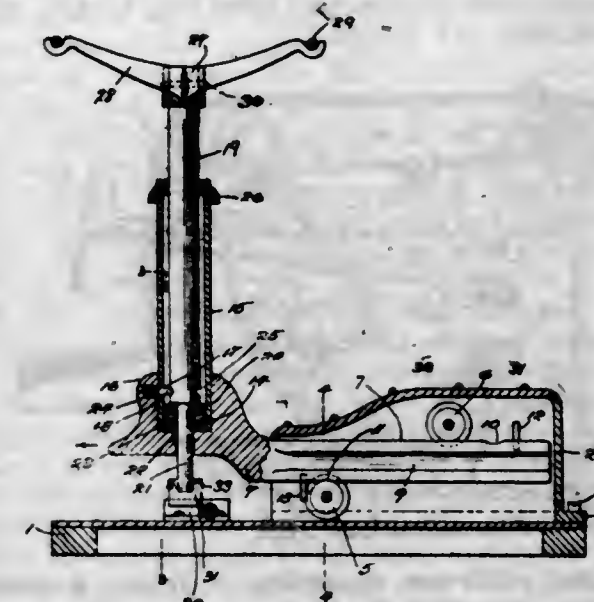


1. In a device of the character stated, a handle, a yoke formed on said handle having a transverse groove therein, lugs carried by said yoke, each lug having a recess therein, a gripping device comprising a body member adapted to interfit with said yoke, trunnions on said member for engagement with said lug recesses, a jaw member connected to said body member, a tooth on said jaw member adapted to seat in said groove, and means to retain said body member in normal position.
2. In a device of the character stated, a handle, a yoke formed on said handle having a transverse groove therein, lugs carried by said yoke, each lug having a recess therein, a gripping device comprising a body member adapted to interfit with said yoke, trunnions on said member for engagement with said lug recesses, a jaw member connected to said body member, a tooth on said jaw member adapted to seat in said groove, a cam lock pivoted in said yoke for engagement with said body member to retain said parts in normal position.
3. In a device of the character stated, a handle, a yoke formed on said handle having a transverse groove formed in one end thereof, a lug on each side of said yoke having a recess therein, said lugs being suitably spaced apart, a gripping device comprising a body member adapted to interfit with said yoke, a web formed on said member and normally positioned in the space between said lugs, trunnions formed on said body member for engagement with said lug recesses, a jaw member pivotally connected to said body member, a tooth on said jaw member adapted to seat in said groove, and means to retain said body member in normal position.
4. In a device of the character stated, a handle, a yoke formed on said handle having a transverse groove therein, a lug on each side of said yoke having a recess therein, said lugs forming a fulcrum point in close proximity to said groove and at one side of the line of the applied force passing through said groove, a gripping device comprising a body member adapted to interfit with said yoke, trunnions carried by said body member for engagement with said lug recesses, a jaw member pivotally connected to said body member, means on said jaw member adapted to seat in said groove, and a locking device for retaining said body member in normal position.
5. In a device of the character stated, a handle, a yoke formed on said handle having a transverse groove therein, lugs carried by said yoke, each lug having a recess therein,

a gripping device comprising a body member adapted to interfit with said yoke, trunnions on said member for engagement with said lug recesses, a jaw member pivotally connected to said body member, means on said jaw member adapted to seat in said groove to hold said gripping device about an article, a cam lock pivoted in said yoke for engagement with said body member to retain said member in normal position, and spring means between said lock and yoke to limit the movement of said lock.

(Claims 6 and 7 not printed in the Gazette.)

1,081,685. DISPLAY-RACK. RAY M. MCCLEARY and GEORGE L. HARNLY, Philadelphia, Pa., assignors to Oscar L. Smith, Grand Rapids, Mich. Filed Sept. 2, 1910. Serial No. 580,152. (Cl. 211-18.)

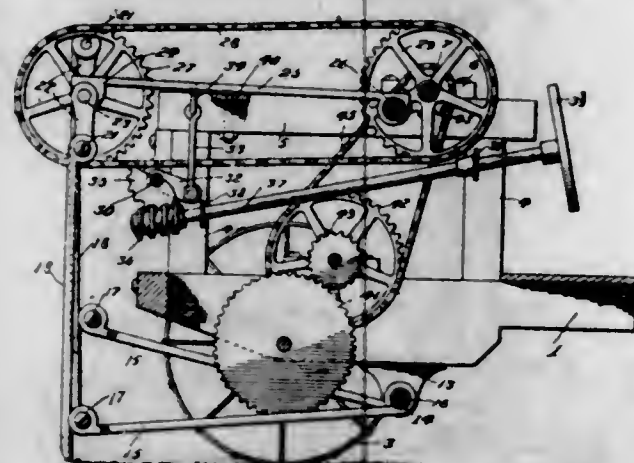


1. In a display device, the combination of a case or cabinet, a carriage mounted in the case or cabinet for movement to and from an inner position, a tubular section 15 mounted on and movable with the carriage, a rack supporting bar 19 carrying a rotatable rack 29 and extending through said tubular section 15, a spring actuated pin 18 mounted in and movable with the carriage and extending through the tubular section 15 to the interior thereof, said rack supporting bar 19 being provided with notches 25 inside the tubular section 15 adapted to be engaged by said pin to prevent rotation of the rack as it is moved to and from its inner position and permitting it to be rotated when in outer position.
2. In a display device, the combination of a case or cabinet, a carriage mounted for movement to and from a position within said case or cabinet and having a hub portion 16 provided with a longitudinal bore, a tubular section 15 mounted within said hub and provided with an opening registering with the longitudinal bore of the hub, a rack supporting bar within said tubular section and carrying a rotatable rack, said bar being provided with notches, and a spring actuated pin mounted in the longitudinal bore of the hub and extending through the opening in the tubular section to engage the notches in the rack supporting bar.
3. In a display device, the combination of a case or cabinet, a carriage movable to and from a position within said case or cabinet, a rotatable rack carried by the carriage and movable therewith to and from a position within the case or cabinet, and a spring actuated pin and cooperating notches, one rotatable with the rack and the other on the carriage to restrain free rotative movement of the rack as it is moved to and from a position within the case or cabinet.
4. In a display device, the combination of a base, a hood 2 secured to the base and having a longitudinal recess, a rack support 9 extending longitudinally within said hood, and having a hub-like forward end 13, roller guiding means 5 and 6 within said hood and disposed at opposite sides of the rack support, a rotatable rack mounted in said hub-like forward end of the rack support, and means

mounted in the wall of said hub-like portion and engaging a part connected to the rotatable rack to restrain free rotative movement thereof.

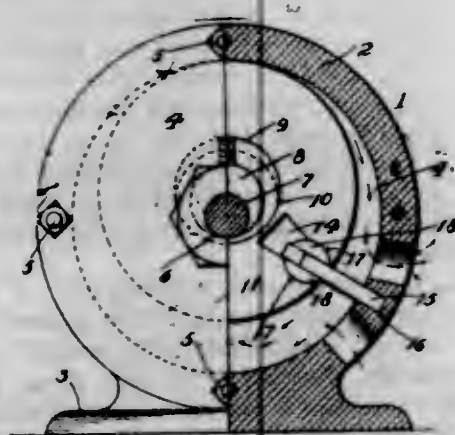
5. In a display device, the combination of a base, a hood secured to the base and having a longitudinal recess, a rack support extending longitudinally within said hood, and having a hub-like forward end, said rack support also having recesses to limit its forward and rearward travel, roller guiding means within said hood to engage said recesses, a rotatable rack mounted in said hub-like forward end of the rack support, and means mounted in the wall of said hub-like portion and engaging a part connected to the rotatable rack to restrain free rotative movement thereof.

1,081,686. MOTOR-CULTIVATOR. THOMAS FRANCIS MCGOUGH, New Orleans, La. Filed Dec. 8, 1910. Serial No. 596,300. (Cl. 97-53.)



A motor cultivator comprising a frame, a sprocket mounted on one end of the frame, means for rotating said sprocket, arms pivotally connected to the frame and their free ends adapted to carry a shaft, means for rotating said shaft, cultivator arms eccentrically mounted on the shaft, a shaft mounted on the end of said frame, a sector mounted on said shaft and meshing with a worm gear, means for operating the worm gear, arms connected to said sector and extending upwardly, eye bolts connected to first mentioned arms and adapted to receive the ends of last mentioned arms forming means for raising and lowering the cultivator arms in relation to the ground.

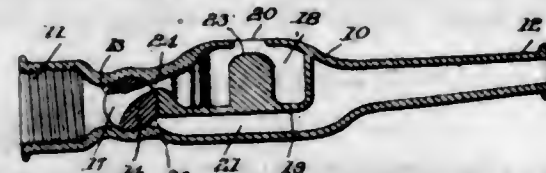
1,081,687. COMBINATION PUMP AND ENGINE. WILLIAM B. McLANE, Memphis, Mo. Filed Nov. 30, 1910. Serial No. 594,959. (Cl. 103-44.)



In a device of the character described, the combination with a circular casing, of a shaft journaled in and extending concentrically through the casing, a cam formed integral upon the shaft intermediate its ends and centrally thereof, one side of said cam being flush with the shaft, an eccentrically apertured sleeve adjustably mounted on said cam and having a roughened outer surface centrally of its ends, a piston rotatably mounted upon said sleeve and flush with the ends of said sleeve, said piston being provided with a radially extending

tapered groove, having curved recesses formed adjacent the outer end of said groove and forming a circular recess, blocks mounted in said recesses, a partition rigidly secured to the interior wall of the casing and slidably engaging said blocks, and said casing having intake and exhaust ports provided on each side of said partition.

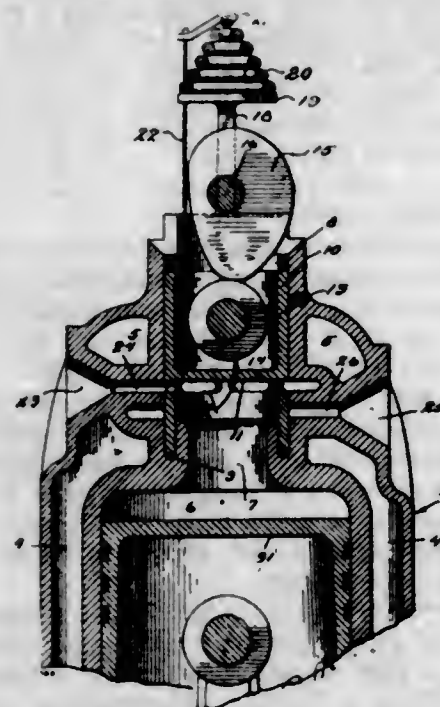
1,081,688. COMBINED HOSE-NOZZLE AND LAWN-SPRINKLER. CHARLES G. MOHL, Cadillac, Mich. Filed Aug. 23, 1912. Serial No. 716,774. (Cl. 137-17.)



1. A hose nozzle having an intake at one end and a discharge at the other end, a chamber within the upper portion of the nozzle and having an opening through the upper side wall of the same communicating with the interior of the chamber, a retarder within the chamber terminating adjacent to the chamber opening, and a valve plug adapted to direct the flow alternatively through the chamber or into the body of the nozzle beneath the chamber.

2. A hose nozzle having an intake at one end and a discharge at the other end and provided with a valve seat near the intake end, a chamber within the nozzle at the upper side having an opening through the upper wall of the nozzle communicating with the interior of the chamber, and having a passage between the chamber and the valve seat arranged tangentially and inclined upwardly relative to the chamber, a retarder within the chamber terminating adjacent to the outlet, and a valve plug operating in the valve seat for directing the flow through either the chamber or the body of the nozzle.

1,081,689. VALVE FOR INTERNAL-COMBUSTION ENGINES. ORTHO A. MORRIS, San Antonio, Tex. Filed Nov. 20, 1912. Serial No. 732,582. (Cl. 123-188.)



1. In an internal combustion engine, a working cylinder having an opening formed in the head thereof, a valve chamber formed around said opening, said valve chamber being formed with intake and exhaust ports, a piston sleeve valve slidable within the valve chamber to open and close the ports, the piston sleeve valve being formed with a diaphragm against which the exploded gases act to drive the valve outwardly and open the exhaust port, and means for forcing the valve inwardly.

2. In an internal combustion engine having a cylinder formed with an opening in the head thereof, a valve

chamber surrounding said opening, the valve chamber being formed with intake and exhaust ports, a sleeve valve slidable within the valve chamber to open and close the ports, a diaphragm formed within the valve against which the exploded gases act to force the valve outwardly and open the exhaust port, a roller journaled within the sleeve valve adjacent its outer end, a cam positively driven from the crank shaft of the engine and means for holding the roller in engagement with the periphery of the cam, the outward movement of the valve caused by the explosion of the gases serving to rotate the cam.

3. In an internal combustion engine, a working cylinder having an opening formed in the head thereof, a valve chamber surrounding the opening, the valve chamber being in the form of a cylindrical casing open at each end and formed intermediate its ends with intake and exhaust ports, a sleeve valve slidable within the valve chamber to open and close the ports, said valve being formed with a diaphragm which divides it into inner and outer compartments, a roller journaled within the outer compartment, a cam shaft extending across the outer end of the valve chamber, means for positively driving the cam shaft from the crank shaft of the engine, a cam rigid with the cam shaft and means for holding the roller in engagement with the periphery of the cam, the outward movement of the valve due to the force of the exploded gases causing the cam to be partially rotated whereby power is imparted to the crank shaft.

1,081,690. AUTOMATIC PLUNGER-ELEVATOR. DAVID FLOURENOY MORTON, Eureka Mills, Va., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 7, 1905. Serial No. 264,145. (Cl. 138-14.)



1. In a plunger elevator, the combination of a car, a cylinder provided at its upper end with an inlet comprising a series of longitudinally arranged openings communicating with the cylinder, and an outlet comprising an oppositely disposed series of longitudinally arranged openings communicating with the cylinder, the first series extending below the second series, a fluid actuated plunger within the cylinder for supporting the car, a sleeve embracing the plunger and normally covering the openings of the outlet, and a plurality of openings of the inlet, a flange on the upper end of the sleeve for engaging the free end of the cylinder to support the sleeve, a spring on the flange, a flange on the lower end of the sleeve and extending outward to the inner wall of the casing, a flange on the upper end of the cylinder for en-

gaging the flange on the sleeve to prevent withdrawal of the sleeve from the cylinder, a spring seat within the cylinder, a spring resting on the seat, a second sleeve encircling the plunger below the first sleeve and spaced apart therefrom, flanges on the ends of the sleeve and extending outward to the inner wall of the cylinder, and a flange on the lower end of the plunger for engaging the spring to elevate the sleeve.

2. In a plunger elevator, the combination of a car, a cylinder provided at its upper end with an inlet comprising a series of longitudinally arranged openings, and an outlet comprising a second series of longitudinally arranged openings, the first series extending below the second series, a fluid actuated plunger within the cylinder for supporting the car, a sleeve encircling the plunger and normally covering the openings of the outlet and a plurality of the openings of the inlet, a flange on the lower end of the sleeve and extending outwardly to the inner wall of the cylinder, means for preventing withdrawal of the sleeve from the cylinder, means whereby the sleeve may travel with the car at the commencement of its upward travel, a second sleeve supported below the first sleeve and spaced apart therefrom, flanges on the ends of the sleeve and extending outwardly to the inner wall of the casing, and means whereby the second sleeve may travel with the plunger near the end of its upward movement.

3. In a plunger elevator, the combination of a car, a cylinder provided at its upper end with an inlet comprising a series of longitudinally arranged openings, and an outlet comprising a second series of longitudinally arranged openings, the first series extending below the second series, a fluid actuated plunger within the cylinder for supporting the car, means within the cylinder normally closing the openings of the outlet and a plurality of the openings of the inlet, means for actuating said closing means to gradually open the openings at the commencement of the upward movement of the plunger, means within the cylinder for gradually closing the openings, and means for actuating said closing means near the end of the upward movement of the plunger.

4. In a plunger elevator, the combination of a car, a cylinder provided at its upper end with an inlet comprising a series of longitudinally arranged openings, and an outlet comprising a second series of longitudinally arranged openings, the first series extending below the second series, a fluid actuated plunger within the cylinder for supporting the car, means within the casing for normally closing the openings of the outlet and a plurality of the openings of the inlet, means for actuating said closing means to gradually open the openings at the commencement of the travel of the plunger, means to gradually close the openings near the end of the travel of the plunger, means whereby the movement of the plunger may actuate the said closing means.

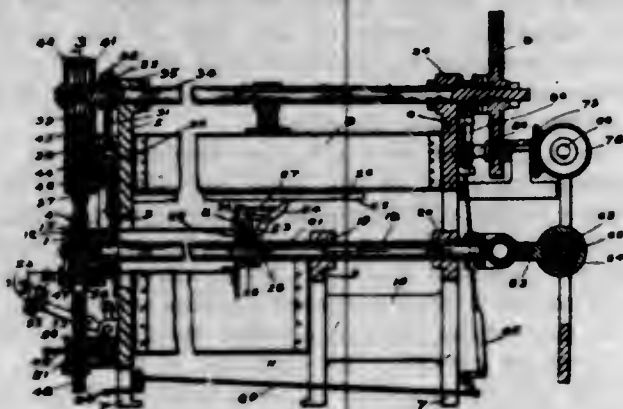
5. In a plunger elevator, the combination of a car, a cylinder provided at its upper end with an inlet comprising a series of longitudinally arranged openings, and an outlet comprising a series of longitudinally arranged openings, the first series extending below the second series, a fluid actuated plunger within the cylinder for supporting the car, means normally closing the openings of the inlet, means whereby to operate the said closing means at the commencement of the upward travel of the plunger to gradually open the openings, means for gradually closing the openings, and means whereby the plunger may actuate the said closing means near the end of its upward travel.

[Claims 6 to 37 not printed in the Gazette.]

1,081,691. PIPE-RIVETING MACHINE. CARL G. NAYLOR and ROBERT R. ROBERTSON, Chicago, Ill. Filed May 13, 1911. Serial No. 627,055. (Cl. 78-51.)

1. In a device of the character described, the combination with a riveting hammer and a punch, of a reciprocating rod, means for supporting said rod at its rear end, a head mounted on the front end of said rod around which

the pipe is arranged to be placed, a carriage for advancing said pipe step by step and arranged to be moved forward by the reciprocations of said rod.



2. In a device of the character described, the combination with a riveting hammer and a punch, of a reciprocating rod, means for supporting said rod at its rear end, a head mounted on said rod around which the pipe is arranged to be placed, a pipe carriage arranged to be moved forward step by step by the reciprocations of said rod, and a support for said head adapted to be disengaged therefrom to permit the pipe to be secured on said head.

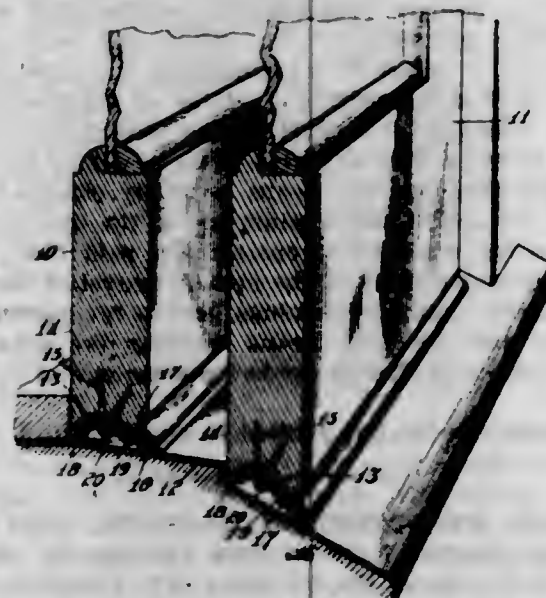
3. In a device of the character described, the combination with a riveting hammer and a punch, of a reciprocating rod, a head mounted on the end of said rod and beneath said punch and hammer, a pipe carriage adapted to be advanced step by step by the reciprocations of said rod, means for positioning and guiding said head relatively to said punch and hammer, and a support for said head arranged to be disconnected therefrom to permit the pipe to be secured around said head.

4. In a machine of the character described, the combination with a pipe punch and a riveting hammer, of a head or anvil beneath said punch and hammer and arranged to snugly fit the inside of the pipe, clamping dies for holding the pipe around said head, and a support for said head.

5. In a pipe riveting machine, the combination with a punch and a riveting hammer, of a head arranged to snugly fit the pipe mounted beneath said punch and hammer, clamping dies for holding the pipe around said head, and a support for said head arranged beneath the same and adapted to be moved into supporting position after the pipe has been adjusted on the head.

[Claims 6 to 10 not printed in the Gazette.]

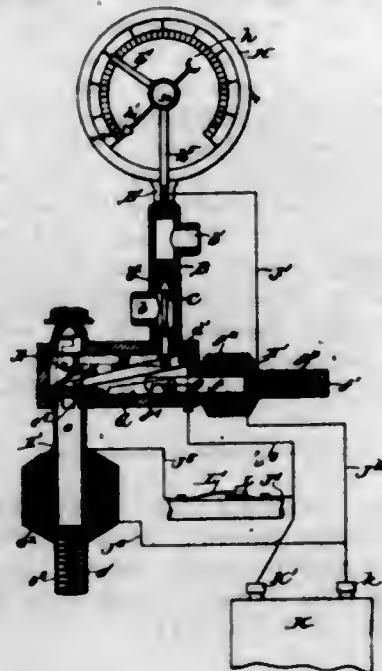
1,081,692. WEATHER-GUARD FOR WINDOWS. ALFRED H. NEWBERG, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Mar. 8, 1912. Serial No. 682,453. (Cl. 20-69.)



1. A curved plate adapted for attachment to the lower edge of a window sash and to project beyond the outer face thereof and having its outer margin recurved backwardly to fit against the outer face of the sash, a sheet of soft material fitted to the concave face of the metal plate and extending beyond the same at both margins, and a curved binding plate for securing the sheet in place.

2. A curved plate adapted for attachment to the lower edge of a window sash and to project beyond the outer face thereof and having its outer margin recurved backwardly to fit against the outer face of the sash, a sheet of soft material fitted to and secured against the concave face of the metal plate and extending to the outer margin of said plate.

1,081,693. ELECTRIC PNEUMATIC-PRESSURE CONTROLLER. EDWARD K. PARKER, Santa Barbara, Cal. Filed Aug. 12, 1912. Serial No. 714,584. (Cl. 137-78.)



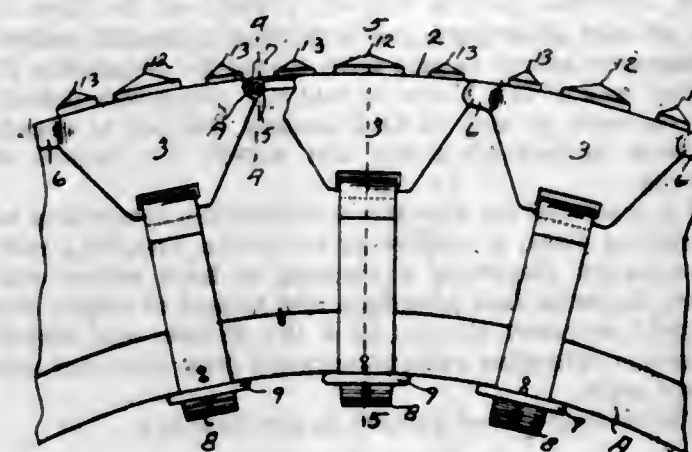
1. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature adapted to cooperate with said lever to open and close said valve, a bolt, another electro-magnet mounted on said casing having a spring-pressed armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said last named electro-magnet and said gage whereby when said index hand makes contact with said indicator said armature cooperates with said bolt to unlock said valve.

2. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature provided with a projection, said projection adapted to cooperate with said lever to open said valve, a bolt slidably mounted on said casing and having a stud, another electro-magnet mounted on said casing and comprising a spring-pressed armature provided with a projection, said armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said gage and said last named electro-magnet whereby when said index hand makes contact with said indicator, said projection cooperates with said stud to draw said bolt and unlock said valve.

3. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature provided with a projection, said projection adapted during the downward movement of

said armature to engage said lever to open said valve, a bolt slidably mounted on said casing and having a stud, another electro-magnet mounted on said casing and comprising a spring-pressed armature provided with a projection, said armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said gage and said last named electro-magnet whereby when said index hand makes contact with said indicator, said armature is retracted and during its backward movement said projection cooperates with said stud to draw said bolt and unlock said valve.

1,081,694. AUTOMOBILE TIRE-PROTECTOR. FRANK PHASIC, Minoak, Ill. Filed Dec. 18, 1912. Serial No. 737,529. (Cl. 152-16.)



1. A tire protector comprising sections, each of said sections having hinge knuckles on its opposite edges, each of said sections being rectangular in cross section, the knuckles of one section being aligned with the knuckles of an adjacent section, hinge pins passing through the aligned knuckles of adjacent sections, and bendable portions formed integral with the sides of each section at the upper edge thereof and disposed outwardly of and engaging the ends of the adjacent hinge pin to form guards to prevent the pin from longitudinal separation from its knuckles, and said bendable portions overlying the adjacent section.

2. A tire protector comprising sections, each of said sections being rectangular in cross section, each of said sections having hinge knuckles on its opposite edges, the knuckles of one section being aligned with the knuckles of an adjacent section, hinge pins passing through the aligned knuckles of adjacent sections, bendable portions formed integral with each section adjacent the upper edge of the sides of each section and off-set and disposed outwardly of and engaging the ends of the adjacent hinge pin to form guards to prevent the pin from longitudinal separation from its knuckles, said offset bendable portions engaging an adjacent section, and a rim clamping member carried by each of said sections.

3. A tire protector comprising embracing sections having aligned hinge knuckles, one of the sections having recesses therein in line with the knuckles, a pin extending through the knuckles and removably fitted therein, and bendable portions carried by the other section and overlying the recesses and the ends of the hinge pin.

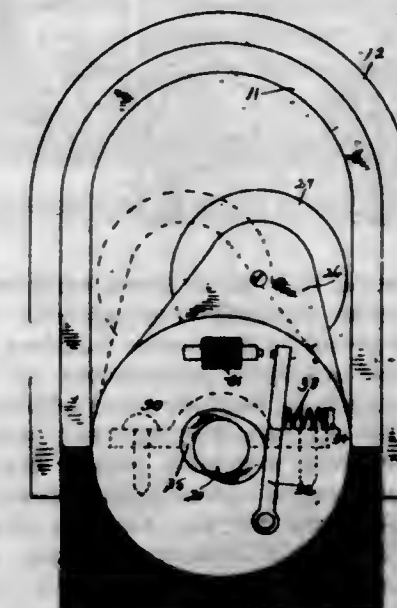
4. A tire protector, a plurality of protecting sections relatively arranged to embrace the tread of the tire, hinges connecting the sections with each other, an elastic strip carried by each section and located between the section and the tread of the tire and having a portion underlying the joints between adjacent sections, and a fastening device securing the strip to the section.

1,081,695. BUILDING-BLOCK. SEBASTIANO RANNO FU BIAGIO, New York, N. Y. Filed July 30, 1912. Serial No. 712,358. (Cl. 106-42.)

A process for manufacturing building blocks by mixing 20 parts of pulverized granite, 10 parts of pulverized glass,

35 parts of red clay, 35 parts of fire clay and Mearbonate of soda in an amount equaling 1 per cent. of the entire mixture, and fusing the entire mixture by means of a high temperature.

1,081,696. MAGNETO-ELECTRIC GENERATOR. BENJAMIN P. REMY and FRANK I. REMY, Anderson, Ind., assignors, by mesne assignments, to Sumter Electrical Company, a Corporation of South Carolina. Filed Feb. 17, 1910. Serial No. 544,402. (Cl. 123-149.)



1. An electric generator including a rotary inductor, two sets of pole pieces, one set stationary and the other set angularly adjustable with relation to stationary pole pieces, and a winding in fixed relation to the adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces.

2. A magneto electric generator including a rotary inductor, two sets of pole pieces, one set stationary and the other set angularly adjustable with relation to stationary pole pieces, a winding in fixed relation to the adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces, and an interrupter controlled by the adjustable pole pieces whereby the time of interruption is varied when the position of the pole pieces is varied.

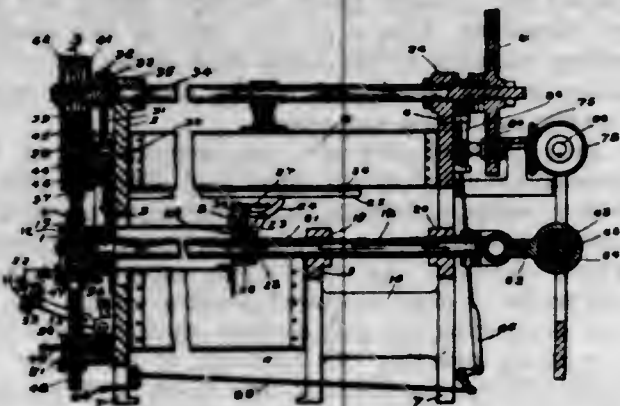
3. A magneto electric generator including stationary field magnets, a rotary inductor, a non-revoluble armature oscillatable concentrically of the inductor and having pole pieces, a winding in fixed relation to the pole pieces, and an interrupter controlled by the position of the armature whereby the time of the interruption may be varied.

4. A magneto electric generator including a field magnet, fixed field magnet pole pieces, a rotary inductor shaft, inductors mounted so as to rotate with the shaft, armature end plates oscillatably mounted on each end of the shaft, a core secured to and between said plates and parallel with the shaft, pole pieces on said core, the two sets of pole pieces being in position to be bridged by the inductors, windings on the core, and an interrupter controlled by the movement of said armature plates, whereby the armature may be rocked on the inductor shaft and the time of interruption varied.

5. A magneto electric generator including a field magnet, fixed field magnet pole pieces, a rotary inductor shaft, inductors mounted so as to rotate with the shaft, armature plates oscillatably mounted on each end of the shaft, a core secured to and between said plates and parallel with the shaft, pole pieces on said core the two sets of pole pieces being in position to be bridged by the inductors, windings on the core, a disk secured to one of said armature plates so as to oscillate therewith, a terminal mounted on said disk, a spring-controlled contact lever pivoted on said plate in position to engage said terminal, and cam-like means mounted on said shaft in position to actuate the lever thereby making and breaking the circuit.

[Claims 6 to 10 not printed in the Gazette.]

the pipe is arranged to be placed, a carriage for advancing said pipe step by step and arranged to be moved forward by the reciprocations of said rod.



2. In a device of the character described, the combination with a riveting hammer and a punch, of a reciprocating rod, means for supporting said rod at its rear end, a head mounted on said rod around which the pipe is arranged to be placed, a pipe carriage arranged to be moved forward step by step by the reciprocations of said rod, and a support for said head adapted to be disengaged therefrom to permit the pipe to be secured on said head.

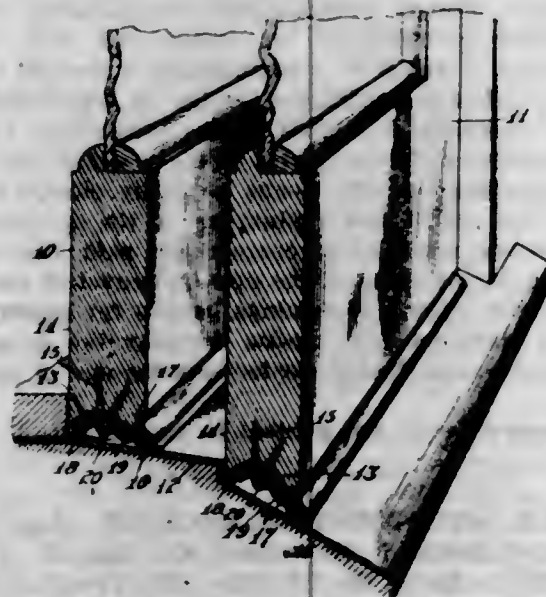
3. In a device of the character described, the combination with a riveting hammer and a punch, of a reciprocating rod, a head mounted on the end of said rod and beneath said punch and hammer, a pipe carriage adapted to be advanced step by step by the reciprocations of said rod, means for positioning and guiding said head relatively to said punch and hammer, and a support for said head arranged to be disconnected therefrom to permit the pipe to be secured around said head.

4. In a machine of the character described, the combination with a pipe punch and a riveting hammer, of a head or anvil beneath said punch and hammer and arranged to snugly fit the inside of the pipe, clamping dies for holding the pipe around said head, and a support for said head.

5. In a pipe riveting machine, the combination with a punch and a riveting hammer, of a head arranged to snugly fit the pipe mounted beneath said punch and hammer, clamping dies for holding the pipe around said head, and a support for said head arranged beneath the same and adapted to be moved into supporting position after the pipe has been adjusted on the head.

[Claims 6 to 10 not printed in the Gazette.]

1,081,692. WEATHER-GUARD FOR WINDOWS. ALFRED H. NEWBERG, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Mar. 8, 1912. Serial No. 682,453. (Cl. 20-69.)

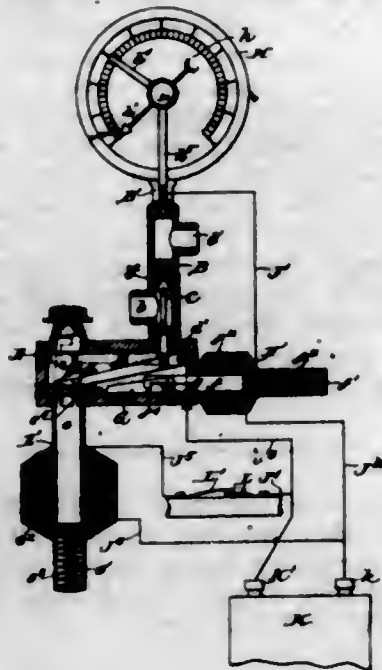


1. A curved plate adapted for attachment to the lower edge of a window sash and to project beyond the outer face thereof and having its outer margin recurved back-

wardly to fit against the outer face of the sash, a sheet of soft material fitted to the concave face of the metal plate and extending beyond the same at both margins, and a curved binding plate for securing the sheet in place.

2. A curved plate adapted for attachment to the lower edge of a window sash and to project beyond the outer face thereof and having its outer margin recurved backwardly to fit against the outer face of the sash, a sheet of soft material fitted to and secured against the concave face of the metal plate and extending to the outer margin of said plate.

1,081,693. ELECTRIC PNEUMATIC-PRESSURE CONTROLLER. EDWARD K. PARKER, Santa Barbara, Cal. Filed Aug. 12, 1912. Serial No. 714,584. (Cl. 137-78.)



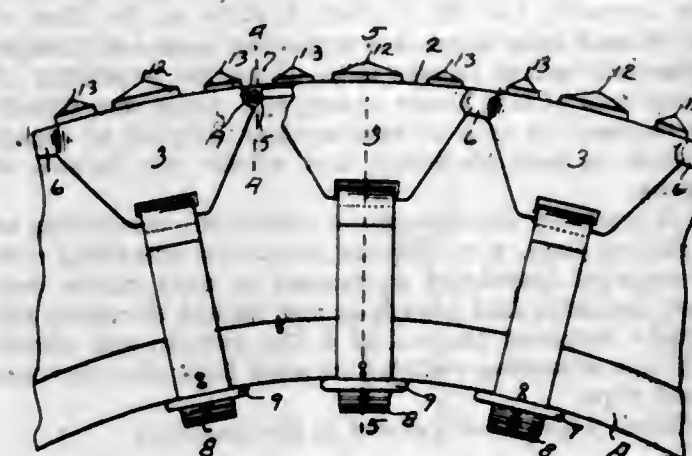
1. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature adapted to cooperate with said lever to open and close said valve, a bolt, another electro-magnet mounted on said casing having a spring-pressed armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said last named electro-magnet and said gage whereby when said index hand makes contact with said indicator said armature cooperates with said bolt to unlock said valve.

2. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature provided with a projection, said projection adapted to cooperate with said lever to open said valve, a bolt slidably mounted on said casing and having a stud, another electro-magnet mounted on said casing and comprising a spring-pressed armature provided with a projection, said armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said gage and said last named electro-magnet whereby when said index hand makes contact with said indicator, said projection cooperates with said stud to draw said bolt and unlock said valve.

3. In a device of the class described, a casing having an inlet port and an outlet port, a valve, a seat for said valve located between said ports, a lever pivoted in said casing, a connection between said lever and said valve, an electro-magnet mounted on said casing and having a spring-pressed armature provided with a projection, said projection adapted during the downward movement of

said armature to engage said lever to open said valve, a bolt slidably mounted on said casing and having a stud, another electro-magnet mounted on said casing and comprising a spring-pressed armature provided with a projection, said armature adapted to cooperate with said bolt to lock said valve in open position, a pressure gage mounted on said casing and having a rotatably mounted indicator and an index hand, and an electrical connection between said gage and said last named electro-magnet whereby when said index hand makes contact with said indicator, said armature is retracted and during its backward movement said projection cooperates with said stud to draw said bolt and unlock said valve.

1,081,694. AUTOMOBILE TIRE-PROTECTOR. FRANK PERMIS, Minoak, Ill. Filed Dec. 18, 1912. Serial No. 737,529. (Cl. 152-18.)



1. A tire protector comprising sections, each of said sections having hinge knuckles on its opposite edges, each of said sections being rectangular in cross section, the knuckles of one section being aligned with the knuckles of an adjacent section, hinge pins passing through the aligned knuckles of adjacent sections, and bendable portions formed integral with the sides of each section at the upper edge thereof and disposed outwardly of and engaging the ends of the adjacent hinge pin to form guards to prevent the pin from longitudinal separation from its knuckles, and said bendable portions overlying the adjacent section.

2. A tire protector comprising sections, each of said sections being rectangular in cross section, each of said sections having hinge knuckles on its opposite edges, the knuckles of one section being aligned with the knuckles of an adjacent section, hinge pins passing through the aligned knuckles of adjacent sections, bendable portions formed integral with each section adjacent the upper edge of the sides of each section and off-set and disposed outwardly of and engaging the ends of the adjacent hinge pin to form guards to prevent the pin from longitudinal separation from its knuckles, said offset bendable portions engaging an adjacent section, and a rim clamping member carried by each of said sections.

3. A tire protector comprising embracing sections having aligned hinge knuckles, one of the sections having recesses therein in line with the knuckles, a pin extending through the knuckles and removably fitted therein, and bendable portions carried by the other section and overlying the recesses and the ends of the hinge pin.

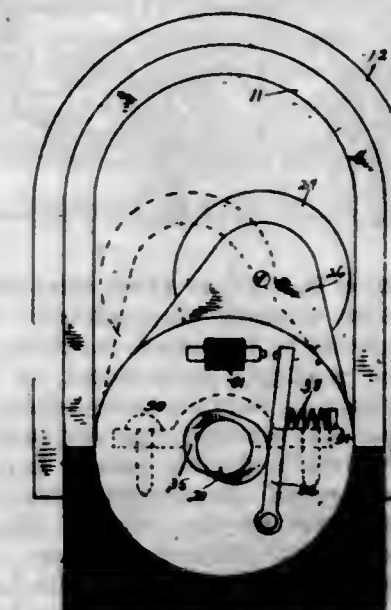
4. A tire protector, a plurality of protecting sections relatively arranged to embrace the tread of the tire, hinges connecting the sections with each other, an elastic strip carried by each section and located between the section and the tread of the tire and having a portion underlying the joints between adjacent sections, and a fastening device securing the strip to the section.

1,081,695. BUILDING-BLOCK. SEBASTIANO RANNO RU BIAGIO, New York, N. Y. Filed July 30, 1912. Serial No. 712,358. (Cl. 106-42.)

A process for manufacturing building blocks by mixing 20 parts of pulverized granite, 10 parts of pulverized glass,

35 parts of red clay, 35 parts of fire clay and bicarbonate of soda in an amount equaling 1 per cent. of the entire mixture, and fusing the entire mixture by means of a high temperature.

1,081,696. MAGNETO-ELECTRIC GENERATOR. BENJAMIN P. REMY and FRANK I. REMY, Anderson, Ind., assignors, by mesne assignments, to Sumter Electrical Company, a Corporation of South Carolina. Filed Feb. 17, 1910. Serial No. 544,402. (Cl. 123-149.)



1. An electric generator including a rotary inductor, two sets of pole pieces, one set stationary and the other set angularly adjustable with relation to stationary pole pieces, and a winding in fixed relation to the adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces.

2. A magneto electric generator including a rotary inductor, two sets of pole pieces, one set stationary and the other set angularly adjustable with relation to stationary pole pieces, a winding in fixed relation to the adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces, and an interrupter controlled by the adjustable pole pieces whereby the time of interruption is varied when the position of the pole pieces is varied.

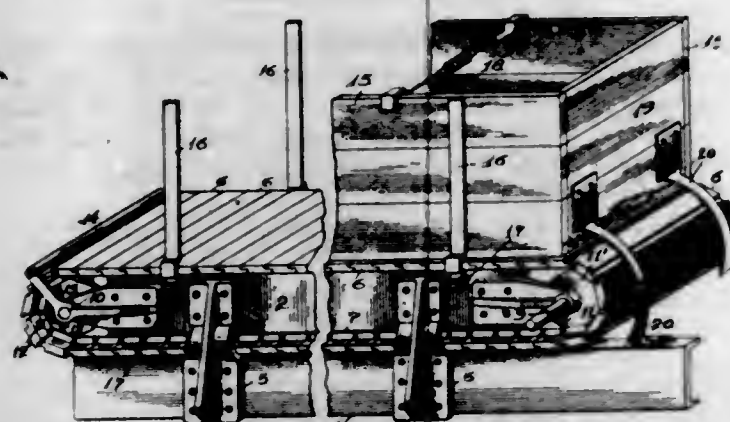
3. A magneto electric generator including stationary field magnets, a rotary inductor, a non-revoluble armature oscillatable concentrically of the inductor and having pole pieces, a winding in fixed relation to the pole pieces, and an interrupter controlled by the position of the armature whereby the time of the interruption may be varied.

4. A magneto electric generator including a field magnet, fixed field magnet pole pieces, a rotary inductor shaft, inductors mounted so as to rotate with the shaft, armature end plates oscillatably mounted on each end of the shaft, a core secured to and between said plates and parallel with the shaft, pole pieces on said core, the two sets of pole pieces being in position to be bridged by the inductors, windings on the core, and an interrupter controlled by the movement of said armature plates, whereby the armature may be rocked on the inductor shaft and the time of interruption varied.

5. A magneto electric generator including a field magnet, fixed field magnet pole pieces, a rotary inductor shaft, inductors mounted so as to rotate with the shaft, armature plates oscillatably mounted on each end of the shaft, a core secured to and between said plates and parallel with the shaft, pole pieces on said core the two sets of pole pieces being in position to be bridged by the inductors, windings on the core, a disk secured to one of said armature plates so as to oscillate therewith, a terminal mounted on said disk, a spring-controlled contact lever pivoted on said plate in position to engage said terminal, and cam-like means mounted on said shaft in position to actuate the lever thereby making and breaking the circuit.

[Claims 6 to 10 not printed in the Gazette.]

1,081,697. **LOADING AND DUMPING DEVICE.** LYLETON E. RENNEY and WILLIAM J. PEDLER, San Francisco, Cal. Filed Sept. 23, 1912. Serial No. 721,921. (Cl. 21-20.)

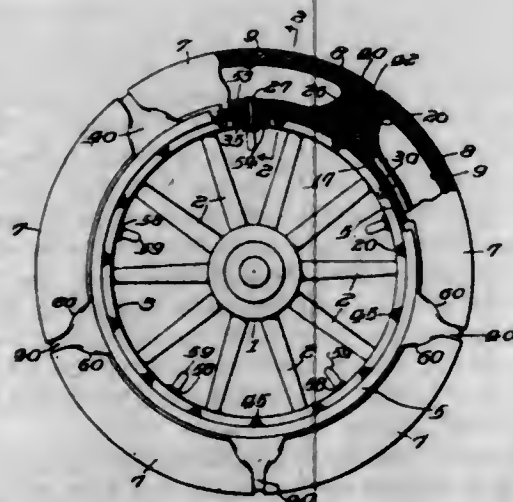


1. In combination in a motor truck comprising a frame composed of beams disposed longitudinally of the vehicle and joined together by transverse members, a secondary supporting frame similarly constructed of longitudinal and transverse members, said secondary frame being suitably elevated from said vehicle frame and supported therefrom by side brackets, a flexible endless carrier adapted to pass over and around the secondary frame to form a movable load platform for the vehicle, detachable side boards supported on said supporting frame, a permanent front end gate supported from the vehicle frame by arc-shaped brackets, and a guard roller supported by a bracket from the rear end of the supporting frame, said roller being disposed in alignment with the upper floor level of the vehicle, substantially as described.

2. In combination in a motor truck, a suitable frame, a flexible endless carrier, and a guard roller 14 arranged at one end of the truck in proximity to the surface of the carrier as it travels around its support.

3. In combination in a motor truck comprising a frame, an endless carrier, a front end portion, and arc-shaped brackets supporting the same from the frame and permitting free, uninterrupted movement of the endless carrier, substantially as described.

1,081,698. **VEHICLE-TIRE.** ALLEN S. RICHARDSON, Jenkintown, Pa. Filed Oct. 25, 1912. Serial No. 727,642. (Cl. 152-22.)



1. The combination with a vehicle wheel having a permanent felly, of a tire comprising a plurality of elongated sections having substantially convex ends, and radially outwardly removable separators having opposite hollowed faces located between said sections and adapted to embrace the ends thereof, said sections being removable independently of said separators while said separators are in place upon said felly.

2. A vehicle tire comprising a plurality of elongated sections, shoes carrying said sections, and removable separators having opposite hollowed faces between the ends of

said sections, each section being removable independently of said separators and of the other sections.

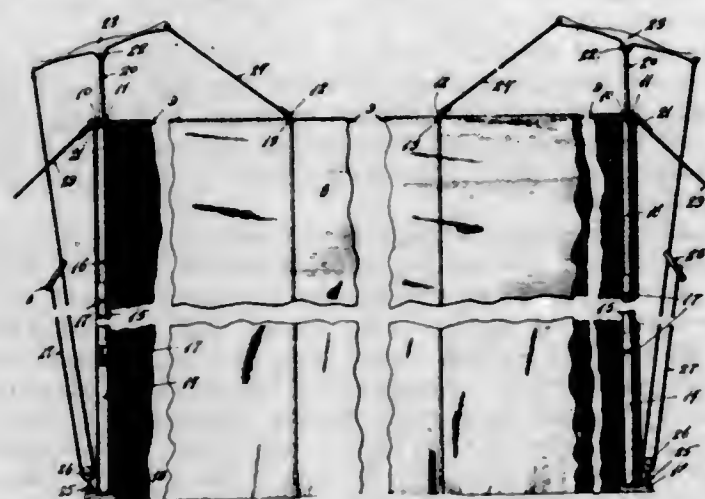
3. A vehicle tire comprising a plurality of sections, each comprising an outer casing having closed ends, an inner tube for each of said sections, means for inflating said tube, shoes carrying said sections, a channel shaped rim conformable to said shoes, outwardly removable separators embracing the ends of said sections, detachably fastened to said rim, and means for detachably fastening said sections to said rim, said separators being adapted to permit the removal of any section independently of any other section or of said separators.

4. The combination with a vehicle wheel having a permanent felly, of a tire comprising a plurality of independent sections having closed substantially convex ends, an inner tube within each of said sections, separators between said sections, each of said separators being formed with opposing hollow faces adapted to engage and partially surround the end thereof, a plate on the base of each of said separators, a rim having a channel section permanently affixed to said felly, means for removably attaching each of said plates to said rim, and a shoe detachably fastened to each of said sections adapted to engage the ends of said plate and rest within the channel of said rim.

5. A separator for a sectional vehicle tire comprising an arc shaped plate, a reinforcing projection extending radially outward therefrom, a covering of hard rubber completely inclosing said projection and formed to receive and partially surround the end of a tire section, and attaching means extending radially outward from the other side of said plate.

[Claims 6 and 7 not printed in the Gazette.]

1,081,699. **TENT.** WILLIAM H. RICHLING, St. Louis, Mo., assignor to The H. Wenzel Tent & Duck Co., St. Louis, Mo., a Corporation of Missouri. Filed Dec. 2, 1912. Serial No. 734,590. (Cl. 135-1.)



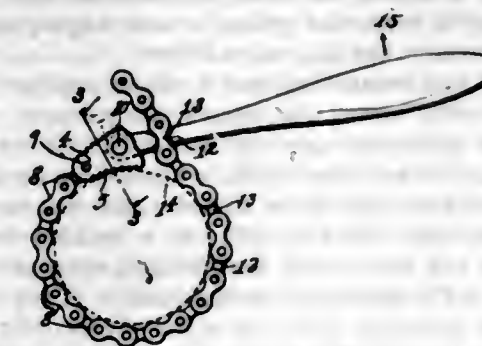
1. In combination with a tent body having a ridge rope, a pole, a removable tent pin carried by the pole, a working-beam fulcrumed over the tent pin, a flexible connection between said working-beam and said ridge rope, and means for holding said working-beam in different positions.

2. In combination with a tent body having a ridge rope, a tent pole, a base block for the tent pole, a tent pin telescopically connected with the uppermost end of the pole, a working-beam fulcrumed to said tent pin, a flexible connection between said working-beam and the ridge rope, and a rope and tackle connection between the working-beam and said base block.

1,081,700. **WRENCH.** FRANK W. RIESSENBERG, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,277. (Cl. 81-70.)

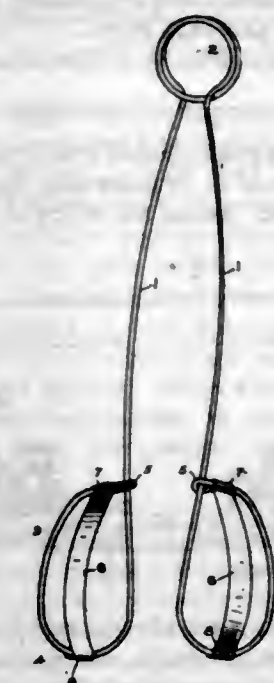
A wrench comprising a jaw having a groove in one of its faces; a chain pivoted in one end of said groove to said jaw, each link of said chain having a central constricted portion; a handle pivoted in the other end of said groove to said jaw, said handle having a lateral recess substantially perpendicular thereto in one side ex-

tending to a depth corresponding to the width of said chain, the sides of said recess being adapted to conform



to and snugly fit the constricted portions of said links, substantially as described.

1,081,701. **EGG-LIFTER.** WILLIAM C. SANDMANN, Newark, N. J. Filed Nov. 19, 1910. Serial No. 593,135. (Cl. 65-52.)



An article of the character described, comprising substantially straight wire arms, the wire being bent laterally at the end of each arm and returned in the form of a closed loop with rounded corners and clasped at its extremity loosely around the arm, the two loops thus formed lying in substantially parallel planes transverse to the direction of movement of the arms toward and away from each other, a strip of sheet-metal extending across each loop in the direction of the length of the arm and bowed out of the plane of the loop away from the other loop, the ends of each strip being wrapped around the wire of its loop at the middles of the ends thereof and forming straight sleeves thereon, said strips holding the clasped ends of the loops against sliding along the arms and having their own sleeve-like ends held against sliding on the loops by the curvature of the rounded corners thereof, and means connecting said arms at their ends away from said loops so as to swing toward and away from each other.

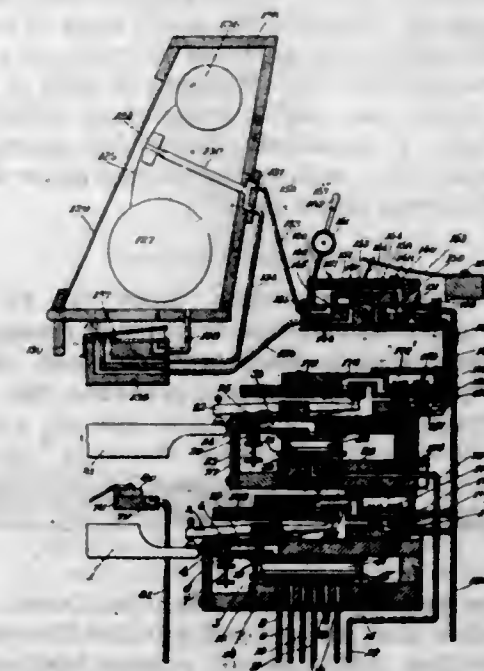
1,081,702. **CONCRETE RAILWAY-TIE.** JOHN F. SCHOMER, Victor, Colo. Filed July 26, 1913. Serial No. 781,811. (Cl. 238-3.)



In a device of the character described the combination with a concrete tie of a longitudinal rail clamping bar embedded therein, said bar being dove-tailed to prevent its withdrawal from the tie, an angular clamping member

formed integrally with each of the terminals of said bar adapted for engagement with the rail bases, rail base clamping plates removably secured to said bar, a pair of laterally extending flanges formed integral with said bar and terminating in flush relation with the side edges of the tie and said flanges and the upper surface of said bar forming a rectangular supporting plate whereby the rails are spaced from the tie.

1,081,703. **MUSICAL INSTRUMENT.** JOSEPH SCHWERTNER, New York, N. Y., assignor, by direct and mesne assignments, to Heerwagen Company, a Corporation of New York. Filed Dec. 8, 1910. Serial No. 596,196. (Cl. 84-246.)



1. In an organ coupler combined with suitable speaking devices, two sets of controlling air ducts for controlling two sets of speaking devices, a set of valves, one valve for opening the controlling ends of one duct of each set of ducts simultaneously, a separate pneumatic motor for operating each valve, a separate coupling valve in each duct of one set, and a separate pneumatic motor for operating each coupling valve, a third set of air ducts for controlling the same set of speaking devices as the ducts in which the coupling valves are situated, a separate valve for opening the controlling end of each of said third set of ducts, and a separate pneumatic motor for operating each of said last mentioned valves.

2. In an organ, the great organ key and swell organ key, and corresponding great organ speaking device and swell organ speaking device, two controlling air ducts for the swell organ speaking device, a valve for opening the controlling end of one of said ducts, means including a pneumatic motor for operating said valve, said motor being controlled by the swell organ key, a coupling valve in the other of said ducts, a pneumatic motor for operating said coupling valve, a controlling duct for the great organ speaking device, and a valve for opening the controlling end of said last mentioned duct and said coupling duct simultaneously, a pneumatic motor for operating said last mentioned valve, said last mentioned motor being controlled by the great organ key.

3. In a coupler, two sets of controlling air ducts for different speaking devices, a set of valves, one valve for opening the controlling ends of one duct of each set of ducts simultaneously, a separate pneumatic motor for operating each valve, a separate coupling valve in each duct of one set and separate means mechanically connected to each coupling valve for mechanically operating the same.

4. In an organ coupler or the like combined with suitable speaking devices, two sets of controlling air ducts for controlling two sets of speaking devices, a set of valves, one valve for opening the controlling ends of one duct of each set of ducts substantially simultaneously, a

separate coupling valve in each duct of one set and separate mechanical means mechanically connected to said coupling valves for operating the same, a third set of air ducts for controlling the same set of speaking devices as the ducts in which the coupling valves are situated and a separate valve for opening the controlling end of each of the ducts of said third set.

5. In an organ, the great organ keys and swell organ keys, and corresponding great organ speaking devices and swell organ speaking devices, two sets of controlling air ducts for the swell organ speaking devices, a separate valve for opening the controlling end of each of said ducts, means including a pneumatic motor for operating each of said valves, said motor being controlled by the swell organ key, a coupling valve in each of the ducts of the other set, separate means mechanically connected to each coupling valve for operating the same, a set of controlling ducts for the great organ speaking devices, and a separate valve for opening the controlling end of each of said last mentioned ducts and the corresponding coupling duct simultaneously, a pneumatic motor for operating said last mentioned valve, said last mentioned motor being controlled by the great organ key.

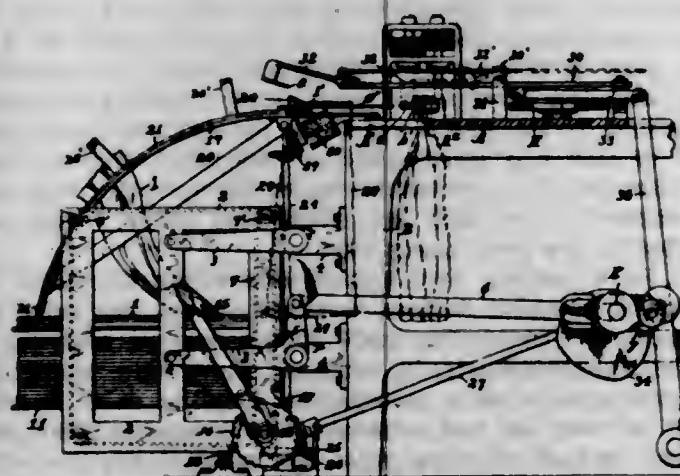
1,081,704. SCREW-DRIVER. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 21, 1910. Serial No. 598,595. (Cl. 145-79.)



1. A screw driver, comprising a metal frame, having a flat web with a slot therein, and a hollow ferrule portion in communication with said slot, a metal bridge extending across said slot, and a blade having a shank extending into said ferrule portion and said slot, and provided with a groove engaging said bridge; substantially as described.

2. A screw driver, comprising a metal frame having a hollow ferrule portion at one end and a flat central web with a slot extending to said ferrule portion, a pair of oppositely located bridges extending across said slot, a blade having a shank extending into said ferrule portion and slot and provided with a groove engaged by said bridges, and grip portions secured to said frame at opposite sides; substantially as described.

1,081,705. BAG SEPARATING AND FEEDING APPLIANCE. JAMES S. SLOSSON, New Brighton, N. Y., assignor, by mesne assignments, to J. P. Curry Mfg. Co., Inc., New York, N. Y., a Corporation of New York. Filed Mar. 6, 1913. Serial No. 752,315. (Cl. 83-26.)



1. In a bag separating and feeding appliance, the combination, with means for supporting a group of bags, of means for grasping the bags successively near the mouth and means for crowding the neck of the bag into a bag-holder.

2. In a bag separating and feeding appliance, the combination, with means for supporting a group of bags, of means for grasping each bag successively near the mouth and lifting it from the group, and a bag-holder having a chute to receive the bag when lifted.

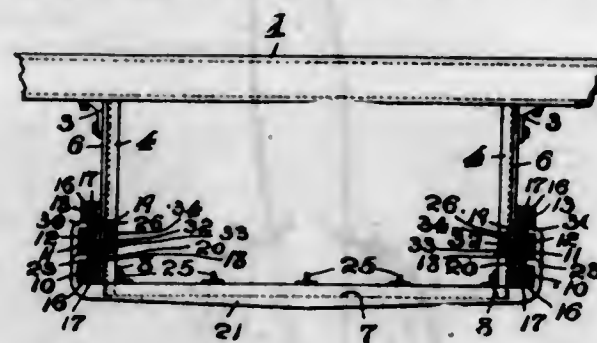
3. In a bag separating and feeding appliance, the combination, with means for supporting a group of bags, of means for grasping each bag successively near the mouth and lifting it from the group, a bag-holder having a chute to receive the bag when lifted, and means for transferring the bag from the holder to a necking device.

4. In a bag separating and feeding appliance, the combination, with means for supporting a group of bags, of means for grasping each bag successively near the mouth and lifting it from the group, a bag-holder having a chute to receive the bag when lifted, means for transferring the bag from the holder to a necking device and means for necking and tying the bag.

5. In a bag separating and feeding appliance, the combination with means for supporting a group of bags, of means for grasping each bag successively near the mouth and lifting it from the group, a bag-holder having a chute to receive the bag when lifted and means for adjusting the mouth of the bag in the said chute.

[Claims 6 to 29 not printed in the Gazette.]

1,081,706. BATTERY-SUPPORTING CRADLE FOR VEHICLES. STEPHEN G. THOMPSON, Jersey City, N. J. Filed Apr. 25, 1913. Serial No. 763,478. (Cl. 104-209.)



1. The combination with the chassis-frame of a vehicle, of a battery-supporting cradle comprising a frame-work rigidly secured to and suspended from said frame, and a battery-carrying frame slidably mounted with relation to said fixed frame-work, and means connected with said fixed frame-work and said battery-carrying frame for limiting the movements of said battery-carrying frame.

2. The combination with the chassis-frame of a vehicle, of a battery-supporting cradle comprising a frame-work rigidly secured to and suspended from said frame, and battery-carrying frames slidably mounted with relation to said fixed frame and movable in opposite directions, and means connected with said fixed frame-work and said battery-carrying frames for limiting the movements of said battery-carrying frames.

3. The combination with the chassis-frame of a vehicle, of a battery-supporting cradle comprising a frame-work rigidly secured to and suspended from said frame, a battery-carrying frame, anti-friction bearings connected with said fixed frame-work, said battery-carrying frame being slidably mounted with said fixed frame-work and said battery-carrying frame for limiting the movements of said battery-carrying frame.

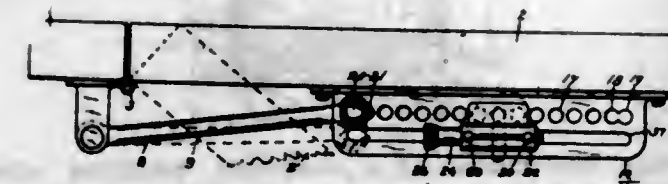
4. The combination with the chassis-frame of a vehicle, of a battery-supporting cradle comprising a frame-work rigidly secured to and suspended from said frame, a pair of battery-carrying frames, anti-friction bearing connected with said fixed frame-work, said battery-carrying frames being slidably mounted upon said anti-friction bearings in opposite directions, and means connected with said fixed frame-work and said battery-carrying frames for limiting the movement of said battery-carrying frames.

5. The combination with the chassis-frame of a vehicle, of a battery-supporting cradle comprising a series of vertical posts secured to and extending downwardly from

the chassis-frame, tie-bars connected with and secured to said posts, channel-bars also secured to said posts and a battery-carrying frame movably arranged with relation to said posts and channel-bars, said battery-carrying frame comprising laterally extending supporting bars, said bars being provided at their ends with upwardly projecting members, and longitudinally extending beams secured to the respective upwardly projecting members, said longitudinally extending beams resting upon said channel-bars and being adapted to slide thereon, substantially to and for the purposes set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,081,707. COMBINED DOOR HOLDER AND STOP. WILLIAM M. VALENTINE, Rochester, N. Y. Filed Mar. 13, 1913. Serial No. 753,955. (Cl. 16-6.)



1. In a spring buffer for a door stop; a member formed with a hole therethrough; a spring positioned in said hole; a plunger in one end of said hole; a plug in the other end of said hole; said plug and plunger being interchangeable; means to prevent the ejection of the plug and plunger from the hole by the spring; lugs attached to the body; a clamping piece attached to the body; a door; means attached to the door formed with a series of holes therein for the reception of the said lugs, and formed with a face against which the said clamping piece can bear to clamp the member in adjusted position; and a swinging stiff arm for contact with the end of said plunger.

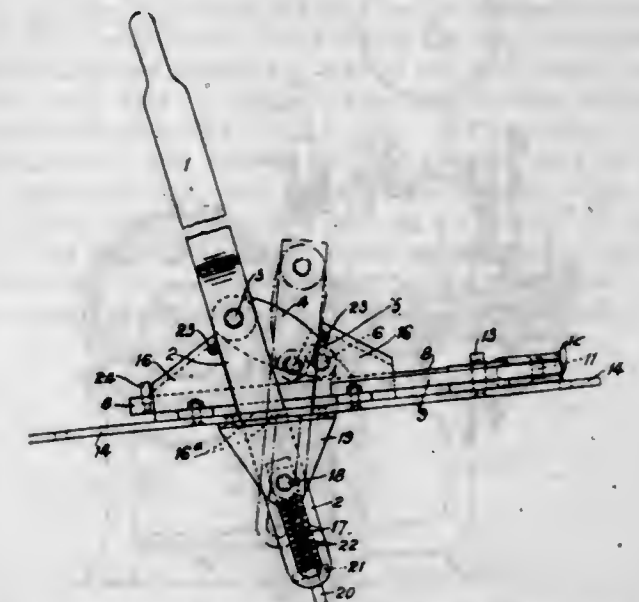
2. In a spring buffer for a door stop; a body formed with a hole therethrough; a plunger positioned in one end of said hole and a plug positioned in the other end of said hole; said plug and plunger being interchangeable; a spring positioned in said hole intermediate the plug and plunger and pressing thereagainst; means to prevent said plug and plunger from being ejected from said hole by said spring; a plurality of like lugs attached to said body; a fin attached to said body; and a clamping piece attached to said fin.

3. In a spring buffer for a door stop; a body formed with a hole therethrough; a plunger positioned in one end of said hole and a plug positioned in the other end of said hole; said plug and plunger being interchangeable; a spring positioned in said hole intermediate the plug and plunger and pressing thereagainst; means to prevent said plug and plunger from being ejected from said hole by said spring; a door plate, formed with a plurality of equally spaced holes and a slot therethrough; means attached to said body adapted to fit in any of said holes and in said slot whereby the body may be positioned at different places on said door plate; and means for fastening said body securely in position on the door plate.

1,081,708. POINT-LEVER FOR USE ON RAILWAYS AND THE LIKE. ALGERNON VELLER, Barnes, England. Filed Feb. 27, 1913. Serial No. 751,067. (Cl. 104-25.)

1. In apparatus for operating railway and like switch points and of the kind comprising a base plate or frame on which is mounted a spindle or pin on which the point operating lever is pivotally mounted, and a slide movable on the said base plate and having operatively connected to it the rod and crank connections to the switch points, means being provided for limiting the movements of the point operating lever, a link or connecting piece pivotally connected at its lower end to the aforesaid slide and at its upper end pivotally connected to the point operating lever, stops on the base plate forming abutments against which the said link bears when movement is given to the

lever for operating the switch points, and means tending to force the lever longitudinally downward, all arranged so as to operate for the purposes set forth.



2. In ground lever apparatus for operating railway and like switch points, the combination, with the point operating lever and a base plate which carries a spindle or pin with which the said lever is in pivotal engagement, of a slide or bar to which the operating connections to the switch points are attached, guides on the said base plate and between which the said slide works, a link or connecting piece pivotally connected at its opposite ends respectively to the said slide and to the point operating lever, stops on the base plate which form abutments against which the said link bears when the lever is being moved over from one position to the other, and means acting on the point operating lever so as to move it downwardly in the direction of the length of said lever, all arranged so as to operate substantially as and for the purposes set forth.

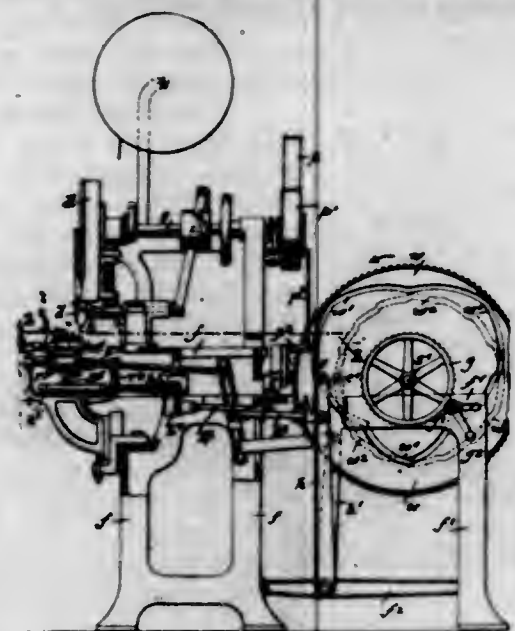
3. The combination, with a supporting frame, and a points operating lever pivotally connected thereto and free to slide longitudinally to a limited extent; of a slide carried by the frame and provided with means for connecting it with the switch points, a link having its upper and lower end portions pivoted to the said lever and slide respectively, fulcrum abutments on the frame for the said link to bear against when the said lever is moved pivotally to operate the points, and means tending to move the said lever longitudinally in a downward direction.

1,081,709. DRILLING AND FILLING ATTACHMENT FOR BRUSH-MAKING MACHINES. KARL WINKLER, Schwarzenberg, Germany. Filed Jan. 29, 1913. Serial No. 744,867. (Cl. 15-7.)

1. The combination of a table support, a brush back holding table movable longitudinally and laterally on said support and having a projecting stud, a duplex cam provided with cam grooves on its opposite faces, oscillating levers pivoted adjacent to said cam and having pins engaging said cam grooves on its opposite faces, a horizontal bell crank lever provided with slots in both arms one of which engages the stud of said table, a pivot rod connected at one end to one end of said oscillating levers and having an adjustable connection at the other end with the other slot of said bell crank lever, a vertically oscillating lever provided with slots on opposite sides of its fulcrum, a pivot rod connected with said table and having an adjustable connection with said vertically oscillating lever, and a pivot link connected with the other oscillating lever and having an adjustable connection with said vertically slotted oscillating lever.

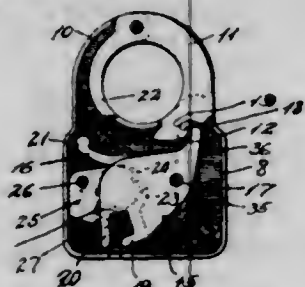
2. In a drilling and filling attachment for a brush making machine, a support comprising transverse rods, ribbed rollers slidably laterally on said rods, a brush back holding table provided on its under side with longitudinal grooved ways adapted to travel on said ribbed rollers, a

means connected with said table for reciprocating it longitudinally on said ribbed rollers, and a means connected



with said table for reciprocating it laterally by the sliding action of said ribbed rollers.

1,081,710. PADLOCK. PHILIP S. WISEMAN, deceased, Springfield, Ohio, by Sarah Fannie Wiseman, executrix, Springfield, Ohio. Filed Dec. 24, 1912. Serial No. 738,422. (Cl. 70-105.)



1. A padlock, comprising a pair of tumblers provided with locking dogs and key lugs, a tumbler having a locking dog interposed intermediate of said pair of tumblers, and a cooperating tumbler engaging with said interposed tumbler provided with a lug crossing the path of said lugs on said pair of tumblers.

2. A padlock, comprising side tumblers provided with locking dogs and key lugs, an intermediate pivoted tumbler cooperating therewith provided with a locking dog and a shackle tripping arm, and an interlocking tumbler engaging said intermediate tumbler, provided with a key lug adapted to cross the path of the key lugs on the side tumblers.

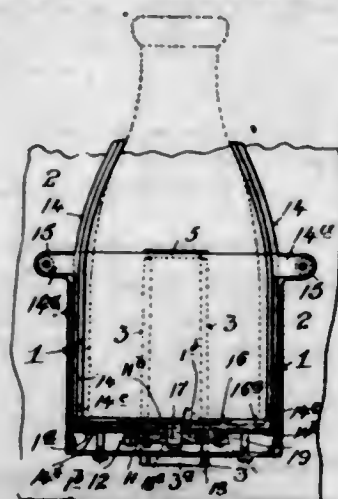
3. In a padlock, in combination with a plurality of side tumblers provided with lugs adapted to swing in a defined path an intermediate tumbler having a lug adapted to cross the path of said other lugs, of a slotted key to register with and provide for the movement of said lugs, and a plurality of shoulders on said tumblers to engage with said key to actuate said tumblers.

4. A padlock, comprising a casing, a pivoted shackle, a plurality of pivoted shackle locking tumblers mounted on said casing, a pivoted shackle tripping tumbler intermediate said shackle locking tumblers, having a recess formed under its shackle tripping arm, an interlocking pivoted tumbler intermediate said shackle locking tumblers having a head adapted to engage in said recess, and means to engage said pivoted locking shackles and said interlocking pivoted tumbler, whereby said interlocking tumbler operates said shackle tripping tumbler.

1,081,711. MEANS FOR PROTECTING ARTICLES OF FOOD. AARON YOLIN and REUBIN TEXIN, New York, N. Y. Filed June 26, 1913. Serial No. 775,864. (Cl. 232-41.)

1. The combination of a receptacle, retaining arms movably carried thereby, a hook operatively connected

with said arms to retain the same locked, a plate adapted to co-act with said hook, means to retain said plate in locking relation to said hook to prevent operation of said arms, and means to retain said plate out of co-action with said hook to release said arms.



2. The combination of a receptacle, retaining arms movably carried thereby, a hook operatively connected with said arms to retain the same locked, a plate adapted to co-act with said hook, means to retain said plate in locking relation to said hook to prevent operation of said arms, an arm carried by said receptacle and having means to engage said plate and hold it out of coactive relation with said hook, and means to move said plate into locking relation with said arm.

3. The combination of a receptacle, retaining arms movably carried thereby, a hook operatively connected with said arms to retain the same locked, a plate adapted to co-act with said hook, means to retain said plate in locking relation with said hook to prevent operation of said arms, means to retain said plate out of coaction with said hook to release said arms, a second plate having a projection extending through said receptacle, and means for operating the first named plate with the second named plate.

4. The combination of a receptacle, retaining arms movably carried thereby, a hook operatively connected with said arms to retain the same locked, a plate adapted to co-act with said hook, means to retain said plate in locking relation with said hook to prevent operation of said arms, means to retain said plate out of coaction with said hook to release said arms, and a second plate having a projection extending through said receptacle, the first named plate having a projection coacting with the projection of the second named plate for operation of the first named plate with the second named plate.

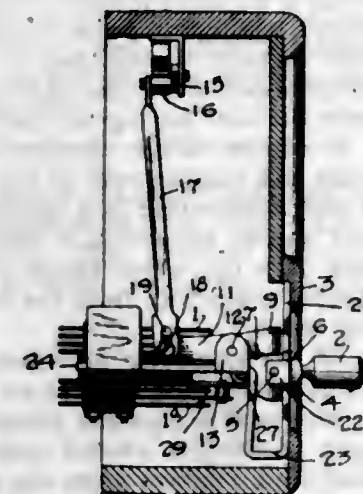
5. The combination of a receptacle, retaining arms movably carried thereby, a hook operatively connected with said arms to retain the same locked, a pair of plates having projections adapted to pass through said receptacle, said plates having openings to permit the passage of said hooks, one of said plates being adapted to engage said hook to retain said arms in locked position, means to retain said plate out of locked relation with said hook, the projection of one plate coacting with the projection of the other plate to move the latter relatively to the hook to unlock the latter from its locking plate.

[Claims 6 to 15 not printed in the Gazette.]

1,081,712. KEY CONSTRUCTION AND RELEASE FOR TELEPHONIC APPARATUS. WALLACE PFAU ANDRICK, EDGAR LOWE, and HOWELL W. HAFF, Jamaica, N. Y., assignors, by mesne assignments, to General Acoustic Company, a Corporation of New York. Filed Sept. 2, 1911. Serial No. 647,375. (Cl. 178-99.)

1. In a telephone transmitting station, a pair of groups of spring blades, a key movable in two directions to engage the respective groups, a detent for holding the key in either displaced position, a switch hook and a lost motion connection therefrom, for releasing the detent when the telephone communication is terminated.

2. In a telephone transmitting station, a series of groups of spring blades, a series of keys displaceable to engage the respective spring blades, a universal detent for holding said keys in displaced position, a switch hook and a lost motion connection therefrom for releasing said detent when the telephone communication is terminated.



3. In a telephone transmitting station, a series of duplicate groups of spring blades, keys displaceable in two directions from an intermediate off position whereby any group of spring blades may be selectively engaged, a universal detent for holding any key in either displaced position, and means for releasing said detent when the telephone communication is terminated.

4. In a telephone station of the class described, a supporting frame or plate comprising a piece of metal having a front face extending along the entire length of the keyboard and having a deep groove or channel and having a rear plate or table also extending the entire length of the keyboard, groups of spring blades on the upper and lower sides of the table, and keys in the front plate displaceable in two directions to selectively engage any group of spring blades.

5. In a telephone station of the class described, a supporting frame or plate comprising a piece of metal having a front face extending along the entire length of the keyboard and having a deep groove or channel and having a rear plate or table also extending the entire length of the keyboard, groups of spring blades on the upper and lower sides of the table, keys in the front plate displaceable in two directions to selectively engage any group of spring blades, and a universal detent for holding said keys in either displaced position.

[Claim 6 not printed in the Gazette.]

1,081,713. EYEGLASSES. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Oct. 16, 1911. Serial No. 654,918. (Cl. 88-50.)



The combination with a nose clip arm having a terminal adjustment loop, of a nose clip at the end of said loop, said clip having a reduced portion looped transversely of the material thereof and terminating in a bearing pad.

1,081,714. SAW-JOINTER. FRANKLIN M. BARNARD, Milford, Iowa. Filed May 15, 1913. Serial No. 767,811. (Cl. 78-47.)

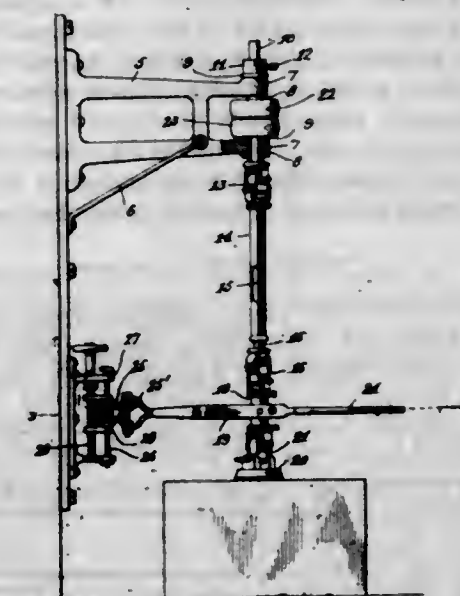
1. A jointer comprising a cylindrical shell having near one end oppositely arranged aligned openings in its side

wall and having a longitudinal slot extending from each opening to the end of the shell remote from the opening, said slots being in register for permitting the passage of a saw blade, each of the said openings having a notch at the opposite side from the slot and in alignment therewith, a bolt comprising a head fitting the shell and a stem adapted to extend beyond the bolt at the end remote from the slot, said bolt having a transverse opening registering with the openings of the shell, and having a slot extending from the opening to the opposite end of the head from the stem, and adapted to register with the slots of the shell, said head having a shoulder at each side of the slot, the opening being adapted to receive a file with one face thereof engaging the shoulders, and means engaging the stem for clamping the file in place.



2. A jointer comprising a shell having oppositely arranged aligned openings in its side wall near one end and a longitudinal slot extending from each opening to the opposite end of the shell, a clamping member for a file comprising a head having a transverse opening adapted to register with the openings of the shell, said head having a stem extending beyond the shell at the end adjacent to the opening, and having a slot leading from the opening to the opposite end of the head, said head having a shoulder in the opening at each side of the slot, and means engaging the stem for drawing the head longitudinally of the shell.

1,081,715. POLISHING-MACHINE. DANIEL E. BIGELOW, Claremore, Okla. Filed Apr. 20, 1913. Serial No. 764,468. (Cl. 51-11.)



1. An apparatus for the purpose described, comprising a supporting bracket, a driving shaft mounted to rotate therein, means for driving said shaft, a pivoted control-arm, a telescopic connecting shaft between said driving shaft and control-arm, a polishing tool, and means for supporting said tool from said control-arm.

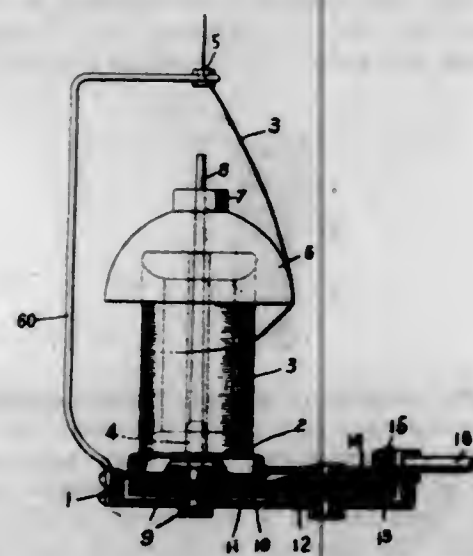
2. In an apparatus for the purpose described, a polishing tool, a horizontally disposed control arm for said tool, a vertically disposed sleeve-bearing rigidly fixed in said control-arm, a shaft in said sleeve, means for driving said shaft, and universal connections between said shaft and polishing tool and said driving means.

3. In an apparatus for the purpose described, a polishing tool, a hinged horizontally disposed control-arm for said tool, means for supporting said tool from said arm, means for vertically adjusting said arm, and means for

rotating said tool supporting means embodying a telescopic shaft.

4. In an apparatus for the purpose described, a pollishing tool, a horizontally disposed control-arm for said tool, an adjusting means for said arm, a link pivoted to said adjusting means and one end of said control-arm, and means for rotating said tool embodying a telescopic shaft.

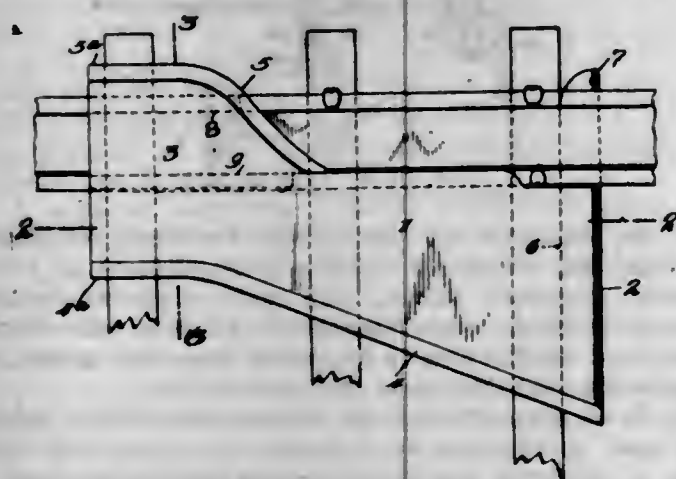
1,081,716. YARN-RELEASING DEVICE FOR SPOOLS. WILFRED BOULAIS, Ipswich, Mass. Filed Feb. 28, 1913. Serial No. 751,290. (Cl. 242—124.)



1. In a device of the class described, the combination with a stationary spool support, of a spool sustained thereby, a guide eye situated in line axially with the spool, a rotatable annular guiding member of greater diameter than the spool situated axially of and adjacent one end of the spool and over which the thread passes from the spool to the guide eye, and means to rotate positively said guiding member in the direction in which the thread is unwound from the spool.

2. In a device of the class described, the combination with a stationary spool support, of a spool sustained thereby, a guide eye situated in line axially with the spool, a rotatable annular guiding member of greater diameter than the spool situated axially of and adjacent one end of the spool and over which the thread passes from the spool to the guide eye, and means to rotate said guiding member in the same direction as but at a greater speed than the thread which is unwound from the spool.

1,081,717. DEVICE FOR REPLACING DERAILED CARS. ARTHUR F. BRODERICK, Jersey City, N. J. Filed Jan. 11, 1913. Serial No. 741,869. (Cl. 104—163.)



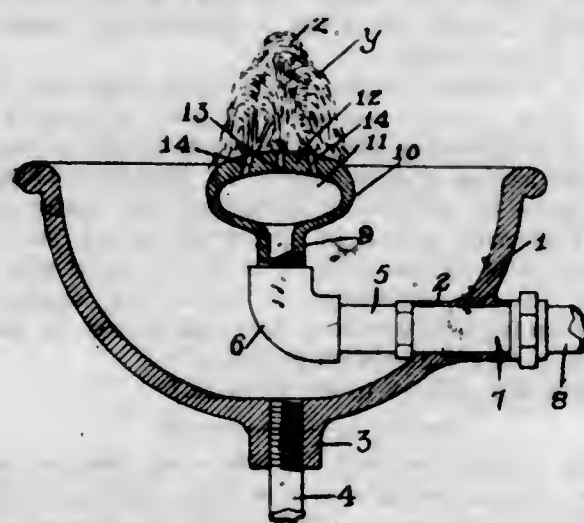
1. In a device of the character described, an inclined plate, the lower edge thereof being adapted to rest on the road bed and having a shoulder adapted to abut a tie and formed with a tongue adapted to project under a rail, and the upper portion thereof terminating in a horizontal extension overlying the rail tread, the inclined edge of the plate farthest from the rail having an upstanding flange

formed thereon, a curved flange upstanding from said horizontal extension and passing over to the farthest side of the rail tread and terminating in a portion parallel to the rail tread and spaced therefrom a distance at least equal to the width of a car wheel flange.

2. In a device of the character described, an inclined plate, the lower edge thereof being adapted to rest on the road bed and having a shoulder adapted to abut a tie and formed with a tongue adapted to project under a rail, and the upper portion thereof terminating in a horizontal extension overlying the rail tread, the inclined edge of the plate farthest from the rail having an upstanding flange formed thereon, a curved flange upstanding from said horizontal extension and passing over to the farthest side of the rail tread and terminating in a portion parallel to the rail tread and spaced therefrom a distance at least equal to the width of a car wheel flange, said overlying portion having flanges projecting from the bottom thereof embracing the rail tread.

3. In a device of the character described, an inclined plate, the lower edge of which is adapted to rest upon the road bed and provided with a shoulder adapted to contact a tie and a tongue adapted to extend under a rail, the edge of the inclined plate farthest from the rail extending obliquely with reference thereto and having an upstanding flange formed thereon, said inclined plate terminating at its upper end in a horizontal portion overlying the rail, said horizontal portion having a curved flange upstanding therefrom and extending across the rail and finally terminating in a flange parallel to the rail and spaced therefrom, said flange on the oblique edge of the plate also terminating in a portion parallel to the rail and spaced therefrom.

1,081,718. NOZZLE FOR DRINKING-FOUNTS. ALBERT C. BROWN, Chicago, Ill. Filed Aug. 7, 1911. Serial No. 642,855. (Cl. 137—109.)



1. A fount nozzle comprising a pressure chamber apertured to afford a central jet and surrounding inclined jets converging into the central jet and affording a primary fount of water and an annular raised secondary fount surrounding the same and slightly below the top thereof.

2. In a device of the class described an inlet pipe, a globular nozzle secured thereon, a plurality of apertures therein each directed toward a common point adapted to afford a relatively large jet with a smaller jet superposed thereon.

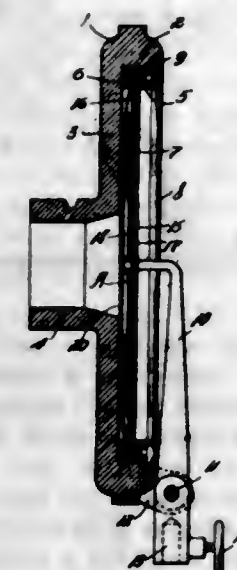
3. In a device of the class described, a nozzle comprising an inlet pipe flared outwardly and upwardly, a threaded flange thereon, a complementally shaped apertured top threaded on said flange, a vertical tube secured in one of said apertures and a plurality of inclined obliquely directed tubes arranged to afford a plurality of streams of water converging toward a common point in a stream directed from the vertical tube.

4. A bubbling fount comprising a source of water pressure, a nozzle connected therewith and affording jets arranged around the same and converging to afford a main or primary fount, and a smaller secondary fount of water rising centrally above the same and from which the

water flows down over the primary fount affording a shoulder of water at the junction of said founts and a basin below the nozzle to catch the waste.

5. A device of the class described comprising a waste bowl provided with an integral tubular hub in the side thereof and an apertured boss in its bottom, an outlet pipe secured in said apertured boss, an inlet pipe secured in said tubular hub, and a fount nozzle connected with said inlet pipe and apertured to afford a central vertical jet and a plurality of circumferential inclined jets converging into the central jet affording abrupt change in cross sections of the flow.

1,081,719. TONE-CLARIFYING ATTACHMENT FOR SOUND REPRODUCING OR TRANSMITTING INSTRUMENTS. CORA STETSON BUTLER, Cleveland, Ohio. Filed Aug. 8, 1913. Serial No. 783,682. (Cl. 181—11.)



1. The combination, with the diaphragm of a sound reproducing or transmitting instrument, of a device of the character set forth which is adapted to be supported against the diaphragm, said device comprising a pair of soft rubber disks, and a pair of disks of a diameter less than the diameter of the rubber disks and composed of resilient material, the latter disks being interposed between the rubber disks, the surface of the rubber disks adjacent the diaphragm being metal coated, and all of the disks having central apertures.

2. The combination, with the diaphragm of a sound reproducing or transmitting instrument, of a device of the character set forth which is adapted to be supported against the diaphragm, said device comprising a pair of soft rubber disks having their edges connected and their outer surfaces metal coated, and a pair of disks of resilient material and of a diameter less than the diameter of the rubber disks interposed between the rubber disks, and all of the disks having central apertures.

3. The combination, with the diaphragm of a sound reproducing or transmitting instrument, of a device of the character set forth which is adapted to be supported against the diaphragm, said device comprising a pair of soft rubber disks having their outer surfaces metal coated and their edges connected, and a hard, resilient disk of a diameter less than the diameter of the rubber disks interposed between the former disks, and all of said disks having central apertures.

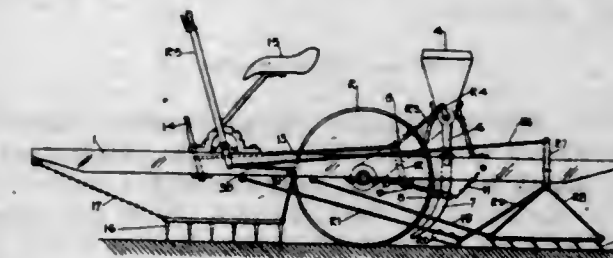
4. The combination, with a sound reproducing or transmitting instrument having a diaphragm and a wall spaced from the diaphragm and substantially parallel thereto, of a device of the character set forth which is adapted to be inserted between the diaphragm and the wall, said device comprising a pair of soft rubber disks having their outer surfaces metal coated, and a disk of hard, resilient material of a diameter less than the diameter of the rubber disks interposed between the former disks, all of said disks having central apertures and the aggregate thickness of the disks being less than the distance between the diaphragm and the wall for the purpose specified.

197 O. G.—45

5. The combination, with a sound reproducing or transmitting instrument having a diaphragm and a wall spaced from the diaphragm and substantially parallel thereto, of a device of the character set forth which is adapted to be inserted between the diaphragm and the wall, said device comprising a pair of rubber disks having their outer surfaces metal coated and their edges connected, and a pair of disks one of which is hard and both of which are of resilient material and of a diameter less than the diameter of the rubber disks interposed between the rubber disks, each of the disks having a central aperture and the aggregate thickness of the disks being less than the distance between the diaphragm and the wall for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,081,720. SEEDING APPARATUS. ANSON T. BUTTON and WATSON P. WIDDIFIELD, Uxbridge, Ontario, Canada. Filed July 7, 1913. Serial No. 777,721. (Cl. 111—18.)



1. In seeding apparatus the combination of a frame; a roller journaled thereon provided with cylindrical faced circumferential ribs and adapted to press drills in the soil with comparatively broad flat bottoms; and seed distributing means carried by the frame and adapted to feed seed to the drills so formed.

2. In seeding apparatus the combination of a frame; a roller journaled thereon provided with cylindrical faced circumferential ribs and adapted to press drills in the soil with comparatively broad flat bottoms; seed distributing means carried by the frame and adapted to feed seed to the drills so formed; and covering means connected with the frame adapted to fill in the drills.

3. In seeding apparatus the combination of a frame; a harrow provided with cylindrical faced circumferential ribs and connected therewith; a roller journaled on the frame behind the harrow and adapted to press drills in the soil with comparatively broad flat bottoms; and covering means connected with the frame adapted to fill in the drills.

4. In seeding apparatus the combination of a frame; a harrow connected therewith; a circumferentially ribbed roller journaled on the frame behind the harrow and adapted to press drills in the soil; covering means connected with the frame adapted to fill in the drills; and a harrow connected with the frame and adapted to roughen the surface of the soil after the covering in of the drills.

5. In seeding apparatus the combination of a frame; a roller journaled thereon provided with cylindrical faced circumferential ribs and adapted to press drills in the soil; seed distributing means carried by the frame and adapted to feed seed to the drills so formed; covering means connected with the frame adapted to fill in the drills; and means on the frame for raising the covering means at will.

[Claims 6 and 7 not printed in the Gazette.]

1,081,721. ROCK-CUTTING DRILL-BIT. WALTER E. CARR, Littleton, Colo., assignor to The Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 3, 1913. Serial No. 751,841. (Cl. 255—63.)

In a drill bit comprising a shank portion having an enlarged head end portion curved on two opposite sides concentrically to the axis of the shank of the drill bit, and having the two oppositely arranged sides of the enlarged head portion of the drill bit flattened and tapered to re-

duce the thickness of the rock drilling end of the bit from the diameter of the drill steel to the outer terminal end of the rock drilling lip substantially equally and evenly on each side of the axial center of the drill, a single straight flat wedge or angular shaped rock drilling lip at the terminal end of said drill steel arranged to extend diametrically across it at equal distances from its axial center, a rearwardly sloping flat angular side extending from



said apex edge on each side of its length, said sides being of equal width and length, and a drilling edge at the junction of the flat sides of the drill bit with its flat tapered sides, said side edges being arranged parallel to said apex or center edge and of the same diagonal distance across them from their opposite end corners, as specified, and a curved recess extending transversely across said lip at the center of its length.

1,081,722. MECHANICAL ADVERTISING DEVICE. CALLEB ELMER COOK, Los Angeles, Cal. Filed July 1, 1912. Serial No. 707,120. (Cl. 40—30.)

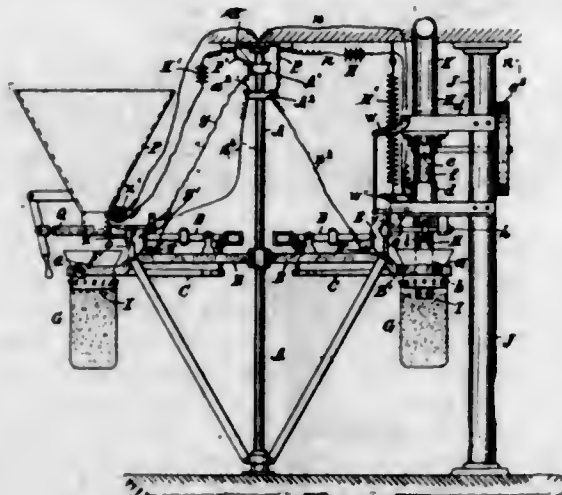


1. The combination with an oscillating leaf of tumbling leaves perforated at their edges; connectors threaded through said edges and holding adjacent edges together; comprising first connectors threaded through one edge of the oscillating leaf and led from the first side of such leaf over the top edge thereof and thence across the second side of said oscillating leaf and between the lower edge thereof and the upper edge of the first tumbling leaf, and thence through such upper edge and then back around over said upper edge and across the first side of said first tumbling leaf and around the lower edge of said first tumbling leaf between it and the top edge of a second tumbling leaf through which edge it is then threaded and then brought back and around between the adjacent edges of the first and second tumbling leaf, then across the side of the second tumbling leaf to and around the farther edge of such second tumbling leaf and so on until the edge of the bottom leaf is reached where the connector is fastened to the edge of said bottom leaf; and second connectors fastened in like manner to the lower edge of the oscillating leaf on the first side thereof thence passed between the leaves in a direction opposite that in which the first connectors are led, under the edge of the oscillating leaf and between it and the first tumbling leaf, and across said first tumbling leaf to the lower edge thereof, and then under such edge to the other side of such leaf and through the perforations, and again around through between the edges of said leaves and so on, being passed through the perforations and between the edges, and led

across the succeeding leaves and so on to the last leaf and there fastened to the topmost edge, substantially as and for the purpose set forth.

2. An oscillating leaf and tumbling leaves connected together in a chain, said leaves being outwardly curved.

1,081,723. APPARATUS FOR AUTOMATICALLY REGULATING WEIGHT. JOHN P. CURRY, New York, N. Y. Filed Feb. 27, 1912. Serial No. 680,312. (Cl. 73—172.)



1. An apparatus for weighing a definite weight of material in a package, comprising a filling hopper, and an equalizer having means to remove surplus material from a package, a scale with means to move it with the package from the hopper to the equalizer, and means operated as the package is located beneath the equalizer for actuating the means to remove surplus material from the package.

2. An apparatus for weighing a definite weight of material in a package, comprising a filling hopper and an equalizer having an extractor adapted to remove surplus material from the package, a scale with means to move it with the package from the hopper to the equalizer and means for automatically moving the extractor and package in relation to one another to remove the surplus material from the package.

3. An apparatus for weighing a definite weight of material in a package, comprising an equalizer having means to remove surplus material from a package, a scale with means to move it with the package into operative position beneath the equalizer, a movable stop for arresting the scale with the package in such operative position, means operated as the scale approaches the stop for actuating the means to remove the surplus material, and means actuated by the movement of the scale-beam when the weight of the package is adjusted, for arresting the operation of the extractor and retracting the stop to permit the further movement of the scale.

4. An apparatus for weighing a definite weight of material in a package, comprising a filling hopper and an equalizer having means to remove surplus material from the package, a scale with means to move it with the package from the hopper to the equalizer, a movable stop for arresting the scale with the package beneath the equalizer, means operated as the scale approaches the stop for actuating the means to remove the surplus material, and means actuated by the movement of the scale-beam when the weight of the package is adjusted, for arresting the operation of the extracting means and retracting the stop to permit the further movement of the scale.

5. An apparatus for weighing a definite weight of material in a removable package, comprising a scale with means to sustain the same movably beneath an extractor-tube, a package supported removably upon the scale, an extractor-tube movable vertically over the package, means for propelling the extractor-tube into the package, and means operating as the scale and package are moved beneath the extractor-tube for actuating the propelling means to move the tube into the package.

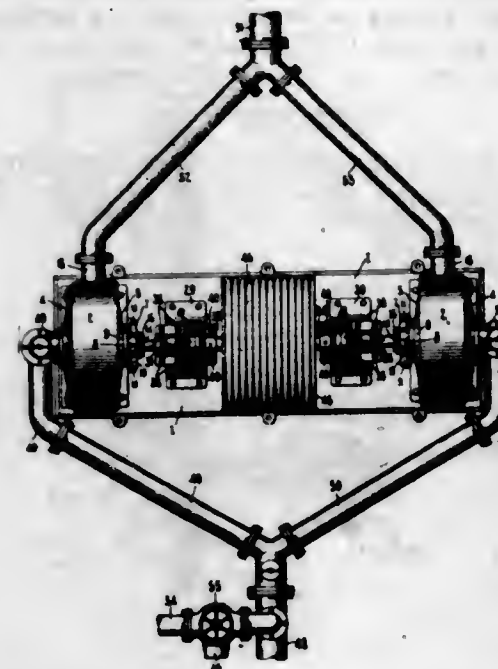
[Claims 6 to 11 not printed in the Gazette.]

1,081,724. CARTON. HENRY DE SMITH, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 18, 1911. Serial No. 609,414. (Cl. 229—16.)



A carton formed of bendable material having a single groove in each side thereof, and at opposite sides of a bending line between adjoining sections of the carton, said grooves being parallel and lying close together whereby the portion of the material between the grooves constitutes an adjacent side of each of the grooves and whereby the material may be bent over in either direction.

1,081,725. CENTRIFUGAL PUMP. DANIEL L. DODGE, Inwood, and THOMAS F. ARMSTRONG, Far Rockaway, N. Y. Filed Oct. 19, 1912. Serial No. 726,645. (Cl. 103—43.)

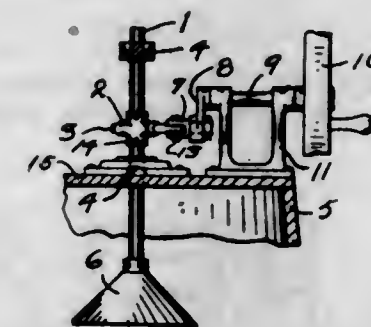


1. The combination with two centrifugal pumps having a common shaft composed of a central section and two terminal sections and couplings and driven by power applied to it between the pumps, the pump-shells being attached to a bed-plate and each supporting a shaft-bearing, and each pump having a single outwardly facing central suction-opening and a detachable face-plate in which the suction-opening is formed, of: suction-pipes comprising a main and two branches connected with the suction-openings of the pumps; discharge-pipes comprising a main and two branches connected with the discharge-openings of the pumps; other shaft-bearings mounted on standards affixed to the bed-plate between the pumps; and devices on the shaft coöperative with stationary surfaces surrounding it to counteract the tendency of the suction at either end of the shaft to draw the shaft endwise when the suction of one pump overbalances that of the other, the coaction of said devices with said surfaces being dependent on conditions that make the suction of one pump temporarily stronger than that of the other.

2. The combination with two centrifugal pumps having a common shaft composed of a central section and two terminal sections and couplings and driven by power applied to it between the pumps, the pump-shells being attached to a bed-plate and each supporting a shaft-bearing, and each pump having a single outwardly-facing central suction-opening, of four other shaft-bearings mounted on standards affixed to the bed-plate between the pumps, the central section of the shaft extending through two of the bearings and each of the terminal sections extending through two of the bearings; and shoulders on the shaft coöperative with the housings of two of the bearings to counteract the tendency of the suction at either end of the shaft to draw the shaft endwise when the suction of one pump overbalances that of the other, this coaction of the shoulders with the housings being dependent on conditions that make the suction of one pump temporarily stronger than that of the other.

3. The combination with two centrifugal pumps having a common shaft composed of a central section and two terminal sections and couplings and driven by power applied to it between the pumps, the pump-shells being attached to a bed-plate and each supporting a shaft-bearing, and each pump having a single outwardly facing central suction-opening, of four other shaft-bearings mounted on two standards affixed to the bed-plate between the pumps, the central section of the shaft extending through two of the bearings and each of the terminal sections extending through two of the bearings, and the couplings and housings of two of the bearings constituting means that limit axial movement of the shaft when the operation of either pump is obstructed and that is ineffective except when the suction of one pump overbalances that of the other.

1,081,726. ACTUATING MECHANISM FOR WASHING-MACHINES. CHARLES M. DUMOND, Waterloo, Iowa. Filed Aug. 16, 1912. Serial No. 715,434. (Cl. 74—14.)



1. In combination, a plunger-rod having a transverse orifice, a bearing for said rod, and means adapted to actuate said rod, comprising a rotary crank-shaft, a bar slidable through the orifice in said rod, and a connecting body having one end hinged to the adjacent end of said slide-bar and its other end swiveled to the crank on said shaft.

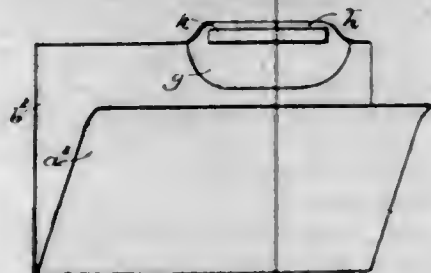
2. In combination, a plunger-rod, a sleeve secured thereon and having integral oppositely-directed parts, said parts, the sleeve and the rod being transversely orificed, a slide-bar slidably mounted in the seat in said parts, a rotary crank-shaft, and a body hinged to one end of said slide-bar and swiveled to the crank on said shaft, and adapted to impart simultaneous translatory and rocking movements to said plunger-rod.

1,081,727. FILE. EDWARD A. DUNN, Newton, Mass. Filed Sept. 14, 1910, Serial No. 581,982. Renewed Apr. 22, 1913. Serial No. 762,936. (Cl. 129—16.)

1. A file wrapper or folder having a back, an integral edge portion of such back being folded flat against the back, whereby a transversely rounded extreme edge of double thickness is provided, the entire folded edge portion being adherently secured to the said back, whereby the said wrapper or folder is not only permanently reinforced, but the rounded form of the extreme edge is maintained, and the front being shorter than the back to such

an extent that its upper edge may lie beneath the bottom of the folded over portion when the folder is empty and closed, whereby to make the folder of uniform thickness from top edge to bottom.

2. A file wrapper or folder having a front and a back, and a flap integral with the upper edge of the back folded flat against the back and pasted thereto, the front being shorter than the distance between the lower edge of the flap and the bottom of the folder, whereby to lie under the flap when the folder is empty and closed.

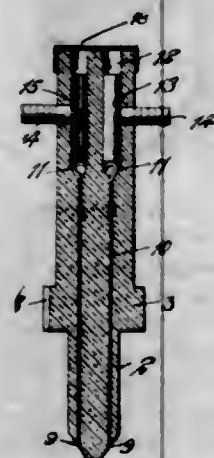


3. A file wrapper or folder having a back, and a flap integral with the upper edge of the back folded flat against the back and pasted thereto, said flap having an aperture through which a name or other indication applied to the back may be seen.

4. A file wrapper or folder including front and back leaves, the back leaf having a projecting tab formed integrally with the back and reinforced by an integral extension of the back doubled over at the top edge of the tab and pasted to the back.

5. A wrapper or folder having a back, an integral extension of such back being folded against the back and permanently secured thereto by an adhesive, a part of the upper folded edge of the back being cut away and leaving a projecting tab, the outer edge portion of which is transversely rounded, and the tab being thereby formed integral with the back and of double thickness.

1,081,728. SPARK-PLUG. WILLIAM L. EDISON, Orange, N. J. Filed June 9, 1908. Serial No. 437,515. (Cl. 123—169.)



1. In a spark plug, the combination of a non-conducting core having a conical sparking end and a pair of electrical conductors insulated from each other and passing longitudinally through the core, said conductors terminating flush with the conical surface of said sparking end on opposite sides of the apex of the cone, substantially as described.

2. In a spark plug, the combination of a non-conducting core having a conical sparking end, a pair of conductors, insulated from each other, and passing longitudinally through the core, and a fine gage sparking terminal secured to the end of each conductor, said terminals terminating flush with the conical surface of said sparking end on opposite sides of the apex of the cone, substantially as described.

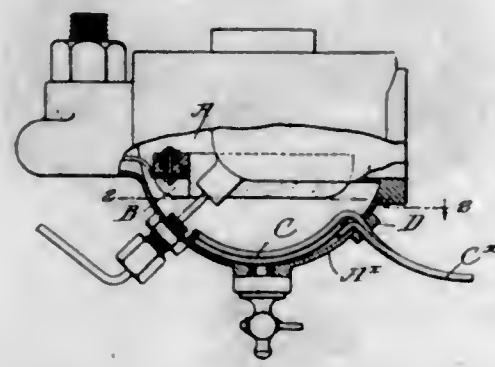
3. In a spark plug, the combination of a non-conducting core having a conical sparking end, a pair of conductors,

insulated from each other, and passing longitudinally through the core, and a fine gage sparking terminal secured to the end of each conductor, said terminals terminating flush with the conical surface of said sparking end on opposite sides of the apex of the cone, and said terminals being baked in the core, a conducting bushing surrounding said core, and spark terminals carried by said bushing and cooperating with said first mentioned terminals to form spark gaps, substantially as described.

4. In a spark plug, the combination of a non-conducting core having a conical sparking end and a pair of electrical conductors insulated from each other and passing longitudinally through the core, said conductors terminating flush with the conical surface of said sparking end on opposite sides of the apex of the cone, a conducting bushing surrounding said core, and a pair of sparking terminals carried by said bushing adapted to cooperate with the terminals of the electrical conductors of the core to form a pair of spark gaps, said core and bushing being provided with cooperating means which upon the assembling of the core and bushing insures that said terminals will always be brought into the same relative and correct positions to form said spark gaps, substantially as described.

5. In a spark plug, the combination of a non-conducting core having a conical sparking end, a pair of conductors insulated from each other and passing longitudinally through the core, a fine gage sparking terminal secured to the end of each conductor, said terminals terminating flush with the conical surface of said sparking end on opposite sides of the apex of the cone, a conducting bushing surrounding the said core, and sparking terminals carried by said bushing and cooperating with said first mentioned terminals to form spark gaps, said core and bushing being provided with cooperating means which upon the assembling of the core and bushing insures that said terminals will always be brought into the same relative and correct positions to form said spark gaps, substantially as described.

1,081,729. HEATING-COIL FOR CARBURETERS. WALTER A. ERKENBRACK, Webster, S. D. Filed July 11, 1913. Serial No. 778,499. (Cl. 219—38.)



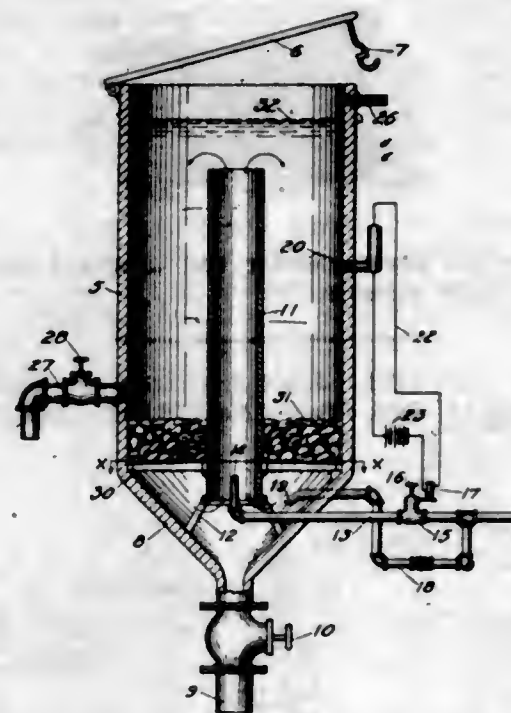
The combination with a carburetor having a float chamber and a float, of an electric heating coil disposed on the bottom of the float chamber underneath the float, the ends of said coil extending through the walls of the float chamber, and means for sealing the ends of the coil in the walls.

1,081,730. METHOD OF TREATING QUEBRACHO. JOSEPH MASON FISKE, New York, N. Y. Filed June 19, 1912. Serial No. 704,520. (Cl. 167—4.)

1. The herein described method which consists in subjecting solid extract of quebracho while contained in a closed vessel and therefore not subject to the action of the atmosphere, to the action of circulating water maintained at a temperature not higher than 175° Fahrenheit, and then drawing off the solution and insoluble matters separately.

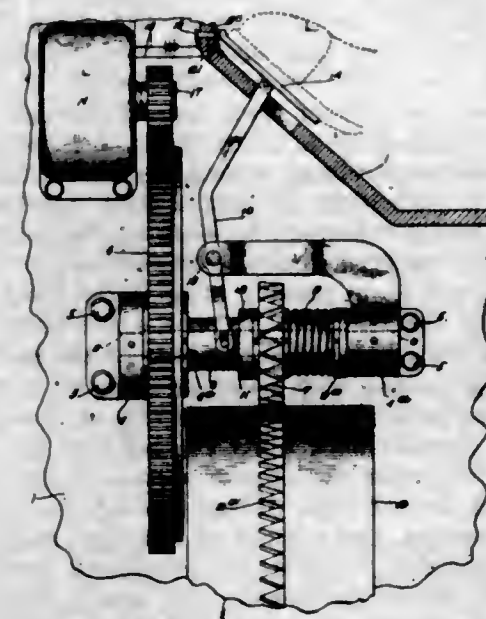
2. The herein described method which consists in immersing solid extract of quebracho in a vessel closed to the atmosphere, then introducing steam to heat the water

and producing a circulation of the water through the quebracho, and limiting the heat imparted to the water



to 175° Fahrenheit, then drawing off the solution and insoluble matters separately.

1,081,731. DEVICE FOR STARTING INTERNAL-COMBUSTION ENGINES. ALFRED P. FOSTER, East Orange, N. J. Filed Dec. 22, 1910. Serial No. 598,843. (Cl. 123—179.)



1. A starting device for internal combustion engines including in combination a fly wheel; a gear attached thereto; a shaft; a gear thereon, rotatable therewith and movable therealong into engagement with the fly wheel gear; a gear fixed to the shaft; a motor operatively connected with the last mentioned gear; an electric circuit normally open and including normally separated contacts and adapted, when closed, to energize the motor; a spring separating the contacts; a collar loosely mounted on the shaft; a counteracting spring mounted on the shaft; a lever under the control of the operator engaging the collar and adapted therethrough to force the movable gear into engagement with the fly wheel gear, thereby compressing the last mentioned spring, and thereupon force the contacts together, thereby closing the circuit and compressing the first mentioned spring.

2. A starting device for internal combustion engines including in combination a fly wheel and a motor normally operatively disconnected; an electric circuit normally open and adapted, when closed, to energize the motor; means under the control of the operator for operatively

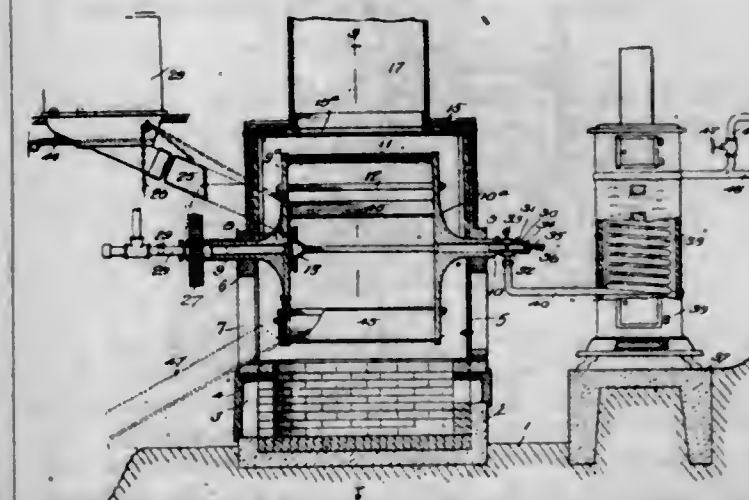
connecting the fly wheel and motor and thereupon closing the circuit; and automatic means for opening the circuit and thereupon operatively disconnecting the fly wheel and motor.

3. In a starting device for internal combustion engines, a shaft; a gear thereon, rotatable therewith and movable therealong; a gear fixed to the shaft; a motor operatively connected with the last mentioned gear; an electric circuit normally open and including normally separated contacts and adapted, when closed, to energize the motor; a spring separating the contacts; a collar loosely mounted on the shaft; a counteracting spring mounted on the shaft; a lever under the control of the operator engaging said collar and adapted therethrough to force the movable gear along the shaft, thereby compressing the last mentioned spring, and thereupon force the contacts together, thereby closing the circuit and compressing the first mentioned spring.

4. In a starting device for internal combustion engines, a shaft; a gear mounted thereon, rotatable therewith and movable therealong; a gear fixed to the shaft; a motor operatively connected with the last mentioned gear; an electric circuit normally open and adapted, when closed, to energize the motor; means under the control of the operator for forcing the movable gear along the shaft and thereupon closing the circuit; and automatic means for opening the circuit and thereupon returning the movable gear to its original position.

5. A starting device for internal combustion engines including in combination an engine and a motor normally operatively disconnected; an electric circuit normally open and adapted, when closed, to energize the motor; means under the control of the operator for operatively connecting the motor with the engine and thereupon closing the circuit and automatic means for opening the circuit and thereupon operatively disconnecting the motor and engine. (Claims 6 and 7 not printed in the Gazette.)

1,081,732. FURNACE FOR TREATING ORES. JOHN A. FREY, Silver Spring, Md. Filed Aug. 23, 1913. Serial No. 786,284. (Cl. 75—139.)



1. In a device for treating ores, a roasting chamber comprising a cylindrical casing, heads at the end of said casing, a hollow shaft on one side of each of said heads and forming an integral portion thereof, an exterior casing for said roasting chamber, said shafts being journaled in said exterior casing, means for introducing steam through one of said hollow shafts, means for permitting the escape of the gaseous products through the other of said shafts, and a deflector carried by one of said heads and disposed over the end of the exhaust passage, said deflector being spaced from the head to permit the passage of the gaseous products.

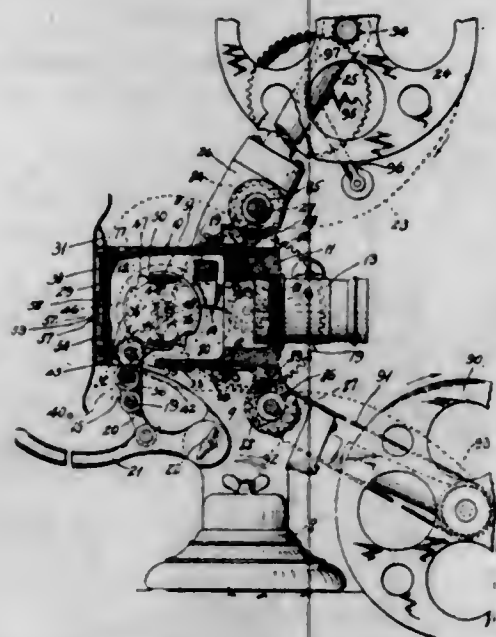
2. In a furnace for treating ores, a roasting chamber, a casing therefor, said casing comprising a base portion having bearings, hollow shafts communicating with the interior of said roasting chamber and being journaled on said bearings, and an upper portion comprising two separable quarter cylindrical casing members, and means for securing said casing members together.

3. In a furnace for roasting ores, a base portion provided with bearings, hollow shafts journaled in said bearings, a head integral with each of said shafts, a cylindrical member secured to said head, said heads and said cylindrical member forming a roasting chamber, a casing frame mounted upon said base portion, said frame comprising end members and a longitudinal top member, quarter cylindrical casing members disposed on each side of said frame members, and means for securing said casing members to said frame members.

4. In a furnace for treating ores, a roasting chamber, a casing therefor, said casing comprising a base portion having bearings, hollow shafts journaled in said bearings and communicating with the interior of said roasting chamber, an inverted U-shaped frame member secured to said base and being provided with a central opening, a stack supported by said inverted U-shaped frame member and communicating with said central opening, and quarter-cylindrical casing members slidably disposed upon said base and movable toward and away from said inverted U-shaped frame member.

5. In a furnace for treating ores, a roasting chamber, a casing therefor, said casing comprising a base portion, an inverted U-shaped frame member secured to said base portion, said frame being provided with inwardly projecting flanges, quarter-cylindrical casing members disposed upon said base and being provided with flanges arranged to abut the inwardly projecting flanges of said inverted U-shaped frame member, and means for securing said quarter-cylindrical casing to said inverted U-shaped frame member.

1,081,733. MOVING-PICTURE PROJECTING APPARATUS. HENRY L. FRITZ, Los Angeles, Cal. Filed June 6, 1910. Serial No. 565,281. (Cl. 88—18.)



An apparatus of the class described for projecting pictures, a casing having a light opening therethrough, means for guiding the film through the casing, a continuous feed roller mounted on said casing, a yoke frame pivotally mounted in the axial line of said casing, an interrupted feed roller mounted in said yoke frame, a pair of feed rollers mounted on said casing, gears on each of said rollers, an intermediate gear on the pivot of the yoke imparting motion to each of said rollers co-operatively, a link hinged to the free end of the yoke, an adjustable operating lever connected to said link and means to clamp said lever when the picture projected is framed.

1,081,734. SPRING-HEEL FOR BOOTS AND SHOES. PIROSKA GASPÁR, Bridgeport, Conn. Filed Oct. 1, 1913. Serial No. 792,709. (Cl. 36—38.)

A heel comprising an upper and a lower member, a plate arranged in each of the members and having a threaded orifice, plugs engaging the orifices, each plug

having a transverse opening, a coiled spring having its terminals passed through the said openings, and a shield



carried by the lower member and arranged partially to house the upper member.

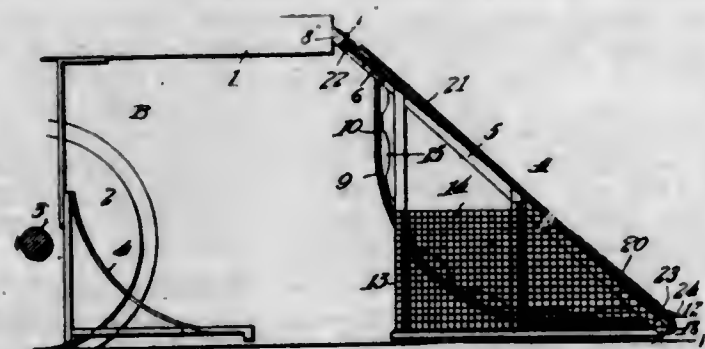
1,081,735. CLUTCH. JOHN J. GILMARTIN, Gull, Tenn. Filed July 11, 1913. Serial No. 778,453. (Cl. 24—115.)



1. The combination with cable sections, of a clutch for connecting the said sections, each section of the cable having its end doubled back upon the body of the cable to form a loop, the outer end of each section of the cable and the inner end thereof being passed through the loop of the other cable section, and a block of elliptical shape having a groove extending around its peripheral surface and shaped to fit within the double loop, a substantially rectangular frame engaging the block at the center thereof, the ends of the frame passing transversely of the sides of the loops, and a pin passing through the block and the frame to hold the frame in place, the extremity of each cable section being secured to the body of the section.

2. The combination with cable sections, of a clutch for connecting the said sections, each section of the cable having its end doubled back upon the body of the cable to form a loop, the outer end of each section of the cable and the inner end thereof being passed through the loop of the other cable section, and a block of elliptical shape having a groove extending around its peripheral surface and shaped to fit within the double loop, and a substantially rectangular frame engaging the block at the center thereof, the ends of the frame passing transversely of the sides of the loops.

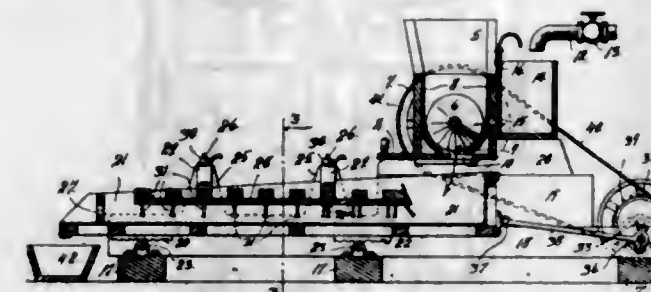
1,081,736. STREET-CAR FENDER. JOSHUA F. GUYN, Thorofare, N. J. Filed Oct. 12, 1912. Serial No. 725,391. (Cl. 105—253.)



In a car fender, an attaching horizontal bar, a scoop embodying triangular side frames hinged to said attaching

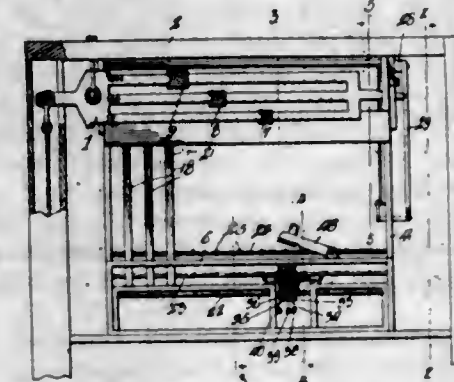
bar, front and rear cross bars fastened to said side frames, flexible bows terminally fastened to said cross bars, parallel slats extending crosswise of said bows and fastened thereto, and hold down chains having their forward ends connected to the front corners of said frame and their rear ends connected to said attaching bar below the axis on which the frame is hinged to the attaching bar, said chains being detachable at one end.

1,081,737. PULP-FEEDER. THOMAS F. HARKINS, Leadville, Colo., assignor of one-half to Murdock A. Nicholson and one-half to Alexander E. Fowle, Leadville, Colo. Filed Nov. 25, 1912. Serial No. 733,237. (Cl. 83—59.)



A feeding apparatus for ore treating mechanism, consisting of a pulp trough provided at regular intervals with exit openings, a feed screw rotatably mounted within said trough and a launder mounted parallel with and adjacent to said trough, said launder being in communication with the trough and adapted to deliver water upon the screw opposite each exit opening.

1,081,738. RECORDING ATTACHMENT FOR SCALES. RENNIE E. HART, Flushing, Mich. Filed July 30, 1912. Serial No. 712,307. (Cl. 73—100.)



1. In a device of the character described, a scale beam, a weight device movable relatively to the beam having a projecting member mounted slidably in a plane longitudinally of said beam and movable in another plane, printing apparatus, and means for setting the type of said printing apparatus through movement of said projecting member in said other plane.

2. In a device of the character described, a downwardly movable scale beam, a weight freely movable on said beam, an arm on said weight, printing apparatus including movable type, and means whereby the type of said printing apparatus may be set having a depressible member operable upon engagement of said arm therewith.

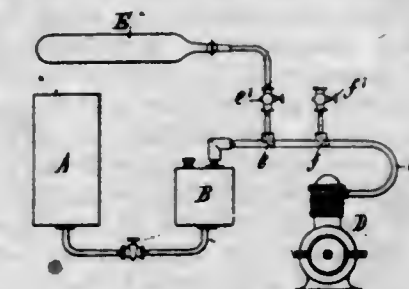
3. In a device of the character described, a scale beam, a weight freely movable thereon, an arm carried by said weight movable in a plane transversely of the beam, printing apparatus including movable type, and means for setting the said type of said printing apparatus through movement of said arm.

4. In a device of the character described, a scale beam, a weight freely adjustable with respect thereto, an arm yieldingly connected to said weight, printing apparatus including movable type, means for moving said arm, and means whereby the movement of said arm sets the type of said printing apparatus.

5. In a device of the character described, a scale beam, a weight thereon, an arm yieldingly connected to said weight, a plurality of plungers each of which is adapted to be engaged to said arm, means for operating said arm, printing apparatus including movable type, and means whereby the operation of said arm and a plunger sets the said type of said apparatus.

[Claims 6 to 12 not printed in the Gazette.]

1,081,739. FUEL MIXTURE. GEORGE EDWARD HEYL and THOMAS THORNE BAKER, Strand, London, England. Filed Mar. 14, 1913. Serial No. 754,251. (Cl. 48—180.)



1. A mixture for supplying internal combustion engines consisting of a finely subdivided fuel component, air in excess of the amount required for the full combustion of such fuel, the excess being sufficiently large to render the mixture not readily ignitable under normal conditions, and an amount of hydrogen sufficient to restore ready ignitibility.

2. A mixture for supplying internal combustion engines, consisting of a combustible vapor, air in excess of the amount required for the full combustion of such vapor, the excess being sufficiently large to render the mixture not readily ignitable under normal conditions, and an amount of hydrogen sufficient to restore ready ignitibility.

3. A mixture for supplying internal combustion engines consisting of a hydrocarbon vapor, air in excess of the amount required for the full combustion of such vapor, the excess being sufficiently large to render the mixture not readily ignitable under normal conditions, and an amount of hydrogen sufficient to restore ready ignitibility.

1,081,740. LIFE-BOAT FOR SUBMARINE VESSELS. GERRIT HILGERS, Rotterdam, Netherlands. Filed July 5, 1912. Serial No. 707,909. (Cl. 114—16.7.)



1. In combination a submarine vessel, a lifeboat located in a compartment in same, screw-threaded members mounted on the walls of said compartment and projecting into said lifeboat members operable from within said lifeboat and co-acting with said screw threaded members, cam members simultaneously operable from within the lifeboat and engaging members on the walls of said compartment and constituting the means of effecting the complete release of the lifeboat from the said compartment.

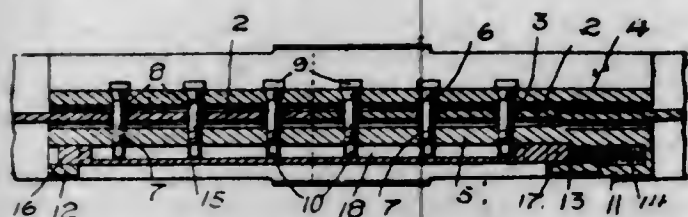
2. In combination a submarine vessel, a lifeboat located in a compartment therein, screw threaded members mounted on the walls of said compartment and projecting into said lifeboat members operable from within the lifeboat and co-acting with said screw threaded members for partially retaining the lifeboat in said compartment, cam shaped members coupled together so that they may be simultaneously operated from within the lifeboat, and engaging members on the walls of said compartment.

3. In combination a submarine vessel, a lifeboat located in a compartment therein, screw-threaded members mounted on the walls of said compartment and projecting into the lifeboat members co-acting with said screw threaded members and operable from within the lifeboat, screw threaded caps adapted to render the connection between said members watertight, pressure screws operable from within the lifeboat and adapted to assist the release of

same from said compartment, cam shaped members co-operating with members on the walls of said compartment and coupled together so that they may be simultaneously operated from within the lifeboat, a manhole door in said lifeboat, a corresponding manhole in the submarine shell and a conduit for establishing communication between the outer water and the interior of said compartment.

4. In combination a submarine vessel, a lifeboat located in a compartment therein, screw threaded members mounted on the walls of said compartment and projecting into the lifeboat, members co-acting with said screw threaded members and operable from within the lifeboat, screw threaded caps adapted to render the connection between said members watertight, pressure screws operable from within the lifeboat and adapted to assist the release of same from said compartment, cam-shaped members co-operating with members on the walls of said compartment and coupled together so that they may be simultaneously operated from within the lifeboat, a manhole door in said lifeboat, a corresponding manhole in the submarine shell, a conduit for establishing communication between the outer water and the interior of said compartment, a cover on said lifeboat which insulates the interior of said compartment from the outer water, and a hemispherical deck light on said cover adapted to be opened when said lifeboat is floating at the surface of the water.

1,081,741. NUT-LOCK. JOHN R. HIRSALEY, Mountain Lake Park, Md. Filed Mar. 29, 1913. Serial No. 757,533. (Cl. 151-59.)



1. The combination with a plurality of parallel elements, of a plurality of bolts extending through said parallel elements, said bolts having shanks projecting therefrom, a locking bar provided with a longitudinal groove into which extend said shanks, a support for each end of said locking bar, and a spring pressed block mounted in one of said supports, engaging one end of said bar and providing means for holding said bar in engagement with the other of said supports.

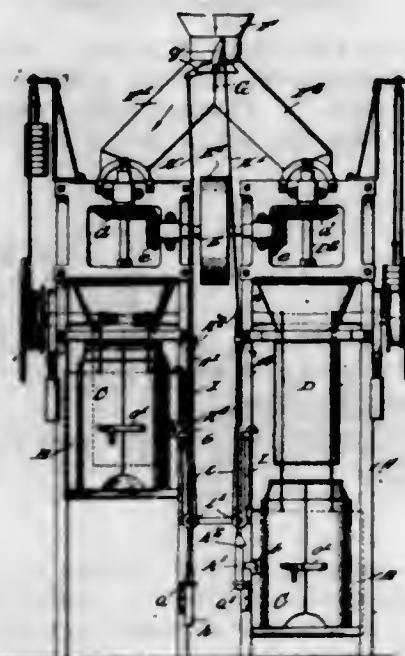
2. The combination with a plurality of parallel elements, of a bolt extending transversely through said elements and having its threaded portion screwing in one of said elements, said bolt further provided with a shank projecting from its threaded portion, a grooved locking bar mounted upon said shank, a support for each end of said bar, and a spring pressed block mounted in one of said supports engaging one end of said bar and constituting means for maintaining said bar in engagement with the other of said supports.

3. In combination, a plurality of parallel elements, a bolt extending transversely of said parallel elements and further having its threaded portion screwed into one of said elements, said bolt provided with a reduced flattened shank projecting from its threaded portion, a grooved locking bar mounted upon said shank, a support for each end of said locking bar, and a spring pressed block arranged in one of said supports and engaging one end of said bar and constituting means for maintaining said bar in engagement with the other of said supports.

4. In combination, a plurality of parallel elements, a bolt extending transversely, through said elements and having its threaded portion screwing into one of said elements, said bolt provided with a reduced shank projecting from its threaded portion, said shank having flat parallel faces, a grooved locking bar mounted upon said shank, the flat faces of said shank opposing the top and bottom walls of said groove, said bar having its ends reduced, a support for each of the reduced ends of the bar, and a spring pressed block mounted in one of said supports,

engaging one reduced end of said bar and constituting means for maintaining the reduced end in the housing in the other of said supports with the body of the bar in abutting engagement with the said support.

1,081,742. PACKING-MACHINE. JOSEPH HOCHENAUER, Pueblo, Colo. Filed Apr. 14, 1913. Serial No. 760,942. (Cl. 100-56.)

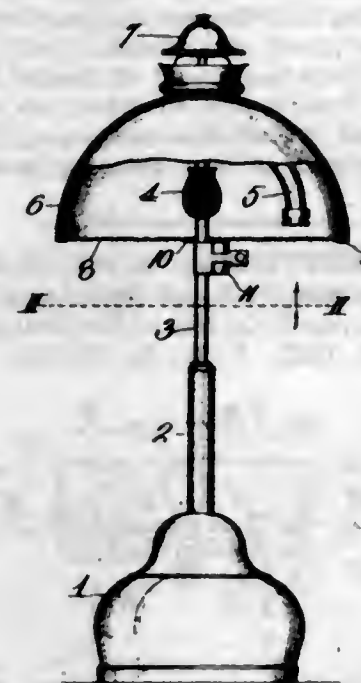


1. In an apparatus of the character described, the combination of a pair of upright packers embodying vertically movable bag carrying frames, feed spouts and feed-screws within the spouts, means for continuously and simultaneously rotating the said feed-screws, and a feed hopper having branches leading to the said feed spouts, a valve mounted at the juncture of the branches for directing material into one branch to the exclusion of the other, vertical pull rods having connection with the valve at their upper ends, and provided at their lower ends with latch members, stationary keepers with which said latches are engageable when their respective pull rod is lowered, vertically movable trip bars adapted to be engaged by the carriage frames during the vertical movement of the latter and having connection with the said pull rods whereby to cause lowering movement of the latter, and coil springs interposed within the said connections between the trip bars and the said pull rods, all for the purpose described.

2. In an apparatus of the character described, the combination of a pair of vertical packers embodying vertically movable carriage frames, feed spouts and feed-screws within the said spouts, a driven shaft extending between the packers and having connection with the feed-screws for continuously rotating the same, a feed hopper having branches leading to the said feed spouts, a valve movable in the upper adjoining ends of the said branches whereby to alternately close one and open the other, and connections for effecting the movement of the said valve, said connections embodying members actuated by the carriage frames during their vertical movement and latch members also actuated by the said carriage frames.

3. In an apparatus of the character described, the combination of a pair of vertical packers embodying vertically movable carriage frames, feed spouts and feed-screws within the said spouts, a driven shaft extending between the packers and having connection with the feed-screws for continuously rotating the same, a feed hopper having branches leading to the said feed spouts, a valve movable in the upper adjoining ends of the said branches whereby to alternately close one and open the other, and connections for effecting the movement of the said valve, said connections embodying vertical pull rods having latch members for securing the same in lowered position, and trip bars flexibly connected to the said pull rods, said latch members and said trip bars being actuated by the carriage frames during vertical movement of the latter.

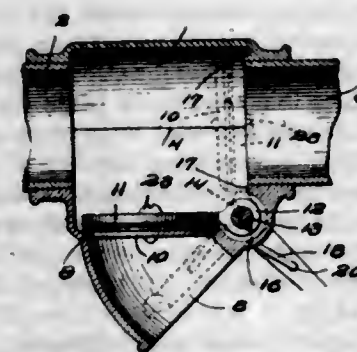
1,081,743. MANTLE-PROTECTOR. WILLIAM H. HOFFSTOR, Kansas City, Mo. Filed July 7, 1913. Serial No. 777,664. (Cl. 240-121.)



1. A lamp comprising a central supporting stand, a burner, a shade carried by said stand and surrounding said burner, a flat foraminous disk of the same diameter as said shade, said disk being slidably mounted on said stand and provided with a central opening therefor, and clamping means embracing said stand immediately adjacent said opening and holding said disk with its outer margin against the lower edge of said shade.

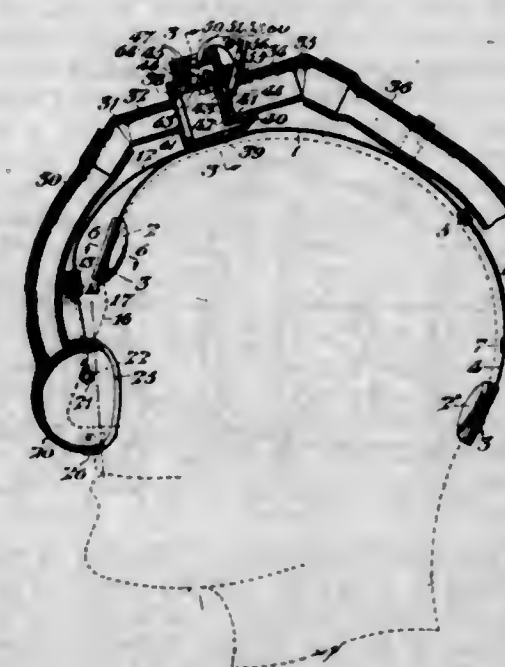
2. A lamp comprising a central supporting stand, a burner, a shade carried by said stand and surrounding said burner, a flat foraminous disk of the same diameter as said shade and provided with a reinforced outer margin and with a reinforced central opening slidably engaging said stand, and a removable spring clamp embracing said stand adjacent said opening in said disk and acting to hold said disk with its outer margin clamped against the lower edge of said shade.

1,081,744. MUFFLER CUT-OUT. RICHARD L. HUBBARD, Philadelphia, Pa. Filed May 22, 1912. Serial No. 698,915. (Cl. 137-26.)



In a device of the character described, the combination with an exhaust pipe having a section cut out for a portion of its length, of a split casing located in the cut out portion of the pipe and clamped upon the spaced aligned ends thereof, said casing having a passage therethrough larger than the internal diameter of the pipe, an outlet larger in diameter than the diameter of the pipe communicating with said passage, and a valve mounted in said casing and constructed to normally close the outlet and close the passage when moved to an open position, the adjacent pipe end forming a seat for the valve and the casing having an annular portion reinforcing the said pipe end, substantially as described.

1,081,745. NASAL INHALER. WILLIAM A. JOHNSTON and ARTHUR W. BROWNE, Prince Bay, N. Y., and FREDERICK L. WALLACE, Lansdowne, Pa., assignors to The S. S. White Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 3, 1912. Serial No. 694,004. (Cl. 128-13.)



1. An inhaler comprising a casing having openings therein communicating respectively with a source of anesthetic and the open air, valves operative to open and close said openings, reciprocatory means operative to simultaneously open one of said valves and close the other of said valves, and pivotally operative means to open the last named valve, the said pivotal means acting independently of the said reciprocatory means.

2. An inhaler comprising a casing having openings therein communicating respectively with a source of anesthetic and with the open air, valves for controlling the said openings, and independently operable means for controlling the operation of the said valves, one of said means affecting the operation of both valves and the other of said means affecting the operation of one only of said valves.

3. An inhaler comprising a casing having openings therein communicating respectively with a source of anesthetic or the like and with the open air, valves for controlling the said openings, adjustable means which when in one position holds the valve for controlling the opening to the anesthetic in open position and the valve for controlling the opening to the air in closed position and when in another position permits both said valves to open and close, and adjustable means for supporting the valve for controlling the air opening in different positions removed from its seat to vary the quantity of air admitted to the casing.

4. An inhaler comprising a casing having openings communicating respectively with a source of anesthetic and with the open air, valves for controlling the said openings, means for permitting the valve which controls the opening in communication with the said anesthetic to open and close, and independent movable means for holding the valve which controls the opening to the open air in open position.

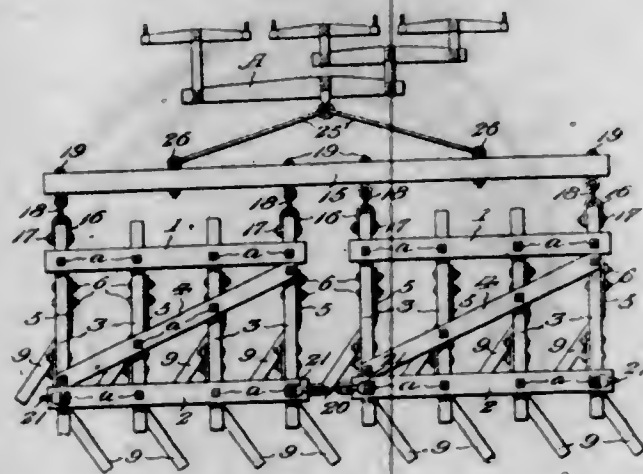
5. An inhaler comprising a casing having openings in communication respectively with a source of anesthetic and with the open air, reciprocatory valves for controlling the said openings, reciprocatory means for simultaneously adjusting the positions of said valves and pivotal means for adjusting one only of said valves.

[Claims 6 to 36 not printed in the Gazette.]

1,081,746. WEED-CUTTER. CLIFFORD E. JONES, Eight-mile, Ore. Filed Mar. 25, 1912. Serial No. 685,928. (Cl. 55-149.)

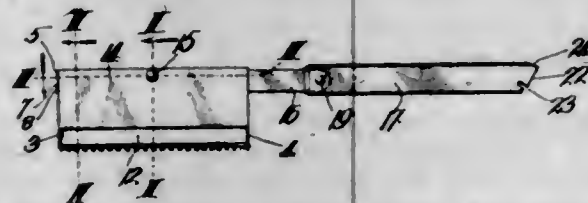
1. A weed cutter comprising a frame consisting of front and rear cross bars and a plurality of sills secured

to said bars and spaced apart, and a series of knives bolted to said sills upon opposite sides thereof, each knife extending underneath the sill and having its blade in a horizontal plane at the opposite side of the sill from its point of attachment to said sill whereby a complete unbroken cutting edge is presented across the entire weed cutter.



2. A weed cutter comprising a plurality of frames flexibly connected to a lead bar and permitted to swing freely within certain limits laterally, sills carried by said frames and extending in the line of draft, knives connected to said sills upon opposite sides thereof, said knives each extending underneath the sill and projecting rearwardly and backwardly therefrom, the knives of each sill projecting at different angles and the cutting edges of said knives forming two complete unbroken cutting edges extending entirely across the weed cutter.

1,081,747. SAFETY-RAZOR. FLOYD D. JONES, Kansas City, Mo., assignor to Jones Razor and Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Sept. 22, 1910. Serial No. 583,225. (Cl. 30—12.)



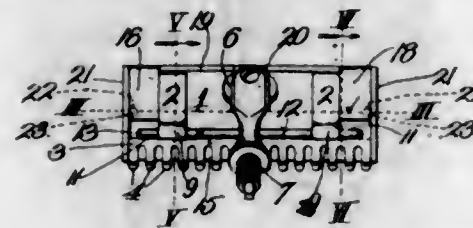
1. In a safety razor, a guard plate made from sheet metal and bent to form upper and lower parallel portions, the latter occupying a plane rearward of the former, and also bent to form a rearwardly projecting spring arm and a downwardly facing shoulder at the junction of said portions and to form a rearwardly projecting spring arm at the upper edge of the upper portion and a rearwardly curved comb at the lower edge of the lower portion, the last-named portion having a protuberance on its front face below the said downwardly-disposed shoulder.

2. In a safety razor, a guard plate made from sheet metal and bent to form a horizontal rearwardly opening channel portion and a depending portion parallel with the face of the channel portion and disposed in a plane rearward of said face thereby forming a downwardly-facing shoulder on the channel portion, said depending portion terminating at its lower margin in a rearwardly curved comb portion, and having at its ends a pair of forwardly projecting flanges of unequal length, one of the flanges extending from the said shoulder to the lower edge of the said depending portion and the other flange from a point some distance below said shoulder to the lower edge of the said depending portion.

3. In a safety razor, an extensible handle comprising a sleeve portion and a shank to fit within the sleeve portion, the said sleeve portion at one end being beveled and provided with a notch at the lower end of the beveled portion and with a beveled surface at the upper end of said beveled portion extending substantially parallel to said notch.

4. In a safety razor, a guard plate made from sheet metal and bent to form a channel portion for mounting a handle and a blade clamping portion parallel with the front face of said channel portion, the lower margin of said face forming a blade-abutting shoulder, and a clamping plate pivoted on said channel portion, said blade clamping portion having a pair of flanges extending from its lower edge toward said shoulder, one of said flanges terminating short of said shoulder to permit said clamping plate to swing past it into abutting relation with the other flange.

1,081,748. SAFETY-RAZOR. FLOYD D. JONES, Kansas City, Mo., assignor to Jones Razor and Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed June 21, 1912. Serial No. 705,103. (Cl. 30—12.)



1. A safety razor, comprising a frame, a guard at the back of the frame, having fingers at its lower edge and capable of being sprung back from the lower part of the frame, a blade fitting flatly against the front side of the frame with its cutting edge projecting beyond the lower edge of the same, a plate clamping the blade against the frame and provided with arms extending downward and covering the cutting corners of the blade, and means for springing the lower portion of the guard back from the lower end of the blade, and a handle rearward of and connected to the frame.

2. A safety razor, comprising a frame, a guard at the back of the frame, having fingers at its lower edge and capable of being sprung back from the lower part of the frame, a blade fitting flatly against the front side of the frame with its cutting edge projecting beyond the lower edge of the same, means whereby slippage or creeping of the blade on the frame is prevented, a plate clamping the blade against the frame and provided with arms extending downward and covering the cutting corners of the blade, and means for springing the lower portion of the guard back from the lower end of the blade, and a handle rearward of and connected to the frame.

3. A safety razor, comprising a frame, a guard at the back of the frame, having fingers at its lower edge and capable of being sprung back from the lower part of the frame, a blade fitting flatly against the front side of the frame with its cutting edge projecting beyond the lower edge of the same, means whereby slippage or creeping of the blade on the frame is prevented, a plate clamping the blade against the frame and provided with arms extending downward and covering the cutting corners of the blade; said plate having rearwardly projecting end flanges overlapping the ends of the frame, the blade and the guard, and means for springing the lower portion of the guard back from the frame and cutting edge of the blade, and a handle connected to the frame.

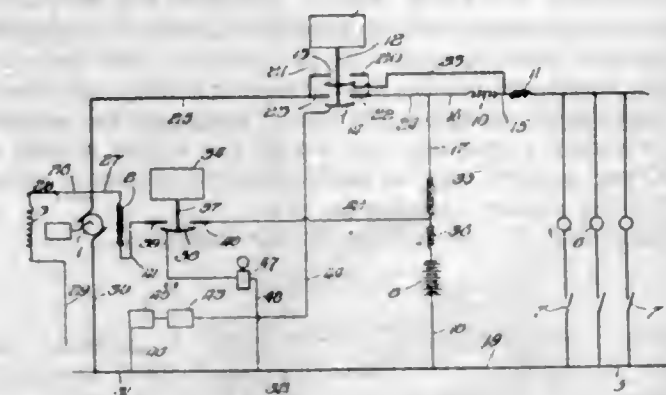
4. A safety razor, comprising a frame, a guard at the back of the frame, having fingers at its lower edge and capable of being sprung back from the lower part of the frame, a blade fitting flatly against the front side of the frame with its cutting edge projecting beyond the lower edge of the same, a plate clamping the blade against the frame and provided with arms extending downward and covering the cutting corners of the blade, a slide bar fitting against the rear side of the frame and adjustable longitudinally thereof and provided with a plurality of wedge portions for engagement with the guard to spring the lower portion of the same back from the frame, and a handle for the razor.

5. A safety razor, comprising a rectangular frame and a guard integrally formed with the frame and consisting of a bar provided at its lower edge with depending teeth

and also provided with arms extending upwardly to the upper edge of the frame and provided near their lower ends with aligned outwardly-bowed portions, a blade fitting flatly against the front side of the frame with its cutting edge projecting beyond the lower edge of the same, a plate clamping the blade against the frame, a longitudinally extending and adjustable bar having wedge portions interposed between the frame and the inner side of the bowed portions of said arms, and a handle for the razor.

[Claims 6 to 8 not printed in the Gazette.]

1,081,749. ELECTRIC DISTRIBUTION SYSTEM. LEE B. JONES, Kansas City, Mo. Filed Mar. 15, 1913. Serial No. 754,518. (Cl. 171—315.)



1. In an electric distribution system, the combination with a generating unit comprising a dynamo electric machine and prime mover, and distributing mains, of a storage battery, a relay for connecting the same to the dynamo electric machine for the purpose of running the same as a motor for starting purposes, and a connection between the relay and a distributing main for the purpose of energizing the relay with current which flows between the distributing mains when a circuit is closed between the distributing mains, substantially as described.

2. In an electric distribution system, the combination with a generating unit comprising a dynamo electric machine and a prime mover, and distributing mains, of a source of electrical supply, a relay for connecting the same to the dynamo electric machine to run the latter as a motor for starting purposes, and a connection for delivering current momentarily to the distributing mains from the source of electrical supply, said relay being operable under the influence of said momentary current for the purpose of connecting the dynamo electric machine to the source of electrical supply for starting purposes, substantially as described.

3. In an electric distribution system, the combination with a generating unit comprising a dynamo electric machine and prime mover, and distributing mains, of a storage battery, a relay having a coil in series with a distributing main, a pair of contacts in said relay for connecting one terminal of the dynamo electric machine to said main, another relay having one of its coils connected between one terminal of the battery and the first mentioned distributing main, a connection between the other terminal of the battery and the other distributing main, said last mentioned relay having a pair of electric contacts, a circuit including the battery dynamo electric machine, and said contacts, and a second coil in the last mentioned relay interposed in the circuit, including the dynamo electric machine and battery, whereby closing a circuit between the mains causes a flow of current from the battery through the coils of both relays to connect the first mentioned main to the dynamo electric machine and to close the circuit, including the dynamo electric machine and battery, substantially as described.

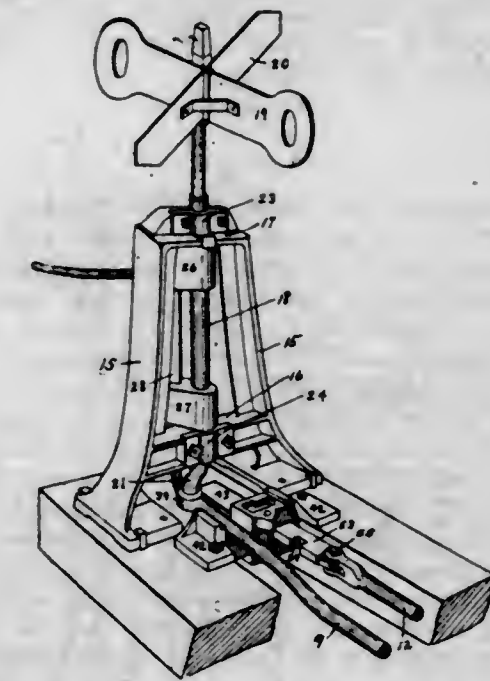
4. In an electric distribution system, the combination with a generating unit, including a prime mover and a dynamo electric machine, and a pair of distributing mains, of a storage battery, a starting relay, a coil in said relay interposed between one terminal of the battery and a distributing main, a connection from the other terminal of the battery to the other distributing main, and a starting

circuit, including the dynamo electric machine, battery, and contacts of said relay, whereby when a circuit is closed between the mains, a local current flows from the battery through said relay coil to energize the relay to thereby close the starting circuit, substantially as described.

5. In an electric distribution system, the combination with a generating unit comprising a prime mover and a dynamo electric machine, and a pair of distributing mains, of a storage battery, a starting relay, connections for establishing a circuit, including the dynamo electric machine, storage battery, and contacts of the starting relay, a main line relay, connections for establishing communication between a distributing main and a terminal of the dynamo electric machine, and including contacts of the main line relay, a connection between one distributing main and one terminal of the battery, a coil of the starting relay interposed between the other terminal of the battery and the other distributing main, whereby the closing of a circuit between the distributing mains causes the starting relay to be energized to deliver starting current to the dynamo electric machine, and a coil of the main line relay interposed between the main line and the battery, whereby when a circuit is closed between the distributing mains current is delivered from the battery through said coil to energize the main line relay for the purpose of connecting the distributing main to the dynamo electric machine, substantially as described.

[Claims 6 to 27 not printed in the Gazette.]

1,081,750. SWITCH STAND AND LOCK. ALBERT E. KALTSCHMIDT, Detroit, Mich. Filed Apr. 22, 1912. Serial No. 692,509. (Cl. 104—25.)



1. In a switch stand, the combination of a standard, a staff revolvably mounted therein and having a crank at its lower end, a switch-handle pivotally connected to said staff, an operating rod connecting to said crank and to the switch-points, a lock support adjacent the switch stand, a notched locking bar slidable therein and connected to the switch-points, a locking block slidable in said support and adapted to engage in the notches in said bar to hold the switch-points in a plurality of positions, a lever to disengage said block, a vertically movable bar connected at its upper end to said handle, a trip-arm connected to the lower end of said bar, and guides for said bar so constructed that a downward movement of the bar will first swing the trip-arm into engagement with said lever, and then swing said lever to disengage the locking block from the locking-bar.

2. In a switch stand, the combination of a standard, a staff revolvably mounted therein and having a crank at its lower end, a switch-handle pivotally mounted on said staff, an operating rod connecting to said crank and to the switch-points, a bar connecting to said switch-points,

means for locking the bar in a plurality of positions, and a trip-arm connected to said switch-handle and normally out of engagement with said bar-locking means but movable into operative engagement therewith at the first movement of the switch-handle from normal position.

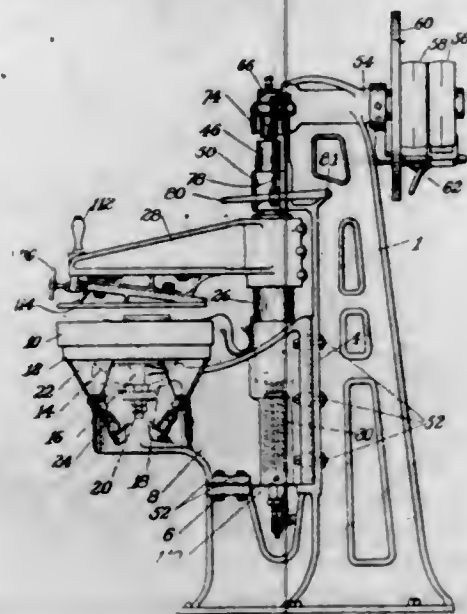
3. In a switch stand, the combination of a standard, a staff revolvably mounted therein and having a crank at its lower end, an operating rod connecting to said crank and to the switch points, a handle to turn said staff and move the switch-points, locking mechanism for holding said switch in a plurality of positions, means connected to the switch-handle and normally out of engagement with said locking mechanism, for controlling the same.

4. In a switch stand, the combination of a standard, a staff revolvably mounted therein and having a crank at its lower end, an operating rod connecting to said crank and to the switch points, locking mechanism for holding said switch in a plurality of positions including a lock-operating lever, a switch-handle connected to said staff to turn the same, a trip-arm connected to said handle, and guiding means for said trip-arm to cause the same to move into and out of operative engagement with said lever.

5. In a switch stand, the combination of switch operating mechanism, an independently mounted lock for said switch-points, a controlling member connected to said operating mechanism and normally disconnected from said lock, and guiding means for causing said member to unlock the switch at the beginning of the movement of the switch operating mechanism and to positively lock the switch at the end of said movement.

[Claims 6 and 7 not printed in the Gazette.]

1,081,751. DIEING-OUT MACHINE. SOCRATES KEATS, Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 1, 1909. Serial No. 480,561. (Cl. 164-23.)



1. In a machine of the class described, the combination with a cutting bed, of a presser member arranged for movement over the face of the bed and also for movement toward and from the bed, means for yieldingly sustaining the presser member, power actuated means for depressing said presser member, and means for adjusting relatively said presser member and said power actuated means to permit a variable portion of the acting stroke of said power actuated means to be made effective to impart movement to the presser member against the resistance of said sustaining means.

2. In a machine of the class described, the combination with a cutting bed, of a presser member arranged for movement over the face of the bed and also for movement toward and from the bed, means for depressing and raising said presser member and means for varying the amount of movement imparted to said member.

3. In a machine of the class described, the combination with a cutting bed, of a presser member arranged for

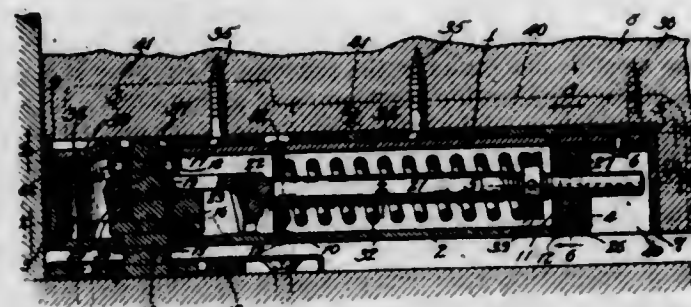
movement over the face of the bed and also for movement toward and from the bed, means for depressing and raising said presser member, means for varying the amount of movement imparted to said member and means for varying the limit of downward movement of said member.

4. In a machine of the class described, the combination with a cutting bed, of a presser member arranged for movement over the face of the bed and also for movement toward and from the bed, means for depressing and raising the presser member and means for varying the upper limit of movement of said member without varying the limit of its downward movement.

5. In a machine of the class described, the combination with a cutting bed, of a presser member arranged for movement over the face of the bed and also for movement toward and from the bed, means for depressing said member comprising a driving member arranged for movement in an approximately vertical direction, means for bringing said presser member and driving member into operative relation, means for raising said presser member, and means for limiting its upward movement arranged for adjustment whereby a variable portion of the acting stroke of the driving member may be made effective to impart movement to the presser member.

[Claims 6 to 20 not printed in the Gazette.]

1,081,752. SPRING-HINGE. WILLIAM J. KEENE, Chicago, Ill., assignor to Chicago Spring Butt Company, Chicago, Ill., a Corporation. Filed Aug. 16, 1912. Serial No. 715,350. (Cl. 16-25.)



1. In a spring hinge, the combination of a post adapted to be secured to the door frame, a hinge frame adapted to be seated in the recessed corner of the door and pivotally mounted on said post and a plate interposed between said hinge frame and door and adapted to be secured thereto, said plate having a bearing arranged to engage the upper edge of said post, substantially as described.

2. In a spring hinge, the combination of a hinge frame adapted to be seated in a recessed corner of the door and comprising upper and lower parallel bars connected at their ends, a plate adapted to be interposed between the edge of the recess and said hinge frame and to be secured to the edge of the recess, said plate and said frame having interlocking parts, a floor plate and a pivot post fixed to said floor plate and extending through said frame bars, the upper end of said post being extended above the upper bar of said hinge frame and having a bearing in said plate, substantially as described.

3. In a spring hinge, the combination of a hinge frame adapted to be seated in the recessed corner of the door and comprising upper and lower parallel bars connected at their ends, a plate adapted to be secured to the edge of the recess and against which the upper bar of said hinge frame abuts, a floor plate, and a post fixed to said floor plate, journaled in said frame bars and projecting above said upper bar, said plate having an opening, the walls of which engage the upper projecting end of said post, substantially as described.

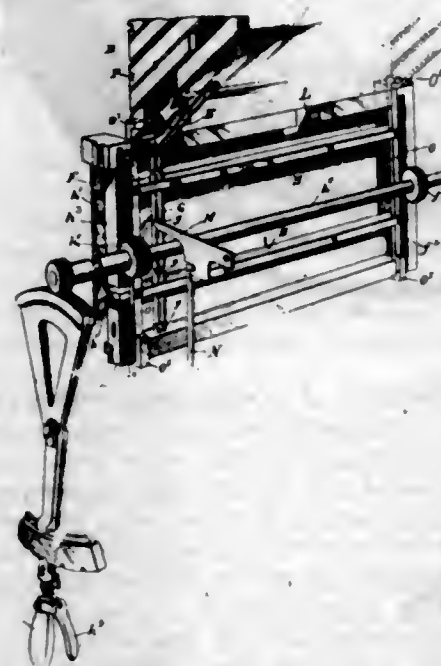
4. In a spring hinge, a frame adapted to be seated in the recessed corner of the door and comprising a lower bar having upturned end portions with a horizontal extension projecting from the upper end of one of said end portions, an upper bar secured to said upturned ends and overlying said extension, said extension and the overlying end of said upper bar having openings to receive fastening screws

and means for securing the opposite end of the frame to the door, substantially as described.

5. In a spring hinge, a frame adapted to be seated in the recessed corner of the door and comprising a lower bar having upturned end portions with a horizontal extension projecting from the upper end of one of said end portions, an upper bar secured to said upturned ends and overlying said extension and having an end portion extending downwardly over the end of said extension and adapted to abut against the end of the recess, spring actuated parts mounted in said frame and a stationary post journaled in said frame bars and having means for operatively engaging said spring actuated parts, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,081,753. TYPOGRAPHICAL COMPOSING-MACHINE. DAVID SHERWOOD KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 3, 1912. Serial No. 688,122. (Cl. 199-7.)



1. In a typographical machine, the combination of a plurality of magazines, a series of escapements for each magazine, a single set of actuating devices for the several series of escapements, means to shift the said actuating devices into operative relation to any selected series of escapements, and supplemental means to secure their registration and support them in alignment therewith.

2. In a typographical machine, the combination of a plurality of overlying magazines each provided with a series of escapements, and escapement actuating devices adjustable at will to directly engage the escapements of any magazine, together with supplemental means to insure their registration and support them in alignment therewith.

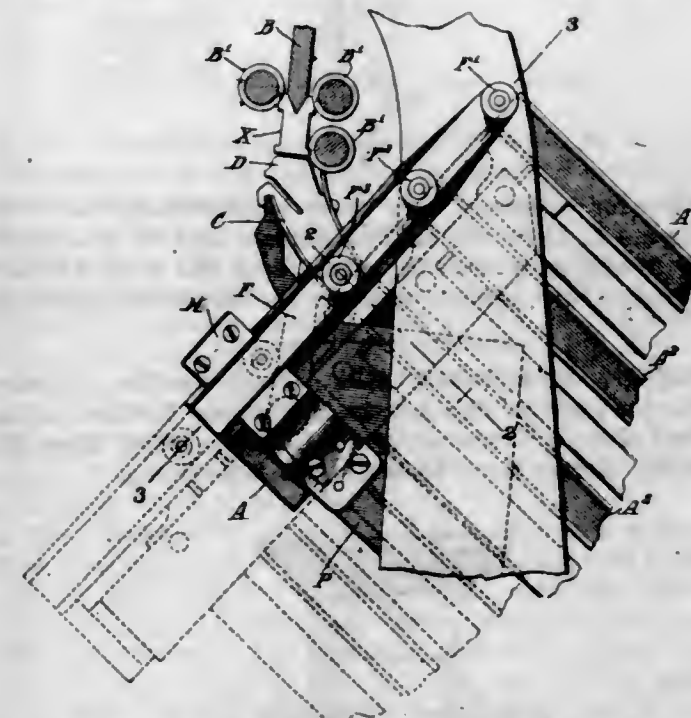
3. In a typographical machine, the combination of a series of superposed magazines, a raceway to receive matrices from all the magazines, and an intermediate adjustable bridge or support to carry the matrices from one magazine at a time to the raceway, together with supplemental means to insure the registration of the bridge with the selected magazine and to support it in alignment therewith.

4. In a typographical machine, the combination of a plurality of superposed magazines each having a series of escapements, a raceway to receive the matrices, an intermediate adjustable bridge to carry the matrices from one magazine at a time to the raceway, a single set of actuating devices for the escapements, means for shifting the bridge and the escapement actuating devices into engagement with the selected magazine, and supplemental means to insure the proper registration of the bridge and escapement actuating devices in relation to the selected magazine and to support them in alignment therewith.

5. In a typographical machine, the combination of a series of superposed magazines each provided with suitable escapements, a raceway to receive the matrices from all the magazines, a bridge to support the matrices from one magazine at a time to the raceway, actuating devices for the escapements, and an adjustable frame carrying the bridge and escapement actuating devices and provided with supplemental means to insure their proper registration and support them in alignment in relation to the selected magazine.

[Claims 6 to 13 not printed in the Gazette.]

1,081,754. TYPOGRAPHICAL MACHINE. DAVID SHERWOOD KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 29, 1912. Serial No. 693,934. (Cl. 199-7.)



1. In a typographical machine, the combination of a channeled means to receive the type or matrices, with automatic means to vary the width of the channels relatively to each other to permit the passage therethrough of type or matrices of different thicknesses.

2. In a typographical machine, the combination of a magazine entrance formed with a plurality of channels, with automatic means to vary the width of the said channels relatively to each other to permit the passage therethrough of type or matrices of different thicknesses.

3. In a typographical machine, the combination of a magazine entrance provided with a plurality of partitions dividing it into channels, with automatic means to move certain of the partitions relatively to the others to vary the width of the corresponding channels to permit the passage therethrough of type or matrices of different thicknesses.

4. In a typographical machine, the combination of a magazine entrance provided with a plurality of partitions dividing it into channels, with automatic means to move one or more of the partitions relatively to the others to vary the relative width of the said channels, the said means comprising a moving element connected to the said movable partitions.

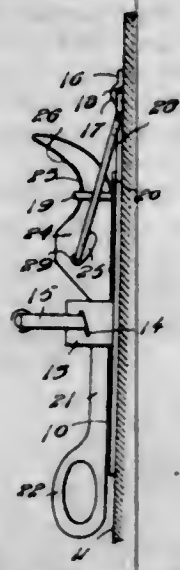
5. In a typographical machine, the combination of a plurality of movable magazines, a channeled magazine entrance to cooperate with the magazine in operative position, and means controlled by the movement of the magazines to vary the relative width of the entrance channels.

[Claims 6 to 16 not printed in the Gazette.]

1,081,755. CAR-DOOR LOCK. MAX KRIEWITZ and WILLIAM F. FERRIS, Fairfax, Okla.; said Ferris assignor to said Kriewitz. Filed Apr. 28, 1913. Serial No. 764,277. (Cl. 70-23.)

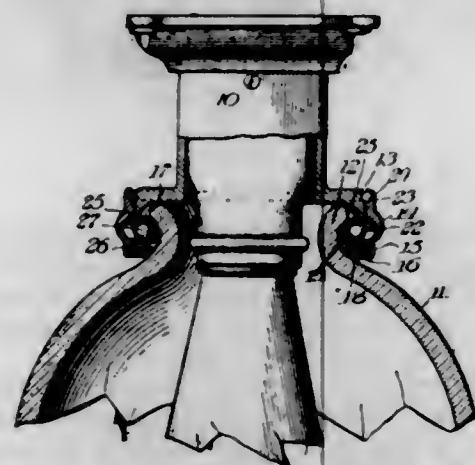
A car door lock consisting of a staple adapted to engage with a hasp, a slotted locking member having a wedge-

shaped end portion extending through the staple and securing the hasp thereon, means coacting with a sealing element for retaining the member in engagement with the staple, and a link extending through the slot of said



member for allowing it to move longitudinally so as to disengage it from the sealing element and to simultaneously disengage it from the staple, said link being adapted to support said member when in its inoperative position.

1,081,756. SHADE-HOLDER. NELS KROHN, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed May 17, 1913. Serial No. 768,366. (Cl. 240-114.)



1. In a shade holder, in combination, a support, a compression ring in threaded engagement with the support, a continuous coil spring located between the support and the ring, and a plurality of inwardly and backwardly directed spring fingers carried by the compression ring.

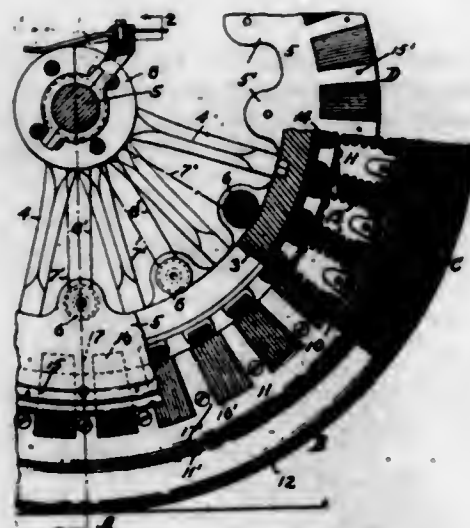
2. In a shade holder, in combination, a support, a compression ring in threaded engagement with the support, a continuous coil spring located between the support and the ring, and a ring carried by the compression ring and having a plurality of inwardly and backwardly extending spring fingers.

3. In a shade holder, in combination, a support having an inwardly facing oblique annular shoulder, an annulus having threaded engagement with the support and having an inwardly facing annular groove adjacent its outer end, a ring comprising an outstanding flange seated in the groove of the annulus and a plurality of backwardly extending elastic fingers, and a continuous contractile coil spring surrounding the elastic fingers of the said ring.

4. In a shade holder, in combination, a support having an inwardly facing oblique annular shoulder, an annulus having threaded engagement with the support and having an inwardly facing annular groove adjacent its outer end, a split ring comprising an outstanding flange seated in the groove of the annulus and a plurality of backwardly extending elastic fingers, and a continuous contractile coil spring surrounding the elastic fingers of the said ring.

5. In a shade holder, in combination, a support having an inwardly facing oblique annular shoulder, an annulus having threaded engagement with the support and having an inwardly facing annular groove adjacent its outer end, a ring comprising an outstanding flange seated in the groove of the annulus and a plurality of backwardly extending inwardly curved fingers, and a continuous contractile coil spring surrounding the elastic fingers of the said ring.

1,081,757. VEHICLE-WHEEL. SAMUEL T. KRONENBERG, Pittsburgh, Pa., assignor of fifty-five one-hundredths to John C. Wolfram, Pittsburgh, Pa. Filed Mar. 12, 1912. Serial No. 683,292. (Cl. 152-38.)



1. The combination of a wheel body and a rim movable radially and circumferentially relatively to each other, means for cushioning the radial movement, and magnetic means for opposing the circumferential movement.

2. The combination of a wheel body, magnet poles on the body, a tread-carrying rim movable radially and circumferentially of the body, the rim constituting an armature and having faces slidable on the magnet poles in direction circumferentially of the wheel, the engaging faces of the rim and pole, being formed to diminish their engagement as the parts move in circumferential direction from normal position, and means for cushioning the radial movement of the parts.

3. The combination of a wheel body, a magnet carried by the body and having two circular poles arranged concentrically with the body, a tread-carrying rim movable circumferentially of the body, the rim constituting an armature and having circular parts slidable on the magnet poles in circumferential direction, the engaging faces of the poles and armature being shaped to diminish the area of their surface engagement as the parts move circumferentially from normal position.

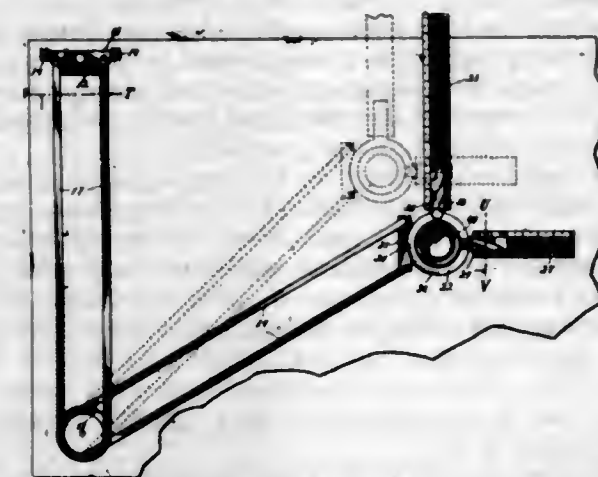
4. The combination of a wheel body, circular separated plates arranged concentrically of the body, means for energizing the plates to constitute them opposite poles of a magnet, a tread-carrying rim movable circumferentially of the body, inwardly disposed circular plates carried by the rim and overlapping and slidable on the pole-forming plates, the rim plates connected to form an armature, and the faces of said plates and poles being formed to diminish the engaging area of the magnetic force-transmitting portions thereof as the parts move circumferentially from normal position.

5. The combination of a wheel body, circular plates spaced apart and projecting outwardly from the periphery of the body, means for energizing the plates to constitute them opposite poles of the magnet, a rim-carrying tread movable circumferentially of the body, plates projecting inwardly from the tread and engaging and slidable circumferentially of the pole-forming plates, the rim plates connected to form an armature, and the slidable engaging faces of the plates formed of alternative sections of magnetic and non-magnetic material with the magnetic-mate-

rial face portions of the opposed plates engaging each other with such engagement diminished by relative circumferential movement of the body and rim.

[Claims 6 and 7 not printed in the Gazette.]

1,081,758. DRAFTING INSTRUMENT. CHARLES H. LITTLE, Cleveland, Ohio. Filed July 2, 1902. Serial No. 114,115. (Cl. 33-19.)



1. In a drafting instrument, in combination, an anchor block, a pair of parallel bars pivoted to the anchor block, a second pair of parallel bars, a plate carried by the latter bars, an intermediate member to which the said sets of bars are pivoted in such manner that the angularity of the plate remains constant, a pair of adjustable ruler-attaching members secured to the plate, and each of which is provided with an inwardly tapering longitudinally dove-tailed channel, and a chuck plate of corresponding form removably seated in each channel and having secured thereto a ruler.

2. In a drafting instrument, in combination, a plate, a pair of ruler-attaching members adjustably mounted on the plate and each of which is provided with an inwardly tapering longitudinally dove-tailed channel, and a chuck plate of corresponding form seated in each channel and having secured thereto a ruler.

3. In a drafting instrument, in combination, a plate, a pair of ruler-attaching members adjustably secured to the plate and each of which is provided with an inwardly tapering longitudinally dove-tailed channel, and blocks of corresponding form engaging the channels and having rulers secured thereto, one of the said rulers being laterally adjustable with relation to the chuck plate secured thereto.

4. In a drafting instrument, in combination, an anchor block, a pair of parallel bars pivoted to the anchor block, a second pair of parallel bars, a plate secured to the latter bars and having a series of holes, an intermediate member to which the said sets of bars are pivoted in such manner that the angularity of the plate remains constant, a rotatable member mounted on the plate, a pair of ruler-attaching bars secured to the rotatable member, a sleeve fixed to the rotatable member and provided with a shoulder, a spring-pressed rotatable bolt sliding in the sleeve and adapted to engage the holes in the plate, and a pin projecting from the bolt for engaging the shoulder.

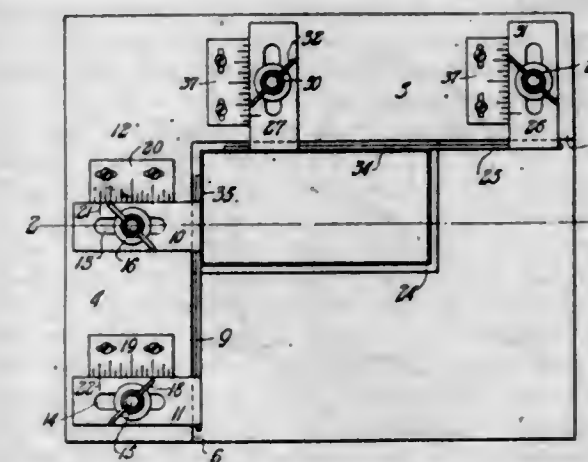
5. In a drafting instrument, in combination, an anchor block, a pair of parallel bars attached thereto, a cross-head pivotally uniting the ends of the bars, a second pair of parallel bars pivotally attached to the cross-head, the lines of pivotal attachment of the two sets of bars intersecting, a head pivotally uniting the outer ends of the second set of bars, a ruler holder carried by the last-named head and having a dove-tailed tapering recess, and a ruler carrying a chuck plate complementary in form and size to the recess of the ruler holder.

[Claims 6 to 9 not printed in the Gazette.]

1,081,759. PAPER-BOX-MAKER'S GAGE. LEONIDAS E. MARCHESE, Chicopee, Mass. Filed July 9, 1913. Serial No. 778,054. (Cl. 33-76.)

1. The combination of a base, a pair of blocks secured on the base and having vertical walls meeting at an angle,

a pair of gage members, one carried by each block, each gage member having a wall extending parallel with said vertical wall of the block and perpendicular to the base, and whose lower edge is spaced a short distance from the base.



2. The combination of a base, a pair of blocks secured on the base and having vertical walls meeting at an angle, a pair of gage members, one carried by each block, each gage member having a wall extending parallel with said vertical wall of the block and perpendicular to the base, and whose lower edge is spaced a short distance from the base, each gage member having at the top longitudinally slotted lugs extending back over the top face of the block, and an adjusting bolt carried by the blocks in each said slotted portion of the lugs to secure the gages in adjusted positions on the blocks, whereby to vary the position of the said parallel walls of the gages relative to the adjacent walls of the blocks.

3. The combination of a base, a pair of blocks secured on the base and having vertical walls meeting at an angle, a pair of gage members one carried by each said block, each gage member comprising a plate forming a wall extending parallel with said vertical wall of the block, and a pair of lugs projecting from the top edge of the plate one at each end and which rest on the top face of the block to position said plates with their lower edges spaced a short distance from the base, said lugs having longitudinal slots, adjusting bolts carried by the blocks, one extending through each of said slotted lugs to secure the gage members in adjusted positions whereby to vary the position of said plates relative to the adjacent walls of the blocks.

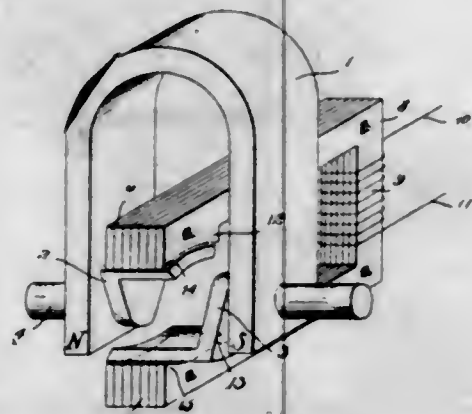
4. The combination of a base, a pair of blocks on the base having vertical walls meeting at an angle, a pair of gage members one carried by each block, each gage member comprising a plate forming a vertical wall extending parallel with the vertical wall of the block, a pair of lugs projecting from the top edge of each plate which rests on the top face of the block to position said plates with their lower edges spaced a short distance from the base, said lugs having longitudinal slots, adjusting bolts carried by the blocks and extending through the slotted lugs to secure the gage members in adjusted positions whereby to vary the position of the plates relative to the adjacent walls of the blocks, and graduated guide plates on the top face of the blocks, one engaging each said lug.

1,081,760. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor to Sumter Electrical Company, a Corporation of South Carolina. Filed Apr. 23, 1912. Serial No. 692,754. (Cl. 171-209.)

1. In an igniting dynamo, a U-shaped magnet, and a rotor having a path of travel which lies entirely within the space between the poles of said magnet and comprising magnetic inductor elements in continuous magnetic contact relation with the inner cheeks of both magnet poles and thereby maintained of permanent and opposite polarity, together with a normally stationary current generating coil and a core therefor in inductive relation to said rotor.

2. In an igniting dynamo, a U-shaped field magnet having poles spaced apart, a rotor journaled to turn between said poles extending from pole to pole of the magnet, said

rotor comprising magnetic elements of permanent and opposite polarity having rotary contact with the side faces of said magnet poles independently of the journal bearings, and a normally stationary current generating coil and core therefor normally fixed in inductive relation to said rotor.



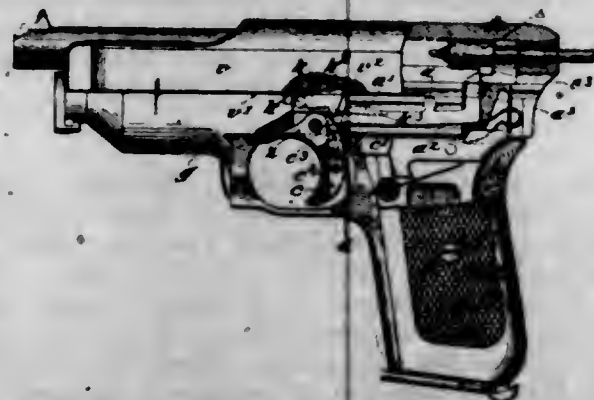
3. In an ignition dynamo, a U-shaped field magnet having poles spaced apart, a rotor journaled to turn between said poles extending longitudinally from pole to pole of the magnet and having suitable bearing supports, said rotor comprising a pair of axially separated magnetic members of permanent and opposite polarity having end surfaces in extended sliding contact with the inner faces of said magnet poles independently of said bearing supports, together with a normally stationary current generating coil and a core therefor in normally fixed inductive relation to said rotor.

4. In an ignition dynamo, a permanent field magnet comprising one or more individually integral U-shaped permanent magnets, said field magnet having axially aligned apertures in opposite poles, a rotor having shaft extensions journaled in said apertures, and having a main body adapted to be magnetized by said permanent magnet, together with a normally stationary current generating coil in inductive relation to said rotor.

5. In an ignition dynamo, a substantially U-shaped permanent magnet having axially aligned bearing apertures in its poles, a rotor journaled in said apertures and having end portions of magnetic material of permanent and opposite polarity in magnetic and conductive relation respectively to the inner faces of said poles but magnetically insulated from each other, together with a normally stationary current generating coil and core therefor in inductive relation to said rotor.

[Claims 6 and 7 not printed in the Gazette.]

1,081,761. TRIGGER MECHANISM FOR AUTOMATIC OR SELF-LOADING SMALL-ARMS. PAUL MAUSEN, Oberndorf-on-the-Neckar, Germany. Filed Oct. 31, 1911. Serial No. 657,851. (Cl. 42-3.)



1. The combination with a self-loading small-arm, of a breech carriage and frame, trigger mechanism, a sear lever adapted to engage said trigger mechanism, and a member pivoted to the frame and actuated by the movement of said breech carriage for disestablishing the engagement between said trigger mechanism and said sear lever.

2. The combination with a self-loading small-arm, of a breech carriage and frame, trigger mechanism, a firing pin, a member pivoted to the frame and actuated by said breech carriage and oscillated thereby for rendering the trigger mechanism inoperative when the breech is open, and a sear lever adapted to be disengaged from said trigger mechanism immediately after firing and to interrupt the reciprocatory movement of and lock the firing pin during the return movement of said breech carriage.

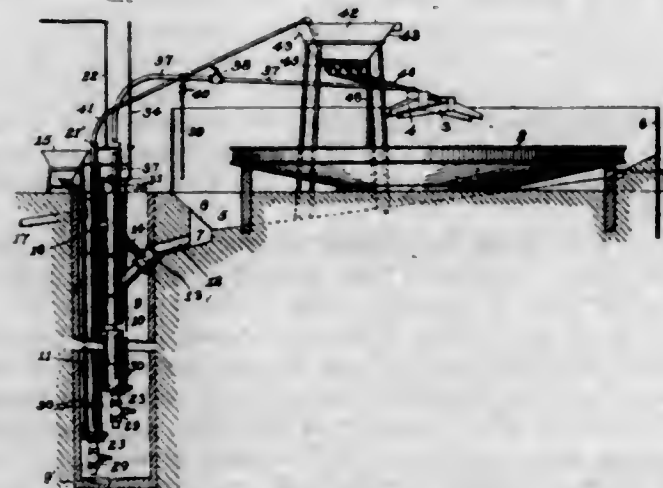
3. The combination with a self-loading small-arm, of a breech carriage, a trigger, a dog pivoted to said trigger, a sear lever adapted to engage said dog, and means actuated by said breech carriage and oscillated thereby for disengaging said trigger dog from said sear lever.

4. The combination with a self-loading small-arm, of trigger mechanism and a frame, a breech carriage formed with a tapering recess, a sear lever, means for effecting the engagement of said trigger mechanism with said sear lever, and a member pivoted to the frame and actuated by said carriage and adapted to enter said recess for permitting the engagement of said trigger mechanism with said sear lever and to be disengaged from said recess for effecting the disengagement of said trigger mechanism from said sear lever.

5. The combination with a self-loading small-arm, of trigger mechanism and a frame, a breech carriage formed with a recess, a sear lever, means for effecting the engagement of said trigger mechanism with said sear lever, and an oscillating member pivoted to the frame and actuated by said breech carriage and adapted to ride on the underside of said carriage to disengage the trigger mechanism from the sear lever when the breech is open and to engage in said recess to permit the engagement of the trigger mechanism with the sear lever when the breech is closed.

[Claim 6 not printed in the Gazette.]

1,081,762. APPARATUS FOR DELIVERING ABRASIVE MATERIAL. CROSBY C. MCLEAN, Pittsburgh, Pa., assignor to Allegheny Plate Glass Company, Pittsburgh, Pa. Filed Sept. 25, 1913. Serial No. 791,757. (Cl. 51-11.)



1. In glass grinding apparatus, the combination with a glass grinding table, of a surrounding collecting trough leading to a discharge conduit, a collecting well connected therewith, an air lift device within the well having a delivery conduit leading to the grinding table, and means for disturbing the material at the bottom of the well, substantially as set forth.

2. In glass grinding apparatus, the combination with a glass grinding table, of a surrounding collecting trough leading to a discharge conduit, a collecting well connected therewith, an air lift device within the well, a distributing hopper, a conduit leading from the air lift device to the hopper, means for distributing the abrasive from the hopper to the table, for draining the collecting well, and means for collecting the drained contents thereof, substantially as set forth.

3. In glass grinding apparatus, the combination with a glass grinding table, of a surrounding collecting trough leading to a discharge conduit, a collection well connected

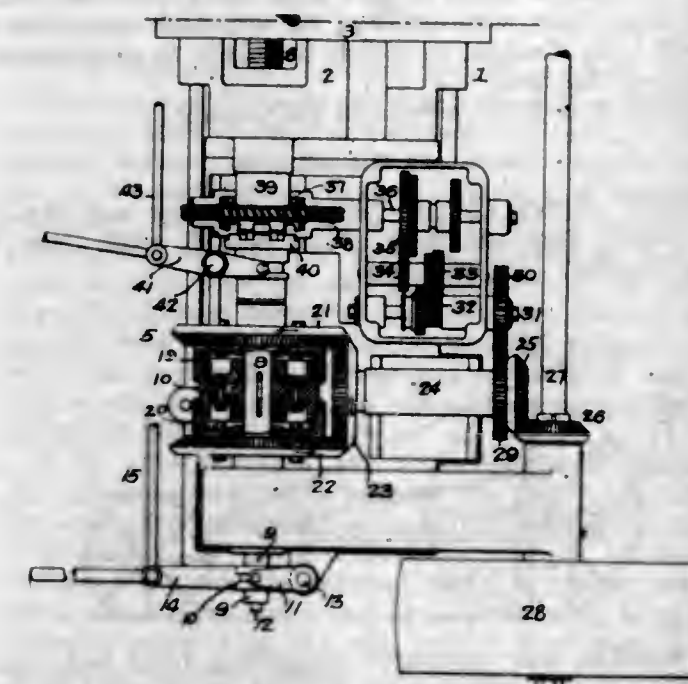
therewith, an air lift device within the well for delivering the abrasive and water to the table, and a closure removably secured to the bottom of the well, substantially as set forth.

4. In glass grinding apparatus, the combination with a glass grinding table, of a surrounding collecting trough leading to a discharge conduit, a collecting well connected therewith, an air lift device within the well for delivering the abrasive and water to the table, a supplemental outer surrounding well extending below the bottom of said well, and means for opening and closing the bottom of said first named well for discharging its contents into said surrounding well, substantially as set forth.

5. In glass grinding apparatus, the combination with a glass grinding table, of a surrounding collecting trough leading to a discharge conduit, a collecting well connected therewith, an air lift device within the well, means for draining the contents of the well, and a surrounding dry pit inclosure for the well, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,081,763. INTERLOCKING MECHANISM FOR COLD-SAW CUTTING-OFF MACHINES. MAX MEYERS, Philadelphia, Pa., assignor to Newton Machine Tool Works, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1913. Serial No. 754,017. (Cl. 29-69.)



1. The combination of a screw shaft; two hubs driven in different directions; a clutch sleeve arranged to turn with the shaft; means for throwing the clutch sleeve into contact with either hub to drive the screw at a high speed in either direction; a slow speed wheel also mounted on the screw; a clutch sleeve arranged to turn with the shaft; means for throwing the clutch sleeve into contact with the said wheel to drive the screw forward at a slow speed; two levers, one connected to the first mentioned clutch sleeve and the other connected to the last mentioned clutch sleeve; and interlocking mechanism between the two levers, whereby, when one lever is moved out of normal position, the other lever is locked in said normal position.

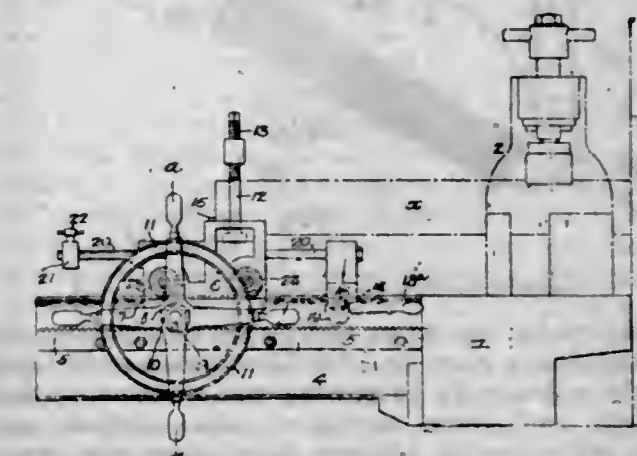
2. The combination in a cold saw cutting off machine, of a bed; a slide thereon carrying the saw; a screw for actuating the slide; a shaft for driving the screw; two hubs loosely mounted on the shaft; means for rotating said hubs in opposite directions; a clutch sleeve mounted to turn with the shaft; means for shifting said clutch sleeve into engagement with either of the hubs, whereby the carriage can be fed forward or reversed rapidly; a wheel loose on the shaft; means for slowly rotating said wheel; a clutch sleeve on the shaft and arranged to turn therewith; means for throwing the clutch sleeve into en-

197 O. G.—46

gagement with the slow rotating wheel; two hand levers for actuating the said clutch mechanism; interlocking means arranged to engage said levers so that when one lever is moved from its normal position the interlocking means will lock the other lever in position; and a bolt arranged to prevent the movement of the lever which actuates the first mentioned clutch, so that, while the lever can be moved in one direction, the bolt must be withdrawn to allow the lever to move in the opposite direction.

3. The combination in interlocking mechanism, of a bearing; a shaft mounted in the bearing; a hollow shaft through which the first mentioned shaft extends, each of said shafts having an arm at one end; independent clutch mechanism connected to each arm; a lever on the opposite end of each arm; a segmental stop plate mounted in the bearing and located between the two levers, said stop plate having an opening therein parallel with the shaft; each lever being notched, the notches aligning with the opening when both of said levers are in the normal position; a pin mounted in the opening and of such a length that when one lever is moved out of its normal position, the pin will be held in the notch of the other lever, preventing the movement of said lever until the first mentioned lever is returned to its normal position; a spring latch carried by one of said levers, the segmental plate being notched to form an abutment for the latch, so that the lever carrying the latch will be allowed to move in one direction, but will be prevented from moving in the opposite direction until the latch is withdrawn.

1,081,764. FEEDING MECHANISM FOR CUTTING-OFF MACHINES. MAX MEYERS, Philadelphia, Pa., assignor to Newton Machine Tool Works, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1913. Serial No. 754,018. (Cl. 29-67.)



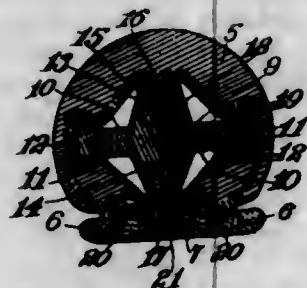
1. The combination in a feeding device for cutting off or other tools, of a beam; a carriage longitudinally adjustable on the beam; a clamp on the carriage by which the bar to be cut is secured thereto; a head adjustable longitudinally on the beam; a rod projecting from the head and extending through the carriage; and an adjustable collar on the rod.

2. The combination in a feeding device for cutting off or other tools, of a base; a beam projecting from the base; a carriage mounted on the beam; means for adjusting the carriage; a clamp on the carriage by which the bar to be cut is secured to the carriage; a head located on the beam in advance of the carriage; a rod mounted in the head and extending rearwardly through the carriage, said bar being graduated; and an adjustable collar on that portion of the rod projecting to the rear of the carriage.

3. The combination in a feeding device for cutting off or other tools, of a beam having a flange at its upper end; a rack on the beam; a carriage adapted to slide on the flange in the beam; a shaft on the carriage having a pinion meshing with the rack and a hand wheel by which it is turned; a detachable clamp mounted on the carriage for securing the bar to be cut thereto; a head adjustably mounted on the beam in advance of the carriage; a rod extending rearwardly from the head through an opening in the carriage; an adjustable collar on the outer end of

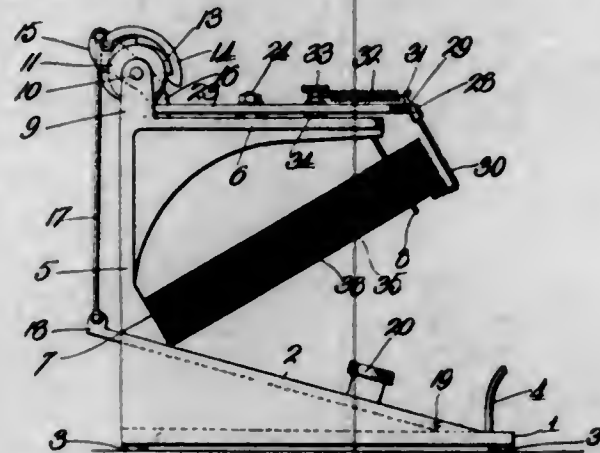
the rod beyond the carriage, said carriage having a V-shaped groove to receive the bar to be cut; and a stop pin projecting from the V-shaped groove against which the end of the bar rests.

1,081,765. CUSHION-TIRE. JOSEPH A. MOLLITOR, Chicago, Ill. Filed Aug. 28, 1912. Serial No. 717,485. (Cl. 152-5.)



A cushion tire comprising an outer casing having its ends forming the base of the tire spaced apart, and a cruciform core inclosed in the casing, said core being separate from the casing and having an integral wing extending into the space between the ends of the casing at the base thereof.

1,081,766. DEVICE FOR HANDLING CURRENCY OR THE LIKE. WILLIAM MOORE, Kansas City, Mo. Filed Oct. 25, 1912. Serial No. 727,899. (Cl. 40-79.)



1. A device for separating and displaying checks or the like, comprising a plurality of inclined members for holding checks, a frame for supporting said members at their lower ends, said frame having an arm overlying said members and extending adjacent their upper ends, means carried by said arm for supporting and releasing said members at their upper ends, said members being alternately notched at their upper ends for successive engagement and release by said means, and said frame having an inclined body portion underlying said members to receive and support the same in a slightly inclined position when released to separate and display the objects held thereby, and means for operating said releasing means.

2. A device for separating and displaying checks or the like, comprising a plurality of inclined members for holding checks, a frame for supporting said members at their lower ends, means for supporting and releasing said members at their upper ends, said members being alternately notched at their upper ends for successive engagement and release by said means, and said frame having its body portion underlying said members to receive and support the same when released to separate and display the objects held thereby, and means whereby said supporting and releasing means may be adjusted for different lengths of said members.

3. A device of the character described, comprising a frame, an overhanging arm on said frame, guiding means extending forward and downward from said arm, a rock bar adapted for horizontal movement carried by said arm and projecting beyond the front end thereof and provided at its front end with a rearwardly extending hook terminal, a manually operable lever, and connections where-

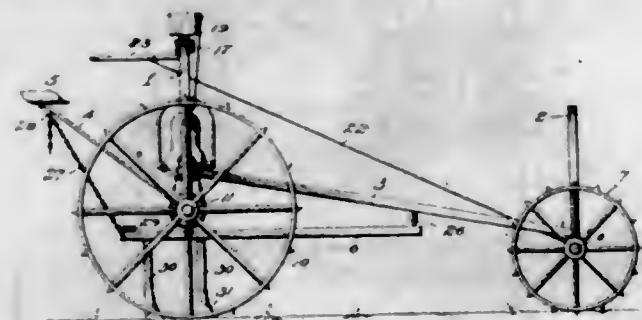
by a single operation of said lever shall rock said rock bar in but one direction.

4. A device of the character described, comprising a frame, an overhanging arm on said frame, guiding means extending forward and downward from said arm, a rock bar adapted for horizontal movement carried by said arm and projecting beyond the front end thereof and provided at its front end with a rearwardly extending hook terminal, a manually operable lever, connections whereby a single operation of said lever shall rock said rock bar in but one direction, and a pack of cards extending upwardly and forwardly and resting at its lower end upon the frame and at its upper end upon said hook terminal and near its upper end engaging the guiding means, alternate cards of said pack being provided near their upper ends with openings for alternate engagement by said hook terminal to permit the cards to successively drop upon the base.

5. A device of the character described, comprising a frame, an overhanging arm on said frame, guiding means extending forward and downward from said arm, a rock bar adapted for horizontal movement carried by said arm and projecting beyond the front end thereof and provided at its front end with a rearwardly extending hook terminal, a manually operable lever, connections whereby a single operation of said lever shall rock said rock bar in but one direction, and a pack of cards extending upwardly and forwardly and resting at its lower end upon the frame and at its upper end upon said hook terminal and provided with registering holes loosely engaged by said guiding means, alternate cards of said pack being provided near their upper ends with openings for alternate engagement by said hook terminal to permit the cards to successively drop upon the base.

[Claims 6 to 9 not printed in the Gazette.]

1,081,767. CULTIVATOR. ALBERT A. NASH and LEWIS A. NASH, Thurston, Nebr. Filed Mar. 9, 1912. Serial No. 682,566. (Cl. 97-35.)



A straddle row cultivator comprising front and rear arches connected together by inclined longitudinal frame bars, wheels journaled to said arches, cultivator beams pivotally connected at their front ends near the longitudinal centers of the frame bars to give the required inclinations to the beams, a driver's seat mounted on the frame, chains connected to said beams at their rear ends, hooks on the seat frame for engaging links of said chains to provide vertical adjustment of the beams, and cultivator shovels connected to said beams.

1,081,768. ROD CONNECTION. LEWIS HALLOCK NASH, South Norwalk, Conn. Filed Mar. 8, 1911. Serial No. 612,482. (Cl. 74-17.)

1. In combination, a pin, a member surrounding the pin and having a tapered inner surface, a bushing between the pin and member and having a tapered surface to correspond with the tapered surface of said member and having a thread, a nut engaging the thread, said nut having a plurality of spaced projections, an annular operating member surrounding the pin and having a projection to cooperate with the projections on the nut, the internal diameter of said operating member being greater than the extreme diameter of the nut.

2. In combination, a hollow flanged member, a transverse pin seated in the flange of said member, a pitman rod having a tapered opening receiving said pin, a tapered

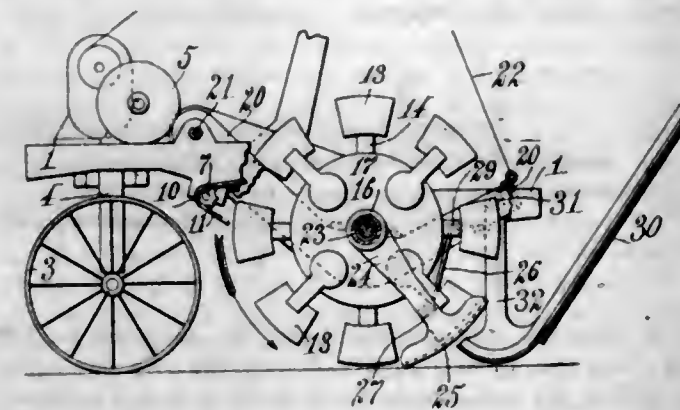
bushing between said rod and pin, a nut threaded on the end of the bushing, a wrench member surrounding the pin and adapted to engage the nut, said wrench having a handle member adapted to extend longitudinally of the pitman rod, and means for rigidly connecting the handle member to said rod.



3. In combination, a hollow flanged member, a transverse pin seated in the flange of said member, a pitman rod having a tapered opening receiving said pin, a tapered bushing between said rod and pin, a nut threaded on the end of the bushing and having a plurality of spaced projections, a wrench member consisting of an annular part surrounding the nut, the internal diameter of said part being greater than the extreme diameter of the nut, an inwardly-directed projection on said part adapted to cooperate with the projections on the nut, a handle rigid with said part and extending longitudinally of said rod, and means for rigidly and detachably connecting said handle to said rod.

4. In combination, a pin, a member surrounding the pin, compensating means between the pin and member, a nut engageable with said compensating means and having a projection, an annular operating member surrounding the pin and having an internal diameter greater than the diameter of said nut, whereby said member is movable laterally relative to the nut, and a projection on said operating member adapted to cooperate with the projection on the nut, said projection being engaged and disengaged by the said lateral movement of the operating member.

1,081,769. SAND CUTTING AND RIDDLING MACHINE. JOHN F. O'BRIEN and GEORGE F. BOWDLE, Piqua, Ohio. Filed Mar. 15, 1913. Serial No. 754,650. (Cl. 22-89.)



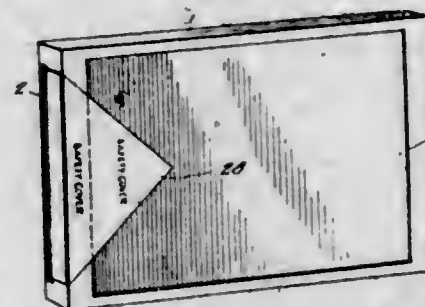
1. In a device of the type specified, the combination with a frame supported on wheels, and a plurality of rotating sand-cutting blades carried by said frame, of a sand deflector mounted adjacent to said blades and adapt-

ed to direct the sand upwardly and rearwardly when cut by said blades.

2. In a device of the type specified, the combination with a frame, tractors upon which said frame is mounted, a plurality of rotating cutting blades carried by said frame, and means for driving said tractors and rotating said cutting blades, of a plate mounted adjacent to said blades and adapted to direct the sand upwardly and rearwardly when cut by said blades, and a sieve mounted on the rear end of said frame and adapted to riddle the sand thrown by said blades and deflected by said plate.

3. In a device of the character specified, the combination with a frame mounted upon wheels, a series of rotating shovels mounted on said frame, and a sieve mounted on the said frame in the rear of said shovels, of a sand deflector suspended from the axis of said rotating shovels, and suspended connections between said deflector and said frame, substantially as specified.

1,081,770. FILM-PACK. JAMES EDWIN PETTIBONE, St. Louis, Mo. Filed Oct. 22, 1912. Serial No. 727,165. (Cl. 95-22.)



1. A film pack comprising a case having an opening in its front and a slot in one end, a rigid support within the case, a plurality of films, a sheet of black paper for each film, each sheet having a reduced extension at one end and each film having one end secured to a sheet at the junction of the sheet with the extension, a strip of paper to which the extensions are secured at their free ends transversely of the strip and in spaced relation, the films and the sheets being arranged on the front of the support behind the opening of the case and each film in front of its sheet, the said strip being folded between the attachment of the adjacent extensions, said folds being on the opposite side of the support from the films, the support being beaded at the end where the extensions pass around the same and having resilient tongues at each side at the said end for pressing the films toward the opening and having a lateral extension at the opposite end for pressing the films toward the opening, the folds of the strip being of such length that when unfolded, a film and its sheet will be drawn from the front to the rear of the support, the free end of the strip being beveled and extending through the slot at the end of the case, said strip being partially separated adjacent to the connection of each extension therewith by two cuts converging toward their outer ends to form a tab when the extended fold has been torn away, and a safety cover for the outermost film having a reduced extension connected to the strip at the end remote from the tab.

2. A film pack comprising a case having an opening in its front and a slot in one end, a rigid support within the case, a plurality of films, a sheet of black paper for each film, each sheet having a reduced extension at one end and each film having one end secured to a sheet at the junction of the sheet with the extension, a strip of paper to which the extensions are secured at their free ends transversely of the strip and in spaced relation, the films and the sheets being arranged on the front of the support behind the opening of the case with each film in front of its sheet, the said strip being folded between the attachments of the adjacent extensions, said folds being on the opposite side of the support from the films, the folds of the strip being of such length that when unfolded a film and its sheet will be drawn from the front to the rear of the support, the free end of the strip being

beveled and extending through the slot at the end of the case, said strip being partially separated adjacent to the connection of each extension therewith by two cuts converging toward their outer ends to form a tab when the extended fold has been torn away, and a safety cover for the outermost film having a reduced extension connected to the strip at the end remote from the tab.

3. A film pack comprising a case having an opening in its front and a slot in one end, a rigid support within the case, a plurality of films, a sheet of black paper for each film, each sheet having a reduced extension at one end and each film having one end secured to a sheet at the junction of the sheet with the extension, a strip of paper to which the extensions are secured at their free ends transversely of the strip and in spaced relation, the films and the sheets being arranged on the front of the support behind the opening of the case with each film in front of its sheet, the said strip being folded between the attachments of the adjacent extensions, said fold being on the opposite side of the support from the film, the folds of the strip being of such length that when unfolded a film and its sheet will be drawn from the front to the rear of the support, the free end of the strip being beveled and extending through the slot at the end of the case, said strip being partially separated adjacent to the connection of each extension therewith, the free end of the strip being cut away to form a tab and extending through the slot, said strip being partially separated adjacent to the connection of each extension to form a tab when the extended fold has been torn away, and a safety cover for the outermost film connected with the strip and movable with the strip away from in front of the film when the first fold of the strip is unfolded.

4. A film pack comprising a case having an opening in its front and a slot in one end, a plurality of films, a backing sheet for each film connected to the film at one end, a moving strip for the films, the extensions of the backing sheets being connected to the moving strip at spaced intervals and the said strip being folded between the said connections in such manner that when a fold is unfolded, a film will be drawn from the front to the rear of the case, the free end of the strip having a tab extending through the slot, said strip being partially separated adjacent to each extension to form a pulling tab when the unfolded fold has been torn away, a safety cover for the outermost film connected to the strip, and a support in the case, the films and backing sheets being in front of the support and the folds of the strip in rear of the support.

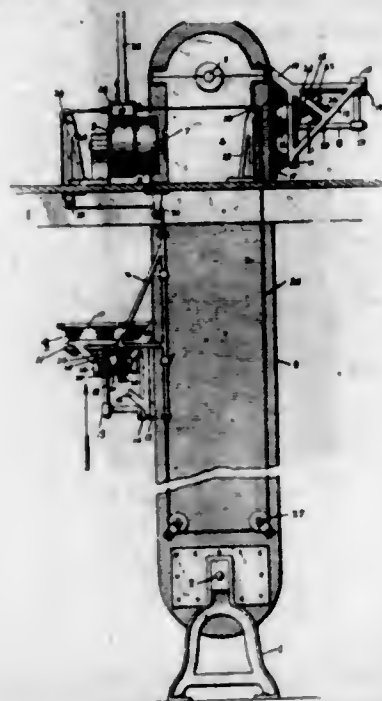
5. In a film pack, the combination with the films and the backing sheets thereof, each film being connected to its backing sheet at one end and each sheet having a reduced extension at the said end, a moving strip for the films of approximately the width of the extensions, the extensions being connected to the strip in spaced relation and said strip being folded between the said connections in such manner that when a fold is unfolded a film and its backing sheet will be moved from the front to the rear of the case, said strip having a reduced tab at its outer end and being partially separated near the junction of each extension therewith in such manner that when the fold of the strip is torn away, a tab will be left for unfolding the next fold.

[Claims 6 to 11 not printed in the Gazette.]

1,081,771. SAFETY ATTACHMENT FOR ELEVATORS. HERMAN JOHN PIEFGRAS, Caldwell, Idaho. Filed July 24, 1912. Serial No. 711,247. (Cl. 187—36.)

1. The combination in an elevator, of belt gearing for driving the same, a belt shifter, an endless cord connected to the belt shifter and extending parallel with the direction of travel of the elevator platform, a frame having a shoulder carried by said cord, and a movable member carried by the elevator platform and adapted to be moved into position to engage the shoulder to operate the cord and move the belt out of operative position in case the elevator platform remains loaded when it nears the upper end of its travel.

2. The combination in an elevator, of a platform having a movable top carried by said elevator, a transversely-movable member carried by the platform, means engaging said member and movable by the platform top when the same is depressed to project said member beyond said platform, and means for disconnecting the elevator from the driving power actuated by said member in case the platform remains loaded when the same reaches the upper end of its travel.



3. The combination in an elevator, of a platform having a depressible top, a rack bar movable to project beyond the side of the platform, a rack bar secured to the top, gearing engaging said rack bars to move the first-named rack bar into projecting position when the platform top is depressed, and a belt shifter operated by the projecting rack bar to stop the elevator in case the platform remains loaded when the same approaches the upper end of its travel.

4. The combination of an elevator platform, resilient means for supporting said platform, a projection movably mounted on said platform, means operable by the load on said platform for moving said projection into projecting position, a belt shifter, and means for operating the same, said means being actuated by said projection.

5. The combination of an elevator platform comprising a movable top, a movable member mounted upon said platform, a connection between said movable top and said member to cause said member to project when the top is depressed, a belt shifting device, and means for operating the same, said means being engageable by the said member to be actuated.

[Claims 6 and 7 not printed in the Gazette.]

1,081,772. BLASTING-CAP AND CARRIER THEREFOR. JOHN R. POWELL, Plymouth, Pa. Filed May 26, 1913. Serial No. 769,919. (Cl. 102—9.)



1. A blasting cap provided with an external substantially inelastic sheath snugly fitting the cap throughout and having the end remote from the active end externally tapering.

2. A blasting cap provided with an external sheath longer than the cap and externally tapering at the end remote from the active end of the cap, the tapering end having a filling of powder.

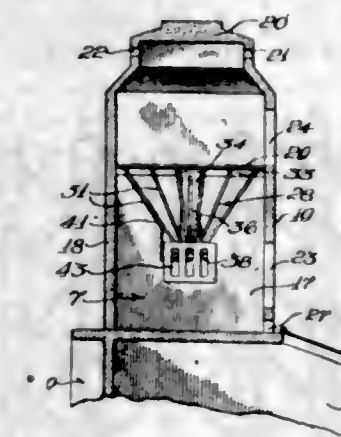
3. A blasting cap provided with an external sheath having one end externally tapering, and a tubular carrier for the sheath of a diameter to receive and snugly wedge the tapered end of the sheath when introduced into one end of the carrier.

4. A blasting cap provided with an external and substantially inelastic sheath having the end remote from the active end of the cap externally tapering, in combination with a tube having one end of a diameter to cause the tapering end of the sheath, when introduced into the tube, to wedge therein.

5. A blasting cap provided with a sheath having one end externally tapering, and an elongated tube having one end of an internal diameter to receive and cause the tapering end of the sheath to wedge therein and less than the external diameter of the larger end of the sheath.

[Claims 6 to 14 not printed in the Gazette.]

1,081,773. WASTE BURNER AND INCINERATOR. CHARLES A. RAGGIO, Chicago, Ill., assignor of one-half to Louis G. Raggio. Filed Mar. 25, 1912. Serial No. 685,967. (Cl. 110—17.)



1. In a device of the class described, the combination with an inclosing structure having a fuel opening in its lower portion and an opening for garbage in its upper portion, of a basket depending within said structure and mounted between said openings, a burner mounted immediately adjacent the lower end of said basket, and a rack for fuel mounted beneath the burner and suspended from the lower portion of the basket, substantially as described.

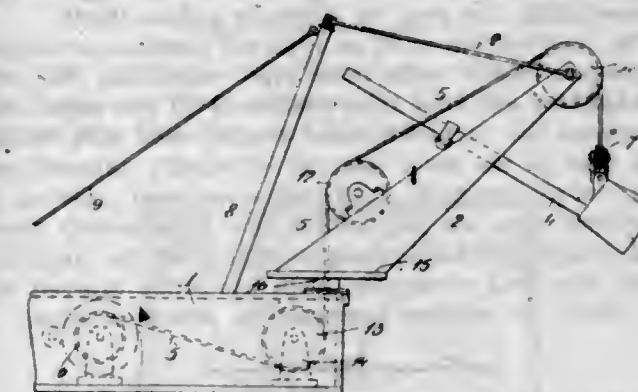
2. In a device of the class described, the combination with an inclosing structure having a fuel opening in its lower portion and an opening for garbage in its upper portion, of a basket for garbage mounted within said structure between said openings, and a rack for fuel mounted beneath and supported by the lower portion of the basket, substantially as described.

3. In a device of the class described, the combination with an inclosing structure having a fuel opening in its lower portion and an opening for garbage in its upper portion, of a basket for garbage mounted within said structure, and a rack for fuel mounted beneath and supported by said basket, substantially as described.

4. In a device of the class described, the combination with an inclosing structure having a fuel opening in its lower portion and an opening for garbage in its upper portion, of a basket mounted within said structure between said openings, and a rack for fuel mounted beneath and supported by said basket at a point substantially in line with the fuel opening, substantially as described.

5. In a device of the class described, the combination with an inclosing structure having a fuel opening in its lower portion and an opening for garbage in its upper portion, of a basket mounted within said structure between said openings, a pair of longitudinally extending sills on the lower portion of said basket, and a rack for fuel mounted beneath the basket and having a pair of supporting members overlying said sills to support the rack, whereby the rack may be removed longitudinally with respect to the basket, substantially as described.

1,081,774. HOISTING APPARATUS FOR DIPPER-BUCKETS. ARTHUR W. ROBINSON, Montreal, Quebec, Canada. Filed Feb. 19, 1912. Serial No. 678,690. (Cl. 37—16.)



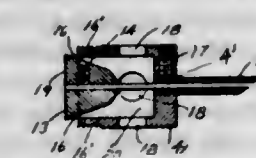
A hoisting apparatus of the class stated, embodying a turn table, a boom supported thereon, a double hoisting rope, equalizing means near the dipper in operative connection with the hoisting rope, means on the free end of the boom to separate the two parts of the hoisting rope, two sheaves located on the boom near the lower end thereof, each inclined so that their lower arcs approach one another and having their rear arcs in a vertical plane substantially coincident with the axis of rotation of the boom, another sheave below the turn table, the forward arc of which is in substantially the same vertical plane as the axis of rotation of the boom, and a winding drum in rear of said last named sheave, all of said parts being suitably supported upon and maintained in proper relation to each other by a suitable supporting structure, the two runs of the hoisting rope passing from the separating means on the free end of the boom over the inclined sheaves near its lower end, thence under the sheave below the turn table, and thence to the winding drum to which they are secured.

1,081,775. METHOD OF OBTAINING SULFONATED OILS AND FATS. RUDOLF RUSS, Rumburg, Austria-Hungary, assignor of one-half to The Firm of Stolle & Kopke, Rumburg, Austria-Hungary. Filed May 8, 1913. Serial No. 766,432. (Cl. 87—12.)

1. Method of obtaining sulfonated oils and fats which consists in treating them with sulfuric acid and removing the excess acid by the addition of a wash liquid, and separating the wash liquid and excess acid from the sulfonated oil or fat by submitting the mixture to centrifugal action.

2. Method of obtaining sulfonated oils and fats which consists in treating them with sulfuric acid and removing the excess acid by the addition of water, and separating the water and excess acid from the sulfonated oil or fat by submitting the mixture to centrifugal action.

1,081,776. AUXILIARY AIR-VALVE FOR INTERNAL-COMBUSTION ENGINES. LESLIE R. SAUNDERS, Los Angeles, Cal., assignor to Leslie R. Saunders Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 21, 1912. Serial No. 722,558. (Cl. 137—26.)

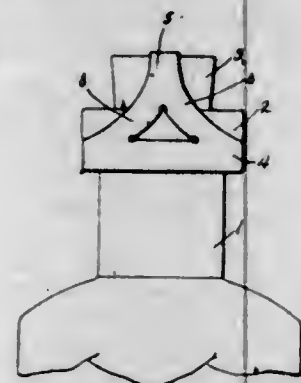


1. In auxiliary air supply mechanism for internal combustion engines, the combination with an additional air inlet tube having means for attachment at its inner end to the main inlet tube of the engine and having a valve seat on said inner end, of an outwardly tapered conical valve plug cooperating with the seat and capable of free lateral movement to adjust itself properly against said seat, said valve having its larger end projecting beyond said additional air inlet tube and being thus movable into

the main inlet tube when said valve is opened, and a flexible wire secured to said conical valve plug and projecting from its outer end to draw the plug to its seat against the suction of the engine, the flexibility of said wire permitting the plug to laterally adjust itself.

2. The combination with an internal combustion engine, a carburetor, and a main inlet pipe connecting the two, of an auxiliary air inlet tube connected to the main inlet pipe between the carburetor and engine, said tube having a valve seat at its inner end, an outwardly tapered controlling valve coacting with the seat and moving to open position into the main inlet pipe transversely thereof, and means extending longitudinally of the auxiliary air inlet tube and projecting from the outer tapered end of the valve for moving the same to closed position.

1,081,777. CORK-RETAINER. OSCAR B. SCHELLBERG, New York, N. Y. Filed Sept. 24, 1912. Serial No. 722,041. (Cl. 215-11.)



A resilient retainer for corks, comprising a base ring adapted to encircle a bottle neck below the usual exterior bead thereof, and an arch having the sides joining the base rings by diverging arms presenting diametrically opposite openings between the arms at the base of the arch, in which openings opposite portions of the said bead may enter, the openings being surrounded on all sides by the material of the retainer and presenting lower walls forming shoulders to engage under the shoulder of the bead, and the arms forming resistance members at the sides of the arch.

1,081,778. WELTED KNITTED WEB. ROBERT W. SCOTT, Leeds Point, N. J., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Apr. 18, 1910. Serial No. 556,160. (Cl. 66-4.)



1. A tubular knitted web having a turned welt or hem, with loops at the turned end of the welt interknitted with wales of the body of the web, some of the loops at the beginning of the course being double, and the following course of the turned web being without stitches in those wales in which the double loops are formed.

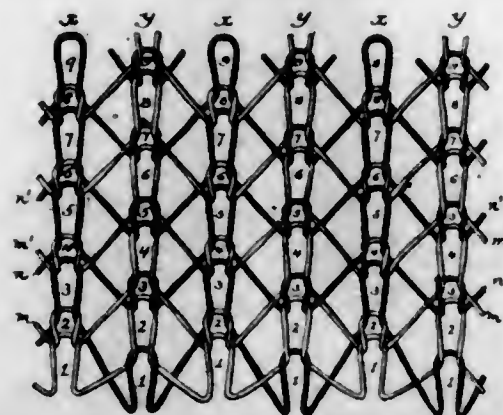
2. A tubular knitted web having a turned welt or hem with loops of the turned end interknitted with wales of the body of the web, some of said interknitted loops being double and the following course of the turned web being without stitches in the wales corresponding to said double loops.

3. The mode herein described of knitting a turned welt or hem upon a plain knitted web, said mode consisting in first forming two sets of loops, one set facing in one direction and the other set facing in the opposite direction, continuing the formation of loops in a number of wales of the second set in excess of a full course, then arresting the formation of loops in said second set and continuing in the first set the formation of courses of loops in continuation of the course first formed therein,

said continuing courses containing wales in excess of those first formed, then interknitting the loops of the second set with loops of the first set and continuing the formation of courses in said first set only.

4. The mode herein described of producing a turned hem or welt upon a plain knitted web, said mode consisting in forming two sets of loops, those of one set facing in one direction and those of the other set facing in the opposite direction, continuing the formation of loops in the second set for a number of wales in excess of a full course, then arresting the formation of loops in said second set and forming in the first set successive courses of loops in continuation of the course first formed, said continuing courses having wales in excess of the wales of the first course, and such excess wales at first being formed only throughout a partial course and afterward throughout a full course, then interknitting the loops of the second set with loops of the first set, and then continuing to knit courses in said first set only.

1,081,779. KNITTED WEB AND MAKING SAME. ROBERT W. SCOTT, Leeds Point, N. J., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Apr. 28, 1910. Serial No. 558,224. (Cl. 66-4.)



1. A knitted web having successively produced stitches of a course located in different but parallel course planes in adjoining wales, the sinker wales crossing each other.

2. A knitted web having successively produced stitches of a course located in different parallel course planes in adjoining needle wales, the sinker wales crossing each course and successive stitches in the needle wales being composed of different yarns.

3. A plain knitted web having successively produced stitches of a course located in different parallel course planes in adjoining needle wales, the stitches of said course in one course plane differing in size from the stitches in said course in the other course plane, and the sinker wales crossing each other.

4. The mode herein described of producing a knitted web, said mode consisting in disposing the knitting yarn or yarns to form a course of stitches with intervening loops, and another course of stitches with intervening loops alternately respectively with the stitches and loops of the first course and drawing the loops of one course through the stitches of the other.

5. The mode herein described of producing a knitted web, said mode consisting in drawing in succession stitches and loops of one yarn and with another yarn drawing in succession stitches and loops alternating with those first produced, and drawing the loops of one yarn through the stitches of the other yarn.

1,081,780. GRATE-BAR. GEORGE S. SERGEANT, Greensboro, N. C. Filed Apr. 30, 1912. Serial No. 604,053. (Cl. 126-107.)

1. The improvement in grate bars herein described comprising end sections, intermediate sections between the end sections, the end sections being interlocked at their inner ends with the adjacent ends of the intermediate sections, a strut between the adjacent ends of the inter-

mediate sections and having upwardly inclined studs interlocking with the intermediate sections and provided below the said sections with supporting shoulders therefor and also having a portion projecting below said shoulders, and a truss rod engaged between its ends with the strut and having its ends connected with the end sections of the bar, all substantially as and for the purposes set forth.



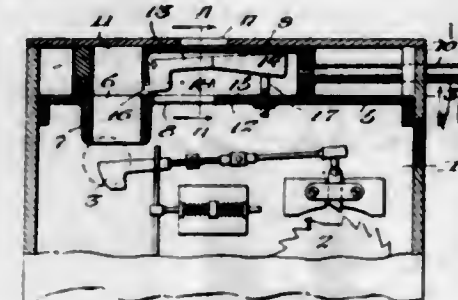
2. A grate bar composed of a plurality of intermediate sections and end sections interlocked at their inner ends with the outer ends of the intermediate sections adjacent thereto, a strut having shoulders underlying the meeting ends of the intermediate sections and provided above said shoulders with a portion lying between and interlocked with the adjacent ends of said intermediate sections, the strut also projecting below said shoulders, and a truss rod connected at its ends with the end sections and engaging between its ends with the downwardly projecting portion of the strut whereby to support the intermediate sections by a trussing action, substantially as set forth.

3. The combination in a grate bar with intermediate sections, of a supporting strut therefor shouldered to directly support the sections and having a portion fitting between the sections and sloping outwardly on its edges from its upper to its lower end, and means below and engaging with said strut for supporting the sections thereby, substantially as set forth.

4. The combination in a grate bar with intermediate sections spaced apart at their ends and having said ends provided with upwardly inclined openings, and a strut having a portion fitting between such ends of the sections and provided with upwardly inclined studs fitting the openings therein, substantially as set forth.

5. The combination in a grate bar of end sections and intermediate sections interlocked at their meeting ends, a truss extending below the joint between the said intermediate sections and carried by the end sections, and a strut engaging directly with said intermediate sections at the joint thereof and supported from the truss, substantially as set forth.

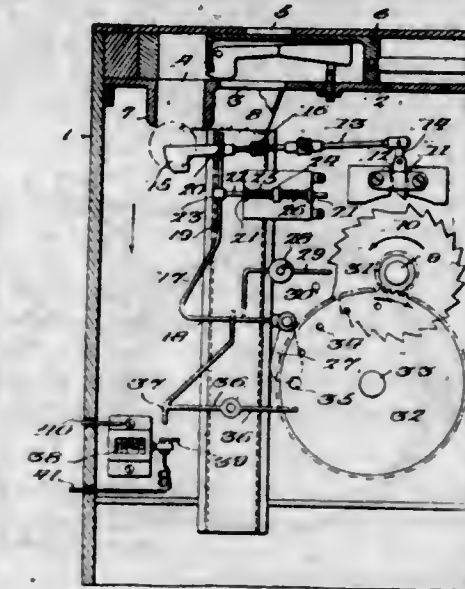
1,081,781. FRAUD-PREVENTER. CHARLES H. SIMERSON, West Hoboken, N. J. Filed Mar. 24, 1913. Serial No. 756,386. (Cl. 194-102.)



The combination with an approximately horizontal tray provided with a plurality of check receiving openings, of a hollow block slidably mounted upon the tray and provided with a check receiving opening to be alternately moved into registration with said check receiving openings, a vertically swinging lever arranged within the hollow block and pivoted at one of its ends thereto near and to one side of the coin receiving opening of the block, said lever being provided adjacent its pivoted end with a depending shoulder carrying a laterally extending finger normally extending into the check receiving opening of the block to support a check therein, said pivoted lever being further provided near its opposite end and at its lower longitudinal edge with an inclined cam face, and a pin attached to the tray and arranged between the depending shoulder and cam face and alternately engaging with them

upon the movement of the block in opposite directions, to positively swing the lever in opposite directions whereby the laterally extending finger is positively moved into and out of the check receiving opening of the block.

1,081,782. CHECK-CONTROLLED DEVICE. CHARLES H. SIMERSON, West Hoboken, N. J. Filed Mar. 24, 1913. Serial No. 756,387. (Cl. 194-29.)



1. Apparatus of the character described comprising a rotatable shaft, a pivoted lever disposed near the same and provided with check-holding means, means operated by the pivoted lever to control the rotation of the shaft, a pivoted weight, an approximately L-shaped lever having its vertical arm loosely connected with the pivoted lever to move with relation thereto and strike the check in the check holding means to eject it therefrom and its horizontal arm connected near its free end with the pivoted weight to be held thereby in its normal position, a lower pivoted lever having a loose connection with said horizontal arm, and means driven by the shaft to trip said lower lever.

2. Apparatus of the character described, comprising a rotatable shaft, a lever pivoted near the shaft and provided with check holding means, means operated by the pivoted lever to control the rotation of the shaft, a pivoted weight, a rod connected with the pivoted weight to be normally held thereby in one position and having loose connection with said pivoted lever for movement with relation thereto to eject a check from the check holding means, and means operated by the shaft to move the pivoted rod in one direction.

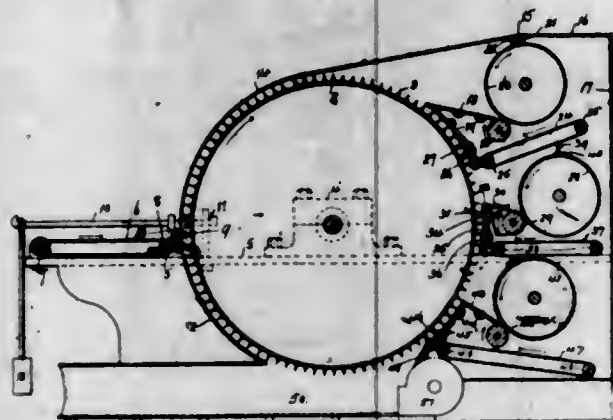
3. A check controlled device comprising a journaled shaft, a lever fulcrumed adjacent the shaft and having a pocket adapted to receive a check, means carried by the lever for holding the shaft against rotation in one direction when the pocket is in an elevated position, said means adapted to release the shaft when the pocket is in a lowered position, a rod pivotally mounted and engageable with the lever to move the pocket to check receiving and check releasing positions, means operated by the shaft to move the rod and means for varying the interval of movement of the rod with relation to the movement of the shaft.

4. A check controlled device comprising a journaled shaft, a lever fulcrumed adjacent the shaft having a pocket adapted to receive a check, means carried by the lever for holding the shaft against rotation in one direction when the pocket is in an elevated position, said means adapted to release the shaft when the pocket is in a lowered position, means operated by the shaft to move the pocket to check releasing position when the shaft rotates in one direction and means for moving the pocket to check releasing position when the shaft is turned in the opposite direction.

5. A check controlled device comprising a journaled shaft, a lever fulcrumed adjacent the shaft and having a pocket adapted to receive a check, means carried by the lever for holding the shaft against rotation in one direc-

tion when the pocket is in an elevated position, said means adapted to release the shaft when the pocket is in a lowered position, means operated by the shaft to move the pocket to check releasing position when the shaft is turned in one direction a predetermined number of rotations and means for immediately moving the pocket to check releasing position when the shaft is turned in an opposite direction.

1,081,783. RAG-TEARING MACHINE AND FIBER-OPENER AND THE LIKE. ARCHIE SNOWDEN, Bradford, England, assignor to Snowden Fibre Machinery Company Limited, London, England. Filed May 6, 1913. Serial No. 765,928. (Cl. 19-9.)



1. In a machine of the character described a swift, a plurality of sets of feed rollers located about the swift, a plurality of stripping devices for said swift located behind each set of said plurality of sets of feed rollers, a plurality of conveying means located in front of each set of rollers, automatic means for transferring the material to each of said plurality of conveying means from said stripping means.

2. In a machine of the character described a swift, a conveyor, feed rollers located between said conveyor and said swift, a stripping device, a second conveyor located to receive material being treated from said stripping device, a second set of feed rollers located between said swift and said second conveyor and means for throwing the material being treated out of the machine.

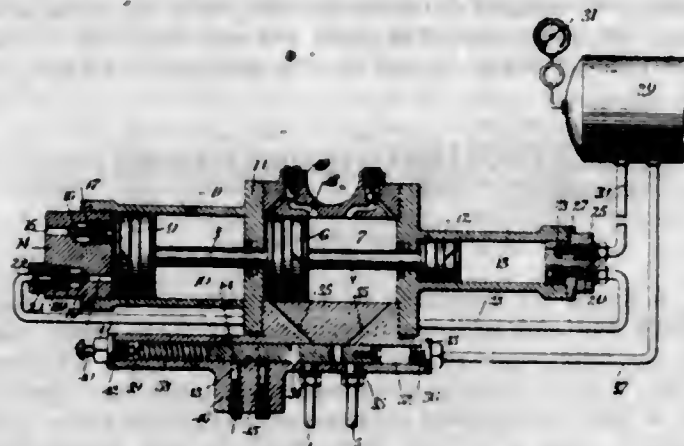
3. In a machine of the character described in which the material to be treated is fed to a swift by feed rollers and held thereby to be acted on by the swift, the combination of a swift, a plurality of sets of feed rollers, means for stripping the material off the swift after being fed to said swift by each set of said plurality of sets of feed rollers and means for returning the material for further treatment to each set of said plurality of sets of feed rollers after its passage from the preceding set of said plurality of sets of feed rollers.

4. In a machine of the character described, a swift, feed rollers, means for feeding material to be treated up to said feed rollers, a stripping device, a rotatable wind cage located in the path of the material being treated thrown off in the rotation of said swift and stripped from said swift by said stripping device, a second set of feed rollers for said swift, means for conveying material caught by said wind cage to said second set of feed rollers and means for throwing material out of the machine after treatment.

5. In a machine of the character described, a swift, a first set of feed rollers, a last set of feed rollers, intermediate sets of feed rollers all located in operative relation about the said swift, means for conveying the material to be treated to the first set of feed rollers, means for catching the material as it is thrown off the swift after passage past the first set of feed rollers, means for conveying this material to an intermediate set of feed rollers for further treatment by said swift, means for catching the material after its second treatment as it is thrown off the swift, means for conveying this material to a further set of feed rollers and means for throwing the material out of the machine.

[Claims 6 to 8 not printed in the Gazette.]

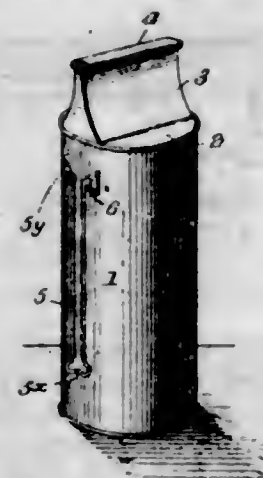
1,081,784. AUTOMATIC PUMP. GREGORY JOHN SPOHRER, Franklin, Pa., assignor to Wilson Motor Starter Company, Franklin, Pa. Filed May 17, 1911. Serial No. 627,652. (Cl. 230-24.)



1. The combination with a cylinder and a piston therein, of a control valve comprising a casing having a pair of longitudinally spaced inlets, a pair of similarly disposed outlets diametrically opposite to said inlets, and leading to the opposite ends of said cylinder from said casing, whereby motive fluid received from said inlets in alternation may be delivered to and act upon the opposite ends of said piston in alternation, a slide having a pair of spaced apertures extending therethrough, said slide being movable longitudinally in said casing, one extreme position of said slide placing said inlets in communication with said outlets, a spring housed within said casing and bearing on one end of said slide, and a compressed fluid inlet at the end of the casing opposite said spring.

2. In a device of the character set forth, the combination with a cylinder and a reciprocating piston therein, of a control valve for the cylinder comprising a casing having a pair of spaced inlets on one side, pipes leading to said inlets from independent sources, said casing having on its opposite side a pair of ports leading to opposite ends of the cylinder, and a slide movable in said casing and having a pair of passageways serving in one position of the slide to cause registry between said inlets and said passageways each to each whereby communication may be had from said pipes to the opposite ends of the cylinder, substantially as set forth.

1,081,785. TOOTH-POWDER CONTAINER. WILLARD GEORGE STEADMAN, Jr., Southington, Conn. Filed July 11, 1913. Serial No. 778,452. (Cl. 221-61.)



1. In a container for tooth powder, a body portion, a discharge tube secured to the top of said body portion and having an elongated discharge, a guard hinged to said body portion and arranged to be swung into operative position at one end of said discharge, said guard being provided with a socket arranged to receive the neck of the tooth brush, and spring hinges for holding said guard in its operative and in its inoperative position.

2. In a container for tooth powder, a body portion, a discharge tube secured to the top of said body portion

and having an elongated discharge, a guard hinged to said body portion near the top of the latter, spring hinges for holding said guard normally against the side of the container, said guard being arranged to be swung on its hinges so as to project above the discharge tube and being provided with a socket arranged to engage the neck of the tooth brush.

1,081,786. TOBACCO-PLUG EXTRACTOR. BENJAMIN TASEWELL SUBLETT, Danville, Va. Filed May 26, 1913. Serial No. 769,913. (Cl. 131-59.)



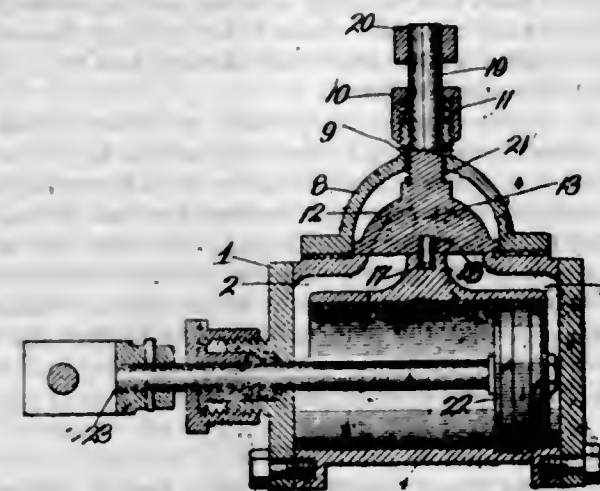
1. A tobacco plug extractor including two pivotally connected members having inner handle portions and provided with outer jaws adapted when closed to be inserted between two contiguous plugs of tobacco and having an opening into which a portion of the tobacco is forced when the jaws are slightly separated, whereby the instrument is engaged with the tobacco.

2. A tobacco plug extractor including two pivoted members having inner handle portions and provided with outer longitudinally tapered or wedge-shaped jaws having flat inner faces adapted to abut when the jaws are closed, said jaws being adapted to be inserted between two contiguous plugs of tobacco, and each provided with an opening into which portions of tobacco are forced when the jaws are slightly separated, whereby the jaws are engaged with two plugs and are adapted to remove the same when the instrument is pulled outwardly.

3. A tobacco plug extractor including two pivoted members having inner handle portions and provided with outer longitudinally tapered or wedge-shaped jaws adapted when closed to be inserted between two contiguous plugs of tobacco and provided with openings into which portions of tobacco are forced when the jaws are slightly separated, relatively heavy heads or knobs arranged at the inner ends of the members, and a spring engaging the said members and arranged to separate the jaws automatically to engage the same with the tobacco.

4. A tobacco plug extractor including two pivotally connected members provided with jaws adapted to be inserted between two contiguous plugs of tobacco and having smooth outer faces, said jaws being provided with means adapted when the jaws are opened to compress the tobacco to form a protuberance for interlocking the plugs with the tool.

1,081,787. STEAM-ENGINE. WILLIAM H. SULLIVAN, deceased, by Alice Sullivan Chase, administratrix, Kansas City, Mo., assignor of one-half to E. P. Chace, Shawnee, Kans. Filed July 10, 1912. Serial No. 708,565. (Cl. 136-7.)

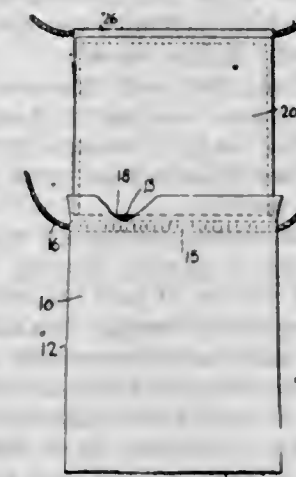


1. In a steam engine, a cylinder having a pair of steam passages leading to its opposite ends, said passages having ports through the side wall of the cylinder, said ports being located on a line extending lengthwise of the cylin-

der, a pivot pin seated in the cylinder wall between said ports, and a steam chest secured to the cylinder over said ports and having a hemispherical valve rotatable therein upon said pin, said cylinder having also a supply port and an exhaust port adjacent said first ports and at opposite sides of said pin, the outer margins of all said ports lying within a circle about said pin as a center, said valve being provided with a pair of chambers, one for connecting the supply port with either of said first pair of ports and the other for connecting the exhaust port with the other of said first pair of ports which at the time is not in communication with the supply port.

2. In a steam engine, a cylinder having a pair of steam passages leading to its opposite ends, said passages having ports through the side walls of the cylinder, said cylinder also having a supply port and an exhaust port adjacent said first ports, said exhaust port having branch passages extending obliquely to the longitudinal axis of the cylinder, and a steam chest inclosing said ports and having a valve provided with a pair of chambers one for connecting the supply port with either of said first pair of ports and the other for connecting the exhaust port with the other of said first pair of ports which at the time is not in communication with the supply port.

1,081,788. COMBINED WORK-BAG AND RETICULE. HELEN H. TERRY, Southampton, N. Y. Filed Mar. 5, 1913. Serial No. 752,077. (Cl. 150-34.)



1. A device of the class described comprising an outer bag having an opening and means for closing said opening, an inner, foldable member secured within said bag, adjacent to said opening, and adapted to be wholly withdrawn from said bag, said inner member being provided with means for carrying toilet or other articles, said inner member further having means whereby it can be secured to the person, to permit the device to be supported upon the body of a person, in the manner of an apron.

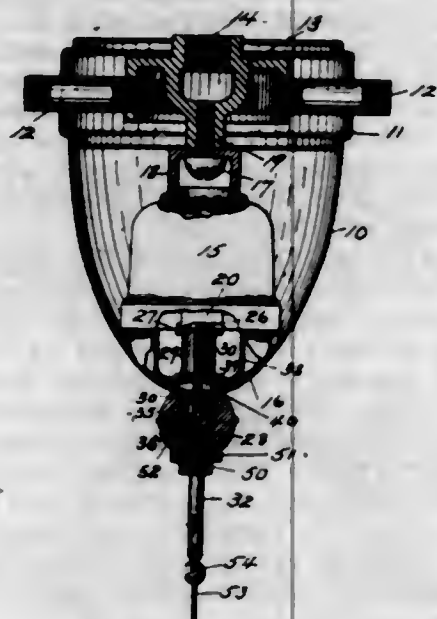
2. A device of the class described, comprising an outer bag having an opening, an inner member foldable upon itself and secured substantially along its fold line, within said bag, adjacent to said opening, and having means for carrying toilet or other articles.

3. A device of the class described, comprising an outer bag having an opening, an inner member foldable upon itself and secured substantially along its fold line, within said bag, adjacent to said opening, and having means for carrying toilet or other articles, said inner member being provided with fasteners to secure its edges together, and having means whereby, when withdrawn from said bag, it can be secured to the person of the user, to adapt the device to be carried in the manner of an apron.

1,081,789. ELECTRIC SWITCH. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 11, 1911. Serial No. 643,582. (Cl. 175-289.)

1. An electric pull switch having an insulating body, a switch mounted thereon and a ratchet operating mechanism for said switch comprising a ratchet actuating spiral, a longitudinally movable lug engaging said spiral, a

sleeve with guide slot for said lug and a bracket on the switch body holding said sleeve against longitudinal and angular displacement.



2. In an electric switch having a ratchet operating mechanism, a tubular actuating spiral, said spiral in blank form comprising a diagonally slotted sheet metal blank having inclined sides and, at one end, tongue and recess cooperating to form a joint when the blank is rolled to shape, substantially as described.

3. An electric canopy pull switch comprising an operating ratchet mechanism, having a fixed guide sleeve threaded at its outer end, a canopy fitting over said switch and a lock nut threaded on said guide sleeve to hold said canopy in position.

4. An electric pull switch having an operating ratchet mechanism comprising a spirally slotted sleeve carrying at one end a driving ratchet, a pull rod within said sleeve and having a lug projecting through the spiral slot of the latter, a stationary guide member outside said sleeve and in sliding engagement with said lug on the pull member to prevent rotation of the latter, together with a return spring within the sleeve adapted to be tensioned on the outward movement of the pull rod and serving to automatically return the latter to position after actuation of the switch.

5. An electric pull switch having an operating ratchet mechanism comprising a spirally slotted sleeve carrying at one end a driving ratchet, a pull rod within said sleeve and having a lug projecting through the spiral slot of the latter, a stationary sleeve incasing said ratchet sleeve and vertically slotted to receive and guide the lug on the pull rod to prevent rotation of the latter, together with a return spring surrounding said pull rod and bearing against the head of said stationary guide sleeve, substantially as described.

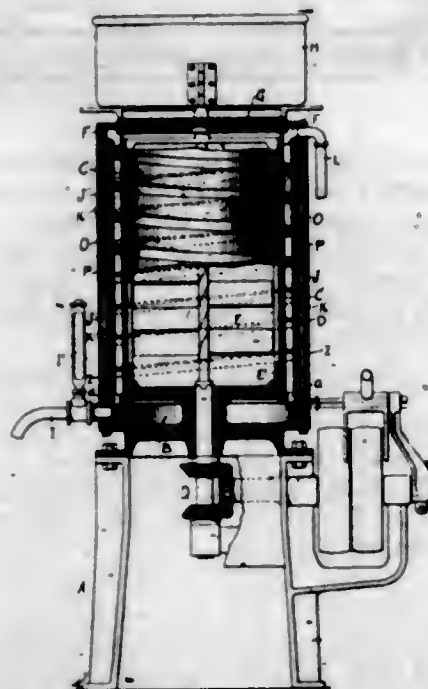
[Claims 6 to 8 not printed in the Gazette.]

1,081,790. ICE-CREAM FREEZER. EMERY THOMPSON, New Rochelle, N. Y., assignor to Emery Thompson Machine and Supply Co., New York, N. Y. Filed Dec. 5, 1912. Serial No. 735,087. (Cl. 62-4.)

1. An ice cream freezer, comprising a vessel for containing the material to be frozen, a chamber surrounding the said vessel, an angular member forming a spiral passage in said chamber, the said member having the free edge of its horizontal section at the outer face of the said vessel and its vertical member spaced slightly from the wall forming the chamber, a hollow head common to both the said vessel and the said chamber, the interior of the said head being in communication with the said spiral passage and the said hollow head having an outlet for the said vessel, and means for circulating a freezing medium through the said head and passage.

2. An ice cream freezer, comprising an inner vessel for containing the material to be frozen, an outer vessel forming a chamber surrounding the said inner vessel, an

angular member arranged in the space between the said vessels and forming a spiral passage, the said member having a horizontal section and a vertical section, the free edge of the horizontal section being at the exterior face of the inner vessel, and the vertical section extending adjacent the inner surface of the outer vessel, the convolutions of the member being spaced apart, hollow heads common to both the said vessel and the said chamber, the interiors of the said heads being in communication with the ends of the said spiral passage, a supply pipe connected with one of the said heads, and an outlet pipe leading from the other head.



3. In an ice cream freezer, an inner vessel for containing the material to be frozen, an outer vessel forming a chamber surrounding the said inner vessel, an angular member arranged spirally in said chamber, and having a horizontal portion, the free edge of which is at the exterior face of the inner vessel, and a vertical portion spaced from the inner surface of the outer vessel, the convolutions of the spiral being spaced apart, means for closing the space between the convolutions of the spiral at the said vertical portion, hollow closures common to both vessels and communicating with the ends of the spiral passage, a supply pipe for the freezing medium connected with one of said closures, and an outlet pipe leading from the other closure.

4. In an ice cream freezer a vessel for containing the material to be frozen, and having an inlet and an outlet for the material, a chamber surrounding the vessel, a spiral formed of angle iron, and arranged in the said chamber, the said spiral having its convolutions spaced apart, a hollow head for closing the said vessel and the said chamber, at one end thereof, the said head being connected with a source of freezing medium and communicating with the said chamber, means for closing the said vessel and chamber at the other end thereof, and an outlet pipe for the freezing medium.

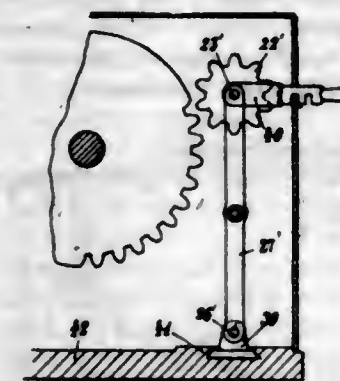
5. An ice cream freezer, comprising an inner cylinder, an outer cylinder arranged in spaced relation to the said inner cylinder, a hollow head common to both cylinders and connected with a source of freezing medium, the said head having ports opening into the space between the said cylinders, and a spiral formed of angle iron and having its convolutions spaced apart, the said spiral being arranged in the space between the said cylinders to form a spiral passage in the said space.

[Claims 6 to 8 not printed in the Gazette.]

1,081,791. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Aug. 18, 1913. Serial No. 785,369. (Cl. 235-79.)

In a calculating machine, the combination with a plurality of setting mechanisms comprising setting disks having a variable number of operative teeth, of mecha-

nism adapted to receive a value set in one of the setting mechanisms, and means to throw the said mechanism into



engagement with another setting mechanism for transmitting the received value thereto.

1,081,792. PROCESS OF MAKING BALLOONS. MELVIN VANIMAN, Atlantic City, N. J., assignor to International Aeronautical Construction Company, a Corporation of Maine. Filed Mar. 19, 1912. Serial No. 684,824. (Cl. 154-2.)



1. The process of building a balloon of a collapsible type which is injured if collapsed which consists in inflating a forming bag, building the balloon thereupon, deflating the forming bag and simultaneously inflating the balloon, and finally removing the forming bag, substantially as described.

2. The process of building and coating the inside of a balloon which consists in inflating a forming bag, building the balloon thereupon, deflating the forming bag and simultaneously inflating the balloon with air, and coating the inside of the balloon with a gas tight composition while the same is filled with air and the forming bag is collapsed, substantially as described.

3. A process of building a balloon, coating the inside and inflating it with gas which consists in inflating a forming bag, building the balloon thereupon, deflating the forming bag and simultaneously inflating the balloon with air, coating the inside of the balloon with a gas-tight composition, inflating the forming bag to expel the air from the balloon and finally filling the balloon with gas and simultaneously deflating the air bag, substantially as described.

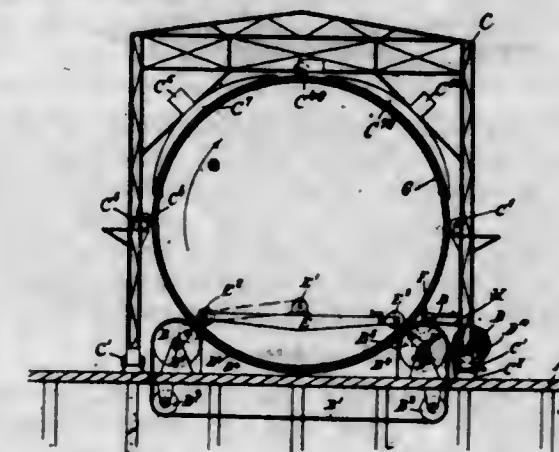
1,081,793. APPARATUS FOR BUILDING OR COVERING BALLOONS. MELVIN VANIMAN, Atlantic City, N. J., assignor to International Aeronautical Construction Company, a Corporation of Maine. Filed Mar. 19, 1912. Serial No. 684,825. (Cl. 154-1.)

1. An apparatus for building balloons, comprising a series of pairs of rollers, an aligned series of endless belts on the rollers rotatably supporting the inflated balloon structure, and curved blocks conforming in shape to the slack of the belts to furnish a floor for the workmen in the balloon, substantially as described.

2. An apparatus for building balloons, comprising a movable bed for supporting and rotating the inflated balloon structure, a smoothing and compressing carriage on the inside of the balloon, and a fabric-feed roll, whereby the new fabric as it is fed on the balloon is brought into intimate contact with the balloon fabric through the co-operation of the movable bed and compressing carriage, substantially as described.

3. An apparatus for building balloons, comprising a series of pairs of rollers, an aligned series of endless belts

on the rollers rotatably supporting the inflated balloon structure, and a smoothing and compressing carriage on the inside of the balloon carrying rolls to smooth and iron the layers of fabric between the rollers and the rolls, substantially as described.

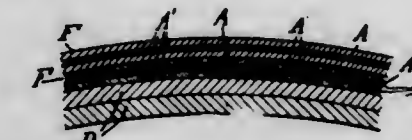


4. An apparatus for building balloons, comprising a series of pairs of rollers, an aligned series of endless belts on the rollers rotatably supporting the inflated balloon structure, a smoothing and compressing carriage on the inside of the balloon carrying rolls, and a motor geared to one of the rolls to drive the same at the requisite surface speed to cause the carriage to maintain its position, substantially as described.

5. An apparatus for building balloons, comprising a series of pairs of rollers, an aligned series of endless belts on the rollers rotatably supporting the inflated balloon structure, and a smoothing and compressing carriage on the inside of the balloon carrying a steering roll to give the carriage the requisite trend longitudinally considered, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,081,794. BALLOON. MELVIN VANIMAN, Atlantic City, N. J., assignor to International Aeronautical Construction Company, a Corporation of Maine. Filed Jan. 29, 1912. Serial No. 674,009. Renewed Nov. 7, 1913. Serial No. 799,816. (Cl. 244-3.)



1. A balloon having a layer of strips of fabric with strength giving strands running longitudinally of the fabric; and a second layer of strips of similar fabric having the strips, and consequently the strength giving strands, arranged at an angle to those of the first layer, substantially as described.

2. An elongated balloon having a layer of strips of fabric woven of wire and thread having its wire strength giving strands running longitudinally of the fabric; and a second layer of strips of similar fabric having the strips, and consequently the strength giving strands, arranged at an angle to those of the first layer, substantially as described.

3. An elongated balloon having a layer of strips of fabric containing parallel wires all running longitudinally and a second layer of strips of similar fabric having the strips and wires arranged at an angle to those of the first layer substantially as described.

4. An elongated balloon covered with a layer containing an axial set of juxtaposed strips of fabric having a warp of wire and a weft of thread, and a second layer containing a helical wrapping of juxtaposed strips or windings of a similar fabric, substantially as described.

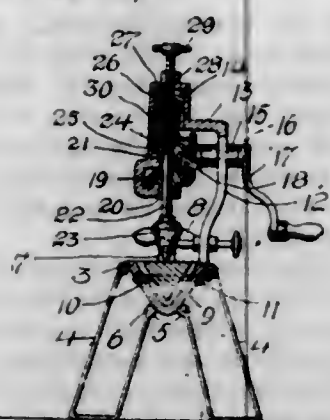
5. An elongated balloon covered with a set of parallel wires in the direction of the axis, and a second set of parallel wires circumferentially arranged having a proportionately greater weight per unit of balloon area, substantially as described.

1,081,795. DOOR-HOLDER. WILLIAM OSCAR VAN OBER, Osceola, Mo. Filed Dec. 31, 1912. Serial No. 739,492. (Cl. 16-78.)



A socket for door holders formed from a sheet of resilient material having a central thickened portion formed by crowding the material to provide an internally threaded sleeve, and having arms radiating from the sleeve and bent forwardly to provide a resilient wall that surrounds said sleeve, and a wall engaging support having a threaded end for engaging the threaded sleeve.

1,081,796. SHARPENING DEVICE. FRANK VARGA, Cleveland, Ohio. Filed Aug. 28, 1913. Serial No. 787,203. (Cl. 51-8.)



1. A sharpening device comprising a trough having arranged therein a supporting member spaced from the sides and ends thereof, an arm projecting upwardly from one side of said trough, an operating shaft having a sharpening tool at its lower end, driving means for said shaft, supporting means for said driving means carried by said arm, operating means for said driving means, said operating means supported by the arm, and resilient means for maintaining said sharpening tool against said supporting member.

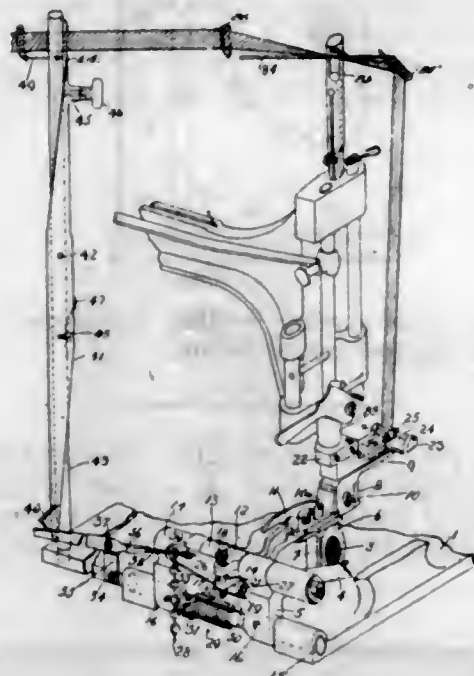
2. A sharpening device comprising a trough having arranged therein a supporting member spaced from the sides and ends thereof, an arm projecting upwardly from one side of said trough, an operating shaft having a sharpening tool at its lower end, driving means for said shaft, supporting means for said driving means carried by said arm, operating means for said driving means, said operating means supported by the arm, resilient means for maintaining said sharpening tool against said supporting member, and blade guide members carried by said arm.

1,081,797. SEWING AND TRIMMING MACHINE. JOHN P. WEIS, Brooklyn, N. Y., assignor, by mesne assignments, to Metropolitan Sewing Machine Company, a Corporation of New York. Filed Apr. 23, 1903. Serial No. 153,908. (Cl. 112-6.)

1. In combination, stitch-forming mechanism including a looper and its actuating mechanism; a trimmer-blade; a trimmer-blade holder carried by a part of the looper-actuating mechanism and freely movable relatively thereto; and means for actuating said blade-holder relatively to said looper-actuating part for depriving said trimmer-blade of its cutting function at will.

2. In a sewing machine, and in combination with the stitch-forming mechanism thereof; a trimmer-blade; a holder for said trimmer-blade mounted below the cloth-plate of the machine on a part of the stitch-forming mechanism and freely movable relatively thereto; and means for actuating said holder relatively to said part whereby the trimmer-blade may be deprived of its cutting function at will without affecting the stitch-forming mechanism.

3. In combination, a stitch-forming mechanism including a looper, a driving-shaft and means for actuating the looper; a trimming mechanism supported and actuated by the looper-actuating means; and means for depriving the trimming mechanism of its cutting function during the operation of the machine and without disturbing the action of the stitch-forming mechanism.

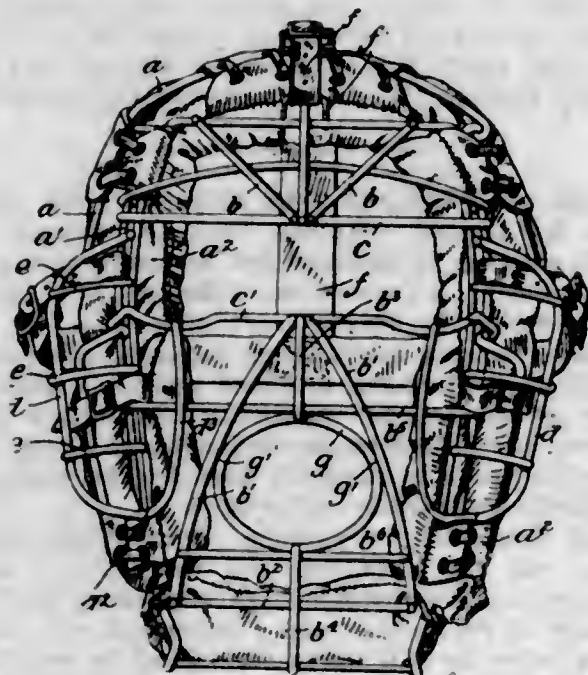


4. In combination, a driving-shaft; a stitch-forming mechanism actuated by said shaft and including a looper-mechanism, the looper mechanism comprising a looper-actuating eccentric and strap; a trimming mechanism supported by the strap; and means for throwing the trimming mechanism into and out of operation during the operation of the stitch-forming mechanism.

5. In combination, a driving-shaft; stitch-forming mechanism actuated by said shaft; a trimming mechanism supported and actuated by a portion of the stitch-forming mechanism; and means for operating directly upon the trimming mechanism, for throwing it into and out of operation, including a rock-shaft, and an actuating bar.

[Claims 6 to 23 not printed in the Gazette.]

1,081,798. BASE-BALL MASK. ROBERT L. WELCH, Chicago, Ill., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed July 1, 1913. Serial No. 776,760. (Cl. 2-193.)



1. In combination with a wire baseball mask including the main frame and the lower eye wire, ear protecting frames composed of bounding wires united with the main frame of the mask and bent to extend upwardly

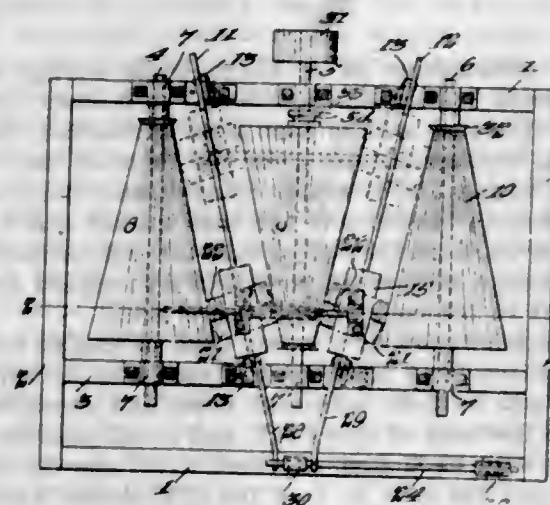
across the face of the mask and unite with the lower eye wire to reinforce the same, and reinforcing wires united with the main frame of the mask and the bounding wires of the ear protecting frames respectively, the last named frames being formed to flare rearwardly and outwardly from the main frame of the mask.

2. A baseball mask composed of a main frame and face protecting members united therewith to form a protective frame for the face of the wearer, the protective frame being provided with an opening substantially opposite and larger than the mouth of the wearer to permit expectoration without interference.

3. A baseball mask composed of a main frame and face protecting members united therewith to form a protective frame for the face of the wearer, one of the protecting members being disposed to protect the mouth of the wearer and formed to provide an opening substantially opposite and larger than the mouth of the wearer to permit expectoration without interference.

4. A baseball mask composed of a main frame and face protecting members united therewith to form a protective frame for the face of the wearer and including a lower eye wire and a chin wire, diverging wires secured adjacent their upper and lower ends to the lower eye wire and the chin wire respectively, a transverse wire extending between and united with the main frame of the mask and disposed along and above the outline of the wearer's mouth, a second wire extending between and united with the lower portions of the divergent wires and a wire bent to form an oval shaped opening disposed directly in front of but around the outline of the wearer's mouth to permit expectoration without interference, said last named wire being united at points substantially on the major axis of the oval outline with said vertical wires and with said transverse wires at points substantially on the minor axis of said oval outline.

1,081,799. FRICTION-GEARING. CHARLES N. WHIPPLE, Grangeville, Idaho. Filed May 23, 1912. Serial No. 699,117. (Cl. 74-26.)



1. A device of the character specified, comprising a frame, three parallel shafts journaled on the frame in spaced relation, a cone pulley on each shaft, the pulleys on the lateral shafts being arranged in the same manner and in the opposite manner to the pulley of the central shaft, a guide bar between each pair of adjacent pulleys, each bar being at equal distances from the adjacent surfaces of the pulleys and parallel therewith, a link pivoted at one end to each end of each bar and at the other end to the frame, a carriage slidable on each bar, a wheel journaled on each carriage and engaging the adjacent pair of pulleys, each wheel comprising two similar frusto-conical portions having their large ends together, means for constraining the carriages to move together on the guide bars, said means comprising inner and outer telescoping members, each member being hinged at its outer end to the adjacent carriage, and means for simultaneously swinging the guide bars in opposite directions, said means comprising standards at one end of the frame, a shaft journaled in the standards and having oppositely

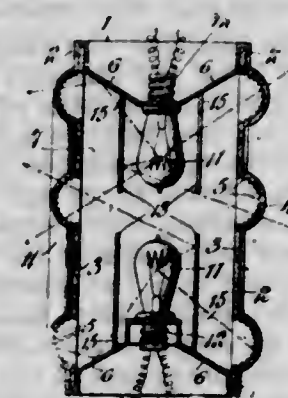
extending radial arms, a link connecting each arm to a guide bar, said shaft having a crank arm at its outer end.

2. A device of the character specified, comprising a frame, three parallel shafts journaled on the frame in spaced relation, a cone pulley on each shaft, the pulleys on the lateral shafts being arranged in the same manner and in the opposite manner to the pulley of the central shaft, a guide bar between each pair of adjacent pulleys, each bar being at equal distances from the adjacent surfaces of the pulleys and parallel therewith, a link pivoted at one end to each end of each bar and at the other end to the frame, a carriage slidable on each bar, a wheel journaled on each carriage and engaging the adjacent pair of pulleys, each wheel comprising two similar frusto-conical portions having their large ends together, means for constraining the carriages to move together on the guide bars, and means for simultaneously swinging the guide bars in opposite directions, said means comprising standards at one end of the frame, a shaft journaled in the standards and having oppositely extending radial arms, a link connecting each arm to a guide bar, said shaft having a crank arm at its outer end.

3. A device of the character specified, comprising a frame, three parallel shafts journaled on the frame in spaced relation, a cone pulley on each shaft, the pulleys on the lateral shafts being arranged in the same manner and in the opposite manner to the pulley of the central shaft, a guide bar between each pair of adjacent pulleys, each bar being at equal distances from the adjacent surfaces of the pulleys and parallel therewith, a link pivoted at one end to each end of each bar and at the other end to the frame, a carriage slidable on each bar, a wheel journaled on each carriage and engaging the adjacent pair of pulleys, each wheel comprising two similar frusto-conical portions having their large ends together, means for constraining the carriages to move together on the guide bars, and means for simultaneously swinging the guide bars in opposite directions, the central pulley being mounted for movement longitudinally of the other pulleys.

4. A device of the character specified, comprising a frame, three parallel shafts journaled on the frame in spaced relation, a cone pulley on each shaft, the pulleys on the lateral shafts being arranged in the same manner and in the opposite manner to the pulley of the central shaft, a guide bar between each pair of adjacent pulleys, each bar being at equal distances from the adjacent surfaces of the pulleys and parallel therewith, a link pivoted at one end to each end of each bar and at the other end to the frame, a carriage slidable on each bar, a wheel journaled on each carriage and engaging the adjacent pair of pulleys, each wheel comprising two similar frusto-conical portions having their large ends together, means for constraining the carriages to move together on the guide bars, and means for simultaneously swinging the guide bars in opposite directions.

1,081,800. ILLUMINATED SIGN. ROY R. WILEY and WALLACE K. WILEY, Buffalo, N. Y., and WILLIAM S. HOUGH, JR., St. Catharines, Ontario, Canada. Filed June 21, 1911. Serial No. 634,602. (Cl. 40-132.)



1. In an illuminated sign, a sign character of light transmitting material having the strokes of the character in relief and each with one face prismatic throughout and otherwise of constant thickness, light giving means back

of the visible face of the sign character, reflecting means in partial surrounding relation to the light giving means and constructed to direct light from the light giving means through the strokes of the sign character, and light transmitting and toning down means between the light giving means and the sign character and related to the reflector to permit reflected light to pass to the strokes of the sign character substantially without interference by any part of said light transmitting and toning down means, and said last-named means where presented toward the light giving means being reflecting to direct the light striking thereagainst to the first-named reflector to be again reflected thereby to and through the strokes of the sign character, said light transmitting and toning down means being constructed to transmit a portion of the light reaching it unmodified and directly to and through the strokes of the sign character.

2. In an illuminated sign, a sign character of light transmitting material having its strokes in relief with one face prismatic throughout, light giving means back of the sign character, a plurality of angularly related and substantially flat reflectors surrounding the light giving means and shaped to direct light therefrom to and through the strokes of the sign character, and perforated light-screening means between the light giving means and the sign character and of a length and breadth to cover the light giving means from substantially all angles of direct vision through the strokes of the sign character.

3. In an illuminated sign, a sign character of light transmitting material having the strokes in relief with the rear faces of the strokes prismatic, light giving means on the side of the sign character remote from that to be observed, reflectors for directing light from the light giving means to and through the strokes of the sign character, and perforated light screening means between the light giving means and the sign character and located substantially in non-interfering relation to light coming from the reflectors, said perforated light screening means being provided with supporting means attenuated where in the path of light rays directed to a stroke of the sign character, and said light screening means where presented toward the light giving means being reflecting.

4. In an illuminated sign, a sign character of transparent material with the strokes in relief and each with one face prismatic throughout, light reflecting means back of the sign character, light giving means also back of the sign character and related to the reflectors to cause light reaching the latter from the light giving means to be directed through the strokes of the sign character, said light giving means being located within the limits defined by the upper and lower margins of the sign character, and light reducing means pervious to direct rays of light from the light giving means to and through the strokes of the sign character without modification of such direct rays and intermediate of the light giving means and the strokes of the sign character in spaced relation to both and having a spread to interpose between the observer and the source of light from substantially all points of direct vision through said strokes of the sign character toward the light giving means and limited in the extent of spread to be in substantially non-interfering relation to light reaching the character strokes from the reflecting means.

5. In a sign, a sign character of transparent material having the strokes in relief and prismatic throughout on the rear faces, light giving means back of the sign character and located within the limits defined by the upper and lower margins of the sign character, reflecting means in partial surrounding relation to the sign character, and light transmitting and toning down means between the light giving means and the strokes of the sign character and interior to and spaced from the reflecting means, said light transmitting and toning down means being of a height and breadth with respect to the light giving means, the reflecting means and the strokes of the sign character to interpose in the direct line of vision toward the light giving means through the strokes of the sign character at substantially any angle thereto and to be in substantially non-interfering relation to the reflecting means.

[Claims 6 to 11 not printed in the Gazette.]

1,081,801. PROCESS OF TREATING PETROLEUM OR OTHER HYDROCARBON OILS. SALO WOHL, London, England, assignor to The Wohl Mineral Oil Products (1910) Limited, London, England. Filed Apr. 26, 1910. Serial No. 557,716. (Cl. 196—26.)

1. A process for the treatment of oils of the kinds described which consists in adding to the oil an alkaline mucilage prepared from seaweed and a vegetable saponaceous alkaline detergent.

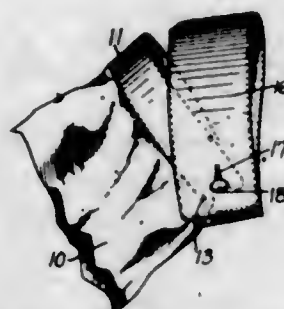
2. A process for the treatment of oils of the kinds described which consists in adding to the oil an alkaline solution prepared from seaweed and a vegetable saponaceous alkaline detergent and sulfuric acid.

3. A process for the treatment of oils of the kinds described which consists in adding seaweed to an alkaline lye and thereafter adding a saponaceous substance, the mixture thus formed being added to the oil.

4. A process for the treatment of oils of the kinds described which consists in adding to the oil a saponaceous substance prepared by treating a saponaceous plant, nut or bark with a solution of alkaline lye.

5. A process for the treatment of oils of the kinds described which consists in adding to the oils a solution comprising in admixture (a) a mucilage prepared by treating dried and powdered seaweed with a solution of soda-lye; (b) a solution prepared by treating a saponaceous plant, with a solution of soda-lye.

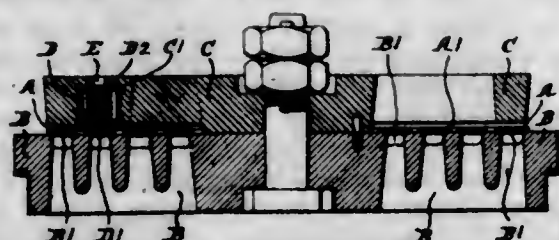
1,081,802. SHIRT-CUFF. GEORGE W. WOOD, Indianapolis, Ind. Filed Jan. 15, 1912. Serial No. 671,233. (Cl. 2—79.)



1. The combination of a sleeve band having at its ends opposite button holes whereby said ends may be united so that they will be flush with each other and corresponding V-shaped notches in the ends of said band, and a cuff adapted to fit snugly on said band and provided with opposite button-holes in the ends thereof and midway between the edges of the cuff so that the cuff button which extends through the button holes will also extend through the notches in the ends of said sleeve band.

2. The combination of a sleeve band having at its ends opposite button holes whereby said ends may be united so that they will be flush with each other and corresponding notches in the ends of said band, and a cuff adapted to fit snugly on said band and provided with opposite button holes through its ends so that the cuff button which extends through said button holes will also extend through the corresponding notches in the ends of the band near the outer edge of the band.

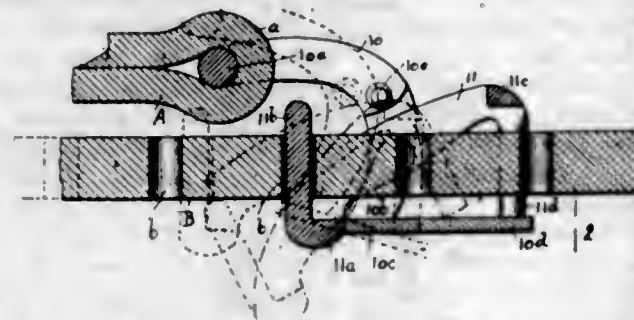
1,081,803. AUTOMATIC VALVE OF DISK FORM. STEPHEN EVANS ALLEY, Glasgow, Scotland, and ROBERT MCGREGOR, London, England. Filed May 13, 1913. Serial No. 767,431. (Cl. 103—66.)



In automatic valves, in combination, an annular disk valve controlling ports of usual form, a series of hollow plungers symmetrically disposed around the valve and

bearing upon it, a usual guard above the valve, having cavities therein in which the plungers operate, and a series of springs acting between the inner ends of the cavities and the plungers, and means for locating the valve consisting of cooperating recesses and projections in the valve and on the plungers.

1,081,804. TRACE AND TUG BUCKLE. NELS L. ANDERSON, Spearfish, S. D. Filed Feb. 24, 1913. Serial No. 750,323. (Cl. 24—172.)



1. A buckle, comprising a tug frame, and a separate trace frame slidable and rockable in the tug frame, each frame having side arms, the respective arms crossing, the tug frame having pins projecting from the inner faces of the side arms toward each other at points between the ends of the arms and overlying the arms of the trace frame, said arms of the tug frame being joined at their rear ends at one face of the buckle by a cross bar, and the opposite ends of the arms being joined by a second cross bar located forwardly of the said rear cross bar and lying in a plane at one side of the plane of the first cross bar to afford a passage for a trace through the buckle between the said cross bars, the front cross bar being adapted to receive a tug strap; the arms of the trace frame having a front cross bar at the end adjacent to the rear cross bar of the tug frame and in front of said rear cross bar, the said cross bar of the trace frame having a pin at substantially right angles thereto and projecting toward the opposite side of the buckle to engage a trace, the trace frame having a second cross bar at the opposite end rearward of the rear cross bar of the tug frame and at the opposite side of the buckle, and pins extending in the opposite direction to the first pin and spaced apart to accommodate the trace between them, the rear cross bar of the tug frame having a plate extending rearwardly therefrom, the inner side of said plate lying against the ends of the spaced pins on the trace frame.

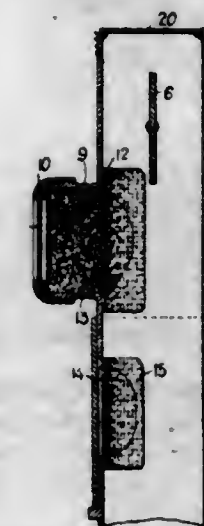
2. A buckle, comprising a tug frame, and a separate trace frame slidable and rockable in the tug frame, each frame comprising side arms and the arms of the respective frames crossing, the tug frame having a cross bar at one face of the buckle, at the front end of the latter, to receive a tug, and a cross bar at the opposite face of the buckle, at the rear ends of the arms, said cross bars being separated transversely to accommodate a trace, the side arms of the trace frame having a cross bar at one face of the buckle in front of and adjacent to the rear face of the tug frame, said cross bar of the trace frame having a pin projecting toward the opposite face of the buckle to engage a trace, and there being a pair of spaced pins on the trace frame at the end opposite the first mentioned pin and projecting in the opposite direction to the latter, the tug frame having portions to bear against the ends of the said spaced pins, and there being means on the tug frame overlying the arms of the trace frame and slidably engaging said arms, at points between the ends of the latter.

3. A buckle, comprising a tug frame having side arms, and a separate trace frame slidable and rockable in the tug frame and having side arms for crossing the arms of the tug frame, there being means on the arms of the tug frame, at the inside thereof, between the ends of said arms overlying the arms of the trace frame to engage the latter, the tug frame having a front cross bar for a tug at one face of the buckle, and a rear cross bar at the opposite face of the buckle, a cross bar on the trace

frame disposed in front of and adjacent to the rear cross bar of the tug frame and having a pin projecting therefrom toward the opposite face of the buckle to engage a trace, the tug frame having two pins located thereon at the rear end of the buckle, at the sides of the latter, the pins projecting in the opposite direction from that of the first pin, and the tug frame having at the rear of the rear cross bar a rear extension to bear against the ends of the second mentioned pins, and slidably engaging the latter.

4. A buckle, comprising a tug frame having side arms, and a separate trace frame slidable and rockable in the tug frame, and having side arms that cross the arms of the tug frame, the tug frame having a front cross bar for a tug at one face of the buckle and a rear cross bar at the opposite face of the buckle, the trace frame having a cross bar in front of and adjacent to the rear cross bar of the tug frame provided with a pin projecting toward the opposite face of the buckle to engage a trace, and there being spaced pins on the trace frame at the rear of the buckle, the pins projecting in the opposite direction from that of the first pin, and the tug frame having at the rear cross bar a rearward extension to bear against the ends of the second mentioned pins, and slidably engage the latter.

1,081,805. STARTER FOR INTERNAL-COMBUSTION ENGINES. SHERMAN GRANT BERRY, Tyndall, S. D. Filed Jan. 11, 1913. Serial No. 741,424. (Cl. 123—180.)



1. In a starting device, the combination of a conduit adapted to be connected with the firing chamber of an internal combustion engine, said conduit having a valve for controlling the admission of air thereto and provided with a lateral opening, and a holder for absorbent material secured to the conduit over the opening thereof, the absorbent material being adapted to receive hydrocarbon to be vaporized by air passing through the absorbent material into the conduit.

2. In a starting device, the combination of a conduit, means for connecting said valve-controlled conduit to the firing chamber of an internal combustion engine, said conduit having an open-ended boss projecting laterally therefrom, and means for inclosing a mass of absorbent material in said boss to receive hydrocarbon to be vaporized by air passing through said boss into the conduit and thence to the firing chamber.

3. In a starting device, the combination of a conduit, means for connecting said conduit to the firing chamber of an internal combustion engine, means for supplying warm air to said conduit, a valve for shutting off said warm air supply, another valve for supplying atmospheric air to said conduit when the warm air supply is not needed, and means carried by the conduit between the valves for receiving hydrocarbon to be vaporized by air passing through the same into the conduit.

4. In a starter, the combination of a conduit, means for supplying warm air to said conduit at one end, means for connecting the other end of said conduit to the firing chamber of an internal combustion engine, a valve in said

conduit for shutting off said warm air supply, a lateral hollow boss projecting from said conduit beyond said valve, means for inclosing a mass of absorbent material in said hollow boss to receive hydrocarbon to be vaporized by air passing into the conduit when the said valve is closed, said conduit having an opening beyond the boss, and a movable sleeve surrounding said conduit and having an opening therein to uncover or close the opening in the conduit, for the purpose set forth.

1,081,806. LINE-CASTING MACHINE. ROBERT O. BOARDMAN, Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 21, 1911. Serial No. 661,513. (Cl. 199-7.)



1. The combination with a matrix having a body portion and ears projecting therefrom, of an escapement comprising a flinger arranged to engage transversely with the said body portion between the ears and hold the matrix, and movable at right angles to the plane of the matrix to release it.

2. In a machine of the class described, an escapement consisting of a single flinger formed on one side with a lip to engage the matrices at their sides and transversely thereto and movable at right angles to the plane of the matrices to release them.

3. In a machine of the class described, matrices longitudinally recessed in their sides from their upper or rear end to a point near the forward end, in combination with a laterally movable escapement having a lip on one side to engage the forward end of the matrix, said lip adapted to enter the recess named after the matrix has advanced from its normal position, whereby the escapement is permitted to return to a position for engaging a second matrix while the first matrix is passing it.

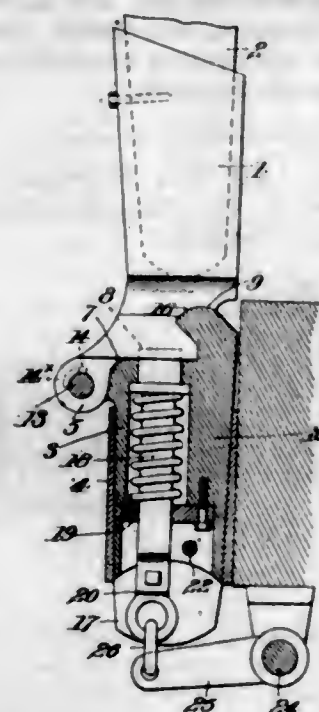
4. In a machine of the class described, escapements having lateral lips in combination with the matrices having the longitudinal channel or depression in their sides to receive the escapement lips and permit the passage of the matrices thereby.

5. In a machine of the class described, the combination of a magazine, the matrices therein, and the escapements movable in one path to control the discharge of the matrices and also movable in another path to restore protruding matrices to the magazine.

1,081,807. CAR-STAKE. REGINALD P. BORGA, South Norfolk, Va., assignor of two-thirds to Samuel W. Lyons, Jr., Norfolk, Va.; Dora A. Borga administratrix of said Reginald P. Borga, deceased. Filed Jan. 28, 1913. Serial No. 744,683. (Cl. 105-173.)

1. A car stake, having a socket-member adapted to be secured to the bottom end of a wooden or other stake and a latch-member adapted to be secured to the side of a car, said socket-member and latch-member provided with inter-engaging parts, and means to disconnect the two mem-

bers so that the socket-member may swing outwardly from above the latch-member with and clear of the load.



2. A car stake, comprising a socket-member, and a latch-member, these members having complementary knuckle-joint parts, connecting means for such knuckle-joint parts, and means to hold the members together when said connecting means is removed.

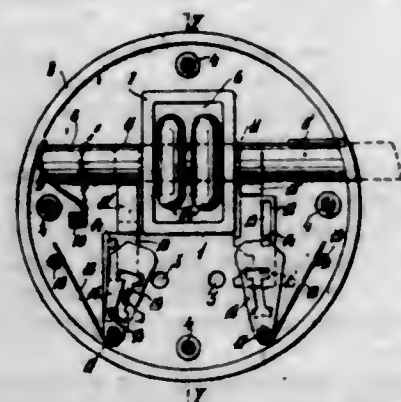
3. A car stake, comprising a socket-member adapted to receive a stake extension, and provided with a knuckle, a hole in its bottom and a rear notch, and a latch member adapted to be fitted to a car side and provided with complementary knuckle-parts, a spring latch-bolt to engage the hole in the socket-member, and a lug to engage the notch in the socket-member.

4. A car stake, comprising a socket-member having a hollow upper part and a bottom part made with an outwardly extending eye portion, a rear notch and a hole between these two, and a latch-member having eye parts, means to engage the several eye parts, a lug to engage the notch and an intermediate spring bolt to engage the hole, and means to release the bolt.

5. A separable stake, composed of a latch-member adapted to be fitted to a car and having a spring bolt, a fixed hook-like lug, and knuckle-joint parts, and a socket-member having a hole to receive the bolt, an undercut notch to engage the lug and a complementary knuckle-joint part.

[Claims 6 to 10 not printed in the Gazette.]

1,081,808. PADLOCK. RUDOLF A. BORSKY, Prague-Zizkov, Austria-Hungary. Filed June 19, 1913. Serial No. 774,714. (Cl. 70-17.)



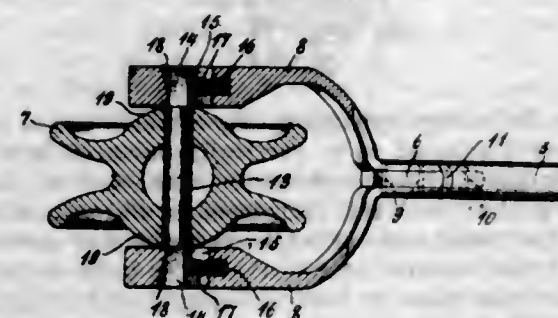
1. A padlock comprising a casing with an opening for the door-loops, a bolt slidably guided in said casing and adapted to pass through the door-loops, a spring projecting said bolt out of said casing, plurality of bars slidably guided in said casing in transverse direction to said bolt, adapted to engage in apertures of said bolt, and further adapted to be operated each by a separate key inserted

In succession into the padlock, a plurality of tumblers mounted in groups, each group consisting of a plurality of tumblers mounted above one of said bars and acted upon by springs so as to rock in the casing, each tumbler being provided with a slot recessed at both ends and with two curved portions divided by a recess, and pins attached one to each bar and engaging in said slots of said tumblers, substantially as shown and described.

2. A lock of the character described comprising a casing formed with an opening surrounded by a flange, the latter and the casing having aligned openings, a bolt slidably mounted in the aligned openings, said bolt having a slot, a spring for normally ejecting the bolt, a sliding bar mounted in the casing to engage the slot in the bolt, and lock same in the casing, means for guiding the sliding bar, a pin extending from the sliding bar, and a plurality of key operated tumblers mounted in the casing and adapted to lock the sliding bar in its retracted position.

3. In a lock of the character described, the combination of a casing formed with an opening surrounded by an inwardly extended flange, the flange and one wall of the casing having aligned openings, a sliding bolt operating in the aligned openings, said bolt having a slot, a spring for normally ejecting the bolt from the casing, sliding bars, one mounted on each side of the flange, the upper ends of the bars engaging in the slot in the bolt to lock the latter in the casing, each sliding bar having a key engaging notch and a slot, pins extending from the casing and engaging the slots in the sliding bars to guide same, pins projecting from the sliding bars, a set of key operated tumblers adjacent each sliding bar, each tumbler of each set having I-shaped slots to receive the pins on the bars, and springs for operating the tumblers in one direction.

1,081,809. TROLLEY. GEORGE O. BURWELL and CHARLES M. KURTZ, Bellevue, Pa. Filed Apr. 26, 1912. Serial No. 693,484. (Cl. 64-70.)



The combination of a support having branches provided with slots, said slots having their rear ends beveled, said bevels extending rearwardly from the inner sides of the branches to the outer sides thereof, an axle slidably mounted in the slots, a wheel mounted upon the axle, and springs located in the slots of the branches and bearing at their rear ends against the end portions of the axle beyond the inner edges of the beveled ends of the slots and the inner edges of the beveled ends of the slots lying between the springs.

1,081,810. HYDRAULIC PUMP, MOTOR, AND LIKE APPARATUS. ROBERT FALKLAND CAREY, London, England. Filed Feb. 2, 1912. Serial No. 674,928. (Cl. 103-44.)

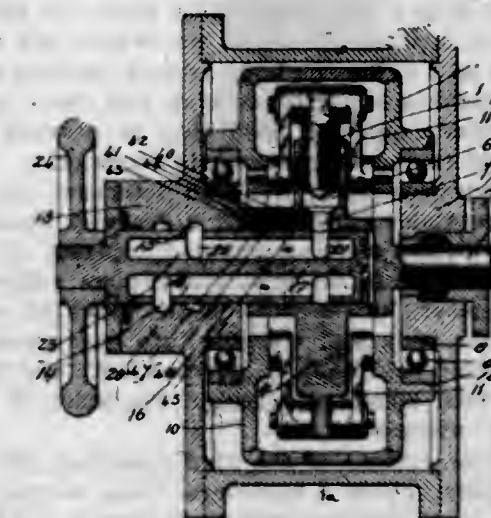
1. A multi-cylinder hydraulic pump, motor or like apparatus of the rotary, radial cylinder type, having an adjustable main-valve, and means for giving temporary relief in each cylinder to prevent undue rise of pressure in each cylinder at the point where it changes from one port to another.

2. A multi-cylinder hydraulic pump, motor or like apparatus of the rotary, radial cylinder type, having an adjustable main valve, and a relief device associated with each cylinder and automatically loaded by the working pressure of the liquid in the apparatus for the time being.

3. A multi-cylinder hydraulic pump, motor or like apparatus of the rotary, radial cylinder type, having an adjust-

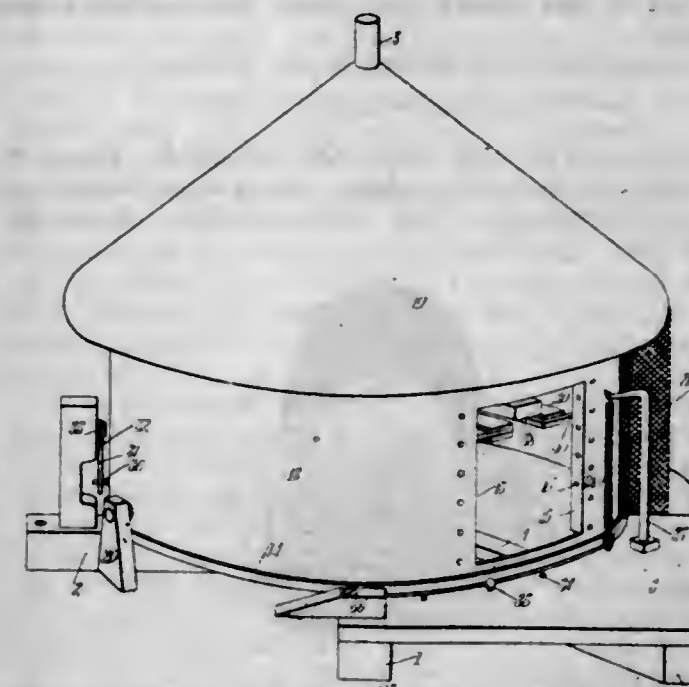
197 O. G.-47

able main valve and having each cylinder provided with means for giving temporary relief to prevent an undue rise of pressure therein at the point where it changes from one port to the other, such means consisting of an auxiliary piston valve working in a cylinder, one end or part of said auxiliary cylinder being connected to the working cylinder and the other end or part to the pressure port in the main valve, thus forming a by-pass containing an auxiliary piston valve automatically loaded by the pressure in the pressure port to the pressure which the machine is working against for the time being, and being capable of a movement or give should the pressure in the cylinder rise above the pressure in the pressure port, and means for returning said auxiliary piston valve to its normal position when the pressure in the cylinder falls to or below the pressure in the pressure port.



4. A multi-cylinder hydraulic pump, motor or like apparatus of the rotary, radial cylinder type, having an adjustable valve provided with means for releasing any excess of pressure in each cylinder at the point where it changes from one port to another, substantially as described.

1,081,811. BROODER. JOHN ADDISON CLARK, Bolckow, Mo. Filed Apr. 2, 1912. Serial No. 687,959. (Cl. 119-33.)



1. In an improvement of the kind described, the combination of a hollow body having a doorway through the wall thereof, a standard passing through the bottom of said body, resilient means for suspending said body from said standard to enable the same to rotate around said standard and be elevated or depressed with respect thereto, a projection mounted upon the outside of said body, a catch mounted upon a fixed support adjacent said body to be engaged by said projection, said catch permitting

said projection to pass when the body is moved in one direction, but holding the same against movement in the opposite direction, and a fixed member mounted adjacent said body in such position as to be spaced from the doorway to the interior of the same when the said projection engages said catch, whereby when the said body is weighted, depressing the projection below the catch, the springs will cause the body to rotate around the axis to move the doorway opposite the fixed member and close the same.

2. In apparatus of the kind described, the combination of a body having a doorway through the wall thereof, a standard upon which said body is mounted to rotate, resilient means connecting said body to said standard to support the same in suspended position, a fixed member mounted adjacent said body, means for holding said body in position to keep said doorway separated from said fixed member, said means being releasable when the said body is weighted to depress the same, whereupon the said resilient means will swing the body around the axis to move the doorway behind the fixed member and close the doorway, and means carried by said body to prevent the return movement thereof to reopen said doorway.

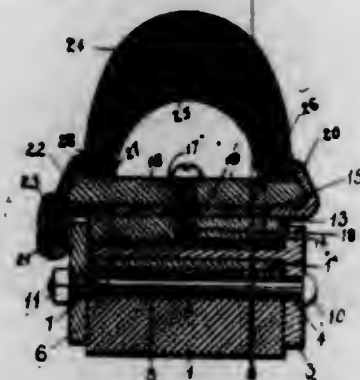
3. In an improvement of the kind described, the combination of a rotatable body having a doorway through the wall thereof, a fixed member mounted adjacent said body, a sheet of foraminous material forming an extension of said fixed member, and pivoted means mounted adjacent the base of the body and movable into engagement with said base to hold said body in position with the doorway behind said fixed member or behind the sheet of foraminous material aforesaid.

4. In an improvement of the kind described, the combination of a body having a transverse beam secured to the top thereof, a suspension trough receiving said beam, said beam having a plurality of apertures therethrough from one side to the other to receive pins on which said beam is supported to regulate the depth to which said beam rests in said trough, and means for suspending said trough.

5. In an improvement of the kind described, the combination of a body, a transverse beam secured to the top of the body, a suspension trough receiving said beam, a pair of bolts having screw-threaded connection with said beam and passing therethrough to engage the bottom of the trough to regulate the depth to which said beam is received in said trough, and means for suspending said trough.

[Claims 6 to 8 not printed in the Gazette.]

1,081,812. TIRE AND RIM FOR WHEELS. JAMES B. CRAWFORD, Sioux City, Iowa, assignor of one-half to Harry Houghton. Filed Nov. 18, 1912. Serial No. 732,155. (Cl. 152-7.)



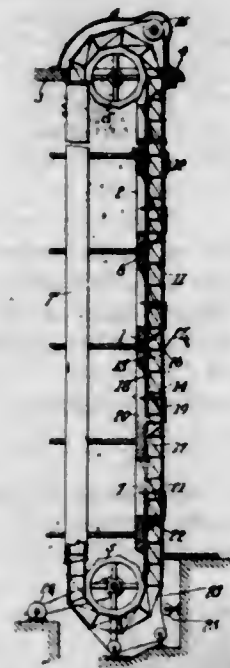
1. The combination with an arched tread, and an arched metallic spreader inside the tread, the edges of these elements having registering notches; of a rim having a channel within which the edges of said element are embraced, a block extending across the outer face of the rim through said notches, and means for detachably connecting said block with the rim.

2. The combination with an arched tread, and an arched metallic spreader inside the tread and having its edges bent outward within the edges of the tread, the edges of

these elements having registering notches; of a rim having a channel within which the edges of the tread are embraced, and a block extending across said rim and fitting in said notches.

3. The combination with an arched tread, and an arched metallic spreader inside the tread, the edges of these elements having registering notches, a rim having a channel within which the edges of the tread are embraced, a block extending across the outer face of the rim through such notches and with its extremities engaged by the flanges of the rim, a second and shorter block extending across the inner face of the rim, and means for connecting said blocks for clamping them against opposite faces of the rim.

1,081,813. FIRE-ESCAPE. HERMAN CROTEAU, Montreal, Quebec, Canada. Filed Oct. 30, 1912. Serial No. 728,679. (Cl. 227-10.)



1. In a fire escape apparatus, the combination of an endless conveyer adapted to be vertically mounted in a building, a plurality of arms pivotally connected to the conveyer to project outward therefrom, a sliding connection between the outer ends of adjacent arms and means connected to the conveyer and to the outer ends of the arms to support said arms to bear the weight of the occupants of the building.

2. In a fire escape, the combination of a conveyer comprising a plurality of links pivoted together, outwardly projecting arms mounted on the pivots of the links, a roller on each end of each pivot of the links and arms, means connecting the outer ends of the arms with the conveyer, and a slotted casing inclosing the conveyer and through the slot of which the arms project, the said rollers engaging the inner front face of the said casing.

3. In a fire escape, the combination of an endless conveyer, arms pivotally connected thereto and extending outward therefrom, a tube or sleeve pivotally connected to the outer end of each arm and extending therefrom in one direction, and a rod pivotally connected to the outer end of each arm to extend therefrom in another direction to be received into telescoping engagement by the tube or sleeve secured to the adjacent arm.

4. In a fire escape, the combination of an endless conveyer having arms or rungs projecting outward therefrom, means connected to the outer ends of the arms and to the conveyer to support the same, a tubular casing pivotally connected to the outer end of each arm to extend in one direction, a rod pivotally connected to the outer end of each arm to extend in the other direction and be received in telescoping engagement by the casing connected to an adjacent arm, said casings and said rods having projections extending outward from the end of the arm at their pivoted ends, and an endless belt having apertures receiving said projections, said projections being normally in diverging relation to prevent disengagement from the

belt, the belt serving to fold up the arms against the conveyer when the fire escape is not needed.

5. In a fire escape, the combination of an endless conveyer, arms pivoted to the conveyer and extending outwardly therefrom, means for connecting the outer ends of the arms with the conveyer, a tube or sleeve pivoted to the outer end of each arm, each tube having perforated and spaced ears to receive its pivot pin, and a rod pivoted to the outer end of each arm between the ears of the tube or sleeve to extend in an opposite direction to that of the said sleeve or tube, the said rods telescoping in the tubes.

[Claims 6 and 7 not printed in the Gazette.]

1,081,814. DRESS-FORM. CHARLES R. DE BEVOISE, Newark, N. J. Filed July 6, 1910. Serial No. 570,652. (Cl. 2-87.)



1. A dress form comprising a brassiere, and a ruffle associated therewith, and consisting of a body strip which is attached to the inner face of the brassiere, a plurality of overlapping strips superimposed on the body strip and disposed between the same and said inner face in unattached relation to the latter, all of the said strips having nested vertical plaits and a plurality of transversely arranged draw strings for drawing the nested plaits into puffs of desired extent, the body strip having an area which is substantially equal to the area taken up by said overlapping strips.

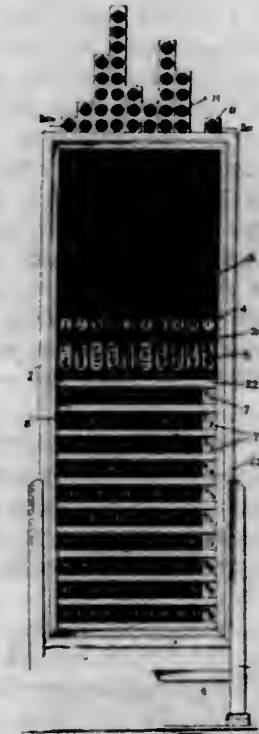
2. A dress form comprising a brassiere and a ruffle associated therewith and made in structurally independent sections, the sections being separately secured to the inner front face of the brassiere at each side thereof and each comprising a body strip which is attached to said inner face, a plurality of overlapping strips superimposed on the body strip and disposed between the same and said inner face in unattached relation to the latter, all of the said strips having nested vertical plaits and a plurality of transversely arranged draw strings for drawing the nested plaits into puffs of desired extent, the body strip having an area which is substantially equal to the area taken up by said overlapping strips.

3. A dress form comprising a brassiere and a ruffle associated therewith and consisting of a body strip which is attached to the inner face of the brassiere, a plurality of overlapping strips superimposed on the body strip and disposed between the same and said inner face in unattached relation to the latter, each of the overlapping strips being horizontally folded and being attached to the body strip adjacent its line of horizontal folding, all of said strips having nested vertical plaits and a plurality of draw strings for drawing the nested plaits into puffs of desired extent, the body strip having an area which is substantially equal to the area taken up by said overlapping strips.

4. A dress form comprising a brassiere and a pair of structurally independent ruffles associated with the inner face thereof, the ruffles being located at each side of the brassiere and each comprising a body strip attached at its upper edge to said inner face, a plurality of vertically plaited strips secured in overlapping relation upon the body strip for disposal adjacent the inner face of the brassiere but unattached to the latter, the said vertically plaited strips taking up an area which is substantially

equal to the area of said body strip, and draw strings for gathering the plaits into puffs, the brassiere having suitably located tapes to which the outer ends of the draw strings are tied, the mutually adjacent inner ends of the draw strings being tied to one another.

1,081,815. ARITHMETICAL ABACUS. JOSÉ MIGUEL DE LA ROSA, Arequipa, Peru. Filed July 10, 1912. Serial No. 708,689. (Cl. 35-2.)



1. In a device of the character described, a suitable supporting frame, a board formed with a plurality of series of apertures, said series of apertures being arranged parallel so as to present pairs of aligned apertures, a plurality of slides arranged in back of said board formed with designations adapted to be disclosed through the apertures in one of the series of apertures, manually operated means connected with said slides for actuating the slides, a traveling member with designations arranged thereon designed to be exposed through one of said series of apertures, and an independent covering slide for each of said series of apertures, said covering slides being adapted to be removed when it is desired to expose to view the designations designed to be brought opposite said apertures.

2. In a device of the character described, a board formed with a plurality of series of apertures, a slide for each aperture in one of said series of apertures, each of said slides having designations thereon, manually operated means for each of said slides for actuating the same, means for automatically locking said slides in any of their adjusted positions, and a traveling member formed with designations thereon designed to present said designations opposite the apertures in one of said series of apertures.

3. In a device of the character described, a board formed with a plurality of pairs of apertures therein, a plurality of vertical slides provided with spots arranged on the upper portion and numerals on the lower portion, means for moving said slides so as to cause said spots to be brought to view above said board simultaneously with the bringing to view of the numerals opposite some of said apertures, the numerals brought to view opposite the apertures corresponding to the number of spots disclosed above the board, and means for disclosing the names of the numerals in certain of said apertures.

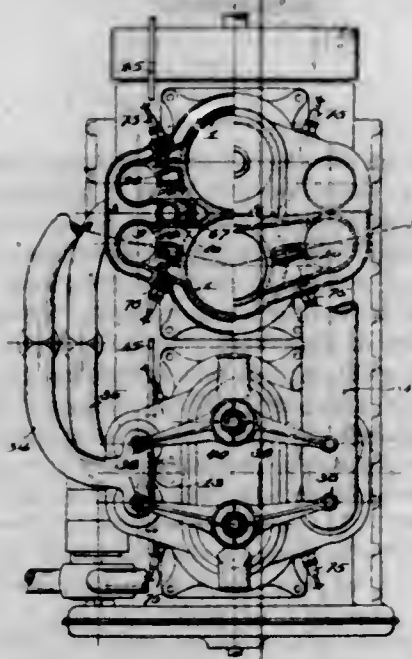
4. In a device of the character described, a board having an upper and a lower row of observation openings formed therein, a traveling belt arranged opposite said lower row of observation openings, said traveling belt being formed with various information thereon designed to be shifted to various openings in said lower row of observation openings, and a plurality of vertical slides, there being a slide for each of the observation openings in said upper row, each of said slides having formed

thereon a plurality of spots or configurations and a numeral for each spot or configuration, the configurations or spots being arranged near one end of said slides and the numerals spaced a considerable distance therefrom whereby said spots or configurations will appear opposite the space above said board simultaneously with the appearance of said numerals opposite the observation openings in said upper row.

5. In a device of the character described, a board formed with an upper and a lower part, said upper part having an aperture therein, a vertical slide formed with numerals, said slide being arranged to slide back and forth across said aperture, whereby said numerals may be disclosed to view, said lower part being formed with transverse slideways, said transverse slideways having fractional numbers arranged on the back thereof, and slides arranged in said slideways, said slides being shorter than the slideways and divided into sections, said sections corresponding to the fractional designations in said slideways, whereby when a numeral is disclosed in the aperture in the upper part of said board the movement of any section of any of said slides will indicate how said number may be divided into fractions and also the relative size of the fraction.

[Claim 6 not printed in the Gazette.]

1,081,816. INTERNAL-COMBUSTION ENGINE. CHARLES DE LUKACHEVICS, West Nutley, N. J. Filed Dec. 28, 1912. Serial No. 739,143. (Cl. 123—57.)



1. In an internal combustion engine, cylinders having aligning piston chambers, pistons having piston heads for said respective chambers, said chambers and said piston heads forming separate power groups, and a by-pass passage directly connecting different piston chambers of one group and a valve in said passage which is operable at will to shut off the intercommunication of the cylinders which said passage connects or to establish such intercommunication.

2. In an internal combustion engine, cylinders having aligning piston chambers, piston heads for said chambers, a piston rod common to the piston heads of each cylinder, said chambers and said piston heads forming separate power groups, and a by-pass passage directly connecting different piston chambers of one group and a valve in said passage which is operable at will to shut off the intercommunication of the cylinders which said passage connects or to establish such intercommunication.

3. In an internal combustion engine, cylinders having aligning piston chambers, piston heads for said chambers, a piston rod common to the piston heads of each cylinder, said chambers and said piston heads forming separate power groups, valved means of communication between different chambers of one group, and separate inlet and exhaust valves for the piston chambers of each cylinder.

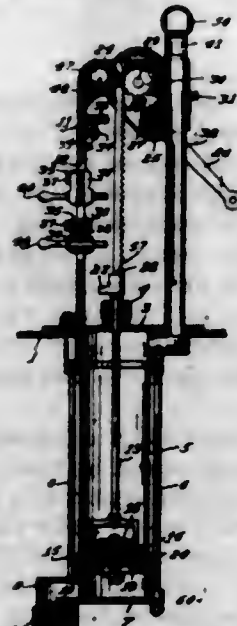
4. In an internal combustion engine, cylinders having

aligning piston chambers, piston heads for said chambers, a piston rod common to the piston heads of each cylinder, said chambers and said piston heads forming separate power groups, valved means of communication between different chambers of one group, separate inlet and exhaust valves for the piston chambers of each cylinder, and separate carbureters for each power group.

5. In an internal combustion engine, cylinders having aligning piston chambers, piston heads for said chambers, a piston rod common to the piston heads of each cylinder, said chambers and said piston heads forming separate power groups, a by-pass passage forming means of communication between different chambers of one group, a valve in said passage, separate inlet and exhaust valves for the piston chambers of each cylinder, separate carbureters for each group, means for operating the valve in the by-pass passage, a carbureter, a valve controlling the communication of the group of piston chambers which are connected by the by-pass passage and the carbureter for said group, and a means of connection between said valve operating means and said carbureter valve whereby when the valve in said passage is open the carbureter valve is closed and when the valve in said passage is closed the carbureter valve is open.

[Claims 6 to 13 not printed in the Gazette.]

1,081,817. MEASURING-PUMP. ELI ROGERS DEMING, San Francisco, Cal. Filed Dec. 30, 1912. Serial No. 739,183. (Cl. 73—154.)



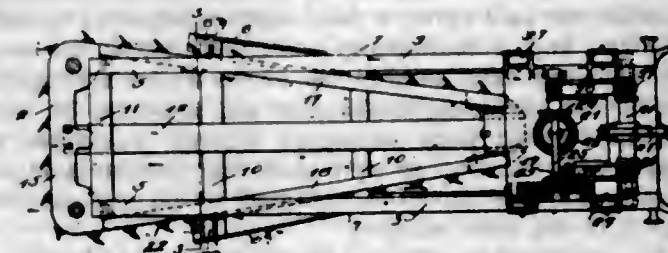
1. A measuring pump for liquids comprising a pump cylinder having a piston therein, a frame secured to the top of said pump cylinder, a discharge pipe passing through said frame and connected with the outlet of the pump cylinder, means carried by the frame to raise the piston, and an adjustable stop on the frame to determine the movement of said piston, said stop comprising a pair of blocks, a bolt securing the blocks together and to the frame and a stop pin passing through both of said blocks, substantially as described.

2. A measuring pump for liquids comprising a pump cylinder having a piston and valves therein, a slotted frame secured to the top of said pump cylinder, an outlet pipe passing through said frame and connected to the discharge of the pump cylinder, stops in the slot in said frame, said stops each comprising a pair of blocks, a bolt passing through each pair of blocks to secure them to the frame, and a stop pin passing through each pair of blocks, and means to hold said stop pins in the extended or retracted position, substantially as described.

1,081,818. MINING-MACHINE. HENRY B. DIERDORFF, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 25, 1909. Serial No. 524,416. (Cl. 125—14.)

1. In a mining machine, the combination of a movable cutter frame, and a stationary frame comprising two

rolled sections, each section being cut longitudinally throughout a part of its length, with the part on one side of said longitudinal cut bent outward at an angle to the main part, substantially as set forth.



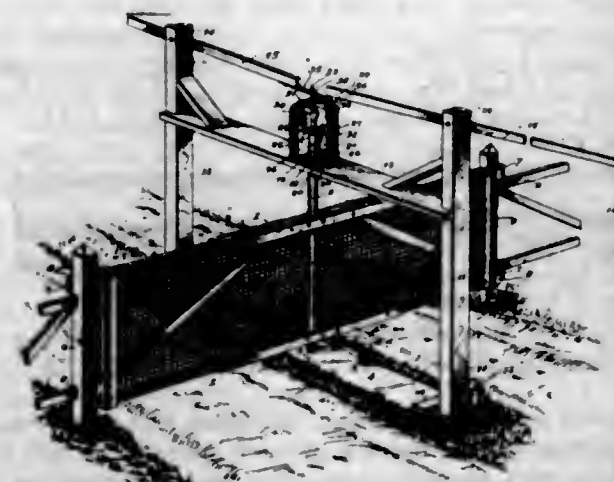
2. In a mining machine, the combination of a movable cutter frame and a stationary frame comprising two side sections of rolled metal, each section being split longitudinally throughout a part of its length, with one of the two adjacent parts thus formed bent at an angle to the other, substantially as set forth.

3. In a mining machine, the combination of a movable frame, and a stationary frame comprising two rolled metal sections, each having a bottom flange, a top flange, and a connecting web, the connecting web being cut away for a portion of its length, and the bottom flange adjacent said cut away portion being bent horizontally outward at an angle to the other parts of the section, and brackets connecting the separated top and bottom flanges of each section, substantially as set forth.

4. In a mining machine, the combination of a movable cutter frame, and a stationary frame comprising two rolled metal sections each having an upper flange, a lower flange, and a connecting web, the upper flange extending beyond the lower flange, a portion of the web being cut away between the two flanges and a part of the lower flange being bent outward at an angle to the main part of the section, substantially as set forth.

5. In a mining machine, the combination of a movable cutter frame, and a stationary frame comprising two rolled metal sections, each having an upper flange, a lower flange and a connecting web, a part of the web of each flange being cut away at one end to give clearance for the movable cutter frame, and brackets connecting the two flanges of the sections at points adjacent the openings in the webs, substantially as set forth.

1,081,819. GATE. NOAH EARLY, Lavina, Mont. Filed Mar. 25, 1913. Serial No. 756,818. (Cl. 39—17.)



1. The combination of a gate, means for mounting the same to permit the gate to have a limited vertical sliding movement and a horizontal pivotal or swinging movement, a latch located above the gate and arranged to lock the gate in its closed position, and operating mechanism connected with the gate and having means for tripping the latch.

2. The combination of a gate, means for mounting the same to permit the gate to have a limited vertical sliding movement and a horizontal pivotal or swinging movement, means connected with the gate for causing the same when lifted to swing horizontally, a latch

located above the gate and arranged to lock the same against vertical movement, and operating mechanism connected with the gate and adapted to lift the same and provided with means for tripping the latch.

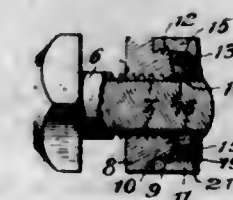
3. The combination of a gate, means for mounting the same to permit a horizontal pivotal or swinging movement and a vertical sliding movement, a latch located above the gate and arranged to lock the same against vertical movement, and operating mechanism including a member connected with the gate and having a limited movement independently of the same and provided with means for tripping the latch to release the gate.

4. The combination of a gate, means for mounting the same to permit a horizontal pivotal or swinging movement and a vertical sliding movement, a pivotally mounted latch located above the gate and arranged to lock the same against vertical movement and having spaced portions, and operating mechanism including a member connected with the gate and having a limited movement independently of the same and provided with means arranged to operate between the spaced portions of the latch for tripping the latter and for positively moving the latch to its engaging position.

5. The combination of a gate, means for mounting the same to permit a horizontal pivotal or swinging movement and a vertical sliding movement, a pivoted latch having a substantially hook-shaped engaging top portion for holding the gate against vertical movement and provided below the same with a projecting portion having upper and lower inclined edges, and operating mechanism including a vertically movable member connected with the gate and having a limited movement independently thereof and provided with means arranged to engage with the said inclined edges of the latch and adapted to trip the said latch.

[Claims 6 to 14 not printed in the Gazette.]

1,081,820. NUT-LOCK. ELIJAH J. FILLINGIM, Pace, Fla. Filed Feb. 15, 1913. Serial No. 748,560. (Cl. 151—2.)



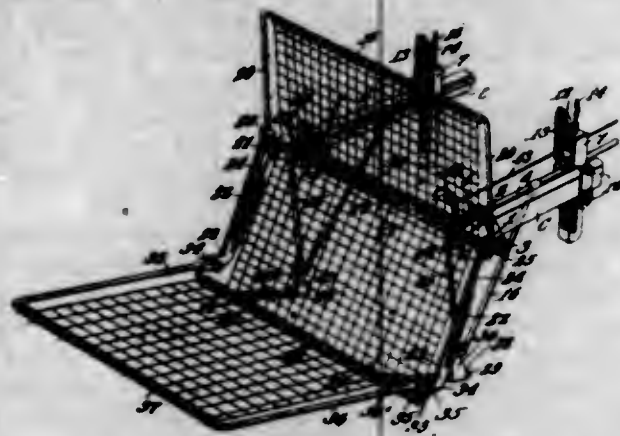
1. The combination of a bolt having a screw-threaded portion and a longitudinal groove in the screw-threaded portion, and a nut comprising an inner member having interior threads in engagement with the threads of the bolt and an exteriorly threaded portion, an outer member having a bore formed with threads arranged to engage the exterior threads of said inner member and with an annular shoulder, a washer seated between the end of said exteriorly threaded portion and said shoulder and formed with peripheral teeth disposed at an angle to the axial line of the bolt and with a lug projecting into said longitudinal groove, and a pawl member in engagement with teeth of said washer.

2. A nut having a screw-threaded bore and in the bore an annular shoulder, in the bore and seated against said shoulder a washer having peripheral teeth disposed at an angle to the axial line and means to prevent rotative movement with respect to a bolt, there being a hole extending from the head of the nut through the shoulder to said teeth, and on the nut a spring member having a downturned end disposed in said hole and in engagement with teeth of said washer.

1,081,821. FENDER. LEWIS R. FLINT, Lansing, Mich., assignor of one-half to Harvey E. Hill, Galesburg, Mich. Filed Sept. 18, 1912. Serial No. 721,059. (Cl. 105—252.)

1. A fender, having a stationary center wing, a lower wing swingingly connected to the center wing, an upper wing swingingly connected to the center wing, a spring for

exerting a normal tension to open the upper wing, the lower and upper wings being mounted to fold one upon the other, and manually releasable means for locking the wings folded and against the tension of the spring.



2. The combination with means for adjustably connecting a fender to the forward portion of a chassis, of a fender having a stationary center wing supported by the connecting means, a lower wing swingingly connected to the center wing, an upper wing also swingingly connected to the center wing, a spring for moving the upper wing to open position, the lower and upper wings being mounted to collapse one upon the other, and manually releasable means for locking the wings foldable and against the tension of the spring.

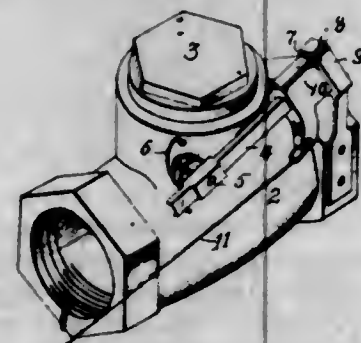
3. A fender, having a stationary center wing, and an upper and a lower wing swingingly connected to the center wing and capable of moving toward and folding upon the center wing, a spring for throwing the upper and lower to open position, means for locking and releasing the swinging wings, and a transversely adjustable supporting member connected to the center wing.

4. A fender, having a stationary center wing, and an upper and a lower wing swingingly connected to the center wing and capable of folding toward and upon the center wing, a spring for throwing the swinging wings to open position, means for locking and releasing the swinging wings, a transversely adjustable supporting member connected to the center wing adjacent to the hinge of the upper swinging wing, and a resilient support between said supporting means and the portion of the center wing adjacent to the lower swinging wing.

5. A collapsible fender, having a stationary and two hinged wings, and a support for the fender connected to the stationary wing, and comprising two approximately right angled arms, two curved rods connected to the lower portion of the stationary wing and passed through the lower terminals of the right angled arms, a spring upon each curved rod to hold the lower portion of the wing away from the terminals of the right angled arm, and connecting members for securing the other two terminals of the right angled arms to a chassis.

[Claims 6 to 11 not printed in the Gazette.]

1,081,822. AUTOMATIC CUT-OFF VALVE. WILLIAM B. FORD, Birmingham, Ala. Filed Jan. 29, 1913. Serial No. 744,962. (Cl. 137-92.)



1. In combination with a valve, closing means acting automatically to close the valve when released, a fixed support, and a fusible part carried by said closing means

and movable thereon into and out of engagement with said fixed support for resisting the movement of said closing means, to close the valve, and to release said closing means, respectively.

2. In combination with a valve, automatic operating mechanism for said valve, a fixed support adjacent to said mechanism, and a thermally releasable detent for normally engaging said support so as to resist automatic action of the operating mechanism and mounted on said closing mechanism with movement thereon transverse to the path of movement of said operating mechanism and by said transverse movement adapted to engage and disengage with the fixed support.

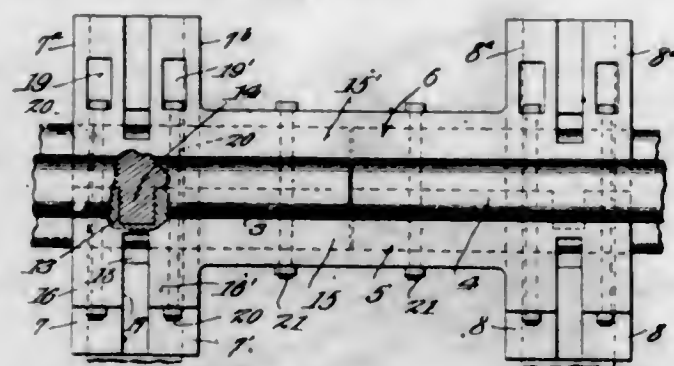
3. In combination with a valve, automatic operating mechanism for said valve comprising a swinging arm, a thermally releasable detent for said operating mechanism slidably mounted on said arm, a fixed support adjacent to said arm and into and out of engagement with which said detent is adapted to be moved by its sliding movement, to restrain or permit movement of said operating mechanism, respectively.

4. In combination with a valve, automatic operating mechanism for said valve comprising a swinging arm, a thermally releasable detent for said operating mechanism slidably mounted on said arm, a fixed support adjacent to said arm and into and out of engagement with which said detent is adapted to be moved by its sliding movement, to restrain or permit movement of said operating mechanism, respectively; said arm being in gravitating position when the valve is restrained and the detent is engaged with the fixed support.

5. In combination with a valve, automatic operating mechanism for said valve comprising a swinging arm, a thermally releasable detent for said operating mechanism slidably mounted on said arm, a fixed support adjacent to said arm and into and out of engagement with which said detent is adapted to be moved by its sliding movement, to restrain or permit movement of said operating mechanism, respectively; said arm being in gravitating position when the valve is restrained from movement and the detent is engaged with the fixed support; said detent comprising a weight which adds to the gravitating force of the arm.

[Claims 6 and 7 not printed in the Gazette.]

1,081,823. RAIL JOINT AND FASTENER. BENJAMIN F. GILBERT, Philadelphia, Pa. Filed Aug. 18, 1913. Serial No. 785,414. (Cl. 239-6.)



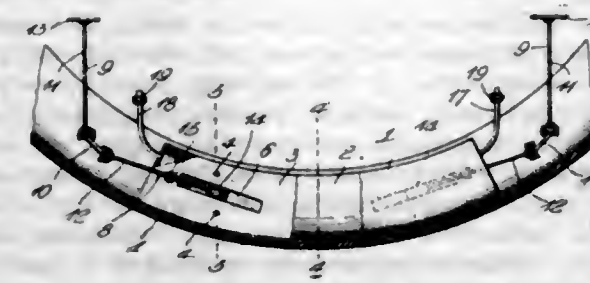
1. A rail joint and fastener, including two members, two tie receiving flanges carried by each member, a rail brace carried by each member, coöperable means carried by both members to hold the members against independent longitudinal movement, and coöperable means carried by the flanges of both members to hold the members against independent vertical movement.

2. The combination with two abutting rails and two ties, of a rail joint and fastener, including two members, each member being provided with two depending parallel flanges adjacent the ends thereof to receive the respective ties, fastening devices piercing the outer flanges of both members and the tie to hold the members against separation, a rail brace carried by each member the full length thereof and shaped to receive a portion of the base and web of the rail, and coöperating means carried by the

members for locking the members against independent longitudinal movement.

3. The combination with two abutting rails and two ties, of a rail joint and fastener, including two members, each member being provided with two depending parallel flanges adjacent the ends thereof to receive the respective ties, fastening devices piercing the outer flanges of both members and the tie to hold the members against separation, a rail brace carried by each member the full length thereof and shaped to receive a portion of the base and web of the rail, coöperating means carried by the members for locking the members against independent longitudinal movement, and fastening devices piercing the rail braces and the adjacent portion of the web of the rails.

1,081,824. VULCANIZING DEVICE. HENRY GIUSTI, Frankford, Pa. Filed Jan. 23, 1913. Serial No. 743,835. (Cl. 18-45.)



1. In a vulcanizing device, a shell or casing, a pair of hollow heat applying members engaged with said casing, said members having in their adjacent surfaces inclined recesses, nuts secured in the opposing faces of said members, threaded expanding rods engaged with said nuts, tapered expanding heads on the inner ends of said rods to engage the inclined recesses in the opposing sides of said heat applying members whereby when said rods are turned in the proper direction for projecting said heads, said members will be expanded in said shell or casing and the latter expanded in the tire or other object to be vulcanized.

2. In a vulcanizing device, an outer shell or casing open along its inner side, hollow fluid-tight expanding members arranged in said shell or casing, steam inlet and discharge tubes connected with the opposite ends of said members, coupling devices arranged on said tubes, nuts secured between the opposing sides of said heat applying members, threaded expanding rods having an operative engagement with said nuts, said rods being formed in a series of flexibly connected sections, operating devices on the outer sections of said rods, and tapered expanding heads having a swiveled connection with the inner ends of said rods whereby when the latter are turned in the proper direction, said heat applying members are expanded.

3. In a vulcanizing apparatus, an outer shell or casing open along its inner side, hollow fluid-tight counter-part heat applying members arranged in said shell or casing, said members having flat inner opposing sides provided with longitudinal tapered or inclined recesses, longitudinal grooves and nut receiving sockets, nuts having thereon laterally extending studs engaged with said sockets whereby said nuts are held in position between said heat applying members, flexible expanding rods having threaded inner sections operatively engaged with said nuts, and tapered expanding heads swiveled on the inner ends of said threaded inner sections of the rods and having an operative engagement with said tapered recesses whereby when the rods are turned in the proper direction for projecting and retracting said heads, said heat applying members will be expanded and permitted to contract, and studs arranged on the inner side of one of said heat applying members and adapted to be engaged with the adjacent side of the opposing member whereby said members are held in alignment.

1,081,825. FOUNTAIN-VASE. WALTER F. GLASSCO, Indianapolis, Ind. Filed May 8, 1913. Serial No. 766,414. (Cl. 137-107.)

1. The combination with a reservoir, of a holder carried thereby, a platform extending from the holder, a dome

mounted on the platform, spray pipes extending from the reservoir into the dome, a return pipe leading from the platform back to the reservoir, a valved piston reciprocating in the reservoir, means normally forcing the valved piston toward the top of the reservoir, and manually operated means for depressing the piston against the action of the forcing means.



2. The combination with a reservoir, of a top mounted thereon, a holder carried by the top, a dome chamber carried by the holder, a valved piston reciprocating within the reservoir, a spring normally forcing the valved piston toward the top of the reservoir, a supply pipe leading from the reservoir to the dome, a return pipe leading from the bottom of the dome chamber to the bottom of the reservoir beneath the piston, and means for depressing the piston against the action of the spring.

3. The combination with a reservoir having a valve in the bottom thereof, and a top threaded on the reservoir, a valved piston reciprocating within the reservoir, a spring normally forcing the piston toward the top of the reservoir, a holder mounted on the top of the reservoir, an operating rod connected with the spring extending through the piston and through the bottom of the holder, a platform carried horizontally by the holder, a plurality of supply pipes connected with the top of the reservoir and extending through the platform, spraying devices carried at the upper ends of said supply pipes and a return pipe leading from the bottom of the platform, said pipe being controlled by the valve in the bottom of the reservoir.

1,081,826. SPACING DEVICE FOR PUNCHING, RIVETING, SHEARING, AND OTHER MACHINES. JOHN K. GRAHAM and GEORGE A. RASMUSSEN, Roanoke, Va. Filed June 20, 1913. Serial No. 774,854. (Cl. 164-117.)



1. The combination in a spacing device, of a clutch; an operating shaft on which the clutch is mounted; a table geared to the said shaft; a base; a cylinder; a piston in the cylinder; a cross head connected to the cylinder; an adjustable lever; a movable abutment connected to the said lever for limiting the movement of the cross head in one direction; and a fixed abutment for limiting the movement in the opposite direction.

2. The combination of a shaft geared to the mechanism to be actuated; a clutch on the shaft; a cylinder; a piston in the cylinder; a rod attached to the piston, said rod being connected to one element of the clutch, the other element of the clutch being mounted on the shaft; a fixed abutment to limit the movement of the piston in one direction; an adjustable abutment; and means for locking said abutment, the adjustable abutment limiting the movement of the piston in the opposite direction.

3. The combination of a base; a cylinder thereon; two slideways on the base; a cross-head mounted in one slide

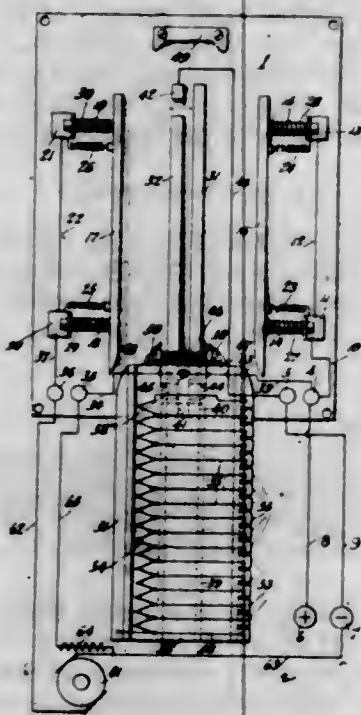
way; an adjustable abutment mounted in the other slide-way; a piston in the cylinder; a rod connecting the piston with the cross head, said rod being arranged to abut against the adjustable abutment; a fixed abutment on the base with which the cross head comes in contact when moving in one direction; a shaft connected to the mechanism to be operated; a clutch on the shaft, one element of the clutch being secured to the shaft; and means for connecting the other element to the cross head.

4. The combination of a base; a cylinder thereon; a piston in the cylinder; two slideways on the base; a cross head mounted in one slideway; an adjustable abutment mounted in the other slideway; a fixed abutment in the path of the cross head; a rod connected to the piston in the cylinder and to the cross head and having a bumper arranged to come in contact with the adjustable abutment; a pivoted lever; means for locking the lever in the position to which it is adjusted; a rod connecting the lever with the adjustable abutment; a shaft connected to the element to be adjusted; a clutch on the shaft, one part of the clutch being attached thereto; and means connecting the other part of the clutch to the cross head so that the fixed abutment will limit the movement of the cross head in one direction, the adjustable abutment limiting the movement in the opposite direction.

5. The combination in a spacing device, of a base; a fixed abutment; an adjustable abutment; means for adjusting said latter abutment; a cylinder secured to the base; a piston in the cylinder; a cross head arranged to come in contact with the fixed abutment; a shaft; a clutch on the shaft connected to the cross head; a second cylinder; a piston therein, also connected to the cross head; and a by-pass in the said cylinder.

[Claims 6 to 11 not printed in the Gazette.]

1,081,827. STARTING DEVICE FOR ELECTRIC MOTORS OR THE LIKE. WILLIAM GRIEBE, Brooklyn, N. Y. Filed Feb. 12, 1913. Serial No. 747,953. (Cl. 172-179.)



1. In a device of the character described, the combination of two spaced positive and negative contact members of an electric circuit, with a graded resistance movably mounted to bridge the gap between said contact members and adapted to be removed as an entirety from its operative relation to said contact members.

2. In a device of the character described, the combination of two spaced positive and negative contact members, with a resistance member in the form of a sliding plunger provided with graded resistances adapted to bridge the gap between said contact members.

3. A starting device for electric motors comprising spaced positive and negative contacts, a slide slidably

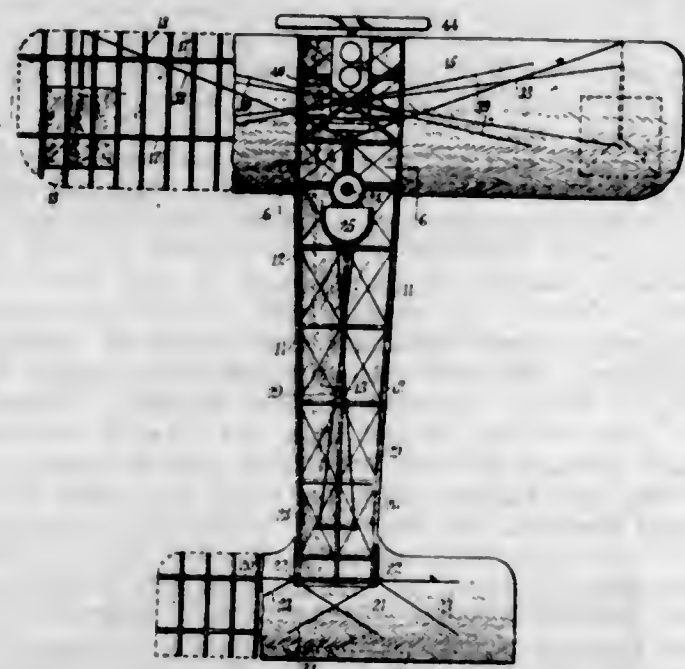
mounted with respect to said spaced contacts, graded resistances mounted on said slide, and means for successively bridging the spaced contacts with said resistances comprising a contact on said slide in continuous electrical connection with all of said resistances, adapted to contact with one of said spaced contacts, and a series of contacts on said slide respectively connected to said resistances and adapted to contact with the other spaced contact.

4. The combination with an electric motor, of a starting device therefor comprising spaced contacts electrically connected to said motor, a slide slidably mounted with respect to said spaced contacts, graded resistances mounted on said slide, and means for successively bridging the spaced contacts with said resistances, said means comprising a contact strip extending along one edge of the slide in electrical connection with all of said resistances, and a series of contacts respectively connected to said resistances, said spaced contacts being resiliently mounted.

5. The combination with an electric motor, of a starting device therefor comprising spaced contacts electrically connected to said motor, a slide slidably mounted with respect to said spaced contacts, graded resistances mounted on said slide, and means successively bridging the spaced contacts with said resistances, said means comprising a contact strip extending along one edge of the slide in electrical connection with all of said resistances, and a series of contacts respectively connected to said resistances, said spaced contacts being resiliently mounted.

[Claims 6 to 17 not printed in the Gazette.]

1,081,828. AEROPLANE. JOHN G. HANNA, Galveston, Tex. Filed Nov. 15, 1910. Serial No. 592,440. (Cl. 244-12.)



1. In an aeroplane, the combination of a covered fuselage or body member consisting of three main longitudinal members forming a triangle at their forward ends and having their rear ends in a horizontal line, a horizontal guiding plane mounted to swing on the rear line of meeting of the said longitudinal members and supporting planes at the forward end of the fuselage or body member.

2. In an aeroplane, the combination of a covered fuselage or body member consisting of three main longitudinal members forming a triangle at their forward ends with the apex downward, the rear end of the lower member being bent upwardly between and in the same horizontal line with the rear ends of the upper members, a horizontal guiding plane mounted to swing on the rear line of meeting of said longitudinal members, and supporting planes at the forward end of the fuselage or body member.

3. In an aeroplane, the combination of a fuselage or body member, supporting planes at the forward portion of said fuselage or body member, flexible inelastic mem-

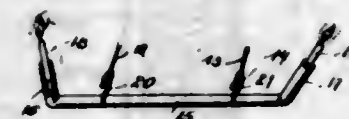
bers secured at their forward edges to the lower side surfaces of the said supporting planes and adapted to normally assume positions flat-wise against the planes, and connections for independently moving the said flexible inelastic members to positions substantially perpendicular with respect to the supporting planes.

4. In an aeroplane, the combination of a covered fuselage or body member consisting of three main longitudinal members forming a triangle at their forward ends and having their rear ends in a horizontal line, a horizontal guiding plane mounted to swing on the rear line of meeting of the said longitudinal members, supporting planes at the forward end of the fuselage or body member and wind brakes movably attached to the under side of the said supporting planes near their outer ends.

5. In an aeroplane, the combination of a covered fuselage or body member consisting of three main longitudinal members forming a triangle at their forward ends with the apex downward, the rear end of the lower member being bent upwardly between and in the same horizontal line with the rear ends of the upper members, a horizontal guiding plane mounted to swing on the rear line of meeting of said longitudinal members, supporting planes at the forward end of the fuselage and wind brakes consisting of flexible members movably attached to the under side of the said supporting planes adjacent to their outer ends.

[Claims 6 to 9 not printed in the Gazette.]

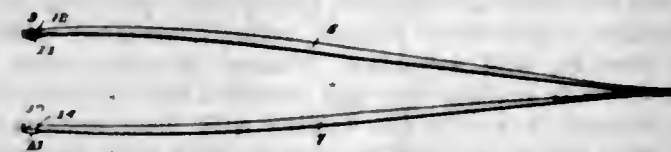
1,081,829. SIGHTING-TARGET. FRANK HIGGINS, Mulberry, Kans. Filed June 17, 1913. Serial No. 774,269. (Cl. 33-74.)



1. A sight target of the class described comprising a bar provided with means for connection to a plurality of plumb lines whereby same may be supported in suspension, said bar having means for supporting a light at each end of the bar in the plane of the plumb lines when the bar is supported thereby.

2. A sight target of the class described comprising a tubular bar having its ends bent laterally in the same direction, means for connecting said bar to a plurality of plumb lines to support the laterally bent ends in a vertical plane, and a light element engaged in the bore of the bar at each end.

1,081,830. WATCHMAKER'S TWEEZERS. HERBERT E. HOLLOWAY, Trenton, N. J. Filed May 17, 1913. Serial No. 768,258. (Cl. 81-5.)



1. Watchmakers' tweezers having their clamping ends bifurcated, each of said ends having one branch of the bifurcation flat and the other curved, substantially as and for the purpose set forth.

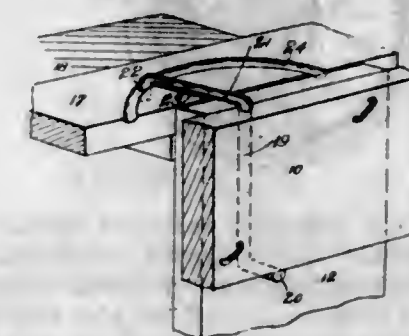
2. Watchmakers' tweezers having their clamping ends bifurcated, each of said ends having one branch of the bifurcation flat and the other branch curved, the curved branches of the two ends coacting with each other, substantially as and for the purpose set forth.

3. Watchmakers' tweezers having their clamping ends bifurcated, said bifurcations of each end having one of the facing branches of the same curved so as to fit snugly one into the other, substantially as and for the purpose set forth.

1,081,831. CRATE. ANTON HOVORKA, Chicago, Ill. Filed Jan. 20, 1913. Serial No. 743,113. (Cl. 217-48.)

1. A crate having side walls composed of top and bottom slats and vertical slats connecting the same, said

vertical slats lapping the top slats on one side, and the lapped portions of said top slats having grooves, stems rotatably mounted in the grooves and having oppositely extending hooks at their ends, and a removable top for the crate, said top fitting between the side walls and having seats to receive the hooks on one end of the aforesaid stems, the hooks on the other end of the stems engaging beneath the aforesaid top slats of the side walls when the first-mentioned hooks engage their seats.



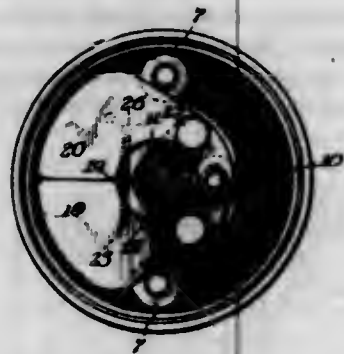
2. A crate having side walls composed of top and bottom slats and vertical slats connecting the same, said vertical slats lapping the top slats on one side, and the lapped portions of said top slats having grooves, stems rotatably mounted in the grooves and having oppositely extending hooks at their ends, and a removable top for the crate, said top fitting between the side walls and being engageable by the hooks on one end of the aforesaid stems, the hooks on the other ends of the stems engaging beneath the aforesaid top slats of the side walls.

3. A crate having side walls composed of top and bottom slats and vertical slats connecting the same, said vertical slats lapping the top slats on one side, and the lapped portions of said top slats having grooves, stems rotatably mounted in the grooves and having oppositely extending hooks at their ends, the hooks at one end of the stems having intumed extremities, and a removable top for the crate, said top fitting between the side walls and having grooves to receive the hooks having the intumed extremities, said grooves having deepened portions to receive said extremities, the hooks on the other end of the stems engaging beneath the aforesaid top slats of the side walls when the first mentioned hooks engage the top.

4. A crate having side walls composed of top and bottom slats and vertical slats connecting the same, said vertical slats lapping the top slats on one side, and the lapped portions of said top slats having grooves, stems mounted in the grooves and having oppositely extending hooks at their ends, the hooks at one end of the stems having intumed extremities, and a removable top for the crate, said top fitting between the side walls and having grooves to receive the hooks having the intumed extremities, said grooves having deepened portions to receive said extremities, the hooks on the other end of the stems engaging beneath the aforesaid top slats of the side walls when the first mentioned hooks engage the top, said stems being rotatable to disengage the hooks, the hooks having the intumed extremities being adjustable to lie alongside one edge of the vertical slats of the side walls when disengaged from the top.

5. A crate having side walls composed of top and bottom slats and vertical slats connecting the same, said vertical slats lapping the top slats on one side, and the lapped portions of said top slats having grooves, stems mounted in the grooves and having oppositely extending hooks at their ends, the hooks at one end of the stems having intumed extremities, and a removable top for the crate, said top fitting between the side walls and being engageable by the hooks having the intumed extremities, the hooks on the other end of the stems engaging beneath the aforesaid top slats of the side walls when the first mentioned hooks engage the top, said stems being rotatable to disengage the hooks, the hooks having the intumed extremities being adjustable to lie alongside one edge of the vertical slats of the side walls when disengaged from the top.

1,081,832. SPEED-CONTROLLING APPARATUS. JOHN T. HUMZ, Chicago Heights, Ill., assignor to Chicago Pneumatic Tool Co., Chicago, Ill. Filed Dec. 14, 1911. Serial No. 665,753. (Cl. 123-118.)



1. A device of the character described having a circuit controlling element, a second circuit controlling element adapted for periodic engagement with said first aforesaid circuit controlling element, a shaft, an arm fixedly secured to said shaft, and a governor pivoted on said arm and carrying said second circuit controlling element having means to move said second circuit controlling element radially in response to the movement of said governor.

2. A device of the character described having a circuit controlling element, a second circuit controlling element adapted for periodic engagement with said first aforesaid circuit controlling element, a shaft, an arm fixedly secured to said shaft, and a governor pivoted on said arm and carrying said second circuit controlling element having means to move said second circuit controlling element radially in response to the movement of said governor.

3. A device of the character described comprising a shaft, a stationary framework associated therewith, a circuit controlling element mounted upon said framework, an arm carried by said shaft, a centrifugal governor pivotally mounted on said arm, and a second circuit controlling element carried by said governor movable radially with respect to said shaft in response to the movements of said governor.

4. A device of the character described having a shaft, a stationary framework, a circuit controlling element carried by said framework, a pair of radial arms carried by said shaft, a pair of symmetrically arranged centrifugal governor elements pivotally mounted respectively upon said arms, and a second circuit controlling element carried by one of said governor elements.

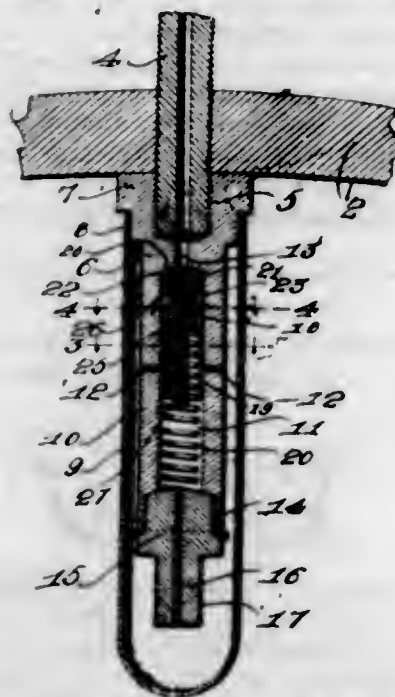
5. A device of the character described having a shaft, a stationary framework, a circuit controlling element carried by said framework, a pair of radial arms carried by said shaft, a pair of symmetrically arranged centrifugal governor elements pivotally mounted respectively upon said arms, a second circuit controlling element carried by one of said governor elements, and resilient means associated with said governor elements tending to hold them in their retracted position.

1,081,833. VALVE. GEORGE H. HYNDMAN, Butte, Mont. Filed Feb. 8, 1913. Serial No. 747,143. (Cl. 152-12.)

1. A device of the class described comprising a body portion, a bore formed within said body, a slidable plunger positioned within said bore, an opening formed in one end of said body constituting an air passage, a closure cap positioned within the other end of said body, spring means positioned within said bore and bearing at one end upon said plunger and at the other end upon said cap, said plunger provided with a plurality of apertures extending thereinto, said plunger also provided with a circumferential groove, said apertures communicating with said groove, said body provided with a plurality of transversely extending openings, said plunger adapted to be driven down by the force of air and in this manner compressing said spring for allowing said groove to communicate with said transversely extending openings whereby the air may escape.

2. A device of the class described comprising a body, said body provided with a centrally arranged bore, a

slidable plunger positioned within said bore, an air passage formed in one end of said body, a closure cap carried by the opposite end of said body, said slidable plunger provided with a sleeve, said body provided with a plurality of transversely extending openings, a spring carried within said bore and positioned within said sleeve, the opposite end of said spring bearing upon said closure cap whereby said slidable plunger will be held upon said air passage, a secondary plunger carried by said slidable plunger, said sleeve forming a closure for said transversely extending openings, said slidable plunger provided with a plurality of apertures, said plunger also provided with a circumferential groove, said apertures communicating with said groove whereby when the pressure of air reaches a predetermined point the slidable plunger will be driven back so as to compress the spring whereby the circumferential groove will register with the transversely extending openings and in this manner allow the air to escape.



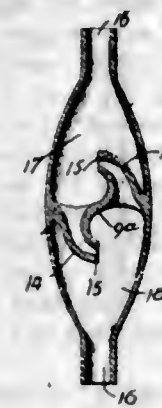
3. A valve comprising a body having a central bore, said body provided with transverse openings communicating with said bore, a slidable plunger positioned in said bore, a cap carried within the outer end of said body, said plunger having a concave inner end, said body having a concave face at the inner end of said bore, a spring positioned in said bore and bearing at one end upon said cap and at the opposite end upon said plunger for holding said plunger normally at the inner end of said bore, whereby said concave faces constitute a pocket, said plunger having a circumferential groove, said plunger provided with apertures communicating with said groove and the concave face thereof, said plunger provided with a passage, a secondary plunger slidably mounted within said passage, said secondary plunger provided with a head normally resting upon the concave face of said slidable plunger, a spring for holding said head upon said face, said groove adapted to register with said openings, whereby air can pass through said valve in either direction when sufficient pressure is brought to bear thereon.

4. A valve comprising a body having a longitudinal bore, said body provided with transverse openings, a slidable plunger positioned within said bore and adapted to close one end thereof, means for holding said plunger in the end of said bore, said plunger provided with a plurality of apertures extending from the top thereof to the sides thereof, said plunger adapted to be forced back by excessive pressure so as to allow said apertures to register with said openings for allowing the escaping of the air.

1,081,834. SURGICAL APPLIANCE. MICHAEL IVERSEN, Stoughton, Wis. Filed Aug. 2, 1912. Serial No. 712,836. (Cl. 128-47.)

1. The combination of a tube and a dropper to one end of which the tube is secured, the said dropper comprising a transparent open ended body having a plurality of com-

partments with a plurality of passageways between the compartments, whereby the amount of fluid passing through the tube may be seen.



2. The combination of a tube and a dropper to one end of which the tube is secured, the dropper being open ended and provided with a central partition with a plurality of passageways extending therethrough, whereby the dropper is provided with a plurality of compartments in communication with each other, the passageways serving to regulate the amount of fluid passed through the dropper and also serving to permit the passage of return gases therethrough.

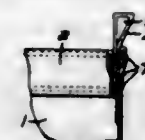
3. A dropper such as described, comprising a transparent body having a plurality of compartments with a plurality of passageways between the compartments, whereby the amount of fluid passing from one compartment to the other may be seen.

4. A dropper such as described, comprising a transparent body having a partition therein forming compartments and provided with a plurality of passageways extending therethrough, the end portions of the compartments being open, whereby when fluid is entered into one compartment the amount passing into the second compartment may be seen.

5. A dropper such as described, of integral construction and of transparent material, having a partition therein whereby a plurality of compartments are formed, passageways extending through the partition, the said passageways being curved, the fluid passing from one compartment to the other through the said passageways being visible.

[Claims 6 and 7 not printed in the Gazette.]

1,081,835. METHOD OF MAKING BOOT AND SHOE PULL-ON DEVICES. EARNEST C. JACOBS, Rockland, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Original application filed June 18, 1913, Serial No. 774,334. Divided and this application filed Sept. 18, 1913. Serial No. 790,558. (Cl. 12-146.)



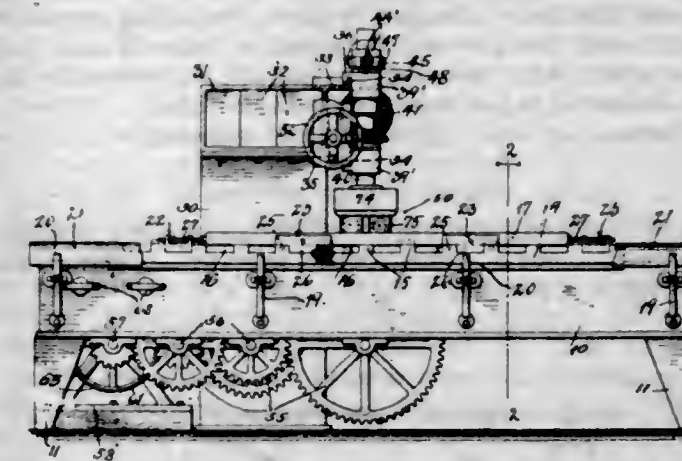
1. The method herein described of making pull-on devices for boots and shoes which comprises positioning a covering strap piece about a core strip piece and severing said core strip piece and strap piece at spaced intervals to provide pull-on devices of the required width.

2. The method herein described of making pull-on devices for boots and shoes which comprises folding a covering strap piece about a core strip piece, securing it thereto, and severing said core strip piece and strap piece to provide pull-on devices of the required width.

1,081,836. MARBLE-SURFACING MACHINE. CHARLES H. JORDAN, New York, N. Y. Filed June 7, 1913. Serial No. 772,288. (Cl. 51-11.)

1. A marble surfacing machine of the character described, comprising a frame, a bed plate mounted for re-

ciprocation thereon, an arm horizontally overhanging the frame and bed plate and having a single vertical portion at the back part of the frame, a head slidably carried by the arm, means to adjust the head transversely of the bed plate, a grinding member having a vertically adjustable spindle rotatably carried by the head, means for raising and lowering the grinding member into and out of engagement with the work mounted upon the bed plate, and means for holding the grinding member against downward displacement beyond a predetermined adjusted position.



2. A surfacing machine of the character described, comprising the combination with a base frame suitably supported and having longitudinal tracks; of a bed plate having grooved portions slidably engaged with the tracks, means for shifting the bed plate longitudinally, means for reversing the direction of movement of the bed plate, an upright carried in rear of the frame and having an arm overhanging the bed plate horizontally to provide a space beneath the latter and the free end of the arm, guideways formed by the arm, a head slidably engaged with the guideways, means carried by the arm for engaging the head to shift the latter horizontally with respect to the arm and transversely with respect to the bed plate, a shaft journaled in the head, a spindle journaled vertically in the head and geared to the shaft for rotating the spindle, and a grinding member removably carried by the lower end of the spindle.

3. A surfacing machine of the character described, comprising the combination with a base frame suitably supported and having longitudinal tracks; of a bed plate having grooved portions slidably engaged with the tracks, means for shifting the bed plate longitudinally, means for reversing the direction of movement of the bed plate, an upright arranged in rear of the frame and having an arm horizontally overhanging the bed plate with an unobstructed space between the free end of the arm and the bed plate, guideways formed by the arm, a head slidably engaged with the guideways, means carried by the arm for engaging the head to shift the latter longitudinally with respect to the arm and transversely with respect to the bed plate, said head being designed to move rearwardly of the bed plate, a shaft journaled in the head, a spindle journaled vertically in the head and geared to the shaft for rotating the spindle, said spindle being adapted for vertical movement in its bearings, a lever pivoted to the head, a sleeve adjustable on the spindle and having the lever pivoted thereto intermediate its ends, whereby the spindle may be raised or lowered with the lever, said sleeve serving to limit the downward movement of the spindle by contact with the head, and a weighted grinding disk carried by the lower end of the spindle to be moved into and out of engagement with the work mounted on the bed plate.

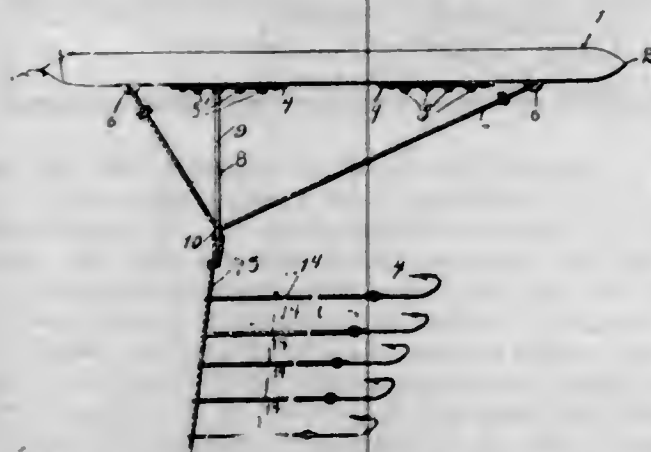
4. The combination with a supporting frame and a support arranged above the same; of a grinding tool rotatably and slidably carried by the support, a bed plate slidably mounted on the frame, means carried by the frame for reciprocating the bed plate, brackets secured to the frame and projecting outwardly thereof beyond the bed plate, a cushioning rail carried by the brackets longitudinally of the frame and located flush with the top of the bed plate, said bed plate being fluted and having vertical projections at its rear edge to retain a slab thereon, and

clamps removably engageable with the bed plate to clamp a slab thereon.

5. In a surfacing machine of the character described, the combination with a frame and a tool arranged to operate above the same; of a bed plate carried by the frame, said bed plate having transverse ribs providing intervening notches, projections extending upwardly from certain of the ribs at one edge of the plate for engagement by a marble slab, said ribs also having spaced sockets, clamps having engaging screws for contacting the ends of the slab, said clamps being designed to fit in the notches between the ribs, and additional clamps also having engaging screws to contact with the forward longitudinal edge of the slab and provided with spaced pins designed to removably engage certain of the sockets formed in the ribs.

[Claims 6 to 8 not printed in the Gazette.]

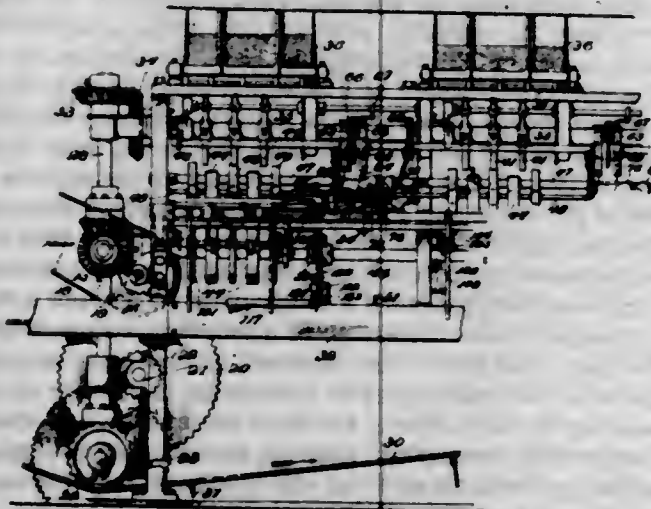
1,081,837. TROLLING DEVICE. THEODORE WM. JORDAN, Milwaukee, Wis. Filed June 19, 1913. Serial No. 774,658. (Cl. 43-4.)



1. A trolling device comprising a float, loops carried by the float, a hook having its bill detachably engaging said loops, said hook having an eye, a cord carried by the float for engaging said eye to hold the hook in different angular relations to the side of the float, as and for the purpose set forth.

2. A trolling device comprising a float, said float being adapted for travel partially submerged in the water, plates connected to the sides of the float, loops carried by the plates and arranged in horizontal alignment, a hook having a bill for detachably engaging the loops, an eye carried by one end of the hook, a cord having its ends tied to the float and passing through said eye, said cord serving to hold the hook in different angular relations to the side of the float, a draft line connecting the eye of the hook and having trolling lines connected thereto.

1,081,838. SIGNATURE-GATHERER. EDWARD R. KAST, Baltimore, Md. Filed July 17, 1913. Serial No. 779,568. (Cl. 11-25.)



1. In combination, a hopper for signatures, means with-drawing signatures from said hopper, means buckling one

fold of each signature, means engaging and holding the other fold and separating the same from the buckled fold and a support on which the opened signature is deposited.

2. In combination, a hopper for signatures, means with-drawing signatures from said hopper, means buckling one fold of each signature, means engaging and holding the other fold and separating the same from the buckled fold, a support on which the opened signature is deposited, and means progressing the signatures along said support.

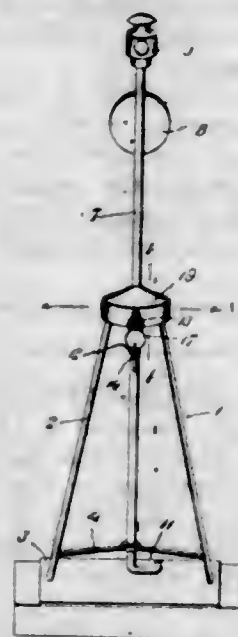
3. In combination, a hopper for signatures, means with-drawing signatures from said hopper, means buckling one fold of each signature, means engaging and elevating the free edge of the buckled fold, means engaging and holding the other fold and separating the same from the buckled fold, and a support on which the opened signature is deposited.

4. In combination, a hopper for signatures, means with-drawing signatures from said hopper, means buckling one fold of each signature, means engaging and elevating the free edge of the buckled fold, means engaging and holding the other fold and separating the same from the buckled fold, a support on which the opened signature is deposited, and means progressing the signatures along said support.

5. In combination, a hopper for signatures, means with-drawing signatures from said hopper, means buckling one fold of each signature, means engaging and holding the other fold and separating the same from the buckled fold, a support on which the opened signatures are deposited, and means guiding the buckled fold over said support.

[Claims 6 to 22 not printed in the Gazette.]

1,081,839. SWITCH. HARRY L. KIRKPATRICK, Pueblo, Colo., assignor of one-third to Walter M. Rankin, Springfield, Mo. Filed Dec. 3, 1912. Serial No. 734,740. (Cl. 104-25.)



1. A railway switch stand of the class described having a staff provided with a crank arm, an adjusting plate through which the staff extends and in which the same revolves, the said adjusting plate having peripheral locking teeth, and an operating lever or handle comprising an inner member secured to the staff and arranged to sweep over the adjusting plate and an outer member pivotally connected to the inner member and adapted to engage the teeth of the adjusting plate at any required point.

2. A railway switch stand of the class described having a staff provided with a crank arm, an adjusting plate through which the staff extends and in which the same revolves, the said adjusting plate having peripheral locking teeth, and an operating lever or handle comprising an inner member secured to the staff and arranged to sweep over the adjusting plate, an outer member pivotally connected to the inner member and adapted to engage the teeth of the adjusting plate at any required point, and means to secure the outer member of the handle or lever in locking position.

1,081,840. SCRIBER. JAMES A. KOEHL, Washington, D. C., and ROBERT H. ROTHER, Baltimore, Md.; said Koehl assignor to said Rother. Filed Mar. 7, 1913. Serial No. 752,689. (Cl. 33-44.)



1. A device of the class described comprising a body having a handle, a pair of fixed marking blades provided upon said body and having active free extremities disposed in transverse alignment, a longitudinally movable marking blade provided upon said body and having a free active extremity movable past the active extremities of the fixed blades, means by which said movable blade may be secured in its different longitudinally adjusted positions, means whereby the active extremities of the fixed blades may be adjusted relatively to each other, and means whereby the active extremity of the movable blade may be laterally adjusted with respect to the adjacent fixed blade.

2. A device of the class described comprising a body having a handle, a pair of marking blades provided on the said body and having laterally yieldable, free extremities, an adjusting member connecting the said blades for obtaining relative adjustment of the free extremities thereof, a third blade disposed adjacent to one of the first-named blades and having a laterally yieldable free extremity, and an adjusting member attached to the third blade and adjustably engaged with the adjusting member for the first-named blades whereby relative adjustment of the free extremity of the third blade with respect to the adjacent blade may be obtained without affecting the relative positions of the first-named blades with respect to each other.

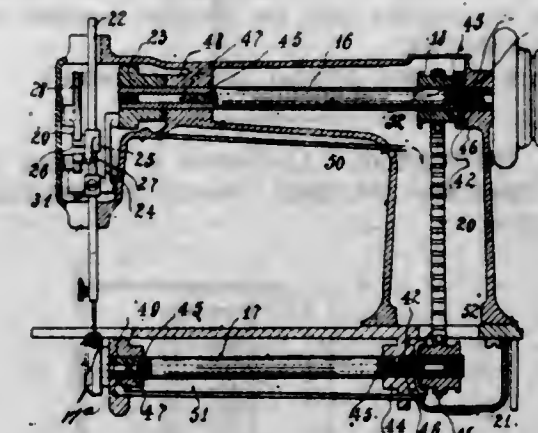
3. A device of the class described comprising a body having a handle, a pair of marking blades provided upon said body and having laterally yieldable free extremities provided with aligning openings, the opening in one blade being screw threaded, a hollow cylindrical adjusting member rotatably mounted within the said blade opening and externally threaded adjacent to one end thereof for adjustable engagement within the threaded opening of the adjacent blade, a limiting head provided upon the opposite end of the said adjusting member for engagement with the outer face of the other blade, a second cylindrical adjusting member extending through the first adjusting member and engaged therewith for longitudinal adjustment, a third marking blade disposed in transverse alignment with the first named blades and having a laterally yieldable free extremity, the said blade being provided with an opening rotatably receiving the adjacent end of the second adjusting member, and means for preventing longitudinal movement of the said adjusting member with respect to the last named blade.

4. A device of the class described comprising a body having a handle, a pair of marking blades provided upon said body and having laterally yieldable free extremities provided with aligning openings, the opening in one blade being screw threaded, a hollow, cylindrical adjusting member rotatably mounted within the said blade openings and externally threaded adjacent to one end thereof for adjustable engagement within the threaded opening of the adjacent blade, a limiting head provided upon the opposite end of the said adjusting member for engage-

ment with the outer face of the other blade, a second cylindrical adjusting member extending through the first adjusting member and engaged therewith for longitudinal adjustment, a third, longitudinally adjustable marking blade provided upon the said body and having a longitudinal slot rotatably and slidably receiving the adjacent end of the second adjusting member, and limiting flanges provided upon the said adjusting member for engagement with the opposite side faces of the last-named blade.

5. A device of the class described comprising a body having a handle, a pair of marking blades provided upon the said body and having laterally yieldable free extremities, the said blades being provided with transversely aligning openings, the opening in one blade being screw threaded, a hollow, cylindrical adjusting member rotatably mounted within the said blade openings and having one end portion thereof externally threaded for adjustable engagement within the said threaded opening of the adjacent blade, a limiting head provided upon the opposite end of the said adjusting member for engagement with the outer face of the other blade, the said adjusting member being internally threaded, a second, cylindrical adjusting member extending through the first adjusting member and having an enlarged threaded portion engaged with the internal threads of the first member, a third marking blade provided upon the said body and having a laterally yieldable free extremity, the last-named blade being provided with an opening rotatably receiving the adjacent end of the second adjusting member, and means for preventing lateral movement of the second adjusting member with respect to the last-named blade.

1,081,841. SEWING-MACHINE. KONRAD VON KORYTINSKI, Vienna, Austria-Hungary. Filed Dec. 26, 1911. Serial No. 667,683. (Cl. 112-26.)



In a sewing machine, the combination of a take-up and looper, drive members therefor, and a shiftable stop independent of said drive members for positively holding said take-up at rest upon engagement of said looper with the thread, and means actuated by said take-up drive member for shifting said stop.

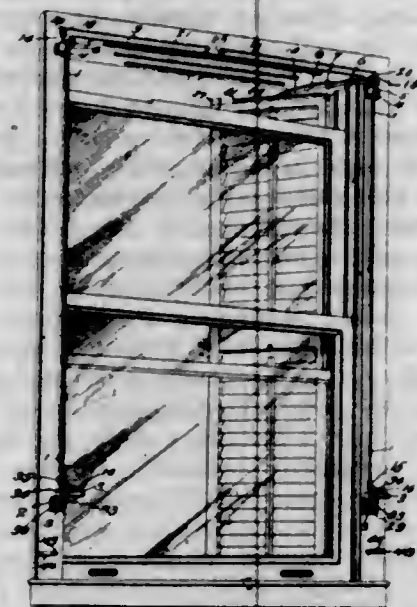
1,081,842. WINDOW-SHUTTER-CLOSING DEVICE. GEORGE W. LANCASTER, Richmond, Va., assignor to Universal Screen & Blind Company, Incorporated, a Chartered Company. Filed Mar. 17, 1913. Serial No. 755,000. (Cl. 16-136.)

1. A window shutter opening device comprising a tubular member adapted to open the shutter, a rod movably mounted within the tube, and a shutter lock operatively connected to the rod and adapted to unlock as the rod moves in a predetermined position.

2. A window shutter opening device comprising a tubular member adapted to open a shutter, a rod reciprocally mounted within the tubular member, means carried by the tubular member for reciprocating the rod, and a shutter lock operatively connected to the rod and adapted to release the shutter when the rod is moved in a predetermined position.

3. A window shutter opening device comprising a tubular member adapted to open a shutter as the same rotates,

a handle for rotating the tubular member, a rod reciprocally mounted within the tubular member, a rod actuating means forming part of the handle and pivoted thereto, and a shutter releasing means operatively connected to and actuated by the rod.

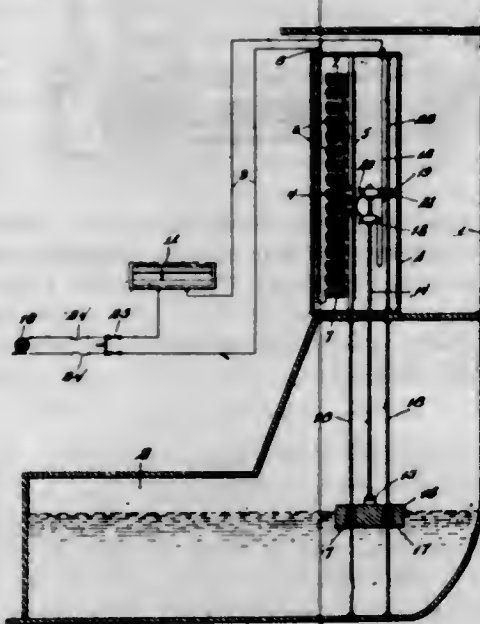


4. A window shutter opening device comprising a tubular member adapted to open the shutter, a rod reciprocally mounted within the tubular member, means locking the shutter adapted to be actuated to release the window when the rod moves in a predetermined direction, and a rod actuating lever pivotally mounted with respect to the tubular member and having an arm extending within the said tubular member and engaging one end of the rod.

5. The combination in a shutter opening device, of a rod slidably mounted in a tubular member, the rod adapted to unlock the shutter and the tubular member adapted to open the shutter.

[Claims 6 to 8 not printed in the Gazette.]

1,081,843. INDICATOR. LAWRENCE S. LARSON, Toledo, Ohio. Filed Mar. 11, 1913. Serial No. 753,559. (Cl. 177-351.)

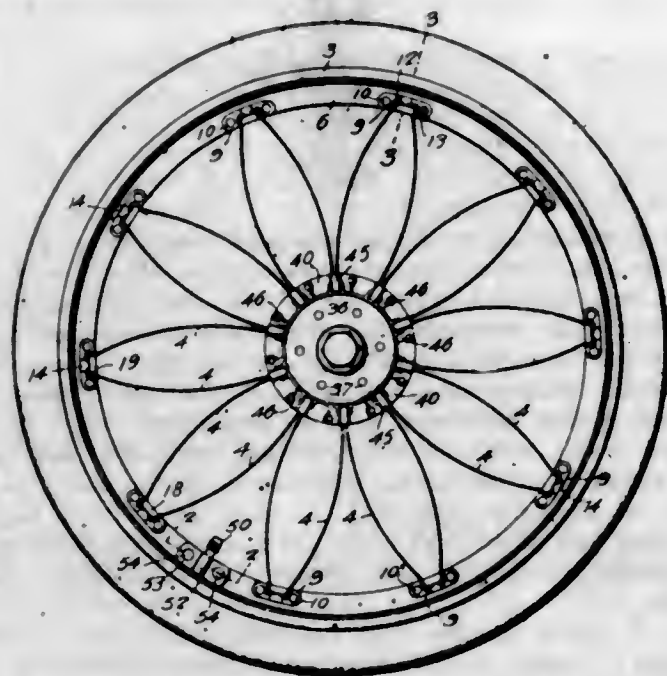


1. In a ship's ballast indicator, the combination with a ballast tank, of a float vertically movable therein, an electrical circuit including a volt meter, a bank of resistance elements serially connected to one terminal of the circuit, a contact member rigidly connected to and actuated by the float, a flexible connection between the opposite terminal of the circuit and the contact members and means to insure engagement of the contact member with one resistance element at all times.

2. In a ship's ballast indicator, the combination with a ballast tank, of a casing mounted thereon, a float operating within the tank, an electrical circuit including a

source of current and a volt meter, a bank of resistance elements mounted in the casing and connected in series with one terminal of the circuit, a sliding contact spring arranged in the casing and connected to the opposite terminal of the circuit, a rigid connection between the float and the contact spring for operating the latter over the bank of resistance elements, means for guiding the float and means for guiding the contact spring.

1,081,844. SPRING-WHEEL. ARTHUR LAURENCICH, Washington, D. C., assignor of one-half to William A. Kimmel, Washington, D. C. Filed Sept. 13, 1913. Serial No. 789,678. (Cl. 152-50.)



1. In a spring wheel, the combination, with a rim and a hub, of springs interposed between said rim and hub, said hub having cut-away portions into which said springs project and being also, split at a plurality of points around its periphery, a locking-key disposed in each of said cut-away portions, between two adjacent springs, and provided with means engaging said springs and preventing sidewise movement thereof, and wedging means carried by said hub at said split portions thereof and movable to widen said slits to clamp the springs against movement.

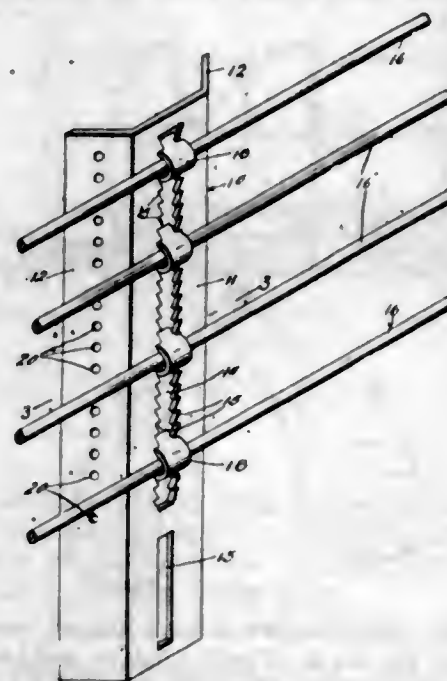
2. In a spring wheel, the combination, with a rim and a hub, of springs interposed between said rim and hub, said hub having cut-away portions into which said springs project and being, also, split at a plurality of points around its periphery, a locking-key disposed in each of said cut-away portions, between two adjacent springs, and provided with flanges at both ends engaging said springs and preventing sidewise movement thereof, and wedging means carried by said hub at said split portions thereof and movable to widen said slits to clamp the springs against movement.

3. In a spring wheel, the combination, with a rim and a hub, of springs interposed between said rim and hub, said hub having cut-away portions into which said springs project and being, also, split at a plurality of points around its periphery, a locking-key, comprising a plate, disposed in each of said cut-away portions, between two adjacent springs, and provided with means engaging said springs and preventing sidewise movement thereof.

1,081,845. FENCE-POST. EDWARD H. LEHRKE, Crosby, Minn. Filed Jan. 2, 1912. Serial No. 669,022. Renewed June 13, 1913. Serial No. 773,540. (Cl. 256-48.)

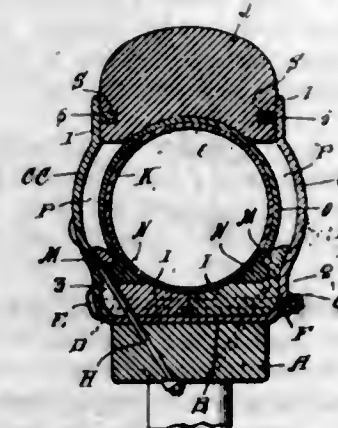
A fence post comprising a section of metal having its ends bent at an angle relative thereto and having its face portion formed with a vertical opening having opposed corrugations and a wire fastening means cooperating with said slot and corrugations, said means comprising a section of resilient metal having an elongated head formed

with a central tongue having opposed recesses adjacent its head portions, the said head being adapted to be inserted through the slot and turned to a horizontal position whereby said tongue may be rebent and engaged with a pair of opposed notches to constitute a loop frictionally held in position.



tion whereby said tongue may be rebent and engaged with a pair of opposed notches to constitute a loop frictionally held in position.

1,081,846. PNEUMATIC TIRE. JOHN J. LUCK, San Antonio, Tex. Filed Jan. 24, 1913. Serial No. 744,020. (Cl. 152-10.)

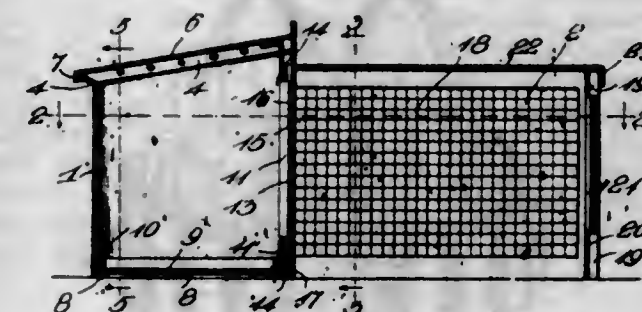


In combination a felly, a hollow rim supported upon the felly, a two part filler located within the rim upon the base thereof, stay bolts connecting the rim with the felly and extending across the angles formed between the side members and base, other bolts passing through openings in the side members of the rim and connecting the parts of the filler, a pneumatic tube located within the rim upon the filler, and a tread mounted upon the pneumatic tube and closing the open side of the hollow rim.

1,081,847. BROODING-COOP. CHARLES LYMAN, Clarinda, Iowa. Filed Oct. 18, 1909. Serial No. 523,212. (Cl. 119-19.)

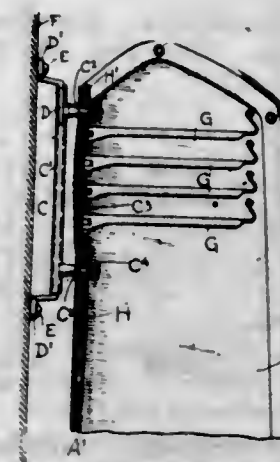
A knockdown coop comprising side, front and rear sections separably connected at the corners of the coop, upwardly and outwardly inclined flanges on the upper ends of the side and rear sections, said flanges having a plurality of ventilating apertures therein, the front section having an inwardly and downwardly inclined top-supporting flange, a top having intumed flanges on its opposite side edges for slidable engagement with the flanges on said side sections, the flanges on said top being narrower than those on the side sections to leave the ventilating apertures in said side-section flanges exposed, a downturned flange on the rear of said cover to form a stop for engagement with the flange on the rear section, said top

resting at its front on the flange of the front section and having its front edge extended beyond the front section, and a floor detachably mounted in said coop, said



front section having a door opening provided with a suitable closure, said front section also having ventilating openings at the lower part thereof.

1,081,848. HOLDER. JAMES MACDONALD, New York, N. Y. Filed Jan. 8, 1913. Serial No. 740,793. (Cl. 45-37.)



1. A holder of the class described, comprising a bracket arranged for attachment to a support, a sleeve mounted to turn on the said bracket and provided with fastening devices, a plate engaged by the said fastening devices, a protecting cover attached to the plate and having two flaps adapted to be fastened together at their outer edges, and hooks mounted to swing on the said plate and inclosed between the flaps when the latter are in closed position.

2. A holder of the class described, comprising a bracket arranged for attachment to a support, a sleeve mounted to turn on the said bracket and provided with fastening devices, a protecting cover forming two jointed flaps provided with fastening devices along their outer edges to fasten the flaps together, a plate on the inside of the cover at the joint of the flaps, the said fastening devices engaging the said cover joint and the said plate to fasten the parts together, and hooks mounted to swing on the said plate.

3. A holder of the class described, comprising a bracket for attachment to a wall or other support, a sleeve mounted to turn on the said bracket and provided with fixed screws, a fabric cover having jointed flaps provided at the joint with openings for the screws, a plate on the said joint at the inside of the cover and engaged by the said screws, nuts screwing on the said screws and abutting against the said plate, and hooks mounted to swing on the said plate.

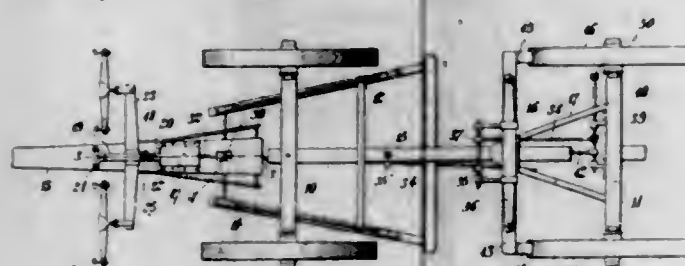
4. A holder of the class described, comprising a bracket arranged for attachment to a support, a sleeve mounted to turn on the said bracket and provided with fastening devices, a plate engaged by the said fastening devices, a protecting cover attached to the plate and having two flaps, fastening devices along the outer edges of the flaps to fasten the flaps together, and staggered hooks mounted to swing on the edges of the said plate and inclosed between the flaps when the latter are in closed position.

1,081,849. LIFE-BUOY. MINNIE F. MATLACK, Louisville, Ky. Filed Apr. 2, 1913. Serial No. 758,415. (Cl. 9-17.)



In a life buoy, the combination with a buoyant body supported object having a cell of a liquid container mounted in said cell, a closure for said container, said closure including a crown and an embracing wall, and a flexible hose communicating with the container and adapted to be coiled upon the crown of the closure and wholly surrounded by the embracing wall.

1,081,850. VEHICLE-BRAKE. ROWLAND H. MAXFIELD, Kings Valley, Oreg. Filed Feb. 19, 1913. Serial No. 749,471. (Cl. 21-9.)



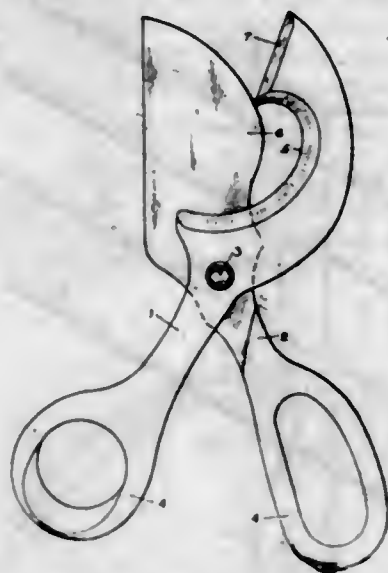
1. A running gear including a reach bar, a tongue, and a cross bar supported on the reach bar, said tongue having longitudinal slots, a frame including a slotted guide bar supported on the tongue, a hammer bolt extending through registering slots in the frame bar and the tongue, an evener connected with the hammer bolt and guided on the tongue beneath the frame bar, a spring secured at one end on the tongue and having its other end connected with the hammer bolt, a lever pivoted on the tongue in rear of the spring, a rod connecting the upwardly extending relatively long arm of said lever with the hammer bolt, a brake bar, links connected with the cross bar on the reach bar and supporting the brake bar, and means for transmitting motion between the brake bar and the downwardly extending relatively short arm of the lever pivoted on the tongue, said means including cranks and connecting rods whereby a relatively limited movement on the part of the brake bar shall require a relatively extensive movement on the part of the evener.

2. In a device of the class described, a tongue having a longitudinal slot, a frame including a slotted guide bar having supporting legs mounted on the tongue, means for securing said frame in position, an evener guided between the tongue and the guide bar and having an eye, a hammer bolt engaging said eye and guided through registering slots in the tongue and the guide bar, a spring having one end secured on the tongue and the other end connected with the hammer bolt to normally move the evener in a rearward direction, and a latch member pivoted on the frame and adapted to be positioned in rear of the hammer bolt when the evener is moved forwardly against the tension of the spring to prevent the evener being retracted by the spring.

1,081,851. FOWL-DECAPITATOR. ULYSSES S. MICHAEL, Celina, Ohio. Filed Apr. 10, 1912. Serial No. 689,816. (Cl. 17-30.)

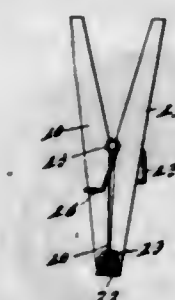
An article of manufacture comprising a pair of pivotally connected blades, one of said blades having a convex cut-

ting edge, the cutting edge of the cooperating blade being straight for a distance adjacent its extremity and concave at its medial portion, said concave portion extending outwardly and downwardly from its juncture with the



said straight edge forming a hook shaped portion to the cutting edge, the depth of said concave portion being such that the edge of the convex blade passes said juncture of the straight edge with the concave edge before the shearing action commences.

1,081,852. CLOTHES-PIN. JOHN A. MIERZWIK, Roscoe, Tex. Filed Nov. 27, 1912. Serial No. 733,880. (Cl. 24-255.)



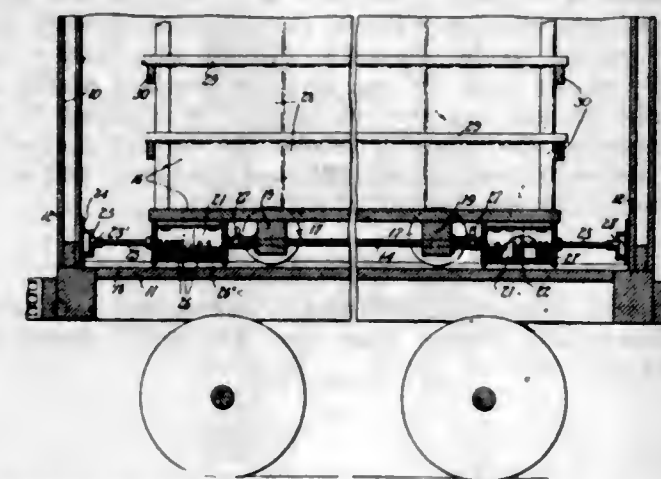
A clothes pin comprising a pair of jaws having confronting transverse half round recesses in the opposing faces cooperating in forming a cylindrical opening, and a tension device comprising aligned spring convolutions seated in said opening, a loop connecting the inner ends of said convolutions and passed through one of said jaws thence terminally bent and engaging the outer face of said jaw, and opposing rightangular hooks forming the terminals of said convolutions and engaged along the outer sides and outer face of the other of said jaws, said convolutions urging said loop and said hooks toward each other whereby to normally hold said jaws closed.

1,081,853. FREIGHT-CAR. FRANK G. MILLER, Defiance, Ohio. Filed Sept. 11, 1913. Serial No. 789,334. (Cl. 105-15.)

1. In a freight car, the combination with the car body, of a platform adapted to reciprocate longitudinally within the car body and toward the opposite ends thereof in alternation, anti-friction means to support the platform upon the car floor, a pair of rods extending from one end of the car to the other end and there secured in position, said rods extending through portions of the platform, and cushioning means associated with said rods and serving to relieve the shock between the car and the platform.

2. In a device of the character set forth, the combination of a car body including a floor and ends, a platform within the car, rails and wheels supporting the platform upon said floor and providing for longitudinal reciprocation of the platform between the ends of the car, means auxiliary to the rails and wheels to control the lateral vibrations of the platform, and cushioning means between the ends of the platform and the ends of the car,

said cushioning means including dashpots, each dashpot comprising a cylinder, a piston, a piston rod and a socket piece for the end of the piston rod, said socket piece having vertically arranged parallel lips spaced from each other at



a distance slightly greater than the width of the end of the piston rod, said dashpot also including means to control the exit of air from the cylinder, said controlling means including an adjustable valve.

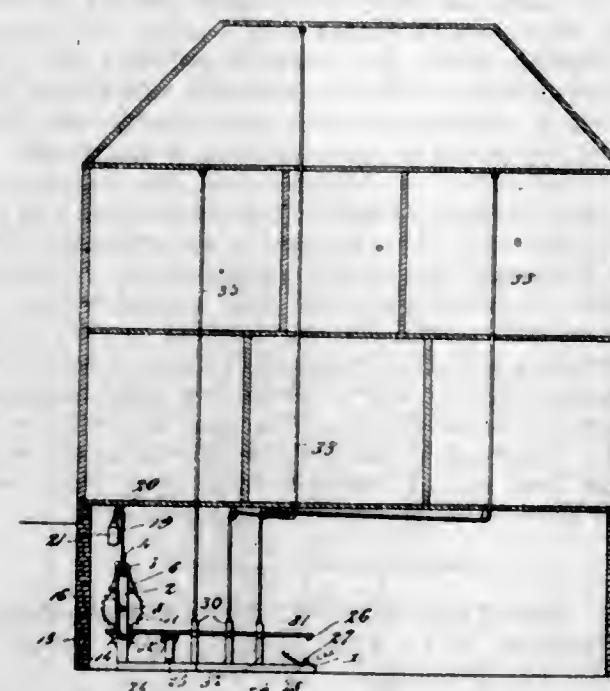
1,081,854. FUSE-CAP PROTECTOR. RUDOLPH C. MILLER, Reno, Nev. Filed Aug. 11, 1913. Serial No. 784,243. (Cl. 102-9.)



1. In combination, a blast fuse, a fuse cap inserted over the end thereof, and a soft metallic band slipped over the mouth of the fuse cap and compressed to compress the mouth of the cap and the adjoining portions of the fuse.

2. In combination, a blasting fuse, a fuse cap inserted over the end thereof, and a soft metallic sleeve inserted over the cap with its intermediate portion disposed over the mouth of the cap, and the sleeve being compressed over the mouth of the fuse cap and over the adjoining portions of the fuse, to compress the mouth of the cap and the said portions of the fuse.

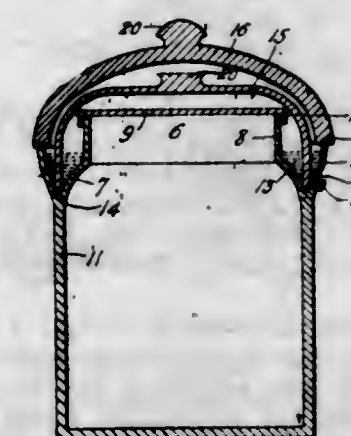
1,081,855. FIRE-ALARM. WILLIAM W. MITCHELL and HENDERSON W. COTTER, Canton, N. C. Filed Apr. 29, 1913. Serial No. 764,422. (Cl. 116-11.)



Alarm apparatus of the class described comprising a rock shaft having a crank and a bell carried and adapted to the rock shaft.

to be swung by the rock shaft, a power shaft, means to turn the power shaft, a countershaft geared to the power shaft and having a crank of less radius than that of the rock shaft and also provided with a tappet, a rod connecting the wrists of the said cranks of the countershaft and rock shafts, a holding lever pivotally mounted and with one arm normally engaged and held in elevated position by the tappet of the countershaft, one or more drop arms arranged above the other arm of said lever and adapted to drop thereon, and a cord leading from each drop arm to a distant point and including a combustible portion, the said cord being normally under tension by the weight of the drop arm and serving to normally hold the latter above the holding lever.

1,081,856. LIQUID-SEALED JAR. WILLIAM N. MOORE, Pollard, Ala. Filed Oct. 10, 1912. Serial No. 724,975. (Cl. 215-81.)



1. In a device of the class described, a jar provided with a mouth, a flange concentric with the mouth producing a channel between the flange and mouth, a seat at the base of the channel, a cover adapted to engage the flange, another cover for the mouth of the jar, and an intermediate cover adapted to rest in the channel.

2. In a device of the class described, a jar provided with a mouth of less diameter than the body of the jar, a flange concentric with the mouth of the jar, said flange being of greater diameter than the body of the jar, and on a lower plane than said mouth, and a plurality of covers for the jar comprising an inner cover for the mouth of the jar, an intermediate cover adapted to rest on a seat in alignment with the walls of the jar, and an outer cover adapted to engage said flange.

3. In a device of the class described, a jar provided with a mouth of less diameter than the body of the jar, a flange concentric with the mouth of the jar of greater diameter than the body of the jar, said flange forming a channel concentric with the mouth of the jar, a seat at the base of the channel, and a series of covers for said jar, one of said covers being provided with means for engaging the edge of the flange, another of said covers adapted to fit over the mouth of the jar, and an intermediate cover adapted to be positioned to rest upon the seat within the channel and in alignment with the side wall of the jar, whereby when fluid is placed within said channel, the intermediate cover will contact with the fluid.

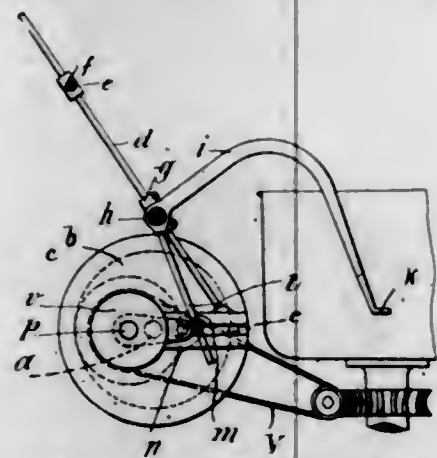
1,081,857. PIPE OR ROD CUTTER. GILBERT MULLINS, Leavenworth, Kans., assignor of one-half to John Frank, Leavenworth, Kans. Filed Aug. 26, 1911. Serial No. 646,099. (Cl. 81-203.)



In a pipe cutter, a casing comprising a stationary member and a movable member hingedly secured to said stationary member and provided with a recess in the end thereof, means for securing said members together, a cut-

ter journaled in said stationary member, a block slidable within said movable member, a cutter journaled in said block, a screw connected with said block and extending through said recess and the end of said movable member, a spring surrounding said screw and yieldingly pressing said block, a plate threadedly secured to the free end of said screw for sliding said block, and a nut adjustably mounted on said screw for cooperation with said recess, substantially as and for the purpose set forth.

1,081,858. OPERATING MECHANISM FOR DOUGH-KNEADING MACHINES. FRIEDRICH MÜNZ, Stuttgart, Germany. Filed Sept. 2, 1913. Serial No. 787,717. (Cl. 107—33.)



1. In combination, a kneading trough, a reciprocating kneading bar operating in said trough, and means for rotating the trough and operating the bar, said means including mechanism for varying the rotary speed of the trough, the maximum speed of the trough occurring when the kneading bar is ascending.

2. In combination, a kneading trough, a pivotally mounted kneading bar including a finger and stem, a reciprocating rod to which the kneading bar is pivoted, a pulley, a crank pin extending from the pulley and on which the rod is mounted, a shaft mounted eccentrically to the pulley, a crank on said shaft, a sleeve pivoted to the crank, the stem operating in the sleeve, means between the pulley and the crank to cause simultaneous rotation of the pulley and crank, gearing for rotating the trough, and means between the shaft and gearing for operating the trough, the crank causing the speed of the trough to vary.

3. In combination, a kneading trough, a kneading bar, means for simultaneously rotating the trough at a varying speed and imparting an irregular movement to the kneading bar in the trough, said means including two shafts, an eccentrically mounted crank pin upon each shaft, said crank pins operating the kneading bar and one of said crank pins serving to transmit varying speed to said trough.

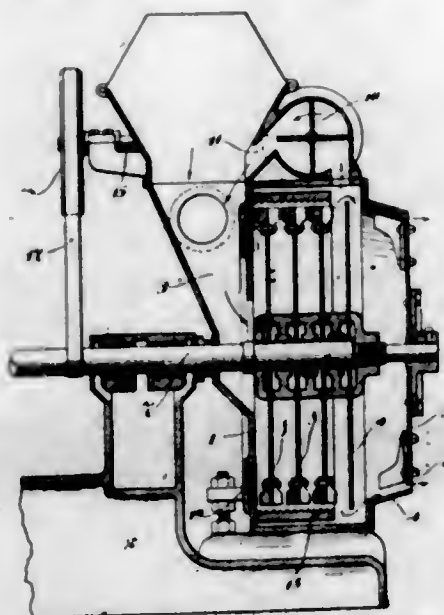
1,081,859. CUTTING-BIT. JORGEN OLSEN, Tottenville, N. Y. Filed Apr. 22, 1913. Serial No. 762,867. (Cl. 145—121.)



A device of the class described comprising a shank having a longitudinal bore formed therein, a lug formed inte-

gral with the lower end of said shank and having a channel formed therein intersecting said bore at right angles thereto, a center punch slidably mounted within the bore and having the side thereof cut out to form a flat surface disposed in a plane coincident with that of the lower wall of said channel whereby shoulders are formed upon said punch, means normally forcing said punch outwardly of the bore, an arm slidably disposed within the channel in said lug and adapted to be engaged by the shoulders at the opposite ends of the cut out portion of said punch to limit the movement of the latter, and a cutter carried by the free end of said arm.

1,081,860. PULVERIZING-MILL. BENJAMIN A. O'NEILL, Minneapolis, Minn. Filed Feb. 23, 1912. Serial No. 679,257. (Cl. 83—11.)



1. In a pulverizer or grinding mill, the combination with a casing having an inlet for the stock at one side and an outlet therefor at the other side, of an internally corrugated or roughened imperforate approximately cylindrical lining, an annular grinding ring detachably applied within said casing on that side thereof through which the stock is delivered into said casing, said ring having substantially parallel opposite faces, one of which is smooth and the other roughened, and a rotary beater working in said casing and cooperating with the roughened surfaces of said lining and grinding ring.

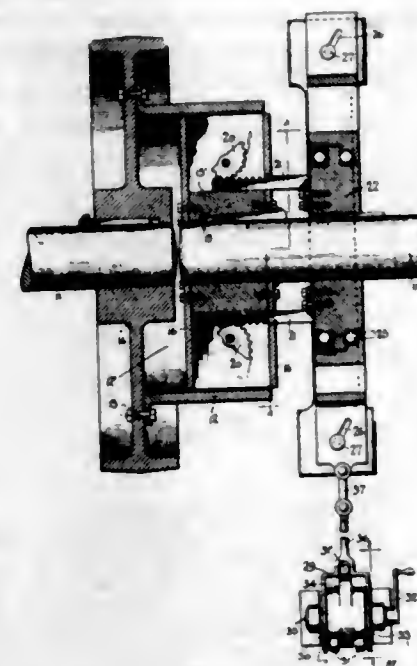
2. In a pulverizer or grinding mill, the combination with a casing having an inlet for the stock at one side and an outlet therefor at the other side, of an internally corrugated or roughened imperforate approximately cylindrical lining, said casing provided with a recess on that side thereof through which the stock is delivered into said casing, and an annular ring positioned in said recess, said ring having a roughened surface substantially flush with the wall of the casing in which the ring is positioned.

3. In a pulverizer or grinding mill, the combination with a casing having an inlet for the stock at one side and an outlet therefor at the other side, of an internally corrugated or roughened imperforate approximately cylindrical lining, and an annular grinding ring applied within the said casing, and a rotary beater working in said casing and cooperating with the roughened surfaces of said lining and grinding ring, the said grinding ring being roughened on one side and smooth on the other, and reversible to expose either the rough or smooth side thereof to the stock, the rough and smooth sides of said ring being each formed so as to be seated against said casing wall.

1,081,861. FRICTION-CLUTCH. LUIGI ALBERTO PAGANI, West Hoboken, N. J. Filed Dec. 21, 1912. Serial No. 737,983. (Cl. 192—3.)

1. The herein described clutch comprising a hub, a series of shoes associated with the hub and movable radially with respect thereto, a flange surrounding the shoes and adapted to be engaged thereby, and means to forcibly pro-

ject said shoes radially, with an initial rapid movement and a subsequent relatively slow movement with increased force.



2. In a clutch, the combination of a driving member, a driven member surrounding the same, a series of shoes movable outwardly from the driving member and into contact with the driven member, a series of spreaders connecting the said shoes each to each for simultaneous movement, each spreader including a volute pinion, and a series of racks movable longitudinally of said driving member and serving to operate said spreaders.

3. The combination with a friction clutch having relatively movable parts, of means for operating said movable parts comprising a collar, a yoke surrounding and connected to said collar and having a pair of diagonal slots, stationary means associated with said yoke and having pins extending through said slots, and an actuator cooperating with said yoke adapted to cause movement of the yoke in a direction corresponding to said slots.

4. The combination with a clutch having relatively movable gripping parts, of means for operating said parts either outwardly or inwardly simultaneously, said operating means comprising a yoke having diagonally arranged guiding means and an actuator connected to said yoke, said actuator including an eccentric having oppositely arranged cams whereby, when the eccentric is rotated, the aforesaid yoke will be operated accordingly, substantially as set forth.

1,081,862. LIFE-SAVING SUIT. JOHN PRESTON PARK, Beloit, Kans. Filed Apr. 26, 1913. Serial No. 763,773. (Cl. 9—20.)



1. A life saving suit having an opening in the body thereof, provided with flexible strips at the edges of the opening, fastening means comprising mating fastener ele-

ments carried respectively by the strips, one element having a T-head and the other element having forked members adapted to engage beneath the said head, and clamps to draw the strips and fasteners toward each other.

2. A life saving suit having an opening in the body thereof, provided with strips ranging along the edges of the opening, mating fastener elements carried respectively by the strips, and a clamp arranged in connection with said fastener elements to draw the same and the strips toward each other.

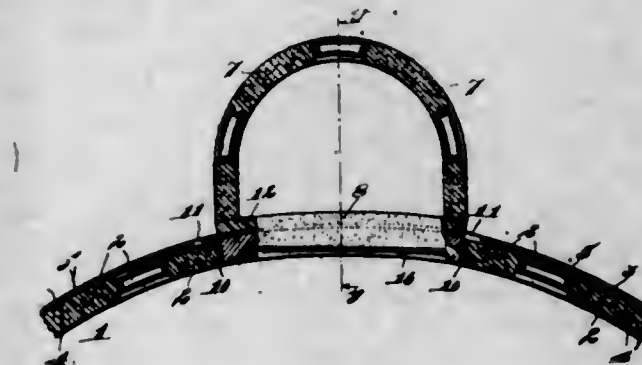
3. The herein-described garment having an opening in the body thereof, provided with strips at the edges of said opening, fastening means consisting of pairs of mating elements spaced apart, and clamps carried by the respective strips and disposed between the fastening members of a pair.

4. The herein-described garment having an opening, and flexible strips along the edges of the opening, said strips having respectively a tongue and groove at the opposite edges and mounted to move toward and from each other, and fastening means for holding the strips in closed position.

5. The herein-described garment having an opening therein, strips formed of resilient material and mounted to open and close, a link on one strip, and a lever on the other strip adapted by engagement with said link to press the resilient strips into close engagement.

[Claims 6 to 13 not printed in the Gazette.]

1,081,863. DOOR FOR SILOS. CHARLES J. PERKINS, Manitou, Colo., assignor of one-third to John T. M. Johnston and one-third to James F. Holden, Kansas City, Mo. Filed Mar. 3, 1913. Serial No. 751,955. (Cl. 72—6.)

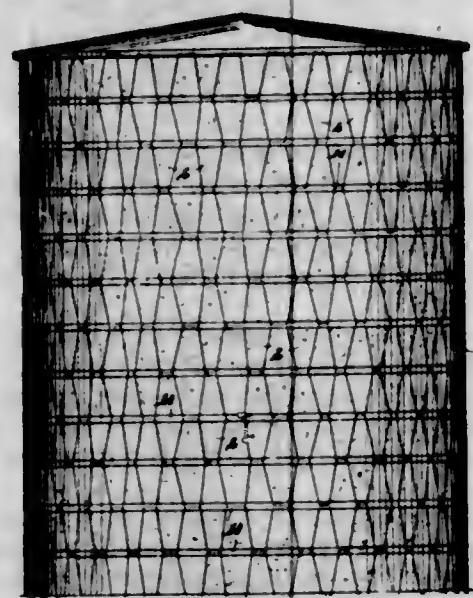


1. A silo comprising a lateral wall having a vertically extending doorway; transversely extending members traversing said doorway at intervals; and reinforcing bands encircling said silo and engaging against the outer sides of said transversely extending members, said outer sides of said members being provided with longitudinally extending recesses to accommodate said bands, substantially as described.

2. A silo comprising a lateral wall having a vertically extending doorway; transversely extending members traversing said doorway at intervals; reinforcing bands encircling said silo and engaging against the outer sides of said transversely extending members, said outer sides of said members being provided with longitudinally extending recesses to accommodate said bands; and sealing material arranged in said recesses over said bands completely inclosing the latter, substantially as described.

3. A silo comprising a lateral wall formed of plastic material, said wall having a vertically extending doorway; transversely extending members of plastic material traversing said doorway at intervals; reinforcing bands encircling said silo and engaging against the outer sides of said transversely extending members, said outer sides of said members being provided with longitudinally extending grooves for the accommodation of said bands; plastic sealing material arranged in said recesses over said bands completely inclosing the latter; and door sections arranged between said transversely extending members and engaging against the inner sides of the latter and the corresponding edges of said doorway, substantially as described.

1,081,864. BUILDING CONSTRUCTION. CHARLES J. PERKINS, Manitou, Colo., assignor of one-third to John T. M. Johnston and one-third to James F. Holden, Kansas City, Mo. Filed Mar. 3, 1913. Serial No. 751,956. (Cl. 72-8.)



1. A structure formed of superimposed blocks arranged edge to edge, each of said blocks being of elongated form with the lateral edges of the respective ends thereof tapering from the center of the block toward the extremities thereof; beads provided at the peripheral edges at one end of the block; and recesses provided at the peripheral edges of the other end of said block, the beads of each block engaging the recesses of the contiguous edges of adjacent blocks, substantially as described.

2. A structure formed of superimposed blocks arranged edge to edge, each of said blocks being of elongated form with the lateral edges of the respective ends thereof tapering from the center of the block toward the extremities thereof; beads provided at the peripheral edges at one end of the block; and recesses provided at the peripheral edges of the other end of said block, the beads of each block engaging the recesses of the contiguous edges of adjacent blocks, said beads being of cross-sectional dimensions considerably less than the corresponding dimensions of said recesses, substantially as described.

3. A structure formed of superimposed blocks arranged edge to edge, the joints of adjacent lines of blocks being staggered, the outer surface of each of said blocks being provided with recesses at the respective ends and intermediate the ends thereof, the recesses intermediate the ends of each block registering with the recesses at the contiguous ends of adjacent blocks whereby, when said blocks are in operative position, circumferential grooves will be formed in the structure registering with the respective ends and intermediate the ends of each block; and reinforcing bands encircling said structure arranged in said grooves, substantially as described.

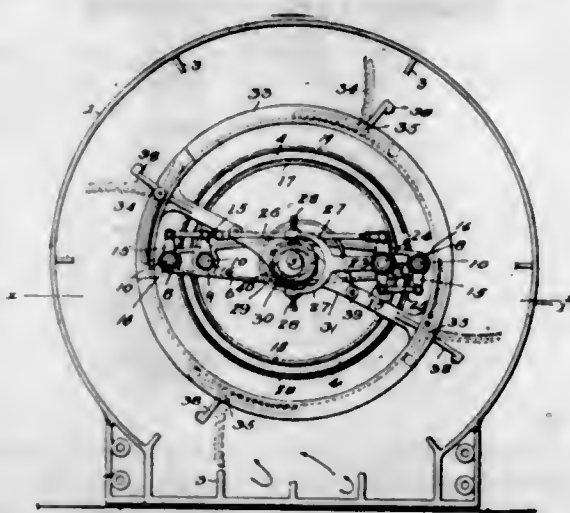
4. A structure formed of superimposed blocks arranged edge to edge, each of said blocks being formed with its opposite ends tapering, the joints of adjacent lines of said blocks being staggered, the outer surface of each of said blocks being provided with recesses at the respective ends and intermediate the ends thereof, the recesses intermediate the ends of each of said blocks registering with the recesses at the contiguous ends of adjacent blocks whereby, when said blocks are in operative position, circumferential grooves will be formed in the structure registering with the respective ends and intermediate the ends of each block; reinforcing bands encircling said structure arranged in said grooves, said recesses being deeper than the thickness of said bands; and sealing material arranged in said recesses over said bands to completely inclose the latter, substantially as described.

5. A structure formed of superimposed blocks arranged edge to edge, each of said blocks being formed with its opposite ends tapering; the edges at one end of each of said blocks being formed with outwardly projecting beads, the edges at the other end of said blocks being formed with recesses, the beads of one block engaging the recesses of

the contiguous edges of adjacent blocks, said beads being of cross-sectional dimensions considerably less than the corresponding dimensions of said recesses, the contacting portions of the contiguous edge surfaces of said blocks being correspondingly rounded to permit of angular adjustment of said blocks, substantially as described.

[Claim 6 not printed in the Gazette.]

1,081,865. SPEED-GOVERNOR. LEVI RHODES, Spokane, Wash. Filed Feb. 3, 1912, Serial No. 675,258. Renewed Sept. 25, 1913. Serial No. 791,859. (Cl. 74-45.)



1. An automatic speed governor, comprising a rotary shaft, a supporting element rotated thereby and carrying one or more brake shoes, a stationary friction rim, a fan wheel yieldably connected to said supporting element, and means for controlling the pressure of the brake shoes on the friction rim, operated by the variation in the speed of the fan wheel with relation to the speed of rotation of said brake shoe supporting element, substantially as described.

2. An automatic speed governor, comprising a rotary shaft, a supporting element rotated thereby and carrying one or more brake shoes, a stationary friction rim, a rotatable element yieldably connected to said supporting element, means for retarding said rotary element, controlled by centrifugal force, means for applying pressure to the brake shoes, and means for controlling said pressure means operated by and responsive to the variation in speed between said rotary element and the brake carrying element, substantially as described.

3. An automatic speed governor, comprising a rotary shaft, a supporting element rotated thereby and carrying one or more brake shoes, a stationary friction rim, a rotary element yieldably connected to said supporting element, retarding fans carried by said rotary element and controlled by centrifugal force, means for placing said fans under a retracting pressure, means for applying pressure to the brake shoes, and means for controlling said pressure, means operated by and responsive to the variation in speed between the element carrying the brake shoes and the element carrying the fans, substantially as described.

4. An automatic speed governor, comprising a rotary shaft, a supporting element rotated thereby and carrying one or more brake shoes, a stationary friction rim, a rotary element yieldably connected to said supporting element to rotate therewith and permit a change of relationship during rotation, retarding fans carried by said rotary element, controlled by centrifugal force, means for placing said fans under a retracting pressure, means for applying pressure to the brake shoes, and means for controlling said pressure means, operated by and responsive to variation in speed between the brake carrying element and the fan carrying element, substantially as described.

5. An automatic speed governor, comprising a rotary shaft, a supporting element rotated thereby and carrying one or more brake shoes, a stationary friction rim, a fan wheel yieldably connected to said supporting element, an inclosing case for confining the air surrounding the fan carrying element, and means for controlling the pressure of the brake shoes on the friction rim, operated by the

variation in the speed of the fan wheel with relation to the speed of rotation of said brake shoe supporting element, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,081,866. UNION UNDERGARMENT. FRED C. RICKERT, Taunton, Mass., assignor to Taunton Knitting Company, Taunton, Mass., a Corporation of Massachusetts. Filed July 8, 1912. Serial No. 708,107. (Cl. 2-144.)



A union undergarment composed of knitted fabric comprising a continuous body and tubular legs and attached seat-flaps, each leg having a seam extending from the crotch longitudinally of the leg at the inner side thereof, and an insert of woven relatively inelastic fabric let into the seam of each leg adjacent the crotch and extended therefrom toward the knee, each insert being united to the lower end of a seat-flap and to the opposed edges of the leg fabric, to form a fullness and take up wear at the inner side of the thigh portion of each leg.

1,081,867. CURRENT-MOTOR. GEORGE E. C. ROUSSEAU and FRANK GREGORY, Sacramento, Cal. Filed Apr. 15, 1912, Serial No. 690,787. Renewed June 9, 1913. Serial No. 772,689. (Cl. 170-127.)



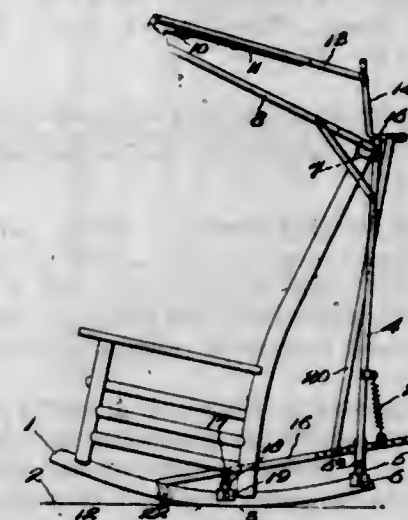
1. A current motor comprising a float, a rotary wheel mounted upon the float, an inclined apron leading to the float and having a gate in one side thereof and a swinging gate hinged to the opposite wall and adapted when closed to bear at its opposite ends against the portion of the side of the apron between the wheel and the gate in each side to close the water passage.

2. In a current motor the combination of a float, means for movably supporting the float, vertical plates secured to the float and producing a water passage, a water wheel extending into the passage, power transmitting means operated by the water wheel, an apron connected to the float, a gate-way in one side of the apron, and a swinging gate hinged to the opposite side of the apron and adapted to be swung into and out of position along the apron to open or close the water passage.

3. A water motor comprising a float, anchoring rods passing through the float, parallel plates secured to the float and extending perpendicularly therefrom producing a water passage, the plates at one side of the passage being spaced apart, operating means extending into the water passage between the spaced ends of the plates, an apron, said apron comprising a bottom and opposite side

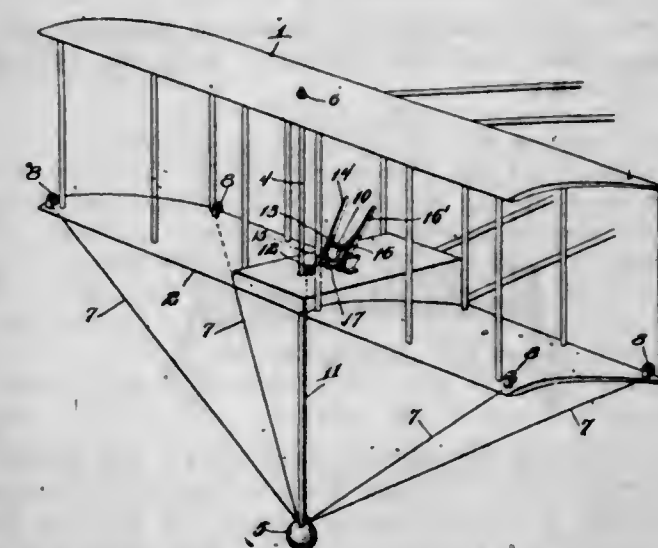
members, one of said side members being secured to the outer of the plates, said side member being provided with a gate way, the opposite side member being secured to the opposite side of the float, a plate secured to the float and extending within said apron and secure to the bottom thereof, a gate secured to the last mentioned side member for engaging the adjacent plate and directing water through the water passage, said gate also adapted to engage the opposite side member of the apron for directing the water through the gate way, an anchoring means for the apron.

1,081,868. POWER-TRANSMITTING MECHANISM. ANTHONY JULIUS SCHROEDER, Donaldsonville, La. Filed Sept. 12, 1912. Serial No. 720,037. (Cl. 230-7.)



In a fan attachment for rocking chairs, the combination of a cross bar adapted to be clamped to the rear ends of the chair rockers, parallel guides extending upwardly from said cross bar, an upright frame rigidly mounted on said cross bar, a forwardly-inclined rectangular frame rigidly secured to the upper end of said upright frame, a bell-crank lever fulcrumed on said upright frame, a fan pivotally mounted on the forward end of said inclined frame in position for swinging rearwardly through the latter, a link adjustably connecting said bell-crank lever and fan, a cross bar adapted to be clamped to the medial portions of the chair rockers, an actuating lever pivotally mounted on said last cross bar with its rear end slidably engaging said upwardly-extending guides, a link adjustably connecting said actuating lever to said bell-crank lever, a spring secured to said upright frame, and means for adjustably attaching said spring to said actuating lever for maintaining the forward end of the latter in engagement with the floor.

1,081,869. FLYING-MACHINE. OREN SHUMATE, Minneola, Kans. Filed Mar. 15, 1913. Serial No. 754,430. (Cl. 244-31.)



In a flying machine, the combination of a gliding structure, of a pendulum rod mounted for vertical movement

thereon, a drum provided with ratchet teeth and a brake-surface a band brake to engage said brake-surface, a raising and lowering line adapted to wind upon the drum and connect it with the pendulum rod, a spring actuated check pawl adapted to engage the ratchet teeth to hold the same from unwinding motion, said pawl having a controlling projection, a lever with a pawl to engage the ratchet teeth to actuate the drum on its winding motion, and a control lever operative to simultaneously apply the brake band and engage the retracting projection of the check pawl to throw said pawl out of action, or to simultaneously relax the brake band and release the retracting projection of the pawl to permit said pawl to move into action.

1,081,870. EGG-SUPPORTING DEVICE. JAMES L. SHUTE, Seattle, Wash. Filed Jan. 6, 1913. Serial No. 740,517. (Cl. 119-44.)



1. In an egg supporting device, a frame, rollers journaled upon the frame, star wheels carried by the rollers extending below the lines of the frame and a rack bar mounted adjacent to the wheels and placed in engagement therewith by a pivotal movement transversely of the main axis of the bar.

2. In an egg supporting device, a plurality of spaced rollers, star wheels carried by the rollers in alignment, a rack bar positioned adjacent the line of star wheels, and means for mounting the rack bar and permitting movement of the latter in a direction transversely of the bar for throwing it into and out of engagement with the wheels.

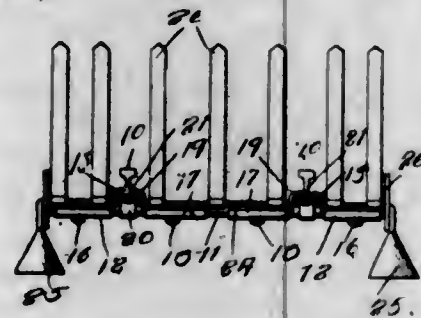
3. In an egg supporting device, a plurality of spaced rollers, toothed wheels carried by the rollers, a rack bar, means including a device carried by one longitudinal side of the rack bar enabling the rack bar to be thrown out of engagement with the wheels by gravity.

4. In an egg supporting device, a plurality of spaced rollers, toothed wheels carried by the rollers in alignment, bearing and supporting members adjacent the line of wheels, a rack bar having engaging teeth along its top surface and guide members along one side of the bar permitting a sliding and swinging movement of said bar, the guide members being adapted to engage the bearing members.

5. In an egg supporting device, a frame, a plurality of spaced rollers journaled in the frame, toothed wheels carried by the rollers, hooks carried by the frame spaced upon the same side of the line of toothed wheels, a bar provided with a rack along its top surface and guide members secured to one side of the bar in position to pivotally engage the hooks.

[Claims 6 to 8 not printed in the Gazette.]

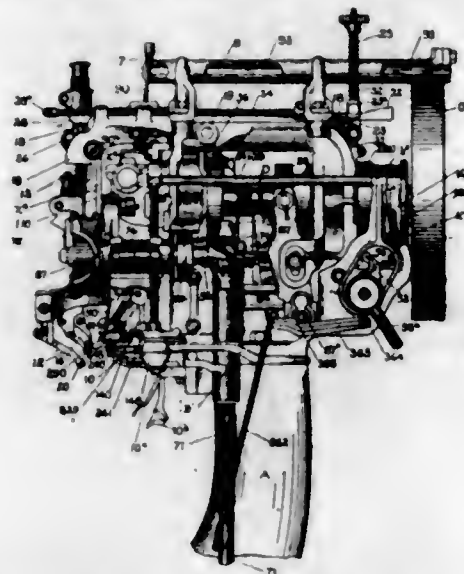
1,081,871. CATTLE-GUARD. GEORGE N. SOLOMON, Huntington, Tex. Filed July 23, 1913. Serial No. 780,731. (Cl. 39-39.)



A cattle guard for railways comprising a bar disposed transversely under the rails, brackets detachably disposed on the bases of the rails and supporting the said bar, rail engaging members mounted on the bar, said members being adjustably slidable on the bar, a transversely extending

rock shaft carried by the adjustable members, pickets carried by the rock shaft, and depending weights on the ends of the rock shaft.

1,081,872. LASTING-MACHINE. EDWARD ALLIN STIGGINS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Oct. 13, 1902. Serial No. 127,116. (Cl. 12-5.)



1. In a machine of the class described, an abutment for the shoe bottom, a wiper to press the stock over the shoe bottom, a jack for holding a shoe, means acting on the jack during repeated operations of the machine for pressing the shoe yieldingly toward the abutment and wiper, and means for clamping the shoe firmly against said bottom abutment and wiper during a portion of each operation of the machine.

2. In a machine of the class described, lasting devices, a shoe-rest, a jack for holding a shoe, means for supporting the jack yieldingly with the shoe against the rest during repeated operations of the lasting devices, and means rendered operative at the will of the workman for lifting the shoe against the rest to clamp the shoe at each operation of the lasting devices.

3. In a machine of the class described, an abutment for the bottom of the shoe, a wiper for pressing the upper over the shoe bottom, a jack for holding a shoe, yielding means for sustaining the jack with the shoe against the abutment, and intermittently acting means for pressing the shoe upwardly against the abutment and wiper and then releasing said shoe to permit it to be fed.

4. In a lasting machine, a shoe-rest, lasting devices, a jack, and means for actuating said lasting devices and simultaneously to effect a clamping of the shoe between the jack and the shoe-rest.

5. In a machine of the class described, a bottom rest having a rotatable contact-piece, a movably supported jack for yieldingly sustaining the shoe against the bottom rest, additional means for engaging the bottom of the shoe and means for moving said engaging means in the direction in which the shoe is to be fed.

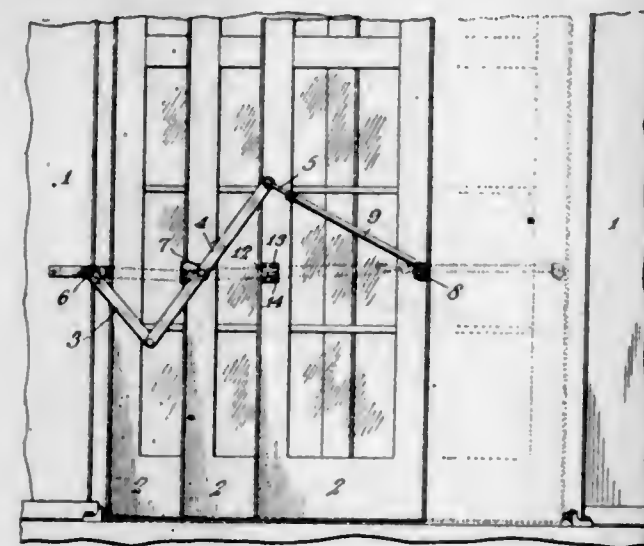
[Claims 6 to 117 not printed in the Gazette.]

1,081,873. DEVICE FOR OPERATING AND LOCKING ELEVATOR-DOORS. WILLIAM J. STILLING, Elmhurst, N. Y., assignor to Hecla-Winslow Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 22, 1913. Serial No. 756,124. (Cl. 70-102.)

1. In an operating device for sliding doors, the combination of a bar pivoted to the door, means pivotally connecting the other end of said bar to a fixed pivot, a tube slidable on said bar, a lateral projection secured to the door and means carried by said tube and adapted to engage said projection to lock the door.

2. In an operating device for sliding doors, the combination of a bar pivoted to the door, means pivotally connecting the other end of said bar to a fixed pivot, a tube

slidable on said bar, a lateral projection secured to the door, a latch carried by said tube and a spring adapted to cause said latch to engage the under side of said projection to lock the door.

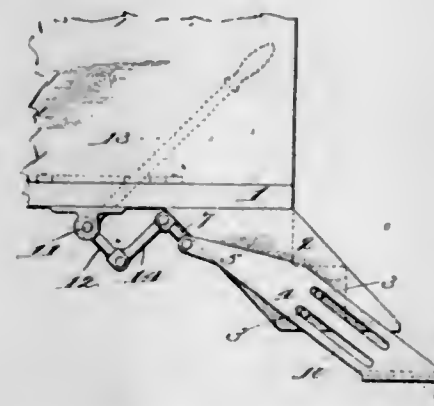


3. In an operating device for sliding doors, the combination of a set of levers pivoted to each other and to the door at one end, the other end of the set being pivoted at a fixed point, a latch-piece secured to the door, a tube slidable on one of said levers and a latch carried by said tube and adapted to cooperate with said latch-piece to lock the door.

4. In an operating device for sliding doors, the combination of a bar pivoted at one end to the door, means pivotally connecting the other end of said bar to a fixed pivot, a tube slidable on said bar, a latch carried by said tube, a plate secured to the door and provided with a pair of spaced projections and a spring acting on said tube and adapted to draw said latch into the space between said projections to lock the door.

5. In an operating device for sliding doors, the combination of a bar pivoted to the door at one end, means connecting the other end of said bar with a fixed pivot, a tube slidable on said bar, a latch carried by said tube, a plate secured to the door and having a lateral projection provided with an inclined side and a spring adapted to draw said latch under said projection to lock the door.

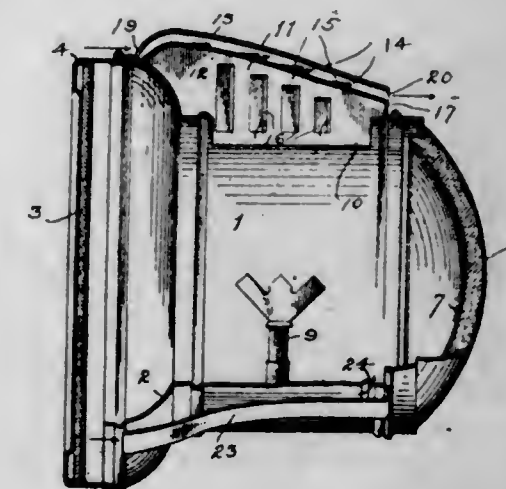
1,081,874. SUPPLEMENTAL CAR-STEP. NORMAN ATHELLO THOMAS, Staples, Minn. Filed May 16, 1913. Serial No. 768,159. (Cl. 105-87.)



1. The combination with a fixed step having side members, guide members carried thereby, a supplemental step adapted to normally rest beneath a stationary step, said supplemental step having side members longitudinally slotted to engage the guide members, said side members being angled inwardly at their upper ends, a shaft connecting said upper ends, a bracket arm carried by said shaft, a rock shaft carried by the car platform, a bracket arm carried thereby and a link connecting said bracket arms and an operating lever fixed upon the rock shaft.

2. A supplemental step comprising longitudinally slotted side members angled at their upper ends and flanged at their lower ends, a shaft connecting the angled upper end portions, a stop mounted upon said flanges, fixed guide means adapted to extend into the slots and operating means for adjusting said supplemental step.

1,081,875. LAMP. SAMUEL E. TRISLER, Dayton, Ohio. Filed May 13, 1912. Serial No. 696,803. (Cl. 240-11.)



1. In a lamp, a combustion chamber having an exit opening for the products of combustion in the upper portion thereof, a top or dome inclosing the exit opening and having imperforate front and rear walls, but provided with rearwardly opening outlet orifices for the products of combustion otherwise located therein, and a housing or casing inclosing said top or dome open to the atmosphere at its front and rear ends and spaced away from the inclosed top or dome to form an intermediate air passage extending fore and aft in alignment with the normal direction of movement of the lamp with which the outlet orifices of the top or dome communicate, substantially as specified.

2. In a lamp as described, a combustion chamber, a top for said chamber closed at its forward end having a plurality of substantially U shaped slots elsewhere located therein, the flap of material defined by such U shaped slot being bent upward and directed rearward, and a cover located above said slotted top and spaced away therefrom to form an air passage open at its forward and rearward extremities, substantially as specified.

3. In a lamp as described, a combustion chamber, a double housing mounted on the combustion chamber, one housing being inclosed within the other, the inner housing being closed at its front and rear extremities, the outer housing being open at its front and rear extremities, said inner and outer housings being spaced one from the other to form an air passage open at its forward and rearward extremities, intercommunicating openings between the combustion chamber and air passage, and baffles located at the forward side of such openings, substantially as specified.

4. In a lamp as described, a combustion chamber, an air passage located above said combustion chamber and having air inlet orifices in the longitudinal wall thereof and an outlet orifice at the rear thereof and intercommunicating openings between the combustion chamber and said air passage through which the products of combustion are drawn by suction draft induced by the said air current, substantially as specified.

5. In a lamp as described a combustion chamber, a double walled housing superposed upon the combustion with which it communicates the walls of said housing being separated one from the other to form an intermediate air passage, said air passage being open at its front and rear extremities, the inner wall of said housing having a series of rearward directed orifices therein substantially as specified.

[Claims 6 to 14 not printed in the Gazette.]

1,081,876. VESSEL CONSTRUCTION. GEORGE WASHINGTON WATTS, Oneonta, N. Y. Filed June 6, 1913. Serial No. 772,136. (Cl. 115-39.)



1. The combination with a vessel's hull having a longitudinal concavity provided in its under side formed by abrupt side walls and gradually inclined front and rear walls, of a keel extension provided within the concavity in spaced relation to the top wall thereof, means for bracing said keel extension within the concavity, a propeller shaft passing longitudinally through said concavity, means for operating said shaft and a propeller wheel secured to said shaft within the concavity.

2. The combination with a vessel's hull having a longitudinal concavity provided in its under side formed by abrupt side walls and gradually inclined front and rear walls, of a keel extension provided within the concavity in spaced relation to the top wall thereof, means for bracing said keel extension within the concavity, a propeller shaft passing longitudinally through said concavity, means for operating said shaft, a propeller wheel secured to said shaft within the concavity, and additional bracing means for said keel extension having journal boxes for the reception of the propeller shaft.

3. The combination with a vessel's hull having a longitudinal concavity provided in its under side formed by abrupt side walls and gradually inclined front and rear walls, of a keel extension provided within the concavity in spaced relation to the top wall thereof, means for bracing said keel extension within the concavity, a propeller shaft passing longitudinally through said concavity, means for operating said shaft, a propeller wheel secured to said shaft within the concavity, and additional bracing means for said keel extension having journal boxes for the reception of the propeller shaft, said additional bracing means being provided with means for admitting a lubricant to the shaft bearings carried thereby.

1,081,877. BED. JOHN E. WEBSTER, Falls Church, Va. Filed Oct. 3, 1913. Serial No. 793,246. (Cl. 5-16.)



1. A bed frame having rockers, in combination with resiliently supported straps on which the rockers are mounted.

2. A bed frame having flanged angular rockers, in combination with resiliently supported straps on which said rockers are mounted.

3. A rectangular bed frame having rockers, supporting springs arranged adjacent to the four corners of said frame, and longitudinal straps connecting the springs and supporting the rockers.

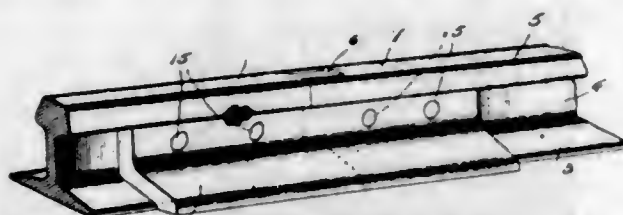
4. A rectangular bed frame having rockers at the sides thereof, supporting springs arranged adjacent to the four corners of the bed and having curved upper ends provided with terminal eyes, links engaging said eyes, and straps terminally connected with the links to support the rockers.

5. A rectangular bed frame having rockers at the sides thereof, supporting springs adjacent to the four corners of the frame, said springs having curved upper ends pro-

vided with terminal eyes, links engaging said eyes, straps having terminal loops engaging the links and overlapped ends, and fastening members extending through the overlapped ends of the straps and through the rockers to assemble the parts.

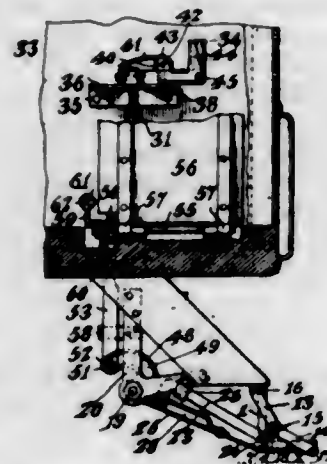
[Claims 6 to 9 not printed in the Gazette.]

1,081,878. RAIL-JOINT. ED. C. WILEY, Nogo, Ark. Filed Mar. 18, 1913. Serial No. 755,211. (Cl. 239-8.)



In a rail joint, two rail ends, one of which is provided with top and bottom mortises of unequal length separated by an intervening wall formed by the web of one of the rail ends, the bottom mortise extending vertically through the base of the rail end and into the web, the other rail end being provided with top and bottom tenons of unequal length but corresponding with the lengths of said mortises, the base flange of the last named section being cut away at opposite sides to form the bottom tenon which projects above the base flanges, and transverse shoulders located in a vertical plane intermediate the length of the top tenon.

1,081,879. FOLDING CAR STEP AND DOOR. ARCY V. WINEGARDEN, Eldorado, Kans., assignor of one-half to Arthur J. Palmer, Eldorado, Kans. Filed Oct. 8, 1913. Serial No. 794,097. (Cl. 105-88.)



1. In a device of the class described, a platform having a fixed step, a folding step hinged to the fixed step, a rock shaft mounted in rear of the folding step and having an arm, a link connecting the folding step with the arm of the rock shaft, which is adapted to be rotated to fold and extend the folding step, said link and arm being arranged to form a lock for retaining the folding step in its extended position.

2. In a device of the class described, a platform having a fixed step, a folding step hinged to the fixed step, a rock shaft mounted in rear of the folding step and having an arm, a link connecting the folding step with the arm of the rock shaft, which is adapted to be rotated to fold and extend the folding step, said link being provided at its inner portion with a relatively short downwardly extending arm arranged to permit the arm of the rock shaft to move downwardly a sufficient distance to form a lock for holding the folding step in its extended position.

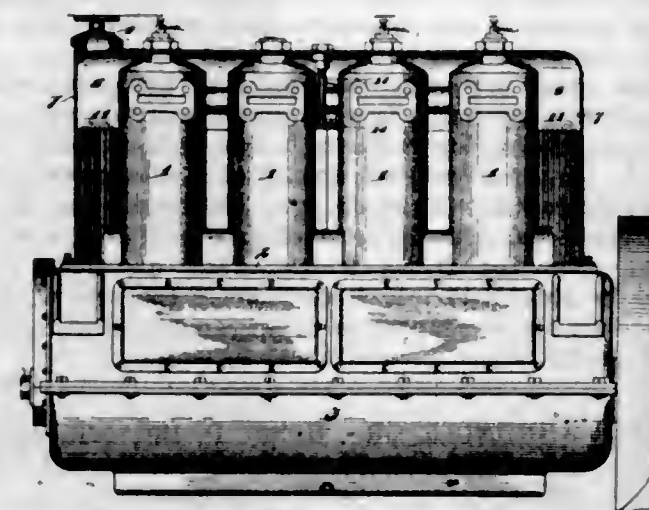
3. In a device of the class described, a platform having a fixed step, a folding step hinged to the fixed step, a rock shaft connected with and adapted to move the folding step inwardly and outwardly, and a bar or member fixed to the folding step and having a slidable connection with the rock shaft for guiding the folding step in its inward and outward movements.

4. In a device of the class described, a platform having a fixed step, a folding step comprising a tread, and a riser hinged to the fixed step and to the tread, a rock shaft connected with the folding step and arranged to move the same inwardly and outwardly, and a bar or member fixed to the tread of the folding step and having a slidable connection with the rock shaft for guiding the folding step in its inward and outward movements.

5. In a device of the class described, a platform having a fixed step, a folding step comprising a tread, and a riser hinged to the fixed step and to the tread, a rock shaft having arms connected with the folding step for moving the same inwardly and outwardly, and a bar fixed to the tread and provided with a longitudinal slot receiving the rock shaft and guided by the same.

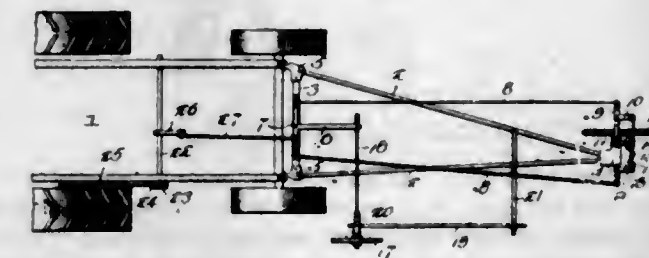
[Claims 6 to 17 not printed in the Gazette.]

1,081,880. EXPLOSIVE-ENGINE COOLER. WILLIAM WOODWARD, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,333. (Cl. 123-170.)



The combination of an engine comprising a cylinder having an exhaust port; a water jacket surrounding said cylinder; a plurality of air pipes arranged in said water jacket encircling said cylinder, the corresponding terminals of said pipes opening into the outside atmosphere; and a connection between the opposite ends of said pipes and said exhaust port whereby exhaust through said port induces a suction in the adjacent ends of said pipes, substantially as described.

1,081,881. SELF-STEERING MECHANISM FOR TRACTION-ENGINES. LAWRENCE E. YOUNGQUIST, Glendale, Mont. Filed Aug. 20, 1912. Serial No. 716,044. (Cl. 21-114.)



1. In a steering mechanism, the combination of a steering wheel and a pendulum having connection with the steering wheel to automatically turn the same to keep the machine in a proper course.

2. A frame adapted to be connected to the steering axle of a traction engine or other machine, a steering wheel mounted upon the front portion of the steering frame, and a pendulum mounted upon the steering frame and having connection with the steering wheel to keep the latter in a proper course when the machine tilts upon passing over rolling ground.

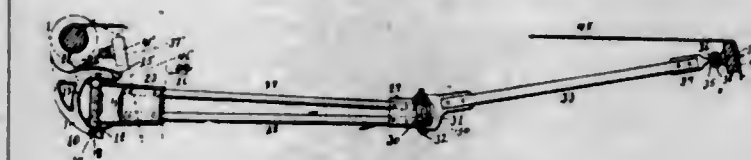
3. In combination with the frame of a traction engine or other machine, a steering gear frame having pivotal connection with the frame of the machine, a steering wheel mounted upon the steering frame, a pendulum hav-

ing connection with the steering wheel, a furrow runner, and connecting means between the furrow runner and the steering wheel.

4. In automatic steering mechanism the combination of a T lever, oppositely disposed bell cranks, connecting means between the horizontal arms of the bell cranks and the horizontal arms of the T lever, connecting means between the longitudinal arms of the bell cranks, a steering wheel, connecting means between the steering wheel and one of said bell cranks, a furrow runner, and connecting means between the furrow runner and the longitudinal arm of the T lever.

5. In automatic steering mechanism the combination of a T lever, oppositely disposed bell cranks, connecting means between the horizontal arms of the bell cranks and the horizontal arms of the T lever, a steering wheel, connecting means between the steering wheel and the longitudinal arms of the bell cranks, a furrow runner, supporting means for the furrow runner having connection with the longitudinal arm of the T lever, and an adjustable connection between such furrow runner and the main frame supporting the operating parts of the steering mechanism.

1,081,882. AWNING-ARM. FREDERICK A. ANTON, Topeka, Kans. Filed July 1, 1910. Serial No. 569,903. Renewed Nov. 17, 1913. Serial No. 801,550. (Cl. 156-42.)



1. An awning arm comprising two sections pivoted together at their adjacent ends, the inner end of the inner section being pivoted to a frame and the outer end of the outer section being pivoted to an awning pole, the inner end pivot and the middle pivot being disposed at an angle outwardly from the bottom up and being inclined laterally in opposite directions, the outward incline being greater than the lateral incline, the outward incline of the middle pivot being less than the outward incline of the inner end pivot.

2. An awning arm comprising two sections pivoted together at their adjacent ends, the other end of the inner section being pivoted to a frame and the other end of the other section being pivoted to an awning pole, the pivots being so disposed that the sections are foldable together laterally, the middle pivot being tilted at a lateral angle to the inner end pivot, and the outer section being provided near its outer end with a projection adapted to bear against the awning arm when the arm is folded together.

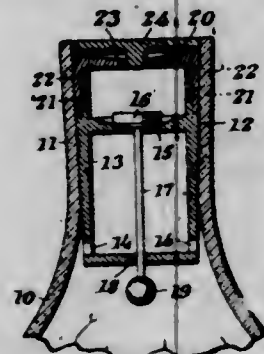
3. An awning arm comprising two sections pivoted together, the other end of the outer arm being adapted to be pivoted to an awning pole, and the other end of the inner member being adapted to be pivoted to a frame, the outer member being formed with a projection which bears against the awning pole when the arm is folded.

4. In combination, a frame, an awning pole, and two arms foldable laterally and pivoted together, the outer end of the outer member being pivoted to the pole, and the inner end of the inner member being pivoted to the frame, and the parts being so arranged that the outer arm bears against the pole at a point near its outer end when the arm is folded.

1,081,883. NON-REFILLABLE BOTTLE. WARREN E. BAILEY, Smith River, Cal. Filed May 6, 1913. Serial No. 765,922. (Cl. 215-69.)

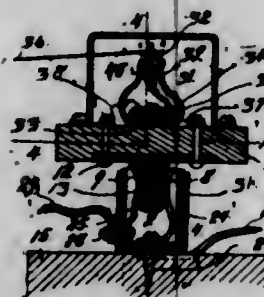
In a non-refillable bottle, the combination with a bottle body including a neck, of a valve casing arranged within the neck and having the upper end thereof reduced to form a seat and the lower end thereof provided with a plurality of diametrically arranged openings, a valve

movably supported on the valve casing, a cap encircling the reduced portion of the valve casing and including a top portion having an opening therein, pins projecting from the cap and adapted to extend through bayonet slots



in the upper end of the casing to rigidly secure the cap thereon, and a stopper for connection with the neck of the bottle body and adapted to lie therein to normally close the opening in the said cap.

1,081,884. BURGLAR-ALARM. EDWARD C. BERTAGNOLLI and FRANCIS W. BERTAGNOLLI, Central City, Colo. Filed Aug. 22, 1912. Serial No. 716,446. (Cl. 177-202.)



1. A burglar alarm, comprising a frame, metal strips arranged along one side of the frame, and insulated from each other, a series of spring contacts mounted upon one of the metal strips, a series of cooperating contacts mounted on the other strip, each cooperating contact being composed of two members, and each spring contact being located between the two members of a cooperating contact and having a normal tendency to engage one member of its corresponding cooperating contact, flexible devices connected with the respective spring contacts and extending across the space surrounded by the frame, means for securing the flexible devices in such a manner that the several spring contacts are normally held out of engagement with both members of their respective cooperating contacts, a structure to which the said frame is applied, said structure being equipped with a number of pairs of spring contacts having a normal tendency to engage each other, insulating projections carried by the frame and adapted to engage certain of said spring contacts, and separate the same, a normally open electrical circuit, an alarm arranged to be operated by the closing of said circuit, the members of each pair of spring contacts being insulated from each other and respectively connected with the opposite branches of the circuit, a plug consisting of two separated electrical conductors mounted upon the frame and adapted to engage one pair of said spring contacts, the two conductors of said plug being electrically connected with the aforesaid respective metal strips.

2. In a burglar alarm, the combination with a structure to be equipped, of a frame provided with insulating projections, the said structure having sockets exceeding by one the number of said projections, each socket being equipped with a pair of spring contacts having a normal tendency to engage each other, the projections on the frame being adapted to space said contacts, an electrical circuit, the spring contacts of each socket being respectively connected with the opposite branches of the circuit, a plug consisting of two separated electrical conductors mounted upon the frame and adapted to engage respectively the spring contacts of one of said sockets,

metal strips mounted on one part of the frame insulated from each other and electrically connected to the members of said plug, a series of spring contacts mounted upon one metal strip, a series of cooperating spring contacts mounted on the other metal strip, the cooperating contacts being each composed of two spaced members, and each of the spring contacts being interposed between the two members of a cooperating contact, the spring contacts having a normal tendency to engage one member of their respective cooperating contacts, flexible devices connected with the respective spring contacts and extending across the space between opposite parts of the frame of the device and connected with the frame to hold the spring contacts out of engagement with both members of the cooperating contacts, the said circuit being normally open and an alarm arranged to be operated by the closing of the circuit.

3. In a burglar alarm the combination with a structure to be equipped of a frame, a plurality of insulating projections carried by the frame a plug similar in shape to said projections and consisting of two separated electrical conductors, said plug being also carried by the frame, the said structure having sockets each provided with a pair of spring contacts having a normal tendency to engage each other but which are spaced by the projections and plug when the frame is in operative position, an electric circuit, the spring contacts of the sockets being respectively connected with the opposite branches of the circuit, spring contacts mounted upon the frame and electrically connected with the conductors of said plug, means mounted upon the frame which, when disturbed are adapted to cause said last named spring contacts to engage, and an alarm adapted to be operated by the closing of said circuit.

1,081,885. ANNUNCIATOR. HENRY D. BOSTOCK, Jacksonville, Fla. Filed July 25, 1913. Serial No. 781,180. (Cl. 40-86.)

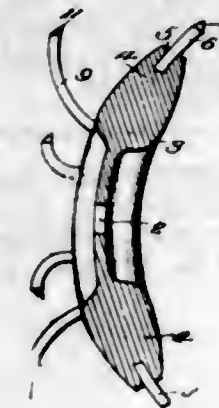


A station indicator comprising a casing, shafts journaled in the opposite end walls of said casing and spaced apart therein, drums upon said shafts, an indicia bearing strip wound about said drums and adapted to be moved from one onto the other, one end wall of said casing including removable sections each disposed above one of the bearings of said shafts and having the upper edge thereof beveled downwardly and inwardly, the adjacent edge of the fixed portion of the wall being beveled to correspond with the first-mentioned edge, and means for locking said sections against accidental displacement.

1,081,886. HARROW-DISK. DAVID W. BOVEX, Waterloo, Iowa. Filed Dec. 19, 1911. Serial No. 666,693. (Cl. 97-84.)

1. A harrow disk comprising a central saucer-shaped body portion having a central shaft receiving opening, the outer edge of said body-portion having enlarged curved

sloping teeth in the same arc of a circle as the body-portion and having wedge-shaped outer ends and beveled on one side transverse of the disk.



2. A harrow disk comprising a body-portion, cultivating teeth carried by the outer edge thereof, and laterally extending teeth carried by the body portion and extending out in a peripheral line with the cultivator teeth.

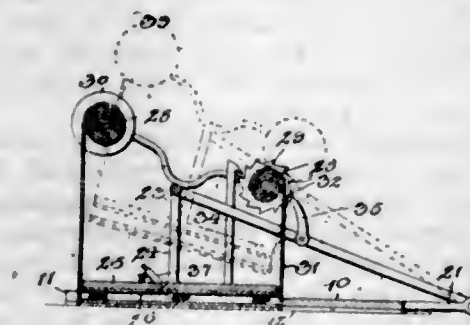
3. A harrow disk comprising a body-portion, cultivating teeth carried by the outer edge thereof and having reduced pointed ends and laterally extending teeth secured by the body-portion between the cultivator teeth and extending out in a peripheral line therewith.

4. A harrow disk, comprising a dish-shaped body-portion having teeth carried by the outer edge and arranged in the same arc of a circle as the body portion and laterally extending teeth carried by the convex side of the body portion intermediate the cultivator teeth.

5. A harrow disk comprising a central saucer-shaped body portion, having a shaft receiving opening, the outer edge of the body-portion enlarged and terminating in tapering curved cultivator teeth arranged in the same arc of a circle as the body-portion and having wedge-shaped outer ends and beveled on one side transverse of the disk, and laterally extending teeth carried by the body-portion intermediate the cultivator teeth and having wedge-shaped outer ends and beveled on one side parallel the disk.

[Claims 6 and 7 not printed in the Gazette.]

1,081,887. PRINTING-PRESS. CLAUDE HERBERT BRIGHT, Jr., Memphis, Tenn. Filed Mar. 22, 1913. Serial No. 756,238. (Cl. 100-67.)



1. A printing machine comprising a base plate having an aperture therein, a swinging carriage connected to the base plate and having an impression plate, a resilient bed supported by the impression plate, and means for supporting an impression web and moving the same over the resilient bed from one side thereof to the other whereby the said web will be exposed through the aperture in the base plate.

2. A printing machine comprising a base plate having an aperture therein, a swinging carriage connected to the base plate and having an impression plate, a resilient bed supported by the impression plate, means for supporting an impression web and moving the same over the resilient bed from one side thereof to the other whereby the said web will be exposed through the aperture in the base plate, and means for moving the web at intervals a predetermined distance.

3. A printing machine comprising a base plate having an aperture therein, a swinging carriage connected to the base plate and having an impression plate, a resilient bed supported by the impression plate, means for supporting an impression web and moving the same over the resilient bed from one side thereof to the other whereby the said web will be exposed through the aperture in the base plate, means for moving the web at intervals a predetermined distance, and a marking device carried by the impression plate.

4. A printing machine comprising a base plate having an aperture therein, a swinging carriage connected to the base plate and having an impression plate, a resilient bed supported by the impression plate, means for supporting an impression web and moving the same over the resilient bed from one side thereof to the other whereby the said web will be exposed through the aperture in the base plate, means for moving the web at intervals a predetermined distance, a marking device carried by the impression plate, and an adjustable handle connected with the base plate.

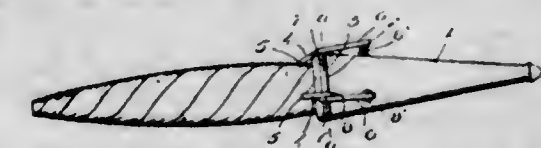
5. A printing machine comprising a base plate having an aperture therein, a swinging carriage connected to the base plate and having an impression plate, a resilient bed supported by the impression plate, means for supporting an impression web and moving the same over the resilient bed from one side thereof to the other whereby the said web will be exposed through the aperture in the base plate, means for moving the web at intervals a predetermined distance, a marking device carried by the impression plate, an adjustable handle connected with the base plate, and an arm projected from the carriage for permitting the lowering thereof to bring the exposed portion of the impression web into the aperture in the base plate.

1,081,888. HAT-PIN GUARD. BYRON V. CHAPMAN, Newberry, S. C. Filed Sept. 19, 1911. Serial No. 650,127. (Cl. 24-155.)



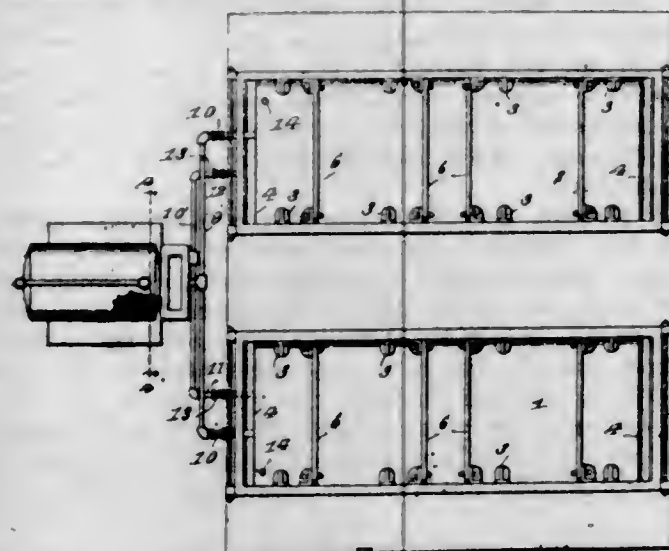
A hat pin point protector comprising a member having a pin receiving passage therein, the said passage having one continuous flat wall, a flexible plate secured to the member and extending throughout the length of the pin receiving passage and lying parallel with said flat wall and terminating in an outwardly flared portion in the entrance end of the passage, a spring bearing against the plate at the free end thereof and moving the same normally away from said flat wall, and a releasing device carried by the plate and movable through the member and having a portion normally projected beyond the member under the action of said spring.

1,081,889. CIGAR-HOLDER. MICHAEL S. COLE, New York, N. Y. Filed Feb. 25, 1913. Serial No. 750,662. (Cl. 131-10.)



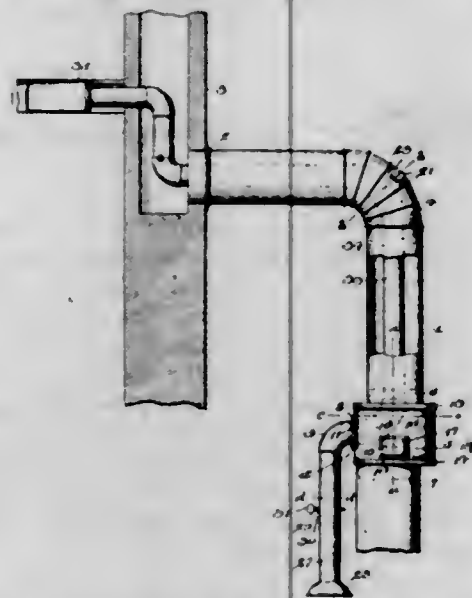
The hereindescribed cigar holder, embodying a mouth piece having an annular groove near its socket end and radial recesses communicating with said groove, a ring in said groove, jaws pivotally mounted on said ring and having their pivotal portions arranged in said recesses to prevent the ring from turning, each of the said jaws being arranged at one end to engage on one side of a cigar and also having an arm arranged longitudinally on the mouth piece, and springs bearing between said arms and mouth piece, said springs serving to normally engage the jaws with a cigar in the socket of the mouth piece.

1,081,890. BARK-SOFTENING VAT. ERNEST S. CONNORS, St. Francis, Me. Filed Nov. 13, 1912. Serial No. 731,179. (Cl. 144—208.)



A bark softening apparatus comprising a hot water tank, sets of parallel, horizontal and vertical fender strips arranged respectively upon the ends and sides of said tank to hold the log spaced therefrom and to provide water flow passages for the circulation of the water between the log and walls of the tank, and horizontal cross bars having pivotal and adjustable engagements with certain of said side fender strips for arrangement at different elevations to engage and hold an inclosed log of greater or less diameter submerged in the body of water in the tank.

1,081,891. HEATING APPARATUS. FREDRICK CRAIG, Knightstown, Ind. Filed Apr. 8, 1913. Serial No. 759,894. (Cl. 126—189.)



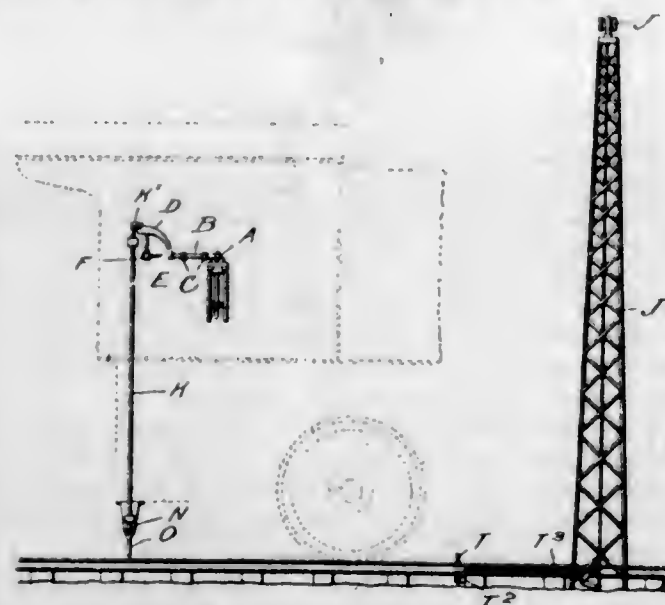
1. Heating apparatus of the class described comprising in connection with the smoke pipe of a stove, a drum having its top and bottom connected to the smoke pipe and having an opening in one side, and a closure for said opening and also provided with a slide damper in its bottom movable to open or closed position with relation to the smoke pipe, and an air pipe passing through the smoke pipe arranged therein and including an elbow arranged in the drum and passing through one side thereof.

2. Heating apparatus of the class described, comprising in connection with the smoke pipe of a stove, a drum having its top and bottom connected to the smoke pipe and having an opening in one side, and a closure for said opening and also provided with a slide damper in its bottom movable to open or closed position with relation to the smoke pipe, and an air pipe passing through the smoke pipe arranged therein and including an elbow arranged in the drum and passing through one side thereof, the said air pipe being provided with a regulating damper.

3. A drum for use in connection with the smoke pipe of a stove having connectors in its top and bottom and also

provided at the bottom with a slide damper movable to open or closed position with relation to the bottom connector and having an operating rod extending through one side of the drum, the drum being further provided with an opening in one side at the bottom and a closure for said opening, and an air pipe for arrangement in the smoke pipe and including an elbow arranged in the drum and passing through one side thereof.

1,081,892. SIGNAL DEVICE FOR RAILWAYS. HARRY LOROANZO CRAIG, Middletown, N. Y., assignor of one-half to William Paul Corbett, Middletown, N. Y. Filed Mar. 1, 1913. Serial No. 751,569. (Cl. 246—59.)



1. An automatically-operated emergency brake apparatus, comprising a brake lever, a bar connected therewith, a pivotal curved tapering weighted cam engaging the end of said bar, a longitudinally movable releasing bar normally engaging and holding said cam, a lever adapted to actuate said bar, a rock shaft adapted to trip said lever and impart a longitudinal movement to the releasing bar to allow said cam to swing downward to move the bar connected to the valve brake lever, as set forth.

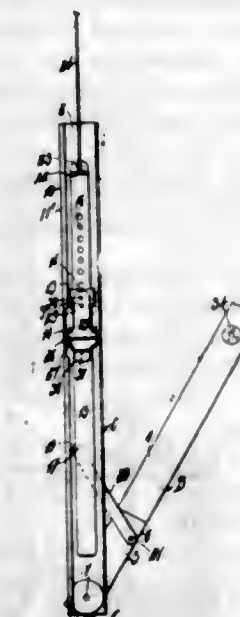
2. An automatically-operated emergency brake apparatus, comprising a brake lever, a bar connected therewith, a pivotal curved tapering weighted cam engaging the end of said bar, a longitudinally movable bar having its upper end angled and normally engaging a notch in said cam, a lever pivoted below the lower end of said angled bar, a rock shaft adapted to engage said lever to impart a longitudinal movement to the bar with an angled end to allow said cam to swing downward and move the bar connected to the valve lever, as set forth.

3. An automatically-operated emergency brake apparatus, comprising a brake lever, a bar connected therewith, a pivotal curved tapering weighted cam engaging the end of said bar, a longitudinally movable bar having its upper end angled and normally engaging a notch in said cam, a lever pivoted below the lower end of said angled bar, a rock shaft adapted to engage said lever to impart a longitudinal movement to the bar with an angled end to allow said cam to swing downward and move the bar connected to the valve lever, a signal, and connections between the same and said rock shaft, as set forth.

1,081,893. WINDOW. DORSETT A. DAVISON, Richmond, Va. Filed Apr. 4, 1913. Serial No. 758,897. (Cl. 20—49.)

1. The combination with a window frame having a groove therein, of a stile member sliding in the groove of the frame, a window sash hingedly connected with the stile member, a plate member adjustable longitudinally of the stile member, a link pivoted to the plate member and to the window sash, and means carried by the stile for locking the plate member in a desired position of adjustment relative to the stile to hold the sash at a selected inclination to such stile.

2. The combination with a window frame having a groove therein, a stile member sliding in the groove of the frame, a window sash, a hinge connection between the stile member and the window sash, a plate sliding on the stile member, a link connection between said plate and the sash, a latch for locking said plate in a predetermined position relative to the stile member to hold the sash at a selected inclination relative to the stile, and means for tripping the latch to release the plate and permit the swinging of the sash in the frame.



3. The combination with a window frame having a groove therein, of a sash, a stile member sliding in the groove, a hinge plate connecting the stile member with the window sash, a shifting link pivoted at one end to the hinge plate, a plate sliding on the stile member and connected with the shifting link, a latch for locking said plate in a predetermined position, and means for tripping the latch, to release the plate and permit the operation of the shifting link and hinge and the swinging of the sash in the frame.

4. The combination with a grooved window frame, of a window sash, a stile member sliding in the groove in the frame, a hinge plate connecting the stile with the sash, said stile having a slot formed therein, a perforated plate sliding on the stile, a latch fulcrumed in the stile member, including a locking pin adapted to project through one of the apertures of the sliding plate and through the stile into a bore in the window sash to lock such sash against swinging movement, and a tripping element located in the groove of the window frame and adapted to trip said latch to release the locking pin and permit the swinging of the window sash.

1,081,894. VANNER. GEORGE F. DE WEIN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 3, 1909. Serial No. 493,647. (Cl. 83—83.)



1. The combination of a frame of an element adapted to be laterally reciprocated and adjustably tilted from end to end, and at least two hanger saddles adapted in combination to be spaced apart a constant distance measured

on a horizontal line, the frame adapted to be adjustably swung on the saddles and at least one of the saddles adapted to be adjustably slid along the frame longitudinally thereof and said saddles having horizontal bores for suspension of said frame to permit lateral vibration thereof, and clamping means for connecting the saddles to the frame when adjusted.

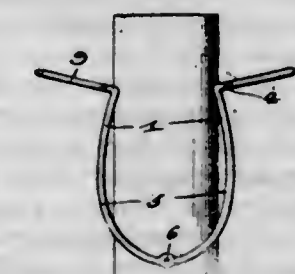
2. The combination of a frame of an element adapted to be laterally reciprocated and adjustably tilted from end to end, and at least two hanger saddles adapted in combination to be spaced apart a constant distance measured on a horizontal line, the frame adapted to be adjustably swung on the saddles and said saddles having horizontal bores for suspension of said frame to permit lateral vibration thereof, and a bolt connecting each saddle to the frame when adjusted, one of the connected parts having an elongated opening extending along the length of the frame and having one of said bolts passing therethrough.

3. The combination of a frame of an element adapted to be laterally reciprocated and adjustably tilted from end to end, and at least two hanger saddles adapted in combination to be spaced apart a constant distance measured on a horizontal line, the frame adapted to be adjustably swung on the saddles and said saddles having horizontal bores for suspension of said frame to permit lateral vibration thereof, and a bolt connecting each saddle to the frame when adjusted, at least one of said saddles having an extension in contact with said frame one of the parts at said contact being curved to permit rolling between the parts and one of said parts having an elongated opening extending generally in the same direction as the chord of said curved part, one of said bolts extending through said elongated opening.

4. The combination of a frame of an element adapted to be laterally reciprocated and adjustably tilted from end to end, and at least two hanger saddles adapted in combination to be spaced apart a constant distance measured on a horizontal line, the frame adapted to be adjustably swung on the saddles and said saddles having three lugs for lateral contact with said frame and said saddles having horizontal bores for suspension of said frame to permit lateral vibration thereof, and a bolt connecting each saddle to the frame when adjusted, at least one of said saddles having an extension with a curved upper surface under said frame for supporting same and having an elongated opening therein within the triangle formed by said lugs, one of said bolts extending through said elongated opening.

5. The combination of a frame of an element adapted to be laterally vibrated and longitudinally adjustably tilted, a hanger saddle having three lugs for lateral contact with said frame, said saddle having a horizontal bore for suspension of said frame to permit lateral vibration thereof, and a bolt connecting said saddle to said frame, said saddle having an extension with a curved upper surface under said frame for supporting same and for adjustably swinging said frame thereon and having an elongated opening therein within the triangle formed by said lugs, said bolt extending through said elongated opening.

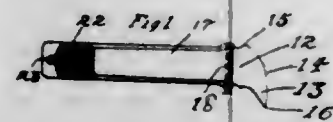
1,081,895. POST-PULLER. EDWARD DUDA, Edholm, Nehr. Filed June 10, 1913. Serial No. 772,889. (Cl. 57—9.)



A device of the class described comprising companion members, each formed of a single length of iron rod bent upon itself intermediate of its ends to form a handle, and thence extended laterally and projected downwardly,

the downwardly-projecting portions being curved and forming with the lateral projecting portions a yoke, and pivotal connections between the free extremities of the yokes so formed.

1,081,898. CUTICLE-CLIPPER. HARLAN E. ECKLER, Elyria, Ohio. Filed Apr. 8, 1912. Serial No. 689,376. (Cl. 30-23.)



A cuticle nipper comprising a pair of jaws formed from a single strip of resilient material doubled intermediate its length whereby the jaws will extend substantially parallel in spaced relation, a head at the free end of each of said jaws, each of said heads being extended to form a tapered finger extending beyond one side of the jaw and having an arcuate outer edge curving outwardly from one side of the jaw to the end of the elongated finger, pivot ears carried by one of said jaws, and an operating lever pivotally connected with said pivot ears and engaging the remaining jaw for operating said cuticle nipper.

1,081,897. MEDICINAL PREPARATION. PAUL EHRLICH and ALFRED BERTHEIM, Frankfurt-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Aug. 6, 1912. Serial No. 713,508. Renewed Aug. 13, 1913. Serial No. 784,612. (Cl. 167-7.)

1. The process of producing a preparation of amino-oxy-arsenobenzenes which comprises treating such products in the form of their hydrochlorids with a solution of a caustic alkali.

2. The process of producing a preparation of amino-oxy-arsenobenzenes which comprises treating such products in the form of their hydrochlorids with a solution of caustic soda.

3. The process of producing a preparation of diamino-dioxy-arsenobenzenes which comprises treating such products in the form of their dihydrochlorids with a solution of caustic alkali.

4. The process of producing a preparation of diamino-dioxy-arsenobenzenes which comprises treating such products in the form of their dihydrochlorids with a solution of caustic soda.

5. The process of producing a preparation of diamino-dioxy-arsenobenzenes which comprises treating such products in the form of their dihydrochlorids with a 15% solution of caustic soda.

[Claims 6 to 17 not printed in the Gazette.]

1,081,898. ORANGE VAT DYE STUFFS AND PROCESS OF MAKING SAME. GADIENT ENGI and JAROSLAV FRÖHLICH, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Oct. 19, 1911. Serial No. 655,498. (Cl. 8-1.)

1. The herein described process for the manufacture of orange vat dyestuffs, which consists in acting with a halogenating agent on a condensation product obtainable by condensing an acenaphthene-quinone compound with an amino-oxythionaphthene.

2. The herein described process for the manufacture of orange vat dyestuffs consisting in acting with a halogenating agent on a condensation product obtainable by heating an acenaphthene-quinone compound with an amino-oxythionaphthene-carboxylic acid, this latter being immediately transformed into the corresponding amino-oxythionaphthene which reacts upon the acenaphthene-quinone compound.

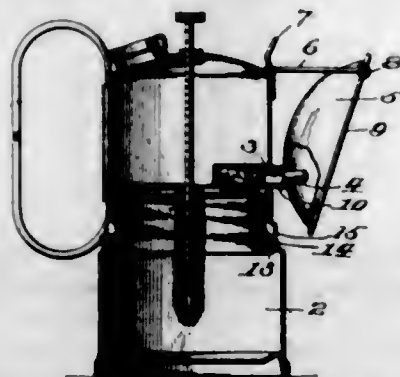
3. The herein described process for the manufacture of orange vat dyestuffs by treating with bromin the condensation products obtainable by condensing acenaphthene-quinone with an amino-oxythionaphthene.

4. The herein described process for the manufacture of orange vat dyestuffs by treating with bromin the condensation products obtainable by heating acenaphthene-quinone with an amino-oxythionaphthene-carboxylic acid, this latter being immediately transformed into the corresponding amino-oxythionaphthene which reacts upon the acenaphthene-quinone compound.

5. As new products the orange vat dyestuffs obtainable by acting with a halogenating agent on a condensation product derived from an acenaphthene-quinone compound and 6-amino-oxythionaphthene, the said vat dyestuffs forming in dry state brownish yellow to brown powders insoluble in water, dissolving in concentrated sulfuric acid with a blue color and dyeing vegetable and animal fibers in an alkaline vat orange to brownish orange shades.

[Claim 6 not printed in the Gazette.]

1,081,899. ACETYLENE-LAMP. LLEWELLYN M. EVANS, Scranton, Pa., assignor to The Scranton Acetylene Lamp Co., Scranton, Pa., a Corporation of Pennsylvania. Filed Sept. 11, 1912. Serial No. 719,852. (Cl. 240-11.)



1. The combination with a lamp body having a substantially radially extending tube, of a reflector having an opening proportioned to embrace the tube, a ball mounted upon the reflector and a resilient latch member carried upon the body positioned to engage the ball.

2. The combination with a lamp body having a gas discharge tube protruding from one side, of a concave reflector having an opening removed from its axis proportioned to embrace the tube, an engaging member carried by the lamp body, and a connecting member carried by the reflector proportioned to interengage with the engaging member.

3. The combination with a lamp body having a gas discharge tube protruding from one side of a reflector having an opening, a tube rigidly secured communicating with the opening, said tube and opening being proportioned to embrace the gas discharge tube and located adjacent the lower edge of the reflector and means connected adjacent the upper edge of the reflector adapted to secure the reflector to the lamp body.

4. The combination with a lamp body having an engaging member extending outwardly therefrom, a gas discharge tube protruding from the lamp body below and in axial alignment with the engaging member, a reflector having an opening proportioned to embrace the gas discharge tube, such opening being located adjacent its lower edge, and a ball pivoted to the reflector adjacent its upper edge adapted to engage over the engaging member.

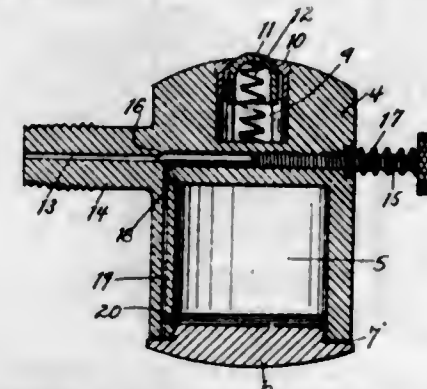
5. The combination with a lamp body having a tube extending from the side thereof, of a concave reflector having an opening proportioned to embrace the tube and adjacent the lower edge thereof, and resilient connection between the top of the reflector and said lamp body.

[Claim 6 not printed in the Gazette.]

1,081,900. ENGINE-PRIMER. FRANK FAGERBERG, Lindaborg, Kans., assignor of one-fourth to Ernest T. Nygren and one-fourth to Albert F. Nygren, Bridgeport, Kans. Filed Jan. 11, 1913. Serial No. 741,411. (Cl. 48-155.)

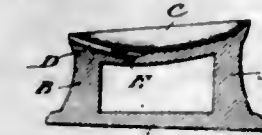
1. A device of the kind described comprising a receptacle having a bottom portion removably secured thereto;

a nozzle near the top portion of said receptacle and adapted to be connected with the cylinder of an engine; a valve in the wall of said receptacle in communication with said nozzle, the upper portion of the wall of said receptacle being provided with a perforation permitting of communication from the upper portion of said receptacle with said valve and a passage in the side wall opening into the lower portion of said receptacle permitting of communication from the lower portion of said receptacle to said valve; and a spring-held valve for admitting air to the upper portion of said receptacle, substantially as described.



2. A device of the kind described comprising a receptacle having a bottom portion removably secured thereto; a nozzle near the top portion of said receptacle and adapted to be connected with the cylinder of an engine; a valve in the wall of said receptacle in communication with said nozzle, the upper portion of said receptacle being provided with a perforation permitting of communication from the upper portion of said receptacle with said valve and a passage in the side wall opening into the lower portion of said receptacle permitting of communication from the lower portion of said receptacle to said valve, said upper wall being also provided with recesses extending upwardly from the interior of said receptacle and a communication joining the upper ends of said recesses; and a spring held valve in said communication adapted to admit air through said recesses into said receptacle, substantially as described.

1,081,901. HYPODERMIC SPOON. THOMAS H. FORSTER, Cincinnati, Ohio. Filed June 1, 1912. Serial No. 701,109. (Cl. 128-28.)

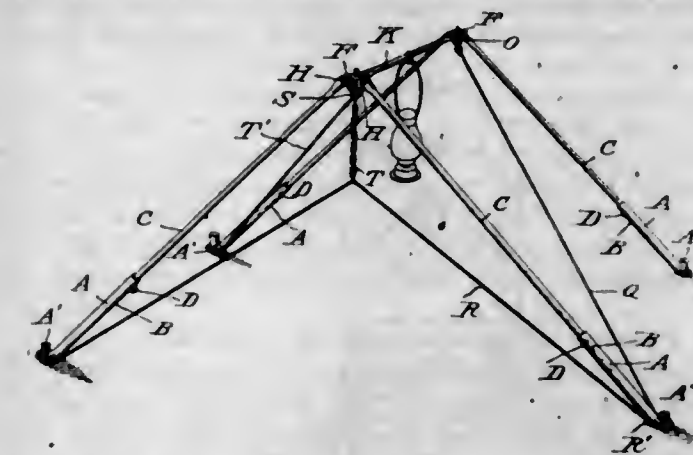


A device of the character specified comprising a spoon, a support for said spoon, said support being provided with a space under said spoon for the introduction of a heating agent, a channel in said spoon adapted to receive a hypodermic needle, and a reservoir in the cavity of said spoon in which the eye of said needle is adapted to lie when said needle is in said channel.

1,081,902. FRAME FOR TENTS. ROBERT B. FOWZER, Butler, Pa. Filed July 3, 1913. Serial No. 777,370. (Cl. 135-4.)

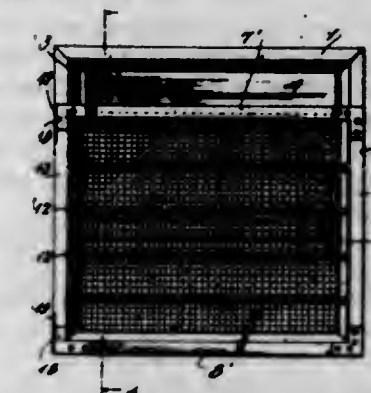
A frame for tents comprising a casting having oppositely disposed lugs arranged in pairs in planes at right angles to each other, spaced apart and apertured, the lower portion of the casting being apertured and a pin projecting centrally from the top thereof, inclined rods connected at their upper ends to said lugs and having perforations therein, stationary socket members in which the lower ends of said rods are adapted to telescope, pins passing through registering apertures in the socket members and rods, a horizontally disposed bar pivoted intermediate the lugs and at right angles to said inclined supporting rods, a chain fastened in the aperture in the lower end of the casting, a rope adapted to have its ends an-

chored to the ground and engaging said chain, and diagonally and oppositely arranged bracing ropes fastened at



their upper ends to the casting and designed to be anchored at their lower ends to the ground, as set forth.

1,081,903. EGG-TRAY FOR INCUBATORS. FRANK GEIGER, Everest, Kans., assignor to Our Manufacturing Company. Filed Oct. 3, 1912. Serial No. 723,809. (Cl. 119-44.)



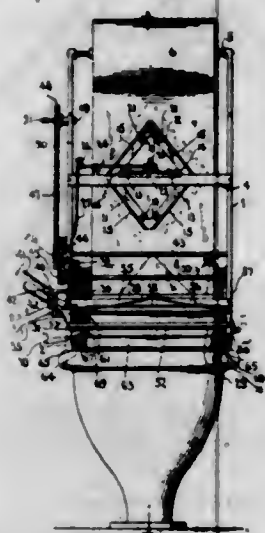
The combination with an incubator tray comprising a frame having a reticulated bottom, of an egg turning rack shorter than and slidable on said tray and comprising an open frame, one side member of which is provided with a plurality of laterally extending sockets on its inner face, a wear plate secured to the inner face of said side member and having apertures registering with said sockets, the other side member being constructed in longitudinally horizontally separable sections, one of said sections being fixed to the end members of said frame and provided with a plurality of notches extending transversely from the inner face of said section through a portion of the width thereof, said notches being arranged in alignment with the sockets in the other side member, rods removably mounted in said sockets and notches, the other section of said side member being arranged over said notches, lugs extending laterally inward from the end members of said frame over said sectional side member and end whereby said member is adapted to slide, and longitudinal stops on the outer face of said removable section at its opposite ends for limiting the inward movement of said section.

1,081,904. MACHINE FOR CUTTING AND FEEDING SANITARY PAPER COVERINGS FOR CLOSET-SEATS. OTTO M. GILBERTSON, La Crosse, Wis. Filed Feb. 13, 1913. Serial No. 748,225. (Cl. 164-31.)

1. A paper cutter comprising a fixed die having a stationary blade; and a movable die including a frame, a blade pivoted at one end to said frame in position to pass across the edge of the stationary blade, and yielding means for pressing its other end away from its frame on a line substantially at right angles to the direction of movement of said frame.

2. A paper cutter comprising a fixed die having a stationary blade; combined with a movable die comprising a frame moving toward and from the fixed die, a blade pivoted at one end to said frame in position to pass the

edge of said stationary blade, guides on the frame for permitting a lateral movement of the other end of said blade, and a spring pressing this end of such blade normally away from the frame, for the purpose set forth.



3. A paper cutter comprising a fixed die having a stationary blade; combined with a movable die comprising a frame moving toward and from the fixed die, a blade pivoted at one end to said frame in position to pass the edge of said stationary blade, the remote end of the frame having a recess with an apertured inner wall, a bolt secured to this end of the movable blade and lying in said recess with its body passing through the aperture, a nut on the inner end of said bolt, and an expansive spring coiled on the bolt between said wall and the blade, for the purpose set forth.

4. In a paper cutting machine, the combination with a fixed die having a stationary blade; of a movable die comprising a frame, means for moving it toward and from the fixed die, a pivot screw upstanding from one end of the frame and an apertured lug upstanding from the other, a blade having an apertured lug at one end mounted on said pivot screw with its body standing alongside said frame and adapted to pass the edge of the stationary blade when the frame is moved, a bolt projecting from the other end of said blade through the apertured lug on the frame, and an expansive spring coiled on this bolt between said lug and this end of the blade, for the purpose set forth.

5. In a paper cutter of the class described, the combination with a female die of substantially diamond shape having stationary cutting blades; of a male die adapted to coact therewith and comprising a frame with means for moving it toward and from the female die, blades pivotally mounted at their inner ends on said frame and having their bodies growing narrower from their pivoted to their outer ends and standing alongside said frame, and yielding means for pressing said bodies normally away from the outer ends of the frame and into shearing action with the edge of said stationary blade, as described.

[Claim 6 not printed in the Gazette.]

1,081,905. OIL-PRESS. MICHAEL B. GREEN, Memphis, Tenn. Filed Mar. 18, 1913. Serial No. 755,193. (Cl. 100—54.)

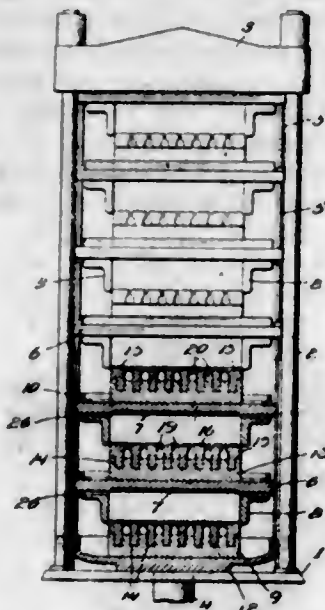
1. A mat for oil presses comprising a channeled base, a plurality of bars seated in the channels and having slots therein, said bars constructed to produce oil discharge channels which communicate with the slots.

2. A mat for oil presses comprising a channeled base, a plurality of bars seated in the channels and having slots therein, said bars constructed to produce oil discharge channels which communicate with the slots and means to hold the bars in the channels.

3. A mat for oil presses comprising a channeled base and bars seated in the channels and constructed to co-act with the base to produce oil discharge passages, said bars having slots to communicate with said passages.

4. A mat for oil presses comprising a channeled base, a plurality of bars having wide heads and narrow longitudinal ribs, the under side of the heads and the walls of

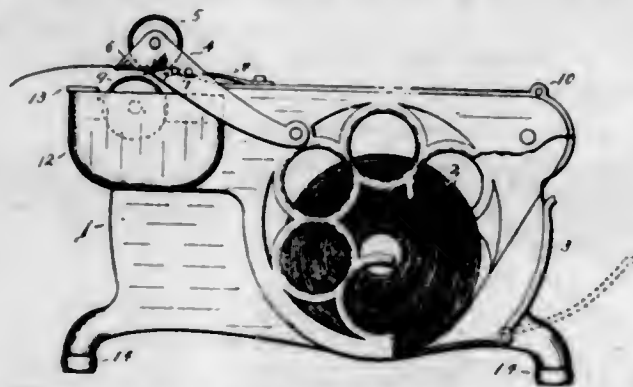
the ribs coacting with the base to produce oil discharge passages, said bars having slots extending through the head and in communication with the passages.



5. A mat for oil presses comprising a channeled base, a plurality of bars having wide heads and narrow longitudinal ribs, the under side of the heads and the walls of the ribs coacting with the base to produce oil discharge passages, said bars having slots extending through the head and in communication with the passages, lugs on the ends of the bars and means for engaging the lugs to hold the bars on the base.

[Claims 6 to 8 not printed in the Gazette.]

1,081,906. LABEL-MOISTENING MACHINE. JULES F. HANCOCK and CARROLL E. FISK, San Francisco, Cal. Filed Mar. 29, 1913. Serial No. 757,718. (Cl. 91—14.)



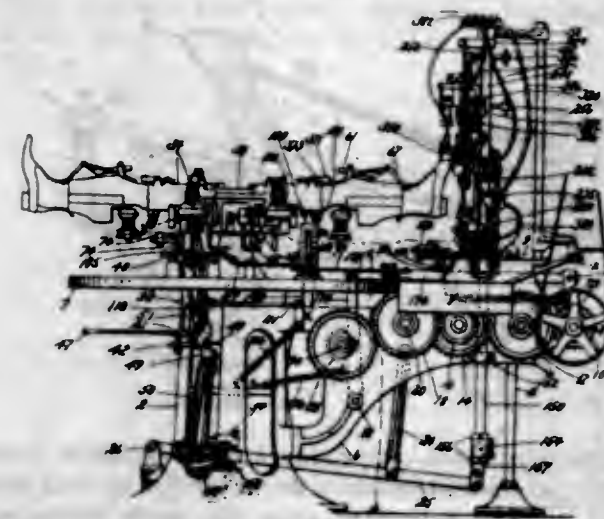
In combination in a label moistening machine, a support for a roll of labels, a table over which the label strip passes in exposed condition, a moistening roll at one end of the table, a feed roll above the moistening roll, a normally elevated spring support for the feed roll with guide means thereon for the paper, said spring support with its guide means holding the paper above and separated from the moistening roll normally but allowing said paper to remain in contact with the table, said feed roll, when pressed down, forcing the paper upon the moistening roll and permitting the paper to be fed between it and the moistening roll, substantially as described.

1,081,907. MACHINE FOR IRONING BOOTS AND SHOES. JOHN S. HANSEN, Medford, Mass., assignor to O. A. Miller Treeling Machine Company, Portland, Me., a Corporation of Maine. Filed Feb. 1, 1905. Serial No. 243,690. (Cl. 12—68.)

1. In a machine for treating the uppers of shoes, a plurality of tools, means for reciprocating said tools in contact with the shoe, and means for moving said tools laterally away from the side of the shoe to put them into inoperative relation to the shoe.

2. In a machine for treating the uppers of shoes, a plurality of yieldingly mounted tools, a support for said

tools, means for reciprocating said support longitudinally of the shoe with the tools in contact with the shoe, and means for moving the support in a direction at an angle to the direction of its reciprocation for shifting the tools toward and from position to operate upon the shoe.



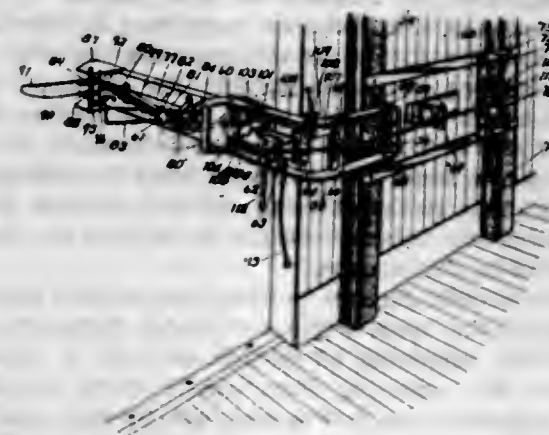
3. In a machine for treating the uppers of shoes, tools for treating the shoe, means for moving said tools laterally with respect to the sides of the shoe toward and from position to engage the shoe, and means for reciprocating the tools longitudinally of the shoe while in contact therewith.

4. In a machine of the class described, tools for treating the upper of a shoe, a support for said tools, means for actuating said support to reciprocate the tools longitudinally of the shoe, and means for turning said support to swing the tools toward and from operative position with relation to the shoe.

5. In a machine of the class described, sets of tools for simultaneously treating a shoe upon its opposite sides, means for reciprocating said tools in contact with the shoe, and means for simultaneously moving said sets of tools laterally with relation to the side of the shoe, in opposite directions toward and from position to operate upon the shoe.

[Claims 6 to 67 not printed in the Gazette.]

1,081,908. MAIL-BAG RECEIVING AND DELIVERING APPARATUS. HENRY J. HEDRICK, Kansas City, Kans. Filed Sept. 3, 1912. Serial No. 718,331. (Cl. 105—231.)



1. The combination with a bag holder, of a traveling member comprising a carriage, a pick-up head pivotally mounted on the carriage, means for yieldingly retaining said head in operative position, and pawl and ratchet mechanism on the carriage and head for locking said head against the tension of said yielding means when the head retreats under impact with a bag, substantially as set forth.

2. In a mechanism of the character described, a traveling member comprising a pivotally mounted carriage adapted for projection through a car door, a take-up head pivotally mounted in the carriage and comprising a stop arm adapted for travel within the carriage, a weight and a cable connecting the weight with said stop arm, a stop

for holding the head against the tension of said weight, a ratchet on said head, and a pawl on said carriage for locking the head against the tension of said weight.

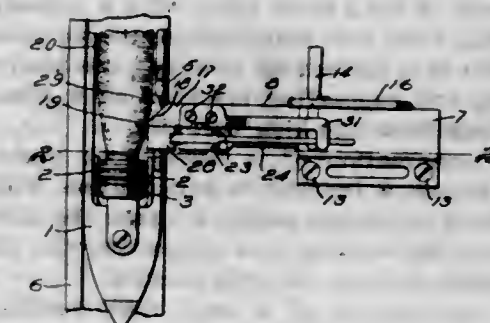
3. In a mechanism of the character described, a pivotally mounted carriage, a head pivotally mounted on the carriage and comprising a stop arm adapted for travel within the carriage, and having a foot provided with a fulcrum projection, a yielding member connected with said fulcrum projection, a stop adapted for engagement by said foot to hold the arm against the tension of said yielding means, and mechanism on said head for clamping a bag thereto.

4. In a mechanism of the character described, a pivotally mounted carriage, a head pivotally mounted on the carriage and comprising a stop arm having a foot provided with a fulcrum projection, a yielding member connected with said fulcrum projection, a stop adapted for engagement by said foot to hold the arm against the tension of said yielding means, and means for manually turning said arm against the tension of said yielding means.

5. In a mechanism of the character described, a pivotally mounted carriage, a head pivotally mounted on the carriage and comprising a stop arm having a foot provided with a fulcrum projection, a yielding member connected with said fulcrum projection, a stop adapted for engagement by said foot to hold the arm against the tension of said yielding means, a rope connected with said foot, and means on said head for holding a bag.

[Claims 6 to 31 not printed in the Gazette.]

1,081,909. FEELER-MOTION FOR LOOMS. JOHN HENDRY, Lawrence, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 28, 1913. Serial No. 763,987. (Cl. 139—85.)



1. In a feeler motion for filling replenishing looms, the combination of a feeler slide having a feeler toe or point, a detector mounted on said slide and having a detector head at one side of said feeler toe or point and an indicator head at the opposite side of said toe or point.

2. In a feeler motion for filling replenishing looms, the combination of a feeler slide having a feeler toe or point adapted to contact with and sink into the filling on the bobbin or filling carrier, a detector pivotally mounted on said slide and having a detector head at one side of said toe or point and an indicator head at the opposite side of said toe or point.

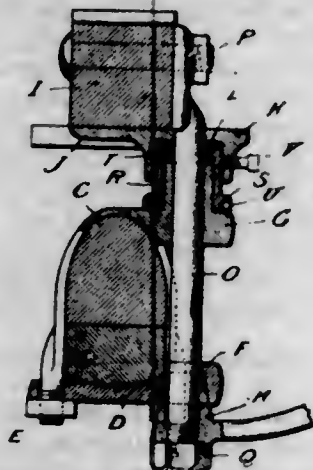
3. In a feeler motion for filling replenishing looms, the combination of a feeler slide having a feeler toe or point adapted to contact with and sink into the filling on the bobbin or filling carrier, a detector pivotally mounted on said slide and having a detector head at one side of said toe or point and an indicator head at the opposite side of said toe or point, said feeler toe or point being extended beyond the edges of the detector and indicator heads.

4. In a feeler motion for filling replenishing looms, the combination of a feeler slide having a portion to contact with and sink into the filling on the carrier when there is a working supply of filling opposite said portion, a detector adapted to engage the filling when the said portion has sunk thereinto, and to be moved by said filling, and means to indicate the presence of filling beyond the point where the detector acts and to move said detector when the filling opposite thereto fails to move it and there yet remains a working supply of filling on the carrier.

5. A feeler motion for filling replenishing looms, comprising in its construction, a feeler slide having a feeler toe or point adapted to contact with and sink into the filling on a carrier, a detector having a detector head to contact with the filling on the carrier and tilt the detector when the said feeler toe or point has sunk into a working supply of filling, and an indicator head to indicate the presence of filling beyond the points where the detector head and toe act and to tilt the detector when it fails to be tilted by the detector head and there yet remains a working supply of filling on the carrier.

[Claims 6 to 10 not printed in the Gazette.]

1,081,910. VEHICLE-GEAR. LESTER E. HICKOK, Mechanicsburg, Pa., assignor of one-half to Frank E. Wilcox, Mechanicsburg, Pa. Filed Mar. 29, 1913. Serial No. 757,578. (Cl. 21-24.)



1. The combination of a king bolt clip having a perforated head, a head block plate with a threaded perforation, a king bolt, and threaded adjustable means located between the said perforated head and the head block plate for moving and supporting the head block plate at different distances from the king bolt clip.

2. The combination of a head block plate having a threaded recess, a bearing in combination with the axle, and threaded adjustable means between the said plate and said bearing for moving and supporting the plate at different distances from the said bearing.

3. The combination of a head block having a bearing element, an axle provided with a bearing element, a king bolt, and adjustable means located between and movable independently of said bearing elements for raising the head block and supporting it at different distances from the axle.

4. The combination of a perforated and threaded head block plate, an axle clip with a perforated head, a king bolt, and a perforated and threaded element for adjusting the head block plate relative to the axle clip, the king bolt being located within the perforations of the several perforated elements.

5. The combination of a head block having a bearing element, an axle having a bearing element, one of said elements being threaded, a threaded element adapted to be bodily rotated relatively to said bearing elements to separate and support said elements at different distances from each other, and means for locking said threaded element against rotation.

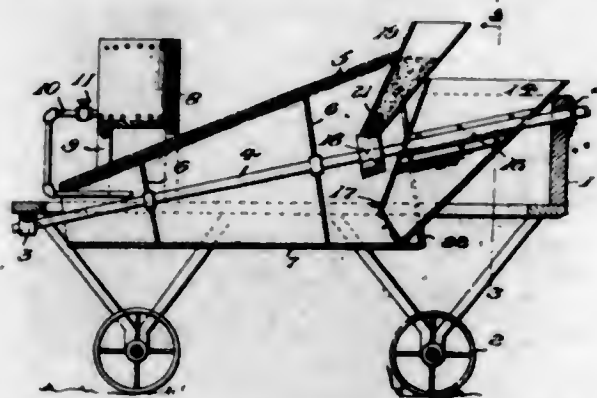
[Claim 6 not printed in the Gazette.]

1,081,911. CONCRETE-MIXER. GEORGE FRANCIS NYE, Kearney, Nebr. Filed May 15, 1913. Serial No. 767,853. (Cl. 83-73.)

1. In a concrete mixer, the combination of a drum, an operating shaft carrying said drum, a feeding disk secured upon the said shaft within the drum, and hoppers having their lower ends entering the drum and disposed in juxtaposition to the bottom of the drum and the said feeding disk respectively.

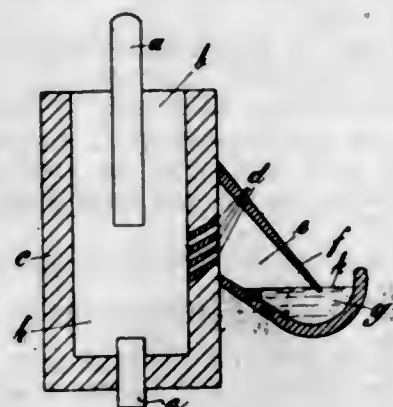
2. A concrete mixer comprising a main frame, a driving shaft mounted in the main frame, a mixing drum car-

ried by said shaft, hoppers disposed upon the main frame at opposite sides of the shaft and entering the drum, a feeding disk on the shaft within the drum, and a hopper disposed above the first-mentioned hoppers and having its lower end immediately over the said feeding disk.



3. A concrete mixer comprising a main frame, a driving shaft mounted on said frame, a drum carried by said shaft, a pair of hoppers supported upon the main frame with their lower ends within the drum and having a common inner wall, said wall having a groove to receive the driving shaft, and a plate secured to the said wall and fitting around the driving shaft.

1,081,912. SMELTING-FURNACE. KARL OSKAR ERNFRID OLAUSSON, Trollhättan, Sweden, assignor to Trollhättans Elektrothermiska Aktiebolag, Stockholm, Sweden. Filed Sept. 6, 1911. Serial No. 647,898. (Cl. 204-64.)



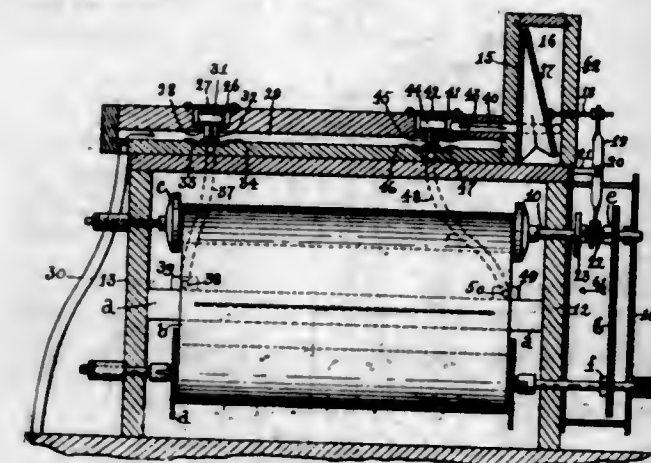
1. In an electric furnace in combination with the smelting chamber, electrodes for supplying an electric current to the charge within the said smelting chamber, a condensing chamber arranged outside the furnace, and a single means for conducting gases, evolved during the reduction of the ore, to the condensing chamber, in which the condensable gases are separated from the non-condensable gases owing to the difference in their specific weights, and reconducting non-condensable gases from the condensing chamber to the furnace.

2. In an electric furnace in combination with the smelting chamber, the upper portion of which forms the shaft, electrodes for supplying an electric current to the charge within the said smelting chamber, a liquid sealed condensing chamber arranged outside the furnace and a single means for conducting gases, evolved during the reduction of the ore, to the condensing chamber, in which the condensable gases are separated from the non-condensable gases owing to the difference in their specific weights, and reconducting non-condensable gases from the condensing chamber to the furnace.

3. In an electric furnace in combination with the smelting chamber the upper portion of which forms the shaft electrode for supplying an electric current to the charge within the said smelting chamber a liquid sealed condensing chamber, arranged outside the furnace and extending in a downwardly inclined direction from the smelting chamber, and a single means for conducting gases, evolved during the reduction of the ore, to the condensing chamber, in which the condensable gases are separated from the non-

condensable gases owing to the difference in their specific weights, and for re-conducting non-condensable gases from the condensing chamber to the furnace.

1,081,913. PAPER-FEED-CONTROLLING APPARATUS FOR PIANO-PLAYERS. ERIC R. PHILBLADE, Fall River, Mass. Filed June 6, 1911. Serial No. 631,631. (Cl. 84-161.)



1. The combination with the tracker board of an instrument of the character described, of a paper web movable across said tracker board and provided with perforations which register with the openings in said tracker board, a delivery roll and a receiving roll for said paper web located on opposite sides of said tracker board, a chamber, a main pneumatic located in said chamber and provided with a member movable in said chamber, means for operatively connecting the movable member within said chamber with the said delivery roll located outside of said chamber, valve containing chambers connected respectively with said chamber and with the main pneumatic therein, each of said valve containing chambers having a port leading to the atmosphere and a second port leading to an exhaust passage, valves in said chambers controlling said ports, auxiliary pneumatics for operating said valves, and air inlet ports connected with said auxiliary pneumatics and normally covered by said paper web near the opposite side edges thereof, when the paper web is feeding in a proper manner and uncovered by said paper web when the latter is feeding in an improper manner, substantially as described.

2. In an instrument of the character described, in combination, a main pneumatic having a movable member, a device operatively connected with said movable member, to be operated thereby, a chamber in which said movable member is located, a valve containing chamber connected with said main pneumatic, a second valve containing chamber connected with the chamber in which the movable member of the main pneumatic is located, valves in said chambers controlling the admission of air into and its exit from said main pneumatic and the chamber in which it is located, auxiliary pneumatics for operating said valves, and means for controlling said auxiliary pneumatics to operate said valves and thereby control movement in opposite directions of the movable member of the main pneumatic and the device governed thereby, substantially as described.

3. In an instrument of the character described, in combination, a roll having thereon a paper web and movable longitudinally in opposite directions, a main pneumatic having a movable member, a chamber in which said main pneumatic is located, means for operatively connecting the movable member of said main pneumatic with said roll, a valve containing chamber connected with said main pneumatic, a second valve containing chamber connected with the chamber in which the movable member of the main pneumatic is located, valves in said chambers controlling the admission of air into and the exit out of said main pneumatic and into and out of the chamber in which said main pneumatic is located, auxiliary pneumatics for operating said valves, and air inlet ports connected with said auxiliary pneumatics and governed by said paper web, substantially as described.

4. In an instrument of the character described, in combination, a roll having thereon a paper web and movable longitudinally in opposite directions, a main pneumatic having a movable member, a chamber in which said main pneumatic is located, a lever operatively connected with said roll for moving the same, a device connected with said lever and with the movable member of the pneumatic within said chamber, a valve containing casing connected with said main pneumatic, a second valve containing casing connected with the chamber in which the movable member of the main pneumatic is located, valves in said chambers controlling the admission into and exit out of the said main pneumatic and into and out of the chamber in which said main pneumatic is located, auxiliary pneumatics for operating said valves, and air inlet ports connected with said auxiliary pneumatics and governed by said paper web, substantially as described.

1,081,914. BOBBIN-STRIPPER. GEORGE W. RAMSEY, Washington, D. C., assignor to Richard Walworth, Walham, Mass. Filed Apr. 19, 1909. Serial No. 490,740. (Cl. 118-26.)



1. A bobbin stripper comprising a frame, means for forming the sides of troughs, and a series of pairs of inclined stripper rolls, forming the bottom of said troughs, and means for driving said rolls, substantially as described.

2. A bobbin stripper comprising a frame, a pair of longitudinal inclined rolls, members adapted to extend upwardly from said rolls and to form a trough, the bottom of which is closed by said rolls, one member of said trough being movable endwise.

3. A bobbin stripper comprising a frame containing rolls of substantially the same diameter in frictional contact with each other, said rolls being inclined to the horizontal, and means for advancing the bobbins along the rollers and removing said bobbins from said rolls.

4. A bobbin stripper comprising a frame containing longitudinally inclined rolls arranged in pairs, said pairs being separated by a reciprocating partition, substantially as described.

5. A bobbin stripper comprising inclined rolls upon which the bobbins are adapted to lie, means for operating said rolls and means for causing the bobbins to assume a direction substantially that of said rolls.

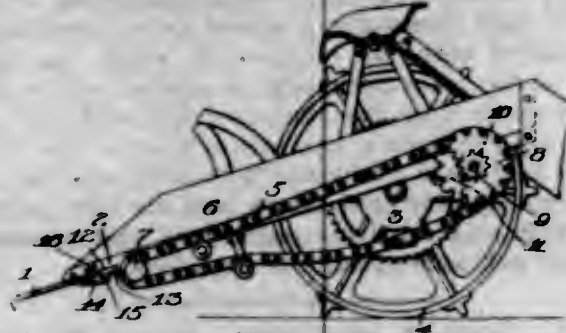
[Claims 6 to 15 not printed in the Gazette.]

1,081,915. AGRICULTURAL IMPLEMENT. WILLIAM H. RICE, Rochester, N. Y. Original application filed Sept. 15, 1909, Serial No. 517,841. Divided and this application filed July 18, 1912. Serial No. 710,207. (Cl. 55-51.)

1. In a digger, the combination with a shovel, of an endless conveyor operating in rear of the shovel, and a plurality of upwardly yielding gates extending from the shovel toward the conveyor and tapered at their rear ends adjacent the conveyor.

2. In a digger, the combination with a shovel, of an endless conveyor operating in rear of the shovel and a plurality of upwardly yielding gates having their upper surfaces normally in alignment with the upper surface of the shovel, said gates being tapered at their rear ends adjacent to the conveyor.

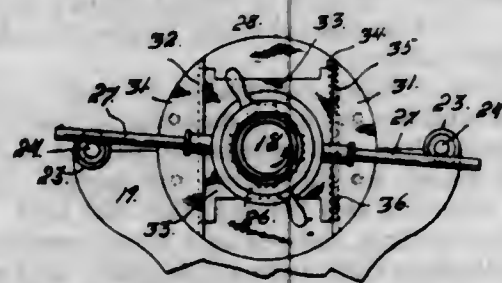
3. In a digger, the combination with a shovel, of an endless conveyor operating in rear of the shovel, and a plurality of upwardly yielding gates extending from the shovel toward the conveyor, said gates comprising upper portions, lower portions adapted to engage the under surface of the shovel, and curved shoulders connecting said lower portions and the upper portions.



4. In a digger, the combination with a shovel, of an endless conveyor operating in rear of the shovel, a plurality of upwardly yielding gates extending from the shovel toward the conveyor, said gates embodying upper portions, lower portions adapted to engage the under surface of the shovel, and curved shoulders connecting the upper and lower portions, the gates being tapered at their rear ends adjacent to the conveyor.

5. In a digger, the combination with a shovel, of an endless conveyor operating in rear of the shovel, a shaft extending transversely of the shovel, a plurality of upwardly yielding gates spaced from each other and mounted for independent movement on said shaft, the gates having upper portions adapted normally to form a continuation of the upper surface of the shovel, lower portions arranged to engage the under surface of the shovel, and curved shoulders connecting said upper and lower portions, the gates being tapered at their rear ends adjacent to the conveyor.

1,081,916. PIPE THREADING AND CUTTING MACHINE. FREDERICK H. SAMPSON, Denver, Colo. Filed Aug. 19, 1912. Serial No. 715,716. (Cl. 10—39.)

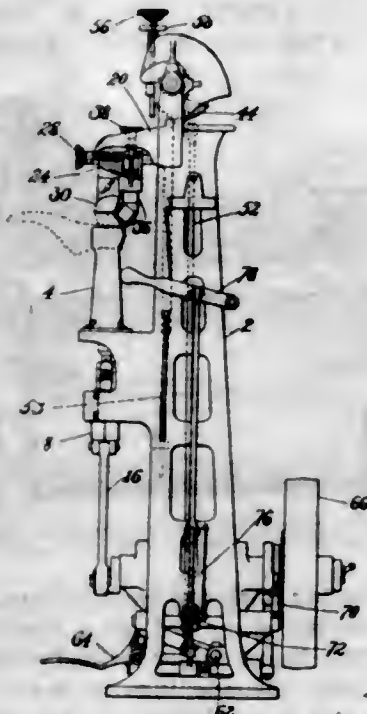


1. In a machine, a sleeve adapted to receive a pipe, means mounted on the sleeve for holding the pipe in place to rotate with the sleeve, a stock carrying a die adapted to be applied to the pipe, bars mounted on the machine arranged parallel with the pipe to be threaded, and separated to engage the arms of the die stock, said bars being longitudinally adjustable, substantially as described.

2. In a machine, a sleeve adapted to receive a pipe, means for rotating the sleeve, means mounted on the sleeve for holding the pipe in place to rotate with the sleeve, a stock carrying a die adapted to be applied to the pipe, tubular members carried by the machine and arranged parallel with said sleeve, bars freely slidable in the said tubes, the bars when extended being arranged to respectively engage the arms of the die stock for the purpose set forth.

3. In a machine, a sleeve adapted to receive a pipe, means mounted in the sleeve for holding the pipe in place to rotate with the sleeve, a tool adapted to be applied to the pipe, a bar mounted on the machine parallel with the sleeve and when in operative position adapted to engage said tool, said bar being adapted to be slid longitudinally into the machine away from engagement with the tool, substantially as described.

1,081,917. HEEL-ATTACHING MACHINE. ELIPHALET A. TRIPP, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1907. Serial No. 386,588. (Cl. 1—32.)



1. A heel-attaching machine, having in combination, means for pressing a heel upon the heel seat of a shoe arranged to exert pressure toward the heel seat upon a predetermined portion of the surface of the heel at the rear intermediate its tread surface and its heel seat surface and constructed for adjustment to accommodate heels varying in size or contour, and means for securing the heel to the shoe.

2. A heel-attaching machine, having in combination, means for pressing a heel upon the heel seat of a shoe arranged to exert pressure toward the heel seat upon the tread surface of the heel and upon a predetermined portion of the surface of the heel at the rear intermediate said tread surface and its heel seat surface, and constructed for adjustment to accommodate heels varying in size or contour, and means for securing the heel to the shoe.

3. A heel-attaching machine, having in combination, a shoe support formed to enter a shoe, drivers arranged within the support for driving nails through the sole of the shoe into a heel, means for sustaining the heel against the thrust of the drivers comprising a member arranged to have contact with the tread surface of the heel and an auxiliary device at the rear of said member for engaging a predetermined portion of the rear of the heel intermediate its tread surface and heel seat surface and resisting pressure in the direction of the height of the heel, said device being arranged for adjustment longitudinally of the shoe whereby heels of different sizes may be acted upon uniformly, and mechanism for moving relatively said support and said means to press a heel upon its heel seat.

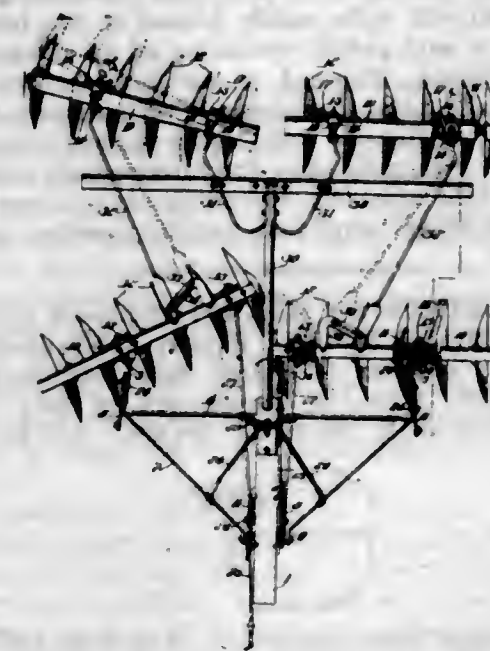
4. A heel-attaching machine, having in combination, a shoe support formed to enter a shoe, drivers arranged within the support for driving nails through the sole of the shoe into a heel, means for sustaining the heel against the thrust of the drivers comprising a member arranged to have contact with the tread surface of the heel and arranged for adjustment to permit its acting face to be given different degrees of inclination longitudinally of the shoe, and an auxiliary device at the rear of said member for engaging the rear of the heel intermediate its tread surface and heel seat surface, and mechanism for moving relatively said support and said means to press a heel upon its heel seat.

5. A heel-attaching machine, having in combination, a shoe support formed to enter a shoe, drivers arranged within the support for driving nails through the sole of the

shoe into a heel, means for sustaining the heel against the thrust of the drivers comprising a member arranged to have contact with the tread surface of the heel and an auxiliary device at the rear of said member having an acting face inclined upwardly and forwardly of the shoe and formed of yielding elastic material, said device being arranged for adjustment longitudinally of the shoe, and mechanism for moving relatively said support and said means to press a heel upon its heel seat.

[Claims 6 to 18 not printed in the Gazette.]

1,081,918. HARROW. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 10, 1913. Serial No. 760,222. (Cl. 55—83.)



1. The combination with a frame, of front and rear earth agitating devices pivotally connected thereto, a bar pivotally connected to one of the devices at one side of its pivot, and to the other device on the other side of its pivot, said bar having one of its pivot connections adjustable in a horizontal plane to and away from its device, and means for swinging said devices.

2. The combination of a frame, of a front and rear gang of earth agitating devices pivotally connected thereto, a bar pivotally connected to one of the gangs on one side of its pivot, and having an adjustable connection with the other gang on the other side of its pivot to allow the free end of the bar to be adjusted in varying positions swung from the bar-pivot, and means for swinging the gangs.

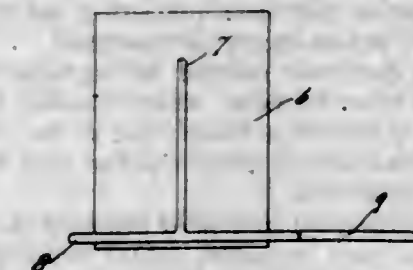
3. The combination with a frame, of a front and rear gang of earth agitating devices pivotally connected thereto, adjustable means connecting the gangs at opposite sides of the pivots of the gangs and capable of adjustment with the gangs parallel without effecting said parallel relation, and so that when the gangs are angled relative to each other a greater divergence of the gangs is obtained, and means for swinging the gangs.

4. The combination with a frame, of a front and rear gang of earth agitating devices pivotally connected thereto, means connecting the gangs and capable of adjustment while maintaining the gangs in a parallel position, to vary the divergence of the gangs when they are angled relative to each other and means for swinging the gangs.

5. The combination with a frame, of a front and rear gang of earth agitating devices pivotally connected thereto, a bar pivoted to one of the gangs on one side of its pivot, a series of connection points carried by the other gang on the other side of its pivot and arranged in a line concentric with the pivot of said bar, the free end of the bar adapted to be fastened at any one of said connection points, and means for swinging the gangs.

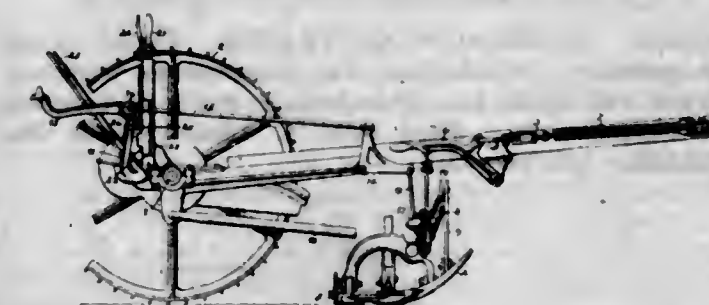
[Claims 6 to 17 not printed in the Gazette.]

1,081,919. SIFTER. ALBERT WEBER, Cleveland, Ohio. Filed May 5, 1913. Serial No. 765,520. (Cl. 83—60.)



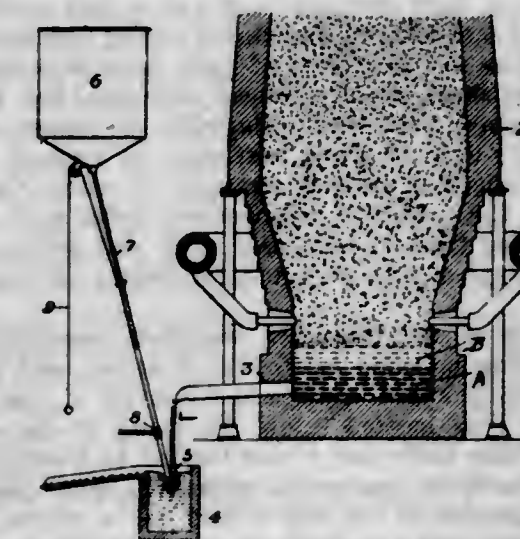
A sifter comprising a frame adapted to be shaken, and having uprights at opposite sides thereof, a vessel, having a sifting screen bottom, pivoted near its top to said uprights and depending at its lower end between opposite sides of the frame to oscillate in a vertical plane between and rap against opposite sides of the frame when the latter is shaken.

1,081,920. MOWING-MACHINE. GEORGE WILSON, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 11, 1911. Serial No. 620,416. (Cl. 56—74.)



In a mowing machine the combination of a main frame, supporting wheels for the frame, a stationary toothed segment, a hand lever, a dog supported by the hand lever and adapted to engage in the toothed segment, a foot lever pivoted concentric with and in the rear of the hand lever and having a portion in the path of movement of said hand lever, and means connected to the foot lever and for connection to the cutting apparatus.

1,081,921. METHOD OF UTILIZING IRON, BLAST-FURNACE, FLUE-DUST. RALPH BAGGALEY, Pittsburgh, Pa. Filed July 24, 1913. Serial No. 780,949. (Cl. 75—48.)



1. The herein described method of utilizing flue dust and fines from iron blast furnaces, which consists in introducing the dust and fines into a sufficient body of molten iron or steel to cause them to be enveloped by the iron or steel and thoroughly mingled therewith; substantially as described.

2. The herein described method of utilizing the fue dust and fines from iron blast furnaces, which consists in mingling the fue dust or fines with molten metal to a point short of solidification, and then subjecting the mixture to a refining action; substantially as described.

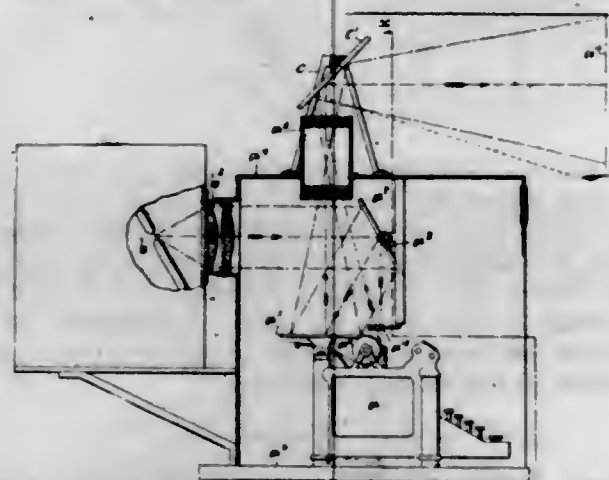
3. The herein described method of utilizing fue dust and fines in iron blast furnaces, which consists in flowing molten iron into a receiving vessel, and at the same time introducing into the molten metal the fue dust and fines; substantially as described.

4. The herein described method of utilizing the fue dust and fines of iron blast furnaces, which consists in first subjecting the material to a preliminary separating operation, and then introducing it into a sufficient body of molten iron or steel to cause the dust to be enveloped by the iron or steel and thoroughly mingled therewith; substantially as described.

5. The herein described method of utilizing the fue dust and fines of iron blast furnaces, which consists in introducing the dust and fines within a body of molten metal while the metal is in a condition of movement by causing the material to be enveloped by the molten metal, and thereby effect a thorough mingling of the dust and fines with the molten metal; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,081,922. PROJECTION APPARATUS. CALEB CANBY BALDERSTON, Philadelphia, Pa., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 4, 1912. Serial No. 729,256. (Cl. 88-24.)

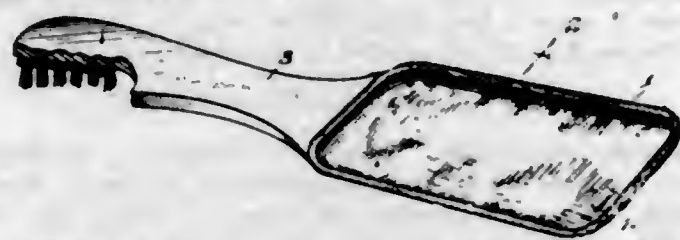


1. The means of the character described, consisting of a type printing machine with a bed along which travels a type-printed sheet and type located below the plane of said sheet, a light emitting body and a lens arranged to one side of said bed, an adjustable mirror arranged opposite said lens to reflect rays of light from said body onto said printed sheet, a lens arranged above said bed, a mirror arranged above said lens, adjustable in respect thereto, an auxiliary-lens arranged vertically in respect to said type and reflecting mirrors arranged to reflect light onto said type, the combined arrangement being such as that the traveling type-printed sheet work and action of said type are adapted to be projected, for display onto a distant screen.

2. Means of the character described, consisting of a type printing machine located in a house, said machine provided with a bed along which travels a type-printed sheet and type located below the plane of the sheet, a light emitting body and a lens located in another house, but in detachable connection with each other, said body and lens located to one side of said bed, a mirror located opposite said lens to reflect rays of light from said body onto said printed sheet, a projecting lens located above said bed, in said machine-house, a mirror arranged above said lens outside of said house, adjustable in respect to said lens, an auxiliary-lens located in said machine-house above said type and reflecting mirrors located in said machine-house to reflect light onto said type, the combined

arrangement being such as that the traveling type printed sheet work and action of said type are adapted to be projected, for display onto a distant screen.

1,081,923. MESSAGE-PADDLE. JOSEPHINE BANKS, East Douglass, Mass. Filed Sept. 26, 1911. Serial No. 651,371. (Cl. 128-16.)



A device of the character described comprising a flat handle, a relatively wide paddle formed at the inner end of said handle, said paddle consisting of an elongated intermediate portion, disposed at an inappreciable curve transversely and being countersunk with respect to said handle, and a co-extensive curvi-linear upwardly extending border formed integrally upon the intermediate portion of said paddle, said upwardly extending curvi-linear border having a more abrupt slant than said intermediate portion.

1,081,924. METHOD OF MAKING PULL-ON DEVICES FOR BOOTS AND SHOES. ERNEST C. BEAUMONT, Revere, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed Sept. 17, 1913. Serial No. 790,356. (Cl. 12-146.)



1. The method herein described of making pull-on devices for boots and shoes, which comprises providing an elongated core piece, folding a plurality of straps transversely about said core piece side by side, with one end only of each strap projecting from the core piece, for attachment to the shoe upper, and then severing the core piece transversely between the straps.

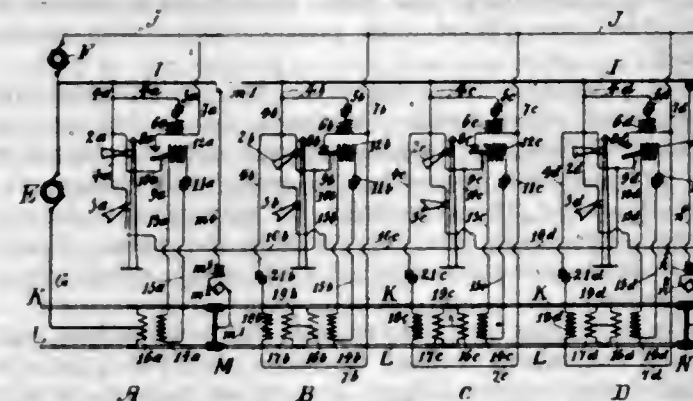
2. The method herein described of making pull-on devices for boots and shoes, which comprises providing an elongated core piece, securing the same transversely to one end only of each of a series of covering straps, folding said straps about said core piece so that the other end of each strap projects therefrom, for attachment to the shoe uppers, and then severing the core piece transversely between the straps.

3. The method herein described of making pull-on devices for boots and shoes, which comprises providing an elongated core piece, folding and securing a plurality of straps transversely about said core piece side by side, with one end only of each strap projecting from the core piece, for attachment to the shoe uppers, and then severing the core piece transversely between the straps.

4. The method herein described of making pull-on devices for boots and shoes, which comprises providing an elongated core piece, securing the same transversely to one end only of each of a series of covering straps, maintaining said covering straps in alignment, folding said straps about said core piece so that the other end of each strap projects therefrom, for attachment to the shoe upper, and then severing the core piece transversely between the straps.

5. That method of making pull-on devices for boots and shoes which comprises severing a strip of quadrilateral cross-section longitudinally to form two core strip pieces of triangular cross section, folding a plurality of straps transversely about one of said core strip pieces side by side, with one end only of each strap projecting from the core strip piece, for attachment to the shoe upper, and then severing the core strip piece transversely between the straps.

1,081,925. RAILWAY SIGNALING SYSTEM. ALBERT V. T. DAX, New York, N. Y., assignor, by mesne assignments, to The Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed July 24, 1906. Serial No. 327,560. (Cl. 246-36.)



1. A combined railway electric traction and traffic-controlling system comprising one transmission line including the railway track and a line conductor extending along the railway, a second transmission line including a second line conductor extending along the railway and including the line conductor already mentioned in common with the first transmission line, a traction current source connected in one transmission line, a traffic-controlling current source connected in the other transmission line, and electrically controllable traffic-controlling apparatus disposed along the railway in control of traffic thereon and arranged to receive energy from the transmission line in which the traffic-controlling current source is connected.

2. A combined railway electric traction and traffic-controlling system comprising two line conductors extending along the railway, a source of traction current connected with the railway track and with one of the line conductors as a traction current transmission line, a source of traffic-controlling current connected with both the line conductors as a traffic-controlling current transmission line having one line conductor in common with the traction current transmission line, and electrically controllable traffic-controlling apparatus disposed along the railway and arranged in control of traffic thereon and connected with both line conductors to receive traffic-controlling current therefrom.

3. A combined railway electric traction and traffic-controlling system comprising two line conductors extending along the railway, a source of traction current of given characteristics connected with the railway track and with one of the line conductors, a source of traffic-controlling current of different characteristics connected with both line conductors, and electrically controllable traffic-controlling apparatus disposed along the railway line in control of traffic thereon and connected with both the line conductors to receive energizing current therefrom and including the track rails in traffic-controlling circuits local to given sections of the railway.

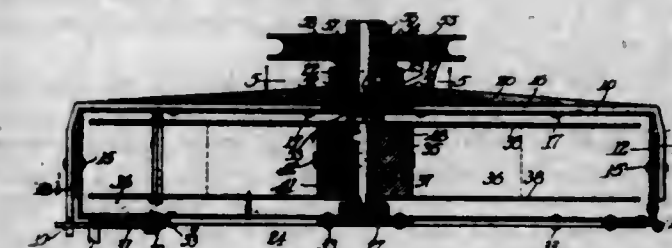
4. A combined railway electric traction and traffic-controlling system comprising a source of alternating traction current of given frequency connected with the railway track as a return path, a line conductor connected with such source of traction current and extending along the railway, a source of alternating traffic-controlling current of different frequency connected with the line conductor already mentioned, a second line conductor connected with such source of traffic-controlling current and extending along the railway, and traffic-controlling apparatus disposed along the railway in control of traffic thereon and connected with both line conductors to receive energizing current therefrom and including sections of the track rails in traffic-controlling circuits local to sections of the railway.

5. A railway traction and traffic-controlling system comprising a traction-current transmission line including two conductors extending along the line of the railway, a second or traffic-controlling current supply transmission line including one conductor of the traction-current trans-

mission line and including another conductor extending along the railway, a generator of traffic-controlling current connected with the second transmission line, traffic-controlling circuit branches each leading from a given point of connection to one conductor of the second transmission line and thence along the railway to a distant point of connection with the other conductor of the second transmission line, traffic-controlling apparatuses controlled by the respective circuit branches, and circuit-controlling means in control of the circuit branches to govern the traffic-controlling apparatuses controllable by such branches respectively.

[Claim 6 not printed in the Gazette.]

1,081,926. MAGAZINE FOR MOVING-PICTURE MACHINES. WALTER A. DIETZE, Chicago, Ill., assignor to Joseph J. Merkl, Chicago, Ill. Filed Mar. 4, 1912. Serial No. 681,583. (Cl. 88-17.)



1. In a magazine structure for moving picture machines, the combination of a reel shaft, a reel therefor upon which the film thereof is supported, a magazine for inclosing said reel, and means for moving said shaft, whereby the reel is maintained against operating until the opening in the magazine for the insertion and removal of its film is sealed against the admission of air therethrough sufficient for the ignition of the film, substantially as described.

2. In a magazine structure for moving picture machines, the combination of a shaft, a reel fixed thereon, means for supporting and inclosing said reel, and means shifting said shaft and thereby maintain the reel against operation until the inclosing means are sealed against the admission of air sufficient for the ignition of the film therein, substantially as described.

3. In a magazine structure for moving picture machines, the combination of a film, a support for the opposite end portions of the film, means for operating said support and the film, means for inclosing the same, means for the introduction of the film to said inclosure, and means for laterally shifting the film, and thereby preventing the operation of the film until its inclosure is sealed against the substantial admission of air, as and for the purpose described.

4. In a magazine structure for moving picture machines, a combination of film supply, and receiving reels, magazines for inclosing said reels and film, provided with doors for the insertion and removal of the reels, and means whereby one or both of said reels are bodily moved to their operative position on the closing of its door, and likewise out of operative position when its door is moved toward an open position, substantially as described.

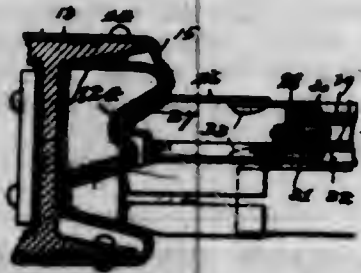
5. A magazine for moving picture machines, comprising in combination film supply and receiving reels, means for simultaneously operating said reels, magazines therefor provided with doors, means connecting said doors with and shifting said reels, whereby the reels are moved to an operative position by the closing of the doors, and out of operation when the doors are open, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,081,927. CAR CONSTRUCTION. GEORGE H. FORBATH, Chicago, Ill. Filed Nov. 2, 1908. Serial No. 480,654. (Cl. 105-92.)

1. In a car, the combination of upright side posts having guides and spaced apart with an opening between them, said opening extending substantially from the floor

of the car to the top of the car side, and a panel mounted in said opening and adapted to slide in said guides, said panel being laterally removable from said guides, substantially as described.



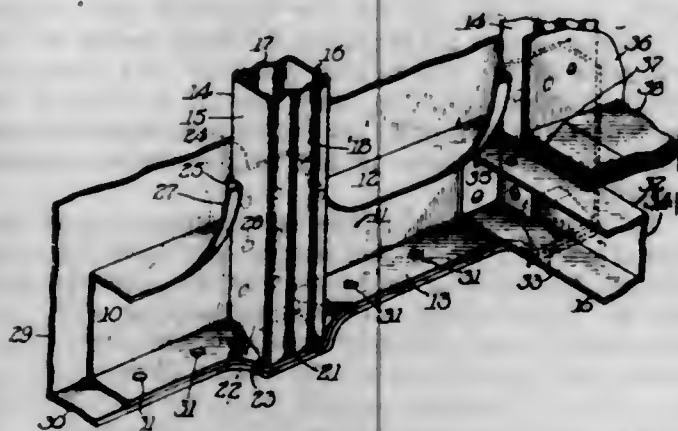
2. The combination with a car side having an opening therein, of a pair of telescoping panels detachably mounted in said opening and engaging the vertical margins thereof, said panels being laterally removable from said guides, substantially as described.

3. The combination of a car side having an opening therein with guides along its upright margins, a panel adapted to fit in said opening, one or more movable shoes for said panel cooperating with said guides, and a window mounted on and movable relatively to said panel, withdrawal of one of said shoes from said guides permitting removal of said panel from said opening, substantially as described.

4. The combination of a car side having an opening therein, with guides along its upright margins, of a panel within said opening, and movable shoes between said panel and said guides whereby on withdrawal of one of said shoes from said guides said panel may be removed from said opening.

5. The combination with a car side having an opening extending substantially its full height, of shoes engaging the vertical margins of said opening, and closure members removably mounted at their vertical edges in said shoes. (Claims 6 to 14 not printed in the Gazette.)

1,081,928. CAR. GEORGE H. FORSYTH, Chicago, Ill. Filed June 10, 1909. Serial No. 501,240. (Cl. 105-201.)



1. In a railway car construction, the combination of a flanged structural member having an integral plate portion, a post secured to the said plate portion, the member at the point of connection of the post therewith having a portion of its flange bent into substantially the plane of the plate portion to form a lateral extension thereof with wings extending obliquely from the connection of such extension with the post to the inner edge of the flange, whereby to lend additional strength and brace the post connection, substantially as described.

2. In a railway car construction, the combination of a flanged structural metal member having a plate portion, and a hollow post secured to said plate portion, said member at the connection of said post therewith having a part of its flange in substantially the plane of said plate portion to lend added strength to such point, substantially as described.

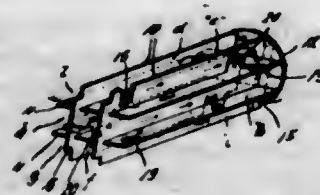
3. In a railway car construction, the combination of a flanged structural metal member having a plate or web portion, and a hollow longitudinally-corrugated car post secured to said plate portion, said member at the connection of the post therewith having a part of its flange bent into substantially the plane of said plate portion to give added strength at such point, substantially as described.

4. In a railway car construction, the combination with a structural metal member having a web and a pair of longitudinal flanges, of a hollow metal car post secured to said web and held in position on one of said flanges, the other flange at the connection of said post with said member being bent into substantially the plane of said web to lend added strength at such point, substantially as described.

5. In a railway car construction, the combination with a structural metal member having a web and a pair of marginal longitudinal flanges, of a second member secured to the web of said first member, one flange of said first member being offset to form a seat or socket for the end of said second member, the other flange of said first member being bent out of its normal plane into substantially the plane of the web to lend added strength at such point, substantially as described.

(Claims 6 and 7 not printed in the Gazette.)

1,081,929. PIPE-STEM. CHARLES D. HILL, Evansville, Ind., assignor to Goodell & Hill, a Copartnership composed of himself and Lewis W. Goodell, Beardstown, Ill. Filed Feb. 3, 1913. Serial No. 745,799. (Cl. 131-12.)



1. A cartridge for smoke purification in pipes and cigar holders, comprising a plurality of spaced longitudinal strips of bibulous material, said strips having tenons at their ends and being provided with a plurality of longitudinal slots, a plurality of spaced longitudinal strips of bibulous material transverse to the first-named strips and each extending through longitudinal slots in said first-named strips, end-plates located at the ends of the longitudinal strips and provided with slots into which said tenons fit, and a cover inclosing the whole, said longitudinal strips being notched to furnish a path extending successively through the different channels formed between the strips and said end-plates being notched to admit smoke into the first and allow it to pass out of the last of said passages.

2. A cartridge for smoke purification in pipes and cigar holders, comprising a plurality of spaced longitudinal strips provided with a plurality of longitudinal slots, a plurality of spaced longitudinal strips transverse to the first-named strips, end-plates located at the ends of the longitudinal strips and a cover inclosing the whole, said longitudinal strips being notched to furnish a path extending successively through the different channels formed between the strips and said end-plates being notched to admit smoke into the first and allow it to pass out of the last of said passages.

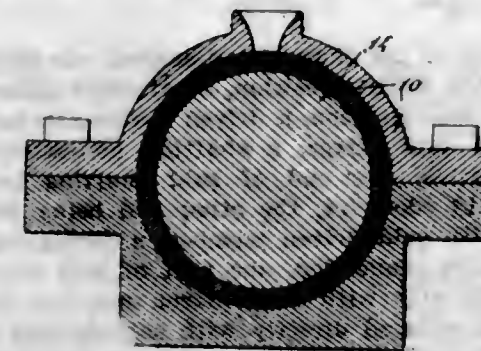
3. A cartridge for smoke purification in pipes and cigar holders, comprising a plurality of spaced longitudinal strips having tenons at their ends and provided with a plurality of longitudinal slots, a plurality of spaced longitudinal strips transverse to the first-named strips and each extending through longitudinal slots in said first-named strips, end-plates located at the ends of the longitudinal strips and provided with slots into which said tenons fit, and a cover inclosing the whole, said longitudinal strips being notched to furnish a path extending successively through the different channels formed between the strips.

4. A cartridge for smoke purification in pipes and cigar holders, comprising a plurality of spaced longitudinal strips of bibulous material, said strips being provided with a plurality of longitudinal slots, a plurality of spaced longitudinal strips of bibulous material transverse to the first-named strips and each extending through longitudinal slots in said first-named strips, end-plates located at the ends of the longitudinal strips and a cover inclosing the whole, said longitudinal strips being notched to furnish a path extending successively through the different channels formed between the strips.

5. A cartridge for smoke purification in pipes and cigar holders, comprising a plurality of spaced longitudinal strips provided with a plurality of longitudinal slots, a plurality of spaced longitudinal strips transverse to the first-named strips and each extending through longitudinal slots in said first-named strips, end-plates located at the ends of the longitudinal strips and a cover inclosing the whole, said longitudinal strips being notched to furnish a path extending successively through the different channels formed between the strips.

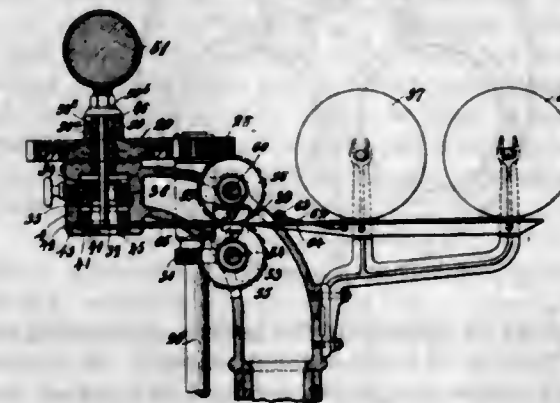
(Claims 6 to 10 not printed in the Gazette.)

1,081,930. LUBRICATING-BARS FOR JOURNAL-BEARINGS. FRANK J. RANDALL, Los Angeles, Cal., assignor of one-half to George G. Bailey, Los Angeles, Cal. Filed Mar. 27, 1912. Serial No. 686,579. (Cl. 64-20.)



In a bearing for axle boxes, a journal, a plurality of bars, each comprising a metallic sheath, U-shaped in cross section, the side walls sloping toward each other, and open at both ends, and graphite material or other suitable compound rigidly held within the sheath by the sloping sides, said bars being longitudinally disposed, and Babbitt metal within the box to hold said bars against the journal.

1,081,931. MACHINE FOR SEALING BOTTLES. ANDERS ANDERSSON ROSENGREN, Malmö, Sweden. Filed Nov. 4, 1911. Serial No. 658,457. (Cl. 113-3.)



1. A machine for sealing bottles, embodying therein a reciprocable tool for punching capsule blanks from a continuous strip of material, said tool having inclined surfaces thereon, jaws movable toward and from each other in a direction toward and from the axis of said tool, said jaws having inclined surfaces, in the paths of which the inclined surfaces of the tool are situated, and means for forcing said jaws toward each other whereby the inclined surfaces thereof coact with the inclined surfaces of the tool to actuate the latter.

2. In a machine for applying capsules to bottles and the like, the combination of a tool for punching out capsule blanks from a strip, movable jaws, inclined surfaces on said jaws, inclined surfaces on the punching tool, the latter surfaces being acted upon by the inclined surfaces on the jaws in order to cause the tool to punch out a capsule blank, a rubber ring, adapted to squeeze the capsule blanks around the necks of the bottles, a compressor for compressing said rubber ring, means whereby said punching tool and compressor are maintained in alignment and inclined surfaces on the compressor, which latter surfaces are acted upon by the inclined surfaces on the jaws to cause the compressor to compress the rubber ring for the sealing of a bottle.

3. In a machine for applying capsules to bottles and the like, the combination of a reciprocable tool for punching out capsule blanks from a strip, jaws movable toward and from each other in a direction toward and from the axis of said tool, inclined surfaces on said jaws, inclined surfaces on the punching tool, the latter surfaces being acted upon by the inclined surfaces on the jaws to cause the tool to punch out a capsule blank, a rotating disk having a groove therein, and means projecting from the jaws into said groove and by which said jaws are moved toward and from each other during rotation of said disks.

4. In a machine for applying capsules to bottles and the like, the combination of a tool for punching out capsule blanks from a strip, movable jaws, a plurality of inclined surfaces on each of said jaws, inclined surfaces on the punching tool, the latter surfaces being acted upon by one of the inclined surfaces on each of the jaws to cause the tool to punch out a capsule blank, a rubber ring, adapted to squeeze the capsule blanks around the necks of the vessels, a compressor for compressing the rubber ring for said operation, inclined surfaces on the compressor, which latter surfaces are acted upon by another of the inclined surfaces on each of the jaws to cause the compressor to compress the rubber ring for the sealing of a bottle, a rotating disk, a groove in said disk, and means extending from the jaws and entering into said groove for joining said disk to said jaws.

5. In a machine for applying capsules to bottles and the like, the combination of a tool for punching out capsule blanks from a strip, means for feeding said strip to said tool, movable jaws, inclined surfaces on said jaws, inclined surfaces on the punching tool, the latter surfaces being acted upon by the inclined surfaces on the jaws to cause the tool to punch out a capsule blank, and a device for successively cutting pieces off from that part of the strip out of which capsule blanks have been punched. (Claims 6 to 10 not printed in the Gazette.)

1,081,932. MILLING-MACHINE. GEORGE W. SMITH, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Filed Oct. 30, 1911. Serial No. 657,671. (Cl. 77-33.)

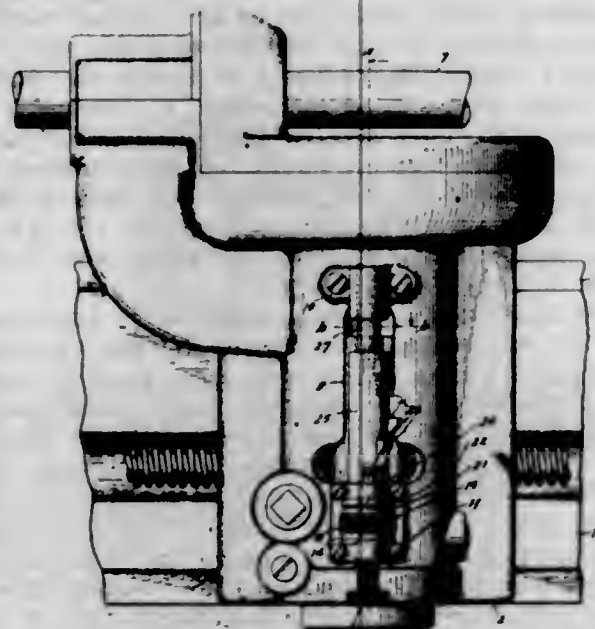
1. The combination of a reciprocating tool support, a finger extending from the support, an axially movable screw, a plurality of stops carried by the screw and adjustable to locate any one of them in the path of the finger and a micrometer adjustment for the screw.

2. The combination of a reciprocating tool support, a finger extending from the support, a screw supporting a plurality of stops that are adjustable to locate any one of them in the path of the finger, and an adjusting nut for moving the screw lengthwise.

3. The combination of a reciprocating tool support, a finger extending from the support, a screw supporting a plurality of stops that are adjustable to locate any one of them in the path of the finger, an adjusting nut for moving the screw lengthwise, a graduated collar carried by the nut, and a ring supporting an index mark rotatable with the screw.

4. The combination with relatively movable base and tool supporting members, of a holding device carried by one member, a stop carrier rotatably mounted on the other member and having a plurality of stepped stops respectively movable into the path of the holding device

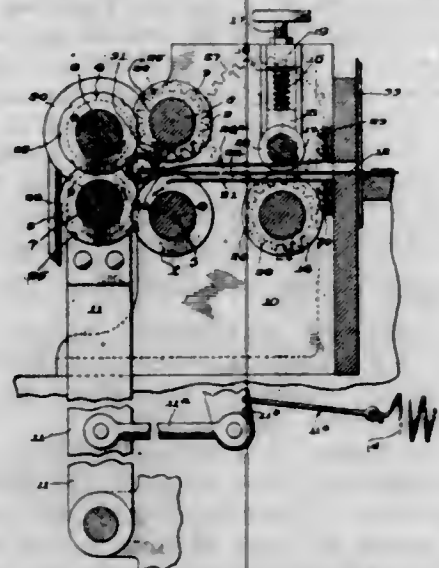
on the rotation of the carrier, said carrier also having a longitudinal movement, and means for determining its longitudinal movement.



5. The combination with relatively movable base and tool supporting members, of a holding device carried by one member, a stop carrier rotatably mounted on the other member and having a plurality of stepped stops respectively movable into the path of the holding device on the rotation of the carrier, said carrier also having a longitudinal movement, and a micrometer for effecting a minute longitudinal movement of the stop carrier.

[Claims 6 to 8 not printed in the Gazette.]

1,081,933. PAPER-WINDING MECHANISM. STEWART WARING, Evanston, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed June 19, 1912. Serial No. 704,501. (Cl. 242-55.)



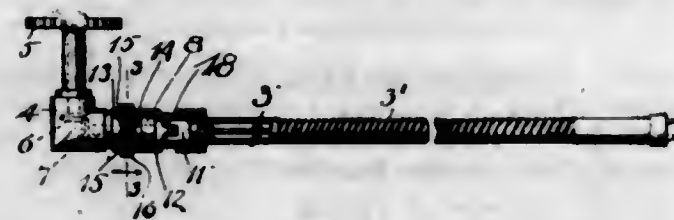
1. In a paper-winding machine, a plurality of roll-forming members, a stationary guide cooperating with said members to inclose a roll-forming space, and means for rotating said members, said guide having two guiding surfaces, said surfaces being positioned adjacent the paper entrance to said space, one of said surfaces being adapted to impart the initial curve to the paper to be wound, the other surface being adapted to complete the central convolution of the roll to be formed.

2. In a paper-winding machine, a plurality of roll-forming members, means for rotating said members, a stationary guide cooperating with said members to inclose a roll-forming space, said guide having two guiding surfaces, said surfaces being substantially at right-angles to each other, one of said surfaces adapted to start the central turn of the roll to be formed and the other being adapted to complete the central turn.

3. In a paper-winding machine, a plurality of roll-forming members, means for rotating said members, and a stationary guide cooperating with said members, said guide having a guiding surface thereon adapted to engage the central end of the paper to be rolled and to complete the central turn of said roll.

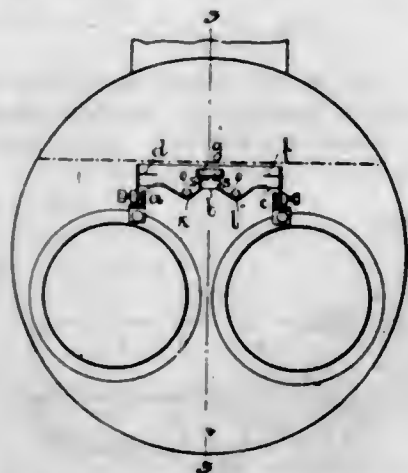
4. In a paper-winding machine, a stationary guide and a plurality of rollers annularly positioned so as to inclose a roll-forming space, a plurality of annular flanges on the periphery of each of said rollers, said flanges being positioned between the flanges on adjacent rollers, said guide having projections positioned between the flanges on one of said rollers, said projections being adapted to impart the final turn to the central convolution of the roll to be formed.

1,081,934. CLUTCH FOR SPEEDOMETERS AND THE LIKE. AUGUSTUS W. WASSOLECK, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 14, 1912. Serial No. 731,271. (Cl. 192-9.)



In a device of the character described, an odometer or the like having a fixed position, a rotatable driver having a relatively fixed position, a driven device arranged to cooperate with said driver, a shafting non-extensible but laterally flexible, one end of said shafting being connected to said odometer, the other end being detachably connected with said driven member, a clutch comprising said detachable connection, one part of said clutch being associated directly with said driven member, the other part being associated directly with said flexible shafting, said clutch including a yielding means to frictionally hold said clutch parts in the engaged or disengaged position at will.

1,081,935. BOILER-FEED PURIFIER. SERGIUS BRESNOFF, Pavlovsk, near St. Petersburg, Russia. Filed Dec. 16, 1912. Serial No. 737,111. (Cl. 122-394.)



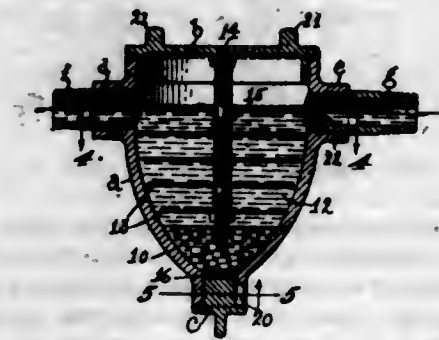
1. A feed water apparatus for boilers, comprising a plurality of troughs extending longitudinally of the boiler and located below the water level of the boiler, means for supplying water to said troughs along substantially their entire length, means for directing steam onto the contents of said troughs said means extending along a side of each of said troughs, and means for removing the powdered material collecting in said troughs.

2. A feed water apparatus for boilers, comprising an upper trough, means for feeding water thereto, a lower trough arranged on each side of said upper trough and adapted to contain the water overflowing from same, means for collecting steam rising through the boiler, means for directing such collected steam onto the water

contained in the said lower troughs, and perforated conduits located in the said lower troughs to remove the material deposited therein.

3. A feed water apparatus for boilers, comprising an upper trough, means for feeding water thereto, a lower trough located at each side of said upper trough, the under surface of said troughs being formed to collect the steam rising through the boiler, and plates located adjacent to an edge of each of said lower troughs and extending for the entire length of same, said plates serving to direct the collected steam onto the water within said lower troughs.

1,081,936. SEPARATOR FOR LIQUIDS. CYRUS H. HAPGOOD, Boston, Mass., assignor, by mesne assignments, to Parker Carburetor Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 4, 1912. Serial No. 718,494. (Cl. 210-5.)



1. In a separator of the character described, in combination, a vessel provided with a removable cover at its upper end and with a liquid outlet near its lower end, and having a liquid inlet and a liquid outlet near its upper end, a plurality of baffle plates located in said vessel, and a rod on which they are mounted, said rod being detachably secured to said cover.

2. In a separator of the character described, in combination, a vessel provided with a removable cover at its upper end and with a liquid outlet near its lower end, and with a liquid inlet and a liquid outlet above the first-mentioned liquid outlet, a rod depending from said cover and a baffle plate supported by said rod and extended transversely of the said vessel, for the purpose specified.

3. In a separator of the character described, in combination, a vessel provided with a removable cover at its upper end and with a liquid outlet near its lower end, and with a liquid inlet and a liquid outlet above the first-mentioned liquid outlet, a baffle plate located in said vessel, and arranged transversely of the latter, and means to support said baffle plate from said cover to enable the former to be removed with the latter, substantially as described.

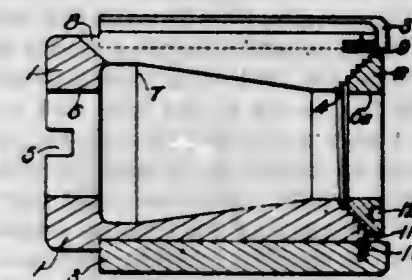
4. In a separator of the character described, in combination, a vessel provided with a removable cover at its upper end and with a liquid outlet near its lower end, and having a liquid inlet and a liquid outlet near its upper end, a plurality of baffle plates located in said vessel and arranged transversely thereof, and a support for said baffle plates upon which the latter are arranged to extend transversely of the said vessel.

1,081,937. ADJUSTING MEANS FOR CUTTING TOOLS, ARBORS, CHUCKS, COLLETS, &c. CHRISTIAN F. HEINKEL, Cleveland, Ohio. Filed June 8, 1910. Serial No. 565,728. (Cl. 77-76.)

1. The combination with an adjustable member having a screw-thread, both sides of said thread lying on the same side of a plane perpendicular to the longitudinal axis of the said member and passing through the apex of the thread, an adjusting member provided with a similarly formed thread and adapted to engage the first mentioned screw-thread.

2. The combination with an adjustable member having a screw-thread, both sides of said thread extending at an angle of less than ninety degrees to the longitudinal axis of the said member and upon the same side of a plane perpendicular to the said axis and passing through the apex of the thread, an adjusting member provided with

a similarly formed thread and adapted to engage the first mentioned screw-thread, and means for locking the adjusting member in position.



3. In a device of the character described, the combination with a hollow body having flexible prongs which are free at one end, there being a conical screw-threaded recess formed in the ends of said prongs, a conical member having screw-threads upon the inclined face thereof, and adapted to engage the screw-threads upon the ends of the aforesaid prongs, and plugs inserted between the adjacent prongs to hold the same and prevent vibration thereof.

4. The combination with a hollow body having flexible prongs which are free at one end, there being a conical screw-threaded recess formed in the ends of said prongs, the sides of each of said threads lying on the same side of a plane perpendicular to the longitudinal axis of the said member and passing through the apex of the thread, an inclined member having similarly formed screw-threads upon the inclined surface thereof, screw-threads on the inclined member being adapted to engage the first mentioned screw-threads to adjust the said prongs and to hold the same in adjusted position.

5. The combination with a hollow body having flexible prongs which are free at one end, there being a conical screw-threaded recess formed in the ends of said prongs, the sides of each of said threads extending at an angle of less than ninety degrees to the longitudinal axis of the said member and upon the same side of a plane perpendicular to the said axis and passing through the apex of the thread, an inclined member having similarly formed screw-threads upon the inclined surface thereof and being adapted to engage the first mentioned member to adjust said prongs and to hold the device in adjusted position.

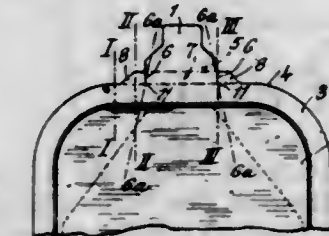
[Claims 6 and 7 not printed in the Gazette.]

1,081,938. PROCESS FOR COATING CARBID WITH CALCIUM CYANAMID. VITTORIO IMPERATORI, Rome, Italy, assignor to Società Italiana Per Il Carburio Di Calcio, Rome, Italy. Filed Sept. 14, 1912. Serial No. 720,360. (Cl. 42-218.)

1. A process of coating calcium carbide with a thin layer of calcium cyanamid leaving a substantial core of calcium carbide adapted for use in generating acetylene which consists in bringing the parties of calcium carbide into contact with a heated wall while in the presence of nitrogen.

2. Calcium carbide having a thin coating of calcium cyanamid for use in generating acetylene.

1,081,939. OPENING DEVICE FOR CANS, BOXES, OR THE LIKE. PAUL SCHOLZ, Bergen, Norway. Filed Dec. 26, 1911. Serial No. 667,980. (Cl. 220-70.)



1. A sheet metal can or box cover having a folding rim, a part projecting beyond the rim edge line, a tongue forming an extension of said projecting part, the sheet material of said projecting part being formed with two cuts extending from the root of the tongue inwardly to the said rim edge line, the sheet metal edges formed by the said cuts lying closely together.

2. A sheet metal can or box cover having a folding rim, a part projecting beyond the rim edge line, a tongue forming an extension of said projecting part and having a smaller width than the said part, the sheet material of said projecting part being formed with two cuts extending from the root of the tongue inwardly to the said rim edge line so as to divide the projecting part into three portions.

3. In combination, a can or box body and a cover having a folding rim, a part projecting beyond the rim edge line, a tongue forming an extension of said projecting part and having a smaller width than the said part, the sheet material of said projecting part being formed with two cuts extending from the root of the tongue inwardly to the said rim edge line so as to divide the projecting part into three portions, the sheet metal edges formed by the cuts lying closely together, the can or box cover so constructed being folded together with a can or box body having an outer folding rim, whereby the central of the said three portions is caused to project partially into the joint in a folded condition.

4. In combination, a can or box body, and a cover having a folding rim, a part projecting beyond the rim edge line, an extension on the projecting part, the sheet material of said projecting part being formed with two cuts extending from its edge inwardly to the folding rim edge line so as to divide the projecting part into three portions, the sheet metal edges formed by the cuts lying closely together.

5. In combination, a can or box body, and a cover having a folding rim, a part projecting beyond the rim edge line, an extension on the projecting part, the sheet material of said projecting part being formed with two cuts extending from its edge inwardly to the folding rim edge line so as to divide the projecting part into three portions, the sheet metal edges formed by the cuts lying closely together, the can or box cover so constructed being folded together with a can or box body having an outer folding rim, whereby the central of the said three portions is caused to project partially into the joint in a folded condition.

1,081,940. PIVOT CONNECTION. JAMES S. DAVIS, Meadowview, Va., assignor of one-fourth to A. W. Aston and one-fourth to L. D. Hildredth, Meadowview, Va. Filed Mar. 17, 1913. Serial No. 754,933. (Cl. 85-5.)



1. A device of the character described comprising a pair of bars, a king bolt pivotally connecting said bars, a spring plate pivotally connected to one of said bars, the free end of said plate being formed with an enlarged concave head which is adapted to bear against the head of said king bolt, the plate being spaced from said bar for a portion of its length, as and for the purpose described.

2. A device of the character described comprising a pair of bars, a king bolt pivotally connecting said bars, a spring plate pivotally connected at one end to one of said bars, the free end of said plate being adapted to bear against the head of said king bolt, an outstanding pin formed on the last mentioned bar, and said plate being formed with an opening for engagement with said pin, as and for the purpose described.

REISSUES.

13,657. CUTTING-PLIERS. WILLIAM A. BERNARD, New Haven, Conn., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 11, 1913. Serial No. 800,693. Original No. 1,077,789, dated Nov. 4, 1913, Serial No. 732,551. (Cl. 81-50.)

1. In a tool such as described, a main pair of jaws, a pivoted subsidiary jaw having a side cutting edge substantially flush with a side of one of said main jaws, and

provided with an end cutting edge extending transversely of said main jaw at the outside of the latter and meeting said side cutting edge, cutting edges on said main jaw to cooperate with the respective first named cutting edges, and means to operate said jaws; substantially as described.

2. In a tool such as described, a main pair of jaws, a pivoted subsidiary jaw having a side cutting edge substantially flush with a side of one of said main jaws, and provided with an end cutting edge extending transversely of said main jaw at the outside of the latter and meeting said side cutting edge, cutting edges on said main jaw to cooperate with the respective first named cutting edges, and means to operate said jaws, the end cutting edges of said main jaw and subsidiary jaw overhanging said main jaw at one side; substantially as described.



3. In a tool such as described, a main pair of jaws provided with cooperating inner working faces, one of said jaws having at the edge or side opposite its working face an enlargement presenting a transverse cutting edge extending across the jaw and overhanging the same at the side, a subsidiary jaw pivoted to said main jaw and provided with a cutting edge to cooperate with said first named cutting edge, and means for operating said jaws; substantially as described.

4. In a tool such as described, the combination of a pair of parallel main jaws, pivoted handles for operating the same, one of said jaws having at the side thereof a cutting edge, a subsidiary jaw pivoted to said main jaw at the side opposite said cutting edge and having a cutting edge cooperating with the latter, and means for operating said subsidiary jaw as the main jaws are moved toward and away from each other; substantially as described.

5. In a tool such as described, a pair of parallel main jaws, one of said jaws having on the outside thereof a transversely extending cutting edge overhanging said jaw at one side, pivoted handles to operate said jaws, a subsidiary jaw pivoted to the main jaw having said cutting edge at the same side as the overhanging portion of said cutting edge, said subsidiary jaw having a cutting edge to cooperate with that of the main jaw, and means to operate said subsidiary jaw as the main jaws are operated; substantially as described.

6. In a tool such as described, a pair of parallel main jaws having inner working faces, one of said jaws having an end cutting edge at the side opposite the working face, and provided with a side cutting edge meeting said end cutting edge, a subsidiary jaw having a shank pivoted to said main jaw at the side opposite said side cutting edge, and provided with cutting edges to cooperate with both of said first named edges, and means to operate said subsidiary jaw as the main jaws are operated; substantially as described.

7. In a tool such as described, a pair of parallel main jaws having inner working faces, one of said jaws having an end cutting edge at the side opposite the working face, and provided with a side cutting edge meeting said end cutting edge, a subsidiary jaw having a shank pivoted to said main jaw at the side opposite said side cutting edge, and provided with cutting edges to cooperate with both of said first named edges, and means to operate said subsidiary jaw as the main jaws are operated, the end cutting edges of said main jaw and subsidiary jaw respectively overhanging said main jaw at the side opposite said cutting edge; substantially as described.

8. In a tool such as described, a pair of parallel main jaws having inner working faces, one of said jaws having an end cutting edge at the side opposite the working face, and provided with a side cutting edge meeting said end

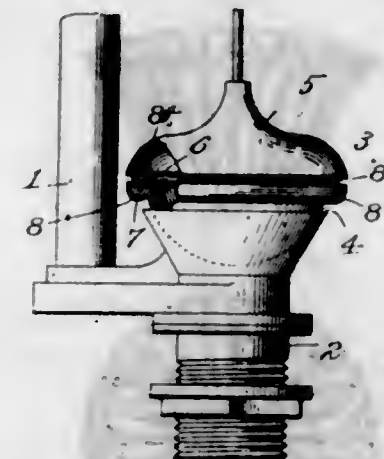
cutting edge, a subsidiary jaw having a shank pivoted to said main jaw at the side opposite said side cutting edge, and provided with cutting edges to cooperate with both of said first named edges, and means to operate said subsidiary jaw as the main jaws are operated, the end cutting edges of said main jaw and subsidiary jaw respectively overhanging said main jaw at the side opposite said side cutting edge, and the end cutting edge of said subsidiary jaw being distributed about equally on opposite sides of the shank of said jaw; substantially as described.

13,658. FLUSH-VALVE. WILLIAM R. WILLETS, Waterbury, Conn., assignor to American Pin Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 14, 1913. Serial No. 773,764. Original No. 996,186, dated June 27, 1911, Serial No. 521,597. (Cl. 4-5.)

1. A valve for flush tanks comprising a cup-shaped seating member of yielding material and an air-tight inverted cup-shaped stiffening and supporting member of rigid material, the said members being united at their edges to form a hollow ball, and the said stiffening and supporting member provided near its center with means for attaching it to a lifting rod.

2. A valve for flush tanks comprising a cup-shaped seating member of yielding material and an air-tight inverted cup-shaped stiffening and supporting member of rigid material, the said members being removably united at their edges to form a hollow ball, and the said stiffening and supporting member provided near its center with means for attaching it to a lifting rod.

3. A valve for flush tanks comprising a cup-shaped seating member of yielding material provided with a peripheral flange, and an air-tight inverted cup-shaped stiffening and supporting member of rigid material, having its rim engaging said flange, and the said stiffening and supporting member provided near its center with means for attaching it to a lifting rod.



4. A valve for flush tanks comprising a cup-shaped seating member of yielding material provided with a peripheral flange, and an air-tight inverted cup-shaped stiffening and supporting member of rigid material, having its rim turned over said flange, and the said stiffening and supporting member provided near its center with means for attaching it to a lifting rod.

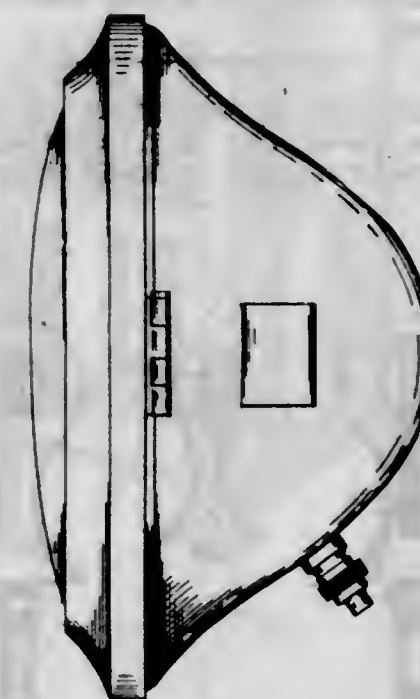
DESIGNS.

45,039. LAMP. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed July 18, 1913. Serial No. 779,866. Term of patent 14 years.



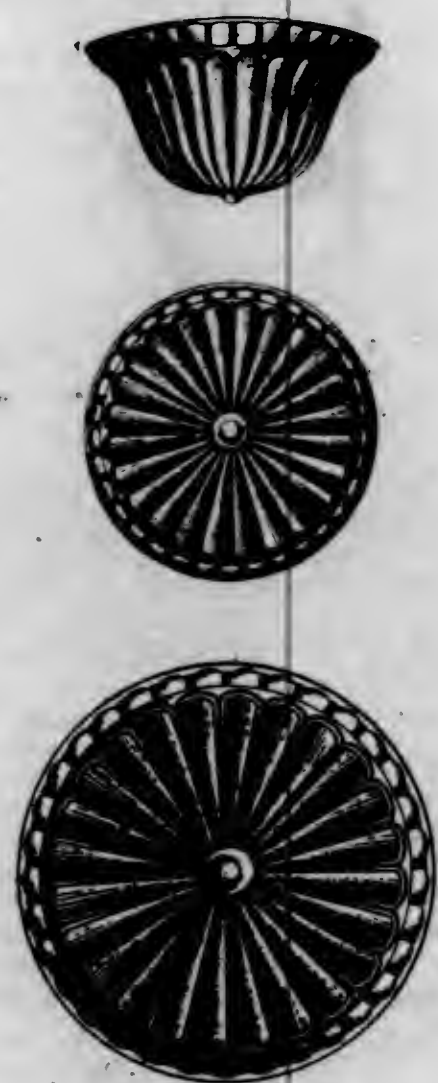
The ornamental design for a lamp, as shown.

45,040. LAMP. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed July 18, 1913. Serial No. 779,867. Term of patent 14 years.



The ornamental design for a lamp, as shown.

45,041. GLASS DOME FOR CEILING-LIGHTS. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., a Corporation of Pennsylvania. Filed Aug. 8, 1913. Serial No. 783,824. Term of patent 7 years.



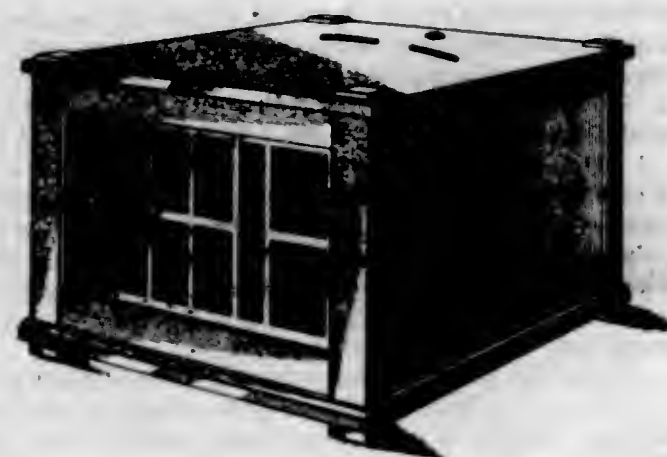
The ornamental design for a glass dome for a ceiling light, as shown.

45,042. TEMPERATURE-INDICATOR. HARRISON HURLBERT BOYCE, Forest Hills, N. Y. Filed Aug. 13, 1913. Serial No. 784,613. Term of patent 14 years.



The ornamental design for a temperature indicator as shown.

45,043. CABINET. KARL F. G. GOMTING, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Sept. 29, 1913. Serial No. 792,522. Term of patent 14 years.



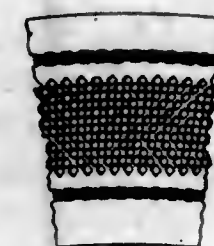
The ornamental design for a cabinet as shown.

45,044. GLASS VESSEL. EDGAR W. HEMSEY, Newark, Ohio, assignor to A. H. Helsey & Co., Newark, Ohio, a Copartnership. Filed Apr. 9, 1913. Serial No. 760,042. Term of patent 14 years.



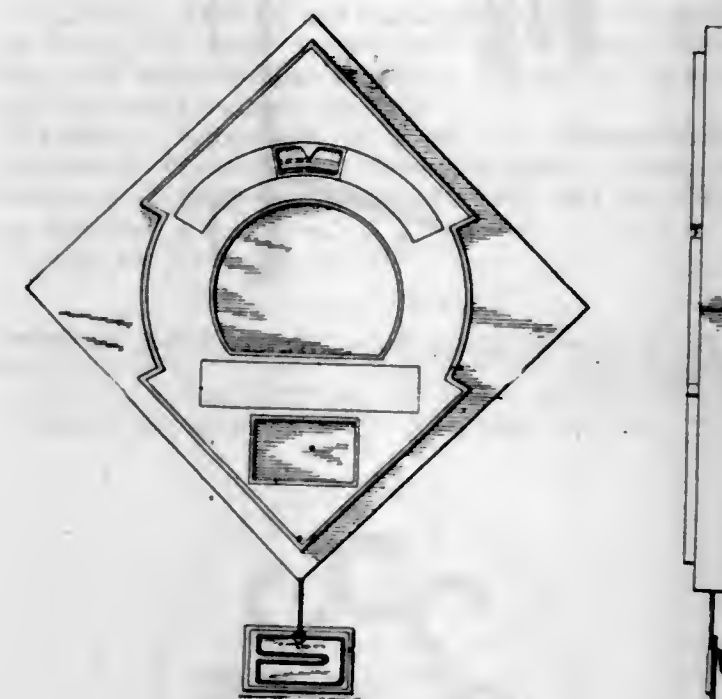
The ornamental design for a glass vessel, as shown and described.

45,045. BORDER-SECTION. GUSTAVE A. HENCKEL, South Orange, N. J. Filed Mar. 29, 1913. Serial No. 757,718. Term of patent 7 years.



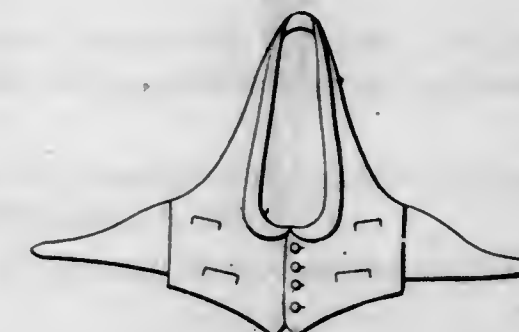
The ornamental design for a border section, as shown.

45,046. CASING FOR WEIGHING-MACHINES. WILLIS EZRA JOHNSON, Newnan, Ga. Filed Sept. 24, 1913. Serial No. 791,654. Term of patent 3 1/2 years.



The ornamental design for a casing for weighing machines as shown.

45,047. VEST. GUSTAVE KOHNER, New York, N. Y., assignor of one-half to Edward M. Vogel, New York, N. Y. Filed Apr. 14, 1910. Serial No. 555,550. Term of patent 7 years.



The ornamental design for a vest, as shown.

45,048. CABINET. FRANK D. LEWIS, Elizabeth, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Sept. 29, 1913. Serial No. 792,529. Term of patent 14 years.



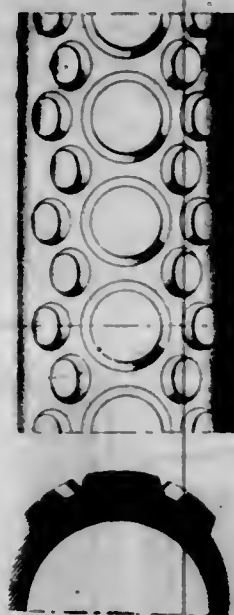
The ornamental design for a cabinet as shown.

45,049. SQUARE-HEAD-NAIL SET. CHARLES F. MUELLER, Elizabeth, N. J. Filed Sept. 11, 1913. Serial No. 789,397. Term of patent 7 years.



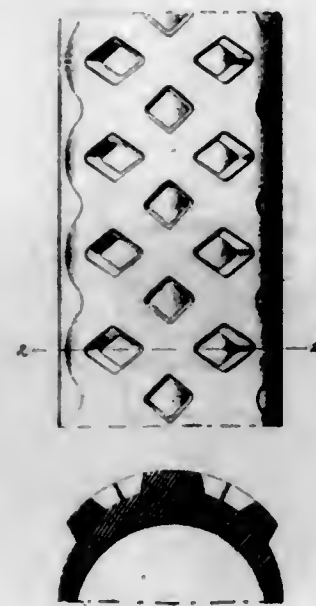
The ornamental design for square head nail set, as shown.

45,050. TIRE-TREAD. HARRY K. RAYMOND, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed Mar. 4, 1912. Serial No. 681,646. Term of patent 14 years.



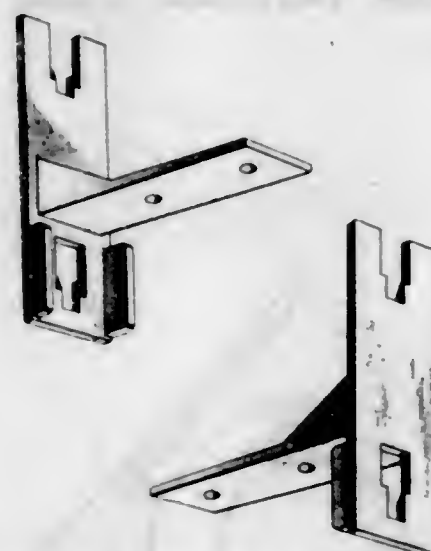
The ornamental design for a tire-tread, as shown.

45,051. TIRE-TREAD. EDWIN C. SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed Mar. 6, 1912. Serial No. 682,063. Term of patent 14 years.



The ornamental design for a tire-tread, as shown.

45,052. BEDSTEAD-FITTING. JOHN W. VAIL, Chicago, Ill. Filed July 11, 1913. Serial No. 778,594. Term of patent 14 years.



The ornamental design for a bedstead-fitting, as shown and described.

TRADE-MARKS

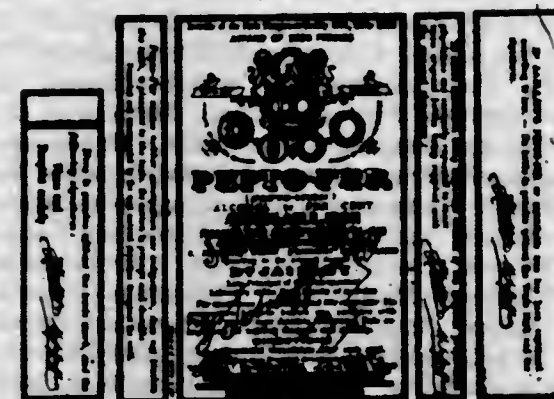
PUBLISHED DECEMBER 16, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 33,485. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) L. H. ET E. DARRASSE ET CIE., Paris, France. Filed Mar. 20, 1908.



No claim is made for any words appearing on the drawing except the words "Pepto-Fer," the facsimile signature of H. Schaffner and J. Jalliet, and the coat-of-arms and the medals beneath the same.

Particular description of goods.—A Pharmaceutical Preparation Prepared with Chloropectonate of Iron for Treatment of Chlorosis, Anemia, Debility, and All Wasting Diseases.

Claims use since Jan. 1, 1883.

Ser. No. 45,284. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. C. CANNON, Johnsonville, S. C. Filed Oct. 13, 1909.



No claim being made to the name "C. C. Cannon." Particular description of goods.—A Liniment for Man and Beast.

Claims use since Sept. 1, 1907.

197 O. G.—50

Ser. No. 46,163. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LAUTZ BROS. & CO., Buffalo, N. Y. Filed Nov. 29, 1909. Under ten-year proviso.



Particular description of goods.—Soap. Claims use since 1888.

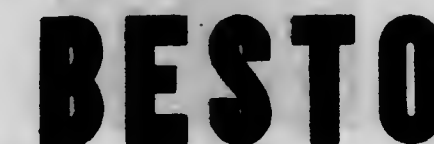
Ser. No. 52,440. (CLASS 86. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN GRAPHOPHONE COMPANY, Bridgeport, Conn. Filed Oct. 25, 1910.



Particular description of goods.—Sound-Records for Talking-Machines.

Claims use since Oct. 11, 1910.

Ser. No. 62,372. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN T. GIBSON, New Orleans, La. Filed Mar. 23, 1912.



Particular description of goods.—Molasses Feed for Horses and Mules and Cattle.

Claims use since Nov. 1, 1910.

[Vol. 197. No. 3.]

Ser. No. 62,847. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INDIANAPOLIS ABATTOIR COMPANY, Indianapolis, Ind. Filed Apr. 11, 1912.

SUNNYBROOK

Particular description of goods.—Sausages.
Claims use since the early part of 1907.

Ser. No. 63,789. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed May 25, 1912.



Particular description of goods.—Biscuits, Cakes, and Cookies.
Claims use since Jan. 1, 1910.

Ser. No. 63,790. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed May 25, 1912.



Particular description of goods.—Biscuits, Cakes, and Cookies.
Claims use since Nov. 6, 1911.

Ser. No. 63,791. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed May 25, 1912.



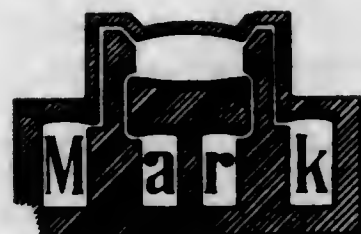
Particular description of goods.—Biscuits, Cakes, and Cookies.
Claims use since Dec. 2, 1911.

Ser. No. 64,639. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELMER E. LOGAN, Bement, Ill. Filed July 9, 1912.



Particular description of goods.—A Preparation for the Treatment of Eczema.
Claims use since June 1, 1912.

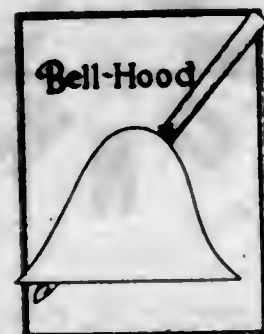
Ser. No. 65,607. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) JOSEF BUCHEL, Wengern-Ruhr, Germany. Filed Sept. 6, 1912.



Applicant disclaims the sole use of the word "Mark."
Particular description of goods.—Ferrochromium, Ferrotitan, Ferrovandium, Ferrosilicon, Ferrowolfram, Ferromolybdenum, Ferromanganese, Ferrophosphorus, Ferrocopper, Ferroboreon, Ferrozirconium, Manganese-Copper, Manganese-Titan, Manganese-Vanadium, Manganese-Silicon, Manganese-Wolfram, Manganese-Molybdenum, Manganese-Phosphorus, Manganese-Boron, Manganese-Zirconium, Manganese-Nickel, Chromium-Titan, Chromium-Vanadium, Chromium-Silicon, Chromium-Wolfram, Chromium-Molybdenum, Chromium-Manganese, Chromium-Phosphorus, Chromium-Copper, Chromium-Boron, Chromium-Zirconium, Chromium-Nickel, Molybdenum-Nickel, Molybdenum-Copper, Molybdenum-Titan, Molybdenum-Vanadium, Molybdenum-Silicon, Molybdenum-Wolfram, Molybdenum-Phosphorus, Molybdenum-Boron, Molybdenum-Zirconium, Titan-Copper, Titan-Vanadium, Titan-Silicon, Titan-Wolfram, Titan-Molybdenum, Titan-Boron, Vanadium-Copper, Vanadium-Silicon, Vanadium-Wolfram, Vanadium-Boron, Vanadium-Molybdenum, Silicon-Copper, Silicon-Wolfram, Silicon-Boron, Nickel-Copper, Phosphorus-Copper, Phosphorus-Vanadium, Phosphorus-Silicon, Phosphorus-Wolfram, Phosphorus-Boron, Zirconium-Copper, Zirconium-Wolfram, Zirconium-Titan, Zirconium-Silicon, Cobalt, Cobalt-Copper, Cobalt-Nickel, Ferrocobalt, Chromium-Cobalt, Ferromanganese-Titan, Ferrochromium-Titan, Chromium-Manganese-Silicon, Manganese-Molybdenum-Wolfram, Ferromanganese-Boron, Ferrochromium-Nickel, Ferromanganese-Nickel.

Claims use since May 1, 1912.

Ser. No. 66,134. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) RUDOLPH STEINERT, New Haven, Conn. Filed Oct. 4, 1912.



Particular description of goods.—Phonograph-Needles.
Claims use since about May 15, 1912.

Ser. No. 66,174. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE AVERY SCALE CO., North Milwaukee, Wis. Filed Oct. 7, 1912.



The shield, scrolls, and pennant being blue and the diagonal stripe on the shield being red and no special claim being made for the words "The Avery Scale Co. N. Milwaukee Wisconsin."

Particular description of goods.—Scales.
Claims use since Sept. 15, 1912.

Ser. No. 66,383. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PRIDE OF THE KITCHEN COMPANY, New York, N. Y. Filed Oct. 19, 1912.



Particular description of goods.—Washing and Scouring Soaps and Powders.
Claims use since Sept. 16, 1912.

Ser. No. 66,529. (CLASS 47. WINES.) D. LEIDEN G. M. B. H., Cologne-on-the-Rhine, Germany. Filed Oct. 26, 1912.



No claim being made, however, to the words "D. Leiden, Ltd. Cologne o/R. Germany."
Particular description of goods.—Still Wines, Sparkling Wines, and Champagne.
Claims use since January, 1911.

Ser. No. 66,530. (CLASS 47. WINES.) D. LEIDEN G. M. B. H., Cologne-on-the-Rhine, Germany. Filed Oct. 26, 1912.



No claim being made, however, to the words "D. Leiden, Ltd. Cologne o/R. Germany."
Particular description of goods.—Still Wines, Sparkling Wines, and Champagne.
Claims use since January, 1911.

Ser. No. 66,772. (CLASS 39. CLOTHING.) LINDEKE, WARNER & SONS, St. Paul, Minn. Filed Nov. 9, 1912.



Particular description of goods.—Hosiery.
Claims use since July 12, 1912.

Ser. No. 66,814. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) E. H. ROBINSON CO., Salt Lake City, Utah. Filed Nov. 12, 1912.



Particular description of goods.—Men's and Boys' Suspenders, Neckties, and Fabric and Leather Belts for Personal Wear.
Claims use since Apr. 1, 1912.

Ser. No. 66,896. (CLASS 12. CONSTRUCTION MATERIALS.) THE ATLAS PORTLAND CEMENT COMPANY, Northampton, Pa., and New York, N. Y. Filed Nov. 14, 1912.



Particular description of goods.—Portland Cement.
Claims use since December, 1910.

Ser. No. 67,657. (CLASS 37. PAPER AND STATIONERY.) A. W. FARRER, Stein, near Nuremberg, and Berlin, Germany. Filed Dec. 31, 1912.



The representation of a pencil and printed matter, except the picture of Columbus and the word "Columbus," being disclaimed.

Particular description of goods.—Lead-Pencils, Screw-Pencils, Colored Pencils, Crayon-Pencils, Artists' Crayons, Copying-Pencils, Chalk Crayons, Chalk-Holders, Writing-Slates, Slate-Pencils, Rubber Erasers, Rubber Bands, and Artists' Stumps.

Claims use since Aug. 12, 1912.

Ser. No. 68,621. (CLASS 39. CLOTHING.) LEO R. MARKS, Cincinnati, Ohio. Filed Feb. 19, 1913.



No claim is made to the words "Brand," "Import and Export."

Particular description of goods.—Men's Linen, Mohair, Cotton, Wool, and Silk Coats and Pants Worn in the Tropics or Warm Climates.

Claims use since Jan. 30, 1913.

Ser. No. 68,690. (CLASS 38. PRINTS AND PUBLICATIONS.) THE JONES AGENCY COMPANY, Denver, Colo. Filed Feb. 24, 1913.



Particular description of goods.—Paper, Blank Books, Printed Forms, and Stationery.

Claims use since Feb. 1, 1913.

Ser. No. 68,785. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DANIEL D. MITCALF, Greenville, Ala. Filed Feb. 28, 1913.



Particular description of goods.—Feed for Live Stock and Poultry.

Claims use since Jan. 14, 1913.

Ser. No. 68,868. (CLASS 39. CLOTHING.) MONNIG DRY GOODS CO., Fort Worth, Tex. Filed Mar. 6, 1913.

**BLUE
BANNER**

Particular description of goods.—Men's Garments—Namely, Work-Shirts, Overalls, Jumpers, Drawers and Undershirts of Knitted Fabric, and Men's, Women's, and Children's Hosiery.

Claims use since February, 1911.

Ser. No. 68,977. (CLASS 37. PAPER AND STATIONERY.) THE SHELBY PRINTING COMPANY, Shelby, Ohio. Filed Mar. 12, 1913.

Shelby Drip

Particular description of goods.—Sales-Books.

Claims use since Dec. 13, 1910.

Ser. No. 69,058. (CLASS 11. INKS AND INKING MATERIALS.) JOHANNES ROCKE, Leipzig, Germany. Filed Mar. 15, 1913.

**Rocke's
Herminol**

No claim is made to the word "Rocke's" shown in the drawing.

Particular description of goods.—Driers for Lithographic and Book Printing-Colors.

Claims use since Mar. 4, 1904.

Ser. No. 69,265. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PORTO RICO FRUIT EXCHANGE, San Juan, Porto Rico. Filed Mar. 22, 1913.



Particular description of goods.—Oranges, Lemons, Limes, Citron, Shaddock, (Grape-Fruit,) and Pineapples, Either in Their Natural State or Canned.

Claims use since Aug. 1, 1912.

Ser. No. 69,704. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE R. F. JOHNSTON PAINT CO., Cincinnati, Ohio. Filed Apr. 10, 1913.



Particular description of goods.—A Substance for Polishing Surfaces Which are Painted, Varnished, Enameled, or Otherwise Coated.

Claims use since Jan. 27, 1913.

Ser. No. 69,721. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FYRO EXTINGUISHER COMPANY, Syracuse, N. Y. Filed Apr. 11, 1913.

FYRO

Particular description of goods.—Fire-Extinguishers.

Claims use since May 1, 1912.

Ser. No. 69,746. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS M. SAYMAN, St. Louis, Mo. Filed Apr. 12, 1913.



The portrait illustrated being that of the applicant herein. The words "Extract Lemon" and the illustration of the lemons are hereby disclaimed, the same constituting no part of the trade-mark.

Particular description of goods.—Lemon Extract for Foods.

Claims use since Dec. 1, 1911.

Ser. No. 69,748. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS M. SAYMAN, St. Louis, Mo. Filed Apr. 12, 1913.



The portrait illustrated being that of the applicant herein. "Extract Vanilla" and the illustration of the vanilla-beans are hereby disclaimed, the same constituting no part of the trade-mark.

Particular description of goods.—Vanilla Extract for Foods.

Claims use since Dec. 1, 1911.

Ser. No. 70,215. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARIA M. RAUB, Brooklyn, N. Y. Filed May 3, 1913.

North Carolina Pine Tar

**Chewing
Gum**

Excellent for the lungs and throat.
Aids digestion.

Illustrative of a parrot, all other matter being hereby disclaimed.

Particular description of goods.—Chewing-Gum.

Claims use since Apr. 23, 1913.

Ser. No. 70,375. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KATHEINERS MALZKAFEE-FABRIKEN G. M. B. H., Berlin, Germany. Filed May 12, 1913.



Disclaiming the words "Kathreiners Malzkaffee-Fabriken" and consisting of the portrait and the facsimile signature of Sebastian Kneipp, deceased, the portrait and signature being inclosed by a border. The trade-mark is printed in blue.

Particular description of goods.—Malt Coffee.

Claims use since 1889.

Ser. No. 70,867. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WASHBURN-CROSBY CO., Minneapolis, Minn. Filed June 4, 1913.

FEUERSCHIFF



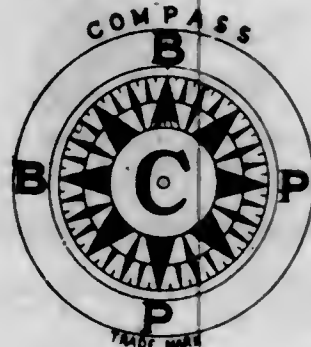
The word "Elbe" being disclaimed.
Particular description of goods.—Wheat-Flour.
Claims use since Feb. 1, 1913.

Ser. No. 70,904. (CLASS 25. LOCKS AND SAFES.) THE LOWRIE SAFE AND LOCK COMPANY, New York, N. Y. Filed June 6, 1913.

H. C. Lowrie

Consisting of the facsimile signature of H. C. Lowrie.
Particular description of goods.—Wall-Safes and Parts Thereof.
Claims use since Mar. 26, 1913.

Ser. No. 71,139. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) OLIVER REEDER & SON, Baltimore, Md. Filed June 16, 1913.



No claim is made to the words "Trade Mark."
Particular description of goods.—Ready-Mixed Paints.
Claims use since the 5th day of June, 1913.

Ser. No. 71,155. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SANITARY COMPANY OF AMERICA, Pottstown, Pa. Filed June 17, 1913.

SAACO

Particular description of goods.—Sole-Pipe, Soil-Pipe Fittings, Sinks, Sink-Fittings, Cast-Iron Cesspools and Parts Thereof, Boiler-Stands, Vent-Boxes, Water-Boxes, Valve-Seats, Sewer-Thimbles, Drive-Ferrules, Hydrant-Tops, Fresh-Air Inlets, Screw-Ferrules, Service-Boxes, Closet Connections, and Cast-Iron Troughs.
Claims use since about Jan. 1, 1910.

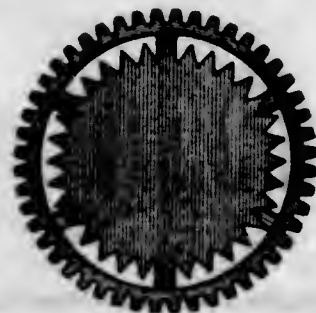
Ser. No. 71,567. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) MUSICIANS SUPPLY COMPANY, Boston, Mass. Filed July 7, 1913.



Showing the fanciful representation of a medallion having thereon the seated figure of a man and the hyphenated words "As-Col-Ta-E. Sar-Al As-Col-Ta-To." Applicant hereby disclaims the right to the exclusive use of the representation of the violoncello.

Particular description of goods.—Violins, Violas, Violoncellos, String-Basses, Lutes, Mandolins, Guitars, Banjos, and Wire, Slik, and Gut Musical-Instrument Strings.
Claims use since Sept. 15, 1912.

Ser. No. 71,601. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BERLIN MACHINE WORKS, Beloit, Wis. Filed July 9, 1913.



Consisting of a gear-wheel having a red seal superposed thereon.
Particular description of goods.—Machines for Sawing, Boring, Planing, Matching, Polishing, and Finishing Wood and Metals.
Claims use since May 1, 1892.

Ser. No. 71,676. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SWIFT AND COMPANY, Chicago, Ill. Filed July 12, 1913.

Vanity Fair.

Particular description of goods.—Toilet Soaps.
Claims use since May, 1913.

Ser. No. 71,712. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) J. L. HOPKINS & CO., New York, N. Y. Filed July 15, 1913.

RAJAH

Particular description of goods.—Soaps.
Claims use since about Jan. 1, 1898.

Ser. No. 71,806. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN TILDEN MOULTON CO., Augusta, Me. Filed July 16, 1913.

UNCLE JOHN'S

Particular description of goods.—Hair-Tonic and Liment for External Use.
Claims use since Jan. 1, 1912.

Ser. No. 72,023. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) P. BEIERSDORF & CO., Hamburg, Germany. Filed July 29, 1913.

Nivea

Particular description of goods.—Soap.
Claims use since June 23, 1905.

Ser. No. 72,030. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) O-WHITE-O CLEANER COMPANY, Akron, Ohio. Filed July 29, 1913.

O-WHITE-O

Particular description of goods.—A Powder Preparation for Cleaning White Shoes.
Claims use since May 8, 1913.

Ser. No. 72,031. (CLASS 5. ADHESIVES.) PENN GLUE COMPANY, Philadelphia, Pa. Filed July 29, 1913.

PC OLD

Particular description of goods.—Glues, Adhesive Gums, Pastes, and Sizings.
Claims use since July 14, 1913.

Ser. No. 72,064. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PHILIP GOLDICH, Philadelphia, Pa. Filed July 31, 1913.



The portrait shown in the present application is that of John J. Cotter, now deceased.
Particular description of goods.—A Remedy for Cramps, Headache, Diarrhea, Vomiting, Hiccoughs, Indigestion, Heartburn, and Dyspepsia.
Claims use since about Nov. 15, 1908.

Ser. No. 72,101. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

TITAN

Particular description of goods.—Tractors and Parts Thereof.
Claims use since Dec. 10, 1910.

Ser. No. 72,105. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

Lily

Particular description of goods.—Cream-Separators and Parts Thereof.
Claims use since Aug. 10, 1911.

Ser. No. 72,106. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

20th CENTURY.

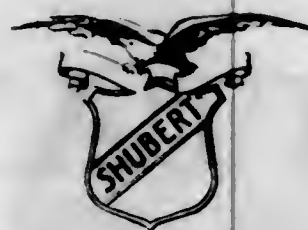
Particular description of goods.—Manure-Spreaders and Parts Thereof.
Claims use since 1900.

Ser. No. 72,113. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. H. KELLER & CO., New York, N. Y. Filed Aug. 1, 1913.



Particular description of goods.—Jewelers' Piercing-Saws.
Claims use since June 1, 1913.

Ser. No. 72,160. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) A. B. SHUBERT, Chicago, Ill. Filed Aug. 4, 1913.



No claim is made for the word "Shubert" *per se*.
Particular description of goods.—Raw Furs.
Claims use since July 15, 1913.

Ser. No. 72,248. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DOSTER-NORTHINGTON DRUG CO., Birmingham, Ala. Filed Aug. 9, 1913.

Isis

Particular description of goods.—Toilet Powder, Complexion-Cream, Perfumes, and Tooth-Paste.
Claims use since Aug. 1, 1912.

Ser. No. 72,292. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM MCCANN, Minneapolis, Minn. Filed Aug. 11, 1913.

COMAC

Particular description of goods.—A Metal-Polish.
Claims use since about July 1, 1910.

Ser. No. 72,331. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CORN PRODUCTS REFINING COMPANY, New York, N. Y. Filed Aug. 14, 1913.

Hon-e-mel

Particular description of goods.—Table-Syrup.
Claims use since Aug. 1, 1913.

Ser. No. 72,404. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE REYNOLDS-BROWNE CO., Dover, Del. Filed Aug. 13, 1913.

ARBECO

Particular description of goods.—Electric Lamps for Vehicles.
Claims use since July 30, 1913.

Ser. No. 72,406. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SCHWAHN-SEYBERTH SADDLERY CO., Eau Claire, Wis. Filed Aug. 18, 1913.

Eclairé BRAND

No claim being made to the exclusive use of the word "Brand."

Particular description of goods.—Harness, Saddles, Horse-Collars, Sweat-Pads, Horse Blankets and Nets, Trunks, Suitcases, Traveling-Bags.
Claims use since September, 1911.

Ser. No. 72,411. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) DODGE CLOTHESPIN COMPANY, Richwood, W. Va. Filed Aug. 19, 1913.

ACME

Particular description of goods.—Clothes-Pins.
Claims use since Aug. 4, 1913.

Ser. No. 72,779. (CLASS 43. THREAD AND YARN.) DEXTER YARN CO., Pawtucket, R. I. Filed Sept. 11, 1913.



Particular description of goods.—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
Claims use since Apr. 1, 1913.

Ser. No. 72,788. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ORO CHEMICAL COMPANY, Joplin, Mo. Filed Sept. 11, 1913.

Diarrheta

Particular description of goods.—A Medicine for the Treatment of Diarrhea and Put Up in Tablet and Liquid Form.
Claims use since July 1, 1913.

Ser. No. 72,791. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Sept. 11, 1913.



Particular description of goods.—Work-Shirts.
Claims use since June 20, 1913.

Ser. No. 72,836. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FISHER & KENNEDY, New York, N. Y. Filed Sept. 13, 1913.



Particular description of goods.—Woolen Piece Goods.
Claims use since July 23, 1913.

Ser. No. 72,893. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PHOENIX SILK MFG. CO., New York, N. Y. Filed Sept. 16, 1913.



Particular description of goods.—Silk Ribbon and Silk Piece Goods.
Claims use since 1888.

Ser. No. 72,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM MEZGER, Buffalo, N. Y. Filed Sept. 17, 1913.

CORN-EX

Particular description of goods.—A Corn Remedy.
Claims use since Sept. 15, 1903.

Ser. No. 72,942. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Geo. S. MYERS & SONS, Honesdale, Pa. Filed Sept. 18, 1913.



Short Battle.

G. S. Myers

The trade-mark contains the portrait of George S. Myers and a facsimile of his signature.

Particular description of goods.—A Preparation for the External Treatment of Pneumonia or Inflammation of the Lungs.

Claims use since Sept. 1, 1911.

Ser. No. 72,950. (CLASS 27. HOROLOGICAL INSTRUMENTS.) DIFFERENTIAL CLOCK COMPANY, Chicago, Ill. Filed Sept. 19, 1913.



Particular description of goods.—Clocks and Time-Movements to be Used in Clocks and All Kinds of Timepieces.
Claims use since July 31, 1913.

Ser. No. 73,037. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIERCE, SCOTT & CO., Chicago, Ill. Filed Sept. 25, 1913.



BRIDAL

Particular description of goods.—Cambric, Nainsook, Lawn-Cloth, and Muslins in the Piece.
Claims use since about March, 1913.

Ser. No. 73,146. (CLASS 39. CLOTHING.) **ENCORE** HOSIERY COMPANY, New York, N. Y. Filed Oct. 1, 1913. The word "Encore."

Encore

Particular description of goods.—Hosiery and Knit Goods—Namely, Underwear, Sweaters, and Gloves. Claims use since Sept. 8, 1913.

Ser. No. 73,178. (CLASS 17. TOBACCO PRODUCTS.) **STROMMEYER & ARPE COMPANY**, New York, N. Y. Filed Oct. 2, 1913.

TYOMIES

Particular description of goods.—Cigars, Cigarettes, and Manufactured Tobaccos. Claims use since February, 1913.

Ser. No. 73,196. (CLASS 43. THREAD AND YARN.) **THE AMERICAN THREAD COMPANY**, Jersey City, N. J. Filed Oct. 3, 1913.

SILKETTE

Particular description of goods.—Spool-Cotton, Sewing Cotton, Thread, and Cotton Yarn. Claims use since Dec. 11, 1899.

Ser. No. 73,204. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) **CHEVROLET MOTOR COMPANY**, Flint, Mich. Filed Oct. 4, 1913.



Particular description of goods.—Automobiles, Motor Vehicles, and Parts Thereof. Claims use since July 22, 1913.

Ser. No. 73,254. (CLASS 38. PRINTS AND PUBLICATIONS.) **ROBERT S. KENNEDY**, New York, N. Y. Filed Oct. 7, 1913.

THE CYCLECAR

Particular description of goods.—A Trade Journal Published Periodically. Claims use since on or about the 3d day of October, 1913.

Ser. No. 73,307. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) **THE WARNER BROTHERS COMPANY**, Bridgeport, Conn. Filed Oct. 10, 1913.

Redfit

Particular description of goods.—Corset Fitting and Lacing Devices of the General Type Comprising Two Parts and Connecting-Tape, Each Part Being Provided with a Series of Eyelets for the Reception of the Tape and a Series of Hooks for Insertion into the Eyelets of the Corset.

Claims use since Sept. 17, 1913.

Ser. No. 73,310. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) **COUCH-DEAN CORPORATION**, Hartford, Conn. Filed Oct. 11, 1913.

AUTOSAN

Particular description of goods.—Washing-Machines. Claims use since Apr. 1, 1913.

Ser. No. 73,316. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) **PETERS BROTHERS**, New York, N. Y. Filed Oct. 11, 1913.

STICTUIT

Particular description of goods.—Lining-Cloth. Claims use since Sept. 18, 1913.

Ser. No. 73,329. (CLASS 32. FURNITURE AND UPHOLSTERY.) **GEO. BORGFELDT & CO.**, New York, N. Y. Filed Oct. 13, 1913.

KEWPIE

Particular description of goods.—White Enameled Chairs, Tables, Dressers, Desks, and Beds for Children's Rooms. Claims use since Oct. 1, 1913.

Ser. No. 73,332. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) **GEO. BORGFELDT & CO.**, New York, N. Y. Filed Oct. 13, 1913.

KEWPIE

Particular description of goods.—Celluloid Combs; Needle-Boxes; Embroidery Sets; Large Buttons with Pictures Thereon; Bonnet-Pins Not Composed of Precious Metal. Claims use since Oct. 1, 1913.

Ser. No. 73,349. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **VEREINIGTE CHEMISCHE WERKE AKTIENGESELLSCHAFT**, Charlottenburg, Germany. Filed Oct. 13, 1913.

Enzytol

Particular description of goods.—Cholin Preparations. Claims use since Oct. 23, 1912.

Ser. No. 73,383. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **MARY E. LEIVE**, Fort Wayne, Ind. Filed Oct. 15, 1913.

TRUTH

Particular description of goods.—A Remedy for Dandruff, Itching, and Scalp Eczema. Claims use since Sept. 4, 1913.

[Vol. 197. No. 3.]

Ser. No. 73,416. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) **JOHN W. HOLLINGER**, Lancaster, Pa. Filed Oct. 16, 1913.



Particular description of goods.—Blend Whisky. Claims use since March, 1912.

Ser. No. 73,420. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) **LISTER & COMPANY, LIMITED**, Bradford, England. Filed Oct. 16, 1913.

LISBARI

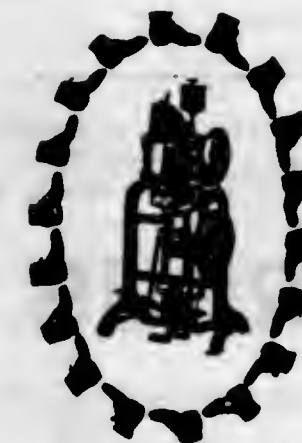
Particular description of goods.—Piece Goods of Wool, Worsted, and Hair and Mixtures Thereof. Claims use since June 23, 1913.

Ser. No. 73,451. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **THE KEEVER STARCH COMPANY**, Columbus, Ohio. Filed Oct. 17, 1913.

VICTOR

Particular description of goods.—Laundry Starch. Claims use since Sept. 19, 1898.

Ser. No. 73,452. (CLASS 43. THREAD AND YARN.) **LANDIS MACHINE COMPANY**, St. Louis, Mo. Filed Oct. 17, 1913.



Particular description of goods.—Thread. Claims use since April, 1906.

Ser. No. 73,457. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **MIGUEL SORRINO**, Tampa, Fla. Filed Oct. 17, 1913.

ONIRBOS.

Particular description of goods.—An Antiseptic. Claims use since 1909.

[Vol. 197. No. 3.]

Ser. No. 73,464. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **BERTALAN BARNA**, New York, N. Y. Filed Oct. 18, 1913.



Particular description of goods.—Menthol-Salt Spirit. Claims use since Oct. 11, 1913.

Ser. No. 73,499. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) **CHICAGO VARNISH COMPANY**, Chicago, Ill. Filed Oct. 20, 1913.

CHI-VO

Particular description of goods.—Varnishes, Manufactured Paints, Enamels, Japans, Stains, and Fillers. Claims use since Sept. 8, 1913.

Ser. No. 73,549. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) **JOHN W. HOLLINGER**, Lancaster, Pa. Filed Oct. 22, 1913.



Particular description of goods.—Blend Whisky. Claims use since about Oct. 1, 1913.

Ser. No. 73,552. (CLASS 32. FURNITURE AND UPHOLSTERY.) **HALL & LYON FURNITURE COMPANY**, Waverly, N. Y. Filed Oct. 22, 1913.



Particular description of goods.—Beds. Claims use since Aug. 12, 1913.

Ser. No. 73,556. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY A. MULLINS, New York, N. Y. Filed Oct. 22, 1913.

MULLOLEUM
A PURE
RUSSIAN OIL



No claim being made for the words "A Pure Russian Oil."

Particular description of goods.—A Preparation for the Treatment of Chronic Constipation.

Claims use since the 1st of March, 1913.

Ser. No. 73,588. (CLASS 32. FURNITURE AND UPHOLSTERY.) CHAS. EMMERICH & Co., Chicago, Ill. Filed Oct. 24, 1913.



The word "Pillows" is disclaimed.

Particular description of goods.—Feather Pillows.

Claims use since the month of February, 1913.

Ser. No. 73,594. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) A.-B. NORDISKA FILMSFABRIKEN, Stockholm, Sweden. Filed Oct. 25, 1913.



Particular description of goods.—Kinematographic Films.

Claims use since June 19, 1913.

Ser. No. 73,635. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAMDEN WOOPPER, St. Louis, Mo. Filed Oct. 27, 1913. Under ten-year proviso.



Particular description of goods.—A Corn and Bunion Remedy.

Claims use since Dec. 26, 1892.

Ser. No. 73,711. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRANKLIN KNITTING MILLS, New York, N. Y. Filed Oct. 31, 1913.

FASHIONKNIT

Particular description of goods.—Knitted Cloth or Fabric.

Claims use since Oct. 24, 1913.

Ser. No. 73,724. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) PHILIP WERLEIN, LTD., New Orleans, La. Filed Oct. 31, 1913. Under ten-year proviso.

Werlein

Particular description of goods.—Pianos.

Claims use since 1875.

Ser. No. 73,794. (CLASS 39. CLOTHING.) PROTEX HOSIERY COMPANY, Boston, Mass. Filed Nov. 4, 1913.

PROTEX

Particular description of goods.—Hosiery.

Claims use since on or about Jan. 12, 1913.

Ser. No. 73,822. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) A. E. PAYNE & Co., Salt Lake City, Utah. Filed Nov. 5, 1913.

PAROCO

Particular description of goods.—Mixed and Prepared Paints.

Claims use since Sept. 1, 1913.

Ser. No. 73,834. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HARVEY DESCHERE, New York, N. Y. Filed Nov. 6, 1913.

ARGUS

Particular description of goods.—Electric Illuminating Signs.

Claims use since Aug. 19, 1913.

Ser. No. 73,838. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. K. MOLFORD COMPANY, Philadelphia, Pa. Filed Nov. 6, 1913.

Serobacterin

Particular description of goods.—Vaccines.

Claims use since October, 1913.

Ser. No. 73,848. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEIN-ICKE AND APICELLA, Long Island City, N. Y. Filed Nov. 7, 1913.



Particular description of goods.—Alkaline Antiseptic for External and Internal Applications and as a Mouth-Wash.

Claims use since June 14, 1912.

Ser. No. 73,851. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KING & OLIPHANT, Macon, Ga. Filed Nov. 7, 1913.

PYORAL

Particular description of goods.—A Preparation for Use as a Mouth-Wash and for the Treatment of Riggs' Disease.

Claims use since the month of October, 1909.

Ser. No. 73,865. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BERLIN CHEMICAL LABORATORIES, INC., New York, N. Y. Filed Nov. 8, 1913.

LABOL

Particular description of goods.—A Tonic Used for the Treatment of Nervousness in All Forms, Sleeplessness, Neurasthenia, Malnutrition, Loss of Appetite, Loss of Memory, Anemia, Gastritis, Dyspepsia, Migraine, Chlorosis, Diabetes, Debility of Age, Sexual Weakness, Mental Disorders, and Similar Disturbances.

Claims use since July 17, 1913.

Ser. No. 73,872. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) SOCIETE ANONYME DE LA DISTILLERIE DE LA LIQUEUR BENEDICTINE DE L'ABBAYE DE FECAMP, Fecamp, France. Filed Nov. 8, 1913. Under ten-year proviso.



Particular description of goods.—Cordial.

Claims use since the year 1868.

Ser. No. 73,878. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. FRANK ALGOE, Flint, Mich. Filed Nov. 10, 1913.

WISTARIA

Particular description of goods.—Remedy for Diseases of the Kidneys and Bladder.

Claims use since Aug. 27, 1913.

Ser. No. 73,884. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) GENEVA MANUFACTURING CO., Geneva, Ill. Filed Nov. 10, 1913.

GEMCO LINE

No claim is made to the word "Line" as forming a part of the trade-mark.

Particular description of goods.—Children's Sulkies.

Claims use since August, 1911.

Ser. No. 73,888. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Nov. 10, 1913.

PLAZA

Particular description of goods.—Perfume, Toilet Water, Sachet, Face-Cream, Face-Powder, and Cold-Cream.

Claims use since June 7, 1913.

Ser. No. 73,902. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SCHARFER MFG. CO., Chicago, Ill. Filed Nov. 10, 1913.

Sim-Peel-O

Particular description of goods.—Cleaning and Scraping Machines.

Claims use since Jan. 3, 1913.

Ser. No. 73,903. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHEVROLET MOTOR COMPANY, Flint, Mich. Filed Nov. 11, 1913.

Royal Mail

Particular description of goods.—Automobiles, Motor Vehicles, and Parts Thereof.

Claims use since June 11, 1913.

Ser. No. 73,904. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHEVROLET MOTOR COMPANY, Flint, Mich. Filed Nov. 11, 1913.

Baby Grand

Particular description of goods.—Automobiles, Motor-Vehicles, and Parts Thereof.
Claims use since the early part of February, 1913.

Ser. No. 73,914. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARROWHEAD HOT SPRINGS COMPANY, Arrowhead Springs, Cal. Filed Nov. 12, 1913.

ARROWLAX

Particular description of goods.—Mineral Water.
Claims use since July 15, 1913.

Ser. No. 73,919. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE FLORENCE MILLS, Forest City, N. C. Filed Nov. 12, 1913.



FOREST CITY

The exclusive use of the words "Forest City" not being claimed.
Particular description of goods.—Cotton Piece Goods.
Claims use since 1900.

Ser. No. 73,921. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed Nov. 12, 1913.

Golfine

Particular description of goods.—Silk and Cotton Dress Goods.
Claims use since Aug. 22, 1913.

Ser. No. 73,923. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed Nov. 12, 1913.

Railine

Particular description of goods.—Silk Dress Goods.
Claims use since Oct. 21, 1913.

Ser. No. 73,932. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PRATT & LAMBERT, Buffalo, N. Y. Filed Nov. 12, 1913.

IMPERMALIN

Particular description of goods.—Varnishes of All Descriptions.
Claims use since Sept. 22, 1913.

Ser. No. 73,968. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE JOHN WEDDERBURN CO., Washington, D. C. Filed Nov. 13, 1913.



Hallmark

Particular description of goods.—Whisky.
Claims use since Dec. 1, 1911.

Ser. No. 73,969. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE JOHN WEDDERBURN CO., Washington, D. C. Filed Nov. 13, 1913.



Particular description of goods.—Whisky.
Claims use since Dec. 1, 1911.

Ser. No. 73,970. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE JOHN WEDDERBURN CO., Washington, D. C. Filed Nov. 13, 1913.

OVER-wood

Particular description of goods.—Whisky.
Claims use since Dec. 1, 1911.

Ser. No. 73,971. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE JOHN WEDDERBURN CO., Washington, D. C. Filed Nov. 13, 1913.

THREE B POINTS



Particular description of goods.—Whisky.
Claims use since Dec. 1, 1911.

[Vol. 197. No. 3.]

Ser. No. 73,990. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JAMES W. REILLY, Buffalo, N. Y. Filed Nov. 14, 1913.

KROSHAYEZE

Particular description of goods.—A Spool-Holder to be Used During Crocheting.
Claims use since Oct. 1, 1913.

Ser. No. 74,043. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SCHOFIELD, MASON & Co., Philadelphia, Pa. Filed Nov. 17, 1913.

DURBAR

Particular description of goods.—Wilton Pile Fabrics, Specifically Carpets and Rugs.
Claims use since May 5, 1909.

Ser. No. 74,073. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOSEPH BREYER, Detroit, Mich. Filed Nov. 19, 1913.



Particular description of goods.—Ginger-Ale.
Claims use since Mar. 1, 1913.

Ser. No. 74,155. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT J. DETWILER, Chester, Pa. Filed Nov. 24, 1913.

a. j. Detwiler

Which consists of the signature of the applicant.
Particular description of goods.—A Salve.
Claims use since Oct. 7, 1913.

[Vol. 197. No. 3.]

TRADE-MARKS

REGISTERED DECEMBER 16, 1913.

- 94,536. WATERPROOF FILLER, VARNISH, AND LACQUER. J. ADLER GILDING CO., New York, N. Y. Filed August 27, 1913. Serial No. 72,542. PUBLISHED OCTOBER 14, 1913.
- 94,537. BEER. THE AKRON BREWING COMPANY, Akron, Ohio. Filed March 21, 1913. Serial No. 69,216. PUBLISHED APRIL 15, 1913.
- 94,538. BASE IN DRY POWDER FORM FOR MAKING PAINT AND WALL-COATING. ALABASTINE COMPANY, Grand Rapids, Mich. Filed June 16, 1913. Serial No. 71,115. PUBLISHED OCTOBER 14, 1913.
- 94,539. REMEDY FOR THE TREATMENT OF VENEREAL DISEASES. ALBANY CHEMICAL CO., Albany, Ga. Filed August 27, 1913. Serial No. 72,544. PUBLISHED OCTOBER 14, 1913.
- 94,540. DENTIFRICE. THE ALLAN CHEMICAL CO., Louisville, Ky., assignor, by mesne assignments, to The Oratone Company, Buffalo, N. Y., a Corporation of New York. Filed December 17, 1912. Serial No. 67,447. PUBLISHED OCTOBER 14, 1913.
- 94,541. PERFUMES, SACHET-POWDERS, TOILET POWDER, WATERS, CREAMS, LOTIONS, AND HAIR-TONIC. THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed August 9, 1913. Serial No. 72,242. PUBLISHED OCTOBER 14, 1913.
- 94,542. CALCULATING-MACHINES. HERBERT S. BERLINER, Washington, D. C. Filed September 2, 1913. Serial No. 72,611. PUBLISHED OCTOBER 14, 1913.
- 94,543. CHAINS OF PRECIOUS METAL. CHARLES BRYANT, London, England. Filed May 14, 1913. Serial No. 70,415. PUBLISHED OCTOBER 14, 1913.
- 94,544. EXTERMINATOR FOR ALL HOUSEHOLD VERMIN. COUGHLIN BROTHERS, Kansas City, Mo. Filed August 27, 1913. Serial No. 72,549. PUBLISHED OCTOBER 14, 1913.
- 94,545. ELECTRIC SWITCHES AND ELECTRIC-SWITCH SPECIALTIES. THE CUTLER-HAMMER MFG CO., Milwaukee, Wis. Filed March 30, 1911. Serial No. 55,409. PUBLISHED MAY 30, 1911.
- 94,546. ELECTRIC SWITCHES AND ELECTRIC-SWITCH SPECIALTIES. THE CUTLER-HAMMER MFG CO., Milwaukee, Wis. Filed April 3, 1911. Serial No. 55,476. PUBLISHED MAY 30, 1911.
- 94,547. ELECTRIC AUTOMOBILE-HORNS AND CIRCUIT-CONTROLLERS FOR ELECTRIC AUTOMOBILE-HORNS. THE DEAN ELECTRIC COMPANY, Elyria, Ohio. Filed September 30, 1912. Serial No. 66,060. PUBLISHED OCTOBER 14, 1913.
- 94,548. LAXATIVES. W. E. DERRY, M. D. INC., Dover, N. J. Filed August 21, 1913. Serial No. 72,463. PUBLISHED OCTOBER 14, 1913.
- 94,549. CERTAIN PENCILS, ARTISTS' CRAYONS, ERASERS, RULERS, PENHOLDERS, HAND-BLOTTERS, AND RUBBER BANDS. A. W. FABER, Steiu, near Nuremberg, and Berlin, Germany. Filed April 7, 1913. Serial No. 69,637. PUBLISHED OCTOBER 14, 1913.
- 94,550. ELECTRICALLY-ILLUMINATED SIGNS. FLEXLUME SIGN COMPANY, INC., Buffalo, N. Y. Filed June 21, 1913. Serial No. 71,237. PUBLISHED OCTOBER 14, 1913.
- 94,551. MEDICINE FOR GOUT, RHEUMATISM, LUMBAGO, AND SCIATICA. DAVID FOULIS, London, England. Filed February 11, 1913. Serial No. 68,497. PUBLISHED OCTOBER 14, 1913.
- 94,552. OINTMENT. BONETTI FRÈRES, Paris, France. Filed August 15, 1913. Serial No. 72,341. PUBLISHED OCTOBER 14, 1913.
- 94,553. HEALING LOTION OR BALM FOR CHAPPED HANDS. GLAMSER VENN DRUG COMPANY, Pittsburgh, Pa., assignor to Persian Balm Company, a firm composed of George C. Venn, George V. Daly, and John H. Daly, Pittsburgh, Pa. Filed March 13, 1913. Serial No. 68,909. PUBLISHED OCTOBER 14, 1913.
- 94,554. INSECT-EXTERMINATORS. THE HARLEM CHEMICAL CO., New York, N. Y. Filed May 14, 1913. Serial No. 70,418. PUBLISHED JULY 15, 1913.
- 94,555. GUT STRINGS FOR MUSICAL STRING INSTRUMENTS. ITALIAN MUSICAL STRING CO., New York, N. Y. Filed July 16, 1913. Serial No. 71,751. PUBLISHED OCTOBER 14, 1913.
- 94,556. PREPARATION FOR THE TREATMENT OF PILES. GUY W. JONES, Erie, Pa. Filed August 30, 1913. Serial No. 72,600. PUBLISHED OCTOBER 14, 1913.
- 94,557. MEDICINAL TONIC PREPARATION IN LIQUID FORM. CHESTER KENT & CO., Boston, Mass. Filed August 13, 1913. Serial No. 72,320. PUBLISHED OCTOBER 14, 1913.
- 94,558. PLAYER-PIANOS AND PERFORATED MUSIC-SHEETS. KRANICH & BACH, New York, N. Y. Filed May 14, 1912. Serial No. 63,539. PUBLISHED OCTOBER 14, 1913.
- 94,559. REMEDY FOR EARACHE, CHAPPED HANDS, AND ECZEMA. HIRAM S. LAMBDIN, Peru, Kans. Filed June 27, 1912. Serial No. 64,444. PUBLISHED OCTOBER 14, 1913.
- 94,560. NAPKINS. MANVILLE COMPANY, Providence, R. I. Filed August 13, 1913. Serial No. 72,322. PUBLISHED OCTOBER 14, 1913.
- 94,561. LIQUID FIRST-COATER IN WOODEN OR METAL PACKAGES. MICHAEL McNAMARA, Detroit, Mich. Filed September 12, 1913. Serial No. 72,819. PUBLISHED OCTOBER 14, 1913.

94,562. REMEDY FOR STOMACH AND BOWEL DISORDERS. THE PO-SH-I-KO COMPANY, Pierz, Minn.
Filed July 22, 1913. Serial No. 71,889. PUBLISHED OCTOBER 14, 1913.

94,563. PREPARATION FOR BANISHING MOSQUITOS AND OTHER INSECTS. RED ROSIN PRODUCTS CO., Montgomery, Ala.
Filed May 27, 1913. Serial No. 70,699. PUBLISHED AUGUST 5, 1913.

94,564. DENTIFRICES IN LIQUID, POWDER, AND PASTE FORMS. G. ROSENTHAL, Bayonne, France.
Filed August 15, 1913. Serial No. 72,363. PUBLISHED OCTOBER 14, 1913.

94,565. VERMUTH. SOCIÉTÉ VERMOUTH MONT BLANC, MARONÉ & CIE, Chambéry, France.
Filed June 25, 1913. Serial No. 71,371. PUBLISHED AUGUST 12, 1913.

94,566. CHARCOAL. STANDARD CHARCOAL COMPANY, Bradford, Pa.
Filed July 17, 1912. Serial No. 64,792. PUBLISHED JULY 17, 1913.

94,567. SOLUTION DISINFECTANT AND ANTISEPTIC. UNO STONE, Lake Norden, S. D.
Filed July 29, 1912. Serial No. 64,990. PUBLISHED OCTOBER 14, 1913.

94,568. CHEWING-TOBACCO. BARTHOLOMEW T. TREAHY, Detroit, Mich.
Filed July 22, 1913. Serial No. 71,895. PUBLISHED OCTOBER 14, 1913.

94,569. CARBON-GAS BLACK AND LAMPBLACK. J. WILCKES CO., New York, N. Y.
Filed August 15, 1913. Serial No. 72,369. PUBLISHED OCTOBER 14, 1913.

PRINTS

REGISTERED DECEMBER 16, 1913.

3,443.—Title: "A BIRD IN EVERY SHELL." (For Guns and Ammunition.) REMINGTON ARMS-UNION METALLIC CARTRIDGE CO., New York, N. Y. Filed June 10, 1911.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE CREVELING.

Decided October 4, 1913.

APPLICATION—PROSECUTION—NON-RESPONSIVE ACTION.

Where, on the last day of the year following an action in which all the claims were rejected, attention called to inaccuracies in the specification, and the claims held needlessly multiplied, an amendment was filed presenting a claim in lieu of claim 1 and amending the others so as apparently to broaden them, but not pointing out in any way how the claims as amended avoided the references, *Held* that such an amendment does not advance the prosecution of the case and that the application is abandoned for lack of responsive prosecution.

ON PETITION.

ELECTRIC REGULATION.

Mr. Chas. McC. Chapman for the applicant.

EWING, Commissioner:

This is a petition from an action of the Examiner holding the above-entitled application abandoned.

It appears that on March 27, 1912, the Examiner rejected all the claims on references and called attention to certain inaccuracies in the specification and claims and to the fact that in his opinion a needless number of claims had been presented. On March 27, 1913, an amendment was presented canceling claim 1 and substituting a claim therefor and amending the other claims. A short argument was presented as to the patentability of the claims.

The Examiner had rejected certain claims on each of the patents to Jackson and Knapp, pointing out what elements therein corresponded to the "magnetic means" of applicant. He had also rejected some of the claims on the patent to Schlesinger in view of the patent to McElroy. By applicant's amendments he struck out the word "magnetic" before "means" in the claims and said in his argument that the claims were believed to avoid the references—

for it appears to applicant that the only element upon which such references could be made to apply are the magnetic means recited in applicant's claims.

In the Examiner's answer it is stated that the effect of the amendment was merely to broaden the claims, and that it had this effect is admitted by the applicant, though he also contends that the claims were not only broadened, but changed to cover totally different structures.

An amendment which merely broadens the claims obviously does not avoid the references, and, as a matter of fact, if the only change were to broaden the claims they would be subject to final rejection, as pointed out in *ex parte Lasance*, (131 O. G., 1421.)

[Vol. 197.

It is not apparent what change is made in claim 6, for example, by striking out the words "electromagnetic" before "means," except a broadening of the claim. Applicant's argument does not point out how the claims as now amended avoid the references, and, as stated by the Examiner, an amendment of this character does not advance the prosecution of the case at all. Moreover, the applicant took no notice whatever of the Examiner's statement that the claims were too numerous, and neither reduced the number of the same nor pointed out wherein the Examiner was in error. It is held, therefore, that the amendment of March 27, 1913, was not responsive.

In his petition the attorney has stated that applicant was taken seriously ill in the summer of 1912, and compelled to leave New York, and turned over his work to his present attorney, and that the large volume of this work, in addition to the other work, placed upon the attorney an excessive burden.

The petition is not verified, and, furthermore, so far as the question of the unavoidableness of the delay is concerned in presenting a properly-responsive amendment no such amendment has been presented up to the present time.

The petition is denied without prejudice to its prompt renewal, accompanied by a verified statement of the facts relied upon to show that the delay in the prosecution of the case was unavoidable and an amendment properly responsive to the Office action of March 27, 1912.

The petition is denied.

EX PARTE RICHARD HUDNUT.

Decided October 17, 1913.

LABELS—NOTICE OF COPYRIGHT.

Where the name of the proprietor is printed in a diagonal line across a label and the word "Copyright" appears at the lower left-hand corner thereof, *Held* that this is a sufficient compliance with the provision of the Copyright Act that the notice of copyright shall consist of the word "Copyright" or the abbreviation "Copr.," accompanied by the name of the copyright proprietor.

ON APPEAL.

LABEL FOR TOILET WATER.

Mr. Nicholas M. Goodlett, Jr., for the applicant.

FRAZIER, First Assistant Commissioner:

This is an appeal from the refusal of the Examiner to register the label presented in this case on the ground that the name of the copyright proprietor does not accompany the word "Copyright."

No. 3.]

Section 18 of the Copyright Act of March 4, 1909, provides—

that the notice of copyright required by section nine of this act, shall consist either of the word "Copyright" or the abbreviation "Copr.," accompanied by the name of the copyright proprietor, and if the work be a printed literary, musical, or dramatic work, the notice shall include also the year in which the copyright was secured by publication.

This section requires that the word "Copyright" or its abbreviation "Copr." shall be accompanied by the name of the copyright proprietor. Upon the label the name of the proprietor, who presents this application, Richard Hudnut, clearly appears. It is true it is imprinted in a diagonal line across the label, while the word "Copyright" appears at the lower left-hand corner thereof. There can be no ambiguity, in my judgment, as to the name of the proprietor. This is the essential fact that this section of the statute requires to appear upon the label, coupled with the word "Copyright" or its abbreviation. The statute does not require that the name of the proprietor shall be in a line with, above or below, or in any particular location with respect to said word so long as it accompanies that word or its abbreviation.

The decision in *ex parte A. Silz, Inc.*, (131 O. G., 542,) does not appear to support the Examiner's holding. In that case the objection was not addressed so much to the failure of that particular name to accompany the word "Copyright," but to ambiguity as to who was the proprietor, due to the use of the phrase "Prepared for A. Silz, Inc." Had the words "Prepared for" been omitted I do not doubt that the decision would have been otherwise.

As the Examiner states, the real issue of the case is the meaning of the word "accompanied." Turning to the dictionary, it is found that "accompany" means to go with; to be or exist in company with; constitute an adjunct or concomitant to; combine; associate, etc.

So long, therefore, as the name of the proprietor is so related with respect to the word "Copyright" or its abbreviation that it may be correctly said to accompany the latter, the requirements of this section of the copyright statute are fully satisfied.

The decision of the Examiner is therefore reversed.

EX PARTE WILLIAM R. MOORE DRY GOODS COMPANY.
Decided November 5, 1913.

1. TRADE-MARKS—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"FLANNELS" AND "MIXED SILK AND COTTON GOODS."

Flannels and mixed silk and cotton goods Held to constitute goods of the same descriptive properties.

2. SAME—SIMILARITY—"ADORNA" AND "ADORA."

The word "Adorna" Held to so nearly resemble the prior registered mark "Adora" that their use upon goods of the same descriptive properties would tend to confuse or mislead the public.

ON APPEAL.

TRADE-MARK FOR FLANNELS.

Messrs. Goepel & Goepel for the applicant.

FRAZIER, First Assistant Commissioner:

This is an appeal from a decision of the Examiner of Trade-Marks refusing registration of the word "Adorna" as a trade-mark for flannels.

[Vol. 197.

The Examiner has refused the registration of this mark on reference to registered Trade-Mark No. 73,061, "Adora," for piece goods of mixed silk and cotton.

Applicant contends, first, that the goods are not of the same descriptive properties, and, second, that the two marks are not sufficiently alike to come within the inhibition of the statute against the registration of trade-marks that would tend to confuse or mislead the public because of close similarity between the two marks.

Both the appearance and sound of the two words are so nearly the same as to tend to cause confusion. The Examiner's holding, therefore, that the registered trade-mark sufficiently resembles the applicant's trade-mark to prohibit the registration of the latter is, in my judgment, correct.

If the goods on which the registered trade-mark is used are of substantially the same descriptive properties as applicant's goods, the action of the Examiner in refusing registration must be sustained.

In this case it is believed that the two goods, though not exactly alike, are sufficiently near to give or tend to give the impression to the average purchaser that the mark appearing on either indicates the same origin for the goods. This tendency, once established, is sufficient to bring this case within the spirit of the statute of February 20, 1905. (*Jackson Company v. Rogers & Thompson*, 174 O. G., 1025.)

Accordingly it must be held that the Examiner's action in refusing registration is correct and is therefore affirmed.

EX PARTE THE U. S. CEREAL COMPANY.

Decided December 5, 1913.

TRADE-MARKS—"BUTTER-WHEAT" FOR A CEREAL FOOD—NOT DESCRIPTIVE.

The words "Butter-Wheat" as applied to a cereal food Held not descriptive and registrable.

ON APPEAL.

TRADE-MARK FOR CEREAL FOOD.

Mr. E. G. Siggers for the applicant.

NEWTON, Assistant Commissioner:

This is an appeal from the refusal of the Examiner of Trade-Marks to register the words "Butter-Wheat" as a trade-mark for a cereal food.

Registration has been refused on the ground that these words are descriptive in character of the goods that they identify.

It has not been pointed out how the words suggest or convey any meaning such as would preclude their registration. The words are not now in common use to describe any property or quality of a cereal food. It is not apparent how any one wishing to describe any such property or quality would make use of these words for such purpose or to convey any deceptive idea concerning cereal food.

The Office has previously registered the words "Cream of Wheat." (See *ex parte Cream of Wheat Company*, 62 MS. Dec., 333; 9 Gour., 74-1.)

To grant this company a *prima facie* right to the exclusive use of these words would take nothing from the manufacturers or sellers of cereal foods, and the decision of the Examiner of Trade-Marks must therefore be reversed.

No. 3.]

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

J. H. SAGER CO. v. EMIL GROSSMAN CO.

Decided February 10, 1913.

203 FED. REP., 996.

PATENTS—INVENTION—AUTOMOBILE-BUFFER.

The Sager patent, No. 885,181, for an automobile-buffer, Held void for lack of invention in view of the prior art.

Messrs. Offield, Towle, Graves & Offield and Mr. P. B. Adams (Mr. James R. Offield of counsel) for the appellant.

Mr. C. Schuyler Davis for the appellee.

Before LACOMBE, COXE, and WARD, Circuit Judges.

COXE, Cir. J.:

The object of the patentee was to construct an automobile-buffer which is simple, efficient and easily attached. The principal purpose of the buffer is to protect the lamps, radiator and forward portion of the car from being injured and broken from a comparatively light blow upon the buffer-bar and also to prevent injury to cars and other vehicles when struck by the car to which the buffer is attached. In short, the object of the invention is to interpose a spring between the car and any object with which it might collide and thus neutralize the shock of the impact. Generally speaking, this idea was as old as mechanics and it was also old as applied to motor-cars.

Prior to Sager's application, a patent was issued to R. W. Harroun December 10, 1907, for an "automobile-bumper" designed to accomplish the identical purpose which Sager had in view, viz., to protect the automobile or parts thereon from damage by collision.

The Harroun bumper is mounted on the car—by means of spring connection so as to absorb any shocks caused by a collision—and acts—as a cushion when it is bumped against an object.

The only difference between the Harroun device and that of the patent in suit is that in the former the spring is compressed by direct action and in the latter the interposition of a lever causes the bumper to rise slightly and compress the spring in a downward direction.

A patent was granted to Edgar Thomas July 31, 1894, for a car-fender designed especially for electric and cable street-railway cars. The specification says:

When the object is struck by the movable member of the fender, the force of the blow is greatly diminished by the fact that the said member is movable and also by reason of the cushioning effect of the springs or like yielding medium, so that the liability of serious injury to a person by being struck by the fender is reduced to a minimum.

It cannot be denied that if the Thomas device were inverted and applied to the front of a motor-car, it would produce the same result, including the rising of the buffer, as is produced by the Sager device.

The record contains other patents having the same general purpose in view, but it is unnecessary to refer to them as they add nothing of importance to the art as disclosed by the two patents above

[Vol. 197.

mentioned. We have, then, in the prior art a spring buffer-bar designed to protect the lamps and front portion of the automobile and to accomplish precisely the same result as Sager. The only difference being that in Sager there is a lever-arm which causes the bar to rise when it meets with an obstacle while in the Harroun structure there is simply a spring which is pushed back on a horizontal plane, the buffer-bar not rising. We also have in the prior art a street-car fender which, if inverted and applied to an automobile, will accomplish the same result pointed out in the Sager patent. We cannot think that it involved invention, in view of the prior art as thus disclosed, to produce the buffer-bar of the patent. The only change which differentiates the Sager buffer from the Harroun buffer is the introduction of the lever which causes the bar to rise slightly when it strikes an obstacle instead of being forced directly back. As this principle was well known in mechanics and is shown specifically in the Thomas patent, we think its application to an automobile, assuming it to be an improvement, was the work of a mechanic and not of an inventor.

The district judge relied largely, in reaching his conclusion, upon the decision in the case of *Turner Brass Works v. Appliance Manufacturing Co.*, (203 Fed., 1001,) in the northern district of Illinois, the patent in issue being the patent to Harroun above referred to. We do not know what the record disclosed in that case. The only patent mentioned in the opinion is the patent to Simms, which was held to be unavailable. We are not at all satisfied that the decision would have been as it was if the patents before this court had been in evidence. However this may be, the question here is—did it involve invention to make the Sager buffer, in view of the prior art in the Illinois case, plus the Thomas street-car-fender patent and the Harroun patent itself? For the reasons already stated we think it did not.

The decree is reversed with costs.

ADJUDICATED PATENTS.

(U. S. D. C.) The Jewell patents, No. 644,137 and Reissue No. 11,672, respectively, for a process and apparatus for filtration of water, Held valid and infringed. *New York Continental Jewell Filtration Co. v. City of Harrisburg*, 208 Fed. Rep., 10.

(U. S. D. C.) The Sargent patent, No. 665,582, for a lamp-socket, Held valid, but not infringed. *General Electric Co. v. American Brass & Copper Co.*, 208 Fed. Rep., 24.

(U. S. D. C.) The Edison patent, No. 802,631, for an apparatus for burning Portland-cement clinker, Held invalid. *Edison v. Alsen's American Portland Cement Works*, 208 Fed. Rep., 20.

(U. S. D. C.) The Ambursen reissue patent, No. 12,246, (original No. 734,796,) for improvement in dams, claims 2 and 3 Held invalid. *Ambursen Hydraulic Const. Co. v. Hydraulic Properties Co.*, 208 Fed. Rep., 27.

No. 3.]

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 28, 1913.

Samuel K. Elliott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Weigel, Hoshaw & Heare, North Yakima, Wash., for registration of a trade-mark and a trade-mark registered May 22, 1906, No. 53,071, to Samuel K. Elliott, 222 East Pico street, Los Angeles, Cal., and a notice of such declaration sent by registered mail to said Samuel K. Elliott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Samuel K. Elliott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 26, 1913.

J. Lichtenstein & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Corset H Company, 40 Jackson street, Worcester, Mass., for registration of a trade-mark and trade-mark registered October 9, 1894, No. 25,307, to J. Lichtenstein & Sons, 64-66 West Twenty-third street, New York, N. Y., and a notice of such declaration sent by registered mail to said J. Lichtenstein & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. Lichtenstein & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

Changes in Classification.

(ORDER No. 2,087.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 6, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 121, Steam Engines, (Division XVIII,) abolish subclasses—

107. Packing—

109. Rod,

110. Steam-joint.

(Note.—In connection with the above it will be noted that the subclass title "Packing" still controls subclass 108, Piston.)

The patents formerly contained in these subclasses have been placed in various classes, the bulk of them going into class 137, Water Distribution, subclasses 115 to 121, inclusive, hereinafter established. Those relating to the material of the packing have been placed in the appropriate material classes.

In class 137, Water Distribution, (Division XXXIX,) establish subclasses—

121. Gaskets.

115. Rod packing—

119. Diaphragm,

118. Fluted,

120. Labyrinth,

117. Lubricated,

116. Sectional.

These subclasses are composed mostly of patents taken from class 121, Steam Engines, subclasses 107, Packing; 109, Packing, Rod, and 110, Packing, Steam-joint, heretofore abolished.

In class 154, Laminated Fabric and Analogous Manufactures, (Division XV,) establish the following subclass and definition:

45.5. Packing.

45.5. PACKING. Built-up materials falling within the definition of this class suitable for use for the packing of joints or for the manufacture of packing gaskets and mere packings composed of such materials.

Search Classes—

154—LAMINATED FABRIC AND ANALOGOUS MANUFACTURES, subclass 2, Miscellaneous processes, for processes of building up packing materials.

22—CORDAGE, subclass 5, Cords and ropes, for interlaced, twisted, or laid strands of material such as are used for withstanding longitudinal strain, whether specially treated to adapt them for packing material or not.

91—COATING, subclasses 63, Processes, and 70, Processes, With heat, for various materials not falling within this class which are coated or impregnated for use as packing.

106—PLASTIC COMPOSITIONS, subclasses 1, Miscellaneous, and 8, Luting, for packing compositions of a plastic nature.

137—WATER DISTRIBUTION, subclass 121, Gaskets, for packing gaskets wherein the invention is alleged to consist in the new form of the gasket or to include more than a mere gasket made of a particular composition or composite material.

This subclass is composed of patents taken from class 121, Steam Engines, subclasses 107, Packing; 109, Packing, Rod, and 110 Packing, Steam-joint, heretofore abolished.

In the same class, in the definition of subclass 52, Fabrics, Wea and strain resisting, cancel the search note to class 121, Steam Engines, subclass 107, Packing, and insert after the words "Search Classes" the following note:

154—LAMINATED FABRIC AND ANALOGOUS MANUFACTURES, subclass 45.5, Packing.

THOMAS EWING,
Commissioner.

Changes in Classification.

(ORDER No. 2,089.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 9, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 97, Plows, (Division I,) establish subclass—

Plows—

Steam—

81. Automatic steering devices.

This subclass is composed of patents taken from class 21, Carriages and Wagons, subclass 192, Steering gear.

In class 208, Velocipedes, (Division VII,) establish subclasses—

157. Sleds—

158. Stepper—

159. Foot-driven,

160. Traction wheel—

161. Foot-driven—

162. Converted bicycle.

This subclass is composed of patents taken from class 21, Carriages and Wagons, subclass 47, Sled-propellers.

THOMAS EWING,
Commissioner.

Changes in Classification.

(ORDER No. 2,092.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 18, 1913.

It is hereby directed that class 177, Electric Signaling, be transferred from Division XLII to Division XVI, to take effect immediately.

THOMAS EWING,
Commissioner.

[Vol. 197. No. 3.]

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 197—No. 4.

TUESDAY, DECEMBER 23, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF DECEMBER 23, 1913.....	783
ADVERSE DECISIONS IN INTERFERENCE.....	783
ACCESS TO PENDING APPLICATIONS.....	783
CORRESPONDENCE BY MAIL.....	783
APPLICATIONS UNDER EXAMINATION.....	784
PATENTS GRANTED.....	785
REISSUES.....	999
DESIGNS.....	973
TRADE-MARKS—REGISTRATION APPLIED FOR.....	979
TRADE-MARKS—REGISTERED.....	991
LABELS AND PRINTS.....	996
COMMISSIONER'S DECISIONS—	
Ex parte Pingree-Traug Co.....	997
Ex parte Thomas.....	997
Ex parte Stempel.....	997
Black Betsey Coal & Mining Company v. The W. J. Ham-	
ilton Coal Company.....	998
National Water Company v. The Akron Brewing Com-	
pany.....	999
Ex parte The Curtis Publishing Company.....	1000
ADJUDICATED PATENTS.....	1000
INTERFERENCE NOTICES.....	1000

ISSUE OF DECEMBER 23, 1913.

Patents.....	542—No. 1,081,941 to No. 1,082,482, inclusive.
Designs.....	30—No. 45,043 to No. 45,082, inclusive.
Trade-Marks.....	137—No. 94,570 to No. 94,706, inclusive.
Labels.....	27—No. 17,411 to No. 17,437, inclusive.
Prints.....	13—No. 3,444 to No. 3,456, inclusive.
Reissues.....	5—No. 13,559 to No. 13,663, inclusive.

Total..... 754

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and De-	Trade-Marks, Le-	States.	Patents and De-	Trade-Marks, Le-
	signs.	bel, and Prints.		signs.	bel, and Prints.
Alabama.....	3	1	North Carolina.....	3	1
Arizona.....	2	1	North Dakota.....	3	7
Arkansas.....	2	1	Ohio.....	26	7
California.....	31	12	Oklahoma.....	7	1
Colorado.....	4	1	Oregon.....	51	13
Connecticut.....	8	3	Pennsylvania.....	8	8
Delaware.....	3	1	Rhode Island.....	2	2
Florida.....	8	3	South Carolina.....	4	2
Georgia.....	2	1	South Dakota.....	4	2
Idaho.....	47	9	Tennessee.....	7	1
Illinois.....	11	4	Texas.....	2	1
Indiana.....	5	1	Utah.....	2	1
Iowa.....	4	3	Vermont.....	3	3
Kansas.....	5	2	Virginia.....	10	3
Kentucky.....	2	1	Washington.....	3	3
Louisiana.....	2	1	West Virginia.....	9	9
Maine.....	2	1	Wisconsin.....	1	1
Maryland.....	1	2	Wyoming.....	1	1
Massachusetts.....	28	18			
Michigan.....	14	2	Alaska, District of.....		
Minnesota.....	9	3	Canal Zone.....		
Mississippi.....	5	1	District of Columbia.....		
Missouri.....	15	9	Hawaii Territory.....		
Montana.....	2	1	Philippine Islands.....		
Nebraska.....	1	1	Porto Rico.....		
Nevada.....	1	1	U. S. Army.....		
New Hampshire.....	22	17	U. S. Navy.....		
New Jersey.....	2	1	Total to residents.....	404	180
New Mexico.....	96	26	of the United States.....		
New York.....					

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and De-	Trade-Marks.	Countries.	Patents and De-	Trade-Marks.
	signs.			signs.	
Argentina.....			Mexico.....		
Austria-Hungary.....	3	1	Netherlands.....		
Azores.....			New South Wales.....		
Belgium.....	2		New Zealand.....		
Bermuda.....			Norway.....		
Brazil.....			Panama.....		
British West Indies.....			Queensland.....		
Canada.....	13		Rumania.....	2	
Chile.....			Scotland.....	1	5
Costa Rica.....			South Australia.....		
Cuba.....	1		Spain.....	1	
Denmark.....	1		Sweden.....	1	
Egypt.....			Switzerland.....	3	
Dutch East Indies.....			Transvaal, South.....		
Ecuador.....	21	4	Africa.....		
England.....	9	10	Victoria.....	1	
France.....	21	7	Wales.....		
Germany.....			Western Australia.....		
Ireland.....			Total to residents.....	78	27
Italy.....			of foreign countries.....		
Japan.....					

Adverse Decisions in Interference.

PATENT No. 1,051,789.

On November 21, 1913, John Edward Wallace was held not the first inventor of the invention covered by claims 1, 2, 3, and 4 of his Patent No. 1,051,789, and no appeal having been taken within the time allowed such decision has become final.

Access to Pending Applications.

Hereafter no person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

Correspondence by Mail.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 5, 1913.

Notice is hereby given to attorneys and others transacting business with the Patent Office that all mail-matter arriving at the Washington post-office up to the hour of closing business at the Patent Office each day will be entered as received on that day.

THOMAS EWING,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 30, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Fences; Fences, Gates, Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 10	Oct. 15	778
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Fastening and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatic; Presses; Store-Service; Tobacco.	Aug. 8	Oct. 20	746
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal Founding; Metallurgy; Plastic Metal Working.	Nov. 21	Dec. 8	206
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Sept. 6	Sept. 22	911
167	5. Bookbinding; Harvesters; Jewelry; Music.	Sept. 9	Oct. 13	676
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Aug. 8	Sept. 20	921
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	July 1	Oct. 25	1019
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 23	Nov. 3	962
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	June 16	Oct. 22	751
226	10. Carriages and Wagons.	Aug. 22	Oct. 11	1377
164	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 18	Oct. 21	490
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 31	Aug. 23	1562
339	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Saddle, and Horseshoe Making; Drives, Headed, and Screw-Threaded Fasteners; Gear Cutting; Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 26	Oct. 9	728
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structures; Wire-Working.	July 17	Nov. 13	586
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	June 19	Sept. 27	1491
100	16. Radiant Energy; Telegraphy; Telephony.	July 1	July 10	946
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Oct. 16	Nov. 21	364
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 11	Nov. 1	258
736	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Sept. 3	Oct. 28	771

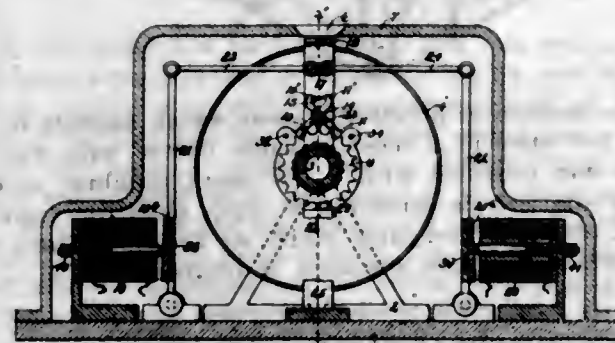
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	Oct. 15	Oct. 22	338
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	July 21	Sept. 23	667
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Sept. 2	Nov. 1	462
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 13	Oct. 22	690
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Oct. 8	Oct. 30	675
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 13	Oct. 25	377
106	26. Electricity, Generation; Motive Power.	July 26	Sept. 15	724
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 8	Oct. 27	538
65	28. Internal-Combustion Engines.	Aug. 19	Oct. 15	939
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Aug. 20	Aug. 11	816
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 14	Nov. 29	276
172	31. Alcohol; Ammonia; Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Sept. 25	Oct. 1	535
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Aug. 4	Nov. 7	563
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Oct.	Oct. 15	530
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Oct. 29	Nov. 5	452
57	35. Buckles, Buttons, Clips, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Sept. 20	Nov. 17	670
264	36. Drives; Geometrical Instruments; Measuring Instruments; Photography.	Oct. 3	Oct. 4	983
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conductors; Electricity, General Applications.	Apr. 24	Aug. 9	965
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Walls.	June 20	Sept. 22	1027
321	39. Water Distribution.	Sept. 9	Oct. 10	648
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 7	Oct. 17	1187
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Nov. 7	Oct. 17	531
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 2	July 29	692
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 21	Nov. 17	326
Oldest new case, Apr. 24; oldest amended, July 10.				
Total number of applications awaiting action 30,964				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Sept. 11	Nov. 28	1096
	Designs	Oct. 21	Dec. 1	266
	Labels and Prints	Nov. 24	Dec. 11	68

PATENTS

GRANTED DECEMBER 23, 1913.

1,081,941. ELECTRICALLY-CONTROLLED SIGNALING APPARATUS. HENRY W. ATWARD, New York, N. Y. Filed Oct. 14, 1910. Serial No. 587,039. (Cl. 177—338.)



1. In electrically controlled signaling apparatus, the combination of a plurality of rotatable drums having symbols on the drums, ratchet mechanism for rotating said drums in either of two directions, electro-magnets for actuating said ratchet mechanism, a shutter, means for moving the shutter to obscure a symbol on each drum when the ratchet mechanism returns to normal position, and means for energizing and deenergizing the magnets.

2. In electrically controlled signaling apparatus, the combination of a plurality of rotatable drums, symbols on the drums, ratchet mechanism adapted to rotate the drums in either of two directions, electro-magnets for actuating said ratchet mechanism, means for energizing and deenergizing the magnets, a shutter adapted to be operated by said magnets, and resilient means for holding the shutter in a position to screen a symbol on each of said drums when the magnets are deenergized.

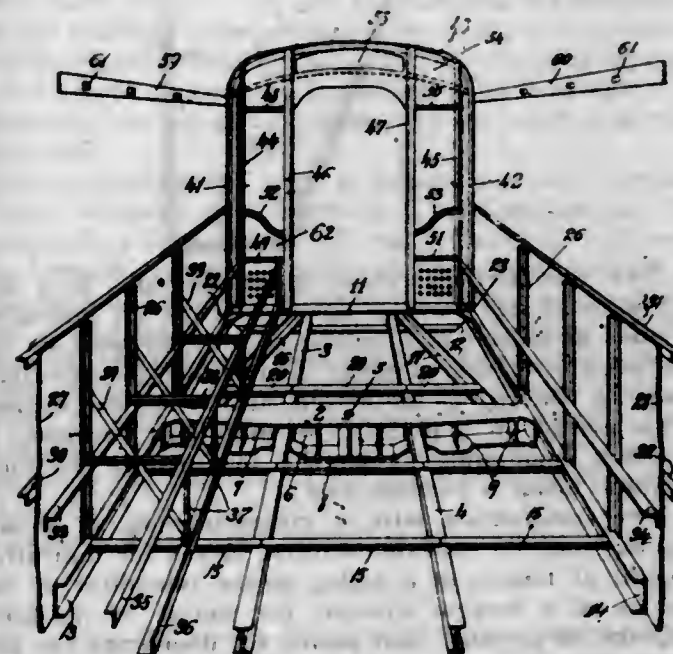
3. In electrically controlled signaling apparatus, the combination of a rotatable drum, a ratchet-wheel affixed to said drum, a pair of pawls adapted to engage said ratchet-wheel and rotate it in either of two directions, an axle carrying said pawls, a rock-arm carrying said axle, a shutter attached to said rock-arm, a pair of secondary rock-arms connected to said axle-carrying rock-arm, a pair of opposed electro-magnets, each adapted to move one of said secondary rock-arms from its normal position, a pair of spring-pressed plungers, each adapted to return one of said secondary rock-arms to its normal position, and means for independently energizing and deenergizing the said electro-magnets.

4. In an electrically controlled signaling apparatus, the combination of a rotatable drum having symbols thereon, mechanical devices for rotating said drum in either of two directions, electro-magnets for actuating said mechanical devices, a shutter adapted to be operated by the magnets to disclose a symbol, means carried by the magnets for moving the shutter to screen a symbol on the drum when the said electro-magnets are not energized, and means for energizing and deenergizing said magnets.

1,081,942. RAILWAY-CAR. RALPH H. BEACH, New York, N. Y., assignor to Federal Storage Battery Car Company, New York, N. Y., a Corporation of New York. Filed Feb. 21, 1911. Serial No. 610,068. (Cl. 105—201.)

1. A car frame comprising a unitary integral structure, comprising metal body bolsters, a superstructure and an understructure, both composed of steel shapes and said superstructure including side posts and lattice girders

running the length of the car, all of the said parts being welded together to form an integral structure, substantially as described.



2. A car frame comprising a unitary integral structure, comprising metal body bolsters, a superstructure and an understructure, both composed of steel shapes and said superstructure including lattice girders running the length of the car, a steel side structure and end bulkheads, all of said parts being so joined together as to form an integral structure, substantially as described.

3. A car frame comprising a unitary integral structure, comprising an integral metal understructure, an integral metal superstructure and metallic lattice girders running the length of the car, above the floor line, all of said parts being so joined together as to form an integral structure, substantially as described.

4. In a car frame structure, the combination of an understructure, side and end structures welded thereto, lattice girders welded to the understructure, side and end structures each of said structures being composed of metal members welded together, and a continuous steel band welded to and connecting the end structures, substantially as described.

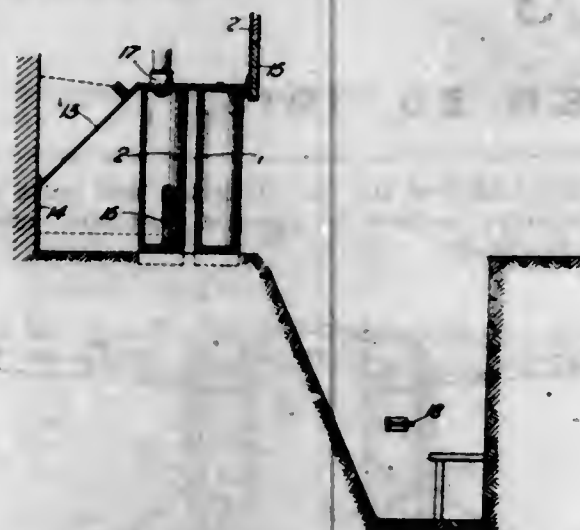
5. In a car frame structure, the combination of an understructure, side, end and intermediate structures welded thereto, lattice girders welded to the understructure, side, end and intermediate structures, each of said structures being composed of metal members welded together, and a continuous steel band welded to and connecting the end and intermediate structures, substantially as described.

1,081,943. KINEMATOGRAPH-TARGET. WILLIAM ARTHUR BENNETT, Kensington, London, England. Filed Nov. 3, 1911. Serial No. 658,412. (Cl. 124—15.)

1. The combination with a kinematograph, of a plurality of relatively movable screens, means for indicating the point of impact of a bullet, means controlled by the operation of a firearm whereby the motion of the kinematograph is arrested, and means for displacing the picture in a plurality of directions relatively to the screen.

2. The combination with a kinematograph, of a plurality of relatively movable screens, means for indicating the point of impact of a bullet, means controlled by the

operation of a firearm to arrest the motion of the kinematograph at the instant of firing, and means for displacing the picture in a plurality of directions relatively to the screen comprising mechanism for elevating and lowering the kinematograph.



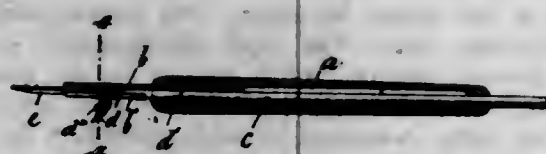
3. The combination with a kinematograph, of a plurality of relatively movable screens, means for indicating the point of impact of a bullet, means controlled by the operation of a firearm whereby the identical picture aimed at may be restored to the screen, and means for displacing the picture in a plurality of directions relatively to the screen comprising mechanism for turning the kinematograph about a vertical axis.

4. The combination with a kinematograph, of a plurality of relatively movable screens, means for indicating the point of impact of a bullet, means controlled by the operation of a firearm whereby the motion of the kinematograph is arrested, and means for displacing the picture relatively to the screen comprising mechanism for elevating and lowering and mechanism for turning the kinematograph about a vertical axis.

5. The combination with a kinematograph, of a plurality of relatively movable screens, means for indicating the point of impact of a bullet, means controlled by the operation of a firearm whereby the motion of the kinematograph is arrested, means for displacing the picture relatively to the screen, said means comprising a table for the kinematograph, a screw threaded support for the table, a mounting for said support, a worm and wheel whereby the support is rotated and the table is moved vertically, teeth on the table, and a pinion engaging said teeth whereby the table is displaced angularly independently of its support.

[Claims 6 to 13 not printed in the Gazette.]

1,081,944. PENHOLDER. JOSEF BISCHOF and AUGUST HEHN, Davis, W. Va., Filed Jan. 17, 1912. Serial No. 671,559. (Cl. 120—101.)



A pen holder, comprising a hollow stock, a socket in said stock having bent lateral edges serving to retain the pen point, a rod movably arranged in said stock and projecting outwardly therefrom, a metal piece having a split sleeve-like extension and secured by compression to said rod, said piece slidably bearing in said socket, and a projection on said piece to serve as a rest for the rear end of the pen point.

1,081,945. METHOD OF PRESERVING BREAD. OTTO BITTER, Rochester, N. Y., Filed Jan. 25, 1913. Serial No. 744,106. (Cl. 99—8.)

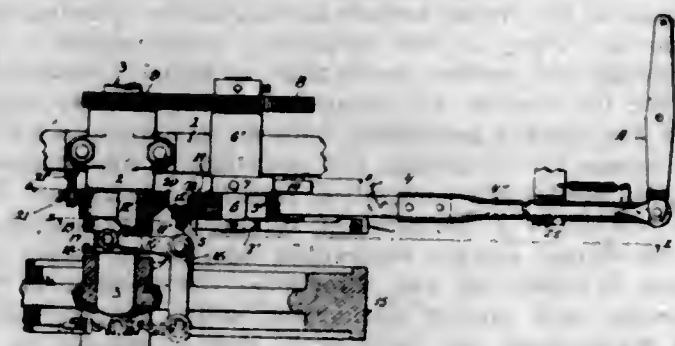
1. The method of preserving bread against staleness which consists of inclosing the bread, while in a hot

state, within a covering of impervious material, and admitting air in such quantities through the covering that the molding action is prevented and the action which produces staleness is retarded.



2. The method of preserving bread which consists of inclosing the same in a sheet of paper coated with wax or paraffin and provided with a few small openings so distributed that air is admitted in such quantities that a molding action is prevented while, at the same time, the action which produces staleness is retarded.

1,081,946. INTERNAL-COMBUSTION ENGINE. HARRY W. BOLENS, Port Washington, Wis., Filed May 26, 1911. Serial No. 629,692. (Cl. 123—113.)



1. In an internal combustion engine; the combination of a shaft, a reciprocative valve-rod, a tappet carried thereby in juxtaposition to the shaft, a governor-controlled sleeve loosely mounted upon the shaft, a tappet carried by the sleeve adapted to have hit and miss engagement with the valve-rod tappet, a lug extending from said sleeve, and a stationary anchor-pin in slidable engagement with the lug.

2. In an internal combustion engine; the combination of a shaft, a reciprocative valve-rod, a tappet carried thereby in juxtaposition to the shaft, a governor-controlled sleeve loosely mounted upon the shaft, a tappet carried by the sleeve adapted to have hit and miss engagement with the valve-rod tappet, a lug extending from said sleeve, and a stationary pin in slidable engagement with the lug whereby said sleeve is held against rotation.

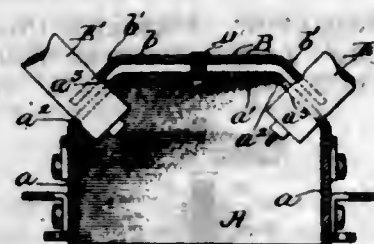
3. In an internal combustion engine; the combination of a shaft, a governor-controlled tappet-sleeve loosely mounted upon the shaft; an apertured ear extending from the sleeve, and a fixed anchor-pin for sliding engagement with the ear aperture.

4. In an internal combustion engine; the combination of a shaft, a reciprocative valve-rod, a tappet carried thereby in juxtaposition to the shaft, a governor-controlled sleeve loosely mounted upon the shaft, a tappet carried by the sleeve adapted to have hit and miss engagement with the valve-rod tappet, and a fixed member extending from the frame in telescopic engagement with the sleeve, whereby the latter is held against rotation.

1,081,947. OUTLET-BOX. ELISHA W. BUFFINGTON, Fall River, Mass., Filed Oct. 7, 1912. Serial No. 724,241. (Cl. 247—1.)

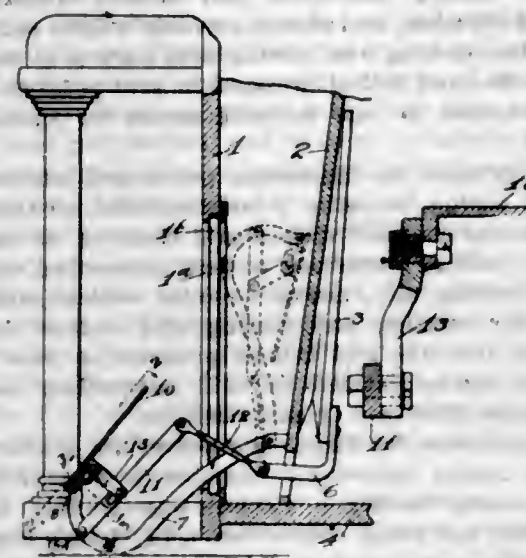
1. An outlet box having a base and a wall with an opening adapted to receive a conduit, said wall being at an

angle to said base; a member movably mounted on the base and having a portion which is substantially parallel with said wall and which is adapted to engage said conduit; and means to impart to said member combined movement along said wall and toward said wall to direct said engaging portion partly across said opening and thereby grip a conduit in said opening.



2. An outlet box having a base and two walls, each at an angle with said base and each having an opening adapted to receive a conduit; a member mounted on the outside of the base and having a portion substantially parallel with the base, a second portion substantially parallel with one of said walls and adapted to engage a conduit in the opening in the last-mentioned wall and a third portion substantially parallel with the other of said walls and adapted to engage a conduit in the opening in said outer wall; and a single screw to move said member toward the box and carry said engaging portions partially across the respective openings and thereby grip the conduits in said openings.

1,081,948. BELLOWS-OPERATING PEDAL. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 16, 1913. Serial No. 742,347. (Cl. 84—160.)



1. In combination with a pumper and an instrument casing in which it is mounted; a pedal-supporting frame pivoted to a fixed part of the casing; a lever fulcrumed at its forward end on said frame; a link connecting its rear end with the pumper; a pedal fulcrumed at its forward end on said frame and means for transmitting movement from the pedal to the lever operatively engaged with the pedal and the lever at points intermediate the ends of said parts respectively, the ratio of the portion forward to the portion rearward of the point of engagement on the pedal being less than the ratio of the portion forward to the portion rearward of the point of engagement of the lever.

2. In combination with a pumper and an instrument casing in which it is mounted, a pedal-supporting frame pivoted to a fixed part of the casing; a lever fulcrumed at its forward end on said frame; a link connecting its rear end with the pumper; a pedal fulcrumed at its forward end on the frame; a link connecting the pedal and the lever pivoted to said parts respectively at points intermediate their ends, the ratio of the portion forward to the portion rearward of the pivot of the link on the pedal being less than the ratio of the portion forward to the portion rearward of the pivot of the link on the lever.

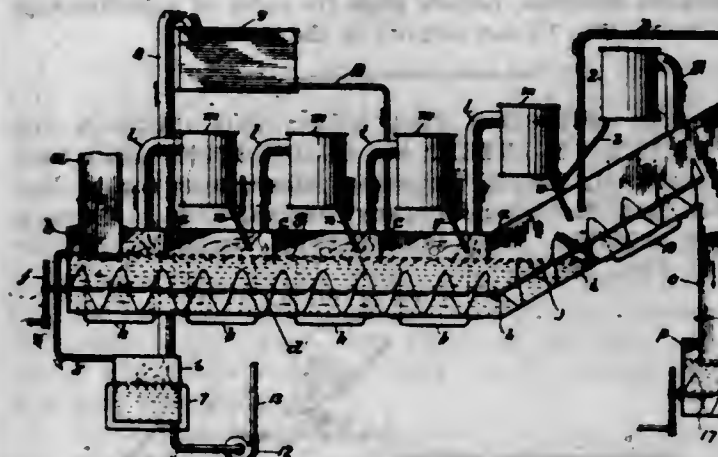
3. In combination with a pumper and an instrument casing in which it is mounted, a pedal-supporting frame pivoted to a fixed part of the casing; a lever fulcrumed at its forward end on said frame; a link connecting its rear end with the pumper; a pedal located laterally of the vertical plane of the lever and fulcrumed at its forward end on the frame, and means for transmitting movement from the pedal to the lever engaged with said parts, respectively, at points intermediate the ends.

4. In combination with a pumper and an instrument casing in which it is mounted, a pedal-supporting frame pivoted to the fixed part of the case; a lever fulcrumed at its forward end on the frame; a link connecting its rear end with the pumper; a pedal located laterally of the vertical plane of the lever and fulcrumed at its forward end on the frame; a link connecting the pedal to the lever having its pivots to said parts respectively located intermediate the ends of each and positioned so as to extend at substantially the same angle to each at the position of rest of the pedal.

5. In combination with a pumper and an instrument casing in which it is mounted, a pedal-supporting frame pivoted to a fixed part of the casing; a lever fulcrumed at its forward end on said frame; a link connecting its rear end with the pumper; a pedal fulcrumed at its forward end on the frame, and means for transmitting movement from the pedal to the lever operatively engaged with said parts respectively intermediate the ends of each, said points of engagement being substantially equally distant from the forward ends of the pedal and the lever, and nearer to the rear end of the pedal than to the rear end of the lever.

[Claims 6 and 7 not printed in the Gazette.]

1,081,949. PROCESS OF RECOVERING SEPARATING LIQUIDS FROM SEPARATED SOLIDS. FRANCIS L. DU PONT, Wilmington, Del., assignor to International Haloid Company, a Corporation of Delaware. Filed July 15, 1910. Serial No. 572,085. (Cl. 23—13.)



1. The hereinbefore described method of recovering the liquid used in gravity liquid separation carried off by the separated material, which consists in passing the separated material in one direction through a tank containing a liquid which is a solvent of the separating liquid and which has a lower volatilizing point than the gravity liquid, creating a liquid current in a direction opposite to that of the material, subjecting the liquid at a plurality of points to the action of heat sufficient to volatilize the solvent but insufficient to volatilize the gravity liquid, separately condensing such solvent vapors evolved at each point of volatilization and separately returning said condensed solvent.

2. The hereinbefore described method of recovering the liquid used in gravity separation carried off by the separated material, which consists in passing the separated material in one direction through a multi-section tank containing a liquid which is a solvent of the gravity liquid and which has a lower volatilizing point than the gravity liquid, creating a liquid current in a direction opposite to that of the separated material, subjecting the liquid at different sections to the action of heat sufficient to vola-

utilize the solvent, but insufficient to volatilize the gravity liquid, separately condensing such solvent vapors and separately returning such condensed solvent respectively to sections of the tank more remote from the liquid outlet.

3. The hereinbefore described method of recovering the liquid used in gravity liquid separation carried off by the separated material, which consists in subjecting the separated material carrying such liquid to the action of a liquid of lower volatilizing point than the gravity liquid and in which said gravity liquid is soluble, and subjecting said mixed solution at different points to the action of heat sufficient to volatilize said solvent liquid but insufficient to volatilize the gravity liquid, separately condensing said vapor and separately returning the solvent to the tank at different parts therein.

4. The hereinbefore described method of recovering the liquid used in gravity liquid separation carried off by the separated material, which consists in passing the separated material carrying such liquid through a liquid of lower volatilizing point than the gravity liquid and having a lower volatilizing point than water, and in which said gravity liquid is soluble, causing the liquid to move in the opposite direction to that of the material, subjecting said liquid to the action of heat sufficient to volatilize the solvent but insufficient to volatilize the gravity liquid, removing the gravity liquid so separated, and then passing the separated material through water and vaporizing any solvent and condensing the solvent and returning it to the main body of the liquid.

5. The hereinbefore described method of recovering the liquid used in gravity liquid separation carried off by the separated material, which consists in passing said material through a liquid which is a solvent of the gravity liquid and of lower volatilizing point than said gravity liquid, moving the solvent liquid in a direction opposite to that in which the material passes, volatilizing the solvent at a plurality of points, separately condensing the vapor volatilized at each point and separately returning the condensation product at each point to the body of liquid at points, in the direction of the passage of the separated material, remote from its point of volatilization. [Claims 6 to 13 not printed in the Gazette.]

1,081,950. PROCESS FOR REMOVING CARBON DEPOSITED IN INTERNAL COMBUSTION ENGINES. HARLEY M. ELLER, Wollaston, Mass., assignor to Norfolk Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Jan. 27, 1913. Serial No. 744,359. (Cl. 123—198.)



1. In the method of removing carbon from the combustion chamber of internal combustion engines; discharging upon ignited carbon and unignited carbon, combustible liquid for the purpose of igniting the liquid and carbon, to show the presence of the latter.

2. The method of removing carbon from the combustion chamber walls of an internal combustion engine, consisting, in igniting a portion of said carbon; supplying an artificial supply of oxygen to the ignited carbon; and in supplying, during this artificial combustion, a combustible fluid which ignites and in turn ignites adjacent unburnt carbon, if any; said fluid being ignited by the ignited carbon.

3. The method of removing carbon from the combustion chamber of internal combustion engines, consisting, in igniting a portion of said carbon; in directing an artificial supply of oxygen upon said carbon; in discharging upon an area including the ignited carbon, a combustible liquid which at once ignites, and in so doing ignites and discloses other carbon within the area, that must be supplied with oxygen, and be consumed.

4. In the method of removing carbon from the combustion chamber of internal combustion engines; discharging upon ignited carbon and unignited carbon separated by wall space free from carbon, combustible liquid, for the purpose of igniting the liquid and unignited carbon, to show the presence of the latter.

1,081,951. LUBRICATOR. FREDERICK CHARLES FIECHTER, Jr., and JOHN JOSEPH FIECHTER, Philadelphia, Pa. Filed July 10, 1912. Serial No. 708,556. (Cl. 184—70.)



1. A lubricator for dispensing pulverized lubricant, comprising a casing inclosing a substantially air-tight chamber, a tubular member within said chamber having a passage-way leading therefrom and outlets communicating with said chamber, and means movable within said tubular member for opening and closing said outlets in accordance with the rise and fall of pressure in said passage-way, and means actuated by said movable means for agitating said lubricant.

2. A lubricator for dispensing pulverized lubricant, comprising a casing inclosing a substantially air-tight chamber, a tubular member within said chamber having a passage-way leading therefrom, outlets connecting said chamber and passage-way, means movable within said tubular member for opening and closing said outlets in accordance with the rise and fall of pressure in said passage-way, and means carried by said controlling means for agitating the lubricant in said chamber.

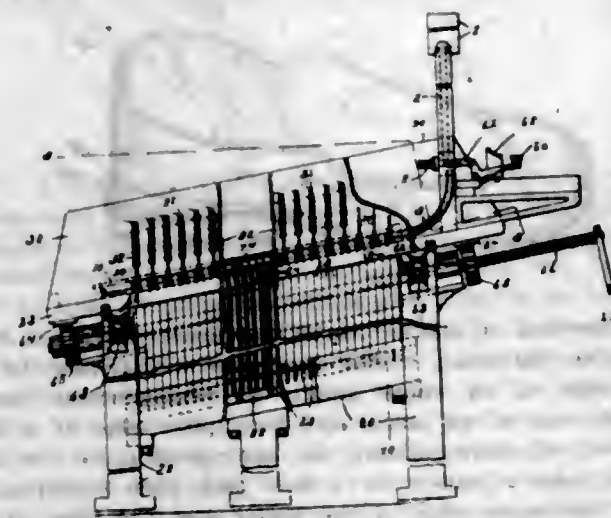
3. A lubricator for dispensing pulverized lubricant, comprising a casing inclosing a chamber, a tubular extension in said casing having a passage-way leading therefrom and having apertures connecting said chamber with said passage-way, a plunger in said tubular member for controlling said apertures, and having a head provided with a flange normally supported by said tubular member, means depending from said flange for agitating the lubricant in said chamber, a cap for said casing forming a substantially air-tight closure for said chamber, and an adjustable stem in threaded engagement with said cap adjustable to vary the throw of said plunger.

4. A lubricator for dispensing pulverized lubricant, comprising a casing inclosing a chamber, a tubular member within said chamber having a passage-way extending therefrom and outlet apertures connecting said chamber with said passage-way, a plunger mounted to reciprocate in said tubular member and having a flange supported by said tubular member, agitators depending from said flange into the lubricant in said chamber, a cap for said chamber, an adjustable stem in threaded engagement with said cap, and having a hand wheel connected therewith; and a ferrule having a broadened surface engageable with said plunger to limit its throw.

5. A lubricator for dispensing pulverized lubricant comprising a valve having its body provided with a cylindrical tubular extension having apertures in its walls, a casing detachably connected with said valve body and sur-

rounding said cylindrical extension, a plunger mounted to reciprocate in said cylindrical extension for controlling said apertures, means carried by said plunger for agitating the lubricant in said chamber, a cap for said casing forming a substantially air-tight closure for said chamber, a stem in threaded engagement with said cap, adjustable to vary the throw of said plunger, a ferrule carried by said stem and having a broadened surface for engagement with said plunger, a lead washer seated in said cap, and a lock nut in threaded engagement with said stem for engaging said washer to lock said stem and seal said cap. [Claim 6 not printed in the Gazette.]

1,081,952. TALLY-MACHINE. ANGUS GILLESPIE, Troy, N. Y. Filed Feb. 18, 1911. Serial No. 609,498. (Cl. 235—68.)



1. In a tally-machine, and in combination, a ball-supply magazine; a chute; means for delivering balls from said magazine to said chute; a plurality of ball-receptacles arranged in line with said chute; and switch-mechanism having a guideway adapted in one position of said mechanism to form a continuation of said chute past one to another of said receptacles, and having a guideway adapted in another position of said mechanism to direct a ball from said chute into said receptacle.

2. In a tally-machine, and in combination, a plurality of supply-chutes; a ball-supply magazine for supplying balls to the several supply-chutes; a like plurality of delivery-chutes; a like plurality of key-operated mechanisms controlling the passage of balls from the several supply-chutes to the respective delivery-chutes; a plurality of ball-receptacles for each delivery-chute; and switch-mechanism for directing a ball from said delivery-chute to a selected one of said receptacles.

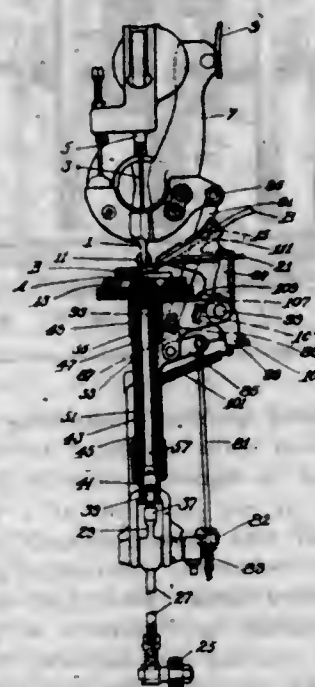
3. In a tally-machine, and in combination, a delivery-chute; means whereby balls can be delivered one at a time to said delivery-chute; a plurality of ball-receptacles; switch-mechanism for directing balls from the chute to a selected one of said receptacles; electromagnetic-mechanism for operating said switch-mechanism; and means whereby the operator can close the circuit for said electromagnetic mechanism.

4. In a tally-machine, and in combination, a delivery-chute; means whereby balls can be delivered one at a time to said chute; a plurality of ball-receptacles arranged one in rear of another; a switch-bar adapted in one position to direct a ball from the chute to one of said receptacles, and in another position to direct a ball from said chute past said receptacle; yielding means for holding said bar in one of said positions; electromagnetic-mechanism for moving said bar to the other of said positions; and means whereby the operator can close the circuit for said electromagnetic mechanism.

5. In a tally-machine, and in combination, a delivery-chute; means whereby balls can be delivered one at a time to said chute; a switch-plate in fixed relation to said chute, and provided on its upper side with a plurality of slideways, and provided with a plurality of ball-apertures open to the respective slideways; switch-bars movable in the respective slideways, said switch-bars be-

ing severally provided with a guideway adapted in one position of the bar to be brought into line with said chute to guide a ball from said switch-bar to the next switch-bar, and also provided with another guideway adapted in another position of the bar to be brought into line with said chute to direct a ball therefrom down through the ball-aperture in its slideway; and ball receptacles removably supported beneath the respective ball-apertures in said switch-plate. [Claims 6 to 13 not printed in the Gazette.]

1,081,953. MACHINE FOR ATTACHING WELTS OR RANDS TO STOCK. JOSEPH GOULDBOURN and HARRY HALLAM, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 9, 1912. Serial No. 682,680. (Cl. 12—67.)



1. A machine of the class described having, in combination, means for attaching a welt to stock and means for forming inclined slits in the inner margin of said welt, said last-named means including a cutter and means for forcing said cutter obliquely through said welt from beneath.

2. A machine of the class described having, in combination, means for attaching a welt to stock, a cutter for slitting the inner margin of said welt, means for guiding said welt from above down, over and past the edge of said cutter, and means for forcing said cutter obliquely through said welt from beneath.

3. A machine of the class described having, in combination, fastening, inserting mechanism, welt and stock feeding mechanism, a guideway for the welt, a slitting knife located beneath said guideway, and means for reciprocating said knife in a path extending longitudinally of said guideway but at an angle thereto.

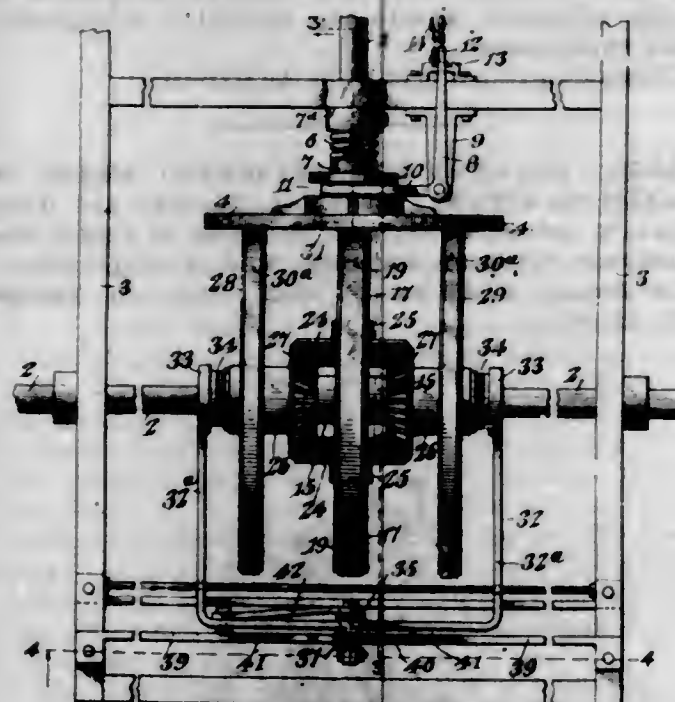
4. A machine of the class described having welt feeding mechanism including separable feeding members in combination with a controlling member movement of which successively causes relative movement of said feeding members and applies power to the machine.

5. A machine of the class described having welt feeding mechanism including separable feeding members and normally inoperative welt slitting mechanism in combination with a controlling member movement of which successively causes relative movement of the feeding members and renders the slitting mechanism operative. [Claims 6 and 7 not printed in the Gazette.]

1,081,954. VARIABLE-SPEED GEARING. FREDERICK D. GREEN, Corinth, Miss. Filed Jan. 18, 1913. Serial No. 742,942. (Cl. 74—26.)

1. A variable speed gearing comprising a friction member, other friction members on opposite sides of the axis

of rotation of the first friction member, differential gearing connecting the second-named friction members, and another friction member connected to the differential gearing and movable into and out of active engagement with the first-named friction member as the other friction members are moved out of or into active engagement with the first-named friction member.



2. A variable speed gearing comprising a friction disk, other spaced friction disks arranged to engage the first-named friction disk on opposite sides of the axis of rotation and movable in the direction of a diameter of the first-named friction disk simultaneously into and out of active engagement therewith, differential gearing connecting said second-named disks, and a third disk connected to the differential gearing intermediate of the other disks connected to such gearing and movable therewith across the first-named disk into engagement with the latter on the movement of the second-named disks out of engagement therewith and out of engagement with the first-named disk as said second-named disks are moved into engagement therewith.

3. A variable speed gearing comprising a drive shaft, a friction disk carried thereby, a driven shaft, a friction disk carried thereby, other friction disks on opposite sides of the second-named friction disk mounted on the driven shaft, differential gearing between the disks on the driven shaft, and means for moving all the disks on the driven shaft simultaneously across the disk mounted on the drive shaft and the latter being provided with a centralized portion shaped to be out of engagement with any of the disks when within the range of such centralized portion.

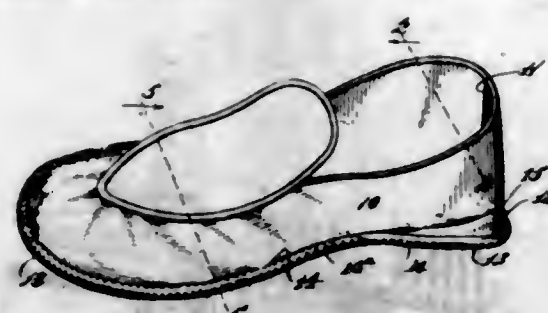
4. A variable speed mechanism comprising a drive shaft, a friction disk mounted thereon provided with a centralized recess or cut-away portion, a driven shaft, a friction disk mounted thereon for movement along the driven shaft, other friction disks on opposite sides of the first-named disk on the driven shaft, differential gearing between the oppositely disposed disks and the central disk on the driven shaft, and means for moving the three disks along the driven shaft in a direction diametric to the disk mounted on the power shaft to bring any one of the disks on the driven shaft into the zone defined by the recess or cut-away portion of the first-named disk.

5. A variable speed mechanism comprising a power shaft, a disk mounted thereon for rotating therewith and provided with a centralized recess or cut-away portion in its active face, a driven shaft, a hub mounted thereon for movement longitudinally of the driven shaft and connected thereto for rotation therewith, means for moving the hub along the driven shaft, a disk on the hub for rotation therewith, and carrying oppositely disposed gears, hubs mounted loosely on the first hub on opposite sides of said gears and each carrying a friction disk, and means for moving the three disks and the parts carrying them along

the driven shaft simultaneously, the disks of the driven shaft being related one to the other and to the recess or cut-away portion of the active face of the first-named disk to maintain the intermediate disk on the driven shaft out of engagement with the first-named disk while the other disks are in engagement therewith and to move the latter disks out of engagement with the first-named disk as the intermediate disk is moved into engagement therewith.

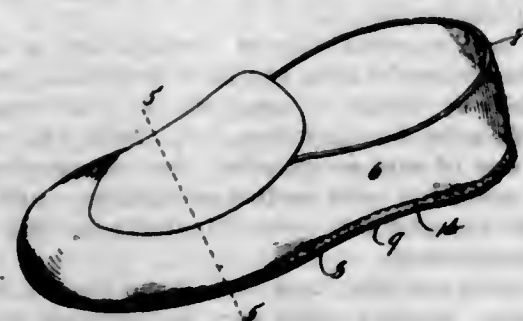
[Claims 6 to 12 not printed in the Gazette.]

1,081,955. METHOD OF MAKING FELT SHOES. JAMES A. GREEN, Dolgeville, N. Y., assignor to Daniel Green Felt Shoe Company, Boston, Mass., a Corporation of Massachusetts. Filed June 8, 1912. Serial No. 702,389. (Cl. 12-142.)



The method of making shoes composed of felt or other shrinkable material, which consists in stitching to the lower edge of an upper about the heel portion thereof the heel edge of an insole and the upper edge of a welt, said welt extending about the heel portion of the shoe only to form a pocket for a heel pad, then stitching together the lower edge of the upper and the edge of the insole forward of the heel portion of the shoe, then securing a padding on the inner side of an outer sole, then placing the outer sole in proper position beneath the inner sole, then inserting a heel pad in said pocket, then attaching the edge of the outer sole to the lower edge of the welt and the edges of the inner sole and upper forward of the heel portion of the shoe, and finally shrinking the shoe so formed upon a hollow bottomed last.

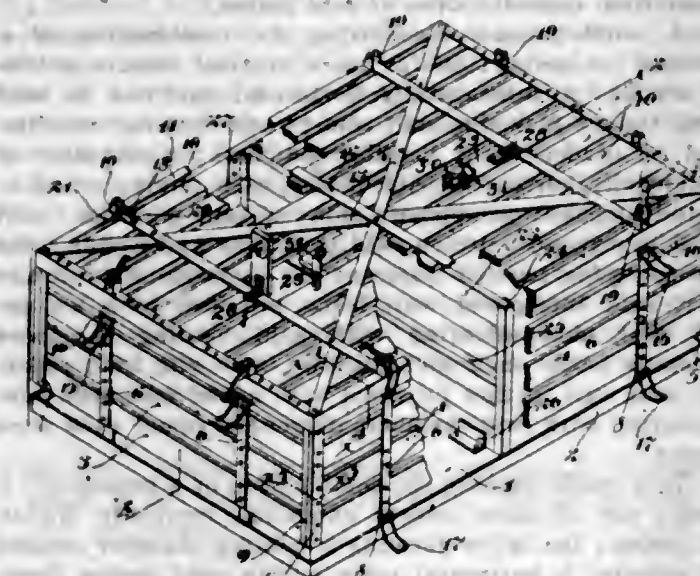
1,081,956. METHOD OF MAKING FELT SHOES. JAMES A. GREEN, Dolgeville, N. Y., assignor to Daniel Green Felt Shoe Company, Boston, Mass., a Corporation of Massachusetts. Original application filed June 8, 1912. Serial No. 702,389. Divided and this application filed June 21, 1913. Serial No. 775,048. (Cl. 12-145.)



1. The method of making shoes composed of felt or other shrinkable material, which consists in securing a padding on the inner side of an outer sole, then securing an inner sole over said padding, then attaching said outer sole, padding and inner sole to an upper, and finally shrinking the shoe so formed upon a hollow bottomed last.

2. The method of making shoes composed of felt or other shrinkable material, which consists in securing a padding on the inner side of an outer sole, then securing an inner sole over said padding by stitching along the edges of the outer sole, then attaching said outer sole, padding and inner sole to an upper by a line of stitching along the lower edge thereof, and finally shrinking the shoe so formed upon a hollow bottomed last.

1,081,957. FOLDING CRATE. LEROY M. GREEN, Portland, Oreg. Filed Jan. 6, 1913. Serial No. 740,320. (Cl. 217-47.)



1. A folding crate comprising a top, bottom, sides and ends, said sides and ends being hinged to the bottom, the hinges of the ends being arranged to permit said ends to be folded between the sides onto the bottom, and the hinges of the sides arranged to permit said sides to be folded onto the folded ends, stops for limiting the outward folding movements of the sides and ends, two sets of lock elements, one set secured to the upper edges of the ends and the other set secured to the bottom, and cam acting lock elements on the top and cooperating with the set of lock elements on the ends, to draw the top thereon and to also draw said ends into engagement with said stops, when the crate is in a set-up position, and cooperating with the lock elements on the bottom, to lock the crate in a knocked-down position, substantially as described.

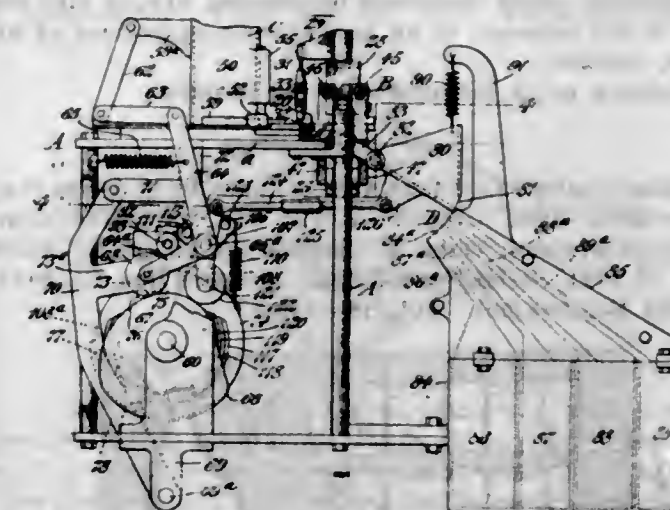
2. A folding crate comprising a top, bottom, sides and ends, said sides and ends being hinged to the bottom, the hinges of the ends being arranged to permit said ends to be folded between the sides, onto the bottom, and the hinges of the sides arranged to permit said sides to be folded onto the folded ends, stops for limiting the outward folding movements of the sides and ends, two sets of lock loops, one set secured to the upper edges of the ends and the other set secured to the bottom, and lock levers on the top engageable with the lock loops on the end, to draw the top thereon and to also draw said ends into engagement with said stops, when the crate is in a set-up position, and engageable with the lock loops on the bottom to lock the crate in a knocked-down position, substantially as described.

3. A folding crate comprising a top, bottom, sides and ends, said sides and ends being hinged to the bottom, the hinges of the ends being arranged to permit said ends to be folded between the sides onto the bottom, and the hinges of the sides arranged to permit said sides to be folded onto the folded ends, the top and bottom having laterally projecting, intumed marginal flanges, the flanges on said top limiting the outward folding movements of the sides and ends, two sets of lock loops, one set secured to the upper edges of the sides and ends and the other set secured to the bottom, and lock levers on the top engageable with the lock loops on the sides and ends to draw the top thereon and into engagement with the flange on said top, when the crate is in a set-up position, and engageable with the lock loops on the bottom, to lock the crate in a knocked-down position, substantially as described.

4. A folding crate comprising a top, bottom, sides and ends, said sides and ends being hinged to the bottom, the hinges of the ends being arranged to permit said ends to be folded into flat engagement with the bottom, and the hinges of the sides being arranged to permit said sides to be folded into flat engagement with the folded ends, a removable partition for dividing said crate into compartments, and having an intermediate opening, securing devices on the bottom and sides for holding the partition

in an upright position, said partition adapted to be folded into flat engagement with the bottom between the folded ends, and with the said securing devices on the bottom and sides projecting into its intermediate opening, and means for locking the crate in a set-up or knocked-down position, substantially as described.

1,081,958. COIN-HANDLING MACHINE. CHARLES M. GREY, East Orange, N. J. Filed Oct. 17, 1910. Serial No. 587,357. (Cl. 133-3.)



1. In a machine of the class described, a mechanism the movement of parts of which vary according to two dimensions of a coin, and a translating device operated by said mechanism, said translating device being movable to a plurality of operative positions by the action of said mechanism.

2. In a machine of the class described, means mounted for varied movement according to two dimensions of a coin and a member operatively connected with and mounted for differential movement dependent upon the varying movement of such mechanism.

3. In a machine of the class described, coin controlled mechanism dependent for its operation upon a plurality of dimensions of a coin, coin-actuating mechanism for imparting positive movement to coins and operating to position the same in operative relation to the coin controlled mechanism, and a translating device movable to a plurality of operative positions by the action of said coin controlled mechanism.

4. In a machine of the class described, coin controlled mechanism embodying movable parts dependent for their operation upon one of the dimensions of a coin, coin actuating mechanism for imparting movement to successive coins and operating to position the same in operative relation to the coin controlled mechanism, and coin sorting mechanism dependent for its operation upon said coin controlled mechanism.

5. In a machine of the class described, coin controlled mechanism adapted to receive a coin therebetween and dependent for its operation upon one of the dimensions of a coin, coin actuating mechanism for imparting movement to successive coins and operating to position the same in operative relation to the coin controlled mechanism, coin counting mechanism, and coin sorting mechanism, said coin counting mechanism and coin sorting mechanism being dependent for their operation upon said coin controlled mechanism.

[Claims 6 to 53 not printed in the Gazette.]

1,081,959. MANUFACTURE OF ACETIC ACID. NATHAN GUTNSTEIN, Frankfort-on-the-Main, Germany, assignor to The Firm of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany, a Corporation of Germany. Filed Mar. 7, 1912. Serial No. 682,273. (Cl. 23-24.)

1. The process of manufacturing acetic acid from acetaldehyde which comprises introducing oxygen into the same in the presence of an accelerating agent.

2. The process of manufacturing acetic acid from acetaldehyde which comprises introducing oxygen into the same in the presence of an organic acid accelerating agent.

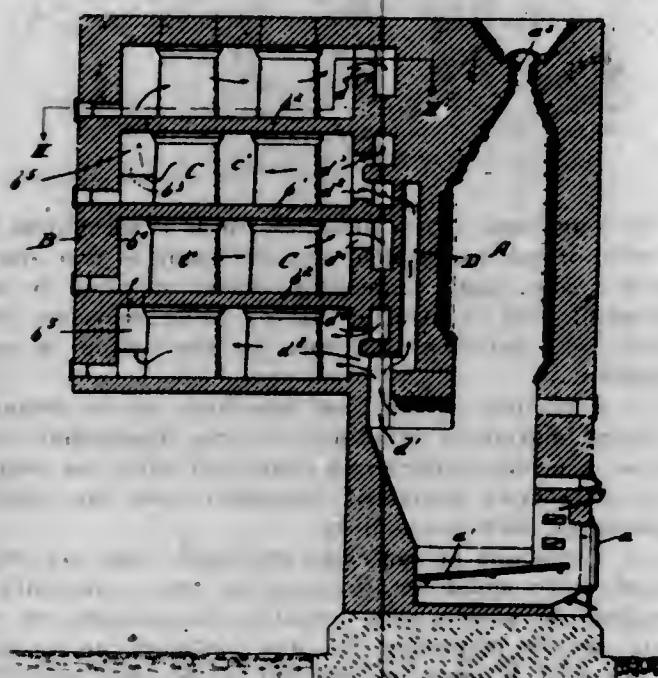
3. The process of manufacturing acetic acid from acetaldehyde which comprises introducing oxygen from the same in the presence of a compound containing the acetic radical.

4. The process of manufacturing acetic acid from acetaldehyde which comprises introducing oxygen into the same in the presence of acetic acid.

5. The process of manufacturing acetic acid from acetaldehyde which comprises introducing oxygen into the same in the presence of an accelerating agent, and of an oxygen carrier.

[Claims 6 to 20 not printed in the Gazette.]

1,081,960. MUFFLE-FURNACE. LAZENBY C. HAMLINK, Cleveland, Ohio, assignor to The Gas Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 9, 1911, Serial No. 653,692. Renewed Oct. 13, 1913. Serial No. 794,996. (Cl. 48—113.)



1. In a muffle furnace the combination of a generator; a casing; one or more vertical retorts within said casing; a partition forming superimposed and independent heating chambers within said casing; each chamber being provided with a horizontal plate dividing same into upper and lower compartments; the lower compartment of each chamber provided with an air inlet and the upper compartment of each chamber with a gas outlet; said plate being provided with means forming the sole gas inlet for the upper chamber; and a gas inlet establishing communication between said generator and lower compartment of each chamber.

2. In a muffle furnace the combination of a generator; a casing; one or more vertical retorts within said casing; a partition forming superimposed and independent heating chambers within said casing; each such chamber being provided with a horizontal baffle plate dividing each chamber into two compartments, and means therethrough establishing communication between same, said means being placed in the end of said plate opposite that which is adjacent to said furnace and forming an outlet for the lower compartment; a gas inlet establishing communication between said furnace and lower compartment of each chamber and a gas outlet leading from the upper compartment of each chamber into a suitable flue; said partition forming the sole inlet for said upper chamber.

3. A muffle-furnace comprising the combination of a generator; a casing; a wall interposed between said generator and casing; one or more vertical retorts within said casing; a partition extending horizontally across said casing and forming superimposed and independent heating chambers; a plurality of substantially horizontal plates, each provided with an opening and disposed on op-

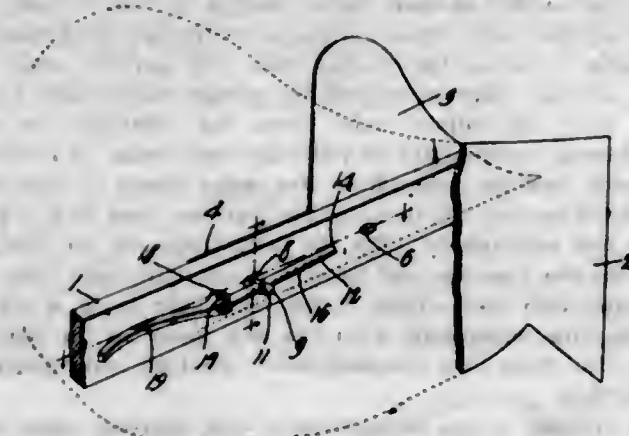
posite sides of said partition, said openings being remotely located relative to said wall, and means comprising flues within said wall for simultaneously conducting gases to and from opposite sides of said plates.

4. A muffle-furnace comprising the combination of a generator; a casing; one or more vertical retorts within said casing; a substantially horizontal partition in said casing tightly inclosing said retorts and forming superimposed independent heating chambers; a plurality of substantially horizontal baffle-plates, each having an opening and disposed on opposite sides of said partition; and a wall interposed between said generator and casing, said openings being located adjacent the opposite wall of the latter, said interposed wall being provided with an upright flue communicating with said heating chambers diagonally below each such opening, and with said generator, said wall further provided with outlet openings communicating with said chambers diagonally above each such opening.

5. In a muffle furnace the combination of a generator; a casing; one or more retorts extending vertically within said casing; the latter forming a heating chamber around said retorts; a horizontal plate within said casing forming independent heating chambers divided into upper and lower compartments; an inlet establishing communication between said furnace and one end of the lower compartment; and an outlet leading from the upper compartment into a suitable flue; said plate being provided with opening means therethrough forming the outlet from the lower chamber the sole inlet for the upper chamber; said means being placed in that end of said plate which is opposite that end adjacent to the said first named gas inlet.

[Claims 6 to 9 not printed in the Gazette.]

1,081,961. PLOW. GEORGE W. HAMMERS, Billings, Mont. Filed Oct. 29, 1912. Serial No. 728,478. (Cl. 97—6.)



1. In a plow, a landside having a rearwardly and inwardly inclined opening; a colter having a rearwardly and inwardly inclined stud adapted to register in the opening; a retaining member engaged with the colter and with the landside; and adjustable means upon the retaining member for engaging the inner face of the landside.

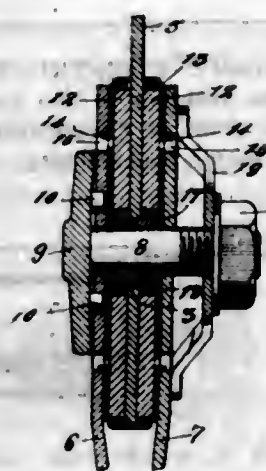
2. In a plow, a landside having a rearwardly and inwardly inclined opening; a colter having a rearwardly and inwardly inclined stud adapted to register in the opening; a retaining member engaging with the colter and with the landside; a bar inserted through the retaining member; and adjustable means upon one end of the bar for thrusting the other end of the bar against the inner face of the landside, to impart longitudinal movement to the retaining member.

3. In a plow, a landside; a colter; the landside being provided with a rearwardly and inwardly inclined opening, and the colter being provided with a rearwardly and inwardly inclined stud adapted to register with the opening; a retaining member engaged with the colter and with the landside; a bar inserted through the retaining member and bearing at one end against the inner face of the landside; and a cam upon the other end of the bar, adapted to engage the inner face of the landside.

4. In a plow, a landside, a colter; a retaining member connected with the colter and extended through the landside; a bar extended through the inner end of the retaining member and provided in its edge with a plurality of notches adapted to engage the retaining member; and a cam upon one end of the bar, adapted to engage the inner face of the landside to swing the other end of the bar against the inner face of the landside to advance the retaining member longitudinally.

5. In a plow, a landside; a colter applied to the landside; a retaining member mounted upon the colter and extended through the landside; a lever pivotally supported intermediate its ends on the retaining member and located upon the opposite side of the landside from the colter; and adjustable means mounted upon one arm of the lever for forcing the other arm of the lever into engagement with the landside.

1,081,962. SHOCK-ABSORBER. EDWARD V. HARTFORD, Deal, N. J. Filed Dec. 10, 1910. Serial No. 596,670. (Cl. 21—105.)



1. In a shock absorber for vehicles having spring-supporting means, the same comprising a plurality of arms, friction material interposed therebetween, retaining cups for said friction material, means for holding the arms, cups, and material in close association to insure a constant drag between the parts when rotary movement is imparted to the arms, and means for preventing independent movement of the retaining cups and two of said arms, said means comprising lugs struck up from the cups and projected into openings provided in two of said arms for the purpose specified.

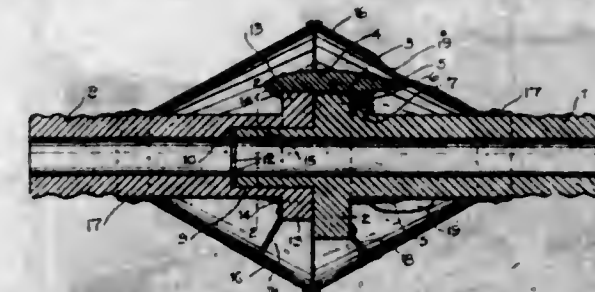
2. In a shock absorber for vehicles having spring-supporting means, the same comprising a plurality of arms, friction material interposed therebetween, retaining cups for said friction material, a bolt for holding said arms, cups, and material in close association to insure reluctant movement between them, an anti-friction sleeve mounted upon the bolt, positioned and retained within and between the cups, and means comprising lugs struck up from the cups and projecting into suitable openings provided in two of said arms for preventing independent movement thereof.

3. In a shock absorber for vehicles having spring-supporting means, the same comprising a plurality of friction disks, friction material interposed therebetween, retaining cups for said friction material, supporting arms for said friction disks, means for holding the friction disks, cups, and material in close association, means for preventing independent movement of said friction disks and retaining cups, an anti-friction bearing for one of said friction disks, said bearing being positioned and retained within and between the cups, and lubricant-carrying packing surrounding the anti-friction bearing.

4. In a shock-absorber for vehicles having spring-supporting means, the combination with a pivot pin, of a pair of arms held from movement relatively thereto, a thin arm interposed between the members of said pair of arms and having an eye surrounding said pivot pin, an anti-friction sleeve longer than the thickness of such arm mounted upon said pivot pin and occupying the eye in the said arm and having a working fit with the said pin and

with said eye, friction disks between said interposed arm and the arms of the pair and having openings surrounding said sleeve of greater radius than the outside radius thereof, such openings forming a chamber, and lubricant carrying packing disposed in such chamber between the said friction disks and sleeve, and means for holding the arms and friction disks in close association so that any movement thereof will be accompanied by a corresponding drag.

1,081,963. HOSE-COUPLING. JESSE A. HOLLOWAY, Bowdon, Ga. Filed Mar. 19, 1913. Serial No. 755,492. (Cl. 137—28.)



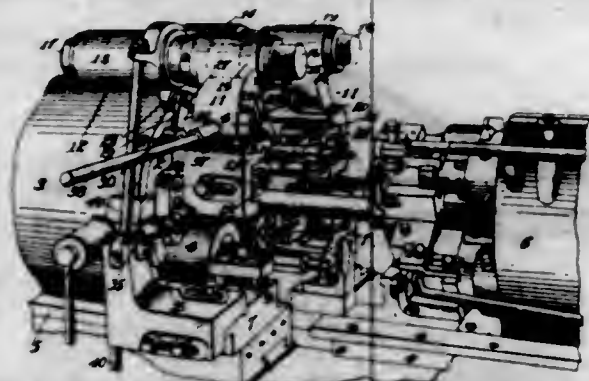
1. In a hose coupling, the combination with a female section having an annular flange at one end, a male section having a reduced portion engaged in the female section and provided with an annular flange at the inner end of the reduced portion, spaced ears arranged in pairs and projecting radially from the periphery of the flange of the male section, locking dogs pivoted in the pairs of ears and engaged with the flange of the female section, means for resiliently retaining the dogs in engagement with the last mentioned flange, flared guard members secured at their reduced portions to the male and female sections at spaced distances from the ends thereof and inclosing the same, the large portions of the guard members being engaged, one of said guard members being provided with openings through which the free ends of the dogs may be engaged to disengage the dogs from the flange of the female section, and bracing means secured to the guard members and to the flanges of the sections.

2. In a hose coupling, the combination with a male section having a flange at one end, a female section having a flange at one end, said male section having a reduced portion engaged in the female section and having its flange provided with flattened portions, ears arranged in pairs upon the flattened portions of the flange and projecting from the periphery of said flange, locking dogs pivoted in the pairs of ears and engaged over the flange of the female section, means for resiliently retaining the dogs in operative position, flared guard members secured at their reduced portions to the male and female sections at spaced distances from the flanged ends thereof and inclosing the same, the large portions of the guard members being engaged with one another, one of said guard members being provided with openings through which the upper ends of the dogs may engage to disengage the dogs from the flange of the female section, and bracing means secured to the guard members and to the flanges of the sections.

1,081,964. METAL-WORKING MACHINE. HUGH MUNROE HUNTER, Cleveland, Ohio, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 26, 1912. Serial No. 679,811. (Cl. 29—37.)

1. In a multiple spindle machine, the combination of a rotatably supported turret carrying a plurality of spindles for the work, a plurality of side tool supports located at the same side of the machine, means for pivotally supporting one of said supports, said pivot being eccentrically journaled, means for swinging said pivoted tool support and for turning said pivot in its eccentric bearing whereby the tool will move approximately in a straight line, and means for simultaneously operating the other tool support whereby the tools may operate simultaneously upon the work and successively upon the same place of work.

2. In a multiple spindle machine, the combination of a rotatably supported turret carrying a plurality of spindles for the work, a plurality of side tool supports, means for pivotally supporting one of said supports, said pivot being eccentrically journaled, means for swinging said pivoted tool support and for turning said pivot in its eccentric bearing whereby the tool will move approximately in a straight line, and means for operating the other tool support whereby the tools carried thereby will act successively upon the work.



3. In a multiple spindle machine, the combination of a rotatably supported turret carrying a plurality of spindles for the work, a plurality of side tool supports supported independently of each other, one for sliding movement, means for pivotally supporting the other support above said sliding side tool support, said pivot being eccentrically journaled, means for swinging said pivoted tool support and for turning said pivot in its eccentric bearing whereby the tool will move approximately in a straight line, and means for operating said sliding tool support in unison with said swinging tool support whereby the tools carried thereby may operate simultaneously upon the work and successively upon the same piece of work.

4. In a multiple spindle machine, the combination of a rotatably supported turret carrying a plurality of spindles for the work, a plurality of side tool supports supported independently of each other but connected together, one supported for sliding movement, means for pivotally supporting the other support above said sliding side tool support, said pivot being eccentrically journaled, means for swinging said pivoted tool support and for turning said pivot in its eccentric bearing whereby the tool will move approximately in a straight line, and means for operating said sliding tool support in unison with said swinging tool support whereby the tools carried thereby may operate simultaneously upon the work and successively upon the same piece of work.

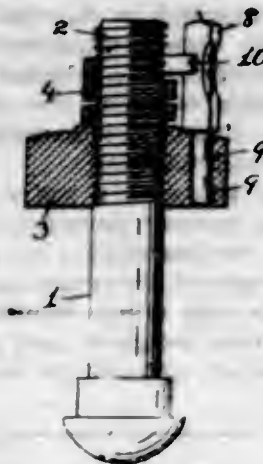
5. In a multiple spindle machine, the combination of a rotatably supported turret carrying a plurality of spindles for the work, a plurality of side tool supports, and means for actuating all of said supports whereby the tools carried thereby may simultaneously operate upon the work and successively upon the same piece of work, each of said tool supports carrying a forming tool, each constructed to partly or irregularly cut the work whereby the complete forming operation on each piece is effected only by all of the tools but in materially less time than when the work is formed by a single tool and with less vibration and chattering when operating upon irregular stock.

[Claims 6 to 35 not printed in the Gazette.]

1,081,965. NUT-LOCK. MARCUS KESTER, Olney, Ill. Filed Jan. 20, 1913. Serial No. 743,177. (Cl. 151—30.)

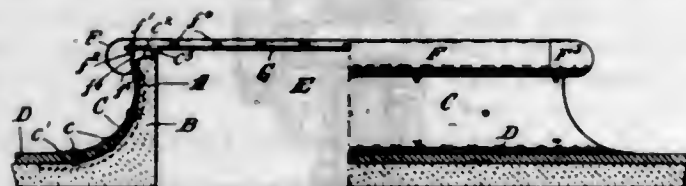
A nut lock comprising a coiled spring surrounding the threaded end of the bolt, said spring having at its inner end connection with the nut, to turn therewith, and an out-turned outer end, and a straight key having at its inner end a stem in axial alignment therewith, said stem having rotatable engagement with a straight seat of the nut, said key having at its outer portion engagement with

the out-turned end of said spring to tighten the coils of the spring upon the bolt, said stem having frictional en-



agement with the walls of its seat to prevent reverse movement of the key under strain of the spring.

1,081,966. SKYLIGHT CONSTRUCTION. JAMES B. KING, Clyde, Ohio, assignor to The American Mausoleum Company, Clyde, Ohio, a Corporation of Ohio. Filed Feb. 27, 1913. Serial No. 750,994. (Cl. 108—16.)



1. In a sky-light structure, the combination with a flashing-sheet; of a supporting sheet adjacent and secured to said flashing-sheet and provided with ribs extending from its exterior face.

2. In a sky-light structure, the combination with a flashing-sheet; of a supporting sheet secured to the latter and provided with ribs extending from its exterior and interior surfaces.

3. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; means for separating said two sheets; and means for securing said two sheets to each other.

4. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; one of said sheets being provided with spaced flanges separating said two sheets; and means for securing the latter to each other in such separated position.

5. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; one of said sheets being provided with perforated and spaced flanges for separating said two sheets; and means for securing the latter to each other in such separated position.

[Claims 6 to 17 not printed in the Gazette.]

1,081,967. HAT-FASTENER. WILLARD A. KITT, Jr., Oswego, N. Y. Filed Jan. 23, 1911. Serial No. 604,269. (Cl. 132—25.)

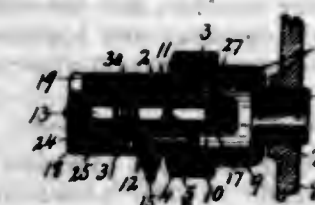
A hat fastener formed of flat thin spring metal comprising a relatively wide arcuate member having a plurality of slots disposed mid-way between the side edges thereof, the opposite side walls of the slots being inclined in the same direction, a plurality of transversely-extending guides secured to the outer face of the member, one guide being positioned rearwardly and adjacent to each of said slots, a relatively narrow arcuate bar mounted in said guides and shiftable therein in both directions on the arcuate member, a plurality of flexible flat spurs flatly connected at their outer ends to the inner face of said bar, the free ends of said spurs being projected through the slots in the arcuate member as the bar is moved in one

direction, said spurs lying flatly between the bar and member when withdrawn from the slots by a movement of



the bar in the other direction, and a depending hand piece carried by said bar substantially mid-way between its ends.

1,081,968. GAGE-COCK. WILLARD A. KITT, Jr., New York, N. Y. Filed Apr. 8, 1913. Serial No. 759,682. (Cl. 136—3.)



1. A gage cock comprising a threaded nipple section and a nozzle section co-axial with and adjustable rotarily relatively to the nipple section, a union connecting said sections and a valve for opening and closing communication between the nipple section and nozzle section.

2. A gage cock comprising a threaded nipple section and a co-axial nozzle section having a radially projecting nozzle communicating with the interior of the nipple section, a union screwing upon one of said sections and engaging with the other section to permit relative rotary adjustment of said nozzle section, and a valve controlling communication between the nipple section and nozzle.

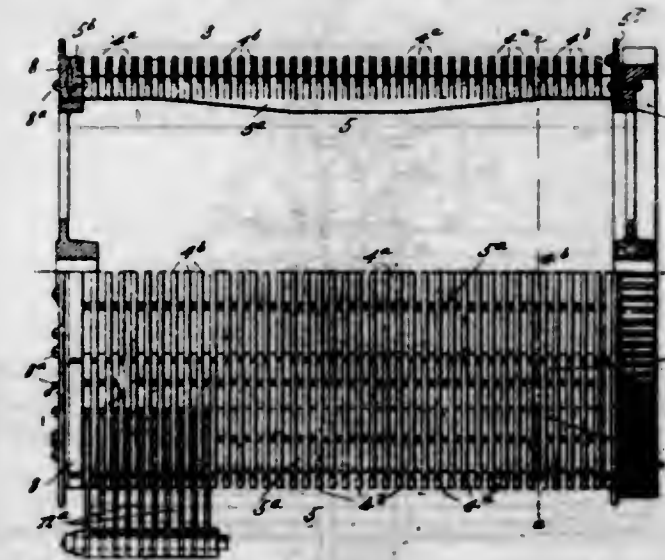
3. A gage cock comprising a nipple section having a reduced threaded nipple and its larger portion threaded externally, a nozzle section having a flanged end co-axial with the nipple section, an internally flanged nut screwing upon the threaded larger end of the nipple section and engaging with the flanged end of the nozzle section for rotary adjustment relatively thereto, said nozzle section having a nozzle communicating with the interior of the nipple section and a valve controlling such communication.

4. A gage cock comprising a valve case having an inlet and an outlet, a valve disk rotatable to and from a position across the outlet, an operating member for the valve, means for returning the operating member to starting position after each operation.

5. A gage cock comprising a threaded nipple section, a co-axial nozzle section, a union connecting said sections, said nozzle section being adjustable rotarily relatively to the union and nipple section, and provided with a valve seat and an outlet leading therefrom through the periphery of the nozzle section, a valve rotatable on said seat to and from a position across the adjacent end of the outlet, a spring for holding the valve to its seat, an operating member for said valve, and means for returning the operating member to its starting position after each operation of the valve.

[Claims 6 to 12 not printed in the Gazette.]

1,081,969. FEED-ROLLER. JAMES B. LADD and DAVID BAKER, Philadelphia, Pa., assignors, by direct and mesne assignments, of one-half to Ladd & Baker, Incorporated, a Corporation of Pennsylvania, and one-half to David Baker, Philadelphia, Pa. Filed Mar. 22, 1911. Serial No. 616,107. (Cl. 83—44.)



1. A rotary feed roller for delivering coke and the like from bins or chutes, said roller having a hollow interior and provided with circumferentially continuous slots extending through the wall of the roller and into its interior, the said slots being separated from each other by circumferentially continuous portions presenting conjointly a supporting surface on which the coarse material is supported and fed by the rotation of the roller.

2. In combination with a bin or chute, a rotary cylindrical feed roller having a hollow interior, and provided with circumferentially continuous slots extending through the wall of the roller and into its interior, the said slots being separated from each other by circumferentially continuous solid rib portions presenting conjointly a cylindrical supporting surface, and the said roller being so mounted relatively to the bin that in the rotation of the roller, the material will be supported on the ribbed surface and fed in this condition from the bin.

3. In combination with a bin or chute, a rotary cylindrical feed roller having a hollow interior and provided with circumferentially continuous slots extending through the wall of the roller and into its interior, the said slots being separated by circumferentially continuous ribbed portions presenting conjointly a material supporting surface, the said roller being so mounted in relation to the bin or chute that in the rotation of the roller the material will be supported on the ribbed surface and fed in this condition from the bin, and a series of fixed fingers extending into the said slots and acting as the roller rotates to free the same from any material lodging therein.

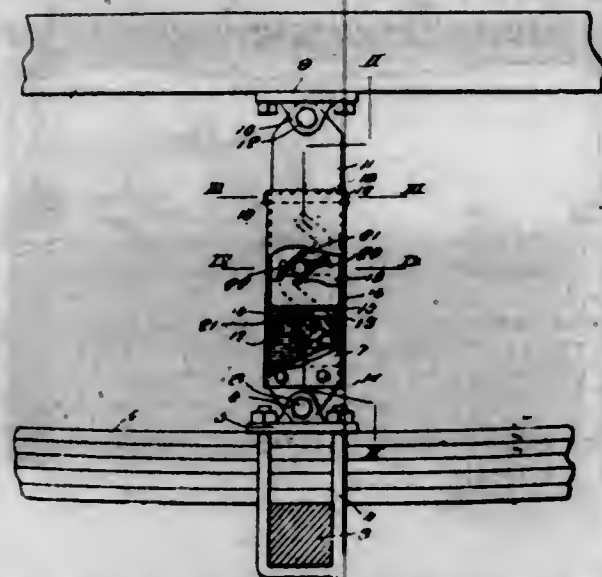
1,081,970. SHOCK-ABSORBER. JOHN L. LAWRENCE, Lawrence, N. Y. Filed Feb. 28, 1912. Serial No. 680,423. (Cl. 21—105.)

1. A shock absorber comprising a casing; a plunger movable within said casing, said casing and said plunger being formed with guideways; and independent means bodily movable along said guideways for retarding the movements of said plunger.

2. A shock absorber comprising a casing; a plunger movable relative to said casing; one of said members being formed with a guideway; and means movable transversely of the other of said members adapted to engage said guideway for retarding the movements of said plunger.

3. A shock absorber comprising relatively movable members, one of said members having a guideway formed therein and another of said members having a relatively inclined guideway formed therein; and independent means bodily movable along said guideways for retarding the relative movements of said members.

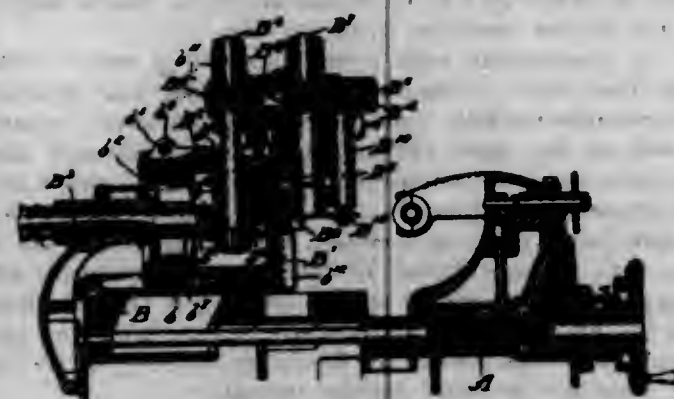
4. A shock absorber comprising relatively movable members, one of said members having a guideway formed therein and another of said members having a relatively inclined guideway formed therein; and a single independently formed member bodily movable along said guideways adapted to engage said guideway for retarding the relative movements of said members.



5. In a shock absorber, the combination comprising substantially telescoping members, and means movable with one of said members adapted to move bodily transversely thereof and having frictional engagement with the other of said members for retarding the relative telescopic movement of said members.

[Claims 6 to 10 not printed in the Gazette.]

1,081,971. GEAR-GENERATOR. ERNEST J. LEES, Cleveland, Ohio, assignor to The Lees-Bradner Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Aug. 6, 1909, Serial No. 511,497. Divided and this application filed Mar. 25, 1912. Serial No. 685,949. (Cl. 90—4.)



1. In a gear-generating machine, the combination of a main tool-driving spindle; a support forming the main bearing for such spindle; a supporting member mounted upon said support and adjustable thereon in the direction of the said spindle's axis; and an auxiliary tool-driving spindle and gears connecting same with said main driving spindle; said adjustable supporting member adapted to form a bearing-support for said auxiliary spindle.

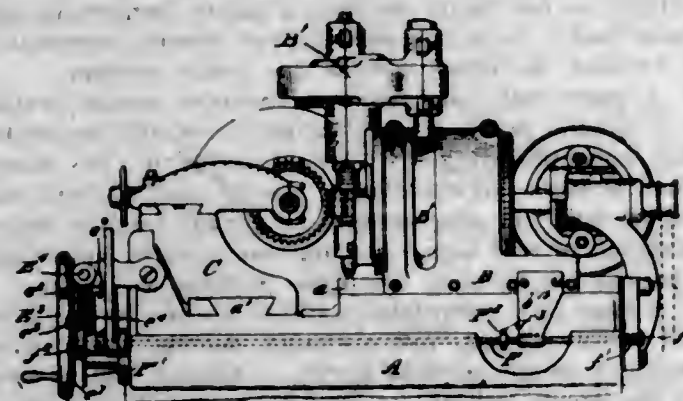
2. In a gear-generating machine, a tool-holding and operating head comprising in its structure the combination of a main body-portion adjustable about an axis; a main driving-spindle mounted upon said main body-portion and having its axis transversely related to that of said first-named axis; gears for driving said spindle; a supporting member provided with a bearing having its axis coinciding with the axis of said main driving spindle and mounted upon said main body-portion and adjustable in the direction of said last-named axis; and an auxiliary tool-spindle and gears connecting same with said main driving spindle; said adjustable supporting member adapted to form a bearing-support for said auxiliary spindle.

3. In a gear-generating machine, the combination with a suitable frame, formed with a cylindrical seat, and with a segmental slot intersecting said seat; of a tool-holding and operating head mounted in said seat, adjustable about the axis of the latter, and comprising in its structure a driving spindle, a secondary driving spindle projecting through said slot, gears connecting said two spindles, and a main driving-spindle to which the tool may be attached, said latter spindle being mounted without said frame.

4. In a gear-generating machine, the combination of a main tool-driving spindle; a support for forming the main bearing for such spindle; a compound gear secured to said spindle; means for driving one of the elements of said compound gear; a secondary spindle mounted adjacent to said main spindle and provided with a pinion; and a housing surrounding said compound gear and provided with an opening adjacent to the other element of the latter, whereby said secondary spindle pinion may be caused to mesh with said other element and be driven thereby.

5. In a gear-generating machine, the combination of a main tool-driving spindle; a support forming the main bearing for such spindle; a supporting member mounted upon said support and adjustable thereon in the direction of the spindle's axis; a compound gear secured to said spindle; a pinion meshing with one of the members of said compound gear; a housing surrounding the latter and provided with an opening adjacent to the other member of such compound gear; an auxiliary spindle and bearing therefor, said bearing having one end secured to said adjustable supporting member, and the other end secured adjacent to the said opening; and a pinion fixed to said auxiliary spindle and engaging said other member of said compound gear.

1,081,972. GEAR-GENERATOR. ERNEST J. LEES, Cleveland, Ohio, assignor to The Lees-Bradner Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Aug. 6, 1909, Serial No. 511,497. Divided and this application filed Mar. 25, 1912. Serial No. 685,950. (Cl. 90—4.)

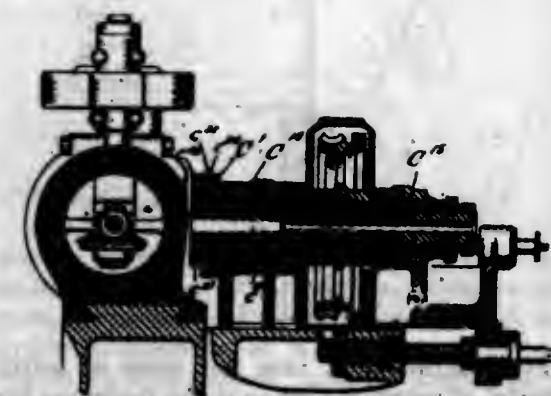


1. In a gear-generating machine, the combination of a suitable frame; a tool-head slide mounted upon the latter; a feed-screw connected with said slide; a member mounted upon said screw and having an adjustably securable and rotatable member mounted thereon; a reciprocable member adapted to project into the path of adjustment-movement of said adjustably securable member; manually-operable means for engaging said reciprocable member to hold same in a fixed position; and adjustable means on said member lying in the path of the said slide whereby the latter may be caused to actuate said member to assume said projecting position.

2. In a gear-generating machine, the combination of a suitable frame; a tool-head slide mounted upon the latter; a feed-screw connected with said slide; a hand-wheel secured to said feed-screw; a rim mounted upon said hand-wheel, rotatable thereon, and provided with a projection; means for fixing said rim to said hand-wheel; a reciprocable rod mounted parallel with said feed-screw and adapted to project into the path of rotation of said projection; a spring adapted to normally hold said rod out of said path; a manually-operable dog adapted to engage said rod and hold same in such projecting position; and an adjustable collar mounted upon said rod and

lying in the path of said slide, whereby the latter may be caused to actuate said rod to assume said projecting position.

1,081,973. GEAR-GENERATOR. ERNEST J. LEES, Cleveland, Ohio, assignor to The Lees-Bradner Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Aug. 6, 1909, Serial No. 511,497. Divided and this application filed Mar. 25, 1912. Serial No. 685,952. (Cl. 90—57.)



1. In a gear-generating machine, a work-rotating spindle comprising the combination of an inner spindle to which the work may be directly secured; an outer spindle mounted co-axially with said inner spindle, and capable of adjustment about its axis and with reference to the latter; and a member intermediate of said two spindles securable to each, and adjustable with reference to one of same while fixed to the other.

2. In a gear-generating machine, a work-rotating spindle comprising the combination of an inner spindle to which the work may be directly secured; an outer spindle mounted co-axially with said inner spindle; the latter provided with a member having a plurality of notches arranged circumferentially with respect to the inner spindle's axis; said two spindles being capable of relative rotation; a member intermediate of said two spindles; removable means mounted upon said latter member, and adapted to engage said notches; and means for rotatively adjusting said intermediate member upon said outer spindle.

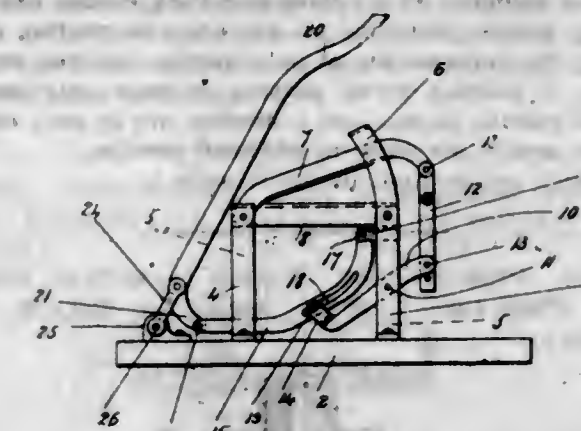
3. In a gear-generating machine, a work-rotating spindle comprising the combination of an inner spindle to which the work may be directly secured; an outer spindle mounted co-axially with said inner spindle and capable of rotation relative thereto; a member intermediate of said two spindles; one of said spindles being provided with a plurality of notches arranged circumferentially with reference to its axis; removable means mounted upon said intermediate member and adapted to engage said notches so as to fix the inner and outer spindles relatively to each other; and means for adjusting said intermediate member rotatively upon one of said spindles.

4. In a gear-generating machine, a work-rotating spindle comprising the combination of an inner spindle to which the work may be secured; an outer spindle mounted co-axially with said inner spindle and rotatable upon the latter; the inner spindle being provided with a plurality of notches arranged circumferentially with reference to its axis; a ring secured to said outer spindle adjacent to said notches; a removable dog seated in said ring and adapted to engage said notches; means for fixedly securing said ring to said outer spindle or releasing same therefrom; said outer spindle being provided with a recess; and a cam mounted in said ring engaging said recess.

1,081,974. SHEARS. OSCAR B. LINTNER, Potwin, Kans. Filed June 4, 1913. Serial No. 771,841. (Cl. 184—46.)

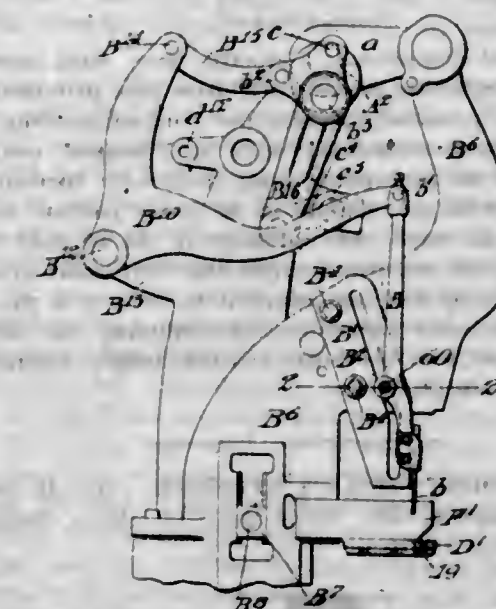
In a shears, the combination, with two uprights, and a stationary blade secured between them; of a blade pivoted to one of the uprights, a lever pivoted to the other upright and having a forked jaw at one end arranged at an angle to its main portion and provided with a pin, a link pivotally connecting the free end portion of the pivoted blade with the adjacent end portion of the said lever, a

second lever pivoted to the last said upright above the pivot of the said lever and having a longitudinal slot at its middle part which engages with the said pin, a handle



pivoted to the free end portion of the second lever, and a pivoted rocker-arm which supports the said handle and forms a movable fulcrum for it.

1,081,975. MACHINE FOR INSERTING FASTENINGS. FRANK D. LOCKE, Hudson, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 1, 1913. Serial No. 745,673. (Cl. 1—19.)



1. In a machine for inserting fastenings, the combination with an awl, an awl-bar, an awl-bar operating mechanism, and an awl-bar cam-plate, of means arranged to guide said awl-bar by said cam-plate and also to secure said awl-bar in adjusted relation to the cam-plate.

2. In a machine for inserting fastenings having an awl-bar, a combined awl-bar adjusting and guiding mechanism comprising a cam-plate with a cam-track therein, a bushing adjustably threaded into said awl-bar, a shouldered screw having its shoulder in contact with one end of said bushing, the portion on one side of the shoulder passing through the bushing and the portion on the other side passing through the cam-track to be guided thereby, means upon the screw to confine said portion for free movement in the cam-track and means for securing the screw and bushing in fixed relation to the awl-bar.

3. In a machine for inserting fastenings having an awl-bar and means cooperating therewith, including a cam-plate having a cam-track, the combination of a headed bushing threaded into the awl-bar and a shouldered screw and nuts thereon by which the bushing is clamped in adjusted position, said screw being guided in a track in the cam-plate and held for free movement in said track by its head and the head of the bushing.

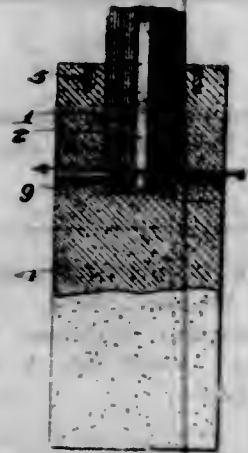
4. In a machine of the class described, having fastening inserting means, including an awl-bar and a guiding cam-plate therefor, the combination of a bushing in said awl-bar, a member passing through said bushing and construct-

ed and arranged to be guided by said cam-plate and a member or members to secure the lashing and guiding member in adjusted position with respect to the cam-plate.

5. In a machine of the class described, having fastening inserting means, including an awl-bar and guiding means therefor, the combination of an adjusting bushing for said awl-bar, a guiding screw passing through said bushing and said guiding means, and a binding nut or nuts on said screw to secure the parts in adjusted position.

[Claim 6 not printed in the Gazette.]

1,081,976. FENCE-POST. WALTER L. McCAIN, Deering, Mo. Filed Dec. 7, 1912. Serial No. 735,476. (Cl. 72-83.)



A fence post comprising a plastic base, said base provided with a receiving socket, said base also provided with a transversely extending aperture communicating with said socket, in combination with a T-shaped post, the web and back of said post being integrally formed, said web provided with an opening in its lower portion and adjacent the back, said post adapted to fit in said socket of said base, said opening registering with said aperture, said aperture and opening adapted to receive a pin after the device has been assembled for reducing the twisting strain upon the web, said pin resting snugly against the front face of said back.

1,081,977. CORSET-STAY FASTENER. IDA M. MITCHELL, Los Angeles, Cal. Filed Sept. 17, 1912. Serial No. 720,876. (Cl. 2-76.)

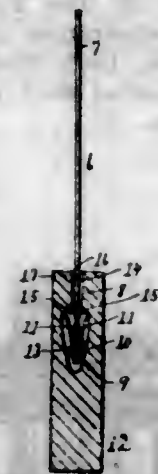


A stay fastener comprising sections of sheet material adapted to be disposed on opposite sides of a stay and outside of the fabric surrounding the stay, each of said sections being formed with penetrating teeth at its edges, and with a pair of teeth struck up within its body and spaced from each other, one of the teeth of said pair having its point directed for causing the tooth when applied to extend longitudinally of the section in one direction, and the other of the last named teeth being oppositely directed.

1,081,978. SEAL. JOHN F. MITCHELL, Topeka, Kans. Filed Sept. 18, 1911. Serial No. 649,792. (Cl. 70-99.)

1. In a seal of the kind described, the combination of a flat stem of brittle and frangible metal having oppositely extending arms at one end, being reduced at its other end and provided with shoulders at the juncture of the

stem portion proper and said arms and at said point of reduction at the end, and said stem having a slot in its reduced end; and a spring extending through the slot with its ends extending upwardly and at an angle outwardly from the reduced portion of the stem.



2. The combination of a thin flat stem of brittle and frangible metal of substantially uniform thickness throughout its area and having at one end a head and at its other end a reduced portion with shoulders at the point of reduction and having a slot in its reduced portion; a spring extending through said slot, its free ends extending from said slot upwardly along opposite sides of the reduced portion and extending at an angle outwardly therefrom; and a locking body having a chamber therein with shoulders and a hole leading into said chamber; said chamber, hole, and last-named shoulders being formed for the reception of said reduced end and spring with the ends of the spring bearing against the shoulders of the chamber and the stem shoulders bearing against the body.

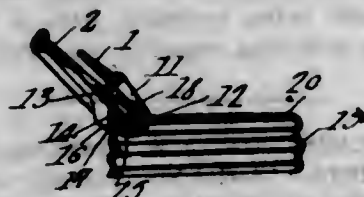
1,081,979. TRANSPARENT PAVEMENT. LEO G. MULLEN, Crafton, Pa. Filed June 16, 1913. Serial No. 773,849. (Cl. 94-7.)



1. A device of the character described, comprising a helically threaded lens, a fixed wire helix adapted to receive said lens, and cooperating means upon said lens and wire helix for locking them together, said locking means being automatically operated by screwing the lens into the wire helix.

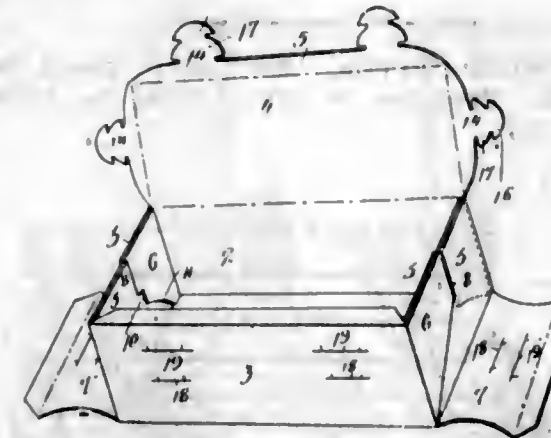
2. A device of the character described, comprising a helically threaded lens having a depression in its periphery, and a fixed wire helix having a portion bent to form an inwardly projecting shoulder, said shoulder adapted to engage said depression in the threaded lens for locking the parts together when the lens is screwed into the wire helix.

1,081,980. CAN-TOP SET. GEORGE E. OTT, Lancaster, N. Y. Filed May 23, 1913. Serial No. 769,536. (Cl. 81-15.)



In a device of the character described, a pair of pivoted levers having cooperating dies, the dies having a longitudinally curved cooperating rib and groove, respectively, one side of the rib and the corresponding side of the groove being flat, and the other sides of the rib and groove being curved longitudinally.

1,081,981. BOX OR CARTON. COOLIDGE C. PALMER, Elizabeth, N. J. Filed Apr. 28, 1913. Serial No. 764,003. (Cl. 220-36.)

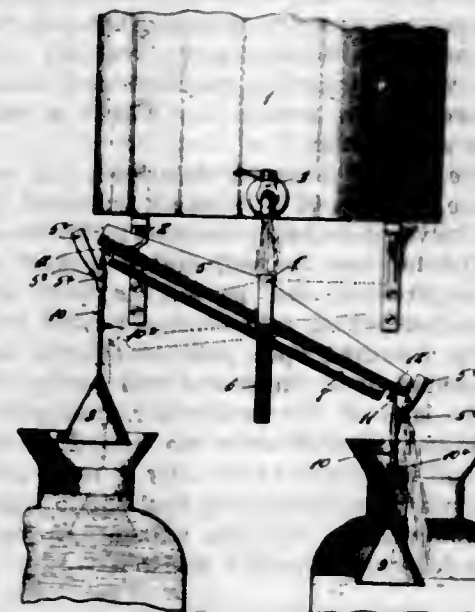


1. A box or carton having a bottom and walls, and a cover therefor provided with tongues having a plurality of successively usable locking portions, spaced apart in the longitudinal direction of the tongues said box walls having spaced locking means separate from one another and complementary to the corresponding locking portions of said tongues.

2. A blank for a box or carton having a bottom, sides and cover portion integral, with flaps extending from the ends of the side and the bottom portions, one of the side portions having a pair of separate spaced slits and the flaps of the bottom portion having a pair of separate spaced slits, the cover portion having tongues provided with spaced locking portions one beyond the other in the longitudinal direction of the tongues whereby the locking portions of the tongues may respectively engage the corresponding slits on said side portions and said flaps.

3. A container having a pair of separate slits and provided with a cover having a locking tongue, said tongue being provided with two locking portions spaced apart in the longitudinal direction of the tongue, each locking portion being arranged to interlock with one of said slits.

1,081,982. MILK-CAN FILLER. CHARLES ARTHUR PATTON, Villa Ridge, Mo. Filed Aug. 17, 1912. Serial No. 715,687. (Cl. 226-13.)

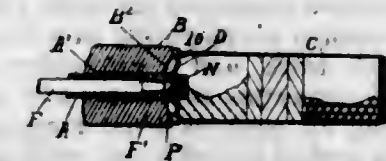


1. The improved milk can filler, comprising a rockable filling spout pivotally mounted, floats adapted to rock said spout during the operation of filling milk cans, float stems telescopically adjustable in length and connecting said floats to said rockable filling spout, a guard at the end of said spout, means for securing said guard to one of said float-stems, a cylindrical weight-container connected to the under side of said rockable spout and extending longitudinally thereof to a point adjacent the ends of said spout, and a suitable movable weight within said weight-container.

197 O. G.—53

2. The improved can filler, comprising a movable spout adapted to receive a stream of liquid from a source of supply, a float connected to said spout and adapted to control the movements thereof, a guard at the end of said spout to direct the liquid into the can to be filled, a stem for said float, and means arranged to adjustably secure said guard upon said stem.

1,081,983. CARTRIDGE. JOHN D. PEDERSEN, Jackson, Wyo. Filed May 14, 1912. Serial No. 697,115. (Cl. 102-17.)



1. In the shell for a gun-operating cartridge, the combination, with the tube and the extractor-rim formed integrally together whereby to constitute a compressive hoop as against a re-formable web in the medial zone of the cartridge-head, of the central primer-carrying piston-member, and a re-formable web integrally connecting the rearward end of such piston-member and the inner side of such compressive-hoop, and preliminarily-shaped, substantially as set forth, for re-formation by compressive mobility of the metal under an increasing gas-pressure and against the resisted rearward stroke of the piston-member, into a conically shaped web free of over-tensioned metal and thereby adapted for holding the maximum gas-pressure.

2. In the shell for a gun-operating cartridge, the combination, with the tube and extractor-rim, of the hollow cylindrical primer-carrying lock-actuator piston-member, and a re-formable web having an ogee construction, substantially as set forth, and integrally connecting the rearward end of such piston-member and the inner side of the extractor-rim, and adapted for re-formation by compressive mobility of the metal under an increasing and resisted gas-pressure into a conically shaped web free of over-tensioned metal and thereby adapted for holding the maximum gas-pressure, substantially as described.

3. In the shell for a gun-operating cartridge, the combination, with the tube and the extractor-rim formed integrally together whereby to constitute the compressive-hoop H, of the central member N having the non-reforming joint-portion 6 for integral connection with a re-formable diaphragm, and the re-formable diaphragm integrally connecting the said central-member by its said joint-portion with the inner side of said hoop H, said diaphragm comprising the inwardly-arched zone M and the outwardly-curved re-formable zone and joint-portion m, these two re-formable zones being made of metal proportioned for re-formation under a resisted gas-pressure by compressive action upon a neutral line located one part thereof near to the inner side of said outer re-formable joint member and located in another part thereof near to the outer side of said inner non-re-formable joint member, substantially as set forth.

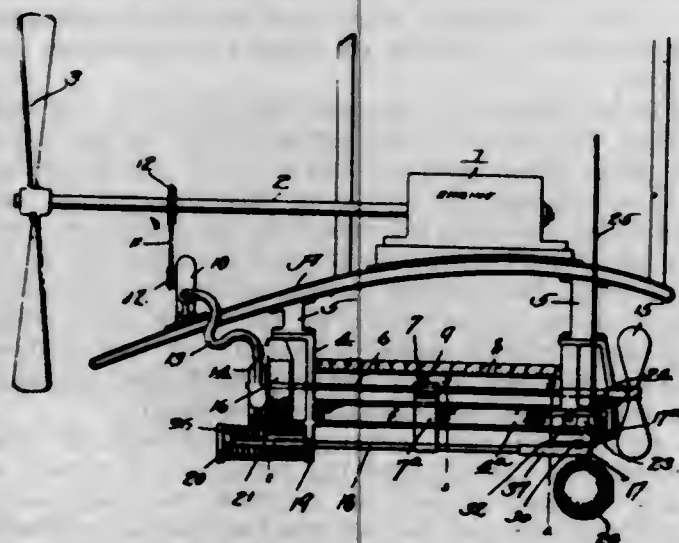
4. In the shell for a gun-operating cartridge, the combination, with the tube and the extractor-rim formed integrally together whereby to constitute a compressive hoop as against a re-formable web in the medial zone of the cartridge-head, of the central primer-carrier lock-actuator member, and a re-formable head-disk comprising the medial web integrally connecting with the rearward end of said actuator-member and forwardly arched against the gas-pressure, and an outwardly curved joint-member compressively re-formable concurrently with the medial-web and integrally-connecting the outer part of this web with the inner side of the said compressive-hoop, the said head-disk being proportioned and preliminarily-shaped, substantially as set forth, for reformation by compressive mobility of the metal under an increasing gas-pressure and against the resisted rearward stroke of the lock-actuator member.

5. In the shell for a gun-operating cartridge, the combination, with the tube and the extractor-rim formed in-

tegrally together whereby to constitute a compressive hoop as against a re-formable web in the medial zone of the cartridge-head, of the central primer-carrying lock-actuator member, a re-formable web integrally connecting with the rearward end of such piston-member and having a connection with the inner side of such compressive-hoop, and preliminarily-shaped, substantially as set forth, for re-formation by compressive mobility of the metal under an increasing gas-pressure and against the resisted rearward stroke of the piston-member, and two concentric annular bearing faces, H' and N', the outer bearing-face being located and adapted for supporting the cartridge head on a tubular breech-block, and the inner bearing face being located and adapted for operating on a tubular lock-actuator within such block, and a re-formable head-disk intermediate to and connecting said outer and inner bearing-faces and having an ogee sectional form comprising the said medial web arched inwardly for resisting the gas-pressure and operative for applying this pressure to the lock-actuator of a gun-mechanism through said inner bearing-face.

[Claim 6 not printed in the Gazette.]

1,081,984. SPEED-INDICATOR AND PACKAGE-DROPPER FOR AIRSHIPS. FRED P. PEEL, Washington, D. C. Filed July 22, 1912. Serial No. 710,848. (Cl. 244-1.)



1. An article dropper for airships including means for projecting an article in a rearward direction with a constantly increasing acceleration, means controlled automatically by the speed of the airship for releasing the article when the article has a zero velocity with respect to the earth, and means for positively projecting the article downwardly when released.

2. A device of the character described including a frame adapted to be applied to an airship, article engaging means upon the frame, means for releasing the article with a predetermined velocity in a lateral direction, and means for simultaneously projecting the article downward.

3. A device of the character described including a frame adapted to be applied to an airship, article engaging means movably mounted upon the frame, means for moving the article engaging means with an accelerated velocity, and means for releasing the article when a predetermined velocity is acquired.

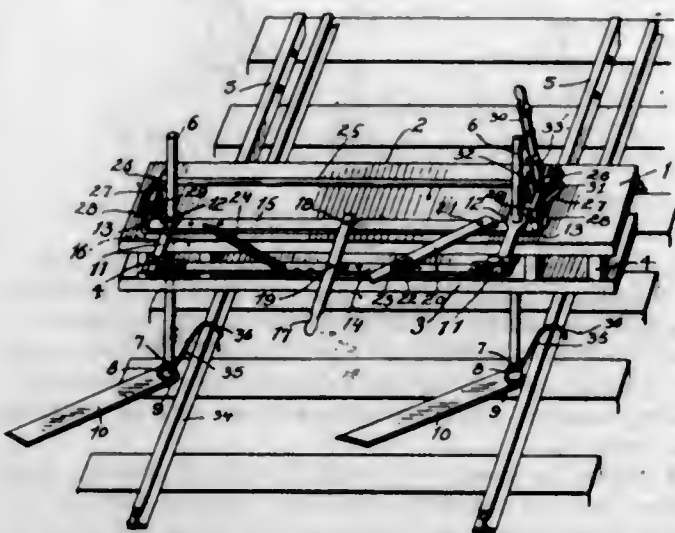
4. A device of the character described including a frame adapted to be applied to an airship, article engaging means movably mounted upon the frame, means for moving the article engaging means with an accelerated velocity in a direction reverse to the direction of flight, and means for automatically releasing the article when a zero velocity with respect to the earth is reached.

5. A device of the character described including a frame adapted to be applied to an airship and formed with a track, an article engaging carriage movable upon the track, means for causing the carriage to move along the track with an accelerated velocity and trip means for

automatically releasing the article from the carriage when the carriage reaches a predetermined velocity.

[Claims 6 to 11 not printed in the Gazette.]

1,081,985. WEED-CUTTER. WILLIAM C. PENCE, Warrenton, Wash. Filed Jan. 8, 1913. Serial No. 740,895. (Cl. 56-18.)



1. In a device of the character described, the combination of a frame, standards adjustably mounted in said frame, cutting knives detachably secured to the lower ends thereof, means for adjusting said standards vertically to raise and lower said knives, arms having one end adjustably secured to said standards, a longitudinal bar having its ends pivotally secured to the other ends of said arms, and means for actuating said bar to adjust the knives to various angular positions.

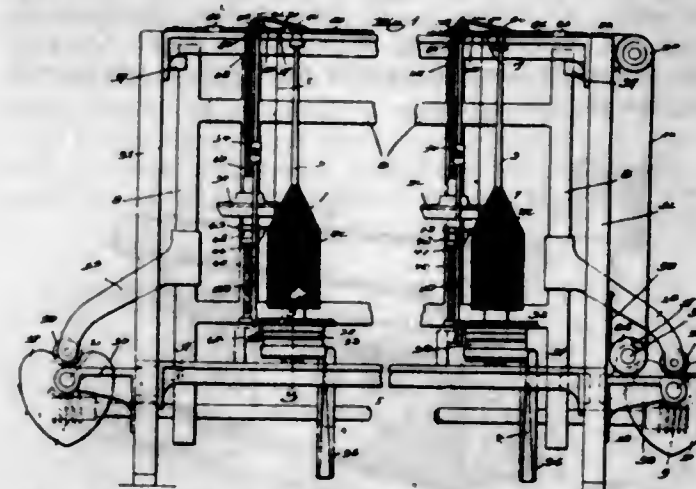
2. In a device of the character described, the combination of a frame, standards adjustably mounted in said frame, means for adjusting said standards vertically to raise and lower said knives, cutting knives detachably secured to the lower ends thereof, arms having one end adjustably secured to said standards, a longitudinal bar having its ends pivotally secured to the other ends of said arms, a second longitudinal bar arranged in spaced relation with the first bar and slidably mounted upon said standard, said second bar being disposed beneath the ends of said arms, means for actuating the first bar to adjust said knives to various angular positions and means for raising and lowering the second bar which in turn will raise and lower said knives.

3. In a device of the character described, the combination of a frame, standards adjustably mounted in said frame, cutting knives detachably secured to the lower ends thereof, arms having one end adjustably secured to said standards, a longitudinal bar having its ends pivotally secured to the other end of said arms, a second longitudinal bar slidably mounted upon said standards, an operating shaft mounted upon the frame and having its ends connected to the ends of the second bar, means for actuating said shaft to raise and lower the second bar whereby the standards will be adjusted vertically to raise and lower said knives, means for actuating the first bar to adjust said knives to various angular positions and means for retaining said knives in their operative position.

1,081,986. WINDING-MACHINE. ANKER PETERSEN, Winthrop, Mass., assignor to The Petersen Circular Loom Company, Boston, Mass., a Corporation of Maine. Filed July 6, 1909. Serial No. 506,060. (Cl. 242-32.)

1. In a winding machine, the combination with a rotary spindle, of means to wind thread thereabout after the manner of filling wind, a tension device through which the thread passes, said tension device having provision for applying a tension at all times to the yarn, and means to cause said tension device to have a greater frictional engagement with said thread when the latter is laid on a

portion of the thread mass of smaller diameter, than when it is laid on a portion of the thread mass of larger diameter.



2. In a winding machine, the combination with a rotary spindle, of means to wind thread thereabout after the manner of filling wind, a tension device comprising two members between which the thread passes and which have at all times a sufficient frictional engagement with the thread to give the proper pressure thereto, and means to cause said members to have a greater frictional engagement with the thread when the latter is laid on a portion of thread mass of smaller diameter than when it is laid on a portion of the thread mass of larger diameter.

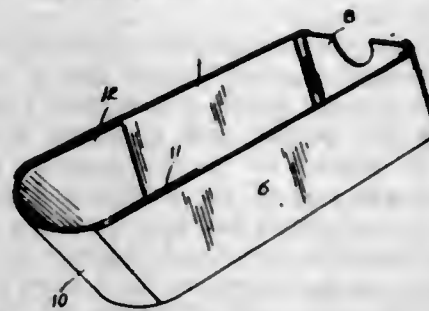
3. In a winding machine, the combination with a rotary spindle, of a thread guide, means to give the thread guide a movement longitudinally of the spindle for winding the thread thereabout, a tension device comprising two members which have a continuous frictional engagement with the thread thereby to apply a tension thereto at all times, and means to cause said members to have a greater frictional engagement with the thread when the thread guide is at one end of its traverse than when the thread guide is at the other end of its traverse.

4. In a winding machine, the combination with a rotary spindle, of a thread guide, means to give the thread guide a movement longitudinally of the spindle for winding the thread thereon after the manner of filling wind, a tension device comprising a set of fixed fingers, a rock-shaft carrying a set of movable fingers which play between the fixed fingers, the thread to be wound passing between said sets of fingers, a spring acting on said rock shaft to cause the movable fingers to apply at all times a tension on the thread, and means acting through the spring to increase the tension when the thread is being wound upon the portion of the thread mass of smaller diameter.

5. In a winding machine, the combination with a rotary spindle and a rising and falling frame carrying a thread guide, of a tension device comprising a set of fixed fingers, a rock shaft carrying a set of movable fingers which play between the fixed fingers, the thread to be wound passing between said sets of fingers, means for causing said two sets of fingers to apply a tension at all times on said thread, and means to increase this tension when the frame is in its elevated position.

[Claims 6 and 7 not printed in the Gazette.]

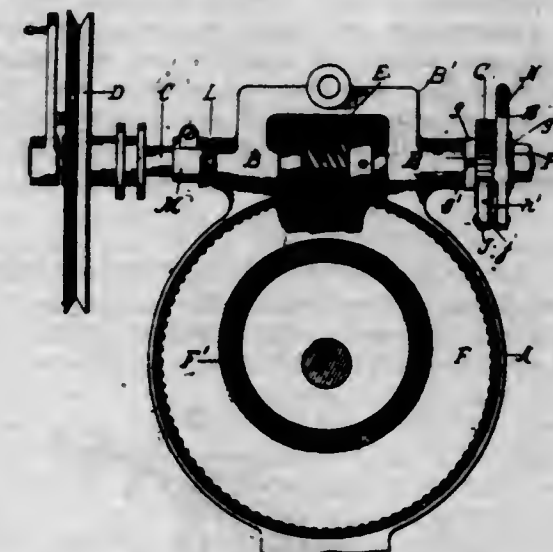
1,081,987. BATH-TUB LINING. CHARLES H. PRICE, JR., Hyde Park, Mass., assignor of one-half to Frank Francilow, Medford, Mass. Filed Apr. 24, 1913. Serial No. 763,417. (Cl. 4-27.)



A lining for bath tubs comprising two sections, one of said sections having laterally extending sides formed inte-

gral therewith, a foot portion at one extremity of the said section and extending longitudinally therefrom, a second section adapted to overlap the first mentioned section, said second section having laterally extending arms formed integral with one end, said laterally extending arms being adapted to overlap a portion of the sides formed on the first mentioned section, whereby a substantially tight joint is provided.

1,081,988. SHAFT-BRAKE OR FRICTION DEVICE. FRED A. READ, Lynn, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Dec. 1, 1911. Serial No. 663,450. (Cl. 74-13.)



1. The combination of a shaft, a shaft-friction device including a ring-shaped member of resilient material encompassing said shaft and formed with but a pair of side surfaces and split at one point to present two ends which are initially deformed to lie out of alignment and which by pressure are adapted to be brought toward approximate alignment, and pressure-exerting means tending to align said ends, and cause friction on the shaft of a degree corresponding to the relative position of said initially unaligned ends.

2. The combination of a shaft, a shaft-friction device including a ring-shaped member of resilient material encompassing said shaft and formed with but a pair of side surfaces and split at one point to present two ends which are initially deformed to lie out of alignment and which by pressure are adapted to be brought toward approximate alignment, said member having formed on one of its said side-surfaces an annular strengthening and resiliency-increasing rib, and pressure-exerting means tending to align said ends and cause friction on the shaft of a degree corresponding to the relative position of said initially unaligned ends.

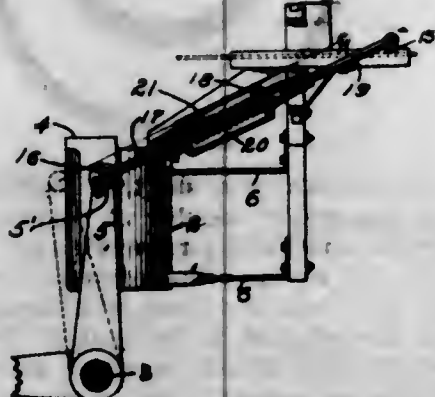
3. The combination of a shaft, a shaft-friction device including a ring-shaped member of resilient material encompassing said shaft and formed with but a pair of side-surfaces and split at one point to present two ends which are initially deformed to lie out of alignment and which by pressure are adapted to be brought toward approximate alignment, said member having formed on one of its said side-surfaces an annular strengthening and resiliency-increasing rib, a dish washer adapted to engage and house a portion of said ribbed member, and pressure-exerting means tending to align said ends and cause friction on the shaft of a degree corresponding to the relative position of said initially unaligned ends.

4. In combination, a shaft provided with an annular shoulder, a washer juxtaposed thereto, means for intermittently rotating said shaft, and a friction-imposing device encompassing said shaft and including a dish washer loose on said shaft, a resilient ring-shaped member formed with two side-surfaces only and split at one point to present two ends normally deformed out of alignment and provided on one of said side-surfaces with an annular rib adapted to fit into said dish washer, the opposite side-surface of said member engaging said first-mentioned

washer and the latter engaging the shoulder on the shaft, and means acting to change the relation between said shoulder and washers and thereby compress the unaligned portions of said ring-shaped member whereby said unaligned ends tend to align and cause the member to impose friction upon said shaft.

5. In combination, a shaft provided with an annular shoulder, a washer juxtaposed thereto, means for intermittently rotating said shaft, and a friction-imposing device encompassing said shaft and including a dished washer loose on said shaft, a resilient ring-shaped member formed with two side-surfaces only and split at one point to present two ends normally deformed out of alignment and provided on one of said side-surfaces with an annular rib adapted to fit into said dished washer, the opposite side-surface of said member engaging said first-mentioned washer and the latter engaging the shoulder on the shaft, and adjustable means acting to change the relation between said shoulder and washers and thereby compress the unaligned portions of said ring-shaped member whereby said unaligned ends tend to align and cause the member to impose friction upon said shaft.

1,081,989. ATTACHMENT FOR LINOTYPE-MACHINES. ISRAEL A. ROSEMAN, Worthington, Minn., assignor of one-half to Peter Thompson, Worthington, Minn. Filed Aug. 26, 1912. Serial No. 717,168. (Cl. 22—80.)



1. The combination, with the metal pot of a linotype machine, of a rocking slug ejector arm, and reciprocating means connected with said arm for automatically feeding slugs into said metal pot proportionately with the removal of the molten metal therefrom.

2. The combination, with the metal pot of a linotype machine, of a slug ejector arm and reciprocating means yieldingly connected with said arm for automatically feeding slugs into said metal pot proportionately with the removal of the molten metal therefrom.

3. The combination, with the metal pot of a linotype machine, of an ejecting device, a slug holder, a slide operating transversely of said holder, an arm connected to said slide, and an extensible rod connecting said arm with said ejecting device.

4. The combination, with the metal pot of a linotype machine, of a rocking ejecting device, a slug holder, a feed plate operating transversely of said slug holder, mechanism connecting said feed plate with said ejecting device for simultaneously operating to feed the slugs from said holder into said metal pot with the discharge of the molten metal from said pot.

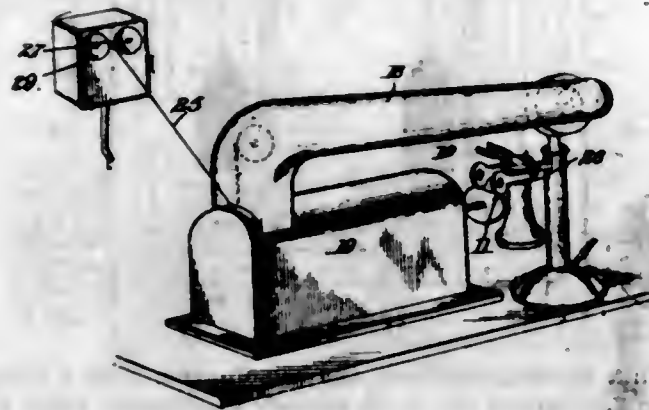
5. The combination, with the metal pot of a linotype machine, and a rocking slug ejector arm therefor, of a slug holder, a reciprocating slug feeding slide arranged to receive the slugs successively from said holder and to feed them into said metal pot, and means connecting said slide and said ejector arm, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,081,990. TELEPHONE-INDICATOR. THOMAS LITTLETON SAVIN, Pine Bluff, Ark. Filed Jan. 9, 1913. Serial No. 741,041. (Cl. 179—89.)

1. A telephone indicator consisting of means for lifting the receiver temporarily making the telephone circuit,

means under the control of the subscriber for producing a variable and selected series of sounds in accordance with a code, a motor for operating said means, and means connected with the alarm or call bell of the telephone for starting the motor whereby information which the subscriber desires to communicate is conveyed to any person calling his station.



2. In a telephone indicator in combination means for lifting the receiver lever and holding it raised for a predetermined period, a resonant member, a striker, means tending to impel the same against the resonant member, a member mounted to rotate and provided with a plurality of stops placed to move in a single predetermined path but each adjustable into and out of said path, means connected to the striker and extending into the paths of the stops, a motor for moving the stops and actuating the means for raising the receiving lever, and means connected to the telephone calling device for starting and stopping said motor.

3. A telephone indicator consisting of a shaft, a motor for rotating the same, a cam actuated by the shaft, means for closing the telephone circuit and actuated by the cam, a series of pins also carried by the shaft spaced apart by a fixed interval to move in a predetermined path and adjustable into and out of said path, a resonant member, a striker therefor, means connected to the striker to actuate it and extending into the path of the pins, and means actuated by the operator in calling the station for starting the motor.

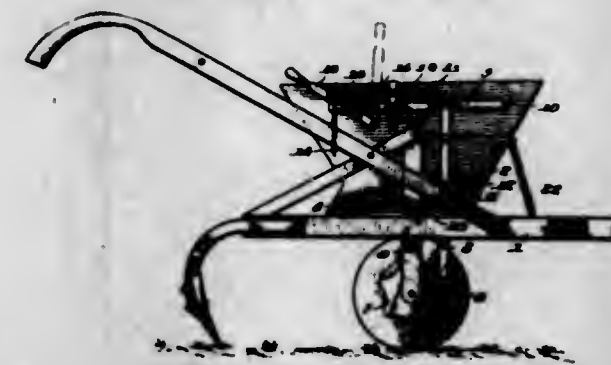
4. A telephone indicator consisting of a shaft, a motor for rotating the same, a cam actuated by the shaft, means for closing the telephone circuit and actuated by the cam, a series of pins also carried by the shaft spaced apart by a fixed interval to move in a predetermined path and adjustable into and out of said path, a resonant member, a striker therefor, means connected to the striker to actuate it and extending into the path of the pins, and means actuated by the operator in calling the telephone station for starting and stopping the motor.

5. A telephone indicator consisting of means for lifting the telephone receiver temporarily making the telephone circuit, means under the control of the subscriber for producing a predetermined variable and selected series of sounds in the vicinity of the telephone receiver, a motor for operating said means, and means connected with the telephone call bell for controlling the motor whereby information which the subscriber desires to communicate is conveyed to any person calling his station.

1,081,991. FERTILIZER-DISTRIBUTER. SIMON R. SIKES, Ocella, Ga. Filed Aug. 11, 1913. Serial No. 784,240. (Cl. 111—33.)

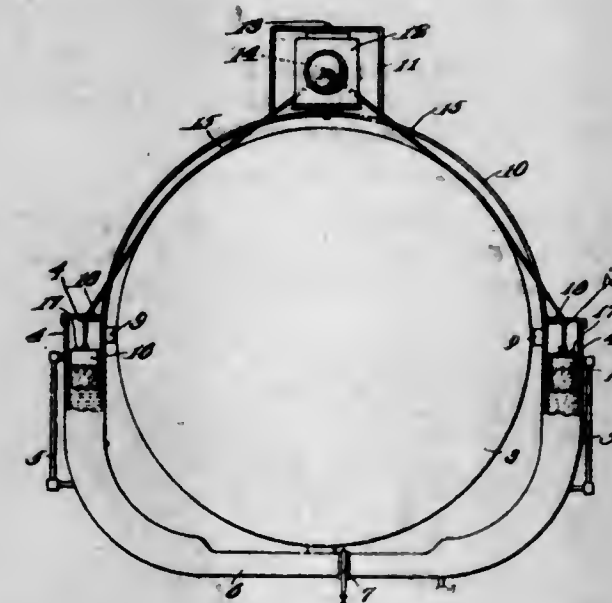
1. In a fertilizer distributor the combination with a bodily tiltable hopper, a ground wheel, and a spur wheel rotating with the ground wheel, of a vertical arm slidably associated with the hopper and arranged whereby its lower end may be engaged by the spur wheel, a horizontal lever pivoted at one end to the hopper and pivoted between its ends to the arm, a manually operable lever connected to said horizontal lever and operable to raise and lower the latter, a spring acting on the horizontal lever to hold it against vibration, and adjustable for limiting the downward movement of the horizontal lever.

2. In a fertilizer distributor the combination with a bodily tiltable hopper, a ground wheel, and a spur wheel rotating with the ground wheel, of a vertical arm slidably associated with the hopper and arranged whereby its lower end may be engaged by the spur wheel, a horizontal lever pivoted at one end to the hopper and pivoted between its ends to the arm, the horizontal lever having a longitudinal slot in its other end, a manually operable lever pivoted to the hopper and having a pin engaging in said slot, and a spring acting with downward pressure on the horizontal lever to hold the latter against vibration.



3. In a fertilizer distributor, the combination with a bodily tiltable hopper, a ground wheel, and a spur wheel rotating with the ground wheel, of a vertical arm slidably associated with the hopper and arranged whereby its lower end may be engaged by the spur wheel, a horizontal lever pivoted at one end to the hopper and pivoted between its ends to the arm, the horizontal lever having a longitudinal slot in its other end, a manually operable lever pivoted to the hopper and having a pin engaging in said slot, a spring acting with downward pressure on the horizontal lever to hold the latter against vibration, and a gage including an adjustable stop and operative to support the horizontal lever in a selected position.

1,081,992. MOVABLE HEADLIGHT FOR LOCOMOTIVES. SHELBY E. SIMMONS, Russellville, Ky. Filed July 9, 1913. Serial No. 778,138. (Cl. 240—62.)



1. In an apparatus of the class described, the combination of spaced communicating liquid containing tanks, a movable light, floats disposed within the said tanks and connected to the said light to control the movements thereof, and means for varying the time lapsing between a change in the levels of the tanks and the corresponding movement of the light.

2. In an apparatus of the class described, the combination of upstanding open spaced liquid receiving communicating tanks, floats disposed therein and means for varying the weights thereof, a headlight mounted for rotation about a vertical axis, flexible elements connected to the

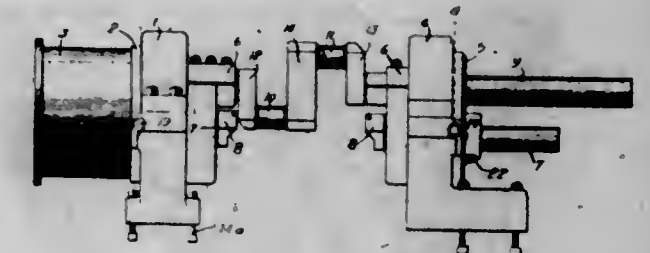
floats and to the said headlight, means for varying the weights of the said floats to cause corresponding variations in the inertia thereof, and means for varying the time lapsing between a change of levels of the communicating tanks and the corresponding movement of the headlight.

3. In an apparatus of the class described, the combination with a locomotive boiler, of a U-tube positioned around and adjacent the lower portion of said boiler and adapted to be heated thereby, said tube adapted to contain a mobile element therein, floats disposed within the legs of said U-tube, means for regulating the flow of liquid between said legs, a movable light propagating source, and means extending between the said floats and the said light propagating source adapted to control the movements of the latter.

4. In an apparatus of the class described, the combination of communicating liquid containing tanks, floats slidably disposed therein, a valve controlling the flow of liquid between the said liquid containing communicating tanks to thereby control the time lapsing between a change in the levels of the liquid in the tanks and the corresponding movement of a rotating element, and an element mounted for limited rotation, and means extending between said element and said floats for controlling the movements of the former by and with the latter.

5. In an apparatus of the class described, the combination of spaced liquid containing tanks, a tube extending therebetween and communicating therewith, inverted cup-shaped floats slidably disposed within said tank, means for regulating the volume of air within the upper portion of said inverted cup-shaped floats, to thereby regulate the buoyancy of said floats, a movable light propagating source, and means extending between said floats and said light propagating source adapted to control the movements of the latter with and by the former.

1,081,993. INDEXING DEVICE FOR CRANK-LATHES. AUGUSTUS M. SOSA, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio. Filed July 12, 1913. Serial No. 778,745. (Cl. 82—9.)



1. In a crank-turning attachment of the character described, a pair of bearings, rotors mounted therein and provided with means for carrying a crank-shaft with the axis of one of its crank-pins in line with the common axis of the bearings and provided each with a series of corresponding indexing apertures, an indexing-pin carried by each bearing and adapted to cooperate with said apertures, and means for locking said index-pins out of engagement with the apertures, combined substantially as set forth.

2. In a crank-turning attachment of the character described, a pair of bearings, rotors mounted therein and provided with means for carrying a crank-shaft with the axis of one of its crank-pins in line with the common axis of the bearings and provided each with a series of corresponding radial indexing apertures, a radial indexing-pin carried by each bearing and adapted to cooperate with said apertures, and means for locking said index-pins out of engagement with the apertures, combined substantially as set forth.

3. In a crank-turning attachment of the character described, a pair of bearings, rotors mounted therein and provided with means for carrying a crank-shaft with the axis of one of its crank-pins in line with the common axis of the bearings and provided each with a series of corre-

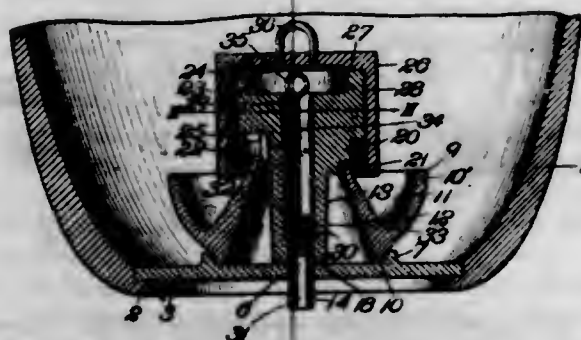
sponding indexing apertures, an indexing-pin carried by each bearing and adapted to cooperate with said apertures, racks formed upon the indexing-pins, pinions mounted in the bearings and engaging the racks, cranks connected with said pinions, and detent devices connected with said cranks to serve in locking the indexing-pins out of engagement with the indexing-apertures, combined substantially as set forth.

4. In a crank-turning attachment of the character described, a pair of bearings, rotors mounted therein and provided with means for carrying a crank-shaft with the axis of one of its crank-pins in line with the common axis of the bearings and provided each with a series of corresponding indexing-apertures, an indexing-pin carried by each bearing and adapted to cooperate with said apertures, racks formed upon the indexing-pins, pinions mounted in the bearings and engaging the racks, cranks connected with said pinions, detent devices connected with said cranks to serve in locking the indexing-pins out of engagement with the indexing apertures, and a spring cooperating with each detent-pin and tending to urge the pins into indexing apertures when the pins are not locked out of engagement with the apertures, combined substantially as set forth.

5. In a crank-turning attachment of the character described, a pair of bearings, rotors mounted therein and provided with means for carrying a crank-shaft with the axis of one of its crank-pins in line with the common axis of the bearings and provided each with a series of corresponding indexing apertures, an indexing-pin carried by each bearing and adapted to cooperate with said apertures, means for locking said index-pins out of engagement with the apertures, and a gage-block adapted to be supported from the lathe-bed temporarily below a completely turned crank-pin to serve in positioning another crank-pin in the line of the axis of the bearings, combined substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,081,994. OIL-BURNER. LUKE TOZER, Iola, Kans.
Filed Aug. 18, 1913. Serial No. 785,266. (Cl. 158-53.)



1. In an oil burner, the combination with a generator, of a supply conduit leading to the generator, and a cleaner located in said conduit and comprising a cone-shaped coil.

2. In an oil burner, the combination with a generator, of a supply conduit leading to the generator, and a cleaner located in said conduit, comprising a cone-shaped coil, and having a shank leading into said generator.

3. In an oil burner, the combination with a generator having a supply conduit leading upwardly thereinto, and a cleaner located within said conduit and comprising an inverted cone-shaped coil, having a shank projecting upwardly through the conduit and terminating in a handle portion within the generator.

4. In an oil burner, a generator comprising a depending barrel having a reduced lower portion providing a seat, and a cleaner comprising an inverted coil supported on said seat, and having a shank extending through the barrel into the upper portion of the generator.

5. In an oil burner, a generator comprising a cupped upper portion, and a depending barrel having a reduced lower end forming an interior seat, and a cleaner comprising an inverted cone-shaped coil of wire supported on said

seat, and having a shank extending upwardly and having a ring at its upper end located within the cupped portion of the generator.

[Claims 6 to 10 not printed in the Gazette.]

1,081,995. RULE. LOUIS VOGGENREITER, New York, N. Y.
Filed June 14, 1912. Serial No. 703,602. (Cl. 73-40.)

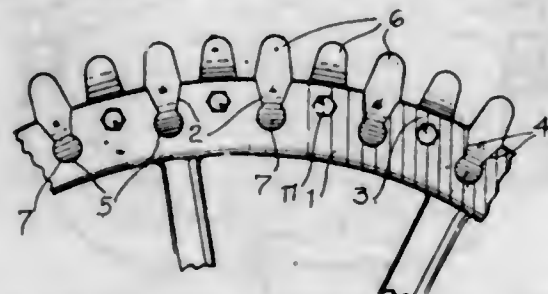


1. In combination, a folding rule in pivotally connected sections having consecutively numbered graduations, an adjustable graduated slide on the first unit section of said rule, the fraction of a unit by which the pivoted ends of the sections extend beyond their pivots being uniform and a predetermined portion of a scale unit, unit graduations on the adjustable slide beginning at a distance from the distal end thereof, that is a complement of the portion of the unit distance of the pivot end extensions of the rule sections, said latter graduations corresponding to and being consecutively numbered like those on the adjoining section of the rule.

2. In combination, a folding rule in pivotally connected sections, an adjustable graduated slide working in a groove in an end section of said rule, and a spring having an outer end anchored in the outer side of the slide where it forms a finger-engaging projection for the operation of the slide, said spring thence projecting through the slide and having a free portion on the inner side of the slide which bears against the groove.

3. A rule comprising a main portion and an adjustable portion slidably mounted thereon, a spring interposed between the main portion and slide and projecting through the latter, forming a finger-engaging projection, and means located in the path of said projection for limiting the movement of the slide in one direction.

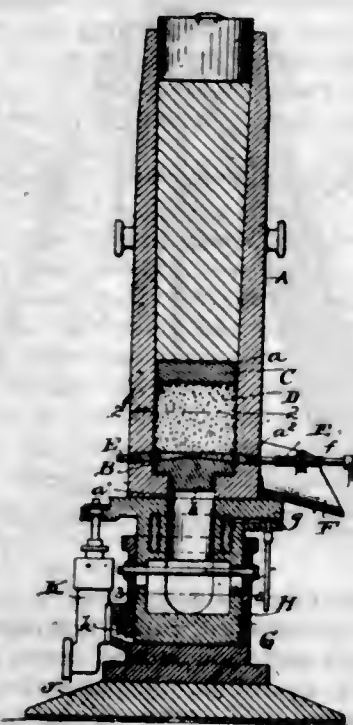
1,081,996. DETACHABLE TEETH FOR GEAR-WHEELS. EDWARD WEIST, Ludden, N. D. Filed Feb. 6, 1913. Serial No. 746,656. (Cl. 74-28.)



1. The combination with a wheel having a plurality of transversely extending grooves in the rim thereof, of teeth slidably disposed in said grooves, each of said grooves being provided with an end wall, the end walls being arranged alternately on opposite sides of the rim, and means disposed through said end walls into engagement with said teeth, as and for the purpose described.

2. The combination in a gear wheel, of a rim provided with a plurality of transverse grooves and with an end wall at one end of each groove, the end walls being arranged alternately on opposite sides of the rim, a tooth seated in each said groove, and means for securing the teeth in the grooves.

1,081,997. MANUFACTURE OF INGOTS. SAMUEL T. WELLMAN, Cleveland, Ohio, assignor to The Liquid Forged Steel Company, Cleveland, Ohio. Filed Mar. 27, 1913. Serial No. 757,052. (Cl. 22-216.)



1. The process of forming sound ingots which consists in pouring the molten metal into a tapered mold whose large end is uppermost and which has in its bottom a quantity of free flowing sand, in jarring the mold while the molten metal is solidifying, and in allowing the sand to flow out through a hole in the mold wall at a rate such as will allow the shrinking ingot shell to settle down in the mold and maintain contact with the side walls thereof.

2. In ingot forming mechanism, the combination of a tapered mold whose large end is uppermost, and which has a hole through its wall near its lower end, a mass of free flowing sand in the bottom of said mold, and means for jarring the mold while it contains solidifying molten metal.

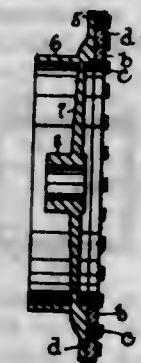
3. In ingot forming mechanism, the combination of a tapered mold whose large end is uppermost, and which has a hole through its wall near its lower end, a mass of free flowing sand in the bottom of said mold, means for jarring the mold while it contains solidifying molten metal, and a valve to control the rate at which the same is allowed to flow out through said hole.

4. In ingot forming mechanism, the combination of a mold whose mold cavity has vertical walls at the lower end thereof, and above them walls which regularly diverge toward the top,—said mold having a hole through its wall near the bottom of said mold cavity, a mass of free flowing sand in the bottom of said mold cavity, a plate which rests upon said sand and forms the bottom of the metal receiving part of the mold cavity, and means for jarring the mold.

1,081,998. FRICTION MEMBER FOR CLUTCHES. LAWRENCE WHITCOMB, Brookline, Mass., assignor to The Cork Insert Company, Boston, Mass., a Corporation of Massachusetts. Filed May 31, 1907. Serial No. 376,576. (Cl. 192-1.)

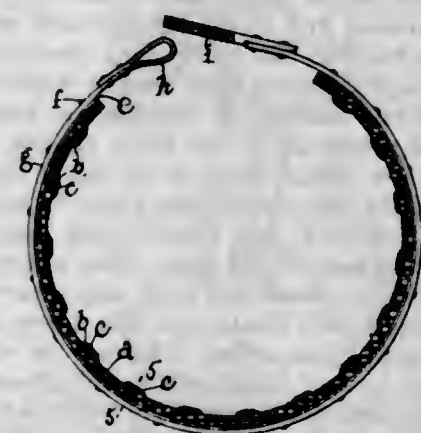
1. The combination with a metallic clutch member having a substantially thin annular flange, of a friction member cooperating with said annular flange and comprising a ring, washer or disk of fiber board having a plurality of holes or openings, and inserts of cork fitted into said holes or openings under compression and retained therein by the expansion of the cork, said fiber board being light, substantially thick and of a firmness or rigidity to enable a large number of holes to be drilled in it without materially impairing its firmness or rigidity and without distortion of the walls of the said holes and to enable the said walls to resist the expansive action of the cork and the lateral

strain placed upon the cork in use, substantially as described.



2. A friction member for clutches comprising a ring, washer or disk of fiber board having a plurality of holes or openings, and inserts of cork fitted into said holes or openings under compression and retained therein by the expansion of the cork, said fiber board being light, substantially thick and of a firmness or rigidity to enable a large number of holes to be drilled in it without materially impairing its firmness or rigidity and without distortion of the walls of the said holes and to enable the said walls to resist the expansive action of the cork and the lateral strain placed upon the cork in use, substantially as described.

1,081,999. FRICTION DEVICE. LAWRENCE WHITCOMB, Brookline, Mass., assignor to The Cork Insert Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 26, 1908. Serial No. 469,364. (Cl. 74-13.)



1. A friction device comprising a flexible member of non-metallic material provided with holes or openings, eyelets comprising members, one member having a flange to engage one surface of the flexible member and a tubular shank, and a second member common to a plurality of eyelets and having holes which register with the holes in said flexible member and secured thereto by the expansion of the tubular shanks of the first-mentioned members, substantially as described.

2. A friction device comprising a flexible member provided with holes or openings, eyelets comprising members cooperating with said flexible member, one of said members having a flange to engage one surface of the said flexible member and a tubular shank extended through one of the holes in the said flexible member and expanded at its end, and a second member engaged by the expanded end of the said tubular shank to compress the second member against the other surface of the flexible member about the opening therein, and cork inserts in said eyelets and retained therein by the expansion of the cork, substantially as described.

1,082,000. CONCRETE-MIXER. GEORGE W. WHITWORTH, Cedar Falls, Iowa. Filed Nov. 19, 1912. Serial No. 732,277. (Cl. 220-124.)

1. In combination, a receptacle, comprising flanged heads, one of which has a slot adapted to receive a slidable closure, a U-shaped hollow body seated within the flanges of said heads, a slidable closure for said body, movable

through the slot in said head, and means for detachably securing said heads to said body, comprising lugs extending outwardly from the edges of said heads to furnish oppositely-placed pairs, and connecting-bars secured detachably between and to the lugs of each pair.



2. In combination, a receptacle, comprising flanged heads, one of which has a slot adapted to receive a slidable closure therethrough, a U-shaped hollow body seated within the flanges of said heads, a slidable closure for said body movably seated in the slot in said head, and means for detachably securing said heads to said body, comprising lugs extending outwardly from the edges of said heads to furnish oppositely-placed pairs, and connecting-bars secured detachably between and to the lugs of each pair.

3. In combination, a receptacle, comprising flanged heads, a U-shaped hollow body seated within the flanges of said heads and having its longitudinal edges bent over inwardly and horizontally to form flanges, one of said heads having the medial part of its upper flange removed with an adjacent portion of the head, to provide a horizontal opening therein, a cover adapted to slidably close the receptacle and having longitudinal guides adapted to fit slidably over the body-flanges, and means for detachably securing the said heads and body together, comprising lugs extending outwardly from the edges of said heads to furnish oppositely-placed pairs, and connecting-bars secured detachably between and to the lugs of each pair.

4. In combination, a receptacle, comprising flanged heads, a U-shaped hollow body seated within the flanges of said heads and having its longitudinal edges bent over inwardly and horizontally to form flanges, one of said heads having the medial part of its upper flange removed with an adjacent portion of the head, to provide a horizontal opening therein, said head having a projecting horizontal integral shelf on its inner face spaced away from the side flanges to admit the body edge therebetween and having its upper face flush with the lower limit of said horizontal opening, a cover adapted to slidably close the body and having longitudinal guide-bars secured on its upper face near its longitudinal edges adapted to slidably move over the said body-flanges, said cover being located, just below said body-flanges with said guides resting on the flanges and the cover slidable through the said head opening over said integral shelf, and means for detachably securing said heads and said body together.

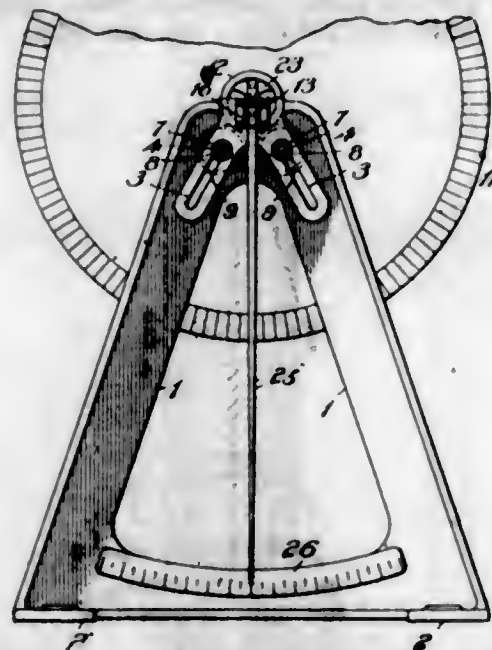
1,082,001. BALANCING MACHINE. JAMES WILKINSON, Providence, R. I., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 14, 1906. Serial No. 301,089. (Cl. 73-51.)

1. A balancing machine comprising a frame by which the device to be balanced is supported, wheels journaled to said frame, a pivotal bearing member supported by said frame, and means coöperating with said member to transfer said device, while supported by said frame, from said wheels to said pivotal bearing member and vice versa.

2. A balancing machine comprising a stationary frame, two bearings mounted on the frame and adapted alternatively to support a wheel or similar device, the distribution of whose mass is to be determined and balanced, said wheel or similar device being disposed substantially in a plane transverse to the axes of the bearings and one bearing being of lower frictional resistance than the other, and means coöperating with one of the bearings to transverse the device from said bearing to the other bearing and vice versa.

3. In a balancing machine, a supporting frame, a roller bearing and a knife edge bearing carried by said frame, and means to bring one or the other of said bearings into an independent supporting engagement with a device for

the purpose of balancing it on one or the other of said bearings.

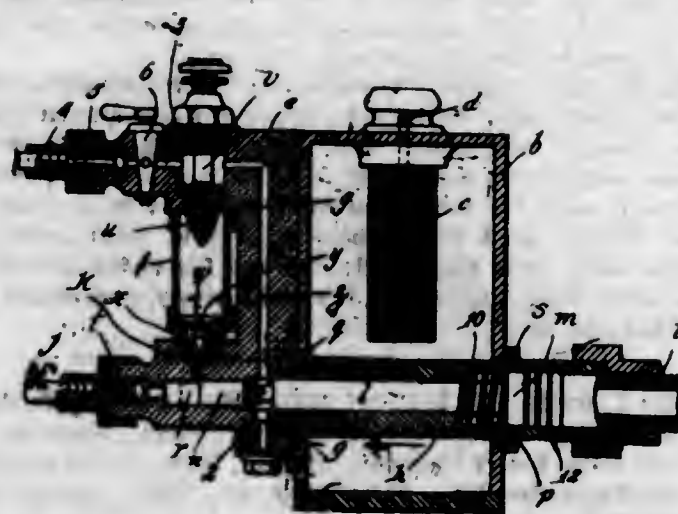


4. A balancing machine comprising a supporting frame for a device to be balanced, roller bearings on said frame adapted to receive and support said device during one part of the balancing operation, pivotal bearings adapted to receive and support said device during the other part of the balancing operation, and means to adjust said bearings relatively for the purpose of transferring said device from one to the other, substantially as described.

5. A balancing machine for turbine wheels having cylindrical concentric portions, comprising two standards between which the wheel is adapted to be supported in a vertical position, wheels journaled to the frame and adapted to receive said cylindrical portions of the wheel, a detachable pivotal bearing block adapted to be passed through the wheel and rest on said frame, and means to adjust said block so as to support said wheel therefrom free of said wheels.

[Claims 6 to 13 not printed in the Gazette.]

1,082,002. AUTOMATIC LUBRICATOR. ROBERT WOOD, Westmount, Quebec, Canada, assignor to Nathan Manufacturing Co., New York, N. Y., a Corporation of New York. Filed July 5, 1912. Serial No. 707,865. (Cl. 184-29.)



1. In a drop sight feed lubricator, the combination with an oil reservoir and a supply pipe, of a top chamber, a bottom chamber in communication with the top chamber, an oil passage leading from the reservoir to the top chamber, a piston cylinder in communication with the supply pipe, oil passage and bottom chamber, valve mechanism controlling the communication between the bottom chamber and the piston cylinder and including a perforated valve seat, a hood for the valve seat and having a vent therein and a valve seated upon the valve seat and adapted to close said vent, and a piston within the said cylinder.

2. In a drop sight feed lubricator, the combination with an oil reservoir and a supply pipe, of a top chamber, a bottom chamber in communication with the top chamber, an oil passage leading from the reservoir to the top chamber, a piston cylinder in communication with the supply pipe, oil passage and bottom chamber, a piston in the said cylinder, an auxiliary supply pipe leading from the top chamber to a point distinct from the reservoir, a back-pressure valve in the said auxiliary pipe and a valve adapted to completely shut off the said auxiliary pipe from the top chamber.

3. In a drop sight feed lubricator, the combination with an oil reservoir and a supply pipe, of a top chamber, a nozzle within the top chamber, a bottom chamber, a perforated valve seat within the bottom chamber, a hood for the valve seat and having a vent therein, a valve seated upon the valve seat and adapted to close the said vent, a sight glass connecting the two chambers, a piston cylinder having its interior diameter reduced at one end and being in communication with the supply pipe, a passage from the bottom chamber to the reduced end of the cylinder, an oil passage leading from the oil reservoir at a point below the cylinder and through the latter to the top chamber, and a piston corresponding to and located within the said cylinder.

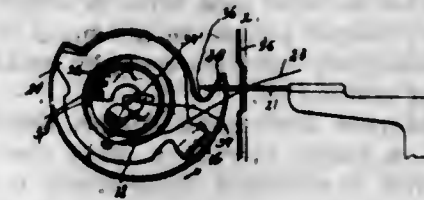
4. In a drop sight feed lubricator, the combination with an oil reservoir and a supply pipe, of a top chamber, a nozzle within the top chamber, an outlet pipe leading from the top chamber, a back pressure valve within the outlet pipe, a valve controlling the passage through such outlet pipe, a bottom chamber, a perforated valve seat within the bottom chamber, a hood for the valve seat and having a vent therein, a ball valve seated upon the valve seat and adapted to close the said vent, a sight glass connecting the two chambers, a piston cylinder having its interior diameter reduced at one end and being in communication with the supply pipe, a steam supply pipe connected to the opposite end of the cylinder, a passage from the bottom chamber to the reduced end of the cylinder, an oil passage leading from the oil reservoir at a point below the cylinder, through the latter to the top chamber, a piston corresponding to and located within the casing and presenting a neck adjacent to the reduced end, such piston being moved forward to cause a compression in the supply pipe and in the oil passage and a spring adapted to return the piston to create a suction at the reservoir outlet.

5. In a drop sight feed lubricator, the combination with an oil reservoir, a supply pipe and a back pressure valve within the supply pipe of a top chamber, a nozzle within the top chamber, a spindle valve for regulating the capacity of the nozzle, a bottom chamber, a perforated valve seat within the bottom chamber, a hood for the valve seat and having a vent therein, a ball valve upon the perforated valve seat and adapted to close the said vent, a sight glass connecting the top and bottom chambers, a piston cylinder extending beneath the bottom chamber, the interior of such cylinder being reduced and in communication with the supply pipe, a steam pipe connected to the end of the cylinder, a relief vent in the cylinder, a passage between the reduced end of the cylinder and the bottom chamber, an oil passage leading from the oil reservoir to the cylinder at a point below the latter and extending upward from the cylinder to the top chamber, a back pressure valve in the oil passage below the cylinder, a piston within the cylinder, such piston having a reduced end and being formed with a neck portion adjacent to the reduced end and adapted to be moved forward to cause a compression within the top chamber and supply pipe and a spring for returning the piston to cause a suction at the reservoir outlet.

1,082,003. OSCILLATORY SHUTTLE. ROBERT ZAHN, Plauen, Germany. Original application filed Oct. 2, 1911; Serial No. 652,311. Divided and this application filed Mar. 21, 1912. Serial No. 685,325. (Cl. 112-23.)

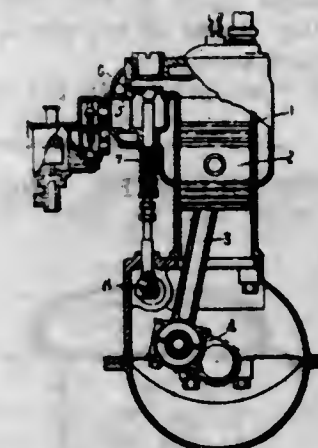
1. As an article of manufacture, an oscillatory shuttle pressed of sheet metal, in form of a bowl or shell, with

a hook-shaped projection on its circumference and a neck portion, a cover hinged thereto, said cover being pressed of sheet metal to form a cavity on the outside and having a central opening in the cavity, two openings around the cavity and means in the shuttle for fixing the bobbin therein, so that the center thereof coincides with the central opening in the cover.



2. As an article of manufacture, an oscillatory shuttle pressed of sheet metal, a cover hinged thereto, having a cavity on its outside and a central opening in said cavity and two openings around the latter, a brake spring fastened to the cover in the cavity and an adjusting arm coöperating with said brake spring to regulate the tension thereof, and means in the shuttle for fixing the bobbin, so that the center thereof will coincide with the central opening in the cover.

1,082,004. GOVERNING INTERNAL-COMBUSTION ENGINES. JAMES S. ANTHONY, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 31, 1907. Serial No. 399,936. (Cl. 123-97.)



1. In an internal combustion engine, the combination of a cylinder, a piston therein, a shaft that is driven by the piston, a carbureter through which air is drawn by the suction action of the piston and into which the fuel is drawn by the action of the flowing stream of air, a valve for controlling communication between the carbureter and the cylinder, a device for opening and closing the valve that is actuated by the shaft and keeps the valve fully open during a period corresponding with a region including to the middle portion of the suction stroke of the piston under the light load conditions, and means for varying the action of the device on the valve so that it is kept fully open for successively longer periods as the speed decreases or the load increases.

2. In an internal combustion engine, the combination of a cylinder, a piston therein, a shaft that is driven by the piston, a carbureter through which air is drawn by the suction action of the piston and into which fuel is drawn by the action of the flowing stream of air, an inlet valve for controlling the flow of the charge from the carbureter to the cylinder, a device for opening and closing the valve that is actuated by the shaft and keeps the valve fully open during a period corresponding to a region at the middle portion of the suction stroke of the piston under light load conditions, and means for varying the action of the device on the valve so that it is kept fully open for successively longer periods as the speed decreases or the load increases, the variation being by equal increments on each side of said region.

3. In an internal combustion engine, the combination of a cylinder, a piston therein, a carbureter through which air is drawn by the suction action of the piston and into

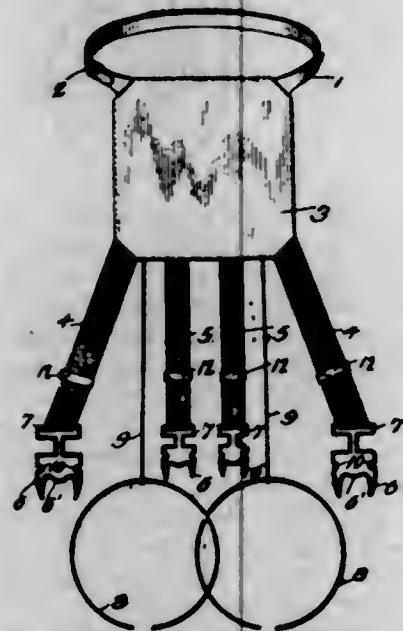
which fuel is drawn by the action of the flowing stream of air, an inlet valve for controlling the admission of the charge to the cylinder, a cam which under light load and high speed fully opens the valve so that it admits a charge and subsequently closes it while the piston is passing through a region including the middle portion of its suction stroke, and means for varying the action of the cam on the valve to cause said valve to remain fully open for successively longer periods as the speed decreases and the load increases, the variation being by equal increments on each side of said region.

4. In an internal combustion engine, the combination of a cylinder, a piston therein, a main shaft driven by the piston which is arranged transversely to the axis of the cylinder, a carbureter through which air is drawn by the suction action of the piston and into which fuel is drawn by the action of the flowing stream of air, a valve for regulating the admission of the charge to the cylinder, a stem for the valve which is parallel to the axis of the cylinder, a cam shaft parallel to the main shaft and driven therefrom, a variable throw cam on the shaft which co-operates with the stem to fully open and close the valve during the middle portion of the suction stroke of the piston, and means for moving the cam axially to vary its action on the valve.

5. In an internal combustion engine, the combination of a cylinder, a piston therein, a carbureter through which air is drawn by the suction action of the piston and into which fuel is drawn by the action of the flowing stream of air, a valve for controlling the flow through the carbureter into the cylinder, and a cam for actuating the valve which always opens it full open after the beginning of the suction stroke of the piston and closes it before the end of said stroke.

[Claims 6 and 7 not printed in the Gazette.]

1,082,005. HOSE-SUPPORTER. JOSEPH BELLIS, St. Paul, Minn. Filed Jan. 13, 1913. Serial No. 741,787. (Cl. 241-1.)



1. In a hose supporter, the combination with body supporting means, of hose engaging members connected thereto and comprising a ring member around which the hose is adapted to be folded, a hook member connected with the supporting means and adapted to be engaged beneath the ring member, and means on the hook member adapted to project over the ring member to prevent accidental disengagement of the former from the ring member.

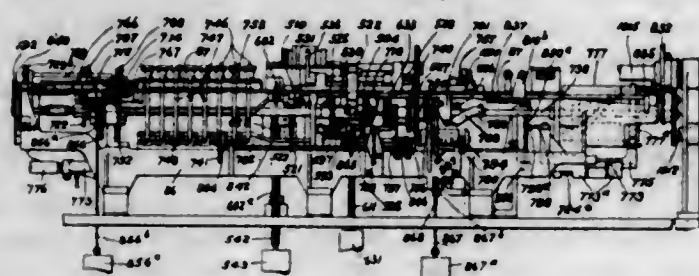
2. In a hose supporter, the combination with body supporting means, of a pair of hook members connected therewith in spaced relation to each other, and a relatively rigid leg encircling member suspended from the body supporting means between the hook members aforesaid and adapted to receive thereover a fold of the hose, said hook members being adapted to coöperate with the leg encircling member to support the hose at its opposite sides.

3. In a hose supporter, the combination with body supporting means, of a pair of hook members connected therewith in spaced relation to each other, and a coöperating hose engaging member consisting of an open ring adapted to be disposed around the hose adjacent its upper portion beneath a fold of said hose, each hook member in its coöperation with the hose engaging member being adapted to press the fold aforesaid around and beneath the ring to clamp the hose thereto.

4. In a hose supporter, the combination with body supporting means, of a hook member comprising an integral wire connected with the body supporting means and bent at its lower portion to form a hook portion extending out of the plane of the main portion of the hook member and provided with projections intermediate the loop and hook portions, and coöperating means associated with the hose comprising a band upon which the hose is adapted to be folded to hold the same in smooth condition, said hook member being engageable beneath the band for supporting the same, with the projections aforesaid projecting over the band to prevent accidental displacement of the latter.

5. A hose supporter comprising, in combination, body supporting means, elastic members connected therewith, a spring ring member connected with the body supporting means over which the hose is adapted to be wrapped, and hook members carried by each of the elastic members and adapted to engage beneath the ring member to frictionally clamp the hose thereto at opposite sides, whereby strain may be distributed evenly around the hose.

1,082,006. JUSTIFYING MECHANISM. BENJAMIN F. BELLOWS, Cleveland, Ohio, assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Original application filed July 19, 1909, Serial No. 508,497. Divided and this application filed June 8, 1911. Serial No. 631,875. (Cl. 101-199.)



1. In justifying mechanism, the combination of a pivoted divisor frame having a short arm of invariable length and a long arm of variable length, means for varying the length of said long arm in accordance with the number of justifying spacers required in the line, a contact bar which is parallel with the long arm of said divisor frame, means for moving said contact bar to positions in which its distance from the divisor frame corresponds with the line shortage, means for swinging said divisor frame until its long arm engages with and is stopped by said bar, and means controlled by the short arm of said divisor frame for determining justifying spacers.

2. In justifying mechanism, the combination of a pivoted divisor frame having a short arm of invariable length, a plurality of movable divisors carried by the long arm of said frame and occupying positions relative to the axis of said frame which are multiples of the length of the short arm of said divisor frame, means for moving any divisor to an operative position, means for swinging said divisor frame, and a stop adapted to be engaged by the displaced divisor, said stop being movable to positions determined by the line shortage, and means controlled by the shaft arm of said divisor frame for determining justifying spacers.

3. In justifying mechanism, the combination of a contact bar adjustable to positions determined by the length of the line to be justified, a pivoted divisor lever, movable divisors carried thereby normally lying out of the plane

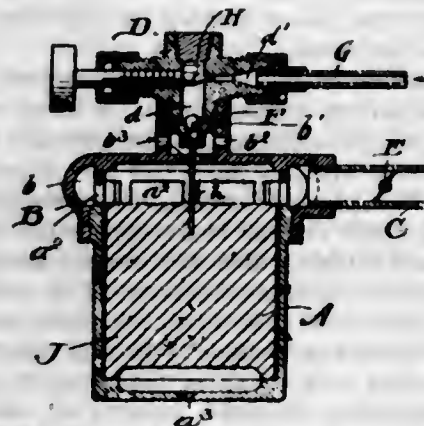
of said contact bar but severally movable into said plane, means for moving any one of them into the plane of said contact bar, means for swinging said divisor lever to cause the displaced divisor to engage said contact bar, and mechanism operated by said divisor lever to determine the width of justifying spacers.

4. In justifying mechanism, the combination of a contact bar adjustable to positions determined by the length of the line to be justified, a pivoted divisor frame having its short arm connected with mechanism for determining justifying spaces, a plurality of movable divisors carried by the long arm of said divisor frame and placed at distances from the axis of said frame which are multiples of the length of the short arm of said frame, a plurality of justifying keys, and mechanisms by which the operation of any key causes the movement of the associated divisor from its normal position to a position in the plane of said contact bar.

5. In justifying mechanism, a divisor frame having a series of parallel grooves, divisor levers pivoted in said grooves respectively, means for holding the operative ends of said divisor levers in an inoperative position, means for swinging the operative ends of said levers upward when released from restraint, said divisor frame having a short arm whose length is equal to the smallest common divisor of the distances between the axis of said frame and the operative vertical corners of said divisor levers.

[Claims 6 to 73 not printed in the Gazette.]

1,082,007. GAS-MIXTURE PRODUCER. ALANSON P. BRUSH, Detroit, Mich. Filed Mar. 21, 1912. Serial No. 685,239. (Cl. 48-180.)



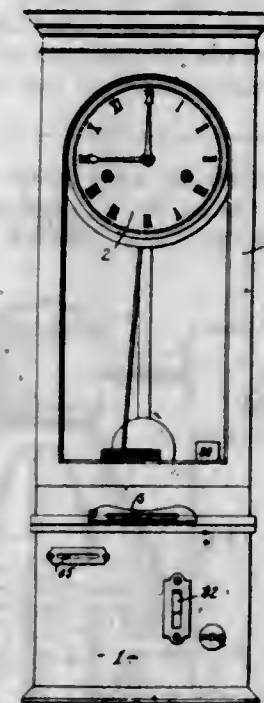
1. In a gas mixture producer, a mixing chamber having an air inlet, a gas inlet, and a mixture outlet, an outlet pipe connected with said mixture outlet, a valve in said mixing chamber adapted to be moved by variations of pressure in said chamber and by said movement to more or less completely close said mixture outlet, a valve for the gas inlet, and means whereby said gas valve is opened by the suction-induced movement of the first-named valve.

2. In a gas mixture producer, a mixing chamber having an air inlet, a gas inlet, and a mixture outlet through the side walls of said chamber, an outlet pipe connected with said mixture outlet, a valve for the gas inlet, a piston valve in said chamber adapted to be raised by a decrease in pressure within said chamber and to progressively close the mixture outlet as it rises, and a rod fixed to said piston valve and adapted to engage with and open the gas inlet valve.

3. In a gas mixture producer, the combination of a cylinder having an air vent in its lower end and having an annular mixture outlet through its side walls, and a cap secured to said cylinder and forming the top thereof, and containing an annular mixture passageway with which the annular outlet port communicates, a discharge pipe connected with said cap and communicating with said passageway, said cap having a hole through its top communicating with the interior of the cylinder and having a tubular neck in which are lateral air inlet passages, a gas valve casing screwing into said neck and containing a port through its lower end which communicates with the interior of said tubular neck and having a gas inlet,

and adjustable valve for controlling the size of said inlet, a lift valve for closing the gas outlet of said valve casing, a piston valve within said cylinder, and a rod fixed thereto and extending upward into position to lift the gas valve when the said piston is raised.

1,082,008. TIME-RECORDER. WILLARD H. BUNDY, Syracuse, N. Y., assignor to W. H. Bundy Recording Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 2, 1908, Serial No. 418,700. Renewed Dec. 5, 1910. Serial No. 595,738. (Cl. 234-43.)



1. In a workman's individual card time recorder and in combination, a casing, time mechanism in the casing, a frame in the casing, marking mechanism mounted in the frame and including type wheels movable in synchronism with the time movement, a card guide, a card abutment, means for shifting the abutment comprising a cam, an indicator for showing positions of the card abutment occupied during the different days of the week, the indicator including a movable member, connections operated by the cam for actuating the indicator member, and a key shaft for actuating the cam, the shaft having an end exposed through the casing, substantially as and for the purpose described.

2. In a workman's individual card time-recorder and in combination, a casing, time mechanism in the upper part of the casing, a frame in the lower part of the casing, marking mechanism mounted in the frame and including character-carrying wheels movable in synchronism with the time mechanism, a card-guide, a plate slidably mounted in the side walls of said guide and constituting a card abutment, and means for moving the abutment in a double cycle, said means comprising a key-shaft mounted in the frame and having an end exposed through the casing, a cam-shaft journaled in said frame, a double cam carried by said shaft, a lever controlled by said cam, a link connection between the lever and the abutment, and beveled gearing interposed between the key-shaft and said cam-shaft, substantially as and for the purpose described.

3. In a workman's card time-recorder, marking mechanism, means for actuating the same, a card guide, an abutment comprising a sheet metal plate guided in the side walls of the card guide, said plate having a relatively wide upper edge and ears struck out of the lower part thereof, and means for shifting the abutment including a part pivoted between the ears, substantially as and for the purpose specified.

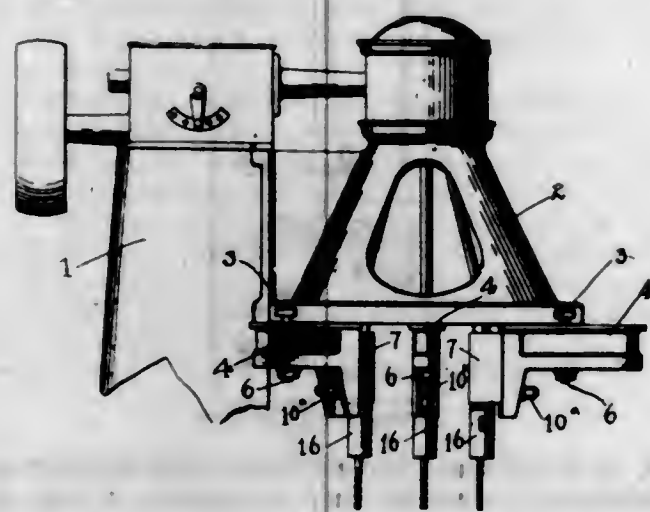
4. In a workman's individual card time-recorder, marking mechanism, means for actuating the same, a card-guide, an abutment comprising a sheet-metal plate guided in the side walls of the card-guide, said plate having a relatively wide upper edge and ears struck out of the lower part thereof, a pin secured in said ears, a link con-

connected at one end to said pin, a lever connected at one end to the other end of said link, a key-shaft, and means for operating the lever from said key-shaft, substantially as and for the purpose set forth.

5. In a workman's card time-recorder and in combination, an inclosing casing, time mechanism in the casing, a card receiver, marking mechanism including a part arranged in the rear of the receiver and a part in advance thereof, the first-named part including type wheels movable in synchronism with the time mechanism, a frame carrying the marking mechanism and the receiver, and a lever pivoted to the frame between its ends and having one end extending through the casing and its other end connected to the frame for the marking mechanism, substantially as and for the purpose described.

[Claims 6 to 26 not printed in the Gazette.]

1,082,009. ADJUSTABLE ARM FOR MULTIPLE-SPINDLE DRILLS. EDGAR W. CLEVELAND, Grand Rapids, Mich. Filed Aug. 29, 1913. Serial No. 787,287. (Cl. 77—24.)



1. An adjustable arm for multiple spindle drills, comprising an arm, a journal box vertically adjustable on the end of the arm, a lever opposite to the box and fulcrumed intermediate its ends, and studs or bolts connecting the ends of the lever and the box to secure the box in place or release the same for adjustment by operating one only of said studs or bolts.

2. An adjustable drill supporting arm, comprising an arm having a vertical opening therethrough, a vertical way on one end of the arm, a journal box carrying a drill spindle vertically adjustable on said way, studs projecting from said journal box through the end of said arm, a centrally fulcrumed lever within the opening in said arm having ends to receive said studs, and nuts on said studs to engage the ends of said lever.

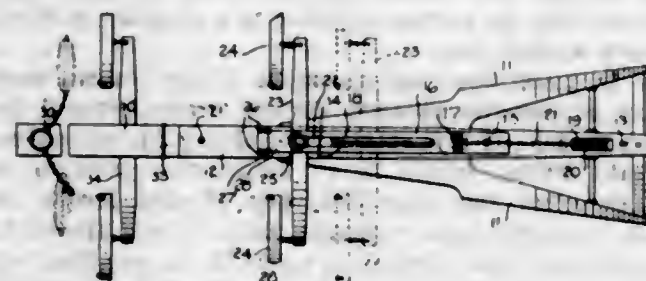
3. An adjustable drill supporting arm, comprising an arm having a vertical opening therethrough, a vertical way on the outside of one end of said arm, said way having vertical slots therethrough, a journal box carrying a drill spindle and vertically adjustable on said way, two studs projecting from said journal box through said slots in the way, a vertically adjustable lever within the said opening and having a central fulcrum and also having bifurcated ends respectively embracing said studs, and nuts on the studs to engage the ends of the lever.

4. An adjustable drill supporting arm, comprising an arm having a vertical opening therethrough, a vertical way on the outside of the end of said arm, said way and end having two vertical slots therein, a journal box carrying a drill spindle vertically adjustable on said way, two studs projecting from said journal box through the respective slots and adjustable therein, a lever within the opening in the arm and having a central fulcrum engaging the end of the arm between the slots and also having its ends bifurcated to embrace the respective studs, and nuts on said studs to engage the respective ends of the lever.

5. An adjustable drill supporting arm, comprising an arm having a vertical opening therethrough and having one of its ends extended downward below the body of the

arm, a vertical way on the outside of the said extended end of the arm, said way and end having two vertical slots therethrough, one of said slots being located in the extended portion of the end, a journal box adjustable on said way and carrying a drill spindle, two studs projecting from said journal box through the respective slots in the end of the arm, a lever having a central fulcrum engaging the inner surface of the arm between the slots, the ends of said lever being bifurcated to embrace the respective studs, and nuts on said studs to engage the respective ends of the lever.

1,082,010. DRAFT ATTACHMENT. BENNIE DAHL, Brantford, N. D. Filed Feb. 26, 1913. Serial No. 750,925. (Cl. 21—76.)



1. In a device of the character described, the combination with a slotted wagon tongue, a bolt slidably disposed in said slot, a clevis and draft attachment carried by said bolt, a pulley journaled in said tongue, a flexible connecting member secured at one end to the tongue, the opposite end of said flexible member passing over said pulley and being secured to the clevis, a draft chain connected at one end to the flexible member in spaced relation from its ends, and a draft attachment carried by said chain, as and for the purpose described.

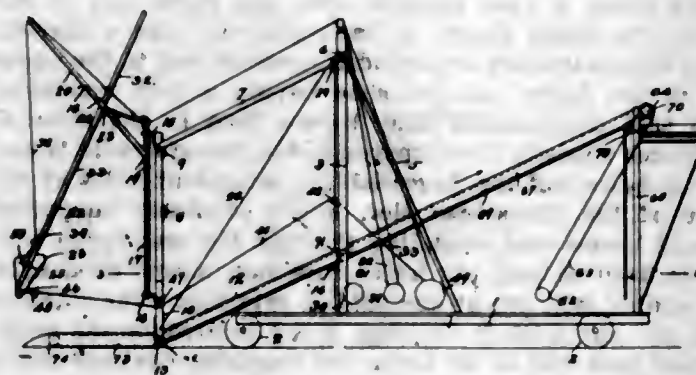
2. In a device of the character described, the combination with a slotted wagon tongue, a strap secured at one end to said tongue adjacent one end of said slot, the opposite end of said strap being offset and disposed above the slotted portion of said tongue, the offset portion of said slot having a slot therein registering with the slot in said tongue, a bolt slidably disposed in said slots, a clevis and draft attachment pivotally supported by said bolt between the offset portion of said strap and said tongue, an aperture plate pivotally connected to said tongue for engagement with said bolt, a pulley journaled in said tongue, a flexible connecting member secured at one end to the tongue, the opposite end of said flexible member passing over said pulley and being secured to said clevis, and a draft chain connected at one end to said tongue and at its opposite end to the flexible member in spaced relation from its ends, as and for the purpose described.

3. In a device such as described, the combination with a slotted wagon tongue, a strap having a slot formed therein in registration with the slots secured to the tongue, a clevis slidable between said tongue and straps, a draft attachment supported by the clevis, a bolt passing through the clevis and slots formed in the tongue and strap, a pulley journaled in the tongue, a flexible connecting member secured to the tongue and clevis and passing over the pulley, a plate hinged to the tongue, said plate having an aperture formed therein to receive the bolt and hold the clevis against movement, a draft chain attached to the flexible element in spaced relation from the ends thereof, and a draft attachment carried by said chain.

1,082,011. EXCAVATING-MACHINE. HAROLD H. DAMMAN, Ellensburg, Wash. Filed Aug. 17, 1912. Serial No. 715,581. (Cl. 214—10.)

1. In apparatus of the character described, the combination with a horizontal wheeled frame, of an endless conveyor extending longitudinally of the horizontal wheeled frame and beyond the forward end thereof to be disposed therebelow, a horizontally swinging mast disposed near the forward end of the wheeled frame, a vertically inclined boom connected with the upper end of the mast, a swinging and reciprocating dipper arm connected with

the vertically inclined boom, a bucket pivotally connected with the lower end of the dipper arm, means to reciprocate the dipper arm in opposite directions to move the same toward and away from the ground, means to swing the bucket to a normally horizontal scraping position, and draw the same toward the forward horizontal portion of the endless conveyor, and means to swing the bucket to a vertical position whereby the contents thereof is dumped upon the forward horizontal portion of the endless conveyor.



2. In a machine of the character described, a wheeled support, spaced upstanding posts connected at their upper ends, upper arms pivotally connected with the posts and converging toward their forward ends, a mast disposed between the forward ends of the pivoted arms and pivotally connected therewith, outwardly extending arms connected with the lower end of the mast, side strips pivotally connected with the outwardly extending arms and with said posts, an endless conveyor operating between the side strips, excavating means mounted upon the mast, means to operate said excavating means, and a cable connected with the lower portions of the mast and extending upwardly, whereby a pull upon the cable will serve to raise the mast.

3. The combination with a wheeled support, of an upstanding parallelogram supporting structure having one side thereof rigidly connected with the wheeled support and the opposite side vertically movable, means to move the vertically movable side, an apron connected with said vertically movable side and extending forwardly beyond the same, an endless conveyor having a portion thereof operating within the apron and extending rearwardly beyond the parallelogram supporting structure, excavating means to deliver material to the endless conveyor, and means to operate the excavating means.

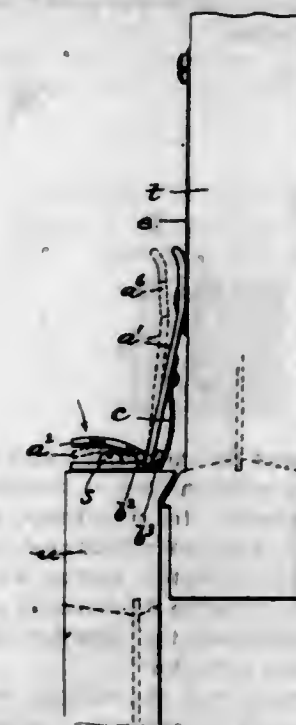
4. In a machine of the character described, the combination with an upstanding parallelogram supporting structure including a vertically movable side, a vertically swinging boom pivotally connected with the vertically movable side, a dipper arm carried by the boom, means to reciprocate said dipper arm, a bucket pivotally connected with the free end of the dipper arm, means to swing the bucket with relation to the dipper arm, means to move the vertically movable side of the parallelogram supporting structure, and a conveyor to receive material from the bucket.

1,082,012. INCANDESCENT LAMP. ALBERT G. DAVIS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 28, 1907. Serial No. 395,024. (Cl. 176—39.)



The combination with a refractory metal filament loop having its bend reinforced with refractory metal, of an anchoring device loosely engaging said reinforced bend.

1,082,013. WINDOW-LOCK. NATHAN B. DENISON, Pawtucket, R. I., assignor to Frank W. Lockwood, Warwick, R. I., and Albert O. Coates, Providence, R. I. Filed Apr. 19, 1913. Serial No. 762,176. (Cl. 16—146.)



1. In a window-lock, the combination of a base member adapted to be secured upon the lower sash and having opposed upturned lugs and a backing, so as to provide a seat between the lugs and the backing; a latch member having a flat upright extension and an outwardly bent lower part to form a finger presser-plate, and leaving a fork at the bend to embrace and rest upon the seat of said base member, and said latch member provided with an opening in its extension; spaced projections forming locking points carried by the upper sash to enter the opening of the extension of said latch member, and a yielding member to hold the latch in a locked position against movement of the lower sash.

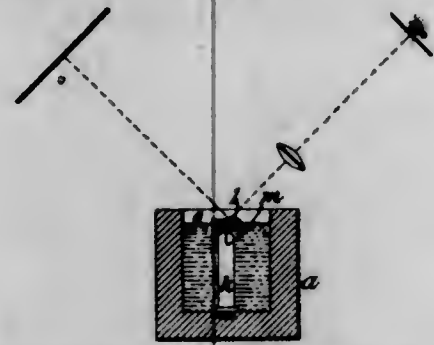
2. In a window-lock, the combination of a base member adapted to be secured upon the lower sash and having upturned portions so as to provide a seat therebetween and extending close to and longitudinally of the upper sash; a latch member provided with an entering opening and said member bent to form an outwardly projecting presser-plate and leave a fork beneath the latter to embrace and rest upon the seat of said base member; a vertically-arranged strip; filler-head screws for securing said strip to the upper sash and to act as spaced locking points of the device, and a leaf spring having one portion secured beneath said base member and its other portion secured on the rear face of said latch member, to hold the latter in a locked position after the head of either screw has passed through the entering opening.

3. In a window-lock, the combination of a base member adapted to be secured upon the lower sash and provided with a seat, as —b—, designed to be located close to and extend longitudinally of the upper sash; a latch member having a flat perforated extension which terminates at its lower part with a fork, as —a—, whose bottom forms a pivot bearing to rest upon the seat of said base member, and said latch member having an outwardly curved finger-plate above its pivot bearing for pressing upon to unlock the device; spaced projections carried by the upper sash to enter the perforation of said latch member, and a yielding member carried by the device to maintain the latch in a locked position with either projection on the upper sash.

1,082,014. MEANS FOR MEASURING, INDICATING, AND RECORDING VIBRATIONS. WILLIAM POLLARD DROBY, London, England, PAKENHAM WILLIAM BEATTY, Bahia Blanca, Argentina, and ARNO C. HUSKINSON, Barnes, England. Filed Oct. 8, 1910. Serial No. 586,116. (Cl. 88—14.)

1. The improved means for measuring and indicating vibrations, comprising in combination a receptacle contain-

ing liquid readily responsive to vibrations, a reflector in horizontal contact with but not submerged in said liquid, means for anchoring said reflector, means whereby a beam of light from an optical system is directed on to said reflector, and a screen on to which the said beam of light is reflected from said reflector.



2. The improved means for measuring and indicating vibrations, comprising in combination a receptacle containing liquid readily responsive to vibrations, a reflector in horizontal contact with but not submerged in said liquid, means for anchoring said reflector, means whereby a beam of light from an optical system is directed on to said reflector, and means indicating the position of a point of light reflected from said reflector.

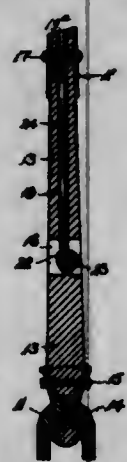
3. The improved means for measuring, indicating and recording photographically vibrations, comprising in combination a receptacle containing liquid readily responsive to vibrations, a reflector in horizontal contact with but not submerged in said liquid, means for anchoring said reflector, means whereby a beam of light from an optical system is directed on to said reflector, and a photographic screen on to which the said beam of light is reflected from said reflector.

4. The improved means for measuring and indicating vibrations, comprising in combination a receptacle containing liquid readily responsive to vibrations, a reflector in horizontal contact with but not submerged in said liquid, having a central hole, a thin vertical spindle rigidly fixed to the base of the receptacle and projecting upward through said central hole in the reflector whereby said reflector is anchored in position, means whereby a beam of light from an optical system is directed on to said reflector, and a screen on to which the said beam of light is reflected from said reflector, substantially as set forth.

5. The improved means for measuring and indicating vibrations, comprising in combination a receptacle containing liquid readily responsive to vibrations, a reflector in horizontal contact with but not submerged in said liquid, said reflector having a central hole, means engaging said hole for anchoring said reflector, means whereby a beam of light from an optical system is directed on to said reflector, and a screen on to which the said beam of light is reflected from said reflector, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,082,015. OPERATING MEANS FOR STAMP-MILLS. EDWARD DOLLAR, Pietersburg, Transvaal, South Africa. Filed Dec. 26, 1911. Serial No. 667,920. (Cl. 83—57.)

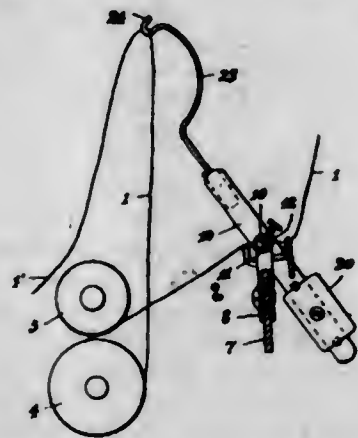


1. A device of the character described and comprising in combination a support a finger movable on said support

and having a transverse slot and a longitudinal hole extending from said slot to the upper end of the finger, a pin rotatably supported in said slot, a cam secured upon said pin, means fixed to said pin at the outside of the finger for rotating the pin to operate the cam, and a rod located in the longitudinal hole, and engaging the cam which rod is projected beyond the end of the finger when the cam is rotated by means of the lever, as set forth.

2. In combination a jack shaft having suitable bearings, a socket piece rotatably supported upon said jack shaft, a finger the lower end of which is secured within said socket piece, a shoe secured upon the upper end of the finger, the finger having a transverse slot and a longitudinal hole extending from said transverse slot to the upper end of the finger and the shoe having a hole coinciding with said longitudinal hole, bosses fixed to the sides of the finger opposite the transverse slot, the aforesaid bosses having holes and the finger having coincident holes at the sides of the transverse slot, a pin revolvably supported in said bosses and extending through the transverse slot, a cam fixed on said pin inside said slot, means fixed upon one end of said pin at one side of said finger for rotating said pin and with it the cam a rod located in the longitudinal hole and at its lower end engaging the cam which rod is projected beyond the end of the finger and through the coincident hole in the shoe when the cam is rotated by means of the lever, as set forth.

1,082,016. THREAD STOP-MOTION FOR GRIPPING A BROKEN THREAD IN TWISTING MACHINES. BOLESŁAW DUTKIEWICZ, Lodz, Russia. Filed June 6, 1913. Serial No. 772,168. (Cl. 118—12.)



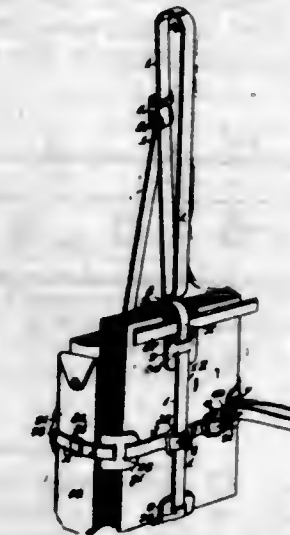
1. A thread stop motion comprising a sleeve provided with a longitudinal slot, a pin pivotally mounted in the said sleeve and likewise provided with a longitudinal slot, the two slots normally registering with each other and allowing the passage of the thread, a double armed lever fixedly connected with the non-slotted end of the said pin and a weight slidably mounted on the one arm of the said lever the other arm terminating in a hook supporting the thread.

2. A thread stop motion comprising a sleeve provided with a longitudinal slot, a pin pivotally mounted in the said sleeve and likewise provided with a longitudinal slot, the two slots normally registering with each other and allowing the passage of the thread, a double armed lever fixedly connected with the non-slotted end of the said pin and a weight slidably mounted on the one arm of the said lever the other arm terminating in a hook supporting the thread, the said pin and sleeve being shortened above the slot so that the projecting lower portion of the pin and sleeve serves as a guide for inserting the thread.

1,082,017. BOOK-CARRIER. MARY FEINEN, Jersey City, N. J. Filed Oct. 28, 1912. Serial No. 728,093. (Cl. 224—55.)

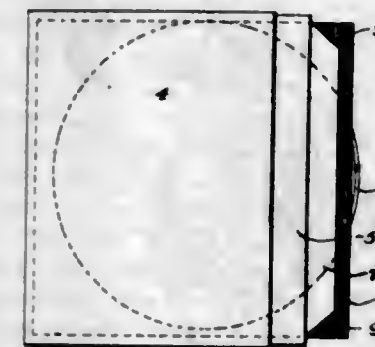
1. A device of the character described that comprises a carrying strap, a buckle slidably mounted on the said strap and to which one end of the strap is fixedly connected, a ball freely movable upon the strap, that part of the strap that is fixedly secured to the buckle passing through the ball and on back through the aforesaid buckle,

a second buckle that is slidably mounted upon the strap, the free end of the strap being formed into a carrying loop passing through the said ball and secured upon the said second buckle.



2. As a new article, a book carrier comprising a main strap one end of which is bent to form a carrying loop, a slidable connection joining the extremity of the said end with the body of the said strap, the other end of the strap being bent upon itself and connected with the body to form a book encircling loop, the said connection being adjustable whereby to lengthen or shorten the said loop, U-shaped protecting members for fitting over the opposite edges of the book, the said members having slitted loops for the passage therethrough of the strap portions forming the loop for encircling the book, a ring connection that joins with that portion of the strap that extends over the protecting member between the slitted loops thereof and which engages the carrying loop of the main strap, and a supplemental strap disposed crosswise of the main strap having a buckle connection, and a supplemental ring connection and means for slidably connecting the cross portions of the main and the supplemental straps.

1,082,018. DISK-RECORD HOLDER. JOHN C. FRANK, Akron, Ohio. Filed Jan. 31, 1913. Serial No. 745,442. (Cl. 129—1.)



1. A disk record holder of the character described, comprising a binder, division leaves disposed therein and held against longitudinal movement with relation thereto, and disk record receiving pockets formed of flexible material and having their outer edges open and longitudinally movably mounted between the division leaves.

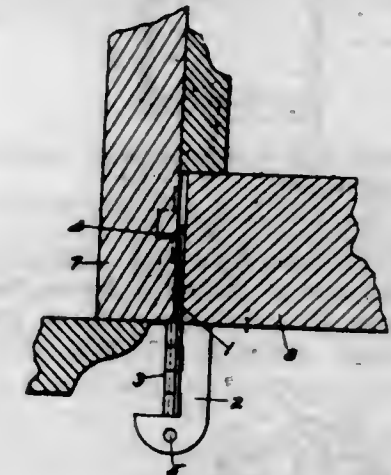
2. A disk record holder of the character described, comprising a binder, and a plurality of disk record receiving pockets longitudinally movably mounted within the binder, each pocket being slightly shorter in its longitudinal dimension than the diameter of the disk record held thereby, and extending for a considerable distance, when in its innermost position, outwardly of the binder.

3. A disk record holder of the character described, comprising a binder, a plurality of relatively stationary flexible division leaves mounted therein with their free ends extending for a considerable distance beyond the binder,

and a plurality of different colored longitudinally movable disk record receiving pockets disposed within the binder between the division leaves.

4. A disk record holder of the character described, comprising a binder, a plurality of spaced stationary division leaves mounted therein, and a plurality of longitudinally movable disk record receiving pockets mounted between the division leaves and formed of different colored paper.

1,082,019. LOCKING DEVICE FOR DOORS AND WINDOWS. HENRY J. FREDERICK, Hood River, Oreg. Filed Mar. 27, 1913. Serial No. 757,234. (Cl. 16—8.)



1. A locking device of the character referred to, comprising a two-part plate member, one part of which is provided with one or more prong like members, and the other part of which is adapted to be turned crosswise of the other part on an axis extending longitudinally thereof, for the purpose referred to.

2. A locking device of the character referred to, comprising two plate members hinged together in the same plane, upon an axis extending longitudinally thereof, one of said members being provided with one or more prong members projecting at an angle therefrom, and the other of said members being adapted to be turned crosswise thereof upon an axis extending longitudinally of the device, for the purpose illustrated.

3. In a door locking device of the character referred to, a plurality of plate members hingedly secured together in the same plane, one of said members being provided with one or more laterally projecting prongs, and another of said members being adapted to be turned crosswise, longitudinally of their lengths, of said first member and having a straight engaging end standing at right angles to the plane of said first member, substantially as described.

4. In a locking device of the character referred to, two plate members hinged together to turn upon an axis extending longitudinally of said device for a portion of its length only and forming a hinge bead upon said device, one of said members being provided with laterally projecting prongs on the side of said bead, and the other of said members having a straight end in alignment with the inner end of said hinge bead, and adapted to be turned crosswise of said first member, substantially as shown and described.

1,082,020. NON-REFILLABLE BOTTLE. JOHN W. FREEMAN, Alleene, Ark., assignor of one-half to Squire C. Hodges, Arden, Ark. Filed Sept. 12, 1911. Serial No. 648,931. (Cl. 215—112.)

In a device of the class described, a receptacle comprising a top, and a neck having a tapered bore, the narrowest portion of the bore being aligned with the top; a cylindrical, compressible member located in the neck and extended across the plane of the top; and an inwardly removable stopper comprising an outwardly tapered extension, the widest part of the extension engaging the compressible member in alignment with the top and in alignment with the narrowest part of the bore of the neck,

to effect a maximum compression at the inner end of the cylindrical member and in alignment with the top, whereby



the top will constitute a reinforcement, adapted to resist the maximum compression.

1,082,021. ELECTRICAL SWITCH. HENRY R. GILSON, Baden, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 17, 1912. Serial No. 726,345. (Cl. 175-287.)



1. In an electrical snap switch, the combination with an insulating block, of a pair of conductor terminals, a pivoted bridge effective when in one position to close a circuit between said terminals, a rocking switch-operating member including an extended spring-sustaining surface having an arcuate movement in the general line of its extent, a spring having a fixed connection at one end to said bridge, the other end of said spring being sustained by said surface and movable thereon when the switch is thrown.

2. In an electrical snap switch, the combination with an insulating block, of a pair of conductor terminals, a pivoted bridge effective when in one position to close a circuit between said terminals, a rocking switch-operating member including an extended spring-sustaining surface having an arcuate movement in the general line of its extent, said surface provided with a ridge near each end thereof and being substantially plane-faced between said ridges, a spring having a fixed connection at one end of said bridge, the other end of said spring being sustained by said surface and movable thereon when the switch is thrown.

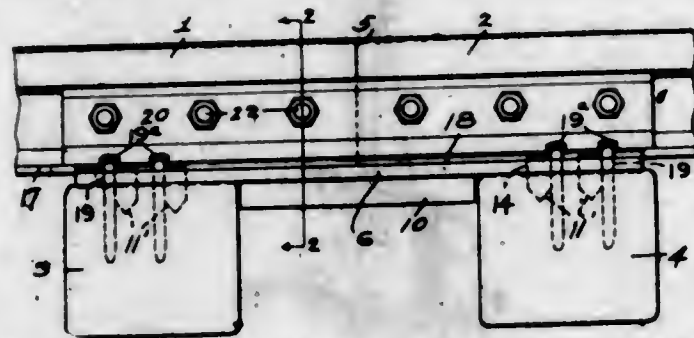
3. In an electrical snap switch the combination with an insulating block, of a pair of conductor terminals, a pivoted bridge effective when in one position to close a circuit between said terminals, a rocking switch-operating member including a plate having a slot therein, a member bearing upon and movable over said plate, and a spring connecting through said slot the last named member with said bridge.

4. In an electrical switch, the combination with an insulating block, of a pair of conductor terminals, a pivoted bridge, a rocking switch-operating member consisting of a trunnion having a manipulating arm at one side and a spring-sustaining plate at the other side thereof, said several parts of said switch operating member being formed from a single plate, and a spring connecting said bridge with said plate.

1,082,022. RAILWAY-JOINT PLATE. WILLIAM GOLDIE, Jr., Bay City, Mich. Filed Jan. 6, 1911. Serial No. 601,184. (Cl. 239-2.)

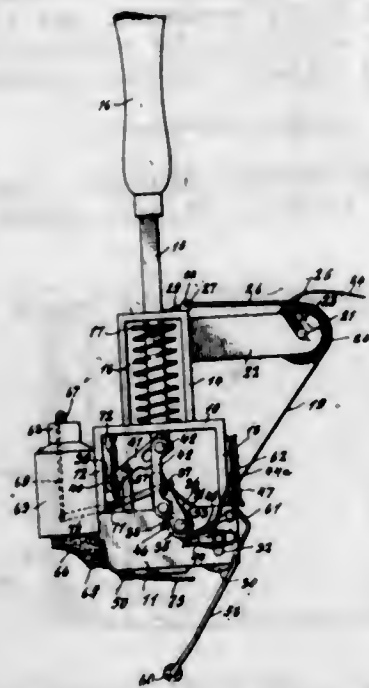
1. A railway joint plate comprising a joint supporting portion adapted to extend underneath two adjoining rail-

bases, and two tie plate portions integral therewith and supporting the rail bases on the two adjacent ties, an integral shoulder extending longitudinally to abut against the rail bases and stiffen the joint portion, a depending flange on the joint supporting portion adapted to extend between the ties and complete with the shoulder a truss support for the rail joint and gripping ridges extending throughout the length of the device at the opposite longitudinal edges thereof.



2. In rail fastenings, the combination with two adjoining rails and two adjacent ties, of a railway joint plate comprising two tie plate portions adapted to support the rails upon the ties and provided with claws secured thereto and having their broad faces arranged transversely of the ties to prevent movement thereon and means for holding the rails upon said tie plate portions, and an integral joint supporting portion connecting said tie plate portions provided with depending flanges to stiffen the rail joint gripping ridges extending throughout the length of the device at the extreme opposite edges thereof, said plates, ridges, and flanges being formed from a bar rolled to shape.

1,082,023. STAMPING-MACHINE. HENRY J. GRANT, Valdosta, Ga. Filed Feb. 10, 1913. Serial No. 747,438. (Cl. 216-25.)



1. In a stamp affixer, a frame, stamp feeding and severing means carried thereby, and a moistening wiper pivoted to the frame to swing in a vertical plane, said wiper being located beneath the frame.

2. In a stamp affixer, a frame, stamp feeding and severing means carried thereby, a moistening wiper pivoted to the frame and swinging upward when pressed against the part to be moistened, and a spring for swinging the wiper downward when released.

3. In a stamp affixer, a frame, stamp feeding and severing means carried thereby, a moistening wiper pivoted to the frame to swing in a vertical plane, said wiper being located beneath the frame, and a moistening pad in the path of the wiper and engageable thereby.

4. In a stamp affixer, a frame, stamp feeding and severing means carried thereby, a moistening wiper pivoted to

the frame to swing in a vertical plane, said wiper being located beneath the frame, a moistening pad in the path of the wiper and engageable thereby, a reservoir having an outlet to the pad, and a valve controlling the outlet.

5. In a stamp affixer, a frame, stamp feeding and severing means carried thereby, a moistening wiper pivoted to the frame to swing in a vertical plane, said wiper being located beneath the frame, a moistening pad in the path of the wiper and engageable thereby, a reservoir having an outlet to the pad, a valve controlling the outlet, actuating means for the stamp feeding and severing means, and an operative connection between said actuating means and the valve.

[Claims 6 to 15 not printed in the Gazette.]

1,082,024. WATER-FILTER. SIEGFRIED HELD, Chicago, Ill., assignor to The Held Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 18, 1913. Serial No. 762,020. (Cl. 210-11.)

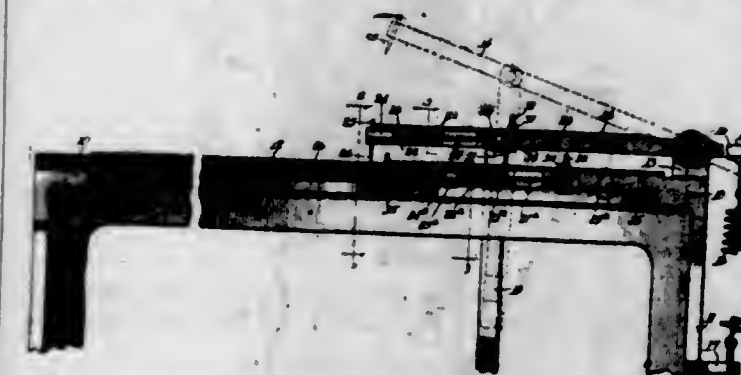


1. In a water filter, the combination with a casing having an inlet and an outlet for water and one of its ends open and below said opening an inwardly projected annular flange, said outlet located between said flange and the open end of the casing, a single piece cap to close said open end of the casing and to rest on said flange and provided with a central cavity in its lower portion and a peripheral groove in communication with said cavity and outlet, said cap also having at the top of its groove a depending peripheral flange, packing interposed between the upper surface of said groove and the open end of the casing and between the lower surface of the cap and the annular flange of the casing, a hollow filtering block located on the lower surface of the cap with its cavity in communication with the cavity of the cap, a rod extended longitudinally through the filtering block and detachably engaging at one of its ends the said cap, a plate detachably secured on the opposite end of said rod and resting against the free end of the filtering block and closing the lower end of the cavity therein.

2. In a water filter, the combination with a casing having an inlet and an outlet for water and one of its ends open and below said opening an inwardly projected annular flange, said outlet located between said flange and the open end of the casing, a single piece cap to close said open end of the casing and to rest on said flange and provided with a central cavity in its lower portion and a peripheral groove in communication with said cavity and outlet, said cap also having at the top of its groove a depending peripheral flange, packing interposed between the upper surface of said groove and the open end of the casing and between the lower surface of the cap and the annular flange of the casing, a hollow filtering block located on the lower surface of the cap with its cavity in communication with the cavity of the cap, a rod extended longitudinally through the filtering block and detachably engaging at one of its ends the said cap, a plate detachably secured on the opposite end of said rod and resting against the free end of the filtering block and closing the lower end of the cavity therein, a yoke extending diametrically across the open portion of the casing and

pivotaly secured at its ends thereto, and an adjusting screw engaging the central portion of said yoke and adapted for engagement at one of its ends with the upper portion of the cap.

1,082,025. MARKING-MACHINE. VALENTINE HOFFMAN, Chicago, Ill. Filed Jan. 21, 1913. Serial No. 743,269. (Cl. 12-56.)



1. In a marking machine, a support, a plate vertically movable with respect to said support, said plate having a plurality of guide-ways formed therein, a plurality of marking devices slidably mounted in said guide-ways, means tending to move said marking devices rearwardly in said guide-ways, and a templet for retaining said marking devices in a predetermined position against the action of said moving means.

2. In a marking machine, a support, having a plurality of guide-ways therein, a frame vertically movable with respect to said support, a plurality of adjustable marking devices carried by said frame, stops slidably mounted in said guide-ways, means normally tending to move said stops rearwardly in said guide-ways, and a templet for retaining said stops in a predetermined position against the action of said moving means.

3. In a marking device, a support, a plate vertically movable with respect to said support, a guide-plate carried by said plate, said guide-plate having a plurality of guide-ways formed therein, a plurality of marking devices slidably mounted in said guide-ways, springs normally tending to move said marking devices rearwardly in said guide-ways, and a templet adapted to engage said marking devices and hold them in a predetermined position against the action of said springs.

4. In a marking device, a support, a plate vertically movable with respect to said support, a guide-plate carried by said plate, said guide-plate having a plurality of guide-ways formed therein, a plurality of marking devices slidably mounted in said guide-ways, springs normally tending to move said marking devices rearwardly in said guide-ways, a templet adapted to engage said marking devices and hold them in a predetermined position against the action of said springs, and adjustable stops carried by said support for properly positioning the work with respect to said marking devices.

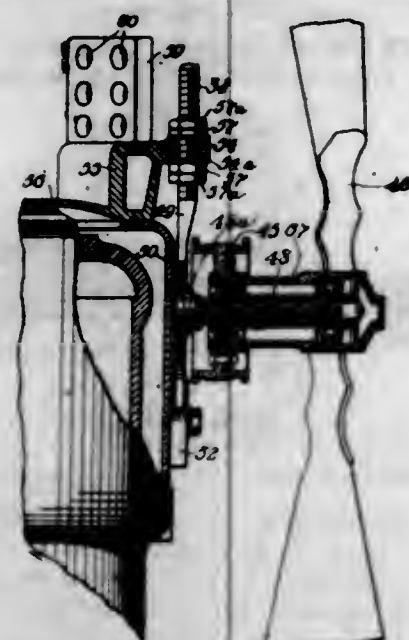
5. In a marking device, a support, a frame vertically movable with respect to said support, a guide-plate carried by said frame, said plate having holes formed there-through from the front to the rear edge thereof, and having slots between said holes and the lower surface thereof, a plurality of marking devices mounted in the holes of said guide-plate and having marking members extending downwardly through said slots, springs normally tending to move said marking devices rearwardly in said holes, and a templet for engaging said marking devices and retaining them in a predetermined position against the action of said springs.

[Claim 6 not printed in the Gazette.]

1,082,026. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed June 27, 1908, Serial No. 440,899. Divided and this application filed Oct. 13, 1910. Serial No. 586,912. (Cl. 123-171.)

1. A fan bracket comprising a central portion carrying a rigid shaft at right angles thereto constituting a fan

bearing, an end portion in the form of a screw-threaded rod, and an end portion opposite the screw-threaded portion made up of spaced arms, the ends of which are bifurcated and parallel to the screw-threaded portion.



2. The combination with a casing, of a bracket fitting against said casing and having an end in the form of a screw-threaded rod, an arm projecting from said casing and provided with an opening through which said screw-threaded portion extends, nuts on said screw-threaded portion on opposite sides of said arm, spaced arms on said bracket parallel with the screw-threaded portion and having bifurcated ends, bolts on said casing engaging said bifurcated ends, and a fan carried by said bracket.

3. In a device of the class described, the combination with a hydrocarbon motor, of a bracket supported on the casing of the motor cylinder, a support for high tension electric cables on said bracket, an arm on said bracket extending beyond the cylinder and a fan bracket adjustably connected to said arm.

4. In a device of the class described, the combination with a hydrocarbon motor, of a bracket supported on the cover of the motor cylinder, a support for high tension electric cables mounted on said bracket, an arm on said bracket extending beyond the edge of the cylinder and provided with a vertical hole, a fan bracket on the side of said cylinder having an upper screw-threaded portion extending through said arm, and nuts on said screw-threaded portion on opposite sides of said arm.

5. In a device of the class described, the combination with a hydrocarbon motor, of a bracket supported on the cover of the motor cylinder comprising an upright web, a transverse flange and an end arm projecting beyond the edge of the cylinder, a support for high tension electric cables secured on said transverse flange, and a fan bracket at the side of said cylinder having its upper end secured to said arm.

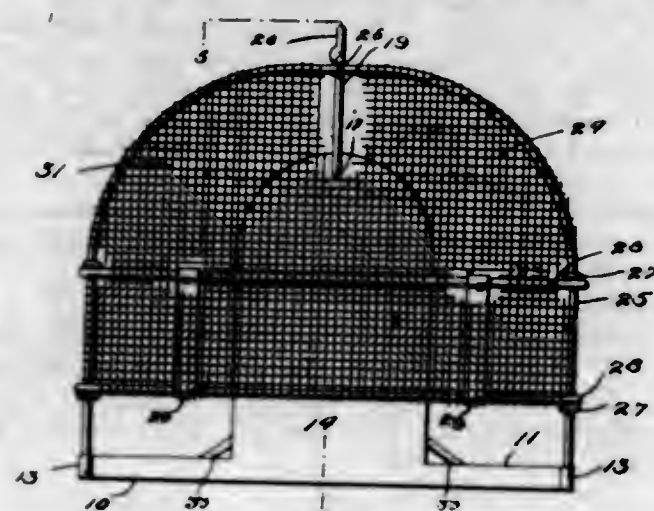
[Claims 6 and 7 not printed in the Gazette.]

1,082,027. FLY-TRAP. DANIEL WILLIAM JOHN, Dempsey, Idaho, assignor of one-half to George John, Dempsey, Idaho. Filed Apr. 25, 1912. Serial No. 693,174. (Cl. 43—22.)

1. In a fly trap, a pan formed with corner sockets and adapted to contain a section of absorbent material, said pan having side portions centrally located to form clamping members, a liquid containing tank held between said side portions and means provided to supply the same to said material, a ball connecting the upper ends of said side portions and a frame of wire mesh having leg portions adapted to engage the sockets and provide a surrounding entrance opening.

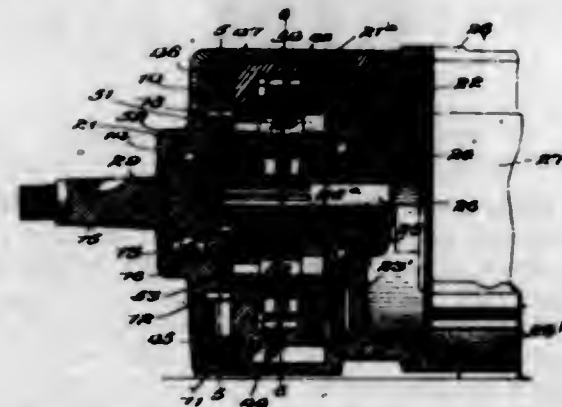
2. A trap comprising a pan formed of a section of metal with its edges bent to form a surrounding flange, certain of said edges having extended portions bent to form sockets, side clamping members formed with the said section, a receptacle held therebetween and having a removable

closure, a wick tube extending into the receptacle, a wick therein and depending into the pan for supplying poison to the latter by capillary attraction, a protective cover having



side frame members engaged with the sockets and a ball connecting the clamping members to extend through the cover.

1,082,028. TRANSMISSION-GEARING. EDWARD L. JONES and CHARLES H. ROTH, Chicago, Ill., assignors to Jones Electric Starter Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 21, 1913. Serial No. 743,376. (Cl. 74—34.)



1. In transmission gearing of the character described, a rotatable planetary gear carrier, planetary gears rotatably mounted thereon, a shaft provided with means to rotate the planetary gears upon their axes, a gear having permanent engagement with the planetary gears, means whereby said gear is free to rotate in one direction and positively prevented from rotating in a reverse direction, a second shaft connected with the rotatable planetary gear carrier, and clutch mechanism between the first and second named shafts.

2. In transmission gearing of the character described, a rotatable planetary gear carrier, planetary gears rotatably mounted thereon, a shaft provided with a gear to engage the planetary gears for rotating them upon their axes, a control gear engaging the planetary gears, means to positively prevent the rotation of the control gear in one direction, a second shaft connected with the planetary gear carrier, friction clutch mechanism between the first and second named shafts, and, centrifugally operated means carried by the planetary gear carrier and adapted to operate the friction clutch mechanism.

3. In transmission gearing of the character described, a rotatable planetary gear carrier, planetary gears rotatably mounted therein and extending radially beyond the periphery of the same, a shaft to be connected with an armature and extending into the central portion of the planetary gear carrier, a gear connected with the shaft and engaging the inner sides of the planetary gears, a second shaft connected with the planetary gear carrier, friction clutch mechanism connecting the first and second named shafts, a control casing surrounding the planetary gear carrier, an internal annular gear rigidly connected with the control casing and engaged by the outer sides of the

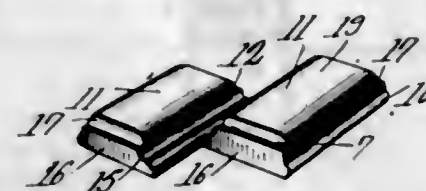
planetary gears, inwardly swinging pawls connected with the control casing, and a stationary ratchet wheel to be engaged by the pawls.

4. In transmission gearing of the character described, a stationary casing provided with an opening, a ratchet wheel rigidly connected with one end of the casing adjacent the opening, a rotatable planetary gear carrier mounted within the stationary casing, a shaft connected with the planetary gear carrier and extending through the opening, planetary gears mounted within the planetary gear carrier and extending radially beyond the periphery of the same, a second shaft, a gear disposed within the planetary gear carrier to engage the inner sides of the planetary gears and connected with the second shaft, a rotatable control casing disposed between the planetary gear carrier and the stationary casing, an internal annular gear carried by the control casing and engaging the outer sides of the planetary gears, pawls pivotally connected with the control casing and extending inwardly to engage the stationary ratchet wheel, friction clutch mechanism serving as additional connecting means between the first and second named shafts, and means to actuate the friction clutch mechanism including a suitable number of weights pivotally mounted within the planetary gear carrier.

5. In transmission gearing of the character described, a shaft, a cup-shaped shell connected therewith, a planetary gear carrier connected with the cup-shaped shell and provided with a central opening, a second shaft extending into the central opening and the opening of the cup-shaped shell, a plurality of alternate sets of friction disks mounted within the cup-shaped shell, one set being splined to the cup-shaped shell and the other set being splined to the second named shaft, a gear carried by the second named shaft near the friction disks, planetary gears connected with the planetary gear carrier and having their inner sides engaging said gear, an annular gear surrounding the planetary gear carrier and engaging the planetary gears, and pawl and ratchet mechanism to positively prevent the annular gear from rotating in one direction and allowing the same to rotate freely in the opposite direction.

[Claims 6 to 14 not printed in the Gazette.]

1,082,029. HEAVY-CAR TIRE. FRANKLIN W. KREMER, Rutherford, N. J. Filed Apr. 21, 1911. Serial No. 622,507. (Cl. 152—9.)



A tire fashioned from blocks adapted for engagement at their outer edges by a rim, each block comprising spaced terminally overlapped ribs having their end faces disposed out of alignment transversely of the tire and having their inner longitudinal edges coincident with the median line of the tire and connected at the overlapped portions.

1,082,030. PIPE. ALONZO W. LARISON and JACOB STUCKEL, Lincoln, Ill.; said Larison assignor to said Stuckel. Filed May 19, 1911. Serial No. 628,325. (Cl. 131—12.)

A tobacco pipe comprising a bowl having a neck extending obliquely therefrom and provided with a socket terminating short of the bottom of the bowl, and a nicotin trap fitted snugly in said socket and having a removable closure for its lower end and an inlet passage provided by a groove cut in the walls thereof, said neck being bored to provide a passage extending from the rear portion of the bottom of the bowl and upwardly within the neck and above the socket, the upper end of the passage discharging into the upper end portion of the inlet of the nicotin

trap, said passage being of uniform diameter and being straight for the greater portion of its length, the upper



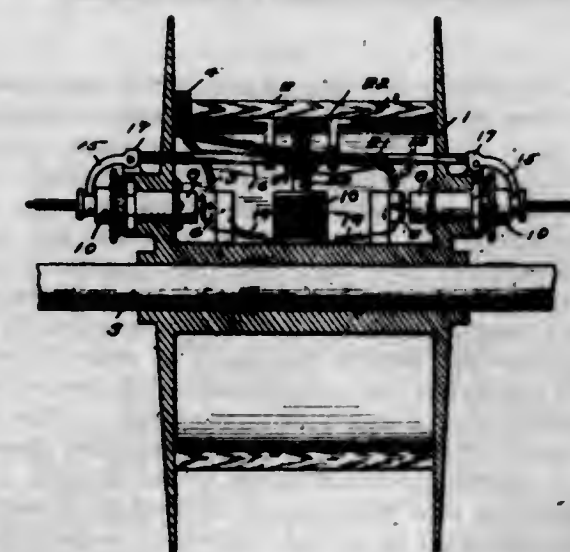
and lower end portions of said passage being curved toward the trap inlet and the interior of the bowl respectively.

1,082,031. WIND-SHIELD TUBE. DWIGHT B. LEE, Detroit, Mich. Filed Oct. 5, 1912. Serial No. 724,130. (Cl. 189—77.)



A wind shield tube, comprising an arched outer member having the sides of the arch terminating in outwardly extending flanges, a comparatively shallow U-shaped tie strip fitted within the open end of the outer member and having the sides thereof terminating in outwardly extending flanges, said flanges rigidly interlocking with the flanges of the outer member forming beads, the portions of the sides of the outer member adjacent the flanges being rigidly held against the sides of the U-shaped tie strip by said beads, and the latter forming reinforcements arranged adjacent the engaging portions of the sides of the outer member and the tie strip.

1,082,032. CONNECTING DEVICE FOR ELECTRIC CONDUCTORS. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Mar. 11, 1910. Serial No. 548,664. (Cl. 173—324.)



1. In a mechanism of the class described, the combination of two elements adapted to be maintained at different electrical potentials, terminals connected one to each element, conductor plugs adapted to each engage a terminal, and automatic means for locking the plugs in engagement with the terminals when the elements are at different potentials, the operation of the said means being dependent upon the difference in potential of the two said elements, substantially as set forth.

2. In a mechanism of the class described, the combination of a plurality of elements adapted to be maintained

at different electrical potentials, terminals connected one to each element, conductor plugs adapted to each engage a terminal, and automatic means for preventing the engagement or disengagement of the plugs and the terminals, the operation of the said means being dependent upon the difference in potential of one of the said elements from another, substantially as set forth.

3. In a mechanism, of the class described, the combination of two elements adapted to be maintained at different electrical potentials, an electro-magnetic device electrically connected between the said two elements to receive its energizing current from them, a terminal connected to one of the elements, a conductor plug adapted to engage the terminal, and means automatically controlled by the electro-magnetic device for locking the plug in engagement with the terminal when the two elements are at different potentials, substantially as set forth.

4. In a mechanism of the class described, the combination of two elements adapted to be maintained at different electrical potentials, an electro-magnetic device electrically connected to the said elements, a terminal connected to one of them, a conductor plug adapted to engage the terminal, and means controlled by the electro-magnetic device for preventing the engagement or disengagement of the plug with the terminal when the two elements are at different potentials, substantially as set forth.

5. In a mechanism of the class described, the combination of two contacts adapted to engage each other, an element adapted to be maintained at a different electrical potential from one of them, and automatic means for preventing the engagement or disengagement of the contacts, the operation of the said means being dependent upon the difference in potential of the said element from the said contact, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,082,033. TYPE-WRITING MACHINE. MARQUIS H. LOCKWOOD, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 16, 1912. Serial No. 720,493. (Cl. 197-179.)



1. In a typewriter the combination with key actuated tabulator stops of a plurality of tappet stops a letter space distance apart, each independently movable into operative position to cooperate with said key actuated stops, a rock shaft supporting said tappet stops means adapted, when rocking said shaft in one direction, to move the tappet stops individually into the operative position, means adapted, when rocking said shaft in the other direction, to restore any stops in operative position to inoperative position and means for rocking said shaft in either direction.

2. In a typewriter the combination with key actuated tabulator stops of a plurality of tappet stops a letter space distance apart, each independently movable into operative position to cooperate with said key actuated stops, a rock shaft supporting said tappet stops, a fixed finger adjacent to said key actuated stops and adapted to cooperate with said tappet stops individually in moving the same to operative position, a universal restoring bar operative on all of said stops and means for rocking said shaft in one direction to move said tappet stops, when in cooperative relation with said finger, into operative position and in the other direction to cooperate with said bar and restore any stops in operative position to inoperative position.

3. In a typewriter the combination with key actuated tabulator stops of a plurality of tappet stops a letter space distance apart, each independently movable into operative position to cooperate with said key actuated stops, a rock shaft supporting said tappet stops, means for rocking said

shaft in either direction from its normal position and resilient means for returning said shaft to normal position after the same has been rocked in either direction.

4. In a typewriter the combination with key actuated tabulator stops of a plurality of tappet stops a letter space distance apart, each independently movable into operative position to cooperate with said key actuated stops, a rock shaft supporting said tappet stops, means for rocking said shaft in either direction from its normal position, resilient means for returning said shaft to normal position after the same has been rocked in either direction, and means for preventing overthrow of said shaft when the same is being returned to normal position by said resilient means.

5. In a typewriter the combination with key actuated tabulator stops of a plurality of tappet stops a letter space distance apart, each independently movable into operative position to cooperate with said key actuated stops, a rock shaft supporting said tappet stops, and movable in either direction from a normal position, means for holding the tappet stops to turn with said shaft, independent means for holding individual tappet stops from turning with said shaft in order to position the stops to cooperate with said key actuated stops, means for simultaneously holding any stops in operative position from turning with said shaft in order to restore used stops to inoperative position and means for rocking said shaft in one direction to set the tappet stops to operative position and in the other direction to restore any set stops to inoperative position.

[Claims 6 to 10 not printed in the Gazette.]

1,082,034. SPRING SASH-BALANCE. GEORGE J. MACLAUGHLIN and JAY L. WILLARD, Rochester, N. Y., assignors to Pullman Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 19, 1913. Serial No. 749,558. (Cl. 16-115.)



In a sash-balance, the combination, with a face-plate having rearwardly-projecting lateral ears, a pulley-casing mounted between said ears, a pulley located within the pulley-casing and having a lateral web-portion and a rim, and a coiled spring inclosed within the pulley and connected thereto at its outer end, of a pivot-member extending through said ears, said pulley-casing, and said pulley, and comprising pintles seated in said ears, and a central enlarged portion constituting an anchorage for the inner end of the spring, one of said pintles forming a bearing for the web-portion of the pulley, and the other pintle having a non-circular portion, and the pulley-casing having a non-circular opening embracing said non-circular portion and preventing rotation of the pivot-member.

1,082,035. PROCESS OF MANUFACTURING A WATER-PROOF MORTAR. ADOLF MARKUS, Dresden, Germany, assignor to August Prée, Dresden, Germany. Filed July 17, 1912. Serial No. 710,037. (Cl. 106-45.)

1. The process of manufacturing a water proof mortar, consisting in mixing a pulverized soluble soap, a pulverized soluble aluminate, and pulverized hydrate of lime with each other, and adding the mixture to the mortar.

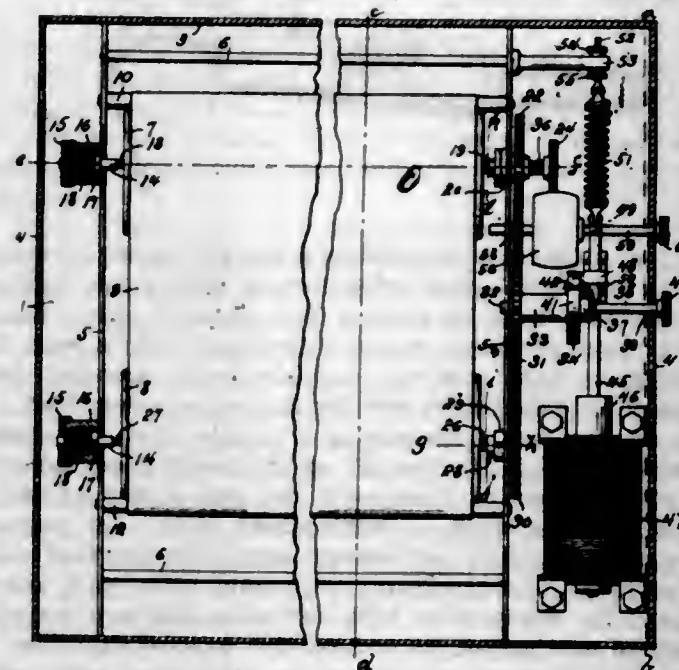
2. The process of manufacturing a water proof mortar, consisting in mixing a pulverized soap of oleate of sodium, a pulverized soluble aluminate, and pulverized hydrate of lime with each other, and adding the mixture to the component parts of the mortar.

3. The process of manufacturing a water proof mortar, consisting in mixing a pulverized soluble soap, a pulverized soluble aluminate, and pulverized caustic lime with each other, and adding the mixture to the component parts of the mortar before the formation of the mortar therefrom.

4. The process of manufacturing a water proof mortar, consisting in mixing a pulverized soluble soap, a pulverized soluble aluminate, pulverized hydrate of lime, and a pulverized indifferent substance with each other, adding the mixture to the component parts of the mortar, and mixing up the whole with water by stirring.

5. The process of manufacturing a water proof mortar, consisting in mixing a pulverized soluble soap, a pulverized soluble aluminate, pulverized hydrate of lime, and pulverized clay with each other, adding the mixture to the component parts of the mortar to be produced and converting the whole into mortar by stirring it with water.

1,082,036. STATION-INDICATOR. CORNELIUS P. McDONNELL, Kansas City, Mo. Filed Apr. 15, 1912. Serial No. 690,743. (Cl. 40-95.)



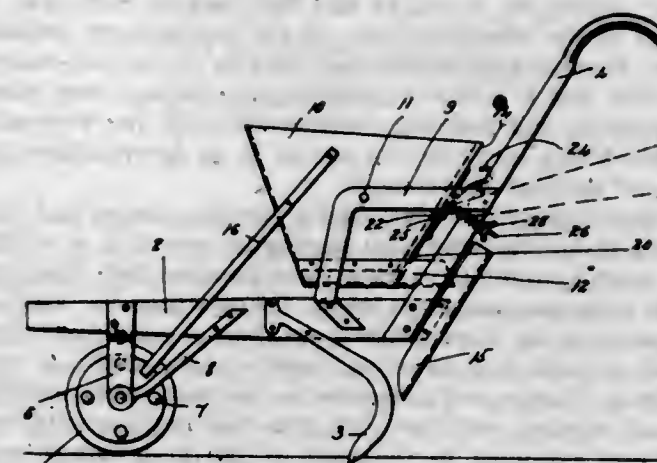
1. In a station indicator, two rollers, an indicating band secured to said rollers and adapted to wind on one roller as it unwinds from the other, two rotary members one of which is rotative with one of said rollers, a coil spring secured to the other rotary member and to the other of said rollers, gearing connected to one of said rotary members and including a ratchet device connected with the other rotary member which is connected to said spring and by which the last named rotary member may be turned without turning the other rotary member, and means for driving said gearing.

2. In a station indicator, two rollers, an indicating band secured to the rollers and adapted to wind on one roller as it unwinds from the other, two rotary members one of which is rotative with one of said rollers, a coil spring secured to the other roller and to the other rotary member, two pinions, two ratchet members secured one to the rotary member which is secured to the spring, the other being secured to one of said pinions, the other pinion being rotative with the rotary member which is not secured to the spring, and means for simultaneously driving said pinions.

3. In a station indicator, two rollers, an indicating band secured to the rollers and adapted to wind on one roller as it unwinds from the other, two rotary members one of which is rotative with one of said rollers, a coil spring se-

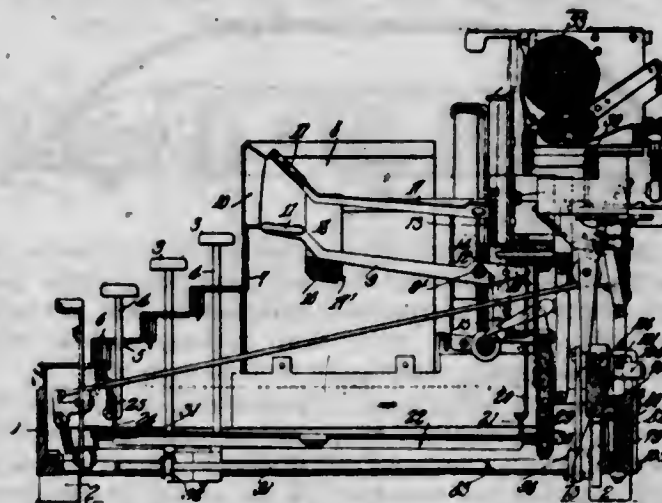
cured at one end to the other rotary member and at the other end to the other roller, two ratchet members engaging with each other one ratchet member being rotative with the rotary member to which the spring is secured, two pinions one of which is secured to the other ratchet member and the other of which is secured to the rotary member which is not secured to the spring, a gear wheel meshing with said pinions, and means for driving said gear wheel.

1,082,037. FERTILIZER-DISTRIBUTER. EUGENE MIDDLEBROOKS, Hillsboro, Ga. Filed Apr. 25, 1913. Serial No. 763,544. (Cl. 111-33.)



In a fertilizer distributor, the combination, with a cultivator beam provided with a ground wheel and a cultivator blade, of a hopper pivotally supported from the beam and provided with a discharge spout, knocker mechanism for oscillating the hopper from the ground wheel as the machine is drawn along, an adjustable discharge plate having a longitudinal slot in its upper part and cross-notches at the sides of the slot, said plate being arranged against the rear side of the hopper and projecting into its discharge spout, a retractable handle having its lower end hinged to the rear side of the hopper and arranged in the slot of the discharge plate, said handle having a hole in its middle part and having crosspieces adjacent to the hole, a pin projecting from the hopper and arranged in the said hole and provided with a nut at its free end portion, and a spring encircling the pin between the handle and the nut and holding the crosspieces in engagement with the notches of the discharge plate.

1,082,038. TYPE-WRITER. JOHN E. MOLLE, Sturgeon Bay, Wis. Filed Aug. 3, 1908. Serial No. 446,677. Renewed Dec. 12, 1911. Serial No. 665,378. (Cl. 197-73.)



1. In a typewriter, a series of pivoted type levers, each carrying a number of printing characters in longitudinal series and movable to a vertical position for operation, a platen in the path of the printing characters on the type levers and vertically adjustable to bring it into operative relation to the different characters on the type levers, and means for effecting the vertical adjustment of the

platen comprising a support for the same consisting of a triangular frame having vertical guide ways at its ends near the top on fixed portions of the frame of the machine, a single intermediate guideway near the bottom of the machine, a plurality of actuating keys for the frame, and connections therefrom to a single point on the triangular frame for moving the latter in a vertical direction.

2. In a typewriter, a platen movable in a vertical plane to a plurality of positions, and means for effecting the vertical movement of the platen comprising a support therefor movable with the platen, a rock shaft connected to said support, a key-controlled rock arm fast on said shaft, another key-controlled rock arm loose on said shaft and having means for engaging the first named rock arm to move it in the same direction as the key directly controlling it, another rock shaft connected to the second named rock arm, and a stop controlled by the second rock shaft for engaging and limiting the movement of the vertically movable frame carrying the platen to an intermediate position of vertical adjustment.

3. In a typewriter, a vertically movable platen and supporting frame therefor also vertically movable, a sliding lock member provided with a part movable into the path of the platen-supporting frame for limiting its vertical movement to an intermediate position, a rock shaft connected to said lock member, another rock shaft, a rock arm loose thereon and connected to the rock shaft carrying the lock member, another rock arm fast on the second rock shaft and arranged in the path of the first named rock arm, and keys for operating the said rock arms.

4. In a typewriter, a vertically movable platen, a vertically movable support carrying the same, a lock for determining the extent of vertical movement of the platen, a key-actuated means for moving the frame and platen in a vertical direction, another key-actuated means for moving the lock into engagement with and limiting the vertical movement of the platen-supporting frame, and a yielding connection between the lock member and the key-actuated means therefor.

5. In a typewriter, a vertically adjustable platen, type levers each carrying a number of printing characters, and means for adjusting the platen vertically, said means including vertical side guides, an intermediate guide, means movable upwardly and downwardly with the platen for engaging said guides, a plurality of keys, and means for transmitting motion from said keys to a single point movable vertically with the platen.

1,082,039. AIRSHIP. DEMPSEY G. NEWSOME, Butler, Mo. Filed Jan. 31, 1910, Serial No. 541,143. Renewed May 17, 1913. Serial No. 768,352. (Cl. 244-10.)



1. An air ship comprising a suitable car, and means for supporting and propelling the car, comprising pipes having vertically and horizontally directed outlets, movable abutments coöperative with said outlets, and a compressor for supplying compressed fluid to each pipe.

2. An air ship comprising a suitable car, and means for supporting and propelling the same comprising pipes having vertically and horizontally directed outlets arranged toward opposite side and ends of the car to project compressed fluid therefrom, reciprocable abutments coöperative with said outlets, compressing means for supplying compressed fluid to said pipes, and means for varying the amount of compressed fluid delivered to the respective pipes whereby equilibrium of the car may be maintained.

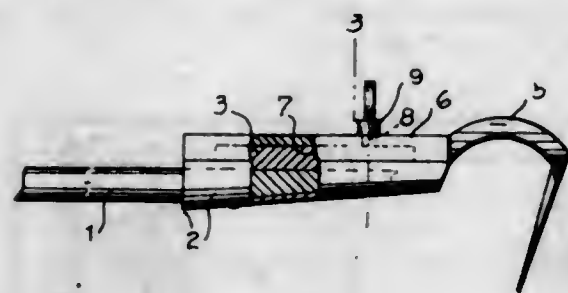
3. An air ship comprising a suitable car, a suitable number of plungers, each plunger being reciprocable vertically and having its under side exposed to the at-

mosphere at the under side of the car, means carried by the car for reciprocating each plunger, horizontally movable plungers arranged toward the ends of the car, means for reciprocating each horizontally movable plunger, and means for directing fluid under pressure against the horizontally and vertically reciprocable plungers.

4. An air ship comprising a suitable car, a pair of plungers arranged toward the front and rear thereof and having means for reciprocating them longitudinally, and means for directing fluid under pressure against the rear sides of both of said plungers and against the forward side of one of said plungers.

5. An air ship comprising a suitable car, a casing mounted at one end thereof, a member arranged in said casing and having front and rear faces both exposed to the atmosphere, pipes having outlets for projecting fluid against the front and rear faces respectively of said member, compressing means for supplying fluid under pressure to said pipes, and means for controlling the action of said fluid under pressure against the forward or rear faces of said member.

1,082,040. GARDEN-TOOL. ELMER L. NOLAN, Elkhart, Ind. Filed Mar. 29, 1913. Serial No. 757,679. (Cl. 55-101.)



1. An implement comprising a handle having a socket at one end, said socket being formed with a longitudinal rib intermediate of its ends, a tool provided with a shank having a longitudinal groove intermediate of its ends for engagement with said rib, and means for securing said shank to said socket, as and for the purpose described.

2. An implement comprising a handle having a socket at one end, a longitudinal rib on said socket, an upstanding stem projecting from said rib, and a tool having a shank provided with a longitudinal groove for engagement with said rib, said shank being also provided with an opening for engagement with said stem, and means adapted for engagement with said stem for securing said shank to said socket, as and for the purpose described.

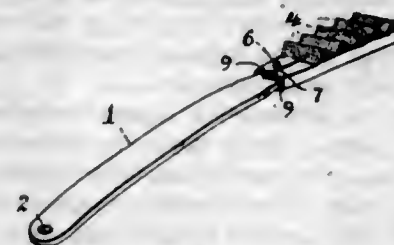
3. An implement comprising a handle-socket, said socket being provided with a longitudinal rib, an upstanding threaded stem projecting from said rib, and a tool having a shank provided with a longitudinal groove for engagement with said rib, said shank being also provided with an opening to receive said stem, and a nut adapted for threaded engagement with said threaded stem to bear against said shank, as and for the purpose described.

4. An implement comprising a handle having a socket at one end, said socket being formed with a longitudinal rib terminating short of its ends, an upstanding threaded stem projecting from said rib, a tool having a shank provided with a longitudinal groove intermediate of its ends, said groove being substantially the length of said rib, said shank being also provided with an opening adapted to engage said stem, and means connected to said stem for clamping said shank to said socket, as and for the purpose described.

1,082,041. TOOTH-BRUSH. NATHANIEL EMMONS PAINE, West Newton, Mass. Filed Jan. 20, 1912. Serial No. 672,386. (Cl. 15-30.)

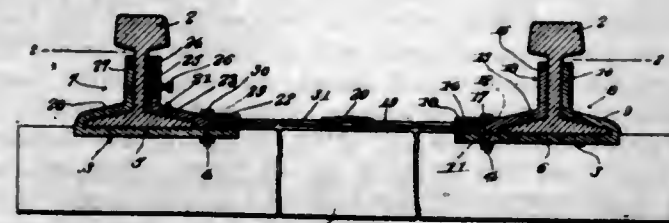
A tooth cleansing device comprising a handle, formed with a flattened end and a narrowed neck, and a fabric woven in the form of a pocket fitting said flattened end and having a pile upon one side thereof, the outer or open end of said pocket being slit to enable said end to be

tightened about said neck by overlapping the edges of the slit, and means for fastening said overlapping edges



in place, whereby said pocket is held in place on said handle.

1,082,042. COMBINED RAIL BRACE AND SPLICE. WILLIAM M. PALMER, Taft, Cal. Filed May 21, 1913. Serial No. 769,062. (Cl. 239-6.)

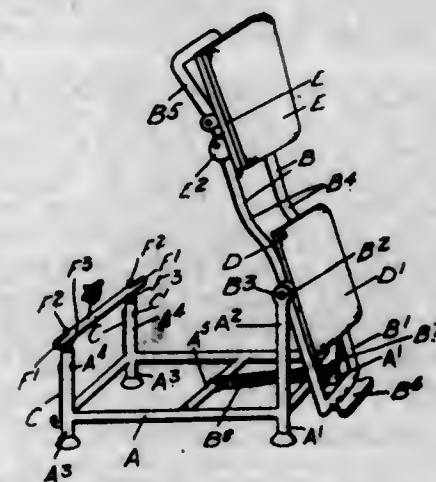


1. In a device of the class described, the combination, a tie, chair members having rail engaging ends seated upon the tie, and the said chairs adapted to receive the rails, brace members having rail engaging portions adjustably connected with the chairs, and means arranged between the said brace members for forcing the same toward or out of contact with the rails, and means for locking the brace members upon the chairs in adjusted position.

2. In a device for the purpose set forth, the combination, a tie having elongated depressions, chair members having rectangular base portions arranged within the depressions and closing the said depressions, each of said brace members having its outer portion formed with a rail engaging member, rails upon the base members of the chairs and contacting with the rail engaging portions thereof, brace members arranged upon the base portions of the chairs at the inner side of the rail, one of said brace members having adjustable elements adapted to be brought into contact with the webs of the rails, means for longitudinally adjusting the brace members upon the chair members, and means for securing the brace members upon the chair members.

3. In a device for the purpose set forth, the combination, a tie having its upper face adjacent its end formed with an elongated depression, the upper face of which adjacent its inner wall having a transverse passage, chair members adapted to be seated within the depressions, each of said members having its base formed upon its outer edge with an overhanging rail base engaging member and an extending plate adapted to engage with the outer side of the web of the rail, the base of each of the chairs having openings which are disposed above the transverse passage of the tie, brace members, each of said brace members comprising a flat body having an angular flange extension which is adapted to overlie the base of the rails upon the inner faces of the rails, and being further provided with vertical plates disposed at the inner sides of the webs of the rails, said plates having threaded openings, threaded members for the openings, the bodies of each of the braces adapted to overlie the ends of the base members of the clamps not engaged by the rails, the said bodies having elongated slots, bolt members having their heads received within the passages of the ties and contacted by the side walls thereof, said bolts having their shanks projecting through the openings in the base members of the chairs and the bodies of the brace members, nuts for the bolts, the bodies having threaded depressions, a threaded rod for each of the said depressions, rods having their free ends oppositely threaded, and a turnbuckle for the said ends.

1,082,043. OPERATING ADJUSTABLE TABLE. GEORGE PAYNE and WILLIAM JOHN GALBRAITH, Orillia, Ontario, Canada. Filed Jan. 20, 1913. Serial No. 743,122. (Cl. 45-50.)

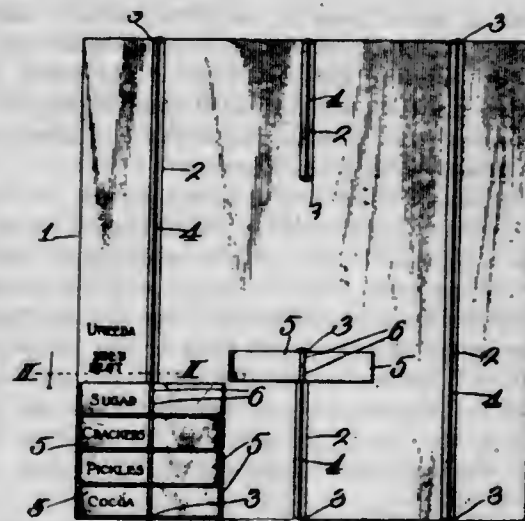


1. An operating table comprising a main support, a table top pivoted to the main support at one side of its longitudinal center and adapted to be swung from horizontal to approximately vertical position, resilient means connecting said table to said support for counterbalancing the weight of said table when swung from vertical to horizontal position, and a resilient support carried by the main support for supporting the free end of the table when in its horizontal position.

2. In an operating adjustable table, the combination with the main supporting frame, of a table pivoted intermediate of its length in the main support and designed when swung up at one end to extend at the opposite end in proximity to the floor and to be supported by the frame when swung downwardly in to its horizontal position, a resilient support carried by the main support for supporting the free end of the table when in its horizontal position, as and for the purpose specified.

3. In an operating adjustable table, the combination with the main supporting frame, of a table pivoted intermediate of its length in the main support, and designed when swung up at one end to extend at the opposite end in proximity to the floor and to be supported by the frame when swung downwardly in to its horizontal position, compression springs carried by the main frame, and a cross bar carried by the compression springs and extending beneath the free end of the table when in its horizontal position, as and for the purpose specified.

1,082,044. PERPETUAL KITCHEN-REMINDER. HERBERT H. READY, LOUIS C. CONNOR, and LAWRENCE C. BEVANS, Kansas City, Mo. Filed Aug. 12, 1912. Serial No. 714,729. (Cl. 40-61.)

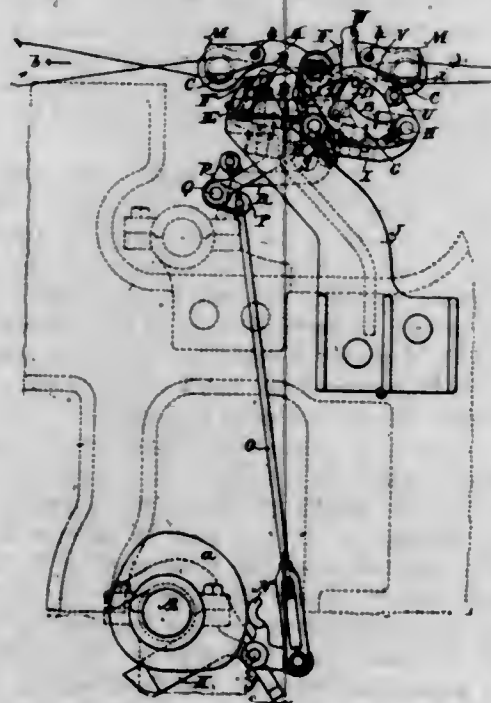


1. A perpetual kitchen reminder, comprising a backing plate provided with a plurality of brands or symbols on its face, a vertical resilient hinge rod supported in spaced relation to the face of said plate, and a series of movable

plates each covering one of said brands or symbols and provided on its face with the name of an article identified by such brand, said movable plates having square hinge portions for embracing said rod whereby said movable plates are yieldingly held parallel with the backing plate or at right angles thereto to expose said brands or symbols.

2. A perpetual kitchen reminder, comprising a backing plate provided with a plurality of vertical rows of brands of symbols on its face, a vertical hinge rod carried by said plate between each pair of said rows, and a plurality of movable plates each covering one of said brands or symbols and provided on its face with the name of an article identified by such brand, said movable plates each having a tubular hinge portion extending half-way across one end thereof, whereby the movable plates of each pair of rows may be step-jointed together upon the hinge rod between said rows.

1,082,045. WARP STOP-MOTION FOR LOOMS. ALONZO E. RHODES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 29, 1911. Serial No. 624,120. (Cl. 139-92.)



1. A warp stop motion for a loom having, in combination, a plurality of supporting rods extending transversely of the loom beneath the warp; a bank of thin sheet metal detectors loosely pivoted at their lower ends on each of said rods and transversely movable thereon and each detector having a thread-eye at its upper end through which one of the warp threads passes; and a positioning bar forward of each bank of detectors which maintains said detectors in an inclined position when the warp threads are intact, the forward feed of the warp threads bringing the detectors against said positioning bar, and the several positioning bars maintaining the several banks of inclined detectors in parallelism.

2. A warp stop motion for a loom having, in combination, a supporting rod extending transversely of the loom beneath the warp; a bank of thin sheet metal detectors loosely pivoted at their lower ends on said rod and transversely movable thereon, and each having a thread-eye at its upper end through which one of the warp threads passes; and a positioning bar forward of said bank of detectors which maintains said detectors in an inclined position when the warp threads are intact, the forward feed of the warp threads bringing the detectors against said positioning bar.

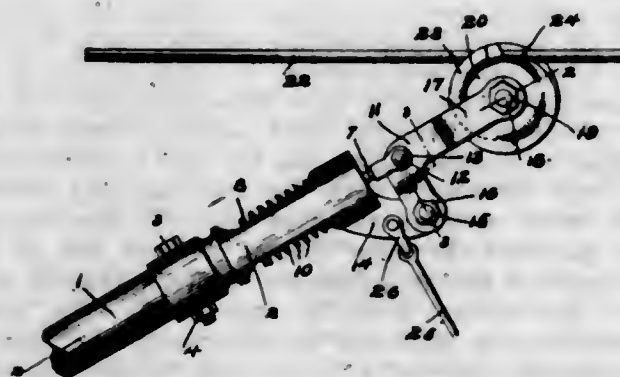
3. A warp motion for a loom having, in combination, a supporting rod extending transversely of the loom beneath the warp; a bank of thin sheet metal detectors pivoted at their lower ends on said rod and each having

a thread-eye at its upper end through which one of the warp threads passes; and a positioning bar forward of said bank of detectors which maintains said detectors in an inclined position when the warp threads are intact, the forward feed of the warp threads bringing the detectors against said positioning bar.

4. A warp stop motion for looms comprising lease rods dividing the warp threads into two intersecting planes; two supporting rods extending transversely of the loom beneath the warp threads and at opposite sides of the intersection of said leased planes; and two parallel banks of thin sheet metal detectors supported respectively by the lower crossing planes of the warp threads between the lease rods and likewise by said rods, each detector being pivoted to one of said rods and having an eye at its upper end through which one of the warp threads passes, no part of one detector ever encountering a thread in the crossing warp-plane.

5. A warp stop motion for looms comprising lease rods dividing the warp threads into two intersecting planes; two supporting rods extending transversely of the loom beneath the warp threads and at opposite sides of the intersection of said leased planes; and two parallel banks of thin sheet metal detectors supported respectively by the lower crossing planes of the warp threads between the lease rods and likewise by said rods, each detector being pivoted to one of said rods and having an eye at its upper end through which one of the warp threads passes. [Claims 6 to 11 not printed in the Gazette.]

1,082,046. TROLLEY. GEORGE LAWSON ROBERTSON, Philadelphia, Pa., assignor, by direct and mesne assignments, of one-fourth to Louis H. Schwartz and one-fourth to T. Kesler Schwartz, Philadelphia, Pa. Filed Mar. 19, 1913. Serial No. 755,312. (Cl. 64-70.)



1. The combination with a frame adapted to be secured on the end of a trolley pole, an angle lever pivotally connected at one end to the frame, a trolley wheel having rotary mounting in the other end of said angle lever, a rod pivotally connected to the angle lever and extending into the frame, a spring in the frame, said rod normally in substantial alignment with the wheel carrying member of the lever, and a spring seat secured on the rod and bearing at one end against the spring, substantially as described.

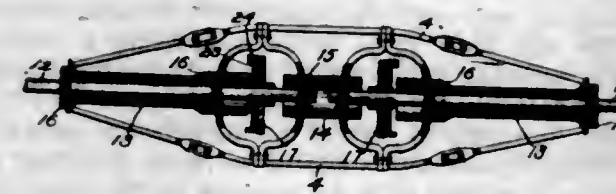
2. The combination with a tubular frame adapted to be secured on the end of a trolley pole, an arm on said frame at its outer end, an angle lever pivotally connected at one end to the arm, a trolley wheel supported at the other end of said angle lever, a rod pivotally connected to the lever at its angle and projecting into the frame, a coiled spring in the frame through which said rod projects, and a spring seat secured on said rod and bearing against the inner end of said spring, substantially as described.

3. The combination with a tubular frame adapted to be secured on the end of a trolley pole, an arm on said frame at its outer end, an angle lever pivotally connected at one end to the arm, a trolley wheel supported at the other end of said angle lever, a rod pivotally connected to the lever at its angle and projecting into the frame, a coiled spring in the frame through which said rod pro-

jects, a spring seat secured on said rod and bearing against the inner end of said spring, said angle lever at its point of juncture with said arm enlarged transversely and bifurcated receiving the end of said arm, and a bolt projected through aligned openings in the arm and in the bifurcated end of the lever, substantially as described.

4. The combination with a tubular frame adapted to be secured on the end of a trolley pole, an integral arm on said frame, an angle bracket pivotally connected at one end to said arm, a rod pivotally connected to the angle of said bracket and projecting into the tubular frame, a spring in said tubular frame around the rod, a spring seat secured on the rod against the inner end of the spring, said bracket bifurcated at its free end, a journal bolt secured in said bifurcated end of the bracket, and a trolley wheel on said journal bolt, substantially as described.

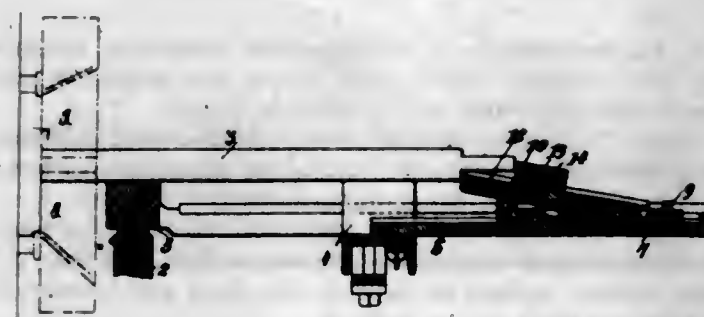
1,082,047. MOTOR-VEHICLE. LOUIS SANFORD ROSS, Newtonville, Mass. Filed Jan. 22, 1907. Serial No. 353,451. (Cl. 21-90.)



1. In a motor vehicle, the combination of a frame, an axially separated sectional hollow bearing axle, a sectional axle having its several ends journaled therein, two of said ends being journaled in the same bearing section, a driving wheel on each axle section and positioned between adjacent ends of said bearing axles, and an engine for separately driving each driving wheel.

2. In a motor vehicle or cycle, a frame, a plurality of separated tubular bearing axles, including one at each side of the frame and one arranged intermediate the same to provide a central bearing, said axles being arranged transversely and axially beneath the frame and provided with means for securing them thereto, a driving shaft mounted in each of the side bearing axles, having its inner end journaled in said central bearing axle, and an engine connected to each shaft intermediate its bearings for driving the same.

1,082,048. TENON-MACHINE GAGE. ANSON ROBERT RUMOUR, Vancouver, British Columbia, Canada. Filed July 9, 1913. Serial No. 778,182. (Cl. 144-198.)



1. A tenon gage, comprising a base member slidably adjustable on the table of the machine, a tenon-shoulder stop pivotally mounted on the base member and overbalanced so that the end toward the tenon cutters will when free project above the seat of the stock on the machine table, and a tenon length stop adjustably mounted on the shoulder gage member.

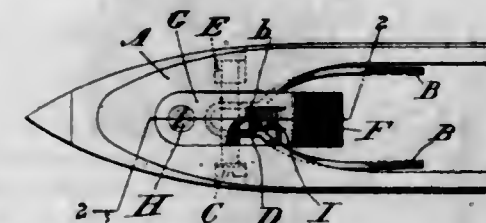
2. A tenon gage, comprising a base member slidably fitting a groove in the gage bar and means for securing the same in any desired position of lengthwise adjust-

ment, a tenon shoulder stop pivotally mounted on the base member the end of said stop projecting toward the cutters beyond the corresponding end of the base member, said shoulder stop being overbalanced whereby to project the projecting end of the shoulder gage stop above the seat of the stock and a tenon end stop adjustably secured on the shoulder gage stop.

3. A tenon gage stop, comprising a base member slidably fitting a groove in the gage bar and having means for securing it in any desired position of lengthwise adjustment therein, a tenon shoulder stop so pivotally mounted on the base member that the end toward the tenon cutters will when free project above the seat of the stock on the machine said shoulder gage member lengthwise grooved, and a tenon end gage member slidably mounted on the shoulder gage member and having provision for lengthwise adjustment thereon.

4. In combination with a table having a slot, of a tenon gage comprising a base member mounted for movement in said slot, a lug on said base member, a tenon shoulder stop pivotally mounted on said lug and overbalanced at one end to cause its other end to normally project above the seat of the stop on the machine table, said tenon shoulder stop having a longitudinal groove, and a tenon end stop having a tongue slidably mounted in said longitudinal groove, means for securing said tenon end stop in position, and means for securing said base member in position.

1,082,049. LOOM-SHUTTLE. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Original application filed Dec. 3, 1909, Serial No. 531,172. Divided and this application filed June 24, 1912. Serial No. 705,542. (Cl. 139-27.)



1. A loom shuttle having, in combination, a weft-carrier holding spring composed of a single piece of steel bent into shape with a double wall shank for connection with the shuttle; a retaining bolt passing through the body of the shuttle and through holes in the two walls of the said shank; and a weft-carrier guide having a securing top arm extending above the shuttle spring shank, said top arm having an integral down turned tongue extending into and fitting the space between the two walls of the shuttle spring shank.

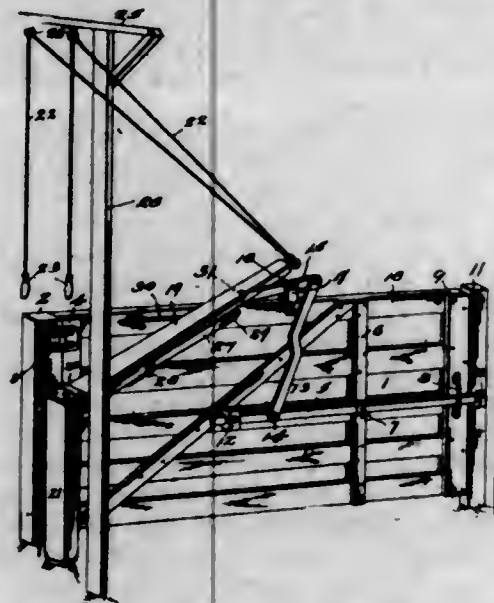
2. A loom shuttle having, in combination, a weft-carrier holding spring with a double wall shank for connection with the shuttle; a retaining bolt passing through the body of the shuttle and through holes in the two walls of the said shank; and a weft-carrier guide having an integral down turned tongue extending into and fitting the space between the two walls of the shuttle spring shank.

3. A loom shuttle having, in combination, a weft-carrier holding spring with a double wall shank for connection with the shuttle; a retaining bolt passing through the body of the shuttle and through holes in the two walls of the said shank; and a weft-carrier guide having a tongue extending into and fitting the space between the two walls of the shuttle spring shank.

1,082,050. GATE-OPERATING MECHANISM. LEONARD M. STONE, Pilot Grove, Mo. Filed May 12, 1913. Serial No. 767,119. (Cl. 39-14.)

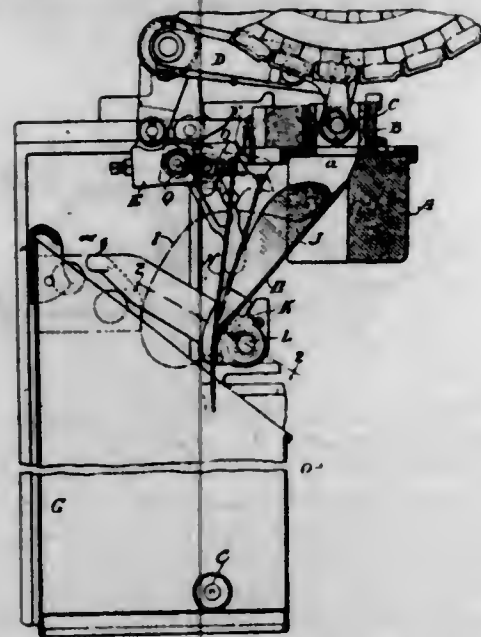
The combination with a gate latching device including a weighted latch pivoted to the gate, a pivoted lever and

a link, supported on the gate, of a gate opening device connected thereto and including a lever resting on the



latch lever to close the latch and removable therefrom to open the latch.

1,082,051. WEFT-CARRIER CHUTE, FOR AUTOMATIC WEFT-REPLENISHING LOOMS. MELVIN L. STONE, Waterville, Me., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 17, 1911. Serial No. 638,880. (Cl. 139-85.)



1. An automatic weft-replenishing loom having, in combination, a slotted lay and a bunter thereon; weft-replenishing mechanism comprising a transferer and a transferer dog, which is moved into the path of the lay bunter when the weft requires replenishment; and a guide chute adapted to receive spent weft-carriers discharged through the slot of the lay, said chute comprising a downwardly and forwardly inclined guide plate with side flanges, said guide plate being yieldingly mounted so as to tilt forward should an emergency require, and a yielding flexible apron, supported by and moving with the transferer dog, said apron constituting the front wall of said chute and bearing near its lower portion upon the guide plate, said apron and guide plate diverging upwardly from their place of contact.

2. An automatic weft-replenishing loom having, in combination, a slotted lay and a bunter thereon; weft-replenishing mechanism comprising a transferer and a transferer dog, which is moved into the path of the lay bunter when the weft requires replenishment; and a guide chute adapted to receive spent weft-carriers discharged through the slot of the lay, said chute comprising a downwardly and forwardly inclined guide plate with side flanges, and a yielding apron, supported by and moving with the trans-

ferer dog, said apron constituting the front wall of said chute and bearing near its lower portion upon the guide plate, said apron and guide plate diverging upwardly from their place of contact.

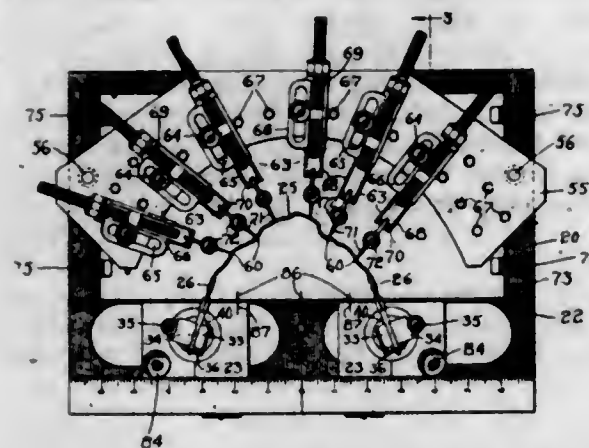
3. An automatic weft-replenishing loom having, in combination, a slotted lay and a bunter thereon; weft-replenishing mechanism comprising a movable transferer, and a guide chute adapted to receive spent weft-carriers discharged through the wall of the lay, said chute having an apron which is moved into position when the transferer acts.

4. An automatic weft-replenishing loom having, in combination, a guide chute for receiving and conveying spent weft-carriers discharged from the loom, said guide chute comprising a yieldingly mounted inclined guide plate with side flanges, and a yielding apron in front of said guide plate, said guide plate and apron diverging upwardly to present a wide entrance mouth, and said apron being operatively mounted so as to be raised when a spent weft-carrier is to be received in the guide chute.

5. An automatic weft-replenishing loom having, in combination, a lay slotted for the discharge of spent weft-carriers, a guide chute with its mouth below the lay slot for receiving and conveying spent weft-carriers discharged from the lay, said guide chute comprising a yieldingly mounted inclined guide plate, and a yielding apron in front of said guide plate, said guide plate and apron diverging upwardly to present a wide entrance mouth, said apron being operatively mounted so as to be raised when a spent weft-carrier is to be received in the guide chute, and being attached near its upper end with its lower end free, said lower free end normally resting upon the lower end of the guide plate.

[Claims 6 to 10 not printed in the Gazette.]

1,082,052. INSTRUMENT FOR RECORDING CHANGES IN TOOTH-REGULATING APPLIANCES. ROBERT H. W. STRANG, Bridgeport, Conn. Filed May 9, 1913. Serial No. 766,578. (Cl. 234-1.)



1. An instrument of the character described, comprising arch holding chucks and means for adjusting said chucks independently in the vertical plane.

2. An instrument of the character described, comprising arch holding chucks and means for imparting universal adjustment to each chuck independently.

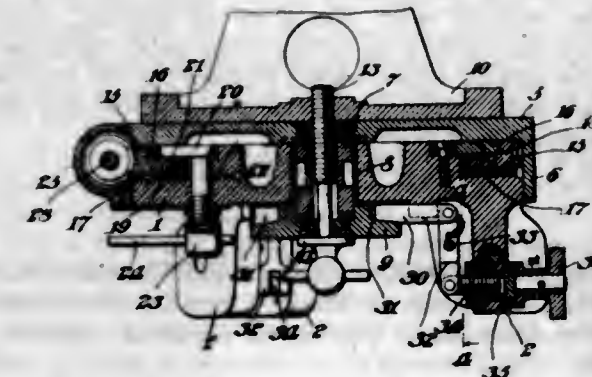
3. An instrument of the character described, comprising arch holding chucks each having a stem and ball, carriers having sockets to receive the balls and means for locking the balls in the sockets.

4. An instrument of the character described, comprising arch holding chucks each having a stem and ball, carriers having sockets to receive the balls, means for locking the balls in the sockets and means for imparting vertical movement to the carriers.

5. An instrument of the character described, comprising arch holding chucks each having a stem and ball, carriers having sockets to receive the balls, means for imparting vertical movement to the carriers, means for holding the carriers against movement without locking, means for locking the carriers and means for locking the balls in the sockets.

[Claims 6 to 26 not printed in the Gazette.]

1,082,053. TRIPOD-HEAD. JULIEN TESSIER, Philadelphia, Pa., assignor to Lubin Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 30, 1913. Serial No. 764,505. (Cl. 248-43.)



1. The combination with a base, of a cap revoluble thereon, a gear ring revoluble on said base, means for fixing said ring to said base, and a journaled worm connected with said cap and engaging said ring.

2. The combination with a base, of a cap having a skirt revoluble thereon, an arbor fixed to said cap and journaled in said base, a clutching device fixed to said arbor, and clutching mechanism adapted for engaging said clutching device whereby said cap and arbor are fixed to said base.

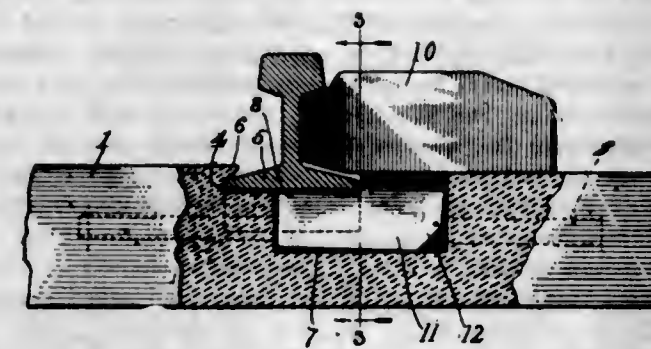
3. The combination with a base, of a worm gear ring revolubly mounted thereon, a member revolubly mounted on said base, means for fixing said ring to said base, and a journaled worm having bearings fixed to said revoluble member and engaging said ring.

4. The combination with a base of a member revoluble thereon, means for fixing said member relatively to said base, a second member revoluble relatively to said base, means for fixing said second member relatively to said base, and means engaging said second named member for revolving said first named member.

5. The combination with a base, of a bearing for an instrument revoluble thereon, lever mechanism for clamping said bearing against revolution, a toothed ring revoluble on said base, means comprising a screw for fixing said ring to said base, and a worm engaging said ring.

[Claims 6 to 8 not printed in the Gazette.]

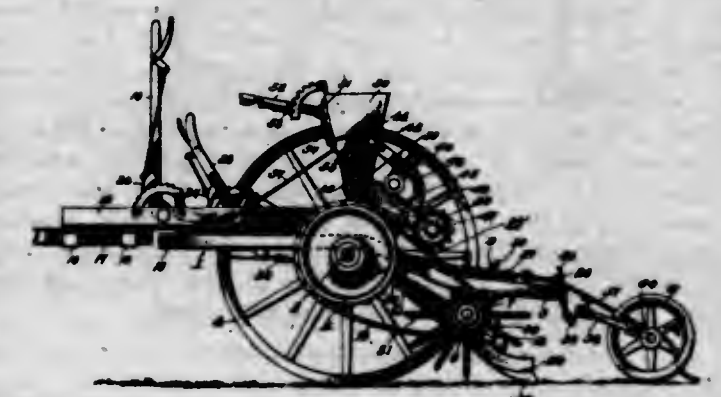
1,082,054. REINFORCED-CONCRETE TIE. CHARLES G. VANDEWATER, Akron, Ind. Filed Feb. 8, 1911. Serial No. 607,447. (Cl. 238-3.)



1. The combination with a concrete tie having a rail receiving channel extending throughout the width thereof provided with an overhanging rail engaging wall, there being a recess extending longitudinally within the top of the tie and intersecting the bottom of the channel, of a locking block adapted to bear upon the tie and to bridge a portion of the recess, said block having one end adapted to engage the outer side of a rail seated in the channel, and an angular tongue extending downwardly from the block and insertible into the recess and under the seated rail, said rail constituting means, while in active position in the channel, for preventing withdrawal of the tongue from the recess.

2. The combination with a concrete tie having a rail receiving channel extending throughout the width thereof provided with an overhanging rail engaging wall, there being a recess extending longitudinally within the top of the tie and intersecting the bottom of the channel, of a locking block adapted to bear upon the tie and to bridge a portion of the recess, said block having one end adapted to engage the outer side of a rail seated in the channel, an angular tongue extending downwardly from the block and insertible into the recess and under the seated rail, said rail constituting means, while in active position in the channel, for preventing withdrawal of the tongue from the recess, and a wear plate seated in the channel between the rail and the tongue of the locking block and having its ends engaging the sides of the tie.

1,082,055. COMBINED PLANTER, PULVERIZER, AND WEED-DESTROYER. ALBERT VEITL, Deadwood, S. D., assignor to Dakota Farm Machine Company, Deadwood, S. D. Filed June 10, 1912. Serial No. 702,839. (Cl. 111-18.)



1. An agricultural machine comprising a wheel mounted frame, seed separating and dropping mechanisms carried by the frame and including seed tubes depending from the frame, soil engaging members carried by the frame, drag teeth carried by and depending from the frame alternately with the said seed tubes, said soil engaging members being arranged to operate between the drag teeth and the seed dropping members, and furrow closers connected to the frame in rear of the seed tubes.

2. An agricultural machine comprising a wheel mounted frame, a shaft carried by the frame, means for moving said shaft along the frame, drag teeth pivoted to the shaft, grain tubes pivoted to the shaft and spaced from the drag teeth, means for supplying the grain to the grain tubes, and soil engaging members arranged to operate between the drag teeth and the grain tubes.

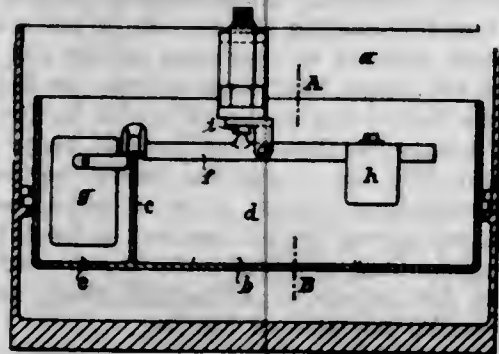
3. An agricultural machine comprising a wheel mounted frame, a shaft slidably mounted upon the frame, drag teeth pivoted to the shaft, grain tubes pivoted to the shaft and spaced from the drag teeth, means for supplying grain to the grain tubes, and a shaft journaled upon the frame and having radially disposed teeth adapted to operate between the drag teeth and the grain tubes.

4. An agricultural machine comprising a wheel mounted frame, guides carried by the frame, a shaft movably mounted in the guides, resilient means for normally holding the shaft toward one end of the guides, a lever mechanism for moving the shaft toward the opposite end of the guides, drag teeth pivoted to the shaft, grain tubes pivoted to the shaft, means for supplying seed to the grain tubes, and teeth mounted for rotation about an axis carried by the frame and adapted to operate between the drag teeth and the grain tubes.

5. An agricultural machine comprising a wheel mounted frame, a tongue support above the frame, a lever fulcrumed upon the tongue support and engageable with the frame, a shaft journaled to the frame and carrying soil engaging members, drag members pivoted to the frame and located between the soil engaging members, and yokes carried by the drag members which extend over the shaft.

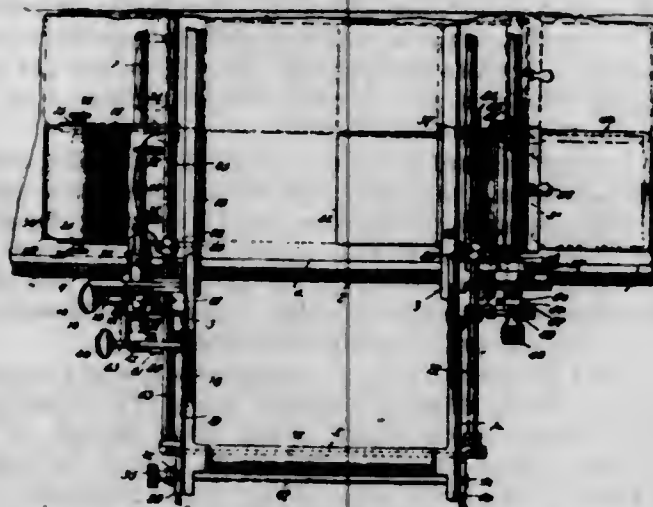
[Claims 6 and 7 not printed in the Gazette.]

1,082,056. WATER-SUPPLY OR FLUSH TANK. FRIEDRICH GEORG WANGELIN, Dresden, Germany. Filed Nov. 27, 1909. Serial No. 530,113. (Cl. 4-5.)



In a flush tank, the combination with a tilting vessel, of a partition wall dividing said tilting vessel into a larger and smaller compartment and allowing the admission of the water from the larger into the smaller compartment over its upper edge only and the direct discharge of the smaller compartment simultaneously with that of the larger one, a valve controlling the water supply to the said larger compartment, a double armed lever connected to the said valve and provided with two bends for receiving the upper edge of the partition of the vessel when tilted, a weight connected to one end of the double armed lever, a diving body of a volume or capacity relatively large in comparison to that of the smaller compartment, connected to the other end of the lever, counteracting the weight and pending into said smaller compartment of the divided tilting vessel for regulating the water supply valve according to the height of the water in the smaller compartment mentioned.

1,082,057. TALLY ATTACHMENT FOR TYPE-WRITING MACHINES. GEORGE F. WATT, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Feb. 2, 1909. Serial No. 475,628. (Cl. 197-132.)



1. The combination with a typewriting machine including a platen and printing mechanism, of a tally attachment including means for supporting the tally strip in operative position, and means for shifting the tally strip supporting means relative to the platen and transversely of the strip.

2. The combination with a typewriting machine including a platen and printing mechanism, of a tally attachment including means for supporting the tally strip in position to be written upon, and means for shifting said supporting means to move the tally strip laterally to a different position relative to the platen.

3. The combination with a platen and printing mechanism, of a tally attachment including strip supporting means, means for feeding the strip endwise, and means for shifting said strip supporting means transversely of the strip and relative to the platen.

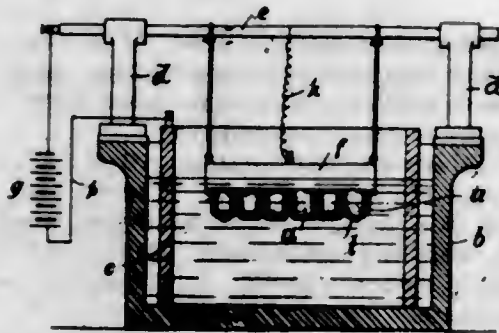
4. The combination with a platen and printing mechanism, of a tally attachment, including a pair of frames

laterally shiftable to displace the tally from the printing position, and tally strip carriers mounted in the frames, said carriers being movable to permit endwise movement of the strip supported thereby.

5. The combination with a platen and printing mechanism, of a pair of supporting frames shiftable relative to the platen parallel with the lines of writing, carriers mounted in the frames to support the paper strip in position to be printed upon, means connecting the frames to compel the same to move together, and means for effecting a line space feed of the strip.

[Claims 6 to 25 not printed in the Gazette.]

1,082,058. PROCESS FOR CASTING ARTIFICIAL TEETH. HEINRICH AUGUST WIENAND, Frankfurt-on-the-Main, Germany. Filed Aug. 27, 1912. Serial No. 717,263. (Cl. 204-1.)



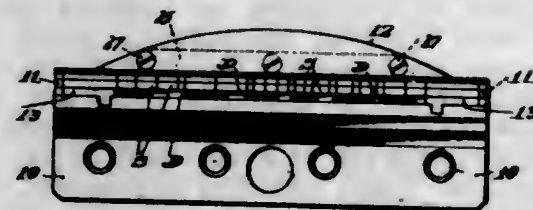
1. The method of manufacture of artificial teeth which consists in pressing an original in a mold, producing a metallic duplicate thereof, suspending said duplicate in an electrolytic bath to coat the same, removing said metallic duplicate from said coating and pressing a plastic mass into the cavities left on said removal.

2. The method of manufacture of artificial teeth which consists in pressing the original in a mold, producing a metallic duplicate thereof, suspending said duplicate in an electrolytic bath to coat the same, casting a metallic backing on said coating, removing said metallic duplicate from said coating and pressing a plastic mass into the cavities left on said removal.

3. The method of manufacture of artificial teeth which consists in forming a metallic duplicate of the original in a composition of lead and zinc, coating said duplicate electrolytically with nickel, removing coated duplicate from the electrolytic bath, casting a backing on said nickel coating, removing the metallic duplicate and pressing a plastic mass into the cavities left on said removal, substantially as described.

4. The method of manufacture of artificial teeth which consists in forming a metallic duplicate thereof, coating said duplicate electrolytically, removing said coated duplicate from the electrolyte at various stages, forming fresh enlarged metal copies therefrom, replacing said coated duplicate in the electrolyte, removing said metallic duplicate from the electrolyte when thickly coated, casting a metal backing thereon, removing the metallic duplicate and pressing a plastic mass into the cavities left on said removal.

1,082,059. MOLD FOR SLUG-CASTING MACHINES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Sept. 28, 1907. Serial No. 394,954. (Cl. 199-13.)



1. A slug casting mold having a space along one wall thereof, dividing pieces having bodies fitting in said space, and spacing pieces also fitting in said space, the dividing

pieces having plates extending across the mold and having surfaces registering with the inner surfaces of the spacing pieces, and the dividing and spacing pieces together filling all of said space.

2. In a slug casting mold, the combination of a body portion, a cap spaced from the body portion to provide a mold cavity, said cap having a space along said mold cavity, and a dove-tailed groove at the rear of said space, dividing pieces, spacing pieces each having a body of the same shape as said space, and a dove-tailed projection fitting said groove, said spacing pieces being located between the bodies of said dividing pieces, and serving to regulate their distance from each other.

3. In a slug casting mold, the combination of a body portion adapted to be fixed to a disk or mold wheel, a cap spaced from the body portion to provide a mold cavity, and having a recess along the front thereof, said cap having a space along said mold cavity, and a dove-tailed groove at the rear of said space, dividing pieces each having a projection fitting said groove, spacing pieces each having a dove-tailed projection fitting said groove, said spacing pieces being located between the bodies of said dividing pieces and serving to regulate their distance from each other, and a clamping bar located in the recess in said cap and projecting in front of said dove-tailed projection for clamping the spacing and dividing pieces in position on the cap.

4. In a slug casting mold, the combination of dividing pieces and spacing pieces therefor, the said dividing and spacing pieces having bodies located in alignment along one side of the mold cavity and together constituting one wall thereof, said dividing pieces having relatively thin plates projecting from their bodies across the mold cavity.

5. In a slug casting mold, the combination of dividing pieces, spacing pieces therefor, said dividing and spacing pieces having bodies of the same cross section and being located in alignment along one side of the mold cavity and together constituting one wall thereof and the dividing pieces having relatively thin plates projecting from their bodies across the mold, means for holding said bodies in alignment adjacent to the mold cavity, and means for locking said dividing and spacing pieces in position.

[Claims 6 to 13 not printed in the Gazette.]

1,082,060. STRAW HAT. FRANCIS WRIGHT, Luton, England. Filed Jan. 9, 1913. Serial No. 740,978. (Cl. 2-108.)



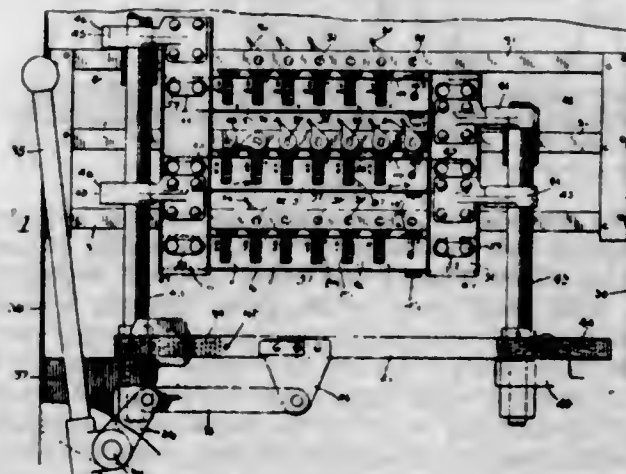
1. In a straw hat, the combination with unstiffened brim and crown portions of flexible but inextensible bands of woven fabric each secured in taut condition radially in the brim and having a part which extends up and is secured to the inner side of the crown portion and a band of inextensible material which is bound tightly around the outer surface of the crown portion so as to be operative at the lower part thereof near the angle formed by the junction of the brim therewith.

2. In a straw hat, the combination with unstiffened brim and crown portions of flexible but inextensible bands composed of webbing which are secured in taut condition radially in the brim and which extend up, and are secured to the inner side of the crown portion and a band of webbing which is bound tightly around the outer surface of the crown portion so as to be operative at the lower part thereof near the angle formed by the junction of the brim therewith.

3. In a straw hat, the combination with unstiffened brim and crown portions of flexible but inextensible bands composed of webbing which are secured in taut condition radially in the brim by passing the said bands about the

straw covered cane strip insertion and between the upper and under brims and which bands extend up and are secured to the inner side of the crown portion and a band of webbing which is bound tightly around the outer surface of the crown portion so as to be operative at the lower part thereof near the angle formed by the junction of the brim therewith.

1,082,061. COUNTER-CARRIER FOR VOTING-MACHINES. CHARLES C. ABBOTT, Pittsfield, Mass., assignor to Triumph Voting Machine Company, Pittsfield, Mass., a Corporation of New Jersey. Filed Jan. 6, 1913. Serial No. 740,422. (Cl. 235-54.)



1. The combination with counters, of a counter carrier having hollow counter bars each comprising a plurality of detachably connected members between which said counters are removably received and retained in position.

2. The combination with counters, of a counter carrier having counter bars each comprising a back member provided with a fixed pin, a front member having hooks engaging said pin, said members being relatively longitudinally movable to engage and disengage said hooks and pin, and a removable pin for holding said members against relative longitudinal movement.

3. The combination with counters, of a counter carrier having counter bars each comprising a back member, a front member, means separable by relative longitudinal movement of said members for securing the same together, and removable means for holding said members against relative longitudinal movement.

4. The combination with counters, of a counter carrier having hollow counter bars forming casings in which said counters are housed, each of said counter bars comprising oppositely disposed channel members having overlapping flanges, a fixed pin secured in the flanges of one of said members, hooked lugs on the flanges of the other of said members for engaging said pin, and a removable pin for securing the flanges of both of said members together.

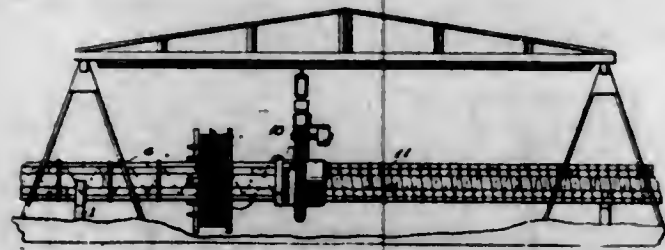
5. The combination with counters and a counter carrier having counter bars each comprising a back member, a front member, means separable by relative longitudinal movement of said members for securing the same together, and a removable pin for holding said members against relative longitudinal movement, of a frame member normally holding said pin against removal and having an opening through which said pin may be removed when said counter carrier is in a certain position.

[Claims 6 to 43 not printed in the Gazette.]

1,082,062. METHOD FOR CONSTRUCTING SPIRALLY-WIRE-WOUND STRUCTURES OF THE CONTINUOUS-WOODEN-STAVE TYPE. HARRY E. AINE, Richmond, Cal. Filed Apr. 29, 1912. Serial No. 693,779. (Cl. 144-309.)

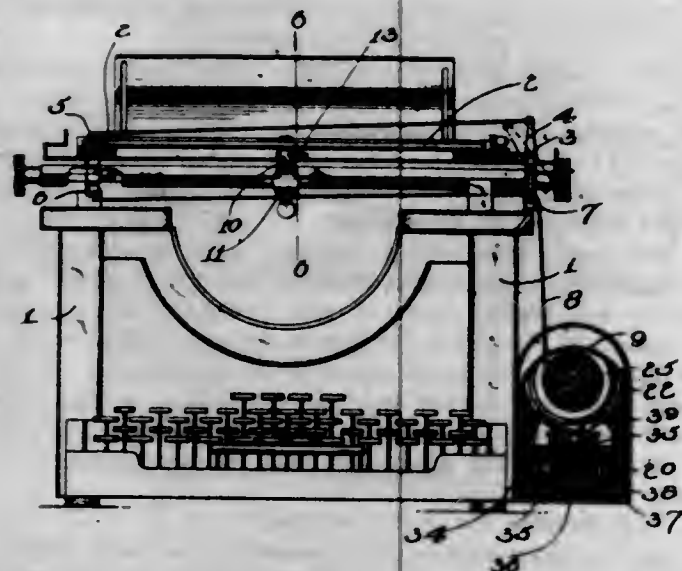
1. The method of constructing endless pipe of the continuous stave type, consisting of assembling the staves forming the lower one-half section in a cradle with their ends in staggered relation, positioning a flexible core of a diameter slightly larger than the pipe to be constructed in

said lower one-half formed section, assembling the staves forming the upper one-half section around the upper portion of said flexible core with their ends in staggered relation, forcing the meeting edges of the staves into engagement with each other by a temporary clamping means surrounding the pipe, withdrawing the core longitudinally of said formed pipe to an incomplete portion thereof and forming the same as described, successively removing said temporary clamping means and encircling said pipe with a continuous spiral winding of wire for permanently securing said staves together.



2. The method of constructing an endless cylindrical structure of the wooden stave type, consisting of assembling the staves forming the lower one-half section in a cradle with their ends in staggered relation around a core or mandrel, assembling the staves forming the upper one-half section around the upper portion of said core or mandrel with their ends in staggered relation, forcing the meeting edges of the staves into engagement with each other by a temporary clamping means surrounding the structure, successively removing said temporary clamping means, and encircling said cylindrical structure with a continuous spiral winding of wire.

1,082,063. CARRIAGE-RETURN MECHANISM. WESLEY AMMERMAN, Franklin, Tenn., assignor of one-half to Tyler Berry, Franklin, Tenn. Filed Jan. 18, 1913. Serial No. 742,904. (Cl. 197-66.)



1. In a machine of the class described the combination with a body provided with a sliding carriage, of a stationary contact member carried by said body, a sliding contact member carried by said body, said sliding contact member comprising an outer substantially U-shaped end, an enlarged head carried by the outer end and said U-shaped end provided with an extending finger adapted to contact with said stationary contact member, and electrical means for returning said carriage to its normal position when said contact members engage each other.

2. A device for returning a carriage of a typewriter to its normal position after the same has reached a predetermined point comprising a motor, a drum, a driving gear cooperating with said motor, a pinion carrying disk interposed between said driving gear and said drum, pinions carried by said pinion driving disk, and electro-magnetic means cooperating with said pinion carrying disk for anchoring the same as soon as said motor is actuated.

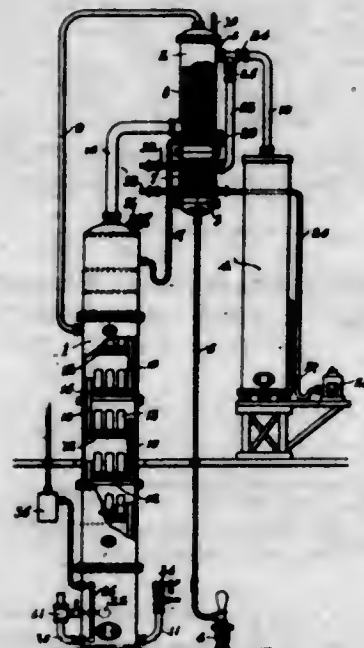
3. A device of the class described comprising a motor, a drive gear, a drum, a shaft supporting said drive gear and drum, a pinion carrying disk interposed between said drive gear and drum and being keyed to said shaft, pinions carried by said disk, electro-magnets positioned below said disk, means for electrically connecting said electro-magnets with a source of electrical supply, said motor also being connected with said source of electrical supply for causing said magnets to be energized simultaneously with the driving of said motor, said pinions adapted to transmit motion from said drive gear to said drum, and said cable passing over said drum for winding said cable upon said drum as the same is rotated.

4. A device of the class described comprising a drive gear, a drum, a supporting shaft, a pinion carrying disk interposed between said drive gear and drum and being keyed to said shaft, pinions carried by said disk, magnetic means positioned below said disk, means for supplying an electric current to said magnetic means for energizing said magnetic means, and said pinions adapted to transmit motion from said drive gear to said drum.

5. A contact device for closing an electric circuit for an electric carriage return mechanism comprising a bracket provided with a depending contact member, a slidably mounted contact member insulated upon said bracket and adapted to be moved transversely of said bracket for closing and opening an electric circuit with said first mentioned contact member, and means for engaging said slidably mounted contact member for moving the same upon said bracket.

[Claim 6 not printed in the Gazette.]

1,082,064. CONTINUOUS DISTILLING APPARATUS. ARTHUR C. BADGER, Newton Center, Mass. Filed May 31, 1910. Serial No. 564,089. (Cl. 195-13.)



1. A distilling apparatus comprising an evaporator to which mash is admitted and from which vapors of distillation issue, and means for shunting any desired proportion of the outcoming vapor into thermal contact with the incoming mash.

2. A distilling apparatus comprising in combination an evaporator, a heater through which the incoming mash and the outgoing vapor from said evaporator pass in thermal contact and from which uncondensed vapor issues, and means for passing a regulated proportion of such vapor into thermal contact with the mash before the latter passes to the said heater.

3. A distilling apparatus comprising an evaporator, a plurality of heaters through which the crude material to be distilled passes in coming to said evaporator, means for passing vapors issuing from the evaporator through one of said heaters in thermal contact but out of physical contact with the incoming mash, means for returning to the evaporator the liquid condensed from such vapors

in such heater, means for conducting uncondensed vapors from said heater, and means for shunting any desired proportion of the vapors issuing from said heater through another heater through which the mash passes before reaching the first named heater.

4. A distilling apparatus and means for regulating the qualities and proof of the final product thereof, comprising an evaporator, means for effecting a thermal contact between the vapors of distillation and the incoming crude material and thereby condensing a part of such vapors, a heater through which the crude material passes before reaching said thermal contact means, and means for passing a regulated proportion of the vapor passing from said thermal contact means through said heater in thermal contact with the crude material, whereby such material is heated to a desired extent before coming into thermal contact with the vapors issuing from the evaporator.

1,082,065. COMBINED BATH-TUB AND WASHSTAND. GEORGE H. BARKER, Los Angeles, Cal., assignor to Improved Sanitary Fixture Company, Los Angeles, Cal., a Corporation of California. Filed Nov. 17, 1910. Serial No. 592,799. (Cl. 4-27.)



1. In a construction of the character described, the combination of a bath-tub, a wash-stand above the bath-tub, an overflow discharge pipe for said bath-tub, a discharge pipe for said wash-stand connecting the outlet of the latter to the overflow discharge pipe, and outlet for said bath-tub, means to open and close said bath-tub outlet, a port in said wash-stand discharge pipe adapted to connect the latter to the bath-tub, and a combined valve and stopper whereby water may be retained in the basin, discharged through the waste pipe or permitted to enter the bath-tub, substantially as described.

2. In a construction of the character described, the combination of a bath-tub, a wash-stand above the bath-tub, an overflow discharge pipe for said bath-tub, a discharge pipe for said wash-stand connecting the outlet of the latter to the overflow discharge pipe, and outlet for said bath-tub, means to open and close said bath-tub outlet, a port in said wash-stand discharge pipe adapted to connect the latter to the bath-tub, and a valve operable from above the wash-stand, said valve having two diaphragms connected by a stem, said valve being adapted, when partially raised, to permit the flow of water to the waste pipe or when completely raised to admit water to the bath-tub, substantially as described.

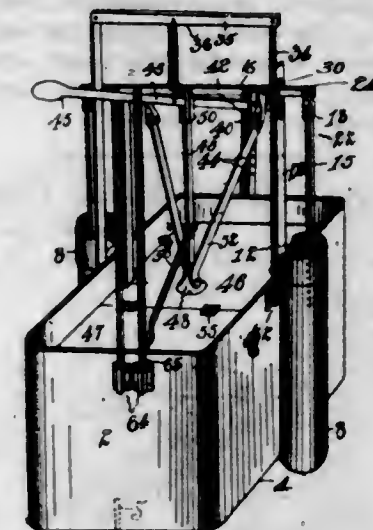
1,082,066. WASHING-MACHINE. ALEXANDER BOWERS, Dubuque, Iowa. Filed Jan. 18, 1913. Serial No. 742,948. (Cl. 68-19.)

1. In a device of the character described, a tank, cylinders on opposite sides of the tank, plungers in the cylinders each provided with a plunger rod, a tray on which the clothes rest within the tank, a cover, and means for simultaneously forcing down the cover upon the clothes on the tray and the plungers in the cylinders.

2. In a device of the character described, a tank, a cover adapted to travel up and down in the tank, a tray within the tank, means for raising and lowering the cover and tray at the same time, and means for arresting the downward movement of the tray while the cover is forced down upon the clothes on the tray to force the water from and through the clothes.

3. In a device of the character described, a tank, a cover adapted to travel up and down in the tank, a tray in

the tank, and means after the cover has forced the water out of the clothes while resting on the tray for causing the cover to travel upward first and then the tray.

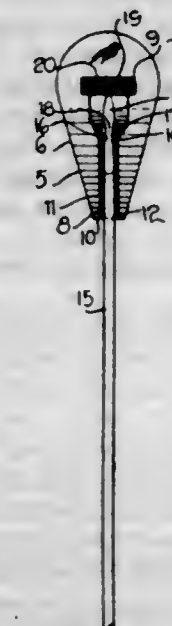


4. In a device of the character described, a tank, a perforated tray in the tank having arms extending out of the tank and provided with slots, a cover adapted to be moved up and down in the tank, cylinders on opposite sides of the tank communicating with the tank, a plunger in each cylinder, a lever, and means for connecting the lever with the plungers, the cover and the tray, whereby the tray, plungers and cover are moved up and down together.

5. In a device of the character described, a tank, a cylinder on each side of the tank with an opening into the tank, plungers in the cylinders, a cover within the tank, a lever, means for connecting the lever to the cover and plungers, a tray within the tank said tray suspended from the means for connecting the cover and plungers to the lever and operated by the lever.

[Claims 6 to 8 not printed in the Gazette.]

1,082,067. HAT-PIN GUARD. ARCHIBALD L. BURGER, Ono, Cal. Filed May 14, 1913. Serial No. 767,614. (Cl. 24-155.)

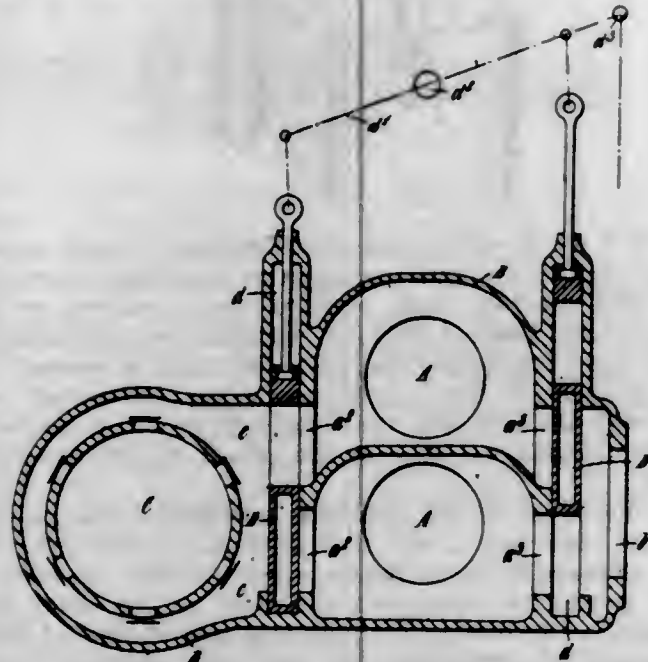


1. A device of the character described comprising a sectional head having a seat therein, a spring member mounted in said seat, said spring member comprising a plate bent upon itself to form spring arms, the outer ends of said arms being curved, the curved portions of said arms cooperating to form a bore, inwardly extending lugs formed on said arms inwardly of said curved portions, and resilient grips carried by said lugs, as and for the purpose described.

2. In a hat pin guard, the combination with a hat pin having an annular groove therein inwardly of its pointed end, of a hat pin guard comprising a sectional head having a seat therein, a spring member mounted in said

seat, said spring member comprising a plate bent upon itself to form spring arms, the outer ends of said arms being curved to cooperate to form a bore, grips carried by said arms inwardly of said curved portions, a yieldable buffer carried by the medial portion of said plate, said bore being adapted to receive the point of said pin and said grips engaging in said annular groove, as and for the purpose described.

1,082,068. MEANS FOR REVERSING INTERNAL-COMBUSTION ENGINES. ALAN ERNEST LEOPRIC CHORLTON, Manchester, England. Filed Mar. 18, 1913. Serial No. 755,089. (Cl. 123-53.)



1. In a reversing duplex internal combustion engine, two openly communicating working cylinders, means for connecting either cylinder to the inlet and the other to the exhaust, and means for interchanging said connections.

2. In a reversing duplex internal combustion engine, two openly communicating working cylinders, working pistons in the said cylinders of which one piston is given a lead over the other, means for connecting either cylinder to the inlet and the other to the exhaust, and means for interchanging said connections.

3. In a reversing duplex internal combustion engine, two openly communicating working cylinders to either one of which the charge is admitted while the exhaust escapes from the other, a supply pump and an exhaust passage common to both cylinders, means for connecting the pump to either one of the cylinders and the exhaust passage to the other, and means for interchanging said connections.

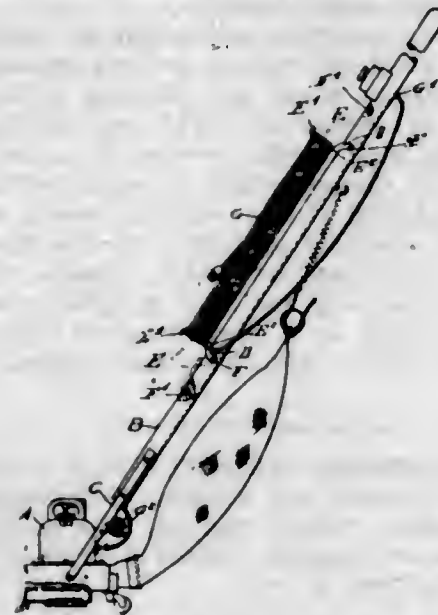
4. In a reversing duplex internal combustion engine, two openly communicating working cylinders to either one of which the charge is admitted while the exhaust escapes from the other, a supply pump and an exhaust passage common to both cylinders, means for connecting the pump to either one of the cylinders and the exhaust passage to the other, and interconnected sliding valves controlling the pump and exhaust connections to the cylinders, adapted on operation to interchange the said connections.

1,082,069. HANDLE-CLIPS FOR VACUUM-CLEANERS. GEORGE CLEMENTS, Chicago, Ill., assignor to Clements Mfg. Co., Chicago, Ill., a Corporation of Illinois. Original application filed June 14, 1911, Serial No. 633,011. Divided and this application filed June 24, 1912. Serial No. 705,400. (Cl. 242-96.)

1. The combination of a handle with two coil-holding clips, each pivotally mounted on the handle provided with a stop to limit its motion, and provided with an outer bent end, said handle provided with holes to receive the bent ends.

2. The combination of a handle with two coil-holding bifurcated clips, each pivotally mounted on the handle

and adapted to engage the handle at the crotch of the bifurcation and provided with an outer bent end, said handle provided with holes to receive the bent ends when turned down into inoperative positions.

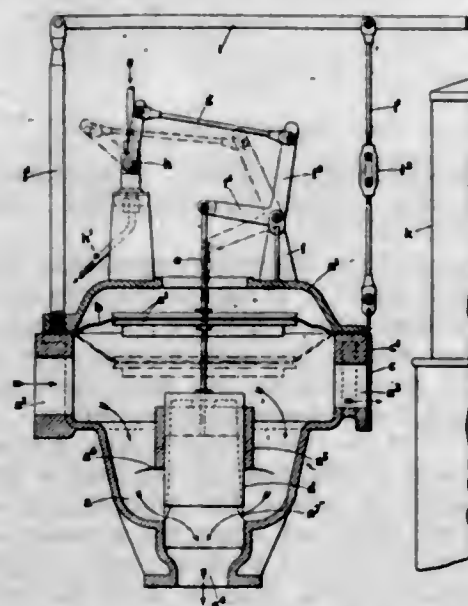


3. The combination of an implement handle with two arms pivoted thereon, said arms being bifurcated at their lower ends adjacent the handle, said bifurcations extending down substantially to the center of the handle on opposed sides, and pivots passing through the handle and through said bifurcated ends, said bifurcated ends being offset from said arms.

4. The combination of an implement handle with two arms pivoted thereon, said arms being bifurcated at their lower ends adjacent the handle, said bifurcations extending down substantially to the center of the handle on opposed sides, and pivots passing through the handle and through said bifurcated ends, said bifurcated ends being offset from said arms, said arms being provided with outwardly turned tips, said handle being apertured to engage said tips when said arms are folded into position substantially parallel with said handle.

5. The combination with a straight implement handle shaft of reel fingers pivotally mounted thereon, means upon said fingers for holding a cord in position thereupon and means upon said handle into which a portion of said fingers may engage, said fingers being bifurcated and free to assume a position of substantial parallelism with the handle.

1,082,070. AIR-GAS APPARATUS. FREDERICK JOHN COX, London, England, assignor, by mesne assignments, to Airgas Syndicate Incorporated, New York, N. Y. Filed Apr. 15, 1911. Serial No. 621,395. (Cl. 48-145.)



1. In air gas apparatus, means for the regulation of the supply of air and volatile liquid to the carburetor con-

sisting of a pressure chamber, a diaphragm in said pressure chamber, said diaphragm simultaneously controlling the supply of air and volatile liquid to the carburetor according to the pressure of air in the pressure chamber, and a relief valve by which the pressure within the said chamber may be reduced.

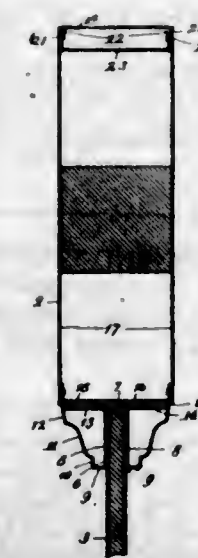
2. In air gas apparatus, comprising a gas holder, a bell in said gas holder, means for the regulation of the supply of air and volatile liquid to the carburetor, consisting of a pressure chamber, a diaphragm in said pressure chamber, said diaphragm simultaneously controlling the supply of air and volatile liquid to the carburetor according to the pressure of air in the pressure chamber, and means for varying the pressure within the said chamber directly from the gas holder bell and according to the volume of gas therein.

3. Air gas apparatus, comprising a gas holder, means for supplying air under pressure to the carburetor, a pressure chamber through which the air for carburation passes, a diaphragm in said pressure chamber, said diaphragm simultaneously controlling the supply of air and volatile liquid to the carburetor according to the pressure of air in the pressure chamber, means for reducing the pressure of air within the pressure chamber, and additional means for the variation of the volume of air supplied to the carburetor.

4. Air gas apparatus, comprising means for supplying air under pressure to the carburetor, a pressure chamber through which the air for carburation passes, a diaphragm in said pressure chamber, said diaphragm simultaneously controlling the supply of air and volatile liquid to the carburetor according to the pressure of air in the pressure chamber, and means for reducing the pressure of air within the pressure chamber according to the rate of consumption of air gas.

5. Air gas apparatus, comprising means for supplying air under pressure to the carburetor, a pressure chamber through which the air for carburation passes, a diaphragm in said pressure chamber, said diaphragm simultaneously controlling the supply of air and volatile liquid to the carburetor according to the pressure of air in the pressure chamber, a gas holder bell into which the air gas is passed from the carburetor, and means for reducing the pressure of air within the pressure chamber by a relief valve operated directly from the gas holder bell. [Claims 6 to 14 not printed in the Gazette.]

1,082,071. METALLIC DOOR. CARL G. DANIELSON, Kansas City, Mo. Filed Dec. 21, 1911. Serial No. 667,075. (Cl. 189-58.)

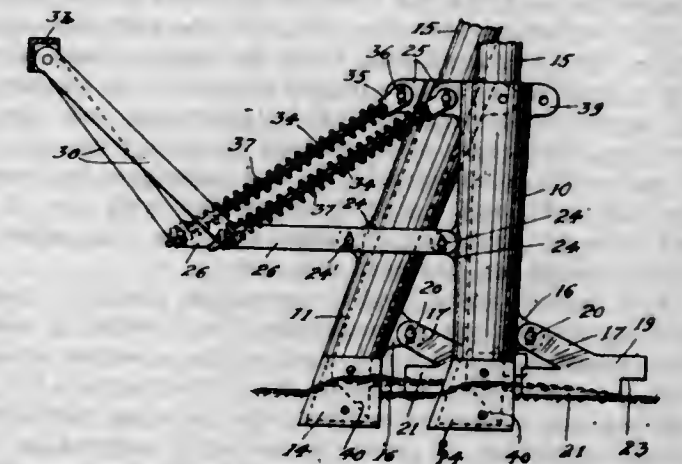


A metallic door, or the like, consisting of panels, hollow stiles and hollow rails, each stile and rail consisting of a pair of side walls suitably connected at their outer edges and having interturned locking members at their inner edges, molding sections, each comprising one piece of sheet metal having interturned locking members to interlock with the like elements on the rails and stiles and a groove to receive the adjacent edge of a panel, the adjacent sides

197 O. G.—55

of the first-mentioned locking members being in juxtaposition to the sides of said groove and arranged in transverse alignment with the inner wall thereof, and a reinforcing member connecting the walls of each stile and rail and abutting against the locking members thereof and the inner wall of a groove, substantially as shown and described.

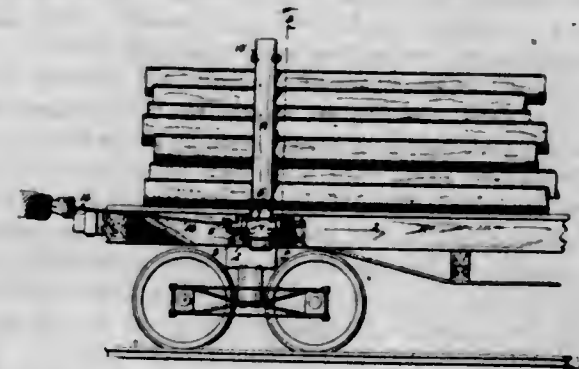
1,082,072. GRAIN-DRILL. CURTIS W. DAVIS, Donaldson, Minn. Filed Dec. 19, 1912. Serial No. 737,648. (Cl. 111-11.)



1. A seed drill comprising a tubular member having a furrow opener at the bottom thereof, said furrow opener consisting of spreading wings with bottom edges in a common plane, a link pivotally connected to the tubular member at a point near the center thereof, a second link pivotally connected to the top of said member and slidably connected with said first named link and having means thereon for restraining said sliding movement in one direction, and a spring operating to force said last named link and the tubular member connected therewith backward to the extent permitted by said restraining means.

2. A seed drill comprising a tubular member having a furrow opener at the bottom thereof, said furrow opener consisting of spreading wings with bottom edges in a common plane, a lug centrally positioned on said tubular member, a drawbar approximately in the plane of the top of the tubular member, a pair of links pivotally connected to said lug and to said drawbar, said links being formed with respectively horizontal and upwardly turned portions, a spacing block between said pair of links, a bolt pivotally connected to the top of the tubular member and having the end thereof extending through said spacing block, and a spring surrounding the bolt and engaging the spacing block.

1,082,073. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Oct. 9, 1913. Serial No. 794,191. (Cl. 105-173.)



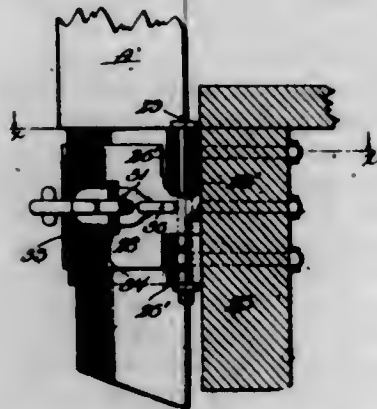
1. A bolster stake holder comprising a bracket having cheek-plates projecting therefrom, a saddle adapted to abut the end faces of the cheek-plates, cleats extending from the cheek-plates, two series of links permanently secured to the saddle, means for securing the end link of one series to an adjacent cleat, and means for temporarily securing the end link of the opposite series to an adjacent cleat.

2. A bolster stake holder comprising a bracket having cheek-plates projecting therefrom, a saddle adapted to abut the end faces of the cheek-plates, cleats extending from the cheek-plates, two series of links permanently secured to the saddle, means for securing the end link of one series to an adjacent cleat, means for temporarily securing the end link of the opposite series to an adjacent cleat, and a stripper-pin extending from the end link of the temporarily secured link series.

3. A bolster stake holder comprising a bracket having a base-plate attachable to a car or other conveyance, cheek-plates projecting from the base-plate, a saddle-plate adapted to abut the end faces of the cheek-plates to form a stake-socket in connection with the base-plate and cheek-plates, side lugs projecting from the saddle, links permanently secured to the side lugs, a series of links connecting the permanently secured links, an apertured cleat extending from each cheek-plate adapted to engage the end link of each series, pins fitted in the cleat apertures for locking the end links, and means in connection with one of the end links for stripping the same from its cleat after the link-retaining pin has been removed.

4. A bolster stake holder comprising a sill, a bracket secured thereto having projecting cheek-plates, a saddle-plate adapted to bridge the cheek-plates, a section of chain permanently secured to one of the cheek-plates and to the saddle-plate, a cleat extending from the other cheek-plate, a second section of chain permanently secured to said saddle-plate and removably secured to the last mentioned cheek-plate, and means for stripping the removable chain section from the cleat from a distance.

1,082,074. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Oct. 9, 1913. Serial No. 794,192. (Cl. 105—173.)



1. A stake holder comprising a bracket having a base-plate provided with cheek-pieces extending therefrom, at least one of the cheek-pieces being in hinge connection with the base-plate to form a stake-socket, cleats extending from the cheek-pieces, a chain section permanently secured to one of the cleats and provided with an end link for engagement with the opposite cleat, means for detachably securing said end link to the cleat, and a stripper means in connection with said end link.

2. A stake holder comprising a bracket having a base-plate and a fixed cheek-piece extending therefrom, a corresponding cheek-piece in hinge connection with the base-plate adapted to articulate with the fixed cheek-piece, an apertured cleat extending from each cheek-piece, a locking chain for the cheek-pieces having an end link permanently secured to one of the cleats, means for detachably securing the opposite end link of the locking chain section to the other cleat, and a stripper-pin carried by the detachable end link.

3. A stake-holder comprising a bracket having a base-plate and a fixed cheek-piece extending therefrom, apertured knuckles extending from the base-plate, a cheek-piece having an apertured ear for nested engagement with the knuckles, a pinle connecting the cheek-piece, ear and knuckles, a cleat extending from the fixed cheek-piece, a similar cleat extending from the movable cheek-piece, a locking chain section having an end link permanently secured to one of the cheek-pieces, means for temporarily

securing the opposite end link to the other cleat, and stripper means in connection with the temporarily secured end link.

4. A stake-holder comprising a bracket having a base-plate and a fixed cheek-piece extending therefrom, a corresponding cheek-piece in hinge connection with the base-plate, the same being of less width than the fixed cheek-piece, a cleat extending from each cheek-piece, a chain section permanently secured to one of the cleats, means for temporarily securing the opposite end of the chain section to the other cleat, and means in connection with the chain section for stripping the same from that cleat to which it is temporarily secured.

1,082,075. TOGGLE. EDWARD J. FITZGERALD, Roxbury, Mass., assignor to E. and W. Toggle Co., a Corporation of Massachusetts. Filed Sept. 17, 1913. Serial No. 790,358. (Cl. 140—21.)



1. In a toggle, the combination with a head formed of a length of wire, of a cord having its end folded about said head, and a clamping member encircling the head and the portion of the cord which is folded thereabout.

2. In a toggle, the combination with a head formed of a length of wire, of a cord having its end folded about said head, and a metal clamping member encircling the head and the portion of the cord which is folded thereabout, the edges of said clamping member embracing the body of the cord.

3. A toggle comprising a head formed of a piece of wire, a cord having one end folded about said head and a metal clamping member embracing the head and the portion of the cord which is folded thereabout, said clamping member having a greater width than the diameter of the cord and the meeting edges thereof embracing and gripping the body of the cord.

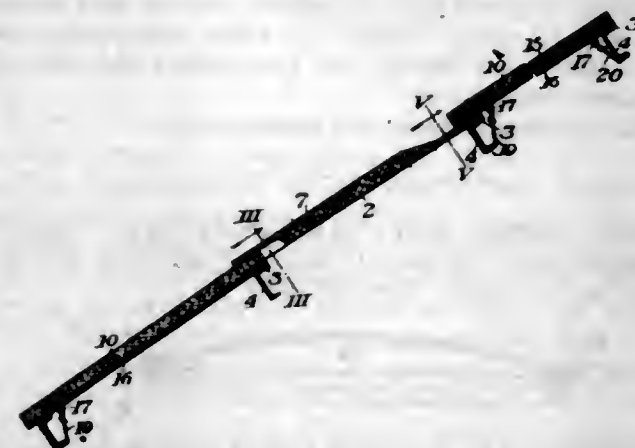
4. A toggle comprising a head made of wire, a cord having one end folded about said wire with the extremity of the cord overlapping the body thereof and a binding wire wound about the extremity of the cord and the body thereof closely adjacent the head and operating to clamp the folded portion of the cord to the head, and a clamping member embracing the head and the portion of the cord folded thereabout.

5. A toggle comprising a head made of wire provided centrally thereof with a flat face, a cord having one end folded about the flat faced portion of the wire and a clamping member encircling the head and the portion of the cord which is folded thereabout and clamping the cord securely to the head.

1,082,076. TILE ROOF AND TILE THEREFOR. JOSEPH FREUND, St. Louis, Mo., assignor to American Cement Tile Manufacturing Company, Wampum, Pa., a Corporation of Pennsylvania. Filed June 12, 1912. Serial No. 703,215. (Cl. 108—10.)

1. A tile roof having a plurality of courses of tiles and a plurality of rolls for each course, there being one roll for each joint between adjacent tiles in the same course, each of said rolls having two longitudinal recesses in its lower face and a downwardly extending longitudinal rib between said recesses, the adjacent longitudinal edges of each tile at said joint having an upwardly extending longitudinal rib seated in the recesses in their respective roll and a downwardly extending transverse projection on the lower end of each roll, said last mentioned projections closing the lower end of the recesses, the lower faces of the last mentioned projections being flush with the bottoms of the tiles in the same course to seal the ends of the joints between the tiles; substantially as described.

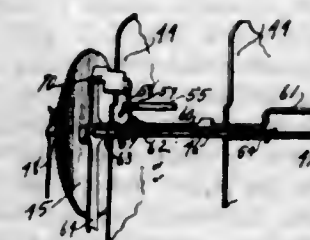
2. A tile roof having a plurality of courses of tiles, and a plurality of rolls in each course, there being one roll for each joint between adjacent tiles in each course, each of said rolls having two longitudinal recesses in its lower face and a downwardly extending longitudinal rib between said recesses, the adjacent longitudinal edges of each tile at said joint having an upwardly extending longitudinal rib seated in the recesses in their respective roll, the lower corners of each tile being cut away at the joint between adjacent tiles, and a downwardly extending transverse projection on the lower end of each roll seated in the cut-away portions in the adjacent tiles, the last projections closing the ends of the recesses of the rolls and the ends of the joints between adjacent tiles; substantially as described.



3. A tile roof having a plurality of courses of tiles, and a plurality of rolls in each course, there being one roll for each joint between adjacent tiles in each course, each of said rolls having two longitudinal recesses in its lower face and a downwardly extending longitudinal rib between said recesses, the adjacent longitudinal edges of each tile at said joint having an upwardly extending longitudinal rib seated in the recesses in their respective roll, the lower corners of each tile being cut away through the joint between adjacent tiles, and a downwardly extending transverse projection on the lower end of each roll seated in the cut away portions in adjacent tiles, the last mentioned projections closing the ends of the recesses of the rolls and the ends of the joints between adjacent tiles, and a transverse projection on the other end of each of said rolls, the last mentioned projection engaging the ends of the ribs on adjacent tiles, the transverse projections on the rolls being arranged to prevent longitudinal movement between the rolls and tiles; substantially as described.

4. A roll for tile roofs having two longitudinally extending recesses in its lower face, a longitudinally extending reinforcing rib between said recesses, a closure for the upper ends of said recesses extending to the lower edge of the roll, and a closure for the lower ends of said recesses extending to a point below the lower edge of the roll; substantially as described.

1,082,077. ALARM MECHANISM FOR CLOCKS. EDWARD E. GAGE, New York, N. Y., assignor to Yankee Wizard Clock Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 3, 1913. Serial No. 730,968. (Cl. 58—16.)



1. In an alarm clock, a time train; a shaft carrying a hammer adapted to strike a bell; an arm carried by said shaft; an alarm train operatively connected with said shaft to drive the same; means controlled by said time

train for releasing said alarm train at a predetermined time; a suitable frame for supporting said trains; a manually operable reciprocating stop member slidable in bearings provided in said frame and adapted to be moved into the path of movement of said arm to thereby interrupt the operation of said alarm train and to be moved out of engagement therewith by said time train.

2. In an alarm clock, a time train; a shaft carrying a hammer adapted to strike a bell; an arm carried by said shaft; an alarm train operatively connected with said shaft to drive the same; means controlled by said time train for releasing said alarm train at a predetermined time; a suitable frame for supporting said trains; a manually operable reciprocating stop member slidable in bearings provided in said frame and having a projection adapted to be moved into the path of movement of said arm to thereby interrupt the operation of said alarm train and operated by said time train to thereby move the said projection out of engagement with said arm.

3. In an alarm clock, a time train; a shaft carrying a hammer adapted to strike a bell; an arm carried by said shaft; an alarm train operatively connected with said shaft to drive the same; a suitable frame for supporting said trains; a setting shaft having a projection; a gear carried by said shaft and movable longitudinally thereupon, said gear being operated by said time train and having a depression into which said projection may enter; a manually operable reciprocating stop member slidable in bearings provided in said frame and having a projection adapted to be moved into the path of movement of said arm to thereby interrupt the operation of said alarm train and whereby longitudinal movement of said gear is transmitted to said stop member to thereby move the projection thereof out of engagement with said arm.

4. In an alarm clock, a time train; an alarm train; a combined controlling member and switch for releasing said alarm train at a predetermined time to thereby permit it to operate, and for permanently shutting off or arresting the operation of said alarm train, said controlling member being in engagement with an element of the alarm train to thereby prevent the operation thereof and the same being movable in one direction to release said alarm train; means controlled by said time train for controlling the releasing movement of said controlling member; and means for moving said controlling member in another direction with reference to the element of the alarm train with which it engages.

5. In an alarm clock, a time train; an alarm train, a combined controlling member and switch for releasing said alarm train at a predetermined time to thereby permit it to operate, and for permanently shutting off or arresting the operation of said alarm train, said controlling member comprising a pivotally supported oscillating arm the free end of which is adapted to engage an element of the alarm train to thereby prevent the operation thereof, and which free end is movable in one direction to release said alarm train; means controlled by said time train for controlling the releasing movement of said controlling member; and means for moving the free end of said controlling member in another direction with reference to the element of the alarm train with which it engages.

[Claims 6 to 12 not printed in the Gazette.]

1,082,078. DISPLAY-RACK. FRANCIS W. GIBSON, West Roxbury, and CLARENCE S. MARDEN, Cambridge, Mass., assignors to H. D. Beach Company, a Corporation. Filed Apr. 21, 1913. Serial No. 762,489. (Cl. 211—24.)

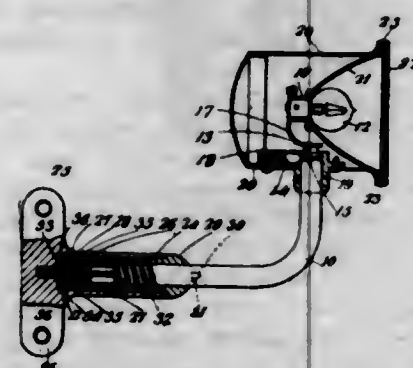
1. A sheet metal display rack for boxes of packaged articles comprising a front member having a slidably proportioned display opening therein, said opening being surrounded by edges of the metal of the front to form containing flanges for the same, lateral wing pieces on the lateral edges of said front bent back at substantially right angles thereto, and bearing flanges struck up from said wing pieces and disposed parallel to said front member for supporting the container behind said display opening of the front member.

2. A display rack for a container having a hinged lid comprising a front member having two display openings therein, a transparent cover removably mounted on one of said openings and normally registering therewith, side members integral with said front member and disposed at substantially right angles thereto, and supporting flanges bent up from the side members adapted to hold a container in alignment with said covered opening and with the interior of the container lid against the other display opening.



3. A display rack for a container having a hinged lid comprising a front member having a delivery opening and a lid display opening, integral lateral wings on the edges of said front member providing an easel back for the rack, the lower edges of said wings being turned to provide bearing flanges adapted to hold a container against said front and wing members in alignment with the delivery opening and with the interior of the container lid against the display opening.

1,082,079. LAMP-BRACKET. HENRY ALEXANDER GOFF, Englefield Green, England, assignor to John Drake, Egham, England. Filed Jan. 23, 1912. Serial No. 672,936. (Cl. 248-20.)



1. In a lamp support or bracket for use on motor cars and in other situations, the combination of a bi-part hollow support for an electrical conductor, said support being adapted for angular displacement in a vertical plane, a lamp socket adapted to rotate around the same, contacts for preserving an unbroken circuit during rotary movements of the lamp, and means for locking the said socket and the hollow support respectively.

2. In a lamp support or bracket for use on motor cars and in other situations, the combination of a bi-part telescopic support capable of longitudinal and angular adjustment, and a lamp socket embracing one end of said support and adapted to rotate around the same, and means for retaining or locking the same in any angular position, said means consisting of a yielding projection carried by the lamp adapted to engage with notches on the lamp support.

3. In a lamp support or bracket for use on motor cars and in other situations, the combination of a bi-part hollow support adapted for angular displacement in a vertical plane, interlocking washers for retaining said support in position, a lamp socket adapted to embrace

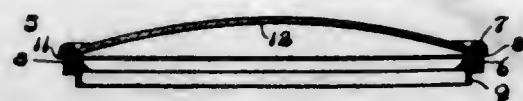
one end of said support and rotate around the same, and a spring controlled catch for locking said socket.

4. In a lamp support or bracket for use on motor cars and in other situations, the combination of a hollow holder adapted to contain an electric conducting wire, a hollow support carried by said holder and adapted for angular displacement in a vertical plane, interlocking washers for retaining said support in position, a lamp socket adapted to embrace one end of said hollow support and to rotate around the same, and a spring controlled catch for locking said socket.

5. In a lamp support or bracket for use on motor cars and in other situations, the combination of a hollow holder, a hollow support carried by said holder and adapted for angular displacement in a vertical plane, a lamp socket adapted to embrace one end of said hollow support and to rotate around the same, and spring controlled members for locking the said socket and the hollow support respectively.

[Claim 6 not printed in the Gazette.]

1,082,080. BEZEL FOR CLOCK-CRYSTALS. WALTER J. HERSCHDE, Cincinnati, Ohio. Filed Mar. 8, 1911. Serial No. 613,065. (Cl. 58-91.)



In combination with the dial ring of a clock, a bezel for the clock crystal comprising an inner ring hinged to the dial ring and provided with a forwardly projecting annular flange encircling the edge of the crystal, an outer ring provided with an inwardly projecting annular flange encircling said forwardly projecting flange, and screws extending through apertures formed in the inner ring and engaging apertures in the outer ring for securing the rings together.

1,082,081. PROCESS OF MAKING A MEDICINAL COMPOSITION. FRANCIS E. HUFNAIL, Minneapolis, Minn. Filed Nov. 19, 1910. Serial No. 593,164. (Cl. 167-7.)

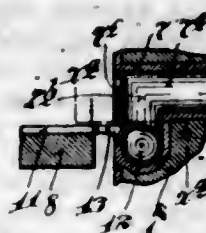
1. The process of making a medicinal compound for use in the treatment of diabetes and kindred diseases which consists in combining a concentrated aqueous decoction of coffee and chemically pure aqua-ammonia through mixing and concentrating by boiling, adding thereto an aqueous solution of urea previously acidulated with aqua regia, rapidly heating the mixture, cooling, filtering and bottling.

2. The process of making a medicinal compound for use in the treatment of diabetes and kindred diseases which consists in mixing equal volumes of a concentrated aqueous decoction of coffee and thirty per cent. chemically pure ammonia, boiling and agitating said mixture until reduced one-half, adding to the resulting concentrate an equal volume of aqueous solution of urea in which has been previously incorporated aqua regia in the proportion of thirty drops for each eight ounces of the urine used, heating the latter mixture rapidly to boiling, with constant agitation, cooling immediately, filtering, and bottling.

3. The process of making a medicinal compound for use in the treatment of diabetes and kindred diseases which consists in the following steps—first, adding to commercial freshly ground coffee water in the proportion of two quarts thereof to each pound of coffee, slowly boiling the same until it attains the consistency of heavy liquid lye, straining hot, cooling, filtering, and boiling again until reduced and concentrated to the proportion of eight ounces of concentrate to each pound of coffee used; second, adding thereto an equal volume of thirty per cent. chemically pure aqua ammonia, heating and boiling slowly with constant agitation, until reduced one half; third, adding to an aqueous solution of urea comprising approximately one-and-one-half per cent. of urea aqua regia, prepared from chemically pure hydrochloric and nitric acid in proportions of two parts of the former to one part of the latter not less than four, nor more than ten,

hours before using, in the proportion of thirty drops of the aqua regia to each eight ounces of the solution of urea; and fourth, uniting equal volumes of the products of the second and third steps, rapidly bringing the mixture to a boil, cooling immediately, filtering and bottling.

1,082,082. SANITARY BABY-DRESSER. LOUIS A. JIRANEK, Minneapolis, Minn. Filed May 13, 1912. Serial No. 606,934. (Cl. 45-38.)



1. The combination with a cabinet of the kind described having a compartment, of a channel guide extending longitudinally of one side of said compartment, and a table having a metallic strap formed with a head mounted to slide in said channel guide, for movement into and out of said compartment, the channel in said guide having a depression or pocket at its outer end, into which the head of said strap may be dropped to lower the table when said table is turned into an operative position at right angles to its position in said compartment, said table, when in an operative position, being held against horizontal swinging movement by engagement with said cabinet.

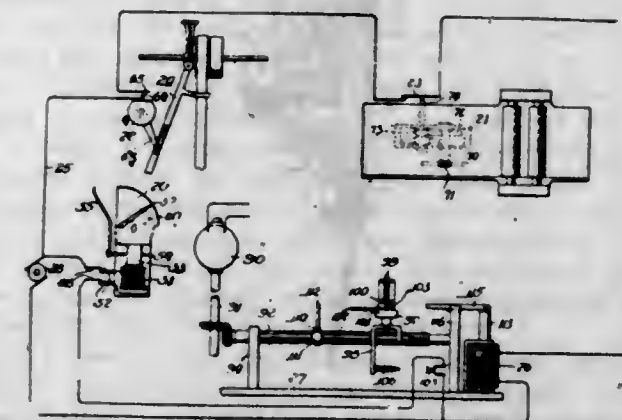
2. The combination with a cabinet of the kind described having a compartment, of a channel guide extending longitudinally of one side of said compartment, and a table having a metallic strap formed with a head mounted to slide in said channel guide, for movement into and out of said compartment, the channel in said guide having a depression or pocket at its outer end, into which the head of said strap may be dropped to lower the table when said table is turned into an operative position at right angles to its position in said compartment, said table, when in an operative position, being held against horizontal swinging movement by engagement with said cabinet, said depression or pocket having an opening at its upper end, through which the head of said strap may be passed.

3. The combination with a cabinet of the kind described having a compartment, of a channel guide extending longitudinally of one side of said compartment, and a table having a metallic strap formed with a head mounted to slide in said channel guide, for movement into and out of said compartment, the channel in said guide having a depression or pocket at its outer end, into which the head of said strap may be dropped to lower the table to a plane with the bottom of said compartment, when said table is turned into an operative position at right angles to its position in said compartment, said table, when in an operative position, being held against horizontal swinging movement by engagement with said cabinet.

1,082,083. CONTROLLING MEANS FOR MACHINE-RECORDERS. AUSTIN C. JOHNSON, Chicago, Ill., assignor, by mesne assignments, to Automatic Production Meter Company, Chicago, Ill., a Corporation of Maine. Filed Feb. 12, 1913. Serial No. 747,851. (Cl. 234-1.5.)

1. In controlling means of the class described, the combination of a recording device, a timing device electrically connected to the recording device, means on said timing device for setting up operating periods whereby said recording device shall be actuated at the beginning and after the expiration of an operating period, a switch associated with a shop machine, said switch being electrically connected to said timing device, the arrangement being such that the beginning of an operating period on said timing device is controlled by the operating of the switch on the shop machine, substantially as described.

2. In controlling means of the class described, the combination of a recording device, a timing device electrically connected to the recording device, means on said timing device for setting up operating periods whereby said recording device shall be actuated at the beginning and after the expiration of an operating period, a switch associated with a shop machine, said switch being electrically connected to said timing device, the beginning of an operating period being determined by the operation of the switch on the shop machine, the ending of the operating period being determined by mechanism on the timing device, substantially as described.



3. In controlling means for recording devices, the combination of a timing device in circuit with a recording device, said timing device acting as the recorder-actuating means, a switch operatively connected to a shop machine, said timing device being separately in circuit with said switch, means for setting up operating periods on said timing device, said recorder being actuated electrically at the beginning and end of an operating period, the beginning of such period being determined by the insertion of work into the shop machine and the actuation of the switch in circuit with said timing device, substantially as described.

4. In means of the class described, the combination of a recording device and a timing device for actuating the same, a constantly rotating member and an actuating member associated with said timing device and arranged whereby motion is imparted to said actuating member, substantially as described.

5. In means of the class described, the combination of a recording device and a timing device for actuating the same, a constantly rotating member and an actuating member associated with said timing device and arranged whereby motion is imparted to said actuating member, and means for tripping said actuating member, said tripping means being actuated by a shop machine, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,082,084. BEARING. SYLVESTER H. JONES, Richmond, Ind., assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Oct. 11, 1912. Serial No. 725,160. (Cl. 64-22.)

1. In a bearing, a fixed bearing block, a rotatable member, a housing carried by said member journaled on said block, a flexible washer fitted to said block, a wearing ring between said flexible washer and the outside of said housing, means for holding said ring and washer against rotation, and a cap carried by said member and in frictional engagement with the exposed side of said flexible washer.

2. In a bearing, a fixed bearing block having a reduced portion, a rotatable member, a housing carried by said member journaled upon said block, a flexible washer fitted to the reduced portion of said block on the outside of said housing, a wearing ring encircling said reduced portion of the block between said flexible washer and the outside of said housing, means for holding said ring and washer against rotation, and a cap carried by said member and encircling said reduced portion of said block and frictional engagement with the exposed side of said washer.

3. In a bearing, a fixed bearing block, a rotatable member, a housing carried by said member journaled on said block, a flexible washer on said block on the outside of said housing, a wearing ring between said flexible washer



and housing and formed to embrace the outer periphery of said washer, means for holding said ring and washer against rotation on said block, and a cap also carried by said member in frictional engagement with the exposed side of said washer.

1,082,085. BRASSIÈRE. GUNTHER KEITEL, New York, N. Y. Filed June 16, 1913. Serial No. 774,016. (Cl. 2—87.)



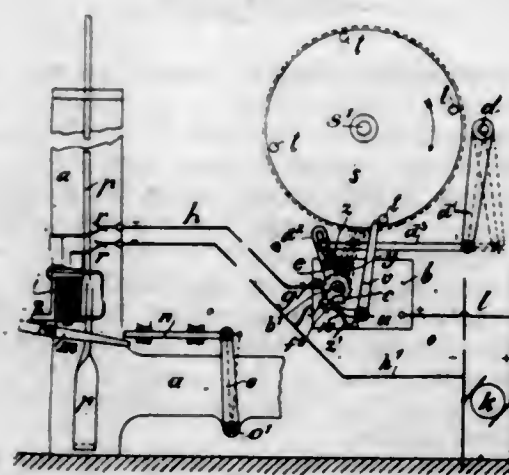
A waist garment provided at each of the breast portions with a pocket that has one face formed of two substantially semi-circular complementary pieces which are secured to the garment by their curved margins only to form a substantially circular pocket, the straight margins of the pieces being free and substantially coincident, and circular stiffening members of concavo convex form one removably inserted in each said pocket at said free margins and the stiffening members being retained in position on the garment solely by the members forming the pockets.

1,082,086. LOOM STOPPING MECHANISM. ALBERT GEORG KOECHLIN, Steinen, Germany, assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 23, 1910. Serial No. 573,528. (Cl. 139—52.)

1. A stopping mechanism for automatic weft-replenishing looms having, in combination, a shipper lever; a step-by-step moving controller; connecting means between said controller and shipper lever whereby after a predetermined but adjustable number of advance movements of the controller the shipper lever is tripped to stop the loom; an actuator for said controller which is moved each time the weft is replenished to advance said controller one step; and restoring mechanism for

said controller, including a uniformly advancing releaser, timed to reset the controller to its initial position after the lapse of a period corresponding to the running of the loom with a normally lasting supply of weft.

2. A stopping mechanism for automatic weft-replenishing looms having, in combination, loom-stopping devices, a step-by-step moving controller; connecting means between said controller and said stopping devices whereby after a predetermined but adjustable number of advance movements of the controller the loom is stopped; an actuator for said controller which is moved each time the weft is replenished to advance said controller one step; and restoring mechanism for said controller, including a uniformly advancing releaser, timed to reset the controller to its initial position after the lapse of a period corresponding to the running of the loom with a normally lasting supply of weft.



3. A stopping mechanism for automatic weft-replenishing looms having, in combination, loom stopping devices; a step-by-step moving controller; connecting means between said controller and loom stopping devices whereby after a predetermined number of advanced movements of the controller the loom is stopped; an actuator for said controller which is moved each time the weft is replenished to advance said controller one step; and restoring mechanism for said controller timed to reset the controller to its initial position after the lapse of a period corresponding to the running of the loom with a normally lasting supply of weft.

4. A stopping mechanism for automatic weft-replenishing looms having, in combination, loom stopping devices; a controller having step-by-step movements occurring at indeterminate intervals; connecting means between said controller and loom stopping devices whereby after a predetermined but adjustable number of advance movements of the controller the loom is stopped; an actuator for said controller which is moved each time the weft is replenished to advance said controller one step; and restoring mechanism for said controller timed to reset the controller to its initial position after the lapse of a definite period in the weaving of cloth by the loom.

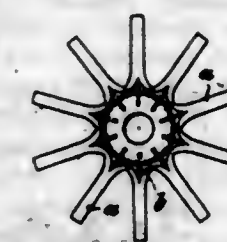
5. A stopping mechanism for automatic weft-replenishing looms having, in combination, loom stopping devices; a controller having successive advance movements occurring at indeterminate intervals; connecting means between said controller and loom stopping devices whereby after a predetermined number of advance movements of the controller the loom is stopped; an actuator for said controller which is moved each time the weft is replenished to advance said controller one step; and restoring mechanism for said controller timed to reset the controller to its initial position after the lapse of a definite period in the weaving of cloth by the loom.

[Claim 6 not printed in the Gazette.]

1,082,087. WHEEL-SPOKE STAR. RUDOLF KRONENBERG, Ohligs, Germany. Filed Dec. 16, 1912. Serial No. 736,971. (Cl. 21—69.)

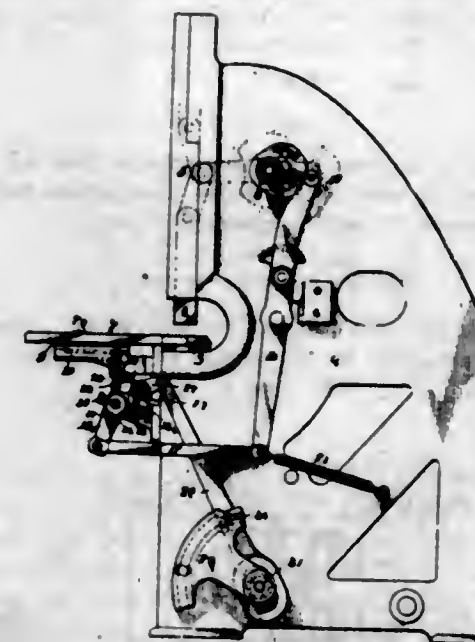
A spoke star comprising hollow spokes formed in two members, each spoke having outwardly curved inner ends

nested together with the corresponding ends of adjacent spokes, a wooden ring between the opposite sides of said



spokes and radial bars in said ring projecting outwardly between the curved ends of said spokes.

1,082,088. FEEDING DEVICE FOR PRESSES. EDWARD M. LOCKWOOD, Philadelphia, Pa., assignor to C. R. Carver Company, a Corporation of Pennsylvania. Filed May 9, 1913. Serial No. 766,465. (Cl. 101—36.)



1. In a machine of the character described, dies and means for moving the dies relatively to or from each other, combined with a reciprocating table movable to and from the dies for feeding a sheet thereto, a rock shaft and connecting means with the table for reciprocating it, power devices for rocking the rock shaft synchronously with the movement of the dies relatively to or from each other, and a clutch device connected with the rock shaft and adapted to engage either a stationary part of the machine to hold the rock shaft against motion or to engage the power devices for operating the rock shaft.

2. In a machine of the character described, dies and means for moving the dies relatively to or from each other, combined with a reciprocating table movable to and from the dies for feeding a sheet thereto, a locking device for locking the table when in position nearest the dies, operative mechanism to actuate the locking device alternately into and out of locking position, a rock shaft and connecting means with the table for reciprocating it, power devices for rocking the rock shaft synchronously with the movement of the dies relatively to or from each other, and a clutch device connected with the rock shaft and adapted to engage either a stationary part of the machine to hold the rock shaft against motion or to engage the power devices for operating the rock shaft.

3. In a machine of the character described, dies and means for moving the dies relatively to or from each other combined with a reciprocating table movable to and from the dies for feeding a sheet thereto, a locking device for locking the table when in position nearest the dies, operative mechanism to actuate the locking device alternately into and out of locking position, a rock shaft and connecting means with the table for reciprocating it, power devices for rocking the rock shaft synchronously with the movement of the dies relatively to or from each other, a clutch device connected with the rock shaft and adapted to engage either a stationary part of the machine to hold

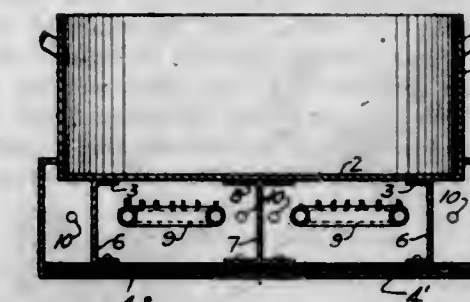
the rock shaft against motion or to engage the power devices for operating the rock shaft, and means for disconnecting the operative mechanism from the locking device simultaneously with the disconnecting of the power devices with the rock shaft.

4. In a machine of the character described, dies and means for moving the dies relatively to or from each other, combined with a reciprocating table movable to and from the dies for feeding a sheet thereto, a locking device for locking the table when in position nearest the dies, operative mechanism to actuate the locking device alternately into and out of locking position, a rock shaft and connecting means with the table for reciprocating it, power devices for rocking the rock shaft synchronously with the movement of the dies relatively to or from each other, a clutch device connected with the rock shaft and adapted to engage either a stationary part of the machine to hold the rock shaft against motion or to engage the power devices for operating the rock shaft, means for disconnecting the operative mechanism from the locking device simultaneously with the disconnecting of the power devices with the rock shaft, and automatic means for retaining the locking device in locking position when disconnected from the operative mechanism.

5. In a machine of the character described, dies and operating means for moving the dies relatively to and from each other, combined with a reciprocating table movable to and from the dies, a carriage supporting the table, guides for the carriage secured on the machine, a rock shaft, connections between the rock shaft and the carriage for reciprocating it and the table, an oscillating arm journaled upon the end of the rock shaft, power devices for continuously oscillating the arm synchronously with the operation of the dies, and a clutch device consisting of a body sliding upon the rock shaft and rocking therewith and having oppositely directed engaging parts for alternately engaging the oscillating arm and the frame of the machine whereby the rock shaft may be put into motion by connection with the oscillating arm or may be held against motion by connection with the frame of the machine.

[Claims 6 to 9 not printed in the Gazette.]

1,082,089. WATER-HEATER. JACOB B. MALEN, Detroit, Mich. Filed Apr. 30, 1913. Serial No. 764,718. (Cl. 126—350.)

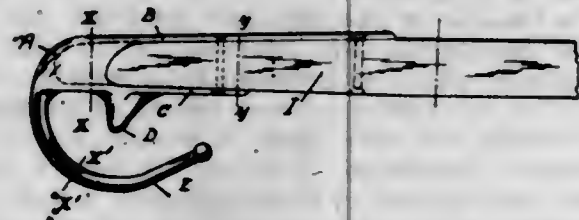


In combination with a boiler, of a bottom member arranged in spaced relation and beneath the bottom of the boiler, a non-flammable lining for said bottom, an upwardly extending wall formed on said bottom and having an inwardly extending flange at its upper edge forming a chamber beneath the boiler, supporting members having angularly disposed upper ends adapted to support the boiler so that the bottom thereof is arranged within the upper end of the chamber, said wall being provided with a plurality of openings to permit the entrance of air and the escape of the products of combustion, and burners arranged within said chamber whereby water contained within the boiler may be readily heated.

1,082,090. POLE-TIP. EDWARD MCCAULEY, Minneapolis, Minn., assignor of one-half to William Terance McCauley, Fallowfield, Canada. Filed Sept. 9, 1910. Serial No. 581,324. Renewed Oct. 2, 1913. Serial No. 793,063. (Cl. 21—92.)

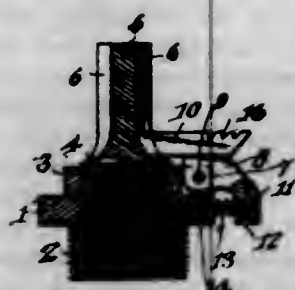
A pole tip formed in one integral piece comprising a socket portion having a closed partially rounded forward

end, provided with a hook forming a continuation of the curve of the rounded portion and extending downwardly and rearwardly therefrom, said hook terminating in a free end which is bent upwardly toward the rear end of



the socket, a lug on the underside of the socket portion over-hanging the hook at a point intermediate the length of said hook, the underside of the socket portion lying between the said lug and the hook being in a substantially straight line as shown and described.

1,082,091. AUTOMATIC GREASE-PLUG LOCK. ALBERT P. MCGLINCHY, Lincoln, Nebr. Filed July 13, 1912. Serial No. 709,290. (Cl. 184-48.)



An automatic grease plug comprising an internally and an externally threaded body portion, a collar formed integral with said body portion and provided with a socket formed in the periphery thereof, a pair of spaced ears formed integral with said body and extending above said collar, a threaded plunger adapted to be rotated in said body and provided with a plurality of vertically extending grooves, a locking pawl pivotally mounted between said ears and provided with a depending knuckle having a pocket portion in alignment with the socket formed in said collar, a coil spring positioned in said socket and said pocket, said depending knuckle of said pawl constituting means for protecting said spring, said pawl provided with a finger portion adapted to engage one of the grooves of said plunger and said finger portion provided with a plurality of transversely extending finger engaging grooves at its rear end for facilitating the withdrawal of said finger from said vertically extending grooves of said plunger.

1,082,092. RELAY DEVICE. AXEL ORLING, Tooting, London, England, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Filed Oct. 6, 1911. Serial No. 653,195. (Cl. 178-46.)

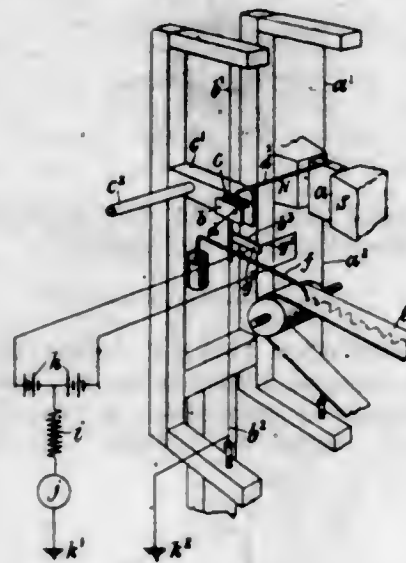
1. A relay contrivance, comprising a primary pivoted element, means for displacing said primary element, a screen carried by said primary element, a secondary pivoted element and a stream of fluid directed to impinge on said screen and on said secondary element.

2. A relay contrivance, comprising a primary pivoted element, means for displacing said primary element, a screen carried by said primary element, a secondary pivoted element, a stream of fluid directed to impinge on said screen and on said secondary element and means for recording displacements of said secondary element.

3. A relay contrivance, comprising a primary pivoted element, means for displacing said primary element, a screen carried by said primary element, a secondary pivoted element, a stream of fluid directed to impinge on said screen and on said secondary element and a second stream of fluid directed to impinge on the opposite side of said secondary element to said first stream.

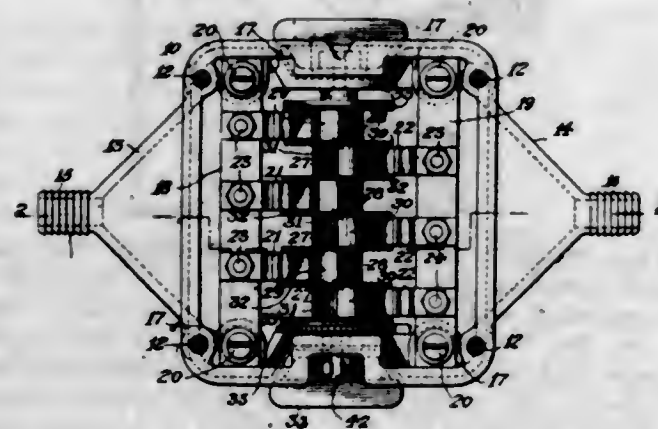
4. A relay contrivance, comprising a primary pivoted element, means for displacing said primary element, a

screen carried by said primary element, a second pivoted element, a stream of fluid directed to impinge on said screen and on said secondary element, a second stream of



fluid directed to impinge on the opposite side of the secondary element to said first stream and means for recording displacements of said secondary element.

1,082,093. ELECTRICAL SNAP-SWITCH. CHRISTIAN F. PAUL, Peekskill, N. Y. Filed Oct. 15, 1912. Serial No. 725,840. (Cl. 175-290.)



1. The combination of a rotatable contact element elliptical in cross-section and having axially spaced electrically connected contact surfaces on its opposite sides; yielding terminals having contact faces bearing yieldingly on the opposite sides of the contact element to cooperate with said contact surfaces; means for connecting said terminals in an electric circuit; and means to impart a rotary movement to the contact element.

2. The combination of a rotatable contact element elliptical in cross-section and provided with electrically connected axially spaced contact surfaces on its opposite sides; spring terminals bearing yieldingly on the opposite sides of the contact element to cooperate with the contact surfaces and to impel the contact element when the same is turned through an appropriate angle; means for connecting the terminals in an electric circuit; and manual means to turn the contact element through said appropriate angle and permit independent additional rotary movement by the impulse of the terminals.

3. The combination of a plurality of yielding terminals and a rotary contact element elliptical in cross-section, cooperating to afford a rotative impulse on the said element when the same is turned through an appropriate angle; contacts on opposite faces of the contact element, extending past the shorter diameter thereof from the opposite ends of the longer diameter; an actuating device to turn the rotary element in a given direction through such appropriate angle and permitting additional and independent rotation of the said element in the same direc-

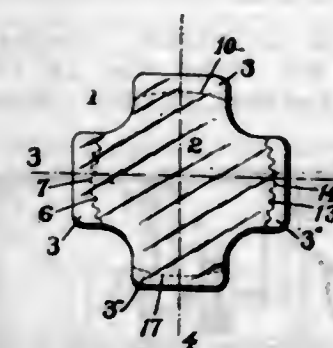
tion; means to prevent reverse rotation of the rotary contact element; and means for connecting the terminals in an electric circuit.

4. In a snap switch, a rotatable contact button elliptical in cross-section; and a contact extending from one end of the longer diameter of the button past the lesser diameter but terminating short of the other end of the longer diameter; in combination with a yielding terminal bearing on the face of button; whereby the tension of the terminal may impel the button rotatively when the button is turned through an appropriate angle.

5. In a snap switch, a rotatable contact member of substantially elliptical cross-section, in combination with a yielding terminal comprising a strip of spring metal bent to zig-zag shape and to lobe-like form at its bends and having a face bearing on the rotatable member.

[Claims 6 to 12 not printed in the Gazette.]

1,082,094. SMOOTHING DEVICE FOR STARCHED LINEN. LOOMIS F. PEASE, New York, N. Y. Filed Mar. 26, 1912. Serial No. 686,235. (Cl. 68-11.)



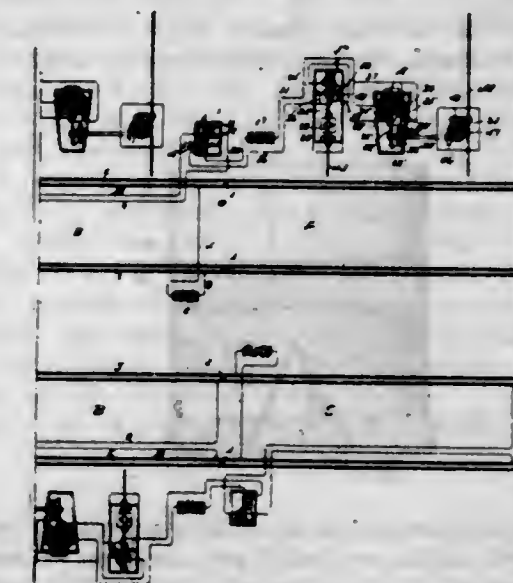
1. In a device of the kind described, a glass cross-shaped body-portion providing outwardly projecting arms, the free end of one arm having a smooth-sided groove extending therethrough of a width sufficient to receive the fold of a double fold or turn-down collar, the free end of another arm having a groove extending therethrough of a width sufficient to receive the fold of a double fold or turn-down collar, said groove being provided with transverse rounded corrugations, the free end of another arm having a smooth-sided groove extending therethrough of a width sufficient to receive a single fold or standing collar, and the free end of the remaining arm having a groove extending therethrough of width sufficient to receive a single fold or standing collar, said groove being provided with transverse rounded corrugations, substantially as and for the purposes set forth.

2. In a device of the kind described, a glass cross-shaped body-portion providing outwardly projecting arms, the free end of one arm having a smooth-sided groove extending therethrough of a width sufficient to receive the fold of a double fold or turn-down collar, the free end of another arm having a groove extending therethrough of a width sufficient to receive the fold of a double fold or turn-down collar, said groove being provided with transverse rounded corrugations, the free end of another arm having a smooth-sided groove extending therethrough of a width sufficient to receive a single fold or standing collar, and the free end of the remaining arm having a groove extending therethrough of width sufficient to receive a single fold or standing collar, said groove being provided with transverse rounded corrugations, all of said grooves in said respective arms having a longitudinally convex bottom with the low portions thereof at the ends of the grooves, substantially as and for the purposes set forth.

1,082,095. TRAIN CONTROL AND SIGNAL SYSTEM FOR DOUBLE-TRACK RAILWAYS. FRANKLIN A. PRINCE, Wheeling, W. Va. Filed Apr. 21, 1909. Serial No. 491,254. (Cl. 240-59.)

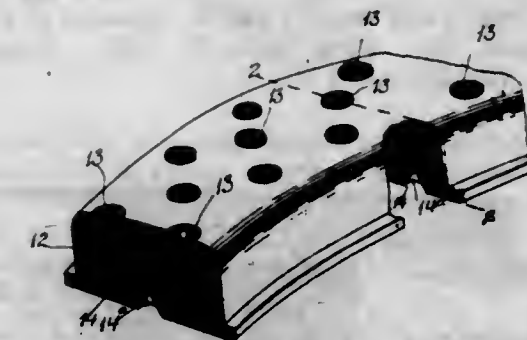
In a protective system for railways, a track divided into blocks, a normally closed track circuit including a magnet for each block, a train control circuit controlled by

said magnet, main energizable means included in said train control circuit, air brake valve operating means connected to said main energizable means so as to be moved thereby from operative to inoperative position, auxiliary energizable means, controlled by said magnet means actuated by said auxiliary means when energized for locking said valve operating means in inoperative position, said locking means opening the train control circuit when moved to locking position, said magnet being adapted to be deenergized when a train enters the block, means re-



leased by the magnet when deenergized for effecting the opening of the train control circuit, the last mentioned means being actuated, when the train leaves the block and said track circuit is reestablished, to reestablish the train control circuit through said main energizable means, and means controlled by the reestablishment of the circuit through said main energizable means for energizing said auxiliary energizable means, whereby said locking means of the valve operating means is operated and the circuit through the main energizable means is simultaneously broken.

1,082,096. RESILIENT TREAD. PHILIP W. PRATT, Boston, Mass. Filed Mar. 23, 1912. Serial No. 685,891. (Cl. 152-2.)



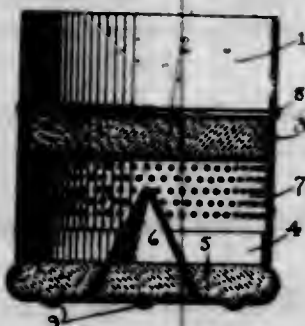
1. A resilient tread comprising a body of elastic material and a plurality of series of anti-slipping plugs of fabric embedded in said body, the plugs of one series extending inwardly from the tread face of said body but not through to the back face, the plugs of the next series alternating with and overlapping the inner ends of the plugs of the first-mentioned series but not extending to the outer or tread face, whereby the continuity of the function of the plugs will be preserved during wear without imparting undue radial rigidity by the employment of plugs.

2. A resilient tread comprising a body of elastic material having a tread face and a back face, a series of anti-slipping outer plugs extending inwardly from the tread face partly but not entirely to the back face, and a series of similar inner plugs extending outwardly from the inner face partly but not entirely to the outer face, and alternating with the outer plugs, said plugs having lateral recesses to render them longitudinally compressible.

3. A resilient tread comprising a body of elastic material having a tread face and a back face, a series of anti-

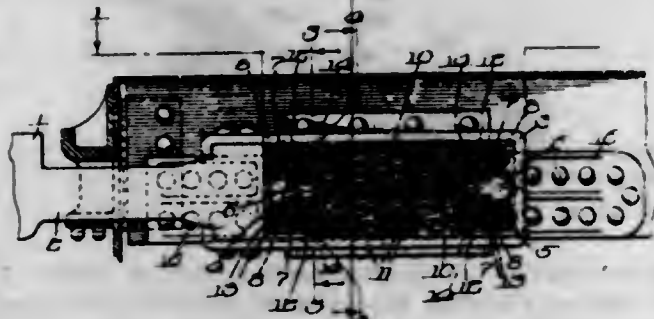
slipping outer plugs extending inwardly from the tread face partly but not entirely to the back face, and a series of similar inner plugs extending outwardly from the inner face partly but not entirely to the outer face, and alternating with the outer plugs, said plugs having lateral recesses to render them longitudinally compressible, the inner plugs being provided with a greater number of said recesses than the outer plugs to render said inner plugs more compressible than the outer plugs.

1,082,097. FUMIGATOR. JAMES PRICE and WILLIAM G. WINTER, Holland, Mich. Filed Nov. 18, 1912. Serial No. 732,116. (Cl. 167-3.)



A fumigator, comprising a cup like germicide container partially filled with a semi-solid germicide, an extension on the inner surface of the germicide container to retain the germicide, a cup like fuel container having a circumferential enlargement to retain a semi-solid fuel substance and a wick embedded in the fuel, a drum adapted to receive the germicide container at one end and the fuel container at the other end and forming therebetween a combustion chamber, the wall of said drum being perforated throughout to admit air for combustion, but the perforations being fine enough to form an effective fire stop, external circumferential shoulders on both of said containers to engage the respective ends of said drum, the fuel receptacle being adapted to fit into the mouth of the germicide container when packed for shipment, and for operative position to be removed therefrom and inserted into the end of the drum opposite the germicide container.

1,082,098. FRICTION DRAFT-GEAR. HERMAN C. PRIEBE, Blue Island, Ill. Filed June 7, 1912. Serial No. 702,171. (Cl. 213-64.)



1. A friction draft gear including pocketed follower plates having vertically disposed pockets; friction blocks in the top and bottom portions of said pockets, said pockets and the upper ones of said blocks being provided with interengaging lugs and grooves extending longitudinally of the draft gear whereby the upper friction blocks are prevented from dropping; friction elements entering said pockets; and spring mechanism pressing these latter friction elements into frictional engagement with the aforesaid friction blocks.

2. A friction draft gear including pocketed follower plates having vertically disposed pockets and friction portions; upper and lower friction elements entering said pockets to have frictional engagement with said friction portions, the upper friction element having shelves; forward and rear friction blocks carried by said shelves and entering the pockets of the follower plates; and spring

mechanism pressing these latter friction elements into frictional engagement with the aforesaid friction portions.

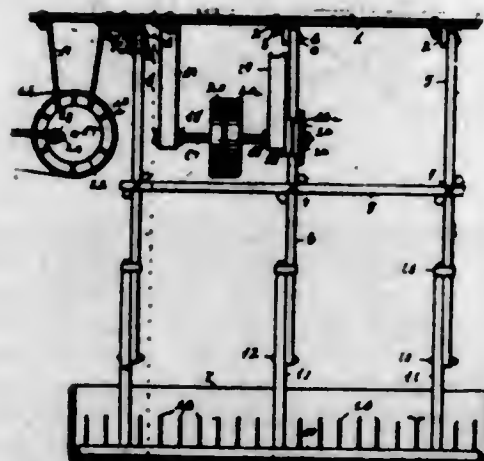
3. A friction draft gear including pocketed follower plates having vertically disposed pockets and friction portions; and upper and lower friction elements entering said pockets to have frictional engagement with said friction portions, one of said friction elements including friction blocks and a portion carrying the same, said portion and blocks having interengaging lugs and grooves extending longitudinally of the draft gear whereby said friction blocks are prevented from dropping.

1,082,099. PRINTING COMPOUND. FRED A. PUTNAM, Melrose, Mass. Filed May 25, 1912. Serial No. 699,740. (Cl. 134-35.)

1. A printing compound composed of a water-repellent base dissolved in carbolic acid and mixed with a coloring ingredient to form a pasty, but non-sticky mass which is rendered thinly fluid by heat.

2. A printing compound comprising a vegetable wax dissolved in carbolic acid and containing a coloring ingredient.

1,082,100. MILK-AGITATOR. ROBERT A. SCHULTZ, Maple Grove, Wis. Filed Nov. 16, 1912. Serial No. 731,809. Renewed Sept. 13, 1913. Serial No. 789,714. (Cl. 31-22.)



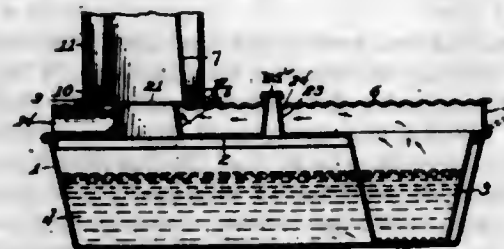
1. A milk agitator, consisting of a vat for holding milk, a frame suspended for oscillation vertically over the longitudinal center of said vat and consisting of a plurality of bars suspended, each from a pivotal bracket secured to the over head work of a room, said bars extending downward to a point above the milk vat, a wrist pin upon one of said bars, a milk stirrer consisting of a rake head arranged near the bottom of the milk vat and a series of teeth spaced apart thereon, handles to the rake head corresponding in position thereon with the position of said oscillating bars pivoted intermediate their ends to the lower ends of said bars, and adapted to be swung at an angle therewith, means for holding said handles parallel with said bars, a shaft mounted for revolution in a suitable position relative to said frame, a crank upon said shaft, a wrist pin upon said crank and a rod connecting said wrist pin and the wrist pin upon one of said bars aforesaid.

2. A milk agitator, consisting of a vat for holding milk, a frame suspended for oscillation, vertically over the longitudinal center of said vat and consisting of a plurality of bars of wood suspended, each from a pivotal element secured to the over head work of a room and extending downward to a point above the vat, a horizontally arranged stiffener bar of wood connecting with each of said bars intermediate their ends and spacing them apart a rake head formed of wood, a series of teeth spaced a short distance apart extending upward from the rake head, handles of wood corresponding with the number and position of said suspended bars pivotally attached intermediate their ends to the lower ends of said bars, a socket mounted to slide upon each vertically suspended bar and inclose the outer end of a handle and clamp it alongside of one of said bars, and means for swinging said frame and rake head transversely of the milk vat.

3. In a milk agitator, a milk stirring device consisting of a frame formed of a plurality of bars of wood, each arranged to be suspended for oscillation from a pivotal element secured to the over head work of a room, a stiffener bar formed of wood arranged horizontally and connected to each suspended bar with a clamp bolt inclosing both vertical and horizontal bars, a rake head formed of wood, a series of teeth extending upward from the rake head and spaced a short distance apart thereon, handles corresponding in number and position with the number and position of said suspended bars extending upward from the rake head and pivoted intermediate their ends to the lower ends of their respective suspension bars, and a metallic rectangular socket for each handle slidably arranged upon each suspension bar, one end of which sockets is angularly disposed relative to the other end and is adapted to fit at said angular disposed end the tapering end of a handle and thereby have a tendency to become tightened thereon when in use.

4. In a milk agitator for a milk vat, a milk stirring device consisting of a rake head arranged for a swinging movement transversely of the milk vat, a series of rake teeth spaced a short distance apart and extending upward from said rake head and a plurality of handles by which the rake head can be swung.

1,082,101. ORCHARD-HEATER. THOMAS SILK, Martins Ferry, Ohio. Filed Apr. 4, 1913. Serial No. 758,776. (Cl. 158-91.)



1. An orchard heater comprising an oil receptacle, a fire-pot having an opening at its lower end mounted within said receptacle, a cover mounted upon said receptacle to prevent communication of flame from the fire-pot to the portion of said receptacle outside the fire-pot, a second cover overlying the receptacle to afford a passageway from the fire-pot over the first cover for the products of combustion, said second cover having an opening therein, a stack mounted about said opening, a gas conduit leading into said stack from the interior of the receptacle, and means supplying air to the conduit.

2. An orchard heater comprising an oil receptacle, a fire-pot having an open lower end mounted within said receptacle, a cover mounted upon said receptacle whereby communication of flame from the fire-pot to the portion of said receptacle outside the fire-pot is prevented, a second cover overlying the receptacle to afford a passageway from the fire-pot over the first cover for the products of combustion, said second cover having an opening therein, a stack mounted on the second cover about said opening, a gas conduit leading into said stack from the interior of the receptacle, means for supplying air to the conduit, and controllable means for admitting a draft through said passageway.

3. An orchard heater comprising an oil receptacle, a fire-pot mounted within said receptacle and having communication through its lower end with the latter, a cover mounted upon said receptacle whereby communication of flame from the fire-pot to the portion of said receptacle outside the fire-pot is prevented, a second cover overlying the receptacle to afford a passageway from the fire-pot over the first cover for the products of combustion, said second cover having an opening therein, a stack mounted on the second cover about said opening, a gas conduit leading into said stack from the interior of the receptacle, means supplying air to the conduit, and means whereby combustion of oil within the fire-pot may be regulated.

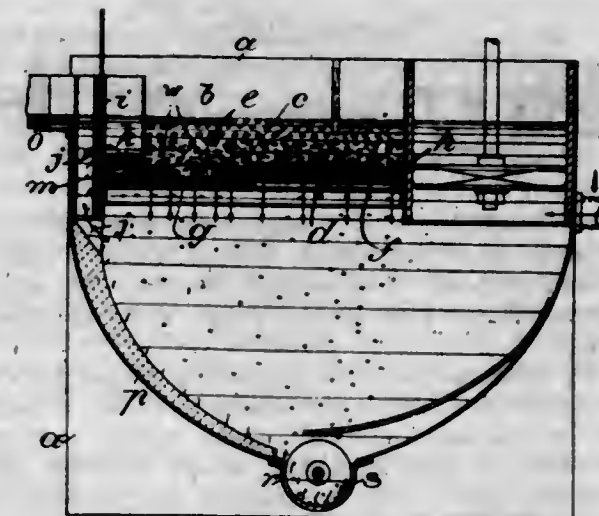
4. An orchard heater comprising an oil receptacle, a fire-pot mounted within said receptacle and having com-

munication through its lower end with the latter, a cover mounted upon said receptacle whereby communication of flame from the fire-pot to the portion of said receptacle outside the fire-pot is prevented, means whereby the products of combustion from said fire-pot are caused to pass over said cover and impart heat to the oil in the receptacle, a conduit for gas leading from the interior of said receptacle, a stack encircling the mouth of said conduit and adapted to receive the products of combustion from the fire-pot, and means supplying air to the conduit for facilitating combustion of gas within the stack.

5. An orchard heater comprising an oil receptacle, an open fire-pot seated within said receptacle and having communication through its lower end with the latter, means covering the portion of said receptacle not occupied by said pot, a conduit leading upward from the interior of said receptacle through said covering means, a cover overlying said receptacle above said fire-pot and said covering means whereby a passage for the products of combustion from the fire-pot is constituted, said cover having an opening therethrough, a stack with which both said passage and said conduit communicate through said opening, and means supplying air for mixing with gas generated within the receptacle.

[Claims 6 to 14 not printed in the Gazette.]

1,082,102. COAL-JIGGER. CHRISTIAN SIMON, Essen-on-the-Ruhr, Germany. Filed Sept. 4, 1912. Serial No. 718,550. (Cl. 83-79.)



In combination in a jigger, a sieve compartment, a sieve and a stone bed therein, a dam extending across said compartment and composed of vertical bars extending from the sieve and spaced apart sufficiently to permit forward travel of the material being jigged, but not sufficiently to permit such travel of the stones.

1,082,103. FLY-CATCHER AND GARBAGE-CAN COMBINATION. GROVER C. WELTER, Roswell, N. Mex. Filed June 24, 1912. Serial No. 705,543. (Cl. 43-22.)

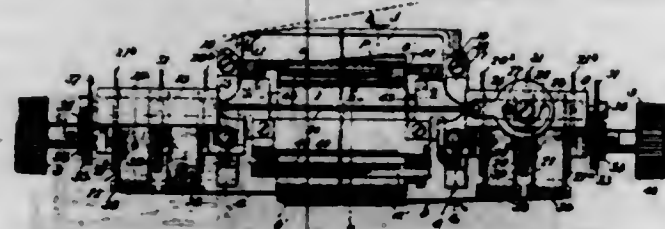
A fly catcher of the class described comprising a support, a body positioned upon said support and comprising a base, said base provided with a plurality of converging arms, an integral connecting means engaging the upper end of said arms, a band passing around the lower edge of said body, said band provided with a plurality of upwardly extending wire retaining lugs, a wire mesh covering positioned over said upwardly extending converging arms, said upwardly extending lugs firmly holding said wire mesh covering upon said body, a protector ring positioned upon the upper end of said body and provided with a plurality of downwardly extending diverging arms which fit snugly against said upwardly extending converging arms for firmly holding said wire mesh covering upon said upwardly extending diverging arms throughout their entire length fitting in close proximity with said upwardly extending arms, and a plurality of clamping

fingers carried by said retaining ring and fitting snugly against said upwardly extending converging arms for



keeping said wire mesh in a taut position upon said body.

1,082,104. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. JORAM A. ZIEGLER, Chattanooga, Tenn., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Mar. 17, 1910. Serial No. 549,920. (Cl. 197-153.)



1. The combination with supporting means for a folded paper strip, of an ink ribbon located within a fold of the strip and disposed transversely thereof, and means extended within a fold of the paper strip to retain the ribbon.

2. The combination with supporting means for a folded paper strip, of a carrier, a transfer element extended into a fold of the paper strip from the carrier and disposed transversely to said strip, and means extended into said fold of the paper strip to support the transfer element at a point remote from the carrier.

3. The combination with supporting means for a longitudinally folded work element, of two carriers both supported outside of a fold of said work element and one of said carriers being extended into said fold of the work element, and a transfer element extended between the carriers and located within the fold of the work element.

4. The combination with supporting means for a longitudinally folded work element, of two carriers both supported outside of a fold of said work element and one of said carriers being extended into said fold of the work element, and a transfer element extended between the carriers and located within a fold of the work element and extended transversely of said element.

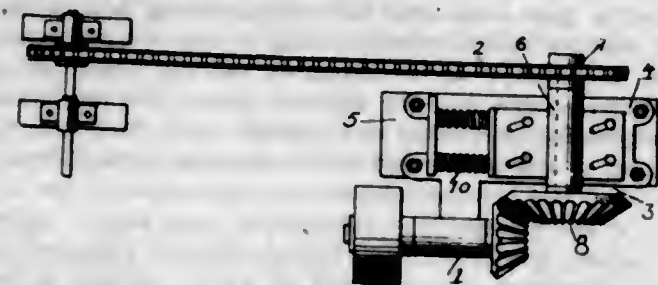
5. The combination with a support for a longitudinally disposed work element, of a ribbon carrier located outside of the fold of said work element, a second ribbon carrier supported outside of said fold of the work element, but extended into said fold, a transfer element extended between the carriers and located within the fold of the work element, and means for feeding the transfer element.

[Claims 6 to 32 not printed in the Gazette.]

1,082,105. RELEASABLE DRIVING MECHANISM. GEORGE A. ANDERSON, Bothell, Wash. Filed Oct. 17, 1912. Serial No. 726,264. (Cl. 74-7.)

1. In combination with a drive mechanism, a releasable driving mechanism, supported for movement toward and

from said drive mechanism, and endless flexible means connected to receive power from said driving mechanism and hold said driving mechanism in its operative position, and resilient means tending to force said driving mechanism to a releasing position.



2. In a device of the character described, a drive shaft, a gear thereon, a driving mechanism slidably supported, a gear on said driving mechanism normally in mesh with said first named gear, a chain, a sprocket wheel on said driving mechanism over which said chain passes, and springs tending to force said driving mechanism from said drive shaft, for the purpose specified.

3. In a device of the character described, a drive shaft, a gear thereon, a bearing slidably supported and provided with cam slots, fixed pins projecting through the slots of said bearing, a shaft journaled in said bearing, a gear on said shaft normally in mesh with said first named gear, a sprocket wheel on said last named shaft, means tending to slide said bearing so as to disengage said gears, and a chain passing over said sprocket wheel and thereby holding said last named gear in mesh with said first named gear.

4. In combination with drive and driven mechanisms, a releasable driving mechanism therebetween, a support on which said releasable driving mechanism is mounted for movement toward and from said drive mechanism, said driven mechanism retaining the driving mechanism in its operative position, and means interposed between the support and the releasable driving mechanism for moving the latter to a releasing position when released by said driven mechanism.

5. In combination with drive and driven mechanisms, a releasable driving mechanism therebetween slidably supported for movement toward and from said drive mechanism and being held in its operative position against sliding by said driven mechanism.

1,082,106. VULCANIZED GLYCEROL RESIN. WILLIAM C. ARSEM, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 8, 1913. Serial No. 752,977. (Cl. 106-23.)

1. The process which consists in heating a mixed glycerol ester of phthalic anhydride and oleic acid with sulfur until reaction takes place with the formation of a rubber-like mass.

2. The process which consists in heating a mixed ester of a polyacid alcohol containing an unsaturated acid with sulfur until reaction takes place with the formation of a rubber-like mass.

3. The process which consists in heating a mixture of a glycerol ester of phthalic and oleic acids and sulfur until reaction occurs.

4. A rubbery, infusible composition comprising a sulfurized mixed ester of a polybasic saturated acid, and an unsaturated acid.

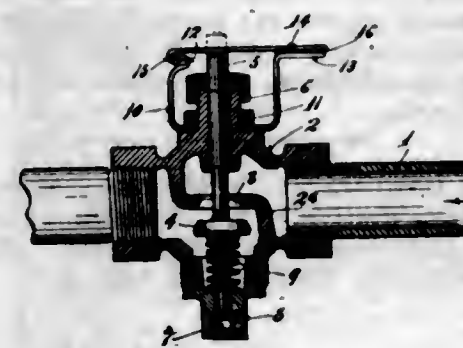
5. A rubber-like, infusible composition comprising a compound of sulfur and the glycerol ester of phthalic and oleic acids.

[Claim 6 not printed in the Gazette.]

1,082,107. THERMALLY-RELEASED CHECK-VALVE. AXEL W. CARLSON, Minneapolis, Minn. Filed Mar. 22, 1913. Serial No. 756,171. (Cl. 137-92.)

The combination with a conduit, of a valve casing interposed in said conduit, a stuffing box on said casing, a valve in said conduit having a stem working through said stuffing box, a spring tending to close said valve, a yoke having its transverse portion secured to the hub of said

stuffing box, one of the prongs of said yoke having a hook and the other prong thereof being bent laterally, and a lever having, at one end, a hook separably fulcrumed on the hook of said yoke and having its other end secured,



by fusible solder, to the laterally bent portion of said prong, the intermediate portion of said lever having engagement with said valve stem to normally hold said valve open.

1,082,108. FERTILIZER. WILLIAM E. CARSON, Riverton, Va. Filed May 15, 1911. Serial No. 627,178. (Cl. 71-9.)

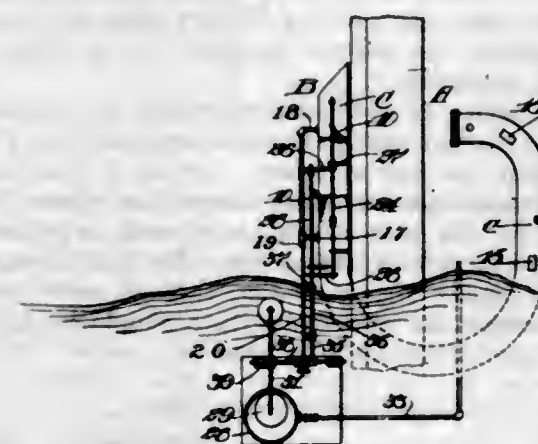
1. As a fertilizer, a pulverulent mixture of fine particles of natural limestone and fine particles of caustic magnesian lime.

2. As a fertilizer, a pulverulent mixture of fine particles of natural limestone and fine particles of hydrated caustic magnesian lime.

3. As a fertilizer, a pulverulent mixture comprising from about 25 to about 50 per cent. of hydrated caustic lime in fine particles admixed with fine particles of natural limestone.

4. As a fertilizer, a pulverulent mixture comprising from about 25 to about 50 per cent. of hydrated caustic magnesian lime in fine particles admixed with fine particles of natural limestone.

1,082,109. FISH-LADDER. ADONIRAM J. COLLAR, Yreka, Cal. Filed Aug. 5, 1912. Serial No. 713,504. (Cl. 43-3.)



1. In a fish ladder an open ended pipe having its lower portions substantially parallel with the face of the dam and submerged in the water of the lower level, said pipe being curved through the dam with its upper end in the water of the upper level, shafts and gates within the pipe, exterior rocker arms on the shafts, a slide frame, and contact lugs carried by the frame and engaging the rocker arms to successively open and close the gates.

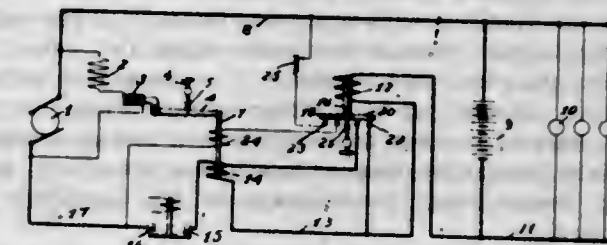
2. In a fish ladder, an open ended pipe connecting the waters of upper and lower levels, gates disposed at a distance apart within the pipe, gate shafts having exterior rocker arms, slidable frames having lugs disposed to successively engage the rocker arms and open the gates, and means to automatically actuate the slidable frames.

3. In a fish ladder, an open ended pipe connection between waters of different levels, gates mounted upon shafts within the pipe at a sufficient interval to admit

the fish, rocker arms upon the outer ends of the gate shafts, a slide frame with lugs adapted to engage the rocker arms, one after the other to open the gates at suitable intervals, and mechanism actuated by the flow of water to reciprocate the slides.

4. The combination with a fish ladder having alternately opening and closing gates mounted upon shafts with rocker arms and a slidable frame, with lugs to engage the rocker arms, of a lever connected with the slide, a tank, a float therein connected with the lever, supply and discharge means connected with the tank to alternately raise the float and actuate the slide and the gates.

1,082,110. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Feb. 7, 1912. Serial No. 675,938. (Cl. 171-229.)



1. The combination with a generator, of means for regulating the same, operating means for controlling said regulating means responsive to voltage fluctuations and to current fluctuations and current responsive means for determining whether the voltage fluctuations or the current fluctuations shall actuate the operating means.

2. The combination with a generator, of regulating means therefor, voltage responsive and current responsive operating means for said regulating means, and current responsive means for determining the mode of action of the operating means.

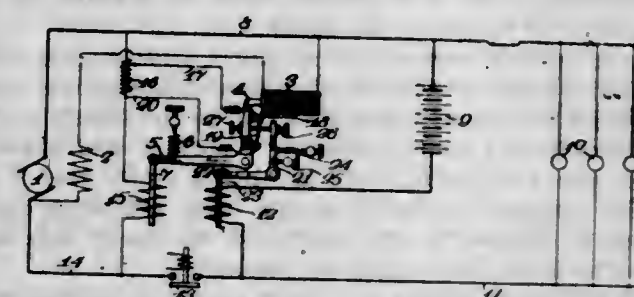
3. The combination with a generator, of means for regulating the same, operating means for the regulating means responsive to voltage fluctuations and to current fluctuations and means whereby the current supplied by the generator determines whether the voltage fluctuations or the current fluctuations shall regulate the generator.

4. The combination with a generator, of means for regulating the same, operating means for the regulating means responsive to voltage fluctuations and to current fluctuations and means whereby the current supplied by the generator renders one kind of said fluctuations operative and the other inoperative.

5. The combination with a generator, of means for regulating the same, operating means controlling the regulating means responsive to voltage fluctuations and to current fluctuations, means whereby the operating means is rendered responsive to one kind of fluctuations or the other and current controlled means for governing the same.

[Claims 6 to 12 not printed in the Gazette.]

1,082,111. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Mar. 4, 1912. Serial No. 681,348. (Cl. 171-313.)



1. The combination with a storage battery and a generator, of a regulator therefor, comprising operating

means responsive to voltage fluctuations, operating means responsive to battery current fluctuations and means responsive to one of said operating means for determining which of said operating means shall regulate the generator.

2. The combination with a storage battery and a generator, of a regulator therefor, comprising operating means responsive to voltage fluctuations, operating means responsive to battery current fluctuations and means responsive to one of said operating means for determining which of said operating means shall predominate in the regulation of the generator.

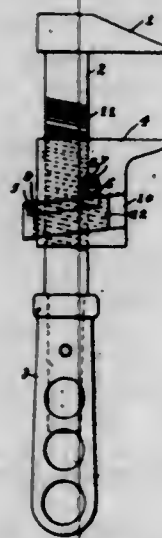
3. The combination with a storage battery, a generator and a regulating element for controlling the same, of means for operating said element in response to voltage fluctuations, means for operating said element in response to battery current fluctuations and means whereby one of said operating means determines which of said operating means shall operate said element.

4. The combination with a storage battery, a generator and a regulating element for controlling the same, of means for operating said element in response to voltage fluctuations, means for operating said element in response to battery current fluctuations and means whereby one of said operating means determines which of said operating means shall predominate in the operation of said element.

5. The combination with a storage battery and a generator, of means for affecting the operation thereof, means for controlling said affecting means responsive to voltage fluctuations, means for controlling said affecting means in response to battery current fluctuations and means responsive to the operation of one of the controlling means for determining which of said controlling means shall operate the affecting means.

[Claims 6 to 17 not printed in the Gazette.]

1,082,112. WRENCH. LAWRENCE CUTLER, Pittsburgh, Pa. Filed Dec. 7, 1912. Serial No. 735,508. (Cl. 81-142.)



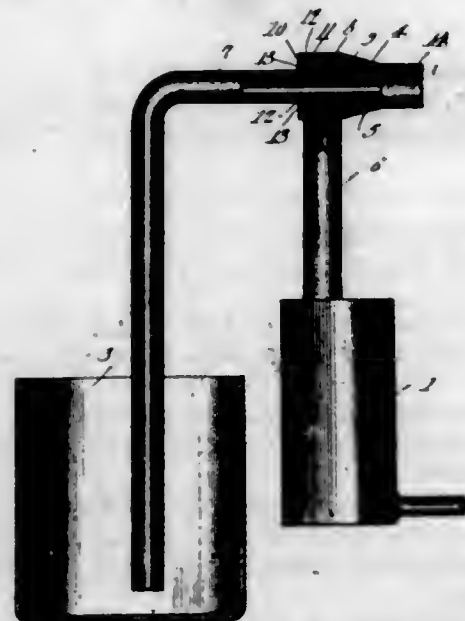
1. In a wrench having a fixed and sliding jaw, teeth crossing the shank on which the sliding jaw moves at an acute angle, a recess on the sliding jaw opening into the sleeve through which the shank passes, and at an acute angle to said shank but directed opposite to the angle of the teeth above described, and a sliding rack catch movable in said recess and having teeth so located as to mesh with the teeth on the shank.

2. In a wrench having a fixed and a slidable jaw with a toothed shank, a dovetailed recess crossing the slide of the movable jaw at the same angle to the shank as the teeth thereon but in the opposite direction and opening into the sleeve through which the shank slides, and a co-operating sliding rack catch having teeth extending along the greater portion of its length on its inner side and adapted to mesh with those on the shank.

3. In a wrench having a toothed shank, a jaw adapted to slide upon said shank, and comprising a dovetailed recess opening into the sleeve through which the shank

slides, with a second recess opening into the first one and a spring secured in said second recess and extending into the first one, a rack catch slidable in the first named recess and having teeth adapted to cooperate with those on the shank and a recess upon one edge of the outer side adapted to receive the projecting end of the spring whereby it is allowed to slide so as to release its teeth from those on the shank, but is prevented from passing out of its recess.

1,082,113. PNEUMATIC CONVEYER. EDWARD THOMPSON DIXON, Prattville, Ala., assignor of one-half to Samuel John Nummy, Prattville, Ala. Filed May 5, 1913. Serial No. 765,620. (Cl. 162-1.)



1. An ejecting nozzle for a pneumatic conveyer comprising a casing including a cylindrical and frusto-conical portion, a delivery pipe connected to and leading from the restricted part of said frusto-conical portion, a head threadedly engaging the said casing, said head provided with an aperture extending therethrough, and an ejecting nozzle extending through and engaging the head aperture, said ejecting nozzle being substantially frusto-conical and terminating adjacent the said delivery pipe, the removable head rendering the portion between the ejecting nozzle and casing accessible.

2. In a device of the class described, the combination of an outer conical casing, a pipe communicating with the side adjacent the rear extremity thereof, a head provided with a threaded annular flange adapted to engage the rear extremity of the said casing, said head provided with a threaded aperture extending centrally therethrough, and a pressure supply pipe extending through said last mentioned aperture and provided with a shoulder adapted to abut the inner surface of said head.

1,082,114. TYPOGRAPHICAL MACHINE. NORMAN DODGE, East Orange, N. J., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 11, 1911. Serial No. 654,081. (Cl. 199-7.)

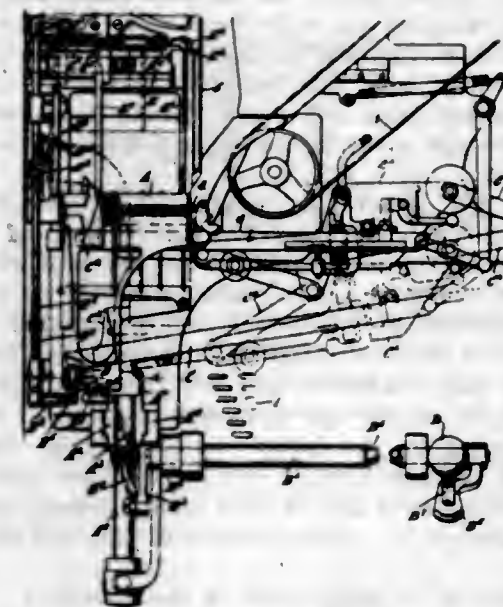
1. In a typographical machine, the combination of a group or line of matrices, each having a plurality of characters, with means for reversing the position of the group or line at one time, so as to present one or another set of its characters in operative position for casting.

2. In a typographical machine, the combination of matrices, each having a plurality of characters, means for assembling them in line, and means for reversing the position of the assembled line, so as to present one or another set of its characters in operative position for casting.

3. In a typographical machine, the combination of matrices, each having a plurality of characters, and the assembler elevator adapted to carry an assembled line thereof, the said elevator being reversible to reverse said line, so as to present one or another set of its characters in operative position for casting.

4. In a typographical machine, the assembling devices comprising an assembler to carry an assembled line of matrices and means for reversing its position end for end.

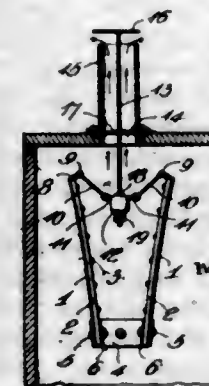
5. In a typographical machine, the assembling devices



comprising the assembler to carry an assembled line of matrices and means for moving it out of its normal relation to the other parts and for reversing it end for end.

[Claims 6 to 15 not printed in the Gazette.]

1,082,115. THERMOSTATIC DAMPER-REGULATOR FOR INCUBATORS AND THE LIKE. NIELS PETER BRODERSEN ELLEGAARD, Petaluma, Cal. Filed Jan. 13, 1913. Serial No. 741,820. (Cl. 236-5.)



1. In a thermostat, the combination with a casing, and a horizontally disposed U-shaped bracket whose base is fastened to the side wall of said casing and whose arms stand substantially parallel but are twisted throughout their length so as to flare toward their upper edges; of two upstanding thermostatic plates, the lower end of each being secured to one of said arms, devices connecting their upper ends, and connections between said devices and the part to be regulated.

2. In a thermostat, the combination with a casing, and a horizontally disposed U-shaped bracket whose base is fastened to the side wall of said casing and whose arms stand substantially parallel but are twisted throughout their length so as to flare toward their upper edges; of two upstanding thermostatic plates, the lower end of each being secured to one of said arms, a ventilator in the top of said casing, weighted devices connecting the upper ends of said plates, and connections between said devices and damper.

3. In a thermostat, the combination with a casing, and a horizontally disposed U-shaped bracket whose base is fastened to the side wall of said casing and whose arms stand substantially parallel but are twisted throughout their length so as to flare toward their upper edges; of two upstanding thermostatic plates, the lower end of each being secured to one of said arms, a toggle lever connecting their upper ends, a weight at the mid-length of said toggle, the weight drawing the upper ends of said

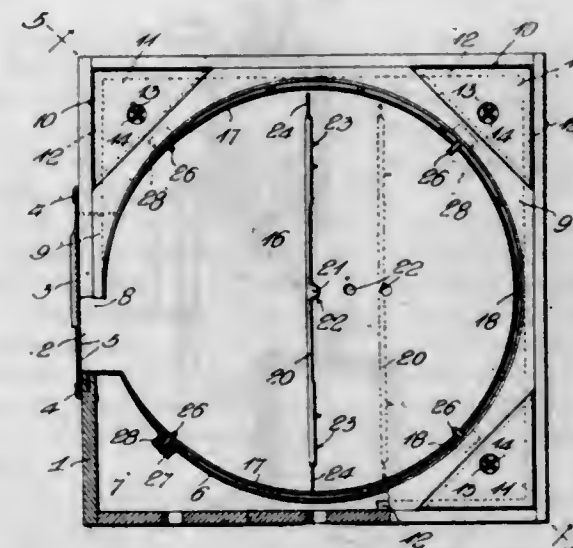
plates normally inward to a slight extent, and connections between this weight and the part to be regulated.

4. In a thermostat, the combination with a casing, and a horizontally disposed U-shaped bracket whose base is fastened to the side wall of said casing and whose arms stand substantially parallel but are twisted throughout their length so as to flare toward their upper edges; of two upstanding thermostatic plates, the lower end of each being secured to one of said arms, lugs at their upper ends having eyes, links engaged at their outer extremities with said eyes, a weight having apertured ears engaged with the inner ends of said links, and a rod extending upward from said weight and connected with the part to be regulated.

5. In a thermostatic regulator for incubators, the combination with a bracket carried by the wall of the incubator, a pair of upstanding slightly divergent thermostatic plates carried by said bracket, a weight, links connecting the weight with the upper ends of said plates, the top of the incubator having an opening, and a tube rising therefrom; of a damper plate above said tube, a rod connected with said plate and passing downward through the tube and opening and through said weight, the rod having a collar above the weight, and a nut on the lower end of the rod beneath the weight, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,082,116. FIRELESS BROODER. NIELS PETER BRODERSEN ELLEGAARD, Petaluma, Cal. Filed Jan. 13, 1913. Serial No. 741,821. (Cl. 119-33.)



1. A brooder comprising a square casing having an opening in one side wall closed by a removable door, a circular partition within said casing having its ends bent radially outward to the sides of said door-opening, an annular top plate closing the casing outside said partition and having triangular openings at its corners, cleats in the sides of the casing adjacent these openings, triangular cover pieces removably fitting in said openings and resting on said cleats and having ventilating openings through their bodies, a tab fastened in each opening and extending above the cover plate for the purpose set forth, said partition being provided with heat passages near its lower edge and with upright series of holes, pins adjustably mounted in the latter, and a cover plate resting on said pins.

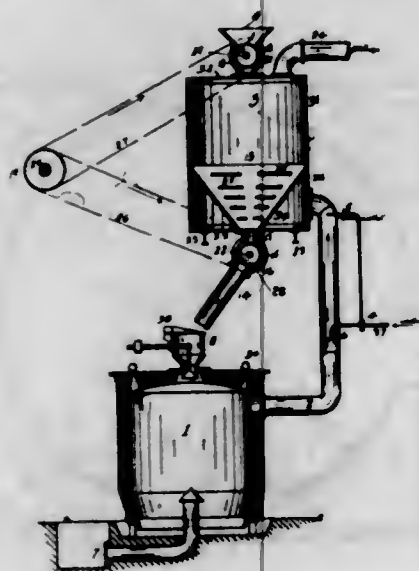
2. A brooder comprising a square casing having an opening in one side wall closed by a removable door, a circular partition within said casing having its ends bent radially outward to the sides of said door-opening, an annular top plate closing the casing outside said partition and having openings at its corners, cover pieces removably fitting said openings, said partition being provided with heat openings in its lower edge, upright posts rising from the bottom of the casing around said partition, the latter and the posts being pierced with an upright series of holes, pins adjustably seated in the holes, a round cover supported by said pins and carrying the cover elements on its under side, a handle on its upper side, and means for

deflecting upward the heat flowing inward through said circular partition.

3. In a brooder of the class described, the combination with a square casing, a circular partition therein producing a central chick compartment and a surrounding space adapted to receive a heating medium, the lower edge of said partition being provided with heat passages, a top plate for said surrounding space, and means for gaining access to the latter; of a circular deflector plate resting on the bottom of the casing within said partition and extending only partway of the height of the latter but beyond said passages, spacing strips between said deflector and partition, and a round cover plate covering the latter and closing the chick space.

4. In a brooder having a round chick space, the combination with the casing whose bottom is provided with a series of sockets, one at the center of said space and others along a radius thereof, the wall of said space having a door opening opposite said series of sockets; of a cross partition having an upright stud depending from its center and adapted to engage any of said sockets, guide flanges on its edges at its ends, extension plates movably mounted in said flanges for the purpose described, a round cover fitting movably within the wall of said chick space, and means for supporting said cover at different elevations above the cross partition.

1,082,117. GAS-GENERATING APPARATUS. CLAUDE M. GARLAND, Chicago, Ill. Filed Apr. 3, 1913. Serial No. 758,668. (Cl. 48-73.)



1. In a gas generating apparatus, a gas generating chamber, a distillation chamber, a communicating means for the passage of gas between the said chambers, a cooling means for cooling the gas within the said communicating means and between the said chambers and a gas outlet in the said distillation chamber.

2. In a gas generating apparatus, a gas generating chamber, a distillation chamber, a communicating means for the passage of gas between the said chambers, a cooling means for cooling the gas within the said communicating means, a means for controlling the said cooling means from the temperature of the gases leaving the said communicating means and a gas outlet in the said distillation chamber.

3. In a gas generating apparatus, a generating chamber, a distillation chamber, a pipe communicating with the gas space in the upper portion of the generating chamber, and with the gas space in the lower portion of the distillation chamber, for the passage of gas between the said chambers, a water spray within the said pipe, and between the said chambers, and a gas off-take pipe located on the said distillation chamber.

4. In a gas generating apparatus, a gas generating chamber, a distillation chamber, a pipe for the passage of gas communicating with the gas space in the upper portion of the gas generating chamber and with the gas space in the lower portion of the distillation chamber, a

water spray within the said pipe and between the said chambers, a thermostat near the discharge end of the said pipe and in contact with the gases passing therethrough a valve for controlling the water to the said water spray, mechanical means connecting the said valve with the said thermostat whereby the said thermostat operates the said valve to deliver variable quantities of water to the water spray to maintain a constant temperature of the gases leaving the said pipe and a gas off-take pipe communicating with the gas space in the upper portion of the distillation chamber.

5. In a gas generating apparatus, a gas generating chamber, a fuel charging device at the top of the said chamber, a twyer at the bottom of the said chamber, a distillation chamber, a fuel charging device at the top of the said distillation chamber, a fuel discharging device at the bottom of the said distillation chamber, a pipe for the passage of gas communicating with the gas space in the upper portion of the gas generating chamber, and with the gas space in the lower portion of the distillation chamber, a thermostatically controlled water spray within the said pipe, and a gas off-take pipe communicating with the gas space in the upper portion of the said distillation chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,082,118. PROCESS OF MANUFACTURING ALIMENTARY PRODUCTS FROM SOY-BEANS. FRITZ GÖSSEL, Stockholm, Germany. Filed Nov. 7, 1912. Serial No. 729,985. (Cl. 99-11.)

1. The process of producing an alimentary substance, the properties and composition of which are similar to those of milk, which comprises cleaning seeds rich in albumin, grinding the same, mixing them with water and small quantities of a phosphate of an alkali, heating the mixture to boiling temperature for a short time, cooling the heated mixture, straining and pressing in any suitable manner, dissolving determinate quantities of milk-sugar, chlorid of sodium, and sodium carbonate in the strained liquor, mixing the solution with fatty materials, and finally adding flavoring substances to the product.

2. The process of preparing a milk-like liquid which comprises grinding soy-beans, mixing with water containing an alkaline phosphate, bringing the mixture to a boil, straining and pressing and adjusting the composition of the liquor to that of cow milk by an addition of a carbohydrate, a fatty material and suitable salts.

3. The process of preparing a milk-like liquid which comprises grinding soy-beans, mixing with water containing an alkaline phosphate, bringing the mixture to a boil, straining and pressing and adjusting the composition of the liquor to that of a natural milk by an addition of milk sugar, an oily material and suitable salts.

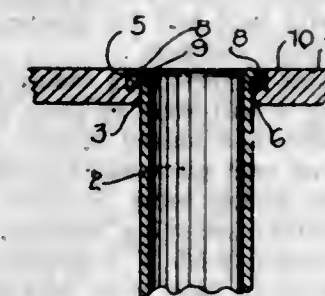
4. The process of preparing a milk-like liquid which comprises grinding soy-beans, mixing with water containing an alkaline phosphate, bringing the mixture to a boil, straining and pressing and adding to the liquor about 2 parts of milk sugar and about 2 parts of an oil for each 10 parts of seed treated.

5. The process of preparing a milk-like liquid which comprises grinding soy-beans, mixing with water containing an alkaline phosphate, bringing the mixture to a boil, straining and pressing and adding to the liquor about 2 parts of milk sugar, about 2 parts of an oil and about 0.1 part of salts for each 10 parts of seed treated.

1,082,119. BOILER-FLUE. ALBERT GUNKLE, deceased, La Fayette, Ind., by Millie B. Gunkle, administratrix. La Fayette, Ind. Filed June 11, 1913. Serial No. 773,081. (Cl. 137-98.)

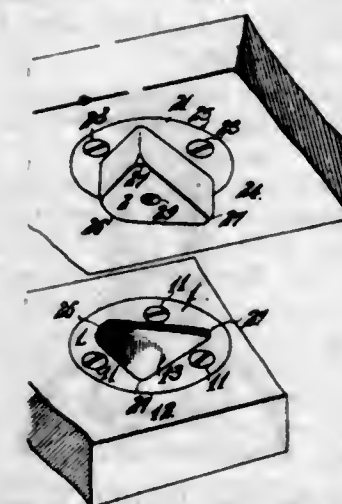
The combination with a flue sheet having an opening and further provided with an annular recess encircling said opening, said recess having a vertical outer wall and an inclined wall which tapers outwardly from the inner ends of the recess to the outer end of said opening, of a flue having its end provided with a plurality of slits

and bent outwardly and downwardly into said recess, the end of the flue conforming to the inclination of the inner wall, and a ring provided with a sharpened inner edge



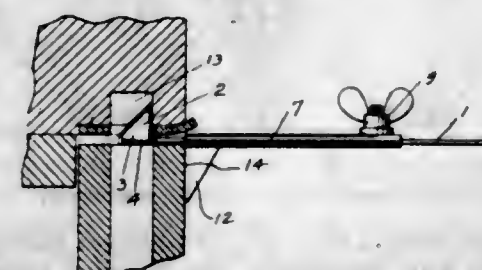
and disposed within the recess between the end of the flue and the outer wall to frictionally engage the same and securely hold the end of the flue in place.

1,082,120. DOWEL-PIN. HENRY HANSTEIN, Poughkeepsie, N. Y. Filed May 12, 1913. Serial No. 767,073. (Cl. 20-92.)



A device of the character described, comprising a plate adapted to be secured to a section of a pattern or other like body, said plate having a triangular opening, the corners of said opening being rounded and one of said corners being rounded on an arc of greater curvature than that of the other corners, another plate adapted to be secured to an opposing section of the pattern or other object, and having a projecting portion shaped to fit the opening in said first mentioned plate, substantially as shown and for the purposes described.

1,082,121. DOOR-SECURER. FREDERICK A. HERMAN, San Francisco, Cal. Filed Oct. 13, 1911. Serial No. 654,433. Renewed July 7, 1913. Serial No. 777,785. (Cl. 16-8.)

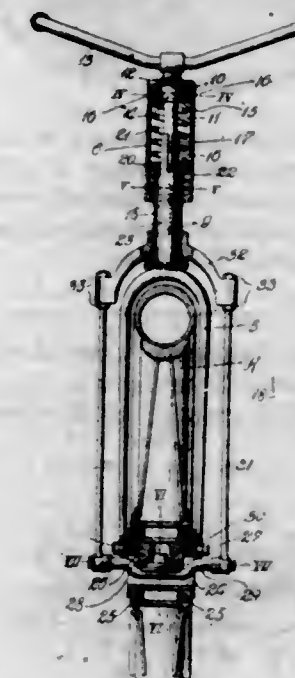


A door securer comprising a major section formed from a blank having substantially triangular side wings at one end, the end portion of the blank being bent at substantially right angles to the major portion and the side wings being bent at substantially right angles to the end portion and away from the major portion of the major section, the bent portion of the major section forming a locking lug adapted to fit into a socket formed in a door jamb and receive the latch of a door, an auxiliary section slidably mounted upon said major section and having one end portion provided with side ears, the end portion being bent at right angles to the major portion and the

197 O. G.—56

side ears bent back above the major portion of the auxiliary section to brace the bent end thereof, and means for holding said auxiliary section in an adjusted position upon the major section.

1,082,122. STEERING-FORK FOR VEHICLES. JOSHUA A. HILL, Essex, Ontario, Canada, assignor of one-half to George W. Rogers, Essex, Ontario, Canada. Filed Apr. 18, 1913. Serial No. 761,914. (Cl. 208-114.)



1. In a vehicle, the combination of a frame, a wheel, a fork embracing the wheel, means for turning the fork, a tubular axle for the wheel to which the fork is secured, a bearing member extending through the tubular axle, and thrust members attached to the ends of said member and extending rearwardly to the frame.

2. In a vehicle, the combination of a frame, a wheel, a fork embracing the wheel, means for turning the fork to change the direction of travel of the wheel, thrust members connected to the frame and converging forwardly therefrom at each side of the wheel, and a bearing member connecting the forward ends of the thrust members and extending through the wheel at the axis thereof permitting a laterally turning movement of the wheel between said members.

3. In a vehicle, the combination of a frame, a wheel, a fork embracing the wheel, a tubular axle for the wheel to which the fork is attached, thrust members extending forwardly from the frame at the sides of the wheel, and a bearing member connecting the forward ends of said thrust members and extending through said axle in engagement therewith intermediate its ends to permit the wheel to turn upon an upwardly extending axis.

4. In a vehicle, the combination of a frame, a wheel, a tubular axle upon which the wheel turns, a fork embracing the wheel and attached to the tubular axle, a bearing member extending through the tubular axle, upon which said axle is adapted to turn about an upwardly extending axis, and members connecting the ends of said bearing member and the frame.

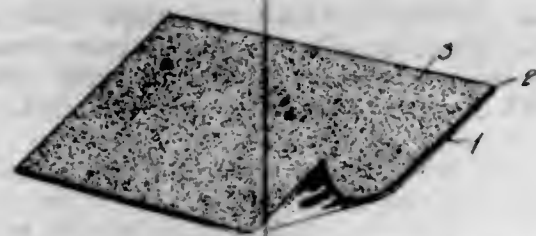
5. In a vehicle, the combination of a frame, a wheel, a hollow axle upon which the wheel turns, a fork embracing the wheel and attached to the ends of the axle, a bearing member extending through the axle and having a bearing intermediate its ends upon which the axle is adapted to turn upon an upwardly extending axis, and members at each side of the wheel connected to the ends of the bearing member and to the frame.

[Claims 6 to 15 not printed in the Gazette.]

1,082,123. MOVING-PICTURE SCREEN. SAMUEL H. JONES, Altus, Okla. Filed Aug. 29, 1912. Serial No. 717,813. (Cl. 88-24.)

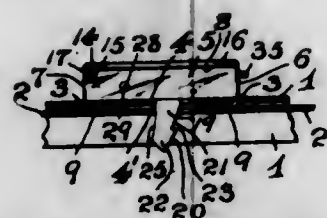
1. A process of producing a moving picture screen which consists in subjecting an oil cloth base to a softening oil,

then applying a coating of Jap-a-lac and turpentine to the softened surface of said base and allowing it to partially dry, and then applying a metallic powder to said coating and rubbing it therein until a velvety sheen is produced.



2. A method of producing a screen of the class described consisting in softening the surface of a flexible base having a glossy surface then coating said so softened surface with a mixture of varnish and turpentine, and then rubbing a metallic powder thereinto.

1,082,124. BAG-FASTENER. ARY KAUFMANN, Newark, N. J., assignor to K. Kaufmann & Co., a Corporation of New Jersey. Filed Aug. 1, 1913. Serial No. 782,440. (Cl. 70—116.)



1. A bag-frame lock comprising a casing provided in its top with an opening, a bolt-carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the opening in said casing, a manually operated means connected with said casing but independent of said plate and bolt for normally maintaining a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means cooperating with said plate and bolt-retaining means for automatically raising said plate and bolt.

2. A bag-frame lock comprising a casing provided in its top with an opening, a spring-controlled bolt-carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the opening in said casing, a manually operated spring-controlled means connected with said casing but independent of said plate and bolt for normally maintaining a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means cooperating with said plate and bolt-retaining means for automatically raising said plate and bolt.

3. A bag-frame lock comprising a casing provided in its top with an opening, a bolt-carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the opening in said casing, a manually operated means connected with said casing but independent of said plate and bolt for normally maintaining a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means cooperating with said plate and bolt-retaining means for automatically raising said plate and bolt.

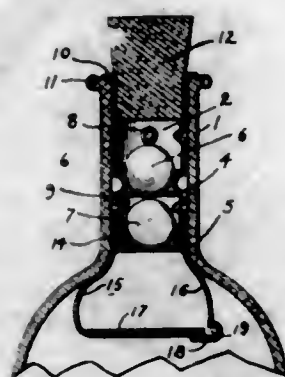
4. A bag-frame lock comprising a casing provided in its top with an opening, a spring-controlled bolt-carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the opening in said casing, a manually operated spring-controlled means connected with said casing but independent of said plate and bolt for normally maintaining a closed and locked relation of said plate and bolt with

relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means cooperating with said plate and bolt-retaining means for automatically raising said plate and bolt, and means connected with said bolt for limiting the outward movements of said plate and bolt.

5. A bag-frame lock comprising a casing provided in its top with an opening, a bolt-carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the opening in said casing, said casing being provided in one of its sides with a finger-piece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged in and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said bolt extends, and means connected with said bolt with which said slide is normally in retaining engagement for maintaining a closed and locked relation of said plate and bolt with relation to said casing.

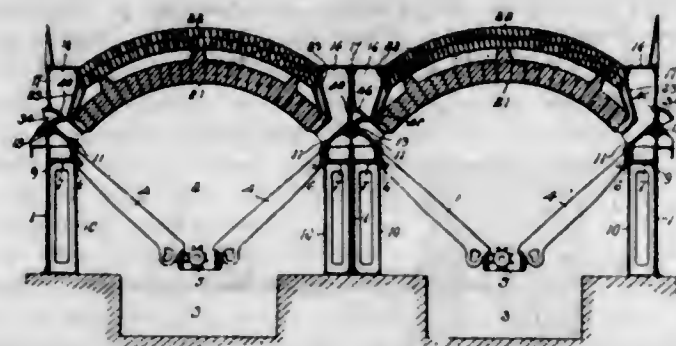
[Claims 6 to 12 not printed in the Gazette.]

1,082,125. INSERT-VALVE FOR BOTTLE-NECKS. JOHN J. KIME, Lagrange, Ind. Filed Mar. 13, 1913. Serial No. 754,038. (Cl. 215—67.)



In a device of the class described in combination with a bottle neck, a tubular member provided with a flange upon the upper end thereof, a circumferential bead formed on said tubular member, a ball within said tubular member cooperating with said bead to form a valve, a packing ring lying within the groove which said bead forms upon the exterior of said tubular member, and a barrier above said valve.

1,082,126. FURNACE-STOKER. EMIL F. KRELL, Detroit, Mich. Filed Mar. 11, 1911. Serial No. 613,679. (Cl. 110—101.)



1. The combination of a pair of furnaces having a common dividing wall, magazines, one for each furnace having open discharge throats at their lower ends and located side by side with their adjacent side walls in the vertical plane of the dividing wall, and an oscillatory feed member supported with its axis of rotation in the vertical plane of said dividing wall and formed with a hub portion, an outer segmental portion adapted to be turned across the discharge throat of either magazine to close the same, and radial side webs connecting said hub and segmental portion to push the material down the throats.

2. In a structure of the character described, the combination of an inclined grate, a magazine having a discharge throat extending along the upper end of said

grate, and an oscillatory feed member within said throat extending the entire length thereof and adapted to project across the throat when turned, said member being of varying diameter throughout its length and supported with its end of smallest diameter at the forward end of the grate to feed a greater amount of fuel to the rear portion of said grate over which portion all of the products of combustion pass than to the front portion thereof where the fuel is consumed less rapidly.

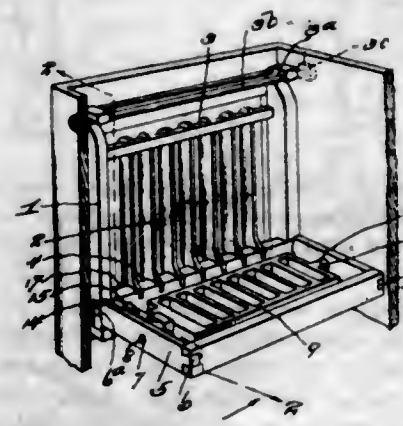
3. In a structure of the character described, the combination of a magazine having a discharge throat at its lower end, a bearing member having an open bearing extending along the magazine, an oscillatory feed member supported in said open bearing beneath one side of said magazine and adapted to be lifted from said bearing and removed laterally from beneath said side of said magazine, and means for detachably holding said feed member in its bearing and oscillating the same.

4. In a structure of the character described, the combination of a magazine having a discharge throat at its lower end, a feed member supported in the plane of the side of the magazine to be turned across said throat and feed material therefrom, said feed member comprising a series of segmental sections and means connecting said sections to cause the same to turn together, and an open bearing to support said sections and permit the lateral removal of any one thereof through said side of the magazine.

5. In a structure of the character described, the combination of a magazine having a discharge throat at its lower end, a bearing member extending along one side of the magazine adjacent to the throat and having an open bearing, a feed member comprising a series of sections each formed with a hub portion engaging the open bearing and an upwardly extending segmental portion movable across the throat of the magazine to close the same and connected to the hub portion by a web forming one side of the member to engage and feed material from the throat, and means connecting the sections to turn together.

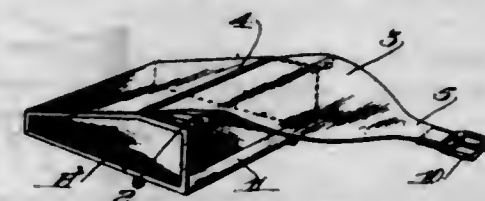
[Claims 6 and 7 not printed in the Gazette.]

1,082,127. DUMPING-GRATE. WILLIAM W. LEWIS, Garnet, W. Va. Filed Feb. 16, 1912. Serial No. 677,942. (Cl. 120—177.)



In combination with a fire-box having vertical front grate bars, said front grate bars being provided with a lower bar and having a laterally projecting frame arranged horizontally in the fire-box, of a tilting grate having a pintle at each end journaled in each end of said lateral frame, one of said pintles having a rectangular portion, an arm having an opening fitting the rectangular portion, said arm being held on the rectangular portion between one end of the tilting grate and one end of the lateral frame, and a lever mounted in the lower bar of the front grate bars and connected to the lower end of said arm for rocking the tilting grate, the tilting grate having a shoulder aligned with said lever so as to engage the lever when the grate is rocked, to limit the same in its pivotal or rocking movements, and a member pivoted on said lever for manipulating the latter whereby the tilting grate may be oscillated.

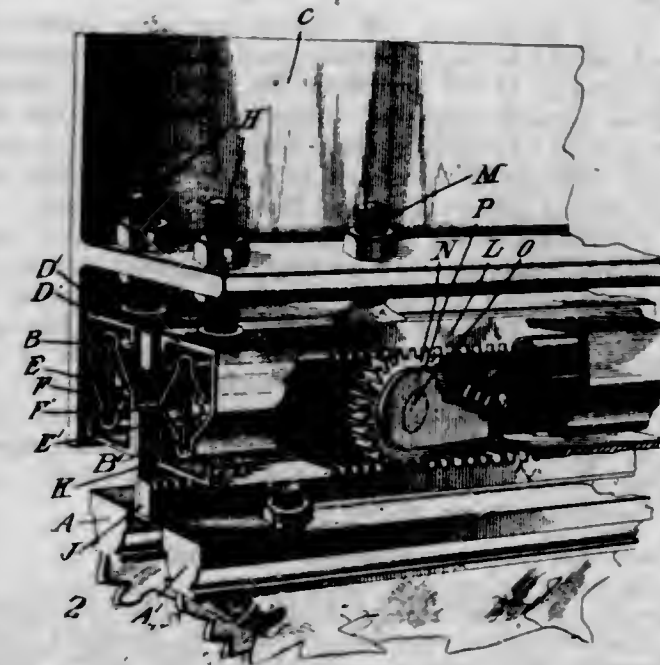
1,082,128. DUST-COLLECTING ATTACHMENT FOR BROOMS. SAMUEL P. LOW, Santa Barbara, Cal. Filed Jan. 21, 1913. Serial No. 743,276. (Cl. 65—62.)



1. A dust collector having an open front and upturned edge thereof, a flexible fabric material attached to the upper edge of the collector, said fabric forming a cover and being extended to a considerable length, a companion strap having a ring loosely and turnably fitting upon the lower end of a broom handle, said strap and fabric having a connection whereby the relative distance of the broom from the collecting device may be regulated.

2. The combination with an open mouthed dust collector, of a flexible fabric having its edge fixed along the upper edge of the open mouth of the collector, a strap connection therefrom, and a ring loosely turnable upon the lower end of the broom handle and adapted to lift the collector when the broom is lifted and to retain the collector in position to retain its contents.

1,082,129. DOOR-HANGER. JAMES T. MCCABE, New York, N. Y. Filed Apr. 18, 1913. Serial No. 762,047. (Cl. 39—94.)



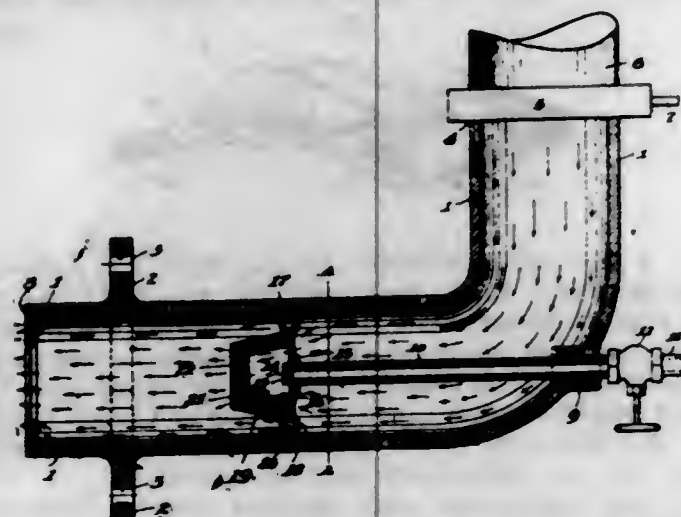
1. The combination with a plurality of fixed tracks, of a rider bar, and a traveling door part associated with each track; a fixed rack, a rack movable with one of the door parts; and a pinion mounted on another of the door parts, but movable relatively thereto transverse to the line of movement of the door parts, and engaging the said racks.

2. The combination with a plurality of fixed tracks of a rider bar, and a traveling door part associated with each track; a fixed rack, a rack movable with one of the door parts; and a pinion engaging both of the said racks, and a link connection between the pinion and the other door part.

1,082,130. OIL-BURNER. GEORGE W. McCALLEY, Wheatland, Pa. Filed Nov. 10, 1910. Serial No. 591,664. (Cl. 158—76.)

1. In an oil burner the combination of a mixing chamber, said mixing chamber having a mixing cone concentrically suspended therein, said mixing cone having a ring interiorly located in the forward converging end of the cone, said ring presenting an abrupt angle to the air current passing through said cone, the inner surface of said ring being threaded to afford resistance to the cur-

rent passing through said ring, and means for supplying air to said cone and chamber and oil to said burner, substantially as shown and described.



2. In an oil burner the combination of a tubular L shaped casting, comprising an air flue and a mixing chamber, an oil feed pipe entering the outer side of the elbow and projecting centrally of the horizontal leg of the casting, a spider secured to the forward part of the oil feed pipe, a mixing cone secured at its larger end to the spider surrounding the forward end of the oil feed pipe, a baffle ring, located interiorly of the forward part of the mixing cone, having its inner surface roughened, and means for supplying air to the flue, substantially as shown and described.

3. In an oil burner, the combination of a tubular L shaped casting having a mixing cone suspended centrally of the interior of the horizontal leg, a baffle ring, having its inner surface roughened, located interiorly of the forward part of the mixing cone, and an interiorly located annular baffle at the forward part of the horizontal leg of the casting, substantially as shown and described.

4. In an oil burner, the combination of a tubular casting having a mixing cone centrally suspended therein, a baffle ring, having its inner surface roughened, located interiorly of the forward part of the cone, means for supplying air at the rear of said casting, so that part of the air entirely surrounds the mixing cone and part enters its rear, and means for supplying oil at the central rear part of the cone, whereby an air current is thrown across the line of oil against the roughened surface of the cone ring, substantially as shown and described.

1,082,131. AUTOMATIC WATER-HEATER. BENJAMIN E. MEACHAM, Lorain, Ohio, assignor to American Stove Company, St. Louis, Mo. Filed Sept. 30, 1909. Serial No. 520,243. (Cl. 126—351.)

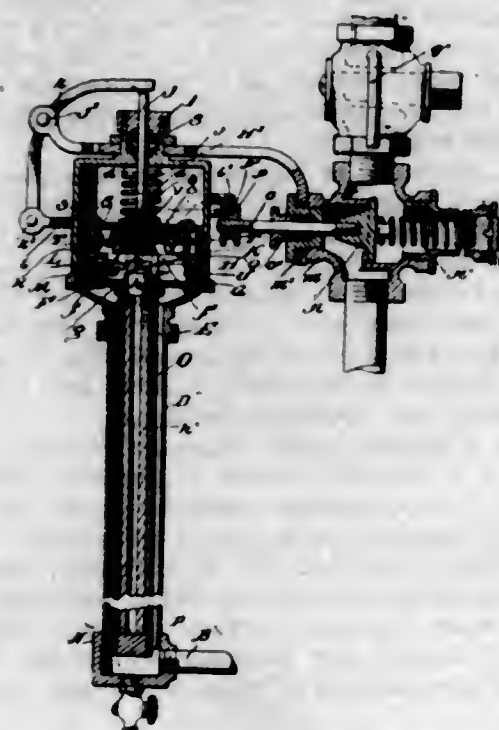
1. In a liquid heater, the combination of a liquid chamber in the pipe line from the heater, a reciprocating piston in said chamber, means carried by said piston for retarding the flow of water through the chamber until it has become heated, and means connected with the piston for opening the gas valve.

2. A device of the character described, comprising a heating coil, a cylinder receiving the water therefrom, a water discharge connected from the cylinder, a piston in the cylinder, a gas supply valve adjacent the cylinder, means operated by the piston for operating the valve, and automatic means carried by the piston for controlling the discharge of water from the cylinder, and operated by the temperature of water.

3. A device of the character described, comprising a cylinder, a water supply and discharge connected to the cylinder, a piston in the cylinder, a gas supply valve adjacent the cylinder, means operated by the movement of the piston for operating the valve and thermostatic means carried by the piston for controlling the discharge of water from the cylinder.

4. A device of the character described, comprising a cylinder, a piston therein and adapted to control the gas

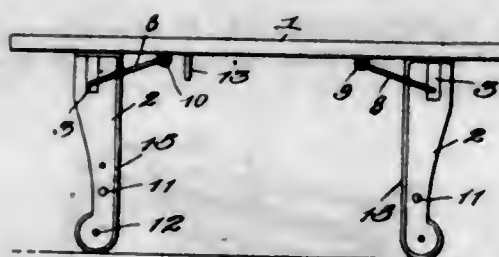
supply by water pressure on the piston, thermostatic means carried by the piston for controlling the discharge of the water from the cylinder.



5. A device of the character described, comprising a cylinder, a piston therein, and adapted to control the gas supply by water pressure thereon, thermostatic means carried by the piston for controlling the discharge of the water from the cylinder, and a fusible plug capable of allowing the gas valve to close.

[Claims 6 to 20 not printed in the Gazette.]

1,082,132. COMBINATION TABLE AND SLED. GEORGE V. MEAGHER, St. Louis, Mo. Filed July 27, 1912, Serial No. 711,892. Renewed May 26, 1913. Serial No. 770,085. (Cl. 21—94.)

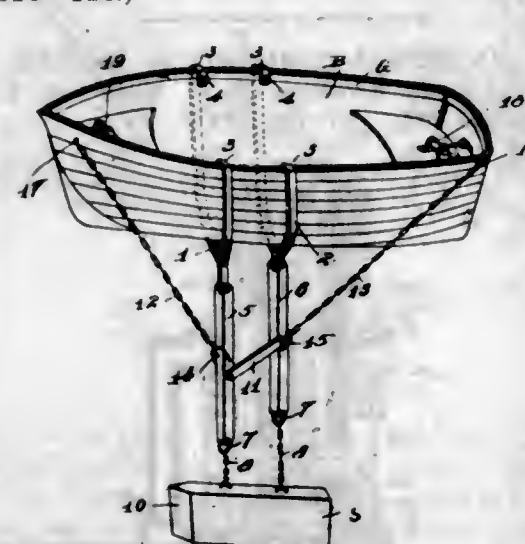


1. A device of the class described comprising a rectangular platform, spaced bearing plates countersunk in the underside of said platform upon the line of its longitudinal center, hinges pivotally secured to said bearing plates, a cross piece secured intermediate its ends to each of said hinges, supporting members rigidly secured adjacent the ends of the cross pieces, each of said supporting members being provided with a metallic shoe which extends along the inner edge of said member and along both ends of the same, said supporting members being adapted to be positioned either at right angles to the platform or parallel thereto, the inner edges of said supporting members in their first mentioned position forming the bottom edges of the supporting members when in their second mentioned position, and means whereby said supporting members may be fixed either in their upright or horizontal position.

2. A device of the class described comprising a platform, bearing plates countersunk in the under side of said platform, hinges pivotally secured to said bearing plates, a cross piece secured intermediate its ends to each of said hinges and formed with longitudinally extending end opening sockets in its ends, supporting members rigidly secured to each of said cross pieces adjacent its ends and adapted to be positioned either at right angles or parallel to said platform and hooks pivotally secured to the under side of said platform and adapted to engage the sockets

formed in the cross pieces for the purpose of retaining said supporting members at right angles to the platform, said hooks being also adapted for engagement with openings in certain of said supporting members when said members are disposed in parallel relationship to the platform.

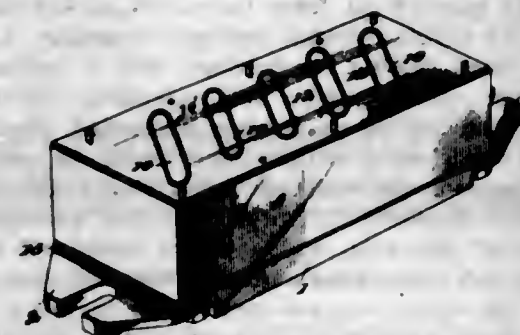
1,082,133. BOAT-EQUILIBRATOR. FRANK OLECHNOWICZ, Mineola, N. Y. Filed July 29, 1913. Serial No. 781,863. (Cl. 114—124.)



1. The combination with a boat, of a pair of yokes adjustably secured to the gunwales thereof, an equilibrator flexibly supported by the yokes, and means for raising or lowering the equilibrator.

2. The combination with a boat, of a pair of yokes, bars pivotally supported by the yokes, an equilibrator flexibly suspended from the bars, a link connecting the bars, a pair of chains, one of which is connected to each of the bars, and means for shortening either chain to cause the equilibrator to be brought into juxtaposition either to the stern or the bow portion of the keel of the boat.

1,082,134. WATER-TIGHT JOINT FOR MAGNETIC CIRCUITS. RALPH C. PATTON, Providence, R. I., assignor to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Original application filed Apr. 25, 1912, Serial No. 693,252. Divided and this application filed July 11, 1912. Serial No. 708,878. (Cl. 175—21.)



1. In a calking joint for a magnetic circuit, the combination of two abutting members of magnetic material, the edge of one member having a reëntering groove and calking material adapted to be introduced into said groove in plastic condition and therein harden and be retained by said groove against the opposite member.

2. In a calking joint for a magnetic circuit, the combination of two abutting members of magnetic material, the edge of one member being provided with an angular dovetail groove and calking material adapted to be introduced into said groove in plastic condition and therein harden and be retained by said groove against the opposite member.

3. In a calking joint for a magnetic circuit, the combination of two abutting members of magnetic material,

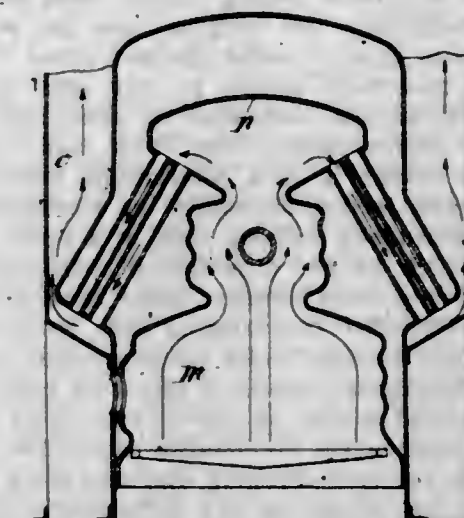
the outer corresponding edges of the two members being cut away so as to form a reëntering groove holding calking material adapted to be introduced into said groove in plastic condition and therein harden and be retained by said groove.

1,082,135. BED-WARMER. JOHN F. PETIT, Georgetown, Ill. Filed May 15, 1913. Serial No. 767,851. (Cl. 126—205.)



A bed warmer comprising a hollow body having a heat supply opening, a flat deflecting plate gradually inclined from the heat supply opening of the body and terminating adjacent to the opposite end wall of said body, forming a gradually expanding passage beneath the deflecting plate from the heat supply opening to the opposite end wall, and a gradually expanding passage above said deflecting plate from said opposite end wall to the heat supply end of the warmer, and means for supplying heat thereto, and means for regulating the latter.

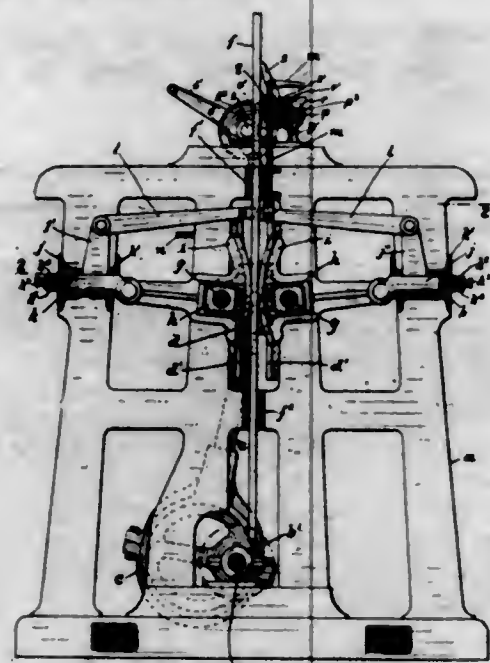
1,082,136. STEAM-GENERATOR. EDUARD PIELOCK, Berlin, Germany. Filed Jan. 23, 1912. Serial No. 672,934. (Cl. 122—122.)



1. In a boiler, a fire box provided with side walls and a top having a centrally disposed opening, a flue extending from said opening and having an enlarged portion located above the opening, the upper end of said flue being constricted, a chamber located above the upper end of said flue, a water chamber surrounding said fire box, flue and chamber, said water chamber being provided with an outer wall and the walls of the fire box, flue and first mentioned chamber forming the inner wall of the water chamber, downwardly directed fire tubes leading from the first mentioned chamber through the water chamber, and a water tube extending transversely through said flue.

2. In a boiler, a fire box provided with side walls and a top having a centrally disposed opening, a flue extending from said opening and having an enlarged portion located above the opening, the upper end of said flue being constricted, a chamber located above the upper end of said flue, a water chamber surrounding said fire box, flue and chamber, said water chamber being provided with an outer wall and the walls of the fire box, flue and first mentioned chamber forming the inner wall of the water chamber, downwardly directed tubes leading from the first mentioned chamber through the water chamber, a water tube extending transversely through said flue, a mixing chamber at the lower ends of said fire tubes, and vertical fire tubes leading upward through said water chamber from said mixing chamber.

1,082,137. CARTRIDGE-LOADING MACHINE. HARRY M. PIERCE, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Sept. 2, 1911, Serial No. 647,344. Renewed May 21, 1913. Serial No. 769,093. (Cl. 86—20.)



1. In a machine for loading shells, the combination with a series of independent tamping rods, of a series of cams fulcrumed to rock in the direction of extension of the tamping rods, said cams having curved faces adapted to engage and reciprocate the tamping rods but permitting the latter to slip upward under predetermined resistance to downward movement, means to rock said cams, and independent mechanism controlled by each rod for disengaging the corresponding cam from said rod when the latter has moved up to a determinate extent.

2. In a machine for loading shells, the combination with a series of independent tamping rods, of a series of cams fulcrumed to rock in the direction of extension of the tamping rods, said cams having curved faces adapted to engage and reciprocate the tamping rods but permitting the latter to slip upward under predetermined resistance to downward movement, means to rock said cams, adjustable spring-pressed blocks on which said cams are fulcrumed, and independent mechanism controlled by each rod for moving the corresponding cam and block outward when such rod has moved up to a determinate extent.

3. In a machine for loading shells, the combination with a series of independent tamping rods, of driving means for reciprocating each rod, each of said means being independently movable out of engagement with its corresponding rod, toggle levers for each driving means adapted when moved toward a straight line position to disengage the corresponding driving means from its corresponding rod, independent dogging mechanism for so operating the corresponding toggle levers and means carried by each rod adapted to be lifted above the corresponding dogging mechanism after said rod has been retracted to a determinate extent and operate said dogging mechanism in the downward movement of said rod.

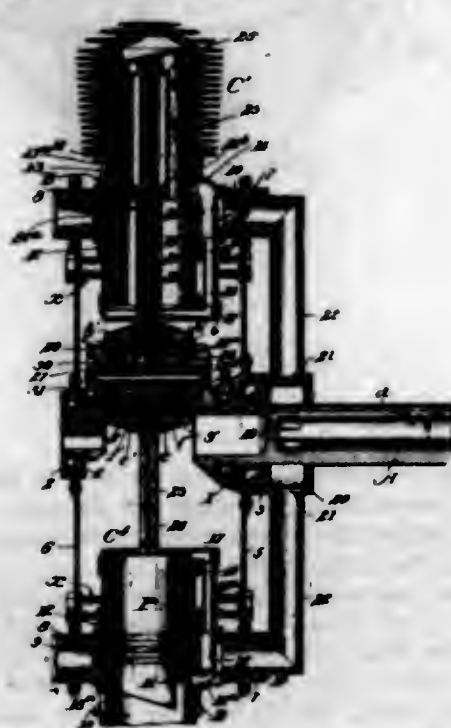
4. In a machine for loading shells, the combination with a series of independent tamping rods and a series of independent normally stationary dogging rods, of independent driving means for reciprocating each tamping rod, independent means carried by each tamping rod adapted to be lifted above the corresponding dogging rod after said tamping rod has been retracted to a determinate extent and operate said dogging rod in the downward movement of said tamping rod, independent mechanism actuated by each dogging rod for disengaging the corresponding driving means from the corresponding tamping rod, and means actuated from a common control to operate all the dogging rods to simultaneously permit all the driving means to re-engage their respective tamping rods.

5. In a machine for loading shells, the combination with a series of independent tamping rods, of independent

driving means frictionally engaging and adapted to operate each rod, independent releasing means for disengaging each driving means from its corresponding rod, a block having a limited sliding movement on each rod and dogging mechanism connected with and operating each releasing means, adapted to be overridden by its corresponding block in the receding movement of its corresponding rod and actuated by said block, in the next forward movement of said rod, to operate the releasing means.

(Claims 6 to 20 not printed in the Gazette.)

1,082,138. INTERNAL-COMBUSTION ENGINE. MALCOLM W. QUIGGLE, Brooklyn, N. Y. Filed Feb. 17, 1912. Serial No. 678,397. (Cl. 123—44.)



1. The combination with a stationary shaft having a crank provided with oil ducts, and a plurality of cylinders pivotally mounted about the axis of said shaft, said cylinders having heads closing their forward ends, of pistons within the cylinders, piston rods extending through said heads and connected to said crank and a sheathing for each rod comprising a sleeve connected to the cylinder head through which the rod extends and a sleeve movable with the rod and telescoping with the first mentioned sleeve, each rod being provided with an oil duct leading from its forward end to a point within the sheathing and adapted to conduct oil from the crank to the sheathing.

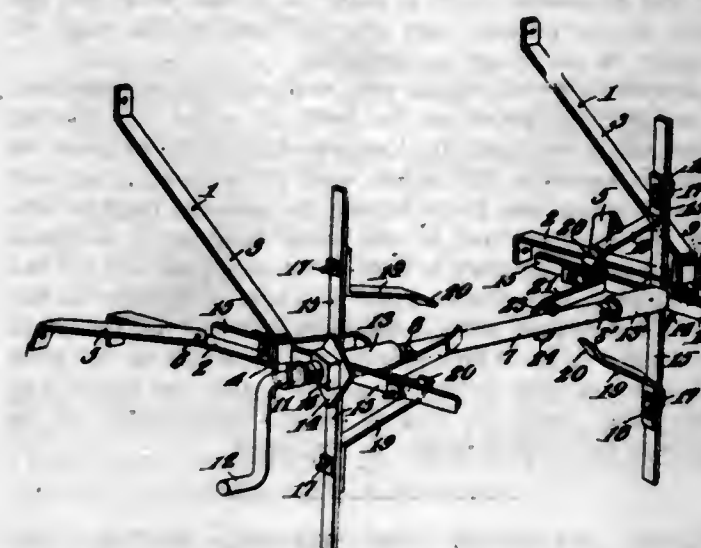
2. In a two-cycle internal combustion engine, a cylinder having a head closing its forward end, a piston within the cylinder and a piston rod extending through said head, said rod having an oil duct extending from its forward end to an outlet within the cylinder, in combination with a sheathing for said rod comprising a sleeve within the cylinder connected to said head and extending over the outlet of the duct, and a sleeve connected with the piston rod and telescoping with said first mentioned sleeve.

3. In a two-cycle internal combustion engine, a cylinder having a head closing its forward end, a piston within the cylinder and a piston rod extending through said head, said rod having an oil duct extending from its forward end to an outlet within the cylinder, in combination with a sheathing for said rod comprising a sleeve within the cylinder connected to said head and closely surrounding the rod, said sleeve extending over the outlet of the duct, and a sleeve connected with the rear end of the piston rod and surrounding the first mentioned sleeve and telescoping therewith.

1,082,139. REEL. WILLIAM P. RAY, Stithon, Ky. Filed Dec. 3, 1912. Serial No. 734,777. (Cl. 242—72.)

A reel, including a spindle, bracket engaging studs disposed concentrically of and from the respective ends of the spindle, two sleeves mounted upon said spindle for

sliding movement, two sets of radiating arms carried by each sleeve, said arms, one set constituting coil limiting means for the spindle, a core engaging arm for each radial arm, coating means carried by the core engaging arm and its radial arm for adjusting the core engaging arm



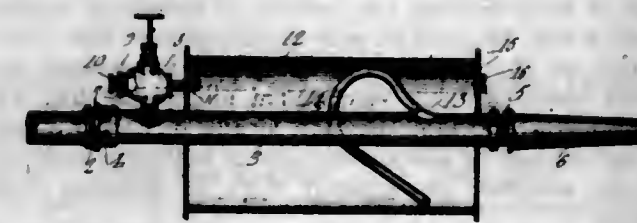
relatively to its radial arm and the axis of the spindle, and means disposed upon each end of the spindle for holding the sleeves and arms against outward displacement and for clamping a coil between the two sets of radiating arms and their core engaging arms.

1,082,140. LOCK FOR NECK-CHAINS, BRACELETS, AND THE LIKE. EMIL SCHÖNEMANN and JULIUS RÄUCHLE, Pforzheim, Germany. Filed Mar. 13, 1913. Serial No. 754,150. (Cl. 24—230.)



An improved lock for neck chains, bracelets and the like, comprising in combination a sleeve, open at one end, an inwardly turned flange at this open end of said sleeve, a U-shaped cross bar fixed upon the open end of said sleeve, an elastic hook having indentations in the outer surfaces of its arms hooked upon said cross bar and adapted to be inserted in said open sleeve, substantially as described and shown and for the purpose set forth.

1,082,141. CHEMICAL AND INSECTICIDE SPRAYER. CHARLES F. SITES, Newark, Ohio. Filed Feb. 15, 1913. Serial No. 748,672. (Cl. 137—14.)



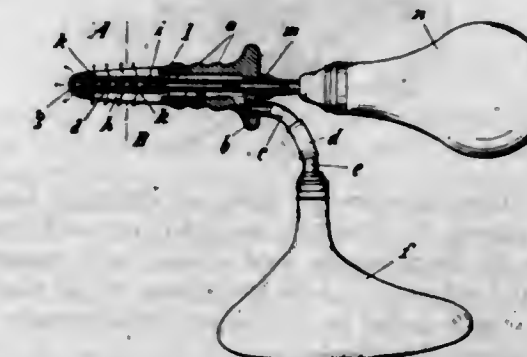
1. A spraying apparatus comprising a pipe, a nozzle secured to one end thereof, a water supply secured to the other end thereof, a chemical receiving chamber secured to and surrounding said pipe intermediate of its ends, a valve communicating with said pipe and with said chemical receiving chamber, said valve provided with an auxiliary opening therein for the filling of said chamber, a trap pipe disposed within said chamber and communicating with said pipe.

2. In a spraying apparatus, the combination of a pipe, a cylindrical chamber concentric with said pipe and encompassing the same, a valve communicating with said pipe and with said chamber, and provided with an auxiliary opening for the filling of said chamber, means for the closing of said auxiliary valve opening, a trap pipe disposed within said chamber, one end of which terminates adjacent the inner wall of said chamber, the other end

of which communicates with an opening in said pipe, and a delivery nozzle secured to said pipe.

3. In a spraying apparatus, the combination of a pipe, a cylindrical chamber concentric with said pipe and encompassing the same and forming a handle for the manipulation of the spraying apparatus, a valve communicating with the said pipe external of the said chamber and communicating with the said chamber, said valve provided with an auxiliary opening communicating with the outlet portion of said valve, means for the closure of said auxiliary valve opening, said pipe provided with an opening internal of the said chamber and adjacent the outlet end thereof, a trap pipe communicating with said pipe opening, disposed within the said chamber and with one end thereof terminating adjacent the inner wall of the said chamber, and means for connecting a supply pipe and delivery nozzle to the said first mentioned pipe.

1,082,142. IRRIGATOR. EMIL SPARDEL, Hamburg, Germany. Filed Feb. 24, 1913. Serial No. 750,460. (Cl. 128—25.)



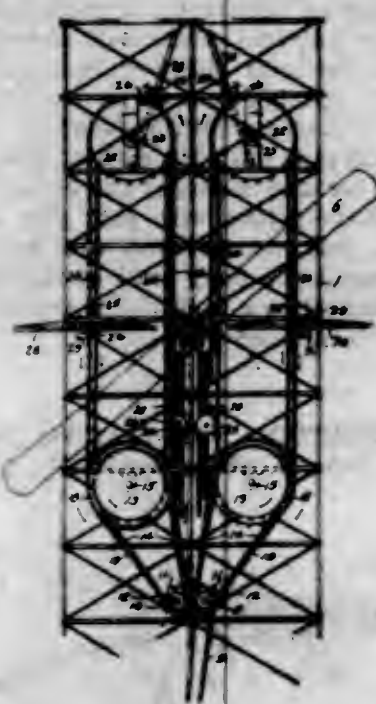
An improved irrigator comprising in combination a douche having a central boring four longitudinal outer grooves of semi-circular cross section and four radial channels connecting said central boring with said longitudinal grooves, a ball shaped rose in the front end of the douche, a cap fixed upon the rear end of said douche so that an annular chamber is arranged between the inner wall of said cap and the outer wall of said douche with which space the longitudinal grooves are connected said cap having a tubular socket in its rear part connected with said annular chamber, a collector for the liquid which flows back after flushing connected with said tubular socket, an india rubber ball fixed in said cap so that it is connected with the rear end of said douche and undulations upon the outer surface of said cap and the rear end of said douche for insuring the maintaining of the instrument in the vagina, substantially as described and for the purpose set forth.

1,082,143. FLYING-MACHINE. GUSTAVE A. WENDT, Tacoma, Wash. Filed Dec. 12, 1910. Serial No. 596,760. (Cl. 244—25.)

1. In a flying machine, the combination with a frame; of an endless conveyer 24 supported by and traveling on the frame; an endless controlling chain 25 supported by and traveling on said frame and being at all points parallel with said conveyer 24, but being of different length; planes 28 pivotally secured to said conveyer 24 at intervals thereon and traveling therewith; means 29 mounted on said planes and engaging said controlling chain 25 at varying points therein whereby said planes are controlled on their pivots; and means for driving said conveyer 24 and said controlling chain 25 at equal lineal speeds.

2. In a flying machine, the combination with a frame; a motor mounted thereon; a shaft 8 driven by said motor; two similar sprocket wheels 12 and 17 mounted on said shaft; two concentric sprocket gears 13 and 18 mounted on said frame and being dissimilar in size and independently rotatable; sprocket chains 14 and 19 having similar links, but being of different lengths, said chain 14 connecting the gears 12 and 13 and said chain 19 connecting the gears 17 and 18, whereby said gears 13 and 18 are driven at different rotational speeds but at equal circum-

ferential speeds; two concentric idle sprocket gears 21 and 22, loosely mounted on said frame, the gear 21 being similar to the gear 13 and the gear 22 being similar to the gear 18; two sprocket chains 24 and 25 actuated by the driven gears 18 and 13 respectively and traveling at



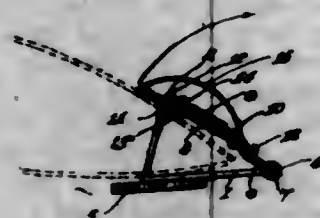
the same lineal speeds but being of different lengths; a series of planes 28 pivotally mounted on said chain 24; and gears 29 mounted on said planes and engaging the chain 25 and adapted to turn the planes 28 on their pivots when one chain gains on the other, substantially as and for the purpose described.

1,082,144. COMBINATION CAP AND SUNBONNET. ELIZABETH ZIBOFFELD, Rochester, N. Y. Filed Apr. 14, 1913. Serial No. 761,121. (Cl. 2—118.)



A three-piece combination cap and sun bonnet comprising a single crown member and a pair of opposed continuous flap members with their finished sides positioned outwardly whereby said flap may be turned back against the crown to form a cap, said flap when in normal position serving as the extended portion of a sun bonnet, the inner edges of the flap members being secured to the opposite faces of the crown and around the circular edge thereof.

1,082,145. CUFF-LINK. GEORGE WASHINGTON ABRAHAM, Saskatoon, Saskatchewan, Canada. Filed Sept. 3, 1912. Serial No. 719,256. (Cl. 24—102.)

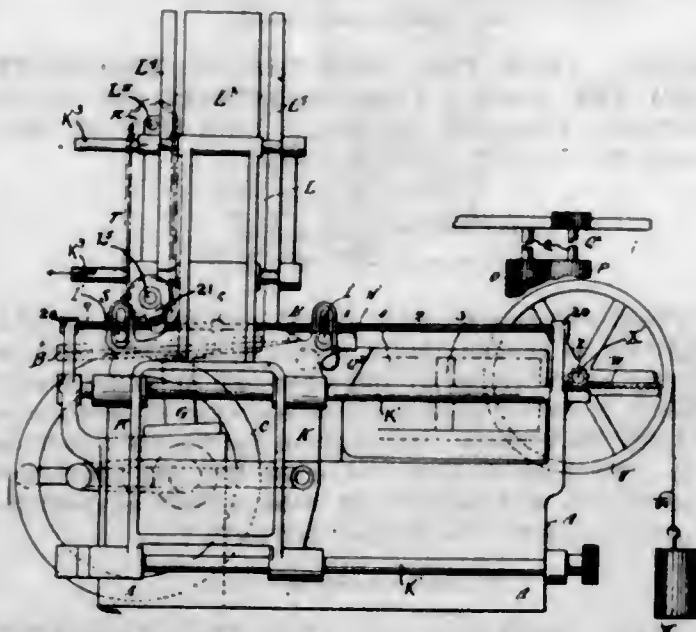


1. A cuff link comprising two members hinged together, the one member being in the form of a bar and having its free end bent inwardly and provided with a notch on

the inside opposite the hinge and the opposing member formed of a bar and plate having an opening therein into which the notched end of the other member is designed to extend when the link is closed, and spring actuated means for engaging the notch located in proximity to the plate and releasable from a point on a line with the bar portion of the member and on that side of the plate in proximity to the hinge as specified.

2. A cuff link comprising two members hinged together, the one member being in the form of a bar and having its free end bent inwardly and provided with a notch on the inside opposite the hinge and the opposing member formed of a bar and plate having an opening therein into which the notched end of the other member is designed to extend when the link is closed, an engaging bar for the notch located in suitable guide ways in proximity to the plate and provided with a knob on the side of the plate in proximity to the hinge, whereby by drawing on the knob the bar is released from engagement with the notch and at the same time the link is swung backwardly on its hinge into the open position as specified.

1,082,146. MACHINE FOR SLICING BREAD AND SPREADING BUTTER, JAM, MEAT-PULP, OR OTHER LIKE SUBSTANCES THEREON. WILLIAM BAGGULEY, Hovingham, Nottingham, England, assignor to Bernard Withers Dowson, Nottingham, England. Filed Aug. 16, 1913. Serial No. 785,140. (Cl. 146—12.)

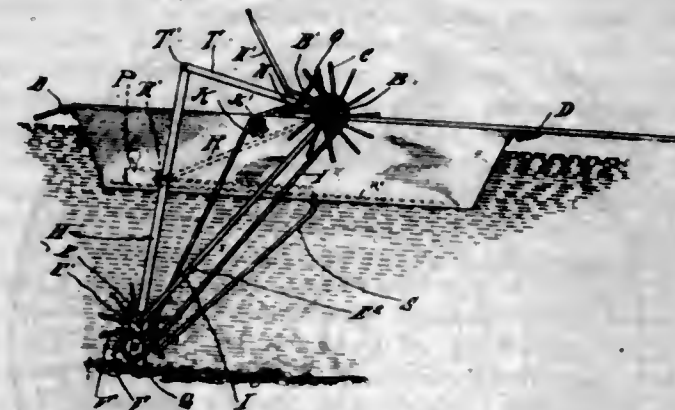


In a machine for slicing and spreading loaf material, a cutting device arranged to be engaged by the loaf to slice the same, a reciprocating loaf carrier, a spreading mechanism over which the loaf in said carrier passes and coating means on the carrier and spreading mechanism for selectively operating said mechanism and permitting the same to remain idle, said coating means including a pinion on the spreading mechanism and a shiftable rack arranged for selective engagement with or freedom from this pinion.

1,082,147. APPARATUS FOR DEEPENING CHANNELS IN STREAMS. SAMUEL BONNER, Clarksdale, Miss., assignor of one-fourth to L. D. Dillon and one-fourth to Percy L. Jackson, Clarksdale, Miss. Filed Aug. 9, 1912. Serial No. 714,300. (Cl. 37—36.)

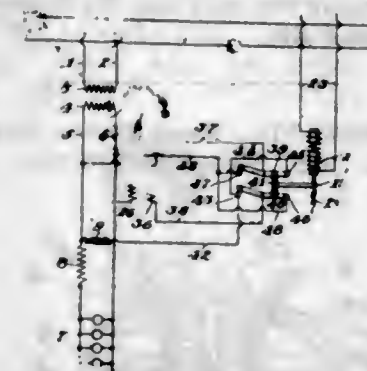
An apparatus for deepening channels of streams, consisting of a boat and means for anchoring the same in a stream, said boat having guide grooves formed therein, bearings movable in said grooves, a driving shaft journaled in said bearings, bars pivoted together in pairs, one pair upon either side of the boat, one bar of each pair being connected to said driving shaft, a shaft journaled in suitable bearings in the lower ends of the other of said pivotal bars, sprocket wheels carried by the shaft at the lower end of said bars, means for moving the pivotal bars to adjust the driving shaft, sprocket wheels upon the

driving shaft, a cylinder with digging fingers projecting therefrom, a shaft upon which said cylinder is mounted and bars connected to the cylinder carrying shaft at their



lower ends and their upper ends to the driving shaft, sprocket wheels upon the cylinder carrying shaft, sprocket wheels upon the sides of the boat, and sprocket chains passing about said wheels, as set forth.

1,082,148. MULTIRATE ELECTRIC METER. ALFRED W. BURKE, Wilkesburg, Pa. Filed Mar. 11, 1912. Serial No. 682,885. (Cl. 171—268.)



1. In combination with a recording electric induction watt-meter having current and potential coils, means for varying the normal line-voltage impressed on the potential coil and thereby varying the meter-rate, said means comprising a transformer shunted across the line and having variable connections to said potential coil.

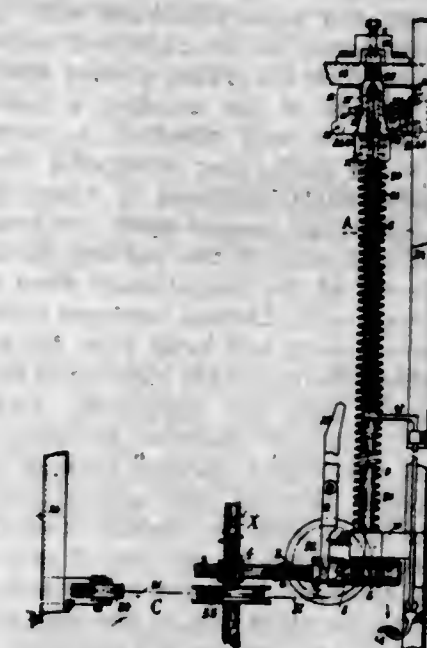
2. In combination with a recording electric induction watt-meter having current and potential coils, means for varying the normal line-voltage impressed on the potential coil and thereby varying the meter-rate, said means comprising a transformer shunted across the line and having variable connections to said potential coil, controlled by a separate circuit.

1,082,149. APPARATUS FOR STARTING INTERNAL-COMBUSTION MOTORS. WALTER CLOSSON, Verviers, and JOSEPH MIESSEN, Ensisval, Belgium. Filed Dec. 4, 1912. Serial No. 734,959. (Cl. 123—187.)

1. Apparatus for starting internal combustion motors for motor cars, aeroplanes, motor boats and other purposes, comprising a carriage or slide, a screwed spindle engaged by said carriage or slide, a release or trigger mechanism for disengaging said screwed spindle and carriage or slide, a lever or its equivalent operating said release or trigger mechanism, a spring causing the said carriage or slide to be moved, upon the release of the latter, along the said spindle, and actuating means for starting the motor.

2. Apparatus for starting internal combustion motors for motor cars, aeroplanes, motor boats and other purposes comprising in combination with an engine or motor shaft a carriage or slide, a screwed spindle engaged by said carriage or slide, a release or trigger mechanism for disengaging said screwed spindle and carriage or slide, a lever or its equivalent operating said release or trigger mechanism a spring causing the said carriage or slide to be moved, upon the release of the latter, along the said

spindle, a ratchet or free-wheel mechanism mounted upon the engine-shaft, and a cable or the like actuating said ratchet upon the release of the carriage.



3. Apparatus for starting internal combustion motors for motor cars, aeroplanes, motor boats and other purposes, comprising a carriage or slide, a screwed spindle engaged by said carriage or slide, a release or trigger mechanism for disengaging said screwed spindle and carriage or slide, a lever or its equivalent operating said release or trigger mechanism, a spring causing the said carriage or slide to be moved, upon the release of the latter, along the said spindle, actuating means for starting the motor, and means for connecting the carriage with and disconnecting it from a screwed spindle of any desired pitch.

4. Apparatus for starting internal combustion motors for motor cars, aeroplanes, motor boats and other purposes, comprising a carriage or slide, a screwed spindle engaged by said carriage or slide, a release or trigger mechanism disengaging said screwed spindle and carriage or slide, a lever or its equivalent operating said release or trigger mechanism, a spring causing the said carriage or slide to be moved upon the release of the latter, along the said spindle, actuating means for starting the motor, and means whereby, when the motor is started, the carriage is once more moved into and held in position for again starting the engine.

1,082,150. DRILLING-MACHINE. ARTHUR W. COFFINGER, Jr., Grand Rapids, Mich. Filed Oct. 5, 1912. Serial No. 724,221. (Cl. 29—39.)



1. In a drilling and tapping machine, a supporting frame, a mandrel mounted on said frame and having a centrally located longitudinal opening, a shaft passing through said opening and having a screw thread upon it to act with a screw thread in the opening in the mandrel to move the shaft longitudinally, pulleys and belts for running said mandrel, an anchor collar and a trip connected with the back end of the shaft, a short shaft revolubly mounted in the end of the mandrel, a carriage bed mounted on said shaft, carriages mounted on said bed and arranged to connect alternately with the central shaft to be made to travel with said shaft longitudinal of the bed, and gear wheels on said shafts to actuate the short shaft as the central shaft is made to revolve.

2. In combination with the supporting frame of a drilling and tapping machine, a mandrel having a central opening its entire length, a screw thread cut in said opening,

a shaft passing through said opening and having a screw thread to mesh with the screw thread in the mandrel, a collar connected to anchor the central shaft, a trip connected with said collar to release the central shaft at a given time, pulleys and belts connected with the mandrel to drive it alternately to the right and to the left, a stock carriage mounted on the frame, a short shaft revolvably mounted in the end of the mandrel, a hollow head mounted on the end of said mandrel, a carriage bed mounted on the short shaft, gear wheels on the central shaft and the short shaft arranged to cause the short shaft to revolve when the central shaft revolves, a carriage mounted on each side of the bed and having openings to engage the end of the central shaft when the short shaft is made to revolve so that the carriages will be made to alternately move toward and away from the stock carriage as the mandrel revolves to the right or to the left.

3. In combination with the supporting frame of a drilling machine, a mandrel mounted revolvably on said frame, and having a threaded opening through it lengthwise, a shaft passing through said opening and having a screw thread to mesh with the thread inside the mandrel, a hollow head mounted on one end of said mandrel, belts and pulleys arranged to cause said mandrel to revolve alternately to the right and to the left, shifters to manipulate said belts, a carriage bed revolvably mounted within the head, carriages mounted on said bed to slide longitudinally thereof, means for revolving the head and causing the carriage to engage the ends of the shaft alternately, an anchor collar mounted on the frame to anchor the shaft and cause it to move longitudinally as the mandrel is made to revolve, a brake mounted in the mandrel to act upon the shaft, a trip to release the anchor collar and allow the shaft to revolve with the mandrel at stated times, and a stock carriage acting in conjunction with the mandrel.

4. In a combined drilling and tapping machine, a supporting frame, a revolvable mandrel having an opening centrally located therein and belts and pulleys for revolving said mandrel, a shaft in the opening in said mandrel, said mandrel and shaft having co-acting means for moving said shaft longitudinally as the mandrel revolves, a brake, an anchor and a trip acting upon said shaft controlling its movements as the mandrel revolves, a hollow head on one end of the mandrel, a short shaft mounted in the end of the mandrel, gear wheels mounted to revolve said shaft at stated times, a bearing mounted on the end of the mandrel inside the head and in position to support the short shaft, and a stock carriage mounted on the frame, all as shown and described.

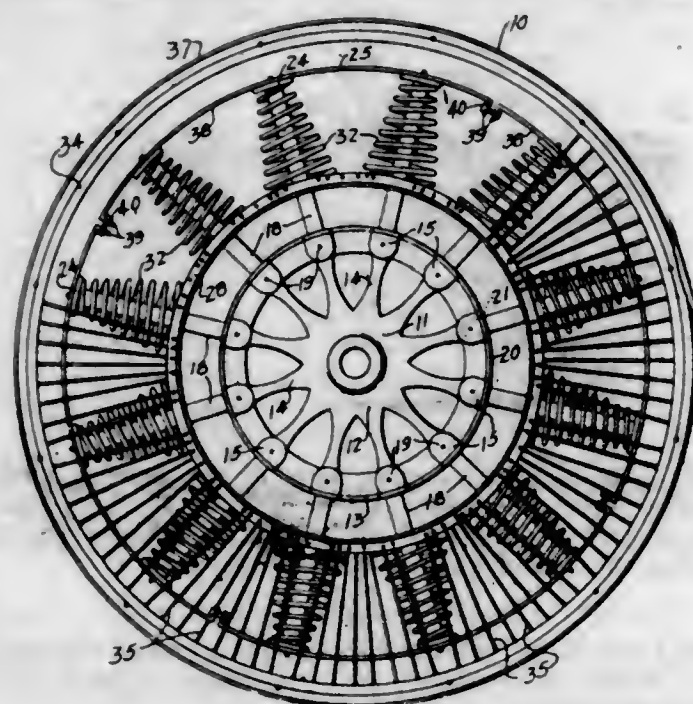
5. In a drilling and tapping machine, a supporting frame, a revolvable mandrel mounted on said frame, a revolvable bed mounted at the front end of said mandrel and to one side of the center thereof, carriages slidably mounted on said bed and arranged to be carried alternately to position concentric with the mandrel, and means for causing said carriages to reciprocate longitudinally of the bed.

1,082,151. WHEEL. JOHN W. COLLINSWORTH, Leary, Tex. Filed Apr. 16, 1913. Serial No. 781,523. (Cl. 152-28.)

1. A resilient wheel comprising a hub and a rim, spokes extending from the hub, a ring slidable upon the inner ends of said spokes, a second ring connected to the outer ends of said spokes, the first mentioned ring having openings therein to receive the spokes and outstanding flanges adjacent said openings, springs surrounding the spokes and engaging said rings at their opposite ends, the inner ends of said springs surrounding said flanges, and supplemental spokes rigidly connecting said rim and the first mentioned ring, as and for the purpose described.

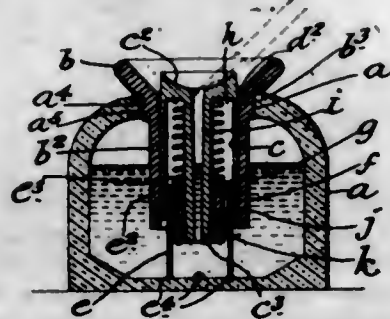
2. In a resilient wheel the combination with a hub and a rim, spokes detachably secured to the hub, a ring slidable upon the spokes, said ring having openings therein to receive the spokes, flanges formed upon the ring adjacent the openings, caps disposed upon the outer ends of the spokes, a sectional ring connecting the spokes and

engaging the caps, supplemental spokes connecting the ring rigidly to the rim, and springs surrounding the



spokes and engaging the caps and the flanges formed upon the first mentioned ring.

1,082,152. INKSTAND. EMMY DAVIS, New York, N. Y. Filed July 22, 1912. Serial No. 710,772. (Cl. 120-61.)



1. In an inkstand, a well having a central top opening, a funnel having a sleeve which passes downwardly through said opening, a support within the lower end portion of said sleeve, a tubular plunger vertically movable in said sleeve and the lower end of which is open and incloses said support and the upper end of which is cup-shaped in form and provided with a tube which passes downwardly through said support, a spring resting on said support and on which the top of the plunger bears, and means on the lower end portion of the central tube of the plunger to limit the upward movement thereof.

2. In an inkstand, a well having a top opening, a funnel having a sleeve which passes downwardly through said opening, a tubular plunger placed in said sleeve and open at the bottom and the top of which is closed and cup-shaped in form and provided with a central tube which extends downwardly through and below the bottom of said plunger and forming in connection therewith an air chamber therein, a stationary support within said plunger the top portion of said plunger and a spring placed in said chamber and resting on said support and on which the plunger rests.

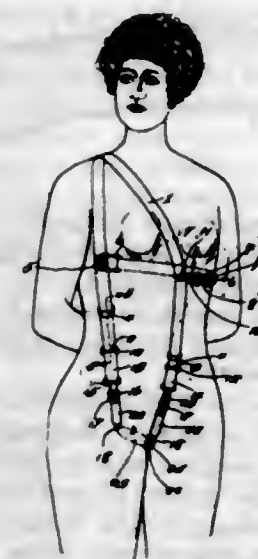
3. In an inkstand, a well having a top opening, a funnel having a sleeve which passes downwardly through said opening into the well, a vertically movable tubular plunger mounted in said sleeve and open at the bottom and provided with a cup-shaped top having a central tube which passes downwardly through said plunger and forms a part thereof and an annular air chamber therein, a support mounted in said chamber, a spring placed in the top portion of the plunger and resting on said support and on which the top of the plunger rests, and means for limiting the upward movement of said plunger.

4. In an inkstand, a well having a top opening, a funnel having a sleeve which passes downwardly through said opening into the well, a vertically movable tubular plunger mounted in said sleeve and open at the bottom and provided with a cup-shaped top having a central tube which passes downwardly through said plunger and forms a part thereof and an annular air chamber therein, a support mounted in said chamber, a spring placed in the top portion of the plunger and resting on said support and on which the top of the plunger rests, and means for limiting the upward movement of said plunger, said well being also provided in the top thereof with an air vent.

5. In an inkstand, a well having a top opening, a funnel having a sleeve which passes downwardly through said opening into the well, a vertically movable tubular plunger mounted in said sleeve and open at the bottom and provided with a cup-shaped top having a central tube which passes downwardly through said plunger and forms a part thereof and an annular air chamber therein, a support mounted in said chamber, a spring placed in the top portion of the plunger and resting on said support and on which the top of the plunger rests, and means for limiting the upward movement of said plunger, said well being also provided in the top thereof with an air vent, and the top of the plunger and the sleeve of the funnel at the top thereof being tapered.

(Claims 6 to 9 not printed in the Gazette.)

1,082,153. TRUSS APPARATUS. JOHN MARTIN DUNN, Savannah, Ga. Filed Apr. 24, 1913. Serial No. 763,299. (Cl. 128-26.)

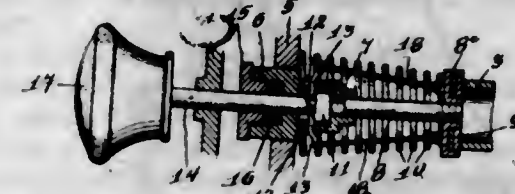


In a truss apparatus, a double strand endless cord loop member, spaced apart paddings, one slidable upon each end portion of the member to hold the double strand of the member together, said paddings terminating short of the ends of the member permitting the two strands to form an eye loop, a tubular device movable on the two strands of said member between the spaced apart paddings and having its ends rounded, the inner circumference of the tubular member at its end being rounded blending into the outer rounded portions, said tubular device adapted to support and hold a bandage or wadding containing medical properties, said double strands of said member constituting means to hold the tubular device against excessive twisting while in the crotch, and attaching means adapted to connect with the eye loops for holding the truss apparatus in the crotch of the body of the wearer, said tubular device on its interior being smooth, thereby providing an unobstructed passage through which the double strands of said member freely move responsive to the movements of the body of the wearer.

1,082,154. FAUCET. SIEGFRIED HELD, Chicago, Ill., assignor to The Held Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1913. Serial No. 741,184. (Cl. 137-4.)

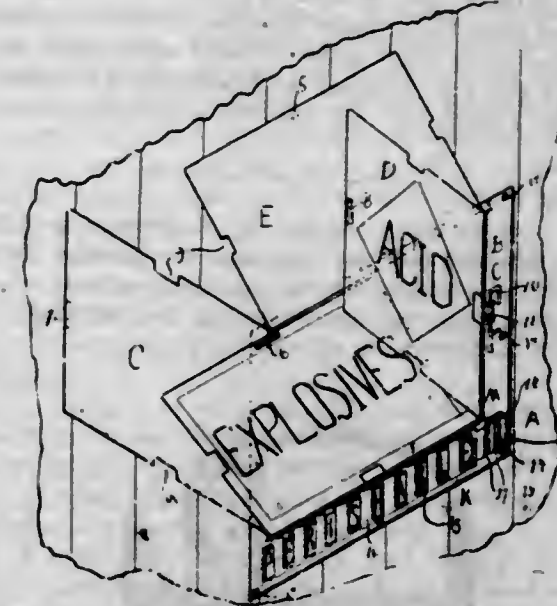
A faucet including a hollow body having at one end thereof a tubular member for the supply of liquid and

provided with a discharge outlet, the said tubular member projecting into the cavity of the body, a reciprocal stem mounted on the body and extended therein opposite said tubular member, a hollow member surrounding the inner portion of said stem forming a guide for the latter and provided with a bore, a plurality of rocking levers connected at one of their ends to said stem and extended



through said last named member, a stem slidably mounted at one end in the bore of said member, a valve on the other end of said stem and adapted to close the inwardly projecting end of the tubular member, links connecting the rocking levers to said valve, and a spring contacting at one of its ends with the valve and at its other end with the body.

1,082,155. INTERCHANGEABLE - CAR - PLACARD DEVICE. CHARLES L. HERBST and ROMEO C. AVANSINO, Los Angeles, Cal. Filed Oct. 24, 1912. Serial No. 727,592. (Cl. 40-5.)

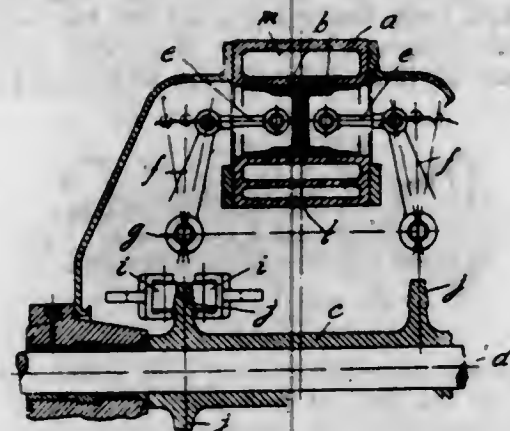


1. An interchangeable placard device for rolling stock, comprising a plurality of adjustably mounted placard members each of which is adapted to over-ride the others, certain of said members having varying indicating matter pertinent to the contents of the rolling stock, and means holding the several members in predetermined assemblage; in combination with a back plate adapted to be secured to the car and in connection with which each of said members is hinged.

2. An interchangeable placard device for rolling stock, comprising a plurality of adjustably mounted placard members each of which is adapted to over-ride the others, certain of said members having varying indicating matter pertinent to the contents of the rolling stock, and means holding the several members in predetermined assemblage; one of said members comprising separate parts each having separate indicating matter, said parts being hinged together whereby the indicating matter of either may be displayed and the indicating matter of the other concealed.

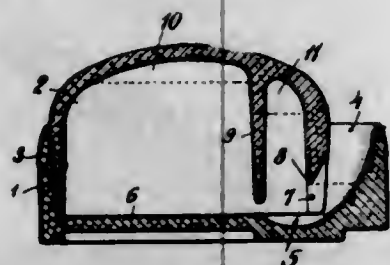
3. An interchangeable placard device for rolling stock, comprising a back plate adapted to be secured to the car, a plurality of flat placard members each hinged at one marginal portion to said back plate and of such form and dimensions as to permit the same to be folded together, in selected sequence with one of the members over and concealing the other members, certain of said members being provided with varying indicating matter; and locking means for holding the members in predetermined relative arrangement.

1,082,156. COMPRESSOR FOR AIR AND GAS. JOSEPH HENRY HURST, Sheffield, England. Filed Oct. 29, 1912. Serial No. 728,493. (Cl. 230—31.)



In compressors for air and gas the combination of parts, comprising a metallic double faced frame, a driving shaft provided with a central boss, a number of cylinders in said frame and positioned radially around said central boss, said cylinders each containing two pistons, each of which is connected by means of a link shaped rod to a connecting beam or double ended lever provided at about the center of its length with a pin or gudgeon working in bearings in brackets on the framework, a projecting cam path on said boss, the inner end of each of said levers being forked and provided with two or more hardened steel rollers adapted to engage with both sides of said cam path, in the manner and for the purposes substantially as herein described and illustrated on the accompanying sheet of drawings.

1,082,157. INKSTAND. JAMES W. JACOBUS, Great Neck, N. Y., assignor to The Jacobus Pneumatic Inkwell Company, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1912. Serial No. 692,803. (Cl. 120—59.)



1. An inkstand comprising a base member and an upper member, the two members having interfitting flanges shaped to provide a dip opening at one side, the upper member having a dependent flange extending from the top of said member downward to near the floor of the base member, the said flange being disposed to inclose a space within the member directly inward from the dip opening to thereby divide the upper member into an inner chamber and an outer chamber intermediate of the inner chamber and the dip tube.

2. An inkstand comprising a base member and an upper member having inter-fitting flanges, the base member having a groove at one side terminating in a recess below the level of the floor of the base member and the upper member having a notch in its lower edge with inclined sides forming in conjunction with the groove of the base member a dip tube and a partition depending from the upper member to a point adjacent the base member and dividing the interior of the stand into an inner and an outer chamber.

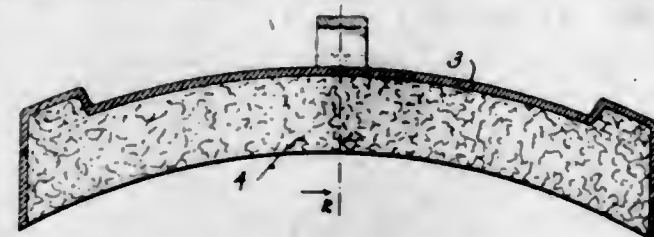
3. An inkstand comprising a base member and an upper member having their edges cemented together, the base member being provided with a groove at one side and the upper member being notched at a point to form in conjunction therewith a dip tube and a partition depending from the upper member, and forming an inner and an outer chamber, the lower edge of the partition being ad-

jacent the floor of the base member and somewhat below the upper edge of the notch of the upper member.

4. An inkstand comprising a base and an upper member having flanges secured together and having a dip tube formed between them and a recess in the base at the lower end of the dip tube and a partition depending from the upper member to a point adjacent the base member and dividing the upper member into an inner and an outer chamber, said recess being beneath the outer chamber.

5. An inkstand comprising a base member provided with an upstanding flange having a groove in one side extending downward and inward on a gradual curve into a recess in the floor of said base member, an upper member having a dependent rim fitting inside the upstanding flange of the base member, the said rim having a notch in its lower edge forming in conjunction with the groove in the base member a dip tube, and the upper member having a flange dependent from the top thereof at a point inside the notch in the rim extending downward to a point adjacent the inner terminus of the recess in the base to thereby divide the upper member into an inner chamber and an outer chamber disposed above the recess in the base and intermediate the inner chamber and the dip tube.

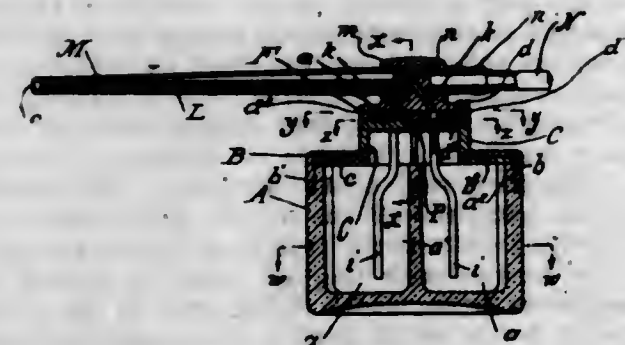
1,082,158. COMPOSITION-FILLED BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed July 2, 1912. Serial No. 707,223. (Cl. 188—27.)



1. A brake shoe comprising a composition wearing body, and a shell containing said body, said shell being formed from metal, and to which finished shell sulfur is added in such quantity as to render the same brittle when in a heated condition, whereby it will rapidly disintegrate when the shoe is in service.

2. A brake shoe comprising a composition wearing body, and a shell to contain said body, said shell being formed from a metal low in sulfur, and to which shell, in its finished form, is added sulfur in quantities sufficient to render the same extremely brittle when heated, whereby said shell will rapidly disintegrate when in contact with the tread of a wheel.

1,082,159. ATOMIZER. GEORGE J. KELLEY, Attleboro, Mass. Filed Mar. 8, 1913. Serial No. 752,807. (Cl. 215—71.)



1. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a cap upon the receptacle, pipes in the cap extending into the compartments, a block fixed to the cap, a discharge tube in the block, said block being provided with passages opening into the tube, and a disk rotatably mounted between the cap and the block provided with openings adapted to successively register with the passages and pipes.

2. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a cap upon the

receptacle, pipes in the cap extending into the compartments, a block fixed to the cap, a discharge tube in the block, said block being provided with passages opening into the tube and in alignment at their lower ends with the pipes, and a disk rotatably mounted between the cap and the block provided with openings arranged to selectively register with a part of the passages and pipes.

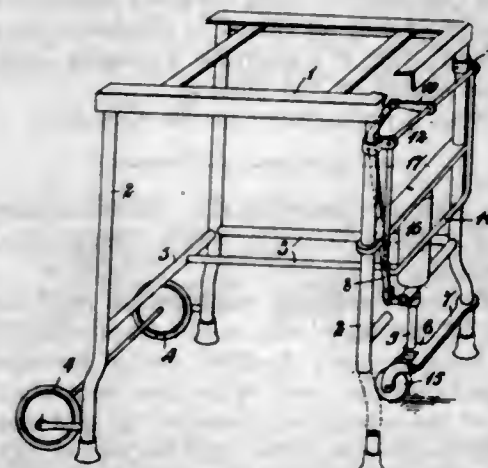
3. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a cap upon the receptacle, pipes in the cap extending into the compartments, a block upon the cap, a discharge tube in the block, said block being provided with passages opening into the tube and above the several pipes, a flat disk rotatably mounted between the cap and the block and provided with an opening adapted to register simultaneously with only one pipe and one passage.

4. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a cap upon the receptacle, pipes in the cap extending into the compartments, a block fixed to the cap and provided with a cavity and with a recess extending into the cavity, and provided with passages opening into the cavity, a discharge tube in the block communicating with the passages, a disk rotatably mounted in the cavity and provided with openings corresponding in number with the number of pipes and so arranged with relation to the pipes that less than the whole number of openings simultaneously registers with the pipes, and a projection upon the disk extending through a slot in the base of the block.

5. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a cap upon the receptacle, pipes in the cap extending into the compartments, a block upon the cap provided with a cavity and with a recess extending into the cavity, and provided with passages opening into the cavity and in alignment with the pipes, a discharge tube in the block communicating with the passages, a disk rotatably mounted in the cavity and provided with openings located at the same radial distance from the block of the disk as are the pipes, but interspaced from each other at distances other than the distances between the pipes, and a projection upon the disk extending through a slot in the base of the block.

[Claim 6 not printed in the Gazette.]

1,082,160. CASTER RAISING AND LOWERING DEVICE FOR STANDS FOR TYPE-WRITING MACHINES, &c. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 29, 1911. Serial No. 629,968. (Cl. 16—166.)



1. In a stand or table, the combination with supports and wheels therefor, of means for moving said supports so that by raising said supports said wheels become operative, means to maintain said supports raised and wheels operative, means for gradually and completely transferring the weight from the wheels to the supports and means for retarding the drop of said supports when restored.

2. In a stand or table, the combination with supports and wheels therefor, of mechanism for raising and lowering said supports to bring said wheels in and out of op-

erative state, means for maintaining said supports raised and wheels operative, and means for retarding the drop of said supports when restored.

3. In a stand or table, the combination with supports and wheels therefor, of means for raising and restoring said supports to bring said wheels in and out of operative state, means for maintaining said supports raised, and a dash pot for retarding the drop of said supports when restored.

4. In a stand or table, the combination with supports and wheels on certain of said supports, of an extensible leg, a wheel thereon, a lever fastened pivotally to the stand, and a link connecting said lever with said leg; said lever being operated to extend and return said leg for raising and restoring the stand to bring the wheels in and out of operative state; said link or lever throwing past a dead center and abutting against a member to lock the stand in the raised position for maintaining the wheels in operative state.

5. In a stand or table, the combination with supports and wheels therefor, of a leg mounted to extend, a wheel therefor, a lever connecting said leg with the stand for raising and restoring said stand to bring the wheels in and out of operative state, and mechanism for retarding the drop of said stand when restored.

[Claims 6 to 12 not printed in the Gazette.]

1,082,161. PROTECTING IRON FROM RUST. ALBERT LANG, Karlsruhe, Germany, assignor to Hans Freiherr von Seldeneck, Frankfurt-on-the-Main, Germany. Filed Sept. 20, 1909. Serial No. 518,656. (Cl. 91—68.)

1. A method of coloring iron and steel to prevent the formation of rust, which consists in the artificial chemical alteration of the surface to be treated, attended by the chemical combination, with an anilin dyeing agent, of the surface so altered.

2. A method of coloring iron and steel to prevent the formation of rust, which consists in the production of an artificial chemical alteration of the surface to be treated, and then chemically combining such surface with an anilin dyeing agent.

3. A method of coloring iron and steel to prevent the formation of rust, which consists in artificially producing a layer of iron compound on the surface to be treated, and then applying to such layer an anilin dyeing agent which combines chemically with such layer.

4. A method of coloring iron and steel to prevent rust, which consists in artificially forming a layer of iron oxide on the surface of the metal to be treated, and then chemically combining such layer with an anilin dyeing agent.

5. A method of coloring iron and steel to prevent rust, which consists in artificially producing a layer of iron oxide on the surface of the metal to be treated, and then applying to such layer an anilin dyeing agent.

[Claims 6 to 8 not printed in the Gazette.]

1,082,162. ROCK-DRILLING STOPPING-DRILL. JOHN GEORGE LEYNER, Denver, Colo., assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Oct. 18, 1910. Serial No. 587,651. (Cl. 121—10.)



1. A stopping-drill having a cylinder with a front cylinder-head and a rear cylinder-head, a tubular casing mounted on said rear cylinder-head, a feed-piston within said tubular casing, a plate loosely mounted on said tubular casing, side-rods connecting said front cylinder-head said rear cylinder-head and said plate, and coil springs about said side-rods interposed between said rear cylinder-head and said plate, whereby said cylinder-heads and said plate are yieldingly clamped together.

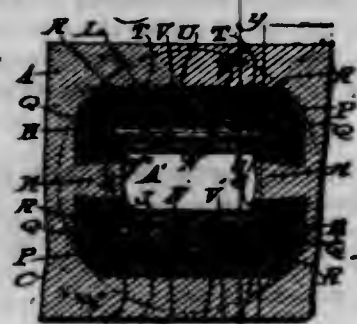
2. A stoping-drill having a cylinder with a front cylinder-head and a rear cylinder-head provided with two step-like shoulder portions, a feed-piston, a tubular casing for the feed-piston secured upon one of said shoulder portions, means for supplying compressed air through said rear cylinder-head into said casing, a rim extension on the head of said feed-piston adapted to move over the other shoulder portion when said feed-piston is drawn within the casing, and a retaining-ring about the second shoulder portion.

3. A stoping-drill having a cylinder with a front cylinder-head and a rear cylinder-head provided with a rearward extension having an axial chamber therein, means for supplying compressed air to and exhausting it from said chamber, a front shoulder on said rear cylinder-head fitting within the cylinder, a rear shoulder on said rear cylinder-head, a feed-piston, a tubular casing for the feed-piston secured upon said rear cylinder-head, a plate loosely mounted on said tubular casing, and means connected with said plate for yieldingly clamping said tubular casing and said rear cylinder-head to the front cylinder-head.

4. A stoping-drill having a cylinder with a front cylinder-head and a rear cylinder-head provided with an annular groove on its front surface, a rearwardly opening axial chamber, and ports connecting said groove and said chamber; means for supplying and exhausting compressed air through said groove and ports; a front shoulder on said rear cylinder-head fitting within the cylinder; a rear shoulder on said rear cylinder-head; a feed-piston; a tubular casing for the feed-piston secured upon said rear shoulder; and means for yieldingly clamping said tubular casing and said rear cylinder-head to the front cylinder-head.

5. A stoping-drill having a cylinder with a front cylinder-head and a rear cylinder-head provided with an annular groove on its front surface, a rearwardly opening axial chamber, and ports connecting said groove and said chamber; means for supplying and exhausting compressed air through said groove and ports; a front shoulder on said rear cylinder-head fitting within the cylinder; two step-like shoulder portions on the rear side of said rear cylinder-head; a feed-piston; a tubular casing for the feed-piston secured upon one of said shoulder portions; a rim extension on the head of said feed-piston adapted to move over the other shoulder portion when said feed-piston is drawn within the casing; a retaining-ring about the second shoulder portion; and means for yieldingly clamping said tubular casing and said rear cylinder-head to the front cylinder-head.

1,082,163. PLUMB AND LEVEL. HENRY H. LUNG, Philadelphia, Pa. Filed Jan. 29, 1912. Serial No. 673,996. (Cl. 73—70.)



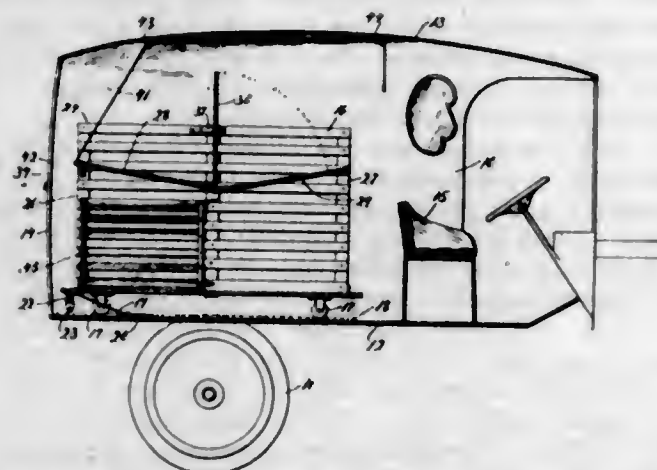
1. In a plumb and level, a stock, a spirit tube therein, a scribe on said tube, a piece of contrasting material partially around said tube in the longitudinal direction thereof opposite the bubble when in use and threads encircling said piece and tube to retain the piece in position, said scribe being disposed to center the bubble and having said threads seated therein.

2. In a plumb and level, a stock having a recess therein, a spirit tube in said recess, an outer tube, wedges interposed between said outer tube and the adjacent wall of the recess to adjust said tube in the recess, and filling in said recess around the ends of the spirit tube, said wedges controlling said outer tube in its adjustment.

3. In a plumb and level, a stock having a recess therein, a spirit tube in the same, said recess being of dove-tailed

form, plaster filling said recess and inclosing the ends of said tube, an outer tube inclosing said spirit tube, and wedges interposed between the ends of the outer tube and the adjacent plaster and extending lengthwise of the tube to adjust the latter in the recess.

1,082,164. DELIVERY-TRUCK. WALTER LYTTON and JOSHUA TEDFORD, Chicago, Ill.; said Tedford assignor to said Lytton. Filed Jan. 8, 1912. Serial No. 670,114. (Cl. 21—7.)



1. In combination, a delivery truck having a body, a crate removably held within the body of the truck and substantially filling the same, and a follower movable through the crate toward one end of the body of the truck.

2. In combination, a delivery truck having a body, a crate removably held within the body of the truck and substantially filling the same, a follower movable through the crate toward one end of the body of the truck, and means for manually actuating the follower said means being located at the end of the body of the truck toward which the follower is movable.

3. In combination, a delivery truck having a body, a swinging gate transversely dividing the body and a forwardly movable follower in rear of the gate.

4. In combination, a delivery truck having a body, and a pair of shelves extending in opposite directions from a transverse line within the body, one of the said shelves being fixed in the body and the other shelf being movable to deliver its load upon the fixed shelf.

5. In combination, a delivery truck having a body, a pair of shelves inclined upwardly in opposite directions from a transverse line within the body, one of the said shelves being fixed and the other movable, the adjacent edges of the two shelves being hingedly connected whereby the movable shelf may be raised to discharge its load upon the fixed shelf, and a transverse swinging gate dividing the space embraced by the shelves.

(Claims 6 to 9 not printed in the Gazette.)

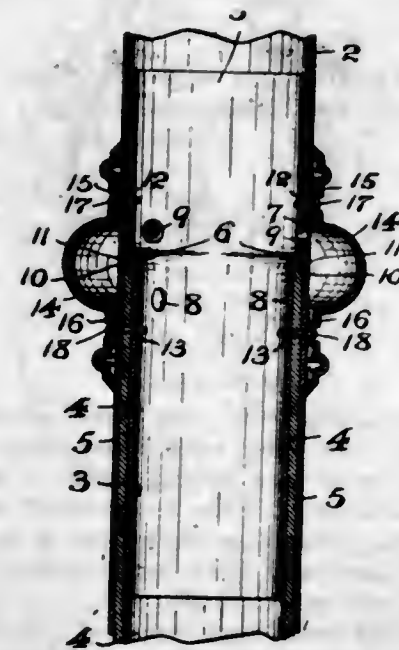
1,082,165. METAL BEDSTEAD. RUBIN MAINKOR, Passaic, N. J. Filed Oct. 18, 1913. Serial No. 795,822. (Cl. 5—4.)

1. In metal bedsteads, in combination with the tubular end-member of the upper thin metal frame-portion, a tubular metal bushing, said bushing being provided with a series of perforations, and eyelet-like retaining members forced out of the tubular end-member of said upper frame-portion and projecting into said series of perforations, substantially as and for the purposes set forth.

2. In metal bedsteads, in combination with the tubular end-member of the upper thin metal frame-portion, a tubular metal bushing, said bushing being provided with a series of perforations, eyelet-like retaining members forced out of the tubular end-member of said upper frame-portion and projecting into said series of perforations, and a guiding means upon said bushing and vertically in alignment with said perforations, substantially as and for the purposes set forth.

3. In metal bedsteads, in combination with the tubular end-member of the upper thin metal frame-portion, a tubu-

lar metal bushing, said bushing being provided with a series of perforations, eyelet-like retaining members forced out of the tubular end-member of said upper frame-portion and projecting into said series of perforations, and a second series of guiding perforations in said bushing vertically in alignment with the said first-mentioned perforations, substantially as and for the purposes set forth.



4. In metal bedsteads, in combination with the tubular end-member of the upper thin metal frame-portion, a tubular metal bushing, said bushing being provided with a series of perforations, eyelet-like retaining members forced out of the tubular end-member of said upper frame-portion and projecting into said series of perforations, and a tubular post slipped over another portion of said bushing, substantially as and for the purposes set forth.

5. In metal bedsteads, in combination with the tubular end-member of the upper thin metal frame-portion, a tubular metal bushing, said bushing being provided with a series of perforations, eyelet-like retaining members forced out of the tubular end-member of said upper frame-portion and projecting into said series of perforations, and a guiding means upon said bushing and vertically in alignment with said perforations, and a sheet-metal incased tubular post slipped over another portion of said bushing, substantially as and for the purposes set forth.

(Claims 6 to 9 not printed in the Gazette.)

1,082,166. CLOTH-BEAM. JONAS NORTROP, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 19, 1911. Serial No. 650,208. (Cl. 139—56.)



1. In a loom, the combination of a cloth beam comprising a plurality of independent longitudinal sections having cloth supporting surfaces, disconnected means acting on the ends of said sections for supporting them in operative position, a spring for yieldingly forcing one of said disconnected means toward the other and devices on said adjacent edges of said sections toward each other for clamping an end portion of the cloth between them.

2. In a loom, the combination of a cloth beam comprising a plurality of independent longitudinal beam sections, section holders for engaging the ends of said independent sections, means for independently supporting said section

holders, yielding means acting normally to force one of said section holders toward the other, and devices on said section holders rendered effective by said yielding means for causing adjacent edges of two of said beam sections to clamp an end portion of the cloth between them.

3. In a loom, a collapsible cloth beam, comprising independent longitudinal sections having cloth supporting surfaces, independently supported section holders on the loom frame for engaging the ends of the sections, and means acting longitudinally of said sections for forcing said sections circumferentially of the cloth beam to clamp the end portion of the cloth between adjacent edges of said sections.

4. In combination, a cloth beam for looms comprising a plurality of independent longitudinal sections, independently supported holders for engaging the ends of said independent sections and maintaining them in cloth winding position, means on said holders for preventing collapse of said independent sections when in winding position, and means also on the independently supported section holders for causing adjacent edge portions of two of said sections to be clamped upon the cloth placed between them when the section holders are moved toward each other.

5. In a loom, the combination of independently supported beam section holders, independent beam sections adapted to be engaged by said holders and held in assembled relation, section expanders having inclined portions and carried by the holders for holding the sections with two adjacent edges separated and other two adjacent edges in closed relation upon the end of the cloth to be wound, and means acting normally to force one section holder toward the other and the expanders in a direction to cause the beam sections to clamp the end of the cloth between them.

(Claims 6 to 10 not printed in the Gazette.)

1,082,167. MANUFACTURE OF CELLULOSE ACETATE.

FREDERICK PASCHKE, London, England, assignor to Safety Celluloid Company Limited, London, England. Filed May 26, 1913. Serial No. 769,958. (Cl. 23—24.)

1. A process for the production of cellulose acetate which consists in dissolving cellulose in a mixture of acetic anhydrid, glacial acetic acid and a condensing agent consisting of a suitable anhydrous copper salt.

2. A process for the production of cellulose acetate which consists in dissolving cellulose in a mixture of acetic anhydrid, glacial acetic acid and a condensing agent consisting of a suitable anhydrous copper salt, adding acetic acid to the solution of cellulose acetate and deacetylizing the solution by passing chlorine into the same.

3. A process for the production of cellulose acetate which consists in dissolving the cellulose in a liquid consisting of substantially 30 parts by weight of acetic anhydrid, 70 parts by weight of glacial acetic acid and 0.35 to 0.5 parts by weight of anhydrous copper sulfate.

4. A process for the production of cellulose acetate which consists in dissolving cellulose in a liquid consisting of substantially 30 parts by weight of acetic anhydrid, 70 parts by weight of glacial acetic acid and 0.35 to 0.5 parts by weight of anhydrous copper sulfate, adding acetic acid of from 80 to 90 per cent. strength to the solution of cellulose acetate and passing chlorine through the resultant solution until the cellulose acetate contains only 50 to 55 per cent. of acetic acid.

1,082,168. ELECTRIC HEATER. FRANK PHILP and GEORGE KEMP, Port Arthur, and WILLIE H. GIBBONS, London, Ontario, Canada. Filed Nov. 1, 1912. Serial No. 729,053. (Cl. 219—38.)

1. In an electric heater, a closed casing having suitable intake openings, a closed casing suspended within said outer casing, tubular members arranged in said inner casing and extending therethrough and having open ends and communicating with the space between said inner and outer casings, and high resistance wires coiled around said tubes and electrically connected to a suitable electric

current supply and forming with said tubes the primary heating element.



2. In an electric heater, a closed casing having suitable intake openings, a closed casing suspended within said outer casing, tubular members arranged in said inner casing and extending therethrough and having open ends and communicating with the space between said inner and outer casings, said tubes having their peripheral surface formed with a spiral thread rolled therein, a suitable insulating coating covering the periphery of said tubes, and high resistance wires wound in said spiral grooves and connected to a suitable electric current supply, said wires with said tubes forming a primary heating element.

3. In an electric heater, a cylindrical casing, a partition wall extending across said cylindrical casing intermediate of its height and dividing the interior of said cylinder into upper and lower chambers, a closed casing suspended within said lower chamber centrally thereof and having a tubular extension projecting upwardly through said upper chamber and opening through the top of said casing, a plurality of tubular members open at the ends extending through said closed casing and secured at the ends in water tight joints, high resistance electric wires wound spirally around said tubes within said inner closed casing and connected to suitable leads from an electric current supply extending through said central tubular extension, intake pipes connected to said cylinder and opening into said lower chamber at the top thereof, and discharge pipes leading from said upper chamber.

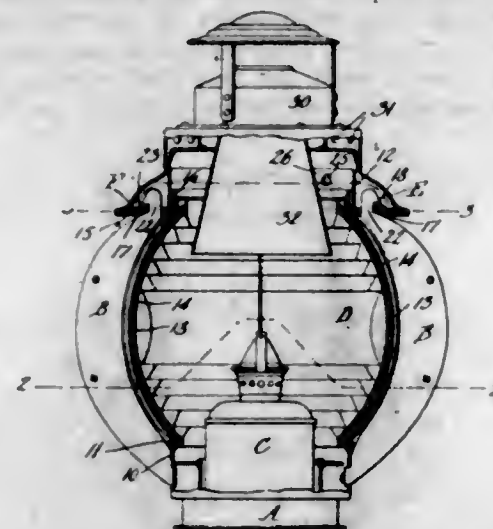
4. In an electric heater, a casing closed at the ends and having a partition wall dividing it into upper and lower chambers, said partition wall having a plurality of circular openings therethrough, an inner closed casing suspended from said partition wall within the lower chamber and having a plurality of openings in the lower end corresponding with the openings in said partition wall, bushings of flexible material secured in said openings, tubular members open at the ends and extending through said bushings and through said inner casing and having nuts threaded at their extremity securing them in place, electric high resistance wires coiled spirally around said tubes and connected to a suitable source of electric current supply, intake pipes leading to said lower chamber, and outlet pipes leading from said upper chamber.

1,082,169. SIGNAL-LAMP. JUDSON S. PIXLEY, New York, N. Y. Filed Sept. 18, 1912. Serial No. 721,059. (Cl. 240—22.)

1. The combination with a lamp base, of upright frame bars secured at their lower ends to said base and provided at their upper ends with locking heads, a lens resting on said base, a breast bearing upon said lens and having openings through which said heads project, and a single rotatable means engaging said heads simultaneously for locking said breast to said bars, substantially as set forth.

2. The combination with a lamp base, of upright frame bars secured at their lower ends to said base and provided at their upper ends with locking heads, a breast having openings for the reception of said bars, and a ro-

tatable lock arranged in said breast and engaging the heads of said bars, substantially as set forth.



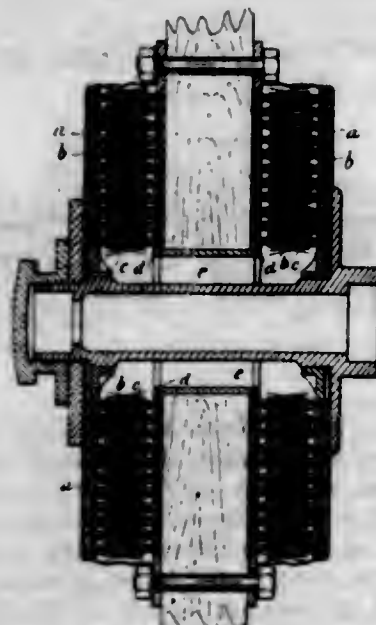
3. The combination with a lamp base, of upright frame bars secured at their lower ends to said base and provided at their upper ends with locking heads, a breast having openings in its bottom for the reception of said bars, and a rotatable lock arranged on the bottom of said breast and provided with locking inclines engaging the heads of said bars, substantially as set forth.

4. The combination with a lamp base, of upright frame bars secured at their lower ends to said base and provided at their upper ends with overhanging locking heads, a breast having openings in its bottom for the reception of said bars, and a rotatable lock arranged on the bottom of the breast and having circumferentially elongated openings with enlarged front portions for admitting said heads and locking inclines along said openings for engaging underneath the overhanging portions of said heads, substantially as set forth.

5. The combination with a lamp base, of upright frame bars secured thereto at their lower ends and having locking heads, a breast having openings in its bottom for the admission of said bars, a rotatable lock arranged in said breast and engaging said heads, and a detent for preventing backward rotation of said lock, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

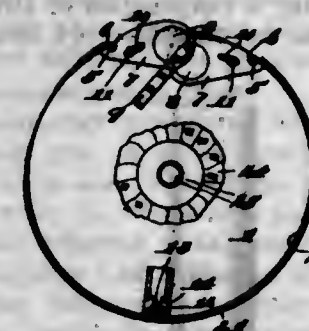
1,082,170. WHEEL FOR ROAD-VEHICLES. HENRY ALLEN PRYOR, London, England. Filed Feb. 5, 1912. Serial No. 675,643. (Cl. 152—39.)



1. A vehicle wheel consisting of a hub member having a multitude of transversely disposed bristles or projections mounted thereon and a rim member having similar bristles intermeshing with and obtaining support from the bristles or projections on the axle or hub member.

2. A wheel for vehicles consisting of hub and rim members capable of relative movement in the plane of the wheel in combination with brushes disposed in the plane of the wheel with the bristles transversely thereto and mounted on the overlapping parts of said relatively movable members and means whereby the said brushes are kept in intermeshing engagement so as to support the one member of the wheel from the other.

1,082,171. COLLAPSIBLE BED-BOLESTER. FRIDRICH W. RAHN, Dunning, Ill. Filed Sept. 21, 1912. Serial No. 721,647. (Cl. 5—15.)



1. A device of the class described comprising two end members; a flexible member secured to said end members to form a receptacle open at one side; longitudinally extensible stretcher members attached to said flexible member at the edges of said opening and detachably secured to said end member; slidable plates eccentrically mounted on said end members and arranged to move said stretcher members to stretch said flexible member; a lever for simultaneously operating said plates; a supplemental stretcher member located between said first mentioned stretcher members and detachably secured to said end members; and distention hoops pivoted to said first mentioned stretcher members and arranged to hold said flexible member in distended form, substantially as described.

2. A device of the class described comprising two end members; a flexible member secured to said end members to form a receptacle open at one side; longitudinally extensible stretcher members attached to said flexible member at the edges of said opening and detachably secured to said end members; slidable plates operatively connected on said end members arranged to simultaneously move said stretcher members to stretch said flexible member; a lever for operating said plates; a supplemental longitudinally extensible stretcher member located between said first mentioned stretcher members and detachably secured to said end members; and distention hoops pivoted to said first mentioned stretcher members adapted to hold said flexible member in distended position, substantially as described.

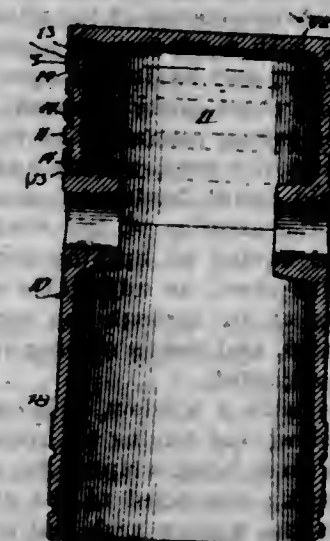
3. A device of the class described comprising two end members; a flexible member secured to said end members to form a receptacle open at one side; longitudinally extensible stretcher members attached to said flexible member at the edges of said opening and detachably secured to said end members; means on said end members arranged to move said stretcher members to stretch said flexible member, said means comprising two slidable plates and an operating lever connected to operate said plates simultaneously; a supplemental longitudinally extensible stretcher member located between said first mentioned stretcher members and detachably secured to said end members; and distention hoops pivoted to said first mentioned stretcher members and adapted to hold said flexible member in distended form, substantially as described.

1,082,172. PISTON-RING FOR INTERNAL-COMBUSTION ENGINES. GEORGE R. RICH, Oak Park, Ill., assignor to Rich Tool Company, Chicago, Ill., a Corporation of Illinois. Filed July 14, 1913. Serial No. 778,892. (Cl. 121—108.)

1. A piston ring, uniform in cross section throughout, and comprising a cylindrical portion adapted to bear

197 O. G.—57

against the internal wall of a cylinder and having its edge portions bent inward from the cylindrical portion at a wide angle with respect to each other, to form resilient portions adapted to bear against the base of an annular groove in a piston.



2. A piston ring, comprising an annular strip of metal of uniform cross section, and consisting of a cylindrical portion adapted to bear against the internal wall of a cylinder and having its edge portions bent inward and then laterally away from each other in the form of reverse curves to form resilient portions adapted to bear against the base of an annular groove in a piston.

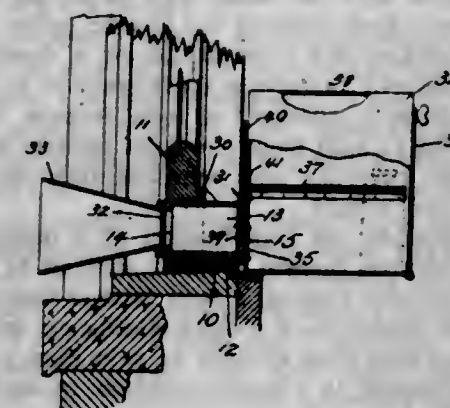
3. A piston ring, comprising an annular strip of metal having overlapping ends and of uniform cross section throughout, said strip consisting of a middle cylindrical portion adapted to bear against the internal wall of a cylinder and having its edge portions bent inward from the cylindrical portion in widely diverging directions, with respect to each other to form resilient portions adapted to bear against the base of an annular groove in a piston.

4. A piston ring, uniform in cross section throughout, and comprising a strip of metal bent into ring-like formation, consisting of a middle cylindrical portion adapted to bear against the internal face of a cylinder and having its opposite edge portions curved inward from the cylindrical portion and then away from each other to form resilient portions of less diameter than the outer diameter of the cylindrical portion and adapted to bear against the base of an annular groove in a piston.

5. A piston ring, comprising an annular strip of metal of uniform cross section throughout, the cross section being substantially of dish-like formation having a flat base and outwardly flaring portions.

[Claims 6 to 10 not printed in the Gazette.]

1,082,173. COOLING-CHEST. CLARENCE T. RIVERS, New York, N. Y. Filed Apr. 19, 1913. Serial No. 762,363. (Cl. 45—104.)



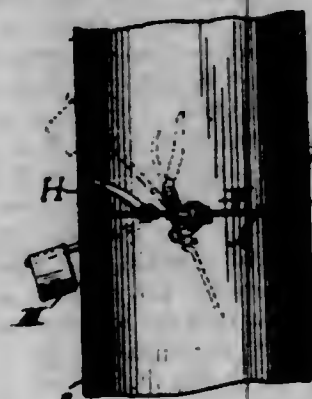
1. The combination with a window, of a chest disposed interiorly of the window, and adapted for holding articles, a supporting casing connected to the chest and removably held between the window sash and the sill of the window frame, said casing having an opening leading from its

interior to the exterior of the window for the admission of air, means providing communication between the interior of the chest and the interior of the supporting casing, means adapted to permit the passage of air from the supporting casing to the chest to be regulated, and a funnel connected to the casing around its opening, and extending outwardly of the exterior of the window.

2. The combination with a window, of a chest disposed interiorly of the window, and having an opening through one of its walls, said chest being adapted for holding articles, a supporting casing connected to the chest and removably held between the window sash and the sill of the window frame, said casing having an opening leading from its interior to the exterior of the window for the admission of air, and having an opening communicating with the opening of the chest, an adjustable slide serving to permit the passage of air through the communicating openings to be regulated, and means serving to permit the slide to be manually adjusted.

3. The combination with a window, of a chest disposed interiorly of the window, and having an opening through one of its walls, said chest being adapted for holding articles, a supporting casing connected to the chest and removably held between the window sash and the sill of the window frame, said casing having an opening leading from its interior to the exterior of the window for the admission of air, and having an opening communicating with the opening of the chest, an adjustable slide serving to permit the passage of air through the communicating openings to be regulated, means serving to permit the slide to be manually adjusted, and a funnel connected to the casing around one of its openings, and extending outwardly of the exterior of the window.

1,082,174. DAMPER. WILBERT F. RUTHERFORD, Newport, Ore. Filed Nov. 30, 1912. Serial No. 734,316. (Cl. 236—2.)



1. In a damper, the combination of a damper plate, a shaft, a weight carrying arm connected to said shaft, means comprising a weight carrying arm arranged in angular relation to the first weight carrying arm for preventing the damper closing without an increase in the draft pressure, and a stop finger secured to the damper plate for engagement with the inner wall of a pipe for preventing the damper from passing the closing point.

2. In a damper, the combination of a damper plate, a stop finger secured thereto, a shaft secured to the damper plate eccentrically thereof, a loop formed thereon, an arm connected to said loop, a weight sliding on said arm, and a weight carrying arm counteracting the first mentioned arm and weight.

3. In a damper, the combination of a damper plate, a stop finger secured thereto, a shaft secured to the damper plate eccentrically thereof, a loop formed thereon, an arm connected to said loop, a weight sliding on said arm, and a weight carrying arm secured to said loop and carrying a weight arranged in angular relation to said first mentioned weight.

4. In a damper, the combination of a damper plate, a stop finger secured thereto, a shaft secured to the damper plate eccentrically thereof, a loop formed on said shaft, an arm connected to said loop and capable of a swinging movement to be positioned parallel to the damper shaft,

and a weight on said arm, and means counteracting said arm and weight.

5. In a damper, a damper plate, a damper shaft secured to said plate eccentrically thereof, said shaft having a bend and a loop, an arm pivotally connected at one end to said loop, a weight on said arm, an arm secured to said loop, a weight on said arm, and a stop finger on said plate adapted to contact with the inner wall of a flue within which said plate is arranged.

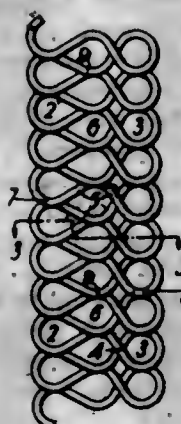
1,082,175. NEST OF STOVEPIPE. ALBERT G. SCHERER, Chicago, Ill., assignor to The Excelsior Steel Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed June 10, 1912. Serial No. 702,665. (Cl. 206—65.)



1. A nest of sections of stove pipe comprising a plurality of sections, each section having its meeting longitudinal edges provided with reverse engaging folds, said folds being riveted at one end, said unriveted end being slightly converged, said section so converged being wrapped to maintain it in such converged condition, and such converged wrapped sections being inserted one into another to form the nest.

2. A nest of sections of stove pipe comprising a plurality of sections, each section having its meeting longitudinal edges provided with reverse engaging folds, said folds being riveted at one end, said unriveted end being slightly converged, and such converged sections being inserted one inside of another to form the nest.

1,082,176. GARMENT-STAY. DAVID SCHULZ, Kutztown, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1910. Serial No. 581,158. (Cl. 2—76.)



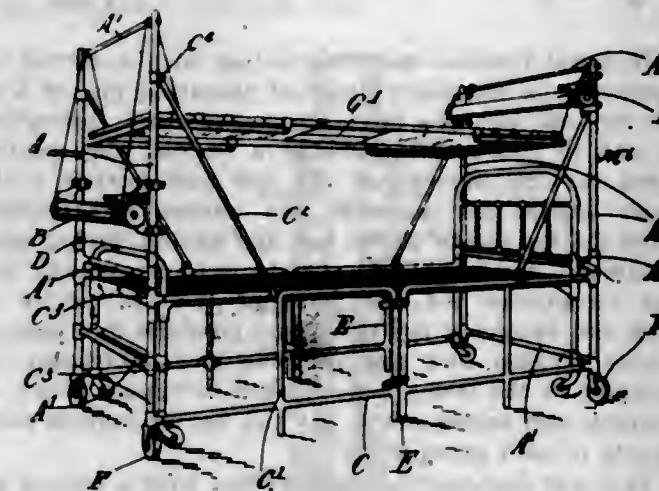
1. A garment stay comprising wire bent to form oppositely disposed eyes or loops, the crossings being deflected in the plane of the stay out of a straight transverse line, adjacent crossings being deflected in opposite directions, the crossings of each loop or eye along one edge of the stay overlapping each other, and the crossings of each loop or eye along the other edge of the stay crossing each other.

2. A garment stay comprising wire bent to form oppositely disposed eyes or loops, the crossings being deflected in the plane of the stay out of a straight transverse line, adjacent crossings being deflected in opposite directions, the crossings of each loop or eye along one edge of the stay being bent toward each other, and the crossings of each loop or eye along the other edge of the stay crossing each other.

3. A garment stay comprising wire bent to form oppositely disposed eyes or loops, the crossings being deflected in the plane of the stay out of a straight transverse line, adjacent crossings being deflected in opposite directions, the crossings of each loop or eye along one edge of the stay being bent toward each other, and the crossings of each loop or eye along the other edge of the stay crossing each other, and adjacent eyes or loops along both edges of the stay overlapping each other.

4. A garment stay comprising wire bent to form oppositely disposed eyes or loops forming the edges of the stay, the eyes on one edge of the stay being formed by crossing the wire, the transverse portions or crossings being curved and deflected in the plane of the stay out of a straight transverse line, adjacent transverse portions or crossings being deflected in opposite directions, adjacent eyes or loops overlapping each other along the edges of the stay, and adjacent crossings overlapping each other along substantially the longitudinal median line of the stay.

1,082,177. APPARATUS FOR HANDLING INVALIDS OR THE LIKE. ARTHUR SKEFFINGTON, Blackheath, London, England. Filed July 15, 1911. Serial No. 638,743. (Cl. 5—12.)



1. In an apparatus of the character described, the combination of a vertical head-frame, a vertical foot-frame, a transverse roller on the head-frame, a sheet having one end wound on the roller, a transverse roller on the foot-frame receiving the opposite end of the sheet that is wound on the head-frame roller, means for anchoring the two frames so that one cannot travel bodily toward the other under the pull of the sheet upon the two rollers, struts on the head-frame extending downward at each side for direct contact with the floor and forward toward the foot-frame, and struts on the foot-frame extending downward at each side for direct contact with the floor and forward toward the head-frame, substantially as set forth.

2. In an apparatus of the character described, the combination of a vertical head-frame, a vertical foot-frame, a transverse roller on the head-frame, a sheet having one end wound on the roller, a transverse roller on the foot-frame receiving the opposite end of the sheet that is wound on the head-frame roller, means for anchoring the two frames so that one cannot travel bodily toward the other under the pull of said sheet, struts hinged to the head frame about vertical axes, and struts hinged to the foot-frame about vertical axes extending downward for direct contact with the floor and forward toward the other frame, substantially as and for the purpose set forth.

3. In an apparatus of the character described, the combination of a vertical head-frame, a vertical foot-frame, a

transverse roller on the head-frame, a sheet having one end wound on to the roller, a transverse roller on the foot-frame receiving the opposite end of the sheet that is wound on the head-frame roller, means for anchoring the two frames so that one cannot travel bodily toward the other under the pull of the sheet upon the two rollers, struts in the form of side frames that are hinged about vertical axes to the head-frame and extend downward at each side for direct contact with the floor and forward toward the foot-frame, struts in the form of side frames hinged to the foot-frame and extending downward at each side for direct contact with the floor and forward where they meet the ends of the side-frames of the head-frame, and means for connecting the side-frames of the head-frame to the side-frames of the foot-frame, substantially as set forth.

4. In an apparatus of the character described, the combination of a vertical head-frame that is supported direct from the floor, a vertical foot-frame that is supported direct from the floor, a roller on the head-frame disposed transversely, a sheet wound on to the roller, a roller on the foot-frame disposed transversely receiving the opposite end of the sheet that is wound on the head-frame roller, side frames hinged about vertical axes to the head-frame and extending forward and downward for direct contact with the floor, side frames hinged about vertical axes to the foot-frame and extending downward for direct contact with the floor, and means for preventing the side frames from splaying laterally substantially as set forth.

5. In an apparatus of the character described, the combination of a vertical head-frame that is supported direct from the floor, a vertical foot-frame that is supported direct from the floor, a roller on the head-frame disposed transversely, a sheet wound on the roller, a roller on the foot-frame disposed transversely, and the opposite end of the sheet that is wound on the head-frame roller, side struts hinged about vertical axes to the head-frame and side struts hinged about vertical axes to the foot frame, said struts extending forward and downward for direct contact with the floor, and comprising an upper diagonal member and a lower horizontal member with a downwardly directed extension, the diagonal member being hinged at its top to the head-frame and rigidly connected at its bottom to the horizontal member, which horizontal member is also hinged to the head-frame, about vertical axes and extending downward at each side for direct contact with the floor and forward to the head-frame, each strut comprising a diagonal member and a horizontal member having a downwardly directed extension, the diagonal member being hinged at its upper end to the foot-frame and rigidly secured at its lower end to the horizontal member which lower end is also hinged to the foot-frame, and means for preventing splaying of the struts laterally, substantially as and for the purpose set forth.

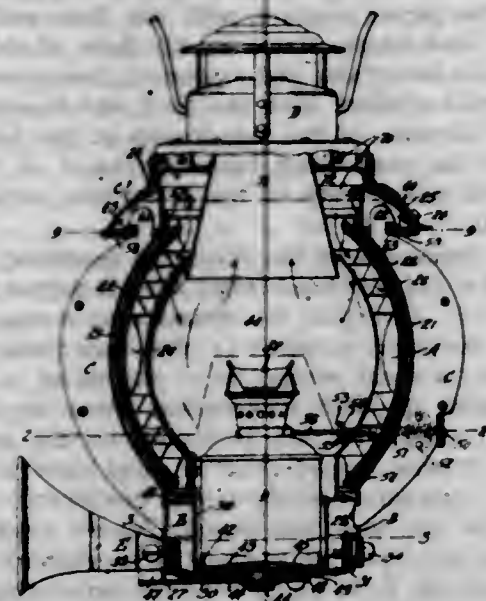
1,082,178. SIGNAL-LAMP. FURMAN D. SPEAR, New York, N. Y., assignor to Armspear Manufacturing Company, New York, N. Y. Filed Sept. 18, 1912. Serial No. 721,078. (Cl. 240—24.)

1. The combination with a stationary support having a circular seat, of a lamp which is rotatably arranged with its base in said seat and provided with a central opening in said base, and a stationary light shield arranged within said lamp and having at its lower end a stem which extends through said opening in the base and is held against rotation by said support, substantially as set forth.

2. The combination with a stationary support having a circular seat, of a lamp which is rotatably arranged with its base in said seat and provided with a central opening in said base, a stationary light shield arranged within said lamp, a cup-shaped support for said shield which is arranged within the lamp base and provided with a stem which extends through said opening in the base and is held against rotation by said support, and an oil font arranged within the cup-shaped support of the shield, substantially as set forth.

3. The combination with a lamp support, of a lamp which is rotatable in said support and provided with a

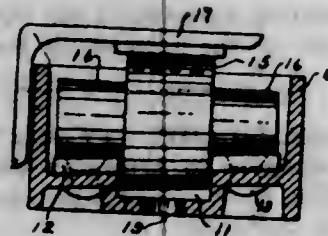
shoulder by which it rests upon said support, and below said support with a holding plate which prevents displacement of the lamp in an upward direction and is provided on its underside with a marginal groove, and a holding arm secured to the lamp support and having convex end portions which engage in said groove, substantially as set forth.



4. The combination with a lamp support, of a lamp which is rotatable in said support, and a light shield arranged within the lamp, a support for said shield having an angular stem which extends downwardly through the base of the lamp, and a holding arm on the lamp support which engages said stem and holds the same against rotation, substantially as set forth.

5. The combination with a lamp frame having upright members, a lens arranged in said frame and composed of upright sections arranged circumferentially side by side, and an oil font and burner provided with a wick-raiser shaft, of an external actuating shaft supported on one of said upright frame members in line with said wick-raiser shaft and passing through the joint between two of said lens sections, said shafts being provided with coupling heads, substantially as set forth.

1,082,179. ROLLER SIDE BEARING. ARNOLD STUCKI, Pittsburgh, Pa. Filed Feb. 14, 1912. Serial No. 877,530. (Cl. 64-64.)



1. The combination with a truck frame, of spring posts mounted therein, a cap mounted on said spring posts and arranged to form runways having portions at different heights and provided with end walls forming stops, and a roller having two diameters, the smaller diameter arranged to roll on said runways and the larger diameter arranged to have the car body rest thereupon and to contact said end walls at the limits of movement of said roller in both directions.

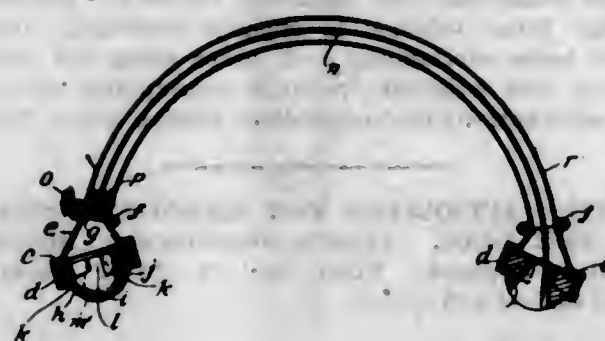
2. The combination with a truck frame, of spring posts mounted therein, a cap for said spring posts provided with an open top and with a central depressed portion and with runways at the sides of said central depressed portion, and a roller having an enlarged central portion projecting down into the depressed portion and adapted to have the car body rest thereupon and having reduced end portions rolling on said runways, said roller resting loosely upon said runways and being removable

from the open top of said cap when the car body is removed therefrom.

3. The combination with a truck frame, of spring posts mounted therein, a cap mounted on said spring posts and providing arc shaped runways, and a conical roller arranged to travel on said runways and adapted to have the car body rest thereupon and forming a guide and a support for the car body, said runways being inclined laterally to a degree that the upper longitudinal surface of the roller is horizontal.

4. A truck side bearing comprising a housing having its bottom forming an arc shaped runway, and a conical roller arranged to travel on said runway and adapted to have the car body rest thereupon, said runway being inclined laterally to a degree that the upper longitudinal surface of the roller is horizontal.

1,082,180. HAT-FASTENER. OTTO THIELENHAUS, New York, N. Y. Filed Feb. 8, 1913. Serial No. 747,064. (Cl. 132-25.)

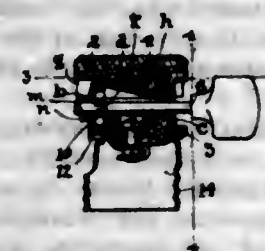


1. In a hat fastener the combination with a curved hat pin carrying an angularly disposed operating pin, of a retainer for the hat pin having a passageway throughout from end to end and comprising a curved body portion adapted for the outside of the hat and having a slot through which the operating pin passes, end portions adapted for the inside of the hat and having flaring tubular chambers forming parts of said passageway and providing receptacles for the point of the pin in its retracted and projected positions, and portions intermediate the body portion and end portions and detachably engageable with the latter and adapted to extend partly on the outside and inside of the hat and having orifices forming parts of said passageway.

2. In a hat fastener the combination with a curved hat pin carrying an angularly disposed operating pin, of a retainer for the hat pin having a passageway throughout from end to end and comprising a curved body portion adapted for the outside of the hat and having a slot through which the operating pin passes, end portions having cam faces adapted for the inside of the hat and having flaring tubular chambers forming parts of said passageway and providing receptacles for the point of the pin in its retracted and projected positions, and portions intermediate the body portion and end portions adapted to extend partly on the outside and inside of the hat and having orifices forming parts of said passageway-said portions being revolvably mounted on the body portion to change the angularity of the former to adapt the fastener to various shaped hats and having claws for detachably engaging the cam faces provided on the end portions.

3. In a hat fastener the combination with a curved hat pin carrying an angularly disposed operating pin, of a retainer for the hat pin having a passageway throughout from end to end and comprising a curved body portion adapted for the outside of the hat and having a slot through which the operating pin passes, claws connected to the body portion and adapted to extend through the hat to the inside thereof, and end portions adapted for the inside of the hat and having cam surfaces for engaging the claws in detachable engagement and having flaring tubular chambers forming part of said passageway and providing receptacles for the point of the pin in its retracted and projected positions.

1,082,181. ELECTRIC-LAMP SOCKET. WILLIAM C. TREGOONING, Cleveland, Ohio, assignor to The Tregeoning Electric Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 13, 1912. Serial No. 696,866. (Cl. 173-351.)



1. In a key socket for electric lamps, a switch plate having a through opening between its borders and a spring tongue opposite said opening, in combination with a key spindle supported at one side of said plate and having a tumbler adapted to pass through said opening to the opposite side to engage said tongue.

2. A key socket for electric lamps comprising a one-piece switch plate having a spring tongue centrally therein and lips at its ends outside the ends of said tongue bent inward at right angles to said tongue and having spindle supporting openings, in combination with a spindle projected through said openings, a tumbler thereon adapted to contact with said tongue and insulating members between which said plate is clamped.

1,082,182. DEVICE FOR PREVENTING EXCESSIVE PRESSURE IN PNEUMATIC TIRES. WALTER H. VAN WINKLE, Newark, N. J. Filed July 15, 1911. Serial No. 638,612. (Cl. 152-12.)

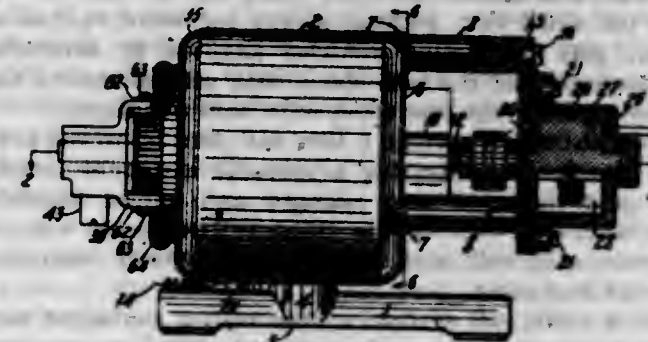


A relief valve for pneumatic tires, comprising an attaching nut, a finger carried thereby which is adapted to engage with and open the valve in the valve stem of the tire, a neck removably attached to said nut, a valve seat removably attached to said neck, a valve member cooperating with said valve seat, a casing inclosing the valve member and having a threaded connection with said valve seat, a spring within the said casing and engaging with the valve member, a pointer secured to the valve seat and lying over the outside of said casing to indicate the position of the latter, and a stop on the casing adapted to be engaged by the pointer and limit the extent of rotary movement of the casing to one revolution.

1,082,183. ROTARY MOTOR AND PUMP. JAMES B. VERNON, Pittsburgh, Pa., assignor to Lee S. Smith & Son Company, Pittsburgh, Pa., a Copartnership. Filed July 10, 1912. Serial No. 708,707. (Cl. 280-30.)

1. A portable combined motor and pump, comprising a base, a motor supported on a horizontal axis upon said base and having a shell or housing, rods detachably secured to and extending horizontally in the direction of the motor axis from one end of said shell or housing, a self-con-

tained pump supported on the ends of said rods and bodily removable therefrom, and a separable connection between the motor shaft and said pump for driving the latter.

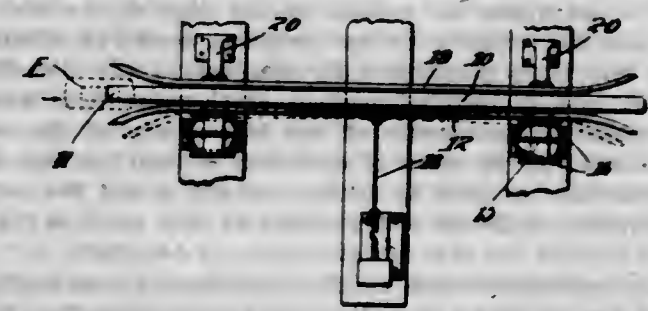


2. A portable combined motor and pump, comprising a base, a motor supported thereon upon a horizontal axis and having a shell formed with an integral head at one end and a removable head at the other end, bearings in said heads, a rotor for said motor having a horizontal shaft mounted in said bearings, a stator within said casing, a self-contained pump secured to and carried by said casing and bodily removable therefrom, and driving connections between said shaft and pump.

3. A portable combined motor and pump, comprising a base, a motor supported thereon and provided with a shell or casing having an integral head at one end, a stator within said casing, a removable head at the other end of said casing, rods for securing said stator to said casing and also supporting said removable head, a rotor within said casing and supported by said heads and having a shaft projecting endwise through said fixed head, a pump comprising a casing and a piston therein, said pump casing being spaced from and removably secured to and carried by said fixed head, and connections between said shaft and piston for driving the same.

4. A portable combined motor and pump, comprising a base, a motor supported thereon and having a shell, a fixed head at one end of said shell and a removable head at the other end thereof, said heads being provided with apertures for circulating air through the casing, a stator within said shell of cylindrical form to fit the same, rods for securing said stator and said removable head to said casing, a rotor, bearings in said heads for supporting the same, and a pump removably attached to and spaced from the fixed head of said casing and operatively connected to said rotor.

1,082,184. TRACK-CONTACTOR. CHARLES W. WARD, Lakewood, Ohio. Filed Feb. 3, 1912. Serial No. 675,241. (Cl. 246-35.)



1. A third rail system including a contactor comprising a movable extended abutment beside the trackway on the side opposite the third rail, parallel to the trackway and the third rail and occupying a position adapting it for engagement with the third rail shoe on that side of a vehicle, and a switch operatively connected with said abutment.

2. A third rail system including a contactor comprising a movable extended abutment beside the trackway on the side opposite the third rail, parallel to the trackway and the third rail, and occupying a position adapting it for engagement with the third rail shoe on that side of a vehicle, a co-extensive short section of rail occupying relatively the same position as respects said track-

way as said third rail, and a switch operatively connected with said movable abutment.

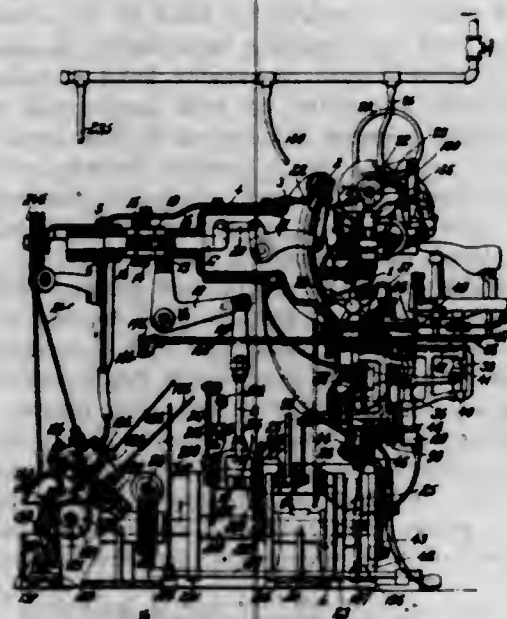
3. A third rail system including a contactor comprising a movable abutment beside the trackway on the side opposite the third rail, guiding means for third rail shoes on that side of passing vehicles adapted to determine the engagement of the said shoes with said abutment and a switch operatively connected with said abutment.

4. In a third rail system, a shoe rail parallel to the third rail, a contactor comprising a movable abutment located beside said shoe rail and engaged and moved laterally of the said shoe rail by the third rail shoes of vehicles traversing said rail, and a switch operatively connected with said abutment.

5. In a third rail system, a shoe rail, a contactor comprising a movable extended abutment adjacent said rail, parallel thereto and engaged and moved laterally of said shoe rail by third rail shoes traversing said rail, said movable abutment being mounted to have a combined oscillatory and reciprocatory motion about a transverse axis and a switch operatively connected with said abutment in the vicinity of the said transverse axis.

[Claims 6 to 8 not printed in the Gazette.]

1,082,185. AUTOMATIC SHOE-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed July 28, 1909. Serial No. 509,961. (Cl. 12-17.)



1. An automatic shoe machine, having, in combination, means for operating on a shoe, a shoe supporting jack movable to transfer the point of operation of said means around the shoe and supported for lateral swinging movement to maintain the portion of the edge of the last or shoe sole in proximity to the operating means in substantially the same position with relation to the direction of feed, and devices independent of the operating means and acting independently of the movements of the jack in transferring the point of operation around the shoe for constraining the jack to swing laterally about the point of operation of the operating means as such point is transferred around the shoe, substantially as described.

2. An automatic shoe machine, having, in combination, means for operating on a shoe and a shoe supporting jack relatively movable to transfer the point of operation of the operating means around the shoe, mechanism acting automatically as the point of operation is transferred around the shoe to impart relative turning movements to the jack and operating means to maintain the portion of the edge of the last or shoe sole in proximity to the operating means in substantially the same position with relation to the direction of feed, and devices other than the operating means and turning mechanism for causing the relative turning movements to take place about the point of operation of the operating means as such point is transferred around the shoe, substantially as described.

3. An automatic shoe machine, having, in combination, means for operating on a shoe, a shoe supporting jack

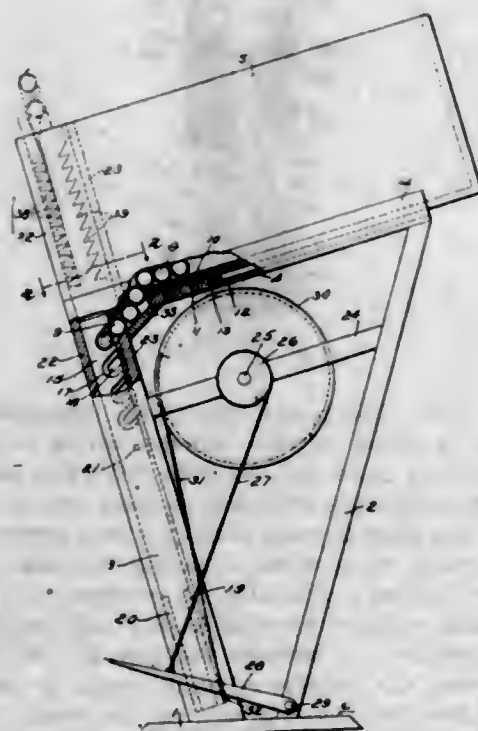
longitudinally movable and rotatable to transfer the point of operation of the operating means around the shoe, mechanism acting automatically as the point of operation is transferred around the shoe to impart turning movements to the jack, and devices other than the operating means and turning mechanism for causing the jack to swing about the point of operation of the operating means as such point is transferred around the shoe, substantially as described.

4. An automatic shoe machine, having, in combination, means for operating on a shoe including devices for feeding the shoe by engagement therewith, a shoe supporting jack longitudinally movable and rotatable to transfer the point of operation of the operating means around the shoe, mechanism acting automatically to impart turning movements to the jack as the point of operation of the operating means is transferred around the shoe to correct the relative position of the shoe and operating means, and devices other than the operating means and turning mechanism for causing the jack to swing about the point of operation of the operating means as such point is transferred around the shoe, substantially as described.

5. An automatic shoe machine, having, in combination, means for operating on a shoe, a shoe supporting jack, a support freely movable in its plane of movement upon which the jack is rotatably mounted, mechanism acting to automatically impart turning movements to the jack as the point of operation of the operating means is transferred around the shoe to correct the relative position of the shoe and operating means, and devices other than the operating means and turning mechanism for causing the jack to swing about the point of operation of the operating means, substantially as described.

[Claims 6 to 34 not printed in the Gazette.]

1,082,186. LOOM FILLING-STAND. FRANCIS E. ASHTON, Exeter, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Aug. 3, 1912. Serial No. 713,134. (Cl. 139-85.)



1. In a device of the character described, the combination of means for holding filling carriers having filling wound thereon, and a filling end finder to find and hold the end of the filling as the carriers and filling finder are relatively moved in a direction transversely to the longitudinal axis of the carriers.

2. In a device of the character described, the combination of a frame for holding filling carriers for movement in a direction transversely of their longitudinal axes, and a filling end finder to act upon the filling on the carrier and find the end of the filling as the carriers move transversely thereto.

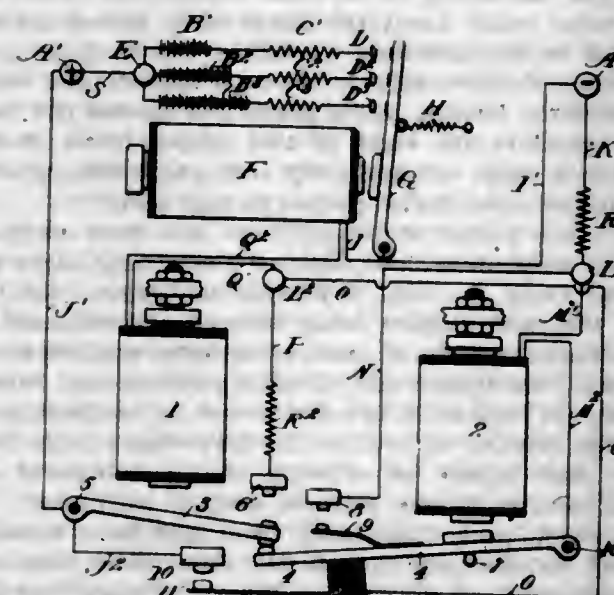
3. In a device of the character described, the combination of means for holding filling carriers having filling wound thereon, and a filling end finder to find and hold the end of the filling as the carriers and filling finder are relatively moved in a direction transversely to the longitudinal axis of the carriers, and means for causing the carriers to rotate to unwind the filling.

4. In a filling stand for looms, the combination of a filling carrier frame for holding filling carriers, a filling end finder, and means to relatively move the filling carrier frame and filling end finder transversely that the latter may find and hold the filling ends as the frame and finder are so relatively moved.

5. In a filling stand for looms, the combination of means for holding a plurality of filling carriers having filling wound thereon, a filling end finder to act upon the filling on the carriers while in said holding means, and means for relatively moving the filling carriers and finder that the latter may find and hold the ends of the filling as the carriers and finder are relatively moved.

[Claims 6 to 18 not printed in the Gazette.]

1,082,187. APPARATUS FOR CHARGING STORAGE BATTERIES. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed Sept. 24, 1910. Serial No. 583,653. Renewed May 25, 1911. Serial No. 629,488. (Cl. 171-314.)



1. In a storage battery controlling system, the combination of a charging circuit, a switch for said charging circuit, an electro-magnet for controlling said switch, a starting electro-magnet and switch mechanism therefor including an armature, a releasing electro-magnet and switch mechanism therefor including an armature, a primary energizing circuit for said battery switch controlling electro-magnet controlled by said starting electro-magnet, a holding circuit for said battery switch controlling electro-magnet controlled by said releasing electro-magnet, and a circuit for said releasing electro-magnet controlled by said starting electro-magnet.

2. In a storage battery system, the combination of a charging circuit, a relay for controlling said circuit, a primary energizing circuit for said relay, a starting relay controlled by current flow from a charging current supply source for controlling said primary energizing circuit, a holding circuit of increased resistance for said charging circuit relay, and a releasing relay operated by said starting relay for controlling said holding circuit.

3. In a storage battery system, the combination of a charging circuit, a starting relay controlled by current flow from a charging current supply source, a releasing relay controlling the charging circuit, means whereby the starting relay may mechanically operate the releasing relay at certain times, a primary energizing circuit for the releasing relay controlled by the starting relay, and a holding circuit of increased resistance for said releasing relay.

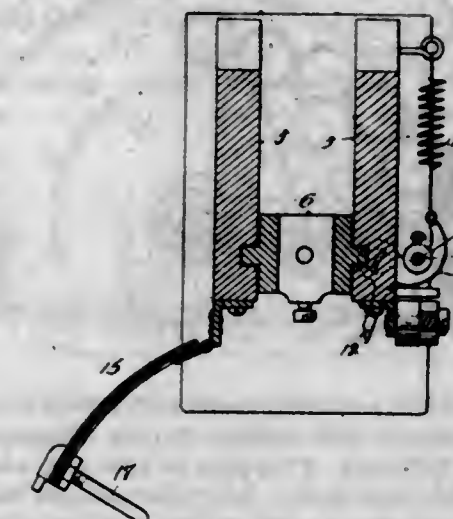
4. In a storage battery charging system, the combination of a charging circuit, a relay for controlling the con-

nection of said charging circuit with a charging current supply circuit, a primary energizing circuit for said relay, a starting relay controlled by current flow from the supply circuit to close said primary energizing circuit, said primary energizing circuit allowing sufficient current flow through said charging circuit controlling relay to cause full energization thereof, a holding circuit of increased resistance for said charging circuit controlling relay, and a releasing relay operated by current flow through said primary energizing circuit for controlling said holding circuit.

5. In a storage battery system, the combination of a charging circuit, a relay for controlling said circuit, a primary energizing circuit for said relay, a starting relay controlled by current flow from a charging current supply source for controlling said primary energizing circuit, a holding circuit of increased resistance for said charging circuit relay, a releasing relay controlled at certain times by said starting relay for controlling said holding circuit, and means for opening said primary energizing circuit after closure of said holding circuit.

[Claims 6 to 93 not printed in the Gazette.]

1,082,188. SAFETY ATTACHMENT FOR STAMPING, PUNCHING, OR CUTTING MACHINES. ARTHUR H. BEIL, Jamaica, N. Y., assignor to one-half to Frank D. Creamer, Brooklyn, N. Y. Filed Mar. 5, 1913. Serial No. 752,123. (Cl. 164-107.)



1. In a safety attachment for machines, the combination with the operating part of the machine, a control connection therefor to throw the same into operation, and a locking member for the control connection, said locking member arranged to normally engage said connection to prevent the same from moving to start the operating part of the machine into operation, of a safety gate movable into position to prevent access to the working part of the machine, means carried by the gate to engage said locking member and remove the same from its normal engagement with said control connection when said gate is moved into position to prevent access to the working part of the machine, and means wholly independent of the gate or its movements for operating said control connection.

2. The combination of a frame, a power operated machine tool mounted and operating in said frame, means for controlling the operation of said tool, a stop device to hold said controlling means against action, a safety gate pivotally mounted on said frame in front of said tool to swing independently of said control means into position to cover said tool, and means carried by said gate and arranged to engage and release said stop device when said gate is swung into covering relation to said tool.

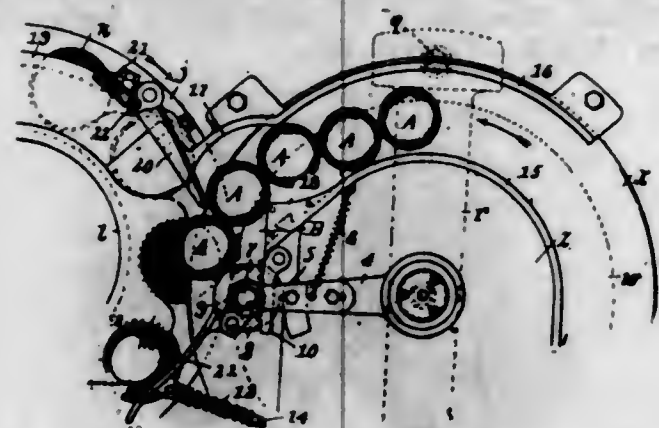
3. The combination of a frame, a power operated tool mounted and operating in said frame, means for controlling the operating of said tool, a stop device for said means, said stop device being yieldingly held normally in position to lock said controlling means against operation, a safety gate pivotally mounted on said frame in front of said tool to swing independently of said tool controlling means

into safety position with respect to said tool, and means carried by said gate and arranged to engage and release said stop device from locking relation to said controlling means when the gate is swung into safety position with respect to the tool.

4. The combination with a power operated machine tool and means controlling the operation thereof including a treadle operated rod, of a safety gate, and a locking device for said treadle rod, said safety gate being movable into closed position independently of said treadle rod and having means to operate said locking device to released position when said gate is closed.

5. The combination with a power operated machine tool, and means for throwing the same into and out of action including a treadle rod, of a locking member normally operating to lock said rod against action, a safety gate movable into closed position independently of the treadle rod, and means carried by said gate and arranged to engage said locking member and release the same when the gate is closed.

1,082,189. FEED MECHANISM FOR BOTTLE-SEALING MACHINES. AMOS CALLISON, Brooklyn, N. Y., assignor to Benjamin Adriance, Brooklyn, N. Y. Filed Aug. 24, 1912. Serial No. 716,828. (Cl. 193-1.)



1. In combination, a moving member for forwarding the parts to be advanced, said member having a succession of pockets opening laterally of its path of advance, and mechanism for feeding said parts into said pockets including a shunting means for said parts having the portion thereof adjacent to the pocketed side of said member slidable crosswise of the pockets, substantially as described.

2. In combination, a moving member for forwarding the parts to be advanced, said member having a succession of pockets opening laterally of its path of advance, and mechanism for feeding said parts into said pockets including a shunting means for said parts having a seat adjacent to the pocketed side of said member and normally free to revolve, substantially as described.

3. In combination, a moving member for forwarding the parts to be advanced, said member having a succession of pockets opening laterally of its path of advance, and mechanism for feeding said parts into said pockets including a shunting means for said parts having the portion thereof adjacent to the pocketed side of said member slidable crosswise of the pockets, and means for causing sliding movement of said portion, substantially as described.

4. In combination, a moving member for forwarding the parts to be advanced, said member having a succession of pockets opening laterally of its path of advance, mechanism for feeding said parts into said pockets including a movable shunting means for said parts having a sliding seat adjacent to the pocketed side of said member, and means for causing sliding movement of said seat upon movement of the shunting means, substantially as described.

5. In combination, a moving member for forwarding the parts to be advanced, said member having a succession of pockets opening laterally of its path of advance, and mechanism for feeding said parts into said pockets including a shunting means for said parts having a revoluble seat ad-

jacent to the pocketed side of said member, and means for causing rotary movement of said seat, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,082,190. SAFETY WATCH-POCKET. BELLE C. DODDS, Black Mountain, N. C. Filed May 28, 1912. Serial No. 700,258. (Cl. 2-153.)



1. A watch pocket including front and back members of flexible material secured together about their edges and unsecured along one edge to provide an opening, the free edge of the front member being folded outwardly and stitched to form parallel housings, the free edge of the back member being reduced and extended to form a tongue, a strip of resilient metal secured to the free end of the tongue and extending at its ends beyond the same, the tongue being rolled about the metal strip, helical springs positioned in the housings, a resilient metal plate positioned along the free edge of the back member and below the metal strip, binding plates positioned against the front member opposite the ends of said plate, rivets passed through said plate, springs, strip ends and binding plates, and a pin fastening device carried by said plate.

2. A watch pocket including front and back members of flexible material secured together about their edges and unsecured along one edge to provide an opening, the free edge of the back member being reduced and extended to form a tongue, a strip of resilient material secured to the free end of the tongue and extending at its ends beyond the same, the tongue being rolled about the resilient strip, a resilient member secured to the free edge of the front member, and means for securing the free ends of the resilient member and the resilient strip to each other.

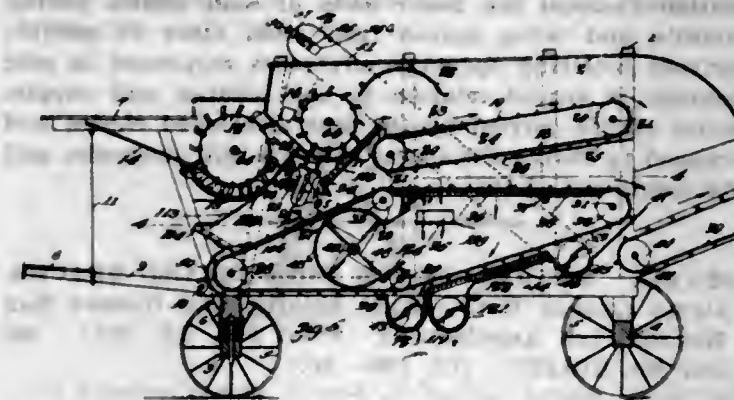
3. A watch pocket including front and back members of flexible material secured together about their edges and unsecured along one edge to provide an opening, the free edge of the back member being reduced and extended to form a tongue, a resilient plate secured to the outer face of the back member and provided with upwardly directed ears at its ends, a resilient strip secured to the free end of the tongue and extended at its ends beyond the same, the tongue being rolled about the resilient strip to bring its free ends into alignment with the ears of the plate, means for fastening said strip to the ears of the plate, and resilient members secured to the free edge of the front member and by their ends to the plate.

1,082,191. THRESHING-MACHINE. SAMUEL G. GEORGE, Conrad, Mont., assignor to George Separator Company, Great Falls, Mont., a Corporation of Montana. Filed Nov. 4, 1912. Serial No. 729,198. (Cl. 130-21.)

1. In a threshing machine, provided with threshing means, a conveyor for receiving the straw therefrom and delivering it at the opposite end of the machine, a conveyor for receiving the grain and chaff from the threshing means and for conveying the grain and chaff to the opposite end of the machine from the threshing means, said second conveyor having a portion of its run arranged below the threshing means, screening devices beneath the rear portion of the upper run of the said conveyor, and a fan delivering below the screens and through the same.

2. In a threshing machine provided at one end with threshing means, a conveyor for moving the straw from the threshing means to the opposite end of the machine, endless conveyor for conveying the grain and the chaff

from the threshing means to the said opposite end of the machine, said endless conveyor having a portion of its upper run arranged below the threshing means, screening devices beneath the rear portion of the upper run of the said endless conveyor, and a fan below the screens and delivering through the same.



3. In a threshing machine provided at one end with threshing means, a conveyor for moving the straw from the threshing means to the opposite end of the machine, endless conveyor for conveying the grain and the chaff from the threshing means to the said opposite end of the machine, said endless conveyor having a portion of its upper run arranged below the threshing means, and screening devices beneath the rear portion of the upper run of the said endless conveyor.

4. In a threshing machine, a cleaning device comprising an endless conveyor, means for supporting the said conveyor for movement longitudinally of the machine, and with the front portion of the upper run of the conveyor inclining upwardly and with the rear portion approximately horizontal, a grain board beneath the inclined portion of the upper run, a guide for screens beneath the rear portion of the upper run of the conveyor, and removable screens for engaging the guides.

5. In a threshing machine, an endless conveyor, means for supporting the said conveyor for movement longitudinally of the machine, with the rear portion of its upper run approximately horizontal, and with the front portion of its upper run inclining upwardly toward the rear portion, removable screens beneath the rear portion of the upper run, a fan between the runs and delivering its blast through the screens, a distributing board at each end of the front portion of the upper run, each of the said boards having ribs for deflecting grain to each side of the conveyor, and a concave above each of the said portions, each concave having gratings above the board for permitting the passage of the threshed grain.

[Claims 6 to 10 not printed in the Gazette.]

1,082,192. SASH-WEIGHT. FREDERICK M. GREEN, Berkeley, Cal. Filed Aug. 4, 1913. Serial No. 782,839. (Cl. 16-20.)

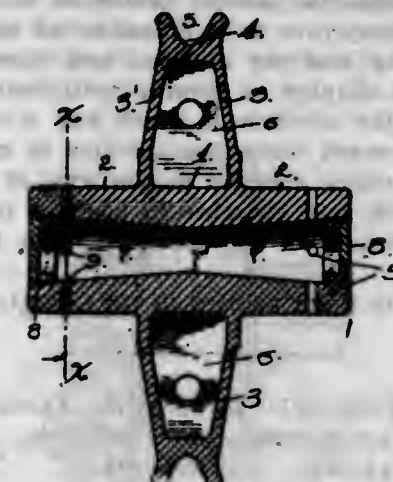


A sash weight consisting of pieces of iron, ties binding said pieces together to form a fagot, and concrete surrounding the same.

1,082,193. LUBRICATING-PULLEY. JAMES T. HALL, Coalinga, Cal., assignor to Bunting Iron Works, Coalinga, Cal., a Corporation of California. Filed Dec. 14, 1911. Serial No. 665,686. (Cl. 64-28.)

1. A lubricating pulley formed from a single casting, the same comprising a suitable hub and extended trunnions, said hub and trunnions provided with a central bore extending therethrough, and said bore being outwardly inclined toward each end of the trunnions, end

caps closing the said bore, and circumferentially disposed outlets leading from the said bore for conveying lubricant to the bearings for the pulley.



2. A lubricating pulley formed with a hub and integral outwardly disposed trunnions, said hub and trunnions provided with a central bore formed therein, said bore being outwardly inclined from its center toward each end of the flange, end caps closing said bore, and circumferentially disposed outlets communicating with said bore adjacent the end of each flange and forming passages for the escape of lubricant to the bearings for the pulley.

1,082,194. COALING-STATION. ALEXANDER B. B. HARRIS, Chicago, Ill., assignor of one-half to William G. Arn, Memphis, Tenn. Filed Oct. 2, 1912. Serial No. 723,533. (Cl. 214-12.)



1. In combination, an unloading station having an elevated track for receiving railway cars, low-level tracks at the opposite ends of the elevated track, an elevator between each of the latter tracks and the elevated track, each of said elevators having a track section adapted to register with one of the low-level tracks when the corresponding elevator is down and with the elevated track when the corresponding elevator is up.

2. In combination, an unloading station having an elevated track for receiving railway cars, low-level tracks at the opposite ends of the elevated track, an elevator between each of the latter tracks and the elevated track, each of said elevators having a track section adapted to register with one of the low-level tracks when the corresponding elevator is down and with the elevated track when the corresponding elevator is up, and connections between said elevators for causing them to travel simultaneously but in opposite directions.

3. In combination, a main railway track, a side track connecting with the main track, an unloading station lying beside the main track and interrupting the side track, an elevated track on the unloading station for receiving railway cars, elevators at opposite ends of said station, each elevator having a track section adapted to form a continuation of the side track when the corresponding elevator is down and a continuation of the elevated track when the corresponding elevator is up.

4. In combination, a main railway track, a side track connected with the main track, an unloading station lying beside the main track and interrupting the side track, said unloading station having an elevated track for receiving railway cars to be unloaded, an elevator between the side track and the station, said elevator having a track section adapted to form a continuation of the side track when the elevator is down and a continuation of the elevated track when the elevator is up.

5. In combination, a main railway track, a side track connected with the main track, an unloading station lying beside the main track and interrupting the side track, said unloading station having an elevated track for receiving railway cars to be unloaded, an elevator between the side track and the station, said elevator having a track section adapted to form a continuation of the side track when the elevator is down and a continuation of the elevated track when the elevator is up, said station having an interior chamber at the level of the side track, and a track in said chamber in position to register with the track section on the elevator when the elevator is down.

[Claims 6 to 9 not printed in the Gazette.]

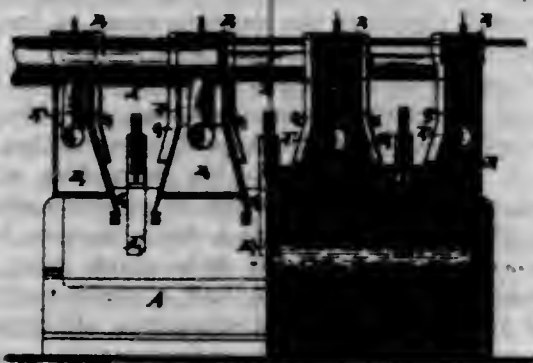
1,082,195. ELECTRIC FURNACE. ALOIS HELFENSTEIN, Vienna, Austria-Hungary. Filed Jan. 29, 1913. Serial No. 744,921. (Cl. 204—64.)



1. In a closed electric furnace of the character described, the combination with the furnace chamber, of a hopper for the charge, a vertical electrode extending through said hopper, and means within the charge receptacle on top of said chamber for laterally exhausting the gases of combustion and for preheating said charge and cooling said gases of combustion, substantially as described.

2. In a closed electric furnace of the character described, the combination with the furnace chamber, of a hopper for the charge, a vertical electrode extending through said hopper, and a double walled bell-shaped body surrounding the electrode and the charge providing an annular space between the double walled bell-shaped body for laterally exhausting the gases of combustion and for preheating said charge and cooling said gases, substantially as described.

1,082,196. ELECTRIC FURNACE. ALOIS HELFENSTEIN, Vienna, Austria-Hungary. Filed Apr. 16, 1913. Serial No. 761,636. (Cl. 204—64.)



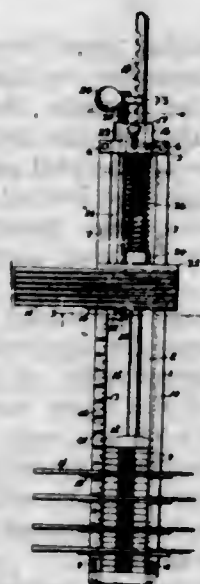
1. In a device of the kind described, a hearth, a series of charging chutes arranged above said hearth, a series of electrodes suspended above said hearth and alternating with said chutes, and means to charge material into the spaces between said chutes and electrodes.

2. In a device of the kind described, a hearth, a series of charging chutes arranged above said hearth in spaced

relation thereto, the lower ends of said chutes flaring laterally and being spaced from each other to provide electrode receiving openings, and electrodes suspended in said openings in spaced relation to said chutes.

3. In a device of the kind described, a hearth, a series of charging chutes arranged above said hearth in spaced relation thereto, the lower ends of said chutes flaring laterally and being spaced from each other to provide electrode receiving openings, electrodes suspended in said openings in spaced relation to said chutes, and supplemental chutes carried by the first mentioned chutes and arranged to charge the spaces between said electrodes and first mentioned chutes.

1,082,197. MATRIX-PLATE HOLDER AND SPACER. DAVID GEORGE HOLT, Santa Monica, and GEORGE RAY HORTON, Los Angeles, Cal. Filed Feb. 23, 1911. Serial No. 610,272. (Cl. 199—10.)



1. In combination with a matrix plate holder having sides between which matrix plates are adapted to be inserted in a line, pairs of spacers movable on said sides from an inoperative to an operative position, a device for retaining said spacers in an inoperative position on said sides, movable means for releasing from said device one pair of spacers at a time, and a movable escapement for preventing the simultaneous release of the other spacers.

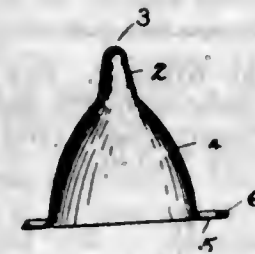
2. In combination with a matrix plate holder having sides between which matrix plates are adapted to be inserted in a line, pairs of spacers movable on said sides by gravity from an inoperative to an operative position, a device for retaining said spacers in an inoperative position on said sides, a movable escapement, and unitary means for withdrawing said device from its retentive position to permit one pair of spacers to drop by gravity, and moving said escapement into position to prevent such dropping of the other spacers.

3. In combination with a matrix plate holder having uniformly spaced sides between which matrix plates are adapted to be inserted in line, pairs of oppositely tapering space bands through which said sides pass, one space band of each pair being immovable transversely to said sides, and having a projection, a longitudinal device having a part adapted to engage each of said projections in turn and retain the same out of operative position, and means for moving said device so as to withdraw said part from the projection which it engages, said device being provided with means arranged when so moved to engage said transversely immovable space band of the next succeeding pair to arrest the movement thereof out of its inoperative position.

4. In combination with a matrix plate holder having parallel sides, pairs of space bands, one band of each pair being immovable transversely relatively to said sides and having an inward projection, a longitudinal rock shaft extending through all of said space bands in their inoperative position, said shaft having transversely extending

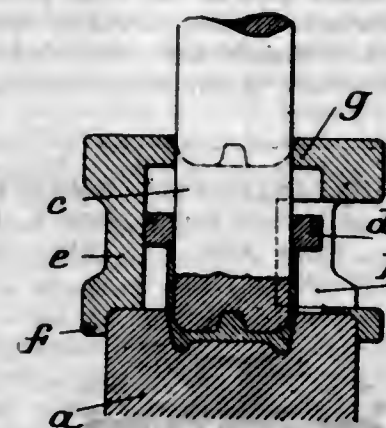
means adapted in each terminal rocking position of said shaft to engage a projection of one of the transversely movable space bands.

1,082,198. NURSING-NIPPLE. ELIZABETH E. JENCKA, San Francisco, Cal. Filed May 23, 1912. Serial No. 699,133. (Cl. 128—18.)



A nursing nipple formed of flexible rubber, comprising a body portion, a nipple portion having an aperture therein, a broad flat flange arranged perpendicularly to the axis of the body of the nipple formed thereon at the open end, said flange being much thinner and much more flexible than the body of the nipple, and being joined to the body by a thin flexible portion, and a stiffening bead formed on the circumference of said flange.

1,082,199. MANUFACTURE OF HOLLOW BODIES. BENEDIKT KNAEBEL, Dusseldorf, Germany, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Filed Jan. 4, 1910. Serial No. 536,309. (Cl. 207—10.)

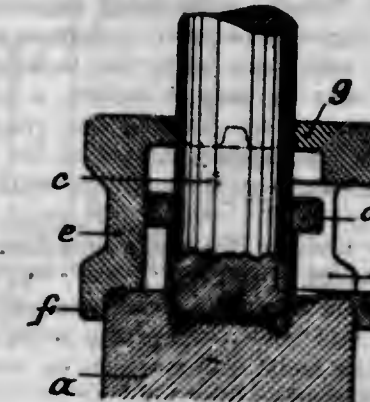


1. The improved process of manufacturing tubular bodies from alloys of copper, which consists in preliminarily shaping a block of such alloy while hot by compression by means of a punch the horizontal projection of whose effective pressing surface is substantially not less in area than the cross-sectional area of the block, whereby the block from the beginning of the pressing operation to the end thereof is subjected to the pressure through the whole of its mass, and finishing while cold.

2. The improved process of manufacturing tubular bodies from alloys of copper, which consists in preliminarily shaping a block of such alloy by compression while hot by means of a punch the horizontal projection of whose effective pressing surface is substantially not less than the cross-sectional area of the block and while confining the block within a die adapted to hold the block through the whole of its mass under the pressing action of the punch from the beginning of the said pressing action to the end thereof, and finishing while cold.

3. The process of manufacturing tubular bodies from brass which comprises accurately centering a hot block of brass in a die whose depth approximates the thickness of said block, and compressing said block while hot by means of a punch the horizontal projection of whose effective pressing surface is substantially not less in area than the cross sectional area of the block, to produce a cup-shaped blank having a side wall of uniform strength.

1,082,200. MANUFACTURE OF HOLLOW BODIES. BENEDIKT KNAEBEL, Dusseldorf, Germany, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Original application filed Jan. 4, 1910, Serial No. 536,309. Divided and this application filed Mar. 15, 1911. Serial No. 614,653. (Cl. 207—1.)



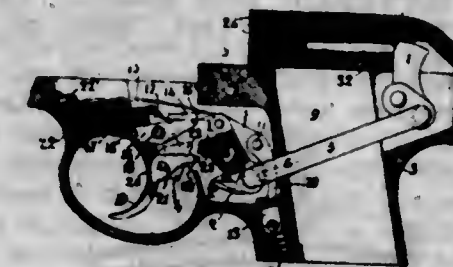
1. In an apparatus for shaping hollow bodies, the combination, with a punch, of a die having a relatively shallow cavity, and means exterior to said cavity for accurately centering a block of metal therein.

2. In an apparatus for shaping hollow bodies, the combination with a punch, of a die adapted to receive a solid block, and an axially movable guide ring centrally located on said cavity of the die and providing a guide for said block while being inserted into the die and for said punch while advancing toward the block, said guide ring being adapted to be lifted from its seat by the metal forced outward of the die by the pressing operation.

3. In an apparatus for shaping hollow bodies, the combination with a punch, of a die adapted to receive a solid block, and an axially movable guide ring located on said cavity of the die and providing a guide for said block while being inserted into the die and for said punch while advancing toward the block, said guide ring being adapted to be lifted from its seat by the metal forced outward of the die by the pressing operation, and means to center said guide ring on the cavity of the die and providing an axial guide for said guide ring.

4. In an apparatus for shaping hollow bodies, the combination with a punch, of a die adapted to receive a solid block, and an axially movable ring located on said cavity of the die and providing a guide for said block while being inserted into the die and for said punch while advancing toward the solid block, said guide ring being adapted to be lifted from its seat by the metal forced outward of the die by the pressing operation, and a sleeve on said die adapted to center said guide ring on the cavity of the die and providing an axial guide for said guide ring, said sleeve having a lateral opening permitting the insertion of the block into the die and the removal of the pressed article through the same.

1,082,201. FIREARM. SERGE KOROVINE, Liege, Belgium. Filed Nov. 13, 1912. Serial No. 731,121. (Cl. 42—3.)



1. A firearm comprising in combination a body, a barrel, a trigger, a sear, a hammer, means for transmitting the movement of the sear to the hammer, means for holding the sear in the cocked position, means for holding the trigger in the drawn back position and means carried by the trigger for cocking and uncocking successively the said sear and hammer.

2. A firearm comprising in combination a body, a barrel, a trigger, a sear, a sear spring, means for transmitting movement from said trigger to said hammer, a lever, a spring acting on said lever, a member for retaining the parts in the cocked position, an abutment on said member adapted to engage said pivoted lever, and means carried by the trigger for cocking and uncocking successively said sear and hammer.

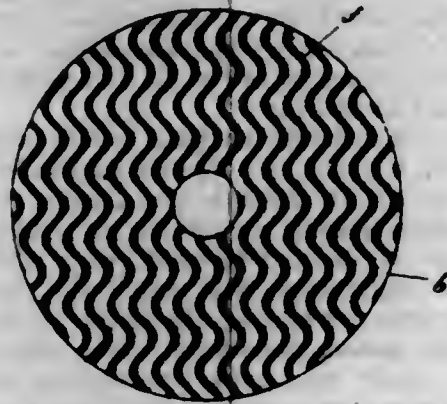
3. An automatic firearm comprising in combination a body, a barrel, a trigger, a hammer, a sear, a sear spring, a link connecting said sear with the hammer, a lever operating on said sear to keep it cocked, a spring operating said lever, means for holding the trigger in the drawn-back position, and means carried by the trigger for cocking and uncocking successively the said sear and hammer.

4. An automatic firearm consisting of a body, a barrel, a firing pin, a hammer, a trigger, a sear, means connecting said sear and said hammer, a catch on said trigger, a projection on the said sear cooperating with said catch, a fixed catch on the body, and an arm on said sear cooperating with said fixed catch.

5. An automatic firearm consisting of a body, a barrel, a firing pin, a hammer, a trigger, a sear, a member pivoted to said sear, a spring inclosed in a recess in said sear normally pressing said member away from said sear, a link connecting said sear with the hammer, a catch on said trigger adapted to cooperate with said member, a second catch on said trigger, a projection on said sear cooperating with said second catch, a fixed catch on the body, an arm on said sear cooperating with said fixed catch, a spring controlling said sear, and a spring controlling said trigger.

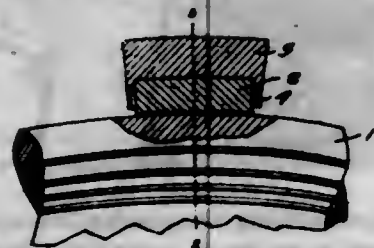
[Claims 6 to 16 not printed in the Gazette.]

1,082,202. ABRADING-DISK. CARL KRUG, Frankfort-on-the-Main, Germany. Filed Mar. 27, 1913. Serial No. 757,124. (Cl. 51—1.)



In an abrading disk of the character described parallel, sinuous ribs of abrading material of uniform width throughout their length, traversing the abrading surface in the manner of chords forming grooves for the removal of the refuse, substantially as described.

1,082,203. TIRE-TREAD. DALE MARSHALL, Cheltenham, England. Filed June 21, 1913. Serial No. 775,106. (Cl. 152—14.)



In a tire tread, a plurality of circumferentially disposed non-resilient tire tread members, laterally resilient cushioning members carried by the tire and interposed between said tread members and the tire, said cushioning

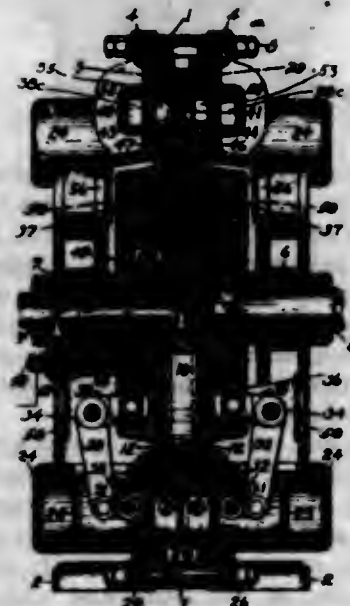
members and said tread members having abutting faces of coextensive area and said tread members having flanges disposed circumferentially and transversely of the plane of the wheel and overhanging the sides of said cushioning members in such spaced relation with respect to the sides, when not under load as to permit the expansion of said cushioning members when under compression thereby permitting relative circumferential and radial movement of the tread member on and with respect to the cushioning members.

1,082,204. ABDOMINAL GIRDLE. EVA MAYNARD MARTIN, Meadville, Pa., assignor to The Spirella Company, a Corporation of Pennsylvania. Filed Jan. 2, 1912. Serial No. 669,094. (Cl. 2—189.)



An abdominal girdle or support comprising a front portion and a rear portion provided with means for drawing them tightly around the body of the wearer, the front portion being shaped to fit and cover the abdomen only from substantially the waist line down, and a pair of depending garter supports secured at their upper ends only to said front portion substantially midway between the upper and lower edges thereof and, when the girdle is in place on the body, opposite the protuberant portion of the abdomen, the lower part of the front portion of the girdle curving downwardly and inwardly beneath the lower portion of the abdomen and being adapted to support the same irrespective of strain upon said garter supports.

1,082,205. ROTARY INTERNAL-COMBUSTION ENGINE. FREDERICK MILLER and HOMER L. BLUM, San Francisco, Cal. Filed Aug. 17, 1912. Serial No. 715,585. (Cl. 123—14.)



1. In combination, a casing having heads, a shaft supported by said heads, a supply conduit, a rotor mounted on said shaft, gate-actuating devices controlled by said rotor said rotor being formed with a compression chamber closed at its rear end, and with which said conduit connects, and with an expansion chamber open at its rear end, said chambers being open at the sides between said heads and said heads having conduits adapted to communicate with said chambers in the rotation of the latter, an ignition device, and gates oppositely moved by said devices into and out of said chambers.

2. In combination, a casing having heads, a shaft supported by said heads, a supply conduit, a rotor mounted on said shaft, and formed with cams, with a radial conduit connecting with the aforesaid conduit, with a compression chamber, closed at its rear end, and with which said latter conduit connects, and with an expansion chamber open at its rear end, said chambers being open at the sides between said heads and said heads having conduits adapted to communicate with said chambers in the rotation of the latter, an ignition device, and gates oppositely moved by said cams into and out of said chambers.

3. In combination, a casing having heads, a hollow shaft supported by said heads, a supply tube communicating with said hollow shaft, a rotor supported on said hollow shaft, and formed with cams, with a conduit leading radially from said hollow shaft, with a compression chamber, closed at its rear end, and with which said conduit connects, and with an expansion chamber open at its rear end, said chambers being open at the sides between said heads and said heads having conduits adapted to communicate with said chambers in the rotation of the latter, an ignition device, and gates oppositely moved by said cams into and out of said chambers.

4. In combination, a casing having heads, a hollow shaft rotatably supported by said heads, a supply tube communicating with said hollow shaft, a rotor rotatable with said hollow shaft, and formed with a conduit leading radially from said hollow shaft, with a compression chamber, closed at its rear end, and with which said conduit connects, and with an expansion chamber open at its rear end, said chambers being open at the sides between said heads, and said heads having conduits adapted to communicate with said chambers in the rotation of the latter, an ignition device, said rotor being also formed with cams, rollers actuated by said cams, and gates oppositely moved by said rollers into and out of said chambers.

5. In combination, a cylindrical casing having heads formed with cylindrical guides, with bearings for levers, and with gas conduits, plungers in said guides, levers operatively connected to said plungers and mounted in said bearings, rollers carried by said levers, a hollow shaft having bearings in said heads, a supply tube connected to one of said bearings and communicating with said hollow shaft, a rotor mounted on said hollow shaft, and formed with a conduit leading radially therefrom, with an arcuate compression chamber closed at its rear end, and with which the other end of the conduit connects, and with an arcuate expansion chamber open at its rear end, said chambers being open at the sides between said heads, said rotor being also formed with cams for actuating said rollers to operate said levers, an ignition device, gates oppositely moved by said plungers into and out of the aforesaid chambers, said conduits being adapted to communicate with said chambers in the rotation of the latter.

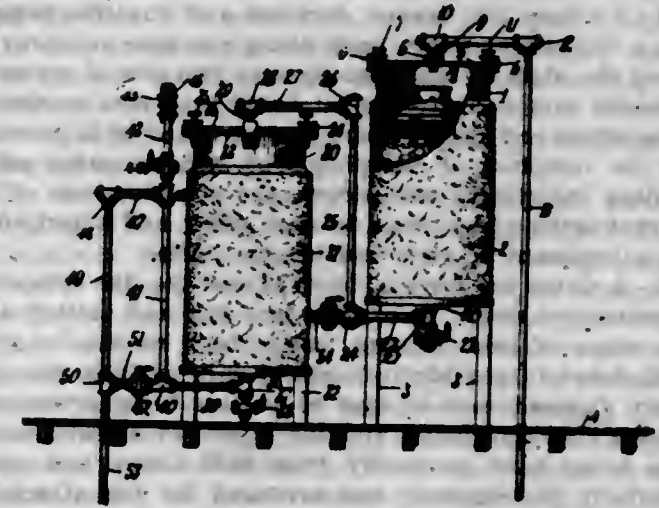
1,082,206. MILK-RETARDING APPARATUS. FRED ROY MONROE, Middletown, N. Y., assignor of one-half to John D. Haggerty, Sussex, N. J. Filed June 11, 1912. Serial No. 703,097. (Cl. 210—20.)

1. In an improvement of the kind described, a float comprising a cylindrical body having an open lower end and having a convex top closing the upper end, said convex top having a hollow cylindrical projection provided with apertures therethrough around its lower edge, and the sides of said float having apertures therethrough below the level of the top to permit the escape of air from the interior of the float when the same is in use.

2. In a device of the kind described, a float comprising a hollow cylindrical body having an open lower end, the edge of which is turned outward, and having its upper end closed by a convex top, said top having a hollow cylindrical projection provided with apertures therethrough adjacent said top, the sides of said body also being provided with apertures to permit the escape of air from the interior of said float.

3. A float comprising a hollow body having an open bottom and a closed top, said float having one or more apertures in its side below the level of the top, to permit

the escape of air from the interior of the float when the same is in use.

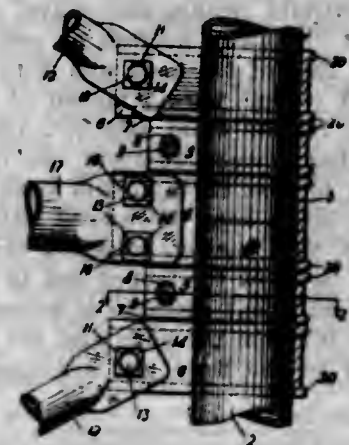


4. A float comprising a hollow body having an open bottom and a closed top, said float having one or more apertures passing through its side below the level of the top, to permit the escape of air from the interior of the float, and having a hollow open projection extending upward from the top.

5. A float comprising a hollow body having an open bottom and a closed top, and having one or more apertures in its side below the level of the top, to permit the escape of air from the interior of the float, and a hollow, open projection carried by said top, said projection having one or more apertures through its sides.

[Claims 6 to 10 not printed in the Gazette.]

1,082,207. COUPLING FOR STEEL TOWERS OR DERRICKS. LEE C. MOORE, Pittsburgh, Pa. Filed Sept. 17, 1912. Serial No. 720,882. (Cl. 189—20.)



1. A clamp for towers, derricks and the like comprising a cylindrical sleeve open along one side and provided along the edges of said opening with two rows of lugs or ears extending outwardly from said sleeve and arranged for the attachment of girts and braces thereto, the lugs or ears of the two rows being at an angle to each other, and a second set of ears or lugs along the edges of said opening and lying between the ears or lugs of the first set and provided with apertures for the reception of clamping bolts.

2. A clamp for towers, derricks and the like comprising a cylindrical sleeve open along one side and provided along the edges of said opening with two sets each comprising a plurality of pairs of oppositely disposed ears or lugs, the ears or lugs of the two sets alternating longitudinally of the sleeve, one set having oppositely disposed apertures for the reception of clamping bolts, and the other set being arranged for the securement of girts and braces thereto.

3. A clamp for towers, derricks and the like comprising a cylindrical sleeve open along one side and provided along the edges of said opening with two sets of ears or lugs, one set comprising a plurality of pairs of oppositely disposed ears or lugs bent into substantial parallelism and provided with aligned apertures for the reception of clamp-

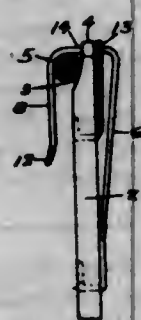
ing bolts, and the other set comprising two rows of ears or lugs extending outwardly from said sleeve and arranged for the attachment of girts and braces thereto.

4. A clamp for towers, derricks and the like comprising a cylindrical sleeve open along one side and provided along the edges of said opening with two sets of oppositely disposed ears or lugs, one set being bent into substantial parallelism and spaced apart and provided with apertures for the reception of clamping bolts and the other set extending radially to said sleeve, the opposite lugs or ears thereof being at an angle to each other and arranged for the attachment of girts and braces thereto.

5. A clamp for towers, derricks and the like comprising a cylindrical sleeve open along one side and slotted along the edges of said opening transversely to the length of said sleeve to provide two sets of ears or lugs, the oppositely disposed ears or lugs of one set being arranged to receive clamping bolts, and the other set of said ears or lugs being bent outwardly from said sleeve and spaced angularly therearound, and arranged for the attachment of girts and braces thereto.

[Claim 6 not printed in the Gazette.]

1,082,208. CLOTHES-PIN. ERNEST J. MUNZ, Berkeley, Cal. Filed May 18, 1910. Serial No. 561,962. (Cl. 24—137.)



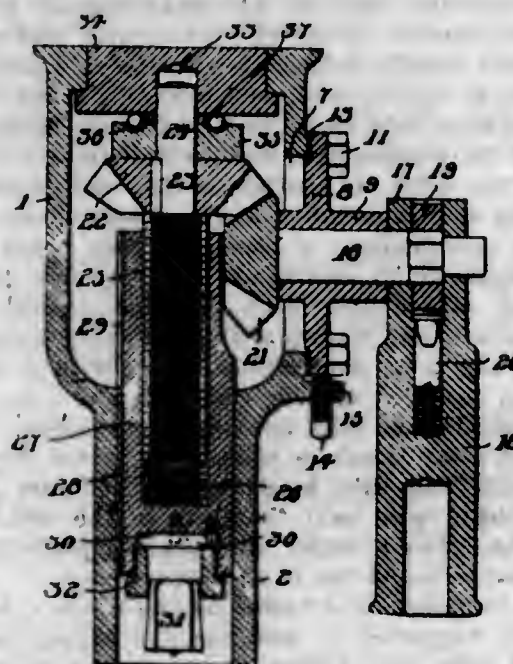
A clothes-pin consisting of a body of fibrous material having a substantially rectangular shape, said body being provided with a cut away portion at one end extending across the front face of the body and with open end slots at the same end, a bent wire attached at its ends to the body at a point remote from said cut away, the legs of the wire extending upward, adjacent the rear face of the body, being bent to pass through said slots and the looped end of the wire being bent downward adjacent the front face of the body, that portion engaging the slots being of sufficient length to allow the looped end to be moved away from the body a sufficient distance to permit the insertion of a clothes-line between the body and the looped end and a wire attached to the body and arranged to close said open end slots.

1,082,209. PUNCH. WILLIAM J. O'NEAL, North Braddock, Pa., assignor of one-third to Yan K. Crozier, Braddock, Pa., and one-third to Rudolph L. O'Neal, Homestead, Pa. Filed Feb. 3, 1913. Serial No. 746,008. (Cl. 164—101.)

1. A punch of the type described comprising a housing having a throat and a goose neck, an adjustable bearing plate supported by one side of said housing, a revoluble shaft journaled in said bearing plate, a plunger movable longitudinally of the throat of said housing and provided with a screw socket, a punch carried by said plunger, a revoluble screw extending into the screw socket of said plunger for adjusting said plunger longitudinally of the throat of said housing, and means located within said housing and operated through the medium of said shaft for imparting a rotary movement to said screw.

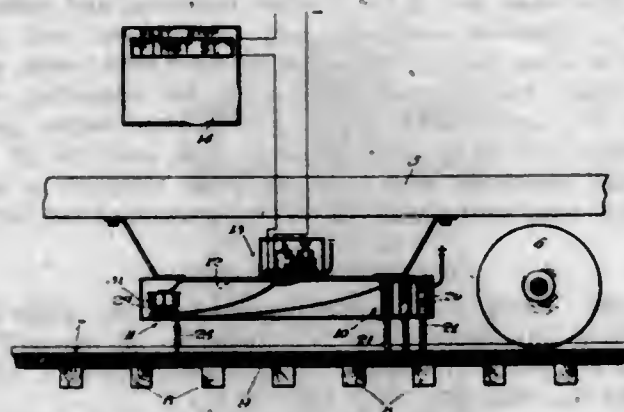
2. A punch of the type described comprising a housing having a throat, an adjustable bearing plate carried by said housing, a shaft journaled in said bearing plate, a plunger movable longitudinally of the throat of said housing and adapted to support a punch, a screw extending into said plunger whereby said plunger can be adjusted longitudinally of the throat of said housing, thrust bearings in connection with one end of said screw,

beveled gears actuated by said shaft for imparting movement to said screw, and anti-frictional balls in connection with said thrust bearings.



3. A punch of the type described comprising a housing having a throat, an adjustable bearing plate carried by said housing, a shaft journaled in said bearing plate, a plunger movable longitudinally of the throat of said housing and adapted to support a punch, a screw extending into said plunger whereby said plunger can be adjusted longitudinally of the throat of said housing, thrust bearings in connection with one end of said screw, beveled gears actuated by said shaft for imparting movement to said screw, anti-frictional balls in connection with said thrust bearings, and means including a ratchet mechanism in connection with said shaft to facilitate manually rotating the same.

1,082,210. SWITCH MECHANISM. EDGAR J. PACE, Los Angeles, Cal., assignor to National Street and Station Indicator Company, Los Angeles, Cal., a Corporation of California. Filed Dec. 23, 1911. Serial No. 667,439. (Cl. 246—25.)



1. In combination, a source of magnetism and a magnetically movable needle spaced apart from each other, and an immovable magnetic conductor, said source and needle together being movable in such relation to the conductor that the conductor bridges the space between the magnetic source and needle and thereby directly magnetically actuates the needle.

2. In combination, a source of magnetism and a magnetically movable needle spaced apart from each other, and an immovable magnetic conductor, said source and needle together being movable in such relation to the conductor that the conductor bridges the space between the magnetic source and needle and thereby directly conducts magnetism from the source to the needle.

3. In combination, an electro-magnet and a needle mechanism spaced apart, said mechanism comprising an annular magnetizing coil and a multiple needle pivoted within the coil on an axis transverse to the coil axis and

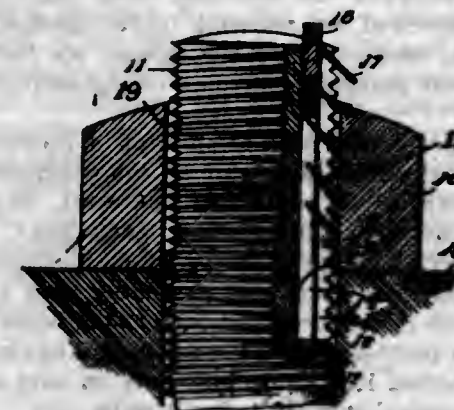
means to return the needle after movement to a certain position with relation to the coil, and a magnetic conductor over which the electro-magnet and the needle mechanism are adapted to pass, the conductor being inductively magnetized by the electro-magnet and by virtue of such magnetization moving the needle by direct magnetic traction.

4. In combination, an electro-magnet and a needle mechanism spaced apart, said mechanism comprising an annular magnetizing coil, a needle gravitationally balanced on and symmetrically arranged with respect to a pivot transverse to the coil axis and means to return the needle after movement to a certain position with relation to the coil, and a magnetic conductor over which the electro-magnet and the needle mechanism are adapted to pass, the conductor being inductively magnetized by the electro-magnet and by virtue of such magnetization moving the needle by direct magnetic traction.

5. In combination, a source of magnetism and an immovable magnetically movable member spaced apart from each other, and a magnetic conductor, said source and member together being movable in such relation to the conductor that the conductor bridges the space between the magnetic source and the movable member and thereby directly magnetically actuates the member.

[Claims 6 and 7 not printed in the Gazette.]

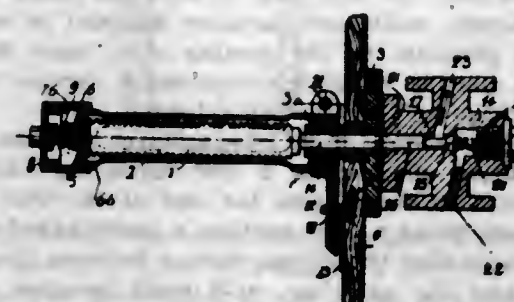
1,082,211. NUT-LOCK. JOHN H. PHIPPS, Wickliffe, Ky., assignor of one-half to John A. Hines, Wickliffe, Ky. Filed May 20, 1913. Serial No. 770,709. (Cl. 151—8.)



1. In a nut lock, a bolt having a longitudinal channel in its threaded portion, a bar engaging in said channel and having a plurality of sockets spaced apart, a resilient pawl engaging in each of said sockets and extending beyond the threads of said bolt, and means for holding said bar in said channel.

2. In a nut lock, a bolt having a longitudinal channel, a nut having an inwardly opening channel, a bar engaging the channel of said bolt, a plurality of resilient pawls carried by said bar and spaced apart, said pawls extending normally beyond the outer face of said bolt and engaging respectively in the channel of said nut and over the outer face of the nut, and means for holding said bar in said channel.

1,082,212. AUTOMATIC THERMIC VALVE-CONTROLLING APPARATUS. FRÉDÉRIC AUGUSTIN POLLARD, Parc St. Maur, France. Filed Mar. 21, 1911. Serial No. 615,882. (Cl. 62—6.)



1. In an automatic temperature regulator, an elastic longitudinally expansible and contractile tube filled with

a thermostatic liquid and a duct for temperature-changing fluid, in combination with an elastic diaphragm closing off the duct from the space wherein the expansible and contractile tube is arranged, a valve arranged in said duct to open or close the same, said valve having a stem bearing against the diaphragm, yielding means tending to urge the valve-stem against the diaphragm, and a slidable rod arranged between the elastic tube and the diaphragm and bearing against the latter.

2. In an automatic temperature regulator, an elastic longitudinally expansible and contractile tube filled with a thermostatic liquid, a duct for temperature-regulating fluid, and a valve-seat arranged in said duct, in combination with an elastic diaphragm closing off the duct from the space wherein the tube is arranged, a rod connected to the tube and bearing against the diaphragm at one side, a valve to control the flow of temperature-changing fluid and having a stem arranged to bear against the diaphragm and opposed to the rod connected to the tube and a spring yieldingly urging the valve toward the diaphragm.

3. In an automatic temperature regulator, an elastic lengthwise expansible and contractile tube filled with liquid and adapted to be introduced into the space where the temperature is to be regulated, a duct for temperature-changing fluid and a valve arranged in said duct to control the passage of fluid therethrough, in combination with connections between said valve and the elastic tube for actuating said valve according to the expansion or contraction of said tube, a spring for urging the valve toward the tube, a stronger spring for urging the tube toward the valve, a stop for limiting the action of the second spring and means for adjusting said stop.

4. In an automatic temperature regulator, an elastic lengthwise expansible and contractile tube filled with liquid, a duct for temperature-changing fluid, a partition separating the tube from the duct, a valve and a seat for the same arranged in said duct, connecting rods between said valve and tube, a screw-threaded portion arranged on the partition through which one of the rods passes, an open tube engaging said screw-threaded portion, said open tube inclosing the elastic liquid-filled tube and provided with an enlargement at its outer end having an inner shoulder, a disk at the outer end of the elastic tube and arranged within the enlargement, a spring also arranged in the enlargement and tending to urge the elastic tube toward the valve, and a second spring, weaker than the first, tending to force the valve toward the elastic tube.

5. In an automatic temperature regulator, an elastic lengthwise expansible and contractile tube filled with liquid, a duct for temperature-changing fluid, a partition separating the tube from the duct, a valve and a valve-seat for the same, arranged in said duct, connecting rods between said valve and tube, a screw-threaded portion arranged on the partition through which one of the rods passes, an open tube engaging said screw-threaded portion, said open tube inclosing the elastic liquid-filled tube and provided with an enlargement at its outer end having an inner shoulder, a disk at the outer end of the elastic tube and arranged within the enlargement, a spring also arranged in the enlargement and tending to urge the elastic tube toward the valve, and a second spring, weaker than the first, tending to force the valve toward the elastic tube, and a pointer arranged on the open tube.

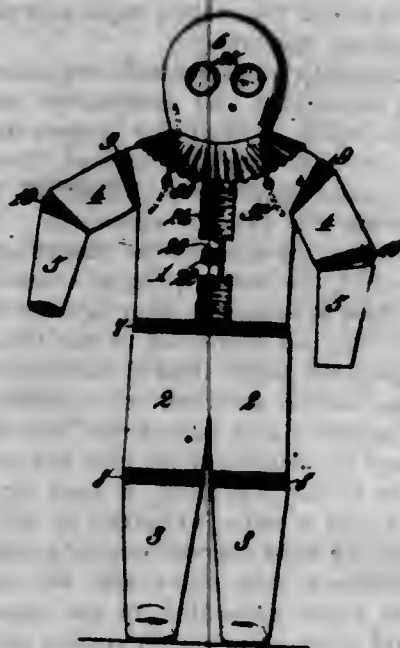
[Claim 6 not printed in the Gazette.]

1,082,213. FIRE-PROTECTION SUIT. ARTHUR G. ROBINSON, Jackson, Mich., assignor of one thirty-second to Reginald F. Penton and one thirty-second to Calvin S. Crosser, East Aurora, N. Y. Filed Aug. 20, 1910. Serial No. 578,198. (Cl. 2—144.)

1. A fire protection suit embodying an inner supporting layer, an intermediate layer of magnesia, the intermediate layer being made in sections, an outer layer of mica, the outer layer also being made in sections, and dissociable fastening devices to secure the layers in superposed relation.

2. A fire protection suit comprising a plurality of sections shaped to fit different parts of the body, each section

consisting of an inner supporting layer and outer layers of protective material carried by the inner layer, and flexible joint connections between the sections, each joint connection embodying section connection means, and an asbestos cloth packing surrounding the section connecting means.



3. A fire protection suit comprising a plurality of sections shaped to fit different parts of the body, each section consisting of an inner supporting layer and protective layers of fire-proof and heat insulating material mounted upon the supporting layer, and flexible joint connections between the sections, each joint connection embodying metal rings secured to the mutually adjacent edges of the supporting layers, a flexible connecting band, an asbestos cloth packing surrounding the connecting band, fastening devices to join the band, the packing and the rings, and suspension links additionally connecting the rings.

4. A fire protection suit embodying an upper leg section and a coat section, each section consisting of an inner supporting layer and protective layers of fire proof and heat insulating material mounted upon the supporting layer, a flexible joint connection between the sections, the coat section being made in sections, a flexible joint connection between the sections at the center of the back of the coat section, and fastening devices to connect the sections at the center of the front of the coat section.

5. A fire protection suit embodying a coat section which consists of an inner supporting layer, and layers of protective material carried by the supporting layer, the coat section being made in parts, a flexible joint connection between the parts at the center of the back of the coat section, fastening devices for connecting the sections at the center of the front of the coat section, and a packing strip carried by one of the sections to overlap the crevice at the center of the front of the coat sections.

(Claims 6 to 12 not printed in the Gazette.)

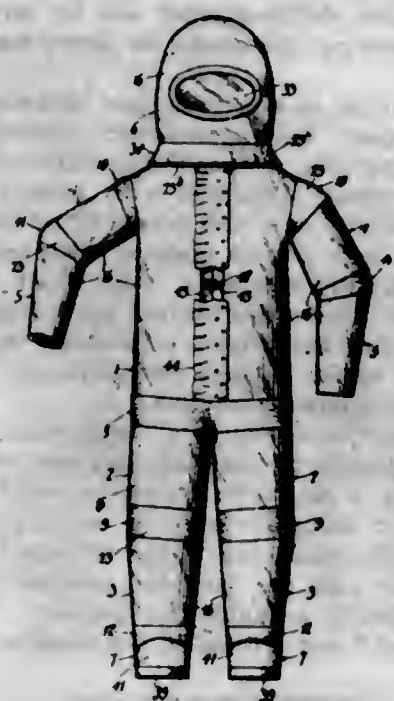
1,082,214. FIRE-PROTECTION SUIT. ARTHUR G. ROBINSON, Buffalo, N. Y., assignor of one thirty-second to Calvin S. Crosser and one thirty-second to Reginald F. Penton, East Aurora, N. Y. Filed May 9, 1912. Serial No. 696,249. (Cl. 2—144.)

1. A fire protection suit made up of a plurality of sections, each section comprising an inner supporting layer of relatively light sheet metal, and insulating and refractory layers imposed on the supporting layer.

2. A fire protection suit made up of a plurality of sections, each section comprising an inner supporting layer of relatively light sheet metal, an intermediate layer of magnesia and an outer layer of mica.

3. A fire protection suit made up of a plurality of sections, each section comprising an inner supporting layer of relatively light sheet metal, an intermediate layer of magnesia, wires to bind the magnesia layer upon the sup-

porting layer, blocks of packing arranged at the edges of the section and between which the magnesia layer is confined, and an outer layer of mica.

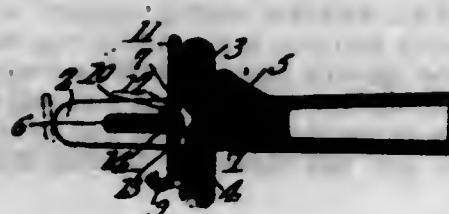


4. A fire protection suit comprising a plurality of sections, each section consisting of an inner supporting layer and outer layers of protective material and flexible joint connections between the sections, each joint connection comprising layers of fire resisting fabric, fashioned to form a hollow ring and attached throughout its circumference to the adjacent marginal portions of the sections which it connects.

5. A fire protection suit comprising a plurality of sections, each section consisting of an inner supporting layer and outer layers of protective material, flexible joint connections between the sections, each joint connection comprising layers of fire resisting fabric fashioned to form a hollow ring and means for attaching said ring to the sections which it connects and comprising bolts secured in the marginal portions of said sections and having threaded shanks projecting into said ring, nuts on said shanks and V-shaped washers engaged by said nuts.

(Claims 6 to 8 not printed in the Gazette.)

1,082,215. TUG AND TRACE FASTENER. WILLIAM E. SERLYE, Sault Ste. Marie, Ontario, Canada. Filed July 2, 1913. Serial No. 777,042. (Cl. 21—79.)



1. A trace fastener comprising a latch, including a lower hooked end, and a lug outstanding centrally therefrom, and a supporting bar for said latch coacting with the said hooked end and the said lug to hold the latch movably secured thereto, said latch member adapted to assume a horizontal position for the passing of a trace thereover, said latch member adapted to assume a vertical position for the locking of the trace therebehind.

2. The combination with a swingletree provided with a slot extending therein, of a bar extending thereacross and spaced a distance from the end of the slot, a latch member comprising a body portion, a hook-shaped end, and a lug outstanding therefrom, fitting between the end of the slot and the said bar, said latch member coacting with the said bar, the hooked end and outstanding lug engaging the said bar and preventing the accidental displacement of the latch member therefrom, said latch mem-

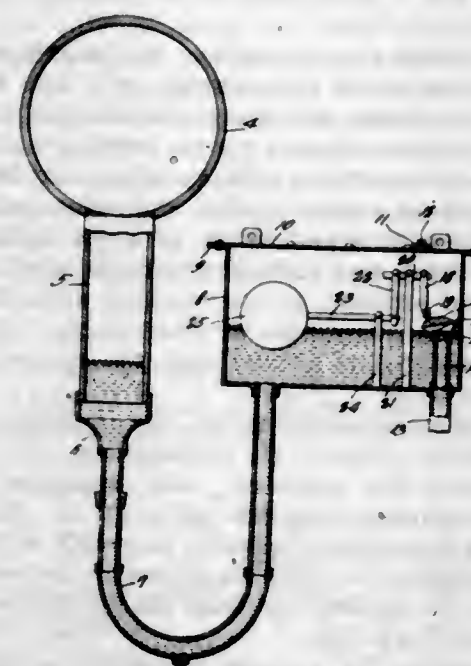
ber adapted to assume a horizontal position for the passing of a trace thereover, and adapted to assume a vertical position supported by the lug coacting with the bar to hold the trace against displacement.

3. The combination of a swingletree provided with a slot extending therein, a bar extending across said slot at a slight distance from the end thereof, a latch member fitting between the said bar and the slot end, said latch member provided with a hook-shaped end and an outstanding lug spaced a distance therefrom approximately equal to the width of the said bar, the hooked end and outstanding lug coacting with the said bar to prevent the accidental displacement of the said latch member, said latch member adapted to assume a horizontal position for the passing of a trace thereover, said latch member adapted to assume a vertical position for the locking of the trace upon the said swingletree.

4. In a trace fastener the combination of a swingletree provided with a slot extending therein, a bar extending across the said slot and spaced a distance from the end thereof, a latch member mounted for rotation and translation within the slot behind the bar, said bar prohibiting the removing of the said latch member, said member adapted to translate and rotate into a horizontal unlocked position, and into a vertical locked position.

5. In a device of the class described the combination of a swingletree provided with a slot extending therein, a trace stop removed a material distance from the end of said slot, a wide thin bar extending across the said slot and spaced a slight distance from the end thereof, a latch member fitting within the slot behind the bar, said latch member provided with a hook-shaped end, an outstanding lug spaced a distance from the end approximately equal to the width of the bar, the opening defined by the slot in the bar mounting the latch member for translation and rotation and prohibiting the removing thereof, said latch member provided with a channel adjacent the said projecting lug adapted to interlock with the edge of the said bar, said latch member adapted to assume a horizontal position for the passing of a trace thereover, said latch member adapted to assume a vertical position supported upon the bar by the said lug for the locking of the trace upon the said swingletree.

1,082,216. TRAP FOR GAS-MAINS AND THE LIKE. SAMUEL A. STUM, San Francisco, Cal. Filed Nov. 6, 1912. Serial No. 729,864. (Cl. 137—103.)

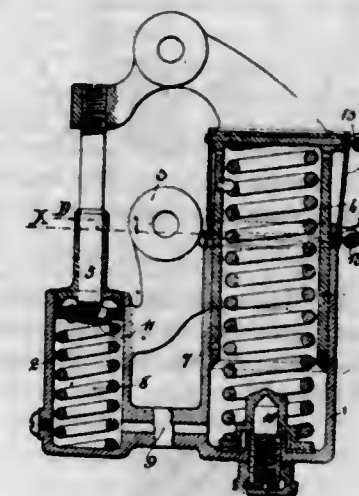


In a device of the character described, a casing adapted to be partially filled with water, a trap pipe connected at one end to the bottom of the casing and having a central portion depending below the casing, the other end of the trap pipe being designed for attachment to a gas pipe

197 O. G.—58

to receive the condensation, an outlet pipe passing through the bottom of the casing and terminating at the normal water level, the outlet pipe having an inclined valve seat at its upper end, a flap valve hinged to the upper end of the valve seat and designed to seat thereagainst, a lever fulcrumed within the casing above the normal water level, a float carried by the lever, and an operative connection between the lever and the said valve whereby the valve is normally held open, and whereby when the water level lowers a predetermined amount, the valve will be seated, the casing having means whereby the same may be filled with water to start the device.

1,082,217. SUSPENSION-SPRING FOR VEHICLES. ADOLPHE VERMERSCH, Lille, France. Filed Sept. 16, 1912. Serial No. 720,667. (Cl. 21—50.)



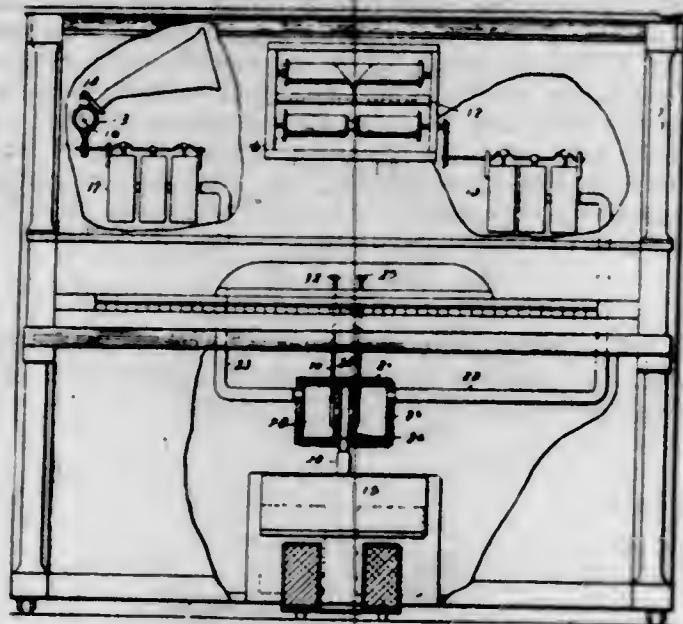
1. Spring suspension mechanism for vehicles comprising three communicating, oil-containing cylinders, two of which being smaller than the third, helical springs in each of said cylinders, the springs within the smaller cylinders balancing the spring in the larger one, means for connecting the cylinders with the vehicle spring, conduits establishing communication between the cylinders and the bottom thereof, means for regulating the tension of the large spring, and pistons within said cylinders of dimensions to suit the dimension of said cylinders, the smaller pistons each provided with a valved opening and a free opening and means for protecting the exposed portion of the large piston against dirt and dust, substantially as described.

2. Spring suspension mechanism for vehicles, comprising three communicating, oil-containing cylinders, two of which being smaller than the third, helical springs in each of said cylinders, the springs in the smaller cylinders balancing the spring in the larger one, straps for connecting the cylinders with the vehicle spring, conduits establishing communication between the cylinders at the bottom thereof, a screw for regulating the tension of the large spring, and pistons within said cylinders of dimensions to suit the dimensions of said cylinders, the smaller pistons each provided with a valved opening and a free opening, and a protecting sheath of pliable material for the exposed portion of the large piston, and means for securing said sheath to the cylinder containing the large piston, substantially as described.

1,082,218. MEANS FOR OPERATING MUSICAL INSTRUMENTS. EDWIN S. VOTER, Summit, N. J., assignor to The Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed May 13, 1910. Serial No. 561,162. (Cl. 84—193.)

In combination, a player piano controlled by a record element, a phonograph controlled by a record element, a motor for driving the piano player record, a separate motor for driving the phonograph record, a local source of power for the piano player located in the casing of the

latter for driving both the said motors and separate manually operable means for controlling the speed of



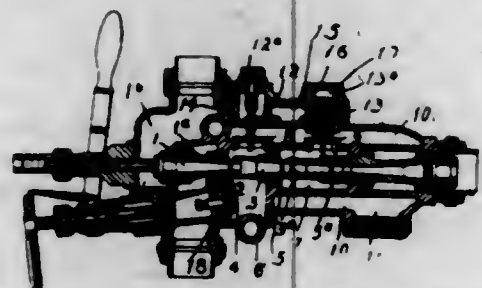
each motor, said means being readily operable at the will of the performer during the playing of the instruments.

1,082,219. FILE. WILLIAM HENRY WAKFER, South Norwood, England, assignor to himself, and Samuel Peck, Calbourne, England. Filed Sept. 25, 1912. Serial No. 722,240. (Cl. 29—78.)



A file, having a single cut of parallel cutting teeth diagonally disposed across the body of the file at an angle adapted to produce a shearing cut, and clearance channels disposed transversely across the said cutting teeth, the cross sectional area of each channel gradually increasing toward the delivery end of such channel so as to collect and deliver the filings removed from the cutting teeth traversing the channel, substantially as described.

1,082,220. HOT-WATER INJECTOR. THOMAS HENRY WHITE, Pendleton, Salford, England. Filed Oct. 21, 1912. Serial No. 727,019. (Cl. 162—1.)



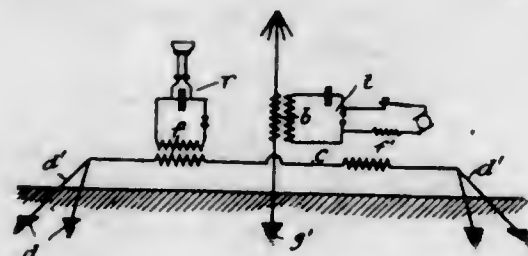
1. In injectors for hot water the combination of nozzles having gaps between them, chambers surrounding said nozzles and gaps and provided with outlet orifices, an overflow passage communicating with said orifices and leading to the overflow outlets, free lifting or moving overflow valves adapted to close said orifices, a chamber filled with steam or water or both at the starting or restarting of the injector, a small orifice therein leading into said overflow passage, a free lifting or moving valve closing said small orifice and adapted to be opened by the outward movement of one of the overflow valves.

2. In injectors for hot water the combination of nozzles having gaps between them, chambers surrounding said nozzles and gaps and provided with outlet orifices, an overflow passage communicating with said orifices and leading to the overflow outlet, free lifting or moving overflow valves adapted to close said orifices, a chamber filled with steam or water or both at the starting or restarting of the injector, a small orifice therein leading into the said overflow passage and arranged coaxially with one of said overflow valves, and a free lifting or moving valve closing said small orifice and nearly in contact with the overflow valve.

3. In injectors for hot water the combination of nozzles having a gap between them, a chamber surrounding said gap and provided with an outlet orifice, an overflow passage communicating with said orifice and leading to the overflow outlet, a free lifting or moving overflow valve adapted to close said orifice, a chamber filled with steam or water or both at starting or restarting of the injector, a small orifice therein leading into said overflow passage, a free lifting or moving valve closing said orifice and adapted to be opened by the outward movement of said overflow valve.

4. In injectors for hot water the combination of nozzles having a gap between them, a chamber surrounding said gap and provided with an outlet orifice, an overflow passage communicating with said orifice and leading to the overflow outlet, a free lifting or moving overflow valve, adapted to close said orifice, a chamber filled with steam or water or both at starting or restarting of the injector, a small orifice therein leading into said overflow passage and arranged coaxially with said overflow valve, and a free lifting or moving valve closing said small orifice and nearly in contact with the overflow valve.

1,082,221. RADIOTELEGRAPHIC STATION. GEORG GRAF VON ARCO, Berlin, Germany. Filed Feb. 7, 1912. Serial No. 676,132. (Cl. 250—13.)



1. In a radiotelegraphic station, the combination with a vertical antenna for transmitting, of a low horizontal antenna for receiving, said horizontal antenna being symmetrically disposed adjacent to the vertical antenna and in operative relation therewith to avoid mutual disturbance.

2. In a radiotelegraphic station, the combination with a vertical antenna for transmitting, of a low horizontal antenna for receiving, said horizontal antenna being symmetrically disposed adjacent to the vertical antenna and in operative relation therewith to avoid mutual disturbance and means adapted to ground both the vertical and the horizontal antenna.

3. In a radiotelegraphic station, the combination with a vertical antenna normally for transmitting, of a low horizontal antenna for receiving, said horizontal antenna being symmetrically disposed adjacent to the vertical antenna and in operative relation therewith to avoid mutual disturbance and a receiving apparatus operatively connected with the vertical and with the horizontal antenna, for the purpose specified.

4. In a station for wireless telegraphy, a vertical antenna, a low horizontal antenna, a transmitting device connected with said vertical antenna, a receiving device connected with said horizontal antenna, means for coupling the receiving device of the horizontal antenna with the vertical antenna and for uncoupling it therefrom to permit the receiving device to receive energy from both antennae at will.

5. In a station for wireless telegraphy, a vertical antenna, a low horizontal antenna, a transmitting device connected with said vertical antenna, and a receiving device connected with said horizontal antenna, means for coupling with the vertical antenna and for uncoupling therefrom the receiving device of the horizontal antenna, the horizontal antenna being symmetrically arranged relatively to the vertical antenna.

1,082,222. WEEDER. RALPH L. BERGE, Lexington, Oreg. Filed Feb. 17, 1913. Serial No. 748,906. (Cl. 55—3.)

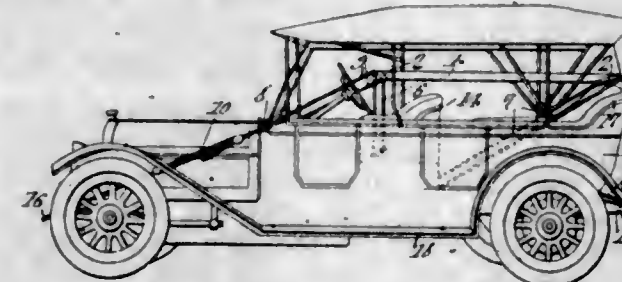


1. A weeder comprising a bar having teeth aligned longitudinally of the bar, angle bars extending rearwardly and forming a platform support, the forward ends of said bars being connected to opposite sides of the teeth carrying bar, one point of each bar being adjustable to vary the inclination of the teeth when the ends of the angle bars rest upon the ground, and bands carried by said teeth carrying bar and adjustable peripherally thereon to provide for variations in the line of draft.

2. A weeder comprising a bar having teeth aligned longitudinally of the bar, angle bars extending rearwardly and forming a platform support, the forward ends of said bars being connected to opposite sides of the teeth carrying bar, one point of each bar being adjustable to vary the inclination of the teeth when the ends of the angle bars rest upon the ground, and bands carried by said teeth carrying bar and adjustable peripherally thereon to provide for variations in the line of draft, and shoes adapted to be clamped at the ends of said teeth carrying bar and adapted to support the teeth out of the ground.

3. A weeder comprising a bar having teeth aligned longitudinally of the bar, angle bars extending rearwardly and forming a platform support, the forward ends of said bars being connected to opposite sides of the teeth carrying bar, one point of each bar being adjustable to vary the inclination of the teeth when the ends of the angle bars rest upon the ground, and bands carried by said teeth carrying bar and adjustable peripherally thereon to provide for variations in the line of draft, and a cutting bar carried by arms projecting rearwardly from the teeth carrying bar, said arms being removably secured in relatively fixed position on said bar, whereby adjustment of the angle bars will affect the depth of penetration of the cutting bar.

1,082,223. STRETCHER OR BED FOR AUTOMOBILES. RALPH LEONARD BRADLEY, Stellacoom, Wash. Filed May 9, 1913. Serial No. 760,654. (Cl. 21—80.)



1. In a device of the character described, a body, perpendicular supports for the front end of the body and designed to rest upon the front seat of an automobile, in-

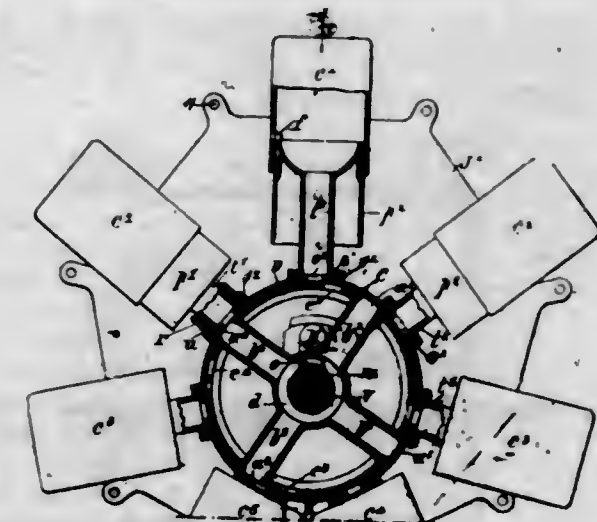
clined rear supports for the body designed to rest against the back of the front seat, and guys attached to the ends of the body and designed for attachment to the front and rear ends of the chassis of the automobile.

2. In a device of the character described, a body, short perpendicular supports for the front end thereof and designed to rest upon the front seat of an automobile, inclined rear supports for the body designed to rest against the back of the front seat, the upper-ends of the rear supports and the rear end of the body being adapted to project over the rear seat of the automobile, guys attached to the rear end thereof and designed to be attached to the rear end of the chassis of the automobile, and guys attached to the front end of the body and designed to be attached to the front end of the chassis, the last mentioned guys including means for stretching the body.

3. In a device of the character described, a body, front and rear supports therefor, the front supports being adapted to rest upon the front seat of an automobile, and the rear supports being inclined and being designed to rest against the back of the front seat, front and rear guys attached to the ends of the body and designed for attachment to the front and rear ends of the chassis of the automobile, and resilient members interposed in the front guys.

4. In a device of the character described, a flexible body having a hem at each end, cross rods passing through the hems, front and rear supports attachable to the cross rods, the front supports being adapted to rest upon the front seat of an automobile, and the rear supports being inclined and being designed to rest against the back of the front seat, and front and rear guys attached to the respective cross rods and designed for attachment to the front and rear ends of the chassis.

1,082,224. ROTARY VALVELESS MOTOR. DESIRÉ CRAYSSAC, Villeurbanne, France. Filed Apr. 23, 1912. Serial No. 692,565. (Cl. 123—44.)

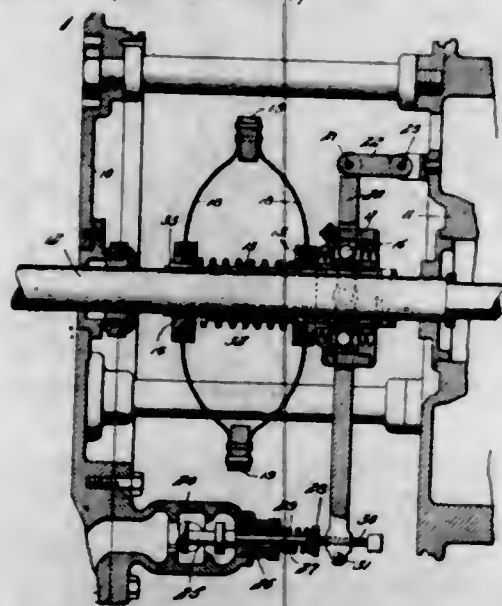


1. A rotary and valveless internal combustion engine including a stationary shaft, two flanges rotating on the end of said shaft, and supporting cylinders; pistons movable in the said cylinders and provided with hollow rods; a first crown rotating on a stationary crank of the afore-said shaft, concentric with the said crank, and on which are firmly secured the piston rods; a second crown mounted concentrically with the first, and provided with a hollow hub and hollow arms communicating with the said hub; a feeding pipe, disposed in one end of the stationary shaft of the motor and leading explosion gases to the hub of the second crown; ports in the first crown at the ends of the hollow piston rods; and ports in the second crown at the ends of the hollow arms; the number of the cylinders and the disposition of their axes, as regards the number and the disposition of the hollow arms of the second crown, being determined in order to insure the suitable regulation of the admission of the explosion gases into the cylinders, through the hollow piston rods.

2. A rotary and valveless internal combustion engine including a stationary shaft, two flanges rotating on the stationary axis of the motor and supporting cylinders; pistons movable in the said cylinders and provided with hollow rods; a first crown rotating on a stationary crank of the aforesaid axis, concentric with the said crank, and on which are firmly secured the said rods; a second crown mounted on the said crank, and exactly fitted in the first; internal teeth on the said second crown; a toothed wheel eccentrically mounted on the said crank and coacting with the internal teeth of the second crown; and suitable transmission means to impart to the said toothed wheel a motion corresponding to the angular displacement of the pistons, in order to insure the correct working of the several steps in the cycle of operations.

3. A rotary and valveless internal combustion engine including a stationary shaft, two flanges rotating on the stationary axis of the motor and supporting cylinders; pistons movable in the said cylinders and provided with hollow rods; a first crown rotating on a stationary crank of the aforesaid axis, concentric with the said crank, and on which are firmly secured the said rods; a second crown mounted on the said crank, exactly fitted in the first, and provided with a hollow hub and hollow arms communicating with the said hub; feeding pipe, disposed in one end of the stationary shaft of the motor and leading explosion gases to the hub of the second crown; ports in the first crown at the ends of the hollow piston rods; ports in the second crown at the ends of the hollow arms; ports in the cylinders for the direct exhaust of the waste gases; ports in the second crown for the exhaust of the waste gases through the hollow piston rods; internal teeth on the said second crown; a toothed wheel eccentrically mounted on the said crank and coacting with the internal teeth of the second crown; and suitable transmission means to impart to the said toothed wheel a motion corresponding to the angular displacement of the pistons, in order to insure the correct working of the several steps in the cycle of the operations.

1,082,225. SPEED-GOVERNING MECHANISM. RAY P. DEARDORFF, Buffalo, N. Y. Filed Aug. 26, 1913. Serial No. 780,736. (Cl. 121-112.)



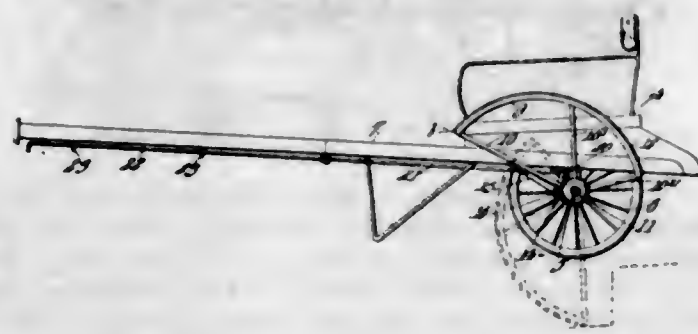
1. In speed governing mechanism, the combination of a speed-responsive element, a lever connected with and positively oscillated by said speed-responsive element, a valve-actuating member, and the spring for moving said valve-actuating member in one direction, said lever loosely engaging said member and being adapted to move the same only in opposition to said spring and there being means for adjustment at one end of the lever.

2. In speed governing mechanism, the combination of a speed-responsive element, a lever connected with and actuated by said speed-responsive element, a valve-actuating member, a spring for moving said valve actuating member in one direction, and adjustable means loosely connect-

ing said lever and said member whereby the lever is adapted to move the member only in opposition to said spring.

3. In speed governing mechanism, the combination of a speed-responsive element, a lever connected with and actuated by said speed-responsive element, a valve-actuating member, a valve, an axially movable rod connected with the valve, a spring surrounding said rod and adapted to move the same to open the valve, and an adjustable screw forming a connection between said lever and said rod whereby the lever is adapted to move the rod in opposition to the spring and is free to move independent thereof in the opposite direction.

1,082,226. LIFTING DEVICE FOR PUSH-CARTS. NOEL DUFEIS, Aberdeen, Wash. Filed Jan. 21, 1913. Serial No. 743,412. (Cl. 57-15.)



1. In combination with a wheel mounted vehicle, a lifter mounted for rotary movements carried by the vehicle and designed to engage the underlying surface to raise the wheels onto an obstruction, and means independent of the lifter carried by the vehicle engageable with the lifter to raise the same from in rear of the wheels and for throwing the lifter upwardly and forwardly in advance of the wheels to engage the underlying surface.

2. In combination with a wheel mounted vehicle, a cam mounted for rotary movements upon the vehicle, and designed to engage the underlying surface to raise the wheels onto an obstruction, and means independent of the cam carried by the vehicle and engageable with the said cam for raising the cam from in rear of the wheels and for throwing the cam upward and forward to engage the underlying surface.

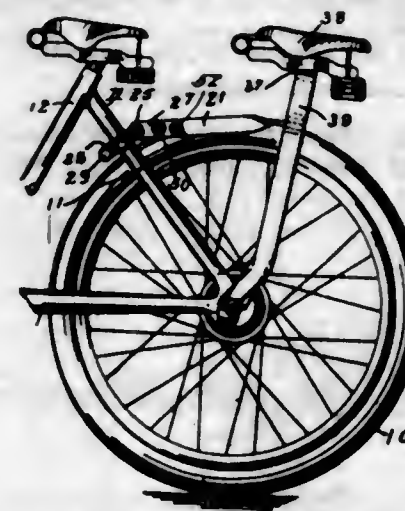
3. In combination with a wheel mounted vehicle, a lifter carried thereby for rotary movements, and designed to engage the underlying surface to raise the wheels onto an obstruction, and a raising mechanism independent of the lifter carried by the vehicle and including a yieldable member engageable with the lifter, said member being engageable with the lifter when the lifter is in rear of the wheels, whereby the mechanism may be employed for raising the lifter from the underlying surface, and for throwing the lifter upwardly and forwardly in advance of the wheels to engage the underlying surface.

4. In combination with a wheel mounted vehicle, a lifter carried thereby for rotary movements, and designed to engage the underlying surface to raise the wheels onto an obstruction, and a raising mechanism independent of the lifter carried by the vehicle and including a yieldable latch engageable with the lifter when the lifter is in rear of the wheels, whereby the mechanism may be employed for raising the lifter, and for throwing the lifter upwardly and forwardly in advance of the wheels to engage the underlying surface.

5. In combination with a wheel mounted vehicle, a lifter carried thereby for rotary movements, a rocking member carried by the vehicle, a latch pivoted to the said member and engageable with the lifter when the lifter is in rear of the wheels, and means for actuating the rocking member for raising the latch, whereby the lifter is raised, and for throwing the latch upwardly and forwardly, to swing the lifter forwardly and upwardly in advance of the wheels to engage the underlying surface.

[Claims 6 to 10 not printed in the Gazette.]

1,082,227. TANDEM-SEAT ATTACHMENT. JOHN W. GATES and OLIVER P. HOBBS, Los Angeles, Cal.; Amalia C. Gates administratrix of said John W. Gates, deceased. Filed Feb. 10, 1912, Serial No. 870,861. Renewed June 14, 1913. Serial No. 773,761. (Cl. 208-24.)



1. A tandem seat attachment comprising a U-shaped axle frame; a U-shaped seat frame; guide lugs secured to said frames; thrust rods passing through said guide lugs and into the seat frame; and thrust springs mounted upon the thrust rods and having the lower ends held thereon and the upper ends secured to the top of the axle frame.

2. In a tandem seat attachment for motor cycles and like vehicles, means to detachably secure the same to the vehicle, comprising an axle frame terminating in hooks adapted to be hooked over the axle; and means to prevent the hooked ends from coming off the axle when positioned for use, said means after being once positioned being always ready for use without adjustment, and means secured to a fixed part and engaging the axle frame to secure the top of the axle frame to the machine frame.

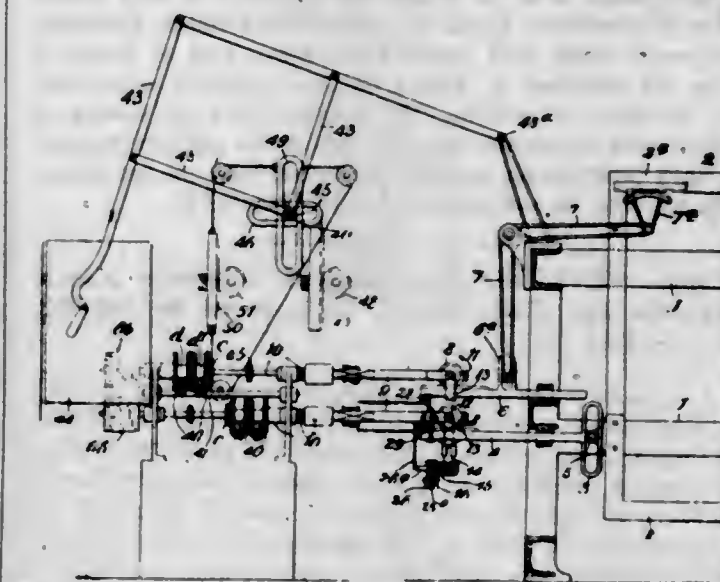
3. In a tandem seat attachment for motor cycles and like machines, the combination of clamps on the rear forks of the machine, said clamps having projecting securing bolts having a groove near their ends; an L-shaped hook on the rear axle; a lock nut having a head and shank on the rear axle adapted to lock the L-shaped hook thereon so that it will project toward the front of the machine; a U-shaped axle frame having hooks on the lower ends of its members, said hooks being adapted to hook over the shanks of the lock nuts; brace bars secured at one end to the upper member of the axle frame and having holes in their other ends adapted to pass over the bolts of the clamps; and latches pivotally secured to the brace bars, said latches being adapted to engage the bolts of the clamps at the grooves therein and detachably lock the brace bars on the clamps.

1,082,228. JACQUARD EMBROIDERING-MACHINE. KARL KELLER, Arbon, Switzerland. Filed Apr. 11, 1912. Serial No. 690,128. (Cl. 112-7.)

1. In embroidering machines, a jacquard mechanism for moving the fabric frame, comprising for each stitch component direction a fabric frame positioning gear normally in a zero position, loose interconnecting means between said gear and the fabric frame, means for adjusting said positioning gear according to the desired stitch length from its zero position independently of the fabric frame, selecting means for controlling said adjusting means, a jacquard card for controlling said selecting means, automatic control means for engaging said interconnecting means to bring the fabric frame up to the positioning gear determined position, and a change device in combination with said positioning gear for causing an additional adjustment thereof over an extent corresponding to an adopted maximum stitch length in view of an exchange of its actual zero position with another zero position, when the desired stitch length exceeds said maximum limit, substantially as described.

2. In embroidering machines, a jacquard mechanism for moving the fabric frame, comprising for each stitch com-

ponent direction a fabric frame positioning gear normally in a zero position, loose interconnecting means between said gear and the fabric frame, means for adjusting said positioning gear according to the desired stitch length from its zero position, independently of the fabric frame, selecting means for controlling said adjusting means, a jacquard card for controlling said selecting means, automatic control means for engaging said interconnecting means to bring the fabric frame up to the positioning gear determined position, an automatic return device for restoring said adjusting means and positioning gear to their zero position after the fabric frame having been positioned, and a change device in combination with said positioning gear for causing an additional adjustment thereof over an extent corresponding to an adopted maximum stitch length in view of an exchange of its actual zero position with another zero position, when the desired stitch length exceeds said maximum limit, substantially as described.



3. In embroidering machines, a jacquard mechanism for moving the fabric frame, comprising for each stitch component direction a fabric frame positioning gear normally in a zero position, loose interconnecting means between said gear and the fabric frame, means for adjusting said positioning gear according to the desired stitch length from its zero position, independently of the fabric frame, selecting means for controlling said adjusting means, a jacquard card for controlling said selecting means, automatic control means for engaging said interconnecting means to bring the fabric frame up to the positioning gear determined position, an automatic return device for restoring said adjusting means and positioning gear to their zero position after the fabric frame having been positioned, and a jacquard card controlled change device in combination with said positioning gear for causing an additional adjustment thereof over an extent corresponding to an adopted maximum stitch length in view of an exchange of its actual zero position with another zero position, when the desired stitch length exceeds said maximum limit, substantially as described.

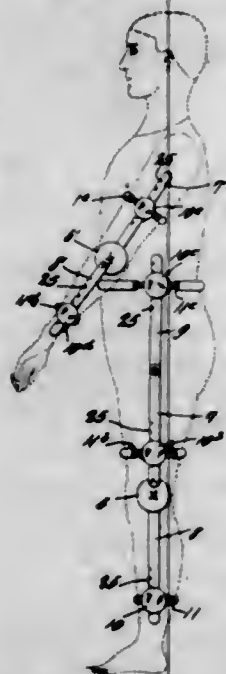
4. In embroidering machines, a jacquard mechanism for moving the fabric frame, comprising for each stitch component direction a fabric position determining rotary toothed wheel normally in a zero position, a rack connected to the fabric frame and intermeshing with said toothed wheel, a slidable bar carrying said toothed wheel, a rotary adjusting spindle, a screw device connecting said bar and spindle and arranged to produce a sliding motion of the bar when the spindle is rotated, an adjusting wheel gearing for imparting to said spindle a variable rotating movement according to the desired stitch length, selecting means for controlling said adjusting wheel gearing, a jacquard card for controlling said selecting means, a positioning lever connected to said fabric position determining wheel so as to partake of its adjusting movement, a positioning member arranged to cooperate with said positioning lever and to bring it back to its starting or zero position, together with said wheel, in order to position the fabric frame by means of said rack, and automatic driv-

ing means for positively actuating said positioning member, substantially as described.

5. In embroidering machines, a jacquard mechanism for moving the fabric frame, comprising for each stitch component direction a fabric position determining rotary toothed wheel normally in a zero position, a rack connected to the fabric frame and intermeshing with said toothed wheel, a slidable bar carrying said toothed wheel, a rotary adjusting spindle, a screw device connecting said bar and spindle and arranged to produce a sliding motion of the bar when the spindle is rotated, an adjusting wheel gearing for imparting to said spindle a variable rotating movement according to the desired stitch length, selecting means for controlling said adjusting wheel gearing, a jacquard card for controlling said selecting means, a positioning lever combined with said fabric position determining wheel, releasable connecting means for coupling together said wheel and positioning lever, designed to allow said positioning lever to be moved relatively to said fabric position determining wheel, a positioning member arranged to cooperate with said positioning lever and to bring it back to its starting or zero position, together with said wheel, in order to position the fabric frame by means of said rack, and automatic driving means for positively actuating said positioning member, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,082,229. GYVE-LOCK. FREDRICK COLOSSUS NAGLE, Keithville, La. Filed Feb. 17, 1913. Serial No. 749,002. (Cl. 70—24.)



1. In combination with the section of a gyve, a lock adjustable thereon, a flexible member attached to the lock, and means carried by the lock for adjustably engaging the said section and for adjustably engaging the free portion of the flexible member.

2. In a combination with the section of a gyve, a lock slidable thereon, a flexible member attached to the lock, means carried by the lock for engaging the said section, and means carried by the lock for adjustably engaging the free portion of the flexible member.

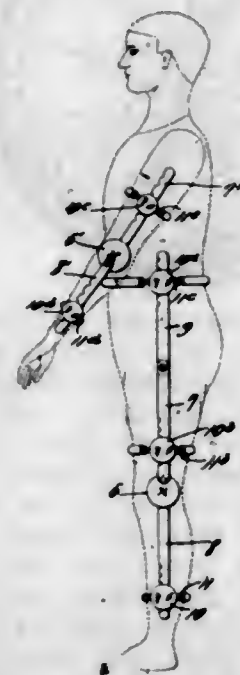
3. In combination with the section of a gyve having a series of notches therein, a lock slidable on the said section, a flexible member attached to the lock, means carried by the lock for adjustably engaging the free portion of the flexible member, and means carried by the lock for engaging the notches of the said section and for locking the aforesaid means.

4. In a gyve lock, a case adapted to slidably engage the section of a gyve, a flexible member attached to the case, a member carried by the case for engaging the free portion of the flexible member, a member carried by the case and adapted to engage the said section and also the latter member to lock the parts in position, and key-controlled means engageable with the last-mentioned member.

5. In a gyve lock, a case adapted to slidably engage the section of a gyve, a latch bolt carried by the case and having a tooth to slide into and out of engagement with the case, a chain attached to the case and adapted to be engaged by the said tooth, and means carried by the case for engaging the said section and for engaging the said latch bolt.

[Claims 6 to 12 not printed in the Gazette.]

1,082,230. GYVE. FREDRICK COLOSSUS NAGLE, Keithville, La. Filed Feb. 17, 1913. Serial No. 749,003. (Cl. 70—24.)



1. In a gyve, a pair of members attachable to the respective parts of a limb, and a joint lock disposable at the joint of the limb and comprising a casing embodying two rotatable parts to which the respective aforesaid members are attached, diametrically opposite ratchet teeth carried by one part of the case, a guide carried by the other part of the case, and oppositely working key controlled dogs slidably engaging the guide and spring pressed away from each other to engage the respective ratchet teeth.

2. In a gyve, a pair of members attachable to the parts of a limb, in combination with a joint lock comprising a case embodying two rotatable parts to which the respective members are attached, diametrically opposite ratchet teeth carried by one part of the case, a guide carried by the other part of the case, and U-shaped dogs having their arms straddling the guide and spring pressed away from each other to engage the respective ratchet teeth.

3. In a gyve, a pair of members attachable to the parts of a limb, in combination with a joint lock comprising a case embodying two rotatable parts to which the respective members are attached, diametrically opposite ratchet teeth carried by one part of the case, a guide carried by the other part of the case, and U-shaped dogs straddling the guide and having their arms overlapped, the pawls being spring pressed apart to engage the ratchet teeth and opposite arms of the pawls being provided with key-engaging means.

4. In a gyve, a pair of members attachable to the parts of a limb, in combination with a joint lock comprising a case embodying two rotatable parts to which the respective members are attached, diametrically opposite ratchet teeth carried by one part of the case, a guide carried by the other part of the case and having a transverse key receiving recess therein, and U-shaped pawls straddling the guide and spring pressed apart to engage the respective ratchet teeth, the opposite arms of the pawls having key engaging notches at the ends of the said recess.

5. In a gyve, a pair of members attachable to the parts of a limb, in combination with a joint lock comprising a case embodying two rotatable parts to which the respective members are attached, diametrically opposite ratchet teeth carried by one part of the case, a guide carried

by the other part of the case and having a transverse key receiving recess, U-shaped pawls straddling the guide and having their arms overlapped, arms of the pawls having key-engaging notches at the ends of the said recess, and leaf springs secured to the respective pawls and bearing against certain arms of the opposite pawls.

[Claims 6 to 10 not printed in the Gazette.]

1,082,231. METHOD OF SETTING TILES, BRICKS, AND MOSAICS. FRANKLIN P. NALE, Birmingham, Ala., assignor of one-half to E. J. Hudnall, Birmingham, Ala. Filed Mar. 26, 1913. Serial No. 756,990. (Cl. 72—26.)



1. The hereindescribed process for setting ornamental tiles and like articles, which consists in spreading a soft composition coating over a platen, embedding the faces of the tiles in spaced relation in such coating until it enters an appreciable distance into the spaces between the tiles to seal the bottoms of such spaces, then pouring over the backs of and into the spaces between the tiles a cementitious or plastic mass which will adhere to the sides and backs of the tiles and permitting it to harden and hold the tiles set permanently therein, and then separating the finished composite article from the platen and composition coating.

2. The hereindescribed process for setting ornamental tiles and like articles, which consists in spreading a soft non-cementitious composition coating over a platen, embedding the faces of the tiles in spaced relation in such coating until it enters an appreciable distance into the spaces between the tiles to seal the bottoms of such spaces, then pouring over the backs of and into the spaces between the tiles a cementitious or plastic mass which will adhere to the sides and backs of the tiles and permitting it to harden and hold the tiles set permanently therein, and then separating the finished composite article from the platen and composition coating.

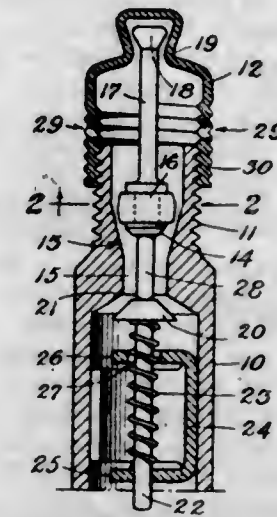
3. The hereindescribed process for setting ornamental tiles and like articles, which consists in spreading a soft soluble composition coating over a platen, embedding the faces of the tiles in spaced relation in such coating until it enters an appreciable distance into the spaces between the tiles to seal the bottoms of such spaces, then pouring over the backs of and into the spaces between the tiles a cementitious or plastic mass which will adhere to the sides and backs of the tiles and permitting it to harden and hold the tiles set permanently therein, and then separating the finished composite article from the platen and composition coating.

4. The hereindescribed process for setting ornamental tiles and mosaic articles, which consists in coating the upper face of a transparent platen with a substantially transparent thick soft mass of non-cementitious material adapted to seal the interstices between the tiles, then setting the tiles face down on said platen and pressing their faces in spaced relation into said coating until it enters an appreciable distance into the spaces between the tiles and seals the bottoms of such spaces, working a cementitious or plastic bonding compound over the backs of the tiles and into the spaces between them, down to said sealing mass, permitting the bonding compound to harden and then separating the platen and sealing mass from the face of the bonded tiles.

1,082,232. VALVE. FREDERIK NIELSEN, Boston, Mass. Filed Nov. 1, 1912. Serial No. 729,055. (Cl. 152—12.)

1. An inflating valve comprising a valve casing, a valve member, a check valve, and a cap, said casing having a seat for said valve member and a seat for said check

valve, the exterior of said casing having a screw-thread and said cap having an internal thread for cooperating with said thread of the casing, and means operable by onward movement of said cap for opening said check valve and thereafter closing said valve member, said cap having a vent in its threaded part, which vent is disposed to remain uncovered by the threaded part of the casing until after said check valve is opened, and to be covered by said threaded part of the casing when the cap is screwed on as far as it can go.



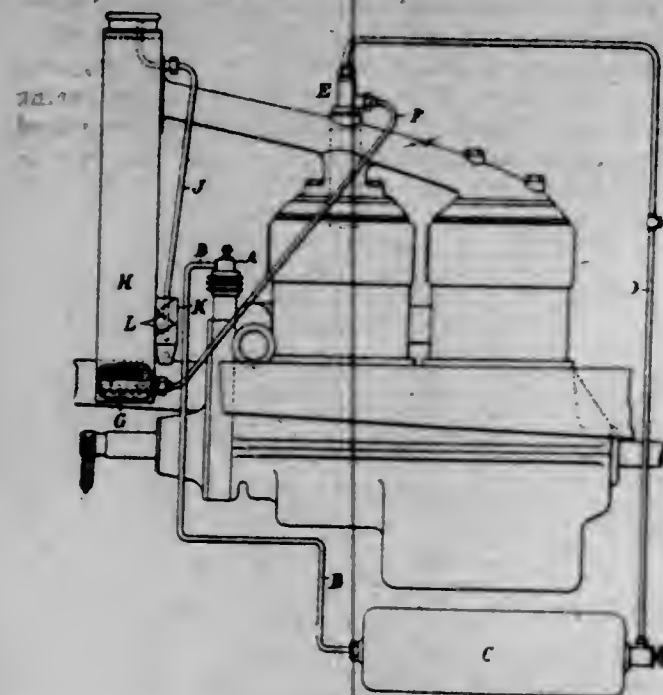
2. An inflating valve comprising a valve casing, a cap therefor, a removable valve, and a check valve, said casing having seats for said valve member and check valve respectively, said casing having an external screw-thread and said cap having a cooperative internal screw-thread, said cap and valve member having cooperative connecting portions for keeping them connected, said removable valve member being movable against its seat by onward movement of said cap, and means for transmitting seating movement of said removable valve member to said check valve to unseat the latter before the removable valve member engages its seat, said cap having a vent for the escape of air from the casing when said removable valve member and said check valve are both unseated.

3. The combination with the body of an inflating valve having an external screw-thread; of an internally threaded cap for engaging said external screw-thread to close the mouth of said body, and a valve for cooperating with the interior of said valve body, said cap having a hollow crown and a contracted throat, and said valve having a head and a reduced neck, said head being disposed in said crown and the diameter thereof being greater than that of said throat.

4. An inflating valve comprising a valve body having an air passageway, a check valve therein, said valve body having a seat for said check valve and an intermediate valve seat between the mouth of said valve body and said check valve seat, a cap for the mouth of said valve body, said cap and valve body having cooperative connecting screw-threads, a valve carried by said cap for cooperating with said intermediate valve seat, and means movable by closing movement of the valve last mentioned for opening said check valve, said cap having a vent arranged to permit the escape of air when said cap-supported valve is moving toward cooperative relation with its seat.

5. An inflating valve comprising a valve body having an air passageway, a check valve therein, said valve body having a seat for said check valve, a closure for the mouth of said passageway, a valve carried by said closure, said valve body having a seat for the last-mentioned valve, said closure and valve body having cooperative connecting screw-threads for forcing the last-mentioned valve against its seat, means operable by said closure for opening said check valve while closing the other valve, said closure having a vent for the escape of air while said closure is holding both of said valves open.

1,082,233. APPARATUS FOR COOLING INTERNAL-COMBUSTION ENGINES. EDGAR DE NORMANVILLE, Bayswater, London, England. Filed Apr. 28, 1913. Serial No. 764,174. (Cl. 123-170.)



1. In an internal combustion engine, a circulatory cooling system, a radiator comprised in the said system, means for passing a gas into the said radiator, an automatic valve in the gas supply conduit, and means for governing the said valve in accordance with variations in the temperature of the liquid in said system.

2. In an internal combustion engine, conduits conveying a cooling liquid to and from the cylinder jacket, a radiator intercalated in the said conduits, means for introducing a gas into the said radiator near the lower part thereof, an automatic valve in the gas supply conduit, and means for governing the said valve in accordance with variations in the temperature of the said liquid.

3. In an internal combustion engine, a circulatory cooling system, a radiator comprised in the said system, a compressor, a valve controlling the delivery of gas from said compressor into the radiator, and means for governing the said valve in accordance with variations in the temperature of the liquid in said system.

4. In an internal combustion engine, a circulatory cooling system, a radiator in said system, a compressor, a valve controlling the gas supplied by said compressor, a thermostatic governing device for said valve, and means for delivering the gas from the said valve into the said radiator.

5. In an internal combustion engine, a circulatory cooling system, a radiator in the said cooling system, a thermostatically governed valve, means for conducting gas from the said valve into the said radiator, and an outlet permitting free escape of the gas from the said radiator.

[Claims 6 to 8 not printed in the Gazette.]

1,082,234. MACHINE FOR COATING CONFECTIONS. PANAYIOTIS PANOULIAS, Hoboken, N. J. Filed Feb. 28, 1910. Serial No. 546,512. Renewed Oct. 18, 1913. Serial No. 796,067. (Cl. 91-6.)

1. The herein described apparatus for coating and stroking confections, consisting of a support to hold the candy during its coating, and to allow the coating, a stroking device consisting of one or more spoons, a device for retaining coating within said spoons, stationarily located with relation thereto, and means for moving the spoon and its coating retaining means into contact with the candy core up and over the same, whereby the coating in the spoon may be drawn by its viscosity therefrom, and pass the coating retaining means.

2. A dipping frame of the class described provided with a forwardly and backwardly movable member having forwardly directed needles or pins connected therewith and

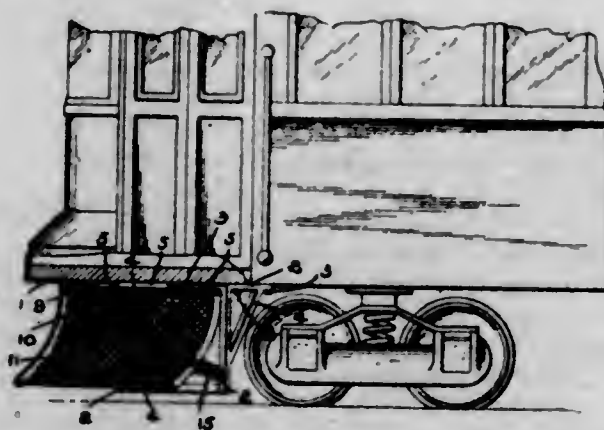
arranged in series, the outer or side pins or needles of each series being in a plane higher than the central ones, and an upwardly and forwardly movable support placed over said needles or pins when in their normal positions and provided with downwardly directed scoops which correspond in number with and operate in connection with the separate series of pins or needles.



3. A dipping frame of the class described provided with a forwardly and backwardly movable member having forwardly directed needles or pins connected therewith and arranged in series, the outer or side pins or needles of each series being in a plane higher than the central ones, and an upwardly and forwardly movable support placed over said needles or pins when in their normal positions and provided with downwardly directed scoops which correspond in number with and operate in connection with the separate series of pins or needles, and a second support rotatably connected with the scoop support and provided with fingers adapted to rest in the points of said scoops.

4. A dipping frame of the class described provided with a forwardly and backwardly movable member having forwardly directed needles or pins connected therewith and arranged in series, the outer or side pins or needles of each series being in a plane higher than the central ones, and an upwardly and forwardly movable support placed over said needles or pins when in their normal positions and provided with downwardly directed scoops which correspond in number with and operate in connection with the separate series of pins or needles, and a second support rotatably connected with the scoop support and provided with fingers adapted to rest in the points of said scoops, said finger support being adapted to be turned backwardly and held out of operative position.

1,082,235. CAR-FENDER. JOHN BARTON PAXTON, Jr., Philadelphia, Pa. Filed Aug. 26, 1913. Serial No. 786,652. (Cl. 105-253.)



1. The combination with a car platform, of brackets depending therefrom one in advance of the other, a fender, coupling members on the fender, and coupling members on the brackets into which the first-mentioned coupling members are moved when the fender is moved transversely of the car in one direction, said couplings pivotally connecting the fender and the brackets, and said fender being positioned at an angle to the longitudinal dimension of the car, substantially as described.

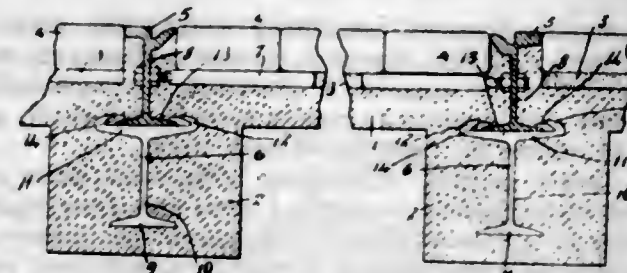
2. The combination with a car platform, of brackets depending therefrom one in advance of the other, a fender, coupling members on the fender, and coupling members on the brackets into which the first-mentioned coupling mem-

bers are moved when the fender is moved transversely of the car in one direction, said couplings pivotally connecting the fender and the brackets, and said fender being positioned at an angle to the longitudinal dimension of the car, and elastic cushioning means between the lower end of the fender and its support, substantially as described.

3. The combination with a car platform, of brackets depending therefrom one in advance of the other, a fender pivotally connected at its upper edge to the brackets and positioned at an angle to the longitudinal dimension of the car, said pivotal connection comprising pockets formed on the brackets provided with spring catches, and headed pins secured to the fender and removably secured in the pockets by said catches, substantially as described.

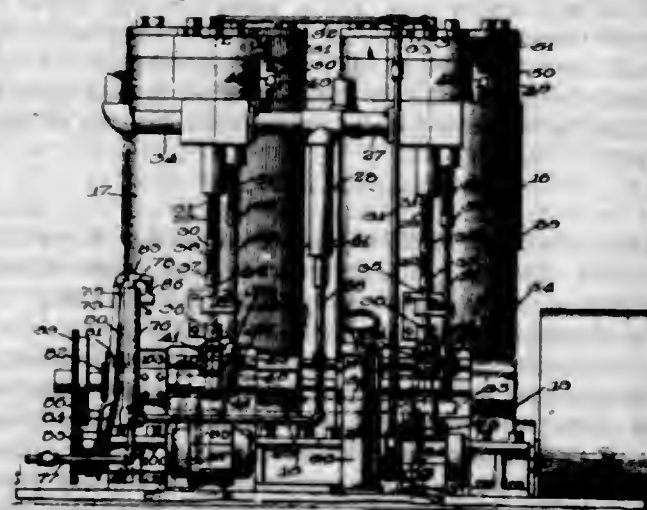
4. The combination with a car platform, of brackets depending from the platform and having cylindrical pockets at one side, a fender, pins clamped to the upper portion of the fender, said pins projecting in the same direction and in alignment, and adapted to be moved longitudinally into the pockets, beveled heads on the ends of said pins, and spring catches on the pockets adapted to engage both of the heads, substantially as described.

1,082,236. CONCRETE TRACK CONSTRUCTION FOR RAILWAYS. KENNETH E. PORTER, Cincinnati, Ohio. Filed Jan. 15, 1912. Serial No. 671,281. (Cl. 238-2.)



In a railway track construction, the combination with the track rails having the top surface of the rails flush with the surface of the roadway and a concrete bed underneath the roadway lengthwise of the rails for supporting the same, without the use of cross ties, of metallic chairs permanently embedded in the concrete upon which the rails are mounted, said chairs comprising a horizontal base with a vertical web and horizontal top plate, the top plate provided with integral turned side flanges spaced apart wider than the base of the rail, with wedges seated between the flanges and rail base on each side for the adjustment of the gage and to lock the rails to the chairs whereby the rails may be removed and replaced without tipping and without damaging or disturbing the chairs or the fastenings and with the tie rods at intervals above the concrete bed connecting together the opposite rails.

1,082,237. EXPLOSIVE-ENGINE. ENOCH PROUTY, Chicago, Ill. Filed Jan. 9, 1908. Serial No. 409,964. (Cl. 123-179.)



1. In an explosive engine of the multiple-cylinder four-cycle type, the combination with a plurality of cylinders,

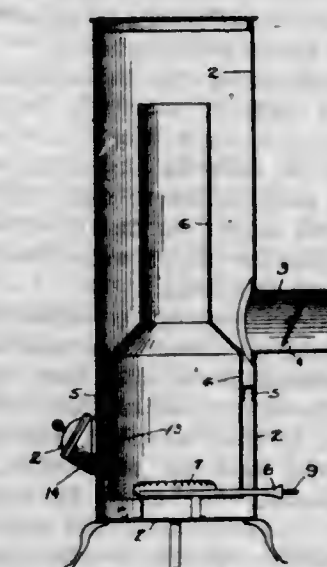
of a plurality of intake ports, a plurality of exhaust ports, valves for said exhaust ports, and a valve controlling mechanism for said valves so arranged that the piston in one cylinder of the engine when said cylinder is the leading cylinder when the engine stops, will stop on the intake stroke, said cylinder having a port arranged therein to be automatically opened at the end of the stroke of the piston to permit the escape of the products of combustion when a charge in said cylinder is exploded with the piston on the intake stroke, to start the engine.

2. In an explosive engine, the combination with a plurality of cylinders, of pistons operating therein, positively actuated means for delivering the liquid hydro-carbon to the engine while the same is running, one of said cylinders having an exhaust port arranged to allow the escape of the products of combustion when a charge is exploded therein with the piston on the intake stroke, to permit the explosion of a charge in the cylinder which happens to be leading when the engine is at rest, and the starting of the engine without cranking.

3. In an explosive engine, the combination with a plurality of cylinders having intake ports, suction valves controlling said ports, pistons operating in said cylinders, a crank shaft having opposite cranks connected to said pistons, one of said cylinders having an exhaust port arranged to allow the escape of the products of combustion when a charge is exploded in said cylinder on the intake stroke, charge ignition means, and a selective means for initially operating said charge igniting means.

4. In an explosive engine, the combination with a plurality of cylinders having intake ports, suction valves controlling said ports, pistons operating in said cylinders, a crank shaft having opposite cranks connected to said pistons, one of said cylinders having an exhaust port arranged to allow the escape of the products of combustion therein, when a charge is exploded in said cylinder on the intake stroke, and selective means for igniting the charge of the leading cylinder.

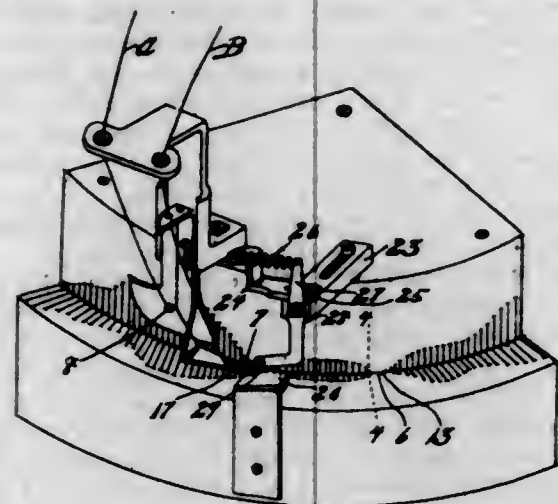
1,082,238. GAS-HEATER. CARL J. RHODIN, San Francisco, Cal. Filed Nov. 25, 1912. Serial No. 733,286. (Cl. 126-85.)



1. In a gas heater, the combination of a closed casing having an outlet therefrom, a Bunsen burner arranged adjacent the bottom of the casing, an air inlet in said casing located in a plane above the burner and provided with air regulating means, a combustion chamber inclosing the burner having open ends and located in the casing with its bottom and sides spaced from the casing, said chamber having an air opening communicating with the air inlet in the casing and having its discharge end above the casing outlet, whereby there may be a circulation of gases upward through the combustion chamber and downward between the combustion chamber and casing substantially to the bottom of the casing in addition to a circulation of a portion of the gases directly to the casing outlet.

2. In a gas heater, the combination of a closed casing having an outlet therefrom, a Bunsen burner arranged adjacent the bottom of the casing, an air inlet in said casing provided with air regulating means, a combustion chamber in the casing having open ends and comprising an enlarged lower portion surrounding the burner and provided with an air inlet registering with the air opening in the casing, said chamber being spaced at both ends and at its sides from the casing and discharging above the casing outlet, whereby an upward circulation of gases is caused through the combustion chamber and downward between said chamber and the casing substantially to the bottom of the casing in addition to a circulation of a portion of the gases directly to the casing outlet.

1,082,239. KNITTING-MACHINE. MORRIS G. ROSENTHAL. Mentor, Ohio. Filed Feb. 12, 1913. Serial No. 747,960. (Cl. 66-22.)



1. A knitting machine having, in combination, two sets of latch needles, operating devices for advancing and retracting said needles, including means for advancing needles of one set at a point between the drawing and complete stitch forming positions, and means for holding the latches of said advanced needles closed at said point, whereby said needles act as blades or jacks for looping the yarn drawn by the other set of needles.

2. A knitting machine having, in combination, two sets of needles, a yarn feed for each set, knitting cams for operating said needles, a cam acting to advance the needles of one set, between the drawing and complete stitch forming positions, to a position where they will act as blades for looping the yarn drawn by the other set of needles, and means for holding the latches of said advanced needles closed while they are so acting.

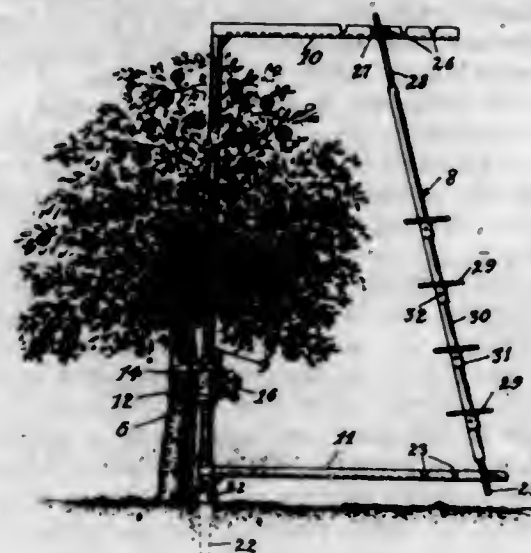
3. A knitting machine having, in combination, two sets of latch needles, operating devices for said needles, a latch holder, located between the feeding and complete stitch forming points of one set of needles, for holding closed the latches of said set of needles, after they take the yarn, means for advancing said set of needles, while closed, to form sinking blades, and means for looping the yarn of the other set of needles around said closed needles.

4. A knitting machine having, in combination, two sets of latch needles, operating devices for said needles, and a latch holder located between the feeding and complete stitch forming points of one set of needles, for holding closed the latches of said set of needles, after they take the yarn, said latch holder comprising a spring pressed blade bearing on the needles behind the latches when the needles are advanced to feeding position.

5. A knitting machine having, in combination, two sets of latch needles, operating devices for said needles, means operating on the needles of each set between the feeding and complete stitch forming positions for holding closed the latches of said needles after they take the yarn, means for advancing the needles of each set, while so closed, to form blades for the other set, and means for thereafter retracting the needles, to complete the stitches.

[Claims 6 to 8 not printed in the Gazette.]

1,082,240. REVOLVING LADDER-SUPPORT. GEORGE W. ROWLEY, Hollywood, Cal. Filed Jan. 27, 1913. Serial No. 744,398. (Cl. 228-15.)



1. A ladder support, comprising a shaft, arms extending from said shaft adjacent each end thereof, means for securing said shaft to a tree, and a ladder supported on said arms.

2. A ladder support, comprising a rotatable shaft, a bearing for said shaft, means to secure said bearing to a permanent vertical support, a plurality of spaced ladder supporting arms secured at right angles to said shaft, and means to engage the ladder with said arms.

3. A ladder support, comprising a shaft having a plurality of spaced ladder supporting arms extending rigidly therefrom in a parallel relation having notches thereon, a ladder engaging said notches, a bearing slidably and rotatably supported on said shaft intermediate said arms, and means on said bearing adapted to be adjustably engaged with a tree trunk.

4. A ladder support, comprising a shaft, a plurality of arms rigidly secured to said shaft, one of said arms extending at right angles from the upper end of said shaft, the lower arm being supported adjacent the lower end, a flange on said shaft intermediate the lower arm and the lower end of said shaft, a bearing for said shaft intermediate said arms, means to secure said bearing to a desired object, and a ladder adapted to be supported on the lower end of said arms and contact with said upper arms, and in variable positions of adjustment.

5. A ladder support, comprising a revoluble shaft, a plurality of channeled arms rigidly secured to said shaft having the upwardly extending flanges of said channels notched, said arms being extended in parallel relation to one another and substantially at right angles so that when shaft is supported in vertical position the shaft will swing in a horizontal direction, bearings for said shaft, means to secure said bearings in fixed relation, a rod adapted to be supported in a pair of registering notches of said upper arm, and a ladder having yokes at either end thereof, the lower of said yokes adapted to engage and rest in a pair of registering notches in the lower arm, the upper of said yokes adapted to lean against the rod supported in a pair of registering notches of said upper arm.

1,082,241. CAR-VESTIBULE DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to The Acme Supply Company, a Corporation of Illinois. Filed May 10, 1913. Serial No. 766,713. (Cl. 105-61.)

1. A vestibule car diaphragm comprising leg sections and top sections in register with one another, said top sections of U-form, and said leg sections of angled form.

2. In a device of the class described a unitary reinforcing element for the top sections of an arched vestibule diaphragm extending downwardly into the legs thereof on each side, said elements enlarged at the arched portion.

3. In a device of the class described a vestibule diaphragm comprising top and leg sections secured together, said top sections of U-form, and said leg sections of angled form, and reinforcing elements inserted between and extending around adjacent diaphragm sections.

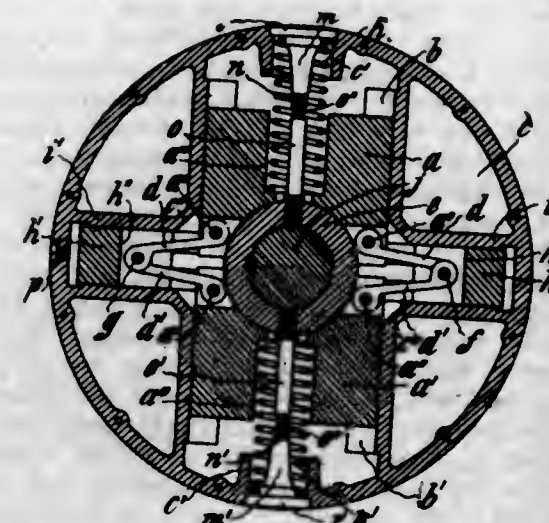


4. In a device of the class described a plurality of diaphragm sections, a reinforcing element inserted therebetween of varying width, and means secured on the outer edges of said adjacent sections to bind the same together and to said reinforcing element within the same.

5. In a device of the class described a diaphragm leg section stitching centrally thereof for a portion of the length, said arrangement affording a continuous trough of both U-form and angled sections.

[Claims 6 to 8 not printed in the Gazette.]

1,082,242. SHAFT-GOVERNOR. ERICH SCHWETTER, Golutwin, Russia. Filed Apr. 22, 1913. Serial No. 762,884. (Cl. 121-101.)

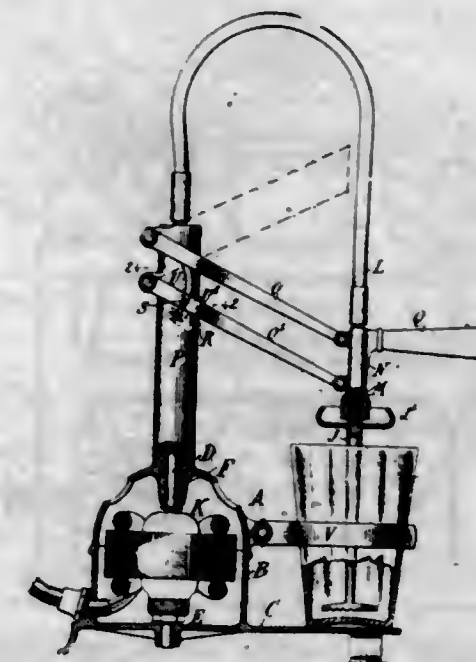


1. In a governor for engines, a rotatable engine-shaft, a governor-casing fastened thereon and comprising two opposite large radial guides and two opposite small radial guides at right angles to the large guides, two centrifugal weights movable in said two large guides, two blocks movable in said two small guides, two pairs of links pivotally connected at the inner ends with said two centrifugal weights and at the outer ends with said two blocks, two projections on said two blocks passing through two radial slots in said governor-casing to without, an eccentric movable on the outside of said governor-casing and having two recessed arms, in the recesses of which said projections engage whereby the eccentric is guided relatively to the governor-casing, means for rigidly connecting either of said two projections with the corresponding arm of said eccentric, two springs bearing inward against said two centrifugal weights, and means for pressing said two blocks outward for attaining the desired degree of reliability of the governor.

2. In a governor for engines, a rotatable engine-shaft, a governor-casing fastened thereon and comprising two opposite large radial guides and two opposite small radial guides at right angles to the large guides, two centrifugal weights movable in said two large guides, two blocks movable in said two small guides, two pairs of links pivotally connected at the inner ends with said two centrifugal weights and at the outer ends with said two blocks, two projections on said two blocks passing through two radial slots in said

governor-casing to without, an eccentric movable on the outside of said governor-casing and having two arms, in which said two projections are guided whereby the eccentric is guided relatively to the governor-casing, means for rigidly connecting either of said two projections with the corresponding arm of said eccentric, and two springs bearing inward against said two centrifugal weights.

1,082,243. MIXING DEVICE. WILLIAM GENTRY SHELTON, New York, N. Y. Filed May 8, 1911. Serial No. 625,861. (Cl. 31-63.)



1. In a mixing device or the like, the combination of a fixed motor, a movable mixer, a pair of parallel levers for said mixer adapted to guide the same in a substantially vertical direction, and means for transmitting motion from the motor to the mixer.

2. In a mixing device or the like, the combination of a base or standard, a motor fixed relatively thereto, a mixing device adapted to be raised and lowered, a pair of parallel levers adapted to guide said mixer in a substantially vertical direction, a flexible shaft for transmitting motion from said motor to said mixer, and a switch adapted to be moved by said levers to start the motor when the mixer is lowered and to stop the motor when the mixer is raised.

3. In a mixing device or the like, the combination of a base or standard, a motor casing fixed thereto, a motor within said casing, an upright tube fixed to said motor casing, a flexible shaft one end of which is connected to the motor shaft, a mixer, a holder for said mixer connected with the other end of said flexible shaft, a bearing for said holder, a pair of parallel levers connected with said bearing and with said upright tube, a switch adapted to be engaged by one of said parallel levers to start the motor when said mixer is depressed and being adapted to be engaged by the other of said levers to stop the motor when said lever is elevated.

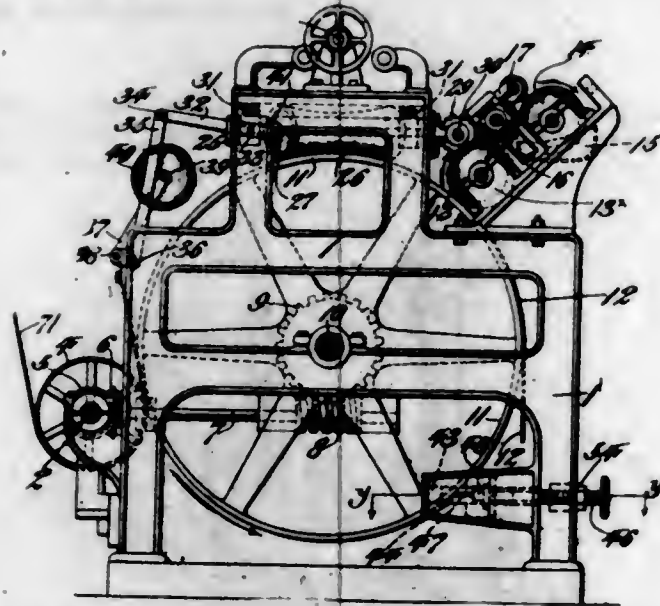
4. In a mixing device or the like, the combination of a fixedly mounted motor, a mixer movable into and out of a receptacle adapted to rest upon a fixed support, said mixer being adapted to remain in position within the receptacle when left alone, a flexible shaft connecting said motor and mixer for transmitting motion from said motor to said mixer, and means operated by the movement of said mixer into and out of position in the receptacle for putting said motor into and out of operation.

5. In a mixing device or the like, the combination of a fixedly mounted motor, a mixer movable into and out of a receptacle adapted to rest upon a fixed support, said mixer being adapted to remain in position within the receptacle when left alone, a flexible shaft connecting said motor and mixer for transmitting motion from said motor to said mixer, means operating independently of the receptacle for limiting the descent of said mixer into the

receptacle, and means operated by the movement of said mixer into and out of position in the receptacle for putting said motor into and out of operation.

[Claims 6 and 7 not printed in the Gazette.]

1,082,244. LEATHER-SEASONING MACHINE. CHARLES E. SLOCOMB, Wilmington, Del., assignor to F. F. Slocomb & Co., Incorporated, Wilmington, Del., a Corporation of Delaware. Filed Nov. 18, 1910. Serial No. 592,966. Renewed May 21, 1913. Serial No. 769,095. (Cl. 91-40.)



1. In a machine for treating leather, the combination of a supporting device for a hide or skin, with a device for rubbing a coating fluid into said skin, a device for applying a finishing treatment to said skin and means actuated by said rubbing devices for throwing the finishing devices into contact with said skin as the latter leaves the rubbing devices.

2. In a machine for treating leather, the combination of a finishing device for applying the final treatment to a hide or skin and means actuated by the movement of a previous operating device for automatically causing said finishing device to move out of contact with said hide or skin at a predetermined time.

3. In a machine for treating leather, the combination of a finishing device for applying the final treatment to a hide or skin and means operated by the movement of said skin for automatically causing said finishing device to move out of contact with said hide or skin according to requirements.

4. In a machine for treating leather, the combination of a concave roll adapted to co-act with a rotary cylinder to work a skin and a finishing device suitably connected to move to operative position by the movement of said roll.

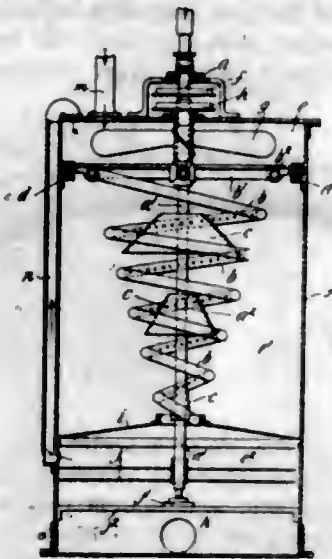
5. In a machine for treating leather, the combination of a plurality of concave rolls adapted to co-act with a rotary cylinder to work a skin with a finishing device suitably connected to move to operative position by the movement of said rolls and means to remove coating fluid from the periphery of said cylinder.

[Claims 6 to 11 not printed in the Gazette.]

1,082,245. APPARATUS FOR THE TREATMENT OF SMOKE FROM FURNACES AND THE LIKE. WILLIAM LLEWELYN THOMAS, Wheatley, England, assignor to The Smoke Eliminator Syndicate Limited, London, England. Filed Dec. 11, 1911. Serial No. 665,121. (Cl. 110-142.)

1. An apparatus of the class described, comprising a casing having a gas inlet, a main discharging chamber, and an intermediately located gas-collecting chamber, a by-pass connection providing communication between the said gas-collecting chamber and the gas inlet end of the casing, means for producing a continuous revolving spray

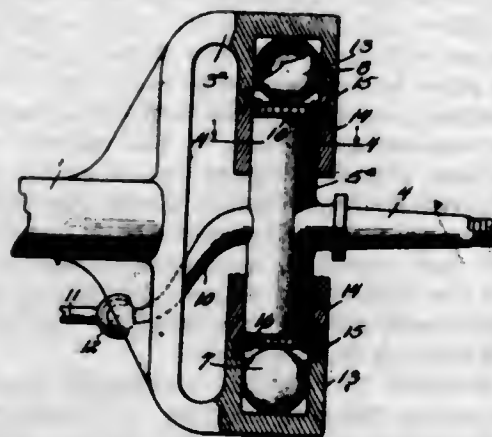
within the casing, and means for forcing the incoming gases through said spray.



2. A smoke consumer comprising a casing having a gas inlet, a main discharging chamber, and an intermediately located gas-collecting and retarding chamber, a water supply connection, a vertical hollow pipe shaft in communication with the water supply connection, a helical coil of perforated tubing rotatably mounted in the casing and in communication with the said hollow pipe shaft, baffles located in the coil, a by-pass connecting the collecting and retarding chamber and the top part of the casing, a fan loosely mounted on said vertical pipe shaft, and means on the fan and pipe shaft for operating them.

3. An apparatus of the class described, comprising a casing having a gas inlet at one end, a main discharging chamber at its opposite end, and an intermediately located gas-collecting and retarding chamber, a water supply connection, a hollow vertical pipe shaft journaled in the casing and in communication with the water supply connection, a convergent helical coil of perforated tubing carried by and in communication with the hollow pipe shaft, a fan loosely mounted on the pipe shaft within the gas-receiving end of the casing, conical baffles arranged inside of the said coil, perforated diaphragms secured to the said shaft above the main discharging chamber, a perforated plate fitted to the casing above the diaphragms and combining with the latter to form the said gas-collecting chamber, a by-pass connection providing communication between the said gas-collecting chamber and the gas-receiving end of the casing, and means for respectively rotating the shaft and the said fan.

1,082,246. AXLE FOR VEHICLE-WHEELS. HENRY M. TILESTON, Chicago, Ill.; John F. Devine administrator of said Tileston, deceased. Filed June 6, 1910. Serial No. 565,229. (Cl. 21-139.)



1. In a device of the class described, the combination with a vehicle yoke, of aligned bearing cups oppositely disposed, resilient bearing members in the cups, axial extensions for the cups, and an axle spindle formed on a slidable member mounted and slidable in the said extensions.

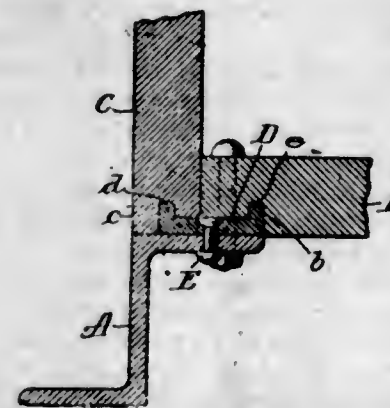
2. In a device of the class described, the combination with a vehicle yoke, of aligned bearing cups oppositely dis-

posed, resilient bearing members in the cups, removable axial extensions secured to the cups and a member slidable in said extensions and formed with an axle spindle laterally projecting therefrom between said extensions, said slidable member engaging the resilient members at both ends thereof.

3. In a device of the class described, the combination with a yoke formed with oppositely disposed and aligned bearing cups, extension shells removably secured to said cups, resilient bearing members in the cups, and a rotatable member slidably mounted in said shells and bearing upon said bearing members, said slidable member being formed with a laterally projecting axle and means to rotate the member in the shells.

4. In a device of the class described, the combination with a yoke formed with spaced bearing cups, extension shells removably secured to the cups, resilient bearing members in the cups, and a member rotatably mounted in the shells having bearing engagement with said bearing members and of a length less than the spaced distance of said cups.

1,082,247. CAR CONSTRUCTION. WILLIAM JAMES TOLLESTON, Chicago, Ill. Filed Jan. 20, 1913. Serial No. 742,986. (Cl. 105-192.)



1. A car comprising horizontally disposed floor strips, vertical walls consisting of sheathing strips one of which latter has a groove, and means possessing a tenon extending parallel to the adjacent side of the car and entering said groove and adapted to support the adjacent ends of the floor strips and unite the same and sheathing.

2. A car comprising horizontally disposed floor strips, and vertical walls consisting of sheathing strips both of which have grooves, and means possessing a plurality of tenons extending parallel to the adjacent side of the car and entering said groove for uniting said flooring and sheathing.

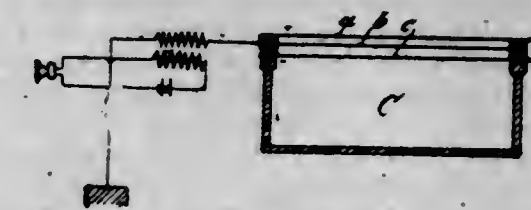
3. A car comprising horizontally disposed floor strips having transverse grooves in their undersides adjacent their ends, vertical walls consisting of sheathing strips the lower edge of the lower strip of which is provided with a longitudinal groove, and means possessing tenons one of which latter enters the transverse groove of said floor strips, and the other the longitudinal groove in the lower strip of the sheathing and unites said floor strips and sheathing.

4. A car comprising an underframe having marginal sills consisting of metal beams, floor-strips supported thereby, walls consisting of horizontally disposed sheathing strips also supported thereby the lower one of which has a groove in its lower edge, and means connected with said sills possessing a tenon that enters said groove, which means are adapted to support the adjacent ends of the floor strips and make a tight joint between the lower edge of said sheathing and said sill.

5. A car comprising an underframe having marginal sills consisting of metal beams, floor timbers supported thereby, vertical walls consisting of sheathing also supported thereby, and means connected with said sills including a plurality of tenons that respectively engage the lower edge of said sheathing and the ends of said timbers and unite the same and making a tight joint between the same and said sills.

[Claims 6 to 16 not printed in the Gazette.]

1,082,248. CONDENSER-TELEPHONE. JOSEF UETTER-HOLZNER, Zweibrücken, Germany. Filed Aug. 13, 1912. Serial No. 714,756. (Cl. 179-106.)



1. A telephone of the character specified, embodying therein an impermeate diaphragm, and a perforated electrically charged condenser member operatively associated therewith, substantially as described.

2. A telephone of the character specified, embodying therein an impermeate diaphragm, and a perforated electrically charged condenser member at each side thereof, substantially as described.

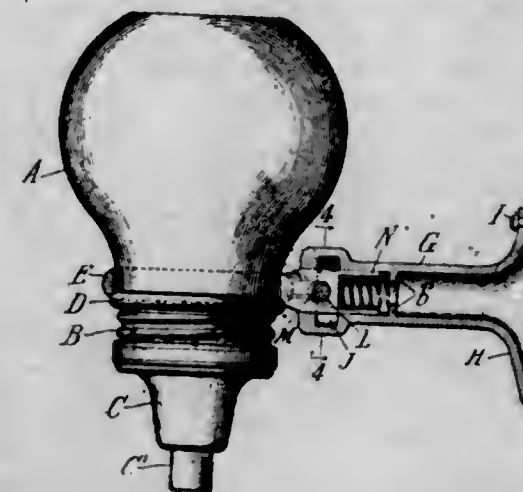
3. A telephone of the character specified, embodying therein a pair of spaced, oppositely electrically charged, perforated condenser members, and a diaphragm arranged between said members, substantially as described.

4. A telephone of the character specified, embodying therein a plurality of parallel diaphragms, a positively electrically charged perforated condenser member at one side of each diaphragm, and a negatively charged perforated condenser member at the opposite side of each diaphragm, substantially as described.

5. A telephone of the character specified, embodying therein a casing provided with an air space, a diaphragm carried by said casing, a microphone transformer connected with said diaphragm, and a perforated condenser member operatively associated with said diaphragm, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,249. LIQUID-SOAP FIXTURE. EARL G. WATROUS, Chicago, Ill. Filed July 22, 1910. Serial No. 573,192. (Cl. 221-94.)



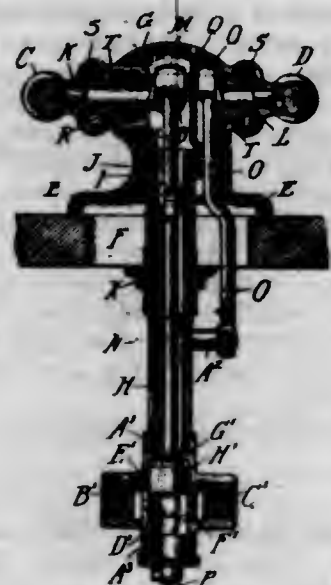
1. In a liquid-soap fixture, the combination with a soap-receptacle having an impermeate top and a discharge nozzle at its bottom and with the supporting arm G provided in its outer end with the annular chamber J having the locking groove M and the diametrically opposed apertures K K, of the ring E surrounding the receptacle A and having the arm F swiveled in the supporting arm G, the pin L passed through the arm F and cooperating with the groove M and a spring operating upon the arm to maintain the pin L in yielding engagement with the groove M; substantially as described.

2. In a liquid soap fixture, the combination with a soap receptacle composed of the body portion A having a filling and discharge opening at one end, of the supporting arm G provided at its outer end with the annular chamber J having the groove M and diametrically opposed apertures K K, the ring E surrounding the receptacle A and having a projecting arm F swiveled in the supporting arm G, the pin L passing through the arm F and cooperating with the groove M, and the spring N interposed

between the arm F and the supporting arm G and operating to yieldingly maintain the pin L in engagement with the groove M.

3. In a liquid soap fixture, the combination with a soap receptacle comprising the body portion A having a discharge opening at one end and surrounded by the bead D, of a supporting arm G provided in its outer end with the annular chamber J having the groove M and diametrically opposed apertures K K, the split ring E surrounding the receptacle A above the bead D and engaged at its lower edge with the latter and provided with the two-part supporting arm F swiveled in the outer end of the supporting arm G, the pin L passed through the arm F and coöperating with the groove M, and the spring N interposed between the arms F and G and operating to maintain the pin L in yielding engagement with the groove M.

1,082,250. LAVATORY-FIXTURE. EARL G. WATROUS, Chicago, Ill. Filed Aug 17, 1910. Serial No. 577,696. (Cl. 4—24.)



1. A lavatory fixture, comprising a casing having a delivery spout and provided upon its opposite sides with projecting circular bosses, a pair of cranks or eccentrics journaled in the opposite sides of the casing centrally of said bosses, operating handles applied to the outer ends of said cranks and provided with cup-shaped hubs encircling and fitting said bosses, and connections between the inner ends of the cranks, within the casing, and the valves which control the water supply and the waste, respectively; substantially as described.

2. A lavatory fixture, comprising a casing provided upon its opposite sides with projecting circular bosses and having its interior separated by a partition into two chambers, with one of which the water supply pipe is adapted to be connected and from which the delivery spout leads, a pair of cranks journaled in the opposite sides of the casing centrally of said circular bosses, connections with said cranks, within the respective chambers, for operating the valves for controlling the water supply and the waste, and handles applied to the outer ends of said cranks and provided with cup-shaped hubs encircling and fitting the circular bosses upon the opposite sides of the casing; substantially as described.

3. A lavatory fixture, comprising the hollow casing E G having the delivery spout B and internal partition Q and provided upon its opposite sides with the projecting circular bosses T T, the cranks K L journaled in bearings in the opposite sides of the casing centrally of said bosses, the operating handles C D applied to the outer ends of said cranks and provided with the cup-shaped hubs S S surrounding and fitting said bosses, and the links N and O hung upon the inner ends of the cranks, within the casing, and connected with the valves for controlling the water supply and waste respectively; substantially as described.

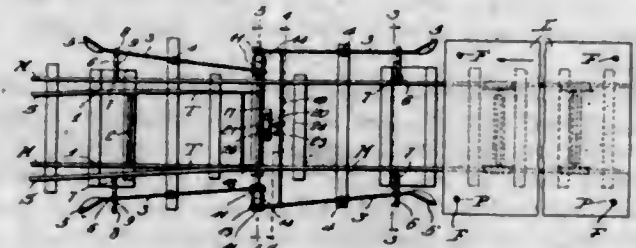
4. The combination, with a lavatory having a horizontal top or shelf portion in rear of the bowl and provided with an overflow opening and passage at the rear side of

the bowl, of a hollow casing secured upon such horizontal shelf portion and provided with a delivery spout projecting forwardly over the bowl, a pair of cranks or eccentrics journaled in bearings in the opposite sides of said casing, operating handles applied to the outer ends of said cranks, a water supply pipe communicating at its upper end with the interior of the casing and through the same with the delivery spout, a valve casing at the lower end of said pipe, a valve in said casing for controlling the supply of water, a waste plug or valve in the bottom of the lavatory bowl, a link hung upon the inner end of one of the cranks within the casing and connected through the water pipe with the valve for controlling the water supply, and a second link hung upon the other crank within the casing and connected through the overflow passage at the rear side of the bowl with the waste plug or valve in the bottom of the latter; substantially as described.

5. The combination, with a lavatory having an overflow opening and passage at the rear side of the bowl and provided with a horizontal top or shelf portion in rear of the bowl, of a casing secured upon such shelf portion over an opening therein and containing a water chamber and provided with a delivery spout communicating with said water chamber and projecting forwardly over the bowl, a pair of cranks or eccentrics journaled in bearings in the opposite sides of the casing, operating handles applied to the outer ends of said cranks, a water supply pipe extending through the opening in the lavatory shelf and communicating at its upper end with the water chamber of the casing, a valve casing at the lower end of said water pipe, a valve in said casing for controlling the water admitted through said casing to the pipe leading to the water chamber of the fixture above, a waste valve or plug in the bottom of the lavatory bowl for controlling the escape of water therefrom, a link hung upon one of the cranks in the water chamber of the casing and connected through the water pipe with the valve controlling the hot and cold water supply, and a second link hung upon the inner end of the other crank within the casing and connected through the overflow passage of the lavatory with the waste valve or plug in the bottom of the bowl; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,082,251. SWITCH. ALFRED J. WILSON, Evansville, Ind., assignor of one-third to Lee McAlpin and one-third to George R. Carroll. Filed Apr. 3, 1913. Serial No. 758,667. (Cl. 104—23.)



1. In a switch throwing mechanism, the combination with a pair of levers pivoted between their ends along the track and having upstanding guard plates at their outer ends adapted to be struck by plungers on the locomotive; of yokes at their inner ends, pins on the yoke-arms standing in alignment and projecting toward each other, a bar slidable beneath the track-rails and to which the switch-tongue is connected, and a box carried by each end of said bar and having cross slots in its upper and lower plates with which said pins are loosely engaged.

2. In a switch throwing mechanism, the combination with a pair of levers pivoted between their ends along the track and having upstanding guard plates at their outer ends adapted to be struck by plungers on the locomotive; of a bar slidable across the track and to which the switch tongues are connected, a plate carried by each end of said bar and having a cross slot, and pins at the inner ends of said levers respectively engaging said slots.

3. In a switch throwing mechanism, the combination with a pair of levers pivoted between their ends along the

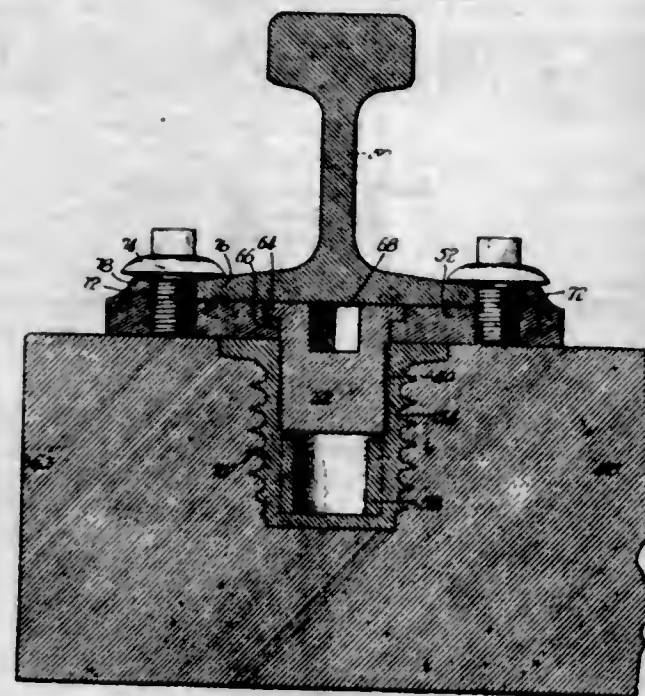
track and having upstanding guard plates at their outer ends adapted to be struck by plungers on the locomotive; of a bar slidable across the track and to which the switch tongues are connected, said bar having two notches between such tongues, connections between the inner ends of said levers and the outer ends of said bar, a sliding bolt mounted between the rails in position to engage one of said notches when the switch tongues are at either extreme position, a cross rod connecting said levers, and cams on said rod engaging said bolt, for the purpose set forth.

4. In a switch throwing mechanism, the combination with a pair of levers pivoted along the track and having upstanding guard plates adapted to be struck by plungers on the locomotive; of a bar slidable across the track and to which the switch tongues are connected, said bar having two notches between such tongues, connections between said levers and bar, a sliding bolt between the rails in position to engage one of said notches when the switch tongues are at either extreme position, a spring normally holding said bolt out of engagement with the notches, a cross rod connecting said levers, and cams on said rod engaging the rear end of said bolt when the levers are moved and projecting it in opposition to the tension of said spring.

5. In a switch throwing mechanism, the combination with a pair of levers pivoted along the track and having upstanding guard plates adapted to be struck by plungers on the locomotive; of a bar slidable across the track and to which the switch tongues are connected, said bar having two notches, connections between the levers and the bar, a sliding bolt in position to engage one notch when the switch-tongues are at either extreme position, a cross rod connecting said levers, a cam thereon for projecting said bolt when the levers are moved, a second pair of levers pivoted alongside the track and projecting in the opposite direction from said cross bar, and pin-and-slot connections between the inner ends of the levers of this pair and the bar.

[Claims 6 and 7 not printed in the Gazette.]

1,082,252. TIE AND TIE-PLATE SUPPORT. CLEMENS W. ACKERMANN and FRANK B. ACKERMANN, Chicago, Ill. Filed July 25, 1913. Serial No. 781,901. (Cl. 238—2.)



1. In a device of the class described, the combination of a tie, a rail to be attached thereto, a foundation member screw threaded into the tie, a tie plate under the rail and over the foundation member, detachable means for securing the tie plate to the foundation member, and means for securing the rail to the tie plate.

2. In a device of the class described, the combination of a tie, a rail to be attached thereto, a foundation member screw threaded into the tie, a tie plate under the rail and over the foundation member, screw means for securing

the tie plate to the foundation member, and means for securing the rail to the tie plate.

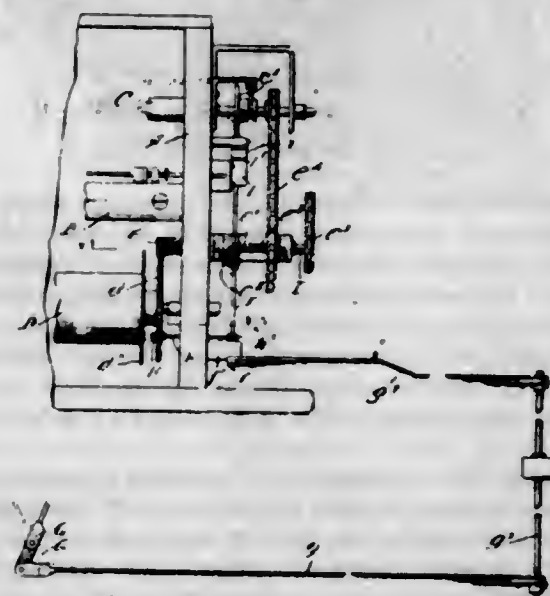
3. In a device of the class described, the combination of a tie, a metallic foundation member inserted in the tie, a tie plate over the tie and foundation member, detachable means for securing the tie plate to the foundation member, a rail resting upon the tie plate and means for securing the rail to the tie plate independently of the tie.

4. In a device of the class described, the combination of a tie, a metallic foundation member inserted in the tie, a tie plate over the tie and foundation member, screw threaded means for securing the tie plate to the foundation member, a rail resting upon the tie plate, and means for securing the rail to the tie plate independently of the tie.

5. In a device of the class described, in combination with a tie, a metallic foundation member screw threaded into the tie, a tie plate over the tie and foundation member, a screw securing the tie plate to the foundation member, a rail and means independent of the tie for securing the rail to the tie plate.

[Claims 6 and 7 not printed in the Gazette.]

1,082,253. REWIND MECHANISM. ALFRED ANDERSON, Chicago, Ill., assignor to Concord Company, Chicago, Ill., a Corporation of Maine. Filed June 11, 1910. Serial No. 566,285. (Cl. 84—166.)

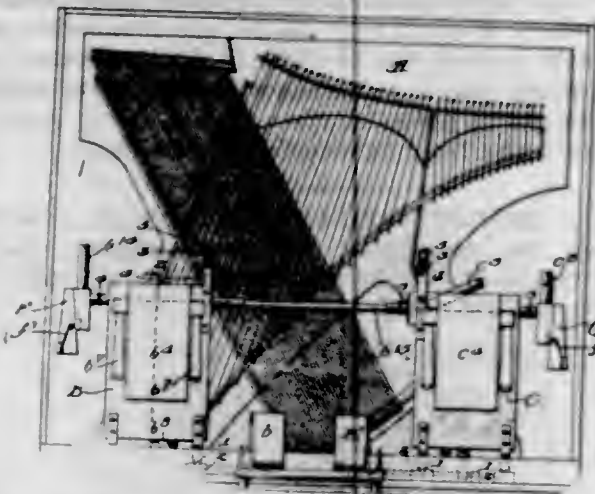


1. In a player mechanism, a vertical support, a tracker bar, a roll spindle above the tracker bar, extending through said support, a drive shaft below the tracker bar, extending through the said support, a take-up roll below said driving shaft, a gear wheel for said roll disposed inside of said support, a pinion on the end of said shaft, engaging said gear wheel, a power transmitting connection between said shaft and spindle, loose on the shaft, a clutch for controlling said connection, fixed on the shaft, a vertical rock shaft, a hand lever connected for operating said rock shaft, means on said rock shaft for operating said clutch, serving also to shift the shaft endwise to disengage said pinion from said gear wheel, by moving the pinion toward said support, a brake for the said spindle, operated by said rock shaft, a flange for said roll, a brake for said flange, a rod extending through said support to operate said last mentioned brake, and means for connecting said rod with said rock shaft.

2. In a player mechanism, a vertical support, a tracker bar, a roll spindle above the tracker bar, extending through said support, a drive shaft below the tracker bar, extending through the said support, a take-up roll below said driving shaft, a gear wheel on one end of said roll, disposed inside of said support, a pinion on the end of said shaft, engaging said gear wheel, a power transmitting connection between said shaft and spindle, loose on the shaft, a clutch for controlling said connection, fixed on the shaft, a vertical rock shaft, a hand lever connected for operating said rock shaft, means on said rock shaft for operating said clutch, serving also to shift the shaft endwise to disengage said pinion from said gear wheel, by moving the pinion toward said support, a cam on the

upper end of said rock shaft, a brake provided with means for engaging the under side of said cam, when said shaft is rocked, means on said spindle for engaging the top of said brake, a spring acting on the bottom of said brake, a brake for said roll, disposed inside of said support, a crank arm on the lower end of said rock shaft, means engaging said crank arm to support the said rock shaft, and means for connecting said arm with said last mentioned brake.

1,082,254. PLAYER-PUMPING APPARATUS. ALFRED ANDERSON, Chicago, Ill., assignor to Concord Company, Chicago, Ill., a Corporation of Maine. Filed June 20, 1910. Serial No. 567,756. (Cl. 84-167.)



1. A player-piano comprising an upright string-plate, and a pumping apparatus supported in front of said string-plate, which apparatus comprises two upright bellows which are each independently removable, and which are spaced apart and thereby affording access everywhere between them to the said string-plate, an air connection between said bellows, and means independent of said connection for fastening the upper ends of said bellows in place.

2. A player-piano comprising a pumping apparatus comprising two upright bellows which are each independently removable and which are spaced apart to afford access everywhere between them to other parts of the instrument, and means for separately operating said bellows, permitting removal of said bellows alone.

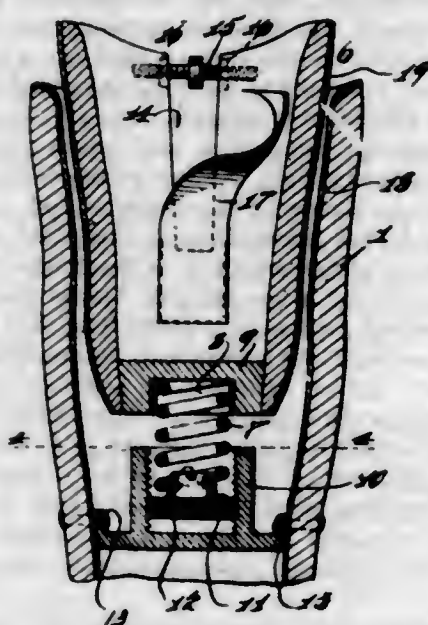
3. A player-piano comprising a string-plate, and a pumping apparatus disposed in front of said string-plate, said apparatus comprising two upright bellows which are each independently removable, and which are spaced apart to afford access everywhere between them to the said string-plate, pedals for operating each bellows independently of the other, and an air connection between said bellows whereby the air is drawn from one bellows into the other, which connection is the sole element of said pumping apparatus between said bellows, and means independent of said connection for fastening the upper ends of said bellows in place.

4. A player pumping apparatus comprising a bellows structure, a pipe leading therefrom for connection with the action of the player, a main expansible reservoir for said bellows, an auxiliary expansible reservoir for said pipe, whereby all air entering the bellows is subject to the action of the auxiliary reservoir, and a valve between the main reservoir and auxiliary reservoir, said valve being within the said structure.

5. A player pumping apparatus comprising a pair of bellows, a connection between said bellows, whereby the air is drawn from either one into the other, a pipe leading from each bellows for connection with the action of the player, a main expansible reservoir for each bellows, an auxiliary expansible reservoir between each main reservoir and the action, whereby all air entering the bellows is subject to the action of said auxiliary bellows, a rewind valve for each bellows, and a rewind air connection leading to a point between said valves.

[Claims 6 to 10 not printed in the Gazette.]

1,082,255. ARTIFICIAL LEG. JOHN T. APOAR, New York, N. Y. Filed Dec. 30, 1912. Serial No. 739,238. (Cl. 3-3.)



1. The combination of an artificial leg-member, a stump socket carried thereby and normally free from the sides of the leg, a support carried by said leg-member, a spring interposed between said support and said stump socket, said spring being located centrally of the base of the stump socket and said support, and means to regulate the tension of said spring.

2. The combination of an artificial leg-member, a stump socket carried thereby, a threaded support carried by said leg member, a threaded block engaging the threads of the said support, a spring carried by said threaded block, said spring bearing against the lower end of the stump socket and located centrally thereof.

3. In combination with an ankle-block and a foot-portion movably secured thereto, a threaded tube screwed into said ankle-block, means for locking said threaded tube, and a spring carried by said tube, said foot-portion being provided with a socket adapted to receive the lower end of said spring.

1,082,256. ARTIFICIAL LEG. JOHN T. APOAR, New York, N. Y. Filed May 15, 1913. Serial No. 767,788. (Cl. 3-3.)



1. An artificial leg comprising a corset, a bracket, braces adjustably secured to said bracket and secured to said corset, and a support secured to said bracket.

2. An artificial leg consisting of a corset, a bracket provided with grooves, a plate carried by said bracket,

braces slidably secured in said grooves and secured to said corset, and a support for said leg.

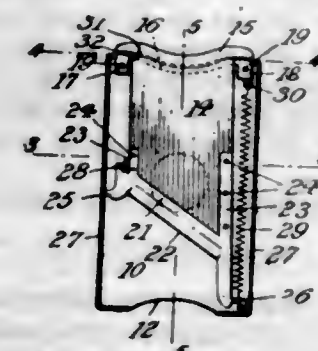
3. In combination with an artificial leg, a foldable support therefor comprising hinged rods, and a resilient locking device for said support located at the joint thereof.

4. In combination with an artificial leg, a foldable support, and a lock adapted to hold said support in an extended position, said lock comprising a spring, one end of which is secured to one member of said support, the free end of said spring bearing against the other member of said support.

5. An artificial leg consisting of a corset, a bracket provided with grooves, a plate carried by said bracket, braces slidably secured in said grooves and secured to said corset, and a support for said leg, one end of said support being provided with threads adapted to be screwed into said bracket.

[Claims 6 and 7 not printed in the Gazette.]

1,082,257. CIGAR-CUTTER. JOHN H. ASTRUCK, New York, N. Y. Filed Nov. 18, 1912. Serial No. 731,916. (Cl. 131-37.)

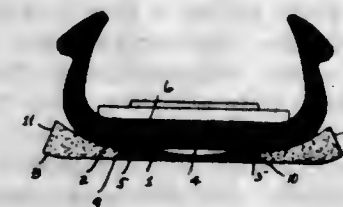


1. A cigar cutter comprising a pair of side plates, a cover fitted between said side plates and provided with a recess extending along one of said plates to form an oblong opening therebetween, means for movably securing the cover to the side plates, and a reciprocable cutting blade normally located between the side plates and adapted to engage the oblong opening.

2. A cigar cutter comprising a pair of side plates, a recessed cover fitted between said plates and having a pair of depending apertured lugs, pins passing through said side plates and lugs and adapted to detachably secure the cover to the side plates, and a reciprocable cutting blade engaging said cover.

3. A cigar cutter, comprising a casing, a recessed cover removably secured thereto, a manually operable slide received within the cover-recess, a shoe having an oblique cutting edge and a pair of parallel shanks that are riveted to the slide, a pair of guides on the shoe that engage opposed casing-walls, and a stop on the shoe adapted to abut against the cover.

1,082,258. VULCANIZING DEVICE. JAMES E. BANCROFT, Toledo, Ohio, assignor to Toledo Computing Scale Company, Newark, N. J., a Corporation of New Jersey. Filed July 5, 1910. Serial No. 570,317. (Cl. 18-18.)



1. A vulcanizing pad comprising a patch plate, a dished rim projecting from said plate and a pliable body around said patch plate and rim.

2. A vulcanizing pad, comprising a patch plate having a cavity to receive the material for a patch and having an overhanging rim, and a pliable fabric around said patch plate.

197 O. G.—59

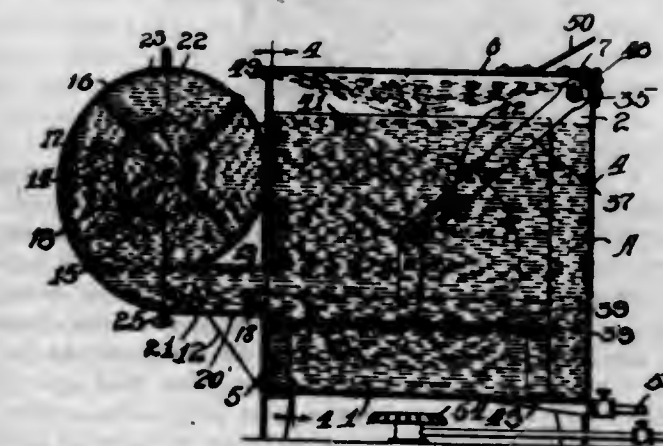
3. A vulcanizing pad, comprising a patch plate having a cavity to receive the material for a patch and having an overhanging rim of metal yieldable under pressure, and a pad body of absorbent fabric.

4. A vulcanizer pad, comprising a pad body of an absorbent fabric, a plate located centrally to the pad having a top indentation adapted to receive the material for a patch and having a projecting rim yielding to the tire, or tube pressed thereon.

5. A vulcanizer pad, comprising a pad body of a material or substance adapted to diffuse vapors of water delivered thereto, and a heating plate having a flexible up-turned rim yielding to clamping pressure.

[Claims 6 to 10 not printed in the Gazette.]

1,082,259. DISH-WASHING MACHINE. JOHN BAUMILLER and ROBERT J. BARR, Jr., Chicago, Ill. Filed Dec. 5, 1912. Serial No. 735,021. (Cl. 141-9.)



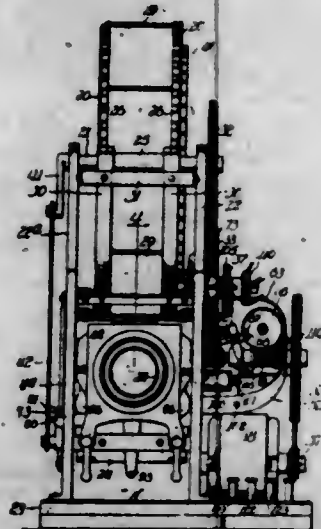
1. In a device of the class described a receptacle comprising bottom, side and end walls, relatively short intermediate walls secured to said bottom wall and spaced away from said side walls to afford a passage at each side of the same, a casing connected to said receptacle and provided with openings which communicate with said passages at the sides of the receptacle, means affording a passage between the intermediate walls, which communicates with the receptacle and casing, and means within said casing for drawing a portion of a liquid content from the receptacle through the side passages and into the casing and then forcing the same back into the receptacle through the passage between said intermediate walls.

2. In a device of the class described a receptacle comprising bottom, side and end walls, and relatively short intermediate walls spaced away from said side walls affording a passage on each side of the receptacle, a casing connected with said receptacle comprising a rigid and a hinged section of constant radius for approximately 270 degrees of its circumference, means affording a passage between the lower portion of said casing and the receptacle, and a pump journaled in said casing, adapted to draw the liquid content of the receptacle through the passages afforded by the intermediate walls and return the same under pressure through the passage afforded between the casing and the receptacle.

3. In a device of the class described a receptacle, means affording a passage on each side of the same, a casing secured to one end of the receptacle provided with openings in its ends adapted to permit the inlet of a liquid content from said passages, means affording a passage between the casing and the receptacle at a point slightly below the center of the receptacle, and rotatable means within the casing adapted to draw the liquid into the casing from said side passages and force the same therefrom under pressure through the passage between the casing and the receptacle.

4. In a device of the class described a receptacle comprising bottom, side and end walls, relatively intermediate walls secured to said bottom walls and spaced from said side walls to afford a passage at each side of the receptacle, and a pump adapted to draw a portion of the liquid content from the receptacle through the side passages and then force the same back into the receptacle between said intermediate walls.

1,082,260. PICTURE-EXHIBITING MACHINE. CHARLES A. BRAUN, Chicago, Ill., assignor, by mesne assignments, to The American Automatic Advertising Co. Filed Oct. 20, 1910. Serial No. 588,054. (Cl. 88—27.)



1. In a picture exhibiting machine, a slide-supporting drum having a plurality of slide-receiving guides therein, a slide carrier, a crank connected with said slide carrier so as to impart a linear movement thereto toward and away from said drum, said carrier and said crank being connected so that said crank reaches one of its dead centers when said crank is adjacent said drum, means for normally holding said drum in such position that one of said guides is in operative relation with said slide carrier, and means for moving said drum to bring another of said guides into operative relation with said slide carrier, such movement occurring during that part of the movement of said slide carrier in which said slide carrier is adjacent said drum.

2. In a picture exhibiting machine, a slide-supporting drum having a plurality of slide-receiving guides therein, a slide carrier adapted to be moved toward and away from said drum, a guide for said slide carrier, a shaft passing axially through said drum, a crank connection between said shaft and said slide carrier, whereby the rotation of said shaft will cause a movement of said slide carrier toward and away from said drum, said crank connection being such that the crank reaches one of its dead centers when said slide carrier is adjacent said drum, means for normally holding said drum in such position that one of its guides is in operative relation with said slide carrier, and means for moving said drum to bring another of its guides into operative relation with said slide carrier, such movement occurring during that part of the movement of said slide carrier in which said slide carrier is adjacent said drum.

3. In a picture exhibiting machine, a driving member, a slide supporting drum having a plurality of slide receiving guides therein, a slide carrier adapted to be moved toward and away from said drum, mechanism, operatively connected with said driving member for gradually moving said slide carrier from an exposing position toward said drum, and subsequently by the continued action of said driving member and the same mechanism away from said drum back to exposing position, such mechanism being so arranged as to allow said slide carrier to dwell during the part of its movement when it is adjacent said drum, means for normally holding said drum in such position that one of said guides is in operative relation with said slide carrier, and means, connected with said driving member, for moving said drum to bring another of said guides into operative relation with said slide carrier, such movement occurring during that part of the movement of said slide carrier in which said slide carrier is adjacent said drum.

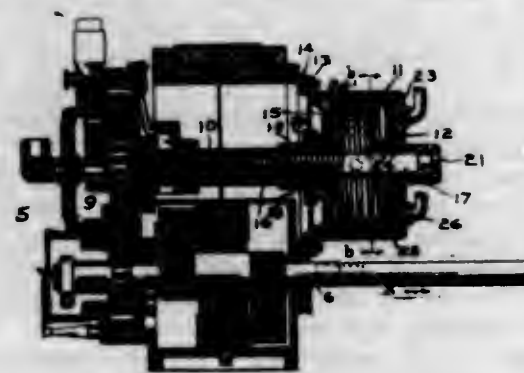
4. In a picture exhibiting machine, a driving member, a slide supporting drum having a plurality of slide receiving guides therein, a slide carrier adapted to be moved toward and away from said drum, mechanism operatively connected with said driving member for gradually mov-

ing said slide carrier from an exposing position toward said drum, and subsequently by the continued action of said driving member and the same mechanism away from said drum back to exposing position, such mechanism being so arranged as to allow said slide carrier to dwell during the part of its movement, means for normally holding said drum in such position that one of said guides is in operative relation with said slide carrier, means, connected with said driving member, for moving said drum to bring another of said guides into operative relation with said slide carrier, such movement occurring during that part of the movement of said slide carrier in which said slide carrier is adjacent said drum, and a device for intermittently operating said driving member.

5. In a picture exhibiting machine, a driving member, a drum supported to rotate on a horizontal axis, a slide carrier adapted to be moved toward and away from said drum, a shaft passing axially through said drum, a crank connection between said shaft and said slide carrier, whereby rotation of said shaft effects a movement of said slide carrier toward and away from said drum, said crank connection being such that the crank reaches one of its dead centers when said slide carrier is adjacent said drum, means for normally holding said drum in such position that one of said guides is in operative relation with said slide carrier, and means connected with said driving device for moving said drum for bringing another of said guides into operative relation with said slide carrier, such movement occurring during that part of the movement of said slide carrier in which said slide carrier is adjacent said drum.

[Claims 6 to 13 not printed in the Gazette.]

1,082,261. STARTER FOR EXPLOSIVE-ENGINES. MARTIN C. BRIGHT, Indianapolis, Ind., assignor of one-half to Samuel M. Brundage, Indianapolis, Ind. Filed Jan. 25, 1912. Serial No. 673,402. (Cl. 123—180.)



1. An explosive engine having a plurality of cylinders, a crank-shaft driven therefrom, a magneto-generator driven from the crank-shaft and timed with the cycle of the engine to properly deliver a spark to ignite hydro-carbon charges therein, a second shaft driven from and timed with the magneto, a chamber holding a hydro-carbon mixture under pressure, said second shaft entering said chamber, said chamber having as many discharge ports as there are engine cylinders, arranged around the second shaft, conduits from the discharge ports to the respective cylinders, a valve-plate mounted on the second shaft and contacting with the chamber-wall having the discharge ports, said valve-plate having a port to successively register with those in the chamber-wall and also having a curved channel in the contacting side from its port to increase the opening time with the ports in the chamber-wall.

2. In an explosive engine having a plurality of cylinders, a crank-shaft driven therefrom, a magneto-generator driven from the crank-shaft and having a distributor to distribute an interrupted electric current to the respective cylinders in proper sequence to fire the hydro-carbon charges in the latter, a rotating distributor-shaft, a chamber holding a hydro-carbon mixture under pressure, into which said chamber an extension of the distributor-shaft terminates, said chamber having as many discharge ports as there are engine cylinders, arranged around the dis-

tributer-shaft extension, conduits from the port openings to the respective cylinders, and a valve-plate mounted on said distributor-shaft and contacting with the chamber-wall having said discharge ports, said valve-plate having a port to successively register with the ports in the chamber-wall, and also having a curved channel to increase the opening time between the port of the valve and the successive ports of the chamber-wall.

3. An explosive engine having a plurality of cylinders, a crank-shaft driven therefrom, a magneto-generator driven from the crank-shaft and having an electric current interrupter and distributor, a rotating distributor shaft, a chamber within which said distributor shaft terminates, a wall of said chamber having as many port holes as there are engine cylinders, arranged in a circle concentric with the said distributor shaft, conduits connecting the port holes with the respective cylinders, a valve-plate mounted on the distributor shaft and contacting with the chamber-wall having ports, said valve-plate having a single port to successively register with the ports of the chamber-wall and terminating in a channel in the inner wall of the valve-plate to increase the time of port opening, means to adjust the valve-plate to advance or retard the registration of its port with the ports of the chamber-wall, and means for supplying an explosive mixture to the chamber under pressure.

4. An explosive engine having a plurality of cylinders, a crank-shaft driven therefrom, a magneto-generator having a distributor-shaft and a distributor, a chamber containing an explosive mixture under pressure, a wall of the chamber having as many port holes as there are engine cylinders, pipes connecting the port holes with the respective cylinders, an extension from the distributor shaft entering the said chamber, a valve-plate mounted on the shaft-extension to rotate with the latter but having longitudinal adjustment thereon and having a single port hole to register successively with the port holes in the chamber-wall, means for holding the valve-plate elastically in contact with the chamber-wall having said ports, and means for making a rotary adjustment between the distributor shaft and the shaft-extension therefrom.

1,082,262. TYPE-WRITING MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Filed Oct. 3, 1903. Serial No. 175,575. (Cl. 197—39.)



1. The combination of a type bar hanger, a type-bar, one of said type bar and type bar hanger members having an interiorly grooved eye and the other of said members being cleft or bifurcated and embracing said eye, an exteriorly grooved hub within said eye, and a series of bearing balls in the race formed by said grooves, one wall of said race being formed by an adjustable plate separate from the body of either of said members.

2. The combination of a type-bar hanger, a type-bar, one of said type bar and type bar hanger members having an eye, said eye being in the median plane of the type

bar, a hub within said eye, a support for securing said hub upon the other of said members, a ball-race intermediate said eye and hub, and anti-friction balls in said race, one wall of said ball race being formed by a separable plate adjustably mounted on one of said parts against the balls for holding said balls within said race and for compensating for any wear or undue looseness that may take place between the balls and the bearings therefor.

3. The combination of a type-bar hanger, a type-bar, one of said type bar and hanger members having an eye and the other of said members being cleft or bifurcated to embrace said eye, a hub arranged within said eye, a ball-race and balls intermediate said eye and hub, and a pin or support extending between the arms of said cleft or bifurcated member and uniting said arms to said hub, a wall of said ball-race being formed by an adjustable plate, said plate being arranged between the arms of the bifurcated member.

4. The combination of a type-bar provided at its inner end with a ball chamber, balls within said chamber, bearing plates having peripheral surfaces to engage said balls, a type bar hanger having arms between which said bearing plates and said type bars are mounted, and a pin extending through the arms of said hanger and through said bearing plates.

5. The combination with a bifurcated hanger, of a type bar provided at its inner end with an eye or circular ball chamber, balls within said chamber, bearing plates for retaining said balls within the chamber, a supporting member which extends between the arm of the hanger and means for relatively adjusting said bearing plates in parallel planes along said supporting member.

[Claims 6 to 13 not printed in the Gazette.]

1,082,263. HOLE-DIGGING IMPLEMENT. ANDREW J. CRAVEN, Spruce Pine, Ala. Filed May 28, 1913. Serial No. 770,458. (Cl. 37—30.)



1. An implement of the character described comprising a rigid metal frame, a pair of depending shovels hinged to said frame and weighted to swing normally to vertical position, arms connected to said shovels, a cable suspension connected to said arms and adapted to swing the bottom ends of the shovels together, and means carried by the cable and adapted to connect to the frame-work of the implement and relieve the shovels of the pull of the cable until after the implement has struck the ground.

2. In an implement of the character described, a frame comprising a vertical shank, a pair of reversely disposed shovels pivoted to said frame and having arms projecting upwardly and beyond their pivot points, weights acting on said arms to swing the shovels to open position, means

to arrest the opening movement of the shovels when they hang in vertical position, means to connect said arms to a cable so that the up pull of the cable will swing the shovels together, and a hook carried by the cable and adapted to engage and suspend said shank directly from the cable as the implement is dropped, said hook being connected to the cable at a point which will take the pull of the cable off the shovels, and being adapted to automatically disengage itself from the shank when the implement strikes the ground and the pull on the cable relaxes.

3. In an implement of the character described, a shank having a cross piece at its lower end and a cable guide at its upper end, a cable adapted to pass through said guide, a movable weight on the shank to which the cable is connected, shovels pivoted to said cross piece, pivotally connected arms which connect the weight and shovels and are arranged so that the weight acts to open the shovels, a seat on said shank for the weight which arrests its down travel when the shovels hang vertically, and a hook member connected to the cable and adapted to be connected with the shank and support the implement with the weight resting on its seat, said hook member being adapted to automatically disengage itself from the shank when the pull on the cable is relaxed, substantially as described.

4. In an implement of the character described, a shank having a cross piece at its bottom and an inclined eye at its top, a cable adapted to pass down through said eye, a hook connected to the cable and adapted to engage the eye for lowering the implement and being adapted to automatically disengage itself from the eye when the pull on the cable is relaxed, hinged weight controlled shovels mounted on the cross piece of the shank, and means connecting the shovels to the cable, which means will close the shovels together when the pull of the cable is applied thereto, substantially as described.

5. In an implement of the character described, a shank member having a goose neck at its upper end carrying a cable receiving eye, a pair of shovels hinged to the lower end of the shank and having cross upwardly inclined arms, reversely crossed links connected to said arms at their lower ends, a weight movable on said shank and connected to the upper ends of said arms, a seat on said shank for the weight, means to connect the cable to the weight, and a hook member on the cable adapted to be passed through and engage said eye and support the implement on the cable with its weight in its lower position, said hook being adapted to automatically disengage itself from the eye when the pull of the cable thereon is released and to pass up through the eye transferring the pull of the cable to said weight, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

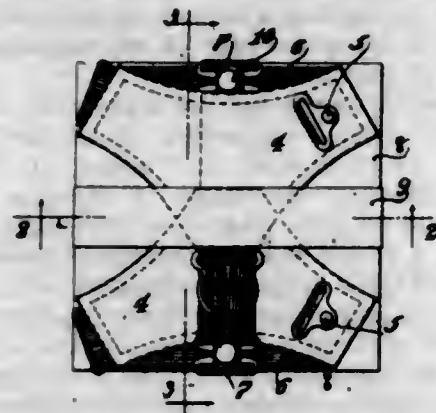
1,082,264. GARTER FABRIC. FRANK A. FREEMAN, Overbrook, Pa. Filed Jan. 15, 1909. Serial No. 472,409. (Cl. 139-72.)



1. A rubberless woven fabric for men's garters comprising a plurality of loosely woven layers partially detached from each other to permit of relative movement therebetween, one layer having a series of floated strands and another layer having a longitudinally extending open weave portion.

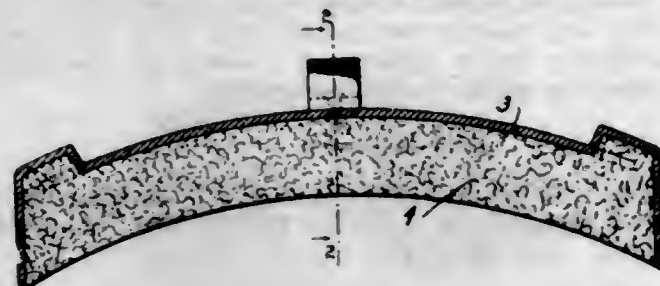
2. A rubberless woven fabric for men's garters, comprising a plurality of loosely woven layers partially detached from each other, the under layer having a layer of longitudinally extending floated strands and the upper layer having a longitudinally extending open weave portion.

1,082,265. GARTER-PACKAGE. FRANK A. FREEMAN, Overbrook, Pa., assignor to Pioneer Suspender Company, a Corporation of Pennsylvania. Filed Mar. 24, 1911. Serial No. 616,614. (Cl. 208-46.)



A package comprising a substantially square card, a pair of pad garters, each having the leg band folded back of the pad, the garters so assembled that the clasp end of one pad superimposes the clasp end of the other, the button of one clasp projecting approximate the curved top of the other pad, the said curved tops of the pads lying along the opposite parallel margins of the card, and a retaining band secured around the card and garters midway said opposite parallel margins.

1,082,266. COMPOSITION-FILLED BRAKE-SHOE. JOSEPH D. GALLAGHER, Glen Ridge, N. J., and HARRY JONES, Suffern, N. Y., assignors, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed July 2, 1912. Serial No. 707,249. (Cl. 188-27.)



1. A brake shoe comprising a shell made from metal possessing the characteristics of being tough and strong while cold, and extremely brittle when heated, so that said shell will rapidly disintegrate while in service, and a filler contained within said shell.

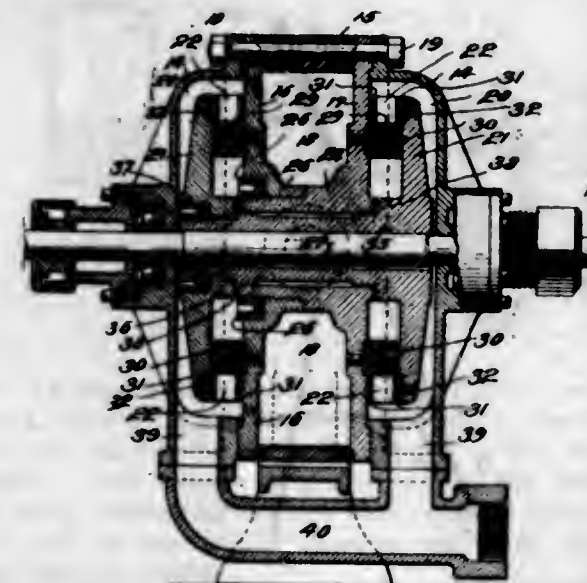
2. A brake shoe comprising a composition wearing body, and a shell containing said body, said shell being made from material possessing the characteristics of being tough and strong while cold, and extremely brittle when heated, and which said shell will therefore rapidly disintegrate while the shoe is in service.

3. A brake shoe comprising a composition wearing body, and a shell containing said body, said shell being made from an alloy of metal containing manganese, whereby said shell when cold will be tough and strong, and extremely brittle when heated, and which will therefore rapidly disintegrate while the shoe is in service.

1,082,267. TURBINE. JOHN A. GROSHON, New York, N. Y. Filed May 7, 1912. Serial No. 695,618. (Cl. 121-58.)

1. A turbine engine comprising partition plates forming between their facing sides a steam-chamber and having at their outer sides concentric laterally projecting rings and being formed with steam-ports extending from said chamber into said rings and thence outwardly through peripheral portions of said rings, disk-chambers at the outer sides of said plates provided with exhaust outlets for steam, a shaft to be driven extending transversely of said chambers, and disks on said shaft in said disk-chambers

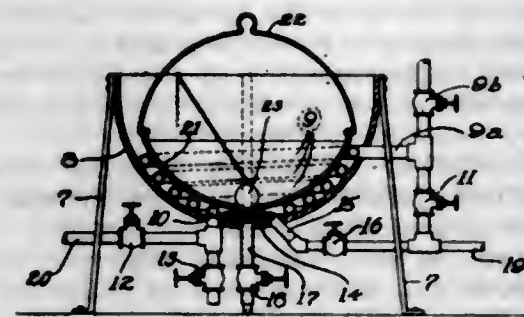
having on their inner faces laterally projecting rings of vanes extending over said rings on said partition plates to be acted on by the steam which passes through said ports, for rotating said disks and shaft.



2. A turbine engine comprising partition plates forming between their facing sides a steam-chamber and having at their outer sides concentric laterally projecting rings and being formed with steam-ports extending from said chamber into said rings and thence outwardly through peripheral portions of said rings, disk-chambers at the outer sides of said plates provided with exhaust outlets for steam, a shaft to be driven extending transversely of said chambers, and disks on said shaft in said disk-chambers having on their inner faces laterally projecting rings of vanes extending over said rings on said partition plates to be acted on by the steam which passes through said ports, for rotating said disks and shaft, the spaces between said vanes being closed at opposite vertical edges and open at their other opposite edges, and said vanes having bucket portions to receive the impact of the steam-jets issuing from said ports and reversely extended outer portions.

3. A turbine engine comprising partition plates forming between them a steam-chamber and having concentric series of steam-ports extending therethrough and laterally projected hub portions one upon the other, the hub of one plate extending through and receiving the hub of the other plate and being threaded to receive a ring-nut adapted to an annular recess in said other plate, disk-chambers at the outer sides of said plates provided with exhaust outlets for steam, a shaft to be driven extending transversely of said chambers, and disks on said shaft in said disk-chambers having along their peripheral portions vanes to be acted on by the steam which enters said ports, said disks having hub portions mounted one upon the other, the hub of one disk being secured to said shaft and extending through the other disk and the hub portion thereof and threaded at its outer end to receive a ring-nut adapted to an annular recess in said other disk.

1,082,268. APPARATUS FOR COOKING AND COOLING SYRUPS FOR CANDY. NICHOLAS HOLMAN, Chicago, Ill. Filed Apr. 13, 1912. Serial No. 690,485. (Cl. 127-4.)

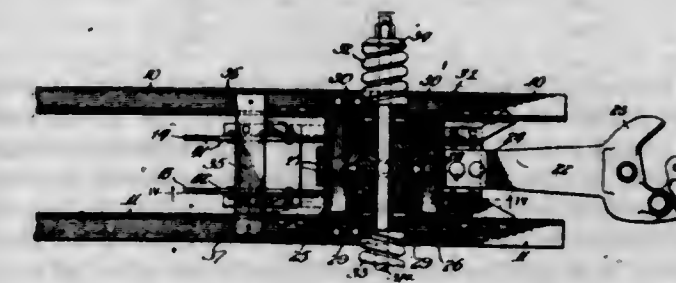


1. A cooking device of the kind described, consisting of a kettle adapted to contain liquids and solids to be cooked,

means adapted to project jets of steam into the contents of said kettle whereby said contents is amalgamated, means in said kettle adapted for the passage of steam whereby the amalgamated contents is heated and cooked, means for substituting water for steam whereby the contents of said kettle is cooled, a vessel insertible in said kettle, said vessel having an aperture in the bottom and means for opening and closing said aperture whereby part of the contents of said kettle is admitted to and from said vessel whereby the said contents is uniformly and rapidly cooled, and means for drawing the cooled contents from said kettle, as described.

2. A cooking apparatus, including a kettle adapted to contain the substance to be cooked, a coiled pipe arranged in said kettle adjacent the bottom thereof, means for introducing steam in said pipe for cooking the substance in the kettle, and means for introducing water in said pipe for cooling the substance; and a vessel insertible in said kettle, said vessel having an aperture in its bottom and means for opening and closing the opening, whereby part of the contents of said kettle is admitted to and from said vessel whereby the said contents is uniformly and rapidly cooled, and means for drawing the cooled contents from said kettle.

1,082,269. TANK-CAR CONSTRUCTION. JOHN A. JACKSON, Chicago, Ill. Filed Jan. 20, 1911. Serial No. 603,721. (Cl. 105-264.)



1. In a car construction, in combination, a framing, a body slidably movable relatively to the framing, a plurality of yielding resistances one carried by the framing at each end thereof, and means carried by the body and engaging said yielding resistances, each of said yielding resistances and said engaging means being adapted for restraining both forward and rearward movement of said body.

2. In a car construction, in combination, a framing, a body slidably supported by the framing, a yielding resistance at each end of the framing interposed between the body and the framing, and engaging means between the body and the yielding resistance, each of said yielding resistances and said engaging means being adapted for restraining both forward and rearward movement of said body.

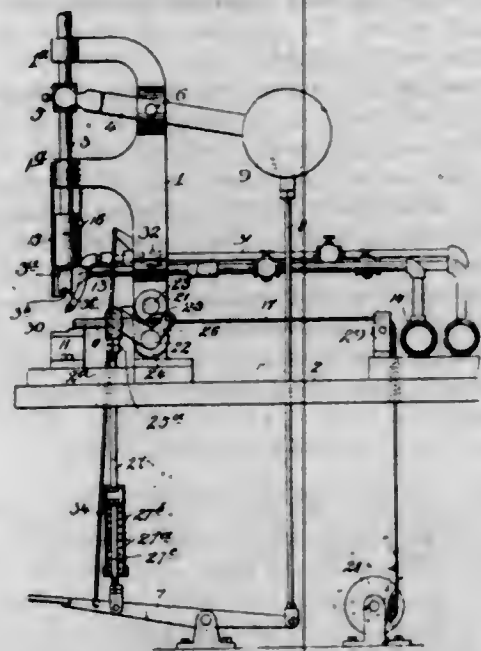
3. In a car construction, in combination with a framing, a body supported by the framing, and a draft gear rigging comprising a yoke, front and rear followers carried by said yoke, and a yielding resistant device interposed between said followers, of means carried by said body and engaging said followers, whereby shocks sustained by said body are absorbed by said yielding resistant device.

4. In a car construction, in combination with a framing, a body supported by the framing, and a draft gear rigging comprising a yoke, front and rear followers carried by said yoke, and a yielding resistant device interposed between said followers, of a pair of oppositely disposed plates bifurcated for engagement with said followers, whereby shocks sustained by said body are absorbed by said yielding resistant device.

5. In a car construction, in combination with a framing, a body supported by the framing, and a draft gear rigging comprising a yoke, front and rear followers carried by said yoke, and a yielding resistant device interposed between said followers, of a pair of oppositely disposed plates carried by the body and bifurcated for engagement with said followers, and means for connecting said plates, whereby shocks sustained by said

body are absorbed by said yielding resistant device and said body is restrained from vertical movement relatively to said draft gear rigging.

1,082,270. SOLDERING-MACHINE. MORRIS KARP, Passaic, N. J., assignor to Passaic Metal Ware Company, Passaic, N. J., a Corporation of New Jersey. Filed Apr. 2, 1912. Serial No. 688,022. (Cl. 113-59.)



1. In a soldering machine, the combination of a rest for an article to be soldered, a soldering iron above said rest, means out of the path of said iron to project solder over such article below the soldering iron, means to heat the soldering iron, means to apply the soldering iron to the solder upon such article, and means to cause the soldering iron as it approaches said article to cut off a piece of the solder while over said article and to deposit such piece of solder upon said article and melt it thereon.

2. In a soldering machine the combination of a rest for an article to be soldered, means to project cold solder over such article, a soldering iron travelling in a path at one side of said means, means to heat the soldering iron, and means to apply the soldering iron to the cold solder that is over such article, the soldering iron being provided with solder cutting means at its lower portion on the side toward the solder projecting means, to remove pieces of cold solder and hold them upon the articles beneath such solder as the soldering iron approaches said articles to melt the pieces on the latter.

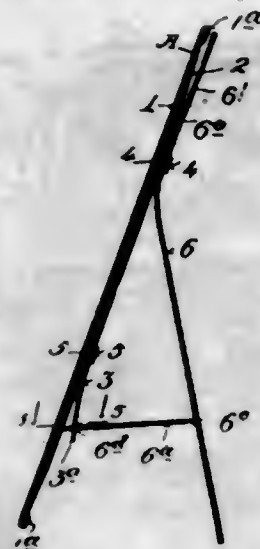
3. In a soldering machine the combination of a soldering iron, having means to cut off pieces of solder, means to heat the soldering iron, means to project cold solder over an article to be soldered, means to apply the soldering iron to said solder while the latter projects over said article, a nozzle extending toward the soldered article, and means for blowing cooling fluid through said nozzle upon the soldered article.

4. In a soldering machine the combination of a rest, a soldering iron movable above the rest and having means to cut off pieces of solder over an article, means to heat the soldering iron, means to project cold solder over an article upon the rest beneath said iron, means to apply the soldering iron to the solder while the latter is over said article, a nozzle adjacent to said rest at one side of the path of said iron, and means for blowing cooling fluid through the nozzle upon the soldered article on the rest.

5. In a soldering machine, the combination of means for guiding cold solder wire over an article to be soldered, means to feed the solder wire step by step over said article, a soldering iron, having means to cut off pieces of solder over the article, means to move the soldering iron toward and from the article to engage the portion of the solder wire that is over said article, and means to heat the soldering iron.

[Claims 6 to 9 not printed in the Gazette.]

1,082,271. FRAME OR EASEL. MORRIS KARP, Passaic, N. J., assignor to Passaic Metal Ware Company, Passaic, N. J., a Corporation of New Jersey. Filed Dec. 17, 1912. Serial No. 737,186. (Cl. 40-146.)



1. A device of the character described comprising a body member, a tongue attached on and depending along one face thereof and free therefrom at its lower portion, a leg attached to said member and provided with a brace having an upward spring tendency, and means for detachably connecting the lower free end of said tongue with said brace, the brace by its spring tendency retaining connection with said tongue.

2. A device of the character described comprising a body member, a flexible tongue attached on and depending along one face thereof and free therefrom at its lower portion, a leg attached to said member and adapted to be moved toward and from the same, said leg having a brace movably connected therewith, said tongue having a projection at its lower end and a shoulder thereabove, said brace having a slot receiving said projection, said brace engaging said shoulder for detachably connecting said tongue and brace together.

3. A device of the character described comprising a body member, a flexible tongue attached to the rear face thereof and provided with a projection at the lower portion, and a leg attached to said member behind said tongue, and having a brace cut from the material thereof adapted to fold inwardly toward said member, said brace having a slot near its free end to receive the projection of said tongue.

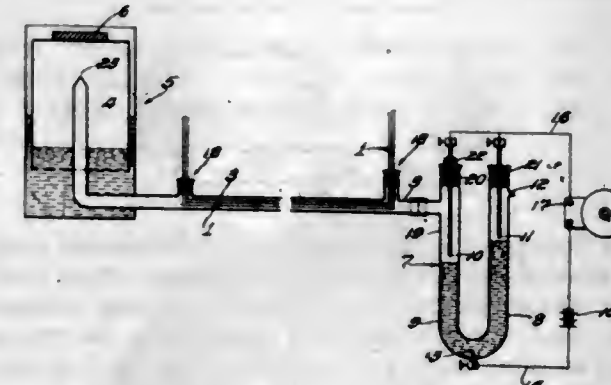
4. A device of the character described comprising a frame, a back member attached thereto, a flexible tongue on the outer side of said member, a clip attaching said member and tongue together, a leg upon the outer side of said member, and a clip attaching said member, tongue and leg together, said leg having a brace movably connected therewith to extend toward said back member, said brace and tongue having a slot and projection for retaining said leg in extended position.

5. A device of the character described comprising a frame, a back member attached thereto, a flexible tongue on the outer side of said member, a clip attaching said member and tongue together, a leg upon the outer side of said member, and a clip attaching said member, tongue and leg together, said leg having a brace movably connected therewith to extend toward said back member, said brace and tongue having means for detachably connecting them together for retaining said leg in extended position, said leg having a free portion above its retaining clip provided with an opening to receive a support.

1,082,272. STATIC-PRESSURE SYSTEM FOR THE PROTECTION OF ELECTRICAL CONDUCTORS. GILBERT N. KERCHER, Los Angeles, Cal., assignor, by mesne assignments, to Safe, Vault and Protection Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 1, 1909. Serial No. 515,726. (Cl. 177-314.)

1. An apparatus of the character described comprising a tube, a gasometer to seal one end of the tube, a mercury

trap to seal the other end of the tube, alarm conductors in the tube, contact points in the trap, and an electrically operated signal in circuit with said contact points.

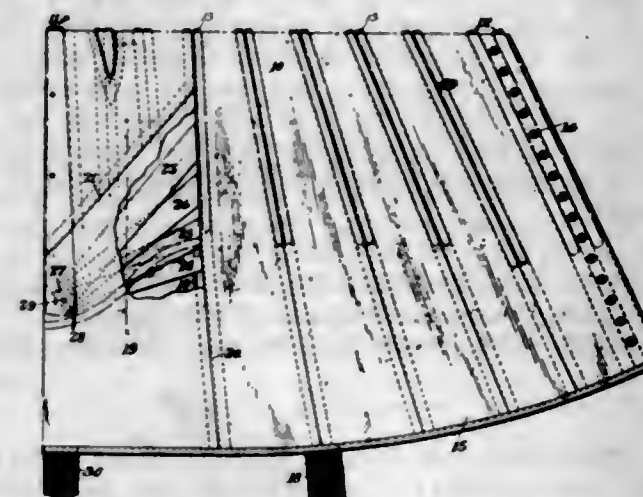


2. An apparatus of the character described comprising a tube having a minute orifice at one end, a gasometer hermetically sealing the tube at the end having the minute orifice, a fluid trap to hermetically seal the other end of the tube, conductors in the tube and extending through said ports, contact points in the trap, and an electrically operated signal in circuit with said contact points.

3. An apparatus of the character described comprising a tube having sealed ports between its ends, a gasometer to seal one end of the tube, a fluid trap to seal the other end of the tube, conductors in the tube and extending through said ports, contact points in the trap, and an electrically operated signal in circuit with said contact points.

4. An apparatus of the character described comprising a tube, a gasometer to seal one end of the tube, and a circuit closing fluid trap to seal the other end of the tube.

1,082,273. APPAREL-CORSETS. DANIEL KOPS, New York, N. Y. Filed May 28, 1913. Serial No. 770,288. (Cl. 2-73.)



1. In an apparel corset, a corset body half, a member extending at least to the lower front edge of the corset body half, permanently secured at its upper edge to the corset body half on a line at a substantial distance above the lower front edge thereof, and also connected at one side edge on a line extending from the lower front edge of the corset body half to a point of intersection with the aforesaid line, and free from attachment to the corset body half from the front medial line to the said side edge, and from the lower edge of the corset to the said upper edge, whereby compressing means may be located in the pocket formed between the said member and the adjacent portion of the corset body half, and a tension device applied to the lower free end of the said member independently of the lower front portion of the corset body half.

2. In an apparel corset, a corset body half having a skirt extending from the rear edge forwardly thereof, and a member permanently secured at its upper edge to the corset body half on a line at a substantial distance above the lower front edge of the corset and also along one side edge from the lower edge of the corset upwardly and free from attachment to the corset body from the front medial line to the said side edge and from the lower edge of the

corset to the said upper edge, whereby compressing means may be located between the said member and the adjacent part of the corset body.

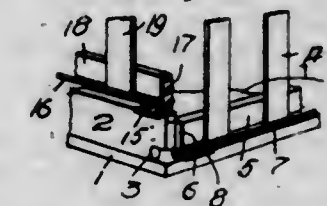
3. In an apparel corset, a corset body half, a member permanently secured at its upper edge to the corset body half on a line at a substantial distance above the lower front edge of the corset and also along one side edge from the lower edge of the corset upwardly and free from attachment to the corset from the front medial line to the said side edge and from the lower edge of the corset to the said upper edge, and a tension device located between the lower front portion of the corset body and the adjacent portion of the said member and entirely concealed by the latter.

4. In an apparel corset, a corset body half, a member permanently secured at its upper edge to the corset body half on a line at a substantial distance above the lower front edge of the corset and also along one side edge from the lower edge of the corset upwardly and free from attachment to the corset from the front medial line to the said side edge and from the lower edge of the corset to the said upper edge, and a series of tension straps secured at their ends distant from the medial line of the corset, converging toward the medial line of the corset and arranged between the lower front portion of the corset and the adjacent portion of the said member.

5. In an apparel corset, a body section with its lower front portion inwardly curved to serve as an abdominal support, a skirt member overlying the inwardly curved portion and unattached thereto from a permanent line of connection located a substantial distance above the free lower edge of the curved portion and extending rearwardly from the front medial line of the corset, a depending skirt forming a continuation of the said skirt member which together extend from the front to the rear medial lines thereof, whereby the said skirt member is adapted to have downward tension applied thereto substantially in line with the front medial portion of the corset without disturbing the normal condition of the said inwardly curved portion.

[Claims 6 to 8 not printed in the Gazette.]

1,082,274. FOLDING BOX AND CRATE. CHARLES L. LAPISH, Pittsburgh, Pa. Filed July 29, 1912. Serial No. 712,065. (Cl. 217-47.)

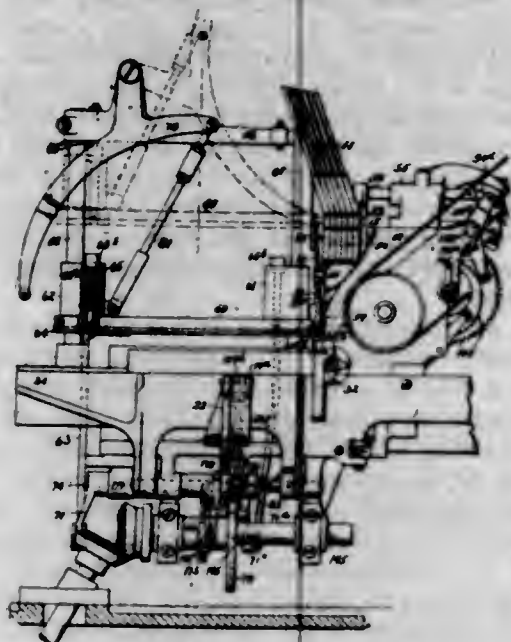


A folding crate comprising a bottom plate and side and end walls, cleats carried by the ends and one side of said plate, a pair of oppositely disposed angle brackets carried by each of the cleats one near each end thereof and a fourth pair carried by the other side of said plate one in proximity to each end thereof, a pair of straps secured to and depending from the ends of each of said side and end walls and opposing the vertical arms of said brackets, rods extending through said straps and vertical arms of said brackets for detachably hinging said walls one to each of the cleats and one to the bottom plate, said cleats at the ends of said plates having their lower corners cut away to provide a clearance for the passage of the rods connecting the end walls in position, and means for maintaining said walls in an upright position.

1,082,275. SPACER-HANDLING MECHANISM FOR TYPE-BAR-MAKING MACHINES. ARTHUR W. LE BOEUF, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 2, 1912. Serial No. 674,968. (Cl. 199-7.)

1. In space handling mechanism for type bar making machines, the combination of a plurality of temporary spaces, a horizontal space support, a space key, and

power driven mechanism which is set in operation by said space key for pushing said spaces along said support far enough to cause one of them to drop off of said support.



2. In space handling mechanism for type bar making machines, the combination of a space support, a plurality of spaces supported thereby, a space key, a rotatable shaft, a rotatable driving member therefor, a self actuated clutch for connecting said shaft and driving member, means adapted to be actuated by said space key for disconnecting said clutch or allowing it to move in the clutching direction, a cam on said shaft, and mechanism operated by said cam for pushing the spaces along the space rest so as to cause them to drop one by one therefrom.

3. In space handling mechanism for type bar making machines, the combination of a space rest, a plurality of temporary spacers having rearwardly extended fingers by which they may hang upon said rest, a space key, and power driven mechanism adapted to be set in operation by said space key for pushing the spaces along said rest far enough to cause them to drop one by one therefrom.

4. In space handling mechanism for type bar making machines, the combination of a space support, a plurality of spaces supported thereon, a plunger adapted to engage with the space at one end of the rank of spaces upon said support, a ratchet segment, an arm rigidly connected with said ratchet segment and having an operative connection with said plunger, a rocking lever, a pawl carried thereby for engaging said ratchet segment, a rotatable cam for operating said rocking lever, a space key, and means controlled thereby for causing the cam to make one revolution when the space key is depressed.

5. In space handling mechanism for type bar making machines, the combination of a space support, a plurality of spaces supported thereon, a plunger adapted to engage with the space at one end of the rank of spaces upon said support, a ratchet segment, an arm rigidly connected with said ratchet segment and having an operative connection with said plunger, a rocking lever, a pawl carried thereby for engaging said ratchet segment, a rotatable cam, a space key, means controlled thereby for causing the cam to make one revolution when the space key is depressed, and a pawl releasing device for withdrawing the pawl from engagement with said ratchet segment.

[Claims 6 to 14 not printed in the Gazette.]

1,082,276. HORSESHOE. LORENTZ LEHOTZKI, Bridgeport, Ohio, assignor of one-third to Frank Kronjaeger, Wheeling, W. Va. Filed Sept. 3, 1913. Serial No. 787,851. (Cl. 168-21.)

1. A horseshoe comprising two shoe-sections pivotally connected at their front ends, each section having an upwardly and inwardly directed flange adapted to assume clamping engagement with the hoof, a curved member underlying the front ends of said sections and having a seat for a toe-calk seated in

said groove and carrying a pin which projects through said member and constitutes the pivotal connection for said sections, and means rigidly securing said member to said sections.

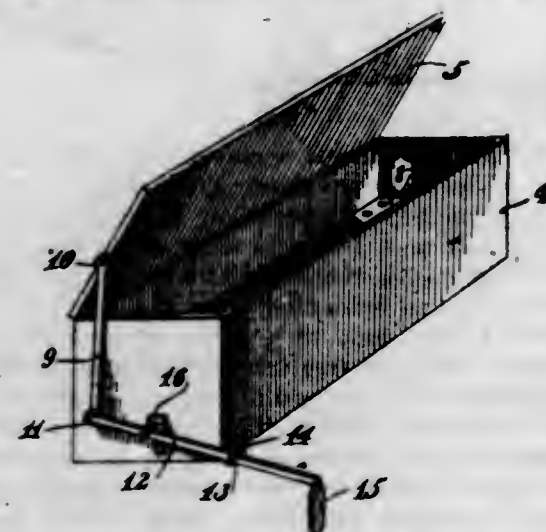


2. A horseshoe comprising two complementary shoe sections having overlapping portions at their front ends and having flanges adapted to assume clamping engagement with a hoof, a curved member underlying the front ends of said sections and having a seat for a toe-calk provided in the under face thereof, a toe-calk in said seat, a pin formed integral with said calk and directed through said member into pivotal connecting engagement with said shoe sections, and means rigidly connecting said member to said sections.

3. A horseshoe comprising two complementary shoe sections having overlapping portions at their front ends and having flanges adapted to assume clamping engagement with a hoof, a curved member underlying the front ends of said sections and having a seat for a toe-calk provided in the under face thereof, a toe-calk in said seat, a pin directed upward through said member into seating engagement with the uppermost of the overlapping portions of said sections and connecting said toe-calk to said sections, said pin also constituting a pivotal connection for said sections, and means detachably connecting said member to both of said sections whereby the latter are maintained in fixed relation.

4. A horseshoe comprising two supplemental shoe sections having overlapping portions at their front ends and having flanges adapted to assume clamping engagement with a hoof, a curved member underlying the front ends of said sections and having a seat for a toe-calk provided in the under face thereof, a toe-calk in said seat, a pin directed upward through said member into seating engagement with the uppermost of the overlapping portions of said sections and connecting said toe-calk to said sections, said pin also constituting a pivotal connection for said sections, bolts detachably connecting said member to both of said sections, and detachable heel-calks carried by said sections.

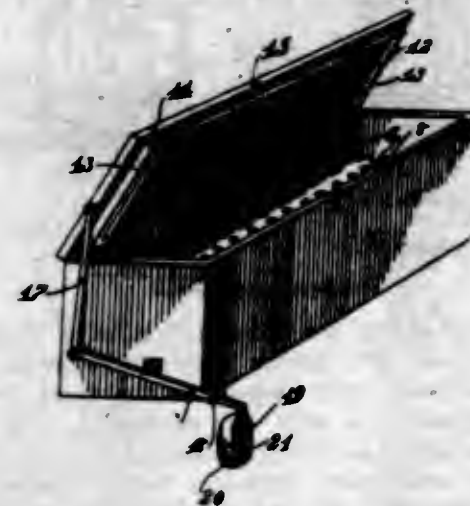
1,082,277. CIGAR-WRAPPER MOISTENER AND CONTAINER. BERNARD LIBERMAN, Philadelphia, Pa. Filed Sept. 15, 1910. Serial No. 582,165. (Cl. 131-48.)



A receptacle and moistener for cigar wrappers, having a hinged cover, a lever pivoted at the edge of the receptacle diagonally opposite the edge to which the cover is hinged, said lever having a broadened free end adapted to be engaged and operated by a sidewise movement of the knee of the cigar maker or operator, a link connecting the other end of the lever with the cover and a stop to limit the cover opening movement of the lever, said recep-

tle arranged for attachment to a cigar maker's table with the upper surface of its cover substantially flush with the surface of the table.

1,082,278. CIGAR-WRAPPER MOISTENER AND CONTAINER. BERNARD LIBERMAN, Philadelphia, Pa. Filed Oct. 5, 1910. Serial No. 585,408. (Cl. 131-48.)



1. A receptacle and moistener for cigar wrappers having a space for a moistening agent, a perforated partition above the moistening agent supporting and separating the wrappers from the moistening agent, said partition having marginal recesses, formed by cuts or channels in the periphery thereof, providing unobstructed air passages therethrough along the walls of the receptacle.

2. A receptacle and moistener for cigar wrappers having a gravity actuated closure, means for actuating the closure against gravity comprising cooperating lever elements, one lever element having a fixed fulcrum between its two ends, one end provided with a part arranged to be engaged and operated by the knee of the operator, the other end having pivoted connection with a second lever element which in turn is pivotally connected with the closure, and a counterbalance connected with the lever elements.

3. A receptacle and moistener for cigar wrappers having a gravity actuated closure, means for actuating the closure against gravity comprising cooperating lever elements, one lever element having a fixed fulcrum between its two ends but nearer one end than the other, the end nearer the fulcrum provided with a counterbalance part arranged to be engaged and operated by the knee of the operator, the other end having pivoted connection with a second lever element which in turn is pivotally connected with the closure.

1,082,279. DEVICE FOR TREATING TYPE-METALS. EVERETT M. LOW, New York, N. Y. Filed June 24, 1912. Serial No. 705,616. (Cl. 75-57.)



1. In a device of the class described, a shell containing a deoxidizing agent adapted to be used to reduce and remove dross from molten metal, said shell having means whereby the said deoxidizing agent will escape gradually from the shell by capillary action into the molten metal in which it is immersed.

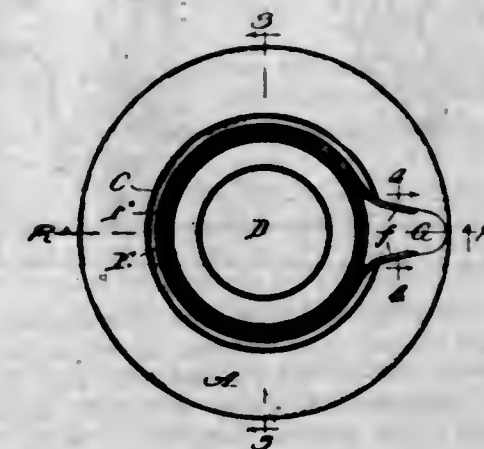
2. In a device of the class described, a shell containing a metal treating agent and adapted to be immersed in molten metal, said shell being provided with an absorptive medium through which the said treating agent passes from the said shell into the molten metal in which it is immersed.

3. In a device of the class described a shell containing a metal treating agent and adapted to be immersed in molten metal, said shell being provided with means where-

by the said molten metal absorbs the said metal treating agent by capillary attraction.

4. In a device of the class described, a shell containing a metal treating agent and adapted to be immersed in molten metal, said shell being provided with a wick through which said agent may be absorbed by the molten metal.

1,082,280. ROLL-CAP. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Aug. 25, 1910. Serial No. 578,874. (Cl. 220-69.)



1. A roll cap comprising a disk having an annular depending flange, said flange flaring outwardly as it recedes from the disk, a tongue projecting from the flange, and the free edge of the flange being turned up so as to form a slight narrow fin encircling the flange.

2. A roll cap comprising a disk having an annular depending flange, said flange flaring outwardly as it recedes from the disk and having a tongue projecting therefrom, the free edge of said flange and the sides of the tongue adjacent to the flange being bent upwardly so as to form a slight narrow fin encircling the flange and extending at least partially along the sides of the tongue.

3. A roll cap comprising a disk having a depending annular flange, said flange flaring outwardly as it recedes from the disk, a narrow tongue projecting from the free edge of the flange, and the edge of the flange and the adjacent portions of the sides of the tongue being bent upwardly so as to form a narrow fin encircling the flange and extending at least partially along the sides of the tongue.

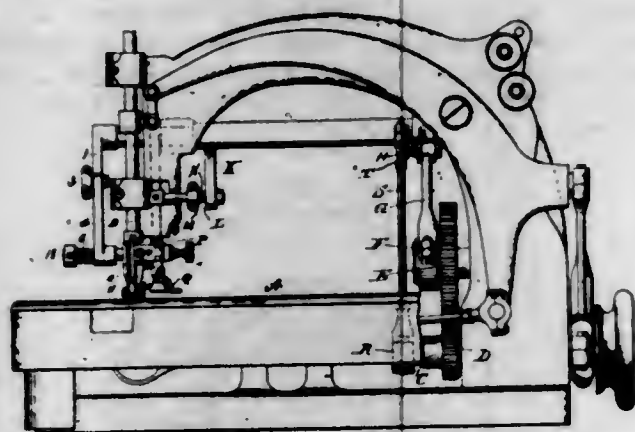
4. In combination, a member having an opening therein, there being in said member a groove or depression surrounding said opening, a cap adapted to close said opening, said cap having a flange shaped to extend into said groove or depression, the free edge of said flange being bent outwardly so as to form a slight narrow fin, and a tongue projecting from said flange at a point adjacent to said fin.

5. In combination, a member having an opening therein, said member having a groove V-shaped in cross section surrounding said opening and in proximity to said opening, a cap adapted to close said opening, said cap having a depending flange shaped to fit over the inner wall of said groove, the free edge of the flange being turned upwardly so as to form a slight narrow fin engaging with a portion of the outer wall of said groove, and a tongue projecting from said flange at a point adjacent to said fin. [Claims 6 and 7 not printed in the Gazette.]

1,082,281. SEWING AND TRIMMING MACHINE. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1904. Serial No. 215,796. Renewed May 19, 1913. Serial No. 768,661. (Cl. 112-6.)

1. In a sewing machine, the combination with a cross stitch-forming mechanism, of a trimmer arranged in advance of the stitch-forming mechanism, and in the line of the seam, said trimmer including a lower stationary

member adapted to penetrate between two layers of fabric, and a movable cooperating upper member adapted to sever the upper layer of said fabric, means for feeding the fabric and means for deflecting the severed edge away from the stitch mechanism, whereby said two layers are united, and the raw edge of the upper layer covered by the cross thread of the stitch; substantially as described.



2. In a sewing machine, the combination with the presser foot thereof, of a trimmer of which the stationary member is carried by the presser foot, and is adapted to penetrate between two layers of fabric, and a movable cooperating upper member adapted to sever said fabric, and a cross stitch mechanism in rear of the trimming device, whereby said two layers are severed, and the raw edge of the upper layer covered by the cross thread of the stitch; and means carried by the presser foot for deflecting that part of the trimmed off strip which is not to be covered; means for feeding the fabrics; substantially as described.

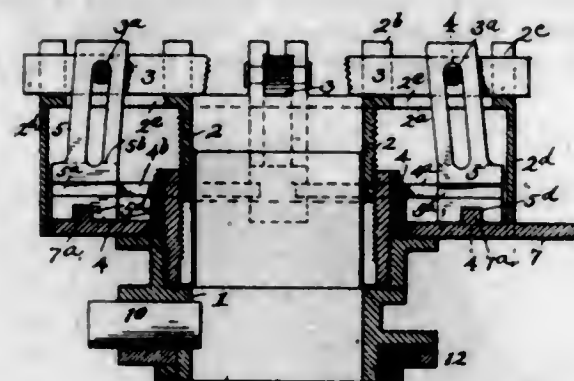
3. In a sewing machine, the combination with cross stitch-forming mechanism, means for feeding a plurality of thicknesses of material, a trimming mechanism in advance of the cross stitch-forming mechanism and including a device for separating the thicknesses of material as the cutting is performed, said trimming mechanism including cooperating trimming blades automatically movable to allow them to cut in different horizontal planes as the thicknesses of material vary, and means for reciprocating one of said blades, the reciprocation of said blade being independent of the automatic movement; substantially as described.

4. In a sewing machine, the combination of a work support, a presser foot, cross stitch forming mechanism, means for feeding a plurality of thicknesses of material, a trimming mechanism in advance of the cross stitch forming mechanism, including cooperating trimming blades having a relative movement in a plane substantially at right angles to the work support, means for separating the thicknesses of material as the cutting is performed, means for automatically moving said trimming blades and separating means, with the presser foot of the machine, whereby the trimming blades are positioned in the plane in which they operate, so as to cut in different horizontal planes, as the thickness of the material varies, and means for giving the trimming blades a movement relative to each other.

5. In a sewing machine, the combination of cross stitch mechanism, a presser foot, a work support, means for feeding a plurality of thicknesses of material, a trimming mechanism in advance of the cross stitch mechanism, including a device for separating the thicknesses of the material, as the cutting is performed, said trimming mechanism including cooperating trimming blades having a relative movement in a plane substantially at right angles to the work support, means for operatively connecting both of said trimming blades with the presser foot, whereby said trimming blades rise and fall with the presser foot, under the action of varying thicknesses of the material and independent means for giving the trimming blades a movement relative to each other to sever the fabric.

[Claims 6 to 20 not printed in the Gazette.]

1,082,282. DIE-STOCK. RUSSELL B. TEWKSBURY and HERMAN W. OSTER, Cleveland, Ohio, assignors to The Oster Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 22, 1912. Serial No. 692,292. (Cl. 10-120.)



1. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable rotatively and longitudinally with respect to the work holder, dies movably mounted on said die carrier, a ring which is rotatively mounted on the work holder but is held against longitudinal movement thereon, means compelling said ring to rotate with the die carrier, templet bars which are supported by said ring and are movable thereon toward and from the axis of the die stock, means for simultaneously moving all of said templet bars toward or from the axis of the die stock, and operative connections between each templet bar and an associated die.

2. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable rotatively and longitudinally with respect to the work holder, dies movably mounted on said die carrier, a ring which is rotatively mounted on the work holder but is held against longitudinal movement thereon, means compelling said ring to rotate with the die carrier, templet bars which are severally adjustably secured to said ring and serve to control the position of said dies, a cam plate rotatably mounted on said ring and having cam scrolls which engage said templet bars, and means for connecting said cam plate and ring when the cam plate has been moved into the desired position relative to said ring.

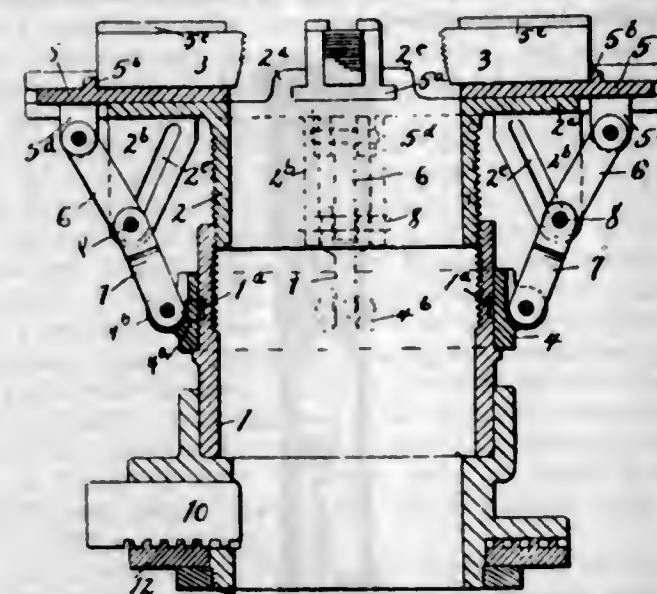
3. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable rotatively and longitudinally with respect to the work holder, dies movably mounted on said die carrier, a ring which is rotatively mounted on the work holder but is held against longitudinal movement thereon, means compelling said ring to rotate with the die carrier, templet bars which are adjustably fixed to said ring, each having a guide slot, pins fixed to said dies and extended into said guide slots, and means carried by the die carrier engaging said templet bars and permitting them to move longitudinally but not rotatively with respect to said die carrier.

4. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable rotatively and longitudinally with respect to the work holder, dies movably mounted on the die carrier, a ring which is rotatively mounted on the work holder but is held against longitudinal movement thereon, said ring having as many substantially radial guideways as there are dies, means compelling the ring to rotate with the die carrier, a templet bar mounted in each of the said radial guideways on the ring, means for simultaneously moving said templet bars in said guideways, and an operative connection between each templet bar and an associated die.

1,082,283. DIE-STOCK. HERMAN W. OSTER and WILLIAM J. MACAK, Cleveland, Ohio, assignors to The Oster Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 10, 1912. Serial No. 697,610. (Cl. 10-120.)

1. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable radially and longitudinally with respect to the work holder, a ring which is rotatably mounted upon the work holder but is

held against longitudinal movement thereon, dies radially movable upon the die carrier, guide arms fixed to said die carrier, and a toggle associated with each die and guide arm, one toggle link of each toggle being pivoted to said ring, and the other toggle link being pivotally connected with a part which is rigid with the associated die and the pivot between said toggle links being in engagement with the associated guide arm.



2. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable radially and longitudinally with respect to the work holder, a ring which is rotatably mounted upon the work holder but is held against longitudinal movement thereon, die cases radially movable in guide ways on the front end of the die carrier, guide arms projecting rearward from the die carrier, each having an inclined slot, a toggle associated with each die case, one link of each toggle being pivotally connected with the associated die case, and the other link of the toggle being pivotally connected with said ring, and the pivot which connects the two toggle links being movable in the inclined slot in the associated arm.

1,082,284. AIR-DISTRIBUTER FOR CENTRAL-DRAFT LAMPS. WILLIAM A. PENFIELD, Meriden, Conn., assignor to Bradley & Hubbard Mfg. Co., Meriden, Conn., a Corporation. Filed Sept. 13, 1913. Serial No. 789,618. (Cl. 67-63.)



The herein described air distributor for central draft lamps having its upper end closed and provided near its upper end with an upper air deflecting ring and with a lower air deflecting ring, the sides of the distributor perforated above the upper ring between the rings and below the lower ring, and means for supporting the distributor in the upper end of a central draft tube whereby the lower ring is held out of contact with the wick, and whereby the air passing through the distributor is distributed in three jets.

1,082,285. VIBRATORY DEVICE. CLARENCE A. PETERSON, Washington, D. C. Filed Jan. 29, 1913. Serial No. 745,045. (Cl. 128-16.)

1. A vibratory massage device comprising a casing, an unattached member adapted to travel bodily around the

periphery of said casing, and means whereby motion may be imparted to said member.



2. A vibratory massage device comprising a casing having a cavity and inlet and outlet passages communicating therewith, said inlet passage arranged substantially tangential to the periphery of said cavity, and a member adapted to travel bodily along the periphery of said cavity.

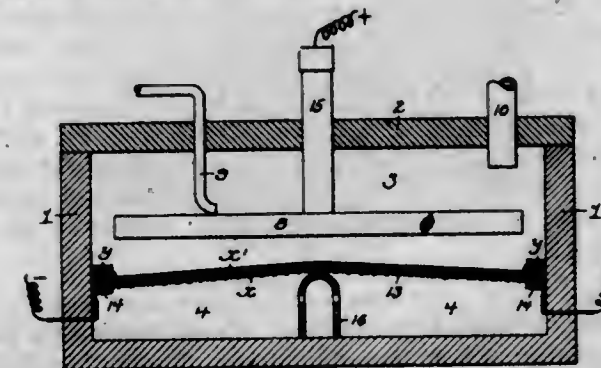
3. A vibratory massage device comprising a casing having a cavity and inlet and outlet passages communicating therewith, a member adapted to travel around the periphery of said cavity and a projection extending into said cavity.

4. A vibratory massage device comprising a casing having a cavity and inlet and outlet passages communicating therewith, a member adapted to travel bodily around the periphery of said casing and means for defining the path of said member.

5. A vibratory massage device comprising a casing having a cavity and inlet and outlet passages communicating therewith, said inlet passage arranged substantially tangential to the periphery of said cavity, a member adapted to travel bodily along the periphery of said cavity and said outlet passage arranged essentially at right angles to said inlet passage.

[Claims 6 to 15 not printed in the Gazette.]

1,082,286. DIAPHRAGM FOR ELECTROLYTIC APPARATUS. HERMAN D. RUHM, Buffalo, N. Y., assignor to Niagara Alkali Company, Niagara Falls, N. Y., a Corporation of New York. Filed Oct. 2, 1912. Serial No. 723,516. (Cl. 204-28.)



1. The within described diaphragm for electrolytic cells, said diaphragm consisting of a plurality of superposed permeable layers, the outer layer or layers being loosely retained, whereby the thickness of the diaphragm can be readily varied by adding layers to or removing them therefrom, and the material deposited upon the diaphragm can be readily discharged therefrom.

2. The within described diaphragm for electrolytic cells, said diaphragm comprising one or more inner layers secured in position and one or more outer layers loosely retained in place.

3. The within described diaphragm for electrolytic cells, said diaphragm comprising a wire gauze cathode, and a plurality of superposed layers of permeable material supported thereby, the outer layer or layers being loosely confined so as to be readily applied or removed.

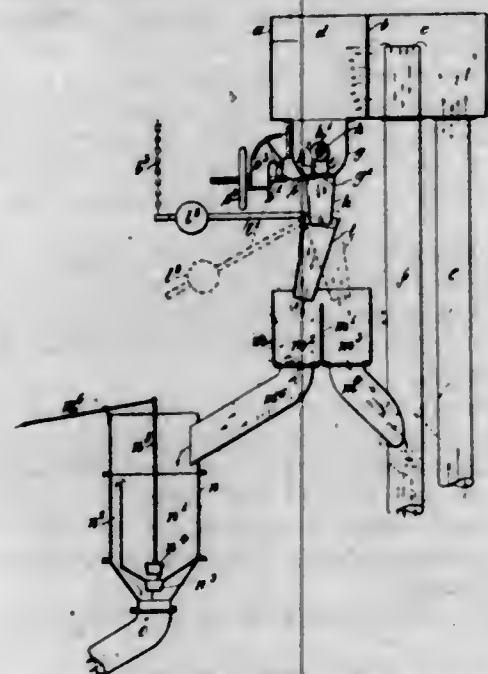
4. The within described diaphragm for electrolytic cells, said diaphragm comprising a wire gauze cathode, and a plurality of layers of permeable material supported

thereby, the inner layer or layers being secured to the cathode and the outer layer or layers being loosely confined so as to be readily applied to or removed from the diaphragm.

5. An electrolytic cell having anode and cathode compartments and a permeable diaphragm separating said compartments, said diaphragm consisting of one or more fixed permeable layers, and of one or more removable permeable layers, and removable means for temporarily holding said removable layer or layers in position.

[Claims 6 and 7 not printed in the Gazette.]

1,082,287. APPARATUS FOR FEEDING SEMILIQUID MATERIALS. AXEL SCHÄFFER and AAGE SCHÄÖDER, Copenhagen, Denmark. Filed Feb. 21, 1912. Serial No. 679,005. (Cl. 137—78.)



1. Apparatus for feeding semi-liquid materials comprising a tank, means to supply the material to said tank and to maintain it at a uniform height, a discharge trough in connection with the tank having a series of discharge openings therein, a shaft having a series of blades to sweep across said discharge openings, and means to conduct the material from said discharge openings to the places of use.

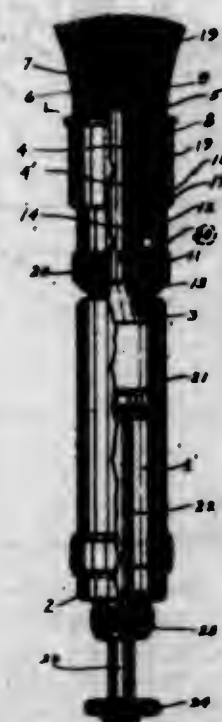
2. Apparatus for feeding semi-liquid materials comprising a tank, a supply pipe for said tank, an overflow pipe extended upward into said tank, said tank having a discharge opening, a swinging nozzle to receive the material from said discharge opening, and a plurality of receptacles into which the material may be discharged by said swinging nozzle, one of said receptacles being connected to said overflow pipe.

1,082,288. FOUNTAIN-BRUSH. FRANK SCHREIDT, Mansfield, Ohio. Filed May 29, 1913. Serial No. 770,625. (Cl. 15—50.)

1. In a brush of the type set forth, a magazine having a tapered part terminating in a contracted end part having a passage, a valve seat formed on the free extremity of said end part, a cap movably mounted over the magazine and having a closed end formed with apertures which apertures align with the extremity of said end part, a valve carried by the cap for engagement on said valve seat, means to adjust the cap to regulate the extent of movement of the valve to and from its seat, and means in the magazine to force paste or the like through the magazine and through said apertures of the cap.

2. In a brush of the type set forth, a magazine having a valve seat on its discharge end, a cap slidable on the magazine and having a valve on one end for engagement on said valve seat, said end of the cap having apertures which surround the valve and which align with said end of the magazine to be closed thereby when the valve is in closed position, and means to enable adjustment of the cap.

3. In a brush of the type set forth, a magazine having a valve seat on its discharge end, a cap slidable on the magazine and having a valve on one end for engagement on said valve seat, said end of the cap having apertures which surround the valve and which align with said end of the magazine to be closed thereby when the valve is in closed position, bristles surrounding the cap, a sleeve borne by the cap, said magazine having a diagonal peripheral groove, and a projection carried by the sleeve and extending into the groove.



4. In a brush of the type described, a magazine having a discharge end formed with a valve seat, a cap having a valve at one end to engage said seat, a sleeve threaded on the cap, said sleeve having an interior flange, packing between the flange and the lower end of the cap, means to adjust the cap, and means to force paste through the discharge end of the magazine.

5. In a brush of the type described, a magazine having a discharge end formed with a valve seat, a cap having a valve at one end to engage said seat, a sleeve threaded on the cap, said sleeve having an interior flange, packing between the flange and the lower end of the cap, said magazine having a peripheral cam slot, a pin carried by the sleeve and extending in said slot, and means in the magazine to force paste through the discharge end of the magazine.

[Claim 6 not printed in the Gazette.]

1,082,289. TELEPHONE-RECEIVER. MICHAEL SETTER, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed Mar. 12, 1906. Serial No. 305,470. (Cl. 179—119.)



1. In a telephone receiver, a cup formed with an integral bottom provided with a stem or shank having sockets

and an opening, electro-magnet cores or pole-pieces provided with integral lugs adapted to engage said sockets, and each provided with an opening adapted to register with the opening in the said stem or shank, the bottom of said cup having openings permitting lateral movement of said pole-pieces, a magnet having openings adapted to register with said other openings, a transverse bolt of non-magnetic material extending through said openings to clamp the magnet and pole-pieces and stem or shank tightly together, with the said pole-pieces and stem or shank inside of said magnet, a diaphragm, and means for clamping the diaphragm upon the rim or outer edge of said cup.

2. In a telephone receiver, a cup made of non-magnetic material and having a bottom provided with an integral stem or shank, electro-magnet cores or pole-pieces extending through the bottom of said cup and provided with integral lugs or projections suitably engaging the outside of said stem or shank, the bottom of said cup having openings permitting lateral movement of said pole-pieces, a permanent magnet, means for binding the permanent magnet and electro-magnet cores and the said stem or shank tightly together, with the said stem or shank between the poles of the permanent magnet, circuit connections secured to and insulated from the said stem or shank, a diaphragm, and means for clamping the diaphragm upon the rim or outer edge of said cup.

3. In a telephone receiver, the combination of a cup provided with a bottom formed with an integral stem or shank having sockets and flat outer seats or faces, flat electro-magnet cores or pole-pieces provided with integral projections adapted to engage said sockets, a permanent magnet, a single bolt extending transversely through and clamping the permanent magnet and pole-pieces and stem or shank tightly together, with the said pole-pieces and stem or shank inside of said magnet, a cord tied to the rear end of the permanent magnet, magnet-coil terminals secured in place and electrically connected with terminals of said cord, and a diaphragm, casing and cap, all constructed and organized substantially as and for the purpose set forth.

4. In a telephone receiver, a non-magnetic metal member, electro-magnet cores or pole-pieces provided with inner lateral projections adapted to be suitably engaged by the outer sides of said non-magnetic member to prevent relative displacement, said member having openings permitting lateral movement of the pole-pieces, means for clamping the said pole-pieces and non-magnetic member together, with the pole-pieces outside of the non-magnetic member, and a diaphragm secured to said non-magnetic member and disposed in proper relation to said electro-magnet cores or pole-pieces.

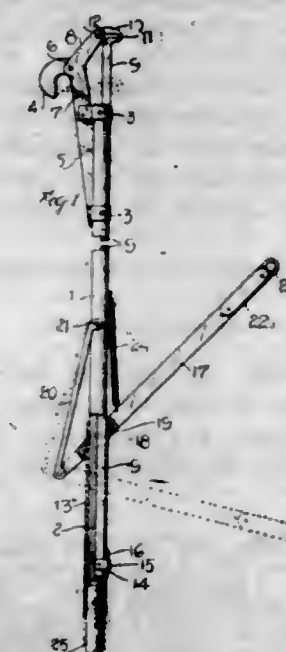
5. In a telephone receiver, a non-magnetic member, a diaphragm secured thereto, said member having a plurality of sockets at each outer side thereof, a pair of electro-magnet cores or pole-pieces provided with inner lateral projections adapted to engage said sockets, said member having openings permitting lateral movement of the pole-pieces, and means for securing the non-magnetic member and electro-magnet cores or pole-pieces tightly together, with the pole-pieces outside of the non-magnetic member, whereby the ends of said cores or pole-pieces are retained at the proper distance from said diaphragm.

[Claim 6 to 8 not printed in the Gazette.]

1,082,290. PRUNING IMPLEMENT. GEORGE NELSON SPENCER, Forest Grove, Oreg. Filed Feb. 12, 1913. Serial No. 748,014. (Cl. 30—11.)

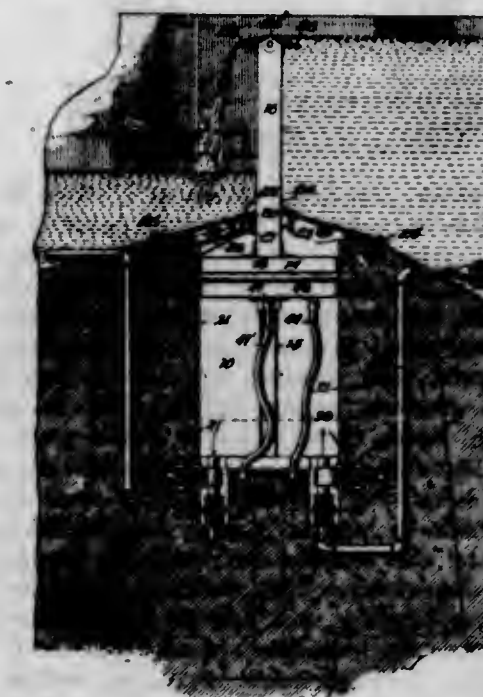
In a pruning implement, the combination with a pole, cutting mechanism mounted thereon and a reciprocating rod mounted on said pole and connected with said cutting mechanism, of a sleeve loosely applied to the lower end of said pole and connected with the lower end of said rod, a lever pivoted on said sleeve member adjacent the upper end thereof, a linking member pivoted at its one end to said pole and the opposite end thereof fulcrumed to the end of said lever and a coil spring member having one of its ends engaged with said lever at a point between its pivotal point and its handle and the opposite end se-

cured to said pole at a point slightly above the pivotal point of said link member whereby to normally retain



said lever in its raised position to correspondingly dispose the knife blade to its ineffective position.

1,082,291. DAM. JEREMIAH R. TAINTER, Menomonie, Wis. Filed Apr. 28, 1913. Serial No. 764,105. (Cl. 61—25.)



1. A dam comprising, in combination, a well extending across a river-bed, a float working in the well and having a gate rising from it through the well, and fluid-pressure mechanism communicating with the well beneath the float therein for operating the float, for the purpose set forth.

2. A dam comprising, in combination, a well extending across a river-bed and having holes at intervals in its bottom, a float working in the well, having legs depending into said holes and a gate rising through the well, and fluid-pressure mechanism communicating with the well beneath the float therein for operating the float, for the purpose set forth.

3. A dam comprising, in combination, a well extending across a river-bed, a float working in the well and having depending legs working through the well-bottom and a gate rising through the well, thrust-taking rollers bearing in opposite directions respectively against the legs and gate, and fluid-pressure mechanism communicating with the well beneath the float therein for operating the float, for the purpose set forth.

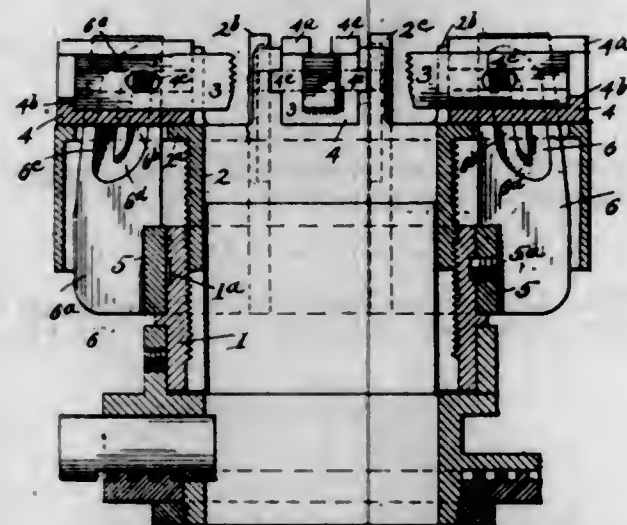
4. A dam comprising, in combination, a well extending across a river-bed, a float working in the well, having a gate rising from it through the well and an inflatable

packing-tube extending horizontally about it, a pipe leading into said tube for inflating it with air-pressure, and fluid-pressure mechanism communicating with the well beneath the float therein for operating the float.

5. A dam comprising, in combination, a well extending across a river-bed, a float working in the well and having a hollow gate rising from it through the well, a steam-pipe extending into said gate for introducing steam therein, and fluid-pressure mechanism communicating with the well beneath the float therein for operating the float, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,082,292. DIE-STOCK. RUSSELL B. TEWKSBURY, Cleveland, Ohio, assignor to The Oster Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 22, 1912. Serial No. 692,373. (Cl. 15-120.)

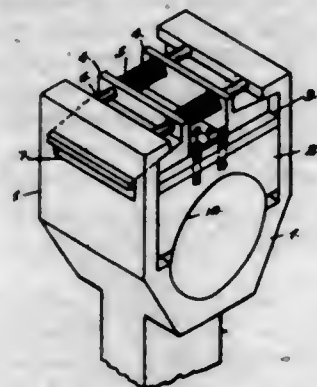


1. In a die stock, the combination of a work holder, a die carrier which is rotatively and longitudinally movable relative to the work holder, radially movable dies carried by the die carrier, a ring which is rotatably mounted upon the work holder, but has no longitudinal movement thereon, templet bars fixed to said ring and extending longitudinally forward, each templet bar having two parallel inclined guide grooves, a pin rigidly fixed to each die and adapted to enter either of said guide grooves, and means compelling said ring to rotate with said die carrier.

2. In a die stock, the combination of a work holder, a die carrier which is rotatively and longitudinally movable relative to the work holder, radially movable dies carried by the die carrier, a ring which is rotatably mounted upon the work holder, but has no longitudinal movement thereon, templet bars fixed to said ring and extending longitudinally forward, each having an endless guideway which includes two branches which extend in a general longitudinal direction side by side, the branch nearest the axis having its rear end curved away from the axis and connected with the other branch and the branch farthest from the axis is at its front end curved toward the axis and connected with the front end of the other branch, a device fixed to each die engaging said endless guideway in the associated templet bar, and means compelling said ring to rotate with said die carrier.

3. In a die stock, the combination of a work holder, a die carrier which is rotatively and longitudinally movable relative to the work holder, radially movable dies carried by the die carrier, a ring which is rotatably mounted upon the work holder, but has no longitudinal movement thereon, templet bars fixed to said ring and extending longitudinally forward, each templet bar having two parallel guide grooves of which the one nearest the axis is curved near its rear end outward and connected with the rear end of the other guide groove, and of which the front end of the guide groove farthest from the axis is curved inward at its front end and connected with the front end of the other guide groove, a pin rigidly fixed to each die and projecting into said guide grooves, and means compelling said ring to rotate with the die carrier.

1,082,293. SHAFT-BOXING. CHARLES THOMAS, Joliet, Ill. Filed Aug. 5, 1912. Serial No. 713,268. (Cl. 64-55.)

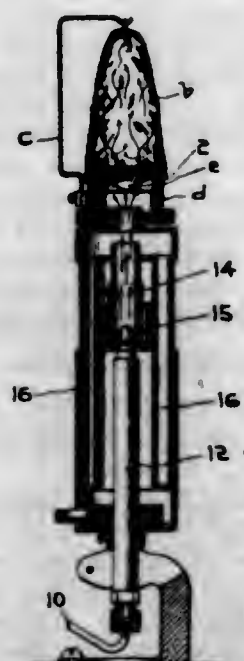


1. An automatic self adjusting shaft box; a movable cap within the frame of said box; a liner secured to the top of said cap; wedges resting on the top of said liner, one on either side and each movable in a slot in the side of said frame, and having perforated flanges; guides for said wedges connecting the upper parts of said frame, compression springs coiled on said guides between the flanges of said wedges.

2. A boltless and self-adjusting automobile shaft-box, formed integral with a supporting rod or beam; a cap movable within the frame of said box; the concavity of said cap and the concavity of the bottom of said frame forming the shaft bearing and leaving a space between the two parts to permit the lowering of said cap; wedges resting on the top of said cap and movable through slots in the sides of said frame; a compensating liner inserted between said cap and said wedges; guides connecting the upper ends of said frame; compression-springs coiled around said guides acting on said wedges.

3. A shaft-box, having a one-piece frame formed integral with a supporting beam; a concave cap movable in said frame and in connection with a concavity in the bottom of said frame, forming a shaft bearing and leaving a space between the two parts to permit the lowering of said cap; wedges so adjusted in said frame as to rest on said cap and movable through slots in said frame; a liner inserted between said cap and wedges, guides between the open ends of said frame; compression springs coiled on each of said guides to actuate said wedges.

1,082,294. BURNER. HAROLD SYDNEY THORNTON, Montreal, Quebec, Canada, assignor to The Diamond Light and Heating Company of Canada, Limited, Montreal, Canada. Filed Mar. 15, 1911. Serial No. 614,690. (Cl. 67-88.)

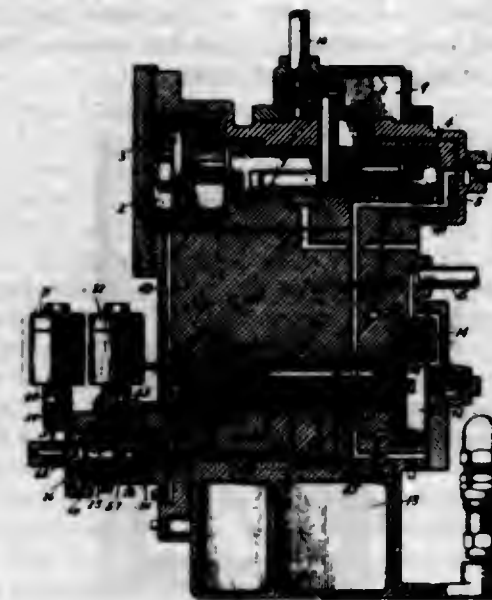


1. A member for delivering an illuminant consisting of a cone having a circumferential series of slots and a central chamber with a central passage through the apex;

and a cone located in the said chamber and having a circumferential series of slots.

2. A member for delivering an illuminant and for rotating the illuminant and neutralizing the torque of a portion thereof, consisting of a cone having a circumferential series of radial slots, and a central chamber with a central passage through the apex; and a cone located in the said chamber and having a circumferential series of tangential slots.

1,082,295. ELECTROPNEUMATIC CONTROL-VALVE MECHANISM. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 29, 1910. Serial No. 569,478. (Cl. 188-4.)



1. In a fluid pressure brake, the combination with a brake cylinder, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to the pressure of the application chamber for operating said valve, an automatic valve device operated by variations in train pipe pressure for supplying fluid to said chamber, and an electrically controlled valve for releasing fluid from said chamber, the passage through which the electrically controlled valve releases fluid from the chamber being controlled by said automatic valve device.

2. In a fluid pressure brake, the combination with a brake cylinder, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to the opposing pressures of the application chamber and the brake cylinder for operating said valve, an automatic valve device operated by variations in train pipe pressure for supplying and releasing fluid to and from said chamber, and an electrically controlled valve for also releasing fluid from said chamber, the passage through which fluid is electrically released from the chamber being controlled by said automatic valve device.

3. In a fluid pressure brake, the combination with a brake cylinder, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to the opposing pressures of the application chamber and the brake cylinder for operating said valve, an electrically controlled valve for supplying fluid to said chamber, and an automatic valve device operated by variations in train pipe pressure for releasing fluid from said chamber, and a valve mechanism operated by the flow of fluid from said electrically controlled valve to said chamber for closing the exhaust of said automatic valve device.

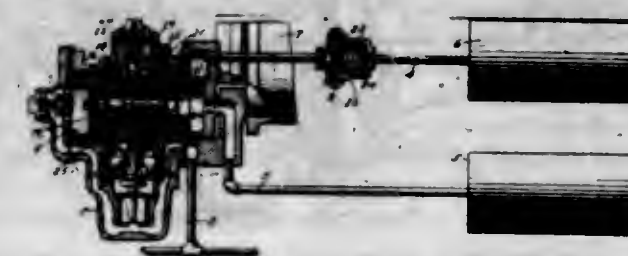
4. In a fluid pressure brake, the combination with a brake cylinder and a train pipe, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to the opposing pressures of the application chamber and the brake cylinder for operating said valve, a valve mechanism operated by variations in train pipe pressure for varying the pressure in

said chamber, and electrically controlled means for also varying the pressure in said chamber.

5. In a fluid pressure brake, the combination with a train pipe and brake cylinder, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to the opposing pressures of the application chamber and the brake cylinder for operating said valve, an automatic valve mechanism subject to variations in train pipe pressure for governing the supply and release of air to and from the brake cylinder, electrically controlled means for varying the pressure in said chamber, and a valve device operated by said electrically controlled means for controlling the exhaust port of said automatic valve mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,082,296. FLUID-PRESSURE BRAKE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 22, 1913. Serial No. 762,865. (Cl. 188-1.)



1. In a fluid pressure brake, the combination with a reservoir and a valve device for controlling the supply of fluid to effect an application of the brakes and provided with means for opening communication from said reservoir upon an emergency application of the brakes and also at other times, of a valve mechanism operated by the flow of fluid from said reservoir for cutting off communication from the reservoir to said valve device in an emergency application of the brakes.

2. In a fluid pressure brake, the combination with a brake cylinder, train pipe, auxiliary reservoir, and a valve device operating upon a reduction in train pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder, of an additional reservoir, means controlled by said valve device for opening communication from said additional reservoir in an emergency application of the brakes and for effecting a graduated release of the brakes, and a valve mechanism operated by the flow of fluid from said additional reservoir in an emergency application of the brakes for closing communication from the additional reservoir to said valve device.

3. In a fluid pressure brake, the combination with a brake cylinder, a train pipe, a reservoir, a valve device operating upon a gradual reduction in train pipe pressure for effecting the supply of fluid from said reservoir to the brake cylinder, an additional reservoir, means controlled by said valve device for supplying fluid from said additional reservoir to the brake cylinder upon a sudden reduction in train pipe pressure, and means controlled by said valve device for supplying fluid from said additional reservoir to effect a graduated release of the brakes, of a valve mechanism operated by the flow of fluid from said additional reservoir for closing communication from the additional reservoir to said valve device upon an emergency application of the brakes and having means for permitting flow of fluid from the additional reservoir in effecting a graduated release of the brakes.

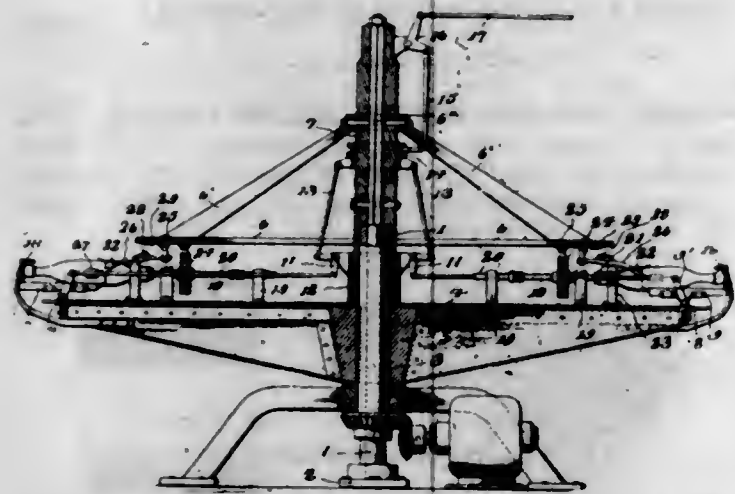
4. In a fluid pressure brake, the combination with a valve device having means for effecting an application of the brakes, of a reservoir connected to said valve device and a valve mechanism for controlling communication from said reservoir to said valve device and operated at a predetermined rate of flow from the reservoir to the valve device for closing communication from the reservoir to said valve device.

5. In a fluid pressure brake, the combination with a valve device having means for effecting an application of

the brakes, of a reservoir connected to said valve device and a valve mechanism for controlling communication from said reservoir to said valve device and adapted to permit a gradual flow of fluid from the reservoir, said valve mechanism being operated by a predetermined greater rate of flow for closing communication from the reservoir to said valve device.

[Claims 6 and 7 not printed in the Gazette.]

1,082,297. WINE-CLEARING APPARATUS. MONROE M. WHEELER, Catawba, N. Y. Filed Apr. 27, 1912. Serial No. 693,621. (Cl. 127—3.)



1. A wine-clearing apparatus comprising a revolving bottle carrier, bottle supports movable therewith, bottle clamping devices and means for moving said bottle supports relatively to the carrier and simultaneously operating the clamping devices.

2. A wine-clearing apparatus comprising a revolving bottle carrier, bottle supports movable therewith, bottle clamping devices, means for moving said bottle supports relatively to the carrier, and simultaneously operating the clamping devices, and means for rotating the clamping devices.

3. A wine-clearing apparatus including a revolving bottle carrier, bottle supports movable therewith, means for raising and lowering said supports, and means for rotating the bottles axially.

4. A wine-clearing apparatus including a revolving bottle carrier, bottle supports movable therewith, means for raising and lowering said supports, and means for rotating the bottles axially, the bottles being brought into operative engagement with their rotating means on the raising of the supports.

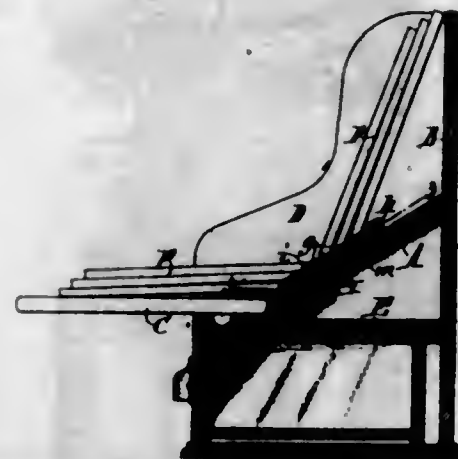
5. A wine-clearing apparatus including a revolving bottle carrier, movable bottle supports, means for rotating the bottles on their supports, and means for intermittently tapping the bottles as they move.

[Claims 6 to 15 not printed in the Gazette.]

1,082,298. CHAIN FOR FILING-CABINETS, &c. CONRAD W. ZIMMER, Buffalo, and GEORGE W. BENJAMIN, Rochester, N. Y.; said Benjamin assignor to said Zimmer. Filed Sept. 28, 1910. Serial No. 584,232. (Cl. 129—34.)

1. The combination of a plurality of leaves, and means for connecting the several leaves comprising a plurality of links, each link having a slot one end of which is narrow and the other wide and the adjacent links having their opposing ends overlapping each other and one of these ends containing the wide part of a slot and the other the narrow part of a slot, and pintles connecting adjacent links, each pintle supporting a leaf and having a reduced neck passing through the corresponding wide and narrow parts of the slots in adjacent links, a head arranged on one end of the neck and on one side of the chain adjacent to the outer side of the link having the narrow part of its slot presented to said neck, and a body arranged at the other end of said neck and arranged on the opposite side of the chain.

2. The combination of a plurality of leaves, and means for connecting the several leaves comprising a plurality of links, each link having a slot one end of which is narrow and the other wide and the adjacent links having their opposing ends overlapping each other and one of these ends containing the wide part of a slot and the other the narrow part of a slot, and pintles connecting adjacent links, each pintle supporting a leaf and having a reduced neck passing through the corresponding wide and narrow parts of the slots in adjacent links, a head arranged on one end of the neck and on one side of the chain adjacent to the outer side of the link having the narrow part of its slot presented to said neck, and a body arranged at the other end of said neck and arranged on the opposite side of the chain, said neck having a diameter equal to the width of the narrow part of said slots, said head having a diameter equal to the width of the wide part of said slots, and said body having a diameter greater than the width of the wide parts of said slots.



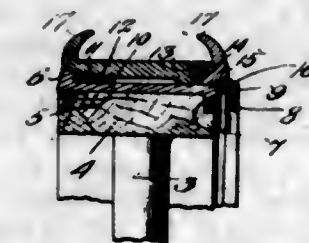
3. The combination of two chains each of which comprises a plurality of slotted links, the slot in each link being wide at one end and narrow at the other end and adjacent ends of said links overlapping each other, so that the narrow part of the slot of one link is adjacent to the wide part of the slot of the other link, a plurality of pintle rods each having a body arranged between the opposing inner sides of said chains, reduced necks arranged at opposite ends of the body and each passing through the wide and narrow parts of the slots of two adjacent links of a chain, heads arranged on the outer ends of said necks and the outer sides of said chains and each having a diameter greater than the narrow parts of said slots.

4. The combination of two chains each of which comprises a plurality of slotted links, the slot in each link being wide at one end and narrow at the other end and adjacent ends of said links overlapping each other so that the narrow part of the slot of one link is adjacent to the wide part of the slot of the other link, a plurality of pintle rods each having a body arranged between the opposing inner sides of said chains, reduced necks arranged at opposite ends of the body and each passing through the wide and narrow parts of the slots of two adjacent links of a chain, heads arranged on the outer ends of said necks and the outer sides of said chains and each having a diameter greater than the narrow parts of said slots and leaves attached to the bodies of said pintles.

5. The combination of two chains each of which comprises a plurality of slotted links, the slot in each link being wide at one end and narrow at the other end and adjacent ends of said links overlapping each other, so that the narrow part of the slot of one link is adjacent to the wide part of the slot of the other link, a plurality of pintle rods each having a body arranged between the opposing inner sides of said chains, reduced necks arranged at opposite ends of the body and each passing through the wide and narrow parts of the slots of two adjacent links of a chain, heads arranged on the outer ends of said necks and the outer sides of said chains and each having a diameter greater than the narrow parts of said slots and a supporting rod connecting the rearmost links.

[Claim 6 not printed in the Gazette.]

1,082,299. DEMOUNTABLE RIM. ROBERT W. ASHLEY and FRANK OBERKIRCH, New York, N. Y. Filed Feb. 10, 1912. Serial No. 678,633. (Cl. 152—21.)

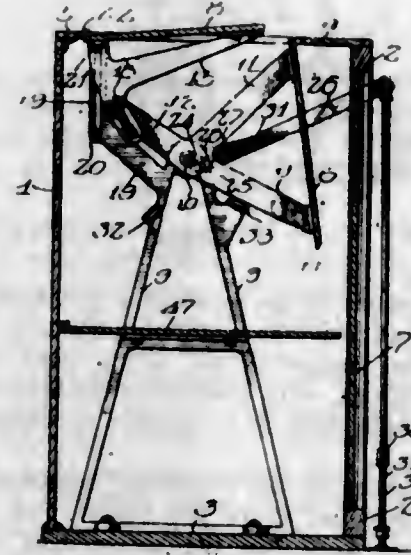


1. A device of the character described comprising a fixed rim provided at one edge with an annular groove and at its opposite edge with a retaining shoulder, a floating ring loosely mounted in said groove provided with depending ends, and a locking head having associated therewith a supporting means rigidly mounted in said fixed rim said locking head being provided with links connecting the free ends of said ring adapted to hold said ring in its expanded and contracted positions.

2. A device of the character described including a fixed rim provided with a locking means reception groove and a retaining shoulder, a locking ring capable of expansion and contraction mounted in said groove having free ends projecting through said fixed rim, a supporting threaded stud rigidly mounted in said fixed rim, a locking head movable on said stud, a swivel head carried by said locking head, and links carried by said swivel head connected with the free ends of said ring for controlling the movement of said ring.

3. A device of the character described including a locking retaining means for demountable rims comprising a floating ring mounted in a fixed annular rim adapted for annular expansive and contractive adjustment with relation to said fixed rim and provided with free depending ends, a supporting threaded stud rigidly mounted in said fixed rim, a locking head movable on said stud, a swivel head carried by said locking head, levers carried by said swivel head connected with the depending ends of said ring, said locking head being operative at a single point on the circumference of said rim to actuate said ring to hold the same in its expanded locked and contracted unlocked positions.

1,082,300. DISPLAY-CASE OR THE LIKE. SIDNEY W. BADCON, Ogden, Utah, assignor of one-half to Henry C. Baker, Ogden, Utah. Filed Dec. 7, 1911. Serial No. 664,376. (Cl. 211—16.)



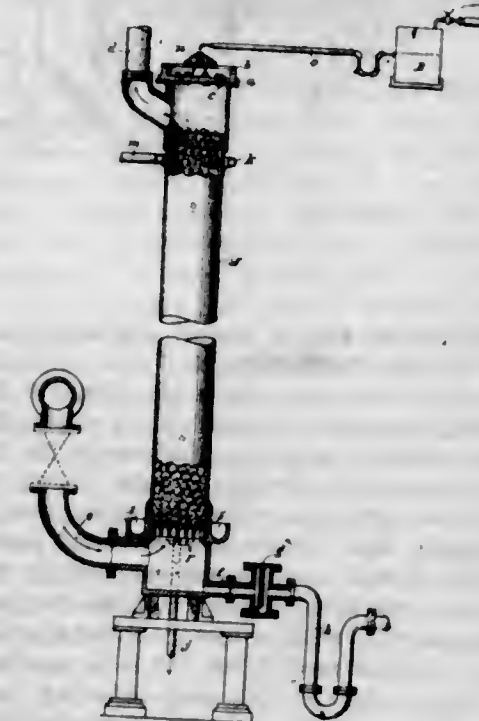
1. In a display apparatus of the character described, the combination of an inclosing casing, the top wall of which has an opening therethrough, standards projecting upwardly from the base of the casing having inclined rests or lugs, a cover member adapted to fit in said opening in the top wall and having a depending bracket pivotally supported to the upper end of the standards, said bracket member having an extension beyond the pivotal

197 O. G.—60

support and said cover member being adapted to swing from a position within the casing where its bracket support is in contact with one inclined lug of the standard, into a position within the opening of the top wall when the extension of said bracket is in contact with the other lug of the standard, and a suitably guided shelf having a movable connection with said extension of the cover bracket, said shelf being movable vertically into and out of position at the opening in the top wall of the casing by the movement of the cover member.

2. In a display apparatus of the character described, the combination of an inclosing casing, the top wall of which has an opening therethrough, standard projecting upwardly from the base of the casing having inclined rests or lugs, a cover member adapted to fit in said opening in the top wall and having a depending bracket pivotally supported to the upper end of the standards, said bracket member having an extension beyond the pivotal support and said cover member being adapted to swing from a position within the casing where its bracket support is in contact with one inclined lug of the standard, into a position within the opening of the top wall when the extension of said bracket is in contact with the other lug of the standard, and a suitably guided shelf having a movable connection with said extension of the cover bracket, said shelf being movable vertically into and out of position at the opening in the top wall of the casing by the movement of the cover member, and an auxiliary shelf positioned upon said standards intermediate the top and bottom of the casing.

1,082,301. APPARATUS FOR THE MANUFACTURE OF FUMING SULFURIC ACID OR OLEUM. THOMAS LYNTON BRIGGS, Flushing, N. Y., and HENRY F. MERRIAM, Summit, N. J., assignors to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Aug. 11, 1910. Serial No. 578,713. (Cl. 23—1.)



1. In an apparatus for manufacturing fuming sulfuric acid, the combination of a distributor arranged to divide incoming acid into streamlets, with a tower arranged to receive these streamlets at the top and incoming gases near the bottom, said tower being provided with an outlet near the top for air, with another outlet near the bottom for oleum and with means for cooling the contents of the tower, said tower being so proportioned that there shall be, substantially, one square inch of lateral cooling surface for every three cubic inches of effective tower space.

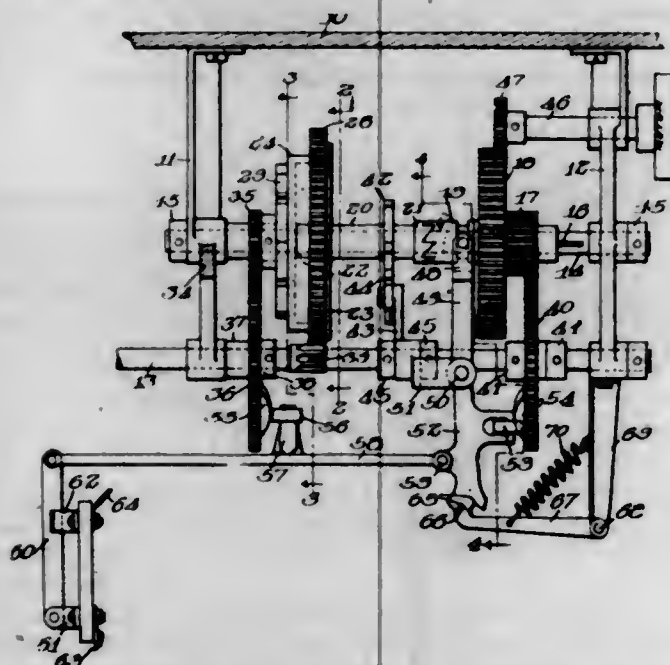
2. A tower for converting sulfuric acid and sulfuric anhydride into oleum, said tower being provided with an outlet for air near its top, with a grate carrying packing extending substantially to the height of said outlet and with means for cooling the contents of the tower, said tower being so proportioned that there shall be substan-

tially one square inch of lateral cooling surface for every three cubic inches of effective tower space.

3. The combination of the distributor *a*, the perforated plate *a*, the tower *A* carrying said plate, the grate in said tower, gas inlet in the lower part of the tower, oleum outlet pipe in the lowest part of the tower, air outlet pipe in the upper part of the tower, packing within the tower extending substantially to the air outlet pipe and cooling means on the outside of the tower, the tower being so proportioned that there shall be substantially one square inch of lateral cooling surface for every three cubic inches of effective tower space.

4. In an apparatus for converting sulfuric acid and sulfuric anhydride into oleum, a tower through which the anhydride and acid are passed, packing within said tower and means for cooling the tower from the outside, the proportions of the parts being so arranged that there shall be substantially, one square inch of lateral cooling surface for every three cubic inches of effective tower space.

1,082,302. MOTOR. SAMUEL E. CARLIN, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 11, 1909. Serial No. 532,541. (Cl. 185-40.)



1. The combination with a motor, embodying a tension device, of a winding mechanism for said tension device, embodying clutch elements movable into and out of engagements, a shifting member for said clutch elements, means carried by the winding mechanism aforesaid for operating said shifting member to disengage said clutch elements, means carried by the motor for operating said shifting member to engage said clutch members, and means operable at the will of the operator for controlling the operation of the motor under the influence of the tension device.

2. The combination with a motor embodying a tension device, and a winding mechanism for said tension device, a shiftable clutch for making said winding mechanism active or inactive, a shifting lever cooperating with said clutch, timed means carried by the winding mechanism for shifting said lever and disengaging said clutches, timed means carried by the motor for shifting said lever and throwing said clutches into engagement, and a means for locking the motor against operation under the influence of the tension device.

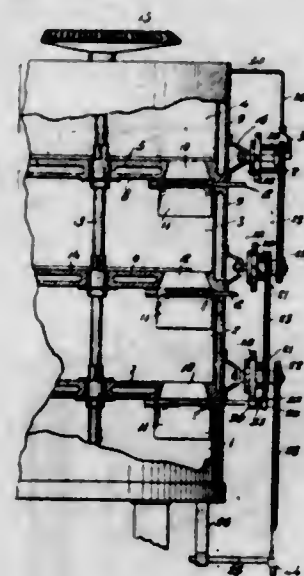
3. Combination with a motor embodying a tension device, of a winding mechanism for said tension device, shiftable clutches for making said winding mechanism active or inactive, a shifting lever cooperating with said clutch, timed means carried by the winding mechanism for shifting said lever and disengaging said clutches, timed means carried by the motor for shifting said lever and throwing said clutches into engagement, and means operable by said shifting lever for imparting power to the winding mechanism.

4. In a device of the class described, the combination of a motor embodying a tension device, mechanism for winding the tension device and embodying clutch elements relatively movable into and out of operative engagement, an actuating element for imparting such relative movement, a cam controlled by the winding mechanism for shifting the said actuating element in one direction for disconnecting the clutch elements when the tension device is wound, a cam controlled by the motor for shifting the said actuating element in the opposite direction to connect the clutch elements when the tension device is unwound, and means operable at the will of the operator for controlling the operation of the motor under the influence of the tension device whereby an intermittent movement will be imparted to the motor.

5. In a device of the class described, the combination of a motor embodying a tension device, mechanism for winding the tension device and embodying clutch elements relatively movable into and out of operative engagement, an actuating element for imparting such relative movement, means controlled by the winding mechanism for shifting the said actuating element in one direction for disconnecting the clutch elements when the tension device is wound, means controlled by the motor for shifting said actuating element in the opposite direction to connect the clutch element when the tension device is unwound, means operable at the will of the operator for controlling the operation of the motor under the influence of the tension device whereby an intermittent movement will be imparted to the motor, and means controlled by the movement of the said actuating device for respectively starting and stopping the said winding mechanism when the clutch elements are connected and disconnected.

[Claims 6 to 9 not printed in the Gazette.]

1,082,303. STEAM-COOKER FOR OIL-BEARING MEAL. ALBERT BLANCHARD CARR, Atlanta, Ga., assignor to The Procter and Gamble Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 8, 1913. Serial No. 752,857. (Cl. 87-6.)



1. In an apparatus of the character specified, a series of kettles arranged one above the other, with discharge openings from one kettle to the kettle next below and doors for the openings, with means for mechanically opening and closing each door in succession in timed relation to each other.

2. In an apparatus of the character specified, a series of kettles arranged one above the other, with discharge openings from one kettle to the kettle next below and doors for the openings, with cams for opening and closing the doors, and means for actuating the cams in timed relation to open and close each door in succession.

3. In an apparatus of the character specified, a series of kettles arranged one above the other, with discharge openings from one kettle to the kettle next below and doors for the openings, with cams for opening and closing the doors, sprocket wheels and chains for driving the cams, with power connection for the driving sprocket and means

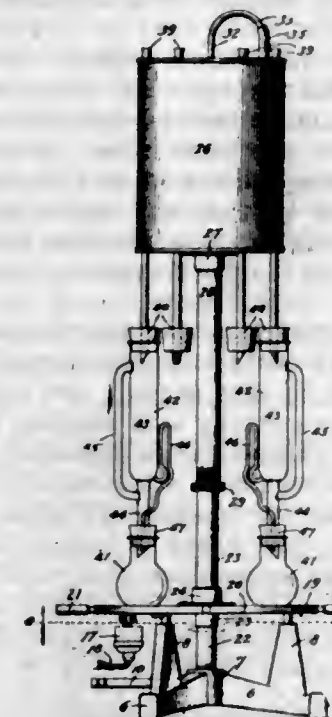
for disconnecting the power with each rotation of the cams.

4. In an apparatus of the character specified, a series of kettles arranged one above the other, with discharge openings from one kettle to the kettle next below and doors for the openings, with means for mechanically opening and closing each door in succession in timed relation to each other, and mechanism for disconnecting the door actuating means at the termination of each cycle of operations.

5. In an apparatus of the character specified, a series of kettles arranged one above the other, with discharge openings from one kettle to the kettle next below and doors for the openings, with means for mechanically opening and closing each door in succession in timed relation to each other, a supply opening for delivering meal to the uppermost kettle, with door therefor, means for closing said door by contact with the meal in the uppermost kettle, catch to lock said door, and connecting mechanism intermediate the catch and the door opening and closing means for the kettles whereby said supply door shall be released in timed relation to the operation of the kettle doors.

[Claims 6 to 8 not printed in the Gazette.]

1,082,304. EXTRACTION APPARATUS. HENRY J. CARY-CURR, Chicago, Ill., assignor to E. H. Sargent & Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 20, 1913. Serial No. 785,671. (Cl. 23-3.)



1. An extraction-apparatus of the character described, having a stationarily-supported hot-plate, and a rotatably-supported supplemental hot-plate covering said stationary plate to be heated thereby and forming the extractor-support.

2. An extraction-apparatus of the character described, having a base, an electrically-heated hot-plate secured on said base, and a flanged supplemental hot-plate rotatably mounted on said stationary plate to be heated thereby and forming the extractor-support.

3. An extraction-apparatus of the character described, having a base, a hot-plate secured on said base, a supplemental hot-plate rotatably supported to cover and be heated by said stationary plate and forming the extractor-support, a standard rising through said plates from said base, having a rotatable upper portion secured to said supplemental plate, and condenser-tubes supported at the upper end of said standard to rotate therewith.

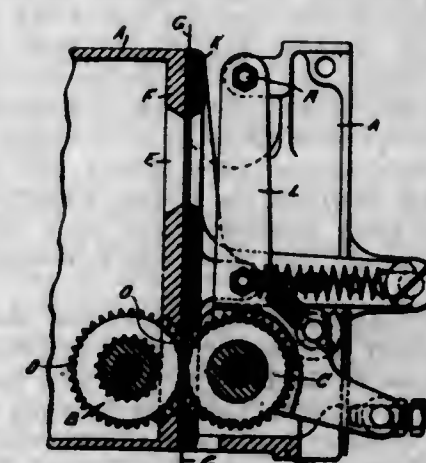
4. An extraction-apparatus of the character described, having a base, a hot-plate secured on said base, a supplemental hot-plate rotatably mounted on said stationary plate to be heated thereby and forming the extractor-support, a hollow standard rising through said plates from said base, having a rotatable upper section secured to said supplemental plate and telescopically connected with the

lower standard-section to render the standard extensible and contractible, and condenser-tubes supported at the upper end of said standard to rotate therewith.

5. An extraction-apparatus of the character described, having a base provided with a hollow hub, a cold-water supply-pipe leading into and a discharge-pipe leading out of the hub, a hot-plate secured on said base, a supplemental hot-plate rotatably supported to cover and be heated by said stationary plate and forming the extractor-support, a hollow standard rising through said plates from said hub in which it communicates with said discharge-pipe, said standard having a rotatable upper portion secured to said supplemental plate, condenser-tubes supported at the upper end of said standard to rotate therewith, and a pipe leading through said standard for supplying condenser-water to said tubes to escape through the hollow standard to said discharge-pipe.

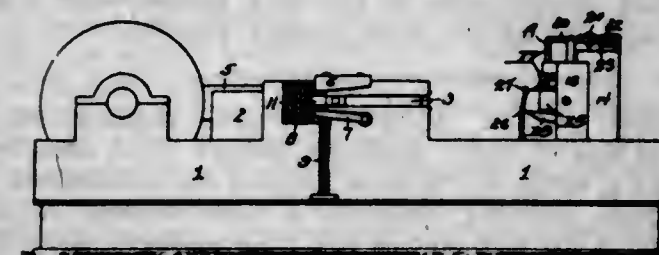
[Claims 6 to 11 not printed in the Gazette.]

1,082,305. KINEMATOGRAPH CAMERA AND PROJECTING APPARATUS. WALTER CHIPPERFIELD, Romford, England, assignor to William Edward Garforth, Pontefract, England. Filed Apr. 22, 1913. Serial No. 762,870. (Cl. 88-17.)



Apparatus of the type specified for taking kinematograph pictures and projecting the same; comprising in combination a feed roller consisting of a plurality of acting portions spatially arranged in the direction of its axis, said acting portions projecting into apertures in the front wall of the frame carrying the feed roller driving mechanism, a strip forming part of the front wall and in face alignment therewith dividing adjacent apertures, an enlargement on the periphery of each acting portion adapted to project through said apertures, a pressure roller yieldingly supported by said mechanism frame and consisting of acting portions spatially arranged in the direction of its axis and of a number corresponding to said acting portions of said feed roller, and a gate having apertures through which the acting portions of said pressure roller pass to co-act with said feed roller to feed the film, a strip forming part of said gate and in face alignment therewith dividing adjacent apertures in said gate and passing between adjacent acting portions of said pressure roller.

1,082,306. BRICK-CLEANING MACHINE. ALBERT R. CHRISTMAN, Philadelphia, Pa., assignor of one-half to Elliot A. Oberrender, Melrose Park, Pa. Filed Dec. 27, 1912. Serial No. 738,852. (Cl. 125-6.)



1. The combination, in apparatus for cleaning bricks, of means for cleaning the mortar from opposite sides of

the brick at and near one end of the same, a die adapted to engage said cleaned surfaces of the brick, and means for forcing the brick through said die so as to complete the cleaning of the mortar from said partially cleaned sides thereof.

2. The combination, in apparatus for cleaning bricks, of means for cleaning the mortar from opposite sides of the brick at and near one end of the same, a die adapted to engage said cleaned surfaces of the brick, and means for forcing the brick through said die so as to complete the cleaning of the mortar from said partially cleaned sides thereof, said die also having means for cleaning the mortar from the other two sides of the brick simultaneously with the completion of the cleaning of the mortar from those sides which were first partially cleaned.

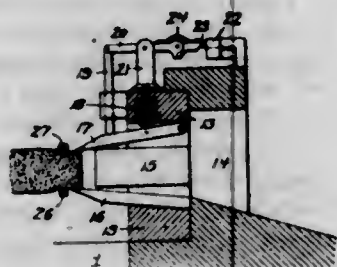
3. The combination, in apparatus for cleaning bricks, of means for cleaning the mortar from the top and bottom sides of a brick at and near one end of the same and for simultaneously cleaning the mortar from the adjacent end of the brick, a die having means for engaging said partially cleaned sides of the brick, and means for forcing the brick through said die so as to complete the cleaning of said partially cleaned sides thereof.

4. The combination, in apparatus for cleaning bricks, of means for cleaning the mortar from the top and bottom sides of a brick at and near one end of the same and for simultaneously cleaning the mortar from the adjacent end of the brick, a die having means for engaging said partially cleaned sides of the brick, and means for forcing the brick through said die so as to complete the cleaning of said partially cleaned sides thereof, said die also having means for cleaning the mortar from the other two sides of the brick simultaneously with the completion of the cleaning of those sides which were first partially cleaned.

5. The combination, in apparatus for cleaning bricks, of a preliminary die having plates projecting over the top and bottom of the brick at and near one end of the same, means for forcing the brick laterally through said die, thereby cleaning said sides at and near said end, a second die adapted to engage said cleaned portions of the sides of the brick, and means for forcing the brick longitudinally through said die so as to complete the cleaning of the partially cleaned sides thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,082,307. REMOVING ADHERING MORTAR FROM BRICKS. ALBERT R. CHRISTMAN, Philadelphia, Pa., assignor of one-half to Elliot A. Oberrender, Melrose Park, Pa. Filed May 2, 1913. Serial No. 765,042. (Cl. 125-6.)

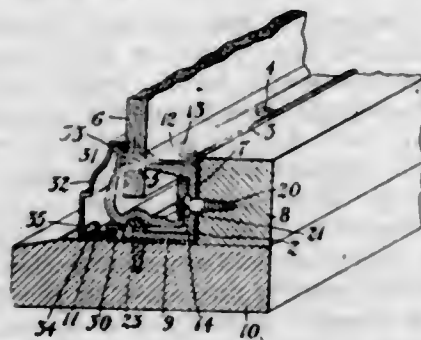


The mode herein described of removing adhering mortar from bricks, said mode consisting in first cleaning the mortar from opposite sides of the brick at and near one end of the same in order to prepare said brick for insertion between the jaws of a die, then inserting said partially cleaned sides of the brick between said jaws, and then driving the brick through said die.

1,082,308. SASH. MARTIN S. CRANE, Hoboken, N. J. Filed May 16, 1913. Serial No. 768,011. (Cl. 189-78.)

1. In a device of the class specified the combination of two plate clamping members, a rocker-bearing on one member, a coating seat on the other member, means for securing the bearing member to a window frame, and means for rocking the other member on the bearing member for clamping the plate against the bearing member.

2. In a device of the class specified the combination of a pair of C shaped moldings arranged face to face, two plate clamping members therebetween, a rocker-bearing on one member, a coating seat on the other member, means for securing the bearing member to a window frame and means for rocking the other member on the bearing member for clamping the plate against the bearing member, and means accessible from without said moldings for operating said clamping means.

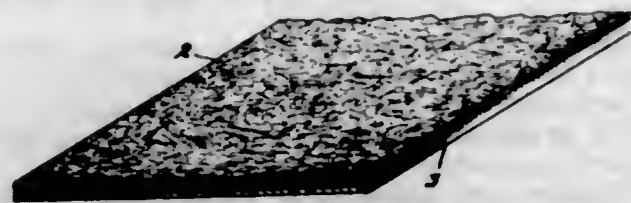


3. In a device of the class specified the combination of a molding, a rocker-bearing block seated in said molding and having a plate abutment, means for securing said molding and block to a window frame, a clamp member having a seat for engagement with said rocker-bearing block and having a plate engaging portion, and means in engagement with said block for urging the plate engaging portion of said clamp member toward the plate abutment of said bearing block.

4. In a device of the class specified the combination of a molding, a rocker-bearing block seated in said molding and having a plate abutment, means for securing said molding and block to a window frame, a clamp member having a seat for engagement with said bearing block and having an upstanding portion, and means in engagement with said block for urging the upstanding portion of said clamp member toward the plate abutment of said bearing block.

5. In a device of the class specified the combination of a molding having a plate engaging portion, a rocker-bearing block seated in said molding and having a plate abutment, means for securing said molding and block to a window frame, a clamp member having a seat for engagement with said bearing block and having an upstanding portion, a second molding having an upper flange for engaging a plate, and means in engagement with said block for urging the upstanding portion of said clamp member toward the plate abutment of said bearing block to clamp a plate between the upper flange of said second molding and said plate engaging portion of said first molding.

1,082,309. VANNER CONCENTRATING-BELT. ROBERT DE LARGE, Ray, Ariz. Filed Oct. 8, 1912. Serial No. 724,630. (Cl. 83-83.)

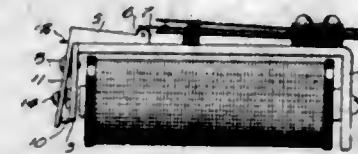


A concentrator belt comprising an inner surface of rubber belting, and an outer surface of fine smooth felt composed of fine, matted, curled fibers, said felt being of a density sufficient to prevent percolation of water through the same.

1,082,310. RELAY. JOHN ERICKSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 31, 1911. Serial No. 618,147. (Cl. 178-304.)

1. In a relay, a set of circuit-controlling springs, an armature provided with an arm extending at an angle thereto for operating said springs, said arm being movable

relative to the armature, and means for changing the angle between the armature and said arm to regulate the stroke.



2. In a relay, an electromagnet, an armature therefor supported in front of one end thereof, an arm carried by said armature, which arm extends lengthwise of the magnet toward the other end thereof, a set of circuit-controlling springs controlled by the distal end of said arm, the said arm being movable relative to the said armature, and means on said armature for changing the angle of said arm relative thereto.

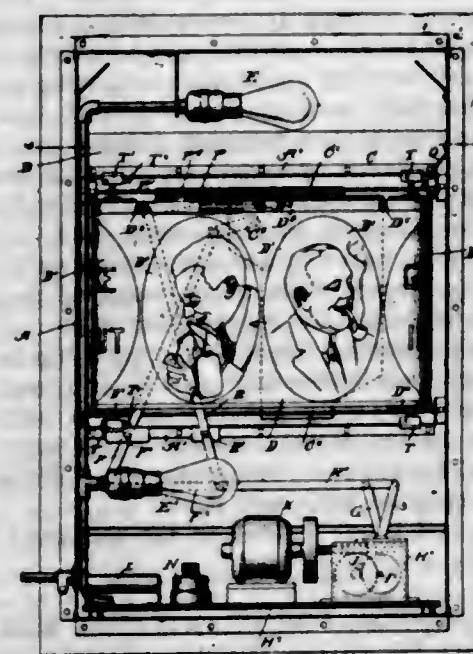
3. In a relay, an electromagnet, a support for said magnet, an armature carried at one end of said support and depending in front of one end of said magnet, circuit springs mounted on said support, the free ends of said springs extending toward the armature, an arm carried by the armature and extending lengthwise of the magnet to control said springs, said arm being movable relative to said armature, and a screw connecting the said arm with the outer face of the armature, which screw is adjustable to change the angle between the said armature and said arm.

4. In a relay, an armature therefor provided with an arm extending at an angle thereto, which arm is mounted for movement relative to the armature, and means on the outer face of the armature for changing the angle between the armature and said arm.

5. In a relay, an electromagnet, an armature therefor, an arm extending at an angle to said armature, said arm being provided with a flexible portion extending at an angle thereto, and a screw for clamping said flexible portion upon the outer face of the armature, which screw is adjustable to change the tension of said flexible portion and thereby change the angle between the armature and said arm.

[Claim 6 not printed in the Gazette.]

1,082,311. ADVERTISING MEDIUM. GEORGE T. FIELDING, New York, N. Y. Filed June 5, 1913. Serial No. 771,865. (Cl. 40-32.)



1. An advertising medium, comprising a support having a display opening, an intermittently traveling web provided with a series of advertising matter adapted to successively register with the said display opening, an intermittently moving slide controlling the said display opening, a rotating crank provided with spaced crank pins, levers alternately and intermittently actuated by

the said crank pins, and connections between the said levers and the said web and slide to move the slide into open position relative to the said display opening while the web is at a standstill, and to move the slide into a closed position relative to the display opening and to keep the latter closed during the time the web is moving.

2. An advertising medium, comprising a support having a display opening, an intermittently traveling web provided with a series of advertising matter adapted to successively register with the said display opening, an intermittently moving slide controlling the said display opening, a motor driven crank provided with spaced crank pins, levers having forks alternately and intermittently actuated by the said crank pins, a lever and link connection connecting one of the forked levers with the said slide, a carrier mounted to slide and provided with an arm engaging the said web to move the latter in one direction only, and a lever and link connection connecting the other forked lever with the said carrier.

3. An advertising medium, comprising a casing having a front provided with a display opening, rollers journaled in the casing and arranged on opposite sides of the said display opening, an endless web passing around the said rollers and provided with advertising panels adapted to register successively with the said display opening, the web having spaced eyelets along one edge, a spring-pressed arm having a lug at its free end adapted to engage the said eyelets, a carrier mounted to slide in the direction of the length of the web and on which carrier the said arm is pivoted, and means for imparting an intermittently reciprocating motion to the said carrier to move the web in one direction.

4. An advertising medium, comprising a casing having a front provided with a display opening, rollers journaled in the casing and arranged on opposite sides of the said display opening, an endless web passing around the said rollers and provided with advertising panels adapted to register successively with the said display opening, the web having spaced eyelets along one edge, a spring-pressed arm having a lug at its free end adapted to engage the said eyelets, a carrier mounted to slide in the direction of the length of the web and on which carrier the said arm is pivoted, a crank arm, means for turning the said crank arm, a lever having a fork adapted to be engaged by the said crank arm for imparting an intermittent swinging motion to the said lever, and a connection between the said lever and the said carrier.

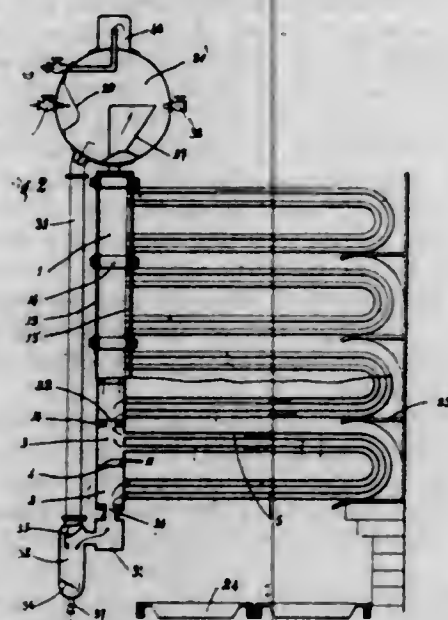
5. An advertising medium, comprising a casing having a front provided with a display opening, rollers journaled in the casing and arranged on opposite sides of the said display opening, an endless web passing around the said rollers and provided with advertising panels adapted to register successively with the said display opening, the web having spaced eyelets along one edge, a spring-pressed arm having a lug at its free end and adapted to engage the said eyelets, a carrier mounted to slide in the direction of the length of the web and on which carrier the said arm is pivoted, means for imparting an intermittent reciprocating motion to the said carrier to move the web in one direction, and means for holding the web against movement in the opposite direction.

[Claim 6 not printed in the Gazette.]

1,082,312. STEAM-GENERATOR WITH FORCED CIRCULATION. PIERRE FOUQUE and GILBERT CHAMPETIER, La-Plaine-St-Denis, France. Filed Jan. 6, 1913. Serial No. 740,467. (Cl. 122-279.)

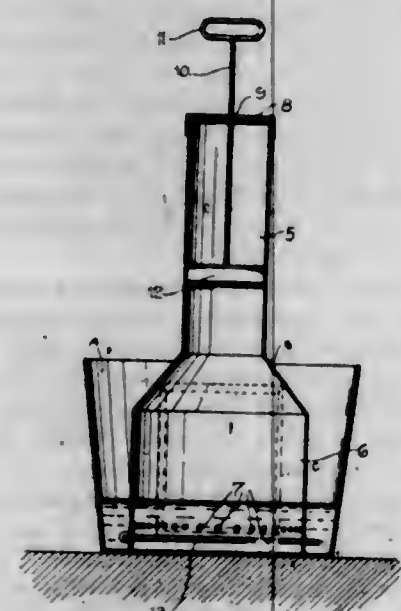
A steam generator with forced circulation and composed of detachable separate elements comprising in combination: a certain number of chests, each forming one element, a partition in the chest dividing the same into two compartments and having a hole of small diameter, U-shaped tubes terminating with one end in one of said compartments and with the other end in the other compartment, an inclined perforated top wall of the chest and an inclined perforated bottom of the chest, cross pieces supporting said chests and having holes registering with

the holes in the bottom and top plates of said chests, cavities in the upper and lower surfaces of said cross pieces corresponding with the inclined top and bottom plates of said chests, ring-shaped projections surrounding said holes



of the cross pieces, perforated red copper caps upon said ring-shaped projections, and double uprights at the ends of the cross pieces supporting the same substantially as described and shown and for the purpose set forth.

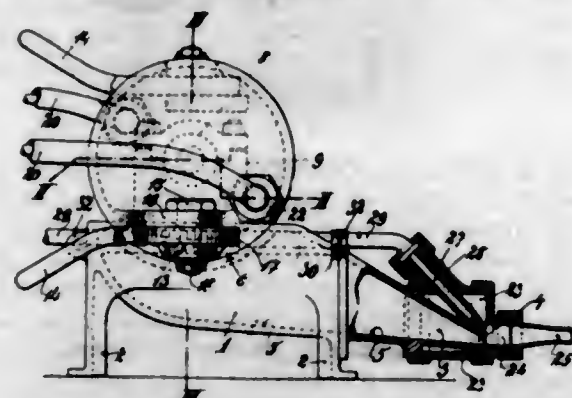
1,082,313. WASHING DEVICE. MEINE P. FREIBERG, Driscoll, N. D. Filed July 16, 1913. Serial No. 779,381. (Cl. 141—9.)



1. A device of the character described comprising a cylinder having an enlarged end portion adapted to receive the article to be cleansed, the lower marginal portion of such cylinder being provided with a series of perforations, means removably projected through the lower marginal portion of the enlarged part of the cylinder to support the article to be cleansed within such enlarged part, and a plunger mounted within the cylinder above the enlarged portion thereof.

2. A device of the character described including a cylindrical body having one end open, the marginal portion of the body adjacent its open end being provided with a series of perforations, such open end portion of the cylinder being adapted to accommodate the article to be cleansed, a plunger mounted for reciprocation within the cylinder, and removable means insertible through the marginal portion of the cylinder adjacent its open end to support the article to be cleansed within the cylinder.

1,082,314. PORTABLE MELTING APPARATUS. GNORO GABAYS, Budapest, Austria-Hungary, assignor of forty-five one-hundredths to Frank Yokel and forty-five one-hundredths to Adolf Steffen, Meriden, Conn. Filed Oct. 17, 1912. Serial No. 726,263. (Cl. 207—1.)



1. A portable melting-apparatus comprising in combination a molten-metal-collecting vessel having an inclined bottom and having a discharge spout to which molten metal in said vessel will flow, and one or more melting-vessels rotatably mounted on said collecting vessel and each provided with means for applying heat to its contents and with a discharge opening adapted to be moved into position to discharge the contents of the melting vessel into the collecting vessel by the rotation of said melting vessel.

2. A portable melting-apparatus comprising in combination a molten-metal-collecting vessel provided with one or more cylindrically-curved beds for one or more melting-vessels, and one or more melting-vessels having each a corresponding cylindrically-curved surface adapted to rest upon said bed, and means for securing each such melting vessel in place with respect to said collecting-vessel, each such melting vessel provided with means for applying heat to its contents and with discharge means whereby when said vessel is rotated its contents may be discharged into the collecting vessel.

3. A portable melting-apparatus comprising in combination a molten-metal-collecting vessel having one or more cylindrically-curved beds for one or more melting-vessels, and one or more melting vessels having each a corresponding cylindrically-curved surface adapted to rest upon said bed, each such melting vessel having also a hollow trunnion, said collecting vessel having a corresponding trunnion bearing for each such vessel, and a pivot pin for each such hollow trunnion, fitting within the hollow space thereof and carried by said collecting-vessel.

4. A portable melting apparatus comprising in combination a molten-metal-collecting vessel, and one or more melting vessels rotatably mounted thereon and each provided with a discharge opening adapted to be brought into position to discharge molten metal into said collecting vessel by rotation of such melting vessel, each melting vessel provided with valve means for closing such discharge opening comprising a slide valve mounted in guides in said vessel, and means for moving said valve.

5. A portable melting apparatus comprising in combination a molten-metal-collecting vessel, and one or more melting vessels rotatably mounted thereon and arranged to discharge molten metal thereinto, and each provided with a lateral burner-port, and means for holding a burner in operative relation with said port.

(Claims 6 and 7 not printed in the Gazette.)

1,082,315. PROCESS FOR CLARIFYING WATER AND PURIFYING IT FROM GERMS. ROBERT GANS, Pankow, near Berlin, Germany, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany, a Joint Stock Company. Filed Dec. 12, 1910. Serial No. 596,884. (Cl. 210—1.)

1. The process for clarifying water and for purifying it from germs, which consists in producing in the water a colloidal solution of manganese and then filtering it over an oxid of manganese, substantially as described.

2. The process for clarifying water and for purifying it from germs, which consists in producing in the water a colloidal solution of manganese by the addition of a permanganate and then filtering it over an oxid of manganese, substantially as described.

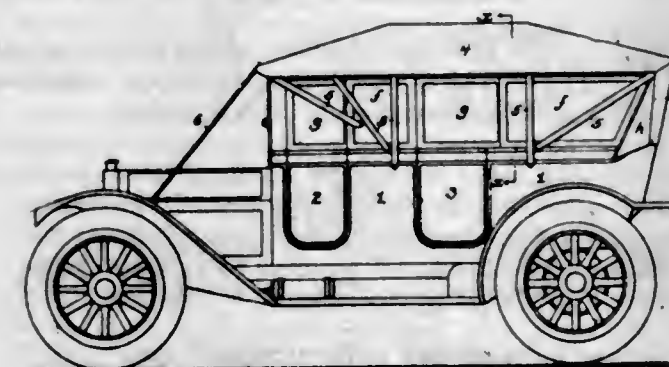
3. The process for clarifying water and for purifying it from germs, which consists in producing in the water a colloidal solution of manganese by the addition of a permanganate and a manganous salt and then filtering it over an oxid of manganese, substantially as described.

4. The process for clarifying water and for purifying it from germs, which consists in producing in the water a colloidal solution of manganese, and then filtering it over an oxidized oxid of manganese, substantially as described.

5. The process for clarifying water and for purifying it from germs, which consists in producing in the water a colloidal solution of manganese and then filtering over an oxid of manganese, in conjunction with zeolite, substantially as described.

(Claim 6 not printed in the Gazette.)

1,082,316. INCLOSURE FOR THE BODIES OF MOTOR-CARS. AUGUST GEISSEL and CONRAD GEISSEL, Philadelphia, Pa. Filed Apr. 5, 1913. Serial No. 759,140. (Cl. 21—62.)



1. The combination of the open body, swinging doors, flexible top, and pivoted braces of an automobile with an interposed and relatively rigid structure comprising opposite lower bars made in sections secured respectively to the body and doors, and opposite upper bars bearing against said flexible top, said structure being provided with glazed sashes and serving, in connection with said body and top, to inclose the vehicle after the manner of a limousine.

2. The combination of the open body, swinging doors, flexible top, and pivoted braces of an automobile, with an interposed and relatively rigid structure comprising opposite lower bars made in sections secured to the body and doors, and opposite upper bars bearing against said flexible top, said structure being provided with glazed sashes engaging said upper and lower bars, the sashes corresponding with the swinging doors being so mounted as to be movable out of engagement with the bars carried by said doors in order to permit of the opening of the latter.

3. The combination of the open body, swinging doors, flexible top, and pivoted braces of an automobile, said flexible top having a flexible rear apron, and an inclosing structure comprising opposite side members each consisting of upper and lower bars and interposed glazed sashes, and aprons at the rear ends of said side members for closing the spaces between the latter and the rear apron of the cover.

4. The within described inclosing structure for an automobile, the same comprising side members each having upper and lower bars and interposed glazed sashes some of which are slidably mounted, said bars being grooved and provided with connecting posts between which and the flanges of the bars the front bars of the sliding sashes can be confined when said sashes are closed.

1,082,317. HEDDLE-FRAME FOR LOOMS. JOACHIM GIARDINO, West New York, N. J. Filed Dec. 16, 1912. Serial No. 736,902. (Cl. 139—73.)

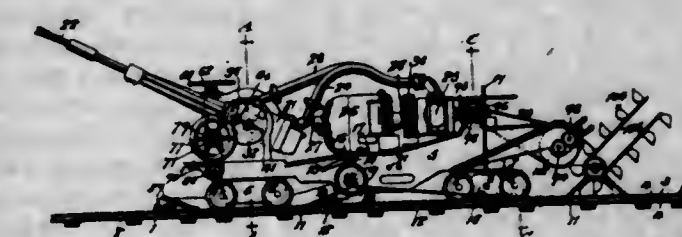


1. A heddle frame the top and bottom members of which are composed of hollow flattened tubes the inner faces of which are provided with central longitudinal slots through which the heddles pass and which form inwardly directed flanges, said tubes being also provided with central longitudinal bars which pass through the ends of the heddles and with bearing devices freely movable therein longitudinally thereof and which rest on said flanges and through which said bars are loosely passed.

2. A heddle frame the top and bottom members of which are composed of hollow flattened tubes the inner faces of which are provided with central longitudinal slots through which the heddles pass and which form inwardly directed flanges, said tubes being also provided with central longitudinal bars which pass through the ends of the heddles and with bearing devices freely movable therein longitudinally thereof and which rest on said flanges and through which said bars are loosely passed, the ends of said tubes being also closed by blocks which fit therein and in which the ends of said bars are supported.

3. A heddle frame the top and bottom members of which are composed of hollow flattened tubes the inner faces of which are provided with central longitudinal slots through which the heddles pass and which form inwardly directed flanges, said tubes being also provided with central longitudinal bars which pass through the ends of the heddles and with bearing devices freely movable therein longitudinally thereof and which rest on said flanges and through which said bars are loosely passed, the ends of said tubes being also closed by blocks which fit therein and in which the ends of said bars are supported, and the sides of said frame being composed of metal strips which are folded around the ends of said tubes and detachably secured thereto and to said blocks.

1,082,318. MINING-MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 18, 1908. Serial No. 463,211. (Cl. 125—14.)



1. A mining machine including a portable platform, a puncher mounted thereon, and yielding means for swinging the puncher laterally.

2. A mining machine including a portable platform, a puncher mounted thereon, and friction held means for swinging the puncher laterally.

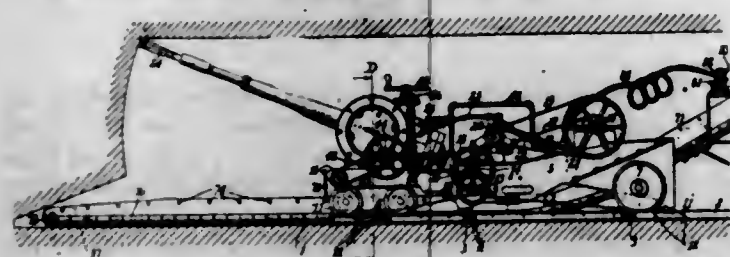
3. A mining machine including a portable platform, a puncher mounted thereon, yielding means for swinging the puncher laterally and yielding means for swinging the puncher vertically.

4. A mining machine including a portable platform, a puncher mounted thereon, friction held means for swinging the puncher laterally and friction held means for swinging the puncher vertically.

5. A mining machine including a portable platform, a puncher mounted thereon, means for adjusting the puncher longitudinally, and yielding means for swinging the puncher laterally.

[Claims 6 to 31 not printed in the Gazette.]

1,082,319. MINING-MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 15, 1910. Serial No. 538,266. (Cl. 125-14.)



1. A track, a mining machine including a platform, a puncher mounted thereon, a motor mounted on the platform for moving the mining machine back and forth along the track, an endless conveyor, means for removably attaching the conveyor to the mining machine, a motor mounted on the endless conveyor for driving it and a common fluid pressure supply pipe carried by the platform for supplying power to the puncher and motors.

2. A track, a mining machine including a platform, a puncher mounted thereon, a motor for driving the mining machine back and forth along the track, a motor for swinging the puncher laterally into different positions, an endless conveyor, means for removably attaching the conveyor to the mining machine, a motor mounted on the endless conveyor for driving it and a common fluid pressure supply pipe carried by the platform for supplying power to the puncher and motors.

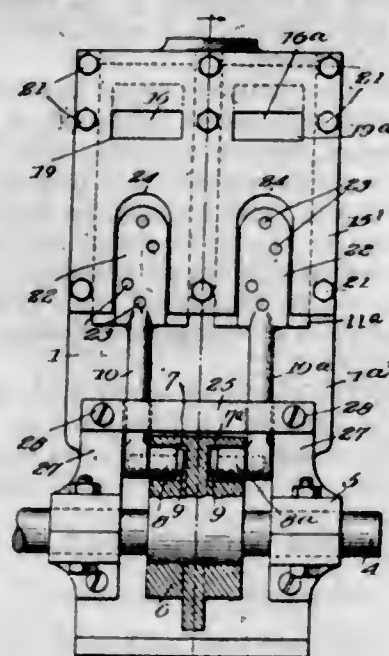
3. A track, a mining machine including a platform, a puncher mounted thereon, a motor for driving the mining machine back and forth along the track, a motor for swinging the puncher laterally into different positions, manually operated means for swinging the puncher vertically into different positions, an endless conveyor, means for removably attaching the conveyor to the mining machine, a motor on the conveyor for driving it and a common fluid pressure supply pipe carried by said platform for supplying power to said puncher and motors.

1,082,320. GAS-ENGINE VALVE. FRANK C. GONZALES, Traer, Iowa. Filed Jan. 11, 1912. Serial No. 670,580. (Cl. 123-188.)

1. In an engine, a cylinder provided with an inlet and an exhaust port at the end remote from the crank shaft, a guide plate provided with ports registering with the ports of the cylinder, and with laterally spaced parallel guideways extending longitudinally of the cylinder, one of the ports being in each guideway, a cover plate over the guide plate, said cover plate having ports registering with the ports of the guide plate, a slide valve in each guideway, each valve having a port for placing the ports of the guide plate and cover plate in communication when the valve is at the end of its movement toward the crank shaft, and means for operating the said valves.

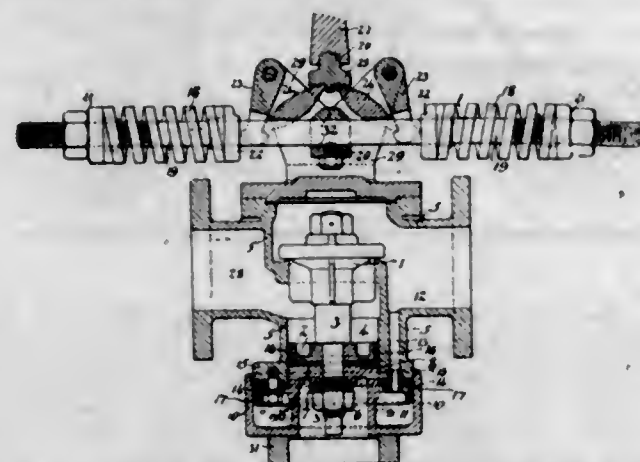
2. An engine of the character specified, comprising a cylinder having inlet and exhaust ports arranged alongside each other, superposed guide and cover plates having

registering ports and having a guideway between the plates at each port, and a slide valve in each guideway,



each valve having a port for registering with the ports of the guide plate and the cover plate.

1,082,321. REDUCING-VALVE. JOHN GRAHAM and ARCHIBALD GRAHAM, Jr., Glasgow, Scotland. Filed Dec. 17, 1912. Serial No. 737,324. (Cl. 50-23.)



1. In a reducing valve the combination comprising a casing, a valve, a spindle connected to the valve, a balance piston on the spindle, a disk on the spindle below the balance piston, reverted flanges on the disk, an annular pressure chamber between the flanges of the disk, a ring closing the pressure chamber bolted to the casing, a duct from the low pressure side of the valve to the pressure chamber, cup leathers between the balancing piston and the casing and between the closing ring and the disk outer flange and means for raising the valve substantially as set forth.

2. The combination of a valve casing; a valve therein; and means for operating said valve including a crosshead connected thereto; two rods connected respectively to opposite ends of the crosshead; a bridge piece connecting said rods; toggle links respectively engaging said bridge piece; levers respectively engaged by said links and pivoted to the casing; a rod carried by said casing; with two springs mounted on the rod and respectively engaged by said levers.

1,082,322. LIGHTING-FIXTURE. EDWIN F. GUTH, St. Louis, Mo. Filed Feb. 13, 1913. Serial No. 748,086. (Cl. 240-78.)

1. In combination, a junction box, a fixture supporting member having a central portion extending over the junction box and supported therefrom, fixture supporting arms depending from and integral with the central portion, and socket supporting lugs projecting from the lower surface of the central portion.

2. In combination, a junction box, a ceiling canopy, a supporting member having a central portion extending over the opening of the junction box, and depending arms integral with the central portion and supporting the canopy.



3. In a lighting fixture, the combination with a supporting member suitably attached to the ceiling and having depending arms, of a glass canopy covering said member and supported from the arms thereof, a shade or other light directing or controlling device below the canopy and also supported from the depending arms of the supporting member.

4. In a lighting fixture, the combination with a supporting member suitably attached to the ceiling and having depending arms, of a canopy, a shade or other light directing or controlling device below the canopy, and means for securing the canopy to the depending arms of the supporting member, said means also supporting the shade.

5. In a lighting fixture, the combination with a supporting member suitably attached to the ceiling and having depending arms, of a canopy, a shade or other light directing or controlling device below the canopy, bolts passing through the canopy and each engaging with a depending arm of the supporting member for securing the canopy to said arms, and means for supporting the shade from said bolts.

[Claims 6 and 7 not printed in the Gazette.]

1,082,323. PORTABLE LAUNDRY-BASKET. JANE HARRIS, Germantown, Pa. Filed Sept. 27, 1912. Serial No. 722,697. (Cl. 21-65.)



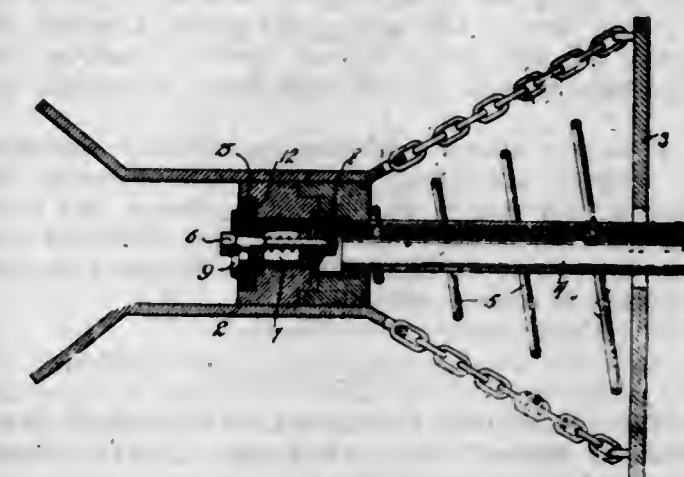
The combination with a basket body, of a framing sustaining the same, wheels supporting said framing, a handle having arms pivotally engaging the framing and disposed at opposite sides thereof, an inclined brace disposed at each side of the framing, a socket on the framing for each of the braces adapted to receive the lower end of the respective brace, the upper end of each brace being bifurcated for receiving the respective arm of the handle between the arms of the bifurcation, the arms of the bifurcations and the arms of the handle being apertured, and a locking pin for each brace adapted to detachably extend through the apertures for locking the handle to the brace.

1,082,324. GASKET AND RETAINER THEREFOR. ALBERT E. HAAT, New York, N. Y. Filed Aug. 29, 1912. Serial No. 717,705. (Cl. 121-110.)

1. In a device of the character described, a gasket formed with a body portion having a sleeve extending therefrom and a flange formed with a beveled upper surface, and a retaining ring formed with a co-acting beveled upper surface for clamping said flange in position and crowding the same radially inwardly.

2. In a device of the character described, a gasket

formed with a body portion formed with a sleeve and an annular flange, and a retaining clamping member acting on said flange and said body for crowding the same radially inwardly in order that the gasket may tightly hug the member around which it is placed.



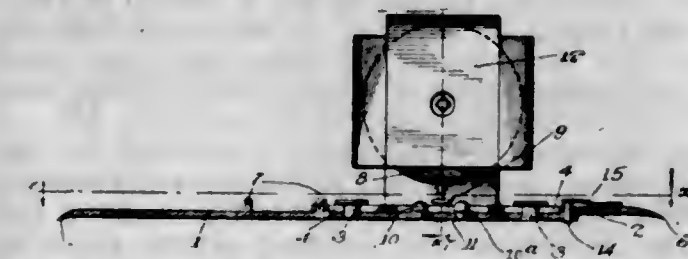
3. In a device of the character described, the combination with the head of an air coupler formed with a passageway therethrough and an annular recess having a threaded wall, said annular recess surrounding said passageway, of a gasket formed with a flange fitting into said annular recess, and a peripherally threaded ring screwed into said annular recess and clamping the flange of said gasket against the bottom of said annular recess, said ring having a beveled bottom for crowding the gasket toward said passageway.

4. In a device of the character described, a gasket formed with a body portion having a sleeve extending therefrom, and a flange formed with a beveled upper surface, and a retaining ring formed with a co-acting beveled surface and with a threaded periphery for clamping said flange in position and crowding the same radially inwardly.

5. In a device of the character described, the combination with a coupler head having an annular threaded recess, of a gasket fitting into said recess, and a clamping ring for holding said gasket in place, said gasket being formed with a projecting sleeve and with a flange fitting against the bottom of said annular recess, said flange having a beveled outer surface and said clamping ring being formed with threads on the periphery for engaging the threads on said annular recess and with a slightly beveled or conical shaped end for engaging the bevel on said flange for clamping the flange in said recess and crowding the same radially inward.

[Claims 6 and 7 not printed in the Gazette.]

1,082,325. BURGLAR-ALARM. CARLOS S. HEAD, Orange, Cal. Filed May 21, 1913. Serial No. 709,070. (Cl. 116-44.)



1. A burglar alarm comprising a member capable of elongating or shortening, spring means for elongating said member, an alarm device connected with said member, and means on said member for operating said alarm upon an elongating or shortening movement of said member.

2. A burglar alarm comprising two slidable members, a bell carried by one of said members, a button for operating the bell and two abutment means on one of said members, either abutment means slidable into relation with said button to operate the bell, and a spring for moving the slidable members to elongate the same.

3. A burglar alarm comprising two bars, a pair of studs on one bar received in slots in the other, a pair of

abutment studs on one bar, a bell carried by the other bar, an abutment for operating said bell lying between said abutment studs and operated by either of said studs, and a spring for moving said bars to elongate them.

4. A burglar alarm comprising two bars slidably connected, a spring for elongating the bars, a bell guard on one of said bars, a bell within said guard, a button for operating the bell, and a pair of abutment studs on one of said bars movable against said button to operate the bell.

5. A burglar alarm comprising two slidably connected bars, each of which has a pointed end, a spring for elongating said bars, a bell carried by one of said bars, a button for operating said bell, and two abutments carried by one of said bars and adapted to be moved against said button to operate the bell.

[Claim 6 not printed in the Gazette.]

1,082,326. MAGNESIUM FLASH-LAMP. OTTO B. HENRICKSON, Shelby, Mich. Filed May 1, 1912. Serial No. 694,339. (Cl. 67—33.)



1. A flash lamp comprising a receptacle for the powder and means for delivering a stream of powder therefrom, means for igniting the powder, a deflector for spreading the powder having a concave deflecting surface and a reflector disposed on the concave side of the deflector, the powder being delivered on to one side, and the igniting means being on the other side, of said reflector.

2. A flash lamp comprising a container for flash powder and means for delivering a stream of powder therefrom, means for producing a flame to ignite the powder, a deflector for spreading the powder and a reflector or shield disposed between the terminal portion of the deflecting surface and the orifice of the powder-delivering means, the powder orifice being on one side, and the flame being on the other side, of the reflector or shield.

3. A magnesium lamp comprising a container for magnesium powder, an air conduit leading into said container, a powder conduit conducting from said container, a slotted plate, a receptacle for absorbent material and a deflector plate extending through said slotted plate and terminating closely adjacent to said receptacle.

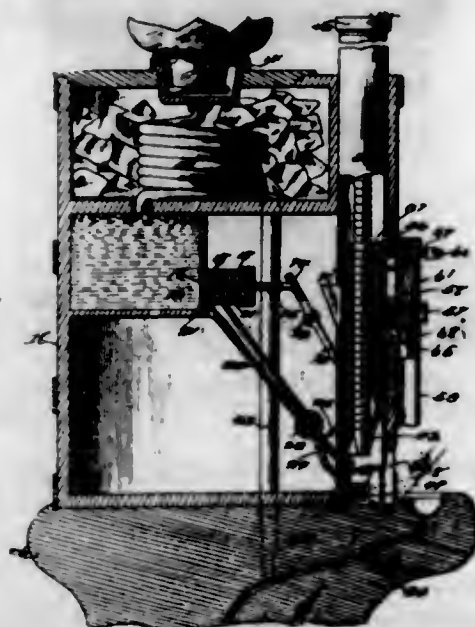
4. A magnesium lamp comprising a container for magnesium powder, an air conduit leading into said container, a powder conduit conducting from said container, a slotted plate, a receptacle for absorbent material and a concave deflector plate extending through said slotted plate and terminating closely adjacent to said receptacle.

5. A magnesium lamp comprising a receptacle for magnesium powder, an air conduit leading into said receptacle, a powder conduit conducting from said receptacle, a reflector secured to the receptacle, an having a slot therein, a concave deflector plate passing through said slot and a receptacle for an alcohol wick carried by the deflector plate, the deflector plate being so arranged that

the powder is discharged from the powder conduit upon the deflector plate at one side of the reflector the wick being on the other side of said reflector.

[Claim 6 not printed in the Gazette.]

1,082,327. WATER-VENDER. MAURICE P. HENVIS, Washington, D. C. Filed June 1, 1909, Serial No. 490,342. Renewed Sept. 19, 1913. Serial No. 790,813. (Cl. 225—21.)



1. The combination with a liquid supply, of discharge means therefor, a reciprocating containing cylinder disposed to deliver cups at the discharge from said liquid supply, and a connection from said cylinder to actuate said discharge controlling means.

2. The combination with a valved liquid supply, of actuating means connected to operate said valve, a sliding cup-delivering device carried by said means, and means beneath said delivering device for holding a cup during one movement of said device.

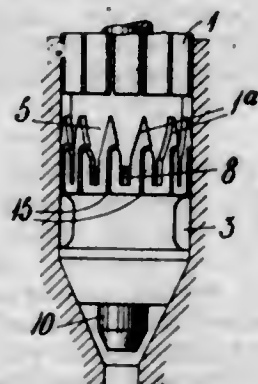
3. The combination with a valved liquid supply, of actuating means connected to operate said valve, a slidable cup delivering device carried by said means, and a valved discharge spout actuated by said device.

4. The combination with a liquid supply, of means for controlling the same, a cup stack, a delivery slide having retaining means therein, cup holding means beneath said slide, and a pivoted spout adapted to discharge into said cup when the slide is raised.

5. The combination with a valved liquid supply, of means for controlling the same, a cup delivering slide having retaining means therein, a measuring chamber communicating with said supply, and a valved delivery spout adapted to be actuated by said slide.

[Claims 6 to 23 not printed in the Gazette.]

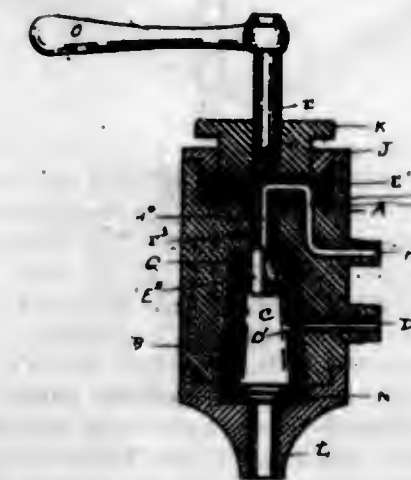
1,082,328. VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. KNUT JONAS ELIAS HESSELMAN, Stockholm, Sweden. Filed Mar. 29, 1913. Serial No. 757,580. (Cl. 123—33.)



A vaporizer of the type described, comprising a body 1 having a liquid-fuel supply channel 3 and a liquid-fuel

chamber 5, the latter divided by projections on the body into pockets and the pockets being closed at their lower ends, and also having upwardly-directed ports connecting said channel 3 and chamber 5; said ports being formed in said projections and being provided with upper laterally-directed portions arranged to discharge into the pockets.

1,082,329. FAUCET. WALTER E. HODGDON, Portland, Me. Filed Aug. 15, 1912. Serial No. 715,145. (Cl. 225—26.)



1. In a faucet, a valve casing, a vertical, rotary, hollow valve mounted in said casing, a valve stem mounted in said casing and provided with a horizontal flange, the lower extremity of the stem extending through the top of the valve, an inlet port extending through the casing and valve horizontally, and a second inlet port extending into the casing, thence vertically into said flange and thence through the flange to the stem and thence through the stem to the valve chamber, the streams entering through said ports intersecting in the open chamber at right angles to each other, the point of intersection being below the delivery end of the vertical inlet port, whereby rotation of the valve and stem simultaneously opens or closes both of said ports.

2. In a faucet, a valve casing provided with a circular recess in the top thereof, a vertical, rotary, hollow valve mounted in said casing, a valve operating stem mounted in said casing and provided with a circular flange adapted to fit in said recess, the lower end of the stem projecting through the top of the valve, a packing interposed between the casing and the flange, an inlet port extending through the casing and valve horizontally, and a second inlet port extending into the casing, thence vertically through the packing and into said flange and thence through the flange to the stem and thence through the stem to the valve chamber, the streams entering through said ports intersecting in the open chamber at right angles to each other, the point of intersection being below the delivery end of the vertical inlet port, whereby rotation of the valve and stem simultaneously opens or closes both of said ports.

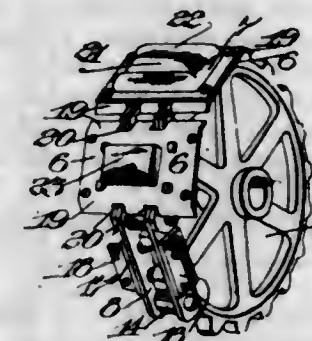
1,082,330. FLEXIBLE ENDLESS TRACK FOR TRACTION-ENGINES. BENJAMIN HOLT, Stockton, Cal. Filed Dec. 13, 1910, Serial No. 597,083. Renewed June 24, 1913. Serial No. 775,578. (Cl. 21—114.)

1. A link consisting of a back plate with upturned ends, a corrugated shoe secured thereto on one side, with pivotally connecting means on the opposite side for connection with another link, and a filler of light material between the shoe and back plate.

2. A link for traction members, including a back plate, and a pressed steel, dish-shaped plate secured at its edges to said back plate, with a wooden filler between the plates.

3. A built-up link for traction members, consisting of a back plate, to one side of which are secured spaced link bars on edge having eyes at their ends for the attachment of a succeeding link, the other side of said back plate carrying a centrally bulged shoe plate with transverse corrugations, the shoe plate being substantially the same width

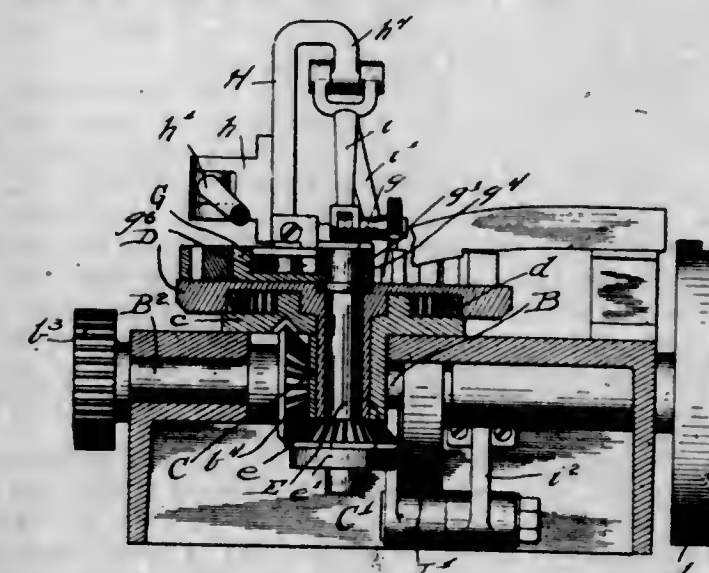
as the back plate, the ends of the back plate turned inwardly, said inwardly turned ends extending beyond the ends of the shoe plate, and said inwardly turned ends being notched to accommodate said edgewise placed eye plates.



4. A built-up link for traction members, consisting of a back plate to one side of which are secured spaced track bars on edge, and each having eyes at its ends for the attachment of a succeeding track bar to form an articulated member, the edges of the back plate extending transversely of the track bars, being turned inwardly whereby the adjacent edges of proximate plates verge toward each other, said inwardly turned edges being notched to straddle the ends of the track bars.

5. A built-up link for articulated track members embodying a shoe having a back plate and transversely arranged projections extending across the shoe, said back plate having its transverse edges bent inwardly away from said projections and having notches formed therein, track bars rigidly secured to the inner faces of said back plate with their ends extending through the notches in the inwardly bent edges of the plate, said track bars having at their ends means whereby track bars of adjacent shoes may be pivotally connected to form an articulated member.

1,082,331. AUTOMATIC FEEDING AND CUTTING MECHANISM FOR PLASTIC MATERIAL. ARCHIBALD E. HOPKINS and OLIN S. FELLOWS, Middletown, N. Y., assignors to Ideal Wrapping Machine Company, a Corporation of New York. Filed Feb. 14, 1908. Serial No. 415,873. (Cl. 107—23.)



1. A cutting mechanism embracing a rotative table for supporting the material, a knife set therein, means intermittently pressing the material supported on the table against the knife and means for rotating the table.

2. A cutting mechanism embracing a rotative table, a knife rigidly secured thereon, reciprocating means acting automatically to press the material to be cut against the knife and means for rotating the table to present fresh material to the knife.

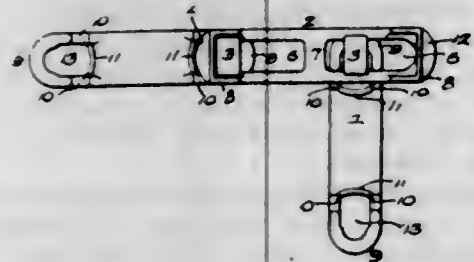
3. A cutting mechanism embracing a rotative table, a plurality of knives rigidly secured thereon and spaced equal distances apart, means for rotating the table and means automatically and intermittently pressing the material to be cut on the knives.

4. A cutting mechanism embracing a rotative table, a plurality of knives carried thereby and spaced equal distances apart adapted to cut and carry the cut articles therebetween, positively actuated means supported on said table to intermittently deliver and press the material to be cut on the knives and means for rotating the table.

5. A cutting mechanism embracing a rotative table for carrying the material, a plurality of knives set therein at an angle with the plane thereof and spaced equal distances apart, means automatically and intermittently pressing the material to be cut on said knives and means for rotating the table.

[Claims 6 to 89 not printed in the Gazette.]

1,082,332. DRIVE-CHAIN. GLENN G. HOWE and LOUIS C. HOWE, Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed July 23, 1913. Serial No. 780,716. (Cl. 74—32.)



1. The combination in a chain, of two links, one consisting of a single link element and the other of two link elements spaced apart; a double headed pin connecting the two elements, the heads of the pin being prevented from turning by being confined in the double link element; and means for preventing independent longitudinal movement of one link with respect to the other.

2. The combination in a chain, of two link elements spaced apart and each having a socket at each end; a link located between the two link elements; a double headed pin extending through an opening in the said link and through slots in the link elements, the heads of the pin resting in the sockets so as to prevent the pin from turning in the said link elements; a lateral recess in the link; and a rib on one of the link elements extending into the recess of the link and preventing the links from moving longitudinally, one with respect to the other.

3. The combination in a chain, of two link elements spaced apart and slotted longitudinally; a single link located between the two link elements and having a recess at one end; a double headed pin extending through the slots in the two link elements and the recess in the single link; a flange on two sides of each link element arranged to engage the heads of the pin and preventing them from turning in the link elements; a flange on the link; and a rib on one link element engaging the flange so as to prevent longitudinal movement of one link with respect to the other, except when one link is turned at an angle to the other to shift the rib out of line with the flange.

4. The combination in a chain, of two link elements spaced apart, each link element being slotted at each end; a link having an enlarged end located between the two link elements; an opening in the said link; a double headed pin extending through the slots in the link elements and through the opening in the link; means on the link elements engaging the heads of the pin and preventing them from turning; a flange on each side of the link spaced from the enlarged end to form a recess; and a rib on each link element extending into the recess of the link so that the links are prevented from moving longitudinally, one with respect to the other, except when one link is turned at an angle to the other.

1,082,333. HAIR-PIN. JOSEPH HUGHES, New York, N. Y. Filed Feb. 26, 1910. Serial No. 546,161. (Cl. 132—22.)

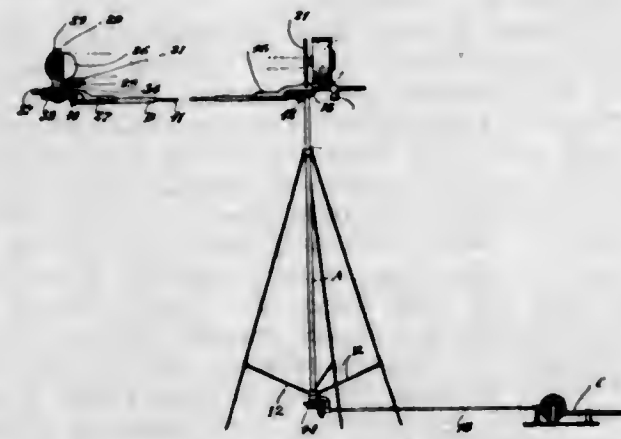
1. A hair-pin without projecting parts when in the coiffure, composed of two arms united by a bend, spaced

farther apart near the bend, and made to be normally nearer together for a part of the length of the arms; a slide conforming to the shape of the bend adapted to move along the arms and to open the arms when at a distance from the bend, and to close them when at the bend, and adapted to be embedded in the coiffure out of sight when in operative position.



2. A hair-pin without projecting parts when in the coiffure, comprising two arms united by an elastic bend, spaced farther apart near the bend, and made to be nearer together for a part of the length of the arms, a slide conforming to the shape of the bend adapted to move along the arms and to open the arms when at a distance from the bend, and in cooperation with the elastic bend to close the arms when at the bend, and adapted to be embedded in the coiffure out of sight when in operative position.

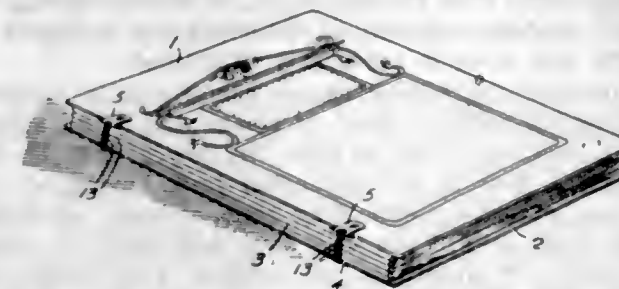
1,082,334. APPARATUS FOR DEMONSTRATING THE MOTIONS OF THE EARTH. LAWRENCE DEWEY VON IFFLAND, Fort Saskatchewan, Alberta, Canada. Filed May 6, 1912. Serial No. 695,351. (Cl. 35—3.)



1. An apparatus for demonstrating the motions of the earth comprising a tubular standard, a shaft rotating in the standard provided with a gear, foot operated means for rotating said gear, a bracket rotating with the shaft, an arm adapted to swing with the bracket, means located on the bracket for balancing the arm, a revolvable globe mounted on the arm, a disk mounted on the bracket provided with an aperture and having a toothed periphery, and an illuminating device located behind the aperture.

2. An apparatus for demonstrating the movements of the earth comprising a standard, a shaft carried thereby, means for rotating the shaft, an eccentric gear fixed to the standard, a bracket fixed to the shaft, an arm carried by the bracket, a globe carried by one extremity of the arm, an illuminating device carried by the bracket, means for supporting the globe on an inclined axis, means for revolving the globe about the inclined axis, and means for rotating the globe in an oval path about the standard, said means being carried by the arm and engaging the eccentric gear fixed to the standard.

1,082,335. BINDING-EYELETS. WILLIAM RAY INGRAM, Tucson, Ariz.; Eva Luse Inghram administratrix of said William Ray Inghram, deceased. Filed Nov. 6, 1912. Serial No. 729,761. Renewed Nov. 15, 1913. Serial No. 801,259. (Cl. 129—1.)



1. In combination with a front and a back cover each having a plurality of clips connected with its rear edge, an eye pivoted to each clip of the front cover and mounted to swing laterally with respect to the plane of the cover, each of the clips of the rear cover having a resilient tongue, and a plurality of binding eyelets for periodicals, each eyelet consisting of an eye and a shank at right angles to each other, said eyelet being formed by bending a wire or bar upon itself to form the eye, the ends of the wire or bar lying alongside each other and one being of greater length than the other, said ends being at right angles to the plane of the eyelet and being adapted to pass through the eye of the succeeding eyelet or the eye of the cover and then through the leaves of the periodical and to be then bent laterally away from each other to hold the eyelet in place.

2. In combination with a front and a back cover, the front cover having a plurality of eyes pivoted to the rear edge thereof and mounted for lateral swinging movement with respect to the plane of the cover, tongues on the rear edge of the rear cover, and binding eyelets each consisting of an eye and a shank at right angles thereto, said shank being split and being adapted to be passed through an eye of the cover or the eye of a preceding eyelet and to engage the periodical to be bound.

3. In combination with a front and a back cover, a plurality of eyes pivoted to the rear edge of the front cover for lateral swinging movement with respect to the front cover, a plurality of tongues on the rear edge of the rear cover, and binding eyelets for the periodicals to be bound, each of the said eyelets consisting of an eye and a shank at right angles thereto, said shank being adapted to pass through an eye of the front cover before engaging the periodical, the tongues of the rear cover being adapted to engage the eyelets of the last periodical in place.

4. In combination with a front and a back cover, the front cover having a plurality of eyes pivoted to the rear edge thereof and mounted for lateral swinging movement with respect to the plane of the cover, tongues on the rear edge of the rear cover, and binding eyelets each consisting of an eye and a shank at right angles thereto, said shank being adapted to pass through an eye of the front cover or an eye of the preceding eyelet and to be afterward secured to a periodical, the tongue of the rear cover engaging the eyelets of the last periodical.

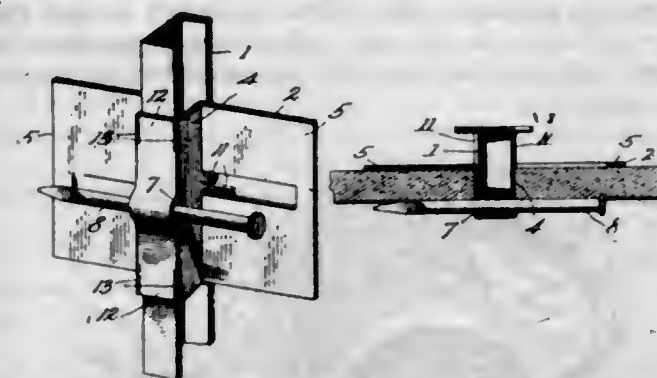
5. In combination, a cover having eyes at its rear edge, and a cover having tongues registering with the eyes, and binding eyelets for the periodicals to be bound, each eyelet comprising a shank for passing through an eye of the preceding periodical or the eye of the cover before engaging the periodical being bound, and an eye for preventing disengagement of the shank, the tongues of the second cover being adapted to engage the eyes of the last periodical to prevent disengagement thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,082,336. METALLIC-STUDDING METAL-CLIP PLASTER-BOARD PARTITION-WALL CONSTRUCTION. MARVIN H. JESTER, Denver, Colo., assignor to The M. H. Jester Investment Company, a Corporation of Colorado. Filed Dec. 21, 1912. Serial No. 738,019. (Cl. 72—115.)

1. A combined metallic stud, metal clip, and plaster board partition, comprising a metal stud, a winged clip

surrounding an edge of said stud, tongue portions struck from the wings of said clip for securing said clip to said stud, and a key extending through said clip in spaced relation to said wings for securing said plaster-boards to the wing portions of said clip.



2. A combined metallic stud metal clip and plaster board partition, comprising a metal stud, a U-shaped winged clip arranged to surround one edge and a part of the sides of said metal stud, and wings of said clip forming an abutment against which said plaster boards are placed, said clip being provided with a nail aperture extending through its end portion, a nail in said aperture for securing said plaster boards against said wings, and tongue portions cut out from said wings and folded over said stud for clamping said clip to said stud.

3. A metallic stud metal clip plaster board construction for partitions, comprising a metallic channel bar stud, a metal U-shaped clip surrounding said stud for a portion of its depth, said clip being provided with a closed end at one end portion and with an open end, said closed end being provided with a nail receiving aperture, a pair of lateral wings projecting from opposite sides adjacent to the open end of said clip, plaster boards arranged to rest against said wings, a key arranged to extend through said nail receiving aperture and clampingly secure said plaster boards against said wings, and a tongue member cut from each wing and arranged to be folded around and clamped to said channel bar stud, whereby said clip is secured to said stud.

4. In a metallic stud metal clip plaster board construction, the combination of a channel bar stud with a U-shaped clip, consisting of parallel sides and a closed end portion at one end and an open end at its opposite end surrounding a portion of the width of said stud, oppositely projecting wings extending from the sides of said clip, said closed end arranged to fit against one of the edges of said channel bar and provided with a nail receiving aperture extending transversely therethrough, a nail extending through said nail receiving aperture for securing the plaster boards against said wings, and tongue members extending from said wings and arranged to be bent around the adjacent edge of said channel bar stud for securing the clip to said stud.

5. In a device as specified, the combination of the channel bar and a U-shaped clip provided with oppositely extending wing members and with a closed end portion, said closed end being provided with a transversely raised bulging portion provided with a transversely arranged aperture adapted to receive a nail or other wedging member that is adapted to secure plaster boards against the wings of said clip, said wings having a tongue portion cut loose from the outer end portion of each wing and extending in a transverse direction across each wing to the U-shaped portion of said clip, said tongues being bent around said stud for securing the clips to said stud, and being arranged at a sufficient offset relation to each other to enable them to be folded around said channel bar stud without folding on top of each other.

[Claims 6 to 9 not printed in the Gazette.]

1,082,337. COMBINED RIBBON HOLDER AND MEASURING DEVICE. ROSE BUD ELLEN KALLAM, Rural Hall, N. C. Filed Oct. 4, 1912. Serial No. 723,966. (Cl. 211—31.)

1. A device of the character described, comprising a drum adapted for receiving the fabric windings, and

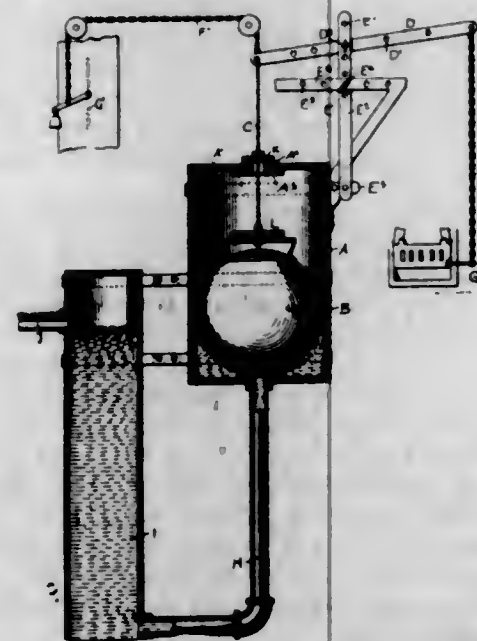
including a tape measure, a hollow axle for the drum whose opposite ends project beyond the drum and terminate in non-circular sockets, a hanger for the axle including a cross bar that passes over the windings on the drum, tension springs that connect the ends of the cross bar with the projected ends of the axle, and a hand held gripper including flexible side arms having members for engaging and interlocking with the non-circular sockets of the axle.



2. A device of the character described, comprising a rotatable drum on which the fabric is adapted to be wound, an axle passing through said drum and projecting beyond the same, a hanger bar for engaging the windings and extending across the outside of the drum parallel to the axis, said hanger bar including projecting portions, and coil springs at each side of the drum each having one end connected to said axle projections and their other ends connected to said bar, substantially as shown and described.

3. A device of the character described, comprising a rotatable drum on which the fabric is adapted to be wound, an axle passing through said drum and projecting beyond the same, a hanger bar for engaging the windings and extending across the outside of the drum parallel to the axis, said hanger bar including projecting portions, and coil springs at each side of the drum each having one end connected to said axle projections and their other ends connected to said bar, said bar having its ends offset to cause said projections to overhang the material that is wound on the drum.

1,082,338. DAMPER-CONTROLLING DEVICE. FRANK A. KATELEY, Mount Vernon, N. Y. Filed Jan. 9, 1913. Serial No. 740,994. (Cl. 238-6.)

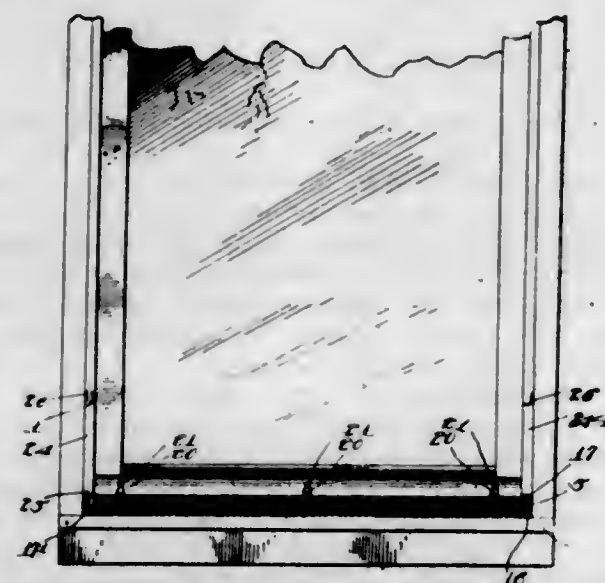


1. A damper-controlling device, comprising a pressure tank connected at its upper end with a source of steam supply, an expansion tank provided with a cover having registering upper and lower valve seats, a connection between the lower ends of the said tanks, a float in the said expansion tank and provided with a valve stem extending through the said seats, valves moving with the said float and its stem, one of the valves being inside of

the said expansion tank and being adapted to be seated on the said lower valve seat and the other valve being outside of the expansion tank and being adapted to be seated on the said upper valve seat, a lever connected with the upper end of the said stem, a flexible connection for connecting the lever with the damper to be controlled, and an adjustable support mounted on the expansion tank and on which the said lever is adjustably fulcrumed.

2. A damper controlling device comprising a pressure tank connected with a source of steam supply, an expansion tank, a connection between the lower ends of the said tanks, a float in the expansion tank having an upwardly and exteriorly extending stem, a lever connected with the upper end of the said stem and having a longitudinal series of apertures, an upright arm having an upper longitudinal series of apertures, a bracket to which the lower end of said arm is fulcrumed, a rigid horizontal arm having a longitudinal series of apertures, pivot pins for engagement through selected apertures whereby to adjustably connect the lever and the upright arm, and the upright arm and horizontal arm and flexible connections between the lever and the dampers to be controlled.

1,082,339. WINDOW-SCREEN. CHARLES L. KELLY, Santa Fe, N. Mex. Filed Feb. 18, 1913. Serial No. 749,192. (Cl. 156-39.)



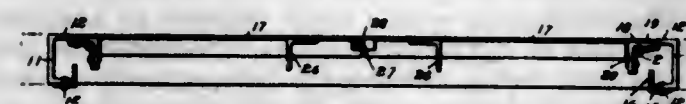
A device of the class described comprising an elongated housing, said housing provided with end blocks, one of said blocks being provided with a transversely-extending groove terminating in a pocket, a metallic reinforcing plate surrounding said groove and constituting means for protecting the same, said end blocks provided with vertically-extending grooves extending at right-angles to said first-mentioned groove, a top closure plate for said housing provided with a longitudinally-extending opening, a curtain placed within said housing, a roller supporting said curtain and fitting in said first-mentioned groove, said curtain provided with a reinforced end, said reinforced end provided with tapering apertures adapted to fit over the securing means whereby said curtain may be attached to a window sash.

1,082,340. VAULT-DOOR. GEORGE W. KENNINGTON, New York, N. Y. Filed Apr. 8, 1913. Serial No. 759,729. (Cl. 94-7.)

1. In an article of the class described, a frame consisting of end members with inwardly disposed flanges, and side members with outwardly disposed flanges, two doors fitting the frame, and shafts disposed below the doors, and journaled in bearings in the side members adjacent the end members.

2. In an article of the class described, a frame consisting of end members with inwardly disposed flanges, and side members with outwardly disposed flanges, two doors fitting the frame, shafts disposed below the doors, and journaled in bearings in the side members adjacent the

end members, rails secured to the inner sides of and spaced from the top of the side members for supporting the doors.



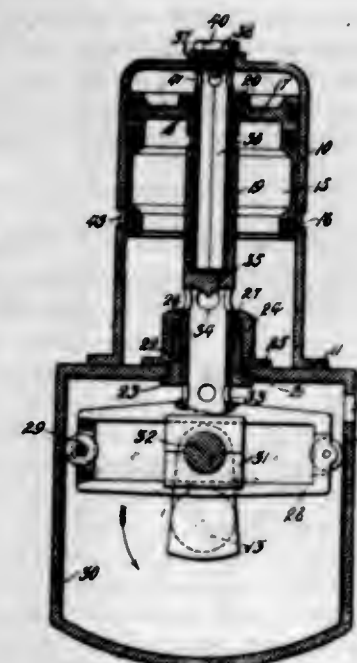
3. In an article of the class described, a frame consisting of end members with inwardly disposed flanges, and side members with outwardly disposed flanges, two doors fitting the frame, shafts disposed below the doors, and journaled in bearings in the side members adjacent the end members, and members having upwardly disposed flanges at their inner sides for engaging and supporting the end and side members.

4. In an article of the class described, a frame consisting of end members with inwardly disposed flanges, and side members with outwardly disposed flanges, two doors fitting the frame, shafts disposed below the doors, and journaled in bearings in the side members adjacent the end members, and rails secured to the inner side of and spaced from the top of the side members for supporting the doors, there being gutters in the side rails for the purpose specified.

5. In an article of the class described, a frame consisting of end members with inwardly disposed flanges, and side members with outwardly disposed flanges, two doors fitting the frame, shafts disposed below the doors, and journaled in bearings in the side members adjacent the end members, members having upwardly disposed flanges at their inner sides for engaging and supporting the end and side members, and rails secured to the inner sides of and spaced from the top of the side members for supporting the doors, there being gutters in the side rails for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,082,341. INTERNAL-COMBUSTION ENGINE. JOHN KERNER, New York, N. Y. Filed Aug. 27, 1912. Serial No. 717,270. (Cl. 123-65.)



1. An internal combustion engine of the two-cycle type comprising a cylinder, a crank case associated therewith but closed with respect to said cylinder, a piston mounted to reciprocate within said cylinder, a hollow piston rod associated with said piston and extending into said crank case, and a packed joint about said piston rod at said crank case, said piston rod having means near the top and bottom thereof whereby communication is effected between said crank case and the cylinder at one side of the piston and between the two parts of the cylinder separated by the piston.

2. An internal combustion engine of the two-cycle type, comprising a cylinder, a crank case, a fixed hollow guide

member in said cylinder, and a piston in said cylinder having a hollow piston rod slidably associated with said fixed member and extending movably into said crank case, said piston rod and said hollow member affording communication between said crank case and the cylinder at one side of the piston and between the two parts of the cylinder separated by the piston.

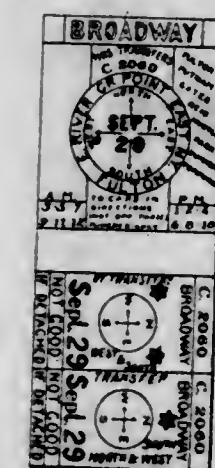
3. An internal combustion engine, comprising a cylinder, a piston therein, a crank case, a hollow piston rod associated with said piston and extending into said crank case, and a hollow fixed member within said cylinder slidably received within said hollow piston rod, said hollow piston rod and said fixed member having openings whereby fuel mixture can enter said cylinder under said piston from said crank case and pass to the other side of said piston.

4. An internal combustion engine, comprising a cylinder, a piston therein, a crank case, a hollow piston rod associated with said piston and extending into said crank case, and a hollow fixed member within said cylinder slidably received within said hollow piston rod, said hollow piston rod and said fixed member having openings whereby fuel mixture can enter said cylinder under said piston from said crank case and pass to the other side of said piston, said crank case and said cylinder being closed with respect to each other and communicating only through said piston rod, said piston rod having a partition therein dividing it into two parts closed with respect to each other, said cylinder having exhaust openings in the wall thereof.

5. An internal combustion engine comprising a cylinder, a piston therein, a crank casing, a hollow piston rod associated with said piston and extending into said crank casing, a packed joint on said crank casing projecting into said cylinder and engaged by said hollow piston rod, and a hollow fixed member within said cylinder slidably received within said hollow piston rod, said hollow member having openings near the top thereof, and said hollow piston rod having openings near the top and bottom thereof and openings intermediate said first openings, said crank casing and said cylinder being closed with respect to each other, the lower and intermediate openings in said hollow piston rod establishing communication between said crank casing and the lower end of said cylinder, and the openings in the upper portion of said hollow piston rod and the openings in said hollow member establishing communication between said lower portion of the cylinder and the upper portion of the cylinder, the portions being divided by said piston.

[Claim 6 not printed in the Gazette.]

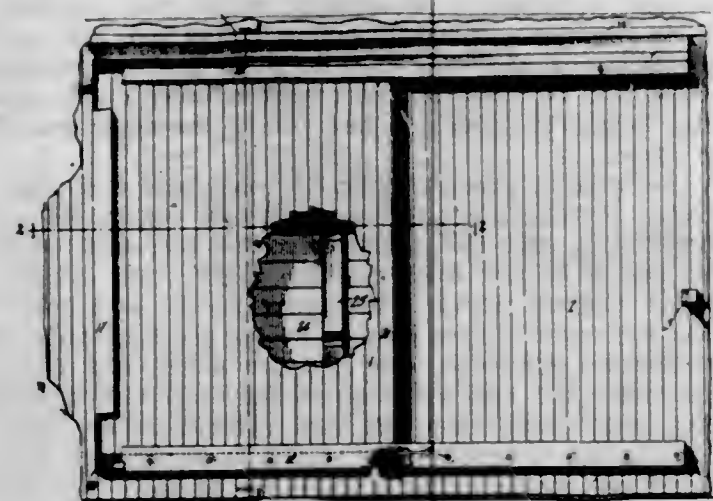
1,082,342. TRANSFER-TICKET. WILLIAM KLEIN, JR., New York, N. Y. Filed Aug. 17, 1911. Serial No. 644,722. (Cl. 11-15.)



The improved street-railway transfer ticket comprising a main section having a central dial marked with the cardinal points of the compass, the names of stations or destinations being inscribed exterior to the dial and each opposite one of the points of the compass, and transfer and retransfer sections, the transfer being distinguished by a single symbol and bearing words indicating three di-

rections and the re-transfer distinguished by two symbols and bearing words indicating two directions, all the sections of the ticket being integral and having transverse lines of division indicated thereon, as described.

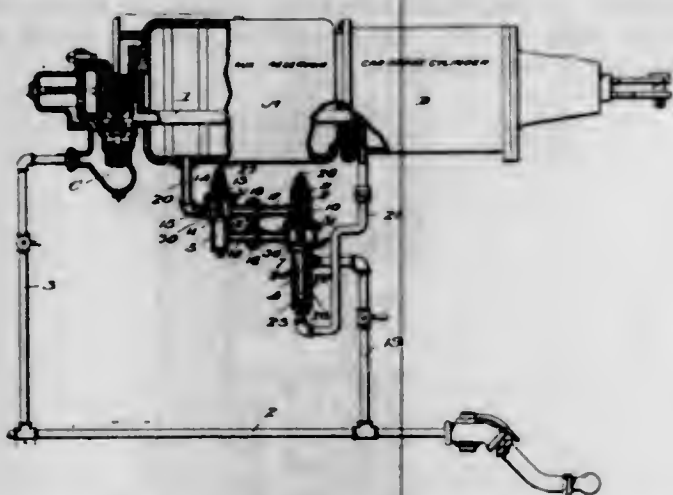
1,082,343. STORMPROOF CAR-DOOR. GULESBERRY MARION KIRBY, Aurora, Mo. Filed Dec. 19, 1912. Serial No. 737,632. (Cl. 20—22.)



1. In an improvement of the kind described, the combination of a doorway having a sill plate, the outer portion of which is provided with an upwardly opening groove forming a guideway and the inner portion of which is provided with an upstanding flange, and rollers journaled transversely in the guideway, all for the purpose described.

2. In an improvement of the kind described, the combination of a doorway having a sill plate, the outer portion of which is bent to provide an upwardly opening groove forming a guideway, and one side of which plate is provided with an extension also bent to provide a groove forming a guideway, said guideways being continuous and spaced from the sill of the doorway, and a strip secured in the space between the said sill and the said guideways.

1,082,344. APPARATUS FOR THE RECHARGING OF AUXILIARY RESERVOIRS OF AIR-BRAKE SYSTEMS. HARRY TILGHMAN KLOCKNER, Shamokin, Pa., assignor of one-tenth to David Acker, Port Clinton, Pa., and one-tenth to William Rogers, Shamokin, Pa. Filed May 15, 1912. Serial No. 697,492. (Cl. 188—1.)



1. The combination with an auxiliary reservoir and an air supply means of an air brake system, of a valve casing consisting of valve chambers in communication with each other by conduits, means connecting one of said chambers to the auxiliary reservoir and means connecting the other chamber to the air supply means, a valve in each chamber adapted to be raised upon the charging of the auxiliary reservoir, said valves adapted to be seated when an equalizing pressure is reached between the auxiliary

reservoir and the air supplying means, one of said passages being in communication with the auxiliary reservoir causing the air of the auxiliary reservoir to act upon one of said valves to cause said valve to be seated.

2. The combination with a brake cylinder, an auxiliary reservoir, and an air supplying means of an air brake system, of a valve casing connected to the auxiliary reservoir and said air supplying means for the recharging of the auxiliary reservoir means connected to the brake cylinder and said valve casing for conducting the air from the brake cylinder upon the release of the brakes, and means controlled by the air passing through the valve casing for governing the passage of air from the brake cylinder to the valve casing.

3. The combination with a brake cylinder, an auxiliary reservoir, and an air supplying means of an air brake system, of a valve casing connected to the auxiliary reservoir and said air supplying means for the recharging of the auxiliary reservoir and means connected to the brake cylinder and said valve casing for conducting the air from the brake cylinder upon the release of the brakes, and a valve in the valve casing for controlling the discharge of air from the brake cylinder to the atmosphere upon the release of the brakes, said valve actuated by the air from the air-supply means as the air passes through the valve casing to the auxiliary reservoir to allow the air from the brake cylinder to be discharged to the atmosphere.

4. The combination with an auxiliary reservoir, brake cylinder and air supply pipe, and a triple valve connected to and in communication with the auxiliary reservoir, a pipe connecting the triple valve with the brake cylinder and a pipe connecting the air supply pipe with the triple valve, of a valve casing in communication with the auxiliary reservoir and air supply pipe, valves in the casing for controlling the admission of air to the reservoir and means connecting the brake cylinder with the valve casing acting in connection with the triple valve for discharging the air from the brake cylinder to release the brakes.

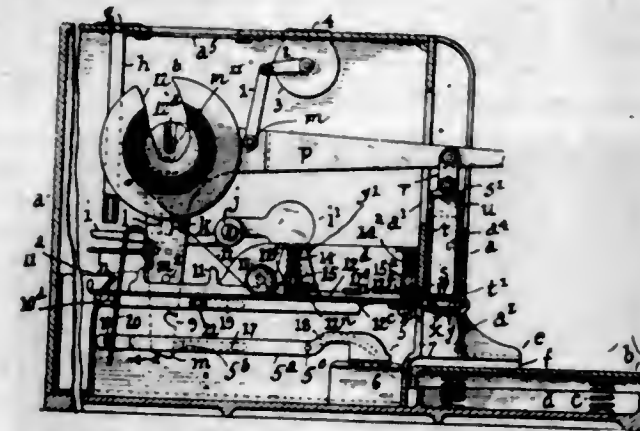
5. The combination with a brake cylinder, auxiliary reservoir and air supply means, of a valve casing, means connecting the valve casing with the auxiliary reservoir, a valve in the casing for controlling the supply of air to the reservoir, means connecting the valve casing to the brake cylinder for conducting the air from the brake cylinder upon the releasing of the brakes to the atmosphere and a valve connected to said first named valve for controlling the discharge of the air from the brake cylinder.

1,082,345. SUPPORTER FOR STOCKINGS, TROUSERS, AND THE LIKE. EUGEN LANGE, Paris, France. Filed Aug. 5, 1912. Serial No. 713,444. (Cl. 24—241.)



A supporter for stockings and the like constructed of a single strand of wire bent to form a member at the top of the supporter which is adapted for permanent attachment to an article of apparel, a hook at the bottom thereof, and a longitudinal guide intermediate said member and guide and comprising a pair of spaced arms; in combination with a body movable in opposite directions in the space between said arms and having a fixed head adapted to be brought with it, during its movements, into position to open or close the entrance to said hook, said arms having their central portions turned inwardly toward each other to hold said body in either position.

1,082,346. STAMP AND LABEL AFFIXER. CHARLOTTE LEISHMAN, Foster, Victoria, Australia. Filed Dec. 12, 1912. Serial No. 736,360. (Cl. 216—24.)



1. In a stamp affixing machine the combination of a casing; a spool mounted in the casing adapted to hold a strip of stamps; a support for the strip mounted to have sliding movement in the casing; actuating means for said support; means for holding the strip during the sliding movements of the support; means movably mounted on the support operable by said actuating means and adapted to engage with and release the strip holding means and cause the strip to be advanced; means for severing the stamps from the strip and applying the same; and connections between said stamp severing and applying means and the actuating means.

2. In a stamp affixing machine the combination of a casing; a spool mounted in the casing adapted to hold a strip of stamps; a slidably mounted plate for supporting the strip; a device for holding the strip during the sliding movements of the plate; a bar mounted on the plate adapted to engage with the strip, holding device to effect the release of the strip and cause the same to be advanced; a device for severing the stamps from the strip and applying the same; and manually actuated means for operating the aforesaid mechanism.

3. In a stamp affixing machine the combination of a casing; a spool mounted in the casing adapted to hold a strip of stamps; a slidably mounted plate for supporting the strip; presser feet alternately operable to engage with the strip and hold the same during the movements of said plate; a bar mounted on the plate adapted to move the presser feet from strip engaging position; a device for severing the stamps from the strip and applying the same; and manually actuated means for operating the aforesaid mechanism.

4. In a stamp affixing machine the combination of a casing; a spool mounted in the casing adapted to hold a strip of stamps; a plate slidably mounted in the casing for supporting the strip; a pair of spring pressed feet mounted above said plate and alternately operable to engage with the strip and hold the same during the movements of said plate; a bar mounted on the plate adapted to engage with and move the presser feet from strip engaging position; a lever fulcrumed on the casing; members carried by said plate and bar adapted to be engaged by the lever for imparting movements thereto; a strip severing device; a stamp applying device associated with said severing device; and operative connections between said stamp severing and applying devices and the lever.

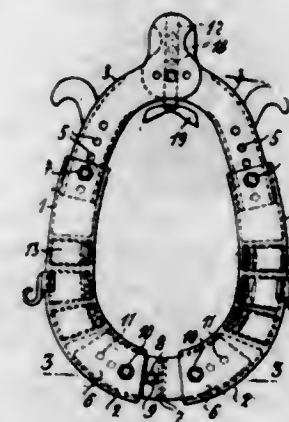
5. In a stamp affixing machine the combination of a casing; a spool mounted in the casing adapted to hold a strip of stamps; a strip supporting plate slidably mounted in the casing; spring pressed presser feet mounted above said plate and alternately operable to engage with the strip and hold the same during the movements of said plate; a bar movably mounted on the plate having cams adapted to engage with and move the presser feet from strip engaging position; pins carried by the slidable plate; lugs carried by said bar; a lever fulcrumed in the casing; a pin engaging member carried by the lever, said lever and pin engaging member adapted to engage with said plate pins and bar

197 O. G.—61

lugs to actuate the same one in advance of the other; and strip severing and applying means operatively connecting with said lever.

[Claims 6 to 10 not printed in the Gazette.]

1,082,347. HORSE-COLLAR. JULES LEVY, Paris, France. Filed Nov. 30, 1912. Serial No. 734,348. (Cl. 54—18.)



1. A horse collar comprising curved side frame sections of U-shaped cross section, a head section having curved plates lying within and vertically adjustable with relation to the upper portions of said side frames, and a hame slide section having curved plates lying within and substantially horizontally adjustable with relation to the lower portions of said side frames, in combination with means for rigidly securing said collar elements together in adjusted position, substantially as described.

2. A horse collar comprising curved side frame sections of U-shaped cross section, a head section having curved plates lying within and vertically adjustable with relation to the upper portions of said side frames, a bow-piece vertically adjustable in the lower portion of said head section, and a hame slide section having curved plates lying within and substantially horizontally adjustable with relation to the lower portions of said side frames, in combination with means for rigidly securing said collar elements together in adjusted position, substantially as described.

3. A horse collar having a frame U-shaped in cross section, in combination with C-springs secured at least at one end within the channel of said frame, to serve as padding, the other ends of said springs having means to facilitate flexure and the automatic adjustment of the springs to the shape of the animal against which they bear.

4. A horse collar having a frame U-shaped in cross section, in combination with C-springs secured at both ends within the channel of said frame, at least one of said springs comprising a joint 16 intermediate its ends, for the purpose described.

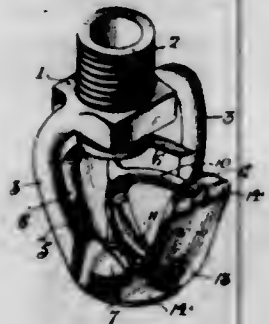
5. A horse collar comprising curved side frame sections of U-shaped cross section, a head section having curved plates lying within and vertically adjustable with relation to the upper portions of said side frames, and a pad section having curved plates lying within and substantially horizontally adjustable with relation to the lower portions of said side frames, in combination with means for rigidly securing said collar elements together in adjusted position, together with C-shaped springs secured at least at one end within the channels of said frame sections to serve as padding, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,082,348. AUTOMATIC SPRINKLER. ARTHUR M. LEWIS, Philadelphia, Pa., assignor to The International Sprinkler Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1910. Serial No. 587,480. (Cl. 169—5.)

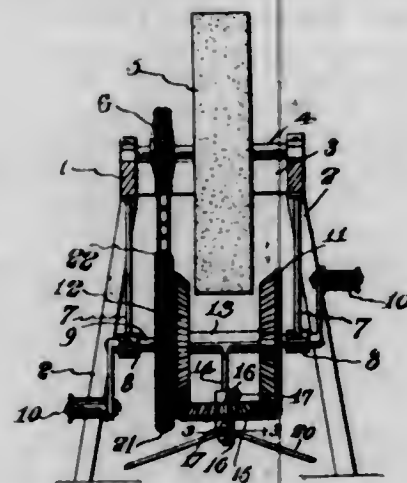
A sprinkler head having a discharge pipe; a pair of arms connected thereto; a guide web connecting said arms and projecting on one side of the plane thereof in position to change the direction of flow of the water escaping from said pipe; a deflector opposite the discharge pipe mounted

in a plane substantially at right angles to the direction of water flow; two parallel tooth-shaped guide plates projecting from that side of said arms opposite the guide web and spaced away from the deflector in positions to



concentrate the current of water after it has left the discharge pipe; a valve for normally closing said pipe; and temperature responsive means for normally holding the valve in its closed position.

1,082,349. GEARING. KNUTE C. LIKNESS, Langford, S. D. Filed Apr. 1, 1912. Serial No. 687,589. (Cl. 74—31.)



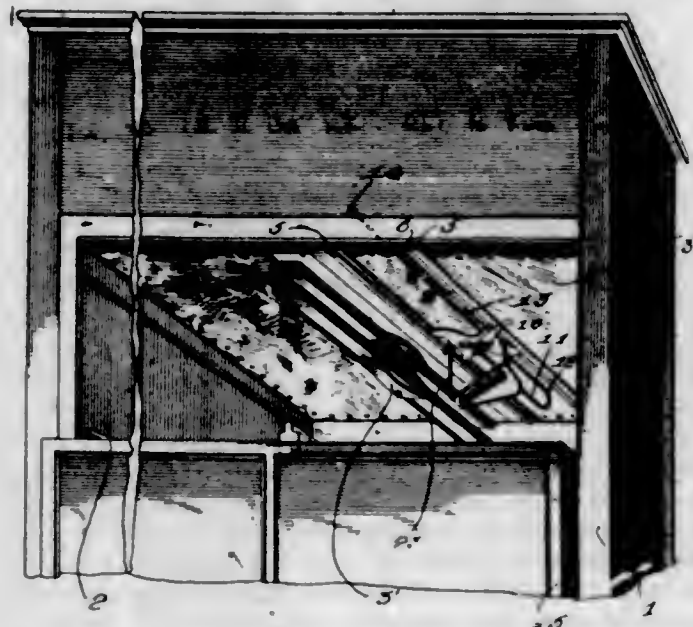
The combination with a frame, of a driving shaft supported by the frame, hangers carried by the frame and having boxes formed at their lower ends, a rotary shaft journaled in said boxes, pedals carried by said shaft, a beveled gear loosely mounted on the shaft, a similar gear keyed to the shaft, a sleeve carried by the shaft, a vertical shaft depending from the sleeve, a beveled gear carried by said shaft and adapted to mesh with the first named gears, a sprocket connected to the shaft, a second sprocket fixed to the loosely mounted gear, a sprocket chain connecting said sprockets, a casting having a recess for receiving the lower end of the vertical shaft, arms radiating from said casting and adapted to have their outer ends secured to the legs of the frame.

1,082,350. INCUBATOR ATTACHMENT. MURLAND R. LOWELL, Brasher Falls, N. Y. Filed Feb. 15, 1913. Serial No. 748,709. (Cl. 73—52.)

1. In a device of the class described, the combination with an incubator provided with track portions, of a carriage slidably mounted within said track portions, said carriage provided with an elongated body, said body provided with struck-out portions said portions bent downwardly, the outer lower ends of said struck-out portions bent parallel to each other, an operating rod extending to the outside of said incubator and passing through said struck-out portions, said rod adapted to move said carriage upon said tracks and a thermometer carried by said carriage.

2. In a device of the class described, the combination with an incubator provided with a plurality of tracks, of a carriage member slidably mounted upon said tracks, said carriage member comprising an elongated body, said body provided with a plurality of struck-out portions, an

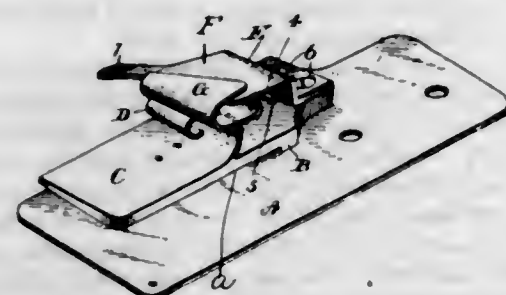
operating rod passing through one side of said incubator and carried by said struck-out portions, said operating rod provided with a U-shape portion and an extending portion normally positioned in the rear portion of the incubator for being positioned out of the way projecting beyond said U-shape portion for allowing said carriage to be easily moved toward the forward portion of said incubator, and a thermometer carried by said carriage.



3. In a device of the class described, the combination with an incubator provided with a plurality of track portions, of a carriage provided with diverging guide feet carried by said track portions, an operating rod passing through one side of said incubator and carried by said carriage for sliding the same upon said track portions, said carriage provided with a plurality of downwardly bent ears, a thermometer carrying member carried by said ears, a thermometer carried by said thermometer carrying member whereby said thermometer may be drawn toward the forward portion of the incubator for allowing a view of the thermometer.

4. In a device of the class described, the combination with an incubator provided with a plurality of track portions, of a carriage slidably mounted within said track portions, means for sliding said carriage upon said track portions, said carriage provided with a plurality of downwardly bent ears, one of said ears bent at right-angles to the other of said ears, a thermometer-carrying member detachably engaging said carriage, said thermometer carrying member provided with a laterally bent hook, said carrying member also provided with an extending neck terminating in a hook, said hooks formed at right-angles to each other, said hooks adapted to engage said ears and a thermometer carried by said carrying member.

1,082,351. FOLDING AND GUIDING DEVICE. JOSEPH MCNELLY, Collingswood, N. J., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1905. Serial No. 273,572. (Cl. 112—9.)



1. A folding and guiding device for sewing machines having a guiding recess for a lower layer of fabric, a folding member above the same for the body fabric, said folding member comprising an upper, laterally and down-

wardly extending portion adapted to fold an edge upon the body fabric, a second oppositely placed folding and guiding member having a guiding scroll for guiding and folding the edge of an upper layer of fabric, a rest plate carried by and projecting laterally from said guiding scroll for supporting the fabric being folded by said scroll and a pressing tongue for engaging and holding the fabrics as they leave the folder.

2. A folding and guiding device for sewing machines having a guiding recess for a lower layer of fabric, a folding member above the same for the body fabric, said folding member comprising an upper, laterally and downwardly extending portion adapted to fold an edge upon the body fabric, a second oppositely placed folding and guiding member having a guiding scroll for guiding and folding the edge of an upper layer of fabric, a rest plate carried by and projecting laterally from said guiding scroll for supporting the fabric being folded by said scroll, and means whereby said second folding and guiding member may be adjusted with respect to said first folding member.

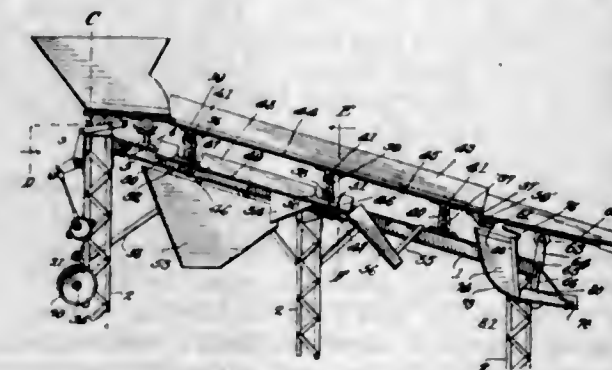
3. A folding and guiding device for sewing machines, having a guiding recess for a lower layer of fabric, a folding scroll for the body fabric located above said recess and facing in the same direction, said folding scroll comprising an upwardly, laterally and downwardly extending portion adapted to fold the edge of the body fabric, said guiding recess extending laterally to a point beyond said guiding scroll and a second oppositely placed folding and guiding member having means for guiding and folding the edge of an upper layer of fabric.

4. A folding and guiding device for sewing machines, having a guiding recess for the lower layer of fabric, a folding member above the same for the body fabric, said folding member comprising an upwardly, laterally and downwardly extending portion adapted to fold an edge upon the body fabric, and a second oppositely placed folding and guiding member having a guide scroll for guiding and folding the edge of an upper layer of fabric, and a pressing tongue for engaging and holding the fabrics as they leave the folders.

5. A folding and guiding device for sewing machines, comprising a base piece, a piece secured thereto, and having a horizontally projecting portion parallel with the base piece and forming a recess *a* between the two, a scroll *D*, secured to said piece and having its receiving recess opening in the same direction as the recess *a* whereby the layer of fabric passing the scroll *D* is superimposed upon the layer of fabric guided by the recess *a*, and an angular plate also secured to said piece and carrying a scroll oppositely placed from the scroll *D*; substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,352. SEPARATOR. FRANK C. MORROW, Wellston, Ohio. Filed Apr. 14, 1913. Serial No. 761,110. (Cl. 57—37.)



1. In a machine of the class described, the combination with a feed member, of a chute hingedly connected to the discharge end of said member, a shaft, adjusting arms radiating from the shaft, said arms engaging the bottom of the chute, means for rotating the shaft, and means for locking the shaft against movement.

2. In a machine of the class described, the combination with a feed member, of a chute for receiving tallings therefrom, means for detachably and pivotally connecting the chute to the feed member, a shaft, arms radiating therefrom, anti-friction devices carried by the arms, channeled members upon the bottom of the chute and engaging said devices, and means for rotating the shaft.

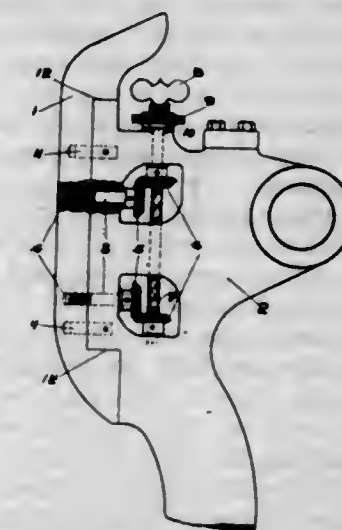
3. In a machine of the class described, the combination with a feed member, of a chute, means for detachably and pivotally connecting the chute to the member to receive material therefrom, a shaft, arms radiating from the shaft, means carried by the arms for engaging the bottom of the chute to adjust the chute angularly during the rotation of the shaft, means for rotating the shaft, and means for locking the shaft against rotation.

4. In a machine of the class described, the combination with a feed member, of a chute, means for detachably and pivotally connecting the chute to the member to receive material therefrom, a shaft, arms radiating from the shaft, means carried by the arms for engaging the bottom of the chute to adjust the chute angularly during the rotation of the shaft, means for rotating the shaft, means for locking the shaft against rotation, and a counter-balance for the shaft.

5. In a machine of the class described, the combination with a feed member, of a downwardly and forwardly inclined chute disposed therebelow and spaced therefrom, an extension hingedly connected to said chute, means for supporting the extension in active position, a second chute above said first named chute, means for detachably and pivotally connecting said second chute to the feed member to receive material therefrom, means for detachably and pivotally connecting said second chute to the first named chute and with its receiving end spaced from the feed member, and means for adjusting said second chute angularly relative to the feed member and the first named chute.

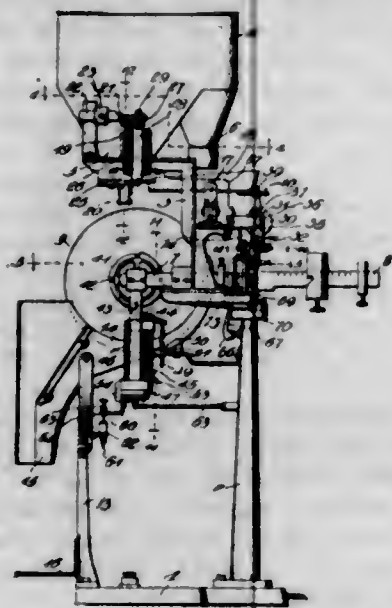
[Claims 6 to 8 not printed in the Gazette.]

1,082,353. PRINTING PRESS. ALVIN E. MOWREY, Franklin, Pa. Filed Oct. 14, 1912. Serial No. 725,800. (Cl. 101—71.)



The combination with the bed of a printing press of the Gordon type, of an ink-roll-track section adjustably attached to each side of said bed, means for adjusting said sections comprising a revoluble shaft for each of said sections and having bearings in said bed and extending parallel with the face of said track sections, bevel pinions secured to said shafts, revoluble pins each provided with bearings in said bed and extending at a right angle to said shafts, and having screw-threads upon one end thereof, tapped holes in said track-sections arranged for the operable reception of said threaded ends, and a bevel pinion upon the other end of each of said pins arranged to mesh with said shaft-pinions, whereby said pins may be simultaneously turned for the purpose of adjusting their respective track-sections.

1,082,354. AUTOMATIC WEIGHING-MACHINE. BERNARD PATRICK MULLOY, New Albany, Ind. Filed Jan. 3, 1913. Serial No. 740,010. (Cl. 73—183.)



1. In a weighing machine, a hopper having main and supplemental discharge spouts, a gate for the main discharge spout, electrically operated means for controlling said gate, a weighing mechanism including a receptacle adapted to receive the goods from said spouts, a tray beneath said supplemental discharge spout, electrically controlled means for dumping said tray into the receptacle after said gate is closed, electric circuits connected with both said means, circuit closers in said circuits, and means for actuating the circuit closers by said weighing mechanism.

2. In a weighing machine, a hopper having main and supplemental discharge spouts, a gate for said main spout, a weight normally holding said gate closed, electrically operated means for opening said gate to a greater or less extent, a weighing mechanism including a receptacle adapted to receive the goods from the hopper, a tray beneath said supplemental spout, electrically controlled means for dumping said tray into the receptacle after the gate is closed, electric circuits connected with both said means, devices actuated by said weighing mechanism whereby the circuit of the gate operating means is broken after the circuit of the tray operating means is broken, electrically controlled means to hold said receptacle against movement while being filled, and a circuit closer for said last-named means adapted to be closed by said weighing mechanism.

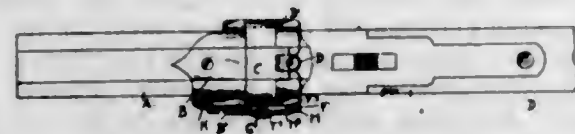
3. In a weighing machine, a hopper having main and supplemental discharge spouts, a weighing mechanism and its receptacle, means controlled by said weighing mechanism to check the discharge of said goods from the main spout, a tray under the supplemental spout, and means controlled by said weighing mechanism to check the delivery from said tray to the receptacle when the full weight of the goods has been supplied to the latter.

4. In a weighing machine, a hopper having main and supplemental discharge spouts, a gate to open and close the main discharge spout of the hopper, electrically operated means for opening and permitting said gate to close, a weighing mechanism including a weighing receptacle adapted to receive the goods from the hopper, a goods receiving and feeding tray arranged beneath said supplemental discharge spout of the hopper, electrically controlled means for operating said tray whereby goods are discharged into the receptacle after the gate of the main discharge spout is closed, electric circuits connected with said gate and tray operating means, circuit closers arranged in said circuits and actuated by said weighing mechanism whereby the circuit of the gate operating mechanism is broken and the gate permitted to close and whereby after the full amount of goods has been supplied by said tray, the circuit of the tray operating mechanism will be broken and the operation of the tray stopped.

5. In a weighing mechanism, a hopper having main and supplemental discharge spouts, a gate to open and

close said main discharge spout of the hopper, a weight to close and normally hold said gate in closed position, electrically operated means for opening said gate to a greater or less extent and for permitting the same to close under the action of said weight, a weighing mechanism including a weighing receptacle adapted to receive the goods from the hopper, a goods receiving and feeding tray arranged beneath the supplemental spout of the hopper, electrically controlled means for operating said tray whereby goods are discharged into the receptacle after the gate of the main discharge spout is closed, electric circuits connected with said gate and tray operating means, circuit closers arranged in said circuits and actuated by said weighing mechanism whereby the circuit of the gate operating mechanism is broken and the gate permitted to close after the circuit of the tray operating mechanism is broken and the operation of the tray thus stopped, means to hold said receptacle against movement while being filled, electrically controlled means to release said receptacle holding mechanism, an electric circuit connected with said electric release controlling means, and a circuit closer in said circuit adapted to be closed by said weighing mechanism and the receptacle thereby released when the full weight of goods has been deposited into the receptacle and after the circuit of the tray operating mechanism has been broken.

1,082,355. SIGHT FOR FIREARMS. MALCOLM PETERS NASH, U. S. Navy. Filed Apr. 9, 1913. Serial No. 759,904. (Cl. 42—82.)



1. A sight for firearms comprising a yoke mounted to slide vertically and carrying an eye-piece, a stud on the said yoke, and a manually-controlled cam mounted to turn and provided with a spiral groove engaged by the said stud to raise or lower the said yoke on turning the cam, the said spiral groove being open at its outer end to allow further upward movement of the yoke independent of the cam.

2. A sight for firearms comprising a yoke mounted to slide vertically and carrying an eye-piece, a stud on the said yoke, a manually-controlled cam mounted to turn and provided with a spiral groove engaged by the said stud to raise or lower the said yoke on turning the cam, the said spiral groove being open at its outer end to allow further upward movement of the yoke independent of the cam, and a dial mounted to turn with the said cam and forming a face plate for the same.

3. A sight for firearms comprising a guideway attached to the firearm, a yoke mounted to slide on the said guideway and provided with a vertically-arranged graduation, an eye-piece on the yoke, a pointer fixed on the said guideway and adapted to indicate on the said graduation of the yoke, a stud on the said yoke, and a revoluble cam mounted to turn on the said guideway and provided with a spiral groove into which projects the said stud, the outer open end of the spiral groove leading to the peripheral face of the cam to allow subsequent movement of the yoke independent of the cam.

4. A sight for firearms comprising a yoke mounted to slide vertically and carrying an eye-piece, a stud on the said yoke, a manually-controlled cam mounted to turn and provided with a spiral groove engaged by the said stud to raise or lower the said yoke on turning the cam, the latter being provided with peripheral notches, and a spring pawl fixed at its heel and adapted to engage with its free end the peripheral face of the cam and its notches.

5. A sight for firearms comprising a yoke mounted to slide vertically and carrying an eye-piece, a stud on the said yoke, a manually-controlled cam mounted to turn and provided with a spiral groove engaged by the said stud to raise or lower the said yoke on turning the cam, a dial mounted to turn with the said cam and forming a face plate

for the same, the dial and cam having peripheral notches in register with sundry of the marks of the said graduation, and a spring pawl fixed at one end and having its free end in contact with the peripheral faces of the said cam and dial.

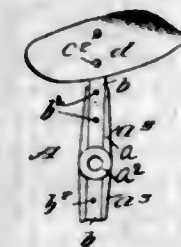
1,082,356. VACUUM-CLEANER. PERRY B. NEWKIRK, Portland, Oreg., assignor, by mesne assignments, to The Hugro Manufacturing Company, a Corporation of Illinois. Filed Nov. 21, 1910. Serial No. 593,564. (Cl. 83—47.)



1. In a vacuum cleaner adapted to be moved bodily over the surface to be cleaned, the combination with the dust receptacle and dust cap thereof, of a movable weight in combination with said dust cap and adapted to agitate it with each bodily movement of said cleaner, for the purpose indicated.

2. A suction cleaner comprising a hollow body portion having a part to enable said body portion to be manually manipulated to move the cleaner over the surface to be cleaned and provided with an inlet at one end and an outlet at the other end, a dust separating device mounted within said body portion between said inlet and said outlet, and means actuated by the manipulation of said body portion in the normal operation of the cleaner to prevent the accumulation of dust on said device.

1,082,357. ROTARY PLOW. MARION E. PLAYFORD, Wakelee, Mich., assignor of one-fourth to French H. Alexander and one-fourth to Chester A. Playford, Cassopolis, Mich. Filed Apr. 19, 1911. Serial No. 622,094. (Cl. 97—82.)



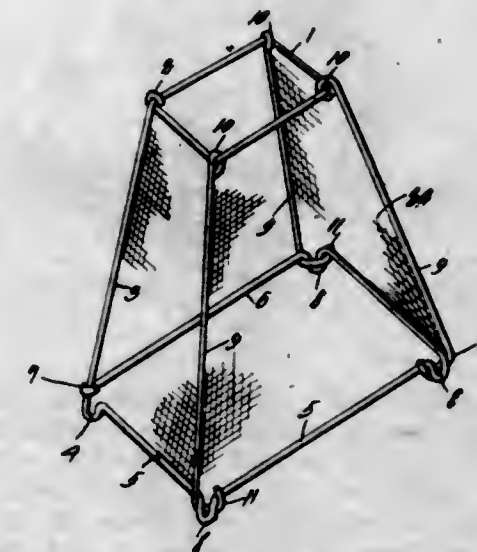
1. A plow, comprising a revoluble shaft, a spider provided with a hub fitting on said shaft, means for securing the spider to the shaft, spokes mounted upon the spider and extending in diametrically opposite directions, substantially L-shaped shoes mounted upon the outer ends of the spokes, and cutting blades secured approximately at their center of length to the shoes, said blades being curved in the direction of their length and having their cutting edges inclined relatively to the plane of rotation of the spokes.

2. A revoluble plow member, comprising a spider provided with a hub and spokes projecting from diametrically opposite sides of the hub, L-shaped shoes secured to the outer ends of the spokes with one member projecting in the direction of the length of the hub, elongated cutting blades curved in direction of their length, and means for securing said blades approximately at their center of length in the angle formed by the members of the shoes, with their cutting edges inclined to the plane of rotation of said spokes.

1,082,358. FLY-TRAP. RHEA G. PRICE, Auburn, Ky. Filed Sept. 25, 1912. Serial No. 722,303. (Cl. 43—22.)

1. In a trap, a support including a covering and comprising a lower frame; a closure for the upper end of the support; and a bottom comprising an eye, arms radiating from the eye, the arms terminating in resilient means for engaging the lower frame, and a covering connecting the arms.

2. In a trap, a support including a covering and comprising a lower frame; a closure for the upper end of the support; a bottom comprising strips twisted upon themselves to form an eye, the strips being terminally provided with resilient means for engaging the lower frame, and a covering extended between the strips.



3. In a trap, a support including a covering and comprising a top frame; a bottom connected with the lower end of the support; a closure comprising a frame fashioned from a single strip of material, one end of which is engaged with the strip adjacent the other end of the strip, said other end of the strip being fashioned into an inwardly extended hook, there being loop-shaped hooks in the strip, the hooks being adapted to engage with the top frame.

4. In a trap, a support comprising in a one piece structure, a top frame, a lower frame bent to form loop-shaped feet, and a primary upright connecting the frames; independent uprights having hooks connected with the top frame and engage around the feet; a closure carried by the top frame; and a bottom carried by the lower frame, the bottom being provided with an opening.

1,082,359. PROCESS OF MAKING STEEL. PAUL P. REESE and SAMUEL S. WALES, Munhall, Pa., assignors to Carnegie Steel Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 23, 1912. Serial No. 672,970. (Cl. 75—27.)

1. The process of making steel consisting in melting the metallic charge, making additions of ore to the bath to remove carbon therefrom, and then making additions of manganese thereto to check and control the further removal of carbon.

2. The process of making steel consisting in melting a charge of scrap steel and iron in which the percentage of steel predominates, making additions of ore to the bath to remove carbon therefrom, and then making additions of manganese thereto to check and control the further removal of carbon.

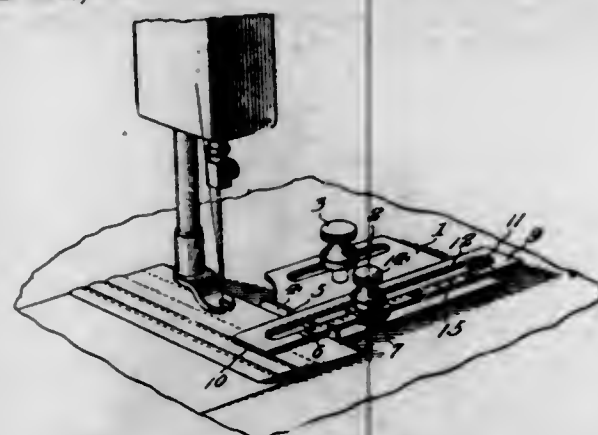
3. The process of making steel consisting in melting a charge of scrap steel and iron, making additions of ore to the bath to remove carbon therefrom, and then making successive additions of manganese thereto to thereby check and control the further removal of carbon.

4. The process of making steel consisting in rapidly melting a charge of scrap steel and iron in which the percentage of steel predominates, making additions of ore to remove carbon and other metalloids in the charge, and then checking further removal of carbon therefrom by the addition of successively added quantities of manganese.

5. The process of making steel consisting in melting a charge of scrap steel and iron in which the percentage of steel predominates, making additions of ore to remove carbon and other metalloids therefrom, and then preventing further removal of carbon by the addition of manganese thereto and tapping the steel when the tapping point is reached.

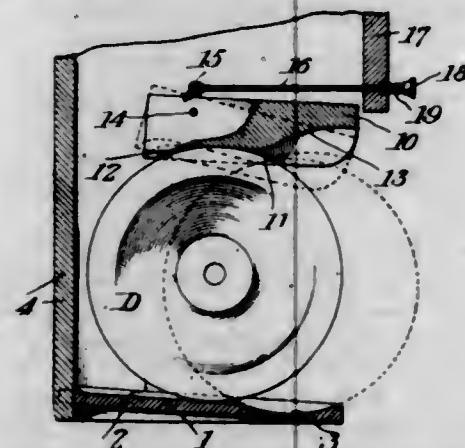
[Claims 6 to 8 not printed in the Gazette.]

1,082,360. TUCKER ATTACHMENT FOR SEWING-MACHINES. THURSTON W. RICHARDSON, Bedford City, Va. Filed Apr. 25, 1912. Serial No. 693,055. (Cl. 112-12.)



A tucker attachment for sewing machines, comprising a combined guide and gage plate, means to adjustably attach the same to suitable part of the machine whereby the material is guided and the width of the tucks regulated, a guide flange on said plate, said flange having therein a recess, a fixed pawl in said recess, a tuck guiding and spacing bar slidably engaged with said recess and having therein a longitudinally disposed slot, a tuck engaging hook on one end of said bar, a series of teeth in said slot adapted to engage the fixed pawl on said guide flange whereby the bar is positively locked against longitudinal movement, a boss on said plate, having a threaded socket, and a clamping screw adapted to be inserted through the slot in said bar and screwed into the threaded socket of said boss whereby the bar is held down in operative engagement with the plate.

1,082,361. CABINET FOR DISK RECORDS. PHILIP J. ROBINSON, Leominster, Mass. Filed Aug. 12, 1912. Serial No. 714,713. (Cl. 211-16.)



1. A cabinet for disk records comprising a casing having a series of open front compartments whereof each has a floor inclined downward and forward and provided near its front edge with a rest so disposed that when the record rests therein its edge will project out of said open front; combined with a retainer pivoted in the top of each compartment and having a shoulder in its lower edge, that portion of the retainer in rear of the shoulder adapted to engage a record when resting on the floor in rear of said rest and the portion forward of the shoulder to engage a record when resting in the rest, and means for turning the retainer on its pivot.

2. In a cabinet for phonographic disk records, the combination with a casing whereof each record compartment has a floor inclined downwardly and forwardly and a depression between the front end of said incline and the front of the casing; of a retainer pivotally mounted in the top of the casing and having its lower edge grooved on two lines with a shoulder between said lines occurring substantially above the point between the inclined floor and its depression, for the purpose set forth, and means for actuating said retainer.

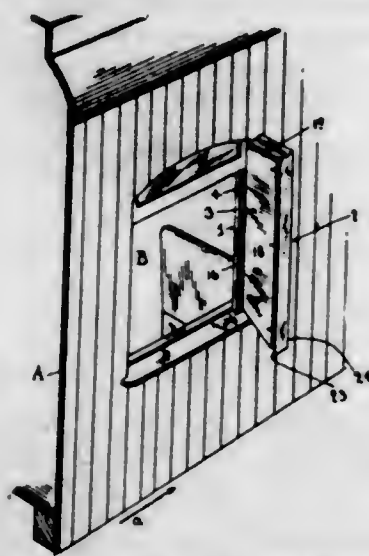
3. A cabinet for phonographic disk records having a series of upright compartments each consisting of a floor inclined toward the open front of the cabinet and having a rest near its front edge, a retainer at the top of the compartment consisting of a block pivoted near its rear end and having in its lower edge a groove with a shoulder in its length, and a rod loosely connected with said block and extending through the front of the cabinet and there having a knob.

4. A cabinet for phonographic disk records having a series of upright compartments each provided at its bottom with a track inclined downwardly and forwardly and having near its front end a rest, an upright back at the rear of the compartment, a retainer at the top of the compartment consisting of a block having in its lower edge a groove, a cut-out at its front end, and a shoulder between said groove and cut-out, and means for disengaging the block from the record.

5. In a cabinet for disk records, the combination with a casing having an open front, and a floor therein having a groove in its upper face inclined downward and forward and provided near its front edge with a rest so disposed that when the record rests therein its edge will project out of said open front; of a retainer pivoted in the top of the casing and having its lower edge grooved at its rear end and cut out at its front end, said cut-out coacting with said rest for the purpose set forth, and manually controlled means for turning the retainer on its pivot.

[Claims 6 and 7 not printed in the Gazette.]

1,082,362. DEFLECTOR AND VENTILATOR. SHEPHERD BROWN SHIPLEY, Chattanooga, Tenn., assignor of one-half to Robert S. Henry, Chattanooga, Tenn. Filed Feb. 10, 1913. Serial No. 747,502. (Cl. 98-21.)



1. A deflector and ventilator for vehicle windows comprising a guard composed of laterally spaced plates one of which projects beyond the other at one end and one side and provided with flanges extending laterally on opposite faces of said projecting end and side.

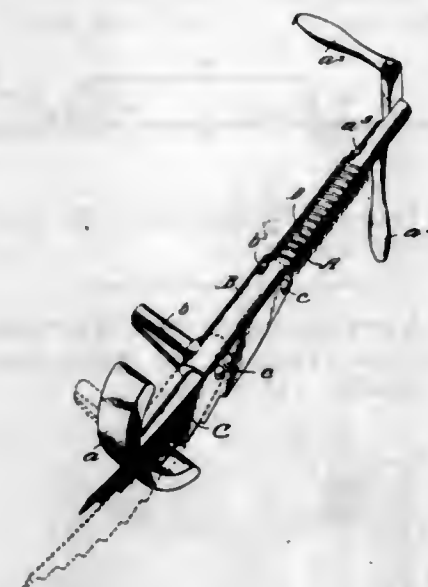
2. A deflector and ventilator for vehicle windows comprising a guard plate struck from a single sheet of bendable material and foldable to form laterally spaced plates one of which is provided at its upper end and outer edge with laterally extending flanges.

3. A deflector and ventilator for vehicle windows comprising a guard plate struck from a single sheet of bendable material and foldable to form laterally spaced plates one of which is provided at its upper end and outer edge with laterally extending flanges, said flange carrying plate projecting beyond the others and having the flanges secured to the projecting edges thereof.

1,082,363. HAY-KNIFE. JAMES F. SLUSSER, Jackson, Idaho. Filed May 3, 1913. Serial No. 765,264. (Cl. 30-8.)

1. A hay knife comprising a handle bar having a guard at one end and provided with angular handle grips at its

opposite end, a lug secured to the handle bar adjacent its last mentioned end and provided with a hook, a knife carriage slidable on the handle bar toward and away from the said guard, a cutting blade secured to one side of the carriage and movable along one side of the said guard, a laterally extending foot piece secured to and projecting from the opposite side of the knife carriage, a lug carried by the carriage and provided with a hook, and a retractile spring engaged with the lug of the knife carriage and the lug of the handle bar whereby to move the carriage in one direction.



2. A hay knife comprising a handle bar provided with a guard at one end and handle grips at its opposite end, a knife carriage slidably disposed upon the handle bar and having a laterally projecting foot piece, a spring connected to the carriage and to the handle bar and tending to cause movement of the carriage toward the handle grips, and a cutting blade secured to one side of the carriage, said cutting blade being movable along one side of the guard and provided with a longitudinally extending cutting edge, all for the purpose described.

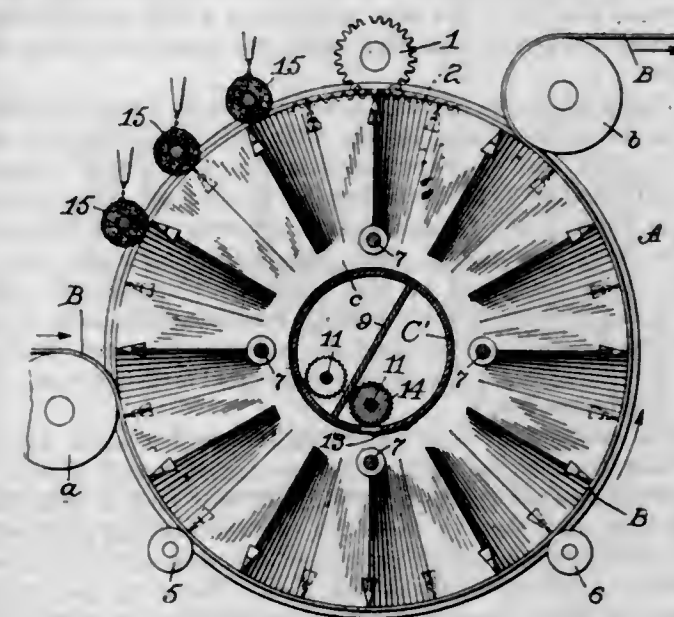
3. A hay knife comprising a handle bar provided at one end with a laterally curved guard and having handle grips at its opposite end, a knife carriage consisting of a sleeve slidably disposed on the handle bar and provided with a laterally projecting foot piece extending from one side thereof, a flat blade secured to opposite side of the sleeve and projecting along one side of the guard, said blade having a toothed longitudinal cutting edge, and a spring connected to the sleeve and to the handle bar and tending to move the sleeve toward the handle grips, all for the purpose described.

1,082,364. MEANS FOR APPLYING COLORED DESIGNS TO COMPOSITION ROOFING. ALEXANDER S. SPIEGEL, Chicago, Ill. Filed Nov. 19, 1912. Serial No. 732,328. (Cl. 154-39.)

1. In combination with supporting means for composition roofing, means for applying to said roofing a colored pattern or design arranged intermediate of the supports for the roofing, comprising a cylindrical rotating device having a skeleton periphery made up of open sections terminating in the form of design to be applied to the roofing, with openings to the interior, and means for feeding different colored sand or grit to the different design sections from the interior of the cylinder, the roofing forming the bottom of the open sections, substantially as described.

2. In combination with supporting means for composition roofing, a skeleton cylindrical section interposed between the supporting means and adapted to receive the composition roofing around a portion of its periphery, the said periphery constituting a series of open designs in outline, and having passages leading to the interior, with feeding means for supplying one color to one or more sections, and for supplying another color to other sections

so as to alternate or vary the pattern, the roofing forming the bottom of all the design sections and adapted to receive the sand or grit upon its adhesive surface from the interior, substantially as described.



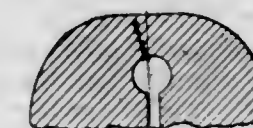
3. In combination with a series of partitions terminating in open-ended designs forming a skeleton cylinder, means for supporting composition roofing in close contact with the cylinder so as to form the bottom of all the design sections in the rotation of the cylinder, means for supplying grit or sand of different colors, and means for directing one color to one design opening and another color to another design opening so as to vary the color of the designs, substantially as described.

4. In combination with a cylindrical device having designs formed by its periphery, a hopper for receiving the grit or sand of different colors to be applied to the composition roofing as it passes around the periphery of the cylinder, a partition in the hopper, and alternating openings in the hopper on opposite sides of the partition for feeding one color through one opening to one design section, and a different color through the opening on the opposite side of the partition to the adjacent design section, substantially as described.

5. In combination with a skeleton cylindrical device having means for rotating it, means for supporting composition roofing in contact with the periphery and moving from a feeding to a receiving roll with the rotation of the cylindrical device, the said cylindrical device having a periphery made up of all open designs, with means for feeding to said designs colored sand or grit while the design section is in contact with the composition roofing so as to apply one color of sand or grit within the walls of the design section, and another color within the walls of the adjacent section all from within the cylinder, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,082,365. METHOD OF MANUFACTURING ARTIFICIAL TOOTH-FRONT. THOMAS STEELE, Columbus, Ohio, assignor to The Columbus Dental Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed May 15, 1911. Serial No. 627,287. (Cl. 32-0.)



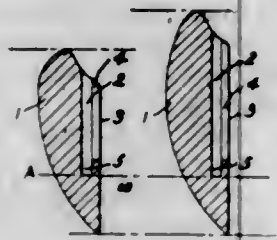
1. The method of treating an artificial tooth front, after it has been baked with a longitudinal bore and a communicating transverse slot therein, commensurate with the length of said bore, to form the various surfaces of the

tooth front and in the act of forming these various surfaces to effect a coactive measuring action between the parts in such manner that a perfect tooth front is formed, which consists in smoothing the rear surface of the tooth front to a perfect plane, then accurately centering the transverse slot with the said plane as a guide, and finally accurately centering the bore with the transverse slot as a guide.

2. The process of making artificial tooth fronts which consists in molding the biscuit with an elongated slot in its rear face and a communicating bore disposed longitudinally of the tooth front, baking the biscuit, smoothing the rear face of the tooth front to a perfect plane, centering the bore accurately both longitudinally and transversely with reference to the plane of the back of the tooth front and finally accurately centering the said slot with reference to the bore and the plane of the back of the tooth front, whereby exact interchangeable duplicates of tooth fronts are made.

3. The method of treating artificial tooth fronts, after they have been baked with a transverse slot and a longitudinal bore communicating with said slot and of greater length than said slot, to form the various bearing surfaces of the tooth fronts and in the act of forming said surfaces to effect a co-active measuring action between the said surfaces in such manner that an accurately interchangeable tooth front is formed, which consists in first grinding the rear surface of the tooth front to a perfect plane, then accurately centering the transverse slot with said plane as a guide, then accurately centering the bore with the transverse slot with respect to the slot using the slot as a guide, grinding the bore throughout its length parallel to the plane of back of the tooth front and of greater length than the said slot.

1,082,366. INTERCHANGEABLE TOOTH. THOMAS STEELE, Columbus, Ohio, assignor to The Columbus Dental Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Nov. 25, 1912. Serial No. 733,302. (Cl. 32—9.)



1. The herein described method of forming interchangeable tooth facings which consists in providing each facing with an alining gage for the securing device invariably equidistant from the incisal edge irrespective of the length over all of each facing.

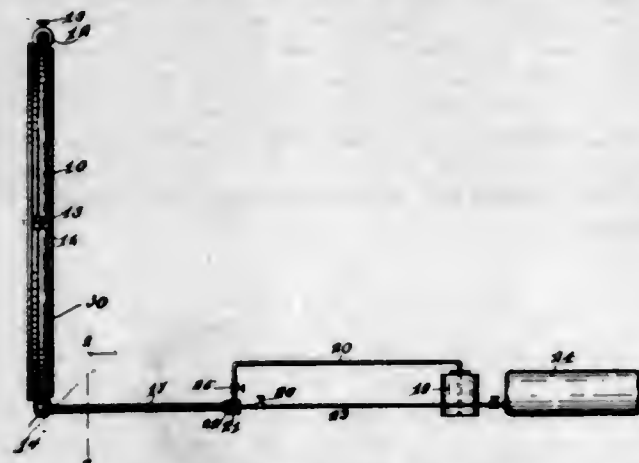
2. The herein described method of forming interchangeable tooth fronts having a bore and slot, which consists in forming the bottom of the bore and slot, respectively, in each tooth front the same distance from the incisal edge, irrespective of the length over all of each tooth front.

1,082,367. FIRE-HEATER. ARTHUR E. STACHEL, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,944. (Cl. 158—28.)

1. The combination of an annular burner pipe having a gap, a mixing chamber in the gap, the ends of the burner pipe being connected to opposite ends of the mixing chamber, a nozzle in the mixing chamber and having branches discharging in the direction of the ends of the burner pipe, a source of liquid fuel supply, an injector connected to said supply, and a connection between the aforesaid nozzle and the outlet of the injector.

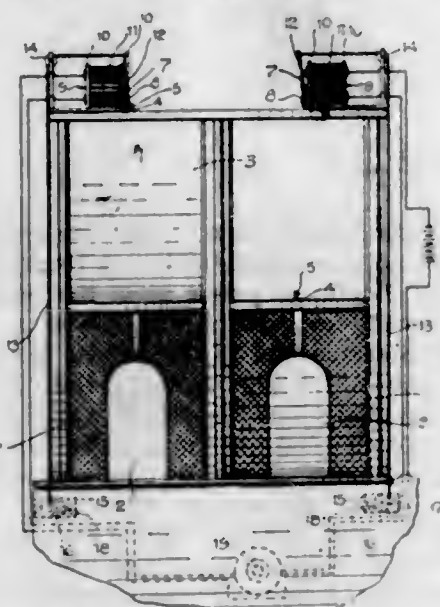
2. The combination of an annular burner pipe having a gap, a mixing chamber in the gap, the ends of the burner pipe being connected to opposite ends of the mixing cham-

ber, and said chamber being in sections, a T-coupling connecting the sections, and a nozzle in the coupling, said



nozzle having branches discharging in the direction of the ends of the burner pipe.

1,082,368. SAFETY-BARRIER FOR WINDOWS. BENJAMIN B. SWANSON, Portage, Pa. Filed Mar. 12, 1913. Serial No. 753,876. (Cl. 39—140.)



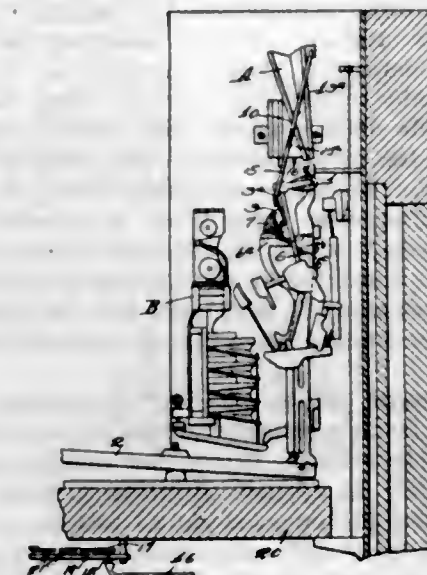
1. The combination with a window of the character described, of a vertically movable gravity actuated door adapted to close the window opening, said door being provided with a keeper, a latch movable into engagement with the keeper and adapted to hold the door in a raised position, an electromagnet tending to move the latch relative to said keeper, an electric circuit in which the electromagnet is included, a pull cord connected to said latch, and a handle connected to one end of said pull cord, whereby the same may be drawn in a direction to move the latch into engagement with the keeper.

2. The combination with a window of the character described, of a vertically movable gravity actuated door adapted to close the window opening, said door being provided with a keeper, a latch movable into engagement with the keeper and adapted to hold the door in a raised position, supporting brackets, an electromagnet mounted in said brackets and adapted to move the latch relative to said keeper, a spring actuated rod movable through said brackets and pivotally connected at one end to said latch, and tending to move the latch away from said keeper, and an electric circuit in which said electromagnet is included.

3. The combination with a window of the character described, of a vertically movable gravity actuated door adapted to close the window opening, said door being provided with a keeper, a latch movable into engagement with the keeper and adapted to hold the door in a raised position, an electromagnet tending to move the latch relative to said keeper, the latch tending to move in a direction to release the keeper upon the deenergization of the

electromagnet, an electric circuit in which the electromagnet is included, a pull cord connected to said latch, and a handle connected to one end of the pull cord, whereby the same may be drawn in a direction to move the latch toward the electromagnet and into position for engagement with the keeper.

1,082,369. HAMMER-REST-RAIL-OPERATING DEVICE FOR PLAYER-PIANOS. EMIL SWANSON, Steger, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill., a Corporation of Illinois. Filed June 30, 1913. Serial No. 776,572. (Cl. 84—160.)



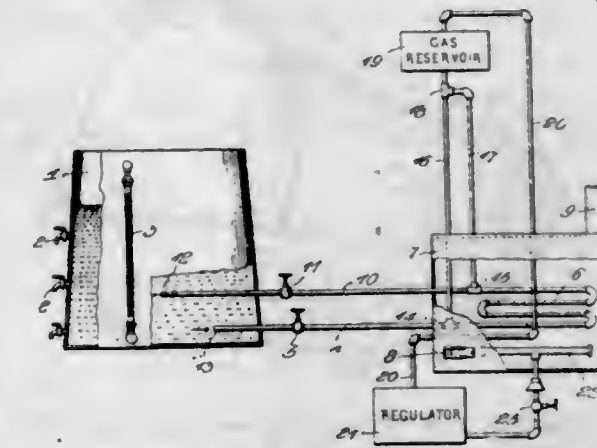
1. In a player piano, in combination with the piano action comprising the hammer rest rail thereof, a pneumatic unit comprising a block having mounted on it a primary pneumatic and a valve actuated thereby, and a motor pneumatic controlled by the valve; the motor pneumatic being positioned vertically for fore-and-aft movement of its moving wall, and having said moving wall pivoted at its lower end for operating movement at its upper end, the entire pneumatic unit being mounted above the piano action substantially within the fore-and-aft depth of the space apportioned to the hammers and hammer rest rail of said action; a lever fulcrumed between its ends on the block, having its upper end connected with the moving member of the motor pneumatic, and its lower end engaging the hammer rest rail of the piano action for moving the latter rearward on collapse of the motor pneumatic.

2. In a player piano, in combination with the case and piano action comprising the hammer rest rail thereof, a pneumatic unit mounted in the case above the piano action and substantially within the fore-and-aft depth of the space apportioned to the hammers and the hammer rest rail of the piano action, comprising a block and a motor pneumatic mounted thereon, having its moving member at the rear side thereof and pivoted at the lower end; a lever slidably fulcrumed on the block and having its upper end connected to the upper end of said moving member and its lower end engaging the hammer rest rail.

1,082,370. OIL-HEATER. HENRY SWARTESLANDER, Oil City, Pa. Filed Mar. 21, 1912. Serial No. 685,306. (Cl. 196—1.)

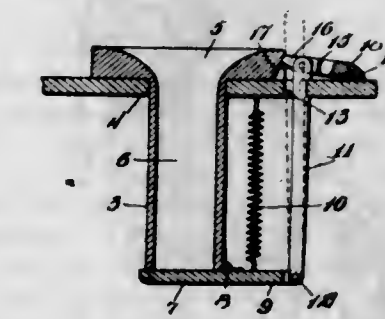
The herein described apparatus for heating crude oil, the same consisting of a tank, a coil, pipes connecting the coil with the tank and standing throughout their length below the lowest level of the oil in the tank, an oven inclosing the coil, a burner therein beneath such coil, T-couplings within said pipes inside the oven and adjacent the coil, gas pipes leading upward from said couplings

through the top of the oven, a gas reservoir located entirely above the level of the tank and with which these



pipes are connected, and a gas feed pipe leading from the reservoir to the burner.

1,082,371. CUSPIDOR. MARY SZYMOINSKA, Carlos, Tex. Filed May 6, 1913. Serial No. 765,831. (Cl. 4—38.)

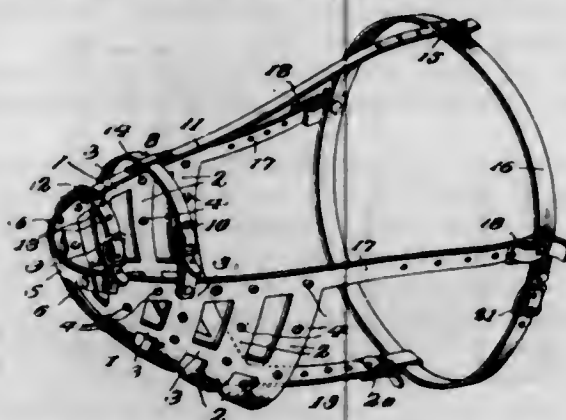


The combination with a support, of a cuspidor attached thereto and comprising a depending, hollow body having its lower end open, a closure for the said end of the body pivotally connected thereto for vertical swinging movement, an arm projecting laterally from the closure oppositely with respect to its point of pivotal connection to the body; the said support being provided with a vertical opening adjacent to the body, an operating rod connected to the extremity of the said arm and extending upwardly through the said support opening for vertical reciprocation and slight oscillatory movement therein, yieldable means for normally maintaining the said closure in its inoperative position with the operating rod in its uppermost position, means provided upon the said rod for engagement with the under face of the support when in its lowermost position to maintain the closure locked when the upper end of the operating rod is swung laterally, the body of the device being provided in its exterior portion with a recess having an inclined inner face, and a locking lever pivotally connected to the free end of the operating rod with one of its arms constructed shorter than the width of the support opening and adapted for terminal engagement with the said inclined face of the body recess, the opposite arm of the lever being engageable with the upper face of the support.

1,082,372. MUZZLE. JOHN WALTER THOMPSON, Washington, D. C. Filed Mar. 1, 1913. Serial No. 751,582. (Cl. 119—133.)

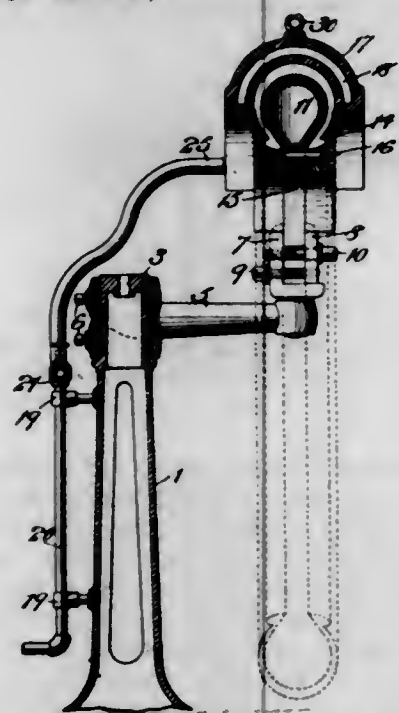
A muzzle comprising a continuous flexible cover section, shaped to conform and spaced from the animal's lower jaw and having small openings therein of such size that the animal is prevented from extending his tongue there-through, the upper edge of said cover section terminating short of the animal's nostrils and above the mouth, the

bottom being beneath the lower jaw when the mouth is open, devices attached to the cover section and extending



over the nostrils, and devices for securing said cover section in position upon the animal's head.

1,082,373. VULCANIZING-MOLD. PETER D. THROPP, Trenton, N. J., assignor to The de Laski & Thropp Circular Woven Tire Company, Trenton, N. J., a Corporation of New Jersey. Filed Mar. 20, 1911. Serial No. 615,521. (Cl. 18—18.)



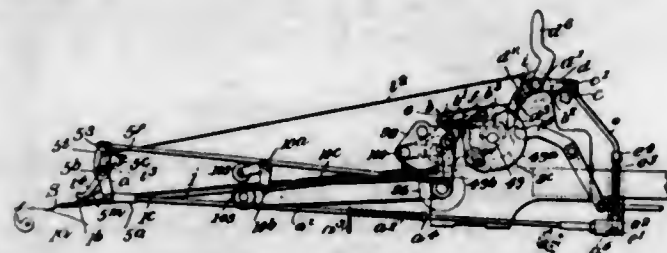
1. Apparatus of the character described comprising a core, bead and tread mold members, lugs depending from said core, a support, and means carried by said support fitted to engage the lugs for supporting the core and mold members.

2. Apparatus of the character described comprising a mold including a core, lugs depending therefrom, a support having a pair of arms fitted to swing toward and away from each other, and means rotatably mounted in the outer ends of the said arms to engage the said lugs for supporting the core and mold.

1,082,374. FEEDING ATTACHMENT FOR PRINTING-PRESSES. BURT F. UPHAM, Evanston, Ill., assignor to Southgate Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 8, 1910. Serial No. 591,359. (Cl. 101—36.)

1. In automatic paper feeding mechanism, the combination of upper and lower paper feeding rollers, means for rotating the lower rollers alternately in opposite directions, devices adapted to detect a misplaced or defective sheet, and means for raising and lowering the upper rollers, comprising a pivoted lever and a cam; with means for momentarily bringing the upper rollers into contact with the lower rollers when the detector mechanism finds such a sheet, said means comprising a short dwell in the actuating cam for said rollers, and means to prevent

said dwell so operating said upper rollers except when the detector mechanism finds a defective sheet, substantially as described.



2. In automatic paper feeding mechanism, a set of paper feeding rollers, means for rotating the lower rollers alternately in opposite directions, an actuating cam, a lever and connections for raising and lowering the upper rollers; devices adapted to detect a misplaced or defective sheet; means for momentarily bringing the said rollers into contact when the detector mechanism finds such a sheet, said means comprising a short dwell in the said actuating cam; with a latch lever connected with the roller actuating lever, a catch for normally engaging said latch lever to prevent operation of said dwell except when the detector mechanism finds a defective sheet, and tripping mechanism controlled by said detecting devices whereby said latch lever is released when the tripping mechanism is actuated, substantially as described.

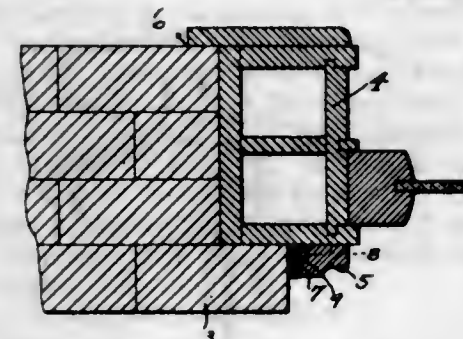
3. In automatic paper feeding mechanism, sets of opposed paper feeding rollers, devices for detecting a misplaced or defective sheet, means for rotating one set of rollers alternately in opposite directions, means for raising and lowering the opposed set of rollers comprising a cam, a pivoted lever and connections, said cam having a short dwell for momentarily bringing the rollers into contact when the feeding mechanism is tripped; a latch lever connected with the roller-actuating lever, a catch for normally engaging said latch lever to prevent operation of said dwell except when the detector mechanism finds a defective sheet, a tripping rod controlled by the detector mechanism, a rocking lever carrying said catch, a spring actuated rod for vibrating said lever, said tripping rod engaging said spring actuated rod, substantially as described.

4. In automatic paper feeding mechanism, the combination of a set of paper feeding rollers, means for rotating the lower rollers alternately in opposite directions, means for raising and lowering the upper rollers comprising a pivoted lever and connections, and a cam for operating said lever, and devices adapted to detect a misplaced or defective sheet; a second set of rollers, a cam, a lever engaging said cam for separating the rollers in the second set, and a spring actuated slide adapted to engage said lever to prevent closing of the said rollers when the mechanism is tripped; with means for momentarily bringing the rollers in the first set into contact when the detector mechanism operates, said means comprising a short dwell in the actuating cam for said rollers, a latch lever connected with the roller actuating lever, a catch for normally engaging said latch lever to prevent operation of said dwell except when the detector mechanism finds a defective sheet, and tripping mechanism controlled by the detector mechanism whereby said latch lever is released when the tripping mechanism is actuated.

1,082,375. WEATHER-STRIP. GEORGE C. VACHON, Chicago, Ill., assignor to City Weather Proofing Company, a Corporation of Illinois. Filed Feb. 25, 1913. Serial No. 750,548. (Cl. 20—69.)

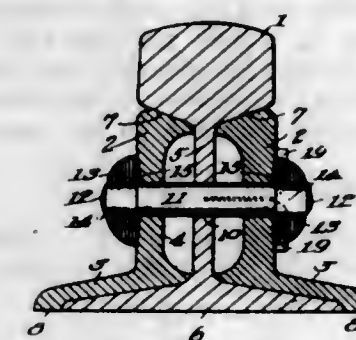
In combination with a wall and a window frame therein, of a staff-bead secured to said window frame adjacent said wall; a resilient member, L-shaped in cross section with one leg secured between said said frame and staff-bead and its other leg disposed between said staff-bead and said wall, the portion between the staff-bead and wall being provided with a tubular turned edge; and a yieldable material between said wall and resilient mem-

ber and having its edge clamped in said turned edge, the latter being of a diameter equal to the thickness of said



yieldable material under slight compression and adapted to protect the outer edge of said yieldable material, substantially as described.

1,082,376. BOLT. JOHN SCOTT WAIT, Jr., and ALEXANDER HALLIDAY, Two Harbors, Minn. Filed May 8, 1913. Serial No. 766,361. (Cl. 239—11.)



1. In combination, a bolt having its ends reduced, a transverse head journaled on each of the reduced ends, fish plates having slots for permitting the passage of the heads, each plate having on its outer face adjacent to each slot a plurality of recesses, the recesses at each slot being on opposite sides and at opposite ends thereof, each of the said recesses being of quadrantal form and gradually decreasing in depth from the slot.

2. In combination, a bolt having its ends reduced, a transverse head journaled on each of the reduced ends, fish plates having slots for permitting the passage of the heads, each plate having a plurality of cam surfaces at each slot for pressing the adjacent head outward as it is turned transverse to the slot.

3. In combination with the meeting ends of the rails and the fish plates on opposite sides of the said ends, the webs of the rails having openings and the fish plates having slots registering with the openings at their centers, a holding device engaging each series of registering openings, each of the said devices comprising a body extending at each end beyond the outer face of the adjacent fish plate, a transverse head journaled on each of the said ends of the body, and means in connection with each head and the fish plate for moving the said head and the fish plates in opposite directions when the head is turned transverse to the opening, and means for preventing reverse movement of the head.

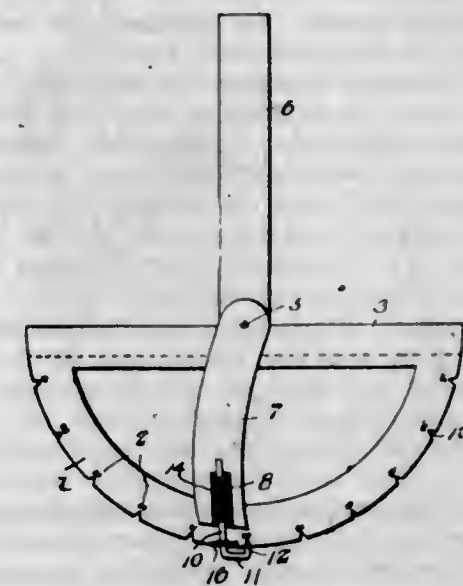
4. In combination with the meeting ends of the rails and the fish plates on opposite sides of the said ends, the webs of the rails having openings and the fish plates having slots registering with the openings at their centers, a holding device engaging each series of registering openings, each of the said devices comprising a body extending at each end beyond the outer face of the adjacent fish plate, a transverse head journaled on each of the said ends of the body, and means in connection with each head and the fish plate for moving the said head and the fish plates in opposite directions when the head is turned transverse to the opening.

5. In combination with the meeting ends of the rails and the fish plates on opposite sides of the said ends, the webs of the rails having openings and the fish plates having slots registering with the openings at their centers, a holding device engaging each series of registering open-

ings, each of the said devices comprising a body extending at each end beyond the outer face of the adjacent fish plate, and a transverse head journaled on each of the said ends of the body.

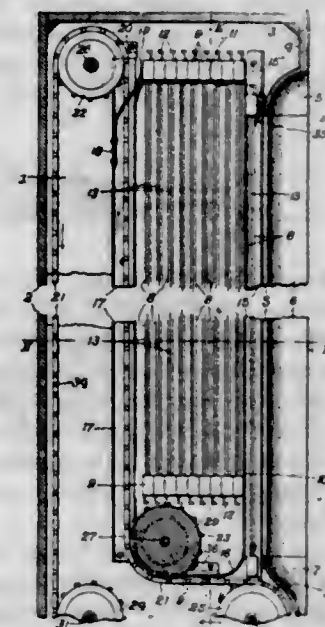
[Claims 6 and 7 not printed in the Gazette.]

1,082,377. PROTRACTOR. WALTER P. WARD, Austin, Tex. Filed Mar. 8, 1913. Serial No. 752,944. (Cl. 33—12.)



A protractor comprising a segment graduated to delineate various angles, a straight edge secured to said segment, a blade pivoted to said straight edge, an arm secured to said blade and movable therewith and overlying one face of said segment, a socket carried by the upper surface of the free end of said arm, a shank slidably disposed within said socket and having the free end thereof bent at right angles to itself and terminating in an inwardly extending hook adapted to engage the outer edge of said segment, a spring within said socket and acting upon the shank therein to hold said hook normally in engagement with the respective edge of the segment, and means carried by said shank whereby the hook may be disengaged from the respective edge of the segment against the action of said spring.

1,082,378. AUTOMATIC MAGAZINE-SIGN. LEWIS H. WATTS, Kansas City, Mo., assignor of one-half to Edward T. McCarthy, Kansas City, Mo. Filed Nov. 25, 1912. Serial No. 733,359. (Cl. 40—78.)



1. In a device of the kind described, a series of circulating units each comprising an upper carrier-bar, a lower carrier-bar, and a sheet attached to said bars at its upper and lower edges; horizontal rails for supporting

the top channel-bars; vertical channel-bars extending downward from the forward ends of said rails, each of said channel-bars having an opening in its rear flange to receive the bottom carrier-bar of one unit; vertical channel-bars at the rear of said series, extending upward to the top carrier-bars, each of said rear channel-bars having an opening in its front flange to permit the bottom carrier-bar of the rearmost unit to move forward; endless chains for conveying each unit from the front to the back of the series; driving projections on said chains; hooks on said carrier-bars adapted for engagement by said chains; sprocket-wheels for guiding said chains; means for moving the series of units forward at regular intervals, said movement pushing the carrier-bar of the foremost unit from the supporting rails into the channel of the forward channel-bar; and springs arranged in said channels to stop the descent of the last named carrier-bar at a point slightly below the normal level of the carrier-bars; said springs being overcome by the pull of the chains, after a predetermined interval, upon the hooks of the bottom carrier-bar of said unit.

2. In a device of the kind described, a flexible sheet, two carrier-bars attached respectively to the upper and lower edges of the sheet, a pair of opposed, vertically-extending channel-bars adapted to guide the ends of the upper carrier-bar during the downward motion thereof, and metallic tapes extending vertically between and connecting the two carrier-bars, said tapes being sufficiently rigid to prevent collapse of said sheet when the ends of the upper carrier-bar are descending in said channel-bars.

3. In a device of the kind described, a series of circulating units, each comprising a sheet, and carrier bars at the upper and lower edges of each sheet; horizontal rails for supporting the ends of the top carrier bars, vertical channels at the front of the series to receive the units one by one as they pass forward from the horizontal rails, vertical channels at the rear of the series to guide the carrier bars up to the horizontal rails, all of said vertical channels having openings near their lower terminals for the passage of the lowermost carrier bars, horizontal guides communicating with the lower portions of the channels to guide the carrier bars from the front channels to the rear channels, hooks on the carrier bars, driven chains paralleling the lower horizontal guides and the rear channels, means on said chains to engage the hooks and carry each unit from the front channels to the upper portion of the rear channels, and resilient means to force each unit from the rear channels to the upper horizontal rails, substantially as described.

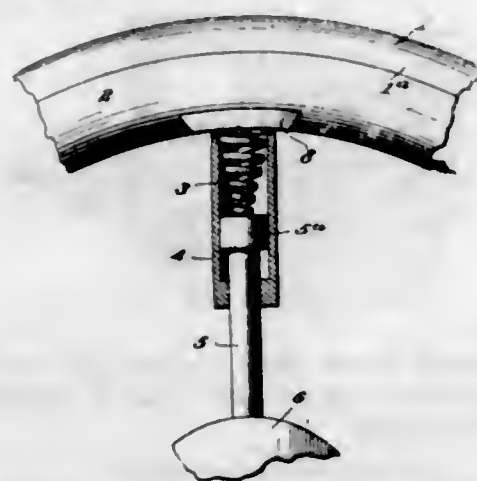
1,082,379. CHISEL. OWEN ALVARO WEST, Sabina, Ohio, assignor of one-third to John Mathews and one-third to Frank E. Sears, county of Clinton, Ohio. Filed July 15, 1912. Serial No. 709,547. (Cl. 145-24.)



1. The combination with a bit having a piston member detachably secured thereto, of a tubular hammer member telescopically mounted on said piston member, means to prevent the separation of said members when extended, and a removable cap at the outer end of said hammer member having a reduced inner end which serves as a stop for the piston head in advance of an air vent, such vent being provided in the tubular member adjacent to said reduced end.

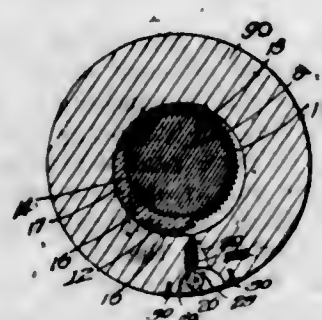
2. In a tool, the combination with a bit having an extension, of a tubular hammer member telescopically mounted on said extension, and a detachable cap fitted in the end of said hammer member and provided with a reduced inner end portion adapted to engage the extension of the bit, said hammer member also having a vent opening arranged opposite said reduced inner end portion of the cap for the purpose specified.

1,082,380. SPRING-WHEEL. EDMOND R. WHITE, Plattsburg, N. Y. Filed Mar. 20, 1913. Serial No. 750,944. (Cl. 152-47.)



In a vehicle wheel a joint between a spoke and the rim or hub, said joint comprising a box having its end walls flared and its side walls formed with opposed ribs, and a spoke end entering such box and provided at opposite sides with grooves to receive the ribs and of a size to fill the entrance opening of the box, said spoke adapted to have an oscillatory movement in the direction of the elongation of the box provided by the flare of its end walls.

1,082,381. CLUTCH MECHANISM. EDWIN COOPER WILLS, Frederick, Md. Filed May 12, 1913. Serial No. 787,014. (Cl. 192-2.)



1. A clutch mechanism comprising a substantially cylindrical shaft section, a sleeve carried by said shaft section and provided with a substantially cylindrical bore mating said shaft section, said sleeve being further provided with a compartment merging into said bore and eccentric relative to the same, a shoe arranged loosely within said compartment and provided with a concave inner bearing surface for engaging an adjacent shaft section, said shoe being further provided with a pair of convex bearing surfaces, the curvature thereof being struck from different centers so that only one of said bearing surfaces can by direct rotation be brought into perfect gripping engagement with the adjacent surface of the said sleeves of said compartment bounding said sleeve.

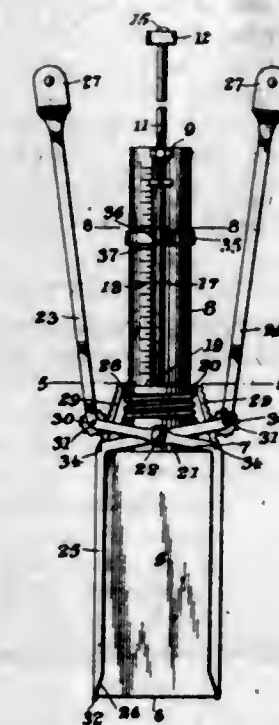
2. In a clutch mechanism, the combination of a shaft section, a sleeve loosely mounted thereon and revoluble relatively thereon, said sleeve being provided with a compartment encircling said shaft section and eccentric relative to the same, a shoe mounted loosely within said compartment and provided with a groove, a locking pin carried by said sleeve and extending into said compartment for the purpose of entering said groove, and means controllable at the will of the operator when the sleeve is at rest for shifting said locking pin into different positions in order to enable it to enter and leave said groove.

3. A clutch mechanism comprising a shaft section, a sleeve encircling the same and provided with a cylindrical compartment, said compartment encircling said shaft eccentrically with respect to the same, a shoe mounted loosely within said compartment for the purpose of engaging said shaft and the adjacent surfaces of said sleeve bounding said compartment, and a spring connected with said shoe and together therewith extending around

said shaft for the purpose of holding said shoe gently against said shaft.

4. A clutch mechanism comprising a revoluble shaft, a sleeve fitted over said shaft and provided with a cylindrical compartment, eccentric with respect to the shaft, a shoe mounted loosely within said compartment, a spring connected with the ends of said shaft for the purpose of drawing said shoe against said shaft, and means controllable at the will of the operator when the sleeve is at rest for holding said shoe in a predetermined position in order to prevent said shoe from locking said sleeve and said shaft together.

1,082,382. MOLDING DEVICE. SAMUEL E. WILSON, Vancouver, British Columbia, Canada. Filed Dec. 20, 1912. Serial No. 737,916. (Cl. 221-103.)



1. A moldor comprising a receiver having an open and a closed end, means adjustable within the receiver to vary the capacity thereof, means traversing the open end of said receiver for severing the material contained therein from the bulk, an indicator coöperative with said first named means, adjustable means for determining the location of the first named means within the receiver, and means coöperative with the separating means for preventing the same from moving in an arc at the open end of the receiver.

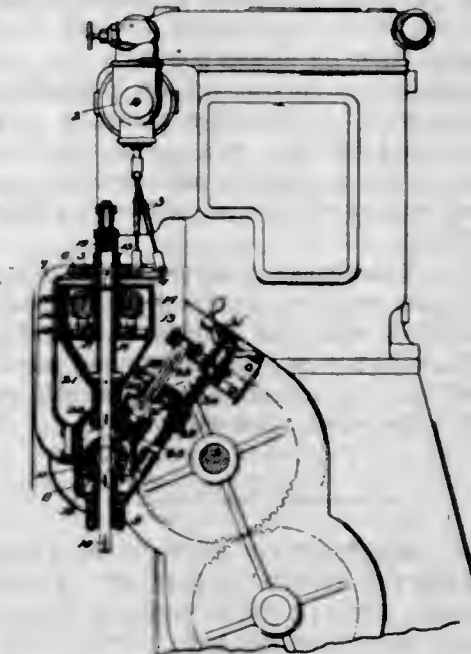
2. A device of the class described, comprising a receiver having an open and a closed end, a hollow column rising centrally from the closed end of the receiver, adjustable means working within the receiver and stem to regulate the carrying capacity of said receiver, an indicator on said means, the said stem being provided with a slot and also graduations at one side thereof to coöperate with said indicator, a displaceable element carried by said stem, levers pivotally connected to said element, cutting members operated by said levers and arranged exteriorly of said receiver, and cutting wires carried at the free ends of said cutting members and adapted to traverse the open end of the receiver on operating the levers.

1,082,383. SPEED-GOVERNOR. ALEXANDER WINTON, Cleveland, Ohio, assignor to The Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Filed Oct. 23, 1912. Serial No. 727,414. (Cl. 121-112.)

1. The combination with a motor, of a governor therefor, a housing for the said governor having its lower portion shaped to form a cone shaped friction member, a driving mechanism between the engine and the governor, the said driving mechanism including a friction variable speed means for the purpose described.

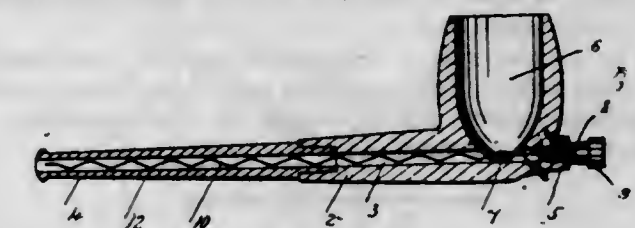
2. The combination with a motor, of a governor therefor, a housing for the said governor having its lower por-

tion shaped to form a cone shaped friction member, a driving mechanism between the engine and the governor, the said driving mechanism including a friction speed



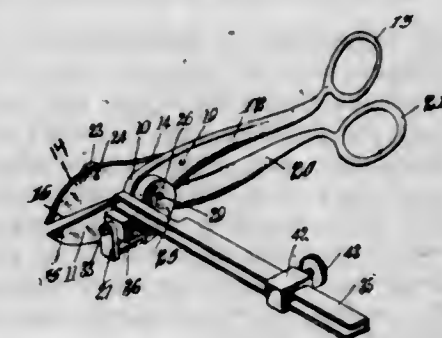
means, a screw-threaded collar mounted thereon in engagement with the said speed means and an operating lever on one end whereby the said speed means is positively varied for the purpose described.

1,082,384. TOBACCO-PIPE. UNO L. M. ZETTERSTROM and CHARLES G. HELSTROM, Hartford, Conn. Filed Jan. 28, 1913. Serial No. 744,761. (Cl. 131-12.)



The combination, with a tobacco pipe having a hole in the front end of its bowl in line with its stem, of a plug inserted in the said hole, and a cleaner formed of a flat strip provided with angular corrugations the sides of which are inclined in opposite directions alternately in substantially parallel planes and which form a series of angle-shaped scrapers the points of which engage with the pipe stem.

1,082,385. SHEARS. CHARLES F. ZIMMERMAN, Jersey City, N. J. Filed Jan. 25, 1912. Serial No. 673,289. (Cl. 73-141.)



1. In combination, shears and a gage foldably associated therewith and having means for automatically locking said gage in an operative position.

2. In combination, shears, a gage bar, a bracket for foldably connecting said gage bar and said shears, and means for automatically locking the gage bar in an operative position relative to said shears when the bracket is in a predetermined position.

3. In combination, a cutting device, a gage bar, means for mounting said bar upon said cutting device, whereby said bar is capable of a plurality of movements, means whereby said bar can be locked relative to said device, and whereby one of the movements of said bar serves to release the same from its locked position.

4. In combination, a cutting device, a bracket pivotally associated therewith, a gage bar pivotally and slidably mounted upon said bracket, and means for locking said bar in position with respect to said bracket, and whereby a sliding movement of said bar serves to release it from its locked position.

5. In combination, shears, a bracket pivotally associated with said shears, a gage bar having a pivotal and laterally movable connection with said bracket, said bracket having a part engaging said bar in a predetermined position thereof to lock said bar against pivotal movement, and a gage block adjustably mounted upon said bar.

[Claims 6 to 8 not printed in the Gazette.]

1,082,386. METHOD OF TREATING AMORPHOUS BODIES AND PRODUCT THEREOF. EDWARD GOODRICH ACHESON, Niagara Falls, Ontario, Canada. Filed May 6, 1910. Serial No. 559,830. (Cl. 87—9.)

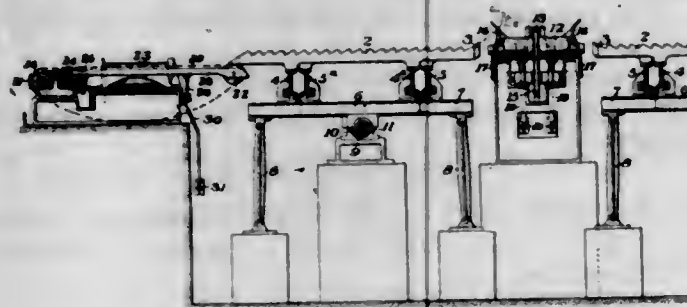
1. The method of treating amorphous bodies of the character described, which consists in reacting thereon with a deflocculating agent containing tannin or equivalent substance in excess of the proportion required to produce deflocculation, whereby a part or all of the material is dissolved.

2. As a new composition of matter, a solution of an amorphous body of the character described in a deflocculating medium containing tannin or equivalent substance.

3. As a new composition of matter, a solution of carbon or graphite in a deflocculating medium containing tannin or equivalent substance.

4. The method, which consists in reacting upon carbon or graphite with a deflocculating agent containing tannin or equivalent substance in excess of the proportion required to produce deflocculation.

1,082,387. HOTBED. WILLIAM AXLEN and VICTOR ROSS, Duquesne, Pa. Filed Feb. 4, 1910. Serial No. 542,022. (Cl. 80—42.)



1. A hot bed comprising in combination a plurality of alternately arranged sets of serrated conveyer bars, one set of said bars being supported at one end and the other set supported at the opposite end to permit rocking and longitudinal movement, and means for rocking and moving both sets of bars in a similar non-circular, curved path and in the same direction with the phase of movement of one set maintained at an angle of substantially 180 degrees from that of the other set to thereby lift and bodily transfer rolled metal materials carried thereon across the width of said hot bed.

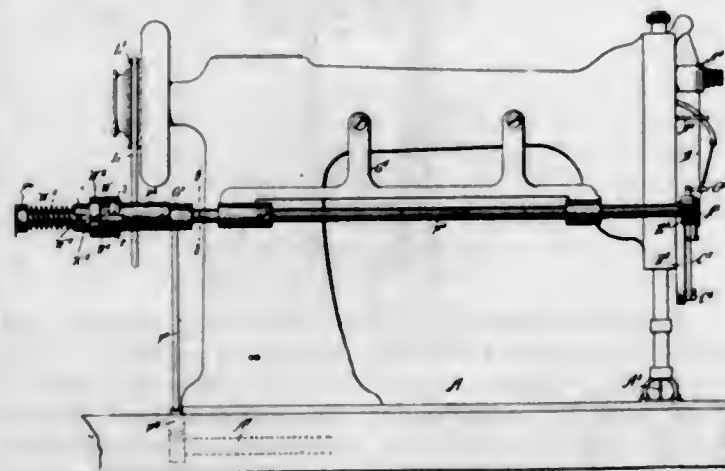
2. A hot bed comprising in combination a series of conveyer bars extending lengthwise across the width of the hot bed and arranged in sets with the conveyer bars of one set supported at one side and those of the other set at the opposite side of the hot bed to permit rocking and lengthwise movement of the bars, and means for moving the sets in similar non-circular, curved paths with the phase of movement of one set maintained at an angle of substantially 180 degrees from the phase of movement of

the other set to thereby lift and bodily transfer materials across the width of the hot bed.

3. A hot bed comprising a pair of duplicate reversely arranged overlapping frames, each frame having inner and outer longitudinal beams connected by transverse rocking beams, the frames being supported to swing and move sidewise, a power driven shaft beneath the frames intermediate of and extending lengthwise parallel with the sides thereof, frame actuating cams on said shaft, the sets of cams being reversely arranged and two sets of conveyer bars extending lengthwise across the width of the frame, one set being carried by one frame and the other set by the second frame.

4. A hot bed comprising a series of serrated conveyer bars extending lengthwise across the width of the hot bed and arranged in separate sets, one set of bars being supported at one side of the hot bed to swing and move longitudinally, the other set of bars being supported at the opposite side of the hot bed to swing and move longitudinally, and means intermediate the ends of the bars for moving the sets of bars in similar non-circular, curved paths and in the same direction with the phase of movement of one set maintained at an angle of substantially 180 degrees to that of the other set to thereby lift and bodily transfer rolled metal materials carried thereon across the width of the hot bed.

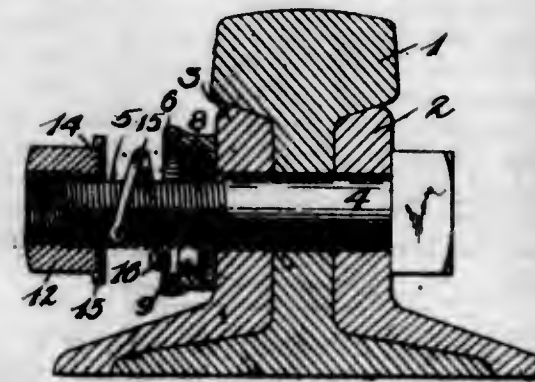
1,082,388. STOP-MOTION. FRANKLIN AINSWORTH, New York, N. Y. Filed Nov. 8, 1912. Serial No. 730,177. (Cl. 112—29.)



1. A stop motion for sewing machines, comprising a spring-pressed pivoted arm mounted to swing transversely on the head of the sewing machine, the free end of the said arm being engaged by the sewing thread and the said free end having a shoulder, an oscillating arm normally out of engagement with the shoulder of the said pivoted arm until the latter is released by the sewing thread, a shaft carrying the said oscillating arm, a sleeve loose on the said shaft, means for rocking the said sleeve from a movable part of the sewing machine, and a friction device connected with a stop mechanism for the sewing machine and connected with the said sleeve to cause the latter to normally rock the said shaft and to actuate the stop mechanism on stopping the oscillation of the shaft on the said oscillating arm engaging the said shoulder.

2. A stop motion for sewing machines and the like, comprising a spring-pressed swing arm mounted to swing and engaged by the sewing thread, an oscillating arm normally out of engagement with the said swing arm until the latter is released by the thread, a shaft carrying the said oscillating arm, a sleeve loose on the said shaft and provided with two spaced pins, means for rocking the sleeve from a movable part of the machine, an arm having a pin extending between the said spaced pins and having its hub mounted to turn with and to slide on the said shaft, a friction disk between the said sleeve and hub, a spring pressing the said hub, and a stopping mechanism for the machine and controlled by the said last-mentioned arm.

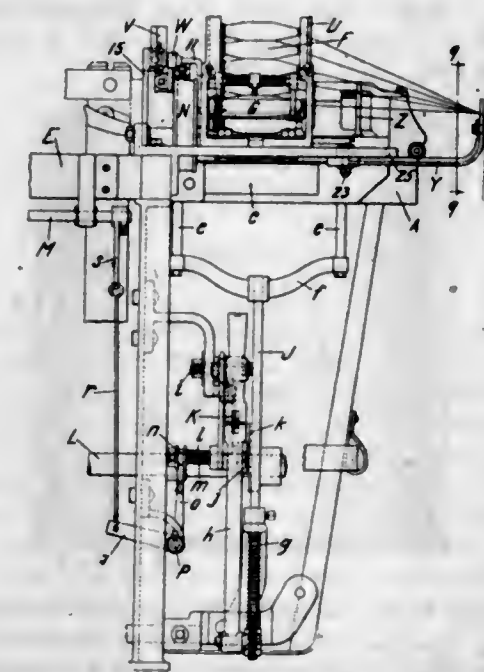
1,082,389. NUT-LOCK. JOHN R. ARMSTRONG, Cranston, R. I., assignor to O. K. Nut Lock Company, Providence, R. I., a Corporation of Rhode Island. Filed May 8, 1913. Serial No. 766,455. (Cl. 151—39.)



1. In nut lock construction, in combination, a bolt, a cupped washer having its base apertured to fit over and move longitudinally of the bolt shank and provided with a lug adjacent the aperture in its base, said lug forming a bearing surface of curvature corresponding to that of the bolt shank and of a length to span adjacent threads of the bolt whereby said cupped washer is positioned thereon with its base extending at right angles thereto and with its edges adjacent said aperture positioned concentric to said bolt shank and outside of the plane of the threads thereof, a nut cooperating with said shank and adapted to bear against the edge of said cupped washer, and a spiral spring mounted on the bolt shank and interposed between said cupped washer and nut, and ratchet surfaces formed at the base of said cupped washer and on the opposing face of said nut and cooperating with said spiral spring to lock said nut on said bolt.

2. As an article of manufacture, a cupped washer provided with a bolt aperture in its base, said base having an enlargement extending therefrom adjacent said aperture and axially thereof and of a curvature to correspond with that of a bolt shank, the outer open end of said washer being provided with an annular nut bearing surface and with an annular guiding flange concentric therewith and extending outwardly therefrom.

1,082,390. WEFT-REPLENISHING LOOM. EUGENE H. BALLOU, Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Continuation in part of application Serial No. 673,977, filed Jan. 29, 1912. This application filed Oct. 18, 1912. Serial No. 726,475. (Cl. 139—85.)



1. A weft-replenishing mechanism for looms comprising a lay, a shuttle-box mounted thereon, and a weft-carrier holder mounted on and movable coincidentally with said lay and movable upon the lay and away from the shuttle-box to a weft-carrier taking position.

2. A weft-replenishing mechanism for looms comprising a lay, a shuttle-box thereon, a weft-carrier holder

mounted on and movable coincidentally with said lay and movable upon the lay to a weft-carrier taking position, and weft supply means independent of and disconnected from the lay positioned to deliver weft-carriers to said holder.

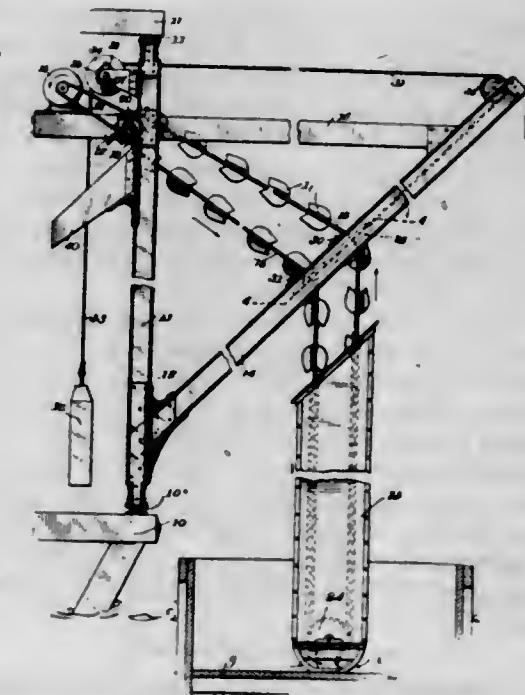
3. A weft-replenishing mechanism for looms comprising a lay, a shuttle-box thereon, means for sustaining a weft-carrier at a point toward which the lay moves, and means movable coincidentally with said lay for taking a weft-carrier from said sustaining means during one movement of the lay and means for placing said weft-carrier in the shuttle during a subsequent movement of the lay.

4. A weft-replenishing mechanism for looms comprising a lay, a shuttle-box thereon, a weft-carrier holder movable coincidentally with the lay and movable upon the lay to a weft-carrier taking position, and cooperating means normally held inoperative by the presence of a weft-carrier in said holder for moving said holder to the weft-carrier taking position.

5. A weft-replenishing mechanism for looms comprising a lay, a shuttle-box thereon, a holder for a weft-carrier holding it in position to be placed in said shuttle during the movement of said lay, a detector for detecting the absence of a weft-carrier from said holder, and means governed by said detector to supply said holder with weft-carriers.

[Claims 6 to 59 not printed in the Gazette.]

1,082,391. COAL-CONVEYER. OTTO ELIAS BARENZ, New York, N. Y. Filed May 22, 1913. Serial No. 769,191. (Cl. 193—3.)

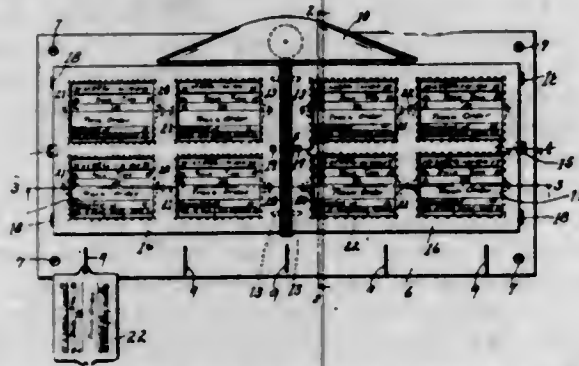


1. In a coal conveyer, the combination of an upright frame including an inclined boom, a conveyer including an endless chain of buckets, one end of the conveyer being connected to a fixed point on the frame, the opposite end of the conveyer being suspended below the boom, a member movable along said boom and cooperating with the intermediate portion of the conveyer for varying the position of the suspended end thereof, a counterbalance for said member and the portion of the conveyer suspended therefrom, said counterbalance including a flexible connection operating over the vertical frame and along said boom, and means associated with the fixed end of the conveyer for operating the endless chain of buckets in a uniform manner irrespective of the position of adjustment of the opposite end thereof.

2. In a coal conveyer, the combination of a main frame, means to support the same in a vertical position, an endless conveyer comprising a pair of spaced chains and a series of buckets rigidly connected thereto and between the same, a power shaft journaled upon said frame, a motor to drive the power shaft aforesaid, a pair of sprocket wheels connected to said power shaft and through which the conveyer chains are operated from the motor, the buckets remote from the power shaft being adapted to

automatically fill with bulk material, and means to vary the position of the intermediate portions of the chains with respect to the frame, said means comprising a trolley, idler sprocket wheels mounted thereon and cooperating with said chains, a counterweight, a flexible connection between the trolley and counterweight, and means to control the operation of the trolley and counterweight, substantially as set forth.

1,082,392. TRAIN-ORDER HOLDER. JEROME BARLOW, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,839. (Cl. 40—105.)



1. A device of the kind described comprising a base; card supports carried by said base, certain of said card supports being of different sizes and shapes from others; cards having perforations fitting said card supports and supported thereby; and a card retaining frame maintaining said cards on said card supports, substantially as described.

2. A device of the kind described comprising a base; two sets of card supports carried by said base, certain of said card supports being of different sizes and shapes from others; two sets of cards having perforations fitting said card supports and supported thereby, each set of cards having their perforations arranged to engage one set of said card supports and to prevent engagement with the other set of said supports when in exposed condition; and a card retaining frame maintaining said cards on said card supports, substantially as described.

3. A device of the kind described comprising a base; a rib on said base dividing said base into two portions; card supports on each portion of said base, certain of said card supports being of different sizes and shapes from others; cards having perforations shaped to fit said card supports and supported thereby, said card supports and perforations being disposed to prevent cards adapted for use on one portion of said base from being exposed on the other portion of said base; and a card retaining frame maintaining said cards on said card supports, substantially as described.

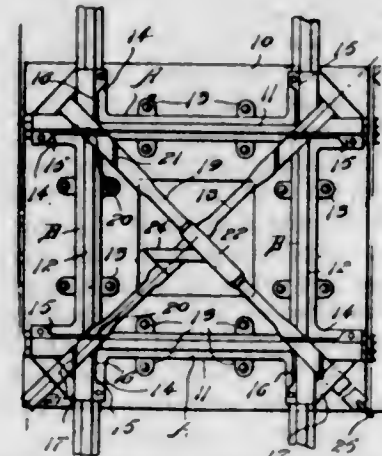
1,082,393. COMBINATION PIPE AND CIGAR-HOLDER. MICHAEL H. BARON, New York, N. Y. Filed Apr. 2, 1913. Serial No. 758,322. (Cl. 131—51.)



In a device of the class described, a hollow body portion; a mouthpiece at one end of said body; a tobacco-

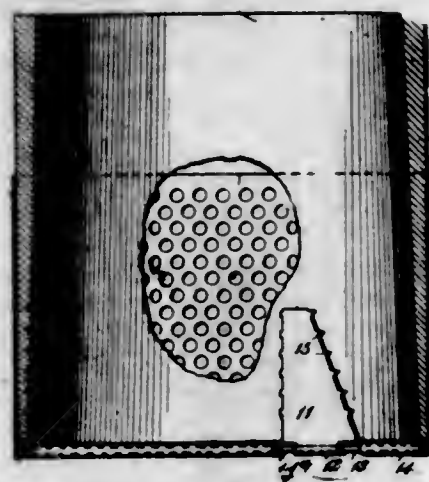
holding member at the other end of the body, said member comprising a cylindrical portion exterior to said body having means for receiving tobacco and a cone portion in the hollow of the body, said cone portion having a substantially spherical enlargement at the apex and an axial passage from the means receiving the tobacco to the hollow of the said body; a cup-shaped smoke deflector having resilient portions adapted to pass over the said spherical enlargement at the apex of the cone and thereby maintain the cup in proper position at the apex of the cone, whereby the smoke coming through the axial passage of the cone is deflected by the cup about the spherical enlargement, past the resilient portion into the hollow of the body.

1,082,394. RAILWAY-CROSSOVER. ISAAC V. BILYEU, Springfield, Ill. Filed Apr. 12, 1913. Serial No. 760,676. (Cl. 104—117.)



A crossover comprising rails arranged to form the sides of a square, a suitable base for supporting them, grooved extensions on the ends of each of the rails, the intersections of the rails being formed with passage ways, guide members disposed in the angles of the extensions, diagonally arranged crossed bars slidable in the passages and guide members, the end portions of the bars having transverse converging grooves for registration respectively with the intersecting rails, the central portion of one of the bars having a rib formed obliquely across the bar, and the other bar having an obliquely formed groove to receive said rib, whereby slidable movement of either of the bars will cause sliding movement of the other bar.

1,082,395. WICK-HOLDER FOR OIL-STOVES. JOHN F. BITTLE, Lisbon, Iowa. Filed Oct. 3, 1913. Serial No. 793,140. (Cl. 67—60.)



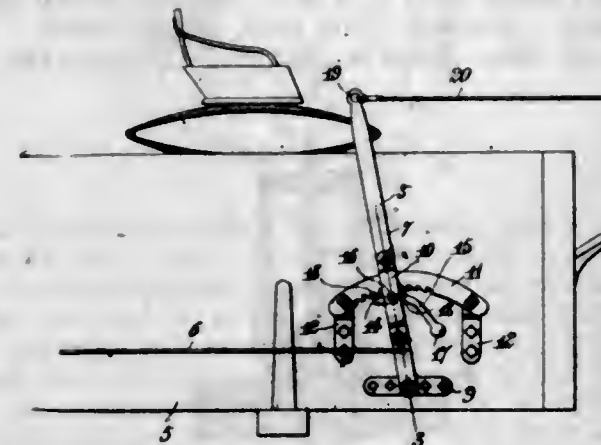
1. A wick holder, comprising a shell to receive the wick, and inner movable clamp members at the lower end of the holder adapted to detachably engage the lower end of a wick, said members projecting upwardly around the lower edge of the shell, at the interior, and spaced from the shell to accommodate the wick between the said members and the inner surface of the shell.

2. A wick holder, comprising a shell, and clamp means hinged to the lower end of the shell at the inside, and spaced from the shell to accommodate a wick.

3. The herein-described wick holder, comprising a shell having the lower edge thereof inturned, a ring held by the inturned edge of the shell, the said inturned edge being removed at intervals exposing portions of the ring, and clamps within the shell and spaced therefrom, the said clamps having teeth to engage the wick, and provided at the lower ends with hinge members turned about the exposed portions of the ring.

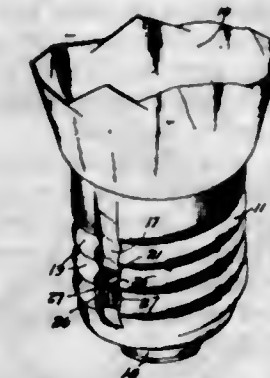
4. A wick holder, comprising a shell, and clamps disposed within the shell and hinged to the shell, at the lower end thereof, the said clamps tapering from the lower end upwardly and having teeth at opposite side edges thereof, to engage a wick.

1,082,396. VEHICLE-BRAKE. NICHOLAS BLANCHET, Nye, Oreg. Filed Jan. 14, 1913. Serial No. 741,978. (Cl. 21—10.)



The combination with a brake rod, of a throw lever adapted to have one of its ends pivoted to the side of a wagon box and connected with the rod, a rack bar adapted to be mounted on the said wagon box and having rack teeth in its lower edge, and a weighted locking member carried by the lever and engageable with the rack teeth.

1,082,397. SELF-LOCKING LAMP-BULB. CONRAD BLASS, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,260. (Cl. 173—356.)



1. In a device of the character set forth, the combination of a socket member having a contact shell with an interrupted thread on the interior and a shoulder adjacent such interruption, a lamp base having a longitudinal groove extending from adjacent the bulb inwardly toward the point, a locking bolt operating within said groove and cooperating with said shoulder to prevent the unscrewing of the base from the socket, a spring holding the bolt normally in locking position, and means adapted to be forced along said groove from adjacent the bulb to unlock the bolt, substantially as set forth.

2. In a device of the character set forth, the combination of an electric lamp socket having a contact shell with an internal shoulder, a lamp base cooperating in said socket, a bolt carried by said base and normally projecting therefrom in locking position, said bolt being provided with an undercut notch extending across the same, and a key projectable between the edge of the socket and the

197 O. G.—62

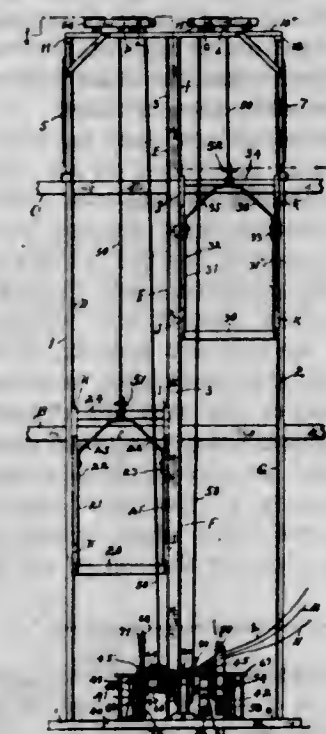
base for unseating the lock, said key being provided with means to cause it to escape said undercut notch.

3. In a device of the character set forth, the combination with a socket and a cooperating lamp base, of locking means including a spring pressed bolt carried by one of these members and adapted to cooperate with the other, the bolt-carrying member having a groove leading to the bolt parallel to the axis of the member, and a key slidable along said groove between said base and the edge of the socket to release said bolt, said key having a tongue coacting with the bolt to move the same radially of the bolt-carrying member, substantially as set forth.

4. In a device of the character set forth, the combination with a socket member provided with a contact sleeve and a lamp base cooperating therewith, of locking means serving to prevent the unscrewing of the base from the socket, said locking means comprising a shoulder formed on one of said members and a spring pressed locking bolt carried by the other of said members, said locking bolt having an undercut notch, and a key projectable between the base and the edge of said contact sleeve for depressing the bolt out of locking engagement with the shoulder, said key being provided with a tongue serving to cause the key to escape the undercut notch.

5. In a device of the character set forth, the combination of a socket member provided with a threaded contact sleeve, an externally threaded lamp base, locking means to prevent the unauthorized unscrewing of the base from the socket, said locking means including a bolt projectable between adjacent threads of one of the members into interlocking engagement with a shoulder formed in a corresponding thread of the other member, said bolt having a transverse undercut notch and an external narrow longitudinal notch, and a key serving to depress the locking bolt out of engagement with said shoulder, said key including a narrow tongue serving to cooperate with said external notch and thereby guide the key out of engagement with said undercut notch, substantially as set forth.

1,082,398. ELECTRIC HOIST. ALONZO S. BLOWERS, Portland, Ind. Filed Sept. 19, 1910. Serial No. 582,597. (Cl. 187—2.)



In a hoist, the combination with a plurality of horizontal joists and a series of guide posts arranged vertically thereof and extending up beyond said joists; of a derrick mounted on the upper tier of joists and comprising a series of corner posts mounted in upwardly convergent relation, top and bottom tie rails connecting the respective pairs of posts last mentioned, cross-ties connecting the top rails, a pair of slotted frames horizontally mounted on the ties in convergent relation and carrying spaced pulleys therein, oppositely movable cars mounted in the first mentioned

posts, a cable attached to each car and passed horizontally over the pulleys of the frames thereabove toward the convergent ends and a reversible motor mechanism having a drum upon which said cables are oppositely wound to operate the cars.

1,082,399. COMBINED CIGAR-BOX AND HUMIDOR. LEOPOLD BRENAUER, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,627. (Cl. 131-30.)



1. A combined humidor and box in which cigars or other merchandise may be vended in an original package, a foraminous false bottom in said box, above the bottom thereof, and formed with upwardly extending end flanges bearing against the ends of the box, at the interior, and with longitudinal, depending side flanges on the under side sustaining said false bottom above the box bottom, to form an intermediate chamber, the said depending flanges having interior beads between the tops and bottoms of the flanges, an absorbent slide removably fitting in the said chamber, below the mentioned beads, an end of the said box presenting a transverse opening in line with the mentioned chamber through which the slide may be entered and withdrawn, the end of the box having the opening affording a barrier against the withdrawal of the slide, and a hinged member forming a removable closure fitting the mentioned opening and lying, when in the closed position, substantially in the plane of the end of the box, to receive a sealing strip.

2. A combined merchandise box and humidor, having an opening in a wall thereof near the bottom, an absorbent slide fitting the box at the bottom thereof, and movable through said opening for the insertion and removal of the slide, and a foraminous false bottom in the box above the opening, the said false bottom having upwardly extending flanges on opposite edges at the upper side bearing against the inner surface of the box above the opening and slide, and downwardly projecting flanges at the remaining sides, the latter flanges sustaining the false bottom and spaced to accommodate the slide therebetween.

3. A combined humidor and box in which cigars and other merchandise may be vended as an original package, a foraminous false bottom in said box, above the bottom thereof, said false bottom being formed with end flanges bearing against the ends of the box, at the inside thereof, and with longitudinal depending side flanges on the under side resting on the box bottom and sustaining the said false bottom above the said box bottom, to form an intermediate chamber, an absorbent slide removably fitting in said chamber, an end of the said box presenting a transverse opening in line with the mentioned chamber through which the slide may be entered and withdrawn, and a hinged member forming a removable closure fitting the mentioned opening and lying when in the closed position substantially in the plane of the end of the box, to receive a sealing strip.

1,082,400. ENVELOP-OPENER. WILLIAM NELSON BUR-NITE, Riverhead, N. Y. Filed May 10, 1912. Serial No. 696,450. (Cl. 120-35.)

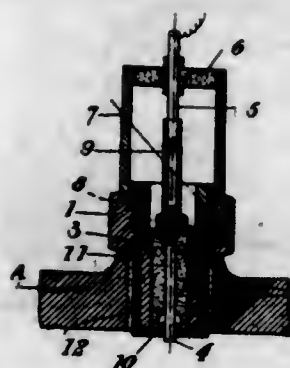
1. An envelop opener, comprising a U-shaped body of flat spring material, one of the members of the body being provided on its inner face adjacent to its end with an inclined slot and a notch in one longitudinal edge in rear of and adjacent to the slot, the other member of the body being provided with a finger struck up from one longitudinal edge of the member and extending laterally therefrom and working loosely in the notch of the other member, said finger serving as a guide for the members and the edge of the envelop, and a cutter secured in said slot.

2. A blank for an envelop opener, consisting of a strip of flat spring metal having adjacent to one end an inclined slot to receive a cutter and in one longitudinal edge adjacent to the slot a notch, and having adjacent to its other end a longitudinally extending slit leading out through the edge of the strip whereby to form a guide finger to engage the notch when the strip is bent into U-shape.



cent the slot a notch, and having adjacent to its other end a longitudinally extending slit leading out through the edge of the strip whereby to form a guide finger to engage the notch when the strip is bent into U-shape.

1,082,401. SPARKING PLUG WITH REMOVABLE ELECTRODE AND CENTRAL TELESCOPING ELECTRODE. AUGUSTE LOUIS CADÉ, Paris, France. Filed Nov. 20, 1911. Serial No. 661,387. (Cl. 123-169.)



1. A spark plug comprising a body, a removable electrode provided with an inwardly extended end portion, said electrode engaging the outer lower portion of the body of the plug and held in position thereby when the body is seated in the wall of a cylinder and a second electrode comprising two telescopic sections mounted in the body, the inner one of said sections cooperating with the inwardly extended end portion of the removable electrode.

2. In a sparking plug, the combination with the body of the plug formed with grooves and a removable electrode comprising two rings connected by a plurality of webs, said webs engaging the grooves and being held therein when the plug is in position in a cylinder, one of the rings serving as the electrode proper, and the other of said rings being clamped in position between the cylinder and the body of the plug, when the latter is in use.

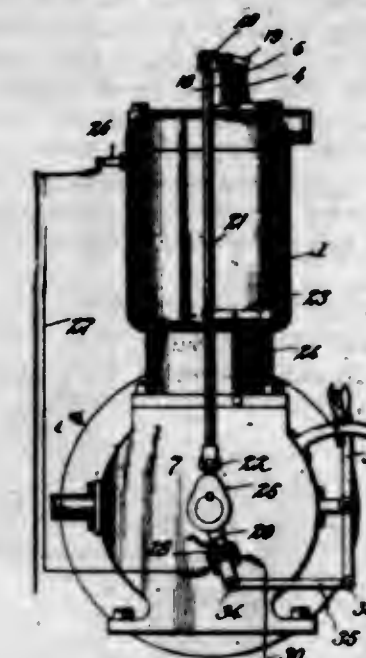
3. In a sparking plug the combination with the body of the plug of a removable outer electrode, a central electrode formed of two rods, means for holding the said rods in the axis of the plug and a tube screwed on one of said rods and adapted to slidably engage the other one, for the purpose of connecting same together substantially as and for the purpose set forth.

4. In a sparking plug the combination with the body of the plug of a removable outer electrode, a telescoping central electrode comprising a movable part, a stationary part and a telescoping tube sliding over said movable part and screwed on said stationary part, and means for withdrawing the said movable part of the central electrode from the said tube so as to produce a gap.

5. The combination with a sparking plug having a central electrode of a device adapted to be connected with said plug and comprising a rod connected with the current supply conductor, a member secured to the said plug, a plurality of notches having different depths provided in said member, a tooth carried by the said rod and adapted to engage said notches so that when it engages the deepest notches the said rod is in contact with the said central electrode of the plug while when the said tooth engages the shallower notches, the said rod is removed from said electrode whereby the current is forced to pass from the one to the other.

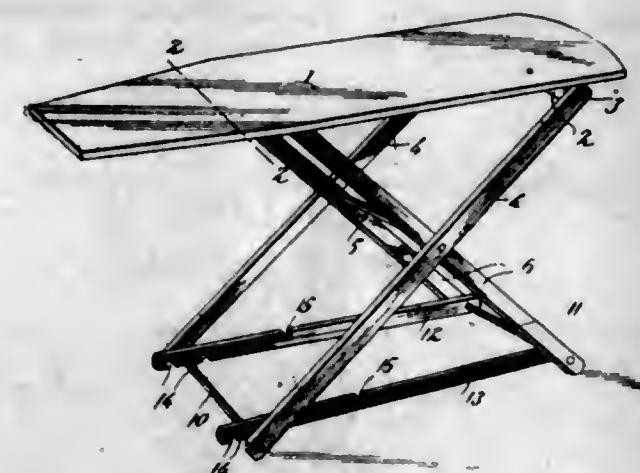
[Claims 6 and 7 not printed in the Gazette.]

1,082,402. TWO-CYCLE EXPLOSIVE-ENGINE. JAMES LEONARD CAMPBELL, Barryton, Mich. Filed July 10, 1912. Serial No. 708,683. (Cl. 123-152.)



In an explosive engine, the combination with a cylinder, a piston within the cylinder, a crank shaft, a connection between the crank shaft and the piston, an exhaust valve in the cylinder, of a cam connected to said crank shaft for operating said exhaust valve, a spark plug arranged within the cylinder, a support fulcrumed at one end upon said crank shaft and depending therefrom, a block carried by said support, contacts carried by said block and normally spaced apart and connected in circuit with said spark plug, said contacts being disposed in the path of movement of said cam, and means connected to the opposite end of said support for swinging the latter about the crank shaft whereby the closing of the circuit at the contacts under the action of the cam may be varied.

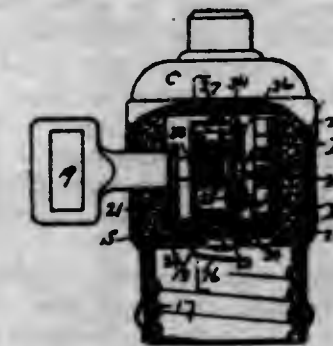
1,082,403. IRONING-BOARD. GEORGE CLINTON CARR, Nelson, Ky. Filed Aug. 20, 1912. Serial No. 718,066. (Cl. 68-10.)



An ironing board having a centrally arranged longitudinally extending bearing strip upon its under face and being provided with a transversely arranged ledge, the ends of which being formed with trunnions, forwardly extending leg members pivotally connected with the trunnions and having their free extremities connected by a rod, rearwardly extending leg members having their upper ends connected by a transversely arranged member which is centrally provided with a slot that is adapted to receive the strip of the board when said board is in active use, a rung member centrally connecting the leg members, a rung connecting the lower extremities of the rearwardly extending leg members, a pair of leg-sustaining members pivotally connected with the last named rung and extending longitudinally of and in parallel relation with the board, each of said members having their bottom

longitudinal edges adjacent the forward ends thereof provided with a plurality of registering notches which are adapted to engage with the rung connecting the forwardly extending leg members, and the said sustaining members having their upper longitudinal edges at a point rearwardly of said notches formed with depressions adapted to receive the connecting rung of the leg members when the legs are folded against the board.

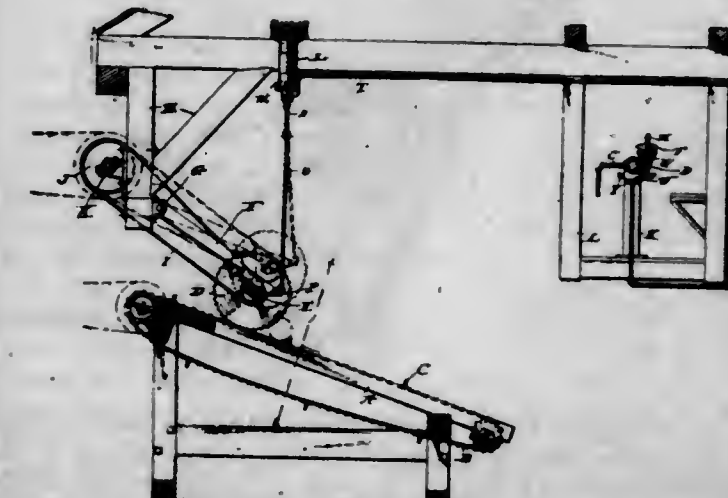
1,082,404. ELECTRIC-LAMP SOCKET. ARTHUR W. CLAUDE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 6, 1912. Serial No. 696,852. (Cl. 173-346.)



1. A key socket for electric lamps, having an insulating body with line terminals and lamp terminals and provided with a rotary key spindle, a switch piece rotatably mounted on said spindle, contacts cooperating with the switch piece, a transversely movable latch plate connected to and rotating with the switch piece, a switch operating spring, means to tension said spring on the rotation of the switch spindle, stops engaged by and serving to temporarily detain said latch plate against rotation in either direction, and a cam moving with the switch spindle and operatively associated with said latch plate and stops to effect their disengagement upon rotation of the spindle in either direction, substantially as described.

2. In a switch for key sockets for electric lamps, a rotary key spindle, a switch piece rotatably mounted thereon, a latch plate engaging said switch piece to rotate therewith but transversely slidable thereon, stationary stops engaging said latch plate to temporarily detain the same against rotation in either direction, and a rotary cam moving with the key spindle and operatively engaging said latch plate to shift it transversely out of engagement with said stops on the rotation of the spindle in either direction.

1,082,405. LUMBER-TRIMMER. CHARLES E. CLEVELAND, Fond du Lac, Wis. Filed Jan. 2, 1908, Serial No. 408,999. Renewed Sept. 24, 1912. Serial No. 722,125. (Cl. 143-41.)



1. In combination with a table; a plurality of saws movable toward and from the same; means actuated by fluid pressure for positioning the saws; a separate valve for manually controlling the positioning means of each saw; and means common to all of said valves for simulta-

neously opening or closing those valves which are otherwise positioned.

2. In combination with a table; a plurality of saws movable toward and from the same; means actuated by fluid pressure for positioning the saws; a separate valve for controlling the positioning means of each saw; a series of valve-handles arranged in close proximity to each other, said handles being independently movable; and means common to all of the handles for moving them all simultaneously in one direction or the other, or bringing the different positioned handles into alignment with the others.

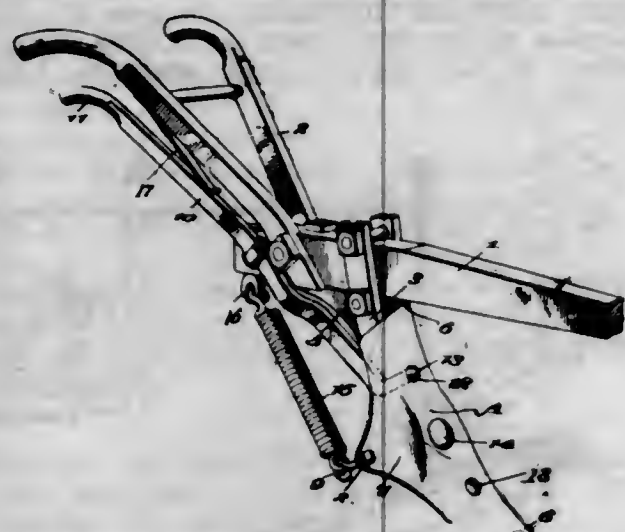
3. In combination with a table; a plurality of saws pivotally supported above the same and normally gravitating toward the table; a cylinder mounted above each of said saws; a piston working in each cylinder and connected with a saw; a source of fluid under pressure; a valve controlling the passage of fluid from said source to the under face of each of the pistons; means for controlling said valves independently; and a device common to all of said means, whereby they may be actuated simultaneously to open or close the valves, or one or more of said means may be brought into alignment with the other means.

4. In combination with a table; a plurality of saws pivotally mounted above the same and movable toward and from the table; a cylinder mounted above each of the saws; a piston working in each cylinder; connections between each piston and the saw beneath the same; a valve-casing; means for supplying said casing with fluid under pressure; a valve controlling the passage of fluid to each of said cylinders; a valve-handle connected to each of said valves; and a rocker-frame adapted to move all of the valves simultaneously from one to the other position, or to bring one or more of said valves into alignment with the other valves.

5. In combination with a table; a plurality of saws pivotally mounted above the same and normally gravitating toward the table; a cylinder mounted above each of the saws; a piston working in each of said cylinders; connections between each of said pistons and the saw beneath the same; a valve for controlling the entrance of fluid-pressure into the lower portion of each of the cylinders, said valves being independently movable; and means common to all of said valves for actuating them simultaneously, or bringing any one or more of said valves into alignment with the others.

[Claims 6 to 13 not printed in the Gazette.]

1,082,406. PLOW. DAVID COCHRAN, Richton, Miss. Filed Apr. 23, 1913. Serial No. 763,007. (Cl. 97—27.)

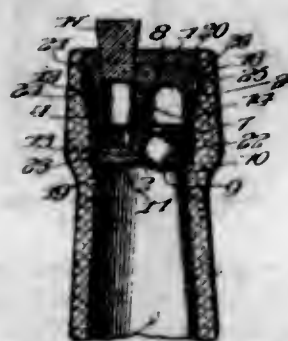


1. In a plow of the character described, a beam having a bifurcated standard provided with a foot piece, a reversible share pivoted on the foot piece and having apertures, a hand lever fulcrumed on the beam and having a spur engaging an aperture in the reversible share, and a coiled spring connecting the reversible share with the beam.

2. A plow including a beam having a bifurcated standard provided with a foot piece, a reversible share having

right and left hand mold boards provided with apertures, a pivot member whereby the reversible share is mounted on the foot piece, the apertures in the share being at opposite sides of and equidistant from the axis of the pivot member, an attaching member extending rearwardly from the convergence of the mold boards in substantially parallel relation to the axis of the pivot member, a spring connecting the attaching member with the beam adjacent to the rear end of the latter, a hand lever fulcrumed on the beam and having a spur guided between the side members of the bifurcated standard and engaging an aperture in the share, and an actuating spring for said hand lever.

1,082,407. NON-REFILLABLE BOTTLE. GUY P. COMBS and PATRICK J. BURKE, Rochester, N. Y. Filed June 26, 1912. Serial No. 706,023. (Cl. 215—69.)



In a non-refillable bottle, a stopper comprising upper and lower abutting sections, the stopper embodying a valve chamber extending through the bottom section and terminating at its upper end in the upper section and also embodying a pouring passage extending through the upper section and terminating in the lower section, the lower section embodying a central web and lateral liquid ports leading from the valve chamber to the pouring passage, the upper section embodying an air port leading from the pouring passage to the valve chamber, a ball valve movable by gravity in the valve chamber from the lower section into the upper section and vice versa, and ball retaining and guiding fingers projecting from said central web of the lower section.

1,082,408. GATE-LATCH. LEONARD CONRAD, Pasadena, Cal. Filed Aug. 18, 1913. Serial No. 785,360. (Cl. 70—28.)



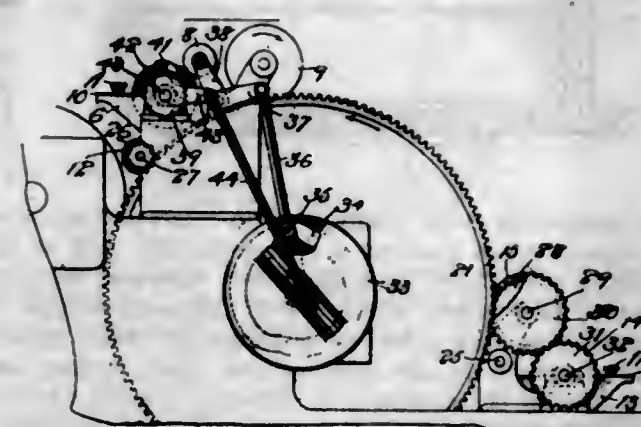
1. In a device of the class described, the combination with a horizontally disposed keeper member, of a vertically disposed handle member formed integral with and depending from the central portion of the keeper member, and a latching member adapted in latching position to engage with the keeper member.

2. In a device of the class described, the combination with a fulcrumed latching member, of a keeper member therefor comprising a horizontally disposed loop adapted to be engaged by the latching member, and a vertically

disposed handle member formed integral with the keeper member.

3. In a device of the class described, the combination with a latching member, of a keeper member therefor, of a single piece of wire bent to form an elongated horizontally disposed loop, said wire being then bent to form a U-shaped handle depending from the loop, the terminals of the wire being bent to form eyes for the reception of fastening devices.

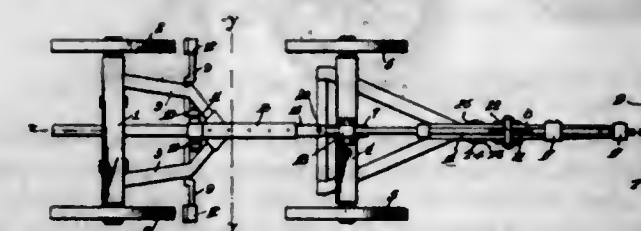
1,082,409. OFFSET MECHANISM FOR PRINTING-MACHINES. MARK N. CORMACK, New York, N. Y., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed May 23, 1911. Serial No. 629,046. (Cl. 101—112.)



1. An offset mechanism for printing machines including in combination a cylinder, a device for applying oil thereto at one point and a device for cleaning the ink therefrom at another point, said cleaning device comprising an oil fountain, a fountain roll, an ink removing roll contacting with the cylinder and fountain roll and a rotary brush.

2. An offset mechanism for printing machines including in combination a cylinder and a device for applying oil thereto comprising an oil fountain, a fountain roll, a conductor roll, an oil applying roll and a rotary brush engaging the cylinder for spreading the oil thereon.

1,082,410. AUTOMATIC VEHICLE-BRAKE. CHARLES C. COX, Pulaski, Va. Filed Nov. 20, 1912. Serial No. 732,555. (Cl. 21—9.)

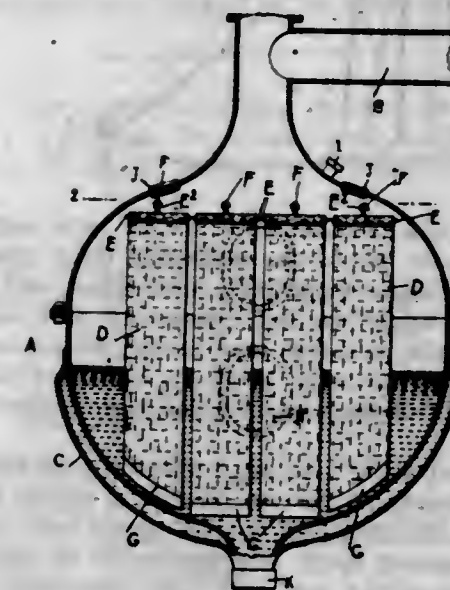


1. In an automatic brake for vehicles in combination with the rear wheels and pole, a brake beam provided with brake shoes arranged to engage the rear wheels, an operating rod extending beneath the pole and having connection at its rear end with the brake beam and provided in its length with teeth, a neck yoke connected with the front end of the operating rod, a lever mounted upon the pole and having one end within convenient reach of the driver, a shackle connected with the opposite end of the lever and embracing opposite sides of the pole and having a portion extending beneath the same to engage the toothed portion of the operating rod.

2. In an automatic brake for vehicles embodying rear wheels and a pole or tongue, a brake beam provided with brake shoes for engaging the rear wheels, a sectional operating rod arranged beneath the pole and having connection at its inner end with the brake beam and provided in its length with teeth, a neck yoke at the front end of the operating rod, a lever mounted upon the pole and having its rear end within convenient reach of the driver, a shackle connected with the front end of the

lever and embracing opposite sides of the pole and having a portion extending beneath the pole to engage the teeth of the operating rod, and plates secured to the sides of the pole and engaging the side members of the shackle to hold the same in proper position.

1,082,411. EVAPORATING APPARATUS. DONATO COZZOLINO, San Diego, Cal. Filed July 30, 1912. Serial No. 712,242. (Cl. 127—18.)



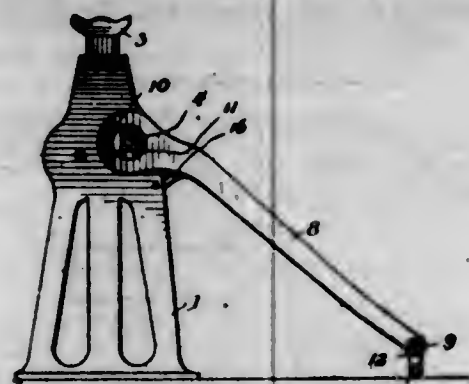
1. An evaporating apparatus, comprising a vessel adapted to contain a liquid or semi-liquid to be evaporated, means for heating the contents of the said vessel, an outlet at the upper end of the vessel for the escape of the vapors, series of sheets of a fabric material suspended in the said vessel, each series being formed of a plurality of spaced sheets, a grate to which the upper ends of the sheets of a series are secured, cross bars held in the upper portion of the vessel, suspending hooks connecting the grates with the said cross bars, and a weight at the lower end of each sheet.

2. An evaporating apparatus, comprising a vessel adapted to contain a liquid or semi-liquid to be evaporated and provided with an inlet and an outlet for the liquid, an outlet at the upper end of the vessel for the escape of the vapors, cross bars extending within the upper portion of the vessel and secured at their ends to the wall of the vessel, grates provided at their centers with upwardly extending suspending hooks for engaging said cross bars, and evaporating surfaces consisting of sheets of material connected at their upper ends with the bars of said grates.

3. An evaporating apparatus, comprising a vessel adapted to contain a liquid or semi-liquid to be evaporated and provided with an inlet for the material at its top, an outlet for the material in the lower part of the vessel and an outlet at the upper end of the vessel for the escape of the vapors, means for heating the contents of the vessel, evaporating surfaces suspended within the said vessel, the said surfaces having their lower portions extending into the contents of the vessel and the upper portions extending above the level of the said contents, and a perforated partition in the upper portion of the said vessel between the upper ends of the evaporating surfaces and the inlet for the material and the outlet for the vapors in the top of the vessel.

4. An evaporating apparatus, comprising a vessel adapted to contain a liquid or semi-liquid to be evaporated and provided with an inlet for the liquid at the upper portion of the vessel, an outlet for the liquid at the lower portion, and an outlet for the escape of the vapors, means for heating the contents of said vessel, cross bars held in the upper part of the vessel, evaporating surfaces consisting of sheets of material having their lower portions extending into the contents of the vessel, and devices with which the upper ends of the sheets are connected, the said devices being provided with upwardly extending suspending hooks for engaging said cross bars.

1,082,412. LIFTING-JACK. SAMUEL CRAIG, Decatur, Ill. Filed Nov. 19, 1912. Serial No. 732,298. (Cl. 57-102.)



1. A lifting jack, embodying a stand, rack and pinion elements, a pinion shaft, an operating lever comprising side bars spaced apart to straddle said stand, and a pedal bar at a right angle to and connecting said side bars at their outer ends, said side bars having means to engage the pinion shaft, the lever being so combined with the pinion shaft that it may be operated from either side of the jack.

2. A jack comprising a stand, a vertically movable rack bar, a shaft journaled on the stand, a pinion on said shaft engaging the rack bar, an operating lever comprising side bars spaced apart and journaled on said shaft, a pedal bar connecting said side bars, elevating feet extending below the pedal bar to leave toe space, and pawl and ratchet mechanism on said lever and shaft.

3. A jack, comprising a stand, a vertically movable rack bar, a shaft journaled on the stand, a pinion on said shaft engaging the rack bar, an operating lever comprising side bars spaced apart and journaled on said shaft, a pedal bar connecting said side bars, pawl and ratchet mechanism on said lever and shaft, pins on said side bars, a supplemental hand lever having forked and slotted arms at one end thereof to engage said pins, a clamping screw for fastening said supplemental hand lever to the pedal bar, and manually controlled dog operating connections on said supplemental hand lever.

1,082,413. CLOSURE FOR POISON-BOTTLES. EDWARD S. CRUMB, Charlestown, R. I. Filed July 8, 1913. Serial No. 777,892. (Cl. 215-113.)



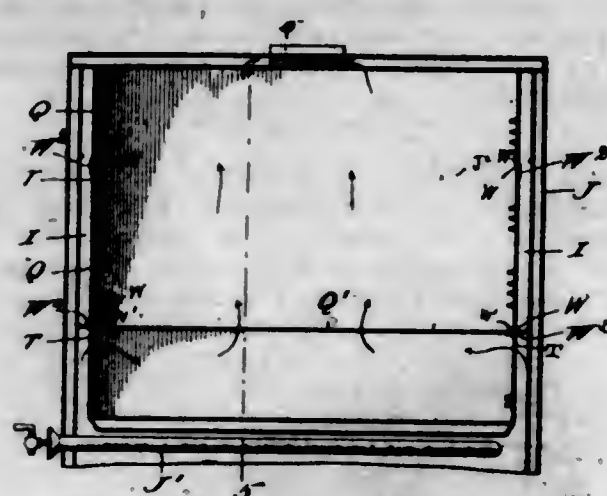
1. A closure for poison bottles comprising relatively separable stoppers, one fitting within the other, and elastic means connecting one of the stoppers with the other.

2. A closure for poison bottles comprising a main stopper frictionally engaged in the walls of the neck of the bottle, and a false stopper removably fitted in the main stopper and having an extracting portion overlying the neck of the bottle and extending beyond the sides of the main stopper.

1,082,414. ADJUSTABLE OVEN. MACDOUGALD DEXTER and JAMES LAFAYETTE DUKE, Columbus, Ga. Filed Dec. 27, 1912. Serial No. 738,919. (Cl. 126-19.)

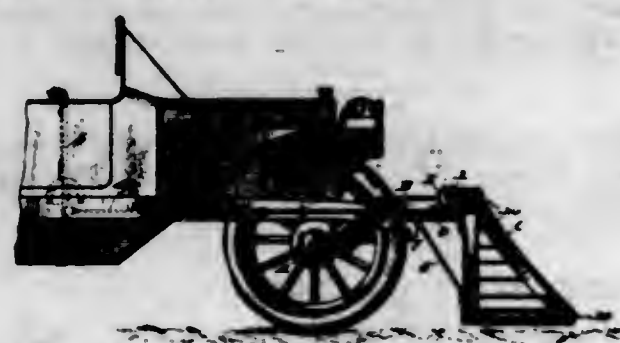
1. An adjustable oven, comprising an inner and an outer casing, spaced apart forming a flue, each side wall of the inner casing being apertured, winged dampers pivotally mounted in each of said apertures, a plate adapted

to be supported upon the upper wings of two oppositely disposed dampers whereby the outer ends of the dampers may be held transversely across the flues to form partitions therein to direct heat through the apertures in the space beneath the plate, as set forth.



2. An adjustable oven, comprising an inner and an outer casing, spaced apart forming a flue, each side wall of the inner casing being apertured, oppositely disposed dampers each having two wings which are of different widths in planes parallel to each other, each damper pivotally mounted in an aperture in the wall of the inner casing and normally closing the aperture by gravity, a plate adapted to be supported upon the upper wings of said oppositely disposed dampers to hold the other wing of each damper transversely across said flue, thus affording means for directing heat through the apertures in the wall of the casing into the oven underneath said plate, as set forth.

1,082,415. AUTOMOBILE-FENDER. JULIUS DIDSCHUMMIT, Camden, S. C., assignor of one-fourth to Leguel A. Wittkowsky, Camden, S. C. Filed Sept. 10, 1913. Serial No. 739,053. (Cl. 105-254.)



1. The combination with an axle, of a frame connected thereto, a fender pivotally connected to the frame, a gear wheel connected to the fender, and a rack bar meshing with the gear wheel for the purpose of oscillating the fender.

2. The combination with an axle, of a frame connected thereto, a shaft journaled upon the frame, a fender connected to the shaft, a gear wheel mounted upon the shaft, a toothed bar meshing with the gear wheel whereby upon the actuation of the bar the fender is caused to be oscillated, and means for limiting the rearward movement of the fender.

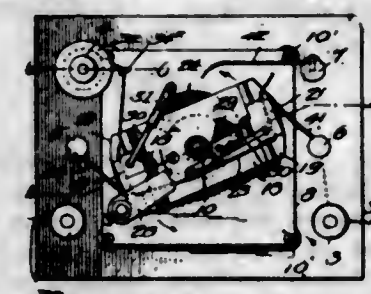
1,082,416. PETTICOAT. MINA E. DRAKE, Los Angeles, Cal. Filed Apr. 25, 1912. Serial No. 693,217. (Cl. 2-42.)

1. A petticoat having a bottom portion and a body portion, the latter comprising a rectangular insert connecting the rear vertical margins of such body portion and terminating about half way the length of the body portion, the upper free vertical edges of the body portion above the upper edge of the insert constituting the placket opening for the petticoat, and the body portion at the lower end of the insert permanently secured in overlapped relation to the upper edge of the bottom portion.

2. A petticoat having a bottom portion and a body portion; said body portion having overlapping placket forming sections and an insert; said insert being fastened to the edges of the overlapping sections and adapted to form the lower edge of the placket.



1,082,417. AUTOMATIC FUSE-RESETTER. JOHN B. ELKIN, Columbia, S. C., assignor of one-half to James H. Berry, Columbia, S. C. Filed Mar. 10, 1913. Serial No. 753,213. (Cl. 175-278.)



1. In a device for automatically resetting fuse wires, a revoluble plate, a pair of spring clips carried by said plate and arranged to receive the wire, a spring for revolving said plate, an escapement device for regulating the movement of the plate, and means arranged to be engaged by the fuse wire for blocking the escapement, thereby stopping the rotation of the plate.

2. In a device for automatically resetting fuse wires, a revoluble plate, a pair of spring clips carried by said plate and arranged to receive the wire, a spring for revolving said plate, an escapement device having a vibrating portion for regulating the movement of the plate, a pivoted stop member carried by the plate and arranged to be engaged by the fuse wire during the revolution of the plate and to be forced into the path of the vibrating portion of the escapement mechanism, thereby stopping the latter and preventing the further rotation of the plate.

3. In a device for automatically resetting fuse wires, a revoluble plate, a pair of spring clips carried by said plate and arranged to receive the wire, a spring for revolving said plate, an escapement device for regulating the movement of the plate, an arm rigidly secured to said escapement, a stop carried by said arm, said arm having a vibratory movement during the operation of the escapement mechanism, and a pivoted arm carried by the plate and arranged to be engaged by a portion of the fuse wire during the revolution of the plate and to be moved thereby into the path of the vibrating arm so as to prevent the movement of the latter, thereby stopping the rotation of the plate.

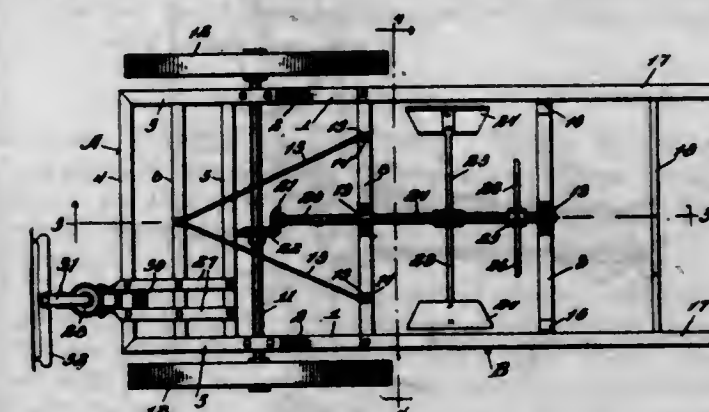
4. In a device for automatically resetting fuse wires, a support, a plate revolubly mounted above said support and having openings therethrough, a pair of pivoted gripping

plates for holding the fuse wires mounted on said revoluble plate, each gripping plate having a portion extending through one of the openings in said revoluble plate, and a cam disposed on said support and arranged to engage the extended portions of the gripping plates successively for moving the gripping plates on their pivots.

5. In a device for automatically resetting fuse wires, a revoluble plate, a pair of pivoted gripping members for holding the fuse wire mounted upon said revoluble plate, means for revolving the plate, and means for cleaning the gripping members of fragments of fuse wire during the revolution of the plate.

[Claims 6 and 7 not printed in the Gazette.]

1,082,418. COTTON-CHOPPER. ROBERT FREULER, Halifax, N. C. Filed Dec. 14, 1912. Serial No. 736,743. Renewed Oct. 21, 1913. Serial No. 796,513. (Cl. 97-46.)



1. In a cotton chopper, a frame structure including substantially rectangular front and rear frames, a wheel carrying axle supporting the front frame, flat springs extending rearwardly from the front frame and supporting the rear frame, and a rotary chopper carrying shaft supported for rotation on the rear frame and deriving motion from the axle.

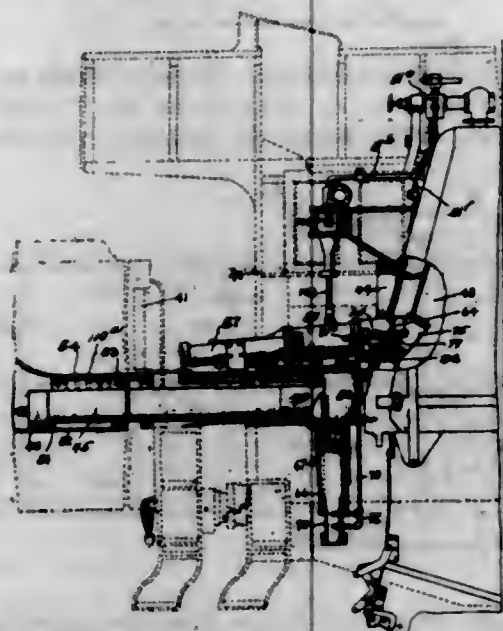
2. In a cotton chopper, a frame structure comprising substantially rectangular front and rear frames, a wheel carrying axle supporting the front frame, flat springs extending rearwardly from the side members of the front frame and secured to the side members of the rear frame which is thereby supported, handles associated with the rear frame, and a chopper carrying shaft supported for rotation on the rear frame and deriving motion from the axle.

3. In a cotton chopper, a frame structure including substantially rectangular front and rear frames and flat springs connecting the same, a wheel carrying axle supporting the front frame, a yoke supported upon and extending forwardly of the front frame, a bearing block carried by said yoke, a vertical wheel carrying shaft journaled in the bearing block and having a draft book at its upper end, a rotary chopper carrying shaft supported on the rear frame and deriving motion from the axle, and a disk supported on the chopper carrying shaft and having radially extending thinning fingers.

1,082,419. STOKER. NORMAN E. GEE, Altoona, Pa. Filed July 31, 1908. Serial No. 446,291. (Cl. 110-114.)

1. In an apparatus for supplying fuel to a locomotive fire box, in combination with the locomotive fire box and the tender having a gravity discharge passage, a stoking device including means for forcing the fuel into the fire box, and a fuel handling system including a combined crushing and feeding device arranged at said discharge passage, an advancing conveyer arranged in position to receive the fuel from said crushing and feeding device and comprising means for advancing it toward the fire box in a substantially divided state, and means for transferring separate charges of fuel from the advancing conveyer to the said stoking device, said means being timed in operation to the movements of the advancing conveyer and of the stoking device.

2. In an apparatus for supplying fuel to a locomotive fire box, the combination with the cab and deck plate, and a tender provided with a gravity discharge passage, of a stoking device disposed above the deck plate and including means for forcing the fuel over the fire, and a fuel-handling system disposed below both the deck plate and the tender, and including a combined crushing and feeding device arranged and operating at said gravity discharge passage, a conveyor operated synchronously with said device and extending forwardly therefrom, and means, operating in time with the stoking device and conveyor, for transferring separate charges of fuel from the latter to the stoking device.



3. In an apparatus for supplying fuel to a locomotive fire box, the combination of a tender provided with a discharge passage, a stoking chute, intermittently-acting discharging means for forcibly expelling separate charges of fuel from the chute over the fire, and a fuel feeding mechanism arranged below the chute and receiving the fuel from the discharge passage of the tender, said mechanism including means for intermittently introducing separate charges of fuel into the stoking chute in synchronism with the operation of the said discharging means.

4. In an apparatus for supplying fuel to a locomotive fire box, in combination with a locomotive cab and its deck plate, and the tender provided with a gravity discharge passage, a stoking device disposed above the deck plate and including intermittently-acting means for discharging the fuel over the fire into the fire box, and a fuel handling system including a combined crushing and feeding device operating across and beneath the discharge passage of the tender, an intermittently operating main conveyor receiving the fuel from said crushing and feeding device, and comprising means for advancing the fuel in a substantially divided state and having operating connections with said device, and intermittently-acting fuel elevating means arranged to elevate separate charges of fuel from the main conveyor through the deck plate and to deliver the same into said stoking device in synchronous operation with said intermittently-acting discharging means thereof.

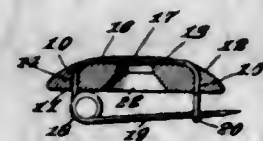
5. In a mechanical stoker, a stoking chute, a stoking head mounted to reciprocate therein, and a fuel feeding mechanism arranged below the chute and comprising means for introducing fuel at the bottom thereof and into the path of movement of the stoking head in advance of the forward movement of the latter.

[Claims 6 to 22 not printed in the Gazette.]

1,082,420. **BUTTON.** MARTHA V. GLOECKNER, Chautauqua, N. Y. Filed Aug. 27, 1912. Serial No. 717,341. (Cl. 24-103.)

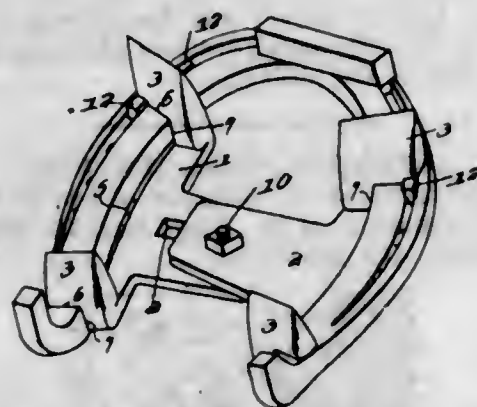
As a new article of manufacture, a button consisting of an integral button shaped body and an integral spring-like attaching member for the body, the said attaching member consisting of a single piece of material bent at one end to provide a hook and then bent to extend trans-

versely through the said body, after which the medial portion of the said piece of material is arranged in a groove in the curved face of the body, with the said piece of material then bent to pass transversely through the body to the rear face thereof, after which the piece of material is coiled to provide a spring and then terminates in a pin



having the free end thereof for engagement with the said hook, the said button shaped body being adapted to have the curved face thereof covered with material which will inclose the medial portion of the attaching member lying in the groove of the curved face of the said body and the said hook and the said coil abutting against the under face of the said body.

1,082,421. **DETACHABLE CALK FOR HORSESHOES.** THOMAS L. HAIRE, Providence, R. I., assignor of two-thirds to Dennis F. Brady, Providence, R. I. Filed Feb. 6, 1913. Serial No. 746,474. (Cl. 168-30.)



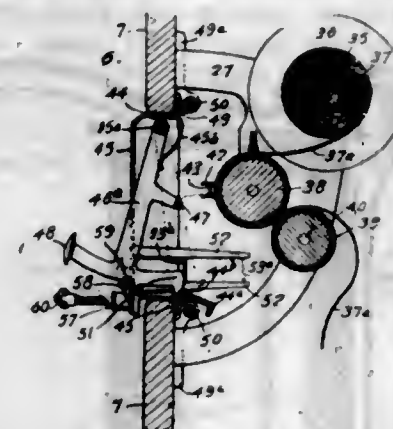
In a horse shoe, a pair of T-shaped sections, the head of each section having a calk at each end thereof, said calks extending beyond the outer side faces of the heads and being cutaway on their upper faces, the vertical walls formed by the cutaway portions being in alignment with said outer side faces of the heads and being adapted to contact with the inner side faces of the shoe, an outwardly extending lug on the upper face of each head located centrally of the space between the calks thereof to engage the upper face of the shoe, the shanks of the sections being arranged in overlapping relation, the shank of one section being longitudinally slotted and the shank of the other section being formed on its upper face with a longitudinal rib that is located centrally of the space between the sides of the last named shank and which is received in the slot of the first named section, and a bolt passed through said rib and the section carrying the rib and extending through the slot of the other section.

1,082,422. **FARE-REGISTER.** LEWIS J. HARRIS, Albany, Ga. Filed Nov. 27, 1912. Serial No. 733,799. (Cl. 234-9.)

1. A device of the character described, comprising a record strip, means controllable by movements of passengers for actuating said record strip step by step, a frame movable relatively to said record strip, a plurality of printing levers carried by said frame, mechanism carried by each printing lever for printing upon said record strip, a door, a bolt for normally maintaining said door locked, and mechanism controllable by any one of said printing levers for actuating said bolt in order to unlock said door.

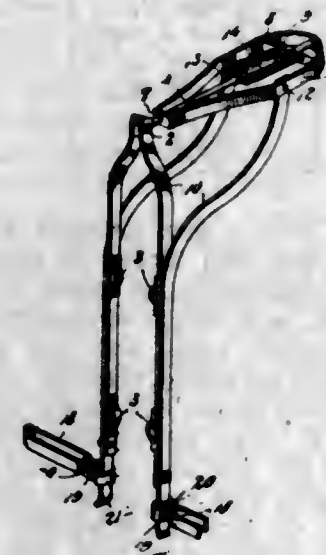
2. A device of the character described comprising a recorder provided with a movable recording strip, means controllable by passengers successively entering a car for advancing said recording strip step by step, mechanism controllable automatically by the respective weights of said passengers for placing indicating marks upon said recording strip, and means controllable automatically by

each passenger for enabling him to indicate his destination upon said recording strip.



3. A device of the character described comprising a record strip, means controllable by movements of passengers for actuating said record strip step by step, a frame movable bodily along said strip in a direction parallel with the direction of travel of said strip, a plurality of printing levers carried by said frame, mechanism carried by each printing lever for printing different legends upon said record strip, a door, a bolt for normally maintaining said door locked, said bolt being provided with a flexible portion disposed across the general path of travel of said printing levers as the same are depressed in order to print said record strip, said bolt being free to move out of engagement with said door when said flexible portion of said bolt is pressed upon by any one of said printing levers.

1,082,423. **MOTOR-CYCLE SEAT.** GEORGE A. HARTMAN, Denver, Colo. Filed Mar. 21, 1913. Serial No. 756,028. (Cl. 208-24.)



1. An auxiliary seat for motorcycles comprising a main seat supporting upright, means for fastening said upright to the frame of a motorcycle, an arm pivotally attached to and extending rearwardly from said upright, a seat frame slidably mounted on said arm, pivotal links connecting said upright and seat frame, and means for yieldingly resisting the sliding movement of the seat frame on said arm.

2. An auxiliary seat for motorcycles comprising an arched main seat supporting upright, means for fastening said upright to the frame of a motorcycle, an arm pivotally attached to and extending rearwardly from said upright, a seat frame slidably mounted on said arm, pivotal links connecting said upright and seat frame, and means for yieldingly resisting the sliding movement of the seat frame on said arm.

3. An auxiliary seat for motorcycles comprising a main seat supporting upright, means for fastening said upright to the frame of a motorcycle, an arm pivotally attached to and extending rearwardly from said upright, a seat frame slidably mounted on said arm, pivotal links con-

necting said upright and seat frame, and a spring connecting the seat frame and arm and acting to resist the sliding movement of the seat frame on said arm.

4. An auxiliary seat for motorcycles comprising a main seat supporting upright, means for fastening said upright to the frame of a motorcycle, an arm pivotally attached to and extending rearwardly from said upright, a seat frame slidably mounted on said arm, pivotal links connecting said upright and seat frame, a collar fast on said arm, and springs attached at one end to said collar and at the opposite end to the seat frame.

5. An auxiliary seat for motorcycles comprising a main seat supporting upright, means for fastening said upright to the frame of a motorcycle, an arm pivotally attached to and extending rearwardly from said upright, a seat frame slidably mounted on said arm, pivotal links connecting said upright and seat frame, means for yieldingly resisting the sliding movement of the seat frame on said arm, and foot rests having a jointed and folding connection with said links.

1,082,424. **CHEMICAL PROCESS.** ALFRED HOFFMAN, Brooklyn, N. Y., assignor, by direct and mesne assignments, to Alco Deo Company, a Corporation of New Jersey. Filed Mar. 19, 1908. Serial No. 422,121. (Cl. 23-24.)

1. A process for producing di-acetone alcohol consisting in subjecting a liquid containing a comparatively large percentage of acetone to a temperature below about 150° C. but sufficiently high to evolve acetone vapors, condensing such vapors at a distance from such liquid, causing the condensed acetone to infiltrate through a pervious granular mass of calcium hydroxide while at an elevated temperature, whereby a relatively small proportion of such condensed acetone will be catalytically transformed into di-acetone alcohol, adding the resultant composite fluid to a quantity of previously distilled liquid, continuing the distillation of such mixture to remove some of its contained acetone to increase its percentage content of di-acetone alcohol, and again subjecting the distilled-off acetone to the action of calcium hydroxide.

2. A process for producing di-acetone alcohol consisting in subjecting a liquid containing acetone to a temperature between the boiling point of acetone and the boiling point of di-acetone alcohol, condensing the evolved acetone vapors at a distance from such liquid, causing the condensed acetone to infiltrate through a pervious mass of a difficultly soluble hydroxide while at an elevated temperature, whereby a relatively small proportion of such condensed acetone will be catalytically transformed into di-acetone alcohol, adding the resultant composite fluid to a quantity of previously distilled liquid, continuing the distillation of such mixture to remove some of its contained acetone so as to increase its percentage content of di-acetone alcohol, and again subjecting the distilled-off acetone to the action of a hydroxide.

3. A process for producing di-acetone alcohol consisting in subjecting a liquid containing acetone to a temperature between the boiling point of acetone and the boiling point of di-acetone alcohol, condensing the evolved acetone vapors at a distance from such liquid, causing the condensed acetone to infiltrate through a pervious mass of a difficultly soluble catalytic agent while at an elevated temperature, whereby a portion of such condensed acetone will be transformed into di-acetone alcohol, adding the resultant composite fluid to a quantity of previously distilled liquid, continuing the distillation of such mixture to remove some of its contained acetone so as to increase its percentage content of di-acetone alcohol, and again subjecting the distilled-off acetone to the action of a catalytic agent.

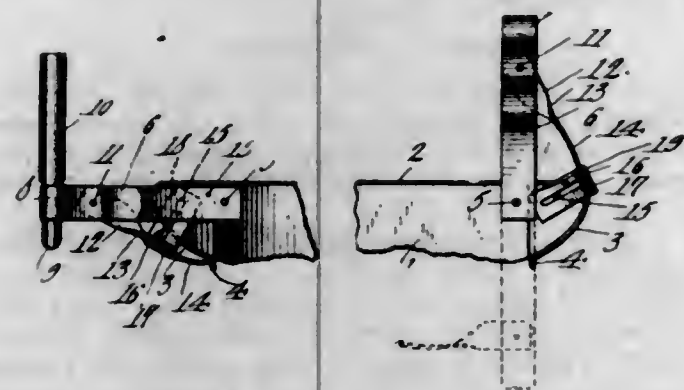
4. A process for producing di-acetone alcohol consisting in subjecting a liquid containing acetone to a temperature below 150° C., condensing the evolved vapors at a distance from such liquid, causing the condensed vapors to intimately contact with a catalytic agent while at an elevated temperature, whereby a portion of the acetone in such condensed vapors will be transformed into di-acetone alco-

hol, adding the resultant composite fluid to a quantity of previously distilled liquid, and continuing the distillation of such mixture to remove more or less of its percentage content of acetone so as to increase its proportion of di-acetone alcohol.

5. A process for producing di-acetone alcohol consisting in subjecting a liquid containing acetone to a temperature below 150° C., condensing the evolved vapors apart from such liquid, causing the condensed vapors to intimately contact with a catalytic agent to convert some of the acetone into di-acetone alcohol, adding the resultant composite fluid to some previously distilled liquid.

[Claims 6 to 33 not printed in the Gazette.]

1,082,425. COMBINED SLED-STAKE AND LOGGING-BUNK. WILLIAM A. HUMPHREY, Sparta, Wis. Filed Dec. 9, 1912. Serial No. 735,859. (Cl. 21—54.)



1. The combination with a body, of a combined stake and stake holding element pivotally connected thereto, a brace pivoted upon said element, and means slidably and pivotally mounted upon the body and cooperating with the brace for holding said element in either horizontal or vertical load retaining position.

2. The combination with a body, of a combined stake and stake holding element pivotally connected thereto, a brace pivoted upon said element, a stop upon the body, and a brace engaging device slidably and pivotally connected to the body for holding said element in either horizontal or vertical load-retaining position.

3. The combination with a body, of a combined stake and stake holding element pivotally connected thereto, a brace extending from said element, a stop upon the body, a brace engaging device pivotally and slidably connected to the body, and a holding device upon the body for engagement by said engaging device to hold said element in either horizontal or vertical load-retaining position.

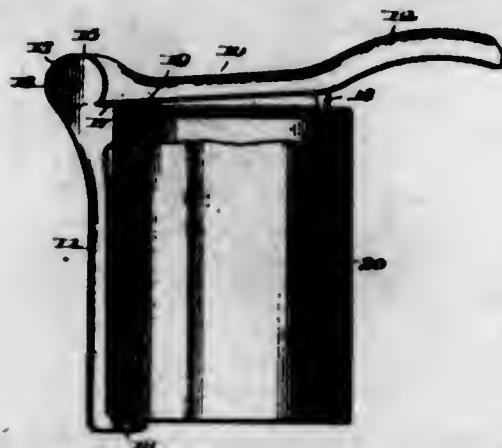
4. The combination with a body, of a combined stake and stake holding element pivotally connected thereto, a stop upon the body, a stirrup slidably and pivotally mounted upon one end portion of the body, and a brace pivotally connected to said element and slidable through the stirrup and against the stop, said stop, brace and stirrup constituting means for holding said element in a substantially horizontal position.

5. The combination with a body, of a combined stake and stake holding element straddling and pivotally connected to the body, a stirrup pivotally and slidably mounted on the body, a stop upon the body for engaging and holding the stirrup in a predetermined position, and a brace pivotally connected to said element and movable against the stirrup for holding said element in an upstanding position.

1,082,426. CAN-PUNCH. WALLACE B. KEITH, Ravensdale, Wash. Filed Dec. 27, 1912. Serial No. 738,930. (Cl. 164—119.)

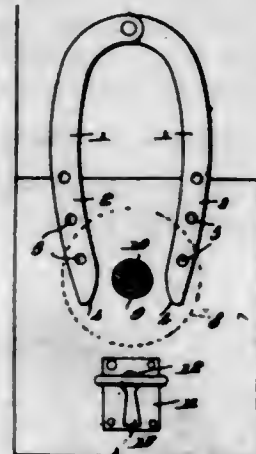
As a new article of manufacture, a can punch comprising an upright terminating at its upper end in a plurality of spaced ears and at its lower end in a lateral foot forming a seat for the can, a handle having its inner end lying between the said ears and mounted to swing thereon, a

laterally projecting stop flange formed with the said upright adjacent the point of pivotal connection with the said handle and having the face thereof curved to engage



the periphery of the can, and a plurality of relatively spaced punches depending from the under side of the said handle between its ends.

1,082,427. KEY-FASTENER. WILLIAM KLESPIES, Los Angeles, Cal. Filed Sept. 23, 1913. Serial No. 791,384. (Cl. 70—65.)



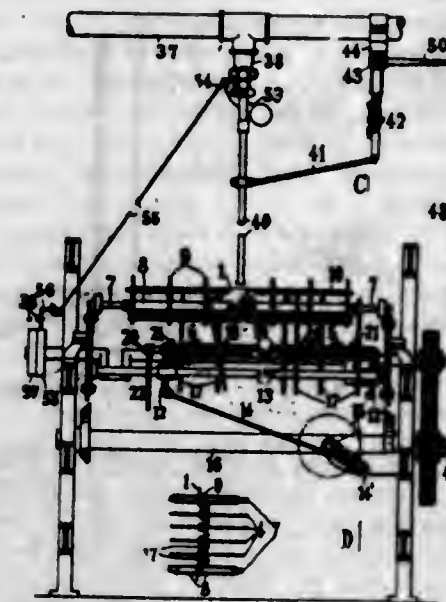
The combination with a door provided with a lock, a key within the key-hole and turned to operate the lock to sustain its bow horizontally, of means for locking the key against rotation, said means comprising two flat leg members having arcuate edges and one of their ends rounded and pivotally connected together, the said device adapted to have its legs spread and swung upon the sleeve of the knob and to have its points directed thereby through the bow of the key and the arcuate outer edges of said members engage with the opposite sides of the bow to spread the same in opposite directions and to bring one of the openings of one of the legs into register with one of the openings of the second leg, and means passing through the openings for locking the legs.

1,082,428. WARP STOP-MOTION. HANS KOCH and JOHANN JAKOB MÜLLER, Dietikon, Switzerland. Filed Feb. 7, 1912. Serial No. 676,025. (Cl. 139—92.)

1. In a warp stop motion for looms, the combination of a tubular pendulum forming a nozzle for the distribution of compressed air, means for oscillating said pendulum transversely over the warp, two series of stopper lamellae one stationary and the other movable below said warp adapted to catch the ends of a broken thread blown toward them by the air distributed by said nozzles, levers connected to said stopper lamellae participating in their movement, and means controlled by said levers for actuating the stopping mechanism of the loom.

2. In a warp stop motion for looms, the combination of a tubular pendulum forming a nozzle for the distribution of compressed air, means for oscillating said pendulum transversely over the warp, stopper lamellae provided with

in a space below the warp, arranged in two superposed horizontal rows transversely to the direction of the warp, means for oscillating the lower horizontal row of stopper lamellae, teeth upon the stopper lamellae of each row crossing each other for catching the ends of a broken thread blown toward them by the air distributed from said nozzle, means connected to said lamellae for participating in their movement, and means controlled by said last named means for actuating the stopping mechanism of the loom.



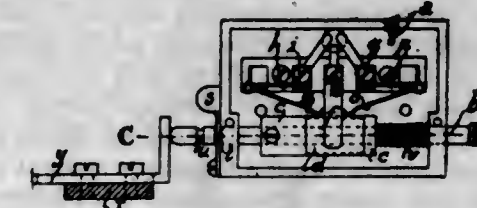
3. In a warp stop motion for looms, the combination of a tubular pendulum forming a nozzle for the distribution of compressed air, means for oscillating said pendulum transversely over the warp, a series of stationary, and a series of movable stopper lamellae, two parallel connected rails carrying the movable lamellae, a drive for reciprocating the movable lamellae to a somewhat greater extent than the distance between two stationary lamellae for entangling the ends of the broken warp thread, and means controlled by said lamellae for actuating the stopping mechanism of the loom.

4. In a warp stop motion for looms, the combination of a tubular pendulum forming a nozzle for the distribution of compressed air, means for oscillating said pendulum transversely over the warp, stopper lamellae provided within a space below the warp, one series of which is movably mounted to permit free oscillation, means for reciprocating one series of lamellae, a wire passed through the teeth of the stationary lamellae, levers to which the ends of said wire are connected, a shaft for said levers, a downwardly projecting lever secured to one end of said shaft, a lever connected by a cord to the lower end of said downwardly projecting lever, means for connecting said first-named lever with the stopping mechanism of the loom, a lathe, an abutment on said lathe for causing the actuation of the stopping mechanism of the loom upon the breaking of a thread.

5. In a warp stop motion for looms, the combination of a tubular pendulum forming a nozzle for the distribution of compressed air, means for oscillating said pendulum transversely over the warp, stationary and oscillating stopper lamellae provided within a space below the warp and arranged in two superposed horizontal rows running transversely to the direction of the warp threads, the lamellae standing upright and extending in the same direction as the warp threads, means for reciprocating one row of the lamellae, teeth so provided on the stopper lamellae that on reciprocating one row of said lamellae transversely to the warp the teeth of this row are formed to penetrate and pass through the spaces between the teeth of the other row of lamellae, wires which pass through the stationary lamellae limiting said space and offering a support for the broken warp thread resting in a transverse position upon the same, a lever and a shaft connected to said lamellae adapted to be rotated upon the deflection of the same, and means for actuating the stopping mechanism of the loom.

[Claims 6 and 7 not printed in the Gazette.]

1,082,429. CURRENT-DISTRIBUTER FOR POWER-LOOMS HAVING ELECTRICAL STOPPING AND SIGNALING DEVICES. ALBERT GEORG KÖRCHLIN, Steinen, Germany, assignor, by mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 22, 1911. Serial No. 639,939. (Cl. 139—52.)



1. In a loom having electrical stopping and signaling devices and a knocking-off lever, a current distributor for conducting the electric current to the electrical features of said stopping and signaling devices having, in combination, a longitudinally slidable pin in the path of the knocking-off lever, an insulating body thereon, a metal sleeve at the middle of said insulating body, a terminal for the electric current, a contact spring on said terminal adapted to connect it with said sleeve, a contact spring appertaining to the electrical stopping devices and normally in contact with said sleeve, a contact spring in circuit with the electric signal and normally contacting with the insulating body, a spring pressing said pin toward the knocking-off lever into its normal position, the co-action of the parts being such that when the knocking-off lever of the loom is moved from the working position to the inoperative position, said pin is slid against the action of said spring into a position in which both of said contact springs bear upon said sleeve.

2. In a loom having electrical stopping and signaling devices, stopping mechanism, a current distributor for conducting the electric current to the electrical features of said stopping and signaling devices having, in combination, a longitudinally slidable pin, an insulating body thereon, a metal sleeve at the middle portion of said insulating body, a circuit terminal in contact with said sleeve, a contact spring appertaining to the electrical stopping devices and normally in contact with said sleeve, a contact spring in circuit with the electric signal and normally contacting with the insulating body, a spring pressing said pin into its normal position, the co-action of the parts being such that when the loom stops, said pin is slid against the action of said spring by a part of the stopping mechanism into a position in which both said contact springs bear upon said sleeve.

3. In a loom having electrical stopping and signaling devices and stopping mechanism, a current distributor for conducting the electric current to the electrical features of said stopping and signaling devices having, in combination, a longitudinally slidable pin having an insulating body and a metal section, a circuit terminal in contact with said section, a contact spring appertaining to the electrical stopping devices and normally in contact with said section, a contact spring in circuit with the electric signal and normally contacting with the insulating body, a spring pressing said pin into its normal position, the co-action of the parts being such that when the loom stops said pin is slid against the action of said spring by a part of the stopping mechanism into a position in which said signaling contact spring bears upon said section.

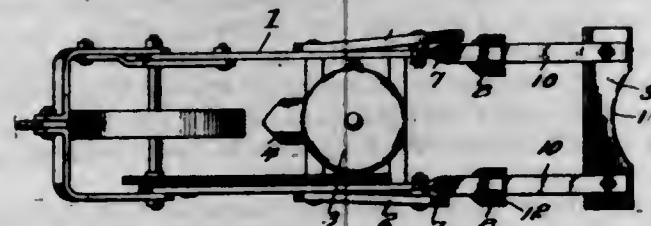
4. A current distributor for looms having electric stopping and signal devices comprising, in combination, a movable member having an electro-conductive section, a circuit terminal in contact with said section, two electric contacts cooperating with said section, one of said contacts appertaining to the stopping devices and the other to the signaling devices, said movable member having three positions, in the first of which the stopping contact touches said conductive section but the signaling contact does not, in the second both contacts touch said conductive section, and in the third the signaling contact touches said section but the stopping contact does not, a spring for moving said member in one direction, the knocking-off lever of the loom which moves said member

in the opposite direction when the loom stops, and means for locking the movable member in its second and third positions, said means including two notches in the movable member and a cooperating pivoted latch.

5. A current distributor for looms having electric stopping and signal devices comprising, in combination, a movable member having an electro-conductive section, a circuit terminal in contact with said section, two electric contacts cooperating with said section, one of said contacts appertaining to the stopping devices and the other to the signaling devices, said movable member having three positions, in the first of which the stopping contact touches said conductive section but the signaling contact does not, in the second both contacts touch said conductive section, and in the third the signaling contact touches said section but the stopping contact does not, a spring for moving said member in one direction, the knocking-off lever of the loom which moves said member in the opposite direction when the loom stops, and means for locking the movable member in its second and third positions.

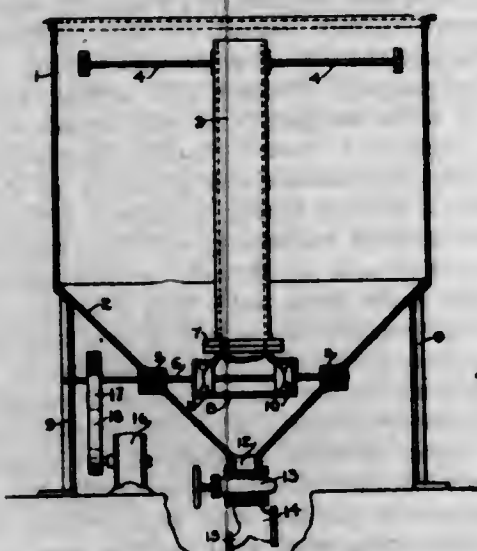
[Claims 6 to 10 not printed in the Gazette.]

1,082,430. SEEDER AND PLANTER. MERIDETH T. MALLOY, Mineola, Tex. Filed Aug. 13, 1912. Serial No. 714,885. (Cl. 111-32.)



A frame having side members curved downwardly at their rear ends to form arcuate blade carrying standards, a leveling board, parallel supporting straps bolted on said leveling board and spaced apart a distance equal to that between the standards, and clamping means movable about the axes of the standards whereby the supporting straps are adjustably connected with said standards.

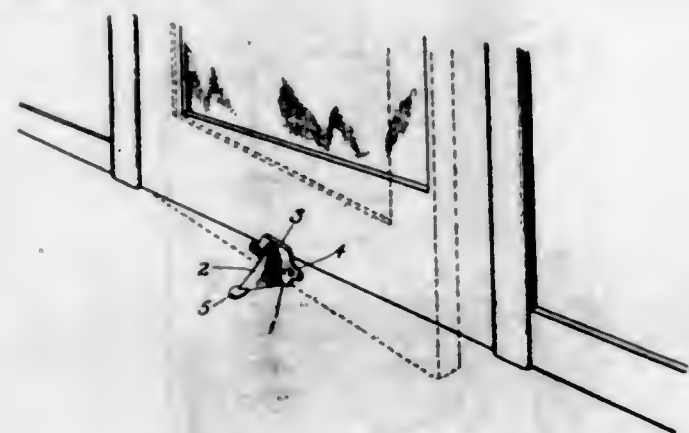
1,082,431. AGITATOR. FRANK E. MARCY, Salt Lake City, Utah, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 27, 1909. Serial No. 480,359. (Cl. 75-86.)



1. In an agitator, the combination of a tank, an upright pipe centrally therein and supported thereby, a lower pipe connected transversely to said upright pipe and having an end freely opening into said tank whereby solution may enter freely at said end of said pipe, a single shaft extending into said lower pipe, pumping means on said shaft within said lower pipe, and driving means on said shaft without said tank.

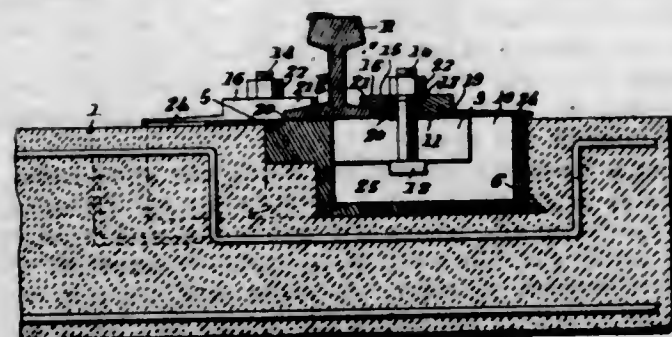
2. In an agitator, the combination of a tank, an inverted T-pipe in said tank, said pipe being spaced from the tank, and means in the horizontal portion of said T-pipe for pumping the tank contents through the upright portion of said T-pipe.

1,082,432. DOOR-CHECK. FREDERICK MEITSHEIMER, Kansas City, Mo. Filed Mar. 20, 1913. Serial No. 755,796. (Cl. 16-6.)



A door check comprising a body member having a depending shank, whereby the check may be pivotally anchored, and a bearing face on the front end of said check comprising a flat central portion having backwardly beveled end wings, adapted for contact with a door to automatically adjust the bearing face, substantially as set forth.

1,082,433. RAIL-FASTENING. IVES A. MILLER, Grapeville, Pa. Filed July 9, 1913. Serial No. 778,190. (Cl. 238-3.)



1. In combination with a plastic tie, of rail seats embedded within the tie to reinforce the same, said seats projecting above the face of the tie, the seats being each formed with longitudinal channels which terminate in enlarged openings, a headed member provided with a shank adapted to pass through each of the enlarged openings to bring its head into contact with the upper wall of the passage provided by the channels, and its shank to project through the channel, a rail engaging member comprising an elongated plate terminating in a shoulder and a rail engaging flange projected from the shoulder, said member having an opening for the shank, a nut for the threaded shank, and the base of the rail engaging members being of a length and width to fully close the channel and mouth of the opening, substantially as described.

2. In combination with a plastic tie, of substantially rectangular rail seats embedded within the tie and spaced away from each other, and projecting above the tie, the said seats having longitudinally disposed channels which terminate in enlarged openings, the upper faces of the seats at the opposite sides of the openings being formed with teeth, the seats having each an enlarged passage which is disposed below and which intersects the channel, the smooth surface of the seats adapted to receive a rail, a headed member having a threaded shank adapted to pass through the opening for longitudinal adjustment within the passage, rail engaging members comprising shanks, each of which includes a flat base having an extending tail, the base having teeth which are adapted to co-act

with the rail seats, the base members each terminating in a shoulder from which extends a rail engaging flange, the portion of the flange overlying the teeth being enlarged and being provided with an opening for the reception of the shank of the threaded member, and a nut for the shank.

3. The combination with a plastic tie, of a rail seat embedded therein and projecting above the tie, said seat having one of its ends provided with an inclined shoulder, its opposite end formed with an extending plate which provides a straight shoulder, a rail upon the seat and adapted to have one of its longitudinal edges contact with the shoulder provided by the plate, a rail clamp adapted to engage with the opposite faces and base flange of the rail, said clamp having an inclined edge which is adapted to co-act with the inclined shoulder of the seat, and means for adjustably securing the clamp upon the seat and the plate adapted to provide a rest for a pivoted rail.

4. In combination with a plastic tie, of rail seats embedded within the tie and extending above the tie, said seats embodying each a rectangular member having base flanges and its upper end formed with an out-turned flange, the inner wall of the flange being disposed at an angle to the rail-receiving portion of the seat to provide a shoulder, the opposite end of the seat being provided with a right angular shoulder, a rail adapted to abut the right angular shoulder, a wedge-shaped rail engaging member co-acting with the inclined shoulder, said member having its inner face shaped to conform with the side of the rail with which it engages, and adjustable and removable securing elements co-acting with the seat and with the rail engaging member.

5. The combination with a plastic tie, of rail seats embedded within the tie and projecting above the tie, each of the seats having an upper depressed portion upon which the rails rest and contact with one of the shoulders formed by the said depression being angular, the said depressed portion having channels which communicate with openings that are disposed adjacent the angular shoulder, the seat having enlarged passages arranged below but which communicate with the channels, headed members having threaded shanks arranged within the passages and having their shanks extending through the channels, rail engaging members having outer angular ends disposed upon the seat between its inclined shoulder and over the openings and passages, said members having elongated openings through which the shanks pass, and securing members for the projecting portions of the shanks.

[Claim 6 not printed in the Gazette.]

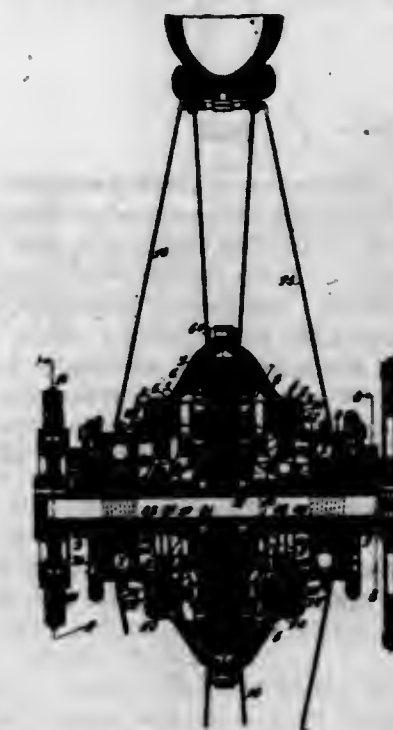
1,082,434. DRIVING-WHEEL FOR MOTOR-VEHICLES. WILLIAM GEORGE MILLER, North Tarrytown, N. Y. Filed July 20, 1912. Serial No. 710,576. (Cl. 74-7.)

1. In a driving means of the character described; a driving axle having a friction disk, and a driven gear, wheel loosely mounted on the axle, a transmission mechanism that co-operates with the wheel, means for clutching the said transmission mechanism with the friction disk, the said means including a shiftable member carrying a driving gear and intermediate members connecting the said driving gear with the driven gear on the wheel.

2. A driving wheel of the character described, including a driving axle, a two-part hub loosely mounted thereon and having an internal driven gear, the said axle having a centrally disposed friction member, a contacting disk slidable upon the axle for co-operating with the said centrally disposed friction disk, said contacting member carrying a driving gear, a clutch mechanism for moving the said contacting member into operative engagement with the axle disk, said mechanism being mounted within the hub, and an actuating lever external to the hub for controlling the said clutch mechanism.

3. In a driving wheel of the character described; a driving axle, a wheel loosely mounted upon the axle, the said axle having a centrally disposed disk, the said wheel including a single rim, a two-part hub, and independent sets of spokes that connect each hub section with its respective portion of the wheel rim, a pair of oppositely dis-

posed friction members slidable upon the axle, each of the said slidable disks having a driving gear, each of the hub sections having an internal annular gear, stationarily held intermediate gears that connect the gears on the slidable friction member with the annular gears of their respective hub sections, clutch mechanisms held within the hub for shifting the gear equipped disks into contact with the centrally disposed disk upon the axle, and means including lever controlled devices external to the wheel for actuating the clutch mechanism to shift the slidable members into frictional engagement with the centrally disposed disk on the axle.



4. In a driving wheel of the character described, a driving axle having a centrally disposed friction disk, a wheel body loosely mounted thereon, consisting of a two-part hub, a rim, and separate sets of spokes connecting each hub section with its respective rim portion, transmission mechanism mounted within the hub, said transmission mechanism including a shiftable member for each hub section, said members being arranged to engage the opposite sides of the axle disk, and means for shifting the said sliding members into and holding them in frictional engagement with the axle disk, said means including actuating devices operable externally of the wheel.

5. In a driving wheel of the character described; a driving axle, the said axle having a centrally disposed friction disk projected at right angles thereto, frame bearings at the opposite ends of the axle, a two-part hub rotatably mounted on the frame bearings, each of the hub parts having an internal annular gear, clutching devices for engaging the opposite sides of the axle disk, each of the clutch devices having an axially disposed driving gear, intermediate gears supported by the frame bearings within the hub members for connecting the clutch driving gears with the annular gears of their respective hub portions for shifting the said clutch devices into and out of operative connection with the axle disk, and means operable within the hub and including operating lever devices extending externally of the hub for shifting and holding the clutch mechanism to move the clutch driving gear for shifting the clutch mechanism into an operative engagement with the axle disk.

[Claims 6 to 9 not printed in the Gazette.]

1,082,435. STIRRUP. WILLIAM NUSSE, Jr., Plevna, Kans. Filed July 18, 1913. Serial No. 779,847. (Cl. 54-49.)

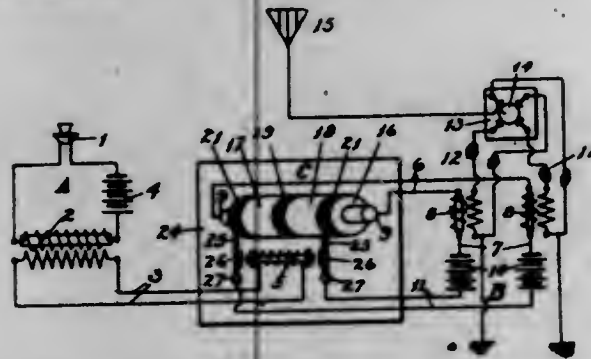
1. A stirrup comprising a tread bar, side limbs rising from the tread bar, guide and abutment projections formed on the inner faces of the side limbs, a hanger, cams formed at opposite ends of the hanger and engageable with the guide projection, and lugs spaced from the cams and integral with the hanger and having locking extensions

to engage between the guide and abutment projections on the side limbs for detachably securing the hanger and stirrup together.



2. A stirrup comprising a tread bar, side limbs rising from the tread bar, guide and abutment projections formed on the inner faces of the side limbs, a hanger, cams formed at opposite ends of the hanger and engageable with the guide projection, lugs spaced from the cams and integral with the hanger and having locking extensions to engage between the guide and abutment projections on the side limbs for detachably securing the hanger and stirrup together, and a wing formed on the hanger and adapted to engage between the stretches of the suspension strap when connected thereto.

1,082,436. SIGNALING SYSTEM. JOHN OLSEN, Rolfe, Iowa. Filed June 21, 1912. Serial No. 705,049. (Cl. 178-304.)



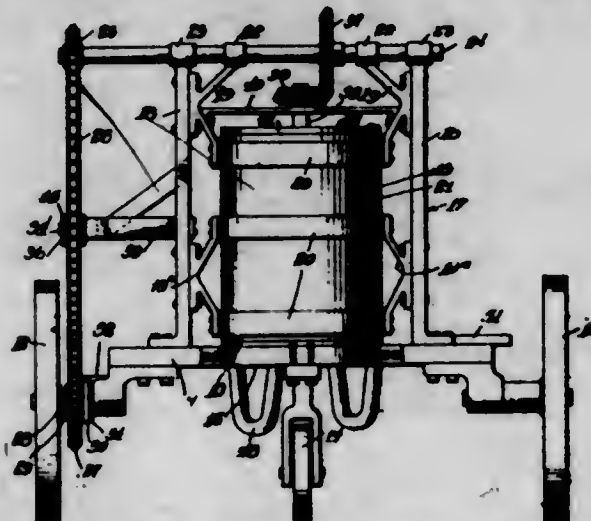
1. A circuit closer comprising a rotating drum formed of two sections insulated from each other and composed of conducting material, rings of non-conducting material surrounding the free ends of said sections, means for supporting said cylinder for rotation, a pair of contact levers each pivoted at one end and equipped with an armature and having its opposite or free end bifurcated to form substantially semicircular contacts designed to embrace the adjacent section of the cylinder and normally resting upon the respective insulated ring, and means for swinging said levers to contact the bifurcated ends thereof with the conducting surfaces of the cylinder.

2. A circuit closer comprising a rotating drum formed of two sections insulated from each other and composed of conducting material, rings of non-conducting material surrounding the free ends of said sections, means for supporting said cylinder for rotation, a pair of contact levers each pivoted at one end and equipped with an armature and having its opposite or free end bifurcated to form substantially semicircular contacts designed to embrace the adjacent section of the cylinder and normally resting upon the respective insulated ring, and a magnet located between said levers and adapted, when energized, to attract the armatures of the levers whereby the latter will be contacted with the conducting surfaces of the drum.

1,082,437. SPRINKLER. WILLIAM ALBERT PARISH, La Salle, Colo. Filed Apr. 18, 1913. Serial No. 761,979. (Cl. 137-63.)

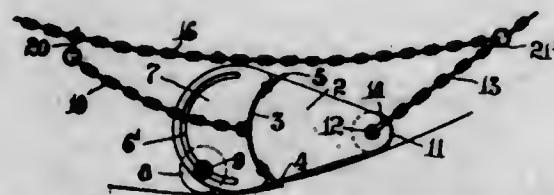
1. In a device of the class described, the combination with a vehicle body, of a tank frame thereon consisting

of uprights secured to the vehicle body and extending vertically therefrom, brackets secured to the said uprights, bands on the said brackets, a tank supported on the said vehicle body and encircled by the said bands, a shaft journaled on one of the said brackets and the said uprights, a paddle shaft mounted to rotate in the said tank, means connecting the said paddle shaft with the first mentioned shaft for imparting rotation thereto when the first mentioned shaft is rotated, paddle members supported by the said paddle shaft and operable therewith, and a connection between the first mentioned shaft and the vehicle whereby the first mentioned shaft will be rotated when the said vehicle body is advanced along the ground.



2. In a device of the class described, the combination with a vehicle body, of a tank frame thereon consisting of uprights secured to the vehicle body and extending vertically therefrom, brackets secured to the said uprights, bands on the said brackets, a tank supported on the said vehicle body and encircled by the said bands, a shaft journaled on one of the said brackets and the said uprights, a paddle shaft mounted to rotate in the said tank, means connecting the said paddle shaft with the first mentioned shaft for imparting rotation thereto when the first mentioned shaft is rotated, paddle members supported by the said paddle shaft and operable therewith, a connection between the first mentioned shaft and the vehicle body whereby the first mentioned shaft will be rotated when the said vehicle body is advanced along the ground, and a cover provided with a crescent shaped slot and mounted to swing on the said tank to close the same, the said paddle shaft being extended through the slot in the said cover.

1,082,438. DRAG SCOOP OR BUCKET. FRANK L. PARKER, New York, N. Y. Filed Jan. 30, 1909. Serial No. 475,223. (Cl. 37-19.)



1. A scoop comprising a body, wheels for holding said body elevated, axles on which said wheels revolve, said axles being received in slots extending from points adjacent the upper and lower portions of the said body.

2. A scoop comprising a body formed with approximately semi-circular slots extending to points adjacent the upper and lower portions of said body, rotatable means for holding said body elevated, and means on which said means revolve, said last means being loosely received in said slots.

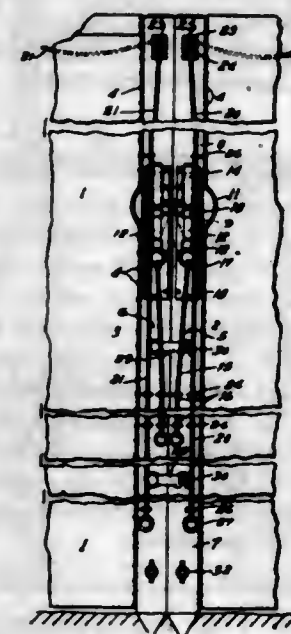
3. In a drag scoop the combination of an elongated rigid and generally pear-shaped body, a rearwardly concaved transverse collecting wall fixedly located between the body ends, a projecting cutter at each end of said wall, a draft attachment at the front of the body, rollers at the front end of the body, a rear draft attachment, and shift-

able rear rollers fitted to raise the cutters when the scoop is drawn by rear draft.

4. In a drag scoop the combination of an elongated rigid and generally pear-shaped body, a rearwardly concaved transverse collecting wall fixedly located between the body ends, a projecting cutter at each end of said wall, an axial draft attachment at the front of the body, rollers at the front end of the body, and an axial rear draft attachment.

5. In a drag scoop the combination of an elongated rigid body rounded at its rear, a rearwardly concaved transverse collecting wall fixedly located between the body ends, a projecting cutter at each end of said wall, a draft attachment at the front of the body, rollers at the front end of the body, a rear draft attachment, and shiftable rear rollers fitted by means of deviating guide surfaces to raise the cutters when the scoop is drawn by rear draft.

1,082,439. PROTECTOR FOR TREES. JOHN J. PATTERSON, Los Angeles, Cal. Filed Mar. 27, 1913. Serial No. 757,254. (Cl. 47-33.)



1. In a protector for trees, the combination of a pole comprising a plurality of parts hinged together, a protecting sheet attached to each part of said pole, and string means, one end of which is attached to said protecting sheet, and said string means being slidably connected with one end of said pole.

2. In a protector for trees, the combination of a pole comprising two parts hinged together, a protecting sheet attached to said pole, string means, one end of which is attached to said protecting sheet, said string means being slidably connected with one end of said pole, and latch means adapted to cooperate with both parts of said pole.

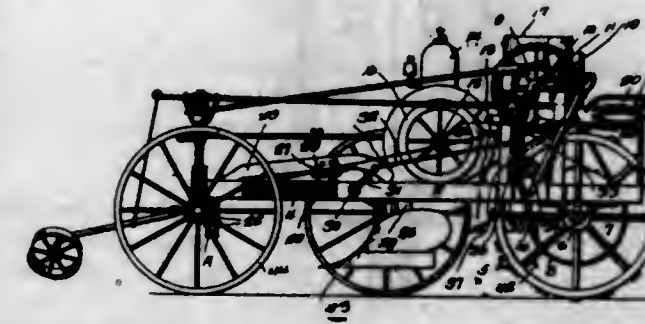
3. In a protector for trees, the combination of a protecting sheet having two ends, a pole attached to each of said ends, each of said poles comprising two parts hinged together, each of said poles having latch means adapted to cooperate with both parts of said pole to maintain said parts in alignment with each other; a string for each pole, one end of said string being connected with said protecting sheet, and means for fastening said poles together.

4. In a protector for trees, the combination of a protecting sheet having two ends, a pole attached to each of said ends and extending substantially across the full width of said protecting sheet along the ends of same, each of said poles comprising two parts collapsibly connected to one another by hinges, each of said poles having latch means adapted to cooperate with both parts of said pole to maintain said parts in alignment with each other; a string for each pole, one end of said string being connected with said protecting sheet, said string also being slidably connected with the top of its pole, and means for fastening said poles together.

5. A tree protector comprising a sheet; two poles fastened to the ends of the sheets, respectively; each of said poles being composed of lower and upper sections hinged together; the lower sections adapted to hold the lower portions of the sheet ends upright and the upper sections adapted to hold the upper portion of the sheet in folded relation to the lower portion of said sheet.

[Claims 6 to 10 not printed in the Gazette.]

1,082,440. MOTOR-PLOW. ORVILLE E. PATTISON, Winamac, Ind. Filed July 6, 1910. Serial No. 570,575. (Cl. 97-30.)



1. In a motor driven machine of the class described, a frame having ground wheels, a plow beam, a rock shaft mounted on the frame and having a crank pivotally engaging the plow beam intermediate the ends thereof and supporting it for vertical adjustment, and draft means comprising guide means rigidly upon the frame with which the front end of the plow beam is connected for unrestricted vertical movement.

2. In a motor driven machine of the class described, a frame having ground wheels, a plow beam having intermediate the ends thereof a member provided with a longitudinal slot, a rock shaft supported on the frame and having a crank engaging said slot, thereby supporting the plow beam for vertical adjustment, and draft means comprising guide means rigid upon the frame with which the front end of the plow beam is connected for unrestricted vertical movement.

3. In a motor driven machine of the class described, a frame having ground wheels, a plow beam provided intermediate its ends with a member having a longitudinal slot, a rock shaft supported on the frame and having a crank engaging the slot, thereby supporting the beam for vertical adjustment, a cage mounted rigidly on the front end of the frame and comprising pairs of vertical guide members between which the front end of the plow beam extends, and bearing members on the sides of the plow beam engaging the guide members of the cage for unrestricted vertical movement.

1,082,441. WATER-GAGE-GLASS COLUMN. WILLIAM M. PAUL, Galveston, Tex. Filed Mar. 7, 1913. Serial No. 752,748. (Cl. 73-54.)

1. In a device of the class described, a body having lateral wings, provided in their outer faces with longitudinal gage glass recesses and with longitudinal water grooves in the inner wall of said recesses, and a tubular connecting portion provided upon each end of said body having diverging passage-ways opening into the adjacent ends of the water grooves.

2. In a device of the class described, a body having lateral wings, provided in their outer faces with longitudinal gage glass recesses and with longitudinal water grooves in the inner wall of said recesses, and a tubular connecting portion provided upon each end of said body having diverging, outwardly curved passage-ways opening into the adjacent ends of the water grooves.

3. In a device of the class described, a body having lateral wings, provided in their outer faces with longitudinal gage glass recesses and with longitudinal water grooves in the inner wall of said recesses, a tubular connecting portion provided upon each end of said body having diver-

ing passage-ways opening into the adjacent ends of the water grooves, a flat gage glass adapted to be positioned



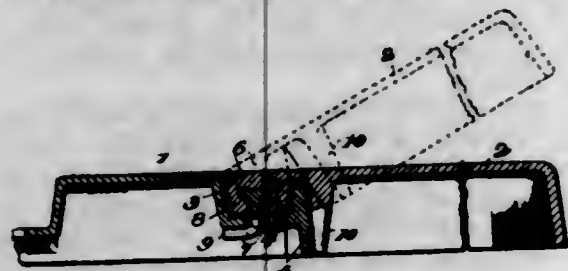
within each wing recess, and means by which each glass may be secured in position.

1,082,442. METHOD OF REMOVING STUMPS. WILLIAM W. POPE, Tylertown, Miss. Filed Mar. 10, 1910. Serial No. 548,428. (Cl. 47-36.)



The herein described method of removing earth-embedded stumps, which consist in wetting the earth about and below the stump; sinking a shaft adjacent the stump, drifting laterally from the shaft to form a chamber beneath the stump, into which chamber the ashes of the stump are adapted to fall, placing combustible material in the chamber, sealing the chamber with earth, piercing the earth about the stump to form draft inlet and outlet openings; and igniting the combustible material to consume the stump and, by the heat thus generated, to bake the wet wall of the chamber, into a weight-resisting and heat-retaining condition.

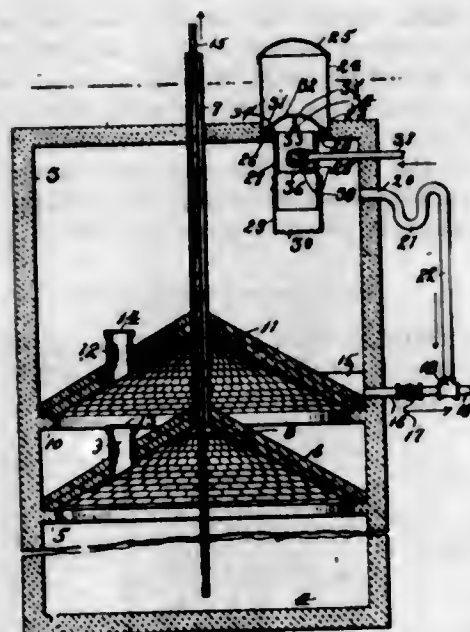
1,082,443. DETACHABLE STOVE-SHELF. MINARD A. POSSONS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 23, 1912. Serial No. 679,343. (Cl. 126-332.)



The combination with a cast iron stove top of a separable cast iron stove shelf, the top and shelf having abutting edges, the said top having truncated cone-shaped recesses, each of said recesses terminating in a circular passage, the said shelf having truncated cone-shaped lugs

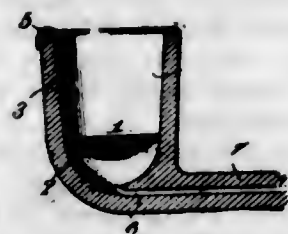
fitting in the said recesses and the said lugs carrying hooks passing through the said passages, the said hooks bendable for the purpose of aligning the said abutting edges of the top and shelf.

1,082,444. CISTERN. WILLIAM H. REIFSNIDER, Akron, Ohio. Filed Mar. 12, 1913. Serial No. 753,800. (Cl. 210-17.)



In a cistern, a water-tight receptacle provided on the interior with a pair of annular ledges spaced from each other, conical walls of porous material supported on said ledges, the aligned apexes of said walls having openings, a tube extending through said openings and through the top of the receptacle, a suction pipe extending through said tube, aligned man-holes in said conical walls, a discharge pipe extending through the side wall of the receptacle immediately above the upper conical wall, an overflow near the top of the receptacle connected with said discharge pipe, a trap in said overflow, and a water inlet near the top of said receptacle.

1,082,445. GUARD FOR SMOKING-PIPES. CHARLES H. ROBINSON, Deadwood, S. D. Filed June 12, 1912. Serial No. 703,258. (Cl. 131-12.)

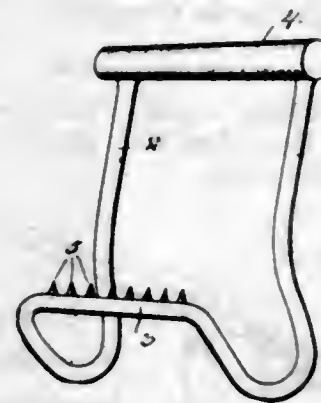


As a new article of manufacture, a guard for smoking pipes, comprising a single length of wire having a charge supporting portion provided with many convolutions extending into each other and arranged so that the inner convolutions are arranged in mutual contact relatively and the outer convolutions spaced relatively, the outermost convolution having a vertical supporting extension adapted to lie against the inner wall of the bowl of the pipe and having means for connecting with the bowl so as to hold the charge supporting portion in operative position.

1,082,446. BOX OR BAG GRAB. EZRA B. RODMAN, Jackson, Miss. Filed Mar. 15, 1913. Serial No. 754,424. (Cl. 57-107.)

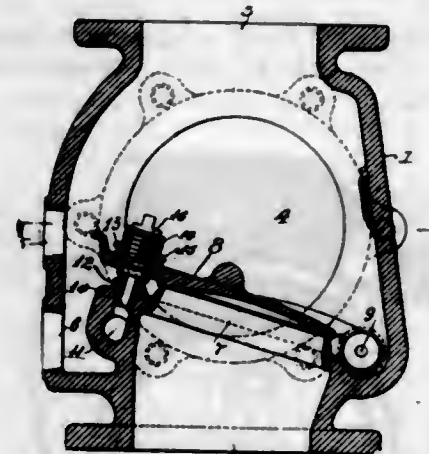
1. An article of the class described comprising a pair of separated shanks arranged in parallel relation and having offset ends, a yoke bar connecting the offset ends of the shanks, a handle connecting the opposite ends of the shanks and holding them in separated relation and a plurality of penetrating teeth projecting forwardly from the yoke bar.

2. An article of the class described comprising a handle, shanks secured to the opposite ends of the handle and arranged in parallel relation, a yoke bar connecting the



opposite ends of the shanks and having a plurality of penetrating teeth, said shanks and yoke bar being offset with relation to the handle.

1,082,447. ALARM-VALVE. ARTHUR C. ROWLEY, Philadelphia, Pa., assignor to The International Sprinkler Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 9, 1911. Serial No. 643,166. (Cl. 169-23.)



1. The combination, in an alarm valve, of a casing having an auxiliary passage terminating in a valve seat and also provided with a main valve seat; a main valve in the casing mounted to cooperate with said main valve seat; a bushing carried by said main valve; an auxiliary valve mounted in said bushing in position to cooperate with the seat of the auxiliary passage; with a plug in the bushing for limiting the movement of the auxiliary valve.

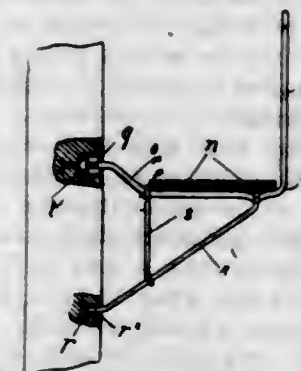
2. The combination, in an alarm valve, of a casing having a passage; an auxiliary valve seat therefor; a main valve seat; a main valve mounted to cooperate with said main valve seat; an inwardly flanged bushing adjustably carried by the main valve; a disk mounted in said bushing so as to cooperate with the auxiliary valve seat; and a plug in the bushing to permit of a limited movement of the auxiliary valve relatively to the main valve.

1,082,448. BRACKET FOR STAGING AND SCAFFOLDING. EMIL SCHÄRER, Zurich, Switzerland. Filed Oct. 19, 1910. Serial No. 587,875. (Cl. 20-84.)

The combination with an exterior wall, of a scaffolding socket therein and substantially flush with the exterior face of said wall and provided with an opening having substantially vertically disposed extensions, a scaffolding bracket member having horizontally disposed projections adapted to be inserted into said sockets and turned to an upright position to dispose its projections out of registry with the extensions of the opening in said socket, the portion of the bracket member entering said socket being loosely mounted therein whereby swinging movement is permitted said bracket member, a socket located in the wall beneath the first mentioned socket, and a bar con-

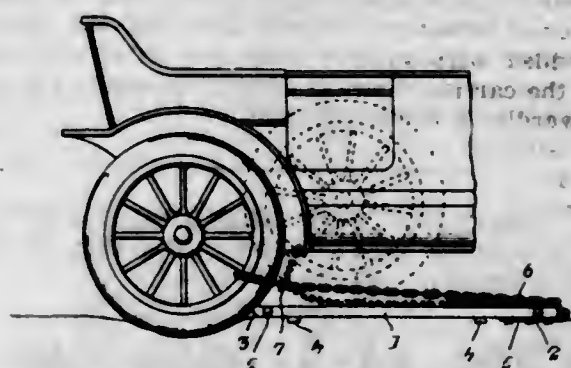
197 O. G.—63

necting to said bracket adjacent its outer end and adapted to enter said second socket when the bracket is locked in the first socket, said bar and receiving socket constituting



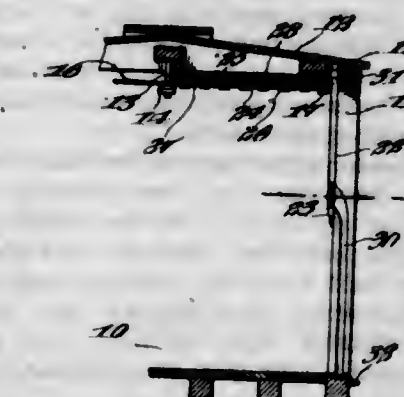
ing means for preventing the rotation of the bracket and means for bracing said scaffolding member to sustain the same in a horizontal position, substantially as described.

1,082,449. AUTOMOBILE-SKID. FORREST G. SMITH, Fitchburg, Mass. Filed Nov. 30, 1912. Serial No. 734,232. (Cl. 21-114.)



The herein described skid for the purposes specified, the same comprising a board having its lower rear portion beveled, bolts passed transversely through the board, transverse cleats secured to the under side of the board, a clevis attached to the front end of the board, and a chain secured at one end to the clevis and having a hook at its opposite end, said hook being adapted to engage a link of the chain after the latter has been engaged about the rim of the wheel to which the skid is fitted.

1,082,450. CAR-DOOR. GEORGE H. SMITH, Reliance, S. D. Filed Mar. 26, 1912. Serial No. 686,264. (Cl. 20-32.)



1. The combination with a freight car having its door posts provided with guide-ways opening at their upper ends into the car to provide entrances thereto, a track inclined upwardly from the entrances of said guide-ways, a door body slidably mounted in the guide-ways and adapted to be moved therefrom onto the tracks, means mounting the track so that said track and the door body may be swung into a horizontal position, and means adapted to secure the track and door body in a horizontal position.

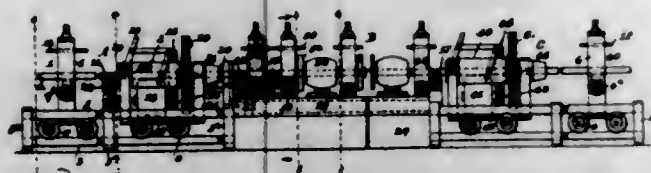
2. The combination with a freight car having its door posts provided with guide-ways opening at their upper

ends into the car to provide entrances thereto, a track inclined upwardly from the entrances of said guide-ways, a door body slidably mounted in the guide-ways and adapted to be moved therefrom onto the track, means for pivotally and slidably mounting the track so that the latter and the door body may be swung into a horizontal position, and means adapted to secure the track and door body in a horizontal position.

3. The combination with a freight car having its door posts provided with guide-ways opening at their upper ends into the car to provide entrances thereto, a track having slots inclined upwardly and forwardly from the entrances of said guide-ways, a door body slidably mounted in the guide-ways and adapted to be moved therefrom onto the track, means passing through the slots of the track for pivotally and slidably mounting the track so that the latter and the door body may be swung into a horizontal position, and means adapted to secure the track and door body in a horizontal position.

4. The combination with a freight car having its door posts provided with guide-ways opening at their upper ends into the car to provide entrances thereto, a track inclined upwardly from the entrances of said guide-ways, a door body slidably mounted in the guide-ways, and adapted to be moved therefrom onto the track, means mounted on said door body for retaining said door body in engagement with the said track, means mounting the track so that the latter and the door body may be swung into a horizontal position, and means adapted to secure the track and door body in a horizontal position.

1,082,451. MACHINE FOR GRINDING SHAFTING. HARRY W. SNYDER, Ford City, Pa. Filed Mar. 23, 1912. Serial No. 685,884. (Cl. 51-4.)



1. A machine for grinding and finishing rough shafting comprising a traveling head for clamping the shafting thereto to rotate the same, a feeding mechanism in front of said head for propelling the same and shafting, means in the rear of said head for grinding and finishing said shafting, and means beyond said first named means for receiving said shafting.

2. A machine for grinding and finishing rough shafting comprising a traveling head for rotating the shafting, feeding mechanism in front of said head for propelling the same and shafting, means in the rear of said head for grinding and finishing said shafting, a traveling head beyond said means for receiving and rotating said shafting, and a discharging mechanism beyond said last named head for propelling said shafting.

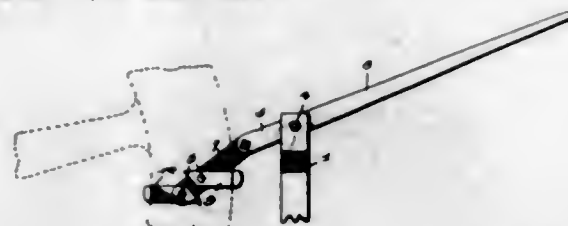
3. A machine for grinding and finishing rough shafting comprising a traveling head for clamping the shafting thereto to rotate the same, a feeding mechanism in front of said head for propelling the same and shafting, means in the rear of said head for grinding and finishing said shafting, a traveling head beyond said means for receiving and rotating said shafting, and a discharging mechanism beyond said last named head for propelling said shafting.

4. A machine for grinding and finishing rough shafting comprising a traveling head for rotating the shafting, feeding mechanism in front of said head for propelling the same and shafting, means in the rear of said head for grinding and finishing said shafting, a power driven traveling head beyond said means for receiving and rotating said shafting, and a discharging mechanism beyond said last named head for propelling said shafting.

5. A machine for grinding and finishing rough shafting comprising a power driven traveling head for rotating the shafting, a feeding mechanism in front of said head for propelling the same and shafting, means in the rear of

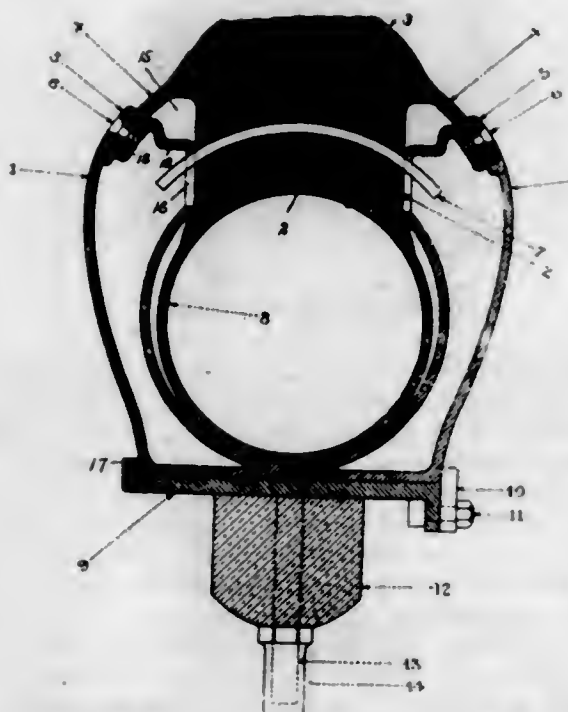
said head for grinding and finishing said shafting, a power driven traveling head beyond said means for receiving and rotating said shafting, and a discharging mechanism beyond said last named head for propelling said shafting. [Claim 6 not printed in the Gazette.]

1,082,452. FLY-WHEEL JACK. STEPHEN D. STACKHOUSE, Glenlyon, Pa. Filed Mar. 26, 1913. Serial No. 756,913. (Cl. 105-132.)



A device of the class described comprising a standard, an operating lever fulcrumed upon the upper extremity of said standard and having a short arm and a relatively long arm, a link pivoted at one end to the free extremity of said short arm and provided with pivot pins extending outwardly from one face thereof and spaced apart, and jaws mounted upon said pivot pins and having the front edges thereof beveled and the opposite ends extended outwardly to form gripping fingers.

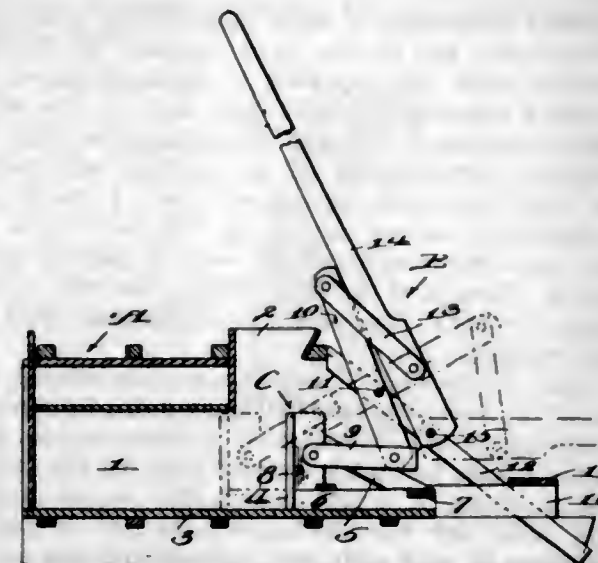
1,082,453. RESILIENT TIRE. CHARLES F. STROHM, Carthage, Mo. Filed Oct. 21, 1911. Serial No. 655,966. (Cl. 152-10.)



1. The combination with a wheel rim, of a cushion tire therefor, an inflatable pneumatic tube interposed between the tire and the rim, upon which the former rests, retaining flanges for holding in place the pneumatic tube and the cushion tire, and yielding, resilient bars embedded in the body of the cushion tire and extending beyond the edges thereof and arranged to engage with the retaining flanges when the pneumatic tube is under unusual compression and support it independently of the pneumatic tube.

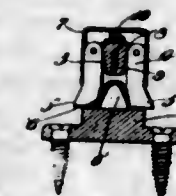
2. The combination with a wheel rim, of a cushion tire therefor, having a tread and a body back of the tread, a resilient support for the tire interposed between it and the wheel rim, retaining flanges for holding in place upon the wheel the said tire and resilient support, the flanges being formed with faces between which the body of the tire is supported and free to move radially, there being formed slots in the said faces of the flanges and arched spring bars seated in the body of the tire and having their ends lying in the said slots formed in the retaining flanges, substantially as and for the purposes set forth.

1,082,454. LEVER MECHANISM FOR BALING-PRESSES. GEORGE B. SWAN, Cross Plains, Tex. Filed Jan. 16, 1913. Serial No. 742,503. (Cl. 100-4.)



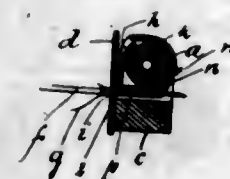
In a press, the combination, with a press chamber and a plunger working therein; of a lever mechanism for operating the plunger comprising a main lever fulcrumed at its lower end in the press frame, a secondary lever fulcrumed intermediate its ends in said frame in close proximity to the fulcrum of the main lever, a short link connection between the lower portion of the main lever and the upper end of the secondary lever, and a short link connection between the lower end of said secondary lever and said plunger.

1,082,455. CURTAIN-FASTENER. JOHN WALKER TILTON, Atlantic City, N. J. Filed Nov. 26, 1912. Serial No. 733,665. (Cl. 24-211.)



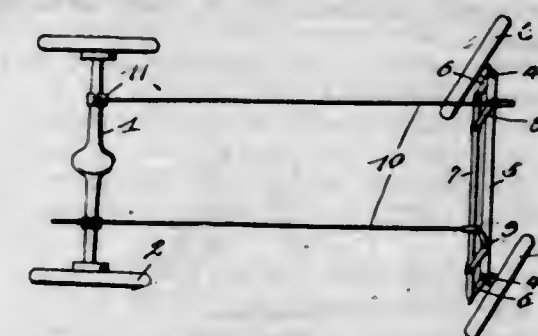
As an article of manufacture, a curtain-fastener, comprising a base plate adapted to be attached to a fixed object, said base-plate being provided with an integral stud having oppositely-disposed longitudinal slots, spring-pressed latches pivoted in said slots, a tubular cap slidable upon the stud and adapted to force said latches within their slots, a spring for holding said cap normally out of engagement with the latches and means consisting of a pin passing through a slot in the stud, for holding the cap in operative position and limiting its movement.

1,082,456. SHUTTLE EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany. Filed June 17, 1912. Serial No. 704,106. (Cl. 112-7.)



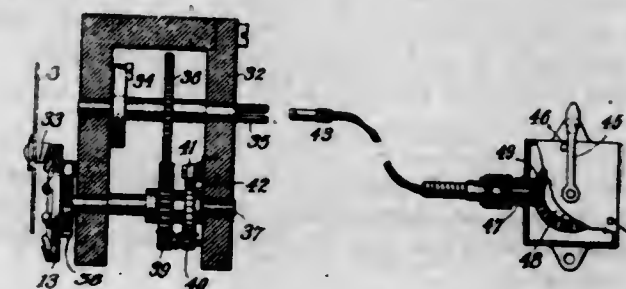
In embroidering machines, the combination with a bed or raceway, the stitch plate, and a stitching needle adapted to reciprocate through said stitch plate and below the raceway, of a shuttle having a curved rear surface, a flat solid bottom bearing on said raceway or bed and its filling opening arranged at the side directed toward the stitch plate, said solid bottom forming with the curved surface a blunt edge located below the body of the shuttle.

1,082,457. SELF-PROPELLED VEHICLE. FABRICIO DE ALBA B, Panama, Panama. Filed Sept. 6, 1912. Serial No. 718,894. Renewed Nov. 7, 1913. Serial No. 799,800. (Cl. 21-90.)



The combination with a vehicle, embodying rear ground wheels having independent brakes and front steering wheels, a frame bar to which the front and steering wheels are connected, rearwardly projecting arms movable with said wheels to the right and to the left, a link bar pivotally connected to said arms, bell cranks fulcrumed on the frame bar and having their rear arms pivotally connected to the link bar, and brake actuating rods pivotally connected to the other arm of the bell cranks and to the brakes, as and for the purpose set forth.

1,082,458. ALARM DEVICE. EMANUEL AUFIERO, Brooklyn, N. Y. Filed June 12, 1912. Serial No. 703,232. (Cl. 116-1.)



1. A signal-device, comprising a diaphragm and means for vibrating the same, a reciprocating member actuated by the operator, a flexible-shafting reciprocally rotated by said member, and a power-transmitting spring interposed between said shaft and said vibrating-means.

2. A signal-device, comprising the combination of an acoustic diaphragm, mechanism actuated by the operator, a spring adapted to be put under tension by said mechanism, a cam adapted to be rotated by said spring as soon as the tension of the latter exceeds the resistance of said diaphragm, said diaphragm being actuated as aforesaid by the operator through said spring and cam and acting as the sole escapement for the spring.

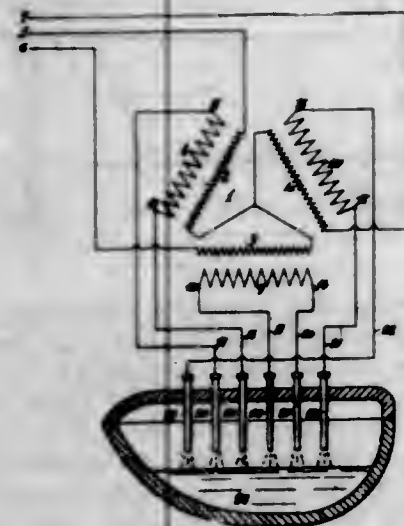
3. A signal-device, comprising reciprocating mechanism actuated by the operator, means for translating the movement thereof into intermittent rotary motion in one direction only, a spring adapted to be wound by said rotary motion, a cam driven by said spring, and an acoustic diaphragm vibrated by said cam and acting as the sole escapement therefor.

1,082,459. ELECTRIC FURNACE. JAMES BURKE, Erie, Pa., assignor to Burke Electric Company, a Corporation of Pennsylvania. Filed Dec. 10, 1910. Serial No. 596,732. (Cl. 204-64.)

1. The combination of a polyphase transforming device having secondary coils unconnected with one another, conductors running from the terminals of said secondary coils and an electric furnace having electrodes connected to said conductors.

2. The combination of a three-phase transforming device, the secondary coils of which are unconnected with one another, conductors connected to the terminals of said secondary coils, and an electric furnace having electrodes connected to said conductors.

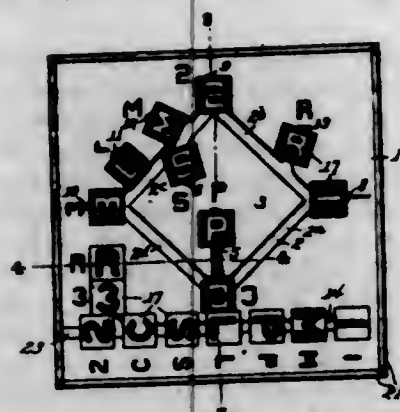
3. The method of energizing a furnace with polyphase electric currents, comprising transforming alternating current to produce a plurality of secondary alternating currents of different phases, and leading said phases of alternating current independently to pairs of electrodes of said furnace.



4. The method of supplying a furnace with polyphase electrical energy, comprising producing a plurality of alternating currents of different phase relation, and leading said alternating currents independently to pairs of electrodes of said furnace.

5. In combination with an electric arc furnace, a poly-phase transforming device having secondary coils unconnected with one another, and electrodes disposed in said furnace in arcing relation with the charge and connected to the terminals of said unconnected secondary coils.
[Claims 6 to 9 not printed in the Gazette.]

1,082,460. PUZZLE. WILLIAM M. BUSHFIELD, Toronto, Ohio, assignor of three-fourths to Howard H. Smith, Toronto, Ohio. Filed Aug. 30, 1911. Serial No. 646,871. (Cl. 46—41.)



1. A puzzle comprising a plate having a diamond-shaped slot therein, a plurality of branch slots leading from the first mentioned slot to the positions of the men of a base-ball team in the field, a bench slot having communication with the first mentioned slots, and two distinguishable sets of playing pieces mounted to travel in said slots, each piece bearing a suitable designating character.

2. A puzzle comprising a plate having a diamond-shaped slot therein, means supporting the portion of said plate inclosed by said slot, a plurality of branch slots communicating with said diamond-shaped slot and leading to the several field positions of the men of a base-ball team, a bench slot having communication with one of said slots, and two distinguishable sets of playing pieces representing opposing teams, each piece bearing a suitable designating character.

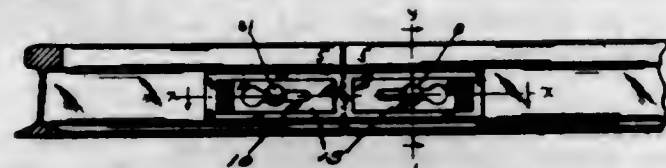
3. A puzzle comprising a plate representing a base-ball field and whereon the several field positions of the men of a base-ball team are indicated, a diamond-shaped slot representing a base-running path, base slots at the angles of the diamond-shaped slot and communicating with the latter, branch slots leading to the outfield and battery positions from the diamond-shaped slot, a bench slot, and

two distinguishable sets of playing pieces representing the men of opposing teams, the men of each team being severally designated to correspond with said indicated field positions.

4. A puzzle comprising a plate representing a base-ball field and whereon the several field positions of the men of a base-ball team are indicated, a diamond-shaped slot representing a base-running path, base slots at the angles of the diamond-shaped slot and communicating with the latter, branch slots leading to the outfield and battery positions from the diamond shaped slot, a bench slot wherein positions for the men of an "at bat" team are indicated, and two distinguishable sets of playing pieces representing the men of opposing teams, the men of each team being severally designated to correspond with the indicated positions.

5. A puzzle comprising a plate having the several field positions of the men of a base-ball team indicated thereon, a diamond-shaped slot constituting a base-running path, a plurality of slots leading from said path to the various indicated positions, a bench slot having communication with said path, and two distinguishable sets of playing pieces movable in said slots and representing the men of opposing teams, the men of each team being severally designated to correspond with the indicated field positions.
[Claims 6 to 9 not printed in the Gazette.]

1,082,461. LOCKING CLAMP-BOLT. EVAN O. EDWARDS, Chehalis, Wash. Filed Mar. 10, 1913. Serial No. 753,202. (Cl. 239—11.)



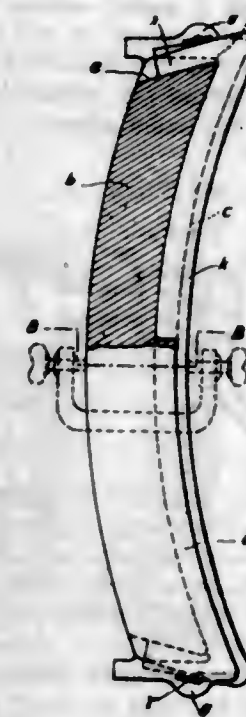
1. In a rail-joint of the class described, the combination with a pair of fish-plates each fish-plate of which pair is provided with a plurality of oblong bolt-holes that are each enlarged in one portion to permit the passage of a bolt-head through such enlarged portion, and each of which fish-plates is adapted to be disposed against the webs of abutting end portions of rails, of a plurality of threadless double-headed bolts, and a pair of wedges each wedge of which is provided with an oblong hole enlarged in one portion and each of which is further provided with a serrated surface on one of its sides whereby said double-headed bolts may be disposed in association with said pair of fish-plates and said wedges to form a rail-joint.

2. In a rail joint of the class described, the combination with a pair of fish-plates, each fish plate of which pair is provided with bolt holes, of a plurality of double-headed bolts one head of each of which bolts is of a size to adapt it to pass through any of said bolt holes in said fish-plates and a plurality of pairs of wedges, one wedge of each pair of which is provided with an oblong hole that is enlarged in one of its portions to permit the smaller head of one of said bolts to pass through such enlarged portion of said hole, the engaging surface of each wedge of each pair being serrated whereby when said surfaces of a pair of wedges are wedged together in their normal positions they may be interlocked to prevent an endwise movement of one wedge with respect to the other.

1,082,462. BRAKE-SHOE. WILLIAM GILMOUR, Montreal, Quebec, Canada. Filed Oct. 4, 1911. Serial No. 652,828. (Cl. 188—28.)

1. A brake-shoe comprising a carrier-member having a flange at one side, such member having beveled surfaces contiguous to the flange and beveled inwardly with respect to the ends and inwardly with respect to the inner face of the shoe and a liner consisting of a strap upon the said member and retained against lateral displacement in one direction by the said flange and against displacement in the opposite direction or complete displacement from the shoe by the beveled surfaces.

2. A brake-shoe comprising a carrier-member having each end formed with a pair of spaced faces each beveled in two directions, and such member having side flanges; and spaced liners consisting of straps clasping the said beveled faces.

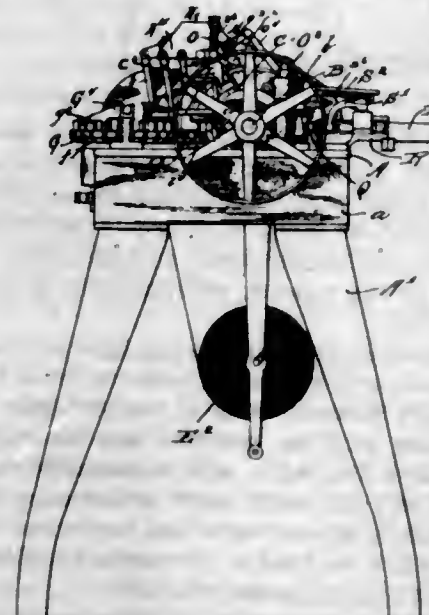


3. A brake-shoe comprising a carrier-member having each end formed with a pair of spaced faces each beveled in two directions, and such member having side flanges; and spaced liners consisting of straps with relatively thin ends clasping the said beveled faces.

4. A brake-shoe comprising a carrier member having each end formed with a pair of spaced faces each beveled in two directions, and such member having side flanges; and a pair of spaced liners consisting of manganese-steel straps with relatively thin ends clasping the said beveled faces.

5. A brake-shoe comprising a carrier-member having each end formed with a pair of spaced faces each beveled in two directions, and such member having side flanges; a pair of spaced liners consisting of manganese-steel straps with relatively thin ends clasping the said beveled faces, perforated lugs projecting from the flanges; and retaining devices carried by the said lugs.

1,082,463. WRAPPING-MACHINE. ARCHIBALD E. HOPKINS and OLIN S. FELLOWS, Middletown, N. Y., assignors to Ideal Wrapping Machine Company, a Corporation of New York. Filed Sept. 3, 1907. Serial No. 391,086. (Cl. 93—7.)



1. In a machine of the class described, the combination of a continuously rotating timing shaft of an intermittently rotating wrapping wheel driven therefrom, and hav-

ing pockets in its periphery, an automatically adjustable bottom for each pocket, means actuating said bottom to project beyond the periphery in ejecting and means retracting said bottom to the periphery after ejection.

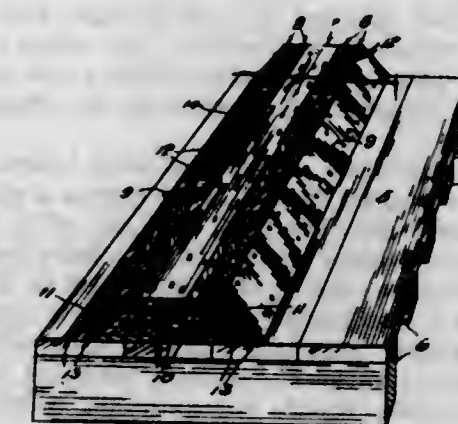
2. In a machine of the class described, the combination with a rotating wrapping wheel having pockets in its periphery of an automatically adjustable bottom in each pocket, means projecting said bottom beyond the periphery of the wheel to eject the contents from the pocket, a spring acting to retract the bottom and a friction sleeve adapted to stop the bottom approximately at the periphery of the wheel after the ejection.

3. In a machine of the class described, the combination with a timing shaft of a wrapping wheel having pockets in its periphery, a movable bottom in each pocket, friction means normally supporting said bottom approximately at the mouth of each pocket, a spring adapted to return the bottom to normal after being moved from said position in one direction and means operated from the timing shaft for varying the rate of motion of the wrapping wheel to successively accelerate from and retard the same to rest at loading position.

4. In a machine of the class described, the combination with a rotative timing shaft of an intermittently rotating wrapping wheel having pockets in its periphery, a movable bottom in each pocket, a weak spring engaged on each to normally retract the bottom to the mouth of the pocket after the discharge of its contents, and friction means for retaining the bottom at the mouth of the pocket.

5. In a machine of the class described, the combination with a wrapping wheel having one or more pockets in its periphery, of a movable bottom in each pocket, a light spring engaged beneath each bottom and adapted to move the bottom inwardly after discharging its contents, means pressing said bottom outwardly in discharging the contents of the pocket and means adapted to arrest the inward movement of the bottom in position for said bottom to approximately close the pocket.
[Claims 6 to 119 not printed in the Gazette.]

1,082,464. LOGGING-CAR BUNK. WILLARD HOUGHTON, Seattle, Wash., assignor of one-half to Pierre Barnes, Seattle, Wash. Filed Apr. 30, 1913. Serial No. 764,538. (Cl. 105—15.)



1. A car-bunk formed of a beam having sloping side surfaces comprised of a plurality of layers, and glaci pieces secured to the beam against the side surfaces and presenting sloping outer surfaces at opposite sides of the bunk.

2. In combination with a car-deck, of a bunk rigidly secured to said deck, said bunk being provided upon opposite sides with sloping surfaces disposed in upwardly converging planes.

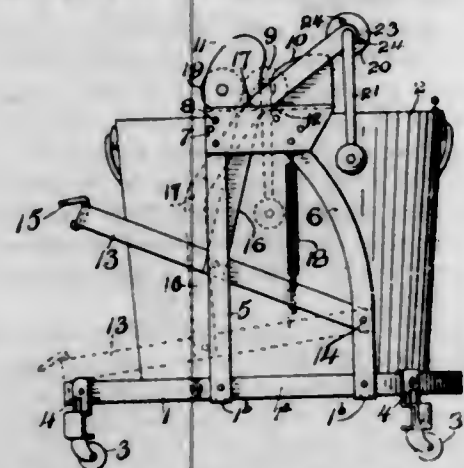
3. In combination with a car-deck, of a bunk comprising a beam extending transversely of the deck and rigidly secured thereto, and glaci pieces secured to the beam, and presenting sloping outer surfaces at opposite sides of the bunk.

4. In combination with a car-deck, of a bunk comprising a beam extending transversely of the deck and rigidly secured thereto, and glaci pieces secured both to the beam and said deck and presenting sloping outer surfaces at opposite sides of the bunk.

5. In combination with a car-deck, of a bunk comprising a centrally disposed beam having upwardly converging side faces, and glacia pieces juxtaposed with said side faces and having their upper ends beveled to correspond with the upper surface of the aforesaid beam.

[Claim 6 not printed in the Gazette.]

1,082,465. MOP-WRINGER. SIMEON C. LAWLOR, Chicago, Ill., assignor to Sarah A. Lawlor, Chicago, Ill. Filed Feb. 24, 1912. Serial No. 679,707. (Cl. 15-12.)



1. In a wringer, the combination with wringer rollers, a fixed support for one of the rollers, rigid arms rotatably sustaining the other roller, each of said arms being bent intermediate its ends in a direction causing the roller engaging portion of the arms to be disposed away from the fixedly supported roller, guides for the arms surrounding the same, and means for thrusting the arms longitudinally through the guides to an extent causing the bent portions to pass the guides, whereby the roller carried by said arms is adapted to be moved laterally away from the other roller during the movement imparted by the longitudinal thrust of the arms.

2. In a wringer, the combination of spaced supports, a roller journaled therein, each support being formed with a guiding slot adjacent the roller with a guiding cam surface leading to the slot, a pair of arms having their free ends movable past the slot, guiding means for the arms, a roller journaled in the free ends of said arms and having journals adapted to contact with and be guided by the cam surfaces into the slots, and means for reciprocating said arms longitudinally to carry the second-mentioned roller toward and away from the first-mentioned roller.

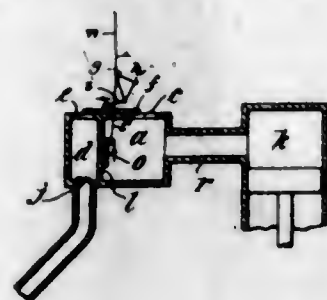
3. In a wringer, the combination with a base, of spaced side frames sustained thereby, each having a plate formed with an upstanding portion and an offset horizontal portion, the horizontal portion of each plate being formed with a longitudinal slot, a roller journaled in the upstanding portions of the plates, an arm movable longitudinally and substantially vertically through each slot, a roller journaled in the upper free ends of the arms, and a lever pivoted to the side frames and connected to said arms for actuating the same.

4. In a wringer, the combination of spaced side frames, each comprising spaced standards, and a connecting plate therefor, each connecting plate being formed with an upstanding portion and an offset horizontal portion and a portion pendent from the offset portion, the pendent portion being connected to the standards, and each connecting plate being formed with a longitudinal slot in its horizontal portion, a roller journaled in the upstanding portions of the plates, an arm movable through each slot, a roller journaled in the upper ends of the arms, and means for moving said arms longitudinally through the slots.

1,082,466. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. OWEN DAVID LUCAS, Bayswater, London, England. Filed June 3, 1913. Serial No. 771,471. (Cl. 48-155.1.)

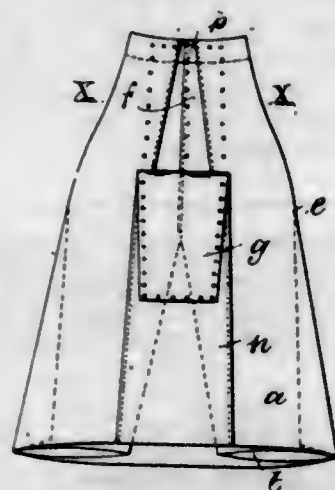
1. A carbureter, for internal combustion engines, provided with two separate chambers, one chamber having

means for free constant communication with the engine and also provided with an air port opening directly to the atmosphere, and the other chamber having an air port opening directly to the atmosphere and also having a fuel inlet in the lower portion thereof, said chambers being in direct communication through a small orifice located on substantially the level of the mouth of the jet, and said orifice and the air port of the first-named chamber being provided with throttling means for regulating their effective areas and movable in the same sense.



2. A carbureter, for internal combustion engines, provided with two separate chambers, one chamber having means for free constant communication with the engine and also provided with an air port opening directly to the atmosphere, and the other chamber having an air port opening directly to the atmosphere and also having a fuel inlet in the lower portion thereof, said chambers being in direct communication through a small orifice located on substantially the level of the mouth of the jet, and said orifice and the air port of the first-named chamber being provided with throttling means for regulating their effective areas and movable in the same sense, the air port of the second-named chamber being also provided with throttling means movable in the opposite sense to the movements of the first-named throttling means.

1,082,467. SKIRT. MAUDE MCCALLUM, London, England, assignor to Metcalfe Baldock & Company, London, England. Filed Sept. 16, 1912. Serial No. 720,710. (Cl. 2-137.)



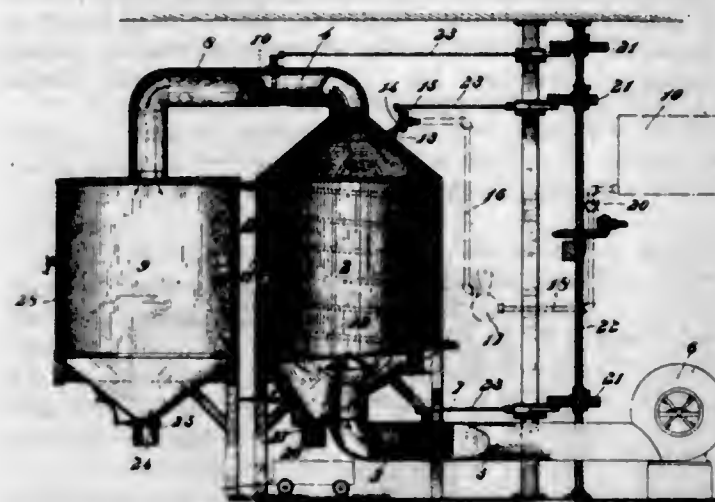
1. A skirt having internal leg portions sewn to the sides of the skirt, and accommodating portions in the sides of the skirt to which said leg portions are secured, said accommodating portions being disposed in permanent plaits and expanding and contracting automatically according to the posture of the wearer, substantially as and for the purpose set forth.

2. A tube skirt or the like having internal leg portions which are narrow and fit the leg and are sewn to the skirt at opposite sides thereof along a vertical line, said skirt closely encircling said leg portions and having accommodating portions in its sides, said accommodating portions being disposed in permanent plaits which expand and contract automatically according to the posture of the wearer allowing the skirt to expand circumferentially, substantially as and for the purpose set forth.

3. A skirt having internal leg portions sewn to the skirt at opposite sides thereof, and accommodating portions which expand and contract automatically according to the posture of the wearer, said portions comprising two permanent plaits in the skirt on each side adjacent to said

leg portions, the plaits on each side having outer seams meeting at a point below the hips and having inner seams terminating on each side of said point in spaced relation thereto, substantially as and for the purpose hereinbefore set forth.

1,082,468. APPARATUS FOR DESICCATING. LEWIS C. MERRELL, Syracuse, N. Y., assignor to Merrell-Soule Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 29, 1911. Serial No. 624,186. (Cl. 99-2.)



1. In a desiccating apparatus, a closed chamber for receiving a moisture-absorbent, means for introducing the moisture-absorbent therein, means for introducing to said chamber the liquid to be treated, and means for effecting a separation of the moisture-laden absorbent from the desiccated product.

2. In a desiccating apparatus, a chamber for receiving a moisture-absorbent, means for introducing a moisture-absorbent therein, means for confining the moisture-absorbent within the chamber, means for introducing to said chamber the liquid to be treated, and means for effecting a separation of the moisture-laden absorbent from the desiccated product.

3. In a desiccating apparatus, a chamber for receiving a moisture-absorbent, means for introducing the moisture-absorbent therein, means for confining the moisture-absorbent within the chamber, a spraying device for introducing the liquid to be treated into said chamber in a finely-divided condition, and means for effecting a separation of the moisture-laden absorbent from the desiccated product.

4. In a desiccating apparatus, a chamber for receiving a moisture-absorbent, inlet and outlet conduits for said chamber whereby to introduce and discharge the moisture-absorbent to and from said chamber, means associated with said conduits for confining the moisture-absorbent within the chamber, means for introducing to said chamber the liquid to be treated, and means also associated with the outlet conduit for effecting a separation of the moisture-laden absorbent from the desiccated product.

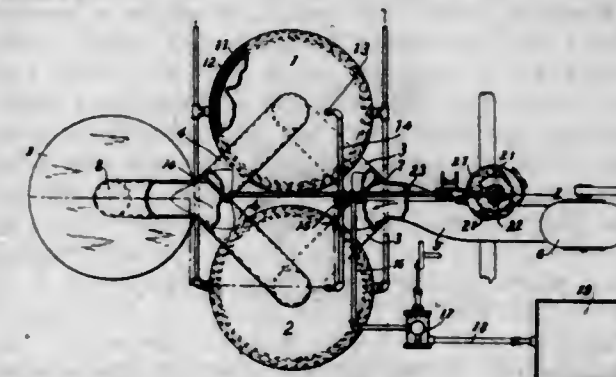
5. In a desiccating apparatus, a plurality of chambers for receiving a moisture-absorbent, means for introducing the moisture-absorbent to said chambers in regular succession, means also associated with said chambers for introducing to the latter the liquid to be treated, and means for discharging the moisture-laden agent from said chambers in regular succession.

[Claims 6 to 8 not printed in the Gazette.]

1,082,469. PROCESS FOR DESICCATING. LEWIS C. MERRELL, Syracuse, N. Y., assignor to Merrell-Soule Company, Syracuse, N. Y., a Corporation of New York. Original application filed Apr. 29, 1911, Serial No. 624,186. Divided and this application filed Apr. 23, 1912. Serial No. 692,659. (Cl. 99-5.)

1. The process of desiccating organic liquids containing solids, which consists in introducing the liquid in finely-divided condition into a zone wherein a moisture absorbent is present, stopping the flow of the liquid whereby to desiccate the solids, and then effecting a separation

of the moisture-laden absorbent from the desiccated product.



2. The process of desiccating organic liquids containing solids, which consists in confining a moisture absorbent in a closed chamber, bringing the liquid in a finely-divided condition into intimate contact with said moisture absorbent while so confined, stopping the flow of the liquid and confining the same within said chamber whereby to desiccate the solids, and then effecting a separation of the moisture-laden absorbent from the desiccated product.

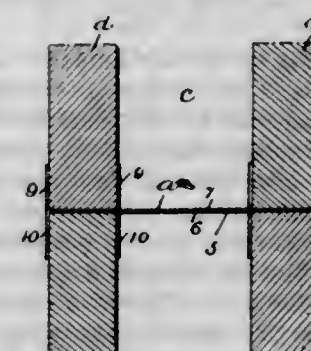
3. The process of desiccating organic liquids containing solids, which consists in confining a body of air within a chamber, heating the air to expand the same, introducing the liquid in finely-divided condition into said chamber to bring the same into intimate contact with the air confined therein, whereby to desiccate the solids, and then effecting a separation of the moisture-laden air from the desiccated product.

4. The process of desiccating organic liquids containing solids, which consists in confining a body of air within a closed chamber, spraying the liquid into the closed chamber to bring the same into intimate contact with the air contained therein, whereby to desiccate the solids, and then effecting a separation of the moisture-laden air from the desiccated product.

5. The process of desiccating organic liquids containing solids, which consists in spraying the liquid into a closed chamber containing moisture-absorbing air to desiccate the solids, discharging the moisture-laden air into a dust collector after the spraying has ceased, and then separating the moisture-laden air from the desiccated product.

[Claims 6 to 10 not printed in the Gazette.]

1,082,470. TIE. WILLIAM L. PHELAN, New York, N. Y. Filed Apr. 22, 1913. Serial No. 762,903. (Cl. 72-103.)



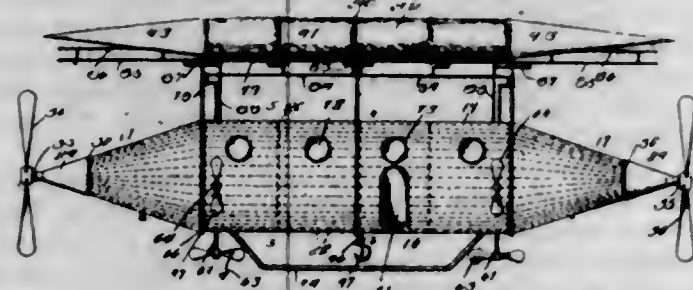
A wall tie comprising a metallic sheet which is initially oblong in plan, said sheet having at the opposite sides of its ends pockets formed by incising the ends of the sheet longitudinally and bending the material at the edges of the incisions alternately in opposite directions thereby providing end walls for the pockets, the inner walls of the pockets being formed by angular incisions made at the edges of the sheet and in the intermediate portions thereof, the inner ends of the incisions at the edges of the sheet being oppositely disposed to the end portions of the incisions in the intermediate portions of the sheet and the material between the inner portion of the incisions at the side edges of the sheet being bent out beyond one side of the sheet and the material between the end portions of the intermediate incisions bent out beyond the opposite side of the sheet.

1,082,471. RAILWAY-TIE PLATE. ARVID SAARI, Duluth, Minn. Filed Aug. 1, 1913. Serial No. 782,504. (Cl. 238-2.)



In a device of the class described a rectangular shaped plate provided with apertures adapted to receive the ordinary spike and having projections formed on the bottom surface adapted to penetrate the surface of a cross-tie, said rectangular plate being also provided with a rectangular shaped aperture, a locking device provided with a base of a greater dimension than the aperture, and having a projection adapted to extend through the aperture in the plate, means for preventing accidental displacement of said locking device from said plate and means adapted to be inserted between the rear edge of the locking device and plate whereby the locking device is held in engagement with the edge of the rail flange, as and for the purpose set forth.

1,082,472. AIRSHIP. JOHN EDWIN ALLEN, Chicago, Ill. Filed Apr. 11, 1912. Serial No. 690,036. (Cl. 244-7.)



1. The combination with a car, of means for propelling and steering the car, U-shaped members secured to the car and having their free ends disposed above the car, rods connecting the U-shaped members, supporting planes attached to the intermediate of the said connecting rods, elevating planes attached to the end rods, rings attached to certain of the rods, and supporting means disposed within the rings.

2. The combination in an air ship of a car, said car comprising inner and outer spaced cylindrical casings, tapered casings connected to the ends of the cylindrical casings, supporting means disposed between the casings, U-shaped members attached to the car and extending thereabove, supporting means carried by the U-shaped members, planes supported by the intermediate portions of the supporting means, elevating planes attached to the supporting means at the ends of the car, gas bags secured to the supporting means, means for propelling the car and means for steering the same.

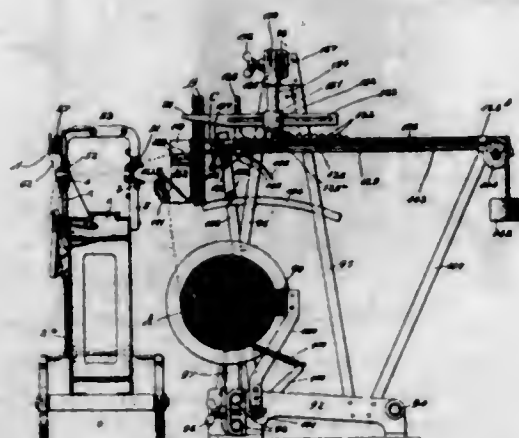
1,082,473. BRACELET-LINK. CHARLES J. CALLAHAN, Attleboro, Mass., assignor to C. H. Allen & Company, Attleboro, Mass., a firm composed of Charles H. Allen and William H. Lamb. Filed Feb. 24, 1913. Serial No. 750,067. (Cl. 59-80.)



A pair of bracelet links each formed with parallel shells, an end post integral with the shells at one end and lugs

integral with the opposite ends of the shells and provided with perforations, a clenching member comprising a body resting against the sides of said lugs and clamping fingers upon the body extending through the perforations and bearing against the sides of the lugs opposite the body, and an inner link in one integral element embracing the post of one of said links and slidable between the shells.

1,082,474. WARP-TYING APPARATUS. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed July 12, 1909. Serial No. 507,233. (Cl. 139-95.)



1. The combination of a frame for supporting two warps, and a machine for uniting said warps, said machine being movable as a whole past said warp-supporting frame, and comprising a bed, means for supporting a longitudinal section of said warps above the bed, a uniting mechanism having a traveling movement on said bed, said mechanism comprising a crank shaft for operating it and auxiliary thread-holding means on the side of said machine opposite to said frame, said thread-holding means being withdrawable out of the path of movement of the crank shaft.

2. In a machine for operating upon warp threads, in combination, means for supporting warp threads; operating mechanism; means for causing relative movement between said threads and said operating mechanism comprising a feed bar and means for engaging said feed bar; and means for preventing accidental movement between the warp and the operating mechanism comprising a spring-pressed dog arranged to bear against said feed bar.

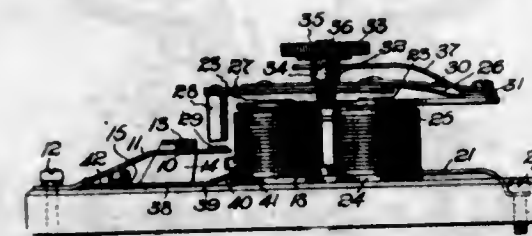
3. In a machine for operating upon warp threads, in combination, movable means for supporting warp threads; operating mechanism; means for causing relative movement between said warp-supporting means and said operating means, said moving means comprising a feed bar and means for engaging said feed bar; and means for yieldingly locking said warp-supporting means to said operating mechanism comprising a spring-pressed dog arranged to bear against said feed bar.

4. In a machine for operating upon warp threads, in combination, warp-supporting means; operative mechanism; means for causing relative movement between said warp-supporting means and said operating mechanism comprising a feed bar and a dog adapted to directly engage said feed bar, and means for withdrawing said dog from engagement with said feed bar.

5. In a machine for operating upon warp threads, in combination, warp-supporting means; operating mechanism; means for causing relative movement between said warp-supporting means and said operating mechanism comprising a feed bar and a dog adapted to engage said feed bar; a locking dog adapted to engage said feed bar; and means for withdrawing said dogs from engagement with said feed bar comprising a rod having means thereon for engaging said dogs, and means for longitudinally moving said rod.

[Claims 6 to 36 not printed in the Gazette.]

1,082,475. VIBRATOR. ISRAEL C. ORSWELL, Hyde Park, Mass., assignor to Orswell Igniter Company, Boston, Mass., a Corporation of Maine. Filed June 3, 1908. Serial No. 436,395. (Cl. 171-122.)



1. A vibrator having a magnet and a swinging armature; a fulcrum attachment for the armature having its main portion freely resilient; and means for compelling a fulcrum action of the attachment during the armature movement.

2. A vibrator having a magnet, an armature member, a support having a resilient body portion therefor, the latter being connected to a fixed part of the device, a contact carrying member adapted to be struck an impact blow by the opposite end of said armature, and means for preventing deformation of the body portion of said resilient connection between its fixed end and the armature.

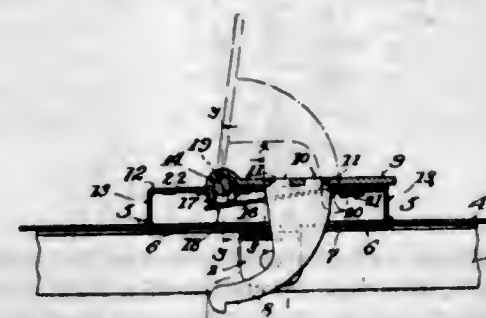
3. A vibrator having a magnet, a fixed support and armature member having an intermediate resilient support connecting it to the fixed support, a contact carrying member adapted to receive a hammer blow from the armature member and located on the opposite side of the magnet from the fixed support, and a relatively stiffer member attached to said armature and also having engagement with said fixed support.

4. A vibrator having an armature member, a magnet, a fixed support having a contact member engaged by said armature member on its attracted movement, a spring having one end attached to said support and the other to said armature member, and a relatively stiffer member having one end attached to the armature and the other in free engagement with said support.

5. A vibrator having the coil 18, the armature 27, the spring support 28 having one end fixed and the opposite end carrying the hammer member 28, the contact member 29, and the relatively stiff member 30 having one end attached to the spring and the opposite end free to move upon the fixed support.

[Claims 6 to 11 not printed in the Gazette.]

1,082,476. BAG-FASTENER. AUGUST PETRIE, West Allis, Wis., assignor to Milwaukee Stamping Company, West Allis, Wis. Filed Oct. 23, 1913. Serial No. 796,801. (Cl. 70-116.)

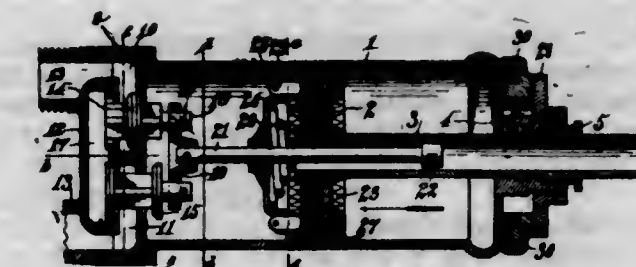


1. In a bag lock of the described class comprising a hinge plate, a vertical locking member affixed to said plate and a supporting box affixed to the over-lapping frame member of the bag;—a hinge pin secured to said hinge plate and having its respective ends terminating within the vertical walls of said supporting box, a vertical locking member secured to said hinge plate, a spring plate adapted to hold said hinge plate in its bearings in said supporting box, means for securing said spring plate to said supporting box against the retaining bearings of said hinge plate and means for securing said supporting box to the over-lapping frame member of the bag.

2. A bag lock of the described class comprising a supporting box affixed to the over-lapping member of a bag frame, a spring retaining lug formed integral with said box, a plate hinged to said supporting box, a locking member affixed to said hinge plate, a spring plate provided with a longitudinal slot for the reception of said locking member, a retaining lug, said lug being inserted through said slot and turned back against the under side of said spring plate, said lug being adapted to retain said spring plate in yielding contact with the retaining lugs of said hinged plate.

3. In a bag lock of the described class comprising a hinge plate, a vertical locking member affixed to said plate and a supporting box affixed to the over-lapping frame member of the bag, a hinge pin, a semi-circular bearing plate located beneath the respective ends of said hinge pin, a hinge plate secured to said pin and a locking member secured to said hinge plate, a spring plate secured to said supporting box and adapted to bear against one end of said hinge plate, means for securing said spring plate in contact with said box and means for securing said box to the over-lapping frame member of the bag.

1,082,477. WATER-MOTOR. ISIDOR YASSENOFF, Columbus, Ohio, assignor to The Coffield Motor Washer Co., Dayton, Ohio, a Corporation of Ohio. Filed Aug. 19, 1912. Serial No. 715,725. (Cl. 138-2.)



1. In a water motor, a cylinder having a head provided with inlet and exhaust chambers, a piston in said cylinder, a tubular piston rod attached to said piston and extending out of the cylinder, inlet and outlet valves in said chambers, a yoke connecting said valves, a cup slidingly mounted adjacent to said piston and adapted to engage the yoke and piston to unseat the valves when the piston is moving in one direction, a spring mounted between the cup and piston and adapted to be compressed before the unseating of the valves by the cup and to complete the movement of the valves, a rod attached to said yoke and extending through said cup and spring and into said tubular piston rod, said rod having a head on the end thereof lying within the hollow piston rod, and adapted when the piston is moving in the opposite direction to engage and compress said spring.

2. In a water motor, in combination, a cylinder having a head thereof, provided with inlet and outlet chambers, inlet and outlet valves mounted in said chambers, a yoke connecting said valves, a piston movable in said cylinder, a tubular rod extending through the axis of said piston to the exterior of the cylinder, a slidable rod telescoped in said tubular rod having one end enlarged and the other end connected to said yoke, a cup through which said slidable rod extends, said cup having a loose connection with one of the exterior sides of the piston, and a conical spring arranged between the cup and the piston and through the coils of which said slidable rod extends, the enlarged end of said slidable rod being adapted to engage the spring to operate the valves in the movement of the piston in one direction, and the cup being adapted to engage the yoke to operate the valves in the movement of the piston in the other direction, substantially as specified.

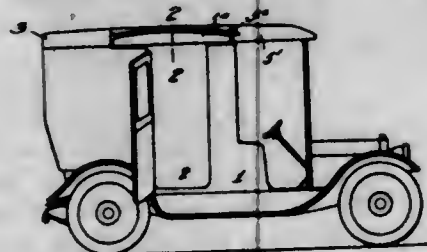
3. In a water motor, a cylinder, a boss extending from one head of said cylinder, a nut on said boss, a base member, and projections extending from said base member and lying between the nut and the cylinder head, said projections permitting the cylinder to be moved vertically and horizontally.

1,082,478. ROAD AND STREET SURFACING. JOSEPH HAY AMIES, Philadelphia, Pa., assignor to The Amies Asphalt Company, Philadelphia, Pa., a Corporation of South Dakota. Filed Mar. 7, 1913. Serial No. 752,586. (Cl. 94—1.)

1. The herein described method of treating the surface of a concrete, grout or mortar or like road or street which consists in first spreading over the surface thereof a mixture of heated hydrocarbon or carbonaceous oil, calcium oxid and hot water which mixture is applied while the calcium oxid is slaking and in a condition of active fomentation, then spreading thereover heated earthy or mineral materials and finally subjecting the same to compression to form a wearing surface.

2. The herein described method of treating the surface of a concrete, grout, mortar or like street or road which consists in first spreading over the surface thereof a mixture of hydrocarbon or carbonaceous oil, calcium oxid and hot water which mixture is applied while the calcium oxid is slaking and in a condition of active fomentation which slaking of the calcium oxid serves to take up the inherent moisture of the paving and causes the same to readily accept and permit the penetration of said oil, then spreading thereover heated earthy or mineral materials and finally subjecting the same to compression to form a wearing surface said compression causing said oil to ooze up into and through said earthy and mineral materials.

1,082,479. AUTOMOBILE RAIN-PROTECTOR. EDWARD J. ARMBRUSTER, Seattle, Wash., assignor of one-third to Ida M. Porter, Seattle, Wash. Filed Dec. 16, 1912. Serial No. 737,035. (Cl. 21—125.)



1. The combination with a closed vehicle, of rails provided therein and arranged transversely of the top, an awning having a frame slidably mounted upon said rails, a spring acting to protrude said awning, and means carried by said rails to engage said awning frame for releasably securing said awning within said top and in opposition to said spring.

2. The combination with a closed vehicle, of an awning movable transversely thereof and adjacent the cover, a support for the awning, a spring acting to protrude the awning from the side of the cover, manually controlled means disposed within said vehicle to move the awning in a contrary direction, and releasable devices for securing the awning when brought by the said means within the top.

3. The combination with a closed vehicle having a side door opening, of an awning frame disposed adjacent the top thereof, relatively stationary supporting track rails therefor, a relatively stationary tube, a rod extending into the tube and connected to said awning frame, and a spring provided within the tube and acting against said rod for effecting the movement of said frame with respect to said rails.

4. The combination with a closed vehicle having a side door opening, of an awning frame disposed adjacent the top thereof, relatively stationary supporting track rails therefor, a relatively stationary tube, a rod extending into the tube and connected to said awning frame, a spring provided within said tube and acting against said rod for effecting the movement of said frame with respect to said rails, and means provided on the rod and co-operating with means provided on the tube for limiting such spring-effected movement of the frame.

1,082,480. GOGGLES. L. D. CUTLER, Windsor Locks, Conn. Filed Aug. 2, 1912. Serial No. 712,860. (Cl. 88—41.)



1. A goggle mounting, comprising lens clips adapted to be attached to the lenses having forward extensions, a bridge having rearwardly extending lugs pivoted to the extensions of the lens clips, and springs interposed between the bridge and the said lens clips.

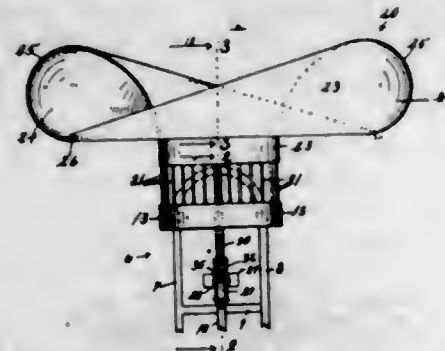
2. A goggle mounting, comprising lens clips adapted to be secured to the lenses and having a nose clip, a bridge pivotally connected with the said lens clips and having hollow ends, and springs in the said hollow bridge ends and bearing against the said lens clips.

3. A goggle mounting, comprising lens clips having flanges adapted to be secured to the lenses, pivots on the front of the lens clips, a bridge having hollow ends and rearwardly-extending lugs mounted on the said pivots, and coiled springs extending within the said hollow bridge ends and bearing on the said lens clips.

4. A goggle mounting, comprising lens clips having flanges adapted to be secured to the lenses, pivots on the front of the lens clips, a bridge having hollow ends and rearwardly-extending lugs mounted on the said pivots, coiled springs extending within the said hollow bridge ends and bearing on the said lens clips, and nose clips extending integrally from the said lens clips in a rearward direction.

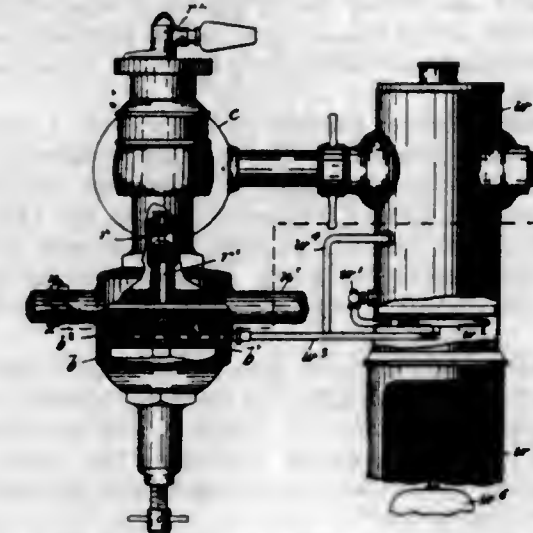
5. A goggle mounting, comprising lens clips having flanges adapted to be secured to the lenses, pivots on the front of the lens clips, a bridge having hollow ends and rearwardly-extending lugs mounted on the said pivots, and coiled springs extending within the said hollow bridge ends and bearing on the said lens clips, the lens clips having limiting stops adapted to abut against the bridge. [Claims 6 and 7 not printed in the Gazette.]

1,082,481. PROPELLING AND SUSTAINING MEANS FOR AERIAL NAVIGATION. MARTIN PEARSON, Los Angeles, Cal. Original application filed Feb. 19, 1913. Serial No. 749,549. Divided and this application filed June 9, 1913. Serial No. 772,706. (Cl. 170—169.)



In propelling and sustaining means for aerial navigation, a screw propeller consisting of a ring, a second ring arranged above and of greater diameter than the first ring, strips having the lower end portion arranged vertically and secured to the first ring and having the upper end portion thereof curved upwardly and extending outwardly and downwardly and secured to the outer ends thereof to the second ring, the strips in each half part of the screw propeller being successively of increased length as set forth, a covering of fabric affixed on the upper portion of the strips and forming the two elevating and sustaining surfaces 24 which slope downwardly and decrease in size from the front portion thereof to the rear portion thereof, the smaller rear portion of one of the surfaces 24 being adjacent to the larger forward portion of the other of the surfaces 24, substantially as described.

1,082,482. APPARATUS FOR HEATING NITROUS-OXID-ADMINISTERING APPLIANCES. CHARLES K. TETER and DAVID A. DAVIES, Cleveland, Ohio, assignors to The Teter Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 19, 1913. Serial No. 768,691. (Cl. 123—13.)



1. In apparatus of the class described, the combination with a container of a reagent under high pressure, of a regulating valve therefor, a conductive body integral with the valve, provided with passages, and means for directing the flow of a heating medium through the said passages, substantially as set forth.

2. In apparatus of the class described, the combination with a container of a liquefied reagent under high pressure, of a regulating valve therefor, including a body of metal bored with passages adjacent to the valve parts, and means for directing the flow of a heating medium through said passages, substantially as set forth.

3. In apparatus for controlling liquefied nitrous oxid and the like, the combination with a container for the reagent, of a reducing valve for regulating the releasing pressure, a heating member conductively associated with the valve parts, and provided with closed passages, and a fluid heating device connected with said passages, and adapted to direct a heated medium therethrough, substantially as set forth.

4. The combination with apparatus for administering nitrous oxid or other liquefied anesthetic, including a regulating valve for controlling the initial flow of gas of a vapor-warmer, a heating element associated with the valve, and pipes connecting the same with the vapor-warmer, whereby a fluid heating medium may be directed through said element, substantially as set forth.

5. The combination with a valve for controlling the initial flow of nitrous oxid or other liquefied reagent, of a heating element having circulatory passages and conductively associated with the valve, a vapor-warmer and a coil connected with the vapor-warmer and said passages, whereby a fluid heating medium may be circulated through said element to heat the valve, substantially as set forth. [Claims 6 and 7 not printed in the Gazette.]

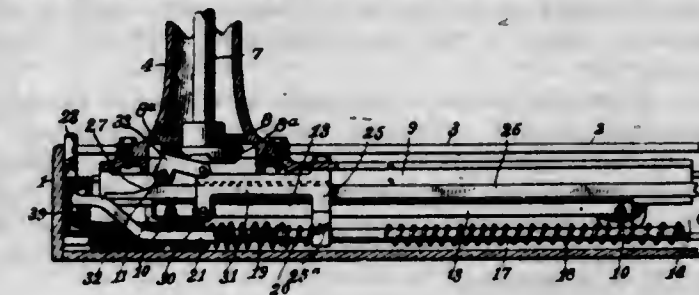
REISSUES.

13,659. DESIGN FOR AN INKSTAND. FRANK M. ASHLEY, Brooklyn, N. Y. Filed Jan. 14, 1913. Serial No. 742,086. Term of patent 14 years. Original No. 37,504, dated Aug. 8, 1905, Serial No. 262,949, for 14 years.



An ornamental design for an ink stand, consisting of a low, broad, flat base surmounted by a low dome and a funnel shaped dip cup located within the dome, substantially as shown and described.

13,660. MOVABLE GARMENT-SUPPORT. LEON G. DODGE, St. Louis, Mo., and WILLIAM F. FREEMAN and ANTHONY VANDERVELD, Grand Rapids, Mich., assignors to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed July 11, 1910. Serial No. 571,524. Original No. 941,502, dated Nov. 30, 1909, Serial No. 505,815. (Cl. 211—16.)



1. A display device, comprising a case or compartment, a rotatable member carrying means for supporting goods, a support for said rotatable member movable toward the front of the case and back again to rearward position, means for automatically locking said rotatable member during the movement of the support and releasing the same when in its forward position, and a spring to move the support rearward and relock the said member.

2. A display device, comprising a case or compartment, a rotatable member carrying means for supporting goods, a support for said rotatable member movable toward the front of the case and back again to rearward position, a head on said member provided with a recess, a latch on said support to engage the recess, a bar traversed by the latch and having an incline near the front end to release the latch from the recess and to reengage the latch with the same, and a spring to move the support rearward to automatically reengage the latch.

3. A display device, comprising a case or compartment, a rotatable member carrying means for supporting goods, a support for said member movable toward the front of the case and back again to rearward position, means for locking said support operative when the support is in forward position by rotating the said member and operated to lock the said rotatable member by rearward movement of the said support.

4. A display device, comprising a case or compartment, a rotatable member carrying means for supporting goods, a support for said member movable toward the front of the case and back again to rearward position, a head fixed on said rotatable member and having a recess, a latch to engage the recess, and means for engaging and disengaging the latch operated by movement of the support.

5. A display device, comprising a case or compartment, a rotatable member carrying means for supporting goods, a support for said member movable toward the front of the case and back again to rearward position, a head fixed on said rotatable member and having a recess, a latch to engage the recess, and a bar traversed by the latch and adapted to engage the latch with the recess whenever the support is moved back from the forward position.

6. A display device, comprising a movable support, a rotatable member mounted on the said support and adapted to carry goods, a head fixed on said member and provided with a recess, a latch on the support, a bar traversed by the latch and holding the same within the recess, and also having a reduced portion to receive the latch to release the rotatable member and lock the support.

7. A display device, comprising a case or compartment, a rotatable member carrying a device for supporting goods, a support for said member movable toward the front of the case or compartment, a head on said rotatable member provided with a downwardly projecting flange, a latch on the carriage, a bar traversed by the latch and having a reduced portion and an incline adjacent thereto, the flange traversing the latch and holding the same down opposite the said reduced portion to lock the support when the rotatable member is turned, and the bar raising the latch into the recess and locking said rotatable member when the support is moved.

8. A display device, comprising a movable column, a rotatable garment support carried by the column, a recessed

head rigidly connected to said support and rotatable therewith, a latch to engage the recess of the head, and means to engage and disengage the latch operated by movement of the column.

9. A display device, comprising a hollow column, a garment supporting member rotatably mounted on the column, a shaft fixed in the said member and rotatable in the column, a recessed head fixed on the shaft, and a latch to engage the recess in the head and hold the same from turning.

10. A display device, comprising a rotatable garment supporting member, a column supporting said member, a carriage on which the column is mounted, a shaft attached to said member and rotatable in the column, a head fixed on the shaft and having recesses, and a latch mounted on the carriage and engaging the recesses to hold the said member from turning.

11. A display device, comprising a column, a spider rotatable on the column, parallel bars spaced apart and supported by the spider, a shaft fixed in the spider and rotatable in the column, a head having recesses at opposite sides and fixed on the shaft, and a latch to alternately engage the recesses, whereby the bars may be reversed and held in each position.

12. A display device, comprising a column, a spider rotatable on the column, parallel bars supported by the spider and spaced apart, a ball bearing between the column and the spider, a shaft fixed in the spider and rotatable in the axis of the column, a bushing in the column, a collar on the shaft and below the bushing, a ball bearing between the collar and bushing, and releasable means for holding the spider at intervals from turning on the column.

13. A display device, comprising a carriage, a column mounted on the carriage, a rotatable garment support mounted on the column, a head connected to the support and rotatable therewith and also having recesses, a latch pivoted on the carriage and adapted to engage the recesses and hold the garment support from turning, and a bar traversed by the latch and holding the latch in engagement with a recess in the head, said bar also having a reduced portion to release the latch from the recess.

14. A display device, comprising a carriage, a rotatable garment supporting member mounted on the carriage, a head rigidly attached to the said member and having recesses, a slide on the carriage, a bar extending beneath the carriage and traversed by the slide, a latch pivoted on the slide and engaging the recesses in the head, a roller in the latch traversing the bar, said bar having a reduced upper portion, and an incline engaged by the roller to release and reengage the latch.

15. A display device, comprising a carriage, a hollow column mounted on the carriage, a rotatable garment supporting member mounted on the column, a shaft fixed in said member and rotatable in the column, a head fixed on the shaft and having a downwardly projecting flange provided with recesses, a latch pivoted on the carriage and engaging the flange and recesses, a bar supporting the latch and traversed thereby when engaged with the recesses, said bar also having a reduced portion, and an incline whereby the latch is released from the recesses and the carriage held from moving when the latch engages the flange.

16. A display device, comprising a carriage, a rotatable garment supporting member mounted on the carriage, a head rigidly connected to the said member and rotatable therewith and also having recesses to receive a latch, a slide on the carriage, a bar beneath the carriage and traversed by the slide, said bar having a reduced upper portion and an incline at one end, a roller journaled in the slide traversing the under side of the bar and supporting the same, a latch pivoted on the slide and engaging the head and recesses therein, and a roller supporting the latch and traversing the upper side of the bar and the incline thereof.

17. A display device, comprising a carriage, a garment support mounted thereon, rotatable axes supporting the carriage and having rolling contact therewith, wheels fixed on the axes, tracks traversed by the wheels, and

rollers journaled on the carriage and engaging the tracks to hold the carriage from tilting.

18. A display device, comprising a carriage, a garment supporting member mounted thereon, rotatable axes supporting the carriage and having rolling contact therewith, wheels fixed on the respective ends of the axes, channel bar tracks embracing the wheels and supporting the same upon their lower flanges, and rollers journaled on the carriage and engaging the under side of the upper flanges of the tracks.

19. A display device, comprising a carriage, a garment supporting device mounted on the carriage, rotatable axes having rolling contact with the carriage and supporting the same, a frame having recesses in which the axes are rotative and spaced apart in parallel lines, wheels fixed on the respective ends of the axes, tracks traversed by the wheels, and means for holding the carriage down upon the axes.

20. A display device, comprising a carriage, a garment supporting device mounted on the carriage, parallel tracks at the respective sides of the carriage and mounted on three points of support, wheels traversing the tracks, and a case inclosing the tracks, the carriage, and the said garment supporting device.

21. A display device, comprising a carriage, a garment supporting device mounted on the carriage, wheels supporting the carriage, tracks traversed by the wheels, a rod extending beneath the carriage and parallel with the tracks, an arm on the carriage traversing the rod, a spring on the rod engaging the arm to propel the carriage, and a buffer spring on the rod to engage the arm and stop the carriage.

22. A display device, comprising a carriage, a garment supporting device mounted on the carriage, tracks traversed by the carriage, a rod parallel with the tracks, an arm on the carriage traversing the rod, a spring on the rod and engaging the arm to propel the carriage, and a latch bar to engage the arm and hold the carriage with the spring under tension.

23. A display device, comprising a carriage, a garment supporting device rotatably mounted on the carriage, tracks supporting the carriage, a rod beneath the carriage and parallel with the tracks, an arm on the carriage traversing the rod, a spring on the rod engaging the arm to propel the carriage, a latch bar to engage the arm and hold the carriage against the spring, a latch to hold the garment supporting device from turning, a bar to support the latch and having a reduced end and an incline to release and reengage the latch, and a buffer spring on the rod to engage the arm and move the carriage to automatically reengage the latch.

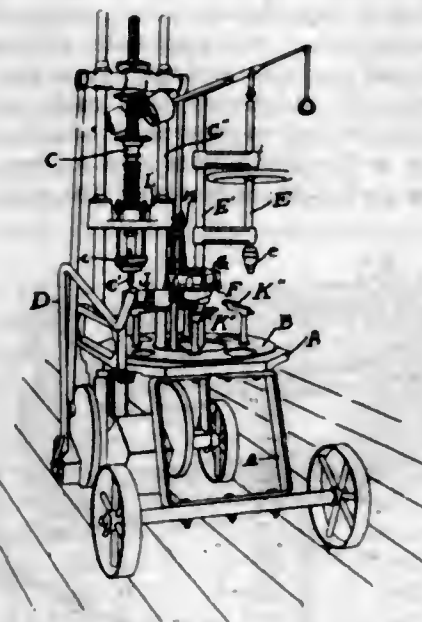
24. A display device, comprising a carriage, a rotatable garment supporting device mounted on the carriage and having a head fixedly attached thereto and provided with a recessed flange, a latch mounted on the carriage to engage the flange and recesses, a bar and a rod extending parallel with the movement of the carriage, the bar having a reduced upper side and an incline at one end, a roller on the latch traversing the upper side of the bar to operate the latch, a spring on the rod to propel the carriage, a buffer spring on the rod oppositely acting to the propelling spring, and a latch bar to hold the carriage with the propelling spring compressed.

13,661. SCREW-PRESS TO FORM INSULATORS.
RALPH G. HEMINGRAY and CHARLES HAWK, Muncie, Ind., assignors to Hemingray Glass Company, Muncie, Ind., a Corporation of Kentucky. Filed Apr. 19, 1913. Serial No. 762,418. Original No. 909,595, dated Jan. 12, 1909, Serial No. 387,922. (Cl. 49-36.)

1. In a machine of the class described, a support adjacent the plunger, an arm adapted to oscillate between such support and said plunger, and mechanism operated by said plunger adapted to trip said support, and to oscillate said arm.

2. In a machine of the class described, a supporting member located adjacent the plunger and a delivering member adapted to receive a screw from the supporting

member and deliver it to the plunger at each operation of the same.



3. In a machine of the class described, in combination with the plunger, a support for a series of screws adjacent the plunger, and automatic mechanism adapted to receive one of the screws from said support and deliver it to the plunger at each operation of the same.

4. In a machine of the class described, in combination with the plunger, a supporting member adapted to release the screws in succession, one at a time, and a delivery member moving between said supporting member and said plunger, adapted to receive and deliver to the plunger a fresh screw at each operation of said plunger.

5. In a machine of the class described, in combination with the plunger, a supporting member adapted to release the screws in succession, one at a time, a delivery member moving between said supporting member and said plunger, adapted to receive and deliver to the plunger a fresh screw at each operation of said plunger, and mechanism to produce the automatic movement of the parts.

6. In a machine of the class described, in combination with the plunger, a supporting member adapted to release the screws in succession, a delivery member moving between the supporting member and the plunger adapted to receive a screw and deliver it to the plunger at each operation of the same, and mechanism to produce the cooperative movement of the parts.

7. In a machine of the class described, in combination with the plunger, a supporting member adapted to release the screws in succession, a delivery member moving between the supporting member and the plunger, a trigger on said delivery member to catch and support a screw and movable to push the screw into place in the plunger, and mechanism to produce the cooperative movement of the parts at each operation of the plunger.

8. In a machine of the class described, in combination with the plunger, a supporting member comprising a fixed plate having a delivery opening, and a rotatable disk provided with holes to receive the screws, said holes passing in succession over said delivery opening, a delivery member moving between said plunger and said supporting member, adapted to receive and deliver a screw to the plunger at each operation of the same, and mechanism to produce the cooperative movement of the parts.

9. In a machine of the class described, in combination with the plunger, a fixed plate having a delivery opening, an intermittently rotating ring, located on said plate, provided with holes, one of said holes being brought above the delivery opening at each operation, an intermittently oscillating arm moving between said plunger and the delivery opening in said fixed plate, a supporting trigger connected to said oscillating arm, said trigger being movable in line with the axis of the plunger, and mechanism to produce the cooperative movement of the parts.

10. In a machine of the class described, in combination with the plunger and the rotatable table, a fixed plate hav-

ing a delivery opening, an intermittently rotating ring located on said plate, provided with holes, one of said holes being brought above the delivery opening at each operation, an intermittently oscillating arm moving between said plunger and the delivery opening in said fixed plate, a supporting trigger connected to said oscillating arm, said trigger being movable in line with the axis of the plunger, and mechanism actuated by the plunger to rotate the said ring and to oscillate the said arm, and cams carried by the table to actuate the said trigger.

11. In a machine of the class described, in combination with the plunger and the rotatable table, a fixed plate having a delivery opening, an intermittently rotating ring located on said plate provided with holes, one of said holes being brought above the delivery opening at each operation, an intermittently oscillating arm moving between said plunger and the delivery opening in said fixed plate, a supporting trigger connected to said oscillating arm, said trigger being movable in line with the axis of the plunger, cams carried by said plunger adapted to intermittently oscillate said arm and rotate said ring, and cams carried by the table to operate said trigger.

12. In a machine of the class described, in combination with the plunger, a supporting member adapted to automatically release the screws in succession, and a delivery member adapted to automatically receive and deliver a fresh screw to the plunger at each operation of the same.

13. In a machine for working molten glass, the combination of a carrier for a plurality of molds movable successively into the press-position, a press-plunger arranged to cooperate successively with the molds of the mold carrier and provided with a holder formed to receive a glass-forming member, a magazine formed to receive and successively present a plurality of such glass-forming members, a transfer arm provided with means for receiving and holding successively such glass-forming members, and means coordinated with the plunger for shifting the transfer arm into alternate coordination with the magazine and plunger.

14. In a machine for working molten glass, the combination of a rotary table for a plurality of molds movable by said table successively into pressing position, a press plunger arranged to cooperate successively with the molds of the rotary table and provided with a holder formed to receive a glass-forming member, a rotary magazine formed to receive and successively present a plurality of such glass-forming members, a swinging transfer arm arranged adjacent the rotary table and the magazine and provided with means for receiving and holding successively such glass-forming members, and means coordinating with the plunger for swinging the transfer arm into alternate coordination with the magazine and plunger.

15. In a machine for working molten glass, the combination of a rotary table for a plurality of molds movable by said table successively into pressing position, a press-plunger arranged to cooperate successively with the molds of the rotary table and provided with a holder formed to receive a glass-forming member, a rotary magazine formed to receive and successively present a plurality of such glass-forming members, a swinging transfer arm arranged adjacent the rotary table and the magazine and provided with means for receiving and holding successively such glass-forming members, and a cam carried by the plunger and operating upon a portion of the swinging transfer arm to swing the same into alternate coordination with the magazine and plunger.

16. In a machine for working molten glass, the combination of a carrier for a plurality of molds movable successively into pressing position, a press plunger arranged to cooperate successively with the molds of the mold carrier and provided with a holder formed to receive a glass-forming member, a magazine formed to receive and successively present a plurality of such glass-forming members, a transfer arm provided with means for receiving and holding successively such glass-forming members, means coordinating with the plunger for shifting the transfer arm into alternate coordination with the magazine and plunger, and means for projecting such glass-forming members from the transfer arm into the plunger.

17. In a machine for working molten glass, the combination of a rotary mold-carrying table formed for a plurality of molds movable successively into pressing position, a press-plunger arranged to cooperate successively with the molds of the mold-carrier and provided with a holder formed to receive a glass-forming member, a rotary magazine formed to receive and successively present a plurality of such glass-forming members, a transfer member formed to receive successively such glass-forming members from the magazine, and means for reciprocating said transfer member both horizontally and vertically.

18. In a machine for working molten glass, the combination of a mold-carrying table formed for a plurality of molds movable successively into pressing position, a press-plunger arranged to cooperate successively with the molds of the mold carrier and provided with a holder formed to receive a glass-forming member, a magazine formed to receive and successively present a plurality of such glass-forming members, a transfer member formed to receive successively such glass-forming members from the magazine, and means for reciprocating said transfer member both horizontally and vertically.

19. In a machine for working molten glass, the combination of a rotary mold carrying table formed for a plurality of molds movable successively into pressing position, a press plunger arranged to cooperate successively with the molds of the mold carrier and provided with a holder formed to receive a glass-forming member, a rotary magazine formed to receive and successively present a plurality of such glass-forming members, a horizontally swinging transfer arm provided with a pocket formed to receive and hold successively such glass-forming members from the magazine, means for shifting the transfer arm into alternate registry with the magazine and plunger, a trigger arranged within the pocket of the transfer arm and movable vertically therein, and means for shifting said trigger to project the glass-forming member from said pocket into the plunger.

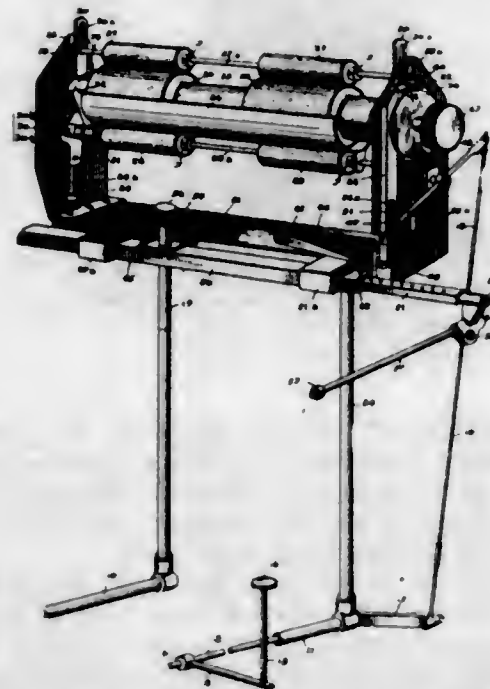
20. In a machine for working molten glass, the combination of a mold carrying table formed for a plurality of molds movable successively into pressing position, a press plunger arranged to cooperate successively with the molds of the mold carrier and provided with a holder formed to receive a glass-forming member, a magazine formed to receive and successively present a plurality of such glass-forming members, a horizontally swinging transfer arm provided with a pocket formed to receive and hold successively such glass-forming members from the magazine, means for shifting the transfer arm into alternate registry with the magazine and plunger, a trigger arranged within the pocket of the transfer arm and movable vertically therein, and means for shifting said trigger to project the glass-forming member from said pocket into the plunger.

13,662. COPY-HOLDER. BENJAMIN F. PEWZ, Moro, HIBBARD S. McDANIEL, Portland, and NELSON W. THOMPSON, Moro, Oreg., assignors, by means assignments, to Gnu Copy Holder Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed July 25, 1913. Serial No. 781,240. Original No. 999,181, dated July 25, 1911, Serial No. 547,278. (Cl. 120-32.)

1. In a copy holder, an adjustable typewriter base, uprights secured thereto, an auxiliary base secured to said uprights, side members secured to said auxiliary base, a cam slidably supported on said auxiliary base, an arm arranged to be engaged by the movement of the typewriter to move said slidable cam and mechanism adapted to be actuated by said cam for turning the main roller.

2. In a copy holder, an adjustable typewriter base, uprights secured thereto, an auxiliary base secured to said uprights, side members secured to said auxiliary base, a cam slidably supported on said auxiliary base, an arm arranged to be engaged by the movement of the typewriter to move said slidable cam, a rack arranged to be engaged by said cam, a pinion loosely mounted on the shaft of the main roller, and means actuated by the movement of said pinion for turning the main roller.

3. In a copy holder, an adjustable typewriter base, uprights secured thereto, a copy holder roller mounted on said uprights, a segmental pinion loosely mounted on the shaft of said copy holder roller, means for communicating the movement of said segmental pinion in one direction to said shaft, a rack arranged to engage said pinion, a slidable cam for actuating said rack, and means for communicating the return movement of the carriage of the typewriter to said slidable cam and a lever and link for operating the rack independently of the typewriter.



4. In a copy holder, an adjustable typewriter base, uprights carried thereby, a copy holder base mounted on said uprights, a slidable rod carried by said copy holder base and having a telescopic extension, an arm carried by said extension and adapted to be engaged by the return movement of the typewriter carriage, a cam carried by said slidable arm, a rack adapted to be engaged by said cam, a pinion, a main roller, a ratchet mounted on the shaft of the main roller and adapted to be actuated by said pinion, a rock shaft carried by said adjustable base, a lever arranged to engage said rack and a link connecting said lever with said rock shaft.

5. In a copy holder, a feed mechanism comprising a main roller, a ratchet secured to the shaft of the main roller, a segmental pinion loosely mounted on said shaft and provided with a pawl arranged to engage said ratchet, a rack arranged to engage the teeth of said pinion, a shield for regulating the engagement of the pawl with the teeth of said ratchet and means actuated by the return movement of the carriage of a typewriter for moving the rack.

6. In a copy holder for typewriters, means for securing it in proper position relative to the typewriter, a frame, a copy-holding roller rotatably supported in said frame, means for rotating said roller through a predetermined angular distance, an operative train of mechanism, of which one end engages said rotating means to actuate the same, and the other end extends adjacent to the typewriter keys, a key on said other end, a forwardly extending movable arm arranged to be actuated by a part moving with the typewriter carriage, and means operated by the movement of said arm for actuating said rotating means.

7. In a copy holder for typewriters, means for securing it in proper position relative to the typewriter, a frame, a copy-holding roller rotatably supported in said frame, means for rotating said roller through a predetermined angular distance, a lever operatively connected to said means to actuate the same, its front end extending adjacent to the typewriter keys, a key on said front end, a forwardly extending movable arm arranged to be actuated by a part moving with the typewriter carriage, and means operated by the movement of said arm for actuating said rotating means.

8. In a copy holder for typewriters, means for securing it in proper position relative to the typewriter, a frame, a copy-holding roller rotatably supported in said frame, means for rotating said roller through a predetermined angular distance, a lever operatively connected to said means to actuate the same, its front end extending adjacent to the typewriter keys, a key on said front end, a slide bar, a forwardly extending arm carried by said slide bar in position to be actuated by a part moving with the typewriter carriage, and means operated by the movement of said slide bar for actuating said rotating means.

9. In a copy holder for typewriters, means for securing it in proper position relative to the typewriter, a frame, a copy-holding roller rotatably supported in said frame, means for rotating said roller through a predetermined angular distance, a lever operatively connected to said means to actuate the same, its front end extending adjacent to the typewriter keys, a key on said front end, a slide bar, a forwardly extending arm carried by said slide bar in position to be actuated by a part moving with the typewriter carriage, a device carried by said slide-bar and arranged to operatively engage said rotating means on the movement in one direction only thereof.

13,663. ELECTRIC SIGNALING SYSTEM. JOHN D. TAYLOR, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed May 27, 1908. Serial No. 435,339. Original No. 882,276, dated Mar. 17, 1908. Serial No. 413,391. (Cl. 246-36.)



1. In a continuous rail block signaling system, means for increasing the impedance of the track rails adjacent to the ends of the blocks, and signal-controlling relays connected to the track rails at opposite sides of the portions thereof of increased impedance, substantially as described.

2. In a block signaling system, track rails which are electrically continuous for all currents, and having portions thereof provided with means for increasing their impedance, means for impressing signaling currents upon the track rails, and signal-controlling relays connected to the track rails adjacent to those portions thereof which are of increased impedance, substantially as described.

3. In a block signaling system, track rails which are electrically continuous for all currents, and which are provided with portions of increased impedance adjacent to the block limits, transformers connected to the track rails substantially midway between the portions thereof of increased impedance, adjacent transformers being oppositely connected to said rails, signal-controlling relays connected to the rails near the ends of the portions thereof of increased impedance, and signals controlled by the relays, substantially as described.

4. In a block signaling system, track rails which are electrically continuous for all currents, said rails having portions of increased impedance, two signal-controlling relays connected across the track rails between each two adjacent portions of increased impedance at points near the ends of such portions, said relays having signal-controlling contacts in series with each other, and a transformer connected to the track rails substantially midway between each two relays, adjacent transformers being oppositely connected to the track rails, substantially as described.

5. In a block signaling system, track rails having portions thereof at and adjacent to the block limits reinforced with laminated iron to increase their impedance, substantially as described.

6. In a block signaling system, track rails having laminated reinforcements of magnetic metal secured to por-

tions thereof at and adjacent to the block limits for the purpose of increasing their impedance, substantially as described.

7. In a block signaling system, electrically continuous track rails having portions thereof at and adjacent to the block limits reinforced by laminated magnetic material between their heads and bases, substantially as described.

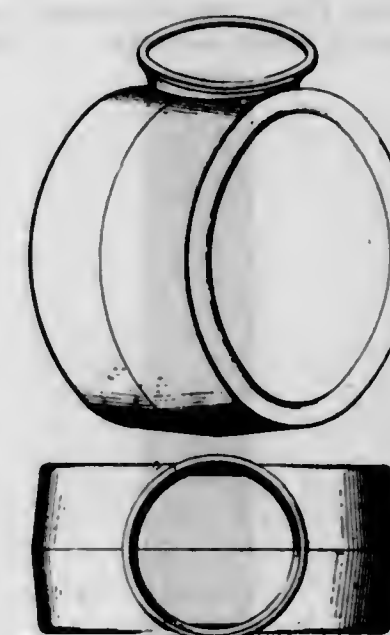
DESIGNS.

45,053. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. JOSEPH ARANYI, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Oct. 13, 1913. Serial No. 795,020. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,054. LAMP-SHADE. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., a Corporation of Pennsylvania. Filed Oct. 15, 1913. Serial No. 795,370. Term of patent 7 years.



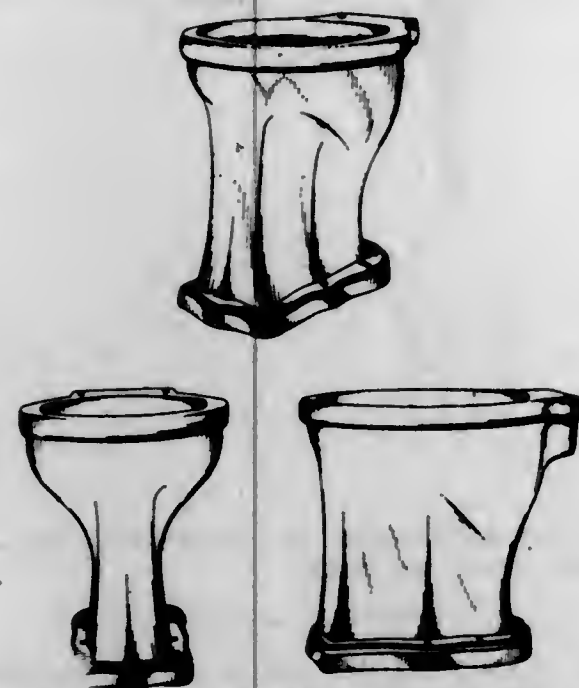
The ornamental design for a lamp shade as shown.

45,055. WATER-CLOSET BOWL. ANDREW COCHRAN, Trenton, N. J. Filed Oct. 15, 1913. Serial No. 795,373. Term of patent 14 years.



The ornamental design for a water closet bowl, as shown.

45,056. WATER-CLOSET BOWL. ANDREW COCHRAN, Trenton, N. J. Filed Nov. 4, 1913. Serial No. 799,241. Term of patent 14 years.



The ornamental design for a water closet bowl, as shown.

45,057. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,772. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,058. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,773. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,059. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,774. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,060. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,775. Term of patent 3½ years.



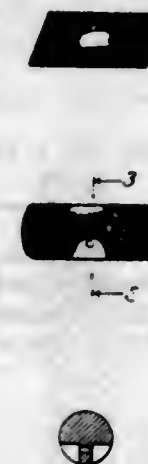
The ornamental design for a carpet, substantially as shown.

45,061. ARTICLE OF MANUFACTURE. JOSEPH E. GRANT, Detroit, Mich. Filed Feb. 25, 1913. Serial No. 750,698. Term of patent 7 years.



The ornamental design for an article of manufacture, as shown and described.

45,062. BUTTON. JOHN H. HAWLEY, New York, N. Y., assignor to American Enamel Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 4, 1913. Serial No. 793,488. Term of patent 3½ years.



The ornamental design for a button substantially as shown and described.

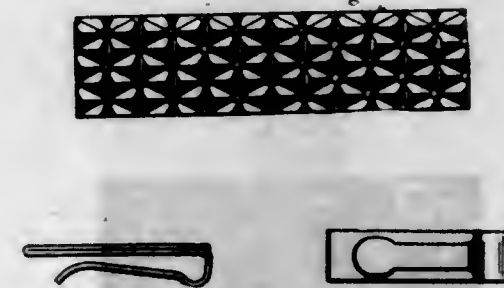
45,063. BUTTON. JOHN H. HAWLEY, New York, N. Y., assignor to American Enamel Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 4, 1913. Serial No. 793,489. Term of patent 3½ years.



The ornamental design for a button substantially as shown and described.

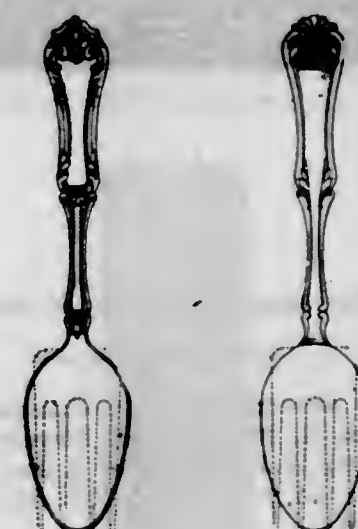
197 O. G.—64

45,064. NECKTIE-HOLDER. FRANZ J. HEILBOEN, Plainville, Mass. Filed Oct. 29, 1913. Serial No. 798,147. Term of patent 7 years.



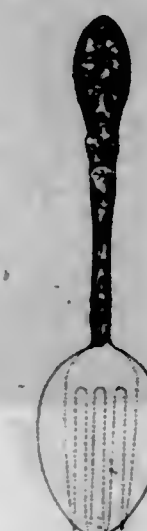
The ornamental design for a necktie holder, as shown.

45,065. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM A. JAMESON, Niagara Falls, N. Y. Filed Oct. 21, 1913. Serial No. 798,528. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,066. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. SAMUEL J. LARGE, Bristol, Conn., assignor to The American Silver Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 13, 1913. Serial No. 795,017. Term of patent 3½ years.



The ornamental design for a handle for a spoon, fork or similar article as shown.

45,067. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Nov. 15, 1913. Serial No. 801,264. Term of patent 7 years.



The ornamental design for a rug, as shown.

45,068. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Nov. 15, 1913. Serial No. 801,263. Term of patent 7 years.



The ornamental design for a rug, as shown.

45,069. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Nov. 17, 1913. Serial No. 801,545. Term of patent 7 years.



The ornamental design for a rug, as shown.

45,070. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Nov. 17, 1913. Serial No. 801,546. Term of patent 7 years.



The ornamental design for a rug, as shown.

45,071. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. FREDERICK E. PRÉTAT, Waterbury, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Oct. 6, 1913. Serial No. 793,772. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,072. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,782. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,073. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,783. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,074. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,784. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,075. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,785. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,076. CHILD'S QUAKER BONNET. ALBERT SCHWENKE, Houston, Tex. Filed Sept. 26, 1913. Serial No. 792,045. Term of patent 3½ years.



The ornamental design for a child's Quaker bonnet as shown.

45,077. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,777. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,078. HANDLE FOR PIERCED SPOONS, FORKS, OR SIMILAR ARTICLES. RALPH C. THOMPSON, Attleboro, Mass. Filed Oct. 10, 1913. Serial No. 794,518. Term of patent 3½ years.



The ornamental design for a handle for a pierced spoon, fork, or similar article, as shown.

45,079. CARPET. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Nov. 1, 1913. Serial No. 798,776. Term of patent 3½ years.



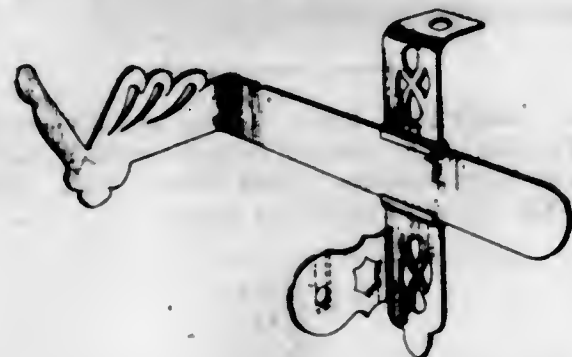
The ornamental design for a carpet, substantially as shown.

45,080. SHOE. STANLEY WASS, St. Louis, Mo. Filed Aug. 30, 1913. Serial No. 787,550. Term of patent 3½ years.



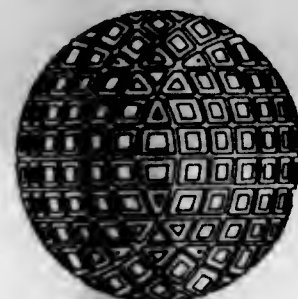
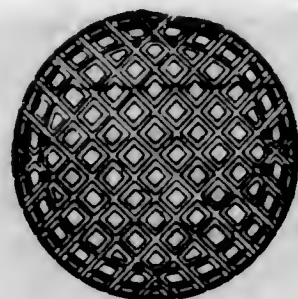
The ornamental design for a shoe, as shown.

45,081. CURTAIN AND SHADE BRACKET. ROGER O. WILLIAMS, Carbondale, Pa. Filed Mar. 21, 1913. Serial No. 756,022. Term of patent 7 years.



The ornamental design for a curtain and shade bracket, as shown.

45,082. PLAYING-BALL. GEORGE C. WORTHINGTON, Elyria, Ohio, assignor to The Worthington Ball Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 29, 1913. Serial No. 792,527. Term of patent 7 years.



The ornamental design for a playing ball as shown.

TRADE-MARKS

PUBLISHED DECEMBER 23, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 54,916. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DWINELL-WRIGHT COMPANY, Boston, Mass. Filed Mar. 7, 1911.



Particular description of goods.—A Coffee Substitute. Claims use since prior to July, 1872.

Ser. No. 59,767. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) OCTAVIE RINCHEVAL, Paris, France. Filed Nov. 17, 1911.

"SIRIUS"

Particular description of goods.—Welding-Torches and Apparatus for Cutting Metals and Apparatus for Autogenous Soldering. Claims use since June 15, 1908.

Ser. No. 62,518. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., Buffalo, N. Y. Filed Mar. 30, 1912. Under ten-year proviso.



Particular description of goods.—Eye-Salve and Eye-Water. Claims use since Jan. 1, 1877.

Ser. No. 63,053. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UPDIKE MILLING COMPANY, Omaha, Nebr. Filed Apr. 22, 1912.



No claim being made to the word "Updike's." Particular description of goods.—Wheat-Flour. Claims use since Jan. 1, 1912.

Ser. No. 63,352. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HYDRO CARBON COMPANY, Wichita, Kans. Filed May 4, 1912.

AIR-O-LITE

Particular description of goods.—Portable Vapor-Lamps. Claims use since May, 1911.

Ser. No. 63,763. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. WERTHEIMER ET CIE., Paris, France. Filed May 24, 1912.

ETOILE D'AMOUR

Particular description of goods.—Perfumery and Face-Tints. Claims use since Nov. 16, 1903.

Ser. No. 65,344. (CLASS 4. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. W. ENTZMINGER, Longwood and Sanford, Fla. Filed Aug. 20, 1912.

SANGUINOL

Entzinger

The name shown being a facsimile of the signature of the applicant.
Particular description of goods.—Remedies for Syphilis.
Claims use since about the 1st day of June, 1912.

Ser. No. 65,659. (CLASS 2. RECEPTACLES.) CHICAGO FOLDING BOX COMPANY, Chicago, Ill. Filed Sept. 10, 1912.

KING

Particular description of goods.—Paper Cartons.
Claims use since 1897.

Ser. No. 65,662. (CLASS 2. RECEPTACLES.) CHICAGO FOLDING BOX COMPANY, Chicago, Ill. Filed Sept. 10, 1912.

Veribest

Particular description of goods.—Paper Cartons and Palls.
Claims use since 1906.

Ser. No. 65,988. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS SAVILL & SONS, Philadelphia, Pa. Filed Sept. 26, 1912.

Swan's Neck

Particular description of goods.—Bibs, Faucets, Spigots, Cocks, and Metal Valves.
Claims use since on or about Sept. 1, 1910.

Ser. No. 66,303. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) H. J. FROST & COMPANY, New York, N. Y. Filed Oct. 16, 1912. Under ten-year proviso.

Frost
Frost

Particular description of goods.—Fishing-Tackle.
Claims use since Jan. 30, 1895.

Ser. No. 67,631. (CLASS 2. RECEPTACLES.) TYWANA MANUFACTURING COMPANY, Farmingdale, N. Y. Filed Dec. 30, 1912.



No claim is made to the use of the words "Wright Box," "The Right Box," and the representation of boxes.
Particular description of goods.—Paper Boxes.
Claims use since Dec. 1, 1912.

Ser. No. 68,026. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WILDER & COMPANY, Chicago, Ill. Filed Jan. 20, 1913.



Particular description of goods.—Hides and Leather.
Claims use since on or about Nov. 1, 1912.

Ser. No. 68,403. (CLASS 38. PRINTS AND PUBLICATIONS.) CLARENCE V. EKROTH, Brooklyn, N. Y. Filed Feb. 8, 1913.

JOYCRAFT

Particular description of goods.—Business-Forms, Menus, Brochures, Booklets, and the Like.
Claims use since January, 1904.

Ser. No. 68,916. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOHN DE KUYPER & SON, Rotterdam, Netherlands. Filed Mar. 8, 1913. Under ten-year proviso.



Particular description of goods.—Gin.
Claims use since the year 1695.

Ser. No. 68,982. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DR. A. WANDER A.-G., Berne, Switzerland. Filed Mar. 12, 1913.

Ovomaltine

Particular description of goods.—A Food Drink.
Claims use since 1902.

Ser. No. 69,298. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY A. MOORE, Cambridge, Mass. Filed Mar. 24, 1913.

SUB ROSA

Particular description of goods.—A Hair-Tonic and Skin-Creams.
Claims use since Mar. 1, 1913.

Ser. No. 69,456. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FITZPATRICK BROS., Chicago, Ill. Filed Mar. 31, 1913.



Particular description of goods.—A Powdered Scouring and Polishing Preparation for Household Use.
Claims use since Feb. 1, 1913.

Ser. No. 69,773. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) VALDEMAR LIDELL, Portland, Oreg. Filed Apr. 14, 1913.

Radelium

Particular description of goods.—Radium-Emanators for Treating Water.
Claims use since Jan. 27, 1913.

Ser. No. 69,985. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANDREW J. CZARNIECKI, McAdoo, Pa. Filed Apr. 22, 1913.

"A. J. C."

Particular description of goods.—Remedies for Appendicitis.
Claims use since Oct. 28, 1910.

Ser. No. 70,120. (CLASS 39. CLOTHING.) THOMAS H. B. CLAPLIN COMPANY, New York, N. Y. Filed Apr. 29, 1913.

NYUS

Particular description of goods.—Hosiery and Knit Underwear—Namely, Men's, Women's, Children's, and Infants' Knit and Flat Woven Underwear; Nainsook Underwear in Two Garments—viz., Shirts and Drawers and Union Suits.
Claims use since February, 1913.

Ser. No. 70,171. (CLASS 39. CLOTHING.) M. ALSHULER COMPANY, Waukegan, Ill. Filed May 2, 1913.

Morning Glory

Particular description of goods.—Ladies' Wash-Dresses and Negligees.
Claims use since Jan. 1, 1908.

Ser. No. 70,318. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAMLIN WIZARD OIL COMPANY, Chicago, Ill. Filed May 9, 1913.

WIZARD

Particular description of goods.—A Medicinal Oil Used Internally and Externally as a Remedy for Rheumatism, Lamé Back, Lumbago, Neuralgia, Spring-Fever, La Grippe, Sore Throat, Headache, Earache, Toothache, Contracted Cords, Cramps, Colic, Cuts, Wounds, Sprains, Bruises, Burns, Scalds, Bites, and Stings.
Claims use since November, 1859.

Ser. No. 70,679. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE TOLLOMETER COMPANY, Cincinnati, Ohio. Filed May 26, 1913.

Tollometer

Particular description of goods.—Brackets for Use with Telephones.
Claims use since Feb. 15, 1913.

Ser. No. 70,756. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Jersey City, N. J., and Detroit, Mich. Filed May 29, 1913.

VAL DONA

Particular description of goods.—Charcoal Lozenges, Hair-Dyes, Rouge, Sedlitz-Powders, Tooth-Powder, Digestives, Remedy for Dyspepsia, Ointments, Pile Remedies, Rat-Poison, Smelling-Salts, Soda-Mint, Sulfur, and Cream-of-Tartar Tablets, Sugar of Milk, Effervescent Salts, Peroxid of Hydrogen, Corn-Remover Salve, Licorice Powder, Baby Teething-Powders, Remedy for Sore Eyes, Toilet Powders, Foot-Tablets, Neuralgia-Tablets, Rheumatism

Remedy, Sun-Cholera Tablets, Toothache-Wax, Liniment, Vaginal Tablets, Remedies for Worms, Headache Tablets and Wafers, Remedies for Diseases of Kidneys and Liver, and Larkspur Lotion.

Claims use since Mar. 25, 1912.

Ser. No. 70,898. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INDIAN HEAD COAL & MINING COMPANY, Connellsville, Pa. Filed June 6, 1913.



Consists of the profile bust of an Indian, the figure being surrounded by a circle.

Particular description of goods.—Coal.
Claims use since May 5, 1913.

Ser. No. 71,013. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR CAPPER, Topeka, Kans. Filed June 11, 1913.



Particular description of goods.—A Magazine, Published Semimonthly.
Claims use since Apr. 1, 1912.

Ser. No. 71,164. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FRANZ FAISZTL, Budapest, Hungary. Filed June 18, 1913.

ANICURE
SYSTÈME
PROF. LENHOSSEK.

The use of the descriptive word "Système" and of the words "Prof. Lenhossek" is disclaimed.

Particular description of goods.—Syringes.
Claims use since March, 1913.

Ser. No. 71,196. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) ALFRED C. FULLER, Hartford, Conn. Filed June 19, 1913.



Particular description of goods.—Scouring and Cleaning Brushes, Dusters, and Mops.
Claims use since June 18, 1913.

Ser. No. 71,199. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GERMAN-AMERICAN STONEWARE WORKS, New York, N. Y. Filed June 19, 1913.



Particular description of goods.—Acid-Proof Chemical Stoneware, Pitchers, Jugs, Evaporating-Dishes, Subliming-Dishes, Stoneware Funnels, Retorts, Carboys, Acid-Pots, Acid Storage and Transportation Pots, Colls, Tourilla, Stone Balls, Stone Stirrers, Acid Stone Elevators, Stone Dishes, and Stone Crystallizing-Dishes.

Claims use since July 1, 1911.

Ser. No. 71,541. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARUKIN-SHOYU-KARUSHIKI-KWAISHA, Nobamura, Shozu-gun, Kagawa-Ken, Japan. Filed July 5, 1913.



Particular description of goods.—Soy.
Claims use since May 10, 1908.

Ser. No. 71,545. (CLASS 17. TOBACCO PRODUCTS.) SCHMITT BROTHERS TOBACCO WORKS, Milwaukee, Wis. Filed July 5, 1913.



Our exclusive right to the words "Mild Smoke" "Pleasant Chew" being disclaimed.

Particular description of goods.—Long-Cut Tobacco for Both Smoking and Chewing.

Claims use since in October or November, 1903.

[Vol. 197. No. 4.]

Ser. No. 71,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DAVIS MILLING COMPANY, St. Joseph, Mo. Filed July 16, 1913.



The picture shown being fanciful.
Particular description of goods.—Self-Rising Wheat-Flour.

Claims use since May 14, 1913.

Ser. No. 71,791. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

PICNIC

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

COMMUNITY

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,793. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

ROMANCE

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,794. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

WALKOVER

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

[Vol. 197. No. 4.]

Ser. No. 71,796. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

PIPPIN

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,797. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

COCKADE

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed July 16, 1913.

VOQUE

Particular description of goods.—Wheat-Flour.
Claims use since May 12, 1913.

Ser. No. 71,847. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASEL, Basel, Switzerland. Filed July 18, 1913.

BURSOINE

Particular description of goods.—An Oil Preparation and an Emulsion of This Oil Preparation, Particularly Applicable as a Dressing in Tanning, as a Preventive of Uneven Coloring in Dyeing, Also in Carrying, Stuffing, and Oiling of Leather.

Claims use since June 22, 1912.

Ser. No. 71,951. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE K. W. IGNITION COMPANY, Cleveland, Ohio. Filed July 24, 1913.

**ROAD
SMOOTHER**

Particular description of goods.—Shock-Absorbers for Use on Road-Vehicles, Especially Motor-Vehicles.
Claims use since Apr. 17, 1913.

Ser. No. 72,059. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DUERR-SCHAEFER PHARMACAL CO., Benton Harbor, Mich. Filed July 31, 1913.



Particular description of goods.—A Medicinal Saline Compound.
Claims use since the 1st day of May, 1913.

Ser. No. 72,065. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE HIGH PRESSURE CELLULAR RUBBER SYNDICATE LIMITED, London, England. Filed July 31, 1913.

CELLAZOT

Particular description of goods.—India-Rubber Composition in Cellular or Spongy Form.
Claims use since Sept. 18, 1912.

Ser. No. 72,219. (CLASS 38. PRINTS AND PUBLICATIONS.) KARL BAEDERER, Leipzig, Germany. Filed Aug. 8, 1913. Under ten-year proviso.

BAEDEKER

Particular description of goods.—Guides and Travelers' Hand-Books.
Claims use since 1840.

Ser. No. 72,270. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

UN-GRO-CO

Particular description of goods.—Julep-Straws.
Claims use since June 1, 1913.

Ser. No. 72,293. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) PLYMOUTH COAL AND MINING Co., Plymouth, W. Va. Filed Aug. 11, 1913. Under ten-year proviso.

PLYMOUTH COAL

Particular description of goods.—Coal.
Claims use since May 1, 1893.

Ser. No. 72,338. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Aug. 14, 1913.

The Katzenjammer Kids!

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since January, 1900.

Ser. No. 72,395. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES FISHER, Chicago, Ill. Filed Aug. 18, 1913.



The portrait is of myself.
Particular description of goods.—Preparations for the Treatment of Rheumatism, Lumbago, Cramps, Constipation, and Piles, and Diseases of the Kidneys, Bowels, and Stomach.
Claims use since May 8, 1912.

Ser. No. 72,417. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) PRESSED STEEL TRUCK COMPANY, Pittsburgh, Pa. Filed Aug. 19, 1913.

ATLAS

Particular description of goods.—Hand-Trucks.
Claims use since Nov. 1, 1912.

Ser. No. 72,654. (CLASS 12. CONSTRUCTION MATERIALS.) THE CINCINNATI SHEET METAL & ROOFING Co., Cincinnati, Ohio. Filed Sept. 3, 1913.

"P. A. T."

Particular description of goods.—Sheet-Metal Roofing.
Claims use since Apr. 10, 1910.

Ser. No. 72,665. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAURICE MONIN, Paris, France. Filed Sept. 3, 1913.

LA DORINE

Particular description of goods.—Rouge, Face and Toilet Powders.
Claims use since Mar. 4, 1890.

[Vol. 197. No. 4.]

Ser. No. 72,715. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y. Filed Sept. 8, 1913.



Particular description of goods.—Fertilizer.
Claims use since Aug. 1, 1887.

Ser. No. 72,717. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BASLER MACHINERY Co., Lynn, Mass. Filed Sept. 8, 1913.

TEMPO

Particular description of goods.—A Chemically Prepared Compound for Treating Sole-Leather.
Claims use since Aug. 20, 1913.

Ser. No. 72,720. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Sept. 8, 1913.

AERIZER

Particular description of goods.—Atomizers and Nebulizers.
Claims use since Sept. 1, 1913.

Ser. No. 72,787. (CLASS 32. FURNITURE AND UPHOLSTERY.) WALTER SCOTT MILNE, Cleveland, Tenn. Filed Sept. 11, 1913.



Particular description of goods.—Chairs and Rockers.
Claims use since about April, 1910.

Ser. No. 72,807. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SAMUEL BURGELEISEN, New York, N. Y. Filed Sept. 12, 1913.

SPECIAL THOROUGHbred

The words "Special Thoroughbred."
Particular description of goods.—Violins and Parts, Mandolins and Parts, Banjos and Parts, Guitars and Parts, Lute-Mandolins and Parts, Guitar-Mandolins and Parts, Drums and Parts, Banjo-Drums and Parts, Violin-Bows and Parts, Banjeaurines and Parts, Solo-Banjeaurines and Parts, Piccolo-Banjos and Parts, Bass and Cello Banjos and Parts, Banjo-Banjeaurines and Parts, Banjo-Strings, Violin-Strings, Guitar-Strings, Mandolin-Strings, Banjo-Mandolins and Parts.
Claims use since 1888.

[Vol. 197. No. 4.]

Ser. No. 72,892. (CLASS 42. KNITTED, NETTED, AND TEXTILE-FABRICS.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburgh, Pa. Filed Sept. 16, 1913.



Particular description of goods.—White Piece Goods Made of Cotton, Linen, or Cotton and Linen, and Damasks, Napkins, and Table-Linen.
Claims use since 1911.

Ser. No. 72,995. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Sept. 22, 1913.

ALBAROID

Particular description of goods.—Flexible Prepared Roofings Consisting of a Felted or Woven Fabric Impregnated or Coated, or Both, with a Bituminous Mixture.
Claims use since Sept. 11, 1913.

Ser. No. 73,078. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) SHARP & SMITH, Chicago, Ill. Filed Sept. 26, 1913.

Wolastic

Particular description of goods.—Surgical Bandages, Surgical Leggings, Surgical Knee-Caps, Surgical Garter-Hose, Surgical Anklets, Surgical Wristlets, Surgical Elbow-Pieces, Surgical Thigh-Pieces, Abdominal Supporters, and Athletic Jockey Straps or Supporters.
Claims use since the 9th day of September, 1912.

Ser. No. 73,154. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID M. SMOOT, Laneville, W. Va. Filed Oct. 1, 1913.



The portrait shown on the drawing is that of my own.
Particular description of goods.—Liniment.
Claims use since Sept. 10, 1913.

Ser. No. 73,170. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ALEXANDER HERZ, New York, N. Y. Filed Oct. 2, 1913.

"Hygeia"

Particular description of goods.—Drinking Straws or Tubes.

Claims use since February, 1906.

Ser. No. 73,250. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SALLIE BOOKER, North Birmingham, Ala. Filed Oct. 7, 1913.

Sallie Booker

Consisting of the facsimile of my signature.

Particular description of goods.—Straightening-Oil, Temple-Restorer, and Hair-Grower.

Claims use since August, 1911.

Ser. No. 73,268. Renewal. (CLASS 17. TOBACCO PRODUCTS.) AUSTIN, NICHOLS & Co., INC., New York, N. Y. Filed Oct. 8, 1913.

EL COLUMBUS



Particular description of goods.—Cigars.

Claims use since about Sept. 8, 1883.

Ser. No. 73,296. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PED-AMI Co., INC., New York, N. Y. Filed Oct. 9, 1913.

"PED-AMI"

The words "Ped-Ami."

Particular description of goods.—A Medicated Powder or Tablet That Can be Used as a Powder for the Feet or Can be Dissolved in Water to Form a Lotion.

Claims use since July 19, 1913.

Ser. No. 73,375. (CLASS 15. OILS AND GREASES.) GULF REFINING COMPANY, Port Arthur, Tex., and Pittsburgh, Pa. Filed Oct. 15, 1913.



No claim being made to the descriptive words "Supreme Auto-Oil Reg. U. S. Pat. Off."

Particular description of goods.—Automobile Lubricating-Oil.

Claims use since Oct. 1, 1913.

Ser. No. 73,424. (CLASS 39. CLOTHING.) ROME TEXTILE COMPANY, Rome, N. Y. Filed Oct. 16, 1913.

Ro-TEX-Co

Particular description of goods.—Knit Underwear Garments—viz., Shirts, Vests, Pants, Drawers, and Union Suits—and Sweater-Coats.

Claims use since Aug. 1, 1913.

Ser. No. 73,425. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID SLAVITSKY, Fall River, Mass. Filed Oct. 16, 1913.



Consisting of my portrait and a facsimile of my signature.

Particular description of goods.—A Remedy for Colds and Catarrh.

Claims use since June 1, 1913.

Ser. No. 73,458. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WENTWORTH D. VEDDER, Wellsboro, Pa. Filed Oct. 17, 1913.



Particular description of goods.—A Medicinal Powder to be Used for All Irritations of the Vagina.

Claims use since about Sept. 29, 1913.

Ser. No. 73,469. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BALSTONE, COOKE & Co., LTD., Manchester, England. Filed Oct. 18, 1913.

BAVENO

Particular description of goods.—Velvets, Velvettas, Velveteens, Corduroys, Moleskins, Beaverteens, and other Fustian-Cloth Piece Goods.

Claims use since about July, 1881.

Ser. No. 73,528. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BALSTONE, COOKE & Co., LTD., Manchester, England. Filed Oct. 21, 1913.



Particular description of goods.—Velvets, Velvettas, Velveteens, Corduroys, Moleskins, and Beaverteen and Fustian-Cloth Piece Goods.

Claims use since about Aug. 13, 1865.

Ser. No. 73,557. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA ELIZABETH ROBINS, Richmond, Va. Filed Oct. 22, 1913.

COPODONE

Particular description of goods.—Liver-Pills.

Claims use since 1880.

Ser. No. 73,570. (CLASS 12. CONSTRUCTION MATERIALS.) BOUTWELL, MILNE & VARNUM Co., Barre, Vt. Filed Oct. 23, 1913.



Particular description of goods.—Granite Blocks and Monumental Stones.

Claims use since Aug. 1, 1913.

Ser. No. 73,571. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MALCOLM BENTZON, London, England. Filed Oct. 23, 1913.

UNI-BIFO

Particular description of goods.—Spectacles and Eyeglasses.

Claims use since January, 1906.

Ser. No. 73,590. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WILLIAM P. O'NEIL, New York, N. Y. Filed Oct. 24, 1913.

KEWPIE

The word "Kewpie."

Particular description of goods.—Garters.

Claims use since Oct. 18, 1913.

Ser. No. 73,634. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAMDEN WOOFER, St. Louis, Mo. Filed Oct. 27, 1913.

FLIRPADIRE

Particular description of goods.—A Corn and Bunion Plaster.

Claims use since on or about May 1, 1909.

Ser. No. 73,649. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN OINTMENT Co., New Brighton, Pa. Filed Oct. 29, 1913.

PENEGUENT

The word "Peneguent."

Particular description of goods.—Improved Medicated Ointment.

Claims use since April, 1911.

Ser. No. 73,661. (CLASS 47. WINES.) STONE HILL WINE COMPANY, Hermann, Mo. Filed Oct. 29, 1913.

Pearl

Particular description of goods.—Wines.

Claims use since about the 1st day of January, 1875.

Ser. No. 73,667. (CLASS 12. CONSTRUCTION MATERIALS.) J. E. BAKER Co., York, Pa. Filed Oct. 30, 1913.

MAGDOLITE

Particular description of goods.—Material for Forming and Repairing Linings for Furnaces and the Like.

Claims use since about April of 1912.

Ser. No. 73,706. (CLASS 39. CLOTHING.) HENRY A. BUDD, New York, N. Y. Filed Oct. 31, 1913. Under ten-year proviso.

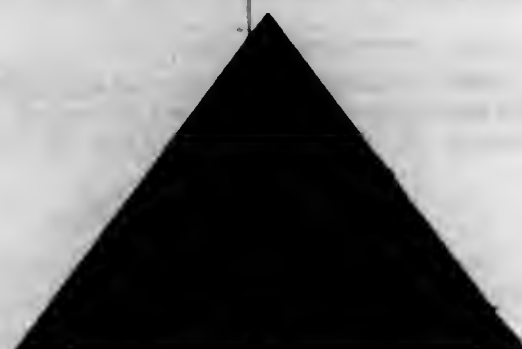
Budd

Particular description of goods.—Dress-Shirts, Negligée Shirts, Coats, Vests, Trousers, Office-Coats, Fancy Waistcoats, House Gowns and Coats, Robes, Undershirts and Underdrawers Made of Both Knitted and Textile Material, Gloves, Hosiery, Pajamas, Night-Shirts, Night-Caps, Muffs, Collars, Cuffs, Steamer-Rugs, Shoes and Slippers, Sweaters, Caps and Hats, and Rain-Coats.

Claims use since 1861.

Ser. No. 73,707. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BINGHAMTON BOILER COMPOUND COMPANY, Binghamton, N. Y. Filed Oct. 31, 1913.

PYRAMID



Particular description of goods.—Chemical Steam-Boller Compounds.
Claims use since July, 1904.

Ser. No. 73,710. (CLASS 15. OILS AND GREASES.) THE FREEDOM OIL WORKS CO., Freedom, Pa. Filed Oct. 31, 1913.



Particular description of goods.—Lubricating-Oils, Illuminating-Oils, Gasolenes, Axle-Grease, Cup-Grease or Hard Oil, Paraffin-Wax, Both Crude and Refined.
Claims use since Oct. 24, 1913.

Ser. No. 73,729. (CLASS 39. CLOTHING.) MAX COHN, Philadelphia, Pa. Filed Nov. 1, 1913.

NU-FIT

No claim being made to the words "Nu-Fit."
Particular description of goods.—Petticoats and Undershirts.
Claims use since Oct. 27, 1913.

Ser. No. 73,751. (CLASS 6. CHEMICALS, MEDICINES, OR PHARMACEUTICAL PREPARATIONS.) CHAMBERLIN LABORATORIES, INC., Chicago, Ill. Filed Nov. 3, 1913.

Mer XX

Consisting of the arbitrary and fanciful word "Mer" and the Roman numerals "XX" in more or less ornate letters.

Particular description of goods.—A Medicine for Syphilis and Similar Diseases.
Claims use since July, 1913.

Ser. No. 73,752. (CLASS 38. PRINTS AND PUBLICATIONS.) THE OPERA, INC., New York, N. Y. Filed Nov. 3, 1913.

The Opera

The words "The Opera."
Particular description of goods.—A Weekly Publication.
Claims use since Oct. 24, 1913.

Ser. No. 73,767. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Nov. 3, 1913.

XL

Particular description of goods.—Fertilizer.
Claims use since 1862.

Ser. No. 73,799. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Nov. 4, 1913.

MAXIMUM

Particular description of goods.—Rubber Goods: Water-Bottles, Syringe-Bags, Ice-Bags, Atomizers, Nipples, Air-Pump Atomizers, Operating-Gloves, Douches, Inhalers, Pipes, Tubing, Air and Water Cushions, Sheetting, Bulb-Syringes, Nasal and Ear Syringes, Breast-Pumps, Nipple-Shields, Bath-Sprays, Invalid-Rings, Face-Bottles, Household Gloves, Combination Attachment Sets, Medicine-Droppers, and Baby-Comforters.
Claims use since prior to June, 1912.

[Vol. 197. No. 4.]

Ser. No. 73,800. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Nov. 4, 1913.

MONOGRAM

Particular description of goods.—Rubber Goods: Water-Bottles, Syringe-Bags, Ice-Bags, Atomizers, Powder-Blowers, Nipples, Air-Pump Atomizers, Operating-Gloves, Douches, Inhalers, Pipes, Tubing, Air and Water Cushions, Sheetting, Bulb-Syringes, Nasal and Ear Syringes, Breast-Pumps, Nipple-Shields, Bath-Sprays, Invalid-Rings, Face-Bottles, Household Gloves, Combination Attachment Sets, Medicine-Droppers, and Baby-Comforters.
Claims use since prior to June, 1912.

Ser. No. 73,801. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Nov. 4, 1913.

AMERICAN BEAUTY

Particular description of goods.—Rubber Goods: Water-Bottles, Syringe-Bags, Ice-Bags, Atomizers, Nipples, Air-Pump Atomizers, Operating-Gloves, Douches, Inhalers, Pipes, Tubing, Air and Water Cushions, Sheetting, Bulb-Syringes, Nasal and Ear Syringes, Breast-Pumps, Nipple-Shields, Bath-Sprays, Invalid-Rings, Face-Bottles, Household Gloves, Combination Attachment Sets, Medicine-Droppers, and Baby-Comforters.
Claims use since prior to June, 1912.

Ser. No. 73,823. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE RANDALL-FAICHNEY COMPANY, Boston, Mass. Filed Nov. 5, 1913.

BIG O

Particular description of goods.—Syringe Apparatus for Treating Hog-Cholera.
Claims use since Oct. 15, 1913.

Ser. No. 73,833. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DENTISTS' SUPPLY COMPANY, New York, N. Y. Filed Nov. 6, 1913.



Particular description of goods.—Artificial Teeth.
Claims use since Oct. 2, 1913.

[Vol. 197. No. 4.]

Ser. No. 73,852. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) U. S. REDUCTION COMPANY, Chicago, Ill. Filed Nov. 7, 1913.

ADVANCE

Particular description of goods.—Babbitt Metal.
Claims use since Dec. 19, 1904.

Ser. No. 73,867. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) GEORGE M. BROWNING, New York, N. Y. Filed Nov. 8, 1913.

NONFLAMOID

Particular description of goods.—Elastic Transparent Sheet Material.
Claims use since on or before the 1st day of November, 1913.

Ser. No. 73,890. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LANGLEY & MICHAELS CO., San Francisco, Cal. Filed Nov. 19, 1913.

CRESOLITE

Particular description of goods.—Insecticides, Germicides, Disinfectants, and Washes for Exterminating Parasites on Domestic Animals.
Claims use since February, 1910.

Ser. No. 73,927. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MANNESMANN LIGHT COMPANY OF AMERICA, INC., New York, N. Y. Filed Nov. 12, 1913.

CEAG

"Ceag."
Particular description of goods.—An Electric Miner's Lamp.
Claims use since about the 1st day of November, 1912.

Ser. No. 73,946. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRANKLIN MFG. CO., Baltimore, Md. Filed Nov. 13, 1913.

Inertex

Particular description of goods.—Cotton Piece Goods.
Claims use since about Oct. 15, 1913.

Ser. No. 73,963. (CLASS 47. WINES.) THE A. SCHMIDT JR. & BROS. WINE CO., Sandusky, Ohio. Filed Nov. 13, 1913.

VIRGINETTE

Particular description of goods.—Wines.
Claims use since Aug. 1, 1913.

Ser. No. 74,021. (CLASS 12. CONSTRUCTION MATERIALS.) WILLIAM G. TILGHMAN, Palatka, Fla. Filed Nov. 15, 1913. Under ten-year proviso.

FLORIDA



PERFECTION

Particular description of goods.—Shingles.
Claims use since Feb. 20, 1895.

Ser. No. 74,041. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE REYNOLDS-BROWNE COMPANY, Dover, Del., and Chicago, Ill. Filed Nov. 17, 1913.



Particular description of goods.—Electric Lamps for Vehicles.
Claims use since Oct. 31, 1913.

Ser. No. 74,064. (CLASS 16. PAINTS AND PAINTERS MATERIALS.) THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio. Filed Nov. 18, 1913.

BVS

Particular description of goods.—Varnish.
Claims use since Nov. 1, 1913.

Ser. No. 74,090. (CLASS 47. WINES.) VINCENT F. BOSCO, New York, N. Y. Filed Nov. 20, 1913.



Particular description of goods.—Still and Sparkling Wines.
Claims use since Nov. 13, 1913.

Ser. No. 74,124. (CLASS 39. CLOTHING.) THE B. F. GOODRICH COMPANY, New York, N. Y. Filed Nov. 21, 1913.

HIPRESS

Particular description of goods.—Rubber Boots and Shoes.
Claims use since about Oct. 14, 1913.

[Vol. 197. No. 4.]

TRADE-MARKS

REGISTERED DECEMBER 23, 1913.

94,570. TOILET-PAPER. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
Filed September 24, 1913. Serial No. 73,023. PUBLISHED OCTOBER 21, 1913.

94,571. PAINT FOR CONDENSERS AND OTHER METAL STRUCTURES. THE AMERICAN PAINT & COLOR CO., Arkansas City, Kans.
Filed May 2, 1913. Serial No. 70,169. PUBLISHED OCTOBER 21, 1913.

94,572. IRON AND STEEL SHEETS AND PLATES AND TIN AND TERNE PLATES. AMERICAN SHEET & TIN PLATE COMPANY, Pittsburgh, Pa.
Filed September 17, 1913. Serial No. 72,912. PUBLISHED OCTOBER 21, 1913.

94,573. SULFATE OF IRON. THE AMERICAN STEEL & WIRE CO. OF NEW JERSEY, Cleveland, Ohio; Chicago, Ill.; Pittsburgh, Pa.; New York, N. Y.; Worcester, Mass., and Hoboken, N. J.
Filed July 7, 1913. Serial No. 71,551. PUBLISHED OCTOBER 21, 1913.

94,574. MOLASSES. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed June 27, 1913. Serial No. 71,396. PUBLISHED OCTOBER 14, 1913.

94,575. MOLASSES. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed June 27, 1913. Serial No. 71,397. PUBLISHED OCTOBER 14, 1913.

94,576. MOLASSES. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed June 27, 1913. Serial No. 71,398. PUBLISHED OCTOBER 14, 1913.

94,577. LAUNDRY BOXES, BAGS, AND CARTONS. JAMES ARTHUR ANDERSON, St. Louis, Mo.
Filed April 8, 1913. Serial No. 69,671. PUBLISHED OCTOBER 14, 1913.

94,578. PERCALE. WM. ANDERSON & Co., New York, N. Y.
Filed May 12, 1911. Serial No. 56,317. PUBLISHED SEPTEMBER 2, 1913.

94,579. CRATES. CALVIN M. ANKENT, Somerset, Pa.
Filed August 2, 1913. Serial No. 72,124. PUBLISHED OCTOBER 7, 1913.

94,580. DRESSING-COMBS MADE OF COTTON FIBER. WM. N. ARCHIE, Atlanta, Ga.
Filed May 24, 1913. Serial No. 70,604. PUBLISHED OCTOBER 21, 1913.

94,581. CANNED FRUITS, DRIED FRUITS, AND RAISINS. THE J. K. ARMSBY COMPANY, San Francisco, Cal.
Filed May 6, 1913. Serial No. 70,258. PUBLISHED OCTOBER 14, 1913.

94,582. CERTAIN HOLDERS, BRACKETS, RACKS, BARS, HOOKS, SHELVES, BATH SEATS AND SPRAYS. ART BRASS COMPANY, New York, N. Y.
Filed May 31, 1913. Serial No. 70,769. PUBLISHED OCTOBER 21, 1913.

94,583. DYNAMITE. ATLAS POWDER COMPANY, Wilmington, Del.
Filed June 27, 1913. Serial No. 71,394. PUBLISHED OCTOBER 7, 1913.

197 O. G.—65

94,584. GLOVES OF COTTON, WOOL, COTTON AND WOOL, LISLE, AND SILK. ALBAN AURICH, Hartmannsdorf, Germany.
Filed August 12, 1913. Serial No. 72,301. PUBLISHED OCTOBER 21, 1913.

94,585. SAFETY-PINS. AUSTIN-WALKER SALES COMPANY, New York, N. Y.
Filed February 15, 1913. Serial No. 68,552. PUBLISHED OCTOBER 21, 1913.

94,586. WINDOWS. AUSTRAL WINDOW COMPANY, Augusta, Me., and New York, N. Y.
Filed April 24, 1912. Serial No. 63,087. PUBLISHED OCTOBER 21, 1913.

94,587. CHEWING-GUM. AUTOSALES GUM AND CHOCOLATE COMPANY, New York, N. Y.
Filed June 28, 1913. Serial No. 71,422. PUBLISHED OCTOBER 14, 1913.

94,588. CHEWING-GUM. AUTOSALES GUM AND CHOCOLATE COMPANY, New York, N. Y.
Filed June 28, 1913. Serial No. 71,423. PUBLISHED OCTOBER 14, 1913.

94,589. LUBRICATING-OILS. ALBERT G. BARTLETT, Los Angeles, Cal.
Filed February 20, 1913. Serial No. 68,634. PUBLISHED OCTOBER 21, 1913.

94,590. COPPER PREPARATION TO BE USED IN TREATMENT OF TUBERCULOSIS. THE BAYER COMPANY, INC., New York, N. Y.
Filed September 11, 1913. Serial No. 72,777. PUBLISHED OCTOBER 21, 1913.

94,591. CHEMICAL SUBSTANCES PREPARED FOR USE IN CERTAIN NAMED PURPOSES. DR. BRUNO BECKMANN CHEMISCHE FABRIK GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.
Filed August 29, 1912. Serial No. 65,474. PUBLISHED JULY 8, 1913.

94,592. DENATURED ALCOHOL. DAVID BERG DISTILLING COMPANY, Philadelphia, Pa.
Filed August 22, 1913. Serial No. 72,481. PUBLISHED OCTOBER 21, 1913.

94,593. MEDICATED LOZENGE. E. BERGER & Co., New York, N. Y.
Filed September 6, 1913. Serial No. 72,699. PUBLISHED OCTOBER 21, 1913.

94,594. MOVING-PICTURE FILMS AND CAMERAS, MUTOSCOPE-PICTURES, POSITIVE AND NEGATIVE, AND EXHIBITING-MACHINES. BIOGRAPH COMPANY, New York, N. Y.
Filed October 17, 1911. Serial No. 59,196. PUBLISHED OCTOBER 21, 1913.

94,595. STRAW HATS. BRONSTON BROS. & Co., New York, N. Y.
Filed July 25, 1913. Serial No. 71,962. PUBLISHED OCTOBER 21, 1913.

94,596. WHEAT-FLOUR. JOHN H. BROWER, New York, N. Y.
Filed October 4, 1912. Serial No. 66,187. Renewal of No. 9,913, December 26, 1882. PUBLISHED OCTOBER 7, 1913.

94,597. CRACKERS, BISCUITS, AND CAKES. CALIFORNIA CRACKER CO., Oakland, Cal.
Filed November 25, 1912. Serial No. 67,102. PUBLISHED MAY 27, 1913.

- 94,598. CANE-MILLS. CHATTANOOGA PLOW CO., Chattanooga, Tenn.
Filed September 20, 1913. Serial No. 72,965. PUBLISHED OCTOBER 21, 1913.
- 94,599. CEREAL BREAKFAST FOOD. THE COLORADO SANITARIUM FOOD COMPANY, Boulder, Colo.
Filed April 2, 1913. Serial No. 69,526. PUBLISHED JUNE 24, 1913.
- 94,600. KINEMATOGRAPHIC APPARATUS AND FILMS AND PLATES THEREFOR. COMPAGNIE GENERALE DES ETABLISSEMENTS PATHÉ FRÈRES, PHOTOGRAFIE ET CINÉMATOGRAPHE, Paris, France.
Filed May 29, 1913. Serial No. 70,746. PUBLISHED OCTOBER 21, 1913.
- 94,601. KINEMATOGRAPHIC APPARATUS AND FILMS AND PLATES THEREFOR. COMPAGNIE GENERALE DES ETABLISSEMENTS PATHÉ FRÈRES, PHOTOGRAFIE ET CINÉMATOGRAPHE, Paris, France.
Filed May 29, 1913. Serial No. 70,747. PUBLISHED OCTOBER 21, 1913.
- 94,602. KINEMATOGRAPHIC APPARATUS AND FILMS AND PLATES THEREFOR. COMPAGNIE GENERALE DES ETABLISSEMENTS PATHÉ FRÈRES, PHOTOGRAFIE ET CINÉMATOGRAPHE, Paris, France.
Filed May 29, 1913. Serial No. 70,748. PUBLISHED OCTOBER 21, 1913.
- 94,603. KINEMATOGRAPHIC APPARATUS AND FILMS AND PLATES THEREFOR. COMPAGNIE GENERALE DES ETABLISSEMENTS PATHÉ FRÈRES, PHOTOGRAFIE ET CINÉMATOGRAPHE, Paris, France.
Filed May 29, 1913. Serial No. 70,749. PUBLISHED OCTOBER 21, 1913.
- 94,604. LADIES' UNDERVESTS. HARRY H. CONDIT, Indianapolis, Ind., and New York, N. Y.
Filed August 6, 1913. Serial No. 72,183. PUBLISHED OCTOBER 21, 1913.
- 94,605. TYPE-WRITER CHAIRS AND DESK CHAIRS AND STOOLS. C. A. COOK CO., Cambridge, Mass.
Filed July 3, 1913. Serial No. 71,507. PUBLISHED OCTOBER 7, 1913.
- 94,606. NECKTIES, NECKSCARFS, AND CRAVATS. A. W. COWEN & BROS., New York, N. Y.
Filed September 13, 1913. Serial No. 72,835. PUBLISHED OCTOBER 21, 1913.
- 94,607. THREAD AND YARN MADE OF CERTAIN MATERIALS AND COMBINATIONS THEREOF. COURTAULDS LIMITED, London, England.
Filed August 26, 1913. Serial No. 72,526. PUBLISHED OCTOBER 21, 1913.
- 94,608. ELECTRIC AUTOMOBILE AND MOTOR-CYCLE HORNS. THE DEAN ELECTRIC COMPANY, Elyria, Ohio.
Filed September 24, 1913. Serial No. 73,024. PUBLISHED OCTOBER 21, 1913.
- 94,609. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,927. PUBLISHED OCTOBER 21, 1913.
- 94,610. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,928. PUBLISHED OCTOBER 21, 1913.
- 94,611. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,929. PUBLISHED OCTOBER 21, 1913.
- 94,612. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,930. PUBLISHED OCTOBER 21, 1913.
- 94,613. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,931. PUBLISHED OCTOBER 21, 1913.

- 94,614. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,932. PUBLISHED OCTOBER 21, 1913.
- 94,615. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,933. PUBLISHED OCTOBER 21, 1913.
- 94,616. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,935. PUBLISHED OCTOBER 21, 1913.
- 94,617. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,936. PUBLISHED OCTOBER 21, 1913.
- 94,618. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,937. PUBLISHED OCTOBER 21, 1913.
- 94,619. TAGS. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed September 18, 1913. Serial No. 72,938. PUBLISHED OCTOBER 21, 1913.
- 94,620. MECHANICAL RESPIRATORY APPARATUS AND DEVICES FOR ADMINISTERING OXYGEN. DRÄGERWERK, HEINR. & BERNH. DRÄGER, Lübeck, Germany.
Filed May 22, 1912. Serial No. 63,710. PUBLISHED JUNE 24, 1913.
- 94,621. MEDICINAL PREPARATION USED IN TREATMENT OF CERTAIN NAMED DISEASES. THE PERFECTINE COMPANY, Springfield, Mass.
Filed June 21, 1913. Serial No. 71,235. PUBLISHED OCTOBER 21, 1913.
- 94,622. PURSES AND HAND-BAGS. EISEMAN, KAISER & CO., Chicago, Ill.
Filed July 23, 1913. Serial No. 71,898. PUBLISHED OCTOBER 14, 1913.
- 94,623. AUTOMOBILE-RADIATORS. THE ENGLISH & MERRICK CO., New Haven, Conn.
Filed August 9, 1913. Serial No. 72,247. PUBLISHED OCTOBER 21, 1913.
- 94,624. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed November 12, 1912. Serial No. 66,845. PUBLISHED OCTOBER 14, 1913.
- 94,625. SORGHUM AND SORGHUM COMPOUNDS. THE FORT SCOTT SORGHUM SYRUP COMPANY, Fort Scott, Kans.
Filed June 17, 1912. Serial No. 64,236. PUBLISHED FEBRUARY 18, 1913.
- 94,626. SORGHUM AND SORGHUM COMPOUNDS. THE FORT SCOTT SORGHUM SYRUP COMPANY, Fort Scott, Kans.
Filed June 17, 1912. Serial No. 64,238. PUBLISHED FEBRUARY 18, 1913.
- 94,627. CANDIES. LEONHART H. FREUND & CO., New York, N. Y.
Filed June 9, 1913. Serial No. 70,972. PUBLISHED OCTOBER 14, 1913.
- 94,628. ANTISEPTICS. WILLIAM S. GODWIN, Baltimore, Md.
Filed September 15, 1913. Serial No. 72,857. PUBLISHED OCTOBER 21, 1913.
- 94,629. SUGAR AND OYSTERS. GOLDBERG, BOWEN & CO. INC., San Francisco, Cal.
Filed December 15, 1911. Serial No. 60,252. PUBLISHED JANUARY 21, 1913.
- 94,630. CANDIES. E. GREENFIELD'S SONS, New York and Brooklyn, N. Y.
Filed July 14, 1913. Serial No. 71,684. PUBLISHED OCTOBER 14, 1913.

- 94,631. WATCHES. THE D. GRUEN, SONS & COMPANY, Cincinnati, Ohio.
Filed August 7, 1912. Serial No. 65,135. PUBLISHED OCTOBER 21, 1913.
- 94,632. CORSET-WAISTS. "THE H & W COMPANY," Newark, N. J.
Filed July 30, 1913. Serial No. 72,044. PUBLISHED OCTOBER 21, 1913.
- 94,633. LARD, HAMS, BACON, DRIED BEEF, AND DRY SALT CUMBERLAND CUTS. HAMMOND, STANDISH & CO., Detroit, Mich.
Filed December 28, 1912. Serial No. 67,612. PUBLISHED APRIL 8, 1913.
- 94,634. NEGLIGENCE SHIRTS. HAYENS AND GEDDES COMPANY, Indianapolis, Ind.
Filed August 22, 1913. Serial No. 72,484. PUBLISHED OCTOBER 21, 1913.
- 94,635. CERTAIN GRAIN AND GROUND FRUITS ROASTED FOR A FOOD DRINK. CURT HUGO HEINIG, Cassel, Germany.
Filed December 11, 1911. Serial No. 60,167. PUBLISHED OCTOBER 7, 1913.
- 94,636. HOSE-SUPPORTERS. CHRISTINA J. HIGLEY, New York, N. Y.
Filed September 16, 1913. Serial No. 72,888. PUBLISHED OCTOBER 21, 1913.
- 94,637. POWDERS FOR BLASTING AND OTHER PURPOSES. HOYNES SAFETY POWDER CO., Cleveland, Ohio.
Filed June 27, 1913. Serial No. 71,406. PUBLISHED OCTOBER 7, 1913.
- 94,638. LUBRICATING-OILS, LUBRICATING-GREASES, TEMPERING-OILS, METAL-CUTTING OILS, AND WOOL-OILS. E. F. HOUGHTON & COMPANY, Philadelphia, Pa.
Filed June 14, 1913. Serial No. 71,105. PUBLISHED OCTOBER 21, 1913.
- 94,639. CERTAIN NAMED TOILET PREPARATIONS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,500. PUBLISHED OCTOBER 21, 1913.
- 94,640. STEEL PENS. GEORGE W. HUGHES, Birmingham, England.
Filed May 27, 1913. Serial No. 70,692. PUBLISHED OCTOBER 21, 1913.
- 94,641. SILK AND COTTON PIECE GOODS. A. G. HYDE & SONS, New York, N. Y.
Filed July 18, 1913. Serial No. 71,824. PUBLISHED OCTOBER 21, 1913.
- 94,642. TYPE-WRITERS. IMPERIAL TYPEWRITER CO. LIMITED, North Evington, Leicester, England.
Filed September 9, 1913. Serial No. 72,747. PUBLISHED OCTOBER 21, 1913.
- 94,643. TYPE-WRITERS. IMPERIAL TYPEWRITER CO. LIMITED, North Evington, Leicester, England.
Filed September 9, 1913. Serial No. 72,748. PUBLISHED OCTOBER 21, 1913.
- 94,644. CERTAIN TURBINES, COMPRESSORS, DRILLS, HAMMERS, RAMMERS, AND REPAIR PARTS THEREFOR. INGERSOLL-RAND COMPANY, Phillipsburg, N. J., and New York, N. Y.
Filed June 14, 1913. Serial No. 71,109. PUBLISHED OCTOBER 21, 1913.
- 94,645. PIPES. THE KLINGENSTEIN COMPANY, Los Angeles, Cal.
Filed December 30, 1912. Serial No. 67,634. PUBLISHED OCTOBER 7, 1913.
- 94,646. HEALING-SALVE. OSWALD H. KUTZNER, Santa Ana, Cal.
Filed September 8, 1913. Serial No. 72,723. PUBLISHED OCTOBER 21, 1913.
- 94,647. TOILET WATER. A. ET M. LANDON, Paris, France.
Filed August 15, 1913. Serial No. 72,353. PUBLISHED OCTOBER 21, 1913.

- 94,648. CERTAIN NAMED FOODS. FRANKLIN MACVIAUGH & COMPANY, Chicago, Ill.
Filed August 16, 1909. Serial No. 44,152. PUBLISHED JANUARY 28, 1913.
- 94,649. ORANGES AND GRAPE-FRUIT. MANATEE FRUIT CO., Palmetto and Tampa, Fla.
Filed August 1, 1912. Serial No. 65,038. PUBLISHED OCTOBER 7, 1913.
- 94,650. HOSIERY. SAUL MAYER, New York, N. Y.
Filed July 31, 1913. Serial No. 72,080. PUBLISHED OCTOBER 21, 1913.
- 94,651. INTERNAL-COMBUSTION ENGINES FOR USE WITH KEROSENE, GASOLINE, GAS, DISTILLATE, OIL, ALCOHOL, &C. THE MIDDLETOWN MACHINE CO., Middletown, Ohio, and New York, N. Y.
Filed September 23, 1913. Serial No. 73,010. PUBLISHED OCTOBER 21, 1913.
- 94,652. SPICES. E. B. MILLAR & CO., Chicago, Ill.
Filed November 19, 1912. Serial No. 67,007. PUBLISHED JANUARY 7, 1913.
- 94,653. VARNISHES, WOOD FILLERS, STAINS, AND ENAMELS. MOLLER & SCHUMANN CO., New York, N. Y.
Filed February 8, 1909. Serial No. 40,434. PUBLISHED OCTOBER 21, 1913.
- 94,654. APRONS AND COVERS FOR CERTAIN NAMED VEHICLES. MONTGOMERY-WASHBURN COMPANY, Saugerties, N. Y.
Filed June 24, 1913. Serial No. 71,343. PUBLISHED OCTOBER 21, 1913.
- 94,655. FOLDING BEDS. MURPHY WALL BED CO. OF CALIFORNIA, San Francisco, Cal., and New York, N. Y.
Filed August 13, 1913. Serial No. 72,323. PUBLISHED OCTOBER 14, 1913.
- 94,656. RESISTANCE-WIRE. MURRAY WIRE CO., Newark, N. J.
Filed August 2, 1913. Serial No. 72,138. PUBLISHED OCTOBER 21, 1913.
- 94,657. RESISTANCE-WIRE. MURRAY WIRE CO., Newark, N. J.
Filed August 2, 1913. Serial No. 72,139. PUBLISHED OCTOBER 21, 1913.
- 94,658. RESISTANCE-WIRE. MURRAY WIRE CO., Newark, N. J.
Filed August 2, 1913. Serial No. 72,140. PUBLISHED OCTOBER 21, 1913.
- 94,659. MACARONI. MUSOLINO & BERGER, Boston, Mass.
Filed May 29, 1913. Serial No. 70,763. PUBLISHED OCTOBER 7, 1913.
- 94,660. COFFEE. NALLEY GROCERY CO., Austin, Tex.
Filed July 12, 1912. Serial No. 64,691. PUBLISHED APRIL 1, 1913.
- 94,661. CAMERAS. NATIONAL CAMERA COMPANY, St. Louis, Mo.
Filed September 18, 1913. Serial No. 72,943. PUBLISHED OCTOBER 21, 1913.
- 94,662. VARNISHES, VARNISH-STAIN, ENAMEL PAINT, WOOD-FILLER, AND WOOD-DYES. NEW JERSEY WOOD FINISHING COMPANY, Perth Amboy, N. J.
Filed September 9, 1911. Serial No. 58,607. PUBLISHED JANUARY 14, 1913.
- 94,663. HANDSPIKES. NEW YORK BOAT OAR COMPANY, East Orange, N. J., and New York, N. Y.
Filed September 12, 1913. Serial No. 72,824. PUBLISHED OCTOBER 21, 1913.
- 94,664. BARREL-FILLERS. PENNSYLVANIA FLEXIBLE METALLIC TUBING CO., Philadelphia, Pa.
Filed August 16, 1913. Serial No. 72,384. PUBLISHED OCTOBER 21, 1913.
- 94,665. WATER PURIFYING AND TREATING MATERIALS. THE PERMUTIT COMPANY, New York, N. Y.
Filed June 21, 1913. Serial No. 71,269. PUBLISHED OCTOBER 21, 1913.

94,666. CUT-PILE FABRICS. PHILADELPHIA PILE FABRIC MILLS, Philadelphia, Pa.
Filed March 12, 1913. Serial No. 69,011. PUBLISHED OCTOBER 21, 1913.

94,667. FIRE-EXTINGUISHING COMPOUNDS. PYRENE MANUFACTURING CO., New York, N. Y.
Filed September 27, 1911. Serial No. 58,881. PUBLISHED JULY 8, 1913.

94,668. SALVE. JOHN T. RILEY, Chicago, Ill.
Filed September 15, 1913. Serial No. 72,864. PUBLISHED OCTOBER 21, 1913.

94,669. BOOTS AND SHOES OF LEATHER, CANVAS, VESTING, VELVET, AND SATIN. ROBBER-WASS SHOE COMPANY, St. Louis, Mo.
Filed September 2, 1913. Serial No. 72,636. PUBLISHED OCTOBER 21, 1913.

94,670. REMEDY FOR CERTAIN NAMED AILMENTS. PETER RUHL, Heber, Cal.
Filed July 16, 1912. Serial No. 64,765. PUBLISHED OCTOBER 21, 1913.

94,671. PLAYING-CARDS. RUSSELL PLAYING CARD CO., Milltown, N. J., and New York, N. Y.
Filed September 13, 1913. Serial No. 72,847. PUBLISHED OCTOBER 7, 1913.

94,672. POLISHES FOR AUTOMOBILES AND THE LIKE. RUSSIA CEMENT COMPANY, Gloucester, Mass.
Filed August 26, 1913. Serial No. 72,532. PUBLISHED OCTOBER 21, 1913.

94,673. BREAD. CARL RUST, Frederick, Md.
Filed June 18, 1913. Serial No. 71,178. PUBLISHED OCTOBER 14, 1913.

94,674. FLY-NETS. SCHEFFER & ROSSUM COMPANY, St. Paul, Minn.
Filed August 15, 1913. Serial No. 72,366. PUBLISHED OCTOBER 14, 1913.

94,675. MANURE-SPREADER. D. M. SECHLER IMPLEMENT & CARRIAGE CO., Moline, Ill.
Filed August 16, 1913. Serial No. 72,386. PUBLISHED OCTOBER 21, 1913.

94,676. CREAM POLISH FOR FURNITURE AND OTHER VARNISHED SURFACES. WILLIAM SKOLNICK, New Haven, Conn.
Filed August 29, 1913. Serial No. 72,605. PUBLISHED OCTOBER 21, 1913.

94,677. CANNED SALMON. J. L. SMILEY & CO., Blaine, Wash.
Filed July 16, 1913. Serial No. 71,778. PUBLISHED OCTOBER 14, 1913.

94,678. CANNED SALMON. J. L. SMILEY & CO., Blaine, Wash.
Filed July 16, 1913. Serial No. 71,779. PUBLISHED OCTOBER 14, 1913.

94,679. AUTOMOBILES. SOCIÉTÉ ANONYME CONSTRUCTIONS INDUSTRIELLES DIJONNAISES, Dijon, France.
Filed September 11, 1913. Serial No. 72,795. PUBLISHED OCTOBER 14, 1913.

94,680. CIGARETTE-PAPERS. SOCIÉTÉ ANONYME DES ANCIENS ÉTABLISSEMENTS BRAUNSTEIN FRÈRES, Paris, France.
Filed May 16, 1913. Serial No. 70,451. PUBLISHED OCTOBER 14, 1913.

94,681. CIGARETTE-PAPERS. SOCIÉTÉ ANONYME DES ANCIENS ÉTABLISSEMENTS BRAUNSTEIN FRÈRES, Paris, France.
Filed May 16, 1913. Serial No. 70,452. PUBLISHED OCTOBER 14, 1913.

94,682. CIGARETTE-PAPERS. SOCIÉTÉ ANONYME DES ANCIENS ÉTABLISSEMENTS BRAUNSTEIN FRÈRES, Paris, France.
Filed May 16, 1913. Serial No. 70,453. PUBLISHED OCTOBER 14, 1913.

94,683. WOVEN AND KNIT FABRICS AND STOCKINET OF CERTAIN NAMED MATERIALS. WILHELM BENIGER SÖHNE, Stuttgart, Germany.
Filed July 16, 1913. Serial No. 71,786. PUBLISHED OCTOBER 21, 1913.

94,684. ORANGES, PINEAPPLES, LEMONS, LIMES, AND GRAPE-FRUIT. ORIN EDWARD SPOONER, Boston, Mass.
Filed July 10, 1913. Serial No. 71,645. PUBLISHED OCTOBER 14, 1913.

94,685. BLOTTING-PAPER. STANDARD PAPER MFG. CO., Richmond, Va.
Filed September 6, 1913. Serial No. 72,707. PUBLISHED OCTOBER 21, 1913.

94,686. BLOTTING-PAPER. STANDARD PAPER MFG. CO., Richmond, Va.
Filed September 6, 1913. Serial No. 72,710. PUBLISHED OCTOBER 21, 1913.

94,687. BLOTTING-PAPER. STANDARD PAPER MFG. CO., Richmond, Va.
Filed September 10, 1913. Serial No. 72,771. PUBLISHED OCTOBER 21, 1913.

94,688. COMPOUNDS FOR THE HARDENING OF IRON OR STEEL. THE STEEL IMPROVEMENT COMPANY, Cleveland, Ohio.
Filed September 2, 1913. Serial No. 72,637. PUBLISHED OCTOBER 21, 1913.

94,689. ICE-PICKS. A. W. STEPHENS MFG. CO., Waltham, Mass.
Filed September 20, 1913. Serial No. 72,984. PUBLISHED OCTOBER 21, 1913.

94,690. CERTAIN NAMED COTTON GOODS. STONEWALL COTTON MILLS, Stonewall, Miss.
Filed June 21, 1913. Serial No. 71,277. PUBLISHED OCTOBER 21, 1913.

94,691. LUBRICATING OILS AND GREASES. SWAN & FINCH COMPANY, New York, N. Y.
Filed September 15, 1913. Serial No. 72,869. PUBLISHED OCTOBER 21, 1913.

94,692. REMEDY FOR GONORRHEA. ANNA TAESCHNER, Berlin, Germany.
Filed June 23, 1913. Serial No. 71,325. PUBLISHED OCTOBER 21, 1913.

94,693. COMPOUND FOR SEALING PUNCTURES IN INFLATABLE TIRES. THE TIRE TREATMENT COMPANY, Detroit, Mich.
Filed August 5, 1913. Serial No. 72,170. PUBLISHED OCTOBER 14, 1913.

94,694. LINIMENT. TRIR COMPANY, Carson, Nev.
Filed September 26, 1912. Serial No. 65,989. PUBLISHED OCTOBER 21, 1913.

94,695. SALVE USED EXTERNALLY AS REMEDY FOR INFLAMMATIONS OR CONGESTIONS. THE TRIMBLEINE COMPANY, Seymour, Mo.
Filed April 27, 1912. Serial No. 63,184. PUBLISHED OCTOBER 21, 1913.

94,696. CYCLE CHAINS, PEDALS, HANDLE-BARS, RIM-BRAKES, FREE WHEEL-HUBS, SPOKES, AND NIPPLES. UNION GESELLSCHAFT FÜR METALL-INDUSTRIE MIT BESCHRÄNKTER HAFTUNG, Fröndenberg-on-the-Ruhr, Germany.
Filed September 11, 1913. Serial No. 72,797. PUBLISHED OCTOBER 21, 1913.

94,697. PAPER SHOT-SHELLS. THE UNION METALLIC CARTRIDGE COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed August 6, 1913. Serial No. 72,195. PUBLISHED OCTOBER 14, 1913.

94,698. SELF-RAISING GRAHAM PANCAKE-FLOUR. UNION ROLLER MILLING CO., Pochontas, Ill.
Filed July 16, 1913. Serial No. 71,787. PUBLISHED OCTOBER 14, 1913.

94,699. GARMENT-FASTENERS KNOWN AS SNAP-BUTTONS. WALDES & CO., Prague-Wrschowitz, Austria-Hungary.
Filed April 1, 1912. Serial No. 62,582. PUBLISHED JANUARY 14, 1913.

94,700. LUBRICATING-OIL. WEINSTOCK-NICHOLS CO., San Francisco, Cal.
Filed July 16, 1913. Serial No. 71,802. PUBLISHED OCTOBER 21, 1913.

94,701. LUBRICATING-OIL. WEINSTOCK-NICHOLS CO., San Francisco, Cal.
Filed July 16, 1913. Serial No. 71,803. PUBLISHED OCTOBER 21, 1913.

94,702. MEDICATED GIN FOR TREATMENT OF DISEASES OF BLADDER AND KIDNEYS. WEISS & RAUSCHER, Lehigh, Pa.
Filed July 9, 1913. Serial No. 71,628. PUBLISHED OCTOBER 21, 1913.

94,703. ALL KINDS OF PERFUMES, FACE-PAINTS, AND ROUGES. E. WERTHEIMER & CIE., Paris, France.
Filed September 12, 1913. Serial No. 72,828. PUBLISHED OCTOBER 21, 1913.

94,704. SANITARY COMMODORES, SANITARY BOX-CLOSETS, AND SANITARY VAT-CLOSETS. WEST DISINFECTING CO., New York, N. Y.
Filed August 23, 1913. Serial No. 72,506. PUBLISHED OCTOBER 21, 1913.

94,705. INSECTICIDES. JOSEPH WILLIAMS COMPANY, Sharpsburg borough, Pa.
Filed July 5, 1913. Serial No. 71,548. PUBLISHED OCTOBER 21, 1913.

94,706. PERFUMERY. GEORGE C. WILSON, Tyrone, Pa.
Filed September 8, 1913. Serial No. 72,737. PUBLISHED OCTOBER 21, 1913.

LABELS

REGISTERED DECEMBER 23, 1913.

- 17,411.—Title: "STERLING MEDIUM RED SALMON." (For Salmon.) ARMOUR & COMPANY, Chicago, Ill. Filed December 8, 1913.
- 17,412.—Title: "THE WHISKEY YOUR GRAND-FATHER USED." (For Whisky.) BRENNHEIM DISTO. Co., Louisville, Ky. Filed October 9, 1913.
- 17,413.—Title: "CREAM OF THE CROP." (For Whisky.) SOL COHN AND COMPANY, Nashville, Tenn. Filed September 17, 1913.
- 17,414.—Title: "EXTRA SPECIAL OLD SCOTCH WHISKY." (For Scotch Whisky.) JOHN DEWAR & SONS LIMITED, Perth, Scotland, and London, England. Filed November 8, 1912.
- 17,415.—Title: "EXTRA SPECIAL LIQUEUR." (For Scotch Whisky.) JOHN DEWAR & SONS LIMITED, Perth, Scotland, and London, England. Filed November 8, 1912.
- 17,416.—Title: "SPECIAL LIQUEUR." (For Scotch Whisky.) JOHN DEWAR & SONS LIMITED, Perth, Scotland, and London, England. Filed November 8, 1912.
- 17,417.—Title: "WHITE LABEL." (For Scotch Whisky.) JOHN DEWAR & SONS LIMITED, Perth, Scotland, and London, England. Filed November 8, 1912.
- 17,418.—Title: "SPECIAL OLD SCOTCH WHISKY." (For Scotch Whisky.) JOHN DEWAR & SONS LIMITED, Perth, Scotland, and London, England. Filed November 8, 1912.
- 17,419.—Title: "GREEN LABEL HARRY G. KENTUCKY BOURBON." (For Whisky.) HARRY GERHARDT, St. Louis, Mo. Filed November 15, 1913.
- 17,420.—Title: "GEISTER'S CLUB HOUSE." (For Cigars.) HENRY W. GEISTER, Springfield, Mo. Filed December 10, 1913.
- 17,421.—Title: "ITALIAN PURE OLIVE OIL." (For Olive-Oil.) ANTHONY GIUNTA, Philadelphia, Pa. Filed December 8, 1913.
- 17,422.—Title: "KERR'S IMPROVED METALLIC LACING." (For Metallic Belt-Lacing.) KERR & COMPANY, INC., New York, N. Y. Filed April 23, 1913.
- 17,423.—Title: "LIVER EASE." (For Medicinal Preparation.) LIVER EASE MEDICINE COMPANY, Atlanta, Ga. Filed September 27, 1913.
- 17,424.—Title: "MARTIN." (For Cigars.) MARTIN BROS. CIGAR MFG., Elkhart, Ind. Filed December 3, 1913.
- 17,425.—Title: "SUPREME BRAND GUANO." (For Guano.) MORRIS FERTILIZER COMPANY, Atlanta, Ga. Filed October 23, 1913.
- 17,426.—Title: "PILSNER WELTBÄU BEER." (For Beer.) R. NÄGELI'S SONS, Hoboken, N. J. Filed December 10, 1913.
- 17,427.—Title: "ASTOR TEXT." (For Stationery.) THE NATIONAL ASSOCIATION OF STEEL AND COPPER PLATE ENGRAVERS, Louisville, Ky. Filed September 10, 1913.
- 17,428.—Title: "NEP-TON-IC." (For Medicinal Preparations.) NEPTONIC COMPANY, San Francisco, Cal. Filed September 30, 1913.
- 17,429.—Title: "SKOOKUM." (For Apples.) NORTH-WESTERN FRUIT EXCHANGE, Portland, Ore. Filed November 4, 1913.
- 17,430.—Title: "GOLD CROWN POISON FOR THE DESTRUCTION OF SQUIRRELS, GOPHERS AND RATS." (For Squirrel, Gopher, and Rat Poison.) GUY E. PRICE, Campbell, Cal. Filed July 7, 1913.
- 17,431.—Title: "LUXURY." (For Cigars.) W. H. RAAB & SONS, Dallastown, Pa. Filed November 22, 1913.
- 17,432.—Title: "TED & TESS." (For Cigars.) W. H. RAAB & SONS, Dallastown, Pa. Filed November 22, 1913.
- 17,433.—Title: "VERA SWEET CHOCOLATES." (For Candies.) A. M. RAMER Co., Winona, Minn. Filed October 9, 1913.
- 17,434.—Title: "CASCO." (For Carbon-Remover.) CHAS. J. REITZ, Buffalo, N. Y. Filed November 18, 1913.
- 17,435.—Title: "SCHROEDER'S TOMATO BRACER." (For a Nerve Tonic and Invigorator.) JOSEPH C. SCHROEDER, St. Louis, Mo. Filed December 9, 1913.
- 17,436.—Title: "NONATUCK LAWN FINE STATIONERY." (For Stationery.) WHITE & WYCKOFF MFG. Co., Holyoke, Mass. Filed November 28, 1913.
- 17,437.—Title: "LEAF TOBACCO." (For Leaf-Tobacco.) BEN. WORLDIKE, St. Louis, Mo. Filed October 24, 1913.

PRINTS

REGISTERED DECEMBER 23, 1913.

- 3,444.—Title: "FORMAMINT." (For Throat-Tablets.) THE BAUER CHEMICAL Co., New York, N. Y. Filed November 19, 1913.
- 3,445.—Title: "FORTY WINKS." (For Wheat Breakfast Food.) CREAM OF WHEAT Co., Minneapolis, Minn. Filed December 2, 1913.
- 3,446.—Title: "ON THE RUN." (For Hosiery.) INTERWOVEN STOCKING COMPANY, New Brunswick, N. J. Filed November 15, 1913.
- 3,447.—Title: "PUTTING ON SOCKS." (For Hosiery.) INTERWOVEN STOCKING COMPANY, New Brunswick, N. J. Filed November 15, 1913.
- 3,448.—Title: "SITTING DOWN." (For Hosiery.) INTERWOVEN STOCKING COMPANY, New Brunswick, N. J. Filed November 15, 1913.
- 3,449.—Title: "WHO CAN BEAT THEM?" (For Hinges.) LAWSON MANUFACTURING Co., Chicago, Ill. Filed October 28, 1913.
- 3,450.—Title: "LEMP LAGER BOTTLED BEER." (For Lager Bottled Beer.) WM. J. LEMP BREWING Co., St. Louis, Mo. Filed November 25, 1913.
- 3,451.—Title: "HE DOES NOT CHEW BROWN'S MULE." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed November 26, 1913.
- 3,452.—Title: "JULEP MINTS." (For Julep. Mints.) S. H. ROBISON Co., Philadelphia, Pa. Filed November 12, 1913.
- 3,453.—Title: "A. T. SCHLICHTING GLASSWARE." (For Glassware.) ALBERT T. SCHLICHTING, Newark, N. J. Filed October 23, 1913.
- 3,454.—Title: "A. T. SCHLICHTING GLASSWARE." (For Glassware.) ALBERT T. SCHLICHTING, Newark, N. J. Filed December 8, 1913.
- 3,455.—Title: "MICA." (For Axle-Grease.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed November 25, 1913.
- 3,456.—Title: "OVERLAND." (For Automobiles.) THE WILLIS-OVERLAND COMPANY, Toledo, Ohio. Filed December 6, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE PINGREE-TRAUNG Co.

Decided November 28, 1913.

LABELS—TITLE—MAY BE PLACED ON THE BACK.

It is necessary that the title of a label appear on the copies filed in order to identify them with the application and certificate of registration; but it is sufficient if such title appear on the back of the labels.

ON PETITION.

LABEL FOR APPLES.

Messrs. Mason, Fenwick & Lawrence for the applicant.

EWING, Commissioner:

This is a petition from the requirement of the Examiner that the title appear upon the labels filed by applicant.

The labels filed with the application fail to show thereon the title "Bowl of Apples," which appears in the application papers. The Examiner's requirement that the title be placed upon the labels is based upon Rule 19, which provides that—the title of the print or label must appear on the copies filed.

Applicant states that the label submitted is the label to be employed, and it objects to disfiguring it with the title.

A copy of the label is attached to the certificate of registration issued by this Office. In order to identify the labels with the application and certificate of registration, it is necessary that the title appear upon the label. This purpose will be served and the rule satisfied by the placing of the title upon the back of the label.

The petition is granted to the extent that applicant may place the title upon the back instead of the face of the label, if it so desires.

EX PARTE THOMAS.

Decided December 12, 1913.

1. APPLICATION—PROSECUTION.

Where an applicant waits until about the last day of the year to file a response, he does so at his own risk; but where the amendment is filed in ample time the applicant is entitled to some consideration.

2. SAME—SAME—PETITION—DELAY IN FILING.

Where an application is held abandoned for lack of responsive prosecution, the applicant should take steps

[Vol. 197.

at once to bring the case before the Commissioner on petition, since the delay in filing the petition, if unexcused, will be fatal to a reinstatement of the application if the amendment was unresponsive.

ON PETITION.

CIRCUIT-BREAKER.

Mr. George H. Stockbridge and Mr. Charles A. Terry for the applicant.

EWING, Commissioner:

This is a petition from the Examiner's holding that the application is abandoned. This was dated December 6, 1912.

An examination of the history of the application down to December 6, 1912, satisfies me that the Examiner's action in holding the case abandoned was premature, and it is therefore set aside and the case remanded to him for further prosecution.

It is noted also that the response which the Examiner held to be insufficient was filed in the Office on October 1, 1912, more than a month before the expiration of the year from the next preceding Office action. One who waits until about the last day to file a response does so at his own risk; but where the amendment is filed in ample time the applicant is entitled to some consideration.

On the other hand, after the second letter by the Examiner, reiterating his holding that the application was abandoned, dated March 11, 1913, the applicant should have taken steps at once to bring the case before the Commissioner on petition. Instead, he waited until December 2, 1913, to file his petition. If on examination of the case I had concluded that it had become abandoned and that the question was one of reinstatement, I would have had to hold the case abandoned because of this delay.

The petition is granted.

EX PARTE STEMPEL.

Decided December 15, 1913.

APPLICATION—PROSECUTION—REQUIREMENT FOR DIVISION—ELECTION—EXAMINATION.

Where after a requirement for division applicant states on the record that he elects to prosecute one set of the claims, but does not cancel the other claims, Held that the Examiner should act on the merits of the claims for the invention elected by the applicant. If

No. 4.]

such claims are finally rejected, a single appeal may be made to the Examiners-in-Chief both as to such claims and to the requirement of division.

ON PETITION.

PROCESS OF PRODUCING ATTRITION-SHEETS AND THE ARTICLES OF MANUFACTURE PRODUCED THEREBY.

Messrs. Munn & Co. for the applicant.

EWING, Commissioner:

This is a petition that the Examiner be directed to act on the merits of certain claims which applicant had elected to prosecute in this application.

In *ex parte King* (190 O. G., 548) it was held that where after a requirement of division applicant states on the record that he elects the invention covered by one set of the claims the Examiner should examine these claims on the merits. Under this holding an applicant can appeal from the requirement of division and also from the rejection of the claims for the invention elected. The Examiner holds that under Rule 42 an applicant must limit his specification, drawings, and claims to one invention before he is entitled to any examination on the merits and considers *ex parte King* to abrogate the rule.

Ordinarily an Examiner should not refuse to follow a decision on the ground that it is in conflict with one of the rules. It would be a proper assumption on his part that the question whether there is conflict was considered when the decision was rendered.

If the word "limit" in Rule 42 means that all reference to one of the inventions must be eliminated from the application before examination on the merits of the other invention, then the Examiner is right in holding that there is a conflict between the *King* decision and the rule. On the other hand, if the statement by the applicant that he elects to prosecute the invention covered by one set of the claims is a limiting of the application to that invention then there is no conflict.

It is doubtful whether in the majority of cases the applicant is actually required to eliminate one of the inventions from his application. In some cases the requirement cannot be made. In the case of a process and apparatus, for example, where it is necessary to show an apparatus for carrying out the process, it would be impossible to adopt any such literal interpretation of Rule 42 as the Examiner has done in this case. In the present case, where the inventions claimed are process and product, it is not seen that any advantage would be gained by compelling the applicant to cancel his drawing, and it would be almost impossible to eliminate all mention of the product from the specification. The petition should therefore be granted.

There is little or no objection to the practice announced in *ex parte King* where the two inventions are classified in the same division. One objection is noted in the *King* decision—namely, that where the Commissioner, on appeal, reverses the requirement for division, but affirms the rejection of the claims considered on the merits, applicant might be forced to appeal on only a part of the claims or

[Vol. 197.

to take two appeals to the court of appeals. In such cases it may be possible on petition brought to make an order relieving the applicant and the court from this duplication of appeal.

Where, however, the two inventions are classified in different divisions, a difficulty may arise as to the manner of handling the case. If the invention elected belongs in a different division from that of the Examiner who required division, apparently the application should be transferred. If the claims are rejected and appeal taken, the appeal from the requirement for division, theoretically, at least, should be answered by the Examiner who made it, while the appeal from the rejection of the claims on the merits should be answered by the Examiner who rejected the claims. On the other hand, if the application is not transferred the Examiner who made the requirement for division would have to examine claims which do not belong in his division, and if he is affirmed on his requirement for division, but reversed on the merits, or if he has found the claims allowable on the merits, the application will have to be transferred either before or after the patent is granted. The Examiners may bring such cases to the attention of the Commissioner for special directions.

The petition is granted.

BLACK BETSEY COAL & MINING COMPANY v. THE W. J. HAMILTON COAL COMPANY.

Decided December 15, 1913.

1. TRADE-MARKS—INTERFERENCES—CANCELATION—REB ADJUDICATED.

Where after an interference between an applicant and a registrant is decided adversely to the applicant he files a petition for the cancellation of the registration, *Held* that the application for cancellation should be dismissed, since the judgment in the interference was conclusive of every question that might have been presented therein.

2. SAME—CANCELATION—ACT OF 1881.

Whether section 13 of the act of 1905 applies to trade-marks registered under the act of 1881, *quære*.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR COAL.

Mr. Edward S. Duvall, Jr., for Black Betsey Coal & Mining Company.

The W. J. Hamilton Coal Company *pro se*.

EWING, Commissioner:

This is an appeal by the Black Betsey Coal & Mining Company from the decision of the Examiner of Interferences dismissing its application for cancellation.

The parties to this cancellation proceeding were parties to an interference proceeding, No. 32,697, in which the same question was involved as is involved in this cancellation proceeding and in which judgment was rendered against the Black Betsey Coal & Mining Company under date of April 17, 1912, as follows:

The date set for final hearing in this case having passed and the Black Betsey Coal & Mining Company, the junior party, having failed to file any testimony within the time allowed for that purpose, it is hereby adjudged that the Black Betsey Coal & Mining Company is not entitled to register the trade-mark in issue.

No. 4.]

As no appeal was taken, this decision became final May 7, 1912. Therefore this cancellation proceeding must be dismissed under the doctrine of *Bluthenthal & Bickart v. Bigbie Bros. & Co.*, (143 O. G., 1346; 33 App. D. C., 209.)

I do not sustain the Examiner of Interferences in dismissing the application for cancellation on the authority of *Funk v. Baldwin*, (127 O. G., 392,) as I see no reason why section 13 of the Trade-Mark Act of 1905 should not be held to apply to trade-marks registered under the earlier act. Section 13 does not alter in any way the right of a registrant to his trade-mark, but merely provides a new remedy in case a trade-mark is registered by a party who never had or who has abandoned any right thereto.

The language in section 13 is broad enough to cover registrations under the earlier act, and there is no reason for limiting its plain meaning. The registrations confer the privilege of suing in a particular court and may be used to make out a *prima facie* case of ownership. Where no fundamental right exists this privilege and advantage should not be enjoyed, and the legislature may properly provide a method of canceling the registrations.

The Examiner of Interferences is sustained.

NATIONAL WATER COMPANY v. THE AKRON BREWING COMPANY.

Decided October 21, 1913.

1. TRADE-MARKS—OPPOSITION—AMENDMENT OF NOTICE.

A notice of opposition cannot be amended after the expiration of the thirty days provided by the statute to set up a cause of action different from that set up in the original notice.

2. SAME—SAME—SAME.

Where a certificate of registration is cited in a notice of opposition, it carries with it all that is disclosed in the certificate; but the substance of the notice of opposition would not be altered by an amendment specifying the general class of merchandise under which the particular description of goods set out in the certificate of registration falls.

ON PETITION.

TRADE-MARK FOR BEER.

Messrs. Oudin, Kilbreth & Schackno for National Water Company.

Mr. Clarence E. Humphrey and Mr. A. M. Wilson for The Akron Brewing Company.

FRAZIER, First Assistant Commissioner:

This is a petition by the National Water Company for a review of that part of the decision of the Examiner of Interferences dismissing the petitioner's motion to amend its notice of opposition.

In the decision of the Examiner of Interferences, dated September 19, 1913, after stating the facts presented for his decision it is said:

"The motion to dismiss will therefore be considered as directed first to the original notice, and should that be found defective but capable of amendment, then to the amended notice."

The Examiner here clearly recognizes that in certain cases the right of amendment to an opposition exists, such right to be restricted to those cases in which the notice of opposition, legally sufficient in subject-matter, has defects capable of amendment.

[Vol. 197.

The Examiner further held:

The chief ground upon which the motion to dismiss is based is that beer and natural spring waters or mineral waters are not goods of the same descriptive properties. If this contention is sound, it will finally dispose of the case, since after the thirty days provided by the statute, the notice of opposition may not be amended to set up goods other than those alleged in the original notice of opposition.

In other words, the Examiner of Interferences properly held that if the cause of action embodied in the notice of opposition be not legally sufficient to sustain the opposition a different cause of action could not be set up in opposition after the expiration of the thirty days provided by the statute, a holding which cannot be successfully disputed. After full consideration of the merits of the original opposition the Examiner of Interferences concludes:

In view of the decisions which have been cited, it is considered that beer and water should not be regarded as "merchandise of the same descriptive properties," and that the notice of opposition should be dismissed.

In his further treatment of the amended notice of opposition he said:

Since the original notice of opposition has been held insufficient as a basis for further proceedings for reasons which it is considered cannot be corrected by amendment, the pending motion to amend is dismissed without consideration on its merits, and the decision herein rendered is final, subject to appeal.

In a supplemental letter, filed after the hearing with the consent of the attorney for the applicant, the attorney for the opposer calls attention to the fact that certificate of registration No. 11,830 was not set forth in the original notice of opposition, but is included in the amended notice, and that in the original notice of opposition certificate of registration No. 45,543 was stated as having been obtained for mineral waters, whereas the amended notice of opposition states that it is applied to beverages.

The opposer appears to regard this as important in view of the fact that in the decision of the Examiner he states that the two registrations on which profert was made alleged in each case that the mark is used on mineral waters. There might possibly be some force in this contention, whatever may be said as to its effect on this petition, were it not for the fact that this Office can and will take judicial notice of its own records.

Exercising that right and duty, it is observed that Certificate No. 11,830 defines the particular description of the goods as mineral waters. Its inclusion, therefore, would be merely cumulative. It would not change the cause of action in the original notice. Standing alone, but for the conclusion reached by the Examiner of Interferences it might have been admitted as an amendment to the original notice of opposition.

Similarly, certificate of registration No. 45,543 is found not to change the particular description of goods which are set forth in that certificate as "mineral waters." The amendment merely adds the class of merchandise under which the particular description of goods falls. Its citation in the original notice carries with it all that is disclosed in that certificate; but to add "beverages" as the class of merchandise does not alter the substance of the notice of opposition. Its admission, therefore, could serve no useful purpose.

No. 4.]

If it be sought to establish "beverages" as goods of the same descriptive properties as the goods of the applicant, which the Examiner has found to be of different descriptive properties from mineral waters, that proposition would not alter the reasons of the Examiner for dismissing the opposition. It may be said in this connection that the particular description of goods for which Certificate No. 45,543 was registered is not beverages, but mineral waters. The scope of that trade-mark cannot be extended, as the opposer appears to think he may. (*Keystone Chamote Company*, 101 O. G., 3109, and *B. Fischer & Co. v. A. F. Beckmann & Co.*, 149 O. G., 1120.)

As the original notice was held not legally sufficient to sustain the opposition, it follows that the Examiner was correct in dismissing the amended notice of opposition for the reasons stated in his decision, the merits of which cannot be considered on this petition.

Finding no abuse of discretion and no reason for interfering with the Examiner's decision in the matter, I am compelled to dismiss this petition.

Proceedings will be resumed.

The limit of appeal from the Examiner's decision is set to expire October 30, 1913.

EX PARTE THE CURTIS PUBLISHING COMPANY.

Decided December 11, 1913.

TRADE-MARKS—PUBLICATIONS DISTRIBUTED FREE—MERCHANDISE.

A publication which is distributed free for advertising purposes held to constitute merchandise within the meaning of the Trade-Mark Act and a mark used on such publications to be registrable.

ON APPEAL.

TRADE-MARK FOR A PERIODICAL.

Mr. Charles N. Butler for the applicant.

NEWTON, Assistant Commissioner.

This is an appeal from the refusal of the Examiner of Trade-Marks to register the words "The Swastika" as a trade-mark for a periodical.

The ground of the Examiner's rejection seems to be that a publication or magazine that is to be distributed free for advertising purposes is not merchandise within the meaning of sections 1 and 2 of the Trade-Mark Act.

But on inspection of the sample copies of the publication it is found that they contain besides advertising-matter certain matter of a literary character. They appear, however, to be distributed freely and mainly for advertising purposes.

It has been the custom for the past twenty-five years, at least, to register the names of magazines as trade-marks. Indeed, the applicant has specified two magazines, one denominated "Thrift," registration No. 68,523, and another for printed pamphlets and circulars, given away to advertise religious movements by the "Brotherhood of Disciples of Christ," No. 81,850, May 16, 1911, and upon an inspection of these last-mentioned pamphlets it is

[Vol. 197.

not seen why the present applicant's trade-mark does not identify "merchandise" as that term is used in the trade-mark statutes if the marks on the other publications do. Indeed, whether a magazine periodically issued, containing only advertisements and given away free, should be distinguished under the trade-mark statute from the ordinary magazine is doubtful, and in the present instance, even though the magazine is distributed freely, the publishers undoubtedly expect in some way to get a return. They do not pretend to publish this magazine gratuitously, and it is thought that the Office should be liberal rather than restrictive in its interpretation of what publications are held as merchandise under the trade-mark statute, and the decision of the Examiner of Trade-Marks is overruled.

ADJUDICATED PATENTS.

(U. S. D. C.) The Davidson reissue patents, Nos. 12,796 and 12,797, (original No. 662,395,) for a centrifugal fan or pump, Held valid and infringed. *Sirocco Engineering Co. v. B. F. Sturtevant Co.*, 208 Fed. Rep., 147.

(U. S. D. C.) The Williams patent, No. 1,011,892, for a wind-shield for automobiles, construed and Held not infringed. *20th Century Motor Car & Supply Co. v. Holcomb Co.*, 208 Fed. Rep., 155.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 12, 1913.

Henry Newman, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Landers, Frary & Clark, corner Center and Commercial streets, New Britain, Conn., for the registration of a trade-mark and trade-mark registered September 26, 1899, No. 33,500, to Henry Newman, 628-630 Broadway, New York, N. Y., and it having come to the attention of the Office that said Henry Newman is probably deceased, and his successors in business, if any, being unknown to the Patent Office, notice is hereby given that unless the assigns or legal representatives of said Henry Newman shall appear within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 28, 1913.

Samuel K. Elliott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Weigel, Hoshaw & Heare, North Yakima, Wash., for registration of a trade-mark and a trade-mark registered May 22, 1906, No. 53,071, to Samuel K. Elliott, 222 East Pico street, Los Angeles, Cal., and a notice of such declaration sent by registered mail to said Samuel K. Elliott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Samuel K. Elliott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

No. 4.]

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 197—No. 5.

TUESDAY, DECEMBER 30, 1913.

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF DECEMBER 30, 1913.....	1001
ADVERSE DECISIONS IN INTERFERENCE.....	1001
AMENDMENTS.....	1001
APPLICATIONS UNDER EXAMINATION.....	1002
PATENTS GRANTED.....	1003
REISSUES.....	1008
DESIGNS.....	1070
TRADE-MARKS—REGISTRATION APPLIED FOR.....	1075
TRADE-MARKS—REGISTERED.....	1087
LABELS AND PRINTS.....	1090
COMMISSIONER'S DECISIONS—	
Price v. Adamson.....	1091
Radcliffe v. Föttinger.....	1091
DECISIONS OF THE U. S. COURTS—	
Radcliffe v. Föttinger.....	1093
Barrett v. The Irish Industrial Development Association.....	1094
INTERFERENCE NOTICES.....	1094

ISSUE OF DECEMBER 30, 1913.

Patents.....	784—No. 1,082,483 to No. 1,083,266, inclusive.
Designs.....	15—No. 45,083 to No. 45,097, inclusive.
Trade-Marks.....	89—No. 94,707 to No. 94,795, inclusive.
Labels.....	6—No. 17,438 to No. 17,443, inclusive.
Prints.....	1—No. 2,457.
Reissues.....	4—No. 13,664 to No. 13,667, inclusive.
Total.....	899

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama.....	6	.....	North Carolina.....	2	1
Arizona.....	1	.....	North Dakota.....	3	.....
Arkansas.....	4	.....	Ohio.....	51	4
California.....	20	3	Oklahoma.....	7	.....
Colorado.....	13	1	Oregon.....	9	.....
Connecticut.....	24	.....	Pennsylvania.....	73	17
Delaware.....	4	1	Rhode Island.....	5	1
Florida.....	3	1	South Carolina.....	3	.....
Georgia.....	2	2	South Dakota.....	4	.....
Idaho.....	2	.....	Tennessee.....	2	.....
Illinois.....	44	4	Texas.....	10	.....
Indiana.....	22	1	Utah.....	2	.....
Iowa.....	14	.....	Vermont.....	1	.....
Kansas.....	3	.....	Virginia.....	8	1
Kentucky.....	6	.....	Washington.....	10	.....
Louisiana.....	5	1	West Virginia.....	5	1
Maine.....	2	.....	Wisconsin.....	16	2
Maryland.....	6	.....	Wyoming.....	1	.....
Massachusetts.....	55	4	Alaska, District of.....	.....	.....
Michigan.....	16	1	Canal Zone.....	1	.....
Minnesota.....	14	3	District of Columbia.....	9	.....
Mississippi.....	5	.....	Hawaii Territory.....	.....	.....
Missouri.....	21	5	Philippine Islands.....	.....	.....
Montana.....	2	.....	Porto Rico.....	.....	.....
Nebraska.....	6	.....	U. S. Army.....	.....	.....
Nevada.....	1	1	U. S. Navy.....	.....	.....
New Hampshire.....	1	.....	Total to residents of the United States.....	698	84
New Jersey.....	27	3			
New Mexico.....	2	.....		
New York.....	125	26			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina.....	.....	.....	Netherlands.....	1	.....
Austria-Hungary.....	5	1	Newfoundland.....	.....	.....
Belgium.....	2	.....	New South Wales.....	1	.....
British India.....	.....	.....	New Zealand.....	4	.....
Brazil.....	.....	.....	Norway.....	.....	.....
British West Indies.....	.....	.....	Peru.....	.....	.....
Canada.....	10	.....	Queensland.....	.....	.....
Cape Colony.....	.....	.....	Roumania.....	.....	.....
Chile.....	.....	.....	Russia.....	.....	.....
Costa Rica.....	.....	.....	Scotland.....	2	.....
Cuba.....	1	.....	South Australia.....	.....	.....
Denmark.....	.....	.....	Spain.....	.....	.....
Dominican Republic.....	.....	.....	Sweden.....	2	.....
England.....	25	3	Switzerland.....	2	1
France.....	9	1	Transvaal, South.....	.....	.....
Germany.....	35	5	Africa.....	.....	.....
India.....	.....	.....	Victoria.....	.....	.....
Ireland.....	1	.....	Wales.....	.....	.....
Italy.....	.....	.....	Total to residents of foreign countries.....	100	12
Japan.....	.....	.....	
Mexico.....	1	.....		

Adverse Decisions in Interference.

PATENTS NOS. 852,024 AND 852,025.

On October 1, 1913, a decision was rendered that George J. Mashek was not the first inventor of the subject-matter covered by claims 1, 2, 6, 7, and 10 of Patent No. 852,024 and claims 1, 2, 3, 4, and 5 of his Patent No. 852,025, and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 949,052.

On December 1, 1913, a decision was rendered by the Court of Appeals of the District of Columbia that Harry W. Barclay was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 949,052. Such decision has become final.

Amendments.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 27, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 10	Oct. 24	781
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Printing and Paper Hanging; Paper Folders and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Services; Tobacco.	Aug. 8	Nov. 1	767
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Nov. 28	Dec. 18	814
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Sept. 6	Sept. 29	938
167	5. Bookbinding; Harvesters; Jewellery; Music.	Sept. 17	Oct. 18	693
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Aug. 8	Sept. 30	938
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	July 14	Nov. 1	1018
121	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 23	Nov. 7	998
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors; Fluid; Motors, Fluid-Current; Pump; Wind-Wheels.	June 23	Oct. 22	732
235	10. Carriages and Wagons.	Sept. 2	Oct. 14	1446
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelets, and Rivet Setting; Harness; Leather Manufactures; Nail-making and Stapling; Whips and Whip Apparatus.	Oct. 18	Nov. 1	489
222	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Aug. 2	Aug. 25	1624
329	13. Arms, Projectiles, and Explosive Charges; Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Making; Turning.	Aug. 26	Oct. 15	740
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Fanning; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 17	Nov. 17	616
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	June 19	Oct. 4	1492
109	16. Radiant Energy; Telegraphy; Telephony.	July 1	July 31	858
306	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Oct. 28	Nov. 22	389
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 13	Nov. 3	288
256	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Sept. 10	Oct. 31	725

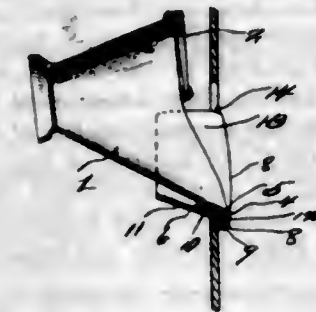
Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Saws; Undertaking.	Oct. 20	Oct. 22	357
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Wind-ing and Reeling.	July 21	Oct. 1	654
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Sept. 3	Nov. 7	467
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 13	Oct. 22	615
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Oct. 13	Nov. 1	698
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 14	Nov. 25	364
106	26. Electricity, Generation; Motive Power.	June 20	Sept. 15	768
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 9	Oct. 27	577
65	28. Internal-Combustion Engines.	Aug. 19	Oct. 27	955
147	29. Coopering; Fire-Escapes; Ladders; Ropes; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Sept. 2	Aug. 20	808
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 25	Dec. 3	318
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gums.	Sept. 25	Oct. 17	494
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Aug. 4	Nov. 10	562
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Cans.	Oct. 2	Oct. 25	521
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Nov. 6	Nov. 6	500
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Nov. 24	Oct. 1	634
264	36. Drives; Geometrical Instruments; Measuring Instruments; Photography.	Oct. 15	Oct. 0	1010
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conducts; Electricity, General Applications.	Apr. 24	Aug. 9	978
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Aug. 1	Sept. 22	1040
321	39. Water Distribution.	Sept. 9	Oct. 10	672
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 10	Oct. 18	1329
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Nov. 7	Oct. 24	539
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	June 3	July 31	721
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 25	Nov. 20	343
Oldest new case, Apr. 24; oldest amended, July 31.				
Total number of applications awaiting action 31,088				
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Sept. 11	Nov. 20	1247
	Designs	Oct. 21	Dec. 1	373
	Labels and Prints	Nov. 24	Dec. 11	82

PATENTS

GRANTED DECEMBER 30, 1913.

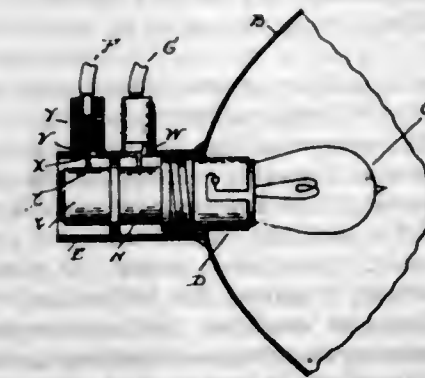
1,082,483. COAL-HOD ATTACHMENT. RALPH I. ALVERSON, Madrid, Iowa. Filed Jan. 15, 1913. Serial No. 742,154. (Cl. 220—45.)



1. In combination with a coal-hod having a slot at its mouth end, a guard corresponding in shape to the sides and mouth end of the hod and having means entering said slot to pivot the guard to the hod, said guard having a portion adapted to engage the lower edge of a stove door opening when the hod is tilted therein in order to throw the sides of the guard beyond the sides of the hod, the free ends of the sides of the guard having means to engage the edges of the sides of the hod to limit the guard in its normal position.

2. In combination with a coal-hod having a slot at its mouth end, a guard constructed of sheet metal and conforming to the sides and the mouth end of the hod, one edge of the guard being provided with a hollow bead having a reinforcing wire therein, the sheet metal of the guard being formed with an extension bent upon itself to form a tongue to enter said slot, the mouth end of the hod having a reinforcing wire with which the bent portion of the tongue engages at the slot, the reinforcing wire of the guard at the free ends thereof terminating in lugs beyond the bead of the guard adapted to engage the edges of the sides of the hod to limit the guard to its normal position, the guard having a portion adapted to engage the lower edge of a stove door opening when the hod is tilted therein to throw the sides of the guard beyond the side edges of the hod.

1,082,484. LAMP-SOCKET. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed May 26, 1913. Serial No. 769,927. (Cl. 240—44.)



1. In a lamp socket, the combination of a plug comprising a lamp-receiving socket portion, terminals arranged in said socket portion, an insulating core carrying said terminals, spaced metallic bands upon said core, insulating material interposed between the adjacent ends of said bands, means for electrically connecting each of said bands with one of the terminals, a sleeve within which said plug

is arranged for longitudinal and rotary adjustment, contact sockets on said sleeve, and spring-pressed contacts in said sockets respectively engaging said metallic bands.

2. The combination of a reflector of a lamp, a plug having a lamp-receiving socket portion formed as a unit therewith, a terminal carried by the plug extending into the socket portion, a bearing for the plug arranged to position the lamp-receiving socket in operative relation to the reflector, a screw-threaded engagement between the bearing and the plug for permitting the adjustment of the socket portion relative to the reflector, and means for holding the plug and bearing in any position of relative adjustment.

3. The combination of a reflector of a lamp, a plug having a lamp-receiving socket portion formed as a unit therewith, a terminal carried by the plug arranged to position the lamp-receiving socket in operative relation to the reflector, a screw-threaded engagement between the bearing and the plug for permitting the adjustment of the socket portion relative to the reflector, and yielding means for releasably holding the plug and bearing against relative movement.

4. The combination of a reflector of a lamp, a plug member having a lamp-receiving socket portion, a terminal carried by the plug and projecting into the socket portion, a bearing for the plug arranged to position the lamp-bulb engaging portion in operative relation to the reflector, an engagement between the bearing and plug for effecting upon a relative rotation of the plug and bearing a longitudinal adjustment of the plug relative to the reflector, a contact carried by one of said members and having a frictional engagement with the other member and acting to retain the plug and bearing members in different positions of relative adjustment, and means for electrically connecting said terminal and contact.

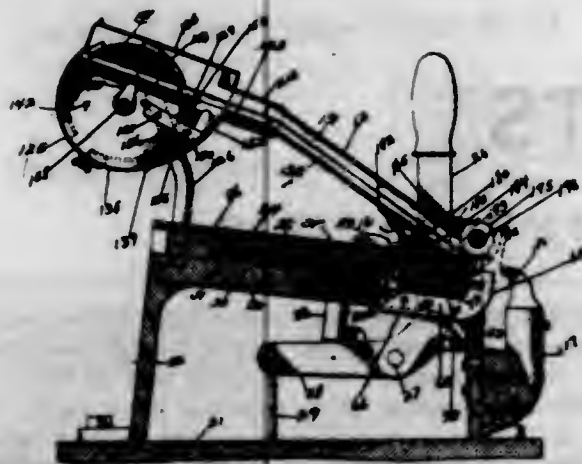
5. The combination of a reflector of a lamp, a plug member having a lamp-receiving socket portion, a terminal carried by the plug and projecting into the socket portion, a bearing for the plug arranged to position the lamp-bulb engaging portion in operative relation to the reflector, an engagement between the bearing and plug for effecting upon a relative rotation of the plug and bearing a longitudinal adjustment of the plug relative to the reflector, a contact carried by one of said members yieldably pressed into engagement with the other member and acting to yieldably retain the plug and bearing members against relative adjustment, and means for electrically connecting said terminal and contact.

[Claims 6 to 15 not printed in the Gazette.]

1,082,485. BUTTON-ATTACHING MACHINE. CHARLES BARANOVITS, Chicago, Ill. Filed Aug. 15, 1912. Serial No. 715,187. (Cl. 218—8.)

1. A button attaching machine, comprising in combination with a supporting frame, a slotted reciprocable shearing and forming member, a reciprocable driver member fitted in and guided by said slotted member and movable with and also independently of said latter member, a button supporting and forming member located at the end of and cooperating with said reciprocable members, with means for feeding buttons thereto, an anvil at the end of and cooperating with the driver member, said reciprocable members being each provided with a rack, a rotative member having angularly spaced sets of teeth to engage said racks, with means for rotating the same, and means

for feeding a wire through a button shank on the said support.



2. In a button attaching machine, a reciprocable shearing and forming member provided with a rack, a reciprocable driver member, also provided with a rack and movable with and also independently of the shearing and forming member, means cooperating with said reciprocable members for forming a wire loop to fasten a button, and a rotative member provided with spaced sets of teeth to engage said racks on the reciprocable members to impart movement to the latter members, for the purpose set forth.

3. In a button attaching machine, a reciprocable shearing and forming member, a reciprocable driver member movable with and independently of the shearing and forming member, means cooperating with said reciprocable members for forming a button fastening wire loop, racks carried by said members, two sets of gear teeth adapted to mesh, one with the rack of one member and the other with the rack of the other member, one set of gear teeth acting in advance of the other, and means for actuating said gear teeth.

4. In a button attaching machine, a reciprocable shearing and forming member provided with a rack, a reciprocable driver member also provided with a rack and guided by the shearing and forming member and shouldered to engage a shoulder on the shearing and forming member whereby both members are initially advanced by power applied to the shearing and forming member, a spring to normally hold the shoulders together, two sets of gear teeth, one to engage one rack and the other to engage the other rack to reciprocate said members at a predetermined timed relation, with means to actuate the gear teeth, and means to cooperate with said reciprocable members to form a wire loop to fasten a button.

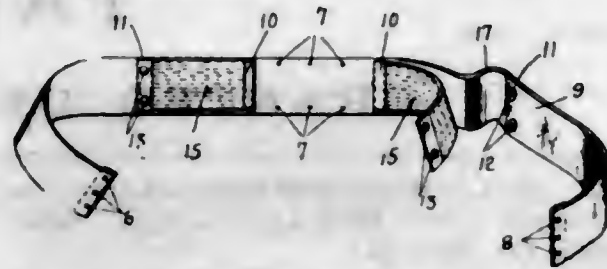
5. A button attaching machine comprising, in combination with a supporting frame, a slotted, reciprocable shearing and forming member, a reciprocable driver member guided by said slotted member and having a shouldered, spring held connection with the said slotted member, arranged to effect simultaneous movement of both members during the initial movement of the shearing and forming member, means directly engaging and giving positive movement to said shearing and forming member, means directly engaging and giving positive movement to the driver member independently of the shearing and forming member, a depressible button support and forming member located at the ends of and cooperating with said reciprocable members and adapted to be depressed by the driver member during the advance movement of the driver member, means for feeding buttons to said support, an anvil located at the end of and cooperating with the driver member, means to feed a wire through a button shank on the said support, and rigid means to hold said supporting member fixedly in its upper position when the shearing and forming member is retracted.

[Claims 6 to 19 not printed in the Gazette.]

1,082,486. TROUSERS-BELT. DAVID BASCH, New York, N. Y. Filed July 20, 1911. Serial No. 639,516. (Cl. 241—8.)

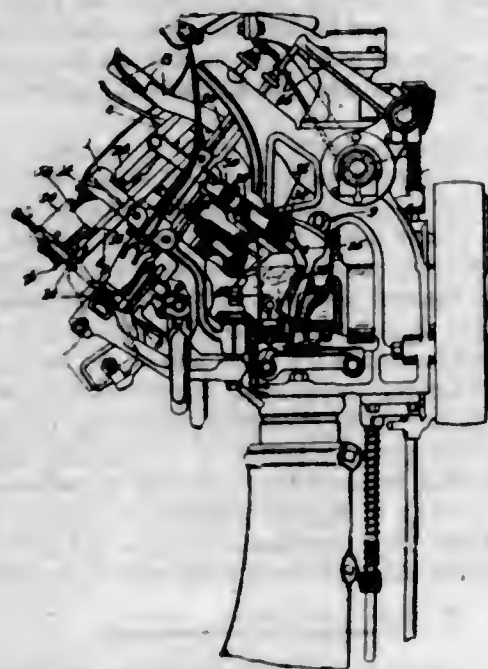
1. A device of the character described comprising a non-elastic band adapted to be attached to a garment at its

ends and at points intermediate of the ends thereof, elastic strap sections each removably fastened to the non-elastic band at one end and at points equidistant from the ends thereof, the length of each elastic strap section being less than the length of the non-elastic band between the points of attachment.



2. A device of the character described comprising a non-elastic band, elastic strap sections having one end of each removably fastened to the inner face of the non-elastic band and having their other ends fastened thereto at such points that the normal lengths of the elastic strap sections are less than the lengths of the non-elastic band between the points of attachment, and the stretching of each of the elastic strap sections is limited by the length of the non-elastic band between the points of attachment.

1,082,487. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 2, 1908. Serial No. 418,743. (Cl. 1—18.)



1. A machine of the class described having, in combination, a plurality of drivers, separate springs for separate drivers, means for uplifting the drivers against the springs, and means for moving the drivers inwardly over the work, said machine being arranged to cause the drivers to be separately tripped in response to resistance to their inward movement and to permit each spring to actuate its driver as soon as the driver is tripped.

2. In a pulling-over machine, the combination with a plurality of fastening inserting mechanisms having drivers, of means for moving said mechanisms inwardly over the shoe bottom, said means having provision for tripping the drivers at different times, and means for actuating the drivers independently to insert the fastenings.

3. In a pulling-over machine, the combination with a plurality of fastening inserting mechanisms having drivers, of means for lifting the drivers together, means to trip the drivers at relative times determined by different portions of the work, and means for downwardly actuating the drivers separately arranged to insure the actuation of each driver in predetermined time relation to the occurrence of the tripping of that driver.

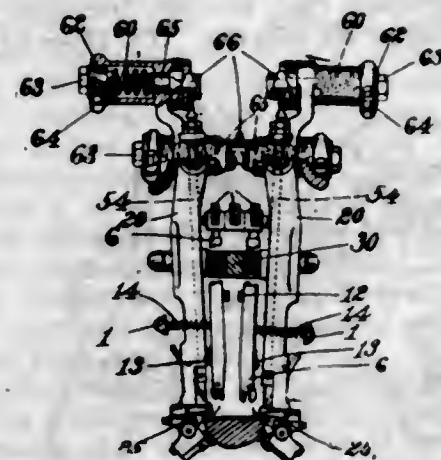
4. In a pulling-over machine, the combination with a plurality of fastening inserting mechanisms having drivers,

of a single mechanism yieldingly connected with each of the drivers for moving them laterally together toward operative position, said mechanism having means for supporting each driver in uplifted position and being arranged to release each driver after a predetermined length of further movement of said actuating mechanism after the inserting mechanism reaches operative position and as an incident to said lateral movement, and means for actuating each driver as soon as it is released.

5. In a pulling-over machine, the combination with a plurality of fastening inserting mechanisms having drivers, of means for moving said mechanisms together toward operative position, said machine having provisions for tripping the drivers at times determined by the arrival of said mechanisms in operative relations to work, and means arranged to actuate each driver as soon as it is tripped.

[Claims 6 to 14 not printed in the Gazette.]

1,082,488. PULLING-OVER MACHINE. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 2, 1908. Serial No. 418,743. Divided and this application filed June 11, 1910. Serial No. 566,405. Renewed Oct. 7, 1913. Serial No. 793,963. (Cl. 12—4.)



1. A pulling-over machine having, in combination, grippers located at opposite sides of a shoe, means to actuate the grippers to pull an upper, means permitting inward movement of the grippers to carry the marginal portion of the upper over the last bottom, said movement being limited by the length of the portion of upper extending above the plane of the last bottom, tackers movable inwardly over the last bottom from the opposite sides of the shoe into position to fasten the pulled upper and operating during such movement to open the grippers, means connected with each tacker and arranged to be tripped by the resistance encountered against the inward movement of the associated tacker to trip the driver of that tacker, and separate driver actuating means for each tacker arranged to operate as soon as its driver is tripped and independently of the tripping of any other driver to effect insertion of a tack.

2. A pulling-over machine having, in combination, grippers located at opposite sides of a shoe, means to actuate the grippers to pull an upper, means permitting inward movement of the grippers to carry the marginal portion of the upper over the last bottom, said movement being limited by the length of the portion of upper extending above the plane of the last bottom, tackers movable inwardly over the last bottom from the opposite sides of the shoe into position to fasten the pulled upper, separate driver actuating means for each tacker, and means associated with each driver actuating means and arranged to be tripped by resistance encountered by its tacker to inward movement and to cause insertion of a tack by that driver independently of the operation of other tackers.

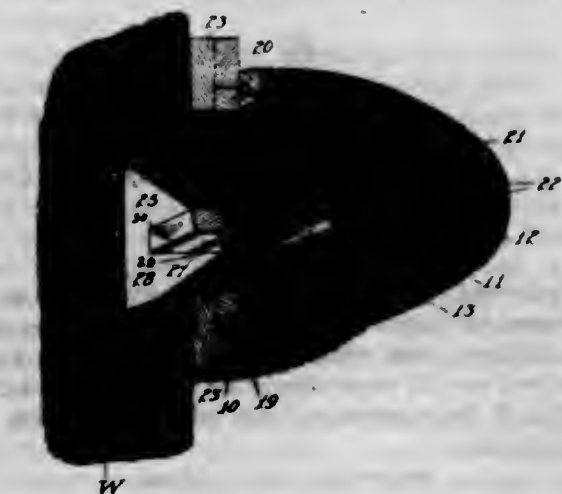
3. A pulling-over machine having, in combination, pulling-over means including grippers for seizing the upper at opposite sides of a last, means for actuating said grippers to pull the upper and draw it inwardly over the

last bottom, means for securing the overdrawn upper between each gripper and the adjacent edge of the last bottom comprising opposed fastening inserting mechanisms following the grippers in their inward movement and having driver bars, means for lifting the bars, means for effecting the inward movement of the tacking mechanisms having provision for tripping the bars at times determined by the relation of the bars to the edge of the work, separate springs for actuating the different bars when they are tripped, and independent connections between the springs and the bars actuated by them.

4. A pulling-over machine having, in combination, pulling-over means including grippers for seizing an upper at opposite sides of a last, means for actuating said grippers to pull the upper and draw it inwardly over the last bottom, means for securing the overdrawn upper between each gripper and the adjacent edge of the last bottom comprising opposed fastening inserting mechanisms following the grippers in their inward movement and having driver bars, means for lifting the bars, springs against the tension of which the bars are upraised, means for tripping the several bars which means are dependent as to the time of operation on individual bars upon the relation of the fastening mechanisms to the work, and separate connections between the springs and the bars that are actuated by them.

5. A pulling-over machine having, in combination, pulling-over means including grippers for seizing the upper at opposite sides of a last, means for actuating said grippers to pull the upper and draw it inwardly over the last bottom, means for securing the overdrawn upper between each gripper and the adjacent edge of the last bottom comprising opposed fastening inserting mechanisms following the grippers in their inward movement and having driver bars, means for lifting the bars, springs against the tension of which said bars are lifted and by which they are actuated for inserting the fastenings, means for releasing the bars constructed and arranged so that the relative times at which the several bars are released will be controlled by the distance which each fastening mechanism moves inwardly from the edge of the work, and a separate connection between each spring and the bar actuated by it.

1,082,489. INSECT-TRAP. CHARLES H. BATH, Arcon, Canal Zone. Filed Aug. 9, 1912. Serial No. 714,174. (Cl. 43—22.)



1. In an insect trap, the combination of a conical inlet structure adapted to be applied about an inlet opening and a receiving structure having a rectangular supporting frame adapted to be applied about said inlet structure, a main wall of a single piece of screen material secured at its edges to the side walls of the supporting frame and the end walls of said receiving structure being of screen material and extending from the ends of said supporting frame, and strands of the main wall and end walls being interlaced to secure the walls together.

2. In an insect trap, the combination of a conical inlet structure adapted to be applied about an inlet opening and a receiving structure having a rectangular supporting frame adapted to be applied about said inlet structure, a

main wall of a single piece of screen material secured at its edges to the side walls of the supporting frame and the end walls of said receiving structure being of screen material and extending from the ends of said supporting frame, the ends of the strands of the main wall extending through the end walls and then twisted together to thus secure the end walls securely to the main wall.

1,082,490. PROCESS FOR PREPARING SOLUTIONS OF CELLULOSE AND FOR THE PRODUCTION OF CELLULOSE PRODUCTS FROM SUCH SOLUTIONS. ERNST BERL, Tubize, Belgium. Filed June 3, 1913. Serial No. 771,492. (Cl. 106-40.)

1. A process for producing solutions of cellulose said process consisting in treating a cellulose-containing material with sulfuric acid at a temperature not exceeding -10°C .

2. A process for producing solutions of cellulose, said process consisting in treating a cellulose-containing material with sulfuric acid of 60-77% H_2SO_4 at a temperature not exceeding -10°C .

3. A process for producing solutions of cellulose and obtaining cellulose products from such solutions, said process consisting in treating a cellulose-containing material with sulfuric acid of 60-77% H_2SO_4 at a temperature not exceeding -10°C and then coagulating the solution.

4. A process for producing solutions of cellulose and obtaining cellulose products from such solutions, said process consisting in treating a cellulose-containing material with sulfuric acid of 60-77% H_2SO_4 at a temperature not exceeding -10°C and then subjecting the solution to the action of a coagulating liquid at a temperature not exceeding -10°C .

5. A process for converting cellulosic material into a form suitable for the manufacture of artificial silk, tulle, films and the like, said process consisting in treating the cellulosic material with sulfuric acid of 60-77% H_2SO_4 at a temperature not exceeding -10°C and then coagulating the solution while maintaining said low temperature.

[Claims 6 to 9 not printed in the Gazette.]

1,082,491. TRIFOCAL LENS. HENRY BOLDE, New York, N. Y., assignor to The Meyrowitz Manufacturing Co., a Corporation of New Jersey. Filed Nov. 15, 1912. Serial No. 731,492. (Cl. 88-54.)



1. A tri-focal lens comprising a major lens and two minor lenses seated respectively in the two faces thereof.

2. A tri-focal lens comprising a major lens and two minor lenses seated respectively in the two faces thereof, both faces of the completed lens being of uniform curvature throughout.

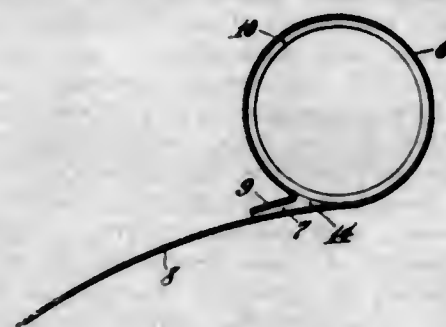
1,082,492. DEVICE FOR DISTRIBUTING AIR. ADOLPHE E. BOSSE, Pittsburgh, Pa. Filed Apr. 16, 1912. Serial No. 691,080. (Cl. 98-27.)

1. A device for distributing air comprising a conduit having a narrow longitudinal slot for the egress of the air, and a wing extending outward from one of the margins of said slot.

2. A device for distributing air comprising a conduit having a narrow longitudinal slot for the egress of the air, a wing extending outward from one of the margins of said slot, and a lip extending outward from the other margin of said slot.

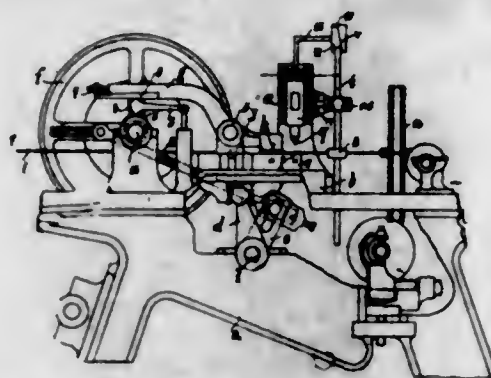
3. A device for distributing air comprising a conduit having a narrow longitudinal slot for the egress of the

air, a wing extending outward tangentially from one of the margins of said slot, and a lip extending outward from the other margin of said slot in the same general direction as said wing but to a lesser extent.



4. A device for distributing air comprising a conduit having a narrow longitudinal slot for the egress of the air, a wing extending outward tangentially from one of the margins of said slot, a supply pipe, means for supporting the slotted conduit from said supply pipe in such manner as to permit rotation of said conduit to vary the angular location of the slot and projecting wing.

1,082,493. MACHINE FOR MAKING SEWING-NEEDLES. WALTHER BÜHREN, Iserlohn, Germany, assignor to Wilhelm Post, Iserlohn, Germany. Filed Feb. 8, 1912. Serial No. 876,450. (Cl. 163-1.)

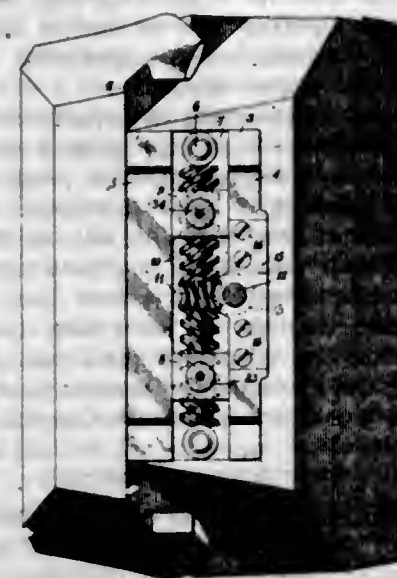


1. In a machine for the continuous manufacture of sewing-needles out of a wire, comprising a machine frame, a horizontally movable slide fitted in said frame, a crank-shaft, connections between said shaft and the slide for reciprocating the latter, a double-armed stamping lever pivoted to said slide, coating dies on the slide and on one arm of the lever for forming the eye-channels on the wire, the latter being held between the dies, the lever being adapted to hold the dies normally apart, and a cam fitted on the crank-shaft so as to engage the lever and apply the dies to the wire while the slide is advanced by the crank and feed the wire simultaneously with the stamping.

2. In a machine for the continuous manufacture of sewing needles out of a wire, a machine frame, a horizontally movable slide fitted in said frame, a crank shaft, connections between said shaft and the slide for reciprocating the latter, a double-armed lever pivoted to said slide and adapted to cooperate therewith for feeding the wire, a cam fitted on the crank shaft so as to engage the lever and apply the same to the wire while the slide is advanced and set in free while the slide returns, a punching device connected to the machine frame for making the eyes on the wire, and a die on the slide for supporting the wire against the punching device and receive the punch of the latter.

3. In a machine for the continuous manufacture of sewing needles out of a wire, a punching device for making the eyes on said wire, grinding rollers for grinding the wire about the eye portion after the punching, means for feeding the wire past the punching device and grinding rollers, universally movable shafts for operating said rollers, and connections between the punching device and said shafts for applying the rollers to one portion of the wire while the punch operates on another.

1,082,494. COIL-FORMING APPARATUS. JAMES A. BURNS, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 31, 1908. Serial No. 470,266. (Cl. 140-92.1.)



1. In a coil-forming mold having a shoulder, the combination of a block located adjacent to the said shoulder and provided with a pair of reversely inclined slots, a double screw shaft provided with a worm wheel, nuts mounted on said screw shaft and having studs that project into said inclined slots, and an operating shaft having a worm that meshes with said worm wheel.

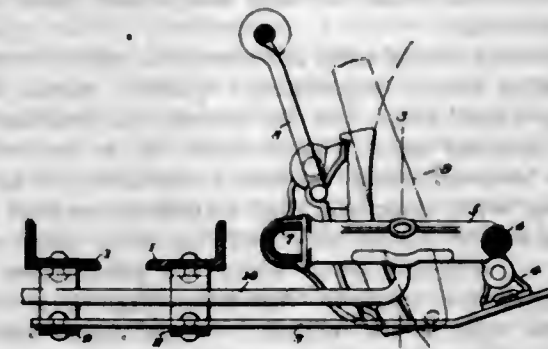
2. In a coil-forming mold having a shoulder, the combination with a block located adjacent to said shoulder and provided with a pair of reversely inclined slots, of a double screw shaft having a worm wheel, nuts for said screw shaft having studs that project into said slots, a worm for operating said worm wheel, and means for holding said block to its seat.

3. In a coil-forming mold having a shoulder, the combination with a block having a pair of reversely inclined bearing surfaces, of a double screw shaft having a worm wheel, a pair of nuts for said screw shaft having projections to engage said inclined surfaces, a worm for actuating said worm wheel, and means for holding said block to its seat.

4. In a coil-forming mold having a shoulder, the combination with a laterally movable block adjacent to said shoulder, of worm and screw mechanism for moving said block toward and away from said shoulder.

5. In a coil-forming mold having a shoulder, the combination with a laterally movable block disposed parallel to said shoulder, and means for holding said block against the body of the mold, of worm and screw mechanism for adjusting said block toward and away from said shoulder. [Claim 6 not printed in the Gazette.]

1,082,495. THIRD-POINT SUPPORT FOR BRAKE-BEAMS. EDWIN G. BUSSE, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 23, 1913. Serial No. 769,397. (Cl. 188-70.)



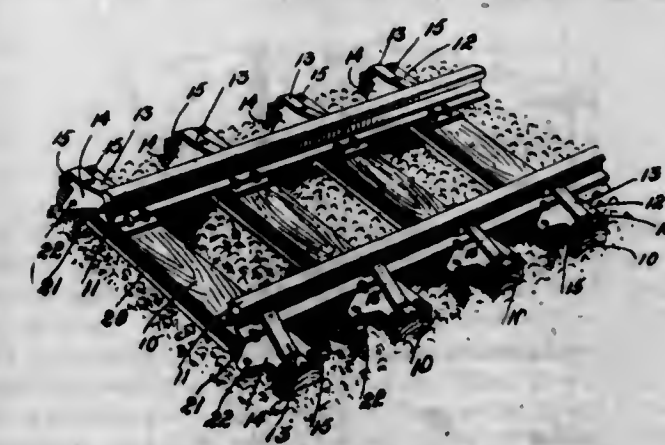
1. The combination of a spring plank, a third point supporting spring, and brackets depending from said

spring plank upon which said third point supporting spring is mounted and by which it is spaced from said spring plank.

2. The combination of a spring plank, brackets depending therefrom, a third point supporting spring mounted upon said bracket, and a slack adjuster rod arranged between said third point supporting spring and said spring plank.

3. The combination of a spring plank, open brackets depending therefrom, a third point supporting spring mounted on said brackets and having its ends inclined upwardly, a brake beam having a shoe which cooperates with the inclined end of said spring, and a slack adjuster rod secured to said brake beam and extending parallel to said third point supporting spring being located therebetween and said spring plank.

1,082,496. DEVICE TO PREVENT RAILS FROM SPREADING. GEORGE W. CARR, Sr., Inverness, Miss. Filed May 1, 1913. Serial No. 764,890. (Cl. 238-2.)



1. A tie plate for the purpose described formed from a blank comprising a body portion, a tongue extending from one end of said body portion and being bent back upon said body portion for a portion of its length and being then carried diagonally away from said body portion and having its end portion turned inwardly and extending at substantially right angles to said body portion, and a second tongue extending from one side of said body portion and having its end portion bent back upon itself in spaced relation.

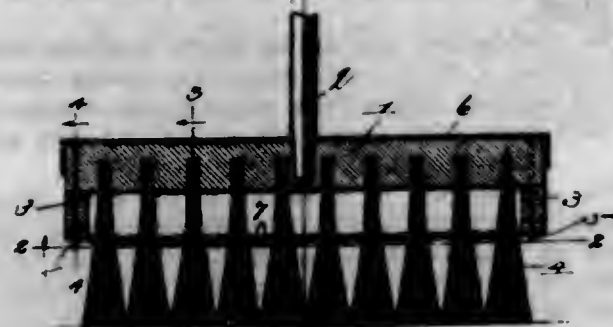
2. A tie plate comprising a body portion adapted to extend beneath a rail whereby the securing spikes for the rail may hold the tie plate in position, a tongue extending from one end of said body portion and being bent back upon said body portion for a portion of its length and being then carried away from said body portion with its end portion bent inwardly to extend beneath the tread of a rail and fit against the web of the rail, and a second tongue extending from one side of said body portion and bent back upon itself in spaced relation whereby a connecting rod may be connected with the second mentioned tongue of the plates of each tie.

3. A tie plate of the character described comprising a body portion adapted to extend beneath the base of the rail, a tongue extending from said body portion and having its end portion bent inwardly to fit beneath the tread of a rail and against the web of a rail, a second tongue extending from said body portion and having its end portion bent back in spaced relation to form a pocket, and a rod having its end portion extending into the pockets of the tie plates of each tie whereby the tie plates will be secured together.

1,082,497. BROOM-BRIDGE. CHARLES A. CASE, Shelter Island, N. Y. Filed Apr. 19, 1913. Serial No. 762,379. (Cl. 15-23.)

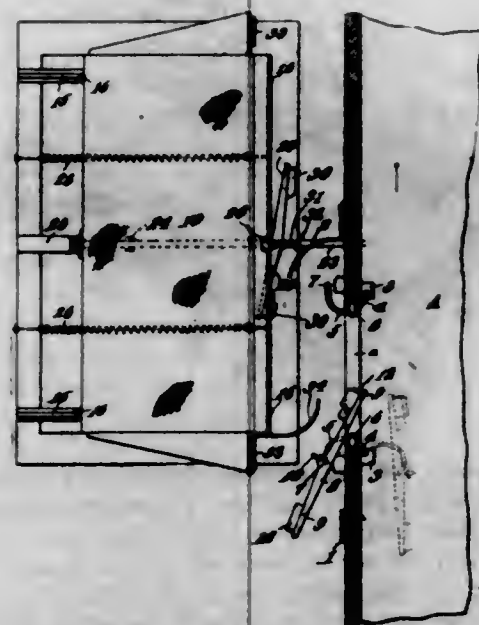
A device of the kind described comprising a broom back, end extensions at right angles to the head, staples passing through the ends of the broom back, a casing

covering the free ends of the staples, a brush carried by the back, said brush comprising a plurality of bundles,



and wires secured under said staples and engaging said bundles at a distance from the broom back.

1,082,498. APPARATUS FOR RECEIVING AND DELIVERING MAIL. JOHN A. CHAMBERS, Newburg, Mo., assignor of one-fourth to Clair Moore and one-fourth to Ralph Dowell, Newburg, Mo. Filed Oct. 21, 1913. Serial No. 796,495. (Cl. 105—261.)



1. In apparatus of the class described, a centrally pivoted throwing member having oppositely extending arms, a seat arranged at the outer end of each arm for supporting a mail container, an outstanding element fixedly connected to the center of the throwing member, and means for engagement with said element to swing the member to propel the container therefrom.

2. The combination with a car structure having a door opening, of an arm mounted to swing through the opening and having a pintle at its free end, a throwing member adapted to be mounted at its center on said pintle, a seat adjacent each free end of the throwing member for supporting a mail container, an outstanding element fixedly connected to the center of the throwing member, and means adapted to engage the said element for swinging the throwing member about its pivot during the movement of the car structure past the point of delivery.

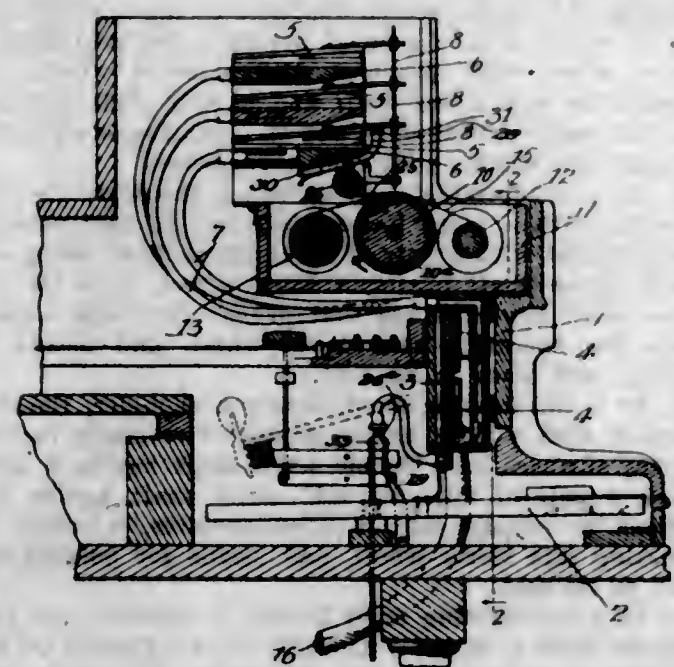
3. The combination with a car structure having a door opening, of an arm mounted to swing through the opening and having a pintle at its free end, a throwing member adapted to be mounted at its center on said pintle, a seat adjacent each free end of the throwing member for supporting a mail container, an outstanding element fixedly connected to the center of the throwing member, and means adapted to engage the said element for swinging the throwing member about its pivot during the movement of the car structure past the point of delivery, the throwing member and its supporting arm being shiftable through the door opening into or out of active position.

4. The combination with a car structure having a door opening, of an arm mounted to swing through the opening and having a pintle at its free end, a throwing member adapted to be mounted at its center on said pintle, a seat adjacent each free end of the throwing member, for

supporting a mail container, an outstanding element fixedly connected to the center of the throwing member, means adapted to engage the said element for swinging the throwing member about its pivot during the movement of the car structure past the point of delivery, the throwing member and its supporting arm being shiftable through the door opening into or out of active position, and means for securing said supporting arm in outwardly extended or active position.

5. In apparatus of the class described, the combination with a car structure, a centrally pivoted throwing member carried thereby, means adjacent each end of said member for supporting a mail container, and an outstanding element at the center of the member, of a receiver adjacent and parallel to the path of the car, and means outstanding from the receiver for engaging the said outstanding element to shift the throwing member and directing the supported mail container into the receiver during the movement of the car past the receiver. [Claims 6 to 8 not printed in the Gazette.]

1,082,499. MEANS FOR RECORDING MUSIC. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 13, 1911. Serial No. 649,190. (Cl. 84—68.)



1. In combination with the manual keys of a keyed instrument, a recording device comprising a platen; means for propelling a record strip over the platen; pneumatics for the several keys whose action is to be recorded; markers corresponding to the pneumatics respectively, positioned with their marking terminals exposed toward the area of the platen at which the strip bears on the latter in crossing it; connections by which the pneumatics actuate their respective markers to advance their marking terminals toward the platen; a mark-producing or transfer sheet interposed between the marking terminals and the platen, said mark-producing sheet being restrained back of the line of bearing of the markers on the platen, whereby the travel of the record strip during the pressure of the markers tends to hold said sheet taut at said line of bearing.

2. In combination with the keys of a keyed instrument, a recording device comprising a platen; means for propelling a record strip over the platen; pneumatics for the several manual keys whose action is to be recorded; markers corresponding to the pneumatics, respectively positioned with their marking terminals exposed toward the area of the platen at which the strip bears on it in crossing it; connections by which the pneumatics actuate their respective markers for advancing their marking terminals toward the platen; a roll upon which said transfer sheet is carried mounted opposite the record strip at a position rearward in respect to the direction of travel of said strip from the line of bearing of the markers on

the platen, and means yieldingly restraining the unwinding of said transfer strip from the roll.

3. In combination with the keys of a keyed instrument; a recording device comprising a platen; means for propelling a record strip over the platen; pneumatics for the several keys whose action is to be recorded; markers actuated by the pneumatics respectively positioned with their marking terminals exposed toward the surface of the platen at which the strip bears on the latter in crossing it; connections by which the pneumatics actuate their respective markers to advance their marking terminals toward the platen; a mark-producing or transfer sheet interposed between the marking terminals and the platen; a roll upon which said transfer sheet is carried, mounted opposite the record strip at a position rearward in respect to the direction of travel of said strip from the line of bearing of the markers on the platen; means yieldingly restraining the unwinding of said transfer strip from the roll, and means operated by the marker-actuating pneumatics for positively unwinding the transfer sheet to release new area thereof for exposure to the markers.

4. In combination with the keys of a keyed instrument, a recording device comprising a platen; means for propelling a record strip over the platen; pneumatics corresponding to the several keys whose action is to be recorded; markers corresponding to the pneumatics respectively positioned with their marking terminals exposed toward the surface of the platen at which the strip bears on the latter in crossing it; connections whereby the pneumatics actuate their respective markers; valves operated by the manual keys for controlling the pneumatics, respectively; a mark-producing sheet interposed between the marking terminals and the platen, and means for holding said sheet adapted to yield to permit it to be drawn with the record strip in the travel of the latter.

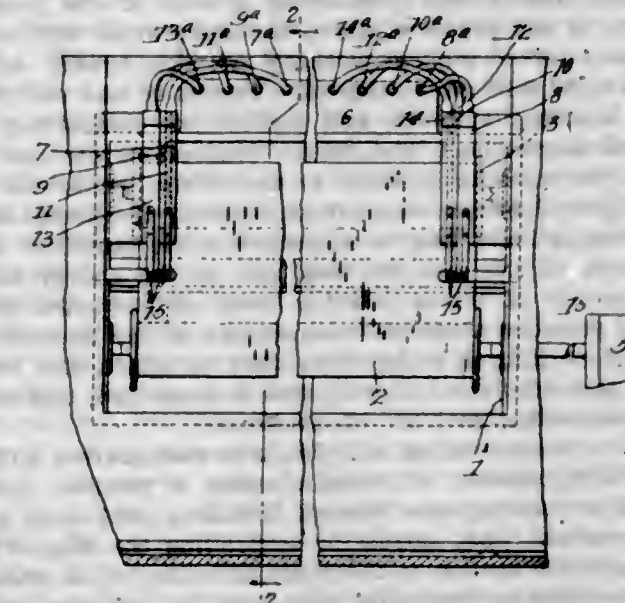
5. In combination with the keys of a keyed instrument, a recording device comprising a platen; means for propelling a record strip over the platen; pneumatics corresponding to the several keys whose action is to be recorded and means for controlling them by the keys, respectively; markers actuated by the pneumatics respectively positioned with their marking terminals exposed toward the surfaces of the platen at which the strip bears on the latter in crossing it; connections by which the pneumatics actuate their respective markers; a mark-producing sheet interposed between the marking terminals and the platen, and means for holding said sheet adapted to yield to permit it to be drawn with the record strip in the travel of the latter, the marker-actuating pneumatics and their controlling devices being adapted for holding the markers in marking position throughout the entire time of action of the key whose action is to be recorded, said markers having as their marking terminals type characters for indicating the keys to which they respectively correspond.

1,082,500. STOP-RECORDING ACTION FOR AUTOMATIC MUSICAL INSTRUMENTS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 13, 1911. Serial No. 649,191. (Cl. 84—68.)

1. In an automatic musical instrument, in combination with a tracker and a note sheet for traveling thereover to control the playing of the instrument, a pneumatic action comprising motor pneumatics; markers actuated by the motor pneumatics, respectively, mounted at predetermined positions in the width of the note sheet with capacity for advancing their points against and retracting them from the note sheet at its bearing on the tracker; devices for modifying the playing; manually-operated valves for controlling said modifying devices, and air connections from the pneumatics, respectively, which are controlled by said valves, respectively.

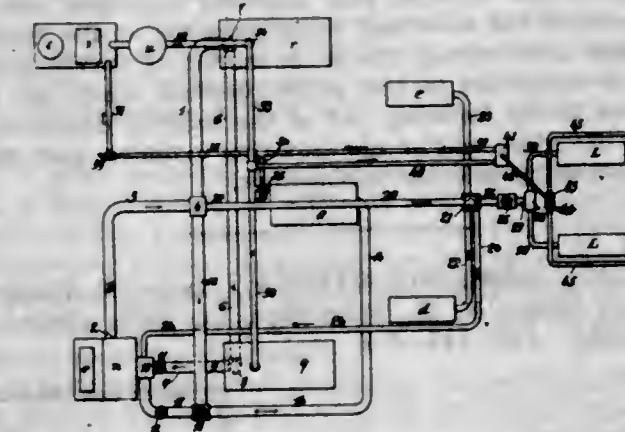
2. In an automatic musical instrument, in combination with pneumatically-operated means for modifying the playing, a tracker and a note sheet mounted for traveling thereover to control the playing; a pneumatic action having a motor pneumatic for each such modifying means;

a marker actuated by said motor pneumatic mounted at a pre-determined position in the width of the note sheet for advancing its point against the marginal portion of the note sheet at the bearing of the latter on the tracker; a primary pneumatic which controls such motor pneumatic; a duct from such primary pneumatic, and a duct from the corresponding pneumatically-operated modifying device, and a manually-operable valve which controls both said ducts.



3. In an automatic musical instrument, in combination with a pneumatically-operated device for modifying the playing and pneumatic means for operating such modifying devices; a manually-operated valve which controls said pneumatic; a tracker, and a note sheet mounted for traveling over the tracker and controlling the playing of the instrument; a pneumatic action comprising a motor pneumatic mounted with its moving wall at a predetermined position opposite the tracker; a marker carried by such moving wall positioned for advancing its point against the note sheet at a pre-determined longitudinal line thereof and at the bearing of the note sheet on the tracker; a primary pneumatic which controls such motor pneumatic, and a duct leading from said primary pneumatic to the manually-operable valve pertaining to said modifying device.

1,082,501. EXCAVATING-MACHINE. WALTER G. CLARK, New York, N. Y. Filed Nov. 21, 1911. Serial No. 661,477. Renewed May 15, 1913. Serial No. 767,902. (Cl. 37—16.)



1. In an excavating machine, the combination with an excavating device, of a main pump, a receiver tank, a closed circulating pipe system including said main pump and receiver tank, means for controlling the flow of fluid through said closed circulating system to the pump, a source of air pressure, air connections from said source to the receiver tank, a working cylinder, branch connections from said circulating pipe system to one end of the said working cylinder and means for controlling said branch connections, and return connections for the fluid from the working cylinder to the pump, and means for controlling

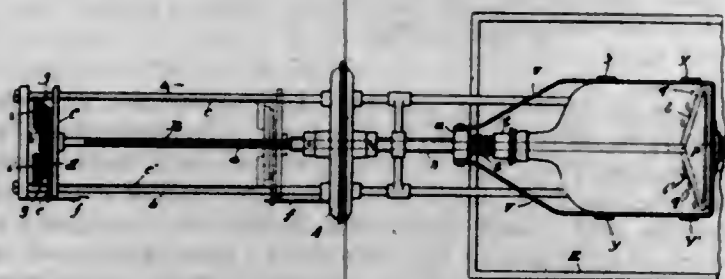
said return connections, whereby the piston of the working cylinder may be subjected to the combined static pressure of the receiver tank and to the energy due to the motion of the circulating fluid, or subjected to the static pressure alone.

2. In an excavating machine, the combination with an excavating device, of a main pump, a receiver tank, a closed circulating pipe system including said main pump and receiver tank, means for controlling the flow of fluid through said closed circulating system to the pump, a source of air pressure, air connections from said source to the receiver tank, a working cylinder, branch connections from said circulating pipe system to one end of the said working cylinder and means for controlling said branch connections, and return connections for the fluid from the working cylinder to the pump, means for controlling said return connections, whereby the piston of the working cylinder may be subjected to the combined static pressure of the receiver tank and to the energy due to the motion of the circulating fluid, or subjected to the static pressure alone, air connections to the opposite end of the working cylinder from that to which the branch from the circulating pipe system is connected, and means for controlling said air connections.

3. In an excavating machine, the combination with an excavating device, of a main pump, a receiver tank, a closed circulating pipe system including said main pump and receiver tank, means for controlling the flow of fluid through said system to the pump, a source of air pressure, air connections from said source to the receiver tank, a hoisting cylinder and a crowding cylinder, branch connections from said circulating pipe system to the hoisting end of the hoisting cylinder and to the returning end of the crowding cylinder, means for controlling said branch connections, and return connections for the fluid from the hoisting and crowding cylinders to the pump, whereby the pistons of the hoisting and crowding cylinders may be subjected to the combined static pressure of the receiver tank and to the energy due to motion of the circulating fluid, or subjected to the static pressure alone.

4. In an excavating machine, the combination with an excavating device, of a main pump, a receiver tank, a closed circulating pipe system including said main pump and receiver tank, means for controlling the flow of fluid through said system to the pump, a source of air pressure, air connections from said source to the receiver tank, a hoisting cylinder and a crowding cylinder, branch connections from said circulating pipe system to the hoisting end of the hoisting cylinder and to the returning end of the crowding cylinder, means for controlling said branch connections, return connections for the fluid from the hoisting and crowding cylinders to the pump, whereby the pistons of the hoisting and crowding cylinders may be subjected to the combined static pressure of the receiver tank and to the energy due to the motion of the circulating fluid, or subjected to the static pressure alone, air connections to the lowering end of the hoisting cylinder and to the crowding end of the crowding cylinder, and means for controlling said air connections.

1,082,502. DEMIJOHN-WASHER. JAMES J. CLIFFORD, Green Island, N. Y. Filed Sept. 11, 1905. Serial No. 277,843. (Cl. 141-7.)



1. In an apparatus of the class described, a hollow motor shaft, a motor for directly rotating the same, a second shaft rotatable and reciprocable within said motor shaft, substantially rigid bottle washing members operated

by said second shaft and retractable within the hollow shaft, and springs for throwing said members outwardly when the latter are positioned outside the hollow shaft, said springs being free from said washing members when the latter are in their fully extended positions.

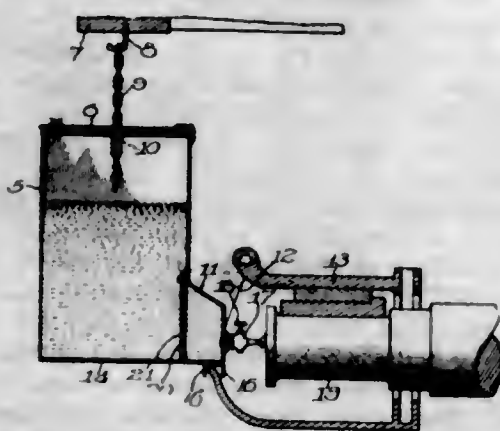
2. In an apparatus of the class described, a reciprocating member having arms pivoted thereto, and independent springs for acting separately on each of said arms to impart an initial outward movement thereto, said springs being free from the arms when the latter are in their fully extended positions.

3. In a bottle washer, a hollow shaft, a chambered chuck, members pivoted within the chuck, and retractable within said shaft, and springs cooperating with said chuck and the pivoted members for directing said members outwardly when said members are withdrawn from the chuck, said springs being free from the said members when the latter are in their fully extended positions.

4. In an apparatus of the class described, a hollow shaft, a second shaft rotatable therewith and reciprocable therein, pivoted members free to be thrown outwardly by the rotation of the second shaft and adapted to be collapsed within the hollow shaft by endwise movement in one direction of the second shaft, and a separate spring acting directly on the inner end of each of said members but unattached thereto for imparting initial outward movement to the members.

5. In an apparatus of the class described, a rotating member, arms pivotally secured to said rotating member, a separate spring adapted to act on each of said arms for imparting thereto an initial movement outwardly, which springs are free from the arms when the latter are rapidly rotated and in their extended positions.

1,082,503. JOURNAL-COOLING DEVICE. WILLIAM H. CLINGMAN, Chicago, Ill. Filed Apr. 26, 1911. Serial No. 623,443. (Cl. 64-28.)



1. In a journal cooling device, the combination of a journal box having an opening therein, a journal, a liquid tank, said tank being provided with a reduced portion detachably engaging the edge of the journal box opening, means for holding said portion in position with respect to the opening, means for supporting the tank, a liquid discharge outlet leading from the reduced portion of the tank in close proximity to the journal, and a screen in the tank extending across the said reduced portion.

2. The combination of a journal box having an opening therein, a journal, a cooling device disposed in proximity thereto and embodying a tank provided with a reduced portion forming a chamber adapted to project into the opening of the journal box, a screen dividing the body of the tank and the chamber, a flexible support for the tank, said chamber engaging the edge of the journal box opening, there being spaced projections carried by the tank between which the edge of the journal box opening extends, and a stop cock leading from the chamber adjacent the journal and projecting into the journal box opening.

3. In a journal cooling device, the combination of a journal box having an opening therein, a journal, a liquid tank, said tank being provided with a reduced por-

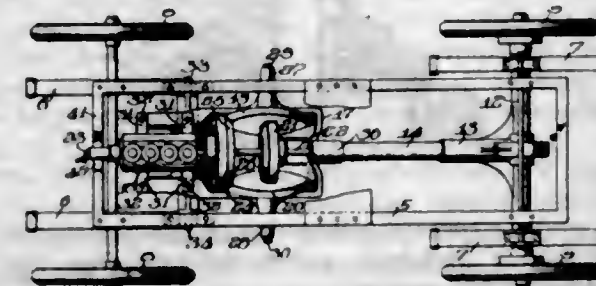
tion detachably engaging the edge of the journal box opening, means for holding said portion in position with respect to the opening, means for supporting the tank, a liquid discharge outlet leading from the reduced portion of the tank in close proximity to the journal, and a screen in the tank between the inlet and the outlet thereof.

4. In a journal cooling device, the combination of a journal box having an opening therein, a journal, a liquid tank, said tank being provided with a reduced portion engaging the edge of the journal box opening, means for holding said portion removably in position with respect to the opening, means for supporting the tank, a liquid discharge outlet leading from the reduced portion of the tank in close proximity to the journal, and a removable screen in the tank between the inlet and the outlet thereof.

5. The combination of a journal box having an opening therein, a journal, a cooling device in proximity thereto and embodying a tank having a reduced portion forming a chamber adapted to project into the opening of the journal box, a stop cock leading from the chamber adjacent the journal, means within the tank for straining liquid before its outward passage through the stop cock, a flexible support for the tank, and an appliance operatively related to the tank and journal box for removably connecting the tank and the journal box.

[Claim 6 not printed in the Gazette.]

1,082,504. MOTOR-VEHICLE. JOSEPH DAIN, Ottumwa, Iowa. Filed July 10, 1909. Serial No. 506,913. (Cl. 21-90.)



1. In a motor-vehicle, the combination of a main frame having front and rear axles, a propeller shaft operatively connected with the rear axle and vertically movable at its front end, a supporting frame pivotally supported at the forward portion of the main frame, inclined friction disks journaled in bearings at opposite sides of said supporting frame, a friction disk carried by the propeller shaft and movable longitudinally thereof between said inclined disks, a motor supported by said supporting frame in advance of said inclined disks, said motor comprising a crank shaft, and a friction disk mounted on said crank shaft and engaging said inclined disks for rotating the same.

2. In a motor-vehicle, the combination of a main frame having front and rear axles, a propeller shaft operatively connected with the rear axle and vertically movable at its front end, a supporting frame pivotally supported at the forward portion of the main frame, inclined friction disks journaled in bearings at opposite sides of said supporting frame, a friction disk carried by the propeller shaft and movable longitudinally thereof between said inclined disks, a motor supported by said supporting frame in advance of said inclined disks, said motor comprising a crank shaft, and a friction disk mounted on said crank shaft and engaging said inclined disks for rotating the same, the latter friction disk comprising a clutch member adapted to cooperate with the longitudinally movable friction disk for driving the propeller shaft directly from the crank shaft.

3. In a motor-vehicle, the combination of a main frame having front and rear axles, a propeller shaft connected to the rear axle and vertically movable at its forward end, a supporting frame pivotally supported by said main frame to swing about a transverse axis, inclined friction disks journaled at the sides of said supporting frame, a friction disk carried by the propeller shaft and movable

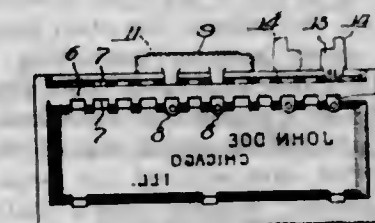
longitudinally thereof, said friction disk being adapted to engage said inclined disks, a motor mounted on said supporting frame, said motor comprising a crank shaft, and a friction disk mounted on said crank shaft and adapted to engage said inclined disks.

4. In a motor-vehicle, the combination of a main frame having front and rear axles, a propeller shaft connected to the rear axle and vertically movable at its forward end, a supporting frame pivotally supported by said main frame to swing about a transverse axis, inclined friction disks journaled at the sides of said supporting frame, a friction disk carried by the propeller shaft and movable longitudinally thereof, said friction disk being adapted to engage said inclined disks, a motor mounted on said supporting frame, said motor comprising a crank shaft, and a friction disk mounted on said crank shaft and adapted to engage said inclined disks, the latter friction disk having a clutch member adapted to operatively engage said longitudinally movable friction disk for driving the propeller shaft directly from the crank shaft.

5. In a motor-vehicle, the combination of a main frame having front and rear axles, a housing for the rear axle, a propeller shaft operatively connected with the rear axle and vertically movable at its forward end, a supporting frame pivotally supported by the main frame to swing about a transverse axis, a housing connected with the rear axle housing and with the said supporting frame and enclosing the propeller shaft, inclined disks journaled at the sides of said supporting frame, a friction disk mounted on the propeller shaft and adapted to engage said inclined disks, said friction disk being movable longitudinally of the propeller shaft, a motor mounted on the supporting frame, said motor comprising a crank shaft, and a friction disk mounted on the crank shaft and adapted to engage said inclined disks for driving the same.

[Claims 6 to 8 not printed in the Gazette.]

1,082,505. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1912. Serial No. 718,614. (Cl. 101-169.)



1. A printing device of the character described provided with a tripper having an operative portion to cooperate with a controller of a printing mechanism, said tripper capable of being reversed on the printing device to bring its operative portion into different operative positions.

2. A printing device of the character described provided with a tripper which is shiftable along one edge of the printing device to different positions thereon, and having an operative portion extending beyond the periphery of the printing device, said tripper capable of being reversed upon the printing device to bring its operative portion into different operative positions.

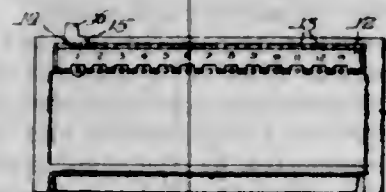
3. The combination of a printing device comprising a body portion provided with a series of keeper slots, and a tripper adapted to be positioned in any of said slots, said tripper having an operative portion projecting on one side of the longitudinal axis thereof whereby upon reversal of the tripper said operative portion will be located in different positions on said printing device.

4. The combination of a printing device provided with a keeper slot, and a tripper positioned in said slot, said tripper having an operative portion projecting laterally of the longitudinal axis thereof, said operative portion being adapted to be disposed upon opposite sides of the longitudinal axis of said slot by reversal of the tripper in the slot.

5. The combination of a tripper having an operative portion projecting on one side of the longitudinal axis thereof, and a printing device provided with a series of keeper slots adapted to receive said tripper, the longitudinal axes of said slots being spaced apart a distance greater than the width of the operative portion of said tripper to enable said operative portion to be located, by reversal of the tripper, in two different positions for each keeper slot, thereby permitting a number of different positions of the tripper greater than the number of keeper slots.

[Claims 6 to 12 not printed in the Gazette.]

1,082,506. PRINTING-CONTROL SYSTEM. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1913. Serial No. 759,873. (Cl. 101-1.)



1. A printing control system, comprising a plurality of series of control units, each unit being adapted to be detachably engaged with a printing device and having an operative portion arranged to extend beyond the periphery of the printing device, the units of each series being distinguished from the units of the other series by a difference in the distance of the operative portions thereof from the periphery of the printing device.

2. A printing control system, comprising a plurality of series of reversible units, each unit being adapted to be detachably engaged with a printing device and having an operative portion arranged to extend beyond the periphery of the printing device, said operative portion being adapted to be disposed in different operative positions upon reversal of the unit on the printing device, the operative portions of the units of each series being spaced from the edge of the printing device a different distance than the operative portions of the units of the other series.

3. A printing control system, comprising a plurality of series of control units, each unit being adapted to be detachably engaged with a printing device and having an operative portion adapted to extend beyond the periphery of the printing device, each unit of one series being provided with a perforation disposed substantially the same distance beyond the periphery of the printing device as the operative portions of the units of another series.

4. A printing control system, comprising a series of long control units and a series of short control units, all of said units being adapted to be detachably engaged with a printing device and having operative portions adapted to extend beyond the periphery of the printing device, said long control units being each provided with a perforation disposed in alignment with the operative portions of the short control units.

5. A printing control system, comprising a plurality of series of control units, each unit being adapted to be detachably engaged with a printing device and having an operative portion adapted to extend beyond the periphery of the printing device, each unit of one series being provided with a perforation between the operative portion of the unit and the periphery of the printing device.

[Claims 6 and 7 not printed in the Gazette.]

1,082,507. INSECTICIDE. CARLETON ELLIS, Larchmont, N. Y., assignor, by means assignments, to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Mar. 11, 1908. Serial No. 420,328. (Cl. 187-6.)

1. An insecticide comprising a slowly evaporating emulsion including a waxy body, carbon bisulfide and an aqueous

solution of an inorganic salt having insecticidal properties.

2. An insecticide comprising an emulsion of carbon bisulfide carrying wax in solution, with a proteid thickened aqueous solution of mercuric chlorid.

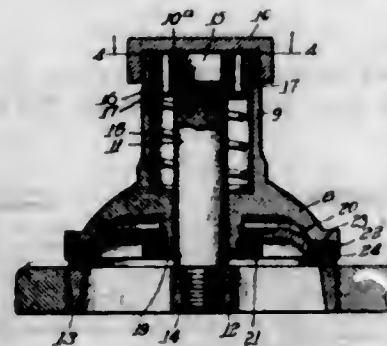
3. An insecticide comprising carbon bisulfide containing dissolved wax emulsified with an aqueous solution of a mineral salt having insecticidal properties, said aqueous solution carrying a thickener imparting consistency thereto.

4. An insecticide comprising a solution of paraffin in carbon bisulfide emulsified with substantially an equal volume of an aqueous solution of mercuric chlorid thickened with Irish moss.

5. An insecticide comprising an emulsion of a substantially water insoluble highly volatile organic liquid carrying wax in solution; emulsified with an aqueous solution of an inorganic salt having powerful insecticidal properties; said aqueous solution carrying a thickener imparting consistency thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,082,508. PUMP-VALVE. FRANKLIN H. ELWELL, Chicago, Ill. Filed Dec. 1, 1911. Serial No. 663,232. (Cl. 103-66.)



1. A valve structure comprising in combination a dome-like portion, a gasket in and projecting below the outer end thereof, a hub permanently in a plane above the valve seat, a clamping plate for the gasket on said hub, and means for tightening the same, a valve stem on which said hub is free to reciprocate, a substantially closed water chamber surrounding said valve stem, a piston in said chamber provided with perforations through which water circulates during both the seating and unseating of the valve, and whereby the valve is cushioned against hammering on its seat.

2. A valve structure comprising in combination a reciprocating member, a stem on which said member is free to reciprocate, a gasket secured to said valve member and projecting therefrom, a water chamber surrounding said stem, a piston secured thereon, means for providing for a circulation of water through said piston, and a convolute spring surrounding said stem and confined between the piston and the end wall of said water chamber for actuating the valve toward its seated position.

3. A valve structure comprising in combination a removable fixed valve stem, a water chamber surrounding said stem, a flange member projecting outwardly beyond the walls of the water chamber, a gasket and means securing said gasket to the flange member at a point surrounding and opposing the valve seat, a screw cap closing the water chamber, a piston on said stem and perforations in said piston providing for a circulation of water confined in the water chamber.

4. A valve structure comprising in combination a fixed stem, a water chamber surrounding said stem, a piston secured to the stem provided with perforations for a circulation therethrough of water confined in said chamber, a cap closing the water chamber, a valve flange, a gasket secured thereto, and means whereby the lower edge of said valve flange is permanently maintained in a plane above the seat for the valve, substantially as and for the purpose described.

5. A valve structure comprising in combination a stationary stem, a water chamber surrounding said stem, a piston secured to said stem provided on its underside with an annular groove, perforations through the upper face of the piston bisecting said annular groove, a valve flange integral with the wall of the water chamber, a seating gasket, a valve plate and means for adjustably securing the gasket to the flange, a convolute spring surrounding the valve stem for actuating the valve toward its seat, a portion of which spring is compressible within the annular groove of the piston on the seating of the valve, substantially as and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,082,509. HIGH-MOLECULAR FATTY ACID CONTAINING ARSENIC. EMIL FISCHER, Berlin, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Aug. 27, 1912. Serial No. 717,247. (Cl. 23-24.)

1. The herein described new high-molecular fatty acid compounds containing arsenic and halogen, which in the acid form are semi-fluid brownish compounds practically insoluble in water and soluble in alcohol, forming salts with metals which retain the valuable therapeutic properties exhibited by the acids, substantially as described.

2. The herein described new high-molecular fatty acid compounds containing arsenic and chlorine, which in the acid form are semi-fluid brownish compounds practically insoluble in water and soluble in alcohol, forming salts with metals which retain the valuable therapeutic properties exhibited by the acids, substantially as described.

3. The herein described new product being a stearolic acid compound containing arsenic and halogen, which is in the acid form a semi-fluid brownish compound insoluble in water and soluble in alcohol and ether, forming metal salts which retain the valuable therapeutic properties exhibited by the acid, substantially as described.

4. The herein described new product being a stearolic acid compound containing arsenic and chlorine, which is in the acid form a semi-fluid brownish compound insoluble in water and soluble in alcohol and ether, forming metal salts which retain the valuable therapeutic properties exhibited by the acid, substantially as described.

1,082,510. PHARMACEUTICAL COMPOUND. EMIL FISCHER, Berlin, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Aug. 27, 1912. Serial No. 717,248. (Cl. 23-24.)

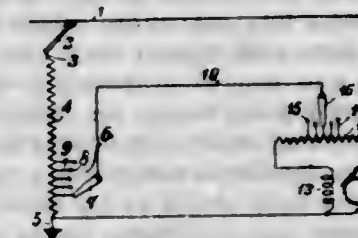
1. The herein described new high molecular fatty acid compounds containing phosphorus and halogen, which in the acid form are semi-fluid brownish compounds practically insoluble in water and soluble in alcohol, forming salts with metals which retain the valuable therapeutic properties exhibited by the acids, substantially as described.

2. The herein described new high-molecular fatty acid compounds containing phosphorus and chlorine, which in the acid form are semi-fluid brownish compounds practically insoluble in water and soluble in alcohol, forming salts with metals which retain the valuable therapeutic properties exhibited by the acids, substantially as described.

3. The herein described new product being a stearolic acid compound containing phosphorus and halogen, which is in the acid form a semi-fluid brownish compound insoluble in water and soluble in alcohol and ether, forming metal salts which retain the valuable therapeutic properties exhibited by the acid, substantially as described.

4. The herein described new product being a stearolic acid compound containing phosphorus and chlorine, which is in the acid form a semi-fluid brownish compound insoluble in water and soluble in alcohol and ether, forming metal salts which retain the valuable therapeutic properties exhibited by the acid, substantially as described.

1,082,511. ALTERNATING-CURRENT MOTOR. CHARLES LA G. FORTMANN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 21, 1911. Serial No. 609,940. (Cl. 172-276.)



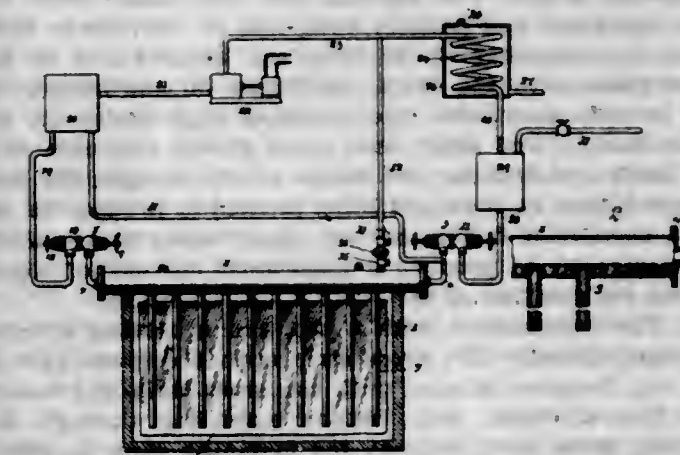
1. The combination with an alternating current motor having its armature and field magnet windings connected in multiple circuit, of means for varying the relative currents traversing the respective branches of said circuit, said means comprising means for varying the relative inductance of said branches.

2. The combination with an alternating current motor having an armature and field magnet windings connected in multiple circuit, of a transformer winding, a portion of which is connected in one branch of the motor circuit and a second portion of which is connected in the other branch of the motor circuit.

3. The combination with an alternating current motor having armature and field magnet windings connected in multiple circuit, of external adjustable means for maintaining a desired relation between the currents in armature and field magnet windings and comprising a divided transformer winding having its parts respectively connected in the field and armature branches of the motor circuit.

4. The combination with an alternating current motor having armature and field magnet windings and a commutator, and a source of current, of a regulating transformer which is connected between the armature and field magnet windings of the motor, one terminal of said source being connected to an intermediate point in said regulating transformer and the other terminal of said source being connected to the remaining terminals of the armature and field windings.

1,082,512. APPARATUS FOR THE MANUFACTURE OF PLATE-ICE. EDWARD E. GAINER, Oklahoma, Okla., assignor to George E. Llewellyn, Brooklyn, N. Y. Filed Nov. 8, 1910. Serial No. 501,219. (Cl. 62-6.)



1. An ice making apparatus comprising a header having a liquid inlet, a plurality of tubes each closed at its lower end depending therefrom, and means for causing said liquid to flow simultaneously into said tubes.

2. An ice making apparatus comprising a header having a liquid inlet, and a plurality of tubes depending from said header: each of said tubes extending at its upper end into said header for a predetermined distance and closed at its lower end.

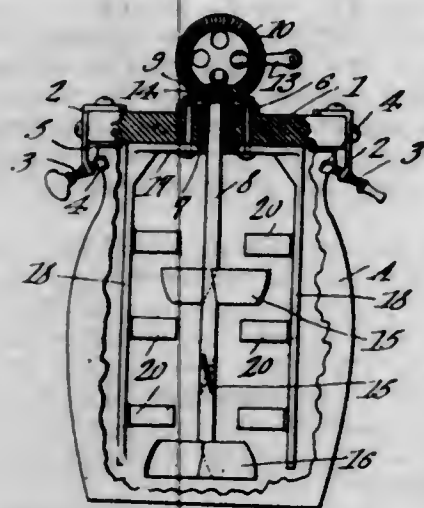
3. An ice-making apparatus, comprising a tank, a header, a plurality of tubes, each closed at its lower end, depending from said header into said tank and extending

at its upper end into said header, means for delivering a volatile refrigerating liquid into said tubes, and means communicating with said header above the upper ends of said tubes for drawing off gas therefrom.

4. An ice making apparatus comprising a tank, a header, a plurality of tubes each closed at its lower end depending from said header into said tank, means for delivering liquid ammonia into said header and tubes, means for withdrawing the gas due to evaporation of said liquid ammonia from said header, means for liquefying said gas, and a duct for returning said liquid to said header.

5. An ice making apparatus comprising a tank, a header, a plurality of tubes each closed at its lower end depending from said header into said tank, means for delivering liquid ammonia into said header and tubes, means for withdrawing the gas due to evaporation of said liquid ammonia from said header, means for compressing said gas, means for liquefying said compressed gas, a duct delivering said liquefied gas to said header, a valve controlling said duct, a by-pass delivering said compressed gas into said header, and a valve controlling said by-pass. [Claim 6 not printed in the Gazette.]

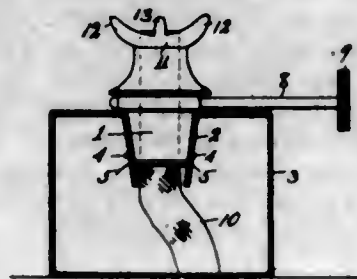
1,082,513. CHURN. THOMAS H. GAINES, Hopkinsville, Ky. Filed Apr. 29, 1913. Serial No. 764,464. (Cl. 31-42.)



1. The combination with a cap, and a bearing element arranged therein, of a cross strip upon the lower face of the cap, hangers integral with the cross strip and insertible into a churn body, means extending through the bearing, cross strip and cap for fastening them together, a shaft journaled within the bearing and depending from the cap, said shaft and hangers being free at their lower ends, inwardly extending blades upon the hangers and in the same plane with the shaft, the blades on one hanger being in alignment with the corresponding blades on the other hanger, and upper and lower blades revoluble with the shaft and between the blades on the hanger, the lowermost blades on the shaft being pitched to produce an upward current of liquid and the upper blades on the shaft being pitched to produce a downward current of liquid during the rotation of the shaft in one direction.

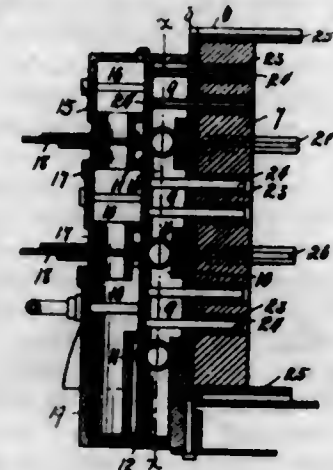
2. The combination with a cap, and a bearing element arranged therein, of a cross strip upon the lower face of the cap, hangers integral with the cross strip and insertible into a churn body, means extending through the bearing, cross strip and cap for fastening them together, a shaft journaled within the bearing and depending from the cap, said shaft and hangers being free at their lower ends, inwardly extending blades upon the hangers and in the same plane with the shaft, the blades on one hanger being in alignment with the corresponding blades on the other hanger, upper and lower blades revoluble with the shaft and between the blades on the hanger, the lowermost blades on the shaft being pitched to produce an upward current of liquid and the upper blades on the shaft being pitched to produce a downward current of liquid during the rotation of the shaft in one direction, means mounted on the cap for rotating the shaft, and means carried by the cap for engaging the mouth portion of a jar to secure the cap upon the jar.

1,082,514. COAL-OIL BURNER. CHARLES E. GODLEY, Detroit, Mich., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich., a Corporation of Michigan. Filed Aug. 9, 1911. Serial No. 643,212. (Cl. 67-53.)



An oil burner comprising a wick tube, a concave crescent shaped cup located at the upper end of the said tube, said fitting having opposed slender fingers the ends of which are turned inwardly and adapted to be heated by the lower edge of the flame produced by the burner.

1,082,515. TIRE-HEATER. JACOB GOGEL, Toledo, Ohio. Filed Aug. 16, 1912. Serial No. 715,372. (Cl. 158-99.)



1. A gas burner having a vertical face, a plurality of superposed communicating air chambers and a plurality of superposed communicating gas chambers, said air and gas chambers cooperating in pairs to form operative burner sections each having a discharge nozzle in said face, and means controlling the flow of air and gas to the respective chambers.

2. A burner comprising a plurality of gas chambers and a plurality of air chambers in communication, respectively, with sources of gas and air supply, means selectively operable for closing each of said chambers to their respective sources of supply, and a discharge nozzle projected from each of said chambers with the discharge nozzle of each air chamber projected into a discharge nozzle of a gas chamber.

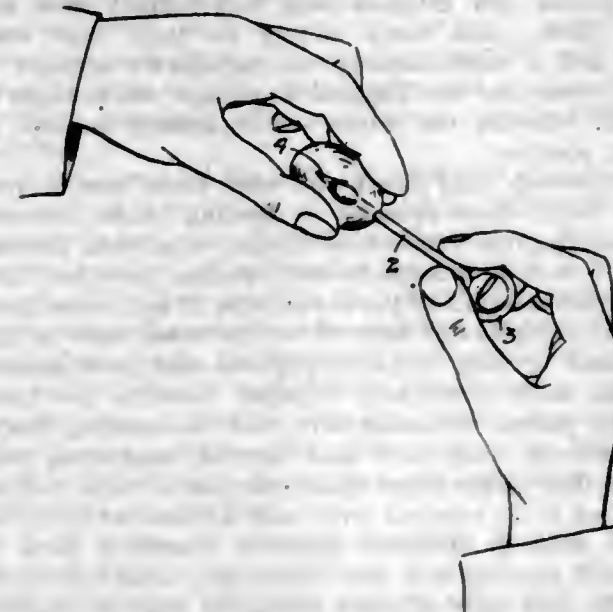
3. A burner having a plurality of air and a plurality of gas chambers, means for controlling the supply of air and gas to each of said chambers of the respective sets, and a nozzle projected forward from each of said chambers with the nozzle of one chamber of a set projected through the other chamber and into its discharge nozzle, substantially as described.

4. A burner having an air conduit in communication with a source of air supply, a gas conduit in communication with a source of gas supply, valves in said conduits for dividing each into a plurality of compartments, and nozzles projected from said compartments with each air compartment nozzle projected into a gas compartment nozzle.

5. A burner having a plurality of superposed gas chambers in valve-controlled communication, a plurality of superposed air blast chambers in valve-controlled communication, said air and gas chambers being arranged one in advance of the other, and discharge nozzles projected forward from the respective chambers with the nozzles from the rear chambers projected into the nozzles from the forward chambers.

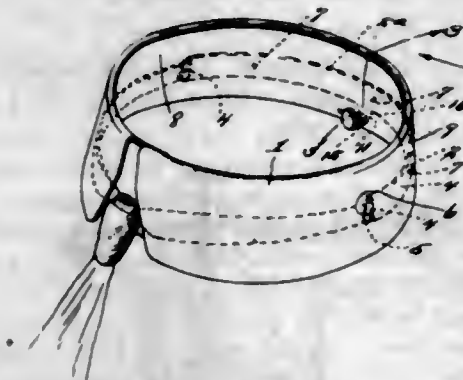
[Claims 6 and 7 not printed in the Gazette.]

1,082,516. FRUIT-SEEDER. NEWELL S. GRIFFITH, Minneapolis, Minn. Filed Mar. 17, 1911. Serial No. 615,147. (Cl. 146-5.)



A fruit seeding device comprising a shank adapted to be held in the hand and having a pointed end provided with a smooth surface, a pair of barbs formed on said shank near said pointed end and projecting rearwardly from said point and diverging from one another and from said shank, both of said barbs being located on one side of the longitudinal axis of said shank and adapted to receive a fruit seed between them, said shank being bent slightly near said barbs to set them outwardly a greater distance from said shank and provide a greater space for the fruit seed.

1,082,517. COLLAR ATTACHMENT. PERCY HARRISON, Baltimore, Md., assignor to Harrison Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed Mar. 11, 1912. Serial No. 683,014. (Cl. 24-49.)



1. An improved scarf-holding and spacing device for collars comprising an elongated plate bent longitudinally upon itself to form two sides, one of which is curved longitudinally upon itself and terminating in an elongated flange disposed between the two sides, the flange constituting means adapted for supporting a necktie between it and one of the sides, and also for holding the sides of the device separated, the outer faces of the sides having pointed lugs adapted to engage the collar to support the spacing device.

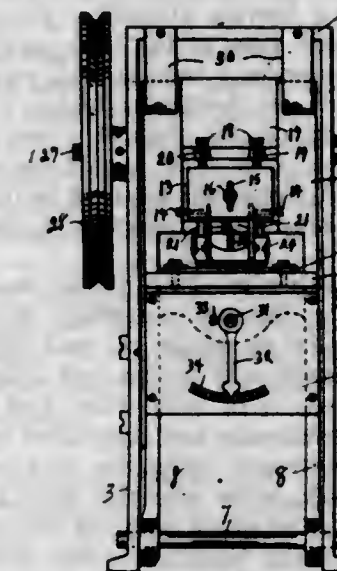
2. An improved scarf-holding and spacing device for collars comprising an elongated plate bent longitudinally upon itself to form two sides, one of which is curved longitudinally upon itself and terminating in an elongated flange disposed between the two sides, the flange constituting means adapted for supporting a necktie between it and one of the sides and also for holding the sides of the device separated, the outer faces of the sides having pointed lugs adapted to engage the collar to support the spacing device, the side having the flange being provided with a substantially centrally located extension having a recess adapted to engage the collar-button.

3. An improved scarf-holding and spacing device for collars comprising an elongated plate bent longitudinally

upon itself to form two sides, one of which is curved longitudinally upon itself and terminating in an elongated flange disposed between the two sides, the flange constituting means adapted for supporting a necktie between it and one of the sides and also for holding the sides of the device separated, the side having the flange being provided with a substantially centrally located extension having a recess adapted to engage the collar-button.

4. An improved scarf-holding and spacing device for collars comprising an elongated piece of thin flexible material bent longitudinally upon itself to form two sides, having a space therebetween sufficient to receive a necktie, one of which is curved longitudinally upon itself and terminating in an elongated flange disposed between the two sides, the flange constituting means adapted for supporting a necktie between it and one of the sides, and also for holding the sides of the device spaced apart.

1,082,518. PERFORATOR. WARD B. HAUSMAN, Philadelphia, Pa. Filed Aug. 29, 1912. Serial No. 717,735. (Cl. 164-88.)



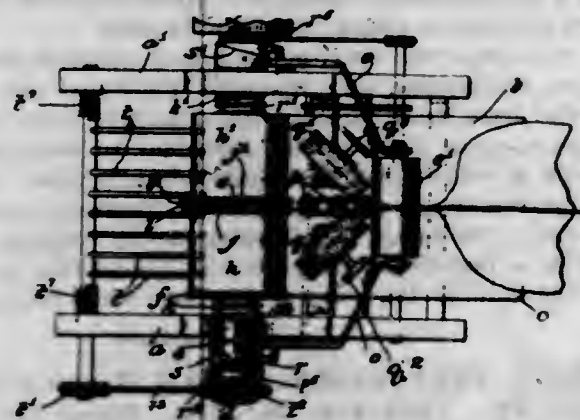
1. In a perforator, a frame, an oscillating frame between the side walls of the first named frame, a slide carried by the oscillating frame, an adjustable die holder attached to the slide, male dies carried by said die holder, a presser foot, means for slidably mounting said presser foot in the slide, female dies carried by the oscillating frame with which co-acts the presser foot and the male dies, a cam shaft journaled in the first named frame, a cam mounted on said shaft and co-acting with a portion of the slide for operating the same, a base plate adjustably mounted upon first named frame, a guide plate, one end of which is pivoted to the base plate, means for adjusting the free end of said guide plate, a tension plate mounted upon the guide plate, a bridge carried by the first named frame, a swinging lever pivoted to said bridge, a screw passing through one end of said lever, and bearing upon the tension plate and means for normally forcing that end of the lever which carried the screw downward, the opposite end of said lever adapted to co-act with a portion of the slide for relieving the tension upon the tension plate.

2. In a perforator, a frame, an oscillating frame pivoted thereto, a slide carried by the oscillating frame, a pair of arms projecting from said slide, a spring actuated presser foot fitted to reciprocate in said slide, dies carried by said slide, a tension device having a lever as one of its elements adapted to co-act with one of the arms of the slide, and a cam mounted between the arms for intermittently operating the oscillating frame, the presser foot, the dies and the tension device.

1,082,519. TOBACCO-WORKING MACHINE. HALBERT PAUL HILL, New York, N. Y. Filed June 17, 1912. Serial No. 704,025. (Cl. 131-57.)

1. A tobacco working machine of the character herein described embodying therein oppositely disposed knives,

means whereby said knives are adapted to have movement toward and from each other, and means acting upon said last named means and controlled by the stem of the leaf for automatically adjusting said knives toward and away from each other whereby they are caused to cut close to the stem at every point of the leaf.



2. A tobacco working machine of the character herein described embodying therein stemming knives adapted to operate upon opposite sides of the stem, said knives being adapted to have movement toward and away from each other, feeding means for delivering leaves to said knives, means adapted to engage the stem of a leaf and operative connections between said last named means and said knives whereby said means are adapted to impart variable movement to said knives in proportion to the dimensions of said stem.

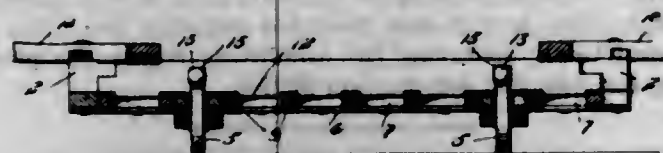
3. A tobacco working machine of the character herein described embodying therein oppositely disposed knives, feeding drums adapted to engage the leaf adjacent to said knives, means whereby said knives are adapted to have movement toward and from each other, and means acting upon said last named means and controlled by the stem of the leaf for automatically adjusting said knives toward and away from each other whereby they are caused to cut close to the stem at every point of the leaf.

4. A tobacco working machine of the character herein described embodying therein stemming knives adapted to operate upon opposite sides of the stem, feeding drums adapted to engage the leaf adjacent to said knives, said knives being adapted to have movement toward and from each other, feeding means for delivering leaves to said knives, means adapted to engage the stem of a leaf and operative connections between said last named means and said knives whereby said means are adapted to impart variable movement to said knives in proportion to the dimensions of said stem.

5. A tobacco working machine of the character herein described embodying therein a pair of oppositely disposed stemming knives, drums adjacent thereto, means cooperating with said knives, means cooperating with said drums, said knives, said drums and said means cooperating therewith respectively being adapted to have lateral movement toward and from each other, and means controlled by the stem of the leaf for automatically moving said knives and said drums and their cooperating parts toward and from each other to an extent determined by the size of the stem of a leaf.

[Claims 6 to 16 not printed in the Gazette.]

1,082,520. SWEEP-RAKE. JOHN HENRY HOENER, Slater, Mo. Filed Sept. 9, 1912. Serial No. 719,487. (Cl. 56-66.)



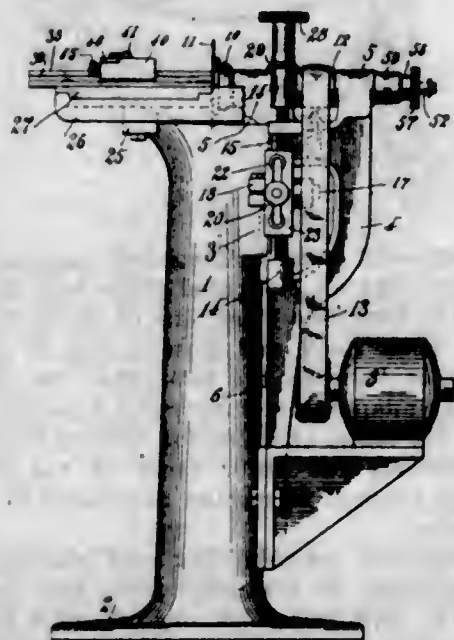
1. A sweep rake comprising front and rear cross bars having on their lower sides spacing blocks, longitudinally extending bearing supporting bars connecting the lower sides of said cross bars, teeth supporting plates secured

to the lower sides of said longitudinal bars below said cross bars, teeth having their rear ends extending through the spaces between said cross bars and said teeth supporting plates and between said longitudinal bars and spacing blocks, said teeth having in their rear ends notches, and a tooth locking bar detachably secured to said rear cross bar and adapted to engage the notches in said teeth whereby the latter are detachably secured in operative position.

2. In a sweep rake front and rear cross bars having on their lower sides a series of spacing blocks, spacing bars connecting the extremities of said cross bars, bearing supporting bars intermediate said spacing bars and having their ends secured to the lower sides of said cross bars, teeth supporting plates secured to the lower side of the ends of said bearing supporting plates and said spacing bars, rake teeth detachably engaged between the teeth supporting plates, the cross bars, and the spacing blocks carried thereby, said teeth and bearing supporting bars having in their upper sides aligned notches, a tooth locking bar adapted to be engaged with said notches whereby the teeth are held in operative position, clamping bolts to secure said bars to said rear cross bar, thumb nuts engaged with said bolts whereby the latter may be removed and said locking bar readily released to permit the removal of said teeth, and draft devices secured to the ends of said part and rear cross bars.

3. A sweep rake comprising front and rear cross bars, teeth supporting plates secured thereto, a plurality of teeth removably disposed between said supporting plates and said front and rear cross bars, said teeth having in their upper sides a transversely extending plate receiving notch, a locking plate secured to one of said cross bars and adapted to have a sliding engagement with said notches whereby some of said teeth may be removed and replaced without disturbing the adjacent teeth, draft tongues secured to said cross bars, said draft bars projecting rearwardly and laterally from the sides of the rake, braces engaged with the outer ends of said draft bars, means to hitch draft animals to the outer ends of said draft bars, and means to attach the animals to the outer ends of the tongues whereby the rake may be backed.

1,082,521. METAL SAW AND TRIMMER. KARL HOEFFNER, Dayton, Ohio. Filed Dec. 4, 1912. Serial No. 734,570. (Cl. 29-69.)



1. In a saw of the type specified, the combination with a table, of a longitudinally adjustable frame, a saw-mandrel journaled in said frame, and a motor supported on said frame and connected with said mandrel, means comprising a screw and segment gear for shifting said frame vertically to bring the saw to positions above or below the table, and means for adjusting the saw independently of the movement given it through the movement of the frame, said last named means comprising a hand-operative connection with said screw, substantially as specified.

2. In a saw of the type specified, the combination with a table, of a vertically longitudinally adjustable frame, a saw mandrel journaled in said frame, a motor supported on said frame and connected with said mandrel, an adjusting screw mounted on said frame, a segmental gear engaging said screw, a handle for operating said segmental gear to raise or lower said frame, and a counterbalancing weight connected with said frame, substantially as described.

3. In a saw of the type specified, the combination with a table, of a vertically longitudinally adjustable frame, a saw mandrel and a motor supported on said frame, a screw mounted on said frame for obtaining a finer adjustment of the saw relative to the table, a segmental gear engaging said screw to raise or lower the saw relatively to the table, a lever for operating said segmental gear, means on said screw for operating it independently of said segmental gear, a counterbalancing weight connected to said frame, and means acting upon said screw for obtaining a finer adjustment of the saw relative to the table, substantially as specified.

4. In a saw of the type specified, a table, a guide, a rack thereon, a gage slidably mounted on said guide, a nut inclosed in said gage and engaging said rack, and a screw inclosed in said gage and engaging said nut and by means of which the gage may be adjusted on said guide.

1,082,522. CAOUTCHOUC SUBSTANCES AND PROCESS OF MAKING SAME. FRITZ HOFMANN, CARL COUTELLE, KURT MEISENBURG, and KONRAD DELBRÜCK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed July 10, 1912. Serial No. 708,608. (Cl. 23-24.)

1. The process of producing a caoutchouc-like substance which comprises polymerizing a substituted erythrene hydrocarbon which hydrocarbon has at least one substituting group containing more than one atom of carbon until a caoutchouc-like substance is formed which is insoluble in alcohol but soluble in coal-tar benzene.

2. The process of producing a caoutchouc-like substance which comprises polymerizing a substituted erythrene hydrocarbon which hydrocarbon has a substituting group in the beta position containing more than one atom of carbon until a caoutchouc-like substance is formed which is insoluble in alcohol but soluble in coal-tar benzene.

3. The process of producing a caoutchouc like substance which comprises polymerizing an alkyl substituted erythrene hydrocarbon which hydrocarbon has at least one substituting group containing more than one atom of carbon until a caoutchouc-like substance is formed which is insoluble in alcohol but soluble in coal-tar benzene.

4. The process of producing a caoutchouc like substance which comprises polymerizing an alkyl substituted erythrene hydrocarbon which hydrocarbon has a substituting group in the beta-position containing more than one atom of carbon until a caoutchouc-like substance is formed which is insoluble in alcohol but soluble in coal-tar benzene.

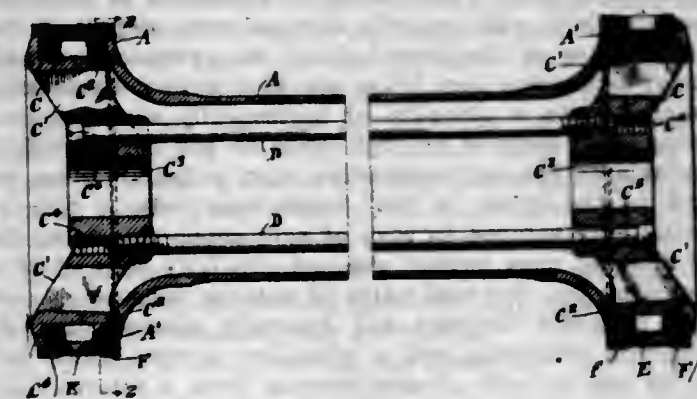
5. The process of producing a caoutchouc like substance which comprises polymerizing an ethyl substituted erythrene hydrocarbon until a caoutchouc-like substance is formed which is insoluble in alcohol but soluble in coal-tar benzene.

[Claims 6 to 31 not printed in the Gazette.]

1,082,523. PISTON-PACKING. HARRY A. HOKE and CLARENCE J. BARLEY, Altoona, Pa. Filed Apr. 21, 1913. Serial No. 762,456. (Cl. 121-108.)

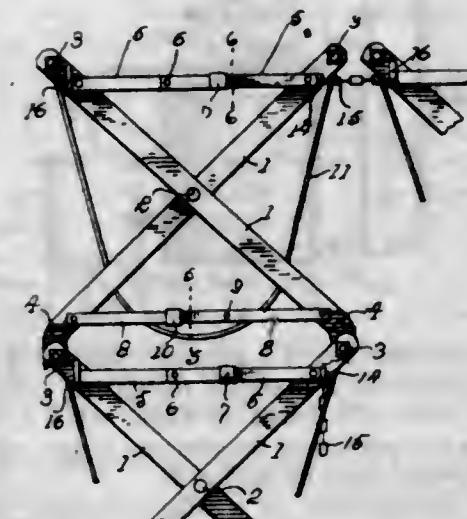
1. In combination, a piston formed with a circumferential packing ring slot having an under cut portion, and comprising rigid parts and means rigidly connecting said parts in the normal condition of the piston but releasable to permit the axial separation of the parts, one of said rigid parts forming one side wall and the other the opposite side wall of said slot, and a spring metal packing ring movably mounted in said slot and formed with a portion projecting into the under cut portion of

said slot and preventing the escape of the broken apart ring segments in case of the fracture of the ring but not interfering with the expansion and contraction of the ring in normal operation.



2. In combination, a piston comprising a body portion having a circumferential outwardly projecting flange at its end, a piston head comprising a cylindrical rim portion one end of which engages said body portion and the other end of which is provided with a circumferential outwardly extending flange whereby said flanges form the sides, and the periphery of said cylindrical rim forms the bottom of a circumferential channel, a bull ring received in said channel and recessed at opposite sides to provide a circumferential slot having an under cut portion at each side of the bull ring and between it and the adjacent of said circumferential flanges, spring metal packing rings received one in each of said slots and each formed with a lateral rib at its inner edge extending into the undercut portion of said slot and a lateral flange at its outer edge projecting over the corresponding one of said circumferential flanges, and means for securing said piston head and body together.

1,082,524. BANANA-SHIPING DEVICE. JOSEPH F. HOLMES, Huntsville, Ala. Filed Sept. 9, 1912. Serial No. 719,405. (Cl. 217-44.)

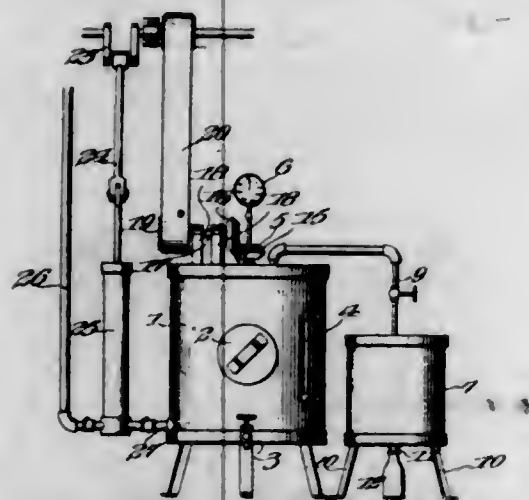


1. In a banana shipping device, angularly disposed supporting rods pivotally secured together intermediate of their ends, a plurality of horizontally arranged rods connecting said pivotally secured supporting rods in pairs, a fruit sling mounted on the said horizontally arranged rods connecting the upper terminals of said pivotally secured rods, the lowermost terminals of said pivotally secured rods being formed with notches adapted to engage the upper horizontal connecting rods, spacing bars pivotally secured to said pivotally secured rods adjacent to their upper ends, a chain secured to one of each pair of spacing bars, a hook formed on the other of each pair of rods, said bars being pivotally secured together and forming a brace to hold the upper ends of said pivotally secured rods in a distended position, said chain being adapted to have its free end secured to the said hook of the next adjacent shipping device when the structures are arranged in assembled position, spacing bars pivotally secured adjacent to the lower ends of said pivotally secured rods,

and said spacing bars being pivotally secured together and adapted to act as a brace to hold the lower ends of said pivotally secured rods in a distended position.

2. In a banana shipping device a set of pivotally connected supporting legs, the lower terminals of each leg being angularly and inwardly directed with respect to the vertical plane of the pivotal point, the extreme terminals of said supporting legs being provided with substantially U-shaped slots, a plurality of horizontally arranged connecting rods secured at their ends to the corresponding terminals of the said supporting legs, a flexible sling secured to the upper of said connecting rods, a pair of spacing bars secured to each of said supporting legs, the said spacing bars having one end pivotally secured to a supporting leg, the said pairs of spacing rods being normally inwardly directed and pivotally secured at their contacting terminals, and a plurality of stop hooks carried by one of each of said spacing bars, a laterally extending perforated ear carried by one bar of each of said pairs of spacing bars and adjacent the fixed terminal thereof, a hook member carried by the other of each of said pairs of spacing bars, a plurality of connecting chains secured at one terminal to a perforated ear and adapted in the assembled position of the shipping devices to engage a hook member of the next adjacent device for maintaining the structures in the desired position; the said structures being adapted to the arrangement in series and to superposition, the slot portions of the legs of the superimposed structures being adapted to engage the upper horizontally disposed connecting rods of the adjacent lower structure.

1,082,525. DISTILLING APPARATUS. JAMES A. HOUSER, Marion, Ind. Filed Feb. 24, 1912. Serial No. 679,810. (Cl. 167-4.)

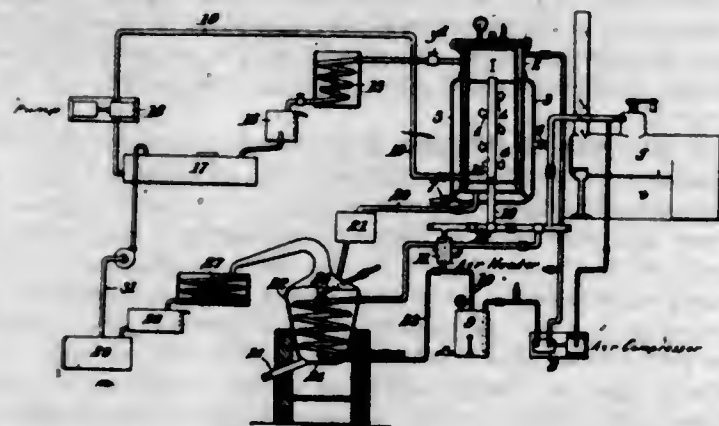


1. The combination of a still provided with a pipe leading to a condenser, a pressure regulating valve located in said pipe, said still being provided with a relief valve, and means for positively introducing a gas under pressure into the bottom part of said still.
2. The combination of a still provided with a pipe leading to a condenser, a regulating valve located in said pipe, said still being provided with a relief valve, and a piston pump capable of positively introducing air under pressure into the lower portion of said still.
3. The combination of a still provided with a stirring device and also provided with a pipe leading to a condenser, a regulating valve located in said pipe, said still being provided with a relief valve, and means for positively introducing air under pressure into said still, at a point near the bottom thereof.

1,082,526. PROCESS OF OBTAINING ROSIN AND TURPENTINE FROM WOOD. CHARLES HOWARD, New York, N. Y. Filed Nov. 8, 1912. Serial No. 730,161. (Cl. 203-4.)

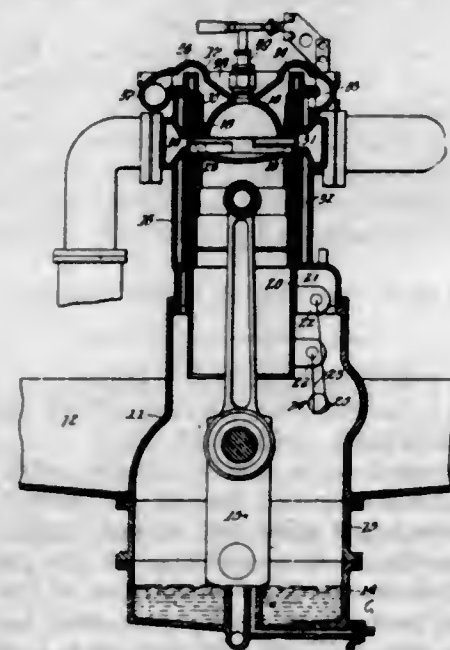
1. A process of extracting the resinous component of comminuted, coniferous wood, which comprises acting upon the untreated wood with a solvent for said resinous bodies, agitating said solvent while in contact with said

wood by introducing a plurality of streams of heated air, in a downward direction, and withdrawing said solvent, with the material dissolved therein at the end of said extraction.



2. A process of obtaining rosin and volatile constituents from coniferous wood, which comprises subjecting said wood in a comminuted condition, to the action of a vacuum, then to the action of a solvent of rosin, and alternately increasing and decreasing the fluid pressure in the treating vessel during the action of said solvent.
3. A process of obtaining rosin and volatile constituents from coniferous wood, which comprises acting upon untreated wood in a comminuted condition, with a solvent of rosin, and varying the fluid pressure in the treating vessel during the action of said solvent.
4. A process of extracting rosin and other constituents from untreated, comminuted, coniferous wood, which comprises removing the air from the interstices of said wood by the action of a vacuum, then acting upon said wood with a solvent of rosin under pressure, agitating the mixture of air and solvent by introducing air under pressure, and varying the pressure within the extracting vessel during said extraction step.
5. A process of obtaining rosin and turpentine from wood containing the same, which process comprises treating the untreated wood in a subdivided condition, with turpentine under pressure to obtain an extract of resinous constituents in turpentine, agitating said turpentine during said treatment, and causing the fluid pressure within the treating vessel to alternately rise and fall during said treatment.

1,082,527. HYDROCARBON-MOTOR. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed July 2, 1909, Serial No. 505,735. Divided and this application filed Mar. 30, 1912. Serial No. 687,375. (Cl. 123-173.)



1. In a hydrocarbon engine, a one-piece cylinder head cored to provide a water jacket, and provided with narrow

raised portions forming oppositely arranged inlet and discharge ducts communicating with the cavity.

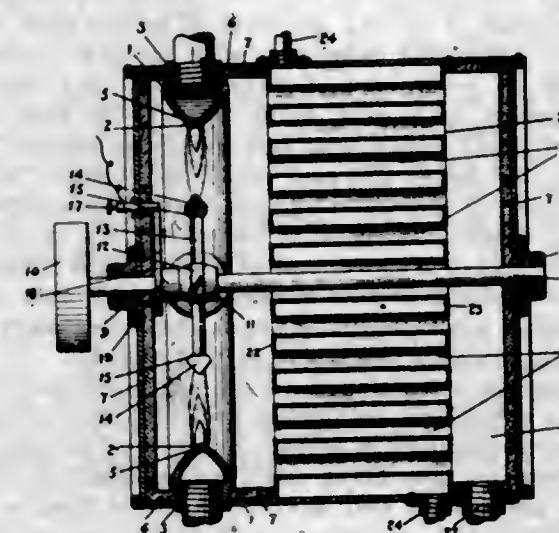
2. In a hydrocarbon engine, in combination, a cylinder head cored and dished to provide an annular water jacket cavity, a spark plug secured into the center of the head, said head being provided with narrow raised portions forming oppositely arranged inlet and discharge ducts communicating with the cavity.

3. In a hydrocarbon engine, a cylinder, a head secured to the cylinder and having communicating concentric water chambers, and an annular space between said water chambers adapted to receive a sleeve valve, the outer of said chambers being in axial alignment with the cylinder wall and the inner chamber being extended axially within the bore of the cylinder.

1,082,528. LOW-FREEZING LIQUID. MATTHEW ALBERT HUNTER, Troy, N. Y. Filed Aug. 8, 1913. Serial No. 783,717. (Cl. 252.)

1. A low freezing mixture composed of carbon tetrachlorid and carbon dichlorid.
2. A low freezing mixture composed of carbon tetrachlorid and carbon dichlorid mixed with another liquid, substantially as described for the purposes set forth.

1,082,529. APPARATUS FOR FORMING OXIDS OF NITROGEN. JAMES SIMPSON ISLAND, Toronto, Ontario, Canada. Filed Dec. 27, 1911. Serial No. 668,086. (Cl. 204-31.)



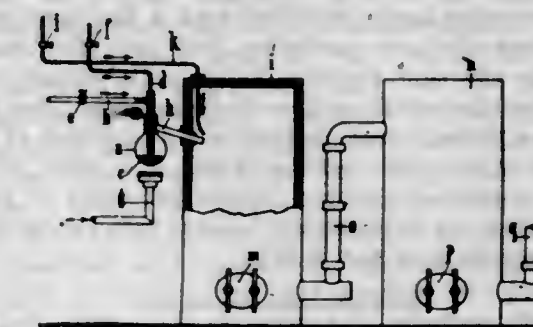
1. In an apparatus for forming oxides of nitrogen, a hollow electrode formed in circle shape and having openings therein adapted to project an annular sheet of oxy-nitrogen gas, and an electrode arranged in the plane of the projected gas and adapted to form an annulus of electric flame the central plane of which will be in the plane of the discharge of oxy-nitrogen gas.
2. In an apparatus for forming oxides of nitrogen, a hollow ring shaped electrode having inwardly directed discharge openings in its median plane adapted to project an annular sheet of oxy-nitrogen gas, a rotary electrode arranged axially within said ring and adapted to create a zone of electric flame in the plane of the discharge from said ring electrode.
3. In an apparatus for forming oxides of nitrogen, a tubular ring shaped electrode connected with a suitable oxy-nitrogen supply and formed substantially triangular in cross section and having the apex turned inward and formed with a plurality of minute radial orifices, and a rotary electrode supported in central alignment with said ring and having segmental members presenting an edge outwardly in alignment with the apex of said ring and adapted to create a zone of electric flame in the plane of the discharge of the oxy-nitrogen gas.
4. In an apparatus for forming oxides of nitrogen, a tubular ring shaped electrode substantially triangular in cross section and having the apex turned inward and formed with a plurality of minute radial orifices in said

apex and gas inlet openings communicating with a suitable supply of oxy-nitrogen gas, and a rotor electrode adapted to rotate within said ring and having a plurality of radial arms formed with segmental ends substantially triangular shaped in cross section.

5. In an apparatus for forming oxides of nitrogen, a tubular ring shaped electrode substantially triangular in cross section and having the apex turned inward and formed with a plurality of minute radial orifices in said apex, a suitable supply of oxy-nitrogen gas communicating with said tubular ring, and a rotor electrode adapted to rotate within said ring and having a plurality of flat radial arms set in angular relation to the axis of the rotor and forming fan blades, said arms having segmental outer ends presenting an edge outwardly.

[Claim 6 not printed in the Gazette.]

1,082,530. APPARATUS FOR MANUFACTURING MERCURY BICHLORID. FELIX KAUFLEB, Brückl, Austria-Hungary, and AUGUST KLAGES, Salbke, Germany. Original application filed Aug. 27, 1912, Serial No. 717,246. Divided and this application filed Mar. 19, 1913. Serial No. 755,377. (Cl. 23-13.)



1. In an apparatus for burning a liquid in a gas the combination of a retort, a gas admission tube, a liquid admission tube, terminating below the normal liquid level in the retort and located inside the gas admission tube, an outlet tube for the product of combustion, and means for heating the retort.
2. In an apparatus for manufacturing mercury bichlorid the combination of a quartz retort, a quartz admission tube for chlorine and a quartz admission tube for mercury, the latter terminating below the normal mercury level in the retort and located inside the chlorine admission tube, an outlet tube for the mercury bichlorid formed in the retort, and means for heating the retort.
3. In an apparatus for manufacturing mercury bichlorid the combination of a retort, a chlorine admission tube, a mercury admission tube, an outlet tube for the mercury bichlorid formed in the retort, means for heating the retort, and means for condensing the mercury bichlorid vapors.
4. In an apparatus for manufacturing mercury bichlorid the combination of a retort, a chlorine admission tube, a mercury admission tube, an outlet tube for the mercury bichlorid formed in the retort, means for heating the retort, a tower into which the outlet tube opens, and means for introducing a current of air into said tower to chill the vapors from said retort.
5. In an apparatus for manufacturing mercury bichlorid the combination of a retort, a chlorine admission tube, a mercury admission tube, an outlet tube for the mercury bichlorid formed in the retort, means for heating the retort, a tower into which the outlet tube opens, and means for introducing air into said tower in a jet discharging across the retort discharge tube.

[Claims 6 and 7 not printed in the Gazette.]

1,082,531. DROPPING-BOTTLE. LUDWIG KAUFMANN, Berlin, Germany, assignor to Warmbrunn, Quilitz & Co., Apparate Bauanstalt, Berlin, Germany. Filed Apr. 21, 1913. Serial No. 762,658. (Cl. 215-59.)

1. A dropping bottle provided with a discharge pipe and with a bent air pipe extending deep into the interior of

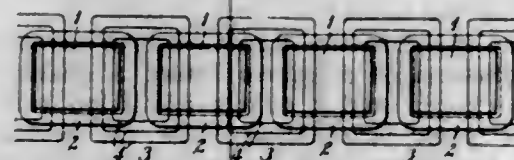
the bottle, the said air pipe being bent toward the wall opposite to the mouth of the discharge pipe and then in the opposite direction and terminating adjacent the bottom of the bottle, and adapted to act as a siphon.



2. A dropping bottle provided with a discharge pipe and with a bent air pipe extending deep into the interior of the bottle, the said air pipe being bent toward the wall opposite to the mouth of the discharge pipe, and adapted to act as a siphon, the inner end of said discharge pipe being bent in the form of a U and having a chamber formed in its inner leg to retain the liquid to form a seal.

3. A dropping bottle provided with a discharge pipe and with a bent air pipe extending deep into the interior of the bottle, the said air pipe being bent toward the wall opposite to the mouth of the discharge pipe, and adapted to act as a siphon, said air pipe being provided at a point above its inner end with a hole, said hole being too small to prevent the siphon action but being of sufficient area to allow the entering air to pass into the bottle without passing through the liquid.

1,082,532. DYNAMO-ELECTRIC MACHINE. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 21, 1911. Serial No. 609,948. (Cl. 171-252.)



1. A damper for a synchronous dynamo-electric machine core member having polar projections that comprises groups of independent closed circuit interpolar coils.

2. A damper for a synchronous dynamo-electric machine core member having polar projections that comprises a plurality of coil groups severally consisting of independent closed-circuit concentric interpolar coils.

3. A synchronous dynamo-electric machine field member comprising polar projections, magnetizing means therefor and a plurality of independent closed-circuit damping coils that individually influence equal portions of two adjacent polar projections.

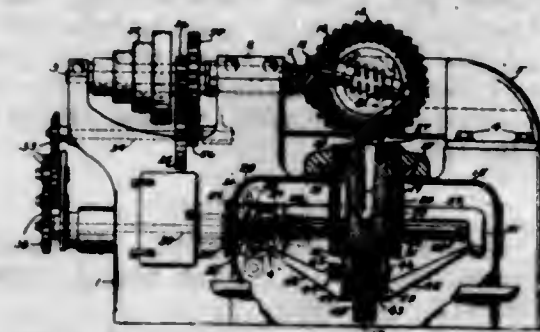
4. A synchronous dynamo-electric machine field member comprising polar projections, magnetizing coils therefor and groups of independent closed-circuit concentric damping coils that individually include equal portions of adjacent polar projections.

5. A synchronous dynamo-electric machine field member comprising polar projections, magnetizing coils therefor and groups of independent closed-circuit interpolar coils for damping out cross fluxes.

1,082,533. PROCESS FOR CUTTING HELICAL GEAR-WHEELS. ERNEST J. LEES, Cleveland, Ohio, assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed Jan. 29, 1913. Serial No. 744,810. (Cl. 90-4.)

1. A method of cutting helical gear wheels consisting of rotating a gear blank and helical cutter with relative speeds, through a single, continuous and unvarying motion

from a driver to said gear blank and cutter respectively, said relative rotations being determined by the ratio of the number of teeth to be cut to the number of threads in the cutter, plus or minus an increment dependent upon the amount of feed desired for each rotation of the gear blank and imparting a feeding motion substantially parallel to the axis of, and relative to the rotations of the gear blank to produce helical teeth on said blank that have a directrix coinciding with the axis of the gear blank.



2. A method of cutting helical gear wheels, consisting of rotating a gear blank and helical cutter with relative speeds, through a single, continuous and unvarying motion from a driver to said gear blank and cutter respectively, said relative rotations being determined by the ratio of the linear pitch of said gear blank to the lead of said gear, plus or minus the feed desired for each rotation of the gear blank, and imparting a feeding motion substantially parallel to the axis and relative to the rotations of said gear blank to produce helical teeth on said gear that have a directrix coinciding with the axis of said gear blank.

3. A method of cutting the teeth of helical gear wheels, that have a directrix coinciding with the gear blank axis, consisting of rotating a helical cutter, and imparting rotary motion to a gear blank relative to said cutter, through a single, continuous and unvarying motion from a driver to said cutter and gear blank respectively, the relative rotations of the cutter and gear blank being dependent upon the number of teeth to be cut in the gear less a fractional part of a tooth, and of feeding said cutter relative to the rotations and parallel with the axis of said gear blank at a rate dependent upon the linear pitch of the gear blank and said fractional part of a tooth.

4. A method of cutting the teeth of helical gear wheels that have a directrix coinciding with the gear blank axis, consisting of rotating a helical cutter, and imparting rotary motion to a gear blank relative to said cutter, through a single, continuous, and unvarying motion from a driver to said cutter and gear blank respectively, the relative rotations of the cutter and gear blank being dependent upon the number of teeth to be cut in the gear, plus a fractional part of a tooth, and of feeding said cutter relative to the rotations and parallel with the axis of said gear blank at a rate dependent upon the linear pitch of the gear blank and said fractional part of a tooth.

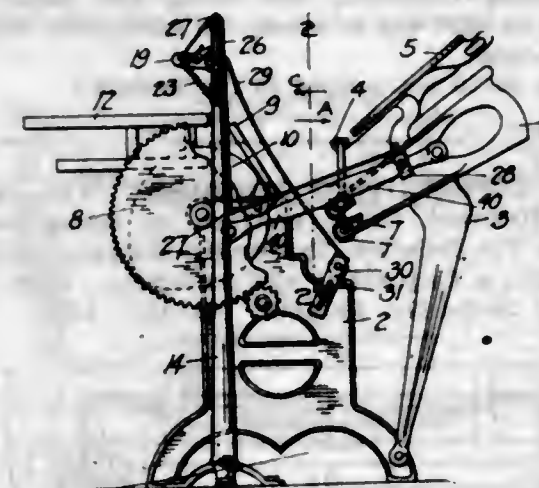
5. The process of cutting the teeth of helical gear wheels, that have a directrix coinciding with the gear blank axis, consisting of rotating a helical cutter, and imparting rotary motion to a gear blank relative to said cutter through a single, continuous and unvarying motion from a driver to said cutter and gear blank respectively, the relative rotations of the cutter and gear blank being dependent upon the number of teeth to be cut in the gear blank, and a constant derived as described, and of feeding said cutter relative to the rotations and parallel with the axis of said gear blank in a ratio dependent upon the linear pitch of the gear blank and said constant.

(Claims 6 to 8 not printed in the Gazette.)

1,082,534. APPARATUS FOR PRODUCING IMITATION TYPE-WRITTEN LETTERS. JAMES A. LOCKWOOD, Denver, Colo. Filed July 22, 1912. Serial No. 710,822. (Cl. 101-13.)

1. The combination with the platen and the moving type-holding element of a printing press, of a standard separate from the latter, a winding spool rotatably mount-

ed on said standard and including a toothed wheel, a spring-impelled arm pivotally mounted on the standard, a pawl on said arm in engagement with the teeth of said wheel, and a cord connecting said arm with a part of said element.



2. An attachment for printing presses comprising a movable independent support, a winding spool and mechanism for rotating the same, mounted thereon in cooperative relation to each other, means for the direct cooperative connection of said mechanism with a reciprocating member of a printing press, a second spool, means to rotatably attach the same to the frame of a printing press, and an inking ribbon wound on said spools.

3. An attachment for printing presses comprising a movable independent support, a winding spool and mechanism for rotating the same, mounted thereon in cooperative relation to each other, a cord for the operation of said mechanism, a clamp on said cord for its direct connection with the platen which in the operation of the press converts the rotary motion of the driving shaft thereof into an oscillatory movement of the type-carrying frame of the same, a second spool, means to rotatably attach the same to the frame of a printing press, and an inking ribbon wound on said spools.

1,082,535. TYPE-WRITING MACHINE. EDWARD H. LORENZ, Hartford, Conn., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed June 5, 1908. Serial No. 436,750. (Cl. 197-91.)



1. In a typewriting machine, the combination with the platen carriage provided with a feed rack and the escapement devices comprising a fixed and a movable dog, of an escapement shaft, of an escapement wheel loosely mounted upon said escapement shaft with which said feed dogs cooperate, a clutch interposed between said shaft and said escapement wheel, whereby said shaft is free to rotate in one direction with respect to said escapement wheel, but compels a rotation of said escapement wheel therewith when said shaft is rotated in another direction, a feed pinion mounted upon said shaft and meshing with said feed rack, means cooperating with said escapement wheel to directly engage and turn the same to backstep the carriage, and means for preventing a backward movement of the carriage of more than one space.

2. In a typewriting machine, the combination with the platen carriage provided with a feed rack and the escapement devices comprising a fixed and a movable dog, of an escapement shaft, an escapement wheel loosely mounted upon said escapement shaft with which said feed dogs cooperate, a clutch interposed between said shaft

and said escapement wheel, whereby said shaft is free to rotate in one direction with respect to said escapement wheel, but compels a rotation of said escapement wheel therewith when said shaft is rotated in another direction, a feed pinion mounted upon said shaft and meshing with said feed rack, a manually operated dog cooperating with said escapement wheel to rotate the same in a reverse direction, thereby backspacing the carriage, and means for preventing an overthrow of the carriage when the same is backspaced.

3. In a typewriting machine, the combination with the platen carriage provided with a feed rack and the escapement devices comprising a fixed and a movable dog, of an escapement shaft, an escapement wheel loosely mounted upon said escapement shaft with which said feed dogs cooperate, a clutch interposed between said shaft and said escapement wheel, whereby said shaft is free to rotate in one direction with respect to said escapement wheel, but compels a rotation of said escapement wheel therewith when said shaft is rotated in another direction, a feed pinion mounted upon said shaft and meshing with said feed rack, a dog pivoted concentrically with the axis of said escapement wheel and adapted to be engaged therewith to compel a backward rotation of said escapement wheel to thereby backspace the carriage, and means cooperating with said clutch for preventing an overthrow of the carriage when the same is backstepped.

4. In a typewriting machine, the combination with the platen carriage provided with a feed rack and the escapement devices comprising a fixed and a movable dog, of an escapement shaft, an escapement wheel loosely mounted upon said escapement shaft with which said feed dogs cooperate, a clutch interposed between said shaft and said escapement wheel, whereby said shaft is free to rotate in one direction with respect to said escapement wheel, but compels a rotation of said escapement wheel therewith when said shaft is rotated in another direction, a feed pinion mounted upon said shaft and meshing with said feed rack, a bracket journaled concentrically of said escapement shaft, a backstepping dog mounted upon said bracket and adapted to be thrown into engagement with said escapement wheel to compel a backward rotation thereof, whereby the carriage may be backstepped, and means cooperating with said clutch for preventing the carriage from being backstepped more than one space.

5. In a typewriting machine, the combination with the platen carriage provided with a feed rack, of an escapement shaft, an escapement wheel loosely mounted upon said escapement shaft, a clutch interposed between said shaft and said escapement wheel, a feed pinion mounted upon said escapement shaft and meshing with said feed rack, said clutch permitting a reverse rotation of said escapement shaft with respect to said escapement wheel when the carriage is returned to a line commencing position, escapement devices cooperating with said escapement wheel to afford a feed of the carriage, a backstepping dog adapted to be oscillated circumferentially about the axis of said escapement shaft and to be swung into engagement with said escapement wheel to rotate the same in a reverse direction whereby the carriage will be backspaced, and means cooperating with said clutch for preventing an overthrow of the carriage when the same is backspaced.

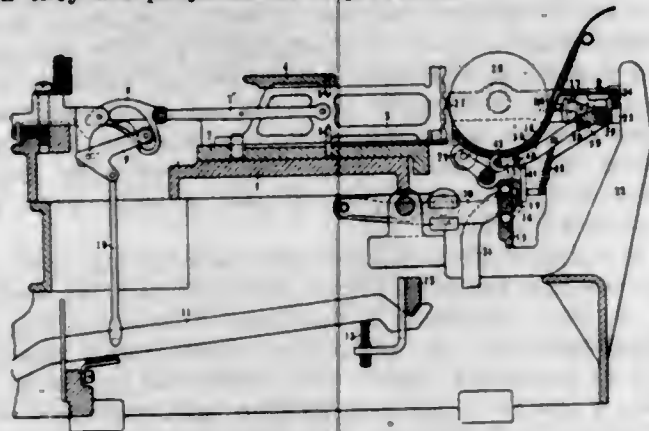
(Claims 6 to 20 not printed in the Gazette.)

1,082,536. TYPE-WRITING MACHINE. EDWARD H. LORENZ, Hartford, Conn., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 16, 1909. Serial No. 490,300. (Cl. 197-149.)

1. In a typewriting machine, the combination with the type carriers, of a platen, and means for automatically varying the distance of the platen from the common plane assumed by the faces of the types when they are projected to impression.

2. In a typewriting machine, the combination with the platen, of a plurality of type carriers, and means controlled by the number of impression sheets positioned upon the platen for regulating the distance of the latter

from the common plane assumed by the faces of the types when they are projected to impression.



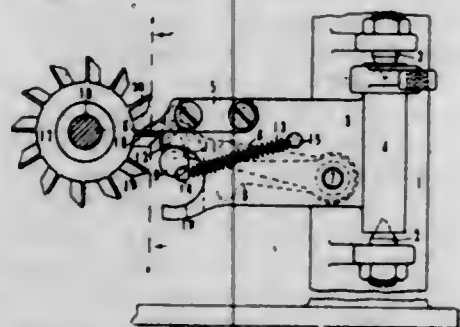
3. In a typewriting machine, the combination with a platen, of a plurality of type carriers, a platen roll disposed behind the platen, and means engaging the impression sheets positioned upon the platen roll for automatically adjusting the position of the platen with respect to the normal printing plane.

4. In a typewriting machine, the combination with the platen, of a plurality of type carriers, a platen roll, and means, the variation of which is determined by the thickness or thicknesses of the impression sheet or sheets carried by the platen roll, for regulating the position of the platen with respect to the normal printing plane.

5. In a typewriting machine, the combination with the platen, of a plurality of type bars each of which has a predetermined throw in the direction of the platen to a normal printing plane, a paper roll carried by the platen carriage, and means engaging the paper carried by the paper roll for automatically varying the distance thereof from the normal printing plane.

[Claims 6 to 28 not printed in the Gazette.]

1,082,537. TYPE-WRITING MACHINE. EDWARD H. LORENZ, Hartford, Conn., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 16, 1909. Serial No. 490,301. (Cl. 197-88.)



1. In an escapement for typewriting machines, the combination with the member to be spaced, of a rocker member, a fixed dog secured to one side of said member, a pivotally mounted movable dog secured to the opposite side of said member, and means mounted on the dog for arresting its movement.

2. In escapement mechanism for typewriting machines, coating escapement devices comprising a rack member, a movable dog adapted to coast therewith, and an eccentric mounted on said dog to silently arrest its movement and the movement of the rack when said rack and dog engage one another.

3. In escapement mechanism for typewriting machines, coating escapement devices comprising a rack, a pivotally mounted feed dog adapted to coast with the teeth of said rack, an eccentric mounted on said feed dog, and spring means connected with one of said members adapted to hold said feed dog in forward position to engage the teeth of the rack whereby its movement on coasting with the teeth will be silently arrested by means of the spring and eccentric mechanism.

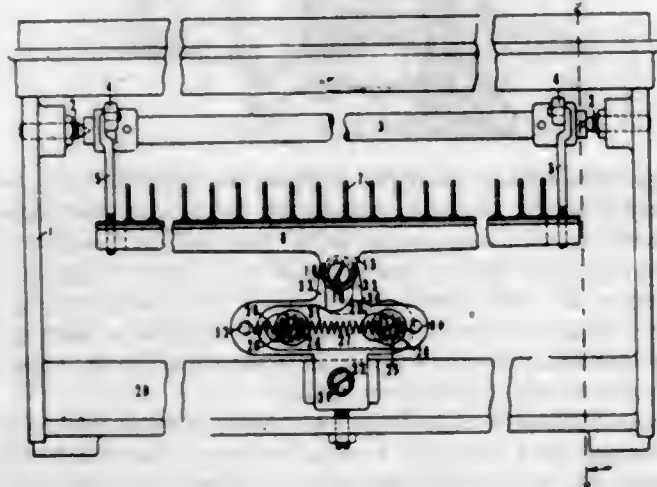
4. In an escapement mechanism, the combination with a member to be spaced, of a movable dog engaging there-

with, and pivotally mounted rolling cam means cooperating with said dog and adapted to arrest the movements thereof in both directions.

5. In an escapement mechanism, the combination with the member to be spaced, of a pivotally mounted feed-dog cooperating therewith, and rolling cam means cooperating with said dog to arrest the movements thereof in both directions.

[Claims 6 to 20 not printed in the Gazette.]

1,082,538. TYPE-WRITING MACHINE. WILLIAM A. LORENZ, Hartford, Conn., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 16, 1909. Serial No. 490,209. (Cl. 197-183.)



1. The combination with a movable part of a typewriting machine, of means for arresting the movements thereof without impact or concussion comprising a fixed member for guiding the movable part, and a reciprocating member having a cam portion engaging the movable part.

2. The combination with a movable part of a typewriting machine, of means for arresting the movements thereof without impact or concussion comprising a fixed member which operates to guide the movable member, a reciprocating member having a cam surface, and means located upon the movable member adapted to traverse said cam surface when the movable part is actuated.

3. The combination with the movable part of a typewriting machine, of means for arresting the movements thereof without impact or concussion comprising a fixed part, a roller mounted on one of said parts, a member having a cam surface mounted to slide upon the other of said parts, and spring means for holding said cam surface and said roller in constant engagement.

4. The combination with the movable part of a typewriting machine, of means for arresting the movement thereof without impact or concussion comprising a slidable part, a roller carried by one of said parts, a cam member carried by the other of said parts, and spring means for maintaining a constant engagement between said roller and said cam member.

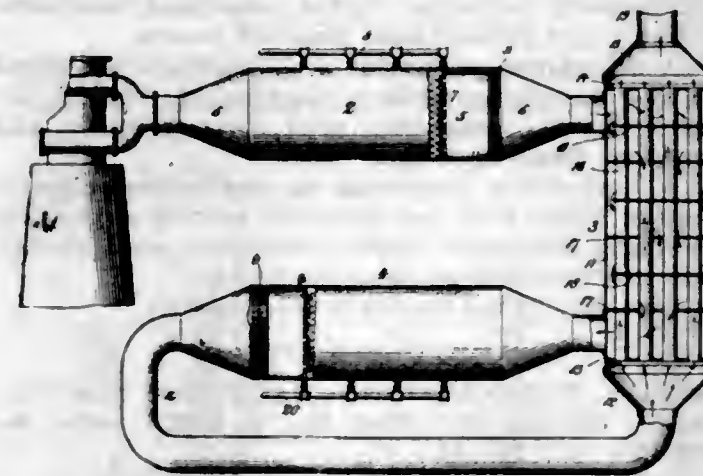
5. The combination with the movable part of a typewriting machine of means for arresting the movement thereof without impact or concussion comprising a fixed guide part, a second part movable relatively thereto, and a roller, one of said elements being carried by said first movable part and another by the fixed part.

[Claims 6 to 26 not printed in the Gazette.]

1,082,539. THERMAL INTERCHANGING APPARATUS. JOEL IRVINE LYLE, Plainfield, N. J. Filed Oct. 19, 1910. Serial No. 587,826. (Cl. 62-22.)

1. An apparatus of the class described, comprising a fore-cooler, a heat interchanger and a dew-point cooler, said heat interchanger comprising a shell, heads secured at each end of said shell, a diaphragm secured at each end of said shell thus forming an inclosed space within said shell and a plurality of tubes disposed within the inclosed space of said shell and supported by said di-

phragms, said tubes opening into the space surrounded by said heads, the discharge end of said fore-cooler being connected with the inclosed space of said shell near the upper of said diaphragms and the inlet end of said dew-point cooler being connected with the inclosed space of said shell near the lower of said diaphragms.



2. An apparatus of the class described, comprising a fore-cooler, a heat interchanger and a dew-point cooler, said heat interchanger comprising a shell, heads secured at each end of said shell, a diaphragm secured at each end of said shell thus forming an inclosed space within said shell, a plurality of tubes disposed within the inclosed space of said shell and supported by said diaphragms, said tubes opening into the space surrounded by said heads, the discharge end of said fore-cooler being connected with the inclosed space of said shell near the upper of said diaphragms and the inlet end of said dew-point cooler being connected with the inclosed space of said shell near the lower of said diaphragms and a connection between the discharge end of said dew-point cooler and the head of said shell nearest said lower diaphragm.

3. An apparatus of the class described, comprising means for compressing air, a fore-cooler having its inlet end connected with said means, a heat interchanger and a dew-point cooler, said heat interchanger comprising a shell, heads secured at each end of said shell, a diaphragm secured at each end of said shell thus forming an inclosed space within said shell and a plurality of tubes disposed within the inclosed space of said shell and supported by said diaphragms, said tubes opening into the space surrounded by said heads, the discharge end of said fore-cooler being connected with the inclosed space of said shell near the upper of said diaphragms and the inlet end of said dew-point cooler being connected with the inclosed space of said shell near the lower of said diaphragms.

4. An apparatus of the class described, comprising a fore-cooler, a heat interchanger and a dew-point cooler, eliminator plates near the discharge end of said fore-cooler and said dew-point cooler, said heat interchanger comprising a shell, heads secured at each end of said shell, a diaphragm secured at each end of said shell thus forming an inclosed space within said shell and a plurality of tubes disposed within the inclosed space of said shell and supported by said diaphragms, said tubes opening into the space surrounded by said heads, the discharge end of said fore-cooler being connected with the inclosed space of said shell near the upper of said diaphragms and the inlet end of said dew-point cooler being connected with the inclosed space of said shell near the lower of said diaphragms.

5. An apparatus of the class described, comprising a fore-cooler, a heat interchanger and a dew-point cooler, means for supplying previously refrigerated fluid to said fore-cooler and said dew-point cooler, eliminator plates near the discharge end of said fore-cooler and said dew-point cooler, said heat interchanger comprising a shell, heads secured at each end of said shell, a diaphragm secured at each end of said shell thus forming an inclosed space within said shell and a plurality of tubes disposed within the inclosed space of said shell and supported by said diaphragms, said tubes opening into the space sur-

rounded by said heads, the discharge end of said fore-cooler being connected with the inclosed space of said shell near the upper of said diaphragms and the inlet end of said dew-point cooler being connected with the inclosed space of said shell near the lower of said diaphragms.

[Claim 6 not printed in the Gazette.]

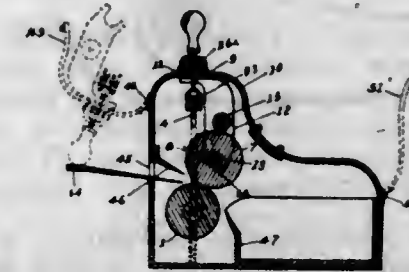
1,082,540. NAIL. DONALD MACCOLL, Montclair, N. J., and DE LANCEY A. CAMERON, Geneseo, N. Y., assignors to Delac Plaster Company, Mumfords, N. Y. Filed Feb. 19, 1912. Serial No. 678,668. (Cl. 85-16.)



1. A nail comprising a straight shank, a loop, at the end of the shank, lying in a plane substantially normal to the shank, and an abutment, at an intermediate point on the shank, adapted to arrest the shank with the loop at a predetermined distance from, and substantially parallel with, a surface through which the nail is driven.

2. A nail consisting of a continuous piece of wire comprising a straight shank or driving-portion, a loop lying substantially in a plane normal to the shank, one extremity of the loop being continuous with one end of the shank, and a portion continuous with the other extremity of the loop and coiled helically around the shank so as to form a head or abutment at an intermediate point on the shank.

1,082,541. STAMPING-MACHINE. FRANK M. MAHOOD, Roanoke, Va. Filed May 29, 1913. Serial No. 770,674. (Cl. 101-126.)



1. In a stamping machine, the combination of a case, a type roller shaft mounted therein, a type roller mounted on said type roller shaft, a presser bar having depending legs, a type roller carriage adapted to be shifted on the horizontal portion of said presser bar, a main feed roller journaled in the depending legs of said presser bar and adapted to bear on said type roller, and means for relieving the contact between said type roller and said main feed roller, substantially as described.

2. In a stamping machine, the combination of a presser bar having depending legs, a main feed roller, springs for supporting said presser bar and main feed roller, a type roller carriage adapted to be shifted on the horizontal portion of said presser bar, a type roller, and means for revolving said type roller, substantially as described.

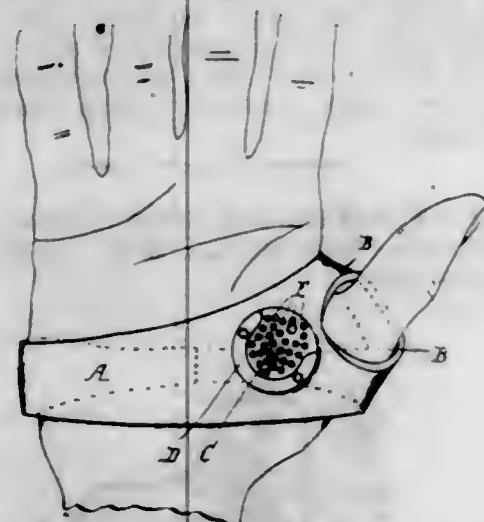
3. In a stamping machine the combination of a presser bar having depending legs, a main feed roller, springs for supporting said presser bar and main feed roller, a type roller carriage, a lever fulcrumed in said type roller carriage, said lever carrying at its lower end a pair of rollers adapted to roll along a horizontal portion of the said presser bar, the arrangement of lever and rollers being such that when the top of the lever is moved longitudinally the rollers will be canted and will depress the aforesaid presser bar and main feed roller on the aforesaid springs, substantially as described.

4. In a stamping machine, the combination of a case having outer and inner end walls, a presser bar of substantially inverted U-shape extending longitudinally of the case, the depending legs of the same passing downwardly between the inner and outer end walls of the case, a main feed roller journaled in the lower ends of the presser bar legs, springs for supporting said presser bar and main feed roller, a type roller carriage adapted to be shifted longitudinally along the horizontal portion of said presser bar, a type roller shaft, a type roller embraced within said type roller carriage and adapted to be shifted along said type roller shaft, and means for actuating the said type roller shaft, substantially as described.

5. In a stamping machine, the combination of a case, a type roller shaft journaled therein, a type roller mounted on said type roller shaft and adapted to be shifted longitudinally along said type roller shaft, a gear pinion secured to the end of said type roller shaft, a gear wheel secured to a short shaft, said gear wheel being adapted to engage the said gear pinion on the end of the type roller shaft, a pair of reversely disposed ratchets secured to said short shaft, said ratchets and their pawls comprising an escapement for limiting the rotation of said short shaft, and means for operating said mechanism, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,542. LEATHER-WORKER'S THIMBLE. DONALD MANSON, Riversdale, New Zealand. Filed Sept. 13, 1912. Serial No. 720,185. (Cl. 223-51.)



1. In a palm protector, the combination of a single piece of leather provided with a pair of short tongues secured together at their free ends to form a thumb opening, and a pair of longer tongues secured together at their free ends to form a band for the hand when the protector is thereon; a circular metal disk riveted to said piece over the ball of the palm of the hand and having its exposed face inclined toward said short tongues and provided with a plurality of pits and a U-shaped raised flange extending around the bottom and sides of the disk except on the side toward said short tongues.

2. In a palm protector, the combination of a flexible band adapted to encircle the palm and provided with a thumb loop adapted to surround the thumb; and a metal disk secured to said band over the ball of the palm of the hand and having its exposed face inclined toward said thumb loop and provided with a roughened surface and a raised flange encircling said face except on the side toward said loop.

1,082,543. PRODUCTION OF SOLVENTS BY USE OF HALOGEN COMPOUNDS. WALTER E. MASLAND, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Oct. 7, 1912. Serial No. 724,440. (Cl. 134-79.)

1. A composition comprising an unsaturated chlorhydrocarbon mixed with and rendering miscible a plurality of normally immiscible liquids.

2. A composition comprising an unsaturated chlorhydrocarbon mixed with and rendering miscible a plurality of normally immiscible liquids, comprising wood alcohol and benzol.

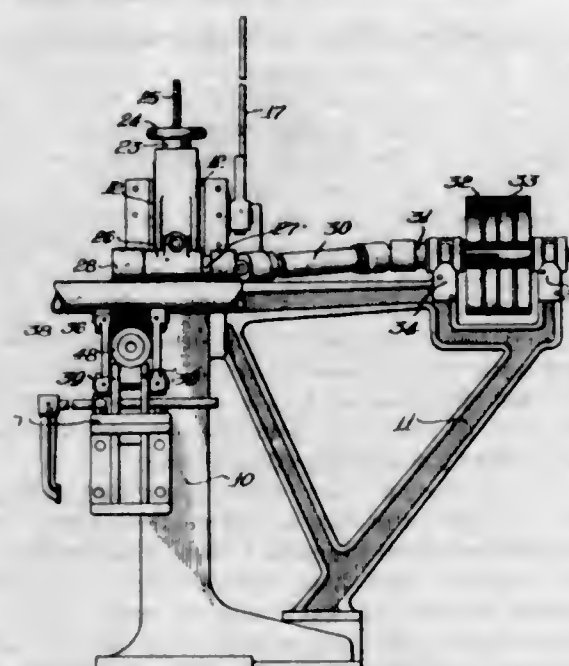
3. A composition comprising a halogen derivative of a hydrocarbon mixed with and rendering miscible a plurality of normally immiscible liquids, comprising wood alcohol, benzol and nitrocellulose dissolved therein.

4. A composition comprising a chlorhydrocarbon mixed with and rendering miscible a plurality of normally immiscible liquids, comprising wood alcohol, benzol and nitrocellulose dissolved therein.

5. A composition comprising an unsaturated chlorhydrocarbon mixed with and rendering miscible a plurality of normally immiscible liquids, comprising wood alcohol, benzol and nitrocellulose dissolved therein.

[Claims 6 to 22 not printed in the Gazette.]

1,082,544. TUBE-CLEANING MACHINE. KARL MATHEUS, Chicago, Ill. Filed Apr. 9, 1912. Serial No. 689,470. (Cl. 29-81.)



1. In a machine of the class described, the combination of mechanism for simultaneously feeding the work longitudinally of itself and for removing scale from the outer surface of the work, said mechanism comprising driving and friction rollers, having their axes divergent to each other in parallel planes, and means whereby said friction rollers are capable of having their axes shifted to various degrees of angularity with respect to the driving roller, substantially as described.

2. In a machine of the class described, the combination of mechanism for simultaneously feeding the work longitudinally of itself and for removing scale from the outer surface of the work, said mechanism comprising driving and friction rollers, having their axes divergent to each other in parallel planes, and means for securing said friction rollers with the axes thereof in various positions of adjustment, substantially as described.

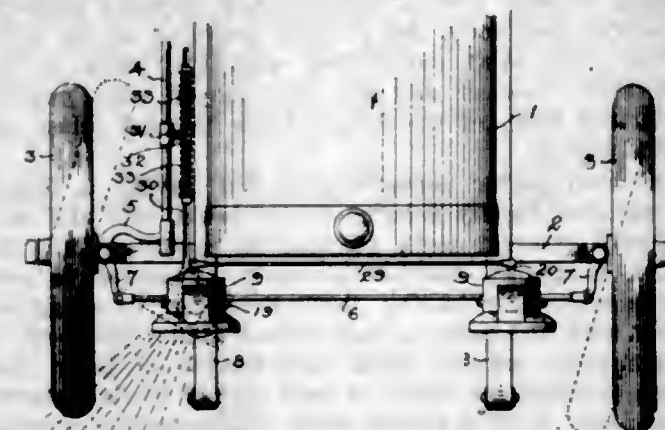
3. In a machine of the class described, the combination of a vertically adjustable driving roller and companion friction rollers, arranged to cooperate therewith and means whereby said friction rollers are adapted to be shifted to varying degrees of angularity with respect to the driving roller, substantially as described.

4. In a machine of the class described, the combination of a vertically adjustable driving roller and companion friction rollers, arranged to cooperate therewith and to be shifted to varying degrees of angularity with respect to the driving roller, said friction rollers being angularly disposed with respect to the driving roller and means whereby said rollers may have an oscillating adjustable movement toward and from each other and toward and from the driving roller, substantially as described.

5. In a machine of the class described, the combination of a vertically adjustable driving roller and companion

friction rollers arranged to cooperate therewith, said friction rollers having their axes parallel to each other and arranged to be shifted in unison to varying degrees of angularity with respect to the driving roller, and means for fixedly securing the friction rollers when shifted into any position, substantially as described.

1,082,545. AUTOMATIC LAMP-CONTROLLER. WILLIAM B. MEEKER, Dayton, Ohio, assignor to The Automatic Lamp Control Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 12, 1912. Serial No. 714,075. (Cl. 240-82.)



1. The combination with a vehicle of a lamp, an oscillatory shaft upon which the lamp is carried, two concentric superposed disks through which the shaft extends which are relatively rotatable in parallel planes, one of the disks being stationary secured and forming a journal bearing for the oscillatory shaft, the second disk being secured to the shaft above the stationary disk, upon which it rests to afford a wide thrust bearing for the shaft, a spring operatively connected at one end with the stationary disk and at its opposite end with the shaft, against the tension of which the shaft is rotatable said spring being adapted to return the rotated member to normal when rotated therefrom and means to rotate the shaft against the tension of the spring when the vehicle is turned in one direction from a straight path, but permitting the vehicle to turn the opposite direction without rotating the said shaft.

2. The combination with a vehicle of a lamp, an oscillatory shaft upon which the lamp is carried, two concentric superposed disks through which the shaft extends which are relatively rotatable in parallel planes, one of the disks being stationary secured and forming a journal bearing for the oscillatory shaft, the second disk being secured to the shaft, a helical spring surrounding the shaft, having one end secured to the stationary disk and its opposite end secured to the disk carried by the shaft, and means to oscillate the shaft against the tension of the spring in unison with deviations of the vehicle from a straight path, substantially as specified.

3. The combination with a vehicle of a lamp, an oscillatory shaft upon which the lamp is carried, two concentric superposed disks through which the shaft extends which are relatively rotatable in parallel planes, one of the disks being stationary secured and forming a journal bearing for the oscillatory shaft, the second disk being secured to the shaft, one of said disks having a concentric groove therein, a stud carried by the other disk and projecting within the concentric groove and a stop carried by the grooved disk extending within the groove and adapted to engage the stud of the opposite disk to limit the relative rotation of the disks in one direction, and means to oscillate the shaft in unison with deviations of the vehicle from a straight path, substantially as specified.

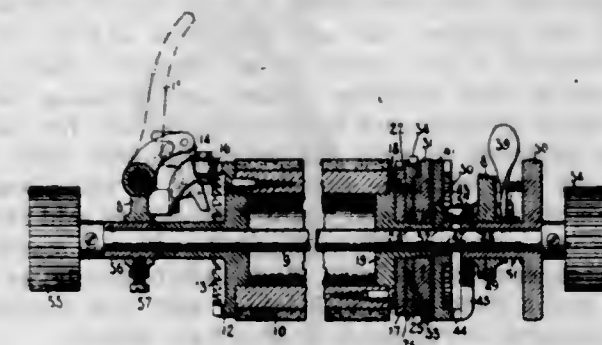
4. The combination with a vehicle of a lamp, an oscillatory shaft upon which the lamp is carried, two concentric superposed disks through which the shaft extends, one of said disks being stationary secured and forming a journal bearing for the shaft, the other disk being secured to the shaft above the stationary disk and resting thereon

to form a thrust bearing for the shaft, said disks having registering recesses in their adjacent faces, a helical spring located in the chamber formed by such registering recesses having one end engaged with the stationary disk and its opposite end engaged with the disk carried by the shaft, interengaging stops carried by the disks adapted to limit the relative rotation of the disks under the influence of the spring, and means to oscillate the shaft against the tension of the spring in unison with certain variations of the vehicle from a straight path, substantially as specified.

5. The combination with a vehicle of a lamp, an oscillatory shaft upon which the lamp is carried, a bearing for said shaft, two superposed disks carried by the shaft, one of said disks being secured to the shaft and rotating therewith, the other disk being journaled on the shaft and capable of oscillatory movement, independent of the shaft and first mentioned disk and interengaging stops between the disks whereby, when the free disk is oscillated in one direction it will turn the second disk and shaft therewith, but when oscillated in the opposite direction will move independent of the other disk and shaft, substantially as specified.

[Claims 6 to 9 not printed in the Gazette.]

1,082,546. TYPE-WRITING MACHINE. HENRY W. MERRITT, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 10, 1908. Serial No. 415,210. (Cl. 197-116.)



1. In a typewriter machine and billing mechanism, the combination of a rotative platen; and stopping means for arresting the rotation of the platen and the parts of which are so related as to allow a rotative movement of the platen for at least a half rotation and sufficient to move the paper from the point of its introduction into the machine to the printing line and vice versa and for affording a rotation of the platen to any desired extent independently of said stopping means, said stopping means comprising a circular rack fixed to rotate with the platen, a stop which turns on the axis of the platen and which is movable longitudinally of the platen into and out of engagement with said rack, and a fixed stop cooperative with said first mentioned stop to arrest the platen.

2. In a typewriter machine and billing mechanism, the combination of a rotative platen; and stopping means for arresting the rotation of the platen and the parts of which are so related as to allow a rotative movement of the platen for at least a half rotation and sufficient to move the paper from the point of its introduction into the machine to the printing line and vice versa and for affording a rotation of the platen to any desired extent independently of said stopping means, said stopping means comprising a circular rack fixed to rotate with the platen, a stop which turns on the axis of the platen and which is movable longitudinally of the platen into and out of engagement with said rack, a forward fixed stop, and a back fixed stop between which the first mentioned stop is adapted to move to limit the back and forth movements of the platen.

3. In a typewriter machine and billing mechanism, the combination of a rotative platen; and stopping means for arresting the rotation of the platen and the parts of which are so related as to allow a rotative movement of the platen for at least a half rotation and sufficient to move the paper from the point of its introduction into the ma-

chine to the printing line and vice versa and for affording a rotation of the platen to any desired extent independently of said stopping means, said stopping means comprising a circular rack fixed to rotate with the platen, a stop which turns on the axis of the platen and which is movable longitudinally of the platen into and out of engagement with said rack, a finger wheel connected to said stop and by which it is moved into and out of engagement with the rack, and a fixed stop coöperative with said first mentioned stop to arrest the platen.

4. In a typewriting machine and billing mechanism, the combination of a rotative platen; and stopping means for arresting the rotation of the platen and the parts of which are so related as to allow a rotative movement of the platen for at least a half rotation and sufficient to move the paper from the point of its introduction into the machine to the printing line and vice versa and for affording a rotation of the platen to any desired extent independently of said stopping means, said stopping means comprising a circular rack fixed to rotate with the platen, a stop which is adapted to turn with and to afford an independent movement of said rack, a spring for normally maintaining said stop out of engagement with the rack, a finger wheel for forcing the stop into engagement with the rack, and a stop which coöperates with said first mentioned stop to arrest the platen.

5. In a typewriting machine and billing mechanism, the combination of a rotative platen, and stopping means for arresting the rotation of the platen and the parts of which are so related as to allow a rotative movement of the platen for at least a half rotation and sufficient to move the paper from the point of its introduction into the machine to the printing line and vice versa and for affording a rotation of the platen to any desired extent independently of said stopping means, said stopping means comprising a circular rack fixed to rotate with the platen, an arm mounted to turn concentrically with said rack and platen and to move longitudinally of the platen, a pawl fixed to said arm and adapted to engage said rack, a finger wheel connected to said arm to effect a movement thereof concentrically with and longitudinally of the platen, and a fixed stop with which said first mentioned stop is adapted to coöperate to arrest the platen.

[Claims 6 to 37 not printed in the Gazette.]

1,082,547. WEED-PULLER. DANIEL E. NUTTALL, Emsworth, Pa. Filed Feb. 26, 1913. Serial No. 750,757. (Cl. 55—148.)



1. A weed puller comprising a tubular rod having its upper end open and provided at its lower end with a blade adapted to be thrust into the earth, a double-armed lever pivotally connected to said rod and having one arm provided with a grappling member adapted to coöperate with

said blade, a handle member rigidly secured to the upper open end of said rod, a tension member connected to the other arm of said lever and extending part way along the outside of and then into and through said hollow rod and projecting from the open end thereof, and a member slidable in said handle member and secured to the upper end of said tension member for operating the same to force the grappling member toward said blade.

2. A weed puller comprising a rod having a forked blade member rigidly secured at its lower end and provided with straight teeth adapted to be thrust into the earth, a grappling member pivotally connected to said blade member and having teeth arranged in staggered relation with the teeth of said forked blade, the teeth of said grappling member having substantially straight portions and hook-shaped ends, the straight portions of the teeth lying in substantial parallelism with the teeth of the forked blade member and the hook-shaped ends passing between the teeth of the forked blade member when the device is closed.

3. A weed puller comprising a rod having a forked blade member rigidly secured to its lower end and provided with straight teeth adapted to be thrust into the earth, a grappling member pivotally connected to said blade member and having teeth arranged in staggered relation with the teeth of said forked blade, the teeth of said grappling member being hook-shaped at their ends to pass between the teeth of said forked blade, interengaging parts on said forked blade and grappling member and adjacent to the pivotal connection therebetween for limiting the closing movement therebetween, and means for operating said grappling member.

4. A weed puller comprising a rod having a forked blade member rigidly secured to its lower end and provided with straight teeth adapted to be thrust into the earth, a grappling member pivotally connected to said blade member and having teeth arranged in staggered relation with the teeth of said forked blade, the teeth of said grappling member being curved at their ends to pass between the teeth of said forked blade and being wedge-shaped in cross section and adapted to wedge between the teeth of said forked blade, and means for operating said grappling member.

5. A weed puller comprising a rod having a forked blade member rigidly secured to its lower end and provided with straight teeth adapted to be thrust into the earth, a grappling member pivotally connected to said blade member and having teeth arranged in staggered relation with the teeth of said forked blade, the teeth of said grappling member being curved at their ends to pass between the teeth of said forked blade, the teeth of said forked blade and grappling member being wedge-shaped in cross section, and the teeth of the grappling member being adapted to wedge between the wide portions of the teeth of said forked blade, and means for operating said grappling member.

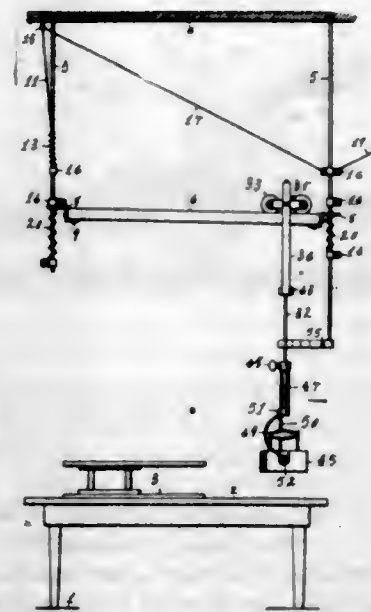
[Claim 6 not printed in the Gazette.]

1,082,548. IRONING-MACHINE. WILLIAM H. OLVER, Oshkosh, Wis. Filed Jan. 15, 1912. Serial No. 671,321. (Cl. 68—9.)

1. In an ironing machine, the combination of a trolley supporting rail, a thin metallic plate secured upon each end of the rail, and extending, one part from each end thereof above the center of gravity of the rail, a perforation through each extending part, and vertically arranged rods one at each end of the rail fitted for easily passing through the perforations for guiding the rail in its vertical movement.

2. An ironing machine comprising a rail supported above a pressing table and having a pair of trolley wheels arranged in a frame tandem for revolution therein and adapted to have suspended from said frame a sad iron for being moved back and forth under said rail and with said trolley frame, and a spring for permitting a transverse movement of a rail end in accordance with the side-wise pull upon the rail in the pressing operation.

3. An ironing machine comprising a rail supported above a pressing table having a press board longitudinally of the table and having a pair of trolley wheels arranged in a frame tandem for revolution therein and adapted to have suspended from said frame a sad iron for being moved back and forth under said rail and with said trolley frame, a support for said rail consisting of a gas pipe pillar, one at each end of the table secured to a suitable base, and extending a suitable distance above the pressing table, an arm extending forward from each pillar and adjustably secured thereto, their free ends being substantially vertically above the longitudinal central line of said press board, a bore in the upper side of the outer end of each arm, a spring rod secured in each of said bores and extending upward therefrom, a second arm secured upon each pillar and extending forward above said first named arms, a loop in the outer end of each of said second named arms and inclosing the rod in its companion arm, a coiled spring mounted above each loop around its inclosed rod and supporting, each one end of said trolley rail, and a clamp upon each rod above the rail ends for limiting the upward movement of the rail ends.

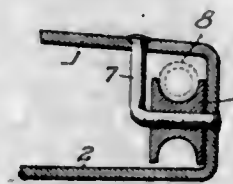


4. An ironing machine comprising a rail supported above a pressing table and having a pair of trolley wheels arranged in a frame tandem for revolution therein and adapted to have suspended from said frame a sad iron for being moved back and forth under said rail and with said trolley frame, a suspension device for the said iron comprising a stirrup loosely mounted upon a bolt upon opposite sides of said trolley frame its upper ends extending and meeting at a point above said trolley frame, a slot formed in its extreme upper end and a spring secured to the trolley frame and extending upward into said slot, and suitable connecting means between the lower end of the stirrup and the sad iron, said spring acting to return said stirrup to a position at right angles with the length of the trolley frame when thrown out of said position.

5. An ironing machine comprising a rail supported above a pressing table and having a pair of trolley wheels arranged in a frame tandem for revolution therein and adapted to have suspended from said frame a sad iron for being moved back and forth under said rail and with said trolley frame, a suspension device for the sad iron comprising a stirrup depending from opposite sides of said trolley frame, a connecting wire from one side to the other of the stirrup below the rail, a coiled spring depending from said connecting wire, a rod depending from said spring and passing through the lower end of said stirrup, a collar secured upon said rod and adapted to limit the downward movement of said rod by the engagement of its lower surface with the lower end of said stirrup, fingers on said collar adapted to engage the lower end of the stirrup and hold the collar from turning when at the lowest limit of its movement, and suitable connections between the lower end of said rod and the sad iron.

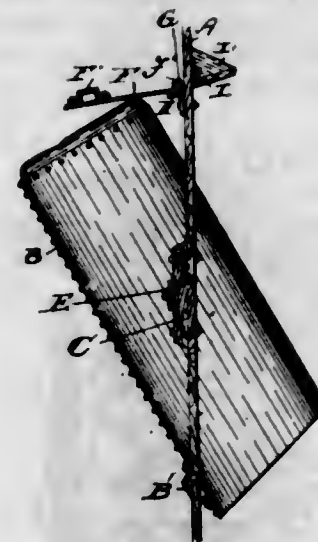
[Claims 6 and 7 not printed in the Gazette.]

1,082,549. BRACKET. WILLIAM F. O'ROURKE, Chicago, Ill., assignor to The Payson Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1911. Serial No. 631,433. (Cl. 248—31.)



The combination with a bracket comprising a metal strap bent into a U-shape and having the outer ends of the two legs thereof bent at an angle to form attaching feet, of an L-shaped rod located within the U-bend of said bracket, the upper end of said rod being secured to the upper leg of said bracket and the lower end of said rod being secured to the cross-bar of said bracket, and the lower branch of said L-shaped rod constituting an axle, and a guide-pulley mounted upon said axle.

1,082,550. GARBAGE-RECEPTACLE. CHARLES A. PETERS and JOHN B. PETERS, Detroit, Mich. Filed June 23, 1911. Serial No. 634,873. Renewed July 10, 1913. Serial No. 778,418. (Cl. 220—119.)



1. The combination of a frame provided with an opening, a container of a length substantially the same as the length of said opening, means to swingingly mount the container in said opening with the container projecting through the opening on opposite sides of the frame, a swinging cover hinged to one side of the frame to cover one portion of the upper end of the container when the latter is in its normal position, and means immovably secured to the opposite side of the frame to cover the remaining portion of the upper end of the container when the latter is in its normal position and serve as an abutting means for engagement by the upper end of the container when the latter shifts to normal position and thereby limit the outward swing of the lower end of the container when it assumes its normal position.

2. The combination of a frame provided with an opening, a container mounted in said opening and projecting on opposite sides of the frame, means to swingingly mount the container in said opening and to maintain the container normally in position to receive material, the upper end of the container being formed on an incline, a cover hingedly connected to the frame to close said inclined opening on one side of the frame, and means on the opposite side of the frame to close the remaining portion of the opening of the container and to form a stop to limit the outward swing on such side of the frame when the container assumes its normal position.

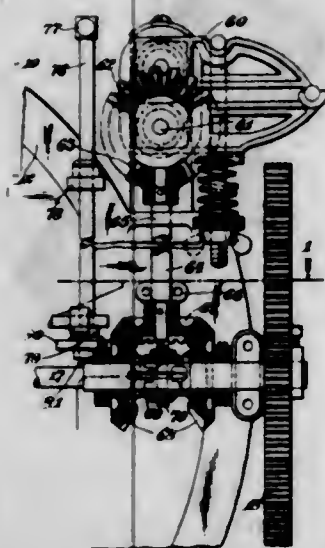
3. In combination with a frame having an opening therein, of an inclined stop carried by the frame above the opening and adjacent thereto, a container swingingly

mounted in said opening, and projecting on opposite sides of the frame, said container having an inclined open end and the upper portion of which is adapted to be engaged and closed by the inclined stop.

4. In combination with a frame having an opening therein, of a container swingingly mounted in said opening and projecting on opposite sides of the frame, said container having its upper end open and inclined, a stop carried by the frame and inclined in the same direction as the upper end of the container, said stop engaging the inclined open end of the container and closing the portion of the opening that projects on one side of the frame.

5. In combination with a supporting frame having an opening therein, of a container swingingly mounted in said opening, said container having an inclined open end that projects on opposite sides of the frame, a closure for the portion of the open end of the container that projects on one side of the frame, a closure for the portion of the open end of the container projecting on the other side of the frame, said latter closure being provided with a surface inclined in the same direction as the inclined open end of the container for engagement with the latter to limit the swinging movement of the container in one direction.

1,082,551. WRINGER-GEARING FOR WASHING-MACHINES. OTTO G. PREIFFER, Salt Lake City, Utah, assignor to Utahna Development Company, Salt Lake City, Utah, a Corporation of Utah. Filed Dec. 27, 1911. Serial No. 668,186. Renewed May 2, 1913. Serial No. 765,133. (Cl. 74-59.)



1. In a machine of the class described, the combination with a drive shaft and a driven shaft, of bevel gears on one of said shafts, a bevel gear on the other of said shafts meshing with said first bevel gears, a clutch for connecting either of said first bevel gears with their shaft, and means for shifting said clutch, said means being movable from an operative position in two directions to a neutral position to disconnect said first bevel gears from their shaft.

2. In a machine of the class described, the combination with a drive shaft and a driven shaft, of bevel gears on one of said shafts, a bevel gear on the other of said shafts meshing with said first bevel gears, a clutch for connecting either of said first bevel gears with their shaft, and a rotatable member for shifting said clutch, said member having two neutral positions and an intermediate operative position.

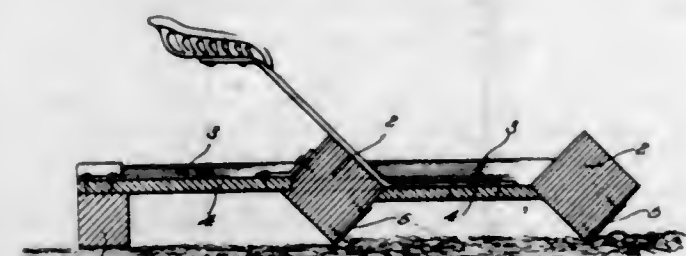
3. In a machine of the class described, the combination with a drive shaft and a driven shaft, of bevel gears on one of said shafts, a bevel gear on the other of said shafts meshing with said first bevel gears, a clutch for connecting either of said first bevel gears with their shaft, and a rotatable member for shifting said clutch to connect and disconnect said first gears to and from their shaft, said member having successive operative and neutral positions, and having a plurality of operative positions and a plurality of neutral positions.

4. In a machine of the class described, the combination with a drive shaft and a driven shaft, of bevel gears on one of said shafts, a bevel gear on the other of said shafts meshing with said first bevel gears, a clutch for connecting either of said first bevel gears with their shaft, a rotatable crank disk connected to shift said clutch, said crank disk having a plurality of recesses, and a detent engaging said recesses.

5. In a machine of the class described, the combination with a drive shaft and a driven shaft, of bevel gears on one of said shafts, a bevel gear on the other of said shafts meshing with said first bevel gears, a clutch for connecting either of said first bevel gears with their shaft, a rotatable controlling shaft, and a crank on said shaft having a yielding connection with said clutch to shift the same as said controlling shaft is rotated.

[Claims 6 to 8 not printed in the Gazette.]

1,082,552. LAND-PULVERIZER. ALFRED PINET, Vonda, Saskatchewan, Canada. Filed Sept. 6, 1912. Serial No. 719,033. (Cl. 55-22.)



1. In a device of the character described, braces 3, flooring sections 4 between and supported by said braces, a plurality of beams 2 rigidly and immovably connected to said braces and supporting said flooring sections and arranged to present forwardly inclined crushing surfaces to the soil, and a leveling beam 1 connected to the rear edge of the rear flooring section and to the braces 3 and arranged to present one face at right angles to the ground surface.

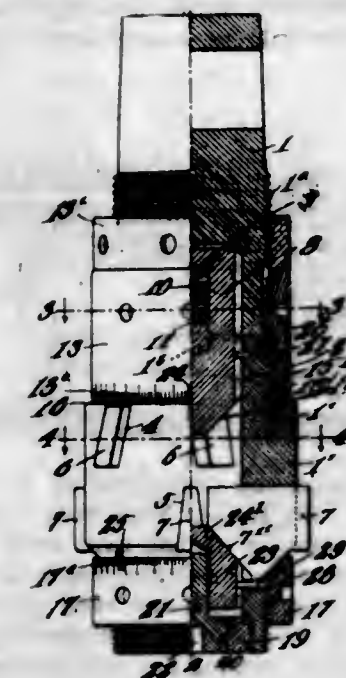
2. In a device of the character described, a plurality of beams arranged to present forwardly inclined crushing surfaces to the soil, a leveling beam in the rear thereof and arranged to present a perpendicular leveling surface to the soil, and means for rigidly connecting all said beams in spaced relation.

3. In a device of the character described, a plurality of parallel beams arranged to present forwardly inclined crushing surfaces to the soil, a leveling beam in the rear thereof and parallel therewith and arranged to present a perpendicular leveling surface to the soil, and means for rigidly connecting all said beams in spaced relation.

1,082,553. ADJUSTABLE BORING AND REAMING TOOL. WILLIAM FOHLMAN, Middletown, N. Y. Filed Dec. 18, 1911. Serial No. 666,438. (Cl. 77-58.)

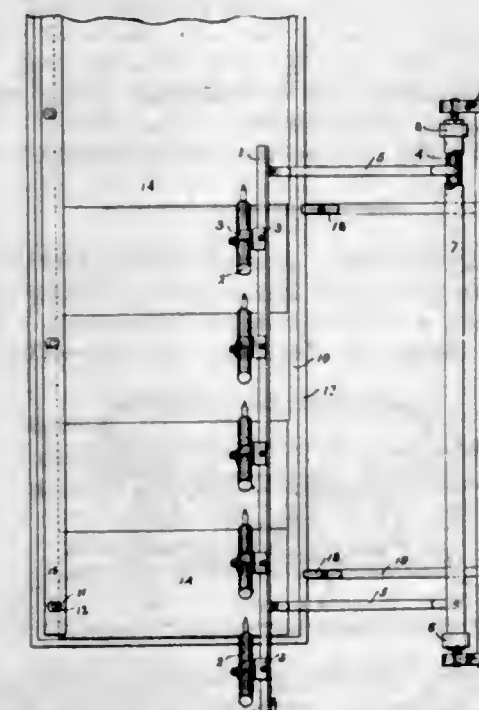
A tool of this character, including a shank having an enlarged lower end, the junction between the enlarged portion and the reduced portion being outwardly and downwardly inclined, the enlarged portion and a portion of the reduced portion of the shank being tubular, the reduced portion having diametrically disposed elongated slots communicating with the bore thereof, the portion of the shank above the slots being exteriorly threaded, the shank at the junction of the enlarged portion and in the enlarged portion being provided with a plurality of radial slots, a plurality of cutters disposed for radial sliding movement in the latter slots, each cutter having an inclined edge to correspond with the inclined portion of the shank, an adjusting and locking wedge mounted slidably in the upper end of the bore of the shank and having a diametrical slot through its body, said slot being of lesser length than the elongated slots of the shank, a

bar of greater length than the diameter of the wedge fitting in the slot thereof and having the outer faces of its ends threaded and disposed through the elongated slots of the shank for sliding movement therewithin, a sleeve having internal threads and an inclined rim disposed for rotation upon the shank adjacent the enlarged portion, the threads engaging the threaded ends of the bar,



whereby the bar is moved longitudinally of the shank to project and retract the wedge, the inclined rim coacting with the inclined portion of the shank and the cutters to project and retract the cutters and lock the same in adjusted position, and a locking sleeve disposed upon the shank and in coactive relation to the upper end of the adjusting sleeve.

1,082,554. DOCUMENT-BINDER FOR MULTIPLE-WRITING MACHINES. WILLIAM H. REMICK, New York, N. Y., assignor to Signature Company, New York, N. Y., a Corporation of New York. Filed July 19, 1912. Serial No. 710,438. (Cl. 129-35.)



1. A plurality of writing platens superimposed one on top of another; means for binding said platens at one edge—said binding means being adapted to clamp between each two adjacent platens a series of overlapping documents; in combination with means adapted to render each series of overlapping documents and its writing platen uniform in thickness over the writing surface.

2. A plurality of writing platens superimposed one on top of another; means for binding said platens at one

edge—said binding means being adapted to clamp between each two adjacent platens a series of overlapping documents; in combination with means for indicating the position of said overlapping documents to secure uniform spacing of one set with another.

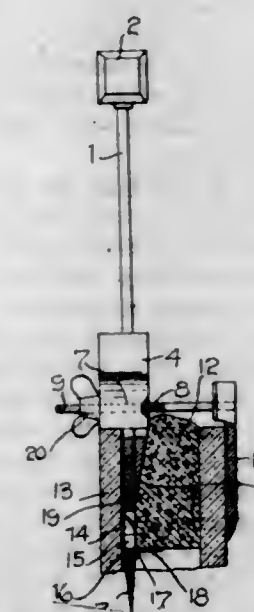
3. A plurality of writing platens superimposed one on top of another; means for binding said platens at one edge—said binding means being adapted to clamp between each two adjacent platens a series of overlapping documents; in combination with marks on said platens to indicate the position of said overlapping documents to secure uniform spacing of one set with another.

4. A plurality of writing platens superimposed one on top of another; means for binding said platens at one edge—said binding means being adapted to clamp between each two adjacent platens a series of overlapping documents; in combination with means for indicating the position of said overlapping documents to secure uniform spacing of one set with another and compensating blocking pieces secured between said platens to secure uniform thickness of each series of documents and its platen over the writing surface.

5. A plurality of writing platens superimposed one on top of another; a platen support to which said platens are secured; binding means adapted to bind one edge of said platens to said platen support and to clamp between each two adjacent platens a series of overlapping documents; in combination with means for indicating the position of said overlapping documents on said platens to secure uniform spacing of one set with another and blocking pieces secured between said platens to compensate for the uneven thickness of each set of overlapping documents over the writing surface.

[Claim 6 not printed in the Gazette.]

1,082,555. CORK-EXTRACTOR. ARTHUR LEE RIDLEY, Searsport, Me. Filed Apr. 14, 1913. Serial No. 761,070. (Cl. 65-46.)



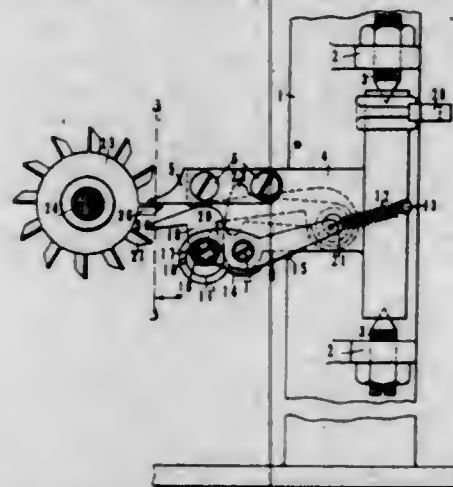
1. A device of the character described including a sleeve, a shank slidably mounted in said sleeve and having one extremity pointed, and a depending blade formed on said sleeve.

2. A cork extractor comprising a sleeve, a handled shank slidably mounted in said sleeve, a spring carried by the sleeve and adapted to bear against said shank, means for clamping said sleeve to the neck of a bottle, and a depending blade formed on said sleeve, one extremity of said shank being pointed.

3. A device of the character described comprising a sleeve, a handled shank slidably mounted in said sleeve, said sleeve being formed with one relatively short wall, an upwardly extending spring secured to said short wall and adapted to bear against said shank, means for clamping said sleeve to the neck of a bottle, a blade depending from said sleeve, and one extremity of said shank being pointed, as and for the purpose described.

4. A device of the character described comprising a sleeve, a handled shank slidably mounted in said sleeve, said sleeve being formed with one relatively short wall, an upwardly extending spring secured to the short wall and adapted to bear against said shank, means for clamping said sleeve to the neck of a bottle, one extremity of said shank being pointed.

1,082,556. TYPE-WRITING MACHINE. JOSEPH ALBERT RONCHETTI, Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 19, 1909. Serial No. 490,918. (Cl. 197-88.)



1. In an escapement mechanism, the combination with a rack member to be spaced, of a movable feed dog pivotally supported at one end cooperating therewith, a cam member pivotally supported intermediate its ends adapted to coact with said dog at one end, and spring means coacting with the other end of said cam member adapted to be tensioned to silently arrest the movement of the dog when engaged by the rack member.

2. In an escapement mechanism, in combination with a rack member adapted to be spaced, of a movable feed dog cooperating therewith, and a concave cam member having one end yieldingly connected with a relatively fixed part and its other end adapted to coact with said movable dog to silently arrest its movement.

3. In an escapement mechanism, the combination with a rack member to be spaced, of a movably mounted feed dog adapted to coact therewith, a stud carried by said dog, and a concave cam member coacting with said stud and yieldingly held in operative relation thereto.

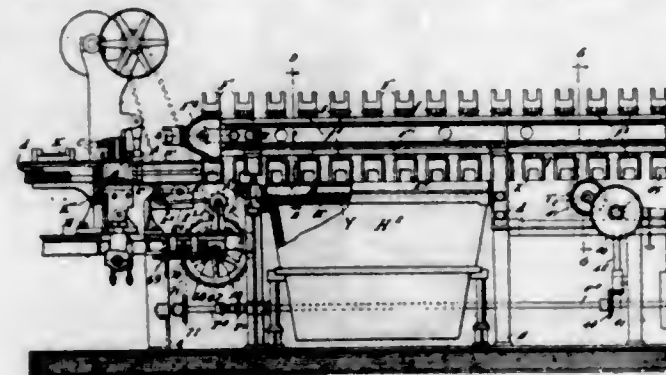
4. In an escapement mechanism, in combination with a rack member to be spaced, of a movable feed dog coacting therewith, and a pivotally mounted member connected with said dog having an oscillating movement upon its support adapted to be held in an intermediate position when said dog is out of engagement with the rack member.

5. In an escapement mechanism, the combination with a member to be spaced, of a rocker member, fixed and movable dogs carried on opposite sides of said rocker member, and a movable member connected with the movable dog and on the same side of the rocker member as said fixed dog adapted to arrest the movements of said movable dog. [Claims 6 to 24 not printed in the Gazette.]

1,082,557. CAN-BODY-MAKING MACHINE. FRANK RUDOLPHI, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 13, 1909. Serial No. 517,362. (Cl. 113-9.)

1. In a lock seam can body making machine, the combination with an expansible, internal, sizing can body former horn, body formers and bumper on a stationary frame, of a solder applying device and a can body carrier having a series of opening and closing external, sizing can body holders to which the can bodies are delivered from said can body former horn, said holders forming the only means of support for the can bodies after the bodies have been received from the former horn by the holders, substantially as specified.

2. In a lock seam can body forming machine, the combination with a body former horn, body formers and seam bumper on a stationary frame, said horn being provided with a short extension for supporting a can body as it is discharged from the horn, a can body carrier, and a plurality of opening and closing can body holders on said carrier, said holders forming the only means of support for the can bodies after the bodies have been received from the former horn by the holders, substantially as specified.



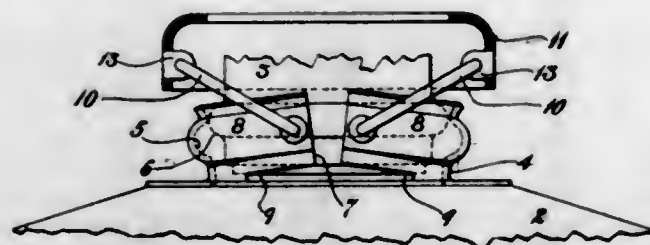
3. In a lock seam can body forming machine, the combination with a body former horn, body formers and seam bumper on a stationary frame, said horn being provided with a short extension for supporting a can body as it is discharged from the horn, a can body carrier, and a plurality of opening and closing can body holders on said carrier, said holders forming the only means of support for the can bodies after the bodies have been received from the former horn by the holders, and a soldering device, substantially as specified.

4. In a lock seam can body forming machine, the combination with a body former horn, body formers and seam bumper on a stationary frame, said horn being provided with a short extension for supporting a can body as it is discharged from the horn, a can body carrier, and a plurality of opening and closing can body holders on said carrier, said holders forming the only means of support for the can bodies after the bodies have been received from the former horn by the holders, a soldering device and a fluxing device, substantially as specified.

5. In a can body making machine, the combination with an internal, sizing can body former horn and non-traveling body formers and bumper, of an externally sizing traveling can body holder forming the only means of support for the can body after the latter is received from the body forming mechanism, and a soldering device cooperating with said holder, substantially as specified.

[Claims 6 to 51 not printed in the Gazette.]

1,082,558. COUPLING. JOSEPH SACHS, Hartford, Conn., assignor to The Sachs Laboratories Incorporated, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 13, 1913. Serial No. 741,745. (Cl. 240-114.)



1. A coupling comprising a sectional clamping member, and toggle mechanism for applying a clamping force to each section of the clamping member at a plurality of points.

2. A coupling comprising a clamping member consisting of a plurality of segments, and toggle mechanism for applying a clamping force to each segment approximately at its terminals.

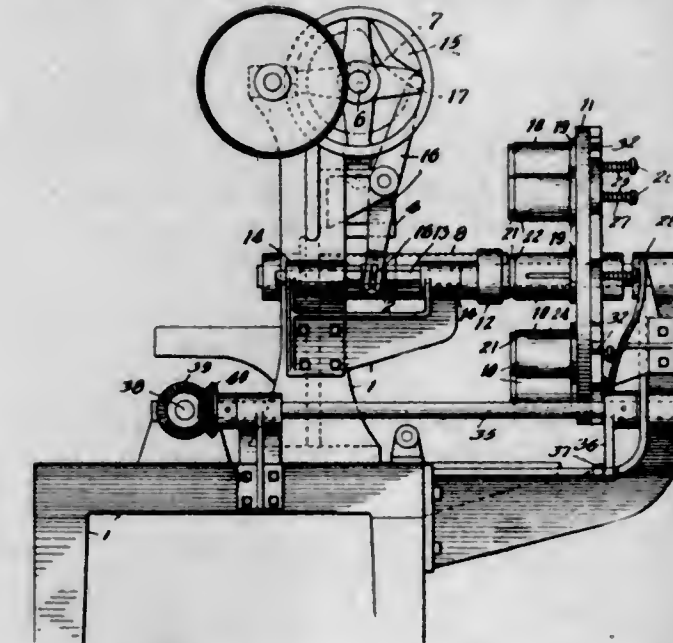
3. A coupling member comprising a clamping member consisting of a plurality of yieldingly mounted segments, and a toggle connected with said segments, for locking the same in clamping relation with an object.

4. The combination of a member provided with an annular integral collar divided to form sections, and a toggle connected with said sections, for locking the same in clamped relation with an object.

5. The combination of a member provided with a collar divided to present sections each slit, and a toggle connected with the sections, for locking the same in clamped relation with an object.

[Claims 6 to 20 not printed in the Gazette.]

1,082,559. CAN-BODY-MAKING MACHINE. JOHN E. SCHENCK, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 8, 1910. Serial No. 554,179. (Cl. 113-7.)



1. In a can body machine, the combination with a can body former horn, of a single reciprocating necking-in die or plunger, a plurality of necking-in mandrels and an intermittently moving carrier for moving said mandrels first into register with the body former horn and subsequently into register with said necking-in plunger, said mandrels being stationary relatively to the carrier, and a feed slide for delivering the can bodies from the body former horn onto the necking-in mandrels, substantially as specified.

2. In a can body machine, the combination with a can body former horn, of a reciprocating necking-in die or plunger, a plurality of necking-in mandrels and an intermittently moving carrier for moving said mandrels first into register with the body former horn and subsequently into register with said necking-in plunger, a feed slide for delivering the can bodies from the body former horn onto the necking-in mandrels, and each of said necking-in mandrels having a can body ejector, substantially as specified.

3. In a can body machine, the combination with a can body former horn, of a single reciprocating necking-in die or plunger, a plurality of non-expandible necking-in mandrels and an intermittently moving carrier for moving said mandrels first into register with the body former horn and subsequently into register with said necking-in plunger, a feed slide for delivering the can bodies from the body former horn onto the necking-in mandrels, each of said necking-in mandrels having a can body ejector within the mandrel, and a stationary cam for operating said can body ejectors as the mandrel carrier rotates, substantially as specified.

4. In a can body machine, the combination with a can body former horn, of a reciprocating necking-in die or plunger, a plurality of necking-in mandrels and an intermittently moving carrier for moving said mandrels first into register with the body former horn and subsequently into register with said necking-in plunger, and a feed slide for delivering the can bodies from the body former horn onto the necking-in mandrels, each of said mandrels having also a flanging die, substantially as specified.

5. In a can body making machine, the combination with a body former horn, of a die reciprocating parallel to said horn, a plurality of mandrels adapted to be brought successively into register with said horn and die, and an intermittently moving carrier upon which said mandrels are mounted, said mandrels being rigidly mounted on the carrier, substantially as specified.

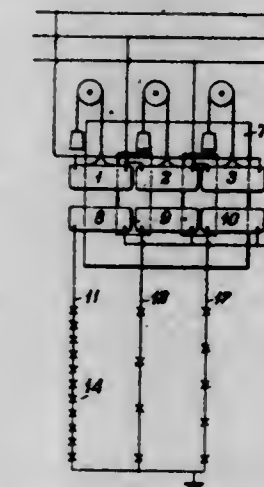
[Claims 6 to 10 not printed in the Gazette.]

1,082,560. DOOR-KEY. ANTON SCHRADER, Castrop, Post Rauxel, Germany, assignor of one-half to Otto Lambert, Castrop, Germany. Filed June 16, 1913. Serial No. 774,050. (Cl. 116-35.)



A door key having a hollow stem, a handle in the form of a clock-work-operated bell connected to said stem, a spring-actuated rod arranged in the hollow stem so that it can be displaced longitudinally for releasing the clock-work and ringing the bell, and a push-button connected to the outer end of the rod, said push button being arranged so that it can be depressed, from one side of the lock, for ringing the bell, when the key is inserted into the lock from the other side, the bell being connected to the stem so as to tend by gravity to hold the key-bit out of register with the key-hole.

1,082,561. SYSTEM OF DISTRIBUTION. ELMER H. SCHWARZ, New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 21, 1910. Serial No. 598,523. (Cl. 171-253.)



1. A system of distribution comprising a three-phase distribution circuit and a plurality of translating devices connected in series relation in each of the phases, and independently operative constant-current regulating means for each of the phases.

2. In a system of distribution, the combination with a polyphase constant-current regulator having independently movable coils for its respective phases, of a polyphase distributing circuit leading from the regulator, and series-connected translating devices in each of the phases of the distributing circuit, the conductors of the several phases of the said circuit being connected together at a point beyond the translating devices.

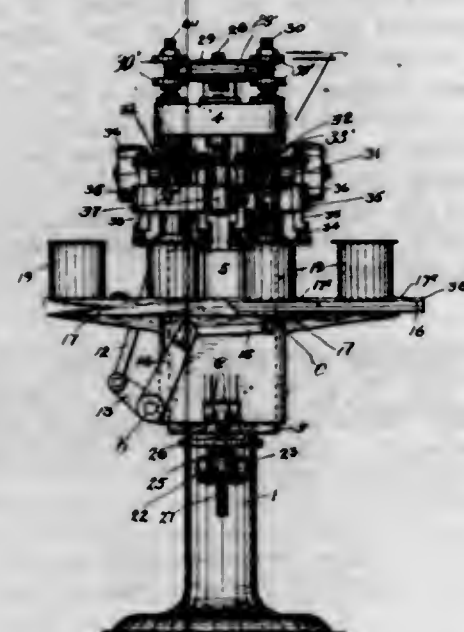
3. In a system of distribution, the combination with a three-phase constant-current regulator having independently movable coils for its respective phases, of a three-phase distributing circuit leading from the regulator, and series-connected translating devices in each of the phases of the distributing circuit, the conductors of the several phases of the said circuit being connected together at a point beyond the translating devices, and the neutral

points of or connections between the said phases being grounded.

4. In a system of distribution, the combination with a three-phase constant-current regulator having independently movable coils for its respective phases, of a three-phase distributing circuit leading from the regulator, and series-connected translating devices in each of the phases of the distributing circuit, the conductors of the several phases of the said circuit being connected together at a point beyond the translating devices.

5. A system of distribution comprising a polyphase distributing circuit, series-connected translating devices in each of the phases of the distributing circuit, the conductors of the several phases of the said circuit being connected together at a point beyond the translating devices, and independently operative constant current regulating means for each of the phases of the distributing circuit.

1,082,562. CAN-HEADING MACHINE. LEE C. SHARP, Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 1, 1909. Serial No. 487,291. (Cl. 113-24.)



1. In a can heading machine, a frame, a table mounted to reciprocate vertically on the frame, seaming heads mounted on the frame above the table, stationary chuck plates against which the cans are clamped by the upward movement of said table, a straight line feeding means mounted to reciprocate on and carried by said table, a drive shaft, a connection between the drive shaft and the table whereby the latter may be reciprocated vertically, and a connection between the drive shaft and the feeding means whereby the latter may be reciprocated horizontally to effect a step by step movement of the cans forwardly in one direction, the cans being fed from one head to the other during each reciprocation of the table.

2. In a can heading machine, a frame, a table mounted to reciprocate vertically on the frame, a plurality of seaming stations mounted on the frame above the table, stationary chuck plates against which the cans are clamped by the upward movement of said table, a feeding means mounted to reciprocate horizontally on and carried by said table, means to reciprocate the table vertically, and means to reciprocate the feeding means horizontally to effect a step by step movement of the cans forwardly in one direction, the cans being fed from one station to the other during each reciprocation of the table.

3. In a can heading machine, a frame, a table mounted to reciprocate vertically on the frame, a seaming means mounted on the frame above the table, a stationary chuck plate against which the cans are clamped by the upward movement of said table, a straight line feeding means mounted to reciprocate horizontally on and carried by the table during reciprocation of the latter and also when the table is at rest, means to reciprocate the table, and means to reciprocate the feeding means equally each reciprocation

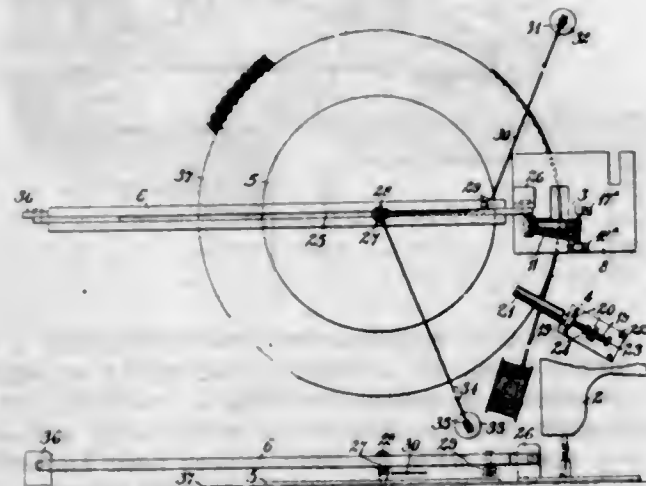
and to effect a step by step movement of the cans forwardly in one direction.

4. In a can heading machine, a frame, a table mounted to reciprocate vertically on the frame, a seaming means mounted on the frame above the table, a stationary chuck plate against which the cans are clamped by the upward movement of said table, a feeding means mounted to reciprocate on and carried by the table, means to reciprocate the table, and means to reciprocate the feeding means equally each reciprocation during reciprocation of the table and also when the latter is at rest.

5. In a can heading machine, a frame, a vertically movable frame mounted on the table, a seaming means mounted on the frame above the table, a stationary chuck plate against which the cans are clamped by the upward movement of said table, and a feeding means mounted to reciprocate horizontally on and carried by the table during movement of the latter and also when the latter is in its uppermost position.

[Claims 6 to 30 not printed in the Gazette.]

1,082,563. COIL FOR ELECTRICAL APPARATUS. HAROLD B. SMITH, Worcester, Mass., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 26, 1910. Serial No. 540,209. (Cl. 175-21.)



1. A coil for electrical apparatus comprising a series of convolutions of fiber-covered round wire disposed in a single plane, the successive convolutions of the fiber covering being sewed to each other by zigzag stitches, constituting a series of convolutions.

2. A coil for electrical apparatus comprising a flat spiral of fiber-covered small round wire, the successive turns of the fiber covering being sewed to each other by stitches constituting a spiral.

3. A coil comprising a spiral of small cotton-covered wire, the successive turns of the covering being sewed to each other by zigzag stitches constituting a spiral.

4. The method of constructing a coil for electrical apparatus that consists in sewing the first turn to a template and each succeeding turn to the turn next preceding it.

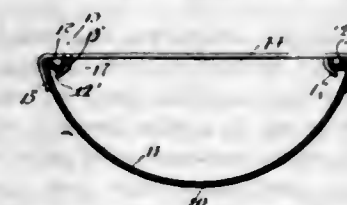
5. The method of forming coils for electrical apparatus which consists in sewing one turn to a disk or template and sewing each successive turn to the turn preceding by zigzag stitches.

[Claim 6 not printed in the Gazette.]

1,082,564. FLUME. PARKE T. SNYDER, Chicago, Ill., assignor of one-half to Ross J. Beatty, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,733. (Cl. 61-5.)

1. A flume comprising a plurality of flat sheet metal sections interlapped and joined only at the longitudinal side edges of the lap, the transverse distance between the contacting surfaces of the two sections being equal before bowing, and means holding said sections bowed into trough-like form, whereby the interlapped sections are subjected mutually to compression and expansion stresses to force the confronting surfaces of the lapped portions into tight intimate contact.

2. A flume comprising a plurality of flat sheet metal sections interlapped and having their longitudinal edges turned back upon themselves to provide joint members only at the longitudinal side edges of the lap, the transverse distance between the engaging turned-back parts, along the contacting surfaces of the two sections, being equal before bowing; and means holding said sections bowed into trough-like form, whereby the interlapped sections are subjected mutually to compression and expansion stresses to force the confronting surfaces of the lapped portions into tight intimate contact.



3. A flume comprising a plurality of flat sheet metal sections interlapped and having their longitudinal edges turned back upon themselves throughout the entire length of each section to strengthen said edges and to provide joint members only at the longitudinal side edges of the lap, the transverse distance between the engaging back-turned parts, along the contacting surface of the two sections, being equal before bowing; and means at intervals along the joined sections holding said sections bowed into trough-like form, whereby the interlapped portions of the sections are subjected mutually to compression and expansion stresses to force the confronting surfaces of the lapped portion into tight intimate contact.

4. A flume comprising a plurality of sheet metal sections interlapped at contiguous ends and secured together only at the side edges of said interlapped ends for substantial contact of the interlapped surfaces of adjoining sections when substantially flat; and means holding said sections in transversely bowed, trough-shape throughout their length, whereby the lapped end of the inner section is forced into tight intimate contact with the lapped end of the outer section.

5. A flume comprising a plurality of sheets of metal interlapped to provide a joint; joining members for each sheet, located at the marginal edges of said lap, each sheet having a pair of said members, and said members of each pair being substantially the same transverse distance apart to exert a compression and expansion stress on the inner and outer members, respectively, when said members are bowed into trough shape; and means engaging said marginal edges of said members to hold them in trough-shapes.

[Claims 6 and 7 not printed in the Gazette.]

1,082,565. SLED. CHARLES STARK, Foreston, Minn. Filed May 24, 1913. Serial No. 769,730. (Cl. 21-94.)

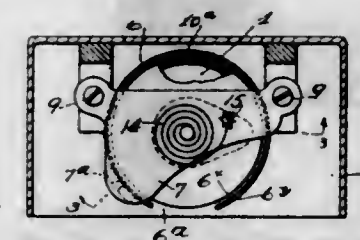


A device of the class described including a platform, a pair of spaced runners supporting the rear end of the platform, a single runner mounted for pivotal movement and supporting the forward end of the platform, an inverted U-shaped brace member having its ends secured to the upper face of the runner, a cross piece bolted to the intermediate portion of the brace member, said cross piece having a curved portion cut in each end thereof, a second U-shaped brace member having its intermediate portion secured to the upper face of the single runner and its ends secured to the upper face of the platform.

197 O. G.—68

arranged in spaced relation and secured to the under face of the cross piece, a yoke having its ends secured to the said cross piece adjacent the curved portions and provided at its intermediate portion with an elongated loop, a steering post rotatably mounted within the platform, an arm formed integral with the lower end of the post and provided with a downwardly turned end arranged within said loop, and a cross piece upon the upper end of the steering post for rotating the same whereby the arm will actuate the yoke to steer the single runner.

1,082,566. THERMOSTATIC DEVICE FOR VARYING MAGNETIC FIELD. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Jan. 18, 1913. Serial No. 742,781. (Cl. 73-123.)



1. In combination with a magnet, means for influencing the form of the magnetic field comprising a magnetic mass proximate to said magnet, a drag element positioned in the magnetic field, and means for producing relative movement of the magnet and drag element, said magnetic mass being comprised in a bi-metallic member mounted for movement toward and from the magnet by a change of its form under the influence of temperature change.

2. In combination with a magnet, means for influencing the form of the magnetic field comprising a magnetic mass proximate to said magnet, a drag element positioned in the magnetic field, and means for producing relative movement of the magnet and drag element, said magnetic mass being comprised in a laminated bi-metallic member mounted for movement of portions of its surface toward and from the magnet by a change of its form under the influence of temperature change.

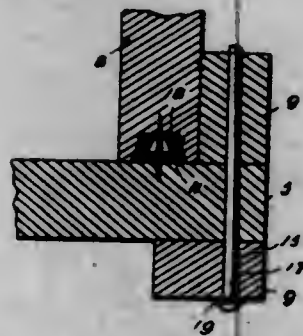
3. In combination with a magnet, means for influencing the form of the magnetic field comprising a magnetic mass proximate to said magnet, a drag element in the form of a flanged disk mounted with its flange in the magnetic field encompassing the path of the magnet poles, and means for producing relative rotation of the magnet and drag element about the axis of the latter, said magnetic mass being comprised in a laminated bi-metallic member in the form of a split ring encompassing the flange of the drag element, said member being fixedly mounted at one point with the remainder free for movement toward and from the magnet by a change of its form under the influence of temperature change.

4. In combination with a magnet, means for influencing the form of the magnetic field comprising a magnetic mass proximate to said magnet, a drag element in the form of a flanged disk mounted with its flange in the magnetic field encompassing the path of the magnet poles, and means for producing relative rotation of the magnet and drag element about the axis of the latter, said magnetic mass being comprised in a laminated bi-metallic member in the form of a split ring encompassing the flange of the drag element, one end of said member being fixedly mounted and the remainder being free for movement toward and from the magnet by a change of its form under the influence of temperature change.

5. In combination with a magnet, means for influencing the form of the magnetic field comprising a magnetic mass proximate to said magnet, a drag element in the form of a flanged disk mounted with its flange in the magnetic field encompassing the path of the magnet poles, and means for producing relative rotation of the magnet and drag element about the axis of the latter, said magnetic mass being comprised in a laminated bi-metallic member in the form of a split ring encompassing the flange of the drag element, one end of said member be-

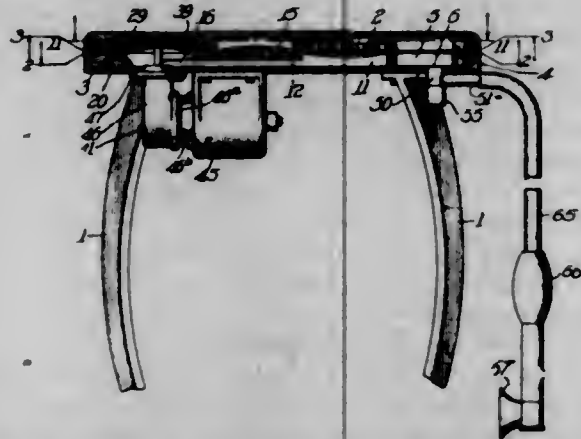
ing fixedly mounted and the remainder being free for movement toward and from the magnet by a change of its form under the influence of temperature change, the flange of the drag element being provided with a scale, the opening between the ends of the split ring member being sufficient to permit reading of the scale, and an index point fixed at said opening proximate to the said scale.

1,082,567. SHIPPING-CASE. GEORGE W. STITZER, Mahanoy City, Pa. Filed July 5, 1911. Serial No. 636,915. (Cl. 217-12.)



A packing crate comprising a bottom member, side members, end members and a top member, each member constructed of a plurality of boards, reinforcing members to connect the boards together, channel members carried by the bottom and side members, channel engaging members carried by the side members and the end members, bolts passing through the top and bottom members and certain of the reinforcing members upon the side members, said means adapted to secure the side members against disconnection from the bottom member and to hold the top upon the side and end members, and washer plates having means to receive said securing means when the parts are piled one upon top of the other in collapsed form.

1,082,568. VACUUM-PRODUCING DEVICE. HUSTON TAYLOR, Rochester, N. Y. Filed July 31, 1911. Serial No. 641,456. (Cl. 230-5.)



1. In a device of the character described, the combination with a plate having a flat upper surface and a recess on its under side, a second plate secured to the first plate and having a recess in its upper face, cooperating with the first recess, forming a piston chamber, of a diaphragm clamped between said plates over said recesses, said piston chamber having suitable inlet and outlet ports, and means arranged beneath the bottom plate for operating said diaphragm.

2. In a device of the character described, the combination with a flat face formed in two sections and recessed at their meeting faces to form an inlet chamber and an outlet chamber, of a valve mechanism arranged between said chambers, a vacuum producing pump connected through said valves with said chambers, and means beneath said plate for operating said pump.

3. In a device of the character described, the combination with a flat face formed in two sections recessed at their meeting faces to form an inlet chamber and an out-

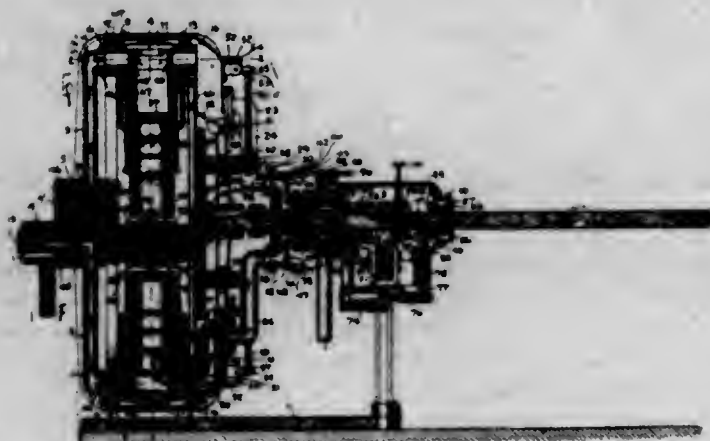
let chamber, of a vacuum producing pump arranged between said sections, a pair of inlet valves and a pair of outlet valves connected respectively with said inlet and outlet chambers, and means beneath said plate for operating said pump.

4. In a device of the character described, the combination with a flat plate formed of two sections, an annular rib formed on the meeting face of each section and having convexly beveled sides, of a diaphragm arranged to be clamped between said ribs when the sections are bolted together, and means beneath said plate for vibrating said diaphragm.

5. In a device of the character described, the combination with a flat plate formed of two sections having annular ribs formed on the meeting faces of each section, the sides of said ribs being convexly beveled, of a diaphragm arranged to be clamped between said ribs, a reciprocating stem for operating said diaphragm and connected to the same by a pair of concave washers between which the center of the diaphragm is clamped, and means beneath said plate for operating said stem.

(Claims 6 to 11 not printed in the Gazette.)

1,082,569. GAS-ENGINE. WILLIAM ADELBERT TIPT, Friday Harbor, Wash. Filed June 24, 1912. Serial No. 705,647. (Cl. 123-44.)



1. In a gas engine, a standard, a journal member fixed in said standard, a crank projecting eccentrically from said journal member, a bearing at the opposite end of said crank, a casing revolvably mounted on said journal member, a second standard having a bearing in alignment with the first-mentioned bearing, a shaft carried in said bearings and fixed to said revolvable casing, a plurality of cylinders mounted for oscillatory movement in said casing, a water jacket for each cylinder, a pipe extending in a circle within said casing, a flexible connection between each water jacket and said pipe, exhaust pipes leading from said cylinders, and a flexible connection between each exhaust pipe and the water jacket of the respective cylinder.

2. In a gas engine, a standard, a journal member fixed in said standard, a crank projecting eccentrically from said journal member, a bearing at the opposite end of said crank, a casing revolvably mounted on said journal member, a second standard having a bearing in alignment with the first-mentioned bearing, a shaft carried in said bearings and fixed to said revolvable casing, a plurality of cylinders mounted for oscillatory movement in said casing, a water jacket for each cylinder, a pipe extending in a circle within said casing, a flexible connection between each water jacket and said pipe, exhaust pipes leading from said cylinders, a flexible connection between each exhaust pipe and the water jacket of the respective cylinder, and means to supply water to said circular pipe while the casing is revolving.

3. In a gas engine, a standard, a journal member fixed in said standard, a crank projecting eccentrically from said journal member, a bearing at the opposite end of said crank, a casing revolvably mounted on said journal member, a second standard having a bearing in alignment with the first-mentioned bearing, a shaft carried in said bearings and fixed to said revolvable casing, a plurality of cyl-

inders mounted for oscillatory movement in said casing, a water jacket for each cylinder, a pipe extending in a circle within said casing, a flexible connection between each water jacket and said pipe, exhaust pipes leading from said cylinders, a flexible connection between each exhaust pipe and the water jacket of the respective cylinder, and means to supply water to said circular pipe while the casing is revolving, said means comprising a stationary member of hollow cylindrical form provided with an internal annular groove, a cylindrical member fixed on said shaft and provided with a passage having port communication with said groove, and a pipe connecting said passage with said circular pipe.

4. In a gas engine, a standard, a journal member fixed in said standard, a crank projecting eccentrically from said journal member, a bearing at the opposite end of said crank, a casing revolvably mounted on said journal member, a second standard having a bearing in alignment with the first-mentioned bearing, a shaft carried in said bearings and fixed to said revolvable casing, a plurality of cylinders mounted for oscillatory movement in said casing, a water jacket for each cylinder, a pipe extending in a circle within said casing, a flexible connection between each water jacket and said pipe, exhaust pipes leading from said cylinder, a flexible connection between each exhaust pipe and the water jacket of the respective cylinder, and means to supply water to said circular pipe while the casing is revolving, said means comprising a stationary member of hollow cylindrical form provided with an internal annular groove, a cylindrical member fixed on said shaft and provided with a passage having port communication with said groove, and a pipe connecting said passage with said circular pipe, a pump for supplying water to said annular groove, and means for operating said pump.

5. In a gas engine, a standard, a journal member fixed in said standard, a crank projecting eccentrically from said journal member, a bearing at the opposite end of said crank, a casing revolvably mounted on said journal member, a second standard having a bearing in alignment with the first-mentioned bearing, a shaft carried in said bearings and fixed to said revolvable casing, a plurality of cylinders mounted for oscillatory movement in said casing, a water jacket for each cylinder, a pipe extending in a circle within said casing, a flexible connection between each water jacket and said pipe, exhaust pipes leading from said cylinder, a flexible connection between each exhaust pipe and the water jacket of the respective cylinder, means to supply water to said circular pipe while the casing is revolving, said means comprising a stationary member of hollow cylindrical form provided with an internal annular groove, a cylindrical member fixed on said shaft and provided with a passage having port communication with said groove, and a pipe connecting said passage with said circular pipe, a pump for supplying water to said annular groove, and means for operating said pump, said means comprising a beveled gear fixed on said shaft, a bracket extending from said second standard, a shaft journaled in said bracket, a beveled gear carried by said shaft and meshing with the first mentioned beveled gear, an eccentric mounted on said shaft, a piston in said pump, and a piston rod fixed to said piston and provided with an eccentric strap surrounding said eccentric. (Claim 6 not printed in the Gazette.)

1,082,570. LAWN-TRIMMER. THOMAS J. UNDERWOOD, Peoria, Ill. Filed July 22, 1912. Serial No. 710,847. (Cl. 97-28.)

1. A lawn-trimmer comprising a channel-shaped blade having one of its sides shaped to form an edge guide, said blade having a sharp pointed nose formed on each end thereof, and one of the side edges of said blade being sharpened to provide a cutting edge.

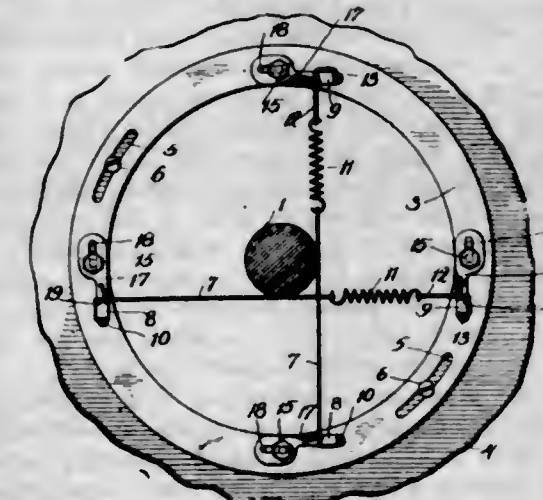
2. A lawn trimmer formed from a single sheet of metal tapering to a central point, the sheet having a sharp bend along a line longitudinally of the sheet and to one side of said point to form an edge guide, and the remainder of the sheet being formed concave with respect to the

guide forming side to form therewith a channel shaped blade having a sharp pointed nose positioned to one side of said edge guide, and a handle secured to said blade and arranged to extend over the walk or curb when the device is run therealong.



3. A lawn trimmer formed from a single sheet of metal tapering at its ends to central points, the sheet being bent along a line longitudinally of the sheet and to one side of said points to form a channel shaped blade having a vertically arranged edge guide and a sharp pointed nose on each end of said blade positioned to one side of said edge guide.

1,082,571. COMMUTATOR-BRUSH. THOMAS W. VARLEY, New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 13, 1908. Serial No. 462,468. (Cl. 171-210.)



1. In an electrical measuring instrument, the combination with a commutator cylinder and a pair of strap brushes disposed for sidewise tangential engagement with said cylinder, of supports for the respective ends of each brush and a spring and thread connection interposed longitudinally between one end of each brush and the corresponding support.

2. In an electrical measuring instrument, a flat flexible brush adapted to make tangential engagement with a commutator cylinder, and means for laterally adjusting the respective ends of the brush to vary the pressure upon the commutator cylinder without altering the plane of contact.

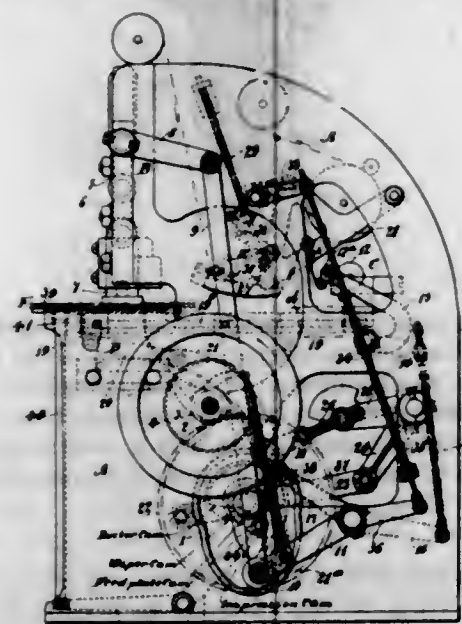
3. In an electrical measuring instrument, a flexible strap brush adapted to make tangential engagement with a commutator cylinder, an unyielding support and a flexible support for the respective ends of said brush, said flexible support comprising a helical spring and a thread, substantially as described.

4. In an electrical measuring instrument, a brush of strap form and adapted to make side contact with a commutator cylinder, means for laterally adjusting each

end of said brush, standards, and means for revolvably adjusting said standards.

5. In an electrical measuring instrument, a flat flexible brush adapted to make tangential engagement with a commutator cylinder, standards for the respective ends of the brush, and means for laterally adjusting the respective standards to vary the pressure upon the commutator cylinder without altering the plane of contact. [Claim 6 not printed in the Gazette.]

1,082,572. DIE-PRESS. FRED. WAITE, Otley, England, assignor to Auto Falcon & Waite Die Press Company, Limited, Chicago, Ill., a Corporation of Canada. Filed Sept. 26, 1910. Serial No. 583,765. (Cl. 101-103.)



1. In a printing press a horizontal guideway, a die, a reciprocating die carrier slidably mounted on the guideway and always carried and supported thereby, an inking mechanism which inks the die when near one extremity of its travel, a vertically moving counter which can impress the work upon the die when the latter is in impressing position at the other extremity of its travel, a rising and falling table which rises above the top of the die prior to the latter being moved toward inking position from impressing position and which table is lowered after the die has been brought to position where the inking operation can be carried out, so that the top of the table is at least as low as the general surface of the top of the die and a common means for operating the die, counter and feed table in the manner above specified.

2. In a die press the combination of a vertically movable counter, a horizontally movable die, a vertically movable feed plate or table and common operating means for lifting the counter as the die moves from impressing position, for forcing the counter downwardly when the die is in impression receiving position, for raising the table after the impression has been effected, whereby the die can travel horizontally below the table, for lowering the table after the die is in impression receiving position and for maintaining the top of the table below the top of the die until after the impressing operation has been started to be effected.

3. In a die press the combination of a counter movable to and from impressing position, a die movable to and from impressing position in a direction at an angle to the direction of movement of the counter, a feed plate movable in the same direction that the counter moves and a common operating means for moving the counter and die from impressing position, for moving the table toward the counter prior to the die being moved from impressing position and for moving the table backward from the counter, prior to the impressing of the work between the die and counter, so that the face of the table will not extend forward beyond the face of the die when the impressing operation is started to be effected.

4. In a die press the combination of a vertically movable platen or counter, a die below the platen, a die carrier

for moving the die laterally from impressing position to die inking position, a movable feed plate or table and common operating means constructed and arranged so as to move the counter toward impressing position, so as to move the die from impressing position to inking position as the counter moves from impressing position and so as to raise the table after the impressing position has been effected in order that the die can move laterally from impressing position toward inking position and to lower the feed table before the impressing operation is effected, so that the top of the feed plate or table is at least as low as the top of the die during the impressing operation.

5. In a printing press a vertically movable counter, a horizontally reciprocating die, a rising and falling feed table having a die receiving opening therein and common operating means for the counter, die and table, the parts being constructed and arranged so that when the counter reaches impressing position and while the counter remains in said position the top of the feed table will be as low as the top of the die which at that time is located under the counter, and so that the table will be raised prior to the die being removed from impressing position in order to permit the die to move horizontally from said impressing position.

1,082,573. DISSOLVED CARBOHYDRATE ESTERS AND PROCESS OF MAKING THE SAME. WILLIAM STONE WEDON, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed June 27, 1912. Serial No. 706,197. (Cl. 106-37.)

1. The process of producing a solution of a carbohydrate ester, which comprises dissolving it in an aldehyde alcohol.

2. The process of producing a solution of nitrocellulose, which comprises dissolving it in an aldehyde alcohol.

3. The process of producing a solution of pyroxylin, which comprises dissolving it in an aldehyde alcohol.

4. The process of producing a solution of a carbohydrate ester, which comprises dissolving it in acetaldehyde.

5. The process of producing a solution of nitrocellulose, which comprises dissolving it in acetaldehyde.

[Claims 6 to 13 not printed in the Gazette.]

1,082,574. MANUFACTURE AND PRODUCTION OF OXYCARBOXYDIARYLCARBINOLS. MAX WEILER, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 15, 1912. Serial No. 725,864. (Cl. 23-24.)

1. As new products the new oxycarboxydiarylcabinols obtained by condensing in equal molecular proportions aromatic aldehydes with aromatic oxycarboxylic acids and containing both a hydroxyl and a carboxyl group in the same aryl nucleus, which products are after being dried and pulverized slightly colored powders, which yield, when condensed with a further molecule of an aromatic oxycarboxylic acid leucotriphenylmethane bodies capable of being converted by oxidation into mordant dyestuffs, substantially as described.

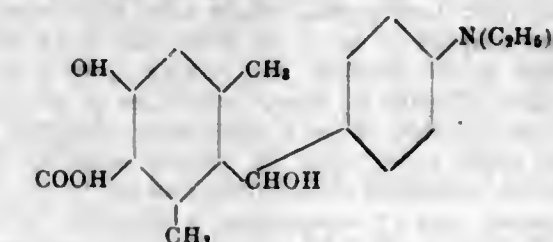
2. As new products the oxycarboxydiarylcabinols obtainable by condensing in equal molecular proportions alkylamino substituted aldehydes and aromatic oxycarboxylic acids and having a constitution corresponding to the formula



where R' is the radical of an aromatic oxycarboxylic acid and R an alkylamino substituted aromatic radical, which products are after being dried and pulverized slightly colored powders, which yield, when condensed with a further molecule of an aromatic oxycarboxylic acid leucotriphenylmethane bodies capable of being converted by oxidation into mordant dyestuffs, substantially as described.

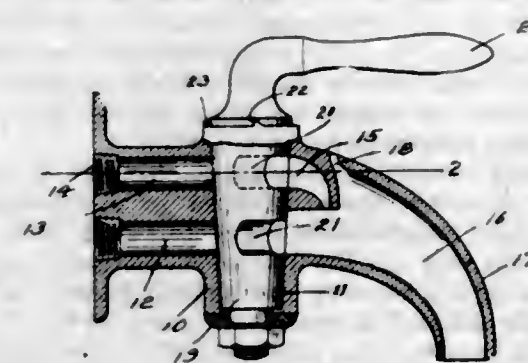
3. As a new product the new dimethyloxycarboxyphenyldiethylamidophenylcarbinol obtained by condensing in equal molecular proportions para-diethyl-aminobenzaldehyde

hyde with *s*-xylene-ortho-carboxylic acid, having a constitution corresponding to the formula:



which product is after being dried and pulverized a slightly colored powder which yields, when condensed with a further molecule of ortho-cresotinic acid, a leucotriphenylmethane body capable of being converted by oxidation into a mordant dyestuff producing on chrome mordanted wool violet shades.

1,082,575. FAUCET. CHARLES S. WHITE, Oakland, Cal., assignor of one-half to Andrew Hunker, Berkeley, Cal. Filed Oct. 8, 1912. Serial No. 724,611. (Cl. 225-26.)



1. In a faucet of the kind described, a body provided with an upper and a lower inlet passage, said upper passage having a downwardly curved tapered extremity, said body provided with an outlet passage into which said upper and lower inlet passages open, said outlet passage provided with an air vent and a valve carried by said body and provided with a plurality of ports, said passages and ports being arranged for selective control of the respective inlet passages.

2. In a faucet of the kind described, a body provided with an upper and lower inlet passage, said body provided with an enlarged portion having a downwardly curved tapered discharge opening formed therein registering with said upper passage and extending beyond the discharge opening of said lower passage, said discharge openings of said inlet passages opening into a downwardly tapered outlet passage of said body, said outlet passage provided with an air vent in its upper portion, a valve carried by body provided with ports extending at an angle to each other, said ports and passages being arranged for selective control of the respective inlet passages.

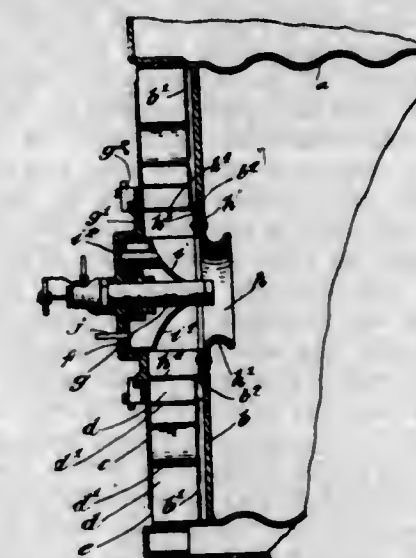
1,082,576. FURNACE-FRONT. WILLIAM ALBERT WHITE and WILLIAM CARLILE WALLACE, New York, N. Y.; said Wallace assignor to said White. Filed Mar. 23, 1912. Serial No. 685,777. (Cl. 158-1.5.)

1. A furnace front having a series of irregularly curved, centering, air heating and supply passages in the same vertical plane therein, an oil burner axially penetrating said front, and means supplying heated air from said passages to the combustion zone of said burner.

2. A furnace front composed of a corrugated inner plate, an outer plate separated therefrom, a series of inwardly directed, heat conducting, irregularly curved partitions forming passages between said plates, air inlets at the periphery of said outer plate, and a central outlet in said inner plate; together with an oil burner penetrating said front and an air supply tube extending inwardly from said outlet in concentric relation to the burner nozzle.

3. A furnace front having an air heating and supply passage therein, an oil burner extending through said

front, and a constricted supply tube, outwardly flared at both ends, for the heated air, in concentric relation to the burner nozzle, said burner nozzle lying within said supply tube whereby the air impinges on the fuel jet within said tube.

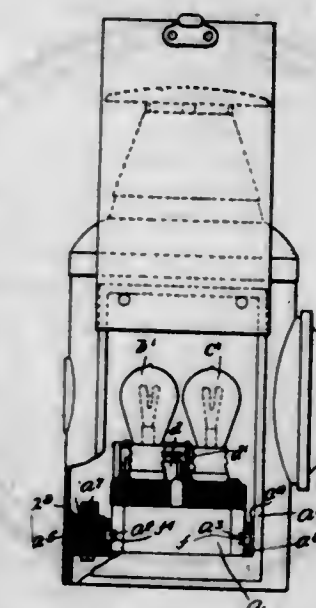


4. A furnace front having an air heating and supply passage therein, an inlet therefor, and a constricted supply tube, outwardly flared at both ends; together with an oil burner directed toward and terminating within said supply tube, and a conoidal faced valve to regulate the flow of air through said supply tube.

5. A furnace front having an air heating and supply passage therein, an inlet therefor, and a constricted supply tube, outwardly flared at both ends; together with an oil burner axially penetrating said front and terminating within said supply tube, a support for said burner, a conoidal faced valve concentric with and slidable over said burner, and having its apex presented to said supply tube, whereby the air impinges on the fuel jet within said supply tube, and means for moving said valve to and from said supply tube to regulate the air admission.

[Claims 6 and 7 not printed in the Gazette.]

1,082,577. RAILWAY SIGNAL-LANTERN. ALFRED A. ZIEGLER, Boston, Mass. Original application filed June 6, 1912, Serial No. 701,978. Divided and this application filed Jan. 8, 1913. Serial No. 740,773. (Cl. 240-22.)



1. A railway signal-lantern comprising a lantern-body having provision for localizing a removable sliding base-plate and having stationarily supported electric contact-members and means for electrically connecting supply-wires thereto, and a removable sliding base-plate bearing an incandescent lamp adapted for localization in said lantern-body, electric contact-members arranged on said base-plate, electrically connected with the lamp and adapted for engagement with the contact-members in the lan-

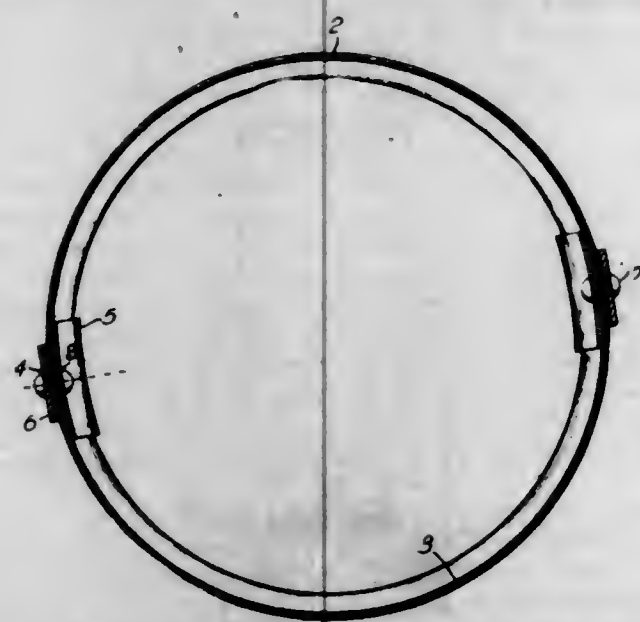
tern-body when the base-plate bearing them is correctly localized in said lantern-body, substantially as described.

2. A railway signal-lantern comprising a lantern-body, side guides for a removable sliding base-plate having stationarily supported electric contact-members and means for electrically connecting supply wires thereto, and a removable sliding base-plate made of a length to substantially fit the interior of the lantern-body when the door thereof is closed, said base-plate bearing an incandescent lamp, electric contact-members arranged on said base-plate, electrically connected with the lamp and adapted for engagement with the contact-members in the lantern-body when the base-plate is slid into said body far enough to admit of closing the door, substantially as described.

3. A railway signal-lantern comprising a lantern-body having provision for localizing a removable sliding base-plate, side guides for said base-plate, stationarily supported electric contact-members arranged on said guides, and means for electrically connecting supply wires thereto; a removable sliding base-plate bearing an incandescent lamp adapted for localization in said lantern-body, and electric contact-members arranged on said base-plate electrically connected with the lamp and adapted for engagement with the contact-members on the side guides when the base-plate is correctly localized in the lantern-body, substantially as described.

4. A railway signal-lantern comprising a lantern-body having provision for localizing a removable sliding base-plate, side guides for said base-plate having grooves in their adjacent sides, stationarily supported electric contact-members arranged on said side guides and extended across the grooves therein, and means for electrically connecting supply-wires thereto, a removable sliding base-plate bearing an incandescent lamp adapted for localization in said lantern-body, and electric contact-members arranged on the sides of said base-plate which are electrically connected with the lamp, said contact-members being extended outward and adapted to enter the grooves in the side guides and engage the contact-members therein when the base-plate is correctly localized in the lantern-body, substantially as described.

1,082,578. NESTING CULVERT. ARTHUR A. AMBLER, Middletown, Ohio, assignor to The American Rolling Mill Co., Newark, N. J. Filed Sept. 6, 1913. Serial No. 788,395. (Cl. 61—9.)



1. A nesting culvert comprising, a plurality of curved sheet-metal culvert-sections arranged in circumferential series with their longitudinal edges near each other, and cover-strips adapted to cover the inner and outer surfaces of the edges of the sections and having grooves in their opposite edges adapted to engage the edges of the culvert-sections, that portion of each cover-strip which engages within the culvert having a width differing from that portion engaging outside the culvert, combined substantially as set forth.

2. A nesting culvert comprising, a plurality of curved sheet-metal culvert-sections arranged in circumferential series with their longitudinal edges near each other, and cover-strips adapted to cover the inner and outer surfaces of the edges of the sections and having grooves in their opposite edges adapted to engage the edges of the culvert-sections, that portion of each cover-strip engaging inside the culvert being wider than the portion engaging outside of the culvert, combined substantially as set forth.

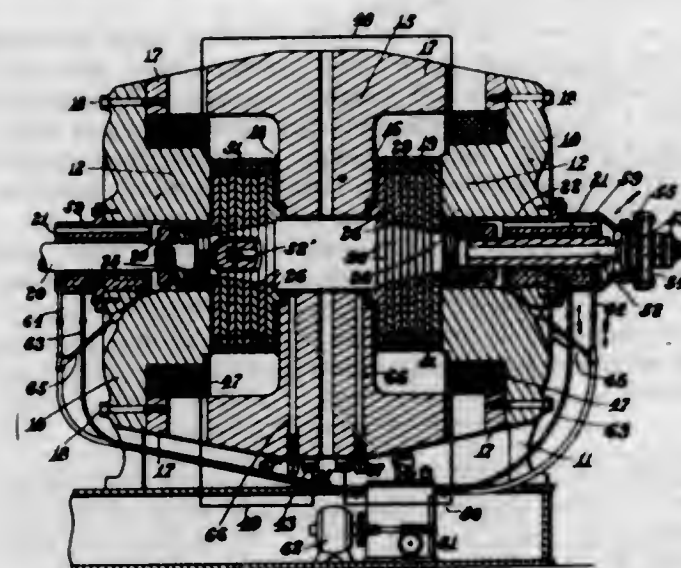
3. A nesting culvert comprising, a plurality of curved sheet-metal culvert-sections arranged in circumferential series with their longitudinal edges near each other, and cover-strips adapted to cover the inner and outer surfaces of the edges of the sections and having grooves in their opposite edges adapted to engage the edges of the culvert-sections, the end of each cover-strip where it engages the interior of the culvert having a projection beyond the same end of the cover-strip engaging the exterior of the culvert, combined substantially as set forth.

4. A nesting culvert comprising, curved sections with their longitudinal edges near each other, a cover-strip adapted to cover the inner surface of the longitudinal edges of the sections, a cover-strip adapted to cover the outer surface of the longitudinal edges of the sections, rivets securing the two cover-strips together, and spacing pieces at the rivets between the cover-strips to space them apart sufficiently to admit the edges of the culvert-sections, combined substantially as set forth.

5. A nesting culvert comprising, a plurality of curved sheet-metal culvert-sections arranged in circumferential series with their longitudinal edges near each other, and cover-strips adapted to cover the inner and outer surfaces of the edges of the sections and having grooves in their opposite edges adapted to engage the edges of the culvert-sections, said grooves being provided with entering throats to facilitate the entry of the longitudinal edges of the culvert-sections, combined substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,082,579. DYNAMO-ELECTRICAL MACHINE. DAVID H. ANDREWS, Newton, and ERNEST C. KETCHUM, Boston, Mass. Filed Jan. 31, 1912. Serial No. 674,822. (Cl. 171—212.)



1. In a dynamo electrical machine, the combination of a field magnet having aligned pole pieces with parallel faces; a revoluble shaft extending through the poles thereof; two sets of separated metal disks mounted thereon parallel with the faces of said poles; members connecting the disks in pairs; two supporting members mounted upon said field magnet; a plurality of bars in said members insulated therefrom and from each other with their ends in echelon; brush holders secured to the ends of said members; and brushes in said holders bearing on the said disks to connect said disks in series.

2. In a dynamo electrical machine, the combination of a field magnet having aligned pole pieces with parallel faces; a revoluble shaft extending through the poles thereof; two sets of separated metal disks mounted thereon parallel

with the faces of said poles; members connecting the disks in pairs; two supporting members mounted upon said field magnet; a plurality of bars in said members insulated therefrom and from each other with their ends in echelon; brush holders secured to the ends of said members; and brushes in said holders bearing on the said disks to connect said disks in series, the said brushes in each supporting member contacting with alternating disks intermediate to those with which the brushes of the other set of holders contact.

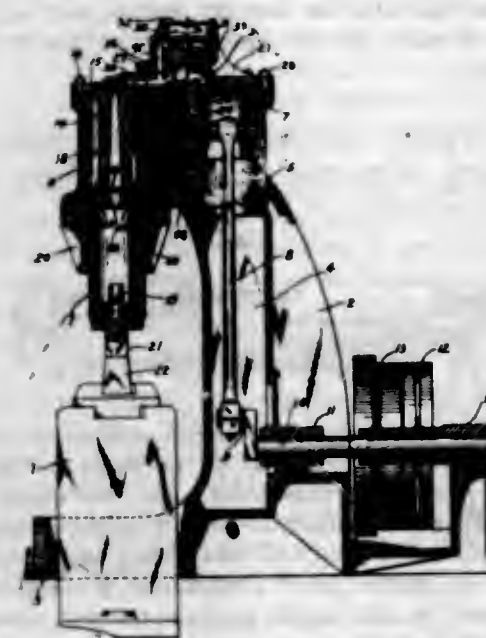
3. In a dynamo electrical machine, the combination of a field magnet having aligned pole pieces with parallel faces; a revoluble shaft extending through the poles thereof; two sets of separated disks mounted thereon parallel with the faces of said poles; members connecting the disks in pairs; an elongated box support having the side next to the disks open; a plurality of bars therein insulated from each other and from said box with their ends in echelon; brush holders secured to the ends of said bars; and brushes in said holders bearing on said disks to connect said disks in series.

4. In a dynamo electrical machine, the combination of a field magnet; a revoluble shaft extending through the poles thereof; two sets of separated disks in pairs; two elongated box supports one above the other each having the side next to the disks open; a plurality of bars in each of said boxes insulated from each other and from said boxes with their ends in echelon; brush holders secured to the ends of said bars; brushes in the upper set of holders bearing upon alternate disks; brushes in the lower set of holders bearing upon the intermediate disks to connect all of said disks in series; and terminals connected to the inner and outer bars of the lower set of bars.

5. In a dynamo electrical machine, the combination of a field magnet having aligned pole pieces with parallel faces; a revoluble shaft extending through the poles thereof; two sets of separate metal disks mounted thereon parallel with the faces of said poles; members connecting said disks in pairs; other means for electrically connecting said disks of the two sets in series; and a threaded member beneath said revoluble shaft adapted to be adjusted into position to support said shaft under abnormal conditions.

[Claims 6 to 19 not printed in the Gazette.]

1,082,580. FLUID-POWER HAMMER. RALPH E. BATES, Philadelphia, Pa., assignor to John Nazel, Philadelphia, Pa. Filed Jan. 16, 1913. Serial No. 742,395. (Cl. 78—42.)



1. A power hammer comprising a cylinder containing a stationary piston having a passage therethrough, a hollow ram adapted to reciprocate in said cylinder on said piston, a second cylinder, a piston adapted to reciprocate

in said second cylinder, passages connecting said second cylinder with said first named passage and with the atmosphere, and valve mechanism for controlling the flow of motive fluid through said passages.

2. A power hammer comprising a cylinder containing a fixed piston having a fluid passage, a hollow ram adapted to be reciprocated in said cylinder on said piston by fluid communicated to and withdrawn from its interior through said passage, and a valve within said ram for closing said passage and trapping motive fluid in said ram.

3. A power hammer provided with a cylinder containing a fixed piston having a motive fluid passage there-through, means comprising a cylinder and piston for introducing motive fluid to and withdrawing it from said ram through said fixed piston to effect the reciprocation of said ram, and valve mechanism for trapping motive fluid between said fixed piston and ram whereby the reverse movement of the latter is cushioned and its forward movement induced.

4. A power hammer provided with a cylinder containing a fixed piston, a hollow ram adapted to reciprocate in said cylinder on said piston, a power cylinder, a power piston adapted to reciprocate in said power cylinder, passages adapted for connecting said power cylinder with the atmosphere and with the interior of said ram through said fixed piston, and valve mechanism for controlling said passages.

5. A power hammer comprising a ram cylinder containing a fixed piston, a hollow ram adapted to reciprocate in said cylinder on said piston, a power cylinder, a power piston adapted to reciprocate in said power cylinder, passages adapted for connecting said power cylinder with the atmosphere and with the interior of said ram through said fixed piston, a manually operated valve and automatically operated valves whereby, when said manually operated valve is in different positions, said ram is suspended, constantly reciprocated and held in the "vising" position by the action of said power piston.

[Claims 6 to 14 not printed in the Gazette.]

1,082,581. COTTON-DYESTUFFS. AUGUST BLANK, CARL HEIDENREICH, and JOHANNES JANSEN, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 29, 1913. Serial No. 764,354. (Cl. 8—1.)

1. The herein described new cotton dyestuffs being trisazo-dyestuffs containing a diphenylurea group, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water generally with a brownish coloration and dyeing cotton in brown shades, which are rendered very fast to washing by an after-treatment with formaldehyde of fibers dyed with them, substantially as described.

2. The herein described new cotton dyestuffs of the following general formula:



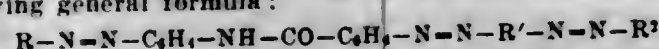
In which R and R² are suitable end components and R' the radical of an aromatic sulfonic acid, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water generally with a brownish coloration and dyeing cotton in brown shades, which are rendered very fast to washing by an after-treatment with formaldehyde of fibers dyed with them, substantially as described.

3. The herein described new cotton dyestuffs of the following general formula:



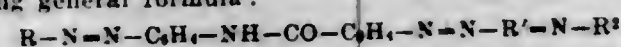
In which R and R² are suitable end components and R' the radical of a naphthalene sulfonic acid, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water generally with brownish coloration and dyeing cotton in brown shades, which are rendered very fast to washing by a treatment with formaldehyde of fibers dyed with them, substantially as described.

4. The herein described new cotton dyestuffs of the following general formula:



where R and R² are end components containing amino groups and R' the radical of an aromatic sulfonic acid, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water generally with a brownish coloration and dyeing cotton in brown shades, which are rendered very fast to washing by an after treatment with formaldehyde of fibers dyed with them, substantially as described.

5. The herein described new cotton dyestuffs of the following general formula:



where R and R² are end components containing amino groups and R' the radical of a naphthalene sulfonic acid, which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water generally with a brownish coloration and dyeing cotton in brown shades, which are rendered very fast to washing by an after treatment with formaldehyde of fibers dyed with them, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,582. GARMENT-FORM. ROBERT P. BROWN, Philadelphia, Pa., assignor to Brown & Bailey Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 17, 1913. Serial No. 754,704. (Cl. 211-13.)

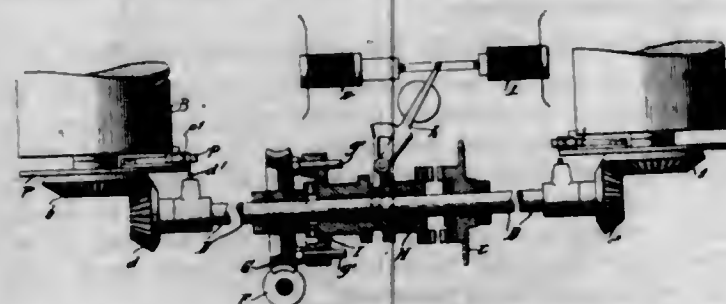


1. A garment form comprising a body, a part movable relatively to said body and adapted to bear against the same, and collar supporting means having a member connected in hinged relation to said movable part and adapted to be turned at right angles to said body and movable part, said member having wings hinged thereto.

2. A garment form comprising a body with parts thereon conforming to the neck and arm-holes of a coat, and a T cut from and hinged to said body, said T having parts hinged so as to stand transversely to said body and hold a coat collar in position.

3. A garment form comprising a body, a movable part cut from said body and hinged thereto, and collar supporting means having a member hinged to said movable part, and disposed transversely thereto and to said body, said member having wings hinged thereto.

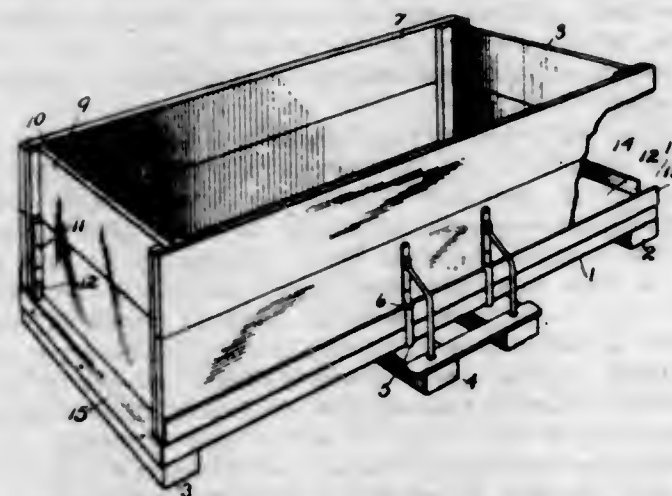
1,082,583. AUTOMATIC ADVERTISING APPARATUS. EDWARD FRANCIS NICHOLAS CANDIA, New York, N. Y. Filed Sept. 7, 1909. Serial No. 516,558. (Cl. 40-31.)



1. The combination with a suitable display frame, of a web of material bearing a plurality of advertising units, a roller at each side of the frame for moving the web in opposite directions past the frame, driving mechanism for rotating the rollers, the rollers being mounted independently of the driving mechanism, a disk connected to the driving mechanism and continuously rotated thereby, a star-wheel pivoted on said disk, a projection suitably supported in the path of the star-wheel, and a projection on the star-wheel for engaging the roller as and for the purpose specified.

2. The combination with a suitable display frame, of a web of material bearing a plurality of separated advertising units, movement transmitting mechanism for said web comprising a power-shaft, a roller associated with each end of said web and mounted independently of said power-shaft, a disk mounted at right angles to the power-shaft, and continuously rotated thereby, a star-wheel pivoted on said disk eccentrically, a stationary projection in the path of the star wheel for actuating the same, and a projection on the star-wheel for engaging the roller, as and for the purpose specified.

1,082,584. WAGON-BOX. AMOS B. CLIPPINGER, Kansas City, Mo. Filed Apr. 29, 1912. Serial No. 693,926. (Cl. 21-7.)



1. The combination with a bed frame, of a sheet metal bottom removably supported on the frame and having up-turned side flanges and an upturned front flange spaced from the side flanges to provide openings, side boards supported on the sheet metal bottom with their forward ends projected through the openings between the side and front flanges, battens on the inner faces of the side boards, and a front gate seated on said bottom between the side boards with its ends between the battens and its lower portion bearing against the front flange on the wagon bottom.

2. The combination with a bed frame, of a sheet metal bottom removably mounted on said frame and having a down-turned rear flange and upturned side and front flanges, the front flange being spaced from the side flanges to provide openings, side boards supported on the bottom within the side flanges, battens on the inner faces of the side boards, a front gate supported on the bottom with its ends located between the battens and its lower portion bearing against the bottom flange, and a rear gate supported on said bottom and spacing the rear ends of said boards.

1,082,585. VERMIN-KILLING POULTRY-PERCH. MOR- TON COOPER, Bainbridge, N. Y. Filed Sept. 20, 1912. Serial No. 721,512. (Cl. 119-25.)

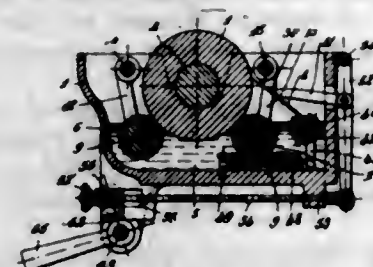


1. A vermin killing poultry perch comprising two parts securely fastened together so as to leave no crevice between such parts, and non-detachable, the upper or cover part containing a longitudinal row of perforations through the same serving to receive lice, mites and vermin, and the lower or under part containing a longitudinal V shaped groove in the upper surface thereof, and metallic trays also V shaped in transverse cross section and with closed ends, one of which ends of each tray is of the size of the ends of the perch, made to fit into the longitudinal V shaped groove in the lower part of the perch and to close the end of the same, and which trays are removable and adapted to contain a germicide and to receive lice,

mites and vermin and serve to prevent lice, mites and vermin from escaping from the germicide therein, and to be removed and cleansed without taking the perch from its position.

2. A vermin killing poultry perch comprising an upper or cover part containing a longitudinal row of perforations through the same; a lower or under part containing a longitudinal V shaped groove in the upper face thereof, and V shaped removable trays fitting in the V shaped groove in the lower member of the perch and adapted to contain a germicide and to receive lice, mites and vermin, each of said perforations through said upper or cover part being provided on the under side thereof with a stamped or pressed in perforated metal disk placed concentric with and closely fitting around the perforations to prevent lice, mites and vermin from returning to the surface of the perch.

1,082,586. APPARATUS FOR WIPING INTAGLIO PRINTING-PLATES. HENRI GEORGES, St-Dizier, and AUGUSTE VALENTIN and JEAN ZERREISS, Puteaux, France. Original application filed Oct. 8, 1910. Serial No. 586,052. Divided and this application filed June 10, 1913. Serial No. 772,911. (Cl. 101-101.)



1. In an apparatus of the character described for wiping intaglio printing plates, the combination of a cylinder of a soft, resilient material, with a cup through which said cylinder is passed adapted to receive an ink dissolving liquid, means for revolving said cylinder in the liquid contained in said cup, means frictionally contacting with said cylinder during its passage through said cup for brushing it below the liquid level, and means for scraping the surface of the cylinder above the liquid level within said cup, substantially as described.

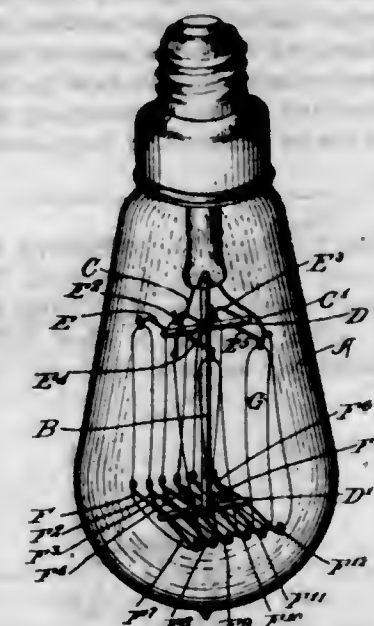
2. In an apparatus of the character described for wiping intaglio printing plates, the combination of a cylinder of a soft, resilient material, with a cup through which said cylinder is passed, adapted to receive an ink dissolving liquid, means for revolving said cylinder in the liquid contained in said cup, cleaning brushes frictionally contacting with said cylinder during its passage through said cup for brushing it below the liquid level, means for adjusting the tangential contact of said cylinder with the place to be wiped, a scraper revolving within said cup for scraping the surface of the cylinder above the liquid level within said cup, and means for adjusting the contact between said scraper and said cylinder, substantially as described.

3. In an apparatus of the character described for wiping intaglio printing plates, the combination of a cylinder of a soft, resilient material, with a cup through which said cylinder is passed, adapted to receive an ink dissolving liquid, means controlled by a revolving part of the machine for revolving said cylinder in the liquid contained in said cup, cleaning brushes frictionally contacting with said cylinder during its passage through said cup, for brushing it below the liquid level, a scraper revolving within said cup for scraping the surface of the cylinder above the liquid level within said cup, means for regulating the contact of the cleaning brushes with the cylinder, and means for regulating the contact of the scraper with said cylinder, substantially as described.

1,082,587. METAL-FILAMENT INCANDESCENT LAMP. MORRIS D. GREENGARD, New York, N. Y. Filed Jan. 30, 1913. Serial No. 745,068. (Cl. 176-39.)

1. A filament support for incandescent lamps comprising a stem, two cross-rods carried at an interval thereby,

and carrying arms extending from opposite sides of each cross-rod, each carrying arm being provided with a filament-engaging hook on its outer end.

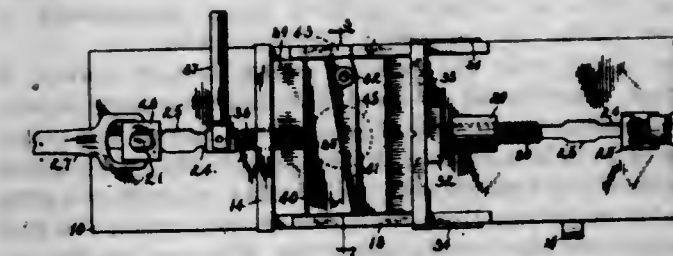


2. A filament support for incandescent lamps comprising a stem, two parallel cross rods carried at an interval thereby, and carrying arms extending from opposite sides of each cross-rod at substantially right angles thereto, each cross-arm being provided with a filament-engaging hook on its outer end.

3. In a metal filament incandescent lamp, in combination with an axial supporting stem and two current leads, two cross-rods disposed at an interval along the length of the stem, two series of carrying arms, one series supported on each cross-rod and each series comprising carrying arms extending from opposite sides of the respective cross-rod, and a metal filament wound upon the carrying arms and including a strand extending from one upper carrying arm to a lower carrying arm on the same side of the stem and thence to a lower carrying arm on the opposite side of the stem and thence to an upper carrying arm on the last mentioned side of the stem.

4. In a metal filament incandescent lamp, in combination with an axial supporting stem and two current leads, two cross-rods disposed at an interval along the length of the stem, two series of carrying arms, one series supported on each cross-rod, and each series comprising carrying arms extending from opposite sides of the respective cross-rod, and a metal filament secured at its ends to the respective leads and wound continuously between the successive carrying arms of the two series to form a plurality of strands, two of the filament strands extending respectively from a lead to a lower carrying arm and thence transversely to another lower carrying arm and thence to an upper carrying arm, and the other strands extending, respectively, from an upper carrying arm to a lower carrying arm, and thence transversely to another lower carrying arm and thence to another upper carrying arm.

1,082,588. WORK-HOLDER. OWEN R. GROSS, Aurora, Ill. Filed June 6, 1907. Serial No. 377,540. (Cl. 77-63.)

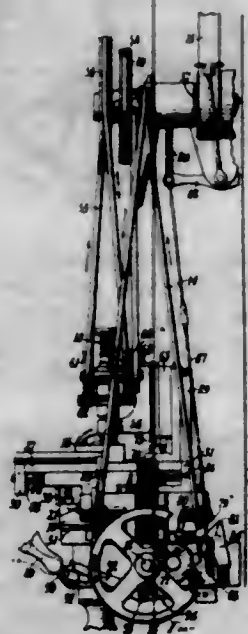


1. A work holder consisting of a base member and plates of relatively thin material superposed on said base member, said plates having flanges at right angles to their

bottom portions, the flanges of one plate being spaced from the flanges of the other plate, substantially in the manner and for the purpose set forth.

2. A work holder consisting of a base member, a plate pivotally mounted on said base member, said plate having parallel marginal flanges along its opposite sides, a second plate superposed on said first plate and pivotally mounted thereon and having a marginal flange extending therefrom, said plates adapted for independent adjustment.

1,082,580. DENTAL BROACH-BLANK-MAKING MACHINE. JAMES F. HARDY, New York, N. Y., assignor to Consolidated Dental Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Feb. 23, 1910. Serial No. 545,304. (Cl. 90—15.)



1. In a machine for making dental broach blanks, a wire rest constructed with walls arranged to surround the wire and hold it against flexure, the walls of the rest being cut away at one portion to one-half their depth to leave one-half of the blank exposed along said cut away portion, means for rotating the wire while held in the rest, a cutter arranged to act upon the exposed portion of the wire in the cut away portion of the rest and means for actuating the cutter and for exposing portions of the wire successively to the cutter.

2. In a machine for making dental broach blanks, a wire rest constructed to hold the wire against flexure, the walls of the rest being cut away at one portion to a depth sufficient to leave one-half of the blank projecting beyond the plane of the walls, means for rotating the wire while so held in the rest, a cutter arranged to act upon the exposed side of the wire in the cut away portion of the rest, means for actuating the cutter and means for moving the rest and the cutter simultaneously along the wire.

3. In a machine for making dental broach blanks, a wire rest constructed to hold the wire against flexure while exposing one side of it to a cutter, means for rotating the wire while so held in the rest, a cutter arranged to act upon the exposed side of the wire opposite the rest, means for actuating the cutter, means for moving the rest and cutter simultaneously along the wire and means for moving the cutter at variable rates of speed transversely of the wire during its movement along the wire.

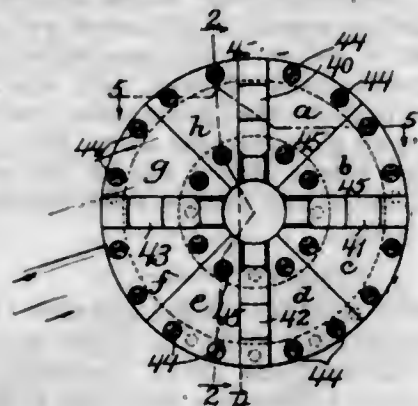
4. In a machine for making dental broach blanks, a wire rest constructed to hold the wire against flexure while exposing one side of it to a cutter, means for rotating the wire while so held in the rest, a cutter arranged to act upon the exposed side of the wire opposite the rest, means for actuating the cutter, means for moving the rest and cutter simultaneously along the wire and means for moving the cutter simultaneously in two different directions in a plane transverse to the wire.

5. In a machine for making dental broach blanks, the combination with means for holding the wire and a cut-

ter for operating on the wire, of means for simultaneously moving the cutter across the wire and away from the axis of the wire.

[Claims 6 to 13 not printed in the Gazette.]

1,082,590. CHUCK. JAMES HARTNESS, Springfield, Vt. Filed Feb. 20, 1913. Serial No. 749,631. (Cl. 20—126.)



1. A scroll chuck comprising a jaw-operating scroll, a plurality of radial jaws, a back-plate, and a body consisting of a plurality of sections secured to said back-plate, said sections being spaced to form guide-ways for said jaws.

2. A scroll chuck comprising a plurality of radial jaws, a jaw-operating scroll, a back-plate, and a body attached to the back-plate and consisting of a plurality of pairs of sections, said pairs being separated to form guideways for the jaws.

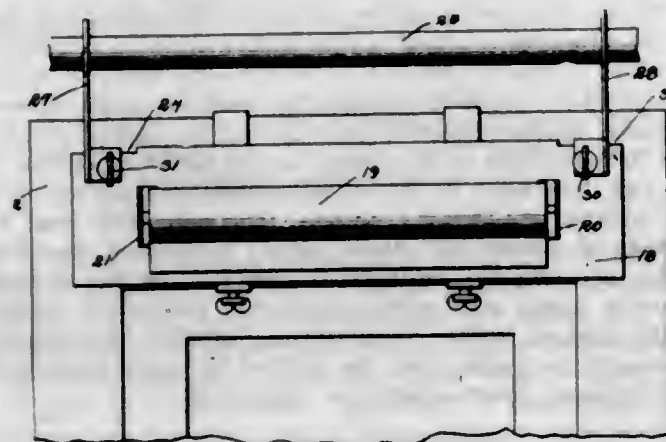
3. A scroll chuck comprising a plurality of radial jaws, a jaw-operating scroll, a back-plate, and a body attached to the back-plate and consisting of a plurality of sections, said sections being adjustable to provide a varying number of equally spaced guideways for receiving an equal number of jaws.

4. A scroll chuck comprising a jaw operating scroll, and a back-plate, of a plurality of radial jaws, and a detachable body, said body consisting of a plurality of pairs of sections separated to form guideways for the jaws, and secured independently of each other to the back-plate.

5. A chuck comprising a back-plate, jaw-operating mechanism, a plurality of jaws, a body consisting of a plurality of adjustable sector-shaped sections spaced to form guide-ways for the jaws, said back-plate having provisions for receiving a variable number of sections to accommodate a variable number of jaws.

[Claims 6 to 8 not printed in the Gazette.]

1,082,591. WINDOW-SHADE BRACKET. ALBERT L. HENNESSEY, Dunbar, Pa. Filed Oct. 7, 1912. Serial No. 724,304. (Cl. 156—23.)

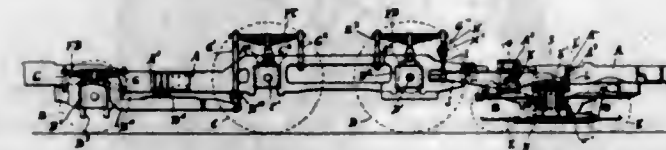


1. In a device of the kind described the combination of a bearing block, two slotted members, a rightangular offset formed upon one end of each slotted member, teeth formed on the edge of one of said offsets, said slotted members arranged to overlap each other, a longitudinal series

of teeth formed upon each member arranged to intermesh, a screw-bolt passing through said bearing block and both of said slotted members, and a jam-nut engaging said screw-bolt and said block arranged to hold said members in mesh.

2. In a device of the kind described the combination of a bearing block, said block being formed with a recess, two slotted members, a rightangular offset formed at one end of each of said slotted members, teeth formed upon the edges of one of said offsets, a screw-bolt passing through said slotted members and terminating in said recess, a jam-nut engaging said screw-bolt and arranged to be within said recess, and shade-roller brackets mounted on said block substantially in alignment with said recess.

1,082,592. EQUALIZING ARRANGEMENT FOR LOCOMOTIVES. HARRY A. HOKE, Altoona, Pa. Filed Apr. 28, 1913. Serial No. 763,960. (Cl. 105—226.)



In a locomotive having a four wheel leading truck, a front pair of drivers, and a plurality of pairs of other track engaging wheels back of the front drivers, the combination with the frame of the locomotive, of means connecting said truck to said frame with freedom to move vertically with respect to said frame and to turn with respect thereto about a vertical axis passing centrally through the truck, said means comprising a truck center plate portion journaled in a bearing formed in said frame to turn therein about the vertical axis of said portion and vertically slidable in said bearing, a centrally disposed longitudinally extending lever fulcrumed between its ends against the engine frame and having its front end bearing on said center plate, front driving springs connected at their front ends to the rear end of said lever and connected at their rear ends to the locomotive frame, and other equalizing means for distributing the portion of the weight of the locomotive sustained by said other locomotive wheels among the latter.

1,082,593. PIN-TONGUE HOLDER. THOMAS W. JOHNSON, North Attleboro, Mass. Filed May 5, 1911. Serial No. 625,336. (Cl. 24—156.)

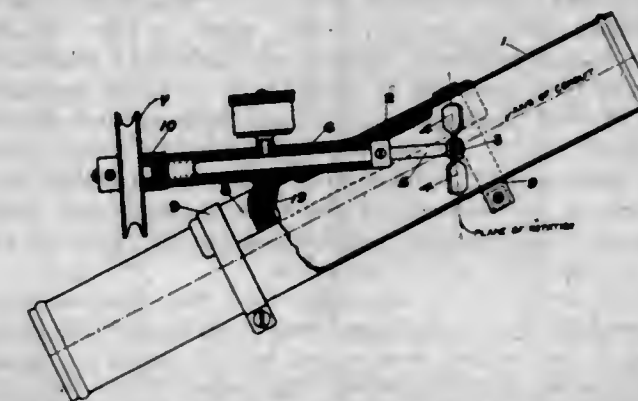


In a jewelry pin, the combination of the back plate, and an attached holding piece provided with a struck up center, with a retainer provided with inwardly turned spring arms and a center having a struck-up recess receiving the said struck-up center of the holding piece, the said retainer being held transversely of the holding piece and of the axis of the back plate, by means of the ends of the said holding piece being folded inwardly over the center of the said retainer, in the direction of the axis of the back plate.

1,082,594. IMPELLING DEVICE FOR FLUID-CIRCULATING SYSTEMS. GEORGE W. KERN, Oil City, Pa. Filed Feb. 12, 1913. Serial No. 747,980. (Cl. 123—175.)

1. The combination with a fluid-conduit, of a revoluble, fluid-impelling device, located within said conduit and consisting of a propeller-shaped device, with its plane of rotation arranged obliquely to the axis of said conduit, a shaft for said impelling-device, extending through the wall of said conduit, and means upon the outer end of said shaft, operable to revolve said impelling-device.

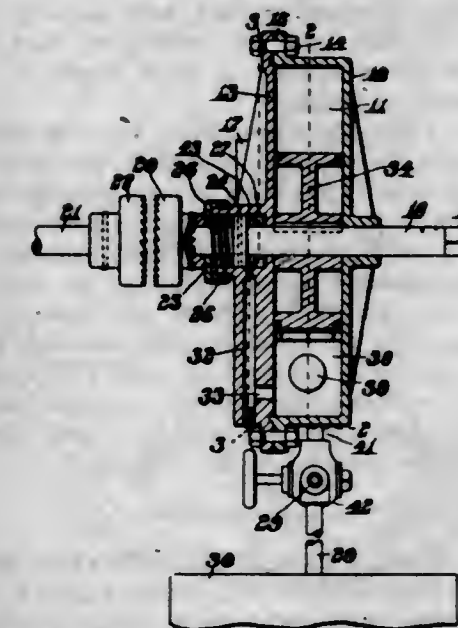
2. The combination with a fluid-conduit, of a revoluble, fluid-impelling device, positioned within said conduit, with its plane of rotation arranged obliquely to the axis of said conduit, a shaft to which said impelling-device is affixed, extending obliquely through the wall of said conduit, a suitable bearing for said shaft, and means upon the outer end of said shaft operable to revolve said impelling-device.



3. The combination with a circulation pipe for the cooling-fluid of an internal-combustion motor, of a revoluble impelling means positioned within said pipe consisting of a propeller-shaped device having its plane of rotation disposed obliquely to the axis of said pipe, a shaft to which said impelling device is secured, said shaft extending obliquely through the wall of said pipe, a bearing for said shaft, and means operable to revolve said shaft and the thereto-attached impelling device.

4. The combination with a circulation-pipe for the cooling-fluid for the motive-cylinder of an internal-combustion motor, of a separable section of pipe adapted to be interposed in said circulation-pipe, a revoluble fluid-impelling means positioned within said separable section consisting of a propeller-shaped device having its plane of rotation disposed obliquely to the axis of said section, a shaft to which said impelling-device is secured, said shaft extending obliquely through the wall of said separable section, a suitable bearing for said shaft, means operable to rotate said shaft and the thereto-attached impeller, and flexible means connecting said separable section in said circulation pipe.

1,082,595. STARTING DEVICE FOR MOTOR-CARS. JUSTUS R. KINNEY, Dorchester, Mass. Filed June 16, 1911. Serial No. 633,902. (Cl. 123—179.)



1. In a device of the class described, the combination of two normally separated aligned shafts provided with means forming a temporary connection for the same; a casing having two chambers therein connected by a fluid passage and provided with bearings for one of said shafts; a reciprocating piston on the latter shaft in one of said chambers and normally closing said passage; means for supplying fluid pressure to said piston to cause a reciprocation of said shaft to uncover said passage and connect

said aligned shafts; and an oscillating blade in the other chamber secured to said reciprocating shaft and adapted to be subjected to the pressure of the fluid entering said chamber through said passage.

2. In a device of the class described, the combination of two normally separated aligned shafts provided with means forming a temporary connection for the same; a casing having two chambers connected by a fluid passage and provided with bearings for one of said shafts; a reciprocating piston on the latter shaft in one of said chambers and normally closing said passage; means for supplying fluid pressure to said piston to cause a reciprocation of said shaft to uncover said passage and connect said aligned shafts; an oscillating blade in the other chamber secured to said reciprocating shaft and adapted to be subjected to the pressure of the fluid entering said chamber through said passage; and means in the path of said blade to limit its rotary movement.

3. In a device of the class described, the combination of two normally separated aligned shafts provided with means forming a temporary connection for the same; a casing having two chambers therein connected by a fluid passage and provided with bearings for one of said shafts; a reciprocating piston on the latter shaft in one of said chambers and normally closing said passage; a tank adapted to contain fluid under pressure; means for admitting a portion of said fluid to said piston chamber to cause a reciprocation of said shaft to uncover said passage and connect said aligned shafts; an oscillating blade in the other chamber secured to said reciprocating shaft and adapted to be subjected to the pressure of the fluid entering said chamber through said passage; a spring for moving said reciprocating shaft to disconnect it from its companion shaft; and means connected to said tank for subsequently reversely rotating said reciprocating shaft to its normal position.

4. In a device of the class described, the combination of two normally separated aligned shafts provided with means forming a temporary connection for the same; a casing having two chambers therein connected by a fluid passage and provided with bearings for one of said shafts; a reciprocating piston on the latter shaft in one of said chambers and normally closing said passage; a tank adapted to contain fluid under pressure; means for admitting a portion of said fluid to said piston chamber to cause a reciprocation of said shaft to uncover said passage and connect said aligned shafts; an oscillating blade in the other chamber secured to said reciprocating shaft and adapted to be subjected to the pressure of the fluid entering said chamber through said passage; and means connected to said tank for subjecting said blade at the extreme of its movement to fluid pressure to return it to its normal position.

5. In a device of the class described, the combination of two aligned shafts; a clutch mechanism interposed between the opposed ends of said shafts; a casing having a chamber and an outlet passage therefrom; a piston on one of said shafts normally positioned in said chamber and closing said outlet passage but adapted to be moved in said chamber to uncover said passage and connect said clutch mechanism; a spring acting on said piston to retain it in its normal position; a blade on said reciprocating shaft; and means for supplying fluid through said passage to act on said blade and cause a rotary movement thereof.

[Claims 6 to 15 not printed in the Gazette.]

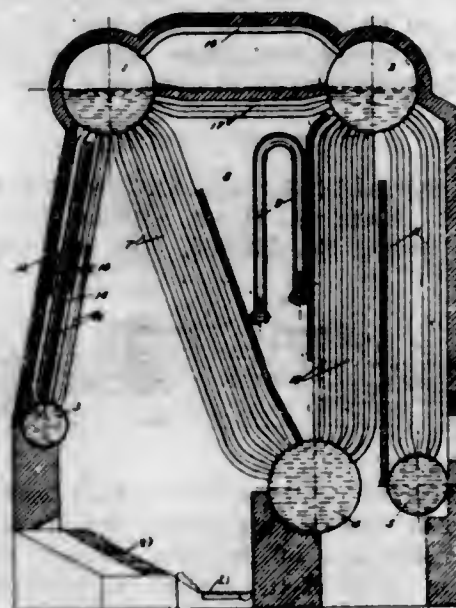
1,082,596. TREATING METAL-CARRYING ORES. ISIDOR KITSEE, Philadelphia, Pa. Filed Aug. 14, 1908. Serial No. 448,488. Renewed Apr. 2, 1912. Serial No. 688,032. (Cl. 204-15.)

1. The process of accelerating the action of a cyanid solution on metal carrying ore which consists in applying for comparatively short periods currents of electricity to said liquor.

2. In a cyanid process, the step, which consists in transmitting periodically currents of electricity through the cyanid solution during the time that the same is in contact with the ore carrying the precious metal.

3. The process of increasing the efficiency of a liquor adapted to dissolve, without further aid, precious metals from their ores, which consists in sending, at different intervals, currents of electricity through said liquor during the time of leaching out the metal from its ore.

1,082,597. WATER-TUBE STEAM-BOILER. GEORGE M. KOHLER, Syracuse, N. Y. Filed Sept. 10, 1912. Serial No. 719,666. (Cl. 122-301.)



1. A water tube boiler of the N shaped type, having a furnace and combustion chamber at the front end, a pair of spaced transverse steam and water drums, said steam and water drums being connected to each other by an upper bank of steam tubes and a lower bank of water tubes, a pair of lower spaced front and rear water drums, each of said water drums being connected by separate banks of tubes to one of the aforesaid steam and water drums in such manner as to inclose an A shaped furnace space, and the rear water drum being also connected by another separate bank of tubes to the rear steam and water drum in such manner as to inclose a V shaped superheater space, substantially as described.

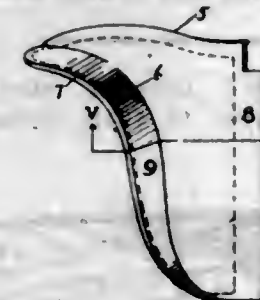
2. A water tube boiler of the N shaped type having a furnace wall and a combustion chamber at the front end thereof, a pair of spaced transverse steam and water drums, said steam and water drums being connected to each other by an upper bank of steam tubes and a lower bank of water tubes, a pair of lower spaced front and rear water drums, each of said water drums being connected by separate banks of tubes to the front steam and water drum in such manner as to inclose an A shaped furnace space, and the rear water drum being also connected by another separate bank of tubes to the rear steam and water drum in such manner as to inclose a V shaped superheater space, a feed and water drum connected by banks of tubes to the rear steam and water drum, and a baffle wall separating the aforesaid bank of tubes from that bank of tubes connecting the rear water drum to the rear steam and water drum, substantially as described.

3. A water tube boiler comprising a wall, a lower front water drum, an upper front steam and water drum, a bank of tubes longitudinally positioned adjacent said wall and connecting said drums, a baffle plate placed transversely between said tubes and extending longitudinally thereof substantially the entire length of said bank of tubes with a row of said tubes positioned between said baffle plate and wall.

4. A steam boiler comprising a wall, two upper steam and water drums, a large lower water drum, pipes connecting said water drum to said steam and water drums forming a V-shaped superheater space therebetween, a small lower water drum, rows of inclined tubes positioned adjacent to the front wall of the boiler and connecting said smaller lower water drum and the other one of said steam and water drums, a baffle plate longitudinally positioned between said tubes with one row of tubes

between said baffle and the boiler front wall, a lower feed water inlet drum, substantially vertical pipes connecting said feed water drum to one of said steam and water drums, all of said pipes and tubes arranged in the path of the products of combustion and said feed water drum positioned adjacent to the outlet therefor.

1,082,598. BRIDLE ATTACHMENT. GEORGE A. LAUB, Cleveland, Ohio. Filed Sept. 16, 1912. Serial No. 720,484. (Cl. 54-10.)



1. A bridle attachment comprising the combination with a substantially flat supporting member adapted to lie against the horse's head in a substantially upright position behind the eye of the animal and having its forward edge downwardly and backwardly inclined from top to bottom, of an eye-shield member projecting outwardly from said supporting member, said eye-shield member likewise inclined downwardly and rearwardly, to permit of the animal seeing where it is about to step.

2. A bridle attachment comprising the combination with a flat supporting member adapted to normally rest against the horse's head in a substantially upright position behind the eye of the animal and having its forward edge downwardly and backwardly inclined from top to bottom, of an eye-shield member conforming to and projecting outwardly from said forward edge, the outer edge of said shield member extending from its top edge downwardly and inwardly to its lower edge.

3. A bridle attachment comprising a flat member having its forward edge formed along the line of an ogee curve, and a correspondingly bent eye-shield member projecting outwardly from said flat member, the upper portion of said eye-shield member projecting forwardly.

4. A bridle attachment comprising the combination of a substantially flat supporting member having its forward edge formed along the line of an ogee curve, and a correspondingly bent eye-shield member projecting outwardly from said forward edge, the upper portion of said eye-shield member overhanging in a forward direction, the lower portion of said eye-shield member converging rearwardly toward said supporting member, whereby the animal may see where it is about to step.

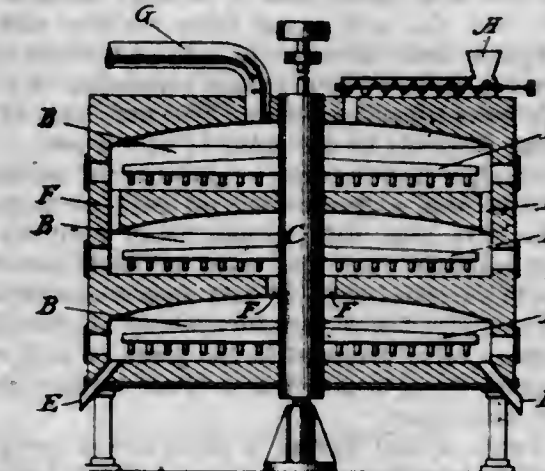
5. A bridle attachment comprising the combination of a flat supporting member arranged for attachment behind the eye of an animal, and an eye-shield member supported thereby and having its upper portion projecting in a forward direction, substantially all of said last mentioned member being disposed at an angle with respect to the plane of said first mentioned member, the lower portion of said last mentioned member sloping rearwardly for the purpose specified.

1,082,599. PROCESS OF CHLORIDIZING ORES. AUGUSTUS D. LEROUX, Summit, N. J. Filed Aug. 13, 1912. Serial No. 714,783. (Cl. 75-17.)

1. The process of chloridizing ores of the character herein described and for the purpose set forth, which consists in successively feeding the ore into and through a furnace, heating the initial part of the charge to induce therein chemical reaction, and thereafter inducing chemical reaction in the following portions of the charge by the heat of the established reaction in the furnace.

2. The process of chloridizing ores of the character herein described and for the purpose set forth, which consists in feeding continuously the ore into and through a furnace, applying to the ore initially introduced, heat from an external source to induce chemical reaction

therein, and inducing chemical reaction in the ore thereafter introduced by the heat of the established reaction in the furnace.

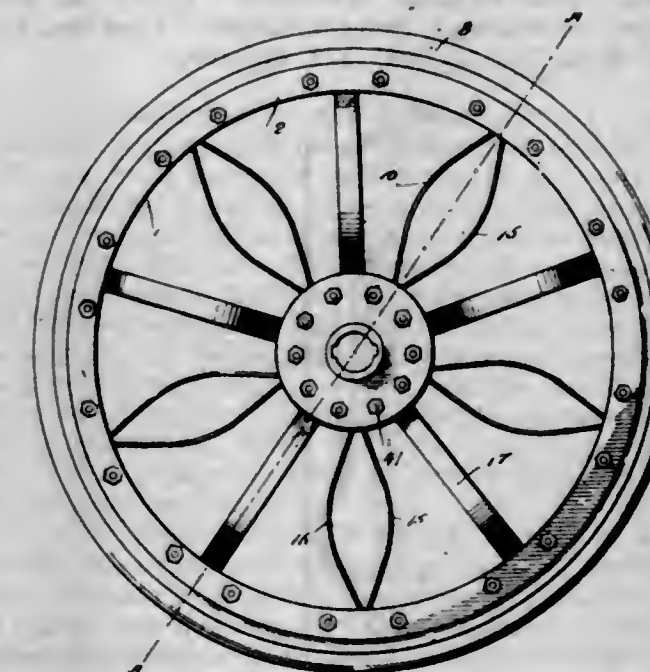


3. The process of chloridizing ores of the character herein described and for the purpose set forth, which consists in successively feeding ore into and through a furnace, applying to the ore initially introduced, heat from an external source to induce chemical reaction therein, and heating by the reaction gases the ore thereafter introduced into the furnace.

4. The process of chloridizing ores of the character herein described and for the purpose set forth, which consists in successively feeding the ore into and through a furnace, applying to the ore initially introduced, heat from an external source to induce chemical reaction therein and passing the reaction gases back through the furnace to heat the ore thereafter introduced into the same.

5. The process of chloridizing ores of the character herein described and for the purpose set forth, which consists in successively feeding the ore into and through a furnace, inducing in the ore initially introduced chemical reaction by the heat of combustion gases, and heating the ore thereafter introduced by the gases from the established reaction.

1,082,600. WHEEL. FREDERICK W. LEIB, Middletown, Ohio. Filed May 3, 1912. Serial No. 694,870. (Cl. 152-50.)



1. A wheel comprising a rim, hub and spokes, each of said spokes consisting of a pair of oppositely bowed resilient members having right angular ends, said rim and hub having sockets to receive said ends and removable spacer blocks adapted to lock said spoke members to said hub and rim, said blocks for each of said spokes being independent, said hub consisting of a pair of opposing plates, a polysided spacer on one of said plates forming surfaces against which the inner ends of said spoke members seat, every pair of said spoke members being disposed in a plane

at right angles to the plane of their adjoining spoke members.

2. In a wheel, a hub having a plurality of peripheral surfaces, a rim and spokes seated on said surfaces and connected to said rim, said spokes being resilient and having right angular ends, the inner of said ends being seated on said surfaces, each of said spokes consisting of a pair of oppositely bowed members, every alternate pair of said members being disposed in the plane of said wheel.

3. In a wheel, a hub having a plurality of peripheral surfaces, a rim and spokes seated on said surfaces and connected to said rim, said spokes being resilient and having right angular ends, the inner of said ends being seated on said surfaces, each of said spokes consisting of a pair of oppositely bowed members, every alternate pair of said members being disposed in the plane of said wheel, said other pairs being disposed in a plane transversely of the plane of said wheel.

4. In a wheel, a hub having a plurality of peripheral surfaces, a rim and spokes seated on said surfaces and connected to said rim, said spokes being resilient and having right angular ends, the inner of said ends being seated on said surfaces, each of said spokes consisting of a pair of oppositely bowed members, every alternate pair of said members being disposed in the plane of said wheel, said other pairs being disposed in a plane transversely of the plane of said wheel, plates forming flanges on the opposing sides of said hub whereby said spokes are held in position.

5. In a wheel, a hub having a plurality of peripheral surfaces, a rim and spokes seated on said surfaces and connected to said rim, said spokes being resilient and having right angular ends, the inner of said ends being seated on said surfaces, each of said spokes consisting of a pair of oppositely bowed members, every alternate pair of said members being disposed in the plane of said wheel, said other pairs being disposed in a plane transversely of the plane of said wheel, plates forming flanges on the opposing sides of said hub whereby said spokes are held thereon, said plates having oppositely disposed slots into which said right angular ends of said transversely bowed members are held.

[Claims 6 to 8 not printed in the Gazette.]

1,082,601. ADJUSTABLE WRENCH. HIRAM A. MCCARTHY, Peterborough, Ontario, Canada. Filed Oct. 24, 1912. Serial No. 727,529. (Cl. 81—135.)



1. In an adjustable wrench, an outer hollow handle having a rigid jaw member secured thereto, a jaw member slidably arranged in said hollow handle and formed with a toothed front face, a locking lever pivotally secured in said handle and having a toothed portion adapted to engage the toothed face of said adjustable jaw member, and a spiral spring having one end secured to the adjustable jaw member and the other end secured to the locking lever adapted to release said locking lever and return the adjustable member to its forward position.

2. In an adjustable wrench, a handle portion formed of sheet metal bent into U-shape in cross section, a head rigidly secured to said handle, an adjustable jaw member slidably arranged between the sides of said handle, a locking lever pivotally secured to the sides of said handle in front of said adjustable member and adapted to engage and lock said adjustable member, said handle having an arc shaped hook member at its outer end, a pin secured in said handle and adapted to engage said hook member to limit the outward movement of the locking lever, and spring means for releasing said locking lever.

1,082,602. FLASHING. JOHN E. MCCARVILLE, Fort Dodge, Iowa. Filed Apr. 16, 1913. Serial No. 761,635. (Cl. 108—26.)



1. A flashing, comprising a strip of angular form adapted to be mounted in the angle between a side wall and roof end and extend from the bottom to top thereof, said strip formed with successive transverse folds or convolutions, the upstanding flange of said strip adapted to be confined behind weather-boarding of said side wall, the folds of the recumbent flange adapted to receive and confine shingles of said roof end.

2. A flashing, comprising a strip of angular form adapted to be mounted in the angle between a side wall and roof end and extend from bottom to top thereof, said strips formed with successive transverse folds or convolutions, the upstanding flange of said strip having its folds pressed flat and adapted to be confined behind weather-boarding of said side-wall, the folds of the recumbent flange adapted to receive and confine shingles of said roof end, said latter folds being formed with notches at their lower ends.

1,082,603. ALTERNATING-CURRENT INDUCTION-MOTOR. BURTON MCCOLLUM, Washington, D. C. Filed Mar. 18, 1912. Serial No. 684,419. (Cl. 172—120.)



1. In an induction motor, a secondary electrical circuit containing resistances of nickel, said resistances being of short length and small cross section as compared to the conductors forming the rest of the electrical circuit.

2. In an induction motor, a secondary electrical circuit containing resistances of nickel, said resistances being so disposed that no element of current can flow through a complete circuit in said secondary circuit without passing through at least one of said resistors.

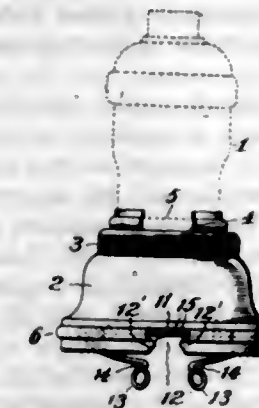
3. In an induction motor, a secondary electrical circuit containing resistances of nickel having such a degree of purity as to be characterized by an abrupt rise of resistance at a critical value of current.

4. In an induction motor, a secondary electrical circuit containing resistances of nickel characterized by an abrupt rise of resistance at a critical value of current, said resistances being so proportioned that the normal starting currents in the resistances are above said critical value, and the normal full load currents below said critical value.

5. In an induction motor, a secondary electrical circuit containing nickel resistances, said resistances being of

such short length and reduced cross section as to heat rapidly and give rise to a manifold increase in resistance within a few seconds after the current is switched on. [Claims 6 to 8 not printed in the Gazette.]

1,082,604. SHADE-HOLDER. HARRY J. MOREY, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Solvay, N. Y., a Corporation of New York. Filed July 3, 1912. Serial No. 707,550. (Cl. 240—115.)



1. In a shade holder, the combination of a shell having slots adjacent its lower edge, only one of said slots opening to the lower edge of the shell, an expansible and contractible member for supporting a shade or globe and having free ends extending through and seated in the ends of said slot opening to the lower edge of the shell, said member being provided with a part intermediate its ends which is adapted to extend into another slot and co-operate with the shell to support said member and the globe or shade carried thereby, the said member being arranged to release the shade or globe when the free ends thereof are pressed together, passed out of the slot and allowed to separate, said part thereof being still retained in its slot thereby binding the free ends of said member against the lower edge of the shell and preventing the disconnection of the member and shell upon withdrawal of the shade or globe.

2. In a shade holder, the combination of a shell having a groove adjacent its lower edge and slots in said groove, only one of said slots opening to the lower edge of the shell, an expansible and contractible shade supporting spring seating in said groove and having free ends extending through and seated in the ends of said slot opening to the lower edge of the shell, said spring being provided with two loops intermediate its ends adapted to extend into other slots and co-operate with the shell to support said spring and the shade carried thereby, the spring being arranged to release the shade carried thereby when the ends thereof are pressed together, passed downward vertically out of the slot and allowed to spring apart, the loops being still retained in the slots and binding the free ends of the spring withdrawn from the slots against the lower edge of the shell and preventing the disconnection of the spring and shell upon withdrawal of the shade.

3. In a shade holder, the combination with a shell having recesses therein, an expansible and contractible spring having free ends projecting through one of said recesses which opens downwardly intermediate its ends directly to the lower edges of the shell and a loop intermediate the ends of the spring projecting through another recess, one of the free ends being adapted to be passed vertically into and out of its recess to insert or withdraw the globe, and means on the shell co-operating with the free ends of said spring to support the ends in place and prevent the accidental release of the spring.

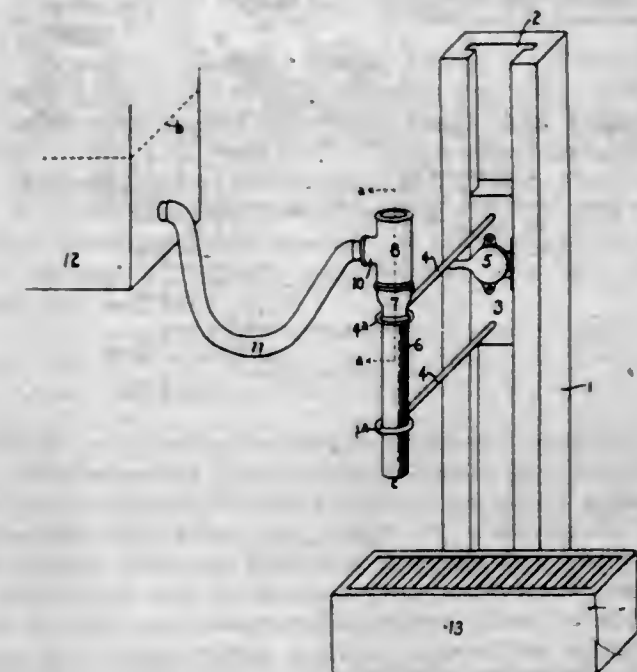
4. In a shade holder, the combination of a shell having recesses along its lower edge, and an expansible and contractible globe holding member having a part intermediate its ends adapted to engage one of said recesses, part of the shell being cut away to leave an opening between the edge thereof and a second recess, said opening entering said second recess intermediate its ends leaving ledges, the ledges constituting supporting means for the ends of said

globe holding member, said ends of the globe-holding member when pressed together and passed upwardly or downwardly through said opening, being adapted to respectively lock or release the globe or shade carried by the holder.

5. In a shade holder, the combination of a shell having a slot near its lower edge, a portion of said shell between said slot and the lower edge of the shell being cut away leaving an opening from the slot directly to the lower edge of the shell, and a spring having free ends tending to spread apart and normally seat in the ends of said slot, said spring intermediate its free ends having supporting engagement with said shell, said free ends of the spring when pressed together being adapted to be passed through said opening to insert or release a globe or shade.

[Claims 6 to 8 not printed in the Gazette.]

1,082,605. MEANS FOR AUTOMATICALLY REGULATING THE FLOW OF LIQUIDS FROM TANKS. EDWARD NIEDERAUER, Hamilton, and JOSEPH H. WINFIELD, Dayton, Ohio, assignors to The National Laundry Machinery Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 28, 1912. Serial No. 738,997. (Cl. 137—21.)



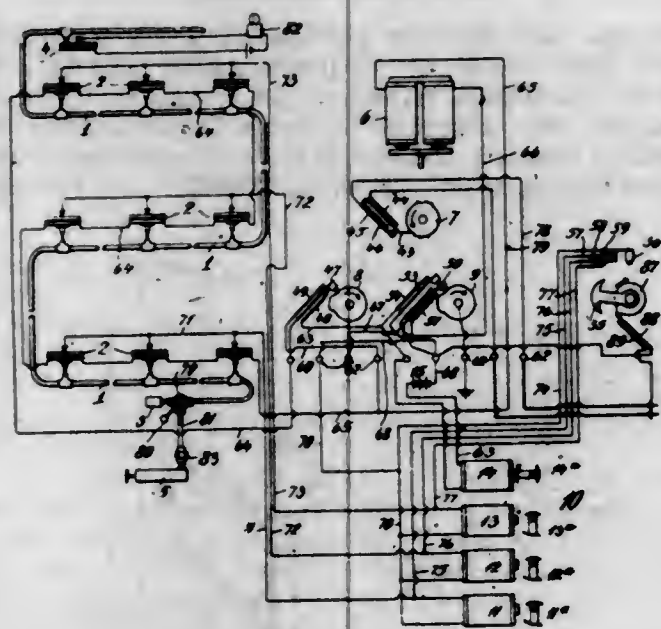
1. In combination, a fluid supply tank, a T pipe, a flexible tube connecting the horizontal limb of said T pipe with the tank, the upper end of said T pipe being open to expose the incoming fluid to atmospheric pressure, a vertical tube depending from the lower end of said T pipe, a vertical guide, said guide mounted at a distance from said fluid supply tank, a vertically adjustable member mounted in said guide, and arms carried by said member to support the vertical tube and T pipe, whereby said member may be freely moved between the guide and fluid supply tank to vary the distance of the horizontal opening in the T pipe, below the level of the liquid in said fluid supply tank, to regulate the flow of liquid therefrom, substantially as described.

2. In combination, a fluid supply tank, a T pipe, a flexible tube connecting the horizontal limb of said T pipe with the tank, the upper end of said T pipe being open to expose the incoming fluid to atmospheric pressure, a reducing coupling secured to the lower end of said T pipe, a vertical tube depending from said coupling, a vertical guide, a vertically adjustable block movable in said guide, arms carried by said block to support the T pipe and connections, and a pressure latch carried by said block adapted to lock the latter in a selected position, substantially as described.

3. In combination, a fluid supply tank, a T pipe constructed of hard rubber, a flexible tube connecting the horizontal limb of said T pipe with the tank, the upper end of said T pipe being open to expose the incoming fluid to atmospheric pressure, a rubber reducing coupling se-

cured to the lower end of said T pipe, a rubber tube depending from said reducing coupling, an electrolyzer placed below said tube and adapted to receive the flow therefrom, a vertical guide, a vertically adjustable block movable in said guide, arms carried by said block to support the T pipe and connections, and means carried by said block adapted to lock the latter in a selected position, said block adapted to be moved to vary the distance of the horizontal opening in the T pipe, below the level of the fluid in the supply tank, to regulate the flow of fluid therefrom into the electrolyzer, substantially as described.

1,082,606. SUPERVISORY ALARM SYSTEM. JAMES G. NOLEN, New York, N. Y., assignor to Fire Protection Development Company, New York, N. Y., a Corporation of Maine. Filed Aug. 1, 1912. Serial No. 712,764. (Cl. 178—160.)



1. A temperature-alarm system comprising in combination a length of tubing, a plurality of fluid-pressure-actuated alarm initiating devices connected thereto at various points intermediate its length, an electrically controlled transmitter, and circuits controlled by said contact devices and controlling said transmitter and comprising a generator, a circuit conductor connecting one side of said generator to said contact devices, and a plurality of conductors connecting the other side of said generator to said contact devices, whereby in the event of failure of one contact device to operate, or in the event of breakage of the conductor of that contact device, the wave of fluid pressure spreading through said tube will operate another contact device having a separate conductor.

2. A temperature-alarm system comprising in combination a length of tubing, a plurality of fluid-pressure-actuated alarm initiating contact devices connected thereto at various points intermediate its length, an electrically controlled transmitter, and circuits controlled by said contact devices and controlling said transmitter, and comprising a generator, a plurality of conductors leading from one side of said generator to said contact devices, and a plurality of conductors leading from different of said contact devices back to said generator, whereby in the event of the breakage of one conductor on either side of the generator, or of a conductor on each side of said generator, the system nevertheless remains operative.

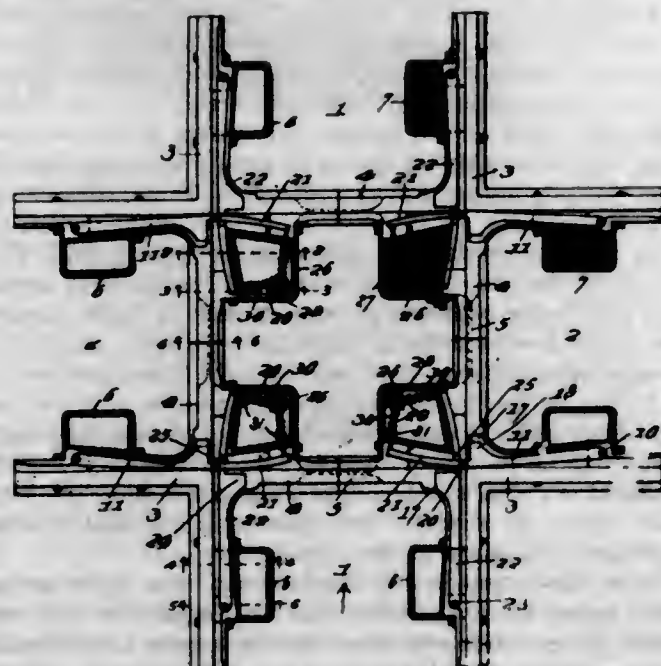
3. An alarm system comprising in combination a plurality of alarm-initiating contact devices, a signal transmitter comprising a controlling magnet and transmitting mechanism controlled thereby, and circuits controlled by said contact devices and controlling said magnet, said transmitter comprising means which, at a predetermined point in the transmission of the signal, will arrest the operation of said transmitting mechanism unless said magnet be then energized, and further comprising means for energizing said magnet during such period unless the operation of the transmitter has been caused by the breaking of one of said circuits.

4. An alarm system comprising in combination a plurality of alarm-initiating contact devices, a signal transmitter comprising a controlling magnet and transmitting mechanism controlled thereby, and circuits controlled by said contact devices and controlling said magnet, said contact devices arranged each when it operates to close a short across the terminals of said magnet, said transmitter comprising means which, at a predetermined point in the transmission of the signal, will arrest the operation of said transmitting mechanism unless said magnet be then energized, and further comprising means for energizing said magnet during such period unless the operation of the transmitter has been caused by the breaking of one of said circuits.

5. A temperature-alarm system, comprising in combination a length of tubing, a plurality of fluid-pressure-actuated alarm initiating contact devices connected thereto at various points intermediate its length, a signal transmitter comprising a controlling magnet and transmitting mechanism controlled thereby, said transmitter comprising means which, at a predetermined point in the transmission of the signal, will arrest the operation of said transmitting mechanism unless said magnet be then energized, and circuits controlled by said contact devices and controlling said transmitter and comprising a generator, two conductors normally leading from opposite sides of said generator to the same side of each of said contact devices and including said magnet, said circuits comprising also return conductors leading from the opposite side of each of said contact devices to the generator, and adapted, when one of the said contact devices is operated, to close a short across said magnet, said transmitter comprising transposing contact means, operating during the period when motion of said transmitting mechanism will be arrested unless said magnet be energized, which transposing means, when it operates, connects both of said first named conductors to the same side of the generator and to that side of the generator opposite the side to which the return conductors are connected, whereby in case the operation of the transmitter has been caused by the operation of one of said alarm-initiating contact devices the full signal of the transmitter will be sent, and whereby in case the operation of the transmitter has been caused by the breaking of one of the first mentioned conductors, the transmitter will be arrested prior to the completion of its signal.

[Claims 6 to 21 not printed in the Gazette.]

1,082,607. RAILWAY-CROSSING. JOHN W. PERKINS, Port Norfolk, Va. Filed Feb. 21, 1913. Serial No. 749,848. (Cl. 104—116.)



1. In a continuous railway crossing, angular rail members at the angles of the crossing, intermediate rail members, pivoted members extended at right angles to each other and overlapped at the inner angles of the crossing,

and means disposed at right angles to each other and independently acting on the free ends of said pivoted members to normally hold them in closed position.

2. In a continuous railway crossing, angular rail members at the angles of the crossing, intermediate rail members, pivoted members extended at right angles to each other and overlapped at the inner angles of the crossing, and means disposed at right angles to each other and independently acting on the free ends of said pivoted members to normally hold them in closed position, said intermediate rail members and the pivoted members having interengaging recesses and projections.

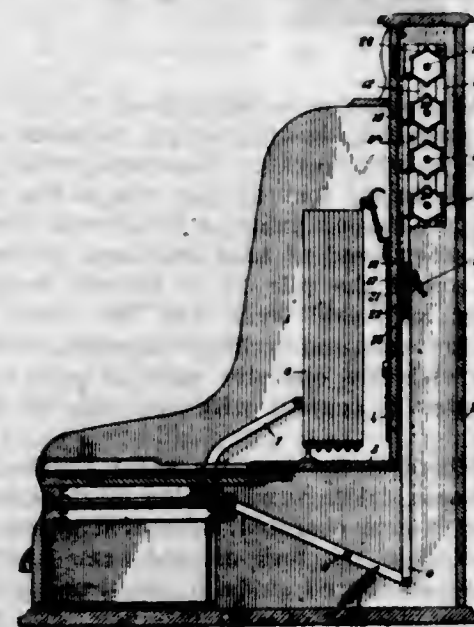
3. In a continuous railway crossing, angular rail members at the angles of the crossing, intermediate rail members, pivoted members extended at right angles to each other and overlapped at the inner angles of the crossing, and means disposed at right angles to each other and independently acting on the free ends of said pivoted members to normally hold them in closed position, said intermediate rail members and the pivoted members having interengaging recesses and projections, and the overlapping portions of the pivoted members movable one upon the other.

4. In a continuous railway crossing, independently pivoted members overlapping each other at the inner angles of the crossing, a housing, a fixed member therein, and spring controlled members supported by said fixed member and disposed at substantially right angles to each other independently of each other and acting upon the free ends of the pivoted members.

5. In a continuous railway crossing, angular rail members at the angles of the crossing, intermediate rail members having recesses, and independently pivoted members extending at right angles to each other and having projections cooperating with said recesses, the said pivoted members overlapping each other at the inner angles of the crossing and an independent spring for each of said pivoted members, arranged at substantially right angles to each other, and an angular member common to both of said springs and against which they bear.

[Claims 6 to 10 not printed in the Gazette.]

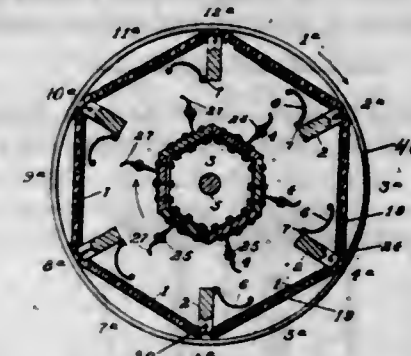
1,082,608. ADVERTISING DEVICE. FREDOLF J. PETERSON, Salem, Ohio, assignor to The American Case & Register Company, Salem, Ohio, a Corporation of Ohio. Filed Oct. 28, 1911. Serial No. 656,898. (Cl. 40—76.)



In a display apparatus, the combination of a cabinet, a series of leaves hinged together and normally located in the cabinet, said leaves adapted for independent movement, a pivoted lever actuated by one of the leaves, bars adapted to be actuated by the lever, said bars slidably connected together intermediate their ends, and means for adjusting the relatively sliding movement as between said bars, an advertising device and means intermediate the relatively sliding bars and the advertising device adapted to actuate said advertising device, substantially as and for the purpose specified.

197 O. G.—69

1,082,609. GREEN-PEA-VINE-HULLING MACHINE. ROBERT P. SCOTT, Cadiz, Ohio. Filed Apr. 7, 1913. Serial No. 759,387. (Cl. 130—30.)



1. In a pea vine hulling machine, a lifting rib, a guard mounted upon the face of said rib having a portion suitably spaced therefrom, said guard preventing the hulled peas from rolling off the rib toward the impact beaters and means permitting the discharge of the hulled peas from the rib, said means being located at the outer edge of the rib.

2. In a pea vine hulling machine, a lifting rib, an auxiliary ledge for said rib so arranged with relation thereto as to prevent the hulled peas from rolling inward upon the beaters.

3. In a green pea vine hulling machine working on the impact principle, a lifting rib provided with means for permitting the hulled peas to be disposed of at the outer edge of the rib, in combination with a guard for said rib.

4. In an impact pea hulling machine, the combination of a lifting rib, an auxiliary ledge thereon, and a wire guard extending across the rib and along the outer screening surface, said guard being spaced from said rib and from said surface.

5. In a pea vine hulling machine, a central shaft carrying a plurality of impact beaters which are arranged in sets along the shaft, a lifting rib of varying width cooperating therewith, one set of beaters arranged opposite the narrow portion of the lifting rib, said set being adjustable so as to vary the radial length of the beaters and determine the clearance between said set of beaters and the adjacent portion of the lifting rib.

[Claims 6 to 16 not printed in the Gazette.]

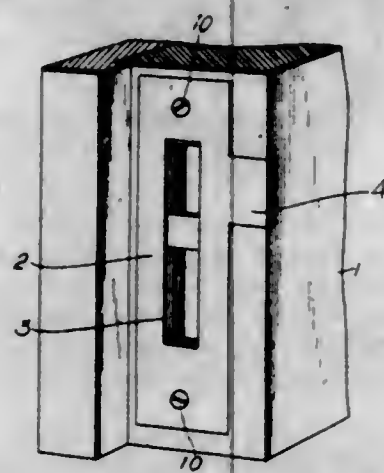
1,082,610. DRINKING-FOUNTAIN. DAVID N. SHRAWDER, North Wales, Pa. Filed Aug. 15, 1911. Serial No. 644,120. (Cl. 119—74.)



A drinking trough, comprising a receptacle, having an access opening in its front wall, a pivot shaft engaged in the upper ends of the side walls of the casing, flanges surrounding the access opening, a water supply for the casing, a convex closure pivoted upon the shaft for free swinging movement and positioned to lie with its convexity projecting through the access opening when in closed position and having a portion extending below the access opening within the casing, said portion being perforated, a weight carried by the lower portion of the closure, inwardly directed flanges carried by the sides of the closure, laterally directed flanges carried by the inner edges of the closure flanges and arranged to engage the flanges which surround the opening to limit the outward movement of the closure, said third named flanges being spaced from

the side walls of the casing and terminating short of the upper extremity of the closure, and guide strips secured within the casing and positioned to engage the side flanges of the closure above the third named flanges during its movement and guide it through the access opening.

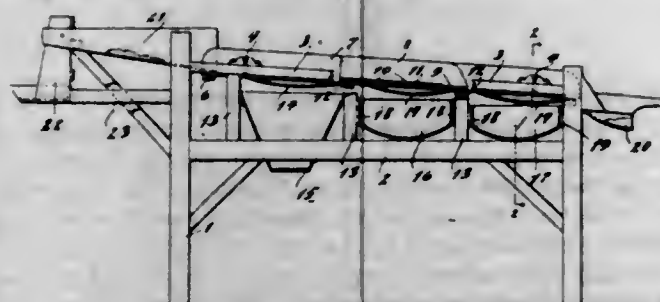
1,082,811. LOCK-STRIKE. JOHN SIMLER, Sikeston, Mo. Filed Apr. 23, 1913. Serial No. 783,160. (Cl. 70-15.)



1. A strike plate for locks consisting of a hollow body having opposed yieldable side walls, said walls being provided with aligning longitudinal slots, a strike formed on and projecting from one end wall of the body, a plate slidably arranged in said body and provided with a pair of spaced openings for registration with the aligning slots in the walls of said body, and means extending through the yieldable walls of said body to secure the latter to a door-jamb and simultaneously clamp said walls against said plate to retain the latter in its adjusted position in the body.

2. A strike plate for locks consisting of a flat outer plate of hollow design provided with a central longitudinal slot and having a projection formed on one side edge adjacent one end thereof, said projection having the faces thereof flush with the faces of the plate and designed to form a strike therefor, an inner plate of rectangular design slidably arranged in the outer plate and provided with a pair of spaced openings aligning with the slot in the first mentioned plate, said inner plate also having a pair of slots extending from the ends thereof and extending to points adjacent the openings therein, and means extending through the outer plate at points adjacent the ends thereof to secure the same to a door jamb and simultaneously clamp the faces of the same against said inner plate to retain the latter in its adjusted position in the outer plate, said last mentioned means also extending through the slots at the ends of said inner plate to guide the latter in its movement in the outer plate.

1,082,612. FRUIT-GRADING MACHINE. LAWRENCE WILLIAM SMITH and DANIEL H. FRANCIS, Grand Junction, Colo. Filed Oct. 1, 1912. Serial No. 723,446. (Cl. 130-32.)



1. A fruit grader comprising a movable table having openings therein, means attached to the under side of said table for engaging with the bottom edges of said openings when said table is in one extreme position for dislodging the fruit obstructing said openings, and for permitting unobstructed passage of the fruit in the other extreme position.

2. A fruit grader comprising a movable table having openings therein, means located beneath the table for engaging with the bottom edges of said opening in one position of the table and spaced therefrom to permit unobstructed passage of the fruit through the openings in another position of the table, the movement of said means being controlled by the movement of the table.

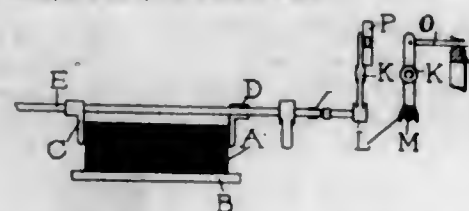
3. A fruit grader comprising a frame, an oscillating grading table mounted thereon having a plurality of openings in said table, a plurality of flexible means secured at their ends to said frame and to the under side of the table respectively, said means arranged to engage with the bottom edges of said openings in one extreme position of said table and to be spaced therefrom a sufficient distance to permit an unobstructed passage of the fruit through the openings.

4. A fruit grader comprising a frame, an oscillating grading table mounted thereon having a plurality of openings in said table, a plurality of straps attached to said frame and to the under side of said table respectively, said straps being arranged to engage with the bottom edges of said openings when taut in one extreme position of said table and spaced therefrom to permit unobstructed passage through the openings in the other extreme position of the table.

5. A fruit grader comprising a frame, an oscillating table mounted thereon having a plurality of openings arranged in rows, a plurality of straps one for each row, said straps being connected to said frame and the under side of said table respectively, each strap being arranged to engage the bottom edges of the openings of a row in one extreme position of the table and permitting unobstructed passage through the openings in the other extreme position of the table.

[Claims 6 and 7 not printed in the Gazette.]

1,082,613. DRIVING MECHANISM FOR MOVABLE SHEET-FEEDING GUIDES. GEORG SPIESS, Leipzig-Anger-Crottendorf, Germany. Filed Oct. 25, 1911. Serial No. 656,672. (Cl. 101-34.)



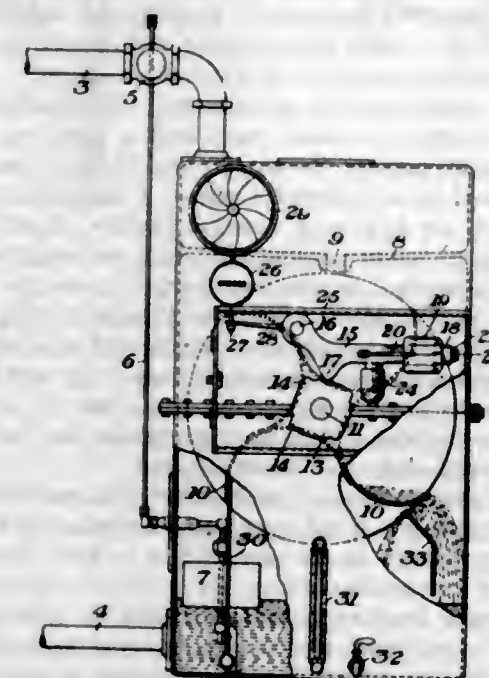
1. Drive mechanism for movable sheet feeding guides on printing presses, folding and sorting machines and the like, comprising a cam operated bifurcated swing arm, a ball shaped guide in the fork of said arm, a free arm secured to said ball shaped guide, a two-armed lever connected to the second end of said free arm, two parallel rods mounted above the pile to be formed having two ends in contact with said lever, and two sheet feeding guides one on each rod and oscillated thereby, and means in connection with the opposite ends of said rods for keeping the latter in contact with the ends of the two armed lever.

2. Drive mechanism for movable sheet feeding guides on printing presses, folding and sorting machines and the like, comprising a cam operated bifurcated swing arm, a ball shaped guide in the fork of said arm, a free arm secured to said ball shaped guide, a two-armed lever connected to the second end of said free arm, two parallel rods mounted above the pile to be formed having two ends in contact with said lever, and two sheet feeding guides one on each rod and oscillated thereby, and two springs one in connection with one opposite end of a rod for keeping the rods in contact with the ends of the two-armed lever.

3. Drive mechanism for movable sheet feeding guides on printing presses, folding and sorting machines and the like, comprising two parallel rods mounted above the pile to be formed, two sheet feeding guides one on each rod, a cam operated bifurcated arm, a ball shaped guide in the fork of said arm, a free arm on said ball shaped

guide, a two armed lever connected to the second end of said free arm and normally in contact with the ends of the rods, springs on each rod normally pressing the rod ends against the ends of the two-armed lever, so arranged that the two-armed lever receives an oscillating motion by the cam arrangement whereby one rod and guide is pushed forward while the other rod and guide moves in the other direction by means of the spring connected therewith.

1,082,614. MECHANISM FOR WEIGHING LIQUIDS. WERNER I. STAAR, Pittsburgh, Pa., assignor of one-half to Edward B. Tyler, Pittsburgh, Pa. Filed Mar. 21, 1912. Serial No. 685,315. (Cl. 73-182.)



1. An apparatus for weighing the amount of liquid passed therethrough and for simultaneously recording the temperature thereof, comprising a tank or vessel having a liquid inlet, and a liquid storage chamber, a liquid weighing device intermediate the inlet and the storage space or chamber and arranged to deliver the liquid to the latter, a register operatively connected with the weighing device, a thermostatic element extending into the liquid adjacent to the outlet of said space or chamber, and a recording device actuated by the said element; substantially as described.

2. In an apparatus for weighing liquids, a shaft having a series of buckets, a cam member of said shaft, a lever resting on the cam member, a weight threaded on the lever, both the weight and the lever arm being graduated, and the lever having a threaded locking segment engaging the weight; substantially as described.

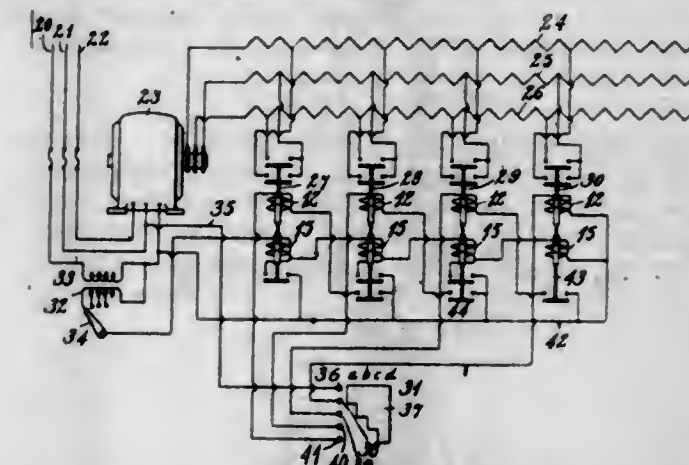
1,082,615. ELECTRIC SWITCHING DEVICE. RAGNAR WIKANDER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 23, 1911. Serial No. 616,477. (Cl. 172-179.)

1. In a control system, the combination with an electric motor and a supply circuit therefor, of a plurality of independently operated accelerating switches adapted to close in a predetermined sequence, said switches having closing coils and series-connected coils which tend to prevent closing, and means for short circuiting the opposing coil of the preceding switch as each switch is closed.

2. In a control system, the combination with an electric motor and a supply circuit therefor, of a plurality of independently operated accelerating switches adapted to close in a predetermined sequence and having closing coils and coils that are dependent upon the current traversing the motor circuit and tend to prevent closing, the opposing coil of each switch being short circuited when the next succeeding switch is closed.

3. In a system of control, the combination with a poly-phase alternating current motor, a supply circuit there-

for, a series transformer connected in one branch of the supply circuit and a secondary resistance, of a plurality of independently operated switches for gradually short circuiting the secondary resistance, a master switch for controlling the closing of the switches, and means independent of the master switch for rendering closing of each switch dependent upon the closing of the preceding switch, opposing coils for the switches connected in series relation and energized from said series transformer, and auxiliary switches operatively connected to the main switches for short circuiting the opposing coil of the preceding switch as each switch is closed.

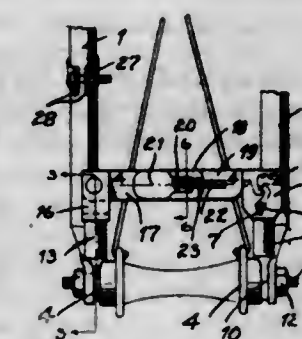


4. In a system of control, the combination with a poly-phase alternating current motor, a supply circuit therefor and a secondary resistance, of a plurality of independently operated switches for gradually short circuiting the resistance, means for limiting the closing of said switches to a predetermined sequence, and coils for the respective switches that oppose the closing thereof in accordance with the current traversing the motor circuit.

5. In a system of control, the combination with a poly-phase alternating current motor, a supply circuit therefor, and a secondary resistance, of a plurality of independently operated switches for gradually short circuiting the resistance, means for limiting the closure of said switches to a predetermined sequence, and a coil pertaining to each switch for opposing its closure that is energized in proportion to the current traversing the primary circuit of the motor.

[Claim 6 not printed in the Gazette.]

1,082,616. BICYCLE-LOCK. GEORGE A. YAECK, Decatur, Ill. Filed May 28, 1913. Serial No. 770,499. (Cl. 70-90.)

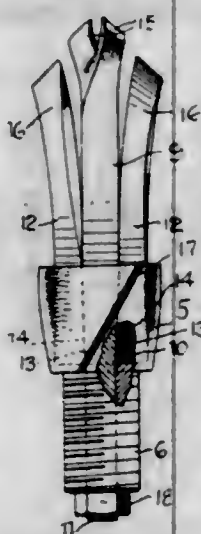


1. A bicycle lock comprising a casing having a locking mechanism contained therein, means for connecting the casing to the wheel axle of the bicycle, a socket member connected to the outer end of the axle, a stem swiveled in the socket member, said stem having furcations formed upon its upper end, a locking bar pivoted between the furcations, said locking bar consisting of adjustably connected sections, one of said sections having a catch for engaging the locking mechanism in said casing.

2. A bicycle lock comprising a casing, a locking mechanism contained in the casing, means for connecting the casing to one end of the wheel axle, a socket member connected to the other end of the wheel axle, a stem swiveled in the socket member, furcations formed upon the upper end of the stem, a locking bar pivoted between

the furcations, said locking bar consisting of sections, one of said sections having a slot formed therein, an off-set formed upon the other section for slidably engaging said slot, a catch carried by one of the sections for engaging the locking mechanism, and means for holding the sections adjustably connected.

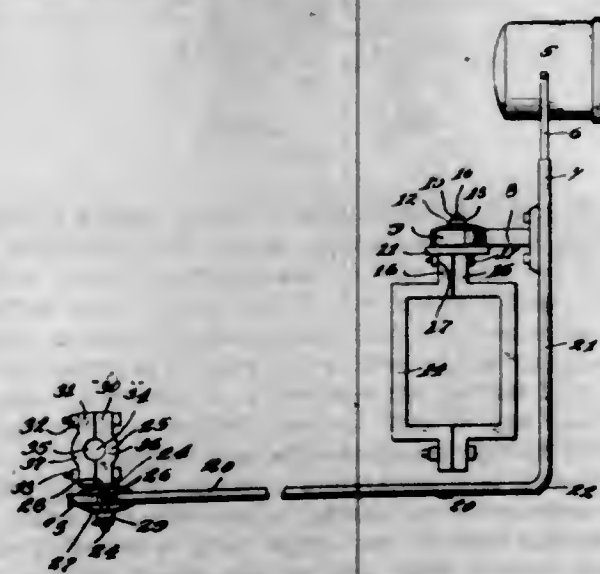
1,082,617. DRILL. CHRISTOPHER LORRANCE ANTON, Monongahela, Pa. Filed May 15, 1913. Serial No. 767,846. (Cl. 255-61.)



1. A drill comprising a head having a socket therein, the opposite walls of such socket being provided with aligned recesses, a bit adapted to be arranged centrally in said socket and extending within the recesses whereby such bit is held against axial movement, auxiliary bits arranged within said socket between the ends thereof and the central bit, said central bit and auxiliary bits being provided with coacting means whereby the same may be maintained in operative position relatively to the head.

2. A device of the character described comprising a hollow head having a tubular extension, a bit arranged centrally within said head and having a reduced extension projecting through said tubular extension, auxiliary bits arranged within said head upon opposite sides of the central bit, the opposite faces of said central bit being beveled intermediate of its ends, the inner faces of said side bits being beveled for engagement with the beveled faces of said central bit, means mounted upon the extremity of the reduced extension of said central bit to maintain said bits within said head, said central bit and the inner walls of the head being provided with coacting means to hold said central bit against axial movement.

1,082,618. LAMP-BRACKET FOR POWER-DRIVEN VEHICLES. GEORGE K. BARBOCK, Millport, N. Y. Filed Feb. 21, 1913. Serial No. 749,931. (Cl. 240-62.)



1. In a lamp turning mechanism, the combination with a vehicle having a front axle and a steering rod,

of a main bracket having its upper end forked, a lamp carried by said forked end, an auxiliary bracket carried by said main bracket below the forked end, means for securing said auxiliary bracket to said front axle, and means swivelly connecting said main bracket and said steering rod whereby the lamp will be turned in unison with the movement of the steering rod.

2. In a lamp turning mechanism, the combination with a vehicle having a front axle and a steering rod, of a main bracket having its upper end forked and its lower end disposed in a horizontal plane, a lamp carried by said forked end, an auxiliary bracket attached to said main bracket below said forked end, a clamp swivelly connected to said auxiliary bracket for clamping the same to said axle, and a second clamp swivelly connected to the terminal end of said horizontal portion for connecting said main bracket to said steering rod for operating said main bracket synchronously with said steering rod.

3. In a lamp turning mechanism, the combination with a vehicle having a front axle and a steering rod, of a main bracket having its upper end forked and its lower end disposed in a horizontal plane, a lamp carried by said forked end, an auxiliary bracket rigidly attached to said main bracket below said forked end, an adjustable clamp swivelly connected to the auxiliary bracket for attaching the same to said axle, a second clamp swivelly connected to the terminal end of said horizontal portion for connecting said main bracket to said steering rod for operating said main bracket synchronously with the steering rod, and shock absorbing leaf springs interposed between said second clamp and said terminal end.

4. In a lamp turning mechanism, the combination with a vehicle having a front axle and a steering rod, of a main bracket having its upper end forked and its lower end disposed in a horizontal plane, an auxiliary bracket carried by said main bracket, a lamp carried by said forked end, an adjustable clamp swivelly connected to said auxiliary bracket for attaching said main bracket to said front axle, a second clamp swivelly connected to the terminal end of said horizontal portion for connecting said main bracket to said steering rod for operating said main bracket synchronously with said steering rod, the terminal end of said horizontal portion being substantially circular in shape, and leaf springs interposed between said circular end and said second clamp.

5. In a lamp turning mechanism, the combination with a vehicle having a front axle and a steering rod, of a main bracket having one portion thereof bent substantially at right angles to the other portion, an auxiliary bracket carried by said main bracket, an adjustable clamp shaped to conform to the shape of the front axle swivelly connected to said auxiliary bracket for attaching the same to said axle, a second clamp swivelly connected to the terminal end of said angled portion, and shock absorbing leaf springs interposed between said second clamp and said terminal end, said second clamp being attached to said steering rod for operating said main bracket synchronously with the steering rod, and lamp supporting means carried by said main bracket.

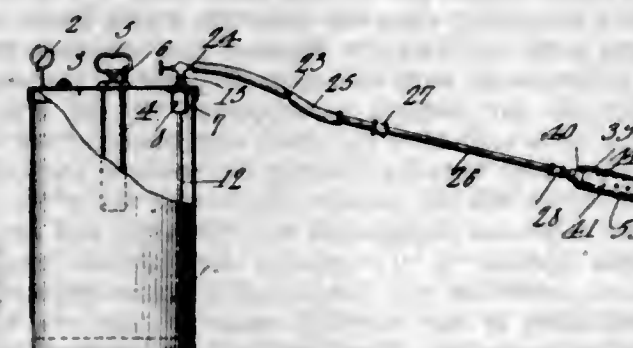
[Claims 6 and 7 not printed in the Gazette.]

1,082,619. STUMP-BURNER. WILLIAM H. BRASIER, Corpus Christi, Tex. Filed Nov. 22, 1912. Serial No. 732,991. (Cl. 158-33.)

1. In a stump burner, a combustion head comprising an outer combustion tube and an inner tube united at one end, the inner tube having a fuel opening and a fuel outlet opening; a ball movable in the inner tube between the openings; and means for supplying fluid fuel to the inlet opening, the combustion tube constituting means for heating the ball.

2. In a stump burner, a combustion head comprising a fuel supply tube having inlet and outlet openings; and a metallic ball movable in the tube between the openings, the ball coöperating with the inlet opening to act as a valve, the ball constituting also, a spraying means and a means for gasifying the fuel; means for supplying fuel to the inlet opening; and means for confining burning fuel around the tube to effect a heating of the ball.

3. In a stump burner, a combustion head comprising a fuel supply tube having inlet and outlet openings; disks connected with the tube and located between the openings, the disks being provided with ducts, and one duct being enlarged to form a seat; and a ball movable between the disks and adapted to register in the seat, the disks constituting means for limiting the movement of the ball whereby the same will constitute a spray-forming means.

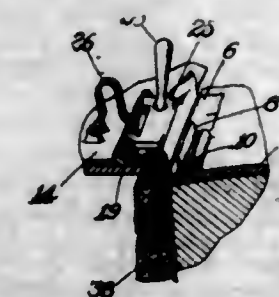


4. In a stump burner, a fuel supply tank; a valve jacket secured to the tank; a hollow primary valve journaled in the valve jacket, the primary valve and the valve jacket being provided with alignable openings; a fuel supply pipe extended into the valve jacket and communicating with the primary valve; a valve casing connected with the primary valve and having a passage communicating with the interior of the primary valve; a secondary valve in the casing, adapted to close the passage; a tubular member secured to the valve casing and communicating with the passage; and a combustion head upon the tubular member.

5. In a stump burner, a fuel supply tank; an air pump discharging into the tank; a rotatory valve journaled on the tank and provided with an air inlet and with a fuel inlet; a fixed element constituting a closure for the air inlet when the valve is rotated; a member for rotating the valve; said member having a passage communicating with the valve; means in said member for controlling the passage; and a stump engaging tubular element connected with said member and constituting a continuation of the passage.

[Claim 6 not printed in the Gazette.]

1,082,620. END-LASTING MECHANISM FOR WELT-SHOES. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 5, 1910, Serial No. 585,432. Divided and this application filed Oct. 21, 1911. Serial No. 655,912. (Cl. 12-14.)



1. In a lasting machine heel lasting plates each having its acting edge at the front end formed in two parts the lower one of which is adapted to press the upper laterally against the inner sole rib and the upper one of which is spaced away from the plane of the innersole by the lower one and is thereby adapted to override the rib without crushing it.

2. In a lasting machine heel lasting plates each having its acting edge at the front end formed in two superposed parts one of which projects farther than the other in the direction of advance of the plates.

3. In a lasting machine, end lasting plates, each having its acting edge near the end offset outwardly from the

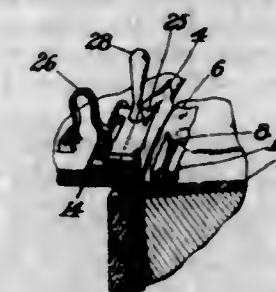
main portion of its acting edge, said outwardly offset portion of the edge being formed substantially straight.

4. In a lasting machine, heel lasting plates, each having a portion to wipe the upper over the heel seat and a portion having its acting edge offset outwardly and shaped throughout its length to wipe the upper over the feather and against the rib of a welt innersole.

5. In a lasting machine, end embracing wipers, the lower faces of which extend in substantially a single plane to wipe the upper over a heel seat by frictional rubbing engagement with the upper, the body portions of said wipers having smooth acting edges and the end portions having toothed acting edges.

[Claims 6 to 16 not printed in the Gazette.]

1,082,621. MANUFACTURE OF BOOTS AND SHOES. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 5, 1910, Serial No. 585,432. Renewed Oct. 17, 1913. Serial No. 795,791. (Cl. 12-145.)



1. That improvement in methods of making welt shoes which consists in assembling upon a last and an inner-sole upper materials which include a heel stiffener formed with wings each of which is provided with an intumed flange and with an upstanding lip located at the inner edge of the flange, gripping the upper against said upstanding lip of the heel stiffener at each side of the heel, and forcing the gripped upper and the stiffener wings inwardly together to tighten the upper over the last.

2. That improvement in methods of making welt shoes which consists in assembling upon a last and an inner-sole upper materials which include a heel stiffener formed with wings each of which is provided with an intumed flange and with an upstanding lip located at the inner edge of the flange, wiping the upper over the bottom face of the heel end of the last, and gripping the upper between the wiping means and said upstanding lip of the heel stiffener at each side of the heel during the overworking operation to increase the tightening pull upon the upper near the end portions of the stiffener.

3. That improvement in methods of making welt shoes which consists in assembling upon a last and inner-sole upper materials which include a resilient heel stiffener provided with wings and an upstanding lip or rib at the end of each wing and so formed that said lips normally stand outwardly away from the lips of the innersole, gripping the upper against said stiffener lips and forcing the stiffener lips inwardly with the upper held thereagainst to pull the upper while carrying it and said lips inwardly to position to be secured to the innersole lips.

4. That improvement in methods of making welt shoes which consists in forming a heel stiffener with wings having upstanding lips located to stand against the outer faces of the innersole lips, assembling the shoe, wiping the flange of the stiffener and the upper inwardly over the heel seat and gripping the upper between said upstanding lips and the edge of the wiping means to exert pulling force upon the upper at the front of the heel in addition to the wiping operation.

5. That improvement in methods of making shoes which consists in forming a heel stiffener with wings that spread at their upper edges to a greater width than they are to have in the lasted shoe and with an upstanding lip on each wing, assembling upon a last the heel stiffener so formed, together with an inner sole and an upper, gripping the upper against said lips, and fore-

ing the upper and the wings inwardly together to exert a positive pull upon the upper, as distinguished from a mere wiping effect, to tighten the upper over the last.

[Claims 6 to 8 not printed in the Gazette.]

1,082,622. DEVELOPMENT OF PHOTOGRAPHIC IMAGES. WILLIAM HAY CALDWELL, county of Inverness, Scotland. Filed June 10, 1912. Serial No. 704,623. (Cl. 95—88.)

1. The herein described improvement in the art of developing a photographic film containing a silver salt, which consists in subjecting the film to a slowly acting developer, acid to litmus, dissolving out thereby silver salt that has been unacted upon by light and causing the dissolved silver salt to slowly diffuse or travel through the film medium to all the unit portions of the silver salt that have been affected by light so that silver salt in solution shall be reduced to silver in contact with each of said unit portions, substantially as described for the purpose set forth.

2. The herein described improvement in the art of developing a photographic film containing a silver salt, which consists in subjecting the film to the action of a solution, acid to litmus, obtained by combining an aromatic hydrazin base with a compound containing sulfurous acid.

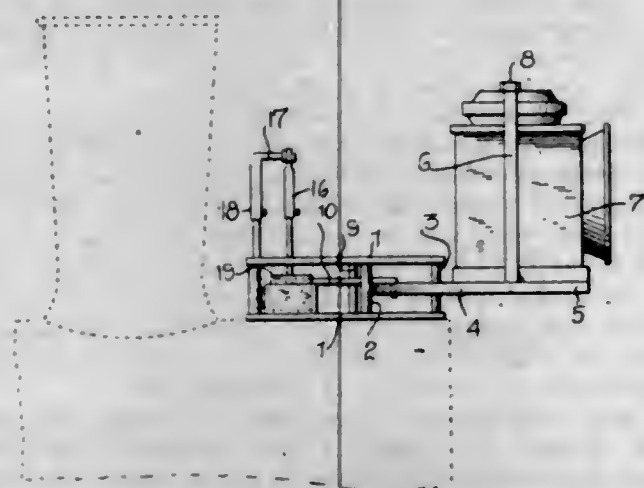
3. The herein described improvement in the art of developing a photographic film containing a silver salt, which consists in subjecting the film to the action of a solution, acid to litmus, of a double salt obtained by combining an aromatic hydrazin base and an alkali metal sulfite.

4. The herein described improvement in the art of developing a photographic film containing a silver salt, which consists in subjecting the film to the action of a solution, acid to litmus, of a double salt obtained by combining an aromatic hydrazin base and acid sulfite of sodium.

5. The herein described improvement in the art of developing a photographic film containing a silver salt, which consists in subjecting the film to the action of a solution, acid to litmus, of a double salt obtained by combining a phenyl hydrazin base and an alkali metal sulfite.

[Claims 6 to 16 not printed in the Gazette.]

1,082,623. LOCOMOTIVE HEADLIGHT. JOHN L. CARNLEY, Ruble, Miss. Filed Sept. 24, 1913. Serial No. 791,596. (Cl. 240—62.)



1. A device of the character described comprising spaced frame plates, a vertically disposed shaft mounted in said frame plates, a table fixed to said shaft and having a portion projecting beyond the frame plates, a post carried by the frame plates and in alignment with the shaft, a standard projecting upwardly from the frame plates and provided with an inwardly directed arm disposed in a plane in alignment with the plane occupied by the shaft, a pendulum bar swingingly supported by the arm, a weighted mass secured to the lower end portion of the bar, a lever provided with an opening intermediate its length through which the bar extends and having one of its end

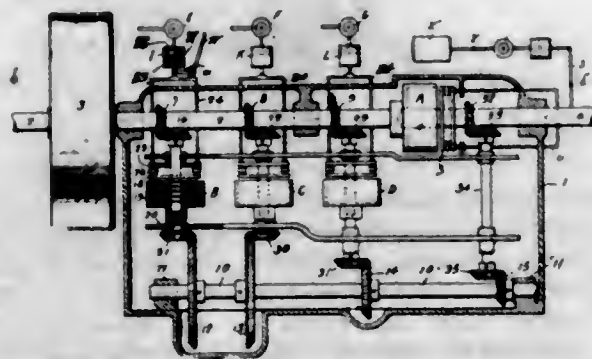
portions in pivotal engagement with the table and having a second opening in its opposite end portion through which the pendulum bar passes, and guide plates disposed at opposite sides of the weighted mass to hold the same against transverse movement.

2. A device of the character described comprising spaced frame plates, a vertically disposed shaft mounted in said frame plates, a table fixed to said shaft and having a portion projecting beyond the frame plates, a post carried by the frame plates and in alignment with the shaft, a standard projecting upwardly from the frame plates and provided with an inwardly directed arm disposed in a plane in alignment with the plane occupied by the shaft, a pendulum bar swingingly supported by the arm, a weighted mass secured to the lower end portion of the bar, a lever provided with an opening intermediate its length through which the bar extends and having one of its end portions in pivotal engagement with the table and having a second opening in its opposite end portion through which the pendulum bar passes, guide plates disposed at opposite sides of the weighted mass to hold the same against transverse movement, and anti-friction means carried by the rear guide plate adapted to cooperate with the weighted mass.

3. A device of the character described comprising spaced frame plates, a vertically disposed shaft mounted in said frame plates, a table fixed to said shaft and having a portion projecting beyond the frame plates, a post carried by the frame plates and in alignment with the shaft, a standard projecting upwardly from the frame plates and provided with an inwardly directed arm disposed in a plane in alignment with the plane occupied by the shaft, a pendulum bar swingingly supported by the arm, a weighted mass secured to the lower end portion of the bar, a lever provided with an opening intermediate its length through which the bar extends and having one of its end portions in pivotal engagement with the table and having a second opening in its opposite end portion through which the pendulum bar passes, and guiding plates disposed at opposite sides of the weighted mass to hold the same against transverse movement, the said lever being in contact with the upper edge of the forward guiding plate.

4. A device of the character described including a table mounted for axial movement and adapted to support a lamp, a rock lever having one extremity in pivotal engagement with the table, a suitably supported pendulum bar in engagement with the opposite end portion of the lever, a weighted mass carried by the pendulum bar, guiding plates disposed at opposite sides of the weighted mass to hold the same against transverse movement, and anti-friction means carried by one of such plates and adapted to contact with the adjacent surface of the mass.

1,082,624. VARIABLE-SPEED MECHANISM. DAVID E. CROUSE and CHARLES G. EIDSON, Annapolis, Md., assignors to The Auto Air Appliance Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 20, 1912. Serial No. 721,391. (Cl. 74—59.)



1. In a variable speed mechanism, a driving shaft, a driven shaft, an auxiliary shaft, connections between the driving shaft and the auxiliary shaft for driving the latter, a plurality of gears on said auxiliary shaft for producing different speeds, a gear on said driven shaft corresponding to each speed, an intermediate gear permanently in mesh with each of the gears on said auxiliary

shaft, an intermediate gear permanently in mesh with each of the gears on said driven shaft, a clutch for each speed arranged to transmit the movement of one of said intermediate gears to the other, pneumatic means for operating each of said clutches, and magnetic means for controlling the pneumatic means.

2. In a variable speed mechanism, a driving shaft, a driven shaft, an auxiliary shaft, connections between the driving shaft and the auxiliary shaft for driving the latter, a plurality of gears on said auxiliary shaft for producing different speeds, a gear on said driven shaft corresponding to each speed, an intermediate gear permanently in mesh with each of the gears on said auxiliary shaft, an intermediate gear permanently in mesh with each of the gears on said driven shaft, a clutch for each speed arranged to transmit the movement of one of said intermediate gears to the other, a cylinder associated with each clutch, a piston in said cylinder, a yoke connecting said piston with said clutch, and a solenoid for controlling the passage of motive fluid into the cylinder.

3. In a variable speed mechanism, a driving shaft, a driven shaft, an auxiliary shaft, connections between the driving shaft and the auxiliary shaft for driving the latter, a plurality of gears on said auxiliary shaft for producing different speeds, a gear on said driven shaft corresponding to each speed, an intermediate gear permanently in mesh with each of the gears on said auxiliary shaft, an intermediate gear permanently in mesh with each of the gears on said driven shaft, a clutch for each speed arranged to transmit the movement of one of said intermediate gears to the other, a cylinder associated with each clutch, a piston in said cylinder, a yoke connecting said piston with said clutch, a solenoid for controlling the passage of motive fluid into the cylinder, a switch having contact points corresponding to each of said solenoids, and electric circuit connections between said solenoid and said switch.

4. In a variable speed mechanism, a driving shaft, a driven shaft, an auxiliary shaft, connections between the driving shaft and the auxiliary shaft for driving the latter, means disposed between said auxiliary shaft and said driven shaft for operating the latter at varying speed, said means comprising gears on said auxiliary shaft, gears on said driven shaft, intermediate gears between the gears on the auxiliary shaft and the gears on the driven shaft, clutches for transmitting motion of certain of said intermediate gears to others of said intermediate gears, pneumatic means for operating each of said clutches, and magnetic means for controlling the pneumatic means.

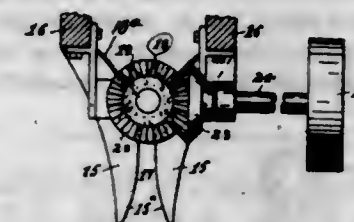
5. In a variable speed mechanism, a driving shaft, a driven shaft, an auxiliary shaft, connections between the driving shaft and the auxiliary shaft for driving the latter, means disposed between said auxiliary shaft and said driven shaft for operating the latter at varying speed, said means comprising gears on said auxiliary shaft, gears on said driven shaft intermediate gears between the gears on the auxiliary shaft and the gears on the driven shaft, clutches for transmitting motion of certain of said intermediate gears to others of said intermediate gears, a cylinder associated with each clutch, a piston in said cylinder, a yoke connecting said piston with said clutch, and a solenoid for controlling the passage of motive fluid into the cylinder.

1,082,625. TOPPING MECHANISM FOR VEGETABLE HARVESTERS. OLIVER W. FISHER, Painesville, Ohio. Filed Sept. 22, 1911. Serial No. 650,701. (Cl. 55—107.)

1. In a vegetable harvester, a pair of guide members provided with a vegetable top receiving recess, a vertical driving shaft provided with a plurality of horizontally arranged cutters extending across said top receiving recess and adapted to cooperate with one of said guide members, guard members above said cutters, and means for operating said driving shaft and cutters.

2. In a vegetable harvester, a frame provided at its front with guide members forming an intermediate vegetable top receiving recess, a vertical shaft provided with

vegetable cutters at the rear of said vegetable top receiving recess and having a shear cutting contact with one of said guide members, curved guard members above and extending to the rear of said cutters, and means for operating said vertical shaft.



3. In a vegetable harvester, a frame provided at its front with depending supporting arms, cross bars extending between the latter, a vertical driving shaft mounted on said cross bars, forwardly extending curved vegetable guide members carried by said depending supporting arms and spaced apart to form an intermediate rearwardly converging top receiving recess, a plurality of horizontally extending cutter blades mounted on said driving shaft at the rear of said recess, and traction wheel actuated gearing carried by said frame for operating said driving shaft.

4. In a vegetable harvester, a frame provided with depending supporting arms, horizontally extending vegetable guide members carried upon the lower ends of said arms and extending forwardly and spaced apart forming an intermediate vegetable top receiving recess, cross bars carried by said depending supporting arms, a vertical driving shaft mounted on said cross bars, horizontally extending cutters carried by said driving shaft at the rear of said vegetable top receiving recess, and curved guard members carried by said depending supporting arms and extending above said horizontally extending cutters.

1,082,626. T-SQUARE. GEORGE FOERST, Jersey City, N. J. Filed May 31, 1912. Serial No. 700,681. (Cl. 33—8.)



In a T-square, the combination with a blade having dovetail grooves in its edges and upper face, of a strip with a dovetail edge to fit in one of the grooves and having a beveled edge to form an auxiliary ruling edge or a guide for a triangle.

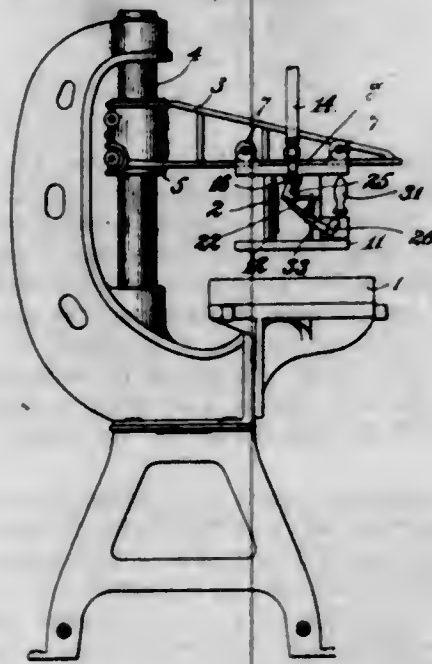
1,082,627. PROCESS OF DYEING. CHARLES GOLDSTEIN, New York, N. Y. Filed Oct. 25, 1912. Serial No. 727,711. (Cl. 8—5.)

1. The process of dyeing furs consisting in the following steps: first, immersing the same in a preliminary aqueous solution of ferrous sulfate; secondly, immersing the same in an aqueous dyeing solution of nut galls, sumac and lime, the skin being hung up and allowed to drip after each immersion and finally finished.

2. The process of dyeing furs consisting in first immersing them for 24 hours in a preliminary aqueous solution of ferrous sulfate at a temperature of 102 degrees Fahrenheit and hanging them up to drip for 24 hours; then immersing them for twelve hours at the same temperature in an aqueous dyeing solution prepared by boiling ground and roasted nut-galls in water in about the proportions stated for half an hour, subsequently boiling the same with the addition of four ounces of sumac for another half hour and afterward cooling and adding an ounce of lime water; then lowering the temperature of

the dyeing solution to 100 degrees Fahrenheit and permitting the skins to remain immersed therein for another 12 hours, then hanging them up to dry and finishing them.

1,082,628. LEATHER-CUTTING MACHINE. WILLIAM GORDON, Island Creek, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 25, 1908. Serial No. 454,738. (Cl. 164—25.)



1. A machine for cutting leather or other sheet material, having, in combination, a cutting block, an arm supported at one side of said block to swing freely over said block but constrained against movement toward and away from the block, a knife or die freely movable over the block, a hammer mounted on said arm in such manner that it may be moved relatively to the arm whereby it may be brought into operative position over the knife or die wherever located on the block, and pneumatic means operating between said arm and hammer for causing the hammer to deliver a quick sharp blow to the knife.

2. A machine for cutting leather or other sheet material, having, in combination, a cutting block, an arm constrained from vertical movement relative to the block and mounted at one side of the block to swing freely over the block, a hammer carried by said arm and movable toward and away from the arm support whereby the hammer may be brought into operative position over any part of the block, a knife or die freely movable over the block and pneumatic means operating between the arm and the hammer for causing the hammer to deliver a quick sharp blow to the knife, the counter-thrust from the operation of said means being received by said arm.

3. A leather cutting machine, having, in combination, a cutting block, a light weight hammer supported in position to be moved over any portion of the cutting block, said hammer being provided with pneumatic actuating means having provision for cutting off the supply of air by the same movement that admits air thereto, substantially as described.

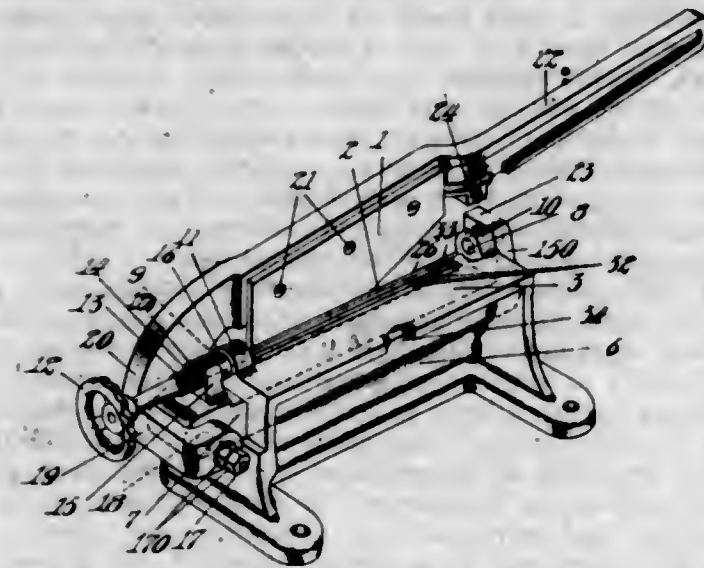
4. A leather cutting machine, having, in combination, a cutting block, a hammer and hammer carrier, a support therefor having provision permitting the hammer carrier and hammer to be moved over any portion of the cutting block, said hammer carrier being provided with a cylinder, and the hammer with a piston supported in said cylinder and means for introducing air to and exhausting it from said cylinder, substantially as described.

5. A machine of the class described, having, in combination, a cutting block, a knife or die freely movable over said block, a vertically movable hammer or platen, a rigid support for said hammer or platen arranged to swing about an axis at one side of the block, said support being constrained from vertical movement relative to said block and pneumatic means for depressing said hammer to force

the die through stock supported on the block, the counter-thrust from said means being received by the rigid support.

[Claim 6 not printed in the Gazette.]

1,082,629. LEATHER-CUTTING MACHINE. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 8, 1910. Serial No. 547,955. (Cl. 164—44.)



1. Apparatus for treating material of the class described, said apparatus comprising a pair of cooperating cutting members; a support for material to be treated arranged to present said material for action thereupon by said cutting members; and means to vary the angular position of said support and cutting members about an axis which lies approximately in the plane of the support.

2. Apparatus for treating material of the class described; said apparatus comprising a support for the material to be treated; a pair of shears; and means to support said shears rotatably in position to scarf said material at a selected angle relatively to said support.

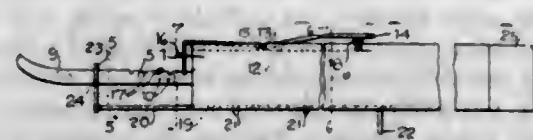
3. A machine of the class described having, in combination, a pair of cooperating cutting blades, the adjacent surfaces of which meet in a common plane, and a support for material to be cut, the construction and arrangement being such that the angle between the face of the support and the plane of the blades may be varied.

4. Apparatus of the class described; said apparatus comprising a support for the material to be treated; a shear-frame rotatable about an axis near the delivery portion of said support; and a cutting member rigid with said frame, and presenting its operating edge adjacent said delivery edge of said support in the various angular positions of said frame.

5. Apparatus of the class described; said apparatus comprising a support for the material to be treated; a shear frame rotatable about an axis adjacent to the delivery portion of said support; and a pair of shears carried by, and rotatable with, said frame, one of said shears presenting its operating edge adjacent said delivery edge of said support in the various angular positions of said frame, and said other shear being mounted pivotally on said frame in position for right line shearing engagement with said former shear in its various angular positions.

[Claims 6 to 11 not printed in the Gazette.]

1,082,630. DENTAL FORCEPS. LEWIS S. HALL, Hattiesville, Ark. Filed July 7, 1913. Serial No. 777,757. (Cl. 32—34.)



1. A device of the character described comprising a handle, a shank slidably mounted in said handle, forcep

blades secured to the outer end of said shank and adapted to extend longitudinally from said handle, said shank being provided with a longitudinal series of notches, and means secured to said handle to engage the notches in said shank, to secure said shank in adjusted position.

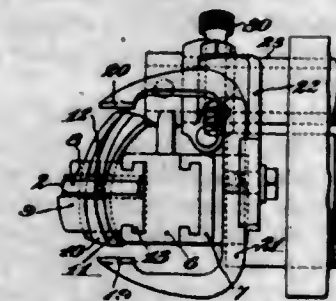
2. A device of the character described comprising a handle, a shank slidably mounted in said handle and projecting therebeyond, a tool secured to the outer end of said shank, means for normally maintaining said shank within said handle, said shank being provided with a longitudinal series of notches, and a lever pivotally secured to said handle and adapted to engage certain of said notches in said projected portion to maintain said shank in adjusted position.

3. A device of the character described comprising a handle, a shank slidably carried by said handle and provided with a series of notches, automatic means for imparting movement to the shank in one direction, and means carried by the handle movable toward and from the shank for engaging certain of the notches thereof to hold the shank in adjusted positions.

4. A device of the character described including a handle, a member slidably mounted in said handle, blades secured to the projected end portion of the member, and a rod slidably connected to said handle and provided with a finger piece, said rod having an apertured head through which the blades are adapted to contact whereby such blades are forced one toward the other upon movement of the rod in one direction.

5. A device of the character described comprising a handle, a shank slidably carried by said handle, normally spaced blades carried by the shank, means carried by the handle to engage the shank to hold the same in adjusted positions, and movable means carried by the handle engageable with the blades whereby such blades are forced in a direction one toward the other, both of such means being so positioned on the handle as to be readily manipulated by the digits of the hand grasping the handle.

1,082,631. CHANNELING-MACHINE. FRANK L. HARMON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 30, 1913. Serial No. 745,142. (Cl. 12—18.)



1. A channeling machine, having, in combination, a sole support mounted to rock to accommodate itself to the surface of the sole, a knife mounted in the support, a cam mounted to slide transversely in the support, and mechanism for actuating the cam during the operation of the machine on a sole to advance and retract the knife.

2. A channeling machine, having, in combination, a knife support, a knife mounted in the support, a transversely movable cam for advancing and retracting the knife, opposed abutments for operating the cam, and mechanism for shifting the abutments to advance or retract the knife.

3. A channeling machine, having, in combination, a vertically movable carrier, a knife mounted on the carrier, a transversely movable cam for advancing and retracting the knife, opposed abutments for actuating the cam, and mechanism for shifting the abutments during the operation of the machine.

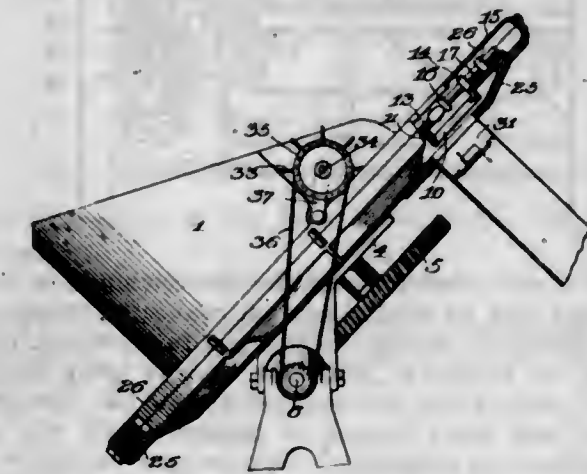
4. A channeling machine, having, in combination, a knife support, a knife mounted in the support, a transversely movable cam slide for advancing and retracting the knife, abutments arranged at opposite ends of the

slide, and means for operating the abutments to shift the slide.

5. A channeling machine, having, in combination, a vibrating knife support, a knife mounted in the support, a cam slide mounted in the support for advancing and retracting the knife, abutments between which the slide plays during the vibration of the knife support, and means for shifting the abutments to operate the cam slide.

[Claims 6 to 8 not printed in the Gazette.]

1,082,632. ASSORTING-MACHINE. HERBERT HASTINGS, Rochester, N. Y., assignor to German American Button Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 8, 1912. Serial No. 689,256. (Cl. 130—32.)



1. In an assorting machine, a receptacle for the articles to be assorted, means for arranging said articles in a predetermined position relatively to their lengths, means for independently gaging and holding the articles lengthwise and while held transporting them and means for releasing said articles at different points in their path of movement to separate them into classes with respect to their length.

2. In an assorting machine, the combination with a receptacle for articles and a movable conveyer comprising a plurality of articles engaging devices each adapted to engage and transport a single article and comprising a movable member, of means arranged in the path of movement of said members for operating them to release the articles carried thereby.

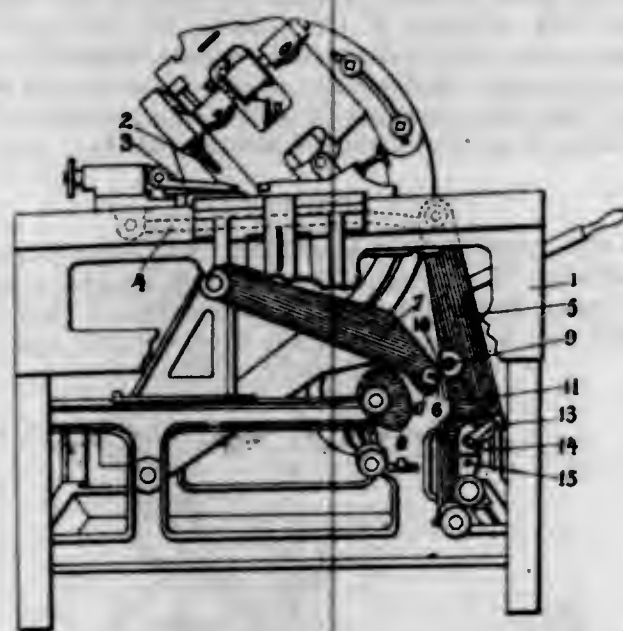
3. In an assorting machine, the combination with an article container and a movable conveyer adapted to receive articles therefrom, comprising an abutment and a clamping member movable relatively thereto, the position of which is determined by the size of an article engaged between it and the abutment, of means adapted to cooperate with said member to operate it to release the article at one point or another in its travel depending upon the distance the movable member is separated from its abutment.

4. In an assorting machine, the combination with an article container and a movable conveyer comprising a relatively stationary surface and a plurality of spaced movable clamping members, said conveyer being adapted to receive articles from the container disposed endwise between said surface and each of its clamping members, of means for tripping the several movable members independently of each other and at different points in their movement to release the articles held by them at various points in their travel according to their lengths.

5. In an assorting machine, the combination with a movable conveyer having recesses and gripping devices arranged to engage articles placed in the recesses, of means for holding said gripping devices in inoperative position, releasing them and subsequently retracting them at successive points in the movement of the conveyer, the retracting movement of the grippers being determined by the position of the gripping devices by reason of the size of the article engaged thereby.

[Claims 6 to 14 not printed in the Gazette.]

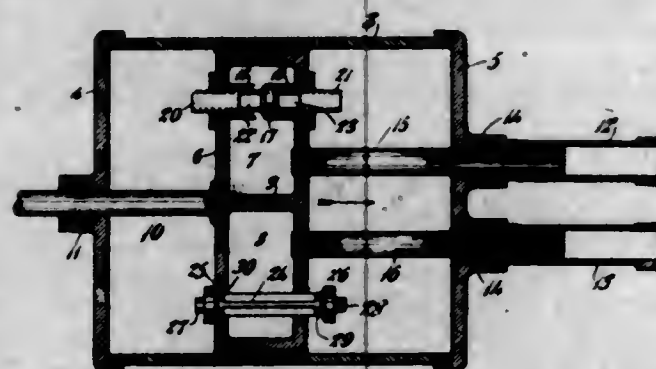
1,082,633. FEED ADJUSTMENT FOR BAND-SAW GRINDERS. JOHN P. HEDSTROM, Big Rapids, Mich. Filed June 15, 1912. Serial No. 703,989. (Cl. 76-77.)



1. In a saw grinding machine, the combination with a feed finger and an oscillating arm connected thereto, and an oscillating bar having its free end in proximity to said arm; of an angularly adjustable bearing plate pivotally mounted on said arm and engaged by said bar, the pivotal point of said plate located at approximately the upper limit of travel of said bar; a segment gear carried by said plate, a bracket carried by said arm, a pinion pivoted to said bracket and engaging said gear; and means for clamping said bracket to the face of said segmental gear.

2. In a saw grinding machine, the combination with a feed finger and an oscillating arm connected thereto, and an oscillating bar having its free end in proximity to said arm; of an angularly adjustable bearing plate pivotally mounted on said arm and engaged by said bar, the pivotal point of said plate located at approximately the upper limit of travel of said bar; a segmental gear carried by said plate, a bracket carried by said arm, a pinion pivoted to said bracket and engaging said gear; and means for clamping said bracket to the face of said segmental gear; and a hardened roller pivotally mounted in the end of said oscillating bar, and clamping means engaging said roller to hold it against rotation, for the purposes set forth.

1,082,634. WATER-MOTOR. HARRY R. IRWIN, Newport, Ky. Filed Sept. 7, 1909. Serial No. 516,367. (Cl. 138-2.)



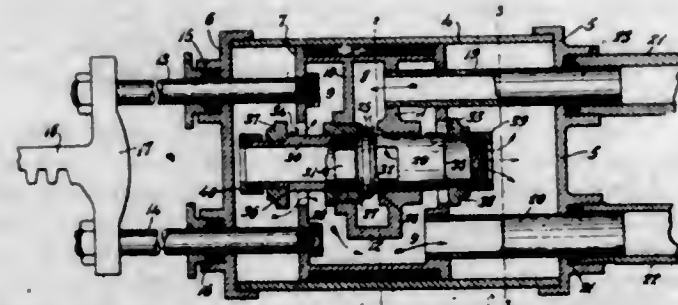
1. In a water motor, a motor chamber with a movable piston therein, means for supplying water to both sides of said piston, and means for exhausting the water therefrom, an inlet valve and a double puppet exhaust valve to control the exhaust, with extensions within the valve seat to check the exhaust upon the unseating of the exhaust valve.

2. In a water motor, a motor chamber with a movable piston therein, means for supplying water to both sides of said piston and for exhausting the water therefrom, with double puppet, inlet and exhaust valves therefor, said

inlet valve having hollow stems projecting into the motor chamber on each side of the piston, with openings beyond the valve seats into said stems for the passage of the water, and to accumulate pressure to fully actuate said valve and the exhaust valve provided with stems projecting into the motor chamber on each side of said piston, slightly beyond the projection of the hollow stems of the inlet valve and means for checking the exhaust upon the initial unseating of the exhaust valve.

3. In a water motor, a motor chamber with a hollow piston therein, having an inlet and an exhaust chamber with double puppet, inlet and exhaust valves therefor, the inlet valve provided with hollow stems projecting into the motor chamber on either side, and having openings beyond the valve seats into said stems, said exhaust valve projecting into said motor chamber on either side slightly beyond the projection of the inlet valve stems, with extensions within the exhaust valve seats to check the exhaust upon the unseating of the exhaust valve.

1,082,635. WATER-MOTOR. HARRY R. IRWIN, Fort Thomas, Ky. Filed Apr. 3, 1911. Serial No. 618,745. (Cl. 138-2.)



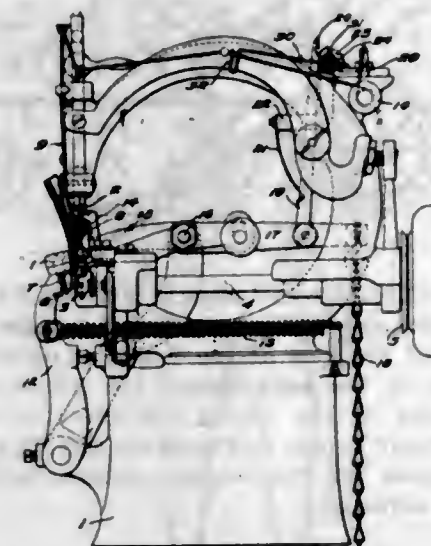
1. In a water motor, a motor chamber with a movable piston therein, means for supplying water to both sides of the piston, inlet valves to control the supply, with hollow stems for the inlet valves projecting into the motor chamber on each side of the piston, with openings beyond the valve seats into said chambers for the passage of the water, with means for initially shifting said valves to permit accumulation of pressure therein to fully actuate same, and annular exhaust valves to govern the exhaust mounted to slide on the inlet valve stems, and shoulders in the inlet valve stems to shift the exhaust valves with the subsequent movement of the inlet valve, to permit the complete reversal of the inlet valve.

2. In a water motor, a motor chamber, with a hollow movable piston therein, comprising non-communicating chambers, with the inlet chamber located within the exhaust chamber, a double puppet inlet valve to control the supply, with hollow stems therefor projecting into the motor chamber on each side of the piston, with openings beyond the valve seats into said stems, said stems being projected through exhaust ports into the motor chamber of larger diameter than the stems, with annular exhaust valves mounted to slide on the stems and to close the exhaust ports alternately, with means to permit the inlet valve to be shifted initially without actuation of the exhaust valves, and means on the inlet valve stems to shift the exhaust valve with the completion of the movement of the inlet valve, to permit the complete reversal of the inlet valve.

3. In a water motor, a motor chamber, with a hollow movable piston therein, comprising non-communicating chambers, with the inlet chamber located within the exhaust chamber, a double puppet inlet valve to control the supply, with hollow stems therefor projecting into the motor chamber on each side of the piston, with openings beyond the seats into said stems, said stems being projected through exhaust ports into the motor chamber of larger diameter than the stems, with annular exhaust valves mounted to slide on the stems and to close the exhaust ports alternately, shoulders on the inlet valve stems normally out of contact with the exhaust valves when closed to permit the initial movement of the inlet valve without actuation of the exhaust valve, and to shift

the exhaust valve with the completion of the movement of the inlet valve, to permit the complete reversal of the inlet valve.

1,082,636. SEWING-MACHINE THREAD PULL-OFF. ALBERT E. JOHNSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 14, 1910. Serial No. 538,086. (Cl. 112-26.)



1. A sewing machine, having, in combination, stitch forming mechanism, a tension device, a presser foot, means to lift the presser foot, a thread pulling finger, operative connections from the presser foot lifting means to move the finger in a direction to pull thread through the tension device, and a device for returning the finger to its initial position acting independently of the movement of the presser foot lifting means.

2. A sewing machine, having, in combination, stitch forming mechanism, a tension device, a thread pulling finger, a presser foot, means to lift the presser foot and actuate the finger to pull thread through the tension device, and means to return the finger to its normal, operative position while the presser foot is held lifted.

3. A sewing machine having, in combination, stitch forming mechanism, a tension device, a rock shaft having a thread-engaging member mounted thereon, a cam member mounted upon said shaft, an arm in operative engagement with said cam member, means to actuate the arm and move the rock shaft to cause the thread-engaging member to pull slack thread from the tension device, and means to return the rock shaft and thread-engaging member to their initial position.

4. A sewing machine, having, in combination, stitch forming mechanism, a tension device, a rock shaft having a thread engaging finger, a cam member having a spur mounted on said shaft, a hooked arm for engaging said spur, means to actuate the arm to rock the shaft and cause the finger to pull slack thread through the tension device, a shoulder on the cam member to engage the hooked arm during the rocking of the shaft and disengage it from the spur, and means to return the shaft and finger to their initial positions.

5. A sewing machine having, in combination, stitch forming mechanism, a tension device, a rock shaft having a thread-engaging finger, a rotary cam member having a spur mounted on said shaft, a hooked arm for engaging said spur, means to actuate the arm to rock the shaft and cause the finger to pull slack thread through the tension device, a slanted-off portion terminating in a shoulder formed on the cam member to engage the hooked arm during the rocking of the shaft and disengage it from the spur, and means to return the shaft and finger to their initial position.

1,082,637. CLOTHES-LINE REEL. SVEN A. JULIEN, Chicago, Ill. Filed Dec. 3, 1910. Serial No. 595,330. (Cl. 242-98.)

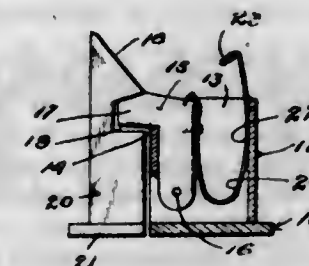
In combination, a clothes line reel having cross arms, a single substantially straight supporting handle bar, a short stub shaft connected to the bar at one side thereof

and bearing thereon the cross arms, brackets on said cross arms so placed as to make the diameter of the reel wider



than the length of the stub shaft, and a line guide on the bar.

1,082,638. SASH-FASTENER. BERNHARD KAROW, Staunton, Ill. Filed Nov. 9, 1912. Serial No. 730,376. (Cl. 16-146.)



1. In a sash fastener, a base member secured to the upper rail of the lower sash, a housing opened at its upper side and one end, an L-shaped member pivoted in the housing and having one end projecting through the opening in the housing, a U-shaped spring disposed in the housing and projecting through the upper opening thereof, one end of the spring being secured to the upper portion of the pivoted member, the other end of the spring projecting through the upper side of the housing and provided with a thumb-piece, and a member secured to the lower rail of the upper sash comprising a base, on which is mounted a vertically extending member having a notch for receiving the projecting end of the pivoted member, and an inclined face above the notch.

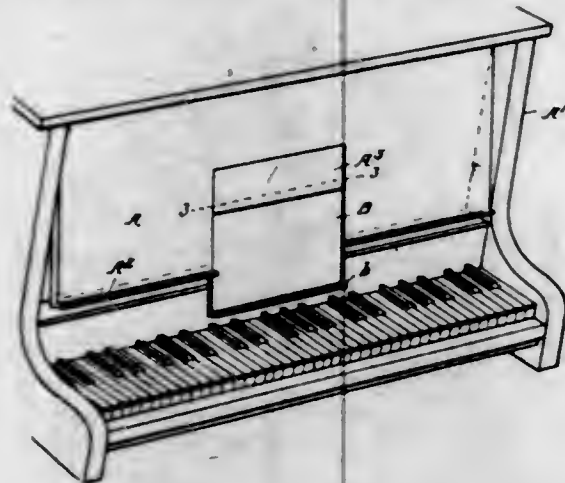
2. A mechanical movement, comprising a support, a pivoted member mounted on the support, and a leaf spring doubled on itself attached at one of its ends to the pivoted member and bearing slidably with its other end against the stationary support, whereby upon longitudinal pressure being exerted on the unattached portion of the spring, the attached portion will move the pivoted member toward the unattached portion of the spring.

3. A mechanical movement, comprising a movable part and a stationary part, and a U-shaped spring having one of its arms attached to the movable member and the other arm bearing slidably against the stationary support, the attached end of the spring being arranged to draw the pivoted member toward the unattached end of the spring upon longitudinal slidable movement being imparted to the unattached end.

1,082,639. MUSIC-HOLDER FOR PIANOS. HORACE M. KAUFFMAN, South Bend, Ind., assignor to The South Bend Music Holder Manufacturing Company, a Copartnership composed of Earl K. Proctor, George M. Studebaker, Jr., and Horace M. Kauffman, South Bend, Ind. Filed Nov. 9, 1912. Serial No. 730,460. (Cl. 84-118.)

1. A piano having a pivotally mounted panel provided with a depression, the sides of which are under-cut, and

a music holder sliding in the depression with its surface flush with the outer surface of the panel.



2. A piano having a pivotally mounted panel provided with a depression, and a music holder comprising a plate sliding in the depression with its outer face flush with the surface of the panel.

3. In a piano, a pivotally mounted panel provided with a depression extending from near its center to the lower edge thereof, a ledge secured along the lower edge of the panel and provided with a cut-away portion opposite the depression, a music holder comprising a slide provided with a ledge adapted to be slid into the depression with the ledge of the music holder in alignment with the ledge of the panel.

4. A piano having a swinging panel provided with a recess, a ledge along the lower edge of the panel, having a cut-out portion adjacent the recess in the panel, a music holder disposed in the recess in the panel, and a ledge carried by the music holder and disposed within the cut-out portion of the ledge on the panel.

5. A piano having a swinging panel provided with a recess, grooved guides along the opposing sides of the recess, a ledge carried by the panel and provided with a cut-out portion opposite the recess, a music holder slidably disposed in the recess in the panel and entering the grooved guides, and a ledge carried by the music holder and complementary to the ledge on the panel.

[Claims 6 and 7 not printed in the Gazette.]

1,082,640. BITUMINOUS PUTTY. WILLIAM A. LEVERING, Chicago, Ill., assignor to Standard Asphalt & Rubber Co., Chicago, Ill., a Corporation of New Jersey. Filed Sept. 3, 1912. Serial No. 718,259. (Cl. 106—8.)

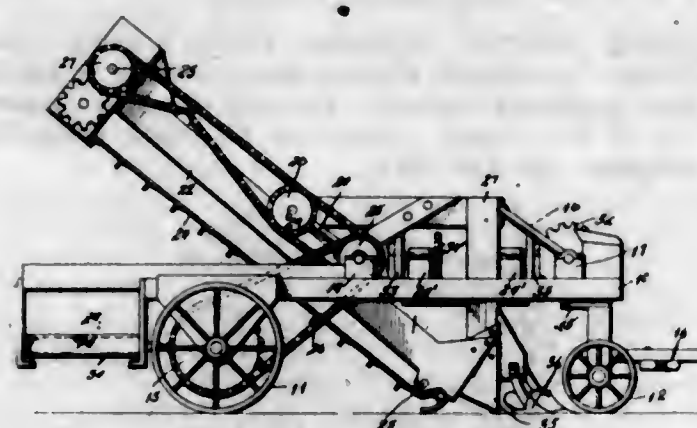
1. The herein described product consisting of a major portion of mineral dust mixed with a minor portion of an air blown asphalt formed from dehydrated and oxidized petroleum residuum of a solid or semi-solid consistency, markedly higher in its content of asphaltene and lower in its petroleum content than the residuum from which said asphaltic product was formed, said mixture forming a bituminous body.

2. The herein described product consisting of a major portion of lime dust and a minor portion of air blown petroleum residuum, said constituents when united forming a bituminous putty.

3. The herein described product consisting of a mixture of mineral dust and an asphaltic compound formed from dehydrated and oxidized petroleum residuum of a solid consistency, said asphaltic compound being markedly higher in its asphaltene content and lower in its petroleum content than the residuum from which said asphaltic compound is formed, said mixture forming a bituminous putty.

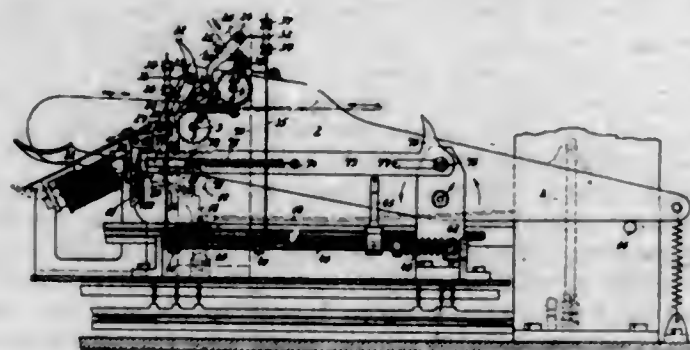
4. The herein described product consisting of a mixture of the major portion of finely comminuted mineral matter and a minor portion of air blown petroleum residuum, said mixture forming a bituminous putty of an elastic rubbery character impervious to the disintegrating action of the weather.

1,082,641. DITCHING-PLOW. LOUIS E. LUDWIG, Dale, Ind. Filed May 17, 1912. Serial No. 607,993. (Cl. 37—25.)



In a ditching machine including a wheeled frame, transversely extending crank shafts mounted in the intermediate and forward portions of the frame, a digger and elevator disposed in the said frame, the intermediate and forward portions of the digger and elevator being connected respectively to the intermediate and forward crank shafts, and means for rotating the crank shafts to raise and lower the elevator.

1,082,642. MACHINE FOR PRODUCING JUSTIFICATION-SYMBOLS IN REGISTER-BANDS. EDUARD MAREK V. MARCHTHAL, Vienna, Austria-Hungary, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Filed Apr. 20, 1912. Serial No. 692,158. (Cl. 164—112.)



1. In apparatus for making register bands, the combination, with a punching device comprising a plurality of punches, of a looped band led twice into operative relation with the punches.

2. In apparatus for making register bands, the combination, with a punching device comprising a plurality of punches, of a looped band led twice into operative relation with the punches and a guide bar in the loop of the band.

3. In apparatus for making register bands, the combination, with a punching device comprising a plurality of punches, of a looped band led twice into operative relation with the punches, and a guide bar in the loop of the band, the guide bar being of such a size that the part of the band forming the loop when closely surrounding the guide bar is sufficiently large to accommodate the justification symbols.

4. In apparatus for making register bands, the combination, with a punching device comprising a plurality of punches, of a looped band led twice into operative relation with the punches, feed mechanism comprising a gear wheel for feeding one part of the loop, and a longitudinally displaceable toothed rack adapted to be brought into engagement with and disengaged from the gear-wheel.

5. In apparatus for making register bands, the combination, with a punching device comprising a plurality of punches, of a looped band led twice into operative relation with the punches, feed mechanism comprising a gear wheel for feeding one part of the loop, and a spring-pulled, longitudinally displaceable toothed rack, having a

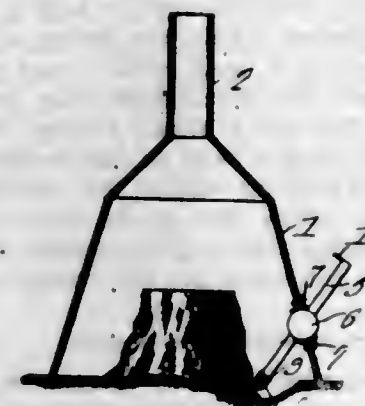
grip, adapted to be brought into engagement with and disconnected from the gear wheel, and stops on the rack for limiting the movement thereof in both directions. [Claim 6 not printed in the Gazette.]

1,082,643. LIFE-SAVING SUIT. THOMAS MATTHEWS, Brooklyn, N. Y. Filed Oct. 25, 1912. Serial No. 727,655. (Cl. 9—20.)



In a life saving suit, the combination with a water proof suit having a heat retaining lining and a placket, of lacing means at the placket, a filling piece at the placket, a hood integral with the suit and having similar lining, pockets at the chest of the suit, floats for the pockets, and flexible cuffs.

1,082,644. STUMP-BURNER. HARVEY H. MORGAN, Alexandria, La. Filed Apr. 19, 1913. Serial No. 762,339. (Cl. 110—21.)



A stump burner comprising a casing open at the bottom and having a conical top converging into a smoke stack, a curved flange secured to the casing around an opening therein, a ball having a passage therethrough movably held in said flange, a tube slidable in the passage in the ball, a hinged cover on the top of the tube, and a guard on the bottom thereof, said guard being composed of wire strands secured to the tube by a collar.

1,082,645. UMBRELLA-COVER. ARCHIE E. MYERS, Sardinia, N. Y. Filed Mar. 19, 1912. Serial No. 684,660. (Cl. 135—34.)

A removable cover for umbrellas, consisting of a plurality of connected triangular sections, each of said sections being formed with a pair of integral extensions projecting outwardly from their outer vertices and adapted to be connected by lines of stitches to the extensions of the adjoining sections, said extensions providing tabs,

separate strips having their major axis in line with the lines of stitches and their side edges and outer end



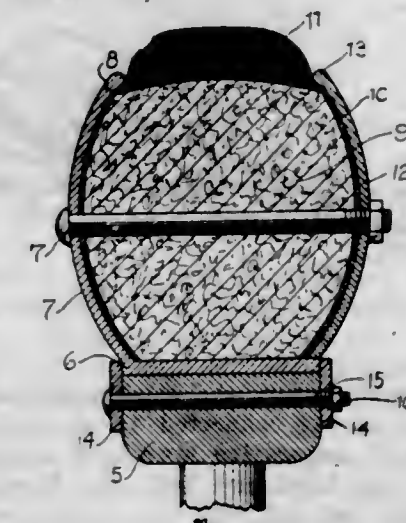
edges stitched to the extensions to form pockets for detachably engaging the tips of the umbrella ribs.

1,082,646. PUMP-VALVE AND VALVE-DECK. AUGUSTUS F. NAGLE, Bethlehem, Pa. Filed Apr. 5, 1913. Serial No. 759,004. (Cl. 103—66.)



The combination of a valve deck provided with a multiplicity of apertures; valve bodies associated with each aperture and projecting from the plane of the valve deck, said valve bodies being provided with valve seats, valves, and valve supporting means outside of the plane of the valve deck, and with sides which are flared outwardly between the plane of the valve deck and the plane of the valve supporting means.

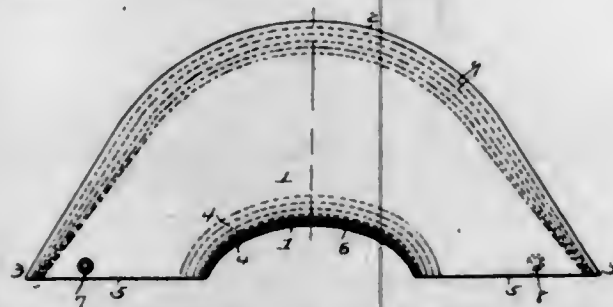
1,082,647. CUSHION-TIRE. NATHANIEL K. PARRISH, Gainesville, Fla. Filed June 20, 1913. Serial No. 774,892. (Cl. 152—1.)



A tire structure comprising an annular rim adapted to surround the felly of a wheel and having produced adjacent one marginal portion and disposed substantially perpendicular thereto the outwardly bowed flange, the periphery of the rim from the flange thereof to its free margin being unobstructed, an annular outwardly bowed detachable flange removably insertible over the rim and

positioned adjacent the free marginal portion thereof and capable of movement relatively to the stationary flange substantially across the entire width of the rim, an annular compressible cushioning member surrounding the rim and interposed between the flanges and adapted to be engaged thereby, an annular tread member carried by the cushioning member and positioned between the flanges and projecting therebeyond, and retaining means positioned at intervals and extending through the flanges and the cushioning member at substantially the transverse centers thereof such retaining means being operable to create the requisite clamping engagement of the flanges with the cushioning member.

1,082,648. HEAD-DRESS. GEORGE RAWAK, New York, N. Y. Filed July 25, 1913. Serial No. 781,154. (Cl. 2—106.)

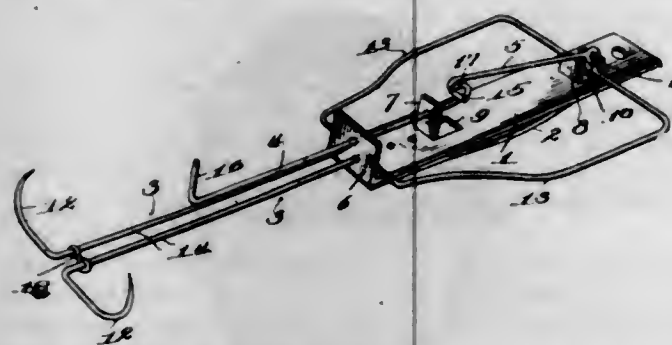


1. A cap comprising two members forming a head opening between them and also having lateral pointed ends projecting laterally beyond the head opening and adapted to be made to embrace the head of the wearer, and fastening devices on said lateral pointed ends for connecting them together.

2. A cap comprising two segmental members united at their upper edges and ends, the lower edges of said members being left free and forming a head opening, the lateral portions of the cap projecting beyond the head opening and fastening devices on said lateral portions for connecting the latter together.

3. A cap comprising two segmental members having lateral pointed ends, the outer edges of said members being united from one pointed end to the other, the lower edges of said members being free and the edges extending from the lower free edges to the upper united edges being united, and fastening means near said lateral pointed ends.

1,082,649. ANIMAL-TRAP. WILLIAM I. RAYMOND, Forest Grove, Oreg. Filed Feb. 8, 1913. Serial No. 747,123. (Cl. 43—23.)



1. In an animal trap, the combination of a base; an operating leaf spring connected at its front end to said base; a pair of cooperative jaws each embodying a wing connected at its front end with the front end of said base and at its rear end with the rear end of said spring; an impaling member, and a connecting portion between said wing and member; and means for holding said jaws in set position.

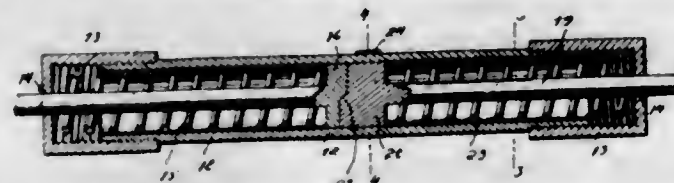
2. In an animal trap, the combination, with a base provided with an opening and a perforated projection in advance thereof, and an operating spring having a perforated finger disposed beneath said opening and adapted to extend therethrough when the trap is set; of a pair of cooperative rocking jaws pivotally mounted in the per-

forations in said projection and finger; a trigger slidably connected with said base; and a detent pivoted to said finger and adapted to engage said trigger for holding said jaws in set position.

3. In an animal trap, the combination, with a base provided with an opening and a perforated projection in advance thereof, and an operating spring connected to the under side of said base and having a perforated finger disposed beneath said opening and adapted to extend therethrough when the trap is set; of a pair of cooperative rocking jaws each embodying a wing pivotally engaged at opposite ends in the perforations in said projection and finger, an impaling member, and a connecting portion between said wing and member; a trigger slidably connected with said projection; and a detent pivoted to said finger and adapted to engage said finger for holding said jaws in set position.

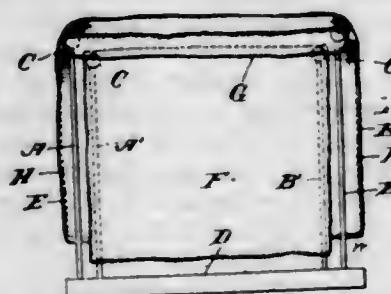
4. In an animal trap, the combination with a base provided with an opening and a perforated projection in advance thereof, and an operating spring connected to the under side of said base and having a perforated finger disposed beneath said opening and adapted to extend therethrough when the trap is set; of a pair of cooperative rocking jaws pivotally mounted in the perforations in said projection and finger; an endwise movable trigger connected with said projection and having a hooked rear terminal; and a detent pivoted at one end to said finger and having its free end hooked for engagement with the trigger hook to hold said jaws in set position.

1,082,650. CRANK FOR AUTOMOBILE-ENGINES. GEORGE W. REDBURN, College Place, Wash. Filed May 9, 1912. Serial No. 696,183. (Cl. 123—185.)



In a cranking device for an automobile gas engine, which engine includes a shaft, a casing, a shaft for detachable engagement with the engine shaft, a head on the said shaft and disposed within the casing, a crank shaft disposed in the casing, a head on the crank shaft, clutch faces on the heads for engagement with each other, a crank handle on the crank shaft, ratchet teeth on the head of the crank shaft, a pawl on the casing for engagement with the said teeth to prevent the backward rotation of the crank shaft, screw caps on the ends of the casing, springs in the casing and bearing against the caps and heads, and means for mounting the casing on the automobile.

1,082,651. BAG REVERSING AND LINING APPARATUS. WILLIAM H. RICHARDSON, Jersey City, N. J. Filed Aug. 15, 1912. Serial No. 715,162. (Cl. 139—47.)



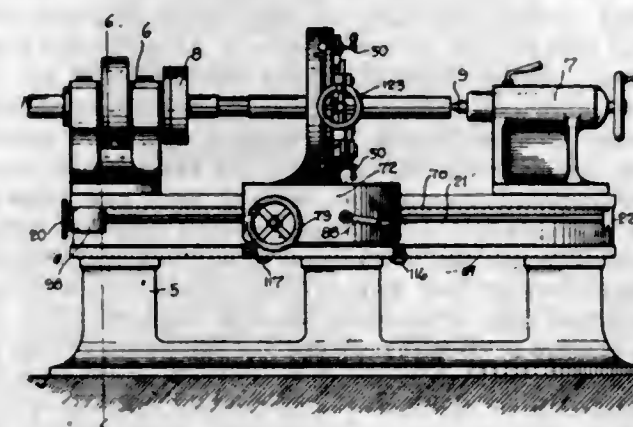
1. A device of the character specified, comprising four parallel upright elements attached to a base and situated approximately within one plane, the two outer longer elements being so situated with respect to each other as to support a bag, and the two inner shorter elements being so situated with respect to each other and to the bag supporting elements as to support a lining for the bag.

2. A device of the character specified, comprising four parallel metallic upright elements attached to a base and

situated approximately within one plane, the two outer longer elements being so situated with respect to each other as to support a bag, and the two inner shorter elements being so situated with respect to each other and to the bag supporting elements as to support a lining for the bag, the upright elements being surmounted by rounded tops.

3. A device of the character specified, comprising two pairs of parallel metallic upright elements fixedly attached to a base and situated approximately in one plane, the distance between the two pairs of elements being materially greater than the distance between the members of each pair, the uprights being surmounted by rounded tops and the two outer end uprights being slightly longer than the two inner uprights.

1,082,652. LATHE. CHARLES F. ROTH, Pilot Grove, Mo. Filed May 24, 1913. Serial No. 769,751. (Cl. 82—20.)



1. In a lathe, a sliding carriage, a plurality of shaft cutting members mounted for radial movement upon said carriage, means for sliding the carriage, and electro-mechanical means for alternately moving the cutting members inwardly and outwardly toward or from the axial center of the shaft at predetermined times in the longitudinal sliding movement of said carriage.

2. In a lathe, a sliding carriage, a plurality of shaft cutting members mounted for radial movement upon said carriage, means for sliding the carriage, and electro-mechanical means for alternately moving the cutting members inwardly and outwardly toward or from the axial center of the shaft at predetermined times in the longitudinal sliding movement of said carriage, said means including an electric circuit and adjustable contact members in said circuit whereby the times of movement of said cutting members may be predetermined.

3. In a lathe, a sliding carriage, a tool radially movable upon said carriage with relation to the work, means for sliding said carriage, electro-mechanical means for interrupting the sliding movement of the carriage at predetermined times, a circuit therefor, and means included in said circuit for alternately moving the tool inwardly and outwardly toward or from the work at opposite ends of each sliding movement of the carriage.

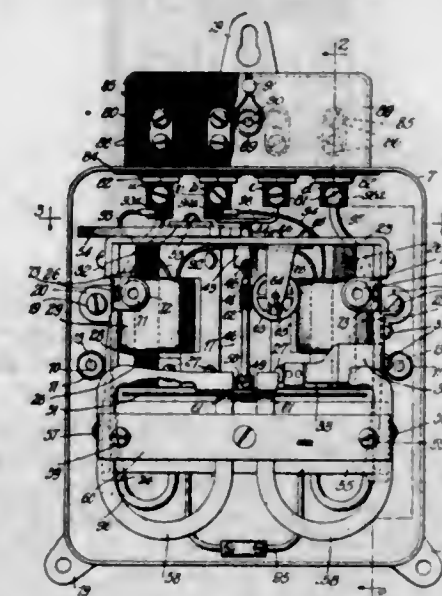
4. In a lathe, a sliding carriage, a plurality of tools radially movable upon said carriage with relation to the work, means for sliding said carriage, and electro-mechanical means for interrupting the sliding movement of the carriage and simultaneously moving the tools inwardly into engagement with the work, said means including an electric circuit and an adjustable contact arranged therein whereby the time of inward movement of the tool members with relation to the longitudinal movement of the carriage may be predetermined.

5. In a lathe, a sliding carriage, a tool radially movable upon said carriage with relation to the work being operated upon, means for sliding said carriage, electro-mechanical means for interrupting the sliding movement of the carriage, said means including an electric circuit and adjustable contact members therein adapted for engagement by a circuit closing contact on the carriage whereby the extent of each sliding movement of the carriage may be

predetermined and additional means in said circuit for alternately moving the cutting tool inwardly and outwardly toward or from the work at the opposite end of each sliding movement of the carriage.

[Claims 6 to 12 not printed in the Gazette.]

1,082,653. INDUCTION-WATTMETER. GUSTAVE A. SCHEFFER, Indianapolis, Ind., assignor, by mesne assignments, to Roller Smith Co., New York, N. Y., a Corporation of New York. Filed Aug. 31, 1910. Serial No. 579,942. (Cl. 171—264.)



1. In an induction watt meter, an armature, a bearing, a shaft for said armature positively resting upon said bearing, and a magnetically excited bearing engaging the upper end of said shaft wherein the shaft is held against lateral movement due to the magnetic influence of said excited bearing and against movement longitudinally of its axis due to its mechanical engagement with said excited bearing.

2. In an induction watt meter, an armature, a shaft for said armature, a jewel bearing for the lower end of said shaft, which bearing said shaft mechanically engages at all times, a bearing for the upper end of said shaft, said bearing mechanically holding said shaft against axial play, and magnetic means associated with the upper bearing, the magnetic influence of said magnetic member serving to hold said shaft against lateral movement in said upper bearing.

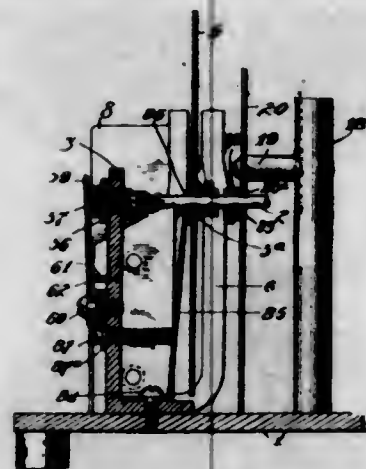
3. In an induction watt-meter, an armature, a lower bearing, a shaft for said armature positively resting upon said lower bearing, a tip of magnetic material for the upper end of said shaft, a bearing for cooperation with said tip to mechanically hold said shaft against axial play, and magnetic means associated with said bearing, the magnetic influence of said magnetic means alone serving to hold said tip against lateral movement in said upper bearing.

4. In an induction watt-meter, an armature, a bearing, a shaft for said armature positively resting upon said bearing, a bearing of magnetic material for said armature, said bearing mechanically holding said armature against axial play, and a magnet for exciting said last-named bearing, lateral displacement of the armature being prevented by the magnetic influence of said excited bearing.

5. In an induction watt-meter, an armature, a lower bearing, a shaft for said armature positively resting upon said lower bearing, a bearing of magnetic material for the upper end of said shaft engaging said shaft and mechanically holding the same against axial play, and a magnet adjustably disposed relatively to said bearing for magnetically exciting the same, lateral displacement of the armature being prevented by the magnetic influence of said excited bearing.

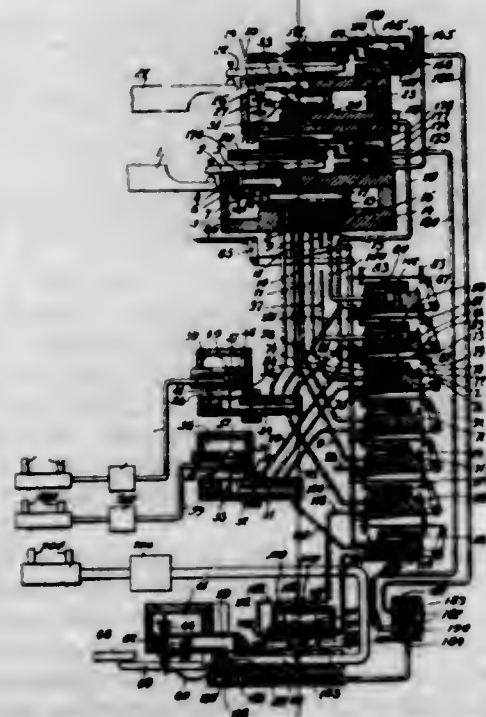
[Claims 6 to 12 not printed in the Gazette.]

1,082,654. ELECTRIC METER. GUSTAVE A. SCHNEFFER, Indianapolis, Ind., assignor by mesne assignments, to Roller Smith Co., New York, N. Y., a Corporation of New York. Filed Jan. 14, 1910, Serial No. 538,031. Renewed Sept. 19, 1913. Serial No. 790,780. (Cl. 171-265.)



In an electric meter, the combination of a base, an armature shaft, a retarding disk carried by the shaft, a retarding magnet, a lower bearing for the shaft, a bracket for supporting such bearing, a lifting spring normally out of engagement with the disk and shaft, a screw threaded through the bracket for engaging the spring to move it up against the disk to lift the shaft from its lower bearing, an adjustable collar secured to the shaft above the disk and conically shaped at its upper end, and a plate supported from the base and provided with an opening to receive and engage the upper end of the collar when the shaft is lifted from its lower bearing.

1,082,655. ORGAN-COUPLER. JOSEPH SCHWERTNER, New York, N. Y., assignor to Heerwagen Company, a Corporation of New York. Filed June 26, 1912. Serial No. 705,935. (Cl. 84-126.)



1. In an organ or like coupler combined with suitable speaking devices, two sets of controlling air ducts controlling two sets of speaking devices respectively, a plurality of coupling valves, the closures of which slide over their respective valve seats and each valve closure being independently movable toward its seat, one valve for each duct of one set for opening and closing the same, a spring for each valve tending to press the same toward its seat, and means for opening or closing said valves simultaneously to couple or uncouple said sets of speaking devices.

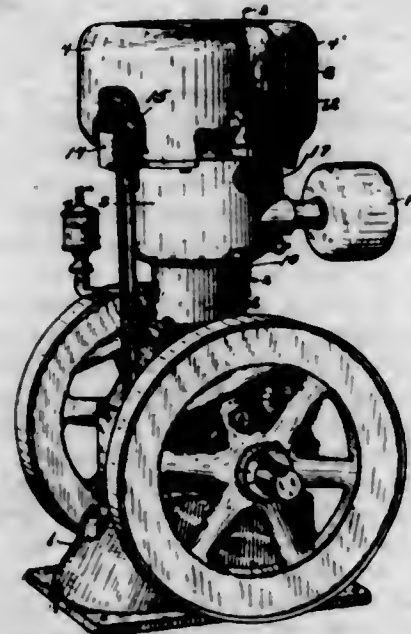
2. In an organ or like coupler combined with suitable speaking devices, two sets of controlling air ducts controlling two sets of speaking devices respectively, a plurality of coupling valves for the ducts of one set, the closures of which slide over their respective valve seats and each valve closure being independently movable toward its seat, one valve for each duct of one set for opening and closing the same, and means for opening and closing said valves to couple or uncouple said sets of speaking devices.

3. In an organ or like coupler combined with suitable speaking devices, two sets of controlling air ducts controlling two sets of speaking devices respectively, a plurality of coupling valves, the closures of which slide over their respective valve seats and each valve closure being independently movable toward its seat, one valve for each duct of one set for opening and closing the same, and means for opening or closing said valves simultaneously to couple or uncouple said sets of speaking devices.

4. In an organ or like coupler combined with suitable speaking devices, two sets of controlling air ducts controlling two sets of speaking devices respectively, a plurality of coupling valves for the ducts of one set, the closures of which slide over their respective valve seats and each closure having its moving structure movable toward its seat independently of the others, and means for mechanically moving the same to open and close the valves to couple and uncouple said sets of speaking devices.

5. In an organ or like coupler combined with suitable speaking devices, two sets of controlling air ducts controlling two sets of speaking devices respectively, a plurality of sliding coupling valves for the ducts of one set, each having its moving structure movable toward its seat independently of the others, a spring for each valve tending to press the moving structure thereof toward its seat, said springs having ends and common means engaging said ends to move the valve structure simultaneously to couple and uncouple said sets of speaking devices.

1,082,656. INTERNAL-COMBUSTION ENGINE. LOUIS F. SECORD AND BENJAMIN ORR, Jackson, Mich., assignors to Whitman Agricultural Co., St. Louis, Mo. Filed June 15, 1912. Serial No. 703,816. (Cl. 123-173.)



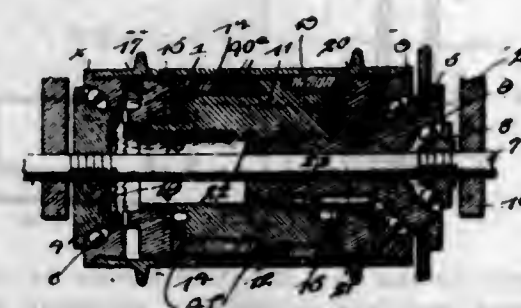
1. In an internal combustion engine, the combination with the upright cylinder, of a suitable water jacket open at the top, a cooling hopper connected by suitable flanges to the said water jacket and having a recess formed in the wall thereof to accommodate the valves and having a lateral aperture through which connection to the carburetor is made, a valve and valve casing and feed connection disposed in said recess in spaced relation to the wall of said hopper coacting as described for the purpose specified.

2. In a water cooled engine, the combination with the engine cylinder with jacket open at the top and a cooling hopper, connected by suitable flange thereto with a recess

in the wall thereof to accommodate the valves of the engine, and a valve with casing disposed in said recess in spaced relation to said hopper wall, as specified.

3. In a water cooled engine, the combination with the engine cylinder with jacket open at the top and a cooling hopper, with a recess in the wall thereof to accommodate the valves of the engine, and a valve with casing disposed in said recess in spaced relation to said hopper wall, as specified.

1,082,657. CLUTCH. WARREN SMITH, Sapulpa, Okla., assignor of one-fourth to Anna B. Thompson, one-fourth to Eleanor A. Smith, and three-sixteenths to Elbert C. Wallace, Sapulpa, Okla. Filed May 16, 1912. Serial No. 697,743. (Cl. 208-57.)



1. A device of the character described including a hub, an axle mounted within said hub, a spindle mounted on said axle, an interiorly threaded spool having threaded engagement with said spindle, said spool being formed with oppositely disposed cam surfaces, segments mounted on said cam surfaces, a pair of rings mounted on said spool and adapted for interlocking engagement with said segments, a ring mounted on said hub and adapted for engagement with one of the first mentioned rings, a ring mounted on said axle and adapted for engagement with the other of said first mentioned rings, and means for shifting said spool, as and for the purpose described.

2. A device of the character described, including a hub, an axle mounted within said hub, a spindle mounted on said axle, a spool provided with oppositely disposed cam surfaces mounted on said spindle, toothed rings, one of said rings mounted in said hub and the other ring mounted on said axle, segments mounted on the cam surfaces, rings interlocking with said segments, and means for shifting said spool to the right or to the left, whereby to effect the engagement of one pair of rings and permit of the disengagement of the other pair.

3. A device of the character described, including a spool formed with cam faces, expansible segments mounted on said faces, means for relatively turning the segments and the spool, whereby to expand the segments, a casing against which the segments are designed to be expanded, and interlocking groove and projection connections between said segments and cams, for the purpose specified.

1,082,658. PROCESS OF PRESERVING WOOD. EDWARD E. SOMERMEIER, Columbus, Ohio. Filed Dec. 22, 1910. Serial No. 598,697. (Cl. 99-12.)

The process for preserving fibrous, organic materials of the kinds enumerated herein, consisting in treating said materials with a solution of one or more compounds of copper, together with arsenious acid in solution in a suitable dilute alkaline solvent as specified herein.

1,082,659. SICKLE-DRIVE FOR MOWING-MACHINES AND HARVESTERS. JOHN C. SWANSON, Buffalo, Minn. Filed June 7, 1912. Serial No. 702,212. (Cl. 56-42.)

1. In a machine of the kind described, the combination with a sickle bar and cutting mechanism mounted thereon, of a connecting bar pivotally attached at its rear end to the frame of said machine and having at its forward end a bifurcated head having its prongs pivotally attached to said sickle bar, a brace rod attached to the forward end of said connecting bar by a loose joint, rearwardly diverging therefrom and pivotally attached, at its rear end, to the frame of said machine, and driving connections from the traction wheel of said machine to said cutting mechanism including flexible joints located on lines intersecting the pivotal connection between said bar and rod and the frame of said machine, and the pivotal connections between the prongs of the bifurcated head and the sickle bar, said two flexible joints extending substantially at right angles one to the other, substantially as described.

197 O. G.—70

2. In a machine of the kind described, the combination with a sickle bar and cutting mechanism mounted thereon, of a connecting bar pivotally attached at its rear end to the frame of said machine and terminating at its forward end in a bifurcated head having its prongs pivotally attached to said sickle bar, a brace rod connected to the forward end of said connecting bar by a loose joint, rearwardly diverging therefrom and pivotally attached, at its rear end, to the frame of said machine, and driving connections from the traction wheel of said machine to said cutting mechanism including flexible joints located on lines intersecting the pivotal connection between said bar and rod and the frame of said machine, and the pivotal connections between the prongs of the bifurcated head and the sickle bar, said two flexible joints extending substantially at right angles one to the other, substantially as described.

3. In a machine of the kind described, the combination with a sickle bar and cutting mechanism mounted thereon, of a connecting bar pivotally attached at its rear end to the frame of said machine and terminating at its forward end in a bifurcated head having its prongs pivotally attached to said sickle bar, a brace rod connected to the forward end of said connecting bar by a loose joint, rearwardly diverging therefrom and pivotally attached, at its rear end, to the frame of said machine, and driving connections from the traction wheel of said machine to said cutting mechanism including flexible joints located on lines intersecting the pivotal connection between said bar and rod and the frame of said machine, and the pivotal connections between the prongs of the bifurcated head and the sickle bar, said two flexible joints extending substantially at right angles one to the other, substantially as described.

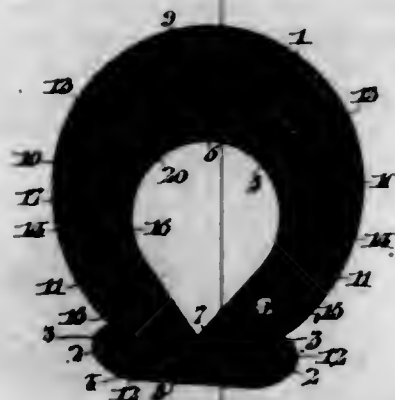


4. In a machine of the kind described, the combination with a sickle bar and cutting mechanism mounted thereon, of a connecting bar pivotally attached at its rear end to the frame of said machine and having at its forward end a head pivotally attached to the sickle bar, a brace rod connected to the forward end of said connecting bar by a loose joint, rearwardly diverging therefrom and pivotally attached at its rear end to the frame of said machine, a gear-equipped driving shaft journaled at one end on said machine frame and having its other end journaled on said head, driving connections between one end of said shaft and the traction wheel of the machine, and a vertically extended shaft journaled on said head and having at its upper end a pinion meshing with the gear of said driving shaft and having its lower end connected to said cutting mechanism by a flexible joint, substantially as described.

5. In a machine of the kind described, the combination with a sickle bar and cutting mechanism mounted thereon, of a connecting bar pivotally attached at its rear end to the frame of said machine and having at its forward end a head pivotally attached to the sickle bar, a brace rod connected to the forward end of said connecting bar by a loose joint, rearwardly diverging therefrom and pivotally attached, at its rear end, to the frame of said machine, a gear-equipped driving shaft journaled at one end on said machine frame and having its other end journaled on said head, driving connections between one end of said shaft and the traction wheel of the machine, and a vertically extended shaft journaled on said head and having at its upper end a pinion meshing with the gear of said driving shaft and having its lower end connected to said cutting mechanism by a flexible joint, and a flexible joint in said driving shaft located in

a line intersecting the pivotal connections between said bar and rod and the frame of said machine, substantially as described.

1,082,660. INNER TIRE. JOHN A. THOMSON, Allentown, Pa., assignor of one-third to James Henry Howard and one-third to Joseph Lawrence Howard, Allentown, Pa. Filed Apr. 30, 1913. Serial No. 764,476. (Cl. 152-18.)



1. An inner tire comprising a body portion adapted to extend substantially about the inner tube, and separated at its inner face to receive said tube, said body portion consisting of a plurality of longitudinally extending circumferential sections placed side by side, and alternately formed of rubber and fabric, said rubber sections being of slightly greater thickness than the fabric sections.

2. An inner tire comprising a body portion adapted to extend substantially about the inner tube, said body portion having a circumferential rubber section in the central plane of the tire and circumferential fabric sections at each side of said rubber section.

3. An inner tire comprising a body portion adapted to extend substantially about the inner tube, said body portion having a circumferential rubber section in the central plane of the tire and circumferential fabric sections at each side of said rubber section, said rubber section being of slightly greater thickness than the fabric sections.

4. An inner tire comprising a body portion, adapted to extend substantially about the inner tube, said body portion consisting of an inner layer of fabric, circumferential sections of rubber and fabric placed alternately side by side on said fabric, and an outer layer of fabric extending about said inner tire, said rubber sections being of slightly greater thickness than the fabric sections.

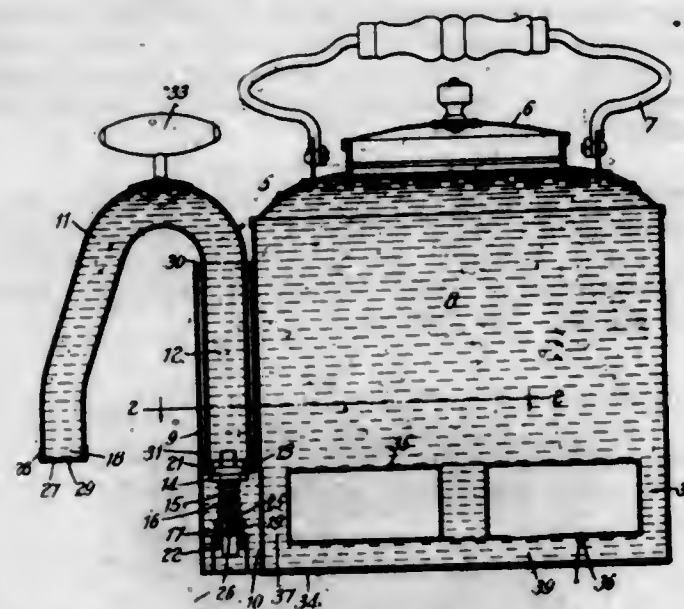
5. An inner tire comprising a body portion adapted to extend substantially about an inner tube and separated at its inner face to receive said tube, said body portion consisting of a plurality of longitudinally extending circumferential sections, one section being disposed in the central plane of the tire, the sections on either side of said central section being less elastic than said central section.

1,082,661. LIQUID-RECEPTACLE. WILLIAM H. TUCKER, Boston, Mass. Filed Feb. 13, 1913. Serial No. 748,055. (Cl. 137-20.)

1. A device of the class described having, in combination, a receptacle comprising a main reservoir, and a supply chamber having communication with said main reservoir adjacent to the bottom thereof, an inverted U-shaped tube, one of the legs of said tube adapted to telescope said supply chamber, a valve located adjacent to the extremity of the leg of said tube within said supply chamber adapted to be manipulated by the telescopic movements of said tube.

2. A device of the class described having, in combination, a liquid receptacle comprising a main reservoir, and a cylindrical supply chamber vertically disposed relatively to said main reservoir having communication with said receptacle adjacent the bottom thereof, a U-shaped siphon tube, one of the legs of said siphon tube adapted to telescope said cylindrical supply chamber, a packing ring interposed between said telescoping leg and said cylinder, a

valve arranged adjacent to the extremity of said telescoping leg, and means actuated by the telescopic movements of said tube adapted to open said valve.



3. A device of the class described having, in combination, a liquid receptacle including a vertically disposed cylindrical chamber, an inverted U-shaped siphon tube, one leg of said tube adapted to telescope said cylindrical chamber, a valve arranged adjacent to the extremity of said telescoping leg, said valve having a depending stem, a spring adapted to close said valve, a pair of levers pivoted adjacent to the extremity of said leg adapted to engage said stem, a sleeve slidably arranged relatively to said leg adapted to engage the ends of said levers adapted to rock said levers during the telescopic movements of said leg whereby said valve may be opened.

4. A device of the class described having, in combination, a liquid receptacle, an inverted U-shaped tube one of the legs thereof having slidable engagement with said receptacle, a valve arranged in said U-shaped tube, means adapted to open said valve, and a screen arranged adjacent to the extremity of the outer free leg of said U-shaped tube adapted to partially sustain a column of liquid in said U-shaped tube.

5. A device of the class described having, in combination, a liquid receptacle, an inverted U-shaped tube one of the legs thereof having slidable engagement with said receptacle, the top of said tube being normally below the top of said receptacle and the leg of said tube being substantially equal in length and terminating adjacent the bottom of said receptacle, a valve arranged adjacent the extremity of the leg engaging said receptacle, and means adapted to open said valve.

1,082,662. PROCESS OF MANUFACTURING FATTY ACIDS AND GLYCERIN. ERNST TWITCHELL, Wyoming, Ohio. Filed Jan. 20, 1913. Serial No. 744,819. (Cl. 87-4.)

1. The herein described process of treating fats and oils for the manufacture of fatty acids and glycerin, which consists in heating and agitating the fat with water and adding a relatively small percentage of a metallic salt of a sulfo-fatty-aromatic acid, together with an approximately proportionate amount of an acid capable of uniting with the metal component of the saponifier salt, the sulfo-fatty-aromatic acid being liberated in pure, concentrated condition, producing the saponifying reaction, agitating and heating the charge until the fatty acid and glycerin components of the charge are separated, precipitating and separating the metal component of the saponifier holding salt, and finally separating the resultant products of the saponification.

2. The herein described process of treating fats and oils for the manufacture of fatty acids and glycerin, which consists in boiling the fats and oils with water, treating a saponifier holding metallic salt of a refined and concentrated sulfo-fatty-aromatic acid with an acid capable of

uniting with the metal component of the saponifier holding salt, treating the heated fats and oils with the liberated active concentrated and refined saponifier, precipitating and separating out the metal component of the saponifier holding salt, and separating the products of saponification.

1,082,663. REVERSIBLE WINDOW. STEPHEN VIRAGH, Swissvale, Pa. Filed Jan. 31, 1912. Serial No. 674,447. (Cl. 20-43.)



1. The combination of a frame having stiles and provided with grooves and stops, a sash slidable in said frame, said sash having pivots traveling in said grooves, retaining means on said sash, projecting into said grooves, the stops on said frame being provided with notches communicating with the grooves therein, whereby the sash may turn upon its pivots and the retaining means pass into the notches, the distance between said pivots and retaining means being no greater than the width of said stops.

2. The combination of a frame having stiles provided with runways and stops, a sash slidable along said runways, said sash having pivotal projections traveling in said runways, retaining knobs on said sash, said stops being provided with notches communicating with and of less depth than said runways, whereby the sash can turn upon its pivotal projections and the retaining knobs move into the notches, the distance between said projections and knobs being less than the width of said stops.

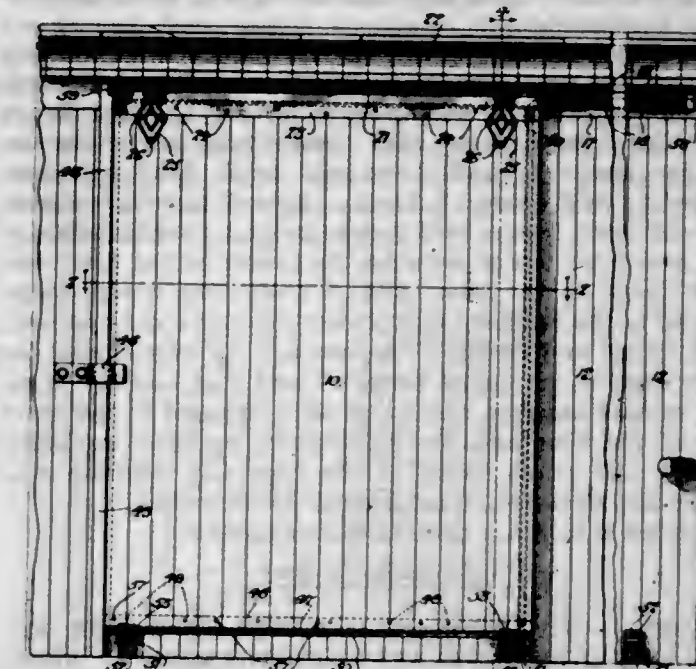
3. The combination of a frame having stiles provided with grooves and stops, a sash slidable in said frame, said sash having projecting pivots engaged in said grooves, retaining knobs on said sash, said stops being provided with notches communicating with said grooves, said grooves being of less depth than the length of said pivots, whereby the sash may turn upon its pivots and the retaining knobs pass into the notches, and said pivots are prevented from escaping through said notches.

4. The combination of a frame provided with stiles having grooves, a sash slidable in said frame, said sash having projecting pivots engaged in said grooves, retaining knobs on said sash, said stiles being provided with notches communicating with said grooves, the retaining knobs being of less length and said notches of less depth than the length of the pivots, whereby the sash may turn upon its pivots and the retaining knobs pass into the notches.

5. The combination with a frame having side stiles provided with vertical runways therein, a sash slidable in said frame, pivots on said sash projecting into said runways, retaining knobs on said sash, said frames being provided with notches for cooperation with said retaining knobs, and holding blocks seated in said runways opposite said notches and adapted to engage said pivots to prevent injury to the frame when the sash is rotated.

[Claims 6 to 10 not printed in the Gazette.]

1,082,664. CAR-DOOR MECHANISM. ARTHUR M. WAITT, Sharon, Conn., and WEYMER H. WAITT, New York, N. Y. Filed Dec. 4, 1912. Serial No. 734,911. (Cl. 20-22.)



1. In combination, a car body having a door opening, a sliding door therefor, a track flange secured to the car body and projecting outwardly above the upper edge portion of the door, the latter having a guard flange extending from edge to edge thereof and projecting upwardly outside of and above said track flange, and hanger brackets secured to the outer face of the door and having portions at their upper ends projecting inwardly through said guard flange and provided with rollers engaging said track flange, said car body having a projecting guard extending outwardly over said track flange and over and closely adjacent the upper edge of the extension guard flange of said door, substantially as described.

2. In combination, a car body having a door opening, a sliding door therefor, a track flange secured to the car body and projecting outwardly above the upper edge portion of the door, the latter having a guard flange extending from edge to edge thereof and projecting upwardly outside of and above said track flange, and hanger brackets secured to the outer face of the door and having portions at their upper ends projecting inwardly through said guard flange and provided with rollers engaging said track flange, said car body having a projecting guard extending outwardly over said track flange and having a downwardly extending lip overlapping the upper edge of the guard flange of said door, and cooperating therewith to protect the upper edges of the door opening and door and to hold said rollers in engagement with said track flange, substantially as described.

3. In combination, a car body having a door opening and having a projecting track flange secured thereto above the door opening, a sliding door having a guard flange extending from edge to edge thereof and projecting upwardly outside of and above said track flange, and hangers secured to the door and having supporting members inside of said guard flange and riding on said track flange, said supporting members being arranged between the planes of the inner and outer faces of the door, said car body having a projecting guard above said track flange provided with a downwardly extending lip overlapping the upper edge of the extension guard flange of said door and cooperating therewith to protect said track flange and the upper edges of said door and door opening, substantially as described.

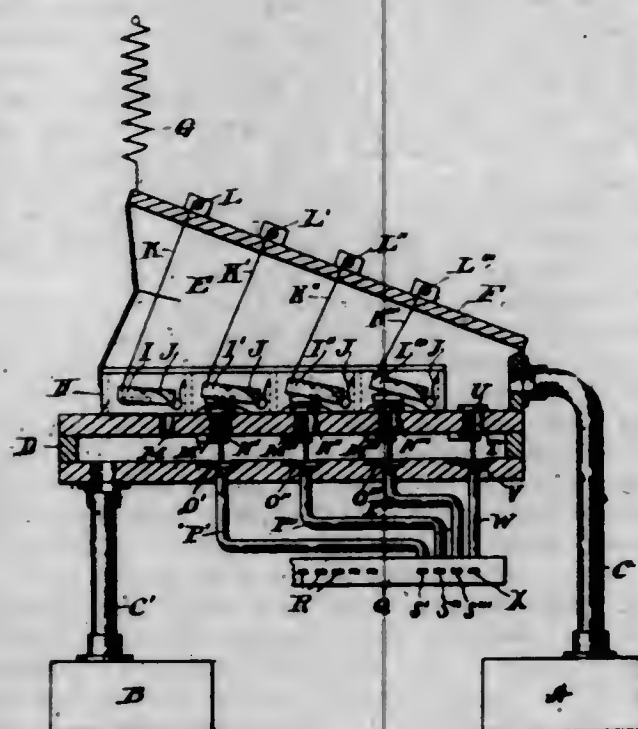
4. In combination, a car body having a door opening and having a projecting track flange secured thereto above the door opening, a sliding door having a guard flange extending from edge to edge thereof and projecting upwardly outside of and above said track flange, hangers secured to said door and having supporting rollers engaging said track flange, said rollers being arranged inside of said guard flange and between the planes of the inner

and outer faces of the door, and a projecting guard flange secured to the car body and projecting outwardly over said track flange and having a downturned lip overlapping the upper edge of the guard flange of said door, substantially as described.

5. In combination, a car body having a door opening and having a projecting track flange secured thereto above the door opening, a sliding door having a guard flange extending from edge to edge thereof and projecting upwardly outside of and above said track flange, hangers secured to said door and having supporting rollers engaging said track flange, said rollers being arranged inside of said guard flange and between the planes of the inner and outer faces of the door, and a projecting guard flange secured to the car body and projecting outwardly over said track flange and having a downturned lip overlapping the upper edge of the guard flange of the door and the upper ends of said hangers, the latter being secured to the outer face of the door and having integral portions extending through the guard flange of the door and whereon said rollers are mounted, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,082,665. GOVERNOR AND REGULATOR FOR MECHANICAL MUSIC-PLAYING INSTRUMENTS. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Mar. 15, 1912. Serial No. 683,941. (Cl. 84-168.)



1. In an apparatus of the character described, a chest having a chamber from which air is to be exhausted, an exhaustor for drawing the air from said chamber, a regulator governor between the chest and the exhaustor and including a collapsible bellows in communication with said chest, two separate valved passages leading from the interior of the bellows to said exhaustor, a regulator valve for each of said passages, each of said regulator valves being controllable by said bellows, an additional valve for one of said passages and normally closing the same, means for operating the last valve to open the passage, and means for resisting the collapse of said bellows, which means increases in tension with the progressive collapse of said bellows.

2. In an apparatus of the character described, a chest having a chamber in which air tension is to be controlled, means for producing a difference in the tension of air within said chest relatively to atmosphere, a regulator governor between said chest and said means, including a collapsible means in communication with said chest, two separate valved passages connecting the interior of said collapsible means with the means for producing a difference in the tension of air within said chest, a regulator

valve for each of said passages, each of said valves being controllable by said collapsible means for effective operation at different degrees of collapse thereof, an additional valve for one of said passages and normally closing the same, means for operating said last mentioned valve to open said passage to control by the regulator valve therein, and means for resisting the collapse of said collapsible means, which means increases in tension with the progressive collapse thereof.

3. In an apparatus of the character described, a chest having a chamber therein in which air tension is to be controlled, an exhaustor for drawing air from said chamber, a regulator governor between said chest and said exhaustor, a regulator bellows, a valve having a plurality of separate air passages therethrough from the interior of said bellows to said exhaustor, a regulator valve for each of said passages, connections between each of said valves and said bellows whereby said valves will be operated by the movement of said bellows, a second valve in one of said passages operating to normally close the same, means for opening said second valve, the regulator valve for the passage containing said second valve being arranged to control said passage to regulate the tension in the bellows at a different degree of collapse of the latter from the degree of collapse which obtains therein when the air tension is being regulated by the valve for the other passage, and means for resisting the collapse of said bellows, which means increases in tension with the progressive collapse of said bellows.

4. In an apparatus of the character described, a chest having a chamber from which air is to be exhausted, an exhaustor for drawing the air from said chamber, a regulator governor between the chest and the exhaustor and including a collapsible bellows in communication with said chest, two separate valved passages leading from the interior of the bellows to said exhaustor, a regulator valve for each of said passages, each of said regulator valves being controllable by said bellows, an additional valve for one of said passages and normally closing the same, means for operating the last valve to open the passage, means for resisting the collapse of said bellows, which means increases in tension with the progressive collapse of said bellows, and an adjustable connection between said regulator valves and said bellows.

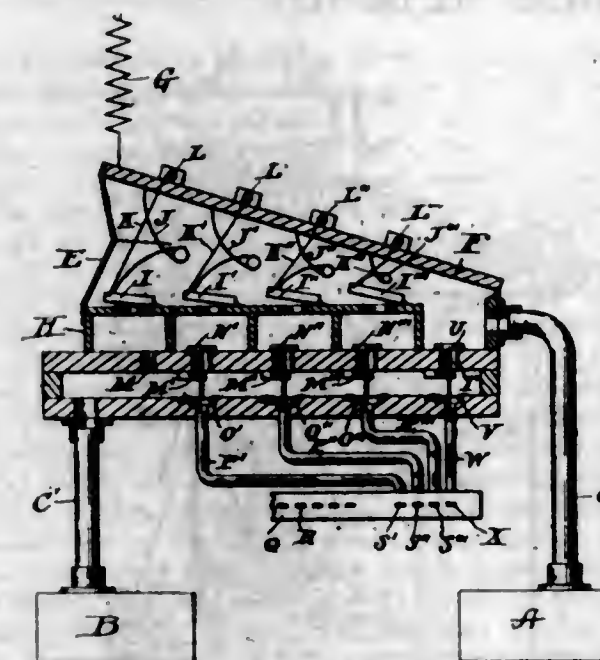
5. In an apparatus of the character described, a chest having a chamber from which air is to be exhausted, an exhaustor for drawing the air from said chamber, a regulator governor between the chest and the exhaustor and including a collapsible bellows in communication with said chest, two separate valved passages leading from the interior of the bellows to said exhaustor, a regulator valve for each of said passages, each of said regulator valves being controllable by said bellows, an additional valve for one of said passages and normally closing the same, means for operating the last valve to open the passage, means for resisting the collapse of said bellows, which means increases in tension with the progressive collapse of said bellows, an unregulated passage from the interior of the bellows to the exhaustor, and a valve therefor normally closing the same, with means for opening said valve.

[Claims 6 to 23 not printed in the Gazette.]

1,082,666. REGULATOR FOR A PNEUMATIC CIRCUIT. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed June 6, 1912. Serial No. 701,967. Renewed Sept. 30, 1913. Serial No. 792,689. (Cl. 84-168.)

1. A regulator for a pneumatic circuit having two passages connecting the opposite ends of said circuit, means for causing air to flow through said passages in one direction, regulator valve mechanism coacting with at least two of said passages, means for controlling the operation thereof comprising a bellows having a movable back, means normally operating to move said back in a direction to distend said bellows, and an assister therefor co-operating directly with said bellows and said valve mechanism.

2. A regulator for a pneumatic circuit having two passages connecting the opposite ends of said circuit, means for causing air to flow through said passages in one direction, regulator valve mechanism coacting with at least two of said passages, means for controlling the operation thereof comprising a bellows having a movable back, means normally operating to move said back in a direction to distend said bellows, and assisters therefor, said assisters comprising yielding links operatively connecting said movable back with said regulator valve mechanism.



3. A regulator for a pneumatic circuit having two passages connecting the opposite ends of said circuit, means for causing air to flow through said passages in one direction, regulator valve mechanism coacting with at least two of said passages, means for controlling the operation thereof comprising a bellows having a movable back, means normally operating to move said back in a direction to distend said bellows, and assisters therefor, said assisters comprising yielding links operatively connecting said movable back with said regulator valve mechanism, one of said links being in the form of a spring.

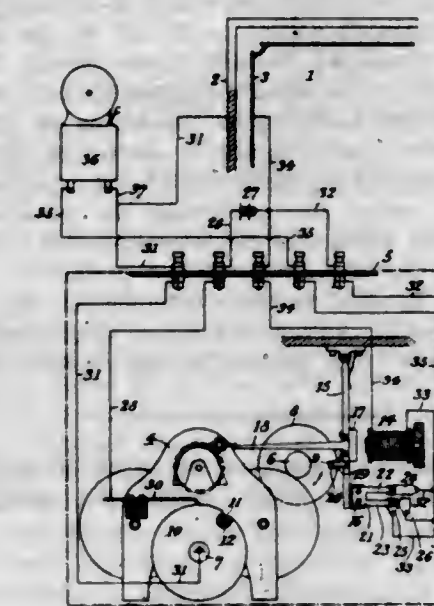
4. A regulator for a pneumatic circuit having two passages connecting the opposite ends of said circuit, means for causing air to flow through said passages in one direction, regulator valve mechanism coacting with at least two of said passages, means for controlling the operation thereof comprising a bellows having a movable back, means normally operating to move said back in a direction to distend said bellows, and assisters therefor, said assisters operating progressively and successively.

5. A regulator for a pneumatic circuit having two passages connecting the opposite ends of said circuit, means for causing air to flow through said passages in one direction, regulator valve mechanism coacting with at least two of said passages, means for controlling the operation thereof comprising a bellows having a movable back, means normally operating to move said back in a direction to distend said bellows, an assister for said means arranged within said bellows comprising a spring operating with said bellows and said valve mechanism, and a normally closed cut-off valve for one of the passages controlled by said regulator valve mechanism.

1,082,667. AUTOMATIC RESETTING ALARM CUT-OUT FOR ELECTRIC BURGLAR-ALARM SYSTEMS. JOHN P. WILLIAMS and HERMANN HUHN, New York, N. Y., assignors to Electric Bank Protection Company, a Corporation of Delaware. Filed Dec. 16, 1910. Serial No. 597,706. (Cl. 177-314.)

1. In an alarm system, an electric protective system including an alarm circuit operable to actuate an alarm, a motor mechanism, cut-out means operated by said motor mechanism and in said alarm circuit to control the

operation thereof for a predetermined period of time, an electro-responsive device in shunt to the alarm, and means operated by the action of said electro-responsive device to automatically govern the operation of said cut-out means and thus permit successive and repetitive actuation of the alarm during the period said cut-out means is operative to control the alarm circuit and before its cut-out action thereon, said governing means comprising a movable member governing the operation of said motor mechanism and supplementary mechanism governing the position of said movable member when said electro-responsive device is not energized.



2. In an alarm system, an electric protective system including an alarm circuit operable to actuate an alarm, motor mechanism, cut-out means operated by said motor mechanism and in the alarm circuit for controlling the operation thereof for a predetermined period of time, an electro-responsive device in shunt to the alarm, motor controlling means operated by the action of said electro-responsive device and governing the operation of said motor mechanism, supplementary means operative to control said alarm circuit for the actuation of the alarm during a lesser period than the period of control by said cut-out means, circuit contacts carried by said motor controlling means, and circuit contacts for closing the circuit through the electro responsive device or alarm and adapted to contact with the circuit contacts carried by said motor controlling means under different positions of said latter means.

3. In an alarm system, an electric protective system including an alarm circuit operable to actuate an alarm, motor mechanism, cut-out means for controlling the operation of said alarm circuit for a predetermined period of time, said cut-out means being constituted by a revolvable disk in said alarm circuit and operated by said motor mechanism and having an insulated point and by a contact in said alarm circuit and adapted to contact with said insulated point, an electro-magnet in shunt to the alarm, a long contact, 24, in said alarm circuit, short contacts, 25 and 26, in said shunt and alarm circuit respectively, a movable member operated by the armature of said electro-magnet and governing the operation of said motor mechanism, circuit contacts, 22 and 23, carried by said movable member and adapted to respectively contact with said long circuit contact and said short circuit contacts, a supplementary revolvable disk operated by said motor mechanism and having a recess, and an automatic catch carried by said movable member and adapted to engage said recess.

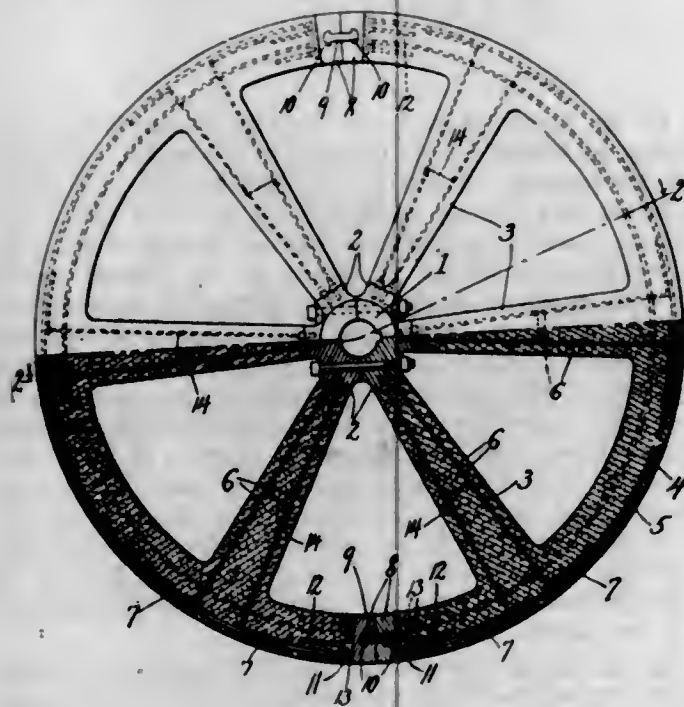
4. In an alarm system, an electric protective system including an alarm circuit operable to actuate an alarm, a motor mechanism, automatic cut-out means operated by said motor mechanism and in said alarm circuit for controlling the operation thereof for a predetermined period

of time, an electro-responsive device in shunt to the alarm, contacts for closing the circuit through the electro-responsive device or alarm, a movable member operated by the action of said electro-responsive device and governing the operation of said motor mechanism, circuit contacts carried by said movable member and adapted to contact with said first named contacts, and supplementary means operated by said motor mechanism and governing the position of said movable member when said electro-responsive device is not energized to control the alarm circuit for the actuation of the alarm for a lesser period than the period of control by said cut-out means.

5. In an alarm system, an electric protective system including an alarm circuit operable to actuate an alarm, an electro responsive device in shunt to the alarm, circuit contacts comprised in said alarm circuit for closing the circuit through the electro-responsive device or alarm, a movable member operated by the action of said electro-responsive device, circuit contacts carried by said movable member and adapted to contact with said first named circuit contacts, means for governing the position of said movable member when said electro-responsive device is not energized and for a predetermined period of time, and means carried by said movable member for engaging said governing means at the termination of such period.

[Claims 6 and 7 not printed in the Gazette.]

1,082,668. WHEEL. CEPHAS DE WITT WINES, Chicago, Ill. Filed May 31, 1910. Serial No. 564,112. (Cl. 74-17.)



1. A wheel comprising a metal hub, a concrete rim, reinforcing metal embedded in said rim, and a plurality of reinforcing metal connections attached to the metal hub and to the reinforcing metal in the rim so as to form a metal connection between them.

2. A wheel comprising a metal hub, a concrete rim, reinforcing metal embedded in said rim, concrete spokes connecting the rim and the hub, reinforcing metal pieces embedded in said spokes and connected at one end to said metal hub and at the other end to the reinforcing metal in the rim.

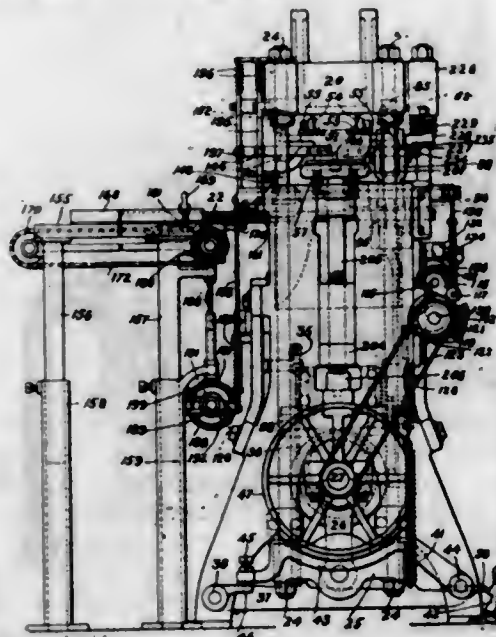
3. A wheel comprising a metal hub, a concrete rim, reinforcing metal embedded in said rim, a concrete connection between the rim and the hub, said hub provided with projections connected with said concrete connection.

4. A wheel comprising a metal hub, a concrete rim, reinforcing metal embedded in said rim, a concrete connection between the rim and the hub, said hub provided with projections connected with said concrete connection, and reinforcing metal embedded in said concrete connection and connected with said metal hub and the reinforcing metal in said rim.

5. A wheel comprising a hub, a concrete rim, reinforcing metal embedded in said rim, concrete spokes between the hub and rim, a plurality of pieces of reinforcing metal embedded in each of said spokes and pieces of reinforcing metal connecting the reinforcing pieces in the spokes together.

[Claims 6 to 10 not printed in the Gazette.]

1,082,669. AUTOMATIC DIE-PRESS. ERASTUS E. WINKLEY, LYNN, Mass. Filed Mar. 14, 1911. Serial No. 614,362. (Cl. 164-24.)



1. A die-press, having, in combination, a cutting-block, a die, a die-carrier, means for moving the die-carrier and the die toward and from the cutting-block, means for feeding the die step by step along the die-carrier in both directions, mechanism for reversing the direction of operation of said feeding means, and means for actuating said mechanism comprising cooperating members one of which is movable with the die so as to engage and cooperate with the other only when the die reaches the end of its path of movement along the die-carrier, substantially as described.

2. A die-press, having, in combination, a cutting-block, a die, a die-carrier, means for moving the die-carrier and die toward and from the cutting-block, mechanism for feeding the die step by step along the die-carrier, mechanism for feeding material over the cutting-block, and means for actuating said mechanisms, each comprising two cooperating members one of which is movable with the die so as to cooperate with the other only when the die reaches the end of its path of movement along the die-carrier, substantially as described.

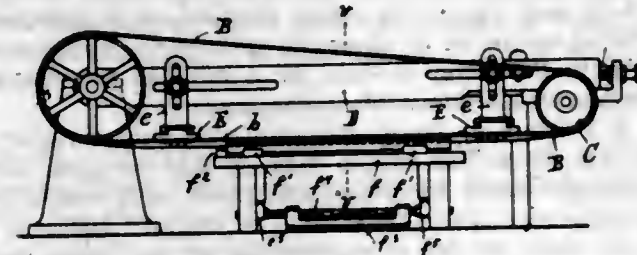
3. A die-press, having, in combination, a die, a cutting-block, means for moving the die toward and from the cutting-block, and means operating, between successive engagements of the die with the same portion of the cutting-block, to shift the cutting-block automatically through a space less than the width of the die to change the line of engagement of the die and the cutting-block at successive operations, substantially as described.

4. A die-press, having, in combination, a cutting-block, a die, a die-carrier, means for moving the die-carrier and the die toward and from the cutting-block, means for feeding the die step by step along the die-carrier, and means for shifting the cutting-block automatically, in the plane of its cutting surface, between successive engagements of the die and the cutting-block, substantially as described.

5. A die-press, having, in combination, a cutting-block, a die, a die-carrier, means for moving the die-carrier and the die toward and from the cutting-block, means for feeding the die step by step along the die-carrier, and means for shifting the cutting-block automatically, in the plane of its cutting surface, after the die has reached the end of its path of movement along the die-carrier, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,082,670. METHOD OF POLISHING CURVED SURFACES. OLMEDO CORTEZ WYSONG, Greensboro, N. C. Filed Jan. 11, 1909. Serial No. 471,797. (Cl. 51-5.)



1. The method of polishing curved surfaces which comprises employing a traveling flexible polishing belt having an active section straight in the direction of the belt travel, continuously curving the active section of said belt in cross-section over forms at opposite ends of said active section as the belt travels, to approximate the pattern of the work to be polished, supporting the work close to but normally out of contact with said active belt section, and by pressure locally applied to the rear face of said active belt section, diverting said curved active belt section locally from its normal path of travel into contact with different parts of the face of the work.

2. The method of polishing curved surfaces which comprises employing a flexible traveling polishing belt having an active section straight in the direction of the belt travel, continuously curving said active belt section in cross-section as the belt travels, to approximate the pattern of the work to be polished, but with the edges of the belt farther from the work than the center of the belt, supporting the work close to but normally out of contact with said active belt section, and locally diverting said previously curved active belt section from its normal path of travel into contact with different portions of the face of the work to the extent necessary to polish the work.

3. The method of polishing curved surfaces which comprises employing a flexible traveling polishing belt, shaping the active portion of said belt primarily over forms at opposite ends of said active portion to approximately conform to the outline of the work to be treated, supporting the work close to but normally out of contact with said belt, and finally pressing the primarily shaped reach of the belt, to the extent required to secure a uniform polish, into contact with different parts of the face of the work.

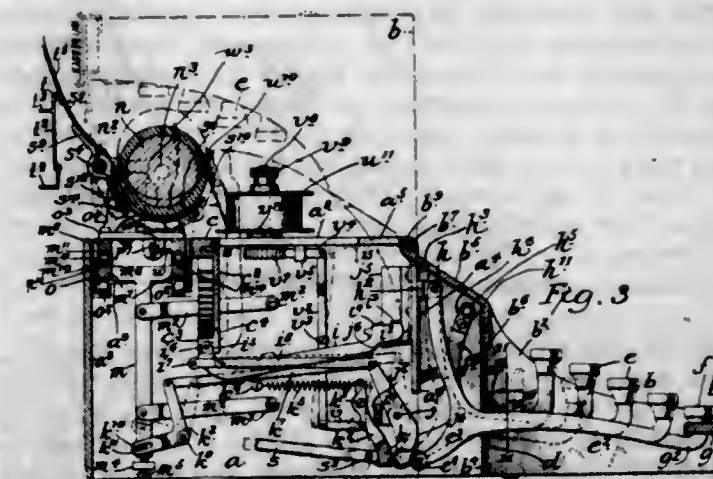
4. The method of polishing curved surfaces which consists in employing a flexible traveling polishing belt, shaping the active reach of said belt primarily to approximately conform to the outline of the work to be treated, supporting the work close to but normally out of contact with the primarily shaped reach of said belt, and finally pressing different portions of the primarily shaped reach of the belt, to the extent required, progressively into contact with different parts of the face of the work.

1,082,671. TYPE-WRITER. ERNEST H. ALBERTSON, Newark, N. J. Filed July 31, 1912. Serial No. 712,379. (Cl. 197-22.)

1. In a typewriting machine, a frame composed of a back part and a front part, said front part being provided with a standard key board comprising writing-key levers, space-key levers and shift-key levers, said key levers being pivotally suspended in said front part and being provided with downwardly and backwardly directed arms adapted to operate in the back part, and said back part being provided with transversely arranged pivoted cam levers which equal in number said key levers and in connection with which said key levers operate.

2. In a typewriting machine, a frame composed of back and front parts, the front part being provided with a standard key board comprising writing key levers, space key levers and shift key levers, and said back part being provided with a transversely arranged row of pivoted cam levers which equal in number said key levers and in connection with which said key levers operate, the back part

being also provided rearwardly of said cam levers with a transversely and pivotally supported universal bar in connection with which the cam levers which correspond with the writing key levers and space key levers operate.



3. In a typewriting machine, a frame composed of back and front parts, the front part being provided with a standard key board comprising writing key levers, space key levers and shift key levers, and said back part being provided with a transversely arranged row of pivoted cam levers which equal in number said key levers and in connection with which said key levers operate, the back part being also provided rearwardly of said cam levers with a transversely and pivotally supported universal bar in connection with which the cam levers which correspond with the writing key levers and space key levers operate, said universal bar being shortened at its ends to permit of the independent operation of the shift key levers and their corresponding cam levers.

4. In a typewriting machine, a frame composed of front and back parts, the front part being provided with a standard key board comprising writing key levers, space key levers and shift key levers, said back part being provided with a transversely arranged row of pivoted cam levers which equal in number said key levers, and in connection with which said key levers operate, the back part being also provided rearwardly of said cam levers with a transversely and pivotally supported universal bar in connection with which the cam levers which correspond with the writing key levers and space key levers operate, said universal bar being shortened at its ends to permit of the independent operation of the shift key levers and their corresponding cam levers.

5. In a typewriting machine, a frame composed of a front part, and a back part hinged to the front part and adapted to be folded thereover, said front part being provided with a standard key board comprising writing key levers, space key levers and shift key levers, and said back part being provided with a transversely arranged row of pivoted cam levers which equal in number said key levers and in connection with which said key levers operate.

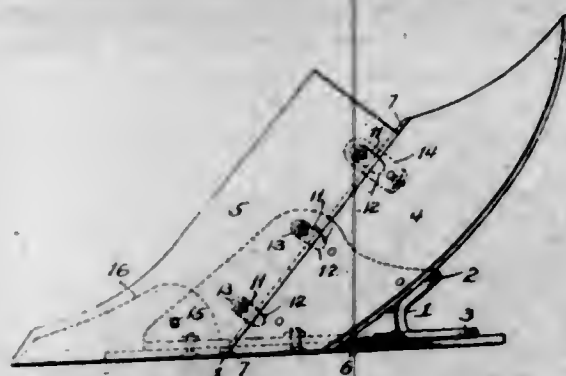
[Claims 6 and 7 not printed in the Gazette.]

1,082,672. PLOW. RUDOLPH JOSEPH ALTGELT and CHARLES FREDRIK CARLSON, South Bend, Ind., assignors to Oliver Chilled Plow Works, South Bend, Ind. Filed June 25, 1913. Serial No. 775,751. (Cl. 97-18.)

1. The combination with a standard having holes near one edge, a mold board secured to the standard, and a share, of lugs secured to the under face of the share and having hooked-ends projecting beyond the edge of the share, said lugs entering the holes in the standard and their hooked ends engaging the inner face of the latter.

2. The combination with a standard having holes, a mold board secured to the standard, and a share, of a plurality of lugs secured to the share and adapted to enter the holes in the standard, each of said lugs having a hooked end to engage the inner face of the standard, a perforated plate secured to the mold-board and projecting beyond the edge thereof, and a lug secured to the standard and entering the perforation of the plate, said

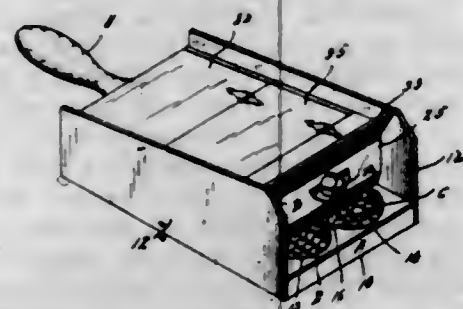
lug having a hooked end to engage the rear face of the plate.



3. The combination with a standard having holes, a mold board secured to the standard, and a share, of lugs secured to the share and adapted to enter the holes in the standard, each of said lugs having a hooked end to engage the inner face of the standard, and a bolt passing through the share and the standard.

4. The combination of a standard having holes, a mold board secured to the standard and having a beveled forward edge, a share having a beveled edge overlying the beveled edge of the mold board, lugs secured to the share and entering the holes in the standard, said lugs having hooked ends to engage the inner face of the standard, and a bolt passing through the share and standard.

1,082,673. BALLOT-BOX. CHARLES A. BALL, Marion, Ind., assignor to Harry Ball, Marion, Ind. Filed July 23, 1912. Serial No. 711,076. (Cl. 232-3.)



1. A ballot box, comprising two relatively movable sections, one above the other, each of said sections having two compartments for white balls and black balls respectively in the lower section, compartments for white balls and black balls in the upper section, into which latter compartments the balls may be deposited by the voters, and a communication between corresponding compartments in the upper and lower sections which is opened by a relative movement between the two sections.

2. A ballot box, comprising two relatively movable sections, one above the other, each of said sections having two compartments for white balls and black balls respectively, the balls in the compartments of the lower section being accessible to the voters and the upper section being provided with an opening through which the balls may be deposited by the voters, and a normally closed communication between corresponding compartments in said upper and lower sections, said communication being openable, to allow the balls in the upper section to pass to the lower section, by a relative movement between the two sections of the ballot box.

3. A ballot box, comprising two relatively movable sections, one above the other, each of said sections having two compartments for white and black balls respectively, said white and black balls being of slightly different size and the balls in the compartments of the lower section being accessible to the voters and the upper section being provided with an opening through which the balls may be deposited by the voters, selector means for separating the white and black balls so deposited and feeding them to their respective compartments in said upper section, said selector means comprising means for separating the white and black balls by causing a movement of the smaller balls

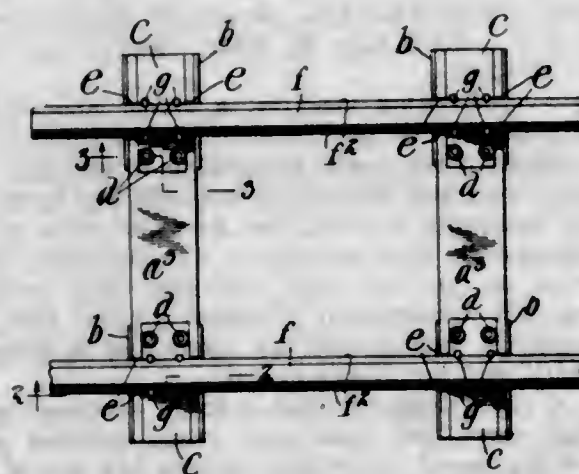
from the path followed by the larger balls, which movement has a comparatively small vertical component as compared with the diameter of the balls, and a normally closed communication between corresponding compartments in said upper and lower sections, said communication being openable, to allow the balls in the upper section to pass to the lower section, by a relative movement between the two sections of the ballot box.

4. A ballot box, comprising two relatively movable sections, one above the other, each of said sections having two compartments for white and black balls respectively, said white and black balls being of slightly different size and the balls in the compartments of the lower section being accessible to the voters and the upper section being provided with an opening through which the balls may be deposited by the voters, selector means for separating the white and black balls so deposited and feeding them to their respective compartments in said upper section, said selector means comprising an inclined tube oblique to the vertical longitudinal plane of the ballot box and partly cut away for less than 180°, the bottom edge of the cutaway portion projecting to the vertical diametral plane of the tube, so that the smaller balls of one color will roll sidewise out of said tube at the cutaway portion while the larger balls will pass along said tube past the cutaway portion, and a normally closed communication between corresponding compartments in said upper and lower sections, said communication being openable, to allow the balls in the upper section to pass to the lower section, by a relative movement between the two sections of the ballot box.

5. A ballot box, comprising two relatively movable sections, one above the other, each of said sections having two compartments for white and black balls respectively, said white and black balls being of slightly different size and the balls in the compartments of the lower section being accessible to the voters and the upper section being provided with an opening through which the balls may be deposited by the voters, selector means for separating the white and black balls so deposited and feeding them to their respective compartments in said upper section, said selector means comprising an inclined tube partly cut away for less than 180°, the bottom edge of the cutaway portion projecting to the vertical diametral plane of the tube, so that the smaller balls of one color will roll sidewise out of said tube at the cutaway portion while the larger balls will pass along said tube past the cutaway portion, and a normally closed communication between corresponding compartments in said upper and lower sections, said communication being openable, to allow the balls in the upper section to pass to the lower section, by a relative movement between the two sections of the ballot box.

[Claims 6 to 9 not printed in the Gazette.]

1,082,674. RAILWAY-TIE. ANTHIME BERNIER, New York, N. Y. Filed Oct. 11, 1913. Serial No. 794,625. (Cl. 238-5.)



A railway tie comprising a central longitudinal web portion having base flanges, and a top plate forming corresponding top flanges, the ends of the tie being provided

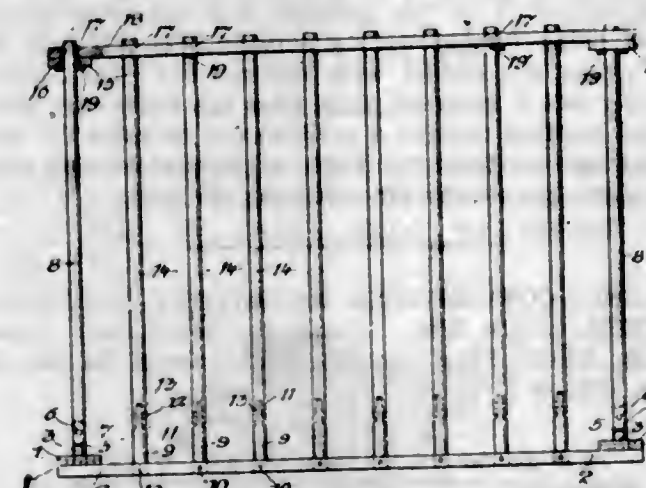
at the top thereof with longitudinal heads in which are formed longitudinal recesses which open outwardly through the ends of the tie, and in which are secured blocks of wood on which the rails are placed, the sides of said heads being lower than said blocks of wood, when the latter are secured in position.

1,082,675. WEATHER-STRIP. FRANK S. BLOOM, Burlington, Iowa. Filed Dec. 11, 1911. Serial No. 685,015. (Cl. 20-69.)



In combination with a supporting object having a recess one side wall of which is approximately at a right angle to the bottom of the recess and the opposite side wall inclined at an acute angle to the bottom of the recess, a weather strip comprising inner and outer boards, the inner board being perforated and being of greater transverse breadth than the outer board, springs passing through the perforations of the inner board and bearing against the outer board and holding the boards in spaced relation, a packing located upon the outer face of the outer board, a flexible material surrounding the packing and connected at its edges with the inner side of the inner board, said boards being located in the said recess and a wedge-shaped member inserted in the recess and bearing against the side wall thereto which is at a right angle to the bottom of the recess, said member bearing against one side portion of the flexible material and holding the other side portion thereto against the side wall of the recess which is inclined at an acute angle to the bottom of the recess.

1,082,676. FOLDABLE CRATE. EDGAR T. BOND, Chicago, Ill. Original application filed Sept. 10, 1909, Serial No. 517,011. Divided and this application filed Oct. 19, 1910. Serial No. 587,844. (Cl. 220-132.)



1. In a foldable crate, the combination of a bottom, a top, four corner posts, one for each corner of the crate, each corner post pivotally mounted at its lower end adjacent to the bottom of the crate to fold downwardly and inwardly and to be raised into a vertical position, a plurality of bars on two opposite sides of the crate arranged in line with the corner posts, each bar separately and individually pivoted and downwardly and inwardly foldable from its pivotal point in the plane of the pivots of the corner posts and when folded lying parallel with and in the plane of the folded corner posts and to be raised into a vertical position with the corner posts, and a plurality of bars on two opposite sides of the crate, arranged in line with the corner posts, each bar separately and individually pivoted and downwardly and inwardly foldable from its pivotal point located in a higher plane than the pivots of the corner posts, and when folded overlying the

folded corner posts and the folded bars of the other two sides of the crate, and to be raised into a vertical position with the corner posts, substantially as described.

2. In a foldable crate, the combination of a bottom, four corner posts, one for each corner of the crate, each corner post pivotally mounted at its lower end adjacent to the bottom of the crate to fold downwardly and inwardly and to be raised into a vertical position, a plurality of bars on two opposite sides of the crate arranged in line with the corner posts, each bar downwardly and inwardly foldable from a pivotal point in the plane of the pivots of the corner posts and when folded lying parallel with and in the plane of the folded corner posts and to be raised into a vertical position with the corner posts, a plurality of bars on two opposite sides of the crate, arranged in line with the corner posts, each bar downwardly and inwardly foldable from a pivotal point located in a higher plane than the pivots of the corner posts and when folded overlying the folded corner posts and the folded bars of the other two sides of the crate and to be raised into a vertical position with the corner posts, a top vertically slidable on the corner posts and bars of the sides, and means for holding the top in its elevated position, the top when elevated maintaining the sides of the crate vertical, substantially as described.

3. In a foldable crate, the combination of four foldable sides, each side consisting of a plurality of separated bars, each bar pivotally mounted at its lower end to fold downwardly and inwardly and adapted to be raised into a vertical position, the pivots for two opposite sides located in a higher plane than the pivots of the other two opposite sides, for two of the sides when folded to overlie the other two sides when folded, a bottom having the foldable sides pivotally mounted thereon, a top vertically slidable on the bars when standing upright, and means for holding the top in its elevated position, the top when elevated maintaining the sides of the crate vertical, substantially as described.

4. In a foldable crate, the combination of four foldable sides, each side consisting of a plurality of separated bars, each bar pivotally mounted at its lower end to fold downwardly and inwardly and adapted to be raised into a vertical position, the pivots for two opposite sides located in a higher plane than the pivots of the other two opposite sides, for two of the sides when folded to overlie the other two sides when folded, a bottom having the foldable sides pivotally mounted thereon, a top vertically slidable on the bars when standing upright, and locking pins passing through the upper ends of the corner bars for holding the top in its elevated position and maintaining the sides of the crate vertical, substantially as described.

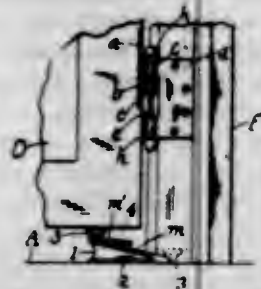
5. In a foldable crate, the combination of four foldable sides, each side consisting of a plurality of separated bars, each bar pivotally mounted at its lower end to fold downwardly and inwardly and adapted to be raised into a vertical position, the pivots for two opposite sides located in a higher plane than the pivots of the other two opposite sides, for two of the sides when folded to overlie the other two sides when folded, a bottom having the foldable sides pivotally mounted thereon, a slidable rail for each set of foldable bars, the rails having openings for the bars and vertically slidable on the bars when standing upright, a top carried by the rails, and means for locking the rails with the bars when elevated and holding the top in its raised position, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,677. DOOR-HINGE. JAMES C. BOTHWELL, Fairfield, Ill. Filed June 16, 1913. Serial No. 773,959. (Cl. 18-163.)

1. In combination with a door hinged to swing about a fixed vertical axis and having a rising and falling movement along said axis, a roller at the bottom of the door contiguous to said axis, and a reversible curved rail or track having opposite faces inclined to a common central plane and terminating in an edge at one end, and comple-

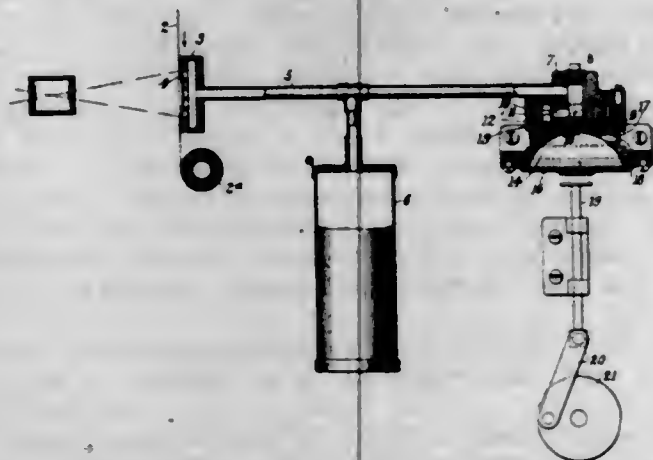
mentary faces at the opposite ends forming continuations of the first faces but inclining in the opposite direction for the purpose set forth.



2. In combination with a swinging door oscillating about a fixed vertical axis and having an up and down movement along said axis, a reversible curved rail engaging the bottom of said door at a point removed a suitable radial distance from said axis, said rail comprising a member having opposite inclined faces tapering to an edge at one end, complementary faces leading from the opposite ends thereof and inclining therefrom in the opposite direction, and a wedge or block interposed below the bottom complementary face and the floor, and means for securing said rail to the floor.

3. In combination with a door hinged to swing about a fixed vertical axis and having a rising and falling movement along said axis, a reversible curved rail or track engaged by the bottom of the door at a point contiguous to said axis, said rail having opposite faces inclined to a common central plane and terminating in an edge at one end, and complementary faces at the opposite ends forming continuations of the first faces, but inclining in the opposite direction.

1,082,678. MEANS FOR IMPROVING THE DEFINITION OF PHOTOGRAPHIC LENSES. HERMAN CASLER, Canastota, N. Y. Filed Mar. 31, 1909. Serial No. 487,037. (Cl. 88—18.)



1. In a photographic camera, the combination of a photographic lens, a film-support figured in correspondence with the focal surface of the photographic lens, and means for effecting a difference in pressure on the opposite sides of the photographic film to cause the same to conform to the figure of the said support, as set forth.

2. In a photographic camera, the combination of a photographic lens exhibiting an irregular focal surface, a film-support coextensive with the field and figured in correspondence with the focal surface of the photographic lens, said camera having means for effecting a difference in pressure on the opposite sides of the photographic film over substantially the entire area of the focal image for causing the film to conform to the figure of the said support, as set forth.

3. In a photographic camera, the combination of a photographic lens, a film-support having its front surface figured in correspondence with the focal surface of the photographic lens and having apertures open at such figured surface, and means for producing greater air-pressure in front of said support than behind the same, whereby

a flexible photographic film in front of the support will be pressed into conformity with the said figured surface of the support, as set forth.

4. In a photographic camera, the combination of a photographic lens, a film-support having its front surface figured in correspondence with the focal surface of the photographic lens, and means for exhausting air from behind a photographic film positioned in front of said support, whereby the pressure of the air in front of the film will cause the same to conform to the said figured surface of the film-support, as set forth.

5. In a photographic camera, the combination of a photographic lens, a chambered film-support having its front surface figured in correspondence with the focal surface of the photographic lens and having apertures extending from said figured surface to the interior of the support, and means for producing a partial vacuum in the interior of said support, as set forth.

[Claims 6 to 11 not printed in the Gazette.]

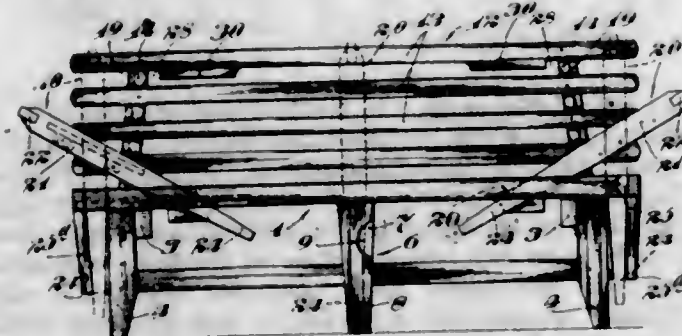
1,082,679. BADGE. JAMES CONNOR, Greenville, Tex. Filed May 10, 1913. Serial No. 766,849. (Cl. 46—40.)



1. A badge comprising a thin hollow casing with a substantially flat front face made in one piece and severed across the middle, with one severed edge deflected inwardly into a different plane from the other edge but in parallel relation thereto, a rectilinearly movable flat plate playing between these two edges in parallel relation to the front face, and means for actuating the same.

2. A badge comprising a closed hollow casing of flat form made in two parts, each formed in a single piece with right angular flanges adapted to fit together with a telescopic joint, the rear one of said parts having means for attaching it to the garment and the front portion thereof being formed with a substantially flat face severed across the middle with one severed edge deflected inwardly into a different plane from the other edge but in parallel relation thereto, a rectilinearly movable flat plate playing between these two edges in parallel relation to the front face, and means for actuating the same.

1,082,680. CONVERTIBLE DAVENPORT, RECLINING-COUCH, AND BED. CHARLES DANIELSON, Cannon Falls, Minn. Filed June 28, 1912. Serial No. 706,382. (Cl. 155—6.)



A device of the kind described, comprising a bench having rear extensions located outward of its supporting legs, a removable back mounted on said extensions for endwise adjustments and adapted to be turned into a horizontal position, folding legs on said back, said back having depending tapered legs arranged to be seated under a wedging action in correspondingly formed seats in said extension, for holding said back in an upright position when

in one adjustment on said extensions, and said tapered legs adapted to engage said bench and cooperate with said folding legs to hold said back in a horizontal position, when in another adjustment on said extensions, and a stop for limiting the horizontal separation of the bench and back, substantially as described.

1,082,681. TOOTH-POWDER. WILLIAM EDWARD DANER, Perth, Ontario, Canada. Filed Jan. 31, 1912. Serial No. 674,514. (Cl. 187—9.)

1. As a new article of manufacture a composite commercial tooth powder comprising artificially formed granules each adapted to readily break down into powdered form when moistened or rubbed.

2. As a new article of manufacture a composite commercial tooth powder formed into artificial granules each of said granules consisting of a multiplicity of materials, said granules being adapted readily to be broken down into powdered form when rubbed.

1,082,682. FOOD PRODUCT. ROBERT DOUGLAS, Rochester, N. Y. Filed May 19, 1913. Serial No. 768,428. (Cl. 99—11.)

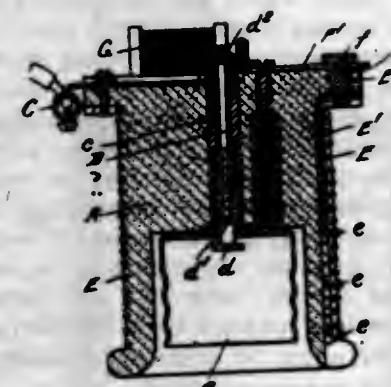
1. A pectous concentrate rendered non-jellifying in its concentrated form by the removal of the greater part of the natural sugar.

2. A pectous compound from which most of the natural sugar is removed and which is then reduced in volume by evaporation.

3. A concentrated compound of the character described, consisting of a syrupy viscous liquid, which contains soluble pectins or jelly forming substances of fruit or vegetable origin besides other characters derived from the raw material such as small amounts of residuary sugars, acid and mineral matters, its essential characteristic being its property of forming a jelly when combined with definite proportions of sugar and water.

4. The process of producing an unsolidified pectous compound, consisting in treating a fruit or vegetable to remove the natural sugar therefrom, processing the remaining pulp in the presence of a solvent to extract the pectose substances and reducing the liquor thus obtained by evaporation to a syrupy concentrate.

1,082,683. AUTOMATIC CUT-OUT AND COMPENSATING SOCKET. GILBERT T. DUNKLIN, South Bend, Ind. Filed Mar. 21, 1912. Serial No. 685,231. (Cl. 175—276.)



1. The combination with an electric circuit, an electric lamp having its terminals connected in series in said circuit, a resistance coil connected with one of the lamp terminals, a contact member connected with the resistance coil, means acting automatically to connect said contact member with the other lamp terminal when the current through the lamp is broken, and means actuated by the replacement of the lamp for breaking the current through said contact member.

2. The combination with an electric circuit, an electric

lamp having its terminals connected in series in said circuit, a resistance in series with the terminals of said lamp when the current through the lamp is broken, means including an electro-magnet connected in shunt with the lamp terminals, and means actuated by the replacement of the lamp for automatically throwing the resistance out of circuit.

3. A lamp socket for electric lamps comprising a body provided with terminals adapted for connection in an electric circuit, a resistance coil wound upon the exterior of said body and having one end thereof connected to one of said terminals, automatically operated means for connecting the other terminal with the resistance coil upon rupture of the lamp, and means actuated by the placement of a lamp in the socket for breaking the current through the resistance coil.

4. The combination with an electric circuit, an electric lamp having its terminals connected in series in said circuit, a resistance coil having one end connected to one of the lamp terminals, a contact member, adjustable means for connecting said contact member to different portions of said resistance coil, means acting automatically to connect said contact member to the other lamp terminal when the current through the lamp is broken, said means including an electric magnet connected in shunt with the lamp terminals, and means actuated by the replacement of the lamp for breaking the circuit through said contact member.

5. A lamp socket for electric lamps having terminals adapted for connection in a lamp circuit, a resistance coil carried by the lamp socket and having one end thereof connected to one of the terminals of the socket, a contact member connected to the other end of said resistance coil, a yieldable contact arm connected to the other of said socket terminals and adapted to engage said contact member to connect the resistance coil in series with the socket terminals, a movable member normally lying in the path of said yieldable arm to hold the same out of engagement with said contact member, and a high resistance electro-magnet for shifting said movable member connected in shunt with the socket terminals.

[Claims 6 to 9 not printed in the Gazette.]

1,082,684. CEMENT AND PROCESS FOR MAKING THE SAME. EDWARD DURYEE, Los Angeles, Cal. Filed Nov. 8, 1910. Serial No. 591,372. (Cl. 106—43.)

1. The process of making cement which consists in finely grinding hydraulic cement with natural colloidal silica to reduce the said cement and diatomaceous earth to a finer state of division and to bring the finely divided particles thereof into intimate contact with one another.

2. The process of making cement which consists in finely grinding hydraulic cement with natural colloidal silica in approximately equal proportions.

3. The process of making cement which consists in finely grinding hydraulic cement with natural colloidal silica and hydrated lime.

4. The process which consists in finely grinding with ordinary basic hydraulic cement a sufficient quantity of silica in active form to convert the cement into an acidic cement.

5. A cement composed of natural colloidal silica compound finely ground with hydraulic cement.

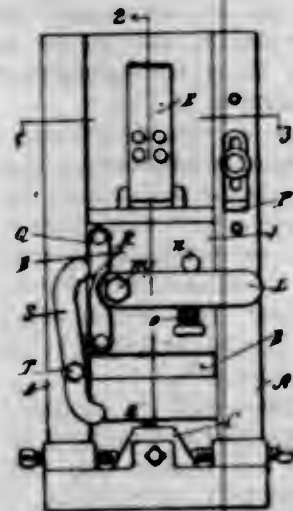
[Claims 6 and 7 not printed in the Gazette.]

1,082,685. DROP-PRESS. SILAS H. DYER, North Attleboro, Mass., assignor to G. Lanza Davison, Winthrop, Mass. Filed Sept. 23, 1912. Serial No. 721,817. (Cl. 78—29.)

1. In a drop press, the combination of the hammer, the lifting catch for the hammer, the carrier to which the catch is pivoted, means for operating the carrier, the sliding pin passing through the hammer, the pivoted cam-lever for operating the pin and the stop for the cam-lever.

2. In a drop press, the combination of a hammer pro-

vided with a notched plate, the cam-lever and pawl pivoted to the slide of the press to engage with the said



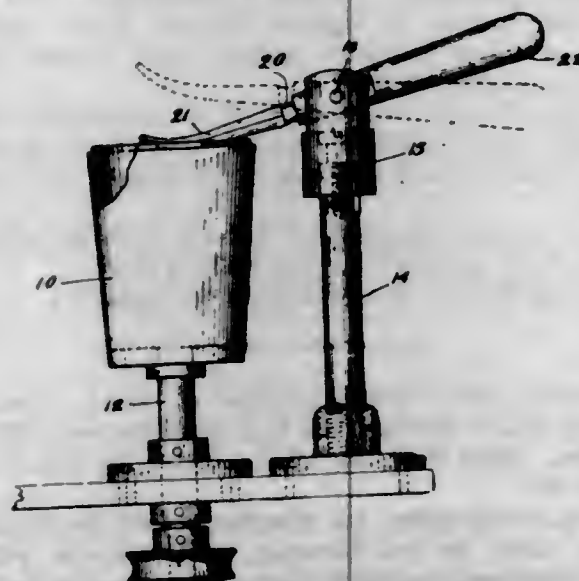
notched plate and means for raising and releasing the hammer.

1,082,686. PAPER RECEPTACLE. LUKE W. FARMER, Somerville, Mass. Filed Aug. 16, 1912. Serial No. 715,400. (Cl. 229-3.)



As a new article of manufacture, a paper receptacle consisting of a body-portion open at the top and bottom and having flaring sides, and a bottom-piece composed of a circular piece of paper with numerous projections around its edge, said projections being bent intermediate their length at an acute angle thereby to form a central crown and an outwardly extended flange, said bottom-piece being arranged at the bottom of the body-portion with its crown arranged within and fitting the opening at the bottom of the body-portion and the outer end portions of its projections extended outwardly in a horizontal plane beneath and in engagement with the lower edge of said body-portion, the receptacle being coated with paraffin-wax, substantially as described.

1,082,687. FLANGING DEVICE FOR PAPER DRINKING-CUPS. LUKE W. FARMER, Somerville, Mass. Filed Aug. 23, 1912. Serial No. 716,583. (Cl. 93-36.)



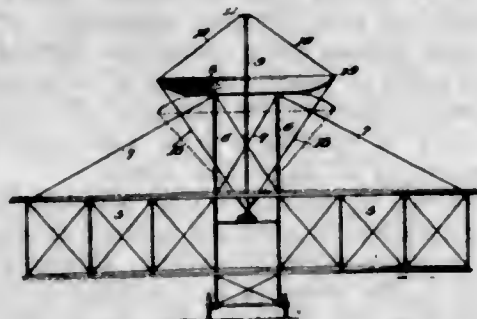
1. A flanging-device for paper drinking cups consisting of a rotatable hollow cup-holder made shorter than the cup, permitting the top of the cup to project above it a short distance, a flanging-tool supported at the side of

the cup-holder having a flanging-finger with a convex under side arranged to be extended over the edge of the cup on the line of a chord of the arc thereof, whereby the edge of the cup convergently engages said finger, said tool being movable to move the finger into and out of engagement with the edge of the cup, substantially as described.

2. A flanging-device for paper drinking cups consisting of a rotatable hollow cup-holder made shorter than the cup, permitting the top of the cup to project above it a short distance, a flanging-tool supported at the side of the cup-holder having a flanging-finger with an upwardly curved end-portion and with a convex under side arranged to be extended over the edge of the cup on the line of a chord of the arc thereof, whereby the edge of the cup convergently engages said finger, said tool being movable to move the finger into and out of engagement with the edge of the cup, substantially as described.

3. A flanging-device for paper drinking cups consisting of a rotatable hollow cup-holder made shorter than the cup, permitting the top of the cup to project above it a short distance, a flanging-tool, a block swiveled to the upper end of a standard arranged at the side of the cup-holder to which said tool is pivoted, whereby said tool may be given four motions to pass over the top of the cup without engaging it, and to engage the top of the cup upon return movement, said tool having means as a handle by which said four motions may be given to it.

1,082,688. STABILIZER FOR AEROPLANES. HENRY C. FISK, Stafford, Conn. Filed Apr. 2, 1913. Serial No. 758,408. (Cl. 244-29.)



1. The combination with a supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane having a central fixed plane portion surrounded by a flexing portion, and means for flexing the outer portion.

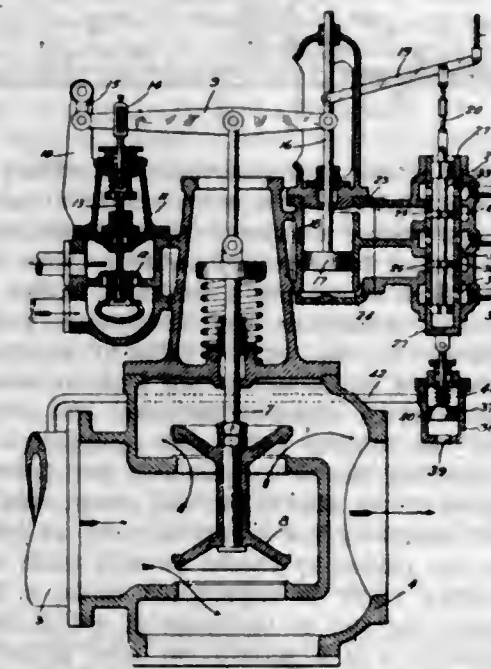
2. The combination with a supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane having a central fixed plane portion surrounded by a flexing portion, an operating mechanism, and wires connecting the periphery of the stabilizing plane to the operating mechanism whereby the angle between the peripheral portion of the stabilizing plane and the central fixed plane portion thereof may be varied.

3. The combination with the supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane being of circular form and comprising a central fixed plane portion surrounded by a flexible portion, and means whereby the angle between the flexible portion and the central portion can be adjusted.

1,082,689. TURBINE-CONTROLLING MECHANISM. WARREN B. FLANDERS, Pittsburgh, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 1, 1912. Serial No. 694,512. (Cl. 121-118.)

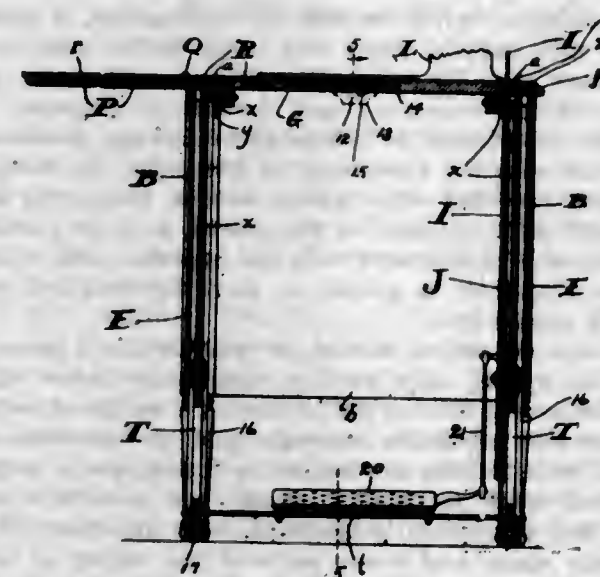
1. In a fluid controlling device for turbines, the combination of a low pressure turbine having a steam pipe leading thereto, a low pressure valve in the steam pipe, a pipe communicating with the low pressure steam pipe and adapted to receive high pressure steam and admit

it to the pipe in front of the low pressure steam valve, a valve in the high pressure steam pipe, a speed governor connected to said valves, an oil relay operated by the speed governor for causing the low pressure steam valve to open its fullest amount before the high pressure steam valve may open, and a ported device controlling the admission of oil to the relay and operated by differences of pressure in the low pressure steam pipe for causing the oil relay to operate irrespective of the action of the governor.



2. In a fluid controlling device for low pressure turbines, a pipe connected to said turbine and adapted to supply steam to the turbine at relatively low pressure and to receive steam from the exhaust of a prime mover, a pipe adapted to receive steam direct from the boiler, said pipe being connected to the first named pipe, a valve in the first named pipe, a valve in the second mentioned pipe, a lever connected to both valves and having a lost motion connection with the second mentioned valve so that the first mentioned valve must open its fullest amount before the second mentioned valve may open, a governor-controlled oil relay for operating the lever, and a ported device responsive to variations in pressure in the first mentioned pipe for actuating the oil relay irrespective of the action of the governor.

1,082,690. SEWING-MACHINE TABLE. JOSEPH J. GEDDON, Lakewood, Ohio. Filed Mar. 13, 1911. Serial No. 614,261. (Cl. 45-27.)



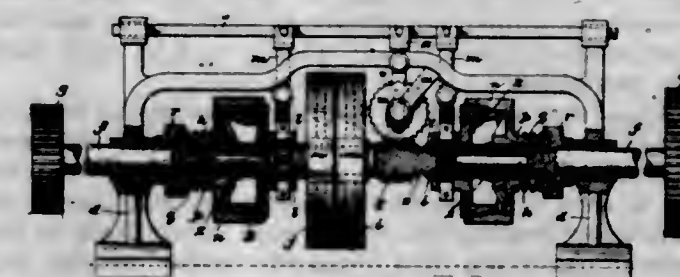
1. The combination, with the stationary portion of a sewing-machine table, which portion is adapted to rest on the floor and comprises a table-top provided with an opening extending vertically therethrough, and a platform

for carrying a sewing-machine-head, which platform is pivotally connected to the stationary portion of the table and arranged to swing in a vertical plane, said platform being within the aforesaid opening in its upper position, of two cables connected to the platform adjacent opposite side edges respectively of the platform at points spaced from the axis of the platform; a perpendicularly movable stand employed in carrying the treadle and the driving-wheel of a sewing machine and arranged under the table-top, which stand is operatively connected with said cables and is in its lower or upper position according as the platform is in its upper or lower position, and sheaves for guiding said cables, which sheaves are supported from the stationary portion of the table and arranged externally of the sweep and spaced from the axis of the platform, said sheaves having such arrangement relative to the axis of the platform that the axes of the sheaves are arranged substantially horizontally and diverge toward the axis of the platform.

2. The combination, with the top of a sewing-machine-table, two laterally spaced rear legs arranged under the rear portion of the table-top and provided with vertically extending guideways, and two laterally-spaced forward legs arranged under the forward portion of the table-top and provided with vertically extending guideways, of a movable stand arranged below the table-top and comprising the following:—a side member extending between and engaging the guideways of the right-hand rear leg and the right-hand forward leg, another side member extending between and engaging the guideways of the left-hand rear leg and the left-hand forward leg, a driving-wheel arranged at one side of and supported from one of said side members, an axle connecting said side members together, and a treadle mounted on said axle and operatively connected with said wheel.

3. The combination, with the top of a sewing-machine-table, two laterally spaced rear legs arranged under the rear portion of the table-top and provided in their forward sides with vertically extending guideways, and two laterally spaced forward legs arranged under the forward portion of the table-top and provided in their rear sides with vertically extending guideways arranged opposite the aforesaid guideways in the rear legs, of a movable stand arranged below the table-top and comprising the following:—a side member extending between and into guideways in the right-hand rear leg and the right-hand forward leg, another side member extending between and into the guideways in the left-hand rear leg and the left-hand forward leg, a driving-wheel arranged at the inner side of and supported from one of said side members, an axle connecting said side members together, and a treadle mounted on said axle and operatively connected with said wheel.

1,082,691. REVERSING DRIVING MECHANISM. JOHN H. GORMAN, Salisbury, N. C. Filed Mar. 5, 1913. Serial No. 752,134. (Cl. 74-50.)



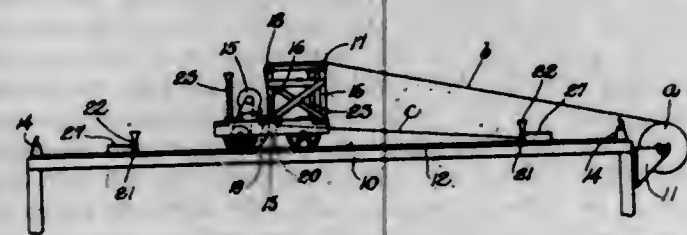
1. In combination, three independently-rotatable shaft sections co-axially arranged, means for driving one section continuously in one direction and means for alternately driving the other sections in the same direction consisting of two friction clutches each consisting of two frictional members and means for resiliently pressing one of the members toward the other, means for automatically shifting the non-spring-pressed members of the clutches, a driven-shaft, and gearing connecting the same with the alternately-driven sections.

2. In combination, three independently-rotatable co-axially arranged sections, means for driving one of the sections continuously in one direction, means for alternately connecting up the other sections to said section, said means involving the employment of two friction clutches and means for shifting them, a driven shaft, and gearing positively connecting said driven shaft to said alternately driven sections, whereby when one of the intermittently driven sections is positively driven from the continuously driven section the other alternately driven section will be indirectly driven in the opposite direction.

3. In combination, three independently-rotatable co-axially-arranged shaft-sections, means for driving one of the sections continuously in one direction, means for alternately connecting up the other sections to said section, said means involving the employment of two friction clutches and means for shifting them, a driven shaft, and gearing positively connecting said driven shaft to the alternately-driven sections, whereby when one of said alternately-driven sections is positively driven from the continual-driven section the other section will be indirectly driven in the opposite direction, each of said clutches consisting of a positively shifted friction member and a spring-pressed friction member, for the purpose set forth.

4. In combination, three independently-rotatable shaft sections, means for driving one of the sections continuously in one direction, friction clutches for intermittently and alternately connecting up the other sections to said continuously driven section, automatic means for simultaneously shifting the clutches embodying a worm affixed to the continuously driven section, a worm gear meshing therewith, and means connected to the worm gear for alternately operating the clutches, and a driven shaft positively geared to each of said alternately-driven shaft-sections.

1,082,692. CLOTH-PILING APPARATUS. WILLIAM M. GUSTIN, Jamaica Plain, Mass., assignor to Charles D. W. Halsey, New York, N. Y. Filed Dec. 4, 1912. Serial No. 734,872. (Cl. 223-3.)



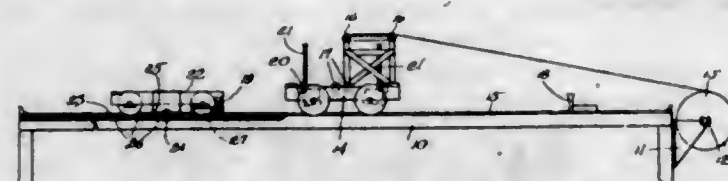
1. Apparatus of the kind described, comprising a piling table having a mounting at one end for a roll of cloth and equipped with a track, a car operable on said track having an elevated guide for receiving the cloth from a roll in said mounting, guiding means at a lower part of said car and substantially central of the length thereof adapted to feed out the cloth in each direction of car movement for piling, and means at each end of said car for automatically feeding out folding rods at each limit of car movement.

2. Apparatus of the kind described, comprising a piling table having a track, a car operable on said track equipped with means for receiving the cloth and feeding it out for piling in each direction of car movement, and means for automatically feeding out folding rods at the limit of car movement consisting in a magazine holder on the car, an oscillatory member having a recess adapted to receive one rod at a time from such holder, said member having rigid therewith a gear segment, a fixed receiving holder on the table, and a rack element adjacent thereto for meshing with said gear segment to operate said member for delivering a rod.

3. Apparatus of the kind described, comprising a piling table, a car operable thereon, equipped with means for receiving cloth and feeding it out for piling in each direction of car movement, and means for feeding out folding rods from said car consisting in a magazine holder and

an oscillatory member having a recess coöperative therewith for feeding out one rod at a time, and means for operating said member at the limit of car movement.

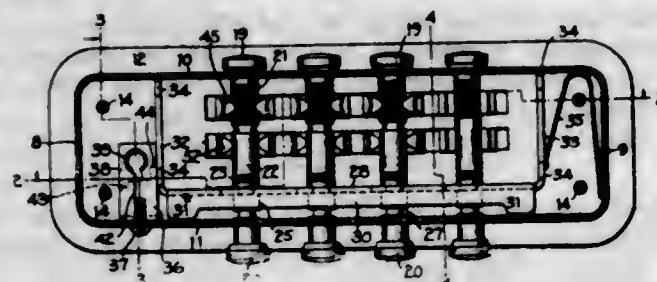
1,082,693. PILING MECHANISM. WILLIAM M. GUSTIN, Jamaica Plain, Mass., assignor to Charles D. W. Halsey, New York, N. Y. Filed Dec. 4, 1912. Serial No. 734,873. (Cl. 223-3.)



1. Apparatus of the kind described, comprising a piling table, a fixed mounting for a roll of cloth at one end of said table, a traveling carrier with provision for piling cloth in superposed folds guided on said table, said carrier having at each of its ends a magazine holder for folding rods with an automatic feed therefrom, a fixed rod receiver adjacent the end of the table at which the roll of cloth is mounted and a second rod receiver formed as a car guided on a track adjacent the other end of the table for receiving the folding rods, and equipped with provision for actuating the said automatic feed thereof.

2. Apparatus of the kind described, comprising a piling table, a fixed mounting for a roll of cloth at one end of said table, a car guided by tracks on said table with provision for piling cloth in superposed folds, a fixed rod holder adjacent the end of the table at which the roll of cloth is mounted, and a second car also guided on the table by tracks within said first named tracks adjacent the other end thereof with provision for receiving and holding folding rods, and equipped with means for fixing the same to the table in any one of a series of determinate positions.

1,082,694. ELECTRIC SWITCH. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 29, 1912. Serial No. 734,140. (Cl. 175-283.)



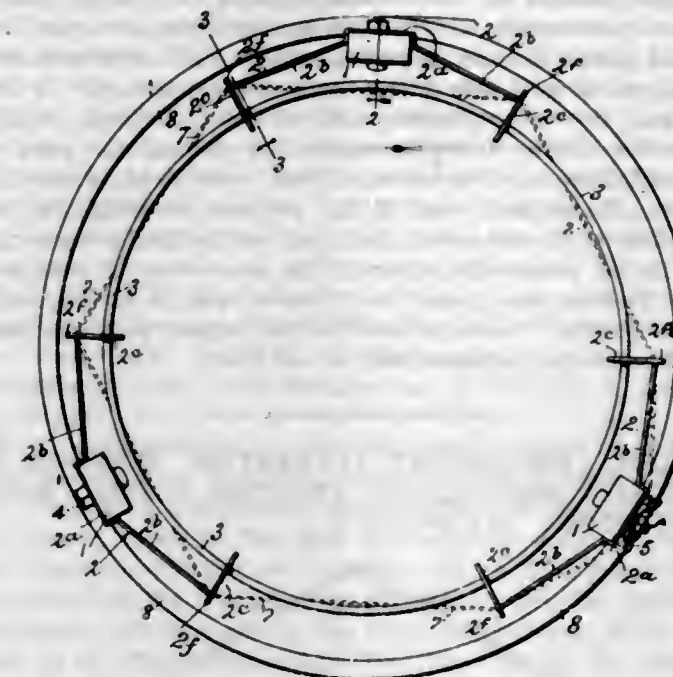
1. An electric switch having, in combination, a casing provided with parallel upper and lower walls; a series of switch-plugs movable vertically through said walls and having locking-abutments; and locking-mechanisms for the plugs comprising a locking-plate having abutments coöperating with the abutments on the plugs, the locking-plate being provided with lateral flanges, projecting into engagement with one wall of the casing, and end-ports projecting into engagement with the opposite wall, whereby the locking-plate is guided to move between and parallel with said walls.

2. An electric switch having, in combination, a seamless sheet-metal casing with parallel upper and lower walls, said walls having alining perforations; a series of switch-plugs movable vertically through said perforations and provided with locking-abutments; a locking-plate coöperating with said locking-abutments and provided with upward and downward projections, near its ends, which engage the upper and lower walls of the casing so as to guide the plate for horizontal movement within the casing; contact devices coöperating with the plugs and located between the locking-plate and one wall of the casing; and means for moving the locking-plate, said means engaging one of said projections thereon.

3. An electric switch having, in combination, a casing provided with parallel upper and lower walls; a series of switch-plugs movable vertically through said walls and having locking-abutments near their lower ends; a locking-plate coöperating with said abutments and located near the lower wall of the casing, said plate having lateral flanges which stiffen the plate longitudinally and extend, near their ends, into engagement with the lower wall of the casing, and upwardly-bent extremities which engage the upper wall, the front wall, and the rear wall of the casing, the plate being guided by said flanges and extremities to move horizontally in the casing; means for so moving the plate to lock and unlock the plugs; and contact-devices coöperating with the plugs and located within the casing above the locking-plate.

4. An electric switch having, in combination, a casing provided with upper and lower walls; a plurality of switch-plugs movable vertically through said walls and each provided with an elongated conducting-sleeve; two contact-members coöperating with each switch-plug, said members being insulated from each other and provided with separate terminals; and a third set of contact-members, which are insulated from the first-mentioned contact-members and constantly engaging the respective contact-sleeves, and are interconnected and provided with a common terminal; the three contact-members at each switch-plug being simultaneously interconnected by the contact-sleeve when the switch-plug is moved to cause the contact-sleeve to engage the first-mentioned contact-members.

1,082,695. HARVESTING-SACK SUPPORTER. HENRY HEARD, Union Point, Ga. Filed July 13, 1910. Serial No. 571,741. (Cl. 83-26.)



1. In a bag or holder, a plurality of legs, a frame secured to each leg and comprising a central leg engaging body and arms projecting therefrom, radial wings carried by said arms, a ring passing through apertures in said wings and supported by said wings and over which a sack mouth may be tied.

2. In a bag or holder, a plurality of legs, a frame secured to each leg and comprising a central leg engaging body, and arms projecting therefrom, inwardly projecting radial wings carried by said arms, a ring passing through apertures in said wings and supported by said wings and over which a sack mouth may be tied, said wings each having their lower edge beveled cut, all of said bevel cut portions facing inwardly to allow for bulging of the bag or sack.

3. In a bag or holder, a plurality of legs, a frame secured to each leg and comprising a central leg engaging body, and arms projecting therefrom, radial wings carried by said arms, a ring passing through apertures in said wings and supported by said wings and over which a sack

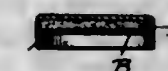
mouth may be tied, said wings having outwardly projected fingers beneath which the draw-string of the sack may be tied.

4. In a sack supporter, a leg or support, a frame secured thereto and composed of a pair of members each having a body and arm portions, said frame having radial wings provided with hooks, means for securing said frame members together, means for securing said frame members to said leg with the leg between the frame members and a sack supporting ring carried by said frame.

5. A sack holder that includes legs, ring carrying frames supported thereby, said frames including two members, said members having body portions and arm portions and terminating in radial wings having holes, a ring held in said holes, means for securing said frame members to said legs, and means on said frame members for engaging a sack mouth to hold it open.

[Claim 6 not printed in the Gazette.]

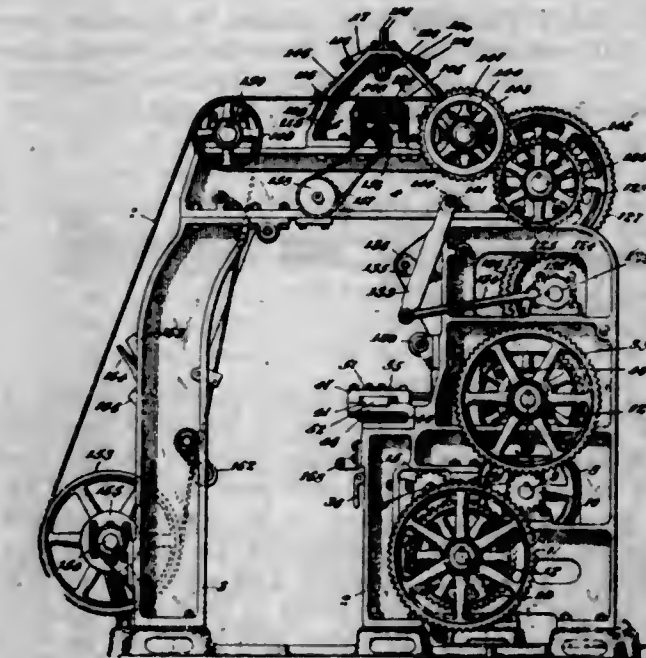
1,082,696. SEALING-CAP FOR VESSELS. JOHN AUGUSTUS HICKS, Summit, N. J.; Arthur W. Hicks administrator of said John Augustus Hicks, deceased. Filed Apr. 1, 1910. Serial No. 552,896. (Cl. 215-9.)



1. A bottle closure comprising a metal cap adapted to be secured over the mouth of the bottle, and a lining in the cap having an impervious adhesive face adapted to adhere hermetically to the bottle mouth, the lining being unattached to the cap, whereby in removing the cap from the bottle the cap will separate from the lining, leaving the latter adhering to the bottle mouth so as to be blown immediately therefrom with an explosive sound by the pressure of gas in the bottle.

2. A bottle closure comprising a cap adapted to be secured over the mouth of the bottle, a yielding pad in the cap, and a facing therefor consisting of an impervious adhesive wafer, the pad and wafer constituting a lining unattached to the cap but adapted to adhere hermetically to the bottle mouth, whereby in removing the cap from the bottle the cap will separate from the lining, leaving the latter adhering to the bottle mouth so as to be blown immediately therefrom with an explosive sound by the pressure of gas in the bottle.

1,082,697. WIRE-FENCE MACHINE. JOHN A. HOLMQUIST, Johnstown, Pa., assignor to Cambria Steel Company, a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,397. (Cl. 140-13.)



1. In a wire-fence machine, the combination of mechanism for feeding a plurality of strand-wires with accel-

erated and retarded motion, mechanism for continuously feeding a plurality of stay-wires diagonally between the strand-wires, mechanism for severing the forward ends of the said stay-wires to form cut-stays, and for swinging the opposite ends of said cut-stays into contact with the opposite sides of the adjoining strand-wires, and mechanism for simultaneously coiling the ends of the cut-stays around the strand-wire.

2. In a wire-fence machine, the combination of mechanism for continuously feeding a plurality of longitudinal strand-wires with accelerated and retarded motion, mechanism for continuously feeding a plurality of stay-wires diagonally between the strand-wires, mechanism for severing the forward ends of the said stay-wires to form cut-stays, and for swinging the opposite ends of the said cut-stays into contact with the opposite sides of the adjoining strand-wires, and mechanism for simultaneously coiling the ends of the cut-stays around the strand-wires.

3. In a wire-fence machine, the combination of mechanism for continuously feeding a plurality of longitudinal strand-wires with accelerated and retarded motion, mechanism for continuously and simultaneously feeding a plurality of stay-wires diagonally between the strand-wires, mechanism for simultaneously severing the forward ends of the said stay-wires to form cut-stays, and for swinging the opposite ends of said cut-stays into contact with the opposite sides of the adjoining strand-wires, and mechanism for simultaneously coiling the ends of the cut-stays around the strand-wires.

4. In a wire-fence machine, the combination of mechanism for continuously feeding a plurality of longitudinal strand-wires with accelerated and retarded motion, mechanism for continuously and simultaneously feeding a plurality of stay-wires diagonally between, but slightly removed from, the strand-wires, mechanism for simultaneously severing the forward ends of the said stay-wires to form cut-stays, and for swinging the opposite ends of said cut-stays into contact with the opposite sides of the adjoining strand-wires, and mechanism for simultaneously coiling the ends of the cut-stays around the strand-wires.

5. In a wire-fence machine, the combination of mechanism for continuously feeding a plurality of longitudinal strand-wires with accelerated and retarded motion, mechanism for continuously and simultaneously feeding a plurality of stay-wires diagonally between the strand-wires, mechanism for simultaneously severing the forward ends of the said stay-wires to form cut-stays, without stopping the continuous feed of the said stay-wires, and for swinging the opposite ends of said cut-stays into contact with the opposite sides of the adjoining strand-wires, and mechanism for simultaneously coiling the ends of the cut-stays around the strand-wires.

[Claims 6 to 69 not printed in the Gazette.]

1,082,698. LIFE-PRESERVER. JAMES W. MASTER, San Diego, Cal., assignor of one-half to James Mason, San Diego, Cal. Filed Apr. 22, 1912, Serial No. 692,238. Renewed Sept. 4, 1913. Serial No. 788,159. (Cl. 9—18.)

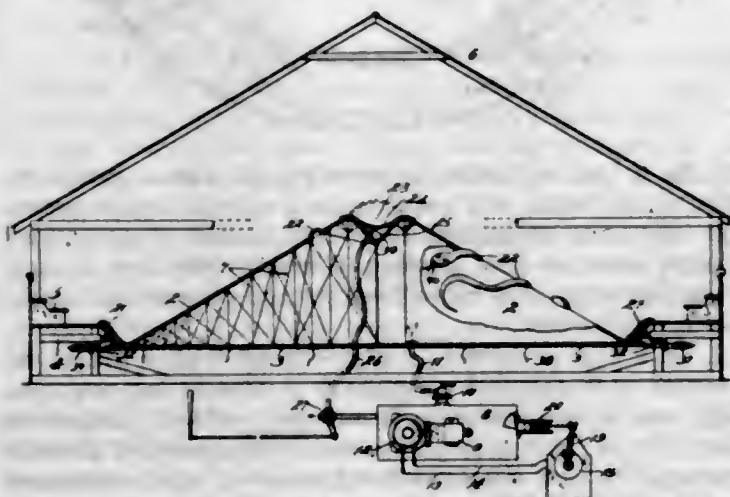


1. In a life preserver, a buoyant member having a socket in the forward end thereof, a propeller carrying member foldable thereon, a clamping hinge to connect and hold said members in the extended position, and an adjustable steering device adapted to be extended relative to the propelling member, comprising an extension bar in said socket, a tapered, threaded, and split end on said buoyant member in which the socket is formed, a knurled nut on said threaded end to clamp said split end on said extension bar, a rudder connected to said bar by a swivel joint, and handles for the manual operation of said rudder, substantially as set forth.

2. In a life preserver, a buoyant member having a steering rudder attached thereto and means for operating the same, a propeller carrying member foldable on said buoyant member, a clamping hinge connecting said members in the extended position, and means for propulsion on said propeller carrying member, comprising guide rods extending therefrom and having longitudinal channels cut on their inner sides, a cross-head slidably mounted between said guide-rods, rollers carried by said cross-head and engaging with said longitudinal channels in said guide-rods, a flat bar having a spiral twist journaled in said carrying member, an operating nut in said cross-head, a bearing member at the end of said guide-rods, the said spiral bar passing through said nut and cross-head and being journaled in said carrying member, means for causing said nut to drive said spiral bar during the reciprocating movement of the cross-head comprising a ratchet end on the nut and a corresponding ratchet on the cross-head, a propeller on the rear end of said spiral bar, and a pair of oscillating pedals secured to said cross-head whereby the same may be operated by a kicking movement to effect the propulsion of the device through the water, substantially as set forth.

3. In a life preserver, a buoyant member acting for suspension, a member foldable thereon, a socket in said foldable member, a tapered and threaded end in which the socket is formed, a knurled and correspondingly threaded nut on said threaded end, and means for propulsion adapted to be clamped to said foldable member, comprising a shank member adapted to be clamped in said socket by turning said knurled nut, guide-rods extending at the rear of said shank member, a cross-head operated upon said guide-rods, said cross-head having a reciprocating movement, a spiral bar rotatably mounted between said guide-rods, an enlarged end on said spiral bar mounted in a recessed bearing in said shank member to prevent longitudinal movement, a propeller mounted on the rear end of said spiral bar, an operating nut in said cross-head engaging with said spiral bar, ratchets on one end of the nut and the corresponding end of the cross-head, which cause the nut to drive the spiral bar during one part of the reciprocating movement of the cross-head, a smooth face on the opposite end of the nut not allowing the nut to rotate with the spiral bar, and oscillating pedals carried by the cross-head whereby the same may be operated by a kicking movement to actuate said propeller, said pedals having a suitable surface to engage with the foot of the operator, substantially as set forth.

1,082,699. AMUSEMENT APPARATUS. FREDERICK E. MAYNARD, Berkeley, Cal. Filed June 1, 1911. Serial No. 830,612. (Cl. 46—71.)



1. An amusement apparatus comprising a platform having a portion deflatable and distensible independently of the main body, and means for inflating said portion to dislodge occupants thereon.

2. An amusement apparatus comprising a suitably shaped, yieldable platform, and an eruptive floor thereon.

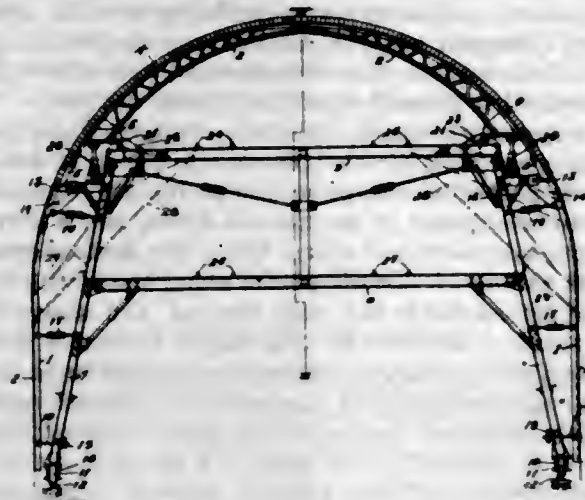
3. An amusement apparatus comprising a suitably shaped yieldable platform, and help-ropes attached thereto.

4. An amusement apparatus comprising a suitably shaped inflatable platform, and help-ropes attached thereto.

5. An amusement apparatus comprising a cushion having various configurations in its surface, and escape ropes attached to the cushion.

[Claims 6 to 47 not printed in the Gazette.]

1,082,700. TUNNEL-FORM. CHARLES D. MCARTHUR, Pittsburgh, Pa., assignor to Blaw Steel Centering Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 7, 1912. Serial No. 695,711. (Cl. 61—16.)



1. In combination in a tunnel form, a track, a framework mounted on the track, a side section at each side of the framework comprising upright ribs and lagging thereon, means whereby the side sections are moved toward and from the framework, a rigid arch section comprising ribs and lagging mounted on the framework for vertical movement independent of the side sections and with the ends of its ribs spaced away from the ends of the ribs of the side sections, and releasable joining members between the ends of the ribs of the arch and side section.

2. In combination in a tunnel form, a track, a framework mounted on the track, a side section at each side of the framework comprising upright ribs and lagging thereon, means whereby the side sections are moved toward and from the framework, a rigid arch section lying above the side sections, lifting means carried by the framework and engaging the arch section, and slip connections between the framework and arch section permitting a vertical movement of the arch section but preventing a lateral movement.

3. In combination in a tunnel form, a track, a framework mounted on the track, a side section at each side of the framework comprising upright ribs and lagging thereon, means whereby the side sections are moved toward and from the framework, a rigid arch section comprising ribs and lagging mounted on the framework for vertical movement independent of the side sections and with the ends of its ribs spaced away from the ends of the ribs of the side sections, releasable joining members between the ends of the ribs of the arch and side sections, means for moving the arch section vertically, and slip connections between the framework and arch section permitting a vertical movement of the arch section but preventing lateral movement.

4. In combination in a tunnel form, a track, a framework mounted on the track, side and arch sections carried by the framework, a car track beneath the framework extending longitudinally thereof, a dump car therefor, a car track on the framework parallel to such last car track but to one side thereof, a transfer car mounted on the framework for movement transversely of the said last car track and having a car track for receiving the dump car from the car track beneath the framework and arranged to align with the car track on the framework, and a hoisting means on the framework for lifting such dump car and depositing it upon the car track on the transfer car.

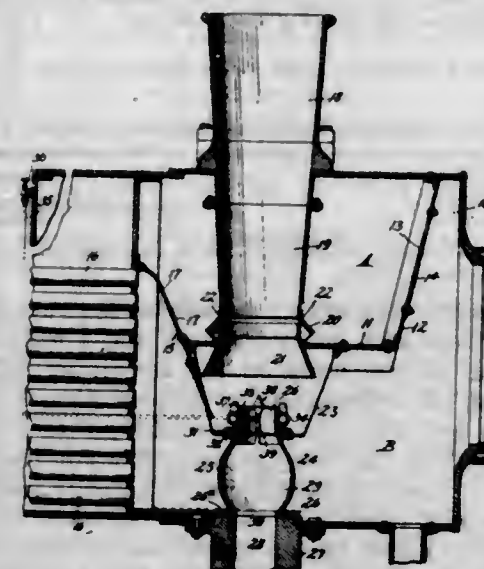
5. In combination in a tunnel form, a track, a framework mounted on the track, side and arch sections car-

197 O. G.—71

ried by the framework, a car track beneath the framework extending longitudinally thereof, a dump car therefor, a transfer car mounted on the framework for movement transversely thereof and having a track extending parallel with the said car track, and a hoisting means upon the framework for lifting the dump car from the car track beneath the framework and depositing it upon the track on the transfer car.

[Claim 6 not printed in the Gazette.]

1,082,701. EXHAUST-NOZZLE. LAWRENCE C. MOONEY, Montgomery, Ala. Filed Mar. 13, 1913. Serial No. 754,120. (Cl. 110—152.)



1. An exhaust nozzle comprising a hollow stand or body divided centrally by a vertical partition extending to the open bottom of the stand and forming an independent inlet from each exhaust port, said body being enlarged above the inlets to permit the expansion of steam and prevent compression within the cylinders, a contracted nozzle on the upper end of said body or stand above the partition, and a rigid deflector in the center of said nozzle in the form of two cones united at their bases, the connected bases lying in the plane of the top of said nozzle.

2. An exhaust nozzle comprising a hollow stand or body divided centrally by a vertical partition extending to the open bottom of said stand and forming an independent inlet from each exhaust port, said body being enlarged above the inlets to permit expansion of steam and prevent compression within the cylinders, a contracted nozzle on the upper end of said body or stand above the partition, and a rigid deflector in the center of said nozzle in the form of two cones united at their bases lying in the plane of the top of the nozzle, a live steam channel surrounding said nozzle, and a plurality of outlet nipples on said channel directed upwardly and inwardly toward the axis of the exhaust nozzle.

3. An exhaust nozzle comprising a hollow stand or body divided centrally by a vertical partition extending to the open bottom of said stand and forming an independent inlet from each exhaust port, said body being enlarged above the inlets to permit expansion of steam and prevent compression within the cylinders, a contracted nozzle on the upper end of said body or stand above the partition, a rigid deflector in the center of said nozzle in the form of two cones united at their bases, a stem affixed to said partition rigidly supporting said deflector, a live steam channel surrounding the mouth of said nozzle, and a plurality of outlet nipples on said channel directed upwardly and converging toward the axis of the exhaust nozzle.

4. An exhaust nozzle comprising a hollow stand or body divided centrally by a vertical partition extending to the open bottom of said stand and forming an independent inlet from each exhaust port, said body being enlarged above the inlets to reduce steam friction, permit expansion of the steam and prevent back compression and suction within the cylinders, a contracted nozzle on the upper

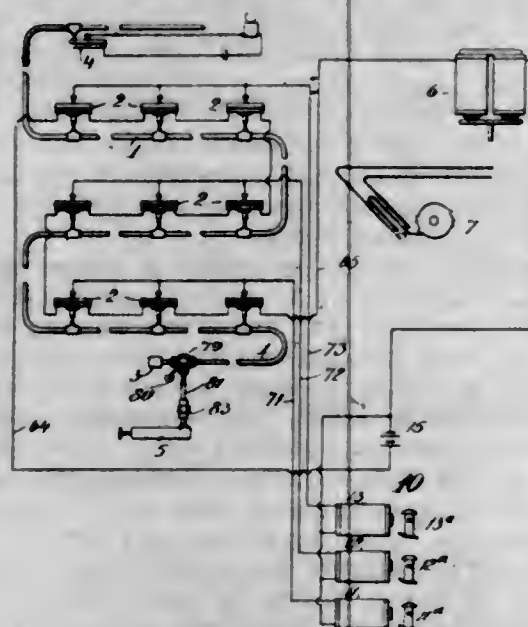
end of said body or stand above the partition, and a rigidly supported double conical deflector projecting partly into the mouth of the nozzle, said mouth having its edge outwardly inclined substantially parallel to the under surface of the deflector.

1,082,702. VOUCHER-CHECK. WENDELL D. MYRES, Niles, Ohio. Filed Feb. 11, 1913. Serial No. 747,630. (Cl. 11—13.)

1. The combination with a negotiable instrument on one half of the front of a sheet of paper and a space suitably indicated for indorsements on the remaining half of the front thereof, of a statement of account on which the instrument is based on the reverse side of the sheet and means for sealing the two halves of the statement of account face to face, the statement of account being folded between the said check and space for indorsements.

2. The combination with a negotiable instrument on one half of the front of a sheet of paper and a space suitably indicated for indorsements on the remaining half of the front thereof, of a statement of account on which the instrument is based on the reverse side of the sheet, means for sealing the edges of the two halves of the statement of account face to face, the statement of account being folded between the said check and space for indorsements, and weakened lines within the said sealed edges.

1,082,703. SUPERVISORY ALARM SYSTEM. JAMES G. NOLEN, New York, N. Y., assignor to Fire Protection Development Company, New York, N. Y., a Corporation of Maine. Filed Aug. 1, 1912. Serial No. 712,765. (Cl. 178—160.)



1. A temperature-alarm apparatus comprising a length of tubing containing air at atmospheric pressure and provided with restricted escape means to the atmosphere and adapted to be exposed to the heat of a fire, and a plurality of fluid-pressure-actuated alarm-initiating devices connected to said tubing at various points along the length of the same and intermediate the ends thereof.

2. A temperature-alarm apparatus comprising a length of tubing containing air at atmospheric pressure and provided with restricted escape means to the atmosphere and adapted to be exposed to the heat of a fire, and a plurality of fluid-pressure-actuated alarm-initiating devices connected to said tubing at various points along the length of the same and intermediate the ends thereof, and means adapted to be actuated by said alarm-initiating devices for indicating abnormal rise of temperature.

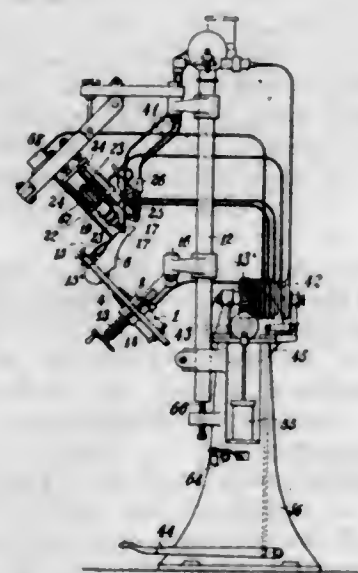
3. A temperature-alarm apparatus comprising a length of tubing containing air at atmospheric pressure and provided with restricted escape means to the atmosphere and adapted to be exposed to the heat of a fire, and a plurality of fluid-pressure-actuated alarm-initiating devices connected to said tubing at various points along the length of the same and intermediate the ends thereof, and alarm-giving means controlled by said signal initiating devices.

4. A temperature-alarm apparatus comprising a length of tubing containing air at atmospheric pressure and provided with restricted escape means to the atmosphere and adapted to be exposed to the heat of a fire, and a plurality of fluid-pressure-actuated alarm-initiating devices connected to said tubing at various points along the length of the same and intermediate the ends thereof, and alarm-transmitting means controlled by said signal initiating devices.

5. A temperature-alarm apparatus comprising a length of tubing containing air at atmospheric pressure and provided with restricted escape means to the atmosphere and adapted to be exposed to the heat of a fire, and a plurality of fluid-pressure-actuated contact devices connected to said tubing at various points along the length of the same and intermediate the ends thereof, and arranged to be actuated by expansion of air in said tubing, an electric circuit controlled by said contact devices, and alarm-giving means actuated by said circuit.

[Claims 6 to 13 not printed in the Gazette.]

1,082,704. SHOE-MACHINE. GEORGE PARMENTIER, Vienna, Austria-Hungary, assignor of one-half to Anton Stein, Vienna, Austria-Hungary. Filed Nov. 24, 1909. Serial No. 529,693. (Cl. 12—4.)



1. A boot and shoe making machine comprising a plurality of fluid pressure actuated tools, a series of distributing members side by side in proximity to one another and at a distance from said tools, a supply of pressure fluid, connections between said pressure fluid supply and said distributing members, connections between said distributing members and said tools, and means to control said distributing members.

2. A boot and shoe making machine comprising a plurality of fluid pressure actuated tools, a valve chest at a distance from said tools, a series of distributing members side by side in said chest, a supply of pressure fluid, a connection between said pressure fluid supply and said valve chest, connections between said distributing members and said tools, and means to control said distributing members.

3. A boot and shoe making machine comprising a plurality of fluid pressure actuated tools, a valve chest at a

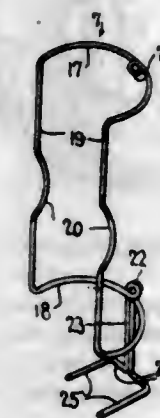
distance from said tools, a series of distributing members side by side in said chest, a supply of pressure fluid, connections between said pressure fluid and said distributing members, connections between said distributing members and said tools, and means to control said distributing members.

4. A boot and shoe making machine comprising a plurality of fluid pressure actuated tools, a series of distributing members side by side and in proximity to one another and at a distance from said tools, a supply of pressure fluid, connections between said pressure fluid supply and said distributing members, connections between said distributing members and said tools, and automatic means to control said distributing members.

5. A boot and shoe making machine comprising a plurality of fluid pressure actuated tools, a valve chest at a distance from said tools, a series of distributing members side by side in said chest, a supply of pressure fluid, a connection between said pressure fluid supply and said valve chest, connections between said distributing members and said tools, and automatic means to control said distributing members.

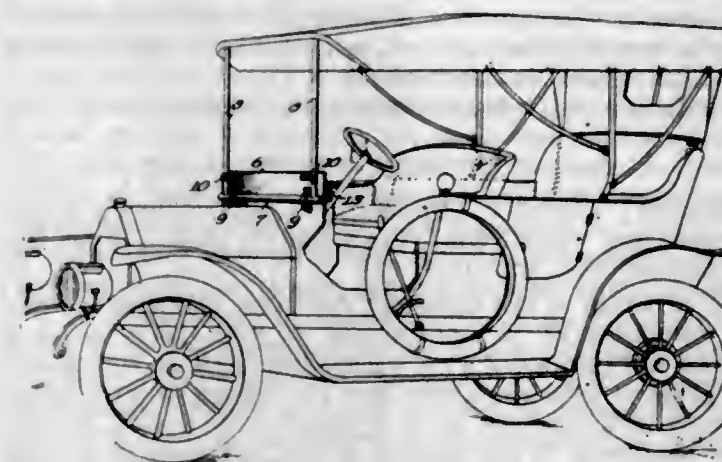
[Claims 6 to 30 not printed in the Gazette.]

1,082,705. HOLDER FOR TALKING-MACHINE RECORDS. PHILIP J. ROBINSON, Leominster, Mass. Filed Nov. 21, 1912. Serial No. 732,753. (Cl. 211—16.)



The herein described holder for talking machine records, the same being made of a single piece of wire bent at its center into a supporting eye standing in a vertical plane, thence carried forward in a horizontal plane in two oppositely curved arms, thence carried downward in parallel uprights having thumb-notches at about their mid-length, thence carried horizontally inward in two oppositely curved arms underlying those above mentioned, and the inner ends of these arms merging into a pair of attaching eyes standing in an upright plane; and a foot below the pair of jaws thus formed.

1,082,706. VEHICLE TOP-RAISING DEVICE. RYUJI SATO, Chicago, Ill. Filed Nov. 16, 1912. Serial No. 731,831. (Cl. 21—62.)



1. The combination with a foldable vehicle top; of vertically swinging arms carried by the vehicle, hauling lines associated with said arms and adapted to be extended

from the extremities thereof to the vehicle top, means for connecting said extending ends of the hauling lines to the vehicle top, and winding devices carried by the swinging arms to which devices the other ends of the hauling lines are connected.

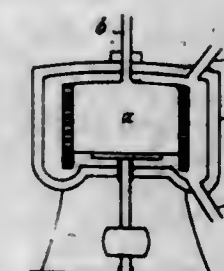
2. The combination with a foldable vehicle top; of vertically swinging arms carried by the vehicle and adapted to support the forward end of the top when the latter is in raised position, hauling lines associated with said arms and adapted to be extended from the extremities thereof to the vehicle top, means for connecting said extending ends of the hauling lines to the vehicle top, and winding devices carried by the swinging arms to which devices the other ends of the hauling lines are connected.

3. The combination with a foldable vehicle top; of vertical arms carried by the vehicle and adapted to support the forward end of the top when the latter is in raised position, hauling lines associated with said arms and adapted to be extended from the extremities thereof to the vehicle top, means for connecting said extending ends of the hauling lines to the vehicle top, and winding devices carried by the vertical arms, to which devices the other ends of the hauling lines are connected.

4. The combination with a foldable vehicle top; of vertical arms carried by the vehicle, hauling lines associated with said arms and adapted to be extended from the extremities thereof to the vehicle top, means for connecting said extending ends of the hauling line to the vehicle top, and winding devices carried by the vertical arms, to which devices the other ends of the hauling lines are connected.

5. The combination with a foldable vehicle top; of a horizontal rockable tube carried by the vehicle, tubular arms extending from the tube, a shaft mounted axially in the tube, means for operating the shaft, spools on the shaft, hauling lines wound on the spools and passing through the tubular arms to extend therefrom, and means for connecting the hauling lines to the top.

1,082,707. MANUFACTURE OF SOLID FATTY SUBSTANCES FROM OIL. JULIUS SCHLINCK, Hamburg, Germany. Filed Dec. 9, 1911. Serial No. 664,876. (Cl. 87—12.)



1. An improved process for the manufacture of solid fatty substances, particularly edible fats, from oils, in which the oil in liquid condition and the thinnest film is passed by centrifugal force over a catalyst in the presence of hydrogen and in such a manner that the said catalyst offers a frictional resistance to the oil, substantially as described.

2. An improved process for the manufacture of solid fatty substances, particularly edible fats, from oils, in which the oil in liquid condition at a temperature between 40 and 200 degrees C. and in the thinnest film is passed by centrifugal force over a catalyst in the presence of hydrogen and in such a manner that the said catalyst offers a frictional resistance to the oil, substantially as described.

3. An improved process for the manufacture of solid fatty substances, particularly edible fats, from oils, in which the oil in liquid condition and in the thinnest film is passed by centrifugal force over a catalyst in the presence of hydrogen and in such a manner that the said catalyst offers a frictional resistance to the oil, the hydrogen being supplied under pressure, substantially as described.

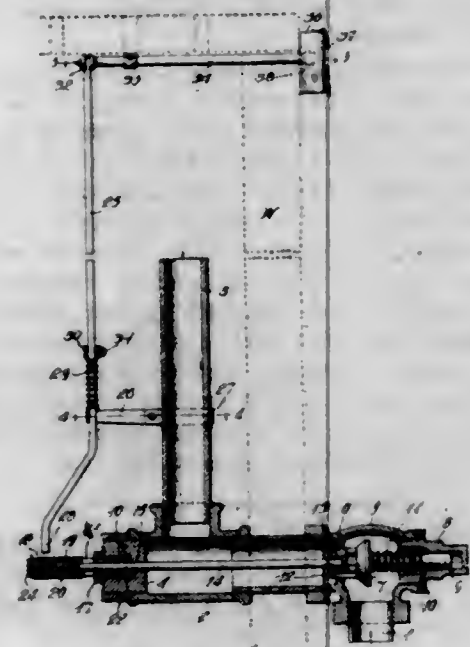
4. An improved process for the manufacture of solid fatty substances, particularly edible fats, from oils, in which the oil in liquid condition and in the thinnest film

is passed by centrifugal force over a catalyst in the presence of hydrogen and in such a manner that the said catalyst offers a frictional resistance to the oil, the hydrogen being conducted through successive drums in uniform progression to act on the oil to be treated repeatedly, substantially as described.

5. An improved process for the manufacture of solid fatty substances, particularly edible fats, from oils, in which the oil in liquid condition at a comparatively low temperature and in the thinnest film is passed by centrifugal force over a catalyst in the presence of hydrogen and in such a manner that the said catalyst offers a frictional resistance to the oil, the hydrogen being supplied under pressure, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,082,708. AUTOMATICALLY-CLOSING VALVE. OTTOMER SCHMACHTENBERGER, Decatur, Ill. Filed Jan. 3, 1913. Serial No. 740,080. (Cl. 137—92.)



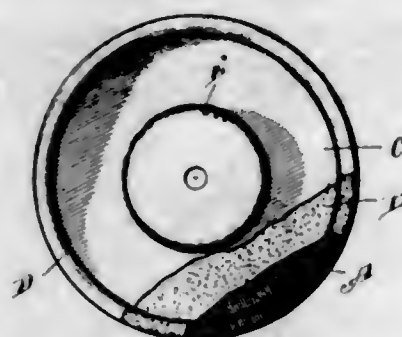
1. The combination with a fluid service pipe, of a valve casing arranged in said pipe, an automatically closing valve in said casing to cut off the passage of the fluid through the pipe, a valve holding rod engaged at one end with said valve, a suitably supported detent to engage the opposite end of said holding rod whereby the valve is normally held open, a manually operated valve closing mechanism comprising a rock shaft adapted to be suitably mounted, a crank arm on one end of said rock shaft, a spring retracted plunger rod connected with said crank arm and adapted to be projected by said rock shaft and crank arm to disengage said detent from said valve holding rod thereby permitting the valve to close, an operating handle on the other end of said rock shaft and a suitably closed and fastened protecting casing to receive the outer end and handle of said rock shaft whereby the latter is protected from being tampered with.

2. The combination with a fluid conducting pipe, of a valve casing arranged in said pipe, an automatically closing valve in said casing to cut off the passage of the fluid through said pipe, a slidably supported valve holding rod engaged at one end with said valve, a detent supporting member, a detent arranged between said member and the opposite end of said holding rod whereby the latter is normally held in position to hold said valve open, said detent comprising a tube having therein a filling fusible under heat and with which said opposite end of said holding rod is engaged when the filling is in a hardened state and which when fused will release said rod and permit the valve to close, and means whereby said detent may be manually disengaged from said rod at a point remote from the valve thereby permitting the valve to close.

3. The combination with a fluid service pipe of a valve casing arranged in said pipe, an automatically closing valve in said casing to cut off the passage of the fluid

through the pipe, a valve holding rod engaged at one end with said valve, a suitably supported detent to engage the opposite end of said holding rod whereby the valve is normally held open, said detent being fusible under the action of heat to release said rod and permit said valve to close, a manually operated valve closing mechanism comprising a rock shaft adapted to be mounted in a building and having one end adapted to project outside the building, a crank arm on the inner end of said rock shaft, a spring retracted plunger rod connected with said crank arm and adapted to be projected by said rock shaft and crank arm to disengage said detent from said valve holding rod thereby permitting the valve to close, an operating handle on the outer end of said rod and a suitably closed and fastened projecting casing to receive the outer end and handle of said rock shaft whereby the latter is protected from being tampered with.

1,082,709. BLANK FOR TALKING-MACHINE RECORDS. JOHN SCHUMACHER, Chicago, Ill., assignor to Joseph Sanders. Filed Apr. 11, 1903. Serial No. 152,191. (Cl. 181—17.)



1. A sound record tablet blank comprising a base of fibrous material, a surface of sound record receiving material capable of softening under the action of heat to receive the impress of a sound record matrix and resistant when cold to the action of a pointed stylus, and a sizing in the base permeable throughout the base to the surfacing material.

2. A sound record tablet blank comprising a base of fibrous material, sound record receiving material thereto, and a sizing in said base pervious to said record material.

3. A sound record tablet blank consisting of a base of fibrous material permeated by a sizing and by a record material sufficiently hard to practically resist the action of a pointed stylus, and a surface layer of the same record material upon said base.

4. A sound record tablet consisting of a base of fibrous material containing both a sizing and thermoplastic record receiving material which latter is sufficiently hard when cold to practically resist the action of a pointed stylus, and a layer of such record receiving material on the surface of the tablet with a sound record groove impressed therein.

5. A thermoplastic sound record tablet blank having a formed fibrous base or understructure containing shellac as the thermoplastic element, and a surface coating richer in shellac than the body portion.

[Claims 6 to 13 not printed in the Gazette.]

1,082,710. POCKET COMMUNION SET. PETER TANG-JERD, Eau Claire, Wis. Filed Apr. 7, 1913. Serial No. 759,559. (Cl. 65—13.)

1. A device of the character described including a chalice composed of two parts, one of such parts being a hollow body provided with a discharge opening and adapted to serve as a container, and the second of such parts serving as a cup and being provided with a stem detachably connected to the opening of the first member to close the same.

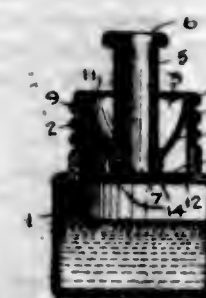
2. A device of the character described including a chalice composed of separable parts, one of such parts serving as a container and the other as a cup, a plate mem-

ber provided with a marginal flange adapted to support the plate within the cup member, and an inclosing case for such parts adapted to detachably engage the members



of the chalice, one of such members being provided with a marginal flange overlapping the walls of the open end portion of the casing.

1,082,711. PEN-FILLING DEVICE. HUSTON TAYLOR, Pittsford, N. Y., and JAMES HALL TAYLOR, Chicago, Ill., assignors, by mesne assignments, to Harold N. Carpenter. Filed Feb. 14, 1912. Serial No. 677,616. (Cl. 226—34.)



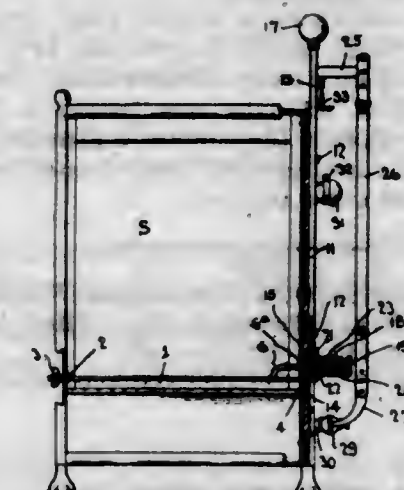
1. A combined ink-receptacle and pen-filling device having in combination a receptacle for the ink, a central tubular member having one end extending within the receptacle and its other end extending outwardly therefrom, said outer end formed to make air and fluid-tight connection with the inserted pen, the inwardly extending portion of said member forming a chamber to receive the point and feed-ducts of the pen, an elastic pumping diaphragm or member united with and extending from the lower interior portion of said tubular member to and over the lip of the ink receptacle, and a centrally-apertured clamping cap engaging the mouth of the ink-receptacle and clamping the diaphragm and tubular member fluid-tight thereto with the outer end of the tubular member freely passing through said aperture.

2. A combined ink-receptacle and pen-filling device having in combination a receptacle for the ink, a central tubular member having one end extending within the receptacle and its other end extending outwardly therefrom, said outer end formed to make air and fluid-tight connection with the inserted pen, the inwardly extending portion of said member forming a chamber to receive the point and feed-ducts of the pen, an elastic pumping diaphragm having the form of an inverted dome united to and extending from the lower, interior portion of said tubular member to and over the lip of the ink receptacle, and a centrally-apertured clamping cap inclosing the lower portion of the tubular member and the diaphragm, said cap engaging the mouth of the ink receptacle and clamping the diaphragm fluid-tight thereto, with the outer end of the tubular member freely passing through said aperture.

3. In a device of the character described, the combination with an ink receptacle, of an elastic collapsible dome-like diaphragm secured to the mouth of said receptacle and extending within the same, an axially disposed hollow stem connected to the crown of said diaphragm within said receptacle and extending outwardly from the same, said stem forming a chamber for the reception of the point of the pen to be filled and having its outer end formed with an orifice to receive and make a close joint with the pen and its inner end open to the interior of the

ink receptacle, a sealing device supported within the receptacle to close normally the inner end of said stem, said stem forming means for alternately collapsing and expanding said diaphragm, substantially as and for the purpose described.

1,082,712. AUTOMATIC THERMAL CUT-OFF FOR GAS-BURNERS. ANGUS TIBBS, Uniontown, Pa., assignor of one-half to John Foster Page and one-fourth to William P. Henderson, Uniontown, Pa. Filed July 24, 1913. Serial No. 781,013. (Cl. 67—117.)



1. In an automatic thermal cut off of the character described, the combination with a thermal bar, of an automatically operating cut off mechanism adapted to be supported in an inoperative position by said thermal bar when the latter is expanded and to be released when said bar is contracted, a spring projected catch carried by said cut off operating mechanism, means to receive said catch and to thereby support said operating mechanism in an inoperative position until said thermal bar is expanded and a catch releasing finger connected with said thermal bar and adapted to be projected by the latter when expanded and to thereby release said catch and permit the operating mechanism to drop and engage said catch with the expanded thermal bar.

2. In an automatic thermal cut off of the character described, the combination with a thermal bar of an automatically operating cut off mechanism comprising a guide bar having therein apertures one of which is adapted to receive the end of said thermal bar, a cut off operating bar slidably mounted in said guide bar and having therein an aperture adapted to be brought into register with the other aperture in said guide bar, a spring projected catch bolt carried by said operating bar to engage the aperture therein and in said guide bar to support said operating bar in an inoperative position, a catch releasing member connected with said thermal bar and adapted to be projected into engagement with said catch bolt when the thermal bar expands and to thereby release said catch bolt and permit the operating bar to drop and said catch bolt to come into engagement with the expanded thermal bar.

3. In an automatic thermal cut off for burners, the combination with a thermal bar arranged in position to be heated and expanded by the flame of said burner, an automatically operating cut off mechanism comprising a guide bar having therein apertures one of which is adapted to receive one end of the thermal bar, a catch releasing member connected with said thermal bar and having one end engaged with the other apertures in said guide bar, a weight actuated operating bar slidably mounted in said guide bar and having therein an aperture, a spring projected bolt carried by said operating bar and having its end engaged with the aperture in said guide bar whereby said supporting bar is held in an inoperative position and whereby when said thermal bar is expanded, said releasing member will be brought into engagement with said catch bolt thereby releasing the latter and permitting said operating bar to drop and said catch bolt to engage the end of the expanded thermal bar.

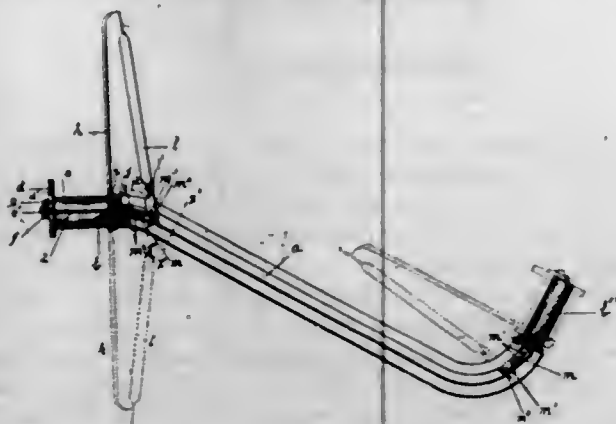
1,082,713. TORCH. SCOTT H. TOLMAN, Boston, Mass. Filed May 4, 1912. Serial No. 695,190. (Cl. 158—109.)



1. A burner comprising a tubular outer element and a filling element fitted tightly therein, one of said elements being grooved longitudinally to provide a passageway for fuel, the perimeter of said outer element being concentric relatively to said passageway.

2. A burner comprising a tubular outer member and a filling member fitted tightly therein, the external and internal surfaces of said outer member being eccentric as to each other, one of said members having a longitudinal feed groove for fuel in the surface confronting the other of said members, said groove being concentric as to the perimeter of said outer member.

1,082,714. TRUING-TOOL FOR LATHE-WORK. CHARLES FREDOLIN URBAN, Milwaukee, Wis. Filed Apr. 8, 1912. Serial No. 689,442. (Cl. 73—149.)



1. A truing tool comprising a shank having an end constituting a journal pin; a rotatable member including a gage plate formed with a bearing point, said rotatable member mounted on said journal pin; a spring member controlling said gage plate whereby the latter is held to bear on the surface of the work being tested; yielding means for securing said rotatable member in place on said journal pin but permitting it to be forcibly rotated; a pointer mounted on said rotatable member; and a dial mounted on the shank.

2. A truing tool comprising a shank having an end constituting a journal pin; a rotatable member including a gage plate formed with a bearing point, said rotatable member mounted on said journal pin; a spring member controlling said gage plate whereby the latter is held to bear on the surface of the work being tested; yielding means for securing said rotatable member in place on said journal pin but permitting it to be forcibly rotated; a pointer mounted on said rotatable member, said pointer being circumferentially adjustable on said rotatable member; and a dial mounted on the shank, said dial supported by means adapted to permit the circumferential adjustment of the dial.

3. A truing tool comprising a shank having its opposite ends formed into journal pins, the latter bent at different angles with respect to the shank; a rotatable member including a gage plate formed with a bearing point, said rotatable member mounted on one of said journal pins; a spring member controlling said gage plate whereby the latter is held to bear on the surface of the work being tested; yielding means for removably securing said rotatable member in place on said journal pin but permitting it to be forcibly rotated; a pointer mounted on said rotatable member; and a dial removably mounted on the shank.

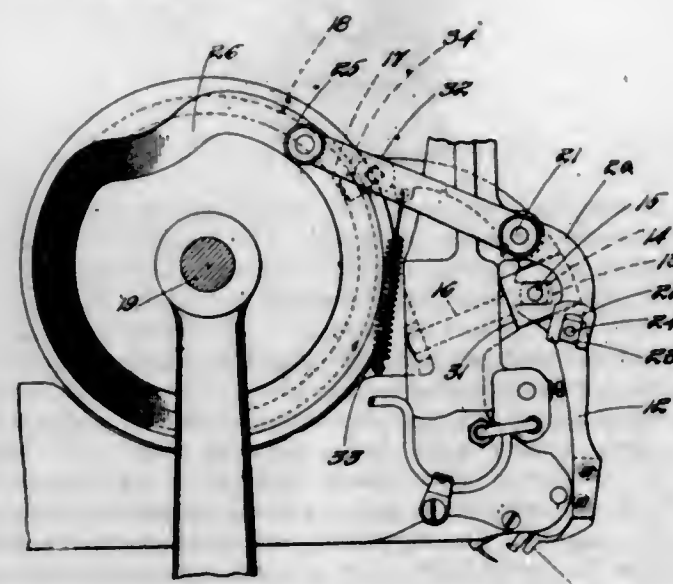
4. A truing tool comprising a shank having its opposite ends formed into journal pins, the latter bent at different angles with respect to the shank; a rotatable member including a gage plate formed with a bearing point, said

rotatable member mounted on one of said journal pins; a spring member controlling said gage plate whereby the latter is held to bear on the surface of the work being tested; yielding means for removably securing said rotatable member in place on said journal pin but permitting it to be forcibly rotated; a pointer mounted on said rotatable member, said pointer being circumferentially adjustable on said rotatable member; and a dial removably mounted on the shank, said dial supported by means adapted to permit the circumferential adjustment of the dial.

5. A truing tool comprising a shank having an end constituting a journal pin; a rotatable member including a gage plate formed with a bearing point, said rotatable member mounted on said journal pin; a spring arm adjustably engaged with said gage plate whereby the bearing point of the latter is held to the surface of the work being tested; said gage plate being formed with a plurality of radial notches for receiving the extremity of said spring arm; yielding means for securing said rotatable member in place on said journal pin but permitting it to be forcibly rotated; a pointer mounted on said rotatable member; and a dial mounted on the shank.

[Claims 6 to 8 not printed in the Gazette.]

1,082,715. SHOE-SEWING MACHINE. FELIX E. VALOIS, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 30, 1912. Serial No. 728,662. (Cl. 112—20.)

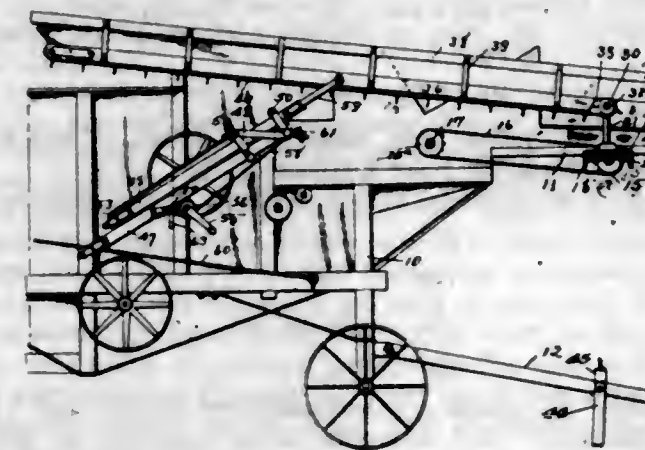


1. In a sewing machine, the combination with a swinging support, a main looper lever, a pivot therefor, a slide and block connection between the support and the main looper lever, a cam swinging the looper lever about said support, a secondary looper lever having a slide and block connection with the main looper lever and a cam acting on the secondary looper lever to swing the main looper lever about its pivot.

2. In a sewing machine, the combination of a main looper lever, a secondary looper lever acting on the main looper lever, a cam having a cylindrical periphery with a cam groove therein to actuate the main looper lever, a cam to actuate the secondary looper lever, a bearing roll on the end of the main looper lever and in contact with the cylindrical surface of the first mentioned cam and forming a pivot for the main looper lever and a spring to hold the bearing roll in contact with the surface of said cam.

3. In a sewing machine, the combination with a main looper lever, a cam to actuate said main looper lever and having a cylindrical surface with a cam groove therein, a bearing roll forming a pivot for the main looper lever and contacting with the cylindrical surface of the cam, a cam follower on the said main looper lever and engaging said cam groove, a secondary lever slidably connected with the main looper lever and a plate cam actuating said secondary lever.

1,082,716. LATERAL CONVEYER FOR THRESHING-MACHINE FEEDERS. ARTHUR C. VAN HOUWELING, Pella, Iowa. Filed July 21, 1909. Serial No. 508,857. (Cl. 193—16.)



1. The combination with a support, of a rotatable shaft projected laterally from the support, a track extended laterally from the support adjacent to said shaft, a bracket slidably mounted upon said track, a lateral conveyer frame, a conveyer therein, said frame being mounted on said bracket and capable of movement toward and from the support, and a gearing device interposed between said shaft and the conveyer in the lateral conveyer frame, for the purposes stated.

2. The combination of a support, a rotatable shaft extended laterally from the support, two bars fixed to the support and extended laterally on opposite sides of the shaft, a base slidably mounted on said bars, an upright shaft mounted in said base, a gearing device for connecting the upright shaft with the lateral shaft, said gearing device being capable of longitudinal movement on the lateral shaft, a lateral conveyer frame pivotally supported at the upper end of said upright shaft, a conveyer and a lateral conveyer frame, and a gearing device interposed between the upright and said conveyer for driving the latter.

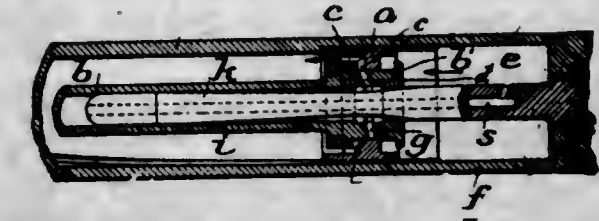
3. In a device of the class described, the combination of a support, a rotatable shaft extended laterally from it, two angle bars extended laterally from the support on opposite sides of said shaft, a base slidably mounted on said angle bars and having a vertically arranged sleeve thereon, a tube rotatably mounted within the sleeve, brackets fixed on top of said tube, a horizontal shaft in said brackets, a beveled gear wheel slidably and non-rotatably mounted on the first mentioned shaft, a vertical shaft mounted in said upright tube, a beveled gear wheel at each end of the vertical shaft, the lower one being in mesh with the beveled gear wheel on the lateral shaft, a beveled gear wheel on the upper horizontal shaft in mesh with the upper gear wheel on the vertical shaft, a lateral conveyer frame pivotally connected to said brackets, a conveyer therein, and means for driving the conveyer from the upper horizontal shaft.

4. In a device of the class described, the combination of a support, a rotatable shaft extended laterally from it, two angle bars extended laterally from the support on opposite sides of said shaft, a base slidably mounted on said angle bars and having a vertically arranged sleeve thereon, a tube rotatably mounted within the sleeve, brackets fixed on top of said tube, a horizontal shaft in said brackets, a beveled gear wheel slidably and non-rotatably mounted on the first mentioned shaft, a vertical shaft mounted in said upright tube, a beveled gear wheel at each end of the vertical shaft, the lower one being in mesh with the beveled gear wheel on the lateral shaft, a beveled gear wheel on the upper horizontal shaft in mesh with the upper gear wheel on the vertical shaft, a lateral conveyer frame pivotally connected to said brackets, a conveyer therein, and means for driving the conveyer from the upper horizontal shaft, said means comprising a sprocket wheel fixed to the upper horizontal shaft and having the conveyer in the lateral conveyer frame passed around it.

5. In a device of the class described, a lateral conveyer frame, comprising a solid longitudinally arranged support, two sheet metal sides overlapping the sides of said support and extended outwardly and upwardly in opposite directions, and a bracket resting against one of the sheet metal sides and secured to the said support, said bracket having two bearings thereon, an arm secured to said conveyer frame, journals on said arm mounted on said bearings to permit said arm to move in a vertical plane and means for mounting said bracket to permit it to move in a horizontal plane.

[Claims 6 to 8 not printed in the Gazette.]

1,082,717. HYDRAULIC BRAKE FOR GUNS HAVING A RECOILING BARREL. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Filed Jan. 16, 1907. Serial No. 352,601. (Cl. 89—43.)

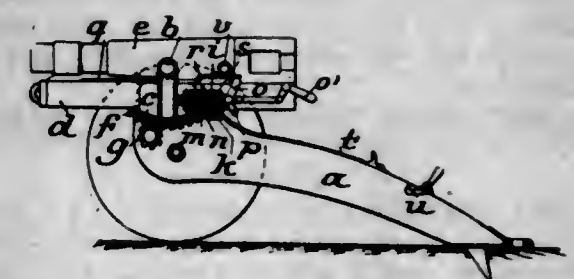


1. In a hydraulic brake for guns, the combination, with a cylinder, a piston mechanism within said cylinder and having dissimilar sets of ports comprising radial passages, one for the flow of braking fluid from one side of the piston to the other during the recoil movement and the other for the contrary flow of the same fluid during the counter recoil movement, of means controlled by the pressure of the braking fluid in both directions, and arranged to open one set of ports and close the other during movement in one direction and vice versa during movement in the other direction.

2. In a hydraulic brake for guns, the combination of a piston part having two dissimilar ports comprising radial passages, and a slide carried by the said piston part and arranged to be shifted under the pressure of the braking fluid to cause either of said ports to be closed when the other port is open.

3. In a hydraulic brake for guns, the combination with a brake cylinder, of a piston part within the same provided with two sets of ports for the passage of braking fluid, a slide mounted on the piston to have an axial and a rotary movement thereon, the said slide being provided with two sets of ports for the passage of the braking fluid and being open to the pressure of the braking fluid, whereby it will move axially upon the piston part to cause its own ports to register alternately with the corresponding ports in the piston part, and means on the braking cylinder to rotate the slide and thereby cut off the flow through the registering ports.

1,082,718. GUN HAVING A RECOILING BARREL. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Filed Dec. 11, 1908. Serial No. 466,980. (Cl. 89—40.)



1. In a gun having a recoiling barrel, elevating mechanism therefor, means to divert the barrel from the firing elevation during recoil, means to automatically uncouple the barrel from the elevating mechanism before the begin-

ning of such deviation and to permit the recoupling of the parts after return to firing position only.

2. In a gun having a recoiling barrel, elevating mechanism therefor, means to divert the barrel during recoil from the firing elevation to a different elevation at the end of recoil, coupling mechanism arranged to automatically uncouple the barrel from the elevating mechanism before the beginning of such deviation, means to retain the barrel at the changed elevation during counter recoil, and means to permit its return to firing elevation after counter recoil, the coupling mechanism arranged to again become effective at firing elevation.

3. In a gun having a recoiling barrel, elevating mechanism therefor, means to divert the barrel during recoil from the firing elevation to a different elevation at the end of recoil, coupling mechanism arranged to automatically uncouple the barrel from the elevating mechanism before the beginning of such deviation, such coupling mechanism comprising a part fixed to the elevating mechanism, a catch swinging with the barrel about its trunnions and arranged to engage the said part, and means actuated by the longitudinal movement of the barrel to release said catch from said part.

4. In a gun having a recoiling barrel, elevating mechanism therefor, means to divert the barrel during recoil from the firing elevation to a different elevation at the end of recoil, coupling mechanism arranged to automatically uncouple the barrel from the elevating mechanism before the beginning of such deviation, such coupling mechanism comprising a stop swinging with the barrel about its trunnions and arranged to bear against a part moving with the elevating mechanism, a catch connected to the stop and arranged to overlap the said part on the opposite side and means actuated by the longitudinal movement of the barrel to retract said catch to release said part.

5. In a gun having a recoiling barrel, elevating mechanism therefor, means to divert the barrel during recoil from the firing elevation to a different elevation at the end of recoil, coupling mechanism arranged to automatically uncouple the barrel from the elevating mechanism before the beginning of such deviation, such coupling mechanism comprising a part fixed to the elevating mechanism, a catch swinging with the barrel about its trunnions and arranged to engage the said part, and means actuated by the longitudinal movement of the barrel to release said catch from said part, means to retain the barrel at the changed elevation during loading and to permit its return to firing elevation after loading, the coupling mechanism arranged to again become effective at firing elevation.

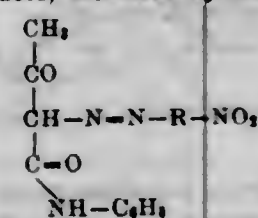
[Claims 6 to 23 not printed in the Gazette.]

1,082,719. MONOAZO DYESTUFFS AND PROCESS OF MAKING SAME. HERMANN WAGNER, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed June 14, 1910. Serial No. 566,817. (Cl. 8-1.)

1. The herein-described process of manufacturing yellow monoazo dyestuffs, insoluble in water, which consists in combining with acetoacetic anilid the diazo compound of a nitroarylamine.

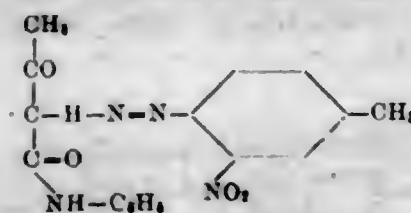
2. The herein-described process of manufacturing yellow monoazo dyestuffs, insoluble in water, which consists in combining with acetoacetic anilid the diazo compound of a nitroarylamine, the combination occurring in presence of a substratum.

3. As new products, monoazo dyestuffs of the formula:



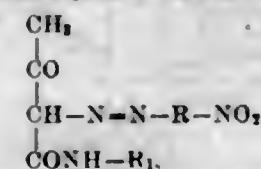
wherein "R" means an aryl residue being pure yellow bodies, insoluble in water, oil and alcohol, and possessing great fastness to light.

4. As a new product, the monoazo dyestuff of the formula:



being a pure yellow body, insoluble in water, oil and alcohol, and possessing great fastness to light.

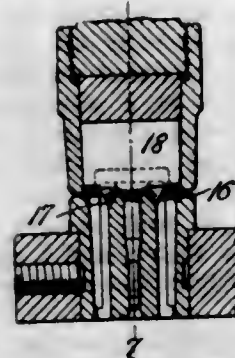
5. As new products, yellow dyestuffs of the formula:



wherein "R" means a substituted aryl residue and "R₁" a substituent, said dyestuffs being insoluble in water, possessing great fastness to light, and furnishing valuable color-lakes.

[Claim 6 not printed in the Gazette.]

1,082,720. MECHANISM FOR SLOTTING THE HEADS OF SCREWS. GEORGE T. WARWICK, Springfield, Mass., assignor to International Machine and Screw Company, Springfield, Mass., a Corporation of Maine. Filed Mar. 13, 1912. Serial No. 683,470. (Cl. 10-7.)



1. A slotting tool composed of a die member and a punch, the die member comprising a body having a bore formed with a flare at the upper end portion to support a screw blank with a conical head, the die having a diametral slot extending across the bore at the upper part that is of short depth, the die member having an opening extending down from the slotted portion on each side through the body, the slotted portion on each side having the bottom wall inclined downward and outward from said flaring wall of the bore to the said openings to form sharply acute cutting edges, and a punch in the form of a blade arranged to enter the slot in the die to engage the top of the blank therein and force the metal outward on each side through said slotted portions of the die to form a slot in the blank.

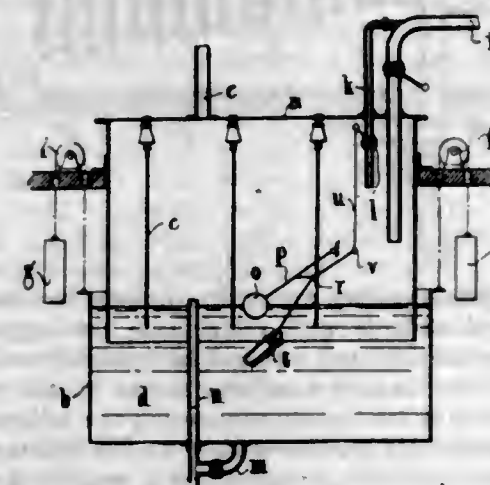
2. A slotting tool composed of a die member and a punch, the die member comprising a body having a bore formed with a flare at the upper end portion to support a screw blank with a conical head, the die having a diametral slot extending across the bore at the upper part that is of short depth, the die member having an opening extending down from the slotted portion on each side through the body, the slotted portion on each side having the bottom wall inclined downward and outward from said flaring wall of the bore to the said openings to form sharply acute edges, and a punch in the form of a blade arranged to enter the slot in the die to engage the top of the blank therein and force the metal outward on each side through said slotted portions of the die to form a slot in the blank, the punch blade being longitudinally curved on its lower edge to engage the blank at the center portion first.

3. A slotting tool composed of a die member and a punch, the die member comprising a body having a bore formed with a flare at the upper portion to support a screw blank with a conical head, the die having a dia-

metral slot extending across the bore at the upper part and of short depth, the punch being in the form of a blade arranged to enter the slot in the die and engage the top of the blank therein and force the metal outward on each side through said slotted portions of the die to form a slot in the blank, the die member having an opening extending down from the slotted portion on each side and through the body.

4. A slotting tool composed of a die member and a punch, the die member comprising a body having a bore formed with a flare at the upper portion to support a screw blank with a conical head, the die having a diametral slot extending across the bore at the upper part of short depth, the punch being in the form of a blade arranged to enter the slot in the die and engage the top of the blank therein and force the metal outward on each side through said slotted portions in the die to form a slot in the blank, the die having an opening down from the slotted portion on each side and through the body, the punch being longitudinally curved on its lower edge to engage the blank at the center first.

1,082,721. LIQUID RESISTANCE. ALBERT AICHELE, Baden, Switzerland. Filed Aug. 8, 1913. Serial No. 783,740. (Cl. 219-57.)



1. A regulable liquid resistance comprising a fixed upper box or frame provided with electrodes, and a vertically movable lower vessel containing the resistance liquid, said lower vessel being capable of being raised and lowered for the purpose of varying the amount of resistance; as set forth.

2. A regulable liquid resistance comprising a fixed upper box or frame provided with electrodes, and a vertically movable lower vessel containing the resistance liquid, said lower vessel being counter-balanced and being capable of being raised and lowered for the purpose of varying the amount of resistance; as set forth.

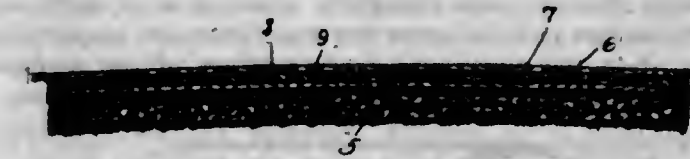
3. A regulable liquid resistance comprising a fixed upper box or frame provided with electrodes and a vertically movable lower vessel containing the resistance liquid, means closing said box, a discharge pipe for air and vapor situated at the top in said means while its lower part dips into the liquid in all working positions of the liquid vessel, and forms a water seal, as set forth.

4. A regulable liquid resistance comprising a fixed upper box or frame provided with electrodes and a vertically movable lower vessel containing the resistance liquid, said lower vessel being capable of being raised and lowered for the purpose of varying the amount of resistance, together with devices capable of maintaining a constant level of the liquid, comprising a float valve for the inflow and an overflow pipe for the outflow of the liquid; as set forth.

5. A regulable liquid resistance comprising a fixed upper box or frame provided with electrodes and a vertically movable lower vessel containing the resistance liquid, said lower vessel being capable of being raised and lowered for the purpose of varying the amount of resistance, together with devices capable of maintaining a constant level of the liquid, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,082,722. METHOD OF CONSTRUCTING ROADWAYS. DANIEL BASIL W. ALEXANDER, Los Angeles, Cal. Filed Apr. 9, 1912. Serial No. 680,452. (Cl. 94-1.)

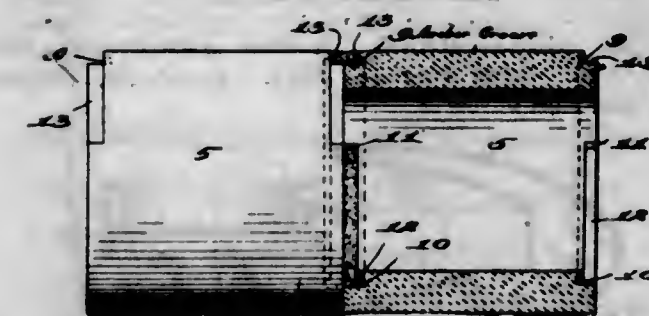


1. The method of producing roadways, comprising the coating of crushed rock of graded sizes with a hard bituminous material and then cooling the same, then applying the rock to the surface to be covered by a roadbed, then partially filling the voids with rock screenings, then applying heated oil to the mass and allowing it to penetrate therein to soften the hard and brittle bituminous coating of the rock so that a cementing action is obtained, then sanding and rolling the sand into the interstices of the mass, and finally oiling the surface.

2. The method of constructing bituminous macadam roadways, comprising the coating of graded rock with a hard bituminous material, then laying and rolling the crushed rock with rock screenings added to form the basis of a roadbed, then oiling the roadbed and permitting the oil to penetrate to the bituminous coverings of the rock and combining with said bitumen for the purpose of cementing the particles of the roadbed together, and then applying sand, and further oiling the roadbed to produce a smooth waterproof surface.

3. The method of constructing roadways, comprising the mixing of hard bitumen, graded rock, rock screenings and sand, then spreading the mixture upon the road bed and rolling the same, and finally spraying sufficient oil to the rolled mass to soften the hard bitumen and cement the rock, sand and screenings together to one homogeneous mass.

1,082,723. REINFORCED-CONCRETE SECTIONAL PIPE AND CULVERT. CHARLES C. ALLEN and CHARLES H. BUSCH, Nebraska City, Nebr., assignors to The Wilson Re-Enforced Concrete Co., Nebraska City, Nebr., a Corporation of Nebraska. Filed Mar. 9, 1912. Serial No. 682,693. (Cl. 72-53.)

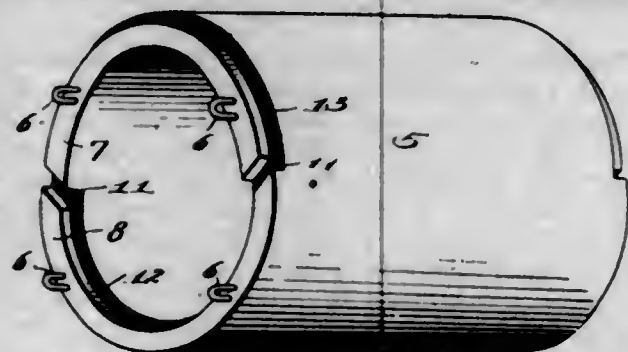


In a sectional conduit, the combination of abutting sections having the opposite ends formed with segmental flanges which are less in thickness than the body of the sections and the one flange having its inner edge coinciding with the inner surface of the section and the remaining flange having its outer edge coinciding with the outer surface of the section to provide outer and inner channels formed in the upper and lower portions of the adjacent ends of the sections, anchor grooves being formed at the inner terminals of the flanges and opening into and receding from the said channels, the anchor grooves having their lower portions flush with the upper surfaces of the flanges and the outer and inner channels being connected by cross-channels forming the means of communication between the said channels and grooves.

1,082,724. REINFORCED-CONCRETE SECTIONAL PIPE AND CULVERT. CHARLES C. ALLEN, Nebraska City, Nebr., assignor to The Wilson Re-Enforced Concrete Co., Nebraska City, Nebr., a Corporation of Nebraska. Filed Sept. 11, 1912. Serial No. 719,845. (Cl. 72-51.)

1. In a sectional conduit, the combination of abutting sections having the opposite ends formed with segmental

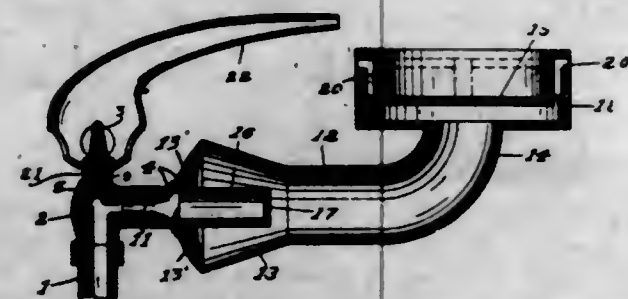
flanges of less thickness than the bodies of the sections, the one flange having its inner edge coinciding with the inner surface of each section and the remaining flange having its outer edge coinciding with the outer surface of each section to form outer and inner channels respectively located in the upper and lower portions of the sections, the channels having intermediate communicating means.



2. In a sectional conduit, the combination of abutting sections having the opposite ends formed with segmental flanges of less thickness than the bodies of the sections, the one flange having its inner edge coinciding with the inner surface of each section and the remaining flange having its outer edge coinciding with the outer surface of each section to form outer and inner channels respectively located in the upper and lower portions of the sections, downwardly inclined cross-channels being provided to establish communication between the said inner and outer channels.

3. In a sectional conduit, the combination of abutting sections having the opposite ends formed with segmental flanges of less thickness than the bodies of the sections, the one flange having its inner edge coinciding with the inner surface of each section and the remaining flange having its outer edge coinciding with the outer surface of each section to form outer and inner channels respectively located in the upper and lower portions of the sections, cross-channels being formed through the flanges to establish communication between the inner and outer channels, and draw-bars extending through the sections and adapted to have their ends connected.

1,082,725. GAS-BURNER. JOSEPH ANTONUCCIO, Oakland, Cal. Filed July 15, 1912. Serial No. 709,594. (Cl. 158-99.)

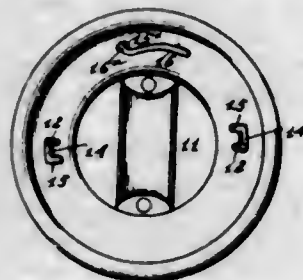


In a gas burner, the combination of a shallow pan, a mixing chamber leading from the lower side of said pan, a smaller flanged pan loosely fitting into the first pan to cause the mixed gas to be discharged therefrom in an annulus, a gas supply pipe, a cut off valve connected with the pipe and mixing chamber, and a removable gas tip within the mixing chamber, substantially as described.

1,082,726. MILK-CAN-COVER LOCK AND SEAL. FRANK A. ARIENS, Denison, Iowa. Filed Mar. 31, 1913. Serial No. 758,062. (Cl. 31-78.)

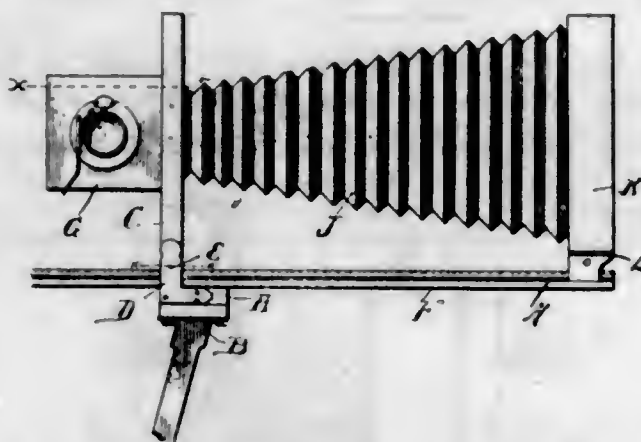
The combination of a milk can having a contracted neck and an upwardly, outwardly flaring wall above said neck, provided with an opening, with a cover having a cylindrical portion and an upwardly outwardly flaring wall above it provided with an opening, lugs extending inwardly from said first wall, formed with downwardly extending hooks at their inner ends, the wall of said cover being formed with slots designed to receive said lugs,

said slots having lateral extensions at their upper ends, said slots and openings being so arranged that when the lugs



are in said extensions, said openings register with each other.

1,082,727. CAMERA. GEORGE C. BEIDLER, Oklahoma, Okla. Filed Sept. 26, 1907. Serial No. 394,707. (Cl. 95-45.)



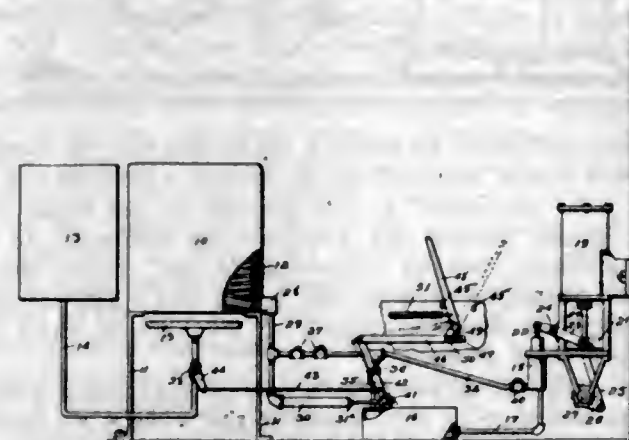
1. In a photographing apparatus a lens box having a support, a bed slidable with relation to the support and lens box, a bellows having one end in communication with the lens box and having a bellows frame on the opposite end thereof, means for loosely connecting the bellows frame to the bed to permit the movement of the bellows frame with relation to the bed, a holder for a sensitized element having the sensitized element lying back of an opening in said holder, the said holder and bellows being adapted to coact for exposing the sensitized element through the bellows, a sliding member applied to the bed, an arrow on said sliding member equal in length to the distance between the bellows frame and the sensitized element, when the holder and bellows frame are together in operative relation, means whereby the sliding member is secured against movement on the bed and means abutted by the sliding member for arresting the bed when the sliding member contacts therewith.

2. In a photographing apparatus a lens box, a support for the lens box, a bed slidable with relation to the support and lens, a bellows having one end in communication with the lens box, a bellows frame on the end of the bellows remote from the lens box, brackets connected to the lens box, the said bed having slots to receive the ends of the brackets to permit sliding movement of the brackets with relation to the bed, a holder for a sensitized element having an opening, and means for holding the sensitized element back of the opening, the said sensitized element and bellows frame coacting, a gage equal in length to the distance between the sensitized element and the bellows frame, means for setting the gage on the bed whereby said gage is temporarily immovable and means for limiting the movement of the bed beyond a distance equal to that of the length of the gage.

3. In a photographing apparatus, a lens box, a support for the lens box, a bed slidable with relation to the support and lens box, a bellows, a bellows frame, means for movably supporting the bellows frame on the bed, a holder for a sensitized element adapted to be connected to the bellows frame, means for supporting the sensitized element in the holder, means for focusing the apparatus, a gage equal in length to the distance between the sensitized element and the mouth of the holder of said sensitized element, means

for attaching the gage to the bed to move with the bed, and means contacted by the gage when the bed has moved a distance equal to the length of the gage.

1,082,728. AUTOMATIC WATER-PRESSURE AND FUEL CONTROL. CARL E. BISHOP and IRA J. BISHOP, Mitchellville, Iowa. Filed Apr. 15, 1913. Serial No. 761,364. (Cl. 122-448.)



1. In a device of the class described, a boiler, a pump, a water tank, means for carrying a circulation through said pump and tank, means for carrying water to said boiler from said first means, a burner, a fuel tank, a tube connecting said burner and fuel tank, means whereby when a certain pressure is reached in said boiler, the supply of fuel is cut off and the means for carrying circulation through the pump and water tank is opened, and means for normally holding said last named means in inoperative position.

2. In a device of the class described, a boiler, a burner, a fuel supply pipe leading to said burner, a cut-off valve in said pipe, controlling mechanism for moving cut-off valve to open position, and means whereby a predetermined pressure in said boiler closes said valve, said last named means being designed to normally hold said cut-off valve in closed position.

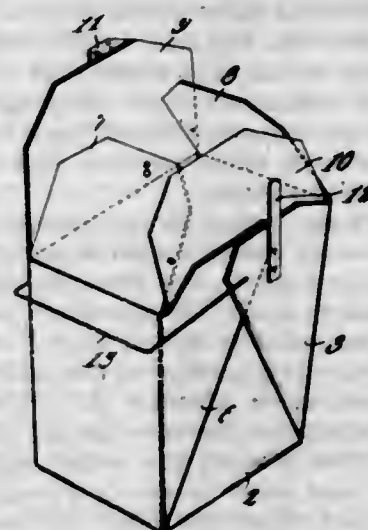
3. In a device of the class described, a boiler, a burner, a fuel supply pipe leading to said burner, a cut-off valve in said pipe, controlling mechanism for moving cut-off valve to open position and holding it in said position, means whereby a predetermined pressure in said boiler closes said valve, said last named means being designed to normally hold said cut-off valve in closed position and to return said controlling mechanism to inoperative position.

4. In a device of the class described, a boiler, a pump, a water tank, a tube leading from said tank to said pump, a valve therein, a burner, a fuel tank, a second tube leading from said fuel tank to said burner, a cut-off valve in said second tube, a third tube leading from said pump to said boiler, a fourth tube leading from said third tube to said water tank, a second cut-off valve in said fourth tube, means whereby when a certain pressure is reached in said boiler, said first cut-off valve is operated to shut off the supply of fuel and said second cut-off valve is operated to permit the flow of water through said fourth valve, and means for normally holding said last named means in inoperative position.

5. In a device of the class described, the combination of a boiler, a burner, a fuel tank, a tube connecting said fuel tank and burner, a cut-off valve in said tube, a water tank, a pump designed to be operatively connected with an engine, a second tube connecting said water tank and said pump, a valve in said second tube, a third tube leading from said pump to said boiler, a cylinder communicating with third tube below the point where same enters the boiler, a fourth tube connecting said third tube and said tank, a cut-off valve in said fourth tube, a check valve in said third tube between said pump and said fourth tube, a piston in said cylinder, a piston rod thereon extending outside the cylinder and slidably mounted in the end thereof, a coil spring mounted on said stem within the cylinder and tending to hold said piston at its inward limit of movement, and means whereby when a certain predetermined pressure has been reached in said boiler, the outward

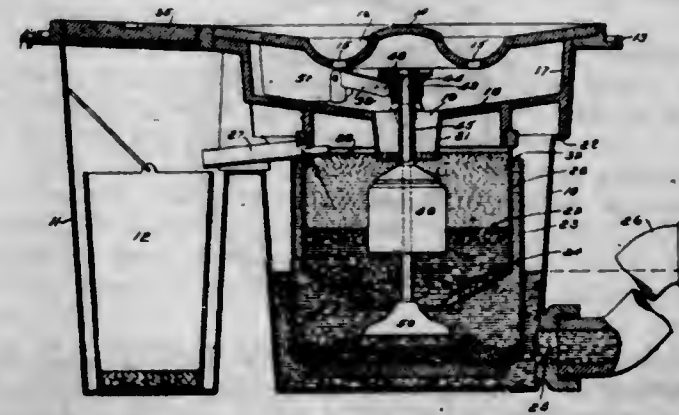
movement of said piston moves said first cut-off valve toward closed position and moves the said second cut-off valve toward open position, said means comprising a lever fixed to said piston rod and pivoted to the stem of said second cut-off valve, a rod mounted thereon and operatively connected with the first cut-off valve.

1,082,729. PAPER VESSEL. CHARLES T. BLOOMER, Newark, N. Y. Filed May 3, 1911. Serial No. 624,717. (Cl. 229-26.)



A folded paper vessel having a cover flap attached to one side thereof and having overlapped corner portions over the said side and the opposite side and extending above the sides, the free edge of the said flap being adapted to fit against the corner portions on the latter side and having a tab at one corner to lie against the latter corner portions at one side of the center, a metallic tongue rising from the latter corner portions to be bent over the tab, and a ball having its ends hooked inwardly through the respective overlapped portions above the cover line, the said tab having its inner end cut diagonally so as to be on a radial line with the pivotal point of the end of the ball when the closure flap is closed.

1,082,730. DRAIN-TRAP. SAMUEL G. BROWN, Lynn, Mass. Filed Aug. 23, 1912. Serial No. 716,608. (Cl. 210-5.)



1. A drain trap having, in combination, a trap body, a cover or floor plate, a baffle basin located in the upper part of the trap body provided with a depending oil separator, a sand bucket located in the trap body surrounding the depending oil separator, the said baffle basin having an opening discharging into the oil separator, a counter-weight for the sand bucket, connections between the counter-weight and the sand bucket and a valve for closing the opening from the baffle basin into the oil separator connected with the sand bucket and operating upon the accumulation of sand therein to close such opening to cause the trap to overflow, substantially as described.

2. An automobile washstand drain trap for receiving gasoline and water, retaining the gasoline and discharging the water into a sewer pipe having, in combination, a chamber in which the gasoline and water are separated by flotation, said chamber having an inlet for receiving the

gasolene and water from the washstand provided with means for preventing the escape of gasolene vapor from the chamber to the washstand and an outlet for discharging the water to the sewer pipe having a liquid seal for preventing the escape of gasolene vapor into the sewer pipe, and an air inlet pipe for admitting and discharging a continuous circulation of air through said chamber and over the surface of the gasolene retained therein for vaporizing and carrying the gasolene away through the air outlet pipe, substantially as described.

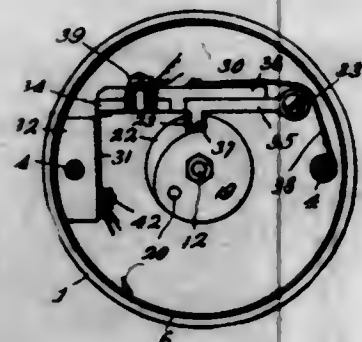
3. A drain trap having, in combination, a sand bucket, an inlet for directing water mixed with sand into the sand bucket extending into the sand bucket and below the normal liquid level therein, and a valve for closing the mouth of the inlet to retain the water contained in the inlet so that it, with its contained liquid, may be removed from the sand bucket and allow the sand bucket to be emptied, substantially as described.

4. A drain trap having, in combination, a trap body, a sand bucket, an oil bucket, an oil separator located in the sand bucket, connections for directing the materials entering the trap into the oil separator, an oil connection from the oil separator to the oil bucket, and a water connection from the oil separator to the sand bucket, said oil separator operating to separate the oil and discharge it through the oil connection into the oil bucket and allow the water to flow through the water connection into the sand bucket, said sand bucket operating to catch sand and the like and allow the water to flow from the sand bucket into the trap, substantially as described.

5. A drain trap having, in combination, a trap body, a sand bucket for catching sediment passing into the trap and means for emptying the sand bucket of the accumulated sediment, an oil separator located in the sand bucket for separating oil and the like from the water passing through the trap, and connections for leading the water through the oil separator and sand bucket to the trap outlet, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,082,731. COMBINATION LOCK AND CIRCUIT-BREAKER. GEORGE J. BUCKEYE, Kansas City, Mo., assignor, by mesne assignments, to Automobile Combination Lock and Circuit Breaker Company, a Corporation of Missouri. Filed Aug. 21, 1911. Serial No. 645,088. (Cl. 175-282.)



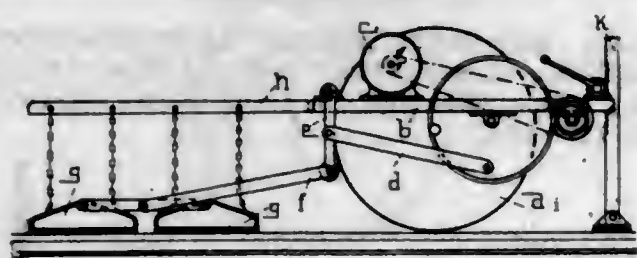
1. In combination, a device of the character described consisting of a casing, a circuit-breaker therein comprising a stationary arm and a movable arm, said movable arm comprising two sections divided by non-conducting material, one of said sections having a tooth, tumblers to control said movable arm, and means for actuating said tumblers.

2. In combination, a device consisting of a casing, a circuit interrupter therein comprising a stationary contact and a pivoted arm carrying a cooperating contact, said arm being provided with a tooth, and permutation tumblers mounted in said casing to co-act with said tooth to control the movement of said arm.

1,082,732. RAIL-FILING MACHINE. ALFRED CARO, Charlottenburg, Germany. Filed Sept. 25, 1912. Serial No. 722,243. (Cl. 29-78.)

1. In a rail-filing machine, a frame adapted to rock on an axis, a motor mounted on the frame, a driving rod op-

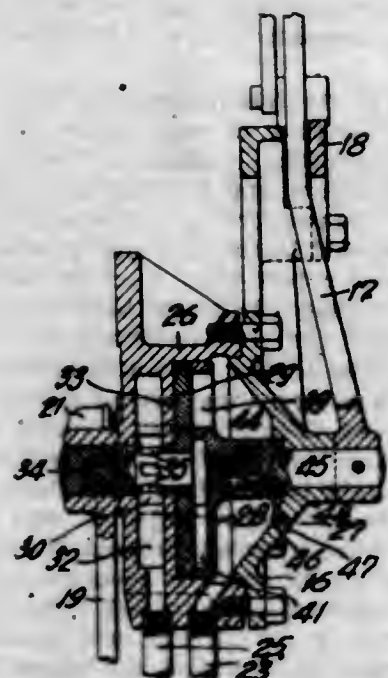
erated from the motor, a lever pivoted on the frame connected to the driving rod, a thrust rod connected to the lever, a filing element connected to the thrust rod, and a flexible connection between the frame and filing element.



2. In a rail-filing machine, a frame adapted to rock on an axis, a motor mounted on the frame, a driving rod operated from the motor, a lever pivoted on the frame connected to the driving rod, a thrust rod connected to the lever, a filing element connected to the thrust rod, a flexible connection between the frame and filing element, and means to rock the frame on its axis to raise and lower the filing element.

3. In a rail filing machine, a pair of supporting wheels, a frame mounted to rock between the wheels, an oscillatory lever pivoted on the frame, a driving rod connected with the lever intermediate its ends, a thrust rod connected with the free end of the lever, a filing element connected with the free end of the thrust rod, means on the frame to reciprocate the driving rod, a boom extending from the frame, a flexible member connecting the filing element and boom, and means to rock the frame to raise and lower the boom, for the purpose specified.

1,082,733. REVERSING-GEAR FOR LOCOMOTIVES AND THE LIKE. WILLIAM F. J. CASEY and GUSTAVE CAVIN, Kingston, Ontario, Canada. Filed July 16, 1913. Serial No. 779,360. (Cl. 121-98.)



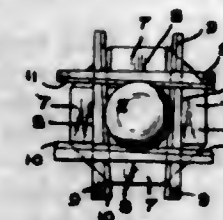
1. In a device of the character described, the combination with a cylinder, a piston therein, of a casing connected to opposite ends of said cylinder, a manually operated valve member having a pair of admission ports therein and an exhaust port intermediate said admission ports, a piston operated member having a pair of ports therethrough positioned to be normally out of register with the ports of the first member, and either one adapted to register with one admission port of the first member simultaneously with the registering of the other with the exhaust port of the first member.

2. In a device of the character described, the combination with a cylinder and piston therein, of a valve connected with opposite ends of said cylinder, a manually operated admission member in said valve arranged to admit fluid under pressure to one end of said cylinder and release fluid under pressure at the opposite end, and a second

member in the valve operated by piston movement in the same direction as the first member and adapted to cut off fluid admission and release when returned to its original relation with the first member.

3. In a device of the character described, the combination with a cylinder and a piston therein, of a casing, a valve seat in the bottom of said casing having a pair of diametrically opposite chambers therein, an exhaust chamber formed under said seat and out of communication with said first mentioned chambers, a connection between each of said chambers and one end of the cylinder, a valve disk on said seat having diametrically opposite ports communicating with said chambers and a central passage communicating with the exhaust chamber, a second valve disk seated on the first having diametrically opposite closure portions normally covering the ports of said first valve, a pair of ports through said second valve on one side of the closure portions thereof, an exhaust passage in the underside of said valve on the opposite side of the closure portions thereof communicating with the exhaust passage of the first valve, means for admitting fluid under pressure above the second valve, manually operated means for shifting the second valve to connect one port thereof with a corresponding port of the first valve, and to simultaneously connect the exhaust passage thereof with the other port of the first valve, a piston operated means for shifting the first valve to return the ports to their original relation and check piston movement at a point predetermined by the positioning of the second valve, substantially as described.

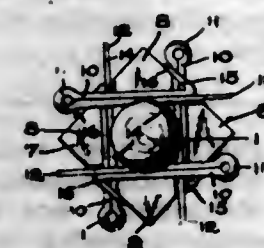
1,082,734. NUT-LOCK. HARRY CHESHER, Philadelphia, Pa. Filed Oct. 21, 1912. Serial No. 726,858. (Cl. 151-26.)



1. In a nut lock, the combination with a nut having lugs on one face, each lug having a straight inner face spaced from the bolt opening in the nut, and in a plane outside of the ends of the other lugs, and keys adapted to be positioned between the lugs and the bolt on which the nut is screwed, said keys positioned at right angles to each other, and tapering in two directions, substantially as described.

2. The combination with a screw-threaded bolt, and a nut screwed thereon, integral lugs on the outer face of the nut, each lug having a straight inner face, spaced from the bolt opening in the nut, and in a plane outside of the plane of the ends of the other lugs, wedge shaped keys located between the lugs and the bolt, said keys positioned between the threads of the bolt, and said keys located at right angles to each other and wedging both longitudinally and transversely of the bolt, substantially as described.

1,082,735. NUT-LOCK. HARRY CHESHER, Philadelphia, Pa. Filed Nov. 5, 1912. Serial No. 729,589. (Cl. 151-26.)



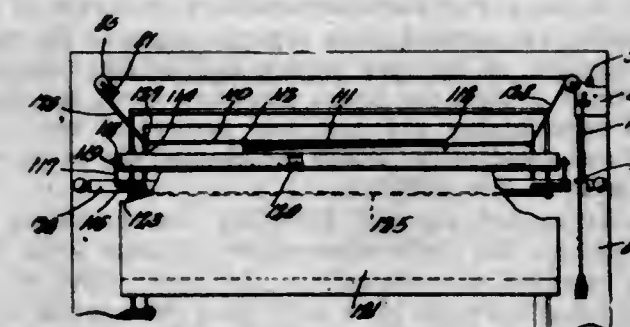
1. In a nut lock, the combination with a nut having a lug on one face, and a locking device adapted to be positioned between the said lug and the bolt, said locking de-

vice comprising a bar of metal bent between its ends forming two members, both members located between the lug and the bolt, one member having a sharp cutting edge to fit between the threads of a bolt, and the other member adapted to be bent against the outer face of the nut, substantially as described.

2. In a nut lock, the combination with a nut having a lug on one face, and a locking device adapted to be positioned between the said lug and the bolt, said locking device comprising a bar of metal bent between its ends forming two members, both members located between the lug and the bolt, one member having a sharp cutting edge to fit between the threads of a bolt, and the other member adapted to be bent against the outer face of the nut, said device of spring metal whereby the member in engagement with the bolt is held in such position by the elasticity of the device, substantially as described.

3. The combination with a screw-threaded bolt and a nut screwed thereon, of integral lugs on the outer face of the nut, said lugs having straight inner faces spaced from the bolt opening in the nut, and in a plane outside of the plane of the ends of the other lugs, spring locking devices crossing each other positioned between the lugs and the bolt and engaging between the threads of the bolt, each locking device comprising a bar of metal bent between its ends and one end having a sharp cutting edge located between the threads of the bolt, substantially as described.

1,082,736. WINDOW-SHADE FIXTURE. HENRY W. CLOUGH, South Pasadena, Cal. Filed Oct. 9, 1912. Serial No. 724,868. (Cl. 156-27.)



1. In a device of the class described, slidably connected shade supports; eyes slidable upon the shade supports and frictionally held upon the shade supports; and a connection between the eyes.

2. In a device of the class described, slidably connected supports, having depending, pole supporting hooks terminating in laterally extended fingers; eyes slidable upon the fingers; and a connection between the eyes.

3. In a device of the class described, slidably connected supports provided with depending, pole holding hooks terminating in lateral fingers having upright extensions, the extensions being provided with roller holding means; eyes slidable upon the fingers; and a connection between the eyes.

4. In a device of the class described, a shade supporting structure; a frame; a pulley journaled on the frame; a cord grip secured to the frame and including a sheave; flexible elements passed about the pulley and about the sheave and connected with the shade supporting structure; a movable member, constituting a part of the cord grip, and adapted to engage the flexible elements; and a pivotally mounted operating member, constituting a portion of the cord grip, the flexible elements being connected with the operating member, and the operating member being operatively connected with the movable member to disengage the same from the flexible elements.

5. In a device of the class described, shade supports, slidable with respect to each other; spaced supporting members and flexible elements trained about the supporting members, the flexible elements being connected with the shade supports, the flexible elements diverging from their points of attachment with the shade supports, toward the supporting members; and a connection between the shade supports.

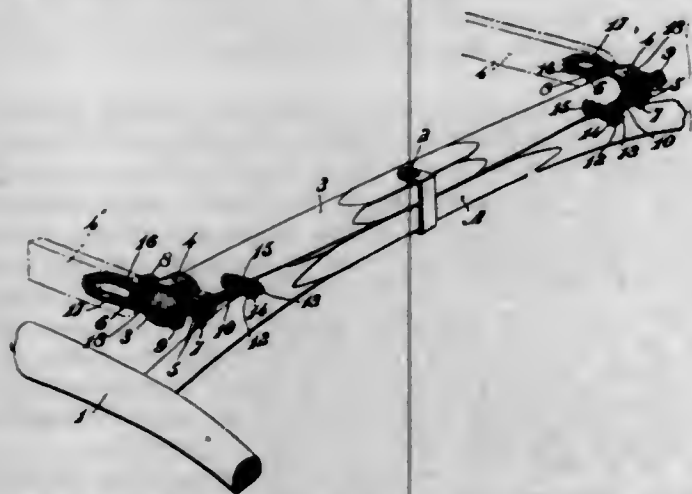
1,082,737. COMBINED BREECHES AND LEGGINGS. MAX COWEN, New York, N. Y. Filed Dec. 26, 1912. Serial No. 738,719. (Cl. 2-122.)



1. In a garment comprising breeches and leggings, a rear section including a main extension and an auxiliary extension shorter than the main extension, the adjacent longitudinal edges of which are united; a front section including an extension defining a transverse edge; a leg insert secured at one end to the transverse edge and secured along one side to the main or longer extension of the rear section; and a separate foot insert terminally secured to the end of the short auxiliary extension of the rear section and secured along opposite edges to the main long extension of the rear section and to the extension of the front section, the insert extending along the inner face of each legging and part way across the rear face thereof and constituting means for shaping the lower end of the sections into gaiters.

2. A bifurcated garment including legs prolonged to form leggings, the lower edges of the leggings being forwardly extended to form gaiters, the lower edges of the leggings being cut away upon their inner sides and in their rear portions to points adjacent the median lines of the leggings to form recesses; and foot inserts set into the recesses, the inserts serving to shape the gaiters and being removable, the leggings being slit upwardly in their rear portions and adjacent their median lines to permit the leggings to be shaped to receive the inserts.

1,082,738. SWINGLETREE-HOOK. HERMAN J. DINGFELDER, Fountain City, Wis. Filed Mar. 19, 1913. Serial No. 755,501. (Cl. 21-79.)

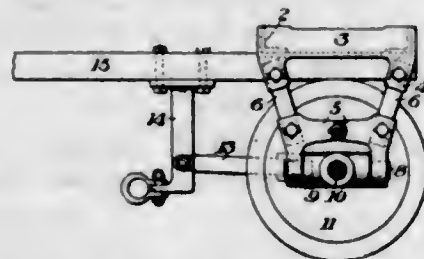


1. A swingle tree hook having in combination, two counterpart half collars each ending in a forward and a rear apertured ear, of a bolt passing through said forward ears, a hook pivotally held upon said bolt between said ears having a stem terminating adjacent to said rear ears, a bolt passing through said rear ears, a lever

upon said rear bolt held between said ears ending in an eye at one end arranged for coaction with said hook stem, said lever ending in a loop at the opposite end, a guide pin passing through said loop, a stop at the end of said pin, and a spring to normally force said loop against said stop, said eye normally engaging said hook stem, as and for the purpose set forth.

2. The combination with a swingle tree, of two counterpart half collars each ending in a forward and a rear apertured ear, of bolts passing through said apertured ears to clamp said half collars upon the end of said swingle tree, a hook pivotally held upon said forward bolt ending in a stem terminating adjacent to said rear ears said stem crossing the end of said swingle tree, a lever pivotally held upon said rear bolt ending in an eye normally engaging said hook stem and having a loop at the opposite end, a guide pin secured to said swingle tree passing through said loop, a stop at the end of said pin, and a spring upon said pin to normally force said loop outward against said stop, all arranged as and for the purpose set forth.

1,082,739. LAND ROLLER OR PULVERIZER. WILEY JULIUS DUNHAM, Berea, Ohio, assignor to The Dunham Company, Berea, Ohio, a Corporation of Ohio. Filed Sept. 14, 1911. Serial No. 649,338. (Cl. 55-47.)



1. A land roller having a rigid frame, a tongue fixedly connected to the frame, a two armed axle supporting bracket at each end of the frame, each of said arms having an annular bearing, means for connecting both arms of each bracket to the frame, a shaft support having trunnions journaled in the annular bearings in the arms, a roller shaft mounted in each of said supports, a plurality of rollers rotatably mounted on each shaft, said rollers being located on opposite sides of the shaft supports, and means on the ends of the shafts for retaining the rollers on the shafts; substantially as described.

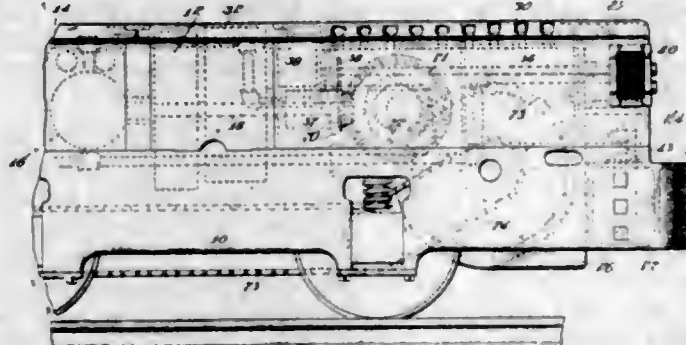
2. A land roller having a built up rectangular frame, a tongue fixedly connected to the frame, a two armed axle supporting bracket rigidly connected to each end of the frame, a shaft support journaled in the arms of each of said brackets, a roller shaft mounted in each of said supports, a plurality of rollers mounted on each shaft, said rollers being located on opposite sides of the shaft supports, a draft member fixedly connected to the tongue and extending downwardly therefrom, and links pivotally connected to the inner ends of the shafts and the draft member; substantially as described.

3. A land roller frame having downwardly extending grooved lugs at each end thereof, a sectional bearing comprising upwardly extending lugs at each end of the main frame, said lugs having grooves in line with the grooves in the lugs on the frame, means for connecting the sectional members of each bearing to each other, straps within the grooves in the lugs in alignment with each other, and means for securing the straps to the lugs to rigidly connect the bearings to the frame, substantially as described.

1,082,740. MINE-LOCOMOTIVE. WILLIAM F. ECKERT and WILLIAM C. WHITCOMB, Rochelle, Ill. Filed Jan. 13, 1911. Serial No. 602,533. (Cl. 123-174.)

1. In a water cooling apparatus, in combination, a chambered casing having a double wall at its top, the two parts of the said double wall being separated by a water passage and having registering apertures, the aperture in the outer part of said wall being threaded, a spray

nozzle having a lateral induction port intermediate its ends for communicating with the water passage of the said chambered casing, and having a head adapted to pass through the aperture in the outer part of said double wall and to enter and substantially close the aperture in the inner part of said wall, the rear end portion of the spray nozzle being threaded to engage with the threads of the aperture in the outer part of said double wall.



2. In a locomotive, in combination, a wheeled frame having longitudinal side sills and a chambered end sill, a pair of operatively connected power cylinders each having a chambered wall, operative connection between the power cylinders and a wheel of the frame, a spray chamber mounted on each of the side sills of the frame, connection between the foot of each of the said spray chambers and the chamber of the end sill, connection between the wall chamber of each of the power cylinders and the top of one of the spray chambers, and a circulating pump receiving from the chamber of the end sill and discharging into the wall chamber of each of the power cylinders.

3. In combination, a gas engine having a chambered wall, a storage chamber for water, a pump receiving from the foot of the said storage chamber and delivering to the chamber of the engine wall, a conduit leading from the chamber of the engine wall, a removable spraying plug set through opposite walls of the conduit and having a lateral induction port communicating with the chamber of the conduit, said spraying plug making a close fit with one of the walls of the conduit and discharging through the other wall thereof into the upper part of the said storage chamber, and means for driving a current of air through the spray discharged from the conduit by means of the plug.

4. In combination, a gas engine having a chambered wall, a storage chamber for water, a pump receiving from the foot of the storage chamber and delivering to the chamber of the engine wall, a conduit leading from the chamber of the engine wall and a removable spraying plug set through opposite walls of the conduit and having a lateral induction port communicating with the chamber of the conduit, said spraying plug making a close fit with one of the walls of the conduit and discharging through the other wall thereof into the upper part of the said storage chamber.

5. In combination, a water conduit and a removable spraying plug set through opposite walls of the conduit and having a lateral induction port communicating with the chamber of the conduit, said spraying plug making a close fit with one of the walls of the conduit and discharging spray from the chamber of the conduit through the other wall thereof.

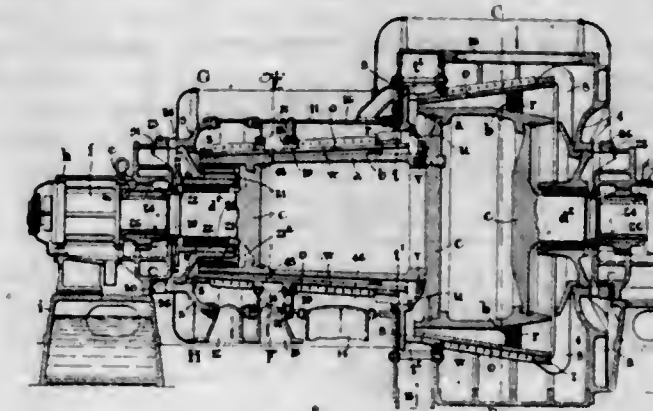
[Claims 6 to 10 not printed in the Gazette.]

1,082,741. ELASTIC-FLUID TURBINE. SEBASTIAN ZIANI DE FERRANTI, Grindelford Bridge, England. Filed May 4, 1912. Serial No. 695,254. (Cl. 121-58.)

1. In combination in a turbine, a rotor and bearings therefor at each end; an outer casing surrounding said rotor and a blade-carrying stator inclosed in said casing and supported independently thereof at each end at points adjoining said bearings.

2. In combination in a turbine, a rotor and bearings therefor at each end; a blade-carrying stator supported at each end by said bearings, and an outer casing surrounding said stator.

3. In combination in a turbine, a rotor; bearings therefor at each end; a blade-carrying stator and an outer casing separate from said bearings and means slidable in relation to one another for maintaining said stator at each end in co-axial relation with said rotor.

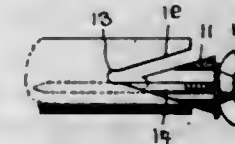


4. In combination in a turbine, a rotor; and bearings therefor at each end; a blade-carrying stator; an outer casing; a supporting member common to said stator and casing and means for supporting said common supporting member.

5. In combination in a turbine; a rotor and means for carrying the same at each end; a blade-carrying stator; an outer casing; a supporting member common to said stator and casing; and means for supporting said common supporting member, said means including said rotor-carrying means.

[Claims 6 to 28 not printed in the Gazette.]

1,082,742. WIRE-CLAMP. JOHN A. FOSSUM, Waukon, Iowa. Filed Sept. 27, 1912. Serial No. 722,650. (Cl. 39-53.)



1. A wire clamp providing a shaft having a notch in one end thereof, a bolt secured at one end in the notched end of said shaft and to one side of the center thereof, in combination with means slidable on said bolt for clamping a wire in the notch.

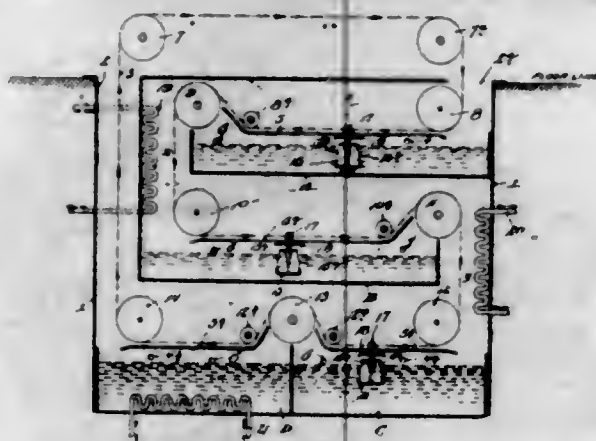
2. A wire clamp providing a shaft having a V shaped notch in one end thereof, a bolt secured at one end in the notched end of said shaft and to one side of the center thereof, and a V shaped block slidable on said bolt for clamping a wire in the notch.

3. A wire clamp providing a shaft having a V shaped notch in one end thereof, a bolt secured at one end longitudinally in the notched end of said shaft and to one side of the center thereof, a V shaped block slidable on said bolt provided with a bore of a larger diameter than the diameter of the bolt whereby the block is capable of longitudinal and lateral movement on said bolt, and a nut on said bolt for engaging with said block whereby a wire may be clamped in the notch.

1,082,743. PASTEURIZING. FREDERICK GETTELMAN, Milwaukee, Wis. Filed Nov. 28, 1911. Serial No. 662,871. (Cl. 126-272.)

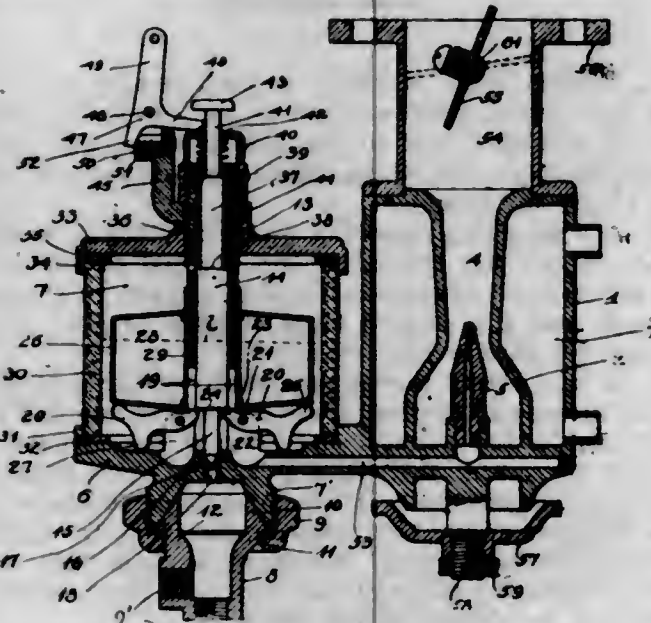
1. In a pasteurizing apparatus having a series of vats arranged one above the other adapted to contain water at progressively higher temperatures to an intermediate vat and progressively lower temperatures from said intermediate vat, an endless conveyer arranged to travel parallel with the water-line of the first vat and having a vertical stretch intermediate of the first and second vats, the conveyer being provided with a second stretch adapted to travel parallel with said second vat and provided with a second vertical stretch between said second and third vats, and vessel carriers in pivotal union with the con-

veyer; the combination of a heating coil arranged parallel with the first mentioned vertical belt stretch, and a cooling coil arranged parallel with the second vertical stretch of said belt.



2. In a pasteurizing apparatus having a series of vats arranged one above the other adapted to contain water at progressively higher temperatures to an intermediate vat and progressively lower temperatures from said intermediate vat, an endless conveyor arranged to travel parallel with the water-line of the first vat and having a vertical stretch intermediate of the first and second vats, the conveyor being provided with a second stretch adapted to travel parallel with said second vat and provided with a second vertical stretch between said second and third vats, and vessel carriers in pivotal union with the conveyor; the combination of an indirect heating means arranged parallel with the first mentioned vertical belt stretch, and an indirect cooling means arranged parallel with the second vertical stretch of said belt.

1,082,744. AUTOMATIC VALVE MECHANISM. JOHN S. GOLDBERG, Chicago, Ill., assignor to Goldberg Motor Car Devices Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 7, 1908. Serial No. 409,697. (Cl. 158-38.)



1. In a device for controlling the level of fluid fuel for a carburetor or other point of consumption, the combination of a lower wall, a glass tube on said wall, a hollow rod extending upwardly from the lower wall concentrically through and beyond the glass tube, a cap for closing the upper end of the tube and having threaded engagement at its center with the rod whereby said glass tube may be clamped between the cap and the lower wall to form therewith a supply chamber, a valve stem extending through the hollow rod, a valve at the lower end of said valve stem, there being an inlet opening through the lower wall controlled by said valve, a float member surrounding and adapted for vertical reciprocation on said rod, lever mechanism connecting between said float member and the valve stem and arranged so that downward movement of the float member will cause upward movement of the

valve stem, spring mechanism tending to hold the valve to close the inlet opening, said float member being governed by the level of fluid within the chamber and cooperating with the spring to regulate the size of the inlet opening in proportion to the level of fluid within the chamber, said glass tube rendering visible the float member and the valve mechanism whereby their operation may be observed, a cap nut having threaded engagement with the upper end of the hollow rod to close the end of said rod and to guide the upper end of the valve stem, and lever mechanism supported above the cap for controlling the operation of the valve independently of the automatic float mechanism and spring.

2. In a device for controlling the level of fluid fuel for a carburetor or other point of consumption, the combination of a lower wall, a glass tube on said wall, a hollow rod extending upwardly from the lower wall concentrically through and beyond the glass tube, a cap for closing the upper end of the tube and having threaded engagement at its center with the rod whereby said glass tube may be clamped between the cap and the lower wall to form therewith a supply chamber, a valve stem extending through the hollow rod, a valve at the lower end of said valve stem, there being an inlet opening through the lower wall controlled by said valve, a float member surrounding and adapted for vertical reciprocation on said rod, lever mechanism connecting between said float member and the valve stem and arranged so that downward movement of the float member will cause upward movement of the valve stem, spring mechanism tending to hold the valve to close the inlet opening, said float member being governed by the level of fluid within the chamber and cooperating with the spring to regulate the size of the inlet opening in proportion to the level of fluid within the chamber, said glass tube rendering visible the float member and the valve mechanism whereby their operation may be observed, a cap nut having threaded engagement with the upper end of the hollow rod to close the end of said rod and to guide the upper end of the valve stem, and lever mechanism clamped to the rod between the cap nut and cap for controlling the operation of the valve independently of the float member and spring.

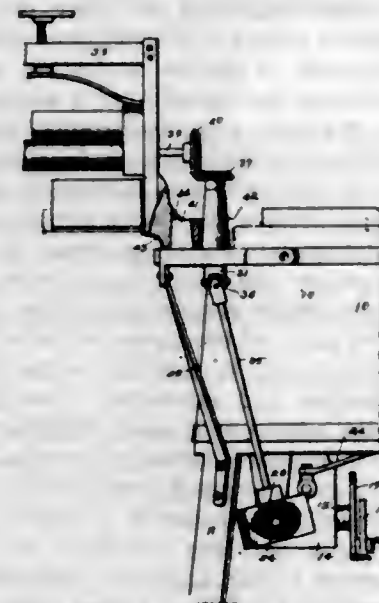
3. In a device for controlling the flow of fluid fuel to a point of consumption, the combination of a lower supporting wall, a cylindrical wall carried by said lower wall, a tubular rod extending axially from the lower wall and through the cylindrical wall, a cap engaging the upper end of the cylindrical wall and having threaded engagement with the threaded upper end of the tubular rod, a locking collar engaging the threaded end of the tubular rod and engaging the cap, said walls forming a reservoir for fluid fuel, an inlet in said lower wall, a valve for controlling the flow through said inlet, a valve stem extending upwardly through and from the tubular rod, a float member within the reservoir having connection with said valve stem, and lever mechanism carried by said locking collar and adapted for engagement with the upper end of the valve stem to control said valve.

4. In a device for controlling the flow of fluid fuel to a point of consumption, the combination of a lower supporting wall, a cylindrical wall carried by said lower wall, a tubular rod extending axially from the lower wall and through the cylindrical wall, a cap engaging the end of the cylindrical wall and having threaded engagement with the threaded upper end of the tubular rod, a locking collar engaging the threaded end of the tubular rod and engaging the cap, said walls forming a reservoir for fluid fuel, an inlet in said lower wall, a valve for controlling the flow through said inlet, a valve stem extending upwardly through and from the tubular rod, a float member within the reservoir having connection with said valve stem, an upward extension on said locking collar, a bell crank lever pivoted at its elbow to said extension, and a head at the upper end of the valve stem, one limb of the bell crank lever being adapted for engagement with said head and the other limb of said lever being adapted for connection with actuating mechanism, actuation of said bell crank lever causing adjustment of the valve stem and valve.

5. In mechanism for controlling the flow of fluid fuel to a point of consumption, the combination of a lower supporting wall, a cylindrical wall supported on said lower wall, a tubular rod extending upwardly from the lower wall and through the cylindrical wall, said rod having its upper end threaded, a cap engaging the upper end of the cylindrical wall and having threaded engagement at its center with said rod, said walls forming a reservoir for fluid fuel, an inlet in the lower wall, a valve controlling said inlet, a valve stem extending upwardly through and beyond said rod, a float member guided on said rod, lever mechanism connecting said float member with the valve stem, a locking collar having threaded engagement with the rod for locking the cap in position, a cap nut engaging and closing the upper end of the valve stem, said valve stem extending through the upper wall of said cap nut and being guided thereby, a head at the upper end of said valve stem, an upward extension from said locking collar, and a lever pivoted to said upward extension, one end of said lever being adapted for association with the valve stem head and the other end of said lever being adapted for connection with actuating mechanism, actuation of said lever enabling adjustment of said valve independent of the float member.

[Claims 6 and 7 not printed in the Gazette.]

1,082,745. GEARING DEVICE FOR WRINGERS. CHARLES E. GREENLIEF, Newton, Iowa. Filed June 14, 1912. Serial No. 703,711. (Cl. 74-7.)



1. In a device of the class described, the combination of a body, a shaft at one side thereof, a frame, detachable coacting supporting means on said body and on said frame, whereby the frame may be mounted on the body, a shaft in said frame, and gearing devices for operatively connecting said shafts when the frame is mounted on the body.

2. In a device of the class described, a body, an upright shaft at one side thereof, a bracket secured to said body adjacent to said shaft, a frame, detachable coacting supporting means on the frame and on the body whereby the frame may be mounted on the body, a horizontal shaft in the frame, and gearing devices for operatively connecting said shafts, when the frame is in position.

3. In a device of the class described, the combination of a body, a shaft at one side thereof, a frame, detachable coacting supporting means on said body and on said frame, whereby the frame may be mounted on the body, in different positions, a shaft in said frame, and gearing devices for operatively connecting said shafts when the frame is mounted on the body, in either of its positions.

4. In a device of the class described, the combination of a body, a bracket mounted on said body, having a bearing formed thereon, a shaft mounted in said bearing, a frame, detachable coacting supporting means on said frame and on said bracket, for supporting said frame on said body in different positions, a shaft in said frame and

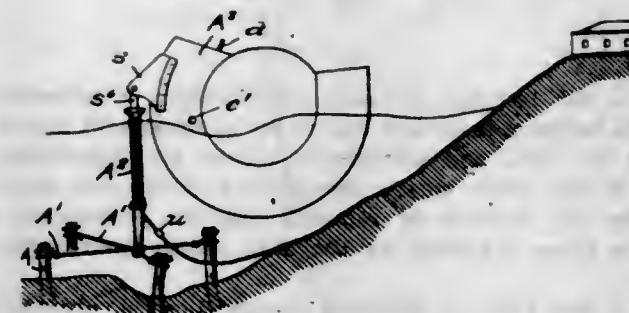
197 O. G.—72

gearing devices for operatively connecting said shafts when the frame is in either of its positions.

5. In a device of the class described, a body, a bracket having a bearing formed thereon, secured to said body, a shaft mounted in said bearing, a beveled gear thereon, a frame, a shaft mounted therein, a beveled gear on said last named shaft, coacting supporting means on said frame and on said bracket, whereby said frame may be detachably mounted on said body, in different positions, with said beveled gears in mesh with each other in either position of the frame.

[Claim 6 not printed in the Gazette.]

1,082,746. WAVE-MOTOR. EUGENE S. HEMMENWAY, Boston, Mass. Filed Nov. 10, 1911. Serial No. 659,518. (Cl. 185-30.)



1. A machine of the character described comprising an anchor; a hull connected to the anchor and adapted to be moved in one direction by wave force and in the opposite direction by gravity; and two oppositely-rotatable coöperating members, one being actuated by said hull but only when the latter is moved in the first-named direction and the other being actuated by said hull but only when the latter is moved in said opposite direction.

2. A machine of the character described comprising an anchor; a hull connected to the anchor and adapted to be moved in one direction by wave force and in the opposite direction by gravity; one rotatable member started in its rotation by the movement of the hull in the first-mentioned direction but free to continue its rotation during the movement of the hull in said opposite direction and being unaffected in its rotation by the last-mentioned movement; and a second member coöperating with the first to produce electrical energy and being rotatable in a direction opposite to that of the first member, said second member being started in its rotation by the movement of the hull under the influence of gravity but free to continue its rotation during the movement of the hull in the direction opposite thereto and being unaffected in its rotation by the last-mentioned movement.

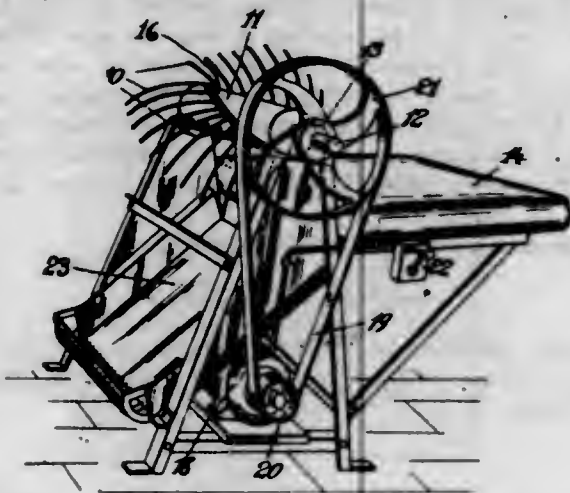
3. A machine of the character described comprising an anchor; a hull connected to the anchor and adapted to be oscillated; and means within the hull, and actuated thereby for producing electrical energy; and means for transmitting said energy from the hull to the shore during said oscillation.

4. A machine of the character described comprising a member adapted to oscillate in one direction under the influence of wave force and in the other direction under the influence of gravity; and another member carried by the first member and started in its movement by the oscillation of the first member under the influence of the wave force but free to continue its movement with relation to the first member during the oscillation of the latter under the influence of gravity.

5. A machine of the character described comprising a buoyant member adapted to oscillate in one direction under the influence of wave force and in the other direction under the influence of gravity; two continuously movable members coöperating to transform energy, said members being carried by, and actuated by the two oscillating movements of, the buoyant member, and means for transmitting the transformed energy.

[Claims 6 to 41 not printed in the Gazette.]

1,082,747. FUR-BEATING MACHINE. FRANK HEND, Newark, N. J. Filed Jan. 22, 1913. Serial No. 743,523. (Cl. 15-8.)



1. A fur beating machine comprising: a plurality of flexible beaters, rotatable means for causing said beaters to strike the skin, and soft elastic means for supporting the skin at the point where the beaters strike the same for causing the beaters to rebound thereby preventing said beaters from dragging on the skin when disengaging the same.

2. A fur beating machine comprising: a plurality of flexible beaters, rotatable means for causing said beaters to strike the skin, and soft, elastic means, inclined in the direction of the rotatable means only, for supporting the skin at the point where the beaters strike the same for causing said beaters to rebound thereby preventing them from dragging on the skin when disengaging the same.

3. In a fur beating machine, an inclined skin support, a discharge chute extending downward from the lowermost end of the skin support at a greater angle of inclination than that of the skin support, a rotatable member mounted in a vertical plane substantially above the junction of the said skin support and chute, and flexible beaters carried by said rotatable member.

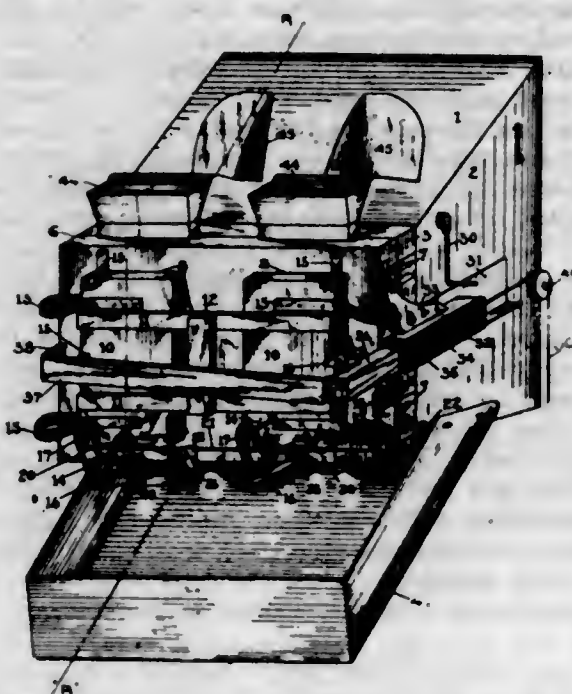
4. In a fur beating machine, a frame-work, a rotatable member having flexible beaters mounted in said frame-work, a skin support extending rearwardly away from said rotatable member in an upwardly inclined direction, and a discharge chute, extending forwardly underneath the rotatable member in a downwardly inclined direction substantially from the lowermost point of the skin support.

5. In a fur beating machine, the combination of a support for the fur, a rotating drum journaled above the fur support, means for rotating said drum, a securing strip extending spirally around the drum, a plurality of flexible beaters, and screws engaged in the securing strip for fastening the inner ends of the beaters thereto in spaced relation.

1,082,748. PHOTOGRAPHIC-PRINTING MACHINE. JUDSON L. HIGGINBOTHAM, Dallas, Tex., assignor of one-sixth to John M. Spellman and one-sixth to J. S. Murray, Dallas, Tex. Filed May 7, 1912. Serial No. 695,741. (Cl. 95-73.)

1. In a photographic printing machine, the combination with a casing, having its rear end open, of a negative-receiving frame mounted in the front end of said casing, a shutter within the casing interposed between the open rear end thereof and the negative-receiving frame, a pressure-back mounted in front of the casing, and adjustable toward and from the negative-receiving frame, resilient means by which the pressure-back is normally held spaced from the negative-receiving frame, a bar extending across the front of the casing contacting with the pressure back and adapted to undergo a slight rearward displacement sufficient to displace the pressure-back to its rearward limiting position, a sliding member mounted upon one side of the casing having its front end engaging said bar, means for subjecting said sliding member to a rearward

displacement, and a crank by which the shutter may be swung open adapted to be actuated by said sliding member subsequent to the rearward displacement of the pressure-back.



2. In a photographic printing machine, a casing having its rear end open, provision on the rear end of the casing for receiving a negative in fixed relation thereto, a frame mounted on the casing adjacent its rear opening, the frame having a vertical channel proportioned to receive a sheet of sensitized paper, a device projecting across the channel having provision for supporting a sheet of sensitized paper in the channel, a pressure back mounted in the frame and arranged to move bodily from and toward the rear opening of the casing in line therewith, means normally holding the back within the frame and serving to return it thereto, means for moving the pressure back toward the casing opening across the channel of the frame, a device for retracting the paper supporting device having operating means in the path of the pressure back, a shutter mounted in the casing, and a shutter swinging member connected to the shutter and extending exteriorly of the casing, in combination with a common operating apparatus comprising a movable member arranged to apply pressure to the pressure back and having a projection in the path of which the shutter swinging member is located.

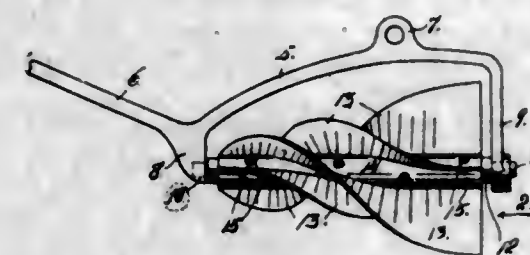
3. In a photographic printing machine, the combination of a casing having a rear negative exposure opening, and arranged to support a negative across said opening, a frame mounted on the casing and having a vertical channel contiguous to the negative exposure opening of the casing, a pressure back loosely mounted in the frame and movable toward and from the negative exposure opening across the channel, spring members attached to the back and normally holding the same within the frame, means mounted on the frame and including an operating member arranged to move the pressure back inward, and a retractible paper holding device projecting across the channel of the frame and having cooperative relation with the pressure back.

4. In a photographic printing machine, the combination of a casing having an opening at its rear end, a frame mounted on the rear end of the casing around the exposure opening and having a vertical channel extending across the exposure opening of the casing and open at its top and bottom, a pressure back normally retained in the frame arranged movably transversely of the channel of said frame, a spring pressed paper support projecting through the frame and across the channel, a rocking member mounted on the pressure back and having a projection engaging the paper support, and a releasing device carried by the frame in the path of the rocking member.

5. In a photographic printing machine, the combination of a casing having an opening at its rear end, a frame mounted on the end of the casing around the exposure opening and having a vertical channel extending across

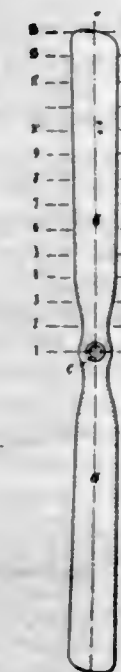
the exposure opening of the casing and open at its top and bottom, a pressure back normally retained in the frame arranged movably transversely of the channel of said frame, a spring pressed paper support projecting through the frame and across the channel, a rocking member mounted on the pressure back and having a projection engaging the paper support, a releasing device carried by the frame in the path of the rocking member, a shutter hinged in the casing in advance of the exposure opening thereof, a shutter operating member projecting on the outside of the casing, an operating member mounted on the frame and associated with the pressure back, and a common operating device associated with the shutter operating member and the pressure back operating member.

1,082,749. REVOLVING-KNIFE HARROW AND PULVERIZER. WILLIAM W. JACKSON, Denver, Colo.; Lil-lus Jackson, administratrix of said William W. Jackson, deceased, assignor of one-third to Corrintha J. Maddux, Denver, Colo. Filed Aug. 21, 1908, Serial No. 449,619. Renewed Dec. 14, 1912. Serial No. 736,826. (Cl. 97-65.)



A revolving cutter composed of a shaft and a number of distinct spiral-shaped blades, each of the said blades having a laterally extending flange curved to fit the shaft in the direction in which the shaft extends, the said flange covering the entire longitudinal surface of the shaft between any two adjacent blades, the said flange of each blade being fixedly secured to the shaft, substantially as described.

1,082,750. METALLIC PROPELLER. PIERRE JACOMY, Asnières, France. Filed Aug. 12, 1912. Serial No. 714,696. (Cl. 170-159.)



1. A light hollow metallic propeller made of a single piece of metal and comprising at the center openings with stamped out edge receiving a sleeve.

2. A hollow metallic propeller made of a single weldless tube with edges or ends of a decreasing cross-section de-

creasing on both sides of a given central line, said ends being formed into helical blades comprising at the center openings receiving a sleeve.

1,082,751. FASTENER FOR CLOTHES-LINES AND THE LIKE. WILLIAM G. KENDALL, Newark, and KENNETH SHEPARD, East Orange, N. J. Filed Mar. 18, 1913. Serial No. 755,176. (Cl. 24-131.)



1. A line fastener formed from a single length of wire, the intermediate portion of which is straight and the end portions of which are re-bent to extend angularly with respect to the body portion and parallel to each other to provide oppositely disposed line engaging right portions, lying in planes perpendicularly to each other.

2. A line fastener formed from a single length of wire, the intermediate portion of which is straight and the end portions of which are re-bent to extend angularly with respect to the body portion and parallel to each other to provide oppositely disposed line engaging right portions lying in planes perpendicularly to each other, said right portions being bent slightly with respect to the shank to position the end portions at an angle thereto.

1,082,752. FORMATION OF BLOCKS OR THE LIKE SUITABLE FOR ROAD OR OTHER PURPOSES. JOHANN SECUNDUS KRUSE, Kensington, London, England. Filed Mar. 28, 1912. Serial No. 686,725. (Cl. 106-31.)

1. A process for the production of road blocks and the like which consists in incorporating with heat a bituminous body, a body containing sulfur and a suitable filling material and subsequently subjecting the mixture to a pressure of about four tons per square inch; as set forth.

2. A process for the manufacture of road blocks and the like consisting in incorporating together with heat the following materials in substantially the proportions specified, viz:—clinker 78½%, asphaltum 19½%, sulfur 1½%, mineral oil ½%, and subsequently subjecting the mixture to a pressure of at least four tons per square inch; as set forth.

3. A process for the manufacture of road blocks and the like which consists in mixing a bituminous matter and a filling material under the action of heat, adding a sulfur body thereto and incorporating same therewith and subsequently subjecting the mixture to pressure of at least about four tons per square inch; as set forth.

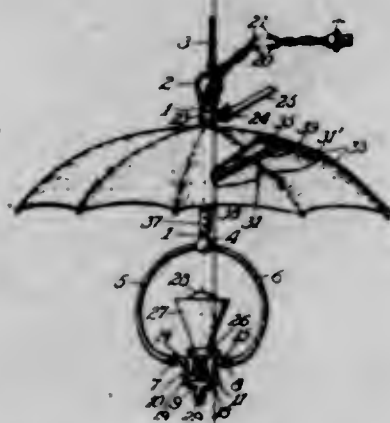
4. A process for the manufacture of road blocks and the like which consists in heating a bituminous body and a filling material to about 400° F. and effecting mixture thereof, adding a sulfur body and incorporating the same with the mass, after which the mixture is subjected to pressure of about four tons per square inch; as set forth.

5. A road block and the like formed by a bituminous body, a vulcanizing body and a filling material in sub-

stantially the following proportions, viz:—bituminous matter 20-25%, vulcanizing material 1-5%, filling 70-70%, which is highly compressed; said block being capable of resisting a crushing stress of about two tons to the square inch, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,753. ARTIFICIAL-LIGHT-DIFFUSING APPARATUS. NORTH LOSEY, Indianapolis, Ind. Filed Dec. 29, 1911. Serial No. 668,473. (Cl. 240—91.)



1. Light-diffusing apparatus including a frame, a yoke swiveled and adjustably connected to one portion of the frame, a diffusing reflector mounted remotely from the yoke on the opposite portion of the frame, an electric switch-box mounted on the yoke to be tilted thereby, a concentrating reflector mounted on the switch-box, and a lamp in the concentrating reflector connected to the switch-box.

2. Light-diffusing apparatus including a stem, a light reflector and diffuser mounted on the stem, braces connected substantially with the stem and the reflector and diffuser, an arm connected with the stem, a concentrating reflector and a lamp supported by the arm, and a conical light reflector and diffuser mounted on the braces opposite the lamp.

3. Light-diffusing apparatus including a hollow stem and a curved hollow arm on one end thereof, a folding light reflector and diffuser mounted remotely from the arm on the opposite end portion of the stem, a concentrating reflector supported by the arm, an electric lamp in the concentrating reflector, and a circuit wire extending through the stem and the arm to the lamp.

4. Light-diffusing apparatus including a concave light reflector and diffuser, a concentrating reflector, a lamp in the concentrating reflector, and means for supporting the concentrating reflector and the reflector and diffuser each relatively to the other and enabling the concentrating reflector to be turned either to face toward or to face away from the reflector and diffuser.

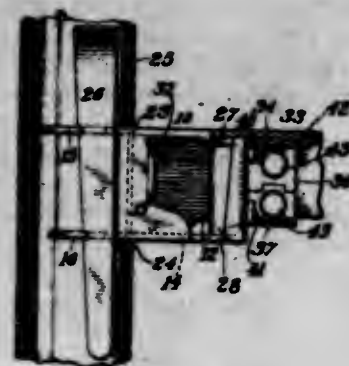
5. Light-diffusing apparatus including a diffusing reflector, ribs secured to the reflector, a concentrating reflector, a lamp in the concentrating reflector, a frame comprising a stem extending through and connected to the diffusing reflector and the ribs and also an arm connected to one end of the stem and supporting the concentrating reflector and the lamp, a holder supported by the stem in proximity to the arm, and braces connected to the holder and the ribs.

[Claims 6 to 11 not printed in the Gazette.]

1,082,754. BEDSTEAD CORNER-BRACKET. HECTOR V. LOUGH, Plainfield, and WALTER E. LOUGH, North Plainfield, N. J. Filed Dec. 10, 1912. Serial No. 735,907. (Cl. 5—55.)

1. In a corner bracket for bedsteads, in combination, a bracket member comprising a tubular body having at an end extensions connected by an end wall, having inclined edge-ports which are bent back toward the body; and a bracket member comprising a tubular body

having side walls with inclined edge-ports bent inwardly to cooperate with the inclined edge-ports of the first named member.



2. In a corner bracket for bedsteads, a tubular member having top, bottom, and side walls; endwise extensions from the top and bottom walls; an end wall connecting said extensions and having inclined edge-ports extending rearwardly toward the body; in combination with a second tubular member aligned with the first, having side walls provided with inclined end-edges extending inwardly to cooperate with the inclined edge-ports of the first member; and means for attaching one of said members to a bedpost, the other being adapted for attachment to a side-rail of the bedstead.

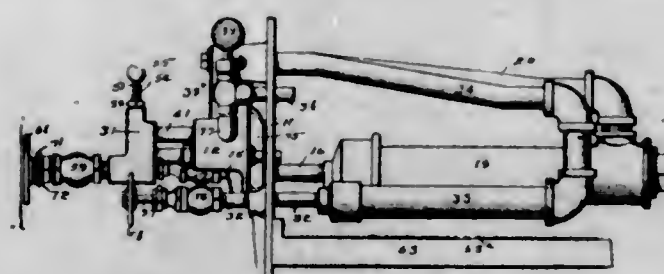
3. In a corner bracket for bedsteads, a tubular bracket member having top and bottom walls having at one end means for attachment to a bedpost, and at the other end having endwise extensions connected by an end wall formed with inclined rearwardly turned edge-ports, said bracket member having a side wall provided with means for attachment to an end rail of the bedstead.

4. In a corner bracket for bedsteads, a tubular sheet-metal member comprising horizontal top and bottom walls, and side walls integral therewith; upper and lower extensions at one end, integral with said top and bottom walls; a vertical end wall connecting said extensions and integral therewith; inclined rails integral with the end wall at the sides thereof and extending toward the said side walls; and a tongue integral with one of the side walls and extending laterally therefrom.

5. In a corner bracket for bedsteads, a tubular sheet-metal member comprising horizontal top and bottom walls, and side walls integral therewith; means at one end of the member for connection with the side rail of a bedstead; and horizontal endwise extensions at the other end, integral with the top and bottom walls and provided with transverse heads adapted to extend into horizontal slots in a hollow bedpost and formed to receive a wedge-key between them and the inner surface of the post.

[Claims 6 and 7 not printed in the Gazette.]

1,082,755. OIL AND WATER BURNER. CHARLES G. LUNDSTROM, Des Moines, Iowa, assignor, by means assignments, to H. M. Mitchell, Des Moines, Iowa. Filed Dec. 7, 1912. Serial No. 735,361. (Cl. 158—57.)



1. In a device of the class described, a burner body having an opening, a passage for oil communicating therewith, and a passage for steam communicating therewith, a steam tube adjustably and detachably mounted in said opening, the opening in said steam tube being enlarged at its inner end, a detachable burner tip received in said steam tube and communicating with said oil passage, said

burner tip being provided with a shoulder so arranged that by the adjustment of the steam tube, the size of the passage from the opening in the burner body into the steam tube may be varied, said burner body being provided with an opening whereby said steam tube may be adjusted or removed and said burner tip may be removed from outside the furnace.

2. In a device of the class described, a burner body having an opening, a passage for oil communicating therewith, and a passage for steam communicating therewith, a steam tube detachably mounted in said opening, a detachable burner tip received within said steam tube and communicating with said oil passage, said burner body being provided with an opening whereby said steam tube and burner tip may be removed from outside a furnace.

3. In a device of the class described, a burner body designed to form part of a furnace wall, said body having a passage for water, an opening to receive a burner tip, steam and oil passages communicating with said opening, a boiler tube designed to extend into a fire box and communicating with said water and steam passages respectively, a burner tip mounted in said opening to communicate with said oil passage and of such size as to allow steam to pass from the steam passage through said opening around said tip.

4. In a device of the class described, the combination of a burner body, a burner mounted therein, an oil supply pipe communicating with said burner, a water and steam circulating system for discharging steam adjacent to said burner, an auxiliary water and steam circulating system, a cut-off in said oil supply pipe operatively connected with said last system for holding said cut-off open when the steam pressure in said last system is above a certain point, said cut-off being arranged to normally stand in closed position.

5. In a device of the class described, a body having an opening to receive a burner, an oil supply passage, a steam passage communicating with said oil passage, a second steam passage, a water and steam circulating system communicating with said first steam passage, an oil supply pipe communicating with said oil passage, an auxiliary water and steam circulating system extending into the furnace from said body and communicating at its highest point with said last described steam passage, an automatic cut-off in said oil supply pipe, said auxiliary water and steam circulation being operatively connected with said cut-off for shutting off the oil supply, if for any reason the steam pressure therein should go down, said burner body furnishing a support for the parts above described and being designed to be detachably mounted in the wall of the furnace.

[Claims 6 and 7 not printed in the Gazette.]

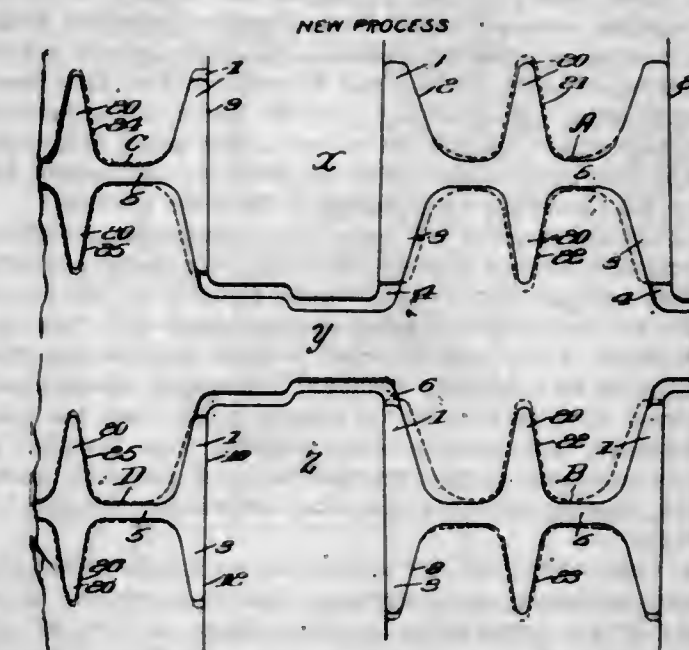
1,082,756. METHOD OF ROLLING DEEP-FLANGED SHAPES. THOMAS H. MATHIAS, Buffalo, N. Y., assignor to Lackawanna Steel Company, Lackawanna, N. Y., a Corporation of New York. Filed May 28, 1912. Serial No. 700,189. (Cl. 80—66.)

1. The process of rolling structural metal beams having a web and an intermediate flange of substantial depth, which consists in applying draft to said flange in each and every one of a series of closed grooves, the grooves in the successive passes being so proportioned that the flange will always be thicker than the width of the groove which the flange is entering, whereby said flange will be worked down gradually in a plurality of passes, but worked down to a certain extent in every pass.

2. The herein described process of rolling metal beams having edge flanges and intermediate flanges of substantial depth, which consists in applying draft to the intermediate flanges and reducing the same at each and every pass in closed grooves, but applying draft to the edge flanges and rolling down the same only in the alternate passes and then only in open grooves, and in the other alternate passes holding the edge flanges unreduced in closed grooves.

3. The process of rolling metal beams having edge flanges and intermediate flanges of substantial depth, which consists in reducing the edge flanges only in open

grooves and the intermediate flanges only in closed grooves, the closed groove of the successive passes being so proportioned that the intermediate flange will always be thicker than the groove it is entering and be rolled down at each and every pass, but the edge flanges being rolled only in open grooves between the surfaces of opposing rolls.

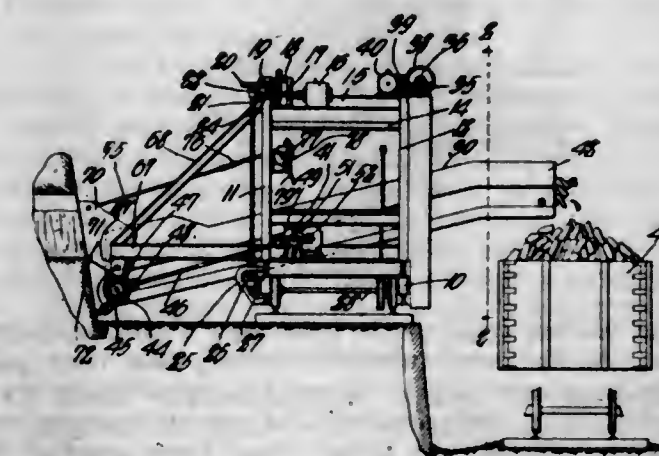


4. The process of rolling a metal beam having a web and an intermediate flange of substantial depth, which consists in reducing the beam successively in series of passes, one of the rolls of each of said passes having a closed groove for said flange, of less width than the thickness of the flange as it enters said pass, said groove thus acting to reduce and to produce a draft on said flange at each and every pass, but the successive grooves being so proportioned that there is gradually less reduction on the flange in each succeeding pass.

5. The process of rolling metal beams having edge flanges and intermediate flanges of substantial depth, which consists in reducing the intermediate flanges in each and every pass in a closed groove, and reducing the edge flanges in alternate passes in open grooves, the edge flanges being held unreduced in the other alternate passes in closed grooves, the reduction of the edge flanges being greater in the passes in which they are being reduced than is the reduction of the intermediate flanges in the same passes.

[Claim 6 not printed in the Gazette.]

1,082,757. COKE CONVEYING AND SCREENING MECHANISM. THOMAS J. MITCHELL, Uniontown, Pa. Filed Apr. 27, 1912. Serial No. 693,664. (Cl. 83—56.)



1. A mechanism for conveying and screening coke including a conveying member which receives the coke and ash from the oven, said coke and ash being carried for the entire length of the conveyor and means for returning the ash to a point adjacent the receiving end of the conveyor.

2. Coke conveying and separating mechanism including an endless conveyor comprising flexibly connected members having outstanding portions the free edges of which constitute coke supporting and carrying means, said members forming ash receiving pockets below the supported coke and which are shaped to retain the ashes after conveying the coke to the point of delivery.

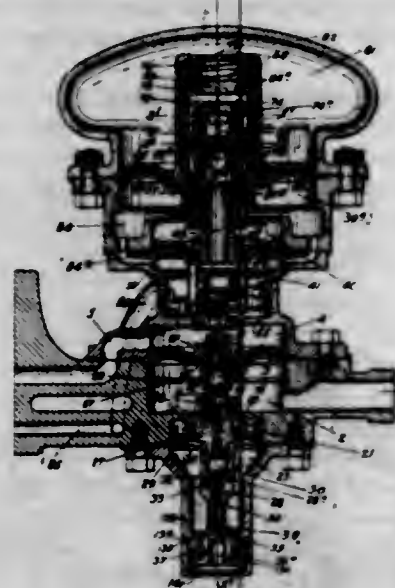
3. Coke conveying and separating mechanism including an endless conveyor comprising flexibly connected members having outstanding portions the free edges of which constitute coke supporting and carrying means, said members forming ash receiving pockets below the supported coke and which are shaped to retain the ashes after conveying the coke to the point of delivery, and means for receiving the ashes when delivered from the pockets.

4. Coke conveying and separating mechanism including an endless conveyor comprising flexibly connected members having outstanding pockets, those pockets of the active flight of the conveyor being substantially inverted, the free edges of the said inverted pockets constituting coke supporting and carrying members, the spaces between said inverted pockets adapted to receive ashes from the coke thereabove, said pockets being movable from inverted to active positions during the discharge of the coke thereabove, thereby to retain the ashes discharged between the pockets.

5. Coke conveying and separating mechanism including an endless conveyor comprising flexibly connected members having outstanding pockets, those pockets of the active flight of the conveyor being substantially inverted, the free edges of the said inverted pockets constituting coke supporting and carrying members, the spaces between said inverted pockets adapted to receive ashes from the coke thereabove, said pockets being movable from inverted to active positions during the discharge of the coke thereabove, thereby to retain the ashes discharged between the pockets, and deflecting means for receiving the ashes from the pockets.

[Claims 6 to 8 not printed in the Gazette.]

1,082,758. TRIPLE VALVE FOR AIR-BRAKES. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 12, 1912. Serial No. 719,986. (Cl. 188—15.)



1. In braking apparatus, a train pipe, a brake cylinder, means affording communication between said train pipe and brake cylinder, means operated by reduction of train pipe pressure to open communication between the train pipe and brake cylinder, the latter means being operated by brake cylinder pressure to close communication between the brake cylinder and train pipe, and an additional train pipe reservoir to supplement the volume of air in the train pipe.

2. In braking apparatus, a train pipe, a brake cylinder, means affording communication between said train pipe and brake cylinder, said means comprising a tripple valve op-

erated by reduction of train pipe pressure to open communication between the train pipe and brake cylinder, said valve being operated by brake cylinder pressure to close communication between the brake cylinder and train pipe, and a train pipe reservoir to supplement the volume of air in the train pipe.

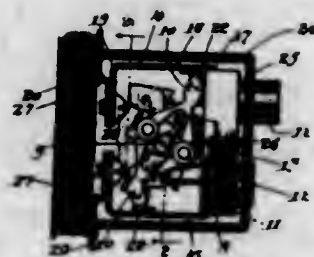
3. In braking apparatus, a train pipe, a brake cylinder, a movable abutment operated by train pipe pressure, a valve operatively connected with said abutment to open and close communication between the train pipe and brake cylinder when the train pipe pressure is reduced, said valve being operated by brake cylinder pressure to close communication between the brake cylinder and train pipe, and a train pipe reservoir to supplement the volume of air in the train pipe.

4. In braking apparatus, a train pipe, a brake cylinder, means of communication between said train pipe and brake cylinder, means operated by a reduction of train pipe pressure to open communication between the train pipe and brake cylinder, said last mentioned means being regulated by brake cylinder pressure, and a train pipe reservoir to supplement the volume of air in the train pipe.

5. In braking apparatus, a train pipe, a brake cylinder, a valve to control communication between said train pipe and brake cylinder, means to open said valve by a reduction of train pipe pressure, yielding means to open said valve, and a train pipe reservoir to supplement the volume of air in the train pipe.

[Claims 6 to 16 not printed in the Gazette.]

1,082,759. PANEL-BOARD SWITCH. JAMES A. ORR-MILLER and PHILIP EICKENBERG, Chicago, Ill. Filed July 29, 1912. Serial No. 712,187. (Cl. 247—13.)



1. In a device of the character described, the combination of a panel-board having branch-bars terminating in an area for supporting-attachment to the legs of a switch device, the panel-board being imperforate at said area, and a switch device comprising an insulating block, metallic leg members mounted on said block, means on said block electrically to connect or disconnect said legs, and means of connection between said legs and the branch-bars of the panel-board for support of said device by said branch-bars through the agency of said electrically-connectible legs whereby the panel-board may be left intact.

2. In a device of the character described, for use with the branch-bars of a solid imperforate panel-board, the combination of a cover member adapted to overlie a contact-operating means; mechanism within said cover, connected to the cover and including contact-operating means operable from without the cover, metallic supporting legs, movable contacts carried by said contact-operating means, stationary contacts carried by said legs, the legs having their lower ends formed for coaction with an attaching means; and means for attaching said legs to the branch-bars of the panel-board; said cover having its free edges formed for coaction over the branch-bars and into contact with the upper surface of said imperforate panel-board.

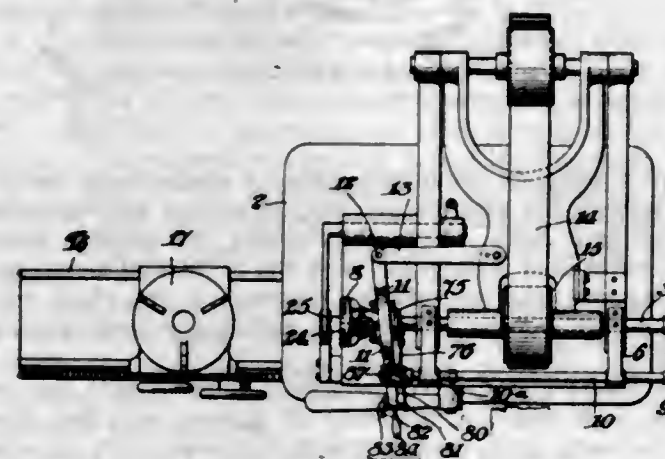
3. In a device of the character described, the combination with the branch-bars of a panel-board, of an insulating block, contact-operating means mounted thereon, metallic leg members adapted to be electrically connected or disconnected by said contact-operating means, said legs extending from the block around the contact-operating means, and means to connect said legs to the branch-bars of the panel-board, said legs and branch-bars being suitably bent to receive said connecting means independently of the panel-board.

4. In a device of the character described, the combination of an insulating block, metallic legs extending from opposite edges of said block and bent downwardly in substantial parallelism and thence bent inwardly at right angles to inclose a contact-operating means, each said leg member having mounted thereon an electric contact, contact-operating means mounted upon said block for electrically connecting and disconnecting the leg-carried contacts, and means for supporting said block and block-carried parts by said legs.

5. In a switch device of the character described, the combination with the branch-bars of a panel board, each of said branch-bars having screw-receiving perforations and screw-clearances thereunder, of a switch device provided with downwardly bent metallic legs, each leg being bent inwardly at its extremity and having a screw-receiving perforation registering with the screw-receiving perforation in the respective branch-bars, and a screw for each said leg taking through said registering perforations, whereby said switch device is supported upon the panel-board by engagement between the legs thereof and said branch-bars, as described.

[Claims 6 and 7 not printed in the Gazette.]

1,082,760. TENONING-MACHINE. LAWRENCE OLSEN, Philadelphia, Pa. Filed Oct. 21, 1912. Serial No. 726,862. (Cl. 144—206.)



1. In a tenoning machine, the combination of a rotatable cutter head, a cutting knife carried by the head, having a cutting edge arranged on a line parallel to a plane intersected by and extending at right angles to the axis of rotation of said head, and means for changing the angle of said edge with relation to the axis of rotation of the head during the rotation of the latter.

2. In a tenoning machine, the combination of a rotatable cutter head, a movable block pivoted on the head on an axis extending at right angles to the axis of rotation of said head, a cutting knife carried by the block, and means for moving the block relatively to the head during the rotation of the latter.

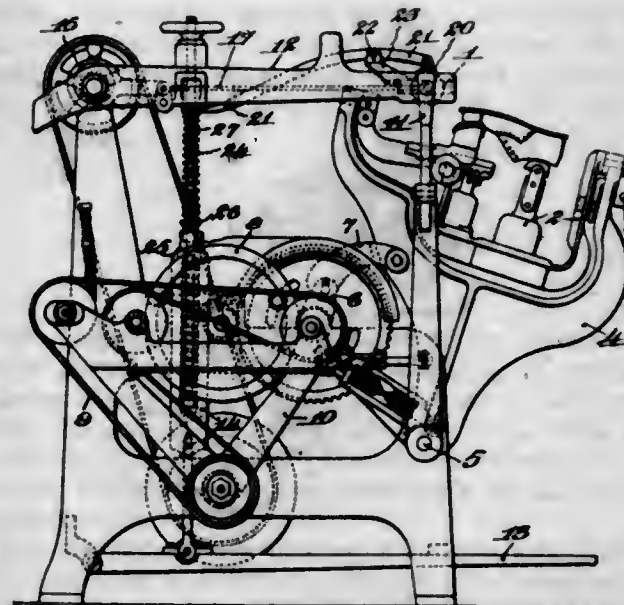
3. In a tenoning machine, the combination of a rotatable cutter head, a pair of movable blocks pivoted on the head on an axis extending at right angles to the axis of rotation of said head, cutting knives carried by the blocks, and means for moving the blocks relatively to each other and to the head during the rotation of the latter.

4. In a tenoning machine, the combination of a rotatable cutter head, a pair of blocks pivoted to the head and having adjacent faces slidably engaged with each other, the axis of the pivot intersecting the plane of the engaged faces, cutting knives carried by the blocks, and means for moving the blocks relatively to each other and to the head during the rotation of the latter.

5. In a tenoning machine, the combination of a rotatable cutter head, a block pivoted to the head on an axis extending at right angles to the axis of rotation of said head, a cutting knife carried by the block, a rocking shaft carried by the head, an arm extending from the shaft and connected to the block and means for rocking said shaft during the rotation of the head.

[Claims 6 to 13 not printed in the Gazette.]

1,082,761. SOLE-LEVELING MACHINE. CHANDLER L. PARKER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 29, 1912. Serial No. 687,124. (Cl. 12—34.)



1. A machine for leveling the soles of boots and shoes, having, in combination, a shoe supporting jack, a leveling roll, means for changing the relative longitudinal position of the roll and jack, means for retarding the free rotation of the roll, and means under the control of the operator for varying the retarding effect upon the roll during operation of the machine, substantially as described.

2. A machine for leveling the soles of boots and shoes, having, in combination, a shoe supporting jack, a leveling roll, means for changing the relative longitudinal position of the roll and jack, means for retarding the free rotation of the roll, and means for varying the retarding effect inversely as the pressure of the roll upon the shoe, substantially as described.

3. A machine for leveling the soles of boots and shoes, having, in combination, a shoe supporting jack, a leveling device, means under the control of the operator to vary the pressure upon a shoe sole, and mechanism connected to the control means for causing the leveling device to exert a light rubbing action and a heavier rolling pressure upon the surface of the sole, substantially as described.

4. A machine for leveling the soles of boots and shoes, having, in combination, a leveling roll, a shoe supporting jack, means for changing the relative longitudinal position of the roll and jack, a treadle, yielding connections between the roll and treadle, a friction brake bearing upon the roll, and connections between the brake and treadle arranged to release the brake when the treadle is moved to increase the pressure upon the sole and to apply the brake when the treadle is moved in the opposite direction, substantially as described.

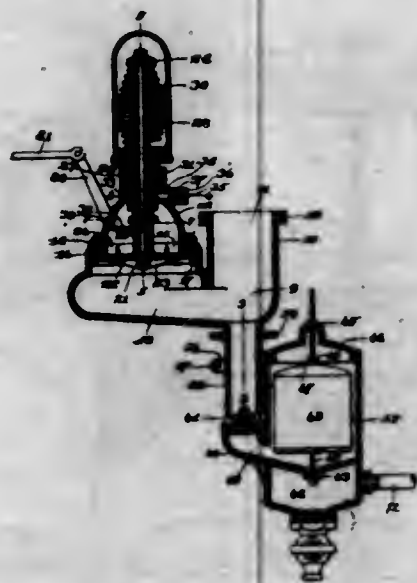
5. A machine for leveling the soles of boots and shoes having, in combination, a shoe supporting jack, a vibratory leveling roll, means for changing the relative longitudinal position of the roll and jack, a brake arranged to vibrate with the roll, a treadle, connections between the treadle and roll to vary the pressure of the roll upon the shoe, and connections between the treadle and brake to vary the retarding effect upon the roll, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,082,762. CARBURETER. JOSEPH W. PARKIN, Philadelphia, Pa. Filed Sept. 29, 1909. Serial No. 520,141. (Cl. 137—32.)

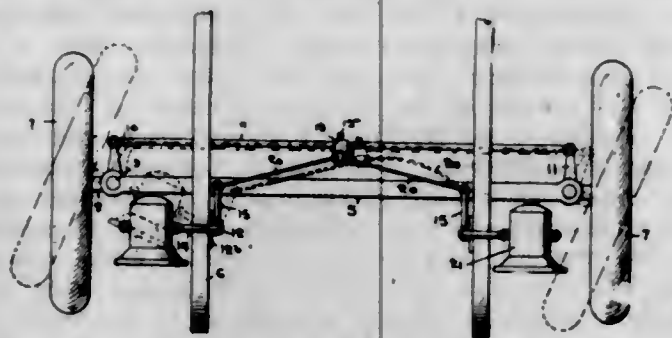
1. In a carbureter the combination of a chamber having an air inlet opening therein, an inwardly opening valve closing said opening, a stem projecting from said valve and having a head thereon, a sleeve surrounding said stem and slidable longitudinally thereof, a lever having an arm bearing against and operative to adjust said

sleeve, a spring encircling said stem and engaging said sleeve and said head, a collar surrounding said sleeve and provided with means operative to adjust said collar longitudinally of said sleeve, and a spring encircling said stem and engaging said collar and said head.



2. In a carburetor the combination of a chamber having an air inlet opening therein, an inwardly opening valve closing said opening, a stem projecting from said valve and having a head thereon, a sleeve surrounding said stem and slidable longitudinally thereof, means operative to adjust said sleeve, a spring encircling said stem and engaging said sleeve and said head, a collar surrounding said sleeve and slidably fitted thereto, said collar being screw-threaded and screwed into a part mounted on said chamber, whereby the turning of the collar will adjust it longitudinally of the sleeve, means for holding the collar in positions of adjustment, and a spring encircling said stem and engaging said collar and said head.

1,082,763. LAMP-BRACKET. JOHN MAURICE POWELL, Los Gatos, Cal. Filed Nov. 29, 1912. Serial No. 734,120. (Cl. 240-62.)



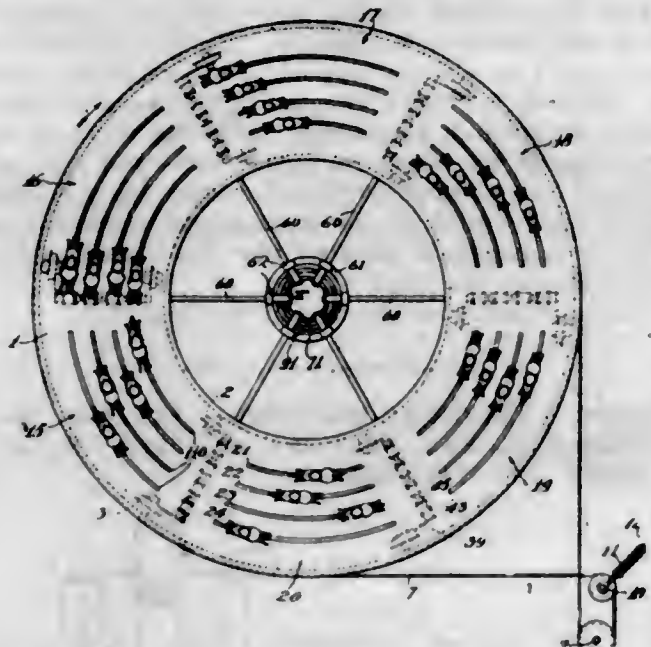
1. The combination of the frame of a vehicle, vertical rods pivotally mounted thereon, lamps secured to the upper ends of said rods, crank arms at the lower ends of said rods, means for automatically and yieldingly holding the lamps in straight forward positions, a cross rod mounted in the frame and connected with the steering gear for longitudinal movement, and flexible connections between said rod and the crank arms of the vertical lamp supporting rod.

2. The combination of the frame of a vehicle, vertical rods pivotally mounted thereon, lamps secured to the upper ends of said rods, crank arms at the lower ends of said rods, means for automatically and yieldingly holding the lamps in straight forward positions, a cross rod mounted in the frame and connected with the steering gear for longitudinal movement, an adjustable block on said cross rod, and flexible connections between said block and the crank arms of the vertical lamp supporting rod.

3. The combination of a vehicle frame, a bracket secured at each side thereof, comprising two vertical barrels having open bottoms, a collar rotatable in each open bottom, a vertical rod seated in each barrel and passing through the top thereof and the collar, a set screw secur-

ing each collar upon its rod, a spring in each barrel around each rod secured at the top to the top of the barrel and at the bottom to the collar, a lamp secured on each rod, a crank arm at the bottom of each rod, a cross rod movable longitudinally by the steering gear, and flexible connections between the crank arms and the cross rod.

1,082,764. MERRY-GO-ROUND. THOMAS W. PRIOR and FREDERICK A. CHURCH, Venice, Cal. Filed Mar. 11, 1912. Serial No. 683,126. (Cl. 46-27.)



1. In a merry-go-round comprising a single table, means for revolving the table, a plurality of groups of rider supports on said table, means for limiting the relative rotative movement of each group with the table, and means for changing the relative rotative position of the rider supports in each group on said table during the revolution of the table.

2. A merry-go-round comprising a table, means for revolving said table, a plurality of groups of rider supports on said table, and means for causing each of said rider supports to travel faster than said table to change the relative position of the rider supports in each group during the revolution of the table.

3. A merry-go-round comprising a table, means for revolving said table, a plurality of groups of rider supports on said table, and means for causing each of said rider supports to travel alternately faster and slower than said table to change the relative position of the rider supports in each group during the revolution of the table.

4. A merry-go-round comprising a table, means for revolving said table, a plurality of groups of rider supports on said table, each rider support consisting of a carriage longitudinally movable with respect to said table, a seat mounted on said carriage, means for moving each of said carriages during the revolution of said table, and means for limiting the movement of said carriages to change the position of the carriages in each group during the revolution of the table.

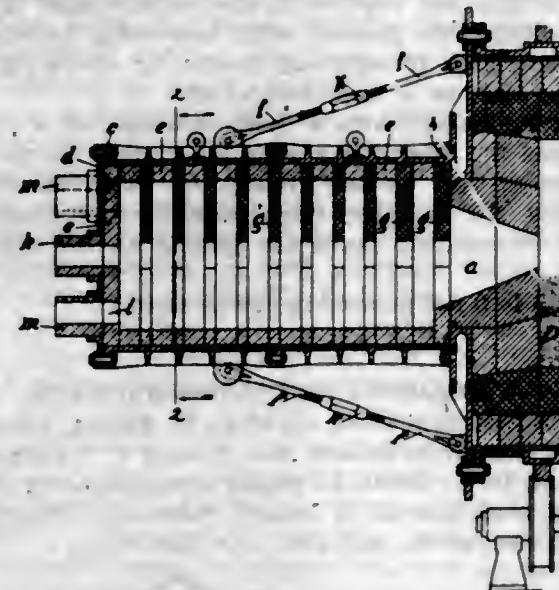
5. A merry-go-round comprising a table having a plurality of groups of slots therein, means for revolving said table, a rider support mounted in each slot, means for independently and automatically moving each of said rider supports in its respective slot during the revolution of the table to change the relative position of the rider supports in each group during the revolution of the table.

[Claims 6 to 14 not printed in the Gazette.]

1,082,765. CONDENSATION OF ZINC. AUGUSTIN L. J. QUENEAU, Philadelphia, Pa. Filed Apr. 23, 1912. Serial No. 692,655. (Cl. 75-28.)

1. A condenser for zinc vapors, provided with baffle plates of carbon projecting into its interior; substantially as described.

2. A condenser for zinc vapors, provided with baffle plates of carbon projecting into its interior, said baffle plates being spaced apart longitudinally of the condenser; substantially as described.



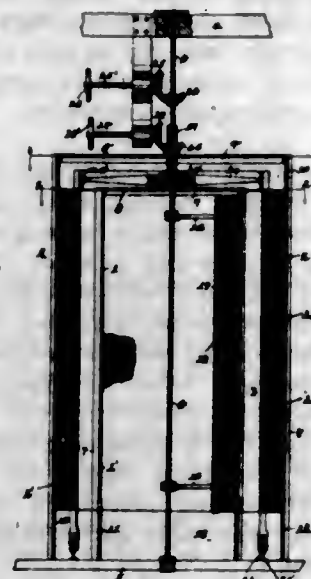
3. A condenser for zinc vapors, provided with baffle plates of carbon projecting into its interior, said baffle plates being spaced apart longitudinally of the condenser and being likewise spaced apart transversely of the condenser; substantially as described.

4. A condenser for zinc vapors, provided with baffle plates of carbon projecting into its interior, said baffle plates being spaced apart longitudinally of the condenser and being likewise spaced apart transversely of the condenser, the transverse spacings being in alignment from end to end of the condenser, and the condenser being provided with an end-plate having openings corresponding to the aligned transverse spacings; substantially as described.

5. A condenser for zinc vapors, provided with a series of courses of baffle plates of carbon, the plates of the several courses projecting radially inward and being separated from each other by intervening spaces; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

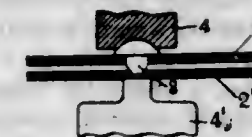
1,082,766. COLLECTOR. MORLEY PUNSHON REYNOLDS, Cleveland, Ohio, assignor to W. S. Tyler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 16, 1912. Serial No. 720,512. (Cl. 75-30.)



A device for collecting ingredients from gases comprising an inner annular receptacle of woven wire fabric for collecting the ingredients, an outer annular receptacle of woven wire fabric around the same for collecting the ingredients, said receptacles being in parallel line with each other and having a space formed between the same, revoluble means within the inner receptacle for moving the collected material therefrom, and revoluble

means within said space and supported above said receptacles for removing the collected material from said outer receptacle, said last named means being adapted to travel on tracks at the lower end of the same.

1,082,767. RIVETED METAL-WORK. ADOLPH F. RIETZEL, Charlestown, R. I., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed Sept. 16, 1909. Serial No. 517,972. (Cl. 219-2.)



1. The hereindescribed improvement in uniting two pieces of metal by a rivet blank, consisting in arranging the pieces with the blank in a hole in one of said pieces and with its projected end in contact with the other piece and then applying heating current and pressure to the pieces and blank to unite the blank with the latter piece by an electrically welded union.

2. The hereindescribed method of uniting two pieces of metal, consisting in arranging the pieces in position with a rivet blank located in a hole in one of them and projected into welding engagement with the opposite piece and then applying pressure and heating current and uniting the blank to both pieces by a welded union.

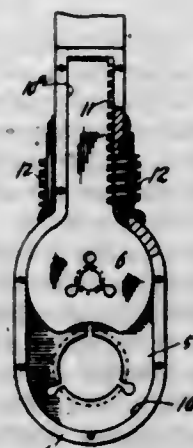
3. The improved method of uniting two pieces of metal, consisting in partially entering the entering end of a blank into a hole in one of the pieces and into engagement therewith but with limited superficial area of good electrical contact and applying heating electric current and pressure to squeeze the blank into the hole.

4. The improved method of uniting two pieces of metal, consisting in applying a blank adapted when partially entered in a hole in a piece to be united to make sidewise contact with the material of said piece, assembling the pieces to be united with the blank engaged in such sidewise contact, passing an electric current through the blank and piece at the point of engagement and applying pressure to effect an electric welding of the blank in the hole.

5. The improved method of uniting two pieces of metal, consisting in providing the two parts to be united with holes, one of larger diameter than the other, inserting a blank through the larger hole and partially entering the shank of the blank into the smaller hole and into engagement with the piece provided with said smaller hole, and then passing a heating electric current and applying pressure to effect a welded union of the blank in the smaller hole, as and for the purpose described.

[Claims 6 to 18 not printed in the Gazette.]

1,082,768. DIE-MAGAZINE. JOHN L. RIFER, Portland, Oreg. Filed Mar. 11, 1912. Serial No. 683,095. (Cl. 19-114.)



1. In combination, an elongated magazine, closed on both sides by plates having aligned perforations, a plurality

of die blocks mounted for limited movement in said magazine, and means for independently moving said blocks within their limits, the die blocks so proportioned that they, at their extreme forward position, register with said plate perforations, and totally clear said perforations when completely retracted.

2. In a device of the character described, an elongated die magazine, a series of solid dies, mounted for longitudinal sliding movement in said magazine, a pair of detachable side plates on said magazine for guiding and retaining said dies in position, said plates having aligned perforations, and means for independently moving said dies to a position of registration with the perforations of said plates.

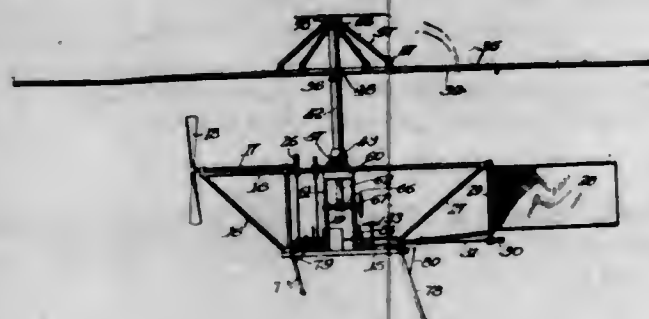
3. In combination, a magazine comprising an elongated chamber made with a narrow extension, said magazine closed on each side by a detachable plate, said plates having aligned perforations for inserting the parts to be threaded, die blocks having an integral neck slidably mounted in said extension, said neck threaded on one side for engagement with thumb screws detachably hung in the wall of the magazine.

4. In combination, an elongated magazine closed on both sides by detachable plates, said plates having aligned perforations for insertion of stock to be threaded, die blocks mounted to slide longitudinally in said magazine, the dies so proportioned, as to register with the plate perforations when fully advanced and to totally clear the said perforations when fully retracted, and manually operated means for independently moving said dies.

5. In a device of the character described, in combination; a magazine integral with the handle of the device, said magazine having an elongated chamber from which extends a narrow pocket, a pair of plates covering the open sides of said magazine and provided with aligned perforations; a series of threading dies mounted in said magazine, said dies comprising a head-portion provided with a cutting perforation and a neck portion positioned to slide in said pocket, a series of teeth in said neck portion; and a series of screws mounted in the wall of the magazine for registration with and engaging the teeth of the neck portion of said dies.

[Claim 6 not printed in the Gazette.]

1,082,769. FLYING-MACHINE. OSCAR T. ROSS, Goldfield, Nev., assignor of one-half to Ward Hildreth, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,515. (Cl. 244—14.)



1. The combination with a flying machine, of a rock-shaft at the forward end of the machine, a pair of elastically mounted legs on said rock-shaft, a rock-shaft at the rear end of the machine, an elastically mounted leg on said rock-shaft, which is longer than the forward legs, and means for limiting the forward movement of the legs.

2. The combination with a flying machine, of a rock-shaft at the forward end of the machine, a pair of elastically mounted legs on said rock-shaft, a rock-shaft at the rear end of the machine, an elastically mounted leg on said rock-shaft which is longer than the forward legs, means for limiting the forward movement of the legs, and operating means for rocking said shafts so as to put said elastically mounted legs under tension or to relieve the tension thereof.

3. The combination with a flying machine, of a plurality of braking and cushioning devices adapted to suc-

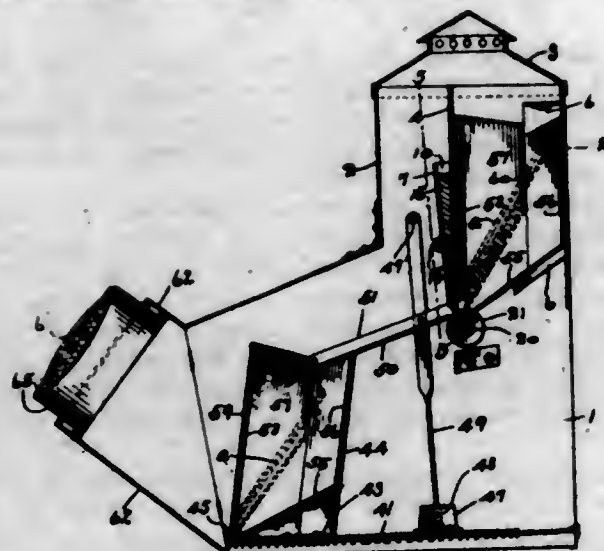
cessively engage the ground with gradually increasing friction so as to retard the forward movement of the car as the machine comes to rest.

4. The combination with a flying machine, of a plurality of retarding and cushioning devices arranged to successively engage the ground with increasing tension as the machine comes to rest, and means for throwing said devices into and out of operation at will.

5. The combination with a flying machine, of a plurality of means for affording a yielding support to the machine when at rest on the ground, but with decreasing efficiency as the machine rises, said devices being arranged to successively leave the ground as the machine rises.

[Claims 6 to 9 not printed in the Gazette.]

1,082,770. AUTOMATIC DISPLAYING-MACHINE. WILLIAM J. ROWE, Lakewood, CHARLES E. SMACK, Brooklyn township, Cuyahoga county, and JOSEPH C. THEBERATH, Lakewood, Ohio; Edith L. Smack administratrix of the estate of said Charles E. Smack, deceased. Filed Mar. 25, 1912. Serial No. 685,977. (Cl. 40—80.)



1. In a displaying machine, a casing, a receptacle for holding exhibits removably mounted in the upper part of said casing, a carriage arranged in the lower part of said casing and capable of being drawn outwardly, a support mounted on said carriage, a receptacle removably mounted in said support, a slideway pivotally supported in said casing and bridging the space between the front edge of the bottom of the upper receptacle and the rear top edge of the lower receptacle, means operatively connecting said slideway with said carriage so that the outward movement of said carriage will tip up said slideway out of contact with said lower receptacle and means for feeding the exhibits from the upper receptacle to the lower receptacle.

2. In a displaying machine, a casing, an exhibit holding receptacle mounted in said casing, said receptacle being open at its front end, a partition arranged in front of said receptacle and terminating a short distance above the front edge of the bottom of said receptacle, guideways formed on said partition, plates arranged in said guideways and having their lower ends extending below said partition, a shaft arranged below the front bottom edge of said receptacle, serrated disks mounted on said shaft and adapted to engage the lowermost exhibit in said receptacle and draw it therefrom, means for rotating said shaft and an exhibit holding receptacle mounted below said first-mentioned receptacle and arranged to receive the exhibits therefrom.

3. In a displaying machine, a casing, an exhibit holding receptacle mounted in said casing, said receptacle being open at its front end, a partition arranged in front of said receptacle and terminating a short distance above the front edge of the bottom of said receptacle, guideways formed on said partition, plates having flexible lower ends arranged in said guideways and having their lower ends extending below said partition, means for adjustably holding said plates in said guideways, a shaft arranged be-

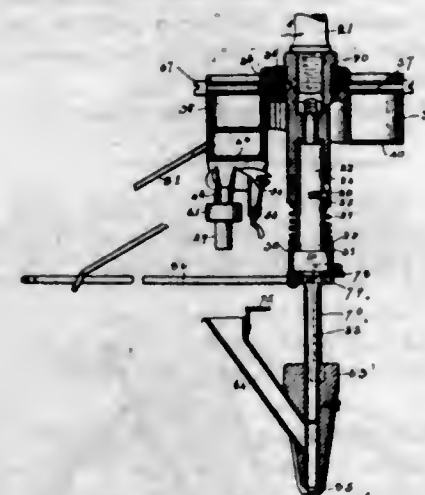
low the front bottom edge of said receptacle, serrated disks mounted on said shaft and adapted to engage the lowermost exhibit in said receptacle and draw it therefrom, means for rotating said shaft, an exhibit holding receptacle mounted below said first-mentioned receptacle and an inclined slideway bridging the space between the lower front edge of the upper receptacle and the rear top edge of the lower receptacle.

4. In a displaying machine, a casing, an exhibit holding receptacle removably mounted in said casing, said receptacle being open at its front end, a partition arranged in front of said receptacle and terminating a short distance above the front edge of the bottom of said receptacle, guideways formed on said partition plates arranged in said guideways and having their lower ends extending below said partition, a shaft arranged below the front bottom edge of said receptacle, serrated disks mounted on said shaft below the lower ends of said plates, means for rotating said shaft, an exhibit holding receptacle removably mounted below said first-mentioned receptacle, said receptacle having a transparent front and a lens mounted in said casing in line with the front of said lower receptacle.

5. In a displaying machine, a casing, brackets mounted in said casing, a receptacle having an open front removably mounted on said brackets, a partition arranged in front of said receptacle and terminating a short distance above the front edge of the bottom of said receptacle, guideways formed on said partition, plates arranged in said guideways and having their lower ends extending below said partition, a shaft arranged below the front bottom edge of said receptacle, serrated disks mounted on said shaft below the lower ends of said plates, means for rotating said shaft, a receptacle removably mounted below said first-mentioned receptacle, said receptacle having a removable transparent front and a lens mounted in said casing in line with the front of said lower receptacle.

[Claim 6 not printed in the Gazette.]

1,082,771. SCREW-DRIVING MECHANISM. FREDERIC WILLIAM RUSSELL, Redditch, England. Filed Jan. 17, 1912. Serial No. 671,677. (Cl. 144—32.)



1. In a screw driving device the combination of a magazine for screws, a screw driving tool, a means for delivering and properly holding screws in operative relation to said tool, and a member forming the sufficient and sole support for said magazine, said screw driving and holding means and said tool, which member is constructed and arranged to be applied and secured to and to receive its support from a rotary spindle, the arrangement being such that the screw-driving device may be bodily lowered toward or raised from the work by imparting vertical movement to said spindle, and that said tool may be rotated by said spindle.

2. The combination of a rotary spindle, a tubular supporting member secured to said spindle, a magazine for screws, a screw-driving tool, and means for delivering and properly holding screws in operative relation to said tool; said magazine, tool, and screw delivering and holding means being all mounted on and supported exclusively from said tubular supporting member, and so constructed

and arranged that said screw driver may be rotated by said spindle.

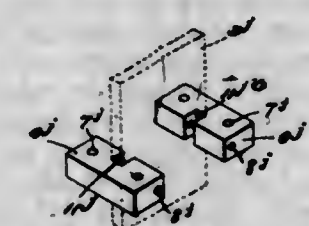
3. In a screw driving device the combination of a magazine for screws, a screw driving tool, a means for delivering and properly holding screws in operative relation to said tool, and a member forming the sufficient and sole support for said magazine, screw delivering and holding means and tool, a rotatable spindle adapted to engage and support said supporting member, a screw selecting means and a means adapted to be operated by a relative movement of the said screw delivering and holding means, and the magazine for causing the delivery of a screw.

4. In a screw driving device the combination of a magazine for screws, a screw driving tool, a means for delivering and properly holding screws in operative relation to said tool, and a member forming the sufficient and sole support for said magazine, screw driving and holding means and tool, a rotatable spindle adapted to engage and support said supporting member, an escapement device for permitting of the delivery of a screw by gravity to the screw delivery and holding means, and a bell crank lever for actuating said escapement device, said bell crank lever having a part so located as to be tripped by a relative movement of the screw delivering and holding means with reference to the magazine.

5. In a screw-driving device the combination of a magazine for screws, a screw driving tool, a means for delivering and properly holding screws in operative relation to said tool, and a member forming the sufficient and sole support for said magazine, screw driving and holding means and tool, a rotatable spindle adapted to engage and support said supporting member, said magazine having an escape outlet for permitting of the delivering of the screws there-through singly, and means for imparting a jiggling movement to said magazine, so as to shake the screws toward said outlet opening.

[Claims 6 to 8 not printed in the Gazette.]

1,082,772. CONDUCTOR-POST FOR ELECTRICAL DISTRIBUTION. CARL SCHUSTER, Bellevue, and CHRISTIAN N. BERGMANN, Pittsburgh, Pa., assignors of one-half to said Bergmann and one-half to said Schuster. Filed Mar. 3, 1911. Serial No. 612,156. (Cl. 175—282.)



1. The combination with an insulating base, of a plurality of conductor bars extending through the base, and holding means for the bars consisting of oppositely arranged frame portions fixedly secured directly to the bars and to the base and having integral means for fixedly holding the bars in spaced relation to each other.

2. The combination with an insulating base, of a plurality of conductor bars extending through the base, and holding means for the bars consisting of oppositely arranged frame portions fixedly secured directly to the bars and to the base and having integral means for fixedly holding the bars in spaced relation to each other with a continuous clearance opening between the bars.

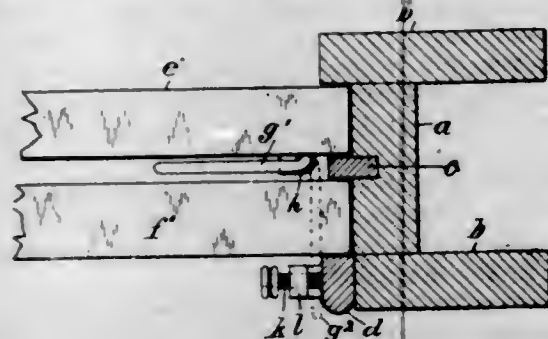
3. The combination with an insulating base, of a plurality of conductor bars extending through the base, and holding means for the bars consisting of oppositely arranged frame portions fixedly secured directly to the bars and to the base and having grooves for receiving and fixedly holding the bars in spaced relation to each other.

4. The combination with an insulating base, of a plurality of conductor bars extending through the base, and holding means for the bars consisting of oppositely arranged individual frame portions fixedly secured directly to the bars and to the base and having integral means for fixedly holding the bars in spaced relation to each other.

5. The combination with an insulating base, of a plurality of conductor bars extending through the base, and holding means for the bars consisting of oppositely arranged frame portions fixedly secured directly to the bars and to the base and having grooves for receiving and fixedly holding the bars in spaced relation to each other and securing rivets fixedly connecting the edges of each bar to said frame portions.

[Claim 6 not printed in the Gazette.]

1,082,773. VENTILATING WINDOW SASH LOCK. MENDEL SHENK, Brooklyn, N. Y. Filed Sept. 21, 1912. Serial No. 721,591. (Cl. 16-18.)

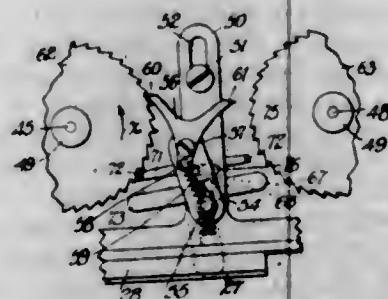


1. In a ventilating sash locking device, the combination, with a window casing having upper and lower sashes, of the hinge-plate *h* attached to the stile of the upper sash and having a transverse groove *i*, the one-piece locking-arm having an integral hinge-pin *g* at one end fitted to the socket of the hinge-plate and adapted to clear the hinge-plate when turned against the upper sash and to swing across the top of the lower sash against the stop-bead, and the stop-bead having the bracket *l* with the notch *n* to receive the end of the locking-arm, and means to lock the said arm in the said notch.

2. In a ventilating sash locking device, the combination, with a window-casing having upper and lower sashes, of the hinge-plate *h* having a transverse groove *i*, a locking-arm having side-bars *g'*, a hinge-pin *g* connecting one end of the side-bars and fitted to the said groove, the opening between the side-bars being adapted to clear the hinge-plate when the arm is in a line with it, and the bracket *l* upon the adjacent edge of the window-casing adapted to receive the locking-arm, and having the bolt *k* threaded in the bracket to lock the end of the arm thereto.

3. In a ventilating sash locking device, the combination, with a window-casing having upper and lower sashes, of the hinge-plates *h* secured upon the stile of the upper sash, a locking-arm having one end hinged in the said hinge-plate and adapted to swing from a position parallel with the upper sash across the top of the lower sash, and a bracket upon the window-frame having a bolt adapted to engage the end of the locking-arm to lock the same to the bracket.

1,082,774. PRINTING-MACHINE. ALFRED L. SOHM, Los Angeles, Cal., assignor to Sohmer Electric Signal & Recording Company, Spokane, Wash., a Corporation of Arizona. Filed June 3, 1911. Serial No. 631,033. (Cl. 197-151.)



1. In a printing machine, a pair of ribbon rolls each carrying a ratchet, a reciprocating member disposed between said rolls, a lever pivoted on said reciprocating mem-

ber, a dog pivoted on said lever, said lever being arranged to occupy two operative positions, one with the dog in operative relation to one ratchet and the other with the dog in operative relation to the other ratchet, and a pivoted detent member arranged to be thrown from one to the other of two operative positions, said detent being held in either of its operative positions by a weight arranged to be effective on either side of the center of gravity of said detent member.

2. In a printing machine, a pair of ribbon rolls each having a ratchet, a reciprocating member disposed between said rolls, a lever pivoted on said reciprocating member, a dog pivoted on said lever, said dog being adapted to occupy two operative positions, one in operative relation to one ratchet and the other in operative relation to the other ratchet, a pivoted detent member arranged to be thrown from one to the other of two operative positions, and a weight for holding said detent member in operative engagement with either of said ratchets.

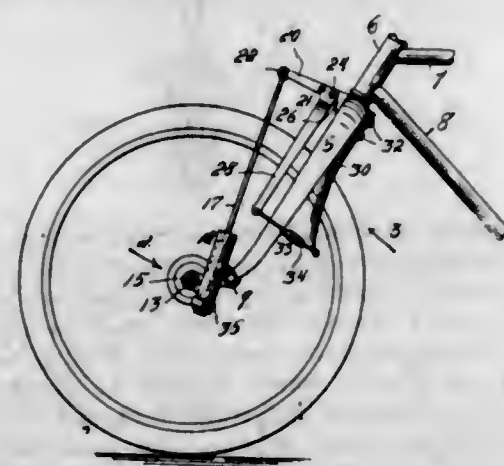
3. In a printing machine, a pair of ribbon rolls each having a ratchet, a reciprocating member disposed between said rolls, a dog lever pivoted on said reciprocating member, said dog lever being adapted to occupy two operative positions, one in operative relation to each of said rolls, a detent member arranged to be held in engagement with either of said ratchets by a weight, and mechanical connection between said lever and said detent member, there being play in said mechanical connection so as to admit of the responsive movement of said detent member when said ratchet is moved by the dog cooperating with the teeth thereof.

4. In a printing machine, a ribbon roll carrying a ratchet, a reciprocating member, a dog lever pivoted on said reciprocating member for operative connection with said ratchet, a detent member held in engagement with said ratchet by a weight, and mechanical connection between said dog lever and said detent member.

5. In a printing machine, a ribbon roll carrying a ratchet, a reciprocating member, a dog lever pivoted on said reciprocating member for operative connection with said ratchet, a detent member held in engagement with said ratchet by weighted mechanism, and mechanical connection between said dog lever and said detent member, said mechanical connection having a certain play so that said detent member may respond to the movement of the ratchet under the influence of the dog.

[Claims 6 and 7 not printed in the Gazette.]

1,082,775. SPRING FRONT FORK FOR MOTOR-CYCLES. CHARLES G. STEPHENSON, Denver, Colo. Filed Sept. 30, 1912. Serial No. 723,081. (Cl. 208-97.)



1. The combination with two members comprising a fork and a wheel of the machine, of cooperating parts comprising plungers connected with one member and plunger guides connected with the other member, a spring mounted on the fork and an operative connection between the spring and the cooperating parts with which the wheel is connected, substantially as described.

2. The combination with a wheel and a fork of the machine, of plungers connected with the wheel on opposite sides of said wheel, plunger guides connected with the

respective fork arms, a spring mounted on the fork and an operative connection between the said spring and the said plungers, substantially as described.

3. The combination with a wheel and a fork of the machine, of plungers connected with the opposite extremities of the wheel axle, plunger guides connected with the respective fork arms and in which the plungers are slidable, spring arms mounted on the fork and extending downwardly on opposite sides of the wheel, and an operative connection between the spring arms and the said plungers.

4. The combination with a wheel and a fork of the machine, of plungers connected with the opposite extremities of the wheel axle, plunger guides connected with the respective fork arms and in which the plungers are slidable, spring arms mounted on the fork and extending downwardly on opposite sides of the wheel, an auxiliary fork whose arms are respectively connected with the plungers, and a bell-crank lever fulcrumed on the main fork and having one arm connected with the auxiliary fork and the other arm connected with the said spring arms.

5. The combination with a wheel and a fork of the machine, of plungers secured to the opposite extremities of the wheel axle, open cylinders pivotally connected with the lower extremities of the opposite arms of the fork and in which the plungers slide freely, an auxiliary fork whose arms are connected at their lower extremities to the said plungers, a bell-crank lever fulcrumed on the main fork and having one of its arms pivotally connected with the top of the auxiliary fork, its opposite arm being composed of two members depending on opposite sides of the wheel, a laminated yoke-shaped leaf-spring secured to the main fork and having arms depending on opposite sides of the wheel, and extensible rods connecting the lower extremities of the auxiliary fork arms with the lower extremities of the spring arms.

1,082,776. PORCELAIN TOOTH AND BACKING FOR DENTAL BRIDGEWORK. WILLIAM J. STEWART, New York, N. Y. Filed Dec. 23, 1912. Serial No. 738,254. (Cl. 32-9.)



1. A porcelain tooth having wedge-shaped grooves formed in its rear face on opposite sides of its longitudinal center and between its center and side edges, said grooves terminating at one end in wedge-shaped sockets, and a backing provided with correspondingly arranged and shaped lugs for slidable interlocking engagement with said grooves and sockets.

2. A porcelain tooth having longitudinal wedge-shaped grooves formed in its rear face on opposite sides of its longitudinal center and between its center and side edges, said grooves having walls converging in one direction and intersecting undercut wedge-shaped sockets at one end thereof, the front walls of said grooves extending on curved lines corresponding to the longitudinal and transverse curvature of the labial surface, and a backing provided with correspondingly arranged wedge-shaped lugs and terminal projections to interlock with said grooves and sockets.

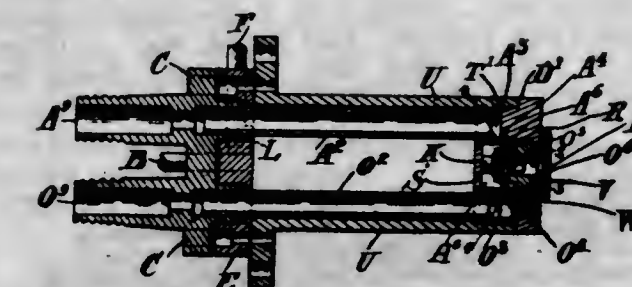
3. A porcelain tooth having longitudinal wedge-shaped dovetailed grooves in its inner face on opposite sides of its longitudinal center, with a wedge-shaped rib between the grooves, said grooves opening at one end through said abutment surface and communicating at their opposite ends with wedge-shaped recesses, the opposed walls of said grooves and rib extending on converging lines toward the recesses, and a backing having an offset abutment to engage the abutment surface of the tooth and spaced lugs with projections corresponding in form to and adapted to engage and interlock with said grooves and recesses.

4. A porcelain tooth provided in the back thereof with longitudinal wedge-shaped, dovetailed grooves arranged on opposite sides of its center and between its center and side edges, said grooves having entrance ends opening through the butt end of the tooth and having their opposite ends terminating in recesses whose walls slope downwardly and forwardly and also downwardly and inwardly toward the center of the tooth, said grooves extending divergently from their entrance ends to said recesses and each groove having its walls converging from its entrance end to said socket and sloping toward the center and front of the tooth, and a backing having correspondingly arranged and shaped lugs to engage said grooves and recesses.

5. A porcelain tooth and backing provided with sets of interengaging connections on opposite sides of the medial longitudinal line thereof and arranged to interlock wholly on the interior of the body of the tooth, said sets of connections, respectively, having abutting surfaces sloping convergently toward the lingual and mesial surfaces of the tooth.

[Claims 6 to 9 not printed in the Gazette.]

1,082,777. NEBULIZER OF LIQUIDS. JOHN HENRY STRINGHAM, Jersey City, N. J., assignor to American Combustion Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 5, 1908. Serial No. 414,407. (Cl. 158-78.)



1. In a liquid nebulizer, the combination with a support provided with means for receiving a plurality of pipe connections and with a recess adapted for the reception of a nebulizer plug, and having passages respectively communicating between said recess and pipe-receiving means; of a nebulizing plug secured in the recess in said support and dividing the recess into separate chambers, said plug being provided with a short substantially unobstructed main passage having a relatively small concentric outlet at its end, and a plurality of eccentrically directed inlet means into said main passage, said inlet means being arranged to communicate with the respective chambers into which the recess in the support is divided by means of the nebulizer plug.

2. In a liquid nebulizer, the combination with a support provided with means for receiving a plurality of pipe connections and with a recess adapted for the reception of a nebulizer plug, and having passages communicating with said recess and pipe receiving means; of a nebulizer plug secured in the recess in said support and dividing the recess into separate chambers, said plug being provided with a short substantially unobstructed main passage having a relatively small concentric outlet at its end, and a plurality of eccentrically directed inlet means into said main passage, said inlet means being arranged to communicate with the respective chambers into which the recess in the support is divided by means of the nebulizer plug; a cooling fluid circulator secured to said support; a supply pipe extending through the fluid circulator and secured in said support; and supporting means for the other end of said pipe and secured to the fluid circulator.

3. In a nebulizing apparatus, the combination with a support constructed with a recess to receive a nebulizing plug; of a nebulizing plug secured in said recess and dividing the same into two separate chambers, said support being constructed with passages communicating between said chambers and sources of supply; said nebulizing plug being provided with a short substantially unobstructed main passage having a relatively small outlet

at its end; and said plug being constructed with separate passages from the said respective chambers to the main passage, which passages are disposed substantially eccentrically with respect to the main passage of the nebulizing plug.

4. A liquid nebulizer having a plug structure provided with a short substantially unobstructed main passage having a relatively small concentric outlet passage at its end, and exterior screw threads, and unthreaded exterior portions of less diameter than said threads and on opposite sides thereof, and separate eccentric inlet means extending from said unthreaded portions directly into said main passage.

5. A nebulizer of liquids having a plug structure provided with a short substantially unobstructed main passage, having a relatively small concentric outlet at its end, and separate inlet means into said passage for the liquid to be nebulized and for an auxiliary fluid, one of said inlet means being inclined substantially tangentially to the wall of said main passage, each of said inlet means comprising a series of passages annularly arranged around said main passage, and one of the two annular series of passages being located between the other and said concentric outlet.

[Claims 6 to 14 not printed in the Gazette.]

1,082,778. MECHANISM FOR TREATING THE STRAW OF FLAX AND THE LIKE. BERTRAND S. SUMMERS, Port Huron, Mich., assignor, by mesne assignments, to Summers Linen Company, Port Huron, Mich., a Corporation of Maine. Filed Mar. 24, 1906. Serial No. 307,913. (Cl. 13—21.)



1. In a machine of the class described, means for breaking the straw by successive impacts along the length thereof comprising a grooved surface, a plurality of blades adapted to cooperate with the grooves thereof and to strike the straw transversely and means for first operating the center blade and then the blades on both sides in succession.

2. In a machine of the class described, means for breaking the straw by successive impacts along the length thereof comprising a grooved surface, a plurality of blades adapted to cooperate with the grooves thereof and to strike the straw transversely, said blades being normally held away from said surface with a yielding pressure, and means for moving the blades successively against said surface to break the straw.

3. In a machine of the class described, the combination with a grid, of a plurality of separately actuated blades adapted to cooperate therewith, means for conveying the straw across and upon the grid, and means for depressing the blades consecutively upon the grid from the center outwardly.

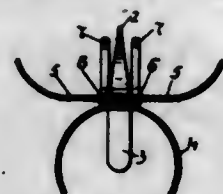
4. In a machine of the class described, the combination of a grid having longitudinal grooves or spaces in its upper surface, a plurality of separately actuated blades adapted to register with said grooves, and means for conveying the straw across and upon the grid, means for moving the blades consecutively to register with and force the straw into said grooves, the center blade being operated first and the other successively from center outwardly.

5. In a machine of the class described, the combination of a grid having longitudinal grooves or spaces in its upper surface, a plurality of separately actuated blades adapted to register with said grooves, means for depressing the blades consecutively into the grooves, beginning with the center blade and progressing outwardly in both

directions, and a conveyer adapted to hold the straw transversely to the said blades and grooves and to convey it in a direction parallel with the blades, as described.

[Claims 6 to 36 not printed in the Gazette.]

1,082,779. HANGER FOR MINERS' LAMPS. LOUIS K. TERRY, Cooks, N. Mex. Filed Aug. 7, 1913. Serial No. 783,449. (Cl. 240—53.)



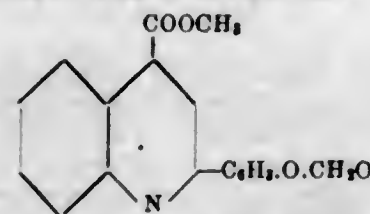
1. A hanger for miners' lamps comprising a bar formed with a hook at its upper extremity and having its lower extremity bent at a right angle in an opposite direction from said hook, an arcuate bracket mounted fast upon the lower portion of said bar above the out-turned extremity thereof, a cross-arm mounted upon the lower portion of the bar transversely thereof having its extremities curved slightly in a direction opposite from the curvature existing in said bracket.

2. A hanger for miners' lamps comprising a vertical bar formed at its upper extremity with a rearwardly projecting hook and having its lower end forwardly bent at a right angle, an arcuate bracket rigidly mounted upon the lower portion of said bar and extending forwardly therefrom, a cross-piece mounted transversely upon the bar at the rear of said bracket having its extremities turned rearwardly, and a pair of handle members mounted upon the bar above said bracket and cross-piece.

1,082,780. PHARMACEUTICAL COMPOUNDS. ALBRECHT THIELE, Berlin, Germany, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Filed July 3, 1913. Serial No. 777,302. (Cl. 23—24.)

1. As new products the esters of a 2-piperonylquinolin-4-carboxylic acid compound, which products are crystallizable compounds, being soluble in organic solvents, insoluble in water, and being valuable remedies, substantially as described.

2. As a new product the methyl ester of 2-piperonylquinolin-4-carboxylic acid of the formula



melting at about 135 centigrades, being soluble in alcohol, ether and benzene, insoluble in water, substantially as described.

1,082,781. PROCESS FOR THE DEHALOGENIZATION OF HALOGENIFEROUS NITRATES. CARL UEBEL, Heidelberg, Germany. Filed Dec. 4, 1912. Serial No. 734,888. (Cl. 252.)

1. The process for removing halogens from nitrates by mixing the nitrate with an acidic agent capable of decomposing the halogen compounds, the amount of acid being substantially equivalent to the amount of halogen present, without previous dissolving of the nitrate, and heating the mixture in order to decompose the halogen compound and to drive off the halogen.

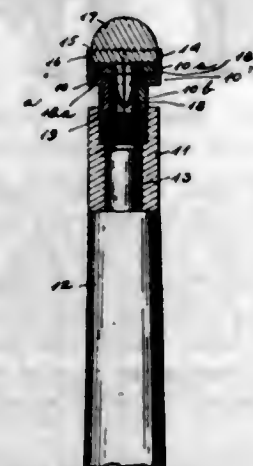
2. The process for removing the halogens from nitrates in which the nitrate is mixed with acidic substances in an amount substantially equivalent to the amount of halogen present, without previous dissolving, and heated to 100°–150° centigrade.

3. The process for removing the halogens from Chili saltpeter, in which the Chili saltpeter is mixed with an acidic substance capable of decomposing the halogen com-

pounds in an amount substantially equivalent to the amount of halogen present without previously dissolving the saltpeter, and heated to temperatures at which the halogen compounds are decomposed and the halogen is removed.

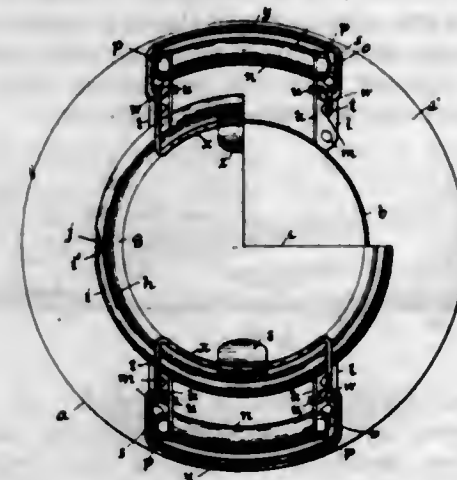
4. The process of removing the halogens from Chili saltpeter in which the Chili saltpeter is mixed with acidic substances containing the SO₄ group in an amount substantially equivalent to the amount of halogen present, without previously dissolving the saltpeter, and heated to 100°–150° centigrade.

1,082,782. DETACHABLE BILLIARD-CUE TIP AND HOLDER. LOUIS WEINBERG and MAX MAREN, Chicago, Ill. Filed Feb. 13, 1913. Serial No. 748,084. (Cl. 46—9.)



A detachable tip holder for billiard cues comprising semi-cylindrical halves, extensions on said halves for clamping a tip, said halves being hollow to form a pocket, said halves having each a radial hole and said holes being in alignment with each other, and a spring having primarily a V shaped body and diverging ends, said spring being inserted in said pocket and having its body spread to V shape and its ends inserted in said radial holes and secured therein whereby said halves will be yieldingly held together and in alignment.

1,082,783. METAL CONTAINER. WILLIAM J. WERNER, Kiel, Wis. Filed Feb. 6, 1913. Serial No. 746,479. (Cl. 31—75.)



1. A cover seal for cylindrical vessels comprising, on the mouth of the vessel, an inverted extended conical shoulder, a cylindrical portion extending from the outer edge of said shoulder upwardly, and a roll on the upper edge of said cylindrical portion; and on the cover, an inverted conical face having the same angle as and adapted to be seated on said shoulder, a cylindrical portion extending upwardly therefrom, and an annular compressible gasket at the top in position to be seated upon said roll; said gasket being so disposed with respect to said roll that when seated but not compressed thereon said face and shoulder are just out of contact but very close together; and clamping devices adapted to compress said gasket and bring said conical face and shoulder into contact.

2. In a container, in combination with the can-mouth having a rolled edge, a cover having a partially closed roll formed upon its edge and adapted to be disposed immediately over the rolled edge of the can-mouth, said roll being more than a semicircle in cross-section; and a resilient annular gasket having an enlargement or bead adapted to fit within said roll and a cushion-portion extending below said bead and adapted to be compressed between said roll and said rolled edge.

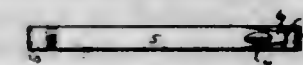
3. In a container, the combination of a can-mouth having a rolled edge and a cover adapted to fit within said rolled edge, said cover having disposed on its edge a partially closed roll of more than a semicircle in cross-section; and a resilient annular gasket adapted to fit within said roll and held in place thereby and having on its inner lower edge a projecting heel or cusp which grips the surface of said cover.

4. In a container, in combination with the can-mouth having a rolled edge, a cover having a partially closed roll formed upon its edge and adapted to be disposed immediately over the rolled edge of the can-mouth, said roll being more than a semicircle in cross-section; and a resilient annular gasket having an enlargement or bead adapted to fit within said roll and a cushion-portion extending below said bead and adapted to be compressed between said roll and said rolled edge, said gasket having further on its lower edge a heel or cusp which grips the face of said cover.

5. In a container, the combination of a can-mouth having a rolled edge, and a cover adapted to fit within said rolled edge, said cover having disposed on its edge a partially closed roll of more than a semicircle in cross-section; and a resilient annular gasket adapted to fit within said roll and held in place thereby, said roll having at one point thereof a notch permitting the insertion of the finger for removing said gasket.

[Claims 6 to 8 not printed in the Gazette.]

1,082,784. HAIR-CURLER. AUGUSTUS ALBERT WEST, New York, N. Y., assignor to West Electric Hair Curler Co., Philadelphia, Pa., a Corporation of New York. Filed Mar. 4, 1912. Serial No. 681,551. (Cl. 132—18.)



A new article of manufacture consisting of a curler having a part thereof hingedly connected and adapted to be latched to another part and adapted to be disengaged from said latched action by a depressing and a transverse motion, said hingedly connected part being provided with a smoothly rounded portion extending upward out of the plane of the part and arranged along the central longitudinal line of the part between said hinged connection and the latching end of said member and away from the edges thereof to assist in the operation of the part as herein specified.

1,082,785. ANIMATED SIGN. RUSSELL WHITCOMB, Elizabeth, N. J. Filed Dec. 24, 1912. Serial No. 738,410. (Cl. 40—139.)

1. In a device of the class described, a fixed front-board, a movable back-board mounted to move bodily toward and away from said front board, means for producing the movement of said back-board, a figure having movable parts adapted to be attached to said front board, means connected with said figure for engaging said movable back-board whereby the latter transmits motion to the movable parts of said figure.

2. In a device of the kind described, a fixed front-board, a movable back-board mounted to move bodily toward and away from said front-board, means for supporting said back-board in movable relation to said front-board, means for producing the movement of said back-board, a figure having movable parts adapted to be removably attached to said front-board at any point in its area, means connected with said figure when so attached passing through

said front-board and engaging said back-board whereby the latter transmits motion to the movable parts of said figure.



3. In a device of the kind described, a fixed front-board, a movable back-board mounted to move bodily toward and away from said front-board, means for supporting said back-board in movable relation to said front-board, means for producing the movement of said back-board, a needle-shank passing through said front-board and engaging said back-board whereby the movement of the latter reciprocates said needle-shank through the former, a figure having movable parts adapted to be attached to said front-board, and means connected with said needle shank for transmitting movement to the movable parts of said figure.

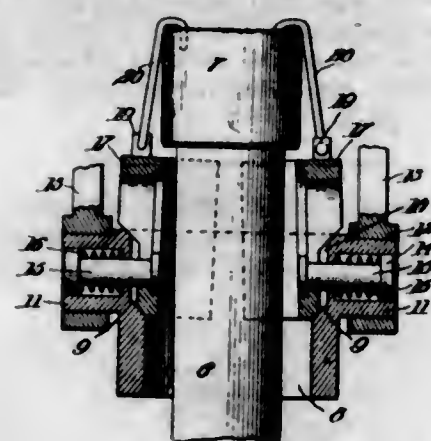
4. In a device of the kind described, a fixed front board, a movable back-board mounted to move bodily toward and away from said front board, means for supporting said back-board in movable relation to said front-board, means for producing the movement of said back-board, a figure comprising a body-portion, movable parts connected with said body portion, a tubular sleeve secured to said body-portion, a needle-shank adapted to reciprocate through said sleeve, said sleeve piercing said front-board to attach said figure thereto and said needle-shank engaging said back-board whereby the movement of said back-board reciprocates said needle-shank, and means connected with said needle-shank adapted to engage said movable parts to transmit movement thereto.

5. In a device of the kind described, a frame-member, a front-board fixed in said frame-member so as to provide a display surface, a movable back-board in the rear of said front-board and spaced away from the same, means for supporting said movable back-board, a rotatable shaft in the rear of said movable back-board, means for supporting said shaft, an eccentric cam-member on said shaft adapted to engage said back-board, spring-members between said front-board and said back-board for maintaining the latter in operative engagement with said cam-member, means for rotating said shaft, a figure having movable parts adapted to be attached to said front-board, means connected with said figure passing through said front-board and engaging said back-board whereby the latter transmits motion to the moving parts of said figure. [Claims 6 to 9 not printed in the Gazette.]

1,082,786. ELEVATOR FOR WELL TUBES OR CASINGS. PAUL F. YOUNG, Los Angeles, Cal. Filed Sept. 9, 1912. Serial No. 719,439. (Cl. 57-9.)

1. An elevator for well tubes or casings comprising a one piece ring having hollow trunnions, a ball connected to the trunnions, means maintained in slidable engagement with the ring and spring actuated bolts which are partially housed in the hollow trunnions of the ring and engage with said slidable means and with the ring.

2. An elevator for well tubes or casings comprising a ring having trunnions, a ball connected to the trunnions, coupling engaging means and spring actuated bolts reciprocally maintained by the hollow trunnions for slidably associating the coupling engaging means with the ring.



3. An elevator for well tubes or casings comprising a ring having an inner wall of different diameters on different planes, coupling and tube engaging means which are externally shaped to correspond with the inner wall of the ring, slots through the coupling and tube engaging means, and spring actuated bolts which are partially housed in the ring and extend inward to engage with the coupling and tube engaging means to hold the same in engagement with the ring.

4. In an elevator for well tubes or casings, a ball, a ring having trunnions which are engaged by the ball, wedging clamps having slots therethrough, spring actuated bolts carried by the ring for engagement with the wedging clamps to hold the same in movable engagement with the ring and hooks maintained in swinging engagement with the wedging clamps.

5. In a tubing or casing elevator, a ring having bored trunnions, a ball connected to the trunnions, wedging clamps movably associated with the ring, bolts seated to move longitudinally in the trunnions and to engage the wedging clamps to associate the same in movable relation with the ring.

[Claims 6 and 7 not printed in the Gazette.]

1,082,787. MAIL-BOX. PAUL AMADEO, Shenandoah, Pa. Original application filed Aug. 8, 1912, Serial No. 713,961. Divided and this application filed Mar. 11, 1913. Serial No. 753,503. (Cl. 232-53.)



1. The combination with a receptacle, of a bottom pivoted between its ends in said receptacle, said bottom comprising two members overlapping each other, elastic means tending to move the members longitudinally to lengthen the bottom, whereby one end of the bottom is maintained in position against the wall of the receptacle at any incline, and locking means at the other end of the bottom, whereby the bottom is secured in horizontal position within the receptacle, substantially as described.

2. The combination with a receptacle, of a bottom pivoted between its ends in said receptacle, said bottom comprising two members overlapping each other, one member having cylindrical enlargements thereon, coiled springs in said enlargements, and the other member having rods fixed thereto and movable in the enlargements against the action of the springs, whereby one end of the bottom is maintained in position against the wall of the receptacle at any incline, substantially as described.

1,082,788. WALL-REGISTER-DOOR HOLDER. GEORGE S. AUER, Cleveland, Ohio, assignor to The Auer Register Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 14, 1913. Serial No. 760,872. (Cl. 126-326.)

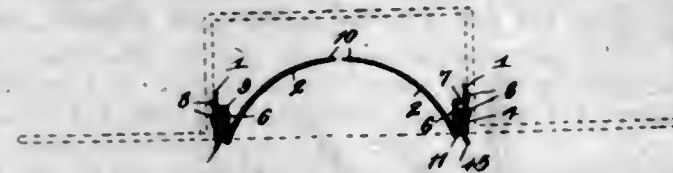


1. A wall-register door-holder, comprising a register wall member, a bearing member detachably secured thereto, a door valve hingedly and detachably connected to said bearing member, a door operating lever mounted in said bearing member and provided with oppositely arranged bearing fingers extending on opposite sides of said door valve, and resilient tensioning means connected with said operating lever for holding the same in adjusted position.

2. A wall-register door-holder, comprising a register wall panel, a bearing member mounted thereon and provided with an attaching lug extending at the rear of said wall panel, a door valve provided with an opening adapted to receive and contain said attaching lug and provided with a bearing pintle carried by the latter, an attaching element connected to said attaching lug and said wall panel, and a door operating member mounted in said bearing member and extending through said opening of said door valve.

3. A wall-register door-holder, comprising a register wall grille, a slotted bearing member mounted in the upper portion of said wall grille and provided with an attaching lug extending at the rear of said wall grille and provided with a bearing portion, a door valve provided at its top with an opening at the rear of said bearing member and having a bearing member seated in said bearing portion of said attaching lug, a door operating member detachably mounted in said bearing member and provided with an operating member extending through the opening of said door and detachably connected to the latter.

1,082,789. HAT-FASTENER. LACHLAN MACLEAN BEATSON, Ashton, Kans. Filed Nov. 27, 1911, Serial No. 662,604. Renewed Oct. 13, 1913. Serial No. 795,010. (Cl. 132-25.)



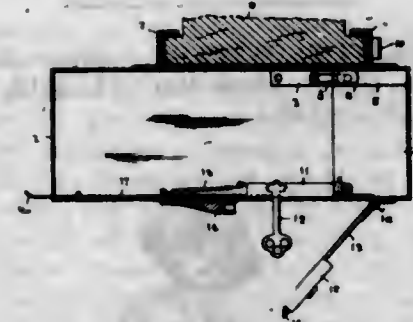
1. A hat fastener comprising a socket member adapted to be secured to the hat, said member being open below and having opposed inner and outer spaced walls, one of the walls having an inwardly extending tongue, in combination with a pin member having a Z-shaped shank of which the extreme elements occupy the same relation to each other as do the walls of the socket member, one of the extreme elements being provided with an opening to receive the tongue and together with the diagonal element arranged to spring into the socket member with the opening in register with the tongue, while the other one of the extreme elements is adapted to lie snugly on the exterior face of the other socket wall and maintain the first extreme element in engagement with the wall of the socket

197 O. G.—73

member, the pin being curved upwardly and inwardly from its shank.

2. A hat fastener comprising a socket member adapted to be secured to the hat, said member being open below and having vertical inner and outer spaced parallel walls, the outer one of the walls having a tongue struck inwardly therefrom, in combination with a pin member having a Z-shaped shank of which that one of the parallel elements remote from the pin point is provided with an opening to receive the tongue and together with the diagonal element is arranged to spring into the socket member with the opening in registry with the tongue, while the other one of the parallel elements is adapted to lie snugly on the exterior face of the inner socket wall and maintain the first parallel element in engagement with the wall of the socket member, and a finger piece on the exterior of the parallel element and adapted to lie outside the socket member, the pin being curved upwardly and inwardly.

1,082,790. SAFE-DEPOSIT RECEPTACLE. HIRAM B. SHORE, Marion, Ind. Filed Sept. 27, 1912. Serial No. 722,713. (Cl. 282-39.)

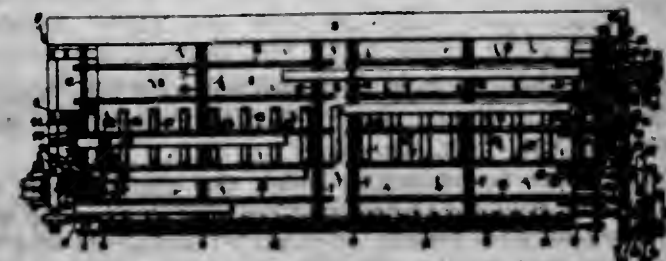


1. In a device of the character described, the combination with a body portion having a lid section, anchoring extensions carried by said body portion and lid section, and an extensible pivotal connection between said body portion and lid section; of means on one of said extensions for compensating for the variance in the width of the support.

2. In a device of the character described, the combination with a body portion having a lid section, anchoring extensions carried by said body portion and lid section, and an extensible pivotal connection between said body portion and lid section; of a compensating spring secured to one of said extensions and projecting therethrough for compensating for the variance in the size of the support.

3. In a safety deposit receptacle, a body portion having a lid section, a hinge member secured within and projecting outwardly of the body portion and having a head thereon, a second hinge section carried by the lid section having a longitudinal slot slidably receiving the head of the first hinge section, and anchoring devices carried by the lid section and the body portion for securing the receptacle in position upon a support.

1,082,791. MACHINE FOR TONGUING AND GROOVING THE ENDS OF WOOD FLOORING. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to Edward B. Holmes, Buffalo, N. Y. Filed Jan. 21, 1909. Serial No. 473,423. (Cl. 144-91.)



1. In a machine of the class described, a machine frame, independent tongue cutting and groove cutting mechanisms located at diagonally opposite corners, means for

feeding material to said tongue cutting and groove cutting mechanisms, a stop for the material located near one of the cutting mechanisms and means for preventing rebounding of the material from said stop including a brush adapted to have its bristles contact with the material.

2. In a machine of the class described, a machine frame, independent tongue cutting and groove cutting mechanisms located at diagonally opposite corners, means for feeding material to said tongue cutting and groove cutting mechanisms, a stop for the material located near one of the cutting mechanisms and means for preventing rebounding of the material from said stop including a brush having its bristles extending on an incline and adapted to have its bristles contact with the material.

3. In a machine of the class described, a machine frame, independent tongue cutting and groove cutting mechanisms located at diagonally opposite corners, means for feeding material to said tongue cutting and groove cutting mechanisms, a stop for the material located near one of the cutting mechanisms and means for preventing rebounding of the material from said stop comprising a plurality of flexible members adapted to contact with the material.

1,082,792. SKIRT-PROTECTOR. MARY E. BISPHAM, Waynesville, Ohio. Filed Mar. 14, 1912. Serial No. 683,856. (Cl. 2—135.)

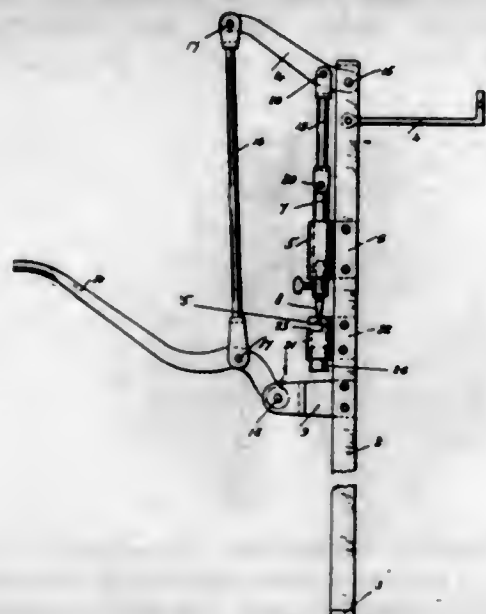


In a skirt protector, the combination of an inner section, a belt connected with the upper extremity thereof for fastening the inner section above the waist of the wearer, said inner section being folded upon itself to produce an outer section, the upper end of which overlies the lower half of the inner section, thus forming a pocket between the sections, a band secured to the upper edge of the outer section, a draw-string threaded through said band, a plurality of vertically extending suspending straps attached at their lower ends to the band, a belt attached to the upper ends of the suspending strap and adapted to encircle the waist of the wearer, and means for attaching the waist belts of the two sections together.

1,082,793. PRESS FOR ENLARGING HOLES. FRANCIS M. BLOUNT, Noma, Fla. Filed May 6, 1913. Serial No. 765,827. (Cl. 59—60.)

In a press for enlarging holes, the combination, with an upright comprising two parallel side bars, of a tubular work-support formed of a plate having its end portions arranged side by side to form a lug which is secured between the said side bars, said tubular support having a horizontal slot which receives the work and forms a stripper, a plug which closes the bottom of the tubular

support so that it forms an oil chamber, and an expanding tool arranged over the work-support and provided with means for forcing it through the work and into the oil chamber.



vided with means for forcing it through the work and into the oil chamber.

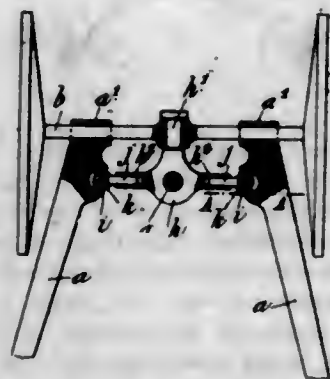
1,082,794. VEHICLE-SPRING. CHARLES A. BOREHAM, Coalinga, Cal. Filed Mar. 10, 1913. Serial No. 753,226. (Cl. 21—50.)



1. In a leaf spring of the character described, a series of two-part superposed leaves abutting at their meeting ends, each of said ends having transverse concavo-convex bends and comprising clamps engaging each section whereby the superposed leaf sections are interlocked and held in their relative positions.

2. In a leaf spring of the character described, a series of two part leaves abutting at their meeting ends and having concavo-convex interlocking bends, clamping plates extending in each direction across the meeting ends of the springs, with transverse grooves across their outer ends, cylindrical rods lying in said grooves and bearing upon the springs, and bolts passing through the clamp plates and the springs, said lower clamp plate having grooves engaging the convexities of the two lowermost spring members.

1,082,795. WHEELED GUN-CARRIAGE. EMILE BOURDELLES, Paris, France, assignor to Schneider & Cie., Paris, France, a Limited Joint-Stock Company, of France. Filed Apr. 18, 1913. Serial No. 762,107. (Cl. 89—40.)



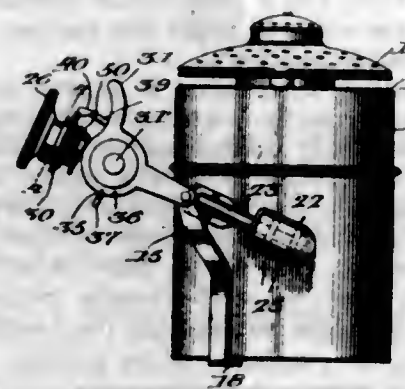
1. In a wheeled gun carriage, the combination of an under carriage having a connection with the axle of said carriage for turning about a line normal to said axle, two arms adapted to serve as props revolvably mounted on said carriage axle, and universal joints connecting said arms

with said under carriage and having a slidable connection with one of said members.

2. In a wheeled gun carriage, the combination of an under carriage having a connection with the axle of said carriage for turning about a line normal to said axle, two arms adapted to serve as props revolvably mounted on said carriage axle, universal joints connecting said arms with said under carriage and having a slidable connection with one of said members, and means for locking said arms to said axle.

3. In a wheeled gun carriage, the combination of an under carriage having a pivoted connection with the axle of said carriage for turning about a line normal to said axle, two arms adapted to serve as props revolvably mounted on said carriage axle, a universal joint mounted on each arm and having a slidable connection with said under carriage; and means for locking said arms to said carriage axle.

1,082,796. OIL-BURNER. HENRY WARING BRENT, JR., Baltimore, Md. Filed May 2, 1913. Serial No. 765,054. (Cl. 67—66.)



1. In an oil burner, the combination with a burner tube, of a movably mounted spreader disposed thereabove, means for vertically adjusting the spreader relatively to the burner tube, a wick, means for operating the wick, and a stop fixedly held by the spreader adjusting means and interposed in the path of movement of the wick-operating means for predetermining the maximum elevation of the wick relatively to the adjusted spreader.

2. In an oil burner, the combination with a burner tube, of a movably mounted spreader disposed thereabove, means for vertically adjusting the spreader relatively to the burner tube, a wick, means for operating the wick, and a stop fixedly held by the spreader adjusting means and interposed in the path of movement of the wick-operating means for predetermining the maximum elevation of the wick relatively to the adjusted spreader, while allowing the wick to be freely lowered.

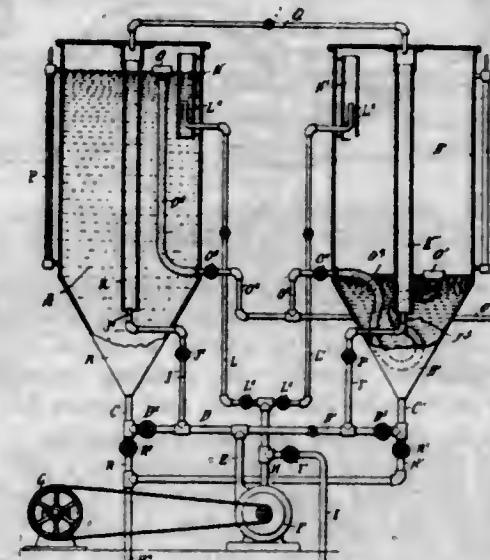
3. In an oil burner, the combination with a burner tube, of a movably mounted spreader disposed thereabove, means for vertically adjusting the spreader relatively to the burner tube, a wick, means for operating the wick and a part releasably held by the spreader-adjusting means and interposed in the path of movement of the wick-operating means, and forming a predetermined stop for resetting the wick relatively to the spreader.

4. In an oil burner, the combination with a burner tube, of a movably mounted spreader disposed thereabove, means for vertically adjusting the spreader relatively to the burner tube, a wick, means for operating the wick, and a part interposed in the range of action of the wick-operating means and held in fixed position by the spreader-adjusting means, and forming a stop which predetermines the resetting of a lowered wick.

5. In an oil burner, the combination with a burner tube and a spreader disposed thereabove, of a wick, means for operating the wick, means for adjusting the spreader, and a part interposed in the range of action of the wick-operating means, and engaged and held under tension by the spreader-operating means, said part having a stop which predetermines the resetting of a lowered wick.

[Claims 6 to 13 not printed in the Gazette.]

1,082,797. MEANS FOR THE MAINTENANCE OF GAS IN CONFINEMENT. SIDNEY ELLIOTT BRETHERTON, Berkeley, Cal. Filed Oct. 9, 1912. Serial No. 724,801. (Cl. 75—86.)



1. An apparatus, of the class described, comprising at least two closed vessels, a gas-conducting connection between the upper ends of the vessels to allow gas from one vessel to pass into the other, means for alternately filling the vessels, and means for alternately decanting the liquids in the vessels, the decanting of the liquid in one vessel taking place while the other vessel is filled.

2. An apparatus of the class described, comprising at least two closed vessels, a gas-conducting connection between the upper ends of the vessels to allow gas from one vessel to pass into the other, means for alternately filling the vessels, means for alternately decanting the liquids in the vessels, the decanting of the liquid in one vessel taking place while the other vessel is filled, and means for producing alternate hydraulic agitation in the said vessels at the time the corresponding vessel is filled.

3. An apparatus of the class described, comprising at least two closed vessels, a gas-conducting connection between the upper ends of the vessels to allow gas from one vessel to pass into the other, means for alternately filling the vessels, means for alternately decanting the liquids in the vessels, the decanting of the liquid in one vessel taking place while the other vessel is filled, means for producing alternate hydraulic agitation in the said vessels at the time the corresponding vessel is filled, and means for alternately drawing off the residue from the lower ends of the vessels.

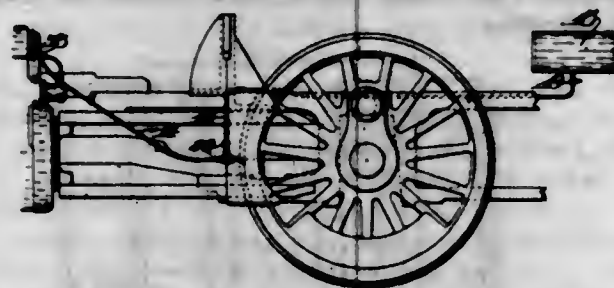
4. An apparatus of the class described, comprising at least two closed vessels of like construction and each having a hopper-shaped bottom, a gas-conducting pipe connecting the upper ends of the said vessels with each other, an agitating pipe suspended in the said vessels, a pump having three valved connections with each vessel, one pipe connection opening into the apex of the bottom of the corresponding vessel, another pipe connection opening centrally into one of the agitating pipes and the third pipe connection opening into the other agitating pipe, decanters in the said vessel, a discharge pipe having valved connections with the said decanters, and valved discharge pipes connected with the lower ends of the vessels.

5. An apparatus for the maintenance of gas in confinement, comprising at least two closed vessels, means for alternately filling and emptying the vessels, means for decanting the liquid in one vessel while filling the other vessel, and means for conducting the gas from the filling vessel into the decanting vessel.

1,082,798. WHEEL-FLANGE OILER. THOMAS CARRICK and WALTER A. BAILEY, San Francisco, Cal. Filed June 1, 1911. Serial No. 630,640. (Cl. 184—3.)

1. In a lubricator, a casing having an oil inlet and an oil outlet, a counter-weighted holder swivelly mounted on the casing and having ports registrable with said oil outlet, a lubricant distributing member carried by the

holder, and fluid pressure means controlling the intermittent flow of oil between said inlet and outlet.



2. In a lubricator, the combination with the part to be lubricated, of a casing, and a counter-weighted member swivelly mounted on the casing, a brush carried by the counter-weighted member in yielding frictional contact with the part to be lubricated, and means for feeding the lubricant to the brush through said casing.

3. In a lubricator the combination of a part to be lubricated, a lubricant supply member, a member swivelly mounted on said supply member, a counterweight carried by the swivelly mounted member, and a distributor carried by the swivelly mounted member and adapted to contact with the part to be lubricated.

1,082,799. CAR-TROLLEY. FRANK E. COVY, Oakland, Cal., assignor of one-half to Charles W. Yolland, Berkeley, Cal. Filed June 17, 1912. Serial No. 704,076. (Cl. 191-70.)



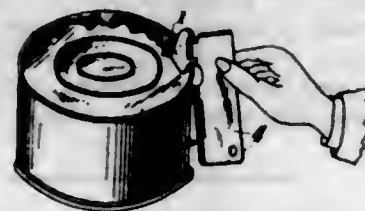
1. The combination with a trolley pole, of a chair upon which the pole is pivoted, means connected to the chair for normally maintaining the pole in a vertical position, a trolley wheel mounted upon the upper end of the pole, and a base upon which said chair may turn having cams for normally maintaining the chair in the direction of the line of travel.

2. In an electric trolley, a carrier turnable about a vertical axis for a distance on each side of a center line, a pole pivotally connected to said carrier for inclination oppositely in a common plane from a vertical position, tension springs connected at their outer ends to the carrier and at their inner ends to the lower part of the pole, and in the horizontal plane of its pivot, said springs acting in opposition to press the pole toward the vertical from either inclination, and a fixed base upon which the carrier is mounted and having means for automatically maintaining said carrier and pole so that the tilting plane of the latter is in the line of travel.

3. In an electric trolley, a carrier turnable about a vertical axis for a distance on each side of a center line, an extensible, telescopic pole pivotally connected to said carrier for inclination oppositely in a common plane from the vertical, tension springs connected at their outer ends to the carrier and at their inner ends to the lower part of the pole and in the horizontal plane of its pivot, said springs acting in opposition to press the pole toward

the vertical from either inclination, a fixed base upon the carrier mounted and having means for automatically maintaining carrier and pole so that the tilting plane of the latter is in the line of travel, and means consisting of a slidable wheel on the pole for relieving the carrier and its pole pivot of tilting strains when a turn in a trolley wire is encountered.

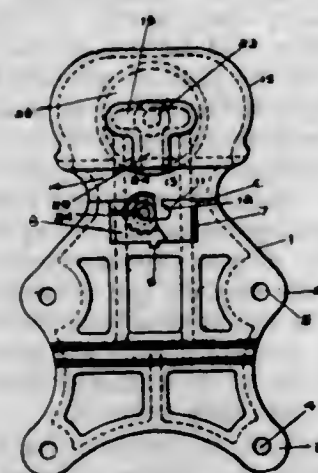
1,082,800. TIN-BOX OPENER. ETIENNE MARCEL DARQUE, Clichy, France. Filed Feb. 27, 1913. Serial No. 751,115. (Cl. 30-3.)



1. A can opener comprising a substantially rectangular flat handle provided with a sleeve extending longitudinally of one edge, and a cutter blade pivotally mounted in said sleeve and adapted to lie flat against said handle when in inoperative position.

2. A can opener comprising a handle member consisting of a single metallic plate provided with a substantially rectangular body portion and a portion projecting from one side and rolled to form a sleeve, and a semi-lunate blade member provided with a slot wherethrough the projecting portion of the handle member passes and pivotally connecting the handle and blade, said sleeve lying wholly to one side of the handle member whereby the blade may be folded flat against the handle when not in use.

1,082,801. DOOR-HANGER. LOUIS EUGENE FOURNIER, Montreal, Quebec, Canada. Filed May 19, 1913. Serial No. 768,496. (Cl. 16-7.)



A hanger comprising a plate having a trolley wheel mounting at the upper end thereof, and having intermediate of the height thereof a horizontal groove and a bracket formed of three sides, the outer side being parallel with the plate and having an open slot of equal length with said groove and parallel therewith, a roller having an axle rigid therewith and projecting into said slot and groove and travelling therein.

1,082,802. SCRAPING-TOOL. PETER FULL, Vermilion, Ohio. Filed Apr. 2, 1913. Serial No. 758,383. (Cl. 145-47.)

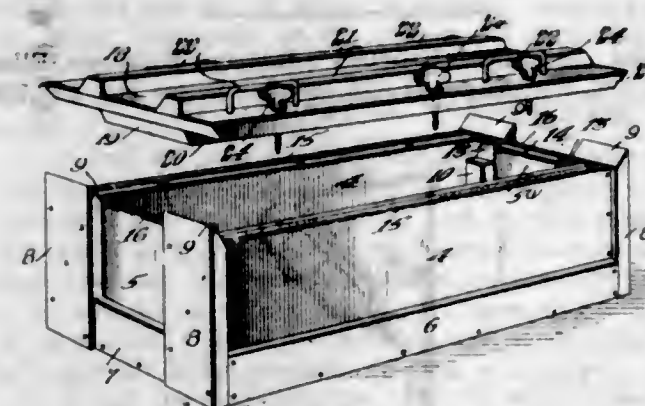
1. A scraper, comprising a suitable handle, a holder attached directly thereto and provided with a plurality of spaced pairs of laterally disposed shouldered lugs, a scraping member loosely received between said lugs and the body of said holder, and fastening means mounted substantially centrally in said holder and independently of said handle, said means being adapted to force said member into resilient engagement with said lugs and said holder.

2. A scraper, comprising a suitable handle, a holder attached directly thereto and provided with a plurality of spaced pairs of laterally disposed shouldered lugs, a scraping member loosely and removably mounted between



said lugs and the body of said holder, and a set screw adjustably mounted substantially centrally in said holder and independently of said handle, said set-screw being adapted to force said member into resilient engagement with said lugs and said holder.

1,082,803. ROUGH BOX. WILLIAM M. GLOTFELTY, Ohio, Pa. Filed Apr. 17, 1913. Serial No. 761,699. (Cl. 27-3.)

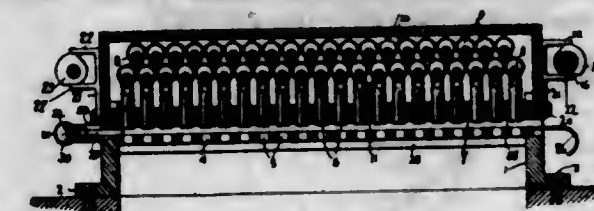


1. A rough box comprising side and end panels and a bottom panel, corner posts secured to the end panels and abutting the adjacent ends of the side panels, said corner posts each having a portion extending above the top of the adjacent end panel and provided with a bevel surface, said bevel surface beginning at the top of said end panel and extending obliquely upward and outward therefrom, and a cover provided upon its underface with side and end strips forming a rectangle, said side strips being located adjacent the sides of the cover and reaching nearly to the ends thereof, said side strips being provided with beveled surfaces mating said beveled surfaces of said corner posts.

2. A rough box comprising side and end panels and a bottom panel, side strips connected with said side panels and extending longitudinally thereof, end strips connected with said end panels, corner posts connected with said end panels and abutted by said end strips, said corner posts extending above said side panels and said end panels, supporting posts located within the corners thus formed by the junction of said side panels and said end panels, said end panels adjacent to said supporting posts being provided with beveled surfaces, and a top for fitting upon said side panels and said end panels, said top being provided with side strips and end strips, the end strips of said top being fitted to rest upon said supporting posts and being

provided with bevel surfaces for engaging the adjacent bevel surfaces of said end panels, said top being further provided with surfaces for engaging the adjacent surfaces of said corner posts.

1,082,804. CONFETTI-MACHINE. GERALD G. GRIFFIN, New York, N. Y. Filed Nov. 19, 1912. Serial No. 732,244. (Cl. 164-91.)



1. In an improvement of the kind described, the combination of a plurality of spindles arranged in horizontal layers, the spindles of each layer being staggered with respect to the spindle of the adjacent layer, a plurality of plungers to be operated by each of said spindles, arms projecting from the said spindles, links for connecting said arms, and means for imparting movement to said links.

2. In an improvement of the kind described, the combination of a plurality of spindles arranged in horizontal layers, the spindles of one layer being staggered with respect to the spindles of the adjacent layer, said spindles having ends projecting laterally in opposite directions, operating arms carried by said projecting ends, links connected to said operating arms, a shaft having links thereon connected to the first-named links, a lever for operating the shaft, and a plurality of plungers for each of said spindles, to be operated when the lever is moved.

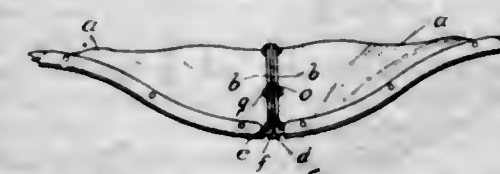
3. In an improvement of the kind described, a perforated plate having lugs projecting from one face adjacent the lateral edges of the same, means to hold material on the plate adjacent said lugs, and means cooperating with said plate to punch the material when so held thereon.

4. In an improvement of the kind described, the combination of a framework, a supporting plate thereon, a plurality of plungers supported by the framework and extending into the same to pass across the upper edge of said plate adjacent the edge thereof, and means for simultaneously moving said plungers together to adjust them toward or from the adjacent edge of said plate.

5. In an improvement of the kind described, the combination of a guide plate, a slotted framework, means carried by the guide plate and engaging said slotted framework, projections carried by said last-named means, cams for engaging said projections to raise or lower the plate, a plurality of plungers passing through said guide plate, and means for connecting said plungers to the cams, whereby the plungers and guide plate can be moved together.

[Claims 6 to 9 not printed in the Gazette.]

1,082,805. SHADE. PHILIP J. HANDEL, Meriden, Conn. Filed July 24, 1912. Serial No. 711,276. (Cl. 240-109.)

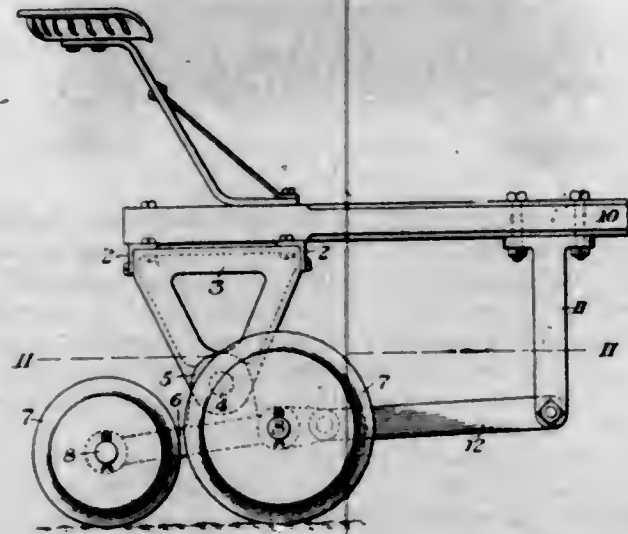


1. In a sectional shade, a plurality of spaced metallic binders of inverted T shape, shade sections of fragile material interposed between said binders with their edges resting upon the lateral extensions forming the heads thereof, flanges on the shade sections lying against the sides of the binder stems, and securing devices passing through the flanges and stems.

2. In a sectional shade, a plurality of radially arranged metallic binders of inverted T shape in cross section, a shade section of fragile material located between adjacent

binders with its edges resting upon the lateral extensions forming the heads thereof, upstanding flanges at the edges of said sections lying against the stems of the binders, and fastening devices passing through apertures in the stems and notches in said flanges.

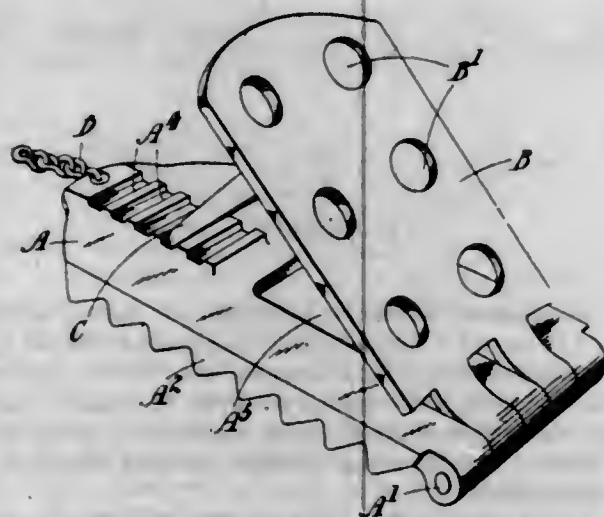
1,082,806. LAND ROLLER OR PULVERIZER. JOHN HIRSH, Alliance, Ohio, assignor to The Dunham Company, Berea, Ohio, a Corporation of Ohio. Filed Dec. 30, 1912. Serial No. 739,196. (Cl. 55-77.)



1. A pulverizer having a main frame of approximately rectangular form, a downwardly extending bracket rigidly connected to each end of the main frame, a bracket pivotally connected to each of said shafts, a second bracket connected to the inner ends of each set of shafts, the bracket on one set of shafts being adjacent to the bracket on the other set of shafts, a draft member pivotally connected to each of the last mentioned brackets and an extension on the main frame; substantially as described.

2. A pulverizer having a main frame, a downwardly extending bracket connected to each end of the main frame, a second bracket swiveled to each of the first mentioned brackets, a pair of shafts mounted in each of said second brackets and extending on both sides thereof, rollers on both ends of each of said shafts, a tongue connected to the main frame, a downwardly extending draft member connected to the tongue, a second bracket connected to the inner ends of each pair of shafts, and a link connected to each of said last mentioned brackets and the downwardly extending draft member on the tongue; substantially as described.

1,082,807. WHEEL-SCOTCH. HERBERT FLEETWOOD HOLWORTHY, Church Stretton, England. Filed Nov. 9, 1912. Serial No. 730,393. (Cl. 21-8.)



1. A wheel scotch comprising a base plate, a wheel engaging member pivoted to the front end thereof and ar-

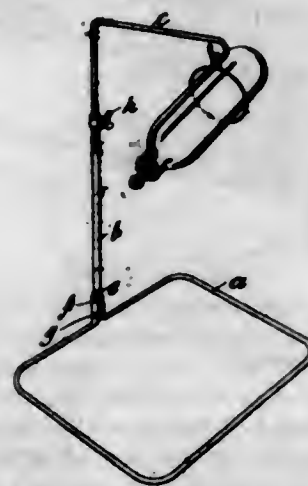
ranged to be folded on the under side of the base plate when not in use, a support engaging the base plate and wheel engaging member when open for use, and means for retaining said support in position with relation to the base plate and wheel engaging member; substantially as described.

2. A wheel scotch comprising a base plate having downwardly extending hinged projections at one end thereof, a wheel engaging member pivoted to the front end of the base plate and arranged to be folded on to the bottom of the base plate, said wheel engaging member having reversely extending hinged projections, a rack on the upper face of the base plate, and a support pivoted to the wheel engaging member and arranged to engage the teeth in the rack to hold the wheel supporting member in its proper position with relation to the base; substantially as described.

3. A wheel scotch comprising a base plate having serrated flanges along its longitudinal edges and on the lower face thereof, a wheel engaging member pivoted to the front end thereof and arranged to be folded so as to lie on the bottom of the base plate between the flanges of the base plate, and a support pivoted to the wheel engaging member and arranged to engage the base to retain the wheel engaging member in proper position when the scotch is in use; substantially as described.

4. A wheel scotch comprising a base plate having serrated flanges along its longitudinal edges and on the lower face thereof, a wheel engaging member pivoted to the front end thereof, said wheel engaging member having a face for engaging the wheel when in use and arranged to be folded so as to lie on the bottom of the base plate between the flanges of the base plate, there being a rack on the base plate, and a supporting member pivoted to the wheel engaging member arranged to engage the teeth in said rack to retain the wheel supporting member in position with relation to the base plate when the scotch is in use; substantially as described.

1,082,808. BOTTLE-HOLDER. NORMAN HUBBARD, Elizabeth, N. J. Filed Dec. 13, 1909. Serial No. 532,768. (Cl. 248-41.)

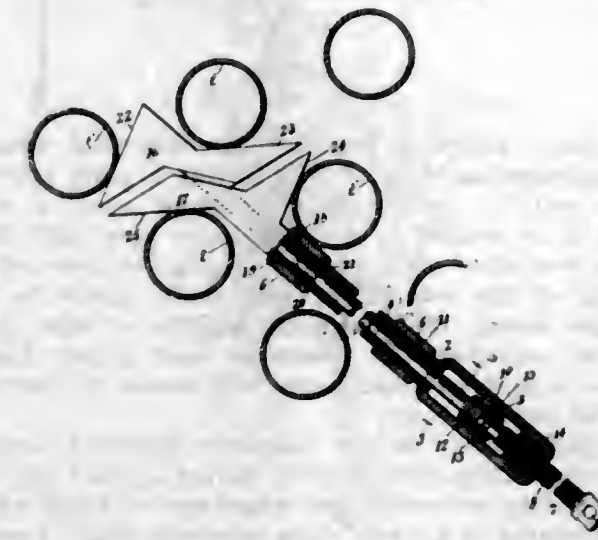


1. In a bottle holding device the combination of a flat horizontal base formed of wire having the ends approaching and bent upward, a standard having a lower member hinged between the bent-up ends of the base forming wire, means for holding the standard in normal upright position, the standard comprising telescoping members, the upper one of which is bent laterally, and means provided at the end of the last mentioned member for holding a bottle, the standard being constructed so that the bent member can be swung angularly relative to the hinged member and so that when the members are in telescoped or closed position the standard can be swung downwardly whereby the base and the standard can lie in substantially the same plane.

2. In a bottle holding device the combination of a flat horizontal base formed of wire having approaching ends, a standard having a lower member hinged to said ends, means for holding the standard in normal upright position, the standard comprising telescoping members, the upper

one of which is bent laterally and means provided at the end of the last mentioned member for holding a bottle, the standard being constructed so that the bent member can be swung angularly relative to the hinged member and so that when the members are in telescoped or closed position the standard can be swung downwardly whereby the base and the standard can lie in substantially the same plane.

1,082,809. TOOL FOR SPREADING THE TUBES OF WATER-TUBE BOILERS. JOHN KEERS, Brooklyn, N. Y. Filed Oct. 14, 1911. Serial No. 654,606. (Cl. 81-3.)



1. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is slidable in the other, a pair of tube-spreading members secured respectively to said carriers and disposed end to end and one of which is movable toward and from the other lengthwise of the carrier for spreading a plurality of tubes relatively to one another, and means for moving said tube-spreading members toward and from each other.

2. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool and secured respectively to said carriers and one of which is movable toward and from the other lengthwise of the carrier for spreading a plurality of tubes relatively to one another, and means for moving said spreader-heads toward and from each other.

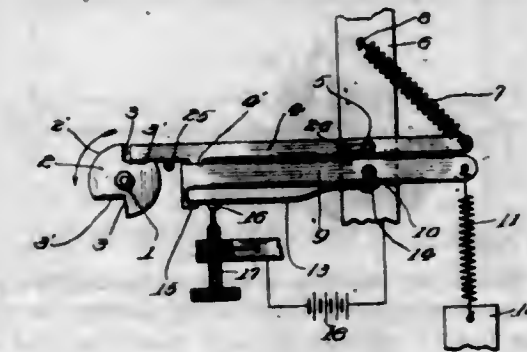
3. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is slidable in the other, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool and secured respectively to said carriers and one of which is movable toward and from the other lengthwise of the carrier for spreading a plurality of tubes relatively to one another, and means for moving said spreader-heads toward and from each other.

4. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts, a pair of spreader-heads disposed end to end in the same plane and movable into and out of engagement lengthwise of the tool and secured respectively to said carriers for spreading a plurality of tubes relatively to one another, and means for moving said spreader-heads toward and from each other and for holding them in any position to which they may be shifted.

5. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is a rod and the other a tube, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool and secured to said tube and rod respectively and one of which is movable toward and from the other lengthwise of the carrier for spreading a plurality of tubes relatively to one another, and means for adjusting said tube and rod relatively to each other.

[Claim 6 not printed in the Gazette.]

1,082,810. ELECTRIC DEVICE. ARTHUR ATWATER KIMM, Philadelphia, Pa. Filed June 12, 1908. Serial No. 438,089. (Cl. 123-166.)



1. In a contact device a contact member, a movable element, a second movable element disconnected from said first element, yielding means for normally holding said elements in operative engagement and tending to move said second movable member away from said contact member, means for rapidly moving said first mentioned element in opposition to said yielding means for holding said elements in engagement, means for suddenly arresting the motion of said first mentioned element, whereby said second element is separated from its operative engagement with said first element and thrown by momentum into operative engagement with said contact member to substantially momentarily close a circuit.

2. In a contact device a contact member, a movable element, a second movable element, disconnected from said first element, yielding means for normally holding said elements in operative engagement and tending to move said second movable element away from said contact member, means for moving said elements in a direction away from said contact member, means for rapidly moving said elements in the opposite direction, means for suddenly stopping the motion of said first element at the end of its movement in said opposite direction whereby said second element is thrown out of said engagement with said first element and into operative engagement with said contact member.

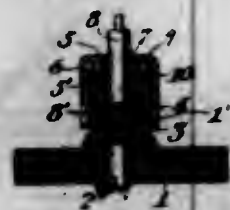
3. In a contact device a contact member, a movable element, a second movable element, means for normally holding said members in yielding engagement, means for moving said elements together in a direction away from said contact member, means for rapidly moving said elements in the opposite direction, and in opposition to said means for holding the same together, means for suddenly stopping the motion of said first element at the end of its movement in said opposite direction whereby said second element is substantially momentarily separated from said first element and thrown by momentum in operative engagement with said contact member.

4. In a contact device a contact member, a movable element, a second movable element mounted independently of said first element, means for normally holding said elements in substantially yielding engagement and tending to move said second movable element away from said contact member; means for moving said elements rapidly toward each contact member in opposition to said means for holding said elements together; means for suddenly stopping said motion of said first element whereby said second element is substantially momentarily thrown out of said engagement with said first element into operative engagement with said contact member.

5. In a contact device a contact member, a movable element, a second independent movable element, means normally acting to yieldingly press said elements toward each other and tending to move said second element in a direction away from said contact member, means for rapidly moving said elements together toward said contact member and for then suddenly stopping the motion of said first element whereby the second element is thrown out of operative engagement with said first element and into operative engagement with said contact member.

[Claims 6 to 15 not printed in the Gazette.]

1,082,811. DEVICE FOR UNITING INSULATED CONDUCTORS OF ELECTRICITY. ARTHUR ATWATER KENT, Philadelphia, Pa. Filed Jan. 24, 1911. Serial No. 604,432. (Cl. 173-268.)



1. In a device for uniting insulated conductors of electricity, the combination of a mounting having an opening, a conductor rigidly secured to such mounting and having its end at the bottom of said opening, the said conductor being provided with a recess in the end thereof, a second conductor provided with a short bared end arranged to enter said recess in said first mentioned conductor, a water proof material fitting tightly around the insulated end of said second conductor and having an exterior diameter substantially equal to the interior diameter of said opening, said material being compressed around said conductor and filling said opening when the coupling is secured to said support.

2. In a device for uniting insulated conductors of electricity, the combination of a support, a conductor mounted in said support and provided at its outer end with a recess, said support being provided with an opening having a conical surface around said end of said conductor, a second conductor having a bared end arranged to fit within said recess in said first mentioned conductor, a coupling having an opening through which said second conductor passes, a plurality of convolutions of adhesive tape wrapped around said second conductor adjacent said bared end to form a cylindrical flange of a diameter substantially equal to that of the interior of said opening, a shoulder on said coupling to engage the side of the convolutions of said tape adjacent thereto, said coupling being screw threaded to said support.

3. In a device for uniting a pair of electrical conductors, the combination of an electrical conductor, a substantially cylindrical mounting provided with screw threads and to which said conductor is rigidly secured in axial alignment therewith, said mounting being provided with a conically recessed clamping surface around the end of said conductor, a second conductor provided with an insulating covering and a relatively short bared end, a cap having an axial opening through which said second conductor extends, and an interior clamping surface in a plane substantially normal to the axis of said opening in said cap, and a plurality of convolutions of a length of flexible material tightly wound around said second conductor adjacent said bared end and forming a flange thereon of a diameter substantially equal to that of the interior of said cap, said cap being provided with screw threads co-operating with the screw threads of said mounting, whereby when said cap is turned with respect to said mounting, to move toward said mounting, the said flange is clamped between the said clamping surfaces of said mounting and said cap, the radial expansion of said flange is substantially prevented by the walls of said cap, the flange is pressed more tightly against said second conductor by reason of the concave surface of said mounting; and said bared end is forced toward and securely held against said first conductor.

4. In a device for uniting a pair of electrical conductors, the combination of a support, an electrical conductor secured to said support, said support being provided with a conical recess surrounding the end of said conductor, a cap having an opening, a second conductor having a bared end, passing through said opening in said cap, a length of flexible material wrapped around said second conductor to form a flange adjacent the bared end thereof and within said cap and of an exterior diameter substantially equal to that of the interior of said cap and means whereby said cap may be forced toward said support, to clamp said flange between said cap and surface of said conical

recess in said support, the radial expansion of said flange is substantially prevented by the sides of cap, the said flange is made to grip said second conductor more tightly and the bared end of said second conductor is pressed into and retained in firm engagement with said first conductor.

1,082,812. PAPER-PUNCH. JOSEF KRÖS, Strassburg, Germany. Filed July 8, 1912. Serial No. 708,383. (Cl. 164-86.)



1. A paper punch of the character described comprising in combination with a table having a plate provided with a suitably perforated keen edged spur, a shaft adapted to be rotated by a crank, cams upon said shaft, a spring controlled plate adapted to grip the paper at the beginning of the rotation of said shaft, means to fold the paper during the continued rotation of said shaft, means to automatically uncouple said paper folding means at a predetermined point, and means to perforate the folded paper.

2. A paper punch of the character described comprising in combination with a table having a plate provided with a suitably perforated keen edged spur, a shaft, adapted to be rotated by a crank, cams upon said shaft, a spring controlled plate adapted to grip the paper at the beginning of the rotation of said shaft, a second shaft carrying a plate adapted to fold the paper, means to uniformly rotate both shafts, a coupling upon the second shaft provided with means to automatically uncouple said shaft at a predetermined point, and means to perforate the folded paper.

3. A paper punch of the character described comprising in combination with a table, a shaft *o* adapted to be rotated by a crank, cams *f*, *e*, *k* upon said shaft participating in its rotation, a spring controlled plate *q* adapted to grip the paper at the beginning of the rotation of said shaft, a second shaft carrying a plate *r* adapted to fold the paper, gear wheels upon both shafts to uniformly rotate the same, a coupling upon the second shaft provided with a pawl and stop to automatically uncouple said shaft at a predetermined point, and anvils to coöperate with the table adapted to be rotated by a presser plate and to perforate the folded paper, and means automatically to return the parts into their normal position as soon as the rotation of the crank ceases.

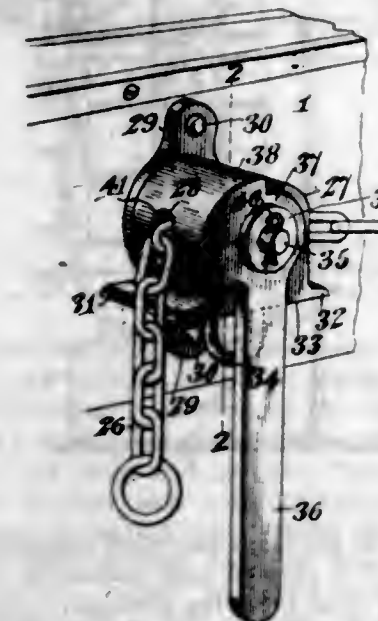
1,082,813. CHAIN-LOCK. CHARLES ALBERT MCCARTHY, Demopolis, Ala., assignor to Joseph Heisler, Hattiesburg, Miss. Filed Oct. 7, 1912. Serial No. 724,392. (Cl. 24-116.)

1. A chain lock comprising a block formed with a passageway for a chain, and a lever mounted on the block with its pivotal axis transverse to the longitudinal axis and substantially midway of the passage in the block, said lever having one end concentric with the axis of movement of the lever and provided with a recess adapted to be moved into and out of traversing relation to one end of the passageway through the block.

2. A chain-lock comprising a block having a portion of its surface cylindrical and provided with a substantially diametric passageway, and a lever mounted on the block with its pivotal axis coincident with the longitudinal axis of the cylindrical portion of the block and having a flange in the form of a partial cylinder concentric with the cylindrical portion of the block and provided with a recess in one edge movable into and out of traversing relation to one end of the passageway through the block.

3. A chain lock comprising a block having a portion of its surface cylindrical and provided with a substan-

tially diametric passageway, and a lever mounted on the block with its pivotal axis coincident with the longitudinal axis of the cylindrical portion of the block and having a flange of incomplete cylindrical form concentric with the cylindrical portion of the block and provided with a recess in one edge movable into and out of traversing relation in one end of the passageway through the block, and a stop member for the partially cylindrical arm of the lever in position to be engaged by the said arm when the recess therein is in traversing relation to the passageway through the body of the block.



4. A chain lock comprising a block having a portion of cylindrical form with a substantially diametric passageway therethrough, stops on the block at both ends of the passageway therethrough, and a lever pivotally mounted on the block with its pivotal axis coinciding with the longitudinal axis of the cylindrical portion of the block and provided with a partially cylindrical portion movable concentric with the longitudinal axis of the block, said cylindrical portion being provided at one edge with a circumferentially arranged recess movable into and out of traversing relation to one end of the passageway through the block, and said cylindrical portion being adapted to engage either of the stops carried by the block.

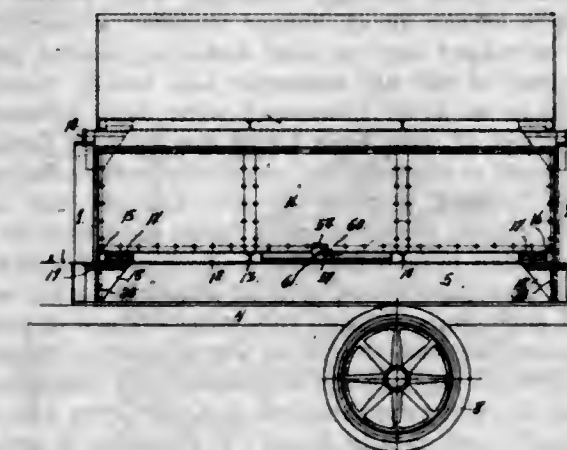
5. A chain lock comprising a block of substantially cylindrical form having a substantially diametric passageway therethrough, a lever pivotally supported by the block with its pivotal axis coinciding with the longitudinal axis of the cylindrical portion of the block and provided with a curved flange exterior to and concentric with the cylindrical surface of the block, said flange having a recess movable into and out of traversing relation to one end of the passageway through the block, and said lever having an arm remote from said flange, and a yoke member carried by the block in position to receive the shackle of a pad lock when such shackle is in embracing relation to said arm of the lever.

[Claims 6 and 7 not printed in the Gazette.]

1,082,814. MOTOR-TRUCK BODY. ROBERT S. McKEAGE, Denver, Colo., assignor to The Continental Motor Truck Co., Denver, Colo., a Corporation of Colorado. Filed Dec. 23, 1912. Serial No. 738,123. (Cl. 21-86.)

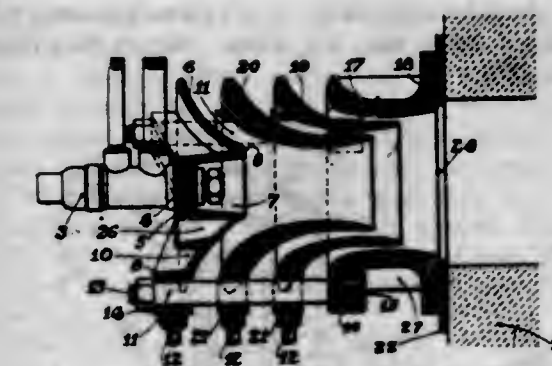
1. In a truck body, a sub-frame, a box, uprights mounted upon the sub-frame, horizontal guides arranged upon the sub-frame, one end of each guide being arranged near the base of one of the uprights, a block slidably mounted upon each guide, a sheave upon the sub-frame near the base of each upright, a sheave near the upper extremity of each upright, a flexible connection attached to each block extending around the lower portion of the lower adjacent sheave, around the upper portion of the upper adjacent sheave, and downwardly to a lower portion of

the box, to which it is attached, and means for moving the blocks simultaneously along the guides away from or toward the uprights.



2. In a vehicle body, a sub-frame, a wagon-box, uprights mounted upon the sub-frame at the front and rear thereof, a horizontally arranged rotatable screw mounted longitudinally upon the sub-frame, said screw being reversely threaded from its ends toward its middle, an internally threaded block mounted upon said screw on either side of the middle, means for preventing said blocks from turning, a sheave mounted at the upper end of each upright, a sheave mounted upon the sub-frame below each of said first-mentioned sheaves, and a flexible connection attached to each block and extending below the adjacent lower sheave, up over the adjacent upper sheave and downwardly to a lower portion of the wagon-box, to which it is attached, and means for rotating said screw.

1,082,815. AIR-ASPIRATOR. WILLIAM MELAS, Philadelphia, Pa., assignor of one-half to David Townsend, Philadelphia, Pa. Filed Mar. 31, 1913. Serial No. 758,071. (Cl. 158-1.5.)

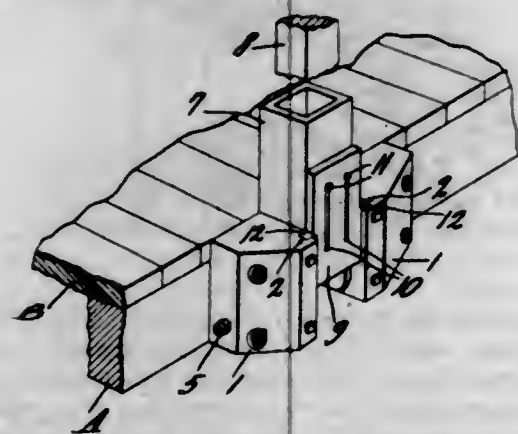


1. In an air aspirator for oil burners, the combination of a deflector, said deflector having a concave outer surface tapering toward its inner end and having a concentric hub threaded at its outer end for engagement with an oil discharge nozzle; said hub having a bore flaring inwardly from said threaded end; a plurality of circularly arranged lugs on said deflector, located parallel to the axis of the air aspirator and axially bored; an annular base in axial alignment with said deflector, the inner surface of said base being convex and flaring toward each end; a plurality of circularly arranged lugs on said base, located parallel to the axis of the air aspirator and having threaded axial bores, a flange on said base and means for securing said flange to a furnace wall; a plurality of tapering twyers in axial alignment with and between said deflector and base, the outer surface of each twyer being concave and the inner surface being convex and flaring toward each end, a plurality of circularly arranged lugs on each twyer located parallel to the axis of the air aspirator and axially bored; a plurality of guide rods passing through corresponding lugs in the deflector, twyers and base and having threaded engagement with the lugs on the base, said deflector and twyers being axially adjustable on said guide rods.

2. In an air aspirator for oil burners the combination of a deflector having a peep-hole, said deflector having a concaved outer surface tapering toward its inner end and a concentric hollow hub, flaring inwardly, with means at its outer end to attach an oil burner thereto; a plurality of circularly arranged lugs on said deflector, located parallel to the axis of the air aspirator and axially bored; an annular base in axial alignment with said deflector, the inner surface of said base being convex and flaring toward each end; a plurality of circularly arranged lugs on said base located parallel to the axis of the air aspirator and having threaded axial bores, said base having means to fasten it to a furnace wall or furnace plate; a plurality of tapering twyers in axial alignment with and between said deflector and base, the outer surface of each twyer being concave and the inner surface being convex and flaring toward each end; a plurality of circularly arranged lugs on each twyer located parallel to the axis of the air aspirator and axially bored; a plurality of guide rods passing through corresponding lugs in the deflector, twyers and base and having threaded engagement with the lugs on the base, said deflector and twyers being axially adjustable on said guide rods, and means for fixing said deflector and twyers in position.

3. In an air aspirator for oil burners the combination of an axially adjustable deflector having means to fix it in position and having means to guide it axially, said deflector having a concaved outer surface tapering toward its inner end and a concentric hollow hub, flaring inwardly, with means at its outer end to attach an oil burner thereto; an annular base in axial alignment with said deflector, the inner surface of said base being convex and flaring toward each end, said base having means to fasten it to a furnace wall or furnace plate; a plurality of axially adjustable tapering twyers in axial alignment with and between said deflector and base, having means for guiding them axially and fixing them in any position desired, the outer surface of each twyer being concave and the inner surface being convex and flaring toward each end.

1,082,816. CAR-STANDARD. J. FARMER MENEES, Greenwood, Miss. Filed Oct. 15, 1913. Serial No. 795,318. (Cl. 105—173.)



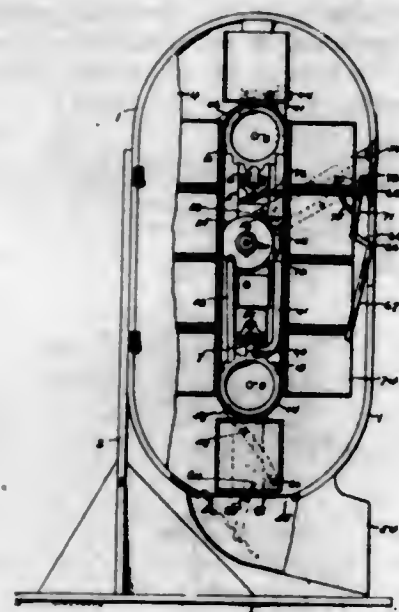
1. In combination with a car having recesses formed therein, a hinged standard carried by the car, and a sliding catch carried by the standard and engaging in the recesses for locking the standard in position.

2. In combination with a car, grooved blocks secured to the car, a standard hinged between the blocks, and a sliding catch carried by the standard and adapted to enter the grooves in the blocks.

3. In combination with a car, grooved blocks secured to the car, a standard hinged between the blocks, and a sliding catch carried by the standard, said catch having extensions on each side adapted to enter the grooves in the blocks.

4. In combination with a car, grooved blocks secured to the car, a hollow standard hinged between the blocks, and a sliding catch carried by the standard, said catch having extensions on each side adapted to enter the grooves in the blocks.

1,082,817. VENDING-MACHINE. CASPAR METTLER, New Haven, and RAYMOND E. FUDGE, West Haven, Conn., assignors to J. Frederick Schermond, trustee, New Haven, Conn. Filed July 20, 1911. Serial No. 639,559. (Cl. 211—8.)



1. A machine of the class described comprising a swinging delivery door, a pivoted lock releasably engaging the door for holding it in receiving position, means for delivering articles to the door, means for releasing the latch when an article is delivered to the door for permitting the latter to drop to discharging position, and means for automatically raising the door after the article is discharged for engaging the lock with the door.

2. The combination of an article-carrying mechanism having an oscillatory element movable step by step, a door for receiving an article upon each step of the mechanism, a lock for holding the door in receiving position and arranged to be released by the said oscillatory element whereby the door and article thereon move to discharging position, and means connected with the element for returning the door to a position for engagement by the said lock.

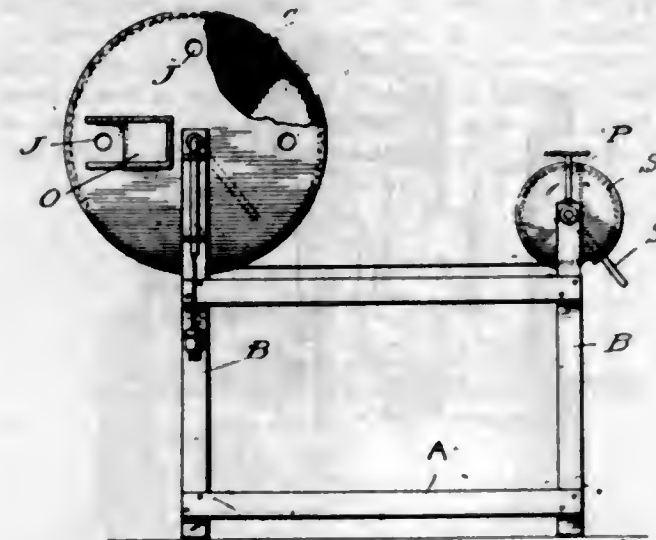
3. A vending machine comprising an endless element, a plurality of article carriers thereon, a shutter or delivery door upon which each carrier deposits an article, means for moving the said carrier element, an automatically-set lock normally holding the door in receiving position and arranged to be released by the said means after a carrier deposits an article on the door to permit the door to move to delivery position, and an element connected with the said means for moving the door from delivery to receiving position.

4. A machine of the class described comprising an endless carrying mechanism movable step by step, an element having a back and forth movement with each step of the mechanism, a pawl and ratchet device for producing step by step movement in one direction of the said mechanism, a device cooperating with the said mechanism for receiving therefrom and carrying articles to be dispensed, and means controlling the movement of the device to and from discharging position by the movement of the said element.

5. A machine of the class described comprising a carrying mechanism, means for moving the same, a door mounted to receive articles from the said mechanism, a catch on the door, a pivoted lock mounted to automatically engage the catch when the door is moved to receiving position, means for operating the lock to release the catch for permitting the door to move to discharging position, and a longitudinally-movable element for engaging the door to move the same from discharging to receiving position.

[Claims 6 to 11 not printed in the Gazette.]

1,082,818. APPARATUS FOR DRYING PHOTOGRAPHS. CHRISTIAN L. OTTO, Greeley, Colo. Filed Apr. 1, 1913. Serial No. 758,277. (Cl. 34—1.)



1. An apparatus for drying photographic prints comprising a frame having a hollow rotatable cylinder, a crank shaft fastened to one end of the cylinder and journaled in the frame, a collar fastened to the other end of the cylinder and journaled in said frame, an insulating tube passing through said collar which forms a bearing for the latter, a heating coil within the cylinder, electrical connections passing through said pipe and connected to the coil, a reel journaled in suitable bearings upon the frame, and a web adapted to wind about said cylinder and reel.

2. An apparatus for drying photographic prints comprising a frame having a hollow rotatable cylinder, a crank shaft fastened to one end of the cylinder and journaled in the frame, a collar fastened to the other end of the cylinder and journaled in said frame, an insulating tube passing through said collar which forms a bearing for the latter, a heating coil within the cylinder, electrical connections passing through said pipe and connected to the coil, a reel journaled in suitable bearings upon the frame, a web adapted to wind about said cylinder and reel, and a spring-pressed buffer brake mounted in the frame and adapted to bear against one end of the cylinder.

1,082,819. SEWING-MACHINE. RAYMOND RASBACH, Herkimer, N. Y. Filed May 10, 1913. Serial No. 766,700. (Cl. 112—29.)

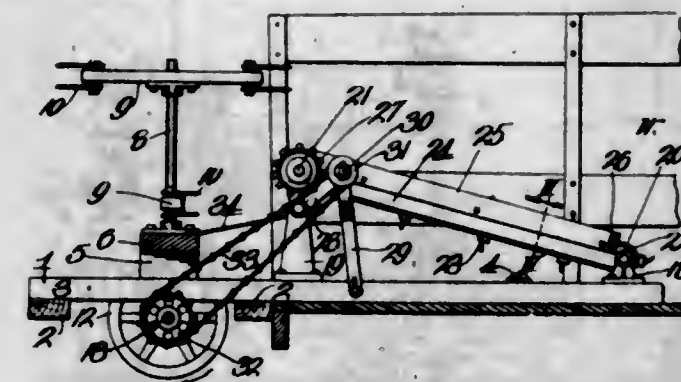


1. In a sewing machine, a face-plate having grooves cut therein, rectangular in cross section, and bearing-bars, rectangular in cross-section, placed in said grooves and being interchangeable to present any of four faces.

2. In a sewing machine, the combination of a face-plate having an aperture cut for the travel of a sewing mechanism therein and having grooves rectangular in cross-section cut alongside the aforementioned aperture, and bearing-bars loosely mounted in the said grooves and interchangeable end for end to take the wear of the said sewing mechanism.

3. In a device of the character described, a plate having an aperture for the movement of a traveling mechanism, the plate having a groove rectangular in cross-section and lengthwise of the travel of said mechanism, and a bar adapted for the support of the traveling mechanism and adapted to be converted end for end and to present any of four surfaces to the said mechanism whereby such bar may be placed to present any of eight wearing surfaces to the wear of said mechanism.

1,082,820. STRAW-SPREADER. LEWIS D. RICE, Kansas City, Mo., assignor to Simplex Spreader Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Dec. 24, 1912. Serial No. 738,399. (Cl. 111—40.)



1. A straw spreader, comprising a frame adapted to be supported upon a vehicle bed, straw-spreading means supported near one end of said frame, and an inclined belt conveyor for lifting straw from the vehicle and feeding the same to said spreading means.

2. A straw spreader, comprising a frame adapted to be supported upon a vehicle bed, straw-spreading means supported near one end of said frame, an endless belt conveyor supported in an inclined position between said spreading means and the other end of the frame for feeding straw from the vehicle to the spreading means, and means for driving the conveyor and spreading means from one of the vehicle wheels.

3. The combination with a vehicle, a frame projecting rearward from the vehicle, a shaft journaled on said frame, a vertical shaft geared to the first-named shaft, an arm secured to the vertical shaft to rotate horizontally, means to drive the first-named shaft, and a suitably driven inclined conveyor also supported on said frame for elevating straw rearwardly in the vehicle and discharging it within the range of action of said rotary arm.

4. The combination with a vehicle, a frame projecting rearward from the vehicle, a shaft journaled on said frame, a vertical shaft geared to the first-named shaft, an arm secured to the vertical shaft to rotate horizontally, means to drive the first-named shaft, an endless elevator carried by said frame and extending longitudinally within the vehicle at its rear end, and means for transmitting power from the first-named shaft to said elevator to cause the latter to carry straw placed upon it to and discharge it into the range of action of said rotary arm.

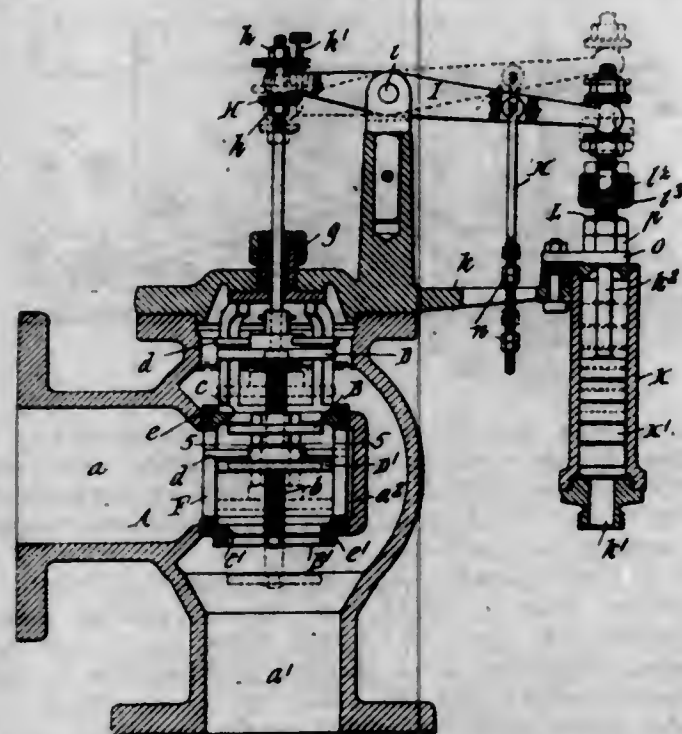
5. The combination with a vehicle, a frame projecting rearward from the vehicle, a shaft journaled on said frame, a vertical shaft geared to the first-named shaft, an arm secured to the vertical shaft to rotate horizontally, means to drive the first-named shaft, an endless elevator carried by said frame and extending longitudinally within the vehicle at its rear end, means for transmitting power from the first-named shaft to the said elevator to cause the latter to carry straw placed upon it to and discharge it into the range of action of said rotary arm, and a plate underlying the rear end of the elevator and extending rearwardly therefrom below the plane of action of said rotary arm.

[Claims 6 and 7 not printed in the Gazette.]

1,082,821. PRESSURE-GOVERNOR. GEORGE M. RICHARDS, Erie, Pa., assignor to Marion A. Richards, Erie, Pa. Filed Jan. 5, 1910. Serial No. 536,508. (Cl. 103—92.)

1. In a pressure governor for pumps, a valve which is actuated by the pumped fluid for controlling the supply of motive fluid to the pump, and comprises two parts which move together, one of which parts enlarges the passage for the motive fluid during an initial movement of the valve in one direction, and the other of which

parts reduces the passage for the motive fluid during the continued movement of the valve in the same direction after such initial movement, and means for adjusting one of said parts relatively to the other without removing the valve from the valve casing, substantially as set forth.



2. In a pressure governor for pumps, a balanced valve which is actuated by the pumped fluid for controlling the supply of motive fluid to the pump, and comprises two inlet disks and two governing disks which move together, said inlet disks acting to enlarge the passage for the motive fluid during an initial movement of the valve in one direction, and said governing disks acting to reduce the passage for the motive fluid during the continued movement of the valve in the same direction after such initial movement, and means located exterior of said valve for adjusting said governing disks relatively to said inlet disks, substantially as set forth.

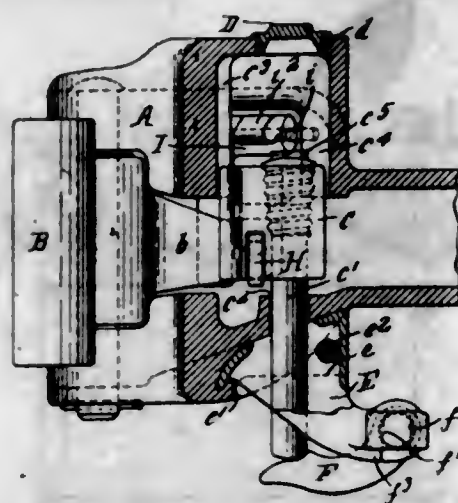
3. In a pressure governor for pumps, the combination of a valve which is actuated by the pumped fluid for controlling the supply of motive fluid to the pump and comprises an inlet disk and a governing disk which move together and are relatively adjustable, a valve casing having seats for said disks so arranged that the movement of said valve in one direction moves said inlet disk away from its seat and moves said governing disk toward its seat, and means located externally of said valve casing for effecting the relative adjustments of said disks, substantially as set forth.

4. In a pressure governor for pumps, the combination of a balanced valve which is actuated by the pumped fluid for controlling the supply of motive fluid to the pump and comprises two inlet disks and two governing disks which are movable together, a valve casing having seats for said inlet and governing disks, said inlet and governing disks being arranged at opposite sides of their respective seats whereby the inlet disks move away from their seats and the governing disks move toward their seats during the movement of the valve in one direction, and means located exterior of said valve for adjusting said governing disks relatively to said inlet disks, substantially as set forth.

5. In a pressure governor for pumps, the combination of a valve which is actuated by the pumped fluid for controlling the supply of motive fluid to the pump and comprises an inlet disk and a governing disk which move together, a valve casing having seats for said disks arranged so that the movement of said valve in one direction moves said inlet disk away from its seat and moves said governing disk toward its seat, and a valve rod operatively connected with said governing disk for adjusting it relative to said inlet disk, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,082,822. CAR-COUPLING. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Feb. 27, 1911. Serial No. 611,025. (Cl. 213-14.)



1. In a car coupler, the combination with a coupler head provided with a hole in its bottom, and a horizontally-swinging knuckle, of a lock for the knuckle provided with a stem which projects downwardly through said hole, and a bottom-operating attachment for the lock comprising a bearing bracket and a movable operating device which is mounted on said bracket and is adapted to move said lock stem to lift the lock out of locking position, a part on the bottom of the head adapted to interlock with said bracket, and means for securing said bracket to said part, said bracket being detachable with said operating device from the coupler head, substantially as set forth.

2. In a car coupler, the combination of a coupler head provided with a hole in its bottom and with bracket securing means on its underside, a horizontally-swinging knuckle, a lock for the knuckle provided with a stem which projects downwardly through said hole, a bottom-operating attachment for the lock comprising a bearing bracket which detachably interlocks with said securing means on the under side of the coupler head, a lever which is mounted on said bracket and is adapted to engage said lock stem for lifting said lock out of locking position, and a fastening device for detachably fastening said bracket to said securing means, substantially as set forth.

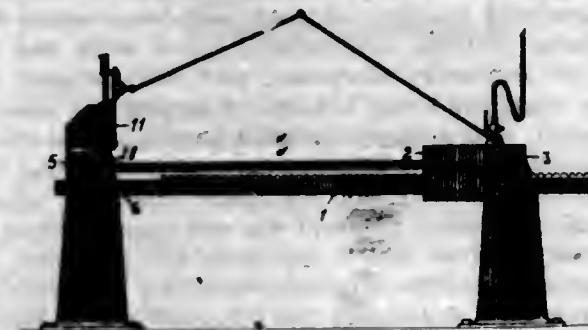
3. In a car coupler, the combination with a coupler head provided with a hole in its bottom and with parts on its bottom for the interlocking engagement of a bracket, a horizontally-swinging knuckle, a vertically-movable lock for the knuckle provided with a guide stem which projects downwardly through said hole, guiding means in the coupler head which cooperate with said guide stem to hold said lock in an upright position and guide it vertically, and a bottom-operating attachment for the lock comprising a bearing bracket which is detachably secured to said parts on the coupler head, and a lever which is pivoted on and removable with said bracket and is adapted to engage said lock stem for lifting the lock out of locking position, substantially as set forth.

1,082,823. TOOL SHARPENING AND GAGING MACHINE. ERNEST RORIVE, Brussels, Belgium. Filed Oct. 29, 1912. Serial No. 728,475. (Cl. 76-5.)

1. In a pneumatic tool sharpening machine, the combination with a matrix and a horizontal reciprocable hammer carrying the tool adapted to force the head of the tool into the matrix, of a vertically reciprocable hammer to gage the head of the tool.

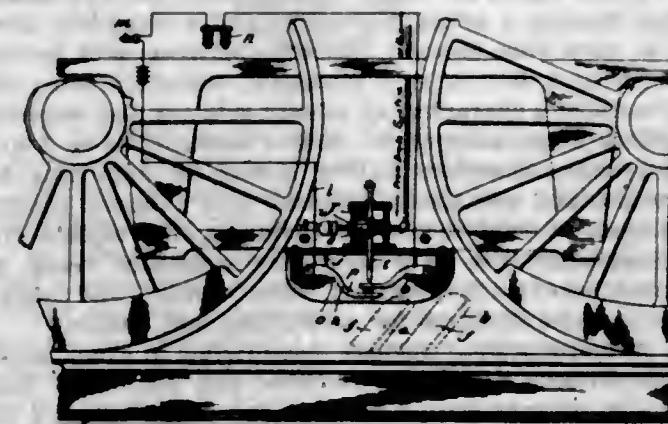
2. In a pneumatic tool sharpening machine, the combination of a horizontal reciprocable hammer having means to carry the tool; an anvil; a support for the head of the tool to be sharpened; a matrix also carried by said support and abutting against said anvil; and a vertical reciprocable hammer having a head conforming to the tool support, and said support and vertically reciprocable hammer adapted to gage the head of the tool.

3. In a pneumatic tool sharpening machine, the combination of a horizontal reciprocable hammer, having means to carry the tool; an anvil; means to adjust said hammer means to rotate the hammer and tool as the hammer is reciprocated; a support for the head of the tool to be sharpened; a matrix also carried by said support against axial and lateral movement but to have rotative movement; and a vertically reciprocable hammer conforming to the tool head and support to gage the head of the tool; said matrix adapted to rotate with the tool.



4. In a pneumatic tool sharpening machine, the combination of a horizontal reciprocable hammer having means to carry the tool; an anvil the face of which is arranged obliquely to the axis of the tool; means to rotate the hammer and tool as the hammer is reciprocated; a support for the head of the tool to be sharpened; a matrix also carried by said support against axial and lateral movement but to have rotative movement, said matrix abutting against the oblique face of the anvil so that its axis of rotation will be at an inclination to the axis of rotation of the tool; and a vertically reciprocable hammer conforming to the tool head and support to gage the head of the tool, substantially as and for the purpose specified.

1,082,824. RAILWAY-CAB SIGNAL. HIRAM G. SEDGWICK, Mill Valley, Cal., assignor to The National Safety Appliance Company, a Corporation of California. Filed Aug. 24, 1910. Serial No. 578,622. (Cl. 246-59.)

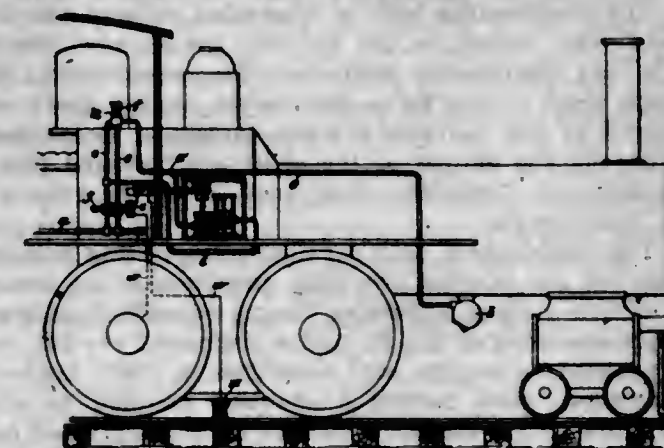


1. In a railway appliance of the class set forth, a channel shoe mounted on the train, a pair of contact arms superposed within the channel of the shoe normally out of contact, and an electric signal device adapted to operate when said arms are brought into contact.

2. In a railway appliance of the class set forth, a channel shoe mounted on the train, a pair of contact arms superposed within the channel of the shoe normally out of contact, an electric signal device adapted to operate when said arms are brought into contact, and a train stopping mechanism adapted to be operated by the continued movement of said arms after they are brought into contact and moved upwardly a predetermined distance.

3. In a railway appliance of the class set forth, a channel shoe mounted on the train, a pair of contact arms superposed within the channel of the shoe normally out of contact, an electric signal device adapted to operate when said arms are brought into contact, and an automatic lock for holding the said arms in contact.

1,082,825. AUTOMATIC TRAIN-STOP. HIRAM G. SEDGWICK, Mill Valley, Cal., assignor to The National Safety Appliance Company, a Corporation of California. Filed Dec. 24, 1908, Serial No. 469,096. Renewed Apr. 25, 1913. Serial No. 763,665. (Cl. 188-4.)



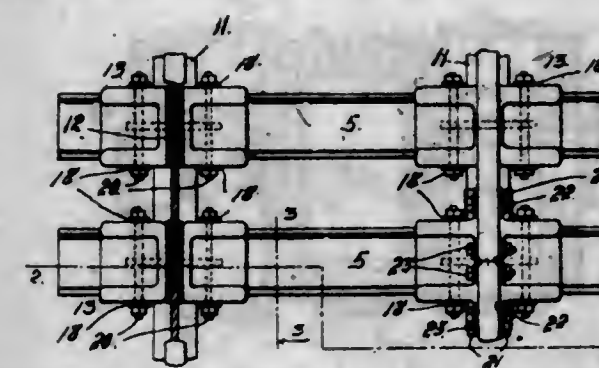
1. In an automatic train-stop, a vent-valve connected to the train-pipe, electro-magnetic devices for opening the same embodying a normally-closed circuit, a normally-open operating circuit connected to said closed circuit, this normally-open circuit having a pair of separated contact-plates in one branch, a movable bridge-piece for connecting these contact-plates, this bridge-piece being shifted to break the circuit by the closing of the cut-off valve in the brake mechanism.

2. In an automatic train-stop, a train-pipe system embodying a cut-off valve for rendering the controller-valve inoperative, a vent-valve and electro-magnetic devices for opening the same embodying a normally-closed circuit, an operating circuit connected to the normally-closed circuit and having its terminals connected to current-collecting or contact devices and having a break in one of its branches, and means operated by the aforesaid cut-off valve to close and open said brake, for the purpose set forth.

3. In an automatic train stop, a train pipe system embodying a cut-off valve for rendering the controller valve inoperative, a vent valve and electro magnetic devices for controlling the same, and means operated by said cut-off valve to render the electro magnetic devices inoperative.

4. In an automatic train stop, an air brake system embodying a cut off valve for rendering the engineer's valve inoperative, an emergency vent valve for applying the brakes and automatic means for opening said vent valve, and devices operated by the closing of said cut off valve to render the vent valve operating means inoperative, for the purpose set forth.

1,082,826. INSULATING MEANS FOR RAILWAY TIES AND CHAIRS. GEORGE H. SHANE, Denver, Colo., assignor to The Steel Railway Tie and Appliance Company, Denver, Colo., a Corporation of Colorado. Filed Jan. 13, 1913. Serial No. 741,703. (Cl. 238-4.)



1. In combination a channel shaped railway tie, an insulation member having downwardly extending flanges adapted to embrace the tie and a downwardly extending pocket portion arranged intermediate said flanges, the bottom of said pocket portion being adapted to rest upon the floor of the tie, a rail chair having downwardly extending flanges adapted to embrace the flanges upon said

insulation member, a downwardly extending rib mounted upon said chair intermediate said flange and adapted to fit snugly within said pocket portion of the insulation member, and insulated fastening means for securing together said tie, insulation member and chair.

2. The combination with a channeled railway tie of a divided chair seated on the tie over the channel therein and having downwardly projecting flanges embracing the opposite sides of the tie a rail seated on the chair and embraced by the portions thereof, fastening means passing through the flanges of the chair and tie, and means for completely insulating from each other the rail, the chair, and the tie.

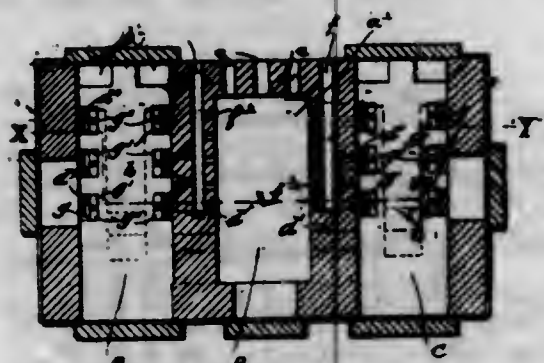
3. The combination with a railway tie, having a transversely cut out portion providing shoulders of an insulation member having depending flanges adapted to embrace the opposite sides of the tie and a depressed central portion adapted to engage said shoulders, a chair made in two sections, each having a shoulder formed by the depressed portion of the insulation member, and provided with depending flanges embracing the corresponding flanges upon the insulation member a rail seated within and embraced by the chair, and fastening means for securing together said tie, insulation member and chair.

1,082,827. RAILWAY TIE AND RAIL CHAIR. GEORGE H. SHANE, Denver, Colo., assignor to The Steel Railway Tie and Appliance Company, Denver, Colo., a Corporation of Colorado. Filed June 16, 1913. Serial No. 773,805. (Cl. 238-5.)



The combination of a railway tie, a rail chair composed of two companion members, each having a horizontal base adapted to span the tie transversely and provided with downwardly bent vertically disposed perforated end members of substantially the same width as the base of the chair and adapted to engage the opposite side walls of the tie exteriorly, the said chair members also having upwardly and inwardly bent rail-flange-engaging parts, the bases of the chair members being adapted to engage the tie and the latter being recessed at the top to closely receive the said members in the rail-flange-clamping relation and a bolt passing through the tie and the perforations of each of said downwardly bent end members.

1,082,828. METALLURGICAL FURNACE. LEONARD A. SMALLWOOD, Birmingham, England; Alfred Smallwood administrator of said Leonard A. Smallwood, deceased. Filed June 18, 1910. Serial No. 567,639. (Cl. 75-57.)



1. A metallurgical furnace comprising in combination, means forming a primary chamber and secondary chambers at each side thereof with a heat radiating wall between the primary chamber and each secondary chamber, said walls being provided with a longitudinal flue having ports leading into said primary chamber, both said primary and secondary chambers being adapted to receive the material to be treated, said primary chamber having

means for admitting gases thereinto adjacent one end, and having openings for communication with said secondary chambers adjacent the other end, and means for rendering either of said secondary chambers inaccessible to the flow of gases from said primary chamber, substantially as and for the purpose set forth.

2. A metallurgical furnace comprising in combination, means forming a primary chamber and secondary chambers at each side thereof, with a heat radiating wall between the primary chamber and secondary chambers, said walls being provided with a longitudinal flue having ports leading into said primary chamber, said longitudinal flues having their bottoms substantially level with the bottoms of the secondary chambers, both said primary and secondary chambers being adapted to receive the material to be treated, said primary chamber having means for admitting gases thereinto adjacent one end and having flues for communication with said secondary chambers, open to said primary chamber, adjacent the end opposite from the said end adjacent to which the gases are admitted, and extending under the floors of said secondary chambers and open thereto, and dampers for controlling said flues in said secondary chambers, substantially as and for the purpose set forth.

3. A metallurgical furnace comprising in combination, means forming a primary chamber and secondary chambers at each side thereof with a heat radiating wall between the primary chamber and each secondary chamber, said walls being provided with a longitudinal flue having ports leading into said primary chamber, the ports in one longitudinal flue being disposed opposite the ports in the remaining longitudinal flue, said primary and secondary chambers being adapted to receive the material to be treated, and said primary chamber having means for admitting gases thereinto adjacent one end and having flues for communication with said secondary chambers, open to said primary chamber adjacent the end opposite from the said end adjacent which the gases are admitted and extending under the floors of said secondary chambers and open thereto, and means for rendering either of said secondary chambers inaccessible to the flow of gases from said primary chamber, substantially as and for the purpose set forth.

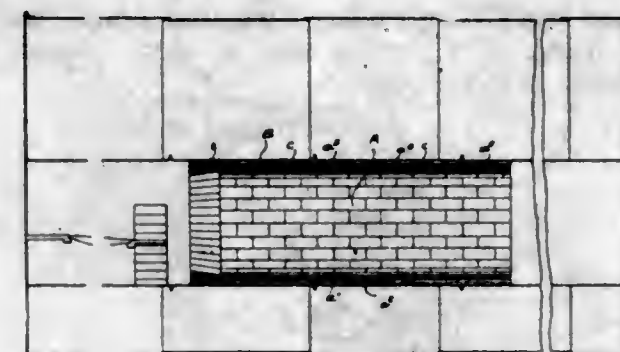
4. A metallurgical furnace comprising in combination, means forming a primary chamber and a secondary chamber at each side thereof, the wall between said primary chamber and each of said secondary chambers being of a heat radiating character, all of said primary and secondary chambers being adapted to receive material to be heated, said primary chambers having means for admitting fuel thereinto, and passages connecting said primary chamber with each of said secondary chambers, the outlets from said passages into said secondary chambers being distributed between the vertical walls thereof, and individually operable dampers for controlling said outlets.

5. A metallurgical furnace comprising in combination, means forming a primary chamber and secondary chambers, one of said secondary chambers being at each side of said primary chamber and a heat radiating wall being placed between each two of said chambers, both said primary and secondary chambers being adapted to receive material to be treated, said primary chamber being provided with means whereby fuel may be introduced therein, the walls of said furnace being provided with passages connecting said primary chamber with each of said secondary chambers, the outlets from said passages into each of said secondary chambers being distributed over the floor thereof, and said passages running underneath the floors of said secondary chambers, and individually operable dampers for controlling the outlets.

1,082,829. HEAT-DIFFUSER FOR BOILER-FLUES. LEONARD A. SMALLWOOD, Birmingham, England; Alfred Smallwood administrator of said Leonard A. Smallwood, deceased. Filed June 18, 1910. Serial No. 567,640. (Cl. 110-97.)

1. In combination with a boiler having a flue therein, of a cylindrical lining disposed in said flue and composed

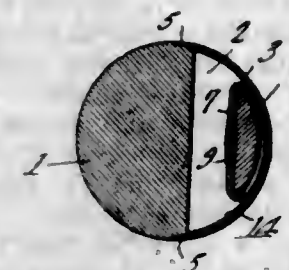
of brickwork of refractory material, said brickwork having relatively reduced portions engaging the flue and hollowed-out portions to form an air chamber between the refractory material and the flue, and metallic heat conducting elements disposed in said hollowed-out portions and arranged to be out of contact with the flue.



2. In combination with a boiler having a flue therein, of a refractory lining in said flue having reduced portions engaging the flue to support the lining therein, and metal heat conducting elements between the lining and said flue and out of contact with the flue, substantially as and for the purposes set forth.

3. In combination with a boiler having a flue therein, of a refractory lining in said flue having reduced portions engaging the flue to support the lining therein, and metallic heat conducting means between the lining and said flue and out of contact with the flue, substantially as and for the purposes set forth.

1,082,830. ELECTRIC-HEATED STEERING-WHEEL. REUBEN S. SMITH, Marshall, Tex. Filed Jan. 21, 1913. Serial No. 743,366. (Cl. 219-18.)



1. In a device of the class described, a steering member having a superficial recess; a closure for the recess; an electrical heating unit carried by the closure; and means for securing the closure to the steering member.

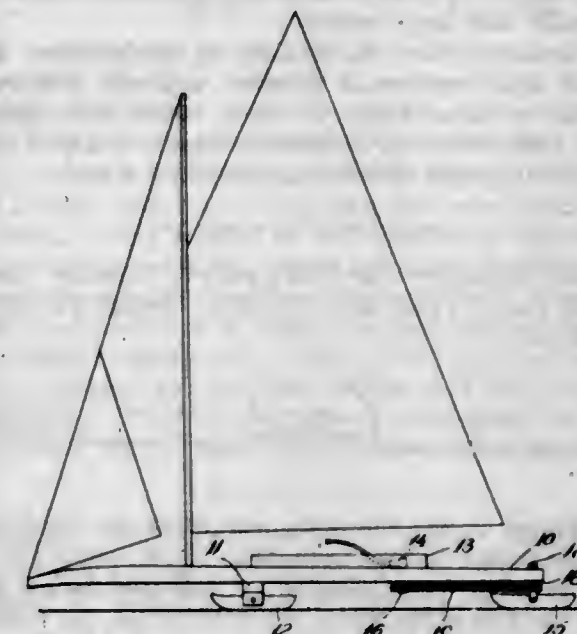
2. In a device of the class described, a steering member having a superficial recess; a closure for the recess; an electrical heating unit secured to the closure; means for securing the closure to the steering member; and an insulating element lying between the heating unit and the closure, the edges of the insulating element lying close to the base of the recess.

1,082,831. ICE-BOAT. WILLIAM M. STANBROUGH, Newburgh, N. Y. Filed Nov. 12, 1910. Serial No. 592,000. (Cl. 21-48.)

1. A sail propelled ice-boat comprising a back-bone, a runner-plank attached to the back-bone at right angles thereto and in length less than one-half the length thereof, a runner attached to each end of the runner-plank, a cockpit so disposed forwardly relative to the back-bone that the centers of gravity of the boat and of the boat and load approximate to provide a long line of leverage between the weight in the cockpit and the line of support of the ice-boat, a rudder-runner attached to the back-bone near the after end thereof, and means for operating the rudder-runner to steer the ice-boat; substantially as set forth.

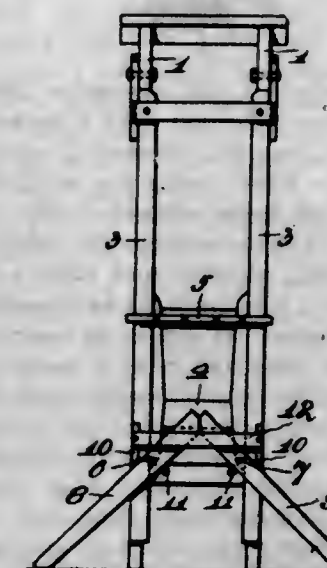
2. A sail propelled ice-boat comprising a back-bone, a runner-plank attached at right angles thereto, a runner attached to each end of the runner-plank, a cockpit so

disposed forwardly relative to the back-bone that the centers of gravity of the boat and of the boat and load approximate to provide a long line of leverage between the weight in the cockpit and the line of support of the ice-boat, a tiller-post, means for attaching the tiller-post to the back-bone and permitting the turning of the tiller-post, a tiller, a forward bevel gear wheel rigidly attached to the tiller-post and turning therewith, a rudder-runner attached to a post and turning radially therewith, means for attaching said last mentioned post to the back-bone and permitting the turning of the post, an aft bevel gear wheel rigidly attached to the post of the rudder-runner and turning therewith, and a horizontal shaft having a bevel gear at each end engaging and connecting said forward and aft bevel gear wheels and providing correspondent move between said wheels; substantially as set forth.



3. In an ice-boat of the character described the combination of a back-bone, a runner-plank attached to the back-bone at right angles thereto and in length less than one-half the length thereof, and a cockpit so disposed forwardly relative to the back-bone that the centers of gravity of the boat and of the boat and load approximate to provide a long line of leverage between the weight in the cockpit and the line of support of the ice-boat; substantially as set forth.

1,082,832. BRACED STEP-LADDER. ALBERT FRANCIS TALBOT, Christchurch, New Zealand. Filed July 18, 1913. Serial No. 779,678. (Cl. 228-5.)



1. In a step ladder or the like, in combination, a step section, a prop section, a member slidingly mounted on said prop section, and braces pivotally supported upon said member, the lower ends of said braces being adapted to be spread apart and to engage the ground when said sliding member occupies its lowermost position.

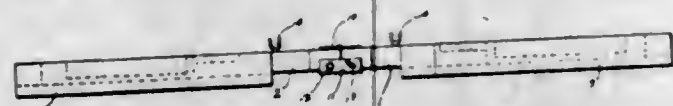
2. In a step ladder or the like, in combination, a step section, a prop section, a member slidably mounted on said prop section, braces pivotally supported upon said member, and means adapted to force said braces outward to occupy their operative positions when said member is moved from its upper to its lower position.

3. In a step ladder or the like in combination, a step section, a prop section, a member slidably mounted on said prop section, braces pivotally supported upon said member, and means adapted to force said braces inward to occupy their inoperative positions when said member is moved from its lower to its upper position.

4. In a step ladder or the like, in combination, a step section, a prop section, a member slidably mounted on said prop section, braces pivotally supported upon said member, and means upon said prop section adapted to be engaged by the outer edge of said braces whereby said braces will support said prop section.

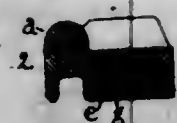
5. In a step ladder or the like, in combination, a step section, a prop section, a member slidably mounted on said prop section, braces pivotally supported upon said member, and means for automatically moving said sliding member as the prop section is opened and closed.

1,082,833. FOLDING SAFETY-BOAT. PIETRO VESCOVI, Pueblo, Colo. Filed Mar. 2, 1912. Serial No. 681,204. (Cl. 9—2.)



In a device of the character described the combination of a boat frame divided into two parts connected by a hinged means, a plate adapted by bolt and screw means to make the two parts when connected rigid, air chambers attached to the exterior of the front part of the boat construction triangular in form with the greatest area near the center of the boat construction, air chambers attached on the exterior of the rear portion of said boat construction with the greatest area at the rear of the same, and water tight compartments disposed in each end of said boat frame construction, all substantially as set forth.

1,082,834. FRICTION DEVICE. WILLIAM WIRT WHITCOMB, Brookline, Mass. Filed July 11, 1913. Serial No. 778,473. (Cl. 188—27.)



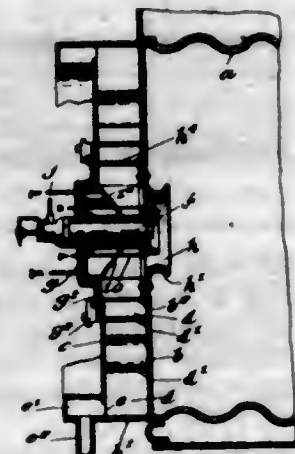
1. A friction device of the character described, comprising a body portion provided with a socket, a gripping member of resilient material located in said socket and provided with a bore whose walls are normally separated, and a plug member of larger diameter than said bore and extended into the latter to enlarge the said bore and expand the said gripping member and form a wearing surface within the latter, substantially as described.

2. A friction device of the character described, comprising a body portion provided with a socket, a gripping member of cork located in said socket with its outer surface substantially flush with the surface of said body portion and provided with a substantially central bore whose walls are normally separated, and a plug member of rigid material of larger diameter than said bore and extended into the latter to enlarge the said bore and with its outer surface substantially flush with the outer surface of said gripping member, substantially as described.

3. A friction device of the character described, comprising a body portion provided with a socket, a gripping member of resilient material located in said socket and having an opening whose walls are normally separated, and a plug member located in said socket with its outer surface sub-

stantially flush with the outer surface of said gripping member and extended into the opening in the latter to enlarge said opening and force the gripping member into firm engagement with the said body portion, substantially as described.

1,082,835. FURNACE-FRONT. WILLIAM ALBERT WHITE, New York, N. Y. Filed Nov. 4, 1912. Serial No. 729,186. (Cl. 158—1.5.)



1. A furnace front, a burner tube entered therein, a perforated cooling jacket spaced from and surrounding said burner tube, and a main air supply means surrounding said jacket, said perforated cooling jacket receiving air from said main air supply for impingement upon the burner tube, and for issue about the burner nozzle.

2. A furnace front, a burner tube entered therein, a cooling jacket surrounding the burner tube and spaced therefrom to form an annular air passage, and a main air supply means surrounding the cooling jacket, said jacket having perforations to receive air from said main air supply for impingement upon said burner tube, together with a cone-like, imperforate, outwardly flaring deflector surrounding the burner nozzle.

3. A furnace front, a burner tube entered therein, a perforated jacket surrounding said burner tube and providing an intermediate air passage, and an axially adjustable deflector surrounding the burner nozzle.

4. A furnace front, a burner entered therein, a perforated jacket for said burner providing an intermediate air passage, an axially adjustable deflector surrounding the burner nozzle, and a constricted air supply tube surrounding said deflector.

5. A furnace front, a burner entered therein, a perforated jacket for said burner providing an intermediate air passage, an axially adjustable deflector surrounding the burner nozzle, a constricted air supply tube surrounding said deflector, and a cone-like valve axially adjustable with respect to said air supply tube.

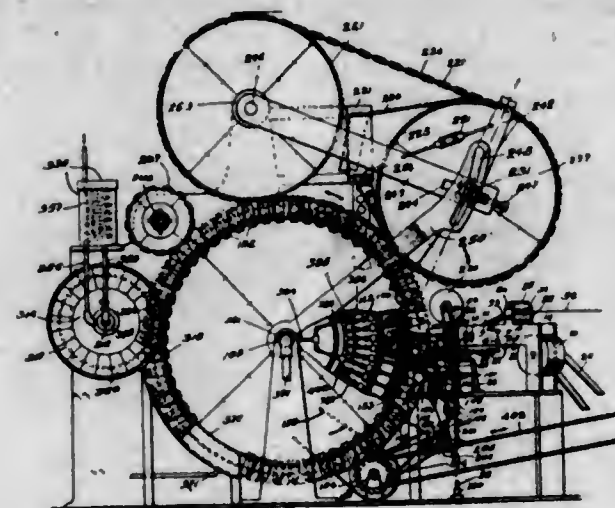
[Claims 6 to 8 not printed in the Gazette.]

1,082,836. AUTOMATIC MACHINE FOR MAKING PAPER DRINKING-CUPS. EDWIN H. WHITNEY, Somerville, Mass., assignor to American Water-Supply Company of New England, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 25, 1912. Serial No. 693,255. (Cl. 93—39.)

1. In a machine for making paper cups, the combination of means for cutting body-blanks from a web of paper, means for forming said body-blanks into cup-bodies, means for cutting bottom-pieces from a web of paper, means for associating the bottom-pieces with the cup-bodies by a tilting movement, and pneumatic means for ejecting the cups from the machine, substantially as described.

2. In a machine for making paper cups, the combination of means for cutting body-blanks from a web of paper, means for forming said body-blanks into cup-bodies, means for cutting bottom-pieces from a web of paper, means for associating the bottom-pieces with the cup-bodies by a tilting movement, means for coating the cups with wax,

means for cooling the coated cups and means for ejecting the cups from the machine, substantially as described.



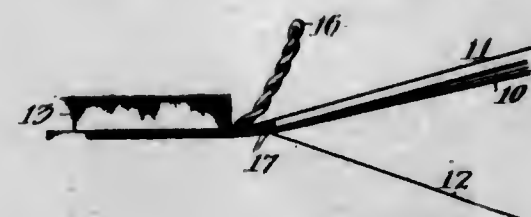
3. In a machine for making paper cups, the combination of means for cutting body-blanks from a web of paper, means for forming said body-blanks into cup-bodies, means for cutting circular bottom-pieces from a web of paper, means for flanging said bottom-pieces and for associating them with the cup-bodies by a tilting movement and pneumatic means for ejecting the cups from the machine, substantially as described.

4. In a machine for making paper cups, the combination of means for cutting sector-shaped blanks from a web of paper, means for forming said blanks into cup-bodies, means for cutting bottom-pieces from a web of paper, means for associating said bottom-pieces with the cup-bodies by a tilting movement, and pneumatic means for ejecting the cups from the machine, substantially as described.

5. In a machine for making paper cups, the combination of means for feeding a web of paper, means for cutting body-blanks from said web of paper, means for forming said body-blanks into cup-bodies, means for feeding another web of paper, means for cutting bottom-pieces from said web of paper, means for associating the bottom-pieces with the cup-bodies by a tilting movement, and pneumatic means for ejecting the cups from the machine, substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

1,082,837. RUG AND METHOD OF MAKING IT. MATTHEW J. WHITTALL, Worcester, Mass. Filed July 2, 1913. Serial No. 776,926. (Cl. 139—9.)



1. A rug having in combination a body portion and a heading, all of the warp threads being continuous through the body portion and the heading, but certain successive filling threads being omitted in the heading, whereby the heading may be closely drawn under the body portion.

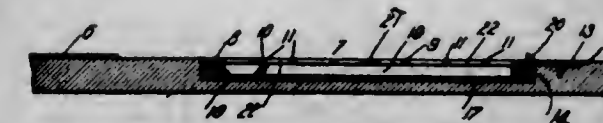
2. A rug having in combination a body portion, a fringe having a binding separate from the rug and wholly secured to said body portion by certain of the warp threads, and a plain heading woven beyond the fringe and having certain successive filling threads omitted whereby the heading may be closely turned beneath the body portion.

3. The method of making rugs which consists in weaving the body portion on a loom, then operating the loom for a plurality of picks without inserting filling threads, thereafter weaving a plain heading upon the rug, turning the heading beneath the body portion of the rug, and securing it thereto.

197 O. G.—74

4. The method of making fringed rugs, which consists in weaving the body portion of the rug on a loom, securing a fringe thereto by binding it between the sheds of the warp, thereafter operating the loom for a plurality of successive picks without inserting filling threads, thereafter weaving a plain heading upon the rug, turning the heading beneath the body portion, and securing the same thereto.

1,082,838. SAD-IRON HOLDER. GEORGE D. WOOD, Belmont, Mass. Filed June 27, 1913. Serial No. 776,075. (Cl. 68—27.)



In combination, an ironing board and a sad iron holder inserted in the upper face of said board, said holder consisting of a metal plate provided with a plurality of orifices and a flange extending partly around the outer edge of said holder and projecting above the surface of said holder upon which said sad iron is adapted to rest, said flange being located on that portion of the outer edge of said holder adjacent to one end of said ironing board, said ironing board having a recess therein beneath said holder and a lining of insulating material in said recess, said lining consisting of a disk in the bottom of said recess and an annular rim extending from said disk upwardly to said holder, whereby said lining is clamped in position, there being an air space between said holder and disk.

1,082,839. FOUNTAIN-BRUSH. HUGO HARALD WURFSCHMIDT, Vienna, Austria-Hungary. Filed Oct. 2, 1911. Serial No. 652,434. (Cl. 15—51.)



1. A brush for wet brushing, comprising brushing means, a liquid reservoir upon said brush, and a force-pump in communication with said reservoir, having a restricted outlet, and adapted to force a column of liquid against its own weight in an inverted position of the brush into said brushing means.

2. A brush for wet brushing, comprising brushing means, a liquid reservoir upon said brush, a force-pump adapted to force a column of liquid against its own weight in an inverted position of the brush into said brushing means, said force-pump comprising a piston, a cylinder having a liquid outlet, and a valve controlling the passage of liquid through said outlet.

3. A brush for wet brushing, comprising brushing means, a liquid reservoir upon said brush, a force-pump adapted to force a column of liquid against its own weight in an inverted position of the brush into said brushing means, said force-pump comprising a cylinder having a liquid-inlet and a valve controlled outlet, a piston, and a valve controlling the passage of liquid through said outlet, said piston operating to close said inlet in the initial part of its pressure-stroke.

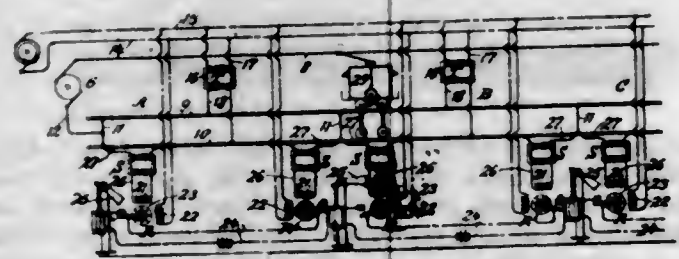
4. A brush for wet brushing, comprising brushing means, a liquid reservoir upon said brush, and a force-pump adapted to force a column of liquid against its own weight in an inverted position of the brush into said brushing means, said force-pump comprising a piston, a cylinder having a liquid outlet therein and a valve controlling the passage of liquid through said outlet, said valve having its movements controlled by said piston.

5. A brush for wet brushing, comprising a brushing means, a liquid reservoir upon said brush, and a force-

pump adapted to force a column of liquid against its own weight in an inverted position of the brush into said brushing means, said pump comprising a cylinder located in said reservoir, and a piston in said cylinder, said cylinder having an inlet thereto from said reservoir, and a valve-controlled liquid outlet.

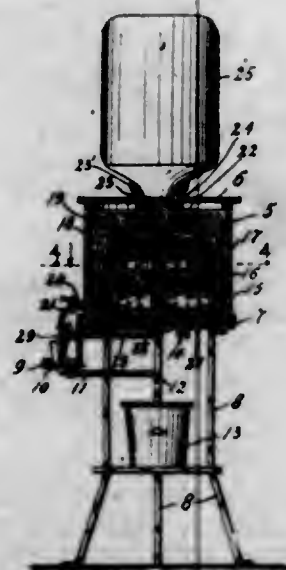
[Claims 6 and 7 not printed in the Gazette.]

1,082,840. AUTOMATIC SYSTEM OF BLOCK-SIGNALING FOR ELECTRIC RAILWAYS. SAMUEL MARSH YOUNG, New York, N. Y. Filed May 4, 1908. Serial No. 430,721. (Cl. 246—36.)



In a block signaling system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, impedances connected across the rails at points between said sources, track relays, each connected in shunt to a short length of track rail adjacent to one of said impedances, said rail lengths being alone sufficient to provide the necessary drop in potential for operating the relays, and signals controlled by said relays.

1,082,841. WATER-COOLER. PAUL P. ADOLPH, New York, N. Y. Filed Nov. 11, 1911. Serial No. 659,862. (Cl. 62—13.)

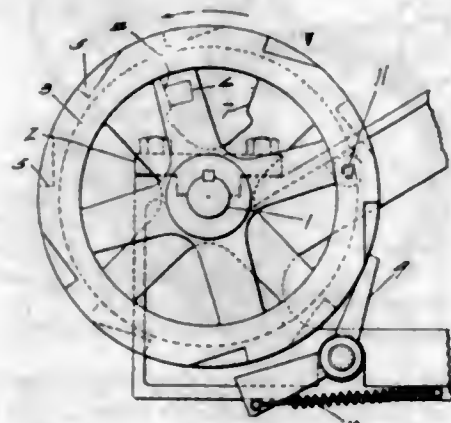


In a water cooler, the combination with a cooler casing for containing ice or other refrigerating material, of a plurality of receptacles therein communicating with each other, the lowermost of said receptacles being made of a material, the heat conducting capacity of which is poor and serving as a storage vessel, the other receptacles being made of good heat conducting material, a tubular member arranged upon the uppermost of said receptacles and communicating with the latter through an aperture in said receptacle, said tubular member serving as a support for a supply container, and a rock controlled pipe leading from the exterior of said casing to the lowermost of said receptacles.

1,082,842. RATCHET MECHANISM. HENRY C. BECKWITH and OSCAR B. BJORG, Duluth, Minn., assignors to Clyde Iron Works, Duluth, Minn., a Corporation of Minnesota. Filed Dec. 23, 1910. Serial No. 599,043. (Cl. 74—16.)

1. In mechanism of the character described, the combination of a toothed-member; a pawl adapted to engage

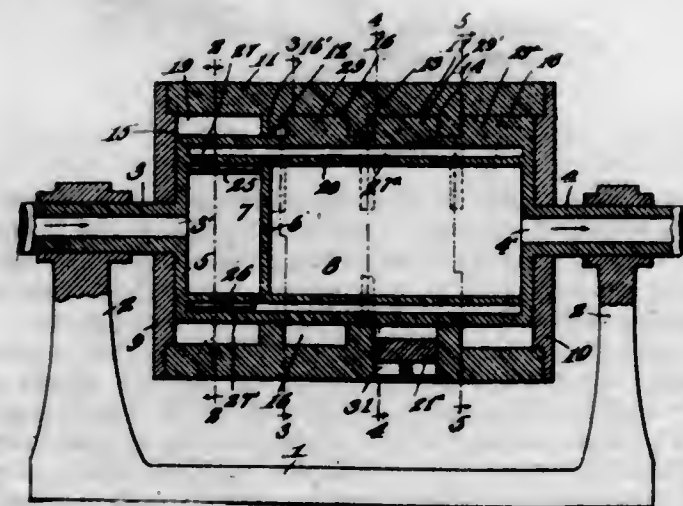
the teeth of said member to restrain motion of the latter in one direction but not in the other; a second member connected with, but having limited movement relatively to, said first member, the teeth of said first member being covered by the other member except in one relative position of said member; and means for retarding the movement of said second member.



2. In mechanism of the character described, the combination of a ratchet-wheel; a pawl adapted to engage the teeth of said wheel to restrain rotation thereof in one direction but not in the other; a second ratchet-wheel connected with, but having limited rotative movement relatively to said first wheel, the teeth of said wheels registering in one limiting relative position of the same but not in their other such position; and means for retarding the rotation of said second wheel, whereby it assumes such first limiting position when said first wheel rotates against said pawl and such second limiting position when said first wheel rotates away from said pawl.

3. In mechanism of the character described, the combination of a ratchet-wheel; a pawl adapted to engage the teeth of said wheel to restrain rotation thereof in one direction but not in the other; a second ratchet-wheel connected with, but having limited rotative movement relatively to said first wheel, the teeth of said wheels registering in one limiting relative position of the same but not in their other such position; and a spring pressed plunger bearing against said second wheel for retarding its rotation, whereby said wheel assumes such first limiting position when said first wheel rotates against said pawl and such second limiting position when said first wheel rotates away from said pawl.

1,082,843. ROTARY ENGINE. HARRY E. BONHAM, Dorchester, Pa. Filed May 29, 1913. Serial No. 770,786. (Cl. 121—65.)



1. A rotary engine, including a support, a cylindrical hollow stator divided into an inlet and outlet chamber fixedly carried by the support, a rotor rotatably mounted upon the stator and provided with a plurality of circumferential projections in engagement with the peripheral

surface of the stator and providing a plurality of rotor chambers, the inlet chamber of the stator being provided with a port leading into the first rotor chamber, a longitudinally disposed chamber formed in the walls of the rotor and having an inlet port leading from the main rotor chamber and a plurality of ports leading into the remaining rotor chambers, rotor abutments carried by the rotor in each one of the chambers, each of the succeeding chambers being provided with an exhaust port in communication with the outlet chamber of the stator, said ports being disposed at equidistant points throughout the circumference of the stator for successive outletting of the pressure fluid from the successive rotor chambers.

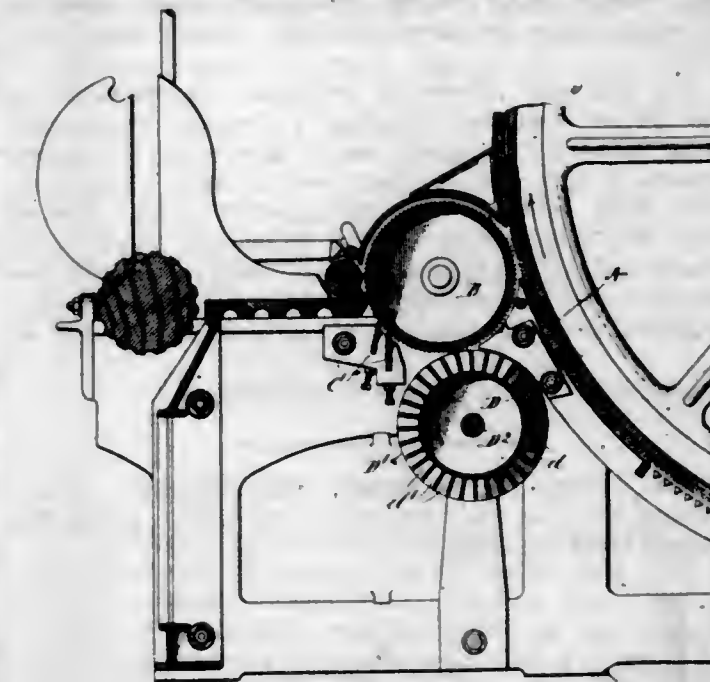
2. A rotary engine, including a support, a cylindrical stator having oppositely disposed concentric tubular members, one of said members constituting a pressure fluid inlet and the other constituting a pressure fluid outlet, said stator being divided into an inlet and an outlet chamber in communication with the inlet and outlet thereof, a hollow cylindrical rotor incasing the enlarged portion of the stator and provided with a plurality of inwardly projecting annular rotor engaging members dividing the space between the stator and rotor into a plurality of rotor chambers, said inlet chamber of the stator being provided with a plurality of ports leading therefrom into the first rotor chamber, a plurality of resilient abutments carried by the rotor within the first rotor chamber, said stator being provided with a port leading from the first rotor chamber and into communication with the successive remaining rotor chambers, a single abutment carried by the rotor and disposed in each of the remaining successive rotor chambers, said stator being provided with a plurality of outlet ports, one to each successive rotor chamber, and forming a communication therebetween and the outlet chamber of the rotor, the inlet and outlet ports of the respective successive rotor chambers being disposed at different angles to present an active medium at all points and at all times throughout the length of the rotor.

3. A rotary engine, including a support, a hollow cylindrical stator carrying oppositely disposed concentric tubular members fixedly connected to the support and constituting the pressure fluid inlet and outlet of the engine, a partition dividing the stator into an inlet and outlet chamber, a cylindrical rotor incasing the enlarged portion of the stator and having a plurality of inwardly projecting annular rotor engaging members dividing the space between the rotor and stator into a plurality of rotor chambers, said inner chamber of the rotor being provided with a plurality of inlet ports leading therefrom into the first rotor chamber, two diametrically disposed partitions carried by the rotor and the periphery thereof and dividing the first rotor chamber into two compartments, there being one inlet port to each compartment, said stator being provided with a longitudinal chamber in the wall thereof in communication with the respective compartments of the main rotor chamber, a plurality of resilient abutments carried by the rotor within the first rotor chamber, an abutment carried by the stator in each of the remaining chambers, said stator in each remaining chamber being provided with an inlet port in communication with the inlet chamber from the main rotor chamber and with an outlet port in communication with the outlet chamber of the stator, and a single resilient abutment carried by the rotor in each of the remaining chambers, said abutments being disposed at varying angles to each other to provide an active medium at all points during the rotation of the rotor.

1,082,844. MOTE-KNIFE ROLLER. JOHN BRADY, Fall River, Mass. Filed May 11, 1912. Serial No. 696,630. (Cl. 19—3.)

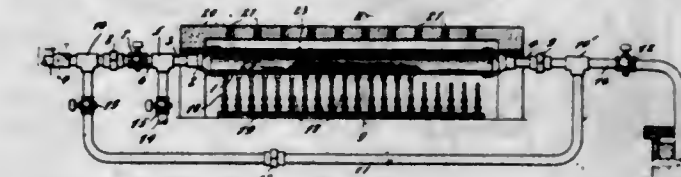
1. The mote knife roller above described comprising a body having knives projecting therefrom forming pockets, and means for closing the ends of said pockets whereby the motes may be collected in said pockets and deposited in a predetermined place.

2. The mote knife roller above described comprising a drum having flanges at each end thereof, and a series of



knife blades radially disposed about said drum and extending between the flanges, as described.

1,082,845. SYNTHETIC PRODUCTION OF CYANOGEN COMPOUNDS AND THE LIKE. JOHN E. BUCHER, Coventry, R. I. Filed July 24, 1912. Serial No. 711,211. (Cl. 23—13.)



1. The synthetic process of producing cyanid which comprises effecting a vigorous exothermic reaction between an alkali metal in molecular condition, free nitrogen and carbon, whereby to directly form cyanid of said metal, said reaction being effected through the intermediacy of iron intimately commingled with said carbon, the iron acting as a catalytic agent, said reaction to yield at least fifty per cent. of the yield theoretically possible from the amounts of carbon, nitrogen and alkali metal present, the bulk of the substances participating in said reaction being heated to a temperature in excess of 500° C. and less than 1100° C.

2. The synthetic process of producing an alkali metal cyanid which comprises effecting a vigorous exothermic reaction between free alkali metal, atmospheric nitrogen substantially free from oxygen, and carbon, whereby to directly form said cyanid, said reaction being effected through the intermediacy of iron intimately commingled with said carbon, the iron acting as a catalytic agent.

3. The synthetic process of producing an alkali metal cyanid which comprises effecting a vigorous exothermic reaction between free alkali metal, atmospheric nitrogen substantially free from oxygen, and carbon, whereby to directly form said cyanid, said reaction being effected through the intermediacy of iron intimately commingled with said carbon, the iron acting as a catalytic agent, said reaction to yield at least fifty per cent. of the yield theoretically possible from the amounts of carbon, nitrogen and alkali metal present.

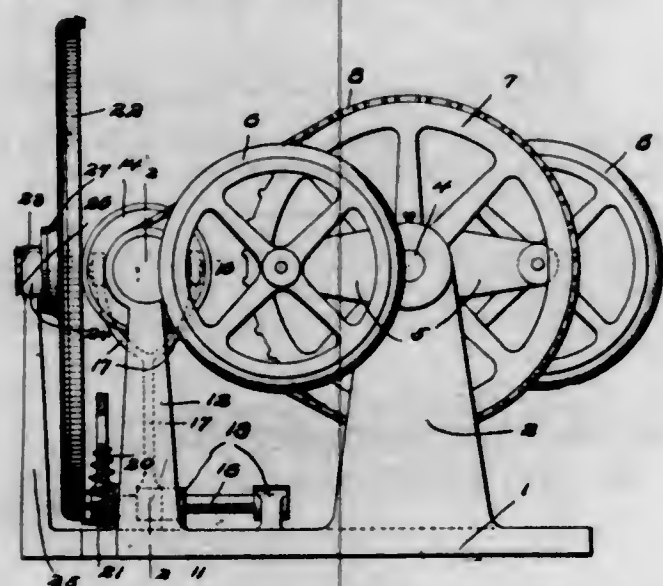
4. The synthetic process of producing an alkali metal cyanid which comprises effecting a vigorous exothermic reaction between free alkali metal, atmospheric nitrogen substantially free from oxygen, and carbon, whereby to directly form said cyanid, said reaction being effected through the intermediacy of iron intimately commingled with said carbon, the iron acting as a catalytic agent, said reaction to yield at least fifty per cent. of the yield

theoretically possible from the amounts of carbon, nitrogen and alkali metal present, the substances participating in said reaction being heated preparatory to said reaction to a temperature in excess of 500° C. and less than 1100° C.

5. The synthetic process of producing an alkali metal cyanid which comprises effecting a vigorous exothermic reaction between free alkali metal, atmospheric nitrogen substantially free from oxygen, and carbon, whereby to directly form said cyanid, said reaction being effected through the intermediacy of iron intimately commingled with said carbon, the iron acting as a catalytic agent, the substances participating in said reaction being heated preparatory to said reaction to a temperature in excess of 500° C.

[Claims 6 to 20 not printed in the Gazette.]

1,082,846. PEDAL-OPERATING MECHANISM. JOHN C. CAKE, Chester, Pa. Filed July 15, 1912. Serial No. 709,340. (Cl. 74-26.)



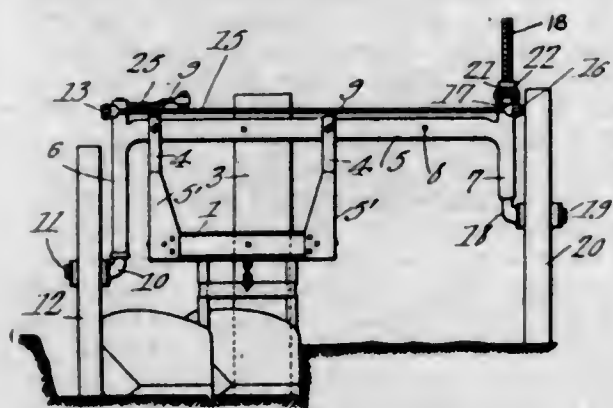
1. A pedal operating mechanism comprising a base, parallel shafts supported transversely above the base, pedal engaging means on one of said shafts, a friction pulley keyed to slide longitudinally on the other of said shafts, said pulley having a grooved hub, a short longitudinally positioned shaft supported on the base at right angles to and below the first-mentioned shafts, a forked arm secured to the short shaft and engaging the grooved hub, a foot lever secured to the short shaft and projecting at one end beyond the base, means for transmitting motion from one of the first-mentioned shafts to the other, and a friction disk against the face of which said pulley engages, substantially as described.

2. A pedal operating mechanism comprising a base, parallel shafts supported transversely above the base, pedal engaging means on one of said shafts, a friction pulley keyed to slide longitudinally on the other of said shafts, said pulley having a grooved hub, a short longitudinally positioned shaft supported on the base at right angles to and below the first-mentioned shafts, a forked arm secured to the short shaft and engaging the grooved hub, a foot lever secured to the short shaft and projecting at one end beyond the base, means for transmitting motion from one of the first-mentioned shafts to the other, a friction disk against the face of which said pulley engages, and a spring located between the base and the lever and normally holding said lever in elevated position and said pulley at a point adjacent the center of the disk, substantially as described.

3. A pedal operating mechanism comprising a base, parallel shafts supported transversely above the base, pedal engaging means on one of said shafts, a friction pulley keyed to slide longitudinally on the other of said shafts, said pulley having a grooved hub, a short longitudinally positioned shaft supported on the base at right angles to and below the first-mentioned shafts, a forked arm secured to the short shaft and engaging the grooved hub, a

foot lever secured to the short shaft and projecting at one end beyond the base, means for transmitting motion from one of the first-mentioned shafts to the other, a friction disk against the face of which said pulley engages, a spring located between the base and the lever and normally holding said lever in elevated position and said pulley at a point adjacent the center of the disk, and means for adjusting the friction disk toward the friction pulley, substantially as described.

1,082,847. AGRICULTURAL MACHINE. EVERETT B. CUSHMAN, Lincoln, Nebr. Filed May 23, 1913. Serial No. 769,525. (Cl. 97-30.)



1. An agricultural machine including a body, a drive wheel supporting the rear end of the body close to the ground, means on the body for driving the wheel to propel the body, and an arched axle extending over and supporting the front end of the body, said axle being arranged above and laterally beyond the sides of the body.

2. In an agricultural machine, a body of a width less than the distance between two adjoining rows to be cultivated, a drive wheel supporting the rear end of the body close to the ground, means on the body for driving the wheel to propel the body between two adjoining standing rows, and an arched axle supporting the front end of the body, said axle being adapted to straddle the adjoining rows between which the body is movable.

3. An agricultural machine including a body, a drive wheel supporting the rear portion of the body close to the ground, an arched axle extending over and spaced from the front portion of the body and extending laterally beyond the sides of the body, and hangers suspended from the axle and secured to the front portion of the body to support said portion close to the ground.

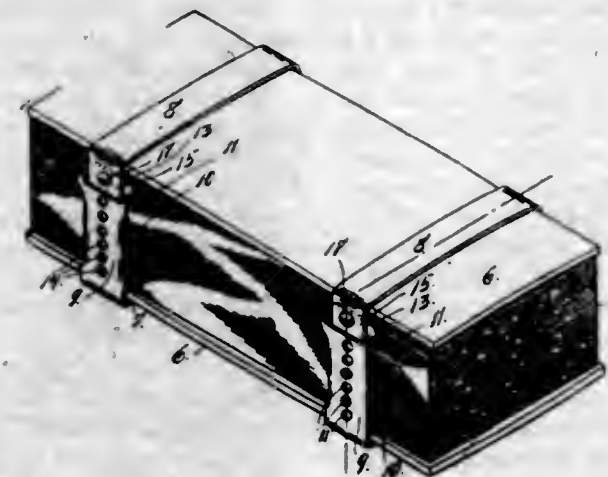
4. An agricultural machine including a body, a drive wheel supporting the rear portion of the body close to the ground, an arched axle extending over and spaced from the front portion of the body and extending laterally beyond the sides of the body, and hangers suspended from the axle and secured to the front portion of the body to support said portion close to the ground, said hangers being adjustable longitudinally of the arched axle.

5. An agricultural machine including a body, a drive wheel supporting the rear portion of the body close to the ground, an arched axle extending over and spaced from the front portion of the body and extending laterally beyond the sides of the body, hangers suspended from the axle and secured to the front portion of the body to support said portion close to the ground, and soil engaging devices mounted within the body.

1,082,848. ADJUSTABLE BINDER. PERCY W. DARGIN, Denver, Colo. Filed Jan. 22, 1913. Serial No. 743,464. (Cl. 24-17.)

1. In combination a U-shaped bar, the parallel arms of which are provided near their extremities with inwardly extending offsets having transverse slots therein, a second U-shaped member of spring material, the substantially parallel arms of which tend to spring outwardly and outwardly extending lugs upon the extremities of said last named arms, said first named arms having perforations

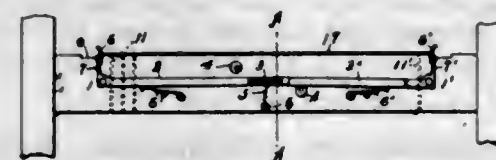
therein adapted to receive the lugs when the arms of the second named U-shaped member are passed through said slots.



2. An adjustable binder, composed of two U-shaped members, the arms of one of said members having their sides bent inwardly and their free extremities offset inwardly for a distance approximately equal to the bends in the sides said offset portions having transverse slots therein for the reception of the arms of the other U-shaped member.

3. An adjustable binder composed of two U-shaped members the arms of one of said members near their free extremities being offset inwardly, said offsets being provided with transversely extending slots for the reception of the arms of the other U-shaped member, the latter arms having a tendency to spring outwardly and releasable automatic fastening means for holding together the corresponding arms of said U-shaped members in any one of a series of different adjustments.

1,082,849. AUTOMATIC MUSIC-SHEET-GUIDING DEVICE FOR SELF-PLAYING MUSICAL INSTRUMENTS. GEORGE HOWLETT DAVIS, West Orange, N. J. Filed June 30, 1909. Serial No. 505,201. (Cl. 84-161.)



1. In combination, a tracker bar and pivoted guide plates adjacent to each end of said bar, spring mechanism for biasing said plates toward each other and toward the center of said bar, and a connection between said plates for causing the same to move in unison.

2. In combination, a tracker bar, a pair of levers pivoted to the side of the bar, a connection between said levers causing them to move in unison, guide members on said levers adjacent the ends of said bar, and means biasing the levers to draw the plates toward each other.

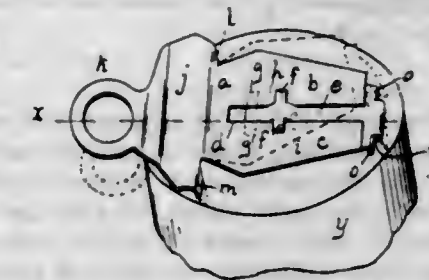
3. In combination, a tracker bar, guide members adjacent each end of the tracker bar, a lever mechanism on said bar acting on said members, and means acting on the mechanism to bias the members toward each other.

4. In combination, a tracker bar, guide plates adjacent each end of said bar, a lever mechanism to which said guide plates are connected, means acting on the mechanism to bias the plates toward each other, and means acting on the mechanism in opposition to said biasing means.

5. In combination, a tracker bar, means for passing a music sheet over said bar, guide plates adjacent to each end of said bar, spring mechanism for biasing said plates toward each other and for increasing the biasing force exerted upon one plate upon the deviation of the sheet from its proper path.

[Claims 6 to 16 not printed in the Gazette.]

1,082,850. STOPPER ATTACHMENT FOR CANS. EDWARD M. DE LANEY and HUGH M. BRYANT, Portland, Oreg., assignors of one-fifth to Zachariah T. Bryant, Portland, Oreg. Filed Feb. 17, 1912. Serial No. 678,319. Renewed Mar. 19, 1913. Serial No. 755,582. (Cl. 220-67.)



1. A stopper attachment for cans comprising a metal plate provided at one end, on the under side, with a fulcrumed projection adapted to be forced into the can-top; a member adjustable longitudinally on the plate, said member provided at its outer end with a stopper projection adapted to puncture a pouring orifice in the can-top; a stop lug near the stopper projection for spacing the plate above the can-top; and said plate being adapted to be rocked on the can-top.

2. A stopper attachment for cans comprising a metal plate provided at one end, on the under side, with a fulcrumed projection adapted to be forced into the can-top, the other end of said plate being slitted longitudinally; a member adjustable longitudinally on the plate in said slit, said member provided at its outer end with a stopper projection adapted to puncture a pouring orifice in the can-top; means operating to adjustably clamp the inner end of said adjustable member in said slitted portion of the plate, said means adapted to prevent the lateral movement of said member; and said plate being adapted to be rocked on the can-top.

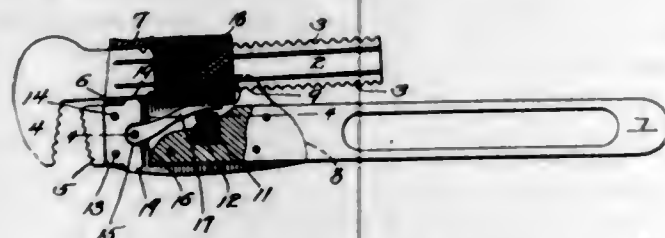
3. A stopper attachment for cans comprising a metal plate provided at one end, on the under side, with a fulcrumed projection adapted to be forced into the can-top, the other end of said plate being slitted longitudinally; a member adjustable longitudinally on the plate in said slit, said member provided at its outer end with a stopper projection adapted to puncture a pouring orifice in the can-top; means operating to adjustably clamp the inner end of said adjustable member in said slitted portion of the plate, said means adapted to prevent the lateral movement of said member; a stop lug near the stopper projection for spacing the plate above the can-top; and said plate being adapted to be rocked on the can-top.

4. A stopper attachment for cans comprising a metal plate provided at one end, on the under side, with a fulcrumed projection adapted to be forced into the can-top, the other end of said plate being slitted longitudinally; a member adjustable longitudinally on the plate in said slit, said member provided at its outer end with a stopper projection adapted to puncture a pouring orifice in the can-top; laterally extending arms on said adjustable member arranged to bear on the opposite faces of the plate at the margin of its said slit; and said plate being adapted to be rocked on the can-top.

5. A stopper attachment for cans comprising a metal plate provided at one end, on the under side, with a fulcrumed projection adapted to be forced into the can-top, the other end of said plate being slitted longitudinally; a member adjustable longitudinally on the plate in said slit, said member provided at its outer end with a stopper projection adapted to puncture a pouring orifice in the can-top; laterally extending arms on said adjustable member arranged to bear on the opposite faces of the plate at the margin of its said slit, said arms curved inwardly at their extremity; and said plate being adapted to be rocked on the can-top.

[Claims 6 and 7 not printed in the Gazette.]

1,082,851. WRENCH. JOHN DOLAN, Duquesne, Pa. Filed May 7, 1913. Serial No. 766,116. (Cl. 81-100.)



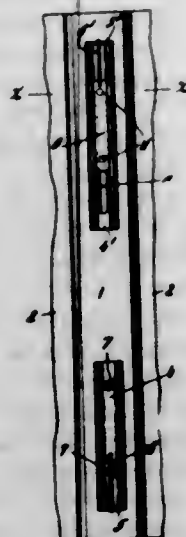
A wrench comprising a handle, a shank having a jaw carried thereby, a U-shaped plate secured to said handle and embracing said shank, the bow portion of the plate being bent inwardly for said shank to rock upon, and a reversible, removable jaw carried by said U-shaped plate, said jaw having upper and lower transverse ribs adapted to be alternately engaged by the under face of the shank, said shank being rockably held between said bow portion and one of said ribs.

1,082,852. TEMPORARY BINDER. CHESLEY DOM, Cincinnati, Ohio, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 10, 1913. Serial No. 753,285. (Cl. 129-4.)



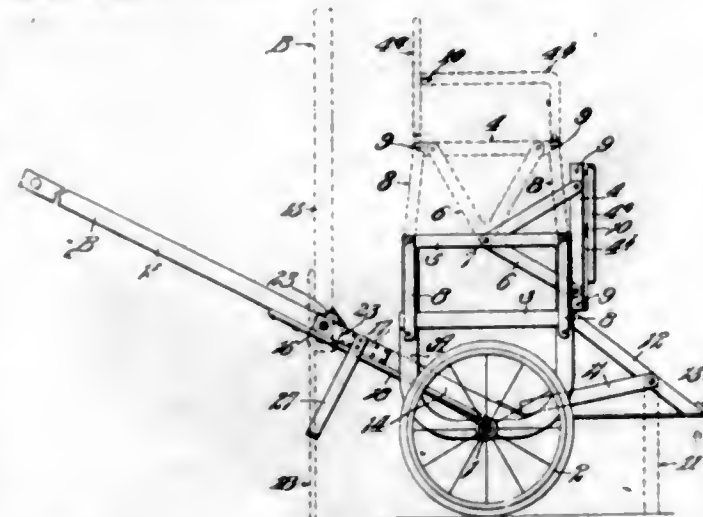
In a device of the class described a binder member, a sectional post, a plug post member removably secured to the end section of the post provided with an annular flange of larger diameter than the post section, and a reduced diameter portion adapted to engage in the said binder member.

1,082,853. BOOKBINDER. CHESLEY DOM, Cincinnati, Ohio, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 10, 1913. Serial No. 753,286. (Cl. 129-40.)



In a book-holder, a base, a book gripping element comprising a strip of metal secured thereto at one end, and formed with an end flange, for engaging one end of the book, and with a hook overhanging the flange for engaging between pages of the book, a second corresponding lock gripping element, formed with a medial longitudinal slot, and a friction member securing the second gripping element longitudinally adjustably to the other end of the base.

1,082,854. SULKY HIGH CHAIR. L V DOUGLAS, Wymore, Nebr. Filed Aug. 26, 1912. Serial No. 717,188. (Cl. 155-12.)



1. A convertible two-wheeled sulky and high-chair consisting of a frame provided with a single axle on which are mounted a pair of wheels, a high-chair seat and a sulky-seat carried by said frame, a pair of folding legs on said frame arranged on one side of the axle, and a pulling tongue projecting forwardly from the opposite side of the axle, said tongue having a movable portion which is provided with an extension that cooperates with the pair of folding legs on the opposite side of the axle to form a three-point bearing that prevents the frame from tilting when the device is being used as a high-chair.

2. A convertible two-wheeled sulky and high-chair consisting of a frame provided with a single axle on which are mounted a pair of wheels, a high-chair seat and a sulky-seat carried by said frame, a pair of folding legs on said frame arranged on one side of the axle, a pulling tongue projecting forwardly from the opposite side of the axle, said tongue having a movable portion which is provided with an extension that cooperates with the pair of folding legs on the opposite side of the axle to form a three-point bearing that prevents the frame from tilting when the device is being used as a high-chair, a locking device combined with said tongue, and means on the movable portion of the tongue that cooperates with said locking device to hold said movable portion in certain positions.

1,082,855. SCREENING APPARATUS. RAYMOND W. DULL, Aurora, Ill., assignor to The Raymond W. Dull Company, Chicago, Ill., a Corporation of Illinois. Filed June 19, 1912. Serial No. 704,603. (Cl. 83-56.)



1. A screening apparatus comprising a horizontally disposed shaft, a head secured on the end of said shaft, a frusto-conical rotary screen disposed with its truncated end at the face of said head, means for supporting and removably connecting the said screen with the head, operative for drawing the screen endwise against the face of the head, in the direction of the horizontally disposed axis thereof, the rotary screen being removably supported by said head, and a spout extending through the outer open end of the screen to deliver the materials at said head, displaceable therefrom to permit lateral removal of the screen from said apparatus.

2. A screening apparatus comprising a horizontally disposed shaft, a head secured on the end of said shaft, a frusto-conical rotary screen disposed with its truncated end at the face of said head, means for supporting and removably connecting the said screen with the head, operative for drawing the screen endwise against the face of

the head, in the direction of the horizontally disposed axis thereof, the screen being removably maintained in position to discharge from its larger end, said means including longitudinally disposed threaded members extending through the head and provided at their ends with nuts bearing against the back of said head to pull the screen against the face thereof, and means for feeding the materials to said screen, displaceable therefrom to permit lateral removal of the screen from said apparatus.

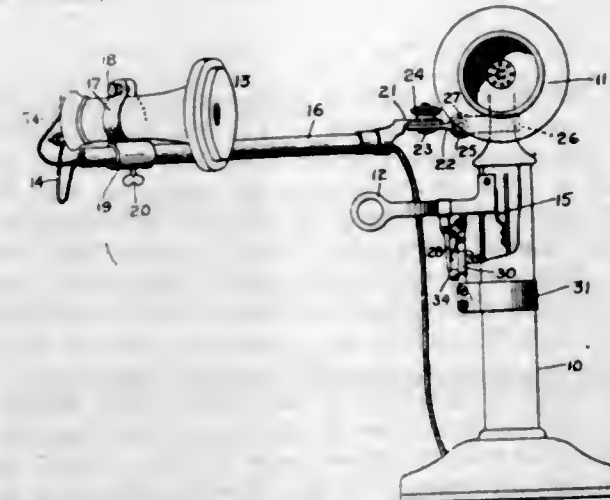
3. A screening apparatus comprising a horizontally disposed shaft, a head secured on the end of said shaft, a frusto-conical rotary screen disposed with its truncated end at the face of said head, means for supporting and removably connecting the said screen with the head, operative for drawing the screen endwise against the face of the head, in the direction of the horizontally disposed axis thereof, said means including rods with hooks at one end for removably engaging the outer edge of said screen, and having their other ends threaded and provided with nuts which bear against the back of said head to pull the screen endwise against the face thereof, said hooks holding the rods against rotation.

4. A screening apparatus comprising a horizontally disposed shaft, a head secured on the end of said shaft, a frusto-conical rotary screen disposed with its truncated end at the face of said head, means for supporting and removably connecting the said screen with the head, operative for drawing the screen endwise against the face of the head, in the direction of the horizontally disposed axis thereof, the screen being removably maintained in position to discharge from its larger end, a supporting structure for said apparatus, and a device for feeding the materials to said screen, permitting lateral removal of the screen from said structure by slight adjustment of said means.

5. A screening apparatus comprising a horizontally disposed shaft, a head secured on the end of said shaft, a frusto-conical rotary screen disposed with its truncated end at the face of said head, means for removably connecting the said screen with the head, operative in opposition to gravity for drawing the screen endwise against the face of the head, in the direction of the horizontally disposed axis thereof, a spout extending through the outer open end of the screen to deliver the materials at said head, and a supporting structure upon which said spout is displaceable endwise from the screen to permit lateral removal of the latter from the said structure.

[Claims 6 to 11 not printed in the Gazette.]

1,082,856. ATTACHMENT FOR CONTROLLING TELEPHONE SWITCH-HOOKS. JOHN FRITH, Bridgeport, Conn. Filed Nov. 8, 1912. Serial No. 730,194. (Cl. 179-180.)



1. A device of the character described comprising a notched bar, means for attaching said bar to a telephone standard, a swinging catch adapted to be pivotally connected to a telephone hook and to engage the notch in the bar and an arm for pivotally connecting the catch to the bar.

2. A device of the character described comprising a notched bar, means for attaching said bar to a telephone

standard, a catch adapted to engage the notch, a yoke to which the catch is pivoted and swinging arms pivotally connected to the catch and to the bar.

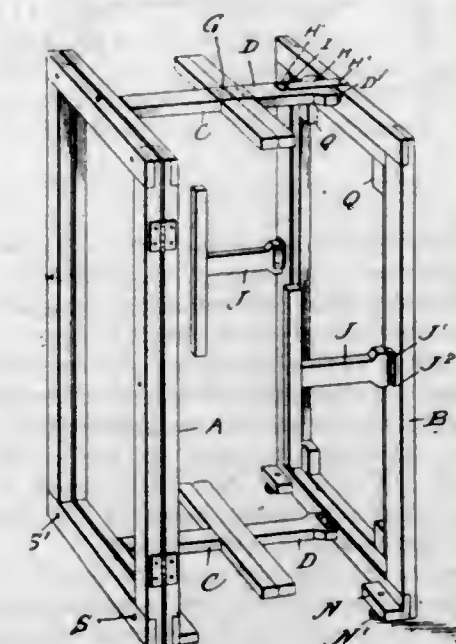
3. A device of the character described comprising a notched bar, means for attaching said bar to a telephone standard, a catch adapted to engage the notch, a yoke to which the catch is pivoted, swinging arms pivotally connected to the catch and to the bar and a spring to retain the catch in the engaging position.

4. The combination with a telephone standard and a spring-controlled hook, of a notched bar, means for attaching said bar to the standard, a swinging catch, means for pivotally connecting said catch to the hook, a swinging arm connecting the catch with the bar and a spring acting to retain the catch in engagement with the notch.

5. An attachment of the character described comprising a rigid bar provided with a notch, means for attaching said bar to a telephone standard, a catch provided with an eye through which the bar passes, means for pivotally connecting said catch to a telephone hook and a swinging arm pivoted to the bar and to the catch.

[Claims 6 to 9 not printed in the Gazette.]

1,082,857. COLLAPSIBLE WARDROBE, CHEST, &c. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,588. (Cl. 45-118.)



1. A collapsible wardrobe, chest, etc., comprising a skeleton frame made up of two oppositely disposed sections, a door hinged to one section, members having spring-pressed hinge connection with the adjacent faces of each section and hinged together, said member serving, when the frame is extended, to brace and hold the sections apart, said members being adapted to crease and fold the top and bottom of the covering as the sections are collapsed, and means hinged to the opposite sides of one section and adapted to fold the sides of the covering as the wardrobe is folded, as set forth.

2. A collapsible wardrobe, chest, etc., comprising a skeleton frame made up of two oppositely disposed sections, a door hinged to one section, members having spring-pressed hinge connection with the adjacent faces of each section and hinged together, said members serving, when the frame is extended, to brace and hold the sections apart, said members being adapted to crease and fold the top and bottom of the covering as the sections are collapsed, and T-shaped, spring-pressed hinge members pivoted to one section and designed to crease the sides of the covering as the frame is folded, as set forth.

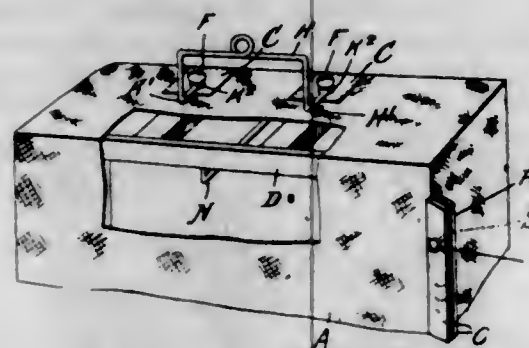
3. A collapsible wardrobe, chest, etc., comprising a skeleton frame made up of two oppositely disposed sections, a door hinged to one section, spring-pressed hinged members mounted upon opposite sides of one of said sections and adapted to crease the sides of the covering lon-

gitudinally and centrally as the wardrobe is folded, as set forth.

4. A collapsible wardrobe, chest, etc., comprising a skeleton frame, a covering therefor and provided with a suitable door, two members with their inner T-shaped ends hinged together and their outer ends hinged to opposite sections of the frame, said members serving, when the frame is extended, to brace the same and, when the frame is collapsed, to crease and fold the covering, as set forth.

5. A collapsible wardrobe, chest, etc., comprising a skeleton frame, a covering therefor and provided with a suitable door, two members with their inner T-shaped ends hinged together and their outer ends hinged to opposite sections of the frame and serving to crease the ends of the covering, and spring-actuated, T-shaped creasing members fastened to opposite edges of one side of the frame, as set forth.

1,082,858. MOTH-PROOF BAG AND GARMENT-SUPPORTING DEVICE THEREFOR. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,589. (Cl. 206-7.)



1. A collapsible moth-proof bag and garment supporting device therefor comprising, in combination with a bag having closed upper end and suitable opening in the body portion thereof, a rack having cross-pieces and mounted in the top of the bag above the upper edge of the opening therein, a ball-shaped member having arms which are bent at right angles and each terminating in an eye, screws passing through said eyes, the top of the bag and engaging said cross-pieces, the ball-shaped portion of said member being positioned opposite the longitudinal centers of said cross-pieces, as set forth.

2. A collapsible moth-proof bag substantially rectangular in cross section and having its upper end permanently closed with an opening in one corner terminating at its upper end a short distance from the upper end of the bag, a rack mounted within the upper closed end of the bag and holding the same extended its width, flaps projecting from the marginal edges of the opening, clamping means for holding said flaps in contact with each other to form a tight joint, and means fastened to the top of the bag and rack for supporting the bag, as set forth.

3. A collapsible moth-proof bag and garment supporting device therefor comprising, in combination with the bag with closed upper end and a suitable opening in the body portion thereof, a garment supporting rack within the upper portion of the bag, eyelets formed in the top of the bag at one side of the transverse center thereof, reinforcing strips about said eyelets, a ball-shaped member having angled shank portions and eyes at the ends thereof, screws passing through said eyes and top of the bag, and socket members seated in said rack and engaged by the inner ends of said screws, as set forth.

1,082,859. SIDE-OPENING MOTH-PROOF BAG. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,591. (Cl. 206-7.)

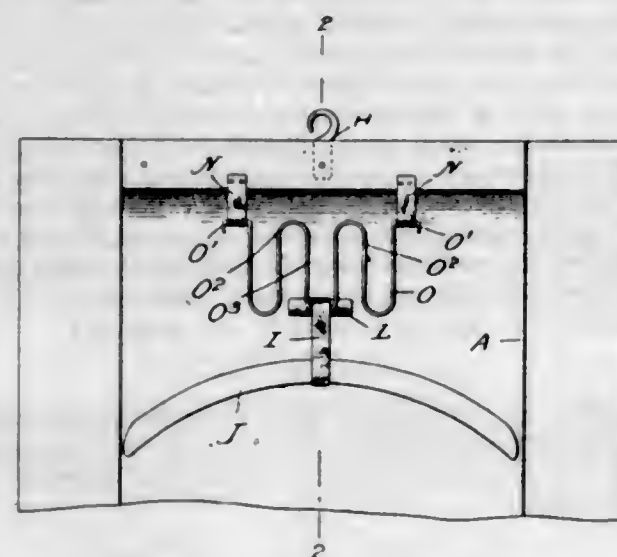
A moth-proof bag or receptacle having an opening upon the side thereof, flaps along the marginal edges of the

opening, hooks fastened to the opposite ends of one of said flaps, strips one of which has recessed portions upon the inner face thereof for the reception of the shank por-



tions of said hooks, and means for clamping the strips against said flaps to form a tight joint intermediate the same, as set forth.

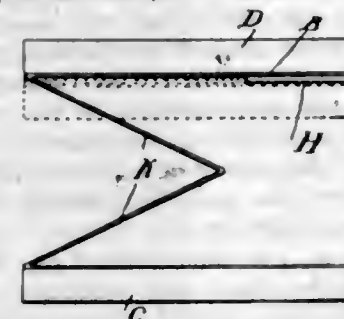
1,082,860. GARMENT-HANGER FOR MOTH-PROOF BAGS, &c. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,592. (Cl. 206-7.)



1. In combination with a moth-proof bag, strips fastened to the opposite edges of the end opening therein, one of said strips having offsets upon its inner face, straps fastened in said offsets, means for engaging said strips to hold the opposite faces of the bag intermediate the strips in contact with each other, a looped rod having angled ends engaging said straps, a cross-piece and a hanger, a strip connecting said hanger and cross-piece, the latter being held against the edges of a loop in said rod by said strip, as set forth.

2. In combination with a moth-proof bag, strips fastened to the opposite edges of the end opening therein, one of said strips having offsets upon its inner face, straps fastened in said offsets, a screw passing through registering apertures in said strips, a countersunk nut mounted in one of the strips, a bolt passing through one of the strips and engaging said nut and adapted to cooperate therewith to hold portions of the bag intermediate said strips in contact with each other, a looped rod supported by said straps, a cross-piece and a hanger, a strip connecting said hanger and cross-piece, the latter being held against the edges of a loop in said rod by said strip, as set forth.

1,082,861. END-OPENING MOTH-PROOF BAG. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,593. (Cl. 206-7.)

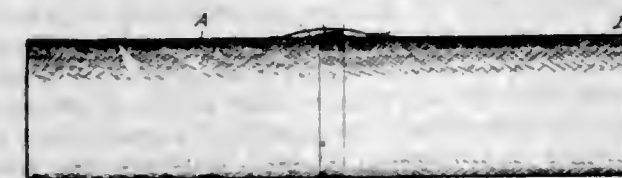


1. An open-ended moth proof bag having strips secured opposite each other to the outer faces of the bag adjacent to its open end, a filler fastened flat against the inner face of the bag with its upper edge flush with the upper edges of the strips and extending only partially the length thereof, portions of the upper open edge of the bag adapted to be folded upon themselves and, when folded, occupy the spaces intervening between the ends of the filler and the ends of said strips with the outer face of one fold flush with the face of the filler, thereby forming a tight joint the entire length of the strips when the bag is closed.

2. An open-ended moth proof bag having strips secured opposite each other to the outer faces of the bag adjacent to its open end, a filler fastened flat against the inner face of the bag with its upper edge flush with the upper edges of the strips and extending only partially the length thereof, portions of the upper open edge of the bag adapted to be folded upon themselves and, when folded, occupy the spaces intervening between the ends of the filler and the ends of said strips with the outer face of one fold flush with the face of the filler, thereby forming a tight joint the entire length of the strips when the bag is closed, a screw passing through one of said strips, a socket countersunk in the opposite strip and engaged by the threaded end of the screw, as set forth.

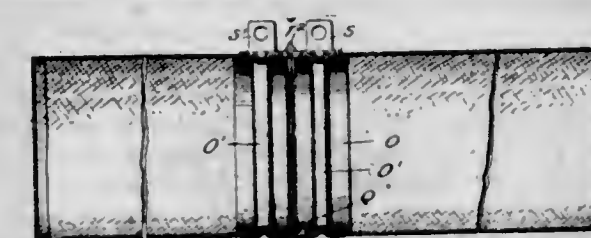
3. An open-ended moth proof bag having strips secured opposite each other to the outer faces of the bag adjacent to its open end, a filler fastened flat against the inner face of the bag with its upper edge flush with the upper edges of the strips and extending only partially the length thereof, portions of the upper open edge of the bag adapted to be folded upon themselves and, when folded, occupy the spaces intervening between the ends of the filler and the ends of said strips with the outer face of one fold flush with the face of the filler, thereby forming a tight joint the entire length of the strips when the bag is closed, the inner face of one strip being recessed, straps fastened to the recessed strip and adapted to hold portions of the bag in said recessed portions, a part of each strap being flush with the inner face of the recessed strip, and means for holding the strips together.

1,082,862. MOTH-PROOF RUG-BAG. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Dec. 13, 1912. Serial No. 736,594. (Cl. 150-1.)



A moth-proof receptacle for rugs comprising two bags, the free open end of one bag flaring and the open end of the other bag contracted, the adjacent open ends of the bags adapted to be folded back upon the body portions thereof, tapering rings surrounding each bag and held by portions of the bags, means for fastening said ends to the bags said rings surrounded by portions of the bags telescoping each other, and straps for holding the rings in telescoped position, as set forth.

1,082,863. MOTH-PROOF RUG-RECEPTACLE. LEO GESCHICKTER, Washington, D. C., assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Filed Mar. 28, 1913. Serial No. 757,444. (Cl. 150-3.)



1. A moth-proof receptacle for rugs, carpets, etc., comprising an open-ended shell having annular grooves formed in the circumference thereof, bags telescoping over the adjacent ends of said shell, a clamping band provided with beadings designed to engage and hold the telescoping portions of the bag in said grooves, means for centering the band in order that the beadings may register with said grooves, and mechanism for drawing and holding the ends of the band in clamping relation, as set forth.

2. A moth-proof receptacle for rugs, carpets, etc., comprising an open-ended shell having annular grooves formed in the circumference thereof, bags telescoping over the adjacent ends of said shell, a clamping band provided with beadings designed to engage and hold the telescoping portions of the bag in said grooves, said shell having an outwardly projecting annular rib intermediate said grooves, said band having a groove adapted to fit over said rib to center the band, causing the rib to register with the grooves, and means for drawing and holding the ends of the band in clamping relation with the shell, as set forth.

3. A moth-proof bag or receptacle for rugs, carpets, etc., comprising a shell with an annular groove in the circumference thereof, a bag telescoping over the open end of the shell, a clamping band provided with a beading adapted to engage and hold the telescoping end of the bag in said groove, means for centering the band to cause the beading thereon to register with the groove in the shell, and means for drawing and holding the ends of the band in clamping relation with each other, as set forth.

1,082,864. MOP-PRESS. RAYMOND B. GILCHRIST, Newark, N. J. Filed Jan. 11, 1908. Serial No. 410,373. (Cl. 15-12.)

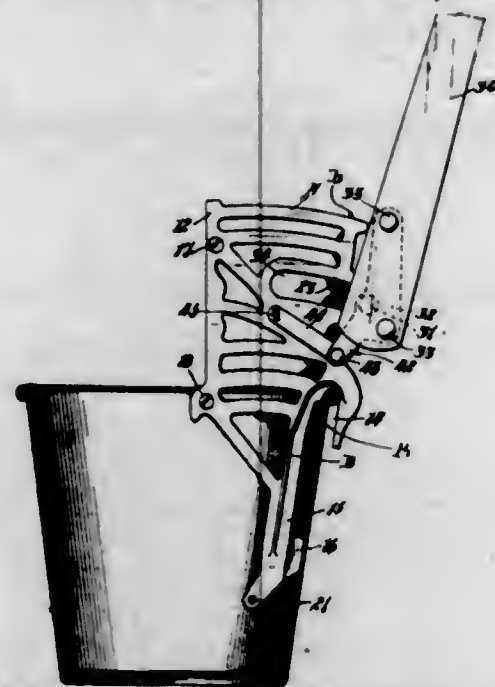
1. In a mop-press, the combination of press members capable of being brought together for a pressing-operation, means for connecting them to a receptacle, an operating-lever having a movable fulcrum, an operating connection between the lever and one of the members which permits the lever to swing with respect to said member, and means for causing the lever fulcrum to travel as the lever is shifted to operate the press.

2. In a mop-press, the combination of press-members capable of being brought together for a pressing-operation, means for connecting them to a receptacle, an operating-lever having a movable fulcrum, a pivotal connection between the lever and one of the members which permits the lever to swing with respect to said member, and means for causing the lever fulcrum to travel as the lever is shifted to operate the press.

3. In a mop-press, the combination of press members capable of being brought together for a pressing operation, means for connecting them to a receptacle, an operating-lever having a movable fulcrum, an operative connection between one of the members and the lever comprising a cross shaft which is shifted bodily by said lever, and means for causing the lever fulcrum to travel as the lever is shifted to operate the press.

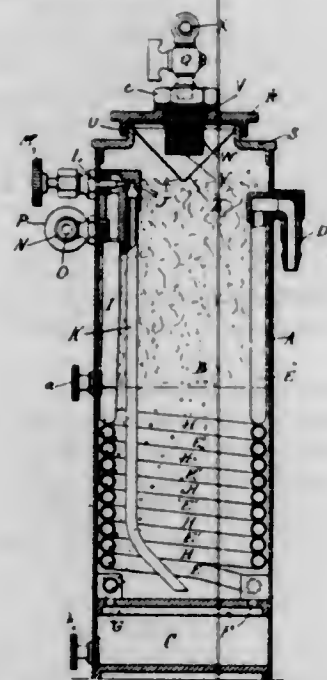
4. In a mop-press, the combination of relatively stationary and movable press-members and operating-mechanism for one of said members comprising a lever, a traveling fulcrum for the lever, a cross shaft secured to said lever and connected to the movable member, and means for guiding said shaft so the lever will shift said movable member.

5. In a mop press, the combination of two press members, one of which is stationary and the other of which is movable, a lever a fulcrum-link for said lever pivoted



to the stationary member, a bodily movable rock-shaft connected to the movable press member and secured to the lever, and means for causing the shaft to move bodily when the lever is shifted about its fulcrum.

1,082,865. CARBURETER. NELSON GOODYEAR, New York, N. Y., assignor to Maine Development Corporation, a Corporation of Maine. Filed Jan. 30, 1909. Serial No. 475,278. (Cl. 48—156.)



1. A carbureter comprising a carbureting chamber, a condensation chamber separated therefrom, a pipe for gas to be carbureted leading tortuously through the carbureting chamber to the condensation chamber, a pipe leading from the condensation chamber and having two branches, one branch delivering outside the carbureter and having a controlling valve for educting gas uncarbureted, and the other branch opening into the carbureting chamber below the normal liquid level therein, and a valve for controlling the last said branch.

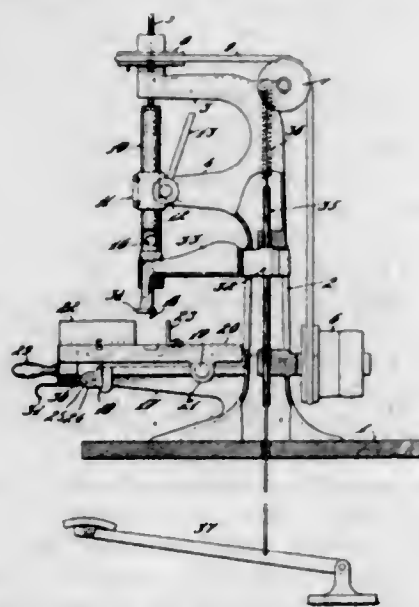
2. A carbureter comprising a carbureting chamber, a condensation chamber separated therefrom, a pipe for gas to be carbureted leading through the carbureting chamber to the condensation chamber, a pipe leading from the condensation chamber within the carbureting chamber and having two branches, one branch leading outside the carbureter and provided with a valve for educting gas uncarbureted and the other opening into the carbureting chamber below the normal liquid level therein.

3. A carbureter comprising a carbureting chamber, a coil therein connected to receive gas to be carbureted and in which the gas is cooled, a condensation chamber to which the said coil delivers, and a pipe for conducting the gas from the condensation chamber back into the carbureting chamber and delivering it near the bottom thereof, and a valve for controlling the flow of such gas.

4. A carbureter comprising a carbureting chamber, a coil therein connected to receive gas to be carbureted and in which the gas is cooled, a condensation chamber to which the said coil delivers, and a branch pipe and valve for leading off some of the gas after cooling and condensation and without carbureting.

5. A carbureter of the class described, comprising a chamber having carbureting and condensation compartments, absorbent material placed within said carbureting compartment, a condensation coil within the carbureting compartment and in communication with the condensation compartment, means for conducting the flow of gas from condensation compartment to the bottom of said carbureting compartment, a valve controlling and regulating said flow of gas to the bottom of carbureting compartment and a secondary connection and valve for controlling the flow of the uncarbureted gas or other supporter of combustion.

1,082,866. DRILLING-MACHINE. SAMUEL E. HILLES and BETHUEL VINCENT COLBURN, Cincinnati, Ohio, assignors to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 23, 1912. Serial No. 672,981. (Cl. 164—116.)



1. In a machine of the nature described, a drill press organization, comprising a rotary vertically movable spindle, a table support formed with a laterally extended table guide, a laterally extended rod, a series of detent dogs adjustable on the rod, a table on the support engaging said guide, a handle on the table having a spring controlled plunger lock, adapted to engage and disengage the detents of the lugs and to lock the table to the support in a series of predetermined positions, a laterally extended and vertically movable clamping bar, adapted to bear upon the top of the pile to be drilled, and means for operating said clamping bar.

2. In a machine of the nature described, a frame, a rotatable and vertically movable spindle, a feed therefor, a table support, a table swingingly mounted and laterally guided thereon, a lock plunger and series of adjustable lugs adapted to interlock the table and support, said lugs having stops and detents adapted to limit the lateral movement of the plunger in one direction, and to permit the plunger to automatically interlock with the lugs when moved in the same direction, and means for clamping the paper down on the table in the line of the drilling and upon all sides of the drill point.

3. A machine of the nature disclosed combining a work table supporting arm terminating in a lateral extension, a laterally extended rod on said arm in parallelism with said arm extension, a work supporting table hingedly and

slidably mounted on said rod and engaging said arm extension, and stop elements on said arm extension, adapted to be engaged by said table to predeterminately position said table upon its supporting elements.

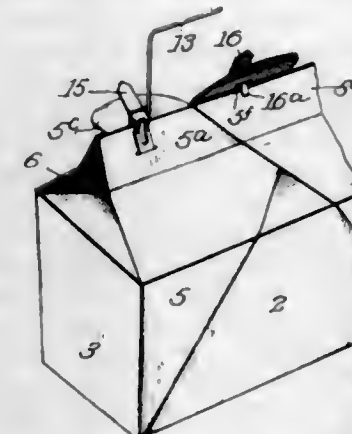
4. A machine of the nature disclosed combining a work table supporting arm terminating in a lateral extension, a laterally extended rod on said arm in parallelism with said arm extension, a work supporting table hingedly and slidably mounted on said rod and engaging said arm extension, stop elements on said arm extension, and releasable trip mechanism mounted on said table and movable therewith, adapted to engage said stop elements to predeterminately position said table upon its supporting elements.

1,082,867. DEVICE FOR OPENING TUBULAR CARRIERS. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 28, 1913. Serial No. 764,052. (Cl. 42—87.)



A device for opening tubular carriers of the character described comprising a body having a cylindrical reduced portion forming a stop shoulder, the end of said reduced portion being beveled to form a wedge-like entering projection.

1,082,868. PAPER RECEPTACLE. IRA W. HOLLETT, Chicago, Ill., assignor to The Sefton Manufacturing Company, Anderson, Ind., a Corporation of Indiana. Filed Aug. 2, 1909. Serial No. 510,774. (Cl. 229—54.)



1. In a paper receptacle having side walls provided with upstanding extensions brought together at the top along a central line to effect a closure, the combination, with the receptacle body and a bail, of a pair of fastening tins, one end of each of which is anchored to the upstanding extensions on one side of the receptacle, and the other end of which is foldable downwardly over the upper edges of the upstanding extensions on the other sides, the bail being pivoted to the intermediate portions of such tins.

2. In a paper receptacle having side walls provided with upstanding extensions brought together at the top along a central line and tending to spring apart, the extensions on one side being provided with openings, the combination, with the receptacle body and a bail, of a pair of fastening tins, one end of each of which is anchored to the upstanding extensions on the side opposite those provided with openings, and the other end of which is foldable downwardly over the upper edges of all the extensions and is provided with inwardly projecting tongues adapted to make spring engagement in said openings, the bail being pivoted to the intermediate portion of such tins; substantially as described.

3. In a paper receptacle having side walls provided with upstanding extensions brought together at the top along a central line to effect a closure, the combination, with the receptacle body and a bail, of a pair of fastening tins,

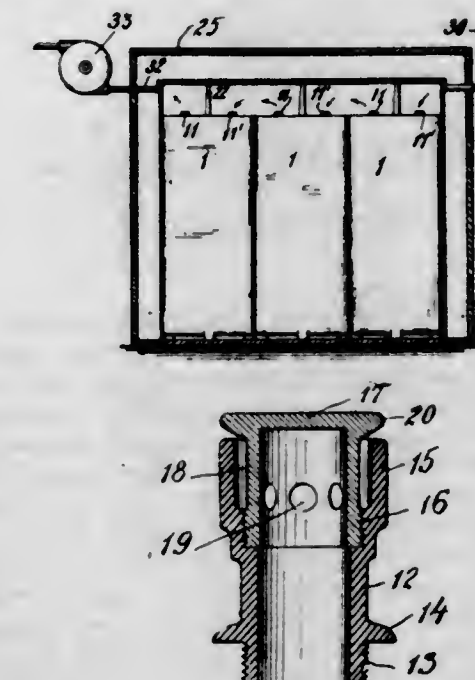
one end of each of which is anchored to the upstanding extensions on one side of the receptacle, and the other end of which is foldable downwardly over the upper edges of the upstanding extensions on the other side and provided with means of engagement with the extensions on such latter side, the bail being pivoted to the intermediate portions of such tins.

4. In a paper receptacle having side walls provided with upstanding extensions which swing inwardly and downwardly in circular arcs to meet together at an angle along a central line to effect a closure of the box, a plurality of fastening devices arranged in alternate order on the opposite extensions, each device consisting of a malleable metallic strip anchored at one end to its extension and arranged to be bent downwardly over the opposite extension into position to interfere with its opening movement.

5. In a paper receptacle having side walls provided with upstanding extensions which swing inwardly and downwardly in circular arcs to meet together at an angle along a central line to effect a closure of the box, and in combination with a bail, a plurality of fastening devices arranged in alternate order on the opposite extensions, each device consisting of a malleable metallic strip anchored at one end to its extension and arranged to be bent downwardly over the opposite extension into position to interfere with its opening movement, the bail being pivoted to two of such devices.

(Claims 6 and 7 not printed in the Gazette.)

1,082,869. STORAGE BATTERY. ALBERT S. HUBBARD, Greenwich, Conn., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Aug. 8, 1912. Serial No. 713,036. (Cl. 204—53.)



1. The combination of a series of storage batteries having covers provided with inlet and outlet vent ducts, a ventilating passageway extending along the battery jars and into which the vent ducts project at intervals along its length, and substantially air-tight partitions dividing the passageway into sections, each section containing an inlet vent duct from one jar and an outlet vent duct from an adjacent jar, whereby air forced through the passageway is made to pass through the jars of the series.

2. The combination of a series of storage batteries having covers provided with inlet and outlet vent ducts, a ventilating substantially air-tight passageway extending along the tops of the covers of the jars and into which the vent ducts from the jars project at intervals along its length, and substantially air-tight partitions between the inlet and outlet ducts of each jar dividing the passageway into sections, whereby air forced through the passageway passes through the jars of the series.

3. The combination of a series of storage batteries each provided with a cover, each cover being provided with an

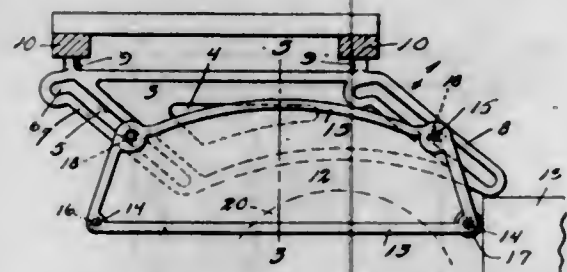
upwardly projecting rib extending across the jar and with inlet and outlet vent ducts arranged respectively on opposite sides of the rib, side pieces extending along the sides of the jars and projecting above the covers and along the ends of the ribs, and a cover for the passageway extending across the ribs and between the side pieces and forming therewith and with the tops of the jars a ventilating passage divided into sections.

4. The combination of a series of storage batteries each having a cover provided with inlet and outlet air ducts, a substantially air-tight ventilating passageway extending along the tops of the jars and into which the vent ducts open, the jars being placed one against the other so that the covers of the jars form the floor of the ventilating passage, and substantially air-tight partitions dividing the passageway into sections, each section containing an inlet vent of one jar and an outlet vent of an adjacent jar.

5. The combination of a series of storage batteries each provided with a cover, each cover being provided with an upwardly projecting rib extending across the jar and with inlet and outlet vent ducts arranged respectively along the abutting edges of adjacent jars, side pieces extending along the sides of the jars and projecting above the covers and forming substantially air-tight joints with the ends of the ribs and covers, and a cover for the passageway extending across the ribs and between the side pieces and forming therewith and with the tops of the jars a ventilating passage divided into sections.

[Claims 6 to 12 not printed in the Gazette.]

1,082,870. SAW-GUARD. JOHN W. HUMASON, Youngstown, Ohio. Filed Nov. 20, 1912. Serial No. 732,571. (Cl. 143—159.)



1. A guard for circular saws, comprising a guide member formed with downwardly and forwardly extending slots, parallel guard plates, means for holding said plates in spaced relationship, and rollers mounted upon certain of said means, for movement within the slotted member.

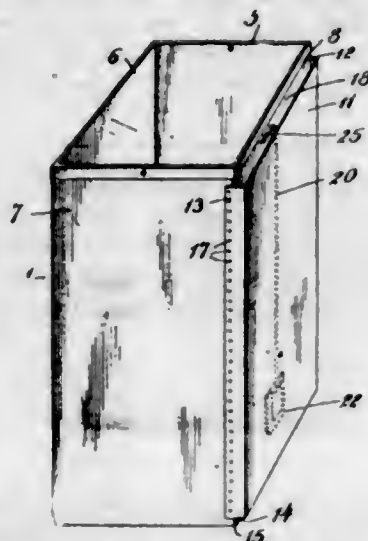
2. A guard for circular saws, comprising a guide frame formed adjacent its front and rear edges with downwardly and forwardly inclined slots, the upper ends of said slots being extended rearwardly and downwardly, spaced guard plates, means for holding said plates in spaced relationship, rollers mounted upon certain of said means for movement within the slots, whereby the guard plates are guided and may be locked in their raised position, and an additional roller upon one of said means for engagement with a piece of timber to be sawed.

1,082,871. ICE-MAKING APPARATUS. JAMES HUMES, Philadelphia, Pa. Filed June 17, 1912. Serial No. 704,118. (Cl. 62—6.)

1. As a new article of manufacture, a can in which ice is artificially made and provided upon one or more of its sides and above the bottom with means for excluding the freezing medium substantially from such side or sides and retarding the freezing process at such side or sides when the can with its contents is subjected to the freezing medium, and an air-injector located upon one of said sides having the freezing retarding means above the bottom and acting to introduce air into the water in said can, substantially as described.

2. As a new article of manufacture, a can in which ice is artificially made and provided upon one or more of its sides and above the bottom with a pocket substantially

coextensive with said side or sides and adapted to contain air and to exclude the freezing medium and serving to retard the freezing of the water within the can in the vicinity of said pocket, the said pocket being formed by a sheet of metal secured to the can and suitably spaced therefrom and extending substantially across the width of the side of the can, and an air injector located upon one of said pocketed sides and acting to introduce air into the water in the can, substantially as described.



3. As a new article of manufacture, a piped can in which ice is artificially made consisting in a can provided upon one or more of its sides with a pocket adapted to contain air and serving to retard the freezing of the water within the vessel in the locality of said pocket, the said pocket being formed by a sheet of material secured to the can and suitably spaced therefrom, and an air-injecting pipe or duct located upon a pocketed side of said can and suitably secured thereto within the zone of retardation and provided with a series of vertically arranged openings into the interior of the can, substantially as described.

4. As a new article of manufacture, a piped can in which ice is artificially made consisting in a can provided upon one or more of its sides with a pocket adapted to contain air and serving to retard the freezing of the water within the vessel in the locality of said pocket, a fixture secured upon the side of said can near the bottom thereof and within said pocket and provided with a duct passing through said fixture and communicating with the interior of the can, a cavity or catch-all beneath said duct below the level of its opening into the can, an air-channel connected with said duct in said fixture and extending upwardly through said pocket to the upper end thereof and adapted to be connected with an air supply pipe, substantially as described.

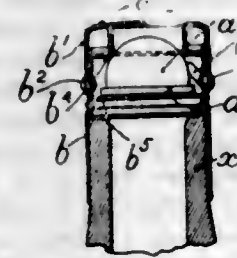
5. As a new article of manufacture, a piped can in which ice is artificially made consisting in a can provided upon one or more of its sides with a pocket adapted to contain air and serving to retard the freezing of the water within the vessel in the locality of said pocket, a fixture secured upon the side of said can and within said pocket and provided with a duct passing through said fixture and communicating with the interior of the can, an air-conduit connected with said duct in said fixture and extending upwardly through said pocket to the upper end thereof and adapted to be connected with an air supply pipe, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,872. DEVICE TO PREVENT FRAUDULENT REFILLING OF BOTTLES. JOHN THOMAS HUMPHREY, East Ham, England. Filed Apr. 8, 1911. Serial No. 619,918. Renewed Nov. 15, 1913. Serial No. 801,284. (Cl. 215—66.)

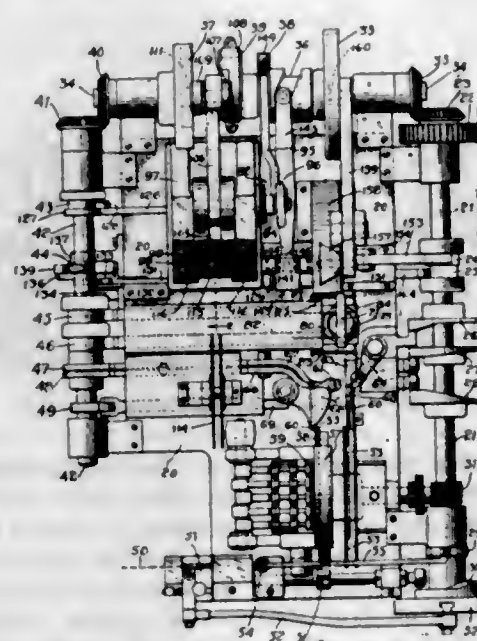
1. A device for preventing the fraudulent refilling of bottles comprising, a cap adapted to be rigidly secured to the neck of the bottle and provided at its top with openings diametrically opposite each other, and an interior

disk carried by the cap and provided with openings in staggered relation to the openings in the cap, said disk having an annular wall leading to the said cap, and provided at its central portion with an opening forming a seat for a hemispherical valve, and a valve adapted to allow the liquid to be poured out, but to prevent the introduction of liquid to the bottle.



2. A device for preventing the fraudulent refilling of bottles comprising, a cap formed in two parts, the lower part being rigidly secured to the neck of the bottle and carrying a diaphragm secured to said lower part, a valve seated on said diaphragm, a perforated disk secured to and forming the upper portion of said lower part, said disk having a central opening forming a seating for said valve, and also provided with an annular wall, and an upper part having openings therein diametrically opposite of the perforations in said disk, and means for adjustably securing the upper and lower parts together, substantially as shown and described.

1,082,873. MACHINE FOR MAKING SAFETY-PINS. EDWIN S. INGRAHAM, Oakville, Conn. Filed Nov. 18, 1912. Serial No. 731,808. (Cl. 163—7.)



1. In a machine for making safety pins, an assembling mechanism including a carrying wheel having a radially slotted flange and a retaining plate lying under the flange by which the guards are retained in the slots in carrying the guards from the forming mechanism to the assembling die.

2. In a machine for making safety pins, an assembling mechanism including a carrying wheel having slots which receive the guards from the forming mechanism, means for imparting a step by step movement to the carrying wheel, a guide in the assembling mechanism in alignment with one of the slots when the wheel is at rest, and a reciprocating finger by which the guards are carried from the slots and through the guides.

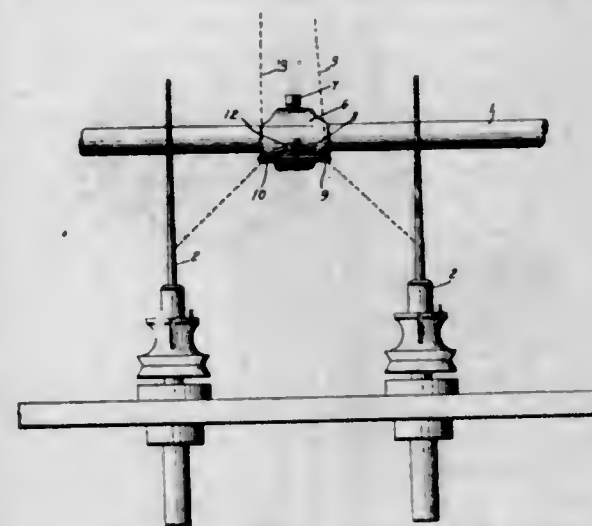
3. In a machine for making safety pins, an assembling mechanism including a slotted carrying wheel for the guards, a finger by which the guards are expelled from the wheel, a slide by which the finger is carried, a lever, one end of which engages the slide and the other end a

pivoted stud, a slot in said lever intermediate the pivot and the slide, a second lever whose long arm is provided with a pin engaging the slot, and means for oscillating said lever to impart increased movement to the slide and finger.

4. In a machine for making safety pins, assembling mechanism including a reciprocating slide having a recessed die portion, a carrying wheel having slots which receive the guards from the forming mechanism, means for imparting a step by step movement to the carrying wheel, a guide on the reciprocating slide in alignment with one of the slots when the wheel is at rest, and a reciprocating finger by which the guards are carried from the slots, through the guide and delivered to the recessed die on the slide.

5. In a machine for making safety pins, an assembling mechanism, and means for transferring the formed pins and guards to the assembling mechanism, a reciprocating assembling slide having a recessed die to which the guards are delivered and a beveled edge adjacent thereto, a stationary retaining block having an angle to receive the coil of the pin, means for holding the pin thereon with one arm in alignment with the recessed die and the pointed arm in alignment with the beveled portion of the slide, and an oscillating horizontal finger mounted upon the retaining block adapted to engage the pointed arm and cause it to ride up over the beveled portion of the slide and engage the assembled head.

1,082,874. THREAD-GUIDE. JESSE JEFFERS, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Aug. 21, 1912. Serial No. 716,126. (Cl. 242—157.)



1. In a quill, the combination with the thread-guide rod thereof, of a thread guide holder provided with a set screw by which it is held thereon and a thread guide in said holder having its shank subject to the pressure of the same set screw and held in position thereby.

2. In a quill, a thread guide rod having a member removable laterally therefrom and provided with a set screw to hold it to the rod and a thread guide mounted in said member and held thereon by the same screw.

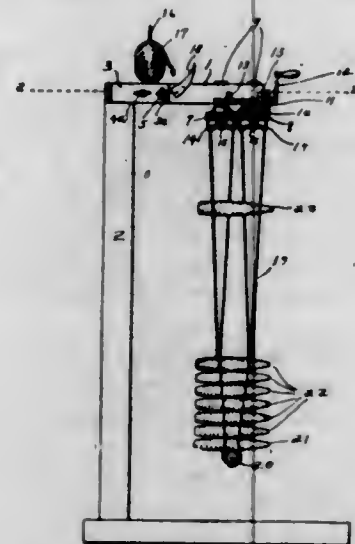
3. In a quill, a thread guide rod having a member adjustable longitudinally and rotationally thereon, a thread guide adjustably mounted in the said member and a single clamping device adapted to secure both said parts immovably to the rod.

4. A thread-guide comprising a thread-guide rod, a wire-formed shank bent to form two adjacent guide eyes at the end, a holder for said shank, and a single set screw for securing the shank and holder in position on the rod.

5. A quill thread-guide consisting of a wire having a shank and a portion folded upon itself the said folded portion being curled to form a guide-eye, and also having an unfolded portion which is curled to form a second guide-eye.

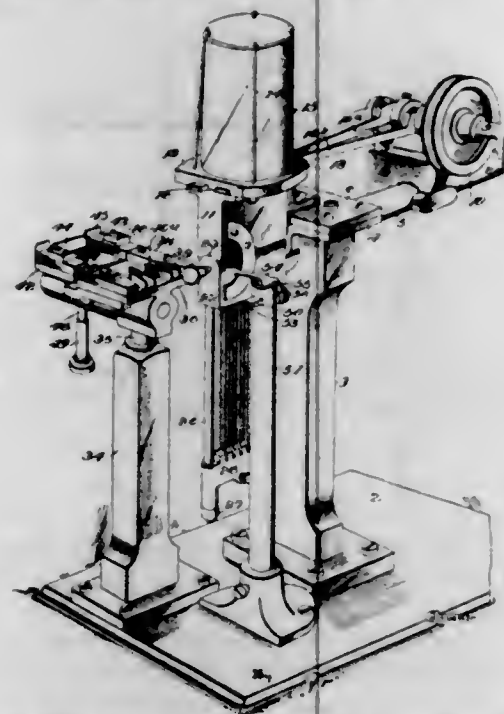
[Claim 6 not printed in the Gazette.]

1,082,875. SEED-CORN STRINGER. FRANK W. KARLI, Valley Springs, S. D. Filed Apr. 2, 1913. Serial No. 758,293. (Cl. 139-32.)



In a device of the class described, the combination with a suitable support, of a bracket-arm, spur-gears mounted on said bracket-arm for rotation in opposite directions, each to the other; companion hooks carried by said spur-gears, adapted to suspend an endless twine and hold the side strands in spaced relation each to the other; and means for imparting rotation to said spur-gears, whereby the strands will cross each other.

1,082,876. BOX-FILLING MACHINE. WILLIAM G. KENDALL, Newark, N. J., assignor of one-half to Fred-eric S. Mason, New York, N. Y. Filed Apr. 17, 1913. Serial No. 761,862. (Cl. 100-59.)



1. In a box filling mechanism, a vertically disposed hopper, a carrier movable into and out of position beneath the discharge opening of the hopper, the carrier being mounted for rotative movement from a horizontal into a vertical position, stops for limiting the rotative movement of the hopper, a plunger disposed in the carrier and movable therethrough, and a horizontally disposed receiving table with which the carrier registers when turned into a horizontal position.

2. In a box filling mechanism, a hopper having a discharge opening, a carrier rotatably and slidably mounted beneath the hopper, the carrier being rotatable from a vertical to a horizontal position and slidably into and out of position beneath the discharge opening of the hopper, a receiving table, and means for discharging tablets from the carrier onto said receiving table.

3. In a box filling mechanism, a hopper having a discharge opening, a rotatably and slidably mounted carrier

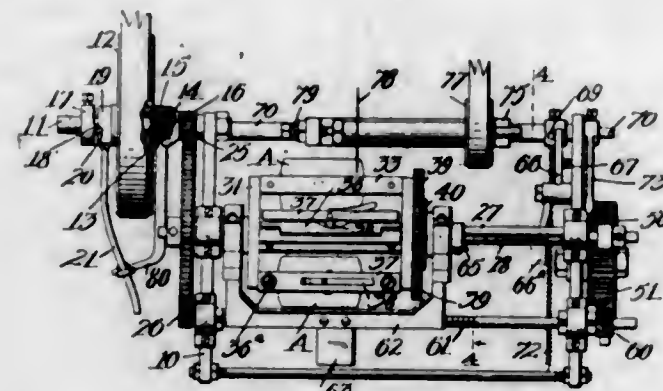
movable into and out of position beneath the discharge opening of the hopper and rotatable from a vertical to a horizontal position, plungers mounted within the carrier normally at the lower end thereof, and a horizontally disposed receiving table with which the carrier is adapted to register when moved out of engagement with the hopper and turned into a horizontal position.

4. In a box filling mechanism, a hopper having a discharge duct leading therefrom, the duct being longitudinally divided into two halves, a carrier rotatably and slidably mounted, said carrier being divided by a partition into two halves corresponding to the two halves of the duct, plungers disposed in each of the compartments so formed, and a receiving table with which the carrier is adapted to register when moving out of engagement with the hopper and turned to a horizontal position.

5. In a box filling machine, a hopper having a discharge duct leading therefrom, the duct being relatively long and relatively narrow and being divided longitudinally into two halves, a carrier movable into and out of position beneath said duct and having the same cross sectional area as the duct, the carrier being divided by a longitudinal partition into two lateral halves, said halves being in turn divided into a plurality of compartments by means of transverse partitions, plungers operable through said carrier, means for rotating the carrier from a vertical position to a horizontal position, and a receiving table with the face of which the opening in the carrier is adapted to align when the carrier is turned to a horizontal position.

[Claims 6 to 17 not printed in the Gazette.]

1,082,877. COMB-CUTTING MACHINE. PATRICK H. KIRBY, Clinton, Mass. Filed June 8, 1912, Serial No. 702,459. Renewed Nov. 18, 1913. Serial No. 801,745. (Cl. 144-26.)



1. In a comb cutting machine, the combination of a pair of shafts parallel with each other and rotatable in stationary bearings, a frame for holding combs mounted to rotate with one shaft but capable of moving therealong, and a member pivotally mounted on said frame to swing about one of said shafts and having a segmental nut thereon adapted to rest on the other shaft, said other shaft being provided with a screw-thread for receiving the nut, whereby when said member is in contact with the second shaft the rotation of the second shaft will feed the comb holder along the first shaft, and whereby the pivotal member can be swung up by hand to stop the feed.

2. In a comb cutting machine, the combination of a shaft, a frame rotatable with said shaft and movable therealong, a second shaft having a screw-thread thereon, a feeding frame connected to and movable along the first named shaft to carry the frame with it, and having a segmental nut resting on said screw-thread, whereby the nut can be swung up out of contact with the screw-thread, and the feeding frame can be used to move the first named frame along the shaft, yielding means for intermittently rotating the screw-threaded shaft in one direction, and positive means connected with the first-named shaft and operated thereby for restoring the yielding means after each operation thereof.

3. In a comb cutting machine, the combination of two

shafts, a frame rotatable with one of said shafts and movable therealong, the other shaft having a screw-thread thereon, a half nut engaging said screw-thread and connected with said frame, means connected with the first shaft for intermittently rotating the screw-threaded shaft in one direction, said means comprising a segmental gear or pinion on the first named shaft, a segmental rack meshing therewith, yielding means for swinging the rack in one direction, a gear mounted to turn on the same axis as the rack, and a pinion on the screw-threaded shaft constantly meshing with said gear.

4. In a comb cutting machine, the combination of two shafts, a frame rotatable with one of said shafts and movable therealong, the other shaft having a screw-thread thereon, a half nut engaging said screw-thread and connected with said frame, a segmental gear or pinion on the shaft carrying the frame, a segmental rack adapted to mesh therewith and to swing about an axis, a spring for swinging said rack about its axis in a direction opposite that in which it is moved by the pinion, a gear adapted to turn on the same axis as the rack, a pawl for connecting the rack with said gear during the motion which it has by reason of the spring, and a pinion meshing with the gear and fixed on said screw-threaded shaft.

5. In a comb cutting machine, the combination of two shafts, a frame rotatable with one of said shafts and movable therealong, a segmental gear or pinion fixed on the shaft on which the frame is located, a segmental rack meshing therewith and mounted to swing about an axis, yielding means for swinging the rack in one direction, a gear mounted to oscillate with the rack, a pinion fixed on the other shaft constantly meshing with said gear, and means connected with said other shaft for intermittently moving the frame along its shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,082,878. CULVERT. WILLIAM H. KLAUER, Dubuque, Iowa. Filed Apr. 21, 1913. Serial No. 762,504. (Cl. 61-9.)



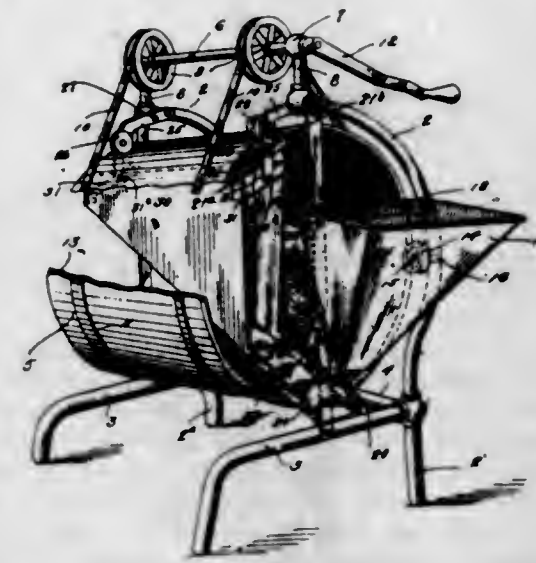
1. As an improved article of manufacture, a pair of corrugated culvert sections adapted to be united to form a substantially cylindrical body with longitudinal edges respectively of the sections designed to overlap each other, a pair of angle strips disposed one upon each edge of one section and extending longitudinally thereof, a pair of angle strips disposed upon and in rear of each edge of the matching section longitudinally thereof provided with upturning locking flanges.

2. A substantially cylindrical culvert section comprising two members, one disposed above the other, an interlock for said members comprising pairs of angle strips, one pair disposed at the longitudinal edges of one section and the other pair at and in rear of the longitudinal edges of the other section, the latter having upturned members adapted to be struck over in contact relation with the flanges of the first named section.

3. In combination, semicylindrical sections adapted to be disposed relatively one above another and with their longitudinal edges overlying each other, sets of angle strips for each section secured respectively one angle strip of one set at each longitudinal edge of one section, and strips of the other set at and in rear of the edges of said section.

4. A culvert, comprising two sections, their longitudinal edges overlying each other, two sets of angle strips, one at the edge of one section and the other at the edge and in the rear of the other section, portions of said angle strips being folded together edge to edge and lip to lip.

1,082,879. WILD-OATS SEPARATOR. WILLIAM H. KLAUER, Dubuque, Iowa. Filed Apr. 30, 1913. Serial No. 764,623. (Cl. 130-18.)



1. In a wild oats separator, a suitable supporting frame, a shaft journaled therein, a rotatable inclined drum, means for supporting and turning said drum from said shaft, arms permanently connected with said supporting frame provided with slots therein, a roller member adjustably supported in the slots in each of said arms in an adjustable relation, adapted to bear upon the outer surface of the drum, a tangle frame comprising end sections and cross wires, the plural series arranged in arc shape, the latter spaced apart distances less than the normal length of the grains adapted to be elevated and adapted to engage the latter for dislodgment, means for supporting the tangle frame in an adjustable relation, with the slots of the aforesaid arms, an inclined delivery chute formed in a single piece, its upper edges lying in close proximity to the interior surface of said drum, and embracing said tangle frame, and an auxiliary chute secured to first named chute, at one side thereof and extending on an incline parallel to a position short of the upper end of said drum.

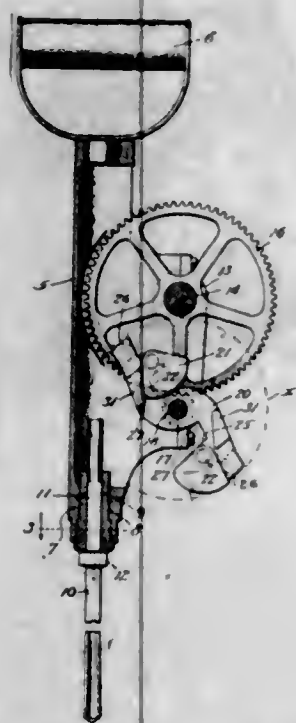
2. In a device of the class described, in combination, a supporting frame, an inclined rotatable drum, means on the interior of the drum for engaging projecting portions of certain of the grains for elevating the latter, adjustable rollers supported in said frame, means for adjusting said rollers in a bearing relation upon said drum, an adjustable tangle frame adapted to be disposed in close relation with the interior of the said drum comprising frame parts at both ends of said drum and cross strands, the series arranged in arc shape and disposed in spaced relation less than the normal length of grain adapted to be elevated, a chute disposed beneath said tangle frame formed of a single piece, its upper edges adapted to embrace said frame, and an auxiliary chute on one side thereof extending laterally into close proximity to the interior surface of the drum and forwardly at an incline and terminating short of the upper edge of the drum.

1,082,880. MECHANICAL HAMMER. JAMES S. KNOWLSON, La Grange, Ill., assignor to Electro-Magnetic Tool Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 15, 1913. Serial No. 748,547. (Cl. 125-20.)

1. In a device of the character set forth, the combination of a rotary member and a hammer pivoted thereto and adapted to be moved into striking position by centrifugal force, the pivot of said hammer being so located relative to the axis about which said rotary member turns, as to cause said hammer on recoiling to strike against said rotary member wholly intermediate the axis of rotation of the latter and the pivot of said hammer.

2. In a device of the character set forth, the combination of a rotary member, and hammers pivoted thereto in balanced condition about the axis of said rotary member and adapted to be moved into striking position by centrifugal force, the pivots of said hammers being so located

relative to the axis about which said rotary member turns, as to cause said rotary hammers on recoiling to strike against said rotary member wholly intermediate the axis of rotation of the latter and the respective pivots of said hammers.



3. In a device of the character set forth, the combination of a rotary member and a hammer pivoted thereon and adapted to be moved into striking position by centrifugal force, said rotary member being provided with a stop-surface for said hammer during recoil located wholly between the axis upon which said hammer turns and the axis of said rotary member and in advance of the axis of said hammer, whereby said hammer in recoiling strikes said rotary member wholly between the axis upon which the hammer turns and the axis of the rotary member, for the purpose set forth.

4. In a device of the character set forth, the combination of a one-piece rotary member, provided with bosses at its opposite ends and flanked by inner and outer stop-surfaces, and hammers pivoted on said bosses and adapted to be moved into striking position by centrifugal force and bear against said outer stop-surfaces, the pivots of said hammers being so located relative to the axis of said rotary member as to cause said hammers on recoiling to strike said inner stop-surfaces on said rotary member, thus delivering the recoil-blow of the hammer against said rotary member intermediate the axis of rotation of the latter and the pivot of the hammer.

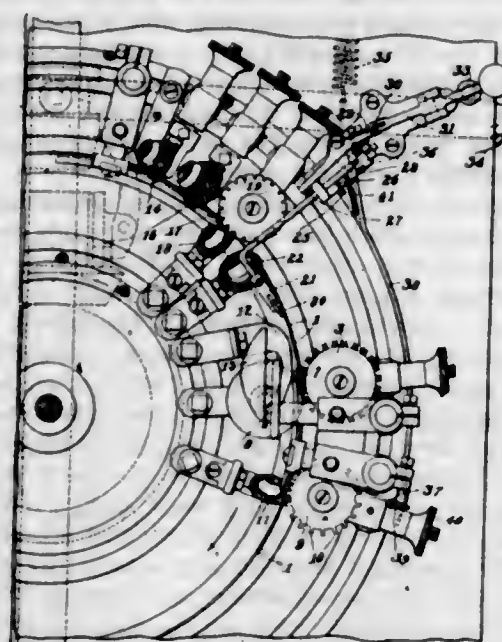
1,082,881. KNITTING-MACHINE. OLIVIER LAROCHE and MARTIN L. N. TUCKER, Lowell, Mass., assignors to Lawrence Manufacturing Company, Lowell, Mass., a Corporation of Massachusetts. Filed May 25, 1911. Serial No. 629,251. (Cl. 66-19.)

1. A knitting machine, having, in combination, a needle cylinder provided with needles, a wheel outside the needles provided with slotted teeth arranged to pass between the needles and to direct two adjacent needles into the slot one back of the other, means for forcing the stitch on the front needle down over both needles, and a presser for holding the needles against the pull of the fabric, substantially as described.

2. A knitting machine, having, in combination, a needle cylinder provided with needles, a wheel outside the needles provided with slotted teeth arranged to pass between the needles and to direct two adjacent needles into the slot one back of the other, means for forcing the stitch on the front needle down over both needles, and a presser engaging the back of the rear needle, substantially as described.

3. A knitting machine, having, in combination, a needle cylinder provided with needles, a wheel outside the needles provided with slotted teeth arranged to pass between the needles and to direct two adjacent needles into the slot

one back of the other, means for forcing the stitch on the front needle down over both needles, and a rotary presser disk engaging the rear needle to press the needles together in the slot, substantially as described.

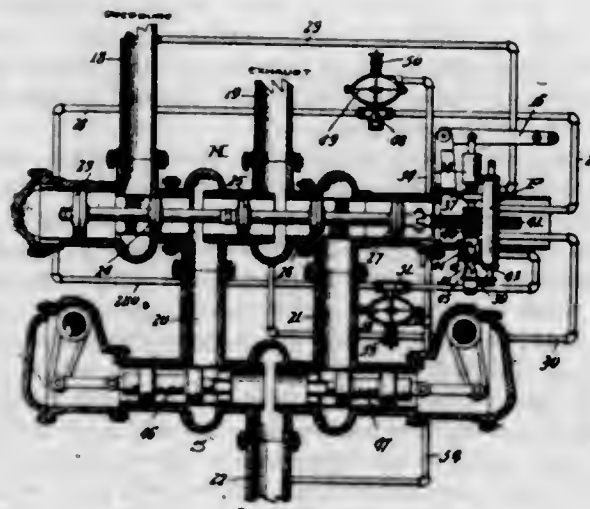


4. A knitting machine, having, in combination, a needle cylinder provided with needles, a wheel outside the needles provided with slotted teeth arranged to pass between the needles and to direct two adjacent needles into the slot one back of the other, means for forcing the stitch on the front needle down over both needles, and a retarder engaging the fabric to the rear of the point of transfer, substantially as described.

5. A knitting machine, having, in combination, a needle cylinder provided with needles, a wheel outside the needles provided with slotted teeth arranged to pass between the needles and to direct two adjacent needles into the slot one back of the other, means for forcing the stitch on the front needle down over both needles, a presser engaging the back of the rear needle, and a retarder engaging the fabric to the rear of the point of transfer, substantially as described.

[Claim 6 not printed in the Gazette.]

1,082,882. ELEVATOR-VALVE MECHANISM. THURE LARSSON, Worcester, Mass., assignor to himself, William E. D. Stokes, New York, N. Y., and Fred A. Jones, Worcester, Mass. Filed Oct. 12, 1904. Serial No. 228,163. Renewed June 9, 1913. Serial No. 772,691. (Cl. 138-14.)



1. The combination in a starting and stopping device for an elevator having a power cylinder, of a main valve, a power motor for the main valve having a piston, two conductors entering the power motor at the same side of the piston, one connected with the pressure pipe and the other with the exhaust pipe of the elevator operating means, a pilot valve connected with said conductors and

means connected with the power cylinder of the elevator operating mechanism and controlled by the pressure therein for choking the conductor connected with the pressure pipe at the start of the descent with a light load.

2. The combination in a starting and stopping device for an elevator having a power cylinder, of a main valve, a power motor for the main valve having a piston, two conductors entering the power motor at the same side of the piston, one connected with the pressure pipe and the other with the exhaust pipe of the elevator operating means, a pilot valve connected with said conductors and means connected with the power cylinder of the elevator operating mechanism and controlled by the pressure therein for freeing the conductor connected with the exhaust at the start of the ascent with a light load.

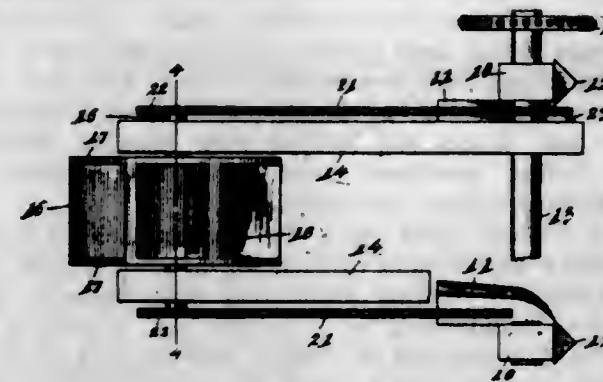
3. The combination in a starting and stopping device for an elevator having a power cylinder, of a main valve, a power motor for the main valve having a piston, two conductors entering the power motor at the same side of the piston, one connected with the pressure pipe and the other with the exhaust pipe of the elevator operating means, a pilot valve connected with said conductors and means connected with the power cylinder of the elevator operating mechanism and controlled by the pressure therein for freeing the conductor connected with the exhaust pipe at the stop of the descent with a light load.

4. The combination in a starting and stopping device for an elevator having a power cylinder, of a main valve, a power motor for the main valve having a piston, two conductors entering the power motor at the same side of the piston, one connected with the pressure pipe and the other with the exhaust pipe of the elevator operating means, a pilot valve connected with said conductors and means connected with the power cylinder of the elevator operating mechanism and controlled by the pressure therein for choking the conductor connected with the pressure pipe at the stop of the ascent with a light load.

5. The combination in a starting and stopping device for an elevator having a power cylinder, of a main valve, a power motor for the main valve having a piston, two conductors entering the power motor at the same side of the piston, one connected with the pressure pipe and the other with the exhaust pipe of the elevator operating means, a pilot valve connected with said conductors and means connected with the power cylinder of the elevator operating mechanism and controlled by the pressure therein for choking the conductor connected with the exhaust at the start of the ascent with a heavy load.

[Claims 6 to 37 not printed in the Gazette.]

1,082,883. WATER-POWER WHEEL. WILLIAM B. LEFLER, Springfield, Nebr. Filed Oct. 21, 1912. Serial No. 727,056. (Cl. 170-112.)



The combination with spaced supporting piers mounted in a body of flowing water and convergent channels arranged inwardly thereof to direct the water between the same; of a shaft rotatably supported from the piers, arms pivotally carried thereby, a water wheel rotatably carried at the free ends of the arms, said water wheel embodying a closed drum having peripheral pockets to catch the water, the drums serving to float the wheel and permit the passage of floating objects therebeneath, drive connections between the wheel and the shaft and means for deriving power from the shaft.

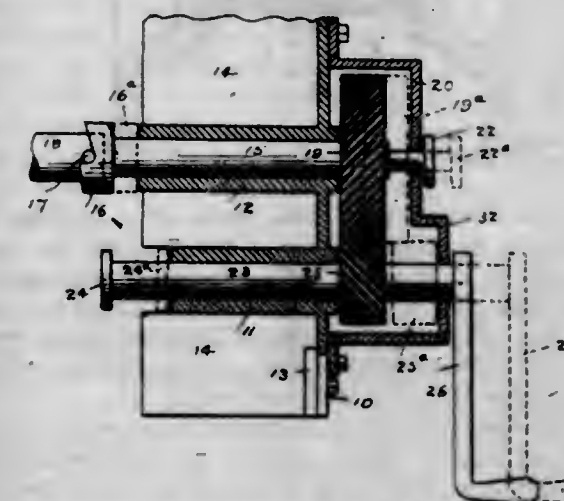
197 O. G.—75

1,082,884. ADJUSTABLE TABLE. MARY L. LEONARD, Albany, N. Y. Filed June 13, 1912. Serial No. 703,416. (Cl. 45-58.)



A table adapted for use in an automobile, comprising two leaves; suitable hinges connecting the leaves; means for supporting the leaves at or near their point of union, adapted to prevent the leaves from movement on the hinges; a supporting bracket on the end of each leaf adapted to rest upon and engage the side arms of the seat of an automobile, each bracket composed of a single piece of wire curved and bent upon itself, forming two parallel portions separated from each other, the curved end bent at about right angles to the parallel portions forming a projecting part which engages the side of the seat; and means at the end of each leaf for receiving and adjustably holding the parallel portions of said bracket, substantially as described.

1,082,885. STARTING DEVICE FOR EXPLOSIVE-ENGINES. BENJAMIN B. LEWIS, Bridgeport, Conn. Filed June 24, 1912. Serial No. 705,532. (Cl. 74-36.)



1. In a starting device for an explosive engine, the combination with the crank shaft of the engine of a starting lever support, having two parallel bearings, a cranking shaft slidably journaled in one of the bearings, carrying at one end a shaft grip, a spiral gear fixedly mounted upon the opposite end of said shaft, a shaft journaled within the other bearing, having a longitudinal movement, a spiral gear made fast to said shaft and intermeshing with the spiral gear of its parallel member, said last named shaft having an interior terminal collar, and a starting lever fixedly attached thereto.

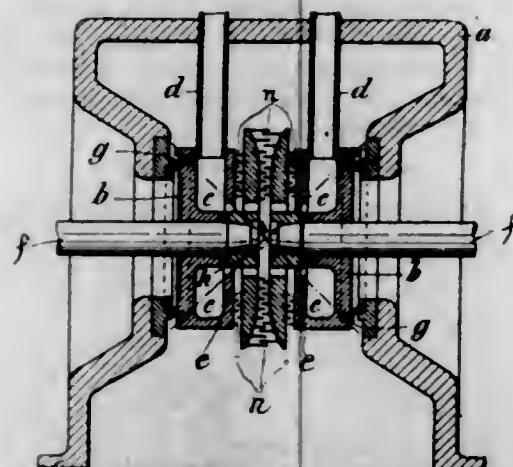
2. In a starting device for an explosive engine the combination with the crank shaft of the engine of a starting lever support having two parallel bearings, a cranking shaft slidably journaled in one of the bearings, carrying at one end a shaft grip, a spiral gear fixedly mounted upon the opposite end of said shaft, a shaft journaled within the other bearing with a longitudinal movement, a spiral gear made fast to said shaft and intermeshing with the spiral gear of its parallel member, a starting lever fixedly attached to said last named shaft, and an inclosing gear case having a passage way for the starting lever shaft.

3. In a starting device for explosive engines, the combination with the crank shaft of the engine, of a starting lever support, having two parallel bearings, a cranking shaft slidably journaled in one of the bearings, carrying at one end a shaft grip, a spiral gear fixedly mounted upon the opposite end of said shaft, a shaft journaled within the other bearing, a spiral gear made fast to the said shaft and intermeshing with the spiral gear of its

parallel member, a retaining collar, and a starting lever fixedly attached to the said last named shaft.

4. In a starting device for an explosive engine, the combination with the crank shaft of the engine of a starting lever support having two parallel bearings, a cranking shaft slidably journaled in one of the bearings, carrying at one end a shaft grip, a spiral gear fixedly mounted upon the opposite end of said shaft, a shaft journaled within the other bearing, a spiral gear made fast to the said shaft and intermeshing with the spiral gear of its parallel member, a starting lever fixedly attached to said last named shaft, and an inclosing gear case having a passage way for the starting lever shaft.

1,082,886. STEAM-TURBINE. FREDRIK LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, Liljeholmen, Sweden. Filed Feb. 4, 1913. Serial No. 746,167. (Cl. 121-60.)



1. In combination with two parts of a turbine structure arranged in parallel planes transversely to the axis of the shaft, a connecting device between said parts, expandable under the action of heat and adapted to compensate for the movement of one of said parts by heat-expansion, the said device being connected with the said two parts at points lying on different radii.

2. In combination with a casing, a part of a turbine structure within the same subject to the heating action of the actuating fluid with consequent expansion and a connecting conoidal ring.

3. In combination with a turbine casing, a discharging disk arranged to be heated by the actuating fluid, a turbine-disk in proximity thereto, and a conoidal ring connecting said discharging disk to said casing and adapted to expand unequally for drawing back said discharge disk to compensate for the displacement of the operative surface of the latter by expansion.

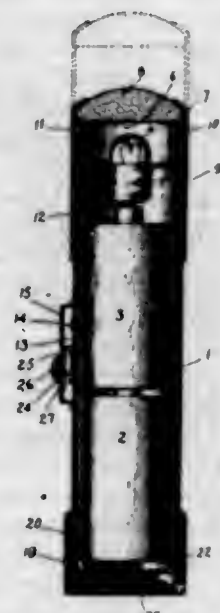
4. In combination with the rotary disks of a turbine, a pair of relatively stationary discharging disks in proximity thereto, having steam chambers, means for supplying said chambers, a casing and a pair of conoidal expandable rings connecting said discharge-disks and casing, the larger parts of said rings engaging the said disks and by the greater expansion of such parts operating to flatten and draw back the discharge-disks as set forth.

5. In combination with a grooved discharge-disk and a grooved casing, a conoidal connecting ring reinforced and rounded at its edges which fit pivotally into said grooves, the larger edge being in engagement with said disk, means for supplying steam to the latter and a rotary turbine in proximity thereto.

1,082,887. CONTACT DEVICE FOR HAND-LAMPS. LORENZ MAISEL, Madison, Wis., assignor to Northern Chemical Engineering Laboratories, a Corporation of Wisconsin. Filed Sept. 13, 1913. Serial No. 789,611. (Cl. 240-8.5.)

1. In a battery hand lamp, the combination of a casing, batteries and a lamp therein, a housing secured to said

casing and permanently connected with said batteries, a conductor connected with said lamp and terminating within said housing, and a sliding contact member positioned within said housing and movable into and out of contact with that part of said conductor which is within said housing.



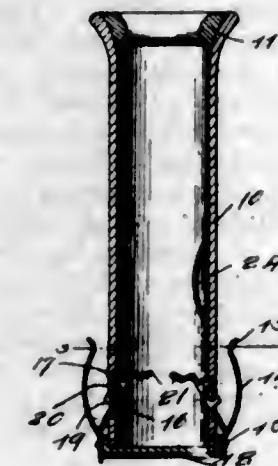
2. In a tubular hand lamp, the combination of an insulating casing, batteries and a lamp therein, and a contact device for establishing connection between said batteries and said lamp, said contact device comprising a housing secured to said casing, and a sliding member positioned within said housing and having a projection locking it against movement except after an inward thrust thereon.

3. In a battery hand lamp, comprising a casing, batteries and a lamp therein, conductors leading respectively from said batteries and said lamp, and a contact device for connecting said conductors, said device comprising a housing permanently connected to one of said conductors, and a resilient member positioned within said housing and movable with a sliding motion along said housing into contact with the other conductor, said resilient member initially having locking engagement with the housing and means for pushing said resilient member inward out of locking engagement with said housing, preparatory to its advancement into contacting position.

4. In a battery hand lamp, the combination of a tubular fiber casing, batteries and a lamp therein, a slot in said casing, a conductor leading from said lamp through said slot and terminating in a contact lug, a housing inclosing said lug to shield it against accidental contact, a connection between said housing and said batteries, and a resilient member mounted within said housing and movable with a sliding motion along said housing and across said slot into contact with said lug, a thumb piece for said resilient member, and means for locking said member initially against sliding movement until said thumb piece is pressed inward toward the casing.

5. In a tubular hand lamp, the combination of a casing, batteries and a lamp therein, an opening in said casing, a conductor leading from said lamp through said opening and terminating in a contact lug, a housing secured to said casing and enveloping said lug, a permanent connection between said housing and said batteries, said housing having a longitudinal slot, a U-shaped resilient member within said housing and slidably mounted to move across the opening in said casing into and out of contact with said lug, said resilient member carrying a thumb piece projected through the slot in said housing, and also carrying a lug adapted by engagement with a slot in said housing to serve as a stop initially preventing the sliding movement until the thumb piece has been pushed inward far enough to disengage said lug from its slot, thereby protecting the lamp against accidental lighting.

1,082,888. WHIP-SOCKET. CHARLES MANN, Quapaw, Okla. Filed July 29, 1912. Serial No. 712,083. (Cl. 21-130.)

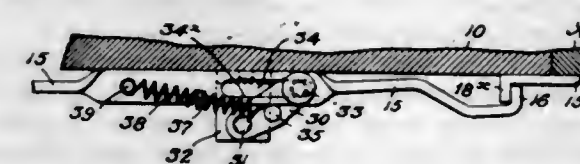


1. A whip socket comprising a casing having openings in its opposite sides, whip butt engaging arms slidably and pivotally mounted in said openings, and having their inner ends adapted for engagement with a whip butt, and means resiliently engaged against the outer ends of said arms for holding the latter in position.

2. A whip socket comprising a casing, a spring secured across the bottom of the casing and having upwardly directed arms, said casing being provided with openings therethrough at diametrically opposite points and beneath the arms of the spring, and whip butt engaging arms slidably and pivotally mounted in said openings and having the outer ends engaged with said spring arms and their inner ends adapted for binding engagement with a whip butt within said casing.

3. A whip socket comprising a casing having diametrically opposite openings in the sides thereof near the bottom of said casing, pivot pins extending transversely through said openings, whip butt engaging arms projecting through said openings and having central off set pockets for the pivot pins, whereby said arms may slide and swing upon the pivot pins, the inner ends of the said arms being adapted to receive therebetween the end of a whip butt within the casing, means within said casing for guiding the whip butt to the arms, and spring arms engaged against the outer ends of said whip butt engaging arms to resiliently retain said engaging arms in position.

1,082,889. TABLE-LOCK. EDGAR L. MARSTON, Somerville, Mass., assignor to Charles J. Brown, Newton, Mass. Filed Apr. 17, 1911. Serial No. 621,447. (Cl. 45-9.)



1. A table lock comprising an operating rod having an inclined face, a catch on said rod, means on one of the table sections for moving said rod longitudinally, an abutment on the other table section adapted to be engaged by said catch for drawing the sections together, a member pivotally mounted on one of the table sections for effecting lateral movement of the rod, means on said member in eccentric relation to the axis of said member for coacting with said inclined face to effect lateral movement of the rod when said rod is moved longitudinally, and means connecting said rod and said pivotal member for swinging the latter to impart movement to said eccentric means to augment the lateral movement of the rod.

2. A table lock comprising an operating rod having an inclined face, a catch on said rod, means on one of the table sections for moving said rod longitudinally, an abutment on the other table section adapted to be engaged by said catch for drawing the sections together, a member

pivotally mounted on one of the table sections for effecting lateral movement of said rod, means on said member in eccentric relation to the axis of said member for coacting with said inclined face to effect lateral movement of the rod when said rod is moved longitudinally, and means on said pivotal member having sliding engagement with said rod for transmitting lateral movement of the rod to the pivotal member said transmitting means being adapted to move said eccentric means so as to augment said lateral movement.

3. A table lock comprising an operating rod having two oppositely disposed longitudinal faces and an inclined face meeting one end of one of said longitudinal faces, a catch on said rod, an abutment on one of the table sections adapted to be engaged by said catch, means on the other table section for moving said rod longitudinally to draw the sections together, and a lever mounted on one of the table sections for causing said rod to move laterally to and from its operative path, said lever having means engaging said faces of the rod whereby the rod is moved laterally to and guided in said path, and whereby the said lever is moved to augment the lateral movement of the rod.

4. A table lock comprising an operating rod having a catch, an abutment on one of the table sections adapted to be engaged by said catch, means on the other table section for moving said rod longitudinally to draw the sections together, and a lever for causing said rod to move laterally to and from its operative path, said lever being mounted on one of the table sections and having projections extending laterally, said rod having faces adapted to move on said projections and to effect lateral movement of the rod to its operative path, said faces being adapted to effect movement of the lever to augment lateral movement of the rod, and to permit independent longitudinal movement of the rod when the rod is in its operative path.

5. A lock for extension tables, comprising a rod movably mounted on one table section, an abutment on the other table section, said rod having a catch adapted to coact with said abutment when the sections are closed, each extension leaf having a rod provided with a catch any one of which is adapted to coact with said abutment, each leaf rod having an abutment adapted to be engaged by any one of said catches whereby all of said rods may be connected in a series from one table section to the abutment on the other section, yielding means for normally holding said catches out of the path of said abutments, means on said first table section for moving the first rod longitudinally, devices pivotally mounted on said first table section and said extension leaves respectively for co-operating with said rods, said devices and rods having coactive surfaces for moving said catches laterally in consequence of longitudinal movement of said rods, said rods and devices having other connections for transmitting lateral movement of said rods to cause angular movement of said devices about their pivots, such angular movement reacting through said coactive surfaces to augment the lateral movement of said catches whereby the latter are adjusted for cooperation with said abutments, said rods being capable of further longitudinal movement to draw said sections together after said catches have been adjusted as aforesaid.

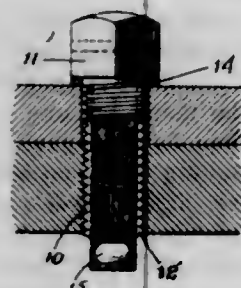
1,082,890. ROD-PACKING AND PROCESS OF MAKING SAME. ARCHIBALD MCLEAN, Fort Steilacoom, Wash. Filed Aug. 7, 1912. Serial No. 713,905. (Cl. 121-107.)



1. The method of producing packing material, which consists in first placing an initial coating of grease on metallic strands, and afterward applying to the said grease coating, a powdered carbonaceous-like lubricant.

2. A packing composition, comprising metallic strands, an initial coating of hard grease directly covering the individual strands, and a coating of powdered carbonaceous-like material applied to said initial grease coating.

1,082,891. LOCKING SCREW. HUBERT MEREDITH-JONES, New York, N. Y. Filed Mar. 24, 1913. Serial No. 756,308. (Cl. 151—31.)



1. A locking screw having a slot extending the length of the shank and into the head and a locking plate in said slot having a head wider than the shank of the screw and a bump or projection below the end of the screw shank whereby the end of the screw is expanded, thereby bringing the threads of the screw into close engagement with the threads of the work by continued inward movement of the screw after the head of the locking plate has engaged the work.

2. A locking screw having a slot extending the length of the shank and into the head, and a locking plate in said slot having a shank of less width than the diameter of the screw and a head of greater width than the diameter of the screw so as to bear upon the work and a bump or projection below the end of the screw which is adapted to be drawn into the slot to expand the point of the screw when the head of the screw engages the work.

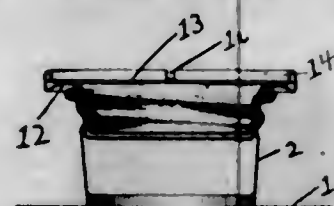
3. A locking screw having a slot extending the length of the shank and into the head and a locking plate in said slot having a head wider than the shank of the screw and a bump or projection below the end of the screw shank and means for retaining the locking plate in engagement with the screw.

4. A locking screw having a slot extending the length of the shank and into the head and a locking plate in said slot having a head wider than the shank of the screw and a bump or projection below the end of the screw shank, the head of the locking plate being provided with recesses and the metal at the ends of the slots being upset into said recesses to retain the locking plate in engagement with the screw.

5. A locking screw having a slot extending the length of the shank and into the head and a locking plate in said slot having a head wider than the shank of the screw and a bump or projection below the end of the screw shank, means for retaining the locking plate in engagement with the screw and said screw having a hole in the head leading into the slot, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,082,892. SEALING DEVICE FOR CANS, &c. STEPHEN W. MILLIGAN, Elizabeth, and JACOB F. JACOBSEN, Newark, N. J., assignors to The Manufacturers Can Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 19, 1912. Serial No. 672,190. (Cl. 220—77.)



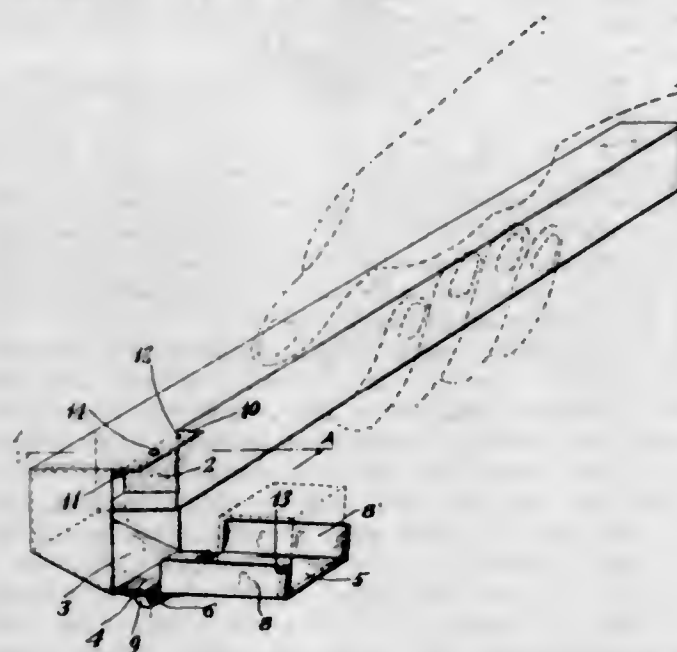
1. A can seal comprising the combination of a tapered can spout having in it circumferentially a screw thread adjacent its outer end and an annular laterally projecting flange at its outer end, a tapered sheet metal cup-shaped

sealing member having a thread in its circumferential wall engaging the thread in the spout and a flange crimped around the flange of the spout.

2. A can sealing device comprising a tapered can spout having in it circumferentially a screw thread and at its outer end a laterally projecting flange, a tapered cup-shaped sealing member having impressed in its circumferential wall a screw thread adapted to engage the thread in the can spout, and having a flange crimped around the flange of the spout and a tapered plug having a circumferential thread adapted to engage either the thread in the sealing member or the thread in the can spout.

3. A can seal comprising the combination of a can spout secured in and projecting upwardly from the can top, and a sheet metal cup-shaped sealing member closed at the bottom, fitting in the spout and permanently rigidly secured at its upper edge to the edge of the spout, the sealing member being adapted to receive a removable closure plug.

1,082,893. SUGAR-CONTAINER. ROBERT C. MORRIS, New York, N. Y. Filed May 17, 1913. Serial No. 768,213. (Cl. 211—8.)



1. A server for sugar and the like comprising an elongated body portion having an exit near one end for the lumps and a door adapted to close said exit, said door acting as a guide chute or tray from which the lumps may be easily deposited where desired, and the device being adapted to be operated by hand to open the door, to cause the lumps to pass onto the open door as a tray and to deposit the lumps from the door where desired, all while the device is carried by the hand.

2. A server for sugar and the like comprising an elongated body portion having an exit at one side adjacent one end thereof for the lumps and a door adapted to close said exit, said door acting as a guide chute or tray from which the lumps may be easily singly deposited where desired and the device adapted to be operated by hand to open the door, to cause the lumps to pass onto the open door as a tray and to deposit the lumps from the door where desired, all while the device is carried by hand.

3. A server for sugar and the like comprising a body portion having an exit near one end for the lumps and a door adapted to close said exit, said door acting as a guide chute or tray from which the lumps may be easily singly deposited where desired, the bottom of the server beneath the end lump adjacent the door being inclined downwardly to the door at an angle to the bottom of the body portion, and the device being adapted to be operated by hand to open the door, to cause the lump to pass onto the open door as a tray and to deposit the lumps from the door where desired, all while the device is being carried by the hand.

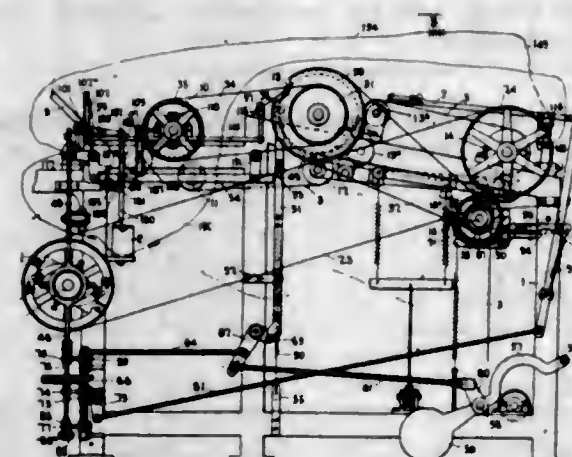
4. A container and server for sugar lumps and the like, comprising an elongated body portion adapted to hold a single row of sugar lumps or the like, having an opening

at one side adjacent one end thereof, through which the lumps are adapted to pass, a hinged door for closing said opening, means for locking said door, and a spring tending to open said door, said door being provided with flanged sides whereby the door when open is adapted to form a guide chute along which the lumps are adapted to pass, and the bottom of the container opposite said door being inclined downwardly to said chute at an angle to the bottom of the body of the container.

5. A container and server for sugar lumps and the like, comprising a body portion adapted to hold sugar lumps or the like, having an opening at one side adjacent one end thereof through which the lumps are adapted to pass, and a hinged door for closing said opening, said door forming a guide chute along which the lumps are adapted to pass.

[Claims 6 to 9 not printed in the Gazette.]

1,082,894. PILE-CUTTING MACHINE. ARTHUR MORTON, Warwick, R. I., assignor to Crompton Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 10, 1907, Serial No. 387,960. Renewed Feb. 7, 1913. Serial No. 746,922. (Cl. 26—9.)



1. In a pile cutting machine, the combination, with means for feeding the fabric through the machine, of a knife adapted to enter the race of the fabric, and a knife-holder mounted to have more or less forward and back movement to enable said knife to accommodate itself to the varying conditions presented.

2. In a pile cutting machine, the combination, with means for feeding the fabric through the machine, of a knife adapted to enter the race of the fabric, and a knife-holder mounted to normally yield in the direction of the thrust exerted thereon by the fabric.

3. In a pile cutting machine, the combination, with means for feeding the fabric through the machine, of a knife adapted to enter the race of the fabric, and a spring for holding said knife to its work against the thrust of the fabric.

4. In a pile cutting machine, the combination, with means for feeding the fabric through the machine, of a knife adapted to enter the race of the fabric, a spring for holding said knife to its work, and means for adjusting the tension of said spring.

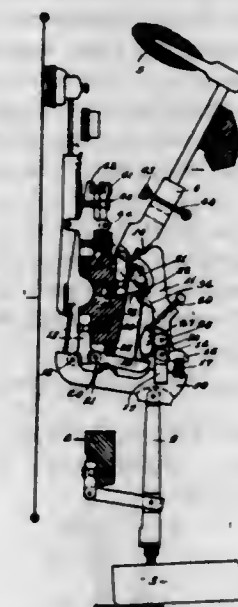
5. In a pile cutting machine, the combination, with means for feeding the fabric through the machine, of a knife adapted to enter the race of the fabric, and means for moving said knife to one side, in case the knife flies out of the race.

[Claims 6 to 60 not printed in the Gazette.]

1,082,895. PIANO-ACTION. RICHARD H. MULLINER, Syracuse, N. Y. Filed June 12, 1912. Serial No. 703,230. (Cl. 84—26.)

1. In a piano action, a wippen, a jack carried by the wippen, and a member arranged in the path of movement of the wippen and mounted to move relatively to the wippen, said member being also arranged to engage the jack to force the same out of engagement with the ham-

mer butt during the action of the wippen, substantially as and for the purpose described.



2. In a piano action, a wippen, a jack carried by the wippen and formed with a shoulder, and a pivoted member arranged in the path of movement of the wippen and to move relatively to the wippen into engagement with said shoulder to force the jack out of engagement with the hammer butt, substantially as and for the purpose specified.

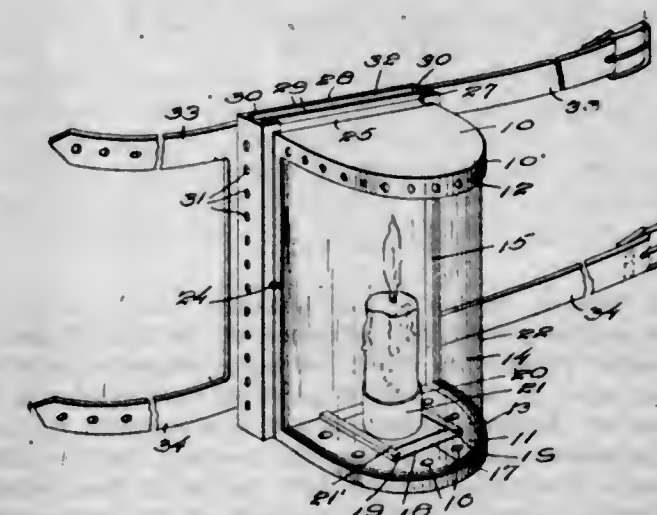
3. In a piano action, a pivoted wippen, a jack carried by the wippen, a lever arranged in the path of movement of the wippen, the lever having a different pivotal point from that of the wippen and being arranged to engage the jack to move the same out of engagement with the hammer butt, substantially as and for the purpose set forth.

4. In a piano action, a pivoted wippen, a jack pivotally connected to the wippen and having a shoulder, and a lever arranged above the wippen in position to be actuated thereby, the lever having a different pivotal point from that of the wippen, said lever being arranged to coact with said shoulder to move the jack relatively to the wippen out of engagement with the hammer butt, the lever extending in the path of the wippen in position to be actuated thereby, substantially as and for the purpose described.

5. In a piano action, two levers arranged to have relative movement, and a jack carried by one of the levers and movable therewith and having a portion arranged in the path of movement of the other lever, so that the jack is moved relatively to the lever which carries the jack, substantially as and for the purpose specified.

[Claims 6 to 20 not printed in the Gazette.]

1,082,896. LANTERN. JOHN A. NEILL, Sheridan, Ind. Filed Oct. 23, 1912. Serial No. 727,393. (Cl. 240—13.)

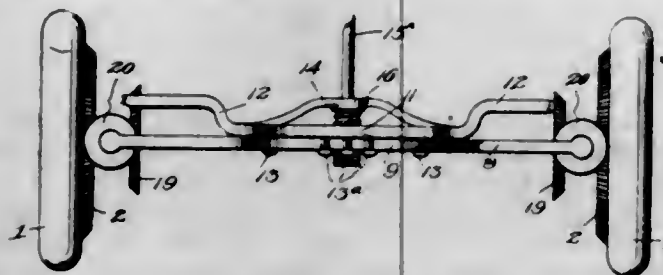


1. A lantern comprising a support adapted to be secured to the body of a person, said support consisting of

a vertical hollow open ended member, attaching straps secured to the rear face of said member, socket members secured to the front face, a lamp having flanged members on the rear thereof for engagement in said socket member, the hollow support having openings in the sides to permit a circulation of air therethrough.

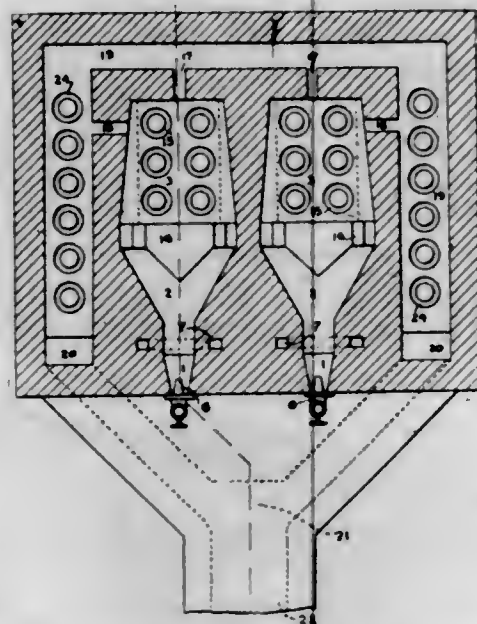
2. A lantern comprising a support, attaching straps secured to the support on one side thereof, tapering socket members secured to the opposite side of said support, said support consisting of a hollow open-ended convex member, having openings in its side walls to permit circulation of air therethrough, a lamp consisting of a frame having tapered flanges on the rear thereof, adapted to engage in the socket members, and means for holding a candle in said frame.

1,082,897. WHEEL ATTACHMENT. JACOB NEWHOUSE, Brownville, Minn. Filed Mar. 2, 1912. Serial No. 681,048. (Cl. 21—90.)



In combination, a frame having a central arch, studs secured to said arch, a crossbar having a semicircular arch for coaction with said first mentioned arch with slots engaged by said studs, a bearing sleeve secured to each end of said cross bar, a driven shaft having its ends working within bearings of said sleeves, a vertical pinion shaft revolubly held within each sleeve, a stud axle extending from each pinion shaft, a wheel upon each stud axle, a gear ring secured to each wheel, a pinion upon each pinion shaft in mesh with a gear ring, and gears upon said driven shafts in mesh with said pinions.

1,082,898. FURNACE. FREDRICK J. NICE, Pontiac, Mich. Filed Feb. 12, 1913. Serial No. 747,834. (Cl. 75—186.)

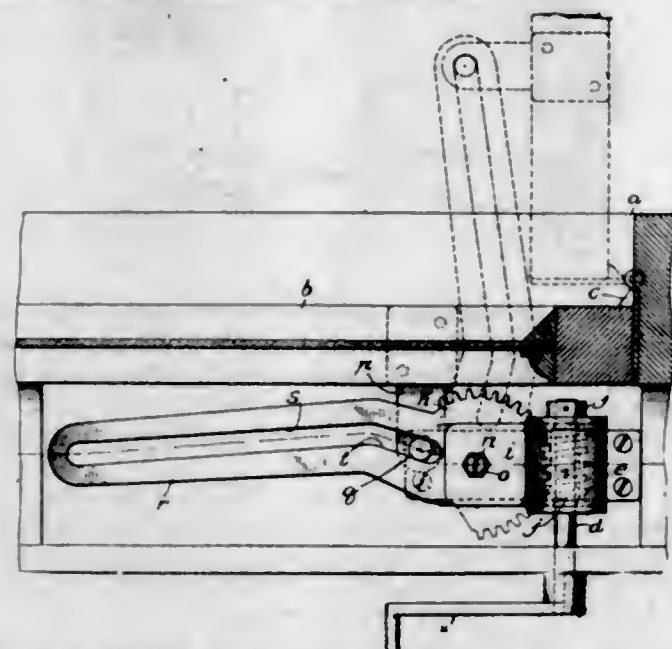


1. A furnace, having in combination, walls shaped to form a narrow preparatory chamber, at one end of which the walls diverge to form a preparatory-combustion chamber and a baffle wall separating said preparatory combustion chamber from a larger substantially rectangular chamber that forms a main heating chamber, the said walls being also formed with leadaway flues which lead from a passage way at the back of the main combustion chamber on either side of the main heating chamber, the preparatory combustion chamber and preparatory

chamber to the front of the furnace, the said leadaway flues communicating with the main heating chamber on at least one side and being of depth sufficient to substantially insheath the said three chambers, a burner located at the end of the preparatory chamber opposite the preparatory-combustion chamber, and covers removably attached to the furnace walls so that access can be had to the main heating chamber and also to the leadaway flues whereby the leadaway flues may be used for preliminary heating as well as insheathing of the chambers to prevent radiation of heat, substantially as described.

2. A furnace comprising refractory material forming a narrow preparatory chamber, a preparatory combustion chamber beyond said preparatory chamber and formed by the walls diverging from the walls of the preparatory chamber and a substantially rectangular main heating chamber located beyond the preparatory combustion chamber and divided therefrom by a baffle wall, the said refractory material forming also passage ways leading down from the top of the furnace on either side of the preparatory chamber and discharging thereinto, a burner located at the end of the preparatory chamber opposite the preparatory combustion chamber and a pipe for furnishing air to the said burner and to each of the passage ways leading into the preparatory chamber, substantially as described.

1,082,899. WINDOW-SASH-OPERATING APPARATUS. WINSLOW R. PARSONS, Chicago, Ill. Filed Dec. 19, 1910. Serial No. 598,026. (Cl. 16—136.)



1. In a device of the class described, a window casing and a sash pivoted therein, a pin supported by the sash, a lever provided with an angular slot engaging said pin, a worm and a gear connection between the lever and the worm, substantially as described.

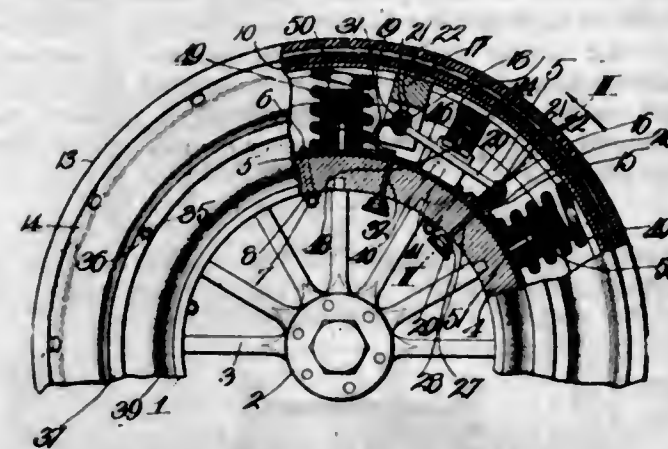
2. In a device of the class described, a window casing and a sash pivoted therein in combination with a worm, means for rotating it, a segment gear meshing therewith, a lever swung by said segment having a slot therein, the inner end of which slot is at an inclined angle, relative to its outer end and a projection carried by the sash engaging said slot, substantially as described.

3. In a device of the class described the combination with a worm and means for rotating it, of a worm gear segment meshing therewith, an arm swung by said segment having a slot therein with the inner end thereof acting as a cam, and a projection carried by the sash engaging the slot of the arm.

1,082,900. RESILIENT WHEEL. FREDERICK F. PATZMAN, Kansas City, Mo. Filed Oct. 17, 1911. Serial No. 655,199. (Cl. 152—37.)

1. A resilient wheel, comprising an inner member provided with a peripherally channeled circular rim, an

outer member consisting of a compressible tread and an internally channeled circular rim, flexible rings at opposite sides of the peripherally channeled rim and secured at their inner margins thereto, and at their outer margins to the internally channeled rim, springs interposed between and bearing against said rims, a series of brackets secured to the inner rim and a like number of brackets secured to the outer rim, and links connecting the brackets of one of said rims with the brackets of the other rim and extending at approximately right angles to the radii of the wheel drawn therethrough; each link being loosely pivoted at one end and restricted at its other end to pivotal movement in a plane parallel with the face or side of the wheel.



2. A resilient wheel, comprising an inner member provided with a peripherally channeled circular rim, an outer member consisting of a compressible tread and an internally channeled circular rim, the last-named rim fitting around and snugly embracing the first-named rim with a sliding relation, flexible rings at opposite sides of the peripherally channeled rim and secured at their outer margins to the inner side of the internally channeled rim and at their inner margins to the peripherally channeled rim, a series of springs arranged within and bearing at their opposite ends against said rims and tending to hold the same in concentric relation, brackets secured to the inner rim within the channel thereof, a similar number of brackets secured to and within the channel of the outer rim and links connected to the brackets of the inner rim and restricted to pivotal movement thereon, said links also having a pin and slot connection with the brackets of the outer rim.

3. In a resilient wheel, an inner member, an outer member surrounding the inner member, springs interposed between and bearing against said members and tending to hold them in concentric relation, brackets secured to the inner member, brackets secured to the outer member, links pivotally connecting the first-named and last-named brackets in pairs, oil reservoirs secured to the inner member of the wheel, pipes extending outwardly from said reservoirs, and flexible tubes leading from the said pipes to the pivotal points of said links.

4. A resilient wheel comprising telescoping inner and outer rims, said outer rim having a resilient tread surface, flexible ring coverings for sealing the joints between said rims, a series of slotted blocks secured to the inner rim within the space between said inner and outer rims, each of said blocks carrying a resilient plug slightly spaced normally from the outer rim, and a series of link connections extending through the slots of said blocks and having lateral play therein, each of said links being pivoted to the inner rim and having a loose play connection with the outer rim.

1,082,901. RECIPROCATING ENGINE. EDWIN A. PERKINS, Cambridge, Mass. Filed Feb. 6, 1908. Serial No. 414,486. (Cl. 121—12.)

1. A reciprocating engine having a body or casing and formed therein separate chambers with a passage connecting said chambers, pistons located within said respective chambers and a piston rod connecting said pistons by extending through said passage, said rod for a por-

tion of its length having a diameter less than the diameter of said passage leaving an opening between the wall of said passage and said rod, said engine and parts thereof being also provided with a fluid inlet passage communicating with said opening and with by-passes in constant communication with said opening on opposite sides of said inlet passage and leading to the adjacent ends of said chambers, and with exhaust passages connecting with portions of said opening on opposite sides of said inlet passage, said parts being adapted and arranged also whereby fluid pressure admitted as aforesaid may be alternately supplied to said opening on opposite sides of said inlet passage and to the adjacent ends of said respective chambers and exhaust therefrom through said opening and said exhaust passages as said exhaust passages become successively uncovered during the reciprocation of said pistons.

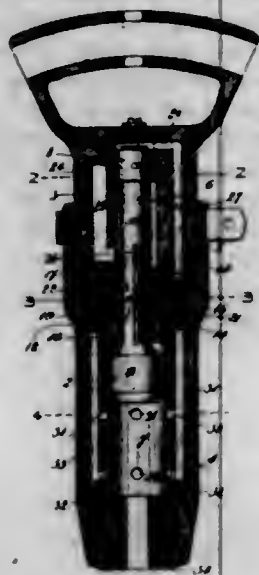


2. A reciprocating engine having a body or casing and formed therein separate chambers with a passage connecting said chambers, pistons located within said respective chambers and a piston rod connecting said pistons by extending through said passage, said piston rod for a portion of its length having a diameter less than the diameter of said passage leaving an opening between the wall of said passage and said rod, said engine and parts thereof being also provided with a fluid inlet passage communicating with said opening, and with by-passes on opposite sides of said fluid inlet passage in constant communication with said opening and leading to the adjacent ends of said chambers, and with exhaust passages on opposite sides of said fluid inlet passage removed from one another a distance longer than the length of the opening between the wall of said passage and the contracted portion of said rod as aforesaid and connecting with some portion thereof as said pistons are reciprocated, said parts being adapted and arranged also whereby fluid pressure admitted as aforesaid may be alternately supplied to said opening on opposite sides of said inlet passage and to the adjacent ends of said respective chambers and exhaust therefrom through said opening and said exhaust passages as said exhaust passages become successively uncovered during the reciprocation of said pistons.

1,082,902. RECIPROCATING ENGINE. EDWIN A. PERKINS, New York, N. Y. Filed Sept. 14, 1911. Serial No. 649,365. (Cl. 121—2.)

1. In an engine of the character specified, the combination of a body or casing having formed therein separate chambers with a partition or diaphragm separating said chambers, pistons located within said respective chambers one of which pistons is larger than the other, a piston rod connecting said pistons through said diaphragm, the

said engine being provided also with a valveless way through which fluid pressure may be constantly admitted to the inner end of the smaller one of said pistons and intermittently admitted to the inner end of the larger one of said pistons for effecting the reciprocation thereof.



2. In an engine of the character specified, the combination of a body or casing having formed therein separate chambers with a partition or diaphragm separating said chambers, pistons located within said respective chambers one of which pistons is larger than the other, a piston rod connecting said pistons through said partition or diaphragm and having formed therein grooves by which communication is had between said chambers when said pistons are in a retracted position, the said body or casing of the engine having also formed therein valveless inlet and exhaust passages by which fluid pressure may be constantly admitted to the chamber containing the smaller one of said pistons and intermittently admitted through the grooves formed in said piston rod into the chamber containing the larger one of said pistons and outlet therefrom as said pistons are reciprocated.

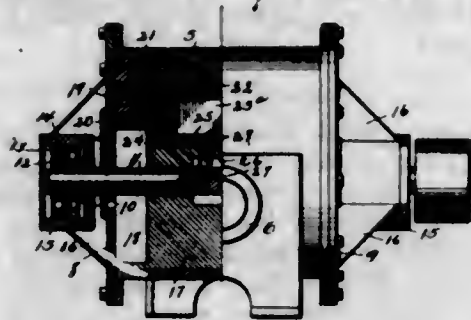
3. In an engine of the character specified, the combination of a body or casing having formed therein separate chambers with a partition or diaphragm separating said chambers, pistons located within said respective chambers one of which pistons is larger than the other, a piston rod connecting said pistons through said partition or diaphragm, said piston rod having grooves formed therein to provide communication between said chambers when said pistons are in a retracted position, said body or casing having also formed therein a valveless fluid inlet passage communicating with the inner end of said chamber containing the smaller one of said pistons to have constant communication with the inner end of said smaller piston, said casing having also an outlet passage therein communicating with the outer end of the chamber containing the larger one of said pistons at points beyond the outer end of said larger piston when in a retracted position.

4. In an engine of the character specified, the combination of a body or casing having formed therein separate chambers with a partition or diaphragm separating said chambers, pistons located within said respective chambers one of which pistons is larger than the other, a piston rod connecting said pistons through said partition and provided with a way by which communication is had between said chambers when said pistons are in a retracted position, said engine having an inlet passage by which fluid pressure may be constantly admitted to the chamber containing the smaller of said pistons and to the inner end of said smaller piston and intermittently admitted through the said way provided in said piston rod into the chamber containing the larger of said pistons and to the inner end of said larger piston, said engine having also an exhaust passage by which the fluid pressure may escape

from the chamber containing said larger piston as said pistons are reciprocated.

5. In an engine of the character specified, the combination of a body or casing having formed therein separate chambers with a partition or diaphragm separating said chambers, pistons located within said respective chambers one of which pistons is larger than the other, a piston rod connecting said pistons through said partition and provided with a way by which communication is had between said chambers when said pistons are in a retracted position, said partition having also a packing chamber formed therein and one side of which is open to said piston rod and the rear side of which chamber is in open communication with the chamber containing the smaller of said pistons, a fluid-pressed packing arranged in the open side of said packing chamber around said piston rod, said casing having also a fluid inlet passage in constant communication with the chamber containing the smaller of said pistons, said casing having also an exhaust passage communicating with the chamber containing the other of said pistons.

1,082,903. ROTARY BLOWER OR PUMP. LOUIS N. PERKINS, Connersville, Ind. Filed Feb. 26, 1913. Serial No. 750,825. (Cl. 230—30.)



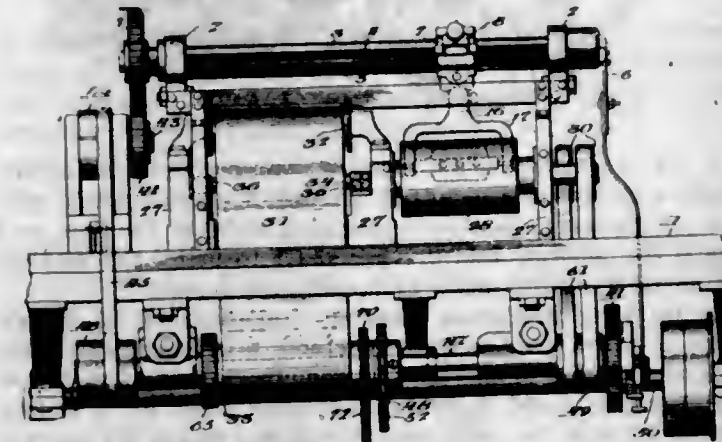
1. In a device of the character described, the combination with a casing, a shaft eccentrically mounted with relation thereto, a rotor disposed within said casing and carried by said shaft, an oil chamber formed within said rotor, means for conducting oil through said shaft to said chamber, there being a plurality of arcuate recesses formed in the said rotor and opening to the outer face thereof, rollers seated in said recesses, said rollers having radial slots formed therein and said rollers having rocking movement in said recesses, ports formed in said rollers and ports formed in said rotor, said latter port establishing communication between the ports of the rollers and said oil chamber at a predetermined point in the travel of the rotor and means disposed between said blades and a portion of said casing for causing the outer edges of said blades to travel in close relation to the inner periphery of said casing throughout the rotation of the rotor.

2. In a device of the character described, the combination with a casing, a shaft eccentrically mounted with relation thereto, a rotor disposed within said casing and carried by said shaft, an oil chamber formed within said rotor, means for conducting oil through said shaft to said chamber, there being a plurality of arcuate recesses formed in the said rotor and opening to the outer face thereof, rollers seated in said recesses, said rollers having radial slots formed therein and said rollers having rocking movement in said recesses, ports formed in said rollers and ports formed in said rotor, said latter port establishing communication between the ports of the rollers and said oil chamber at a predetermined point in the travel of the rotor, guides secured to said blade and arcuate ribs carried by said guides there being an annular channel formed concentrically with one of the end walls of the casing within which said ribs engage.

3. In a device of the character described, the combination with a casing, a shaft eccentrically mounted with relation thereto, a rotor disposed within said casing and carried by said shaft, an oil chamber formed within said rotor, means for conducting oil through said shaft to said chamber, there being a plurality of arcuate recesses formed in the said rotor and opening to the outer face thereof,

rollers seated in said recesses, said rollers having radial slots formed therein and said rollers having rocking movement in said recesses, ports formed in said rollers and ports formed in said rotor, said latter port establishing communication between the ports of the rollers and said oil chamber at a predetermined point in the travel of the rotor, guides secured to said blade and arcuate ribs carried by said guides, there being an annular channel formed concentrically with one of the end walls of the casing within which said ribs engage, the ends of said rotor being recessed for the reception of said guides.

1,082,904. RAZOR-SHARPENING MACHINE. JOSEPH PERSAULT and THEOPHILE MARQUIS, Nashua, N. H. Filed Mar. 25, 1913. Serial No. 756,639. (Cl. 51—16.)



1. In a razor sharpening machine, the combination of opposed sharpening devices separated by an intervening space, means for driving the said sharpening devices, a suitably supported hollow shaft arranged above and parallel to said space and having a longitudinal slot, means for rocking said hollow shaft about its axis, a feed screw extending through and movable independently of the hollow shaft, means for rotating the said screw, blade-carrying means mounted on the hollow shaft to turn therewith and move thereon in the direction of the length thereof, a sectional nut disposed in the hollow shaft and in engagement with the feed screw, a standard fixed on the blade-carrying means, a plunger guided in the blade-carrying means and the standard and connected to the sectional nut and having an enlargement at an intermediate point of its length, and a spring surrounding the plunger and interposed between the enlargement thereof and the standard for yieldingly holding the sectional nut in engagement with the thread of the feed screw.

2. In a razor sharpening machine, the combination of opposed sharpening devices separated by an intervening space, means for driving the said sharpening devices, a suitably supported hollow shaft arranged above and parallel to said space and having at one end a crank, a wheel, means for rotating said wheel, a pitman connected to said crank and also connected to said wheel off the center thereof, blade-carrying means mounted on the hollow shaft to turn therewith and move thereon in the direction of the length thereof, and means for moving the blade-carrying means on the hollow shaft lengthwise of the said shaft.

3. The combination of a suitably supported hollow shaft having a longitudinal slot and an exterior longitudinal rib, means for rocking said shaft, a feed screw extending longitudinally through and rotatable independently of the hollow shaft, means for rotating the said screw, blade-carrying means movable lengthwise of the hollow shaft and engaged with said exterior rib so as to turn with the shaft, a nut section carried by said carrying means, and means also carried by said carrying means for yieldingly holding the nut section in engagement with the thread of the feed screw and for enabling an operator to disengage the nut section from the feed screw.

4. In a razor sharpening machine, the combination of a shaft having fast thereon a spur gear, means for rotating said shaft, lower driven rollers, one of said rollers being loosely mounted on said shaft, means for rotating

the roller that is loose on the shaft, intermeshed spur gears connecting the two driven rollers, idler rollers disposed above the driven rollers, stopping belts mounted on the lower driven rollers and the upper idler rollers and separated by an intervening space, abrasive honing rolls separated by an intervening space that is aligned with said space between the stopping belts, means intermediate the said shaft and the honing rolls for driving the latter by the former, means for carrying a razor blade to be sharpened, means for causing the said carrying means to make traverses of the space between the stopping belts and the space between the honing rolls, and means for oscillating the said carrying means incidental to the traverse thereof.

1,082,905. BATHING-SUIT. EMMA A. PLUMMER, New York, N. Y. Filed June 27, 1912. Serial No. 706,161. (Cl. 2—145.)



1. A short skirt for a bathing suit or the like, bisected at and near its lower extremity only, by a transverse partition extending from the front to the rear of the skirt, the upper edge of said partition lying considerably below the crotch of the wearer, the short leg portions thus formed being open at the bottom and arranged to fall freely about the limbs of the wearer.

2. As a new article of manufacture, a skirt opened at the bottom and adapted to fall freely about the limbs of the wearer, said skirt being provided with a folded insert extending beneath the crotch of the wearer and the side edges of the insert being secured to the skirt along each side of the line of bisection of the front and rear thereof, thereby producing two leg portions opened at the bottom, said leg sections being of a sufficient fullness to render the line of bisection invisible when the skirt is worn.

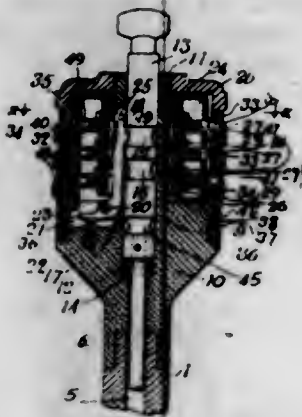
3. As a new article of manufacture, a skirt open at the bottom and arranged to fall freely about the limbs of the wearer, an insert therefor adapted to bisect the same at its lower extremity to produce two leg portions, each open at the bottom, and of sufficient fullness to render the line of bisection invisible when the skirt is worn, said insert being secured to the front and back portions of the skirt, the upper edge of the insert being concave so that the central portion thereof is considerably below the crotch of the wearer.

4. A skirt for bathing suits and the like, bisected at and near the bottom only and having a folded insert extending from the front to the rear thereof, the side edges of said insert being secured to said skirt along each side of the lines of bisection of the front and rear thereof, the lower edges of said insert being upwardly curved or scalloped.

5. A skirt for bathing suits and the like, bisected at and near the bottom and having a folded insert extending from the front to the rear thereof, the folded edge of the insert being concave and passing under the crotch of the wearer and the side edges of the insert converging

toward the bottom so that the insert is shorter at the bottom than at the top, said side edges being secured to said skirt along each side of the lines of bisection of the front and rear thereof.

1,082,906. LOCK FOR AUTOMOBILES AND THE LIKE. JOHN E. POTTS, Dayton, Ohio. Filed Jan. 30, 1913. Serial No. 745,124. (Cl. 70—53.)



1. In a permutation lock, the combination, with a support, and a plunger movably mounted thereon and having a recess, a locking member movable toward and away from said plunger, yieldable means to move said member toward said plunger, said member having a part adapted to enter said recess and constructed and arranged to be forced out of said recess by the movement of said plunger, and a plurality of unconnected and independently movable lock-controlling members to positively retain said locking member in said recess.

2. In a permutation lock, the combination, with a support and a plunger movably mounted thereon, of a locking member movably mounted on said support and adapted to engage said plunger to lock the latter in one of two positions, and a plurality of members extending about said bolt and independently movable relatively thereto for controlling the movements of said locking member, and means to simultaneously move all of the last-mentioned members to their initial positions.

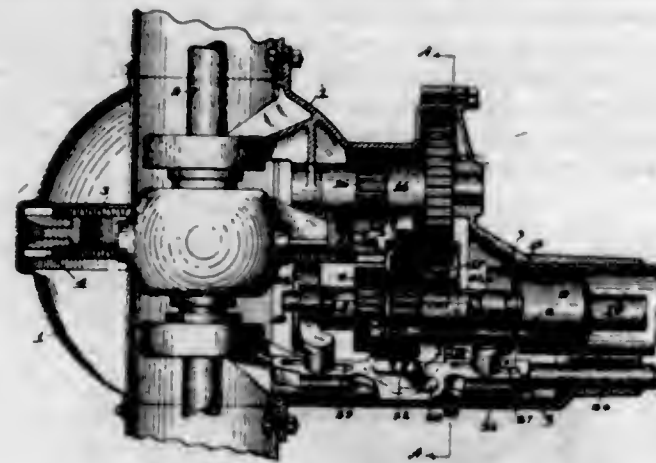
3. In a permutation lock, the combination, with a support and a plunger movably mounted thereon, of a locking member movably mounted on said support and adapted to engage said plunger to lock the latter in one of two positions, a plurality of members extending about said bolt and independently movable relatively thereto for controlling the movements of said locking member, and a single device to move all of the last-mentioned members to their initial positions.

4. In a permutation lock, the combination, with a support and a plunger slidably mounted thereon, said plunger having a recess, of a locking member carried by the support and having a part adapted to enter the recess in said plunger, a plurality of lock-controlling members extending about said plunger and said locking member, each of said lock-controlling members having a recess adapted to be moved into and out of alignment with said locking member, means to move said lock-controlling members to their initial positions, and other means to adjust said lock-controlling members to bring their recesses into alignment with said locking member.

5. In a permutation lock, the combination with a support and a plunger slidably mounted therein, the plunger being formed with a groove, a locking member carried by the support and having a part adapted to enter the groove of the plunger, a plurality of lock-controlling members extending about said plunger and said locking member, each of said lock-controlling members having a recess adapted to be moved into and out of alignment with said locking member, a casing inclosing said lock-controlling members, and means carried by said casing and operable from the exterior thereof for independently actuating said lock-controlling member.

[Claims 6 to 25 not printed in the Gazette.]

1,082,907. TRANSMISSION-GEARING. KARL PROBST, Columbus, Ohio, assignor to The Stone-Probst Axle Company, Columbus, Ohio, a Corporation of Ohio. Filed June 26, 1911. Serial No. 635,397. (Cl. 74—58.)



1. In a transmission gearing construction, a driven shaft, a crown gear mounted thereon, a driving shaft, pinions of different diameters mounted slidably thereon, and means for moving said driving shaft to bring the smaller pinion thereon into mesh with said crown gear.

2. In a transmission gearing construction, a driven shaft, a crown gear mounted thereon, a driving shaft, pinions of different diameters thereon, the larger of said pinions being adapted to be brought into mesh by a sliding movement with the said crown gear, and means for moving said driving shaft to bring the smaller pinion into mesh with said crown gear.

3. A transmission gearing construction comprising a driven shaft, oppositely faced crown gears thereon, a driving shaft, two pinions of different diameters slidably mounted thereon, a countershaft, a pinion thereon adapted to mesh with one of said crown gears, a second pinion mounted thereon, the larger of said pinions on said driving shaft being adapted to be moved slidably into mesh with one of said crown gears or with said second pinion on said countershaft, means for moving the smaller of said pinions slidably on said driving shaft, and means for moving said driving shaft to bring said smaller pinion into mesh with one of said crown gears or with said second pinion on said countershaft.

4. In a transmission gearing construction, a driven shaft, a crown gear thereon, a driving shaft, a relatively large pinion thereon adapted to be slidably brought into mesh with said crown gear, a relatively small pinion thereon, and means for moving said driving shaft to bring said smaller pinion into mesh with said crown gear.

5. In a transmission gearing construction, a driven shaft, a crown gear mounted thereon, a driving shaft, pinions of different diameters mounted on said driving shaft, and rocking means for said driving shaft whereby the smaller of said pinions may be brought into mesh with said crown gear.

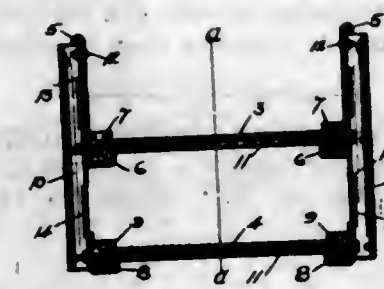
[Claims 6 to 11 not printed in the Gazette.]

1,082,908. ELEVATOR. GEORGE B. READ, Bloomington, Ill. Filed Dec. 15, 1911. Serial No. 665,919. (Cl. 193—8.)

1. An elevator body, comprising in combination, sheet metal trough and return members, and means for spacing said members apart, each of said members consisting of a bottom portion, longitudinal channels formed on each edge thereof by downwardly, outwardly and upwardly bending the edge portions of each member, and filling blocks, fitted to said longitudinal channels to entirely fill the same and project above the tops thereof, said upwardly turned portions of the channels forming exterior walls of the trough and return members.

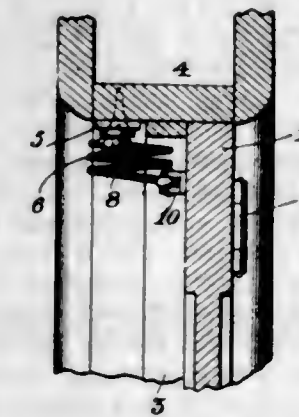
2. An elevator body, comprising, in combination, sheet metal trough and return members and means for spacing said members apart, each of said members consisting of

a bottom portion, longitudinal channels formed on each edge thereof by downwardly, outwardly and upwardly bending the edge portions of each member, filling blocks fitted to said longitudinal channels to entirely fill the



same and project above the tops thereof, and transverse bolts extending through said spacing means, downwardly and upwardly turned portions, and said filling blocks, whereby to form a unitary structure.

1,082,909. DOOR-STAY. OSCAR C. RIXSON, New Rochelle, N. Y. Filed Sept. 23, 1912. Serial No. 721,800. (Cl. 16—81.)



1. The combination with a door and its casing, of a stud protruding at right angles from the casing, a coupling-eye pivoted thereon, a pivot carried by the door parallel to the face thereof, a coupling-eye mounted thereon, and a coiled and looped resilient member secured rigidly at its ends to said coupling-eyes and constituting a door-stay, said member being normally disposed in more or less compact loops when the door is closed, and said loops being distended when the door is opened.

2. The combination with a door and its casing, of a stud depending vertically from the head-casing, a coupling-eye pivoted thereon, and a coiled and looped resilient member secured at one end to said coupling eye and at its other end to said door, said member constituting a door-stay and being normally disposed in compact loops having a vertical axis when the door is closed but being distended by the swinging open of the door.

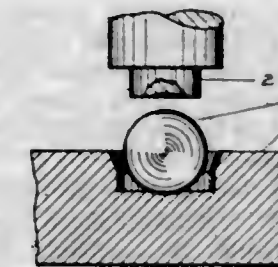
3. A door-stay comprising a pivot depending vertically from the lintel, a vertical pivot carried by the door, a coiled resilient member disposed in loops and with its ends connected to said pivots.

4. A door-stay comprising a coiled member arranged in compact loops and connected to the door and to a stationary support in such manner that the opening of the door distends said loops, said member having sufficient resilience to resume its compact arrangement upon closing the door.

5. A door-stay comprising a coiled and looped resilient member secured to the door and to a stationary support respectively, said loops being distended by opening the door, and automatically drawing themselves together when the door is closed.

[Claims 6 to 9 not printed in the Gazette.]

1,082,910. PROCESS OF FORGING. ALBERT F. ROCKWELL, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 16, 1911. Serial No. 608,909. (Cl. 78—81.)



1. The process of forging which consists in imparting pressure to a spherical blank to force it into a die cavity having a plurality of faces, for the purpose described.

2. The process of forging which consists in imparting pressure to a spherical blank to force it into a die having corners in its die cavity, for the purpose described.

1,082,911. PROCESS OF DEPILETING AND REDUCING HIDES AND SKINS. OTTO RÖHM, Darmstadt, Germany. Filed Dec. 4, 1911. Serial No. 663,903. (Cl. 140—2.)

1. The process of depilating and reducing hides and skins which consists in treating the same with a solution of tryptic enzyme.

2. The process of depilating and reducing hides and skins which consists in treating the same with an alkaline solution of tryptic enzyme.

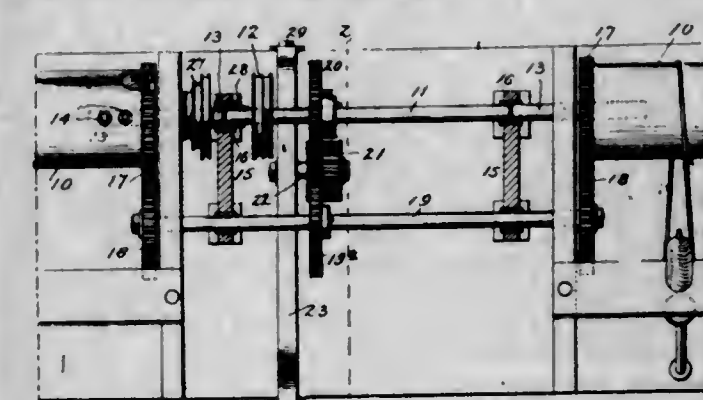
3. The process of depilating and reducing hides and skins which consists in soaking the same in water and thereafter treating the same with a solution of tryptic enzyme.

4. The process of depilating and reducing hides and skins which consists in soaking the same in water and thereafter treating the same with an alkaline solution of tryptic enzyme.

5. The process of depilating and reducing hides and skins which consists in treating them first in an alkaline solution and then with a solution of tryptic enzyme.

[Claim 6 not printed in the Gazette.]

1,082,912. REVERSING MECHANISM FOR THE BAND-CYLINDERS OF SPINNING-MULES. JOHN HURLEY RYALLS, Charlottesville, Va. Filed July 12, 1910. Serial No. 571,656. (Cl. 118—9.)



1. In a reversing mechanism for spinning-mules, the combination of aligning band cylinders, a power shaft situated between and wholly outside said cylinders, cylinder shafts separate from the power shaft, a counter shaft, a gear connection between said counter shaft and each of said cylinders, and a reversing gear connection between said counter shaft and said power shaft.

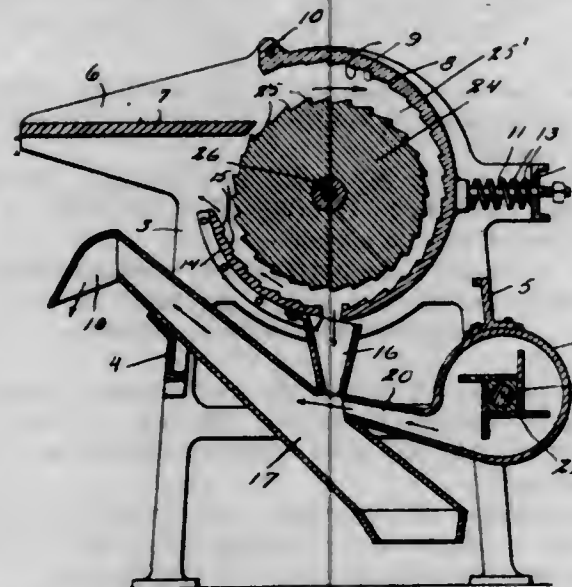
2. In a reversing mechanism for spinning-mules, the combination of band cylinders spaced apart and in alignment, a shaft secured to each of said cylinders and projecting therefrom, a power shaft situated between and

in alignment with said cylinder shafts and rotating independently thereof, and a reversing gear connection between said power shaft and said cylinders.

3. In a reversing mechanism for spinning-mules, the combination of band cylinders spaced apart and in alignment, a shaft secured to each of said cylinders and projecting therefrom, a power shaft situated between and in alignment with said cylinders and rotating independently thereof, a reversing gear connection between said power shaft and said cylinders, and a power transmitting pulley connected with said power shaft into which one of said cylinder shafts passes.

4. In a reversing mechanism for spinning mules, the combination of band cylinders spaced apart and in alignment, a shaft secured to each of said cylinders and projecting therefrom, a power shaft situated between and in alignment with said cylinder shafts and rotating independently thereof, a bearing for the adjacent ends of the power shaft and the cylinder shafts, and a reversing gear connection between said power shaft and said cylinders.

1,082,913. THRESHING-MACHINE. CHRIS SCHURCH, Chattanooga, Tenn. Filed Aug. 7, 1912. Serial No. 713,786. (Cl. 130—30.)

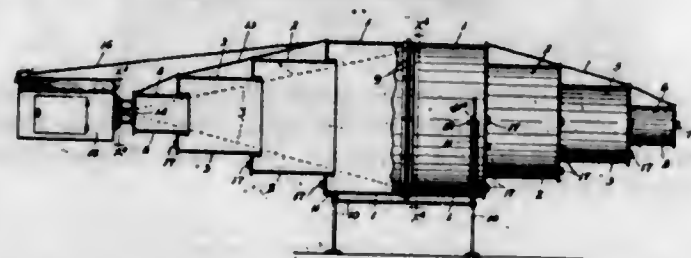


1. In a machine for threshing soja beans or the like while on the stalks, the combination with a supporting structure, of a rotatable drum mounted thereon and provided upon its periphery with teeth all of which face in the same direction, a feed table disposed near and upon one side of the toothed drum, a single rigid upstanding curved swinging threshing bed surrounding approximately one-half of the toothed drum and provided upon its inner concave surface with teeth all of which extend in the same direction and are oppositely faced with relation to the first named teeth, means pivotally connecting the extreme upper end only of the single rigid curved threshing bed plate with the supporting structure in such a manner that the same is eccentrically arranged with relation to the toothed drum to provide a space therebetween which gradually decreases in width downwardly, yielding means connected with the single rigid curved bed substantially equi-distantly between its ends to oppose the outward movement thereof, a stationary curved final threshing bed provided upon its inner concave surface with the teeth all of which extend in the same direction and are faced in the opposite direction to the teeth of the drum and disposed below and near the drum in concentric relation thereto with its lower end spaced from the lower end of the swinging threshing bed to provide a threshed bean discharge opening and its open end spaced from the feed table to provide a stalk discharge opening, and means to rotate the drum.

2. In a machine of the character described, the combination with a supporting structure, of a rotatable drum mounted thereon and provided with teeth, a curved swinging threshing bed disposed upon one side of the rotatable drum and provided with teeth, a feed table disposed upon

the opposite side thereof, yielding means to oppose the movement of the curved threshing bed away from the rotatable drum, and a relatively stationary threshing bed disposed upon the same side of the rotatable drum with the feed table and having its lower end spaced from the lower end of the swinging threshing bed to provide a threshed bean discharge opening and its open end spaced from the feed table to provide a stalk discharge opening.

1,082,914. PORTABLE PICTURE-GALLERY. FREDERICK D. SEARS and AXEL O. SODERGREN, Minneapolis, Minn. Filed Aug. 26, 1912. Serial No. 716,972. (Cl. 88—24.)



1. The combination with a gallery or inclosure and a screen therein, of means for projecting a picture onto said screen, said gallery having peek holes through which the picture on said screen may be viewed by persons on the exterior of said gallery, the said gallery being collapsible and having means for holding it extended.

2. The combination of a gallery or inclosure and a screen therein, of means for projecting a picture onto said screen, said gallery having peek-holes through which the picture on said screen may be viewed by persons on the exterior of said gallery, said gallery being made up of an extensible and contractible casing.

3. The combination of a gallery made up of extensible sections of varying diameter, with a screen applied on the larger section of said gallery, and a picture machine applied to the smaller section of said gallery, and arranged to project pictures into said gallery and onto said screen, said gallery having peek-holes in its extensible sections, through which pictures on said screen may be viewed from the exterior of said gallery.

4. The combination of a gallery or inclosure and a screen therein, of means for projecting a picture onto said screen, said gallery having peek-holes through which the picture on said screen may be viewed by persons on the exterior of said gallery, and the said peek-holes having automatically closed shutters.

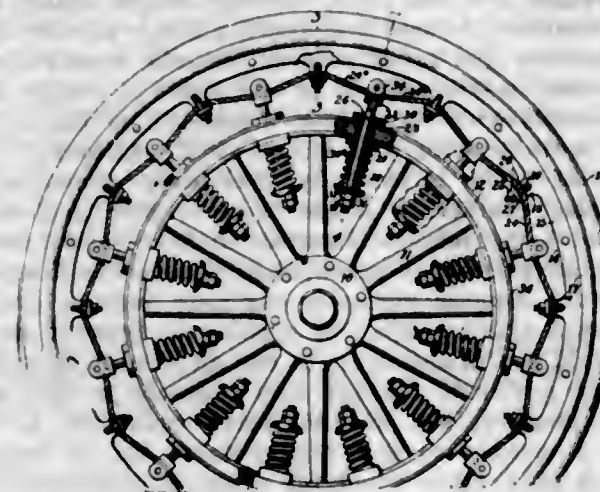
5. The combination with a gallery made up with telescopically connected sections of materially different diameter, of a screen applied in the larger section of said gallery, and a picture apparatus associated with the smaller section of said gallery and arranged to project pictures into said gallery and onto said screen, the sections of said gallery in their outer end portions, having peek-holes, through which the picture on said screen may be viewed by persons at the exterior of said gallery.

[Claims 6 to 8 not printed in the Gazette.]

1,082,915. SPRING-WHEEL. CHARLES N. SOWDEN, Guantanamo, Cuba. Filed Feb. 26, 1913. Serial No. 750,795. (Cl. 152—28.)

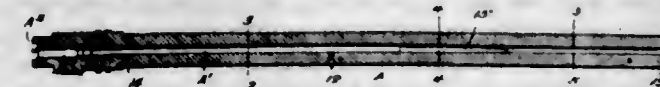
1. A spring wheel, comprising an inner wheel section; a tire section; an endless cable disposed in the tire section; radial arms on the tire section at intervals therearound and formed with transverse openings; clips immovably securing the cable to each arm to form individual cable sections between said arms, said clips consisting of shackle bolts passing through the mentioned arms, strap plates fitting on the bolt and clamping the cable against the arms, and nuts on the bolt; radial spring-pressed stems carried by the inner wheel section alternating with the arms on the rim sections, the outer ends of the stems having forks through which the cable sections extend; and rollers carried by the forks and riding on the cable sections.

2. A spring wheel, comprising an inner wheel section, an outer tire section, a cable running around the inner periphery of the tire section, radially movable, spring-pressed stems on the inner section having members for embracing the cable, and means for fastening the cable at points alternating with the stems, said means consisting of elements on the tire section having trans-



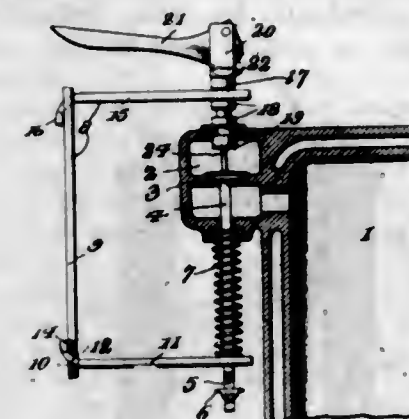
verse holes, concave lugs on the tire section at the inner sides of the holes, presenting concavo-convex surfaces, shackle-bolts passing through said holes and bearing on the convex surfaces of the lugs, strap plates on the shackle bolt, between which plates and the lugs the cable is received, and nuts for binding the strap plates against the cable to clamp the same tightly against the concave surfaces of the lugs.

1,082,916. GAS-OPERATED GUN. WILLIAM H. SQUIRE, St. Denis, France. Filed Apr. 8, 1912. Serial No. 689,204. (Cl. 42—3.)



A practice ammunition barrel for a gas operated firearm having a cartridge chamber at one end and a smooth bore throughout, said bore having a predetermined portion thereof from the cartridge chamber forward of constant maximum diameter, a predetermined portion inwardly from the muzzle of constant minimum diameter, and a tapered portion connecting the maximum and minimum diameter portions, and said barrel further having a gas orifice communicating with the portion of the bore having a maximum diameter.

1,082,917. VALVE-REMOVER. ARTHUR E. STOKER, Buffalo, Ill. Filed Mar. 27, 1912. Serial No. 686,682. (Cl. 29—87.1.)



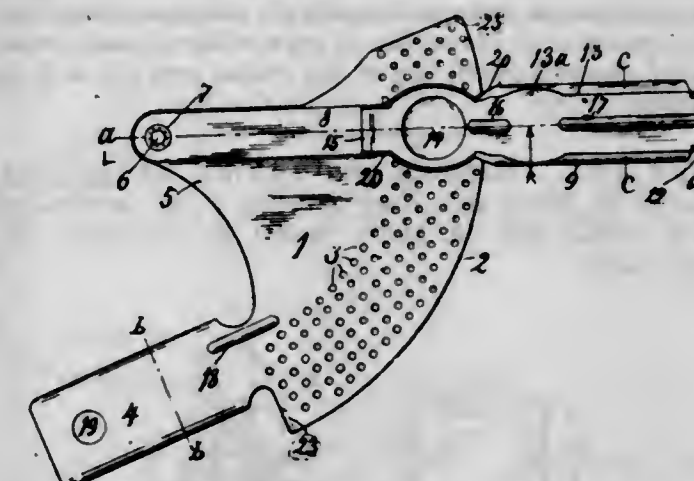
1. In a valve remover, the combination of a barrel, a plunger in said barrel, means for moving said plunger relative to said barrel, a frame including a vertical member, and folding arms carried thereby, one of said arms being adapted to removably engage the barrel and the other arm being adapted to engage the valve spring.

2. In a valve remover, the combination of a barrel, a plunger in said barrel, a lever having a cam surface adapted to engage said plunger, a frame including a vertical member, and folding arms attached thereto, one of said arms being adapted to removably engage the barrel, and the other arm being adapted to engage the spring of the valve.

3. In a valve remover, the combination of a barrel having spaced collars, a plunger in said barrel, a spring for lifting said plunger, a lever having a cam face for depressing said plunger, and a frame including a vertical member, and folding parallel arms attached thereto, one of said arms being forked so as to receive the valve stem and engage the valve spring, and the other arm being forked to engage between the spaced collars on said barrel.

4. In a valve remover, the combination of a barrel, a plunger in said barrel, a spring for lifting the plunger, a lever having a cam face for depressing the plunger, and a frame including an arm adapted to removably engage the barrel, and an arm adapted to removably engage the spring of the valve.

1,082,918. NUTMEG-GRATER. GUSTAF E. TORSJÖ, St. Paul, Minn. Filed June 18, 1913. Serial No. 774,491. (Cl. 140—15.)



1. A nutmeg-grater having a body plate formed with a segmental edge and an arm with a hole forming the center of the segment; said plate having hollow grating teeth along the segmental edge and a handle near one end of the grating surface; a hand-operated lever pivoted with one end at said hole in the plate, the other end of the lever extending beyond the segmental edge and constituting a handle; said lever having over the grating teeth of the plate a bottomless socket adapted to hold a nutmeg, a flat arm pivoted to the outer end of the handle and provided with a presser plate arranged to move up and down in the socket and to press upon the nutmeg therein, and means for limiting the motion of the operating lever.

2. A nutmeg-grater having a flat body plate with a segmental edge, and hollow grating teeth near said edge; a lever pivoted with one end at the center of the segment and having its free end formed into a handle and its middle portion provided with a bottomless socket in which to hold the nutmeg to be grated, an arm pivoted to the outer end of the handle and provided with a depending pocket arranged to pass downward into the socket and press upon the nutmeg therein.

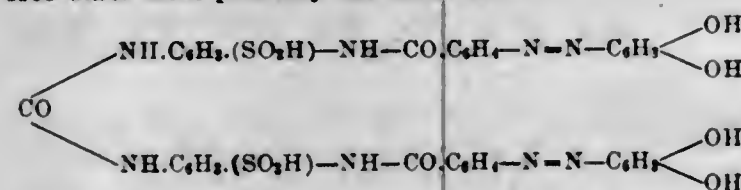
3. A nutmeg-grater having a body plate with a segmental grating surface at one side of it, a manually operated lever pivoted with one end to the plate at the center of the segment and having its free end formed into a handle, said lever having near its middle a bottomless socket adapted to hold a nutmeg while it is being grated, said socket having two diametrically opposite notches, an arm pivoted to the outer end of the handle and adapted to fold into said notches, said arm having a pressing member arranged to press upon the nutmeg in the socket, and means arranged to contact with the lever beyond the socket so as to prevent the pressing member from contacting with the grating teeth.

yellow coloration; in caustic soda lye with an orange-yellow coloration; being soluble in concentrated sulfuric acid of 66° B_f with a yellowish coloration; and yielding upon reduction with stannous chlorid and hydrochloric acid meta-meta-diaminodibenzoyldiaminostilben-disulfonic acid and amino-resorcin; dyeing cotton in bright yellow shades, fast to washing by an after-treatment with formaldehyde, substantially as described.

1,082,925. COTTON-DYES. AUGUST BLANK, CARL HEIDENREICH, and JOHANNES JANSEN, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Mar. 28, 1913. Serial No. 757,370. (Cl. 8-1.)

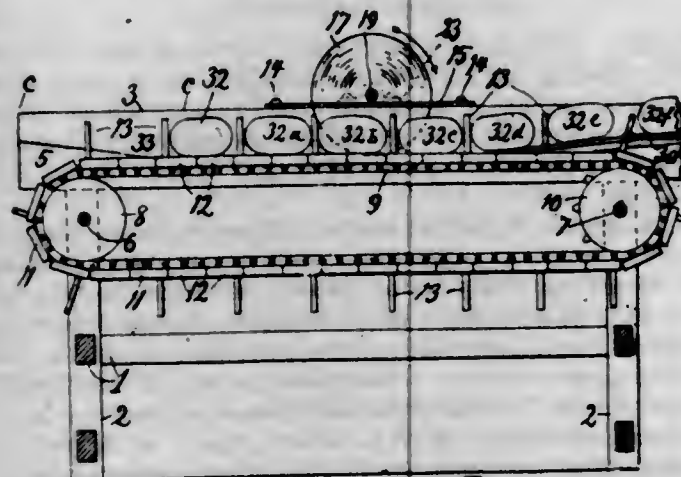
1. The herein described new azo dyestuffs being azo dyes obtained from diaminodibenzoyldiaminodiphenylurea-disulfonic acid, which are after being dried and pulverized in the shape of their alkaline salts brownish powders soluble in water generally with a yellowish coloration and yielding upon reduction with stannous chlorid and hydrochloric acid diaminodibenzoyldiaminodiphenylurea-disulfonic acid and an amin; dyeing cotton yellow to orange-red shades which are rendered fast to washing by an after-treatment with formaldehyde, substantially as described.

2. The herein-described new azo dyestuff which has in a free state most probably the formula:



which is after being dried and pulverized in the shape of its sodium salt a brown powder soluble in water with an orange-yellow coloration; in caustic soda lye with a yellowish-red coloration; being soluble in concentrated sulfuric acid of 66° B_f with a yellowish-brown coloration; and yielding upon reduction with stannous chlorid and hydrochloric acid para-para-diaminodibenzoyldiaminodiphenylurea-disulfonic acid and aminoresorcin; dyeing cotton in bright yellow shades; fast to washing by an after-treatment with formaldehyde, substantially as described.

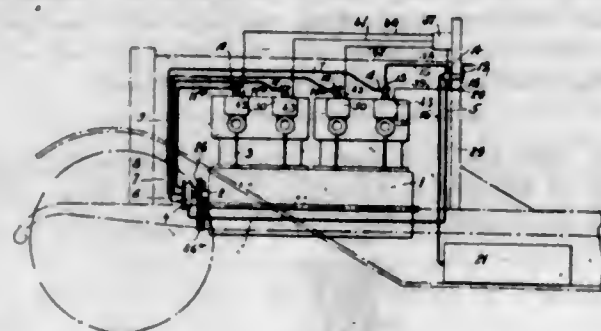
1,082,926. BREAD AND TOAST CUTTING MACHINE. PETER A. BONDSON, Minneapolis, Minn. Filed May 17, 1912. Serial No. 698,073. (Cl. 146-12.)



In a machine of the class described, the combination of a frame, an endless loaf carrier mounted in the frame, a rotary cutter having a series of circular cutting blades arranged to slice the loaves as they are carried past the cutter; a stripper arranged to prevent the sliced bread from sticking between the cutters, a horizontal storing table arranged to receive the sliced bread from the machine; said table having an upwardly inclined portion with a sharp edge arranged close to the endless carrier at a point lower than the main table, so as to guide the sliced bread up-

wardly and onto the main portion of the table; said inclined portion having also slits, and said carrier having bread-engaging fingers by which to move the loaves, said slits serving as clearings for the fingers to permit them to pass through and then underneath the inclined portion of the table, whereby the fingers are able to force the sliced bread away upon the storing table while they pass in a level plane in under it.

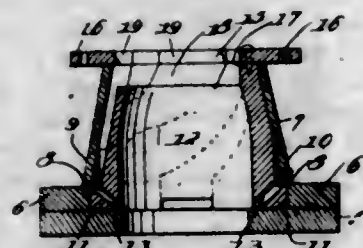
1,082,927. AUTOMATIC SELF-STARTER. ANTHONY BORSELLA and CELESTE SOCCOL, New York, N. Y. Filed Apr. 3, 1913. Serial No. 758,700. (Cl. 123-180.)



1. In starting mechanism for automobiles, etc., a storage-tank; a plurality of engine-cylinders for the compression and explosion therewithin of an explosive mixture; means affording communication between said storage-tank and one of said cylinders, including a storage-tank valve for controlling communication through said means; a distributing-valve; means affording communication between said distributing-valve and said cylinders; means affording communication between said distributing-valve and said storage-tank valve; and ignition-mechanism for the cylinder which communicates with said storage-tank, said ignition-mechanism being controlled by said storage-tank valve.

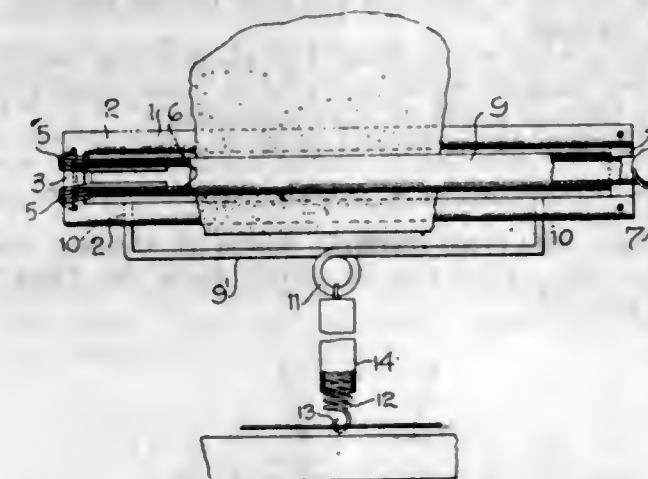
2. In starting mechanism for automobiles, etc., a storage-tank; a plurality of engine-cylinders for the compression and explosion therewithin of an explosive mixture; means affording communication between said storage-tank and one of said cylinders, including a storage-tank valve controlling communication through said means; a distributing-valve; means affording communication between said distributing-valve and said cylinders; means affording communication between said distributing-valve and said storage-tank valve; and ignition-mechanism for the cylinder which communicates with said storage-tank, said ignition-mechanism being controlled by said storage-tank valve so as to be inoperative or disconnected when said storage-tank valve is moved to throw said cylinder into communication with said storage tank.

1,082,928. LOCOMOTIVE-EXHAUST TIP. JOHN CARLSON, Searsport, Me., assignor of one-third to Ralph W. Campbell, Millinocket, Me. Filed Mar. 24, 1911. Serial No. 616,689. (Cl. 110-152.)



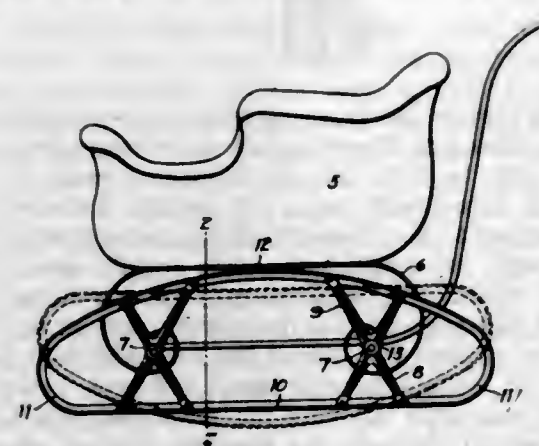
In a device of the type set forth, a valve casing formed on its interior with passages and with projections between the passages, a hollow cone-shaped valve arranged in the casing and having spiral passages on its exterior for registry with said casing passages, said valve having ports at its base which communicate with said spiral passages thereof, and means for operating said valve to bring said ports into and out of alignment with said projections.

1,082,929. BEDCLOTHES-HOLDER. CHARLES E. CARTWRIGHT, Fort Wayne, Ind. Filed Apr. 12, 1913. Serial No. 760,715. (Cl. 5-22.)



A device of the class described including a frame, comprising spaced longitudinal bars, a cross bar integrally connecting one end of said bars, a curved bar connecting the other ends of said longitudinal bars, a coil spring mounted upon the first transverse bar, a binding rod having one end secured to the ends of said coil spring and a loop carried by the opposite end of said frame and adapted to engage the other end of the rod to yieldingly hold the same into binding engagement with an object placed between the rod and the frame.

1,082,930. ATTACHMENT FOR PERAMBULATORS. RAYMOND L. CLARK, Rochester, N. Y. Filed Sept. 2, 1913. Serial No. 787,762. (Cl. 21-96.)



1. An attachment for a perambulator comprising two hubs adapted to receive the ends of the axles of the perambulator, arms extending from the hubs, and a rocker and a sleigh-runner supported by the arms on opposite sides of the hubs, the hubs being reversible upon the axles so that the rocker and the runner may be brought alternatively into operative position.

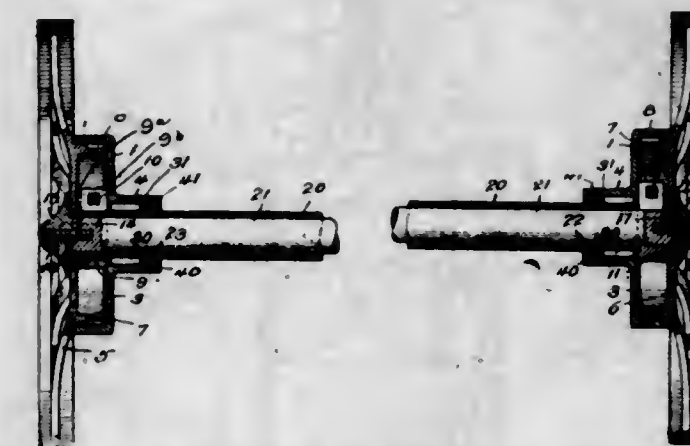
2. An attachment for a perambulator comprising two hubs adapted to receive the ends of the axles of the vehicle, arms extending upwardly and downwardly from the hubs, and a continuous ovoid member supported by the arms and having one of its longer sides curved so as to constitute a rocker and its opposite side straight so as to constitute a sleigh-runner, the hubs being reversible on the axles to bring the rocker and the runner alternatively into operative position.

3. An attachment for a perambulator comprising a rocker and a sleigh-runner connected together and lying in the same plane, but oppositely disposed, and means for securing them removably to the running-gear of a perambulator with either the rocker or the sleigh-runner downwardly disposed and in position for use.

1,082,931. LAWN-MOWER. WILLIAM H. COLDWELL, Newburgh, N. Y. Filed May 6, 1913. Serial No. 765,918. (Cl. 56-19.)

1. In a lawn mower, the combination with the main frame, provided with a supporting bearing at each side of

the same, of a rotatable sleeve extending across the machine and engaging both of said bearings, a shaft extending through said sleeve and having portions lying within both of said bearings, said shaft being rotatable with respect to said sleeve, and driving wheels one of which is secured to said sleeve and the other of which is secured to the said shaft.



2. In a lawn mower the combination with the side frames provided with supporting bearings of a sleeve extending through said bearings from one side of the machine to the other, a shaft extending concentrically through said sleeve, bushings interposed between said shaft and sleeve, said shaft projecting beyond the sleeve at one end, and wheels, one of which is rigidly secured to said sleeve, and the other of which is rigidly secured to the projecting portion of said shaft.

3. In a lawn mower, the combination with the side frames, provided with supporting bearings, of a sleeve extending through said bearings from one side of the machine to the other, a shaft extending concentrically through said sleeve and mounted to rotate therein and having a portion at one end projecting beyond the end of the sleeve, a wheel secured rigidly to one end of said sleeve, a wheel secured rigidly to the projecting end of said shaft, and a retaining device secured to the opposite end of said shaft for holding said wheels from lateral movement, whereby by removing said retaining device from the shaft, both the shaft and sleeve may be withdrawn from said bearings without disengaging the wheels therefrom.

4. In a lawn mower the combination with the side frames provided with bearings, a sleeve extending through said bearings from one side of the machine to the other, a shaft extending concentrically through said sleeve, and rotatable with respect thereto, a wheel mounted on one end of the sleeve, a wheel mounted on one end of said shaft projecting beyond the adjacent end of the sleeve, and means for preventing relative longitudinal movement of the shaft and sleeve.

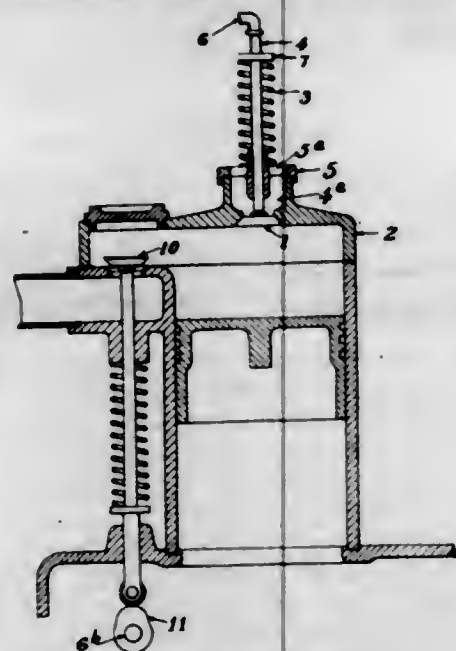
5. In a lawn mower the combination with the side frames provided with bearings, a sleeve extending through said bearings from one side of the machine to the other, a shaft extending concentrically through said sleeve and rotatable with respect thereto, a wheel mounted on one end of the sleeve, a wheel mounted on one end of the said shaft projecting beyond the adjacent end of the sleeve, and clamps formed integrally with said wheels for rigidly connecting them to said sleeve and shaft, and means for preventing the relative longitudinal movements of the sleeve and shaft.

(Claims 6 and 7 not printed in the Gazette.)

1,082,932. INTERNAL-COMBUSTION ENGINE. ARTHUR FLOYD COLLINS and ALEXANDER KERR, Christchurch, and ALBERT EDWARD RUSSELL, Wellington, New Zealand. Filed May 21, 1913. Serial No. 769,036. (Cl. 123-64.)

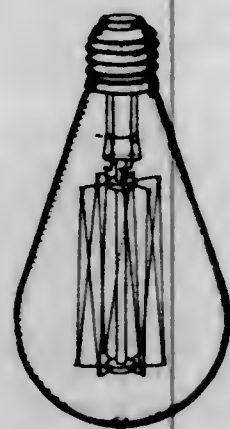
1. In an internal combustion engine, the combination with a cylinder and piston, of a valve opening inwardly, at the explosion end of said cylinder, means for opening said valve at about the time when the exhaust of the burned gas charge has taken place, and for seating said valve prior to the admission of a fresh charge of explosive

mixture, said means including a spring actuated valve, a valve chamber freely open to the atmosphere forming an air inlet to said valve, said air chamber having a detachable spider across the top thereof, against which one end of the spring for closing the valve rests.



2. In a six-cycle internal combustion engine, a vertical cylinder having inlet and exhaust ports at its side, and having an air inlet and exhaust port at its top, an inwardly opening valve to said air inlet and exhaust port and means for opening said valve at about the time when the exhaust of the burned gas charge has taken place, and for seating said valve prior to the admission of a fresh charge of explosive mixture, said means including a spring actuated valve, a valve chamber freely open to the atmosphere, forming an air inlet to said valve, said air chamber having a detachable spider across the top thereof, against which one end of the spring for closing the valve rests.

1,082,933. TUNGSTEN AND METHOD OF MAKING THE SAME FOR USE AS FILAMENTS OF INCANDESCENT ELECTRIC LAMPS AND FOR OTHER PURPOSES. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 19, 1912. Serial No. 704,580. (Cl. 176-132.)



1. The process of producing tungsten having a fibrous structure which consists in repeatedly hot working a crystalline body of tungsten until the crystalline structure is broken down and a fibrous structure developed.

2. The process which consists in agglomerating tungsten powder, sintering the body thus formed, subjecting it to repeated hot working, and continuing such hot working until the body remains ductile when cold.

3. The process of producing ductile tungsten wire which consists in forming a sintered body of tungsten, hot swaging said body repeatedly until it becomes fibrous in structure, and then further reducing it by hot drawing.

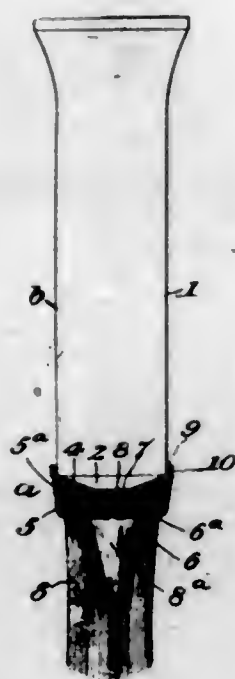
4. The process of producing ductile tungsten wire, which consists in first forming a sintered body of tung-

sten free from oxygen carbon and other impurities which would render the body unworkable mechanically, then hot swaging such sintered and purified body repeatedly until it becomes fibrous in structure and then further reducing it by hot drawing.

5. The process which consists in mechanically working while hot tungsten which is brittle at room temperature until it becomes pliable at room temperature.

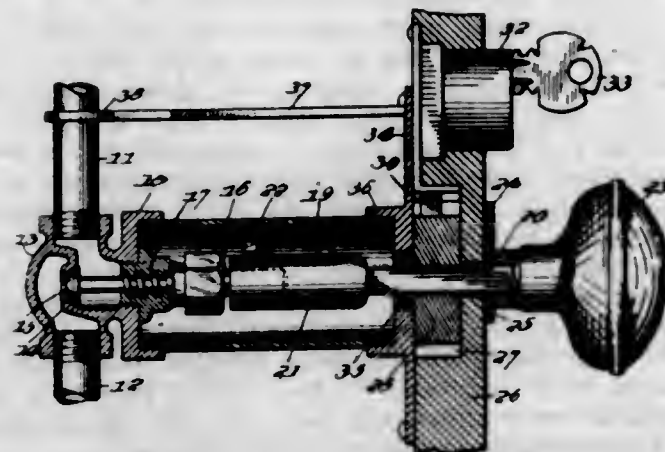
(Claims 6 to 34 not printed in the Gazette.)

1,082,934. SHAVING-BRUSH. LOUIS D. CORIELL, Baltimore, Md. Filed Feb. 20, 1913. Serial No. 749,877. (Cl. 15-50.)



A shaving brush head comprising a concavo-convex base having outer and inner tubular walls projecting from its convex side to form therebetween a recess for the bristles, said inner wall being internally threaded and said base having a short integral flange extending around its concave side, in combination with a tube comprising a metal foil wall and a rigid convex end, the latter provided with a threaded nipple, the convex side of the base adapted to fit against the end of the tube and said flange adapted to fit snugly around said end and around a part only of said wall adjacent the head, and said nipple adapted to extend through the head to a point approximately flush with the outer end of its inner wall.

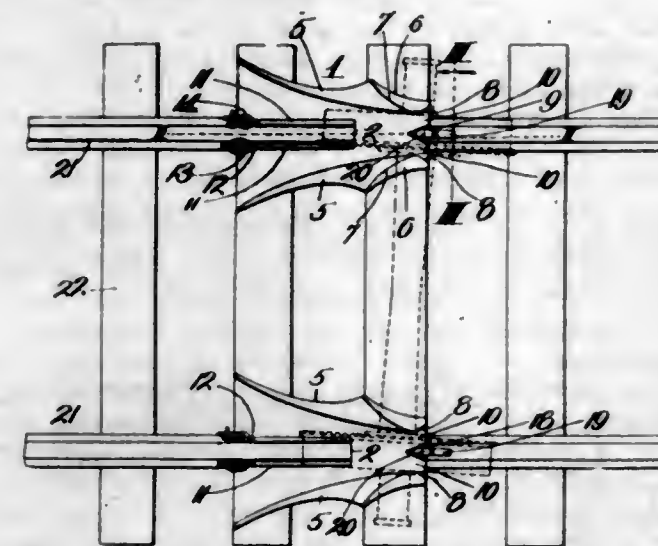
1,082,935. VALVE-LOCK. GEORGE W. CROSS, Fort Smith, Ark. Filed July 14, 1913. Serial No. 778,990. (Cl. 137-4.)



In a controlling mechanism for fuel lines, a valve casing, a valve therein, a fuel line connected to the valve casing, said valve casing having an annular flange internally threaded, a threaded valve stem connected to the valve and projecting from the casing, a housing threaded on the annular flange into which the valve stem projects, a lock

case having a recess therein, a plate having an angular edge rotatable in the recess, a spindle extending through the lock case, whereby the said valve is operated, a socket on the spindle for receiving the end of the valve stem, means for holding the socket and valve stem in assembled relation, a lock having a bolt adapted to engage the said plate, a face plate on the casing, said face plate having an annular flange to engage the end of the housing remote from the valve, and a bracket anchored on the said plate and having means for receiving and engaging the fuel line.

1,082,936. CAR-REPLACER. WILLIAM J. DIXON, Kansas City, Mo. Filed Oct. 30, 1911. Serial No. 657,550. (Cl. 104-183.)



1. A car-replacing block provided with means for securing the same to a track, said block being provided with guiding flanges upon its top surface, said flanges extending along the sides of the block and widening and converging from one end of the block to the other, a second pair of guiding flanges mounted one on each of the first flanges at the widened portions thereof, and converging at a greater angle than and toward the same end of the block as the first flanges, and a triangular lug located between the first flanges at their widened ends.

2. A car replacer, comprising a block of triangular form, provided with converging side walls projecting upwardly above the top face of the block and with a triangular lug projecting upwardly from said face between the said walls where the space between them is narrowest, and a toe-piece pivotally connected to said lug and adapted to swing into different vertical positions with relation to the adjacent end of the block to accommodate different heights of rails.

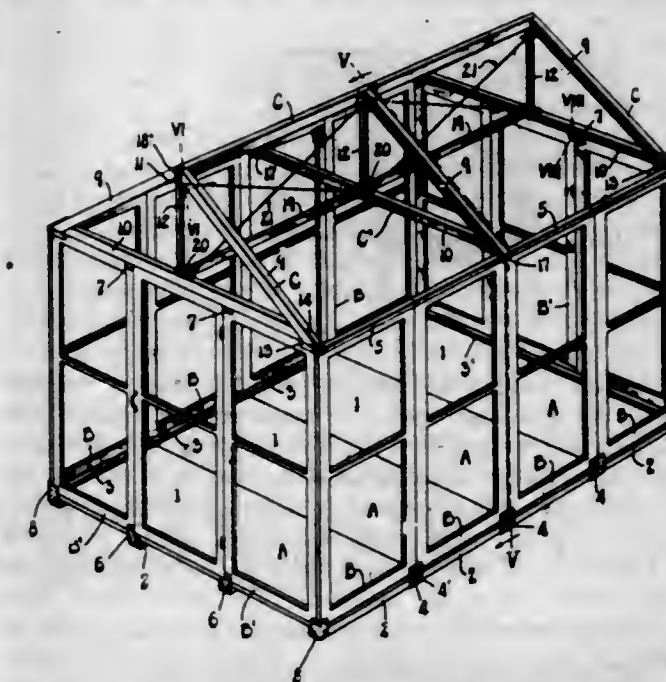
3. In a car replacer, a block provided with a longitudinal channel in its underside to receive a rail, and with recesses in its front end opening into said channel at opposite sides thereof, and upwardly-converging gravity dogs in said recesses, pivoted at their lower ends to the block and provided at their inner edges below their upper extremities, with upwardly-facing shoulders, and capable of swinging outwardly to permit the head of a rail to be passed up between them.

1,082,937. COLLAPSIBLE TENT-FRAME. BENJAMIN F. DOUGLASS, St. Louis, Mo. Filed Dec. 17, 1912. Serial No. 737,179. (Cl. 20-2.)

1. A portable tent frame comprising side and end wall units abutting against each other, a roof frame seated on said units, channel shaped members secured to the roof frame and straddling the top corners of said end wall units, and bars secured to the corners of the roof frame and overlapping the side wall units, the said bars and members thus co-operating to interlock the roof frame with the side and end wall units.

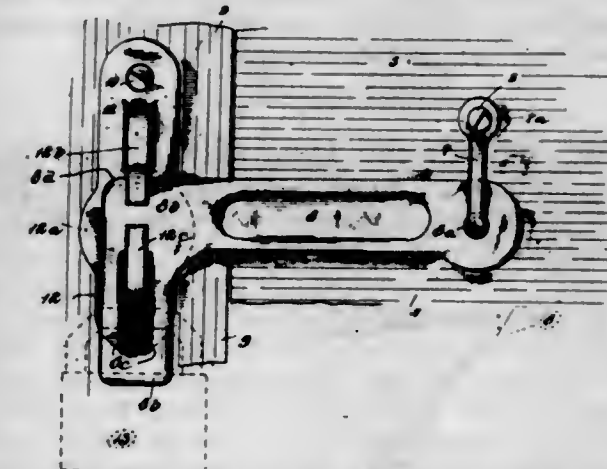
2. A portable tent frame, comprising floor units abutting against each other and having short sill sections, channel shaped pocket members straddling said short sill sections and overlapping their abutting ends, each of said

pocket members having an upturned outer flange, an abutment strip secured to said floor units, and wall units



seated on said floor units between said flanges and abutment strips.

1,082,938. DOOR-HASP. PULASKI FARWELL, Lakemills, Wis. Filed Mar. 21, 1913. Serial No. 755,867. (Cl. 70-23.)

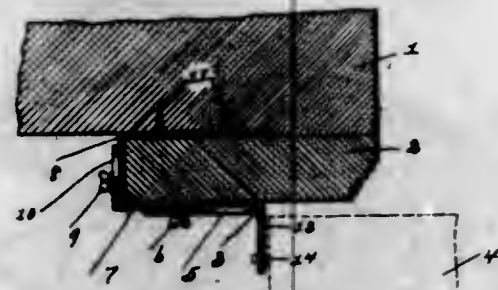


1. In a latching device, a hasp comprising a body portion adapted to be pivotally connected at one end and having a tongue at its free end provided with an elongated slot, and a keeper having opposed lugs with a throat between the outer ends of said lugs through which the hasp may be passed, one of said lugs adapted to be engaged by said opening in the tongue of the hasp, said lugs being so arranged as to prevent vertical movement of said hasp while permitting the latter to be partially rotated on its longitudinal axis for the purpose set forth.

2. In a latching device, a hasp having a body portion adapted to be pivotally connected at one end and having at its other end an angularly projecting tongue provided with an elongated opening therein, and a keeper having an upwardly extending vertical lug adapted to be engaged by the opening in said tongue and to prevent vertical movement of said hasp while so engaged, said keeper also having a downwardly extending vertical lug arranged opposite and in the same vertical plane with the first mentioned lug, and each of said lugs having an opening therein adapted to receive a locking device to bring the throat between the opposed lugs.

3. In a latching device, a hasp adapted to be pivoted at one end and having an integral angularly extending tongue at its opposite end, said tongue provided with an elongated opening therein, and a keeper adapted to be engaged by said hasp and tongue, said keeper having opposed hook-shaped lugs arranged in a vertical plane and having a restricted throat therebetween, said lugs also adapted to permit the hasp to be turned on its longitudinal axis.

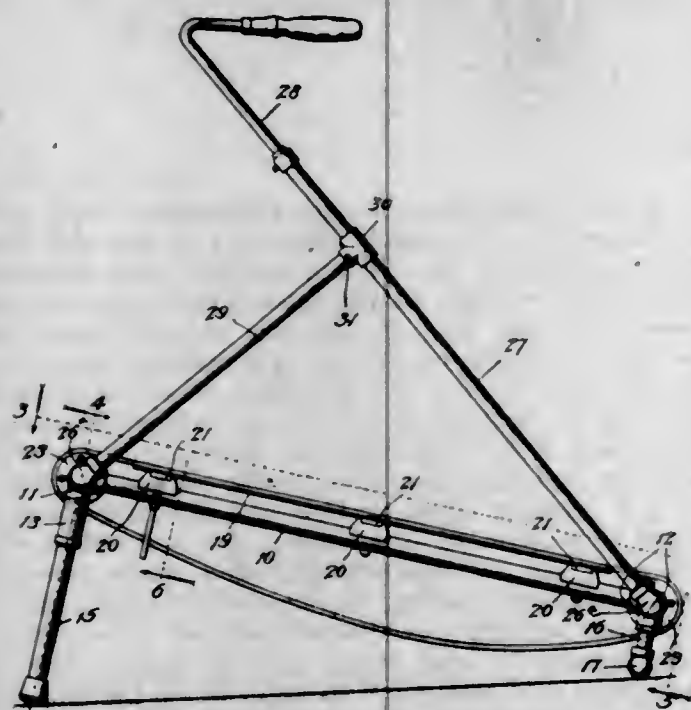
1,082,939. SHADE-BRACKET. IRVING M. FLANAGAN, Schenectady, N. Y. Filed Feb. 19, 1912. Serial No. 678,629. (Cl. 156-24.)



1. A shade-fixture comprising an attaching-bracket adapted to be mounted upon a window-casing and having an arm adapted to project in front of the window-case molding, an angular bearing-bracket having a shank reversibly and adjustably secured to said attaching bracket, the bearing end of said bearing-bracket being provided with a plurality of bearing-apertures in substantially the same horizontal line at different distances from said shank adapted to interchangeably receive a shade-roller in substantially the same position in either reversible position in which the bearing-bracket is mounted upon the attaching-bracket.

2. The combination with a window-casing having a case-molding; of a shade-fixture comprising a pair of angle-plates, one attached back of said molding and the other extending in front of said molding, said angle-plates having mutually lapping members adjustably connected together by screw-and-slot mechanism at the outer edge of said molding; and a shade-roller bearing-bracket mounted upon the front angle-plate.

1,082,940. EXERCISING APPLIANCE. ELLSWORTH E. FLORA, Chicago, Ill., assignor to Sharp & Smith, Chicago, Ill., a Corporation of Illinois. Filed Mar. 1, 1913. Serial No. 751,451. (Cl. 46-69.)



1. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, and parts elevated above the bed-plate to be grasped by the hands of the user.

2. An exercising device having, in combination, an inclined slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, and parts elevated above the bed-plate and on the sides thereof to be grasped by the user.

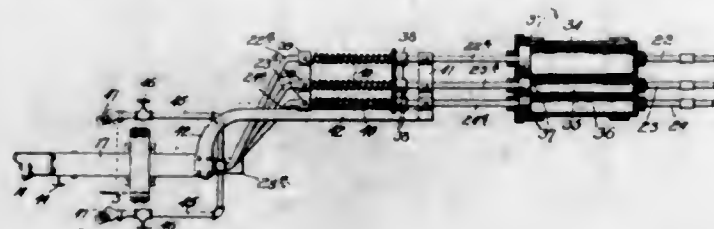
3. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, rollers at the ends of the bed-plate and within the belt, and parts elevated above the bed-plate to be grasped by the user.

4. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, rollers at the ends of the bed-plate and within the belt, means to guide the belt, and parts elevated above the bed-plate at the sides thereof to be grasped by the user.

5. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, rollers at the ends of the bed-plate and within the belt, and adjustable handles at the sides of the bed-plate and above the same.

[Claim 6 not printed in the Gazette.]

1,082,941. AUTOMATIC TRAIN-PIPE COUPLING. HANS FREDRICKS, Fort Madison, Iowa. Filed Dec. 30, 1912. Serial No. 739,320. (Cl. 188-13.)

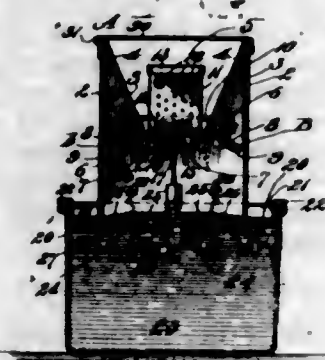


1. A train pipe coupling comprising a head formed with openings, the head having a groove which extends part way around the front face and a rib extending around the other part of said face, resilient packing glands in the openings, a shank extending from the head, a support for the shank, pipes extending through the shank and communicating with the openings, pistons on the ends of the pipes, a fixed support through which the pipes pass, abutments on the pipes, springs interposed between the abutments and the fixed support, an arm connected to the shank and extending to the rear of the fixed support and secured to the pipes, cylinders in which the pistons fit, and supply pipes communicating with the cylinders.

2. A train pipe coupling comprising a head formed with openings, a shank extending from the head, pipes extending through the shank and communicating with the openings, a support for the shank, said support including a yoke, a chair laterally slidable on the yoke and formed with a seat to receive the shank, said chair having depending legs, a frame depending from the yoke, a rod extending across the depending frame, blocks loosely mounted on the rod, said block having portions confined within the legs, a spring interposed between the blocks, a fixed support for the pipes, an abutment on the pipes, springs on the pipes between the abutments and the fixed support, an arm fixed to and extending from the shank, said arm being secured to the pipes in rear of the fixed support, pistons on the pipes, and cylinders in which the pistons operate.

3. A train pipe coupling comprising a head, a shank extending from the head, pipes communicating with the head and extending through the shank, an arm connecting the shank and pipes, pistons on the pipes, cylinders in which the pistons operate, springs for normally projecting the head and pipes toward the forward end of the car, a support for the shank including a yoke laterally slidable on the yoke, a chair having a seat to receive the shank, said chair having depending legs which straddle the yoke, a frame depending from the yoke, a rod extending across the frame, blocks loosely mounted on the rod and having flanges which are confined by the depending legs, and a spring on the rod and interposed between the blocks.

1,082,942. ANIMAL-TRAP. SAMUEL S. GOLDMAN, St. Louis, Mo. Filed Jan. 18, 1913. Serial No. 742,887. (Cl. 43-24.)



1. In an animal trap, the combination with a hollow body-portion, of a trough fixed to said body-portion, said trough being open-ended and having an opening at its base leading into said body-portion, a hinged door opening into said body-portion and adapted normally to close the opening in the base of said trough, a bait-box swingable within said trough above the plane of said door, said bait-box being located at a point between, and being approachable from either of, the opposite open ends of said trough, and means depending from said bait-box adapted to releasably engage with said door when the same and said bait-box are in normal position to releasably lock said door in such position and to be actuated to release said door when said bait-box is swingably actuated in either direction; substantially as described.

2. In an animal trap, the combination with a hollow body-portion, of a trough fixed to said body-portion, said trough being open-ended and having an opening at its base leading into said body-portion, a hinged pair of doors opening into said body-portion and together adapted normally to close the opening in the base of said trough, a bait-box swingable within said trough above the plane of said doors, said bait-box being located at a point between, and being approachable from either of, the opposite open ends of said trough, and means depending from said bait-box adapted to releasably engage with said doors when the same and said bait-box are in normal position to releasably lock said doors in such position and to be actuated to release said doors when said bait-box is swingably actuated in either direction; substantially as described.

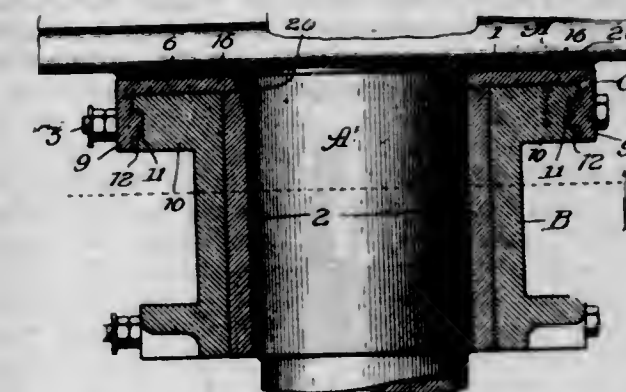
3. In an animal trap, the combination with a hollow body-portion, of a trough fixed to said body-portion, said trough being open-ended and having an opening at its base leading into said body-portion, a hinged pair of doors opening into said body-portion and together adapted normally to close the opening in the base of said trough, a bait-box swingable within said trough above the plane of said doors, said bait-box being located at a point between, and being approachable from either of, the opposite open ends of said trough, and a plurality of locking members depending from, and swingable with said bait-box, said locking members being adapted to releasably engage with said doors when the same and said bait-box are in normal position to releasably lock said doors in such position and to be actuated to release said doors when said bait-box is swingably actuated in either direction; substantially as described.

4. In an animal trap, a hollow body-portion having an opening at its top, a pair of doors adapted to normally close said opening hinged longitudinally upon, and opening into, said body-portion, said doors being provided with cut-away portions at their inner edges, extensions on said doors projecting inwardly from the base of said cut-away portions thereof, a bait-box hingedly mounted on, and swingable longitudinally of, said body-portion above said doors, and locking-members depending from, and swingable with, said bait-box, said locking-members being movable in the cut-away portions of said doors and adapted to engage with said extensions to releasably lock said doors in closed position when said bait box is in normal position and to automatically disengage from said extensions to release said doors on said bait-box being swung out of normal position; substantially as described.

5. In an animal trap, a hollow body-portion, a trough open at its base within, and extending longitudinally of, said body-portion, a pair of doors hinged upon, and opening into, said body-portion, said doors extending longitudinally, and being adapted to normally close the open base of said trough and being provided with cut-away portions at their inner edges, extensions on said doors projecting inwardly from the base of said cut-away portions thereof, a bait-box hingedly mounted upon said body-portion and swingable in, and lengthwise of, said trough above said doors, and locking members depending from, and swingable with, said bait-box, said locking members being adapted to engage with said doors to releasably lock said doors in closed position when said bait-box is in normal position and to release said doors on said bait-box being swung out of normal position; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,082,943. JOURNAL-BOX WEAR-PLATE. DANIEL F. GONWARE, Chicago, Ill. Filed Mar. 23, 1912. Serial No. 685,742. (Cl. 64-25.)

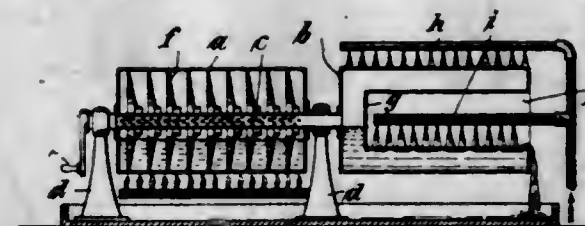


1. A wear-plate for the purpose set forth, comprising a plate having its lower edge recessed centrally to accommodate an axle, said plate provided with lateral flanges equipped on their inner surfaces with guide-tenons adapted to slide in lateral grooves at the outer end-portion of a journal-box.

2. The combination with a journal-box having the lateral vertical surfaces of its outer end portion provided with guide-grooves, and a vertically slidable wear-plate having its lower end recessed to accommodate the axle, said wear-plate having flanges embracing the outer end-portion of the journal-box and equipped on their inner surfaces with guide-tenons engaging said grooves, and a bolt connecting said flanges to the lower portion of the journal-box.

3. A wear-plate for the purpose set forth, comprising a plate having its lower edge recessed centrally to accommodate an axle, said plate provided with lateral flanges having their inner surfaces equipped with guide-tenons adapted to engage grooves in the lateral vertical surfaces of the outer end-portion of the journal-box, and a segmental flange at the upper portion of said plate adapted to overlap a portion of the journal-box.

1,082,944. ICE-MAKING MACHINE. WILHELM GRAAFF, Berlin, Germany. Filed Sept. 26, 1911. Serial No. 651,394. (Cl. 62-6.)

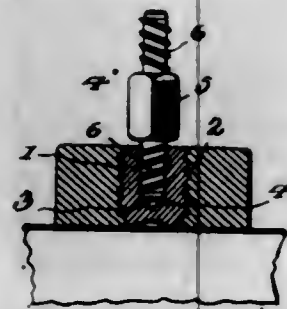


1. In an ice-making machine the combination of a vessel serving as an absorber with a vessel serving as a refrigerator, both vessels being in axial alignment, and a cooling arrangement for said refrigerator; said absorber being provided with a hollow axle which extends along its whole length and opens centrally into one end of said refrigerator.

frigerator, said hollow axle having a plurality of radial perforations within the absorber, and a plurality of diaphragms in the absorber, said diaphragms having each a plurality of perforations.

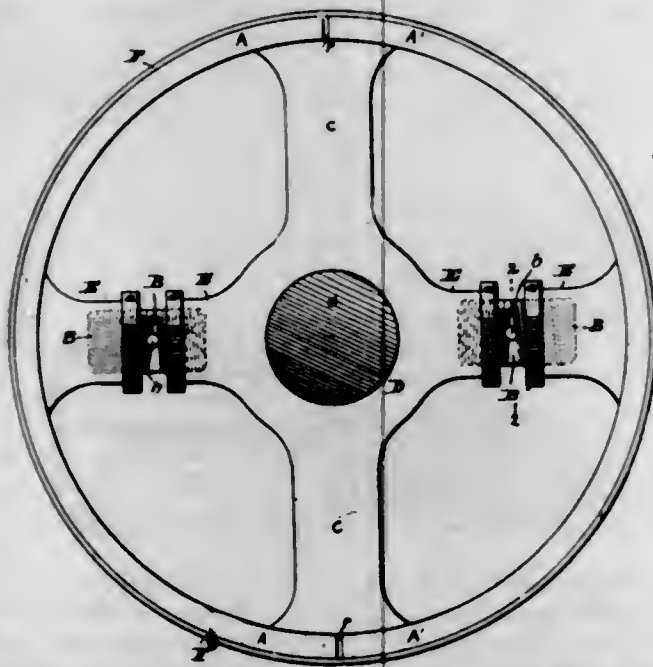
2. An ice making machine having an absorber and a condenser in axial alignment, said absorber comprising a cylinder with a plurality of centrally open diaphragms, an axially situated hollow shaft rigidly connected to the cylinder and projecting at both ends thereof, said shaft having radial perforations within the cylinder; external bearings for said shaft wherein it is mounted to revolve; said condenser being rigidly mounted at one end of said shaft and comprising an outer and an inner vessel forming a closed chamber between them, said chamber communicating with the interior of the absorber through said shaft and its perforations; said inner vessel being open at one end; sprinkling means for the inside of said inner vessel and the outside of said outer vessel, heating means for the absorber and revolving means for said shaft, whereby the absorber and the condenser may be simultaneously rotated.

1,082,945. SAFETY SET-SCREW. JAMES H. GRAHAM, Torrington, Conn., assignor to The Standard Company, Torrington, Conn., a Corporation of Maine. Filed May 24, 1911. Serial No. 629,226. (Cl. 74—8.)



The combination of a safety set screw provided with an external screw thread and a socket having right and left hand screw threads of greater pitch than the external screw thread and having a seat at the lower end closing said socket and forming a bearing end for the set screw, and a wrench having a central portion for engagement of a tool and having oppositely extending portions with right and left hand threads, respectively, for engagement with the internal screw threads of the socket, said extending portions being of sufficient length to permit the ends thereof to engage the closed end of the socket.

1,082,946. PRINTING-CYLINDER. ALBERT MARIE ETIENNE GRIGNARD, New York, N. Y. Filed Dec. 31, 1910. Serial No. 600,364. (Cl. 101—167.)



In combination with a cylindrical printing tube, an interior support having four radially projecting spokes,

each of two of said spokes having two sections, each section bored and tapped longitudinally, the threads in one section running in the opposite direction to the threads in the other section of the same spoke, a screw engaging said sections provided with means for turning the same, whereby said sections may be extended and contracted, nuts upon each of said screws to lock each section in its extended or contracted position, each of the outer sections carrying a semi-cylindrical segment adapted to engage the interior of said tube, the outer ends of the other of said spokes providing support for the adjacent ends of said semi-cylindrical segments.

1,082,947. PROCESS FOR IMPROVING THE MAGNETIC QUALITIES OF A MAGNETIC BODY. ROBERT ABBOTT HADFIELD, Sheffield, England. Filed Mar. 21, 1907, Serial No. 363,654. Renewed June 2, 1913. Serial No. 771,339. (Cl. 148—21.)

1. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements, which consists in first heating said body to a temperature below its melting point, cooling slowly, then heating said body to a higher temperature than the first heating but also below its melting point, and then allowing or causing said body to cool rapidly.

2. The process of reducing the total magnetic and electric loss in an alloy containing iron and silicon, which consists in first heating said alloy to a temperature ranging from about 700° C. to about 800° C. then cooling slowly, then reheating said alloy to a temperature ranging from about 900° C. to about 1000° C. and then allowing or causing said alloy to cool rapidly.

3. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements, which consists in first heating said body to a temperature below its melting point, then cooling said body slowly, then reheating said body to a temperature of about 100° C. higher than the first but also below its melting point and finally cooling said body rapidly.

4. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements which consists in first heating said body at least once to a high temperature but not above about 800° C. and then cooling slowly and thereafter in heating said body at least once to a temperature considerably above 800° C. but not above about 1000° C. and then cooling rapidly.

5. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements, which consists in two heatings and coolings, the first consisting in heating said body to a high temperature, but not substantially above 800° C., and then cooling slowly, and next heating said body to a temperature considerably above 800° C. but not substantially above about 1000° C. and then cooling rapidly. [Claim 6 not printed in the Gazette.]

1,082,948. PROCESS FOR IMPROVING THE MAGNETIC QUALITIES OF A MAGNETIC BODY. ROBERT ABBOTT HADFIELD, Sheffield, England. Filed Mar. 21, 1907, Serial No. 363,655. Renewed June 2, 1913. Serial No. 771,340. (Cl. 148—21.)

1. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements, which consists in, first, heating said body to a temperature below its melting point, cooling slowly, then heating said body to a lower temperature, and then cooling said alloy rapidly.

2. The process of reducing the total magnetic and electric loss in an alloy containing iron and silicon, which consists in first heating said alloy to a temperature ranging from about 900° C. to about 1000° C., then cooling said alloy slowly, then reheating said alloy to a temperature ranging from 700° C. to about 800° C. and then causing said alloy to cool rapidly.

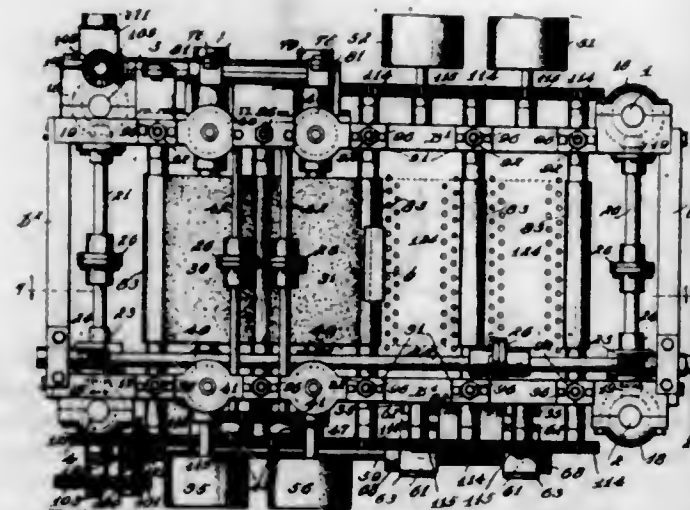
3. The herein described process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements which consists in first heating said body to a comparatively high temperature, below its melting point, then cooling the body slowly, then reheating the body to a lower temperature than before, and then cooling said body rapidly.

4. The herein described process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements, which consists in first heating said body to a high temperature below its melting point, then cooling said body slowly, then reheating said body to a temperature lower than about 100° C. lower than the first temperature, and then cooling said body rapidly.

5. The process of reducing the total magnetic and electric loss in a magnetic body composed of iron alloyed with other elements which consists in first heating said body to a comparatively high temperature not substantially above about 1000° C., then cooling said body, then reheating said body to a high temperature but not substantially above about 800° C. and then cooling said body much more rapidly than the first cooling.

[Claims 6 to 8 not printed in the Gazette.]

1,082,949. SANDING-MACHINE. JULIUS HAMACHECK, Two Rivers, Wis., assignor of one-half to The Hamilton Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed May 25, 1911. Serial No. 629,282. (Cl. 51—13.)



1. In a sanding machine, the combination of a frame provided with an opening extending lengthwise through the same through which the work is adapted to pass, rigidly supported sanding drums having unyielding sanding surfaces rotatably mounted in said frame above and below said opening, and rigid gage surfaces on said machine frame opposed to said sanding drums, respectively, substantially as described.

2. In a sanding machine, the combination of a frame comprising a lower frame section and an upper frame section supported thereon, said frame sections being separated from each other forming a passage which extends lengthwise through the machine between said frame sections and through which the work is adapted to pass, sanding drums rotatably mounted in said frame sections, respectively, and means connecting said frame sections to permit said upper frame section to be opened in a plane coincident with the passage between said frame sections to render the sanding drums and associated parts accessible, substantially as described.

3. In a sanding machine, the combination of a frame comprising a lower frame section, an upper frame section mounted thereon, sanding drums rotatably mounted in said frame sections, respectively, said machine frame being

provided with an opening which extends lengthwise through the same between the frame sections and through which the work is adapted to pass, means adjustably connecting said frame sections constructed and arranged to permit said upper frame section to be opened in a plane coincident with the opening between said frame sections to render the sanding drums and associated parts accessible, and means for adjusting said upper frame section relatively to said lower frame section, substantially as described.

4. In a sanding machine, the combination of a lower frame section, an upper frame section supported thereon, and adjustable toward and from said lower frame section, sanding drums rotatably mounted in said frame sections, respectively, gage surfaces on said frame sections opposed to the sanding drums mounted in the opposite frame sections, respectively, and means for adjusting said upper frame section relatively to said lower frame section, the means for supporting said upper frame section comprising rods the lower ends of which are adapted to be connected to the lower frame section, said upper frame section being provided with bearings to which said rods are fitted, nuts secured in screw threaded engagement with said rods, and means for securing said nuts in said upper frame section against endwise movement relatively thereto, substantially as described.

5. In a sanding machine, the combination of a lower frame section, an upper frame section supported thereon, and adjustable toward and from said lower frame section, sanding drums rotatably mounted in said frame sections, respectively, gage surfaces on said frame sections opposed to the sanding drums mounted in the opposite frame sections, respectively, means for adjusting said upper frame section relatively to said lower frame section, the means for supporting and adjusting said upper frame sections comprising rods the lower ends of which are adapted to be connected to the lower frame section, said upper frame section being provided with bearings to which said rods are fitted, nuts secured in screw threaded engagement with said rods, means for securing said nuts in said upper frame section against endwise movement relatively thereto, and means for simultaneously turning said nuts, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

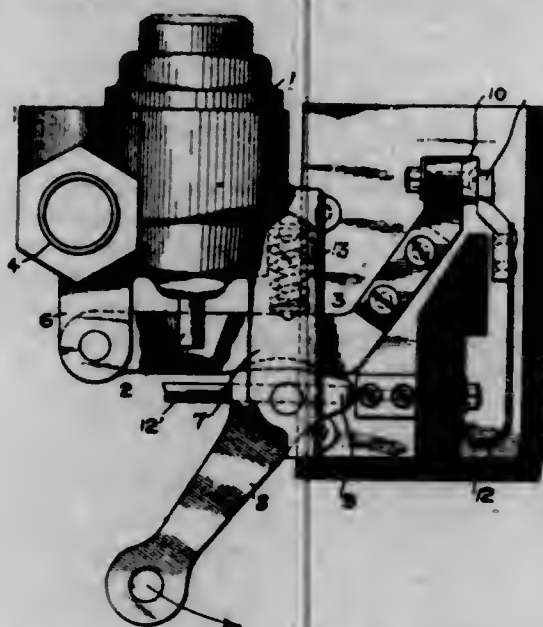
1,082,950. ARC-LIGHT ELECTRODE. JOSEPH L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 15, 1909. Serial No. 507,690. (Cl. 176—136.)



1. The process of making arc light electrodes of two or more metallic compounds, which consists in fusing the ingredients to one homogeneous mass and pouring the fluid mass at such temperature into a metal shell as to effect the welding of the mass with the shell.

2. An arc light electrode, formed of a metal tube with a cast filling of a homogeneous mass containing two or more metallic compounds welded to the tube.

1,082,951. COMBINED CONDUCTOR'S VALVE AND EMERGENCY-SWITCH. FRANK HEDLEY, Yonkers, and JAMES S. DOYLE, Mount Vernon, N. Y. Filed July 11, 1912. Serial No. 708,834. (Cl. 188-4.)



1. In a car controlling system, the combination with a conductor's valve for an air brake equipment, of an electrical circuit with a switch for controlling the propelling power, a spring for normally holding the switch closed, a lever for actuating said valve and switch, and another lever for operating the switch lever.

2. In a car controlling system, the combination with a conductor's valve for an air brake equipment, of an electrical circuit containing a switch for controlling the propelling power, a pivoted arm carrying a switch member for said circuit, said valve having a projecting stem adapted to be actuated by said arm, and a lever for operating said pivoted arm.

3. The combination, with a conductor's valve for an air brake system, of a switch for controlling an electric circuit, a lever for actuating the valve and carrying a switch bar, and a cam lever for operating said switch lever.

1,082,952. COMBINED NAIL-PULLER AND SCRAPER. WILLIS F. HOBBS, Bridgeport, Conn. Filed Sept. 22, 1911. Serial No. 650,839. (Cl. 145-47.)



A scraper attachment for a claw bar having a flat shank and a hammer head passing through said shank, comprising a metal blade flattened and tapered to an edge and bent to provide a flat shank disposed at approximately right angles with relation to said blade, and means for attaching the shank of the scraper to the shank of the bar on each side of the hammer head with the scraper blade extending transversely and immediately in the rear of the notch of said claw bar, whereby the scraper blade forms a stop for the claw bar and the scraper shank serves as a backing for the hammer head.

1,082,953. MANUFACTURE OF LEAD PIGMENTS. CLIFFORD D. HOLLEY, Detroit, Mich., assignor to Acme White Lead and Color Works, Detroit, Mich., a Corporation of Michigan. Filed Mar. 3, 1911, Serial No. 612,029. Renewed Apr. 4, 1913. Serial No. 758,956. (Cl. 134-67.)

1. The process of producing lead pigments which comprises subjecting basic lead oxide to the action of a nitrate in the presence of a relatively large amount of water, removing the excess of water, and treating the resulting mass to obtain lead pigments.

2. The process of producing lead pigments which comprises adding water and an alkali nitrate to a basic lead oxide, heating the mixture, evaporating to approximate dryness, and furnacing the residue to produce massicot.

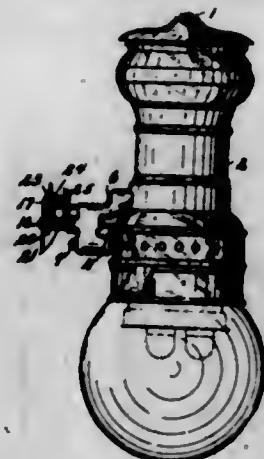
3. The process of producing lead pigments which comprises adding water and sodium nitrate to a basic lead oxide, heating the mixture, evaporating to approximate dryness, and furnacing the residue to produce massicot.

4. The process of producing lead pigments which comprises subjecting a basic lead oxide containing residual metallics to the action of a nitrate and a minimal amount of nitric acid in the presence of a relatively large amount of water, heating the mixture, removing the excess of water, and treating the residue to obtain lead pigments.

5. The process of producing lead pigments which comprises boiling a basic lead oxide with a water solution of an alkali nitrate, removing the major portion of the water from the mixture, and treating the residue to obtain lead pigments.

[Claims 6 to 16 not printed in the Gazette.]

1,082,954. VALVE MECHANISM FOR GAS-LAMPS. FREDERICK J. HUMPHREY and HUBERT R. HUMPHREY, Kalamazoo, Mich., assignors to General Gas Light Company, Kalamazoo, Mich. Original application filed Feb. 15, 1911, Serial No. 608,895. Divided and this application filed Dec. 16, 1912. Serial No. 737,107. (Cl. 67-16.)



1. In a gas lamp, the combination with a main burner, a pilot burner, a valve casing, a rotary main valve, a pilot flashing and regulating valve threaded into said casing for actuation, said valves being arranged parallel, a slotted arm having threaded engagement with said pilot valve whereby the valve may be adjusted relative to the arm, an actuating lever rotatably mounted on said main valve and provided with a pin engaging the slot of said arm on said pilot valve, a ratchet member secured to said main valve, a ratchet member secured to said lever and coacting with said ratchet member secured to said main valve, and a coiled spring arranged on said main valve and connected at one end to said actuating lever to return the same to its normal position and arranged to hold said ratchet members in yielding engagement.

2. In a gas lamp, the combination with a main burner, a pilot burner, a valve casing, a rotary main valve, a pilot flashing and regulating valve threaded into said casing for actuation, said valves being arranged parallel, a slotted arm having threaded engagement with said pilot valve whereby the valve may be adjusted relative to the arm, an actuating lever rotatably mounted on said main valve and provided with a pin engaging the slot of said arm on said pilot valve, a ratchet member secured to said main valve, a ratchet member secured to said lever and coacting with said ratchet member secured to said main valve, and a spring acting on said lever for returning it to its neutral position.

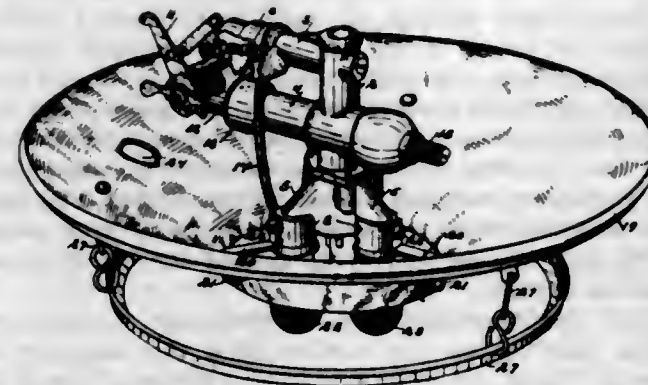
3. In a gas lamp, the combination with a main burner, a pilot burner, a valve casing, a rotary main valve, a screw threaded pilot flashing and regulating valve threaded into said casing for actuation, an arm having threaded engagement with said pilot valve whereby the valve may be ad-

justed relative to the arm, an actuating lever rotatably mounted on said main valve and having operative connection with said arm, a ratchet member secured to said main valve, a ratchet member secured to said lever and coacting with said ratchet member secured to said main valve, and a coiled spring arranged on said main valve and connected at one end to said actuating lever to return the same to its normal position and arranged to hold said ratchet members in yielding engagement.

4. In a gas lamp, the combination with a main burner, a pilot burner, a valve casing, a rotary main valve, a pilot flashing valve, a slotted arm on said pilot valve, an actuating lever rotatably mounted on said main valve and provided with a ratchet member, a ratchet member with which said ratchet member on said lever coacts secured to said main valve, a coiled spring arranged on said main valve, a stop pin for said lever to which one end of said spring is secured, and a pin on said lever to which the other end of said spring is secured, whereby said lever is returned to its initial position and said ratchet members held in yielding engagement, said pin being engaged in said slotted arm of said pilot valve.

5. In a gas lamp, the combination with a main burner, a pilot burner, a valve casing, a rotary main valve, a pilot flashing valve, an actuating lever having operative connections with said pilot valve, said lever being rotatably mounted on said main valve and provided with a ratchet member, a ratchet member with which said ratchet member on said lever coacts secured to said main valve, a coiled spring arranged on said main valve, a stop pin for said lever to which one end of said spring is secured, and a pin on said lever to which the other end of said spring is secured, whereby said lever is returned to its initial position and said ratchet members held in yielding engagement.

1,082,955. GAS-LAMP. ALFRED H. HUMPHREY, New York, N. Y., assignor to General Gas Light Company, Kalamazoo, Mich. Filed Oct. 16, 1913. Serial No. 795,468. (Cl. 67-94.)



1. The combination with the supply pipe, of an inverted burner provided with a pipe coupling having a laterally projecting delivery arm and a horizontally disposed mixing tube arm; a mixing tube projecting into said mixing tube arm; a valve casing mounted on the end of said delivery arm and provided with a nozzle delivering to said mixing tube, whereby the valve casing and the air inlet of the mixing tube are out of the path of the products of combustion; a casing member open at its top and bottom, said casing member being shaped like an inverted lamp shade; supporting arms for said casing member projecting from said burner, said casing member being entirely supported from said supporting arms with its upper edge substantially in the plane of said mixing tube arm and beyond the outer end thereof, the lower end of said casing member being in approximately the plane of the burner tip, there being a substantial space between all parts of the burner and the casing; and a globe open at its upper end suspended from said casing member, with its upper edge in approximately the plane of the lower end of the casing member, the diameter of the upper end of the globe being substantially greater than the diameter of the lower end of the casing member so that there is a substantial space between the globe and casing above, whereby light may radiate from the burner through the

casing and also between the globe and the casing and light may also be reflected from the inside of the casing and from the inside of the globe through the casing and between the globe and casing.

2. The combination with the supply pipe, of a burner provided with a pipe coupling having a laterally projecting delivery arm, a mixing tube arm disposed horizontally below said delivery arm, a mixing tube projecting into said mixing tube arm; a valve casing mounted on the end of said delivery arm and provided with a nozzle delivering to said mixing tube, whereby the valve casing and the air inlet of the mixing tube are out of the path of the products of combustion; an upwardly flaring casing member open at its top and bottom; supporting arms for said casing member projecting from said burner, and secured to said casing at the bottom thereof, the lower end of said casing member being in approximately the plane of the burner tips, there being a space between all parts of the burner and the casing; mantles carried by the tips supported below the lower end of the casing; and a globe open at its upper end suspended from said casing.

3. The combination with the supply pipe, of an inverted burner provided with a pipe coupling having a laterally projecting delivery arm and a horizontally disposed mixing tube arm; a mixing tube projecting into said mixing tube arm; a valve casing mounted on the end of said delivery arm and provided with a nozzle delivering to said mixing tube, whereby the valve casing and the air inlet of the mixing tube are out of the path of the products of combustion; an upwardly flaring casing member open at its top and bottom; supporting arms for said casing member projecting from said burner, the lower end of said casing member being in approximately the plane of the burner tip, there being also a space between all parts of the burner and the casing permitting the radiation of light from the burner therebetween and reflected from the inside of the casing; and a globe open at its upper end suspended from said casing.

4. The combination with the supply pipe, of an inverted burner provided with a pipe coupling; an upwardly flaring casing member open at its top and bottom; supporting arms for said casing member projecting from said burner, said casing member being supported with its lower edge in approximately the plane of the burner tip, there being a substantial space between all parts of the burner and the casing permitting the radiation of light from the burner therebetween and the reflection of light from the inside of the casing; and a globe open at its upper end, suspended from said casing member, with its upper edge approximately in the plane of the lower end of the casing member, the diameter of the upper end of the globe being substantially greater than the diameter of the lower end of the casing member so that there is a substantial space between the globe and casing above through which light may radiate from the burner and may also be reflected from the inside of the globe.

5. The combination with the supply pipe, of a burner provided with a coupling; a horizontally disposed mixing tube; a valve casing connected to said coupling and provided with a nozzle delivering to said mixing tube, said valve casing and the air inlets of the mixing tube being disposed out of the path of the products of combustion; an upwardly flaring casing member open at its top and bottom; supporting arms for said casing member projecting from said burner, and secured to said casing at the bottom thereof, the lower end of said casing member being in approximately the plane of the burner tips, there being a space between all parts of the burner and the casing; mantles carried by the tips supported below the lower end of the casing; and a globe open at its upper end suspended from said casing.

1,082,956. AUTOMATIC CONTROL SYSTEM FOR ELECTRIC RAILWAYS. BENJAMIN F. HUTCHES, Jr., Alledale, N. J. Filed Feb. 7, 1912. Serial No. 678,003. (Cl. 246-36.)

1. In an automatic control system for electric railways, a track composed of a plurality of single track sections

and intermediate switches conductively connected thereto, a single trolley wire section for each single track section, a twin trolley wire section for each switch, the wires of each twin trolley wire section being mutually connected and insulated from the adjacent single trolley wire sections, a feeder, and means provided for each switch that are adapted to connect the feeder either with the twin trolley wire sections of said switch or with both of the single trolley wire sections adjacent to said switch.



2. In an automatic control system for electric railways, a track composed of a plurality of single track sections and intermediate switches conductively connected thereto, a single trolley wire section for each single track section, a twin trolley wire section for each switch, the wires of each twin trolley wire section being mutually connected and insulated from the adjacent single trolley wire sections, a feeder, and means controlled by a car-circuit for connecting said feeder to a selected number of trolley wire sections, said controlling car-circuit being established intermediate the switches by means of the connecting single trolley wire sections.

3. In an automatic control system for electric railways, a track composed of a plurality of single track sections and intermediate switches conductively connected thereto, a single trolley wire section for each single track section, a twin trolley wire section for each switch, the wires of each twin trolley wire section being mutually connected and insulated from the adjacent single trolley wire sections, a feeder, and circuit changers located in proximity to the switches and controlled by the car-circuits for connecting said feeder to a selected number of trolley wire sections, said circuit changer-controlling car-circuits being established intermediate the switches by means of the respective connecting single trolley wire sections.

4. In an automatic control system for electric railways, a track composed of a plurality of single track sections and intermediate switches conductively connected thereto, a single trolley wire section for each single track section, a twin trolley wire section for each switch, the wires of each twin trolley wire section being mutually connected and insulated from the adjacent single trolley wire sections, a feeder, and a circuit changer located in proximity to each switch and controlling connection between the feeder and the trolley wires of said switch and between the feeder and the trolley wire sections adjacent to said switch trolley wires.

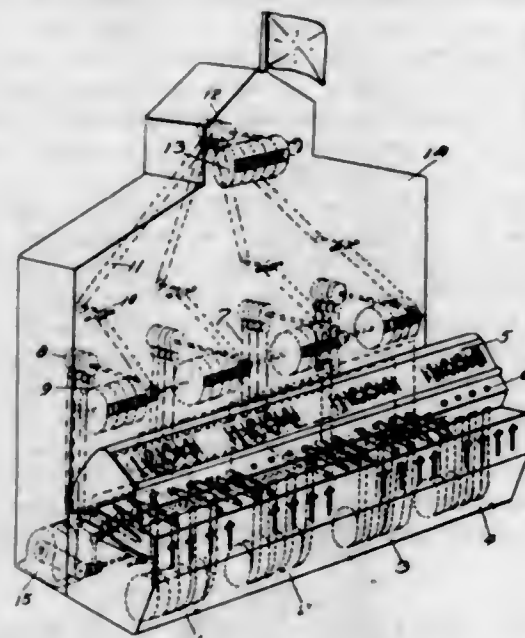
5. In an automatic control system for electric railways, a single track section and a pair of switches conductively connected to the ends thereof, a single trolley wire for the single track section, a pair of mutually connected trolley wires for each switch, said last named wires being insulated from the single trolley wire, a feed wire, a circuit changer located in proximity to each switch, and means controlled by said circuit changers for connecting the feed wire with the trolley wires of one switch and for simultaneously disconnecting the feed wire from the trolley wires of the other switch.

[Claims 6 to 10 not printed in the Gazette.]

1,082,957. APPARATUS FOR PRINTING AND ISSUING TICKETS OR CHECKS OF DIFFERENT DENOMINATIONS AND FOR REGISTERING AND TOTALING NUMBERS AND INDICATING THE TOTALS. GEORGE ALFRED JULIUS, Wollahra, near Sydney, New South Wales, Australia. Filed Aug. 4, 1910. Serial No. 575,520. (Cl. 235-58.)

1. In combination, a plurality of ticket printing devices each comprising a printing block and a printing table, a plurality of paper feed devices each comprising a pair of

rollers to which step-by-step motion is imparted, paper strips passing between said rollers, and for each of said devices an oscillating element and mechanism for applying motion thereto, connections from said oscillating element conveying motion therefrom to the paper feed and printing devices, a bridge for holding said oscillating element in the operative position, lock mechanism manually controlled for engaging and disengaging the bridge and the oscillating element, a connection from the oscillating element to one element in a group computer, a group counter actuated by said computer and conveying its motion to an element in an aggregate computer, an aggregate counter actuated by the aggregate computer, and a counter and a connection thereto from the printing device.



2. In apparatus for the purpose set forth, a case having slots and a curved portion adjacent to said slots combined within the case, comprising paper strip rollers in the lower front portion of said case, feeding devices whereby the paper strips are moved vertically upward through said slots and against said upwardly curved backing whereby the cut-off printed strips are ejected forward, press-buttons controlling such mechanism located above the ejecting strips, counters directly respectively above said press-buttons, computing mechanism and flexible connections from the operative parts of said mechanism in said case for conveying motion therefrom to said computing devices.

3. The combination, with a vertically reciprocating pin 246 and means for reciprocating the same, of an oscillating beam 249 centered on said pin and having an arm, a device for latching one end of said beam, mechanism for registering the oscillations of said beam while the latch is engaged, a connection between the other end of said beam and said mechanism, a paper strip, mechanism for printing said strip, mechanism for operating said printing mechanism while said tripping device and beam are engaged, a step by step feeding device engaged with said paper strip, and a link connection 288 from said arm to said feeding device whereby said paper strip will be advanced subsequent to the operation of said printing mechanism.

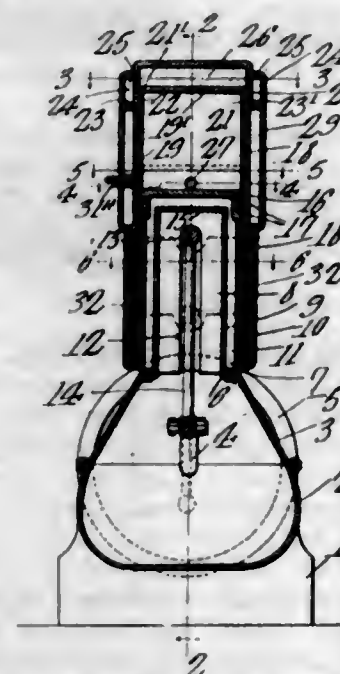
4. The combination, with a pair of gear rotating shafts 243, and 277, shaft 243 having a crank, of a beam, connections between said beam and crank whereby said beam will be oscillated as said crank revolves, a disk 278 keyed to the shaft 277 and having contacts 279 and 362, a trigger 275 adapted to be engaged with one of said contacts, a stationary pin 270 upon which said trigger is mounted, a press-button 6 connected to said trigger, a sear 268 mounted on said pin 270, a spring 274 operatively connected to said sear, a lock lever 265 adapted to be engaged by the other of said disk contacts and to engage the nose of said sear, an ejecting arm 262 having a pin 263, a bridge 257 having a jaw 256 adapted to engage one end of said beam, said sear and said bridge having

heels taking against said jockey pin, and springs connected to said bridge and to said jockey arm, substantially as described.

5. The combination, with a pawl and detent paper feed device, of a link 304 connected to said pawl, bell-cranks 319-321 articulated to said link 304, a rotatable polygonal printing block 337 journaled to said bell-cranks and having tangential slots 336 in the interior thereof, a positioned control pin 338 engageable in any one of said slots, a yielding printing table 239 adjacent to said printing block, an inking pad adjacent to said printing block, said paper feed device being so disposed with reference to said printing table, that a paper strip will be fed thereby between said printing table and said printing block.

[Claims 6 to 21 not printed in the Gazette.]

1,082,958. EXPLOSIVE-ENGINE. CARL W. KNIGHT, Tiffin, Ohio. Filed July 19, 1911. Serial No. 639,457. (Cl. 123-66.)

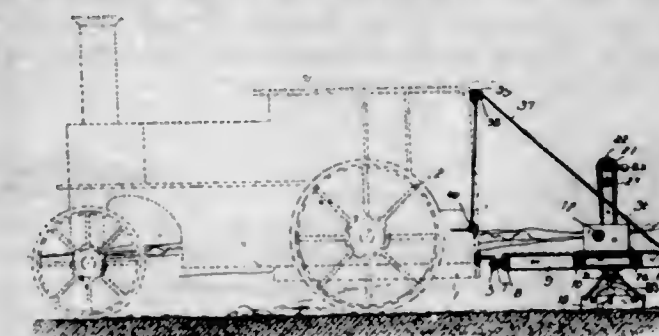


In a valveless two cycle internal combustion engine the combination of, a primary cylinder provided with spaced communication openings adjacent the head end thereof and forming a fuel by-pass, a double-walled secondary cylinder disposed concentric and disposed within the lower crank end thereof, a cylindrical piston slidably disposed between and contacting with the inner and outer peripheries of the primary and secondary cylinders respectively, the space between the head of the piston and primary cylinder, piston and secondary cylinder, forming compression and combustion chambers respectively, said primary cylinder provided with a fuel inlet port, a spark plug port, and an exhaust port, said cylindrical piston provided with inlet and exhaust ports, the full outstroke of said piston adapted to uncover the primary cylinder fuel inlet port and bring the same into communication with the said compression chamber, and to align the piston inlet with the cylinder spark plug, the full instroke of the said piston adapted to cover the spark plug port, and the primary cylinder fuel inlet port, and to align the lower by-pass opening and the piston inlet port to bring the compression and combustion chambers into communication and to align the exhaust ports of the piston and cylinder, and a water jacket surrounding the said primary cylinder and communicating with the double-walled secondary cylinder, to thereby provide for the circulation of a cooling medium around the walls of the primary cylinder, around the walls and head of the secondary cylinder.

1,082,959. ROAD-MACHINE. HENRY T. KNIGHT, Sumnerland, Miss. Filed Feb. 6, 1913. Serial No. 746,657. (Cl. 37-7.)

1. In a device of the character described, the combination of a frame, a carriage member, a shaft carried by said

carriage, a scraper blade pivotally secured to one end of said shaft, means for rotating said shaft to impart rotary oscillating movement to the blade and additional means for adjusting said blade with respect to the axis thereof to raise and lower the ends of the same.



2. In a device of the character described, the combination of a frame, a carriage member, a vertically disposed shaft mounted in said carriage, a scraper blade pivotally secured to the lower end of said shaft, a lever mounted on said shaft adapted to rotate the same, means for preventing backward movement of the shaft and means for adjusting said blade to various angular positions.

3. In a device of the character described, the combination of a frame, a carriage member, a vertically disposed shaft mounted in said carriage, a scraper blade pivotally secured to the lower end of said shaft, spaced arms at the upper end of said shaft, a transverse shaft mounted in said arms, means mounted upon said transverse shaft and connected to said blade for adjusting the blade to various angular positions.

4. In a device of the character described, the combination of a frame, a carriage member, a vertically disposed shaft mounted in said carriage, a scraper blade pivotally secured to the lower end thereof, spaced arms at the upper end of said shaft, a transverse shaft mounted in said arms, a sprocket mounted upon said transverse shaft and arranged between the arms, a chain mounted upon said sprocket and having its ends connected to each end of the scraper blade and means for rotating said shaft whereby the scraper will be adjusted to various angular positions.

5. In a device of the character described, the combination of a frame, a carriage member, a vertically disposed shaft mounted in said carriage, a scraper blade pivotally secured to the lower end of said shaft, a lever mounted upon said shaft for vertical adjustment and adapted to rotate the same, a ratchet mounted upon said shaft, a pawl upon the carriage and adapted to engage said ratchet to prevent backward movement of the shaft, and means for adjusting the scraper blade to various angular positions.

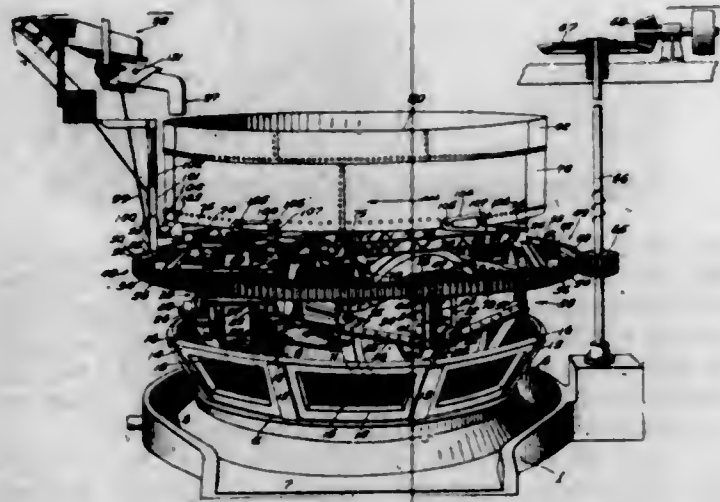
[Claims 6 to 9 not printed in the Gazette.]

1,082,960. SLOW-SPEED CHILIAN MILL. CHARLES C. LANE, Los Angeles, Cal., assignor to Lane Mill and Machinery Company, Los Angeles, Cal., a Corporation of California. Filed Aug. 7, 1909. Serial No. 511,816. (Cl. 83-45.)

1. In a Chilian mill, the combination with a pan, a circular track in the pan, a crushing roller on the track and means to revolve the crushing roller, of means shiftably connecting the crushing roller with the means for revolving said roller, said connecting means being adapted to allow the roller to be swiveled on various vertical axes and to hold the roller adjusted to and fixed in different positions with special and angular relation to the track; said roller being bodily movable toward and from the axis of revolution and the wall of the pan substantially as and for the purpose set forth.

2. An ore-crushing mill comprising a pan, a circular track in the pan, trucks provided with rollers and frames, the rollers resting on the track, a rotary-frame resting on the truck-frames, said truck-frames being adjustable relative to the rotary-frame, means for rotating the rotary-frame, a circular hopper carried by the rotary-frame, a central distributor carried by the frame to receive the ma-

terial discharged by the hopper, pipes leading from the distributor to discharge material on the track between the rollers, a sample-intake located in the hopper, a pipe leading from the sample-intake to the center of the mill, a stand-pipe at the center of the mill to receive the discharge from the sample-pipe, an outlet communicating from the stand-pipe to the outside of the mill, and a stationary feeding device arranged above the hopper and above the path of the sample-intake.

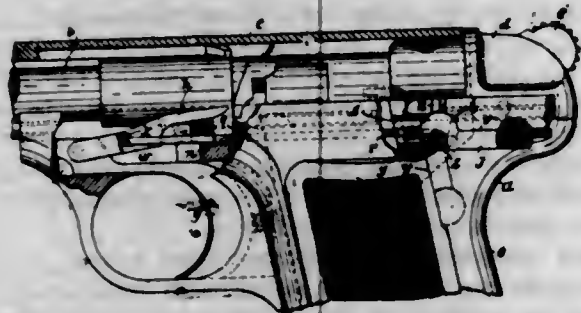


3. In an ore-crushing mill, the combination with a rotary-frame and a circular track, and rollers on said track, of truck-frames for said rollers, each being provided at its ends with perforated plates, the perforations being arranged in series of longitudinal and transverse rows, the rotary-frame being mounted on said plates, and pins carried by the rotary-frame and adapted to be inserted in the holes in said plates for the purpose of variously angularly and specially adjusting the rollers relative to the track and pan.

4. In an ore-crushing mill, the combination with a pan having a circular track, of rollers on the track, axes for the rollers, boxes for the axes, horizontal truck-frames supported on the boxes, a rotary frame on the truck frames, said rollers extending up through said frames, weight means for the rotary frame, means for the extension of the axes of the rollers radially or tangentially, means for adjusting the rollers transversely of the trucks, and means to apply power to the rotary frame to drive the rollers.

5. In an ore-crushing mill, a circular base of concrete containing a launder with a launder-channel opening outwardly therefrom, a central raised portion inclosed by removable screens, a circular track therein, a center post arising therefrom, a conduit inclosed therein, crushing rollers on said track upholding on their axes a rotatable frame, and a weight pan containing inlet and distributing means leading to the said conduit and to the front of said rollers, and means to rotate said frame and rollers.

1,082,961. FIREARM. CHARLES W. LANG, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Oct. 15, 1912. Serial No. 725,952. (Cl. 42—70.)



1. In combination with a gun having a frame, a firing mechanism, and a normally retracted releasing means for the firing mechanism movable in the frame, a movement-obstructor for the releasing means slidable in the frame,

and a locking device for the firing mechanism controlling the sliding movement of said movement obstructor, substantially as described.

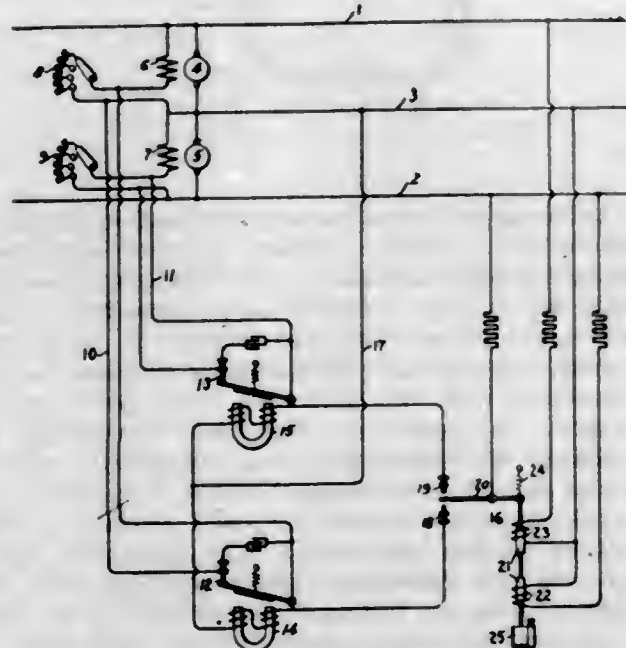
2. In combination with a gun having a frame, a cockable firing mechanism, and mechanism, including releasing means for the firing mechanism, movable thrustwise in the frame, a locking device common to both said mechanisms, substantially as described.

3. In combination with a gun having a frame, a firing mechanism, and a normally retracted releasing means for the firing mechanism movable in the frame and including a firing mechanism actuator movable crosswise of the path of movement of said means, means for locking the releasing means against movement including an obstructor movable with said releasing means and having lost motion connection with the actuator, substantially as described.

4. In combination, with a gun having a frame, a cockable firing-mechanism including a sear, and a normally retracted releasing means for the sear movable in the frame and including a sear-actuator movable crosswise of the path of movement of said means, means for locking the releasing means against movement including an obstructor movable with said releasing means and having a slot and pin connection with the actuator, substantially as described.

5. In combination, with a gun having moving parts to be locked, locking devices for said parts respectively controlling the latter and one controlling the other, the controlling device being rotary and the controlled device thrustwise movable, substantially as described.

1,082,962. SYSTEM OF DISTRIBUTION. HARRY A. LAYCOCK, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 8, 1911. Serial No. 619,657. (Cl. 171—312.)



1. In a system of distribution having a plurality of legs, a balancer set, a resistance in series with the field of each member of the balancer set, a shunt about each resistance, and a regulator governed by variations in the energy relation between the legs of the system, to open and close the shunts.

2. In a system of distribution having a plurality of legs, a balancer set, a resistance in series with the field of each member of the balancer set, a shunt about each resistance, a regulator including contacts and coils to control the contacts, each coil connected to a leg of the system, and connections whereby the regulator, through its contacts, opens and closes the shunts.

3. In a three-wire system of distribution, a dynamo electric machine on each side of the system, a resistance in the field of each machine, a shunt about each resistance, and a regulator operating in accordance with variations in the difference of energy in the sides of the system to open and close the shunts.

4. In a system of distribution having a plurality of legs, a dynamo electric machine for each leg, a resistance in series with the field of each machine, a shunt about each resistance, a relay to open and close each shunt and means governed by variations in the energy relation between the respective legs for controlling said relays.

5. In a system of distribution, a balancer set, a resistance in series with the field of each member of the set, a shunt about each resistance, a relay to close and open each shunt and means for controlling the relays governed by variations in the energy relation between the respective legs of the system.

[Claims 6 to 10 not printed in the Gazette.]

1,082,963. CONCRETE-REINFORCE. ALFRED E. LINDAU, St. Louis, Mo., assignor to Corrugated Bar Company, St. Louis, Mo., a Corporation of Missouri. Filed May 13, 1910. Serial No. 561,039. (Cl. 72—110.)



1. In a collapsible reinforcing frame for concrete construction, two rigid side frames each comprising upper and lower longitudinal members, the upper members having their outer ends co-extensive and projecting beyond the ends of the lower members, transverse members each rigidly connecting an upper member to a lower member, said upper members being substantially parallel to the lower members and all of the members at one end of the frame being bent inwardly and all of the members at the opposite end of the frame being bent outwardly to lie in planes different from those in which the intermediate portions of the frame are arranged, and spacing members pivotally connecting said side frames.

2. In a collapsible reinforcing frame for concrete construction, rigid side frames comprising upper and lower longitudinal members, the upper members having their outer ends co-extensive and projecting beyond the ends of the lower members, transverse members rigidly connecting said upper members to said lower members, and links pivotally mounted on said transverse members of adjacent side frames, said upper members being substantially parallel to said lower members and all of the members at one end of the frame being bent to lie in planes different from those in which the members at the opposite end of the frame are arranged, whereby in assembling one frame with a like and overlapping frame substantially in longitudinal alignment therewith, the end portions of all of the members will overlap.

3. In a monolithic concrete floor or beam construction comprising adjoining bays whose meeting end portions rest upon common supports, reinforcing unit frames arranged with their middle portions substantially in longitudinal alignment and extending across the respective bays between said supports, said unit frames comprising parallel side frames connected by spacing members, said side frames containing top and bottom bars connected by rigid members, the top bars being co-extensive and extending beyond the ends of the bottom bars, the ends of all the members at one end of each unit frame being displaced outwardly from the central portion thereof, and the ends of all the members at the other end of each of said unit frames being displaced inwardly with reference to the central portion thereof, whereby the ends of said aligning unit frames are laterally offset in opposite directions, said ends being overlapped over the respective supports and extending on opposite sides thereof, and a spacing member secured to the correlated bars in said overlapping unit frames.

4. A plurality of substantially longitudinally aligned collapsible reinforcing unit frames for concrete structures, said unit frames each comprising side frames including rigidly connected longitudinal members, some of said mem-

bers being bent at the ends and having their bent end portions offset upwardly, the opposite ends of said side frames being displaced laterally in opposite directions, rigid links pivotally connecting said side frames together, and adapted to position the same in the concrete structure, and a rigid link pivotally connecting the end portions of some members of the side frames of the unit frame at one end thereof, said link being also secured to the like and overlapping end portions of some members of the adjacent unit frame in substantial alignment therewith.

5. A reinforcing unit frame for concrete structures comprising straight coextensive horizontal reinforcing members, and bent coextensive reinforcing members whose end portions are offset upwardly, the opposite ends of all the members being bent sidewise and laterally displaced in opposite directions, rigid members connecting said bent members to said straight reinforcing members and holding the same in desired relation to each other, spacing members connecting said reinforcing members intermediate their ends, and a spacing member connecting the end portions of the bent reinforcing members, said last mentioned spacing member being adapted for connection to the like and overlapping end portions of the members of a similar unit frame correlated and substantially aligned therewith.

1,082,964. REEL-PACKET. FREDERICK W. MACDONALD, Chicago, Ill. Filed June 10, 1912. Serial No. 702,846. (Cl. 206—52.)



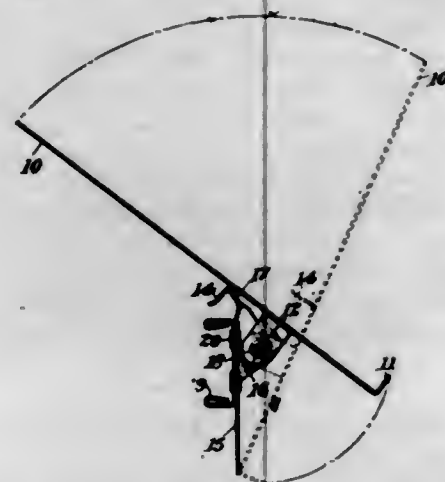
1. A reel packet for dispensing webbing or the like comprising a narrow storage box having opposite, permanently connected side walls and an opening at its edge to permit the insertion of a roll of webbing or the like edgewise between said side walls, one of said side walls having a central opening therein, a hub whereon the roll of material is wound, said hub being larger than said central opening and having end faces engaging said opposite side walls, and a turning member inserted through said central opening and into said hub and supported in said box to thereby rotatably sustain the roll of webbing in position within the box, substantially as described.

2. A reel packet for displaying and dispensing webbing or the like, comprising a narrow storage box having opposite, permanently connected, rectangular side walls and an opening at its edge to permit the insertion of a roll of material edgewise between said side walls, one of said side walls having a central opening therein, a hub whereon the roll of material is wound having end faces engaging said side walls and a central bore adapted to register with said central opening, and a turning member inserted through said central opening and into the bore of said hub and supported by the box to thereby rotatably sustain the roll of material in position within said box, said turning member having a flange overlapping and in snug engagement with the outer face of the box.

3. A reel packet for displaying and dispensing webbing or the like, comprising a narrow collapsible storage box having opposite rectangular side walls and edge walls permanently connecting said side walls, said edge walls having an opening provided with a closure to permit the insertion of a roll of material edgewise between said side walls, one of said side walls having a central opening therein, a hub whereon the roll of material is wound having a cen-

tral bore adapted to register with said central opening, and a turning member inserted through said central opening and into the bore of said hub and supported by the box thereby to rotatably sustain the roll of material in position within the box, substantially as described.

1,082,965. SUPPORT-BRACKET FOR DISPLAY-RACKS. MORITZ MAYER, New York, N. Y., assignor to Mayer and Lavenson Company, New York, N. Y., a Corporation of New York. Filed July 16, 1913. Serial No. 779,233. (Cl. 211—24.)



A support bracket comprising a fixed plate having overturned sides forming lugs and an end extension, a movable plate, an upturned edge extending along one side thereof, a pair of tongues cut from the body of the movable plate and adapted to span the said lugs on the fixed plate, a pin for connecting the said tongues and lugs so as to pivotally mount the movable plate on the fixed plate, and a third tongue cut from the body of the movable plate and adapted when the plate is in one position to engage the said end extension of the fixed plate in order to maintain the movable plate in this position.

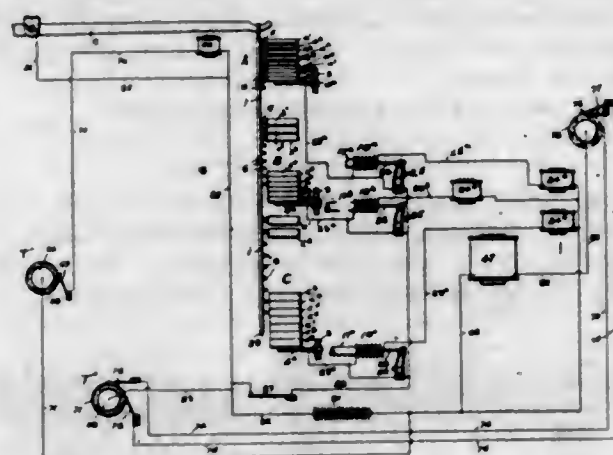
1,082,966. ELASTIC FABRIC. GEORGE C. MOORE, Worcester, Mass. Filed Aug. 19, 1911. Serial No. 644,951. (Cl. 139—70.)



1. An elastic web woven in alternate elastic sections and intermediate sections, each intermediate section in three separate plies, namely upper and lower inelastic plies and an intervening ply in which the rubber threads are bound by being interwoven with weft-threads and thereby prevented from drawing into the adjoining elastic sections after such intervening ply is cut.
2. An elastic web woven in alternate elastic sections and intermediate sections, each intermediate section in three separate plies, namely upper and lower inelastic plies

connected to each other along one margin of such section, and a loose intervening ply in which the rubber threads are interwoven with weft-threads.

1,082,967. WEIGHING AND RECORDING MECHANISM. GRAYSON MOORE, Weston county, Wyo. Filed Aug. 8, 1910. Serial No. 576,221. (Cl. 73—100.)



1. The combination with a scale-beam, of a plurality of counterpoise-weights arranged in a series of plies, means carried by the scale-beam and adapted to serially engage the weights to lift the same from the plies, the weights having movable parts engageable by the lifting means and means for actuating said parts to release the weights from said lifting means.
2. The combination with a scale-beam, of a plurality of counterpoise-weights arranged in a pile, means carried by the beam and adapted to serially engage and lift the weights, an electrical circuit made through the pile of weights, current-generating means in said circuit, and a number registering device controlled by said circuit.
3. The combination with a scale-beam and a series of counterpoise-weights, of connecting means by which movement of the scale-beam will cause the weights to be serially engaged and lifted thereby, an electrical circuit made through the weights and arranged so as to be closed and opened by movement of the weights, and indicating means controlled by said electrical circuit and adapted to indicate the number of weights engaged by the connecting means.
4. The combination with a scale-beam and a series of counterpoise weights, of connecting means by which movement of the scale-beam may cause the weights to be serially engaged and lifted thereby, means for indicating numbers, electrical actuating means therefor, and an electrical circuit connected with said actuating means and controlled by movements of the weights.
5. The combination with a scale-beam and a series of counterpoise weights, of connecting means by which movement of the scale-beam may cause the weights to be serially engaged and lifted thereby, electrically actuated number-indicating means, and an electrical circuit made through the weights and controlling the number-indicating means.

[Claims 6 to 21 not printed in the Gazette.]

1,082,968. BALL-CASTER. FREDRICK W. MORGAN, St. Louis, Mo. Filed Apr. 10, 1913. Serial No. 760,182. (Cl. 16—151.)



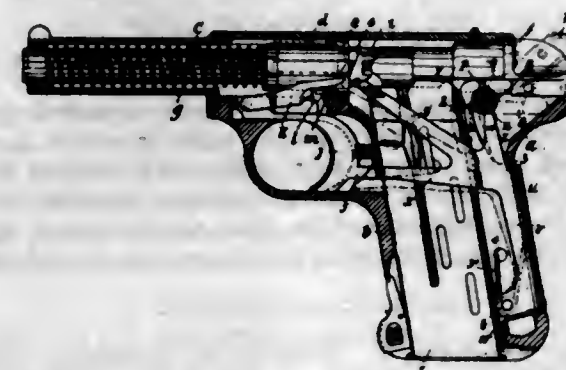
1. In a caster, a housing, a large ball loosely mounted therein, a member within the housing above the large ball, which member is provided with a series of radially arranged arms, and a series of small balls arranged between each arm and the large ball.

2. In a caster, a housing, a large ball loosely mounted therein, a series of independently movable resilient arms positioned within the housing above the large ball, and a series of small balls arranged between each resilient arm and the large ball.

3. The herein-described caster comprising a housing, a large ball loosely mounted therein, a member mounted in the housing, and having a plurality of independently yielding arms, in each of which is formed a ball race, and a series of small balls arranged in each race, which small balls bear upon the large ball.

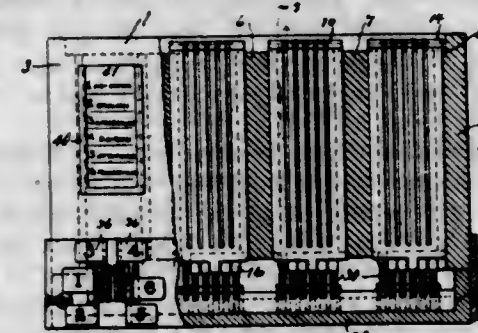
4. In a caster of the class described, a housing, a large ball loosely mounted therein, a resilient member located in the housing above the large ball, which resilient member is provided with a plurality of separate ball races, and a series of small balls arranged in each of said races and bearing against the large ball.

1,082,969. FIREARM. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Oct. 15, 1912. Serial No. 725,948. (Cl. 42—3.)



1. In combination with the frame, mechanism to be controlled arranged therein, a manually moved lever controlling said mechanism and fulcrumed in the frame on a horizontal axis, and a locking device rotatable in the frame also on a horizontal axis and normally opposing movement of the lever, said device having a cut-away portion at one side of its axis affording clearance between said device and the lever when the device is turned, substantially as described.
2. In combination with the barrel of a gun, a cartridge detector having a strap portion embracing the barrel and an outwardly yielding spring finger extending from the strap portion longitudinally of the barrel and normally projecting into the space occupied by a cartridge entered into the barrel, said finger and strap portions of the detector being recessed into the barrel, substantially as described.
3. In combination, with the barrel of a gun having an external circumferential groove and an external longitudinal groove leading rearwardly from the first groove, a cartridge detector having a strap fitted into the first groove and an outwardly yielding spring finger extending rearwardly from the strap and fitted into the second groove and normally projecting into the space occupied by a cartridge entered into the barrel, substantially as described.
4. In a gun, the combination of the frame, a breech mechanism arranged thereon and including a forwardly removable bolt slidingly arranged on the frame and a breech-plug, the breech-bolt having an internal shoulder interlocking the breech-plug with the breech-bolt and extending downwardly to the frame, firing means carried by the breech mechanism, and means for releasing the firing means including a normally elevated depressible sear-trip having thrust-movement in the frame substantially parallel with the breech bolt and projecting toward said shoulder, said shoulder having its forward lower portion inclined rearwardly whereby to depress the sear-trip on removing movement of the breech-bolt, substantially as described.

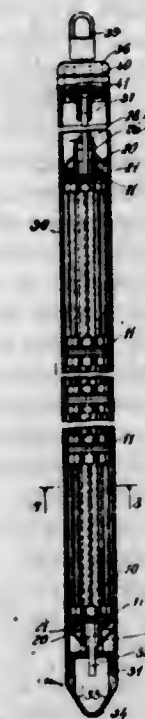
1,082,970. MEANS FOR SELECTING ADDRESS-PLATES. HENRY C. OSBORN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 19, 1913. Serial No. 755,289. (Cl. 129—16.)



1. The combination, with a selecting device having movable members adapted to be set at will, of a removable receptacle adapted to be juxtaposed therewith, and address plates having definitive features adapted to be carried by said receptacle and coacting with the movable members.
2. The combination, with address plates having selective characteristics, of a portable holder therefor, a separate base on which the holder may seat, and a selecting device mounted in the base and adapted to be set to co-operate with such characteristics.
3. The combination, with portable means for carrying address plates, of a separate holder having a series of selecting bars extending transversely of the plates and adapted to be set to coact with selective features on the respective plates.
4. The combination, with a portable holder for carrying address plates in parallel relation, of a separate base on which such holder may stand, a series of selecting bars mounted in said base and extending transversely of the plates and adapted to be moved to coact with selective features on the plates.
5. The combination, with a receptacle having an open bottom and parallel walls with inward projections adapted to hold a series of separated parallel address plates, of a series of bars adapted to extend crosswise of said address plates, and means for moving said bars to select address plates having certain definitive characteristics.

[Claims 6 to 19 not printed in the Gazette.]

1,082,971. SUBTERRANEAN HEATER. ALFRED PICK, New York, N. Y., assignor to Edward Nicklas Breitung, Marquette, Mich. Filed Jan. 2, 1913. Serial No. 739,697. (Cl. 219—33.)



1. A subterranean heater comprising a plurality of supporting members having abutting end flanges and as-

sembled end to end and a plurality of resistance rods spaced about the members between the flanges and secured thereto.

2. A subterranean heater comprising a plurality of supporting members having abutting end flanges and assembled end to end, a plurality of resistance rods spaced about the members between the flanges and secured thereto and fastening devices insulated from the flanges arranged to clamp said flanges together and to support the rods.

3. A subterranean heater comprising a plurality of supporting members having abutting end flanges assembled end to end, a plurality of screw-threaded studs extending through but insulated from the flanges, nuts on the studs clamping said members together, a plurality of resistance rods spaced around each member between the flanges and means for removably securing the resistance rods to opposite ends of the studs.

4. A subterranean heater comprising a plurality of tube-like supporting members having abutting end flanges assembled end to end, screw-threaded metallic studs extending through but insulated from said flanges, nuts on the studs for clamping the members together, sockets screwed on the ends of the studs, and a plurality of carbon resistance rods having their ends in said sockets.

5. A subterranean heater comprising a plurality of tube-like supporting members having abutting end flanges assembled end to end, screw-threaded metallic studs extending through but insulated from said flanges, nuts on the studs for clamping the members together, sockets screwed on the ends of the studs, a plurality of carbon resistance rods having their ends in said sockets and a protecting head on each end of the heater.

[Claims 6 to 10 not printed in the Gazette.]

1,082,972. EXHAUST-HORN. GUY PISCOPPO, Winthrop, Mass. Filed Sept. 11, 1911. Serial No. 648,818. (Cl. 116—59.)

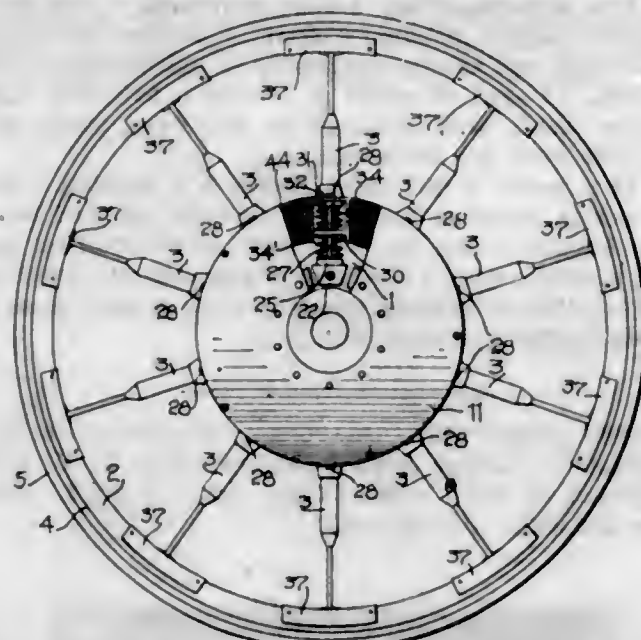


An exhaust horn comprising a clamping member adapted to embrace an exhaust pipe, a pivot rod journaled in said clamp, a frame having an offset projection in which said pivot rod is mounted, a lateral arm formed on said clamping member and having a hole at its outer end, a corresponding arm formed on the frame and having a similar hole and bent at its free end so as to contact with said first named arm, a draw connection threaded through the hole of the first named arm and fastened in the hole of the second named arm, a depending flange offset from said frame at an angle thereto and whistle tubes fastened to said flange, said frame having a restricted passage terminating in a narrow slot aligning with said whistle tubes.

1,082,973. SPRING-WHEEL. MADISON B. RAY and EDWARD K. HENDERSON, Nederland, Colo. Filed Aug. 6, 1913. Serial No. 783,376. (Cl. 152—48.)

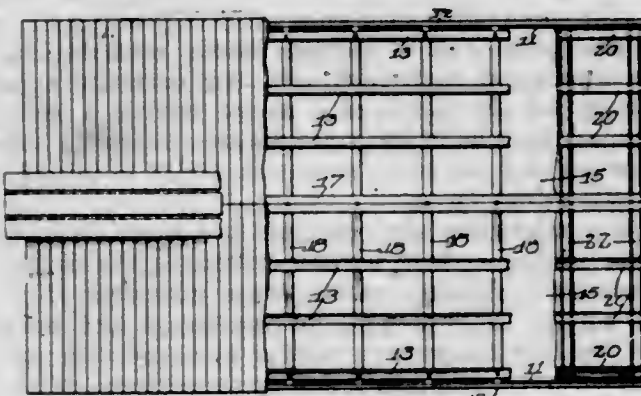
A wheel comprising a hub, side plates extending outwardly from said hub, a plurality of base members having perforated lugs arranged between the plates and pivotally secured thereto, bolts carried by said base members and arranged in spaced parallel relation, a casing mounted

upon the outer ends of said bolts, a guide member mounted upon the base, a second guide member arranged within the casing and in opposed relation with the first guide member, perforated sleeves formed on said guide members, spokes having their inner ends arranged within said



sleeves, coil springs having their ends mounted on said sleeves and arranged between the guide members, a shoulder formed upon each of said spokes and adapted for engagement with the outer guide member, whereby to compress said springs upon the inward movement of the spokes, and a rim connecting the outer ends of said spokes.

1,082,974. CAR-ROOF. THOMAS N. RUSSELL, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1912. Serial No. 718,655. (Cl. 108—5.)



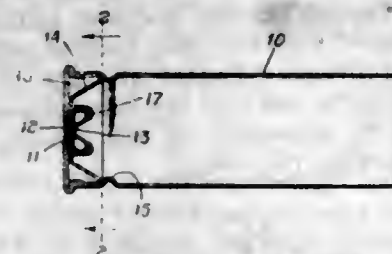
1. In a car, the combination with a series of purlins each provided with a plurality of notches in one of its faces, of carlines fitted in said notches, said carlines having flanges resting against the faces of the purlins at each side of the notches, and means passing through said flanges and through the unreduced part of the purlins for securing the purlins and carlines together.

2. In a car, the combination with a series of purlins each provided with a plurality of notches in one of its faces, of channel-shaped carlines fitted in said notches, said carlines having turned edge portions forming flanges that rest against the faces of the purlins at each side of the notches, and means passing through said flanges and through the unreduced part of the purlins for securing the purlins and carlines together.

1,082,975. COMBINED BASE-CUP AND PRIMER-POCKET FOR CARTRIDGES. THOMAS H. RYLANDS, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 23, 1913. Serial No. 775,372. (Cl. 102—17.)

1. The combination with a cartridge shell, of a combined base cup and anvil, the wall of the base cup extending

backward obliquely from the wall of the shell to the base of the shell and then forward to form the primer pocket.



2. The combination with a cartridge shell, of a combined base cup and anvil, the wall of the base cup extending backward obliquely from the wall of the shell to the base of the shell and then forward to form the primer pocket, and the anvil being formed, integral with the base cup, at the bottom of the primer pocket.

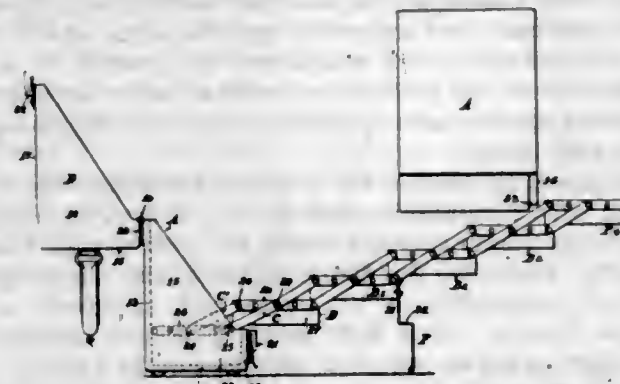
3. The combination with a cartridge shell, of a combined base cup and anvil, the wall of the base cup extending obliquely from the wall of the shell to the base of the shell, then forward again to form a primer pocket, the anvil being formed, integral with the base cup, at the base of the primer pocket and the shell being provided with an indentation to retain the base cup in place.

4. The combination with a cartridge shell, of a combined base cup and anvil, the wall of the base cup extending obliquely from the wall of the shell to the base of the shell, then forward again to form a primer pocket, and the shell being provided with an indentation to retain the base cup in place.

5. A combined base cup and anvil comprising a cup of greater diameter at its edge than at the bottom and a primer pocket formed in the bottom of the cup.

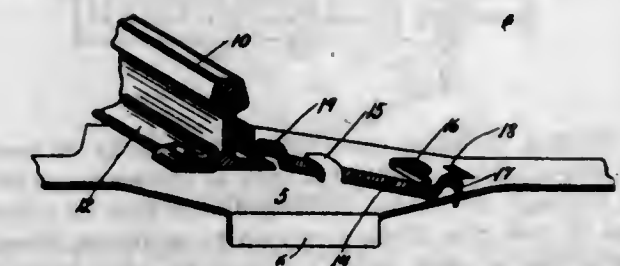
[Claims 6 to 8 not printed in the Gazette.]

1,082,976. SAMPLE-CARRYING CASE. WILLIAM SCHWEITZER and HARRY H. LABADIE, Chicago, Ill. Filed Mar. 18, 1912. Serial No. 684,480. (Cl. 100—17.)



A sample carrying case including a base, a cover for said base, a series of superposed, link-connected, trays mounted in said base, and a support for said trays, said support being a bar fixedly secured to one of said trays and extending downwardly to the front wall of said base, thence over the upper edge of said front wall and thence downwardly in front of said front wall to permit said trays to pass out of said base when said trays are being extended without manual manipulation of said support, as specified.

1,082,977. APPLIANCE FOR SECURING RAILS UPON THE TIES OF A RAILROAD. FRANK G. SMITH, Elizabeth, N. J. Filed Oct. 16, 1912. Serial No. 726,162. (Cl. 238—5.)



In combination with the rail and tie of a railroad, a plate adapted to be secured to the tie, and means in com-

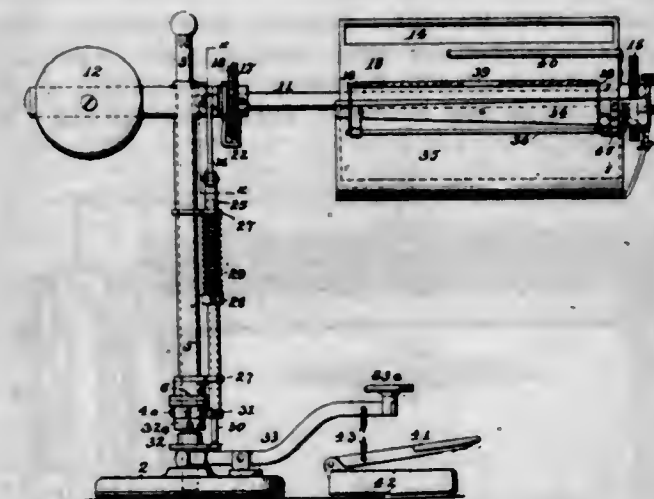
197 O. G.—77

bination therewith for securing the rail thereupon, said means comprising lugs stamped out of said plate engaging the base of said rail, a bar adapted to engage other lugs stamped out of said plate and also to engage the base of said rail, and means in combination with said plate and said bar whereby the same are interlocked after said rail and said bar have become engaged.

1,082,978. ARC-LAMPELECTRODE. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 10, 1903. Serial No. 184,669. (Cl. 176—133.)

An arc light electrode yielding a luminous white arc, composed of carbon associated with titanium carbide or its described equivalents.

1,082,979. STENOGRAPHIC-BOOK HOLDER. PERRY E. TAYLOR, Schoharie, N. Y. Filed Apr. 16, 1910. Serial No. 555,848. (Cl. 120—32.)



1. In a book holder, the combination of a standard and an overhanging arm, with a barrel sleeved upon said arm and provided with a finger one end of which is secured to the barrel at or near one of its ends and having its body throughout its length extending longitudinally adjacent to but disconnected from the surface of the barrel and free at its other end to permit a portion of the book to be inserted between it and the barrel, and a spring actuated means pressing toward the barrel above and in the path of the travel of the finger whereby the latter travels under said means.

2. In a book holder, the combination of a standard and an overhanging arm, with a hollow barrel sleeved upon said arm and provided with a longitudinal slot to permit a portion of an open book to be inserted within the barrel, means carried by the overhanging arm and below the barrel to support the book close to the surface of the barrel, a spring actuated pressure part adapted to press upon the exposed page of the open book to press it toward the barrel, means for adjusting the pressure part into or out of operative position, and means leading to a distance from the barrel and terminating in a hand operable part for imparting to the barrel a step by step rotation.

3. In a book holder the combination of a standard, an arm hinged to the standard and rotatable about the same in a horizontal plane, a book holder journaled upon the arm, means to normally hold the arm and the book holder in a predetermined position on the standard when brought to that position consisting of a collar secured to the standard, a sleeve journaled upon the standard carrying the book holder at its upper part and provided with an annular flange at its lower part and means for bringing the flange and collar into frictional engagement at a definite circumferential position of adjustment of the sleeve and flange relatively to the collar, and means extending to a distance for intermittently rotating the said book holder.

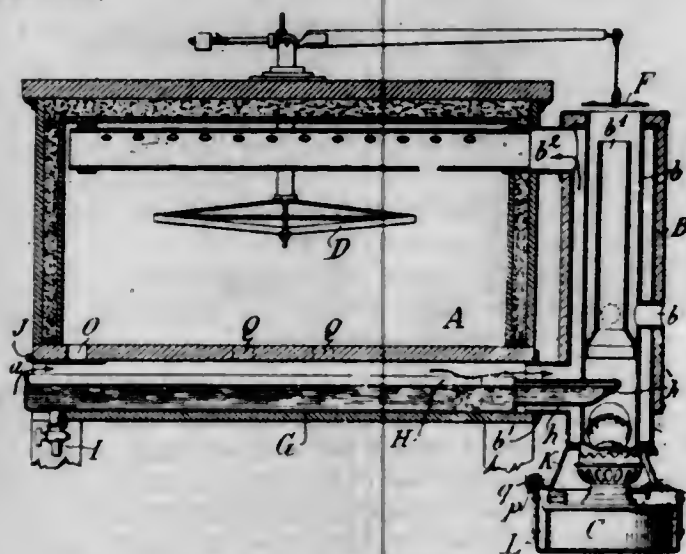
4. In a book holder the combination of a standard, an arm hinged to the standard and rotatable about the same in a horizontal plane, a book holder journaled upon the

arm, and means extending to a distance for intermittently rotating the said book holder said means consisting of a ratchet wheel for rotating the book holder, a rocking frame, a spring actuated pawl on said rocking frame for engaging the ratchet wheel, a key, and a spring returned connection between the key and the rocking frame whereby the operation of the key will cause the book to be rotated.

5. In a book holder the combination of a standard, an arm hinged to the standard and rotatable about the same in a horizontal plane, a book holder journaled upon the arm, and means extending to a distance for intermittently rotating the said book holder said means consisting of a ratchet wheel for rotating the book holder, rocking frame, a spring actuated pawl on said rocking frame for engaging the ratchet wheel, a cam device for normally holding the spring actuated pawl out of engagement with the ratchet wheel, a key, and a spring returned connection between the key and the rocking frame whereby the operation of the key will cause the book holder to be rotated.

[Claims 6 to 13 not printed in the Gazette.]

1,082,980. INCUBATOR. THOMAS N. THOMSON, Scranton, Pa., assignor, by mesne assignments, to Hover-Incubator Manufacturing Company, a Corporation of New Jersey. Filed May 3, 1911. Serial No. 624,743. (Cl. 98—47.)



1. In an incubator or the like, the combination of a lamp, and a pan having an extension adapted to be heated by said lamp and adapted to be displaced relatively to said lamp, whereby the heating of the water in said extension may be varied or discontinued.

2. In an incubator or the like, the combination of a lamp and a water-pan having an extension adapted to be heated by said lamp, and means for varying the relative positions of the lamp and said extension, whereby the heating effect of the lamp flame upon the water may be varied.

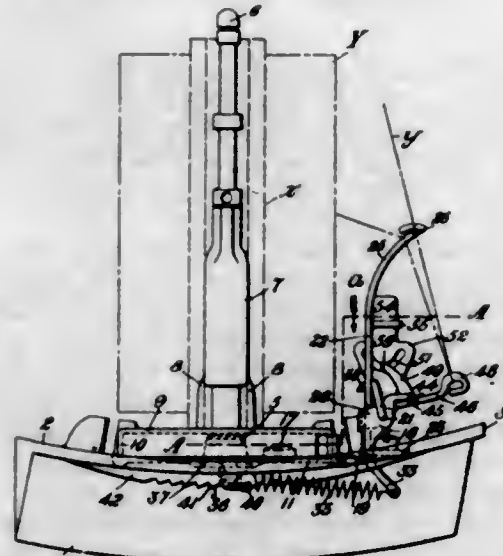
3. In an incubator or the like, the combination of a lamp and a waterpan having an extension entering the lamp due, the lamp burner adapted to be rotated to vary the angular position of the flame relatively to said extension, whereby to vary the heating of the water in the pan.

4. In an incubator, the combination of a lamp and an evaporating pan containing water having an extension adapted to project above the lamp for heating the water, and said pan adapted to be displaced longitudinally to vary the heating effect of the lamp.

1,082,981. BRAIDING-MACHINE. SIMON W. WARDWELL, Providence, R. I. Filed Jan. 28, 1911. Serial No. 605,266. (Cl. 28—4.)

1. The combination with a rotatable cop holder and a brake wheel rotatable therewith, of pivotally supported braking surfaces adapted to simultaneously engage opposite faces of a portion of said wheel when moving in one and the same direction, and means for shifting said braking surfaces to and from engagement with the brake wheel.

2. The combination with a rotatable cop holder and a flanged brake wheel rotatable therewith, of a pivotally mounted detent having braking surfaces positioned adjacent opposite faces of said rim, said braking surfaces being adapted to simultaneously engage the rim of the brake wheel while moving in one and the same direction and to release said rim by movement in the opposite direction, and means for rocking the detent.



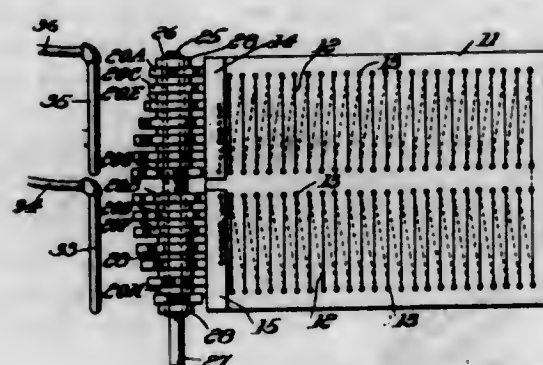
3. The combination with a rotatable cop-holder, of a brake-wheel rotatable therewith, said brake-wheel having a flanged rim, a pivoted detent formed with braking surfaces adapted to engage the opposite sides of said rim, a lever to move said detent, and a spring to normally maintain the detent in position with its braking surfaces cramped on the rim to resist the rotation of the cop-holder.

4. In a supply-carrier for braiding-machines, the combination with a rotatable cop-holder for the supply-cop, of a brake-wheel rotatable therewith, said brake-wheel formed with a flanged rim, a detent formed with braking surfaces adapted to engage the opposite sides of the rim, means to normally hold said detent in position to resist the rotation of the brake-wheel, and means controlled by the tension on the yarn delivering from the supply-cop to release said detent.

5. In a supply-carrier for braiding-machines, the combination with a rotatable cop-holder, of means to regulate the rotation of the same, a lever to operate said means, said lever controlled by the tension on the yarn, and a drop-wire suspended on the lever and arranged to be operated thereby when the latter is moved abnormally either upon relief or excess of tension on the yarn.

[Claims 6 to 23 not printed in the Gazette.]

1,082,982. RHEOSTAT. ROBERT L. WATKINS, New York, N. Y. Filed May 22, 1911. Serial No. 628,660. (Cl. 219—48.)



1. A folding rheostat comprising a plurality of resistance leaves, a pair of collars for each of the leaves, a pivot passing through all of the collars, and a pair of contact pins, one of said pins being arranged to be thrust through portions of one of each pair of collars, and the other pin arranged to be thrust through portions of a desired number of the other ones of said pairs of collars.

2. A folding rheostat comprising a plurality of resistance leaves, each leaf having a sheet-like body of insulation and the resistance material wound about said body, a pair of collars for each of the leaves in axial alignment with one another, a pivot passing through all the collars, said leaves being offset from one another by varying amounts; and a pair of contact pins, one of said pins being arranged to be thrust through portions of one of each pair of collars to hold said leaves apart and the other pin arranged to be thrust through portions of a desired number of the other ones of said pairs of collars.

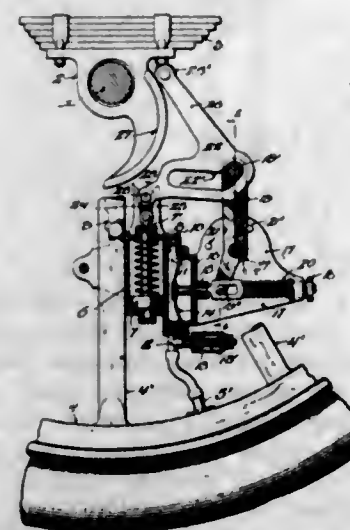
3. A folding rheostat comprising a plurality of resistance leaves, each leaf having a sheet of mica with openings therein, and a resistance wire wound about said sheet through the openings, a pair of collars for each of the leaves in axial alignment with one another, the ends of each resistance wire being connected to the collars of its resistance sheet, a pivot passing through all of the collars, means for insulating the pivot from the collar; and a pair of contact pins, one of said pins being arranged to be thrust through portions of one of each pair of collars to hold said leaves apart, and the other pin arranged to be thrust through portions of a desired number of the other ones of said pairs of collars, the pins being arranged to electrically connect the resistance wires together.

4. A folding rheostat comprising a plurality of resistance leaves, each leaf having a sheet of mica with openings therein, a resistance wire wound about each sheet through said openings, a pair of covers of insulating material; a pair of collars for each of the leaves and the covers in axial alignment with one another, a pivot passing through all of the collars, means for insulating said pin from the collars, and means for insulating the collars from one another, said pivot being elongated to support the rheostat; and a pair of contact pins, one of said pins being arranged to be thrust through portions of one of each pair of collars to hold said leaves apart, and the other pin arranged to be thrust through portions of a desired number of the other ones of said pairs of collars, the pins being arranged to electrically connect the resistance wires together.

5. A folding rheostat comprising a plurality of resistance leaves, collars affixed to said leaves in axial alignment with one another, a pivot through the collars, lugs projecting from the collars in different angular directions, said lugs being arranged to be moved into alignment with each other when the leaves are spread apart, and a contact pin arranged to be thrust through said lugs.

[Claims 6 and 7 not printed in the Gazette.]

1,082,983. TIRE-INFLATING MECHANISM. EDWARD J. WATSON and RICHARD F. DOWNEY, Milwaukee, Wis.; said Downey assignor of one-half of his right to William O. Sisson, Milwaukee, Wis. Filed Feb. 10, 1913. Serial No. 747,383. (Cl. 152—11.)



1. In a wheel having a pneumatic tire, a pump in communication with the tire carried by the wheel, a fixed tappet-shoe, and a pump-actuating bell-crank lever having one end adapted to be brought into and out of engagement with the tappet; the combination of a shiftable pivot-

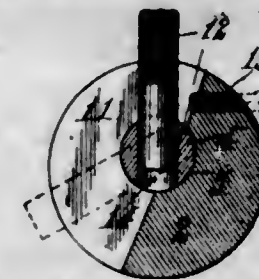
stud for the bell-crank lever, and pneumatically controlled means for shifting the stud in one direction.

2. In a wheel having a pneumatic tire, a pump in communication with the tire carried by the wheel, a fixed tappet-shoe, and a pump-actuating bell-crank lever having one end adapted to be brought into and out of engagement with the tappet; the combination of a pneumatically controlled shiftable fulcrum stud for the bell-crank lever, and a coiled spring for accelerating movement of said stud in either direction.

3. In a wheel having a pneumatic tire, a pump in communication with the tire carried by the wheel, a fixed tappet-shoe, and a pump-actuating bell-crank lever having one end adapted to be brought into and out of engagement with the tappet; the bell-crank lever being provided with a slot; the combination of a fulcrum stud for the bell-crank lever engageable with the slot, and pneumatically controlled actuating mechanism for shifting the position of the fulcrum stud in said slot.

4. In a wheel having a pneumatic tire, a pump in communication with the tire carried by the wheel, a fixed tappet-shoe, and a pump-actuating bell-crank lever having one end adapted to be brought into and out of engagement with the tappet; the combination of a pivoted lever, a fulcrum stud for the bell-crank lever carried by the pivoted lever, a coiled spring having one end fixed and its opposite end in connection with the lever, the coiled spring being adapted to travel across the pivot point of said lever, whereby its movement is accelerated, stop-pins for said pivoted lever, and a pneumatically controlled actuating means for the aforesaid pivoted lever whereby initial movement is imparted to the same to shift the position of the bell-crank lever fulcrum stud.

1,082,984. TUBE-CUTTER. OTTO WIEDEKE, Dayton, Ohio. assignor of one-half to Gustav Wiedeke, Dayton, Ohio. Filed July 21, 1913. Serial No. 780,151. (Cl. 81—194.)



In a device of the type specified, a body member having an eccentrically longitudinally disposed opening and a lateral slot, a head provided with a lateral slot mounted on said body and into which said eccentrically disposed opening extends, a shaft mounted in said opening, a cutter mounted in said shaft and extending out of the slot in said body, said cutter being adapted to engage the end of the slot in the body, a pin mounted in said shaft and extending out of the slot in the head, and a member capable of being adjusted mounted in said head and adapted to engage said pin.

1,082,985. PROCESS OF DIE-CUTTING WOOD AND SIMILAR MATERIALS. EDWARD B. WILDER and ALLEN B. WILDER, St. Louis, Mo. Filed Nov. 9, 1912. Serial No. 730,339. (Cl. 164—33.)



1. The process of die-cutting thick sheets which consists in subjecting the material to be cut to initial pressure throughout its engaged area and forcing the die blades into the material while laterally supporting said blades throughout their length.

2. In die-cutting thick sheets with knife blades, supporting the blades laterally to maintain them in normal alignment by applying pressure to both sides thereof throughout their length by the compression of a resilient pneumatic medium.

3. The process of die-cutting thick sheets in composite patterns which consists in forcing thin cutting blades arranged in pattern form through the sheet while applying pneumatic pressure to the sides of said cutting blades.

4. In die-cutting compressible sheet material by means of knife blades arranged in pattern form, compressing the material and maintaining said blades in normal alignment by supporting them laterally through the application of a resilient compressible medium applied to said material throughout its entire extent.

5. The process of die-cutting thin wood and the like, which consists in mounting the cutting blade snugly between sections of a resilient compressible material with its cutting edge sunk within the face of such material, and then forcing said resilient compressible material and blade against the wood to be cut, whereby the pressure due to change in volume of said compressible material compacts the wood and supports the blade laterally while the blade cuts the wood.

1,082,986. DIE FOR CUTTING WOOD AND SIMILAR MATERIALS. EDWARD B. WILDER and ALLEN B. WILDER, St. Louis, Mo. Filed Nov. 9, 1912. Serial No. 730,340. (Cl. 164—33.)



1. A die comprising a backing, a cutting blade, and a body of elastic material containing gas cells inclosing said cutting blade snugly on both sides thereof and extending beyond the cutting edge thereof, whereby said blade is supported by pneumatic pressure as set forth.

2. A die comprising a backing, a cutting blade, and a layer of sponge rubber on said backing inclosing said cutting blade snugly on both sides thereof, whereby said blade is supported as set forth.

3. A die comprising a backing, a cutting blade projecting therefrom, a body of resilient compressible material inclosing said cutting blade snugly on both sides thereof and extending beyond the cutting edge thereof, and means for unequally compressing said resilient material to create an equalized lateral support on both sides of said cutting blade.

4. In a device for cutting wood and similar materials, the combination with a support for the material to be cut, of a die comprising a cutting blade and a close fitting filling of a resilient compressible cellular substance for creating a pressure upon said material throughout the region of the cut and adapted to support the cutting blade laterally on both sides.

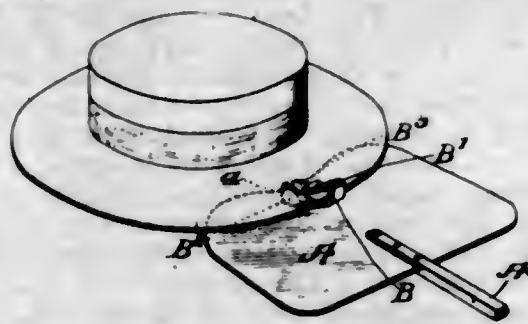
5. In a device for die-cutting wood and similar materials, a die comprising a backing having a body of resilient compressible cellular substance thereon, a layer of relatively inflexible substance secured to the outer face of said resilient substance, and a thin cutting blade embedded in said resilient substance with its cutting edge terminating inward from the outer face of said outer layer.

[Claims 6 and 7 not printed in the Gazette.]

1,082,987. COMBINED EYE-SHADE AND FAN. ERNEST J. WILLIAMS, St. Louis, Mo. Filed Sept. 10, 1913. Serial No. 789,122. (Cl. 2—112.)

1. The combination with an eye-shade or fan, of a double clamp provided with an upper rearwardly extending curved

clip to engage a hat brim, a lower forwardly extending clip engaging the fan blade and holding it against the lower side of the clip body and the hat brim and a spring tongue within the lower clip engaging the adjacent edge of a fan blade.

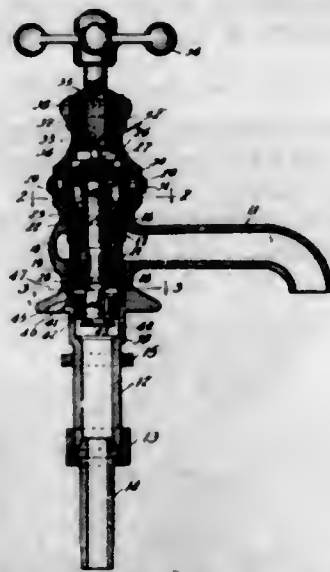


2. The combination with an eye-shade or fan, of a double clamp comprising a flat body provided at its outer end with an upwardly and rearwardly extending highly arched clip to receive a curled hat brim, a lower forwardly extending clip receiving the fan blade, and a spring tongue extending forwardly along the body within the lower clip engaging the adjacent edge of the fan blade.

3. The combination with an eye-shade or fan, having a notch in its top edge, of a clip body having means for securing it to a hat brim and a clip on the lower side of the body to receive a fan blade and hold it against the underside of the hat brim, and a spring tongue extending forwardly along the lower face of the clip body to hold the adjacent edge of the fan thereagainst and be straddled by said notch.

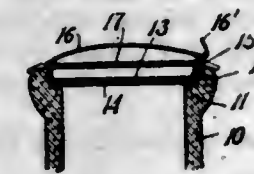
4. The combination with an eye-shade or fan, of a flat clip body having an upwardly and rearwardly curved brim engaging clip at its outer end, a downwardly extending fan-engaging clip projecting along the lower edge of the body and fan blade to a point near the outer end thereof, and a spring tongue extending along the under side of the body at the inner end thereof within the lower clip and engaging the adjacent edge of the fan blade.

1,082,988. FAUCET. FRANKLYN J. WOLFF, Minneapolis, Minn., assignor to L. Wolf Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1912. Serial No. 674,045. (Cl. 137—4.)



In combination, a casing having a spout and provided with a shank, a valve seat located within said shank, said shank being provided with an internal shoulder, a valve located within the shank between said valve seat and shoulder, said valve having a stem thereon, a second valve seat located within the casing, a removable valve cooperating therewith and opening against the fluid pressure, said last named valve normally being adapted to engage said stem and thereby holding the first named valve in its open position, and means for operating the second named valve, the first named valve being adapted to be closed automatically by the water pressure when the second named valve is removed.

1,082,989. CLOSURE FOR MILK-JARS AND THE LIKE. ALTON E. AYER, Boston, Mass., assignor of one-half to John Baxter, Boston, Mass. Filed May 21, 1913. Serial No. 768,902. (Cl. 215—53.)



1. A jar closure comprising a spring formed to expand into an annular internal groove at the mouth of a jar, combined with a cover adapted to fit externally over the mouth of the jar, the spring having a portion adapted to project up through said cover and to hold it down.

2. A jar closure comprising a spring formed to expand into an annular internal groove at the mouth of a jar, combined with a cover adapted to fit externally over the mouth of the jar, the spring having parts at two separated places adapted to project up through said cover and to engage the top of it.

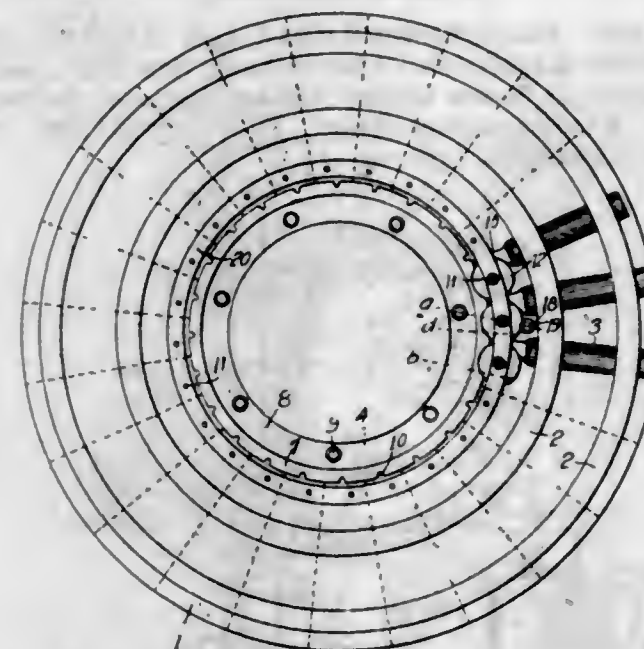
3. A jar closure comprising a spring formed to expand into an annular internal groove at the mouth of a jar, combined with a cover adapted to fit externally over the mouth of the jar, the spring having parts at two separated places adapted to project up through said cover and to engage each other above it.

4. A jar closure comprising a wire formed annularly and adapted to expand into a groove within the mouth of a jar, combined with a cover adapted to fit externally over the mouth of the jar, the wire having cooperating projections adapted to engage separated portions of the cover to hold it down.

5. A jar closure comprising a spring formed to expand into an annular groove at the mouth of a jar, combined with a closure disk adapted to fit in said groove above the spring and a cover adapted to fit externally over the mouth of the jar, the spring being formed to project past the disk and through the external cover to hold the external cover in place.

[Claims 6 to 8 not printed in the Gazette.]

1,082,990. SAFE-BOLTWORK. CARL BARTELS, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Filed May 5, 1913. Serial No. 765,439. (Cl. 109—3.)



1. Safe bolt work comprising, the back-member of a round safe door, concentric bolt-rings carried at the rear thereof, bolts fitted to slide radially in said rings, a shank projecting inwardly from each bolt, a crank-pin notch in the side of each shank, a circular actuating-device mounted for rotatory movement on said back-member inwardly of the ends of said shanks, notches in the periphery of the circular actuating-device, means for turning the actuat-

ing-device, and a crank device for each of said bolts supported by said back-member and having each a crank-pin engaging the notch in the shank of a bolt and a notch in said actuating device, combined substantially as set forth.

2. Safe bolt work comprising, the back-member of a round safe door, radially movable bolts carried thereby, a stud projecting from said back-member for each of said bolts, a rotatory actuating-device journaled on said back-member, transmission devices mounted on said studs and connecting said actuating-device with said bolts, a keeper-ring engaging the rear portion of said studs, and means for securing said keeper-ring to said studs, combined substantially as set forth.

3. Safe bolt work comprising, the back-member of a round safe door, concentric bolt-rings carried at the rear thereof, bolts fitted to slide radially in said rings, a rabbeted bearing-ring separably secured against the rear surface of said back-member, an actuating-ring mounted for rotatory motion in the rabbet of said bearing-ring, a clip-ring secured to the rear surface of said bearing-ring and projecting over said actuating-ring, and a transmission device between said actuating-ring and each of said bolts, combined substantially as set forth.

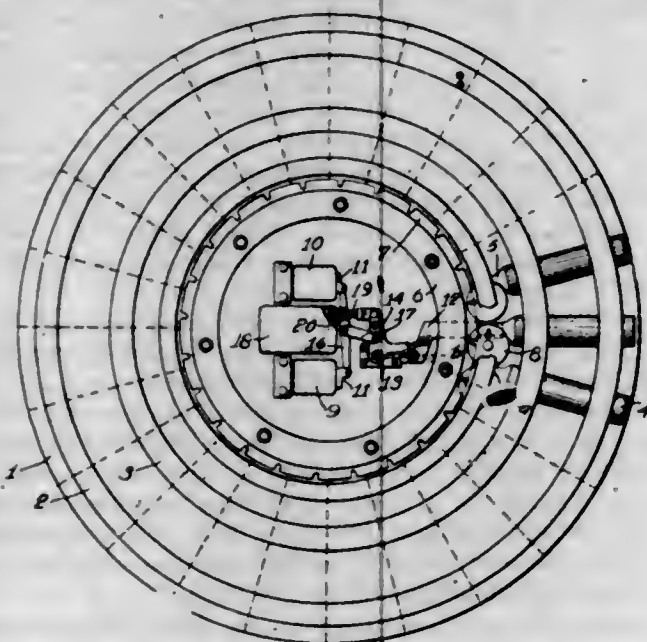
4. Safe bolt work, comprising, the back-member of a round safe door, concentric bolt-rings carried at the rear thereof, bolts fitted to slide radially in said rings, a circular actuating-member mounted for rotatory motion on said back-member, concentric with and inwardly of said concentric rings, a shank projecting inwardly from each bolt and provided with a notch in its side a notch in said actuating-member for each of said bolts, a circular series of studs carried by said back-member between said actuating-member and said concentric ring, a crank mounted on each of said studs and having a crank-pin to engage a notch of the actuating-member, and another crank-pin to engage the notch of the appropriate bolt-shank, a toothed segment fast with one of said crank-disks, and a pinion mounted for rotatory motion on said back-member and engaging said toothed segment, combined substantially as set forth.

5. Safe bolt work comprising, the back-member of a round safe door, concentric bolt-rings carried at the rear thereof, bolts fitted to slide radially in said rings, a circular actuating-member mounted for rotatory motion on said back-member, concentric with and inwardly of said concentric rings, a shank projecting inwardly from each bolt and provided with a notch in its side, a notch in said actuating-member for each of said bolts, a circular series of studs carried by said back-member between said actuating-member and said concentric rings, a crank mounted on each of said studs and having a crank-pin to engage a notch of the actuating member, and a second crank-pin to engage a notch of a bolt-shank, a toothed segment fast with one of said cranks, a toothed pinion engaging said segment, a spindle for turning said pinion, and a second crank-member carried by the toothed segment and connected with the two crank-pins of the crank carrying the toothed segment, combined substantially as set forth.

1,082,991. SAFE-BOLTWORK. CARL BARTELS, Hamilton, Ohio, assignor, by mesne assignments, to The Mosler Safe Company, New York, N. Y. Filed June 20, 1913. Serial No. 774,740. (Cl. 109—3.)

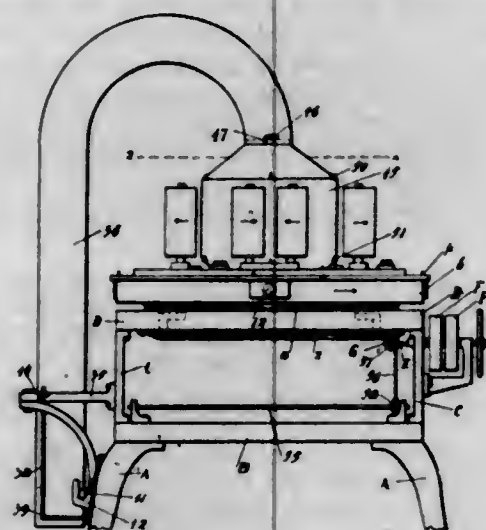
Safe bolt-work comprising, main bolt-work, means for shooting and drawing the bolts thereof, a pivoted dogging-member serving to prevent the drawing of said bolts, a pair of combination locks, a lever having each of its ends pivotally connected with the bolt of one of the combination locks, a pivot carried by said lever intermediate of its length, a link connecting said pivot and engaging pivot on the dogging-member, means for adjusting the point of pivotal connection between said link and the dogging-member to cause the dogging-member to go to releasing position under the influence of either or both of said combination locks as may be desired, a time-lock, and connections between the time-lock and the same dogging-member which is linked to said lever to prevent said

dogging-member going to releasing position under the influence of either or both of the combination locks while



the time-lock is on guard, combined substantially as set forth.

1,082,992. NAPPER. ASA C. BAUM, Little Falls, N. Y. Filed Feb. 26, 1912. Serial No. 879,950. (Cl. 26—4.)



1. A napper consisting of a frame, a gear ring mounted to revolve relative thereto, a ring connected to rotate with the former ring, a beveled gear supported in the latter ring, a rack fixed to the frame and meshing with said gear, a longitudinally adjustable shaft supporting said gear and provided with a worm-gear and worms meshing with the worm-gear and provided with napping heads, whereby the revolution of the first-mentioned gear is transmitted to the said heads and the latter are adjustable inward or outward with the shaft.

2. A napper having a plurality of vertical revolving napping members equi-distant from the center, a pipe mounted to receive a tube of fabric through the interior and to carry said fabric on the exterior of the pipe, a drum removably mounted on the pipe, the pipe being mounted so as to position the drum in the center of the napping members.

3. A napper having a vertical pipe with its upper portion curved and depending and normally positioned in the center of the device, a drum removably mounted on the pipe and napper members mounted about the drum and equi-distant therefrom, and means for revolving the napping members about the drum.

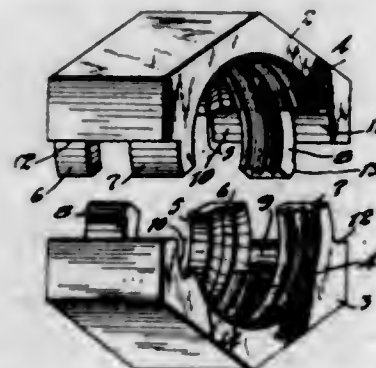
4. A napper comprising vertically disposed revolving members, means supporting the said members, the said means being revolvable about the center of the napper, means connected with the former means whereby to revolve the nappers on their centers in their revolution, a pipe adapted to receive a tube of fabric and to carry the

same on the exterior thereof and a drum connected with the napper and with the pipe and adapted to be carried at the central point between the said napper members.

5. In a napper, the combination of a revolving ring, blocks radially movable in said ring, a gear movably mounted on each block, napping members operatively connected with the blocks and means operatively connected by the said blocks whereby to give them a synchronous radial adjustment.

[Claims 6 to 10 not printed in the Gazette.]

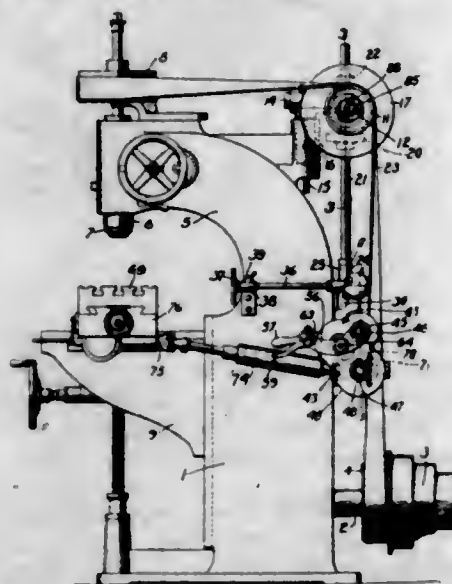
1,082,993. PIPE-COUPLING. RICHARD LANDGRIGE BEATTIE, Winnipeg, Manitoba, Canada. Filed Sept. 5, 1912. Serial No. 718,618. (Cl. 85—32.)



1. A coupling comprising, complementary interiorly threaded sections provided with curved extending tongues, and having a plurality of unbroken angular outer faces, and receiving pockets, said tongues being threaded and overlapping a portion of the inner face of the adjacent section whereby an unbroken threaded interior surface and an outer hexagonal surface is obtained when the sections are assembled.

2. A coupling comprising, two sections of equal size having threaded semi-circular inner faces, and provided with threaded tongues extending from said threaded faces, the threads of the tongues and inner faces of one section registering with the corresponding threads of the opposing section when said sections abut, and receiving pockets arranged concentric to the common center of the coupling, the tongues of said sections extending beyond and overlapping the inner face of abutting edges of said sections when the sections are assembled, and the outer faces of said sections being hexagonal formation.

1,082,994. TRANSMISSION-GEAR FOR MILLING AND OTHER MACHINES. JOHN BECKER, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me., a Corporation of Maine. Filed Dec. 12, 1908. Serial No. 467,146. (Cl. 90—14.)



1. A machine of the class described comprising, in combination, a support; rotative means cooperating therewith; frictionally engaging driving and driven elements; means for driving said rotative means and elements whereby the power transmitted through said driving element tends to thrust the same axially to maintain

by the power transmitted through said driving element tends to thrust the same axially to maintain said elements in frictional engagement; and means for transmitting power from said driven element to said support.

2. A machine of the class described comprising, in combination, a support; rotative means cooperating therewith; frictionally engaging driving and driven elements; a belt for driving said rotative means and said driving element, said belt and element being arranged to thrust the latter automatically axially into frictional engagement with said driven element; and means to transmit power from the latter to said support.

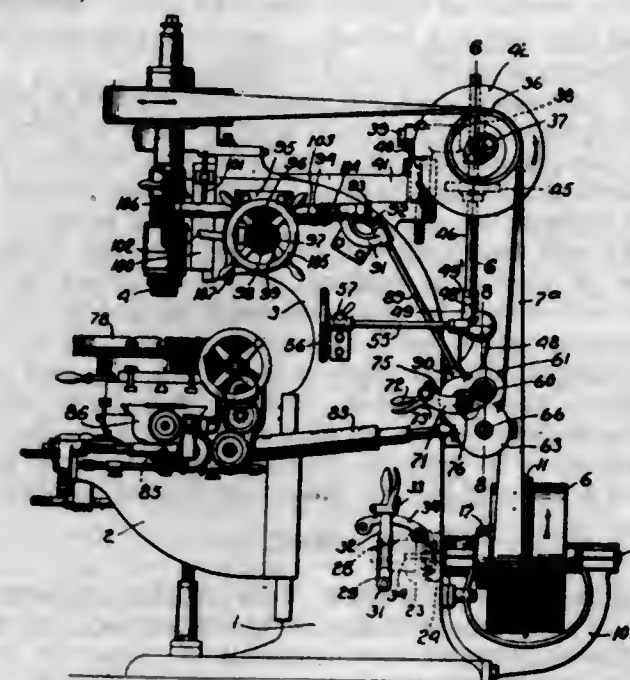
3. A machine of the class described comprising, in combination, rotative means; a support in cooperative relation therewith; frictionally engaging driving and driven elements having obliquely related axes; means for rotating said rotative means and said driving element and adapted through the obliquity of the axes of said elements to press the latter into engaging contact; and means for transmitting power from said driven element to said support.

4. A machine of the class described comprising, in combination, a support; rotative means cooperating therewith; a driving pulley for the latter; a belt for transmitting power from said driving pulley to said rotative means; and means for transmitting power from said belt to said support, comprising a pulley driven by said belt, a frictional element rotative with said pulley, a driven element in engagement with said friction element and operatively connected with said support, said pulley, belt and elements being arranged to cause axial movement of one of said elements to press the latter into frictional engagement with the other element.

5. A machine of the class described comprising, in combination, a support; rotative means cooperating therewith; a driving pulley for the latter; a belt connecting said pulley and rotative means; and means for transmitting power from said belt to said support, comprising a pulley having a pitched surface, a frictional element rotative therewith, and a driven element in engagement with and adjustable along the face of said first named element and operatively connected with said support.

[Claims 6 to 14 not printed in the Gazette.]

1,082,995. VERTICAL MILLING-MACHINE. JOHN BECKER, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me., a Corporation of Maine. Filed Jan. 16, 1909. Serial No. 472,712. (Cl. 90—14.)



1. A machine of the class described comprising, in combination, a support; rotative means for cooperation therewith; frictionally engaging driving and driven elements; means for driving said rotative means and elements whereby the power transmitted through said driving element tends to thrust the same axially to maintain

said elements in frictional engagement; and connections from said driven element to said support and rotative means for feeding the same.

2. A machine of the class described comprising, in combination, rotative means; frictionally engaging driving and driven elements; means for driving said rotative means and elements whereby the power transmitted through said driving element tends to thrust the same axially to maintain said elements in frictional engagement; and connections from said driven element to said rotative means for feeding the latter.

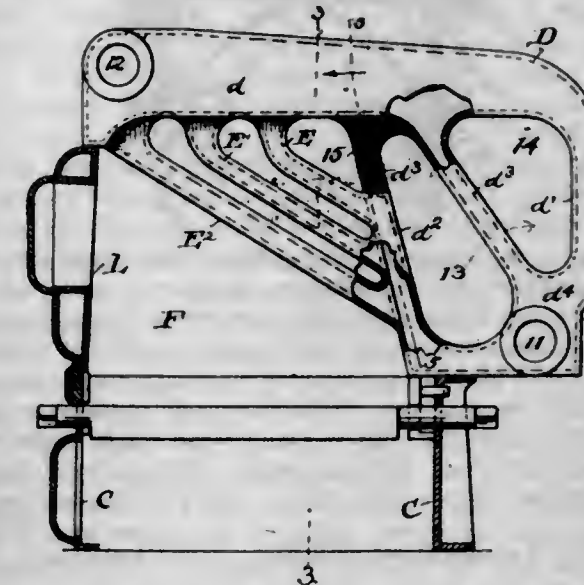
3. A machine of the class described comprising, in combination, rotative means; frictionally engaging driving and driven elements; a belt for driving said rotative means and said driving element, said belt and element being arranged to thrust said driving element automatically axially into frictional engagement with said driven element; and connections from the latter to said rotative means for feeding the same.

4. A machine of the class described comprising, in combination, rotative means; frictionally engaging driving and driven elements having obliquely related axes; driving means for rotating said rotative means and said driving element and adapted through the obliquity of the axes of said elements to press the latter into engaging contact; and connections for feeding said rotative means from said driven element.

5. A machine of the class described comprising, in combination, rotative means; a support for cooperation therewith; frictionally engaging driving and driven elements having obliquely related axes; driving means for rotating said spindle and said driving element and adapted through the obliquity of the axes of said elements to press the latter into engaging contact; and connections for feeding said rotative means and support from said driven element.

[Claims 6 to 18 not printed in the Gazette.]

1,082,996. SECTIONAL BOILER. JOHN B. BERNHARD, Syracuse, N. Y. Filed Mar. 19, 1913. Serial No. 755,300. (Cl. 122—223.)



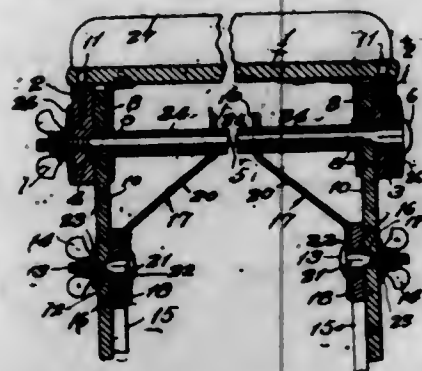
1. An intermediate section for sectional boilers, comprising a substantially horizontal top member, and a wide rear member which communicates with the top member and is composed of a substantially vertical rear water leg, an inclined front water leg, and a more inclined intermediate water leg, which divides the space between the front and rear water legs into two transverse flues which are located one behind the other, and a pedestal with which the lower ends of said three water legs are united, the front water leg being narrowed near its upper end to form a passageway through which the products of combustion may flow from the fire box into the front transverse flue.

2. An intermediate section for sectional boilers, comprising a substantially horizontal top member and a wide rear member which communicates with the top member and is

composed of a substantially vertical rear water leg, an inclined front water leg, a more inclined intermediate water leg which divides the space between the front and rear water legs into two transverse flues which are located one behind the other, and a pedestal with which the lower ends of said three water legs are united,—the front water leg being reduced in width near its upper end to form a passageway for the products of combustion from the fire box into the front transverse flue, and a plurality of inclined water legs which extend between the top member and said front water leg,—each of said inclined water legs being wider than the one next below it.

3. A sectional boiler comprising two end sections and one or more intermediate sections of which each intermediate section consists of a substantially horizontal top member and a rear member which communicates freely with the top member and is composed of a rear water leg, an inclined front water leg, a more inclined intermediate water leg which divides the space between the front and rear water legs into two approximately triangular transverse flues which are located one behind the other, and a pedestal in which the lower ends of said three water legs are united,—said front water legs being narrowed near their upper ends to form passageways through which the products of combustion may flow from the fire pot into the front transverse flue,—one end member having through it a transverse flue which registers with and places in communication both of the transverse flues in adjacent intermediate member, a plate closing at end of said communicating plate,—and the other end member having through it a transverse flue which communicates only with the rear flue in the adjacent intermediate section.

1,082,997. BED AND LOUNGING TABLE. HENRY BRAASCH, Los Angeles, Cal. Filed Nov. 18, 1909. Serial No. 528,804. (Cl. 45—74.)



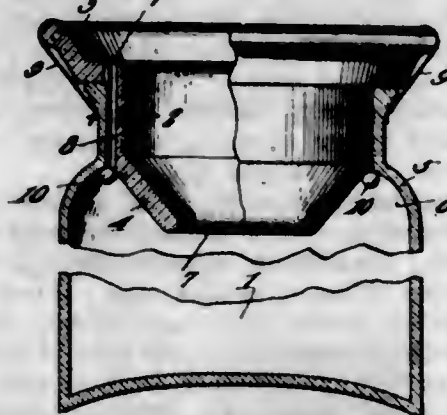
A table comprising a plate having two pairs of perforated smooth-faced brackets, members of each pair of brackets being relatively adjustable, free main legs embraced smoothly between the members of the pairs of brackets, free sub-legs pivoted on the main legs, reversely bent braces for the legs, bolts and nuts adjustably securing the sub-legs and the braces to the main legs below said brackets, a tie bolt extending through the brackets and the upper ends of the main legs and braces, spacers on the tie rod interposed between the braces and between the braces and the adjacent brackets to hold braces and brackets apart, and a nut on the tie bolt to adjustably clamp the parts on said bolt.

1,082,998. LEAD-IN FOR FISH-POUNDS. ARTHUR C. BAROOS, Detroit, Mich. Filed Mar. 20, 1911. Serial No. 615,830. (Cl. 43—20.)

1. A lead-in for fish pounds comprising in a rigid transparent structure, a neck provided with a plurality of channels, a flaring mouth having openings communicating with the channels, and a funnel throat, and flexible attaching members passing through the openings and within the channels and provided with terminal stops.

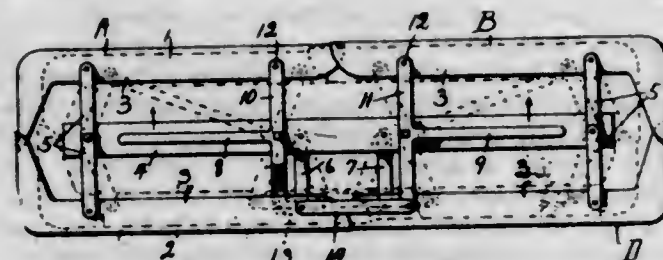
2. A fish trap comprising a transparent pound closed at one end and open at the other, and a lead-in therefor comprising a cylindrical neck to fit within the open end, and provided with a plurality of channels, a flaring mouth

having openings communicating with the channels, and a funnel throat, and flexible attaching members passing through the openings and within the channels and having terminal stops co-acting with the walls of the pound and the throat to prevent withdrawal in one direction.



3. The combination with a bottle fish pound, of a lead-in comprising a frusto-conical throat, a cylindrical neck with external channels, a flaring mouth at the outer extremity of said cylindrical neck adapted to contact with the end walls of the fish pound, and means fitting within the said neck channels for securing the lead-in to the said fish pound.

1,082,999. COLLAPSIBLE CORE FOR HOLLOW CONCRETE CONSTRUCTIONS. CHARLES S. BUNNELL, Hammond, Ind. Filed Mar. 8, 1913. Serial No. 753,026. (Cl. 25—128.)



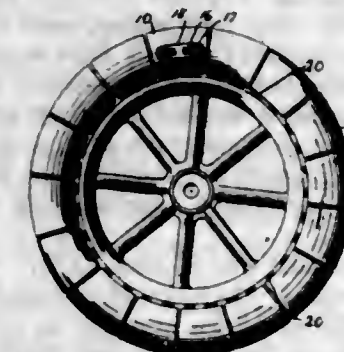
1. A collapsible core for molds consisting of a pair of side wall plates, each composed of a pair of overlapping sections, the upper and lower edges of said sections being bent inwardly to form flanges, a central frame section, linking means between said frame section and the inwardly extending flanges of the sections of the side wall, levers fulcrumed on said frame section and each having connection with the sections of opposite side wall plates, whereby to dispose said sections inwardly toward one another when said levers are moved in one direction.

2. A collapsible core for molds consisting of a pair of side wall plates, each comprising a pair of overlapping sections, the upper and lower edges of said sections being bent inwardly to form flanges, a central frame section disposed between the side wall plates, linking members connecting said frame section with the inwardly extending flanges of said plate sections, levers fulcrumed on said frame section and having cross heads formed at the fulcrum ends thereof, said cross heads having one of their ends engaged with the sections of the one side wall plate, additional linking members between said frame section and the sections of the opposite side wall plate, and connecting means between the opposite ends of the cross heads on said levers and the last mentioned linking members.

1,083,000. CUSHION-TIRE FOR VEHICLE-WHEELS. AUGUST CASAZZA, Hoboken, N. J. Filed Sept. 13, 1911. Serial No. 649,208. (Cl. 152—9.)

In combination with a wheel felly, a cushion tire comprising a series of segmental tubular sections adapted to act in conjunction with the felly, one of said tubular sections having a slot in its side wall, the said tubular sections having internal recesses at the ends thereof forming shoulders, cushioning members within the tubular sections, washers on the ends of the cushioning members engaging

the shoulders of the tubular members, the distance between the shoulders of adjacent ends of the tubular sections being less than the length of the cushioning member and washers interposed between the said tubular sections, said tubular sections and washers being apertured, a tie extending through the apertures of the cushioning



members and washers, said tie comprising a length of flexible material having threaded ends terminating in the tubular section containing the apertured side wall, and securing members applied to the ends of the tie for adjusting the tension of the tie and regulating the spaces between the said tubular sections.

1,083,001. CAR-DOOR FASTENER. FRANK W. CHAFFEE, Albany, N. Y. Filed Oct. 22, 1912. Serial No. 727,237. (Cl. 70—83.)



1. In a car-door fastening, a hasp and coöperating means therefor comprising a casing having a base-plate, a staple to receive the free end of the hasp and a shell offset from said base-plate, and a vertically slidable bolt mounted in said shell and adapted when in its lower position to extend through said staple and confine the hasp thereon, combined with a bar (19) secured to the door having an offset recessed portion transversely crossing and receiving said base-plate and apertured to pass over said staple.

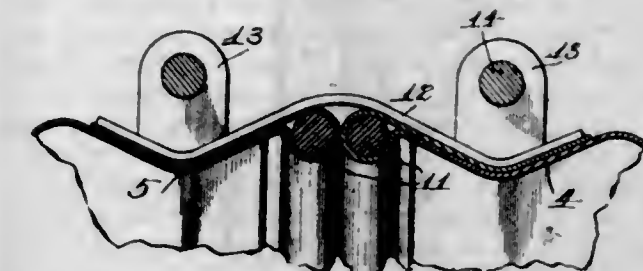
2. In a car-door fastening, a hasp and coöperating means therefor comprising a staple to receive the free end of the hasp, a vertically slidable bolt adapted when in operative position to extend through said staple and confine the hasp thereon, and supporting means for said bolt, said bolt having openings extending transversely through it to come above and below said staple for a sealing strip, combined with a sealing strip extending continuously through both of said openings exteriorly to said staple and having a seal connecting its ends.

3. In a car-door fastening, a hasp and coöperating means therefor comprising a casing having a base-plate, a staple to receive the free end of the hasp and a shell offset from said base-plate, and a vertically slidable bolt mounted in said shell and adapted when in its lower position to extend through said staple and confine the hasp thereon, said shell having an open back, sides formed therein with vertical guide slots open at their upper ends only through the back of the casing, and a bottom having an opening for the passage of said bolt, and said bolt having at its upper end a transverse bar extending into said slots and exposed at its ends to serve as a handle for the manual operation of the bolt.

4. In a car-door fastening, a hasp and coöperating means therefor comprising a casing having a base-plate, a staple to receive the free end of the hasp and a shell offset from said base-plate, and a vertically slidable bolt mounted in said shell and adapted when in its lower position to

extend through said staple and confine the hasp thereon, said shell having a closed front, an open back, sides formed with guide slots parallel with and opposite to each other and closed at their lower ends and open at their upper ends through the back of the casing and said sides affording curved shoulders at their upper ends along said slots and a bottom having an opening for the passage of said bolt, and said bolt having at its upper end a transverse bar extending into said slots and provided on its ends with exposed knobs which are greater in transverse width than said slots.

1,083,002. SHEET-METAL CULVERT. GEORGE HERBERT CHARLES, Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J. Filed Aug. 14, 1913. Serial No. 784,676. (Cl. 61—9.)



1. A circumferentially corrugated sheet metal culvert comprising, a pair of sections having rodlike reinforcements at their abutting ends, an open joint-band clamping said abutting rodlike reinforcements, and draw-bolts for forcing said joint-band to place, combined substantially as set forth.

2. A circumferentially corrugated sheet metal culvert comprising, a pair of sections having rodlike reinforcements at their abutting ends, an open joint-band clamping said abutting rodlike reinforcements and the corrugations contiguous thereto, and draw-bolts for forcing said joint-band to place, combined substantially as set forth.

3. A circumferentially corrugated sheet metal culvert comprising, a pair of sections each having rodlike reinforcements at each of its ends, an open joint-band adapted to clasp the rodlike reinforcements which may be placed in abutting relationship, and draw-bolts for forcing said joint-band to place, combined substantially as set forth.

4. A circumferentially corrugated sheet metal culvert comprising, a pair of sections each having a rodlike reinforcement at each of its ends, an open joint-band adapted to clasp the rodlike reinforcements which may be placed in abutting relationship and the corrugations contiguous thereto, and draw-bolts for forcing said joint-band to place combined substantially as set forth.

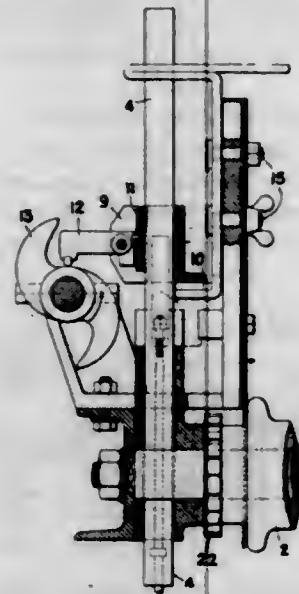
5. A circumferentially corrugated sheet metal culvert comprising, a first plurality of minor sections secured together by a joint in which the end of one section surrounds the end of the other section and overlaps a plurality of the corrugations thereof to form a major section, a second similar major section, an open joint-band clamping the abutting ends of the major sections, and draw-bolts for forcing said joint-band to place, combined substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,083,003. APPARATUS FOR SMOOTHING HANKS OF TEXTILE MATERIALS. ALEXANDER CLAVEL, Basel, Switzerland, assignor to Farberel & Appreturgesellschaft vormals A. Clavel & Fritz Lindenmeyer, Basel, Switzerland. Filed Apr. 9, 1912. Serial No. 689,486. (Cl. 28—7.)

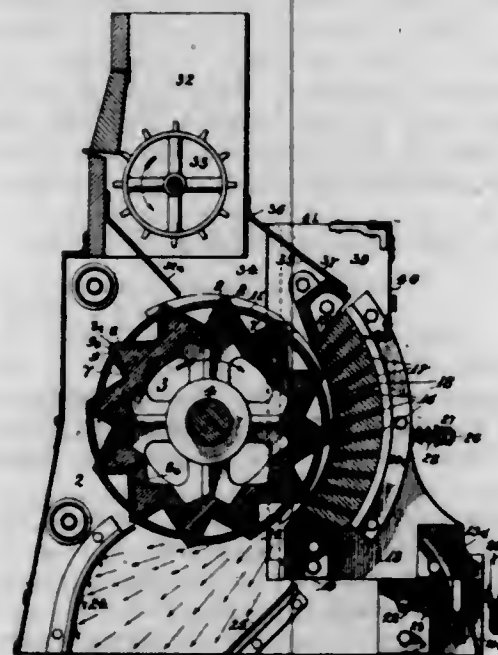
1. In an apparatus for smoothing hanks of textile materials, especially hanks of dyed silk, a suspending roller upon which the hanks are to be suspended, a device for imparting to the suspending roller a stepwise rotation on its own axis, a vertically movable stretching roller arranged beneath the said suspending roller, a lifting rod attached to the said stretching roller, a rigid, vertically movable engaging fork and a clamping wedge allowing to fix frictionally the lifting rod temporarily into the said fork and

subjected to the action of a pressure lever and of a rotary cam in such a manner that in the course of the rotation of the said cam the lifting rod is alternatively fixed frictionally into the said fork by means of the said clamping wedge, pressure lever and cam, in order to raise the lifting rod and the stretching roller together with the fork, and allowed to fall down again.



2. In an apparatus for smoothing hanks of textile materials especially hanks of dyed silk, a suspending roller upon which the hanks are to be suspended, a device for imparting to the suspending roller a stepwise rotation on its own axis, a vertically movable stretching roller arranged beneath the said suspending roller, a lifting rod attached to the said stretching roller, a rigid, vertically movable engaging fork, having its lowermost position determined by an adjustable stop, and a clamping wedge allowing to fix frictionally the lifting rod temporarily into the said fork and subjected to the action of a pressure lever and of a rotary cam in such a manner, that in the course of the rotation of the said cam, the lifting rod is alternatively fixed frictionally into the said fork by means of the said clamping wedge, pressure lever and cam, in order to raise the lifting rod and the stretching roller together with the fork, and allowed to fall down again.

1,083,004. SEED-HULLING MACHINE. JOSEPH DAVIDSON, Greenville, S. C., assignor of one-half to American Machine & Manufacturing Company, a Corporation of North Carolina. Filed May 29, 1913. Serial No. 770,622. (Cl. 83—14.)



1. In a seed huller, the combination of the hulling cylinder having knives on its periphery, a breast frame provided with knives arranged on a curve to cooperate with

the knives of the hulling cylinder, a chamber above the hulling cylinder and breast frame, means to feed the seed into the chamber, a door structure having a plurality of light door sections of relatively small size opening outwardly from the chamber above the hulling cylinder and breast knives, whereby heavy articles may be driven outward by the hulling cylinder through any one of the door sections which they may strike, said door structure consisting of a plurality of narrow door sections arranged side by side and adapted to remain normally in closed position by gravity, and a second plurality of narrow door sections overlapping the juncture of the first mentioned door sections and respectively adapted to be moved with either of said first mentioned door sections which it overlaps.

2. A hulling cylinder for a seed huller, having its periphery formed with a plurality of inclined knives, combined with shouldered plates secured to the hulling cylinder at an angle to the knives and having their outer edges arranged to extend over a portion of the edges of the knives to hold them from moving outward, longitudinal clamping parts extending for the full length of the knives and arranged in the periphery of the cylinder within a space traversed by the cutting edges of the knives, and clamping screws arranged in the clamping parts and extending into the hulling cylinder for holding said clamping parts in position upon the knives and permitting them to be separately loosened when it is desired to remove a knife or knives for purposes of replacement or sharpening.

3. In a hulling cylinder for seed huller, the combination of the cylinder proper having a plurality of longitudinal inclined portions forming a corresponding series of knife seats, means rigidly secured to the cylinder and projecting beyond the outer edges of the inclined seat portions and providing a plurality of under cut guiding shoulders, a plurality of knives resting against the inclined seat portions and having their outer ends abutting against the under cut guiding shoulders to accurately adjust the outer cutting edges of the knives so that they all describe a true common circle, and means carried with the cylinder for clamping the knives in their adjusted positions.

4. In a hulling cylinder for seed huller, the combination of the cylinder proper having a plurality of longitudinal inclined portions forming a corresponding series of knife seats, means formed of longitudinal plates rigidly secured to the cylinder and projecting beyond the outer edges of the inclined seat portions and providing a plurality of under cut guiding shoulders, a plurality of knives resting against the inclined seat portions and having their outer ends abutting against the under cut guiding shoulders to accurately adjust the outer cutting edges of the knives so that they all describe a true common circle, means carried with the cylinder for clamping the knives in their adjusted positions consisting of longitudinal clamps between the knives and the longitudinal plates having the under cut shoulders, and clamping screws extending through said clamps and into the cylinder at points between the plates and knives.

5. In a seed huller, a hulling cylinder having a recess therein, a cutting knife seated in said recess and projecting exterior thereof, a plate removably secured to said cylinder and extending into the path of movement of said knife to prevent said knife shifting under centrifugal action, and means to clamp said knife to prevent lateral movement thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,083,005. DRIP RAIL-PLATE FOR TWISTING-FRAMES. JOSEPH DESAUTELS and JOSEPH LACROIX, Fall River, Mass., assignors of one-third to each of themselves and one-third to Charles J. Burdick, Providence, R. I. Filed Apr. 18, 1913. Serial No. 761,936. (Cl. 118—16.)

1. A trough rail plate for a wet twister comprising a top portion and a lateral depending apron for protecting the side of the rail.

2. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders having substantially parallel inner faces and having inclined outer edges projecting within said groove and slightly overlapping each other at their lower ends.



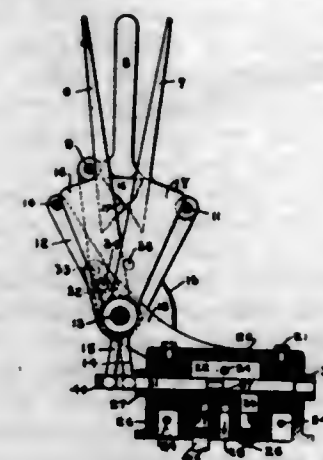
3. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders and having inclined outer edges projecting within said groove and slightly overlapping each other at their lower ends.

4. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders slightly overlapping each other at their lower ends.

5. A trough rail plate for a wet twister having a transverse groove, a stop on the outside for holding the back twist from the twister, a stop on the inside for stripping the water from the thread as it rises from the trough.

[Claims 6 and 7 not printed in the Gazette.]

1,083,006. TRIMMER-SAW. GEORGE F. DE WEIN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Dec. 13, 1912. Serial No. 736,843. (Cl. 143—41.)



1. In combination with a table, a plurality of saws movable into and out of cutting position relative to said table, individual means for normally setting each of said saws in either of said two positions, and means for effecting direct selective setting of said saws from any position of prior individual setting.

2. In combination with a table, a plurality of saws movable into and out of cutting position relative to said table, individual means for normally setting each of said saws in either of said two positions, and common means for effecting collective and direct selective setting of said saws from any position of prior individual setting.

3. In combination with a table, a plurality of saws movable into and out of cutting position relative to said table, manually operable individual levers for normally setting each of said saws in either of said two positions, and a common manually operable lever for effecting collective and direct selective setting of said saws from any position of prior individual setting.

4. In combination with a table, a plurality of saws movable into and out of cutting position relative to said table, individual levers for normally setting each of said saws in either of said two positions, a valve operable by each of said levers, an individual valve box for each of said valves, said valve boxes abutting to form a common communicating passage, and a pressure inlet to said common passage.

5. In combination with a table, a plurality of saws movable into and out of cutting position relative to said table, pressure means for moving said saws into one of said two positions, individual means for controlling the

setting of each of said saws in either of said two positions, and means for maintaining the direction of operation of said individual means as referred to their effect on the position of said saws irrespective as to whether the pressure means move said saws into or out of cutting position.

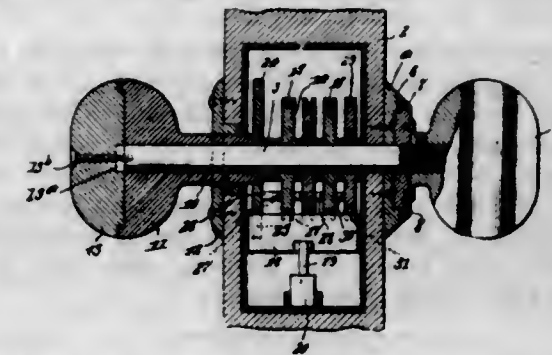
[Claims 6 to 11 not printed in the Gazette.]

1,083,007. PROCESS OF DETACHING WALL-PAPER. CARLETON ELLIS, Larchmont, N. Y., assignor, by mesne assignments, to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Feb. 18, 1908. Serial No. 416,544. (Cl. 216—8.)

1. The process of detaching wallpaper which consists in applying thereto an aqueous solution of a hygroscopic salt having a substantial solvent action on cellulose fiber, in allowing said solution to remain in contact with said wallpaper and thereby distend and dissolve the fiber thereof, in simultaneously softening and loosening the adhesive securing the wall paper in position and in thereupon removing said wallpaper from its support.

2. The process of detaching wallpaper which consists in applying thereto a hot solution of a hygroscopic salt having a substantial solvent action on cellulose fiber, in allowing said solution to remain in contact with said wallpaper and thereby distend and dissolve the fiber thereof, in simultaneously softening and loosening the adhesive securing the wallpaper in position and in thereupon removing said wallpaper from its support.

1,083,008. PERMUTATION-LOCK. AUGUST FISCHER, La Fayette, Ind. Filed Nov. 11, 1910. Serial No. 591,832. (Cl. 70—53.)



1. A lock comprising a casing, a shaft journaled therein, a plurality of tumblers on the shaft, a knob secured to the shaft, a knob loosely mounted on the shaft, a latching bolt, means operated by said loosely mounted knob for retracting the latching bolt, means for interlocking the tumblers with said means, and means for throwing said bolt operating means to inoperative position.

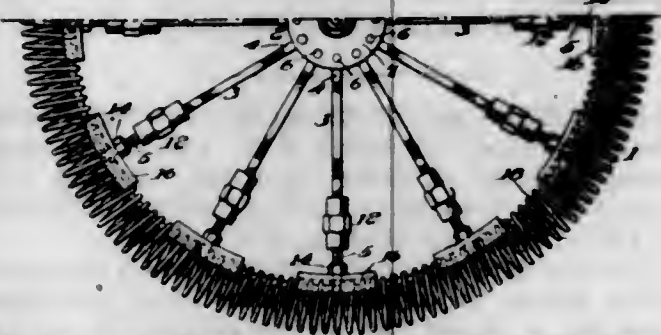
2. A lock comprising a casing, a shaft journaled therein, a plurality of tumblers on the shaft, a knob secured to the shaft, a knob loosely mounted on the shaft, a latching bolt, means operated by said loosely mounted knob for retracting the latching bolt, means for interlocking the tumblers with said means, and a cam wheel connected to the shaft for throwing said bolt operating means to inoperative position.

3. A lock comprising a casing, a shaft journaled therein, a plurality of tumblers on the shaft, a knob secured to the shaft, a second knob loosely mounted upon the shaft, a latching bolt, means for operating said latching bolt, means permanently connecting the loose knob with the latching bolt operating means, means to interlock the tumblers with said latching bolt operating means whereby the same may be operated from the shaft, and means to disconnect the latching bolt operating means from the tumblers.

1,083,009. VEHICLE-WHEEL. FREDERICK E. GLASSER, New York, N. Y. Filed Aug. 20, 1912. Serial No. 715,987. (Cl. 152—29.)

1. In a vehicle wheel, the combination with the tread portion consisting of a metallic coil having a ring therein,

of a plurality of metallic spokes secured to the hub of said wheel and extending into said tread portion the extremities of each of said spokes within said tread being bent to form a loop for engaging said ring, and means for binding said spokes in contact with said tread portion.

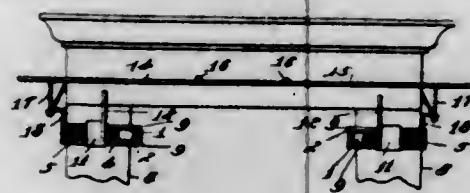


2. In a vehicle wheel, the combination with the tread portion consisting of a metallic coil having a ring therein, of a plurality of metallic spokes secured to the hub of said wheel and extending into said tread portion, said spokes having each a hooked extremity adapted to engage said ring, a channel member on each of said spokes adapted to bear on said tread portion, and nuts threaded on said spokes and adapted to bear against said channel members.

3. In a vehicle wheel, the combination with the tread portion consisting of a metallic coil having a ring therein, of a plurality of metallic spokes secured to the hub of said wheel and extending into said tread portion, said spokes comprising inner and outer sections, a turnbuckle connecting said sections, said outer section being split longitudinally at its extremity and having its end portions bent to collectively form a loop to receive said ring, a channel member on each of said outer sections adapted to bear on said tread portion, and nuts threaded on said outer sections and adapted to bear against said channel members.

4. A vehicle wheel comprising a hub, metallic spokes connected to said hub, said spokes having each a pair of plates bent to form a bow spring, the outer extremities of said spokes being bent to form a loop, a tread portion consisting of a metallic coil adapted to receive the extremities of said spokes, a retaining ring within said tread designed to pass through the looped extremities of said spokes, and means for securing said ring to said tread and said spokes to said ring.

1,083,010. WINDOW-SHADE HOLDER AND CURTAIN-POLE SUPPORT. ISAAC C. GRAY, Logansport, Ind., assignor of one-third to Jesse O. Gillenwater, Peru, Ind., and one-third to Jacob E. Ludders, Logansport, Ind. Filed Jan. 9, 1913. Serial No. 741,063. (Cl. 156—24.)

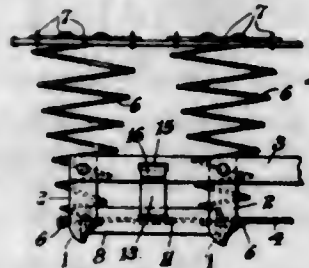


The combination with a window frame, of shade holders, each comprising trough shaped telescopic sections, each section provided with a flange to engage said frame and one of said sections having a cross bar, a coil spring located within the trough like sections and secured at at one end to the cross-bar and at its opposite end to the outer end of the other section, a sleeve slidably supported on one of the telescopic sections and having a projecting arm formed with a bearing, an arm secured to one of said sections for supporting a curtain, and a longitudinally adjustable curtain pole supported by said arms substantially as described.

1,083,011. BED-SPRING FRAME. JOHN HANCOCK, Philadelphia, Pa. Filed Sept. 26, 1913. Serial No. 791,899. (Cl. 5—29.)

1. In a device of the character stated, a spring frame comprising a plurality of cross bars spaced apart and

suitably secured together, a suitable support yieldingly mounted on said cross bars, brace strips fixedly secured between certain pairs of said cross bars, a hanger substantially of Z-shape slidably mounted in each brace strip to engage a bed frame under certain conditions to support said frame, and means to prevent said hangers from being detached.



2. In a device of the character stated, a spring frame comprising a plurality of cross bars spaced apart, a connecting member at each end of said cross bars and securing the latter together, each of said members having a plurality of slots therein, a plurality of brace strips disposed between certain adjacent pairs of cross bars and each having an opening therein, a Z-shaped hanger slidably mounted in the respective openings in said brace strips and in said end member openings to engage a bed frame under certain conditions to support said frame, an angularly disposed end or hook on each of said hangers, and a supporting frame yieldingly mounted on said cross bars.

3. In a device of the character stated, a spring frame comprising a plurality of cross bars each having pairs of recesses therein, a plurality of helical springs mounted on each bar, a coil of each spring being seated in a pair of said recesses, a plurality of tie rods transversely disposed with respect to said cross bars, and each interlooped with a plurality of said springs, and a suitable frame mounted upon and attached to all of said helical springs.

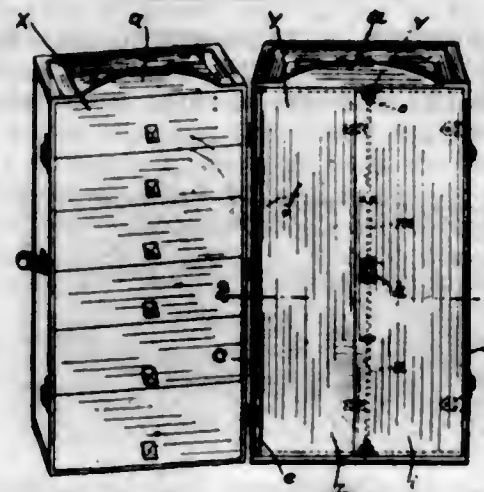
4. In a device of the character stated, a spring frame comprising a plurality of cross bars arranged in parallel relation and disposed with the width of said bars vertical, upwardly turned ends on each cross bar formed by suitably bending said bars, a transversely disposed bar for each end of said frame and connecting said upwardly turned ends together, means to secure a plurality of helical springs to each cross bar, a plurality of brace strips, each arranged between certain adjacent cross bars and having an opening therein, a substantially Z-shaped hanger slidably mounted in the opening in each brace strip, and adapted to engage a bed frame under certain conditions to support said frame, and a hook on the outer end of each hanger, each of said end bars being provided with guiding means for said hangers.

5. In a device of the character stated, a spring frame comprising a plurality of cross bars spaced apart, and having upwardly turned end portions, a transverse bar connecting each set of upturned end portions and each having a plurality of slots therein, a plurality of brace members fixedly mounted adjacent each transverse bar, said members each having a slot therein and a Z-shaped hanger slidably mounted in each brace member slot and also slidably mounted in one of said transverse bar slots whereby said hangers may be extended beyond said transverse bars to engage a bed frame to support said spring frame.

1,083,012. WARDROBE-TRUNK. EUGENE W. HAWLEY, Philadelphia, Pa. Filed Dec. 21, 1910. Serial No. 598,578. (Cl. 190—13.)

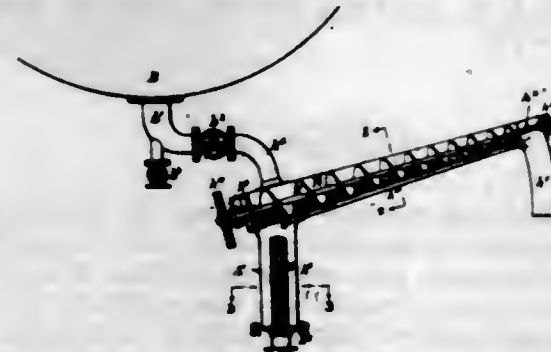
In a trunk, the combination with a sectional door comprising two sections one of which is hinged on a vertical axis adjacent to the front edge of one side wall of one trunk compartment, and the other of which sections is hinged to the first section on a vertical axis so as to be foldable inwardly toward the same, there being a vertically extending groove adjacent to the front edge of the opposite side wall adapted to receive the free edge of the second section when the door is closed, of a pair of lock-

ing devices carried by one of the door sections, and means to operate said locking devices to effect their locking engagement with the top and bottom walls respectively of



the trunk body, whereby the door is securely fastened along all four edges by the provision of only two locking devices.

1,083,013. COMBINED HOP-PRESS AND HOP-STRAINER. CARL F. HETTINGER, Boston, Mass. Filed Jan. 10, 1913. Serial No. 741,236. (Cl. 195—34.)



1. A combined hop-press and hop strainer adapted to be directly connected to the vessel in which the hops are added to the wort, said press and strainer comprising a conical helical conveyor, having a perforated bottom means for conducting the spent hops from the conveyor and means for collecting and filtering or straining all of the resulting wort, substantially as and for the purposes set forth.

2. An apparatus for separating the hops or other matter from a liquid, comprising an inclined conical conveyor attached directly to the discharge of the treating vessel and having a closed conical shell, a perforated bottom within the same, a discharge spout for the pressed-out matter, a strainer or filter attached to the lower end of the inclined conveyor, and means for conducting the filtered liquid away from the conveyor, substantially as and for the purposes set forth.

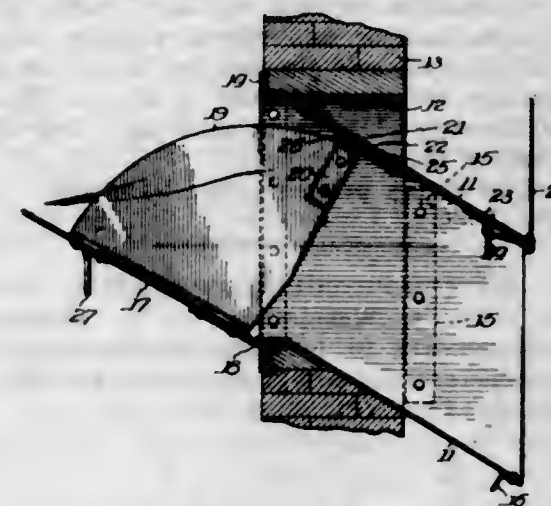
1,083,014. SELF-LOCKING FUEL-CHUTE. ARTHUR H. HOBBS, Spokane, Wash., assignor to Raymond E. Voorhees, Spokane, Wash. Filed May 12, 1913. Serial No. 766,951. (Cl. 57—37.)

1. In combination, a door hinged along one side and having rearwardly extending wing portions, a connection between said wings, a latch carried by said connection and adapted to automatically engage a fixed catch in the closed position of the door, and means to disengage the latch whereby the door may be opened, substantially as described.

2. In combination, a door hinged along its lower side and having rearwardly extending wings, a bar connecting said wings, a latch carried by said bar and adapted to automatically engage a fixed catch in the closed position of the door, and means to disengage the latch whereby the door may be opened, substantially as described.

3. In combination, a door hinged along its lower side and having rearwardly extending wings, a bar connecting

the lower rear edge of said wings, a gravity latch pivoted to said bar and adapted to automatically engage the fixed catch in the closed position of the door, and means to disengage the latch whereby the door may be opened, substantially as described.

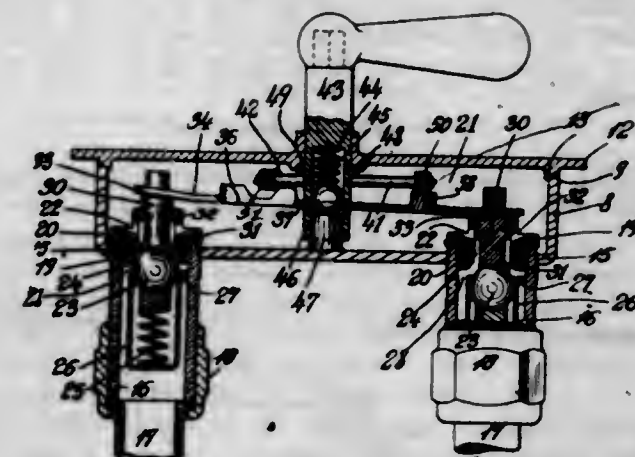


4. In combination, a door hinged along its lower side and having rearwardly extending wings, a bar connecting said wings, a latch carried by said bar and adapted to automatically engage a fixed catch in the closed position of the door, means to disengage the latch whereby the door may be opened, and a stop to limit the downward swing of the latch to a plane substantially parallel to that of the door in its open position, substantially as described.

5. In combination, a door hinged along its lower side and having rearwardly extending wings, a bar connecting the lower rear edge of said wings, a gravity latch pivoted to said bar and adapted to automatically engage a fixed catch in the closed position of the door, means to disengage the latch whereby the door may be opened, and a stop to limit the downward swing of the latch to a plane substantially parallel to that of the door in its open position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,083,015. MIXING-VALVE. RICHARD C. A. HOLZHAUSEN, New York, N. Y., assignor, by mesne assignments, to Hotakold Valve Co., Inc., a Corporation of New York. Filed Sept. 14, 1912. Serial No. 720,326. (Cl. 137—26.)



1. The combination of two valves, a single valve-actuating member supported on the same and means for operating said member to cause either one of the said valves to be opened at will.

2. The combination of two inlet valves, a single valve-actuating member supported on the same, said member being separate and independent from the said valves and means for operating said member to cause either one of said valves or both of the said valves to be operated at will.

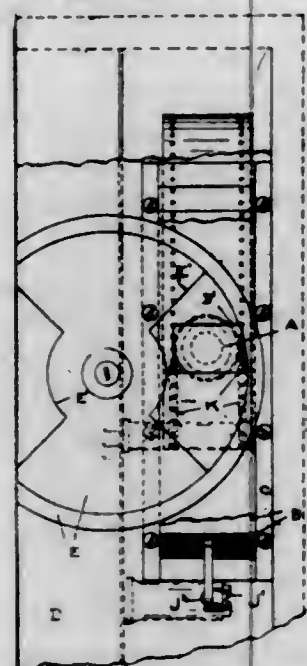
3. The combination of two inlet valves, valve plungers for opening the same, a single actuating member supported by said valve plungers and means for operating said member to cause either one of said valves or both of said valves to be opened at will.

4. The combination of two valves, a single valve-actuating member, means on said valves for supporting the said member and mechanism for operating said member to cause either one of said valves to be opened at will or to cause both of said valves to be opened.

5. The combination of two valves, a valve plunger projecting from each of said valves, a single actuating member resting on the said plungers and means for operating said member to cause the same to actuate either one or both of the said plungers to open either one of said valves or both of the said valves.

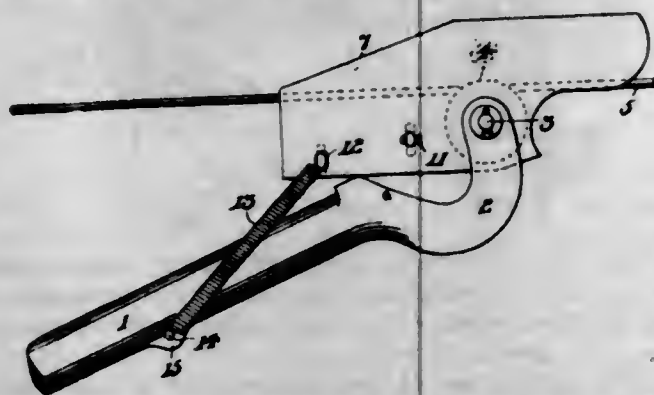
[Claims 6 to 11 not printed in the Gazette.]

1,083,016. MOVING-PICTURE APPARATUS. CHARLES FRANCIS JENKINS, Washington, D. C., assignor, by mesne assignments, to Laemmle Manufacturing Company, a Corporation of New York. Filed Apr. 22, 1911. Serial No. 622,751. (Cl. 88—18.)



In a kinetoscopic apparatus, the combination of a film support, a carrier, means for reciprocating said carrier in relation to said support, the same comprising a lever connected at one end to the carrier, an operating crank pin carried by the driving mechanism of the apparatus connected to the other end of the lever, an objective mounted on said carrier, and mechanism for feeding the film at substantially the same speed as the lens during exposure.

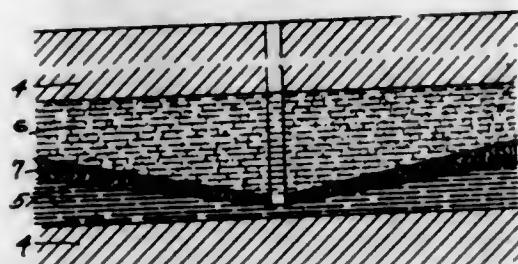
1,083,017. TROLLEY. PETER JOHNSON, Heaton, N. Mex. Filed May 1, 1913. Serial No. 764,920. (Cl. 191—78.)



In a trolley, the combination with a pole having a harp, a journal pin and a trolley wheel, of vertical parallel guard plates pivotally mounted upon said journal pin at the sides of said wheel and within the harp, said guard plates having the forward ends thereof beveled, spacer blocks arranged between said guard plates and having reduced oval ends extending through said plates to prevent said blocks from rotating, one of the said blocks arranged forwardly of the other, cotter pins arranged in the ends of said rear block, and inclined coiled springs

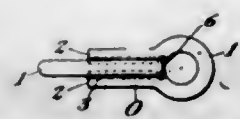
connected to the ends of the other of said blocks and to said pole for supporting said plates in a normally horizontal position.

1,083,018. METHOD OF EXTRACTING OIL FROM OIL-BEARING ROCK OR SAND. ROSWELL H. JOHNSON, Pittsburgh, Pa. Filed Feb. 3, 1913. Serial No. 745,908. (Cl. 166—21.)



The method of extracting oil from oil-bearing rock or sand, consisting in drilling the well through the oil-sand and a certain depth through the water-sand, pumping up oil and a certain amount of water, and so forming a gradient for the oil toward the well, and thereby aiding the movement of the oil toward the well.

1,083,019. FUSIBLE CHAIN-LINK. ELOF R. LEONARD, Woodcliff, N. J. Filed Mar. 6, 1913. Serial No. 752,262. (Cl. 236—16.)

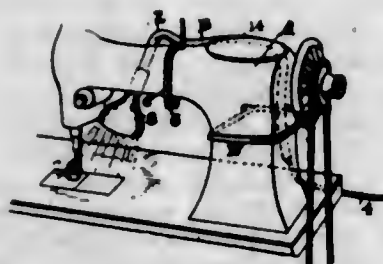


1. A fusible link, for sash chains and the like, embodying two loops of wire adapted to resist a high temperature, and having extended, inter-straddling shanks, and a longitudinal core of solder fusible at a comparatively low temperature, intermediate of and adhering to said shanks.

2. A fusible link, for sash chains and the like, embodying two pieces of wire adapted to resist a high temperature and having expanded looped ends and straight extended shanks inter-straddling with each other, and a central core of solder fusible at a comparatively low temperature, extending longitudinally between and uniting said shanks and expanding into the said terminal loops.

3. A fusible link, for sash chains and the like, embodying a pair of looped wires adapted to resist a high temperature and having straight shanks inter-straddled and joined by a solder fusible at a comparatively low temperature, said solder presenting concave surfaces between adjacent portions of the wire loops.

1,083,020. LIGHTING ATTACHMENT FOR SEWING AND OTHER MACHINES. JACOB W. LOVE and GLENN C. WEBSTER, Warren, Ohio. Filed July 8, 1912. Serial No. 708,127. (Cl. 240—2.)



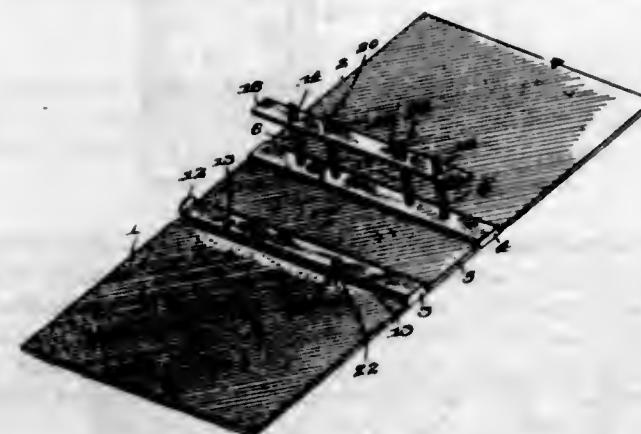
1. The attachment described consisting of a tube adapted to bend to the desired shape and having its ends extending at an angle to the body thereof, a combined lamp and reflector socket permanently affixed to the front end of said tube, clamping straps rigidly affixed to said tube and electric wires through said tube terminating in said reflector socket.

2. A fixture adapted to be attached to the arm of a machine and comprising a tubular bendable conduit

adapted to conform to the shape of said arm and provided with a goose neck at its front end having a socket therein and means in said socket to support an electric lamp, wires leading to said lamp through said conduit and means adapted to clamp the said conduit on the said arm.

3. An attachment adapted to be applied to a sewing or other machine to concentrate light within a given area therein, comprising a bendable conduit and a reflector and a lamp socket in the front end thereof and the opposite end bent at substantially right angles to the body of said conduit, and clamping means on said conduit adapted to secure the same to the machine.

1,083,021. LOOSE-LEAF BINDER. JOHN G. MAGIN, Rochester, N. Y., assignor to Henry Conolly Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1912. Serial No. 728,657. (Cl. 129—8.)



1. In a loose leaf binder, the combination with a pair of cover members, connecting pieces hinged to the cover members, and a back piece to which the connecting pieces are hinged, of impaling means carried by one of the connecting pieces, retaining means arranged on the other connecting piece for cooperating with the impaling means, a transfer bar having a transfer projection extending laterally therefrom for cooperating with leaves on the impaling means, and means, arranged on the connecting piece carrying the retaining means, for supporting the transfer bar with its transfer projection extending upwardly when the retaining means is disengaged from the impaling projection.

2. In a loose leaf binder, the combination with impaling means, and a member cooperating with said impaling means for retaining leaves on said impaling means, of a transfer bar having a projection for cooperating with the leaves on the impaling means, and means on the member carrying the retaining means for supporting said transfer bar when the retaining means is disconnected from the impaling means.

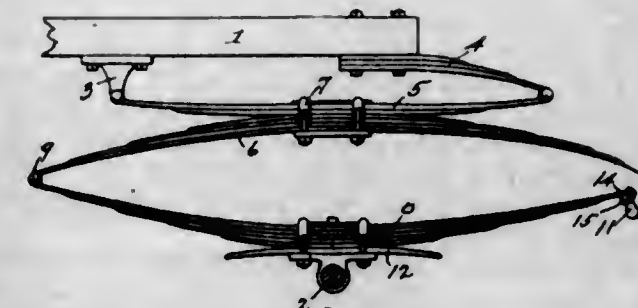
3. In a loose leaf binder, the combination with a member having a pair of impaling projections, and a member having a locking bar for cooperating with the impaling projections to hold the leaves on said projections, of a transfer bar independent of the first two named members and having a projection extending laterally therefrom for cooperating with the leaves on the impaling projections, and also having means adapted to be engaged by the locking member in order that the transfer projection may be held upright when the locking member is disengaged from the impaling projection.

4. In a loose leaf binder, the combination with a member having impaling projections extending therefrom, and a member having a locking member movably arranged thereon and adapted to cooperate with the impaling projections to hold leaves on the latter, of a transfer member embodying a bar having projections extending from opposite sides thereof, the projections on one side serving to support the leaves when they are removed from the impaling projections, and the projections on the other side being adapted to be engaged by the locking member to hold the first named projections upright.

5. In a loose leaf binder the combination with a member having impaling projections extending from one side thereof and provided with shoulders near their ends, and a second member having a casing provided with openings adapted to receive the impaling projections and also having a locking member movably arranged within said casing to engage the shoulders on the impaling projections, of a transfer member embodying a bar having projections extending from opposite sides thereof, the projections on one side being adapted to receive leaves from the impaling projections, and the projections on the other side having shoulders and adapted to be passed through openings in the casing in order to be engaged by the locking member.

[Claims 6 to 14 not printed in the Gazette.]

1,083,022. VEHICLE-SPRING. MICHAEL M. MCINTYRE, Cleveland, Ohio, assignor to The Perfection Spring Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 25, 1907. Serial No. 370,165. (Cl. 21—97.)



1. A spring for vehicles comprising upper and lower spring members, the upper spring member comprising two leaf-spring sections connected back to back, the combined ultimate strength whereof is substantially equal to the strength of the lower spring member, and a flexible connection between at least one end of the lower section of the upper member with an end of the lower spring member, substantially as specified.

2. A spring for vehicles comprising upper and lower spring members, the upper spring member comprising two leaf-spring sections secured together at their body portions and diverging therefrom, the lower section of the upper member being connected to the lower spring member in a manner to permit relative longitudinal movement between at least one of the connected ends thereof and being materially more flexible under light load than the lower spring member, substantially as specified.

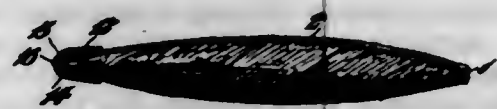
3. A spring for vehicles comprising an upper and a lower spring member, the upper spring member comprising two leaf-spring sections secured together at their body portions, the upper section being relatively light and yielding and the lower section being relatively heavy and being connected at its ends to the lower spring member, at least one of said connections being of a nature to permit relative longitudinal movement between the connected parts, and the strength of the lower spring member being substantially equal to the combined ultimate strength of the upper spring sections, substantially as specified.

4. The combination of an upper and a lower spring member, and a shackle connecting the corresponding ends of said members, said shackle having spaced projections disposed on opposite sides of one of said spring members and adapted to permit free relative movement between said ends within the range required under normal operation, but adapted to prevent abnormal movement in both directions as under excessive shock, substantially as specified.

5. The combination of an upper and lower spring member, one of said members having an end extending around a corresponding end of the other member, and a connection between said ends permitting free relative movement therebetween, but limiting the extent of such movement in both directions, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

1,083,023. METHOD OF MANUFACTURING CIGARS. WILLIAM F. METCALF and SYLVESTER W. LEIDICH, Philadelphia, Pa. Filed Sept. 28, 1912. Serial No. 722,954. (Cl. 131—52.)



1. The method of manufacturing cigars, which consists in applying the wrapper to the bunch and then indenting the wrapper at the head of the cigar a short distance from the end thereof into said bunch, thereby securing the wrapper to the bunch.

2. The method of manufacturing cigars, which consists in applying the wrapper to the bunch, and next indenting the wrapper at the head of the cigar into the bunch to form annular and longitudinal grooves indented into the head end of the cigar.

3. The method of manufacturing cigars, which consists in applying the wrapper to the bunch, next indenting annular and longitudinal grooves in the head of the cigar into the wrapper and bunch, and lastly securing a cap upon the head of said cigar and around said grooves.

4. As an improved article of manufacture, a cigar having its wrapper secured thereon by an annular groove indented into the filler and bunch in the head thereof, whereby said wrapper is indented into said cigar and retained in position by said groove and without necessitating the employment of adhesive material.

5. As an improved article of manufacture, a cigar having its wrapper secured thereon by annular and longitudinal grooves in the head of the cigar, said grooves being indented into said wrapper and bunch.

[Claim 6 not printed in the Gazette.]

1,083,024. CLEAN-OUT FITTING FOR DRAIN-PIPES. HILARY J. MORRIS, New Britain, Conn. Filed June 22, 1911. Serial No. 634,877. (Cl. 137—70.)



A clean-out, the said clean-out suitable for use with a drain pipe of lead and in which there is only slight internal pressure, having means for being seated on the outer surface of the said drain pipe and means for being secured thereto, and comprising a neck, and a closure therefor, the said neck being relatively large in diameter, and having a correspondingly large axial opening, the lower end of the said neck being flared to receive longitudinally opposite out-turned portions of the pipe body.

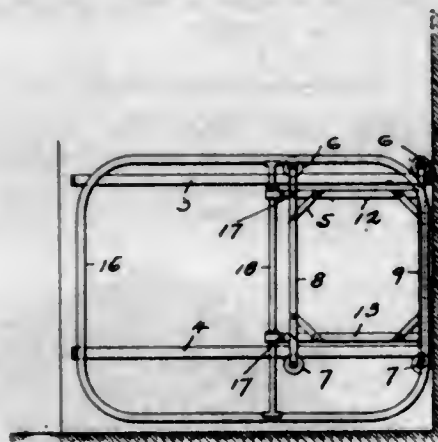
1,083,025. DISAPPEARING BED. WILLIAM L. MURPHY, San Francisco, Cal., assignor to Murphy Wall Bed Company, San Francisco, Cal., a Corporation of California. Filed Oct. 13, 1913. Serial No. 794,851. (Cl. 5—18.)

1. The combination with a wall having a closet opening therein, of a carriage mounted to move horizontally in said closet, and a carrying frame of greater width than said closet opening pivotally attached intermediate its sides to said carriage, whereby the carrying frame may swing in a horizontal plane with respect to said carriage.

2. The combination with a wall having a closet opening therein, of rails arranged at one side of said closet, and extending substantially for the depth thereof, a carriage mounted for travel on said rails, and a carrying frame of

greater width than said closet opening pivotally attached intermediate its sides to the forward end of said carriage.

3. The combination with a wall having a closet opening therein, of horizontal rails arranged at one side of said closet, a carriage mounted for travel on said rails and a carrying frame of greater width than said closet opening pivotally attached intermediate its sides to the front end of said carriage, said pivotal point being so placed that when the carriage is in its forward position, the pivotal point lies in front of said wall.

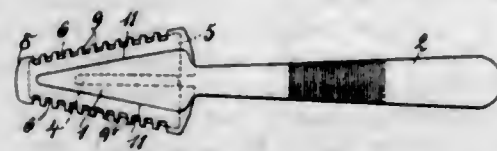


4. The combination with a wall having a closet opening therein, of horizontal rails arranged at one side of said closet and extending substantially for the depth thereof, a carriage mounted for travel on said rails, arms extending forwardly from said carriage, and a carrying frame of greater width than said opening, pivotally attached intermediate its sides to said arms.

5. The combination with a wall having a closet opening therein, of horizontal rails arranged at one side of said closet, a carriage mounted for travel on said rails, arms pivotally attached to the forward end of said carriage, and a carrying frame of greater width than said opening pivotally attached intermediate its sides to the other ends of said arms.

[Claims 6 and 7 not printed in the Gazette.]

1,083,026. SAFETY-RAZOR. JOHAN ABRAHAM OHLSSON, Stockholm, Sweden. Filed Oct. 23, 1911. Serial No. 656,258. (Cl. 30—12.)



In a safety razor, the combination of the blade provided with a longitudinal slot, a free guard provided with a longitudinal slot, and a holder provided with a guiding part and recessed to permit the said blade and guard to be slid therein and embrace the guiding part.

1,083,027. HOLDER FOR PENCILS AND OTHER UTENSILS. JOHANNES PANCKE, Berlin, Germany. Filed Oct. 15, 1912. Serial No. 725,794. (Cl. 120—8.)

1. In a holder for pencils and other utensils, a support, a signaling device disposed thereon, and elastic means attached to the said signaling device and means adapted to carry said utensils, these elastic means being capable of being expanded to a multiple of their normal length and caused to actuate the signaling device only when the elastic limit thereof is reached.

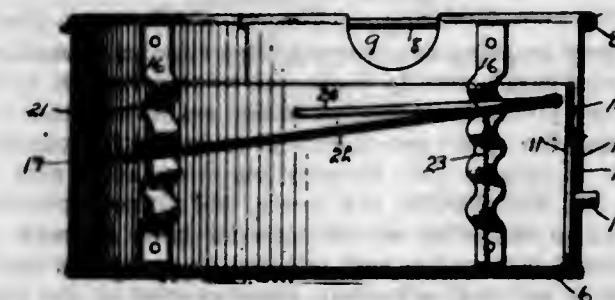
2. In a holder for pencils and other utensils, a support, a signaling device mounted thereon rotatably, and elastic means attached to the said signaling device and means adapted to carry the said utensils, these elastic means being capable of being expanded to a multiple of their normal length and caused to actuate the signaling device only when the elastic limit thereof is reached.

3. In a holder for pencils and other utensils a support, a sound tongue rotatably mounted on said support, elastic



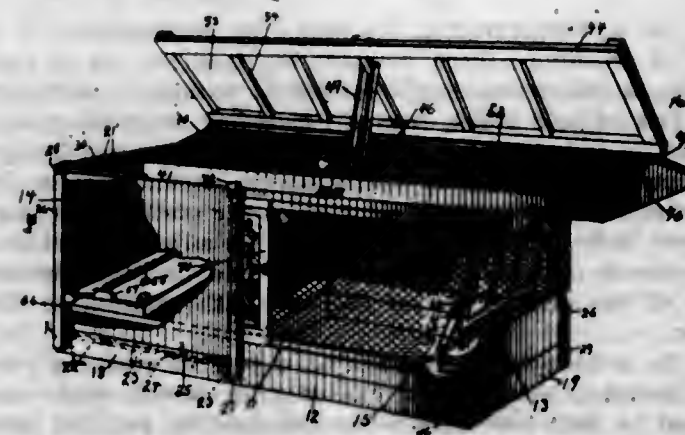
means attached to said sound tongue, and means adapted to carry said utensils, the elastic means being capable of being expanded to a multiple of its normal length.

1,083,028. METALLIC FIRELESS BROODER. EDGAR W. PHILO, Elmira, N. Y. Filed Nov. 19, 1910. Serial No. 593,274. (Cl. 119—33.)



In a fireless brooder, a coop member having a plurality of members extending vertically and provided with laterally extending depressions, and a flexible cover for said coop member, said cover including a supporting frame variable to permit its insertion within the coop member and in engagement with a recess of each of the vertical members, said supporting frame and said vertical members being relatively formed to permit a positioning of the frame parallel to the bottom of the coop member or inclined relatively thereto at will, a resilient adjusting handle for said frame, a heat insulating member nesting in said flexible cover and resiliently secured beneath said handle.

1,083,029. POULTRY-COOP. EDGAR W. PHILO, Elmira, N. Y. Filed Dec. 5, 1910. Serial No. 595,636. (Cl. 119—21.)



1. A coop comprising a rectangular frame-work, a central parting strip positioned therein and dividing the same into two end portions, a removable floor positioned in one of said portions, said rectangular frame-work having

197 O. G.—78

ing a rabbeted-out shoulder continuously extending around the top thereof, a rectangular coop member adapted to fit upon said frame-work, a slidable partition centrally positioned in said coop member dividing the same into a closed and an open portion, netting positioned at opposite sides of said open portion, a normally closed window positioned at the end of the latter, marginal strips interiorly positioned upon the sides of said closed portion, water-proof sheets mounted upon said strips and forming air spaces between the same and the sides of said portion, oppositely arranged sliding frames mounted between said lining and sides and adapted to be moved across said netting, and a cover member slidably mounted upon said coop member.

2. A coop comprising a rectangular frame-work, a central parting strip positioned therein and dividing the same into two end portions, a removable floor positioned in one of said portions, said rectangular frame-work having a rabbeted-out shoulder continuously extending around the top thereof, a rectangular coop member adapted to fit upon said frame-work, a slidable partition centrally positioned in said coop member dividing the same into a closed and an open portion, netting positioned at opposite sides of said open portion, a normally closed window positioned at the end of the latter, marginal strips interiorly positioned upon the sides of said closed portion, water-proof sheets mounted upon said strips and forming air spaces between the same and the sides of said portion, oppositely arranged sliding frames mounted between said lining and sides and adapted to be moved across said netting, and a cover member slidably mounted on said coop member.

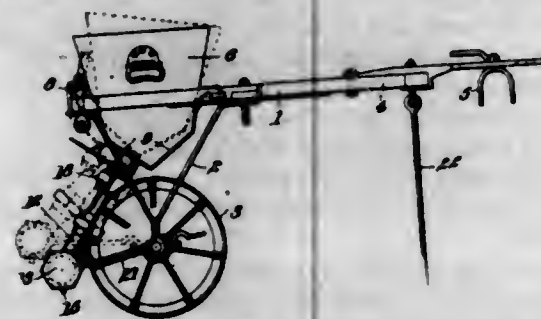
3. A coop comprising a rectangular frame-work, a central parting strip positioned therein and dividing the same into two end portions, a removable floor positioned in one of said portions, said rectangular frame-work having a rabbeted-out shoulder continuously extending around the top thereof, a rectangular coop member adapted to fit upon said frame-work, a slidable partition centrally positioned in said coop member dividing the same into a closed and an open portion, netting positioned at opposite sides of said open portion, a normally closed window positioned at the end of the latter, marginal strips interiorly positioned upon the sides of said closed portion, water-proof sheets mounted upon said strips and forming air spaces between the same and the sides of said portion, oppositely arranged sliding frames mounted between said lining and sides and adapted to be moved across said netting, and a cover member slidably mounted on said coop member.

4. A coop comprising a rectangular frame-work, a central parting strip positioned therein and dividing the same into two end portions, a removable floor positioned in one of said portions, said rectangular frame-work having a rabbeted-out shoulder continuously extending around the top thereof, a rectangular coop member adapted to fit upon said frame-work, a slidable partition centrally positioned in said coop member dividing the same into a closed and an open portion, netting positioned at opposite sides of said open portion, a normally closed window positioned at the end of the latter, marginal strips interiorly positioned upon the sides of said closed portion, water-proof sheets mounted upon said strips and forming air spaces between the same and the sides of said portion, oppositely arranged sliding frames mounted between said lining and sides and adapted to be moved across said netting, and a cover member mounted on said coop member.

5. A coop comprising a rectangular frame-work, a central parting strip positioned therein and dividing the same into two end portions, a removable floor positioned in one of said portions, said rectangular frame-work having a rabbeted-out shoulder continuously extending around the top thereof, a two part coop member, depending post members secured to the latter, a rabbeted-out base around the bottom of said coop member, said rabbeted portions adapted to interengage, said post members adapted to fit over said rectangular frame-work, and a cover member slidably mounted upon said coop member.

[Claims 6 to 12 not printed in the Gazette.]

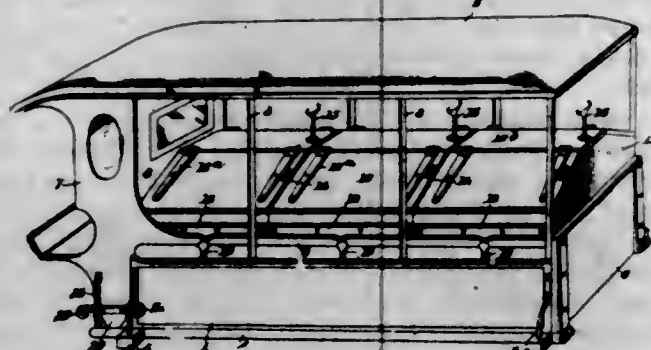
1,083,030. FLUID-DISTRIBUTING MACHINE. CHARLES P. PRICE, Malden, Mass., assignor, by mesne assignments, to Bituminous Road Implement Company, a Corporation of Massachusetts. Filed Feb. 23, 1910. Serial No. 545,396. (Cl. 137-63.)



1. A distributing machine adapted to be attached to a tank wagon, including a supporting frame, brackets secured to said frame, wheels journaled on said brackets, a tank mounted in said frame, a distributing pipe having openings formed in its lower face, short straight delivering pipes rigidly connected to the bottom of said tank and rigidly connected to the upper face of said distributing pipe, a valve for each delivering pipe located at a point adjacent the auxiliary tank, and means for adjusting said auxiliary tank in said frame whereby the position of the distributing pipe relative to the road bed, may be varied.

2. A distributing machine adapted to be attached to a tank wagon, including a supporting frame, brackets secured to said frame, wheels journaled on said brackets, a distributing pipe having openings formed in its lower face, short straight pipes rigidly connected to the bottom of the tank and rigidly connected to the upper face of said distributing pipe, a valve for each short pipe located at a point adjacent the tank, a link connected to the distributing pipe and having means for adjustable connection with the frame of the machine, whereby said tank may be swung in the frame and the position of the distributing pipe relative to the road bed varied.

1,083,031. WAGON. JOHN C. RAUM and JOHN J. RAUM, Baltimore, Md. Filed Mar. 5, 1912. Serial No. 681,726. (Cl. 21-7.)

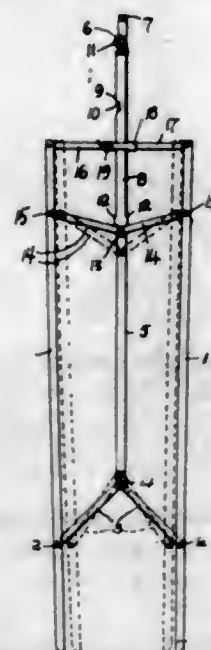


1. In a wagon, the combination with a body having a floor, of vertical posts forming part of the structure thereof and located at each side of the body, a horizontal rail supported by said posts on the inside of said body, at each side thereof, receptacles adapted to fit within and substantially fill said body between said rails, each of said receptacles having an elongated rib extending along each side thereof adjacent the top, said ribs adapted to engage and slide upon said rails, whereby said receptacles are non-rotatably suspended above the floor and below said rails, and may be moved longitudinally of said body.

2. In a wagon, the combination with a body, of vertical posts forming part of the structure thereof, a horizontal rail supported by said posts on the inside of said body at each side thereof, receptacles adapted to fit within said body, said receptacles having ribs on their sides adapted to engage and slide upon said rails, the upper face of said rails having depressions with curved ends formed therein, and the bottom face of each of said ribs having a centrally located downwardly extending curved portion, adapted to

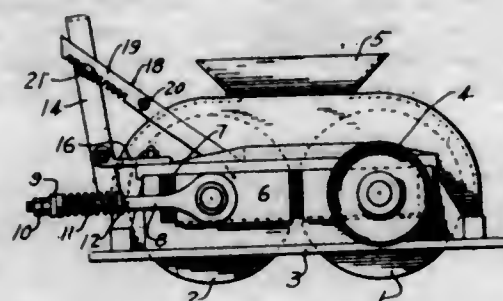
seat within such depressions, and to ride out of the same under the influence of a horizontally acting force, whereby said receptacles are yieldingly held in definite position relative to said rails.

1,083,032. CREASING DEVICE FOR TROUSERS. STANISLAW RONDA, Erie, Pa. Filed July 31, 1913. Serial No. 782,213. (Cl. 223-19.)



A trouser creasing device comprising channel frames, sets of spreader bars pivotally connected to said frames, an adjusting bar pivotally connected to one set of spreader bars and having the upper end thereof provided with a plurality of slots, a locking bar slidably mounted upon said adjusting bar and having the lower end thereof pivotally connected to the other set of spreader bars, a tooth carried by said locking bar and adapted to engage in one of the slots of said adjusting bar, loops carried by the upper ends of said bars, and arms connected to the upper ends of said frames and slidably connected together with said bars passing between said arms.

1,083,033. DISINTEGRATING MACHINE. ROBERT F. W. ROSSBERG, East Helena, Mont. Filed Apr. 5, 1913. Serial No. 759,126. (Cl. 33-12.)



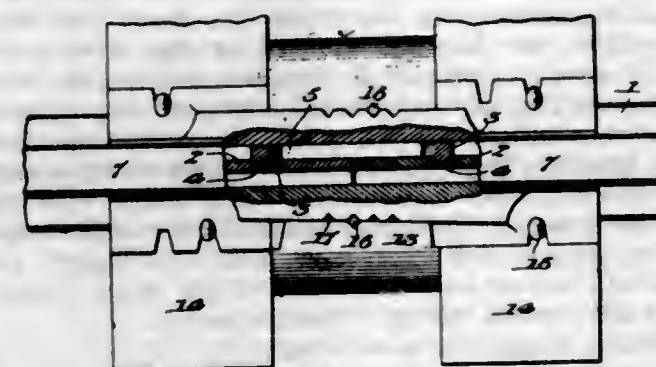
1. In a disintegrating machine, the combination of a pair of crushing rollers, movable bearings for one of said rollers, a transverse bar arranged in parallel relation to the axis of said roller, means adjustably connecting said bar at its ends to the respective roller bearings and including means for yieldably retaining the movable roller in its adjusted position with relation to the stationary roller, a lever to hold the movable roller in its adjusted position, and means connecting said lever to said bar and permitting of the adjustment of the bar with relation to the lever.

2. In a disintegrating machine, a pair of crushing rollers, movable bearings for one of said rollers, arms connected to said bearings, a bar arranged in parallel relation to the axis of said roller and adjustable upon said arms, spaced connecting levers, and means connecting the respective levers to said bar adjacent its ends but permitting of the adjustment of said bar with respect to the levers.

3. In a disintegrating machine, a pair of crushing rollers, movable bearings for one of said rollers, a bar arranged in parallel relation to the axis of the roller, arms connected to the respective bearings and extending loosely through openings in the ends of said bar, nuts threaded upon the arms bearing against said bar to adjust the same with relation to the roller, springs arranged upon said arms and tensioned by the bar, and means for locking the bar in its adjusted position.

4. In a disintegrating machine, a pair of crushing rollers, movable bearings for one of said rollers, arms connected to the respective bearings, springs arranged upon said arms, a bar longitudinally adjustable upon the arms to tension said springs, a pair of levers, members pivotally connected to one end of said levers, said members being loosely disposed through said bar, means for securing the bar in its adjusted position upon said members, and additional means to lock the levers against movement and retain said bar in its adjusted position.

1,083,034. RAIL-CHAIR. ADOLPH E. SCHOTTE, Sharon, Pa. Filed Mar. 1, 1913. Serial No. 751,448. (Cl. 239-6.)



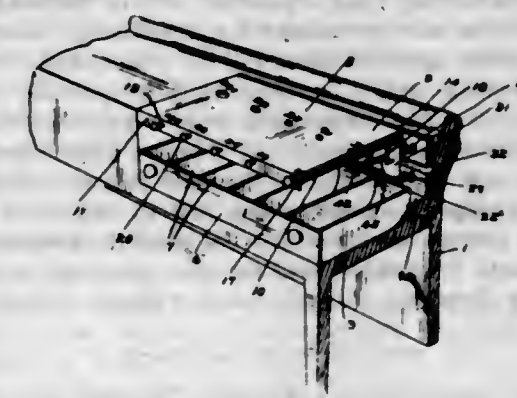
1. In a rail chair, the combination with rails and ties, of a connecting bar arranged at one side of said rails and having angle ends extending into the webs of said rails, splice bars arranged at the sides of said rails and having oppositely tapering vertical walls, a chair supporting said rails, honeycombed overhanging flanges engaging the walls of said splice bars, a saddle carried by said chair intermediate the ends thereof and adapted to fit between said ties, vertical pins for locking said splice bars relatively to said chair, and means for securing the ends of said chair to said ties.

2. A rail chair comprising a connecting bar adapted to be arranged at one side of the rail and having angle ends adapted to extend into the webs of the rails, splice bars adapted to be arranged at the sides of the rails and having oppositely disposed vertically tapering walls, a supporting chair having honeycombed overhanging flanges engaging the walls of the splice bars, a saddle carried by said chair intermediate its ends and adapted to fit between the ties, means for locking said splice bars relatively to said chair, and means for securing the ends of the chair in position.

1,083,035. CASH-REGISTER. THOMAS MCGREGOR SIBBALD, Toronto, Ontario, Canada. Filed Sept. 7, 1912. Serial No. 719,248. (Cl. 235-4.)

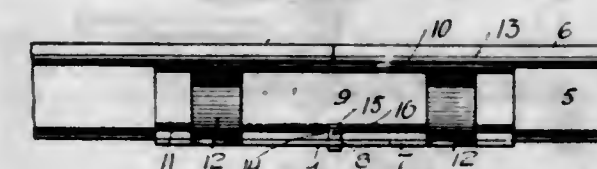
In combination, a coin receiving drawer, a plunger casing arranged above said drawer and comprising upper and lower plates having a series of orifices arranged therethrough in pairs the one of each pair being out of register with the other, a plurality of plungers reciprocatorily arranged between said casing plates and each having an orifice therethrough adapted to register successively with the orifices of each pair in said plates and having pointed inner ends, a pair of rolls rotatably mounted adjacent said plunger casing and carrying a strip of paper, a ratchet secured to one of said rolls, a trip rod journaled adjacent said rolls, springheld trip arms secured to said trip rod and adapted to be engaged by said plungers, a pawl carried by one of said trip arms and engaging with said ratchet, a

platen bar supported between said rolls and having a series of orifices therethrough over which said strip of paper



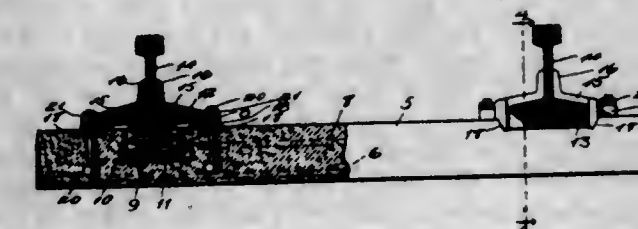
passes and into which the pointed inner ends of said plungers extend upon the reciprocation of the same.

1,083,036. RAIL-JOINT. FRED STEINBRENNER and CHARLES SLEMENDA, Pittsburgh, Pa. Filed Aug. 5, 1913. Serial No. 783,200. (Cl. 239-6.)



In a rail joint, the combination with street rails, of a tie plate adapted to support the base flanges of said rails, an outer splice bar formed integral with said plate for bracing the outer sides and treads of said rails, braces carried by said outer splice bar adjacent to the ends thereof and affording means for securing said tie plate to ties, an inner splice bar engaging the inner sides of said rails, lateral flanges carried by said inner splice bar with one of said flanges bracing the tread flanges of said rails, braces connecting said flanges adjacent to the ends of said inner splice bar, an offset portion carried by said tie plate, a key adapted to engage said inner splice bar and extend through the offset portion of said tie plate, and means engaging in said inner splice bar for retaining said key in adjusted position.

1,083,037. RAILWAY-TIE. DAVID STEVENS, Seattle, Wash. Filed June 26, 1913. Serial No. 775,925. (Cl. 238-3.)

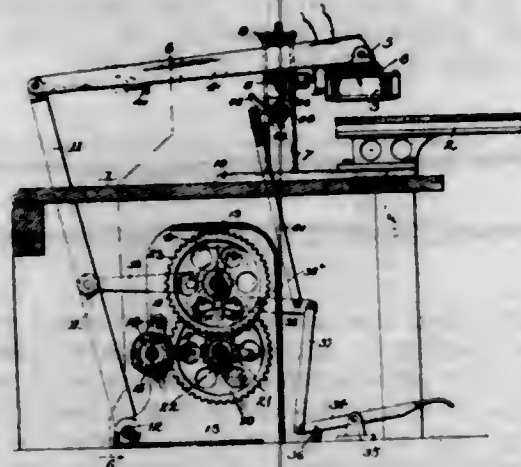


1. The combination with a plastic tie, of a spring receiving cup mounted therein, longitudinally extending metallic reinforcing means embedded within the plastic tie and rigidly connected with the spring receiving cup, a suitably stiff coil spring mounted within the cup, a rail engaged by the coil spring, and means connecting the rail with the plastic tie.

2. The combination with a plastic tie, provided with an upstanding recess, of a suitably stiff coil spring mounted within the recess and extending for a considerable distance outwardly of the same, a rail yieldingly supported by the coil spring, clamps disposed upon opposite sides of the rail and including inner rail engaging portions and outer tie engaging portions carrying at their ends spaced depending ears which engage upon opposite sides of the plastic tie to hold the clamps against end-wise displacement, and upstanding bolts embedded in the plastic tie and connected with the clamps between the spaced depending ears thereof.

3. The combination with a plastic tie, of a spring receiving cup mounted within the upper portion thereof, metallic reinforcing rods embedded within the material of the plastic tie and extending longitudinally through the upper portion thereof and rigidly connected with the spring receiving cup, a suitably stiff coil spring mounted within the cup and extending when expanded upwardly for a considerable distance beyond the upper surface of the tie, a rail supported by the coil spring, clamps disposed upon opposite sides of the rail to limit the upward movement thereof and prevent its lateral movement, and vertical bolts embedded within the material of the tie and having their upper ends attached to the clamps.

1,083,038. IRONING-MACHINE. JOSEPH H. ULLMAN, New Haven, Conn., assignor, by mesne assignments, to The King Machine Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 5, 1913. Serial No. 771,909. (Cl. 68—9.)



1. In an ironing machine, the combination of a table or support for the material to be ironed; an iron; a bar carrying said iron; means for moving said bar endwise; a pivoted rocker located beneath said bar; and means carried by the bar and coacting with the rocker to cause the bar, and consequently the iron, to be elevated at the end of each inward and outward stroke.

2. In an ironing machine, the combination of a table or support for the material to be ironed; an iron; a bar carrying said iron; means, including a releasable clutch, for imparting endwise movement to said bar; a pivoted rocker located beneath the bar; a projection extending downwardly from the bar adjacent that end remote from the iron and adapted to coact with one arm of the rocker to raise the bar; a pair of projections also extending downwardly from the bar adjacent the iron, the forward projection being longer than the other, said projections being adapted to coact with the forward arm of the rocker; a spring acting upon the rocker and tending to hold the rear arm thereof up toward the bar; a lever adapted to throw the clutch out of locking engagement; and connections between said lever and the rocker to hold the rocker against the action of the spring, and to thereby bring the forward arm thereof into the path of the short projection of the forward pair.

3. In an ironing machine, the combination of a table or support for the material to be ironed; an iron; a bar carrying said iron; means for imparting an endwise reciprocating movement to said bar and thereby causing the iron to traverse the table back and forth; means for elevating the bar, and consequently the iron, at the end of each forward and backward stroke; and means for elevating the bar, and consequently the iron, to a greater extent when the bar is brought to rest.

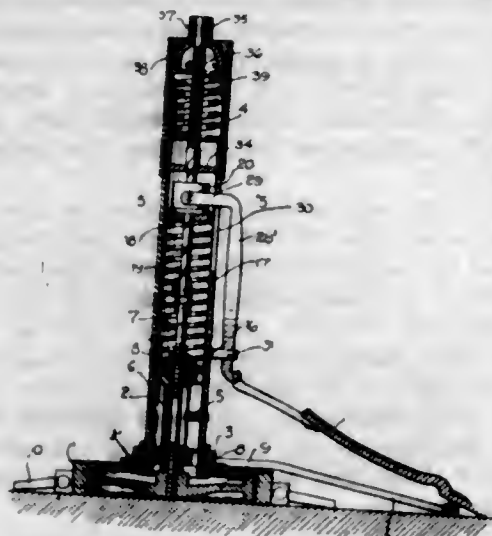
4. In an ironing machine, the combination of a table or support for the material to be ironed; an iron; a bar carrying said iron; means for imparting an endwise reciprocating movement to said bar and thereby causing the iron to traverse the table back and forth; a V-shaped rocker pivotally mounted below the bar; a projection extending downwardly from the bar adjacent its rear end; a pair of projections also extending downwardly from the

bar adjacent its forward end, the forward projection being longer than the other; a spring tending to tilt the rocker forwardly; and means for holding the rocker against the action of the spring when the bar actuating mechanism is brought to rest, whereby the forward end of the rocker will be held in the path of the short forward projection and the bar and iron carried to their extreme elevation.

5. In an ironing machine, the combination of a table or support for the material to be ironed; an iron; a bar carrying said iron; a lever fulcrumed at its lower end and pivotally connected at its upper end to the rear end of said bar; a constantly driven shaft; a clutch member carried thereby; a crank disk loosely mounted on said shaft; a pitman connecting said disk and the lever aforesaid; a spring-actuated clutch member carried by said disk and normally engaging said clutch member on the shaft; a combined clutch-releasing and stop lever adapted to withdraw the spring-actuated clutch member and to arrest the movement of the crank disk; a treadle connected to said lever; a spring for normally throwing said lever into clutch-releasing position; a V-shaped rocker pivotally mounted below the iron-carrying bar; a spring tending to tilt the rocker forwardly; a crank arm or lever connected to the rocker; a link having at its upper end a slotted connection with the crank, the lower end being connected to the combined clutch and stop lever aforesaid; a bracket or projection extending downwardly from the iron-carrying bar adjacent its rear end; and a second bracket secured to the bar adjacent its forward end, said second bracket being formed with two downwardly-extending projections, the forward one being longer than the other and adapted, when the machine is in normal operation, to contact with the rocker, while the shorter one comes into contact with the rocker as the bar is brought to rest and elevates the bar to its full extent.

[Claim 6 not printed in the Gazette.]

1,083,039. DENTAL ENGINE. WILLIAM D. WAGAR, Michigan, N. D. Filed May 10, 1913. Serial No. 766,877. (Cl. 32—22.)



1. In a dental engine, a base member, a tubular casing mounted thereon, a shaft rotatably mounted in said casing, foot actuating means for rotating said shaft within the casing, an extension for said shaft to project above said casing, said extension being provided with a flexible section, and a casing for said extension shaft having a universal connection with the aforesaid casing.

2. In a dental engine, a base member, a tubular member mounted in connection therewith, a shaft rotatably mounted within said tubular member, and provided with a spiral groove, a clutch member mounted on said shaft having co-operation with the spiral groove thereof to rotate said shaft upon the downward movement of said clutch member, spring means in connection with said clutch member and tubular member to normally force the former to its uppermost position on the shaft, a balance wheel carried on the lower end of said shaft inclosed within said base member, and foot actuating means for said clutch member.

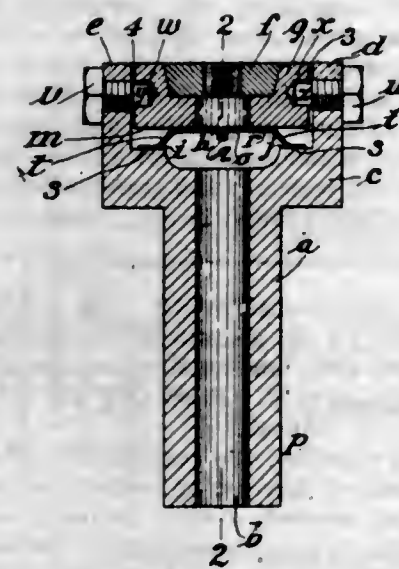
3. In a dental engine, a base member, a tubular member mounted thereon, and extending vertically of the same, a shaft rotatably mounted in said tubular member and provided with a spiral groove adjacent the upper portion of the same, a clutch member comprising a casing, a sleeve member mounted therein and provided with a plurality of sockets in the under face of the same, a tubular member mounted in said sleeve, and provided with spiral ribs on the inner periphery thereof, for reception in the spiral groove of said shaft, a disk-like member carried on the lower end of said tubular member and provided with cavities in the upper face thereof to register with the sockets of said sleeve-like member, the lower walls of said cavities being inclined upwardly toward one end thereof, bearing balls mounted in said cavities to be partially received in the sockets in said sleeve-like member, a cap member applied to the casing to retain said tubular member with the disk thereon in position within the casing, spring means in connection with the clutch member and said tubular member to normally force the former to its uppermost position on the shaft, and foot actuating means in connection with said clutch member to force the same downwardly on the shaft, whereby the latter may be rotated.

4. In a dental engine, a base member, a tubular member mounted thereon, a shaft rotatably mounted in said tubular member, means for the rotation of said shaft, a plurality of housings mounted on the outer edge of said base member, the one end of each of said housings having a notch formed in the outer wall thereof, a plurality of angular arms having one section thereof disposed in the aforesaid housings, a wall mounted in each of said housings, a disk member mounted on the free end of each section disposed within a housing, and spring means encircling the last mentioned section of each arm between the wall of the housing and the disk at the end of said section, whereby to lock said angular arms in the notches of said housings and aid in the support of the base member.

5. In a dental engine, a base member, a tubular member extending vertically therefrom and mounted to rotate thereon, a shaft rotatably mounted in said tubular member and having a balance wheel mounted on the lower end thereof inclosed within said base member, a clutch member disposed within said tubular member and designed for co-operation with the shaft therein to rotate the latter upon a predetermined movement of said clutch member, and foot actuating means for said clutch member carried by said tubular member.

[Claim 6 not printed in the Gazette.]

1,083,040. FLEXIBLE DIE-HOLDER. FREDERIC E. WELLS, Greenfield, Mass. Filed Apr. 3, 1913. Serial No. 758,597. (Cl. 10—89.)



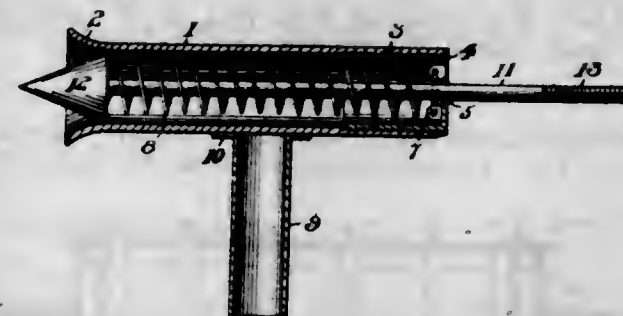
1. A collet-mounting for a die comprising a support therefor, of trunnions in the support and entering enlarged openings in the collet, means to normally move the collet to cause the trunnions to engage one side of the

enlarged openings, whereby the die will automatically align itself with the axis of the stock on which a thread is being formed.

2. In a mounting for a die, of means to permit the same to automatically move in any direction transverse to the axis of the die, said means comprising a loose trunnion connection between the collet in which the die is mounted and its supporting member, and a spring located between the collet and the supporting member to normally force the collet in an outward direction, as described.

3. A mounting for a thread-forming member, comprising a support therefor, a collet to receive said member, trunnions in the support and entering enlarged openings in the collet, the support having ledges thereon, a spring engaging the ledges and the collet to force the latter against the trunnions, pins in the collet and arranged to enter openings formed in the spring to position the latter, the spring having a centrally located opening in alignment with the axis of the support, and the trunnions being formed to permit endwise movement of the collet on the trunnions, whereby the collet member may automatically yield in any direction transverse to the axis of the collet when a thread is being formed.

1,083,041. TOY. HENRY H. WORGAN, Carnegie, and WILLIAM WORGAN, Crafton, Pa. Filed Apr. 12, 1913. Serial No. 760,783. (Cl. 124—1.)



1. A toy of the type described comprising a barrel, a plug mounted in one end thereof provided with inwardly projecting apertured lugs, a coiled retractile spring arranged in said barrel and having a convolution thereof connected to the apertured lugs of said plug and a projectile extending through said spring and said plug, adapted to be discharged from said barrel by the tension of said spring and a handle carried by said barrel intermediate the ends thereof.

2. A toy gun comprising a barrel, a plug screwed in the inner end thereof, inwardly projecting apertured lugs carried by said plug, a coiled compression spring having an end convolution thereof connected to said lugs, a rod arranged longitudinally of said spring and extending through said plug and having the end thereof roughened, an arrow head carried by the opposite end of said rod and adapted to engage the end convolution of said spring, and a handle connected to said barrel.

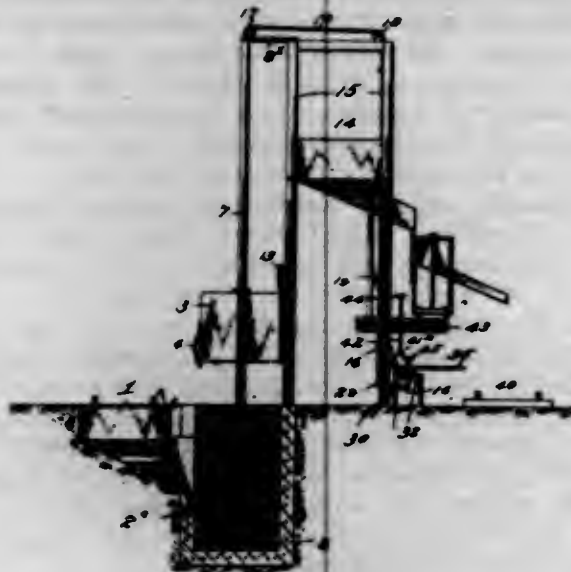
1,083,042. APPARATUS FOR AUTOMATICALLY LOADING COAL-BINS. JOHN W. WORTHAM, Decatur, Ala. Filed Aug. 9, 1912. Serial No. 714,223. (Cl. 214—12.)

1. In an apparatus of the character described, a hopper, a hoisting bucket, a cable connected to the bucket, a cable carrier to which the cable is connected, an arm pivoted to the carrier, a latch for holding the arm in the path of a moving element and a trip for disengaging the latch.

2. An automatic loader comprising a bucket provided with pivoted doors, inclined bars extending from the doors, means for loading and elevating the bucket, coal bins, means for moving the inclined bars to open the doors of the bucket to discharge its contents into the bins, a cable carrier, an arm pivoted thereto, a guide way for said carrier, a latch for said arm, and a trip to disengage said latch from said arm.

3. An automatic loader, comprising a bucket, a cable connected to said bucket, a carrier for said cable, and a

retarder for governing the descent of the bucket, said retarder comprising a drum, shafts carried by the drum, dash pots in which the ends of the shafts are disposed, a



pipe connected to said dash pots, a check valve in said pipe, and a by-pass connected to said pipe and spanning the valve.

1,083,043. AIR-TIGHT HATCH-COVERING. WILLIAM WALLACE WOTHERSPOON, New York, N. Y. Filed Sept. 15, 1909. Serial No. 517,956. (Cl. 114—203.)



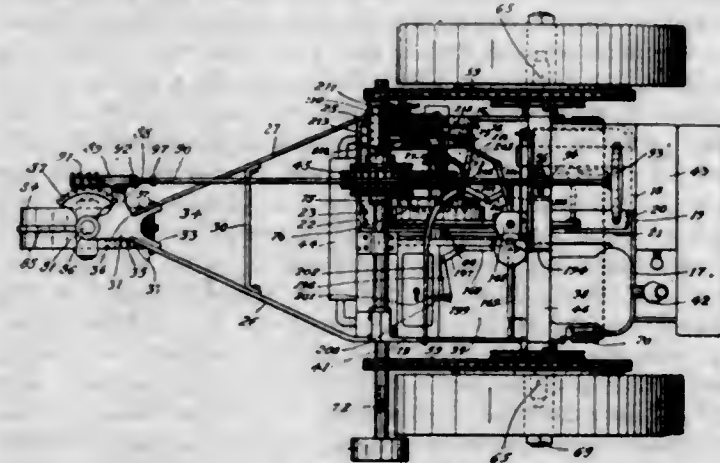
1. In combination with a hold having a hatchway provided with a coaming, a cover-plate seated near its edges against the edge of the coaming, and a series of separate and independent clamping devices for holding the cover-plate on the coaming, said clamping devices being arranged at intervals around the entire margin of the cover-plate inside the hatchway and being engaged respectively with the cover-plate at intervals therearound adjacent its edges, and being engaged at intervals with the marginal edges of the hatchway, the disposition of the said clamping devices being such as to leave substantially the entire surface of the cover-plate and the hatchway, within their margins, free and unobstructed.

2. In combination with a hold having a hatch-way provided with a coaming, a cover-plate seated against the coaming, means for supporting the cover plate at points inward of the coaming, and means for applying a clamping pressure to the cover plate between said supporting points and the coaming.

3. In combination with a hold having a hatch-way with the usual coaming, a cover plate applied to the coaming, a series of horizontal plates engaged at their outer ends against the edge of the hatch-way, upright props extending between said plates and the cover plate, and clamping bolts extending through the said horizontal plates and through the cover plate at points between the props and sides of the hatch-way.

4. A fastening means for securing a cover-plate to the coaming surrounding the hatch-way of a vessel, said fastening means comprising plates adapted to be engaged at their outer ends against one edge of the coaming, upright props adapted to bear against said plates and the cover-plate, and clamping bolts adapted to extend through the plates and through the cover-plate at points between the props and the sides of the hatch-way.

1,083,044. COMBINED TRACTION-ENGINE AND MOTOR-WAGON. ALTON L. WYMAN, Minneapolis, Minn., assignor to Winona Wagon Company, Winona, Minn., a Corporation. Filed May 18, 1912. Serial No. 698,260. (Cl. 21—114.)



1. A motor vehicle comprising a framework, a power plant mounted on said framework, a plurality of sets of traction wheels having different characteristics of shape and mounting, each set being adapted to cooperate with said power plant and be driven thereby, and means for mounting any one of said sets on said framework.

2. A motor vehicle comprising a framework, a power plant mounted on said framework, a set of traction engine wheels having two rows of spokes and hubs formed with cylindrical bearings, a set of wagon traction wheels having a single row of spokes extending outwardly obliquely to the hub, means on each set of wheels for connecting the same to the power plant to be driven thereby and means for mounting either set on said framework.

3. A motor vehicle comprising a framework, a power plant mounted on said framework, running gear including traction wheels and steering wheels of a traction engine, running gear including traction wheels and steering wheels of a motor wagon, and means for mounting said framework and power plant upon either of said sets of running gear so that the power plant will actuate the traction wheels thereof.

4. A motor vehicle comprising a framework, a power plant rigidly secured in said framework, a transverse member bridging said power plant provided with stub axles, means for suspending the framework from said member, said stub axles being adapted to receive motor wagon traction wheels directly thereon, and removable members for application to said stub axles to form the bearings of traction engine wheels.

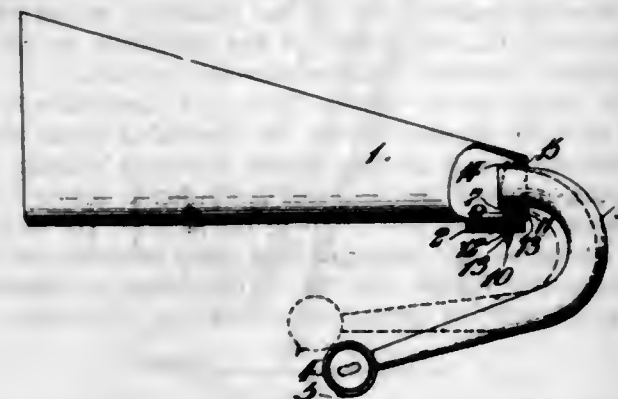
5. A motor vehicle comprising a framework, a power plant rigidly secured in said framework, a transverse member bridging said power plant provided with stub axles, means for suspending the framework from said member, said stub axles being adapted to receive motor wagon traction wheels directly thereon, and a cylindrical member having a socket corresponding in form to the outline of said stub axle and so positioned in the cylindrical member that when assembled said cylindrical member will provide a bearing for wide rimmed traction engine wheels.

[Claims 6 to 13 not printed in the Gazette.]

1,083,045. SOUND-BOX ARM FOR TALKING-MACHINES. WILLIAM W. ZACKEV, Philadelphia, Pa., assignor of forty-nine one-hundredths to Charles B. Hewitt, Burlington, N. J. Filed Oct. 12, 1912. Serial No. 725,447. (Cl. 181—3.)

1. In a talking machine, the combination of a support, a tapered horn carried thereby, an amplifying arm having a reversely curved portion, a stud rotatably mounted in said support having a transverse channel therein, a pivot carried upon the under side of the upper terminal of said arm and seating in said channel, and a sound box carried by the lower terminal of said arm, said upper terminal extending a suitable distance within said horn and freely movable therein.

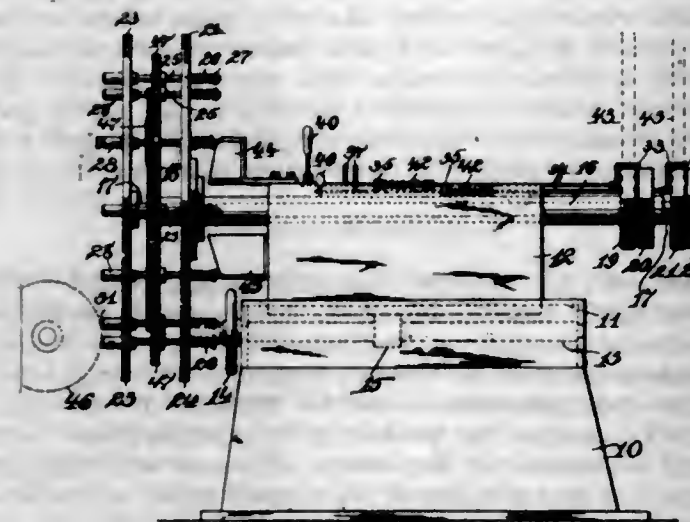
2. In a talking machine, the combination of a support, an amplifying arm having a reversely curved portion, one terminal thereof being in a horizontal plane above the horizontal plane of the other terminal, a sound box carried by the lower terminal of said arm, a tapered horn stationarily supported and operatively positioned with respect to the upper terminal of said arm, and means carried by the said support and co-acting with said arm at a point adjacent the upper terminal of said arm to movably support said arm, said point being located in a vertical line passing through the center of gravity of said arm, whereby said arm is movable, and is balanced in operative position.



3. In a talking machine, the combination of a support, a tapered horn carried thereby, an amplifying arm having a reversely curved portion, a stud rotatably mounted in said support having a transverse channel therein, a pivot carried upon the under side of the upper terminal of said arm and seating in said channel, the curve of said arm extending rearwardly of said pivot to form a counter-balance for the lower terminal of said arm, which extends forwardly of said pivot, and a sound box carried by the lower terminal of said arm, said upper terminal being situated at a suitable point with respect to said horn and being freely movable with respect thereto.

4. In a talking machine, an amplifying device comprising a tubular arm having a pair of opposed flat side walls and opposed concave walls, said walls outwardly diverging, a sound box communicating with the end of said arm, and a horn suitably supported having opposed flat walls and opposed concave walls, the opposite end of said arm being operatively mounted with respect to said horn with the flat walls of each and the concave walls of each in juxtaposed position forming a continuation thereof whereby the sound conduit is formed without corners and is uniform in cross section throughout its extent.

1,083,046. POLISHING-MACHINE. JAN ZYWICKI, Newark, N. J. Filed June 20, 1912. Serial No. 704,710. (Cl. 79—9.)



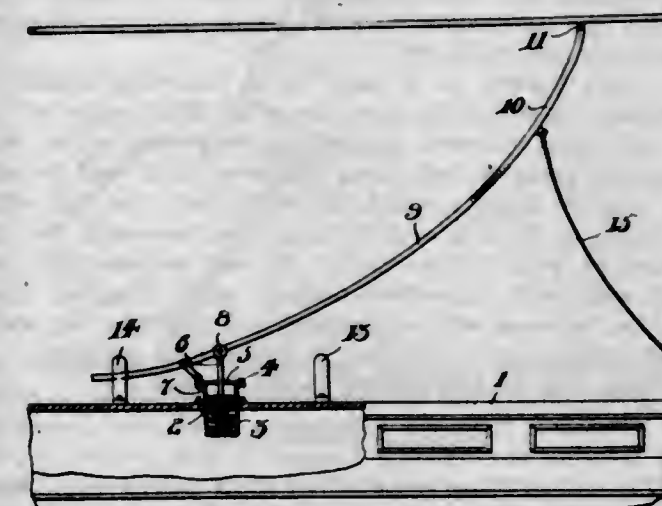
1. A polishing machine comprising a base, a carriage sliding on the base, means for moving the carriage on the base, a rotating structure, means for connecting the rotating structure with its source of power, a spring-oper-

ated means for holding the connecting means inoperative, a restraining means for normally holding the spring-operated means and for tripping the same, and grasping devices on the rotating structure.

2. A polishing machine comprising a base, a carriage sliding on the base, means for moving the carriage on the base, a hollow shaft rotating in the carriage, a shaft within the hollow shaft, a gear-wheel on the hollow shaft, a set of grasping devices held on the rotating shaft and having teeth in mesh with the gear-wheel, spring means for disconnecting the hollow shaft from its source of power, spring means for disconnecting the second shaft from its source of power, manually operated tripping means for normally restraining and for releasing the disconnecting means of the hollow shaft, and manually operated tripping means for normally restraining and for releasing the disconnecting means of the second shaft.

3. In a polishing machine, a support, a hollow shaft rotating in the support, a second shaft within the hollow shaft, a rotating structure on the second shaft, grasping devices on the rotating structure, a fixed pulley on the hollow shaft, a fixed pulley on the second shaft, a loose pulley on the hollow shaft, a loose pulley on the second shaft, a belt shifter adjacent to the hollow shaft, and a belt shifter adjacent to the second shaft, rods connected to the belt shifters and sliding on the support substantially parallel with the shafts, springs bearing on the rods to normally force them in one direction, latches for the rods, the latches for the rods being separate and acting to hold the rods normally against movement by the springs, and handles on the latches for their manipulation.

1,083,047. TROLLEY. MARTIN ADAMSKI, Stoneboro, Pa. Filed Apr. 25, 1913. Serial No. 763,514. (Cl. 191—50.)



A trolley comprising a cylinder adapted to be secured to the roof of a car, a spring arranged therein, a piston mounted on said spring, a piston rod secured to said piston and projecting from said cylinder, a trolley pole including a triangular-shaped head providing a broad bearing surface for the trolley wire, said pole curving from its lower to its upper terminus, means for pivotally connecting the pole and said rod in proximity to the lower terminus of the pole, and guides adapted to be secured to the roof of a car and associated with said pole.

1,083,048. BOX. SIEGMUND BACHMANN, Chicago, Ill. Filed Mar. 25, 1910. Serial No. 551,526. (Cl. 229—31.)

1. A box formed of a base, walls extending upwardly therefrom, corner-extensions connected with walls of the box and lying flatwise against adjacent box-walls, said extensions being formed with sections lying against the extensions and the adjacent walls of the box and forming reinforcements for the box-corners, and means connected with said reinforcing sections and with said extensions lying between said extensions and adjacent box-walls for holding said sections in reinforcing position.

2. A box formed of a base, walls extending upwardly therefrom, corner-extensions connected with walls of the

box and lying flatwise against adjacent box walls, said extensions being formed with sections lying against the extensions and the adjacent walls of the box and forming reinforcements for the box-corners, and means connected with said reinforcing sections toward their lower ends and with said extensions and lying between said extensions and adjacent box-walls for holding said sections in reinforcing position.



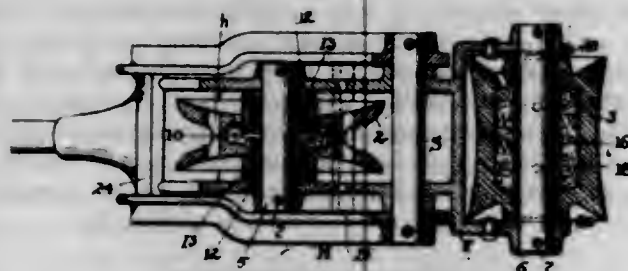
3. A box formed of a base, walls extending upwardly therefrom, corner-extensions connected with walls of the box and lying flatwise against adjacent box-walls, said extensions being folded along diagonal lines and formed with sections lying against the extensions and the adjacent walls of the box and forming reinforcements for the box-corners, and means carried by said sections and connected with said extensions, foldable along diagonal lines and lying between said extensions and adjacent box-walls for maintaining said sections in reinforcing position.

4. A box formed of a base, walls extending upwardly therefrom, corner-extensions connected with walls of the box and lying flatwise against adjacent box-walls, said extensions being formed with sections lying against the extensions and the adjacent walls of the box and forming reinforcements for the box-corners, and tongues carried by said sections and connecting with said extensions lying between the extensions and the walls adjacent thereto, for the purpose set forth.

5. A box formed of a base, walls extending upwardly therefrom, corner-extensions connected with walls of the box and lying flatwise against adjacent box-walls, said extensions being folded along diagonal lines and formed with sections lying against the extensions and the adjacent walls of the box and forming reinforcements for the box-corners, and tongues carried by said sections and connected with said extensions foldable along diagonal lines and lying between said extensions and adjacent box-walls for maintaining said sections in reinforcing position.

[Claims 6 to 15 not printed in the Gazette.]

1,083,049. CONVERTIBLE TROLLEY. ARTHUR L. BEHNER and JAMES SCOTT, Cleveland, Ohio. Filed May 31, 1912. Serial No. 700,556. (Cl. 191-58.)



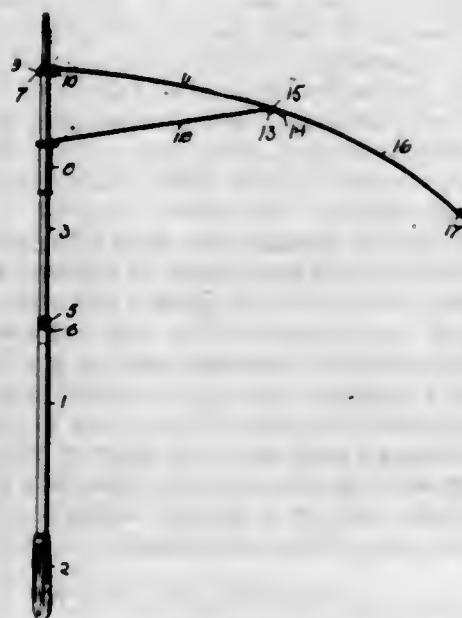
1. A trolley comprising a harp having integral cross-bars front and rear in its lower portion between its sides, in combination with a balancing frame pivoted in the top of said harp having its greater weight forward of said pivot and confined at its front end in the space between said cross-bars between which it has play, a trolley wheel mounted in the rear of said frame behind said pivot and a front wheel in said frame in front of said pivot and adapted to run in advance of said trolley wheel, the said balancing frame having its front portion curved downward at substantially right angles to the body thereof and substantially on the radius of said front wheel,

whereby a cross wire struck by the downward portion of said frame will be directed upward onto said wheel and breakage of the wire avoided.

2. A harp for a trolley having an equalizing frame pivotally mounted in its top and curved downwardly at its front end at substantially right angles between the sides of the harp, said harp having front and rear stops between its sides intermediate its upper and lower ends between which the curved end of said frame is confined and has a limited swinging movement, in combination with two wheels mounted tandem in said frame at substantially equal distances from the pivot thereof on the harp, the front wheel serving as a pilot and the rear wheel having a substantially barrel shape with a concave bearing surface running transversely of the direction of travel and substantially the full width of the said harp at its rear and having electrical connections at its ends.

3. A harp for a trolley having a transversely disposed shaft in the top thereof, an equalizing frame pivoted on said shaft and having wheels mounted therein front and rear of said pivot respectively, said frame curved downwardly at its front between the sides of the harp and cross pieces on the inside of said harp between the sides thereof within which the end of the frame is adapted to play and limit the pivotal movement of the frame.

1,083,050. FOLDING UMBRELLA. JAN BIALOZYTT, Hartford, Ark., assignor of one-half to Joseph Burcik, Hartford, Ark. Filed Apr. 21, 1913. Serial No. 762,598. (Cl. 135-25.)



In a folding umbrella, the combination with a stick having a notch and a runner, of inner rib sections pivotally connected to said notch, spreaders pivotally connected to said runner and having the outer ends thereof coiled and formed integral with said inner rib sections, loops carried by the outer ends of said inner rib sections, and outer rib sections pivotally connected to the coiled portions of said inner rib sections and said spreaders and adapted to be limited in an opening movement by said loops.

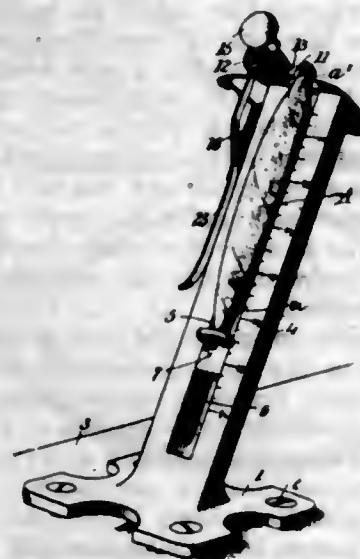
1,083,051. PRODUCING ANTHRAQUINONE COMPOUNDS. JOHANN BONNE, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 20, 1910. Serial No. 582,939. (Cl. 23-24.)

1. The process for producing an anthraquinone compound by heating an anthracene compound with nitrogen tetroxid in the presence of an organic liquid of the aromatic series.

2. The process of producing anthraquinone by heating anthracene with nitrogen tetroxid in the presence of an organic liquid of the aromatic series.

3. The process of producing anthraquinone by heating anthracene with nitrogen tetroxid in the presence of nitrobenzene.

1,083,052. CIGAR-TUCK CUTTER. GEORGE WASHINGTON BOWMAN, York, Pa. Filed July 31, 1913. Serial No. 782,246. (Cl. 131-38.)



1. A cigar cutting device of the character described, comprising a substantially vertical body having means whereby it may be secured to a support, said body forming a cradle to receive a cigar, an adjustable seat and gage on the body and arranged to be engaged by the head of the cigar, the position of the body being such that the cigar rests with substantially its entire weight on said seat and gage, and cutting means on the body for trimming the tuck end of the cigar.

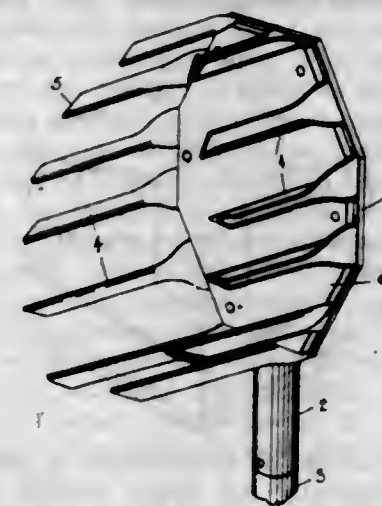
2. A cigar cutting device of the character described, comprising a substantially vertical body having means for securing it to a support, said body forming a cradle to receive a cigar, an adjustable seat and gage on which the head of the cigar rests, a pivoted knife at the upper end of the body for trimming the tuck end of the cigar, and a holder and guard of a length approximately equal to the length of the cigar and carried over said cigar when the knife is operated.

3. A cigar cutting device of the character described, comprising a substantially vertical body having a base for securing it to a support, said body forming a cradle for receiving a cigar, an adjustable seat and rest on which the head of the cigar rests, and a holder and guard secured to the knife and of a length approximately equal to the length of the cigar.

4. A cigar cutting machine of the character described, comprising a substantially vertical body having a base for securing it to a support and provided with a longitudinal seat having its bottom slotted, a cutter at the upper end of the body and a combined gage and rest upon which the head of the cigar rests, said gage and rest being provided with a threaded shank extending through the said slot and provided with a nut thereon, whereby should the nut become loose the gage or rest would drop to the bottom of said slot.

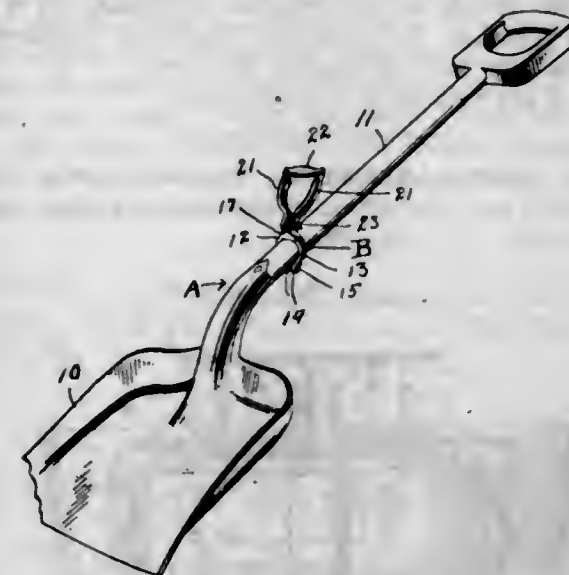
1,083,053. FRUIT-PICKER. FREDRICK H. BRATZEL, Gresham, Ore. Filed Nov. 25, 1912. Serial No. 733,497. (Cl. 56-99.)

The herein described fruit picker comprising an upright octagonal plate having a tubular handle-socket projecting from its lower edge, a series of sheet metal picking members whereof each includes a flat base riveted to the face of said plate and a finger of V-shaped cross section bent from the outer edge of said base at right angles to the plane of the plate with the angle of the V disposed toward the center of the plate and its sharp edges adjacent the edge of said plate, the lowermost fingers being appreciably longer than the others and constituting a receptacle for the picked fruit, and a pad secured to said plate and



overlying the flat bases of the fingers substantially as described.

1,083,054. SUPPLEMENTARY SHOVEL-HANDLE. LEO BROWN, Onaka, S. D. Filed Jan. 22, 1913. Serial No. 743,606. (Cl. 55-116.)



A supplementary handle for shovels and the like comprising a clamp for engagement with the handle bar of the implement, said clamp comprising pivotally connected sections, a binding screw engaged through the ends of said pivotally connected sections for drawing same into clamping relation to a handle bar, an ear formed on one end of the sections of said clamp, a handle yoke including side members embracing the ear on the clamping section, a binding screw passing through said side members and ear pivotally connecting the clamp and side members, cooperating teeth on the adjacent faces of said side members and ear adapted to be secured in interlocking relation by the manipulation of the binding screw passing through the side members and ear whereby said side members may be positively locked in different angular adjustments to the handle bar, and a hand grip connecting the free ends of said side members.

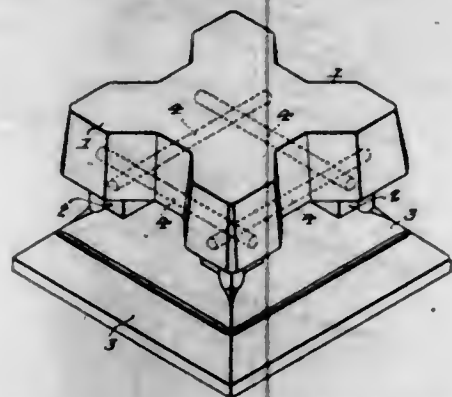
1,083,055. [WITHDRAWN.]

1,083,056. VENTILATED PRISM. ALEXANDER CHAMBERLEY, Philadelphia, Pa. Filed Mar. 24, 1911. Serial No. 616,582. (Cl. 94-7.)

1. A new article of manufacture consisting of a glass lens provided with inclosed passages extending through it in lines substantially parallel with the plane of its top surface.

2. As a new article of manufacture, a glass lens having a relatively thick body portion provided with a passage or

passages extending through the same; said lens having overhanging head portions and the passage or passages opening below said head portions.



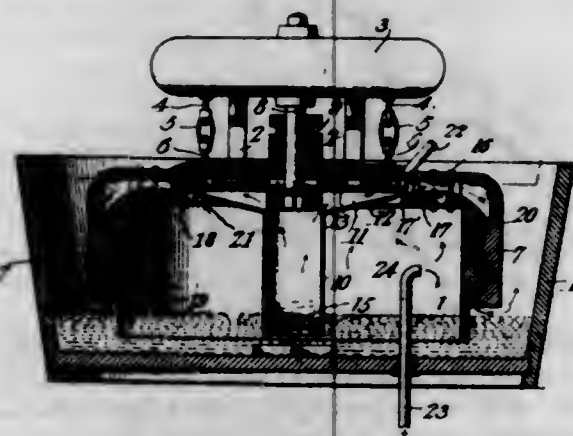
3. As a new article of manufacture a transparent lens having a substantially flat upper surface and provided with a relatively thick body portion, said portion having ventilating channels extending through it substantially parallel to the top surface of the lens.

4. As a new article of manufacture a lens of substantially rectangular section provided with a substantially flat top surface and having a plurality of passages substantially at right angles to each other extending through it in lines parallel to its top surface.

5. A new article of manufacture consisting of a lens having a passage or passages extending transversely through its body and opening on its sides.

[Claim 6 not printed in the Gazette.]

1,083,057. FUME-ARRESTER. SELDEN LAWIN CLAWSON, Salt Lake City, Utah. Filed Feb. 10, 1911. Serial No. 807,851. (Cl. 75-30.)



1. A fume arrester comprising a tank adapted to hold a liquid, a bell supported within the tank and sealed by the liquid therein, means for supplying the fumes to the bell above the liquid, a rotatable tube within the bell, blades within the lower end of the tube, the upper end of the tube having radially extending discharge passages in communication with the tube, and the bell having a circumferential passage adjacent the ends of the discharge passage, carried by the tube, whereby the liquid is discharged from the tube by centrifugal force to the circumferential passage and draws with it fumes from the bell.

2. A fume arrester comprising a tank adapted to hold a liquid, a bell supported within the tank and sealed by the liquid therein, means for supplying the fumes to the bell above the liquid, a rotatable tube within the bell, blades within the lower end of the tube, the upper end of said tube having outwardly extending radially arranged discharge passages, the bell having a circumferential zig-zag passage adjacent the ends of the passage carried by the tube, baffle plates within said circumferential passage, and means for rotating said tubes, whereby the liquid is discharged from the tube by centrifugal force into the circumferential passage, and draws with it fumes from the bell and causes a thorough mixing of the liquid and fumes, whereby the liquid absorbs the desired fumes.

3. A fume arrester comprising a tank adapted to hold a liquid, a bell supported within the tank and sealed by the

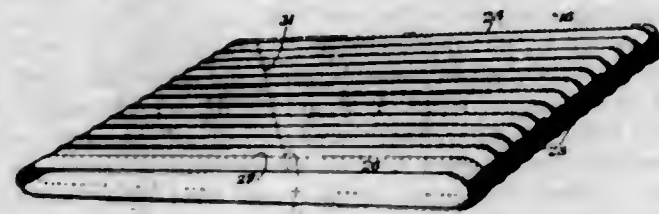
liquid therein, means for supplying the fumes to the bell above the liquid, a rotatable tube within the bell, blades within the lower end of the tube, the upper end of the tube having outwardly extending radially arranged discharge passages, the bell having a passage adjacent the ends of the passages carried by the tube, baffle plates within said circumferential passage, means for raising and lowering the bell to vary the fume passage between the circumferential passage and the radial passages, and means for rotating the tube, whereby the liquid by centrifugal force is thrown from the tube into the centrifugal passage.

4. A fume arrester comprising a tank holding a liquid, a bell supported in the tank and sealed by the liquid, means for discharging fumes within the bell above the liquid, a centrifugal tube within the bell and having radial discharge passages at its upper end, the bell having a circumferential passage surrounding the radial passages carried by the tube, and of a greater width than the tube passages, and means for raising the bell, whereby the passage for the fumes is varied.

5. A fume arrester comprising a tank holding a liquid, a bell supported in the tank and sealed by the liquid, means for discharging fumes in the bell above the liquid, the bell having a circumferential passage at its upper end, and centrifugal means within the bell and extending within the circumferential passage carried by the bell for lifting the liquid and discharging it into the circumferential passage, and means for raising the bell, whereby the fume passage entering the circumferential passage is decreased.

[Claims 6 to 8 not printed in the Gazette.]

1,083,058. ORE-CONCENTRATOR BELT. PETER H. CRAVEN, Spokane, Wash., assignor to P. H. Craven Machinery Company, Spokane, Wash., a Corporation of Washington. Filed May 17, 1910. Serial No. 561,869. (Cl. 83-83.)

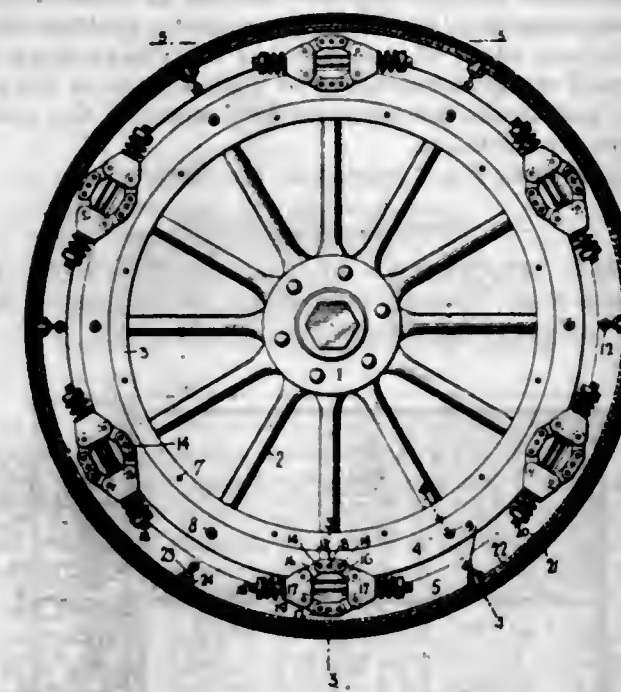


1. A concentrator belt, the inner surface of which presents a plane surface, the outer or concentrating surface having thereon and extending inwardly from its edges raised portions forming longitudinally extending reinforcements one of which is of greater width than the other, and the reinforcement of greater width being flexible and of such substantial breadth as to permit upward and downward deflections thereof at different portions of the length and present an upstanding portion of varying height to the transverse flow of the pulp along the length of the operative portion of the belt.

2. A concentrator belt, the inner surface of which presents a plane surface, the outer or concentrating surface having thereon and extending inwardly from its edges raised portions, one of the inwardly extending portions being of a different width than the other, and being flexible and of such substantial breadth as to permit upward and downward deflections thereof at different portions of its length, and the concentrating surface between the raised portion having arranged parallel thereon a plurality of longitudinally extending ridges.

3. A concentrator belt, the inner surface of which presents a plane surface, the outer or concentrating surface having thereon and extending inwardly from its edges raised portions formed by inwardly deflecting the body of the belt and securing it to the main portion of the belt, such reinforcement being flexible and of such substantial breadth as to permit upward and downward deflections thereof at different portions of its length, and the concentrating surface between the raised portions having arranged thereon a plurality of longitudinally extending ridges.

1,083,059. RESILIENT TIRE. ROBERT CURRY, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,285. (Cl. 152-37.)



1. In an improvement of the kind described, the combination of a fixed rim, a rim movable relatively thereto and normally spaced therefrom, a plurality of pairs of heads each of the heads being provided with an opening, the heads being spaced apart between the rims, a pair of links connected to each head and diverging radially therefrom, means for anchoring a link of each of the pairs of links relatively to the fixed rim, and means for anchoring the other links relatively to the other rim, bolts passing loosely through the said heads and having adjustable means thereon, and resilient means encircling said rods and engaging said means, and said heads, to oppose the movement of the heads away from each other when the other ends of the links are forced toward each other, the heads in each pair and the resilient means connected therewith being free to move relatively to the other heads and the resilient means connected therewith.

2. In an improvement of the kind described, a wheel rim, a pair of bands secured to the sides of the wheel rim and extending beyond the rim, a tread, a pair of bands secured at their outer edges to the tread and having telescopic engagement with the first pair of bands, a plurality of pairs of heads, each of the heads having an opening therethrough, the pairs of heads being spaced apart between the rim and the tread, a pair of links connected to each head and diverging radially therefrom, means for anchoring a link of each of the pairs of links relatively to the rim, means for anchoring the other links relatively to the tread, a plurality of bolts each bolt being disposed through one pair of heads, the bolts having adjustable means thereon, and resilient means encircling said bolts and engaging said means, and said heads, to oppose the movement of the heads away from each other when the outer ends of the links are forced toward each other, each pair of heads and the resilient means thereon being free to move relatively to the other heads and the resilient means thereon.

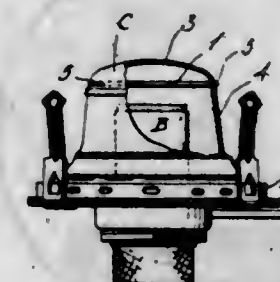
3. In an improvement of the kind described, the combination of a pair of bands encircling a wheel rim and of larger diameter than the same, means for spacing said bands apart, a pair of cover bands secured relatively to the first-named bands and spaced therefrom, the cover bands extending beyond the edges of the first-mentioned bands, a tread, bands secured to the tread and engaging the inner sides of the cover bands, and adapted to move between the first bands and the cover bands, a plurality of pairs of heads disposed between the rim and the tread, each of the heads having a longitudinal opening therethrough, a pair of links connected to each head and diverging radially therefrom, means for anchoring a link of each of the pairs of links relatively to the rim, means for anchoring the other links relatively to the tread, a plurality of rods one

of which is disposed through each pair of heads, the rods having adjustable means thereon, and resilient means encircling said rods, and engaging said means and said heads, to oppose the movement of the said heads away from each other when the outer ends of the links are forced toward each other, the heads in each pair and the resilient means thereon being free to move relatively to the other heads, and resilient means thereon.

4. In an improvement of the kind described, the combination of a pair of rims one disposed within and spaced from the other, a pair of heads with openings and disposed between the rims, a pair of links connected to each head, means for anchoring the outer ends of the links to the rims, a rod passing loosely through openings in said heads and having adjustable means thereon, and resilient means encircling said rod and engaging said means and said heads to oppose the movement of the heads away from each other when the outer ends of the links are forced toward each other.

5. In an improvement of the kind described, the combination of a fixed rim, a rim movable relatively thereto and normally spaced therefrom, a plurality of pairs of heads each of the heads being provided with an opening, the heads being spaced apart between the rims, links connected with the heads and diverging therefrom, means for anchoring the links relatively to the rims, bolts with heads passing loosely through the said heads, and resilient means for encircling said bolts and engaging the heads of the bolts and the first mentioned heads, to oppose the movement of the first mentioned heads away from each other when the links, at a distance from the first mentioned heads, are forced toward each other, each pair of heads and the resilient means connected therewith being free to move relatively to the other pairs of heads and the resilient means connected therewith.

1,083,060. LAMP-BURNER. FLORIAN DANUSER, Tacoma, Wash. Filed Jan. 13, 1913. Serial No. 741,866. (Cl. 67-72.)



1. A lamp burner having a dome provided with a flame slot, independent parallel copper wires extending transversely of said dome in a plane above the wick tube and spaced laterally from opposite sides thereof, said wires being arranged parallel with said flame slot on opposite sides thereof and substantially in the same horizontal plane as the ends of said slot.

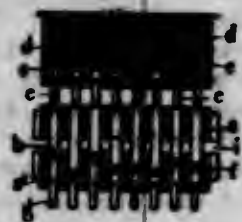
2. A lamp burner having a dome provided with a flame slot, independent parallel copper wires extending transversely of said dome in a plane above the wick tube and spaced laterally from opposite sides thereof, said wires being arranged parallel with said flame slot on opposite sides thereof and substantially in the same horizontal plane as the ends of said slot, the ends of said wires extending through the walls of said dome and bent to form retaining elements.

1,083,061. SAFETY DEVICE WITH COMBINATIONS FOR LOCKS OF ALL KINDS. LEON JOSEPH MATHURIN DARDEAU, Paris, France. Filed Jan. 6, 1909. Serial No. 471,020. (Cl. 70-70.)

1. In a lock, a bolt, a plurality of movable members, a key for operating the bolt and movable members, said key being provided with a plurality of members corresponding to the said movable members, and means controlled by the key for locking the bolt and movable members.

2. In a lock, a bolt, a plurality of movable members, a locking device independent of the bolt operating means for

alternately locking the bolt and movable members, and a key for operating the bolt, movable members and locking device.



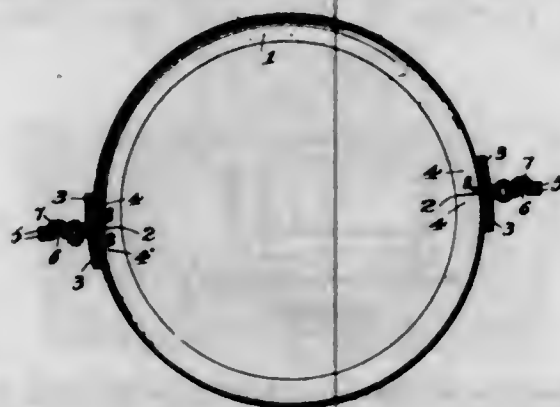
3. In a lock, a bolt, a plurality of movable members, a key for operating the bolt and movable members, said key being provided with a plurality of members corresponding to the said movable members, and a locking device for the bolt and movable members and controlled by the key.

4. In a lock, a bolt, a plurality of movable members each provided with a groove, a key for operating the bolt and movable members, said key being provided with a plurality of members corresponding to the said movable members, and a locking device for the bolt, provided with a member for engaging the grooves of the movable members, the said locking device being controlled by the key.

5. In a lock, a bolt provided with spaced notches, a plurality of movable members, each provided with a groove or notch, a key for operating the bolt and movable members, said key being provided with a plurality of members corresponding to the movable members, and a locking device provided with members, one for engaging the grooves of the movable members and the other for alternately engaging the notches of the bolt, said locking device being controlled by the key.

[Claims 6 to 11 not printed in the Gazette.]

1,083,062. SHEET-METAL CULVERT. JOHN H. DEAN, Birmingham, Ala. Filed Feb. 3, 1913. Serial No. 745,902. (Cl. 61—9.)



1. A sheet metal culvert comprising complementary sections having longitudinal edges which abut to form a complete culvert without outstanding flanges, means for fastening said sections together, and means independent of said fastening means for properly positioning the longitudinal edges of said sections in true abutting relation.

2. A sheet metal culvert comprising complementary sections having longitudinal abutting edges, metal strips or bars secured to the sides of said sections along the longitudinal edges thereof, interlocking means carried by adjacent strips of complementary sections for properly positioning the longitudinal edges of said sections in true abutting relation, and means for fastening and retaining the sections in connected relation.

3. A sheet metal culvert having longitudinal edges which abut to form a complete culvert without outstanding flanges, means for fastening said edges together, and means independent of said fastening means for properly positioning the longitudinal edges in abutting relation.

4. A sheet metal culvert comprising complementary sections having longitudinal abutting edges, metal strips or bars secured to the sides of said sections along the longitudinal edges thereof, cooperating members carried by adjacent strips of complementary sections, said members having a tongue and groove connection serving to properly position the longitudinal edges of complementary sections in true abutting relation, and means for fastening and retaining the sections in connected relation.

5. A sheet metal culvert comprising complementary sections having longitudinal abutting edges, metal strips or bars secured to the sides of said sections along the longitudinal edges thereof, members carried by adjacent strips of complementary sections for properly positioning the longitudinal edges of said sections in true abutting relation, said members extending at right angles to the metal strips, and means for fastening and retaining the sections in connected relation.

[Claims 6 to 9 not printed in the Gazette.]

1,083,063. STREET OR STATION INDICATOR. JOHN W. DE FORD, Marion, Ind. Filed Jan. 18, 1913. Serial No. 742,832. (Cl. 40—94.)



1. In a street or station indicator, the combination with a pair of shafts carrying rolls, an apron mounted upon said rolls, pinions feathered upon said shafts, a driven gear, means for locking said pinions into and out of mesh with said driven gear, means for holding said driven gear against backward movement thereof, spring-actuated members adapted to be engaged by said pinions when in inoperative position for holding said pinions against backward movement thereof, and a pivoted spring lever for operating said gear.

2. In a street or station indicator, the combination with a pair of apron-feeding shafts, of pinions feathered upon said shafts, a driven gear, means for moving said pinions into and out of mesh with said gear, means for locking said pinions in adjusted position, spring-actuated bolts cooperating with said pinions alternately, and means for driving said driven gear.

3. In a street or station indicator, the combination with a casing provided with compartments, of rolls mounted in one of said compartments, driving mechanism mounted in the other compartment comprising pinions and a gear, means for connecting said driving mechanism to either of said pinions, and means coacting with said idle pinion for preventing backward movement thereof.

4. In a street or station indicator, the combination with a casing, of shafts mounted in said casing, rolls carried by said shafts, an apron carried by said rolls, pinions feathered on said shafts provided with shaft portions extending through one wall of said casing, a driven gear, means for locking said shafts in adjusted position, and spring members co-acting with said pinions for preventing movement in one direction.

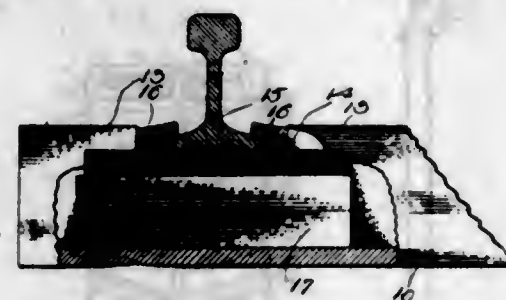
5. In a street or station indicator, the combination with a casing, of roll-carrying shafts mounted in said casing, pinions feathered on said shafts, a driven gear, means for moving said pinions into and out of engagement with said driven gear, and spring-actuated bolts having beveled ends co-acting with the idle pinion for preventing backward movement thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,083,064. METALLIC RAILROAD-TIE. HUGH J. DOWNEY, Modesto, Cal. Filed Feb. 19, 1912. Serial No. 678,586. (Cl. 238—5.)

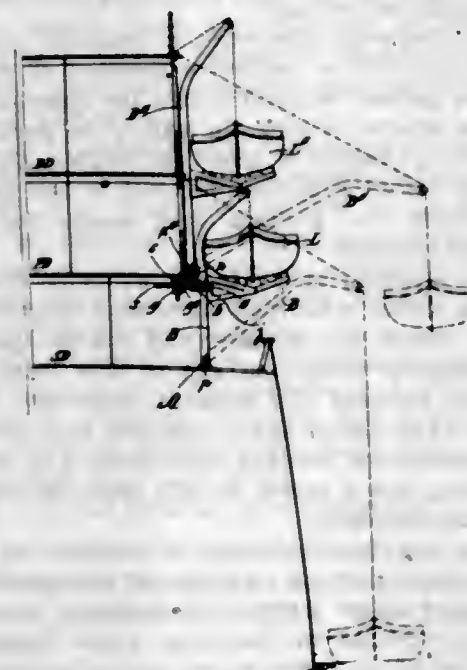
1. A tie comprising a hollow body portion provided with a transversely extending slot having its inner end portion under-cut to provide overhanging lips, a supporting block

positioned in said body portion beneath the slot formed therein, a rail engaging plate extending through the slot beneath the overhanging lips and resting upon said supporting block, and tongues struck from the end portions of said plate and bent upwardly to engage opposite sides portions of a rail.



2. A tie comprising a hollow body portion provided with a transversely extending under-cut slot forming overhanging lips, the lips constituting abutments, a supporting block in said body portion beneath the slot formed therein, a plate extending through the under-cut portion of the slot formed in said body portion and resting upon said block, and rail engaging tongues struck from said plate and bent upwardly to extend through said slot to engage the base of a rail, said tongues fitting outside and against said lips whereby the lips will form abutments for preventing longitudinal movement of said plate on the rail.

1,083,065. BOAT-LOWERING APPARATUS FOR NAVIGABLE VESSELS. CHARLES D. DOXFORD and ROBERT DOXFORD, Durham, England. Filed Sept. 27, 1912. Serial No. 722,685. (Cl. 9—22.)



1. In boat-lowering apparatus for navigable vessels the combination of, the navigable vessel, a plurality of small boats therefor, a plurality of superposed tiers of davits wherein the davits of different tiers have different outreaches and are pivoted on fore-and-aft pivots, a fall for each davit led from the navigable vessel downward to the boat to which that davit is appropriated and operating to lower first the davit with the boat and next the boat away from the davit, and means to limit the movement of the davits outboard on their fore-and-aft pivots.

2. In boat-lowering apparatus for navigable vessels the combination of, the navigable vessel, a plurality of small boats therefor, a plurality of superposed tiers of davits wherein the davits of different tiers have different outreaches and are pivoted on fore-and-aft pivots, a fall for each davit led from the navigable vessel downward to the boat to which that davit is appropriated and operating to lower first the davit with the boat and next the boat away from the davit, means to limit the movement of the davits outboard on their fore-and-aft pivots, and a strut between the davits and the boat.

3. In boat-lowering apparatus for navigable vessels the combination of, the navigable vessel, a plurality of

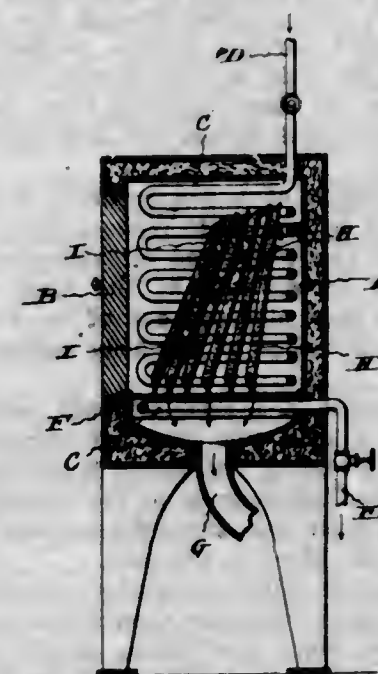
small boats therefor, a plurality of superposed tiers of davits wherein the davits of different tiers have different outreaches and are pivoted on fore-and-aft pivots, a fall for each davit led from the navigable vessel downward to the boat to which that davit is appropriated and operating to lower first the davit with the boat and next the boat away from the davit means to limit the movement of the davits outboard on their fore-and-aft pivots, and a strut pivoted to each davit and extending from the davit to the boat.

4. In boat-lowering apparatus for navigable vessels the combination of, the navigable vessel, a plurality of small boats therefor, a plurality of superposed tiers of davits wherein the davits of different tiers have different outreaches and are pivoted on fore-and-aft pivots, a fall for each davit led from the navigable vessel downward to the boat to which that davit is appropriated and operating to lower first the davit with the boat and next the boat away from the davit, means to limit the movement of the davits outboard on their fore-and-aft pivots, and a hollow rod pivoted to each davit inclosing and guiding the fall and forming a strut between the davit and the boat, its pivots being so disposed that the rod can swing in two directions at right angles.

5. In boat-lowering apparatus for navigable vessels the combination of, the navigable vessel, a plurality of small boats therefor, a plurality of superposed tiers of davits wherein the davits of different tiers have different outreaches and are pivoted on fore-and-aft pivots, a fall for each davit led from the navigable vessel downward to the boat to which that davit is appropriated and operating to lower first the davit with the boat and next the boat away from the davit, means to limit the movement of the davits outboard on their fore-and-aft pivots, a strut between the davit and the boat, and a trip serving to disengage the strut from the boat.

[Claims 6 to 13 not printed in the Gazette.]

1,083,066. METHOD OF TREATING MOLDS USED IN THE ART OF ELECTROTYPING. GEORGE E. DUNTON, New York, N. Y. Filed May 22, 1911. Serial No. 628,748. (Cl. 204—8.)

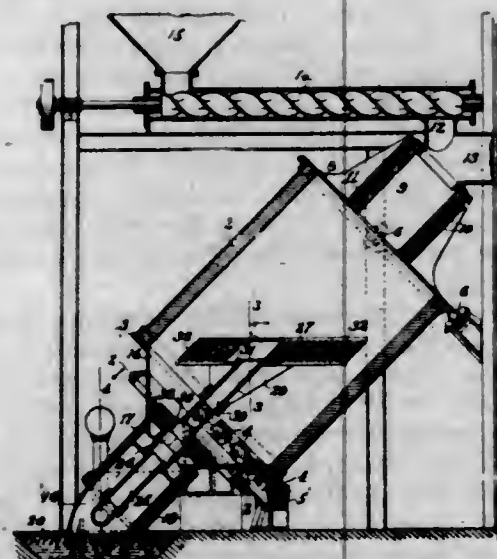


1. In the art of electrotyping, the method of separating a substantially flat electrotyping mold having in its face the impression of the form of type to be reproduced to form a printing plate and a molding pan attached to the back of said mold, which consists in placing the said electrotyping mold with the impression in the face thereof and the molding pan attached to the back thereof in a position out of the horizontal and applying heat substantially uniformly thereto, whereby the electrotyping mold melts and separates from the molding pan.

2. In the art of electrotyping, the method of separating an electrotyping from a substantially flat electrotyping mold having in its face the impression of the form of type to be reproduced to form a printing plate and a molding

pan attached to the back of said mold, which consists in removing the electrotype, placing said electrotype mold with the impression in the face thereof and the molding pan attached to the back thereof in a position out of the horizontal and applying heat substantially uniformly thereto, whereby the electrotype mold melts and separates from the molding pan.

1,083,087. GAS-PRODUCER. NICOLAS F. EGLER, Chicago, Ill., assignor to The Blair Engineering Company, Chicago, Ill., a Corporation of New York. Filed Apr. 14, 1910. Serial No. 555,435. (Cl. 48-85.1.)



1. The combination of a producer body rotatable about an inclined axis and having an ash discharge at its lower end, non-rotatable fuel stirring means within and elongated transversely of the inclined body, and a fuel inlet and a gas outlet with which the upper end of the inclined body is rotatably connected.

2. The combination of a producer body rotatable about an inclined axis, the body having a fuel inlet and a gas outlet at its upper end and an ash discharge at its lower end, a fixed blast pipe entered through the lower end of the body, and fuel stirring devices projecting laterally from the blast pipe, said devices formed with blast conduits for passing the blast laterally from the blast pipe and with outlets in said devices for distributing the blast to the fuel.

3. The combination of a gas producer body rotatable about an inclined axis, a blast pipe entered through the lower portion of the body, and an elongated blast distributor disposed horizontally at the inner end of and supported by the blast pipe, one end of the distributor extending into a lower zone of the body contents than the opposite end.

4. The combination of a producer body rotatable about an inclined axis, a blast pipe extended thereinto from below, oppositely extending horizontal blast-conveying fuel deflectors elongated transversely of the producer body and supported by the blast pipe, the deflectors having openings for distributing the blast to the fuel.

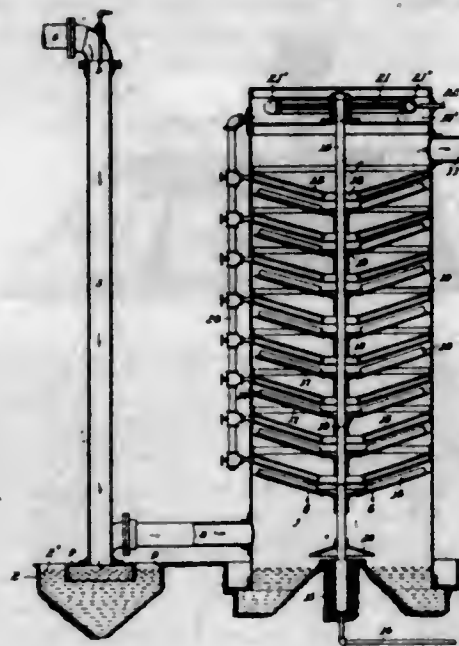
5. The combination with a rotatable gas producer body, and a fixed blast pipe extending thereinto, of an elongated inverted V-shaped blast distributing device having fixed position transversely of the body above the discharge end of the blast pipe, the sides of said distributing device formed with openings for the escape of the blast.

[Claims 6 to 13 not printed in the Gazette.]

1,083,088. GAS-CLEANING MECHANISM. NICOLAS F. EGLER, South Chicago, Ill., assignor to The Blair Engineering Company, Chicago, Ill., a Corporation of New York. Filed Aug. 22, 1908. Serial No. 449,833. Renewed Apr. 29, 1910. Serial No. 558,335. (Cl. 48-133.)

1. In gas cleaning apparatus, a chamber having a gas inlet and an outlet, a vertical succession of water pockets within the chamber and spaced apart, the pockets being

arranged to permit water and gas to flow vertically through the chamber and also constructed to discharge water into the latter, means for supplying water to the pockets, and movable deflectors operative between the pockets.



2. In gas cleaning apparatus, a chamber having a gas inlet and an outlet, a vertical succession of water pockets within the chamber and a similar succession of deflectors within the chamber and alternating with the pockets, means for supplying water to the pockets with the latter constructed to discharge the same within the chamber, and deflector operating means.

3. In gas cleaning apparatus, a chamber having a gas inlet and an outlet, a vertical succession of downwardly dished water pockets secured within the chamber and open for water to discharge into the latter, the pockets formed with central passages, a shaft extending therethrough, downwardly dished deflectors secured to the shaft in the spaces between the pockets, and means for supplying water to the pockets.

4. In gas cleaning apparatus, a chamber having a gas inlet and an outlet, a vertical succession of perforated water pockets within the chamber and spaced apart and arranged to permit water and gas to flow from one space to the other between the pockets, deflectors within the chamber, a water motor space separate from the chamber, a valved connection between said space and each of the water pockets, and a motor in said space operatively connected to the deflectors.

5. In gas cleaning apparatus, a chamber having a gas inlet at its lower end and an outlet at its upper end, water pockets spaced apart within the chamber one above the other and perforated to discharge water therefrom, and deflecting devices operative in the spaces between adjacent pockets.

[Claims 6 to 18 not printed in the Gazette.]

1,083,069. UNDERGARMENT. WILLIAM S. ELDER, Philadelphia, Pa., assignor to Julius Hirsh, Philadelphia, Pa. Filed Feb. 21, 1913. Serial No. 749,862. (Cl. 2-144.)



A knitted undergarment consisting of opposite halves, each comprising a body member, a leg member and a hip member, with overlapping crotch flaps at front and rear, two of said crotch flaps being integral with one hip member and the other two being integral with the other hip

member, the body members being united centrally at the front and rear of the garment and the crotch flaps being the same both at front and rear.

1,083,070. COMPOUND METAL. BYRON E. ELDER, New York, N. Y. Filed Oct. 26, 1911. Serial No. 656,987. (Cl. 176-36.)



1. An article of manufacture comprising a wall of glass having sealed therethrough a wire of high-melting metallic material, said wire being of a rate of expansion materially less than said glass and being held in the glass under compressive strains in the union therebetween.

2. An article of manufacture comprising a wall of glass having sealed therethrough a wire of high-melting metallic material, said wire comprising a core of high-melting alloy, a linking layer of high-melting high-expansion metal and a sheath layer of platinum, all metallically united, being of a rate of expansion materially less than said glass and compression strains existing in the union between glass and wire.

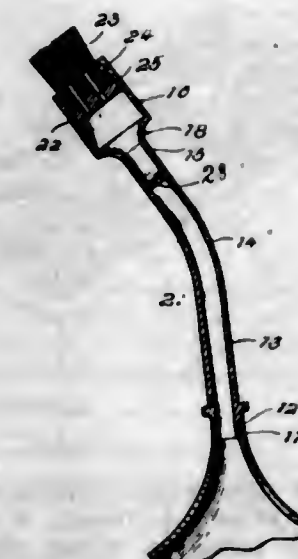
3. An article of manufacture comprising a wall of glass having sealed therethrough a wire of high-melting metallic material, said wire comprising a core of low-expansion nickel-steel, a linking layer of high-melting high-expansion metal and a sheath layer of platinum, all metallically united, being of a rate of expansion materially less than said glass and compression strains existing in the union between glass and wire.

4. An article of manufacture comprising a wall of glass having sealed therethrough a wire of high-melting metallic material, said wire comprising a core of nickel-steel, a linking layer of copper and a sheath layer of platinum, all metallically united, being of a rate of expansion materially less than said glass and compression strains existing in the union between glass and wire.

5. An article of manufacture comprising a body of glass and a composite wire sealed thereto, said wire having a surface layer of platinum covering and internally supported by a body of high-melting baser metal of lower thermal expansion than said glass.

[Claims 6 to 8 not printed in the Gazette.]

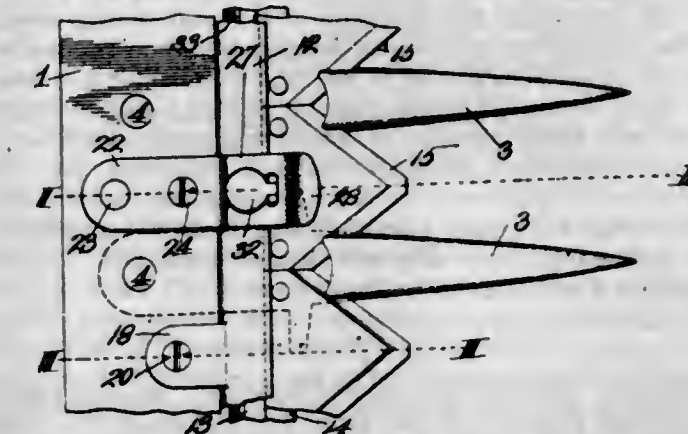
1,083,071. FOUNTAIN-BRUSH. LOUIS D. FALKENSTEIN, Elkhart, Ind. Filed Mar. 12, 1913. Serial No. 753,828. (Cl. 15-67.)



A moistening device comprising a container, a tube threaded into the container, a nozzle supported by said tube, said nozzle being substantially rectangular in cross-section, one of the walls of said nozzle being pressed in-

wardly to form a rib, a rectangular block received within the nozzle, one of the side walls of said block being provided with a groove which receives the rib of the nozzle, whereby the block is rigidly supported against displacement, bristles supported by the block, there being passages arranged in the block through which the fluid from the nozzle may pass to the bristles.

1,083,072. SICKLE-BAR MECHANISM. LOU O. FERBRACHE, Columbus, Mo. Filed Dec. 28, 1912. Serial No. 739,033. (Cl. 56-44.)



1. A sickle bar mechanism, comprising a bar, fingers projecting forwardly therefrom and provided adjacent the front edge of the bar with aligned transverse grooves, a boxing consisting of a lower or gutter-shaped member extending through the grooves of the fingers, and an upper member of segmental form overlying the lower or gutter-shaped member, means for securing the two members of the boxing to the said bar, a cylindrical sickle bar extending parallel with the first-named bar and fitting snugly in the boxing, cutting blades secured to the reciprocatory bar and clamp plates secured to the first-named bar and bearing upon the upper member of the boxing.

2. A sickle bar mechanism, comprising a bar, fingers projecting forwardly therefrom and provided adjacent the front edge of the bar with aligned transverse grooves, a boxing consisting of a lower or gutter-shaped member extending through the grooves of the fingers, and an upper member of segmental form overlying the lower or gutter-shaped member, means for securing the two members of the boxing to the said bar, a cylindrical sickle bar extending parallel with the first-named bar and fitting snugly in the boxing, cutting blades secured to the reciprocatory bar and clamp plates secured to the first-named bar and bearing upon the upper member of the boxing and provided with spring tongues projecting forward and engaging the blades.

3. A sickle bar mechanism, comprising a bar, fingers projecting forwardly therefrom and provided adjacent the front edge of the bar with aligned transverse grooves, a boxing consisting of a lower or gutter-shaped member extending through the grooves of the fingers, and an upper member of segmental form overlying the lower or gutter-shaped member, means for securing the two members of the boxing to the said bar, a cylindrical sickle bar extending parallel with the first-named bar and fitting snugly in the boxing, cutting blades secured to the reciprocatory bar, and clamp plates secured to the first-named bar and bearing upon the upper member of the boxing; said clamping plates and upper member of the boxing having registering lubricant-receiving openings to feed lubricant into the boxing.

4. A sickle bar mechanism, comprising a bar, fingers projecting forwardly therefrom and provided adjacent the front edge of the bar with aligned transverse grooves, a boxing consisting of a lower or gutter-shaped member extending through the grooves of the fingers, and an upper member of segmental form overlying the lower or gutter-shaped member, means for securing the two members of the boxing to the said bar, a cylindrical sickle bar extending parallel with the first-named bar and fitting snugly in the boxing, cutting blades secured to the reciprocatory bar, clamp plates secured to the first-named bar and bearing upon the upper member of the boxing; said clamping

plates and upper member of the boxing having registering lubricant-receiving openings to feed lubricant into the boxing, and covers for said openings carried by said clamp plates.

5. A sickle bar mechanism, comprising a bar, fingers projecting forwardly therefrom and provided adjacent the front edge of the bar with aligned transverse grooves, a boxing consisting of a lower or gutter-shaped member extending through the grooves of the fingers, and an upper member of segmental form overlying the lower or gutter-shaped member, means for securing the two members of the boxing to the said bar, a cylindrical sickle bar extending parallel with the first-named bar and fitting snugly in the boxing, cutting blades secured to the reciprocating bar, clamp plates secured to the first-named bar and bearing upon the upper member of the boxing; said clamping plates and upper member of the boxing having registering lubricant-receiving openings to feed lubricant into the boxing; said sickle bar having a longitudinal groove communicating with said openings, and located rearward of the vertical plane of the axis of the sickle bar.

[Claim 6 not printed in the Gazette.]

1,083,073. REVOLVER ATTACHMENT. MEADE FERGUSON and JAMES O. FITZGERALD, JR., Richmond, Va. Filed Mar. 7, 1913. Serial No. 752,735. (Cl. 42—81.)



1. The combination with a revolver including relatively movable frame portions having apertured pivot lugs formed thereon and a pivot bolt connecting the same, the said lugs being relatively spaced when operatively connected, of insulating members mounted upon the said pivot bolt between the lugs, a metallic collector member mounted upon each of said insulating members, metallic brushes mounted upon the frame portion bearing the barrel and insulated therefrom, the said brushes being engageable with the collector members, a flash light device secured to the said barrel and including an electric bulb, means for electrically connecting the carbon terminals of the bulb with the respective brushes, metallic brushes connected to the other frame portion and insulated therefrom for engagement with the said collector members, a source of current provided upon the said frame portion, and electrical connection between the terminals of said source and the last-named brushes.

2. The combination with a revolver including relatively movable frame portions having apertured pivot lugs thereon and a pivot bolt connecting the same, the said lugs being relatively spaced when operatively connected, of insulating members mounted upon the said pivot bolt between the lugs, a metallic collector member mounted upon each of said insulating members, metallic brushes mounted upon the frame portion bearing the barrel and insulated therefrom, the said brushes being engageable with the collector members, a flash light device secured to the said barrel and including an electric bulb, means for electrically connecting the carbon terminals of the bulb with the respective brushes, metallic brushes connected to the other frame portion and insulated therefrom for engagement with the said collector members, a source of current provided upon the said frame portion, normally open electrical connection between the terminals of said source and the last-named brushes, and means for closing said circuit.

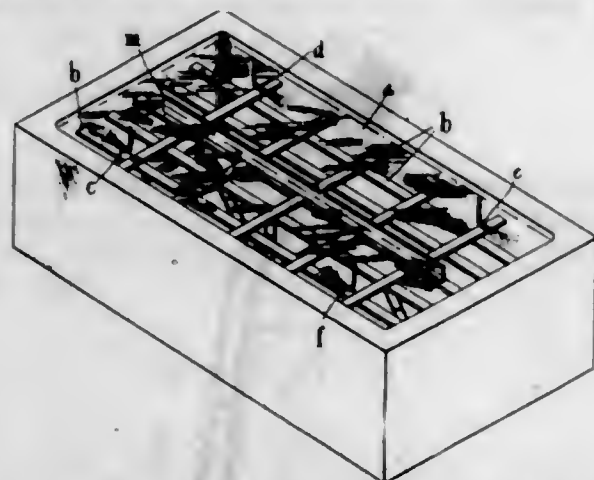
3. The combination with a revolver including relatively movable frame portions having apertured pivot lugs formed thereon and a pivot bolt connecting the same, the said lugs being relatively spaced when operatively connected, of insulating members mounted upon the said pivot bolt between the lugs, a metallic collector ring mounted upon each of said insulating members, metallic brushes mounted upon the frame portion bearing the barrel and insulated therefrom, the said brushes being engageable with the collector rings, a flash light device secured to the said barrel and including an electric bulb, means for electrically connecting the carbon terminals of the bulb with the respective brushes, metallic brushes connected to the other frame portion and insulated therefrom for engagement with the said collector rings, a source of current provided upon the said frame portion, and electrical connection between the terminals of said source and the last-named brushes.

4. The combination with a pivoted frame revolver, of metallic collector members connected thereto at the joint between the frame portions and insulated therefrom, metallic brushes attached to the frame portion bearing the barrel and insulated therefrom, a flash light device attached to the barrel and including an electric bulb, means for electrically connecting the terminals of the bulb carbon to the respective brushes, metallic brushes mounted upon the other frame portion and insulated therefrom, all of said brushes being engageable with the collector members during relative movement of the frame portions, a source of current provided upon the latter frame portion and insulated therefrom, means for connecting said source electrically with the last-named brushes, the circuit being normally open.

5. The combination with a pivoted frame revolver, of metallic collector members connected thereto at the joint between the frame portions and insulated therefrom, metallic brushes attached to the frame portion bearing the barrel and insulated therefrom, a flash light device attached to the barrel and including an electric bulb, means for electrically connecting the terminals of the bulb carbons to the respective brushes, metallic brushes mounted upon the other frame portion and insulated therefrom, all of said brushes being engageable with the collector members during relative movement of the frame portions, a source of current provided upon the latter frame portion and insulated therefrom, means for connecting said source electrically with the last-named brushes, the circuit being normally open, and means for closing said circuit.

[Claim 6 not printed in the Gazette.]

1,083,074. PROCESS OF RETTING FLAX. WILLIAM JAMES FERNIE, Dromara, Ireland. Filed June 16, 1913. Serial No. 774,004. (Cl. 92—5.)



1. A process for retting fiber-yielding straws consisting in disposing said straws vertically in a compact mass in an appropriate container, filling the said container with water and continuously replacing said water by slow withdrawal at the base and co-incident introduction without disturbance of the same amount of fresh water at the top of the container; as set forth.

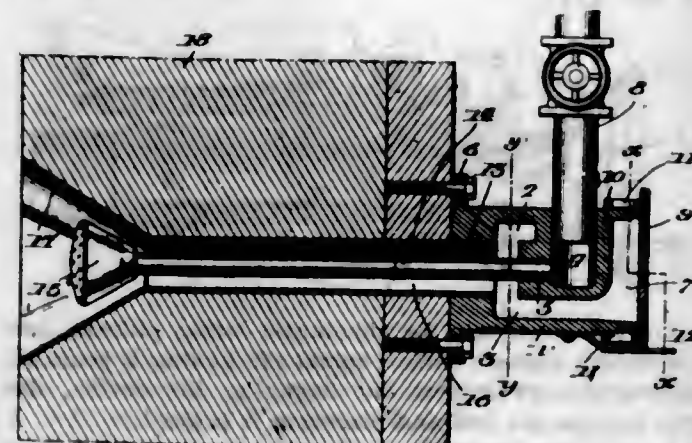
2. A process of retting flax straw consisting in disposing said straw vertically in a compact mass in an appropriate container, causing a slow current of warmed water to pass through said container and constraining said current to traverse the mass uniformly in a vertical direction from the top to the bottom; as set forth.

3. A process of retting flax straw consisting in disposing said straws vertically in a compact mass on and at some distance from the bottom of an appropriate container, filling said container with warmed water to some distance above the level of said straws and continuously displacing the water from between the straws by slow withdrawal of the water at the base of the vessel and replacement by a fresh quantity introduced at the top and constrained uniformly to enter and pass through the straw mass in a vertical direction; as set forth.

4. A process for retting flax straw including disposing said straws vertically and in a compact mass in an appropriate container causing a current of warm water to flow into said container as a gentle current circulating with only horizontal velocity over said straws and withdrawing the water at the same rate as of introduction from the base of the mass and at a large number of points uniformly distributed over the same; as set forth.

5. A process for retting flax straw including disposing the straw vertically in a uniformly vertically flowing slow current of water interrupting said flow, draining said straw, steeping it in still water containing a food stuff, and again subjecting it to said current of flowing water; as set forth.

1,083,075. SMOKE-CONSUMER. GEORGE FETTERS, Canton, Ohio. Filed Oct. 15, 1912. Serial No. 725,911. (Cl. 230—13.)



1. In a device of the character specified a body having end spaces in communication by means of a side passage and formed with an inner hollow extension with which a fluid medium supply pipe connects, means for supplying air in regulated quantity to one end of the body, a pipe connected with the opposite end of the body and communicating with the space thereof, and a second pipe passing through the first mentioned pipe and spaced therefrom and connected with the hollow extension of the body.

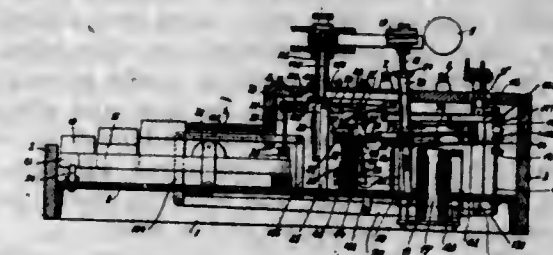
2. In a device of the character specified a hollow body provided with an inner hollow extension projecting from a side thereof forming end spaces and a side passage connecting the end spaces, a pipe connected with the hollow extension to supply a fluid medium thereto, a cap threaded to one end of the hollow body and adapted to regulate the supply of air therethrough, a pipe connected with the opposite end of the body and in communication with the space thereof, and a second pipe passing through the first mentioned pipe and spaced therefrom and connected with the hollow extension.

1,083,076. TYPE-WRITING MACHINE. OSKAR FISCHER, Berlin, Germany. Filed Apr. 26, 1910. Serial No. 557,700. (Cl. 197—12.)

1. A typewriting machine comprising a rotary type-carrying member; instrumentalities for positioning the same to bring the desired character thereon into printing

197 O. G.—79

position; means for actuating said member to produce the printing stroke thereof; automatic means for causing the return of said member to its initial position after the impression has been made; a manually-operated device under control of the operator for controlling the first-named means; and automatically-operating mechanism for disconnecting the latter from said device a substantial interval of time before the end of the printing stroke of said type-carrying member.



2. A typewriting machine comprising a rotary type-carrying member; instrumentalities for positioning the same to bring the desired character thereon into printing position; means for actuating said member to produce the printing stroke thereof; automatic means for causing the return of said member to its initial position after the printing stroke has been made; a manually-operated device under control of the operator for controlling the first-named means; automatically-operating mechanism for disconnecting the latter from said device a substantial interval of time before the end of the printing stroke of said type-carrying member; and a connecting device which joins the first-named means and said mechanism together.

3. In a typewriting machine, the combination with a type-wheel, means to rotate the same, means to throw the same against the platen, and an operating member for said rotating and throwing means, of means operative upon the actuation of said throwing means a substantial interval of time in advance of the type wheel striking the platen to disconnect said operating member from the rotating and throwing means, and automatic means to return said type wheel into its normal position.

4. In a typewriting machine, the combination with a type-wheel; means to rotate the same; means to throw the same against the platen; and an operating member for said rotating and throwing means; of means operative upon the actuation of said throwing means and a substantial interval of time in advance of the type-wheel striking the platen to disconnect said operating member from said rotating and throwing means and to make said throwing means thereafter inoperative by said operating member; and automatic means to return said type-wheel to its initial position.

5. In a typewriting machine, the combination with a type wheel, electric means to rotate the same, electric means to throw the same against the platen, and a key-controlled operating member for said rotating and throwing means, of means operative upon the actuation of said throwing means to disconnect said operating member from the rotating and throwing means, and automatic means to return said type wheel into its normal position.

[Claims 6 to 44 not printed in the Gazette.]

1,083,077. CROSS-TIE FOR RAILWAY-RAILS. HILBERT K. FLETCHER, Montpelier, La. Filed Jan. 22, 1913. Serial No. 743,672. (Cl. 238—5.)



1. A rail tie including a metallic member having parallel sides and an angular base, the sides, adjacent their

ends, being depressed and provided with ledges which extend beyond the outer faces of the sides, cushion blocks arranged between the sides and resting upon the bottom and having their upper faces disposed above the ledges, said cushion blocks adapted to provide bearings for the rails, the said rails being further provided with angle bars, and securing elements passing through the ledges and the angle bars.

2. A rail tie including an angular member comprising parallel sides and a right angularly arranged connecting base, the sides, adjacent their ends, being each slitted from their upper edges, the metal between the slits being bent outwardly to provide ledges, cushion blocks arranged between the sides and resting upon the base and projecting above the ledges, said cushion blocks adapted to receive the ties, rail-retaining elements connected with the rails and resting upon the cushions, and securing means between the said elements and the ledges of the sides.

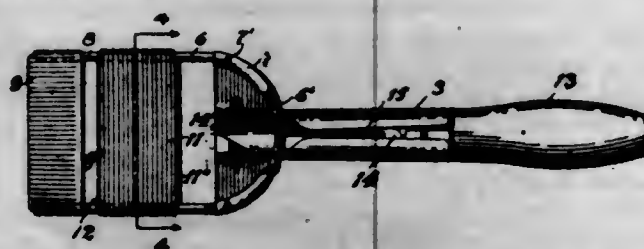
3. In a rail tie, a metallic channel member having its sides, adjacent its ends, provided with ledges, cushion blocks within the channel member and projecting above the ledges, said cushion blocks adapted to provide bearing faces for the rails, the rails being provided with angle bars, and removable securing elements passing through the angle bars and through the ledges and connected with the ledges.

4. In a tie for railway rails, a metallic channel member provided with depressions adjacent its ends and formed with ledges arranged in a plane with the upper walls of the depressions, cushion blocks within the channel members and arranged adjacent the depressions and projecting above the ledges, angle bars for the rails and overlying the cushion blocks, removable securing elements arranged between the ledges and the angle bars, and a channel member having a rail cushion arranged between two of the ties and connected with the ties.

5. In a tie for railway rails, metallic channel members having their parallel sides, adjacent their ends, depressed and formed with outturned ledges, cushion blocks arranged within the channel members and disposed between the depressed sides thereof and extended beyond the ledges, the sides of each of the channel members below the ledges having openings arranged in a plane with the connecting bottom of said members, channel spacing members, said spacing members having their bases projecting beyond their sides, said projecting members passing through the openings in the channel tie members below the cushion member thereof and secured to the said tie and cushion, a cushion member arranged within the channel connecting member and having its upper wall in a plane with the cushion member of the ties, and the rail ends adapted to rest upon the said cushion member and the cushion members of the tie, angle splice bars for the rail ends, and securing elements passing through the splice bars and the ledges of the ties.

[Claim 6 not printed in the Gazette.]

1,063,078. HOUSEHOLD TOOL. JOHN C. FORSTER, Pittsburgh, Pa. Filed July 12, 1912. Serial No. 709,092. (Cl. 146-8.)

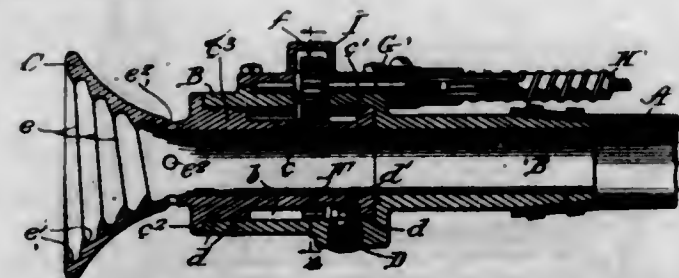


1. A household tool comprising a sheet-metal shank having a widened front portion and a rearwardly extending handle portion, a single piece of wire doubled upon itself by means of a curved bend to provide projecting arms which extend forwardly from the widened front portion of the shank, cutting means carried by the arms, the metal of the widened shank at opposite sides of the handle portion thereof curled around the curved bend in

the wire thereby giving the widened shank portion the curvature of the wire, said curved and curled portions extending from the front edge of the widened portion backwardly and inwardly to the handle portion, said widened shank portion being arched centrally of its length to approximately conform to the handle portion, the portion intermediate the arch and the curled portions approximating the top plane of the curved portion of the wire, whereby the curvature of the wire and the relatively flat portions of the widened shank cooperate to prevent distortion of the tool, the space between the arch portion and the wire being adapted to receive a detachable tool, said portion and wire acting as protectors for the tool.

2. In a household tool, cutting means, a movable guide member, a support therefor, said support comprising a single piece of wire bent to form a frame having parallel arms connected at the front by said cutting means and at the rear by a curved portion integral therewith, said arms extending tangential to the curved portion and forming guiding supports for the guide member, and a sheet-metal shank having a handle portion expanded laterally at its front to form a widened portion, the outer edges of which curl about the curved portion of the frame, said widened portion being arched centrally with portions between the arch and the curled edges substantially flat and approximating the plane of said curved wire portion, the widened portion and the curved wire portion cooperating to connect the handle portion to the frame in a manner to mutually brace the parts and prevent relative longitudinal movement therebetween.

1,083,079. COTTON-PICKER. EMIL GATHMANN, Baltimore, Md. Filed Feb. 27, 1913. Serial No. 751,007. (Cl. 56-117.)



1. A rotatable nozzle for pneumatic cotton pickers, having its mouth formed with a spiral rib having a plurality of connected convolutions for engaging the cotton, dislodging it from the boll and directing it inward.

2. A rotatable nozzle for pneumatic cotton pickers, having its mouth formed with a spiral toothed rib having a plurality of connected convolutions for engaging the cotton, dislodging it from the boll and directing it inward.

3. A rotatable nozzle for pneumatic cotton pickers, having a flaring mouth formed with a spiral rib for engaging the cotton, dislodging it from the boll and directing it inward.

4. A rotatable nozzle for pneumatic cotton pickers, having a flaring mouth provided with teeth arranged spirally for engaging the cotton, dislodging it from the boll and directing it inward.

5. A nozzle for pneumatic cotton pickers, comprising an inner portion adapted to be connected with a conveyer tube and provided with means for rotating it, and an outer portion detachably connected with the inner portion and provided with a plurality of convolutions of connected spirally arranged rotatable means for engaging the cotton, withdrawing it from the boll and directing it inward. [Claim 6 not printed in the Gazette.]

1,083,080. NUT-LOCK. JAMES W. GAUL, Fort Lauderdale, Fla. Filed Aug. 30, 1911. Serial No. 646,819. (Cl. 151-27.)

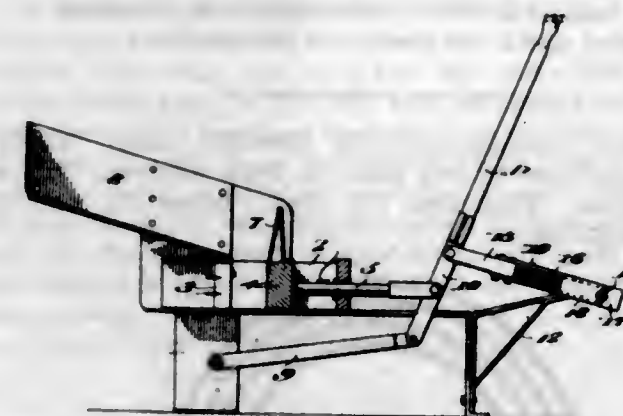
1. In a nut lock, a bolt having an angular extension, a follower member having an angular bore engaging the extension, a lock nut having an angular bore within which is received the follower, pin members connecting

the nut with the lock nut, a cap for the lock nut, and means for forcing the cap into frictional engagement with the lock nut for securing the lock nut to the angular extension of the bolt.



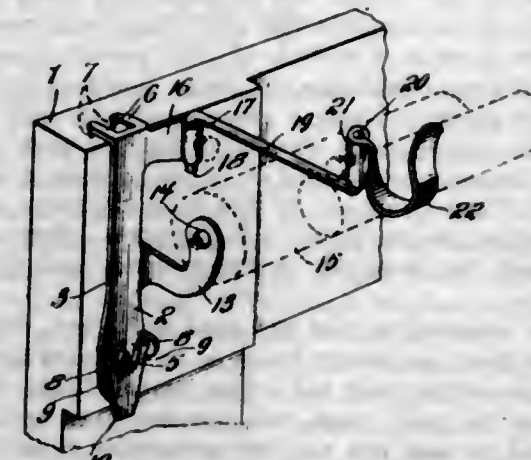
2. In a lock nut, a bolt having a frusto-pyramidal projection provided with a threaded bore, a nut for the bolt, pins for the nut, a lock nut having depressions for the reception of the pins, said lock nut having a square bore, a follower arranged within the bore and engaging the walls thereof, said follower having a frusto-pyramidal bore which is adapted to co-act with the frusto-pyramidal extension of the bolt, the outer face of the lock nut being provided with teeth, a cap having its inner face provided with teeth and co-acting with the teeth of the lock nut, and a headed threaded member arranged for rotation upon the cap and passing through the follower and engaging the threads of the bore of the bolt.

1,083,081. POTATO-CUTTER. WILLIAM H. GESKE and CHARLEY EVANS, Page, N. D. Filed July 9, 1913. Serial No. 778,164. (Cl. 146-7.)



A cutter comprising a trunk, a hopper located above the trunk and having a bottom inclined downwardly toward its delivery edge, a series of knives mounted in the trunk below the lower portion of the bottom of the hopper, a plunger mounted in the trunk for reciprocatory movement toward and away from the delivery edges of the hopper bottom, and a shield mounted upon the plunger and extending above a horizontal line on a level with the delivery edge of the hopper bottom.

1,083,082. WINDOW-SHADE BRACKET. EDWARD GIBBONS, Fall River, Mass. Filed Apr. 22, 1913. Serial No. 762,840. (Cl. 156-24.)



1. A bracket for the purpose set forth comprising a body having its outer portion formed with offset fingers

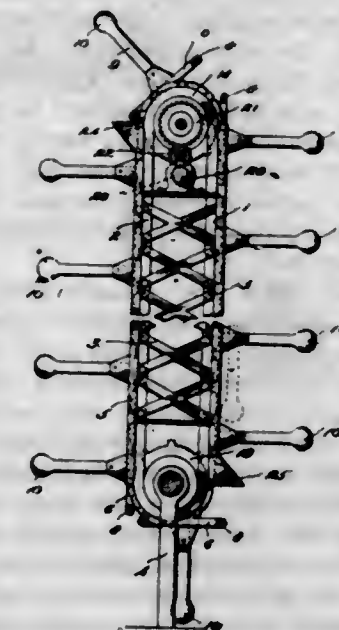
which terminate in angular sharpened points, a catch member hingedly connected with the body, said bracket member having a tooth which is arranged arcuately of the bracket and which is arranged central of the entering points of the fingers of the bracket.

2. A bracket support for window casings comprising a flat body having its upper portion formed with right angular faces to have their extremities downturned and sharpened to provide entering points, a catch member hingedly connected with the bracket and having its end disposed below the end of the bracket, and the said catch having a centrally arranged inwardly curved sharpened tooth that is adapted to enter the face of the casing after the points of the fingers have been forced within the upper edge of the casing.

3. A removable bracket for window casings comprising a flat body having one of its ends provided with angular fingers which terminate in angular sharpened points, the said bracket adapted to have its body arranged against the casing and to have its points enter the upper edge of the casing, said bracket being provided upon its sides with out-turned fingers, a catch having trunnions received by the fingers, said fingers adapted to exert a tension upon the catch, the said catch having an entering tooth which is adapted to engage with the face of the casing, and the said catch when in catch engaging position projecting below the end of the bracket.

4. In a bracket of the class described for window casings, a flat body, said body having one of its ends provided with angularly arranged entering points which are adapted to be forced within the upper edge of the casing, the bracket having spaced openings, ears upon the bracket adapted to be arranged opposite the upper opening, a catch comprising a flat body having a bifurcated end to provide the same with arms, the said arms adapted to be pivotally connected with the ears, and the ears adapted to exert a tension against the arms, the said arms being disposed medially of the upper opening of the bracket, the catch having an arcuate tooth, the said tooth adapted when the catch is swung against the bracket to pass through the second opening thereof and to enter the face of the casing.

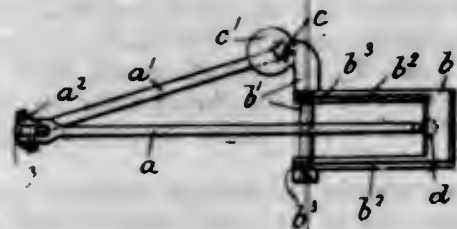
1,083,083. CONVEYER. MICHAEL J. GIBBONS, New Orleans, La. Filed Feb. 24, 1913. Serial No. 750,311. (Cl. 193-8.)



In an endless elevating and lowering apparatus, the combination of a frame providing opposed parallel guideways; a conveyer comprising a plurality of units, each of said units consisting of a rectangular frame having antifriction rollers at its respective corners adapted to move within said guideways; a frame comprising side arms and a cross bar pivotally mounted on the rectangular frame, means for securing the pivoted frame in different positions on the rectangular frame; sprocket wheels journaled at the

respective ends of the first-named frame; and endless chains mounted to operate on said sprockets and having flexible connections with said conveyer units.

1,083,084. COMPOUND LEVER. WALTER VILLA GILBERT, London, England. Filed June 10, 1911. Serial No. 632,401. (Cl. 74-5.)



1. A compound lever for transforming reciprocating movement from one plane to another lying at an angle and in a different direction to the first, consisting of a basic member, a rigid back-end-member adapted to turn in one plane about a stationary axis supported by the basic member, a rigid arm-primary-member having its forward operable end free and adapted to turn in the other plane about a stationary axis supported by the basic member at the rearward end of the arm-primary-member and adjacent to the axis of the back-end-member, a rigid arm-secondary-member connected, at one end at or near to the forward end of the arm-primary-member and at the other end to the back-end-member, and articulative means at such connections, the arm-primary-member and the arm-secondary-member being arranged and combined so as to maintain acute angular relations to one another and to the plane in which the back-end-member turns, substantially as described.

2. A compound lever for transforming reciprocating movement from one plane to another lying at an angle and in a different direction to the first, consisting of a basic member, a rigid back-end-member adapted to turn in one plane about a stationary axis supported by the basic member, a rigid arm-primary-member having its forward operable end free and adapted to turn in the other plane about a stationary axis supported by the basic member at the rearward end of the arm-primary member and adjacent to the axis of the back-end-member, a rigid arm-secondary-member connected, at one end at or near to the forward end of the arm-primary-member and at the other end to the back-end-member, and articulative means at such connections, the arm-primary-member and the arm-secondary-member being arranged and combined so that at one time the arm-primary-member is parallel to the plane in which the back-end-member turns, and at all other times the arm-primary-member and the arm-secondary-member maintain acute angular relations to one another and to the plane in which the back-end-member turns, substantially as described.

3. A compound lever for transforming reciprocating movement from one plane to another lying at an angle and in a different direction to the first, consisting of a basic member, a rigid back-end-member adapted to turn in one plane about a stationary axis supported by the basic member, a rigid arm-primary-member having its forward end free and adapted to turn in the other plane about a stationary axis supported by the basic member at the rearward end of the arm-primary member, a rigid arm-secondary-member connected, at one end at or near to the forward end of the arm-primary member and at the other end to the back-end-member, and articulative means comprising a ball-and-socket-joint at such connections, the arm-primary-member and the arm-secondary-member being arranged and combined so as to maintain acute angular relations to one another and to the plane in which the back end member turns, substantially as described.

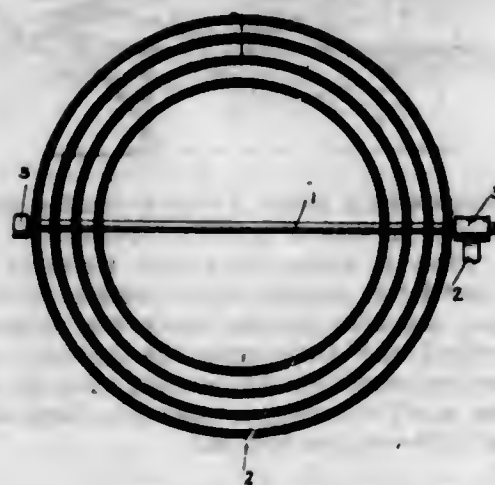
4. A compound lever for transforming reciprocating movement from one plane to another lying at an angle and in a different direction to the first, consisting of a basic member, a rigid back-end-member adapted to turn in one plane about a stationary axis supported by the

basic member, a rigid arm-primary member having its forward end free and adapted to turn in the other plane about a stationary axis supported by the basic member at the rearward end of the arm-primary member, a rigid arm-secondary-member connected, at one end at or near to the forward end of the arm-primary member and at the other end to the back-end-member, and articulative means comprising a ball-and-socket-joint at one end of the arm-secondary member, and articulative means comprising hinge-like joints having their pivots arranged at an angle to one another at the other end thereof, the arm-primary member and the arm-secondary member being arranged and combined so as to maintain acute angular relations to one another and to the plane in which the back end member turns, substantially as described.

5. A compound lever for transforming reciprocating movement from one plane to another lying at an angle and in a different direction to the first, consisting of a basic member, a rigid back-end-member adapted to turn in one plane about a stationary axis supported by the basic member, a rigid arm-primary member having its forward end free and adapted to turn in the other plane about a stationary axis supported by the basic member at the rearward end of the arm-primary member, a rigid arm-secondary-member connected, at one end at or near to the forward end of the arm-primary member and at the other end to the back-end-member, and articulative means at such connections, the arm-primary member and the arm-secondary member being arranged and combined so as to maintain acute angular relations to one another and to the plane in which the back end member turns, and said members being adjustable, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,083,085. LOOSE-COUPLED TUNING-COIL. ALBERT CHARLES GOWING and MILLARD COLE SPENCER, Worcester, Mass. Filed June 21, 1912. Serial No. 705,034. (Cl. 250-40.)



1. In an improvement of the kind described, the combination of four concentric rings, a rod upon which said rings are mounted, said rod being diametrically located with respect to said rings, one of said rings being affixed to said rod and the remainder of said rings being rotatable with respect thereto, a section of wire wound upon each outer face of two of said movable rings, said sections being connected in series to form a primary circuit, and a section of wire wound upon the outer face of each of the remaining rings and connected in series to form a secondary circuit, the adjustment of the movable rings around the rod serving to vary the self-inductive effect of the windings and the coupling of the primary and the secondary.

2. In an improvement of the kind described, the combination of four concentric rings, a rod upon which said rings are mounted, said rod being diametrically located with respect to said rings, the innermost of said rings being affixed to said rod and the remainder of said rings being rotatable with respect thereto, a section of wire wound upon each outer face of two of said movable rings, said sections being connected in series to form a primary

circuit, and a section of wire wound upon the outer face of each of the remaining rings and connected in series to form a secondary circuit, the adjustment of the movable rings around the rod serving to vary the self-inductive effect of the windings and the coupling of the primary and the secondary.

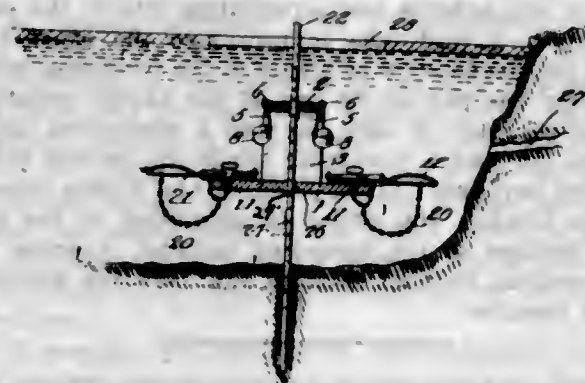
3. In an improvement of the kind described, the combination of four concentric rings, a rod upon which said rings are mounted, said rod being diametrically located with respect to said rings, the innermost of said rings being fixed to the rod and the remainder of the rings being adjustable with respect thereto, a section of wire wound upon the outer face of the inner two of said movable rings, said sections being connected in series to form a primary circuit, and a section of wire wound upon the outer face of each of the two remaining rings and connected in series to form a secondary circuit, the adjustment of the movable rings around the rod serving to vary the self-inductive effect of the windings and the coupling of the primary and the secondary.

4. In an improvement of the kind described, the combination of a plurality of rings, a rod upon which said rings are mounted, one of said rings being fixed to the rod and the remainder of said rings being rotatable thereon, a section of wire mounted upon each of some of the movable rings and connected together to form a primary circuit, and a section of wire wound upon each of the remainder of said rings and connected to form a secondary circuit, the adjustment of the movable rings around the rod serving to vary the inductive effect of the windings and the coupling of the primary and secondary.

5. In an improvement of the kind described, the combination of a plurality of concentric rings, a rod upon which said rings are mounted, the innermost of said rings being fixed to the rod and the remainder of said rings movable thereon, a section of wire wound upon each of some of said rings and connected to form a primary circuit, and a section of wire wound upon each of the remainder of the rings and connected to form a secondary circuit, the adjustment of said rings serving to vary the self-inductive effect of the windings and the coupling of the primary and secondary.

[Claim 6 not printed in the Gazette.]

1,083,086. STOOL FOR HOLDING TRAPS. WILLIAM GREEN, Holly, Mich. Filed July 31, 1913. Serial No. 782,231. (Cl. 43-23.)



1. In a device of the character specified, the combination with the traps, of a support therefor, said support comprising a base or bed piece of rectangular form, a hood comprising a body and sides or arms, the body being arranged transversely of the base at the center thereof and the lower ends of the arms or sides being secured to the side edges of the base, a bait hook depending from each end of the body of the hood, the base having an opening at each end for engagement by a chain to connect a trap to the base, a pair of clips at each end of the base, the members of the pair being arranged on opposite sides of the opening and being adapted to engage over the body of the trap to hold the trap to the base, the base and the body of the hood having aligned openings, and a supporting stake or standard passing through the openings and having its lower end pointed, and having a longitudinally

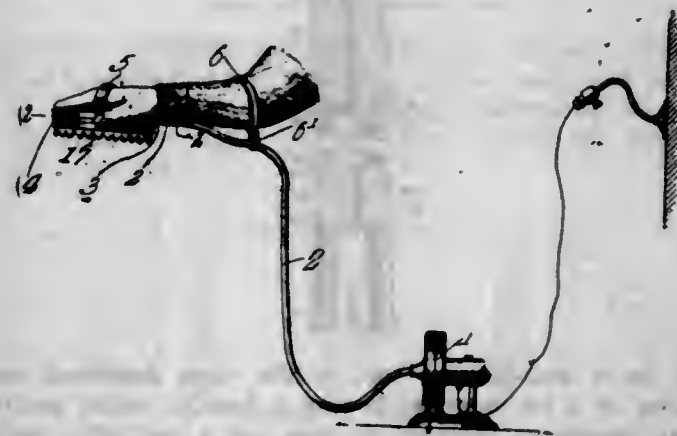
extending series of openings, and a pin for engaging one of the openings below the base to hold the base in adjusted position.

2. In a device of the character specified, the combination with the traps, of a support therefor, said support comprising a base or bed piece of rectangular form, a hood comprising a body and sides or arms, the body being arranged transversely of the base at the center thereof and the lower ends of the arms or sides being secured to the side edges of the base, a bait hook depending from each end of the body of the hood, the base having an opening at each end for engagement by a chain to connect a trap to the base, a pair of clips at each end of the base, the members of the pair being arranged on opposite sides of the opening and being adapted to engage over the body of the trap to hold the trap to the base, and a support for the base, the base being adjustable thereon.

3. In a device of the character specified, the combination with the traps, of a support therefor, said support comprising a base or bed piece, a hood comprising a body and sides or arms, the body being arranged transversely of the base intermediate the ends thereof and the lower ends of the arms or sides being secured to the side edges of the base, a bait hook depending from each end of the body of the hood, the base having an opening at each end for engagement by a chain to connect a trap to the base, and a pair of clips at each end of the base, the members of the pair being arranged on opposite sides of the opening and being adapted to engage over the body of the trap to hold the trap to the base.

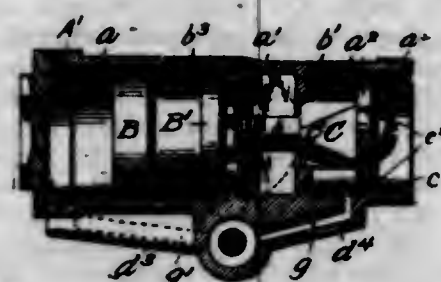
4. A device of the character specified, comprising a base provided at each end with means for supporting a trap, a hood in connection with the base, said hood comprising a body arranged transversely of the base at approximately the center thereof, and sides connected with the base at their lower ends, means at each end of the body of the base for supporting bait, said hood and base having aligned openings, and a stake or support passing through the openings for supporting the stool, said stool being adjustable vertically on the stake or standard.

1,083,087. CURRYCOMB. DAVID L. GRIFFITHS, Olyphant, Pa. Filed Jan. 24, 1912. Serial No. 673,232. (Cl. 119-84.)



A curry comb comprising a hollow body having a rim forming an open-ended receptacle, a wall paralleling the rim within the same and terminating in a shouldered portion, a nozzle of flattened frusto-conical shape disposed within the body, a plate removably sealing the open end of the body and having a plurality of apertures there-through, a rim, having a serrated edge, carried by the plate and forming an open-ended air-confining chamber below the plate, a strip secured centrally and longitudinally upon the under side of the plate and provided with a plurality of teeth upon its edge and two curved strips provided with teeth upon their lower edges and secured to the plate and paralleling the adjacent end of the rim thereof, the central strip dividing the chamber longitudinally and having its ends terminating in spaced relation to the curved strips to provide circulating passages at the center thereof.

1,083,088. FLUSHING DEVICE FOR WATER-CLOSETS. PHILIP HAAS, Dayton, Ohio. Filed May 28, 1912. Serial No. 700,337. (Cl. 4-28.)



In a flushing valve, the combination with a casing provided with a pressure chamber, a tank chamber, an inlet chamber, and an outlet chamber, a partition separating the inlet and tank chambers, a partition separating said pressure and tank chambers, each of said partitions being provided with an aperture therein, and said casing being provided with an aperture connecting the pressure chamber and the outlet chamber, a piston in the pressure chamber, a valve connected therewith for closing the aperture in the adjacent partition, a valve for closing the aperture in the other of said partitions, provided with a part extending through the aperture therein, said part having cutaway portions for gradually diminishing the flow through said aperture before the seating of said valve to restore the water seal, means for establishing a connection from the inlet chamber to the pressure chamber in rear of the piston therein, and adjustable devices positively connecting said valves for determining the duration of the flushing.

1,083,089. WELL MACHINERY. MAJOR HALL, Boise, Idaho. Filed Jan. 30, 1913. Serial No. 745,277. (Cl. 255-64.)



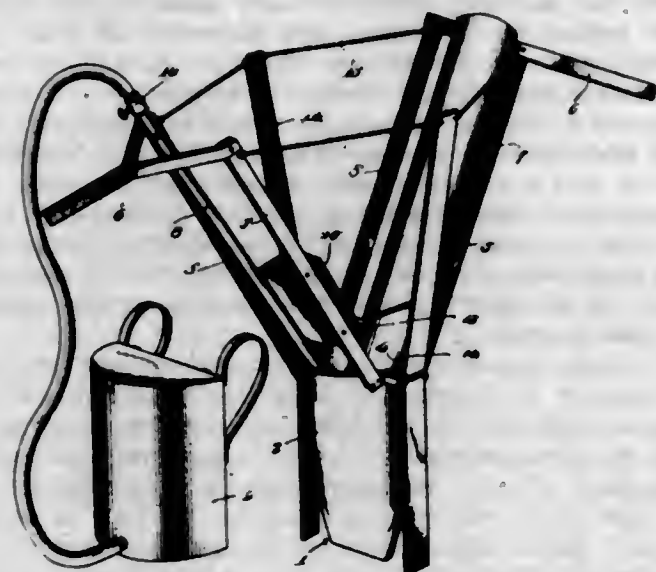
1. In a well-drilling tool of the class described, consisting of a bit or auger having a tubular upper portion, a cap having an entrance opening and a controlling valve, and a hollow rod connecting the cap and the tubular portion of the bit.

2. A well-drilling tool, consisting of a cap having means for connecting with a cable, and provided with entrance opening and a discharge opening, a hollow connecting rod secured to said cap, a valve carried by said rod and controlling the discharge opening of the cap, and a tubular bit or auger secured to the lower end of said hollow connecting rod.

3. A well-drilling tool, consisting of the cap formed with a stud for connection with the cable, and provided with entrance and discharge opening, a hollow rod having its upper end connected to the discharge end of said cap, a spring-actuated valve for normally closing the discharge opening of the sleeve, a bit or auger having an upper hollow or tubular portion secured to the lower end of the hollow connecting rod and having a flared lower portion provided with cutting edges and with a central channel

communicating with the tubular portion thereof and with a pair of side channels leading to the reduced portion of said bit or auger.

1,083,090. TOBACCO-SETTER. ROBERT W. HAM, Richmond, Ky. Filed Nov. 16, 1912. Serial No. 731,789. (Cl. 55-68.)



1. A plant setting implement including a spreading member made up of pivoted sections, handles connected to the sections to spread said sections, a water tube carried by one of the handles and terminating within the spreading member, a feed tube connected to the other handle member for the delivery of plants to the spreading member, and a fertilizer distributor automatically actuated in the movement of the handles.

2. A plant setting implement including a spreading member made up of pivoted sections, handles connected to the sections to spread said sections, a water tube carried by one of the handles and terminating within the spreading member, a feed tube connected to the other handle member for the delivery of plants to the spreading member, a fertilizer box carried by one of the handle members, a feed bar mounted in said box and a connection between said feed bar and a remaining handle to operate the feed bar in the movement of the handles.

3. A plant setting implement including a spreading member made up of pivoted sections, handles connected to the sections to spread said sections, a water tube carried by one of the handles and terminating within the spreading member, a feed tube connected to the other handle member for the delivery of plants to the spreading member, a fertilizer box carried by one of the handle members, a feed bar mounted in said box and a connection between said feed bar and a remaining handle to operate the feed bar in the movement of the handles, and fingers connected with the handles and acting in opposition to the spread of the sections of the spreading member, whereby when said spreading member sections are open the fingers are brought together.

1,083,091. NAVIGATION INSTRUMENT. JOHN L. H. HAND, Atco, N. J. Filed Apr. 11, 1912. Serial No. 690,123. (Cl. 73-125.)

1. In a steering pedestal binnacle, the combination of a supporting standard, a compass carried thereby, a casing inclosing the same, a series of magnetic compensating elements disposed beneath said compass and supported by the casing, and a detachable housing or cover for inclosing said magnetic elements.

2. In a steering pedestal binnacle, the combination of a supporting standard, a casing carried thereby, a compass within said casing, magnetic compensating elements disposed beneath said compass, supports for said magnetic elements, a detachable housing or cover for inclosing the same, and means for supporting said detachable housing or cover.

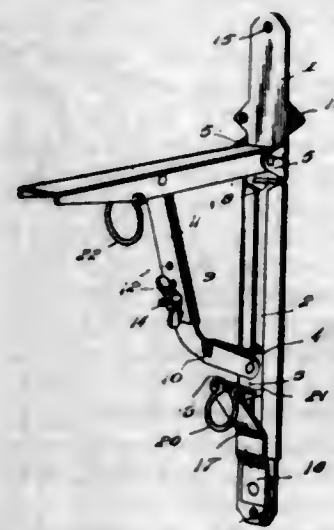
3. The combination of a steering pedestal, a compass,

corrector appliances for the proper compensation of the compass located below the same, and a detachable housing



for such appliances, the latter being accessible independent of the compass or its mounting.

1,083,092. HARNESS-HANGER. NEWEL A. HANNAH, Claryville, Ky. Filed Mar. 18, 1913. Serial No. 755,197. (Cl. 248-24.)



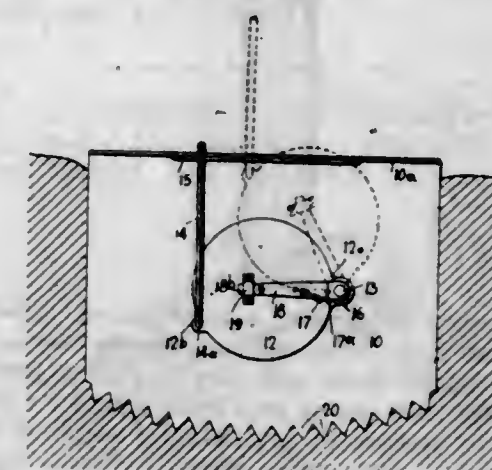
1. A bracket provided with longitudinally extending guide grooves, an arm mounted for swinging movements on the bracket, a head carried by the arm and slidable in the grooves and provided with a keeper notch, and a locking device secured to the bracket and closing the lower ends of the grooves and provided with a free springy locking portion curved in the direction of the bracket and adapted for engagement in the keeper notch whereby to hold the head against sliding movements in the grooves and to retain fixed angular adjustments of the arm upon the bracket.

2. A bracket provided with longitudinally extending guide grooves, an arm mounted for swinging movements on the bracket, a head carried by the arm and slidable in the grooves and provided with a keeper notch, a locking device secured to the bracket and closing the lower ends of the grooves and provided with a free springy locking portion curved in the direction of the bracket and adapted for engagement in the keeper notch whereby to hold the head against sliding movements in the grooves and to retain fixed angular adjustments of the arm upon the bracket, and an adjustable brace connecting the arm with said sliding head.

1,083,093. HEAD-GATE. JOHN Z. HANSON and WILLIAM D. THOMAS, Aberdeen, Idaho. Filed Mar. 12, 1913. Serial No. 753,730. (Cl. 61-47.)

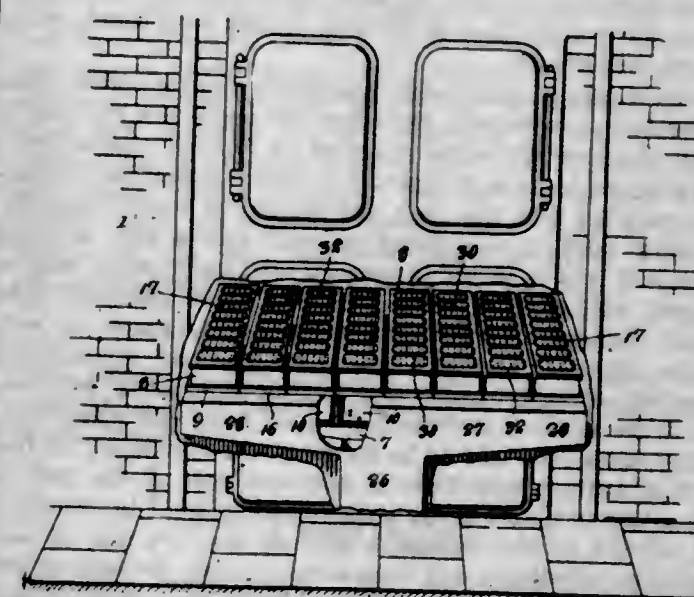
1. A head gate having an opening, an annular flange on the gate at the opening, a pivot post on the gate extending forwardly beyond the flange and having a fixed bearing member adjacent to the outer end of the flange, a valve disk having a peripheral ear pivoted on the post adjacent to the inner side of the said fixed member, to bear against the latter, the valve being adapted to be swung across the opening in the gate close to the annular flange, a manually-controlled operating rod pivotally connected with the valve disk and having guided movement on the gate, a presser bar pivoted on the post at a point outward from the valve disk and mentioned fixed member, and extending to the said valve disk, the outer end of the presser bar having a foot parallel with the valve disk and bearing thereon, a keeper on the valve disk beneath which the foot of the presser bar has sliding movement on the valve disk, and a helical retractile spring secured at its ends to the valve disk and presser bar respectively, the point of connection between the spring and presser bar being farther from the pivot post than the connection of the spring with the valve disk.

ing member adjacent to the outer end of the flange, a valve disk having a peripheral ear pivoted on the post adjacent to the inner side of the said fixed member, to bear against the latter, the valve being adapted to be swung across the opening in the gate close to the annular flange, a manually-controlled operating rod pivotally connected with the valve disk and having guided movement on the gate, a presser bar pivoted on the post at a point outward from the valve disk and mentioned fixed member, and extending to the said valve disk, the outer end of the presser bar having a foot parallel with the valve disk and bearing thereon, a keeper on the valve disk beneath which the foot of the presser bar has sliding movement on the valve disk, and a helical retractile spring secured at its ends to the valve disk and presser bar respectively, the point of connection between the spring and presser bar being farther from the pivot post than the connection of the spring with the valve disk.



2. A head gate having an opening, an annular flange on the gate at the opening, a post on the gate extending forwardly beyond the flange and having a fixed bearing member, a valve disk pivoted on the post and lying beneath the inner surface of the fixed member, to bear against the latter, a presser bar pivoted on the post, and a retractile spring connected at one end with a valve disk and connected at its opposite end with the presser bar at a point farther from the pivot than the connection of the spring with the valve disk.

1,083,094. FORCED-DRAFT GRATE. THOMAS HARLEY and ROBERT G. LONG, Lawrence, Kans., assignors to The U. S. Mechanical Draft Company, Lawrence, Kans., a Corporation. Filed Apr. 8, 1913. Serial No. 759,687. (Cl. 110-74.)



1. A hollow grate bar of the class described open at the bottom and having its side walls provided with downwardly converging shoulders and a series of pivotally mounted valves in said bar arranged for vertical angular movement to open or close the bottom according to the position of the valves, said valves having beveled sides to fit between said shoulders when the valves are closed.

2. A hollow grate bar of the class described open at the bottom and having its side walls provided with downwardly converging shoulders each having bearing notches in their upper sides, valves having beveled sides to fit between the said shoulders and beveled ends to close against one another, the said valves being provided with pivoted journals mounted in the said bearing notches and being also provided with downwardly extending rock arms and an operating bar pivotally connected to the said rock arms for simultaneously actuating the said valves to move them to open or closed position.

1,083,095. POCKET IMPLEMENT. MAX P. HERMANN, Philadelphia, Pa. Filed May 16, 1910. Serial No. 561,534. (Cl. 30—10.)



1. In a pocket implement, in combination, a hollow handle having an open outer end, and having also an inclined surface within its outer end portion, which inclined surface faces the rear end of said handle, a tool which slides endwise with respect to said handle, and the inner end portion of which tool has an inclined surface which faces the open end of said handle and when the tool is in outermost position makes close contact with the inclined surface first mentioned, and a spring controlled locking device, which when the tool is in the last described position, secures said tool temporarily in such position.

2. In a pocket implement, in combination, a hollow handle having an open outer end and having also an inclined surface within its outer end portion, which inclined surface faces the rear end of said handle, a tool mounted within and which slides endwise with respect to said handle, and the inner end portion of which tool has an inclined surface which faces the open end of said handle, and when the tool is in outermost position, makes close contact with the inclined surface first mentioned, the inner end portion of which tool has also a rearwardly facing inclined surface, and a controller, pivotally mounted in said handle, which controller, when the tool is in the outer position described, is free to abut against said rearwardly facing inclined surface of the tool to lock said tool against rearward movement.

3. In a pocket implement, in combination, a hollow handle having a containing chamber, the outer end portion of which chamber embodies a recess of tapered character, a tool adapted to slide by gravity in either direction through said chamber and the rear end portion of which tool embodies a portion conformed to said recess and adapted when said tool is in its outermost position to enter and be wedged within said recess, to lock said extended tool tightly against lateral movement with respect to said handle, said tool having a face at its rear end, a controller mounted on said handle and having movement into and out of the path of movement of said tool, and which controller when the tool is in its outermost position, is free to abut against said face at the rear end of the tool to lock said tool firmly in its wedged engagement in the outer end portion of the handle, a part of the free end of said controller extending and remaining beneath the edge of one wall of the handle, whereby the outward movement of said controller is limited, and a spring which operates to hold said controller temporarily in its innermost position.

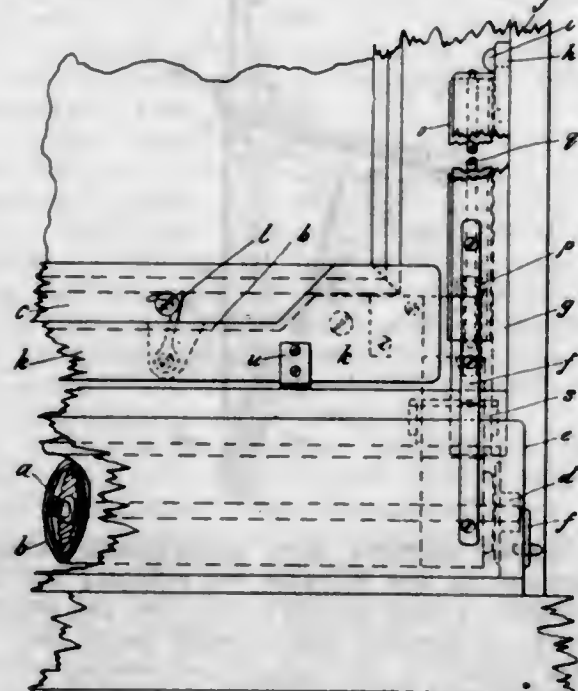
4. In a pocket implement, in combination, a hollow handle having an open outer end, a projection rising from the surface of the interior face of said handle, and constituting a rearwardly facing shoulder arranged diagonally of the handle face which carries it, a tool mounted within and

free to slide endwise with respect to said handle, a projection on the side of the inner end portion of said tool, constituting an outwardly facing shoulder extending diagonally with respect to the face of the tool portion on which it is mounted, said last mentioned shoulder making close contact with the first mentioned shoulder when the tool is in uppermost position, and spring-controlled means for locking the tool in outermost position.

5. In a pocket implement, in combination, a hollow handle having an open outer end, a projection rising from the surface of the interior face of said handle and constituting a rearwardly facing shoulder arranged diagonally of the handle face which carries it, a tool mounted within and free to slide endwise with respect to said handle, a projection on the side of the inner end portion of said tool, constituting an outwardly facing shoulder extending diagonally of the face of the tool portion on which it is mounted, said last mentioned shoulder making contact with the first mentioned shoulder when the tool is in the outermost position, said tool having at its inner end a rearwardly facing inclined face, a controller pivotally mounted in the handle and having an end arranged to engage against the rearwardly facing inclined face of said tool when the tool is in outermost position, to secure said tool in such position.

[Claims 6 to 8 not printed in the Gazette.]

1,083,096. CONSTRUCTION OF BLINDS OR SCREENS. ERNEST HENRY HOBLING, Leyton, England. Filed Sept. 17, 1912. Serial No. 720,725. (Cl. 156—30.)



1. In ventilating blinds or screens, the combination of a spring roller, a screen adapted to be wound upon said roller, vertical guide rods, tubular sliding guides fitting on said guide rods, clips for securing the screen to said guides, and an auxiliary guiding roller.

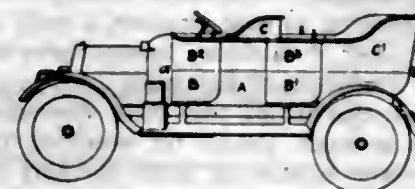
2. In ventilating blinds or screens, a guide rod, a vertical slotted guide tube, to the upper end of which said guide rod is attached, a tubular guide slidable upon said guide rod, a bar, screening material and a clip securing the same to said bar.

3. In ventilating blinds or screens, a guide rod, a vertical slotted guide tube, to the upper end of which said guide rod is attached, a tubular guide slidable upon said guide rod, a bar, screening material and a clip securing the same to said bar, said tubular guide having an enlarged end for cooperation with said clip.

1,083,097. ADAPTABLE MOTOR-CAR BODY. RICHARD HENRY HOPKINSON and VINCENT HOPKINSON, Bradford, England. Filed Jan. 2, 1913. Serial No. 739,813. (Cl. 21—7.)

1. In a motorcar, a body, an upper removable part and a lower fixed part forming said body, transverse bars on

the upper side of said lower part and corresponding bars on the underside of said upper part and means for drawing each of the transverse bars on the underside of the upper part against and to engage with the corresponding bars on the upper side of the lower part, said means also acting to lock the corresponding bars in this position.



2. In a motorcar, a body, an upper removable part and a lower fixed part forming said body, a seat portion on said upper part and a raised structure formed on said lower part immediately under said seat portion when the upper and lower parts are in position, transverse bars on the underside of said seat portion and corresponding transverse bars on the top of said raised structure, a screw-threaded collar mounted on a transverse bar of said upper part; and a screw shaft mounted on said lower part adapted to engage with said collar.

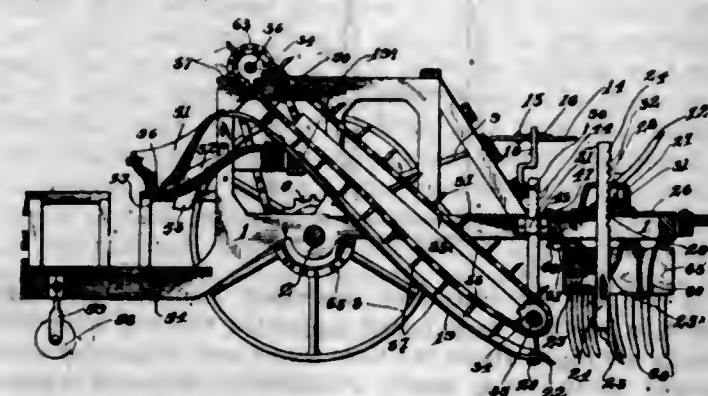
3. In a motorcar, a body, an upper and a lower part comprising said body, said lower part being fixed to the motorcar, undercut beveled bars arranged crosswise of and on the upper side of the fixed part of the body and undercut cross bars corresponding to those undercut beveled bars first mentioned fixed on the underside of said upper part and means for drawing the bars on the upper part into engagement with the bars on the lower part and for holding them in this position.

4. In a motorcar, a body, an upper removable part and a lower fixed part forming said body, a seat portion on said upper part and a raised structure on said lower part adapted to lie immediately under the seat portion of said upper part when said upper part is in position, cross bars under said seat portion which engage with and partially under cross bars on said raised portion, a rotatable screw mounted on said raised structure and a travelling nut adapted to be engaged by said rotating screw on one of the transverse bars on the underside of the seat portion.

5. In a motorcar, a body comprising an upper part and a lower part, a seat portion on said upper part, a raised structure on said lower part, means mounted on the underside of said seat portion and on the upper side of said structure to engage the one means with the other, a screw-threaded guide mounted on said lower portion; an internally screw-threaded collar mounted on said upper portion; and a screw-threaded shaft passing through said screw-threaded guide and adapted to engage said screw-threaded collar for holding the upper and lower portions of the body together and against relative movement.

[Claims 6 to 9 not printed in the Gazette.]

1,083,098. POTATO-DIGGER. HENRY M. HOCHINS, Beckley, W. Va. Filed May 9, 1912. Serial No. 696,130. (Cl. 55—138.)



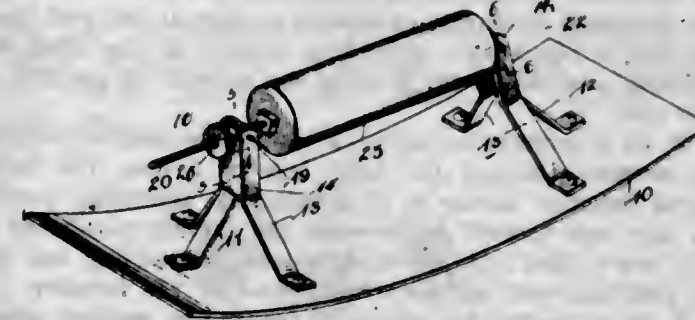
1. A potato digger comprising a frame having an end-less carrier with fingers thereon, a swinging rake mounted upon the frame in advance of said carrier, a bar secured to said frame and extending downwardly therefrom and against which said rake is adapted to bear, and a plow

having a beam movable through said frame and bar, as set forth.

2. A potato digger comprising a frame having an end-less carrier with fingers thereon, a rake having a solid body portion with tines upon one edge and spindle portions journaled upon the frame, a bar secured to the latter, said body portion of the rake adapted to bear against said bar, plates secured to the body portion, and a lever pivotally connected to each plate, affording means for swinging the rake, as set forth.

3. A potato digger comprising a frame having an end-less carrier with fingers thereon, a swinging rake mounted upon the frame in advance of said carrier, a bar which is bent in curved shape having downwardly extending portions, one of which is apertured, a beam, a plow thereon, said beam movable through said aperture, a rake pivotally mounted upon the frame and adapted to bear against one of said downwardly curved portions of the bar to limit its movement in one direction, and a lever for raising and lowering the rake, as set forth.

1,083,099. ADJUSTABLE PLASTERING-TROWEL. CARL M. HOWE, Sisseton, S. D. Filed Feb. 19, 1913. Serial No. 749,452. (Cl. 72—136.)



1. A trowel comprising a plate, standards fixed to the said plate in spaced relation to each other and having spaced ears, a rod pivotally connected to one pair of ears, an adjusting nut swivelly connected to the other pair of ears and in threaded engagement with the said rod, and a handle carried by the said stem.

2. A trowel comprising a plate, standards fixed thereto and having spaced ears, a stem pivotally connected in one pair of spaced ears, a nut adjustably threaded on the stem and having a spherical portion disposed between the other pair of ears, the said spherical portion being provided with an annular groove, and a pin intersecting the said groove and mounted in the last-named ears for rotatably and swivelly connecting the nut to one of the standards.

3. A trowel comprising a plate, standards fixed thereto and having spaced ears, a stem pivotally connected in one pair of spaced ears, a nut adjustably threaded on the stem and having a spherical portion disposed between the other pair of ears, the said spherical portion being provided with an annular groove, and a pin intersecting the said groove and mounted in the last-named ears for rotatably and swivelly connecting the nut to one of the standards, the said standards being provided with split extensions forming a plurality of brace legs.

1,083,100. RELIEF PRINT. IRA D. HURLBUT, Prairie du Chien, Wis. Filed Oct. 7, 1912. Serial No. 724,354. (Cl. 41—26.)

EMBOSS

1. The combination of a sheet of paper or other fabric having an ink imprint thereon, and a solid relief mass having a flat base and a convex surface; said base being superimposed on the ink imprint and co-extensive with the limits thereof.

2. A solid relief mass comprising an incrustation on an ink impression on a sheet of paper or other fabric; said incrustation being composed of fused granular material having a high surface tension, and having its base flat and co-extensive with said impression, and its upper surface rounded.

3. In combination with a sheet of paper or other fabric having an ink imprint thereon, a solid raised mass of fused material; said raised mass having a convex metallic surface and a flat base superimposed on said ink imprint and co-extensive with the limits thereof.

1,083,101. RESTRAINING DEVICE. JOHN RILEY INABNIT, Sedan, Mont. Filed Apr. 2, 1913. Serial No. 758,334. (Cl. 119-126.)



1. In a restraining device a transverse member adapted to normally engage a cow's rear leg, the transverse member having a forwardly extending portion at one end thereof, and a rearwardly extending portion at the other end thereof, and means for holding the member in position on the cow.

2. In a restraining device, a transverse member adapted to normally engage the hind legs of a cow, the transverse member having a longitudinally extending portion at one end thereof to prevent the lateral movement of the cow's hind legs, securing means for holding the cow in position, and tail securing means on the member.

3. In a restraining device, a transverse member adapted to be normally disposed between the hind legs of a cow, the member having a forwardly extending portion at one end thereof, with a curved terminal adapted to be disposed over the neck of the cow, and a rearwardly extending portion at the other end thereof.

4. In a restraining device, a transverse member adapted to be normally disposed between the hind legs of a cow, the member having a forwardly extending portion at one end thereof, with a curved terminal normally disposed over the neck of the cow, the transverse member having a rearwardly extending portion at the other end of the transverse member, and tail securing means on the transverse member.

1,083,102. METHOD OF PREPARING PAPER-PULP. HAROLD JACKSON, Garstang, England. Filed Mar. 13, 1911. Serial No. 614,165. (Cl. 92-20.)

The hereindescribed method of preparing previously ground paper pulp which consists in imparting a circulatory movement to the pulp and repeatedly subjecting the fibers during such circulation to a mechanical treatment comprising a continuously repeated combined vibratory tapping or hammering and a rubbing or dragging action.

1,083,103. TUBE-EXTRACTOR. RICHARD JENTZSCH, Chicago, Ill. Filed Apr. 22, 1913. Serial No. 762,865. (Cl. 128-21.)



1. A tube extractor of the class described comprising a body, an attaching member carried by said body, means for securing the tube to be extracted to the said attaching member, and a shielding basket carried by said body and adapted to receive the said tube.

2. A tube extractor of the class described comprising a body, an attaching member movably mounted with respect

to said body, means for attaching said body with respect to the attaching member, means for securing the tube to be extracted to said attaching member, and a shielding basket provided upon said body for the reception of the said tube.

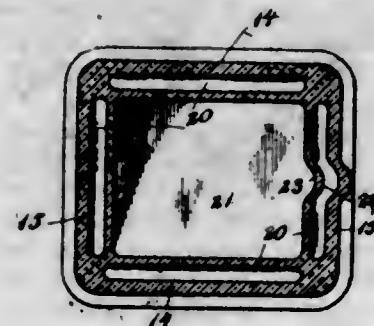
3. A tube extractor of the class described comprising an attaching member, adjustable means for securing the tube to be extracted to said member, a body mounted upon said member, and a shielding basket provided upon said body for the reception of the tube.

4. A tube extractor of the class described comprising an attaching member, means for securing the tube to be extracted to said member, a body movably mounted upon said member, and a shielding basket provided upon said body for the reception of the tube.

5. A tube extractor of the class described comprising an attaching member, means for securing the tube to be extracted to said member, a body movably mounted upon said member, adjustable means for operating said body, and a shielding basket provided upon said body and adapted to inclose the said tube upon movement of the body into operative position.

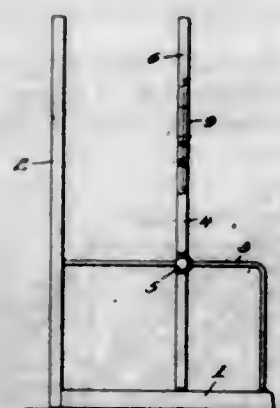
[Claims 6 to 12 not printed in the Gazette.]

1,083,104. TOBACCO-CONTAINER. OSCAR H. JOHNSON, Elyria, Ohio. Filed Feb. 14, 1913. Serial No. 748,450. (Cl. 131-30.)



A humidor provided with a central tobacco chamber and an outer moisture containing chamber communicating with the tobacco chamber, the tobacco chamber having one of its walls provided with a continuous vertical finger receiving groove, said groove also forming a circulating space for the moisture, and a closure covering both of said chambers.

1,083,105. ADJUSTABLE MUSIC-HOLDER. HENRY J. KATTENHORN, New York, N. Y. Filed Apr. 8, 1913. Serial No. 759,688. (Cl. 129-27.)



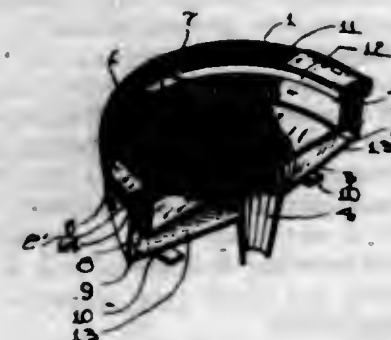
A file of the character described comprising a base board, a vertical back board connected thereto, horizontal tracks arranged above the base board and connected thereto and to the back board, a vertically disposed follower board slidably mounted on the tracks and having a hinged flap, spring arms projecting vertically from the side edges of the follower board above the same, inwardly extending lugs on said arms and recesses formed in the edges of the flap for receiving said lugs, whereby the flap is held in aligned position with the follower board.

1,083,106. FEED-WATER HEATING AND PURIFYING ATTACHMENT FOR BOILERS. WILLIAM H. KAY, Woodhaven, N. Y., assignor to Harry L. Powell, Brooklyn, N. Y. Filed Sept. 9, 1912. Serial No. 719,447. (Cl. 122-431.)



A feed water heating and purifying attachment for steam boilers consisting of an elongated settling and heating chamber interiorly free of all obstruction to a free circulation of water therein, said chamber having at the upper portion of one end thereof a neck which terminates above the top portion of the chamber and constitutes the sole outlet for the water to be filtered and the sole inlet for the boiler pressure; a combined feed water inlet and sediment and accumulation blow-off tube opening into the lowermost portion of the opposite end of said chamber in line with the lower bottom portion of the same to permit a thorough carrying off of the sediment and accumulations therein; and a section mounted directly over and detachably secured to the upper terminal of said neck and disposed wholly exterior of said chamber, said section containing filtering material, whereby the free passage of the water through said section will be appreciably retarded by the filtering material therein to increase the period during which the water remains in said settling and heating chamber.

1,083,107. FUNNEL. DAVID B. LANDERS, Hollywood, Cal. Filed Mar. 11, 1913. Serial No. 753,549. (Cl. 210-16.)

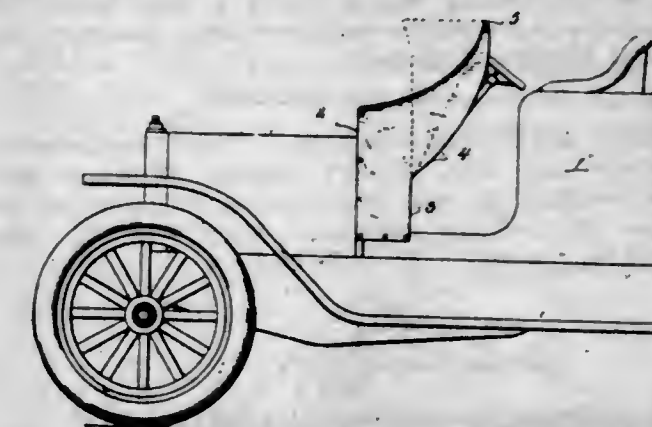


A funnel of the class described comprising a body having straight sides and concave bottom, inverted U-shaped spacing brackets fixedly secured to said sides, a wire filter basket positioned within said body, a skin filter positioned within said wire basket, the upper portions of said brackets extending evenly with the upper portion of said sides, said sides provided with a plurality of openings adjacent the upper portion thereof, the upper portions of said wire filter basket and said skin filter folded back over said brackets so as to rest evenly upon the upper portions of said brackets, a ring positioned upon the outer portion of said body for holding said wire filter basket and said skin filter upon said brackets, a retaining band positioned within said body for holding said filters upon said brackets, said filters positioned at an equally spaced distance from said sides and bottom by means of said brackets for allowing the free passage of air therearound, said skin filter fitting over said brackets for preventing dirt from entering between said sides and said filters.

1,083,108. WIND-SHIELD. FRED A. LAWTON, Lunenburg, Mass. Filed June 18, 1912. Serial No. 704,337. (Cl. 21-148.)

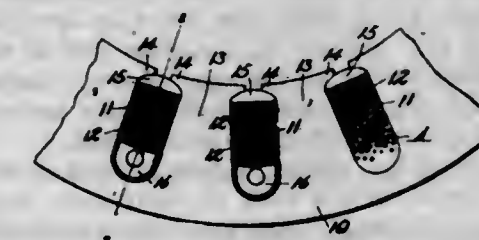
A wind shield comprising a frame embodying a rearwardly inclined stationary bar, means for rigidly fastening the front extremity of said bar to the machine frame in front of the plane of the seat, a rigid side post, an L-

shaped stretcher formed in one piece embodying a rearwardly inclined side bar and an integral top bar, said bars being permanently connected at their extremities by pivots to said post and stationary bar on a common axis oblique to the longitudinal axis of the machine, a



flexible stay connected to said top bar near its outer end and to the machine frame and serving to limit the backward movement of the movable corner of the shield frame and a flexible cover attached along its edges to the top and side bars of the movable stretcher.

1,083,109. MAGNETIC WEDGE FOR DYNAMO-ELECTRIC MACHINES. BENJAMIN F. LEE, Schoolfield, Va. Filed Dec. 14, 1912. Serial No. 736,748. (Cl. 171-206.)

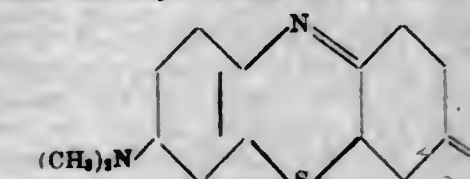


In a dynamo electric machine, the combination with a magnetizable member having a plurality of coil containing slots of greater depth than required to hold the coils, coils seated within said slots, and means at the outer ends of said slots to prevent the escape of said coils, of a laminated magnetic wedge in each slot having straight parallel opposite sides and a convex semi-circular connecting side to fit closely said slot, and a shallow concave side opposite the convex side to bear against the coil and hold it securely in the slot.

1,083,110. BLUE COLORING-MATTERS CONTAINING SULFUR. ARTHUR LÜTTINGHAUS, HEINRICH VON DIESBACH, and ERNST SCHWARZ, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Oct. 16, 1911. Serial No. 654,796. (Cl. 8-1.)

1. The new coloring matters containing sulfur which consist, when dry, of dark powders which are soluble in concentrated sulfuric acid giving blue to violet solutions, which coloring matters are practically insoluble in caustic alkali solution and in sodium sulfid solution, but yield solutions with a solution of ammonium sulfid containing caustic soda, which solutions, when poured on filter paper, rapidly oxidize, giving blue to violet stains, which coloring matters are also soluble in alkaline hydro-sulfite solution yielding yellowish vats which dye cotton from green-blue to violet-blue shades of excellent fastness.

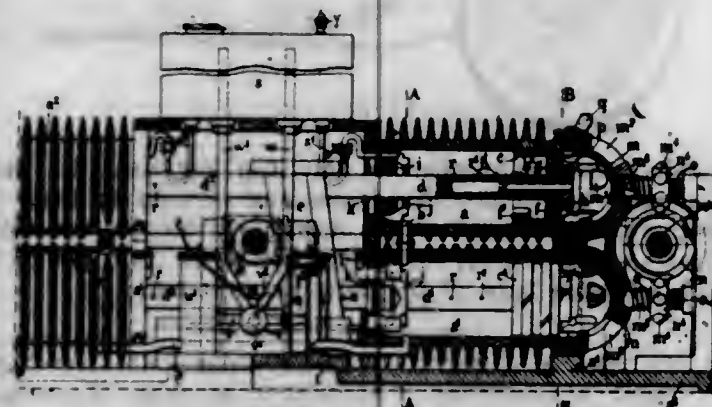
2. The coloring matter containing sulfur which is obtainable from dimethyl-thionolin of the formula



which coloring matter consists, when dry, of a dark powder which yields a blue solution in concentrated sul-

furic acid, which coloring matter is practically insoluble in caustic alkali solution and in sodium sulfid solution, but yields a solution with aqueous ammonium sulfid containing caustic soda, which solution, when poured on filter paper, rapidly oxidizes, giving rise to a bluish-violet stain, which coloring matter yields a light yellow vat with alkaline hydrosulfite and dyes cotton beautiful blue shades of excellent fastness.

1,083,111. EXPLOSION-MOTOR. JAMES MACCONAGHY, Boulogne-sur-Mer, France; (Misses) Elizabeth Mary MacConaghy and Jane MacConaghy, heiresses of said James MacConaghy, deceased. Filed Sept. 16, 1910. Serial No. 582,308. (Cl. 123-56.)



1. In an explosion motor, a pair of superimposed cylinders communicating with each other at one end, inlets for the liquid fuel and air at the same end of the cylinders, an ignition device at the ends of the cylinders opposite that which the air and fuel inlets are arranged, and a valved piston in each of the said cylinders.

2. In an explosion motor, hollow pistons in the cylinders and movable on the ends of their rods, the pistons having central openings, disks secured on the ends of the piston rods within the pistons, each disk being of a diameter less than the internal diameter of the piston, abutments secured to the inner faces of the pistons, and a valve for controlling the opening of each piston, said valves operating with the pistons to admit the explosion mixture in front of said piston.

3. In an explosion motor, groups of cylinders, each cylinder having a housing at one end, a piston in each cylinder, valves permitting the admission of liquid fuel and air to the cylinders, each of these valves being frictionally mounted upon one of the piston rods and located in a housing limiting its displacement, the two valves of each group of cylinders serving for the admission of the air, while only one serves to admit the liquid fuel.

4. In an explosion motor, a cylinder, and a piston in the cylinder and having its piston rod hollow for a part of its length and provided with two lateral holes for putting the cylinder into communication with the atmosphere at the end of the stroke of the piston.

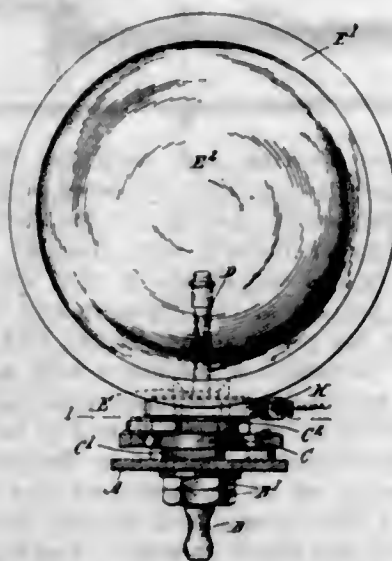
5. In an explosion motor, a cylinder, a valved piston in the cylinder, a fuel inlet at one end of the cylinder around the piston rod, a housing within the cylinder at the said inlet, a valve loosely mounted on the piston rod within the housing and controlling said inlet, and an ignition device at the end of the cylinder opposite that having the fuel inlet.

[Claims 6 to 13 not printed in the Gazette.]

1,083,112. VEHICLE-LAMP. ARTHUR ERNEST MACDONALD, London, England. Filed Mar. 16, 1912. Serial No. 684,168. (Cl. 240-62.)

1. In a head light, the combination of movable means for shifting the direction of the light rays, operating mechanism for said movable means normally maintained out of engagement with the latter, means for locking said movable means in position during the disengagement of said operating mechanism therewith, and means for shifting said operating mechanism into actuating engagement with said movable means.

2. In a head light, the combination of movable means for shifting the direction of the light rays, operating mechanism therefor including an electro-magnet, means for normally maintaining said operating mechanism out of engagement with said movable means, and means including a shiftable device for successively energizing and deenergizing said electro-magnet during continued movement of said shiftable device.

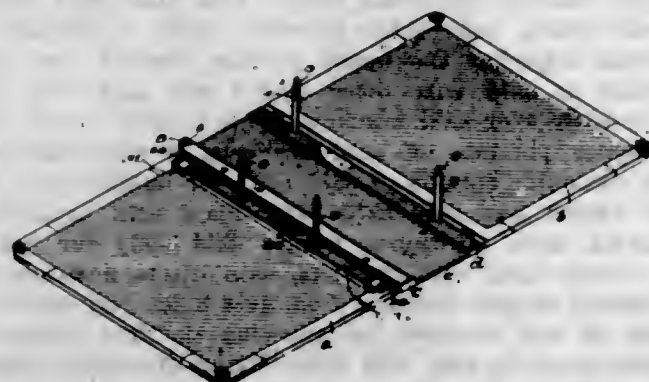


3. In a head light, the combination of movable means for shifting the direction of the light rays, operating mechanism therefor including an electro-magnet, means for normally maintaining said operating mechanism out of engagement with said movable means, a normally open electric circuit connected to the winding of said electro-magnet, and a shiftable device for successively closing and opening said circuit during continued movement of said device.

4. In a head light, the combination of pivoted means for shifting the direction of the light rays, independent mechanisms for swinging said pivoted means in opposite directions, independent actuating means for each of said mechanisms, and means for operatively connecting said actuating means to a common source of energy.

5. In a vehicle head lamp, the combination of movable means for shifting the direction of the light rays, operating means for said movable means normally maintained out of engagement with the latter, and connections between the vehicle steering mechanism and said operating means for shifting the latter into operative engagement with said movable means.

1,083,113. LOOSE-LEAF BINDER. JOHN G. MAGIN, Rochester, N. Y., assignor to Henry Conolly Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1912. Serial No. 728,636. (Cl. 120-8.)



1. A member for a hinged connection for a loose leaf binder comprising two parts forming a casing between them, one of said parts being of U shape in cross section and having an opening on one side, and a strap formed of a single piece of material bent upon itself to form a tubular portion and a portion which extends through the opening in the U-shaped member and is secured to the interior thereof.

2. A member for a hinged connection for loose leaf binders comprising a casing formed of two pieces, U-

shaped in cross section, and fitting one within the other, one of said pieces being notched at one edge and the other of said pieces having an opening in its side, a strap formed of a single piece of material bent upon itself to provide a tubular portion and a portion which extends through the notched portion and the opening of the two U-shaped members and is secured within one of said members.

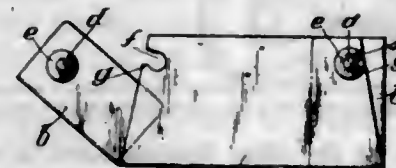
3. A hinge connection for loose leaf binders comprising a hinge member formed from a single sheet of material bent upon itself to provide a tubular portion and a portion to be secured to the cover, the tubular portion being notched, and a casing formed of two members U-shaped in cross section and fitting one within the other, one of said members being notched at its edges and the other of said members having an opening in its side, a hinge member formed of a single piece of material bent upon itself to provide a tubular portion and a portion which extends through the notched portion and the opening of the two U-shaped members and is secured to the interior of one of said U-shaped members, the tubular portion of the hinge member fitting in the notched portions of the first named hinge member and connected with the latter to permit a swinging movement.

4. In a loose leaf binder, the combination with a pair of binding strips, one of which has rigid impaling projections permanently carried thereby and the other of which is provided with means for engaging said projections to hold the binding strips together, covers hinged to said binding strips, a transfer member having a projection for cooperation with sheets on the impaling projections, and means for supporting said transfer member with its projection upright, in proximity to the hinge of the cover which is secured to the strip with said engaging means so that leaves may be supported on said cover by said transfer member.

5. In a loose leaf binder, the combination with a supporting member having impaling projections extending therefrom, and a cover member hinged to said supporting member, of a retaining member cooperating with said impaling projections, a cover member hinged to said retaining member, removable transfer member arranged to cooperate with sheets while the latter are supported on the impaling projections, and means arranged on the inner face of the cover that is hinged to the retaining member, said means being arranged to support the removable transfer member.

[Claims 6 to 9 not printed in the Gazette.]

1,083,114. FLAT-FOLDING BOX AND THE LIKE. GUSTAV MAIER, Schramberg, Germany. Filed Oct. 4, 1910. Serial No. 585,228. (Cl. 229-35.)

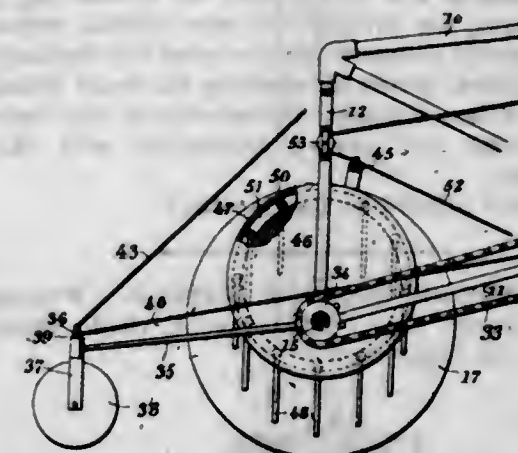


1. A folding box made of a cut blank, the margins of which are bent to form sides, flaps on opposite edges of two of said box sides adapted to fold within the edges of the adjacent sides to form corners, and cooperating fastening means comprising a headed stud mounted on one of said members, and a locking notch in the other member the mouth of which is out of line with the stud when said members are brought together but engageable therewith by shifting said members in opposite directions, the stud being interlocked in and retained by said notch when the members are returned to normal position.

2. A folding box made of a cut blank, the margins of which are bent to form sides, flaps on the opposite edges of two of said box sides adapted to fold within the edges of the adjacent sides to form corners, and cooperating fastening means comprising a headed stud mounted on one of said members, and a locking notch in the other member having an offset stud engaging and locking seat at its

inner end, the mouth of which notch is out of line with the stud when said members are brought together, but engageable therewith by shifting said members in opposite directions, the stud being interlocked in and retained by said notch when the members return to normal position.

1,083,115. TRICYCLE. MILTON M. MALLORY, Springfield, Oreg. Filed Nov. 13, 1912. Serial No. 731,152. (Cl. 115-27.)



1. A device of the class described comprising a frame, front and rear wheels journaled in said frame, guide members mounted between the rear wheels and swingingly connected with their axis, the said guide members being eccentrically disposed with respect to the axis of the rear wheels and having circular guide grooves therein, a plurality of paddle blades pivotally mounted concentrically with respect to their axes and arms extending from the paddle blades and engageable in the grooves in the guide members whereby on the rotation of the rear wheels the said paddle blades will be actuated for the driving of the machine.

2. A device of the class described comprising a frame, front and rear wheels journaled in said frame, guide members mounted between the rear wheels and swingingly connected with their axis, the said guide members being eccentrically disposed with respect to the axis of the rear wheels and having circular guide grooves therein, a plurality of paddle blades pivotally mounted concentrically with respect to their axes, arms extending from the paddle blades and engageable in the grooves in the guide members whereby on the rotation of the rear wheels the said paddle blades will be actuated for the driving of the machine, and means for driving the rear wheels.

3. A device of the class described comprising a frame, front and rear wheels journaled in said frame, guide members mounted between the rear wheels and swingingly connected with their axis, the said guide members being eccentrically disposed with respect to the axis of the rear wheels and having circular guide grooves therein, a plurality of paddle blades pivotally mounted concentrically with respect to their axes, arms extending from the paddle blades and engageable in the grooves in the guide members whereby on the rotation of the rear wheels the said paddle blades will be actuated for the driving of the machine, means for driving the rear wheels, and means for shifting the guide members for changing the disposition of the paddle blades.

4. A device of the class described comprising a frame, front and rear wheels journaled in said frame, guide members mounted between the rear wheels and swingingly connected with their axis, the said guide members being eccentrically disposed with respect to the axis of the rear wheels and having circular guide grooves therein, a plurality of paddle blades pivotally mounted concentrically with respect to their axes, arms extending from the paddle blades and engageable in the grooves in the guide members whereby on the rotation of the rear wheels the said paddle blades will be actuated for the driving of the machine, means for driving the rear wheels, means for shifting the guide members for changing the disposition of the paddle blades, and means for steering the front wheel.

5. A device of the class described comprising a frame, front and rear wheels journaled in said frame, guide members mounted between the rear wheels and swingingly connected with their axis, the said guide members being eccentrically disposed with respect to the axis of the rear wheels and having circular guide grooves therein, a plurality of paddle blades pivotally mounted concentrically with respect to their axes, arms extending from the paddle blades and engageable in the grooves in the guide members whereby on the rotation of the rear wheels the said paddle blades will be actuated for the driving of the machine, means for driving the rear wheels, means for shifting the guide members for changing the disposition of the paddle blades, means for steering the front wheel, and rudder mechanism arranged rearwardly of and connected with the frame and having connection with the last named means.

[Claim 6 not printed in the Gazette.]

1,083,116. NON-REFILLABLE BOTTLE. WILLIAM H. MANNON, Ouray, Colo. Filed June 1, 1912. Serial No. 700,988. (Cl. 215—85.)



1. In combination with a bottle, a stopper closing the neck of said bottle, said stopper having opposing walls, said stopper formed adjacent said opposing walls with narrow channels opening out of said stopper in opposite directions, said stopper being formed with a zigzag intermediate elongated channel communicating with the inner ends of said first-named channel, means for holding said stopper against displacement from said bottle, the lowermost of said first-named channels being formed with a gradually enlarged part at its point of junction with said intermediate channel, a ball seated in said last-named channel at its point of juncture with its enlarged part, said intermediate channel being formed with a gradually enlarged part at its inner end sloping in a direction opposite to that of said first-named enlarged part, a second ball and a plurality of lugs arranged to seat said ball in the end of said second-named enlarged part, said second-named ball arranged to close communication between the narrow ends of both enlarged parts of said channels.

2. In combination with a bottle, a stopper composed of two sections, said sections composed of rectangular abutting parts and complementary beveled abutting parts, means for holding said stopper against displacement from said bottle, said adjoined sections being formed with a continuous channel, said channel consisting of three branches, two of said branches extending at opposite sides and opening out of said stopper at opposite ends and the third branch being an intermediate tortuous branch registering with the other branches, said stopper sections in the plane of their beveled parts having the inner ends of the intercommunicating branches enlarged, said enlarged ends of said branches being formed each at an opposite end with a ball seat, a ball mounted in the seat formed by the lateral enlargement of said last-named branches, a plurality of lugs arranged to form a ball seat substantially in line with said other seat, and a ball mounted upon said lugs.

1,083,117. TOY. JOSEPH A. MARX, Saginaw, Mich. Filed Feb. 14, 1913. Serial No. 748,432. (Cl. 124—14.)

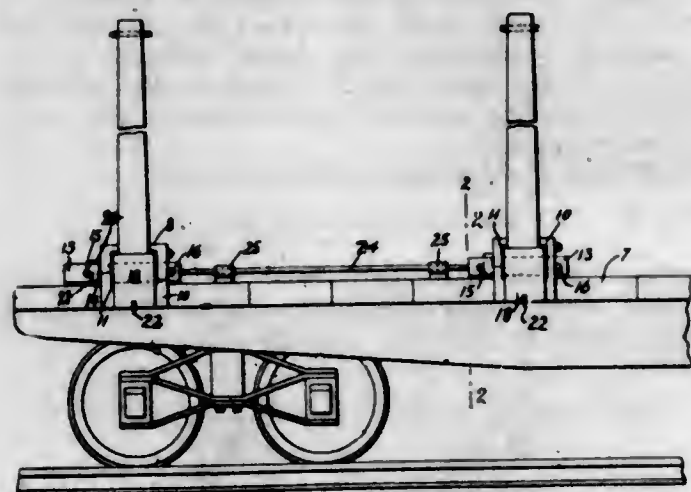
1. A toy comprising a handle having a cylindrical end, a ferrule fitted to the cylindrical end and provided with laterally opening notches disposed at diametrically opposite points, an attaching member including side portions confined between the cylindrical portion of the handle and

the inner walls of the ferrule and provided with terminal offset portions extending into the notches, a bead revolvably mounted upon the attaching member, and a yieldable striking device connected with the bead.



2. A toy comprising a handle having a cylindrical end, a ferrule fitted to the cylindrical end and provided with laterally opening notches disposed at diametrically opposite points, an attaching member including side portions confined between the cylindrical portion of the handle and the inner walls of the ferrule and provided with terminal offset portions extending into the notches, a bead revolvably mounted upon the attaching member, and a yieldable striking device connected with the bead and including a single strip of rubber provided at its striking end with a member made up of many strands of material.

1,083,118. MEANS FOR SUPPORTING AND RETAINING STAKES. JOHN D. MAUCH and FRANK MARTIN, Rib Lake, Wis. Filed Oct. 8, 1913. Serial No. 794,068. (Cl. 105—173.)



1. In a device of the class described,—a U-shaped casing having slots in the base; a shoe adapted to carry a stake having extensions adapted to engage said slots; a bolt in the casing adapted to engage said extensions and thereby secure said shoe to the casing; and locking means for said bolt to prevent accidental disengagement of said shoe and casing.

2. In a device of the class described,—a U-shaped casing having slots in the base thereof and aligning slots in the sides thereof adjacent the base; a bolt engaging said side slots and having notches adapted to register with the slots in the base; means for limiting the movement of the bolt in the base; a U-shaped shoe having hook-shaped extensions at the sides thereof, said shoe being adapted to engage the slots in the base of the casing with said extension when the notches of the bolt are registering with the slots in the base of the casing, said bolt locking said shoe to the casing when its slots are not registering with the slots in the base; and locking means associated with the casing and the means limiting the movement of the

bolt, whereby said shoe is prevented from accidental displacement from said casing.

3. In a device of the class described, a U-shaped casing having slots in the base, a shoe adapted to carry a stake having extensions adapted to engage said slots, a bolt in the casing adapted to engage said extensions and thereby secure said shoe to the casing, said bolt having means whereby it will disengage the shoe from the casing, and locking means for said bolt to maintain the same in a position such as to lock said shoe to the casing.

1,083,119. MITERING-MACHINE. FERDINAND MAXIMILIAN, Cliffside Park, N. J., assignor to Jacques Kahn, New York, N. Y. Filed May 1, 1912, Serial No. 694,459. Renewed Nov. 22, 1913. Serial No. 802,557. (Cl. 51—11.)



1. A mitering machine, comprising a table, means on the table for supporting sheets of glass of various sizes, a reciprocating carriage, means for moving the carriage, a plurality of movable and adjustable guides carried by the carriage and extending above the said sheet of glass, clamps engaging the guides, and beveling tools between the guides and clamps, the movement of the beveling tools being determined by the said clamps.

2. A mitering machine, comprising a table adapted to support a sheet of glass, a reciprocating carriage adjacent the table, means for moving the carriage, a plurality of bars extending longitudinally of the carriage and positioned above the glass, the bars being spaced a suitable distance, a beveling tool in the space between the bars, the said tool engaging the glass and being maintained in such engagement by reason of its weight, clamps adjacent the ends of the bars for holding them in position, and other clamps engaging the bars intermediate the ends whereby the bars are maintained properly spaced and the position and movement of the tool are determined.

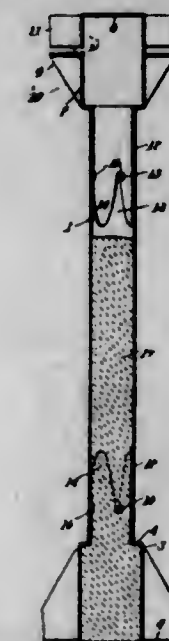
3. The combination of a plurality of guides, clamps at the ends thereof for holding the guides in spaced relation, beveling tools positioned between the guides, and clamps engaging the guides intermediate the ends whereby the guides may be maintained in proper relative position and movement of the said tools may be insured when the guides reciprocate.

1,083,120. COLUMN. JOHN FRANCIS MAY, New York, N. Y. Filed Oct. 23, 1912. Serial No. 727,355. (Cl. 72—75.)

1. The combination of a shell or casing and an attachment having an extension at one end to be received by said shell or casing, there being a longitudinal recess in the extension extending through the outer end of the extension, a projection extending from the inner surface of the shell or casing, for traveling in the recess, there being an offset notch extending at one side of the recess, the other side of the recess being disposed obliquely relatively to the axis of the shell or casing, for giving the projection a rotary movement when the extension on the attachment is introduced in the shell or casing, so that when the projection reaches the notch the rotary movement will direct the projection therein.

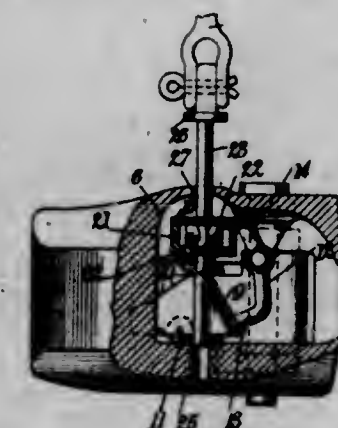
2. The combination of a shell or casing, and an attachment having an extension at one end to be received by the said shell or casing, there being a longitudinal recess in the extension, extending through the outer end of the extension, a projection extending from the inner surface of the shell or casing for traveling in the recess, an offset notch extending at one side of the recess, a shoulder on the attachment spaced from the notch substantially the

same distance as the projection is spaced from the end of the shell or casing for striking against the end of the shell or casing, and causing a jar and rebound to assist the movement of the projection into the offset, the other side of the recess being disposed obliquely relatively to



the axis of the shell or casing, for giving the projection a rotary movement when the extension on the attachment is introduced in the shell or casing, so that when the projection reaches the notch the rotary movement will direct the projection therein.

1,083,121. CAR-COUPLING. CHARLES ARTHUR MCKERRA HAN, Wilmerding, Pa. Filed Aug. 17, 1911. Serial No. 644,500. (Cl. 213—10.)

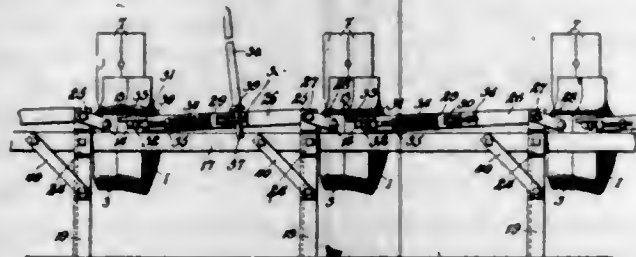


1. In a car coupler, a head with an opening, a knuckle having a tail piece and pivoted in the opening in the head, the tail piece having a top with two cam surfaces disposed side by side, one of the cam surfaces extending in one direction downwardly and outwardly from a central point, and the other cam surface extending downwardly and outwardly in the opposite direction from the said point, a lever having an arm for engaging one of the cam surfaces on the tail piece, and a locking block for engaging the other cam surface on the tail piece, for moving the knuckle in one direction when the block is moved in one direction, and also for engaging the other arm of the lever for moving the knuckle in the opposite direction when the block is moved in another direction.

2. In a car coupler a head having an opening with a side wall, a pivoted knuckle having a tail piece, the tail piece being disposed in the opening and having a top with cam surfaces thereon, a locking block resting on the cam surfaces of the tail piece when the car coupler is open and being adapted to be pressed down to move the knuckle away from the side wall to permit the locking block to be disposed between the tail piece and the side wall, a lever having an arm for engaging a cam surface on the locking block, and another arm disposed in the path of the locking block to be moved thereby, the tail piece being held in open position, and the locking block being supported

at the top of the cam surface on the tail piece of the lever by the pressure of the locking block against the lever and the pressure of the lever against the cam surface, a horizontal rock shaft having a radially extending arm, and means for connecting the arm with the locking block for pressing the locking block down.

1,083,122. PERMANENT MOLD AND MEANS FOR OPERATING THE SAME. CHARLES WILLIAM MCWANE, Lynchburg, Va. Filed May 29, 1913. Serial No. 770,707. (Cl. 22—153.)



1. A separable permanent mold formed of two matching parts together inclosing a mold cavity and a gate, the latter having an overflow gate below its mouth and above the highest point of the mold cavity.

2. A two-part separable permanent mold with the two parts defining a gate having an overflow below the mouth thereof.

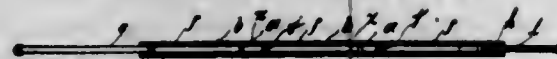
3. A two-part separable permanent mold together defining a gate entering the mold cavity at the bottom only, and the latter having vents at its upper portion, said gate being provided with an overflow gate below its mouth and above the highest point of the mold cavity.

4. A permanent mold formed of two upright matching parts together inclosing the mold cavity, with one part movable bodily from and toward the other part, and means separate from the mold for clamping one part of the mold yieldingly against the other.

5. A permanent mold formed of two upright matching parts together inclosing the mold cavity, with one part movable bodily from and toward the other part, each part of the mold including a proportionate part of the mold cavity and gate and each part being provided with a groove leading from the gate at a point below the mouth, the grooves coacting to form an overflow passage from said gate.

[Claims 6 to 14 not printed in the Gazette.]

1,083,123. FOLDING UMBRELLA. LEOPOLD MESSINGER, Frankfurt-on-the-Main, Germany. Filed July 19, 1911. Serial No. 639,302. (Cl. 135—25.)



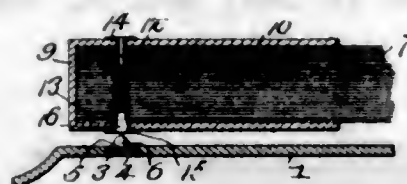
1. An umbrella rib consisting of a plurality of connected links having screw threads thereon, a plurality of locking sleeves mounted on said links, and means, consisting of a screw thread in one of said sleeves adapted to engage a screw thread on one of said links for simultaneously adjusting the locking sleeves.

2. An umbrella rib consisting of a plurality of links, connections between said links, a plurality of locking sleeves mounted on said links and adapted to extend over said connections, and means to limit the movement of the sleeves, said means consisting of projections on the ribs and stops on the interior of the sleeves coacting with said projections.

3. An umbrella rib consisting of a series of links pivoted together at their meeting ends, a threaded stem extending from the lower end of the lowermost link, and a series of locking sleeves slidably mounted on the links and adapted to extend over the pivoted connections of the same, each sleeve being supported by the sleeve below it and the lowermost sleeve being provided with means for engaging the threaded stem to adjust the sleeves.

4. An umbrella rib consisting of a series of links hinged together at their meeting ends and a series of locking sleeves mounted on said links so as to rest one upon the other and adapted to extend over and cover the joints connecting said links giving the general appearance of one continuous sleeve inclosing the links, the intermediate links being provided with projections and the sleeves inclosing the same being provided with internal stops adapted to engage said projections for limiting the movement of the sleeves.

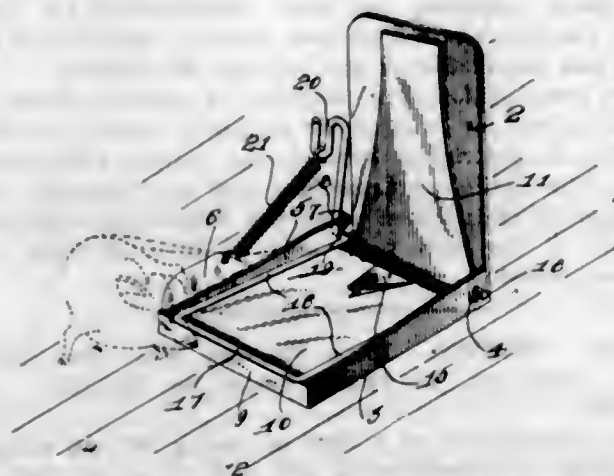
1,083,124. BOOKBINDER. ROGER L. NAY, Muskogee, Okla. Filed Feb. 7, 1913. Serial No. 740,905. (Cl. 129—1.)



1. In combination with a cover, a base secured to the cover and having a clasp stem, a binder, leaves arranged with one end or edge in the binder, said leaves and binder having coincident openings, and a pair of tubular binding members telescopically arranged, extending through said openings of the leaves and binder and being provided with heads bearing on opposite sides of the binder, one of said binding members having a socket or flange in its outer end for engagement by said clasp stem.

2. In combination with a book cover, a base secured to the cover and having a clasp stem, and a pair of tubular binding members telescopically arranged and provided at their outer ends with heads one of said binding members also having a socket or flange in its outer end for engagement for said clasp stem for the purpose set forth.

1,083,125. ANIMAL-TRAP. OSCAR H. NEBEL, Madison, S. D. Filed Feb. 25, 1913. Serial No. 750,629. (Cl. 43—21.)



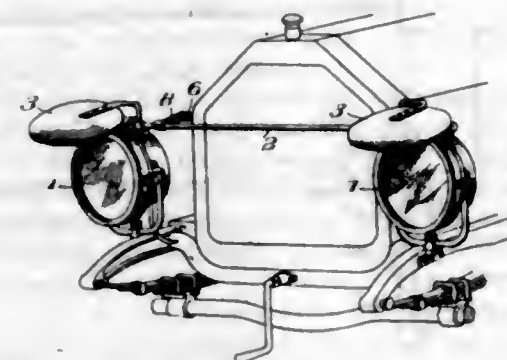
1. A trap of the class described comprising a base, a vertically extending back carried by said base, a plurality of flanges formed upon said base, a tripping plate provided with a body and an upwardly extending finger positioned upon said base, said finger normally being positioned at a distance from said back adjacent the upper portion thereof, a jaw pivoted to said base, said jaw adapted to be swung upwardly so as to move said finger into engagement with said back, a spring connecting said jaw to a portion of said base, said jaw adapted to be positioned upon a dead center when same is in a set position, and said tripping plate adapted to be moved for springing said jaw.

2. A trap comprising a base and provided with a plurality of vertically extending flanges, a vertically extending back carried by said base, a tripping plate positioned upon said base, said tripping plate comprising a body and a laterally extending finger, said back and body connected together by means of a beaded portion, the forward

ward end of said body provided with a downwardly bent portion whereby said body will be held at a spaced distance from said base, said beaded portion constituting an efficient bearing portion for allowing the free pivotal movement of said tripping plate, a jaw carried by said base and pivotally connected thereto, means for swinging said jaw, said jaw adapted to move up to engage the upper portion of said finger, said tripping plate adapted to be moved for springing said jaw.

3. A trap comprising a base, said base provided with a plurality of vertically extending flanges, a vertically extending back carried by said base, a tripping plate carried by said base, said tripping plate comprising a body and a laterally bent finger, said finger and body connected by means of a beaded portion for constituting an efficient bearing portion, a jaw pivotally mounted upon said base, said jaw provided with a bridge portion, said bridge portion resting upon the upper portion of one of said flanges for constituting an efficient means for instantly killing the animal, said jaw provided with a means for swinging same, said jaw adapted to be sprung by means of said tripping plate.

1,083,126. VEHICLE-HEADLIGHT. PATRICK J. E. O'BRIEN, Middletown, N. Y. Filed Dec. 10, 1912. Serial No. 735,999. (Cl. 240—47.)



In combination side lamps, a shaft arranged above the lamps and mounted thereon, arms connected with end portions of the shaft, covers for the lamps secured to the said arms, a spring mounted upon the shaft and having one end connected thereto and its opposite end connected with one of the lamps, said spring normally tending to turn the shaft to hold the lids open, a bar having a notched portion, an arm extending from the shaft and having the notched bar connected thereto, a guide for receiving the notched portion of the bar, a stop mounted upon the notched bar and adapted to engage the guide to limit the opening of the before mentioned lids, and a spring connected with the guide and adapted to exert a pressure upon the bar to hold its notched portion in engagement with the guide.

1,083,127. ADJUSTABLE CAR-STEP. WILLIAM D. OSTROUDT, Poughkeepsie, N. Y. Filed May 27, 1913. Serial No. 770,186. (Cl. 105—87.)

1. In combination with the usual stationary car steps, a bar slidable beneath such steps, a bracket adjustably connected with the lower end of the bar and movable therewith and a step attached to said bracket and adapted to come beneath the lowermost tread of the car steps when the bar is elevated.

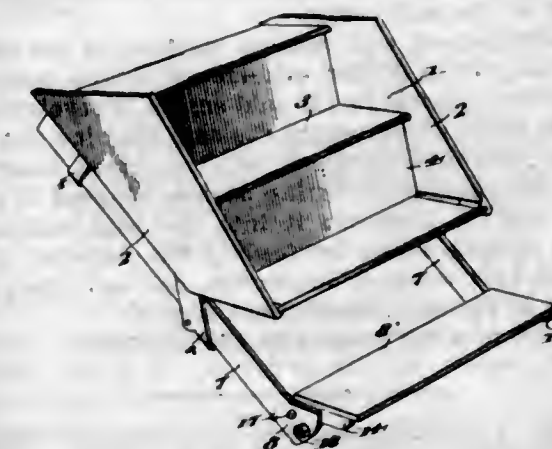
2. In combination with the usual stationary car steps, hangers having connection with such steps, a bar slidably mounted in the hangers, a step connected with the lower end of the bar and adapted to occupy a position beneath the lowermost tread of the steps when the bar is elevated and a stop adjustably connected with the bar to limit the downward movement of the bar and step when the latter is lowered.

3. In combination with the usual stationary steps of cars, bars slidable beneath such steps and having their lower ends widened, brackets having their inner ends widened and pivotally connected with the lower ends of the bars and formed in their widened ends with arcuate slots, means for securing the brackets to the bars in the desired adjusted position and a step connected with such brackets.

197 O. G.—80

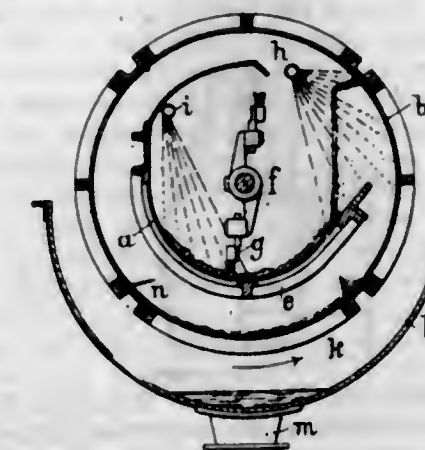
ened and pivotally connected with the lower ends of the bars and formed in their widened ends with arcuate slots, means for securing the brackets to the bars in the desired adjusted position and a step connected with such brackets.

4. In combination with the usual stationary steps of cars, hangers having connection with the stringers of such steps, bars slidably mounted in the hangers, braces



connecting the bars, stops adjustably connected with the bars and adapted to engage one of the hangers to limit the downward movement of the bars, a step connected with the lower ends of the bars and a flexible connection attached to the crossed braces and adapted to extend within convenient reach to admit of operation of the bars when it is required to raise or lower the movable step.

1,083,128. WASHING-OUT AND REFINING MACHINE. HERMANN PAATZ, Burg, near Magdeburg, Germany. Filed Jan. 24, 1913. Serial No. 743,903. (Cl. 127—23.)



1. A washing out and refining machine of the class described, comprising fixed washing out means and revoluble refining means, the said refining means receiving the fine and coarse washed out material from the said washing out means and separating the same, and means whereby the revoluble refining means returns the coarse material to the said washing out means for re-washing out of the material.

2. A washing out and refining machine of the class described, comprising fixed washing out means and revoluble refining means within which the said washing out means are arranged, the fine and coarse washed out material passing directly from the said washing out means into the said refining means and being separated thereby, and means whereby the revoluble refining means directly returns the coarse washed out material therein to the said washing out means.

3. A washing out and refining machine of the class described, comprising a fixed washing out screen open at the top, a revoluble brush in the said screen, and a revoluble refining screen drum within which the said washing out screen is located, the said revoluble refining screen drum being provided interiorly with lifting devices adapted to lift the material and to discharge it into the said washing out screen.

4. A washing out and refining machine of the class described, comprising a fixed washing out screen open at the top, a revoluble brush in the said screen, a revoluble refining screen drum within which the said washing out screen is located, the said revoluble refining screen drum being provided interiorly with lifting devices adapted to lift the material and to discharge it into the said washing out screen, and means for driving the said refining drum from the shaft of the said brush.

5. A washing out and refining machine of the class described, comprising a fixed washing out screen open at the top, a revoluble brush in the said screen, a revoluble refining screen drum within which the said washing out screen is located, the said revoluble refining screen drum being provided interiorly with lifting devices adapted to lift the material and to discharge it into the said washing out screen, a feeding device for feeding the material into one end of the said washing out screen, and an outlet at the other end of the said washing out screen.

[Claims 6 to 9 not printed in the Gazette.]

1,083,129. LARD-EXTRACTING MACHINE. HENRY E. PAOLUCCI, San Antonio, Tex. Filed Jan. 31, 1913. Serial No. 745,467. (Cl. 221-103.)



1. In a machine for dispensing lard from a shipping vessel, a machine frame, a lard centering hopper adapted for movement in such vessel, a lard extracting bucket movable into and out of the hopper, and means for actuating the bucket.

2. In a machine for dispensing lard from a shipping vessel, a machine frame, an expansible lard centering hopper adapted for movement in such vessel, a lard extracting bucket movable into and out of the hopper, and means for actuating the bucket.

3. In a machine for dispensing lard from a shipping vessel, a machine frame, an expansible lard centering hopper adapted for movement in such vessel, a lard extracting bucket movable into and out of the hopper, means for actuating the bucket, a shaft for contracting said hopper, and a spring acting on said shaft to expand the hopper when said shaft is free.

4. In a machine for dispensing lard from a shipping vessel, a machine frame, an expansible lard centering hopper adapted for movement in such vessel, a lard extracting bucket movable into and out of the hopper, means for actuating the bucket, and means for contracting the hopper.

5. In a machine for dispensing lard from a shipping vessel, a machine frame, an expansible lard centering hopper adapted for movement in such vessel, a lard extracting bucket movable into and out of the hopper, means for actuating the bucket, means for contracting the hopper, and locking means for holding the hopper contracted.

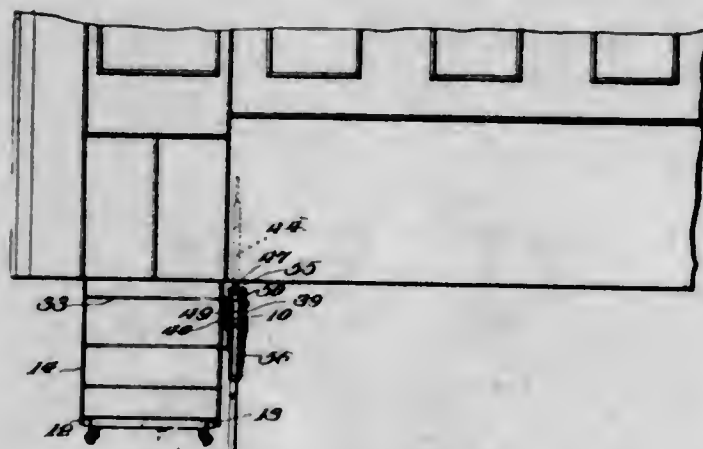
[Claims 6 to 31 not printed in the Gazette.]

1,083,130. PISTON-RING. HUBERT HARRY PATRICK, Birmingham, England, assignor to The Oxygen Welding Works Limited, Birmingham, England. Filed Jan. 22, 1913. Serial No. 743,520. (Cl. 29-148.)



The method of making split piston rings as herein described, consisting in the employment of a pair of similar and coaxial metal rings and uniting a pair of opposite overlapping ends along a portion of their adjacent side faces by welding, substantially as described.

1,083,131. FOLDING CAR-STEP. CAL PEPPLE, New Weston, Ohio. Filed May 7, 1913. Serial No. 766,219. (Cl. 105-86.)



1. A folding car step comprising a riser pivotally mounted on the under face of the lowermost step of the car stair, said riser including spaced supporting members, a shaft supported by said members, a step mounted on said shaft, and means for simultaneously moving said step between the supporting members of the riser and moving the riser to a point beneath the first-mentioned step.

2. A folding step comprising a pivotally supported riser, a step, said riser being of a length in excess of the step and provided with extensions between which the step is pivotally mounted, and means for simultaneously moving the riser on its pivot and drawing the step in contact with the riser.

3. A folding step comprising a pivotally supported member, a shaft carried by said member, a step mounted on said shaft, means for actuating said shaft to simultaneously impart movement to the step and riser, and means for locking said shaft against movement.

4. A folding step comprising a substantially U-shaped riser, said U-shaped riser being formed with a continuous flange disposed at right angles to its body portion, a step pivotally supported by said flange and disposed to be embraced by said flange, and means for simultaneously imparting movement to said riser and step.

5. A folding step for railway coaches comprising brackets supported on the lowermost step of the coach, a shaft supported by said brackets, a U-shaped member mounted on said shaft, a shaft supported by said U-shaped member, a step mounted on said shaft, levers connected to said shaft, a crank shaft supported by one of the steps of the coach, a gear mounted on said crank shaft, a casing forming a housing for said gear, a rack bar supported for sliding movement by the casing, said bar meshing with said gear, a dog pivotally supported on the casing, said dog being disposed to enter notches formed in the rack bar, and means for actuating said dog.

[Claims 6 to 11 not printed in the Gazette.]

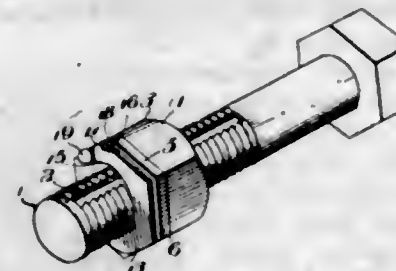
1,083,132. ELECTRODE FOR PREVENTING CATHODIC REDUCTION. ALBERT PIETZSCH and GUSTAV ADOLPH, Munich, Germany. Filed Oct. 3, 1912. Serial No. 723,788. (Cl. 204-28.)



1. An electrode for preventing cathodic reduction, constituted by a cathode body closely wrapped up with a porous thread of non-conducting fiber which cannot be chemically attacked, in such a way that as nearly as possible the whole surface of the cathode is covered in order that the bubbles of hydrogen arising upon the cathode can escape between the separate turns of the thread into the anode space.

2. An electrode for preventing cathode reduction, constituted by cathode body closely wound around with an asbestos string, in such a way that as nearly as possible the whole surface of the cathode is covered in order that the bubbles of hydrogen arising upon the cathode can escape between the separate turns of the thread into the anode space.

1,083,133. NUT-LOCK. WILLIAM R. POWERS, Holden, W. Va. Filed Nov. 19, 1912. Serial No. 732,255. (Cl. 151-2.)

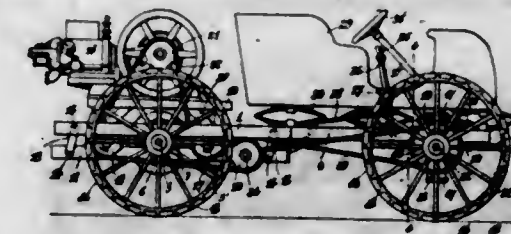


In a nut lock, the combination with a bolt having a longitudinal groove therein and a nut threaded to receive the bolt, of a disk having a shape corresponding substantially with that of the nut and provided with a central passage having a smooth wall for the reception of the bolt, a radial lug carried by the disk and extending into the opening thereof and into the groove of the bolt, the said disk being provided with straight faces lying flush with the straight faces of the nut, spaced lugs formed on one of the straight faces of the disks and provided with beveled inner surfaces for mutual engagement with two of the straight surfaces of the nut on one adjustment of the latter on the bolt, a pivotally mounted gripping device pivotally mounted on the disk and adjustable relatively of the opening thereof and adapted to be projected partly across the opening and to engage in the adjacent thread of the bolt and means on the disk for holding said device in an applied position.

1,083,134. MOTOR-TRUCK. FRANCIS M. PRETTYMAN, Mallard, Minn. Filed Feb. 15, 1913. Serial No. 748,704. (Cl. 21-114.)

1. In a motor truck, the combination of a main truck frame, a divided rear driving axle journaled in said frame, traction wheels fast thereon, friction wheels fast on the inner ends of the sections of the rear axle, a transmission

frame shiftable in a fore and aft direction relatively to the main truck frame, oppositely rotating friction drive rollers journaled in the transmission frame and located at opposite sides of both of said friction wheels, a motor geared to both friction rollers, and means for shifting said transmission frame and throwing said rollers alternately into and out of driving engagement with both friction wheels.



2. In a motor truck, the combination of a main truck frame, a divided rear driving axle journaled in said frame, traction wheels fast thereon, friction wheels fast on the inner ends of the sections of the rear axle, a link supported transmission frame shiftable in a fore and aft direction relatively to the main truck frame, oppositely rotating friction drive rollers journaled in the transmission frame and located at opposite sides of both of said friction wheels, a motor geared to both friction rollers, and means for shifting said transmission frame and throwing said rollers alternately into and out of driving engagement with both friction wheels.

3. In a motor truck, the combination of a main truck frame, a divided rear driving axle journaled in said frame, traction wheels fast thereon, friction wheels fast on the inner ends of the sections of the rear axle, a transmission frame shiftable in a fore and aft direction relatively to the main truck frame, oppositely rotating friction drive rollers journaled in the transmission frame and located at opposite sides of both of said friction wheels, sprocket wheels fast on the shafts of said rollers, a motor, a sprocket wheel on the motor, a chain transmitting motion from the motor sprocket wheel in reverse direction to said rollers, and means for shifting the transmission frame and throwing the friction drive rollers alternately into and out of engagement with both friction wheels.

4. In a motor truck, the combination of a main truck frame, a divided rear driving axle journaled in said frame, traction wheels fast thereon, friction wheels fast on the inner ends of the sections of the rear axle, a transmission frame shiftable in a fore and aft direction relatively to the main truck frame, oppositely rotating friction drive rollers journaled in the transmission frame and located at opposite sides of both of said friction wheels, a motor geared to both friction rollers, means for shifting said transmission frame and throwing said rollers alternately into and out of driving engagement with both friction wheels, front steering and traction wheels, and driving connections between the front and rear wheels.

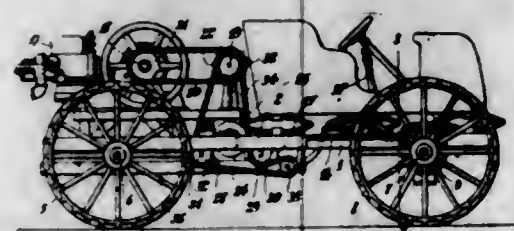
5. In a motor truck, the combination of a main truck frame, a divided rear driving axle journaled in said frame, traction wheels fast thereon, friction wheels fast on the inner ends of the sections of the rear axle, a transmission frame shiftable in a fore and aft direction relatively to the main truck frame, oppositely rotating friction drive rollers journaled in the transmission frame and located at opposite sides of both of said friction wheels, a motor geared to both friction rollers, means for shifting said transmission frame and throwing said rollers alternately into and out of driving engagement with both friction wheels, a divided front axle, driving connections between the rear and front axle sections, front steering wheel knuckles, and steering wheels journaled on said knuckles and driven by bevel gearing from the front axle sections.

[Claim 6 not printed in the Gazette.]

1,083,135. MOTOR-TRUCK. FRANCIS M. PRETTYMAN, Mallard, Minn. Filed Apr. 22, 1913. Serial No. 762,818. (Cl. 21-114.)

1. In four wheel transmission for motor trucks, a truck frame, front and rear axles each divided into two sec-

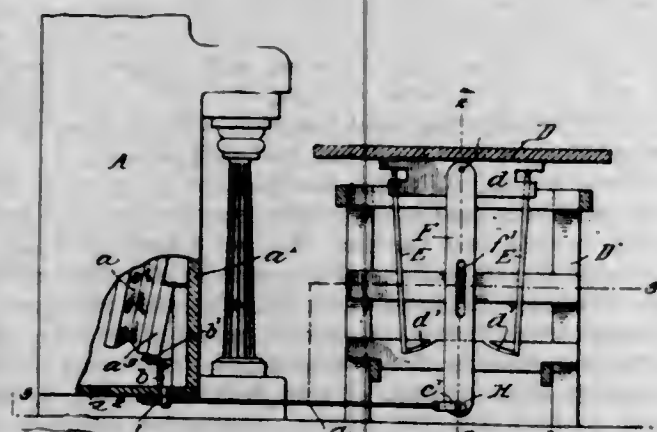
tions, steering wheels geared to and driven by the front axle sections, driving wheels fast on the rear driving axle sections, a worm gear wheel fast on each section of the front and rear axles, the gear wheels on the front axle operating in a direction the reverse of those on the rear axle, substantially parallel worm shafts, right and left hand worm gears on each shaft driving the worm wheels on the respective front and rear axle sections, and a motor geared to both of said shafts.



2. In four wheel transmission for motor trucks, a truck frame, front and rear axles each divided into two sections, steering wheels geared to and driven by the front axle sections, driving wheels fast on the rear driving axle sections, a worm gear wheel fast on each section of the front and rear axles, the gear wheels on the front axle operating in a direction the reverse of those on the rear axle, substantially parallel worm shafts, right and left hand worm gears on each shaft driving the worm wheels on the respective front and rear axle sections, a motor, and friction driving mechanism interposed between the motor and said shafts.

3. In four wheel transmission for motor trucks, a truck frame, front and rear axles each divided into two sections, steering geared to and driven by the front axle sections, driving wheels fast on the rear driving axle sections, a worm gear wheel fast on each section of the front and rear axles, the gear wheels on the front axle operating in a direction the reverse of those on the rear axle, substantially parallel worm shafts, right and left hand worm gears on each shaft driving the worm wheels on the respective front and rear axle sections, a motor, and friction driving and reversing mechanism interposed between the motor and said shafts.

1,083,136. BELLOWS-ACTUATING MECHANISM FOR MUSICAL INSTRUMENTS. JAMES POLK RAWLS, Columbia, S. C. Filed July 25, 1912. Serial No. 711,422. (Cl. 185—26.)

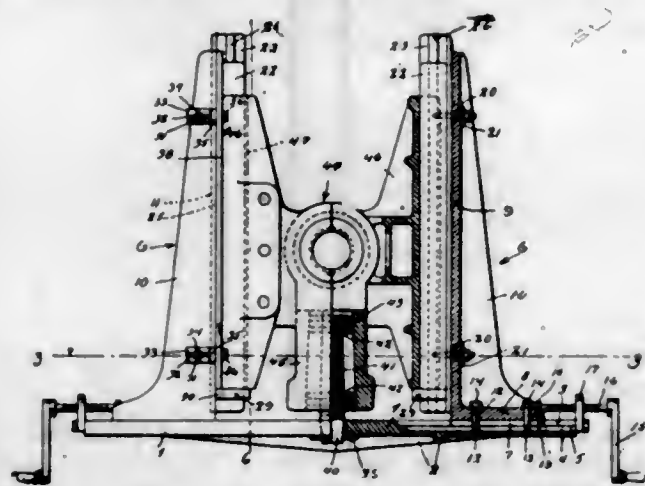


1. A player's bench for musical instruments, embodying a supporting frame, a seat pivotally supported on said frame and movable horizontally by body movements of the player, and an upright member intermediately pivoted in the frame having a pivotal connection at its upper end with said seat.

2. A player's bench for musical instruments embodying a supporting frame, a seat having recessed ribs upon its lower surface, U-shaped members having lower offset ends journaled in portions of the supporting frame and having their upper cross bars disposed within the recesses of said seat ribs whereby to enable playing movement of the seat with respect to the supporting frame, and a lever

having an intermediate pivot in the supporting frame and having connection at one end with the said seat, substantially as described.

1,083,137. BABBITTING-MACHINE FOR LOCOMOTIVE CROSS-HEADS. ROBERT REIBER, New Castle, Pa. Filed July 1, 1913. Serial No. 776,828. (Cl. 22—116.)



1. A device of the character described comprising a base, vertical plates slidable longitudinally of said base, members carried on the inner faces of said plates and movable laterally thereon, wedges engaging and disposed between said members, and means for moving said vertical plates.

2. A device of the character described comprising a base, vertical plates slidable on said base, members supported by and laterally movable on said plates, wedges engaging said members, and adjusting plates carried by said first named plates and movable thereon longitudinally and transversely of the axis of the base.

3. A device of the character described comprising a base, a vertical adjustable support extending upwardly from said base, vertical plates slidable longitudinally on said base, members carried by and movable laterally of said plates, wedges disposed between said members, brackets movable on said plates, and plates adjustably supported on said brackets.

4. A device of the character described comprising a base, a vertically adjustable support extending upwardly from said base, vertical members slidable on said base, means for moving said members, wedge members carried by and movable laterally on said vertical members, wedges disposed between said wedge members, and means for properly limiting the lateral movement of said wedge members.

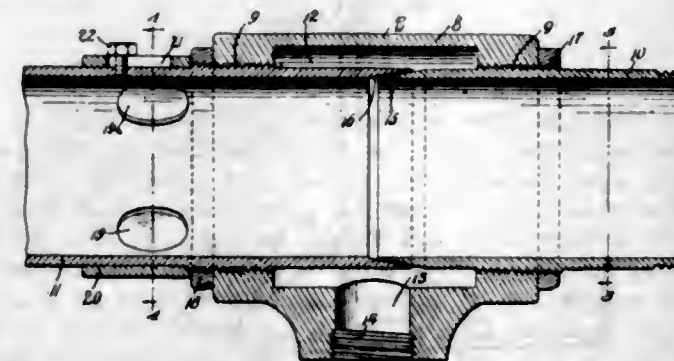
5. A device of the character described comprising a base, a vertically adjustable support extending upwardly from said base, vertical members slidable on said base, means for moving said members, wedge members carried by and movable laterally on said vertical members, wedges disposed between said wedge members, and means for properly limiting the lateral movement of said wedge members, said means comprising U shaped bars having their arms engaged by said laterally movable wedge members.

[Claims 6 to 9 not printed in the Gazette.]

1,083,138. SMOKE-CONSUMER. JOSEPH O. RICHARD, Hammond, Ind. Filed Aug. 17, 1912. Serial No. 715,588. (Cl. 230—13.)

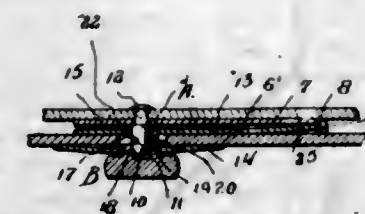
1. In a device of the character described, the combination of two pipes having their ends beveled, one on the inside and the other on the outside, the pipes extending one into the other to form an annular orifice, each of the pipes being externally threaded adjacent to their beveled ends and one of them provided with openings, a slotted sleeve slidable on the pipe provided with the openings and adapted to open or close said openings, a set screw passing through the slot of the sleeve and screwing into the pipe, a cylindrical open-ended body having its ends internally threaded and screwing on the threaded

portions of said pipes, said body having on its inner face intermediate of its ends an annular groove forming with the said pipes an annular chamber and provided with a lateral inlet leading from said chamber, and lock nuts screwing on the pipes and engaging the ends of the said body.



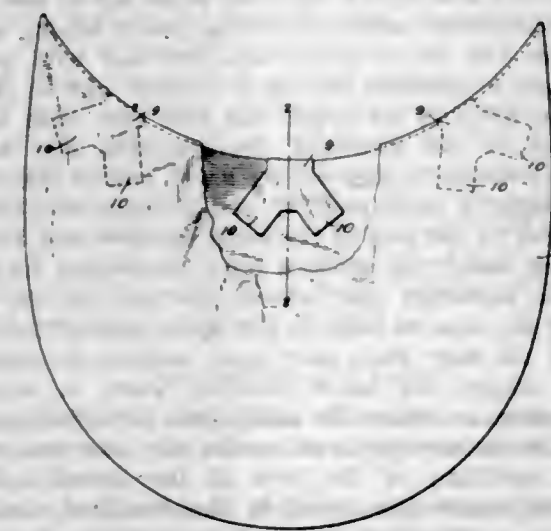
2. In a device of the character described, the combination of two pipes having their ends beveled one on the outside and the other on the inside, said pipes extending one into the other to form an annular orifice, each pipe being externally screw threaded adjacent to their beveled ends, means for controlling the admission of air to the pipe having its end beveled on the inside, a cylindrical open ended body having its ends internally threaded and screwing on the threaded portions of the said pipes, said body having on its inner face intermediate of its ends an annular groove forming with said pipes an annular chamber and provided with a lateral inlet leading from said chamber, and lock nuts screwing on the pipes and engaging the ends of the said body.

1,083,139. FASTENER. HERMAN RIGERT, Oklahoma, Okla. Filed Nov. 15, 1912. Serial No. 731,579. (Cl. 24—218.)



A fastener comprising a stud member, a socket member engageable with the stud member and including a base plate, ears struck from the base plate, a head having a stem rotatably mounted in the base, the said stem being provided with slots at diametrically opposite points thereof, and a spring having its ends working in the said slots and provided with loop portions engaging the said ears and also provided with an outwardly bowed portion partially encircling the said stem.

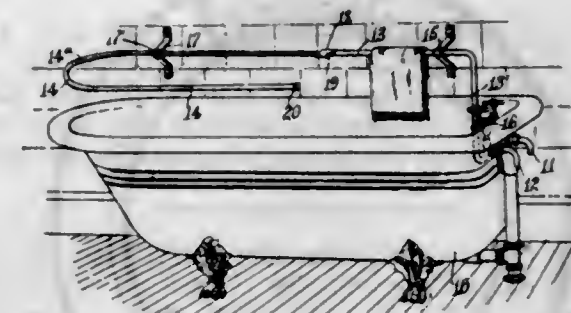
1,083,140. DRESS-SHIELD. HENRY P. RINDSKOPF, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,202. (Cl. 2—34.)



A dress shield, comprising a plurality of crescent-shaped sides, said sides being adhered lengthwise their in-

curved edges to there form a closed seam; and a plurality of reinforcing tabs to overlap said seam in spaced-apart relation, said tabs having bifurcated spread end sections to increase the adhesion of said tabs to said sides, and to avoid ridging the shield.

1,083,141. BATH-SHOWER. CHARLES S. C. ROCK, New York, N. Y. Filed Aug. 30, 1913. Serial No. 787,437. (Cl. 4—26.)



1. In a bath shower, the combination of a relatively stationary pipe having a horizontal portion above the bathtub, a nozzle having one portion thereof in longitudinal alignment with said horizontal portion of the pipe, a movable joint connecting the adjacent ends of said pipe and nozzle permitting the nozzle to be rotated around the axis of said pipe, means to support the pipe and nozzle in position above the bathtub, and means to limit said rotation of the nozzle in a downward direction, said nozzle being provided with spraying means directed toward the interior of the tub.

2. In a bath shower, the combination with a bathtub and means to deliver water into the same, of a water pipe adapted to be connected to the water delivering means or be disconnected therefrom, said pipe having a horizontal portion above the tub, a bracket supporting the pipe and having a bearing with a horizontal axis permitting the pipe to have a certain degree of rotation therein, a nozzle having one portion in alignment with the horizontal pipe portion, a movable joint connecting the same, a second bracket having a bearing in alignment with the first mentioned bearing and serving to support the nozzle so that it may rotate with respect to the first mentioned pipe, said nozzle being provided with perforations leading therefrom into the tub, and means to close the end of the nozzle remote from the movable joint aforesaid.

3. In a bath shower, the combination with a relative stationary water pipe having a horizontal end, of a stop pin secured in said pipe end, a U-shaped spraying nozzle having one leg supported in alignment with the horizontal end of said pipe, and a collar secured to the end of said leg adjacent the pipe constituting a watertight connection between the two parts, said collar having a shoulder adapted to impinge against said pin to limit the U-shaped nozzle in a horizontal position, substantially as set forth.

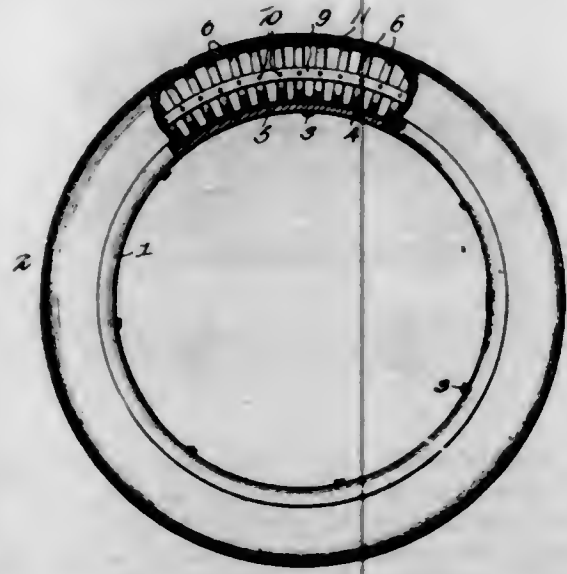
4. In a bath shower, the combination of a water pipe mounted in fixed supports above the bathtub, a nozzle constituting a continuation of said pipe and extending thence around one end of the bathtub and serving to spray water received from the pipe toward the center of the bathtub, means to connect said pipe to the water supply, said nozzle being movable around the axis of said pipe, and stop means to limit the movement of the nozzle and maintain it in normal horizontal operative position.

1,083,142. ARTIFICIAL-STONE COMPOSITION FOR BUILDING AND LIKE PURPOSES. AUGUST ROMMEL, Garssen, near Celle, Germany. Filed Oct. 20, 1911. Serial No. 655,760. (Cl. 106—31.)

The process of producing a composition of matter for the purpose set forth by compounding, with 2500 parts of hot sand, a mixture of 250 parts of magnesia and 20 parts of concentrated alum solution and a mixture of 75

parts of ground leather and 50 parts of water glass, and mixing the compound with 550 parts of asphalt and 75 parts of oil of resin.

1,083,143. TIRE. WILLIAM L. ROSS and ALMON LEIFER, Bellaire, Ohio. Filed May 23, 1911. Serial No. 629,001. (Cl. 152-8.)



The combination with a wheel rim, of a series of individual spring members split transversely and forming loops or bands and having their split ends overlapping each other, a split ring secured on the wheel rim, bolts connecting the overlapping ends of each loop or band to the split ring, endless side rings connecting the bands at the sides thereof, an endless top ring connecting the bands and forming the periphery thereof, and an outer casing or covering for the tire, said side and top rings holding the outer casing spaced from the spring members.

1,083,144. REED-ORGAN. OLIVER H. RUE, Ivanhoe, Tex. Filed Mar. 30, 1910. Serial No. 552,403. (Cl. 84-36.)

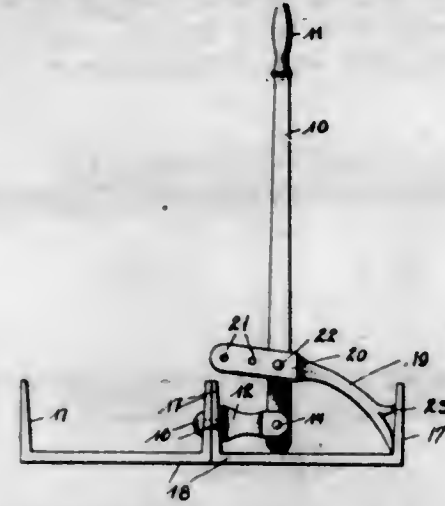


A removable attachment for a reed instrument having the usual keys and a wind chest furnished with an air hole, said attachment comprising a frame provided with an end plate, a box secured to the end plate and containing reeds, valves, mutes and swells, and resting directly on the top of the wind chest over said air hole, plungers, valves operable thereby, levers actuating the plungers, coupler buttons engaged by the under side of adjacent keys of the instrument, a connecting rod arranged to raise, sustain and lower one end of the plunger-operating levers, and a draw stop engaging said connecting rod, the whole being combined substantially as and for the purposes set forth.

1,083,145. RIVET-BOLT HOLDER. ALESSANDRO SALUCCI, Lawrence, Mass. Filed Oct. 22, 1912. Serial No. 727,212. (Cl. 78-46.)

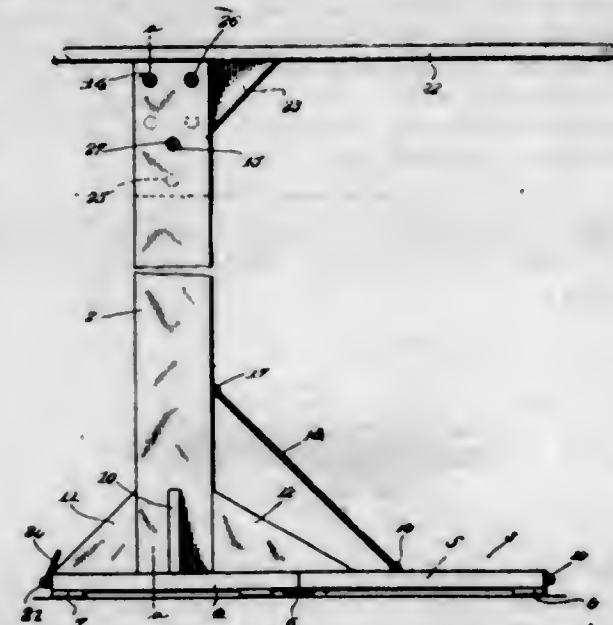
A device of the class described comprising an operating lever, a fulcrum member having a bifurcation receiving the said lever, a pivot passed transversely through the bifurcated portion of the fulcrum member and the lever for adjustably connecting the same together, downwardly and upwardly curved independent fulcrum tongues formed

on the said member at the end opposite the bifurcation therein, and a rivet holding element pivotally connected



to the lever spaced from the point of pivotal connection of the fulcrum member therewith.

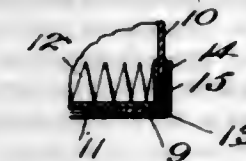
1,083,146. IRONING-BOARD AND STAND. ANDREW G. L. SCHWARTZ, Pittsburgh, Pa. Filed Apr. 18, 1913. Serial No. 762,064. (Cl. 68-10.)



1. A stand comprising a foldable base and a standard rising from the foldable base and having a vertical slot in its upper portion open at its upper end and also open at opposite sides of the standard, in combination with an ironing board having a web on its under side arranged to be fitted and adjusted vertically in the slot of the standard, said standard and said web having adjusting openings, and pins for insertion in said openings to secure the board to the standard at any desired vertical adjustment for use and to also secure the board in a vertical position at one side of the standard when not in use.

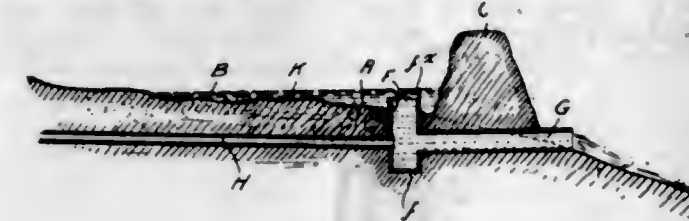
2. In combination with an ironing board having a vertical web or arm on its under side provided with adjusting openings, a standard having a vertical slot in its upper portion open at its upper end and also open at opposite sides of the standard, the standard also having adjusting openings, a base at the lower end of the standard comprising a main member and a brace member, the latter hinged to one end of the main member and adapted to be folded under the same, a brace projecting from one side of the standard and beyond one end of the main member of the base to bear on the upper side of the brace member of the base when said brace member is extended, means to secure the brace member when in extended position, means to secure the same when in folded position under the main member, and means for insertion in the adjusting openings of the web of the board and the standard to secure the board to the standard either in horizontal or vertical position and for vertical adjustment with respect to the same.

1,083,147. PAPER-BOX CONSTRUCTION. ISAAC SEITZMAN, Brooklyn, N. Y. Filed July 5, 1912. Serial No. 707,870. (Cl. 229-12.)



A paper receptacle comprising a body provided at its end with an intumed flange, an end closure fitting snugly within the body and having an indented edge portion which fits in close contact against the inner surface of the body, said flange lying against the outer surface of said closure, a strip having angularly disposed edge portions which lie in close contact with the outer surfaces of the body and the flange and a wire located between the strip and the corner edge of the body at the apex of the angle between the edge portions of the strip.

1,083,148. MEANS FOR IMPROVING LAND. RALPH H. SPARKS, Terre Haute, Ind. Filed June 29, 1912. Serial No. 706,589. (Cl. 61-9.)



1. In a means for improving a sloping tract of land, a dike disposed transversely of the tract for impounding water on the tract, a conduit for conducting flood water past the dam, an auxiliary conduit disposed beneath said tract of land and arranged to communicate with said first named conduit for draining the remaining impounded water, the upper end of said first named conduit being below the top of the dike and above the layer of silt deposited by the impounded water.

2. In a means for improving a sloping tract of land, a dike disposed transversely of the tract for impounding water on the tract, a conduit disposed below the surface of said tract and arranged to extend to the opposite side of said dike, a vertically extending conduit communicating with said first named conduit being normally open at its upper end and closed at its lower end and arranged to extend above the surface of said sloping tract, the upper end of said vertically extending conduit being below the level of the dike, and an auxiliary conduit disposed beneath said sloping tract and arranged to communicate with said vertically extending conduit.

3. In a means for improving a sloping tract of land, a dike disposed transversely of the tract for impounding water on the tract, a conduit disposed below the surface of said tract and arranged to extend to the opposite side of said dike, a vertically extending conduit communicating with said first named conduit being normally open at its upper end and closed at its lower end and arranged to extend above the surface of said sloping tract, the upper end of said vertically extending conduit being below the level of the dike, and an auxiliary conduit disposed beneath said sloping tract and arranged to communicate with said vertically extending conduit above the bottom of the latter, the mouth of said auxiliary conduit being substantially on a level with the intake end of said first named conduit, thereby providing a water cushion at the bottom of said vertically disposed conduit.

1,083,149. COIN-HOLDER. CHARLES A. STEARNS, Encinitas, Cal. Filed Dec. 14, 1912. Serial No. 736,757. (Cl. 133-9.)

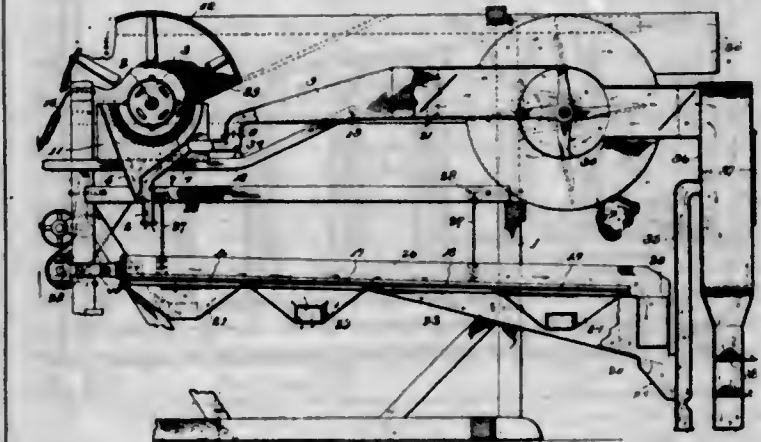
1. In combination a slotted supporting table, a coin retaining tube, hinge knuckles formed thereon, coin retaining members hinged in said knuckles and adapted to

clamp over the ends of the tubes to retain coins therein, said knuckles adapted to engage the slot to prevent disengagement of the tube from the table and clamping fingers carried by the coin retainers and adapted to act as supporting feet for elevating the end of the tube in dispensing position.



2. A coin holder comprising a longitudinally slotted tube, coin retaining members hinged thereto and adapted to close the ends of said tube and clamping fingers connected to the coin retainers and adapted to act as supporting feet for elevating one end of the tube.

1,083,150. MACHINE FOR SHELLING AND GRADING PEANUTS. ALBERT L. STEERE and CHARLES H. STEERE, Petersburg, Va. Filed Dec. 29, 1911. Serial No. 668,489. (Cl. 130-30.)



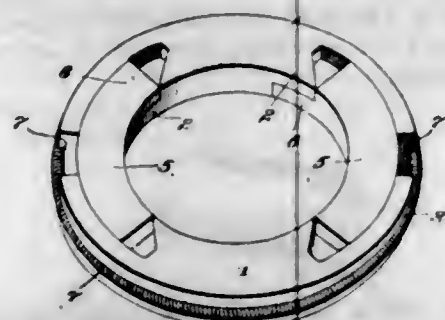
1. In a machine of the type set forth, the combination with a peanut grading screen, of a vertical conduit which receives shelled peanuts and nubs from said screen and which has an open lower end through which the shelled peanuts may fall, an air shaft of greater diameter than the conduit and connected to the upper end of the latter, the air shaft having an opening, suitably located above its discharge end and in relation to said conduit, and through which air may pass into said shaft, and a fan to produce a suction current through the air shaft and the conduit and to thereby cause the separation of the shelled peanuts and nubs in the conduit.

2. In a machine of the type set forth, in combination, peanut shelling means, a spout structure supported in relation to the shelling means and into which the peanuts and chaff pass from said means, said spout structure comprising a spout having a peanut delivery extension and a conduit connected to the spout and through which the chaff is carried, an air shaft, a detachable connection between the air shaft and the conduit and means detachably engaged with the outer side of the spout and furnishing support for the spout structure.

1,083,151. PACKING-RING. JOHN C. STEINBRUECK, Mandan, N. D. Filed Apr. 19, 1913. Serial No. 762,274. (Cl. 121-109.)

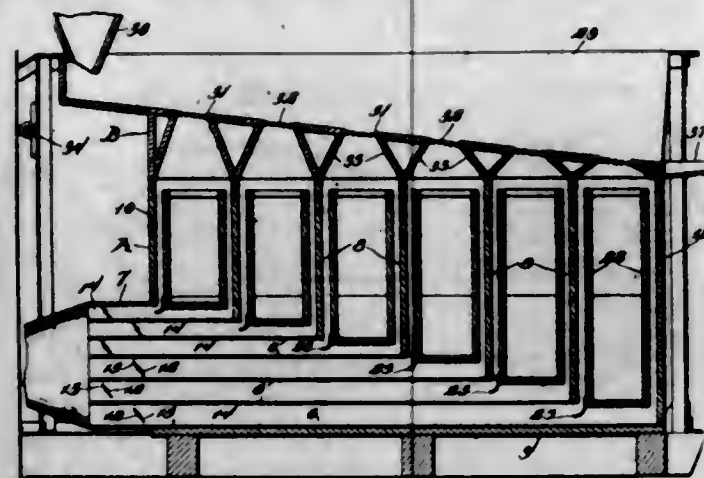
A packing ring comprising a set of curved strips disposed in circular formation, overlapping lugs formed on the inner side of each strip and each having the opposite ends thereof cut out to form a straight edge contiguous the inner face of the respective strip and downwardly and outwardly inclined edge contiguous such straight edge, a second set of curved strips disposed between the first-mentioned strip and overlapped thereby, tongues projecting outwardly from the opposite ends of the last-mentioned strips and disposed in parallel planes and each forming with the respective end of the strip a shoulder

and lying in face to face contact with the projecting ends of the adjacent lug on said first strip, and means surround-



ing said strips whereby the same may be moved relatively to one another to contract the ring.

1,083,152. DRY CONCENTRATOR. ELISHA A. STEPHENS, Portland, Oreg., assignor to International Manufacturing & Mining Co., a Corporation of Arizona. Filed Oct. 24, 1911. Serial No. 856,358. (Cl. 83-54.)



1. A device of the character described comprising a stationary casing, a jig box supported upon the top of the casing for reciprocation, means for vibrating the same, the under side of said jig box having upwardly converging deflectors, a screen between said deflectors, a compartment in said casing and arranged under said deflectors, a trap box supported in the compartment and spaced from the front and rear walls thereof, a valved duct communicating with the lower ends of said compartment, and an arcuate deflector at the lower edge of the trap box.

2. A machine of the character described comprising a casing, a jig box supported upon said casing for reciprocation, means for vibrating the same, a compartment in said casing, said jig box being provided with a screened aperture, diverging deflectors projecting from the edges of said aperture and disposed over said compartment, a trap box supported in said compartment and spaced from the front and rear walls thereof, a valved duct communicating with the lower end of said compartment, a current dividing deflector at the lower front edge of the trap box, and means for directing a current of air under pressure into the duct.

3. A device of the character described comprising a stationary casing, a vibratory jig box, a plurality of longitudinal partition plates of gradually increasing length arranged in the lower part of the casing, vertical transverse partitions connected at their lower edges with the rear ends of the partition plates, the bottom of said jig box providing an inclined trough having transverse slots, screens obstructing said slots, inclined deflectors connecting the slots with the upper edges of the transverse partitions, trap boxes supported between and spaced from the transverse partitions, and means for directing currents of air under pressure into the ducts between the longitudinal partition plates.

4. A device of the character described comprising a casing, a vibratory jig box, a plurality of longitudinal partition plates of gradually increasing length arranged in the lower part of the casing, vertical transverse partitions

connected at their lower edges with the rear ends of the partition plates, the bottom of the jig box providing an inclined trough having transverse slots, screens obstructing said slots, inclined deflectors connecting the slots with the upper edges of the transverse partitions, trap boxes supported between and spaced from the transverse partitions, and arcuate deflectors at the lower front edges of the trap boxes extending forwardly between the longitudinal partition plates.

5. A machine of the character described comprising a casing having transverse compartments and longitudinal ducts communicating with the lower ends of said compartment, means for supplying air under pressure to the forward ends of the ducts, trap boxes supported in the compartments and spaced from the front and rear walls of said compartments, a jig box supported upon the casing and providing an inclined trough having transverse slots therein opening in said compartments, screens obstructing said slots and current dividing deflectors at the lower front edges of the trap boxes projecting forwardly into the ducts.

[Claims 6 to 8 not printed in the Gazette.]

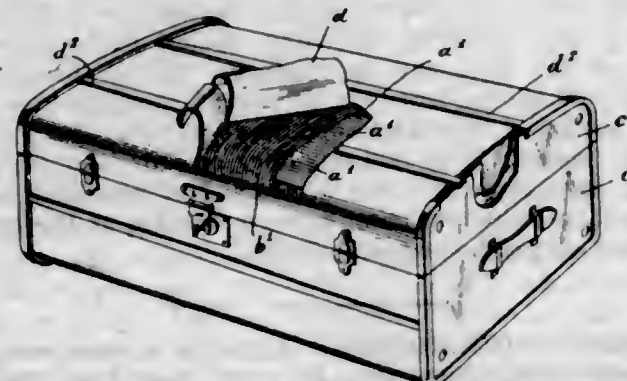
1,083,153. MATCH-BOX. FRANK A. STRODEL, Syracuse, N. Y. Filed May 3, 1913. Serial No. 765,355. (Cl. 206-21.)



1. A match box comprising a casing provided with an end opening and a side opening, a plate having an opening and adapted to slide over the end opening of the casing, a shank extending from the plate and bent upon itself and entering the casing through the side opening, the said bent portion of the shank being provided with humps adapted to engage the edge of the side opening.

2. A match box comprising a casing having an end opening and a side opening, a plate having an opening adapted to be brought into register with the end opening of the casing, a shank extending from the plate along the end of the casing and provided with a return bent portion which projects through the side opening of the casing and which is provided with humps, the extremity of the shank bearing against the inner surface of the end of the casing.

1,083,154. MANUFACTURE OF TRAVELING-TRUNKS AND SIMILAR RECEPTACLES. RICHARD STUDDERT, Westminster, London, England. Filed Feb. 15, 1913. Serial No. 748,508. (Cl. 190-46.)



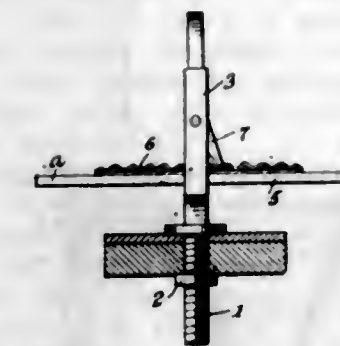
1. A method of manufacturing compressed cane trunks or other receptacles, consisting in laying and securing cane strips by suitable adhesive to a base composed of cane strips in such a manner as to be situated at right angles

or transversely to the strips of said base, and placing the material, while the adhesive is in the wet condition in a molding device of fixed shape and pressing and retaining the same until it has dried and permanently set to the desired shape.

2. A method of manufacturing compressed cane trunks or other receptacles consisting in laying and securing cane strips by suitable adhesive to a base composed of cane strips in such a manner as to be situated at right angles or transversely to the strips of the said base, and placing the material, while the adhesive is in the wet condition, in a molding device of fixed shape and pressing and retaining the same until it has dried and permanently set to the desired shape, and providing said body portion with wooden ends.

3. A method of manufacturing compressed cane trunks or other receptacles consisting in laying and securing cane strips by suitable adhesive to a base composed of cane strips in such a manner as to be situated across the strips of said base and placing the material while the adhesive is in the wet condition, against a molding device of fixed shape and pressing and retaining the same until it has dried and permanently set to the desired shape, and providing said body portion with laminated wooden ends.

1,083,155. CHECKREIN-LOCK. CHARLES L. TAYLOR, San Francisco, Cal. Filed Feb. 16, 1912. Serial No. 677,982. (Cl. 54-70.)



A check strap lock comprising a guiding terret for a strap, a rack bar arranged to be carried by the strap, and a pendulum pawl freely and pivotally mounted in the terret and having a length between its pivot and its lower end greater than the distance between the pivot and the upper surface of the rack bar when in operative position beneath the terret and less than the distance between the pivot and the lower surface of said rack bar.

1,083,156. METHOD OF MANUFACTURING DENTAL PLATES. EDWIN TELLE, New Orleans, La. Filed Nov. 5, 1912. Serial No. 729,619. (Cl. 32-4.)

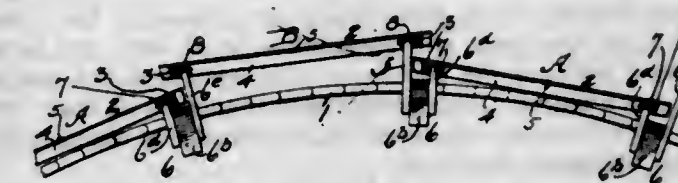


The herein described method of manufacturing dental plates, which consists in preparing a thin dental cup, coating the outer circumference of said cup with impression material, heating the impression material to render it plastic, pressing the cup to position in the patient's mouth to accurately impress the plastic impression material, trimming the impressed plastic material to proper width, flaking the cup, and replacing the impression material with rubber or other suitable material.

1,083,157. SECTIONAL ROOF CONSTRUCTION FOR SILOS. HARRY M. THAYER, Woodhull, Ill. Filed Jan. 20, 1913. Serial No. 743,132. (Cl. 20-1.4.)

1. A roof construction including an annular series of triangular roof sections hinged inward from their eaves ends so as to swing upwardly into an open position, alternate roof sections being mounted to swing about different centers so as to be offset from each other when swung upwardly.

2. A substantially conical roof including an annular series of complementary triangular roof sections, and supporting brackets adapted to be applied to the structure upon which the roof is mounted, the said roof sections being pivotally mounted inward from their eaves ends upon the supporting brackets so as to be swung upwardly into an open position and the said supporting brackets being formed with seats upon which the roof sections rest when swung inwardly into a closed position.



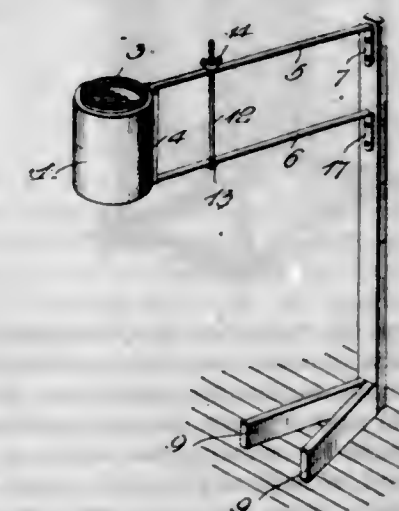
3. A substantially conical roof including an annular series of complementary roof sections, and a series of supporting brackets adapted to be applied to the structure upon which the roof is mounted, the brackets being each formed with a long arm and a short arm, and alternate roof sections being pivotally mounted upon the short arms, while intermediate roof sections are pivotally mounted upon the long arms, the various roof sections being adapted to be swung upwardly on pivots located inward from their eaves ends into an open position and adjacent roof sections being then offset from each other.

4. A substantially conical roof including an annular series of complementary triangular roof sections, and a series of supporting brackets adapted to be applied to the structure upon which the roof is mounted, each of the brackets being formed with a seat upon which the roof sections rest when swung inwardly into a closed position and with means for pivotally engaging the roof sections, adjacent roof sections being mounted to swing on pivots located inward from their eaves ends and about different centers so as to be offset from each other when swung upwardly into an open position.

5. A substantially conical roof including an annular series of complementary triangular roof sections, and a series of supporting brackets adapted to be applied to the structure upon which the roof is mounted, said brackets being each formed with a seat upon which the roof sections rest when swung inwardly into a closed position and being also each formed with a long arm and a short arm, alternate roof sections being pivotally mounted upon the long arms of the brackets while the intermediate roof sections are pivotally mounted upon the short arms of the brackets so that adjacent roof sections will be offset from each other when the roof sections are swung upwardly into an open position on pivots located inward from their eaves ends.

[Claim 6 not printed in the Gazette.]

1,083,158. CHURN. THOMAS L. THOMPSON, Kingfisher, Okla. Filed July 3, 1913. Serial No. 777,320. (Cl. 31-18.)



1. A churn comprising a cylindrical body having thereon a sleeve extending the entire length of said body, a sup-

port, resilient bars having one end of each permanently secured to said support and having their opposite ends bent inwardly for detachable engagement with the opposite open ends of the sleeve, and a tension bolt passing through said resilient bars and provided with a nut whereby said bars are more or less rigidly connected and the tension thereof regulated.

2. A churn comprising a cylindrical body and a removable cover therefor, a dasher removably arranged therein and comprising a wire coil of uniform dimensions throughout its entire length and closely engaged with the inner surface of the body, the opposite ends of said coil being disposed between the bottom of said body and the removable cover therefor, supporting bars connected at their free ends with the body of the churn, and means to regulate the spring action of the bars.

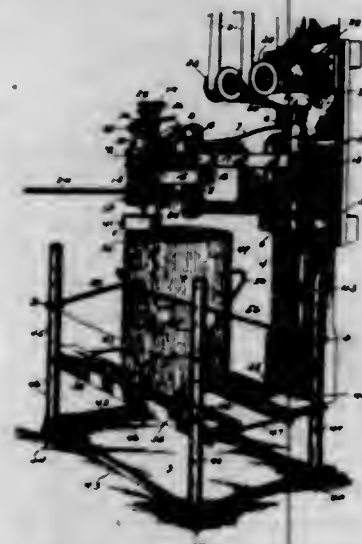
1,083,159. HOLDER FOR HAND FIRE-EXTINGUISHERS. WALTER HUGH TIBBALS, Syracuse, N. Y., assignor to Fyro Extinguisher Company, Syracuse, N. Y., a Corporation of New York. Filed May 27, 1913. Serial No. 770,274. (Cl. 248—20.)



1. A holder for fire extinguishers comprising a rigid segment having a circumferential concave inner face and a flange projecting inwardly beyond said face, and arms secured to said rigid member and having their free ends provided with interlocking members, one of said arms being made of spring metal and tensioned to spring outwardly when released from interlocking engagement with the other arm.

2. A holder for fire extinguishers comprising a rigid member having a concave inner face and a longitudinally extending arm terminating in a socket, and arms secured to said rigid member and having their free ends provided with interlocking members.

1,083,160. PLANING-MACHINE. WILLIAM EDWARD VIL- LINGER, Williamsport, Pa. Filed July 12, 1912. Serial No. 709,060. (Cl. 144—119.)



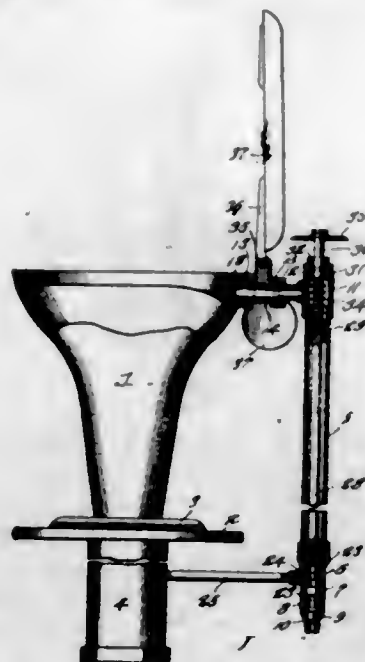
1. A machine for trimming and smoothing the upper surface of cutting blocks, comprising a shaft support capable of universal horizontal movement, a shaft vertically movable in said support, means associated with said support and shaft for rotating the latter, a cutter head at the lower end of said shaft, said cutter head having peripheral cutting edges and also having cutting edges on its bottom, said cutter head also having a central recess in its bottom, means within the recessed lower end of the cutter head for adjusting the depth of cut in a block

under the same, and means for adjusting cutter shaft vertically.

2. In a planing machine, the combination with a support, a cutter shaft mounted therein, means for adjusting the cutter shaft longitudinally and means for rotating said shaft, of a cutter head secured to one end of said shaft, said cutter head having a recess in its bottom and also having a peripheral series of cutting edges and an end series of cutting edges, and an adjustable member in the recess in the end of the cutter head to regulate the extent of cut of the end cutting edges.

3. In a planing machine, the combination with a support, a cutter shaft, and means for rotating said shaft, of a cutter head on one end of said shaft, said cutter head having a recess in its bottom, said cutter head also having an annular series of end cutting edges surrounding said recess, said cutter also having peripheral cutting edges, a hollow member adjustable in the recessed bottom of the cutter head, a disk mounted in said hollow member, and a screw having a head seated in said disk and entering the adjacent end of the cutter shaft.

1,083,161. FLUSHING MECHANISM. JOSEPH A. VOGEL, Wilmington, Del. Filed Mar. 31, 1909, Serial No. 486,957. Renewed June 7, 1913. Serial No. 772,421. (Cl. 137—69.)

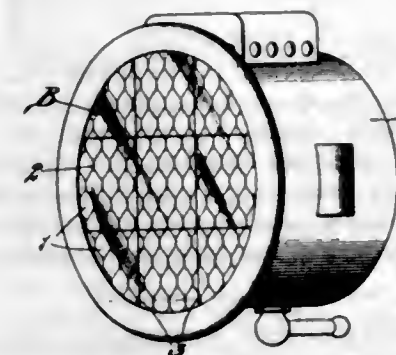


1. A flushing system including a stand pipe and a valve seat section removably connected to the lower end of the stand pipe, said seat section being interiorly formed with an intermediate valve seat having a maximum diameter less than the similar dimension of the stand pipe, the valve seat section being also formed at its lower end with a conical valve seat, a valve body mounted for movement within the valve seat section, and centrally formed with a packless valve surface cooperating with said intermediate valve seat of the valve seat section throughout the full movement of said valve body, a terminal valve carried by the valve body to cooperate with the conical seat of the valve seat section, said body above and below the valve surface being gradually reduced in diameter toward the respective ends, a valve stem operative in the stand pipe, a cup member removably engaging the end of the stem and a bolt passed loosely through the cup member and having threaded engagement with the valve body whereby a limited independent movement of the stem or body is permitted.

2. A flushing system including a stand pipe and a valve seat section removably connected to the lower end of the stand pipe, said seat section being interiorly formed with an intermediate valve seat having a maximum diameter less than the similar dimension of the stand pipe, the valve seat section being also formed at its lower end with a conical valve seat, a valve body mounted for movement within the valve seat section, and centrally formed with a packless valve surface, cooperating with said intermediate valve seat of the valve seat section throughout the full

movement of said valve body, a terminal valve carried by the valve body to cooperate with the conical seat of the valve seat section, said body above and below the valve surface being gradually reduced in diameter toward the respective ends, a valve stem operative in the stand pipe, and a connection intermediate the valve stem and valve body to permit a limited independent movement of said parts.

1,083,162. HEADLIGHT. JULIUS S. WALSH, St. Louis, Mo. Filed Aug. 23, 1913. Serial No. 786,280. (Cl. 240—41.)



1. A headlight provided with a glass front composed of independent sections that are joined or connected together by means embedded in said sections.

2. A headlight provided with a glass front composed of independent sections or pieces of glass, and means embedded in said sections and joining the meeting edge portions of the same together for preventing said sections from separating or the parts of a broken section from falling out of position.

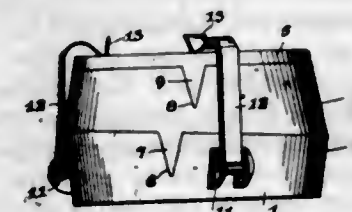
3. A headlight provided with a glass front composed of a plurality of independent sections, and a reinforcing means embedded in said sections and operating to hold said sections in operative position with relation to each other without interfering with the relative movement of said sections caused by vibration and by contraction and expansion of the glass.

4. A headlight front consisting of a plurality of independent glass sections having a continuous wire mesh fabric embedded therein and connecting said sections.

5. A headlight provided with a glass front consisting of a plurality of independent sections arranged in vertical and transverse rows and having a continuous wire mesh fabric embedded therein and connecting said sections.

[Claim 6 not printed in the Gazette.]

1,083,163. DENTAL FLASK. LOWELL T. WEAVER, Cincinnati, and JOSEPH H. WEAVER, Williamsburg, Ohio. Filed Mar. 22, 1912. Serial No. 685,623. (Cl. 18—33.)



The herein described dental flask comprising a base member including a bottom and a wall, the wall being provided with wedge-shaped recesses, a cope or upper member comprising a wall arranged to fit detachably on the wall of the base member and provided with downwardly extending wedge-shaped studs to engage the recesses thereof, the said cope member being provided with wedge-shaped recesses, a cap forming a detachable cover for the cope member and provided with downwardly extending wedge-shaped studs to engage the recesses of the cope member, and spring hooks carried by and directly pivotally connected to the base member and provided at their upper ends with spring bills to bear on the cap and coact with the said wedge-shaped studs and recesses to arrange the parts in registry and hold the same together,

the said cap being provided with keeper grooves to receive the bills of the hooks and the bills of the hooks being provided with finger pieces extending therefrom.

1,083,164. PRODUCING ISOPRENE. FRANZ WEBER, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 20, 1912. Serial No. 678,896. (Cl. 23—24.)

1. The process of preparing isoprene which consists in passing the vapors of asymmetrical dimethylallene over a heated catalytic agent.

2. The process of producing isoprene by heating asymmetrical dimethylallene with alumina.

3. The process of producing isoprene by heating asymmetrical dimethylallene with alumina *in vacuo*.

4. The process of producing isoprene by passing vaporized asymmetrical dimethylallene over alumina at a temperature of about 300° C. and at a pressure of about from 20 to 30 millimeters.

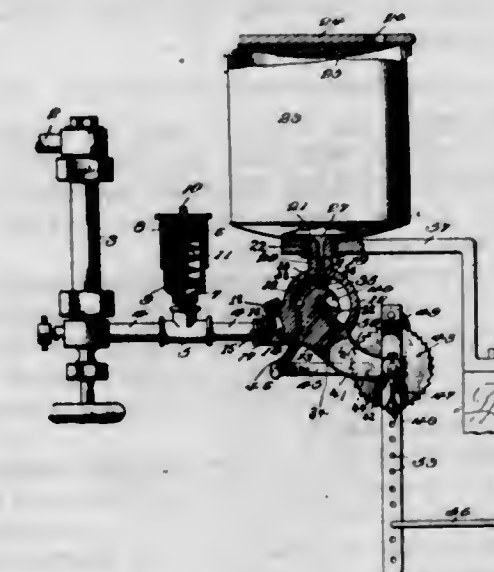
1,083,165. PRODUCING ISOPRENE. FRANZ WEBER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 30, 1913. Serial No. 776,550. (Cl. 23—24.)

1. The process of producing isoprene by treating isopropylacetylene with a contact substance containing alumina at a raised temperature.

2. The process of producing isoprene by treating isopropylacetylene with a contact substance containing alumina at a raised temperature and under reduced pressure.

3. The process of producing isoprene by passing vaporized isopropylacetylene over a contact substance containing alumina at a temperature of about 400° C. and at a pressure of about 40 to 50 millimeters.

1,083,166. FORCE-FEED LUBRICATOR. WILLIAM A. WEIL, Glencoe, Ohio. Filed July 27, 1912. Serial No. 711,853. (Cl. 184—27.)



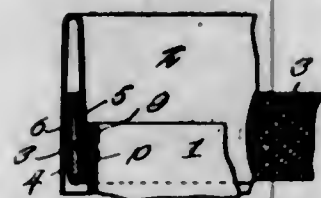
1. A force feed lubricator including a pump casing having an arcuate piston space therein, one end of the piston space having a discharge duct leading therefrom, an outwardly opening valve in the discharge duct controlling the same, a lubricant reservoir opening into the piston space intermediate its ends, a transverse shaft passing through the casing, an arm on the shaft and disposed within the pump casing, an arcuate piston supported on said arm and traveling in the arcuate piston space, said piston having a head at one end and the body of the piston being adapted to close the duct from the lubricant reservoir, and means for oscillating said shaft.

2. A force feed lubricator including a pump casing having an arcuate piston space therein, one end of the piston

space having a discharge duct leading therefrom, a valve controlling the discharge duct, a lubricant reservoir opening into the piston space intermediate its ends, a transverse shaft passing through the casing, an arm on the shaft, an arcuate piston supported on said arm and traveling in the piston space, said piston having a head at one end and the body of the piston being adapted to close the duct from the lubricant cup, an arm on the shaft, and means for oscillating said arm.

3. A force feed lubricator including a pump casing circular in form and made in two sections, one of said sections having formed therein an arcuate piston space having a duct leading therefrom and terminating in an exteriorly screw-threaded nipple, said nipple being adapted to support an oil reservoir and being tubular, the other of said sections mating with said first section and being formed with a central bearing, a shaft passing into said bearing, an arcuate piston mounted on said shaft and moving in the piston space, and means whereby the shaft may be oscillated.

1,083,167. COMBINED COLLAR-FASTENER AND NECKTIE-HOLDER. JOE WEINBERG, Greenville, Miss. Filed Sept. 8, 1909. Serial No. 516,963. (Cl. 24-61.)



As a new and improved article of manufacture, a combined collar and necktie holder, designed for use in conjunction with turn-down collars, the same comprising a metallic strip and normally bent approximately into U formation, comprising spaced, substantially parallel rigid arms adapted to hold the folds of the collar at proper spaced relation to each other to permit the tie to freely slide therebetween, said arms providing an intervening tie-receiving guide space of uniform width throughout, the outer or rear arm being shorter than the inner or front arm so as to prevent bulging of the collar, and the front arm provided upon its relatively outer face with a pair of superimposed collar and shirt engaging studs disposed approximately centrally thereof.

1,083,168. PROCESS OF PRODUCING A RESINOUS COMPOUND. DORRIS WHIPPLE, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J., a Corporation of New Jersey. Filed Nov. 6, 1909. Serial No. 526,960. (Cl. 106-15.)

1. The process of producing a new resinous compound, which consists in heating a resin in the presence of moisture to a temperature sufficient to break up the complex turpentine products and volatilize the same together with the volatile organic acids, increasing the temperature and supplying an oxidizing agent.

2. The process of producing a new resinous compound, which consists in heating a resin in the presence of moisture to a temperature sufficient to break up the complex turpentine products and volatilize the same together with the volatile organic acids, increasing the temperature and passing dry air through the molten mass.

3. The process of producing a new resinous compound, which consists in heating moist resin to a temperature of approximately 135° C., increasing the temperature and subjecting the mass to the action of an oxidizing agent.

4. The process of producing a new resinous compound which consists in heating a resin to a temperature of approximately 135° C., passing moist air through the molten mass, heating the residue to approximately a temperature of 140° C. and passing dry air through the mass.

5. The process of producing a new resinous compound which consists in heating a resin at a temperature of approximately 135° C. in the presence of moisture, increasing the temperature and passing air through the mass.

1,083,169. RESINOUS COMPOUND. DORRIS WHIPPLE, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J., a Corporation of New Jersey. Filed Nov. 6, 1909. Serial No. 526,961. (Cl. 106-15.)

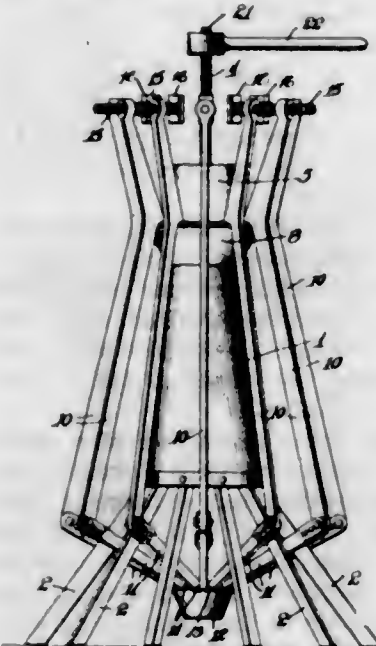
1. The new compound herein described, consisting essentially of resin derivatives in the form of a soft, non-drying, non-oxidizing, permanently plastic mass, having a high electrical resistance factor.

2. The new compound herein described, consisting essentially of resin derivatives in the form of a soft gummy mass, having a specific gravity of approximately .98 and which is non-drying and permanently plastic.

1,083,170. RESINOUS COMPOUND. DORRIS WHIPPLE, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J., a Corporation of New Jersey. Filed Nov. 6, 1909. Serial No. 526,962. (Cl. 134-13.)

An insulating compound comprising a resin derivative in the form of a soft, non-drying, non-oxidizing permanently plastic mass, and a resin oil in the form of a non-oxidizing, non-drying, non-saponifiable resin derivative.

1,083,171. MACHINE FOR APPLYING SPOKE-PROTECTORS. ELISHA L. WILLIAMS, Little Rock, Ark. Filed Apr. 18, 1913. Serial No. 762,014. (Cl. 157-1.)

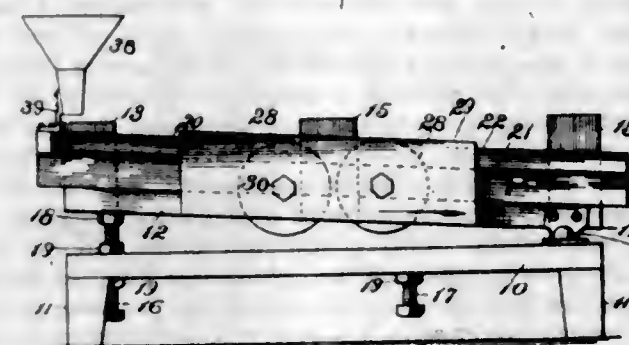


1. A machine of the character described comprising a standard, an anvil carried thereby and adapted to support a hub, a pivoting member carried by the standard, pressure members mounted upon the pivoting members for forcing protector members between the spokes of the hub and operating means for the pressure members which has a part passing through the standard and hub.

2. A machine of the character described comprising a standard, an anvil mounted upon the standard and adapted to support a wheel hub, a pivoting member carried by the standard, pressure members removably connected to the pivoting member for pressing protector members between the spokes of the hub and means for operating said pressure members, said operating means having a part passing through the standard and hub and a part adapted to hold the hub on the anvil.

3. A machine of the character described comprising a standard adapted to support a hub and having a central bore therethrough to register with the bore in the hub, rock levers removably pivoted to the standard and having adjustable pressure members carried by one end thereof, toggle links pivoted to the opposite ends of the rock levers, means for connecting the inner ends of the toggle links, an operating rod passing through the central bore in the hub and connected to the connecting means and a lever threaded upon the upper end of the rod and adapted to bear against the hub for holding said hub against the anvil and for lifting the connecting means to straighten the toggle levers.

1,083,172. DRY ORE-CONCENTRATOR. WILLIAM E. WINNIE and JAMES E. SEELEY, Los Angeles, Cal. Filed Oct. 30, 1911. Serial No. 657,561. Renewed June 3, 1913. Serial No. 771,531. (Cl. 83-40.)



1. In mechanism of the character described, the combination of a high tension, high frequency electric apparatus, a fixed terminal and a vibratory terminal in close proximity to the fixed terminal, said vibratory terminal having rifflles to receive and discharge comminuted particles, and means for imparting differential travel to the components of the material being separated.

2. In mechanism of the character described, the combination of a high tension, high frequency electric apparatus, a fixed and a vibratory terminal in close proximity to each other, the vibrating terminal being composed of dielectric material and having rifflles thereon, and means for imparting differential travel to the components of the material being separated.

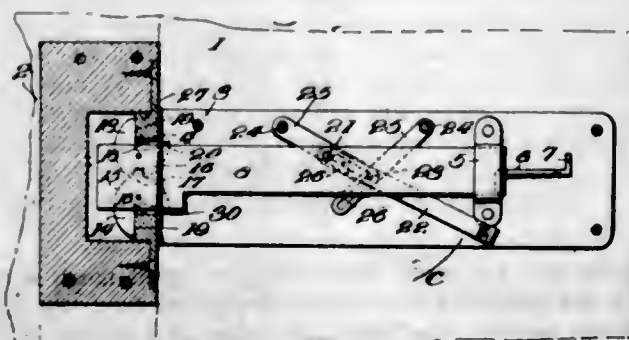
3. In mechanism of the character described, the combination of high tension, high frequency electric apparatus, a terminal of dielectric material with rifflles thereon, and adapted to receive and discharge comminuted particles, means for imparting differential travel to the components of the material being separated on said terminal, and a fixed terminal in close proximity thereto.

4. In mechanism of the character described, high tension, high frequency electric apparatus, in combination with a dielectric body having an inclined surface with rifflles thereon adapted to receive, and discharge comminuted particles comprising one of the terminals, means for imparting differential travel to the components of the material being separated on said terminal, and a fixed terminal in close proximity thereto.

5. In mechanism of the character described, a high tension, high frequency electric apparatus one of the terminals being a table with longitudinal rifflles thereon, in combination with means at the sides of the table for vibrating said table at right angles to said rifflles and imparting a differential travel to the components of the material being separated, an ore supply pipe at one side and end of the table, and the discharge end of the precious metal in the ore body being diagonally across the opposite end of the table from the ore supply pipe, and the other terminal being fixed in close proximity to the vibrating table.

[Claims 6 to 16 not printed in the Gazette.]

1,083,173. LOCK. EZEKIEL ZECKHAUSER, Mount Pleasant, Pa. Filed Sept. 8, 1913. Serial No. 788,740. (Cl. 70-102.)



1. A lock comprising a casing formed with an opening, a sliding bolt operating through the opening in the casing, dogs pivoted in the bolt, each of said dogs having a

notch in one edge, whereby when the bolt is forced through the opening in the casing the walls of the notches will engage the walls of the opening and project said dogs beyond the edges of the bolt, and means including a system of levers for simultaneously throwing the bolt and locking same in either of its extreme positions.

2. A lock comprising a casing formed with an opening, a sliding bolt operating through the opening, dogs pivoted in the bolt, said dogs having portions which contact with the walls of the openings to project said dogs beyond the edges of the bolt when the latter is forced through the opening and to retract the projected portion when the bolt is reversely moved through said opening, means between the dogs to cause one dog to move the other, and means for simultaneously throwing and locking the bolt.

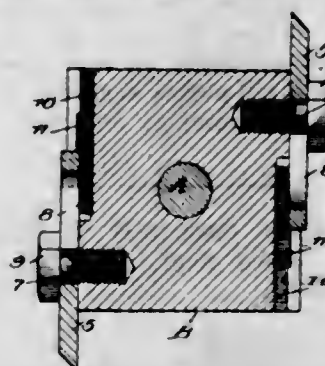
3. A lock comprising a casing, a sliding bolt mounted in the casing, dogs pivoted to the bolt, each dog having a recess on its edge to form abutments, one of said dogs having a recess, the other said dog having a tooth which engages in the aforesaid recess in the other dog, and means for operating the bolt, whereby the dogs will be simultaneously rotated by the abutments, contacting with the frames and project the abutments beyond the edges of the bolt.

4. A lock comprising a casing, a sliding bolt mounted in the casing, dogs mounted in the bolt and provided with means operating on the casing to project said dogs beyond the edges of the bolt, an operating lever pivoted to the bolt and provided with a stud, and toggle levers formed with slots and pivoted to the casing, the stud operating in the slots, to provide means for preventing movement of the bolt when thrown in either direction.

5. In a lock of the character described, the combination of a casing, a bolt slidably mounted in the casing, said bolt having a recess, dogs pivoted in the recess, each dog having a recess on its edge to straddle the casing during operation of the bolt, by which to operate the dogs and project same beyond the edges of the bolt, and means for manually sliding the bolt and locking same in its extreme positions including an operating lever pivoted to the bolt and two toggle levers with which the operating lever cooperates to prevent manual movement of the bolt when thrown in either direction to project the dogs beyond the edges of the bolt.

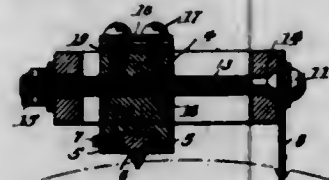
[Claim 6 not printed in the Gazette.]

1,083,174. CUTTER-HEAD. HARRY G. ALDRIDGE, Rochester, N. Y., assignor to Luther Brothers Saw Mfg. Co., Rochester, N. Y., a Corporation of New York. Filed June 6, 1912. Serial No. 702,007. (Cl. 144-225.)



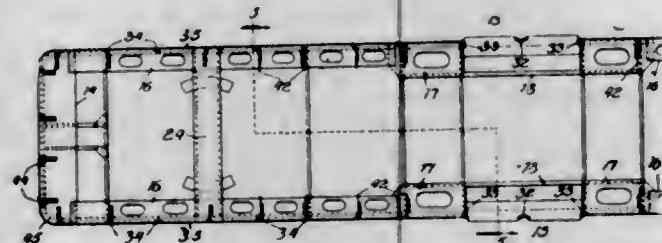
The combination with a cutter head embodying a square solid body having oppositely disposed supporting faces provided with undercut guideways coextensive with said faces, of tools arranged in the guideways having a cross section corresponding therewith whereby movement of the tools perpendicularly to the guideways is prevented, the bottoms of the guideways being provided with threaded recesses extending longitudinally, and having their axes arranged below the bottoms of the guideways, threaded bolts disposed in said recesses and having comparatively small portions projecting above the bottoms of the recesses so as to engage the tools, the latter being provided with slots or openings and the bolts cooperating with said slots to hold the tools on the head in their adjusted relation.

1,083,175. COMMUTATOR-SLOTTER. FRANK RUSSELL ALLEY, Seattle, Wash. Filed May 28, 1913. Serial No. 770,349. (Cl. 29—76.)



1. A commutator slotting tool comprising a body having transversely-extending guide-ways disposed parallel and spaced apart, a single rotating element in each guideway, a member engaged with each element and moved longitudinally thereof by rotation of the elements, a cutter mounted on the members and disposed below the same and below the body, and a guide adjustably mounted on the body and extending substantially parallel with the cutter.
2. A commutator slotter comprising a rectangular body having at one end parallel transversely-extending guide-ways, a screw rotatable in each guideway, a member movable in each guideway and connected with the screw, a cutter mounted in each member and having its ends extending beyond the ends of the body, and a guide on one side of the cutter and adjustable vertically to vary the relation of the guide to the cutter.

1,083,176. STEEL CAR. CHARLES H. ANDERSON, Seattle, Wash. Filed Mar. 27, 1911. Serial No. 617,156. (Cl. 105—76.)



1. In a steel-car underframe, channel-bars extending around the edges of the car body and forming integral end and side sills, inwardly projecting plates secured to the upper and lower sides of the end-sill portions of said channel-bars, and inwardly projecting plates secured to the upper edges of the side-sill portions of said channel bars.
2. In a steel-car, an underframe formed with channel-beam side and end sills, inwardly projecting upper and lower plates secured against the upper and lower sides of the channel-beam across the ends of the frame and forming with the channel-beam an end box-sill, and inwardly projecting side sill-plates secured at their outer edges to the channel-beam and at one end to the upper box-sill plate.

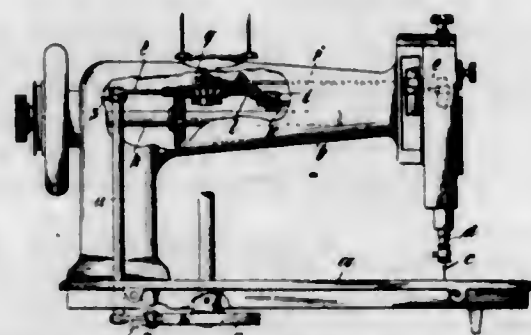
1,083,177. RAIL-JOINT. GEORGE W. T. ANDERSON, Jacksonburg, W. Va. Filed Sept. 11, 1912. Serial No. 719,789. (Cl. 239—6.)



In a rail joint, a bed plate having its underface formed with a centrally arranged longitudinal extending curved rib, and two rails adapted to rest upon the plate directly over its rib, the said plate having its ends bent to provide inwardly extending members which overlie the bed plate proper, one of said overlying portions having a side which constitutes an inwardly extending inclined portion and a

vertically straight portion, whereby the said side engages within the fishing spaces of the rails, the second overlying portion having its end curved to provide a longitudinally extending lip, the edge of which being arranged above the bed plate proper, and the said lip terminating a slight distance away from the longitudinal edges of the base flanges of the rails, an angular fish plate having its longitudinal edge substantially U-shaped to provide a lip that is adapted to co-act with the first mentioned lip, the vertical plates of the fish plate and of the side member having openings which register with openings in the webs of the rails, securing elements passing through the openings, the outer longitudinal edges of the bed plate and its overlying portions having notches, and spikes adapted to pass through the notches into the supporting ties and to have their heads contact with the overlying portions of the bed plate.

1,083,178. BUTTONHOLE-SEWING MACHINE. RUDOLPH ARENDT, Magdeburg, Germany, assignor to H. Mundlos & Co., Magdeburg, Germany, a firm. Filed July 10, 1913. Serial No. 778,252. (Cl. 112—4.)



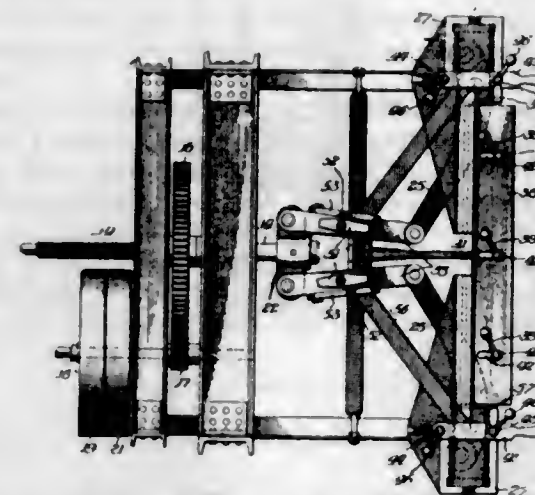
In a buttonhole sewing machine, the combination with a needle bar, of means for changing the movement of said needle bar from movement to produce end stitch to movement to produce edge stitch and vice versa; said means comprising a cam, a cam rod, a bell crank lever, a link connecting the lever and cam rod, a feed plate having cam projections and arranged to rotate in unison with said cam, an adjustable rod connected with the bell crank lever, a slotted lever engaging said adjustable rod and adjustable relative thereto, a second lever connected to the slotted lever and having an end engaging said feed plate and means connecting the cam rod with said needle bar.

1,083,179. FLY-CATCHER. MARY C. ARMSTRONG, Perth Amboy, N. J. Filed Oct. 3, 1911. Serial No. 652,494. (Cl. 43—22.)



A holder for fly paper comprising an open mesh screen having a marginal frame, a back adapted to hold the paper against the screen; the back consisting of a frame hinged to the screen frame and adapted to engage the edges of the paper, a handle on the screen frame by means of which the device may be waved through the air, and means for locking the back in closed position.

1,083,180. MACHINE FOR FORMING TRUSSED METAL STRUCTURES. ALBERT J. BATES, Chicago, Ill. Filed Mar. 29, 1913. Serial No. 757,716. (Cl. 78—13.)

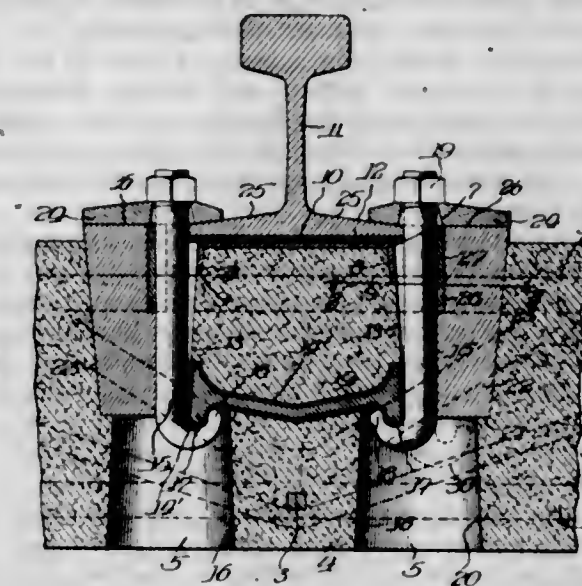


1. In a machine for forming trussed metal structures from slitted metal blanks, the combination of a sectional bed adapted to receive a blank, means to clamp the blank on the bed, means for moving one portion of the blank away from the clamped portion and simultaneously elongating the moved portion, and means for moving one end section of the bed toward the other end section to exert a longitudinal compression upon said clamped portion of the blank.
 2. In a machine for forming trussed metal structures from slitted metal blanks, the combination of a bed comprising a central section and end sections, clamps mounted on said bed, stretching means adapted to be engaged with a blank positioned on said bed, mechanism for withdrawing said stretching means from the bed to elongate the portion of the blank engaged by said stretching means, and means for moving said end sections of the bed toward each other.
 3. In a machine for forming trussed metal structures from slitted metal blanks, the combination of a bed comprising a central section and end sections provided with grooves to receive the flanges of a channel-shaped blank, a cross-head, means for connecting the cross-head with one edge of a blank on the bed to displace and elongate one portion of the blank, mechanism for moving said cross-head away from said bed, and operative connections between the cross-head and the end sections of the bed whereby said end sections are moved toward each other by the cross-head during its movement away from the bed.
 4. In a machine for forming trussed metal structures from slitted metal blanks, the combination of a bed adapted to receive the blank to be operated upon, a cross-head movable toward and from said bed, grooved members secured to said cross-head and adapted to engage a downwardly projecting flange of a channel-shaped blank on said bed, means for holding the blank flange in said grooved members, and hooks adapted to cooperate with said grooved members to stretch a portion of the blank away from the bed.
 5. In a machine for forming trussed metal structures from slitted metal blanks, the combination of a sectional bed adapted to receive a channel-shaped blank, a cross-head mounted to move toward and from said bed, means carried by the cross-head for engaging with said blank, a pair of pivotally mounted arms disposed beneath said bed, links connecting the free ends of said arms with the cross-head, and connections between said arms and the bed sections whereby the bed sections are moved relatively to each other upon movement of the cross-head.
- [Claims 6 to 10 not printed in the Gazette.]

1,083,181. INSULATING RAIL-FASTENER. ALBERT J. BATES, Chicago, Ill. Filed Aug. 6, 1913. Serial No. 783,231. (Cl. 238—4.)

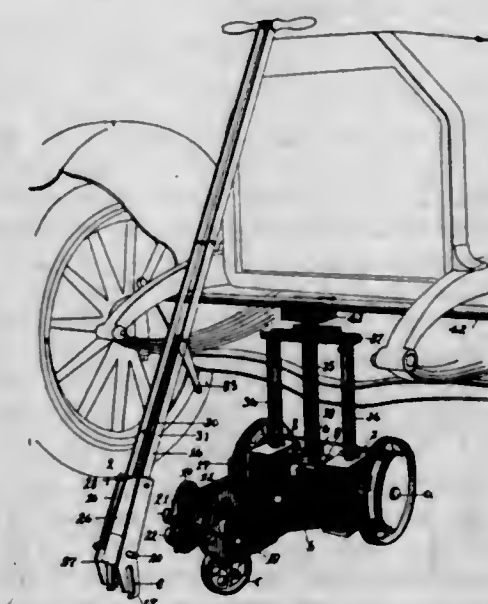
1. An insulating rail fastener comprising a tie adapted to support a rail and having an electrically insulated seat for the rail, an electrically insulated anchor disposed be-

neath said seat, and means engaging said anchor and the rail base to hold the rail in position on said seat.



2. An insulating rail fastener comprising a tie adapted to support a rail and provided with an electrically insulated seat for the rail and with openings at opposite sides of said seat, an electrically insulated anchor disposed beneath said seat, and means engaging said anchor and the rail base to hold the rail in position on said seat.
 3. An insulating rail fastener comprising a tie adapted to support a rail and provided with an electrically insulated seat for the rail and with openings at opposite sides of said seat, an electrically insulated metallic anchor disposed beneath said seat and extending between said openings, and means engaging said anchor and the rail base to hold the rail in position on said seat.
 4. An insulating rail fastener comprising a tie having an electrically insulated seat for the rail, an anchor disposed beneath said seat and provided with a surface coating of electrically insulating material, and means engaging said rail and anchor for holding the rail to its seat.
 5. An insulating rail fastener comprising a tie having an electrically insulated seat for the rail, an anchor disposed beneath said seat and having a heavy coating of enamel, and means engaging said anchor and said rail for holding the rail to its seat.
- [Claims 6 to 17 not printed in the Gazette.]

1,083,182. VEHICLE-RAISER. ROSCOE BEAN, Berea, Ohio. Filed Oct. 30, 1911. Serial No. 657,490. (Cl. 57—15.)



1. In a vehicle raiser, a truck and a pair of levers pivoted in the sides thereof and provided with teeth in their rear edges, pawls to engage said teeth and a lift member having lateral projections engaged by said levers respectively.

2. In vehicle raisers, a truck and lift levers pivotally mounted thereon and provided with teeth at their rear, connected pawls engaging said teeth and a thrust device adapted to hold said pawls out of engagement.

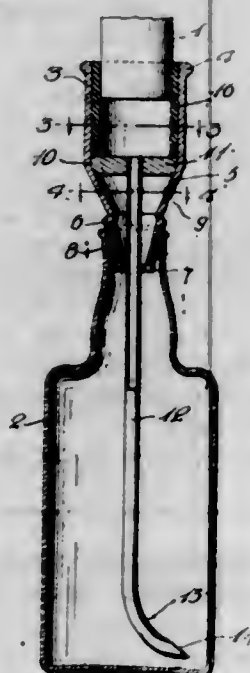
3. In vehicle raisers, a truck and a pair of lift levers mounted in the sides thereof and having ratchet teeth in their rear edges, pawls for said levers and a yoke connecting the same, a device adapted to engage said yoke and release said pawls and a hand lever adapted to operate the said device.

4. In vehicle raisers, a truck having rear side wheels and a front caster wheel and a support in its rear having a hole through its center vertically, in combination with a lift device having a spindle engaged in said hole and provided with a head, pivoted lift levers engaged beneath said head and a hand lever operatively engaged with the ends of said lift levers.

5. In vehicle raisers, a truck frame permanently mounted on wheels and a pair of lift levers pivoted between their ends in the sides of said frame, in combination with a lift member operatively engaged by the inner ends of both said levers and a removable hand-lever having a stationary pivot in said frame and having side projections engaging the corresponding ends of both said lift levers and in extension thereof.

[Claims 6 to 26 not printed in the Gazette.]

1,083,183. BOTTLE-FILLER. THEOPHIL BEDNAROWICZ, South Bend, Ind. Filed Dec. 12, 1912. Serial No. 736,441. (Cl. 226-16.)

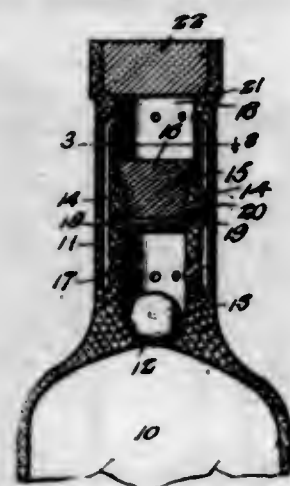


The herein described bottle filler comprising a cylindrical body having its lower end tapered, the tapered portion being provided with a vent through its wall, a tapered packing ring inclosing the tapered portion below its vent, a partition having its edge beveled to fit the internal seat formed at the angle between the cylindrical and the tapered portions of said body and above the vent in the latter, a cylindrical packing ring fitting closely within such body and resting on said partition around the edge of the latter for the purpose set forth, and a tube whose upper end opens through the center of the partition, whose body passes loosely out the mouth of said lower portion, and whose lower end is turned aside.

1,083,184. NON-REFILLABLE BOTTLE. WALTER E. BLACKSTOCK, Astoria, Oreg. Filed May 6, 1913. Serial No. 765,921. (Cl. 215-65.)

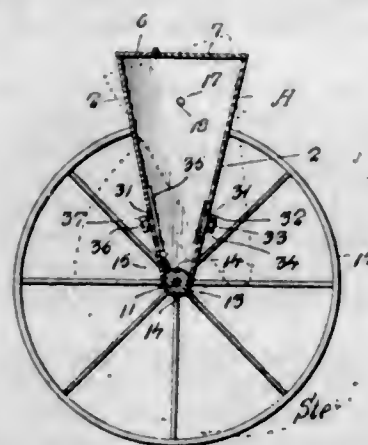
In a non-refillable bottle, the combination with a bottle body including a neck, of a stopper for insertion into a medial reduced portion of the neck to divide the interior of the neck into a plurality of chambers, one of which constitutes a valve chamber, a valve loosely movable in the valve chamber and normally closing an exit of the bottle body, a series of longitudinal passages formed in the neck

to connect the said chambers, means for locking the said stopper in position between the chambers, and a cork re-



movably inserted in an enlarged portion of the said neck to close the uppermost chamber.

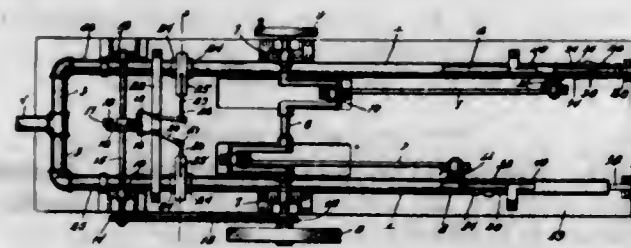
1,083,185. SEED-PLANTER. STEPHEN BRUCKMAN, Lebanon, Pa. Filed Dec. 17, 1912. Serial No. 737,303. (Cl. 111-32.)



1. A seed planter having downwardly converging end walls and side walls, one of which includes a downwardly inclined portion, said end walls being provided with slots, a seed drum supported for rotation adjacent to the lower ends of the end and side walls, a closure detachably associated with the slot in one end wall, and a cut-off member adjustably and detachably associated with the slot in the other end member, said closure and cut-off member being interchangeable.

2. A seed planter having downwardly converging end walls and side walls, one of which includes a downwardly inclined portion, said end walls being provided with slots, a seed drum supported for rotation adjacent to the lower ends of the end and side walls, a closure detachably associated with the slot in one end wall, and a cut-off member adjustably and detachably associated with the slot in the other end member, said closure and cut-off member being interchangeable; in combination with a suitably supported shaft on which the hopper may rock.

1,083,186. HYDRAULIC ENGINE. LEE BRUTON, Denver, Colo. Filed Jan. 18, 1913. Serial No. 742,815. (Cl. 138-2.)



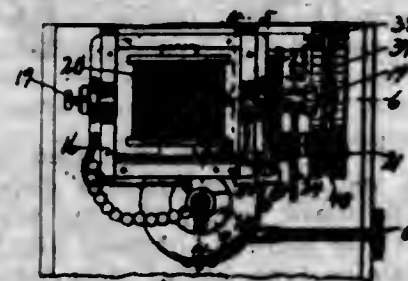
1. In a hydraulic engine, parallel cylinders, tubular pistons working therein, a crank shaft, rods connecting

the crank shaft and pistons, a water manifold feeding into the ends of the cylinders, a cam shaft driven by the crank shaft, a cam on said shaft, inlet valves for the cylinders operated by said cam, outlet valves at the ends of the pistons, and means for opening and closing said outlet valves at the outer and inner ends of the piston strokes.

2. In a hydraulic engine, parallel cylinders, tubular pistons working therein, a crank shaft, rods connecting the crank shaft and pistons, a water manifold feeding into the ends of the cylinders, a cam shaft driven by the crank shaft, a cam on said shaft, inlet valves for the cylinders, rocker arms connected with said inlet valves and actuated by said cam, outlet valves at the ends of the pistons, and means for opening said outlet valves at the outer and inner ends of the piston strokes.

3. In a hydraulic engine, parallel cylinders, tubular pistons working therein, a crank shaft, rods connecting the crank shaft and pistons, a water manifold feeding into the ends of the cylinders, crank shaft controlled inlet valves for the cylinders, outlet valves at the ends of the pistons, and means for opening and closing said outlet valves at the outer and inner ends of the piston strokes, embodying valve shifting levers carried by the pistons, and fixed surfaces with which said levers cooperate in their outward and inward strokes, the outlet valves being yieldingly supported and urged toward their seats.

1,083,187. ELECTRIC-ARC LAMP. FRANK BUCHANAN, Dayton, Ohio. Filed Dec. 9, 1909. Serial No. 532,244. (Cl. 176-108.)



In combination with the electrodes of an electric arc lamp, a feeding clutch for one of the electrodes, an electro-magnet having a rocking armature, connections between said armature and clutch at one side of the electrodes, at ratchet wheel coaxial with the axis of movement of the armature and rotatable independently thereof, a pawl on the armature for engaging and rotating said ratchet wheel, and means to retard the initial movement of the ratchet wheel.

1,083,188. TIRE-FILLER. DELLA L. CLARK, Birmingham, Ala. Filed Sept. 18, 1912. Serial No. 720,994. (Cl. 106-23.)

1. A rubber substitute containing glue, gelatin, glycerin, rubber, potassium chromate, wood tar, formaldehyde, and hydrogen peroxid in proportions suitable for forming a rubber substitute.

2. A rubber substitute consisting essentially of glue, gelatin, glycerin, rubber, potassium chromate, wood tar, formaldehyde, hydrogen peroxid and molasses in proportions suitable for forming a rubber substitute.

3. A rubber substitute containing the following ingredients in substantially the proportions named, to wit: glue 100 lbs., gelatin 100 lbs., glycerin 200 lbs., rubber 100 lbs., water 200 lbs., potassium chromate 1.56 lbs., wood tar 25 lbs., formaldehyde 1 lb., hydrogen peroxid 2 lbs., and molasses sufficient to dissolve the chromate.

4. The herein described process of producing the rubber-like substance herein described, which consists in first making a solution of potassium chromate and molasses sufficient in amount to dissolve the chromate, adding thereto a solution of formaldehyde and water, adding to the mixture thus produced rubber or caoutchouc dissolved in a suitable solvent, making a mixture of glue, gelatin and

197 O. G.—81

water, heating glycerin to the boiling point of water, adding thereto the mixture of glue, gelatin and water and thoroughly stirring the mass, adding thereto the formaldehyde, and rubber solutions, and the hydrogen peroxid and wood tar, thoroughly stirring and mixing the mass, allowing the mass to cool and solidify, liquefying the mass by the action of heat, adding thereto the mixture of potassium chromate and molasses, and heating the mass at a predetermined pressure for a determined period.

5. A composition of the character described formed of the following ingredients in substantially the proportions named, to wit: glue 100 pounds, gelatin 100 pounds, glycerin 200 pounds, rubber 100 pounds, water 200 pounds, potassium chromate 1.56 pounds, lamp black .015 pound, wood tar 25 pounds, formaldehyde 1 pound, hydrogen peroxid 2 pounds, molasses sufficient to dissolve the chromate, and cork about 5% of the mass.

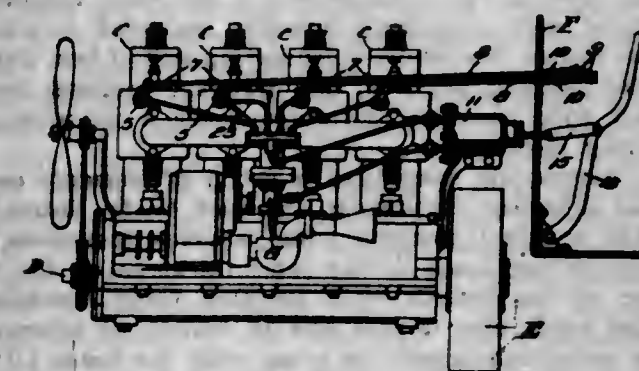
1,083,189. AUTOMATIC AIR-CAN-COUPLING. GEORGE M. CLARK and HENRY W. CLARK, Ball Ground, Ga. Filed Feb. 17, 1913. Serial No. 749,000. (Cl. 188-13.)



1. A fluid pressure coupler for train service pipes, comprising a coupling head with a passageway leading there-through and a chambered portion opening through the ends of the coupler head, a service pipe communicating with the passageway, a valve in said pipe, a lever pivoted upon a standard of said pipe and extending into the chambered portion of the head and connected to the stem of said valve, the forward end of the lever being beveled, a slotted post in said chambered portion of the head through which said lever passes, a spring upon said post and bearing yieldingly against the lever, and a beveled projection upon the coupler head, as set forth.

2. A fluid pressure coupler for train service pipes, comprising a coupling head with a passageway leading there-through and a chambered portion opening through the ends of the coupler head, a service pipe communicating with the passageway, a valve in said pipe having a stem projecting through the latter, said stem being slotted, a standard upon the pipe, a lever pivoted thereto and passing through the aperture in said stem and extending into the chambered portion of the head, a slotted post rising from the bottom of the chambered portion and through which said lever passes, the forward end of the lever being beveled, a spring upon the post bearing against the lever, the forward end of the head having a beveled projection, as set forth.

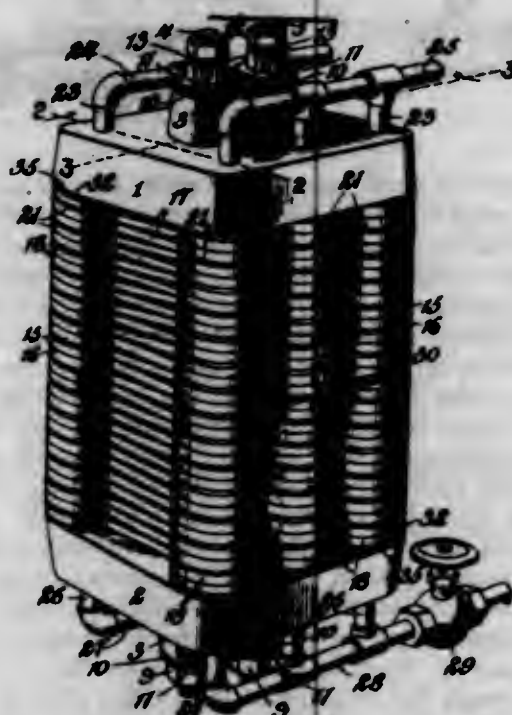
1,083,190. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. EDMOND F. CONNOR and JONATHAN C. WINANS, Waldron, Mich. Filed Nov. 30, 1909. Serial No. 530,605. (Cl. 123-180.)



In an explosive engine the combination of a plurality of cylinders disposed in alignment, a plurality of valve casings mounted in alignment upon said cylinders, a carburetor

reter extending below said cylinders, a T-shaped casing being laterally connected to the upper end of said carbureter and having its stem pointing downward, a box-like frame disposed adjacent said cylinders, a rotary valve mounted in each valve casing, an exteriorly disposed crank carried by each of said rotary valves, a rod pivotally connected to each of said cranks by each of said rotary valves, a rod pivotally connected to each of said cranks and passing through said frame, push-buttons mounted on the free ends of said rods, springs arranged to oppose the movement of said rods, a pump cylinder interposed between said frame and said cylinders, a piston in said pump cylinder, a rod on said piston projecting into said frame, a hand lever fulcrumed in said box-like frame and engaging said piston rod to reciprocate said piston, a pipe connecting said pump casing with the extended portion of said carbureter, and a pipe connecting each of said valve casings with said T-shaped casing, said lever projecting above said push-buttons.

1,083,191. THERMO-ELECTRIC GENERATOR. JAMES J. COOK, Jersey City, N. J. Filed Mar. 25, 1911. Serial No. 616,825. (Cl. 171-73.)



1. An element for a thermo-pile with the terminal portions alike and each having a passage therethrough for a temperature controlling medium, said terminals each being of the same thickness throughout from the mid line of the element toward both faces of said terminal portion.

2. A thermo-electric couple comprising two elements having like terminal portions of equal thickness throughout from the mid line of the element toward both faces of said terminal portions, the terminal portions at one end of the couple being in face contact and provided with matching passages therethrough, and the couple being composed of materials differing in the thermo-electric order.

3. An element for a thermo-pile of the same thickness throughout and comprising laterally expanded terminal portions and an intermediate connecting web of less width than the terminal portions, said terminal portions being provided with passages therethrough for a temperature controlling medium.

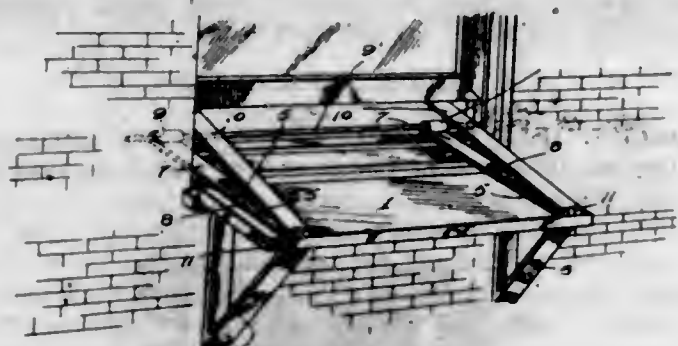
4. A thermo-pile comprising a group of elements each of equal thickness throughout and each having laterally expanded terminal portions with passages therethrough and constituting heads of the same thickness as the remainder of the element, said elements being assembled with the heads face to face and in contact at alternate ends in series throughout the group with the heads all in planes parallel one to the other, the passages through the heads where in contact forming conduits through the ends of the group for the flow of a temperature controlling medium therethrough, and terminal clamping members

and connecting means therein holding the contacting ends of the elements of the group in firm electrical and fluid tight engagement, said connecting means being out of the path of action of the temperature controlling medium upon the thermopile elements.

5. A thermo-pile comprising a group of elements each of equal thickness throughout comprising terminal portions or heads and a connecting web, the elements having their terminal portions in alternate engagement in series throughout the group and each in a plane parallel with the planes of the other terminal portions and the connecting webs being bent to correspond to the displacement of the terminal portions, and said terminal portions having matching passages, and positively acting clamping means engaging the opposite ends of the group and holding the terminal portions of the elements in electrical and fluid tight relation solely by the pressure exerted by the clamping means.

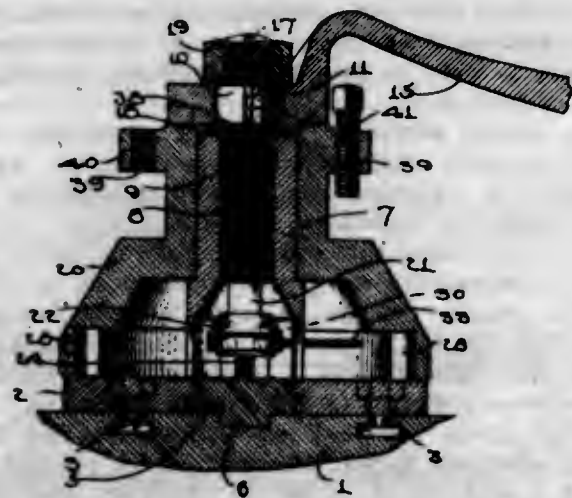
(Claims 6 to 11 not printed in the Gazette.)

1,083,192. WINDOW-CLEANER'S SCAFFOLD. EDWARD W. COOPER, New Orleans, La. Filed Dec. 14, 1912. Serial No. 736,756. (Cl. 20-87.)



A scaffold of the character described comprising a scaffold board, wall engaging brackets disposed beneath the ends of the board, lower retaining arms extending across the top of the board in alignment with the brackets, said lower retaining arms having slots therein and provided at their inner ends with eyes, a rod passing through the eyes of the lower retaining arms and adapted for engagement with the jambs of a window frame, upper retaining arms hinged at their outer ends to the lower retaining arms and provided at their inner ends with bent portions to engage the bottom rail of a window sash, and bolts passing through the wall engaging brackets and slots of the lower retaining arms and fixedly securing said brackets and adjustably securing said retaining arms to the scaffold board.

1,083,193. TOOL-HOLDING MECHANISM. GILBERT Y. COURTNEY, Holland, Mich. Filed Feb. 15, 1913. Serial No. 748,665. (Cl. 29-49.)



1. A device of the class described comprising a base, a casing carried by said base, a supporting standard carried by said base, said casing rotatably mounted upon said standard and adapted to turn thereon, a screw carried

by said supporting standard, a reciprocating locking bar carried by said base, spring means engaging said bar for normally holding the same in engagement with said casing, a cam member carried by said screw and engaging said locking bar for withdrawing the same from engagement with said casing whereby said casing may be rotated when said screw is rotated, and said cam member being provided with a second cam portion upon its under side whereby said cam member will be raised over the locking bar when said screw is rotated to its normal position.

2. A device of the class described comprising a base, a casing, a supporting standard, means for locking said casing to said supporting standard, a central clamping screw, an operating handle connected to said central clamping screw and provided with a plurality of ratchet teeth upon its under face, a rod carried within said supporting standard and engaging said operating handle whereby rotary movement will be imparted to said screw when said handle is rotated, and means engaging said operating handle for causing said casing to rotate when said operating handle is swung.

3. A device of the class described comprising a base, a supporting standard, a casing carried by said supporting standard and rotatably mounted thereon, a locking bar extending transversely of said supporting standard, a vertically extending screw carried by said supporting standard and provided with a cam wheel upon its lower end, a shoulder formed upon said locking bar and adapted to be engaged by said cam wheel for causing said locking bar to be withdrawn when said cam wheel is rotated, a ratchet operating handle carried by the upper end of said screw, a spring pressed plunger engaging said ratchet handle and adapted to hold the same against independent rotation relative to said casing, means for holding tools in engagement with said casing, and means for normally holding said sliding bar in engagement with said casing whereby said casing will be held against independent rotation relative to said supporting standard.

4. A device of the class described comprising a base, a supporting standard, a casing, said casing provided with notches formed upon its inner face, a locking bar slidably mounted upon said base and adapted to engage one of said notches formed in said casing, guiding studs carried by said base, said locking bar slidably mounted in said guiding studs, a spring secured to one of said studs, said spring engaging said sliding bar and adapted to normally hold the same in engagement with one of said notches.

1,083,194. PUNCH. JOHN L. CUBA, Taylor, Tex. Filed Sept. 4, 1912. Serial No. 718,513. (Cl. 164-121.)

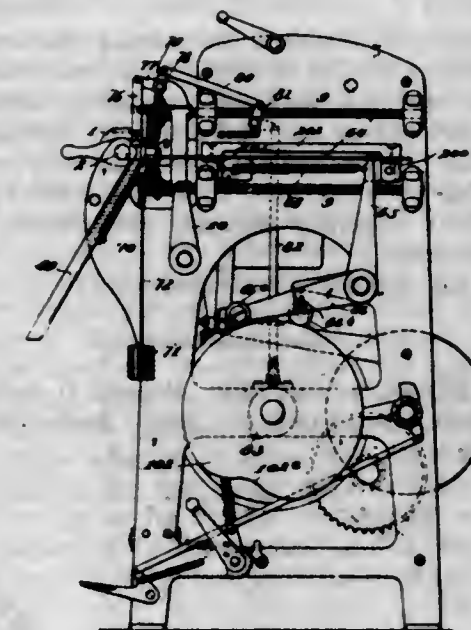


1. A punching tool comprising companion pivoted members having handles formed on adjacent ends thereof, co-acting jaws formed on the opposite ends thereof, one of said jaws being provided with an opening, a removable anvil provided adjacent said opening and having an upwardly and forwardly inclined end face presenting an active cutting edge forming the inner edge of the opening, and a punch formed on the jaw of the other member, said punch being smaller in diameter than the said opening and adapted to work freely therein, the active end of the said punch being beveled to provide an acute toe and an obtuse heel, the latter being engageable with the cutting edge of the anvil as it passes the same.

2. A punching tool comprising companion pivoted members having handles formed on adjacent ends thereof, a straight jaw formed on the opposite end of one of said

members and being provided with an opening, a curved jaw formed on the corresponding end of the other member and having its free end beveled to provide a punch having an outwardly disposed toe and an inwardly disposed heel, the inner face of the punch jaw being curved concentric with the pivot of the said members, and an anvil mounted within the opening of the other jaw at the inner edge thereof and being engageable with the curved inner face of the punch jaw.

1,083,195. TYPOGRAPHIC MACHINE. FRITZ C. LUCKE D'AIX, Brooklyn, N. Y. Original application filed Nov. 14, 1908, Serial No. 462,670. Divided and this application filed Mar. 28, 1913. Serial No. 757,347. (Cl. 199-13.)



1. In a mold of the character specified, the combination of a lower jaw; an upper jaw mounted to slide longitudinally between casting and ejecting positions; an end piece housed in the upper jaw, spring pressed against the lower jaw, and constituting the front end wall of the mold cavity; an end piece housed in the lower jaw, spring pressed toward the upper jaw, and constituting the rear end wall of the mold cavity; and means for engaging the cast slug with the upper jaw during the travel of the latter from casting to ejecting position, substantially as hereinbefore set forth.

2. In a mold of the character described, the combination of a lower jaw; an upper jaw with recessed casting face, movable to and from the lower jaw, and mounted to slide longitudinally between casting and ejecting positions; an end piece housed in the upper jaw, spring pressed against the lower jaw and constituting the front end wall of the mold cavity; an end piece housed in the lower jaw, spring pressed toward the upper jaw and constituting the rear end wall of the mold cavity; means for automatically lifting the upper jaw at ejecting position away from the lower jaw to disengage its recessed face from the cast slug; and means for automatically returning said jaw to normal closed position after the ejecting and before the next succeeding casting operation, substantially as hereinbefore set forth.

3. The combination of the mold carrier; the lower jaw mounted in said carrier and adjustable lengthwise therein to vary the length of the mold slot; the slide mounted in said carrier and movable therein between casting and ejecting positions, and mechanism for thus reciprocating the slide; the upper jaw with recessed casting face mounted in said slide and vertically adjustable therein to vary the width of the mold cavity; the rear spring pressed end piece 23 housed in the lower jaw and constituting the rear end wall of the mold cavity; the front spring pressed end piece 24 housed in the upper jaw and constituting the front end wall of the mold; means for automatically lifting the upper jaw at ejecting position away from the lower jaw to disengage its recessed face from the cast

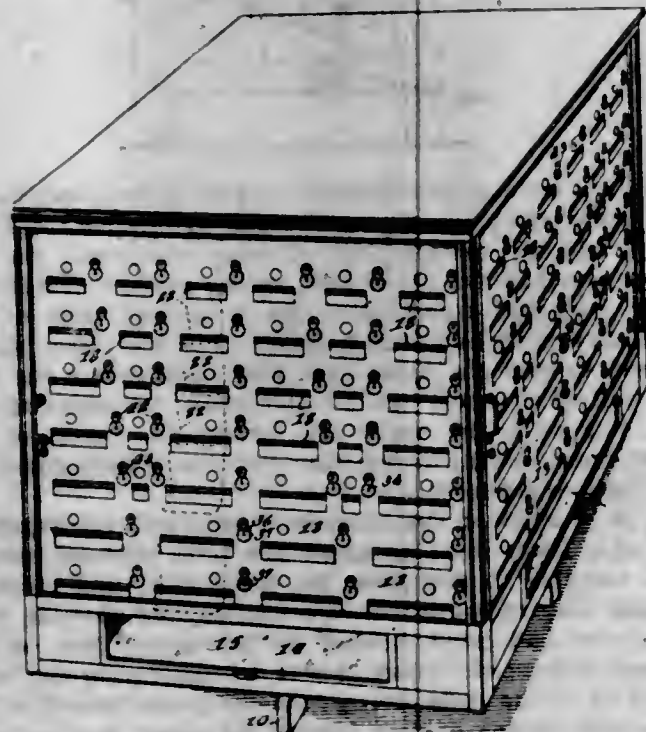
slug; and means for automatically returning the upper jaw, together with the front end wall piece 24 carried by the same, to normal closed position after the ejecting and before the next succeeding casting operation, substantially as hereinbefore set forth.

4. In a machine of the character described, a mold comprising lower and upper jaws constituting the mold body and cap respectively, the upper jaw being longitudinally reciprocable between casting and ejecting positions, and the lower jaw remaining at casting position; an end piece housed in the lower jaw and constituting the rear wall of the mold cavity; an end piece constituting the front wall of the mold cavity housed in and reciprocating with the upper jaw, while the lower jaw and rear end wall piece housed in the same remain at casting position; and means for causing the cast slug to move with the upper jaw from casting to ejecting position, substantially as set forth.

5. A typographic machine for casting line slugs having a mold provided with a slot, and an ejector comprising a plurality of sections, each longitudinally movable with respect to the others and independently spring impelled in a direction to eject the slug from the mold, and means for retracting said sections from the mold against the stress of their impelling springs, substantially as hereinbefore set forth.

[Claim 6 not printed in the Gazette.]

1,083,196. RIBBON-CABINET. ROBERT O. DANIEL, Dodsonville, Tex. Filed Oct. 22, 1912. Serial No. 727,182. (Cl. 73—9.)



1. In a ribbon cabinet, the combination with a box having doors forming sides thereof and provided with slots, of bolt holders supported on the inner faces of the said doors and adapted to revolvably support bolts of ribbon, with the ends of the ribbon passing through slots in the said doors to the exterior of the said box, rollers journaled on the said bolt holders with the said ribbon passing between the same, and means engaging the ribbon adjacent the bolts to prevent the accidental unwinding of the ribbon from the bolts.

2. In a ribbon cabinet, the combination with a box having doors forming sides thereof and provided with slots, of bolt holders supported on the inner faces of the said doors and adapted to revolvably support bolts of ribbon, with the ends of the ribbon passing through slots in the said doors to the exterior of the said box, rollers journaled on the said bolt holders with the said ribbon passing between the same, and a brake shoe engaging the ribbon adjacent the bolts to prevent the accidental unwinding of the ribbon from the bolts.

1,083,197. MEANS FOR TRANSMITTING TRAIN ORDERS. ERNEST W. DEAN, Harrington, Del., assignor of one-half to William T. Bennett, Laurel, Del. Filed Apr. 26, 1913. Serial No. 763,862. (Cl. 105—231.)



1. In a mechanism for receiving train orders, a vertical standard held from axial rotation, an order supporting arm pivotally mounted upon the standard for movement in a horizontal plane, and resilient means holding the order supporting arm in a normal position but permitting the arm to yield in a horizontal plane.

2. In a mechanism for receiving train orders, a standard held from axial rotation, an order supporting arm and mounted thereon, a receiving basket, a pivoted arm supporting said basket and movable in a horizontal plane, and means for holding the said arm in a normally projected position but permitting the arm to yield horizontally.

3. In a train order receiving mechanism, a supporting frame pivoted for movement in a horizontal plane, means for rotatably shifting said frame from a position parallel to a track to a position transverse to the track, means for locking said frame in either position, a vertical standard supported on the frame, an upper arm pivoted to the standard for movement in a vertical plane, a lower arm pivoted to the standard for movement in a horizontal plane, cord engaging clips mounted on the standard below said arms, means on the ends of the arms for engaging a cord, and order holders having flexible connections adapted to be engaged by said clips to thereby support an order holder in an inwardly and downwardly inclined position.

4. In a train order receiving mechanism, a platform, a frame pivotally supported upon the platform for movement in a horizontal plane, mechanism for rotatably shifting said frame from a position parallel to the track to a position transverse thereto, a detachable standard mounted on the frame, and pivoted order supporting devices mounted upon said standard.

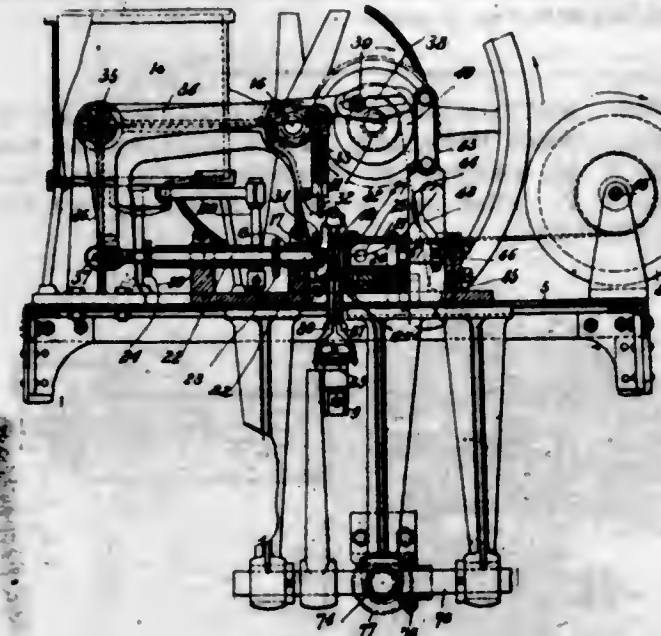
5. In a train order receiving mechanism, a platform supported beside a track, a frame pivotally supported on said platform for movement in a horizontal plane, train order supporting devices mounted on said frame, transversely extending arms on said frame, an actuating lever disposed across the track, flexible connections attached to the actuating lever and to the frame, and pulley over which said flexible connections pass.

[Claims 6 to 12 not printed in the Gazette.]

1,083,198. MACHINE FOR MANUFACTURING LEADEN SEALS. DEMÉTRIUS DERRAS, Paris, France. Filed Nov. 18, 1910. Serial No. 593,081. (Cl. 22—59.)

1. In a machine of the type set forth, a pair of independent complete molds for forming lead seal parts upon a cord, means for operating the molds simultaneously

to form said parts, a cord spool, means for advancing the cord through the necessary extent, and means for cutting the cord at a required point.



2. In a machine of the type set forth, a pair of independent complete molds for forming lead seal parts upon a cord, each mold comprising opposed cooperating relatively reciprocating parts and one of the parts of each mold serving as an ejector for the molded product, and means for operating the mold parts simultaneously in the respective operations of molding and ejecting the seal parts.

3. In a machine of the type set forth, a mold for producing a lead seal part, the said mold comprising cooperating dies which have relative approaching and receding movements and which are formed with complementary recesses to define an opening when the dies are held against one another, a core movable through the opening and into the mold to form a recess in the lead seal part, a spool having a cord wound thereon, and means for drawing out the cord with relation to the core, whereby the latter as it passes through said opening forces a bight of the cord into the mold.

4. In a machine of the type set forth a mold for producing a lead seal part and comprising a stationary die and a die movable toward and away from the stationary die, the latter comprising a tubular part and a hollow water cooled plunger working in the tubular part and co-operative with the movable die during the molding operation, the tubular part having a lead inlet port which is controlled by the plunger, the movable die comprising a hollow body provided with openings for the circulation of air and with a reinforced asbestos plate which serves as a die face and is opposed to the plunger.

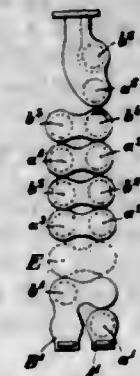
5. In a machine of the type set forth, molds for producing lead seal parts, each mold comprising opposed cooperating dies, guides for supporting a cord with relation to said molds, a spool upon which the said cord is wound, a rotary arm provided with tongs which serve first to grip and then to cut the cord at determined fixed points in the rotation of said arm, and means for operating the tongs in the cutting operation.

[Claims 6 to 8 not printed in the Gazette.]

1,083,199. WATER-TUBE BOILER. ROBERT DELAUNAY-BELLEVILLE, St.-Denis, France, assignor to Société Anonyme des Etablissements Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed Aug. 19, 1912. Serial No. 715,953. (Cl. 122—235.)

1. A boiler unit of the kind described, comprising two coils composed of a plurality of tubes, and a lower front box adapted to situate the point of departure of the first tube of the second coil above and to one side of the point of departure of the first tube of the first coil, said point of departure of the first tube of the second coil being in

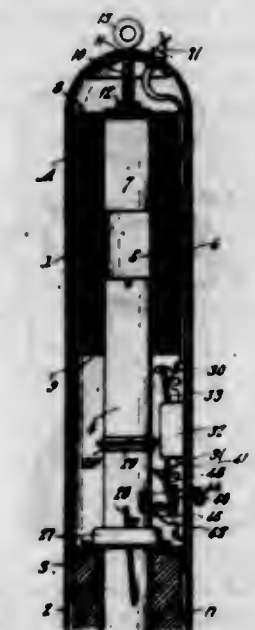
the same horizontal plane with the rear end of the first tube of the first coil.



2. A boiler unit of the kind described, comprising two coils composed of a plurality of tubes, a lower front box adapted to situate the point of departure of the first tube of the second coil above and to one side of the point of departure of the first tube of the first coil and in the same horizontal plane with the rear end of the first tube of the first coil, and two vertical lower rear boxes one for each coil, said boxes adapted to raise the entire nest of tubes by the height of one box except the first tube of each coil.

3. A boiler unit of the kind described, comprising two coils composed of a plurality of tubes, a lower front box adapted to situate the point of departure of the first tube of the second coil above and to one side of the point of departure of the first tube of the first coil and in the same horizontal plane with the rear end of the first tube of the first coil, and two vertical lower rear boxes one for each coil, said boxes adapted to raise the entire nest of tubes by the height of one box except the first tube of each coil, and the rear box of the second coil adapted to situate the point of departure of the second tube of the second coil above the point of departure of the second tube of the first coil.

1,083,200. ELECTRIC WELL-DRILL. HIRAM E. DIEHL, Lawton, Okla. Filed Jan. 29, 1913. Serial No. 744,993. (Cl. 255—4.)



1. In well drilling apparatus, a drill casing, a reciprocating bit carrying plunger, a solenoid for retracting said plunger, a spring for imparting the working stroke to said plunger, a collar on said plunger, and electric switch mechanism embodying upper and lower switch levers, a link connecting said levers, a circuit closing and breaking block carried by said link, and an indicator controlled by the same circuit and embodying a solenoid, and an indicating hand influenced thereby in accordance with the operation and position of the plunger.

2. In well drilling apparatus, a drill casing, a reciprocating bit carrying plunger, a solenoid for retracting said plunger, a spring for imparting the working stroke to said plunger, a collar on said plunger, and electric switch

mechanism embodying upper and lower switch levers, a link connecting said levers, a circuit closing and breaking block carried by said link, and an indicator controlled by the same circuit and embodying a solenoid, and a spring tensioned indicating hand influenced thereby in accordance with the operation and position of the plunger.

3. In well drilling apparatus, a drill casing, a reciprocating bit carrying plunger, a solenoid for retracting said plunger, a spring for imparting the working stroke to said plunger, a collar on said plunger, and electric switch mechanism embodying upper and lower circuit breaking and closing levers in the path of said collar, and a trip lever also arranged in the path of said collar and acting to break the current when the plunger exceeds its normal working stroke.

4. In well drilling apparatus, a drill casing, a reciprocating bit carrying plunger, a solenoid for retracting said plunger, a spring for imparting the working stroke to said plunger, a collar on said plunger, electric switch mechanism embodying upper and lower circuit breaking and closing levers in the path of said collar, a trip lever also arranged in the path of said collar and acting to break the current when the plunger exceeds its normal working stroke, and means for restoring said trip lever to its normal position after the collar moves out of contact therewith.

5. In well drilling apparatus, a drill casing, a reciprocating bit carrying plunger, a solenoid for retracting said plunger, a spring for imparting the working stroke to said plunger, means for increasing or decreasing the thrust of said spring, a collar on said plunger, and electric switch mechanism embodying upper and lower switch levers, a link connecting said levers, a circuit closing and breaking block carried by said link, and an indicator controlled by the same circuit and embodying a solenoid, and an indicating hand influenced thereby in accordance with the operation and position of the plunger.

[Claims 6 and 7 not printed in the Gazette.]

1,083,201. MILK-BOTTLE. HARVEY DIKEMAN, Danbury, Conn., assignor of seven-twentieths to William H. Foley, Danbury, Conn. Filed June 5, 1913. Serial No. 771,981. (Cl. 215-77.)



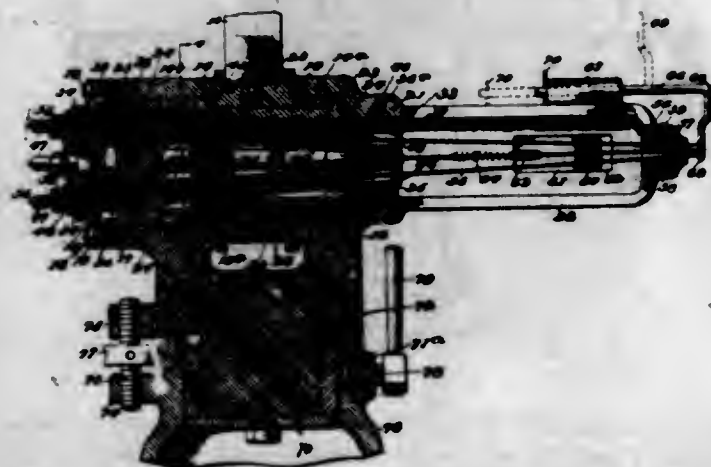
1. A bottle of the character described, having a downwardly rounded annular rim at its margin and a flat annular cap-seat on a level with the upper edge of the said rounded rim, and a plurality of cap-engaging lugs projecting upward from the rim, the inner faces of said lugs intersecting the rounded rim exterior to the outer circumference of the cap seat.

2. A bottle of the character described, having a downwardly rounded annular rim at its margin and a flat annular cap-seat on a level with the upper edge of the said rounded rim, and a plurality of cap-engaging lugs projecting upward from the rim, the inner faces of said lugs being exterior to the outer circumference of the cap seat, the inner faces of said lugs being slightly undercut.

3. A bottle of the character described, having a downwardly rounded annular rim portion, and a flat annular cap-seat extending inward from the upper edge of the

rounded portion and defining the opening of the mouth of the bottle, in combination with a flat cap resting on said cap-seat and extending on all sides beyond the cap-seat and over the rounded portion of the rim, and means for holding said cap in place.

1,083,202. BUTTON-DRILLING MACHINE. PAUL F. DUSHA, ANTON FEYK, and JOSEPH KOMANCSEK, New York, N. Y., assignors to Holub-Dusha Co. Inc., New York, N. Y. Filed Apr. 3, 1912. Serial No. 688,259. (Cl. 79-13.)



1. In a button perforating machine, a drill head, a plurality of drill chucks carried in the head, each chuck being independently adjustable longitudinally with relation to the head and removable through the rear end of the head, and removable means for holding the chucks in place within the head.

2. In a button perforating machine, a fixed drill head, a plurality of drill chucks disposed within the head, bearings disposed within the head within which said drill chucks revolve, common means for rotating the drill chucks, and means disposed at the rear end of the head for holding the chucks in place within the head, said means being removable to permit the removal of the chucks through the rear end of the head.

3. In a button perforating machine, a fixed drill head, a drill chuck extending longitudinally through the head, means for rotating said drill chuck, bearings in the head within which said drill chuck is mounted for rotation, said bearings converging toward the forward end of the head to form seats for the chuck, and means for adjusting said chuck into or out of said bearings.

4. In a button perforating machine, a fixed head, a plurality of drill chucks carried in the head, a plurality of bearings mounted in the head through which said chucks pass, said bearings having conical faces to form seats for the chucks, and removable bushings disposed within the rear end of the head and engaging said chucks, said bushings being adjustable to force the chucks toward the front of the head and into more or less engagement with the seats therefor or removable to permit the removal of any one chuck independent of the others.

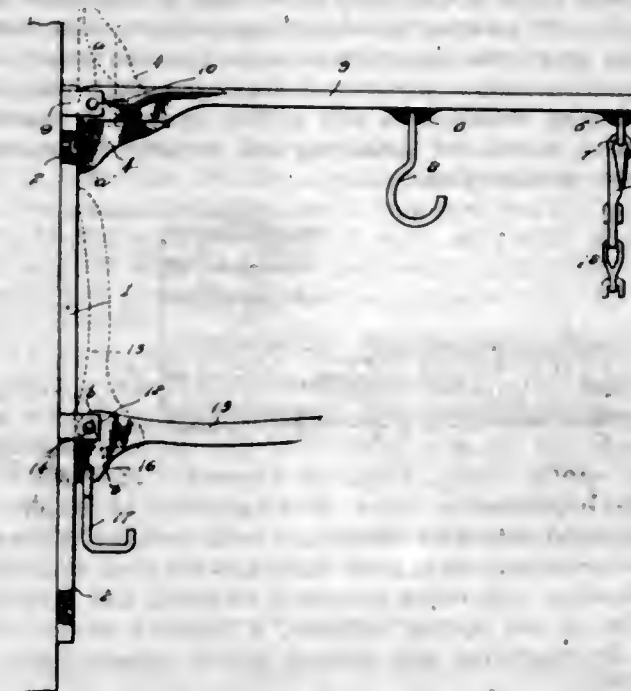
5. In a button perforating machine, a button chuck, a drill head, a plurality of drill chucks carried in the head, means disposed within the head for rotating said chucks, said chucks being directed toward the button chuck and toward a common center, a shiftable guide through which the drills pass, and a fixed guide disposed in advance of the shiftable guide and having drill passages extending parallel with each other.

[Claims 6 to 10 not printed in the Gazette.]

1,083,203. HARNESS-RACK. SIMPSON B. DYER, Tulsa, Tex. Filed Mar. 26, 1913. Serial No. 756,924. (Cl. 248-24.)

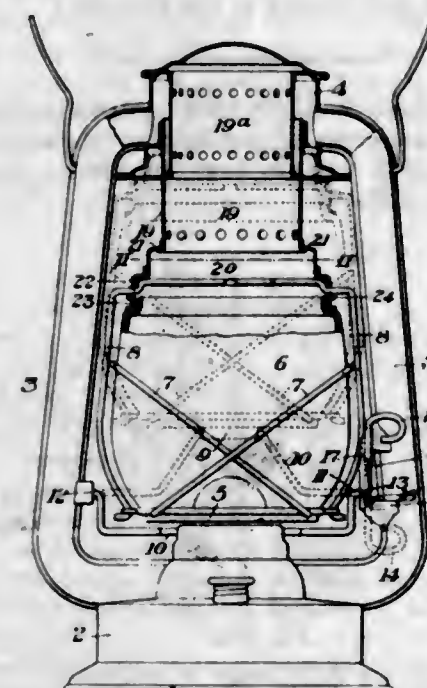
1. A harness rack of the class described, comprising a supporting standard, a horizontally arranged arm secured to the upper end of the standard, a hook arm also secured to the standard at a point below the horizontal arm, a bridle hanging hook attached to the inner end of the

hook arm, and suspending devices attached to the horizontally arranged arm.



2. A harness rack of the class described, comprising a supporting standard, an arm having harness suspending devices attached thereto, means to detachably secure one end of the arm to the standard, means carried by the arm to bear against the standard and hold the arm in horizontal position when attached to the standard, a hook arm, means to detachably connect the hook arm to the standard, means to support the hook arm in substantially horizontal position when extended from the standard, and a suspending hook carried by the hook arm.

1,083,204. TUBULAR LANTERN. ALONZO L. EDWARDS, Wheeling, W. Va., assignor to Wheeling Stamping Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Feb. 18, 1913. Serial No. 749,199. (Cl. 240-31.)



1. A lantern having a tiltable canopy member, and spring means for normally holding the member in its non-tilted position; substantially as described.

2. A lantern having a fixed chimney section, a telescoping chimney section, and a tiltable canopy member loosely mounted on the telescoping chimney section together with means for normally holding said member in its non-tilted position; substantially as described.

3. A lantern having a vertically movable and tiltable globe support, means for raising and lowering said support, a fixed chimney section, a lower chimney section ar-

ranged to telescope on the fixed chimney section, and a canopy member tiltable mounted on the movable chimney section; substantially as described.

4. A lantern having a depending fixed chimney section, another chimney section telescopically engaging the fixed chimney section, a canopy member tiltable supported on the movable chimney section, a vertically movable globe holder and globe, and means for raising and lowering the globe holder and globe; substantially as described.

1,083,205. BOILER. ROBERT G. FRITZ, Los Angeles, Cal. Filed Sept. 23, 1912. Serial No. 721,976. (Cl. 122-131.)

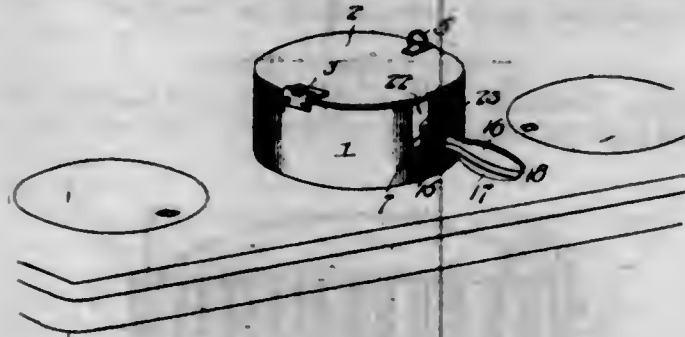


A boiler comprising a lower section having lower and upper heads, providing a lower water chamber, a water inlet pipe connected with the lower water chamber, an upper section having lower and upper heads, providing an upper water and steam chamber, and spaced from the lower section so as to provide an intermediate heating chamber between the lower and upper sections, a plate having a gas vent and connected with the upper section so as to provide a dome over the latter, a steam pipe extending from the top of the upper water and steam chamber downwardly on the outside thereof to the lower end of the intermediate heating chamber and coiled around the inner wall of the latter to the top thereof and upwardly outside of the upper section, large vertical water tubes extending through the intermediate heating chamber and providing communication between the lower water chamber and the upper water and steam chamber, water circulation pipes also extending through the intermediate heating chamber and also providing communication between the lower water chamber and the upper water and steam chamber, flues extending completely through the lower section, through the large water tubes and through the upper section, short flues extending across the lower section into the intermediate heating chamber, and flues extending from the intermediate heating chamber through the upper water and steam chamber and into the dome.

1,083,206. BROILER. PRIME EDWARD GANNON, Jerome, Ariz. Filed Dec. 11, 1912. Serial No. 736,166. (Cl. 53-5.)

1. A broiler comprising a casing adapted to be positioned above a stove opening and having its top and bottom open for communication therewith, a hinged closure for the top of said casing, the said casing being provided with a pivot opening in one side thereof and a bayonet slot in the other side, opening through the upper edge thereof, a holding device adapted to be positioned within the casing and including flat companion members, a projection formed at the edge of one of said members at right angles thereto and forming an eye, a lateral pivot pin provided on the other member and adapted to extend through the said eye and to be mounted rotatably within the pivot opening

in the casing, companion arms formed on the said holding members at the edges thereof opposite to the pivot pin and eye, the said arms being adapted to extend through the bayonet slot in the casing and to be disposed within the horizontal portion thereof when the holding device is in operative position, and handle sections carried by the said arms.



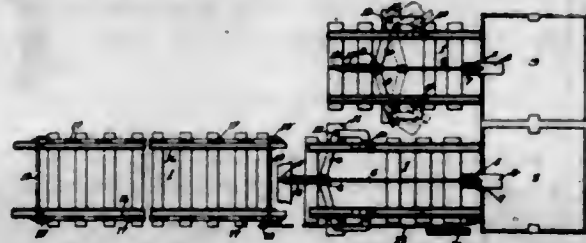
2. A broiler comprising a casing adapted to be positioned above a stove opening and having its top and bottom open for communication therewith, a hinged closure for the top of said casing, the said casing being provided with a pivot opening in one side thereof and a bayonet slot in the other side, opening through the upper edge thereof, a holding device adapted to be positioned within the casing and including flat companion members, a projection formed at the edge of one of said members at right angles thereto and forming an eye, a lateral pivot pin provided on the other member and adapted to extend through the said eye and to be mounted rotatably within the pivot opening in the casing, companion arms formed on the said holding members at the edges thereof opposite to the pivot pin and eye, the said arms being adapted to extend through the bayonet slot in the casing and to be disposed within the horizontal portion thereof when the holding device is in operative position, handle sections carried by the said arms, and a closure for said bayonet slot having a notch therein for the reception of the said arms.

3. A broiler comprising a casing adapted to be positioned above a stove opening and having its top and bottom open for communication therewith, a hinged closure for the top of said casing, the said casing being provided with a pivot opening in one side thereof and a bayonet slot in the other side, opening through the upper edge thereof, a holding device adapted to be positioned within the casing and including flat companion members, a projection formed at the edge of one of said members at right angles thereto and forming an eye, a lateral pivot pin provided on the other member and adapted to extend through the said eye and to be mounted rotatably within the pivot opening in the casing, companion arms formed on the said holding members at the edges thereof opposite to the pivot pin and eye, the said arms being adapted to extend through the bayonet slot in the casing and to be disposed within the horizontal portion thereof when the holding device is in operative position, handle sections carried by the said arms, and a closure plate depending from the said cover and adapted to extend over the said bayonet slot, the said plate being provided with a notch in the lower end of the same for the reception of the arms of the holding device members.

1,083,207. CAR-CAGER. JAMES P. GIBBONS, Springfield, Ill. Filed Feb. 26, 1913. Serial No. 750,840. (Cl. 214—12.)

1. The combination in a device of the character described, of an actuating member provided with slide members adapted to engage with guide members carried in the wall of a mine sump, said actuating member being adapted to extend at right angles to said wall and having a cable member connected thereto, a cable member, a sheave wheel, bell crank members, stopping and releasing members carried by bell crank members, a coil spring member, a braking device, and means for operating said braking device, substantially as described.

2. The combination in a device of the character described, of an actuating member, a cable member connected at one end to an actuating member and at the other end to an eye-bolt member pivotally connected to bell crank members, said cable being carried over a sheave wheel in a mine track, a sheave wheel, bell crank members, stopping and releasing members, a coil spring member, a braking device, and means for operating said braking device, substantially as described.



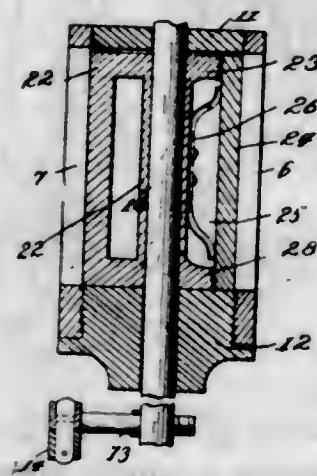
3. The combination in a device of the character described, of an actuating member, a cable member, a sheave wheel countersunk in a mine track and adapted to carry a cable member, bell crank members, stopping and releasing members, a coil spring member, a braking device, and means for operating said braking device, substantially as described.

4. The combination in a device of the character described, of an actuating member, a cable, a sheave wheel, L-shaped bell crank members mutually pivoted together by an eye-bolt member and each pivoted to a stationary foundation at the angle, said bell crank members having a raised stopping and releasing head on their outer arms, a coil spring member, a braking device, and means for operating said braking device, substantially as described.

5. The combination in a device of the character described, of an actuating member, a cable member, a sheave wheel, bell crank members, stopping and releasing heads carried on the outer arms of bell crank members, said stopping and releasing heads being raised to an upright position above rail members of a track, the inner faces of said heads being curved to conform to a portion of the circumference of the wheels of mine cars, a coil spring, a braking device, and means for operating said braking device, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,083,208. OSCILLATING VALVE. FRANK A. GOODNESS, Marion, Ind., assignor of one-half to Herbert E. Kinnear, Marion, Ind. Filed Aug. 21, 1912. Serial No. 716,299. (Cl. 123—81.)



1. A valve for internal combustion engines comprising a casing, an oscillatory shaft mounted therein, a valve blade movable with said shaft and radially movable with respect thereto, and means yieldingly holding said valve blade in frictional engagement with the casing wall.

2. A valve for internal combustion engines comprising a casing, an oscillatory shaft mounted therein, supporting arms fixed upon the shaft, a valve blade radially movable upon the supporting arms, and means arranged be-

tween the supporting arms to yieldingly hold the valve blade in frictional engagement with the casing wall.

3. A valve for internal combustion engines comprising a casing, an oscillatory shaft mounted therein, a supporting member fixed upon said shaft, a valve blade mounted upon said member for radial movement, and means on said member yieldingly holding the valve blade in frictional engagement with the casing wall.

4. A valve for internal combustion engines comprising a casing, an oscillatory shaft mounted therein, a valve blade in the casing to oscillate with said shaft and radially movable with respect to said shaft, said blade having longitudinal scraping edges for engagement with the casing wall.

5. A valve for internal combustion engines comprising a casing, a shaft mounted in said casing, arms fixed upon said shaft, a valve blade having a longitudinal groove to receive said arms, said blade being radially movable upon the arms with respect to the shaft, and a spring bearing against the base wall of said groove to yieldingly hold the valve blade in frictional engagement with the casing wall.

[Claims 6 to 9 not printed in the Gazette.]

1,083,209. COAT. ANDREW GRANSTROM, San Pedro, Cal. Filed Aug. 26, 1913. Serial No. 786,644. (Cl. 2—61.)



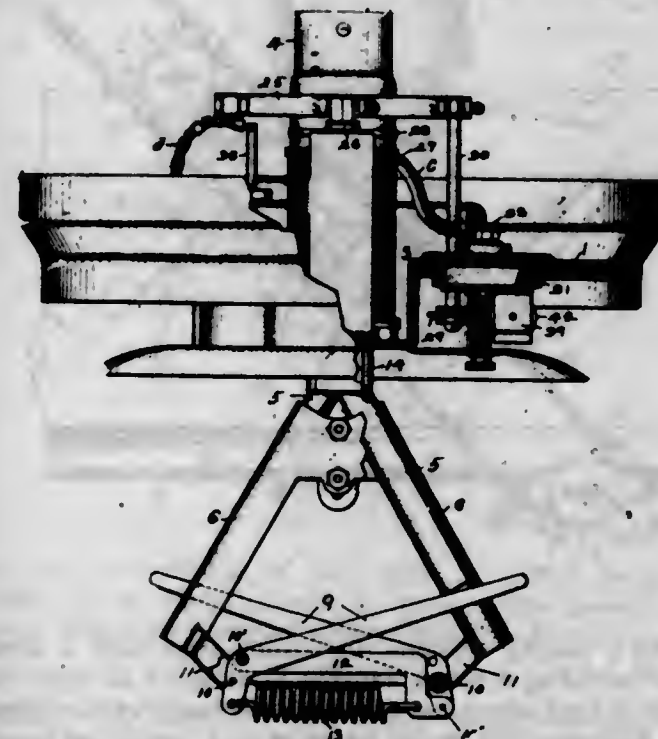
A coat provided with a strip which has one of its end portions secured to the inner side of and near the edge of one of the flaps of the coat, a button on the other end portion of the strip, the other of the flaps of the coat having a hole in the inner side thereof into which said button may be fitted to span and connect the flaps of the coat, the flap of the coat to which the strip is secured having a pocket on the inner side thereof with a slit and a hole in the pocket so that the strip when not in use may be folded back and extend into the pocket through said slit and be secured in the pocket by fitting the button in the hole in the pocket, substantially as described.

1,083,210. ARC-LAMP. CROMWELL A. B. HALVORSON, Jr., Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 3, 1909. Serial No. 511,009. (Cl. 176—111.)

1. An arc lamp having a platform containing a recess opening downwardly, a chimney rising from said recess, a second recess opening upwardly, a flanged plate pivoted in the downwardly opening recess, a U-shaped frame attached to said flange, a bar supported at the ends of said frame, an electrode mounted on said bar, and a solenoid seated in said second recess for lifting said plate, frame and electrode.

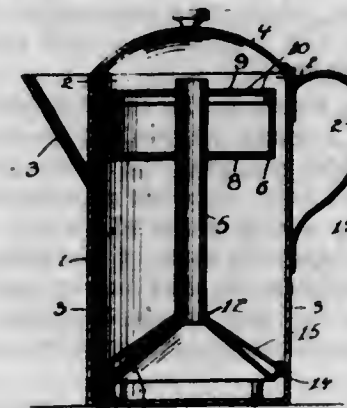
2. In an arc lamp, a consuming electrode, means for feeding said electrode so as to maintain its arcing face fixed with reference to the frame of the lamp, means for stopping the feed of said electrode at a predetermined point whereby further consumption of said electrode causes its arcing face to recede, a cooperating non-consuming electrode, means for bringing said second electrode into engagement with said consuming electrode and separating it therefrom to establish the arc, and a cut-out cooperating with said second electrode and adapted to be closed only when the arcing face of said second electrode is advanced beyond the normal position of the arcing face of said consuming electrode.

3. In an arc lamp, a lower consuming electrode, means for feeding the electrode so as to normally maintain its arcing face fixed with reference to the frame of the lamp, means for stopping the feed of said electrode at a predetermined point whereby further consumption of said electrode lowers its arcing face, an upper non-consuming electrode, means for bringing said upper electrode into engagement with the lower electrode and separating it therefrom to establish the arc, and a cut-out cooperating therewith adapted to be closed only when the arcing face of the upper electrode drops below the normal arcing face of the lower electrode.



electrode, means for bringing said upper electrode into engagement with the lower electrode and separating it therefrom to establish the arc, and a cut-out cooperating therewith adapted to be closed only when the arcing face of the upper electrode drops below the normal arcing face of the lower electrode.

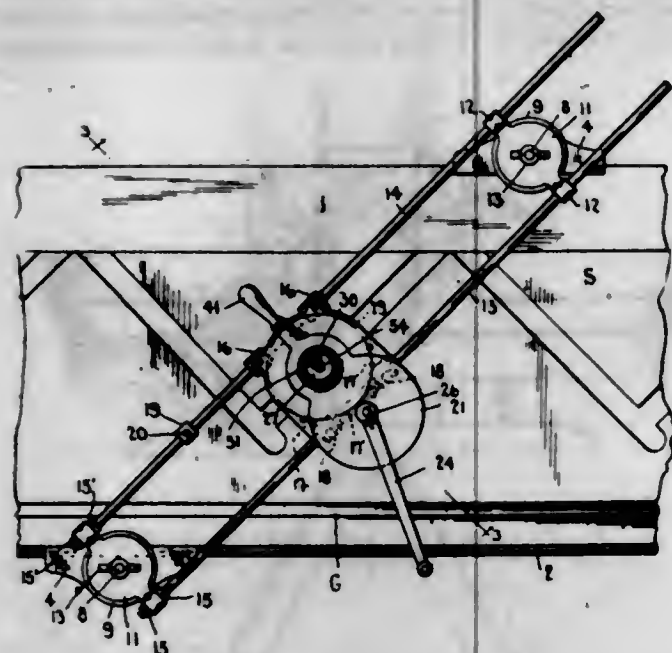
1,083,211. COFFEE-POT. MARY HOWELL, Ione, Oreg. Filed Oct. 9, 1912. Serial No. 724,879. (Cl. 53—3.)



1. The combination with a coffee pot, of a percolating attachment therefor comprising a tube, having a coffee receptacle secured near its upper end, said tube having its upper end projecting above the receptacle, a cone secured to the lower end of the tube and having communication therewith, said cone being provided with means whereby it is supported above the bottom of the pot, and perforated plates having their lower edges hinged to the lower edges of said cone, as and for the purpose set forth.

2. The combination with a coffee pot provided with a cover and a bottom, of a percolator attachment therefor consisting of a vertical tube having an annular coffee receptacle secured to its upper end, said tube having its upper end projected above the cover of said receptacle, the bottom and cover of the receptacle being perforated, a cone secured to the lower end of the tube and having communication therewith, legs secured to the lower end of the cone for supporting the same above the bottom of the pot, ears secured to the lower end of the cone, segmental shaped plates hingedly connected to said ears, said plates being perforated and spaced from the side of the cone, as and for the purpose set forth.

1,083,212. ROUTING-MACHINE. SAMUEL HUNTER, Bellevue, Pa. Filed Jan. 9, 1913. Serial No. 741,016. (Cl. 144—136.)



1. In a routing machine, the combination with a workholder including a plank adapted to be stood on edge and having a bead along its face near its lower edge, clamps adjustably mounted on the edges of said plank, and parallel guides connecting said clamps; of a carriage having eyes slidably and revolvably mounted on one guide and forks fitting over the other guide, spring-actuated latches in said forks engaging the guide, and the routing mechanism proper carried by said carriage.

2. In a routing machine, the combination with a pair of parallel guides, and a stop adjustably mounted on one of them; of a carriage having eyes slidably and revolvably mounted on one guide and two forks fitting over the other guide, spring-actuated latches adjacent the forks for engaging this guide, the routing mechanism proper carried by said carriage, and a handle secured to said carriage for the purpose set forth.

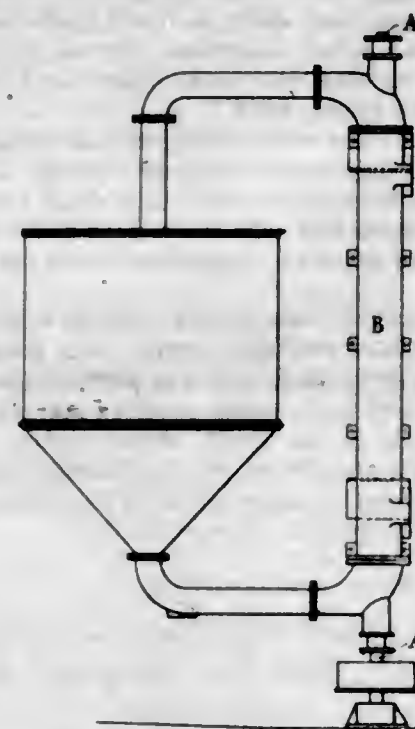
3. In a routing machine, the combination with a workholder including a plank adapted to be stood on edge; of clamps adjustably engaging the upper and lower edges of said plank and each carrying a metal-faced block, a bolt therethrough, a disk mounted on the facing around said bolt, eyes at opposite sides of the disk, a thumb nut on the bolt for holding the disk in any position, parallel guides connecting the eyes in one disk with those in the other, and the machine proper movably carried on said guides.

4. In a routing machine, the combination with a workholder including a plank standing on edge and having a groove in its face near its lower edge; of clamps adjustably engaging the upper and lower edges of said plank, a rib in the lower clamp slidably engaging said groove, a block carried by each clamp, a bolt therethrough, a disk mounted on the block and journaled around said bolt, eyes at opposite sides of the disk, a thumb nut on the bolt for setting the disk in any position, parallel guides connecting the eyes in one disk with those in the other, and the machine proper movably mounted on said guides.

5. In a routing machine, the combination with a carriage; of driving and driven spindles journaled in said carriage, the driven spindle having a tubular body with a closed upper end provided with an opening, a stock slidably mounted within this spindle and having a threaded socket in its upper end, means for detachably securing the bit to its lower end, a screw adapted to engage said socket and having a groove around its shank removably engaging said key-hole slot, means for rotating the driving spindle, and a train of gears between the spindles.

[Claims 6 to 8 not printed in the Gazette.]

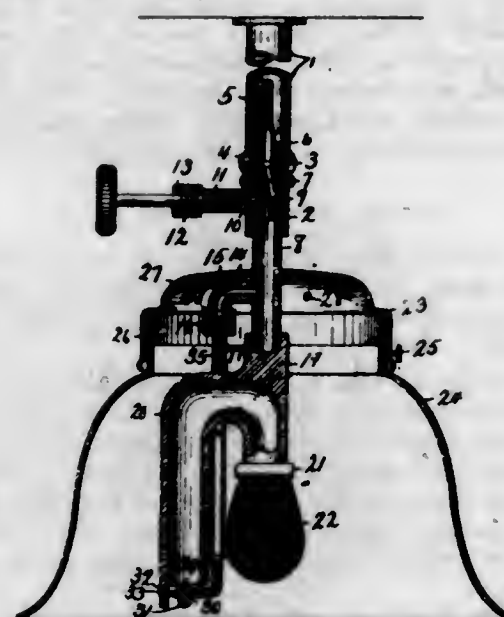
1,083,213. GRINDING, PULPING, AND PULVERIZING MACHINE. HAROLD JACKSON, Garstang, England. Filed Mar. 13, 1911. Serial No. 614,166. (Cl. 92—20.)



1. Apparatus for finally treating ground paper pulp consisting of a casing, and a rotor revolvable therein and having a plurality of beaters pivotally connected thereto, said beaters being operable by centrifugal force to act directly against the sides of the casing.

2. Apparatus for finally treating ground paper pulp consisting of a casing, and a rotor revolvable therein, said casing and rotor constituting companion parts, one of which parts is provided with a series of pivotally mounted beaters operable by centrifugal force to act directly against the adjacent surface of the other part.

1,083,214. LAMP. LEO J. KAHLO and ROY B. CAMERON, Defiance, Ohio. Filed June 13, 1913. Serial No. 773,399. (Cl. 67—50.)



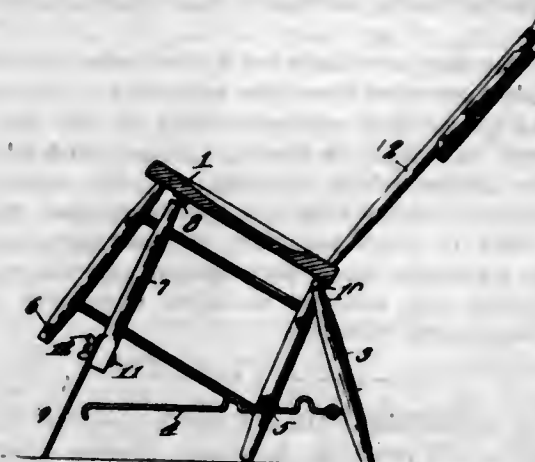
1. A lamp comprising a tubular mixing chamber having substantially parallel extending arms vertically arranged and a substantially horizontal connecting portion, a burner connected to one of said arms, a vaporizing tube discharging into the other arm of the mixing chamber and having a portion lying between the arms of the mixing chamber, said vaporizing tube extending in substantially a vertical direction and curved partly around the horizontal portion of the mixing chamber and having its upper end operably connected to a source of fuel supply, and a valve in the connection between the vaporizing tube and its source of fuel supply.

2. A lamp comprising an inverted J-shaped mixing chamber, a burner connected to the shorter arm of said chamber, a vaporizing tube discharging into the longer arm and having a portion lying between said burner and said longer arm, said vaporizing tube extending in substantially a vertical direction and having a curved intermediate portion partially encircling the horizontal portion of the mixing chamber, the upper end of said tube operably connected to a source of liquid fuel supply and a valve in the connection between said vaporizing tube and its source of fuel supply.

3. A lamp comprising a hollow mixing chamber having substantially parallel extending arms, a burner connected to one of said arms, a vaporizing tube operably connected to a source of fuel supply and having a portion lying between the arms of the mixing chamber, the bottom of said tube bent at substantially right angles to the main body thereof and having a portion thereof cut away to form a notch and a laterally extending flange, a seat formed in a wall of the mixing chamber coöperating with said notch and flange to prevent movement of said tube in a direction toward or from the burner.

4. In a gas lamp, a reservoir section operably connected to a source of fuel supply, said reservoir section supporting a mixing chamber having vertically extending arms of unequal length and a substantially horizontal connecting portion, a vaporizing tube having one end operably connected to and supported by an arm extending from the reservoir section, said vaporizing tube having a portion partially encircling the horizontal portion of the mixing chamber and extending downwardly between the arms of the mixing chamber and having a port discharging into the longer arm thereof, and a mantle operably supported on the other arm.

1,083,215. CHAIR. JAMES LEWIS, Montrose, W. Va. Filed Dec. 30, 1912. Serial No. 739,386. (Cl. 155—26.)



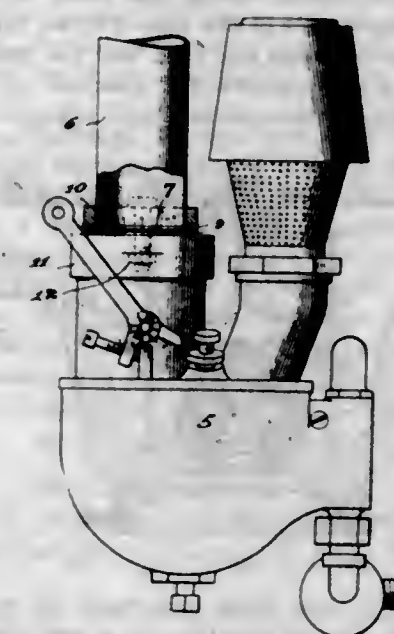
The combination with a chair, of an auxiliary leg hinged to the rear central portion thereof, a rack bar secured thereto coacting with one of the chair rungs adapted to hold the same in adjusted extended position, an extensible auxiliary leg hinged to the front central portion of the chair, the two rear legs and the front and rear auxiliary legs forming a four-legged stable structure holding the chair seat in inclined position.

1,083,216. CARBURETER ATTACHMENT. JAMES O'MAY, Chicago, Ill., assignor to Perley Lowe, Chicago, Ill. Filed Jan. 11, 1911. Serial No. 602,011. (Cl. 48—180.)

1. In a charge-forming device for internal-combustion engines, the combination with a carbureter and a delivery conduit leading therefrom to the supply port of the engine, of a perforated plate or screen interposed across said delivery conduit, the perforations of said plate or screen being so formed as to present rough or sharp edges toward the charge impinging thereon, substantially as described.

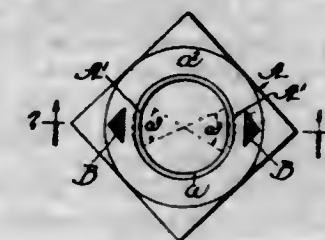
2. In a charge-forming device for internal-combustion engines, the combination with a carbureter, of a delivery

pipe, a coupling connecting the latter to the discharge end of the carbureter, and a perforated plate or screen fitted gas-tight in said coupling across the end of said delivery



pipe, the perforations of said plate or screen being so formed as to present rough or sharp edges toward the charge impinging thereon, substantially as described.

1,083,217. LOCK-NUT. BENJAMIN S. MCCLELLAN, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,107. (Cl. 151—21.)



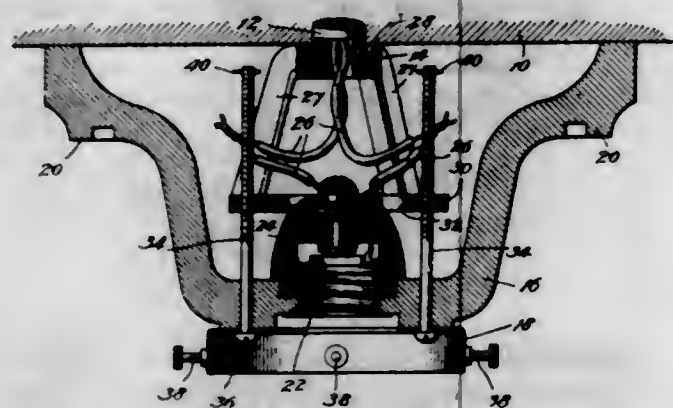
A nut having a screw-threaded aperture, and the metal of which is continuous circumferentially of said aperture, the screw-threads in said aperture, in the portion thereof adjacent to the inner face of the nut, being of uniform radius and conforming to a true cylinder, and the said nut being distorted, prior to its application to the bolt, in the part thereof adjacent to its outer face, in such manner that the screw threads in the distorted part of the nut, in a portion of the circumference of said screw threads, have the same radius as the screw threads in the portion of the aperture adjacent to the inner face of the nut, and in another part of their circumference are deflected inwardly from a true circle and have a smaller radius than that of the regularly formed screw threads in said part of the aperture adjacent to the said inner face of the nut.

1,083,218. ADJUSTABLE COMBINED SHADE AND HOOD HOLDER. CHARLES G. RUSH, Chicago, Ill. Filed Mar. 28, 1913. Serial No. 757,309. (Cl. 240—78.)

1. In a device of the class described, the combination of a hollow fixture hood adapted to be secured to a wall, the same being provided with a central lamp socket, an intermediate supporting member inside the hood straddling said socket device, means for securing the intermediate member to the wall, and means for securing the hood to said intermediate member located close to the socket so as to be practically concealed.

2. In a device of the class described, the combination of a hollow fixture hood to be secured to a wall provided at its center with an electric lamp socket, an intermediate member within the hood straddling said lamp socket, a single connection between the intermediate member and the wall, and a plurality of connecting devices between the intermediate member and the hood arranged in proximity to but clear of the lamp opening, for the purposes set forth.

3. In a device of the class described, in combination with a fixture hood to be attached to a wall and a shade holder to be attached thereto, a plurality of screws passing through the shade holder and hood in immediate proximity to a lamp socket in the hood and an intermediate connecting member between the hood and the wall engaged at one end by the said screws and adapted at the other end to be detachably connected to a wall support.

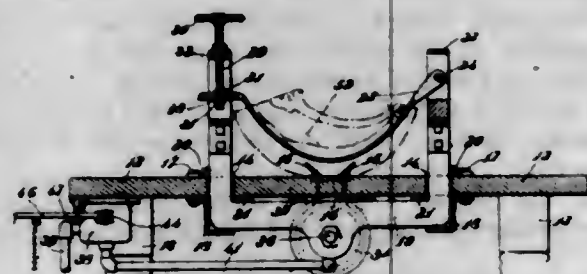


4. In a device of the class described, in combination with a fixture hood to be attached to a wall and a shade holder to be attached thereto, a plurality of screws passing through the shade holder and hood in immediate proximity to a lamp socket in the hood and an intermediate connecting member between the hood and the wall engaged at one end by the said screws and adapted at the other end to be detachably connected to a wall support, said screws being of sufficient length to permit of substantial adjustment of the hood with reference to the support.

5. In a device of the class described, in combination with a wall having a fixture stud extending therefrom, a fixture hood adapted to cover said stud, an intermediate connecting member inside the hood screw threaded upon said stud, and means detachably and adjustably connecting the hood to said intermediate member at a plurality of different points, said last mentioned means clearing but being in close proximity to the lamp socket carried by the hood.

[Claim 6 not printed in the Gazette.]

1,083,219. MACHINE FOR TRIMMING FORK. GORDON SAWYER, Nashville, Tenn. Filed May 19, 1913. Serial No. 768,639. (Cl. 17-24.)



1. A machine of the character described comprising, in combination, a bed, a trimming knife, a knife carrier, said knife being pivoted at one end in said carrier, means for adjustably holding the opposite end of said knife, and means for moving said knife carrier in a direction parallel to said bed.

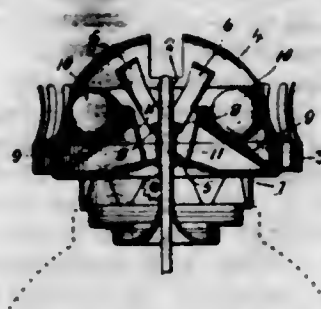
2. A machine of the character described comprising, in combination, a bed, a trimming knife, a knife carrier, said knife being pivoted at one end in said carrier and having at the opposite end a slot, a screw adjustably carried by said knife carrier and engaging said slot, and means for moving said knife carrier in a direction parallel to said bed.

3. A machine of the character described comprising, in combination, a work support, a knife carrier, means for relatively moving said knife carrier and work support, a trimming knife pivoted at one end in said knife carrier, and means for adjustably holding the opposite end of said knife.

4. A machine of the character described comprising, in combination, a bed, a yoke, means for moving said yoke in a direction parallel to said bed, a trimming knife pivoted at one end in one of the arms of said yoke, and means carried by the other arm of said yoke for adjustably holding the opposite end of said knife.

5. A machine of the character described, comprising, in combination, a bed having a pair of parallel slots, guides on the under side of said bed adjacent said slots, a yoke mounted in said guides and having arms extending through said slots, means for moving said yoke in said guides, a trimming knife pivoted at one end to one of said arms, and means carried by the other of said arms for adjustably holding the opposite end of said knife.

1,083,220. SAFETY LAMP-BURNER. PETER SCHROEDER, Two Rivers, Wis. Filed May 10, 1913. Serial No. 766,771. (Cl. 67-79.)



1. In a burner embodying a wick tube, extinguishing members pivotally supported upon opposite sides of the wick tube and pivotally connected to move together, inclined planes located at the sides of the wick tube, and ball weights arranged upon the inclined planes to move thereon and come in contact with an extinguishing member to effect a closing of both of such members over the wick to automatically extinguish the light in an emergency.

2. In a lamp burner embodying a wick tube the combination of a band mounted upon the wick tube, extinguishing members arranged upon opposite sides of the wick tube and adapted to close thereover, means pivotally connecting the extinguishing members to the band, other means pivotally connecting the extinguishing members to cause them to move together, inclined planes at the sides of the wick tube, and ball weights supported upon the inclined planes and adapted to effect automatic closing of the extinguishing members.

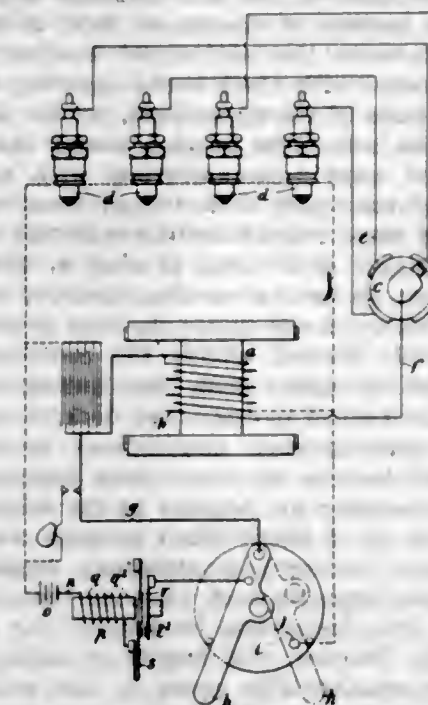
1,083,221. STARTER FOR INTERNAL-COMBUSTION ENGINES. FREDERICK RICHARD SIMMS, Willemsen Lane, London, England, assignor to The Simms Magneto Company, a Corporation of New York. Filed Feb. 23, 1910. Serial No. 545,452. (Cl. 123-148.)

1. An electric spark producing apparatus comprising a high tension magneto electric machine having a part constructed with primary and secondary windings and forming an induction coil, an external source of electricity, a trembler coil in circuit therewith, a circuit connecting the trembler coil and external source of electricity with the said primary winding and a controlling switch for said circuit.

2. An electric spark producing apparatus comprising a high tension magneto electric machine having a part constructed with primary and secondary windings and forming an induction coil, an external source of electricity, a trembler coil in circuit therewith, a circuit connecting the trembler coil and external source of electricity with the said primary winding, an auxiliary switch normally open, for controlling the said circuit and a main switch for connecting said circuit with the said primary winding.

3. An electric spark producing apparatus comprising a high tension magneto electric machine, having a part constituting an induction coil, an external source of electricity, a trembler coil, connected therewith, and means

for connecting said trembler and source of electricity with the primary winding to produce a succession of sparks, irrespective of the position of the armature.

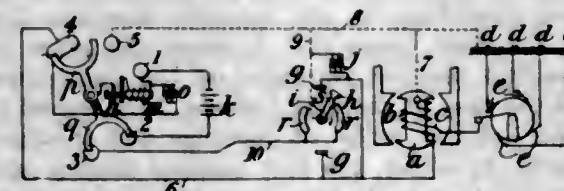


4. An electric spark producing apparatus comprising a magneto electric machine, having a part constituting an induction coil, an external source of electricity to excite the primary coil of said magneto, an operating switch, and a trembler coil in circuit with said external source of current and said primary coil, an auxiliary switch for closing the circuit through the trembler coil and means for preventing the operation of said auxiliary switch except when the operating switch is in a predetermined position.

5. An electric spark producing apparatus comprising a magneto electric machine, having a part constituting an induction coil, an external source of electricity to excite the primary coil of said magneto, an operating switch, and a trembler coil in circuit with said external source of current and said primary coil, and an auxiliary switch for closing the circuit through the trembler coil, and having a part carried by the operating switch, and operable only when the operating switch is in a predetermined position.

[Claims 6 to 8 not printed in the Gazette.]

1,083,222. ELECTRIC IGNITION APPARATUS. FREDERICK RICHARD SIMMS, Willemsen Lane, England, assignor to Simms Magneto Co., Inc., New York, N. Y. Original application filed Dec. 10, 1910, Serial No. 596,638. Divided and this application filed July 22, 1912. Serial No. 710,940. (Cl. 123-148.)



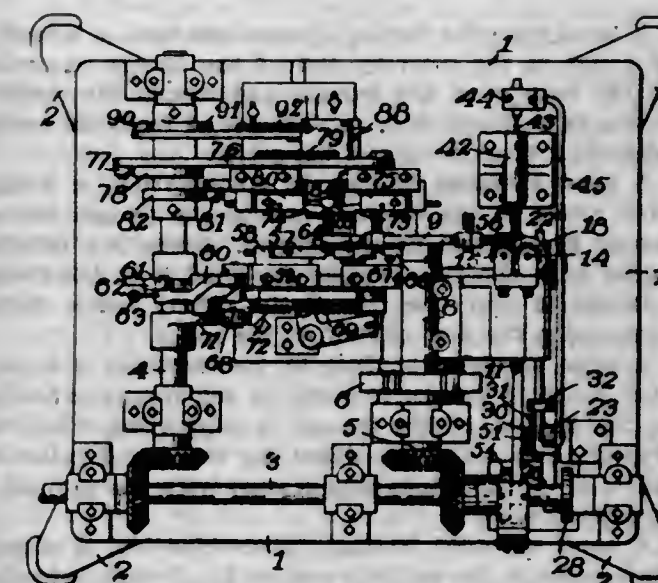
1. An electric spark producing apparatus comprising an induction coil, means for producing a magnetic field within which the said coil may rotate, an external source of current to excite the primary winding of said induction coil, and a trembler in circuit with said external source of current, a main circuit breaker for said primary winding, an auxiliary circuit breaker interposed between said external source of current and the primary winding and constructed to maintain the circuit through said external source of current open when the said main circuit breaker is closed.

2. In an ignition system provided with igniting devices, a high tension magneto, a main circuit breaker for the primary circuit of the magneto, an external source to excite the primary winding of the magneto, an electric

trembler in circuit therewith and an auxiliary circuit breaker adapted to be inserted in circuit between the accumulator and the primary circuit, said auxiliary circuit breaker being constructed to hold the accumulator circuit open while the main circuit breaker contacts are closed, and a switch for connecting either the magneto circuit or the accumulator circuit with the ignition system.

3. In an ignition system provided with igniting devices, a high tension magneto, a main circuit breaker for the primary circuit thereof having a rotary part, an accumulator a trembler in circuit therewith an auxiliary circuit breaker therefor having a rotary part operatively connected with the circuit breaker in a predetermined relation so that the auxiliary circuit breaker will hold the accumulator circuit open while the contacts of the circuit breaker are closed, and a switch for throwing the magneto circuit or the accumulator circuit into action.

1,083,223. HELICAL-SPRING-HOOKING MACHINE. FRANK H. SLEEPER, Worcester, Mass. Filed Nov. 25, 1912. Serial No. 733,321. (Cl. 140-103.)



1. In a machine of the class described, a feeding mechanism comprising a pair of gears adapted to engage the coils of a helical spring, means for supporting a continuous helical spring in alignment with said gears, and means for imparting an intermittent rotary motion to said gears.

2. In a machine of the class described, a feeding mechanism comprising a pair of gears provided with teeth adapted to engage the individual coils of a helical spring, means for imparting an intermittent rotary motion to said gears, and means for determining the amplitude of their movement.

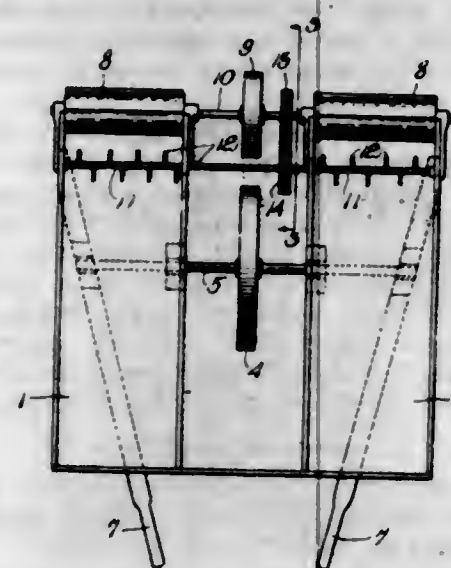
3. In a machine of the class described, a feeding mechanism comprising a pair of gears provided with teeth adapted to simultaneously engage the individual coils of a helical spring on opposite sides of the spring, means for imparting an intermittent rotary motion simultaneously to said gears, and means for determining the extent of each intermittent movement.

4. In a machine of the class described, means for feeding a continuous helical spring a predetermined distance, means for inserting an arbor into the advanced end of the spring by a movement in a direction opposite the movement of the spring, a reciprocating cutter co-operating with the arbor to sever one of the coils of the spring, means for actuating said cutter, and means for withdrawing the arbor by a reverse movement from the severed spring.

5. In a machine of the class described, a feeding mechanism for feeding a continuous helical spring comprising a pair of gears provided with teeth adapted to engage the individual coils of the spring on opposite sides, means for imparting an intermittent rotary motion to said gears, and yielding means for pressing said gears against opposite sides of the spring.

[Claims 6 to 10 not printed in the Gazette.]

1,083,224. SAND-SPREADING DEVICE. FRED W. SNOW, Bryantville, and ASA B. CUMMINGS, South Hanson, Mass. Filed Apr. 7, 1913. Serial No. 759,393 (Cl. 111-34.)



1. A sand spreader having, in combination, a trough, a fluted roller at the delivery end of the trough extending above the bottom of the trough, and means for rotating the roller in a direction to raise the sand from the trough and deliver it over the top of the roller.

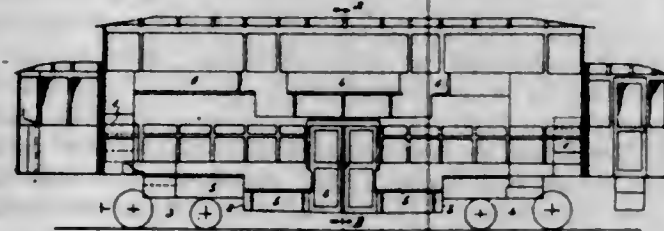
2. A sand spreader having, in combination, a trough, a fluted roller at the delivery end of the trough extending above the bottom of the trough, means for rotating the roller in a direction to raise the sand from the trough and deliver it over the top of the roller, and a device for controlling the flow of sand to the roller.

3. A sand spreader having, in combination, a trough, a fluted roller at the delivery end of the trough extending above the bottom of the trough, a supporting wheel for the trough, and a driving wheel for the fluted roller arranged to be brought into engagement with the ground by tipping the trough.

4. A sand spreader having, in combination, a trough, a fluted roller at the delivery end of the trough extending above the bottom of the trough, a supporting wheel for the trough, a driving wheel for the fluted roller arranged to be brought into engagement with the ground by tipping the trough, and a rotary device for controlling the flow of sand to the roller driven by the driving wheel.

5. A sand spreader having, in combination, a trough, a fluted roller at the delivery end of the trough extending above the bottom of the trough, means for rotating the roller in a direction to raise the sand from the trough and deliver it over the top of the roller, a shaft provided with radially extending pins arranged to control the flow of sand to the roller, and means for rotating the shaft in a direction opposite to the direction of rotation of the roller. [Claims 6 and 7 not printed in the Gazette.]

1,083,225. DOUBLE-DECKED VEHICLE. LUDWIG SPÄNGLER, Vienna, Austria-Hungary. Filed May 21, 1913. Serial No. 769,030. (Cl. 105-199.)



1. In a double decked vehicle the combination of wheels supporting the ends of the vehicle, a lower deck and an upper deck, the width of the upper deck being greater at its end portions above the said wheels than at its central portion.

2. In a double decked vehicle the combination of a lower deck and an upper deck, longitudinal benches at

the sides of the vehicle in the lower deck, a longitudinal passage way between such longitudinal benches, stairs from the lower deck to the upper deck, such stairs beginning at the ends of the said passage ways, benches in the central portion of the upper deck, a longitudinal passage way between the last named benches, longitudinal double benches with their backs opposing each other in the end portions of the upper deck, lateral longitudinal passage ways on both sides of such double benches, such lateral passage ways communicating with the central passage way of the upper deck and at least one of such lateral passage ways communicating with the stairs, the width of the upper deck being greater at the said end portions than at its central portion, and the floor of the upper deck being cut away under the said double benches.

3. In a double decked vehicle the combination of a lower deck and an upper deck, longitudinal benches at the sides of the vehicle in the lower deck, a longitudinal passage way between such longitudinal benches, stairs from the lower deck to the upper deck beginning at the ends of such passage way, benches in the central portion of the upper deck, a longitudinal passage way between the last named benches, longitudinal double benches with their backs opposing each other in the end portions of the upper deck, transverse benches at the inner ends of such double benches, the length of such transverse benches being substantially equal to the width of the double benches, lateral longitudinal passage ways on both sides of such double benches and transverse benches, such lateral passage ways communicating with the central passage way of the upper deck and at least one of such lateral passage ways communicating with the stairs, the width of the upper deck being greater at the said end portions, and the floor of the upper deck being cut away under the said double benches and transverse benches.

1,083,226. COMBINATION-LOCK. HANSFORD C. STEVENS, Jenkins, Ky. Filed May 14, 1912. Serial No. 697,208. (Cl. 70-53.)



1. A lock of the character specified, comprising an escutcheon having a central opening, a cup shaped casing secured to the escutcheon at the opening and provided with a central internal hub, a tumbler in the casing, said tumbler comprising a ring having one edge flush with the edge of the opening and a base secured to the ring and rotatable on the hub, a disk fitting within the tumbler and having a stem journaled in the hub and having a central knob extending in the opposite direction from the stem, a rotatable connection between the stem and the hub, a second tumbler journaled on the hub between the disk and the base of the first tumbler, said second tumbler having an annular series of openings and a single opening outside the series, the first tumbler having oppositely arranged openings in its base for registering with an opening of the series and with the single opening, the disk having laterally extending pins for engaging the openings, one of the pins being nearer the center of the disk for engaging an opening of the series and of greater length for extending through both tumblers, a bolt slidable in the casing between the casing and the adjacent tumbler and having an opening for engagement by the last named pin, a spring for holding the bolt in adjusted position, the escutcheon having an arc shaped series of indicating characters adjacent to the opening, the first tumbler and the disk each having an annular series of characters for registering with each other and with the characters of the escutcheon, a spring pressing the tumblers and the disk away from each other, and means for limiting the movement of the last tumbler with respect to the first tumbler.

2. A lock of the character specified, comprising a casing having a circular opening, a disk in the opening, an annular or ring shaped tumbler encircling the disk within the opening, a disk shaped tumbler within the first tumbler, means for limiting the angular movement of the tumblers with respect to each other, said second tumbler having an annular series of openings and an opening outside of the series, pins extending inwardly from the disk for engaging an opening of the series and the single opening, one of the pins being of greater length than the other pin, the first tumbler having means for engagement by the last named pin when the disk is in a predetermined position with respect to the casing, the disk being movable laterally toward the bolt, a spring pressing the disk away from the bolt, and a spring for holding the bolt in adjusted position, said disk having a knob for rotating the disk, said disk and first tumbler having means for indicating their position with respect to the casing.

3. A lock of the character specified, comprising a casing having a circular opening and an escutcheon encircling the opening, a disk in the opening, an annular or ring shaped tumbler encircling the disk within the opening, a disk shaped tumbler within the first tumbler, means for limiting the angular movement of the tumblers with respect to each other, said second tumbler having an annular series of openings and an opening outside of the series, pins extending inwardly from the disk for engaging an opening of the series and the single opening, one of the pins being of greater length than the other pin, the first tumbler having means for engagement by the last named pin when the disk is in a predetermined position with respect to the casing, the disk being movable laterally toward the bolt, a spring pressing the disk away from the bolt, the disk, first tumbler and escutcheon having means for indicating their relative position.

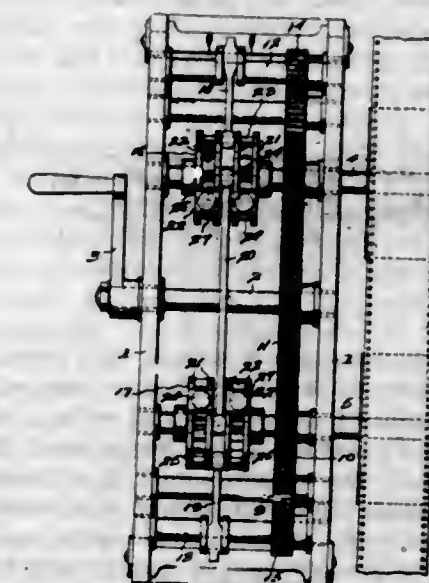
4. A lock of the character specified, comprising a casing having a circular opening in one side, a disk rotatable in the opening, an annular or ring shaped tumbler encircling the disk, and mounted for rotation, a bolt in the casing on the inner side of the disk, a disk shaped tumbler mounted to rotate in the casing between the bolt and the disk, said disk being movable laterally toward the bolt, and having means for engaging the second tumbler, the first tumbler and the bolt, when the disk and tumblers occupy a predetermined position with respect to the casing and to each other, a spring between the bolt and the disk and pressing them away from each other, means for limiting the angular movement of the tumblers with respect to each other, and means on the first tumbler the disk and the casing for indicating their relative position, said disk having a knob for turning the same.

5. A lock of the character specified, comprising a casing having a circular opening in one side, a disk rotatable in the opening, an annular or ring shaped tumbler encircling the disk, and mounted for rotation, a bolt in the casing on the inner side of the disk, a disk shaped tumbler mounted to rotate in the casing between the bolt and the disk, said disk being movable laterally toward the bolt, and having means for engaging the second tumbler, the first tumbler and the bolt, when the disk and the tumblers occupy a predetermined position with respect to the casing and to each other, a spring between the bolt and the disk and pressing them away from each other, and means on the first tumbler the disk and the casing for indicating their relative position, said disk having a knob for turning the same. [Claims 6 to 8 not printed in the Gazette.]

1,083,227. FILM-FEEDING MACHINE. FRANKLIN E. STILLINGS, El Paso, Tex., assignor of one-third to Mearle J. Green and one-third to James Archibald Alexander, El Paso, Tex. Filed May 6, 1913. Serial No. 765,942. (Cl. 88-18.2.)

1. In a machine of the character described, the combination of a casing; film engaging rollers mounted on the casing; an intermittently actuated device for each roller adapted to feed the film in one direction; an intermittently actuated device for each roller adapted to feed the film in

the opposite direction; and a common means for operating said film feeding devices.



2. In a machine of the character described, the combination of a casing; film engaging rollers mounted on the casing; a pawl and ratchet device for each of said film engaging rollers for operating the same in one direction; driving mechanism for said pawls and ratchets; and a second pawl and ratchet device for each of said film engaging rollers operable through said driving mechanism for feeding the film in the reverse direction.

3. In a machine of the character described, the combination of a casing; film engaging rollers mounted on the casing; ratchet wheels connected to said rollers; pawls for actuating said ratchet wheels; pawl carrying members; crank shafts journaled on the casing; arms connecting the crank shafts to actuate the pawl carrying members for feeding the film in one direction; second ratchet wheels connected to said rollers; pawls mounted on said pawl carrying members for actuating said second ratchet wheels to feed the film in reverse direction; and driving mechanism for said crank shafts.

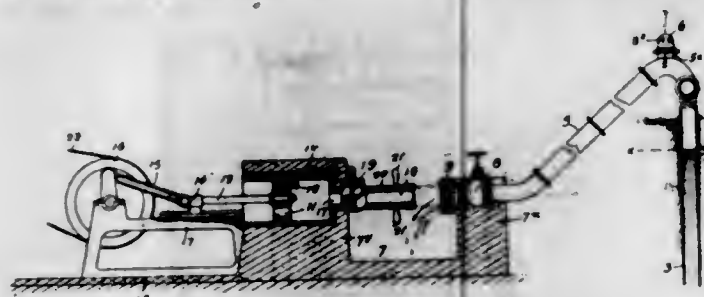
4. In a machine of the character described, the combination of a casing; film engaging rollers mounted on the casing; ratchet wheels connected to said rollers; oscillating members mounted adjacent the ratchet wheels; pawls carried by said oscillating members for actuating said ratchets to feed the film; a link connecting said oscillating members; crank shafts journaled on the casing; crank arms connecting said crank shafts and said oscillating members; and a gearing for operating said crank shafts.

5. In a machine of the character described, the combination of a casing; film engaging rollers mounted on the casing; ratchet wheels connected to said rollers; oscillating members mounted adjacent the ratchet wheels; pawls carried by said oscillating members for actuating said ratchets to feed the film; a link connecting said oscillating members; second ratchet wheels connected to said film rollers; second pawls carried by said oscillating members for actuating said second ratchet wheels to reverse feed the film; crank shafts journaled on the casing; crank arms connecting said crank shafts and said oscillating members; and a gearing for operating said crank shafts. [Claims 6 and 7 not printed in the Gazette.]

1,083,228. SIPHON AND STARTING DEVICE THEREFOR. WILLIAM F. STUART, Garden City, Kans., assignor of one-half to Romus F. Stuart, Indianapolis, Ind. Filed Dec. 6, 1912. Serial No. 735,236. (Cl. 137-20.)

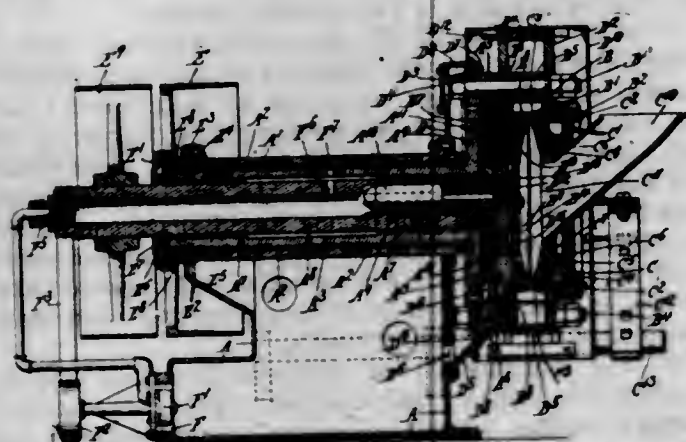
1. The combination with a siphon, of a receptacle, the end of the long arm of the siphon being arranged to empty into said receptacle, a cut-off valve carried by the long arm of the siphon, said cut-off valve being disposed in the wall of the receptacle, a pump carried by the opposite wall of the receptacle, telescopic means for connecting said pump with the end of said siphon, and a valve car-

ried by said siphon above the level of the fluid for breaking the flow of the siphon.



2. The combination with a siphon, of a receptacle, the end of the long arm of the siphon being arranged to empty into the receptacle and being provided with a union member, a cut-off valve carried by the long arm of the siphon, a pump carried by the opposite wall of the receptacle, a pipe extending from the pump toward said union member, and a slidable sleeve carried by said pipe and provided with a union member arranged to engage said first named union member for connecting the pump with the long arm of the siphon.

1,083,229. SINGLE-SHAFT DISKS, JOSIAH E. SYMONS, Milwaukee, Wis., assignor to Symons Brothers Company, Milwaukee, Wis., a Corporation of South Dakota. Filed Oct. 9, 1911. Serial No. 833,502. (Cl. 83-10.)



1. In a disk crusher the combination of a frame with a shaft mounted thereon a hollow head carried by said shaft two opposed crushing disks in the head rotated thereby in the same direction one fixed and the other floating and interposed between the floating disk and the head a tilting device adapted to progressively tilt the floating disk.

2. In a disk crusher the combination of a frame with a shaft mounted thereon a hollow head carried by said shaft two opposed crushing disks in the head rotated thereby in the same direction one fixed and the other floating and interposed between the floating disk and the head a tilting device adapted to progressively tilt the floating disk in a direction opposite to the direction of rotation of the crushing disks.

3. In a disk crusher the combination of a frame with a shaft mounted thereon a hollow head carried by said shaft two opposed crushing disks in the head rotated thereby in the same direction one fixed and the other floating and a tilting disk interposed between the floating disk and the head and adapted to progressively tilt the floating disk.

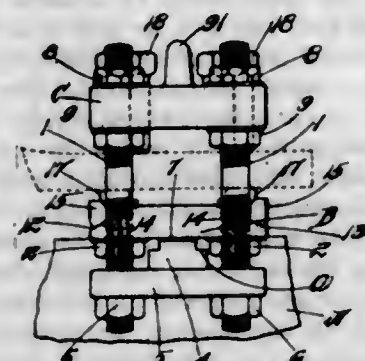
4. In a disk crusher the combination of a frame with a shaft mounted thereon a hollow head carried by said shaft two opposed crushing disks in the head rotated thereby in the same direction one fixed and the other floating and a tilting disk interposed between the floating disk and the head and adapted to progressively tilt the floating disk in a direction opposite to the direction of rotation of the crushing disks.

5. In a disk crusher the combination of a frame with a shaft mounted thereon a hollow head carried by said shaft two opposed crushing disks in the head rotated thereby in the same direction one fixed and the other floating and a

tilting device interposed between the floating disk and the head and means for rotating it so as to progressively tilt the floating crushing disk.

[Claims 6 to 22 not printed in the Gazette.]

1,083,230. TOOL-HOLDER. GEORGE A. TAYLOR, Lynn, Mass. Filed Feb. 1, 1913. Serial No. 745,643. (Cl. 82-36.)



1. The improved tool holder comprising a base having inclined ribbed surfaces on opposite sides thereof, a pair of pillow blocks each having an inclined ribbed surface cooperating with an inclined ribbed surface of the base, and means for clamping a tool upon said pair of pillow blocks.

2. The improved tool holder comprising a base having two inclined ribbed surfaces on opposite sides thereof, a pair of pillow blocks each having an inclined ribbed surface cooperating with an inclined ribbed surface of the base, a swinging member supported by each of said pillow blocks, and means for clamping a tool on said pair of swinging members, whereby the said swinging members adjust themselves to the angle of inclination of the tool determined by the position of the pillow blocks on the said inclined ribbed surfaces of the base.

3. The improved tool holder comprising a base with two inclined ribbed surfaces on opposite sides thereof, a pair of pillow blocks each having an inclined ribbed surface cooperating with a ribbed surface on the base, a swinging member supported on each of said pillow blocks, a top plate, and a clamping screw in the top plate to clamp a tool onto said pair of said swinging members.

4. The improved tool holder comprising a base having two inclined ribbed surfaces on opposite sides thereof, a pair of pillow blocks each having an inclined ribbed surface thereon, and a pair of swinging members, one of a pair of cooperating members having a half-round bearing formed therein and the other member of said pair having a curved surface cooperating with said bearing, and means for clamping the tool onto the two uppermost members.

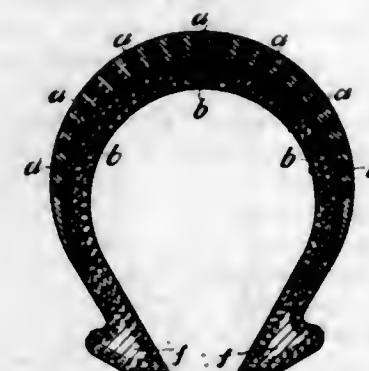
5. The improved tool-holder comprising a base with two inclined ribbed surfaces on two opposite longitudinal sides thereof, a pair of pillow blocks each having an inclined ribbed surface to cooperate with a ribbed surface on the base, said pillow blocks being much shorter than the base and slidable longitudinally on the ribbed surfaces thereof, and means for clamping a tool on said pair of pillow blocks.

[Claims 6 and 7 not printed in the Gazette.]

1,083,231. METHOD FOR MAKING TIRES. ALFRED EDMUND WALE, Birmingham, England. Filed Feb. 10, 1911. Serial No. 607,772. (Cl. 154-14.)

1. The herein described method of making a tire cover or the like which consists in weaving a spring fabric sheet of helical springs in interlaced relation with the axis of one spring parallel with the axes of the remaining springs and with the ends of the springs forming two edges of the sheet, in impregnating or filling the sheet thus formed with rubber under pressure, in severing the sheet across the longitudinal axes of the springs into strips, so that the axes of the interlaced springs will lie across the severed strips, and in mounting the strips side by

side edgewise radially on the tire, so that the axes of the springs become radial to the tire, and vulcanizing the strips together with the ends of the springs forming the edges of the strips and the top and bottom of the cover, substantially as described.



2. The herein described method of making a tire cover or the like which consists in forming a spring fabric sheet composed of interlaced helical springs, in filling the sheets with rubber to form a yielding composite sheet-like mass composed of the rubber and springs, in cutting the sheet into strips transversely with respect to the longitudinal axes of the springs, so that the axes of the interlaced springs will lie across the severed strips, and in uniting the strips side by side to dispose the helical springs radially with respect to the tire, substantially as described.

3. The manufacture of a tire or tire cover composed of a compound rubber and woven helical wire fabric with the component helices of the latter radially disposed therein, consisting in impregnating an open metal fabric in sheet form with rubber, cutting the sheets into strips, so that the axes of the interlaced springs will lie across the severed strips, coating the strips on the sides thereof with an adhesive solution, and mounting the strips side by side so that the axes of the springs become radial to the tire, and vulcanizing them together, substantially as described.

4. The herein described method of making a tire cover which consists in forming a sheet of interwoven helical wire fabric, filling said sheet with rubber under pressure, cutting the sheet across the axes of the helices into strips, so that the axes of the interlaced springs will lie across the severed strips, mounting the strips in circles side by side edgewise upon a tire casing, so that the axes of the springs become radial to the tire, and vulcanizing the strips together and to the casing to form a complete tire cover, substantially as described.

5. The herein described method of making a tire cover or the like which consists in forming a frame of helical wire fabric, in filling the same with rubber under high pressure, cutting the frame into strips transversely with respect to the longitudinal axes of the helices, joining the ends of such strips to form rings of the circumference of the tire, and mounting the rings edgewise so that the axes of the springs become radial to the tire, and side by side on the tire and vulcanizing said rings together, substantially as described.

[Claim 6 not printed in the Gazette.]

1,083,232. PROCESS FOR THE PRODUCTION OF AMMONIA. ROGER WILLIAM WALLACE AND EUGENE WASSMER, London, England. Filed Aug. 18, 1913. Serial No. 785,325. (Cl. 204-19.)

1. The herein described cyclic process of producing ammonia from free nitrogen, which comprises treating a metal with nitrogen to form nitrid, separating said nitrid into two portions, converting one portion of the nitrid into a metal sulfid and converting another portion of the nitrid into a metal chlorid, electrolyzing the mixture of said metal chlorid and sulfid to produce a metal and sulfur chlorid and repeating the cycle of operations.

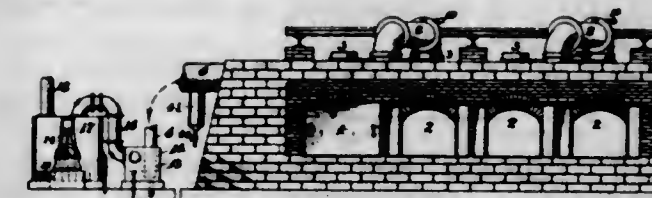
197 O. G.—82

2. A cyclic process for the production of ammonia which comprises (1) treating a metal with nitrogen to form nitrid, (2), dividing the nitrid into two portions, (3) treating one portion with hydrogen sulfid to form metal sulfid and ammonium sulfid, and treating the other portion with hydrochloric acid to form metal chlorid and ammonium chlorid (4) electrolytically converting said metal sulfid and metal chlorid into metal and sulfur chlorid; reintroducing the metal into the first step of the process, and (5) converting the sulfur chlorid into hydrogen sulfid and hydrochloric acid, for use in the third step of the process.

3. A cyclic process for the production of ammonia, which comprises (1) treating metallic magnesium with nitrogen to form magnesium nitrid, (2) dividing said nitrid into two portions, (3) treating one portion with hydrogen sulfid to form magnesium sulfid and ammonium sulfid, and treating the other portion with hydrochloric acid to form magnesium chlorid and ammonium chlorid (4) electrolytically converting said magnesium sulfid and magnesium chlorid into metallic magnesium and sulfur chlorid; reintroducing the metallic magnesium into the first step of the process, and (5) converting the sulfur chlorid into hydrogen sulfid, and hydrochloric acid for use in the third step of the process.

4. In a cyclic process for the production of ammonia substantially as set forth the steps of dividing the nitrid formed into two portions and treating one portion to form a sulfid and the other portion to form a chlorid.

1,083,233. METHOD OF TREATING GASES. CHARLES A. WEEKS AND RUDOLPH M. HUNTER, Philadelphia, Pa., assignors to Thomas R. Patton and Frederick C. Mencke, Philadelphia, Pa. Filed Apr. 21, 1911. Serial No. 622,463. (Cl. 48-220.)



1. The herein described process for treating gases, which consists in generating gases by chemical reaction in a practically closed coking oven, drawing said gases away from the place of generation under the influence of a partial vacuum, subjecting the gases to a combined cooling condensing and scrubbing action in the presence of a body of fluid, and simultaneously subjecting the said gases to the action of less extent of partial vacuum as the said cooling condensing and scrubbing action progresses and causing the gases in separated confined bodies to travel over the body of fluid with gradually slowing movements commensurate with their increasing pressure.

2. The herein described process for treating gases, which consists in generating gases by chemical reaction, drawing said gases away from the place of generation under the influence of a partial vacuum, separating the heavy hydrocarbons from the gases before cooling, passing the gases through a hydraulic seal to reduce their temperature while maintaining the partial vacuum upon both sides of the seal, subjecting the gases to a progressive combined cooling condensing and scrubbing action in the presence of a body of fluid, simultaneously subjecting the said gases to the action of a gradually less extent of partial vacuum as the said cooling condensing and scrubbing action progresses.

3. The herein described process for treating gases which consists in generating gases by chemical action at one place at a pressure less than atmospheric pressure, drawing off said gases and conveying them to a distance by the action of a partial vacuum, subdividing the gases

so existing at a pressure below atmospheric pressure into separate successively produced bodies, and independently treating the several bodies of the gases to the action of a cooling and scrubbing fluid by causing said bodies of the gases to travel in confined condition with a gradually decreasing speed and increasing pressure in passing from the vacuum zone to a zone of atmospheric pressure.

4. The herein described process for treating gases which consists in simultaneously generating gases in a plurality of furnaces by chemical action at a pressure less than atmospheric pressure, drawing off and mixing said gases and conveying them to a distance by the action of a partial vacuum, subdividing the mixed gases so existing at a pressure below atmospheric pressure into separate successively produced bodies of average mixture, independently treating the several bodies of the gases to the action of a cooling and scrubbing fluid, gradually reducing the vacuum under which the successive bodies of mixed gases exist during their treatment to cooling and scrubbing, delivering the gases at atmospheric pressure, and finally separating the fluid with its by-products from the current of gas being treated.

5. The herein described process for treating gases which consists in producing a difference in pressure between two chambers by maintaining a partial vacuum in one of them, maintaining an intermittent communication between the chambers by transferring isolated bodies of gases successively from the chamber containing the partial vacuum to the other chamber at a gradually decreasing speed and subjecting said isolated bodies of gases to a cooling and scrubbing action with water, reducing the partial vacuum of the respective isolated bodies of gases during their treatment to increase the scrubbing action, supplying the gases from a source in a heated state under the partial vacuum to the chamber in which the partial vacuum is maintained, and delivering the cooled and scrubbed gases from the other chamber in a purified and cooled condition under a pressure greatly in excess of that at which they were delivered into the chamber in which the partial vacuum exists.

[Claims 6 to 8 not printed in the Gazette.]

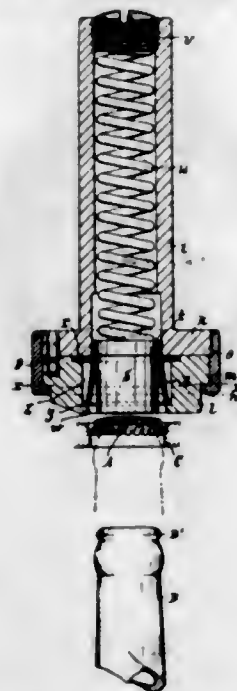
1,083,234. PROCESS FOR SEPARATING FIBROUS MATTER FROM ADMIXTURES. JOHANNES J. WERST, Delft, and PAUL M. H. L. COLLÉ and JOHAN M. EG-MOND, Rotterdam, Netherlands. Filed Apr. 11, 1913. Serial No. 760,550. (Cl. 92-1.)

1. A sub-process of the process of separating fibrous matter from foreign admixtures, printers' ink, impurities and other foreign matter, comprising boiling the material in an alkaline sulfite solution; adding to the boiled material a substance immiscible therewith; and then forming an emulsion of the mass thereby obtained.

2. A process of separating fibrous matter from foreign admixtures, printers' ink, impurities and other foreign matter, comprising dissolving the binding medium by subjecting the material under treatment to the action of a suitable solution; adding to the material thus treated a substance immiscible therewith; emulsifying the mass thereby obtained by subjecting the same to centrifugal action; and slowly stirring the emulsion until the immiscible substance together with the foreign matter separates from the fibrous matter, said stirring being so slow as to preclude reemulsification, while promoting the settling of the fibrous matter.

3. A sub-process of the process of separating fibrous matter from foreign admixtures, printers' ink, impurities and other foreign matter, comprising reducing the material under treatment to a pulp; adding to the pulp thus obtained a liquid substantially immiscible therewith; forming an emulsion of the pulp and the liquid substance added thereto; separating the fibrous matter from the emulsion by settling; promoting the settling action of the fibrous matter by stirring the mass so slowly as to preclude re-emulsification; and drawing off from the fibrous matter the supernatant lighter liquid carrying the relatively heavier foreign matter.

1,083,235. APPARATUS FOR SEALING BOTTLES. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed Aug. 19, 1909. Serial No. 513,564. (Cl. 113-2.)



1. In an apparatus for establishing caps in interlocked relation with containers, a sealing-head having its throat-portion substantially non-expandible yet flexible, substantially as described.

2. In an apparatus for establishing caps in interlocked relation with containers, a sealing-head having its throat-portion substantially non-expandible yet universally flexible, substantially as described.

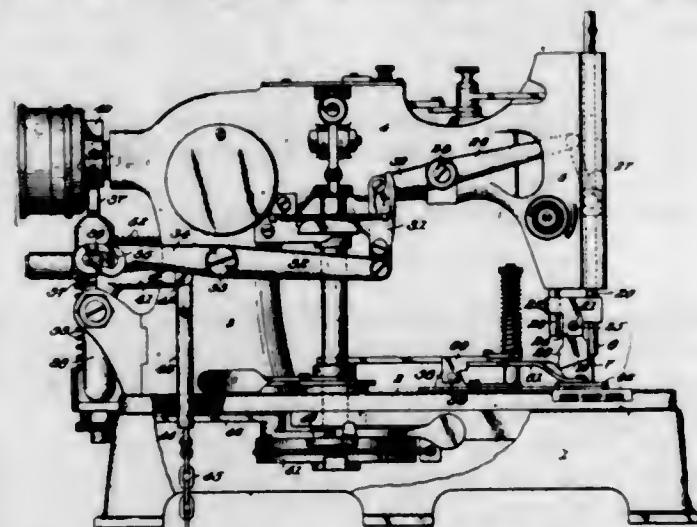
3. In an apparatus for establishing caps in interlocked relation with containers, a sealing-head having the inner surface-part of its throat-portion substantially non-expandible yet flexible, substantially as described.

4. In an apparatus for establishing caps in interlocked relation with containers, a sealing-head having the inner surface-part of its throat-portion substantially non-expandible yet universally flexible, substantially as described.

5. In an apparatus for establishing caps in interlocked relation with containers, a sealing-head having its throat-portion tapering and substantially non-expandible yet flexible, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,083,236. BUTTONHOLE-CUTTING DEVICE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 4, 1912. Serial No. 695,231. (Cl. 112-4.)



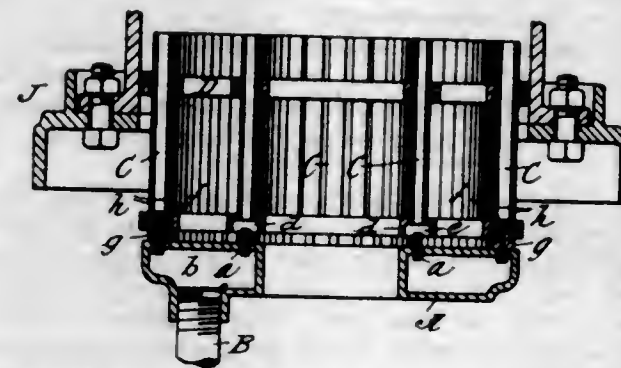
1. In a buttonhole sewing machine, in combination, a support, a reciprocating cutter-carrier mounted in bearings fixed relatively to said support, a punch mounted in said carrier and formed with a continuous cutting edge with

opposite portions inclosing an intervening space, stitch-forming mechanism comprising a reciprocating needle, a throat-plate fixed upon said support, one portion thereof being provided with a needle-aperture and an adjacent integral portion thereof being provided with an aperture peripherally closed to afford a cutting die in permanent register with said punch and wholly independent of the needle-aperture, a work-holder formed with an aperture to receive said throat-plate, actuating means for the stitch-forming mechanism and said punch, and means for producing relative traveling movements between the work-holder and the stitch-forming mechanism.

2. In a buttonhole sewing machine, in combination, a frame constructed with a bed-plate and an overhanging bracket-arm, a reciprocating cutter-carrier journaled in fixed bearings of the bracket-arm, a punch mounted in said carrier and formed with a continuous cutting edge with opposite portions inclosing an intervening space, stitch-forming mechanism comprising a reciprocating and laterally jogging needle mounted in said bracket-arm, a stationary throat-plate secured upon said bed-plate and provided with an elongated needle-aperture and with an adjacent independent and peripherally closed aperture to afford a cutting die for cooperation with said punch, a laterally and longitudinally movable work-holder having a lower member apertured to embrace said throat-plate, independent actuating means for the stitch-forming mechanism and said cutter-carrier, and means for producing longitudinal feeding movements and side-shift movements of said work-holder relatively to said throat-plate.

3. In a buttonhole sewing machine, in combination, a support, a reciprocating cutter-carrier mounted in bearings fixed relatively to said support, a punch mounted in said carrier, stitch-forming mechanism comprising a reciprocating needle, a throat-plate fixed upon said support and provided with a needle aperture and with an adjacent aperture peripherally closed to afford a cutting die, a work-holder having a member formed with an aperture to receive said throat-plate and to permit lateral and longitudinal movements of said member, whose work-supporting surface is maintained in substantially the work-supporting surface plane of said throat-plate, actuating means for the stitch-forming mechanism and said punch, and means for producing relative traveling movements between the work-holder and the stitch-forming mechanism.

1,083,237. WATER-HEATING APPARATUS. JOHN B. BEAUVAIS, Holyoke, Mass., assignor to The Beauvais Water Heater Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Jan. 11, 1913. Serial No. 741,456. (Cl. 158-106.)



1. A gas burner comprising a circular casing having a gas inlet and provided with a series of circularly arranged tubes at and upstanding above its top, the passages thereof being of slight diameter and connecting with the chamber of the casing, certain of said upstanding tubes being of increased diameter and made with shoulders, above the top of the casing, a series of vertical tubes corresponding to the said upstanding tubes having the passages therethrough of considerably greater diameter than those in the upstanding tubes and into the lower portions of which said upstanding tubes are directed, certain of said latter named tubes resting on and supported by said shoulders, and means for the ingress of air at the lower portions of the second named series of tubes.

2. A gas burner comprising a circular casing having a gas inlet and provided with a circularly arranged series of tubes at and upstanding above its top, having the axial passages therethrough of slight diameter and connecting with the chamber in the casing, a ring frame and means for supporting it above the top of the casing having a circular container in its under side, a plurality of mixing tubes carried by said ring frame, the lower ends of which extend through a portion of such frame which forms the upper wall of said circular container and into the lower ends of which the upstanding tubes are directed, and additional means above said ring frame for connecting and maintaining the tubes in parallelism.

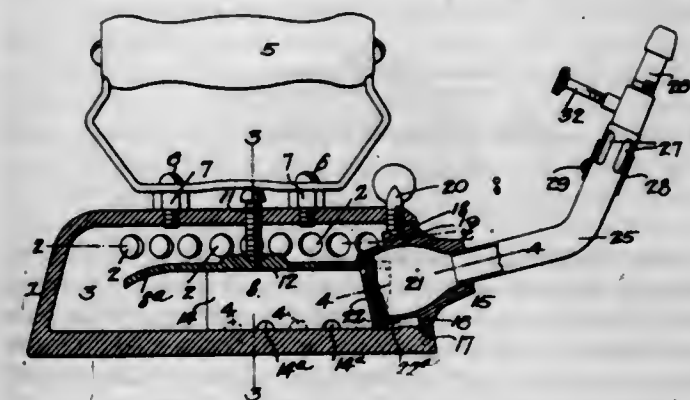
3. A gas burner comprising a circular casing having a gas inlet and provided with inner and outer circularly arranged series of tubes at and upstanding above its top, having the axial passages therethrough of slight diameter and connecting with the chamber in the casing, a ring frame and means for supporting it above the top of the casing, said frame having inner and outer circular channels in its under side, inner and outer circular series of mixing tubes carried by said ring frame, the lower ends of which extend through portions of such frame which form the upper walls of said circular channels and into the lower ends of which the upstanding tubes are directed, and additional means above said ring frame for connecting and maintaining the tubes in parallelism.

4. A gas burner comprising a circular casing having a gas inlet and provided with a series of circularly arranged tubes at and upstanding above its top, the passages thereof being of slight diameter and connecting with the chamber of the casing, certain of said upstanding tubes being of increased diameter and made with shoulders, above the top of the casing, a series of vertical tubes corresponding to the said upstanding tubes having the passages therethrough of considerably greater diameter than those in the majority of the upstanding tubes and into the lower portions of which said upstanding tubes are directed, certain of said latter named tubes resting on and supported by said shoulders, and fitting the portions of the shouldered tubes above such shoulders and having sidewise air ingress openings at their lower portions but above the upper ends of the upstanding shouldered tubes.

5. A chambered casing having a gas inlet and provided with gas jet-tubes upstanding above its top wall, and also having upstanding dowel-like members shouldered above the casing top, a plurality of vertical tubes having arrangement corresponding to that of the jet tubes and a frame uniting such tubes and provided with downwardly open tubular members to fit said dowel-like members and to rest on the shoulders thereof, and supporting the frame-uniting tubes with their lower ends above the tops of the gas jet tubes.

[Claim 6 not printed in the Gazette.]

1,083,238. GAS-HEATED IRON. HORACE L. BREWER, Camden, N. J., assignor to Modern Safety Gas Iron Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 17, 1913. Serial No. 768,246. (Cl. 158-23.1.)



1. In a gas heated iron, the combination of a body portion having a plurality of apertures in its side walls adjacent the top of the same, a plurality of apertures in said side walls adjacent the bottom of the same and disposed

at the rear of said body, said latter apertures opening outwardly below the plane of the inner surface of the iron bottom, a burner connected to the rear of said iron, and a flame deflector detachably mounted within the iron, said flame deflector having a downwardly curved forward end disposed adjacent the toe of the iron and notches forming apertures for the passage of air to the interior of the flame deflector adjacent the rear apertures in the body of the iron.

2. In a gas heated iron, the combination of a body portion having a plurality of apertures adjacent the top of the same and a plurality of apertures adjacent the bottom of the same and disposed at the rear of said body, a burner detachably connected to the rear of said iron, a flame deflector detachably mounted within the iron, said flame deflector having notches forming apertures for the passage of air to the interior of the same adjacent the rear apertures in the body of the iron.

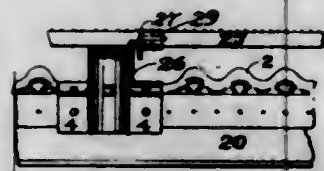
3. In a gas heated iron, the combination of a body portion with side walls having a plurality of apertures at top and bottom of the same, the bottom apertures being disposed at the rear of said body and opening outwardly below the plane of the inner surface of the iron bottom, a burner connected to the rear of said iron, and a flame deflector detachably mounted within the iron, said flame deflector having a forward downwardly curved end in engagement with the side walls of the iron, said end being notched and forming with the side walls of the iron apertures for the passage of heated air adjacent the forward upper apertures in the wall of the iron, and said flame deflector having notches forming apertures for the passage of air to the interior of the same adjacent the rear apertures in the body of the iron.

4. In a gas heated sad iron, the combination of a body portion having a plurality of apertures adjacent the top of the same, a plurality of apertures adjacent the bottom of the same and disposed at the rear of said body, a burner connected to the rear of said iron, a flame deflector detachably mounted within the iron, said flame deflector having notches forming apertures for the passage of air to the interior of the same adjacent the rear apertures of the body portion and having a forward downwardly curved end in engagement with the side walls of the iron, said end being notched at the sides engaging said walls.

5. The combination, in a gas heated iron, of an apertured body portion, a burner detachably connected to the rear of the same, said burner having an enlarged mixing chamber with an enlarged outlet providing a flame of large area, means for delivering gas to said burner, a wire screen for said burner, said screen being disposed within the burner, and means extending into the burner and forming an annular outlet passage beyond the screen for confining the latter in place, said mixing chamber having a greater cross-sectional area than the flame outlet leading therefrom.

[Claim 6 not printed in the Gazette.]

1,083,239. ROOF. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Oct. 18, 1911. Serial No. 655,366. (Cl. 108-5.)



1. The combination with a car body, of a metal roof comprising flanged carlines of inverted U-form, roof sheets having flanged side edges, a device for supporting the flanged edges of the roof sheets within the carlines, comprising a part secured to one leg of the U-form carline, and a part supported by said secured part and supporting an edge of the roof sheet.

2. The combination with a car body, of a metal roof comprising sheet metal carlines of inverted U-form with flanged edges, roof sheets with upwardly flanged edges

enveloped by the carlines, and angular clips secured to the flanged edges of the carlines and suspending the said flanged edges of the roof sheets from the carlines.

3. The combination with a car body, of a metal roof comprising carlines of inverted U-form with flanged edges, roof sheets with upwardly flanged edges enveloped by the carlines, and means for suspending the flanged edges of the roof sheets from the carlines, comprising a return bent angular member having one portion secured to the flanged edge of the carline, the other end of said securing member extending beneath a portion of the roof sheet.

4. The combination with a car body, of a metal roof comprising carlines of inverted U-form with flanged edges, roof sheets with upwardly flanged edges enveloped by the carlines, and means for suspending said roof sheets from the carlines, comprising a member secured to the flanged edges of the carlines, said member having a U-shaped portion extending within the channel of the carline and enveloping the upwardly-extending flange of the roof sheet, and a laterally-extending portion extending beneath the flanged edge of the roof sheet.

5. The combination with a car body, of a metal roof comprising carlines of inverted U-form with flanged edges, roof sheets with upwardly flanged edges enveloped by the carlines, and means for suspending the roof sheets from the carlines, secured to the flanged edges thereof above the plane of the main portion of the roof sheet, said securing means having a supporting portion extending below the plane of the roof sheets.

1,083,240. CAR-ROOF. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed May 23, 1912. Serial No. 699,230. (Cl. 108-5.)



1. In a car roof, the combination with carlines of inverted U-form, of roofing sheets having upturned side edges, said upturned side edges being secured together and said inverted U-form carlines being independent of the roof sheets and enveloping said upturned side edges.

2. In a car roof, the combination with carlines of inverted U-form, of roof sheets having overlapping upwardly-offset side edges secured together, said carlines being independent of said roof sheets and enveloping the overlapping side edges thereof.

3. In a car roof, the combination with roof sheets having their adjacent side edges secured together, of carlines positioned to form a weather proofing means for said side edges, said carlines being entirely independent of the roof sheets.

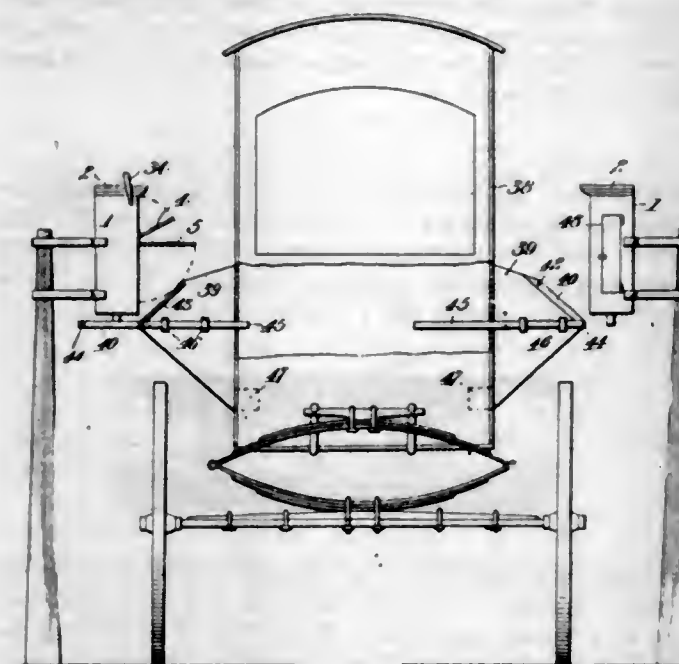
4. In a car roof, the combination with carlines forming connection between the top and the side of the car body, of roof sheets having their adjacent edges secured together, said roof sheets being independently movable relative to the carlines, said carlines being positioned to form weather proofing means for the adjacent edges of the roof sheets.

1,083,241. RURAL-ROUTE MAIL BOX AND COLLECTOR. ARTHUR V. CARLSON, Peconic, Ill. Filed Oct. 2, 1913. Serial No. 792,944. (Cl. 105-231.)

1. A device of the character described, including a casing, a normally closed door for the casing, a reciprocating slide, means actuated by the slide for opening the door, collecting means adapted to be mounted upon a vehicle, and means actuated by the said collecting means for operating the reciprocating slide.

2. A device of the character described, including a casing, a normally closed door for the casing, a reciprocating slide, means actuated by the slide for opening the door,

cam means having an operative connection with the slide, collecting means adapted to be mounted upon a vehicle, and trip means upon the collecting means for cooperation with the before mentioned cam means to move the reciprocating slide.



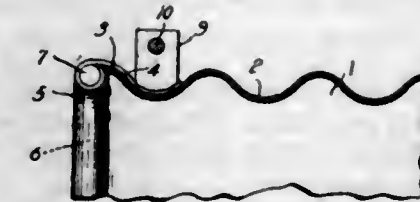
3. A device of the character described, including a casing, a door for the casing, a tilting bottom for the casing, mechanism upon the casing for opening the door and tilting the bottom, a collecting chute adapted to be mounted upon a vehicle, and means carried by the collecting chute for engagement with the before mentioned door opening and bottom tilting means of the casing to actuate the same.

4. A device of the character described, including a casing, a door for the casing, a tilting bottom for the casing, means upon the casing for opening the door and tilting the bottom, a collecting chute adapted to be mounted upon a vehicle, a cover for the collecting chute, and a slide controlling the cover, the said slide being adapted to engage and actuate the before mentioned door opening and bottom tilting means of the casing when moved into position to open the cover.

5. A device of the character described, including a casing, a door for the casing, a tilting bottom for the casing, means upon the casing for opening the door and tilting the bottom, a collecting chute adapted to be mounted upon a vehicle, a sliding cover for the collecting chute, and a cover actuating member for moving the cover into an open and closed position, the said cover actuating member being adapted to engage the before mentioned door opening and bottom tilting means upon the casing to actuate the same.

[Claims 6 to 17 not printed in the Gazette.]

1,083,242. METALLIC CULVERT. WILLIAM P. DU CHEMIN, Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J. Filed May 23, 1913. Serial No. 769,508. (Cl. 61-9.)



1. A metallic culvert comprising, a circumferentially corrugated pipe, a band secured to the end of the pipe and engaging the end corrugation thereof and projecting beyond the end of the pipe, and a roll formed by that portion of the band projecting beyond the pipe, combined substantially as set forth.

2. A metallic culvert comprising, a circumferentially corrugated pipe, a band secured to the end of the pipe and

engaging the end corrugation thereof and projecting beyond the end of the pipe, a roll formed by that portion of the band projecting beyond the pipe, and means for drawing the ends of the band together to cause the band to forcefully clasp the pipe, combined substantially as set forth.

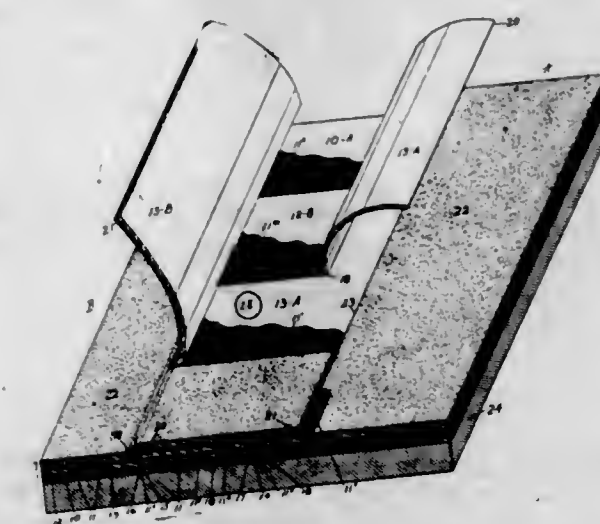
3. A metallic culvert comprising, a circumferentially corrugated pipe, a band secured to the end of the pipe and engaging the end corrugation thereof and projecting beyond the end of the pipe, ears projecting outwardly from the ends of the band, and a draw-bolt passing through said ears and serving to draw the band into forceful engagement with the pipe, combined substantially as set forth.

4. A metallic culvert comprising, a circumferentially corrugated pipe, a band secured to the end of the pipe and engaging the end corrugation thereof and projecting beyond the end of the pipe, and an inwardly projecting roll formed by that portion of the band projecting beyond the pipe combined substantially as set forth.

5. A metallic culvert comprising, a circumferentially corrugated pipe, a band secured to the end of the pipe and engaging the end corrugation thereof and projecting beyond the end of the pipe, a roll formed by that portion of the band projecting beyond the pipe, and a rod inclosed by said roll, combined substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,083,243. READY-TO-LAY COMPOSITION ROOFING. WILLIAM C. EDWARDS, Jr., Kansas City, Mo. Filed Oct. 9, 1912. Serial No. 724,743. (Cl. 108-7.)



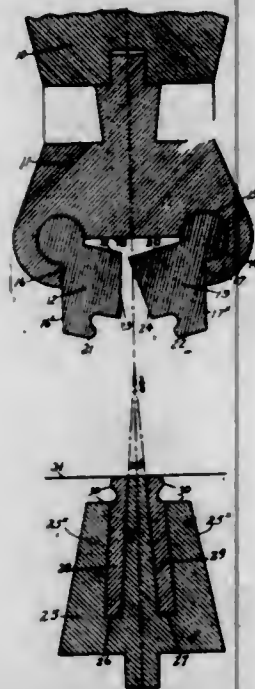
1. A ready to lay roofing comprising a built up composition composed of upper, middle and base layers of body materials, cementitiously bonded together over a major portion of their surfaces, the said base and middle layers being offset, with respect to each other, to form at opposite edges extended portions of said base and middle layers; the upper layer covering both base and middle layers, the edges of said upper layer comprising free flap portions, unattached to said under layers.

2. In a roofing structure composed of adjacent sheets A and B of built up ready to lay roofing, each sheet comprising layers of body materials, cementitiously bonded together over a major portion of their surfaces, the upper body layer being extended a short distance beyond one edge of the under layer to form an under flap portion of said upper body layer, the said upper layer being uncemented to a marginal portion of the under layer at the opposite edge thereby forming an upper flap portion of said upper body layer; a continuous joint being formed between said sheets of roofing, in which the under layer of sheet B abuts the under layer of sheet A, the under flap of sheet A covering the cementitiously coated marginal edge portion of the under layer of sheet B, said under flap portion of sheet A being cementitiously coated and covered by the upper flap portion of sheet B.

3. In a roofing structure composed of adjacent sheets A and B of built up ready to lay roofing, each sheet comprising

ing upper, middle and base layers of body materials, cementitiously bonded together over a major portion of their surfaces, the said base and middle layers being offset with respect to each other to form, at opposite edges, extended portions of said base and middle layers, the said upper layer being extended a short distance beyond one edge of said middle layer to form an upper flap portion of said upper layer, and said upper and middle layers at the opposite edge being uncemented together, thereby forming an upper flap portion of said upper body layer; a continuous joint being formed between said sheets of roofing, in which the extended portion of the middle layer of sheet B abuts the middle layer of sheet A and covers the cementitiously coated extended portion of the base layer of sheet A, the under flap portion of the upper layer of sheet A covers the cementitiously coated extended portion of the middle layer of sheet B, and the upper flap portion of the upper layer of sheet B covers the cementitiously coated under flap portion of sheet A.

1,083,244. COMPOUND-ACTING DIES. WILLIAM C. EDWARDS, JR., Kansas City, Mo. Filed Mar. 24, 1913. Serial No. 758,504. (Cl. 153-76.)



1. In combination in a press for forming contracted corrugations in sheets or plates, a compound acting die comprising an expansible and contractible outer female die and an inner male die; said male die comprising a die holder fitted with a mandrel member adapted to slide, in a direction slightly inclined to the axis of said die, along a guiding surface fashioned on said die holder.

2. In combination in a press for forming contracted corrugations in sheets or plates, a compound acting die comprising an expansible and contractible outer female die and an inner male die; said male die comprising a die holder having two mandrel members seated therein and adapted to slide outwardly from their seats in said die holder, in directions slightly inclined to the axis of said die, along inclined guiding surfaces fashioned on said die holder.

3. In combination in a press for forming contracted corrugations in sheets or plates, a compound acting die comprising a die holder fitted with expansible and contractible portions constituting a female die, and an inner male die comprising a die holder fitted with a mandrel member adapted to slide along a guiding surface fashioned on said die holder, in a direction inclined to the axis of said die; and means for preserving contraction of the female die during a portion of the travel on the release stroke of the press and means for moving and governing the action of the sliding mandrel.

4. In combination in a press for forming contracted corrugations in sheets or plates, a compound acting die comprising a die holder fitted with expansible and contractible

portions constituting a female die, and an inner male die comprising a die holder having two mandrel members seated therein and adapted to slide outwardly from their seats in said holder, along inclined guiding surfaces fashioned on said die holder, in directions slightly inclined to each other; and means for preserving contraction of the female die during a portion of the travel on the release stroke of the press and means for moving and governing the action of said mandrel members.

1,083,245. VEHICLE-TIRE. LYMAN H. FERGUSON, Ithaca, N. Y., assignor of one-third to Quincy W. Wellington and two-thirds to Thomas F. Rogers, Edwin Force, and Casius G. Andrews, Corning, N. Y. Filed Aug. 17, 1912. Serial No. 715,632. (Cl. 152-5.)



A vehicle tire comprising an annular body circumferentially split, means to hold the body in tubular form upon the rim of a wheel, partitions alternately connected to the opposite sides of the body and extending across the interior of the same, said partitions being grouped in pairs and cushion ribs arranged adjacent one partition and adapted to coact with the connected edge of the said partition to hold the free edges of said partitions against displacement.

1,083,246. PROCESS FOR DESULFURIZING ORES. WILLIAM A. HALL, New York, N. Y. Filed May 31, 1913. Serial No. 770,946. (Cl. 23-10.)

1. The process of desulfurizing ore which consists in subjecting the ore in the presence of steam to the action of a non-oxidizing flame at a temperature upward of the temperature at which the sulfur content of the sulfids is distilled.

2. The process of desulfurizing ore which consists in subjecting the ore in the presence of steam to the action of a non-oxidizing flame at a temperature sufficiently high to distill the sulfur of said ore, but below a temperature at which said ore would fuse.

3. The process of desulfurizing ore which consists in subjecting the ore in the presence of steam to the action of a non-oxidizing flame at a temperature upward of the temperature at which the sulfur content of said ore is distilled, and agitating the ore.

4. The process of distilling and recovering directly in the form of elemental sulfur the fixed atom of sulfur in sulfid ores, which consist in subjecting the ore in the presence of steam to the action of a non-oxidizing flame at a temperature upward of the temperature at which the sulfur content of said ore is distilled.

5. In the recovery of sulfur from sulfid ores the step of heating said ore in a non-oxidizing environment until at least the major part of so called "fixed atom" of said ore has distilled.

[Claims 6 to 18 not printed in the Gazette.]

1,083,247. PROCESS FOR THE PRODUCTION OF SULFURETED HYDROGEN. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,026. (Cl. 23-10.)

1. A process of producing H_2S from sulfid ore, which comprises agitating said ore, and subjecting the same to the combined action of a reducing flame and steam, the steam being introduced in amount sufficient to maintain the ore at a temperature below that at which any material amount of free sulfur is vaporized.

2. A process of producing H_2S from sulfid ore, which comprises agitating a layer of said ore, and subjecting the same to the action of a reducing flame blown directly

upon the surface thereof, and to the simultaneous action of steam in large amount.

3. A process of producing H_2S from pyrites, which comprises agitating said pyrites, and subjecting the same to the combined action of a reducing flame and steam, the steam being introduced in amount sufficient to maintain the pyrites at a temperature below that at which any material amount of free sulfur is vaporized.

1,083,248. PROCESS FOR THE EXTRACTION OF SULFUR FROM METALLIC SULFIDS. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,024. (Cl. 23-10.)

1. In the production of sulfur from ores containing considerable amounts of pyrites, subjecting said ore to the action of a reducing flame and of a limited amount of steam which amount is in itself insufficient to produce considerable amounts of H_2S , but sufficient to prevent substantial loss of sulfur due to formation of material quantities of SO_2 and COS .

2. A process of extracting sulfur from metallic sulfids, containing considerable amounts of pyrites, which comprises agitating the sulfid and simultaneously subjecting the same to the combined action of a direct reducing flame and of a small amount of H_2O .

3. A process of extracting sulfur from those sulfid ores which contain considerable quantities of sulfid containing both fixed and feeble atoms of sulfur, which comprises subjecting such sulfids to the simultaneous action of a reducing flame and of a relatively small volume of steam while causing fresh surfaces of the sulfids to be exposed throughout the operation.

4. A process of extracting sulfur from metallic sulfids, which comprises subjecting the sulfids to the action of steam and of a reducing flame produced by combustion of producer gas, reacting with steam on any carbon oxy-sulfid that may be formed to produce sulfureted hydrogen and carbon dioxide and reacting on the sulfureted hydrogen with sulfur dioxide to precipitate sulfur.

5. A process of extracting sulfur from metallic sulfids which comprises agitating the sulfids and simultaneously subjecting the same to the combined action of a direct reducing flame and of a small amount of steam, while maintaining the gases evolved at a pressure exceeding normal atmospheric pressure.

[Claims 6 to 9 not printed in the Gazette.]

1,083,249. PROCESS FOR THE PRODUCTION OF SULFUR. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,025. (Cl. 23-10.)

1. The herein described process of producing sulfur from hydrogen sulfid and sulfur dioxide, which comprises bringing together the sulfur dioxide and hydrogen sulfid in the presence of sulfur vapor, in amount equal to from 50 to 90%, and at a temperature of between 300 and 800° C.

2. The herein described process of producing sulfur from hydrogen sulfid and sulfur dioxide, which comprises bringing together the sulfur dioxide and hydrogen sulfid in the presence of sulfur vapor and steam, at a temperature of between 300 and 800° C., and maintaining said temperature until the reaction between hydrogen sulfid and sulfur dioxide is substantially complete.

3. The herein described process of producing sulfur from hydrogen sulfid and sulfur dioxide, which comprises bringing together the sulfur dioxide and hydrogen sulfid in substantially the theoretical proportions in the presence of sulfur vapor in amount equal to from 30 to 90%, and steam at a temperature of between 300 and 800° C.

4. The herein described process of producing sulfur from hydrogen sulfid and sulfur dioxide, which comprises bringing together the sulfur dioxide and hydrogen sulfid in substantially the theoretical proportions in the presence of sulfur vapor and steam at a temperature of between 300 and 800° C., and maintaining said temperature until the reaction between hydrogen sulfid and sulfur dioxide is substantially complete.

1,083,250. PROCESS OF RECOVERING SULFUR. WILLIAM A. HALL, New York, N. Y. Filed June 25, 1913. Serial No. 775,742. (Cl. 23-10.)

1. A process of distilling the sulfur of those varieties of sulfid ores, in which no considerable amount of sulfid having both "fixed" and "feeble" sulfur atoms exists, said process comprising the treatment of a layer of said ore, with a reducing flame obtained by burning a gas mixture containing large amounts of methane and ethylene.

2. A process of distilling the sulfur of those varieties of sulfid ores, in which no considerable amount of sulfid having both "fixed" and "feeble" sulfur atoms exists, said process comprising the treatment of a layer of said ore, with a reducing flame obtained by burning a gas mixture containing large amounts of methane and ethylene, while agitating said ore.

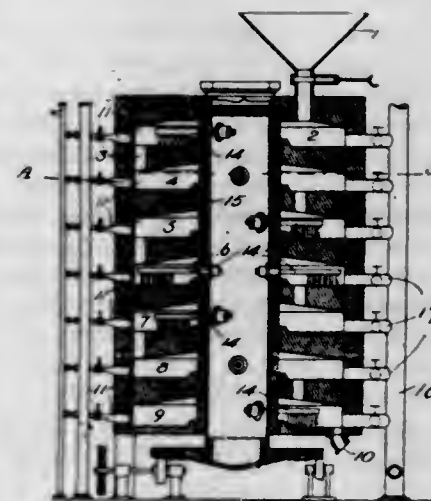
3. A process of distilling the sulfur of those varieties of sulfid ores, in which no considerable amount of sulfid having both "fixed" and "feeble" sulfur atoms exists, said process comprising the treatment of a layer of said ore, with a reducing flame obtained by burning a gas mixture containing large amounts of methane and ethylene, while maintaining the temperature in the reaction zone, between 700 and 900° C.

4. A process of distilling the sulfur of those varieties of sulfid ores, in which no considerable amount of sulfid having both "fixed" and "feeble" sulfur atoms exists, said process comprising the treatment of a layer of said ore, with a reducing flame obtained by burning a gas mixture containing large amounts of methane and ethylene, and adding steam to the gases and vapors leaving the furnace.

5. A process of distilling the sulfur from pyrrhotite ore, which comprises exposing said ore to the action of steam and of a reducing flame produced by burning a gas mixture containing large amounts of methane and ethylene, while simultaneously agitating said ore.

[Claims 6 and 7 not printed in the Gazette.]

1,083,251. PROCESS OF OBTAINING SULFUR FROM SULFIDS. WILLIAM A. HALL, New York, N. Y. Filed June 13, 1913. Serial No. 773,456. (Cl. 23-10.)



1. A process of separating sulfur from sulfid ores, which comprises exposing said ores, in each of a plurality of successive steps, to the simultaneous action of a flame and of steam, the quality of the flame, as regards reducing power, being different in the different steps.

2. A process of separating sulfur from sulfid ores, which comprises exposing said ore, in each of a plurality of successive steps, to the simultaneous action of a flame and of steam, and quality of the flame, as regards reducing power, and the relative amount of steam employed, being different in the different steps.

3. A process of separating sulfur from sulfid ores which comprises exposing said ores in each of a plurality of successive steps, to the simultaneous action of a flame and of steam, the reducing power of the flame being less in the later steps, than in the earlier steps.

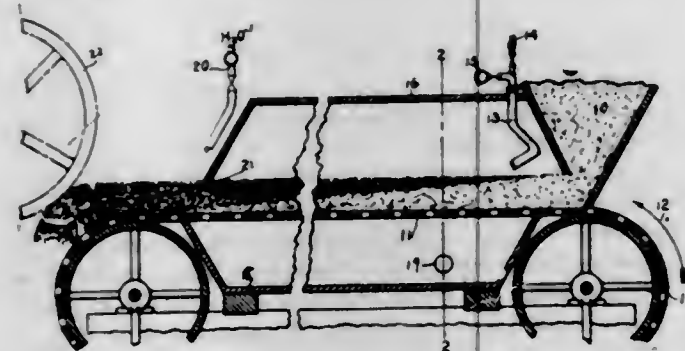
4. A process of separating sulfur from a sulfid ore which comprises subjecting said ore to a highly reducing

flame and to a large amount of steam, then exposing said ore to a flame of less reducing power, and to a smaller amount of steam, and then exposing said ore to an oxidizing flame in the absence of material quantities of steam.

5. A process of separating sulfur from sulfid ores which comprises exposing said ores, in each of a plurality of successive steps, to the simultaneous action of a flame and of steam, the quality of the flame, as regards reducing power, being different in the different steps, and agitating said ore during said treatment.

(Claims 6 to 9 not printed in the Gazette.)

1,083,252. PROCESS OF DESULFURIZING AND BRIQUETING ORES. WILLIAM A. HALL, New York, N. Y. Filed June 27, 1913. Serial No. 776,152. (Cl. 75-60.)



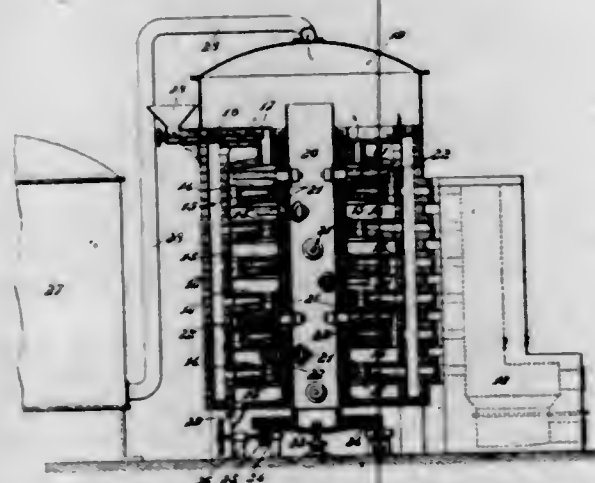
1. A process of desulfurizing sulfid ore, which comprises subjecting a moving body of said ore, to a non-oxidizing flame projected downwardly thereupon, whereby sulfur is driven off in the elemental condition, and withdrawing the vaporous products from below said body of ore.

2. A process of desulfurizing and briquetting sulfid ore, which comprises subjecting a moving body of said ore, to a non-oxidizing flame projected downwardly thereupon, whereby sulfur is driven off in the elemental condition, and withdrawing the vaporous products from below said body of ore, said ore being heated to sintering temperature.

3. A process of desulfurizing sulfid ore, which comprises subjecting a moving body of said ore, to a reducing flame of oil fuel, projected downwardly thereupon, whereby sulfur is driven off in the elemental condition, and withdrawing the vaporous products from below said body of ore.

4. A process of desulfurizing sulfid ore, which comprises subjecting a moving body of said ore, to a reducing flame projected downwardly thereupon, withdrawing the vaporous products from below said body of ore, and recovering sulfur from the said vaporous products.

1,083,253. PROCESS FOR EXTRACTING SULFUR. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed June 19, 1911. Serial No. 634,070. (Cl. 23-10.)



The herein described continuous process of distilling free sulfur from pyrites, which comprises heating a mov-

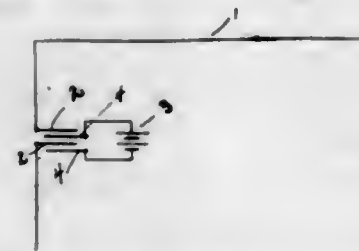
ing mass of pyrites in the substantial absence of materials capable of combining therewith to a temperature at which the loosely combined atom of sulfur in the pyrites is driven off, agitating said pyrites during said heating step, and continuously introducing fresh pyrites, and withdrawing the desulfurized pyrites.

1,083,254. GAGE-BRACKET. FRANCIS L. HURLEY, Roanoke, Va. Filed Aug. 19, 1912. Serial No. 715,904. (Cl. 24S-30.)



A gage holder comprising a back plate provided adjacent its upper edge with a rearwardly extended platform; a brace connecting the platform with the plate; a bracket overhanging the platform; and a clamping means in the bracket cooperating with the platform; the bracket including spaced arms secured to the back plate upon opposite sides of the platform and constituting means for reinforcing the back plate upon both sides of the brace, against the action of the clamping means.

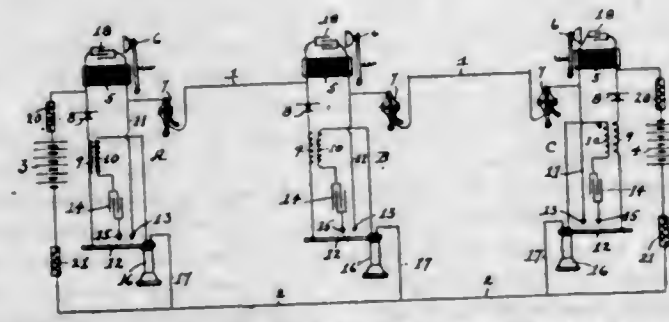
1,083,255. ELECTRIC TRANSMISSION OF INTELLIGENCE. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 13, 1906. Serial No. 326,078. (Cl. 178-45.)



1. In telegraphy, a line of transmission, means to impress upon said line a polarity independent of the signaling polarity, said means comprising a double condenser, one part connected to the line of transmission and the second part connected to a source of electric potential.

2. A line of transmission, a double condenser and means to impress upon said line a potential independent of the potentials or impulses impressed during the transmission of the message through said double condenser.

1,083,256. TELEPHONY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1907. Serial No. 369,970. (Cl. 179-1.)



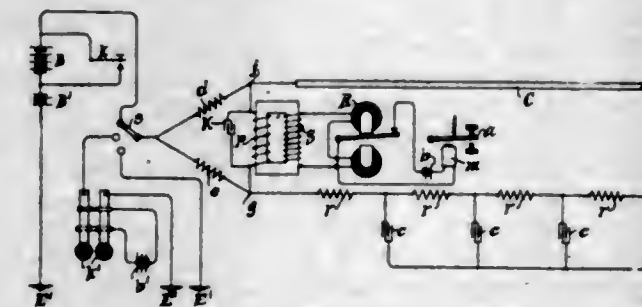
1. A telephonic circuit, a series of sub-stations in multiple arc therefor, each of said sub-stations provided with

a single-stroke bell, the coil thereof connected permanently in series to the line and a key to open and close said circuit, in combination with batteries normally connected to terminals of said circuit and means to prevent the flow of the current in its entirety through the terminals of the line, during the time that one or the other of said sub-stations is in use.

2. In a telephone circuit, a series of stations, each station comprising transmitting and receiving devices and also comprising an annunciating device, the circuits for both the transmitting and receiving devices normally open and adapted to be closed through the movement of a switch, the annunciating device normally in series with the line, the circuit of the transmitting device shunting the coil of the annunciating device, in combination with telegraphic keys inserted in the line in series and adapted, through their movement, to operate the annunciating devices of the different stations.

3. A telephonic circuit, a battery for each terminal thereof, a single-stroke bell in series thereto, a telegraphic key in combination with said bell, a telephonic transmitter and a primary of an inductorium in shunt to the coil of said bell, the secondary of the inductorium and telephonic receiver in multiple arc as to said circuit.

1,083,257. TELEGRAPH SYSTEM. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 23, 1908. Serial No. 422,619. Renewed May 5, 1911. Serial No. 625,225. (Cl. 178-45.)



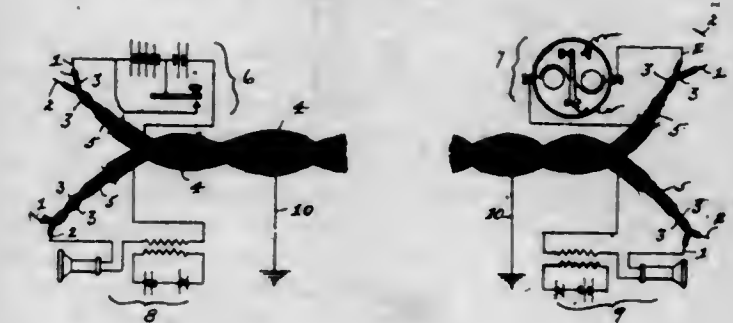
1. In a telegraph system, the combination with a line or cable having great capacity, of means for impressing current upon said line or cable, a transformer at the receiving end of said line or cable, the transformer primary being associated with said line or cable, a condenser in shunt with said primary, and a signal translating instrument controlled by the transformer secondary.

2. In a duplex telegraph system, the combination with a line or cable having great capacity, of an artificial line or cable, a transformer having its primary associated with said line or cable and with said artificial line or cable, a condenser connected in shunt with the transformer primary, and a signal translating instrument controlled by the transformer secondary.

3. In a duplex telegraph system, the combination with a line or cable having great capacity, of an artificial line or cable, a conductive connection from said line or cable to earth exclusive of said artificial line or cable, a transformer having its primary associated with said line or cable and with said artificial line or cable, a condenser in shunt with the transformer primary, and a signal translating instrument controlled by the transformer secondary.

4. In a duplex telegraph system, the combination with a line or cable having great capacity, of an artificial line or cable, said line or cable and artificial line or cable forming arms of a Wheatstone bridge, a conductive connection from said Wheatstone bridge to earth exclusive of said artificial line, a transformer having its primary connected in the bridge, a condenser in shunt with the transformer primary, and a signal translating instrument controlled by the transformer secondary.

1,083,258. ELECTRIC TRANSMISSION OF INTELLIGENCE. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Apr. 11, 1908. Serial No. 426,493. Renewed July 8, 1913. Serial No. 777,960. (Cl. 173-81.)



1. A submarine cable comprising a series of electric circuits, each of said circuits consisting of three conductors insulated from each other, two of said conductors connected inductively to each other and conductively to the third conductor, said third conductor consisting of a metallic braiding surrounding said first two named conductors, necessary apparatus between the first named conductors and the third conductor; a solid conducting shield surrounding said metallic braiding and a protective armor surrounding said solid conducting shield.

2. In a submarine cable, a series of inductive circuits, means to make immune one circuit from the inductive influence of the second circuits, said means comprising for each of said circuits a third conductor consisting of a metallic envelop surrounding said circuit; one end of one conductor of said circuit in electric connection, with the interposition of necessary devices, to said metallic envelop; the other end of said conductor being left unconnected; the opposite end of the second conductor being connected to said metallic envelop with the interposition of necessary devices and the second end of said conductor being left free and unconnected; a metallic sheet enveloping all of said circuits, said metallic sheet adapted to be brought in contact with the surrounding water.

3. A submarine cable comprising a series of inductive circuits consisting each of two inductively related conductors and a third conductor as a return, said third conductor enveloping the first named two conductors; the third conductors of all of the circuits in electric connection with each other; a metallic shield for all of said conductors and means to bring said metallic shield in contact with the surrounding water.

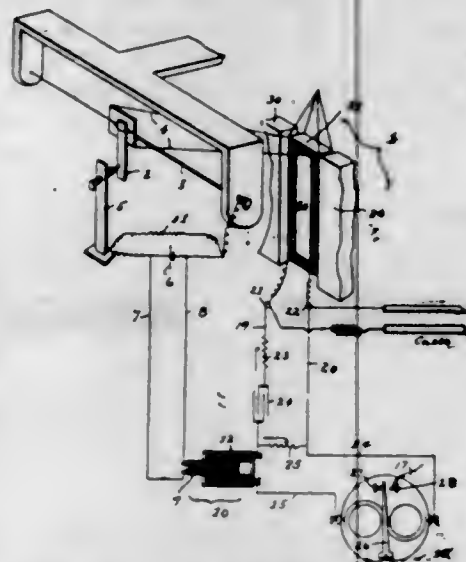
4. An electric cable comprising a series of lines of transmission, each line of transmission comprising three conductors, two conductors in the shape of wires and insulated from each other and the third conductor in the shape of a metallic braiding surrounding the first two named conductors and insulated from same, in combination with a metallic shield surrounding the braidings of all circuits.

1,083,259. CABLE TELEGRAPHY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Feb. 14, 1908. Serial No. 415,894. Renewed Oct. 3, 1913. Serial No. 793,253. (Cl. 178-45.)

1. In cable telegraphy, a line relay, contracting parts for said relay, a local circuit for said contacting parts, a second local circuit connected to the coil of the line relay; a converter, the primary of said converter connected to the first named local circuit, the secondary connected to the second named circuit and a translating device included in said second circuit.

2. In telegraphy, a receiving organism comprising a line relay, contacting points therefor, an inductorium, the primary operatively related to said contacting points, the secondary operatively related to the coil of said line relay

and a translating device in operative relation to said secondary.

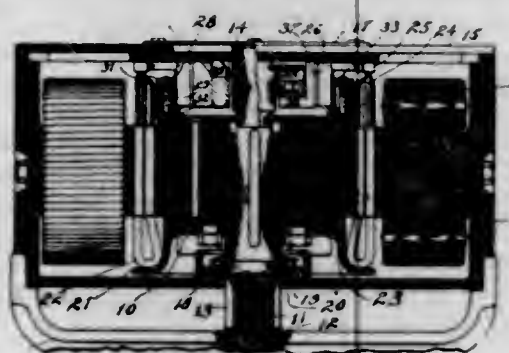


3. In telegraphy, the method of operating sensitive relays, which consists in causing for each character of the alphabet two opposing movements in the movable part of said relay through the incoming line impulses, and causing through each movement to be generated a localized impulse adapted to affect said relay in a manner alike to the preceding line impulse.

4. In telegraphy, the method of operating sensitive relays connected in the line, which consists in causing two movements in said relay, for each character of the alphabet through line impulses, and causing the time unit of each movement to be lengthened through localized impulses.

5. In cable telegraphy, a line relay connected to the cable and adapted to be moved in one or the other direction through the incoming impulse in accordance with the polarity of said impulse, contacting points for said relay and means, operatively related to said contacting points, to induce in said line relay a movement following the movement due to the line impulse.

1,083,260. ELECTRIC MOTOR. RALPH E. NOBLE, Chicago, Ill., assignor to Morgan-Gardner Electric Company, Chicago, Ill. Filed July 2, 1910. Serial No. 570,102. (Cl. 171-206.)

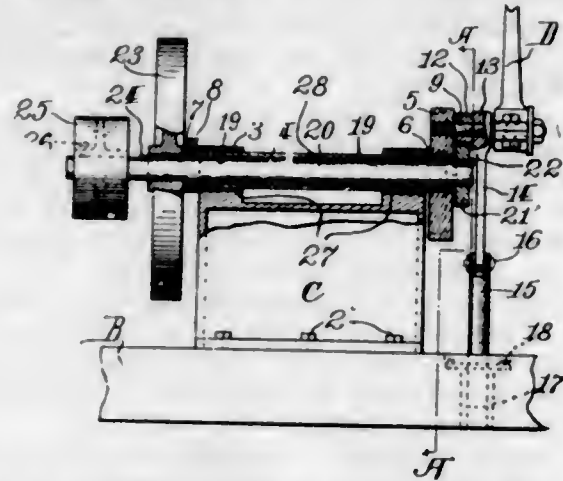


1. In a motor or the like, the combination of a barrel wound armature, with a commutator extending wholly within the end turns of the armature winding.

2. In a motor, the combination with a barrel wound armature, of a commutator with interior bearing surface extending within the end turns of the armature winding.

3. In a vertical motor, the combination of a casing, field coils arranged within said casing, an armature shaft mounted in said casing, a barrel wound armature on said shaft, a commutator made in the form of an annular ring with interior bearing surface extending within the end turns of the armature winding, connections between the outer wall of said ring and the spider of the armature for holding said commutator in position, a brush supporting member at the top of said casing, and brushes extending inwardly from said member, adapted to make contact with the inner surface of said commutator.

1,083,261. MECHANICAL MOVEMENT. LOUIS E. PARIS and ALEXANDER PREMIO, St. Paul, Minn. Filed Mar. 27, 1911. Serial No. 617,133. (Cl. 74-34.)



1. In a power transmission device, a suitable frame, a tubular shaft journaled in said frame, a crank disk and collar carried on said shaft outside of the journal to prevent longitudinal movement of said shaft, a crank pin on said disk, a guide pitman having a rigid pinion journaled upon said pin, a slide bar fitted to reciprocate in said frame and pivotally attached to said pitman, journal sleeves in said tubular shaft, a driven shaft journaled in said sleeves and extending lengthwise through said tubular shaft, a gear wheel rigidly mounted on said driven shaft and having teeth engaging with the teeth of said pinion to transmit power, a fly wheel on said driven shaft, said gear wheel and fly wheel being positioned outside of the ends of said tubular shaft to limit longitudinal movement of said driven shaft, transmission means mounted upon said driven shaft and a connecting rod journaled upon said crank pin for the purposes specified.

2. In a power transmission device, a supporting frame, a hollow shaft journaled upon said frame, a crank element carried by said shaft, a crank pin on said crank element, a guide pitman having a pinion journaled upon said pin, a guide fitted to reciprocate on said frame and pivotally attached to said pitman, a driven shaft journaled in said hollow shaft, a gear wheel rigidly attached to said driven shaft and having teeth engaging with the teeth of said pinion to transmit power, and a fly wheel on said driven shaft, said gear wheel and fly wheel being placed at the opposite ends of said hollow shaft and adapted to limit longitudinal movement of said driven shaft, transmission means mounted upon said driven shaft and a driving element journaled upon said crank pin for rotating the free end of said crank element.

1,083,262. ONE-PIECE CAP FOR SNAP-FASTENERS. ERNEST D. SIMONS, Waterbury, Conn., assignor to Sco-vill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 11, 1911. Serial No. 654,124. (Cl. 24-216.)



1. The herein described one-piece cap or socket for snap fasteners, having a stud-receiving and inclosing chamber, and a tubular attaching portion, said chamber and attaching portion formed of arms extending down from the edge of the head or body of the cap in substantially parallel separated relation, said arms transversely bent on an arc of a circle to form collectively a resilient tube, and the ends of the arms being multi-pointed.

2. A one-piece cap or socket for snap fasteners, having a head, and attaching arms drawn down from the head in substantially parallel separated relation one to the other and transversely curved to form in conjunction with the head a chamber next to the head to receive and inclose a complementary stud and further extended and

transversely curved to form a resilient tubular attaching member beyond the first mentioned chamber, the ends of the arms being multi-pointed thereby to preserve the circular character of the attaching member, to prevent the splitting of the arms in the act of setting or attaching the cap or socket, and to roll over and enter into the article upon which the cap or socket is set or attached.

1,083,263. PROCESS OF MAKING PAPER BOTTLES. JOHN R. VAN WORMER, Toledo, Ohio, assignor to The Weis-Van Wormer Company, Monroe, Mich., a Corporation of Michigan. Filed Dec. 1, 1911. Serial No. 663,197. (Cl. 93-36.)



1. The process of making a container, such as a paper milk bottle having a top provided with a restricted mouth of less area than the bottom of said bottle, which comprises the cutting and folding of the paper to form the sides and mouth of the container, the said top being produced by an operation requiring the introduction and withdrawal of pressure means through the said bottom, which is still open to afford access to the interior of the container for this purpose, folding the flaps for the bottom and securing the same together by internal and external pressure thereon, the internal pressure being exerted over an area larger than the area of the said mouth, and then removing the internal pressure through said mouth.

2. The process of making a container, such as a paper milk bottle having a top provided with a mouth of less area than the bottom of said bottle, which comprises the cutting and folding of the paper to form the sides and mouth of the container, the said top being produced by an operation requiring the introduction and withdrawal of pressure means through the said bottom, which is still open to afford access to the interior of the container for this purpose, folding the flaps for the bottom and securing the same together by internal and external pressure thereon, the internal pressure being exerted over an area larger than the area of the said mouth, by pressure means introduced through said mouth and expanded within the container, and then removing the internal pressure through said mouth.

3. The process of making a container, such as a paper milk bottle having a top provided with a mouth of less area than the bottom of said bottle, which comprises the cutting and folding of the paper to form the sides and mouth of the container, the said top being produced by an operation requiring the introduction and withdrawal of pressure means through the said bottom, which is still open to afford access to the interior of the container for this purpose, folding the flaps for the bottom and securing the same together by internal pressure being exerted over an area larger than the area of the said mouth, removing the internal pressure through said mouth, and then providing the container inside and out with a suitable coating.

4. The process of making a container, such as a paper milk bottle having a top provided with a mouth of less area than the bottom of said bottle, which comprises the cutting and folding of the paper to form the sides and mouth of the container, the said top being produced by an

operation requiring the introduction and withdrawal of pressure means through the said bottom, which is still open to afford access to the interior of the container for this purpose, folding the flaps for the bottom and securing the same together by internal and external pressure thereon, the internal pressure being exerted over an area larger than the area of the said mouth, removing the internal pressure through said mouth, and then applying melted paraffin to the inner and outer surfaces of said container.

5. The process of making a container, such as a paper milk bottle having a top provided with a mouth of less area than the bottom of said bottle, which comprises the cutting and folding of the blank to form the sides and mouth of the container, the said top being produced by an operation requiring the introduction and withdrawal of pressure means through the said bottom, which is still open to afford access to the interior of the container for this purpose, folding the flaps for the bottom and securing the same together by internal and external pressure thereon, the internal pressure being exerted over an area larger than the area of the said mouth, and then removing the internal pressure through said mouth, the said flaps being thus subjected to compression with an adhesive between their opposing surfaces.

[Claims 6 to 20 not printed in the Gazette.]

1,083,264. SOUND-RECORD. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Filed June 11, 1910. Serial No. 566,434. (Cl. 106-1.5.)



1. As a new article of manufacture, a non-thermoplastic sound record embodying an infusible condensation product of phenols and formaldehyde.

2. As a new article of manufacture, a non-thermoplastic sound record, embodying an infusible condensation product of phenols and formaldehyde, in conjunction with a suitable filling material.

3. As a new article of manufacture, a non-thermoplastic sound record, embodying an infusible condensation product of phenols and formaldehyde, in conjunction with a fibrous filling material.

4. As a new article of manufacture, a non-thermoplastic sound record of which the record surface is principally composed of infusible condensation products of phenols and formaldehyde.

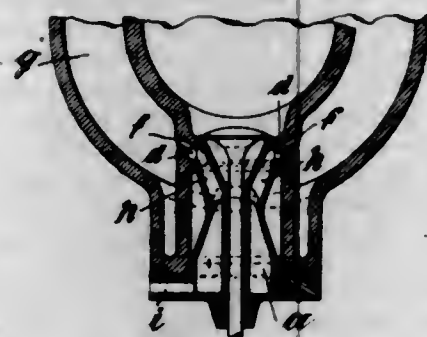
5. As a new article of manufacture, a non-thermoplastic sound record of which the record surface is principally composed of infusible condensation products of phenols and formaldehyde, in conjunction with suitable filling materials.

[Claim 6 not printed in the Gazette.]

1,083,265. COMBUSTION-ENGINE. AUGUST BAUMANN, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Augsburg, Germany. Filed Jan. 14, 1913. Serial No. 741,927. (Cl. 123-177.)

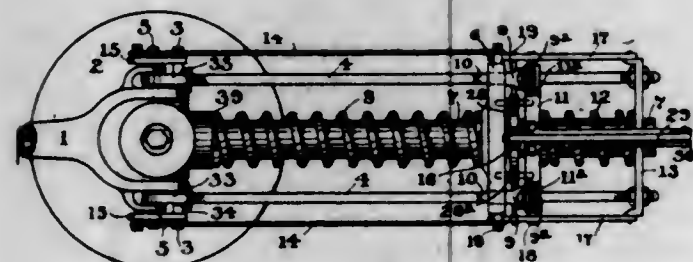
In a combustion engine, the combination with a cylinder having a water jacket and being provided with a valve

chamber seat, said valve chamber seat being provided with a groove, said cylinder being provided with outlet passages extending from said groove to the water jacket, a valve chamber adapted to rest on said seat and close the



groove whereby said groove may form a passage for cooling fluid about the valve chamber, said valve chamber being provided with a hollow body communicating with said groove when the valve chamber is seated and having a fluid inlet passage.

1,083,266. TROLLEY-POLE. ARTHUR RICHMOND CHRISTIAN, Christchurch, New Zealand. Filed July 8, 1910. Serial No. 570,931. (Cl. 191—83.)

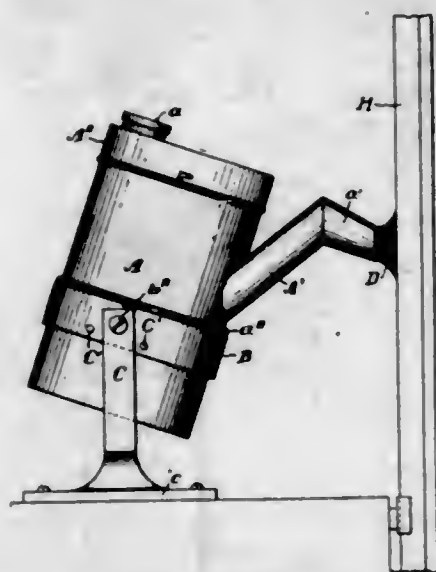


1. In trolley poles of the class described, the combination with a trolley pole of a spring adapted to hold the pole elevated in contact with the trolley wire, rods having notches therein connected to said pole, a bridge slidably mounted on said rods, pawls carried by the bridge engaging the notches of said rods whereby the spring is maintained in compression, means for automatically relaxing the spring when the pole disengages the wire, comprising a stationary bridge arranged in the rear of said slidable bridge and provided with means for disengaging the pawls from the notches when such slidable bridge is caused to approach the stationary bridge, and means for arresting the pole when it has fallen to a point clear of the overhead gear, comprising a second bridge controlled by said rods and a buffer spring adapted to be compressed between the stationary bridge and said second bridge.

2. In trolley poles of the class described, the combination with a trolley pole of a spring adapted to hold the pole elevated in contact with the trolley wire, rods having notches therein connected to said pole, a bridge slidably mounted on said rods, pawls carried by the bridge engaging the notches of said rods whereby the spring is maintained in compression, means for automatically relaxing the spring when the pole disengages the wire, comprising a stationary bridge arranged in the rear of said slidable bridge and provided with means for disengaging the pawls from the notches when such slidable bridge is caused to approach the stationary bridge, and means whereby the compression of the controlling spring may be restored after the pole has fallen, comprising tension members connecting the pole and sliding bridge whereby the sliding bridge will be drawn forwardly on the drawing down of the pole below its fallen position, and means for retaining the sliding bridge in a forward position until the rods carry the notches therein back into engagement with the pawls, substantially as described.

REISSUES.

13,664. LUBRICATOR FOR ELEVATOR-GUIDES. BERTICE E. MARSHALL, New York, N. Y., assignor, by mesne assignments, to Dwight F. Kilgour, Lexington, Mass. Filed Aug. 28, 1913. Serial No. 787,235. Original No. 1,000,532, dated Aug. 15, 1911, Serial No. 573,220. (Cl. 184—22.)



1. The herein described lubricator for elevator guides comprising a stand or support, and a swinging reservoir pivoted between its ends to said support to normally swing outwardly by gravity at its upper end toward the guide to be lubricated, and provided with a discharge spout.

2. The herein described lubricator for elevator guides comprising a stand or support, a swinging reservoir pivoted between its ends to said support to normally swing outwardly by gravity at its upper end toward the guide to be lubricated, and provided with an upwardly and outwardly extending discharge spout, and a swab wick carried by the spout.

3. The herein described lubricator for elevator guides comprising a stand or support, and a swinging reservoir pivoted between its ends to said support to normally swing outwardly by gravity at its upper end toward the guide to be lubricated, and provided with an upwardly and outwardly extending discharge spout terminating in a contracted nozzle, and a swab-wick held in said spout and nozzle.

4. The herein described lubricator for elevator guides comprising a stand or support, a swinging reservoir having a discharge spout and mounted to normally swing outwardly at its upper end to bring its spout next to the guide to be lubricated, and stops to limit the swinging movement of the reservoir.

5. A lubricator for elevator guides comprising a stand or support, a ring pivoted to one side of its center therein, and a reservoir supported in the ring and having its discharge spout normally held thereby adjacent to the guide to be lubricated.

6. A lubricator for elevator guides comprising a stand or support, a ring pivoted to one side of its center and provided with stops to limit its swing, and a reservoir mounted in the ring with its discharge spout normally held thereby adjacent to the guide to be lubricated.

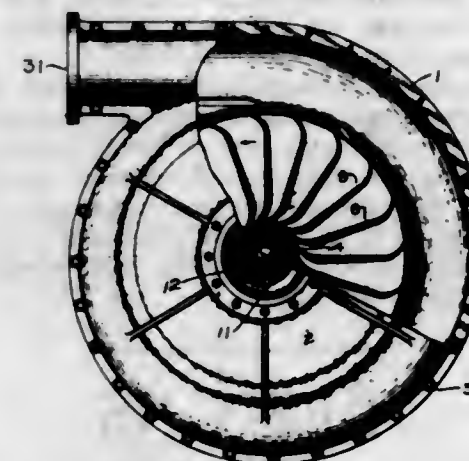
7. A lubricator for elevator guides, comprising a forked stand, a ring pivoted to one side of its center in the upper end of said fork, and provided at opposite sides of a fork arm with stops to limit its swinging movement, and a reservoir mounted in the ring and having an annular rib or shoulder resting on top of the ring, and a discharge spout extending upwardly and outwardly toward the guide to be lubricated.

8. A lubricator comprising in combination, a support, and a reservoir mounted thereon and provided with a wick outlet for a lubricating wick extending upward from said reservoir and with provision for moving said reservoir by gravity control to press said wick against a mem-

ber to be lubricated, said support and reservoir having provision for causing the former to bear a substantial part of the weight of the reservoir independently of said member.

9. A lubricator comprising in combination, a support, and a reservoir fulcrumed thereon and provided with a wick outlet for a lubricating wick leading upward from said reservoir and with provision for rocking the reservoir laterally by gravity control to press the wick against a member to be lubricated, said support and reservoir having provision for causing the former to bear a substantial part of the weight of the reservoir independently of said member.

13,665. CENTRIFUGAL COMPRESSOR. SANFORD A. MOSS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 2, 1913. Serial No. 804,166. Original No. 1,075,300, dated Oct. 7, 1913, Serial No. 236,373. (Cl. 236—11.)



1. In a centrifugal compressor for elastic fluids, the combination of a casing, a rotating impeller mounted therein which is provided with radially disposed vanes having outwardly diverging passages between them, which vanes and passages confine the fluid and simultaneously impart velocity to the fluid and compress it by reducing its volume, directing vanes arranged to direct the incoming fluid against the inner ends of the impeller vanes, an annular nozzle located in the plane of the impeller which surrounds the outer ends of the vanes and is provided with tangential partitions and walls that decrease the velocity of the fluid to a predetermined small amount, and also further decrease the volume and increase its density before discharging it, and a conduit that surrounds the nozzle and receives fluid from it and retains the same in its compressed state.

2. In a centrifugal compressor, the combination of a rotating element which is provided with vanes shaped to simultaneously impart velocity to the fluid and compress it, directing vanes which direct the incoming fluid against the inner ends of the vanes on the rotating element in a direction perpendicular to the axis of rotation, a shield which assists in directing the incoming fluid and prevents it from striking that portion of the wheel within the inner ends of the vanes, a nozzle which surrounds the outer ends of the vanes and is provided with walls that decrease the velocity of and also the volume of the fluid and increase its density and temperature, and a discharge conduit which receives fluid directly from the nozzle and retains it in its compressed state.

3. In a centrifugal compressor for elastic fluid, the combination of an impeller which is provided with radial passages that gradually increase in cross-sectional area toward the point of discharge and simultaneously impart velocity to the fluid and compress it, a casing for the impeller, an annular nozzle that closely surrounds the impeller, is located in the plane thereof and receives the elastic fluid discharged by it, thin partitions in the nozzle that extend tangentially toward the periphery of the impeller and form passages of definite size and shape for directing the fluid streams, the said passages enlarging gradually on the discharge sides by an amount sufficient to reduce the velocity of the fluid to a small value, at the

same time compress it and increase its density, which compression is added to that due to the impeller, a conduit that surrounds the nozzle and receives the fluid from all of said passages and holds it in a compressed state, and a means for reducing the tendency of the fluid to cause eddies as it enters the impeller.

4. In a centrifugal compressor, the combination of a rotary vane-carrying element, a casing therefor, means for directing the incoming fluid into the receiving ends of the vane spaces of the rotating element, an annular nozzle which surrounds the rotating element and is located in the plane of said element, straight walled partitions in the nozzle extending in the direction of flow of the fluid to form passages, each passage being provided with a restricted throat and posterior diverging walls which compress the fluid and reduce the velocity thereof and increase its density and temperature prior to discharging it, a plurality of means that cooperate with the rotary vanes to direct the incoming fluid thereto, and a conduit which receives the fluid after it is discharged by the passages, at the same time preventing it from expanding.

5. In a centrifugal compressor, the combination of a rotating element, vanes of blades thereon which extend radially and have their ends curved forward to discharge the fluid with high velocity relative to the impeller, stationary vanes for directing the passage of fluid into the vane spaces of the rotating element, which are also curved at the ends, the discharge ends of the directing vanes being surrounded by the receiving ends of the rotating vanes, a nozzle having a passage which expands from the throat to the discharge end, and a conduit receiving fluid from the discharge end of the nozzle.

6. In a centrifugal compressor, the combination of a casing, a rotating element mounted therein, blades for the rotating element which are curved at the ends in the direction of rotation, and vanes or blades for directing the fluid entering the rotating element, the said blades being curved at the ends in a direction opposite to those of the rotating element.

7. In a centrifugal compressor, the combination of an impeller having blades shaped to simultaneously impart velocity to the fluid and compress it, an annular nozzle which surrounds the peripheral ends of the blades and receives the fluid therefrom, the said nozzle having diverging side walls and straight sided tangential partitions to form passages each with a restricted inlet and an enlarged outlet, the length of the passage being considerably greater than the width at any point measured in a plane perpendicular to the direction of flow of the fluid so that the fluid will be compressed in the passage, will have its velocity reduced to a predetermined small amount and its temperature increased, a casing for the nozzle and impeller, and an inlet and an outlet.

8. In a centrifugal compressor, the combination of a casing, a rotating impeller mounted therein and having radially disposed vanes shaped to simultaneously impart velocity to an elastic fluid and compress it by centrifugal force and to discharge it peripherally with the velocity and reduced volume unimpaired into the nozzle, an annular nozzle that surrounds the impeller and receives the fluid directly from it, said nozzle having partitions extending in the general direction of rotation and in the plane of the impeller which form tangentially arranged definite passages that receive fluid from the impeller, and are of properly varying cross-section in the direction of their length to diminish the velocity of the fluid as received from the impeller and cause additional compression and discharge the same with a relatively low residual velocity, a conduit means common to the said nozzle passages that receives the fluid and retains it in its compressed state, and a discharge conduit.

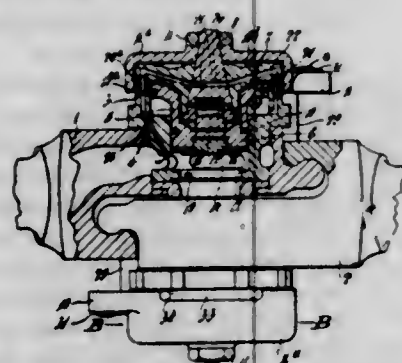
9. In a centrifugal compressor for elastic fluids, the combination of a casing, a rotating impeller mounted therein having vanes with passages between them shaped to decrease the velocity of the elastic fluid relative to the impeller and cause compression of the fluid in addition to the compression caused by the centrifugal action of the said impeller, an annular nozzle that surrounds the impeller in the plane thereof, and has a passage of prop-

erly varying cross-section in the direction of the stream lines, said nozzle receiving and directing the fluid, diminishing its velocity and causing additional compression and discharging it with a relatively low residual velocity, a conduit receiving the fluid from the nozzle, and a second conduit which supplies the fluid to the inlet ends of the impeller vanes.

10. In a centrifugal compressor for elastic fluids, the combination of a casing, a rotating impeller mounted therein and having vanes for compressing and imparting velocity to the elastic fluid, said vanes receiving fluid at their inner ends and discharging it outwardly, a driving shaft for the impeller, an annular nozzle into which the impeller discharges which has a passage of properly varying cross-section in the direction of the stream lines with its largest cross-section at the point of final discharge, said nozzle receiving, guiding and directing the elastic fluid from the impeller and also compressing and discharging it with relatively low residual velocity, and means for conveying elastic fluid to the inlet ends of the vanes.

11. In a compressor for elastic fluids, the combination of a casing, a rotating impeller mounted therein and having vanes for compressing and imparting velocity to the elastic fluid, a driving shaft for the impeller, an annular nozzle into which the impeller discharges throughout its entire circumference, said nozzle having a passage which is wholly divergent in the direction of the stream lines with its largest cross-section at the point of final discharge and receiving, guiding and directing the elastic fluid received from the impeller and also compressing and discharging it with relatively low residual velocity, and means admitting elastic fluid to the inlet ends of the vanes.

13,666. HOSE-COUPLING FOR AIR-BRAKES. FRANCIS ROBERTS and VERNON JOHN ROBERTS, Auckland, New Zealand. Filed Jan. 10, 1912. Serial No. 670,510. Original No. 985,551, dated Feb. 28, 1911, Serial No. 588,687. (Cl. 137-30.)



1. The herein described air brake pipe coupling comprising two heads each including a lateral cylindrical extension, a piston reciprocable in said extension and adapted to close the air passage through the head, a rotatable plug mounted in each head and provided with ports adapted respectively to connect spaces on opposite sides of the piston with the pressure side of the air passage in the head and with the atmosphere, and means for automatically rotating said plug as the heads are coupled to render said ports therein operative.

2. The herein described air brake pipe coupling comprising two heads each including a lateral cylindrical extension, a piston reciprocable in said extension and adapted to close the air passage through the head, a rotatable plug mounted in each head, in alignment with the piston and provided with ports adapted respectively to connect spaces on opposite sides of the piston with the pressure side of the air passage in the head and with the atmosphere, a handle for rotating the plug to close said ports and means for automatically actuating the handle to rotate the plug and render said ports therein operative as the heads are coupled.

3. The herein described air brake pipe coupling comprising two heads each including a lateral cylindrical extension, a piston reciprocable in said extension and adapted to close the air passage through the head, a rotatable

plug mounted in each head and provided with ports adapted respectively to connect spaces on opposite sides of the piston with the pressure side of the air passage in the head and with the atmosphere, a handle for rotating the plug to close said port, a pin on each head adapted to actuate the handle on the other to rotate the plug and render said ports operative as the heads are coupled, and means for locking said pin and handle together.

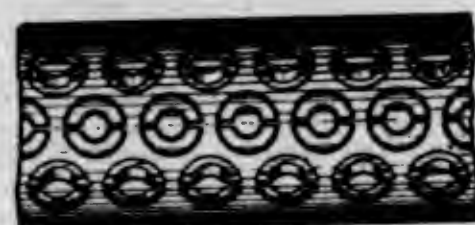
13,667. PROCESS OF MANUFACTURING VULCANIZED FROTH. FRITZ PFLEUMER, Dresden, Germany. Filed Nov. 12, 1913. Serial No. 800,638. Original No. 1,038,950, dated Sept. 17, 1912, Serial No. 640,648. (Cl. 18-53.)

1. A process for manufacturing vulcanized froth from material such as india-rubber, gutta-percha, or balata, consisting in hot vulcanizing raw or partly vulcanized material under such a high pressure of a gas that the gas penetrates the structure of the material, and on partly or wholly releasing the external gas pressure raises the material into froth.

2. A process of manufacturing vulcanized froth from material such as india-rubber, gutta-percha or balata, consisting in hot vulcanizing raw or partly vulcanized material by keeping the thus treated material under high gas pressure, so that the gas penetrates the structure of the material until it is cooled, and afterward releasing it of the gas pressure in order to produce froth containing more than atmospheric pressure.

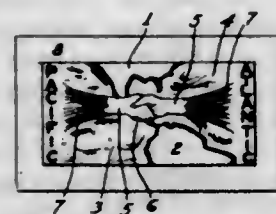
DESIGNS.

45,083. AUTOMOBILE-TIRE. ARCHIBALD K. ALLEN, Seattle, Wash. Filed July 22, 1913. Serial No. 780,582. Term of patent 14 years.



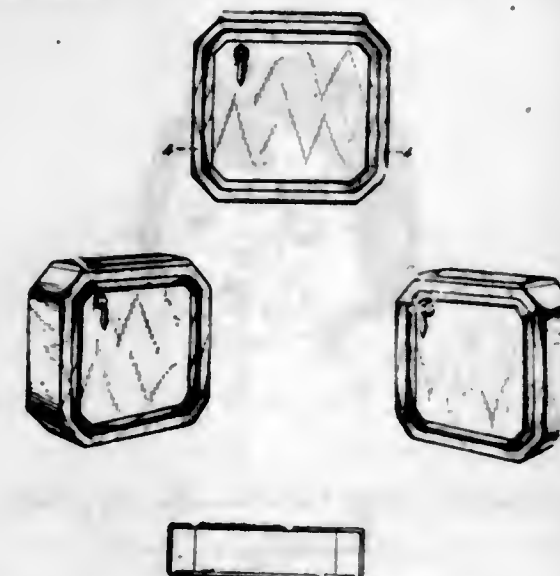
The ornamental design for an automobile tire, as shown.

45,084. BADGE OR SIMILAR ARTICLE. ARON BRILL, New York, N. Y. Filed Sept. 26, 1913. Serial No. 792,061. Term of patent 3½ years.



The ornamental design for a badge or similar article as shown and described.

45,085. FLUSH-TANK. ANDREW COCHRAN, Trenton, N. J. Filed Sept. 26, 1913. Serial No. 792,063. Term of patent 14 years.



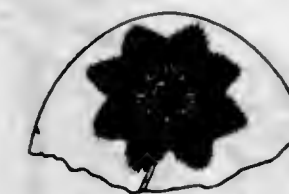
The ornamental design for a flush tank, substantially as shown.

45,086. STATUETTE. GRACE G. DRAYTON, New York, N. Y. Filed Oct. 3, 1913. Serial No. 793,258. Term of patent 7 years.



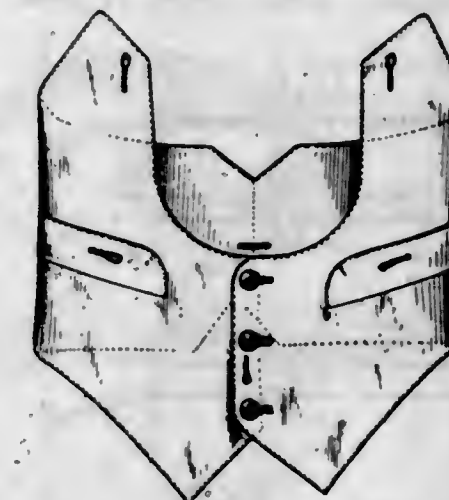
The ornamental design for a statuette as shown.

45,087. CUT-GLASS ARTICLE. WILLIAM B. EICK, Rochester, N. Y., assignor to Genesee Cut Glass Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 7, 1913. Serial No. 746,956. Term of patent 3½ years.



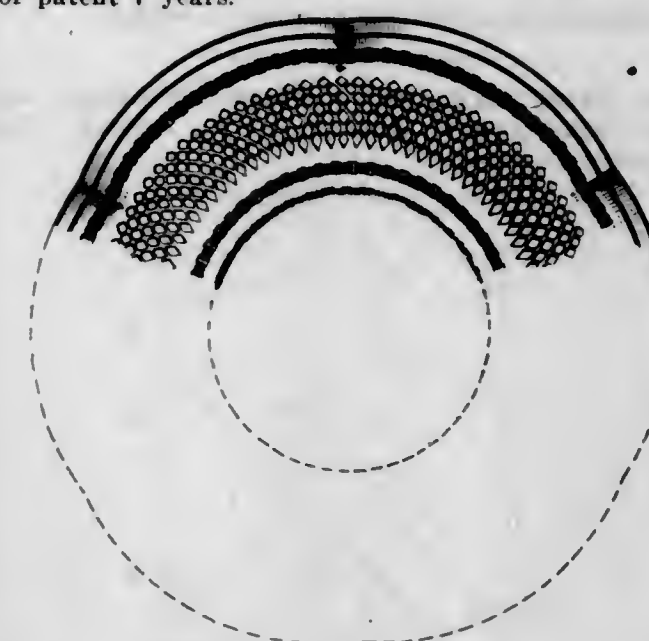
The ornamental design for a cut-glass article as shown and described.

45,088. VESTETTE. SAMUEL FRANKSTON, Los Angeles, Cal. Filed Aug. 14, 1913. Serial No. 784,786. Term of patent 7 years.



The ornamental design for a vestette as shown.

45,089. DISH. GUSTAVE A. HENCKEL, South Orange, N. J. Filed Mar. 29, 1913. Serial No. 757,712. Term of patent 7 years.



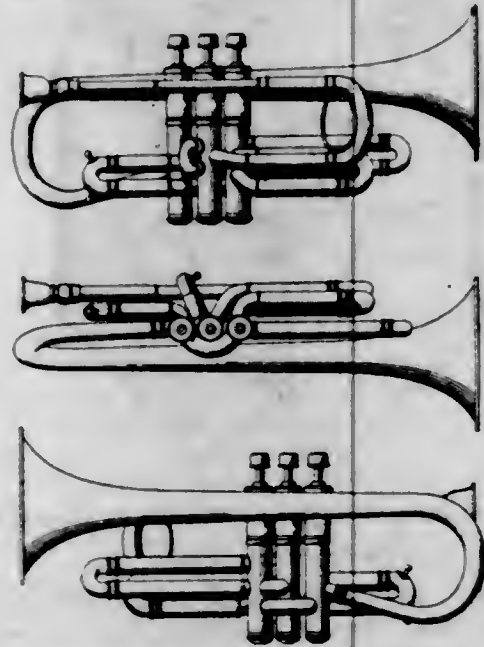
The ornamental design for a dish, as shown and described.

45,090. RUBBER VEHICLE-TIRE. WILLIAM CLYDESDALE HENDRIE, Los Angeles, Cal. Filed Aug. 18, 1913. Serial No. 785,401. Term of patent 14 years.



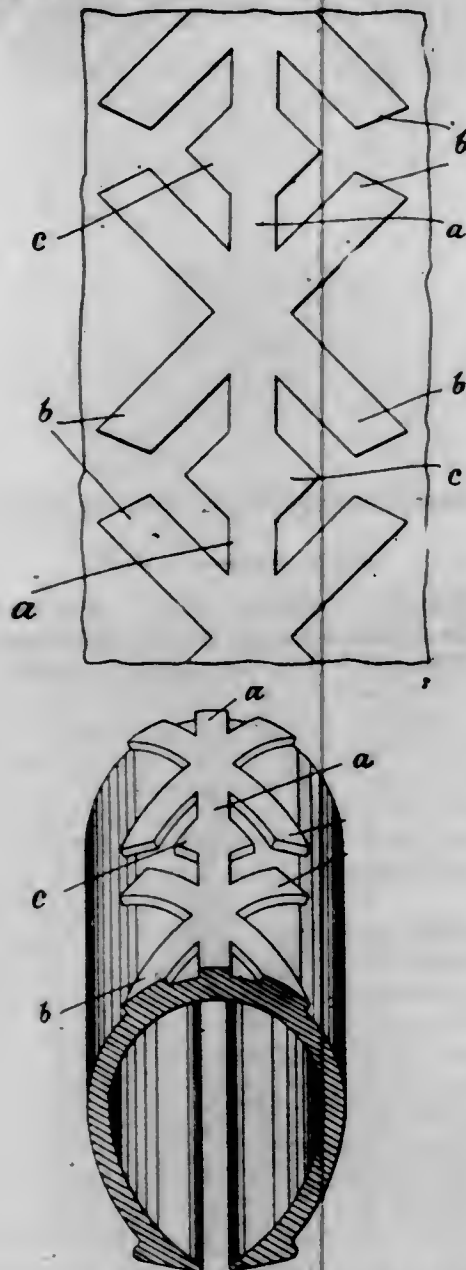
The ornamental design for a rubber vehicle tire, as shown.

45,091. CORNET. ALFRED J. JOHNSON, Grand Rapids, Mich., assignor to J. W. York and Sons, Grand Rapids, Mich., a Corporation of Michigan. Filed May 5, 1913. Serial No. 765,690. Term of patent 14 years.



The ornamental design for a cornet, as shown.

45,092. TIRE. ALEXANDER JOHNSTON, Edinburgh, Scotland. Filed Aug. 1, 1913. Serial No. 782,528. Term of patent 14 years.



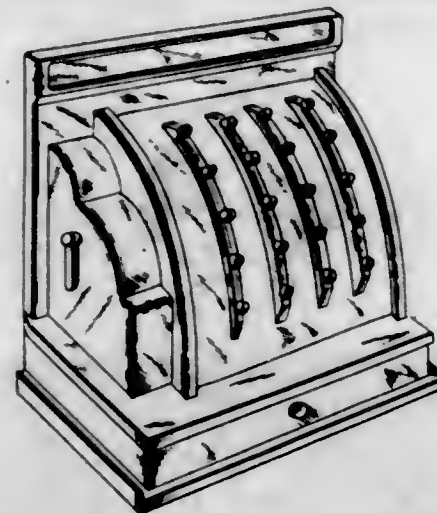
The ornamental design for a tire tread having a central strap extending continuously around the tire and having extensions thereon forming cross pieces and diamond or square parts arranged alternately, substantially as described and shown.

45,093. DOLL-HEAD. JOSEPH G. KAMPFER, New York, N. Y. Filed Sept. 20, 1913. Serial No. 790,961. Term of patent 3½ years.



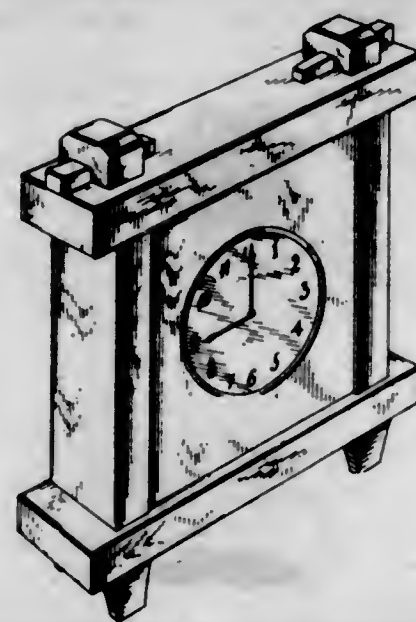
The ornamental design for a doll head, as shown.

45,094. TOY CANDY-BOX. EDWARD J. ROWLAND, Indiana, Pa., assignor to Dugan Glass Company, Indiana, Pa., a Corporation of Pennsylvania. Filed June 2, 1913. Serial No. 771,319. Term of patent 3½ years.



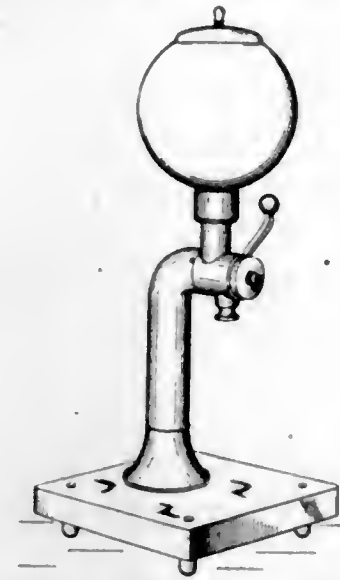
The ornamental design for a toy candy box as shown.

45,095. CLOCK-CASE. EARL J. SMITH, Montrose, Pa. Filed Aug. 14, 1912. Serial No. 715,120. Term of patent 7 years.



The ornamental design for a clock case, as shown.

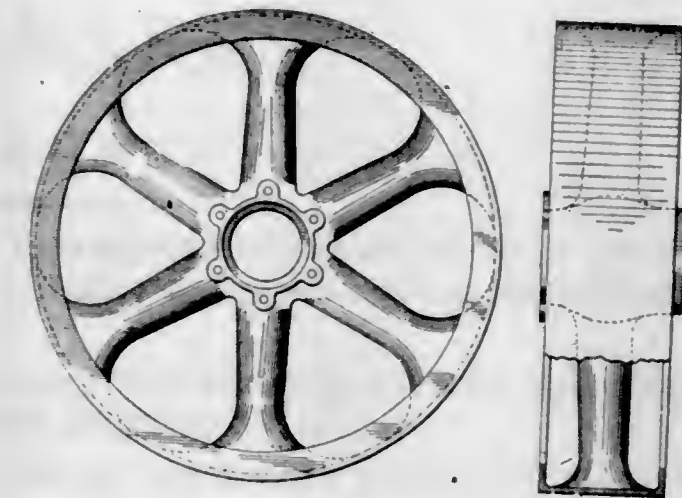
45,096. SODA-DISPENSING APPARATUS. JOHN M. TRAVIS, St. Louis, Mo. Filed Sept. 26, 1913. Serial No. 792,056. Term of patent 7 years.



The ornamental design for a soda dispensing apparatus, as shown.

197 O. G.—83

45,097. AUTOMOBILE TRUCK-WHEEL. GEORGE WALTHER, Dayton, Ohio. Filed Apr. 18, 1913. Serial No. 762,129. Term of patent 14 years.



The ornamental design for an automobile truck wheel as shown.

TRADE-MARKS

PUBLISHED DECEMBER 30, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 27,839. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EDWIN WALKER, Erie, Pa. Filed June 1, 1907. Under ten-year proviso.

**QUICK
AND
EASY**

Particular description of goods.—Cork-Pullers, Cork-screws, Lemon and Lime Squeezers, Crown and Seal Lifters, Potato-Mashers, and Orange-Peelers.
Claims use since September, 1892.

Ser. No. 38,242. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EBERHART PHARMACAL CO., Dickson, Tenn. Filed Oct. 26, 1908.



The portrait shown being Charles E. Eberhart, no claim being made to the words "Eberhart Pharmacal Co."

Particular description of goods.—Remedies for Chills and Fever, Kidney Trouble, Female Disorders, Stomach Affections, and Liniment.

Claims use since May 1, 1908.

Ser. No. 54,468. (CLASS 47. WINES.) CHANDON ET CIE., Epernay, France. Filed Feb. 13, 1911.

IMPERIAL CROWN

Particular description of goods.—Champagne-Wine.
Claims use since Sept. 23, 1908.

Ser. No. 55,774. (CLASS 12. CONSTRUCTION MATERIALS.) TERRANOVA-INDUSTRIE C. A. KAPPERER & CO., Freilung, Germany. Filed Apr. 15, 1911.

TERRANOVA

Particular description of goods.—Mortar, Wall-Plaster, Floor-Plaster, Composition for Artificial-Stone Work.
Claims use since 1894.

Ser. No. 56,832. (CLASS 15. OILS AND GREASES.) PACKARD MOTOR CAR COMPANY, Detroit, Mich. Filed June 5, 1911.



Particular description of goods.—Lubricating-Oil.
Claims use since May 10, 1911.

Ser. No. 58,842. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHICAGO ELECTRIC METER COMPANY, Chicago, Ill. Filed Sept. 25, 1911.



Particular description of goods.—Electric Meters and Printing and Indicating Attachments Therefor.
Claims use since Sept. 13, 1911.

Ser. No. 59,578. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) REGAL SHOE COMPANY, Portland, Me., and Boston, Mass. Filed Nov. 6, 1911.

REGAL

Particular description of goods.—Shoe-Buttoners and Shoe-Horns.
Claims use since Jan. 1, 1900.

Ser. No. 59,581. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) REGAL SHOE COMPANY, Portland, Me., and Boston, Mass. Filed Nov. 6, 1911.

REGAL

Particular description of goods.—Shoe-Lacings.
Claims use since Jan. 1, 1900.

Ser. No. 60,554. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRANK SCHULZ, New York, N. Y. Filed Jan. 2, 1912.



Particular description of goods.—Scissors and Razors.
Claims use since 1907.

Ser. No. 62,015. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) MARIANI BRO'S., New York, N. Y. Filed Mar. 7, 1912.



Consisting of a monogram formed by the letters "M B" within a circle.
Particular description of goods.—Cordials.
Claims use since January, 1903.

Ser. No. 62,906. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ANTHONY BENNETT ALDRICH, Weehawken, N. J. Filed Apr. 15, 1912.



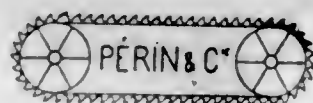
Particular description of goods.—Garment-Hooks.
Claims use since Feb. 16, 1912.

Ser. No. 65,151. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) OXWELD ACETYLENE COMPANY, Chicago, Ill. Filed Aug. 8, 1912.

Oxweld

Particular description of goods.—Gas-Generators, Acetylene-Blowpipes, and Acetylene Cutting-Torches.
Claims use since June 17, 1912.

Ser. No. 65,441. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SOCIÉTÉ ANONYME DES ANCIENS ÉTABLISSEMENTS PANHARD & LEVASSOR, Paris, France. Filed Aug. 27, 1912.



The said trade-mark consists of the representation of a serrated strip stretched or extended edgewise over two spoked wheels. No claim is made to the name "Perin & Cie."

Particular description of goods.—Band-Saws and Band-Saw Strips.
Claims use since the year 1856.

Ser. No. 65,627. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMILIE EUGÉNIE ADELE CAROLINE SETAIG, Paris and Le Chesnay, France. Filed Sept. 7, 1912.

GÉMA

Particular description of goods.—Laces.
Claims use since Mar. 16, 1911.

Ser. No. 65,861. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & CO., Harburg-on-the-Elbe, Germany. Filed Sept. 19, 1912.

Kerit

The word "Kerit."
Particular description of goods.—Artificial Horn Made from Casein.
Claims use since June 26, 1911.

Ser. No. 66,681. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAKER CHEMICAL CO., Detroit, Mich. Filed Nov. 4, 1912.

NUOVA

Particular description of goods.—Rheumatic Remedy.
Claims use since about Oct. 17, 1912.

Ser. No. 66,961. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUNTE BROTHERS, Chicago, Ill. Filed Nov. 18, 1912.

DIANA

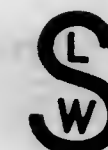
Particular description of goods.—Candy.
Claims use since about the 6th of August, 1907.

Ser. No. 66,962. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUNTE BROTHERS, Chicago, Ill. Filed Nov. 18, 1912.



Particular description of goods.—Candy.
Claims use since about the 6th of August, 1907.

Ser. No. 67,212. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EDWARD SCHROEDER LAMP WORKS, Jersey City, N. J. Filed Dec. 3, 1912.



Particular description of goods.—Electric-Lighting Fixtures of All Kinds.
Claims use since Feb. 23, 1912.

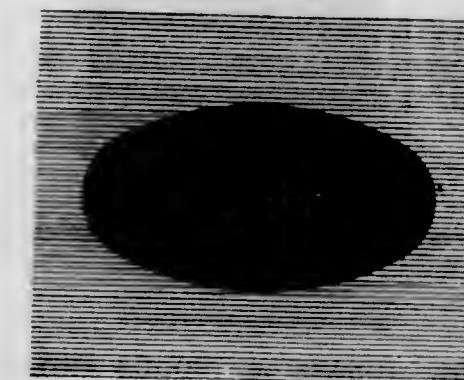
Ser. No. 68,777. (CLASS 12. CONSTRUCTION MATERIALS.) DAHLSTROM METALLIC DOOR CO., Jamestown, N. Y. Filed Feb. 28, 1913.



No claim being made to the words "Dahlstrom," Patent Door," Artistic," "Everlasting," "Sanitary and Fire-proof."

Particular description of goods.—Metallic Doors, Metallic Window-Sashes, Metallic Interior and Exterior Building-Trim, Metallic Picture-Moldings, Metallic Partitions, Metallic Transoms, Metallic Borrowed Lights, Metallic Hand-Railings, Metallic Interior and Exterior Trim for Railway-Cars, Metallic Elevator-Inclosures, Metallic Bank-Screens, and Metallic Balconies.
Claims use since October, 1910.

Ser. No. 69,605. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YOUNG & SWAIN BAKING CO., San Francisco, Cal. Filed Apr. 4, 1913.



Particular description of goods.—Bread.
Claims use since Aug. 1, 1906.

Ser. No. 69,616. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CENTRAL FRUIT CO., South Lake Weir, Fla. Filed Apr. 5, 1913.

VELVET

Particular description of goods.—Citrus Fruits—Namely, Oranges, Grape-Fruit, Tangerines, Lemons, and Limes.
Claims use since Nov. 19, 1909.

Ser. No. 69,843. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CALCULAGRAPH COMPANY, New York, N. Y. Filed Apr. 17, 1913.

Calculagraph

Particular description of goods.—Time-Printing Machines and Repair Parts for Use in Connection with Said Machines. Such Repair Parts Consist of the Elements of Such Machines, Such as Gear-Wheels, Screws, Dials, Hands, Springs, Levers, and Tools for Winding and Operating the Said Machines.

Claims use for time-printing machines since Apr. 15, 1891, and for repair parts for said machines since June 13, 1892.

Ser. No. 70,080. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FRANK L. McFERRAN, Syracuse, N. Y. Filed Apr. 26, 1913.

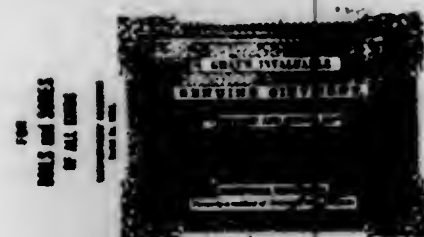


No claim being made to the words "Trade-Mark."

Particular description of goods.—White-Kid-Glove Cleaner.

Claims use since May 20, 1913.

Ser. No. 70,093. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE W. F. GRAY COMPANY, Madison and Nashville, Tenn. Filed Apr. 28, 1913. Under ten-year proviso.



Particular description of goods.—A Medical Ointment.

Claims use since 1850.

Ser. No. 70,257. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE U. S. CEREAL COMPANY, Upper Sandusky, Ohio. Filed May 5, 1913.



Particular description of goods.—A Cereal Food.

Claims use since June 21, 1912.

Ser. No. 71,124. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE ENTERPRISE ENAMEL CO., Bellaire, Ohio. Filed June 16, 1913.

CREOLE

Particular description of goods.—Enameled Kitchenware, Including Baby-Food Cups, Cook-Pots, Covers, Easter Cups, Fry-Pans, Stove-Kettles, Coffee-Percolators, Roasters, Skillets, Skimmers, Spoons, Washbasins, Punch-Bowls, Soup-Plates, Toilet Sets, Tea-Kettles, Teapots, Coffee-Pots, Coffee-Biggin, Coffee-Bollers, Sauce-Pans, Berlin Kettles, Sauce-Pots, Dish-Pans, Kettle-Steamers, Preserving-Kettles, Stock-Pots, Pudding-Pans, Baking-Pans, Mixing-Bowls, Soup-Bowls, Milk-Pans, Milk-Kettles, Mugs, Drinking-Cups, Dippers, Ladles, Cake-Pans, Plates, Baking-Dishes, Colanders, Cups and Saucers, Foot-Tubs, Water-Pitchers, Chambers, Spittoons, Soap-Dishes, Bowls, Pitchers, Combinets.

Claims use since Apr. 15, 1913.

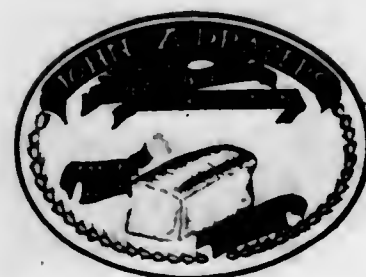
Ser. No. 71,255. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

LUXURY

Particular description of goods.—Biscuit.

Claims use since at least February, 1912.

Ser. No. 71,615. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN A. DRAYER, Clinton, Iowa. Filed July 9, 1913.



No claim being made to the representation of the loaf of bread nor to the words "John A. Drayer," the words "Whole Wheat Bread for Indigestion" and "Made From," and the words "Navy-Bean Yeast."

Particular description of goods.—Bread.

Claims use since Mar. 27, 1901.

Ser. No. 71,930. (CLASS 37. PAPER AND STATIONERY.) ADIRONDACK TISSUE PAPER CO., New Hartford, N. Y. Filed July 24, 1913.



Particular description of goods.—Toilet-Paper, Paper Towels, and Paper Napkins.

Claims use since Jan. 1, 1913.

Ser. No. 72,053. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SERVICE STORES CO., New York, and Brooklyn, N. Y. Filed July 30, 1913.

Bonnie Brae

"Bonnie Brae."

Particular description of goods.—Butter, Eggs, and Tea.

Claims use since Sept. 1, 1911.

Ser. No. 72,100. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

MOCUL

Particular description of goods.—Tractors and Parts Thereof.

Claims use since Jan. 1, 1910.

Ser. No. 72,356. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MCCORMICK & CO., Baltimore, Md. Filed Aug. 15, 1913.



Particular description of goods.—Table Relishes and Salad-Dressings.

Claims use since January, 1909.

Ser. No. 72,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WEAVER, COSTELLO & COMPANY, Pittsburgh, Pa. Filed Aug. 16, 1913.



Particular description of goods.—Candles.

Claims use since about the 26th day of July, 1912.

Ser. No. 72,414. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHWESTERN FRUIT EXCHANGE, Portland, Oreg. Filed Aug. 19, 1913.



Particular description of goods.—Fresh Fruits.

Claims use since July 15, 1913.

Ser. No. 72,432. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COWGILL & HILL MILLING CO., Carthage, Mo. Filed Aug. 20, 1913.



Particular description of goods.—Flour.

Claims use since the 22d day of July, 1913.

Ser. No. 72,433. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FLEMING & CO., Baltimore, Md. Filed Aug. 20, 1913.

FORT CARROLL

Particular description of goods.—Canned Fruits and Canned Vegetables.

Claims use since Aug. 18, 1913.

Ser. No. 72,487. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEPTUNE PACKING CO., Boothbay Harbor, Me. Filed Aug. 22, 1913.



Particular description of goods.—Smoked Fish.

Claims use since May 12, 1913.

Ser. No. 72,488. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PANAMA BANANA FOOD COMPANY, New York, N. Y. Filed Aug. 22, 1913.

Banan-Nutro

Particular description of goods.—A Substitute for Coffee.

Claims use since October, 1910.

Ser. No. 72,562. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUPERIOR PEANUT COMPANY, Cleveland, Ohio. Filed Aug. 27, 1913.



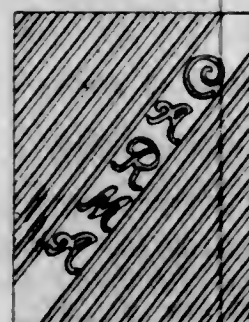
Particular description of goods.—Salted Peanuts.
Claims use since its adoption Aug. 22, 1913.

Ser. No. 72,570. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOLT & COMPANY, New York, N. Y. Filed Aug. 28, 1913.



Particular description of goods.—Wheat-Flour.
Claims use since, prior to the year 1895.

Ser. No. 72,578. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BREMER BROS., Chicago, Ill. Filed Aug. 29, 1913.



Particular description of goods.—Cakes, Wafers, and Biscuits.
Claims use since Jan. 15, 1913.

Ser. No. 72,598. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM E. FOSTER, Somerville, Mass. Filed Aug. 30, 1913.

Braxie

Particular description of goods.—Candy.
Claims use since Aug. 20, 1913.

Ser. No. 72,608. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Sept. 2, 1913.

AURORA

Particular description of goods.—Allimentary Paste.
Claims use since Aug. 27, 1913.

Ser. No. 72,609. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Sept. 2, 1913.

QUO VADIS

Particular description of goods.—Allimentary Paste.
Claims use since Aug. 27, 1913.

Ser. No. 72,610. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Sept. 2, 1913.

VINCITORE

Particular description of goods.—Allimentary Paste.
Claims use since Aug. 27, 1913.

Ser. No. 72,623. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KENDRICK WAREHOUSE & MILLING CO., Lewiston, Idaho. Filed Sept. 2, 1913.

POTLATCH

Particular description of goods.—Dry Beans.
Claims use since 1911.

Ser. No. 72,624. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MAYFLOWER MILLS, Fort Wayne, Ind. Filed Sept. 2, 1913.

CARNOSO

Particular description of goods.—Wheat-Flour.
Claims use since January, 1913.

Ser. No. 72,630. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC FISHERIES & PACKING COMPANY, Aberdeen, Wash. Filed Sept. 2, 1913.

COURTESY

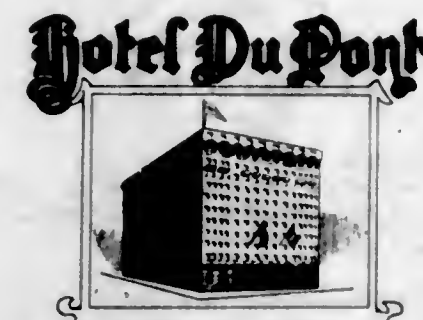
Particular description of goods.—Canned Salmon.
Claims use since Apr. 1, 1913.

Ser. No. 72,632. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ARTHUR J. POTVIN, Minneapolis, Minn. Filed Sept. 2, 1913.

E-Z

Particular description of goods.—Corn-Shields.
Claims use since on or about Jan. 20, 1913.

Ser. No. 72,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. R. RICHARDSON COMPANY, Wilmington, Del. Filed Sept. 2, 1913.



Particular description of goods.—A Brand of Coffee.
Claims use since May 1, 1913.

Ser. No. 72,671. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRADLEY CANDY CO., Marshfield, Oreg. Filed Sept. 4, 1913.

Y

Particular description of goods.—Candy.
Claims use since Sept. 1, 1911.

Ser. No. 72,680. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. G. VOGT & SONS, INC., Philadelphia, Pa. Filed Sept. 4, 1913.

LIBERTY

Particular description of goods.—Lard, Ham, Bacon, and Scrapple.
Claims use since about Aug. 5, 1912.

Ser. No. 72,704. (CLASS 2. RECEPTACLES.) MC-NUTT NON EXPLOSIVE CAN CO., New York, N. Y. Filed Sept. 6, 1913.

ECLIPSE

Particular description of goods.—Safety-Containers for Explosive and Inflammable Fluids.
Claims use since Feb. 1, 1913.

Ser. No. 72,753. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNION LARD CORPORATION, New York, N. Y. Filed Sept. 9, 1913.

WHITE HEATHER

Particular description of goods.—Cooking-Oil.
Claims use since 1912.

Ser. No. 72,766. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) H. W. JOHNS-MANVILLE CO., New York, N. Y. Filed Sept. 10, 1913.

J-M

Particular description of goods.—A Liquid Compound of Paint-Like Consistency Composed of Oils, Asphalt, and Pigments, the Composition Being Intended to be Used to Coat or Paint Roofs, Bridges, Structural Ironwork, and Buildings, and for Fireproof Paint.
Claims use since the 19th day of June, 1909.

Ser. No. 72,806. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SAMUEL BUEGELEISEN, New York, N. Y. Filed Sept. 12, 1913. Under ten-year proviso.

UNIVERSAL FAVORITE

The words "Universal Favorite."
Particular description of goods.—Violins and Parts, Mandolins and Parts, Banjos and Parts, Guitars and Parts, Guitar-Mandolins and Parts, Drums and Parts, Banjo-Drums and Parts, Violin-Bows and Parts, Banjeaurines and Parts, Solo-Banjeaurines and Parts, Piccolo-Banjos and Parts, Bass and Cello Banjos and Parts, Banjo-Banjeaurines and Parts, Banjo-Strings, Violin-Strings, Guitar-Strings, Mandolin-Strings, Banjo-Mandolins and Parts.
Claims use since 1888.

Ser. No. 72,858. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LAMSON COMPANY, Boston, Mass. Filed Sept. 15, 1913.



No claim being made to the specific use of the words "Lamson," "Service," and "Trade-Mark."
Particular description of goods.—Conveying and Transmission Apparatus.
Claims use since Mar. 17, 1912.

Ser. No. 72,904. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SHULTZ BELTING Co., St. Louis, Mo. Filed Sept. 16, 1913. Under ten-year proviso.

ALAMO

Particular description of goods.—Leather Belting.
Claims use since Jan. 1, 1885.

Ser. No. 72,905. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SHULTZ BELTING Co., St. Louis, Mo. Filed Sept. 16, 1913. Under ten-year proviso.

SABLE

Particular description of goods.—Leather Belting.
Claims use since about Jan. 1, 1879.

Ser. No. 72,906. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SHULTZ BELTING Co., St. Louis, Mo. Filed Sept. 16, 1913.

OMEGA

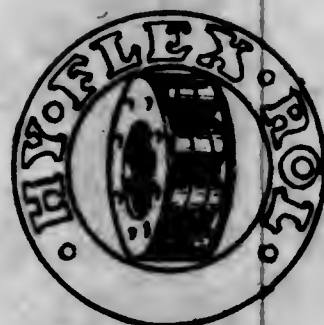
Particular description of goods.—Leather Belting.
Claims use since Jan. 1, 1903.

Ser. No. 72,915. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM J. DEEGAN, Chicago, Ill. Filed Sept. 17, 1913.

HAIRGRESO

Particular description of goods.—A Preparation for the Growth and Preservation of the Hair.
Claims use since November, 1912.

Ser. No. 73,108. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HYATT ROLLER BEARING Co., Harrison, N. J. Filed Sept. 29, 1913.



The representation of a set of rolls within the inner circle of the trade-mark forms no part of the mark, and no claim is made thereto.

Particular description of goods.—Roller-Bearings and Parts Thereof.
Claims use since July 25, 1913.

Ser. No. 73,116. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) S. & A. MANUFACTURING Co., Boston, Mass. Filed Sept. 29, 1913.

QUIXET

Particular description of goods.—Automobile Kit-Tools, Wrenches, and Screw-Drivers.
Claims use since Sept. 25, 1913.

Ser. No. 73,206. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE CLEVELAND FOUNDRY Co., Cleveland, Ohio. Filed Oct. 4, 1913.

THERMOS

The word "Thermos."
Particular description of goods.—Coal and Wood Kitchen Stoves and Ovens, Oil Ranges and Stoves.
Claims use since about Aug. 1, 1913.

Ser. No. 73,231. (CLASS 2. RECEPTACLES.) HOLCOMB & HOKE MFG. Co., Indianapolis, Ind. Filed Oct. 6, 1913.

BUTTER-KIST

Particular description of goods.—Popcorn-Bags.
Claims use since May 1, 1913.

Ser. No. 73,270. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) COLUMBIA GRAPHOPHONE COMPANY, Washington, D. C. Filed Oct. 8, 1913.



Particular description of goods.—Talking-Machines and Talking-Machine Records.
Claims use since on or about Aug. 1, 1913.

Ser. No. 73,288. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROBERT A. CAIRD, Chicago, Ill., assignor to National Belting Company, Elyria, Ohio, a Corporation of Ohio. Filed Oct. 9, 1913.

BLACK DEVIL

Particular description of goods.—Belts and Belting.
Claims use since Nov. 9, 1912.

Ser. No. 73,306. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WADSWORTH, HOWLAND & Co., INCORPORATED, Boston, Mass. Filed Oct. 10, 1913.

BELROK

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints and Varnishes.
Claims use since Sept. 12, 1913.

Ser. No. 73,339. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. FULTON COMPANY, Pierre, S. D. and San Francisco, Cal. Filed Oct. 13, 1913.



Being portrait of John J. Fulton, deceased.
Particular description of goods.—Medicinal Preparations for the Treatment of Diabetes and Diseases of the Kidneys.
Claims use since Sept. 23, 1901.

Ser. No. 73,347. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULES J. SARRAZIN, New Orleans, La. Filed Oct. 13, 1913.



Particular description of goods.—Dental Flosses, Dental Tapes, and Tongue-Cleaners.
Claims use since February, 1912.

Ser. No. 73,401. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. E. RHODES & SONS, Philadelphia, Pa., and Wilmington, Del. Filed Oct. 15, 1913.



Particular description of goods.—Flat Leather Belting, Rounded Leather Belting, Leather Cord, V-Shaped Belting, Cut Leather Lacing, and "Square" Leather Belting.
Claims use for flat leather belting since Mar. 15, 1903; for rounded leather belting since May 10, 1902; for leather cord since Mar. 16, 1909; for lace-leather since Nov. 20, 1909; for cut leather lacing since Feb. 19, 1908; for V-shaped belting since Feb. 28, 1913, and for square leather belting since July 8, 1913.

Ser. No. 73,423. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIA PAVELKOVITZ, Chico, Cal. Filed Oct. 16, 1913.



Comprising my portrait.
Particular description of goods.—A Hair-Restorer.
Claims use since July 24, 1913.

Ser. No. 73,437. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HORACE A. BENNETT, Newton and Boston, Mass. Filed Oct. 17, 1913.



Consists of a Lion on a shield under the word "Resto."
Particular description of goods.—A Rheumatic and Lumbago Remedy and a General Tonic and Blood-Purifier.
Claims use since June, 1913.

Ser. No. 73,448. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DIXON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 17, 1913. Under ten-year proviso.

STANDARD

"Standard."
Particular description of goods.—Saws.
Claims use since 1870.

Ser. No. 73,516. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed Oct. 20, 1913.



Particular description of goods.—Perforated Music-Rolls for Player Instruments.
Claims use since Aug. 14, 1913.

Ser. No. 73,548. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY S. GOLDSTEIN, Philadelphia, Pa. Filed Oct. 22, 1913.



Particular description of goods.—Dental Cream.
Claims use since Sept. 15, 1913.

Ser. No. 73,781. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HOTPOINT ELECTRIC HEATING COMPANY, Ontario, Cal. Filed Nov. 3, 1913.

Hotpoint

Particular description of goods.—Electric Commercial Irons, Electric Laundry-Irons, Electric Domestic Irons, Electric Heavy Pressing-Irons, Electric Grills, Electric Toasters, Electric Percolators, Machine Style; Electric Percolators, Pot Style; Electric Tea-Ball Pots, Electric Tea-Ball Machines, Electric Chafing-Dishes, Electric Baking-Ovens, Electric Fireless Cookers, Electric Disk Stoves, Electric Air-Heaters, Electric Water-Heaters, Electric Heating-Pads.

Claims use since Sept. 1, 1906.

Ser. No. 73,796. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRIE NEWELL REYNOLDS, New York, N. Y. Filed Nov. 4, 1913.

Intestifermin

Particular description of goods.—A Germicide for the Digestive Tracts.

Claims use since Oct. 15, 1913.

Ser. No. 73,816. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FEDERAL METALLIC PACKING COMPANY, Boston, Mass. Filed Nov. 5, 1913.

FEDERALITE

Particular description of goods.—Flexible Metallic Packing.

Claims use since Sept. 1, 1910.

Ser. No. 73,825. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) RAJAH AUTO SUPPLY COMPANY, Bloomfield, N. J. Filed Nov. 5, 1913.

Rajite

Particular description of goods.—Spark-Plug Insulators Commonly Known as Porcelains.

Claims use since Oct. 30, 1913.

Ser. No. 73,830. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. BURKE'S CATARRH REMEDY CO., Kansas City, Mo. Filed Nov. 6, 1913.



Dr. C. L. Burke

The signature shown being a facsimile of that of the president of the corporation, the applicant.

Particular description of goods.—A Catarrh Remedy.

Claims use since July 31, 1913.

Ser. No. 73,877. (CLASS 32. FURNITURE AND UPHOLSTERY.) RAYMOND PORCH SHADE COMPANY, Richmond, Ind. Filed Nov. 8, 1913.

Coolor

Particular description of goods.—Porch-Shades, Window-Shades, and Furniture-Screens.

Claims use since Oct. 1, 1913.

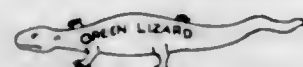
Ser. No. 73,892. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LOUISVILLE PAINT MFG. CO., Louisville, Ky. Filed Nov. 10, 1913.

H & W

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints.

Claims use since January, 1906.

Ser. No. 73,905. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CATTARAUGUS CUTLERY CO., Little Valley, N. Y. Filed Nov. 11, 1913.



Particular description of goods.—Razors.

Claims use since Apr. 1, 1906.

Ser. No. 73,924. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & CO., Harburg-on-the-Elbe, Germany. Filed Nov. 12, 1913.



Particular description of goods.—Technical Caseln.

Claims use since May 8, 1913.

Ser. No. 73,991. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JAMES W. REILLY, Buffalo, N. Y. Filed Nov. 14, 1913.



Particular description of goods.—A Metal Plate to be Worn About the Neck for the Relief of Asthma.

Claims use since Oct. 1, 1913.

Ser. No. 74,014. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Nov. 15, 1913.

JACKHAMER

Particular description of goods.—Automatically-Rotating Fluid-Operated Hammer-Drills.

Claims use since September, 1911.

Ser. No. 74,063. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Nov. 18, 1913.



Particular description of goods.—Beer.

Claims use since about Mar. 15, 1906.

Ser. No. 74,107. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WARNER'S FEATURES, INCORPORATED, New York, N. Y. Filed Nov. 20, 1913.

MARS.

Particular description of goods.—Moving-Picture Films.

Claims use since Sept. 1, 1913.

Ser. No. 74,136. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HANS W. ELGI, INGR., Zurich, Switzerland. Filed Nov. 22, 1913.

Diva

Particular description of goods.—Adding and Calculating Machines.

Claims use since Oct. 1, 1913.

Ser. No. 74,140. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MOTOR AND GEAR IMPROVEMENT COMPANY, Wilmington, Del., and New York, N. Y. Filed Nov. 22, 1913.

MAGIC

Particular description of goods.—Transmission-Gearing.

Claims use since May 1, 1913.

Ser. No. 74,166. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) VIRGIL HEINMÜLLER, New York, N. Y. Filed Nov. 24, 1913.

Kooknette

Particular description of goods.—An Aluminum Telescoping Cooking Outfit Comprising a Plurality of Cooking Utensils.

Claims use since Oct. 23, 1913.

Ser. No. 74,177. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) VICTOR ANIMATOGRAPH COMPANY, Davenport, Iowa. Filed Nov. 24, 1913.

VIOPTICON

Particular description of goods.—Stereopticons and Slides Therefor.

Claims use since Nov. 1, 1912.

Ser. No. 74,189. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & CO., Harburg-on-the-Elbe, Germany. Filed Nov. 25, 1913.



Particular description of goods.—Technical Caseln.

Claims use since May 8, 1913.

Ser. No. 74,200. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KLIMAN MANUFACTURING COMPANY, Chicago, Ill. Filed Nov. 26, 1913.



Particular description of goods.—Meat-Cutters.

Claims use since May 1, 1913.

Ser. No. 74,230. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM L. DINES, JR., Co., Worcester, Mass. Filed Nov. 28, 1913.

WILLMARC

Particular description of goods.—Coffee-Hulling Machines.

Claims use since about May, 1913.

Ser. No. 74,231. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM L. DINES, JR. Co., Worcester, Mass. Filed Nov. 28, 1913.

BORINQUEN

Particular description of goods.—Coffee-Pulping Machines.

Claims use since about May, 1913.

Ser. No. 74,238. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE LUDLOW-SAYLOR WIRE COMPANY, St. Louis, Mo. Filed Nov. 28, 1913.

NIKOLITE

Particular description of goods.—Wire-Cloth.

Claims use since on or about the 1st day of October, 1913.

Ser. No. 74,257. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) H. W. JOHNS-MANVILLE Co., New York, N. Y. Filed Nov. 29, 1913.

J-M

Particular description of goods.—Machinery-Brake Lining.

Claims use since Jan. 1, 1909.

Ser. No. 74,326. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CONN. VALLEY MANUFACTURING COMPANY, Essex, Conn. Filed Dec. 3, 1913.

U.S. PAT. OFF.

Particular description of goods.—Wood-Boring Bits.

Claims use since July 1, 1913.

[Vol. 197. No. 5.]

TRADE-MARKS

REGISTERED DECEMBER 30, 1913.

- 94,707. LEATHER STRIPS. N. R. ALLEN'S SONS COMPANY, Kenosha, Wis. Filed August 20, 1913. Serial No. 72,430. PUBLISHED OCTOBER 28, 1913.
- 94,708. LADIES' WASH-DRESSES AND NEGLIGÉES. M. ALSHULER COMPANY, Waukegan, Ill. Filed May 2, 1913. Serial No. 70,172. PUBLISHED OCTOBER 28, 1913.
- 94,709. SANDPAPERS, GARNET-PAPERS, EMERY-PAPERS, AND EMERY-CLOTHS. AMERICAN GLUE COMPANY, Boston, Mass. Filed September 12, 1913. Serial No. 72,801. PUBLISHED OCTOBER 21, 1913.
- 94,710. SHOCK-PREVENTERS. THE ARISTOS COMPANY, Wilmington, Del., and New York, N. Y. Filed June 23, 1913. Serial No. 71,279. PUBLISHED OCTOBER 28, 1913.
- 94,711. MINERAL WATER. BERKSHIRE SPRINGS Co., New York, N. Y. Filed February 23, 1912. Serial No. 61,695. PUBLISHED APRIL 22, 1913.
- 94,712. TUBING AND HOSE MADE OF CERTAIN MATERIALS, BELTING, AND MACHINERY PACKING. J. W. BUCKLEY RUBBER Co., New York, N. Y. Filed July 3, 1913. Serial No. 71,506. PUBLISHED OCTOBER 21, 1913.
- 94,713. CIGARETTES. C. A. D. O. Co., Inc., New York, N. Y. Filed July 22, 1913. Serial No. 71,882. PUBLISHED OCTOBER 21, 1913.
- 94,714. LIQUEUR. COINTREAU PÈRE ET FILS, Angers, France. Filed October 4, 1913. Serial No. 73,208. PUBLISHED OCTOBER 28, 1913.
- 94,715. MEDICINAL PREPARATION IN OINTMENT FORM FOR TREATING CERTAIN DISEASES. HENRY COPELSTON, Denver, Colo., assignor to The Arborol Chemical Company, Denver, Colo., a Corporation of Colorado. Filed October 23, 1911. Serial No. 59,330. PUBLISHED JUNE 17, 1913.
- 94,716. TEXTILE RUGS, CARPETS, AND MATTINGS. D. H. COPLON & Co., Buffalo, N. Y. Filed August 30, 1913. Serial No. 72,593. PUBLISHED OCTOBER 28, 1913.
- 94,717. ABRASIVE SUBSTANCES FOR REMOVING STAINS, &c., FROM CLOTHING. J. DE GROOT & Co., Zeeland, Mich. Filed December 23, 1912. Serial No. 67,571. PUBLISHED OCTOBER 28, 1913.
- 94,718. TEQUILA, AN ALCOHOLIC BEVERAGE MADE FROM A MEXICAN PLANT. VE H DE R. DE LA MORA, Guadalajara, Mexico. Filed October 30, 1912. Serial No. 66,630. PUBLISHED OCTOBER 28, 1913.
- 94,719. SAWS. HENRY DISSTON & SONS INCORPORATED, Philadelphia, Pa. Filed September 2, 1913. Serial No. 72,616. PUBLISHED OCTOBER 28, 1913.
- 94,720. YARNS, THREADS, CORDS, BRAIDS, AND LACES MADE OF CERTAIN MATERIALS. DOLLFUS-MIEG & CIE. SOCIÉTÉ ANONYME, Mülhausen, Germany. Filed August 15, 1913. Serial No. 72,347. PUBLISHED OCTOBER 28, 1913.
- 94,721. MONTHLY MAGAZINE. THE ELECTRO IMPORTING COMPANY, New York, N. Y. Filed August 11, 1913. Serial No. 72,284. PUBLISHED OCTOBER 21, 1913.
- 94,722. GLASS MILK AND CREAM BOTTLES. EMPIRE BOTTLE & SUPPLY COMPANY, New York, N. Y. Filed June 20, 1911. Serial No. 57,195. PUBLISHED OCTOBER 21, 1913.
- 94,723. LEATHER BOOTS AND SHOES. THE EXCELSIOR SHOE COMPANY, Portsmouth, Ohio. Filed June 12, 1913. Serial No. 71,064. PUBLISHED OCTOBER 28, 1913.
- 94,724. AIR-TUBES FOR WHEEL-TIRES, TIRES OF CERTAIN SUBSTANCES, AND RUBBER VALVES. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 17, 1912. Serial No. 64,779. PUBLISHED OCTOBER 21, 1913.
- 94,725. FLANNEL AND WOOLEN PIECE GOODS. DANIEL W. FARNSWORTH, Montclair, N. J., and New York, N. Y. Filed September 4, 1913. Serial No. 72,673. PUBLISHED OCTOBER 28, 1913.
- 94,726. WAVE-METERS AND ELECTRICAL MEASURING INSTRUMENTS. GESELLSCHAFT FÜR DRAHTLOSE TELEGRAPHIE, M. B. H., Berlin, Germany. Filed September 9, 1913. Serial No. 72,743. PUBLISHED OCTOBER 28, 1913.
- 94,727. LIGHT-WEIGHT SILK CRAPE. HAAS BROTHERS, New York, N. Y. Filed June 14, 1913. Serial No. 71,104. PUBLISHED OCTOBER 28, 1913.
- 94,728. HANDKERCHIEFS. HELLER & LONG, New York, N. Y. Filed June 5, 1913. Serial No. 70,879. PUBLISHED OCTOBER 28, 1913.
- 94,729. MOVING-PICTURE MACHINES, CAMERAS, KODAKS, AND PHOTOGRAPHIC FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New York. Filed July 25, 1913. Serial No. 71,966. PUBLISHED OCTOBER 28, 1913.
- 94,730. MOVING-PICTURE MACHINES, CAMERAS, KODAKS, AND PHOTOGRAPHIC FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New York. Filed July 25, 1913. Serial No. 71,967. PUBLISHED OCTOBER 28, 1913.
- 94,731. GARTERS, NECKTIES, AND SUSPENDERS. WM. H. JACOBSEN, Minneapolis, Minn. Filed August 6, 1913. Serial No. 72,189. PUBLISHED OCTOBER 28, 1913.
- 94,732. POWDER FOR CLEANING PAINTED OR VARNISHED SURFACES, MARBLE, GLASS, &c. HARVEY W. LAMB, Kansas City, Mo. Filed January 13, 1913. Serial No. 67,881. PUBLISHED OCTOBER 21, 1913.
- 94,733. CERTAIN NAMED UNDERWEAR. LAWRENCE MANUFACTURING COMPANY, Lowell and Boston, Mass. Filed July 28, 1913. Serial No. 72,008. PUBLISHED OCTOBER 28, 1913.

94,734. RUBBER TIRES, INNER TUBES, VALVE-PATCHES, INNER CASES, AND RUBBER TUBING. LEE TIRE & RUBBER CO., Whitmarsh township, Montgomery county, Pa.
Filed March 20, 1913. Serial No. 69,204. PUBLISHED OCTOBER 21, 1913.

94,735. GAS-MANTLES. LINDSAY LIGHT COMPANY, Chicago, Ill.
Filed February 17, 1913. Serial No. 68,576. PUBLISHED OCTOBER 21, 1913.

94,736. RAZORS AND RAZOR-BLADES. MATTHEWS & LIVELY, Atlanta, Ga.
Filed May 20, 1913. Serial No. 70,522. PUBLISHED OCTOBER 28, 1913.

94,737. RAZORS AND RAZOR-BLADES. MATTHEWS & LIVELY, Atlanta, Ga.
Filed May 20, 1913. Serial No. 70,523. PUBLISHED OCTOBER 28, 1913.

94,738. LEATHER BOOTS AND SHOES. F. MAYER Boot & Shoe Co., Milwaukee, Wis.
Filed June 30, 1913. Serial No. 71,447. PUBLISHED OCTOBER 28, 1913.

94,739. CIGARS. W. H. MERRILL & Co., Springfield, Mass.
Filed May 24, 1913. Serial No. 70,625. PUBLISHED OCTOBER 21, 1913.

94,740. OIL-PAINTS AND WATER-COLOR PAINTS AND PIGMENTS THEREFOR. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed August 2, 1912. Serial No. 65,065. PUBLISHED OCTOBER 28, 1913.

94,741. CROCHET-NEEDLES. MORRIS & YEOMANS, Red-ditch and London, England.
Filed July 18, 1913. Serial No. 71,830. PUBLISHED OCTOBER 28, 1913.

94,742. PICTURES AND ILLUSTRATIONS PUBLISHED SERIALY. THE NEW YORK HERALD COMPANY, New York, N. Y.
Filed February 20, 1912. Serial No. 61,636. PUBLISHED OCTOBER 28, 1913.

94,743. PICTURES AND ILLUSTRATIONS PUBLISHED SERIALY. THE NEW YORK HERALD COMPANY, New York, N. Y.
Filed February 20, 1912. Serial No. 61,637. PUBLISHED OCTOBER 28, 1913.

94,744. BOOTS AND SHOES MADE OF RUBBER AND LEATHER. NORTHERN SHOE CO., Duluth, Minn.
Filed June 9, 1913. Serial No. 70,981. PUBLISHED OCTOBER 28, 1913.

94,745. ARTIFICIAL LUMBER IN STRIPS, SHEETS, AND BOARDS. NORTHWESTERN COMPO-BOARD CO., Minneapolis, Minn.
Filed August 23, 1913. Serial No. 72,503. PUBLISHED OCTOBER 28, 1913.

94,746. ASPHALT-CEMENT PAVING MATERIAL. JOHN R. OTT CONTRACTING COMPANY, Los Angeles, Cal.
Filed April 14, 1913. Serial No. 69,779. PUBLISHED OCTOBER 28, 1913.

94,747. STILL STRAIGHT RED TABLE-WINE. JOSEPH PETROCELLI & COMPANY, New York, N. Y.
Filed October 6, 1913. Serial No. 73,238. PUBLISHED OCTOBER 28, 1913.

94,748. LIQUID DRESSING FOR USE ON LEATHER AND RUBBER. PHELPS MANUFACTURING COMPANY, Providence, R. I.
Filed August 6, 1913. Serial No. 72,193. PUBLISHED OCTOBER 28, 1913.

94,749. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 23, 1913. Serial No. 73,013. PUBLISHED OCTOBER 28, 1913.

94,750. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 23, 1913. Serial No. 73,015. PUBLISHED OCTOBER 28, 1913.

94,751. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,051. PUBLISHED OCTOBER 28, 1913.

94,752. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,052. PUBLISHED OCTOBER 28, 1913.

94,753. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,053. PUBLISHED OCTOBER 28, 1913.

94,754. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,054. PUBLISHED OCTOBER 28, 1913.

94,755. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,055. PUBLISHED OCTOBER 28, 1913.

94,756. BEER, ALE, AND PORTER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,056. PUBLISHED OCTOBER 28, 1913.

94,757. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,057. PUBLISHED OCTOBER 28, 1913.

94,758. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,058. PUBLISHED OCTOBER 28, 1913.

94,759. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,059. PUBLISHED OCTOBER 28, 1913.

94,760. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed September 25, 1913. Serial No. 73,060. PUBLISHED OCTOBER 28, 1913.

94,761. HAT-FRAMES, ARTIFICIAL FLOWERS, AND HAT-TRIMMINGS. THE PROTOCON COMPANY INCORPORATED, New York, N. Y.
Filed July 2, 1913. Serial No. 71,486. PUBLISHED OCTOBER 28, 1913.

94,762. PRINTED BOOKS, BOOKLETS, PAMPHLETS, AND PRINTS. F. S. ROOT CO., Boston, Mass.
Filed August 19, 1913. Serial No. 72,421. PUBLISHED OCTOBER 21, 1913.

94,763. GASEOUS-FLUID-MEASURING APPARATUS. ROTARY METER COMPANY, New York, N. Y.
Filed September 18, 1912. Serial No. 65,843. PUBLISHED OCTOBER 28, 1913.

94,764. BEER. SCHALK BREWERY, INCORPORATED, Newark, N. J.
Filed September 20, 1913. Serial No. 72,983. PUBLISHED OCTOBER 28, 1913.

94,765. CERTAIN LUBRICATING-OILS, CERTAIN MACHINE-OILS, AND ENGINE-GREASE. SCHLIE-MANN'S OIL & CERESINE COMPANY, INC., New York, N. Y.
Filed August 29, 1913. Serial No. 72,589. PUBLISHED OCTOBER 28, 1913.

94,766. MERCERIZED THREAD AND SPOOL-COTTON. SEA ISLAND THREAD CO., New York, N. Y.
Filed June 5, 1913. Serial No. 70,883. PUBLISHED OCTOBER 28, 1913.

94,767. LADIES', MISSES', JUNIORS', AND CHILDREN'S DRESSES. SHAPIRO BROS., New York, N. Y.
Filed September 30, 1913. Serial No. 73,132. PUBLISHED OCTOBER 28, 1913.

94,768. ENAMELED METAL WARE. SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed October 3, 1913. Serial No. 73,191. PUBLISHED OCTOBER 28, 1913.

94,769. CEILING-SLEEVES FOR PIPES. STANDARD PIPE COVERING CO., Cleveland, Ohio.
Filed June 7, 1913. Serial No. 70,961. PUBLISHED OCTOBER 28, 1913.

94,770. PHOTOGRAPHS AND POSTAL-CARD PHOTOGRAPHS. HARRY W. STEIN, Wilkes-Barre, Pa.
Filed May 21, 1913. Serial No. 70,549. PUBLISHED OCTOBER 28, 1913.

94,771. WINE. THE SWEET VALLEY WINE CO., Sandusky, Ohio.
Filed October 8, 1913. Serial No. 73,284. PUBLISHED OCTOBER 28, 1913.

94,772. CIGARS, CIGARETTES, AND SMOKING AND CHEWING TOBACCO. CHARLES CLARENCE SYMONETT, Live Oak, Fla.
Filed July 17, 1913. Serial No. 71,817. PUBLISHED OCTOBER 28, 1913.

94,773. WINE. THE THEOBALD AND SON CO., Columbus, Ohio.
Filed July 5, 1913. Serial No. 71,546. PUBLISHED OCTOBER 28, 1913.

94,774. HOLLOW AND SOLID RUBBER TIRES. UN-GARISCHE GUMMIWAARENFABRIKS ACTIENGESellschaft, Budapest, Austria-Hungary.
Filed June 10, 1913. Serial No. 71,007. PUBLISHED OCTOBER 21, 1913.

94,775. RUBBER AND GUM. VENEZUELA TRADING COMPANY, New York, N. Y.
Filed April 23, 1913. Serial No. 70,023. PUBLISHED OCTOBER 21, 1913.

94,776. TOYS. TIERMAN WALTON, Philadelphia, Pa.
Filed July 10, 1913. Serial No. 71,865. PUBLISHED OCTOBER 28, 1913.

94,777. CIGARS AND STOGIES. WARD-YOUNG MFG. CO., Buckhannon, W. Va.
Filed August 8, 1913. Serial No. 72,238. PUBLISHED OCTOBER 21, 1913.

94,778. GRASS, VEGETABLE, FLOWER, AND FARM SEEDS AND BULBS. WEEBER & DON, New York, N. Y.
Filed June 25, 1913. Serial No. 71,873. PUBLISHED OCTOBER 21, 1913.

94,779. LAGER-BEER AND ALE. THE GEO. ZETT BREWERY, Syracuse, N. Y.
Filed January 30, 1913. Serial No. 68,224. PUBLISHED OCTOBER 28, 1913.

94,780. ANTISEPTIC POWDER. THE ANGLO-AMERICAN PHARMACEUTICAL COMPANY LTD., Croydon, England, and New York, N. Y.
Filed July 9, 1913. Serial No. 71,600. PUBLISHED OCTOBER 28, 1913.

94,781. SALVE. ROSA ANNUZZI, San Francisco, Cal.
Filed August 6, 1913. Serial No. 72,182. PUBLISHED OCTOBER 28, 1913.

94,782. BATH-POWDER. SIMON BRENTANO, New York, N. Y.
Filed July 29, 1913. Serial No. 72,025. PUBLISHED OCTOBER 28, 1913.

94,783. AGAR PREPARATIONS FOR BACTERIOLOGICAL PURPOSES. CHEMISCHE FABRIK HELFENBERG A. G. VORM. EUGEN DIETERICH, Helfenberg, near Dresden, Germany.
Filed August 1, 1913. Serial No. 72,096. PUBLISHED OCTOBER 28, 1913.

94,784. CERTAIN NAMED DENTAL SUPPLIES. EM-MANUEL DETREY, Zurich, Switzerland.
Filed January 24, 1913. Serial No. 68,089. PUBLISHED OCTOBER 28, 1913.

94,785. BLACKBERRY CORDIAL. GARRETT & Co., Norfolk, Va.
Filed January 27, 1912. Serial No. 61,083. PUBLISHED OCTOBER 28, 1913.

94,786. BAKING-POWDER. L. W. HAHN, Kansas City, Mo.
Filed August 8, 1913. Serial No. 72,226. PUBLISHED OCTOBER 28, 1913.

94,787. DENATURED ALCOHOL. JEFFERSON DISTILLING AND DENATURING COMPANY, New Orleans, La.
Filed August 16, 1913. Serial No. 72,378. PUBLISHED OCTOBER 28, 1913.

94,788. HAIR-RESTORER. ANTONIO MAGLIARO, Atlantic City, N. J.
Filed July 3, 1913. Serial No. 71,518. PUBLISHED OCTOBER 28, 1913.

94,789. CERTAIN MEDICINAL COMPOUND USED AS REMEDY FOR CERTAIN NAMED DISEASES. BIRDSEY L. MALTBY, Newark, N. J., assignor to Maltbie Chemical Company, Newark, N. J., a Corporation of New Jersey.
Filed June 4, 1912. Serial No. 63,965. PUBLISHED OCTOBER 28, 1913.

94,790. CERTAIN NAMED TOILET PREPARATIONS. THE MARINELLO COMPANY, Chicago, Ill.
Filed August 12, 1912. Serial No. 65,212. PUBLISHED OCTOBER 28, 1913.

94,791. PILLS FOR THE STOMACH AND LIVER. CAROLINE MAYNE, New York, N. Y.
Filed July 10, 1913. Serial No. 71,639. PUBLISHED OCTOBER 28, 1913.

94,792. ANTISEPTIC CREAM FOR TOILET PURPOSES AND AS AN ANALGESIC. PARIS MEDICINE COMPANY, St. Louis, Mo.
Filed September 11, 1913. Serial No. 72,789. PUBLISHED OCTOBER 28, 1913.

94,793. PREPARATION FOR THE TREATMENT OF SORE EYES. DAVID ANGUS SMITH, Wonder, Nev.
Filed August 28, 1913. Serial No. 72,575. PUBLISHED OCTOBER 28, 1913.

94,794. RHEUMATIC POWDER, LINIMENT, AND CONSTIPATION-TABLETS. ERNEST ALECK SPIERS, London, England.
Filed May 4, 1912. Serial No. 63,297. PUBLISHED OCTOBER 28, 1913.

94,795. ROUP CURE FOR POULTRY. TROY CHEMICAL Co., Binghamton, N. Y.
Filed February 18, 1913. Serial No. 68,608. PUBLISHED OCTOBER 28, 1913.

LABELS

REGISTERED DECEMBER 30, 1913.

- | | |
|--|---|
| <p>17,438.—Title: "THE IDEAL" (For Handkerchiefs.) HELLER & LONG, New York, N. Y. Filed December 11, 1913.</p> <p>17,439.—Title: "HOOD'S CROUP, COLD AND PNEUMONIA SALVE." (For a Salve for Croup, Cold, and Pneumonia.) HOOD BROS., Smithfield, N. C. Filed December 11, 1913.</p> <p>17,440.—Title: "OLD FASHIONED LAGER BEER." (For Beer.) THE KANSAS CITY BREWERIES COMPANY, Kansas City, Mo. Filed December 12, 1913.</p> | <p>17,441.—Title: "MARSHEL'S EBONY BLACK INK." (For Ink.) BLAINE M. MARSHEL, New Albany, Ind. Filed December 12, 1913.</p> <p>17,442.—Title: "PENN SUGAR QUAKER BRAND." (For Sugar.) PENNSYLVANIA SUGAR COMPANY, Philadelphia, Pa. Filed December 12, 1913.</p> <p>17,443.—Title: "ROYAL ARCH." (For Cigars.) PETRI-ITALIAN-AMERICAN CIGAR CO. INC., San Francisco, Cal. Filed December 12, 1913.</p> |
|--|---|

PRINTS

REGISTERED DECEMBER 30, 1913.

- 3,457.—Title: "OLD BEN SPIRALIZED COAL." (For Coal.) OLD BEN MINING CORPORATION, Chicago, Ill. Filed December 11, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

PRICE v. ADAMSON.

Decided October 13, 1913.

PUBLIC-USE PROCEEDINGS—PRIMA FACIE SHOWING.

A petition that proceedings be instituted for the purpose of establishing the statutory bar of public use denied where the affidavits do not show that the alleged use was public, rather than private, or that if public constituted more than an abandoned experiment.

ON PETITION.

MANUFACTURE OF RUBBER ARTICLES.

Mr. Percy B. Hills for Price.

Mr. H. S. Hill for Adamson.

EWING, Commissioner:

This is a petition by Price that a proceeding be instituted for the purpose of establishing the statutory bar of public use of the subject-matter covered by the interference issue.

In support of the petition are three affidavits to the effect that in April, 1907, an apparatus was built in the plant of the Morgan-Wright Company, of Detroit, Mich., in accordance with the structure disclosed in a certain blue-print and that about six tire-shoes were vulcanized in this apparatus which were found to be satisfactory in every particular, except that the surface of the rubber was not as smooth as tire-shoes vulcanized in metal molds.

There is nothing in the showing to indicate that the alleged use was public, rather than private, or that the alleged use if public was more than an abandoned experiment.

The petition is denied.

RADCLIFFE v. FÖTTINGER.

Decided October 17, 1912.

1. INTERFERENCE—PRIORITY—RIGHT TO MAKE THE CLAIMS.

The counts of the issue which originated in the application of Radcliffe *Held* properly readable not only upon Föttinger's application directly involved in interference, but upon an earlier application of Föttinger, and priority properly awarded the latter.

2. SAME—CONSTRUCTION OF THE ISSUE.

The issue which originated in the application of Radcliffe, construed as intended by him to be construed, *Held* not readable upon a prior French patent.

APPEAL from Examiners-in-Chief.

TRANSMISSION DEVICE.

Mr. Sigmund Herzog for Radcliffe.

Messrs. Munn & Co. and Mr. C. W. Fairbank for Föttinger.

TENNANT, Assistant Commissioner:

This is an appeal by Radcliffe from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Föttinger.

The issue is stated in five counts, of which the following sufficiently illustrates the nature of the invention:

1. In a hydraulic power transmitting apparatus, the combination with a rotatable driving member, of a driven member adapted to rotate independently of said driving member, a casing inclosing said members and adapted to contain a liquid, a plurality of vanes on said driving member, a plurality of vanes on said driven member, the vanes on said driving member being adapted to direct liquid in a direction which has a radial component to the vanes of said driven member, and means for controlling the amount of liquid flowing to said driven member.

It appears from the history of this case that the interference as originally declared involved an application of Föttinger, No. 540,163, filed January 26, 1910, and an application of Radcliffe, No. 381,342, filed June 28, 1907, the burden of proof thus being placed upon Föttinger.

A motion to dissolve was filed by Radcliffe, and the interference as originally declared was dissolved as to certain counts and resumed as to the remainder. Thereupon Föttinger filed a motion to shift the burden of proof, based upon an alleged disclosure in an earlier application, No. 322,395, filed June 19, 1906. The Examiner of Interferences in a decision rendered March 15, 1911, granted Föttinger's motion, and the burden of proof was thereupon shifted to the party Radcliffe. Times were duly set for the taking of testimony. No testimony was taken in behalf of Radcliffe, and pursuant to a motion by Föttinger for judgment under the provisions of Rule 119 an order was entered on May 20, 1911, requiring Radcliffe to show cause why judgment should not be rendered against him. In response to this action Radcliffe filed an answer, asserting, first, that the counts of the issue were not patentable to either of the parties in view of certain references, and, second, that Föttinger was not entitled to the benefit of his earlier application, No. 322,395, filed June 19, 1906. The Examiner of Interferences in a decision rendered June 13, 1911, refused to consider the question of patentability, but, holding that Föttinger's earlier application contained a full disclosure of the invention in issue, awarded priority to Föttinger. On June 23, 1911, however, the Primary Examiner requested and obtained jurisdiction of the interference for the purpose of determining the pertinency of the French No. 5.]

[Vol. 197.

Court of Appeals of the District of Columbia.

BARRETT v. THE IRISH INDUSTRIAL DEVELOPMENT ASSOCIATION.

Decided December 1, 1913.

TRADE-MARKS—OPPOSITION—"IRISH TRADE-MARK."

Evidence reviewed and *Held* to establish that at the time Barrett claims to have adopted his mark the mark used by The Irish Industrial Development Association was known in this country as indicating goods made in Ireland and that the adoption by Barrett of substantially the same mark was for the purpose of deception and the opposition *Held* properly sustained. (For decision of the Commissioner of Patents see 188 O. G., 797.)

Mr. D. A. Gourick for the appellant.

Mr. W. M. Stockbridge for the appellee.

SHEPARD, C. J.:

Barrett's original application for registration of a trade-mark was accompanied with a label. The figure represented thereon is an ancient Gaelic symbol showing an outer and an inner circle surrounding a scrollwork design. Between the outer and inner circles is a space containing certain Gaelic characters which, translated into English, read "Made in Ireland." Upon objection of the Examiner of Trade-Marks, the Gaelic characters were abandoned by amendment.

The application having been passed for publication, an opposition was filed by the Irish Industrial Association of Cork, Ireland. One of the objects of the association is to develop trade in Irish-made goods. Having registered its trade-mark, which is identical with the first trade-mark claimed by Barrett, in Great Britain, its licensees are permitted to affix the mark to goods of various kinds, including clothing materials, clothing, shirts, collars, underwear, etc. Such articles, so marked, have been sold in the United States since 1908. It is claimed that the mark, amended by omitting the legend, "Made in Ireland," is nevertheless so nearly alike opposer's mark that confusion in trade will result. The purpose of the Irish trade-mark is chiefly to convey the information to the public that the goods are of Irish manufacture, and it is shown that it is so understood, widely, in the United States. The Commissioner sustained the opposition. His conclusions are: that the marks so closely resemble each other as to be likely to cause confusion in trade; that the opposer was entitled to use the mark and had used it on goods of a similar description sold in the United States prior to Barrett's use; and that Barrett had used, and intended to use the mark on goods manufactured in the United States for the purpose of deceiving the public.

The decisions below discuss each proposition fully, and it is only necessary to state our own conclusions briefly. We agree with the Commissioner that the resemblance of the two marks is so close that their use by different persons would be likely to cause confusion and deceive purchasers. Passing by the question whether the opposer, as licensor

[Vol. 197.

of the use of the trade-mark, has a right to its use by its licensees that sustains a claim of damages that may accrue to it from its use by Barrett, we agree with the Commissioner that Barrett's adoption of the mark as a trade-mark for his goods was for the purpose of deception. The evidence shows beyond question that he knew that the mark was a token that the goods upon which it is displayed are manufactured in Ireland. He was not engaged in business as an importer of Irish goods; nor was he engaged in manufacturing articles of wear from Irish-made goods. He had a small shop in which he sold articles of wearing-apparel of his own make. To permit him to register the mark would enable him to deceive purchasers, and confer a *prima facie* right that would be of great advantage in preventing the sale by others of imported Irish goods bearing the mark. Moreover, by compliance with the terms of section 27 of the Trade-Mark Act he would be able to prevent the admission into the custom-houses of the United States of imported Irish goods bearing the mark of the Irish Industrial Development Association signifying Irish manufacture.

Without regard to the rights of the opposer the Commissioner was justified in refusing Barrett's registration. The decision is affirmed; and it is ordered that this decision be certified to the Commissioner of Patents.

Affirmed.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 20, 1913.

Clifford D. Babcock, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Thomas A. Nathan, of 87 St. Nicholas Place, New York, N. Y., for a patent, and a patent, No. 936,207, dated October 8, 1909, issued to Clifford D. Babcock, of 42 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to Clifford D. Babcock at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Clifford D. Babcock, his assigns or legal representatives, shall within thirty days from date of the first publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 12, 1913.

Henry Newman, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Landers, Frary & Clark, corner Center and Commercial streets, New Britain, Conn., for the registration of a trade-mark and trade-mark registered September 26, 1899, No. 33,500, to Henry Newman, 628-630 Broadway, New York, N. Y., and it having come to the attention of the Office that said Henry Newman is probably deceased, and his successors in business, if any, being unknown to the Patent Office, notice is hereby given that unless the assigns or legal representatives of said Henry Newman shall appear within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, First Assistant Commissioner.

No. 5.]

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS
AND OF THE UNITED STATES COURTS.

DECEMBER, 1913.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

TABLE OF CASES.

	Page.		Page.
*Barrett v. The Irish Industrial Development Association....	1294	Price v. Adamson.....	1291
Benach. <i>Ex parte</i>	241	Radeliffe v. Föttinger.....	1291
Black Betsey Coal & Mining Company v. The W. J. Hamilton Coal Company.....	998	*Radeliffe v. Föttinger.....	1293
Burleigh v. Elliot.....	240	Richard Hudnut. <i>Ex parte</i>	779
Creveling. <i>Ex parte</i>	779	Rosell. <i>In re</i>	535
Curtis Publishing Company, The. <i>Ex parte</i>	1000	Sher. <i>Ex parte</i>	239
Flanders and Flanders Manufacturing Company v. Studebaker Corporation.....	241	Stempel. <i>Ex parte</i>	997
Iddings and Iddings. <i>Ex parte</i>	239	Thomas. <i>Ex parte</i>	997
Sager Co., J. H., v. Emil Grossman Co.....	781	U. S. Cereal Company, The. <i>Ex parte</i>	780
Moore. <i>Ex parte</i>	533	Universal Motor Truck Co. v. The Universal Motor Co.....	533
National Water Company v. The Akron Brewing Company.....	999	*Universal Motor Truck Co. v. Universal Motor Co.....	535
Pingree-Traug Co. <i>Ex parte</i>	997	Wheary. <i>Ex parte</i>	534
		Moore Dry Goods Company, William R. <i>Ex parte</i>	780

SUBJECT-MATTER INDEX.

	Page.		Page.
Abandonment of application, <i>ex parte</i> Moore.....	533	Label, title may appear on back of copies if sufficient to identify them, <i>ex parte</i> Pingree-Traug Co.....	997
Amendment that does not advance prosecution of the case will not prevent its abandonment for lack of prosecution, <i>ex parte</i> Creveling.....	779	d Patents, void for lack of invention, J. H. Sager Co. v. Emil Grossman Co.....	781
Delay in filing petition to Commissioner may be fatal to relief, <i>ex parte</i> Thomas.....	997	Priority of invention, award in accord with evidence, Radeliffe v. Föttinger.....	1291
Non-responsive amendment with no explanation of delay, <i>ex parte</i> Iddings and Iddings.....	239	*Radeliffe v. Föttinger.....	1293
Record showing responsive action, <i>ex parte</i> Wheary..	534	Prosecution of applications, responsive action by the applicant, <i>ex parte</i> Wheary.....	534
Attorneys, power may be revoked unless coupled with interest, <i>in re</i> Rosell.....	535	Public-use proceedings, affidavit must show that use was public, not private, and was more than an abandoned experiment, Price v. Adamson.....	1291
Construction of Copyright Act, <i>ex parte</i> Richard Hudnut....	779	Trade-marks, amendment to drawing refused by Examiner, action reviewable on petition, <i>ex parte</i> Benach.....	241
Construction of Rule 171, <i>ex parte</i> Moore.....	533	Application of section 13, act of 1905, to Trade-Mark Act of 1881, Black Betsey Coal & Mining Company v. The W. J. Hamilton Coal Company.....	998
*Court of Appeals of the District of Columbia, appeal from interlocutory orders of Commissioner of Patents, Universal Motor Truck Co. v. Universal Motor Co.....	535	Drawing may be amended to show feature of specimen omitted, <i>ex parte</i> Benach.....	241
*Writ of certiorari not granted to review interlocutory order of Commissioner of Patents, Universal Motor Truck Co. v. Universal Motor Co.....	535	Flannels and mixed silk and cotton goods constitute goods of the same descriptive properties, <i>ex parte</i> William R. Moore Dry Goods Company.....	780
Division of application, election of claims, <i>ex parte</i> Stempel...	997	Interference decided adversely to applicant, his petition for cancellation of registration to be dismissed, Black Betsey Coal & Mining Company v. The W. J. Hamilton Coal Company.....	998
Final rejection of claims, amendment containing new matter, <i>ex parte</i> Moore.....	533	Name of applicant written with slightly-peculiar letters, with a paraph below and a flourish above, not sufficiently distinctive for registration, Flanders and Flanders Manufacturing Company v. Studebaker Corporation.....	241
Petition to set aside, <i>ex parte</i> Moore.....	533		
Interference, construction of claims, Radeliffe v. Föttinger...	1291		
Motion to dissolve not transmitted when indefinite, Burleigh v. Elliot.....	240		
*Patentability of issue not reviewable by Court of Appeals of the District of Columbia, Radeliffe v. Föttinger.....	1293		
Label, notice of copyright, sufficiency of, <i>ex parte</i> Richard Hudnut.....	779		

	Page.		Page.
*Trade-marks, opposition, adoption and use of trade-mark for purposes of deception established by evidence, <i>Barrett v. Irish Industrial Improvement Association</i>	1294	Trade-marks, proof-copies of mark not compliance with requirement of statute, <i>ex parte</i> Sher	239
Allegations in answer must be substantiated by proper proof in order to carry weight, <i>Universal Motor Truck Co. v. The Universal Motor Co.</i>	533	Publication distributed free for advertising purposes constitutes merchandise, <i>ex parte</i> The Curtis Publishing Company	1000
Answer under oath does not have the effect of evidence, <i>Universal Motor Truck Co. v. The Universal Motor Co.</i>	533	Specimens may be required for all goods claimed, <i>ex parte</i> Sher	239
Certificate of registration cited in notice carries all that it discloses, <i>National Water Company v. The Akron Brewing Company</i>	999	The compound word "Butter-Wheat," for a cereal food, not descriptive and registrable, <i>ex parte</i> The U. S. Cereal Company	780
Notice of may not be amended after 30 days, <i>National Water Company v. The Akron Brewing Company</i>	999	The word "Adorna," for flannels, refused registration on the word "Adora," for piece goods of mixed silk and cotton goods, <i>ex parte</i> William R. Moore Dry Goods Company	780

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

DECEMBER, 1913.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

ABANDONED EXPERIMENT. See Public-Use Proceedings.	TRADE-MARKS—INTERFERENCE—ACT OF 1881. Whether section 13 of the act of 1905 applies to trade-marks registered under the act of 1881, <i>quære</i> . [<i>Black Betsey Coal & Mining Company v. The W. J. Hamilton Coal Company</i> , 998.]
ABANDONMENT OF APPLICATIONS. See Prosecution of Applications, 1, 3, 4, 5, 7.	CERTIFICATE OF REGISTRATION OF TRADE-MARKS. See Opposition to Registration of Trade-Marks, 3.
ACTION BY THE EXAMINER. See Drawings; Prosecution of Applications, 1, 2, 3, 8.	CLASS OF MERCHANDISE. See Opposition to Registration of Trade-Marks, 3.
AFFIDAVITS. See Public-Use Proceedings.	CONSTRUCTION OF CLAIMS. 1. INTERFERENCE—PRIORITY. The issue which originated in the application of Radcliffe, construed as intended by him to be construed, <i>Held</i> not readable upon a prior French patent. [Radcliffe v. Föttinger, 1291.] 2. SAME—PATENTABILITY OF THE ISSUE—NOT REVIEWABLE BY THE COURT OF APPEALS. The question whether the counts in the issue are patentable to either party in view of certain references is "in the circumstances of this case * * * not open to discussion here." [*Radcliffe v. Föttinger, 1293.]
ALLEGATIONS. See Motion to Dissolve Interference; Opposition to Registration of Trade-Marks, 1; Public-Use Proceeding.	CONSTRUCTION OF RULES. See Prosecution of Applications, 3.
AMENDMENT. See Drawings; Prosecution of Applications, 1, 2, 3, 5, 6, 7.	CONSTRUCTION OF STATUTES. See Labels, 1; Cancellation of Trade-Mark Registration.
AMENDMENT TO NOTICE OF OPPOSITION TO REGISTRATION OF TRADE-MARK. See Opposition to Registration of Trade-Marks, 2, 3.	1. COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—INTERLOCUTORY DECISION OF THE COMMISSIONER OF PATENTS—SPECIAL APPEAL THEREFROM NOT GRANTED. The act organizing the Court of Appeals of the District of Columbia contains no provision for allowing appeals from interlocutory orders of the Commissioner of Patents. Only final decisions of the Commissioner of Patents in certain cases can be appealed. [*Universal Motor Truck Co. v. Universal Motor Co., 535.]
APPEAL TO THE EXAMINERS-IN-CHIEF. See Prosecution of Applications, 8.	2. SAME—SAME—WRIT OF CERTIORARI NOT GRANTED TO REVIEW. A writ of certiorari will not be granted by the Court of Appeals of the District of Columbia to review an interlocutory order of the Commissioner of Patents. [*Id.]
APPLICANT AND REGISTRANT. See Interference.	CONSTRUCTION OF TRADE-MARK STATUTES. See Registrability of Trade-Marks, 3.
ARGUMENT. See Prosecution of Applications, 2.	1. SPECIMENS—PROOF-COPIES NOT SUFFICIENT. Specimens which are proof-copies of the trade-mark do not satisfy the requirement of the statute, being merely duplicates of the drawing. [Ex parte Sher, 239.]
BAR TO PATENT. See Public-Use Proceedings.	2. SAME—MAY BE REQUIRED FOR ALL GOODS CLAIMED. Where the goods specified fall within the purview of the Food and Drugs Act, it is proper to require the applicant to file a specimen of the mark as used upon each of the goods claimed. [Id.]
CANCELLATION OF TRADE-MARK REGISTRATION. See Interference.	

COPYRIGHT.

See Labels, 1.

COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

See Construction of Claims; Construction of Statutes.

DECISIONS OF THE COMMISSIONER OF PATENTS.

See Construction of Statutes, 1.

DELAY IN FILING PETITION TO THE COMMISSIONER.

See Prosecution of Applications, 7.

DELAY IN PROSECUTION OF APPLICATIONS.

See Prosecution of Applications, 1, 6.

DIVISION OF APPLICATIONS.

See Prosecution of Applications, 8.

DRAWINGS.

See Construction of Trade-Mark Statutes.

1. TRADE-MARKS—REFUSAL BY THE EXAMINER—REVIEWABLE ON PETITION.

Where the Examiner refuses to allow an applicant to amend his drawing by adding thereto a feature shown in the specimens originally filed, *Held* that his action is reviewable on petition. [*Ex parte Bonach*, 241.]

2. SAME—MAY BE AMENDED TO SHOW FEATURES IN ORIGINAL SPECIMENS.

Where the drawing in an application for a trade-mark showed only one of the features of the original specimens, *Held* that it may be amended by adding thereto other features shown in such specimens. [*Id.*]

EARLIER APPLICATION.

See Priority of Invention, 1.

ELECTION OF CLAIMS.

See Prosecution of Applications, 8.

EVIDENCE.

See Opposition to Registration of Trade-Marks, 1, 4.

FINAL HEARING.

See Opposition to Registration of Trade-Marks, 1.

FINAL REJECTION OF CLAIMS.

See Prosecution of Applications, 2, 3, 8.

GOODS OF SAME DESCRIPTIVE PROPERTIES.

See Similarity of Marks.

TRADE-MARKS—"FLANNELS" AND "MIXED SILK AND COTTON GOODS."

Flannels and mixed silk and cotton goods *Held* to constitute goods of the same descriptive properties. [*Ex parte William R. Moore Dry Goods Company*, 780.]

INTERFERENCE.

See Cancellation of Trade-Mark Registration; Construction of Claims; Motion to Dissolve Interference; Priority of Invention.

TRADE-MARKS—CANCELLATION—RES ADJUDICATA.

Where after an interference between an applicant and a registrant is decided adversely to the applicant he files a petition for the cancellation of the registration, *Held* that the application for cancellation should be dismissed, since the judgment in the interference was conclusive of every question that might have been presented therein.

[*Black Betsey Coal & Mining Company v. The W. J. Hamilton Coal Company*, 998.]

INTERLOCUTORY ORDER.

See Construction of Statutes.

INVENTION.

See Particular Patents.

JURISDICTION OF THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

See Construction of Claims; Construction of Statutes; Priority of Invention, 2.

LABELS.

1. NOTICE OF COPYRIGHT.—Where the name of the proprietor is printed in a diagonal line across a label and the word "Copyright" appears at the lower left-hand corner thereof, *Held* that this is a sufficient compliance with the provision of the Copyright Act that the notice of copyright shall consist of the word "Copyright" or the abbreviation "Copr.," accompanied by the name of the copyright proprietor. [*Ex parte Richard Hudnut*, 779.]

2. TITLE—MAY BE PLACED ON THE BACK.

It is necessary that the title of a label appear on the copies filed in order to identify them with the application and certificate of registration; but it is sufficient if such title appear on the back of the labels. [*Ex parte Pingree-Traung Co.*, 997.]

LIMIT OF TIME.

See Opposition to Registration of Trade-Marks, 2; Prosecution of Applications, 3, 5, 6.

MERITS.

See Prosecution of Applicant, 8.

MOOT QUESTION.

See Prosecution of Applications, 3.

MOTION TO DISSOLVE INTERFERENCE.

INDEFINITENESS.

A motion to dissolve an interference between an application and a patent which merely alleges that the features common to the two are found in a prior patent, that the structure of the applicant is not patentable over that patent, and that the applicant does not disclose the features which impart patentability to the patent involved in the interference, *Held* too indefinite to be transmitted. [*Burleigh v. Elliot*, 240.]

MULTIPLICITY OF CLAIMS.

See Prosecution of Applications, 5.

NAME OF APPLICANT.

See Registrability of Trade-Marks, 1.

NEW MATTER.

See Prosecution of Applications, 2.

OATH.

See Opposition to Registration of Trade-Marks, 1; Prosecution of Applications, 2.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

1. TRADE-MARK—ANSWER UNDER OATH—DOES NOT HAVE EFFECT AS EVIDENCE.

Held that under the new equity rules an answer under oath does not have effect as evidence. If the applicant would have any weight given at final hearing to the allegations in the answer, he must substantiate them by proper proof.

[*Universal Motor Truck Co. v. The Universal Motor Co.*, 533.]

2. SAME—AMENDMENT OF NOTICE.

A notice of opposition cannot be amended after the expiration of the thirty days provided by the statute to set up a cause of action different from that set up in the original notice. [*National Water Company v. The Akron Brewing Company*, 990.]

3. SAME—SAME.

Where a certificate of registration is cited in a notice of opposition, it carries with it all that is disclosed in the certificate; but the substance of the notice of opposition would not be altered by an amendment specifying the general class of merchandise under which the particular description of goods set out in the certificate of registration falls. [*Id.*]

4. "IRISH TRADE-MARK."

Evidence reviewed and *Held* to establish that at the time Barrett claims to have adopted his mark the mark used by The Irish Industrial Development Association was known in this country as indicating goods made in Ireland and that the adoption by Barrett of substantially the same mark was for the purpose of deception and the opposition *Held* properly sustained. (*For decision of the Commissioner of Patents see 186 O. G.*, 797.) [*Barrett v. The Irish Industrial Development Association*, 1294.]

PARTICULAR PATENTS.

SAGER—885,181—AUTOMOBILE-BUFFER.

The Sager patent, No. 885,181, for an automobile-buffer, *Held* void for lack of invention in view of the prior art. [*J. H. Sager Co. v. Emil Grossman Co.*, 781.]

PATENTABILITY.

See Construction of Claims, 2; Motion to Dissolve Interference.

PETITION TO THE COMMISSIONER OF PATENTS.

See Drawings, 1; Prosecution of Applications, 3, 7.

POWER OF ATTORNEY.

REVOCATION—CAN BE REFUSED RECOGNITION ONLY IF COUPLED WITH INTEREST.

A power of attorney may be revoked at any time during the prosecution of the application unless the power is coupled with an interest. [*In re Rosell*, 535.]

PRIOR PATENTS.

See Construction of Claims, 1; Motion to Dissolve Interference.

PRIORITY OF ADOPTION AND USE.

See Opposition to Registration of Trade-Marks, 4.

PRIORITY OF INVENTION.

See Construction of Claims, 1.

1. RIGHT TO MAKE THE CLAIMS.

The counts of the issue which originated in the application of Radcliffe *Held* properly readable not only upon Föttinger's application directly involved in interference, but upon an earlier application of Föttinger, and priority properly awarded the latter. [*Radcliffe v. Föttinger*, 1291.]

2. SAME.

Priority *Held* properly awarded to Föttinger on the record, the invention being disclosed in his parent application. [*Radcliffe v. Föttinger*, 1293.]

PROOF.

See Opposition to Registration of Trade-Marks, 1.

PROSECUTION OF APPLICATIONS.

See Power of Attorney.

1. NON-RESPONSIVE AMENDMENT—ABANDONMENT.

At the end of the year following a rejection an amendment was filed making certain formal corrections, but making no reference to the rejected claims, and no action was taken until nearly ten months after the Office had notified the applicant wherein the amendment was incomplete, and no excuse is given for the delay. *Held* that the application is abandoned. [*Ex parte Iddings and Iddings*, 230.]

197 O. G.—2

2. FINAL REJECTION.

Where in response to the rejection of a claim on the ground that it covers new matter the applicant filed an argument, an amendment to the specification, and a "supplemental" oath, *Held* that if the Examiner were still of the opinion that the claim covered new matter he properly made his rejection final. [*Ex parte Moore*, 533.]

3. SAME—PETITION TO SET ASIDE NOT BROUGHT WITHIN A YEAR—APPLICATION ABANDONED.

Where after a final rejection the proceedings before the Examiner are not such as would save the case from abandonment under the provisions of Rule 171, a petition brought more than a year after that rejection to have it set aside as premature raises a moot question. [*Id.*]

4. RESPONSIVE ACTION.

Where at the end of the year following a rejection a telegram was received stating that the reference did not show certain features of the claim and asking for a specific application of the references, which telegram was confirmed by a letter received a few days later, *Held* that in view of the record of the case the action was responsive and the application not abandoned. [*Ex parte Wheary*, 534.]

5. NON-RESPONSIVE ACTION.

Where, on the last day of the year following an action in which all the claims were rejected, attention called to inaccuracies in the specification, and the claims held needlessly multiplied, an amendment was filed presenting a claim in lieu of claim 1 and amending the others so as apparently to broaden them, but not pointing out in any way how the claims as amended avoided the references, *Held* that such an amendment does not advance the prosecution of the case and that the application is abandoned for lack of responsive prosecution. [*Ex parte Creveling*, 779.]

6. DELAY—AMENDMENT.

Where an applicant waits until about the last day of the year to file a response, he does so at his own risk; but where the amendment is filed in ample time the applicant is entitled to some consideration. [*Ex parte Thomas*, 997.]

7. SAME—PETITION—DELAY IN FILING.

Where an application is held abandoned for lack of responsive prosecution, the applicant should take steps at once to bring the case before the Commissioner on petition, since the delay in filing the petition, if unexcused, will be fatal to a reinstatement of the application if the amendment was unresponsive. [*Id.*]

8. REQUIREMENT FOR DIVISION—ELECTION—EXAMINATION.

Where after a requirement for division applicant states on the record that he elects to prosecute one set of the claims, but does not cancel the other claims, *Held* that the Examiner should act on the merits of the claims for the invention elected by the applicant. If such claims are finally rejected, a single appeal may be made to the Examiners-in-Chief both as to such claims and to the requirement of division. [*Ex parte Stempel*, 997.]

PUBLIC-USE PROCEEDINGS.

PRIMA FACIE SHOWING.

A petition that proceedings be instituted for the purpose of establishing the statutory bar of public use denied where the affidavits do not show that the alleged use was public, rather than private, or that if public constituted more than an abandoned experiment. [*Price v. Adamson*, 1291.]

PUBLICATIONS.

See Registrability of Trade-Marks, 3.

REFERENCES.

See Construction of Claims, 2; Prosecution of Applications, 4.

REGISTRABILITY OF TRADE-MARKS.

1. NAME OF THE APPLICANT—MANNER OF WRITING.

The word "Flanders" written with a slight peculiarity in the letters, with a paraph thereunder and with the upper end of the "F" extending in a long flourish thereover, *Held* not written in such a distinctive and peculiar manner as to make the name registrable as a trade-mark. [*Flanders and Flanders Manufacturing Company v. Studebaker Corporation*, 241.]

"BUTTER-WHEAT" FOR A CEREAL FOOD—NOT DESCRIPTIVE.

The words "Butter-Wheat" as applied to a cereal food *Held* not descriptive and registrable. [*Ex parte The U. S. Cereal Company*, 780.]

DISTRIBUTED FREE—MERCHANDISE.

A publication which is distributed free for advertising purposes *Held* to constitute merchandise within the meaning of the Trade-Mark Act and a mark used on such publications to be registrable. [*Ex parte The Curtis Publishing Company*, 1000.]

DIGEST OF DECISIONS.

REJECTION OF CLAIMS.

See Prosecution of Applications, 1, 2, 4, 5.

RES ADJUDICATA.

See Interference.

RESPONSIVE ACTION BY THE APPLICANT.

See Opposition to Registration of Trade-Marks; Prosecution of Applications, 1, 2, 4, 5, 6, 7.

REVOCATION OF POWER OF ATTORNEY.

See Power of Attorney.

RIGHT TO MAKE CLAIMS.

See Priority of Invention, 1.

SIMILARITY OF MARKS.

See Opposition to Registration of Trade-Marks, 4.

"ADORNA" AND "ADORA."
The word "Adorna" held to so nearly resemble the prior registered mark "Adora" that their use upon goods of the same descriptive properties would tend to confuse or mislead the public.
[*Ex parte* William R. Moore Dry Goods Company, 780.]

SPECIFICATIONS.

See Prosecution of Applications, 2, 5.

SPECIMENS.

See Construction of Trade-Mark Statutes; Drawings.

TITLE OF LABEL.

See Labels, 2.

TRADE-MARKS.

See Cancellation of Trade-Mark Registration; Construction of Trade-Mark Statutes; Drawings; Goods of Same Descriptive Properties; Interference; Opposition to Registration of Trade-Marks; Publications; Registrability of Trade-Marks; Similarity of Marks.

TRANSMISSION OF MOTIONS.

See Motion to Dissolve Interference.

VOID PATENTS.

See Particular Patents.

WRIT OF CERTIORARI.

See Construction of Statutes, 2.

ALPHABETICAL LIST OF PATENTEEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1913.

[Abbreviations: "Gaz."=Official Gazette.]

- A. B. Farquhar Company. (See Eisenhart and Darden, assignors.)
 A. F. Meisselbach & Brother. (See Catucci, Pliny, assignor.)
 A. G. Spalding & Bros. (See Saunders, Addison T., assignor.)
 A. G. Spalding & Bros. (See Welch, Robert L., assignor.)
 A-Z Company, The. (See De Fevre and Woodbridge, assignors.)
 Aaron, Mabel, Stockton, Cal. Attachment for type-writers. No. 1,081,185; Dec. 9; Gaz. vol. 197; p. 466.
 Abbenzeller, Alfred D., Randolph, assignor to Brockton Mowing Machine Cutt. Bar Company, Brockton, Mass. Cutter-bar for mowing-machines. No. 1,081,078; Dec. 9; Gaz. vol. 197; p. 429.
 Abbott, Ambrose E., Los Angeles, Cal. Folding and disappearing bed and movement therefor. No. 1,081,186; Dec. 9; Gaz. vol. 197; p. 468.
 Abbott, Charles C., assignor to Triumph Voting Machine Company, Pittsfield, Mass. Voting mechanism for voting-machines. No. 1,081,288; Dec. 16; Gaz. vol. 197; p. 539.
 Abbott, Charles C., assignor to Triumph Voting Machine Company, Pittsfield, Mass. Counter-carrier for voting-machines. No. 1,082,061; Dec. 23; Gaz. vol. 197; p. 827.
 Abbott Coin Counter Company. (See Smith, Herbert K., assignor.)
 Abraham, George W., Saskatoon, Saskatchewan, Canada. Cuff-link. No. 1,082,145; Dec. 23; Gaz. vol. 197; p. 854.
 Abram Cox Stove Company. (See Mott, Abram C., Jr., assignor.)
 Ach, Lorenz, Mannheim, and A. Rothmann, Heidelberg, assignors to C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany. Making derivatives of dinitro-methyl-nitramino-phenyl-arsinic acids. No. 1,081,079; Dec. 9; Gaz. vol. 197; p. 430.
 Acheson, Edward G., Niagara Falls, Ontario, Canada. Treating amorphous bodies and product thereof. No. 1,082,386; Dec. 23; Gaz. vol. 197; p. 940.
 Acker, David, et al. (See Kleckner, Harry T., assignor.)
 Ackermann, Clemens W. and F. B., Chicago, Ill. Tie and tie-plate support. No. 1,082,252; Dec. 23; Gaz. vol. 197; p. 893.
 Ackermann, Frank B. (See Ackermann, Clemens W. and F. B., assignor.)
 Acme Supply Company, The. (See Schroyer, Harry H., assignor.)
 Acme White Lead and Color Works. (See Holley, Clifford D., assignor.)
 Ad-Pencil Company, The. (See Scott, Jesse B., assignor.)
 Adams, Daniel W., Glendale Springs, N. C. Shoulder-bag water-spraying apparatus. No. 1,081,848; Dec. 16; Gaz. vol. 197; p. 658.
 Adams, George, Franklin Centre, Quebec, Canada. Combined jack and thill-support. No. 1,081,008; Dec. 9; Gaz. vol. 197; p. 409.
 Adams, Phineas H., Chicago, Ill. Motor-car. No. 1,081,080; Dec. 9; Gaz. vol. 197; p. 430.
 Adams, Samuel J., Montclair, N. J. Match-box. No. 1,080,409; Dec. 2; Gaz. vol. 197; p. 171.
 Adams & Westlake Company, The. (See Giese and Field, assignors.)
 Adams & Westlake Company, The. (See Krohn, Nels, assignor.)
 Adams & Westlake Company, The. (See Legge, Thomas A., assignor.)
 Adams & Westlake Company, The. (See McGregor, Joseph G., assignor.)
 Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
 Adams, William, San Francisco, Cal. Chandelier. No. 1,080,092; Dec. 2; Gaz. vol. 197; p. 60.
 Adams, William, San Francisco, Cal. Chandelier. No. 1,080,093; Dec. 2; Gaz. vol. 197; p. 61.
 Adamski, Martin, Stoneboro, Pa. Trolley. No. 1,083,047; Dec. 30; Gaz. vol. 197; p. 1199.
 Adder Machine Company. (See Kuntzler, Henry, assignor.)
 Addressograph Company. (See Duncan, Joseph S., assignor.)
 Adolph, Gustav. (See Plettsch and Adolph.)
 Adolph, Paul P., New York, N. Y. Water-cooler. No. 1,082,841; Dec. 30; Gaz. vol. 197; p. 1130.
 Adriance, Benjamin. (See Calleson, Amos, assignor.)
 Adriance, Benjamin, and A. Calleson, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Apparatus for sealing bottles. No. 1,083,235; Dec. 30; Gaz. vol. 197; p. 1258.
 Aeolian Company, The. (See Votey, Edwin S., assignor.)
 Ahlen, William, and V. Ross, Duquesne, Pa. Hotbed. No. 1,082,387; Dec. 23; Gaz. vol. 197; p. 940.
 Ahlquist, Karl, Rugby, England, assignor to General Electric Company. Rotary compressor. No. 1,080,743; Dec. 9; Gaz. vol. 197; p. 318.
 Alchele, Albert, Baden, Switzerland. Grinding of toothed wheels, milling-cutters, and the like. No. 1,080,506; Dec. 2; Gaz. vol. 197; p. 205.
 Alchele, Albert, Baden, Switzerland. Liquid resistance. No. 1,082,721; Dec. 30; Gaz. vol. 197; p. 1089.
 Aiken, Albin F., Braddock, Pa. Scale. No. 1,080,401; Dec. 2; Gaz. vol. 197; p. 171.
 Aine, Harry E., Richmond, Cal. Constructing spirally-wire-wound structures of the continuous-wooden-stave type. No. 1,082,062; Dec. 23; Gaz. vol. 197; p. 827.
 Ainsworth, Franklin, New York, N. Y. Stop-motion. No. 1,082,388; Dec. 23; Gaz. vol. 197; p. 940.
 Airgas Syndicate Incorporated. (See Cox, Frederick J., assignor.)
 Alenstien & Schiller. (See Pedersen, Harald C., assignor.)
 Akers, Earl C., Port Huron, Mich. Ship's log. No. 1,081,081; Dec. 9; Gaz. vol. 197; p. 430.
 Akt. Ges. Mix & Genest Telephon & Telegraphenwerke. (See Strittner, Otto, assignor.)
 Aktiebolaget Ljungströms Angturbin. (See Ljungström, Fredrik, assignor.)
 Alba B. Fabricio de, Panama, Panama. Self-propelled vehicle. No. 1,082,457; Dec. 23; Gaz. vol. 197; p. 961.
 Albert, Eugen, Munich, Germany. Etching-machine. No. 1,081,289; Dec. 16; Gaz. vol. 197; p. 539.
 Albert, Eugen, Munich, Germany. Etching process. No. 1,081,290; Dec. 16; Gaz. vol. 197; p. 539.
 Albert, George, Salida, Colo. Shovel-handle extension. No. 1,081,187; Dec. 9; Gaz. vol. 197; p. 468.
 Albertson, Ernest H., Newark, N. J. Type-writer. No. 1,082,671; Dec. 30; Gaz. vol. 197; p. 1071.
 Alco Deo Company. (See Hoffman, Alfred, assignor.)
 Alden, George L., assignor to Norton Grinding Company, Worcester, Mass. Grinding. No. 1,081,082; Dec. 9; Gaz. vol. 197; p. 431.
 Alder, Frederick H., Zurich, Switzerland. Type-writer attachment. No. 1,080,506; Dec. 2; Gaz. vol. 197; p. 205.
 Aldridge, Harry G., assignor to Huther Brothers Saw Mfg. Co., Rochester, N. Y. Cutter-head. No. 1,083,174; Dec. 30; Gaz. vol. 197; p. 1237.
 Alexander Airless Auto Wheel Co. (See Ayotte, Joseph R., assignor.)
 Alexander, Daniel B. W., Los Angeles, Cal. Constructing roadways. No. 1,082,722; Dec. 30; Gaz. vol. 197; p. 1089.
 Alexander, French H., et al. (See Playford, Marion E., assignor.)
 Alexander, James A., et al. (See Stillings, Franklin E., assignor.)
 Alexander, Joseph E. G., Philadelphia, Pa. Aeroplane. No. 1,081,420; Dec. 16; Gaz. vol. 197; p. 583.
 Alexander, Milburn Company, The. (See Jenkins, Alexander F., assignor.)
 Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Means for compensating polyphase alternating-current commutator-motors. No. 1,080,403; Dec. 2; Gaz. vol. 197; p. 172.
 Alfano, Louis, Southington, Conn. Tailor's measure. No. 1,081,640; Dec. 16; Gaz. vol. 197; p. 658.
 Alger, Harley C., Chicago Heights, Ill. Liquid-meter. No. 1,081,083; Dec. 9; Gaz. vol. 197; p. 431.
 Alger, Hiram B. (See Mayfield and Alger.)
 Allegheny Plate Glass Company. (See McLean, Crosby C., assignor.)

Alleman, Arnold, assignor to Firma Schweiz. Kommissions- und Aufbewahrungs-Haus für das in- und Ausland Tomachpolsky & Weldenfeld, Berne, Switzerland. Tachometer. No. 1,081,188; Dec. 9; Gaz. vol. 197; p. 467.

Allen, Charles C., assignor to The Wilson Re-Enforced Concrete Co., Nebraska City, Nebr. Reinforced-concrete sectional pipe and culvert. No. 1,082,724; Dec. 30; Gaz. vol. 197; p. 1089.

Allen, Charles C., and C. H. Busch, assignors to The Wilson Re-Enforced Concrete Co., Nebraska City, Nebr. Reinforced-concrete sectional pipe and culvert. No. 1,082,723; Dec. 30; Gaz. vol. 197; p. 1089.

Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Buttonhole-cutting device. No. 1,083,236; Dec. 30; Gaz. vol. 197; p. 1258.

Allen, James. (See Mason and Allen.)

Allen, John E., Chicago, Ill. Airship. No. 1,082,472; Dec. 23; Gaz. vol. 197; p. 966.

Allen, Thomas G., Westminster, London, England. Acetylene-gas generator. No. 1,079,972; Dec. 2; Gaz. vol. 197; p. 18.

Allen, Willard E., Toledo, Ohio. Bath-mat. No. 1,080,315; Dec. 2; Gaz. vol. 197; p. 138.

Alley, Frank R., Seattle, Wash. Commutator-slotter. No. 1,083,175; Dec. 30; Gaz. vol. 197; p. 1238.

Alley, Stephen E., Glasgow, Scotland, and R. McGregor, London, England. Automatic valve of disk form. No. 1,081,803; Dec. 16; Gaz. vol. 197; p. 710.

Allis-Chalmers Manufacturing Company. (See De Wein, George F., assignor.)

Allis-Chalmers Manufacturing Company. (See Marcy, Frank E., assignor.)

Allis-Chalmers Manufacturing Company. (See Powell, William H., assignor.)

Allis-Chalmers Manufacturing Company. (See Sprado, Carl G., assignor.)

Allison, James E., St. Louis, Mo., assignor to H. V. Bright, Cleveland, Ohio. Coin-controlled mechanism. No. 1,081,562; Dec. 16; Gaz. vol. 197; p. 632.

Allmänna Svenska Elektriska Aktiebolaget. (See Schrage, Hilde K., assignor.)

Alma Manufacturing Company of Baltimore City. (See Ayer, Luther S., assignor.)

Alsop Process Company. (See Elliott, Bruce S., assignor.)

Alsterberg, Henning, St. Paul, Minn. Combined self-cleaning filter and faucet. No. 1,081,563; Dec. 16; Gaz. vol. 197; p. 632.

Altgelt, Rudolph J., and C. F. Carlson, assignors to Oliver Chilled Plow Works, South Bend, Ind. Plow. No. 1,082,672; Dec. 30; Gaz. vol. 197; p. 1071.

Altman, Friedrich, Breslau, Germany. Machine for making paper-lined pasteboard boxes. No. 1,080,039; Dec. 2; Gaz. vol. 197; p. 42.

Alverson, Ralph L., Madrid, Iowa. Coal-hod attachment. No. 1,082,483; Dec. 30; Gaz. vol. 197; p. 1003.

Alverson, Loman A., (See Avery and Alverson.)

Alverson, Magnus C. (See Avery and Alverson.)

Amadeo, Paul, Shenandoah, Pa. Mail-box. No. 1,082,787; Dec. 30; Gaz. vol. 197; p. 1112.

Amato, Joseph, New York, N. Y. Combined trousers-stretcher and coat-hanger. No. 1,080,402; Dec. 2; Gaz. vol. 197; p. 172.

Ambler, Arthur A., Middletown, Ohio, assignor to The American Rolling Mill Co., Newark, N. J. Nesting culvert. No. 1,082,578; Dec. 30; Gaz. vol. 197; p. 1038.

Amendola, Thomas, Pawtucket, R. I. Truss. No. 1,081,189; Dec. 9; Gaz. vol. 197; p. 467.

American Automatic Advertising Co., The. (See Braun, Charles A., assignor.)

American Bottle Company, The. (See Lamb, Thomas F., assignor.)

American Brake Shoe & Foundry Company. (See Gallagher and Jones, assignors.)

American Brake Shoe & Foundry Company. (See Jones, Harry, assignor.)

American Can Company. (See Rudolph, Frank, assignor.)

American Can Company. (See Schenck, John E., assignor.)

American Can Company. (See Sharp, Lee C., assignor.)

American Car and Foundry Company. (See Summa, Victor M., assignor.)

American Case & Register Company, The. (See Peterson, Fredolf J., assignor.)

American Cement Tile Manufacturing Company. (See Freund, Joseph, assignor.)

American Combustion Company. (See Stringham, John H., assignor.)

American Cork and Seal Company. (See Keller, Albert K., assignor.)

American Ever Ready Company. (See Joline, Benjamin F., assignor.)

American Hardware Corporation, The. (See Johnson, Charles E., assignor.)

American Hardware Corporation, The. (See Wessoleck, Augustus W., assignor.)

American Key Can Company. (See McColl, Francis P., assignor.)

American Machine & Manufacturing Company. (See Davidson, Joseph, assignor.)

American Manufacturing Company. (See Carpenter, Kenneth G., assignor.)

American Mausoleum Company, The. (See King, James B., assignor.)

American Multigraph Company, The. (See Gilbert, Charles E., assignor.)

American Multigraph Company, The. (See Osborn, Henry C., assignor.)

American Optical Company. (See Baker, Nelson M., assignor.)

American Pin Company. (See Willetts, William R., assignor.) (Reissue.)

American Pneumatic Service Company. (See Fordyce, Edmond A., assignor.)

American Rolling Mill Co., The. (See Ambler, Arthur A., assignor.)

American Rolling Mill Company, The. (See Charles, George H., assignor.)

American Rolling Mill Company, The. (See Du Chemin, William P., assignor.)

American Seeding Machine Company, The. (See Jones, Sylvester H., assignor.)

American Steel Foundries. (See Fletcher and Brown.)

American Steel Foundries. (See Floyd, George G., assignor.)

American Steel Foundries. (See Stearns, Walter A., assignor.)

American Stove Company. (See Meacham, Benjamin E., assignor.)

American Stove Company. (See Possona, Minard A., assignor.)

American Telephone and Telegraph Company. (See Kitzsee, Isidor, assignor.)

American Tobacco Company, The. (See Tuttle, Washington I., assignor.)

American Tool Works Company, The. (See Sosa, Augustus M., assignor.)

American Water-Supply Company of New England. (See Whitney, Edwin H., assignor.)

Amies Asphalt Company, The. (See Amies, Joseph H., assignor.)

Amies, Joseph H., assignor to The Amies Asphalt Company. Philadelphia, Pa. Road and street surfacing. No. 1,082,478; Dec. 23; Gaz. vol. 197; p. 908.

Ammerman, Wesley, assignor of one-half to T. Berry, Franklin, Tenn. Carriage-return mechanism. No. 1,082,063; Dec. 23; Gaz. vol. 197; p. 828.

Amoth, Theodore C., Madison, Wis. Horseshoe. No. 1,081,564; Dec. 16; Gaz. vol. 197; p. 632.

Amsler, Walter O., Pittsburgh, Pa. Reversing-valve. No. 1,080,134; Dec. 2; Gaz. vol. 197; p. 75.

Andersen, Lauritz W., assignor to Plume and Atwood Manufacturing Company, Waterbury, Conn. Ball-joint. No. 1,080,405; Dec. 2; Gaz. vol. 197; p. 173.

Anderson, Alfred, assignor to Concord Company, Chicago, Ill. Rewind mechanism. No. 1,082,253; Dec. 23; Gaz. vol. 197; p. 893.

Anderson, Alfred, assignor to Concord Company, Chicago, Ill. Player-pumping apparatus. No. 1,082,254; Dec. 23; Gaz. vol. 197; p. 894.

Anderson, Charles H., Seattle, Wash. Steel car. No. 1,083,176; Dec. 30; Gaz. vol. 197; p. 1238.

Anderson, George A., Bothell, Wash. Releaseable driving mechanism. No. 1,082,105; Dec. 23; Gaz. vol. 197; p. 842.

Anderson, George W. T., Jacksonburg, W. Va. Rail-joint. No. 1,083,177; Dec. 30; Gaz. vol. 197; p. 1238.

Anderson, Joseph, New York, N. Y. Ticket-deposit box. No. 1,080,404; Dec. 2; Gaz. vol. 197; p. 172.

Anderson, Nels L., Spearfish, S. D. Trace and tug buckle. No. 1,081,804; Dec. 16; Gaz. vol. 197; p. 711.

Anderson, Olaf, Erskine, Minn. Bag-holder. No. 1,081,291; Dec. 16; Gaz. vol. 197; p. 540.

Anderson & Prigge. (See Dixon and Post, assignors.)

Anderson, Verner G. (See Johnson, John T., assignor.)

Andreassen, Andreas B., Brooklyn, N. Y. Life-boat. No. 1,080,876; Dec. 9; Gaz. vol. 197; p. 365.

Andrews, Casius G., et al. (See Ferguson, Lyman H., assignor.)

Andrews, David H., Newton, and E. C. Ketchum, Boston, Mass. Dynamo-electrical machine. No. 1,082,579; Dec. 30; Gaz. vol. 197; p. 1038.

Andrick, Wallace P., E. Lowe, and H. W. Haff, Jamaica, N. Y., assignors, by mesne assignments, to General Acoustic Company. Key construction and release for telephonic apparatus. No. 1,081,712; Dec. 16; Gaz. vol. 197; p. 678.

Angerstein, Hermann. (See Iselhorst and Angerstein.)

Anklam, William F., assignor to C. M. Hall Lamp Company, Detroit, Mich. Lamp-socket. No. 1,082,484; Dec. 30; Gaz. vol. 197; p. 1003.

Anthony, Edgar W., Brookline, Mass. Stove. No. 1,080,671; Dec. 9; Gaz. vol. 197; p. 292.

Anthony, James S., New York, N. Y., assignor to General Electric Company. Governing internal-combustion engines. No. 1,082,004; Dec. 23; Gaz. vol. 197; p. 807.

Anton, Christopher L., Monongahela, Pa. Drill. No. 1,082,617; Dec. 30; Gaz. vol. 197; p. 1052.

Anton, Frederick A., Topeka, Kans. Awning-arm. No. 1,081,882; Dec. 16; Gaz. vol. 197; p. 737.

Antonuccio, Joseph, Oakland, Cal. Gas-burner. No. 1,082,725; Dec. 30; Gaz. vol. 197; p. 1090.

Apgar, John T., New York, N. Y. Artificial leg. No. 1,082,255; Dec. 23; Gaz. vol. 197; p. 894.

Apgar, John T., New York, N. Y. Artificial leg. No. 1,082,256; Dec. 23; Gaz. vol. 197; p. 894.

Applani, Graziano, Treviso, Italy. Optical projecting apparatus. No. 1,080,528; Dec. 9; Gaz. vol. 197; p. 245.

Apple Electric Company, The. (See Apple, Vincent G., assignor.)

Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Dynamo-electric machine. No. 1,081,084; Dec. 9; Gaz. vol. 197; p. 431.

Appleby, James P., assignor to Johnston & Sharp Manufacturing Company, Ottumwa, Iowa. Making solid balls. No. 1,080,798; Dec. 9; Gaz. vol. 197; p. 338.

Arbours, William R., and J. W. Lepine, Lafourche Crossing, La. Agricultural machine. No. 1,080,799; Dec. 9; Gaz. vol. 197; p. 339.

Arco, Georg von, Berlin, Germany. Radiotelegraphic station. No. 1,082,221; Dec. 23; Gaz. vol. 197; p. 880.

Arendt, Rudolph, assignor to H. Mundlos & Co., Magdeburg, Germany. Buttonhole-sewing machine. No. 1,083,178; Dec. 30; Gaz. vol. 197; p. 1238.

Ariens, Frank A., Denison, Iowa. Milk-can-cover lock and seal. No. 1,082,726; Dec. 30; Gaz. vol. 197; p. 1090.

Arita, Moto, Boston, Mass. Indicating-lock. No. 1,081,190; Dec. 9; Gaz. vol. 197; p. 467.

Armbruster, Edward J., assignor of one-third to I. M. Porter, Seattle, Wash. Automobile rain-protector. No. 1,082,479; Dec. 23; Gaz. vol. 197; p. 908.

Armitage, Joseph B. (See Le Boeuf and Armitage.)

Armspear Manufacturing Company. (See Spear, Furman D., assignor.)

Armstrong, John B., Wilkes-Barre, assignor of one-third to W. Lloyd Drifton, one-third to J. Lloyd, and one-third to W. H. Nicholson and Company, Inc., Wilkes-Barre, Pa. Trap-valve mechanism. No. 1,080,507; Dec. 2; Gaz. vol. 197; p. 205.

Armstrong, John R., Cranston, assignor to O. K. Nut Lock Company, Providence, R. I. Nut-lock. No. 1,082,389; Dec. 23; Gaz. vol. 197; p. 941.

Armstrong, Mary C., Perth Amboy, N. J. Fly-catcher. No. 1,083,179; Dec. 30; Gaz. vol. 197; p. 1238.

Armstrong, Thomas F. (See Dodge and Armstrong.)

Arn, William G. (See Harris, Alexander B. B., assignor.)

Arndt, Kurt, Charlottenburg, assignor to The Chemische Fabrik Grünau Landshoff and Meyer Aktiengesellschaft, Grünau, near Berlin, Germany. Electrolytic manufacture of perborates. No. 1,081,191; Dec. 9; Gaz. vol. 197; p. 467.

Arnold, George W., assignor of one-third to H. Hertzberg, Denver, Colo. Ore-concentrating machine. No. 1,081,421; Dec. 16; Gaz. vol. 197; p. 584.

Arrants, James W., Elizabethton, Tenn. Tobacco-cutter. No. 1,079,998; Dec. 2; Gaz. vol. 197; p. 27.

Arsen, William C., Schenectady, N. Y., assignor to General Electric Company. Vulcanized glycerol resin. No. 1,082,106; Dec. 23; Gaz. vol. 197; p. 842.

Ashley, Frank M., Brooklyn, N. Y. Inkstand. (Reissue.) No. 13,659; Dec. 23; Gaz. vol. 197; p. 909.

Ashley, Robert W., and F. Oberkirch, New York, N. Y. Demountable rim. No. 1,082,299; Dec. 23; Gaz. vol. 197; p. 911.

Ashtabula Bow Socket Company, The. (See Wittich, Frederick A., assignor.)

Ashton, Francis E., Exeter, N. H., assignor to Draper Company, Hopedale, Mass. Loom filling-stand. No. 1,082,186; Dec. 23; Gaz. vol. 197; p. 868.

Ashworth, Fred, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,080,877; Dec. 9; Gaz. vol. 197; p. 305.

Aslakson, Baxter M., Salem, Ohio. Gas-engine. No. 1,081,480; Dec. 16; Gaz. vol. 197; p. 604.

Aston, A. W., et al. (See Davis, James S., assignor.)

Astrom, Carl P., East Orange, N. J., assignor to M. H. Treadwell Company. Dumping-car. No. 1,080,619; Dec. 9; Gaz. vol. 197; p. 275.

Astrom, Carl P., East Orange, N. J., assignor to M. H. Treadwell Company. Car. No. 1,080,620; Dec. 9; Gaz. vol. 197; p. 275.

Astruck, John H., New York, N. Y. Cigar-cutter. No. 1,082,257; Dec. 23; Gaz. vol. 197; p. 895.

Attridge, Oliver H., assignor of one-fourth to W. N. Cox, one-fourth to C. W. Beale, and one-fourth to F. G. Bennett, Montgomery, Ala. Wheel for automobiles and other vehicles. No. 1,081,192; Dec. 9; Gaz. vol. 197; p. 468.

Auburn, Mamie. (See Celene, Charles, assignor.)

Audibert, Stephen R., Fort Kent, Me. Wrench. No. 1,081,193; Dec. 9; Gaz. vol. 197; p. 468.

Auer, George S., assignor to The Auer Register Company, Cleveland, Ohio. Wall-register-door holder. No. 1,082,788; Dec. 30; Gaz. vol. 197; p. 1113.

Auer Register Company, The. (See Auer, George S., assignor.)

Auerbach, Marcus, Montreal, assignor of one-half to J. F. Poirier, St. Hyacinthe, Quebec, Canada. Collar-stud. No. 1,081,650; Dec. 16; Gaz. vol. 197; p. 658.

Auiero, Emanuel, Brooklyn, N. Y. Alarm device. No. 1,082,458; Dec. 23; Gaz. vol. 197; p. 961.

Augeud, Adolf O., von, Baden, near Vienna, Austria-Hungary. Parachute. No. 1,081,137; Dec. 9; Gaz. vol. 197; p. 450.

Aune, Hans J., Crookston, Minn. Plow. No. 1,081,194; Dec. 9; Gaz. vol. 197; p. 468.

Auringer, John J., Cohoes, N. Y. Battery-electrode. No. 1,081,277; Dec. 9; Gaz. vol. 197; p. 498.

Austin, Frederick C., Chicago, Ill. Window-ventilator. No. 1,081,195; Dec. 9; Gaz. vol. 197; p. 468.

Auto Air Appliance Company, The. (See Crouse and Eldson, assignors.)

Auto Falcon & Walte Die Press Company. (See Walte, Fred, assignor.)

Automatic Electric Company. (See Erickson, John, assignor.)

Automatic Enunciator Company. (See Comer, John J., assignor.)

Automatic Lamp Control Company, The. (See Meeker, William B., assignor.)

Automatic Production Meter Company. (See Johnson, Austin C., assignor.)

Automatic Tire Rest Company. (See Stewart, McElmer, assignor.)

Automobile Combination Lock and Circuit Breaker Company. (See Buckeye, George J., assignor.)

Autosales Gum and Chocolate Company. (See Webster, John A., assignor.)

Avansino, Romeo C. (See Herbst and Avansino.)

Avery, Cassius B., M. C. and L. A. Alverson, Duluth, Minn. Hanging tent. No. 1,081,481; Dec. 16; Gaz. vol. 197; p. 605.

Ayer, Alton E., assignor of one-half to J. Baxter, Boston, Mass. Closure for milk-jars and the like. No. 1,082,989; Dec. 30; Gaz. vol. 197; p. 1181.

Ayer, Luther S., Winchester, Mass., assignor, by mesne assignments, to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Buckle. No. 1,080,672; Dec. 9; Gaz. vol. 197; p. 292.

Aylward, Henry W., New York, N. Y. Electrically-controlled signaling apparatus. No. 1,081,941; Dec. 23; Gaz. vol. 197; p. 785.

Ayotte, Joseph R., assignor to Alexander Airless Auto Wheel Co., Chicago, Ill. Resilient wheel. No. 1,080,621; Dec. 9; Gaz. vol. 197; p. 275.

B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)

B. F. Sturtevant Company. (See Godfrey, William A., assignor.)

B. F. Sturtevant Company. (See Lyons, John F., assignor.)

Babcock, George K., Millport, N. Y. Lamp-bracket for power-driven vehicles. No. 1,082,618; Dec. 30; Gaz. vol. 197; p. 1052.

Babcock & Wilcox Company, The. (See Wells, Edward H., assignor.)

Bach, Anton M., San Francisco, Cal. Internal-combustion engine. No. 1,080,800; Dec. 9; Gaz. vol. 197; p. 339.

Bachmann, Siegmund, Chicago, Ill. Box. No. 1,083,048; Dec. 30; Gaz. vol. 197; p. 1199.

Back, August C., Spring Hill, Kans. Hame-clip. No. 1,080,801; Dec. 9; Gaz. vol. 197; p. 339.

Badcon, Sidney W., assignor of one-half to H. C. Baker, Ogden, Utah. Display-case or the like. No. 1,082,300; Dec. 23; Gaz. vol. 197; p. 911.

Badger, Arthur C., Newton Center, Mass. Continuous distilling apparatus. No. 1,082,064; Dec. 23; Gaz. vol. 197; p. 828.

Badische Anilin & Soda Fabrik. (See Boner, Johann, assignor.)

Badische Anilin & Soda Fabrik. (See Lüttringhaus, Diebach, and Schwarz, assignors.)

Badische Anilin & Soda Fabrik. (See Weber, Franz, assignor.)

Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Sound-record. No. 1,083,264; Dec. 30; Gaz. vol. 197; p. 1267.

Baggaley, Ralph, Pittsburgh, Pa. Utilizing iron blast-furnace fine-dust. No. 1,081,921; Dec. 16; Gaz. vol. 197; p. 749.

Bagley, William, Haveringham, Nottingham, assignor to B. W. Dowson, Nottingham, England. Machine for slicing bread and spreading butter, jam, meat-pulp, or other like substances thereon. No. 1,082,146; Dec. 23; Gaz. vol. 197; p. 854.

Bagley, Herbert D. F., Holland, Mass. Propeller. No. 1,080,406; Dec. 2; Gaz. vol. 197; p. 173.

Bagwell, Landrum E., Hartsville, S. C. Gear-cutting attachment for milling-machines. No. 1,080,094; Dec. 2; Gaz. vol. 197; p. 62.

Bahr, William E., Lincoln, Nebr. Cleanable heat-radiator. No. 1,080,408; Dec. 2; Gaz. vol. 197; p. 174.

Bailey, Asa, North Vernon, Ind. Rodent-extermiator. No. 1,080,529; Dec. 9; Gaz. vol. 197; p. 245.

Bailey, George G. (See Randall, Frank J., assignor.)

Bailey, James F., assignor of one-half to F. F. Sutherland, Jacksonville, Fla. Boiler-tube cleaner. No. 1,081,651; Dec. 16; Gaz. vol. 197; p. 659.

Bailey, Samuel E., Scranton, Pa. Hydroplane. No. 1,080,407; Dec. 2; Gaz. vol. 197; p. 173.

Bailey, Warren E., Smith River, Cal. Non-refillable bottle. No. 1,081,883; Dec. 16; Gaz. vol. 197; p. 737.

Balmer, Joseph M. (See Pooler, Balmer, and Elliott.)

Bair, Arthur W., Monroe, Mich. Display-rack. No. 1,080,530; Dec. 9; Gaz. vol. 197; p. 245.

Balsley, Walter A. (See Carrick and Balsley.)

Baker, Charles J., Phoenixville, Pa. Undergarment. No. 1,081,196; Dec. 9; Gaz. vol. 197; p. 469.

Baker, David. (See Ladd and Baker.)

Baker, Frank E. (See Baker, George J. and F. E.)

Baker, George J. and F. E., Royal Oak, assignors of one-half to Detroit Tractor Company, Detroit, Mich. Control device. No. 1,080,316; Dec. 2; Gaz. vol. 197; p. 139.

Baker, George W. (See Hutchings, Marvin C., assignor.)

Baker, Henry C. (See Badcon, Sidney W., assignor.)

- Baker, John M., Nelson, Mo. Planter. No. 1,080,802; Dec. 9; Gaz. vol. 197; p. 339.
- Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Eyeglasses. No. 1,081,713; Dec. 16; Gaz. vol. 197; p. 679.
- Baker, Porter C., assignor of one-third to V. Thomas, Morrill, Nebr. Irrigating-dam. No. 1,080,944; Dec. 9; Gaz. vol. 197; p. 388.
- Baker, Thomas T. (See Heyl and Baker.)
- Baker, Wade W., London, Ohio. Composition of matter for plaster and similar materials. No. 1,081,565; Dec. 16; Gaz. vol. 197; p. 632.
- Balderston, Caleb C., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa. Projection apparatus. No. 1,081,922; Dec. 16; Gaz. vol. 197; p. 750.
- Baldwin, Frank S., assignor to Monroe Calculating Machine Company, New York, N. Y. Calculating-machine. No. 1,080,245; Dec. 2; Gaz. vol. 197; p. 114.
- Baldwin, Harley A. (See Schilling and Baldwin.)
- Ball, Charles A., assignor to H. Ball, Marion, Ind. Ballot-box. No. 1,082,673; Dec. 30; Gaz. vol. 197; p. 1072.
- Ball, Harry. (See Ball, Charles A., assignor.)
- Ball, Samuel R., Laporte, Ind. Tire-preserving compound. No. 1,079,929; Dec. 2; Gaz. vol. 197; p. 3.
- Ballard, George L. (See Wildman and Ballard.)
- Ballard, Harrie A., Boston, assignor to The Boylston Mfg. Company, South Boston, Mass. Last. No. 1,080,521; Dec. 2; Gaz. vol. 197; p. 211.
- Ballenger, Curtis M., Lubbock, Tex. Dental appliance. No. 1,080,878; Dec. 9; Gaz. vol. 197; p. 366.
- Ballou, Eugene H., Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass. Weft-replenishing loom. No. 1,082,390; Dec. 23; Gaz. vol. 197; p. 941.
- Bancroft, James E., Toledo, Ohio, assignor to Toledo Computing Scale Company, Newark, N. J. Vulcanizing device. No. 1,082,258; Dec. 23; Gaz. vol. 197; p. 895.
- Banks, Josephine, East Douglass, Mass. Massage-paddle. No. 1,081,923; Dec. 16; Gaz. vol. 197; p. 750.
- Baranovits, Charles, Chicago, Ill. Button-attaching machine. No. 1,082,485; Dec. 30; Gaz. vol. 197; p. 1003.
- Barber-Colman Company. (See Bingham, Thomas E., assignor.)
- Barber-Colman Company. (See Colman, Howard D., assignor.)
- Bardelli, Felice. (See Colzi and Bardelli.)
- Barene, Otto E., New York, N. Y. Coal-conveyer. No. 1,082,391; Dec. 23; Gaz. vol. 197; p. 941.
- Barker, George H., assignor to Improved Sanitary Fixture Company, Los Angeles, Cal. Combined bath-tub and washstand. No. 1,082,065; Dec. 23; Gaz. vol. 197; p. 829.
- Barker, Joseph C., Oblong, Ill. Mole-trap. No. 1,081,652; Dec. 16; Gaz. vol. 197; p. 659.
- Barley, Clarence J. (See Hoke and Barley.)
- Barley, Clarence J., Altoona, Pa. Piston-valve. No. 1,080,945; Dec. 9; Gaz. vol. 197; p. 389.
- Barlow, George F., East Long Meadow, Mass. Bottle-stopper. No. 1,081,085; Dec. 9; Gaz. vol. 197; p. 431.
- Barlow, Jerome, Chicago, Ill. Train-order holder. No. 1,082,392; Dec. 23; Gaz. vol. 197; p. 942.
- Barnard, Franklin M., Milford, Iowa. Saw-jointer. No. 1,081,714; Dec. 16; Gaz. vol. 197; p. 679.
- Barnes, Lois E. (See Barnes, Walter D., assignor.)
- Barnes, Pierre. (See Houghton, Willard, assignor.)
- Barnes, Walter D., assignor of one-half to L. P. Barnes, Columbia, S. C. Trunk-fastener. No. 1,080,409; Dec. 2; Gaz. vol. 197; p. 174.
- Barnett, Jacob, New York, N. Y. Seam for sewed articles. No. 1,081,197; Dec. 9; Gaz. vol. 197; p. 469.
- Barney and Smith Car Company, The. (See Stevens and Horne, assignors.)
- Barnhart, Anthony W., Cairo, assignor to Electric Undercurrent Company, Pennsboro, W. Va. Shoe or skate for electric railways. No. 1,080,410; Dec. 2; Gaz. vol. 197; p. 174.
- Baron, Michael H., New York, N. Y. Combination pipe and cigar-holder. No. 1,082,393; Dec. 23; Gaz. vol. 197; p. 942.
- Barr, John W., assignor of one-half to R. Marion, Blountville, Tenn. Churn. No. 1,080,040; Dec. 2; Gaz. vol. 197; p. 43.
- Barr, Robert J., Jr. (See Baumiller and Barr.)
- Barrett, Halsey M., et al., receivers. (See Fessenden, Reginald A., assignor.)
- Barrett, Sebert C., Medina, N. Y. Tool-hanger. No. 1,081,261; Dec. 9; Gaz. vol. 197; p. 492.
- Barrett, Sebert C., Medina, N. Y. Tool-holder. No. 1,081,262; Dec. 9; Gaz. vol. 197; p. 492.
- Barrie, George N., Brookline, Mass. Knockdown structure. No. 1,080,622; Dec. 9; Gaz. vol. 197; p. 279.
- Barron, Henry V., Little Rock, Ark. Automatic damper-regulator. No. 1,080,803; Dec. 9; Gaz. vol. 197; p. 340.
- Barrott, William, Manhattan Beach, Cal. Tree-protector. No. 1,081,482; Dec. 16; Gaz. vol. 197; p. 605.
- Bartels, Carl, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Safe-boltwork. No. 1,082,990; Dec. 30; Gaz. vol. 197; p. 1181.
- Bartels, Carl, Hamilton, Ohio, assignor, by mesne assignments, to The Mosler Safe Company, New York, N. Y. Safe-boltwork. No. 1,082,991; Dec. 30; Gaz. vol. 197; p. 1181.
- Barth, John W., and J. F. Robertson, Pittsburgh, Pa. Car-coupling. No. 1,080,744; Dec. 9; Gaz. vol. 197; p. 318.
- Bartindale, Henry E., and F. S. Scott, Oxford, Ind. Display-stand. No. 1,081,009; Dec. 9; Gaz. vol. 197; p. 409.
- Basch, David, New York, N. Y. Trousers-belt. No. 1,082,486; Dec. 30; Gaz. vol. 197; p. 1004.
- Bass Bros. (See Joachimson, Martin, assignor.)
- Batchelder, Asa F., Schenectady, N. Y., assignor to General Electric Company. Locomotive-truck. No. 1,081,292; Dec. 16; Gaz. vol. 197; p. 540.
- Bateman Manufacturing Company. (See Willis, Leland, assignor.)
- Bates, Albert J., Chicago, Ill. Machine for forming trussed metal structures. No. 1,083,180; Dec. 30; Gaz. vol. 197; p. 1239.
- Bates, Albert J., Chicago, Ill. Insulating rail-fastener. No. 1,083,181; Dec. 30; Gaz. vol. 197; p. 1239.
- Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Sole-sewing machine. No. 1,080,879; Dec. 9; Gaz. vol. 197; p. 366.
- Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,082,487; Dec. 30; Gaz. vol. 197; p. 1004.
- Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over machine. No. 1,082,488; Dec. 30; Gaz. vol. 197; p. 1005.
- Bates, Harry, Albany, assignor to Underwood Automatic Typewriter Pay Station Company, New York, N. Y. Stand for type-writing machines. No. 1,081,198; Dec. 9; Gaz. vol. 197; p. 470.
- Bates, Ralph E., assignor to J. Nazel, Philadelphia, Pa. Fluid-power hammer. No. 1,082,580; Dec. 30; Gaz. vol. 197; p. 1039.
- Bath, Charles H., Ancon, Canal Zone. Insect-trap. No. 1,082,489; Dec. 30; Gaz. vol. 197; p. 1005.
- Bauer & Black. (See Bauer, Perry S., assignor.)
- Bauer & Black. (See Schulz, Otto C., assignor.)
- Bauer, Perry S., assignor to Bauer & Black, Chicago, Ill. Air-tight box. No. 1,080,190; Dec. 2; Gaz. vol. 197; p. 95.
- Bauer, Perry S., assignor to Bauer & Black, Chicago, Ill. Adhesive-plaster spool. No. 1,080,508; Dec. 2; Gaz. vol. 197; p. 206.
- Baughman, Sherman, assignor of one-half to A. Reichman, Ada, Ohio. Railway-tie. No. 1,081,086; Dec. 9; Gaz. vol. 197; p. 432.
- Baum, Asa C., Little Falls, N. Y. Napper. No. 1,082,992; Dec. 30; Gaz. vol. 197; p. 1182.
- Baum, Louis F., and N. Massie, Kansas City, Mo. Combined paper-weight and automatic moistener. No. 1,081,087; Dec. 9; Gaz. vol. 197; p. 432.
- Baumann, August, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Augsburg, Germany. Combustion-engine. No. 1,083,265; Dec. 30; Gaz. vol. 197; p. 1267.
- Baumhauser, William C., et al. (See Blow and Sandford, assignors.)
- Baumiller, John, and R. J. Barr, Jr., Chicago, Ill. Dish-washing machine. No. 1,082,259; Dec. 23; Gaz. vol. 197; p. 895.
- Baxter, John. (See Ayer, Alton E., assignor.)
- Baxter, William C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for rounding soles. No. 1,080,191; Dec. 2; Gaz. vol. 197; p. 95.
- Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,080,995; Dec. 2; Gaz. vol. 197; p. 62.
- Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,080,996; Dec. 2; Gaz. vol. 197; p. 62.
- Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,080,880; Dec. 9; Gaz. vol. 197; p. 366.
- Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,080,881; Dec. 9; Gaz. vol. 197; p. 367.
- Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,081,653; Dec. 16; Gaz. vol. 197; p. 659.
- Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Apparatus for charging storage batteries. No. 1,082,187; Dec. 23; Gaz. vol. 197; p. 869.
- Beach, Clarence E., and H. W. Doughty, Binghamton, assignors to G. O. Knapp, New York, N. Y. Controlling system for signaling-circuits. No. 1,080,246; Dec. 2; Gaz. vol. 197; p. 115.
- Beach, Ralph H., assignor to Federal Storage Battery Car Company, New York, N. Y. Railway-car. No. 1,081,942; Dec. 23; Gaz. vol. 197; p. 785.
- Beadle, Mark, Battle Creek, Mich. Bath-cabinet. No. 1,080,247; Dec. 2; Gaz. vol. 197; p. 115.
- Beale, Cadwalder W., et al. (See Attridge, Oliver H., assignor.)
- Bean, Roscoe, Berea, Ohio. Vehicle-raiser. No. 1,083,182; Dec. 30; Gaz. vol. 197; p. 1239.
- Beatson, Lachlan M., Ashton, Kans. Hat-fastener. No. 1,082,789; Dec. 30; Gaz. vol. 197; p. 1113.
- Beattie, Richard L., Winnipeg, Manitoba, Canada. Pipe-coupling. No. 1,082,993; Dec. 30; Gaz. vol. 197; p. 1182.
- Beatty, Pakenham W. (See Digby, Beatty, and Huskinson.)
- Beatty, Ross J. (See Snyder, Parke T., assignor.)
- Beaudry, Zoltique, Lynn, Mass. Machine for burnishing the edges of the soles of boots and shoes. No. 1,080,804; Dec. 9; Gaz. vol. 197; p. 340.
- Beaumont, Ernest C., Revere, assignor to United Shoe Machinery Company, Boston, Mass. Making pull-on devices for boots and shoes. No. 1,081,924; Dec. 16; Gaz. vol. 197; p. 750.
- Beauvais, John B., assignor to The Beauvais Water Heater Company, Holyoke, Mass. Water-heating apparatus. No. 1,083,237; Dec. 30; Gaz. vol. 197; p. 1259.
- Beauvais Water Heater Company, The. (See Beauvais, John B., assignor.)
- Beck, Charles W., Detroit, Mich. Oil-can holder. No. 1,080,882; Dec. 9; Gaz. vol. 197; p. 367.
- Beck, George C., Spokane, Wash. Shock-absorber. No. 1,080,745; Dec. 9; Gaz. vol. 197; p. 319.
- Beck, George E., Toledo, Ohio. Guy-anchor. No. 1,081,654; Dec. 16; Gaz. vol. 197; p. 660.
- Becker, Adolph F. (See Marx and Becker.)
- Becker, Charles A., Newark, N. J. Soldering chain. No. 1,081,088; Dec. 9; Gaz. vol. 197; p. 432.
- Becker, John, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me. Transmission-gear for milling and other machines. No. 1,082,994; Dec. 30; Gaz. vol. 197; p. 1182.
- Becker, John, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me. Vertical milling-machine. No. 1,082,995; Dec. 30; Gaz. vol. 197; p. 1183.
- Becker Milling Machine Company. (See Becker, John, assignor.)
- Becker, Philip A., New York, N. Y. Knockdown display-ld. No. 1,080,883; Dec. 9; Gaz. vol. 197; p. 367.
- Becker, Reinhold, Crefeld, Germany. High-speed tool-steel. No. 1,081,263; Dec. 9; Gaz. vol. 197; p. 493.
- Becker, Tracy C., et al. (See Binkley, George S., assignor.)
- Becket, Frederick M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Treating tungsten ores. No. 1,081,566; Dec. 16; Gaz. vol. 197; p. 632.
- Becket, Frederick M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Preparing tungsten and alloys thereof. No. 1,081,567; Dec. 16; Gaz. vol. 197; p. 633.
- Becket, Frederick M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Preparing tungsten and alloys thereof. No. 1,081,568; Dec. 16; Gaz. vol. 197; p. 633.
- Becket, Frederick M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Dephosphorizing ferrotungsten. No. 1,081,569; Dec. 16; Gaz. vol. 197; p. 633.
- Becket, Frederick M., assignor to Electro Metallurgical Company, Niagara Falls, N. Y. Preparing tungsten and alloys thereof. No. 1,081,570; Dec. 16; Gaz. vol. 197; p. 633.
- Becket, Frederick M., assignor to Electro Metallurgical Company, Niagara Falls, N. Y. Treating tungsten ores. No. 1,081,571; Dec. 16; Gaz. vol. 197; p. 633.
- Beckwith, Fred W., Chicago, Ill. Display-sign holder. No. 1,080,317; Dec. 2; Gaz. vol. 197; p. 139.
- Beckwith, Henry C., and O. B. Bjorge, assignors to Clyde Iron Works, Duluth, Minn. Ratchet mechanism. No. 1,082,842; Dec. 30; Gaz. vol. 197; p. 1130.
- Bednarowicz, Theophil, South Bend, Ind. Bottle-filler. No. 1,083,183; Dec. 30; Gaz. vol. 197; p. 1240.
- Beebe, Dillon, Newark, N. J. Faucet-bung. No. 1,080,805; Dec. 9; Gaz. vol. 197; p. 341.
- Beers, Douglass E., Northampton, Pa. Automatic brake-operating means for locomotives. No. 1,080,806; Dec. 9; Gaz. vol. 197; p. 341.
- Behner, Arthur L., and J. Scott, Cleveland, Ohio. Convertible trolley. No. 1,083,049; Dec. 30; Gaz. vol. 197; p. 1200.
- Behringer, John, Chicago, Ill. Non-refillable bottle. No. 1,080,318; Dec. 2; Gaz. vol. 197; p. 140.
- Beldier, George C., Oklahoma, Okla. Camera. No. 1,082,727; Dec. 30; Gaz. vol. 197; p. 1090.
- Bell, Arthur H., Jamaica, assignor of one-half to F. D. Creamer, Brooklyn, N. Y. Safety attachment for stamping, punching, or cutting machines. No. 1,082,188; Dec. 23; Gaz. vol. 197; p. 869.
- Belanger, Simon, Warroad, Minn. Traction-plow. No. 1,080,673; Dec. 9; Gaz. vol. 197; p. 293.
- Bell, John B., Lowry City, Mo. Single-delivery match-box. No. 1,080,248; Dec. 2; Gaz. vol. 197; p. 116.
- Bellis, Joseph, St. Paul, Minn. Hose-supporter. No. 1,082,005; Dec. 23; Gaz. vol. 197; p. 808.
- Bellows, Benjamin F., Cleveland, Ohio, assignor to Electric Compositor Company, New York, N. Y. Jnatifying mechanism. No. 1,082,006; Dec. 23; Gaz. vol. 197; p. 808.
- Bemis, Gilbert C., assignor to E. F. Fletcher, Worcester, Mass. Brush. No. 1,082,922; Dec. 30; Gaz. vol. 197; p. 1159.
- Benge, Ralph L., Lexington, Oreg. Weeder. No. 1,082,222; Dec. 23; Gaz. vol. 197; p. 881.
- Benham, William B., Washington, D. C. Letter-box. No. 1,079,999; Dec. 2; Gaz. vol. 197; p. 28.
- Benjamin, George H., New York, N. Y. Manufacturing steel. No. 1,080,807; Dec. 9; Gaz. vol. 197; p. 342.
- Benjamin, George W. (See Zimmer and Benjamin.)
- Bennett, Frederick G., et al. (See Attridge, Oliver H., assignor.)
- Bennett, William A., Kensington, London, England. Kine-matograph-target. No. 1,081,943; Dec. 23; Gaz. vol. 197; p. 785.
- Bennett, William T. (See Dean, Ernest W., assignor.)
- Benninghoff, William G., Pittsburgh, assignor to Taylor-Wilson Manufacturing Company, McKees Rocks, Pa. Reaming and recessing machine. No. 1,080,319; Dec. 2; Gaz. vol. 197; p. 140.
- Benson, Charles T., assignor to The Nye Tool and Machine Works, Chicago, Ill. Die-stock. No. 1,081,293; Dec. 16; Gaz. vol. 197; p. 541.
- Berardi, Fortunato, Naples, Italy. Device for modifying the physical state of air. No. 1,081,523; Dec. 16; Gaz. vol. 197; p. 619.
- Berg, Peter, Enderlin, N. D. Threadless hose-coupling. No. 1,080,674; Dec. 9; Gaz. vol. 197; p. 293.
- Berg, Peter, Enderlin, N. D. Threadless hose-coupling. No. 1,080,675; Dec. 9; Gaz. vol. 197; p. 294.
- Bergdoll, Louis J., Philadelphia, Pa. Aeroplane. No. 1,080,531; Dec. 9; Gaz. vol. 197; p. 246.
- Bergdoll, Wilhelm. (See Blank and Bergdoll.)
- Bergen, Isaac, Waldheim, Saskatchewan, Canada. Lamp-extinguisher. No. 1,080,946; Dec. 9; Gaz. vol. 197; p. 389.
- Berger, Charles E. (See Scheffing, Henry, assignor.)
- Bergland, Carl, East Orange, assignor to Lanter Company, Newark, N. J. Sheet-music-tracking device. No. 1,081,422; Dec. 16; Gaz. vol. 197; p. 584.
- Bergmann, Christian N. (See Schuster and Bergmann.)
- Berl, Ernst, Tubize, Belgium. Preparing solutions of cellulose and for the production of cellulose products from such solutions. No. 1,082,490; Dec. 30; Gaz. vol. 197; p. 1006.
- Bernard, William A., assignor to The William Schollhorn Company, New Haven, Conn. Cutting-pliers. (Re-issue.) No. 13,657; Dec. 16; Gaz. vol. 197; p. 756.
- Bernhard, John B., Syracuse, N. Y. Sectional boiler. No. 1,082,996; Dec. 30; Gaz. vol. 197; p. 1183.
- Bernier, Anthime, New York, N. Y. Railway-tie. No. 1,082,674; Dec. 30; Gaz. vol. 197; p. 1072.
- Berresford, Arthur W., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Casing for resistances. No. 1,080,947; Dec. 9; Gaz. vol. 197; p. 369.
- Berry, James H. (See Elkin, John B., assignor.)
- Berry, Sherman G., Tyndall, S. D. Starter for internal-combustion engines. No. 1,081,805; Dec. 16; Gaz. vol. 197; p. 711.
- Berry, Tyler. (See Ammerman, Wesley, assignor.)
- Bertagnolli, Edward C., and F. W. Central City, Colo. Burglar-alarm. No. 1,081,884; Dec. 16; Gaz. vol. 197; p. 738.
- Bertagnolli, Francis W. (See Bertagnolli, Edward C. and F. W.)
- Berthelm, Alfred. (See Ehrlich and Berthelm.)
- Beshore, Hiram, Marion, Ind. Safe-deposit receptacle. No. 1,082,790; Dec. 30; Gaz. vol. 197; p. 1113.
- Bessonoff, Sergius, Pavlovsk, near St. Petersburg, Russia. Roller-feed purifier. No. 1,081,935; Dec. 16; Gaz. vol. 197; p. 754.
- Bethlehem Steel Company. (See Hess, Erwin P., assignor.)
- Beugler, Edwin F., assignor to E. B. Holmes, Buffalo, N. Y. Machine for tonguing and grooving the ends of wood flooring. No. 1,082,791; Dec. 30; Gaz. vol. 197; p. 1113.
- Bevans, Lawrence C. (See Ready, Connor, and Bevans.)
- Bewlay, Henry, Newark, N. J., assignor to Western Electric Company, New York, N. Y. Electrical signaling system. No. 1,081,572; Dec. 16; Gaz. vol. 197; p. 633.
- Bialozyt, Jan, assignor of one-half to J. Burck, Hartford, Ark. Folding umbrella. No. 1,083,050; Dec. 30; Gaz. vol. 197; p. 1200.
- Bible, Charles H., and F. G. Tanner, Lone Grove, Okla. Removable wagon-cover. No. 1,080,948; Dec. 9; Gaz. vol. 197; p. 390.
- Bigelow, Daniel E., Claremore, Okla. Polishing-machine. No. 1,081,715; Dec. 16; Gaz. vol. 197; p. 679.
- Bigham, Robert C. (See Sumrall and Bigham.)
- Bilyeu, Isaac V., Springfield, Ill. Railway-cross-over. No. 1,082,394; Dec. 23; Gaz. vol. 197; p. 942.
- Binkley, George S., Oceanpark, assignor of one-third to T. C. Becker and R. I. Blakeslee, Los Angeles, Cal. Dam. No. 1,081,199; Dec. 9; Gaz. vol. 197; p. 470.
- Bingham, Thomas E., Manchester, England, assignor to Barber-Colman Company, Rockford, Ill. Textile-machine. No. 1,081,423; Dec. 16; Gaz. vol. 197; p. 584.
- Binnie, Robert, Bolivar, Pa. Self-cleaning drill. No. 1,081,655; Dec. 16; Gaz. vol. 197; p. 660.
- Blair, Camille, Paris, France. Apparatus for the production of gas from sewage. No. 1,080,808; Dec. 9; Gaz. vol. 197; p. 342.
- Birchett, Winzor A., Detroit, Mich. Reversing-gear for engines. No. 1,080,884; Dec. 9; Gaz. vol. 197; p. 368.
- Bird, Mary E., Plymouth, N. H. Supporter. No. 1,080,097; Dec. 2; Gaz. vol. 197; p. 63.
- Bischof, Josef, and A. Hehn, Davis, W. Va. Penholder. No. 1,081,944; Dec. 23; Gaz. vol. 197; p. 786.
- Bischoff, Andrew W., Rankin, Ill. Fly-paper holder. No. 1,080,249; Dec. 2; Gaz. vol. 197; p. 116.
- Bishop, Carl E., and I. J. Mitchellville, Iowa. Automatic water-pressure and fuel control. No. 1,082,728; Dec. 30; Gaz. vol. 197; p. 1091.
- Bishop, Clarence A., New York, N. Y. Calculating-machine. No. 1,081,089; Dec. 9; Gaz. vol. 197; p. 433.
- Bishop, Ira J. (See Bishop, Carl E. and I. J.)

Blapham, Mary E., Wayneville, Ohio. Skirt-protector. No. 1,082,792; Dec. 30; Gaz. vol. 197; p. 1114.

Blitzer, Otto, Rochester, N. Y. Preserving bread. No. 1,081,945; Dec. 23; Gaz. vol. 197; p. 736.

Blitting, Hervey S., Lancaster, Pa. Electric burglar-alarm. No. 1,081,278; Dec. 9; Gaz. vol. 197; p. 498.

Blittle, John F., Lisbon, Iowa. Wick-holder for oil-stoves. No. 1,082,395; Dec. 23; Gaz. vol. 197; p. 942.

Bituminous Road Implement Company. (See Price, Charles P., assignor.)

Bjorge, Oscar B. (See Beckwith and Bjorge.)

Blackburn, Jasper, Kirkwood, Mo. Earth-anchor. No. 1,080,041; Dec. 2; Gaz. vol. 197; p. 43.

Blackmer, Robert M., Monongahela, Pa. Rotary pump. No. 1,080,676; Dec. 9; Gaz. vol. 197; p. 294.

Blackstock, Walter E., Astoria, Oreg. Non-refillable bottle. No. 1,083,184; Dec. 30; Gaz. vol. 197; p. 1240.

Blach, Alfred O. (See Sallows, James F., assignor.)

Blair Engineering Company, The. (See Egler, Nicolas F., assignor.)

Blake Crusher and Pulverizer Company. (See Blake, John E., assignor.)

Blake, Edmund E., Saco, and W. H. Goldsmith, Jr., Biddeford, Me., assignors, by mesne assignments, to Saco-Lettee Company, Newton, Mass. Casing for roving-frame mechanism. No. 1,080,042; Dec. 2; Gaz. vol. 197; p. 43.

Blake, John E., deceased; R. E. Blake, executrix, assignor to Blake Crusher and Pulverizer Company, Pittsburgh, Pa. Pulverizer. No. 1,080,532; Dec. 9; Gaz. vol. 197; p. 246.

Blake, Lucien I., London, England. Submarine signaling. No. 1,080,008; Dec. 2; Gaz. vol. 197; p. 63.

Blake, Rebecca E., executrix. (See Blake, John E.)

Blakeslee, Raymond L., et al. (See Binkley, George S., assignor.)

Blanchet, Nicholas, Nye, Oreg. Vehicle-brake. No. 1,082,396; Dec. 23; Gaz. vol. 197; p. 943.

Blank, August, and W. Hergoldt, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dyestuffs. No. 1,082,923; Dec. 30; Gaz. vol. 197; p. 1159.

Blank, August, C. Heldenreich, and J. Jansen, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Cotton-dyestuffs. No. 1,082,924; Dec. 30; Gaz. vol. 197; p. 1159.

Blank, August, C. Heldenreich, and J. Jansen, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Cotton-dyes. No. 1,082,925; Dec. 30; Gaz. vol. 197; p. 1160.

Blass, Conrad, New York, N. Y. Self-locking lamp-bulb. No. 1,082,397; Dec. 23; Gaz. vol. 197; p. 943.

Blatter, D. V., et al. (See Griffith, Jesse E., assignor.)

Blaw Steel Centering Company. (See McArthur, Charles D., assignor.)

Black, Michael G., Chicago, Ill. Trench-digger. No. 1,080,250; Dec. 2; Gaz. vol. 197; p. 116.

Bloch, Charles F., California, Mo. Pencil-sharpener. No. 1,080,411; Dec. 2; Gaz. vol. 197; p. 175.

Block, E. (See Sharpneck, Matthew C., assignor.)

Bloom, Frank S., Burlington, Iowa. Weather-strip. No. 1,082,675; Dec. 30; Gaz. vol. 197; p. 1073.

Bloomer, Charles T., Newark, N. Y. Paper receptacle. No. 1,081,264; Dec. 9; Gaz. vol. 197; p. 493.

Bloomer, Charles T., Newark, N. Y. Paper vessel. No. 1,082,729; Dec. 30; Gaz. vol. 197; p. 1091.

Blount, Francis M., Noma, Fla. Press for enlarging holes. No. 1,082,793; Dec. 30; Gaz. vol. 197; p. 1114.

Blow, Robert F., and G. W. Sandford, assignors of nine twenty-fourths to P. P. Locking, three twenty-fourths to J. Markstein, one twenty-fourth to W. C. Baumbauer, and one twenty-fourth to J. Rubel, Mobile, Ala. Temperature-register for cars. No. 1,081,200; Dec. 9; Gaz. vol. 197; p. 470.

Blowers, Alonzo S., Portland, Ind. Electric hoist. No. 1,082,398; Dec. 23; Gaz. vol. 197; p. 943.

Blue, Harvey B. (See Hills, Ernest E., assignor.)

Blum, Hosmer L. (See Miller and Blum.)

Blumenthal, Maurice, Brooklyn, N. Y. Means for detaching obstructions from electric, telephone, and other cable conduits. No. 1,080,251; Dec. 2; Gaz. vol. 197; p. 117.

Blunck, Robert A., Grand Mound, Iowa. Stalk-cutter. No. 1,081,201; Dec. 9; Gaz. vol. 197; p. 471.

Boardsman, Robert O., Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, Line-casting machine. No. 1,081,806; Dec. 16; Gaz. vol. 197; p. 712.

Bock, Alfred C. O., assignor of one-third to J. J. Donnellan and one-third to J. L. Donnellan, Brooklyn, N. Y. Coin-counting machine. No. 1,080,533; Dec. 9; Gaz. vol. 197; p. 247.

Bodmer, Christian, and E. A. Schade, assignors to The Stanley Rule & Level Company, New Britain, Conn. Folding-rule joint. No. 1,080,192; Dec. 2; Gaz. vol. 197; p. 95.

Boeck, Percy A., assignor to Norton Company, Worcester, Mass. Porous article. No. 1,081,573; Dec. 16; Gaz. vol. 197; p. 634.

Boeck, Percy A., assignor to Norton Company, Worcester, Mass. Filtering apparatus for laboratory use. No. 1,081,574; Dec. 16; Gaz. vol. 197; p. 634.

Boehringer & Soehne, C. F. (See Ach and Rothmann, assignors.)

Boelter, Herman J., Litchville, N. D. Colter-cleaner. No. 1,080,677; Dec. 9; Gaz. vol. 197; p. 294.

Boerman, John P. (See Pitts and Boerman.)

Boggs, Kirkwood A., Fort Dodge, Iowa. Oiler. No. 1,080,320; Dec. 2; Gaz. vol. 197; p. 140.

Bohan, William J., St. Paul, Minn. Equipment for round-houses. No. 1,080,193; Dec. 2; Gaz. vol. 197; p. 96.

Bolce, Augusten. (See Wheeler, James F., assignor.)

Bolde, Henry, New York, N. Y., assignor to The Meyrowitz Manufacturing Co., Trifocal lens. No. 1,082,491; Dec. 30; Gaz. vol. 197; p. 1006.

Bole, Robert E., assignor of one-half to E. Double, Los Angeles, Cal. Underreamer. No. 1,080,135; Dec. 2; Gaz. vol. 197; p. 76.

Bolens, Harry W., Port Washington, Wis. Internal-combustion engine. No. 1,081,946; Dec. 23; Gaz. vol. 197; p. 786.

Boley, John D. (See Fairall, Boley, and Cleghorn.)

Bolt, Calvin E., Ramsey, Ill. Road-drag. No. 1,080,252; Dec. 2; Gaz. vol. 197; p. 117.

Bond, Edgar T., Chicago, Ill. Foldable crate. No. 1,082,676; Dec. 30; Gaz. vol. 197; p. 1073.

Bondeson, Peter A., Minneapolis, Minn. Bread and toast cutting machine. No. 1,082,926; Dec. 30; Gaz. vol. 197; p. 1160.

Boner, Johann, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing anthraquinone compounds. No. 1,083,051; Dec. 30; Gaz. vol. 197; p. 1200.

Bonham, Harry E., Dorranetcon, Pa. Rotary engine. No. 1,082,843; Dec. 30; Gaz. vol. 197; p. 1130.

Bonine, Charles E., Philadelphia, Pa. Sterilizing milk. No. 1,081,483; Dec. 16; Gaz. vol. 197; p. 606.

Bonner, Samuel, assignor of one-fourth to L. D. Dillon and one-fourth to F. L. Jackson, Clarksdale, Miss. Apparatus for deepening channels in streams. No. 1,082,147; Dec. 23; Gaz. vol. 197; p. 854.

Bono, Michelangelo, New York, N. Y. Suspenders. No. 1,080,534; Dec. 9; Gaz. vol. 197; p. 248.

Borham, Charles A., Coalinga, Cal. Vehicle-spring. No. 1,082,794; Dec. 30; Gaz. vol. 197; p. 1114.

Borga, Dora A., administratrix. (See Borga, Reginald P.)

Borga, Reginald P., deceased, South Norfolk, assignor of two-thirds to S. W. Lyons, Jr., Norfolk, Va.; D. A. Borga, administratrix. Car-stake. No. 1,081,807; Dec. 16; Gaz. vol. 197; p. 712.

Born, Herman H., and H. A. Recen, assignors of one-sixth to said Recen, one-sixth to P. A. Peregrine, and two-thirds to F. V. Goetz, Denver, Colo. Tunneling-machine. No. 1,081,524; Dec. 16; Gaz. vol. 197; p. 619.

Borsella, Anthony, and C. Soccol, New York, N. Y. Automatic self-starter. No. 1,082,927; Dec. 30; Gaz. vol. 197; p. 1160.

Borsky, Rudolf A., Prague-Zizkov, Austria-Hungary. Padlock. No. 1,081,808; Dec. 16; Gaz. vol. 197; p. 712.

Bossé, Adolphe E., Pittsburgh, Pa. Device for distributing air. No. 1,082,492; Dec. 30; Gaz. vol. 197; p. 1006.

Bostock, Henry D., Jacksonville, Fla. Annunciator. No. 1,081,885; Dec. 16; Gaz. vol. 197; p. 738.

Boström, William O., Rising Fawn, Ga. Planter attachment. No. 1,080,885; Dec. 9; Gaz. vol. 197; p. 368.

Bothwell, James C., Fairfield, Ill. Door-hinge. No. 1,082,677; Dec. 30; Gaz. vol. 197; p. 1073.

Beulais, Wilfrid, Ipswich, Mass. Yarn-releasing device for spools. No. 1,081,716; Dec. 16; Gaz. vol. 197; p. 680.

Bourdellies, Emile, assignor to Schneider & Cie, Paris, France. Wheeled gun-carriage. No. 1,082,795; Dec. 30; Gaz. vol. 197; p. 1114.

Bovee, David W., Waterloo, Iowa. Harrow-disk. No. 1,081,886; Dec. 16; Gaz. vol. 197; p. 738.

Bowdle, George F. (See O'Brien and Bowdle.)

Bowers, Alexander, Dubuque, Iowa. Washing-machine. No. 1,082,066; Dec. 23; Gaz. vol. 197; p. 829.

Bowman, George W., York, Pa. Cigar-tuck cutter. No. 1,083,052; Dec. 30; Gaz. vol. 197; p. 1201.

Boyd, John. (See MacGregor, Donald, assignor.)

Boyd, John, Bothwell, Scotland. Rove-stopping mechanism. No. 1,080,522; Dec. 2; Gaz. vol. 197; p. 211.

Boyd, Samuel O., Dongola, Ill. Magazine-penholder. No. 1,081,424; Dec. 16; Gaz. vol. 197; p. 585.

Boylston Mfg. Company, The. (See Ballard, Harrie A., assignor.)

Braasch, Henry, Los Angeles, Cal. Bed and lounging table. No. 1,082,997; Dec. 30; Gaz. vol. 197; p. 1184.

Brackelsberg, Hermann A., Hagen, Germany. Apparatus for washing ore. No. 1,080,886; Dec. 9; Gaz. vol. 197; p. 369.

Braddock, Edward L., Winchester, assignor of one-half to H. W. Lamb, Brookline, Mass. Apparatus for forming wire hoops. No. 1,081,359; Dec. 16; Gaz. vol. 197; p. 564.

Bradley, Albert M., Napoleon, Ohio. Attachment-plug. No. 1,081,656; Dec. 16; Gaz. vol. 197; p. 660.

Bradley & Hubbard Mfg. Co. (See Penfield, William A., assignor.)

Bradley, Ralph L., Stellacoom, Wash. Stretcher or bed for automobiles. No. 1,082,223; Dec. 23; Gaz. vol. 197; p. 881.

Bradner, Harry W., Tacoma, Wash., assignor to The General Patents Company, Inc., New York, N. Y. Extension-table. No. 1,080,043; Dec. 2; Gaz. vol. 197; p. 44.

Brady, Dennis F. (See Haire, Thomas L., assignor.)

Brady, John, Fall River, Mass. Mote-knife roller. No. 1,082,844; Dec. 30; Gaz. vol. 197; p. 1131.

Braine, Daniel L., assignor, by mesne assignments, to Composite Tie-Plate Corporation, New York, N. Y. Rail supporting and fastening device. No. 1,081,575; Dec. 16; Gaz. vol. 197; p. 634.

Brasler, William H., Corpus Christi, Tex. Stump-burner. No. 1,082,619; Dec. 30; Gaz. vol. 197; p. 1052.

Brasseur, Charles L. A., Orange, N. J. Making party-colored screens for use in color photography. No. 1,081,484; Dec. 16; Gaz. vol. 197; p. 606.

Bratzel, Fredrick H., Gresham, Oreg. Fruit-picker. No. 1,083,053; Dec. 30; Gaz. vol. 197; p. 1201.

Braun, Charles A., Chicago, Ill., assignor, by mesne assignments, to The American Automatic Advertising Co. Picture-exhibiting machine. No. 1,082,260; Dec. 23; Gaz. vol. 197; p. 886.

Bray, Alfred E., Lubertzy, Russia. Fuel-supply regulator for internal-combustion engines. No. 1,080,887; Dec. 9; Gaz. vol. 197; p. 369.

Bray, William L., assignor of one-half to M. M. Cohn, Tonopah, Nev. Trunk-binder. No. 1,081,657; Dec. 16; Gaz. vol. 197; p. 661.

Bready, Joseph W., assignor of one-third to C. P. Kenney, Springfield, Mass. Resilient wheel-hub. No. 1,080,253; Dec. 2; Gaz. vol. 197; p. 117.

Breckridge, George M., assignor of one-third to J. P. McManus, Chicago, Ill. Printing-machine. No. 1,080,321; Dec. 2; Gaz. vol. 197; p. 141.

Brellung, Edward N. (See Pick, Alfred, assignor.)

Bretlung, Edward N., Marquette, Mich. Automobile-tire. No. 1,081,010; Dec. 9; Gaz. vol. 197; p. 409.

Bremer, Christian F., Tampa, Fla. Cigar-making machine. No. 1,080,949; Dec. 9; Gaz. vol. 197; p. 390.

Brenauer, Leopold, New York, N. Y. Combined cigar-box and humidifier. No. 1,082,399; Dec. 23; Gaz. vol. 197; p. 944.

Brennan, Mark P. (See O'Connor and Brennan.)

Brent, Henry W., Jr., Baltimore, Md. Oil-burner. No. 1,082,796; Dec. 30; Gaz. vol. 197; p. 1115.

Bretherton, Sidney E., Berkeley, Cal. Means for the maintenance of gas in confinement. No. 1,082,797; Dec. 30; Gaz. vol. 197; p. 1115.

Brewer, Horace L., Camden, N. J., assignor to Modern Safety Gas Iron Company, Philadelphia, Pa. Gas-heated iron. No. 1,083,238; Dec. 30; Gaz. vol. 197; p. 1259.

Brewer, Luther R., Hickory, N. C. Ironing-table. No. 1,080,950; Dec. 9; Gaz. vol. 197; p. 390.

Brewerton, W. A., et al. (See Moore, Justus J., assignor.)

Brewington, Henry S., Baltimore, Md. Garment-stay. No. 1,081,011; Dec. 9; Gaz. vol. 197; p. 409.

Briggs, Arthur C., Detroit, Mich. Lead-in for fish-pounds. No. 1,082,998; Dec. 30; Gaz. vol. 197; p. 1184.

Briggs, Arthur J., assignor to The Smith Premier Type-writer Company, Syracuse, N. Y. Type-writing machine. No. 1,080,254; Dec. 2; Gaz. vol. 197; p. 118.

Briggs, Thomas L., Flushing, N. Y., and H. F. Merriam, Summit, N. J., assignors to General Chemical Company, New York, N. Y. Apparatus for the manufacture of fuming sulfuric acid or oleum. No. 1,082,301; Dec. 23; Gaz. vol. 197; p. 911.

Bright, Claude H., Jr., Memphis, Tenn. Printing-press. No. 1,081,887; Dec. 16; Gaz. vol. 197; p. 739.

Bright, Colonel E., Columbus, Ohio. Cushion-tire. No. 1,081,425; Dec. 16; Gaz. vol. 197; p. 585.

Bright, Colonel E., Columbus, Ohio. Cushion element for resilient tires. No. 1,081,426; Dec. 16; Gaz. vol. 197; p. 585.

Bright, Hoyt V. (See Allison, James E., assignor.)

Bright, Martin C., assignor of one-half to S. M. Brundage, Indianapolis, Ind. Starter for explosive-engines. No. 1,082,261; Dec. 23; Gaz. vol. 197; p. 806.

Brinckmann, Georg, Bremen, Germany, assignor of one-half to K. Farkas, Glen Ridge, N. J. Travelling-trunk and the like. No. 1,080,255; Dec. 2; Gaz. vol. 197; p. 118.

Bristow, Frederick, East Orange, N. J. Letter and document distributor. No. 1,080,888; Dec. 9; Gaz. vol. 197; p. 370.

Broady, Wickliff M., Broadwater, Nebr. Weed-cutter. No. 1,081,658; Dec. 16; Gaz. vol. 197; p. 661.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,079,930; Dec. 2; Gaz. vol. 197; p. 3.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting mechanism for welt-shoes. No. 1,082,620; Dec. 30; Gaz. vol. 197; p. 1053.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Manufacture of boots and shoes. No. 1,082,621; Dec. 30; Gaz. vol. 197; p. 1053.

Brockton Mowing Machine Cutter Bar Company. (See Abbenzeller, Alfred D., assignor.)

Broderick, Arthur F., Jersey City, N. J. Device for replacing derailed cars. No. 1,081,717; Dec. 16; Gaz. vol. 197; p. 680.

Brodie, Francis C., Moose Jaw, Saskatchewan, Canada. Circuit-controller for electric signs. No. 1,080,635; Dec. 9; Gaz. vol. 197; p. 248.

Broby, Jacob I., Shenandoah, Iowa. Mouse-trap. No. 1,080,623; Dec. 9; Gaz. vol. 197; p. 276.

Brown, Albert C., Chicago, Ill. Nozzle for drinking-fountains. No. 1,081,718; Dec. 16; Gaz. vol. 197; p. 680.

Brown, Albert L., Little Rock, Ark. Discharge-valve. No. 1,080,322; Dec. 2; Gaz. vol. 197; p. 141.

Brown, Alexander T., Syracuse, N. Y. Type-writing machine. No. 1,082,262; Dec. 23; Gaz. vol. 197; p. 897.

Brown & Bailey Company. (See Brown, Robert P., assignor.)

Brown, Benjamin H., G. W. Edwards, and E. T. Maxwell, Marysville, Cal. Automatic headlight. No. 1,080,256; Dec. 2; Gaz. vol. 197; p. 118.

Brown, Charles E., Los Angeles, Cal. Blow-out patch. No. 1,081,012; Dec. 9; Gaz. vol. 197; p. 410.

Brown, Charles H., Magdalena, N. Mex., assignor to The Sherwin-Williams Company, Cleveland, Ohio. Ore-separator. No. 1,081,360; Dec. 16; Gaz. vol. 197; p. 564.

Brown, Charles J. (See Marston, Edgar L., assignor.)

Brown, George W., assignor to Tubular Rivet & Stud Company, Boston, Mass. Hook-setting machine. No. 1,080,194; Dec. 2; Gaz. vol. 197; p. 96.

Brown, Henry C., Brooklyn, N. Y., assignor to H. Stockman, Englewood, N. J. Grading, stamping, and selecting machine. No. 1,081,361; Dec. 16; Gaz. vol. 197; p. 564.

Brown, Henry W., Logtown, Miss. Mail-bag catching and delivering apparatus. No. 1,080,746; Dec. 9; Gaz. vol. 197; p. 319.

Brown, Lawrence E. (See Fletcher and Brown.)

Brown, Leo, Onaka, S. D. Supplementary shovel-handle. No. 1,083,054; Dec. 30; Gaz. vol. 197; p. 1201.

Brown, Robert P., assignor to Brown & Bailey Company, Philadelphia, Pa. Garment-form. No. 1,082,582; Dec. 30; Gaz. vol. 197; p. 1040.

Brown, Samuel G., Lynn, Mass. Drain-trap. No. 1,082,730; Dec. 30; Gaz. vol. 197; p. 1091.

Brown, Sidney G., London, England. Siphon-recorder. No. 1,080,412; Dec. 2; Gaz. vol. 197; p. 175.

Browne, Arthur W. (See Johnston, Browne, and Wallace.)

Brozek, Joseph, New York, N. Y. Detachable turret for drill-presses and the like. No. 1,079,973; Dec. 2; Gaz. vol. 197; p. 18.

Brubaker, David F., Glen Campbell, Pa. Miner's cap. No. 1,081,659; Dec. 16; Gaz. vol. 197; p. 661.

Bruchsalter, Karl, San Francisco, Cal. Insulator. No. 1,080,257; Dec. 2; Gaz. vol. 197; p. 119.

Bruckman, Stephen, Lebanon, Pa. Seed-planter. No. 1,083,185; Dec. 30; Gaz. vol. 197; p. 1240.

Brueggeman, Alvina, St. Louis, Mo. Vapor-bath apparatus. No. 1,080,678; Dec. 9; Gaz. vol. 197; p. 294.

Brüll, Koloman, Budapest, Austria-Hungary. Electrically-operated reversing-gear. No. 1,080,044; Dec. 2; Gaz. vol. 197; p. 44.

Brumbach, Ewald J. (See Knudson and Brumbach.)

Brummett, William S., and L. S. Metz, Coalinga, Cal. Combination slip-socket. No. 1,081,427; Dec. 16; Gaz. vol. 197; p. 586.

Brundage, Samuel M. (See Bright, Martin C., assignor.)

Brunko, Franz, Zurich, Switzerland. Electric clock. No. 1,080,414; Dec. 2; Gaz. vol. 197; p. 175.

Brunst, William M., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. End member for the slats of fire-shutters. No. 1,081,202; Dec. 9; Gaz. vol. 197; p. 471.

Brush, Alanson P., Detroit, Mich. Gas-mixture producer. No. 1,082,007; Dec. 23; Gaz. vol. 197; p. 809.

Bruton, Lee, Denver, Colo. Hydraulic engine. No. 1,083,186; Dec. 30; Gaz. vol. 197; p. 1240.

Bryant Electric Company, The. (See Clauder, Arthur W., assignor.)

Bryant, Hugh M. (See De Laney and Bryant.)

Bryant, Lester J., and J. Case, Bradford, Pa. Automatic fire-alarm. No. 1,080,323; Dec. 2; Gaz. vol. 197; p. 141.

Bryant, Zachariah T. (See De Laney and Bryant, assignors.)

Buchanan, Frank, Dayton, Ohio. Electric-arc lamp. No. 1,083,187; Dec. 30; Gaz. vol. 197; p. 1241.

Buchanan, Samuel L., Valparaiso, Ind. Flying-machine. No. 1,080,195; Dec. 2; Gaz. vol. 197; p. 97.

Bucher, John E., Coventry, R. I. Producing alkali metals. No. 1,079,974; Dec. 2; Gaz. vol. 197; p. 19.

Bucher, John E., Coventry, R. I. Synthetic production of cyanogen compounds and the like. No. 1,082,845; Dec. 30; Gaz. vol. 197; p. 1131.

Buck, Daniel J. F., Chicago, Ill. Heating apparatus. No. 1,080,258; Dec. 2; Gaz. vol. 197; p. 119.

Buckeye, George J., Kansas City, Mo., assignor, by mesne assignments, to Automobile Combination Lock and Circuit Breaker Company, Combination-lock and circuit-breaker. No. 1,082,731; Dec. 30; Gaz. vol. 197; p. 1092.

Buckeye Traction Ditcher Company, The. (See Krupp, Leo A., assignor.)

Buckham, George T. (See Dawson and Buckham.)

Buckley, Thomas J., New Brunswick, N. J. Metal container. No. 1,080,747; Dec. 9; Gaz. vol. 197; p. 320.

Buckner, Willie L., Humboldt, Tenn. Tongue-swing. No. 1,080,951; Dec. 9; Gaz. vol. 197; p. 391.

Bodd, William E., Elizabeth, N. J. Antiskidding attachment for tires. No. 1,080,259; Dec. 2; Gaz. vol. 197; p. 120.

Burger, Charles B., assignor of one-half to S. Lippstadt, New York, N. Y. Liquid-soap-dispensing device. No. 1,080,196; Dec. 2; Gaz. vol. 197; p. 97.

Buff, Max. (See Flachslander, Gräler, and Buff.)

Buffalo Draft Gear Company. (See Kanane, John J., assignor.)

Buffalo Foundry & Machine Company. (See Sleeper, Oliver S., assignor.)

Buffalo Sled Company. (See Orcutt, Charles D., assignor.)

Buffington, Ellisha W., Fall River, Mass. Outlet-box. No. 1,081,947; Dec. 23; Gaz. vol. 197; p. 786.

Buhoup, Harry C., Chicago, Ill. Brake mechanism. No. 1,081,428; Dec. 16; Gaz. vol. 197; p. 586.

Bühren, Walther, assignor to W. Post, Iserlohn, Germany. Machine for making sewing-needles. No. 1,082,493; Dec. 30; Gaz. vol. 197; p. 1006.

Bull, George F., Birmingham, England. Carburetor for internal-combustion engines. No. 1,081,203; Dec. 9; Gaz. vol. 197; p. 471.

Bulls, Harry M., Milwaukee, Wis. Printing-press attachment. No. 1,081,429; Dec. 16; Gaz. vol. 197; p. 586.

Bundy, Willard H., assignor to W. H. Bundy Recording Company, Syracuse, N. Y. Time-recorder. No. 1,082,008; Dec. 23; Gaz. vol. 197; p. 809.

Bunker, Paul D., Fort Hancock, N. J. Tracer for projectiles. No. 1,080,413; Dec. 2; Gaz. vol. 197; p. 175.

Bunn, Annie, et al. (See Bunn, Joseph D., assignor.)

Bunn, Joseph D., York, assignor of one-half to P. R. Koons, Mechanicsburg, and one-half to A. and M. A. Bunn, Philadelphia, Pa. Automobile-jack. No. 1,081,013; Dec. 9; Gaz. vol. 197; p. 410.

Bunn, Mala A., et al. (See Bunn, Joseph D., assignor.)

Bunnell, Charles S., Hammond, Ind. Collapsible core for hollow concrete constructions. No. 1,082,999; Dec. 30; Gaz. vol. 193; p. 1184.

Bunting Iron Works. (See Hall, James T., assignor.)

Burch, Ray W., Ann Arbor, Mich. Dental articulator. No. 1,080,809; Dec. 9; Gaz. vol. 197; p. 343.

Burchess, Herman, Chicago, Ill. Suitcase. No. 1,081,014; Dec. 9; Gaz. vol. 197; p. 410.

Burck, Joseph. (See Bialozyt, Jan, assignor.)

Burdick, Charles J. (See Desautels and Lacroix, assignors.)

Burdon, John, W. M., and M. M. Bellshill, Scotland. Liquid-fuel furnace. No. 1,081,015; Dec. 9; Gaz. vol. 197; p. 411.

Burdon, Matthew M. (See Burdon, John, W. M., and M. M.)

Burdon, William M. (See Burdon, John, W. M., and M. M.)

Burger, Archibald L., Ono, Cal. Hat-pin guard. No. 1,082,067; Dec. 23; Gaz. vol. 197; p. 829.

Burger, Paul, Baumholder, Germany. Stone-cutting machine. No. 1,081,576; Dec. 16; Gaz. vol. 197; p. 634.

Burgess, Percival G., Jamaica, N. Y., assignor, by mesne assignments, to General Acoustic Company. Intercommunicating telephone system. No. 1,080,260; Dec. 2; Gaz. vol. 197; p. 120.

Burke, Alfred W., Wilkesburg, Pa. Multirate electric meter. No. 1,082,148; Dec. 23; Gaz. vol. 197; p. 855.

Burke Electric Company. (See Burke, James, assignor.)

Burke, James, Erie, Pa., assignor to Burke Electric Company. Electric furnace. No. 1,082,459; Dec. 23; Gaz. vol. 197; p. 961.

Burke, Patrick J. (See Coombs and Burke.)

Burklow, Andrew, Huxley, Iowa. Automatic return for hay-carriers. No. 1,080,045; Dec. 2; Gaz. vol. 197; p. 44.

Burnett, Richard W., Montreal, Quebec, Canada. Lock for dump-car doors. No. 1,081,204; Dec. 9; Gaz. vol. 197; p. 472.

Burnett, Richard W., Montreal, Quebec, Canada. Convertible flat and hopper bottom dumping car. No. 1,081,205; Dec. 9; Gaz. vol. 197; p. 472.

Burnett, Richard W., Montreal, Quebec, Canada. Convertible car. No. 1,081,430; Dec. 16; Gaz. vol. 197; p. 587.

Burnett, Richard W., Montreal, Quebec, Canada. Roof. No. 1,083,239; Dec. 30; Gaz. vol. 197; p. 1260.

Burnett, Richard W., Montreal, Quebec, Canada. Car-roof. No. 1,083,240; Dec. 30; Gaz. vol. 197; p. 1260.

Burnham, Harry S., Brant, N. Y. Fabric-folding device. No. 1,081,206; Dec. 9; Gaz. vol. 197; p. 473.

Burnite, William N., Riverhead, N. Y. Envelop-opener. No. 1,082,400; Dec. 23; Gaz. vol. 197; p. 944.

Burns, James A., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Coll-forming apparatus. No. 1,082,494; Dec. 30; Gaz. vol. 197; p. 1007.

Burroughs Adding Machine Company. (See Gardner, Clyde E. W., assignor.)

Burwell, George O., and C. M. Kurts, Bellevue, Pa. Trolley. No. 1,081,809; Dec. 16; Gaz. vol. 197; p. 713.

Busch, Charles H. (See Allen and Busch.)

Busch-Bulzer Bros.-Diesel Engine Company. (See Diesel, Rudolf, assignor.)

Busch, Frank A., Oakland, Cal. Dress-shield. No. 1,081,016; Dec. 9; Gaz. vol. 197; p. 411.

Bush, Isaac W., assignor of one-third to E. C. Neill and one-third to J. F. Cotton, North Carrollton, Miss. Automatic dental blower and syringe. No. 1,080,261; Dec. 2; Gaz. vol. 197; p. 120.

Bushfield, William M., assignor of three-fourths to H. H. Smith, Toronto, Ohio. Puzzle. No. 1,082,460; Dec. 23; Gaz. vol. 197; p. 962.

Busse, Edwin G., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-head. No. 1,080,889; Dec. 9; Gaz. vol. 197; p. 370.

Busse, Edwin G., assignor to Chicago Railway Equipment Company, Chicago, Ill. Third-point support for brake-beams. No. 1,082,495; Dec. 30; Gaz. vol. 197; p. 1007.

Butkus, John A. (See Butkus, Joseph and J. A.)

Butkus, Joseph, Chicago, Ill., and J. A. Butkus, Baltimore, Md., assignors, by mesne assignments, of one-third to said Joseph Butkus, one-third to said J. A. Butkus, and one-third to A. Eben, Chicago, Ill. Capping-head for bottle-capping machines. No. 1,080,046; Dec. 2; Gaz. vol. 197; p. 44.

Butler, Cora S., Cleveland, Ohio. Tone-clarifying attachment for sound reproducing or transmitting instruments. No. 1,081,719; Dec. 16; Gaz. vol. 197; p. 681.

Butler, Edward F. Sr., Cavendish, Vt., assignor to Curtis & Marble Machine Co., Worcester, Mass. Cloth-shearing machine. No. 1,081,265; Dec. 9; Gaz. vol. 197; p. 493.

Button, Anson T., and W. P. Widdifield, Uzbridge, Ontario, Canada. Seeding apparatus. No. 1,081,720; Dec. 16; Gaz. vol. 197; p. 681.

Byrd, William. (See Clifford, John, assignor.)

C. Howard Hunt Pen Company. (See George, John F., assignor.)

C. B. Cottrell & Sons Company. (See Cormack, Mark N., assignor.)

C. H. Allen & Company. (See Callahan, Charles J., assignor.)

C. M. Hall Lamp Company. (See Ankam, William F., assignor.)

C. R. Carver Company. (See Lockwood, Edward M., assignor.)

Cabot, Sewall, Brookline, Mass. Electric conversion. No. 1,081,000; Dec. 9; Gaz. vol. 197; p. 433.

Cadé Auguste L., Paris, France. Sparking plug with removable electrode and central telescoping electrode. No. 1,082,401; Dec. 23; Gaz. vol. 197; p. 944.

Cadieux, Joseph O., assignor to The Connecticut Telephone and Electric Company, Meriden, Conn. Resetting-circuit for annunciators. No. 1,081,266; Dec. 9; Gaz. vol. 197; p. 493.

Cahill, Bernard J. S., San Francisco, Cal. Geographical globe. No. 1,081,207; Dec. 9; Gaz. vol. 197; p. 473.

Cahill, Edward, New York, N. Y. Rolling blind. No. 1,081,485; Dec. 16; Gaz. vol. 197; p. 606.

Cahill, Edward, New York, N. Y. Stop and runner for rolling blinds. No. 1,081,486; Dec. 16; Gaz. vol. 197; p. 607.

Cake, John C., Chester, Pa. Pedal-operating mechanism. No. 1,082,846; Dec. 30; Gaz. vol. 197; p. 1132.

Caldwell, Eugene S., Philadelphia, Pa. Steam-trap. No. 1,081,431; Dec. 16; Gaz. vol. 197; p. 587.

Caldwell, William. (See Eben and Caldwell.)

Caldwell, William H., county of Inverness, Scotland. Development of photographic images. No. 1,082,622; Dec. 30; Gaz. vol. 197; p. 1054.

California Valve and Air Brake Company. (See Neal, Spencer G., assignor.)

Callahan, Charles J., assignor to C. H. Allen & Company, Attleboro, Mass. Bracelet-link. No. 1,082,473; Dec. 23; Gaz. vol. 197; p. 966.

Calleson, Amos. (See Adrlance and Calleson.)

Calleson, Amos, assignor to B. Adrlance, Brooklyn, N. Y. Machine for operating on sheet material. No. 1,080,047; Dec. 2; Gaz. vol. 197; p. 45.

Calleson, Amos, assignor to B. Adrlance, Brooklyn, N. Y. Feed mechanism for bottle-sealing machines. No. 1,082,189; Dec. 23; Gaz. vol. 197; p. 870.

Cambria Steel Company. (See Holmquist, John A., assignor.)

Camelo, Nicholas, Utica, N. Y. Sanitary cover for closet-seats. No. 1,081,091; Dec. 9; Gaz. vol. 197; p. 433.

Cameron, De Lancey A. (See MacColl and Cameron.)

Cameron, Roy B. (See Kahlo and Cameron.)

Campbell, James L., Barryton, Mich. Two-cycle explosive-engine. No. 1,082,402; Dec. 23; Gaz. vol. 197; p. 945.

Campbell, John P., Jacksonville, Fla. Sprinkler. No. 1,080,136; Dec. 2; Gaz. vol. 197; p. 76.

Campbell, Ralph W. (See Carlson, John, assignor.)

Candell, Edward F. N., New York, N. Y. Automatic advertising apparatus. No. 1,082,583; Dec. 30; Gaz. vol. 197; p. 1040.

Carbery, Thomas F., St. Louis, Mo. Shield for water-gage glasses. No. 1,080,952; Dec. 9; Gaz. vol. 197; p. 391.

Carduck, Heinrich, Saarbrücken, and J. Mattes, Brebach-on-the-Saar, Germany. Stop-block for vehicles. No. 1,081,208; Dec. 9; Gaz. vol. 197; p. 473.

Carey, Robert F., London, England. Hydraulic pump, motor, and like apparatus. No. 1,081,810; Dec. 16; Gaz. vol. 197; p. 713.

Carlin Calculator Company. (See Carlin, Samuel E., assignor.)

Carlin, Samuel E., assignor to Carlin Calculator Company, Chicago, Ill. Motor. No. 1,082,302; Dec. 23; Gaz. vol. 197; p. 912.

Carlson, Arthur V., Pecatonica, Ill. Rural-route mail box and collector. No. 1,083,241; Dec. 30; Gaz. vol. 197; p. 1260.

Carlson, Axel W., Minneapolis, Minn. Thermally-released check-valve. No. 1,082,107; Dec. 23; Gaz. vol. 197; p. 842.

Carlson, Charles F. (See Aitgelt and Carlson.)

Carlson, John, Searsport, assignor of one-third to R. W. Campbell, Millinocket, Me. Locomotive-exhaust tip. No. 1,082,928; Dec. 30; Gaz. vol. 197; p. 1160.

Carlson, Oscar, Woodville, Pa. Gang-plow. No. 1,081,577; Dec. 16; Gaz. vol. 197; p. 634.

Carnegie Steel Company. (See Reese and Wales, assignors.)

Carney, John L., Ruble, Miss. Locomotive-headlight. No. 1,082,623; Dec. 30; Gaz. vol. 197; p. 1054.

Caro, Alfred, Charlottenburg, Germany. Rail-filing machine. No. 1,082,732; Dec. 30; Gaz. vol. 197; p. 1092.

Carpenter, Harold N. (See Taylor, Huston and J. H., assignors.)

Carpenter, Kenneth G., assignor to American Manufacturing Company, St. Louis, Mo. Package of cordage and making same. No. 1,080,527; Dec. 2; Gaz. vol. 197; p. 213.

Carr, Albert B., Atlanta, Ga., assignor to The Procter and Gamble Company, Cincinnati, Ohio. Steam-cooker for oil-bearing meal. No. 1,082,303; Dec. 23; Gaz. vol. 197; p. 912.

Carr, George C., Nelson, Ky. Ironing-board. No. 1,082,403; Dec. 23; Gaz. vol. 197; p. 945.

Carr, George W. Sr., Inverness, Miss. Device to prevent rails from spreading. No. 1,082,496; Dec. 30; Gaz. vol. 197; p. 1007.

Carr, Hugh, Smyrna, Mich. Street-cleaning machine. No. 1,081,209; Dec. 9; Gaz. vol. 197; p. 473.

Carr, John H., Alhambra, assignor of one-half to H. E. Marsh, Palms, Cal. Portable excavating-machine. No. 1,081,487; Dec. 16; Gaz. vol. 197; p. 607.

Carr, Walter E., Littleton, Colo., assignor to The Ingersoll-Rand Company, New York, N. Y. Rock-cutting drill-bit. No. 1,081,721; Dec. 16; Gaz. vol. 197; p. 681.

Carrick, Thomas, and W. A. Baisley, San Francisco, Cal. Wheel-hange roller. No. 1,082,798; Dec. 30; Gaz. vol. 197; p. 1115.

Carroll, George R., et al. (See Wilson, Alfred J., assignor.)

Carroll, Philip F., assignor to Champion Machinery Company, Joliet, Ill. Dough-divider. No. 1,080,890; Dec. 9; Gaz. vol. 197; p. 370.

Carson, Joseph P., Chesterfield, Va. Stopper for closing and sealing bottles. No. 1,080,891; Dec. 9; Gaz. vol. 197; p. 371.

Carson, William E., Riverton, Va. Fertilizer. No. 1,082,108; Dec. 23; Gaz. vol. 197; p. 843.

Carter Carburetor Company. (See Carter, William C., assignor.)

Carter, Richard B., Blair, Nebr. Hot-blast oil-burner heater. No. 1,080,810; Dec. 9; Gaz. vol. 197; p. 343.

Carter, William C., assignor to Carter Carburetor Company, St. Louis, Mo. Internal-combustion engine. No. 1,081,432; Dec. 16; Gaz. vol. 197; p. 588.

Carter, William L., assignor to The Waterloo Register Company, Waterloo, Iowa. Ventilating device for clatters. No. 1,080,187; Dec. 2; Gaz. vol. 197; p. 77.

Cartwright, Charles E., Fort Wayne, Ind. Bedclothes-holder. No. 1,082,929; Dec. 30; Gaz. vol. 197; p. 1161.

Cary-Curr, Henry J., assignor to E. H. Sargent & Co., Chicago, Ill. Extraction apparatus. No. 1,082,304; Dec. 23; Gaz. vol. 197; p. 913.

Casazza, August, Hoboken, N. J. Cushion-tire for vehicle-wheels. No. 1,083,000; Dec. 30; Gaz. vol. 197; p. 1184.

Case, Charles A., Shelter Island, N. Y. Broom-bridle. No. 1,082,497; Dec. 30; Gaz. vol. 197; p. 1007.

Case, Jamie. (See Bryant and Case.)

Case, Omer P., Canandaigua, N. Y., assignor, by mesne assignments, to Case Wrench Company, Inc. Wrench. No. 1,080,536; Dec. 9; Gaz. vol. 197; p. 248.

Case Wrench Company. (See Case, Omer P., assignor.)

Casein Company of America. (See Dunham, Andrew A., assignor.)

Casey, John C., Cincinnati, Ohio. Woodworking machinery. No. 1,081,578; Dec. 16; Gaz. vol. 197; p. 635.

Casey, William F. J., and G. Cavin, Kingston, Ontario, Canada. Reversing-gear for locomotives and the like. No. 1,082,733; Dec. 30; Gaz. vol. 197; p. 1092.

Casler, Herman, Canastota, N. Y. Means for improving the definition of photographic lenses. No. 1,082,678; Dec. 30; Gaz. vol. 197; p. 1074.

Cassidy, Isaac N., Topeka, Kans. Engraver's transfer device. No. 1,081,862; Dec. 16; Gaz. vol. 197; p. 565.

Catlin, Seth. (See Sperry, Charles F., assignor.)

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Diaphragm for sound-boxes. No. 1,080,953; Dec. 9; Gaz. vol. 197; p. 391.

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Sound-box. No. 1,080,954; Dec. 9; Gaz. vol. 197; p. 392.

Cavender, Eben, Philadelphia, Pa. Clothes-washing attachment for set tubs. No. 1,080,324; Dec. 2; Gaz. vol. 197; p. 142.

Cavin, Gustave. (See Casey and Cavin.)

Cayer, Joseph L., Chicago, Ill. Automobile signaling apparatus. No. 1,081,433; Dec. 16; Gaz. vol. 197; p. 588.

Celene, Charles, Port Orchard, assignor of one-half to M. Auburn, Seattle, Wash. Vermin-trap. No. 1,081,363; Dec. 16; Gaz. vol. 197; p. 565.

Chace, E. P. (See Sullivan, William H., assignor.)

Chadeloid Chemical Company. (See Ellis, Carleton, assignor.)

Chaffee, Frank W., Albany, N. Y. Car-door fastener. No. 1,083,001; Dec. 30; Gaz. vol. 197; p. 1185.

Chalmers, John, Quincy, Mass. Transmission-gearing. No. 1,081,092; Dec. 9; Gaz. vol. 197; p. 434.

Chambers, Edgar V., and T. C. Hammond, Huddersfield, England. Apparatus for separating and recovering fibers and the like from liquids. No. 1,079,975; Dec. 2; Gaz. vol. 197; p. 19.

Chambers, John A., assignor of one-fourth to C. Moore and one-fourth to R. Dowell, Newburg, Mo. Apparatus for receiving and delivering mail. No. 1,082,498; Dec. 30; Gaz. vol. 197; p. 1008.

Chambley, Alexander, Philadelphia, Pa. Ventilated prism. No. 1,083,056; Dec. 30; Gaz. vol. 197; p. 1201.

Champion Machinery Company. (See Carroll, Philip F., assignor.)

Champion Wagon Company. (See Steele, James R., Jr., assignor.)

Chandler Engine Valve Company. (See Chandler, Milford G., assignor.)

Chandler, Milford G., assignor to Chandler Engine Valve Company, Chicago, Ill. Rotary valve for internal-combustion engines. No. 1,080,892; Dec. 9; Gaz. vol. 197; p. 371.

Chandler, Roy, Havre, Mont. Fish-guard. No. 1,080,415; Dec. 2; Gaz. vol. 197; p. 176.

Chapman, Byron V., Newberry, S. C. Hat-pin guard. No. 1,081,888; Dec. 16; Gaz. vol. 197; p. 739.

Chapman, Eugene M., and C. E. Cowan, Holyoke, Mass. Truck. No. 1,081,093; Dec. 9; Gaz. vol. 197; p. 434.

Chapman, Frank H., and O. E. Kenney, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio. Attachment-plug for electric circuits. No. 1,080,325; Dec. 2; Gaz. vol. 197; p. 142.

Chapman, Frank H., and O. E. Kenney, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio. Attachment-plug for electric circuits. No. 1,080,326; Dec. 2; Gaz. vol. 197; p. 142.

Chapman, Frank H., and O. E. Kenney, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio. Attachment-plug for electric circuits. No. 1,080,327; Dec. 2; Gaz. vol. 197; p. 143.

Chapman, Oliver E., Sharon, Mass. Device for destroying flies. No. 1,081,364; Dec. 16; Gaz. vol. 197; p. 566.

Chapman, William L., New York, N. Y. Fountain-pen. No. 1,080,099; Dec. 2; Gaz. vol. 197; p. 63.

Charles, George H., Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J. Sheet-metal culvert. No. 1,083,002; Dec. 30; Gaz. vol. 197; p. 1185.

Charpentier, Gilbert. (See Fouque and Charpentier.)

Charter, James A., Chicago, Ill. Combustion-engine. No. 1,081,017; Dec. 9; Gaz. vol. 197; p. 411.

Chase, Alice S., administratrix. (See Sullivan, William H., assignor.)

Chase-Shawmut Company. (See Conant, Franklin N., assignor.)

Chatain, Henri G., Erie, Pa., assignor to General Electric Company. Means for supporting engines. No. 1,080,748; Dec. 9; Gaz. vol. 197; p. 320.

Cheatham Electric Switching Device Company. (See Olmsted, Elmer S., assignor.)

Chemische Fabrik auf Actien (vorm. E. Schering). (See Thiele, Albrecht, assignor.)

Chemische Fabrik Griesheim-Elektron. (See Grünstein, Nathan, assignor.)

Chemische Fabrik Grünau Landshoff and Meyer Aktien-gesellschaft, The. (See Arndt, Kurt, assignor.)

Chesher, Harry, Philadelphia, Pa. Nut-lock. No. 1,082,734; Dec. 30; Gaz. vol. 197; p. 1093.

Chesher, Harry, Philadelphia, Pa. Nut-lock. No. 1,082,735; Dec. 30; Gaz. vol. 197; p. 1093.

Chevrette, Eugene, Shirley Center, Mass. Picker-stick. No. 1,081,579; Dec. 16; Gaz. vol. 197; p. 635.

Cheyne, Frederick H., Indianapolis, Ind. Speed-varying transmission. No. 1,079,934; Dec. 2; Gaz. vol. 197; p. 4.

Chicago-Cleveland Car Roofing Company. (See Russell, Thomas N., assignor.)

Chicago Pneumatic Tool Co. (See Hume, John T., assignor.)

Chicago Pneumatic Tool Company. (See Mackie and Doyle, assignors.)

Chicago Railway Equipment Company. (See Busse, Edwin G., assignor.)

Chicago Railway Equipment Company. (See Williams, Charles H., Jr., assignor.)

Chicago Signal Company. (See Levison, Maurice, assignor.)

Chicago Spring Butt Company. (See Keene, William J., assignor.)

Chiple, William G., Atlanta, Ga., assignor to Pneumatic Rim & Tire Company, Wilmington, Del. Tire. No. 1,080,416; Dec. 2; Gaz. vol. 197; p. 176.

Chippierfield, Walter, Romford, assignor to W. E. Garforth, Pontefract, England. Kinematograph camera and projecting apparatus. No. 1,082,305; Dec. 23; Gaz. vol. 197; p. 913.

Chorlton, Alan E. L., Manchester, England. Means for reversing internal-combustion engines. No. 1,082,068; Dec. 23; Gaz. vol. 197; p. 830.

Christensen, Christoffer A., assignor to The International Mining & Milling Co., Portland, Ore. Centrifugal concentrator. No. 1,081,207; Dec. 9; Gaz. vol. 197; p. 494.

Christian, Arthur H., Christchurch, New Zealand. Trolley-pole. No. 1,083,266; Dec. 30; Gaz. vol. 197; p. 1268.

Christman, Albert R., Philadelphia, assignor of one-half to E. A. Oberrender, Melrose Park, Pa. Brick-cleaning machine. No. 1,082,306; Dec. 23; Gaz. vol. 197; p. 913.

Christman, Albert R., Philadelphia, assignor of one-half to E. A. Oberrender, Melrose Park, Pa. Removing adhering mortar from bricks. No. 1,082,307; Dec. 23; Gaz. vol. 197; p. 914.

Church, Frederick A. (See Prior and Church.)

Churchill, William, assignor to Corning Glass Works, Corning, N. Y. Fresnel lens. No. 1,081,210; Dec. 9; Gaz. vol. 197; p. 474.

Churchill, William, assignor to Corning Glass Works, Corning, N. Y. Optical system. No. 1,081,211; Dec. 9; Gaz. vol. 197; p. 474.

Cinelli, Peter, et al. (See Dacorci, Edward, assignor.)

Citroen, André, Paris, France. Hydraulic power-transmission device. No. 1,080,000; Dec. 2; Gaz. vol. 197; p. 28.

City Weather Proofing Company. (See Vachon, George C., assignor.)

Clark, Charles H., Kalamazoo, Mich. Milk-strainer. No. 1,080,262; Dec. 2; Gaz. vol. 197; p. 121.

Clark, Charles W., Chicago, Ill. Combined motor-truck and plow. No. 1,080,749; Dec. 9; Gaz. vol. 197; p. 320.

Clark, David A., Capay, Cal. Insect-excluding attachment for buildings. No. 1,080,417; Dec. 2; Gaz. vol. 197; p. 177.

Clark, Della L., Birmingham, Ala. Tire-diller. No. 1,083,188; Dec. 30; Gaz. vol. 197; p. 1241.

Clark, Dwight G., Plainville, Conn. assignor, by mesne assignments, to Corrugated Bar Company, St. Louis, Mo. Expanded metal. No. 1,080,418; Dec. 2; Gaz. vol. 197; p. 177.

Clark, George M. and H. W., Ball Ground, Ga. Automatic air-car-coupling. No. 1,083,189; Dec. 30; Gaz. vol. 197; p. 1241.

Clark, Henry W. (See Clark, George M. and H. W.)

Clark, John A., Bolckow, Mo. Brooder. No. 1,081,811; Dec. 16; Gaz. vol. 197; p. 713.

Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Bellows-operating pedal. No. 1,081,948; Dec. 23; Gaz. vol. 197; p. 787.

Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Means for recording music. No. 1,082,499; Dec. 30; Gaz. vol. 197; p. 1008.

Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Stop-recording action for automatic musical instruments. No. 1,082,509; Dec. 30; Gaz. vol. 197; p. 1009.

Clark, Raymond L., Rochester, N. Y. Attachment for perambulators. No. 1,082,930; Dec. 30; Gaz. vol. 197; p. 1161.

Clark, Walter G., New York, N. Y. Excavating-machine. No. 1,082,501; Dec. 30; Gaz. vol. 197; p. 1009.

Clarke, John R. (See Mt. Joy, Albert, assignor.)

Clauder, Arthur W., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric-lamp socket. No. 1,082,404; Dec. 23; Gaz. vol. 197; p. 945.

Clavel, Alexander, assignor to Farberel & Appreturgesellschaft vormals A. Clavel & Fritz Lindenmeyer, Basel, Switzerland. Apparatus for smoothing banks of textile materials. No. 1,083,003; Dec. 30; Gaz. vol. 197; p. 1185.

Clawson, Selden L., Salt Lake City, Utah. Fume-arrester. No. 1,083,057; Dec. 30; Gaz. vol. 197; p. 1202.

Cleal, Joseph P., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,080,001; Dec. 2; Gaz. vol. 197; p. 29.

Cleghorn, John M. (See Fairall, Bokey, and Cleghorn.)

Clement, Alfred J. B., Plainfield, N. J. Puzzle. No. 1,080,955; Dec. 9; Gaz. vol. 197; p. 392.

Clements, George, assignor to Clements Mfg. Co., Chicago, Ill. Handle-clips for vacuum-cleaners. No. 1,082,060; Dec. 23; Gaz. vol. 197; p. 830.

Clements Mfg. Co. (See Clements, George, assignor.)

Clements, Perry. (See Meadows, Peter W. L., assignor.)

Cleveland, Charles E., Fond du Lac, Wis. Twin band-saw mill. No. 1,081,525; Dec. 16; Gaz. vol. 197; p. 620.

Cleveland, Charles E., Fond du Lac, Wis. Lumber-trimmer. No. 1,082,405; Dec. 23; Gaz. vol. 197; p. 945.

Cleveland, Edgar W., Grand Rapids, Mich. Adjustable arm for multiple-spindle drills. No. 1,082,009; Dec. 23; Gaz. vol. 197; p. 810.

Cleveland, George H., San Antonio, Tex. Railway-script holder. No. 1,081,094; Dec. 9; Gaz. vol. 197; p. 435.

Cleveland, William H., Jr., Superior, Wis. Gage attachment for drawing-knives. No. 1,080,419; Dec. 2; Gaz. vol. 197; p. 177.

Clifford, James J., Green Island, N. Y. Demi-john-washer. No. 1,082,502; Dec. 30; Gaz. vol. 197; p. 1010.

Clifford, John, assignor of one-half to W. Byrd, Colfax, Wash. Burner for lamps. No. 1,081,095; Dec. 9; Gaz. vol. 197; p. 435.

Clifton, James P., assignor to Water Power Vacuum Cleaner Co., Buffalo, N. Y. Vacuum cleaning apparatus. No. 1,080,420; Dec. 2; Gaz. vol. 197; p. 177.

Clingman, William H., Chicago, Ill. Journal-cooling device. No. 1,082,503; Dec. 30; Gaz. vol. 197; p. 1010.

Clippinger, Amos B., Kansas City, Mo. Wagon-box. No. 1,082,584; Dec. 30; Gaz. vol. 197; p. 1040.

Cloesson, Walter, Verviers, and J. Miesse, Ensisval, Belgium. Apparatus for starting internal-combustion motors. No. 1,082,149; Dec. 23; Gaz. vol. 197; p. 855.

Clough, Henry W., South Pasadena, Cal. Window-shade fixture. No. 1,082,736; Dec. 30; Gaz. vol. 197; p. 1093.

Clough, William R., Alton, N. H. Easel or holder for photographs, cards, price-tickets, and the like. No. 1,081,018; Dec. 9; Gaz. vol. 197; p. 412.

Clyde Iron Works. (See Beckwith and Bjorge, assignors.)

Coates, Albert O., et al. (See Denison, Nathan B., assignor.)

Coblentz, William W., Washington, D. C. Thermopile. No. 1,081,365; Dec. 16; Gaz. vol. 197; p. 566.

Cochran, David, Richton, Miss. Plow. No. 1,082,406; Dec. 23; Gaz. vol. 197; p. 946.

Cocksedge, Herbert E. (See Freeth and Cocksedge.)

Coe, Sara L. W., New York, N. Y. Stamp or ticket vending machine. No. 1,080,138; Dec. 2; Gaz. vol. 197; p. 77.

Coffield Motor Washer Co., The. (See Yassenoff, Isidor, assignor.)

Coffin, Joseph G., New York, N. Y., assignor to W. F. Cushman, Boston, Mass. Fountain-pen. No. 1,080,197; Dec. 2; Gaz. vol. 197; p. 97.

Coffinger, Arthur W., Jr., Grand Rapids, Mich. Drilling-machine. No. 1,082,150; Dec. 23; Gaz. vol. 197; p. 855.

Cohn, Arthur, Neukölln, near Berlin, Germany. Manufacture of lacquers and varnishes. No. 1,080,100; Dec. 2; Gaz. vol. 197; p. 64.

Cohn, Moses M. (See Bray, William I., assignor.)

Coke Company. (See Cooke, Ernest W., assignor.)

Colburn, Bethuel W. (See Hillis and Colburn.)

Coldwell, William H., Newburgh, N. Y. Lawn-mower. No. 1,082,931; Dec. 30; Gaz. vol. 197; p. 1161.

Cole, Michael S., New York, N. Y. Cigar-holder. No. 1,081,889; Dec. 16; Gaz. vol. 197; p. 739.

Coleman, Clyde J., assignor to C. Hubert, New York, N. Y. Storage-reservoir for explosive fluids. No. 1,080,263; Dec. 2; Gaz. vol. 197; p. 121.

Collins, William, assignor to Scovill Manufacturing Company, Waterbury, Conn. Lamp-burner. No. 1,080,537; Dec. 9; Gaz. vol. 197; p. 248.

Collar, Adoniram J., Yreka, Cal. Fish-ladder. No. 1,082,109; Dec. 23; Gaz. vol. 197; p. 843.

Collée, Paul M. H. L. (See Werst, Collée, and Egmond.)

Collier, Guy B., Kinderhook, N. Y. Goggles. No. 1,080,893; Dec. 9; Gaz. vol. 197; p. 371.

Collins, Albert K., Lancaster, S. C. Vending-machine. No. 1,081,212; Dec. 9; Gaz. vol. 197; p. 474.

Collins, Arthur E., A. Kerr, Christchurch, and A. E. Russell, Wellington, New Zealand. Internal-combustion engine. No. 1,082,932; Dec. 30; Gaz. vol. 197; p. 1161.

Collins, Roderick G., Jr., New York, N. Y. Pneumatic-dispatch-tube carrier. No. 1,080,538; Dec. 9; Gaz. vol. 197; p. 248.

Collins, William L., assignor of one-third to W. A. Gray, Gray, Okla. Fence-post. No. 1,080,048; Dec. 2; Gaz. vol. 197; p. 45.

Collinsworth, John W., Leary, Tex. Wheel. No. 1,082,151; Dec. 23; Gaz. vol. 197; p. 856.

Collis, Henry J., Taunton, Mass. Ankle support and protector. No. 1,081,366; Dec. 16; Gaz. vol. 197; p. 566.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Warp-tying apparatus. No. 1,082,474; Dec. 23; Gaz. vol. 197; p. 966.

Columbia Nut and Bolt Company. (See MacFarland, Merle, assignor.)

Columbus Dental Manufacturing Company, The. (See Steele, Thomas, assignor.)

Colwell, Robert C., Beaver Falls, Pa. Slide-rule. No. 1,080,811; Dec. 9; Gaz. vol. 197; p. 344.

Colzi, Virgilio, and F. Bardelli, Turin, Italy. Telemeter. No. 1,080,421; Dec. 2; Gaz. vol. 197; p. 178.

Combs, Guy P., and P. J. Burke, Rochester, N. Y. Non-refillable bottle. No. 1,082,407; Dec. 23; Gaz. vol. 197; p. 946.

Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Microphone. No. 1,079,931; Dec. 2; Gaz. vol. 197; p. 3.

Commerford, Arthur B., and S. E. Watson, Newport, R. I. Button. No. 1,081,090; Dec. 9; Gaz. vol. 197; p. 435.

Composite Tie-Plate Corporation. (See Braine, Daniel L., assignor.)

Conant, Franklin N., Newburyport, assignor to Chase-Shawmut Company, Boston, Mass. Inclosed electric fuse. No. 1,081,213; Dec. 9; Gaz. vol. 197; p. 475.

Conant, Franklin N., Newburyport, assignor to Chase-Shawmut Company, Boston, Mass. Inclosed electric fuse. No. 1,081,214; Dec. 9; Gaz. vol. 197; p. 475.

Concord Company. (See Anderson, Alfred, assignor.)

Condon, Edward T., Jr., New York, N. Y. Double-pointed reproducing-stylus for talking-machines, and holder therefor. No. 1,080,328; Dec. 2; Gaz. vol. 197; p. 143.

Connecticut Telephone and Electric Company, The. (See Cadieux, Joseph O., assignor.)

Connor, Edmond F., and J. C. Winans, Waldron, Mich. Starting device for internal-combustion engines. No. 1,083,190; Dec. 30; Gaz. vol. 197; p. 1241.

Connor, James, Greenville, Tex. Badge. No. 1,082,679; Dec. 30; Gaz. vol. 197; p. 1074.

Connor, Louis C. (See Ready, Connor, and Bévans.)

Connors, Ernest S., St. Francis, Me. Bark-softening vat. No. 1,081,890; Dec. 16; Gaz. vol. 197; p. 740.

Conrad, Leonard, Pasadena, Cal. Gate-latch. No. 1,082,408; Dec. 23; Gaz. vol. 197; p. 946.

Consolidated Dental Manufacturing Company. (See Hardy, James F., assignor.)

Continental Motor Truck Co., The. (See McKeage, Robert S., assignor.)

Continuous Rail Company. (See Noll, John, assignor.)

Conway, William, Montclair Heights, N. J. Clasp. No. 1,080,539; Dec. 9; Gaz. vol. 197; p. 249.

Conwell, Robert J., Buffalo, N. Y. Liquid-dispensing device. No. 1,081,019; Dec. 9; Gaz. vol. 197; p. 412.

Cook, Caleb E., Los Angeles, Cal. Mechanical advertising device. No. 1,081,722; Dec. 16; Gaz. vol. 197; p. 682.

Cook, Elmer B., Gilroy, Cal. Machine for washing eggs. No. 1,081,367; Dec. 16; Gaz. vol. 197; p. 567.

Cook, James J., Jersey City, N. J. Thermo-electric generator. No. 1,083,191; Dec. 30; Gaz. vol. 197; p. 1242.

Cook, Theodore W., assignor of one-half to H. B. Painter, Philadelphia, Pa. Gun-cleaning rod. No. 1,080,679; Dec. 9; Gaz. vol. 197; p. 295.

Cooke, Ernest W., New York, N. Y., assignor to Cokel Company. Dehydrating apparatus. No. 1,080,198; Dec. 2; Gaz. vol. 197; p. 98.

Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Tungsten and making the same for use as filaments of incandescent electric lamps and for other purposes. No. 1,082,933; Dec. 30; Gaz. vol. 197; p. 1162.

Cooper, Edward W., New Orleans, La. Window-cleaner's scaffold. No. 1,081,192; Dec. 30; Gaz. vol. 197; p. 1242.

Cooper, Morton, Bainbridge, N. Y. Vermin-killing poultry-perch. No. 1,082,585; Dec. 30; Gaz. vol. 197; p. 1040.

Cooper, William, Wilkinsburg, assignor to General Refrigerating Company, Pittsburgh, Pa. Refrigerating apparatus. No. 1,080,540; Dec. 9; Gaz. vol. 197; p. 249.

Copeland, Lucius D., Camden, N. J. Vacuum-alarm. No. 1,080,541; Dec. 9; Gaz. vol. 197; p. 249.

Corbett, William P. (See Craig, Harry L., assignor.)

Coriell, Louis D., Baltimore, Md. Shaving-brush. No. 1,082,934; Dec. 30; Gaz. vol. 197; p. 1162.

Cork Insert Company, The. (See Whitcomb, Lawrence, assignor.)

Cormack, Mark N., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Offset mechanism for printing-machines. No. 1,082,409; Dec. 23; Gaz. vol. 197; p. 947.

Corning Glass Works. (See Churchill, William, assignor.)

Corrugated Bar Company. (See Clark, Dwight G., assignor.)

Corrugated Bar Company. (See Lindau, Alfred E., assignor.)

Corson, William L., assignor to Union Gas Engine Company, San Francisco, Cal. Gasifier for liquid fuels. No. 1,080,139; Dec. 2; Gaz. vol. 197; p. 77.

Costmeter Company, The. (See Quigley, John T., assignor.)

Cota, Daniel E., assignor of one-half to himself and one-half to J. Fischer, Boston, Mass. Packing. No. 1,079,976; Dec. 2; Gaz. vol. 197; p. 19.

Côté, George A., Montreal, Quebec, Canada. Stuk-stopper. No. 1,081,434; Dec. 16; Gaz. vol. 197; p. 588.

Côté, Louis E., Ottawa, Ontario, Canada, and W. F. Kelley, Ithaca, N. Y. Means for producing sound-waves. No. 1,080,264; Dec. 2; Gaz. vol. 197; p. 122.

Cotter, Henderson W. (See Mitchell and Cotter.)

Cotton, Jesse F., et al. (See Bush, Isaac W., assignor.)

Coulson, William T., Penge, England, Lens. No. 1,081,215; Dec. 9; Gaz. vol. 197; p. 476.

Courlander, Louis, Croydon, England. Construction of eyeglasses, spectacles, and the like. No. 1,079,932; Dec. 2; Gaz. vol. 197; p. 4.

Courson, James L., Barberton, Ohio. Flash-machine. No. 1,080,750; Dec. 9; Gaz. vol. 197; p. 321.

Courtney, Gilbert Y., Holland, Mich. Tool-holding mechanism. No. 1,083,193; Dec. 30; Gaz. vol. 197; p. 1242.

Cousot, Achille, Geneva, Switzerland. Tool-holder. No. 1,080,422; Dec. 2; Gaz. vol. 197; p. 178.

Coutelle, Carl. (See Hofmann, Coutelle, Melsenburg, and Delbrück.)

Couter, George L., Cumberland, Md. Spark-plug. No. 1,081,600; Dec. 16; Gaz. vol. 197; p. 661.

Covey, Frank E., Oakland, assignor of one-half to C. W. Yolland, Berkeley, Cal. Car-trolley. No. 1,082,799; Dec. 30; Gaz. vol. 197; p. 1116.

Covington, Capres M., Harrison, Ark. Fishing-line-drying reel. No. 1,081,435; Dec. 16; Gaz. vol. 197; p. 589.

Cowan, Charles E. (See Chapman and Cowan.)

Cowen, Max, New York, N. Y. Combined breeches and leggings. No. 1,082,737; Dec. 30; Gaz. vol. 197; p. 1094.

Cox, Charles C., Pulaski, Va. Automatic vehicle-brake. No. 1,082,410; Dec. 23; Gaz. vol. 197; p. 947.

Cox, Frederick J., London, England, assignor, by mesne assignments, to Airgas Syndicate, Incorporated, New York, N. Y. Air-gas apparatus. No. 1,082,070; Dec. 23; Gaz. vol. 197; p. 830.

Cox, William N., et al. (See Attridge, Oliver H., assignor.)

Coyne, William, assignor of one-half to De Clark Brothers, Kewanee, Ill. Pump. No. 1,081,020; Dec. 9; Gaz. vol. 197; p. 412.

Cozzolino, Donato, San Diego, Cal. Evaporating apparatus. No. 1,082,411; Dec. 23; Gaz. vol. 197; p. 947.

Craft, Edward B., and A. F. Dixon, New York, N. Y., assignors to Western Electric Company, Chicago, Ill. Selector mechanism. No. 1,081,368; Dec. 16; Gaz. vol. 197; p. 567.

Craig, Fredrick, Knightstown, Ind. Heating apparatus. No. 1,081,891; Dec. 16; Gaz. vol. 197; p. 740.

Craig, Harry L., assignor of one-half to W. P. Corbett, Middletown, N. Y. Signal device for railways. No. 1,081,892; Dec. 16; Gaz. vol. 197; p. 740.

Craig, Samuel, Decatur, Ill. Lifting-jack. No. 1,082,412; Dec. 23; Gaz. vol. 197; p. 948.

Cramer, Joseph C., Roseburg, Ore. Grain-cleaning machine. No. 1,080,423; Dec. 2; Gaz. vol. 197; p. 179.

Crane Company. (See Houser, Arthur M., assignor.)

Crane, Martin S., Hoboken, N. J. Sash. No. 1,082,308; Dec. 23; Gaz. vol. 197; p. 914.

Crapo, Harry T., New York, N. Y., assignor, by mesne assignments, to The Webb Talking Pictures Company. Means for synchronizing talking-machines and moving-picture machines. No. 1,080,265; Dec. 2; Gaz. vol. 197; p. 122.

Cravath, James R., Chicago, Ill. Lantern. No. 1,081,580; Dec. 16; Gaz. vol. 197; p. 636.

Craven, Andrew J., Spruce Pine, Ala. Hole-digging implement. No. 1,082,263; Dec. 23; Gaz. vol. 197; p. 897.

Craven, Peter H., assignor to P. H. Craven Machinery Company, Spokane, Wash. Ore-concentrator belt. No. 1,083,058; Dec. 30; Gaz. vol. 197; p. 1202.

Crawford, James B., Sioux City, Iowa, assignor of one-half to H. Houghton. Tire and rim for wheels. No. 1,081,812; Dec. 16; Gaz. vol. 197; p. 714.

Crayssac, Desiré, Villeurbanne, France. Rotary valveless motor. No. 1,082,224; Dec. 23; Gaz. vol. 197; p. 881.

Creamer, Frank D. (See Bell, Arthur H., assignor.)

Cretors, Jesse B., St. Paul, Ohio. Storm-front for vehicles. No. 1,080,812; Dec. 9; Gaz. vol. 197; p. 344.

Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,082,110; Dec. 23; Gaz. vol. 197; p. 843.

Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,082,111; Dec. 23; Gaz. vol. 197; p. 843.

Crist, Andrew J., Amorita, Okla. Motor-car attachment. No. 1,080,680; Dec. 9; Gaz. vol. 197; p. 295.

Critzer, Lawrence W., and H. J. H. Koster, Protection, Kans. Screen-door trap. No. 1,081,369; Dec. 16; Gaz. vol. 197; p. 567.

Crompton Company. (See Morton, Arthur, assignor.)

Cross, Arthur R. (See Gault, Albert C., assignor.)

Cross, George W., Fort Smith, Ark. Valve-lock. No. 1,082,935; Dec. 30; Gaz. vol. 197; p. 1162.

Crosser, Calvin S., et al. (See Robinson, Arthur G., assignor.)

Crossley, James S., assignor to Pass & Seymour, Inc., Solway, N. Y. Receptacle for incandescent electric lamps. No. 1,081,581; Dec. 16; Gaz. vol. 197; p. 636.

Croteau, Herman, Montreal, Quebec, Canada. Fire-escape. No. 1,081,813; Dec. 16; Gaz. vol. 197; p. 714.

Crouse, David E., and C. G. Eldson, Annapolis, assignors to The Auto Air Appliance Company, Baltimore, Md. Variable-speed mechanism. No. 1,082,624; Dec. 30; Gaz. vol. 197; p. 1054.

Crowell, Charles H., Swampscott, Mass. Moistening-machine. No. 1,081,582; Dec. 16; Gaz. vol. 197; p. 636.

Crowell, Charles H., Swampscott, Mass. Machine for preparing stay-strips. No. 1,081,583; Dec. 16; Gaz. vol. 197; p. 637.

Crown Cork and Seal Company of Baltimore City, The. (See La Porte, Norbert M., assignor.)

Crozier, Van K., et al. (See O'Neal, William J., assignor.)

Crumb, Edward S., Charlestown, R. I. Closure for poison-bottles. No. 1,082,413; Dec. 23; Gaz. vol. 197; p. 948.

Cruzan, Joseph W., Mattoon, Ill. Engine-cylinder. No. 1,080,894; Dec. 9; Gaz. vol. 197; p. 372.

Cuba, John L., Taylor, Tex. Punch. No. 1,083,194; Dec. 30; Gaz. vol. 197; p. 1243.

Culp, John W., Huntington, Ind. Swing. No. 1,079,933; Dec. 2; Gaz. vol. 197; p. 4.

Culver, Edmund B., Great Barrington, Mass. Sewer-cleaning device. No. 1,081,488; Dec. 16; Gaz. vol. 197; p. 607.

Culver, Frederick S., Taunton, Mass. Spinning-machine. No. 1,080,266; Dec. 2; Gaz. vol. 197; p. 123.

Cummings, Asa B. (See Snow and Cummings.)

Cunningham, John F., San Francisco, Cal. Advertising device. No. 1,081,021; Dec. 9; Gaz. vol. 197; p. 412.

Cunningham, Otto H., Leeburg, Pa., assignor, by mesne assignments, to General Electric Company. Manufacturing silicon-steel products. No. 1,081,370; Dec. 16; Gaz. vol. 197; p. 568.

Cuntz, John H., Hoboken, N. J. Wave-detector. No. 1,080,681; Dec. 9; Gaz. vol. 197; p. 295.

Currie, Alexander, assignor of one-third to A. H. Lidders, Los Angeles, Cal. Boat. No. 1,081,489; Dec. 16; Gaz. vol. 197; p. 608.

Currin, John, New York, N. Y. Eyeglass-case. No. 1,080,267; Dec. 2; Gaz. vol. 197; p. 123.

Currin, Sydney A., Bristol, England. Vehicle-wheel. No. 1,081,216; Dec. 9; Gaz. vol. 197; p. 476.

Curry, John P., New York, N. Y. Apparatus for automatically regulating weight. No. 1,081,723; Dec. 16; Gaz. vol. 197; p. 682.

Curry, Robert, New York, N. Y. Resilient tire. No. 1,083,059; Dec. 30; Gaz. vol. 197; p. 1203.

Curtis & Marble Machine Co. (See Butler, Edward F., Sr., assignor.)
 Cushman, Everett B., Lincoln, Nebr. Agricultural machine. No. 1,082,847; Dec. 30; Gaz. vol. 197; p. 1132.
 Cushman, Leslie S., Los Angeles, Cal. Traction-vehicle. No. 1,080,101; Dec. 2; Gaz. vol. 197; p. 64.
 Cushman, William F. (See Coffin, Joseph G., assignor.)
 Cusson, Japhet S., De Kalb, Ill. Harness back-pad. No. 1,080,895; Dec. 9; Gaz. vol. 197; p. 372.
 Cutler-Hammer Mfg. Co., The. (See Berresford, Arthur W., assignor.)
 Cutler, John A. (See Evans, Leo E., assignor.)
 Cutler, L. D., Windsor Locks, Conn. Goggles. No. 1,082,480; Dec. 23; Gaz. vol. 197; p. 968.
 Cutler, Lawrence, Pittsburgh, Pa. Wrench. No. 1,082,112; Dec. 23; Gaz. vol. 197; p. 844.
 Cutten, Eliza B., Erie, Pa. Reducing zinc compounds. No. 1,080,102; Dec. 2; Gaz. vol. 197; p. 64.
 Czapski, Stanislaw, Brockton, Mass. Escapement. No. 1,080,896; Dec. 9; Gaz. vol. 197; p. 372.
 D & W Fuse Company. (See Patton, Ralph C., assignor.)
 D'Ala, Fritz C. L., Brooklyn, N. Y. Typographic machine. No. 1,083,195; Dec. 30; Gaz. vol. 197; p. 1243.
 D'Harveng, Jules, Liege, Belgium. Two-cycle explosion-motor. No. 1,081,492; Dec. 16; Gaz. vol. 197; p. 608.
 Daac, Reinhardt. (See Pascale and Daac.)
 Dacorsi, Edward, assignor of one-third to P. Cline and one-third to F. Finizio, Gloversville, N. Y. Glove. No. 1,080,813; Dec. 9; Gaz. vol. 197; p. 345.
 Dahl, Bennie, Brantford, N. D. Draft attachment. No. 1,082,010; Dec. 23; Gaz. vol. 197; p. 810.
 Dahlke, Oskar, Charlottenburg, Germany, assignor to General Electric Company. Shaft-packing. No. 1,080,751; Dec. 9; Gaz. vol. 197; p. 321.
 Dain, Joseph, Ottumwa, Iowa. Motor-vehicle. No. 1,082,504; Dec. 30; Gaz. vol. 197; p. 1011.
 Dakota Farm Machine Company. (See Veitl, Albert, assignor.)
 Damman, Harold H., Ellensburg, Wash. Excavating-machine. No. 1,082,011; Dec. 23; Gaz. vol. 197; p. 810.
 Daniel Green Felt Shoe Company. (See Green, James A., assignor.)
 Daniel, Robert O., Dodsonville, Tex. Ribbon-cabinet. No. 1,083,196; Dec. 30; Gaz. vol. 197; p. 1244.
 Daniels, Walter S., New York, N. Y. Flower-holder. No. 1,081,097; Dec. 9; Gaz. vol. 197; p. 436.
 Danielson, Arthur C., Colfax, Wis. Folding chicken-coop. No. 1,080,542; Dec. 9; Gaz. vol. 197; p. 250.
 Danielson, Carl G., Kansas City, Mo. Metallic door. No. 1,082,071; Dec. 23; Gaz. vol. 197; p. 831.
 Danielson, Charles, Cannon Falls, Minn. Folding combined washbench and ironing-board support. No. 1,080,956; Dec. 9; Gaz. vol. 197; p. 392.
 Danielson, Charles, Cannon Falls, Minn. Convertible davenport, reclining-couch, and bed. No. 1,082,680; Dec. 30; Gaz. vol. 197; p. 1074.
 Danner, William E., Perth, Ontario, Canada. Tooth-powder. No. 1,082,681; Dec. 30; Gaz. vol. 197; p. 1075.
 Danuser, Florian, Tacoma, Wash. Lamp burner. No. 1,083,060; Dec. 30; Gaz. vol. 197; p. 1203.
 Dardeau, Léon J. M., Paris, France. Safety device with combinations for locks of all kinds. No. 1,083,061; Dec. 30; Gaz. vol. 197; p. 1203.
 Darden, Mills W. (See Eisenhart and Darden.)
 Dare, Arthur, Philadelphia, Pa. Device for muffling sounds. No. 1,081,490; Dec. 16; Gaz. vol. 197; p. 608.
 Dare, Lisle J., Spokane, Wash. Wall construction. No. 1,080,002; Dec. 2; Gaz. vol. 197; p. 29.
 Dargin, Percy W., Denver, Colo. Adjustable binder. No. 1,082,848; Dec. 30; Gaz. vol. 197; p. 1132.
 Darqué, Etienne M., Clichy, France. Tin-box opener. No. 1,082,800; Dec. 30; Gaz. vol. 197; p. 1116.
 Darrow, William W., Chicago, Ill. Mechanism for opening doors of freight-cars. No. 1,081,294; Dec. 16; Gaz. vol. 197; p. 541.
 Darrow, Wilton E., Amador City, Cal. Aerating solutions. No. 1,081,436; Dec. 16; Gaz. vol. 197; p. 589.
 Dashner, Lou C., and H. E. Jacobs, assignors of one-third to A. Walker, Point Pleasant, W. Va. Nut-lock. No. 1,081,661; Dec. 16; Gaz. vol. 197; p. 662.
 Dauler, Cyrus S., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Motor-control system. No. 1,080,140; Dec. 2; Gaz. vol. 197; p. 78.
 Davidson, Joseph, Greenville, S. C., assignor of one-half to American Machine & Manufacturing Company. Seed-hulling machine. No. 1,083,004; Dec. 30; Gaz. vol. 197; p. 1186.
 Davies, David A. (See Teter and Davies.)
 Davies, Harold J., and T. A. Judge, Sheffield, England. Manufacture of double helical metallic tubing. No. 1,080,897; Dec. 9; Gaz. vol. 197; p. 372.
 Davies, Roderick W., Chicago Heights, Ill. Dumping-car. No. 1,079,977; Dec. 2; Gaz. vol. 197; p. 20.
 Davis, Albert G., Schenectady, N. Y., assignor to General Electric Company. Incandescent lamp. No. 1,082,012; Dec. 23; Gaz. vol. 197; p. 811.
 Davis, Curtis W., Donaldson, Minn. Grain-drill. No. 1,082,072; Dec. 30; Gaz. vol. 197; p. 831.
 Davis, Emory, New York, N. Y. Inkstand. No. 1,082,152; Dec. 23; Gaz. vol. 197; p. 856.
 Davis, George H., Orange, N. J. Expression mechanism for automatic pianos. No. 1,080,424; Dec. 2; Gaz. vol. 197; p. 179.

Davis, George H., West Orange, N. J. Automatic music-sheet-guiding device for self-playing musical instruments. No. 1,082,840; Dec. 30; Gaz. vol. 197; p. 1133.
 Davis, James S., assignor of one-fourth to A. W. Aston and one-fourth to L. D. Heidreth, Meadowview, Va. Pivot connection. No. 1,081,940; Dec. 16; Gaz. vol. 197; p. 756.
 Davis, Louis, New York, N. Y. Fluid-mixing attachment for faucets. No. 1,080,957; Dec. 9; Gaz. vol. 197; p. 393.
 Davis, Otis L., Iowa City, Iowa. Electrical switch. No. 1,081,022; Dec. 9; Gaz. vol. 197; p. 413.
 Davis, William C., and J. Miller, Freeport, assignors of one-half to said Miller and one-half to W. K. Sanderson, Portland, Me. Hide-stretcher. No. 1,081,584; Dec. 16; Gaz. vol. 197; p. 637.
 Davis, William V., Dealville, N. C. Marking attachment for plows. No. 1,080,425; Dec. 2; Gaz. vol. 197; p. 179.
 Davison, Dorsett A., Richmond, Va. Window. No. 1,081,893; Dec. 16; Gaz. vol. 197; p. 740.
 Davison, G. Lanza. (See Dyer, Silas H., assignor.)
 Davy, Clarence F., and T. Richardson, Fitzroy, New Zealand. Non-refillable bottle. No. 1,081,491; Dec. 16; Gaz. vol. 197; p. 608.
 Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Breech mechanism of ordnance. No. 1,080,268; Dec. 2; Gaz. vol. 197; p. 123.
 Day, Albert V. T., assignor, by mesne assignments, to The Hall Switch & Signal Company, New York, N. Y. Railway signalling system. No. 1,081,925; Dec. 16; Gaz. vol. 197; p. 751.
 De Bevoise, Charles R., Newark, N. J. Dress-form. No. 1,081,814; Dec. 16; Gaz. vol. 197; p. 715.
 De Clark Brothers. (See Coyne, William, assignor.)
 De Fevre, George, and J. E. Woodbridge, New York, N. Y., assignors to The A-Z Company. Automobile. No. 1,081,023; Dec. 9; Gaz. vol. 197; p. 413.
 De Ford, John W., Marion, Ind. Street or station indicator. No. 1,083,063; Dec. 30; Gaz. vol. 197; p. 1204.
 De La Garza, Marcos, El Paso, Tex. Solar heating apparatus. No. 1,081,098; Dec. 9; Gaz. vol. 197; p. 436.
 De La Rosa, José M., Arequipa, Peru. Arithmetical abacus. No. 1,081,815; Dec. 16; Gaz. vol. 197; p. 715.
 De La Vergne Machine Company. (See Norton, Edward M., assignor.)
 De Laney, Charles W., Hammond, Ind. Label-molstener. No. 1,080,141; Dec. 2; Gaz. vol. 197; p. 78.
 De Laney, Edward M., and H. M. Bryant, assignors of one-fifth to Z. T. Bryant, Portland, Oreg. Stopper attachment for cans. No. 1,082,850; Dec. 30; Gaz. vol. 197; p. 1133.
 De Large, Robert, Ray, Ariz. Vanner concentrating-belt. No. 1,082,309; Dec. 23; Gaz. vol. 197; p. 914.
 De Laski & Thropp Circular Woven Tire Company, The. (See Thropp, Peter D., assignor.)
 De Long Hook and Eye Company, The. (See Williams, James P., assignor.)
 De Long, John S., Osborn, Ohio. Weeder and soil-pulverizer. No. 1,081,437; Dec. 16; Gaz. vol. 197; p. 589.
 De Lukasevics, Charles, West Nutley, N. J. Internal-combustion engine. No. 1,081,816; Dec. 16; Gaz. vol. 197; p. 716.
 De Pass, Addison R., Columbia, S. C. Jaw-brace. No. 1,081,296; Dec. 16; Gaz. vol. 197; p. 542.
 De Smith, Henry, assignor to M. D. Knowlton Company, Rochester, N. Y. Carton. No. 1,081,724; Dec. 16; Gaz. vol. 197; p. 683.
 De Valdes, Elena M., New York, N. Y. Bottle-stopper. No. 1,080,331; Dec. 2; Gaz. vol. 197; p. 144.
 De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine presser-foot. No. 1,081,586; Dec. 16; Gaz. vol. 197; p. 638.
 De Weir, George F., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Vanner. No. 1,081,894; Dec. 16; Gaz. vol. 197; p. 741.
 De Weir, George F., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Trimmer-saw. No. 1,083,006; Dec. 30; Gaz. vol. 197; p. 1187.
 Dean, Ernest W., Harrington, assignor of one-half to W. T. Bennett, Laurel, Del. Means for transmitting train-orders. No. 1,083,197; Dec. 30; Gaz. vol. 197; p. 1244.
 Dean, James H., Chicago, Ill., assignor, by mesne assignments, to The Triumph Voting Machine Company. Interlocking mechanism for voting-machines. No. 1,080,003; Dec. 2; Gaz. vol. 197; p. 29.
 Dean, John H., Birmingham, Ala. Sheet-metal culvert. No. 1,080,329; Dec. 2; Gaz. vol. 197; p. 144.
 Dean, John H., Birmingham, Ala. Fastening means for butt-joint metal culverts. No. 1,081,295; Dec. 16; Gaz. vol. 197; p. 541.
 Dean, John H., Birmingham, Ala. Sheet-metal culvert. No. 1,083,062; Dec. 30; Gaz. vol. 197; p. 1204.
 Dean, William H., Sioux City, Iowa. Stream-deflector. No. 1,080,049; Dec. 2; Gaz. vol. 197; p. 45.
 Deardorff, Ray P., Buffalo, N. Y. Speed-governing mechanism. No. 1,082,225; Dec. 23; Gaz. vol. 197; p. 882.
 Debbae, Démentris, Paris, France. Machine for manufacturing leaden seals. No. 1,083,198; Dec. 30; Gaz. vol. 197; p. 1244.
 Deere & Company. (See Kiel, John, assignor.)

Defiance Pressed Steel Company, The. (See Klenk, Gottlieb, assignor.)
 Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Matrix for type-setting and line-casting machines. No. 1,080,330; Dec. 2; Gaz. vol. 197; p. 144.
 Delac Plaster Company. (See MacCoil and Cameron, assignors.)
 Delaunay-Belleville, Robert, assignor to Société Anonyme des Etablissements Delaunay-Belleville, St. Denis, France. Water-tube boiler. No. 1,083,199; Dec. 30; Gaz. vol. 197; p. 1245.
 Delbrück, Konrad. (See Hofmann and Delbrück.)
 Delbrück, Konrad. (See Hofmann, Couteille, Meisenburg, and Delbrück.)
 Dellwik-Fleischer Wassergas Gesellschaft m. b. H. (See Stammschulte, Friedrich, assignor.)
 Deming, Eli R., San Francisco, Cal. Measuring-pump. No. 1,081,817; Dec. 16; Gaz. vol. 197; p. 716.
 Dempsey, Irving L., Galena, Md. Sash-lock. No. 1,081,585; Dec. 16; Gaz. vol. 197; p. 637.
 Denison, Nathan B., Pawtucket, assignor to F. W. Lockwood, Warwick, and A. O. Coates, Providence, R. I. Window-lock. No. 1,082,013; Dec. 23; Gaz. vol. 197; p. 811.
 Denneen, Francis S. (See Mead and Denneen.)
 Dennis, William C., Litchfield, Minn. Clothes-tongs. No. 1,080,898; Dec. 9; Gaz. vol. 197; p. 373.
 Denver Rock Drill Manufacturing Company, The. (See Waugh, Daniel S., assignor.)
 Desautels, Joseph, and J. Lacroix, Fall River, Mass., assignors of one-third to each of themselves and one-third to C. J. Burdick, Providence, R. I. Drip rail-plate for twisting-frames. No. 1,083,005; Dec. 30; Gaz. vol. 197; p. 1186.
 Detroit Alaska Knitting Mills. (See Holmes, Frank D., assignor.)
 Detroit Can Company. (See Harbeck, Jervis R., assignor.)
 Detroit Tractor Company. (See Baker, George J. and F. E., assignors.)
 Devine, John F., administrator. (See Tilleston, Henry M.)
 Devine, Manasses, Jackson, Cal. Bread or dough cutter. No. 1,081,099; Dec. 9; Gaz. vol. 197; p. 436.
 Dexter, MacDougall, and J. L. Duke, Columbus, Ga. Adjustable oven. No. 1,082,414; Dec. 23; Gaz. vol. 197; p. 948.
 Dhale, Elizabeth M., Fruitvale, Cal. Abdominal supporter. No. 1,080,958; Dec. 9; Gaz. vol. 197; p. 393.
 Di Giovanni, Gaetano, New York, assignor of one-fourth to Z. Ito and one-fourth to J. W. Salta, Brooklyn, N. Y. Window-washer. No. 1,080,100; Dec. 9; Gaz. vol. 197; p. 436.
 Diamond Light and Heating Company of Canada. (See Thornton, Harold S., assignor.)
 Diden, Edward T., assignor of one-half to S. J. Nummy, Prattville, Ala. Pneumatic conveyor. No. 1,082,113; Dec. 23; Gaz. vol. 197; p. 844.
 Didschneidt, Julius, assignor of one-fourth to L. A. Wittkowski, Camden, S. C. Automobile-fender. No. 1,082,415; Dec. 23; Gaz. vol. 197; p. 948.
 Diehl, Hiram E., Lawton, Okla. Electric well-drill. No. 1,083,200; Dec. 30; Gaz. vol. 197; p. 1245.
 Diehl Manufacturing Company. (See Marx and Becker, assignors.)
 Dierdorf, Henry B., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine. No. 1,081,818; Dec. 16; Gaz. vol. 197; p. 716.
 Diebach, Heinrich von. (See Luttringhaus, Diesbach, and Schwarz.)
 Diesel, Rudolf, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Driving of motor-vehicles and similar motor plants. No. 1,080,624; Dec. 9; Gaz. vol. 197; p. 277.
 Diesel, Rudolf, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Internal-combustion propulsion apparatus. No. 1,080,625; Dec. 9; Gaz. vol. 197; p. 277.
 Dietz, Paul, Brooklyn, assignor, by mesne assignments, to New Ideas Manufacturing Company, New York, N. Y. Flash-light attachment for cameras. No. 1,080,543; Dec. 9; Gaz. vol. 197; p. 250.
 Dietze, Walter A., assignor to J. J. Merkl, Chicago, Ill. Magazine for moving-picture machines. No. 1,081,926; Dec. 16; Gaz. vol. 197; p. 751.
 Digby, William P., London, England, P. W. Beatty, Bahia Blanca, Argentina, and A. C. Huskinson, Barnes, England. Means for measuring, indicating, and recording vibrations. No. 1,082,014; Dec. 23; Gaz. vol. 197; p. 811.
 Dikeman, Harvey, assignor of seven-twentieths to W. H. Foley, Danbury, Conn. Milk-bottle. No. 1,083,201; Dec. 30; Gaz. vol. 197; p. 1246.
 Dillon, L. D., et al. (See Bonner, Samuel, assignor.)
 Dingfelder, Herman J., Fountain City, Wis. Swingletree-hook. No. 1,082,738; Dec. 30; Gaz. vol. 197; p. 1094.
 Dinsmore, James W., Lookaba, Okla. Cotton-picker. No. 1,080,899; Dec. 9; Gaz. vol. 197; p. 373.
 Dittmer, William A., Tekoa, Wash. Gage-cock. No. 1,080,426; Dec. 2; Gaz. vol. 197; p. 180.
 Divine, Charles A. (See Mason, Richard F., assignor.)
 Dixon, Amos F. (See Craft and Dixon.)

Dixon, Laurens P., New York, and G. E. Post, Brooklyn, assignors to Anderson & Prigge, New York, N. Y. Blower-frame. No. 1,081,297; Dec. 16; Gaz. vol. 197; p. 542.
 Dixon, William J., Kansas City, Mo. Car-replacer. No. 1,082,936; Dec. 30; Gaz. vol. 197; p. 1163.
 Dobyne, George A., assignor, by mesne assignments, to W. Wolfe and M. Koehler, trustees, St. Louis, Mo. Heel-building machine. No. 1,080,682; Dec. 9; Gaz. vol. 197; p. 296.
 Docherty, Charles, Brooklyn, N. Y. Means for removing animals from burning structures. No. 1,081,662; Dec. 16; Gaz. vol. 197; p. 862.
 Dodd, John, Merryville, La. Chain-release for logging-cars. No. 1,081,371; Dec. 16; Gaz. vol. 197; p. 568.
 Dods, Belle C., Black Mountain, N. C. Safety watch-pocket. No. 1,082,190; Dec. 23; Gaz. vol. 197; p. 870.
 Dods, Ethan L., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Lock-nut. No. 1,080,332; Dec. 2; Gaz. vol. 197; p. 145.
 Dose, Daniel L., Inwood, and T. F. Armstrong, Far Rockaway, N. Y. Centrifugal pump. No. 1,081,725; Dec. 16; Gaz. vol. 197; p. 683.
 Dodge, Leon G., St. Louis, Mo., W. F. Freeman, and A. Vanderveld, assignors to Grand Rapids Show Case Company, Grand Rapids, Mich. Movable garment-support. (Reissue.) No. 13,660; Dec. 23; Gaz. vol. 197; p. 969.
 Dodge, Norman, East Orange, N. J., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,082,114; Dec. 23; Gaz. vol. 197; p. 844.
 Dodge, Otis W., Spokane, Wash. Belt-fastener. No. 1,081,024; Dec. 9; Gaz. vol. 197; p. 413.
 Dodge, Philip T., Washington, D. C., assignor to Mergenthaler Linotype Company. Type casting and composing machine. No. 1,081,025; Dec. 9; Gaz. vol. 197; p. 414.
 Dodge, Philip T., Washington, D. C., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,081,026; Dec. 9; Gaz. vol. 197; p. 414.
 Dodge, Raymond E., New Haven, Conn. Ironing-machine. No. 1,081,027; Dec. 9; Gaz. vol. 197; p. 415.
 Doeringer, Edward M., and A. C. St. Marie, San Francisco, Cal., said Doeringer assignor to said St. Marie. Antiseptic container. No. 1,081,493; Dec. 16; Gaz. vol. 197; p. 609.
 Doherty, Henry L., New York, N. Y. Apparatus for coking coal. No. 1,080,142; Dec. 2; Gaz. vol. 197; p. 78.
 Dolan, John, Duquesne, Pa. Wrench. No. 1,082,851; Dec. 30; Gaz. vol. 197; p. 1134.
 Dollar, Edward, Petersburg, Transvaal, South Africa. Operating means for stamp-mills. No. 1,082,015; Dec. 23; Gaz. vol. 197; p. 812.
 Dom, Chesley, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio. Temporary binder. No. 1,082,852; Dec. 30; Gaz. vol. 197; p. 1134.
 Dom, Chesley, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio. Bookbinder. No. 1,082,853; Dec. 30; Gaz. vol. 197; p. 1134.
 Donahoe, Peter B., Oakland, Cal. Vehicle-wheel. No. 1,081,587; Dec. 16; Gaz. vol. 197; p. 638.
 Donnellan, James L., et al. (See Bock, Alfred C. O., assignor.)
 Donnellan, John J., et al. (See Bock, Alfred C. O., assignor.)
 Donner, Percy E. (See Snyder, Jacob R., assignor.)
 Donovan, John B., assignor of one-half to H. C. Walter, Yellow Pine, La. Engine. No. 1,081,217; Dec. 9; Gaz. vol. 197; p. 476.
 Dooley, Frank P., Chicago, Ill. Wire fabric. No. 1,081,438; Dec. 16; Gaz. vol. 197; p. 500.
 Doolittle, Jacob M., New Kensington, Pa. Lock-nut. No. 1,080,199; Dec. 2; Gaz. vol. 197; p. 98.
 Dosch, Louis, Brooklyn, N. Y. Game-table. No. 1,080,427; Dec. 2; Gaz. vol. 197; p. 180.
 Double Body Bolster Company. (See Frede, Charles F., assignor.)
 Double Body Bolster Company. (See Howard and Pfager, assignors.)
 Double Body Bolster Company. (See Pfager, Harry M., assignor.)
 Double, Edward. (See Bole, Robert E., assignor.)
 Doughty, Herman W. (See Beach and Doughty.)
 Douglas-Jones, Walter D., London, England. Wheel for road-vehicles. No. 1,080,004; Dec. 2; Gaz. vol. 197; p. 30.
 Douglas, L. V., Wymore, Nebr. Sulky high chair. No. 1,082,854; Dec. 30; Gaz. vol. 197; p. 1134.
 Douglas, Robert, Rochester, N. Y. Food product. No. 1,082,682; Dec. 30; Gaz. vol. 197; p. 1675.
 Douglass, Benjamin F., St. Louis, Mo. Collapsible tent-frame. No. 1,082,937; Dec. 30; Gaz. vol. 197; p. 1163.
 Downey, Ralph, et al. (See Chambers, John A., assignor.)
 Downey, Hugh J., Modesto, Cal. Metallic railway-tie. No. 1,083,064; Dec. 30; Gaz. vol. 197; p. 1204.
 Downey, Richard F. (See Watson and Downey.)
 Dowson, Bernard W. (See Baguley, William, assignor.)
 Doxford, Charles D., and R. Durham, England. Boat-lowering apparatus for navigable vesicles. No. 1,083,065; Dec. 30; Gaz. vol. 197; p. 1205.
 Doxford, Robert. (See Doxford, Charles D. and R.)
 Doyle, Francis J., Chicago, Ill. Locomotive. No. 1,080,103; Dec. 2; Gaz. vol. 197; p. 64.
 Doyle, Francis J., Chicago, Ill. Locomotive. No. 1,081,484; Dec. 16; Gaz. vol. 197; p. 609.
 Doyle, James S. (See Hedley and Doyle.)

Doyle, Percival F. (See Mackie and Doyle.)
 Drake, Clarke S., Milwaukee, Wis. Humidifier. No. 1,079,935; Dec. 2; Gaz. vol. 197; p. 5.
 Drake, John. (See Goff, Henry A., assignor.)
 Drake, Mina E., Los Angeles, Cal. Petticoat. No. 1,082,416; Dec. 23; Gaz. vol. 197; p. 948.
 Draper Company. (See Ashton, Francis E., assignor.)
 Draper Company. (See Ballou, Eugene H., assignor.)
 Draper Company. (See Hendry, John, assignor.)
 Draper Company. (See Koechlin, Albert G., assignor.)
 Draper Company. (See Northrop, Jonas, assignor.)
 Draper Company. (See Rhoades, Alonzo E., assignor.)
 Draper Company. (See Stimpson, Edward S., assignor.)
 Draper Company. (See Stone, Melvin L., assignor.)
 Dreger, Edward F., Oakland, and F. E. Pfister, Piedmont, Cal. Rim for mounting pneumatic tires. No. 1,080,814; Dec. 9; Gaz. vol. 197; p. 345.
 Dresser, Charles A., and H. Fankboner, assignors, by mesne assignments, to G. A. E. Kohler, Chicago, Ill. Alternating-current-motor controller. No. 1,080,200; Dec. 2; Gaz. vol. 197; p. 99.
 Drew, James W., Brackettville, Tex. Vehicle. No. 1,081,372; Dec. 16; Gaz. vol. 197; p. 568.
 Driscoll, Lucy, et al. (See Driscoll, Spurgeon E., assignor.)
 Driscoll, Spurgeon E., assignor of one-fourth to L. Driscoll and one-fourth to A. B. Farris, Shiro, Tex. Window-sash fastener. No. 1,081,101; Dec. 9; Gaz. vol. 197; p. 437.
 Drum, Harry C., et al. (See Forsyth, John A., assignor.)
 Drum, Robert E., et al. (See Forsyth, John A., assignor.)
 Drummond, Robert, Philadelphia, Pa. Permutation padlock. No. 1,081,218; Dec. 9; Gaz. vol. 197; p. 477.
 Du Chemin, William F., Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J. Metallic culvert. No. 1,083,242; Dec. 30; Gaz. vol. 197; p. 1201.
 Du Pont, Francis L., Wilmington, Del., assignor to International Haloid Company. Recovering separating liquids from separated solids. No. 1,081,949; Dec. 23; Gaz. vol. 197; p. 787.
 Ducharme, Joseph L., Schenectady, N. Y. Gas-igniter. No. 1,081,219; Dec. 9; Gaz. vol. 197; p. 477.
 Duda, Edward, Edholm, Nebr. Post-puller. No. 1,081,895; Dec. 16; Gaz. vol. 197; p. 741.
 Dudley, Howard H., Kansas City, Mo. Stock-car. No. 1,081,588; Dec. 16; Gaz. vol. 197; p. 639.
 Duffield, Cloyce D., assignor of one-half to G. A. Schutt, Kendallville, Ind. Computing device. No. 1,081,663; Dec. 16; Gaz. vol. 197; p. 662.
 Duke, James L. (See Dexter and Duke.)
 Dukesmith, Frank H., assignor to The United States Air Brake Corporation, Buffalo, N. Y. Fluid-pressure-maintaining system. No. 1,081,526; Dec. 16; Gaz. vol. 197; p. 620.
 Dull, Raymond W., Aurora, assignor to The Raymond W. Dull Company, Chicago, Ill. Screening apparatus. No. 1,082,855; Dec. 30; Gaz. vol. 197; p. 1134.
 Dumond, Charles M., Waterloo, Iowa. Actuating mechanism for washing-machines. No. 1,081,726; Dec. 16; Gaz. vol. 197; p. 683.
 Duncan, James H. (See Gray and Duncan.)
 Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,080,201; Dec. 2; Gaz. vol. 197; p. 99.
 Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Addressing-machine. No. 1,080,202; Dec. 2; Gaz. vol. 197; p. 99.
 Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,082,505; Dec. 30; Gaz. vol. 197; p. 1011.
 Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing-control system. No. 1,082,506; Dec. 30; Gaz. vol. 197; p. 1012.
 Dundon, Patrick F., San Francisco, Cal. Cradle for lografts. No. 1,081,439; Dec. 16; Gaz. vol. 197; p. 590.
 Dungan, Harry M., Jefferson City, Mo. Adjustable shelf. No. 1,080,203; Dec. 2; Gaz. vol. 197; p. 100.
 Dunham, Andrew A., Bainbridge, N. Y., assignor to Caseln Company of America. Sizing and preparing same. No. 1,080,143; Dec. 2; Gaz. vol. 197; p. 79.
 Dunham, Andrew A., Bainbridge, N. Y., assignor to Caseln Company of America. Producing caseln preparations. No. 1,080,204; Dec. 2; Gaz. vol. 197; p. 100.
 Dunham Company, The. (See Dunham, Wiley J., assignor.)
 Dunham Company, The. (See Hist, John, assignor.)
 Dunham, Wiley J., assignor to The Dunham Company, Berea, Ohio. Land roller or pulverizer. No. 1,082,739; Dec. 30; Gaz. vol. 197; p. 1094.
 Dunklin, Gilbert T., South Bend, Ind. Automatic cut-out and compensating socket. No. 1,082,683; Dec. 30; Gaz. vol. 197; p. 1075.
 Dunn, Edward A., Newton, Mass. File. No. 1,081,727; Dec. 16; Gaz. vol. 197; p. 683.
 Dunn, John J., New York, N. Y. Milk-bottle holder. No. 1,079,978; Dec. 2; Gaz. vol. 197; p. 20.
 Dunn, John M., Savannah, Ga. Truss apparatus. No. 1,082,153; Dec. 23; Gaz. vol. 197; p. 857.
 Dunn, Sola B., Chicago, Ill. Veterinary-file holder. No. 1,081,495; Dec. 16; Gaz. vol. 197; p. 609.
 Dunton, George E., New York, N. Y. Treating molds used in the art of electrolyzing. No. 1,083,066; Dec. 30; Gaz. vol. 197; p. 1205.

Dupont, Henry H., Indianapolis, Ind. Concrete flooring. No. 1,081,373; Dec. 16; Gaz. vol. 197; p. 569.
 Dupuis, Noël, Aberdeen, Wash. Lifting device for push-carts. No. 1,082,226; Dec. 23; Gaz. vol. 197; p. 882.
 Durkin, James, Denver, Colo. Mechanical prompter. No. 1,081,220; Dec. 9; Gaz. vol. 197; p. 477.
 Durkin, Maude, Denver, Colo. Carriage for hand-luggage. No. 1,081,221; Dec. 9; Gaz. vol. 197; p. 478.
 Durno, John H., Rochester, N. Y. Engine-starting mechanism. No. 1,080,900; Dec. 9; Gaz. vol. 197; p. 373.
 Dürr, Fritz, Heidelberg, Germany. Carbureter. No. 1,081,222; Dec. 9; Gaz. vol. 197; p. 478.
 Duryee, Edward, Los Angeles, Cal. Cement and making the same. No. 1,082,684; Dec. 30; Gaz. vol. 197; p. 1075.
 Dusha, Paul F., A. Feyk, and J. Komancsek, assignors to Holub-Dusha Co. Inc., New York, N. Y. Button-drilling machine. No. 1,083,202; Dec. 30; Gaz. vol. 197; p. 1246.
 Dushak, Charles, Beloit, Wis. Miner's lamp. No. 1,080,050; Dec. 2; Gaz. vol. 197; p. 46.
 Dutcher, Frank, Versailles, Pa. Railway signal-torpedo. No. 1,080,428; Dec. 2; Gaz. vol. 197; p. 181.
 Dutkiewicz, Boleslaw, Lodz, Russia. Thread stop-motion for gripping a broken thread in twisting-machines. No. 1,082,016; Dec. 23; Gaz. vol. 197; p. 812.
 Dyer, Frank L., Montclair, assignor to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 1,081,374; Dec. 16; Gaz. vol. 197; p. 569.
 Dyer, Silas H., North Attleboro, assignor to G. L. Davison, Winthrop, Mass. Drop-press. No. 1,082,685; Dec. 30; Gaz. vol. 197; p. 1075.
 Dyer, Simpson B., Tulla, Tex. Harness-rack. No. 1,083,203; Dec. 30; Gaz. vol. 197; p. 1246.
 Dyke, Arend K., assignor to Potato Implement Co., Traverse City, Mich. Spraying-nozzle. No. 1,081,102; Dec. 9; Gaz. vol. 197; p. 437.
 Dyke, Darrell F., assignor to The Seng Company, Chicago, Ill. Sofa-bed, couch-bed, &c. No. 1,081,589; Dec. 16; Gaz. vol. 197; p. 639.
 Dyke, Darrell F., assignor to The Seng Company, Chicago, Ill. Sofa-bed, lounge-bed, &c. No. 1,081,590; Dec. 16; Gaz. vol. 197; p. 639.
 Dymont, Albert E. (See Miller, George W., assignor.)
 E. B. Hayes Machine Company. (See Frantz, John R., assignor.)
 E. H. Sargent & Co. (See Cary-Curr, Henry J., assignor.)
 E. I. du Pont de Nemours Powder Company. (See Masland, Walter E., assignor.)
 E. I. du Pont de Nemours Powder Company. (See Pierce, Harry M., assignor.)
 E. I. du Pont de Nemours Powder Company. (See Weedon, William S., assignor.)
 E. and T. Fairbanks & Company. (See Wright, Frank C., assignor.)
 E. W. Bliss Company. (See Kruse, Peter, assignor.)
 E. W. Bliss Company. (See Leavitt, Frank M., assignor.)
 E. and W. Toggie Co. (See Fitzgerald, Edward J., assignor.)
 Early, Earl J., Philadelphia, Pa. Drawing-board. No. 1,080,269; Dec. 2; Gaz. vol. 197; p. 123.
 Early, Noah, Lavina, Mont. Gate. No. 1,081,819; Dec. 16; Gaz. vol. 197; p. 717.
 Eastman Kodak Company. (See Späth, Carl, assignor.)
 Eastman, Walter W., assignor to F. R. Woodward, III, N. H. Lantern attachment. No. 1,081,028; Dec. 9; Gaz. vol. 197; p. 415.
 Eaton, George M., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,080,051; Dec. 2; Gaz. vol. 197; p. 46.
 Eaton, William G., Boston, Mass., assignor to United States Machinery Company, Paterson, N. J. Cementing-machine. No. 1,080,959; Dec. 9; Gaz. vol. 197; p. 393.
 Eben, August. (See Butkus, Joseph and J. A., assignors.)
 Eben, William, and W. Caldwell, Chicago, Ill. Ink-fountain-roller lifter. No. 1,081,664; Dec. 16; Gaz. vol. 197; p. 663.
 Eckert, William F., and W. C. Whitcomb, Rochelle, Ill. Mine-locomotive. No. 1,082,740; Dec. 30; Gaz. vol. 197; p. 1094.
 Eckler, Harlan E., Elyria, Ohio. Cuticle-clipper. No. 1,081,896; Dec. 16; Gaz. vol. 197; p. 742.
 Edge, Horace L., New York, N. Y. Grain-stocking machine. No. 1,080,270; Dec. 2; Gaz. vol. 197; p. 124.
 Edge, J. A. (See Hardy, Paul, assignor.)
 Edison, William L., Orange, N. J. Spark-plug. No. 1,081,728; Dec. 16; Gaz. vol. 197; p. 684.
 Edmonds, Charles A., assignor of one-half to The Swinehart Tire and Rubber Company, Akron, Ohio. Tire-shoe-making machine. No. 1,080,683; Dec. 9; Gaz. vol. 197; p. 296.
 Edmunds & Jones Mfg. Co., The. (See Godley, Charles E., assignor.)
 Edwards, Alonzo L., assignor to Wheeling Stamping Company, Wheeling, W. Va. Tubular lantern. No. 1,083,204; Dec. 30; Gaz. vol. 197; p. 1247.
 Edwards, Charles, and H. H. Junkin, Drayton, N. D. Flexible draw-bar for traction-engines. No. 1,080,429; Dec. 2; Gaz. vol. 197; p. 181.
 Edwards, Evan O., Chehalis, Wash. Locking clamp-bolt. No. 1,082,461; Dec. 23; Gaz. vol. 197; p. 962.
 Edwards, George W. (See Brown, Edwards, and Manwell.)
 Edwards, Isaac L., Aurora, Ill. Nut and bolt lock. No. 1,080,752; Dec. 9; Gaz. vol. 197; p. 322.

Edwards, Joseph E., Sharon, Tenn. Collapsible shippingcrate. No. 1,080,753; Dec. 9; Gaz. vol. 197; p. 322.
 Edwards, William C., Jr., Kansas City, Mo. Ready-to-lay composition roofing. No. 1,083,243; Dec. 30; Gaz. vol. 197; p. 1261.
 Edwards, William C., Jr., Kansas City, Mo. Compound-acting dies. No. 1,083,244; Dec. 30; Gaz. vol. 197; p. 1262.
 Eggart, Karl, assignor to Firm of A. Saurer, Arbon, Switzerland. Automatic embroidering-machine. No. 1,081,591; Dec. 16; Gaz. vol. 197; p. 640.
 Egler, Nicolas F., assignor to The Blair Engineering Company, Chicago, Ill. Gas-producer. No. 1,083,067; Dec. 30; Gaz. vol. 197; p. 1206.
 Egler, Nicolas F., South Chicago, assignor to The Blair Engineering Company, Chicago, Ill. Gas-cleaning mechanism. No. 1,083,068; Dec. 30; Gaz. vol. 197; p. 1206.
 Egmond, Johan M. (See Werst, Collée, and Egmond.)
 Ehinger, Adolph, New York, N. Y. Buoyancy-tank. No. 1,081,103; Dec. 9; Gaz. vol. 197; p. 438.
 Ehret, Cornelius D., Ardmore, Pa. Wireless signaling system. No. 1,080,544; Dec. 9; Gaz. vol. 197; p. 251.
 Ehrlich, Paul, and A. Berthelm, Frankfurt-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Medicinal preparation. No. 1,081,592; Dec. 16; Gaz. vol. 197; p. 640.
 Ehrlich, Paul, and A. Berthelm, Frankfurt-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Medicinal preparation. No. 1,081,597; Dec. 16; Gaz. vol. 197; p. 742.
 Eickenberg, Philip. (See Obermiller and Eickenberg.)
 Eldson, Charles G. (See Crouse and Eldson.)
 Ehlers, John M., assignor to J. N. Ramsey, Cincinnati, Ohio. Sweat collar-pad. No. 1,080,901; Dec. 9; Gaz. vol. 197; p. 373.
 Eisenhart, Henry W., and M. W. Darden, assignors to A. B. Farquhar Company, Limited, York, Pa. Peanut picker and stemmer. No. 1,081,593; Dec. 16; Gaz. vol. 197; p. 640.
 Eising, Theodor, Hoboken, N. J. Aeroplane. No. 1,081,020; Dec. 9; Gaz. vol. 197; p. 415.
 Ekvall, Conrad, Elgin, Ill. Milk-strainer. No. 1,080,545; Dec. 9; Gaz. vol. 197; p. 251.
 Elder, William S., assignor to J. Hirsh, Philadelphia, Pa. Undergarment. No. 1,083,069; Dec. 30; Gaz. vol. 197; p. 1206.
 Eldred, Byron E., New York, N. Y. Compound metal. No. 1,083,070; Dec. 30; Gaz. vol. 197; p. 1207.
 Electric Bank Protection Company. (See Williams and Huhn, assignors.)
 Electric Chain Company. (See Gammelgaard, Ove L., assignor.)
 Electric Compositor Company. (See Bellows, Benjamin F., assignor.)
 Electric Compositor Company. (See Le Boeuf and Armitage, assignors.)
 Electric Compositor Company. (See Petri-Palmedo, David, assignor.)
 Electric Controller and Manufacturing Company, The. (See Davier, Cyrus S., assignor.)
 Electric Controller and Manufacturing Company, The. (See Hall, Jay H., assignor.)
 Electric Controller and Manufacturing Company, The. (See Stratton, Harry F., assignor.)
 Electric Railway Improvement Company, The. (See Silliman, Benjamin F., assignor.)
 Electric Undercurrent Company. (See Barnhart, Anthony W., assignor.)
 Electric-Magnetic Tool Company. (See Knowlson, James S., assignor.)
 Electro Metallurgical Company. (See Becket, Frederick M., assignor.)
 Eliscu, Frederick. (See Solomon, Harry, assignor.)
 Elkin, John B., assignor of one-half to J. H. Berry, Columbia, S. C. Automatic fuse-resetter. No. 1,082,417; Dec. 23; Gaz. vol. 197; p. 949.
 Elkins, Stephen B., Jr., New York, N. Y. Metallic railwaytie. No. 1,079,936; Dec. 2; Gaz. vol. 197; p. 5.
 Ellegard, Nils P. B., Petaluma, Cal. Thermostatic damper-regulator for incubators and the like. No. 1,082,115; Dec. 23; Gaz. vol. 197; p. 845.
 Ellegard, Nils P. B., Petaluma, Cal. Fireless brooder. No. 1,082,116; Dec. 23; Gaz. vol. 197; p. 845.
 Eller, Harley M., Wollaston, assignor to Norfolk Manufacturing Company, Boston, Mass. Removing carbon deposited in internal-combustion engines. No. 1,081,950; Dec. 23; Gaz. vol. 197; p. 789.
 Elliott, Bruce S., assignor to Aikop Process Company, St. Louis, Mo. Cotton extracting and cleaning machine. No. 1,081,594; Dec. 16; Gaz. vol. 197; p. 641.
 Elliott-Fisher Company. (See Watt, George F., assignor.)
 Elliott-Fisher Company. (See Ziegler, Joram A., assignor.)
 Elliott, Nicholas V. (See Pooler, Bainer, and Elliott.)
 Elliott, Percy M., Chicago, Ill. Draw-bar support for railway-cars. No. 1,080,509; Dec. 2; Gaz. vol. 197; p. 206.
 Elliott, William S., Pittsburgh, Pa. Combined pipe-fitting and steam-separator. No. 1,080,333; Dec. 2; Gaz. vol. 197; p. 145.
 Ellis, Carleton, Larchmont, assignor, by mesne assignments, to Chadeloid Chemical Company, New York, N. Y. Insecticide. No. 1,082,507; Dec. 30; Gaz. vol. 197; p. 1012.

Ellis, Carleton, Larchmont, assignor, by mesne assignments, to Chadeloid Chemical Company, New York, N. Y. Detaching wall-paper. No. 1,083,007; Dec. 30; Gaz. vol. 197; p. 1187.
 Elson, Arthur, Boston, Mass. Air-cooler. No. 1,081,595; Dec. 16; Gaz. vol. 197; p. 641.
 Elvin, Albert G. (See Martin and Mohun, assignors.)
 Elwell, Franklin H., Chicago, Ill. Pump-valve. No. 1,082,508; Dec. 30; Gaz. vol. 197; p. 1012.
 Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
 Emerson-Brantingham Company. (See Wilson, George, assignor.)
 Emery Thompson Machine and Supply Co. (See Thompson, Emery, assignor.)
 Eng, Gadiel, and J. Fröhlich, Basel, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Orange vat dyestuffs and making same. No. 1,081,898; Dec. 16; Gaz. vol. 197; p. 742.
 Englebright, William F., Nevada City, Cal. Apparatus for measuring and registering water-flow. No. 1,080,052; Dec. 2; Gaz. vol. 197; p. 46.
 Ennis, George H., Los Angeles, Cal. Seaweed-harvester. No. 1,080,144; Dec. 2; Gaz. vol. 197; p. 79.
 Entorf, Charles A., assignor to Entorf Filter Company, Amboy, Ill. Water-separating filter for gasoline. No. 1,081,030; Dec. 9; Gaz. vol. 197; p. 416.
 Entorf Filter Company. (See Entorf, Charles A., assignor.)
 Eppenstein, Otto, assignor to Firm of C. Zelsa, Jena, Germany. Refracting-prism. No. 1,081,031; Dec. 9; Gaz. vol. 197; p. 416.
 Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Rounding and chamfering machine. No. 1,080,902; Dec. 9; Gaz. vol. 197; p. 374.
 Erickson, Alfred S., Ames, Iowa. Adjustable clothes-line support. No. 1,081,440; Dec. 16; Gaz. vol. 197; p. 590.
 Erickson, Charles M., Clarkfield, Minn. Means for attaching draft-bars to sleigh-runners. No. 1,080,960; Dec. 9; Gaz. vol. 197; p. 394.
 Erickson, John, assignor to Automatic Electric Company, Chicago, Ill. Relay. No. 1,082,310; Dec. 23; Gaz. vol. 197; p. 914.
 Erickson, Paul E., Courtland, Kans. Sand-point. No. 1,080,684; Dec. 9; Gaz. vol. 197; p. 297.
 Erkenbrack, Walter A., Webster, S. D. Heating-coil for carbureters. No. 1,081,729; Dec. 16; Gaz. vol. 197; p. 684.
 Esterly, Charles L., and B. A. Horwitz, Cleveland, Ohio. Sectional radiator for clothes-drying apparatus. No. 1,081,665; Dec. 16; Gaz. vol. 197; p. 663.
 Evans, Chas. C. (See Geske and Evans.)
 Evans, Llewellyn M., assignor to The Scranton Acetylene Lamp Co., Scranton, Pa. Acetylene-lamp. No. 1,081,899; Dec. 16; Gaz. vol. 197; p. 742.
 Evans, Leo E., Waterloo, assignor of one-half to J. A. Cutler, Osage, Iowa. Tank-car. No. 1,081,032; Dec. 9; Gaz. vol. 197; p. 416.
 Everest, Ernest P., Coventry, England. Carbureter for internal-combustion engines. No. 1,080,815; Dec. 9; Gaz. vol. 197; p. 346.
 Evert, John F., Mendon, Mich. Carpet-sweeper. No. 1,081,375; Dec. 16; Gaz. vol. 197; p. 569.
 Excelsior Steel Furnace Company, The. (See Scherer, Albert G., assignor.)
 F. F. Slocumb & Co. (See Slocumb, Charles E., assignor.)
 Fachs, Henry, New York, N. Y. Coin-operated mechanism. No. 1,080,626; Dec. 9; Gaz. vol. 197; p. 277.
 Fagerberg, Frank, Lindsborg, assignor of one-fourth to E. T. Nygren and one-fourth to A. F. Nygren, Bridgeport, Kans. Engine-primer. No. 1,081,900; Dec. 16; Gaz. vol. 197; p. 742.
 Fairall, Harry K., J. D. Boley, and J. M. Cleghorn, Highland, Cal. Orchard-heater. No. 1,080,816; Dec. 9; Gaz. vol. 197; p. 346.
 Fairfield, Alexander, assignor of one-half to J. B. Weeks, Harrisville, N. Y. Apparatus for tapping water-mains under pressure. No. 1,081,223; Dec. 9; Gaz. vol. 197; p. 479.
 Falkenstein, Louis D., Elkhart, Ind. Fountain-brush. No. 1,083,071; Dec. 30; Gaz. vol. 197; p. 1207.
 Fankboner, Harland. (See Dresser and Fankboner.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Blank and Bergdolt, assignors.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Blank, Heidenreich, and Jansen, assignors.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Fischer, Emil, assignor.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Flachsmaier, Grilert, and Buff, assignors.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann and Delbrück, assignors.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann, Contelle, Meisenburg, and Delbrück, assignors.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Möllenhoff, Carl, assignor.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Thausa, Alfred, assignor.)
 Farbenfabriken vorm. Friedr. Bayer & Co. (See Weller, Max, assignor.)
 Farberel & Appreturgesellschaft vormals A. Clavel & Fritz Lindenmeyer. (See Clavel, Alexander, assignor.)
 Farbwerke vorm. Meister Lucius & Brüning. (See Ehrlich and Berthelm, assignors.)

Farbwerke vorm. Meister Lucius & Brining. (See Wagner, Hermann, assignor.)
 Farkas, Karl. (See Brinckmann, Georg, assignor.)
 Farmer, Luke W., Somerville, Mass. Paper receptacle. No. 1,082,886; Dec. 30; Gaz. vol. 197; p. 1076.
 Farmer, Luke W., Somerville, Mass. Flanging device for paper drinking-cups. No. 1,082,687; Dec. 30; Gaz. vol. 197; p. 1076.
 Farrand, Albert C., Atlantic City, N. J., assignor of one-half to F. C. Stover, Chicago, Ill. Fire-fighting apparatus. No. 1,081,224; Dec. 9; Gaz. vol. 197; p. 479.
 Farria, A. B., et al. (See Driscoll, Spurgeon E., assignor.)
 Farwell, Phillip, Sunapee, N. H. Chitch. No. 1,080,817; Dec. 9; Gaz. vol. 197; p. 347.
 Farwell, Pulaski, Lake Mills, Wis. Door-hasp. No. 1,082,938; Dec. 30; Gaz. vol. 197; p. 1163.
 Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,082,073; Dec. 23; Gaz. vol. 197; p. 831.
 Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,082,074; Dec. 23; Gaz. vol. 197; p. 832.
 Fassel, Harry L., Philadelphia, Pa. Mop. No. 1,081,225; Dec. 9; Gaz. vol. 197; p. 479.
 Federal Storage Battery Car Company. (See Beach, Ralph H., assignor.)
 Feinen, Mary, Jersey City, N. J. Book-carrier. No. 1,082,017; Dec. 23; Gaz. vol. 197; p. 812.
 Fell, Clarence A., Dronfield, England. Shovel for stokers' use and other purposes. No. 1,080,903; Dec. 9; Gaz. vol. 197; p. 374.
 Fellows, Olin S. (See Hopkins and Fellows.)
 Fenofom Corporation. (See Wichmann, Ferdinand G., assignor.)
 Ferbrache, Lou O., Columbus, Mo. Sickle-bar mechanism. No. 1,083,072; Dec. 30; Gaz. vol. 197; p. 1207.
 Ferguson, D. Earl, Vernon, Mich. Measuring instrument. No. 1,081,033; Dec. 9; Gaz. vol. 197; p. 417.
 Ferguson, Lyman H., Ithaca, assignor of one-third to Q. W. Wellington and two-thirds to T. F. Rogers, E. Force, and C. G. Andrews, Corning, N. Y. Vehicle-tire. No. 1,083,245; Dec. 30; Gaz. vol. 197; p. 1202.
 Ferguson, Meade, and J. O. Fitzgerald, Jr., Richmond, Va. Revolver attachment. No. 1,083,073; Dec. 30; Gaz. vol. 197; p. 1208.
 Ferguson, Robert L. (See Walters, Joseph A., assignor.)
 Fernie, William J., Dromara, Ireland. Retting flax. No. 1,083,074; Dec. 30; Gaz. vol. 197; p. 1208.
 Ferranti, Sebastian Z. de, Grindleford Bridge, England. Elastic-fluid turbine. No. 1,082,741; Dec. 30; Gaz. vol. 197; p. 1095.
 Ferrell, Harry, and C. Witwer, Barberton, Ohio. Joint-expanding ring. No. 1,080,430; Dec. 2; Gaz. vol. 197; p. 181.
 Ferris, William F. (See Kriewitz and Ferris.)
 Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Signaling by electromagnetic waves. No. 1,080,271; Dec. 2; Gaz. vol. 197; p. 124.
 Fettes, George, Canton, Ohio. Smoke-consumer. No. 1,083,075; Dec. 30; Gaz. vol. 197; p. 1209.
 Feyk, Anton. (See Dusha, Feyk, and Komancsek.)
 Flechter, Frederick C., Jr., and J. J. Philadelphia, Pa. Lubricator. No. 1,081,951; Dec. 23; Gaz. vol. 197; p. 788.
 Flechter, John J. (See Flechter, Frederick C., Jr., and J. J.)
 Field, Bernard S. (See Glese and Field.)
 Field, Jesse A., Dunkirk, N. Y. Pattern and chaplet therefor for producing molds. No. 1,081,376; Dec. 16; Gaz. vol. 197; p. 570.
 Fielding, George T., New York, N. Y. Advertising medium. No. 1,082,311; Dec. 23; Gaz. vol. 197; p. 915.
 Fillingim, Elijah J., Pace, Fla. Nut-lock. No. 1,081,820; Dec. 16; Gaz. vol. 197; p. 717.
 Finch, Arthur S., Passaic, N. J. Gear-wheel. No. 1,081,104; Dec. 9; Gaz. vol. 197; p. 438.
 Finch, John S., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Thread-controller for sewing-machines. No. 1,081,566; Dec. 16; Gaz. vol. 197; p. 642.
 Finizio, Frank, et al. (See Dacorci, Edward, assignor.)
 Finlay, John S., Wallace, Idaho. Concentrator. No. 1,080,053; Dec. 2; Gaz. vol. 197; p. 47.
 Fire Protection Development Company. (See Nolen, James G., assignor.)
 Firestone Tire & Rubber Company, The. (See Stevens, William C., assignor.)
 Firma Schweiz. Kommissions- und Aufbewahrungs-Haus für das In- und Ausland Tomasepolsky & Weidenfeld. (See Allemann, Arnold, assignor.)
 First Trust and Savings Bank, trustee. (See Setter, Michael, assignor.)
 Fischer, August, La Fayette, Ind. Permutation-lock. No. 1,083,008; Dec. 30; Gaz. vol. 197; p. 1187.
 Fischer, Emil, Berlin, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. High-molecular fatty acid containing arsenic. No. 1,082,509; Dec. 30; Gaz. vol. 197; p. 1013.
 Fischer, Emil, Berlin, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical compound. No. 1,082,510; Dec. 30; Gaz. vol. 197; p. 1013.
 Fischer, Jacob. (See Cota, Daniel E., assignor.)
 Fischer, Oskar, Berlin, Germany. Type-writing machine. No. 1,083,076; Dec. 30; Gaz. vol. 197; p. 1209.

Fischer, Pyrina E., New York, N. Y. Cleaning device. No. 1,081,597; Dec. 16; Gaz. vol. 197; p. 642.
 Fisher, Albert H., Lincoln, Neb. Automobile-tire. No. 1,080,818; Dec. 9; Gaz. vol. 197; p. 347.
 Fisher, Daniel C., assignor to M. A. Fisher, Boston, Mass. Feeding mechanism for carding-engines. No. 1,080,205; Dec. 2; Gaz. vol. 197; p. 100.
 Fisher, Mary A. (See Fisher, Daniel C., assignor.)
 Fisher, Oliver W., Painesville, Ohio. Topping mechanism for vegetable-harvesters. No. 1,082,625; Dec. 30; Gaz. vol. 197; p. 1055.
 Fisk, Carroll E. (See Hancock and Fisk.)
 Fisk, Henry C., Stafford, Conn. Stabilizer for aeroplanes. No. 1,082,688; Dec. 30; Gaz. vol. 197; p. 1076.
 Fiske, Josiah M., New York, N. Y. Treating quebracho. No. 1,081,730; Dec. 16; Gaz. vol. 197; p. 684.
 Flitts, James L., Merchantville, N. J., assignor to Warren Webster & Company. Steam-heating apparatus. No. 1,080,104; Dec. 2; Gaz. vol. 197; p. 65.
 Flitzer, Louis A., Los Angeles, Cal. Electric water-purifier. No. 1,080,005; Dec. 2; Gaz. vol. 197; p. 30.
 Fitzgerald, Edward J., Roxbury, Mass., assignor to E. and W. Toggie Co. Toggle. No. 1,082,075; Dec. 23; Gaz. vol. 197; p. 832.
 Fitzgerald, James O., Jr. (See Ferguson and Fitzgerald.)
 Fitzgerald, John E., Boston, Mass. Collar-fastener. No. 1,080,819; Dec. 9; Gaz. vol. 197; p. 347.
 Flachslander, Joseph, K. P. Grälet, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Green coloring-matter containing sulfur. No. 1,081,599; Dec. 16; Gaz. vol. 197; p. 643.
 Flachslander, Joseph, K. P. Grälet, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Green coloring-matter containing sulfur. No. 1,081,599; Dec. 16; Gaz. vol. 197; p. 643.
 Flachslander, Joseph, K. P. Grälet, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Olive-green sulfur dye. No. 1,081,600; Dec. 16; Gaz. vol. 197; p. 643.
 Flachslander, Joseph, K. P. Grälet, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Catechu-brown sulfur dye. No. 1,081,601; Dec. 16; Gaz. vol. 197; p. 644.
 Flachslander, Joseph, K. P. Grälet, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Brown sulfur coloring-matter. No. 1,081,602; Dec. 16; Gaz. vol. 197; p. 644.
 Flanagan, Irving M., Schenectady, N. Y. Shade-bracket. No. 1,082,939; Dec. 30; Gaz. vol. 197; p. 1164.
 Flanders, Otis S., Chilmark, assignor of one-twentieth to J. M. Vincent, Vineyard Haven, Mass. Attachment for planes. No. 1,080,546; Dec. 9; Gaz. vol. 197; p. 251.
 Flanders, Warren B., Pittsburgh, Pa., assignor to The Westinghouse Machine Company. Turbine-controlling mechanism. No. 1,082,689; Dec. 30; Gaz. vol. 197; p. 1076.
 Fletcher, Edison W., Searsport, Me. Engine. No. 1,080,272; Dec. 2; Gaz. vol. 197; p. 124.
 Fletcher, Edward F. (See Bemis, Gilbert C., assignor.)
 Fletcher, Hilary K., Montpelier, La. Cross-tie for railway-rails. No. 1,083,077; Dec. 30; Gaz. vol. 197; p. 1209.
 Fletcher, Samuel J., Ashfield, New South Wales, Australia. Bedstead-knob. No. 1,081,105; Dec. 9; Gaz. vol. 197; p. 438.
 Fletcher, Wendell C., St. Louis, Mo., and L. E. Brown, Somerset, Ky., assignors to American Steel Foundries, New York, N. Y. Device for reclaiming sand. No. 1,079,979; Dec. 2; Gaz. vol. 197; p. 21.
 Flicker, Michael, Los Angeles, Cal. Hat-blocking apparatus. No. 1,080,820; Dec. 9; Gaz. vol. 197; p. 348.
 Flinker, Leon A., New York, N. Y., assignor to The Keenoh Company, Detroit, Mich. Strapping-machine. No. 1,081,234; Dec. 9; Gaz. vol. 197; p. 500.
 Flinker, Leon A., assignor to The Keenoh Company, Detroit, Mich. Honing and stropping machine. No. 1,081,235; Dec. 9; Gaz. vol. 197; p. 501.
 Flinker, Leon A., and J. Schade, Jr., New York, N. Y., assignors to The Keenoh Company, Detroit, Mich. Razor stropping and sharpening mechanism. No. 1,081,283; Dec. 9; Gaz. vol. 197; p. 500.
 Flint, Lewis R., Lansing, assignor of one-half to H. E. Hill, Galesburg, Mich. Fender. No. 1,081,821; Dec. 16; Gaz. vol. 197; p. 717.
 Flora, Ellsworth E., assignor to Sharp & Smith, Chicago, Ill. Exercising appliance. No. 1,082,940; Dec. 30; Gaz. vol. 197; p. 1164.
 Floyd, George G., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Pedestal slide frame. No. 1,079,980; Dec. 2; Gaz. vol. 197; p. 21.
 Fluhart, Laurence M., Des Plaines, Ill. Electric-lamp holder and reflector. No. 1,080,904; Dec. 9; Gaz. vol. 197; p. 374.
 Flynt, Louis W. G., Chicago, Ill., assignor to United Shoe Machinery Company, Paterson, N. J. Wheeling and edge-setting machine. No. 1,080,961; Dec. 9; Gaz. vol. 197; p. 394.
 Foerster, George, Jersey City, N. J. T-square. No. 1,082,626; Dec. 30; Gaz. vol. 197; p. 1055.

Foerster, Frederick, Elizabeth, N. J. Automatic fish-hook. No. 1,081,106; Dec. 9; Gaz. vol. 197; p. 438.
 Foley, William H. (See Dikeman, Harvey, assignor.)
 Forbes, Alexander, Hampstead, London, England. Trunk and other articles with lids. No. 1,079,981; Dec. 2; Gaz. vol. 197; p. 21.
 Force, Edwin, et al. (See Ferguson, Lyman H., assignor.)
 Ford, Andrew F., Walla Walla, Wash. Rotary pump. No. 1,080,431; Dec. 2; Gaz. vol. 197; p. 181.
 Ford, Charles A., Newark, N. J. Cooking-pot cover. No. 1,080,905; Dec. 9; Gaz. vol. 197; p. 375.
 Ford, Charles A., Newark, N. J. Pot-cover attachment. No. 1,080,906; Dec. 9; Gaz. vol. 197; p. 375.
 Ford, William B., Birmingham, Ala. Automatic cut-off valve. No. 1,081,822; Dec. 16; Gaz. vol. 197; p. 718.
 Fordyce, Edmond A., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass. Pneumatic despatch-tube apparatus. No. 1,081,441; Dec. 16; Gaz. vol. 197; p. 591.
 Forst, Samuel G., Toronto, Ontario, Canada. Tube-coupling. No. 1,081,226; Dec. 9; Gaz. vol. 197; p. 480.
 Forster, Andreas, and H. Wanek, Vienna, Austria-Hungary. Chair for theaters or the like. No. 1,081,034; Dec. 9; Gaz. vol. 197; p. 417.
 Forster, Charles F., Oak Park, Ill. Vehicle-tire. No. 1,080,821; Dec. 9; Gaz. vol. 197; p. 348.
 Forster, John C., Pittsburgh, Pa. Household tool. No. 1,083,078; Dec. 30; Gaz. vol. 197; p. 1210.
 Forster, Thomas H., Cincinnati, Ohio. Hypodermic spoon. No. 1,081,901; Dec. 16; Gaz. vol. 197; p. 743.
 Forsyth, George H., Chicago, Ill. Car construction. No. 1,081,927; Dec. 16; Gaz. vol. 197; p. 751.
 Forsyth, George H., Chicago, Ill. Car. No. 1,081,928; Dec. 16; Gaz. vol. 197; p. 752.
 Forsyth, George H., Chicago, Ill., assignor to Waugh Draft Gear Company. Railway draft-rigging. No. 1,081,298; Dec. 16; Gaz. vol. 197; p. 542.
 Forsyth, John A., Fredericktown, assignor of one-third to R. E. Drum, California, and one-third to H. C. Drum, Coal Center, Pa. Compressed-air locomotive. No. 1,081,377; Dec. 16; Gaz. vol. 197; p. 570.
 Forsyth, William D., Youngstown, Ohio. Car-truck side frame. No. 1,080,523; Dec. 2; Gaz. vol. 197; p. 212.
 Forsythe, Willard B., et al. (See Watts, Augustus C., assignor.)
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Alternating-current motor. No. 1,082,511; Dec. 30; Gaz. vol. 197; p. 1013.
 Fossum, John A., Waukon, Iowa. Wire-clamp. No. 1,082,742; Dec. 30; Gaz. vol. 197; p. 1095.
 Foster, Alfred P., East Orange, N. J. Device for starting internal-combustion engines. No. 1,081,731; Dec. 16; Gaz. vol. 197; p. 685.
 Foster, John O., Peculiar, assignor of one-third to A. J. Sharp, Harrisonville, Mo. Safety-gearing for drills. No. 1,080,334; Dec. 2; Gaz. vol. 197; p. 145.
 Foster, Nathaniel L., New Rochelle, N. Y. Fly-paper. No. 1,080,822; Dec. 9; Gaz. vol. 197; p. 348.
 Foster, Percy W., Peoria, Ill. Dedicating apparatus. No. 1,081,227; Dec. 9; Gaz. vol. 197; p. 480.
 Foster, Walter T., Los Angeles, Cal. Coin-controlled vending-machine. No. 1,080,754; Dec. 9; Gaz. vol. 197; p. 322.
 Fountain, Evelyn A., Pasadena, Cal. Telescopic bib-cock. No. 1,080,273; Dec. 2; Gaz. vol. 197; p. 125.
 Fouque, Pierre, and G. Charpentier, La-Plaine-St-Denis, France. Steam-generator with forced circulation. No. 1,082,312; Dec. 23; Gaz. vol. 197; p. 915.
 Fournier, Louis E., Montreal, Quebec, Canada. Door-hanger. No. 1,082,801; Dec. 30; Gaz. vol. 197; p. 1116.
 Foust, Charles E. (See McCoy, Walter M., assignor.)
 Fowler, William E., Jr., Hammond, Ind., assignor to Simplex Railway Appliance Company, Chicago, Ill. Brake-beam. No. 1,080,510; Dec. 2; Gaz. vol. 197; p. 206.
 Fowle, Alexander E., et al. (See Harkins, Thomas F., assignor.)
 Fowler, Robert B., Butler, Pa. Frame for tents. No. 1,081,902; Dec. 16; Gaz. vol. 197; p. 743.
 Francis, Frank. (See Price, Charles H., Jr., assignor.)
 Francis, Daniel H. (See Smith and Francis.)
 Franco, Cesare, New York, N. Y. Rotary steam-engine. No. 1,080,105; Dec. 2; Gaz. vol. 197; p. 65.
 Frank, John. (See Mullins, Gilbert, assignor.)
 Frank, John C., Akron, Ohio. Disk-record holder. No. 1,082,018; Dec. 23; Gaz. vol. 197; p. 813.
 Franklin, Edward A., Austin, Tex. Elastic-tube-splicing device. No. 1,081,299; Dec. 16; Gaz. vol. 197; p. 543.
 Frantz, John R., assignor to E. B. Hayes Machine Company, Oshkosh, Wis. Gluing and dowel-driving machine. No. 1,080,274; Dec. 2; Gaz. vol. 197; p. 125.
 Franz, Frank, W. S. Tower, and A. H. Wells, Wallace, Idaho. Rock-drill chuck. No. 1,081,527; Dec. 16; Gaz. vol. 197; p. 621.
 Fraser, Stewart N., Green Bay, Wis. Combined rail-chair and anti-spreading device. No. 1,080,902; Dec. 9; Gaz. vol. 197; p. 395.
 Freborg, Charles, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company. Pneumatic piano. No. 1,081,603; Dec. 16; Gaz. vol. 197; p. 644.
 Frede, Charles F., assignor to Double Body Bolster Company, St. Louis, Mo. Six-wheel-car-truck brake. No. 1,080,206; Dec. 2; Gaz. vol. 197; p. 101.
 197 O. G.—ii

Frederick, Henry J., Hood River, Oreg. Locking device for doors and windows. No. 1,082,019; Dec. 23; Gaz. vol. 197; p. 813.
 Fredricks, Hans, Fort Madison, Iowa. Automatic train-pipe coupling. No. 1,082,941; Dec. 30; Gaz. vol. 197; p. 1164.
 Freeborn, Edward H., Newark, N. J. Safety hat-pin. No. 1,079,937; Dec. 2; Gaz. vol. 197; p. 5.
 Freeman, Alvin L., Saratoga Springs, N. Y. Electric-fixture support. No. 1,081,378; Dec. 16; Gaz. vol. 197; p. 570.
 Freeman, Frank A., Overbrook, Pa. Garter fabric. No. 1,082,264; Dec. 23; Gaz. vol. 197; p. 898.
 Freeman, Frank A., Overbrook, Pa., assignor to Pioneer Suspender Company. Garter-package. No. 1,082,265; Dec. 23; Gaz. vol. 197; p. 898.
 Freeman, John W. (See Ross and Freeman.)
 Freeman, John W., Alhene, assignor of one-half to S. C. Hodges, Arden, Ark. Non-refillable bottle. No. 1,082,020; Dec. 23; Gaz. vol. 197; p. 813.
 Freeman, William F. (See Dodge, Freeman, and Vanderfeld.) (Reissue.)
 Freestone, Joseph T., Liverpool, England. Vaporizer. No. 1,080,432; Dec. 2; Gaz. vol. 197; p. 182.
 Freeth, Francis A., Great Crosby, and H. E. Cockledge, London, England. Making ammonium nitrate by the ammonia-soda process. No. 1,081,107; Dec. 9; Gaz. vol. 197; p. 438.
 Freiburger, Moritz, Budapest, Austria-Hungary. Producing patterns on fabrics. No. 1,080,433; Dec. 2; Gaz. vol. 197; p. 182.
 Freiborg, Melne P., Driscoll, N. D. Washing device. No. 1,082,313; Dec. 23; Gaz. vol. 197; p. 916.
 Freschl, William W., New York, N. Y. Package-seal. No. 1,080,823; Dec. 9; Gaz. vol. 197; p. 348.
 Freuler, Robert, Halfax, N. C. Cotton-chopper. No. 1,082,418; Dec. 23; Gaz. vol. 197; p. 949.
 Freund, Joseph, St. Louis, Mo., assignor to American Cement Tile Manufacturing Company, Wampum, Pa. Tile roof and tile therefor. No. 1,082,076; Dec. 23; Gaz. vol. 197; p. 832.
 Frey, John A., Silver Spring, Md. Furnace for treating ores. No. 1,081,732; Dec. 16; Gaz. vol. 197; p. 685.
 Friberg, Gunard G., Frederic, Wis. Stanchion. No. 1,080,755; Dec. 9; Gaz. vol. 197; p. 323.
 Frickey, Royal E., Herault, assignor to Noble Electric Steel Company, San Francisco, Cal. Electrical reduction-furnace. No. 1,080,824; Dec. 9; Gaz. vol. 197; p. 349.
 Friebrand, Nicholas, Shenandoah, Pa. Miner's lamp-holder. No. 1,080,434; Dec. 2; Gaz. vol. 197; p. 182.
 Friebls, Joseph. (See Holmes, Clayton F., assignor.)
 Friederich, Philippe, Ballina, Kans. Buttonhole-scissors. No. 1,080,145; Dec. 2; Gaz. vol. 197; p. 80.
 Friedman, Leslie H., St. Kilda, Melbourne, Victoria, Australia. Type-writing machine. No. 1,081,108; Dec. 9; Gaz. vol. 197; p. 439.
 Friendly, Herbert M., Portland, Oreg. Testing electrical conductors. No. 1,081,300; Dec. 16; Gaz. vol. 197; p. 543.
 Frindt, Karl A. O., Chicago, Ill. Paper-file handle. No. 1,080,993; Dec. 9; Gaz. vol. 197; p. 395.
 Friessell, Frank H., assignor to Russell Mfg. Co., Middletown, Conn. Elastic webbing and producing same. No. 1,081,006; Dec. 9; Gaz. vol. 197; p. 408.
 Frith, John, Bridgeport, Conn. Attachment for controlling telephone switch-books. No. 1,082,856; Dec. 30; Gaz. vol. 197; p. 1135.
 Fritsch, Edward, Minonk, Ill. Railway-tie. No. 1,081,606; Dec. 16; Gaz. vol. 197; p. 603.
 Fritz, Henry L., Los Angeles, Cal. Moving-picture-projecting apparatus. No. 1,081,733; Dec. 16; Gaz. vol. 197; p. 686.
 Fritz, Robert G., Los Angeles, Cal. Boiler. No. 1,083,205; Dec. 30; Gaz. vol. 197; p. 1247.
 Fröhlich, Jaroslav. (See Engi and Fröhlich.)
 Fryer, George G., Syracuse, N. Y. Metal barrel. No. 1,080,825; Dec. 9; Gaz. vol. 197; p. 349.
 Fuchs, Herman, St. Louis, Mo. Fuel-gasifier for internal-combustion engines. No. 1,081,228; Dec. 9; Gaz. vol. 197; p. 480.
 Fudge, Raymond E. (See Mettler and Fudge.)
 Full, Peter, Vermilion, Ohio. Scraping-tool. No. 1,082,802; Dec. 30; Gaz. vol. 197; p. 1116.
 Fuller, Fred S., Eaton, Colo. Sack-holder attachment for potato-sorters. No. 1,080,685; Dec. 9; Gaz. vol. 197; p. 297.
 Funk, Madison L., Madison, Okla. Collapsible egg-case. No. 1,081,229; Dec. 9; Gaz. vol. 197; p. 481.
 Funkhouser, Robert D. (See Matthews, William H., assignor.)
 Furber, Frederick M., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Finishing-machine. No. 1,080,207; Dec. 2; Gaz. vol. 197; p. 101.
 Fyke, John L. (See Weir and Fyke.)
 Fyfe, Extinguisher Company. (See Tibbals, Walter H., assignor.)
 Gabrys, Georg, Budapest, Austria-Hungary, assignor of forty-five one-hundredths to F. Yokel and forty-five one-hundredths to A. Steffen, Meriden, Conn. Portable melting apparatus. No. 1,082,314; Dec. 23; Gaz. vol. 197; p. 916.

Gage, Edward E., assignor to Yankee Wizard Clock Company, New York, N. Y. Alarm mechanism for clocks. No. 1,082,077; Dec. 23; Gaz. vol. 197; p. 833.
 Gage Hat Works. (See Selcer, Abraham I., assignor.)
 Gahn, Frank, Streator, Ill. Engine-starter. No. 1,080,335; Dec. 2; Gaz. vol. 197; p. 146.
 Gainer, Edward E., Oklahoma, Okla., assignor to G. E. Llewellyn, Brooklyn, N. Y. Apparatus for the manufacture of plate-ice. No. 1,082,512; Dec. 30; Gaz. vol. 197; p. 1013.
 Gaines, Thomas H., Hopkinsville, Ky. Churn. No. 1,082,513; Dec. 30; Gaz. vol. 197; p. 1014.
 Galbraith, William J. (See Payne and Galbraith.)
 Gallagher, Joseph D., Glen Ridge, N. J., and H. Jones, Suffern, N. Y., assignors, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J. Composition-filled brake-shoe. No. 1,082,266; Dec. 23; Gaz. vol. 197; p. 898.
 Gamble, Joseph W., Carpentersville, Ill. Cultivator attachment. No. 1,079,938; Dec. 2; Gaz. vol. 197; p. 8.
 Gamble, Joseph W., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Separator. No. 1,080,511; Dec. 2; Gaz. vol. 197; p. 206.
 Gamble, Joseph W., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Liquid-measuring apparatus. No. 1,080,547; Dec. 9; Gaz. vol. 197; p. 251.
 Gammelgaard, Ove L., assignor to Electric Chain Company, Attleboro, Mass. Clasp. No. 1,080,336; Dec. 2; Gaz. vol. 197; p. 146.
 Gampfer, Otto, Zurich, Switzerland. Machine for facilitating the packing of magnetic objects of oblong shape. No. 1,080,435; Dec. 2; Gaz. vol. 197; p. 183.
 Gannon, Prime E., Jerome, Ariz. Broller. No. 1,083,206; Dec. 30; Gaz. vol. 197; p. 1247.
 Gans, Robert, Pankow, near Berlin, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany. Clarifying water and purifying it from germs. No. 1,082,315; Dec. 23; Gaz. vol. 197; p. 916.
 Gardner, Clyde E. W., assignor, by mesne assignments, to Burrroughs Adding Machine Company, Detroit, Mich. Motor-stand for adding-machines. No. 1,080,548; Dec. 9; Gaz. vol. 197; p. 252.
 Gardner, George W., Chicago, Ill. Cleaner for engine-cylinders. No. 1,080,208; Dec. 2; Gaz. vol. 197; p. 101.
 Gardner, William H., Sutherland, Saskatchewan, Canada. Attachment for locomotive-inspirators. No. 1,081,301; Dec. 16; Gaz. vol. 197; p. 543.
 Garfinkel, Mandel. (See Satin, Mosesson, and Garfinkel.)
 Garforth, William E. (See Chipperfield, Walter, assignor.)
 Garland, Claude M., Chicago, Ill. Gas-generating apparatus. No. 1,082,117; Dec. 23; Gaz. vol. 197; p. 846.
 Garner, Nelson W., Charleston, S. C. Handsaw-oller. No. 1,080,756; Dec. 9; Gaz. vol. 197; p. 323.
 Garon, George E., Manchester, N. H. Dowel-cutting tool. No. 1,080,209; Dec. 2; Gaz. vol. 197; p. 102.
 Gas Machinery Company, The. (See Hamlink, Lazenby C., assignor.)
 Gaspár, Piroška, Bridgeport, Conn. Spring-heel for boots and shoes. No. 1,081,734; Dec. 16; Gaz. vol. 197; p. 686.
 Gates, Amalia C., administratrix. (See Gates and Hobbs.)
 Gates, John W., deceased, and O. P. Hobbs, Los Angeles, Cal.; A. C. Gates, administratrix. Tandem-seat attachment. No. 1,082,227; Dec. 23; Gaz. vol. 197; p. 883.
 Gatewood, William F., Pierce City, Mo., and J. D. McAdams, Alton, Ill. Calculating-machine. No. 1,080,907; Dec. 9; Gaz. vol. 197; p. 376.
 Gathmann, Emil, Baltimore, Md. Cotton-picker. No. 1,083,079; Dec. 30; Gaz. vol. 197; p. 1210.
 Gaul, James W., Fort Lauderdale, Fla. Nut-lock. No. 1,083,080; Dec. 30; Gaz. vol. 197; p. 1210.
 Gault, Albert C., assignor to A. H. Cross, Kalamazoo, Mich. Bodkin. No. 1,081,604; Dec. 16; Gaz. vol. 197; p. 645.
 Gauthier, Philba, Lowell, Mass. Armor-chain. No. 1,080,034; Dec. 2; Gaz. vol. 197; p. 47.
 Gays, Giuseppe, Los Angeles, Cal. Propeller. No. 1,080,964; Dec. 9; Gaz. vol. 197; p. 395.
 Geddis, George, Detroit, Mich. Can-top holder. No. 1,081,302; Dec. 16; Gaz. vol. 197; p. 544.
 Gedeon, Joseph J., Lakewood, Ohio. Sewing-machine table. No. 1,082,690; Dec. 30; Gaz. vol. 197; p. 1077.
 Gee, Norman E., Altoona, Pa. Stoker. No. 1,082,419; Dec. 23; Gaz. vol. 197; p. 949.
 Gelger, Adolph, Brooklyn, N. Y. Plected heel. No. 1,081,442; Dec. 16; Gaz. vol. 197; p. 591.
 Gelger, Frank, Everest, Kans., assignor to Our Manufacturing Company. Egg-tray for incubators. No. 1,081,903; Dec. 16; Gaz. vol. 197; p. 743.
 Geisels, August and C., Philadelphia, Pa. Inclosure for the bodies of motor-cars. No. 1,082,316; Dec. 23; Gaz. vol. 197; p. 917.
 Geisels, Conrad. (See Geisels, August and C.)
 General Acoustic Company. (See Andrick, Lowe, and Hoff, assignors.)
 General Acoustic Company. (See Burges, Percival G., assignor.)
 General Bakelite Company. (See Backeland, Leo H., assignor.)
 General Chemical Company. (See Briggs and Merriam, assignors.)

General Electric Company. (See Ahlquist, Karl, assignor.)
 General Electric Company. (See Alexanderson, Ernst F. W., assignor.)
 General Electric Company. (See Anthony, James S., assignor.)
 General Electric Company. (See Arsem, William C., assignor.)
 General Electric Company. (See Batchelder, Asa F., assignor.)
 General Electric Company. (See Chatain, Henri G., assignor.)
 General Electric Company. (See Coolidge, William D., assignor.)
 General Electric Company. (See Cunningham, Otto H., assignor.)
 General Electric Company. (See Dahlke, Oskar, assignor.)
 General Electric Company. (See Davis, Albert G., assignor.)
 General Electric Company. (See Halvorsen, Cromwell A. H., Jr., assignor.)
 General Electric Company. (See Hayden, Joseph L. R., assignor.)
 General Electric Company. (See Jackson, Alexander M., assignor.)
 General Electric Company. (See Kieser, Walter, assignor.)
 General Electric Company. (See Laycock, Harry A., assignor.)
 General Electric Company. (See Lemp, Hermann, assignor.)
 General Electric Company. (See Macloskie, George, assignor.)
 General Electric Company. (See Moss, Sanford A., assignor.) (Reissue.)
 General Electric Company. (See Porter, Willard E., assignor.)
 General Electric Company. (See Rice, Richard H., assignor.)
 General Electric Company. (See Sanders, Lewis, assignor.)
 General Electric Company. (See Steinbecker, Karl, assignor.)
 General Electric Company. (See Steinmetz, Charles P., assignor.)
 General Electric Company. (See Thomson, Elihu, assignor.)
 General Electric Company. (See Ver Planck, William E., assignor.)
 General Electric Company. (See Wilkinson, James, assignor.)
 General Gas Light Company. (See Humphrey, Alfred H., assignor.)
 General Gas Light Company. (See Humphrey, Frederick J. and H. R., assignors.)
 General Patents Company, The. (See Bradner, Harry W., assignor.)
 General Refrigerating Company. (See Cooper, William, assignor.)
 George H. Frothingham Co. (See Goss, Harry T., assignor.)
 George, John F., assignor to C. Howard Hunt Pen Company, Camden, N. J. Pen-making machine. No. 1,081,230; Dec. 9; Gaz. vol. 197; p. 481.
 George, Samuel G., Conrad, assignor to George Separator Company, Great Falls, Mont. Threshing-machine. No. 1,082,191; Dec. 23; Gaz. vol. 197; p. 870.
 George Separator Company. (See George, Samuel G., assignor.)
 Georges, Henri, St.-Dizier, A. Valentin, and J. Zerrelles, Puteaux, France. Apparatus for wiping intaglio printing-plates. No. 1,082,586; Dec. 30; Gaz. vol. 197; p. 1041.
 German American Button Company. (See Hastings, Herbert, assignor.)
 German, John P., Springfield, Mass. Belt-tightener. No. 1,081,286; Dec. 9; Gaz. vol. 197; p. 501.
 Geroy, John F., Newark, Ohio. Securing throat-braces. No. 1,080,686; Dec. 9; Gaz. vol. 197; p. 297.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Collapsible wardrobe, chest, &c. No. 1,082,857; Dec. 30; Gaz. vol. 197; p. 1135.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Moth-proof bag and garment-supporting device therefor. No. 1,082,858; Dec. 30; Gaz. vol. 197; p. 1136.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Side-opening mothproof bag. No. 1,082,859; Dec. 30; Gaz. vol. 197; p. 1136.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Garment-hanger for mothproof bags, &c. No. 1,082,860; Dec. 30; Gaz. vol. 197; p. 1136.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. End-opening mothproof bag. No. 1,082,861; Dec. 30; Gaz. vol. 197; p. 1137.
 Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Moth-proof rug-bag. No. 1,082,862; Dec. 30; Gaz. vol. 197; p. 1137.

Geschickter, Leo, assignor to The Infallible Moth and Dust Proof Receptacle Company, Washington, D. C. Moth-proof rug-receptacle. No. 1,082,863; Dec. 30; Gaz. vol. 197; p. 1137.
 Geske, William H., and C. Evans, Page, N. D. Potato-cutter. No. 1,083,081; Dec. 30; Gaz. vol. 197; p. 1211.
 Gettelman, Frederick, Milwaukee, Wis. Pasteurizing. No. 1,082,743; Dec. 30; Gaz. vol. 197; p. 1095.
 Geyer, Hans, Munich, Germany. Heating apparatus for drying damp masonry. No. 1,081,035; Dec. 9; Gaz. vol. 197; p. 417.
 Giardino, Joachim, West New York, N. J. Heddle-frame for looms. No. 1,082,317; Dec. 23; Gaz. vol. 197; p. 917.
 Gibbons, Edward, Fall River, Mass. Window-shade bracket. No. 1,083,082; Dec. 30; Gaz. vol. 197; p. 1211.
 Gibbons, James P., Springfield, Ill. Car-cager. No. 1,083,207; Dec. 30; Gaz. vol. 197; p. 1248.
 Gibbons, Michael J., New Orleans, La. Conveyer. No. 1,083,083; Dec. 30; Gaz. vol. 197; p. 1211.
 Gibbons, Willie H. (See Philip, Kemp, and Gibbons.)
 Gibbs, Joshua, Furrh, Tex. Wagon-brake. No. 1,081,109; Dec. 9; Gaz. vol. 197; p. 440.
 Gibralter Stone Company, The. (See Schuler, Robert, assignor.)
 Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Mining-machine. No. 1,082,318; Dec. 23; Gaz. vol. 197; p. 917.
 Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Mining-machine. No. 1,082,319; Dec. 23; Gaz. vol. 197; p. 918.
 Gibson, Francis W., West Roxbury, and C. S. Marden, Cambridge, Mass., assignors to H. B. Beach Company. Display-rack. No. 1,082,078; Dec. 23; Gaz. vol. 197; p. 833.
 Gibson, George H., Montclair, N. J., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Heating and purifying water. No. 1,080,826; Dec. 9; Gaz. vol. 197; p. 349.
 Giese, James A., and B. S. Field, assignors to The Adams & Westlake Company, Chicago, Ill. Sash-lock. No. 1,080,687; Dec. 9; Gaz. vol. 197; p. 297.
 Gignoux, Fred E. (See Payne, James H., assignor.)
 Gilbert, Benjamin F., Philadelphia, Pa. Rail joint and fastener. No. 1,081,823; Dec. 16; Gaz. vol. 197; p. 718.
 Gilbert, Charles E., Fort Wayne, Ind., assignor to The American Multigraph Company, Cleveland, Ohio. Device for locking lines of type. No. 1,080,275; Dec. 2; Gaz. vol. 197; p. 125.
 Gilbert, Walter V., London, England. Compound lever. No. 1,083,084; Dec. 30; Gaz. vol. 197; p. 1212.
 Gilbertson, Otto M., La Crosse, Wis. Machine for cutting and feeding sanitary paper coverings for closet-seats. No. 1,081,904; Dec. 16; Gaz. vol. 197; p. 743.
 Glichrist, Raymond B., Newark, N. J. Mop-press. No. 1,082,604; Dec. 30; Gaz. vol. 197; p. 1137.
 Glines, Julian A., Derby, Conn. Nail-puller. No. 1,080,210; Dec. 2; Gaz. vol. 197; p. 102.
 Glienwater, Jesse O., et al. (See Gray, Isaac C., assignor.)
 Gillespie, Angus, Troy, N. Y. Tally-machine. No. 1,081,952; Dec. 23; Gaz. vol. 197; p. 789.
 Gillette, Harleigh, Chicago, Ill. Thermo-electric switch. No. 1,080,908; Dec. 9; Gaz. vol. 197; p. 376.
 Gilliland, Ira H., Erie, Pa. Detachable calk for horse-shoes. No. 1,080,757; Dec. 9; Gaz. vol. 197; p. 323.
 Gilmor, Horatio G., Quincy, Mass. Expander for pipes, tubes, &c. No. 1,081,496; Dec. 16; Gaz. vol. 197; p. 610.
 Gilmartin, John J., Guild, Tenn. Clutch. No. 1,081,735; Dec. 16; Gaz. vol. 197; p. 686.
 Gilmour, William, Montreal, Quebec, Canada. Brake-shoe. No. 1,082,462; Dec. 23; Gaz. vol. 197; p. 962.
 Glines, James, Cincinnati, Ohio. Lamp-shade. No. 1,080,211; Dec. 2; Gaz. vol. 197; p. 102.
 Gilson, Henry R., Baden, assignor to National Metal Molding Company, Pittsburgh, Pa. Electrical switch. No. 1,082,021; Dec. 23; Gaz. vol. 197; p. 814.
 Gilson, John E., assignor to Gilson Manufacturing Company, Port Washington, Wis. Friction-clutch. No. 1,081,528; Dec. 16; Gaz. vol. 197; p. 621.
 Gilson Manufacturing Company. (See Gilson, John E., assignor.)
 Giorgio, Michele, Pittsburgh, Pa. Attachment for incandescent gas-burners. No. 1,080,212; Dec. 2; Gaz. vol. 197; p. 103.
 Gisholt Machine Company. (See Miller, William L., assignor.)
 Glust, Henry, Frankford, Pa. Vulcanizing device. No. 1,081,824; Dec. 16; Gaz. vol. 197; p. 719.
 Glascock, Samuel W., Charlottesville, Va. Fruit-tree prop. No. 1,080,758; Dec. 9; Gaz. vol. 197; p. 324.
 Glasco, Walter F., Indianapolis, Ind. Fountain-vase. No. 1,081,825; Dec. 16; Gaz. vol. 197; p. 719.
 Glasser, Frederick E., New York, N. Y. Vehicle-wheel. No. 1,083,009; Dec. 30; Gaz. vol. 197; p. 1187.
 Gloeckner, Martha V., Chautauque, N. Y. Button. No. 1,082,420; Dec. 23; Gaz. vol. 197; p. 950.
 Gloffely, William M., Ohiopele, Pa. Rough box. No. 1,082,803; Dec. 30; Gaz. vol. 197; p. 1117.
 Gnu Copy Holder Manufacturing Company. (See Peetz, McDaniel, and Thompson, assignors.) (Reissue.)
 Goehnauer, David. (See Rusk, Newton, assignor.)

Godfrey, Frank W., Beaverton, Oreg. Voting-machine. No. 1,080,006; Dec. 2; Gaz. vol. 197; p. 80.
 Godfrey, William A., assignor to B. F. Sturtevant Company, Boston, Mass. Elastic-fluid engine. No. 1,081,443; Dec. 16; Gaz. vol. 197; p. 592.
 Godley, Charles E., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich. Coal-oil burner. No. 1,082,514; Dec. 30; Gaz. vol. 197; p. 1014.
 Goetz, Frank V., et al. (See Born and Recen, assignors.)
 Goetz, Henry A., New Albany, Ind. Sewer cleaner and flusher. No. 1,081,497; Dec. 16; Gaz. vol. 197; p. 610.
 Goff, Henry A., Englefield Green, assignor to J. Drake, Egham, England. Lamp-bracket. No. 1,082,079; Dec. 23; Gaz. vol. 197; p. 834.
 Gogel, Jacob, Toledo, Ohio. Tire-heater. No. 1,082,515; Dec. 30; Gaz. vol. 197; p. 1014.
 Gold, Egbert H., Chicago, Ill. Hose-coupling. No. 1,081,444; Dec. 16; Gaz. vol. 197; p. 592.
 Goldberg, John S., assignor to Goldberg Motor Car Devices Manufacturing Company, Chicago, Ill. Automatic valve mechanism. No. 1,082,744; Dec. 30; Gaz. vol. 197; p. 1096.
 Goldberg Motor Car Devices Manufacturing Company. (See Goldberg, John S., assignor.)
 Goldie, William, Jr., Bay City, Mich. Railway-joint plate. No. 1,082,022; Dec. 23; Gaz. vol. 197; p. 814.
 Goldman, Samuel S., St. Louis, Mo. Animal-trap. No. 1,082,942; Dec. 30; Gaz. vol. 197; p. 1165.
 Goldsmith, William H., Jr. (See Blake and Goldsmith.)
 Goldsmith, William H., Jr., Biddeford, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass. Coupling for roller-beams and the like. No. 1,080,035; Dec. 2; Gaz. vol. 197; p. 48.
 Goldstein, Charles, New York, N. Y. Dyeing. No. 1,082,627; Dec. 30; Gaz. vol. 197; p. 1055.
 Gondolf, Nicholas J., New Orleans, La. Flushing device. No. 1,081,110; Dec. 9; Gaz. vol. 197; p. 440.
 Gonware, Daniel F., Chicago, Ill. Journal-box wear-plate. No. 1,082,943; Dec. 30; Gaz. vol. 197; p. 1165.
 Gonsales, Frank C., Trar, Iowa. Gas-engine valve. No. 1,082,320; Dec. 23; Gaz. vol. 197; p. 918.
 Goodell & Hill. (See Hill, Charles D., assignor.)
 Goodman, Charles W. (See Hurwitz and Goodman.)
 Goodness, Frank A., assignor of one-half to H. E. Klinebar, Marion, Ind. Oscillating valve. No. 1,083,208; Dec. 30; Gaz. vol. 197; p. 1248.
 Goodwin, Edward C., assignor to The Hart & Cooley Company, New Britain, Conn. Register and ventilator construction. No. 1,080,512; Dec. 2; Gaz. vol. 197; p. 207.
 Goodyear, Nelson, New York, N. Y., assignor to Maine Development Corporation. Carburetor. No. 1,082,865; Dec. 30; Gaz. vol. 197; p. 1138.
 Gordon, Arthur, Chicago, Ill. Pipe-stock. No. 1,080,627; Dec. 9; Gaz. vol. 197; p. 277.
 Gordon, Leo A., Fall River, Mass. Demountable rim. No. 1,080,337; Dec. 2; Gaz. vol. 197; p. 146.
 Gordon, William, Island Creek, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-cutting machine. No. 1,082,628; Dec. 30; Gaz. vol. 197; p. 1056.
 Gorman, John H., Salisbury, N. C. Reversing driving mechanism. No. 1,082,691; Dec. 30; Gaz. vol. 197; p. 1077.
 Goss, Harry T., Rutherford, N. J., assignor to George H. Frothingham Co., New York, N. Y. Pier-shed doors. No. 1,080,524; Dec. 2; Gaz. vol. 197; p. 212.
 Gossel, Fritz, Stockholm, Germany. Manufacturing allmentary products from soy-beans. No. 1,082,118; Dec. 23; Gaz. vol. 197; p. 844.
 Gould, Charles T. E., assignor of one-third to E. Hilker, Chicago, Ill. Sewing-machine. No. 1,080,549; Dec. 9; Gaz. vol. 197; p. 252.
 Gould Coupler Company. (See Richards, Willard F., assignor.)
 Gould & Eberhardt. (See Lees, Ernest J., assignor.)
 Gould Storage Battery Company. (See Hubbard, Albert B., assignor.)
 Gould Storage Battery Company. (See Snyder and Starkenstein, assignors.)
 Gouldbourn, Joseph, and H. Hallam, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Machine for attaching welts or randas to stock. No. 1,081,053; Dec. 23; Gaz. vol. 197; p. 739.
 Gowing, Albert C., and M. C. Spencer, Worcester, Mass. Loose-coupled tuning-coil. No. 1,083,085; Dec. 30; Gaz. vol. 197; p. 1212.
 Graaff, Wilhelm, Berlin, Germany. Ice-making machine. No. 1,082,944; Dec. 30; Gaz. vol. 197; p. 1165.
 Graham, Archibald, Jr. (See Graham, John and A., Jr.)
 Graham, Irving M., Candia, N. H. Poultry-feeding device. No. 1,080,436; Dec. 2; Gaz. vol. 197; p. 183.
 Graham, James H., assignor to The Standard Company, Torrington, Conn. Safety set-screw. No. 1,082,945; Dec. 30; Gaz. vol. 197; p. 1166.
 Graham, John and A., Jr., Glasgow, Scotland. Reducing-valve. No. 1,082,321; Dec. 23; Gaz. vol. 197; p. 918.
 Graham, John K., and G. A. Rasmussen, Roanoke, Va. Spacing device for punching riveting, shearing, and other machines. No. 1,081,826; Dec. 16; Gaz. vol. 197; p. 719.
 Grilert, Karl P. (See Flachslaender, Grilert, and Buff.)
 Grand Rapids Show Case Company. (See Dodge, Freeman, and Vanderveld, assignors.) (Reissue.)
 Grandits, John, Chicago, Ill. Door-lock. No. 1,081,036; Dec. 9; Gaz. vol. 197; p. 417.

Granger, William L., Watsonville, Cal. Brake and attachment. No. 1,080,213; Dec. 2; Gaz. vol. 197; p. 103.
 Grann, Henry W., Bedford Hills, N. Y. Spraying-nozzle. No. 1,081,687; Dec. 16; Gaz. vol. 197; p. 664.
 Granstrom, Andrew, San Pedro, Cal. Coat. No. 1,083,209; Dec. 30; Gaz. vol. 197; p. 1248.
 Grant, Charles L., Merchantsville, N. J. Nest-trap. No. 1,081,605; Dec. 16; Gaz. vol. 197; p. 645.
 Grant, Henry J., Valdosta, Ga. Stamping-machine. No. 1,082,023; Dec. 23; Gaz. vol. 197; p. 814.
 Gray Engine Starter Company. (See Gray, Thomas J., assignor.)
 Gray, Isaac C., Logansport, assignor of one-third to J. O. Gillenwater, Peru, and one-third to J. E. Ludders, Logansport, Ind. Window-shade holder and curtain-pole support. No. 1,083,010; Dec. 30; Gaz. vol. 197; p. 1188.
 Gray, Joseph A., Norwalk, Conn. Spring and pneumatic wheel. No. 1,080,106; Dec. 2; Gaz. vol. 197; p. 68.
 Gray, Ralph B. and W. B., Chicago, Ill. Resilient wheel. No. 1,080,909; Dec. 9; Gaz. vol. 197; p. 376.
 Gray, Thomas J., assignor to Gray Engine Starter Company, Indianapolis, Ind. Engine-starter. No. 1,081,268; Dec. 9; Gaz. vol. 197; p. 495.
 Gray, William A. (See Collins, William L., assignor.)
 Gray, William B. (See Gray, Ralph B. and W. B.)
 Gray, William P., and J. H. Duncan, Campbellton, New Brunswick, Canada. Knife and scissors sharpener. No. 1,081,606; Dec. 16; Gaz. vol. 197; p. 645.
 Green, Charles W., Cameron, N. Y. Machine for upsetting vehicle-axles. No. 1,080,338; Dec. 2; Gaz. vol. 197; p. 147.
 Green, Frederick D., Corinth, Miss. Variable-speed gearing. No. 1,081,954; Dec. 23; Gaz. vol. 197; p. 789.
 Green, Frederick M., Berkeley, Cal. Sash-weight. No. 1,082,192; Dec. 23; Gaz. vol. 197; p. 871.
 Green, James A., Dolgeville, N. Y., assignor to Daniel Green Felt Shoe Company, Boston, Mass. Making felt shoes. No. 1,081,955; Dec. 23; Gaz. vol. 197; p. 790.
 Green, James A., Dolgeville, N. Y., assignor to Daniel Green Felt Shoe Company, Boston, Mass. Making felt shoes. No. 1,081,956; Dec. 23; Gaz. vol. 197; p. 790.
 Green, Job E., et al. (See Griffith, Jesse E., assignor.)
 Green, Leroy M., Portland, Ore. Folding crate. No. 1,081,957; Dec. 23; Gaz. vol. 197; p. 791.
 Green, Mearle J., et al. (See Stillings, Franklin E., assignor.)
 Green, Michael B., Memphis, Tenn. Oil-press. No. 1,081,905; Dec. 10; Gaz. vol. 197; p. 744.
 Green, William, Holly, Mich. Stool for holding traps. No. 1,083,086; Dec. 30; Gaz. vol. 197; p. 1213.
 Greenberg, Benjamin. (See Greenberg, Moses and B.)
 Greenberg, Moses and B., New York, N. Y. Watering-trough. No. 1,080,107; Dec. 2; Gaz. vol. 197; p. 67.
 Greengard, Morris D., New York, N. Y. Metal-filament incandescent lamp. No. 1,082,587; Dec. 30; Gaz. vol. 197; p. 1041.
 Greenleaf, Clifford A. (See Sharp, John, assignor.)
 Greenleaf, Charles E., Newton, Iowa. Gearing device for wringers. No. 1,082,745; Dec. 30; Gaz. vol. 197; p. 1097.
 Gregory, Frank. (See Rousseau and Gregory.)
 Grey, Charles M., East Orange, N. J. Coin-handling machine. No. 1,081,958; Dec. 23; Gaz. vol. 197; p. 791.
 Griebel, William, Brooklyn, N. Y. Starting device for electric motors or the like. No. 1,081,827; Dec. 16; Gaz. vol. 197; p. 720.
 Griesheimer, Valentine J., Chillicothe, Ohio. Foldable table structure. No. 1,080,437; Dec. 2; Gaz. vol. 197; p. 183.
 Griffin, Gerald G., New York, N. Y. Confeiti-machine. No. 1,082,804; Dec. 30; Gaz. vol. 197; p. 1117.
 Griffith, Jesse E., assignor of one-fourth to J. E. Green and one-fourth to D. V. Blatter, Albion, Nebr. Grain-shockling machine. No. 1,080,438; Dec. 2; Gaz. vol. 197; p. 183.
 Griffith, Newell S., Minneapolis, Minn. Fruit-seeder. No. 1,082,516; Dec. 30; Gaz. vol. 197; p. 1015.
 Grimsdall, David L., Olyphant, Pa. Currycomb. No. 1,083,087; Dec. 30; Gaz. vol. 197; p. 1213.
 Grignard, Albert M. E., New York, N. Y. Printing-cylinder. No. 1,082,946; Dec. 30; Gaz. vol. 197; p. 1166.
 Grimes, Thaddeus S., assignor to Lummas Cotton Gin Company, Columbus, Ga. Cotton-condenser. No. 1,081,111; Dec. 9; Gaz. vol. 197; p. 440.
 Grissim, Jasper, Philadelphia, Pa. Collapsible awning or canopy for chairs. No. 1,080,628; Dec. 9; Gaz. vol. 197; p. 278.
 Griswold, Louis F., and C. B. Smith, Cleveland, Ohio; said Griswold assignor to said Smith. Rotary drier. No. 1,080,829; Dec. 9; Gaz. vol. 197; p. 278.
 Groetschel, Julius, Plauen, Germany. Shuttle embroidery-machine. No. 1,080,530; Dec. 9; Gaz. vol. 197; p. 253.
 Groos, Charles. (See Peterson, Axel W., assignor.)
 Groshon, John A., New York, N. Y. Turbine. No. 1,082,267; Dec. 23; Gaz. vol. 197; p. 898.
 Gross, Owen B., Aurora, Ill. Work-holder. No. 1,082,588; Dec. 30; Gaz. vol. 197; p. 1041.
 Grosser, Paul, Markersdorf, Germany. Differential motion for spooling-machines. No. 1,080,965; Dec. 9; Gaz. vol. 197; p. 396.
 Gruenberg, Raoul J., San Francisco, Cal. Die for making folding paper boxes. No. 1,080,759; Dec. 9; Gaz. vol. 197; p. 324.

Grunow, Charles, Sheboygan, Wis. Automatic railway-gate. No. 1,080,439; Dec. 2; Gaz. vol. 197; p. 184.
 Grunstein, Nathan, assignor to Flim of Chemische Fabrik Griesheim-Elektron, Frankfurt-on-the-Main, Germany. Manufacture of acetic acid. No. 1,081,959; Dec. 23; Gaz. vol. 197; p. 791.
 Guell, Henry A., Paris, France. Packing apparatus for machines for packing matches in boxes. No. 1,081,379; Dec. 16; Gaz. vol. 197; p. 571.
 Gubbiua, John F., Chicago, Ill. Clothes-wringer. No. 1,081,380; Dec. 16; Gaz. vol. 197; p. 571.
 Gudeman, Leo, New York, N. Y. Electric-light fixture. No. 1,081,498; Dec. 16; Gaz. vol. 197; p. 610.
 Gunkle, Albert, deceased; M. B. Gunkle, administratrix, La Fayette, Ind. Boiler-due. No. 1,082,119; Dec. 23; Gaz. vol. 197; p. 848.
 Gunkle, Willie B., administratrix. (See Gunkle, Albert.)
 Gunn, Allison J., Cripple Creek, Colo. Sectional trunk. No. 1,080,056; Dec. 2; Gaz. vol. 197; p. 48.
 Gustin, John, Mervin, Saskatchewan, Canada. Stone-puller. No. 1,079,939; Dec. 2; Gaz. vol. 197; p. 6.
 Gustin, William M., Jamaica Plain, Mass., assignor to C. D. W. Halsey, New York, N. Y. Cloth-piling apparatus. No. 1,082,692; Dec. 30; Gaz. vol. 197; p. 1078.
 Gustin, William M., Jamaica Plain, Mass., assignor to C. D. W. Halsey, New York, N. Y. Piling mechanism. No. 1,082,693; Dec. 30; Gaz. vol. 197; p. 1078.
 Guth, Edwin F., St. Louis, Mo. Lighting-fixture. No. 1,082,322; Dec. 23; Gaz. vol. 197; p. 918.
 Guy, Joshua F., Thorofare, N. J. Street-car fender. No. 1,081,736; Dec. 16; Gaz. vol. 197; p. 686.
 H. Koppers Company. (See Koppers, Heinrich, assignor.)
 H. Mueller Mfg. Co. (See Mueller and Schuermann, assignors.)
 H. Mueller Mfg. Co. (See Schuermann, Anton C., assignor.)
 H. Wenzel Tent & Duck Co., The. (See Richling, William H., assignor.)
 H. D. Beach Company. (See Gibson and Marden, assignors.)
 H. P. Patents and Processes Company. (See Hochstetter, Frederick W., assignor.)
 Haas, Phillip, Dayton, Ohio. Flushing device for water-closets. No. 1,083,088; Dec. 30; Gaz. vol. 197; p. 1214.
 Haberman, Charles, assignor to O. Schmidt, Jersey City, N. J. Banjo, drum, or similar musical instrument. No. 1,080,440; Dec. 2; Gaz. vol. 197; p. 184.
 Hack, Eugen, Stuttgart, Germany. Toy projectile. No. 1,081,037; Dec. 9; Gaz. vol. 197; p. 418.
 Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-cutting machine. No. 1,082,629; Dec. 30; Gaz. vol. 197; p. 1056.
 Hadaway, William S., Jr., New York, N. Y. Regulator for electric fluid-heaters. No. 1,080,214; Dec. 2; Gaz. vol. 197; p. 103.
 Hadfield, Robert A., Sheffield, England. Improving the magnetic qualities of a magnetic body. No. 1,082,947; Dec. 30; Gaz. vol. 197; p. 1166.
 Hadfield, Robert A., Sheffield, England. Improving the magnetic qualities of a magnetic body. No. 1,082,948; Dec. 30; Gaz. vol. 197; p. 1166.
 Haft, Howell W. (See Andrick, Lowe, and Haft.)
 Hagemeier, Frederick W., New York, N. Y. Window-shade support. No. 1,079,940; Dec. 2; Gaz. vol. 197; p. 6.
 Haggerty, John D. (See Monroe, Fred R., assignor.)
 Haig, Charles H., New York, N. Y. Cleaning device for tobacco-pipes and the like. No. 1,081,038; Dec. 9; Gaz. vol. 197; p. 418.
 Haines, Arthur P., assignor to Penobscot Fish Company, Rockland, Me. Refrigerating shipping-case. No. 1,080,215; Dec. 2; Gaz. vol. 197; p. 104.
 Haire, Thomas L., assignor of two-thirds to D. F. Brady, Providence, R. I. Detachable calk for horseshoes. No. 1,082,421; Dec. 23; Gaz. vol. 197; p. 950.
 Hakes, George G., Illon, N. Y. Broom or mop holder. No. 1,081,381; Dec. 16; Gaz. vol. 197; p. 571.
 Halbleib, Edward A., assignor to North East Electric Company, Rochester, N. Y. Electric switch. No. 1,082,694; Dec. 30; Gaz. vol. 197; p. 1078.
 Hall, Charles E., Childress, Tex. Automatic air-brake applicator. No. 1,081,303; Dec. 16; Gaz. vol. 197; p. 544.
 Hall, Holly, and J. T. Wright, Slocumb, Ark. Nut-lock. No. 1,081,499; Dec. 16; Gaz. vol. 197; p. 611.
 Hall, James T., assignor to Bunting Iron Works, Coalbaga, Cal. Lubricating-pulley. No. 1,082,193; Dec. 23; Gaz. vol. 197; p. 871.
 Hall, Jay E., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Motor-control system. No. 1,080,146; Dec. 2; Gaz. vol. 197; p. 80.
 Hall, Lewis S., Hattleville, Ark. Dental forceps. No. 1,082,630; Dec. 30; Gaz. vol. 197; p. 1056.
 Hall, Major, Boise, Idaho. Well machinery. No. 1,083,089; Dec. 30; Gaz. vol. 197; p. 1214.
 Hall Printing Press Company. (See White, Joseph, assignor.)
 Hall, Robert B. (See Turner, George T., assignor.)
 Hall Switch & Signal Company, The. (See Day, Albert V. T., assignor.)
 Hall, William A., New York, N. Y. Desulfurizing ores. No. 1,083,246; Dec. 30; Gaz. vol. 197; p. 1262.
 Hall, William A., New York, N. Y. Production of sulfurated hydrogen. No. 1,083,247; Dec. 30; Gaz. vol. 197; p. 1262.

Hall, William A., New York, N. Y. Extraction of sulfur from metallic sulfides. No. 1,083,248; Dec. 30; Gaz. vol. 197; p. 1263.
 Hall, William A., New York, N. Y. Production of sulfur. No. 1,083,249; Dec. 30; Gaz. vol. 197; p. 1263.
 Hall, William A., New York, N. Y. Recovering sulfur. No. 1,083,250; Dec. 30; Gaz. vol. 197; p. 1263.
 Hall, William A., New York, N. Y. Obtaining sulfur from sulfides. No. 1,083,251; Dec. 30; Gaz. vol. 197; p. 1263.
 Hall, William A., New York, N. Y. Desulfurizing and briquetting ores. No. 1,083,252; Dec. 30; Gaz. vol. 197; p. 1264.
 Hall, William A., New York, N. Y. Extracting sulfur. No. 1,083,253; Dec. 30; Gaz. vol. 197; p. 1264.
 Hall, William A., New York, N. Y., assignor to William A. Hall Lumber & Fibre Company. Fireproofing composition. No. 1,080,966; Dec. 9; Gaz. vol. 197; p. 396.
 Hall, William S., Rochester, N. Y. Steering mechanism. No. 1,081,607; Dec. 16; Gaz. vol. 197; p. 645.
 Hallam, Harry. (See Gouldbourn and Hallam.)
 Halldorson, Thomas E., Omaha, Nebr. Flash-light apparatus. No. 1,081,500; Dec. 16; Gaz. vol. 197; p. 611.
 Haller, John H., New Canaan, Conn. Track-cleaner. No. 1,081,608; Dec. 16; Gaz. vol. 197; p. 646.
 Halliday, Alexander. (See Wait and Halliday.)
 Halsey, Charles D. W. (See Gustin, William M., assignor.)
 Halterman, Fernando, Oso, Wash. Cableway. No. 1,080,827; Dec. 9; Gaz. vol. 197; p. 350.
 Halterman, Fernando, Oso, Wash. Cableway. No. 1,080,828; Dec. 9; Gaz. vol. 197; p. 350.
 Halvorson, Cromwell A., Jr., Lynn, Mass., assignor to General Electric Company, Arc-lamp. No. 1,083,210; Dec. 30; Gaz. vol. 197; p. 1249.
 Ham, Robert W., Richmond, Ky. Tobacco-setter. No. 1,083,090; Dec. 30; Gaz. vol. 197; p. 1214.
 Hamacheck, Julius, assignor of one-half to The Hamilton Manufacturing Company, Two Rivers, Wis. Sanding-machine. No. 1,082,949; Dec. 30; Gaz. vol. 197; p. 1107.
 Hamann, Henry J., Chicago, Ill. Film-winding apparatus. No. 1,081,039; Dec. 9; Gaz. vol. 197; p. 418.
 Hamel Shoe Machinery Company. (See Valois, Felix E., assignor.)
 Hamilton Manufacturing Company, The. (See Hamacheck, Julius, assignor.)
 Hamilton, Lazenby C., assignor to The Gas Machinery Company, Cleveland, Ohio. Muffle-furnace. No. 1,081,960; Dec. 23; Gaz. vol. 197; p. 792.
 Hammers, George W., Billings, Mont. Plow. No. 1,081,961; Dec. 23; Gaz. vol. 197; p. 792.
 Hammond, Robert O., assignor, by mesne assignments, to Tywacana Farms Poultry Company, Farmingdale, N. Y. Egg-carrier. No. 1,080,276; Dec. 2; Gaz. vol. 197; p. 126.
 Hammond, Thomas C. (See Chambers and Hammond.)
 Hancock, John, Philadelphia, Pa. Bed-spring frame. No. 1,083,011; Dec. 30; Gaz. vol. 197; p. 1188.
 Hancock, Jules E., and C. E. Flisk, San Francisco, Cal. Label-moistening machine. No. 1,081,906; Dec. 16; Gaz. vol. 197; p. 744.
 Hanczewski, Leopold E., Kreuzburg, Germany, assignor to S. Hanczewski, Chicago, Ill. Compound for protecting planted seed-grains. No. 1,081,445; Dec. 16; Gaz. vol. 197; p. 593.
 Hanczewski, Stanley. (See Hanczewski, Leopold E., assignor.)
 Hand, John L. H., Atco, N. J. Navigation instrument. No. 1,083,091; Dec. 30; Gaz. vol. 197; p. 1214.
 Handel, Philip J., Meriden, Conn. Shade. No. 1,082,805; Dec. 30; Gaz. vol. 197; p. 1117.
 Handy, Levin G., Rutherford, N. J., assignor, by mesne assignments, to W. H. Woodin, New York, N. Y. Hopper-door-operating device. No. 1,081,940; Dec. 9; Gaz. vol. 197; p. 418.
 Hanlon, William B., Pittsburgh, Pa. Shield for car-windows. (Reissue.) No. 13,653; Dec. 2; Gaz. vol. 197; p. 213.
 Hannu, John G., Galveston, Tex. Aeroplane. No. 1,081,828; Dec. 16; Gaz. vol. 197; p. 720.
 Hannaford, Alfred, Chicago, Ill. Hog scraper and conveyor. No. 1,080,007; Dec. 2; Gaz. vol. 197; p. 31.
 Hannah, Newel A., Claryville, Ky. Harness-hanger. No. 1,083,092; Dec. 30; Gaz. vol. 197; p. 1215.
 Hansen, John S., Medford, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me. Machine for ironing boots and shoes. No. 1,081,907; Dec. 16; Gaz. vol. 197; p. 744.
 Hanson, Albertus E., Mason City, Iowa. Fence-post. No. 1,080,057; Dec. 2; Gaz. vol. 197; p. 48.
 Hanson, John Z., and W. D. Thomas, Aberdeen, Idaho. Head-gate. No. 1,083,093; Dec. 30; Gaz. vol. 197; p. 1215.
 Hanstein, Henry, Poughkeepsie, N. Y. Dowel-pin. No. 1,082,120; Dec. 23; Gaz. vol. 197; p. 847.
 Hapgood, Cyrus H., assignor, by mesne assignments, to Parker Carburetor Company, Boston, Mass. Separator for liquids. No. 1,081,936; Dec. 16; Gaz. vol. 197; p. 755.
 Harbeck, Jervis R., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich. Package-capping machine. No. 1,080,277; Dec. 2; Gaz. vol. 197; p. 126.

Hardy, James F., assignor to Consolidated Dental Manufacturing Company, New York, N. Y. Dental broach-blank-making machine. No. 1,082,589; Dec. 30; Gaz. vol. 197; p. 1042.
 Hardy, Paul, assignor of one-half to J. A. Edge, Walnut Springs, Tex. Non-freezing water-supply system. No. 1,079,982; Dec. 2; Gaz. vol. 197; p. 22.
 Hargrove, Willis, Blocton, Ala. Steamship. No. 1,081,446; Dec. 16; Gaz. vol. 197; p. 593.
 Harkins, Thomas F., assignor of one-half to M. A. Nicholson and one-half to A. E. Fowle, Leadville, Colo. Pulp-feeder. No. 1,081,737; Dec. 16; Gaz. vol. 197; p. 687.
 Harley, Thomas, and R. G. Long, assignors to The U. S. Mechanical Draft Company, Lawrence, Kans. Forced-draft grate. No. 1,083,094; Dec. 30; Gaz. vol. 197; p. 1215.
 Harmatta, Johann, Szepesvaralja, Austria-Hungary. Rail-fastening. No. 1,080,008; Dec. 2; Gaz. vol. 197; p. 31.
 Harmon, Frank L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,082,631; Dec. 30; Gaz. vol. 197; p. 1057.
 Harmon, James W., Lawrenceburg, Tenn. Shoe and glove fastener. No. 1,081,231; Dec. 9; Gaz. vol. 197; p. 481.
 Harms, Edwin P., Detroit, Mich. Hydrocarbon-burner. No. 1,080,689; Dec. 9; Gaz. vol. 197; p. 298.
 Harnly, George L. (See McCleary and Harnly.)
 Harris, Alexander B., Chicago, Ill., assignor of one-half to W. G. Arn, Memphis, Tenn. Coaling-station. No. 1,082,194; Dec. 23; Gaz. vol. 197; p. 871.
 Harris, Hollis H., Lorain, assignor to The Thew Automatic Shovel Company, Cleveland, Ohio. Truck. No. 1,081,041; Dec. 9; Gaz. vol. 197; p. 418.
 Harris, Jane, Germantown, Pa. Portable laundry-basket. No. 1,082,323; Dec. 23; Gaz. vol. 197; p. 919.
 Harris, John F., Pickens, S. C. Hay curing and stacking device. No. 1,080,441; Dec. 2; Gaz. vol. 197; p. 184.
 Harris, Lewis J., Albany, Ga. Fare-register. No. 1,082,422; Dec. 23; Gaz. vol. 197; p. 950.
 Harrison Manufacturing Company. (See Harrison, Percy, assignor.)
 Harrison, Percy, assignor to Harrison Manufacturing Company, Baltimore, Md. Collar attachment. No. 1,082,517; Dec. 30; Gaz. vol. 197; p. 1015.
 Harrison Safety Boiler Works. (See Gamble, Joseph W., assignor.)
 Harrison Safety Boiler Works. (See Gibson, George H., assignor.)
 Hart, Albert E., New York, N. Y. Gasket and retainer therefor. No. 1,082,324; Dec. 23; Gaz. vol. 197; p. 919.
 Hart, Charles A., Findlay, Ohio. Automobile-jack. No. 1,080,442; Dec. 2; Gaz. vol. 197; p. 184.
 Hart & Cooley Company, The. (See Goodwin, Edward C., assignor.)
 Hart, Gerald W., West Hartford, assignor to The Hart Manufacturing Company, Hartford, Conn. Switch. No. 1,080,058; Dec. 2; Gaz. vol. 197; p. 49.
 Hart Manufacturing Company, The. (See Hart, Gerald W., assignor.)
 Hart, Rennie E., Flushing, Mich. Recording attachment for scales. No. 1,081,738; Dec. 16; Gaz. vol. 197; p. 687.
 Hartford, Edward V., New York, N. Y. Antivibration device for vehicles. No. 1,080,630; Dec. 9; Gaz. vol. 197; p. 278.
 Hartford, Edward V., Deal, N. J. Shock-absorber. No. 1,081,962; Dec. 23; Gaz. vol. 197; p. 793.
 Hartley, James, Philadelphia, Pa. Thermostatic circuit-closer. No. 1,080,339; Dec. 2; Gaz. vol. 197; p. 148.
 Hartman, George A., Denver, Colo. Motor-cycle seat. No. 1,082,423; Dec. 23; Gaz. vol. 197; p. 951.
 Hartness, James, Springfield, Vt. Chuck. No. 1,082,590; Dec. 30; Gaz. vol. 197; p. 1042.
 Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Awning. No. 1,080,829; Dec. 9; Gaz. vol. 197; p. 351.
 Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Awning. No. 1,080,910; Dec. 9; Gaz. vol. 197; p. 377.
 Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Awning. No. 1,081,042; Dec. 9; Gaz. vol. 197; p. 419.
 Hartwell, Ralph W., Davenport, Iowa. Ice-box. No. 1,080,551; Dec. 9; Gaz. vol. 197; p. 253.
 Hastings, Herbert, assignor to German American Button Company, Rochester, N. Y. Assorting-machine. No. 1,082,632; Dec. 30; Gaz. vol. 197; p. 1057.
 Hatfield, John A., and C. R. Yates, Newport, England. Producing clean or deoxidized metal surfaces. No. 1,080,059; Dec. 2; Gaz. vol. 197; p. 49.
 Hatter, John A., assignor of one-half to N. V. Robbins, Vicksburg, Miss. Bolt and nut lock. No. 1,081,668; Dec. 16; Gaz. vol. 197; p. 664.
 Hanberg, Sophus C., Copenhagen, Denmark. Centrifugal milk-separating machine. No. 1,081,304; Dec. 16; Gaz. vol. 197; p. 544.
 Hauenstein, John, Jr., New Ulm, Minn. Cigar and cigarette holder. No. 1,080,552; Dec. 9; Gaz. vol. 197; p. 253.
 Haug, Gottlieb B., Philadelphia, Pa. Writing-pen. No. 1,080,760; Dec. 9; Gaz. vol. 197; p. 325.
 Haukom, Halvor E., Minot, N. D. Carpenter's gage. No. 1,081,529; Dec. 16; Gaz. vol. 197; p. 622.
 Hausman, Ward B., Philadelphia, Pa. Perforator. No. 1,082,518; Dec. 30; Gaz. vol. 197; p. 1015.

Havemeyer, Henry O., Mahwah, N. J. Automobile sign-holder. No. 1,080,631; Dec. 9; Gaz. vol. 197; p. 279.
 Hayner, Arthur R., Waltham, Mass., assignor to Judson L. Thomson Mfg. Co. Riveting-machine, multiple-drive. No. 1,081,447; Dec. 16; Gaz. vol. 197; p. 593.
 Hawk, Charles. (See Hemingray and Hawk.) (Reissue.)
 Hawkins, Oscar P. (See Myer and Hawkins.)
 Hawley, Eugene W., Philadelphia, Pa. Wardrobe-trunk. No. 1,083,012; Dec. 30; Gaz. vol. 197; p. 1188.
 Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Arc-light electrode. No. 1,082,950; Dec. 30; Gaz. vol. 197; p. 1167.
 Hayes, Henry, Baltimore, Md. Mechanical microscope-stage. No. 1,080,068; Dec. 9; Gaz. vol. 197; p. 307.
 Hayes, John, Amsterdam, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,080,967; Dec. 9; Gaz. vol. 197; p. 307.
 Hayward Company, The. (See Morris, Charles A., assignor.)
 Hazard, Harry C., Baltimore, Md. Adjustable loop attachment. No. 1,081,609; Dec. 16; Gaz. vol. 197; p. 646.
 Hazard, Harry C., Baltimore, Md. Adjustable fastening device. No. 1,081,610; Dec. 16; Gaz. vol. 197; p. 646.
 Hazard, Harry C., Baltimore, Md. Adjustable connection for garments and the like. No. 1,081,611; Dec. 16; Gaz. vol. 197; p. 647.
 Hassard, John A., and A. B. Jones, Cambridge, Mass. Collapsible wardrobe. No. 1,081,112; Dec. 9; Gaz. vol. 197; p. 441.
 Head, Carlos S., Orange, Cal. Burglar-alarm. No. 1,082,325; Dec. 23; Gaz. vol. 197; p. 819.
 Headley, Frederick H., Edgbaston, Birmingham, England. Spring-mounting for go-carts. No. 1,081,269; Dec. 9; Gaz. vol. 197; p. 495.
 Healy, Philip J., East St. Louis, Ill. Attachment for box-calling machines. No. 1,080,060; Dec. 2; Gaz. vol. 197; p. 49.
 Heard, Henry, Union Point, Ga. Harvesting-sack supporter. No. 1,082,695; Dec. 30; Gaz. vol. 197; p. 1079.
 Heath, Spencer, Washington, D. C. Propeller. No. 1,081,612; Dec. 16; Gaz. vol. 197; p. 647.
 Heaton-Peninsular Button Fastener Company. (See Perkins, George W., assignor.)
 Hecla-Winslow Company. (See Stilling, William J., assignor.)
 Hedden, Frank W., Jersey City, N. J. Pipe-vise. No. 1,081,279; Dec. 9; Gaz. vol. 197; p. 498.
 Hedley, Frank, Yonkers, and J. S. Doyle, Mount Vernon, N. Y. Combined conductor's valve and emergency switch. No. 1,082,951; Dec. 30; Gaz. vol. 197; p. 1168.
 Hedrick, Henry J., Kansas City, Kans. Mail-bag receiving and delivering apparatus. No. 1,081,908; Dec. 16; Gaz. vol. 197; p. 745.
 Hedstrom, John L., Big Rapids, Mich. Feed adjustment for hand-saw grinders. No. 1,082,633; Dec. 30; Gaz. vol. 197; p. 1058.
 Heerwagen Company. (See Schwermer, Joseph, assignor.)
 Hegardt, Axel E., Philadelphia, Pa. Flexible rule. No. 1,079,983; Dec. 2; Gaz. vol. 197; p. 22.
 Hehn, August. (See Bischof and Hehn.)
 Heldenreich, Carl. (See Blank, Heldenreich, and Jansen.)
 Heinke, Christian F., Cleveland, Ohio. Adjusting means for cutting tools, arbors, chucks, collets, &c. No. 1,081,937; Dec. 16; Gaz. vol. 197; p. 755.
 Heinz, Nicholas L. (See Renwick and Heinz.)
 Helsler, Joseph. (See McCarthy, Charles A., assignor.)
 Helssensbittel, Frederick F., New York, N. Y. Advertising apparatus. No. 1,080,340; Dec. 2; Gaz. vol. 197; p. 148.
 Held Company, The. (See Held, Siegfried, assignor.)
 Held, Siegfried, assignor to The Held Company, Chicago, Ill. Water-filter. No. 1,082,024; Dec. 23; Gaz. vol. 197; p. 815.
 Held, Siegfried, assignor to The Held Company, Chicago, Ill. Faucet. No. 1,082,154; Dec. 23; Gaz. vol. 197; p. 857.
 Heldreth, L. D., et al. (See Davis, James S., assignor.)
 Helfenstein, Alois, Vienna, Austria-Hungary. Electric furnace. No. 1,082,195; Dec. 23; Gaz. vol. 197; p. 872.
 Helfenstein, Alois, Vienna, Austria-Hungary. Electric furnace. No. 1,082,196; Dec. 23; Gaz. vol. 197; p. 872.
 Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Induction motor. No. 1,080,061; Dec. 2; Gaz. vol. 197; p. 50.
 Helm, Max, Pankow, near Berlin, Germany, assignor to J. R. Leeson, Boston, Mass. Electrical coil and winding same. No. 1,080,830; Dec. 9; Gaz. vol. 197; p. 351.
 Helstrom, Charles G. (See Zetterstrom and Helstrom.)
 Hemingray Glass Company. (See Hemingray and Hawk, assignors.) (Reissue.)
 Hemingray, Ralph G., and C. Hawk, assignors to Hemingray Glass Company, Muncie, Ind. Screw-press to form insulators. (Reissue.) No. 13,661; Dec. 23; Gaz. vol. 197; p. 970.
 Hemmenway, Eugene S., Boston, Mass. Wave-motor. No. 1,082,746; Dec. 30; Gaz. vol. 197; p. 1097.
 Henderson, Edward K. (See Ray and Henderson.)
 Henderson, Lewis S., Blair, S. C. Carriage-top. No. 1,080,147; Dec. 2; Gaz. vol. 197; p. 81.
 Henderson, William P., et al. (See Tibbs, Angus, assignor.)
 Hendon, Aaron, assignor to Hendon & Rappaport, New York, N. Y. Display device. No. 1,080,831; Dec. 9; Gaz. vol. 197; p. 351.
 Hendon & Rappaport. (See Hendon, Aaron, assignor.)

Hendry, Alexander and M. A., Bridgeton, Glasgow, Scotland. Driving-belt. No. 1,080,443; Dec. 2; Gaz. vol. 197; p. 185.
 Hendry, Arleigh C., Harpersfield, N. Y. Dirigible head-light. No. 1,081,113; Dec. 9; Gaz. vol. 197; p. 441.
 Hendry, John, Lawrence, assignor to Draper Company, Hopedale, Mass. Feeler-motion for looms. No. 1,081,909; Dec. 16; Gaz. vol. 197; p. 745.
 Hendry, Malcolm A. (See Hendry, Alexander and M. A.)
 Hennessey, Albert L., Dunbar, Pa. Window-shade bracket. No. 1,082,591; Dec. 30; Gaz. vol. 197; p. 1042.
 Henning, Chester E., Rudolph, Ohio. Gas-engine starter. No. 1,080,689; Dec. 9; Gaz. vol. 197; p. 298.
 Henning, George W., San Jose, Cal. Vending-machine. No. 1,080,444; Dec. 2; Gaz. vol. 197; p. 185.
 Henrickson, Otto B., Shelby, Mich. Magnesium flash-lamp. No. 1,082,328; Dec. 23; Gaz. vol. 197; p. 920.
 Henry Conolly Company. (See Magin, John G., assignor.)
 Henry, Horace L., Geneva, N. Y. Safety-razor. No. 1,079,984; Dec. 2; Gaz. vol. 197; p. 22.
 Henry, Robert S. (See Shipley, Shepherd B., assignor.)
 Henschel, Frederick, New York, N. Y. Shoe for artistic dancing. No. 1,079,941; Dec. 2; Gaz. vol. 197; p. 6.
 Hentzel, Johann von, Zurich, Switzerland. Apparatus for heating liquids by electricity. No. 1,081,114; Dec. 9; Gaz. vol. 197; p. 441.
 Hennis, Maurice P., Washington, D. C. Water-vender. No. 1,082,327; Dec. 23; Gaz. vol. 197; p. 920.
 Herbst, Charles L., and R. C. Avansino, Los Angeles, Cal. Interchangeable-car-placard device. No. 1,082,155; Dec. 23; Gaz. vol. 197; p. 857.
 Herman, Frederick A., San Francisco, Cal. Door-securer. No. 1,082,121; Dec. 23; Gaz. vol. 197; p. 847.
 Hermann, Max P., Philadelphia, Pa. Pocket implement. No. 1,083,095; Dec. 30; Gaz. vol. 197; p. 1216.
 Herschede, Walter J., Cincinnati, Ohio. Bezel for clock-crystals. No. 1,082,080; Dec. 23; Gaz. vol. 197; p. 834.
 Hertzberg, Harry. (See Arnold, George W., assignor.)
 Herud, Frank, Newark, N. J. Fur-beating machine. No. 1,082,747; Dec. 30; Gaz. vol. 197; p. 1098.
 Herzfeldt, Walter, Weyauwega, Wis. Folding crate. No. 1,080,553; Dec. 9; Gaz. vol. 197; p. 253.
 Hess, Erwin P., assignor to Bethlehem Steel Company, South Bethlehem, Pa. Pump mechanism for hydraulic jacks and like apparatus. No. 1,080,062; Dec. 2; Gaz. vol. 197; p. 50.
 Hesselman, Knut J. E., Stockholm, Sweden. Vaporizer for internal-combustion engines. No. 1,082,328; Dec. 23; Gaz. vol. 197; p. 920.
 Hettlinger, Carl E., Boston, Mass. Combined hop-press and hop-strainer. No. 1,083,013; Dec. 30; Gaz. vol. 197; p. 1189.
 Hewitt, Charles B. (See Zackey, William W., assignor.)
 Hey, Harry, Dewsbury, England. Absorber and separator for gases and vapors. No. 1,080,445; Dec. 2; Gaz. vol. 197; p. 185.
 Heyl, George E., and T. T. Baker, Strand, London, England. Fuel mixture. No. 1,081,739; Dec. 16; Gaz. vol. 197; p. 687.
 Heylman, Edward M., assignor to Oliver Chilled Plow Works, South Bend, Ind. Plow. No. 1,081,530; Dec. 16; Gaz. vol. 197; p. 822.
 Heyman, D. A. (See Wiggins, Edward J., assignor.)
 Hickey, Charles, Blackwell, Okla. Muzzle. No. 1,080,446; Dec. 2; Gaz. vol. 197; p. 186.
 Hickok, Lester E., assignor to one-half to F. E. Wilcox, Mechanicsburg, Pa. Vehicle-gear. No. 1,081,910; Dec. 16; Gaz. vol. 197; p. 746.
 Hicks, Arthur W., administrator. (See Hicks, John A.)
 Hicks, John A., deceased, Summitt, N. J.; A. W. Hicks, administrator. Sealing-cap for vessels. No. 1,082,696; Dec. 30; Gaz. vol. 197; p. 1079.
 Higginbotham, Judson L., assignor to one-sixth to J. M. Spellman and one-sixth to J. S. Murray, Dallas, Tex. Photographic-printing machine. No. 1,082,748; Dec. 30; Gaz. vol. 197; p. 1098.
 Higgins, Eric B. (See Wimmer and Higgins.)
 Higgins, Frank, Mulberry, Kans. Sighting-target. No. 1,081,829; Dec. 16; Gaz. vol. 197; p. 721.
 Hildreth, Ward. (See Ross, Oscar T., assignor.)
 Hilgers, Gerrit, Rotterdam, Netherlands. Life-boat for submarine vessels. No. 1,081,740; Dec. 16; Gaz. vol. 197; p. 687.
 Hilker, Edward. (See Gould, Charles T. E., assignor.)
 Hill, Charles D., Evansville, Ind., assignor to Goodell & Hill, Beardstown, Ill. Pipe-stem. No. 1,081,920; Dec. 16; Gaz. vol. 197; p. 752.
 Hill, Ebenezer, Norwalk, Conn. Air-compressor. No. 1,080,063; Dec. 2; Gaz. vol. 197; p. 51.
 Hill, George S., Stratford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Buttonhole-finishing machine. No. 1,080,341; Dec. 2; Gaz. vol. 197; p. 148.
 Hill, George S., Stratford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,080,343; Dec. 2; Gaz. vol. 197; p. 149.
 Hill, George S., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,080,342; Dec. 2; Gaz. vol. 197; p. 149.
 Hill, Halbert P., New York, N. Y. Tobacco-working machine. No. 1,082,519; Dec. 30; Gaz. vol. 197; p. 1015.
 Hill, Harvey E. (See Flint, Lewis R., assignor.)

Hill, Joshua A., assignor to one-half to G. W. Rogers, Essex, Ontario, Canada. Steering-fork for vehicles. No. 1,082,122; Dec. 23; Gaz. vol. 197; p. 847.
 Hillis, Samuel E., and B. V. Colburn, assignors to The Samuel C. Tatum Company, Cincinnati, Ohio. Drilling-machine. No. 1,082,860; Dec. 30; Gaz. vol. 197; p. 1138.
 Hilliard, John D., Albany, N. Y., assignor to New England Metal & Machine Company, Boston, Mass. Smelting metals. No. 1,080,344; Dec. 2; Gaz. vol. 197; p. 150.
 Hills, Ernest E., assignor to one-third to H. B. Blue, Medina, Wis. Life-saving device. No. 1,081,115; Dec. 9; Gaz. vol. 197; p. 442.
 Hines, John A. (See Phipps, John H., assignor.)
 Hipkiss, Samuel, Stoneham, Mass. Foot-ball helmet. No. 1,080,690; Dec. 9; Gaz. vol. 197; p. 298.
 Hipsley, John R., Mountain Lake Park, Md. Nut-lock. No. 1,081,741; Dec. 16; Gaz. vol. 197; p. 688.
 Hirsh, Fred, New Haven, Conn. Clasp. No. 1,081,501; Dec. 16; Gaz. vol. 197; p. 611.
 Hirsh, Julian. (See Elder, William S., assignor.)
 Hirst, Edwin P., Philadelphia, Pa. Display device. No. 1,080,108; Dec. 2; Gaz. vol. 197; p. 67.
 Hirst, John, Alliance, assignor to The Dunham Company, Berea, Ohio. Land roller or pulverizer. No. 1,082,806; Dec. 30; Gaz. vol. 197; p. 1118.
 Hoadley, Alfred H., Providence, R. I. Fuel-pump for internal-combustion engines. No. 1,080,216; Dec. 2; Gaz. vol. 197; p. 104.
 Hoadley, Alfred H., Providence, R. I. Tractor system for motor-vehicles. No. 1,080,447; Dec. 2; Gaz. vol. 197; p. 186.
 Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Device for opening tubular carriers. No. 1,082,867; Dec. 30; Gaz. vol. 197; p. 1139.
 Hoar, James B., Scranton, Pa. Locomotive-tender. No. 1,080,969; Dec. 9; Gaz. vol. 197; p. 397.
 Hobart Electric Manufacturing Company, The. (See Johnston, Herbert L., assignor.)
 Hobbs, Arthur H., assignor to R. E. Voorhees, Spokane, Wash. Self-locking fuel-chute. No. 1,083,014; Dec. 30; Gaz. vol. 197; p. 1189.
 Hobbs, Oliver P. (See Gates and Hobbs.)
 Hobbs, Willis F., Bridgeport, Conn. Making nail-extractor jaws. No. 1,080,278; Dec. 2; Gaz. vol. 197; p. 126.
 Hobbs, Willis F., Bridgeport, Conn. Combined nail-puller and scraper. No. 1,082,952; Dec. 30; Gaz. vol. 197; p. 1168.
 Hobling, Ernest H., Leyton, England. Construction of blinds or screens. No. 1,083,096; Dec. 30; Gaz. vol. 197; p. 1216.
 Hochenauer, Joseph, Pueblo, Colo. Packing-machine. No. 1,081,742; Dec. 16; Gaz. vol. 197; p. 688.
 Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Stage-scenery apparatus. No. 1,080,091; Dec. 9; Gaz. vol. 197; p. 209.
 Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Shiftable screen for moving pictures. No. 1,080,692; Dec. 9; Gaz. vol. 197; p. 299.
 Hodgdon, Walter E., Portland, Me. Faucet. No. 1,082,329; Dec. 23; Gaz. vol. 197; p. 921.
 Hodge, William B., Charlotte, N. C. Apparatus for indicating and regulating humidity. No. 1,080,109; Dec. 2; Gaz. vol. 197; p. 67.
 Hodges, Squire C. (See Freeman, John W., assignor.)
 Hoener, John H., Slater, Mo. Sweep-rake. No. 1,082,520; Dec. 30; Gaz. vol. 197; p. 1016.
 Hoepfner, Karl, Dayton, Ohio. Metal saw and trimmer. No. 1,082,521; Dec. 30; Gaz. vol. 197; p. 1016.
 Hoey, John, San Francisco, Cal. Folding couch. No. 1,080,217; Dec. 2; Gaz. vol. 197; p. 104.
 Hoffman, Alfred, Brooklyn, N. Y., assignor to Alco Deo Company, Chemical process. No. 1,082,424; Dec. 23; Gaz. vol. 197; p. 951.
 Hoffman, Valentine, Chicago, Ill. Marking-machine. No. 1,082,025; Dec. 23; Gaz. vol. 197; p. 815.
 Hoffstad, William H., Kansas City, Mo. Mantle-protector. No. 1,081,743; Dec. 16; Gaz. vol. 197; p. 689.
 Hofmann, Fritz, and K. Delbrück, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vulcanized caoutchouc and making same. No. 1,081,613; Dec. 16; Gaz. vol. 197; p. 647.
 Hofmann, Fritz, and K. Delbrück, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Caoutchouc substance and making same. No. 1,081,614; Dec. 16; Gaz. vol. 197; p. 647.
 Hofmann, Fritz, C. Coutelle, K. Melsenburg, and K. Delbrück, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Caoutchouc substances and making same. No. 1,082,522; Dec. 30; Gaz. vol. 197; p. 1017.
 Hoke, Harry A., Altoona, Pa. Equalizing arrangement for locomotives. No. 1,082,592; Dec. 30; Gaz. vol. 197; p. 1043.
 Hoke, Harry A., and C. J. Barley, Altoona, Pa. Plaston-packing. No. 1,082,523; Dec. 30; Gaz. vol. 197; p. 1017.
 Holden, James F., et al. (See Perkins, Charles J., assignor.)
 Holik, Frank, Prague, Okla. Railway-rail tie and fastener. No. 1,081,615; Dec. 16; Gaz. vol. 197; p. 647.

Holland, William W., Roland Park, Md. Anticreeping device. No. 1,081,305; Dec. 16; Gaz. vol. 197; p. 544.
 Hollett, Ira W., Chicago, Ill., assignor to The Sefton Manufacturing Company, Anderson, Ind. Paper receptacle. No. 1,082,868; Dec. 30; Gaz. vol. 197; p. 1139.
 Holley, Clifford D., assignor to Acme White Lead and Color Works, Detroit, Mich. Manufacture of lead pigments. No. 1,082,953; Dec. 30; Gaz. vol. 197; p. 1168.
 Holliger, Gottlieb R., Birmingham, Ala. Valve for gas-engine starters. No. 1,080,213; Dec. 2; Gaz. vol. 197; p. 105.
 Holloway, Herbert E., Trenton, N. J. Watchmaker's tweezers. No. 1,081,830; Dec. 16; Gaz. vol. 197; p. 721.
 Holloway, Jesse A., Bowdon, Ga. Hose-coupling. No. 1,081,963; Dec. 23; Gaz. vol. 197; p. 798.
 Holman, Joseph W., Cleveland, Ohio. Mold for sidewalk construction. No. 1,080,693; Dec. 9; Gaz. vol. 197; p. 300.
 Holman, Nicholas, Chicago, Ill. Apparatus for cooking and cooling syrups for candy. No. 1,082,268; Dec. 23; Gaz. vol. 197; p. 899.
 Holmes, Clayton F., assignor to one-half to J. Frieblis, Beaumont, Tex. Smoke-separator. No. 1,081,116; Dec. 9; Gaz. vol. 197; p. 442.
 Holmes, Edward B. (See Beugler, Edwin F., assignor.)
 Holmes, Frank D., assignor to Detroit Alaska Knitting Mills, Detroit, Mich. Knitting-machine. No. 1,081,043; Dec. 9; Gaz. vol. 197; p. 419.
 Holmes, Joseph F., Huntsville, Ala. Banana-shipment device. No. 1,082,524; Dec. 30; Gaz. vol. 197; p. 1017.
 Holmquist, John A., Johnstown, Pa., assignor to Cambria Steel Company. Wire-fence machine. No. 1,082,697; Dec. 30; Gaz. vol. 197; p. 1079.
 Holohan, John J. (See Jagielski and Holohan.)
 Holt, Benjamin, Stockton, Cal. Flexible endless track for traction-engines. No. 1,082,330; Dec. 23; Gaz. vol. 197; p. 921.
 Holt, David G., Santa Monica, and G. R. Horton, Los Angeles, Cal. Matrix-plata holder and spacer. No. 1,082,197; Dec. 23; Gaz. vol. 197; p. 872.
 Holub-Dusha Co. Inc. (See Dusha, Feyk, and Komancsek, assignors.)
 Holworthy, Herbert F., Church Stretton, England. Wheel-scoth. No. 1,082,807; Dec. 30; Gaz. vol. 197; p. 1118.
 Holzhausen, Richard C. A., New York, N. Y., assignor, by mesne assignments, to Hotakold Valve Co., Inc. Mixing-valve. No. 1,083,015; Dec. 30; Gaz. vol. 197; p. 1189.
 Homberg, Adolf, Passaic, N. J. Hat-fastener. No. 1,081,669; Dec. 16; Gaz. vol. 197; p. 664.
 Honey, William B., Mount Rainier, Md., assignor to one-fourth to E. F. Wilson and one-fourth to S. M. Wilson, Washington, D. C. Plumb-bob support. No. 1,080,448; Dec. 2; Gaz. vol. 197; p. 186.
 Hönig, Max, Brunn, Austria-Hungary. Tanning material and making same. No. 1,080,970; Dec. 9; Gaz. vol. 197; p. 397.
 Hook, Charles H., Pittsburgh, Pa. Heater. No. 1,081,306; Dec. 16; Gaz. vol. 197; p. 545.
 Hook, James, Manila, Iowa. Bumping-gear for draw-bars. No. 1,080,279; Dec. 2; Gaz. vol. 197; p. 126.
 Hoover, Lee W., Nebraska, Pa. Hatchet-wrench. No. 1,081,117; Dec. 9; Gaz. vol. 197; p. 443.
 Hoover Suction Sweeper Company, The. (See Spangler, James M., assignor.)
 Hopkins, Archibald E., and O. S. Fellows, Middletown, N. Y., assignors to Ideal Wrapping Machine Company. Automatic feeding and cutting mechanism for plastic material. No. 1,082,331; Dec. 23; Gaz. vol. 197; p. 921.
 Hopkins, Archibald E., and O. S. Fellows, Middletown, N. Y., assignors to Ideal Wrapping Machine Company. Wrapping-machine. No. 1,082,463; Dec. 23; Gaz. vol. 197; p. 963.
 Hopkins, Hubert, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Calculating-machine. No. 1,080,694; Dec. 9; Gaz. vol. 197; p. 300.
 Hopkins, Thomas A., New York, N. Y. Surgical instrument. No. 1,080,554; Dec. 9; Gaz. vol. 197; p. 254.
 Hopkinson, Richard H., and V. Bradford, England. Adaptable motor-car body. No. 1,083,097; Dec. 30; Gaz. vol. 197; p. 1216.
 Hopkinson, Vincent. (See Hopkinson, Richard H. and V.)
 Horn, Aaron C., New York, N. Y. Pigmented plastic water-proof troweling composition. No. 1,080,632; Dec. 9; Gaz. vol. 197; p. 279.
 Horne, James H. (See Stevens and Horne.)
 Horton, George R. (See Holt and Horton.)
 Horwitz, Benjamin A. (See Eaterly and Horwitz.)
 Hotakold Valve Co. (See Holzhausen, Richard C. A., assignor.)
 Houchins, Henry M., Beckley, W. Va. Potato-digger. No. 1,083,098; Dec. 30; Gaz. vol. 197; p. 1217.
 Hough, William S., Jr. (See Wiley and Hough.)
 Houghton, Harry. (See Crawford, James B., assignor.)
 Houghton, Willard, assignor to one-half to P. Barnes, Seattle, Wash. Logging-car bunk. No. 1,082,464; Dec. 23; Gaz. vol. 197; p. 963.
 Houser, Arthur M., assignor to Crane Company, Chicago, Ill. Closet-flushing mechanism. No. 1,081,602; Dec. 16; Gaz. vol. 197; p. 612.

Houser, James A., Marion, Ind. Distilling apparatus. No. 1,082,525; Dec. 30; Gaz. vol. 197; p. 1018.

Housh, Frank E., Winthrop, Mass. Picture-mount. No. 1,080,219; Dec. 2; Gaz. vol. 197; p. 105.

Housley, Robert B., Las Vegas, Nev. Floor connection for fire-sheets. No. 1,080,008; Dec. 2; Gaz. vol. 197; p. 31.

Hover-Incubator Manufacturing Company. (See Thomson, Thomas N., assignor.)

Howorka, Anton, Chicago, Ill. Crate. No. 1,081,831; Dec. 16; Gaz. vol. 197; p. 721.

Howard, Charles, New York, N. Y. Obtaining rosin and turpentine from wood. No. 1,082,526; Dec. 30; Gaz. vol. 197; p. 1018.

Howard, Clarence H., and H. M. Pfager, assignors to Double Body Bolster Company, St. Louis, Mo. Truck construction. No. 1,080,555; Dec. 9; Gaz. vol. 197; p. 254.

Howard, Clarence H., and H. M. Pfager, assignors to Double Body Bolster Company, St. Louis, Mo. Truck construction. No. 1,080,556; Dec. 9; Gaz. vol. 197; p. 254.

Howard, Clarence H., and H. M. Pfager, assignors to Double Body Bolster Company, St. Louis, Mo. Truck construction. No. 1,080,557; Dec. 9; Gaz. vol. 197; p. 255.

Howard, Clarence H., and H. M. Pfager, assignors to Double Body Bolster Company, St. Louis, Mo. Truck construction. No. 1,080,558; Dec. 9; Gaz. vol. 197; p. 255.

Howard, Clarence H., and H. M. Pfager, assignors to Double Body Bolster Company, St. Louis, Mo. Truck construction. No. 1,080,559; Dec. 9; Gaz. vol. 197; p. 255.

Howard, James H., et al. (See Thomson, John A., assignor.)

Howard, Joseph L., et al. (See Thomson, John A., assignor.)

Howard, Victor, and J. P. Wrigley, Oakland, Cal. Changeable headlight. No. 1,080,110; Dec. 2; Gaz. vol. 197; p. 68.

Howe, Clarence B., Utica, N. Y. Garment steaming and pressing machine. No. 1,080,695; Dec. 9; Gaz. vol. 197; p. 301.

Howe, Glenn G. and L. C. Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill. Drive-chain. No. 1,082,332; Dec. 23; Gaz. vol. 197; p. 922.

Howe, Louis C. (See Howe, Glenn G. and L. C.)

Howe, Olaf L., Missoula, Mont. Current-motor. No. 1,081,118; Dec. 9; Gaz. vol. 197; p. 443.

Howell, Mary, Ione, Oreg. Coffee-pot. No. 1,083,211; Dec. 30; Gaz. vol. 197; p. 1249.

Howg, Carl M., Sisseton, S. D. Adjustable plastering-trowel. No. 1,083,099; Dec. 30; Gaz. vol. 197; p. 1217.

Hubbard, Albert S., Greenwich, Conn., assignor to Gould Storage Battery Company. Storage battery. No. 1,082,869; Dec. 30; Gaz. vol. 197; p. 1139.

Hubbard, Norman, Elizabeth, N. J. Bottle-holder. No. 1,082,808; Dec. 30; Gaz. vol. 197; p. 1118.

Hubbard, Richard L., Philadelphia, Pa. Muffler cut-out. No. 1,081,744; Dec. 16; Gaz. vol. 197; p. 689.

Hubbell, Harry C., Newark, N. J. Making storage-battery electrodes. No. 1,081,531; Dec. 16; Gaz. vol. 197; p. 623.

Huber, Jacques, Basel, Switzerland. Nut-wrench. No. 1,080,064; Dec. 2; Gaz. vol. 197; p. 51.

Hubert, Conrad. (See Coleman, Clyde J., assignor.)

Hudnall, E. J. (See Nale, Franklin H., assignor.)

Huenefeld Company, The. (See Huenefeld, Walter E., assignor.)

Huenefeld, Walter E., assignor to The Huenefeld Company, Cincinnati, Ohio. Stove. No. 1,080,148; Dec. 2; Gaz. vol. 197; p. 81.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Universal joint. No. 1,080,111; Dec. 2; Gaz. vol. 197; p. 68.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,080,761; Dec. 9; Gaz. vol. 197; p. 325.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,080,762; Dec. 9; Gaz. vol. 197; p. 325.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Starting means for motor-vehicles. No. 1,081,382; Dec. 16; Gaz. vol. 197; p. 571.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,082,026; Dec. 23; Gaz. vol. 197; p. 815.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,082,527; Dec. 30; Gaz. vol. 197; p. 1018.

Hufnall, Francis E., Minneapolis, Minn. Making a medicinal composition. No. 1,082,081; Dec. 23; Gaz. vol. 197; p. 834.

Hughes, Hugh T., assignor of one-half to W. H. McGranaghan, Youngstown, Ohio. Nut-lock. No. 1,081,232; Dec. 9; Gaz. vol. 197; p. 481.

Hughes, Joseph, New York, N. Y. Hair-pin. No. 1,082,333; Dec. 23; Gaz. vol. 197; p. 922.

Hugo Manufacturing Company, The. (See Newkirk, Perry R., assignor.)

Huguelet, William P., Chicago, Ill., assignor, by mesne assignments, to Muir Company, Incorporated, Baltimore, Md. Carbureter. No. 1,080,696; Dec. 9; Gaz. vol. 197; p. 301.

Huhn, Hermann. (See Williams and Huhn.)

Hult, Frank O., Galesburg, Ill. Door-operating means. No. 1,080,280; Dec. 2; Gaz. vol. 197; p. 127.

Humason, John W., Youngstown, Ohio. Saw-guard. No. 1,082,870; Dec. 30; Gaz. vol. 197; p. 1140.

Humbert, Ernest, South Chicago, Ill. Purifying steel. No. 1,081,532; Dec. 16; Gaz. vol. 197; p. 623.

Hume, John T., Chicago Heights, assignor to Chicago Pneumatic Tool Co., Chicago, Ill. Speed-controlling apparatus. No. 1,081,832; Dec. 16; Gaz. vol. 197; p. 722.

Hume, Walter E., East Rutherford, N. J., assignor of one-half to J. Pollak, New York, N. Y. Support for dress-forms. No. 1,080,911; Dec. 9; Gaz. vol. 197; p. 377.

Humes, James, Philadelphia, Pa. Ice-making apparatus. No. 1,082,871; Dec. 30; Gaz. vol. 197; p. 1140.

Humphrey, Alfred H., New York, N. Y., assignor to General Gas Light Company, Kalamazoo, Mich. Gas-lamp. No. 1,082,855; Dec. 30; Gaz. vol. 197; p. 1169.

Humphrey, Frederick J., and H. R., assignors to General Gas Light Company, Kalamazoo, Mich. Valve mechanism for gas-lamps. No. 1,082,954; Dec. 30; Gaz. vol. 197; p. 1168.

Humphrey, Hubert R. (See Humphrey, Frederick J. and H. R.)

Humphrey, John T., East Ham, England. Device to prevent fraudulent refilling of bottles. No. 1,082,872; Dec. 30; Gaz. vol. 197; p. 1140.

Humphrey, William A., Sparta, Wis. Combined sled-stake and logging-bunk. No. 1,082,425; Dec. 23; Gaz. vol. 197; p. 952.

Hunker, Andrew. (See White, Charles S., assignor.)

Hunt, Charles E., Thomasville, Ala. Cuspidor. No. 1,081,448; Dec. 16; Gaz. vol. 197; p. 594.

Hunter, Hugh M., assignor to The National-Acme Manufacturing Company, Cleveland, Ohio. Metal-working machine. No. 1,081,964; Dec. 23; Gaz. vol. 197; p. 793.

Hunter, Matthew A., Troy, N. Y. Low-freezing liquid. No. 1,082,528; Dec. 30; Gaz. vol. 197; p. 1019.

Hunter, Rudolph M. (See Weeks and Hunter.)

Hunter, Samuel, Bellevue, Pa. Routing-machine. No. 1,083,212; Dec. 30; Gaz. vol. 197; p. 1250.

Huntley, David, London, England. Electric heating element. No. 1,081,233; Dec. 9; Gaz. vol. 197; p. 482.

Hurlbut, Ira D., Prairie du Chien, Wis. Relief print. No. 1,083,100; Dec. 30; Gaz. vol. 197; p. 1217.

Hurley, Francis L., Roanoke, Va. Gage-bracket. No. 1,083,254; Dec. 30; Gaz. vol. 197; p. 1264.

Hurley, Isaac, Ontario Center, N. Y. Motor. No. 1,081,044; Dec. 9; Gaz. vol. 197; p. 420.

Hurst, Joseph H., Sheffield, England. Compressor for air and gas. No. 1,082,156; Dec. 23; Gaz. vol. 197; p. 858.

Hurwitz, Aaron E., and C. W. Goodman, Portland, Oreg. Balance-staff for watches. No. 1,080,449; Dec. 2; Gaz. vol. 197; p. 187.

Husch, George S. (See Husch, Sylvester B. and G. S.)

Husch, Sylvester B. and G. S., New York, N. Y. Tooth-brush. No. 1,080,633; Dec. 9; Gaz. vol. 197; p. 279.

Husch, Sylvester B. and G. S., New York, N. Y. Tooth-brush. No. 1,080,634; Dec. 9; Gaz. vol. 197; p. 280.

Huskinson, Arno C. (See Digby, Beatty, and Huskinson.)

Hutches, Benjamin F., Jr., Allendale, N. J. Automatic control system for electric railways. No. 1,082,956; Dec. 30; Gaz. vol. 197; p. 1169.

Hutchings, Marvin C., assignor of one-third to G. W. Baker, Bozeman, Mont. Safety device for elevators. No. 1,080,450; Dec. 2; Gaz. vol. 197; p. 187.

Hutchinson, George, Christchurch, New Zealand. Weighing-scale. No. 1,081,234; Dec. 9; Gaz. vol. 197; p. 482.

Hutchinson, Job, Long Island City, N. Y., assignor to National Indicator Company. Ice-pick. No. 1,080,220; Dec. 2; Gaz. vol. 197; p. 106.

Hutchinson, Martha E., Los Angeles, Cal. Invalid bed-zown. No. 1,080,451; Dec. 2; Gaz. vol. 197; p. 187.

Hutchison, William T. (See Rutkowski and Hutchison.)

Huther Brothers Saw Mfg. Co. (See Aldridge, Harry G., assignor.)

Huttelmaier, Gustave E., Scottsdale, Pa. Apparatus for controlling air and other gas-compressors. No. 1,080,452; Dec. 2; Gaz. vol. 197; p. 187.

Hutton, Stanley P. (See Naylor and Hutton.)

Hyatt Roller Bearing Company. (See Lockwood, Charles S., assignor.)

Hyatt, Thomas B., Connellsville, Pa. Mail-box. No. 1,081,383; Dec. 16; Gaz. vol. 197; p. 572.

Hyndman, George H., Butte, Mont. Valve. No. 1,081,833; Dec. 16; Gaz. vol. 197; p. 722.

Iblings, John I., Cedar Falls, Iowa. Automatic stock-salting device. No. 1,081,235; Dec. 9; Gaz. vol. 197; p. 482.

Ideal Machinery Company. (See Walsh, John L., assignor.)

Ideal Wrapping Machine Company. (See Hopkins and Fellows, assignors.)

Ilzland, Lawrence D., von, Fort Saskatchewan, Alberta, Canada. Apparatus for demonstrating the motions of the earth. No. 1,082,334; Dec. 23; Gaz. vol. 197; p. 922.

Imhoff, George A., Grow, Okla. Shock-loader. No. 1,080,345; Dec. 2; Gaz. vol. 197; p. 151.

Imperator, Vittorio, assignor to Società Italiana Per Il Carburato Di Calcio, Rome, Italy. Coating carbide with calcium cyanamid. No. 1,081,938; Dec. 16; Gaz. vol. 197; p. 755.

Improved Sanitary Fixture Company. (See Barker, George H., assignor.)

Improved Schilli Machine Company. (See Keller, Anton, assignor.)

Inabnit, John R., Sedan, Mont. Restraining device. No. 1,083,101; Dec. 30; Gaz. vol. 197; p. 1218.

Inebnit, Glen W., Goshen, Ind. Slidable-section step-ladder. No. 1,081,236; Dec. 9; Gaz. vol. 197; p. 482.

Infalible Moth and Dust Proof Receptacle Company, The. (See Geschickter, Leo, assignor.)

Ingersoll Milling Machine Company, The. (See Smith, George W., assignor.)

Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)

Ingersoll-Rand Company, The. (See Carr, Walter E., assignor.)

Ingersoll-Rand Company. (See Gibson, Arthur H., assignor.)

Ingersoll-Rand Company. (See Taylor, Albert H., assignor.)

Inghram, Eva L., administratrix. (See Inghram, William H.)

Inghram, William R., deceased, Tucson, Ariz.; E. L. Inghram, administratrix. Binding-eyelet. No. 1,082,335; Dec. 23; Gaz. vol. 197; p. 923.

Ingraham, Edwin S., Oakville, Conn. Machine for making safety-plns. No. 1,082,873; Dec. 30; Gaz. vol. 197; p. 1141.

International Aeronautical Construction Company. (See Vanman, Melvin, assignor.)

International Haloid Company. (See Du Pont, Francis I., assignor.)

International Machine and Screw Company. (See Warwick, George T., assignor.)

International Manufacturing & Equipping Co. (See Westfield, Newton C., assignor.)

International Manufacturing & Mining Co. (See Stephens, Elisha A., assignor.)

International Mining & Milling Co., The. (See Christensen, Christoffer A., assignor.)

International Sprinkler Company, The. (See Lewis, Arthur M., assignor.)

International Sprinkler Company, The. (See Rowley, Arthur C., assignor.)

Irwin, Harry R., Newport, Ky. Water-motor. No. 1,082,634; Dec. 30; Gaz. vol. 197; p. 1058.

Irwin, Harry R., Fort Thomas, Ky. Water-motor. No. 1,082,635; Dec. 30; Gaz. vol. 197; p. 1058.

Isaacs, Herbert M., Newark, N. J. Food product. No. 1,080,971; Dec. 9; Gaz. vol. 197; p. 398.

Isidor, Joseph S., Newark, N. J., assignor to R. Neumann Hardware Co. Catch for portfolios and the like. No. 1,080,832; Dec. 9; Gaz. vol. 197; p. 351.

Island, James S., Toronto, Ontario, Canada. Apparatus for forming oxides of nitrogen. No. 1,082,529; Dec. 30; Gaz. vol. 197; p. 1019.

Isselhorst, Heinrich, Bielefeld, and H. Angerstein, Berlin, Germany. Stamp feeding and affixing device. No. 1,081,270; Dec. 9; Gaz. vol. 197; p. 495.

Iversen, Michael, Stoughton, Wis. Surgical appliance. No. 1,081,834; Dec. 16; Gaz. vol. 197; p. 722.

Ivory, James W., Philadelphia, Pa. Interchangeable artificial teeth. No. 1,081,307; Dec. 16; Gaz. vol. 197; p. 545.

J. Geo. Leyner Engineering Works Company, The. (See Leyner, John G., assignor.)

J. D. Riedel Aktiengesellschaft. (See Gans, Robert, assignor.)

J. B. Porter Company. (See Jacobs, William F., assignor.)

J. P. Curry Mfg. Co. (See Slosson, James B., assignor.)

Jackaon, Alexander M., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,081,308; Dec. 16; Gaz. vol. 197; p. 545.

Jackaon, Alexander M., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,081,309; Dec. 16; Gaz. vol. 197; p. 546.

Jackaon, George P., New York, N. Y. Playing-surface. No. 1,080,972; Dec. 9; Gaz. vol. 197; p. 398.

Jackaon, Harold, Garstang, England. Preparing paper-pulp. No. 1,083,102; Dec. 30; Gaz. vol. 197; p. 1218.

Jackaon, Harold, Garstang, England. Grinding, pulping, and pulverizing machine. No. 1,083,213; Dec. 30; Gaz. vol. 197; p. 1250.

Jackaon, John A., Chicago, Ill. Tank-car construction. No. 1,082,269; Dec. 23; Gaz. vol. 197; p. 899.

Jackaon, Lilius, administratrix. (See Jackson, William W.)

Jackson, Percy L., et al. (See Bonner, Samuel, assignor.)

Jackson, Simeon S., Readville, Boston, assignor to The Stafford Company, Readville, Mass. Loom for weaving bags, &c. No. 1,081,384; Dec. 16; Gaz. vol. 197; p. 572.

Jackson, William W., deceased; L. Jackson, administratrix, assignor of one-third to C. J. Maddux, Denver, Colo. Revolving-knife harrow and pulverizer. No. 1,082,749; Dec. 30; Gaz. vol. 197; p. 1099.

Jacobs, Ernest C., Rockland, assignor to United Shoe Machinery Company, Boston, Mass. Making boot and shoe pull-on devices. No. 1,081,835; Dec. 16; Gaz. vol. 197; p. 723.

Jacobs, Frank F. and M. S., Indianapolis, Ind. Horseshoe ice-creper. No. 1,081,449; Dec. 16; Gaz. vol. 197; p. 584.

Jacobs, Henry E. (See Dasher and Jacobs.)

Jacobs, Minnie S. (See Jacobs, Frank F. and M. S.)

Jacobs, William F., assignor to J. E. Porter Company, Ottawa, Ill. Cattle-stanchion. No. 1,080,065; Dec. 2; Gaz. vol. 197; p. 51.

Jacobsen, Jacob F. (See Milligan and Jacobsen.)

Jacobus, James W., Great Neck, assignor to The Jacobus Pneumatic Inkwell Company, New York, N. Y. Ink-stand. No. 1,082,157; Dec. 23; Gaz. vol. 197; p. 858.

Jacobus Pneumatic Inkwell Company, The. (See Jacobus, James W., assignor.)

Jacomy, Pierre, Asnières, France. Metallic propeller. No. 1,082,750; Dec. 30; Gaz. vol. 197; p. 1099.

Jagielski, Henry, and J. J. Holohan, Gibson, Ind. Frost-cock for locomotive-boilers. No. 1,080,973; Dec. 9; Gaz. vol. 197; p. 398.

Jahnz, Erwin, Zurich, Switzerland. Calculating-machine. No. 1,081,310; Dec. 16; Gaz. vol. 197; p. 646.

James, Harney H., Los Angeles, Cal. Combination satchel, cart, and camp-stool. No. 1,081,670; Dec. 16; Gaz. vol. 197; p. 664.

James, William D., Fort Atkinson, Wis. Stanchion. No. 1,081,045; Dec. 9; Gaz. vol. 197; p. 420.

Jamson, Charles V., Chicago, Ill. Valve for player-pianos. No. 1,081,533; Dec. 16; Gaz. vol. 197; p. 623.

Janeck, Emil O., Madison, Wis. Ventilator. No. 1,080,453; Dec. 2; Gaz. vol. 197; p. 188.

Jansen, Johannes. (See Blank, Heidenreich, and Jansen.)

Jas. H. Matthews & Co. (See Matthews and Steln, assignors.)

Jay, Webb, Chicago, Ill. Pruning attachment for explosive-engines. No. 1,081,534; Dec. 16; Gaz. vol. 197; p. 623.

Jeffers, Jesse, assignor to Whitin Machine Works, Whitinville, Mass. Thread-gulde. No. 1,082,874; Dec. 30; Gaz. vol. 197; p. 1141.

Jeffrey Manufacturing Company, The. (See Dierdorff, Henry B., assignor.)

Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)

Jensen, Elizabeth E., San Francisco, Cal. Nursing-nipple. No. 1,082,198; Dec. 23; Gaz. vol. 197; p. 873.

Jenkins, Alexander F., assignor to The Alexander Milburn Company, Baltimore, Md. Acetylene-generator. No. 1,081,503; Dec. 16; Gaz. vol. 197; p. 612.

Jenkins, Charles F., Washington, D. C. Flying-machine. No. 1,081,504; Dec. 16; Gaz. vol. 197; p. 612.

Jenkins, Charles F., Washington, D. C., assignor, by mesne assignments, to Laemmle Manufacturing Company. Moving-picture apparatus. No. 1,083,016; Dec. 30; Gaz. vol. 197; p. 1190.

Jensen, Aage, Oakland, Cal. Heater. No. 1,080,454; Dec. 2; Gaz. vol. 197; p. 188.

Jensen, Aage, Oakland, Cal. Liquid pasteurizer and cooler. No. 1,080,455; Dec. 2; Gaz. vol. 197; p. 189.

Jentzsch, Richard, Chicago, Ill. Tube-extractor. No. 1,083,103; Dec. 30; Gaz. vol. 197; p. 1218.

Jenyns, Sarah A., Brisbane, Queensland, Australia, assignor of one-tenth to H. S. MacKaye, Yonkers, N. Y. Corset. No. 1,081,385; Dec. 16; Gaz. vol. 197; p. 573.

Jeppson, George N., assignor to Norton Company, Worcester, Mass. Crucible. No. 1,081,535; Dec. 16; Gaz. vol. 197; p. 624.

Jeppson, George N., assignor to Norton Company, Worcester, Mass. Refractory composition. No. 1,081,536; Dec. 16; Gaz. vol. 197; p. 624.

Jester, Marvin H., Denver, Colo., assignor to The M. H. Jester Investment Company. Support for receiving stucco and other plastering material. No. 1,080,221; Dec. 2; Gaz. vol. 197; p. 106.

Jester, Marvin H., Denver, Colo., assignor to The M. H. Jester Investment Company. Metallic-studding metal-clip plaster-board partition-wall construction. No. 1,082,336; Dec. 23; Gaz. vol. 197; p. 923.

Jiraneck, Loula A., Minneapolis, Minn. Sanitary baby-dresser. No. 1,082,082; Dec. 23; Gaz. vol. 197; p. 835.

Joachimson, Martin, assignor to Bass Bros., New York, N. Y. Angle or miter clamp. No. 1,081,311; Dec. 16; Gaz. vol. 197; p. 546.

Johanson, Peter E., Warren, Pa. Universal tool-holder. No. 1,080,560; Dec. 9; Gaz. vol. 197; p. 255.

John, Daniel W., assignor of one-half to G. John, Dempsey, Idaho. Fly-trap. No. 1,082,027; Dec. 23; Gaz. vol. 197; p. 816.

John, George. (See John, Daniel W., assignor.)

John Simmons Company. (See Kenny, John, assignor.)

Johnson, Albert E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine thread pull-off. No. 1,082,636; Dec. 30; Gaz. vol. 197; p. 1059.

Johnson, Archer W., Holland, Mich. Switch. No. 1,081,119; Dec. 9; Gaz. vol. 197; p. 443.

Johnson, Austin C., assignor, by mesne assignments, to Automatic Production Meter Company, Chicago, Ill. Controlling means for machine-recorders. No. 1,082,083; Dec. 23; Gaz. vol. 197; p. 836.

Johnson, Benjamin A., Chicago, Ill. Brake-shoe. No. 1,081,046; Dec. 9; Gaz. vol. 197; p. 420.

Johnson, Charles E., assignor to The American Hardware Corporation, New Britain, Conn. Time-recording mechanism. No. 1,080,697; Dec. 9; Gaz. vol. 197; p. 301.

Johnson, Claude M., New York, N. Y., assignor to Unsinkable Bathing Boat Company, Inc. Bathing-boat. No. 1,080,635; Dec. 9; Gaz. vol. 197; p. 280.

Johnson, Frank A., Dunellen, N. J., assignor to The Signature Company, New York, N. Y. Machine for writing a plurality of signatures. No. 1,080,346; Dec. 2; Gaz. vol. 197; p. 151.

Johnson, Frank A., Dunellen, N. J., assignor to The Signature Company, New York, N. Y. Multiple-writing machine. No. 1,080,347; Dec. 2; Gaz. vol. 197; p. 151.

Johnson, George W., Oakland, Cal. Can-opener. No. 1,080,636; Dec. 9; Gaz. vol. 197; p. 280.
 Johnson, John T., assignor of one-half to V. G. Anderson, Worcester, Mass. Pump mechanism for carpet-sweepers. No. 1,080,112; Dec. 2; Gaz. vol. 197; p. 68.
 Johnson, Oscar H., Elyria, Ohio. Tobacco-container. No. 1,083,104; Dec. 30; Gaz. vol. 197; p. 1218.
 Johnson, Peter, Heaton, N. Mex. Trolley. No. 1,083,017; Dec. 30; Gaz. vol. 197; p. 1190.
 Johnson, Rowell H., Pittsburgh, Pa. Extracting oil from oil-bearing rock or sand. No. 1,083,018; Dec. 30; Gaz. vol. 197; p. 1190.
 Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,080,974; Dec. 9; Gaz. vol. 197; p. 398.
 Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,080,975; Dec. 9; Gaz. vol. 197; p. 399.
 Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,080,976; Dec. 9; Gaz. vol. 197; p. 399.
 Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,080,977; Dec. 9; Gaz. vol. 197; p. 398.
 Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,081,016; Dec. 16; Gaz. vol. 197; p. 647.
 Johnson, Thomas W., North Attleboro, Mass. Pin-tongue holder. No. 1,082,593; Dec. 30; Gaz. vol. 197; p. 1043.
 Johnson, William H., (See Lilleberg, Charles L., assignor.)
 Johnson, Woolsey M., Hartford, Conn. Electrically smelting volatile metals. No. 1,080,912; Dec. 9; Gaz. vol. 197; p. 377.
 Johnston, Herbert L., assignor to The Hobart Electric Manufacturing Company, Troy, Ohio. Retaining-machine for coffee and the like. No. 1,080,066; Dec. 2; Gaz. vol. 197; p. 52.
 Johnston, John T. M., et al. (See Perkins, Charles J., assignor.)
 Johnston, Robert T., Scotch Plains, N. J., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y. Compensating and retrieving means for printing-machines. No. 1,080,978; Dec. 9; Gaz. vol. 197; p. 399.
 Johnston & Sharp Manufacturing Company. (See Appleby, James P., assignor.)
 Johnston, William A., A. W. Browne, Prince Bay, N. Y., and F. L. Wallace, Lansdowne, assignors to The S. S. White Dental Manufacturing Company, Philadelphia, Pa. Nasal inhaler. No. 1,081,745; Dec. 16; Gaz. vol. 197; p. 689.
 Joline, Benjamin F., Tottenville, N. Y., assignor to American Ever Ready Company. Printing mechanism. No. 1,080,913; Dec. 9; Gaz. vol. 197; p. 378.
 Jones, Arthur B., (See Hazard and Jones.)
 Jones, Clifford E., Elkhart, Ind. Weed-cutter. No. 1,081,746; Dec. 16; Gaz. vol. 197; p. 689.
 Jones, David W., and W. J. Miller, assignors of one-third to J. F. Stone, Columbus, Ohio. Explosive-engine. No. 1,081,120; Dec. 9; Gaz. vol. 197; p. 444.
 Jones, Edward L., and C. H. Roth, assignors to Jones Electric Starter Company, Chicago, Ill. Transmission-gearing. No. 1,082,028; Dec. 23; Gaz. vol. 197; p. 816.
 Jones Electric Starter Company. (See Jones and Roth, assignors.)
 Jones, Emil J., assignor of one-half to J. A. Jones, Jamestown, N. Y. Sheet-metal furniture. No. 1,080,513; Dec. 2; Gaz. vol. 197; p. 207.
 Jones, Floyd D., assignor to Jones Razor and Manufacturing Company, Kansas City, Mo. Safety-razor. No. 1,081,747; Dec. 16; Gaz. vol. 197; p. 690.
 Jones, Floyd D., assignor to Jones Razor and Manufacturing Company, Kansas City, Mo. Safety-razor. No. 1,081,748; Dec. 16; Gaz. vol. 197; p. 690.
 Jones, Fred A., et al. (See Larsson, Thure, assignor.)
 Jones, Harry, (See Gallagher and Jones.)
 Jones, Harry, Suffern, N. Y., assignor, by mesne assignments, to American Brake Shoe & Foundry Company, Mahwah, N. J. Composition-filled brake-shoe. No. 1,082,158; Dec. 23; Gaz. vol. 197; p. 858.
 Jones, John A., (See Jones, Emil J., assignor.)
 Jones, John D., Walla Walla, Wash. Hub. (Reisauer.) No. 1,081,654; Dec. 9; Gaz. vol. 197; p. 502.
 Jones, Lee B., Kansas City, Mo. Electric distribution system. No. 1,081,749; Dec. 16; Gaz. vol. 197; p. 691.
 Jones Razor and Manufacturing Company. (See Jones, Floyd D., assignor.)
 Jones, Samuel H., Altus, Okla. Moving-picture screen. No. 1,082,123; Dec. 23; Gaz. vol. 197; p. 847.
 Jones, Sanford C., Marion, Ind. Vending-machine. No. 1,080,833; Dec. 9; Gaz. vol. 197; p. 352.
 Jones, Sylvester H., Richmond, Ind., assignor to The American Seeding Machine Company, Springfield, Ohio. Bearing. No. 1,082,084; Dec. 23; Gaz. vol. 197; p. 835.
 Jones, William J., Martinsville, Va. Resilient wheel. No. 1,080,834; Dec. 9; Gaz. vol. 197; p. 352.
 Jordan, Charles H., New York, N. Y. Marble-surfacing machine. No. 1,081,836; Dec. 16; Gaz. vol. 197; p. 723.
 Jordan, Theodore W., Milwaukee, Wis. Trolling device. No. 1,081,837; Dec. 16; Gaz. vol. 197; p. 724.
 Joseph, Joseph, Cleveland, Ohio. Polishing-wheel. No. 1,080,561; Dec. 9; Gaz. vol. 197; p. 256.
 Judge, Thomas A., (See Davies and Judge.)
 Judson L. Thomson Mfg. Co. (See Havener, Arthur R., assignor.)
 Julien, Sven A., Chicago, Ill. Clothes-line reel. No. 1,082,637; Dec. 30; Gaz. vol. 197; p. 1059.
 Julius, George A., Woollahra, near Sydney, New South Wales, Australia. Apparatus for printing and issuing tickets or checks of different denominations and for registering and totaling numbers and indicating the totals. No. 1,082,957; Dec. 30; Gaz. vol. 197; p. 1170.
 Junkin, Henry H., (See Edwards and Junkin.)
 K. Kaufmann & Co. (See Kaufmann, Ary, assignor.)
 K Nut Co. (See Maher, Eugene E., assignor.)
 K-P-F-Electric Co. (See Kalenborn and Fahl, assignors.)
 Kablo, Leo J., and R. B. Cameron, Defiance, Ohio. Lamp. No. 1,083,214; Dec. 30; Gaz. vol. 197; p. 1250.
 Kahn, Jacques. (See Maximilian, Ferdinand, assignor.)
 Kalenborn, Arlon S., and A. J. Fahl, San Francisco, Cal., assignors to K-P-F-Electric Co. High-tension disconnecting-switch. No. 1,081,671; Dec. 16; Gaz. vol. 197; p. 865.
 Kallam, Rose B. E., Rural Hall, N. C. Combined ribbon-holder and measuring device. No. 1,082,337; Dec. 23; Gaz. vol. 197; p. 923.
 Kalnael, Andy, Forbes Road, Pa. Safety device for elevators. No. 1,081,312; Dec. 16; Gaz. vol. 197; p. 547.
 Kaltschmidt, Albert E., Detroit, Mich. Switch stand and lock. No. 1,081,750; Dec. 16; Gaz. vol. 197; p. 691.
 Kaminsky, Julius M., Indianapolis, Ind. Fluid-pressure regulator. No. 1,079,985; Dec. 2; Gaz. vol. 197; p. 23.
 Kanane, John J., assignor to Buffalo Draft Gear Company, Inc., Buffalo, N. Y. Draft-gear. No. 1,080,979; Dec. 9; Gaz. vol. 197; p. 400.
 Karger, Bernhard, Staunton, Ill. Sash-fastener. No. 1,082,638; Dec. 30; Gaz. vol. 197; p. 1059.
 Karli, Frank W., Valley Springs, S. D. Seed-corn stringer. No. 1,082,875; Dec. 30; Gaz. vol. 197; p. 1142.
 Karp, Morris, assignor to Passaic Metal Ware Company, Passaic, N. J. Soldering machine. No. 1,082,270; Dec. 23; Gaz. vol. 197; p. 900.
 Karp, Morris, assignor to Passaic Metal Ware Company, Passaic, N. J. Frame or easel. No. 1,082,271; Dec. 23; Gaz. vol. 197; p. 900.
 Kast, Edward R., Baltimore, Md. Signature-gatherer. No. 1,081,838; Dec. 16; Gaz. vol. 197; p. 724.
 Kateley, Frank A., Mount Vernon, N. Y. Damper-controlling device. No. 1,082,338; Dec. 23; Gaz. vol. 197; p. 924.
 Kattenhorn, Henry J., New York, N. Y. Adjustable music-holder. No. 1,083,105; Dec. 30; Gaz. vol. 197; p. 1218.
 Katzenberger, Oscar, Chicago, Ill. Spring-hinge. No. 1,080,456; Dec. 2; Gaz. vol. 197; p. 189.
 Kauffman, Horace M., assignor to The South Bend Music Holder Manufacturing Company, South Bend, Ind. Music-holder for pianos. No. 1,082,639; Dec. 30; Gaz. vol. 197; p. 1059.
 Kauffler, Felix, Brückl, Austria-Hungary, and A. Klages, Salbke, Germany. Apparatus for manufacturing mercury bichlorid. No. 1,082,530; Dec. 30; Gaz. vol. 197; p. 1019.
 Kaufmann, Ary, Newark, N. J., assignor to K. Kaufmann & Co. Bag-fastener. No. 1,082,124; Dec. 23; Gaz. vol. 197; p. 848.
 Kaufmann, Ludwig, assignor to Warmbrunn, Quilitz & Co., Apparate Bauanstalt, Berlin, Germany. Dropping-bottle. No. 1,082,531; Dec. 30; Gaz. vol. 197; p. 1019.
 Kay, William H., Woodhaven, assignor to H. L. Powell, Brooklyn, N. Y. Feed-water heating and purifying attachment for boilers. No. 1,083,106; Dec. 30; Gaz. vol. 197; p. 1219.
 Kean, Thomas F., Boston, assignor of one-half to W. A. and E. Macleod, Westwood, and C. W. McConnell, Boston, Mass., trustees. Tap. No. 1,080,980; Dec. 9; Gaz. vol. 197; p. 400.
 Keats, Socrates, Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Dieing-out machine. No. 1,081,751; Dec. 16; Gaz. vol. 197; p. 692.
 Kehola, Joseph, New Britain, Conn. Razor-stropping device. No. 1,080,981; Dec. 9; Gaz. vol. 197; p. 400.
 Keene, William J., assignor to Chicago Spring Butt Company, Chicago, Ill. Spring-hinge. No. 1,081,752; Dec. 16; Gaz. vol. 197; p. 692.
 Keenoh Company, The. (See Flinker, Leon A., assignor.)
 Keenoh Company, The. (See Flinker and Schade, assignors.)
 Keers, John, Brooklyn, N. Y. Tool for spreading the tubes of water-tube boilers. No. 1,082,809; Dec. 30; Gaz. vol. 197; p. 1119.
 Kettel, Günther, New York, N. Y. Brassière. No. 1,082,085; Dec. 23; Gaz. vol. 197; p. 836.
 Keith, George. (See Keith, James and G.)
 Keith, James and G., London, England. Gas-lamp. No. 1,080,149; Dec. 2; Gaz. vol. 197; p. 81.
 Keith, Wallace B., Ravensdale, Wash. Can-punch. No. 1,082,426; Dec. 23; Gaz. vol. 197; p. 952.
 Keller, Albert K., assignor to American Cork and Seal Company, Philadelphia, Pa. Bottle-seal-assembling machine. No. 1,081,505; Dec. 16; Gaz. vol. 197; p. 613.
 Keller, Anton, assignor to Improved Schiffli Machine Company, New York, N. Y. Thread catching and severing device for embroidery-machines. No. 1,080,914; Dec. 9; Gaz. vol. 197; p. 378.
 Keller, Anton, assignor to Improved Schiffli Machine Company, New York, N. Y. Thread catching and severing means for shuttle embroidery-machines. No. 1,080,915; Dec. 9; Gaz. vol. 197; p. 379.
 Keller, Bailey, et al. (See Schur, Ernest H., assignor.)

Keller, Dallas F., Lamoni, Iowa. Mail-bag-transferring device. No. 1,081,672; Dec. 16; Gaz. vol. 197; p. 665.
 Keller, Karl, Arbon, Switzerland. Jacquard embroidering-machine. No. 1,082,228; Dec. 23; Gaz. vol. 197; p. 883.
 Keller, Moritz, et al. (See Schur, Ernest H., assignor.)
 Kelley, George J., Attleboro, Mass. Atomizer. No. 1,080,835; Dec. 9; Gaz. vol. 197; p. 353.
 Kelley, George J., Attleboro, Mass. Atomizer. No. 1,082,159; Dec. 23; Gaz. vol. 197; p. 858.
 Kelley, Walter F., (See Côté and Kelley.)
 Kellogg, Charles S., Montclair, N. J. Fluid-operated power-transmission mechanism. No. 1,080,281; Dec. 2; Gaz. vol. 197; p. 127.
 Kellogg, Charles S., Montclair, N. J. Speed and power transmitting mechanism. No. 1,080,282; Dec. 2; Gaz. vol. 197; p. 127.
 Kells, Charles E., Jr., New Orleans, La. Sanitary attachment for faucets. No. 1,080,562; Dec. 9; Gaz. vol. 197; p. 256.
 Kellum, Orlando E., (See Pace and Kellum.)
 Kelly, Charles A., Muskegon, Mich. Mop. No. 1,081,450; Dec. 16; Gaz. vol. 197; p. 594.
 Kelly, Charles L., Santa Fe, N. Mex. Window-screen. No. 1,082,339; Dec. 23; Gaz. vol. 197; p. 924.
 Kelly, Robert, West Hoboken, N. J. Sled. No. 1,080,457; Dec. 2; Gaz. vol. 197; p. 189.
 Kemp, George. (See Philp, Kemp, and Gibbons.)
 Kempton, Willard H., (See Mead and Kempton.)
 Kendall, William G., Newark, N. J., assignor of one-half to F. S. Mason, New York, N. Y. Box-filling machine. No. 1,082,876; Dec. 30; Gaz. vol. 197; p. 1142.
 Kendall, William G., Newark, and K. Shepard, East Orange, N. J. Fastener for clothes-lines and the like. No. 1,082,751; Dec. 30; Gaz. vol. 197; p. 1099.
 Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,080,348; Dec. 2; Gaz. vol. 197; p. 152.
 Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,081,753; Dec. 16; Gaz. vol. 197; p. 693.
 Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,081,754; Dec. 16; Gaz. vol. 197; p. 693.
 Kennedy, Ernest N., (See Kennedy, Jerome F. and E. N.)
 Kennedy, Jerome F. and E. N., London, England. Motor-car screen. No. 1,080,458; Dec. 2; Gaz. vol. 197; p. 190.
 Kennedy, Luther L., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,080,349; Dec. 2; Gaz. vol. 197; p. 152.
 Kennedy, William G., Matador, Tex. Collar. No. 1,081,121; Dec. 9; Gaz. vol. 197; p. 444.
 Kenney, Charles P., (See Bready, Joseph W., assignor.)
 Kenney, Owen E., (See Chapman and Kenney.)
 Kennington, George W., New York, N. Y. Vault-door. No. 1,082,340; Dec. 23; Gaz. vol. 197; p. 924.
 Kenny, John, New York, N. Y., assignor to John Simmons Company. Incased concrete piling. No. 1,080,263; Dec. 2; Gaz. vol. 197; p. 128.
 Kent, Arthur A., Philadelphia, Pa. Electric device. No. 1,082,810; Dec. 30; Gaz. vol. 197; p. 1119.
 Kent, Arthur A., Philadelphia, Pa. Device for uniting insulated conductors of electricity. No. 1,082,811; Dec. 30; Gaz. vol. 197; p. 1120.
 Kent, Leonard W., New York, N. Y., assignor to The P. & M. Co., Chicago, Ill. Means for preventing the creeping of railway-rails. No. 1,080,067; Dec. 2; Gaz. vol. 197; p. 52.
 Kenway, Herbert W., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on heels. No. 1,080,150; Dec. 2; Gaz. vol. 197; p. 81.
 Kenworthy, Charles A., New York, N. Y. Intermittent-grip device. No. 1,080,637; Dec. 9; Gaz. vol. 197; p. 281.
 Kercher, Gilbert N., assignor, by mesne assignments, to Safe, Vault and Protection Company, Los Angeles, Cal. Static-pressure system for the protection of electrical conductors. No. 1,082,272; Dec. 23; Gaz. vol. 197; p. 900.
 Kerk, Charles H., Wayne, Pa. Making platinum-covered pins. No. 1,081,451; Dec. 16; Gaz. vol. 197; p. 594.
 Kern, George W., Oil City, Pa. Impelling device for fluid-circulating systems. No. 1,082,594; Dec. 30; Gaz. vol. 197; p. 1043.
 Kerner, John, New York, N. Y. Internal-combustion engine. No. 1,082,341; Dec. 23; Gaz. vol. 197; p. 925.
 Kerner Manufacturing Company. (See Dodds, Ethan I., assignor.)
 Kerr, Alexander. (See Collins, Kerr, and Russell.)
 Kerr, Charles V., assignor to McEwen Bros., Wellsville, N. Y. Blower. No. 1,080,763; Dec. 9; Gaz. vol. 197; p. 326.
 Kester, Marcus, Olney, Ill. Nut-lock. No. 1,081,965; Dec. 23; Gaz. vol. 197; p. 794.
 Ketchum, Ernest C., (See Andrews and Ketchum.)
 Ketting, Addison, New Madison, Ohio. Pulverizer. No. 1,080,010; Dec. 2; Gaz. vol. 197; p. 32.
 Ketting, Orlando C., Portland, Ind. Wheel-assembler. No. 1,080,638; Dec. 9; Gaz. vol. 197; p. 281.
 Keuffel & Esser Company, The. (See Keuffel, Willie L. E., assignor.)
 Keuffel, Willie L. E., assignor to The Keuffel & Esser Company, Hoboken, N. J. Tape. No. 1,081,673; Dec. 16; Gaz. vol. 197; p. 665.
 Kiel, John, assignor to Deere & Company, Moline, Ill. Harrow-bar. No. 1,080,698; Dec. 9; Gaz. vol. 197; p. 302.
 Kiel, John, assignor to Deere & Company, Moline, Ill. Lister-harrow. No. 1,080,699; Dec. 9; Gaz. vol. 197; p. 302.
 Kiel, John, assignor to Deere & Company, Moline, Ill. Lister-harrow. No. 1,081,386; Dec. 16; Gaz. vol. 197; p. 573.
 Kieser, Charles F., assignor to The Seagrave Company, Columbus, Ohio. Aerial ladder. No. 1,081,122; Dec. 9; Gaz. vol. 197; p. 444.
 Kieser, Walter, Berlin, Germany, assignor to General Electric Company. Turbine system. No. 1,081,387; Dec. 16; Gaz. vol. 197; p. 573.
 Kieser, Walter, Berlin, Germany, assignor to General Electric Company. Turbine system. No. 1,081,388; Dec. 16; Gaz. vol. 197; p. 573.
 Kilgour, Dwight F., (See Marshall, Bertice E., assignor.) (Reissue.)
 Kim, George M., Pittsburgh, Pa. Folding sofa-bed. No. 1,080,459; Dec. 2; Gaz. vol. 197; p. 190.
 Kime, John J., Lagrange, Ind. Insert-valve for bottle-necks. No. 1,082,125; Dec. 23; Gaz. vol. 197; p. 848.
 Kimmel, William A., (See Laurencich, Arthur, assignor.)
 King, James B., assignor to The American Mausoleum Company, Clyde, Ohio. Skylight construction. No. 1,081,966; Dec. 23; Gaz. vol. 197; p. 704.
 King Machine Company, The. (See Ullman, Joseph H., assignor.)
 King, Winfield L., Indiana, Pa. Razor-guard. No. 1,081,123; Dec. 9; Gaz. vol. 197; p. 444.
 Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,080,350; Dec. 2; Gaz. vol. 197; p. 153.
 Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,080,351; Dec. 2; Gaz. vol. 197; p. 153.
 Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,081,047; Dec. 9; Gaz. vol. 197; p. 420.
 Kinneer, Herbert E., (See Goodness, Frank A., assignor.)
 Kinneer Manufacturing Company, The. (See Brunst, William M., assignor.)
 Kinneer Manufacturing Company, The. (See McCloud, Edward H., assignor.)
 Kinney, Justus R., Dorchester, Mass. Starting device for motor-cars. No. 1,082,595; Dec. 30; Gaz. vol. 197; p. 1043.
 Kintner, Samuel M., et al., receivers. (See Fessenden, Reginald A., assignor.)
 Kirby, Gulesberry M., Aurora, Mo. Stormproof car-door. No. 1,082,343; Dec. 23; Gaz. vol. 197; p. 926.
 Kirby, Patrick H., Clinton, Mass. Comb-cutting machine. No. 1,082,877; Dec. 30; Gaz. vol. 197; p. 1142.
 Kirkpatrick, Harry L., Pueblo, Colo., assignor of one-third to W. M. Rankin, Springfield, Mo. Switch. No. 1,081,839; Dec. 16; Gaz. vol. 197; p. 724.
 Kitsee, Isidor, Philadelphia, Pa. Treating metal-carrying ores. No. 1,082,596; Dec. 30; Gaz. vol. 197; p. 1044.
 Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Electric transmission of intelligence. No. 1,083,255; Dec. 30; Gaz. vol. 197; p. 1264.
 Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telephony. No. 1,083,256; Dec. 30; Gaz. vol. 197; p. 1264.
 Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telephone system. No. 1,083,257; Dec. 30; Gaz. vol. 197; p. 1265.
 Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Electric transmission of intelligence. No. 1,083,258; Dec. 30; Gaz. vol. 197; p. 1265.
 Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Cable telegraphy. No. 1,083,259; Dec. 30; Gaz. vol. 197; p. 1265.
 Kitts, Willard A., Jr., Oswego, N. Y. Hat-fastener. No. 1,081,967; Dec. 23; Gaz. vol. 197; p. 794.
 Kitts, Willard A., Jr., New York, N. Y. Gage-cock. No. 1,081,968; Dec. 23; Gaz. vol. 197; p. 795.
 Klages, August. (See Kauffer and Klages.)
 Klarman, Heinrich, Los Angeles, Cal. Street-car indicator. No. 1,081,389; Dec. 16; Gaz. vol. 197; p. 574.
 Klauer, William H., Dubuque, Iowa. Culvert. No. 1,082,878; Dec. 30; Gaz. vol. 197; p. 1143.
 Klauer, William H., Dubuque, Iowa. Wild-oats separator. No. 1,082,879; Dec. 30; Gaz. vol. 197; p. 1143.
 Kleckner, Harry T., Shamokin, assignor of one-tenth to D. Acker, Port Clinton, and one-tenth to W. Rogers, Shamokin, Pa. Apparatus for the recharging of auxiliary reservoirs of air-brake systems. No. 1,082,844; Dec. 23; Gaz. vol. 197; p. 928.
 Kleckner, William R., Cowell, Cal. Device for applying substances to trees, shrubs, and vines. No. 1,080,460; Dec. 2; Gaz. vol. 197; p. 190.
 Klee, William C., Rochester, N. Y. Display-holder. No. 1,081,048; Dec. 9; Gaz. vol. 197; p. 421.
 Klein, William, Jr., New York, N. Y. Transfer-ticket. No. 1,082,342; Dec. 23; Gaz. vol. 197; p. 925.

Klenk, Gottlieb, Defiance, Ohio, assignor to The Defiance Pressed Steel Company. Packing-case. No. 1,081,674; Dec. 16; Gaz. vol. 197; p. 665.

Klespies, William, Los Angeles, Cal. Key-fastener. No. 1,082,427; Dec. 23; Gaz. vol. 197; p. 952.

Klopping, Adolph C., assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio. Leg-locking means for foldable bed-frames or the like. No. 1,081,271; Dec. 9; Gaz. vol. 197; p. 406.

Klopping, Adolph C., assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio. Bed-davenport. No. 1,081,272; Dec. 9; Gaz. vol. 197; p. 496.

Knaebel, Benedikt, Dusseldorf, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Manufacture of hollow bodies. No. 1,082,199; Dec. 23; Gaz. vol. 197; p. 873.

Knaebel, Benedikt, Dusseldorf, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Manufacture of hollow bodies. No. 1,082,200; Dec. 23; Gaz. vol. 197; p. 873.

Knappe, John, Grand Rapids, Mich. Roller-guide for show-cases. No. 1,079,986; Dec. 2; Gaz. vol. 197; p. 23.

Knappe, Frank, Ripon, Wis. Fish-scaler. No. 1,080,982; Dec. 9; Gaz. vol. 197; p. 401.

Knappe, George O. (See Beach, Clarence E., assignor.)

Knappe, George O. (See Beach and Doughty, assignors.)

Kneeland, Ernest S., Malden, Mass. Delivery mechanism for weighing-machines. No. 1,080,514; Dec. 2; Gaz. vol. 197; p. 208.

Kneeland, Ernest S., Malden, Mass. Bag-holding device for scales. No. 1,081,452; Dec. 16; Gaz. vol. 197; p. 595.

Knepper, George E., Altoona, Pa. Refrigerator-car. No. 1,080,983; Dec. 9; Gaz. vol. 197; p. 401.

Knight-Brinkerhoff Piano Company. (See Knight, Frank A., assignor.)

Knight, Carl W., Tiffin, Ohio. Explosive-engine. No. 1,082,958; Dec. 30; Gaz. vol. 197; p. 1171.

Knight, Frank A., assignor to Knight-Brinkerhoff Piano Company, Brazil, Ind. Piano. No. 1,081,537; Dec. 16; Gaz. vol. 197; p. 624.

Knight, Henry T., Summerland, Miss. Road-machine. No. 1,082,959; Dec. 30; Gaz. vol. 197; p. 1171.

Knoblock, Otto M., South Bend, Ind. Electric switch. No. 1,080,563; Dec. 9; Gaz. vol. 197; p. 256.

Knowlson, James S., La Grange, assignor to Electro-Magnetic Tool Company, Chicago, Ill. Mechanical hammer. No. 1,082,880; Dec. 30; Gaz. vol. 197; p. 1143.

Knox, Dana S., Denver, Colo., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,080,352; Dec. 2; Gaz. vol. 197; p. 154.

Knox Terpezone Company of America. (See Knox, William J., assignor.)

Knox, William J., New York, N. Y., assignor to Knox Terpezone Company of America. Gaseous ozonides and their production. No. 1,081,617; Dec. 16; Gaz. vol. 197; p. 648.

Knudsen, Christian, Portland, Oreg. Door-lock. No. 1,079,987; Dec. 2; Gaz. vol. 197; p. 23.

Knudson, Charles, and E. J. Brumbach, Pontiac, Ill. Auto-jack. No. 1,080,564; Dec. 9; Gaz. vol. 197; p. 256.

Koch, Hans, and J. J. Müller, Dietikon, Switzerland. Warp stop-motion. No. 1,082,428; Dec. 23; Gaz. vol. 197; p. 952.

Koehlin, Albert G., Steinen, Germany, assignor to Draper Company, Hopedale, Mass. Loom stopping mechanism. No. 1,082,086; Dec. 23; Gaz. vol. 197; p. 836.

Koehlin, Albert G., Steinen, Germany, assignor, by mesne assignments, to Draper Company, Hopedale, Mass. Current-distributor for power-looms having electrical stopping and signaling devices. No. 1,082,429; Dec. 23; Gaz. vol. 197; p. 953.

Koehl, James A., Washington, D. C., and R. H. Rother, Baltimore, Md.; said Koehl assignor to said Rother. Scriber. No. 1,081,840; Dec. 16; Gaz. vol. 197; p. 725.

Koehler, Max, et al., trustees. (See Dobyne, George A., assignor.)

Kohler, G. A., Edward. (See Dresser and Fankboner, assignors.)

Kohler, George M., Syracuse, N. Y. Water-tube steam-bottle. No. 1,082,597; Dec. 30; Gaz. vol. 197; p. 1044.

Kohler, John J., assignor to William H. Horstmann Company, Philadelphia, Pa. Uniform-cap. No. 1,080,353; Dec. 2; Gaz. vol. 197; p. 154.

Kolby, James A., L. P. Larsen, and C. P. Neilsen, Ephraim, Utah. Automobile-wheel. No. 1,081,237; Dec. 9; Gaz. vol. 197; p. 433.

Kollar, Walter B., Lansing, Mich. Safety device for fluid-actuated pistons. No. 1,081,049; Dec. 9; Gaz. vol. 197; p. 421.

Komancsek, Joseph. (See Dusha, Feyk, and Komancsek.)

Komow, Nicolas, et al. (See Perlman, David, assignor.)

Koons, Philip R., et al. (See Bunn, Joseph D., assignor.)

Koontz, Victor R., Waynesboro, Pa. Tool-holder. No. 1,080,565; Dec. 9; Gaz. vol. 197; p. 257.

Koppers, Heinrich, Essen, Germany, assignor to H. Koppers Company, Chicago, Ill. Closing means for ovens. No. 1,080,918; Dec. 9; Gaz. vol. 197; p. 379.

Kopplin, Frank, Chicago, Ill. Wheel-hub flange. No. 1,080,011; Dec. 2; Gaz. vol. 197; p. 32.

Kops Bros. (See Kops, Waldemar, assignor.)

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,082,273; Dec. 23; Gaz. vol. 197; p. 901.

Kops, Waldemar, assignor to Kops Bros., New York, N. Y. Elastic fabric. No. 1,080,284; Dec. 2; Gaz. vol. 197; p. 128.

Kops, Waldemar, assignor to Kops Bros., New York, N. Y. Elastic webbing. No. 1,081,675; Dec. 16; Gaz. vol. 197; p. 666.

Kops, Waldemar, assignor to Kops Bros., New York, N. Y. Elastic fabric. No. 1,081,676; Dec. 16; Gaz. vol. 197; p. 666.

Korovine, Serge, Liege, Belgium. Firearm. No. 1,082,201; Dec. 23; Gaz. vol. 197; p. 873.

Korytnski, Konrad von, Vienna, Austria-Hungary. Sewing-machine. No. 1,081,841; Dec. 16; Gaz. vol. 197; p. 725.

Koster, Hans J. H. (See Critzer and Koster.)

Kovsky, Philipp. (See Tucker, Harry, assignor.)

Kowalsky, Andrew, Chicago, Ill. Measuring instrument. No. 1,080,222; Dec. 2; Gaz. vol. 197; p. 106.

Kranebiel, John V., Williamsville, N. Y. Centrifugal drier. No. 1,080,700; Dec. 9; Gaz. vol. 197; p. 302.

Krell, Emil F., Detroit, Mich. Furnace-stoker. No. 1,082,126; Dec. 23; Gaz. vol. 197; p. 848.

Kremer, Franklin W., Rutherford, N. J. Heavy-car tire. No. 1,082,029; Dec. 23; Gaz. vol. 197; p. 817.

Kress, Jacob A., et al. (See Locke, William P., assignor.)

Kriewitz, Max, and W. P. Ferris, Fairfax, Okla.; said Ferris assignor to said Kriewitz. Car-door lock. No. 1,081,755; Dec. 16; Gaz. vol. 197; p. 693.

Krohn, Nels, assignor to The Adams & Westlake Company, Chicago, Ill. Shade-holder. No. 1,081,756; Dec. 16; Gaz. vol. 197; p. 694.

Kronenberg, Rudolf, Ohligs, Germany. Apparatus for removing the projecting ridges from pressed metal wheels. No. 1,080,566; Dec. 9; Gaz. vol. 197; p. 257.

Kronenberg, Rudolf, Ohligs, Germany. Wheel-spoke star. No. 1,082,087; Dec. 23; Gaz. vol. 197; p. 836.

Kronenberg, Samuel T., assignor of fifty-five one-hundredths to J. C. Wolfram, Pittsburgh, Pa. Vehicle-wheel. No. 1,081,757; Dec. 16; Gaz. vol. 197; p. 694.

Kronjaeger, Frank. (See Lehotzky, Lorentz, assignor.)

Krös, Josef, Strassburg, Germany. Paper-punch. No. 1,082,812; Dec. 30; Gaz. vol. 197; p. 1120.

Krug, Carl, Frankfurt-on-the-Main, Germany. Abrading-disk. No. 1,082,202; Dec. 23; Gaz. vol. 197; p. 874.

Krug, Louis, assignor to Metropolitan Sewing Machine Company, Nyack, N. Y. Feeding mechanism for sewing-machines. No. 1,081,453; Dec. 16; Gaz. vol. 197; p. 595.

Krupp, Leo A., assignor to The Buckeye Traction Ditcher Company, Findlay, Ohio. Excavator. No. 1,081,454; Dec. 16; Gaz. vol. 197; p. 595.

Krupp, Smith F. (See Nixon and Krupp.)

Kruse, Johann S., Kensington, London, England. Formation of blocks or the like suitable for road or other purposes. No. 1,082,752; Dec. 30; Gaz. vol. 197; p. 1099.

Kruse, Peter, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Sheet-metal-working machine. No. 1,081,050; Dec. 9; Gaz. vol. 197; p. 422.

Kuegel, Anthony, Jersey City, N. J. Varnish. No. 1,080,461; Dec. 2; Gaz. vol. 197; p. 191.

Külgeisen, Franz von, Holcombs Rock, Va., and G. O. Seward, East Orange, N. J., assignors to Virginia Laboratory Company, New York, N. Y. Heating molten electrolytes. No. 1,080,113; Dec. 2; Gaz. vol. 197; p. 60.

Kuhles, Friedrich, Maywood, N. J. Non-refillable bottle. No. 1,081,506; Dec. 16; Gaz. vol. 197; p. 613.

Kuhnert, Julius, Breslau, Germany. Drill-share. No. 1,080,012; Dec. 2; Gaz. vol. 197; p. 32.

Kukukuck, Frederick, St. Louis, Mo., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Feed mechanism for drying apparatus. No. 1,081,238; Dec. 9; Gaz. vol. 197; p. 483.

Kulhanek, Joseph, Chesaning, Mich. Manure-loader. No. 1,081,124; Dec. 9; Gaz. vol. 197; p. 445.

Küntzler, Henry, Kingston, Pa., assignor, by mesne assignments, to Adder Machine Company. Crank driving mechanism for adding-machines. No. 1,080,515; Dec. 2; Gaz. vol. 197; p. 208.

Küntzler, Henry, Wilkes-Barre, Pa., assignor, by mesne assignments, to Adder Machine Company. Flexible draft connection for adding-machines. No. 1,080,516; Dec. 2; Gaz. vol. 197; p. 209.

Kupfer, Richard, Gera, Reuss, Germany. Dry-swimming apparatus. No. 1,080,462; Dec. 2; Gaz. vol. 197; p. 191.

Kuroski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,080,285; Dec. 2; Gaz. vol. 197; p. 128.

Kuroski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Caster raising and lowering device for stands for type-writing machines, &c. No. 1,082,160; Dec. 23; Gaz. vol. 197; p. 859.

Kurtz, Charles M. (See Burwell and Kurtz.)

Kurtzon, Morris, Chicago, Ill. Adjustable bracket. No. 1,080,639; Dec. 9; Gaz. vol. 197; p. 281.

Kurze, Wilhelm, Wilhelmshütte, Neustadt, Germany. Means for producing cores or molds. No. 1,079,988; Dec. 2; Gaz. vol. 197; p. 24.

L. Wolf Manufacturing Company. (See Wolff, Franklyn J., assignor.)

L. E. Waterman Company. (See Stevens, Richard H., assignor.)

La Breche, Alphonse, Jefferson, S. D. Automatic fire-extinguisher. No. 1,080,068; Dec. 2; Gaz. vol. 197; p. 52.

La Chapelle, Fred N., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,081,390; Dec. 16; Gaz. vol. 197; p. 574.

La Porte, Norbert M., assignor to The Crown Cork and Seal Company of Baltimore City, Baltimore, Md. Closure-applying mechanism. No. 1,080,114; Dec. 2; Gaz. vol. 197; p. 69.

Labadie, Harry H. (See Schweitzer and Labadie.)

Lackawanna Steel Company. (See Mathias, Thomas H., assignor.)

Lacroix, Joseph. (See Desautels and Lacroix.)

Ladd & Baker et al. (See Ladd and Baker, assignors.)

Ladd, James B., and D. Baker, assignors of one-half to Ladd & Baker and one-half to D. Baker, Philadelphia, Pa. Feed-roller. No. 1,081,969; Dec. 23; Gaz. vol. 197; p. 795.

Laemmle Manufacturing Company. (See Jenkins, Charles F., assignor.)

Lagasse, Daniel S., Lynn, Mass. Fastener for shutters. No. 1,081,677; Dec. 16; Gaz. vol. 197; p. 666.

Laitinen, Abel, Northland, Minn. Wrench. No. 1,080,463; Dec. 2; Gaz. vol. 197; p. 191.

Lake, Clyde A., Dallas, Tex. Brick-mason's steel trig. No. 1,080,836; Dec. 9; Gaz. vol. 197; p. 353.

Lamb, Henry W. (See Braddock, Edward J., assignor.)

Lamb, Thomas F., assignor to The American Bottle Company, Newark, Ohio. Bottle-handling device. No. 1,080,984; Dec. 9; Gaz. vol. 197; p. 401.

Lambert, Otto. (See Schrader, Anton, assignor.)

Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,082,532; Dec. 30; Gaz. vol. 197; p. 1020.

Lampe, Otto, assignor to Firm of O. Zimmer Nachf., Königsberg, Germany. Spring-casing. No. 1,080,567; Dec. 9; Gaz. vol. 197; p. 257.

Lamplough, Frederick, Willeaden Junction, England. Valve-gear for internal-combustion engines. No. 1,081,051; Dec. 9; Gaz. vol. 197; p. 422.

Lamon Company, The. (See Miller, Charles J., assignor.)

Lamon Company, The. (See Wilson, Harry L., assignor.)

Lancaster, George W., Richmond, Va., assignor to Universal Screen & Blind Company, Incorporated. Window-shutter-closing device. No. 1,081,842; Dec. 16; Gaz. vol. 197; p. 725.

Landerholm, Claus A., Phillips, Nebr. Bag-lock. No. 1,080,286; Dec. 2; Gaz. vol. 197; p. 129.

Landers, David E., Hollywood, Cal. Funnel. No. 1,083,107; Dec. 30; Gaz. vol. 197; p. 1219.

Landers, Frary & Clark. (See Warner, Alonzo A., assignor.)

Landin, Carl J., Boston, Mass. Clamping device. No. 1,080,013; Dec. 2; Gaz. vol. 197; p. 32.

Lane, Charles C., assignor to Lane Mill and Machinery Company, Los Angeles, Cal. Slow-speed Chilean mill. No. 1,082,960; Dec. 30; Gaz. vol. 197; p. 1171.

Lane, John D., Cambridge, Mass. Shoe-horn. No. 1,081,391; Dec. 16; Gaz. vol. 197; p. 575.

Lane Mill and Machinery Company. (See Lane, Charles C., assignor.)

Lang, Albert, Karlsruhe, assignor to H. F. von Seldeneck, Frankfurt-on-the-Main, Germany. Protecting iron from rust. No. 1,082,161; Dec. 23; Gaz. vol. 197; p. 859.

Lang, Charles W., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,082,961; Dec. 30; Gaz. vol. 197; p. 1172.

Lang, Fred N., Bayfield, Wis. Adhesive plaster. No. 1,081,392; Dec. 16; Gaz. vol. 197; p. 575.

Langan, Edward T., Chicago, Ill. Cover for dispensing-jars. No. 1,079,942; Dec. 2; Gaz. vol. 197; p. 7.

Lange, Eugen, Paris, France. Supporter for stockings, trousers, and the like. No. 1,082,345; Dec. 23; Gaz. vol. 197; p. 926.

Langerak, Meyer, Knoxville, Iowa. Shoe. No. 1,081,678; Dec. 16; Gaz. vol. 197; p. 667.

Langill, Charles H., Boston, Mass. Attachment for life-boats. No. 1,081,679; Dec. 16; Gaz. vol. 197; p. 667.

Lantz, Charles J., Gowrie, Iowa. Nut-lock. No. 1,081,239; Dec. 9; Gaz. vol. 197; p. 483.

Lapish, Charles L., Pittsburgh, Pa. Folding box and crate. No. 1,082,274; Dec. 23; Gaz. vol. 197; p. 901.

Larison, Alonzo W., and J. Stuckel, Lincoln, Ill.; said Larison assignor to said Stuckel. Pipe. No. 1,082,030; Dec. 23; Gaz. vol. 197; p. 817.

Laroche, Olivier, and M. L. N. Tucker, assignors to Lawrence Manufacturing Company, Lowell, Mass. Knitting-machine. No. 1,082,881; Dec. 30; Gaz. vol. 197; p. 1144.

Larsen, Axel L., St. Paul, Minn. Poison-bottle. No. 1,080,464; Dec. 2; Gaz. vol. 197; p. 191.

Larsen, Hans L., Chicago, Ill. Fountain-brush. No. 1,081,680; Dec. 16; Gaz. vol. 197; p. 607.

Larsen, Jacob, Chicago, Ill. Sash-lock. No. 1,081,538; Dec. 16; Gaz. vol. 197; p. 624.

Larsen, Louis P. (See Kolby, Larsen, and Neilsen.)

Larson, David, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Alternating-current-motor control. No. 1,081,681; Dec. 16; Gaz. vol. 197; p. 668.

Larson, Lawrence S., Toledo, Ohio. Indicator. No. 1,081,843; Dec. 16; Gaz. vol. 197; p. 726.

Larson, Thure, Worcester, Mass., assignor to himself, W. E. D. Stokes, New York, N. Y., and F. A. Jones, Worcester, Mass. Elevator-valve mechanism. No. 1,082,882; Dec. 30; Gaz. vol. 197; p. 1144.

Lary, Morris, Syracuse, N. Y. Floor polisher and sweeper. No. 1,081,240; Dec. 9; Gaz. vol. 197; p. 484.

Lasares, George C., assignor of one-half to L. E. White, Springfield, Mass. Toy pistol. No. 1,080,701; Dec. 9; Gaz. vol. 197; p. 302.

Latchem, Edward C., and L. W. Pollock, Oakland, Cal. Centrifugal ore-concentrator. No. 1,080,223; Dec. 2; Gaz. vol. 197; p. 107.

Latcher, John W., Edinburg, N. Y. Apparatus for the manufacture of steel and for the refining thereof. No. 1,080,224; Dec. 2; Gaz. vol. 197; p. 107.

Laub, George A., Cleveland, Ohio. Bridge attachment. No. 1,082,598; Dec. 30; Gaz. vol. 197; p. 1045.

Laurencich, Arthur, assignor of one-half to W. A. Kimmel, Washington, D. C. Spring-wheel. No. 1,081,844; Dec. 16; Gaz. vol. 197; p. 726.

Lausterer, William J., Jamestown, N. Y., assignor, by mesne assignments, to Triumph Voting Machine Company. Voting-machine. No. 1,080,014; Dec. 2; Gaz. vol. 197; p. 32.

Lauter Company. (See Bergland, Carl, assignor.)

Lavigne, Moses, Ferrisburg, Vt. Combination movable knee-pad and foot-rest for church-pews. No. 1,080,764; Dec. 9; Gaz. vol. 197; p. 326.

Lawlor, Sarah A. (See Lawlor, Simeon C., assignor.)

Lawlor, Simeon C., assignor to S. A. Lawlor, Chicago, Ill. Mop-wringer. No. 1,082,465; Dec. 23; Gaz. vol. 197; p. 964.

Lawrence, Jerry A., Brackenridge, assignor to H. E. Sheldon, Pittsburgh, Pa. Annealing-box. No. 1,080,115; Dec. 2; Gaz. vol. 197; p. 69.

Lawrence, John L., Lawrence, N. Y. Shock-absorber. No. 1,081,970; Dec. 23; Gaz. vol. 197; p. 795.

Lawrence Manufacturing Company. (See Laroche and Tucker, assignors.)

Lawson, Clarence J., Yonkers, N. Y. Machine for making bottle-caps. No. 1,080,015; Dec. 2; Gaz. vol. 197; p. 33.

Lawton, Fred A., Lunenburg, Mass. Wind-shield. No. 1,083,108; Dec. 30; Gaz. vol. 197; p. 1219.

Laxton, Fred M. (See Tucker and Laxton.)

Laycock, Harry A., Schenectady, N. Y., assignor to General Electric Company. System of distribution. No. 1,082,962; Dec. 30; Gaz. vol. 197; p. 1172.

Le Boeuf, Arthur W., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Slug-exploder mechanism for line-casting machines. No. 1,080,570; Dec. 9; Gaz. vol. 197; p. 258.

Le Boeuf, Arthur W., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Spacer-handling mechanism for type-making machines. No. 1,082,275; Dec. 23; Gaz. vol. 197; p. 901.

Le Boeuf, Arthur W., Woonsocket, and J. B. Armitage, Pawtucket, R. I., assignors to Electric Compositor Company, New York, N. Y. Elevator mechanism. No. 1,080,569; Dec. 9; Gaz. vol. 197; p. 258.

Lea, Henry, St. Helena, England. Wire-clip. No. 1,079,989; Dec. 2; Gaz. vol. 197; p. 24.

Leach, John J., Jewell, Ohio. Cutter-bar raking device. No. 1,080,568; Dec. 9; Gaz. vol. 197; p. 258.

Leaman, Maurice R., Pittsburgh, Pa. Straight-edge. No. 1,080,225; Dec. 2; Gaz. vol. 197; p. 107.

Leap, Harry, Chicago, Ill. Inflatable supporter for trousers and the like. No. 1,080,985; Dec. 9; Gaz. vol. 197; p. 402.

Leapley, Edward E., et al. (See Sloderbeck, Martin C., assignor.)

Leapley, William A., et al. (See Sloderbeck, Martin C., assignor.)

Leavitt, Frank M., Smithtown, assignor to E. W. Bliss Company, Brooklyn, N. Y. Steering mechanism for automobile torpedoes. No. 1,080,116; Dec. 2; Gaz. vol. 197; p. 70.

Leavitt Machine Company. (See Smith and Williams, assignors.)

Ledbetter, William H., assignor to Southern Plow Company, Dallas, Tex. Cultivator attachment. No. 1,081,539; Dec. 16; Gaz. vol. 197; p. 625.

Ledoux, Augustus D., Summit, N. J. Chloridizing ores. No. 1,082,599; Dec. 30; Gaz. vol. 197; p. 1045.

Lee, Benjamin F., Schoolfield, Va. Magnetic wedge for dynamo-electric machines. No. 1,083,109; Dec. 30; Gaz. vol. 197; p. 1219.

Lee, Dwight B., Detroit, Mich. Wind-shield tube. No. 1,082,031; Dec. 23; Gaz. vol. 197; p. 817.

Lee S. Smith & Son Company. (See Vernon, James B., assignor.)

Lees-Bradner Company, The. (See Lees, Ernest J., assignor.)

Lees, Ernest J., assignor the The Lees-Bradner Company, Cleveland, Ohio. Gear-generator. No. 1,081,971; Dec. 23; Gaz. vol. 197; p. 796.

Lees, Ernest J., assignor to The Lees-Bradner Company, Cleveland, Ohio. Gear-generator. No. 1,081,972; Dec. 23; Gaz. vol. 197; p. 796.

Lees, Ernest J., assignor to The Lees-Bradner Company, Cleveland, Ohio. Gear-generator. No. 1,081,973; Dec. 23; Gaz. vol. 197; p. 797.

Lees, Ernest J., Cleveland, Ohio, assignor to Gould & Eberhardt, Newark, N. J. Cutting helical gear-wheels. No. 1,082,533; Dec. 30; Gaz. vol. 197; p. 1020.

Leeson, Joseph R. (See Helm, Max, assignor.)

Lefebvre, Alderic, Montreal, Quebec, Canada. Railway-switch. No. 1,080,226; Dec. 2; Gaz. vol. 197; p. 107.
 Leifer, William B. Springfield, Nebr. Water-power wheel. No. 1,082,883; Dec. 30; Gaz. vol. 197; p. 1145.
 Leftwich, William D. Wilkinsburg, Pa. Automatic train-pipe coupling. No. 1,081,125; Dec. 9; Gaz. vol. 197; p. 445.
 Legg, William F. Portland, Oreg. Balloting system. No. 1,081,314; Dec. 16; Gaz. vol. 197; p. 647.
 Legge, Thomas A., assignor to The Adams & Westlake Company, Chicago, Ill. Lavatory. No. 1,080,702; Dec. 9; Gaz. vol. 197; p. 303.
 Lehmann, Ernst P. Brandenburg-on-the-Havel, Germany. Toy. No. 1,080,465; Dec. 2; Gaz. vol. 197; p. 192.
 Lehotzky, Lorentz, Bridgeport, Ohio, assignor of one-third to F. Kronjaeger, Wheeling, W. Va. Horseshoe. No. 1,082,276; Dec. 23; Gaz. vol. 197; p. 902.
 Lehrke, Edward H., Crosby, Minn. Fence-post. No. 1,081,845; Dec. 16; Gaz. vol. 197; p. 736.
 Leib, Frederick W., Middletown, Ohio. Wheel. No. 1,082,600; Dec. 30; Gaz. vol. 197; p. 1045.
 Leidel, Henry, New York, N. Y. Ash-pot. No. 1,080,837; Dec. 9; Gaz. vol. 197; p. 353.
 Leidich, Sylvester W. (See Metcalf and Leidich.)
 Leiffer, Almon. (See Ross and Leiffer.)
 Leishman, Charlotte, Foster, Victoria, Australia. Stamp and label affixer. No. 1,082,346; Dec. 23; Gaz. vol. 197; p. 927.
 Lemp, Hermann, Erie, Pa., assignor to General Electric Company. Safety device for internal-combustion engines. No. 1,080,765; Dec. 9; Gaz. vol. 197; p. 326.
 Leonard, Eloy R., Woodcliff, N. J. Fusible chain-link. No. 1,083,019; Dec. 30; Gaz. vol. 197; p. 1190.
 Leonard, Mary L., Albany, N. Y. Adjustable table. No. 1,082,884; Dec. 30; Gaz. vol. 197; p. 1145.
 Lepine, Joseph W. (See Arbour and Lepine.)
 Leslie R. Saunders Company. (See Saunders, Leslie R., assignor.)
 Leveridge, Charles W. (See Leveridge, Walter J., assignor.)
 Leveridge, Walter J., Plainfield, N. J., assignor to C. W. Leveridge, New York, N. Y. Fire-alarm signal-box. No. 1,080,354; Dec. 2; Gaz. vol. 197; p. 134.
 Levering, William A., assignor to Standard Asphalt & Rubber Co., Chicago, Ill. Bituminous putty. No. 1,082,840; Dec. 30; Gaz. vol. 197; p. 1060.
 Levin, Nils D., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Connecting device for electric conductors. No. 1,082,032; Dec. 23; Gaz. vol. 197; p. 817.
 Levinson, Maurice, assignor to Chicago Signal Company, Chicago, Ill. Signaling device. No. 1,080,287; Dec. 2; Gaz. vol. 197; p. 129.
 Levy, Jules, Paris, France. Horse-collar. No. 1,082,347; Dec. 23; Gaz. vol. 197; p. 927.
 Lewis, Albert H., Bellevue, Ohio. Gas-furnace. No. 1,080,838; Dec. 9; Gaz. vol. 197; p. 364.
 Lewis, Arthur M., assignor to The International Sprinkler Company, Philadelphia, Pa. Automatic sprinkler. No. 1,082,348; Dec. 23; Gaz. vol. 197; p. 927.
 Lewis, Benjamin B., Bridgeport, Conn. Starting device for explosive-engines. No. 1,082,885; Dec. 30; Gaz. vol. 197; p. 1145.
 Lewis, Charles S., St. Louis, Mo. Pump-priming mechanism. No. 1,080,917; Dec. 9; Gaz. vol. 197; p. 380.
 Lewis, James, Montrose, W. Va. Chair. No. 1,083,215; Dec. 30; Gaz. vol. 197; p. 1251.
 Lewis, John W., San Francisco, Cal. Umbrella. No. 1,081,126; Dec. 9; Gaz. vol. 197; p. 445.
 Lewis, William W., Garnet, W. Va. Dumping-grate. No. 1,082,127; Dec. 23; Gaz. vol. 197; p. 849.
 Lewry, Mahlon. (See Records and Lewry.)
 Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Rock-drilling stoping-drill. No. 1,082,162; Dec. 23; Gaz. vol. 197; p. 859.
 Liberman, Bernard, Philadelphia, Pa. Cigar-wrapper moistener and container. No. 1,082,277; Dec. 23; Gaz. vol. 197; p. 902.
 Liberman, Bernard, Philadelphia, Pa. Cigar-wrapper moistener and container. No. 1,082,278; Dec. 23; Gaz. vol. 197; p. 903.
 Lidders, Alex. H. (See Currie, Alexander, assignor.)
 Liebeck, Harry, Philadelphia, Pa., assignor to Scott Paper Company. Machine for making toilet-paper rolls. No. 1,081,507; Dec. 16; Gaz. vol. 197; p. 613.
 Likness, Knute C., Lankford, S. D. Gearing. No. 1,082,349; Dec. 23; Gaz. vol. 197; p. 928.
 Lilleberg, Charles L., Chicago, Ill. Dish-washing machine. No. 1,080,704; Dec. 9; Gaz. vol. 197; p. 304.
 Lilleberg, Charles L., assignor to W. H. Johnson, Chicago, Ill. Perforating-machine. No. 1,080,703; Dec. 9; Gaz. vol. 197; p. 303.
 Lindau, Alfred E., assignor to Corrugated Bar Company, St. Louis, Mo. Concrete reinforce. No. 1,082,863; Dec. 30; Gaz. vol. 197; p. 1173.
 Linde, George, Newark, N. J. Light-intensifier. No. 1,081,127; Dec. 9; Gaz. vol. 197; p. 446.
 Lindstrom, Hjalmar, Chicago, Ill. Iron. No. 1,080,016; Dec. 2; Gaz. vol. 197; p. 33.
 Link-Belt Company. (See Howe, Glenn G. and L. C., assignors.)
 Link Fabric Company of America. (See Mellon, George A., assignor.)

Lintner, Oscar B., Potwin, Kans. Shears. No. 1,081,974; Dec. 23; Gaz. vol. 197; p. 797.
 Lippstadt, Sigmund. (See Buerger, Charles B., assignor.)
 Liquid Forged Steel Company, The. (See Wellman, Samuel T., assignor.)
 Little, Charles H., Cleveland, Ohio. Drafting instrument. No. 1,081,758; Dec. 16; Gaz. vol. 197; p. 695.
 Ljungström, Fredrik, Stockholm, assignor to Aktiebolaget Ljungströms Angturbin, Liljeholmen, Sweden. Steam-turbine. No. 1,082,886; Dec. 30; Gaz. vol. 197; p. 1146.
 Llewellyn, George E. (See Galver, Edward E., assignor.)
 Lloyd, Ernest F., Detroit, Mich. Curb and holdfast for gas-purifiers. No. 1,080,705; Dec. 9; Gaz. vol. 197; p. 304.
 Lloyd, Ernest F., Detroit, Mich. Method of and apparatus for washing and cooling gas. No. 1,081,455; Dec. 16; Gaz. vol. 197; p. 596.
 Lloyd, John, et al. (See Armstrong, John B., assignor.)
 Lloyd, William, et al. (See Armstrong, John B., assignor.)
 Lloyd, William B. (See Lund and Lloyd.)
 Loddell, Walter E., Mukwonago, Wis. Carrier-screen. No. 1,081,303; Dec. 16; Gaz. vol. 197; p. 575.
 Locke, Frank D., Hudson, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,081,975; Dec. 23; Gaz. vol. 197; p. 797.
 Locke, William P., Chicago, Ill., assignor of one-third to J. A. Kress and one-third to F. A. McGowan, Canton, Ohio. Electrically-operated alarm-clock. No. 1,081,032; Dec. 9; Gaz. vol. 197; p. 422.
 Lockling, Paul P., et al. (See Blow and Sandiford, assignors.)
 Lockwood, Charles S., Newark, assignor to Hyatt Roller Bearing Company, Harrison, N. J. Roller-bearing with roll-separators. No. 1,080,288; Dec. 2; Gaz. vol. 197; p. 129.
 Lockwood, Edward M., Philadelphia, Pa., assignor to C. R. Carver Company. Feeding device for presses. No. 1,082,088; Dec. 23; Gaz. vol. 197; p. 837.
 Lockwood, Frank W., et al. (See Denison, Nathan B., assignor.)
 Lockwood, James A., Denver, Colo. Apparatus for producing imitation type-written letters. No. 1,082,534; Dec. 30; Gaz. vol. 197; p. 1020.
 Lockwood, James E. (See Seltz, Edward, assignor.)
 Lockwood, Marquis H., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,082,033; Dec. 23; Gaz. vol. 197; p. 818.
 Lockwood, Ora M., and A. A. Stout, Rochester, N. Y. Switch-lock. No. 1,080,986; Dec. 9; Gaz. vol. 197; p. 402.
 Loeffler, Frank C. (See Walker and Loeffler.)
 Long, Robert G. (See Harley and Long.)
 Loomis, Fredrick S. (See Tiffany and Loomis.)
 Lord, Harry A., South Pasadena, Cal. Combined air motor and compressor for starting internal-combustion engines. No. 1,080,289; Dec. 2; Gaz. vol. 197; p. 130.
 Lorenz, Edward H., Hartford, assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,082,535; Dec. 30; Gaz. vol. 197; p. 1021.
 Lorenz, Edward H., Hartford, assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,082,536; Dec. 30; Gaz. vol. 197; p. 1021.
 Lorenz, Edward H., Hartford, assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,082,537; Dec. 30; Gaz. vol. 197; p. 1022.
 Lorenz, William A., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machine. No. 1,081,315; Dec. 16; Gaz. vol. 197; p. 548.
 Lorenz, William A., Hartford, assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,082,538; Dec. 30; Gaz. vol. 197; p. 1022.
 Losey, North, Indianapolis, Ind. Artificial-light-diffusing apparatus. No. 1,082,753; Dec. 30; Gaz. vol. 197; p. 1100.
 Lough, Hector V., Plainfield, and W. E. Lough, North Plainfield, N. J. Bedstead corner-bracket. No. 1,082,754; Dec. 30; Gaz. vol. 197; p. 1100.
 Lough, Walter E. (See Lough, Hector V. and W. E.)
 Love, Jacob W., and G. C. Webster, Warren, Ohio. Lighting attachment for sewing and other machines. No. 1,083,020; Dec. 30; Gaz. vol. 197; p. 1190.
 Low, Everett M., New York, N. Y. Device for treating type-metals. No. 1,082,270; Dec. 23; Gaz. vol. 197; p. 903.
 Low, Samuel P., Santa Barbara, Cal. Dust-collecting attachment for brooms. No. 1,082,128; Dec. 23; Gaz. vol. 197; p. 849.
 Lowe, Edgar. (See Andrick, Lowe, and Haff.)
 Lowe, Perley. (See O'May, James, assignor.)
 Lowell, Murland R., Brasher Falls, N. Y. Incubator attachment. No. 1,082,350; Dec. 23; Gaz. vol. 197; p. 928.
 Lubin Manufacturing Company. (See Tessier, Julien, assignor.)
 Lucas, Owen D., Baywater, London, England. Carbureter for internal-combustion engines. No. 1,082,466; Dec. 23; Gaz. vol. 197; p. 964.

Luciano, Achille, Bloomfield, N. J., assignor to Nightingale Reproducer Co., Newark, N. J. Phonograph-reproducer. No. 1,080,839; Dec. 9; Gaz. vol. 197; p. 354.
 Luck, John J., San Antonio, Tex. Pneumatic tire. No. 1,081,846; Dec. 16; Gaz. vol. 197; p. 727.
 Luckhurst, Allen E. J., Ridgewood, N. J. Non-toppling block. No. 1,080,640; Dec. 9; Gaz. vol. 197; p. 281.
 Ludders, Jacob E., et al. (See Gray, Isaac C., assignor.)
 Ludwig, Louis E., Dale, Ind. Ditching-plow. No. 1,082,841; Dec. 30; Gaz. vol. 197; p. 1060.
 Luellen, Lawrence W., New York, N. Y. Dispensing apparatus. No. 1,081,508; Dec. 16; Gaz. vol. 197; p. 614.
 Lummas Cotton Gin Company. (See Grimes, Thaddeus S., assignor.)
 Lund, Kjeld, Southport, N. C. Rudder-lock. No. 1,080,641; Dec. 9; Gaz. vol. 197; p. 282.
 Lund, William, Cathlamet, and W. B. Lloyd, Skamokawa, Wash. Steering-gear. No. 1,080,706; Dec. 9; Gaz. vol. 197; p. 326.
 Lundquist, Frank A., Chicago, Ill., assignor, by mesne assignments, to Western Electric Company. Switching mechanism for telephone-exchanges. No. 1,081,128; Dec. 9; Gaz. vol. 197; p. 446.
 Lundstrom, Charles G., Chicago, Ill. Device for finding the axes or centers of circular bodies, openings, or plane figures. No. 1,081,682; Dec. 16; Gaz. vol. 197; p. 668.
 Lundstrom, Charles G., assignor, by mesne assignments, to H. M. Mitchell, Des Moines, Iowa. Oil and water burner. No. 1,082,755; Dec. 30; Gaz. vol. 197; p. 1100.
 Lung, Henry H., Philadelphia, Pa. Plumb and level. No. 1,082,163; Dec. 23; Gaz. vol. 197; p. 860.
 Lurie, William A., Chicago, Ill. Automatic circuit-controlling mechanism for electrical self-starters for automobiles. No. 1,081,683; Dec. 16; Gaz. vol. 197; p. 668.
 Luthy, Joseph O., San Antonio, Tex. System of electrical distribution. No. 1,080,355; Dec. 2; Gaz. vol. 197; p. 155.
 Lüttringhaus, Arthur, H. von Diesbach, and E. Schwarz, Mannheim, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Blue coloring-matters containing sulfur. No. 1,083,110; Dec. 30; Gaz. vol. 197; p. 1219.
 Lutz-Webster Engineering Co. (See Lutz, William H., assignor.)
 Lutz, William H., assignor to Lutz-Webster Engineering Co., Inc., Philadelphia, Pa. Compression-wrench. No. 1,081,684; Dec. 16; Gaz. vol. 197; p. 669.
 Lyle, Joel I., Plainfield, N. J. Thermal interchanging apparatus. No. 1,082,539; Dec. 30; Gaz. vol. 197; p. 1022.
 Lyman, Charles, Clarinda, Iowa. Brooding-coop. No. 1,081,847; Dec. 16; Gaz. vol. 197; p. 727.
 Lyman, Arthur H., Westminster, England. Gas-washer. No. 1,081,241; Dec. 9; Gaz. vol. 197; p. 484.
 Lynch, Elizabeth, Minneapolis, Minn. Screen. No. 1,080,466; Dec. 2; Gaz. vol. 197; p. 192.
 Lyng, Henry, Aurdal, Minn. Grain-treating machine. No. 1,080,069; Dec. 2; Gaz. vol. 197; p. 53.
 Lyon, Conklin & Co. (See Nickol, George E., assignor.)
 Lyon, Conklin & Company. (See Marvel, Roy W., assignor.)
 Lyon, Harry, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,080,227; Dec. 2; Gaz. vol. 197; p. 108.
 Lyons, John F., Hyde Park, assignor to B. F. Sturtevant Company, Boston, Mass. Machine for milling turbine buckets. No. 1,081,242; Dec. 9; Gaz. vol. 197; p. 484.
 Lyons, Samuel W., Jr. (See Borge, Reginald P., assignor.)
 Lytton, Walter, and J. Tedford, Chicago, Ill.; said Tedford assignor to said Lytton. Delivery-truck. No. 1,082,164; Dec. 23; Gaz. vol. 197; p. 860.
 M. D. Knowlton Company. (See De Smith, Henry, assignor.)
 M. H. Jester Investment Company, The. (See Jester, Marvin H., assignor.)
 M. H. Treadwell Company. (See Astrom, Carl P., assignor.)
 MacColl, Donald, Montclair, N. J., and D. A. Cameron, Genesee, assignors to Delac Plaster Company, Mumfords, N. Y. Nail. No. 1,082,540; Dec. 30; Gaz. vol. 197; p. 1023.
 MacConaghy, Elizabeth M., et al., helresses. (See MacConaghy, James.)
 MacConaghy, James, deceased, Boulogne-sur-Mer, France; E. M. and J. MacConaghy, helresses. Explosion-motor. No. 1,083,111; Dec. 30; Gaz. vol. 197; p. 1220.
 MacConaghy, Jane, et al., helresses. (See MacConaghy, James.)
 MacDonald, Arthur E., London, England. Vehicle-lamp. No. 1,083,112; Dec. 30; Gaz. vol. 197; p. 1220.
 MacFarland, Merle, Maplewood, N. J., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn. Starting mechanism. No. 1,080,642; Dec. 9; Gaz. vol. 197; p. 282.
 MacGregor, Donald, assignor of one-half to J. Boyd, Portland, Oreg. Boring device. No. 1,080,356; Dec. 2; Gaz. vol. 197; p. 155.
 Mackaye, Harold S. (See Jenyns, Sarah A., assignor.)

MacKenzie, Fred L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-driving machine. No. 1,081,456; Dec. 16; Gaz. vol. 197; p. 590.
 MacLaughlin, George J., and J. L. Willard, assignors to Pullman Manufacturing Company, Rochester, N. Y. Spring sash-balance. No. 1,082,034; Dec. 23; Gaz. vol. 197; p. 818.
 Macak, William J. (See Oster and Macak.)
 Macdonald, Frederick W., Chicago, Ill. Reel-packet. No. 1,082,904; Dec. 30; Gaz. vol. 197; p. 1173.
 Macdonald, James, New York, N. Y. Holder. No. 1,081,848; Dec. 16; Gaz. vol. 197; p. 727.
 Mackie, Edwin M., and P. F. Doyle, Franklin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill. Rock-drill. No. 1,080,706; Dec. 9; Gaz. vol. 197; p. 304.
 Mackie, Edwin M., and P. F. Doyle, Franklin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill. Rock-drill. No. 1,080,707; Dec. 9; Gaz. vol. 197; p. 305.
 Macleod, Eldon, et al. (See Kean, Thomas F., assignor.)
 Macleod, William A., et al. (See Kean, Thomas F., assignor.)
 Macloskie, George, Schenectady, N. Y., assignor to General Electric Company. Air-brake system. No. 1,081,316; Dec. 16; Gaz. vol. 197; p. 548.
 Madden, Harry D., Bloomfield, N. J., assignor to Westinghouse Lamp Company. Preparing billets of refractory materials. No. 1,081,618; Dec. 16; Gaz. vol. 197; p. 848.
 Maddux, Corrintha J. (See Jackson, William W., assignor.)
 Madell, Frederick J., Newark, N. J. Dress-form. No. 1,080,571; Dec. 9; Gaz. vol. 197; p. 259.
 Maffei-Schwartzkopf Werke G. m. b. H. (See Richter, Rudolf, assignor.)
 Magin, John G., assignor to Henry Conolly Company, Rochester, N. Y. Loose-leaf binder. No. 1,083,021; Dec. 30; Gaz. vol. 197; p. 1191.
 Magin, John G., assignor to Henry Conolly Company, Rochester, N. Y. Loose-leaf binder. No. 1,083,113; Dec. 30; Gaz. vol. 197; p. 1220.
 Magor, Basil, Hamilton, Ontario, Canada. Underframe for cars. (Reissue). No. 13,655; Dec. 9; Gaz. vol. 197; p. 502.
 Magor, Robert J., Passaic, N. J. Box-car. No. 1,080,708; Dec. 9; Gaz. vol. 197; p. 305.
 Magor, Robert J., Passaic, N. J. Car. No. 1,080,709; Dec. 9; Gaz. vol. 197; p. 305.
 Magruder, Charles A. (See Smith, James M., assignor.)
 Maguire, Dennis H., assignor of one-half to C. W. S. Rothfus, Williamsport, Pa. Collapsible box. No. 1,080,643; Dec. 9; Gaz. vol. 197; p. 282.
 Maher, Eugene E., assignor to E. Nut Co., Chicago, Ill. Self-locking nut. No. 1,081,540; Dec. 16; Gaz. vol. 197; p. 625.
 Mahoney, Daniel H., Vincennes, Ind. Railway-crosaling. No. 1,081,541; Dec. 16; Gaz. vol. 197; p. 625.
 Mahony, William P., Washington, D. C. Poultry-trap-nest front. No. 1,081,317; Dec. 16; Gaz. vol. 197; p. 549.
 Mahood, Frank M., Roanoke, Va. Stamping-machine. No. 1,082,541; Dec. 30; Gaz. vol. 197; p. 1023.
 Maler, Gustav, Schramberg, Germany. Flat-folding box and the like. No. 1,083,114; Dec. 30; Gaz. vol. 197; p. 1221.
 Maine Development Corporation. (See Goodyear, Nelson, assignor.)
 Maine, Herbert E., Providence, R. I. Portable shoe-elongating implement. No. 1,080,918; Dec. 9; Gaz. vol. 197; p. 380.
 Mainker, Rubin, Passaic, N. J. Metal bedstead. No. 1,082,165; Dec. 23; Gaz. vol. 197; p. 860.
 Maisel, Lorenz, Madison, Wis., assignor to Northern Chemical Engineering Laboratories. Contact device for hand-lamps. No. 1,082,857; Dec. 30; Gaz. vol. 197; p. 1146.
 Malwurm, Paul, Shreve, Ohio. Drop-hammer mechanism. No. 1,080,357; Dec. 2; Gaz. vol. 197; p. 155.
 Malen, Jacob B., Detroit, Mich. Water-heater. No. 1,082,089; Dec. 23; Gaz. vol. 197; p. 837.
 Mallory, Merideth T., Mineola, Tex. Seeder and planter. No. 1,082,430; Dec. 23; Gaz. vol. 197; p. 954.
 Mallory, Milton M., Springfield, Oreg. Tricycle. No. 1,083,115; Dec. 30; Gaz. vol. 197; p. 1221.
 Malm, Arthur T., assignor to Norton Company, Worcester, Mass. Glazed refractory article. No. 1,081,542; Dec. 16; Gaz. vol. 197; p. 626.
 Mambourg, Leopold, assignor to The Sanitary Nursing Bottle Company, Columbus, Ohio. Nursing-bottle. No. 1,080,070; Dec. 2; Gaz. vol. 197; p. 53.
 Mann, Alice L., New York, N. Y. Garment-hanger. No. 1,080,767; Dec. 9; Gaz. vol. 197; p. 327.
 Mann, Charles, Quapaw, Okla. Whip-socket. No. 1,082,883; Dec. 30; Gaz. vol. 197; p. 1147.
 Mannon, William H., Ouzay, Colo. Non-refillable bottle. No. 1,083,116; Dec. 30; Gaz. vol. 197; p. 1222.
 Manson, Donald, Riverdale, New Zealand. Leather-worker's thimble. No. 1,082,542; Dec. 30; Gaz. vol. 197; p. 1024.
 Manufacturers Can Company, The. (See Milligan and Jacobsen, assignors.)

Manwell, Edmund T. (See Brown, Edwards, and Manwell.)
 Marbel, George E., Dubuque, Iowa. Lubricating-cup for wacous. No. 1,081,457; Dec. 16; Gaz. vol. 197; p. 508.
 March, Edward, London, England. Check-disk-issuing machine. No. 1,079,943; Dec. 2; Gaz. vol. 197; p. 7.
 Marchese, Leonidas E., Chicopee, Mass. Paper-box-maker's cage. No. 1,081,759; Dec. 16; Gaz. vol. 197; p. 695.
 Marchthal, Eduard M. v., Vienna, Austria-Hungary, assignor to Siemens & Halske, A. G., Berlin, Germany. Machine for producing justification-symbols in register-bands. No. 1,082,642; Dec. 30; Gaz. vol. 197; p. 1060.
 Marcy, Frank E., Salt Lake City, Utah. Ball-mill. No. 1,080,768; Dec. 9; Gaz. vol. 197; p. 327.
 Marcy, Frank E., Salt Lake City, Utah, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Agitator. No. 1,082,431; Dec. 23; Gaz. vol. 197; p. 954.
 Marden, Clarence S. (See Gibson and Marden.)
 Maren, Max. (See Weinberg and Maren.)
 Marlon, Roy. (See Barr, John W., assignor.)
 Markham Air Rifle Company. (See Roe, Ernest S., assignor.)
 Markham, Charles M., San Diego, Cal. Lifting-jack. No. 1,081,243; Dec. 9; Gaz. vol. 197; p. 485.
 Markstein, Jacob, et al. (See Blow and Sandford, assignors.)
 Markus, Adolf, assignor to A. Frée, Dresden, Germany. Manufacturing a waterproof mortar. No. 1,082,035; Dec. 23; Gaz. vol. 197; p. 818.
 Marquand, Philip, New York, N. Y., assignor, by mesne assignments, to Tri-Eye Hook & Eye Company. Garment-hook. No. 1,080,987; Dec. 9; Gaz. vol. 197; p. 402.
 Marquis, Theophile. (See Persault and Marquis.)
 Marsh, Howard E. (See Carr, John H., assignor.)
 Marshall, Bertice E., New York, N. Y., assignor, by mesne assignments, to D. F. Kilgour, Lexington, Mass. Lubricator for elevator-guides. (Reissue.) No. 13,664; Dec. 30; Gaz. vol. 197; p. 1268.
 Marshall, Dale, Cheltenham, England. Tire-tread. No. 1,082,203; Dec. 23; Gaz. vol. 197; p. 874.
 Marshall, Stephen M., Clinton, Mass. Fusible link. No. 1,080,228; Dec. 2; Gaz. vol. 197; p. 108.
 Marston, Edgar L., Somerville, assignor to C. J. Brown, Newton, Mass. Table-lock. No. 1,082,889; Dec. 30; Gaz. vol. 197; p. 1147.
 Marth, Charles J., assignor to Wayne Manufacturing Company, St. Louis, Mo. Gearing. No. 1,080,151; Dec. 2; Gaz. vol. 197; p. 82.
 Martin, Charles T., Jr., Wolcott, Ind. Railway-derailer. No. 1,081,543; Dec. 16; Gaz. vol. 197; p. 626.
 Martin, Eva M., Meadville, Pa., assignor to The Spirella Company. Abdominal girdle. No. 1,082,204; Dec. 23; Gaz. vol. 197; p. 874.
 Martin, Frank. (See Mauch and Martin.)
 Martin, Frederick W., New York, and J. L. Mohun, Brooklyn, N. Y., assignors of one-third to A. G. Elvin, Somerville, N. J. Locomotive-drifting-valve mechanism. No. 1,080,290; Dec. 2; Gaz. vol. 197; p. 130.
 Martin, Harry J., Glidden, Iowa. Sash-fastener. No. 1,080,769; Dec. 9; Gaz. vol. 197; p. 327.
 Marul, Hyokichi, New York, N. Y. Hand-attached blotter. No. 1,081,053; Dec. 9; Gaz. vol. 197; p. 423.
 Marvell, Roy W., Baltimore, Md., assignor, by mesne assignments, to Lyon, Conklin & Company. Self-heating soldering-iron. No. 1,080,644; Dec. 9; Gaz. vol. 197; p. 283.
 Marx, Gustave C., and A. F. Becker, Elizabeth, N. J., assignors to Diehl Manufacturing Company. Electric fan. No. 1,081,244; Dec. 9; Gaz. vol. 197; p. 486.
 Marx, Joseph A., Saginaw, Mich. Toy. No. 1,083,117; Dec. 30; Gaz. vol. 197; p. 1222.
 Marysville Cabinet Company, The. (See Pooler, Bainer, and Elliott, assignors.)
 Maschinenfabrik Augsburg-Nürnberg A. G. (See Baumann, August, assignor.)
 Masland, Walter E., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Production of solvents by use of halogen compounds. No. 1,082,543; Dec. 30; Gaz. vol. 197; p. 1024.
 Mason, Charles T., Sumter, S. C., assignor to Sumter Electrical Company. Ignition-dynamo. No. 1,081,760; Dec. 16; Gaz. vol. 197; p. 695.
 Mason, Fred H., and J. Allen, Scranton, Pa. Separating mechanism. No. 1,080,407; Dec. 2; Gaz. vol. 197; p. 182.
 Mason, Frederic S. (See Kendall, William G., assignor.)
 Mason, James. (See Master, James W., assignor.)
 Mason, Richard F., assignor of eighty-five one-hundredths to C. A. Divine, Bishopville, S. C. Sign. No. 1,080,358; Dec. 2; Gaz. vol. 197; p. 156.
 Massie, Nicholas. (See Baum and Massie.)
 Massip, Georges, Levallois-Perret, France. Electric furnace. No. 1,080,840; Dec. 9; Gaz. vol. 197; p. 354.
 Masson, Baptiste A., New Castle, Pa. Watch-display case. No. 1,081,544; Dec. 16; Gaz. vol. 197; p. 626.
 Master, James W., assignor of one-half to J. Mason, San Diego, Cal. Life-preserver. No. 1,082,698; Dec. 30; Gaz. vol. 197; p. 1080.
 Mathews, Karl, Chicago, Ill. Tube-cleaning machine. No. 1,082,544; Dec. 30; Gaz. vol. 197; p. 1024.
 Mathews, John, et al. (See West, Owen A., assignor.)

Mathias, Thomas H., Buffalo, assignor to Lackawanna Steel Company, Lackawanna, N. Y. Rolling deep-ganged shapes. No. 1,082,756; Dec. 30; Gaz. vol. 197; p. 1101.
 Matlack, Minnie F., Louisville, Ky. Life-buoy. No. 1,081,840; Dec. 16; Gaz. vol. 197; p. 728.
 Mattes, Jacob. (See Carduck and Mattes.)
 Matthews, James H., and J. Stein, assignors to Jas. H. Matthews & Co., Pittsburgh, Pa. Stamp. No. 1,081,394; Dec. 16; Gaz. vol. 197; p. 575.
 Matthews, Newton, Fullerton, Cal. Beehive. No. 1,080,152; Dec. 2; Gaz. vol. 197; p. 82.
 Matthews, Thomas, Brooklyn, N. Y. Life-saving suit. No. 1,082,643; Dec. 30; Gaz. vol. 197; p. 1061.
 Matthews, William H., assignor of one-half to R. D. Funkhouser, Dayton, Ohio. Adjustable hose-holder. No. 1,080,770; Dec. 9; Gaz. vol. 197; p. 328.
 Mattison, James D., Holyoke, Mass. Forming-machine. No. 1,080,359; Dec. 2; Gaz. vol. 197; p. 156.
 Mattison, James D., Orange, N. J. Forming-machine. No. 1,080,360; Dec. 2; Gaz. vol. 197; p. 156.
 Mauch, John D., and F. Martin, Rib Lake, Wis. Means for supporting and releasing retaining-stakes. No. 1,083,118; Dec. 30; Gaz. vol. 197; p. 1222.
 Mauser, Paul, Oberdorf-on-the-Neckar, Germany. Trigger mechanism for automatic or self-loading small-arms. No. 1,081,781; Dec. 16; Gaz. vol. 197; p. 696.
 Maxfield, Rowland H., Kings Valley, Oreg. Vehicle-brake. No. 1,081,850; Dec. 16; Gaz. vol. 197; p. 728.
 Maximilian, Ferdinand, Clifalde Park, N. J., assignor to J. Kahn, New York, N. Y. Mitering-machine. No. 1,083,119; Dec. 30; Gaz. vol. 197; p. 1223.
 May, John F., New York, N. Y. Column. No. 1,083,120; Dec. 30; Gaz. vol. 197; p. 1223.
 Mayer, Godfried J., Buffalo, N. Y. Carbureter. No. 1,080,645; Dec. 9; Gaz. vol. 197; p. 283.
 Mayer and Lavenson Company. (See Mayer, Moritz, assignor.)
 Mayer, Moritz, assignor to Mayer and Lavenson Company, New York, N. Y. Support-bracket for display-racks. No. 1,082,965; Dec. 30; Gaz. vol. 197; p. 1174.
 Mayfield, Champion, Brookings township, Jackson county, Mo. Lubricating-oil-conservation attachment for gas-engines. No. 1,080,710; Dec. 9; Gaz. vol. 197; p. 305.
 Mayfield, James F., and H. B. Alger, Lakeview, Oreg. Meat-cutting machine. No. 1,080,875; Dec. 9; Gaz. vol. 197; p. 365.
 Maynard, Frederick E., Berkeley, Cal. Amusement apparatus. No. 1,082,699; Dec. 30; Gaz. vol. 197; p. 1080.
 McAdams, John D. (See Gatewood and McAdams.)
 McAlpin, Lee, et al. (See Wilson, Alfred J., assignor.)
 McArthur, Charles D., assignor to Blaw Steel Centering Company, Pittsburgh, Pa. Tunnel-form. No. 1,082,700; Dec. 30; Gaz. vol. 197; p. 1081.
 McCabe, James T., New York, N. Y. Door-hanger. No. 1,082,129; Dec. 23; Gaz. vol. 197; p. 840.
 McCain, Walter L., Deering, Mo. Fence-post. No. 1,081,976; Dec. 23; Gaz. vol. 197; p. 798.
 McCall, Douglas B., Rogers, Tex. Knee-protector. No. 1,081,245; Dec. 9; Gaz. vol. 197; p. 486.
 McCall, Thaddeus D., Imperial, Cal. Recording apparatus. No. 1,081,246; Dec. 9; Gaz. vol. 197; p. 486.
 McCallen, George W., Wheatland, Pa. Oil-burner. No. 1,082,130; Dec. 23; Gaz. vol. 197; p. 849.
 McCallister, Thomas F., Prineville, Oreg. Motor-vehicle. No. 1,080,361; Dec. 2; Gaz. vol. 197; p. 157.
 McCallum, Maude, assignor to Metcalfe Baldock & Company, London, England. Skirt. No. 1,082,467; Dec. 23; Gaz. vol. 197; p. 964.
 McCarthy, Charles A., Homopolis, Ala., assignor to J. Heisler, Hattiesburg, Miss. Chain-lock. No. 1,082,813; Dec. 30; Gaz. vol. 197; p. 1120.
 McCarthy, Edward T. (See Watts, Lewis H., assignor.)
 McCarthy, Hiram A., Peterborough, Ontario, Canada. Adjustable wrench. No. 1,082,601; Dec. 30; Gaz. vol. 197; p. 1046.
 McCarville, John E., Fort Dodge, Iowa. Flashing. No. 1,082,602; Dec. 30; Gaz. vol. 197; p. 1046.
 McCauley, Edward, Minneapolis, Minn., assignor of one-half to W. T. McCauley, Fallowfield, Canada. Pole-tip. No. 1,082,090; Dec. 23; Gaz. vol. 197; p. 837.
 McCauley, William T. (See McCauley, Edward, assignor.)
 McCleary, Ray M., and G. L. Harnly, Philadelphia, Pa., assignors to O. L. Smith, Grand Rapids, Mich. Display-rack. No. 1,081,685; Dec. 16; Gaz. vol. 197; p. 660.
 McClellan, Benjamin S., Chicago, Ill. Lock-nut. No. 1,083,217; Dec. 30; Gaz. vol. 197; p. 1251.
 McClenahan, John R., Geneva, Ill. Trap. No. 1,079,944; Dec. 2; Gaz. vol. 197; p. 7.
 McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Automatic fire-resisting shutter. No. 1,081,129; Dec. 9; Gaz. vol. 197; p. 447.
 McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Roll-cap. No. 1,082,280; Dec. 23; Gaz. vol. 197; p. 903.
 McCollum, Burton, Washington, D. C. Alternating-current induction-motor. No. 1,082,003; Dec. 30; Gaz. vol. 197; p. 1046.
 McConnell, Charles W., et al. (See Kean, Thomas F., assignor.)
 McCormick, Francis H., Hillsdale, Mich. Harness attachment for securing nets and blankets. No. 1,081,054; Dec. 9; Gaz. vol. 197; p. 423.

McCormick, John H., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,080,646; Dec. 9; Gaz. vol. 197; p. 288.
 McCoy, Walter M., assignor to C. E. Foust, Birmingham, Ala. Mine-car wheel. No. 1,081,318; Dec. 16; Gaz. vol. 197; p. 549.
 McDanel, Elmhurst S. (See Peetz, McDanel, and Thompson.) (Reissue.)
 McDonald, Amanda, Central City, S. D. Broom attachment. No. 1,080,572; Dec. 9; Gaz. vol. 197; p. 259.
 McDunnell, Cornelius P., Kansas City, Mo. Station-indicator. No. 1,082,036; Dec. 23; Gaz. vol. 197; p. 819.
 McEvoy, Timothy F., Pottstown, Pa. Derail. No. 1,079,990; Dec. 2; Gaz. vol. 197; p. 24.
 McEwen Bros. (See Kerr, Charles V., assignor.)
 McGlinchy, Albert P., Lincoln, Neb. Automatic grease-plug lock. No. 1,082,091; Dec. 23; Gaz. vol. 197; p. 838.
 McGough, Thomas F., New Orleans, La. Motor-cultivator. No. 1,081,686; Dec. 16; Gaz. vol. 197; p. 670.
 McGowan, Frank A., et al. (See Locke, William P., assignor.)
 McGranaghan, W. H. (See Hughes, Hugh T., assignor.)
 McGregor, Joseph G., Oak Park, assignor to The Adams & Westlake Company, Chicago, Ill. Lamp. No. 1,080,362; Dec. 2; Gaz. vol. 197; p. 157.
 McGregor, Robert. (See Alley and McGregor.)
 McHenry, Samuel B., Chicago, Ill. Dust-mop. No. 1,080,711; Dec. 9; Gaz. vol. 197; p. 306.
 McHill, William R., Eureka, Kans. Shocking-machine. No. 1,081,247; Dec. 9; Gaz. vol. 197; p. 487.
 McIntyre, Michael M., assignor to The Perfection Spring Company, Cleveland, Ohio. Vehicle-spring. No. 1,083,022; Dec. 30; Gaz. vol. 197; p. 1191.
 McKay, William F., La Grange, Ill. Roofing. No. 1,080,647; Dec. 9; Gaz. vol. 197; p. 284.
 McKeage, Robert S., assignor to The Continental Motor Truck Co., Denver, Colo. Motor-truck body. No. 1,082,814; Dec. 30; Gaz. vol. 197; p. 1121.
 McKean Motor Car Company. (See McKean, William R., Jr., assignor.)
 McKean, William R., Jr., assignor, by mesne assignments, to McKean Motor Car Company, Omaha, Neb. System of gas distribution for internal-combustion engines. No. 1,081,619; Dec. 16; Gaz. vol. 197; p. 648.
 McKenney, John, Anaconda, Mont. Automatic reversible motor. No. 1,081,458; Dec. 16; Gaz. vol. 197; p. 597.
 McKenzie, Peter A., trustee. (See Voglesong, Clyde C., assignor.)
 McKeranhan, Charles A., Wilmerding, Pa. Car-coupling. No. 1,083,121; Dec. 30; Gaz. vol. 197; p. 1223.
 McLane, William B., Memphis, Mo. Combination pump and engine. No. 1,081,687; Dec. 16; Gaz. vol. 197; p. 670.
 McLaughlin, John C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,080,117; Dec. 2; Gaz. vol. 197; p. 70.
 McLean, Archibald, Fort Steilacoom, Wash. Rod-packing and making same. No. 1,082,890; Dec. 30; Gaz. vol. 197; p. 1147.
 McLean, Crosby C., assignor to Allegheny Plate Glass Company, Pittsburgh, Pa. Apparatus for delivering abrasive material. No. 1,081,762; Dec. 16; Gaz. vol. 197; p. 696.
 McLellan, John, assignor of one-half to W. A. Millard, Jr., Providence, R. I. Combined separable collar and fastening means therefor. No. 1,081,273; Dec. 9; Gaz. vol. 197; p. 498.
 McManical Grateless Furnace Company, The. (See McManical, Robert D., assignor.)
 McManical, Robert D., Logan, assignor to The McManical Grateless Furnace Company, Columbus, Ohio. Furnace. No. 1,081,545; Dec. 16; Gaz. vol. 197; p. 626.
 McManus, James P. (See Breckenridge, George M., assignor.)
 McNelly, Joseph, Collingswood, N. J., assignor to Union Special Machine Company, Chicago, Ill. Folding and guiding device. No. 1,082,351; Dec. 23; Gaz. vol. 197; p. 928.
 McWane, Charles W., Lynchburg, Va. Permanent mold and means for operating the same. No. 1,083,122; Dec. 30; Gaz. vol. 197; p. 1224.
 McWilliams, Ray F., Barryton, Mich. Bean-assorter. No. 1,080,988; Dec. 9; Gaz. vol. 197; p. 403.
 Meacham, Benjamin E., Lorain, Ohio, assignor to American Stove Company, St. Louis, Mo. Automatic water-heater. No. 1,082,131; Dec. 23; Gaz. vol. 197; p. 850.
 Mead, George A., and F. S. Denneen, assignors to The Ohio Brass Company, Mansfield, Ohio. Trolley-wire clamp or fastening device. No. 1,080,712; Dec. 9; Gaz. vol. 197; p. 306.
 Mead, George A., and W. H. Kempton, assignors to The Ohio Brass Company, Mansfield, Ohio. Strain-insulator. No. 1,080,713; Dec. 9; Gaz. vol. 197; p. 306.
 Meadows, Peter W. L., assignor of one-fourth to P. Clements, Cordele, Ga. Rail-joint. No. 1,080,017; Dec. 2; Gaz. vol. 197; p. 34.
 Meagher, George V., St. Louis, Mo. Combination table and sled. No. 1,082,132; Dec. 23; Gaz. vol. 197; p. 850.
 Meeker, William B., assignor to The Automatic Lamp Control Company, Dayton, Ohio. Automatic lamp-controller. No. 1,082,545; Dec. 30; Gaz. vol. 197; p. 1025.
 Mehlman, Charles, Fort Lee, N. J. Piano-pedal. No. 1,079,945; Dec. 2; Gaz. vol. 197; p. 7.
 Meisenburg, Kurt. (See Hofmann, Coutelle, Meisenburg, and Delbrück.)
 Melas, William, assignor of one-half to D. Townsend, Philadelphia, Pa. Air-aspirator. No. 1,082,815; Dec. 30; Gaz. vol. 197; p. 1121.
 Mellon, George A., assignor to Link Fabric Company of America, St. Louis, Mo. Bed-bottom fabric. No. 1,081,620; Dec. 16; Gaz. vol. 197; p. 640.
 Mellor, William H., Newton, N. J. Pile fabric. No. 1,080,591; Dec. 2; Gaz. vol. 197; p. 131.
 Melville Clark Piano Company. (See Clark, Melville, assignor.)
 Melvin, Mark G., Scranton, Pa. Hood. No. 1,080,468; Dec. 2; Gaz. vol. 197; p. 192.
 Mencke, Frederick C., et al. (See Weeks and Hunter, assignors.)
 Meneses, J. Farmer, Greenwood, Miss. Car-standard. No. 1,082,816; Dec. 30; Gaz. vol. 197; p. 1122.
 Menihan, William G. (See O'Neill and Menihan.)
 Mentor, Ernest, New Britain, Conn. Shaving-brush. No. 1,081,319; Dec. 16; Gaz. vol. 197; p. 550.
 Meredith-Jones, Hubert, New York, N. Y. Locking screw. No. 1,082,891; Dec. 30; Gaz. vol. 197; p. 1148.
 Mergenthaler Linotype Company. (See Boardman, Robert O., assignor.)
 Mergenthaler Linotype Company. (See Degener, Heinrich, assignor.)
 Mergenthaler Linotype Company. (See Dodge, Norman, assignor.)
 Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
 Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
 Mergenthaler Linotype Company. (See Kennedy, Luther L., assignor.)
 Mergenthaler Linotype Company. (See Kingsbury, George P., assignor.)
 Mergenthaler Linotype Company. (See Knox, Dana S., assignor.)
 Merkl, Joseph J. (See Dietze, Walter A., assignor.)
 Merrell, Lewis C., assignor to Merrell-Soule Company, Syracuse, N. Y. Apparatus for desiccating. No. 1,082,468; Dec. 23; Gaz. vol. 197; p. 965.
 Merrell, Lewis C., assignor to Merrell-Soule Company, Syracuse, N. Y. Desiccating. No. 1,082,469; Dec. 23; Gaz. vol. 197; p. 965.
 Merrell-Soule Company. (See Merrell, Lewis C., assignor.)
 Merriam, Henry F. (See Briggs and Merriam.)
 Merritt, Henry W., assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,082,546; Dec. 30; Gaz. vol. 197; p. 1025.
 Mertsheimer, Frederick, Kansas City, Mo. Door-check. No. 1,082,432; Dec. 23; Gaz. vol. 197; p. 954.
 Mesner, Clyde M. (See Noe and Mesner.)
 Messinger, Leopold, Frankfurt-on-the-Main, Germany. Folding umbrella. No. 1,083,123; Dec. 30; Gaz. vol. 197; p. 1224.
 Metcalf, William F., and S. W. Leidich, Philadelphia, Pa. Manufacturing cigars. No. 1,083,023; Dec. 30; Gaz. vol. 197; p. 1192.
 Metcalfe Baldock & Company. (See McCallum, Maude, assignor.)
 Metcalf, Colin, Herminie, Pa. Safety-catch for mining-cages. No. 1,080,648; Dec. 9; Gaz. vol. 197; p. 284.
 Metropolitan Sewing Machine Company. (See Krug, Louis, assignor.)
 Metropolitan Sewing Machine Company. (See Wels, John P., assignor.)
 Metten, John F., Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company. Steam-turbine. No. 1,080,573; Dec. 9; Gaz. vol. 197; p. 259.
 Mettler, Casper, New Haven, and R. E. Fudge, West Haven, Conn. Vending-machine. No. 1,082,817; Dec. 30; Gaz. vol. 197; p. 1122.
 Metz, Lamech S. (See Brummett and Metz.)
 Meyer, Henry A., Helena, Mont. Pocket postal scale. No. 1,080,771; Dec. 9; Gaz. vol. 197; p. 328.
 Meyer, Louis, San Francisco, Cal. Liquid-gage. No. 1,080,153; Dec. 2; Gaz. vol. 197; p. 82.
 Meyerord, George R., Chicago, Ill. Translucent panel for signs and ornamental purposes. No. 1,080,989; Dec. 9; Gaz. vol. 197; p. 403.
 Meyerord, George R., Chicago, Ill. Producing translucent panels. No. 1,080,990; Dec. 9; Gaz. vol. 197; p. 403.
 Meyers, Max, assignor to Newton Machine Tool Works, Incorporated, Philadelphia, Pa. Interlocking mechanism for cold-saw cutting-off machines. No. 1,081,763; Dec. 16; Gaz. vol. 197; p. 697.
 Meyers, Max, assignor to Newton Machine Tool Works, Incorporated, Philadelphia, Pa. Feeding mechanism for cutting-off machines. No. 1,081,764; Dec. 16; Gaz. vol. 197; p. 697.
 Meyrose, Ferdinand, St. Louis, Mo. Reclining-chair. No. 1,080,714; Dec. 9; Gaz. vol. 197; p. 307.
 Meyrowitz Manufacturing Co., The. (See Bolde, Henry, assignor.)
 Michael, Ulysses S., Celina, Ohio. Fowl-decapitator. No. 1,081,851; Dec. 16; Gaz. vol. 197; p. 728.
 Michaels, Charles E., Wilson, Pa. Spout for steel-furnaces. No. 1,080,071; Dec. 2; Gaz. vol. 197; p. 63.

Middlebrooks, Eugene, Hillsboro, Ga. Fertilizer-distributor. No. 1,082,037; Dec. 23; Gaz. vol. 197; p. 819.
 Midgley, John G., Salt Lake City, Utah. Steam-heating system. No. 1,081,509; Dec. 16; Gaz. vol. 197; p. 614.
 Miehle Printing Press & Manufacturing Company. (See Miehle, Robert, assignor.)
 Miehle, Robert, assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Tripping mechanism for printing-presses. No. 1,081,320; Dec. 16; Gaz. vol. 197; p. 550.
 Mierzwik, John A., Roscoe, Tex. Clothes-pin. No. 1,081,852; Dec. 16; Gaz. vol. 197; p. 728.
 Miessen, Joseph. (See Closson and Miessen.)
 Millard, William A., Jr. (See McLellan, John, assignor.)
 Miller, Albert E., Carnegie, Pa. Switch mechanism for toy tracks. No. 1,080,363; Dec. 2; Gaz. vol. 197; p. 157.
 Miller, Alfred K., Worcester, assignor of fifty one-hundredths to H. L. Wadsworth, Lexington, Mass. Drying-machine. No. 1,080,517; Dec. 2; Gaz. vol. 197; p. 209.
 Miller, Charles J., Minneapolis, Minn., assignor, by mesne assignments, to The Lamson Company, Boston, Mass. Store-service apparatus. No. 1,081,249; Dec. 9; Gaz. vol. 197; p. 487.
 Miller, Elting. (See Palmer, Layton W., assignor.)
 Miller, Eugene L., Portland, Ore. System of closet sanitation. No. 1,081,130; Dec. 9; Gaz. vol. 197; p. 447.
 Miller, Frank G., Defiance, Ohio. Freight-car. No. 1,081,853; Dec. 16; Gaz. vol. 197; p. 728.
 Miller, Frederick, and H. L. Blum, San Francisco, Cal. Rotary internal-combustion engine. No. 1,082,205; Dec. 23; Gaz. vol. 197; p. 874.
 Miller, George W., assignor of one-half to A. E. Dymont, Toronto, Ontario, Canada. Gate. No. 1,081,395; Dec. 16; Gaz. vol. 197; p. 575.
 Miller, Ives A., Grapeville, Pa. Rail-fastening. No. 1,082,433; Dec. 23; Gaz. vol. 197; p. 954.
 Miller, John. (See Davis and Miller.)
 Miller, John E., Coffey, Mo. Wire-stretcher. No. 1,081,250; Dec. 9; Gaz. vol. 197; p. 488.
 Miller, Louis W., Rochester, assignor to National Police Signal Company, Buffalo, N. Y. Electrical communicating system. No. 1,080,018; Dec. 2; Gaz. vol. 197; p. 34.
 Miller Rubber Company. (See Pfeiffer, Jacob, assignor.)
 Miller, Rudolph C., Reno, Nev. Fuse-cap protector. No. 1,081,854; Dec. 16; Gaz. vol. 197; p. 729.
 Miller, William G., North Tarrytown, N. Y. Driving-wheel for motor-vehicles. No. 1,082,434; Dec. 23; Gaz. vol. 197; p. 855.
 Miller, William J. (See Jones and Miller.)
 Miller, William L., assignor to Gisholt Machine Company, Madison, Wis. Automatic turret-lathe. No. 1,081,390; Dec. 16; Gaz. vol. 197; p. 576.
 Millholand, Robert D., Redlands, Cal. Railway-crossing. No. 1,080,841; Dec. 9; Gaz. vol. 197; p. 355.
 Milligan, Stephen W., Elizabeth, and J. F. Jacobsen, assignors to The Manufacturers Can Company, Newark, N. J. Sealing device for cans, &c. No. 1,082,892; Dec. 30; Gaz. vol. 197; p. 1148.
 Milton, John F., Texarkana, Tex. Valve. No. 1,080,991; Dec. 9; Gaz. vol. 197; p. 403.
 Milwaukee Stamping Company. (See Petrie, August, assignor.)
 Minck, Peter J., Brooklyn, N. Y. Trolley-finder. No. 1,079,946; Dec. 2; Gaz. vol. 197; p. 7.
 Miner, William H. (See O'Connor, John F., assignor.)
 Mitchell, H. M. (See Lundstrom, Charles G., assignor.)
 Mitchell, Ida M., Los Angeles, Cal. Corset-stay fastener. No. 1,081,977; Dec. 23; Gaz. vol. 197; p. 798.
 Mitchell, John E., Topeka, Kans. Seal. No. 1,081,978; Dec. 23; Gaz. vol. 197; p. 798.
 Mitchell, Thomas J., Uniontown, Pa. Coke conveying and screening mechanism. No. 1,082,757; Dec. 30; Gaz. vol. 197; p. 1101.
 Mitchell, William W., and H. W. Cotter, Canton, N. C. Fire-alarm. No. 1,081,855; Dec. 16; Gaz. vol. 197; p. 729.
 Modern Safety Gas Iron Company. (See Brewer, Horace L., assignor.)
 Moeller, Lawrence, Maquoketa, Iowa. Chimney-cleaner. No. 1,081,280; Dec. 9; Gaz. vol. 197; p. 499.
 Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Sewing and trimming machine. No. 1,082,281; Dec. 23; Gaz. vol. 197; p. 903.
 Mohl, Charles G., Cadillac, Mich. Combined hose-nozzle and lawn-sprinkler. No. 1,081,888; Dec. 16; Gaz. vol. 197; p. 670.
 Mohr, Charles B., New York, N. Y. Reversible-sign structure. No. 1,081,397; Dec. 16; Gaz. vol. 197; p. 576.
 Mohun, John L. (See Martin and Mohun.)
 Mold, Albert W. (See Mold, Julius F. and A. W.)
 Mold, Julius F. and A. W. Sunrise, Minn. Screening-machine. No. 1,080,072; Dec. 2; Gaz. vol. 197; p. 54.
 Molkenthin, Herman E. R., Coeur d'Alene, Idaho, assignor of one-half to W. B. Monti, La Crosse, Wis. Combination agricultural implement. No. 1,080,842; Dec. 9; Gaz. vol. 197; p. 355.
 Moller, John E., Wausau, Wis. Line-spacing mechanism for type-writers. No. 1,081,459; Dec. 16; Gaz. vol. 197; p. 597.
 Moller, John E., Sturgeon Bay, Wis. Type-writer. No. 1,082,038; Dec. 23; Gaz. vol. 197; p. 819.

Möllenhoff, Carl, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Dyeing and printing. No. 1,081,621; Dec. 16; Gaz. vol. 197; p. 649.
 Mollitor, Joseph A., Chicago, Ill. Cushion-tire. No. 1,081,705; Dec. 16; Gaz. vol. 197; p. 698.
 Monarch Typewriter Company, The. (See Merritt, Henry W., assignor.)
 Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)
 Monosmith, Olney B., Lorain, Ohio. Carbureter. No. 1,080,118; Dec. 2; Gaz. vol. 197; p. 70.
 Monroe Calculating Machine Company. (See Baldwin, Frank S., assignor.)
 Monroe, Fred R., Middletown, N. Y., assignor of one-half to J. D. Haggerty, Sussex, N. J. Milk-retarding apparatus. No. 1,082,206; Dec. 23; Gaz. vol. 197; p. 875.
 Monti, William B. (See Molkenthin, Herman E. R., assignor.)
 Moon-Hopkins Billing Machine Company. (See Hopkins, Hubert, assignor.)
 Mooney, Lawrence C., Montgomery, Ala. Exhaust-nozzle. No. 1,082,701; Dec. 30; Gaz. vol. 197; p. 1081.
 Mooney, William, et al. (See Seessle, Charles, assignor.)
 Moore, Clair, et al. (See Chambers, John A., assignor.)
 Moore, George C., Worcester, Mass. Elastic fabric. No. 1,082,906; Dec. 30; Gaz. vol. 197; p. 1174.
 Moore, Grayson, Weston county, Wyo. Weighing and recording mechanism. No. 1,082,967; Dec. 30; Gaz. vol. 197; p. 1174.
 Moore, Herbert P., Norwalk, Ohio. Silencer for firearms. No. 1,080,154; Dec. 2; Gaz. vol. 197; p. 83.
 Moore, James D., North Wilkesboro, N. C. Grinding-mill. No. 1,081,622; Dec. 16; Gaz. vol. 197; p. 649.
 Moore, Justus J., Springfield, assignor of one-third to W. A. Brewster, Chicago, and one-third to H. Thomas, Harrisburg, Ill. Bit for mining-machines. No. 1,081,431; Dec. 9; Gaz. vol. 197; p. 448.
 Moore, Lee C., Pittsburg, Pa. Coupling for steel towers or derricks. No. 1,082,207; Dec. 23; Gaz. vol. 197; p. 875.
 Moore, Thomas F., Winchester, Ky. Portable hoist. No. 1,081,055; Dec. 9; Gaz. vol. 197; p. 423.
 Moore, William, Kansas City, Mo. Device for handling currency or the like. No. 1,081,766; Dec. 16; Gaz. vol. 197; p. 698.
 Moore, William N., Pollard, Ala. Liquid-sealed jar. No. 1,081,856; Dec. 16; Gaz. vol. 197; p. 729.
 Morehouse, Cyrus E., Milwaukee, Wis. Perforating-machine for leaves or sheets. No. 1,080,073; Dec. 2; Gaz. vol. 197; p. 54.
 Morey, Harry J., Syracuse, assignor to Pass & Seymour, Inc., Solvay, N. Y. Shade-holder. No. 1,082,604; Dec. 30; Gaz. vol. 197; p. 1047.
 Morgan, Abraham, Independence, Mo. Spring-wheel. No. 1,080,649; Dec. 9; Gaz. vol. 197; p. 285.
 Morgan, Fredrick W., St. Louis, Mo. Ball-caster. No. 1,082,968; Dec. 30; Gaz. vol. 197; p. 1174.
 Morgan-Gardner Electric Company. (See Noble, Ralph E., assignor.)
 Morgan, Harvey H., Alexandria, La. Stump-burner. No. 1,082,644; Dec. 30; Gaz. vol. 197; p. 1001.
 Morison, Donald B., Hartlepool, England. Steam-regenerative accumulator and water-heater. No. 1,081,132; Dec. 9; Gaz. vol. 197; p. 448.
 Morris, Charles A., Montclair, N. J., assignor to The Hayward Company, Excavating-shovel. No. 1,080,292; Dec. 2; Gaz. vol. 197; p. 131.
 Morris, Cyril C. B., London, England. Carbureter. No. 1,079,947; Dec. 2; Gaz. vol. 197; p. 8.
 Morris, Hilary J., New Britain, Conn. Clean-out fitting for drain-pipes. No. 1,083,024; Dec. 30; Gaz. vol. 197; p. 1192.
 Morris, Otho A., San Antonio, Tex. Valve for internal-combustion engines. No. 1,081,689; Dec. 16; Gaz. vol. 197; p. 670.
 Morris, Robert C., New York, N. Y. Sugar-container. No. 1,082,893; Dec. 30; Gaz. vol. 197; p. 1148.
 Morrison, William, Troy, N. Y. Massage shaving-brush. No. 1,080,919; Dec. 9; Gaz. vol. 197; p. 381.
 Morrow, Frank C., Wellston, Ohio. Separator. No. 1,082,352; Dec. 23; Gaz. vol. 197; p. 929.
 Morrow, William L., Los Angeles, Cal. Deep-well air-pump. No. 1,080,843; Dec. 9; Gaz. vol. 197; p. 355.
 Morton, Arthur, Warwick, assignor to Crompton Company, Providence, R. I. Pile-cutting machine. No. 1,082,894; Dec. 30; Gaz. vol. 197; p. 1149.
 Morton, Burris M., Koshkonong, Mo. Bottle. No. 1,080,293; Dec. 2; Gaz. vol. 197; p. 131.
 Morton, David F., Eureka Mills, Va., assignor to Otis Elevator Company, Jersey City, N. J. Automatic plunger-elevator. No. 1,081,690; Dec. 16; Gaz. vol. 197; p. 671.
 Mosesson, Bernard. (See Satin, Mosesson, and Garfinkel.)
 Mosier Safe Company, The. (See Bartels, Carl, assignor.)
 Moss, Frederick D., Hororata, New Zealand. Handle-fastening. No. 1,081,546; Dec. 16; Gaz. vol. 197; p. 628.
 Moss, Sanford A., Lynn, Mass., assignor to General Electric Company, Centrifugal compressor. (Relissue.) No. 13,665; Dec. 30; Gaz. vol. 197; p. 1269.
 Moss, William F., Richmond, Tex. Fountain-brush. No. 1,080,574; Dec. 9; Gaz. vol. 197; p. 260.
 Mott, Abram C., Jr., assignor to Abram Cox Stove Company, Philadelphia, Pa. Molding-disk. No. 1,081,251; Dec. 9; Gaz. vol. 197; p. 488.

Motz, Charles F., Monaco, assignor to Phoenix Glass Company, Pittsburgh, Pa. Sand-blast machine. No. 1,081,547; Dec. 16; Gaz. vol. 197; p. 627.
 Mourek, Adolf, Rathbun, Iowa. Lock. No. 1,081,133; Dec. 9; Gaz. vol. 197; p. 448.
 Mowrey, Alvin E., Franklin, Pa. Printing-press. No. 1,082,353; Dec. 23; Gaz. vol. 197; p. 929.
 Moye, Byron E., Dupuyer, Mont. Dirigible headlight. No. 1,081,398; Dec. 16; Gaz. vol. 197; p. 576.
 Mt. Joy, Albert, assignor of one-half to J. R. Clarke, Greensburg, Pa. Furnace. No. 1,081,321; Dec. 16; Gaz. vol. 197; p. 551.
 Mueller, Philipp, and A. C. Schuermann, assignors to H. Mueller Mfg. Co., Decatur, Ill. Device for controlling the flow of fluid. No. 1,081,274; Dec. 9; Gaz. vol. 197; p. 497.
 Muir Company. (See Huguette, William P., assignor.)
 Mukautz, Peter J., Chicago, Ill. Means for operating exposure-shutters. No. 1,081,548; Dec. 16; Gaz. vol. 197; p. 627.
 Mullen, Leo G., Crafton, Pa. Transparent pavement. No. 1,081,979; Dec. 23; Gaz. vol. 197; p. 798.
 Müller, Johann J. (See Koch and Müller.)
 Müller, Philipp, Frankfurt-on-the-Main, Germany. Manufacture of alimentary products. No. 1,080,920; Dec. 9; Gaz. vol. 197; p. 381.
 Mulliner, Richard H., Syracuse, N. Y. Piano-action. No. 1,082,895; Dec. 30; Gaz. vol. 197; p. 1149.
 Mullins, Gilbert, assignor of one-half to J. Frank, Leavenworth, Kans. Pipe or rod cutter. No. 1,081,857; Dec. 16; Gaz. vol. 197; p. 729.
 Mulloy, Bernard P., New Albany, Ind. Automatic weighing-machine. No. 1,082,354; Dec. 23; Gaz. vol. 197; p. 930.
 Mulon, Robert, Jacksonville, Fla. Nut-lock. No. 1,081,549; Dec. 16; Gaz. vol. 197; p. 627.
 Mundios & Co., H. (See Arndt, Rudolph, assignor.)
 Munz, Ernest J., Berkeley, Cal. Clothes-pin. No. 1,082,208; Dec. 23; Gaz. vol. 197; p. 876.
 Münz, Friedrich, Stuttgart, Germany. Operating mechanism for dough-kneading machines. No. 1,081,858; Dec. 16; Gaz. vol. 197; p. 730.
 Murchison, John S., Rocky, Okla. Animal-poke. No. 1,080,992; Dec. 9; Gaz. vol. 197; p. 404.
 Murphy, Albert C., New York, N. Y. Valve. No. 1,081,322; Dec. 16; Gaz. vol. 197; p. 551.
 Murphy, Dwight, Pittsburg, Pa. Hood-cap for outside metal car-roofs. No. 1,081,323; Dec. 16; Gaz. vol. 197; p. 551.
 Murphy Wall Bed Company. (See Murphy, William L., assignor.)
 Murphy, Walter P. (See Sisson, Vinton E., assignor.)
 Murphy, William L., assignor to Murphy Wall Bed Company, San Francisco, Cal. Disappearing bed. No. 1,083,025; Dec. 30; Gaz. vol. 197; p. 1192.
 Murray, J. S., et al. (See Higginbotham, Judson L., assignor.)
 Murray, James N. (See Tollstam, Oscar W., assignor.)
 Murray, Thomas E., New York, N. Y. Fuse-plug. No. 1,079,948; Dec. 2; Gaz. vol. 197; p. 9.
 Murray, Willis G., San Francisco, Cal. Vacuum syringing-machine. No. 1,080,469; Dec. 2; Gaz. vol. 197; p. 193.
 Muzzy, William H., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Filing-cabinet for credit-slips. No. 1,080,650; Dec. 9; Gaz. vol. 197; p. 285.
 Myer, Ellisha E., and O. P. Hawkins, Jackson township, Fayette county, Ind. Salt-feeder for live stock. No. 1,081,134; Dec. 9; Gaz. vol. 197; p. 449.
 Myers, Archie E., Sardinia, N. Y. Umbrella-cover. No. 1,082,645; Dec. 30; Gaz. vol. 197; p. 1061.
 Myers, Charles H., Buffalo, N. Y. Engine-starter. No. 1,080,772; Dec. 9; Gaz. vol. 197; p. 328.
 Myers, Charles H., Buffalo, N. Y. Engine-starter. No. 1,080,773; Dec. 9; Gaz. vol. 197; p. 329.
 Myers, Jacob R., Philadelphia, Pa. Hydraulic rotary bit and holder. No. 1,080,575; Dec. 9; Gaz. vol. 197; p. 260.
 Myers, William C., Oakland, Cal. Electropneumatic braking system. No. 1,081,550; Dec. 16; Gaz. vol. 197; p. 628.
 Myres, Wendell D., Niles, Ohio. Voucher-check. No. 1,082,702; Dec. 30; Gaz. vol. 197; p. 1082.
 Nagel, Henry, Ritzville, Wash. Cultivator. No. 1,080,993; Dec. 9; Gaz. vol. 197; p. 404.
 Nagle, Augustus F., Bethlehem, Pa. Pump-valve and valve-deck. No. 1,082,646; Dec. 30; Gaz. vol. 197; p. 1061.
 Nagle, Fredrick C., Kethville, La. Gyve-lock. No. 1,082,229; Dec. 23; Gaz. vol. 197; p. 884.
 Nagle, Fredrick C., Kethville, La. Gyve. No. 1,082,230; Dec. 23; Gaz. vol. 197; p. 884.
 Nale, Franklin P., assignor of one-half to E. J. Hudnall, Birmingham, Ala. Setting tiles, bricks, and mosaics. No. 1,082,231; Dec. 23; Gaz. vol. 197; p. 885.
 Nash, Albert A., and L. A. Thurston, Nebr. Cultivator. No. 1,081,767; Dec. 16; Gaz. vol. 197; p. 698.
 Nash, Lewis A. (See Nash, Albert A. and L. A.)
 Nash, Lewis H., South Norwalk, Conn. Rod connection. No. 1,081,768; Dec. 16; Gaz. vol. 197; p. 698.
 Nash, Malcolm P., U. S. Navy. Sight for firearms. No. 1,082,355; Dec. 23; Gaz. vol. 197; p. 930.
 Nathan Manufacturing Co. (See Wood, Robert, assignor.)
 National-Acme Manufacturing Company, The. (See Hunter, Hugh M., assignor.)

National Cash Register Company, The. (See Cleal, Joseph P., assignor.)
 National Cash Register Company. (See McCormick, John H., assignor.)
 National Cash Register Company. (See Muzzy, William H., assignor.)
 National Dump Car Company. (See Nelkirk, John O., assignor.)
 National Fire Proofing Company. (See Raftis, Richard W., assignor.)
 National Indicator Company. (See Hutchinson, Job, assignor.)
 National Laundry Machinery Company, The. (See Niederauer and Winfield, assignors.)
 National Metal Molding Company. (See Gilson, Henry R., assignor.)
 National Police Signal Company. (See Miller, Louis W., assignor.)
 National Safety Appliance Company, The. (See Sedgwick, Hiram G., assignor.)
 National Street and Station Indicator Company. (See Pace, Edgar J., assignor.)
 National Street and Station Indicator Company. (See Pace and Kellum, assignors.)
 Nay, Roger L., Muskogee, Okla. Bookbinder. No. 1,083,124; Dec. 30; Gaz. vol. 197; p. 1224.
 Naylor, Carl G., and R. R. Robertson, Chicago, Ill. Pipe-riveting machine. No. 1,081,691; Dec. 16; Gaz. vol. 197; p. 671.
 Naylor, Walter N., Forest Hill, London, and S. P. Hut-ton, Beckenham, England. Aluminium alloy. No. 1,080,155; Dec. 2; Gaz. vol. 197; p. 83.
 Naylor, Walter N., Forest Hill, London, and S. P. Hut-ton, Beckenham, England. Aluminium alloy. No. 1,080,156; Dec. 2; Gaz. vol. 197; p. 84.
 Nazel, John. (See Bates, Ralph E., assignor.)
 Nazel, John, Philadelphia, Pa., assignor to Sanitary Paper Bottle Company, Wilmington, Del. Tube-winding machine. No. 1,081,510; Dec. 16; Gaz. vol. 197; p. 615.
 Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Triple valve for air-brakes. No. 1,082,758; Dec. 30; Gaz. vol. 197; p. 1102.
 Nebel, Oscar H., Madison, S. D. Animal-trap. No. 1,083,125; Dec. 30; Gaz. vol. 197; p. 1224.
 Neckerman, William M., Youngstown, Ohio. Tapping and reaming head. No. 1,080,119; Dec. 2; Gaz. vol. 197; p. 71.
 Nelkirk, John O., Morgan Park, assignor to National Dump Car Company, Chicago, Ill. Dumping-door-operating mechanism. No. 1,081,324; Dec. 16; Gaz. vol. 197; p. 552.
 Neill, Eugene C., et al. (See Bush, Isaac W., assignor.)
 Neill, John A., Sheridan, Ind. Lantern. No. 1,082,896; Dec. 30; Gaz. vol. 197; p. 1149.
 Neilson, Christian P. (See Kolby, Larsen, and Neilson.)
 Neilson, Charles, Brooklyn, assignor to S. Sternau & Co., New York, N. Y. Coffee-machine. No. 1,080,774; Dec. 9; Gaz. vol. 197; p. 329.
 Neilson, Charles, Brooklyn, assignor to S. Sternau & Company, New York, N. Y. Support for culinary articles. No. 1,080,775; Dec. 9; Gaz. vol. 197; p. 330.
 Neilson, Charles A., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,080,304; Dec. 2; Gaz. vol. 197; p. 158.
 Neilson, Charles A., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,082,969; Dec. 30; Gaz. vol. 197; p. 1175.
 Neilson, Daniel R., Redlands, Cal. Saw. No. 1,081,135; Dec. 9; Gaz. vol. 197; p. 449.
 Neilson, Oscar, Chicago, Ill. Spool for perforated music-sheets. No. 1,080,229; Dec. 2; Gaz. vol. 197; p. 109.
 Neilson, William T., Dayton, Ohio. Saw-filing machine. No. 1,080,921; Dec. 9; Gaz. vol. 197; p. 381.
 Nernst Lamp Company. (See Willbur, Samuel P., assignor.)
 Nevans, Harold H., assignor to The United Gas Improvement Company, Philadelphia, Pa. Refractory tile and plug fitting. No. 1,080,715; Dec. 9; Gaz. vol. 197; p. 307.
 New Departure Manufacturing Company, The. (See Rockwell, Albert F., assignor.)
 New England Metal & Machine Company. (See Hilliard, John D., assignor.)
 New Ideas Manufacturing Company. (See Dietz, Paul, assignor.)
 New Jersey Patent Company. (See Dyer, Frank L., assignor.)
 New Jersey Patent Company. (See Weber, Peter, assignor.)
 Newhouse, Jacob, Brownville, Minn. Wheel attachment. No. 1,082,897; Dec. 30; Gaz. vol. 197; p. 1150.
 Newkirk, Perry B., Portland, Ore., assignor, by mesne assignments, to The Hugero Manufacturing Company, Vacuum-cleaner. No. 1,082,356; Dec. 23; Gaz. vol. 197; p. 931.
 Newman, Isaac M., Hewins, Kans. Molding-machine. No. 1,081,390; Dec. 16; Gaz. vol. 197; p. 577.
 Newpher, Alfred H., Chicago, Ill., assignor to The Adams & Westlake Company. Weather-guard for windows. No. 1,081,692; Dec. 16; Gaz. vol. 197; p. 672.
 Newsome, Dempsey G., Butler, Mo. Airship. No. 1,082,039; Dec. 23; Gaz. vol. 197; p. 820.
 Newton Machine Tool Works. (See Meyers, Max, assignor.)

Niagara Alkali Company. (See Rumm, Herman D., assignor.)
 Nice, Fredrick J., Pontiac, Mich. Furnace. No. 1,082,898; Dec. 30; Gaz. vol. 197; p. 1150.
 Nicholson, Murdock A., et al. (See Harkins, Thomas F., assignor.)
 Nickol, George E., assignor to Lyon, Conklin & Co., Baltimore, Md. Gas-burner. No. 1,081,275; Dec. 9; Gaz. vol. 197; p. 497.
 Niederauer, Edward, Hamilton, and J. H. Winfield, assignors to The National Laundry Machinery Company, Dayton, Ohio. Means for automatically regulating the flow of liquids from tanks. No. 1,082,605; Dec. 30; Gaz. vol. 197; p. 1047.
 Nielsen, Frederik, Boston, Mass. Valve. No. 1,082,232; Dec. 23; Gaz. vol. 197; p. 885.
 Nielsen, Iver, New Rochelle, N. Y. Window-shade. No. 1,080,844; Dec. 9; Gaz. vol. 197; p. 355.
 Niemann, William C., Waltz, Mich. Street-sweeper. No. 1,081,511; Dec. 16; Gaz. vol. 197; p. 615.
 Niewerth, Hermann, Berlin, Germany. Apparatus for reducing compounds. No. 1,081,287; Dec. 9; Gaz. vol. 197; p. 501.
 Nightingale Reproducer Co. (See Luciano, Achille, assignor.)
 Nixon, John B., Palmetto, and S. F. Krupp, Atlanta, Ga. Cotton condenser and regulator. No. 1,079,949; Dec. 2; Gaz. vol. 197; p. 9.
 Noble Electric Steel Company. (See Frickey, Royal E., assignor.)
 Noble, Ralph E., assignor to Morgan-Gardner Electric Company, Chicago, Ill. Electric motor. No. 1,083,260; Dec. 30; Gaz. vol. 197; p. 1266.
 Noe, William L., and C. M. Mesner, East Pleasant Plain, Iowa. Printing apparatus. No. 1,081,138; Dec. 9; Gaz. vol. 197; p. 449.
 Noiseless Typewriter Company, The. (See Lorenz, Edward H., assignor.)
 Noiseless Typewriter Company, The. (See Lorenz, William A., assignor.)
 Noiseless Typewriter Company, The. (See Ronchetti, Joseph A., assignor.)
 Nolan, Elmer L., Elkhart, Ind. Garden-tool. No. 1,082,040; Dec. 23; Gaz. vol. 197; p. 820.
 Nolde & Horst Co., The. (See Robinson, Frank W., assignor.)
 Nolen, James G., assignor to Fire Protection Development Company, New York, N. Y. Supervisory alarm system. No. 1,082,606; Dec. 30; Gaz. vol. 197; p. 1048.
 Nolen, James G., assignor to Fire Protection Development Company, New York, N. Y. Supervisory alarm system. No. 1,082,703; Dec. 30; Gaz. vol. 197; p. 1082.
 Noll, John, New York, N. Y., assignor to Continuous Rail Company, Wilmington, Del. Machine for working on compound rails. No. 1,080,651; Dec. 9; Gaz. vol. 197; p. 285.
 Noonan, Bernard. (See Pick, Henry V., assignor.)
 Norbo, Elven, Cashton, Wis. Tobacco-handling implement. No. 1,081,460; Dec. 16; Gaz. vol. 197; p. 598.
 Norfolk Manufacturing Company. (See Eller, Harley M., assignor.)
 Normanville, Edgar de Bayswater, London, England. Apparatus for cooling internal-combustion engines. No. 1,082,233; Dec. 23; Gaz. vol. 197; p. 886.
 North East Electric Company. (See Hailbleb, Edward A., assignor.)
 Northern Chemical Engineering Laboratories. (See Malsel, Lorenz, assignor.)
 Northern Iron Company. (See Ross, Lewis P., assignor.)
 Northrop, Herbert N., and G. A. Towle, Somerville, Mass.; said Northrop assignor to said Towle. Hair-curler. No. 1,081,400; Dec. 16; Gaz. vol. 197; p. 577.
 Northrop, Jonas, assignor to Draper Company, Hopedale, Mass. Cloth-beam. No. 1,082,166; Dec. 23; Gaz. vol. 197; p. 861.
 Norton Company. (See Boeck, Percy A., assignor.)
 Norton Company. (See Jeppson, George N., assignor.)
 Norton Company. (See Malm, Arthur T., assignor.)
 Norton, Edward M., assignor to De La Vergne Machine Company, New York, N. Y. Vaporizer attachment. No. 1,079,950; Dec. 2; Gaz. vol. 197; p. 9.
 Norton Grinding Company. (See Alden, George I., assignor.)
 Nummy, Samuel J. (See Diden, Edward T., assignor.)
 Nusser, William, Jr., Plevna, Kans. Stirrup. No. 1,082,435; Dec. 23; Gaz. vol. 197; p. 955.
 Nuttall, Daniel E., Emsworth, Pa. Weed-puller. No. 1,082,547; Dec. 30; Gaz. vol. 197; p. 1026.
 Nutter, William H., and R. H. Sims, Lebanon, Oreg. Inner kettle or boiler. No. 1,080,470; Dec. 2; Gaz. vol. 197; p. 193.
 Nye, George F., Kearney, Nebr. Concrete-mixer. No. 1,081,911; Dec. 16; Gaz. vol. 197; p. 746.
 Nye Tool and Machine Works, The. (See Benson, Charles T., assignor.)
 Nygren, Albert F., et al. (See Fagerberg, Frank, assignor.)
 Nygren, Ernest T., et al. (See Fagerberg, Frank, assignor.)
 O. A. Miller Treeing Machine Company. (See Hansen, John S., assignor.)
 O. K. Nut Lock Company. (See Armstrong, John R., assignor.)
 O'Brien, John F., and G. F. Bowdle, Piqua, Ohio. Sand cutting and riddling machine. No. 1,081,769; Dec. 16; Gaz. vol. 197; p. 699.
 O'Brien, Patrick J. E., Middletown, N. Y. Vehicle-head-light. No. 1,083,126; Dec. 30; Gaz. vol. 197; p. 1226.
 O'Connor, George A., West Springfield, Mass. Nut and bolt tightening machine. No. 1,080,994; Dec. 9; Gaz. vol. 197; p. 404.
 O'Connor, John, and M. P. Brennan, New York, N. Y. Ladle. No. 1,080,120; Dec. 2; Gaz. vol. 197; p. 71.
 O'Connor, John F., assignor, by mesne assignments, to W. H. Minor, Chicago, Ill. Friction draft-rigging. No. 1,080,922; Dec. 9; Gaz. vol. 197; p. 382.
 O'May, James, assignor to P. Lowe, Chicago, Ill. Carbureter attachment. No. 1,083,216; Dec. 30; Gaz. vol. 197; p. 1251.
 O'Neal, Rudolph L., et al. (See O'Neal, William J., assignor.)
 O'Neal, William J., North Braddock, assignor of one-third to V. K. Crozier, Braddock, and one-third to R. L. O'Neal, Homestead, Pa. Punch. No. 1,082,209; Dec. 23; Gaz. vol. 197; p. 876.
 O'Neill, Benjamin A., Minneapolis, Minn. Pulverizing mill. No. 1,081,860; Dec. 16; Gaz. vol. 197; p. 730.
 O'Neill, John E., and W. G. Menihan, Corning, N. Y. Saw. No. 1,080,365; Dec. 2; Gaz. vol. 197; p. 158.
 O'Rourke, Michael J., Salem, Mass. Instep-support. No. 1,081,057; Dec. 9; Gaz. vol. 197; p. 424.
 O'Rourke, William F., assignor to The Payson Manufacturing Company, Chicago, Ill. Bracket. No. 1,082,549; Dec. 30; Gaz. vol. 197; p. 1027.
 Oberkirch, Frank. (See Ashley and Oberkirch.)
 Obermiller, James A., and P. Eickenberg, Chicago, Ill. Panel-board switch. No. 1,082,759; Dec. 30; Gaz. vol. 197; p. 1102.
 Oberrender, Elliot A. (See Christman, Albert R., assignor.)
 Ocumpangh, Charles H., Rochester, N. Y. Interlocking mechanism for voting machines. No. 1,080,157; Dec. 2; Gaz. vol. 197; p. 84.
 Oestreicher, Frank, et al. (See Watts, Augustus C., assignor.)
 Ohio Brass Company, The. (See Mead and Denneen, assignors.)
 Ohio Brass Company, The. (See Mead and Kempton, assignors.)
 Ohlsson, Charles J., New York, N. Y. Grip-tread for vehicle-tires. No. 1,080,923; Dec. 9; Gaz. vol. 197; p. 382.
 Ohlsson, Johan A., Stockholm, Sweden. Safety-razor. No. 1,083,026; Dec. 30; Gaz. vol. 197; p. 1192.
 Olsson, Karl O. E., Trollhättan, assignor to Trollhättans Elektrothermiska Aktiebolag, Stockholm, Sweden. Smelting-furnace. No. 1,081,912; Dec. 16; Gaz. vol. 197; p. 746.
 Olechnowicz, Frank, Mineola, N. Y. Boat-equilibrator. No. 1,082,133; Dec. 23; Gaz. vol. 197; p. 851.
 Oliver Chilled Plow Works. (See Altgelt and Carlson, assignors.)
 Oliver Chilled Plow Works. (See Heylman, Edward M., assignor.)
 Oliver, Joseph C., San Jose, Cal. Portable photographic developing device. No. 1,080,995; Dec. 9; Gaz. vol. 197; p. 405.
 Oliver, Sewall K. (See Porter and Oliver.)
 Olmsted, Elmer S., Beechmont, assignor to Cheatham Electric Switching Device Company, Louisville, Ky. Electrically-controlled railway-switch. No. 1,079,991; Dec. 2; Gaz. vol. 197; p. 25.
 Olsen, John, Rolfe, Iowa. Signaling system. No. 1,082,436; Dec. 23; Gaz. vol. 197; p. 956.
 Olsen, Jorgen, Tottenville, N. Y. Cutting-bit. No. 1,081,859; Dec. 16; Gaz. vol. 197; p. 730.
 Olsen, Lawrence, Philadelphia, Pa. Tenoning-machine. No. 1,082,760; Dec. 30; Gaz. vol. 197; p. 1103.
 Olsen, Svend, Halle-on-the-Saale, Germany. Air-gas apparatus. No. 1,080,471; Dec. 2; Gaz. vol. 197; p. 193.
 Olver, William H., Oshkosh, Wis. Ironing-machine. No. 1,082,548; Dec. 30; Gaz. vol. 197; p. 1026.
 Oppermann, Georg, Hanover, Germany, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,081,325; Dec. 16; Gaz. vol. 197; p. 552.
 Orcutt, Charles D., assignor to Buffalo Sled Company, North Tonawanda, N. Y. Vehicle-body. No. 1,081,056; Dec. 9; Gaz. vol. 197; p. 423.
 Organ, Thomas O., Philadelphia, Pa. Feed-water heater and purifier. No. 1,081,138; Dec. 9; Gaz. vol. 197; p. 450.
 Oriol, Alfonso, Balanga, Philippine Islands. Joint adjustable handle. No. 1,080,121; Dec. 2; Gaz. vol. 197; p. 71.
 Orling, Axel, Tooting, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Relay device. No. 1,082,092; Dec. 23; Gaz. vol. 197; p. 838.
 Orling's Telegraph Instruments Syndicate Limited. (See Orling, Axel, assignor.)
 Ornstein, Anna, Vienna, Austria-Hungary. Clarifying wine. No. 1,081,623; Dec. 16; Gaz. vol. 197; p. 650.
 Orr, Benjamin. (See Secord and Orr.)
 Orr, Robert E., assignor to Pittsburgh Reinforcing Pole Company, Pittsburgh, Pa. Reinforcing pole. No. 1,080,525; Dec. 2; Gaz. vol. 197; p. 213.

Orwell Igniter Company. (See Orswell, Israel C., assignor.)
 Orswell, Israel C., Hyde Park, assignor to Orswell Igniter Company, Boston, Mass. Vibrator. No. 1,082,475; Dec. 23; Gaz. vol. 197; p. 967.
 Orton, Ingomar F., Galveston, Tex. Weed-killing train. No. 1,080,158; Dec. 2; Gaz. vol. 197; p. 84.
 Osborn, Henry C., assignor to The American Multigraph Company, Cleveland, Ohio. Means for selecting address-plates. No. 1,082,970; Dec. 30; Gaz. vol. 197; p. 1175.
 Oster, Herman W. (See Tewksbury and Oster.)
 Oster, Herman W., and W. J. Macak, assignors to The Oster Manufacturing Company, Cleveland, Ohio. Die-stock. No. 1,082,283; Dec. 23; Gaz. vol. 197; p. 904.
 Oster Manufacturing Company, The. (See Oster and Macak, assignors.)
 Oster Manufacturing Company, The. (See Tewksbury, Russell B., assignor.)
 Oster Manufacturing Company, The. (See Tewksbury and Oster, assignors.)
 Osterhoudt, William D., Poughkeepsie, N. Y. Adjustable car-step. No. 1,083,127; Dec. 30; Gaz. vol. 197; p. 1226.
 Otis Elevator Company. (See Larson, David, assignor.)
 Otis Elevator Company. (See Morton, David F., assignor.)
 Otis Elevator Company. (See Sundh, August, assignor.)
 Otis, Ralph S., West Hartford, Conn. Razor-stropping machine. No. 1,080,776; Dec. 9; Gaz. vol. 197; p. 330.
 Ott, George E., Lancaster, N. Y. Can-top set. No. 1,081,980; Dec. 23; Gaz. vol. 197; p. 798.
 Otto, Christian L., Greeley, Colo. Apparatus for drying photographs. No. 1,082,818; Dec. 30; Gaz. vol. 197; p. 1123.
 Our Manufacturing Company. (See Geiger, Frank, assignor.)
 Overgaard, Christen, Copenhagen, Denmark. Crank-shaft-milling machine. No. 1,080,576; Dec. 9; Gaz. vol. 197; p. 260.
 Overton, Charles A., Coeur d'Alene, Idaho. Roof-joint. No. 1,080,159; Dec. 2; Gaz. vol. 197; p. 84.
 Overton, Willis E., Solomons, Md. Extracting oil from fish. No. 1,080,204; Dec. 2; Gaz. vol. 197; p. 131.
 Owen, George B., assignor to Wm. L. Gilbert Clock Company, Winsted, Conn. Gear-wheel. No. 1,080,160; Dec. 2; Gaz. vol. 197; p. 84.
 Owen, James W., Lansdowne, Pa., assignor to Victor Talking Machine Company, Stylus for sound-reproducing machines. No. 1,080,924; Dec. 9; Gaz. vol. 197; p. 382.
 Owens, Harvey M., Leominster, Mass. Folding garment-hanger. No. 1,081,058; Dec. 9; Gaz. vol. 197; p. 424.
 Oxygen Welding Works, The. (See Patrick, Hubert H., assignor.)
 P. H. Craven Machinery Company. (See Craven, Peter H., assignor.)
 P. & M. Co., The. (See Kent, Leonard W., assignor.)
 Paatz, Hermann, Burg, near Magdeburg, Germany. Washing-out and refining machine. No. 1,083,128; Dec. 30; Gaz. vol. 197; p. 1225.
 Pace, Edgar J., assignor to National Street and Station Indicator Company, Los Angeles, Cal. Switch mechanism. No. 1,082,210; Dec. 23; Gaz. vol. 197; p. 876.
 Pace, Edgar J., and O. E. Kellum, assignors to National Street and Station Indicator Company, Los Angeles, Cal. Indicator mechanism. No. 1,080,161; Dec. 2; Gaz. vol. 197; p. 85.
 Pacific Lubricating Company. (See Pettit, Lyman D., assignor.)
 Packard Motor Car Company. (See Huff, Russell, assignor.)
 Pagan, Luigi A., West Hoboken, N. J. Friction-clutch. No. 1,081,861; Dec. 16; Gaz. vol. 197; p. 730.
 Page, John F., et al. (See Tibbs, Angus, assignor.)
 Pahl, August J. (See Kalenborn and Pahl.)
 Paine, Nathaniel E., West Newton, Mass. Tooth-brush. No. 1,082,041; Dec. 23; Gaz. vol. 197; p. 820.
 Painter, Herbert B. (See Cook, Theodore W., assignor.)
 Palmer, Arthur J. (See Winegarden, Arey V., assignor.)
 Palmer, Coolidge C., Elizabeth, N. J. Box or carton. No. 1,081,981; Dec. 23; Gaz. vol. 197; p. 799.
 Palmer, Francis N., Kenosha, Wis. Tube forming and sheathing apparatus. No. 1,080,925; Dec. 9; Gaz. vol. 197; p. 382.
 Palmer, Frederick A., Middletown, Conn. Mattress-guard. No. 1,080,845; Dec. 9; Gaz. vol. 197; p. 356.
 Palmer, Layton W., Siloam Springs, Ark., assignor of one-half to E. Miller, Wyoming, Ill. Hay-baling machine. No. 1,081,624; Dec. 16; Gaz. vol. 197; p. 650.
 Palmer, William H. (See Shoupe and Palmer.)
 Palmer, William M., Taft, Cal. Combined rail brace and splice. No. 1,082,042; Dec. 23; Gaz. vol. 197; p. 821.
 Pancke, Johannes, Berlin, Germany. Holder for pencils and other utensils. No. 1,083,027; Dec. 30; Gaz. vol. 197; p. 1192.
 Panoulas, Panayiotis, Hoboken, N. J. Machine for coating confections. No. 1,082,234; Dec. 23; Gaz. vol. 197; p. 886.
 Paolucci, Henry E., San Antonio, Tex. Lard-extracting machine. No. 1,083,129; Dec. 30; Gaz. vol. 197; p. 1226.
 Paper Working Machines Co. (See Raffel, Tobias E., assignor.)
 Paris, Louis E., and A. Premo, St. Paul, Minn. Mechanical movement. No. 1,083,261; Dec. 30; Gaz. vol. 197; p. 1266.
 Parish, William A., La Salle, Colo. Sprinkler. No. 1,082,437; Dec. 23; Gaz. vol. 197; p. 956.
 Park, John P., Beloit, Kans. Life-saving suit. No. 1,081,862; Dec. 16; Gaz. vol. 197; p. 731.
 Parker Carburetor Company. (See Hapgood, Cyrus H., assignor.)
 Parker, Chandler L., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-leveling machine. No. 1,082,761; Dec. 30; Gaz. vol. 197; p. 1103.
 Parker, Edward K., Santa Barbara, Cal. Electric pneumatic-pressure controller. No. 1,081,693; Dec. 16; Gaz. vol. 197; p. 672.
 Parker, Frank L., New York, N. Y. Drag scoop or bucket. No. 1,082,438; Dec. 23; Gaz. vol. 197; p. 956.
 Parker, Fred G., Paterson, assignor of one-half to H. Smith, Acquackanonk, N. J. Luggage-carrier. No. 1,081,326; Dec. 16; Gaz. vol. 197; p. 552.
 Parker, William J., and A. A. Strom, Halifax, Nova Scotia, Canada. Cable-grip. No. 1,080,472; Dec. 2; Gaz. vol. 197; p. 193.
 Parkin, Joseph W., Philadelphia, Pa. Carburetor. No. 1,082,762; Dec. 30; Gaz. vol. 197; p. 1103.
 Parks, Dennis, St. Louis, Mo. Feeding mechanism for cotton-cleaning machines. No. 1,081,461; Dec. 16; Gaz. vol. 197; p. 598.
 Parlihan, Lawrence E., Sea Cliff, N. Y. Thermometer. No. 1,081,139; Dec. 9; Gaz. vol. 197; p. 450.
 Parmentier, George, assignor of one-half to A. Steln, Vienna, Austria-Hungary. Shoe-machine. No. 1,082,704; Dec. 30; Gaz. vol. 197; p. 1082.
 Parrish, Nathaniel K., Gainesville, Fla. Cushion-tire. No. 1,082,647; Dec. 30; Gaz. vol. 197; p. 1061.
 Parsons, Winslow R., Chicago, Ill. Window-sash-operating apparatus. No. 1,082,899; Dec. 30; Gaz. vol. 197; p. 1150.
 Pascale, Anthony P., and R. Daac, Pittsburgh, Pa. Cot. No. 1,080,577; Dec. 9; Gaz. vol. 197; p. 260.
 Paschke, Frederick, assignor to Safety Celluloid Company, Limited, London, England. Manufacture of cellulose acetate. No. 1,082,167; Dec. 23; Gaz. vol. 197; p. 861.
 Pass & Seymour. (See Crossley, James S., assignor.)
 Pass & Seymour. (See Morey, Harry J., assignor.)
 Passaic Metal Ware Company. (See Karp, Morris, assignor.)
 Patent Button Company. (See White, Franklin R., assignor.)
 Patrick, Hubert H., assignor to The Oxygen Welding Works, Limited, Birmingham, England. Piston-ring. No. 1,083,130; Dec. 30; Gaz. vol. 197; p. 1226.
 Patten, Elmer E., assignor to St. Louis Cash Register Company, St. Louis, Mo. Cash-register. No. 1,080,162; Dec. 2; Gaz. vol. 197; p. 85.
 Patterson, John J., Los Angeles, Cal. Protector for trees. No. 1,082,439; Dec. 23; Gaz. vol. 197; p. 957.
 Patteson, A. D. (See Triplett, James, assignor.)
 Pattison, Orville E., Winamac, Ind. Motor-plow. No. 1,082,440; Dec. 23; Gaz. vol. 197; p. 957.
 Patton, Charles A., Villa Ridge, Mo. Milk-can-filler. No. 1,081,982; Dec. 23; Gaz. vol. 197; p. 799.
 Patton, John J., New York, N. Y. Tire. No. 1,080,295; Dec. 2; Gaz. vol. 197; p. 132.
 Patton, Ralph C., assignor to D & W Fuse Company, Providence, R. I. Magnetic chuck. No. 1,081,462; Dec. 16; Gaz. vol. 197; p. 598.
 Patton, Ralph C., assignor to D & W Fuse Company, Providence, R. I. Water-tight joint for magnetic circuits. No. 1,082,134; Dec. 23; Gaz. vol. 197; p. 851.
 Patton, Thomas R., et al. (See Weeks and Hunter, assignors.)
 Patzman, Frederick F., Kansas City, Mo. Resilient wheel. No. 1,082,900; Dec. 30; Gaz. vol. 197; p. 1150.
 Paul, Christian F., Peekskill, N. Y. Electrical snap-switch. No. 1,082,093; Dec. 23; Gaz. vol. 197; p. 838.
 Paul, William M., Galveston, Tex. Water-gage-glass column. No. 1,082,441; Dec. 23; Gaz. vol. 197; p. 957.
 Paxton, John B., Jr., Philadelphia, Pa. Car-fender. No. 1,082,235; Dec. 23; Gaz. vol. 197; p. 886.
 Payne, George, and W. J. Galbraith, Orillia, Ontario, Canada. Operating adjustable table. No. 1,082,043; Dec. 23; Gaz. vol. 197; p. 821.
 Payne, James H., Yorktown, Va., assignor to F. E. Gignoux, Cape Elizabeth, Me. Making alkali-chromate solutions. No. 1,081,625; Dec. 16; Gaz. vol. 197; p. 650.
 Payson, Andrew A., Clinton, Iowa. Gas-engine. No. 1,081,252; Dec. 9; Gaz. vol. 197; p. 489.
 Payson Manufacturing Company, The. (See O'Rourke, William F., assignor.)
 Pearl, Frank A., Madison, Wis. Resilient vehicle-wheel. No. 1,081,551; Dec. 16; Gaz. vol. 197; p. 628.
 Pearson, Martin, Los Angeles, Cal. Propelling and sustaining means for aerial navigation. No. 1,082,481; Dec. 23; Gaz. vol. 197; p. 968.
 Pease, Loomis F., New York, N. Y. Smoothing device for starched linen. No. 1,082,004; Dec. 23; Gaz. vol. 197; p. 839.
 Peck, Samuel. (See Wakfer, William H., assignor.)
 Pedersen, Harald C., assignor to Alsenstein & Schiller, New York, N. Y. Cigarette-case. No. 1,081,512; Dec. 16; Gaz. vol. 197; p. 616.
 Pedersen, John D., Jackson, Wyo. Cartridge. No. 1,081,933; Dec. 23; Gaz. vol. 197; p. 799.
 Pedler, William J. (See Renney and Pedler.)

Peel, Fred P., Washington, D. C. Speed-indicator and package-dropper for airships. No. 1,081,984; Dec. 23; Gaz. vol. 197; p. 800.

Peetz, Benjamin F., Moro, H. S. McDanel, Portland, and N. W. Thompson, Moro, Oreg., assignors, by mesne assignments, to Gnu Copy Holder Manufacturing Company, Los Angeles, Cal. Copy-holder. (Reissue.) No. 1,081,982; Dec. 23; Gaz. vol. 197; p. 800.

Pein, Henry, assignor to Sanitary Fountain Co., Jersey City, N. J. Coin mechanism for vending-machines. No. 1,081,401; Dec. 16; Gaz. vol. 197; p. 577.

Pence, William C., Warden, Wash. Weed-cutter. No. 1,081,985; Dec. 23; Gaz. vol. 197; p. 800.

Pendfield, William A., assignor to Bradley & Hubbard Mfg. Co., Meriden, Conn. Air-distributor for central-draft lamps. No. 1,082,284; Dec. 23; Gaz. vol. 197; p. 805.

Penn, Charles E., and F. P. Rand, Spokane, Wash. Boring-machine. No. 1,081,552; Dec. 16; Gaz. vol. 197; p. 628.

Penn, Lemuel S., Dayton, Ohio. Cosmetic. No. 1,081,327; Dec. 16; Gaz. vol. 197; p. 553.

Pennington, Lawrence W., Springfield, Mass. Form for neckties. No. 1,080,296; Dec. 2; Gaz. vol. 197; p. 132.

Pembocot Fish Company. (See Haines, Arthur P., assignor.)

Penton, Reginald E., et al. (See Robinson, Arthur G., assignor.)

Pentz, James B., New York, N. Y. Apparatus for generating steam. No. 1,081,463; Dec. 16; Gaz. vol. 197; p. 599.

Peppe, Alphonso E., New York, N. Y. Can-carrier. No. 1,080,578; Dec. 9; Gaz. vol. 197; p. 261.

Pepple, Cal. New Weston, Ohio. Folding car-step. No. 1,083,131; Dec. 30; Gaz. vol. 197; p. 1226.

Peregrine, Philip A., et al. (See Born and Recen, assignors.)

Perfection Spring Company, The. (See McIntyre, Michael M., assignor.)

Perkins, Charles J., Manitou, Colo., assignor of one-third to J. T. M. Johnston and one-third to J. F. Holden, Kansas City, Mo. Door for silos. No. 1,081,863; Dec. 16; Gaz. vol. 197; p. 731.

Perkins, Charles J., Manitou, Colo., assignor of one-third to J. T. M. Johnston and one-third to J. F. Holden, Kansas City, Mo. Building construction. No. 1,081,864; Dec. 16; Gaz. vol. 197; p. 732.

Perkins, Edwin A., Cambridge, Mass. Reciprocating engine. No. 1,082,901; Dec. 30; Gaz. vol. 197; p. 1151.

Perkins, Edwin A., New York, N. Y. Reciprocating engine. No. 1,082,902; Dec. 30; Gaz. vol. 197; p. 1151.

Perkins Electric Switch Manufacturing Company, The. (See Thomas, George B., assignor.)

Perkins, George W., assignor to Heaton-Peninsular Button Fastener Company, Boston, Mass. Anticlogging attachment for button-fastening machines. No. 1,080,996; Dec. 9; Gaz. vol. 197; p. 405.

Perkins, John W., Port Norfolk, Va. Railway-crossing. No. 1,082,607; Dec. 30; Gaz. vol. 197; p. 1048.

Perkins, Louis N., Connorsville, Ind. Rotary blower or pump. No. 1,082,903; Dec. 30; Gaz. vol. 197; p. 1152.

Perlman, David, assignor of one-third to M. Zawistowski and one-third to N. Komow, New York, N. Y. Safety device for circular-knife cloth-cutting machines. No. 1,080,518; Dec. 2; Gaz. vol. 197; p. 210.

Pero, Peter E., Dorchester, Mass. Railway-tie. No. 1,080,473; Dec. 2; Gaz. vol. 197; p. 194.

Persault, Joseph, and T. Marquis, Nashua, N. H. Razor-sharpening machine. No. 1,082,904; Dec. 30; Gaz. vol. 197; p. 1153.

Persle, Frank, Minonk, Ill. Automobile tire-protector. No. 1,081,694; Dec. 16; Gaz. vol. 197; p. 673.

Persoona, Alphonse. (See Persoona, Julien and A.)

Persoona, Julien and A., Thildonck, near Louvain, Belgium. Centrifugal cream-separator. No. 1,080,997; Dec. 9; Gaz. vol. 197; p. 406.

Petermann, Otto, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company. Keyboard for type-writing machines. No. 1,081,140; Dec. 9; Gaz. vol. 197; p. 451.

Petermann, Otto, assignor to Standard Typewriter Company, Groton, N. Y. Bar mechanism for type-writing machines. No. 1,081,141; Dec. 9; Gaz. vol. 197; p. 451.

Petermann, Otto, assignor to Standard Typewriter Company, Groton, N. Y. Keyboard. No. 1,081,142; Dec. 9; Gaz. vol. 197; p. 451.

Petermann, Otto, assignor to Standard Typewriter Company, Groton, N. Y. Bar mechanism for type-writing machines. No. 1,081,143; Dec. 9; Gaz. vol. 197; p. 452.

Petermann, Otto, assignor to Standard Typewriter Company, Groton, N. Y. Keyboard. No. 1,081,144; Dec. 9; Gaz. vol. 197; p. 452.

Petermann, Otto, assignor to Standard Typewriter Company, Groton, N. Y. Type-writing machine. No. 1,081,145; Dec. 9; Gaz. vol. 197; p. 452.

Peters, Arthur E., Westmont borough, Pa. Spring-cover. No. 1,080,652; Dec. 9; Gaz. vol. 197; p. 286.

Peters, Charles A. and J. B., Detroit, Mich. Garbage-receptacle. No. 1,082,550; Dec. 30; Gaz. vol. 197; p. 1027.

Peters, John B. (See Peters, Charles A. and J. B.)

Petersen, Anker, Winthrop, assignor to The Petersen Circular Loom Company, Boston, Mass. Winding-machine. No. 1,081,986; Dec. 23; Gaz. vol. 197; p. 800.

Petersen Circular Loom Company, The. (See Petersen, Anker, assignor.)

Peterson, Axel W., assignor to C. Groos, San Francisco, Cal. Wrench. No. 1,081,626; Dec. 16; Gaz. vol. 197; p. 650.

Peterson, Clarence A., Washington, D. C. Vibratory device. No. 1,082,285; Dec. 23; Gaz. vol. 197; p. 805.

Peterson, Fredolf J., assignor to The American Case & Register Company, Salem, Ohio. Advertising device. No. 1,082,608; Dec. 30; Gaz. vol. 197; p. 1049.

Peterson, Jacob, Webster, S. D. Pipe jack or holder. No. 1,081,513; Dec. 16; Gaz. vol. 197; p. 616.

Petit, John F., Georgetown, Ill. Bed-warmer. No. 1,082,135; Dec. 23; Gaz. vol. 197; p. 851.

Petri-Palmedo, David, Bridgeport, Conn., assignor to Electric Compositor Company, New York, N. Y. Trigger mechanism for key-operating machines. No. 1,080,579; Dec. 9; Gaz. vol. 197; p. 261.

Petrie, August, assignor to Milwaukee Stamping Company, West Allis, Wis. Bag-fastener. No. 1,082,476; Dec. 23; Gaz. vol. 197; p. 967.

Pettibone, James E., St. Louis, Mo. Film-pack. No. 1,081,770; Dec. 16; Gaz. vol. 197; p. 609.

Pettit, Lyman D., Everett, Wash., assignor to Pacific Lubricating Company, Lubricant for wheels. No. 1,081,059; Dec. 9; Gaz. vol. 197; p. 424.

Pfeiffer, Jacob, Akron, Ohio, assignor to Miller Rubber Company, Nipple for nursing-bottles. No. 1,081,464; Dec. 16; Gaz. vol. 197; p. 599.

Pfeiffer, Otto G., assignor to Utahna Development Company, Salt Lake City, Utah. Wringer-gearing for washing-machines. No. 1,082,551; Dec. 30; Gaz. vol. 197; p. 1028.

Pfister, Frank E. (See Dreger and Pfister.)

Pfizer, Harry M. (See Howard and Pfizer.)

Pfizer, Harry M., assignor to Double Body Bolster Company, St. Louis, Mo. Car-frame construction. No. 1,080,163; Dec. 2; Gaz. vol. 197; p. 80.

Pfeumer, Fritz, Dresden, Germany. Manufacturing vulcanized froth. (Reissue.) No. 1,081,667; Dec. 30; Gaz. vol. 197; p. 1270.

Phelan, William L., New York, N. Y. Tie. No. 1,082,470; Dec. 23; Gaz. vol. 197; p. 965.

Philadelphia Textile Machinery Company, The. (See Kukkuck, Frederick, assignor.)

Philblade, Eric R., Fall River, Mass. Paper-feed-controlling apparatus for piano-players. No. 1,081,913; Dec. 16; Gaz. vol. 197; p. 747.

Philippus, August, Frankfurt-on-the-Main, Germany. Pneumatically-actuated musical instrument. No. 1,080,164; Dec. 2; Gaz. vol. 197; p. 80.

Phillips, Harry, Randfontein, Transvaal, South Africa. Safety device for elevators. No. 1,080,846; Dec. 9; Gaz. vol. 197; p. 356.

Philo, Edgar W., Elmira, N. Y. Metallic fireless brooder. No. 1,083,028; Dec. 30; Gaz. vol. 197; p. 1193.

Philo, Edgar W., Elmira, N. Y. Poultry-coop. No. 1,083,029; Dec. 30; Gaz. vol. 197; p. 1193.

Philp, Frank, and G. Kemp, Port Arthur, and W. H. Gibbons, London, Ontario, Canada. Electric heater. No. 1,082,168; Dec. 23; Gaz. vol. 197; p. 861.

Phillips, John H., assignor of one-half to J. A. Hines, Wickliffe, Ky. Nut-lock. No. 1,082,211; Dec. 23; Gaz. vol. 197; p. 877.

Phoenix Glass Company. (See Motz, Charles F., assignor.)

Pick, Alfred, New York, N. Y., assignor to E. N. Breitung, Marquette, Mich. Subterranean heater. No. 1,082,971; Dec. 30; Gaz. vol. 197; p. 1175.

Pick, Henry V., assignor to B. Noonan, New York, N. Y. Bottle-closure. No. 1,080,366; Dec. 2; Gaz. vol. 197; p. 158.

Pickard, Orson L., Columbus, Ohio. Automobile wheel-rim. No. 1,080,580; Dec. 9; Gaz. vol. 197; p. 262.

Pickles, James S., Spokane, Wash. Wood-trimmer. No. 1,080,122; Dec. 2; Gaz. vol. 197; p. 72.

Picturegraph Company. (See Proctor, Barton A., assignor.)

Piekarski, Frank A. (See Slemenski, Adam, assignor.)

Pielock, Eduard, Berlin, Germany. Steam-generator. No. 1,082,136; Dec. 23; Gaz. vol. 197; p. 851.

Piepgas, Herman J., Caldwell, Idaho. Safety attachment for elevators. No. 1,081,771; Dec. 16; Gaz. vol. 197; p. 700.

Pierce, Franklin A., Wheeling, W. Va. Train control and signal system for double-track railways. No. 1,082,095; Dec. 23; Gaz. vol. 197; p. 839.

Pierce, Harry M., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Cartridge-loading machine. No. 1,082,137; Dec. 23; Gaz. vol. 197; p. 852.

Pietzsch, Albert, and G. Adolph, Munich, Germany. Electrode for preventing cathodic reduction. No. 1,083,132; Dec. 30; Gaz. vol. 197; p. 1227.

Pillsbury, Leonard O., Crocker, S. D. Emergency-windlass for automobiles. No. 1,080,653; Dec. 9; Gaz. vol. 197; p. 286.

Pinet, Alfred, Vonda, Saskatchewan, Canada. Land-pulverizer. No. 1,082,552; Dec. 30; Gaz. vol. 197; p. 1028.

Pioneer Suspender Company. (See Freeman, Frank A., assignor.)

Piscopo, Guy, Winthrop, Mass. Exhaust-horn. No. 1,082,972; Dec. 30; Gaz. vol. 197; p. 1176.

Pitts, John A., and J. P. Boerman, Kalamazoo, Mich. Apparatus for handling invalids. No. 1,080,297; Dec. 2; Gaz. vol. 197; p. 132.

Pittsburgh Reinforcing Pole Company. (See Orr, Robert S., assignor.)

Pixley, Judson S., New York, N. Y. Signal-lamp. No. 1,082,169; Dec. 23; Gaz. vol. 197; p. 862.

Plasted, Jared H., Melrose, Mass. Non-refillable bottle. No. 1,081,553; Dec. 16; Gaz. vol. 197; p. 629.

Planetary Machinery Company. (See Prindle, Henry U., assignor.)

Playford, Chester A., et al. (See Playford, Marion E., assignor.)

Playford, Marion E., Wakelee, assignor of one-fourth to F. H. Alexander and one-fourth to C. A. Playford, Cassopolis, Mich. Rotary plow. No. 1,082,357; Dec. 23; Gaz. vol. 197; p. 931.

Plean, Abraham, New York, N. Y. Impulse and rotary stem winding and setting watch. No. 1,080,474; Dec. 2; Gaz. vol. 197; p. 194.

Plume and Atwood Manufacturing Company. (See Andersen, Lauritz W., assignor.)

Plummer, Emma A., New York, N. Y. Bathing-suit. No. 1,082,905; Dec. 30; Gaz. vol. 197; p. 1153.

Pneumatic Rim & Tire Company. (See Chipley, William G., assignor.)

Podmore, Thomas, Wilkes-Barre, Pa. Chimney-damper. No. 1,080,777; Dec. 9; Gaz. vol. 197; p. 330.

Pohlman, William, Middletown, N. Y. Adjustable boring and reaming tool. No. 1,082,553; Dec. 30; Gaz. vol. 197; p. 1028.

Poirier, Joseph F. (See Auerbach, Marcus, assignor.)

Polak, Jacques. (See Hume, Walter E., assignor.)

Pollard, Frédéric A., Pare St. Maur, France. Automatic thermic valve-controlling apparatus. No. 1,082,212; Dec. 23; Gaz. vol. 197; p. 877.

Pollock, Lewis W. (See Latchem and Pollock.)

Pooier, Leonard B., J. M. Bainer, and N. V. Elliott, assignors to The Marysville Cabinet Company, Marysville, Ohio. Type-writer attachment for desks. No. 1,080,019; Dec. 2; Gaz. vol. 197; p. 34.

Pope, William W., Tylertown, Miss. Removing stumps. No. 1,082,442; Dec. 23; Gaz. vol. 197; p. 958.

Porter, Daniel, New Brookland, and S. K. Oliver, Columbia, S. C. Yarn-twisting mechanism. No. 1,081,328; Dec. 16; Gaz. vol. 197; p. 553.

Porter, Ida M. (See Armbruster, Edward J., assignor.)

Porter, Kenneth E., Cincinnati, Ohio. Concrete track construction for railways. No. 1,082,236; Dec. 23; Gaz. vol. 197; p. 887.

Porter, Willard E., Lynn, Mass., assignor to General Electric Company. Time-switch. No. 1,081,402; Dec. 16; Gaz. vol. 197; p. 578.

Posson, Edward, Chicago, Ill. Car-truck. No. 1,080,654; Dec. 9; Gaz. vol. 197; p. 286.

Possons, Minard A., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Detachable stove-shelf. No. 1,082,443; Dec. 23; Gaz. vol. 197; p. 958.

Post, George E. (See Dixon and Post.)

Post, Wilhelm. (See Bühren, Walther, assignor.)

Potato Implement Co. (See Dyke, Arend K., assignor.)

Potbaste, Leo A., Melbourne, Iowa. Slide-car attachment. No. 1,080,020; Dec. 2; Gaz. vol. 197; p. 35.

Potter, Alexander, New York, N. Y. Operating settling-tanks. No. 1,081,329; Dec. 16; Gaz. vol. 197; p. 553.

Potter, Joseph L., Indianapolis, Ind. Excavating and conveying apparatus. No. 1,081,060; Dec. 9; Gaz. vol. 197; p. 424.

Potts, John E., Dayton, Ohio. Lock for automobiles and the like. No. 1,082,906; Dec. 30; Gaz. vol. 197; p. 1154.

Poulain, Charles, Paris, France. Collar-supporter. No. 1,080,526; Dec. 2; Gaz. vol. 197; p. 213.

Powell, Harry L. (See Kay, William H., assignor.)

Powell, John M., Los Gatos, Cal. Lamp-bracket. No. 1,082,763; Dec. 30; Gaz. vol. 197; p. 1104.

Powell, John R., Plymouth, Pa. Blasting-cap and carrier therefor. No. 1,081,772; Dec. 16; Gaz. vol. 197; p. 700.

Powell, William H., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Induction-motor. No. 1,080,475; Dec. 2; Gaz. vol. 197; p. 194.

Powers, William R., Holden, W. Va. Nut-lock. No. 1,083,133; Dec. 30; Gaz. vol. 197; p. 1227.

Pranschiffer, Franz W., Baltimore, Md. Spring-wheel. No. 1,081,146; Dec. 9; Gaz. vol. 197; p. 453.

Pratt, Allison A., New York, N. Y. Vehicle-mounting. No. 1,080,847; Dec. 9; Gaz. vol. 197; p. 356.

Pratt, Don E., San Francisco, Cal. Internal-combustion engine. No. 1,080,123; Dec. 2; Gaz. vol. 197; p. 72.

Pratt, Philip W., Boston, Mass. Resilient tread. No. 1,082,096; Dec. 23; Gaz. vol. 197; p. 839.

Prée, August. (See Markus, Adolf, assignor.)

Preece, James J., Potchefstroom, Transvaal, South Africa. Apparatus for raising automobiles. No. 1,080,581; Dec. 9; Gaz. vol. 197; p. 262.

Prein, Emil, Hanover, assignor to Prein-Gewebe Actien-Gesellschaft, Hanover-Linden, Germany. Apparatus for weaving fabrics. No. 1,080,298; Dec. 2; Gaz. vol. 197; p. 133.

Prein-Gewebe Actien-Gesellschaft. (See Prein, Emil, assignor.)

Premo, Alexander. (See Paris and Premo.)

Pressey, Burt J., Newport News, Va. Aeroplane. No. 1,081,147; Dec. 9; Gaz. vol. 197; p. 453.

Prestlen, Robert H., Norfolk, Va. Automobile attachment. No. 1,079,951; Dec. 2; Gaz. vol. 197; p. 10.

Prettyman, Francis M., Mallard, Minn. Motor-truck. No. 1,083,134; Dec. 30; Gaz. vol. 197; p. 1227.

Prettyman, Francis M., Mallard, Minn. Motor-truck. No. 1,083,135; Dec. 30; Gaz. vol. 197; p. 1227.

Preussler, August, Klettendorf, near Breslau, Germany. Tilting car. No. 1,081,061; Dec. 9; Gaz. vol. 197; p. 425.

Pribil, Alexis R., Detroit, Mich. Carbureter. No. 1,080,166; Dec. 2; Gaz. vol. 197; p. 87.

Prinnow, John F., Mellen, Wis. Emery-wheel bench-grinder. No. 1,081,465; Dec. 16; Gaz. vol. 197; p. 599.

Price, Charles H., Jr., Hyde Park, assignor of one-half to F. Francelow, Medford, Mass. Bath-tub lining. No. 1,081,987; Dec. 23; Gaz. vol. 197; p. 801.

Price, Charles P., Malden, Mass., assignor, by mesne assignments, to Bituminous Road Implement Company. Fluid-distributing machine. No. 1,083,030; Dec. 30; Gaz. vol. 197; p. 1104.

Price, James, and W. G. Winter, Holland, Mich. Fumigator. No. 1,082,097; Dec. 23; Gaz. vol. 197; p. 840.

Price, Raymond B., Chicago, Ill. Apparatus for vulcanizing rubber. No. 1,081,330; Dec. 16; Gaz. vol. 197; p. 554.

Price, Rhea G., Auburn, Ky. Fly-trap. No. 1,082,358; Dec. 23; Gaz. vol. 197; p. 931.

Priebe, Herman C., Blue Island, Ill. Friction draft-gear. No. 1,082,098; Dec. 23; Gaz. vol. 197; p. 840.

Priestman, Albert, Philadelphia, Pa. Treating sewage. No. 1,080,926; Dec. 9; Gaz. vol. 197; p. 383.

Prince, Walter F., Elizabeth, N. J. Removing sulfur from cast-iron. No. 1,081,403; Dec. 16; Gaz. vol. 197; p. 578.

Prindle, Henry U., assignor to Planetary Machinery Company, Incorporated, San Francisco, Cal. Concrete-mixer. No. 1,079,952; Dec. 2; Gaz. vol. 197; p. 10.

Prior, Thomas W., and F. A. Church, Venice, Cal. Merry-go-round. No. 1,082,764; Dec. 30; Gaz. vol. 197; p. 1104.

Probst, Karl, assignor to The Stone-Probst Axle Company, Columbus, Ohio. Transmission-gearing. No. 1,082,907; Dec. 30; Gaz. vol. 197; p. 1154.

Procter and Gamble Company, The. (See Carr, Albert B., assignor.)

Proctor, Barton A., assignor to Picturegraph Company, New York, N. Y. Automatic shutter-worker. No. 1,081,331; Dec. 16; Gaz. vol. 197; p. 554.

Prosser Engineering Co. (See Prosser, Joseph F., assignor.)

Prosser, Joseph F., assignor to Prosser Engineering Co., Cleveland, Ohio. Bottle-capping machine. No. 1,081,466; Dec. 16; Gaz. vol. 197; p. 600.

Prouty, Enoch, Chicago, Ill. Explosive-engine. No. 1,082,237; Dec. 23; Gaz. vol. 197; p. 887.

Pruden, John F., Carnegie, Pa. Inflatable horse-collar. No. 1,080,848; Dec. 9; Gaz. vol. 197; p. 357.

Pryor, Henry A., London, England. Wheel for road-vehicles. No. 1,082,170; Dec. 23; Gaz. vol. 197; p. 862.

Pullman Manufacturing Company. (See MacLaughlin and Willard, assignors.)

Pulver, Charles E., Cosmopolis, Wash. Bale-tie. No. 1,080,778; Dec. 9; Gaz. vol. 197; p. 331.

Pursell, John V., Friendship Heights, Md. Electrical sliding contact. No. 1,080,230; Dec. 2; Gaz. vol. 197; p. 109.

Putnam, Fred A., Melrose, Mass. Printing compound. No. 1,082,099; Dec. 23; Gaz. vol. 197; p. 840.

Quayle, Sidney, Hillsboro, Tex. Remedial appliance. No. 1,081,148; Dec. 9; Gaz. vol. 197; p. 453.

Queneau, Augustin L., Philadelphia, Pa. Condensation of zinc. No. 1,082,765; Dec. 30; Gaz. vol. 197; p. 1104.

Quertier, Hilary, Wellington, New Zealand. Means for electrically transmitting orders or signals and for indicating their nature and the points of transmission. No. 1,080,167; Dec. 2; Gaz. vol. 197; p. 87.

Quick, Alfred A., Clifton Hill, Victoria, Australia. Apparatus for controlling the delivery of liquids. No. 1,081,149; Dec. 9; Gaz. vol. 197; p. 454.

Quiggle, Malcolm W., Brooklyn, N. Y. Internal-combustion engine. No. 1,082,138; Dec. 23; Gaz. vol. 197; p. 852.

Quigley, John T., San Francisco, Cal., assignor to The Costmeter Company. Time-cost meter. No. 1,080,165; Dec. 2; Gaz. vol. 197; p. 86.

R. Hoe and Co. (See Sheldon, Edward P., assignor.)

R. Neumann Hardware Co. See Isidor, Joseph S., assignor.)

R. Neumann Hardware Co., The. (See Tueckmantel, Hugo, assignor.)

Radl, Walter, Gustavsborg, near Mainz, Germany. Holder for ties. No. 1,080,849; Dec. 9; Gaz. vol. 197; p. 357.

Raffel, Tobias E., New York, N. Y., assignor to Paper Working Machines Co. Taping-machine. No. 1,080,779; Dec. 9; Gaz. vol. 197; p. 331.

Raffis, Richard W., Chicago, Ill., assignor to National Fire Proofing Company, Pittsburgh, Pa. Building-block. No. 1,080,367; Dec. 2; Gaz. vol. 197; p. 150.

Raggio, Charles A., Chicago, Ill., assignor of one-half to L. G. Raggio. Waste burner and incinerator. No. 1,081,773; Dec. 16; Gaz. vol. 197; p. 701.

Raggio, Louis G. (See Raggio, Charles A., assignor.)

Rahn, Fridrich W., Dunning, Ill. Collapsible bed-bolster. No. 1,082,171; Dec. 23; Gaz. vol. 197; p. 863.

Rahr, William, Jr. (See Ulrich and Rahr.)

Ramsey, George W., Washington, D. C., assignor to R. Walworth, Waltham, Mass. Bobbin-stripper. No. 1,081,914; Dec. 16; Gaz. vol. 197; p. 747.

Ramsey, James N. (See Eilers, John M., assignor.)

Ramsey, William H., Minneapolis, Minn. Curtain-stick machine. No. 1,079,992; Dec. 2; Gaz. vol. 197; p. 26.
 Ramsey, William H., Minneapolis, Minn. Box-holder. No. 1,079,993; Dec. 2; Gaz. vol. 197; p. 26.
 Rand, Frank P. (See Penn and Rand.)
 Rand, James H., Jr., Newton, Mass. Germicide-insert for pocket-books and the like. No. 1,080,716; Dec. 9; Gaz. vol. 197; p. 307.
 Randall, Anna S. (See Randall, Horatio C., assignor.)
 Randall, Frank J., assignor of one-half to G. G. Bailey. Los Angeles, Cal. Lubricating-bath for journal-bearings. No. 1,081,930; Dec. 18; Gaz. vol. 197; p. 753.
 Randall, Harold W., Quimby, Iowa. Pole-tip. No. 1,080,780; Dec. 9; Gaz. vol. 197; p. 331.
 Randall, Horatio C., assignor to A. S. Randall, San Francisco, Cal. Controlling mechanism for elevator doors and cars. No. 1,080,021; Dec. 2; Gaz. vol. 197; p. 35.
 Randall, Walter L., Genoa, Nebr. Door-fastener. No. 1,081,404; Dec. 16; Gaz. vol. 197; p. 578.
 Randolph, George B., Anniston, Ala. Land-marker. (Re-issue.) No. 13,656; Dec. 9; Gaz. vol. 197; p. 503.
 Rankin, Walter M. (See Kirkpatrick, Harry L., assignor.)
 Ranno fu Biagio, Sebastiano, New York, N. Y. Building-block. No. 1,081,695; Dec. 16; Gaz. vol. 197; p. 673.
 Rasbach, Raymond, Herkimer, N. Y. Sewing-machine. No. 1,082,819; Dec. 30; Gaz. vol. 197; p. 1123.
 Rasmussen, George A. (See Graham and Rasmussen.)
 Rateau, Auguste C. E., Paris, France. Regulator for fluid-pressure apparatus. No. 1,080,582; Dec. 9; Gaz. vol. 197; p. 262.
 Rateau Battu Smoot Company. (See Wait, Henry H., assignor.)
 Rau, John, Indianapolis, Ind. Glass-blowing machine. No. 1,080,168; Dec. 2; Gaz. vol. 197; p. 87.
 Rauhle, Julius. (See Schönmann and Rauhle.)
 Raun, John C. and J. J., Baltimore, Md. Wagon. No. 1,083,031; Dec. 30; Gaz. vol. 197; p. 1194.
 Raun, John J. (See Raun, John C. and J. J.)
 Raven, William H., Lenton, Nottingham, England. Variable-speed gearing. No. 1,081,062; Dec. 9; Gaz. vol. 197; p. 425.
 Rawak, George, New York, N. Y. Head-dress. No. 1,082,648; Dec. 30; Gaz. vol. 197; p. 1062.
 Rawles, Walter H., London, England. Talking-machine. No. 1,080,231; Dec. 2; Gaz. vol. 197; p. 109.
 Rawls, James P., Columbia, S. C. Bellows-actuating mechanism for musical instruments. No. 1,083,136; Dec. 30; Gaz. vol. 197; p. 1228.
 Ray, Madison B., and E. K. Henderson, Nederland, Colo. Spring-wheel. No. 1,082,973; Dec. 30; Gaz. vol. 197; p. 1176.
 Ray, William P., Stithton, Ky. Reel. No. 1,082,139; Dec. 23; Gaz. vol. 197; p. 852.
 Raymond W. Dull Company, The. (See Dull, Raymond W., assignor.)
 Raymond, William I., Forest Grove, Oreg. Animal-trap. No. 1,082,649; Dec. 30; Gaz. vol. 197; p. 1062.
 Razntsch, John, Cloquet, Minn. Heel-cushion. No. 1,080,781; Dec. 9; Gaz. vol. 197; p. 332.
 Read, Fred A., Lynn, assignor to The Reece Button Hole Machine Company, Boston, Mass. Shaft-brake or friction device. No. 1,081,988; Dec. 23; Gaz. vol. 197; p. 801.
 Read, George B., Bloomington, Ill. Elevator. No. 1,082,908; Dec. 30; Gaz. vol. 197; p. 1154.
 Read, Patrick H., New Philadelphia, Ohio. Automatic suitcase-alarm. No. 1,081,150; Dec. 9; Gaz. vol. 197; p. 454.
 Ready, Herbert H., L. C. Connor, and L. C. Bevans, Kansas City, Mo. Perpetual kitchen-reminder. No. 1,082,044; Dec. 23; Gaz. vol. 197; p. 821.
 Reagan, James, Philadelphia, Pa. Steam-boiler furnace. No. 1,080,368; Dec. 2; Gaz. vol. 197; p. 159.
 Recen, Henry A. (See Born and Recen.)
 Recker, Adolph C., Oakville, assignor to Waterbury Mfg. Co., Waterbury, Conn. Shade-holder. No. 1,080,998; Dec. 9; Gaz. vol. 197; p. 406.
 Redburn, George W., College Place, Wash. Crank for automobile-engines. No. 1,082,650; Dec. 30; Gaz. vol. 197; p. 1062.
 Reece Button Hole Machine Company, The. (See Read, Fred A., assignor.)
 Reed, Albert S., Chicago, Ill. Ball-bearing construction. No. 1,080,169; Dec. 2; Gaz. vol. 197; p. 88.
 Reed, Deaderick I., Knoxville, Tenn. Fire-escape. No. 1,080,476; Dec. 2; Gaz. vol. 197; p. 195.
 Reed, Habirt, Mountain Grove, Va. Rail-joint. No. 1,080,124; Dec. 2; Gaz. vol. 197; p. 73.
 Reed, Reginald F., Toronto, Ontario, Canada. Water-coil. No. 1,081,332; Dec. 16; Gaz. vol. 197; p. 554.
 Reed, Richard D., Westfield, Mass. Boiler. No. 1,080,232; Dec. 2; Gaz. vol. 197; p. 109.
 Reese, Paul F., and S. S. Wales, Munhall, assignors to Carnegie Steel Company, Pittsburgh, Pa. Making steel. No. 1,082,350; Dec. 23; Gaz. vol. 197; p. 931.
 Reese, William D., Taylor, Pa. Hat attachment. No. 1,081,333; Dec. 16; Gaz. vol. 197; p. 555.
 Reeve, Henry E., New York, N. Y. Electrical apparatus. No. 1,080,583; Dec. 9; Gaz. vol. 197; p. 263.
 Reeve, Henry E., New York, N. Y. Electrical apparatus. No. 1,080,584; Dec. 9; Gaz. vol. 197; p. 263.
 Reeve, Henry E., New York, N. Y. Electrical apparatus. No. 1,080,585; Dec. 9; Gaz. vol. 197; p. 263.

Reeve, Worth B., and N. Siglin, Aurelia, Iowa. Obstetrical instrument. No. 1,080,477; Dec. 2; Gaz. vol. 197; p. 105.
 Reeves, Reuben G., Massillon, Ohio. Roundabout. No. 1,080,927; Dec. 9; Gaz. vol. 197; p. 333.
 Reiber, Robert, New Castle, Pa. Habbitting-machine for locomotive cross-heads. No. 1,083,137; Dec. 30; Gaz. vol. 197; p. 1228.
 Reichman, Alfred. (See Baughman, Sherman, assignor.)
 Reifsnider, William H., Akron, Ohio. Clstern. No. 1,082,444; Dec. 23; Gaz. vol. 197; p. 958.
 Reimers, Gustav R. E., Bellingham, Wash. Strut for aeroplanes, &c. No. 1,081,467; Dec. 16; Gaz. vol. 197; p. 600.
 Reinert, Daniel, Temple, Pa. Sand-screen. No. 1,081,253; Dec. 9; Gaz. vol. 197; p. 489.
 Reinohl, David C., Washington, D. C. Treating area for separating precious metals. No. 1,081,514; Dec. 16; Gaz. vol. 197; p. 616.
 Reinohl, David C., Washington, D. C. Combined settling-tank and filter. No. 1,081,515; Dec. 16; Gaz. vol. 197; p. 617.
 Reinohl, David C., Washington, D. C. Apparatus for treating ores. No. 1,081,516; Dec. 16; Gaz. vol. 197; p. 617.
 Reis, Theodor, Cincinnati, Ohio. Hood for dispensing-tanks. No. 1,080,478; Dec. 2; Gaz. vol. 197; p. 195.
 Remick, William H., assignor to Signature Company, New York, N. Y. Document-binder for multiple-writing machines. No. 1,082,554; Dec. 30; Gaz. vol. 197; p. 1029.
 Remington Typewriter Company. (See Selb, George A., assignor.)
 Remy, Benjamin P. and F. L. Anderson, Ind. assignors, by mesne assignments, to Sumter Electrical Company. Magneto-electric generator. No. 1,081,696; Dec. 16; Gaz. vol. 197; p. 673.
 Remy, Frank I. (See Remy, Benjamin P. and F. L.)
 Renney, Lyleton E., and W. J. Pedler, San Francisco, Cal. Loading and dumping device. No. 1,081,697; Dec. 16; Gaz. vol. 197; p. 674.
 Renwick, Charles W., Isabella, Tenn., and N. L. Heinz, La Salle, Ill. Roasting-furnace. No. 1,080,586; Dec. 9; Gaz. vol. 197; p. 264.
 Reubel, Henry, New York, N. Y. Curtain-actuator. No. 1,080,479; Dec. 2; Gaz. vol. 197; p. 196.
 Reynolds, Martin C., assignor of one-half to R. G. Spencer, Carey, Ohio. Softening and filtering apparatus. No. 1,080,233; Dec. 2; Gaz. vol. 197; p. 110.
 Reynolds, Morley P., assignor to W. S. Tyler Company, Cleveland, Ohio. Collector. No. 1,082,766; Dec. 30; Gaz. vol. 197; p. 1105.
 Reznicek, Anton, Jersey City, N. J. Key-carrier. No. 1,081,627; Dec. 16; Gaz. vol. 197; p. 651.
 Rheinische Metallwaren- und Maschinenfabrik. (See Knaebel, Benedikt, assignor.)
 Rheinische Metallwaren- und Maschinenfabrik. (See Völler, Karl, assignor.)
 Rhineland Refrigerator Co. (See Riek, Rudolph A., assignor.)
 Rhoades, Alonzo E., assignor to Draper Company, Hopdale, Mass. Warp stop-motion for looms. No. 1,082,045; Dec. 23; Gaz. vol. 197; p. 822.
 Rhodes, Levi, Spokane, Wash. Speed-governor. No. 1,081,865; Dec. 16; Gaz. vol. 197; p. 732.
 Rhodin, Carl J., San Francisco, Cal. Gas-heater. No. 1,082,238; Dec. 23; Gaz. vol. 197; p. 887.
 Rice, Lewis D., assignor to Simplex Spreader Manufacturing Company, Kansas City, Mo. Straw-spreader. No. 1,082,820; Dec. 30; Gaz. vol. 197; p. 1123.
 Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Governor for centrifugal air-compressors. No. 1,080,717; Dec. 9; Gaz. vol. 197; p. 307.
 Rice, William H., Rochester, N. Y. Agricultural implement. No. 1,081,915; Dec. 16; Gaz. vol. 197; p. 747.
 Rich, George H., Oak Park, assignor to Rich Tool Company, Chicago, Ill. Piston-ring for internal-combustion engines. No. 1,082,172; Dec. 23; Gaz. vol. 197; p. 803.
 Rich Tool Company. (See Rich, George H., assignor.)
 Richard, Joseph O., Hammond, Ind. Smoke-consumer. No. 1,083,138; Dec. 30; Gaz. vol. 197; p. 1228.
 Richards, George M., assignor to M. A. Richards, Erie, Pa. Pressure-governor. No. 1,082,821; Dec. 30; Gaz. vol. 197; p. 1123.
 Richards, Marlon A. (See Richards, George M., assignor.)
 Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Railway-car truck. No. 1,081,405; Dec. 16; Gaz. vol. 197; p. 579.
 Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Railway-car truck. No. 1,081,406; Dec. 16; Gaz. vol. 197; p. 579.
 Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Car-coupling. No. 1,082,822; Dec. 30; Gaz. vol. 197; p. 1124.
 Richardson, Allen S., Jenkintown, Pa. Vehicle-tire. No. 1,081,698; Dec. 16; Gaz. vol. 197; p. 674.
 Richardson, Thomas. (See Davy and Richardson.)
 Richardson, Thurston W., Bedford City, Va. Tucker attachment for sewing-machines. No. 1,082,360; Dec. 23; Gaz. vol. 197; p. 932.
 Richardson, William H., Jersey City, N. J. Bag reversing and lining apparatus. No. 1,082,651; Dec. 30; Gaz. vol. 197; p. 1062.
 Richardson, William K., Leavenworth, Kans. Centrifugal pump. No. 1,080,655; Dec. 9; Gaz. vol. 197; p. 287.

Richardson, William K., Leavenworth, Kans. Centrifugal pump. No. 1,080,656; Dec. 9; Gaz. vol. 197; p. 287.
 Richling, William H., assignor to The H. Wenzel Tent & Duck Co., St. Louis, Mo. Tent. No. 1,081,899; Dec. 16; Gaz. vol. 197; p. 674.
 Richmond, Carl A., Chicago, Ill. Game. No. 1,080,299; Dec. 2; Gaz. vol. 197; p. 133.
 Richmond, Carl A., Chicago, Ill. Game. No. 1,080,300; Dec. 2; Gaz. vol. 197; p. 133.
 Richmond, Carl A., Chicago, Ill. Target-game apparatus. No. 1,080,301; Dec. 2; Gaz. vol. 197; p. 134.
 Richter, Edward A., Pittsburgh, Pa. Propeller. No. 1,080,657; Dec. 9; Gaz. vol. 197; p. 288.
 Richter, Rudolf, Grünau, assignor to Maffel-Schwartzkopf Werke G. m. b. H., Berlin, Germany. Multiple control of electric motors. No. 1,080,587; Dec. 9; Gaz. vol. 197; p. 264.
 Richter, Rudolf, Grünau, assignor to Maffel-Schwartzkopf Werke G. m. b. H., Berlin, Germany. Multiple control of electric motors. No. 1,080,588; Dec. 9; Gaz. vol. 197; p. 265.
 Rickert, Fred C., assignor to Taunton Knitting Company, Taunton, Mass. Union undergarment. No. 1,081,866; Dec. 16; Gaz. vol. 197; p. 733.
 Ricords, Frederick, and M. Lewry, New York, assignors of one-third to S. Shapiro, Brooklyn, N. Y. Electric fire-arm. No. 1,080,480; Dec. 2; Gaz. vol. 197; p. 196.
 Riddle, Emil, et al. (See Riddle, Henry, assignor.)
 Riddle, Frank, et al. (See Riddle, Henry, assignor.)
 Riddle, Henry, assignor of one-third to F. Riddle, one-third to J. Riddle, and one-third to E. Riddle, North Liberty, Iowa. Rail-joint. No. 1,080,481; Dec. 2; Gaz. vol. 197; p. 197.
 Riddle, James, et al. (See Riddle, Henry, assignor.)
 Ridley, Arthur L., Searsport, Me. Cork-extractor. No. 1,082,555; Dec. 30; Gaz. vol. 197; p. 1029.
 Riesel, John C., Pottsville, Pa. Variable-speed mechanism for motor-vehicles. No. 1,080,782; Dec. 9; Gaz. vol. 197; p. 332.
 Riek, Rudolph A., assignor to Rhineland Refrigerator Co., Rhineland, Wis. Refrigerator. No. 1,080,074; Dec. 2; Gaz. vol. 197; p. 55.
 Riesenber, Frank W., Chicago, Ill. Wrench. No. 1,081,700; Dec. 16; Gaz. vol. 197; p. 674.
 Rietzel, Adolph F., Charlestown, R. I., assignor to Universal Electric Welding Company, New York, N. Y. Riveted metal work. No. 1,082,767; Dec. 30; Gaz. vol. 197; p. 1105.
 Rifer, John L., Portland, Oreg. Die-magazine. No. 1,082,768; Dec. 30; Gaz. vol. 197; p. 1105.
 Rigert, Herman, Oklahoma, Okla. Fastener. No. 1,083,139; Dec. 30; Gaz. vol. 197; p. 1229.
 Riley, Patrick J., St. Louis, Mo. Heel-building machine. No. 1,080,302; Dec. 2; Gaz. vol. 197; p. 134.
 Rindskopf, Henry P., New York, N. Y. Dress-aheld. No. 1,083,140; Dec. 30; Gaz. vol. 197; p. 1229.
 Rison, Otto, Sebeka, Minn. Match-safe. No. 1,081,407; Dec. 16; Gaz. vol. 197; p. 579.
 Ritter, Henry J., assignor to The Tipp Building and Manufacturing Company, Tippence City, Ohio. Kitchen-cabinet. No. 1,081,151; Dec. 9; Gaz. vol. 197; p. 455.
 Rivers, Clarence T., New York, N. Y. Cooling-chest. No. 1,082,173; Dec. 23; Gaz. vol. 197; p. 863.
 Rixon, Oscar C., New Rochelle, N. Y. Door-stay. No. 1,082,909; Dec. 30; Gaz. vol. 197; p. 1155.
 Roat, Edwin C., Philadelphia, Pa. Shirt. No. 1,080,928; Dec. 9; Gaz. vol. 197; p. 384.
 Robbins, Nathaniel V. (See Hatter, John A., assignor.)
 Robert N. Bassett Company. (See Russ, John B., assignor.)
 Roberts, Edward E., Wheeling, W. Va., assignor to Steel Fireproofing Company. Punching-die. No. 1,081,517; Dec. 16; Gaz. vol. 197; p. 617.
 Roberts, Francis and V. J., Auckland, New Zealand. Hose-coupling for air-brakes. (Reissue.) No. 13,666; Dec. 30; Gaz. vol. 197; p. 1270.
 Roberts, Thomas J., Atlanta, Ga. Motor-starting device. No. 1,080,482; Dec. 2; Gaz. vol. 197; p. 197.
 Roberts, Vernon J. (See Roberts, Francis and V. J.) (Reissue.)
 Robertson, George L., assignor of one-fourth to L. H. Schwartz and one-fourth to T. K. Schwartz, Philadelphia, Pa. Trolley. No. 1,082,046; Dec. 23; Gaz. vol. 197; p. 822.
 Robertson, James F. (See Barth and Robertson.)
 Robertson, Robert R. (See Naylor and Robertson.)
 Robinson, Arthur G., Jackson, Mich., assignor of one thirty-second to R. F. Penton and one thirty-second to C. S. Crosser, East Aurora, N. Y. Fire-protection suit. No. 1,082,213; Dec. 23; Gaz. vol. 197; p. 877.
 Robinson, Arthur G., Buffalo, assignor of one thirty-second to C. S. Crosser and one thirty-second to R. F. Penton, East Aurora, N. Y. Fire-protection suit. No. 1,082,214; Dec. 23; Gaz. vol. 197; p. 878.
 Robinson, Arthur W., Montreal, Quebec, Canada. Hoisting apparatus for dipper-buckets. No. 1,081,774; Dec. 16; Gaz. vol. 197; p. 701.
 Robinson, Charles H., Deadwood, S. D. Guard for smoking-pipes. No. 1,082,445; Dec. 23; Gaz. vol. 197; p. 958.
 Robinson, Frank W., assignor to The Nolde & Horst Co., Reading, Pa. Clacking attachment for circular-knitting machines. No. 1,081,254; Dec. 9; Gaz. vol. 197; p. 489.

Robinson, George E., Medford, Oreg. Adjustable concealed auto-strap fastener. No. 1,081,152; Dec. 9; Gaz. vol. 197; p. 485.
 Robinson, Philip J., Leominster, Mass. Cabinet for disk records. No. 1,082,361; Dec. 23; Gaz. vol. 197; p. 932.
 Robinson, Philip J., Leominster, Mass. Holder for talking-machine records. No. 1,082,705; Dec. 30; Gaz. vol. 197; p. 1083.
 Rock, Charles S. C., New York, N. Y. Bath-shower. No. 1,083,141; Dec. 30; Gaz. vol. 197; p. 1229.
 Rockman, Soren C., Philadelphia, Pa. Steam-turbine. No. 1,080,783; Dec. 9; Gaz. vol. 197; p. 332.
 Rockwell, Albert F., assignor to The New Departure Manufacturing Company, Bristol, Conn. Forging. No. 1,082,910; Dec. 30; Gaz. vol. 197; p. 1155.
 Rodeck, Georg C., Pansdorf, near Lübeck, Germany. Public-amusement device. No. 1,081,554; Dec. 16; Gaz. vol. 197; p. 629.
 Rodman, Ezra B., Jackson, Miss. Box or bag grab. No. 1,082,446; Dec. 23; Gaz. vol. 197; p. 958.
 Roe, Ernest S., assignor to Markham Air Rifle Company, Plymouth, Mich. Air-gun. No. 1,080,170; Dec. 2; Gaz. vol. 197; p. 88.
 Roedding, Edward B. and G. E., Detroit, Mich. Vehicle-signal. No. 1,080,589; Dec. 9; Gaz. vol. 197; p. 265.
 Roedding, Gordon E. (See Roedding, Edward B. and G. E.)
 Rogers, George W. (See Hill, Joshua A., assignor.)
 Rogers, Thomas F., et al. (See Ferguson, Lyman H., assignor.)
 Rogers, William, et al. (See Kleckner, Harry T., assignor.)
 Röhm, Otto, Darmstadt, Germany. Depilating and reducing hides and skins. No. 1,082,911; Dec. 30; Gaz. vol. 197; p. 1155.
 Roller Smith Co. (See Scheffer, Gustave A., assignor.)
 Rollwing, Georg, Hanover, Germany, assignor to H. H. C. Schnelle, Wheeling, W. Va. Faucet. No. 1,080,369; Dec. 2; Gaz. vol. 197; p. 159.
 Romeo, Pasquale, Rome, Italy, assignor to The Surgical Supply Importing Company, New York, N. Y. Curette. No. 1,080,929; Dec. 9; Gaz. vol. 197; p. 384.
 Rommel, August, Garssen, near Celle, Germany. Artificial-stone composition for building and like purposes. No. 1,083,142; Dec. 30; Gaz. vol. 197; p. 1229.
 Ronchetti, Joseph A., Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,082,556; Dec. 30; Gaz. vol. 197; p. 1030.
 Ronda, Stanislaw, Erie, Pa. Creasing device for trousers. No. 1,083,032; Dec. 30; Gaz. vol. 197; p. 1194.
 Rordame, Alfred, Salt Lake City, Utah. Dry-cell battery. No. 1,080,234; Dec. 2; Gaz. vol. 197; p. 110.
 Rorive, Ernest, Brussels, Belgium. Tool sharpening and gaging machine. No. 1,082,823; Dec. 30; Gaz. vol. 197; p. 1124.
 Rosenfeld, Bernath, Tucson, Ariz. Clasp for ribbon-bolts. No. 1,080,999; Dec. 9; Gaz. vol. 197; p. 406.
 Rosengren, Anders A., Malmö, Sweden. Machine for sealing bottles. No. 1,081,931; Dec. 16; Gaz. vol. 197; p. 753.
 Rosenthal, Morris G., Mentor, Ohio. Knitting-machine. No. 1,082,230; Dec. 23; Gaz. vol. 197; p. 888.
 Rosenthal, Rubin, New York, N. Y. Ring-setting. No. 1,081,153; Dec. 9; Gaz. vol. 197; p. 455.
 Roshon, Israel A., assignor of one-half to P. Thompson, Worthington, Minn. Attachment for linotype-machines. No. 1,081,980; Dec. 23; Gaz. vol. 197; p. 802.
 Ross, Lewis F., Standish, N. Y., assignor of one-half to Northern Iron Company. Mechanism for nodulizing materials. No. 1,081,063; Dec. 9; Gaz. vol. 197; p. 426.
 Ross, Louis S., Newtonville, Mass. Motor-vehicle. No. 1,082,047; Dec. 23; Gaz. vol. 197; p. 823.
 Ross, Oscar T., Goldfield, Nev., assignor of one-half to W. Hildreth, Chicago, Ill. Flying-machine. No. 1,082,769; Dec. 30; Gaz. vol. 197; p. 1108.
 Ross, Simon G., and F. B. Freeman, Cincinnati, Ohio, assignors to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,080,171; Dec. 2; Gaz. vol. 197; p. 89.
 Ross, Victor. (See Ahlen and Ross.)
 Ross, William L., and A. Lettler, Bellaire, Ohio. Tire. No. 1,083,143; Dec. 30; Gaz. vol. 197; p. 1230.
 Rosenberg, Robert F. W., East Helena, Mont. Dialintegrating-machine. No. 1,083,033; Dec. 30; Gaz. vol. 197; p. 1194.
 Rosell, Auguste J., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Bleaching articles. No. 1,080,718; Dec. 9; Gaz. vol. 197; p. 308.
 Roth, Charles F., Pilot Grove, Mo. Lathe. No. 1,082,652; Dec. 30; Gaz. vol. 197; p. 1063.
 Roth, Charles H. (See Jones and Roth.)
 Rother, Robert H. (See Koehl and Rother.)
 Rothmann, Carl W. S. (See Maguire, Dennis H., assignor.)
 Rothmann, Albert. (See Ach and Rothmann.)
 Rounds, Herbert G., Bay City, Mich. Bracket for use in shingling roofs. No. 1,080,658; Dec. 9; Gaz. vol. 197; p. 288.
 Rourke, Joseph A., Boston, Mass. Compression-hydrant. No. 1,080,719; Dec. 9; Gaz. vol. 197; p. 308.
 Rousseau, George E. C., and F. Gregory, Sacramento, Cal. Current-motor. No. 1,081,867; Dec. 16; Gaz. vol. 197; p. 733.

Rowe, William J., Lakewood, C. E. Smack, deceased. (E. L. Smack, administratrix.) Brooklyn township, Cuyahoga county, and J. C. Theberath, Lakewood, Ohio. Automatic displaying-machine. No. 1,082,770; Dec. 30; Gaz. vol. 197; p. 1106.

Rowlette, Oliver B., Grand Rapids, Mich. Knockdown sectional case. No. 1,080,784; Dec. 9; Gaz. vol. 197; p. 333.

Rowley, Arthur C., assignor to The International Sprinkler Company, Philadelphia, Pa. Alarm-valve. No. 1,082,447; Dec. 23; Gaz. vol. 197; p. 950.

Rowley, George W., Hollywood, Cal. Revolving ladder-support. No. 1,082,240; Dec. 23; Gaz. vol. 197; p. 888.

Roy, Sylvanus B., Worcester, Mass. Gearing for spinning or twisting machines. No. 1,081,334; Dec. 16; Gaz. vol. 197; p. 555.

Rubel, Jacob, et al. (See Blow and Sandiford, assignors.)

Ruben, John W., Portland, Oreg. Car-window cleaner. No. 1,081,000; Dec. 9; Gaz. vol. 197; p. 406.

Rudolph, Frank, Chicago, Ill., assignor to American Can Company, New York, N. Y. Can-body-making machine. No. 1,082,537; Dec. 30; Gaz. vol. 197; p. 1030.

Rue, Oliver H., Ivanhoe, Tex. Reed-organ. No. 1,083,144; Dec. 30; Gaz. vol. 197; p. 1230.

Ruhm, Herman D., Buffalo, assignor to Niagara Alkali Company, Niagara Falls, N. Y. Diaphragm for electrolytic apparatus. No. 1,082,286; Dec. 23; Gaz. vol. 197; p. 905.

Rumohr, Anson R., Vancouver, British Columbia, Canada. Tenon-machine gage. No. 1,082,048; Dec. 23; Gaz. vol. 197; p. 823.

Runner, John B., assignor to Standard Tool & Manufacturing Company, Indianapolis, Ind. Trowel. No. 1,080,075; Dec. 2; Gaz. vol. 197; p. 55.

Runyán, Arthur L., Huron, S. D. Advertising-display mechanism. No. 1,081,001; Dec. 9; Gaz. vol. 197; p. 407.

Rush, Charles G., Chicago, Ill. Adjustable combined shade and hood holder. No. 1,083,218; Dec. 30; Gaz. vol. 197; p. 1251.

Rusk, Newton, assignor of one-half to D. Gochenauer, San Diego, Cal. Automatic sash-lock. No. 1,080,172; Dec. 2; Gaz. vol. 197; p. 39.

Russ, John H., Shelton, assignor to Robert N. Bassett Company, Derby, Conn. Button-tab end. No. 1,080,785; Dec. 9; Gaz. vol. 197; p. 333.

Russ, Rudolf, assignor of one-half to Stolle & Kopke, Rumburg, Austria-Hungary. Obtaining sulfonated oils and fats. No. 1,081,775; Dec. 16; Gaz. vol. 197; p. 701.

Russell, Albert E. (See Collins, Kerr, and Russell.)

Russell, Arthur L., Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting mechanism. No. 1,080,235; Dec. 2; Gaz. vol. 197; p. 111.

Russell, Frederic W., Redditch, England. Screw-driving mechanism. No. 1,082,771; Dec. 30; Gaz. vol. 197; p. 1107.

Russell, Henry M., Jr., Wheeling, W. Va. Drinking-cup. No. 1,081,468; Dec. 16; Gaz. vol. 197; p. 600.

Russell, Henry M., Jr., Wheeling, W. Va. Closure for collapsible tubes and the like. No. 1,081,555; Dec. 16; Gaz. vol. 197; p. 629.

Russell, James C., Pittsburgh, Pa. Metal article. No. 1,080,590; Dec. 9; Gaz. vol. 197; p. 266.

Russell Mfg. Co. (See Frissell, Frank H., assignor.)

Russell, Thomas N., Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Car-roof. No. 1,080,173; Dec. 2; Gaz. vol. 197; p. 39.

Russell, Thomas N., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill. Car-roof. No. 1,082,974; Dec. 30; Gaz. vol. 197; p. 1176.

Rutherford, Wilbert F., Newport, Oreg. Damper. No. 1,082,174; Dec. 23; Gaz. vol. 197; p. 864.

Rutkowski, John S., and W. T. Hutchison, South Bend, Ind.; said Rutkowski assignor to said Hutchison. Front-wheel drive and steer for motor-vehicles. No. 1,080,591; Dec. 9; Gaz. vol. 197; p. 266.

Ryalis, John H., Charlottesville, Va. Reversing mechanism for the band-cylinders of spinning-mules. No. 1,082,912; Dec. 30; Gaz. vol. 197; p. 1155.

Rylands, Thomas H., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Combined base-cap and primer-pocket for cartridges. No. 1,082,975; Dec. 30; Gaz. vol. 197; p. 1176.

S. E. T. Valve & Hydrant Company, New York. (See Tyler, Clarence E., assignor.)

S. S. White Dental Manufacturing Company, The. (See Johnston, Browne, and Wallace, assignors.)

Saari, Arvid, Duluth, Minn. Railway-tie plate. No. 1,082,471; Dec. 23; Gaz. vol. 197; p. 966.

Sachs, Joseph, assignor to The Sachs Laboratories Incorporated, Hartford, Conn. Coupling. No. 1,082,558; Dec. 30; Gaz. vol. 197; p. 1030.

Sachs Laboratories Incorporated, The. (See Sachs, Joseph, assignor.)

Saco-Petee Company. (See Blake and Goldsmith, assignors.)

Saco-Petee Company. (See Goldsmith, William H., Jr., assignor.)

Safe, Vault and Protection Company. (See Kercher, Gilbert N., assignor.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Safety Celluloid Company. (See Paschke, Frederick, assignor.)

Safro, Aron, Jersey City, N. J., L. Sainberg and R. B. Sainburg, Brooklyn, N. Y. Bill-file. No. 1,080,022; Dec. 2; Gaz. vol. 197; p. 36.

Sahm, Rudolf P. O., Brooklyn, N. Y. Drawing-rule for irregular curves. No. 1,079,853; Dec. 2; Gaz. vol. 197; p. 11.

Sainberg, Louis. (See Safro, Sainberg, and Sainburg.)

Sainburg, Robert B. (See Safro, Sainberg, and Sainburg.)

Saitta, James W., et al. (See Di Giovanni, Gaetano, assignor.)

Sallows, James F., Lansing, Mich., assignor to A. O. Blach, Chicago, Ill. Case-hardening mixture. No. 1,079,954; Dec. 2; Gaz. vol. 197; p. 11.

Saltz, Max, New York, N. Y. Automobile-veil. No. 1,081,154; Dec. 9; Gaz. vol. 197; p. 456.

Salucci, Alessandro, Lawrence, Mass. Rivet-bolt holder. No. 1,083,145; Dec. 30; Gaz. vol. 197; p. 1230.

Sampson, Frederick H., Denver, Colo. Pipe threading and cutting machine. No. 1,081,916; Dec. 16; Gaz. vol. 197; p. 748.

Samuel C. Tatum Company, The. (See Dom, Chesley, assignor.)

Samuel C. Tatum Company, The. (See Hillis and Colburn, assignors.)

Sanders, Fred B., Chelsea, Mass. Bottle-closure. No. 1,081,556; Dec. 16; Gaz. vol. 197; p. 630.

Sanders, Joseph. (See Schumacher, John, assignor.)

Sanders, Lewis, South Nyack, N. Y., assignor to General Electric Company, Means for supplying steam for industrial purposes from prime movers. No. 1,081,408; Dec. 16; Gaz. vol. 197; p. 580.

Sanderson, William K. (See Davis and Miller, assignors.)

Sandiford, Green W. (See Blow and Sandiford.)

Sandmann, William C., Newark, N. J. Egg-lifter. No. 1,081,701; Dec. 16; Gaz. vol. 197; p. 675.

Sanford, William W., Newark, N. J. Fountain-pen. No. 1,081,537; Dec. 16; Gaz. vol. 197; p. 630.

Sanitary Fountain Co. (See Pein, Henry, assignor.)

Sanitary Nursing Bottle Company, The. (See Mambourg, Leopold, assignor.)

Sanitary Paper Bottle Company. (See Nazel, John, assignor.)

Sargent & Company. (See Shaw, John H., assignor.)

Satin, Jacob, B. Mosesson, and M. Gardinkel, assignors to The Simplex Adjustable Dress Form Co., Brooklyn, N. Y. Adjustable garment-form. No. 1,081,313; Dec. 16; Gaz. vol. 197; p. 547.

Sato, Ryui, Chicago, Ill. Vehicle top-raising device. No. 1,082,706; Dec. 30; Gaz. vol. 197; p. 1083.

Saunders, Addison T., Akron, Ohio, assignor to A. G. Spalding & Bros., Jersey City, N. J. Playing-ball. No. 1,080,502; Dec. 9; Gaz. vol. 197; p. 266.

Saunders, Leslie R., assignor to Leslie R. Saunders Company, Los Angeles, Cal. Auxiliary air-valve for internal-combustion engines. No. 1,081,776; Dec. 16; Gaz. vol. 197; p. 701.

Saurer, Firm of Adolph. (See Eggart, Karl, assignor.)

Savage Arms Company. (See Lang, Charles W., assignor.)

Savage Arms Company. (See Nelson, Charles A., assignor.)

Savin, Thomas L., Pine Bluff, Ark. Telephone-indicator. No. 1,081,990; Dec. 23; Gaz. vol. 197; p. 802.

Sawyer, Gordon, Nashville, Tenn. Machine for trimming pork. No. 1,083,219; Dec. 30; Gaz. vol. 197; p. 1252.

Saylor, Benjamin F. A., Rome, assignor, by mesne assignments, to Standard Turpentine & Wood Pulp Company, Atlanta, Ga. Extracting turpentine and rosin from wood. No. 1,081,276; Dec. 9; Gaz. vol. 197; p. 497.

Saylor, John L., Minneapolis, Minn. Weighing-scale. No. 1,080,236; Dec. 2; Gaz. vol. 197; p. 111.

Saylor, John L., Minneapolis, Minn. Weighing-scale. No. 1,080,237; Dec. 2; Gaz. vol. 197; p. 111.

Scarbury, William S., Sedro Woolley, Wash. Roller-bearing sash-holder. No. 1,080,786; Dec. 9; Gaz. vol. 197; p. 333.

Schade, Edmund A. (See Bodmer and Schade.)

Schade, John, Jr. (See Filmer and Schade.)

Schaeffer Piano Mfg. Company. (See Freborg, Charles, assignor.)

Schäffer, Axel, and A. Schröder, Copenhagen, Denmark. Apparatus for feeding semiliquid materials. No. 1,082,287; Dec. 23; Gaz. vol. 197; p. 906.

Schärer, Emil, Zurich, Switzerland. Bracket for staging and scaffolding. No. 1,082,448; Dec. 23; Gaz. vol. 197; p. 959.

Scheeffer, Gustave A., Indianapolis, Ind., assignor, by mesne assignments, to Roller Smith Co., New York, N. Y. Induction-wattmeter. No. 1,082,653; Dec. 30; Gaz. vol. 197; p. 1063.

Scheeffer, Gustave A., Indianapolis, Ind., assignor, by mesne assignments, to Roller Smith Co., New York, N. Y. Electric meter. No. 1,082,654; Dec. 30; Gaz. vol. 197; p. 1064.

Scheldigger, Albert, Basel, Switzerland. Attaching inverted incandescent mantles to bolders. No. 1,079,955; Dec. 2; Gaz. vol. 197; p. 11.

Schelding, Henry, Homestead, assignor of one-third to C. E. Berger, Munhall, Pa. Curtain and shade fixture. No. 1,080,370; Dec. 2; Gaz. vol. 197; p. 160.

Schellberg, Oscar B., New York, N. Y. Cork-retainer. No. 1,081,777; Dec. 16; Gaz. vol. 197; p. 702.

Schember & Söhne, C. (See Schnabl, Gustav, assignor.)

Schenck, John E., Chicago, Ill., assignor to American Can Company, New York, N. Y. Can-body-making machine. No. 1,082,559; Dec. 30; Gaz. vol. 197; p. 1031.

Scherer, Albert G., assignor to The Excelsior Steel Furnace Company, Chicago, Ill. Nest of stovepipe. No. 1,082,175; Dec. 23; Gaz. vol. 197; p. 864.

Schermond, J. Frederick, trustee. (See Mettler and Fudge, assignors.)

Schen, John T., executor. (See Schoeppl, Joseph F.)

Schierding, William, Wallace, assignor of one-half to P. J. Scoles, Mullan, Idaho. Dry closet. No. 1,080,930; Dec. 9; Gaz. vol. 197; p. 384.

Schliff, Morris, New York, N. Y. Locking device for clasps. No. 1,080,371; Dec. 2; Gaz. vol. 197; p. 160.

Schiller, Adolf, Schöneberg, near Berlin, Germany. Manufacture of globular glass bottles. No. 1,080,372; Dec. 2; Gaz. vol. 197; p. 161.

Schilling, John M., and H. A. Baldwin, Chicago, Ill. Gravity-motor. No. 1,080,593; Dec. 9; Gaz. vol. 197; p. 267.

Schlinck, Julius, Hamburg, Germany. Manufacture of solid fatty substances from oil. No. 1,082,707; Dec. 30; Gaz. vol. 197; p. 1083.

Schlossberg, Emil, New York, N. Y. Pin-setter for bowling-alleys. No. 1,080,373; Dec. 2; Gaz. vol. 197; p. 161.

Schmachtenberger, Ottomer, Decatur, Ill. Automatically-closing valve. No. 1,082,708; Dec. 30; Gaz. vol. 197; p. 1084.

Schmidt, Adolph, Hastings, Nebr. Plow. No. 1,080,076; Dec. 2; Gaz. vol. 197; p. 55.

Schmidt, Oscar. (See Habermann, Charles, assignor.)

Schnabl, Gustav, assignor to C. Schember & Söhne, Atzgersdorf, near Vienna, Austria-Hungary. Automatic weighing-scale. No. 1,080,374; Dec. 2; Gaz. vol. 197; p. 161.

Schneider & Cie. (See Bourdellies, Emile, assignor.)

Schnelle, Heinrich H. C. (See Rölling, Georg, assignor.)

Schoenmehl, Charles B., Waterbury, Conn. Primary battery. No. 1,080,483; Dec. 2; Gaz. vol. 197; p. 108.

Schoenmehl, Charles B., Waterbury, Conn. Galvanic battery. No. 1,080,484; Dec. 2; Gaz. vol. 197; p. 108.

Schoeppl, Joseph F., deceased, Baltimore, Md.; J. T. Scheu, executor. Crate. No. 1,080,077; Dec. 2; Gaz. vol. 197; p. 56.

Schoeppl, Joseph F., deceased, Baltimore, Md.; J. T. Scheu, executor. Toy. No. 1,080,078; Dec. 2; Gaz. vol. 197; p. 56.

Scholl, Charles E. and J. S., Detroit, Mich. Brick-kiln. No. 1,081,335; Dec. 16; Gaz. vol. 197; p. 555.

Scholl, John S. (See Scholl, Charles E. and J. S.)

Scholl, William M., Chicago, Ill. Bunion-rectifier. No. 1,080,303; Dec. 2; Gaz. vol. 197; p. 134.

Scholl, William M., Chicago, Ill. Toe-spreader. No. 1,080,304; Dec. 2; Gaz. vol. 197; p. 135.

Scholl, William M., Chicago, Ill. Toe-straightening appliance. No. 1,080,305; Dec. 2; Gaz. vol. 197; p. 135.

Scholz, Paul, Bergen, Norway. Opening device for cans, boxes, or the like. No. 1,081,939; Dec. 16; Gaz. vol. 197; p. 755.

Schomer, John F., Victor, Colo. Concrete railway-tie. No. 1,081,702; Dec. 16; Gaz. vol. 197; p. 675.

Schönemann, Emil, and J. Räuchle, Pforzheim, Germany. Lock for neck-chains, bracelets, and the like. No. 1,082,140; Dec. 23; Gaz. vol. 197; p. 853.

Schoonover, Lem H., Boise, Idaho. Resilient vehicle-wheel. No. 1,080,720; Dec. 9; Gaz. vol. 197; p. 309.

Schopke, John C. W., Lennox, S. D. Strainer. No. 1,081,469; Dec. 16; Gaz. vol. 197; p. 601.

Schotte, Adolph E., Sharon, Pa. Rail-chair. No. 1,083,034; Dec. 30; Gaz. vol. 197; p. 1195.

Schrader, Anton, Castrop, Post Rauxel, assignor of one-half to O. Lambert, Castrop, Germany. Door-key. No. 1,082,560; Dec. 30; Gaz. vol. 197; p. 1031.

Schrage, Hilde K., assignor to Allmänna Svenska Elektriska Aktiebolaget, Vesterås, Sweden. Commutator-motor. No. 1,079,994; Dec. 2; Gaz. vol. 197; p. 26.

Schreidt, Frank, Mansfield, Ohio. Fountain-brush. No. 1,082,288; Dec. 23; Gaz. vol. 197; p. 906.

Schriever, August, Cossebaude, near Dresden, Germany. Apparatus for drying wet hair. No. 1,081,064; Dec. 9; Gaz. vol. 197; p. 426.

Schröder, Aage. (See Schäffer and Schröder.)

Schroeder, Anthony J., Donaldsonville, La. Power-transmitting mechanism. No. 1,081,868; Dec. 16; Gaz. vol. 197; p. 733.

Schroeder, Christian M. E., Rutherford, N. J., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Treating materials with solutions of titanous salts. No. 1,080,721; Dec. 9; Gaz. vol. 197; p. 309.

Schroeder, Peter, Two Rivers, Wis. Safety lamp-burner. No. 1,083,220; Dec. 30; Gaz. vol. 197; p. 1252.

Schroyer, Harry H., Chicago, Ill., assignor to The Acme Supply Company, Car-vestibule diaphragm. No. 1,082,241; Dec. 23; Gaz. vol. 197; p. 888.

Schuermann, Anton C. (See Mueller and Schuermann.)

Schuermann, Anton C., assignor to H. Mueller Mfg. Co., Decatur, Ill. Means for anchoring nipples. No. 1,080,519; Dec. 2; Gaz. vol. 197; p. 210.

Schuermann, Anton C., assignor to H. Mueller Mfg. Co., Decatur, Ill. No-slip flange. No. 1,080,520; Dec. 2; Gaz. vol. 197; p. 210.

Schuh, Charles F., Newark, N. J., assignor of one-half to R. J. Wilkie, Saugus, Mass. Stopper for hot-water bottles. No. 1,080,659; Dec. 9; Gaz. vol. 197; p. 288.

Schuler, David, Kerrtown, assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,082,176; Dec. 23; Gaz. vol. 197; p. 864.

Schuler, Robert, New York, N. Y., assignor, by mesne assignments, to The Gibraltar Stone Company. Waterproof cement and making. No. 1,081,155; Dec. 9; Gaz. vol. 197; p. 456.

Schüller, Gustav A., Venuberg/Erzgebirge, Germany. Device for spraying liquid into air. No. 1,080,594; Dec. 9; Gaz. vol. 197; p. 267.

Schultz, Ferdinand H., Treynor, Iowa. Stock-feeding device. No. 1,080,931; Dec. 9; Gaz. vol. 197; p. 384.

Schultz, Robert A., Maple Grove, Wis. Milk-agitator. No. 1,082,100; Dec. 23; Gaz. vol. 197; p. 840.

Schulz, Otto C., assignor to Bauer & Black, Chicago, Ill. Means for opening cartons and the like. No. 1,080,932; Dec. 9; Gaz. vol. 197; p. 385.

Schumacher, John, Chicago, Ill., assignor to J. Sanders. Blank for talking-machine records. No. 1,082,709; Dec. 30; Gaz. vol. 197; p. 1084.

Schur, Ernest H., assignor of one-fourth to M. Keller and one-fourth to B. Keller, Hibbing, Minn. Cushion-wheel. No. 1,081,628; Dec. 16; Gaz. vol. 197; p. 651.

Schurch, Chris, Chattanooga, Tenn. Threshing-machine. No. 1,082,913; Dec. 30; Gaz. vol. 197; p. 1156.

Schuster, Carl, Bellevue, and C. N. Bergmann, Pittsburgh, Pa., assignors of one-half to said Schuster and one-half to said Bergmann. Conductor-post for electrical distribution. No. 1,082,772; Dec. 30; Gaz. vol. 197; p. 1107.

Schutt, Guy A. (See Duffield, Cloyce D., assignor.)

Schwartz, Andrew G. L., Pittsburgh, Pa. Ironing-board and stand. No. 1,083,146; Dec. 30; Gaz. vol. 197; p. 1230.

Schwartz, Louis H., et al. (See Robertson, George L., assignor.)

Schwartz, T. Kesler, et al. (See Robertson, George L., assignor.)

Schwarz, Elmer H., New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company. System of distribution. No. 1,082,561; Dec. 30; Gaz. vol. 197; p. 1031.

Schwarz, Ernst. (See Löfftringham, Diesbach, and Schwarz.)

Schweltzer, William, and H. H. Labadie, Chicago, Ill. Sample-case having link-connected trays. No. 1,081,629; Dec. 16; Gaz. vol. 197; p. 651.

Schweltzer, William, and H. H. Labadie, Chicago, Ill. Sample-carrying case. No. 1,082,976; Dec. 30; Gaz. vol. 197; p. 1177.

Schwendemann, John M., Douglas, Okla. Automatic mail-carrier. No. 1,081,400; Dec. 16; Gaz. vol. 197; p. 580.

Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Automatic playing instrument. No. 1,080,595; Dec. 9; Gaz. vol. 197; p. 267.

Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Musical instrument. No. 1,081,703; Dec. 16; Gaz. vol. 197; p. 675.

Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Organ-coupler. No. 1,082,655; Dec. 30; Gaz. vol. 197; p. 1064.

Schweter, Erich, Goltwin, Russia. Shaft-governor. No. 1,082,242; Dec. 23; Gaz. vol. 197; p. 889.

Scoles, Peter J. (See Schierding, William, assignor.)

Scott, Fred S. (See Bartindale and Scott.)

Scott, James. (See Behner and Scott.)

Scott, Jesse B., Kansas City, Kans., assignor to The Ad-Pencil Company, Kansas City, Mo. Pencil-printing machine. No. 1,080,722; Dec. 9; Gaz. vol. 197; p. 309.

Scott Paper Company. (See Liebeck, Harry, assignor.)

Scott, Robert P., Cadiz, Ohio. Green-pea-vine-hulling machine. No. 1,082,609; Dec. 30; Gaz. vol. 197; p. 1049.

Scott, Robert W., Leeds Point, assignor to Scott & Williams, Incorporated, Camden, N. J. Welled knitted web. No. 1,081,778; Dec. 16; Gaz. vol. 197; p. 702.

Scott, Robert W., Leeds Point, assignor to Scott & Williams, Incorporated, Camden, N. J. Knitted web and making same. No. 1,081,779; Dec. 16; Gaz. vol. 197; p. 702.

Scott & Williams. (See Scott, Robert W., assignor.)

Scovill Manufacturing Company. (See Collina, William, assignor.)

Scovill Manufacturing Company. (See Simons, Ernest D., assignor.)

Scranton Acetylene Lamp Co., The. (See Evans, Llewellyn M., assignor.)

Seadler, James, Sacramento, Cal. Cushion-tire for vehicles. No. 1,081,518; Dec. 16; Gaz. vol. 197; p. 618.

Seagrave Company, The. (See Kieser, Charles F., assignor.)

Sears, Frank E., et al. (See West, Owen A., assignor.)

Sears, Frederick D., and A. O. Sodergren, Minneapolis, Minn. Portable picture-gallery. No. 1,082,914; Dec. 30; Gaz. vol. 197; p. 1156.

Sears, Roebuck and Company. (See Waring, Stewart, assignor.)

Secord, Louis F., and B. Orr, Jackson, Mich., assignors to Whitman Agricultural Co., St. Louis, Mo. Internal-combustion engine. No. 1,082,656; Dec. 30; Gaz. vol. 197; p. 1064.

Sedgwick, Hiram G., Mill Valley, Cal., assignor to The National Safety Appliance Company. Railway-cab signal. No. 1,082,824; Dec. 30; Gaz. vol. 197; p. 1125.
 Sedgwick, Hiram G., Mill Valley, Cal., assignor to The National Safety Appliance Company. Automatic train-stop. No. 1,082,825; Dec. 30; Gaz. vol. 197; p. 1125.
 Seelye, James E. (See Winnie and Seelye.)
 Seelye, William E., Sault Ste. Marie, Ontario, Canada. Tug and trace fastener. No. 1,082,215; Dec. 23; Gaz. vol. 197; p. 578.
 Seesale, Charles, assignor of one-third to W. J. Welsh, Jersey City, and one-third to W. Mooney, Bayonne, N. J. Bowling-ball. No. 1,079,956; Dec. 2; Gaz. vol. 197; p. 12.
 Sefton Manufacturing Company, The. (See Hollett, Ira W., assignor.)
 Selb, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,070,957; Dec. 2; Gaz. vol. 197; p. 12.
 Seitz, Edward, assignor of one-half to J. E. Lockwood, Peoria, Ill. Vapor-generator. No. 1,081,255; Dec. 9; Gaz. vol. 197; p. 489.
 Seitzman, Isaac, Brooklyn, N. Y. Paper-box construction. No. 1,083,147; Dec. 30; Gaz. vol. 197; p. 1231.
 Selcer, Abraham I., assignor to Gage Hat Works, Chicago, Ill. Folding hat-box. No. 1,080,596; Dec. 9; Gaz. vol. 197; p. 268.
 Seldeneck, Hans F. von. (See Lang, Albert, assignor.)
 Sellman, Minnie S., Bridgeport, Conn. Drop-end box. No. 1,080,933; Dec. 9; Gaz. vol. 197; p. 385.
 Senderling, Martin L., Jersey City, N. J. Expansion-lift. No. 1,080,375; Dec. 2; Gaz. vol. 197; p. 162.
 Seng Company, The. (See Dyke, Darrell F., assignor.)
 Sennett, William E., Baltimore, Md. Die-upsetting device. No. 1,080,079; Dec. 2; Gaz. vol. 197; p. 57.
 Sergeant, George S., Greensboro, N. C. Grate-bar. No. 1,081,780; Dec. 16; Gaz. vol. 197; p. 702.
 Sessions, Albert L., Bristol, Conn. Hand-wheel for valves and like articles. No. 1,080,080; Dec. 2; Gaz. vol. 197; p. 57.
 Seiter, Michael, assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Telephone-receiver. No. 1,082,289; Dec. 23; Gaz. vol. 197; p. 906.
 Seward, George O. (See Kugelgen and Seward.)
 Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Knife-lubricating device. No. 1,080,485; Dec. 2; Gaz. vol. 197; p. 199.
 Shackelford, Walter L., Kennedy, Ala. Rectal tube. No. 1,080,934; Dec. 9; Gaz. vol. 197; p. 385.
 Shafer, James W., McKeesport, Pa. Rail-chair. No. 1,080,174; Dec. 2; Gaz. vol. 197; p. 90.
 Shafer, Samuel E., Elkhart county, Ind. Mold. No. 1,080,850; Dec. 9; Gaz. vol. 197; p. 357.
 Shane, George H., assignor to The Steel Railway Tie and Appliance Company, Denver, Colo. Insulating means for railway ties and chairs. No. 1,082,826; Dec. 30; Gaz. vol. 197; p. 1125.
 Shane, George H., assignor to The Steel Railway Tie and Appliance Company, Denver, Colo. Railway tie and rail chair. No. 1,082,827; Dec. 30; Gaz. vol. 197; p. 1126.
 Shapiro, Samuel. (See Ricords and Lewry, assignors.)
 Sharp, Abia J. (See Foster, John O., assignor.)
 Sharp, John, assignor of one-half to C. A. Greenleaf, San Bernardino, Cal. Lock-seal bottle. No. 1,081,156; Dec. 9; Gaz. vol. 197; p. 456.
 Sharp, Lee C., Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y. Can-heading machine. No. 1,082,562; Dec. 30; Gaz. vol. 197; p. 1032.
 Sharp & Smith. (See Flora, Ellsworth E., assignor.)
 Sharpneck, Matthew C., Cornville, assignor of one-half to E. Block, Prescott, Ariz. Safety-razor. No. 1,081,157; Dec. 9; Gaz. vol. 197; p. 457.
 Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, Tool. No. 1,081,330; Dec. 16; Gaz. vol. 197; p. 556.
 Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Screw-driver. No. 1,081,704; Dec. 16; Gaz. vol. 197; p. 678.
 Shaw-Walker Company, The. (See Wilson, Charles E., assignor.)
 Shea, William T., Chicago, Ill. Book-support. No. 1,080,597; Dec. 9; Gaz. vol. 197; p. 268.
 Sheagren, John P., Burlington, Iowa. Intermittent-grip device for exhibitors. No. 1,080,486; Dec. 2; Gaz. vol. 197; p. 199.
 Sheldon, Edward P., assignor to R. Hoe and Co., New York, N. Y. Assembling mechanism. No. 1,081,519; Dec. 16; Gaz. vol. 197; p. 618.
 Sheldon, Harry E. (See Lawrence, Jerry A., assignor.)
 Shelton, William G., New York, N. Y. Mixing device. No. 1,082,243; Dec. 23; Gaz. vol. 197; p. 889.
 Shenk, Mendel, Brooklyn, N. Y. Ventilating window-sash lock. No. 1,082,773; Dec. 30; Gaz. vol. 197; p. 1108.
 Shepard, Kenneth. (See Kendall and Shepard.)
 Shepperd, Sylvanus D., Newark, N. J., assignor to Southern Cotton Gin Company, Roller for cotton-gins. No. 1,080,437; Dec. 2; Gaz. vol. 197; p. 199.
 Sheridan, James B., Pittsburgh, Pa. Window-ventilator. No. 1,081,256; Dec. 9; Gaz. vol. 197; p. 490.
 Sherman, Roger B., Pasadena, Cal. Tree surgery. No. 1,080,660; Dec. 9; Gaz. vol. 197; p. 289.

Sherwin-Williams Company, The. (See Brown, Charles H., assignor.)
 Shimer, Harry D., assignor to Shimer, Powell & Company, Muskegon, Mich. Knitting-machine. No. 1,081,410; Dec. 16; Gaz. vol. 197; p. 581.
 Shimer, Powell & Company. (See Shimer, Harry D., assignor.)
 Shipley, Grant B., Milwaukee, Wis. Apparatus for preserving wood. No. 1,081,158; Dec. 9; Gaz. vol. 197; p. 457.
 Shipley, Shepherd B., assignor of one-half to R. S. Henry, Chattanooga, Tenn. Deflector and ventilator. No. 1,082,362; Dec. 23; Gaz. vol. 197; p. 932.
 Shipley, Thomas, York, Pa. Ammonia-compressor. No. 1,081,159; Dec. 9; Gaz. vol. 197; p. 458.
 Shive, Albert M., Wilkes-Barre, Pa. Hat-card holder. No. 1,081,630; Dec. 16; Gaz. vol. 197; p. 651.
 Shotwell, Harry L., Wenatchee, Wash. Fish-screen. No. 1,080,488; Dec. 2; Gaz. vol. 197; p. 199.
 Shouler, William E., Rockford, Ill. Aeroplane. No. 1,081,558; Dec. 16; Gaz. vol. 197; p. 630.
 Shoupe, George S., and W. H. Palmer, Cleveland, Ohio. Multiple-fuse device. No. 1,081,160; Dec. 9; Gaz. vol. 197; p. 458.
 Shrawder, David N., North Wales, Pa. Drinking-fountain. No. 1,082,610; Dec. 30; Gaz. vol. 197; p. 1049.
 Shumate, Joseph W., Minneapolis, Minn. Fly-chasing attachment for doors. No. 1,080,598; Dec. 9; Gaz. vol. 197; p. 268.
 Shumate, Oren, Mineola, Kans. Flying-machine. No. 1,081,869; Dec. 16; Gaz. vol. 197; p. 733.
 Shute, James L., Seattle, Wash. Egg-supporting surface for incubators. No. 1,080,489; Dec. 2; Gaz. vol. 197; p. 200.
 Shute, James L., Seattle, Wash. Egg-supporting device. No. 1,081,870; Dec. 16; Gaz. vol. 197; p. 734.
 Sibbald, Thomas M., Toronto, Ontario, Canada. Cash-register. No. 1,083,035; Dec. 30; Gaz. vol. 197; p. 1195.
 Siemen, Albert H., Appleton, Minn. Gang-frame attachment for driving harvesters from traction-engines. No. 1,080,935; Dec. 9; Gaz. vol. 197; p. 385.
 Siemens & Halske, A. G. (See Marchthal, Eduard M. v., assignor.)
 Sieminski, Adam, Glassport, assignor of one-half to F. A. Ploarski, Pittsburgh, Pa. Bolt and nut lock. No. 1,080,175; Dec. 2; Gaz. vol. 197; p. 90.
 Siever, Charles M., Holton, Kans. Nut-lock. No. 1,081,631; Dec. 16; Gaz. vol. 197; p. 652.
 Siglin, Nelson. (See Reeve and Siglin.)
 Signature Company, The. (See Johnson, Frank A., assignor.)
 Signature Company. (See Remick, William H., assignor.)
 Sikes, Simeon R., Ocala, Fla. Fertilizer-distributor. No. 1,081,991; Dec. 23; Gaz. vol. 197; p. 802.
 Silk, Thomas, Martins Ferry, Ohio. Orchard-heater. No. 1,082,101; Dec. 23; Gaz. vol. 197; p. 841.
 Sillman, Benjamin F., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Recording mechanism. No. 1,080,306; Dec. 2; Gaz. vol. 197; p. 135.
 Silveira, Henry M., Cambridge, Mass. Battleship. No. 1,080,490; Dec. 2; Gaz. vol. 197; p. 200.
 Silveira, Henry M., Cambridge, Mass. Battleship. No. 1,080,491; Dec. 2; Gaz. vol. 197; p. 200.
 Silveira, Henry M., Cambridge, Mass. Battleship. No. 1,080,492; Dec. 2; Gaz. vol. 197; p. 200.
 Silverston, Bernard, New York, N. Y. Section-liner. No. 1,081,161; Dec. 9; Gaz. vol. 197; p. 458.
 Simerson, Charles H., West Hoboken, N. J. Fraud-preventer. No. 1,081,781; Dec. 16; Gaz. vol. 197; p. 703.
 Simerson, Charles H., West Hoboken, N. J. Check-controlled device. No. 1,081,782; Dec. 16; Gaz. vol. 197; p. 703.
 Simler, John, Sikeston, Mo. Lock-strike. No. 1,082,611; Dec. 30; Gaz. vol. 197; p. 1050.
 Simmons Manufacturing Company, The. (See Vincent, William W., assignor.)
 Simmons, Ralph C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-breasting machine. No. 1,080,376; Dec. 2; Gaz. vol. 197; p. 162.
 Simmons, Shelby E., Russellville, Ky. Movable headlight for locomotives. No. 1,081,992; Dec. 23; Gaz. vol. 197; p. 803.
 Simms, Frederick R., Willemsden Lane, London, England, assignor to The Simms Magneto Company. Starter for internal-combustion engines. No. 1,083,221; Dec. 30; Gaz. vol. 197; p. 1252.
 Simms, Frederick R., Willemsden Lane, England, assignor to Simms Magneto Co., Inc., New York, N. Y. Electric ignition apparatus. No. 1,083,222; Dec. 30; Gaz. vol. 197; p. 1253.
 Simms Magneto Company, The. (See Simms, Frederick R., assignor.)
 Simon, Christian, Essen-on-the-Ruhr, Germany. Coal-jigger. No. 1,082,102; Dec. 23; Gaz. vol. 197; p. 841.
 Simonin, Victor, Camden, N. J. Tobacco-pipe. No. 1,080,851; Dec. 9; Gaz. vol. 197; p. 357.
 Simons, Ernest D., assignor to Scovill Manufacturing Company, Waterbury, Conn. One-piece cap for snap-fasteners. No. 1,083,262; Dec. 30; Gaz. vol. 197; p. 1268.
 Simplex Adjustable Dress Form Co., The. (See Satin, Mosesson, and Garfunkel, assignors.)

Simplex Railway Appliance Company. (See Fowler, William E., Jr., assignor.)
 Simplex Spreader Manufacturing Company. (See Rice, Lewis D., assignor.)
 Sims, Henry, Erie, Pa. Combined water-heater and garbage-burner. No. 1,081,337; Dec. 16; Gaz. vol. 197; p. 556.
 Sims, Robert H. (See Nutter and Sims.)
 Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)
 Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
 Singer Manufacturing Company, The. (See Finch, John S., assignor.)
 Sisk, Henry F., Greensboro, N. C. Railway ditching-machine. No. 1,081,632; Dec. 16; Gaz. vol. 197; p. 652.
 Sipe, Harry E. (See Sipe, John F. and H. E.)
 Sipe, John F. and H. E., New York, N. Y. Spring-wheel for vehicles. No. 1,080,377; Dec. 2; Gaz. vol. 197; p. 163.
 Sipe, John F. and H. E., New York, N. Y. Spring-wheel for vehicles. No. 1,080,378; Dec. 2; Gaz. vol. 197; p. 163.
 Sipe, John F. and H. E., New York, N. Y. Spring-wheel for vehicles. No. 1,080,379; Dec. 2; Gaz. vol. 197; p. 164.
 Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Centering device. No. 1,080,723; Dec. 9; Gaz. vol. 197; p. 310.
 Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Centering device. No. 1,080,724; Dec. 9; Gaz. vol. 197; p. 310.
 Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Car end framing. No. 1,080,725; Dec. 9; Gaz. vol. 197; p. 311.
 Sisson, William O. (See Watson and Downey, assignors.)
 Sites, Charles F., Newark, Ohio. Chemical and insecticide sprayer. No. 1,082,141; Dec. 23; Gaz. vol. 197; p. 853.
 Skeffington, Arthur, Blackheath, London, England. Apparatus for handling invalids or the like. No. 1,082,177; Dec. 23; Gaz. vol. 197; p. 865.
 Skinner, William P., Garden City, Minn. Adding-machine. No. 1,080,023; Dec. 2; Gaz. vol. 197; p. 36.
 Slappey, Fannie E., Atlanta, Ga. Sash-fastener. No. 1,080,599; Dec. 9; Gaz. vol. 197; p. 268.
 Sleeper, Frank H., Worcester, Mass. Helical-spring-book-binding machine. No. 1,083,223; Dec. 30; Gaz. vol. 197; p. 1253.
 Sleeper, Oliver S., assignor to Buffalo Foundry & Machine Company, Buffalo, N. Y. Drier. No. 1,081,338; Dec. 16; Gaz. vol. 197; p. 556.
 Slemenda, Charles. (See Steimbrenner and Slemenda.)
 Slocumb, Charles E., assignor to F. F. Slocumb & Co., Incorporated, Wilmington, Del. Leather-seasoning machine. No. 1,082,244; Dec. 23; Gaz. vol. 197; p. 890.
 Sloderbeck, Martin C., assignor of one-third to E. E. Leapley and one-third to W. A. Leapley, Marion, Ind. Automatic double lock. No. 1,080,787; Dec. 9; Gaz. vol. 197; p. 333.
 Slosson, James S., New Brighton, assignor, by mesne assignments, to J. P. Curry Mfg. Co., Inc., New York, N. Y. Bag separating and feeding appliance. No. 1,081,705; Dec. 16; Gaz. vol. 197; p. 676.
 Slusser, James F., Jackson, Idaho. Hay-knife. No. 1,082,363; Dec. 23; Gaz. vol. 197; p. 932.
 Smack, Charles E. (See Rowe, Smack, and Theberath.)
 Smack, Edith L., administratrix. (See Rowe, William J.)
 Smallwood, Alfred, administrator. (See Smallwood, Leonard A.)
 Smallwood, Leonard A., deceased, Birmingham, England; A. Smallwood, administrator. Metallurgical furnace. No. 1,082,828; Dec. 30; Gaz. vol. 197; p. 1126.
 Smallwood, Leonard A., deceased, Birmingham, England; A. Smallwood, administrator. Heat-diffuser for boiler-fuses. No. 1,082,829; Dec. 30; Gaz. vol. 197; p. 1126.
 Smith, Cecil B. (See Griswold and Smith.)
 Smith, Charles A., Scalp Level, Pa. Self-levelling table. No. 1,081,339; Dec. 16; Gaz. vol. 197; p. 557.
 Smith, Charles E., Paterson, N. J. Flying-machine. No. 1,080,726; Dec. 9; Gaz. vol. 197; p. 311.
 Smith, Charles F., New Britain, Conn. Tableware. No. 1,080,661; Dec. 9; Gaz. vol. 197; p. 289.
 Smith, Clinton H., East Orange, N. J. Cuff. No. 1,080,380; Dec. 2; Gaz. vol. 197; p. 164.
 Smith, Eleanor A., et al. (See Smith, Warren, assignor.)
 Smith, Ernest N., Woneacott township, Chase county, Kans. Fender for hay-rakes. No. 1,080,125; Dec. 2; Gaz. vol. 197; p. 73.
 Smith, Forrest G., Fitchburg, Mass. Automobile-skid. No. 1,082,449; Dec. 23; Gaz. vol. 197; p. 959.
 Smith, Frank G., Elizabeth, N. J. Appliance for securing rails upon the ties of a railway. No. 1,082,977; Dec. 30; Gaz. vol. 197; p. 1177.
 Smith, Frank L., Chicago, Ill., and T. B. Williams, assignors to Leavitt Machine Company, Orange, Mass. Chuck. No. 1,080,727; Dec. 9; Gaz. vol. 197; p. 311.
 Smith, George H., Reliance, S. D. Car-door. No. 1,082,450; Dec. 23; Gaz. vol. 197; p. 959.
 Smith, George W., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Milling-machine. No. 1,081,932; Dec. 16; Gaz. vol. 197; p. 753.

Smith, Harold B., Worcester, Mass., assignor to Westinghouse Electric and Manufacturing Company. Coll for electrical apparatus. No. 1,082,563; Dec. 30; Gaz. vol. 197; p. 1032.
 Smith, Henry. (See Parker, Fred G., assignor.)
 Smith, Herbert K., Jamaica, N. Y., assignor to Abbott Coin Counter Company, Wilmington, Del. Coin-counting machine. No. 1,080,381; Dec. 2; Gaz. vol. 197; p. 164.
 Smith, Howard H. (See Bushfield, William M., assignor.)
 Smith, James M., Philadelphia, assignor of one-half to C. A. Magruder, Bryn Mawr, Pa. Timer and distributing device. No. 1,080,788; Dec. 9; Gaz. vol. 197; p. 334.
 Smith, Jesse R., Benton, Ill. Railway-tie renewer. No. 1,081,162; Dec. 9; Gaz. vol. 197; p. 458.
 Smith, John R., Stella, Mo. Fly-paper holder. No. 1,080,382; Dec. 2; Gaz. vol. 197; p. 165.
 Smith, Lawrence W., and D. H. Francis, Grand Junction, Colo. Fruit-grading machine. No. 1,082,612; Dec. 30; Gaz. vol. 197; p. 1050.
 Smith, Martin P., assignor to W. F. Sweet, St. Louis, Mo. Street-car advertising apparatus. No. 1,080,728; Dec. 9; Gaz. vol. 197; p. 312.
 Smith, Oscar L. (See McCleary and Harnly, assignors.)
 Smith Premier Typewriter Company, The. (See Briggs, Arthur J., assignor.)
 Smith, Reuben S., Marshall, Tex. Electric-heated steering-wheel. No. 1,082,330; Dec. 30; Gaz. vol. 197; p. 1127.
 Smith, Samuel M., Chicago, Ill. Soil-pipe fitting. No. 1,081,633; Dec. 16; Gaz. vol. 197; p. 653.
 Smith, Vincent P., Gillingham, England. Anchor. No. 1,081,163; Dec. 9; Gaz. vol. 197; p. 459.
 Smith, Walter, Chicago, Ill. Door-stop. No. 1,081,634; Dec. 16; Gaz. vol. 197; p. 653.
 Smith, Warren, assignor of one-fourth to A. B. Thompson, one-fourth to E. A. Smith, and three-sixteenths to E. C. Wallace, Sapulpa, Okla. Clutch. No. 1,082,657; Dec. 30; Gaz. vol. 197; p. 1065.
 Smith, William J., Urbana, Ill. Thermoregulator. No. 1,080,493; Dec. 2; Gaz. vol. 197; p. 201.
 Smith, William T., Bolton, England. Wheel for motor-cars and other vehicles. No. 1,079,995; Dec. 2; Gaz. vol. 197; p. 26.
 Smoke Eliminator Syndicate Limited, The. (See Thomas, William L., assignor.)
 Snow, Fred W., Bryantville, and A. B. Cummings, South Hanson, Mass. Sand-spreading device. No. 1,083,224; Dec. 30; Gaz. vol. 197; p. 1254.
 Snowden, Archie, Bradford, assignor to Snowden Fibre Machinery Company Limited, London, England. Rag-tearing machine and fiber-opener and the like. No. 1,081,783; Dec. 16; Gaz. vol. 197; p. 704.
 Snowden Fibre Machinery Company Limited. (See Snowden, Archie, assignor.)
 Snyder, Almond H., Lancaster, and J. Starkenstein, New York, N. Y., assignors to Gould Storage Battery Company. Storage battery. No. 1,080,852; Dec. 9; Gaz. vol. 197; p. 358.
 Snyder, Harry W., Ford City, Pa. Machine for grinding shafting. No. 1,082,451; Dec. 23; Gaz. vol. 197; p. 960.
 Snyder, Jacob R., assignor to P. E. Donner, Pittsburgh, Pa. Triple valve. No. 1,080,662; Dec. 9; Gaz. vol. 197; p. 289.
 Snyder, Parke T., assignor of one-half to R. J. Beatty, Chicago, Ill. Plume. No. 1,082,564; Dec. 30; Gaz. vol. 197; p. 1032.
 Soblik, Max, Dresden-Klotzsche, assignor to Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung, Düsseldorf, Germany. Pneumatic type-writer. No. 1,080,853; Dec. 9; Gaz. vol. 197; p. 358.
 Soblik Schreibmaschinen Gesellschaft mit beschränkter Haftung. (See Soblik, Max, assignor.)
 Sohra, Marquerite L., Chicago, Ill. Ash-sifter. No. 1,080,854; Dec. 9; Gaz. vol. 197; p. 358.
 Socoli, Celeste. (See Borsella and Socoli.)
 Società Italiana Per Il Carburio Di Calcio. (See Imperatori, Vittorio, assignor.)
 Société Anonyme des Etablissements Delaunay-Belleville. (See Delaunay-Belleville, Robert, assignor.)
 Société-générale pour l'exploitation de la catalyse et autres produits pharmaceutiques. (See Viquerat, Alois, assignor.)
 Society of Chemical Industry in Basle. (See Engl and Fröhlich, assignors.)
 Sodergren, Axel O. (See Sears and Sodergren.)
 Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash. Printing-machine. No. 1,082,774; Dec. 30; Gaz. vol. 197; p. 1108.
 Sohm Electric Signal & Recording Company. (See Sohm, Alfred L., assignor.)
 Solomon, George N., Turlington, Tex. Cattle-guard. No. 1,081,871; Dec. 16; Gaz. vol. 197; p. 734.
 Solomon, Harry, assignor of forty-nine one-hundredths to F. Eliscu, St. Joseph, Mo. Safety towel-cabinet. No. 1,080,855; Dec. 9; Gaz. vol. 197; p. 359.
 Solomon, Henry G., London, England. Smelting or refining of metals and the like in crucibles. No. 1,081,164; Dec. 9; Gaz. vol. 197; p. 459.
 Somermeyer, Edward E., Columbus, Ohio. Preserving wood. No. 1,082,658; Dec. 30; Gaz. vol. 197; p. 1065.
 Somerville, Thomas E., Glenellyn, Ill. Bundle-carrier. No. 1,081,559; Dec. 16; Gaz. vol. 197; p. 630.

Sommerfeld, August, St. Louis, Mo. Life-preserver. No. 1,081,520; Dec. 16; Gaz. vol. 197; p. 618.
 Sondheimer, Albert, Cleveland, Ohio. Bowling-ball. No. 1,080,307; Dec. 2; Gaz. vol. 197; p. 136.
 Sosa, Augustus M., assignor to The American Tool Works Company, Cincinnati, Ohio. Relieving attachment for lathes. No. 1,081,470; Dec. 16; Gaz. vol. 197; p. 601.
 Sosa, Augustus M., assignor to The American Tool Works Company, Cincinnati, Ohio. Indexing device for crank-lathes. No. 1,081,903; Dec. 23; Gaz. vol. 197; p. 803.
 South Bend Music Holder Manufacturing Company, The. (See Kaufmann, Horace M., assignor.)
 Southern Cotton Gin Company. (See Shepperd, Sylvanus D., assignor.)
 Southern Plow Company. (See Ledbetter, William H., assignor.)
 Southgate Machinery Company. (See Upham, Burt F., assignor.)
 Sowden, Charles N., Guantanamo, Cuba. Spring-wheel. No. 1,082,915; Dec. 30; Gaz. vol. 197; p. 1156.
 Spahr, Otto, assignor to Strause Gas Iron Co., Philadelphia, Pa. Self-heating sad-iron. No. 1,080,600; Dec. 9; Gaz. vol. 197; p. 269.
 Spangler, James M., Canton, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio. Carpet-sweeper. No. 1,081,340; Dec. 16; Gaz. vol. 197; p. 557.
 Spangler, Ludwig, Vienna, Austria-Hungary. Double-decked vehicle. No. 1,083,225; Dec. 30; Gaz. vol. 197; p. 1254.
 Spardel, Emil, Hamburg, Germany. Irrigator. No. 1,082,142; Dec. 23; Gaz. vol. 197; p. 853.
 Sparks, Ralph H., Terre Haute, Ind. Means for improving land. No. 1,083,148; Dec. 30; Gaz. vol. 197; p. 1231.
 Sparks, Thomas H., Wichita, Kans. Device for automatically lifting and supporting automobiles and other vehicles. No. 1,081,165; Dec. 9; Gaz. vol. 197; p. 459.
 Sparks, William, assignor to The Sparks-Withington Company, Jackson, Mich. Ball-bearing. No. 1,080,081; Dec. 2; Gaz. vol. 197; p. 57.
 Sparks, William, assignor to The Sparks-Withington Company, Jackson, Mich. Ball-retainer for ball-bearings. No. 1,080,082; Dec. 2; Gaz. vol. 197; p. 58.
 Sparks-Withington Company, The. (See Sparks, William, assignor.)
 Späth, Carl, Steglitz, near Berlin, Germany, assignor to Eastman Kodak Company, Rochester, N. Y. Manufacture of color-screens. No. 1,081,341; Dec. 16; Gaz. vol. 197; p. 557.
 Spaulding, Franklin, Chicago, Ill. Buttonhole-working attachment for sewing-machines. No. 1,080,729; Dec. 9; Gaz. vol. 197; p. 372.
 Spear, Furman D., assignor to Armspear Manufacturing Company, New York, N. Y. Signal-lamp. No. 1,082,178; Dec. 23; Gaz. vol. 197; p. 865.
 Spellman, John M., et al. (See Higginbotham, Judson L., assignor.)
 Spencer, Francis E., Dover, Okla. Corn-header. No. 1,080,856; Dec. 9; Gaz. vol. 197; p. 359.
 Spencer, George N., Forest Grove, Oreg. Pruning implement. No. 1,082,290; Dec. 23; Gaz. vol. 197; p. 907.
 Spencer, Millard C. (See Gowing and Spencer.)
 Spencer, Ora, Cuero, Tex. Foot-accelerator for automobiles. No. 1,081,166; Dec. 9; Gaz. vol. 197; p. 460.
 Spencer, Ralph G. (See Reynolds, Martin C., assignor.)
 Sperry, Charles F., assignor of one-half to S. Catlin, Chicago, Ill. Polishing device. No. 1,081,002; Dec. 9; Gaz. vol. 197; p. 407.
 Spieckel, Alexander S., Chicago, Ill. Means for applying colored designs to composition roofing. No. 1,082,364; Dec. 23; Gaz. vol. 197; p. 933.
 Spiers, William, Leicester, England. Circular-knitting machine. No. 1,080,857; Dec. 9; Gaz. vol. 197; p. 359.
 Spiess, Georg, Leipzig-Reudnitz, Germany. Device for removing scraps of paper in sheet-sorting machines. No. 1,081,003; Dec. 9; Gaz. vol. 197; p. 407.
 Spiess, Georg, Leipzig-Anger-Crottendorf, Germany. Driving mechanism for movable sheet-feeding guides. No. 1,082,613; Dec. 30; Gaz. vol. 197; p. 1050.
 Spirella Company, The. (See Martin, Eva M., assignor.)
 Spirella Company, The. (See Schuler, David, assignor.)
 Spohrer, Gregory J., assignor to Wilcox Motor Starter Company, Franklin, Pa. Automatic pump. No. 1,081,784; Dec. 16; Gaz. vol. 197; p. 704.
 Sprado, Carl G., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, Cylinder-liner. No. 1,081,257; Dec. 9; Gaz. vol. 197; p. 490.
 Squire, William H., St. Denis, France. Gas-operated gun. No. 1,082,916; Dec. 30; Gaz. vol. 197; p. 1157.
 Squires, Charles W., Beverly, Mass. Circuit-controlling mechanism for electric-railway switches. No. 1,080,730; Dec. 9; Gaz. vol. 197; p. 312.
 St. John, Lee R., Seattle, Wash. Cooking utensil. No. 1,080,561; Dec. 9; Gaz. vol. 197; p. 361.
 St. Louis Cash Register Company. (See Patten, Elmer E., assignor.)
 St. Marie, Amie C. (See Doeringer and St. Marie.)
 Staaf, Werner I., assignor of one-half to E. B. Tyler, Pittsburgh, Pa. Mechanism for weighing liquids. No. 1,082,614; Dec. 30; Gaz. vol. 197; p. 1051.
 Staby, Wilhelm, Ludwigshafen-on-the-Rhine, Germany. Radiator-valve. No. 1,080,858; Dec. 9; Gaz. vol. 197; p. 360.

Stachel, Arthur E., Chicago, Ill. Tire-heater. No. 1,082,367; Dec. 23; Gaz. vol. 197; p. 934.
 Stackhouse, Stephen D., Glenlyon, Pa. Fly-wheel jack. No. 1,082,452; Dec. 23; Gaz. vol. 197; p. 960.
 Stafford Company, The. (See Jackson, Simeon S., assignor.)
 Stake, William, Chicago, Ill. Anvil-base. No. 1,080,238; Dec. 2; Gaz. vol. 197; p. 112.
 Stamm, Ernest W., St. Louis, Mo. Box-fastener. No. 1,080,859; Dec. 9; Gaz. vol. 197; p. 360.
 Stammschulte, Friedrich, Torgau, assignor to Dellwik-Fleischer Wassergas Gesellschaft m. b. H., Frankfurt-on-the-Main, Germany. Recuperator. No. 1,080,383; Dec. 2; Gaz. vol. 197; p. 165.
 Stanbrough, William M., Newburgh, N. Y. Ice-boat. No. 1,082,831; Dec. 30; Gaz. vol. 197; p. 1127.
 Standard Asphalt & Rubber Co. (See Levering, William A., assignor.)
 Standard Chemical Company. (See Whipple, Dorris, assignor.)
 Standard Company, The. (See Graham, James H., assignor.)
 Standard Tool & Manufacturing Company. (See Runner, John B., assignor.)
 Standard Turpentine & Wood Pulp Company. (See Saylor, Benjamin F. A., assignor.)
 Standard Typewriter Company. (See Petermann, Otto, assignor.)
 Stanley Rule & Level Company, The. (See Bodmer and Schade, assignors.)
 Staples, John A., Newburgh, N. Y. Foot-operated control device. No. 1,080,936; Dec. 9; Gaz. vol. 197; p. 386.
 Star, Richard, U. S. Navy. Automatic speed indicating and registering device. No. 1,080,404; Dec. 2; Gaz. vol. 197; p. 201.
 Stark, Charles, Foreston, Minn. Sled. No. 1,082,565; Dec. 30; Gaz. vol. 197; p. 1033.
 Starkenstein, Joseph. (See Snyder and Starkenstein.)
 Starkweather, Henry W., assignor to Winchester Repeating Arms Co., New Haven, Conn. Mushroom-bullet. No. 1,081,065; Dec. 9; Gaz. vol. 197; p. 426.
 Stavinoha, Adolph, Engle, Tex. Harrow and cultivator. No. 1,080,663; Dec. 9; Gaz. vol. 197; p. 289.
 Steadman, Willard G., Jr., Southington, Conn. Tooth-powder container. No. 1,081,785; Dec. 16; Gaz. vol. 197; p. 704.
 Stearns, Charles A., Encinitas, Cal. Coin-holder. No. 1,083,149; Dec. 30; Gaz. vol. 197; p. 1231.
 Stearns, Walter A., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Car-underframe. No. 1,079,958; Dec. 2; Gaz. vol. 197; p. 12.
 Steege, Henry W., Westgate, Iowa. Wagon-holst. No. 1,080,083; Dec. 2; Gaz. vol. 197; p. 58.
 Steege, Henry W., Westgate, Iowa. Corn rack and elevator. No. 1,080,084; Dec. 2; Gaz. vol. 197; p. 58.
 Steel Fireproofing Company. (See Roberts, Edward E., assignor.)
 Steel Railway Tie and Appliance Company, The. (See Shane, George H., assignor.)
 Steele, Charles. (See Willich, John G., assignor.)
 Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,080,239; Dec. 2; Gaz. vol. 197; p. 112.
 Steele, James R., Jr., assignor to Champion Wagon Company, Inc., Owego, N. Y. Dumping-wagon. No. 1,081,167; Dec. 9; Gaz. vol. 197; p. 460.
 Steele, Thomas, assignor to The Columbus Dental Manufacturing Company, Columbus, Ohio. Manufacturing artificial tooth-fronts. No. 1,082,365; Dec. 23; Gaz. vol. 197; p. 933.
 Steele, Thomas, assignor to The Columbus Dental Manufacturing Company, Columbus, Ohio. Interchangeable tooth. No. 1,082,366; Dec. 23; Gaz. vol. 197; p. 934.
 Steere, Albert L. and C. H., Petersburg, Va. Machine for shelling and grading peanuts. No. 1,083,150; Dec. 30; Gaz. vol. 197; p. 1231.
 Steere, Charles H. (See Steere, Albert L. and C. H.)
 Steffen, Adolf, et al. (See Gabrys, Georg, assignor.)
 Steger & Sons Piano Manufacturing Company. (See Swanson, Emil, assignor.)
 Stein, Anton. (See Parmentier, George, assignor.)
 Stein, Joseph. (See Matthews and Stein.)
 Steinbecker, Karl, Charlottenburg, Germany, assignor to General Electric Company. Valve-gear for internal-combustion engines. No. 1,080,495; Dec. 2; Gaz. vol. 197; p. 202.
 Steinhilber, Fred, and C. Slemenda, Pittsburgh, Pa. Rail-joint. No. 1,083,036; Dec. 30; Gaz. vol. 197; p. 1195.
 Steinbrueck, John C., Mandan, N. D. Packing-ring. No. 1,083,151; Dec. 30; Gaz. vol. 197; p. 1231.
 Steinhilber, Frank J., Philadelphia, Pa. Window-cleaner. No. 1,081,004; Dec. 9; Gaz. vol. 197; p. 408.
 Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Arc-lamp electrode. No. 1,082,978; Dec. 30; Gaz. vol. 197; p. 1177.
 Stephens, Eliza A., Portland, Oreg., assignor to International Manufacturing & Mining Co. Dry concentrator. No. 1,083,152; Dec. 30; Gaz. vol. 197; p. 1232.
 Stephens, Roscoe W., Maricopa, Cal. Dynamometer for casing-screwers and other purposes. No. 1,080,937; Dec. 9; Gaz. vol. 197; p. 386.

Stephenson, Charles G., Denver, Colo. Spring front fork for motor-cycles. No. 1,082,775; Dec. 30; Gaz. vol. 197; p. 1108.
 Sternau & Co., S. (See Nelson, Charles, assignor.)
 Sternecker, Louis, Brooklyn, N. Y. Barrel or receptacle. No. 1,080,601; Dec. 9; Gaz. vol. 197; p. 269.
 Stevens, Arthur J., and J. H. Horne, assignors to The Barney and Smith Car Company, Dayton, Ohio. Car. No. 1,080,024; Dec. 2; Gaz. vol. 197; p. 37.
 Stevens, David, Seattle, Wash. Railway-tie. No. 1,083,037; Dec. 30; Gaz. vol. 197; p. 1195.
 Stevens, Hansford C., Jenkins, Ky. Combination-lock. No. 1,083,226; Dec. 30; Gaz. vol. 197; p. 1254.
 Stevens, Richard H., Syracuse, assignor to L. E. Waterman Company, New York, N. Y. Fountain-pen. No. 1,080,176; Dec. 2; Gaz. vol. 197; p. 90.
 Stevens, William C., assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Device for building tires on rims. No. 1,080,860; Dec. 9; Gaz. vol. 197; p. 360.
 Stewart, Lewis E., Muncie, Ind. Fuse for electric cut-outs. No. 1,080,496; Dec. 2; Gaz. vol. 197; p. 202.
 Stewart Hartshorn Company. (See Hartshorn, Edmund F., assignor.)
 Stewart, John K., Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation. Speedometer. No. 1,080,308; Dec. 2; Gaz. vol. 197; p. 136.
 Stewart, John K., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Thermostatic device for varying magnetic field. No. 1,082,566; Dec. 30; Gaz. vol. 197; p. 1033.
 Stewart, McElmer, assignor to Automatic Tire Rest Company, Kansas City, Mo. Means for lifting and turning automobiles. No. 1,080,384; Dec. 2; Gaz. vol. 197; p. 166.
 Stewart-Warner Speedometer Corporation. (See Stewart, John K., assignor.)
 Stewart, William J., New York, N. Y. Porcelain tooth and backing for dental bridgework. No. 1,082,776; Dec. 30; Gaz. vol. 197; p. 1109.
 Stickley, Marcus A., Strasburg, Va. Frameless gate. No. 1,080,497; Dec. 2; Gaz. vol. 197; p. 202.
 Stiggins, Edward A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Lasting-machine. No. 1,081,872; Dec. 16; Gaz. vol. 197; p. 734.
 Still, Carl, Recklinghausen, Germany. Apparatus for stirring and mixing liquids. No. 1,080,177; Dec. 2; Gaz. vol. 197; p. 90.
 Still, Carl, Recklinghausen, Germany. Recovery of tar and ammonia from coal-gas. No. 1,080,938; Dec. 9; Gaz. vol. 197; p. 387.
 Stilling, William J., Elmhurst, assignor to Hecla-Winslow Company, Inc., Brooklyn, N. Y. Device for operating and locking elevator-doors. No. 1,081,873; Dec. 16; Gaz. vol. 197; p. 734.
 Stillings, Franklin E., assignor of one-third to M. J. Green and one-third to J. A. Alexander, El Paso, Tex. Film-feeding machine. No. 1,083,227; Dec. 30; Gaz. vol. 197; p. 1255.
 Stillman, Herbert L., Westerly, R. I. Tire for vehicle-wheels. No. 1,080,385; Dec. 2; Gaz. vol. 197; p. 166.
 Stillwell, Lewis B., Lakewood, and F. N. Waterman, Summit, N. J. Electric traction system. No. 1,081,342; Dec. 16; Gaz. vol. 197; p. 558.
 Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Loom-shuttle. No. 1,082,049; Dec. 23; Gaz. vol. 197; p. 823.
 Stimpson, Edwin B., Brooklyn, N. Y. Setting-machine. No. 1,079,998; Dec. 2; Gaz. vol. 197; p. 26.
 Stitzer, George W., Mahanoy City, Pa. Shipping-case. No. 1,082,567; Dec. 30; Gaz. vol. 197; p. 1034.
 Stockman, Henry. (See Brown, Henry C., assignor.)
 Stoffel, Fernand, Paris, France, assignor, by mesne assignments, to Vacuum Hand Blocking Co. Inc., New York, N. Y. Apparatus for rapidly shaping hats. No. 1,080,731; Dec. 9; Gaz. vol. 197; p. 313.
 Stoker, Arthur E., Buffalo, Ill. Valve-remover. No. 1,082,917; Dec. 30; Gaz. vol. 197; p. 1157.
 Stokes, Francis J., Philadelphia, Pa. Feeding material to and from vacuum-driers. No. 1,080,602; Dec. 9; Gaz. vol. 197; p. 269.
 Stokes, William E. D., et al. (See Larsson, Thure, assignor.)
 Stolle & Kopke. (See Russ, Rudolf, assignor.)
 Stone, Arthur W., Swanton, Vt. Pen and pencil clip. No. 1,080,603; Dec. 9; Gaz. vol. 197; p. 270.
 Stone, Arthur W., Swanton, Vt. Button-fastener. No. 1,080,604; Dec. 9; Gaz. vol. 197; p. 270.
 Stone, Julius F. (See Jones and Miller, assignors.)
 Stone, Leonard M., Pilot Grove, Mo. Gate-operating mechanism. No. 1,082,050; Dec. 23; Gaz. vol. 197; p. 823.
 Stone, Melvin L., Waterville, Me., assignor to Draper Company, Hopedale, Mass. Weft-carrier chute for automatic weft-replenishing looms. No. 1,082,051; Dec. 23; Gaz. vol. 197; p. 824.
 Stone-Trost Axle Company, The. (See Probst, Karl, assignor.)
 Stoner, Benjamin F., deceased, Newark, N. J.; E. V. Stoner, administratrix. Airship. No. 1,080,498; Dec. 2; Gaz. vol. 197; p. 203.
 Stoner, Ella V., administratrix. (See Stoner, Benjamin F.)

Storrs, Aaron P., assignor to Storrs Mica Company, Owego, N. Y. Mica cylinder for inverted gas-mantles. No. 1,081,343; Dec. 16; Gaz. vol. 197; p. 558.
 Storrs Mica Company. (See Storrs, Aaron P., assignor.)
 Stout, Adison A. (See Lockwood and Stout.)
 Stovall, Smith L., Visalia, Cal. Concrete ditch. No. 1,080,499; Dec. 2; Gaz. vol. 197; p. 203.
 Stover, Frank C. (See Farrand, Albert C., assignor.)
 Strang, Robert H. W., Bridgeport, Conn. Instrument for recording changes in tooth-regulating appliances. No. 1,082,052; Dec. 23; Gaz. vol. 197; p. 824.
 Stratton, Harry F., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Controller for electric motors. No. 1,080,126; Dec. 2; Gaz. vol. 197; p. 73.
 Strause Gas Iron Co. (See Spahr, Otto, assignor.)
 Streich, Frank, Joliet, Ill. Bread-wrapper sealer. No. 1,081,560; Dec. 16; Gaz. vol. 197; p. 631.
 Stringham, John H., assignor to American Combustion Company, Jersey City, N. J. Nebulizer of liquids. No. 1,082,777; Dec. 30; Gaz. vol. 197; p. 1109.
 Stritter, Otto, assignor to Akt. Ges. Mix & Genest, Telephon & Telegraphenwerke, Schöneberg-Berlin, Germany. Electrical means for producing sound. No. 1,081,635; Dec. 16; Gaz. vol. 197; p. 653.
 Strodel, Frank A., Syracuse, N. Y. Match-box. No. 1,083,153; Dec. 30; Gaz. vol. 197; p. 1232.
 Strohm, Charles F., Carthage, Mo. Resilient tire. No. 1,082,453; Dec. 23; Gaz. vol. 197; p. 960.
 Strom, Abraham A. (See Parker and Strom.)
 Strong, James E., Wilmington, Del. Cushioning device for tires. No. 1,081,005; Dec. 9; Gaz. vol. 197; p. 408.
 Stuart, Romus F. (See Stuart, William F., assignor.)
 Stuart, William F., Garden City, Kans., assignor of one-half to R. F. Stuart, Indianapolis, Ind. Siphon and starting device therefor. No. 1,083,228; Dec. 30; Gaz. vol. 197; p. 1255.
 Stuckel, Jacob. (See Larison and Stuckel.)
 Stucki, Arnold, Pittsburgh, Pa. Roller side bearing. No. 1,082,179; Dec. 23; Gaz. vol. 197; p. 866.
 Studdert, Richard, Westminster, London, England. Manufacture of travelling-trunks and similar receptacles. No. 1,083,154; Dec. 30; Gaz. vol. 197; p. 1232.
 Stum, Samuel A., San Francisco, Cal. Trap for gas-mains and the like. No. 1,082,216; Dec. 23; Gaz. vol. 197; p. 879.
 Styve, Lucy, Albert Lea, Minn. Head and arm rest. No. 1,080,732; Dec. 9; Gaz. vol. 197; p. 313.
 Sublett, Benjamin T., Danville, Va. Tobacco-plug extractor. No. 1,081,786; Dec. 16; Gaz. vol. 197; p. 705.
 Sullivan, William H., deceased, by A. S. Chase, administratrix, Kansas City, Mo., assignor of one-half to E. P. Clace, Shawnee, Kans. Steam-engine. No. 1,081,787; Dec. 16; Gaz. vol. 197; p. 705.
 Summa, Victor M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-underframe. No. 1,080,178; Dec. 2; Gaz. vol. 197; p. 90.
 Summers, Bertrand S., assignor, by mesne assignments, to Summers Linen Company, Port Huron, Mich. Mechanism for treating the straw of flax and the like. No. 1,082,778; Dec. 30; Gaz. vol. 197; p. 1110.
 Summers Linen Company. (See Summers, Bertrand S., assignor.)
 Sumrall, Nevada W., and R. C. Bigham, Rogers, Tex. Stalk-cutting attachment for plows. No. 1,081,521; Dec. 16; Gaz. vol. 197; p. 619.
 Sumter Electrical Company. (See Mason, Charles T., assignor.)
 Sumter Electrical Company. (See Remy, Benjamin P. and F. L., assignors.)
 Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Mechanical variable power and speed gear for transmission. No. 1,081,636; Dec. 16; Gaz. vol. 197; p. 654.
 Surgical Supply Importing Company, The. (See Romeo, Pasquale, assignor.)
 Sutherland, Franklin T. (See Bailey, James F., assignor.)
 Suttle, James H., Keokuk, Iowa. Baton, staff, or cane. No. 1,081,168; Dec. 9; Gaz. vol. 197; p. 460.
 Swan, George B., Cross Plains, Tex. Lever mechanism for baling-presses. No. 1,082,454; Dec. 23; Gaz. vol. 197; p. 961.
 Swan, Henry R., Huntington, W. Va. Car-coupling. No. 1,081,066; Dec. 9; Gaz. vol. 197; p. 426.
 Swanson, Benjamin B., Portage, Pa. Safety-barrier for windows. No. 1,082,368; Dec. 23; Gaz. vol. 197; p. 934.
 Swanson, Emil, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Hammer-rest-rail-operating device for player-pianos. No. 1,082,369; Dec. 23; Gaz. vol. 197; p. 935.
 Swanson, John C., Buffalo, Minn. Sickle-drive for mowing-machines and harvesters. No. 1,082,659; Dec. 30; Gaz. vol. 197; p. 1065.
 Swanton, Harvey T., Rubicon, Wis. Fowl-decapitating device. No. 1,081,411; Dec. 16; Gaz. vol. 197; p. 581.
 Swartelander, Henry, Oil City, Pa. Oil-heater. No. 1,082,370; Dec. 23; Gaz. vol. 197; p. 935.
 Sweeney, Joseph, Middletown, Ohio. Book-umbrella. No. 1,080,025; Dec. 2; Gaz. vol. 197; p. 37.
 Sweet, Welcome F. (See Smith, Martin P., assignor.)
 Swift, Willis C., Coshocton, Ohio. Apparatus for making pipe-molds. No. 1,079,959; Dec. 2; Gaz. vol. 197; p. 12.

Swindell, Edward, Apalachicola, Fla. Cotton-picker. No. 1,080,127; Dec. 2; Gaz. vol. 197; p. 73.

Swinehart, Tire and Rubber Company, The. (See Edmonds, Charles A., assignor.)

Symons Brothers Company. (See Symons, Josiah E., assignor.)

Symons, Josiah E., assignor to Symons Brothers Company, Milwaukee, Wis. Single-shaft disks. No. 1,083,229; Dec. 30; Gaz. vol. 197; p. 1256.

Szymonska, Mary, Carlos, Tex. Cuspidor. No. 1,082,371; Dec. 23; Gaz. vol. 197; p. 935.

Tacoma, Johannes. (See Vleeschouwer and Tacoma.)

Taggart, George H., Buffalo, N. Y. Stop mechanism for phonographs. No. 1,080,386; Dec. 2; Gaz. vol. 197; p. 166.

Taigman, Max, New York, N. Y. Brake for electric-motor-operated machines. No. 1,080,387; Dec. 2; Gaz. vol. 197; p. 167.

Taigman, Max, New York, N. Y. Electric-motor driving unit. No. 1,080,388; Dec. 2; Gaz. vol. 197; p. 167.

Taintor, Jeremiah R., Menomonee, Wis. Dam. No. 1,082,291; Dec. 23; Gaz. vol. 197; p. 907.

Talbot, Albert F., Christchurch, New Zealand. Braced step-ladder. No. 1,082,832; Dec. 30; Gaz. vol. 197; p. 1127.

Tangjer, Peder, Eau Claire, Wis. Pocket communion set. No. 1,082,710; Dec. 30; Gaz. vol. 197; p. 1084.

Tanner, Frank G. (See Bigbie and Tanner.)

Taunton Knitting Company. (See Hilkert, Fred C., assignor.)

Taylor, Albert H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Hammer-drill. No. 1,081,637; Dec. 16; Gaz. vol. 197; p. 654.

Taylor, Charles L., San Francisco, Cal. Checkrein-lock. No. 1,083,155; Dec. 30; Gaz. vol. 197; p. 1233.

Taylor, George A., Lynn, Mass. Tool-holder. No. 1,083,280; Dec. 30; Gaz. vol. 197; p. 1256.

Taylor, Harold H., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor-reversing means. No. 1,080,926; Dec. 2; Gaz. vol. 197; p. 37.

Taylor, Huston, Rochester, N. Y. Vacuum-producing device. No. 1,082,568; Dec. 30; Gaz. vol. 197; p. 1034.

Taylor, Huston, Pittsford, N. Y., and J. H. Taylor, Chicago, Ill., assignors, by mesne assignments, to H. N. Carpenter. Pen-filling device. No. 1,082,711; Dec. 30; Gaz. vol. 197; p. 1085.

Taylor, James H. (See Taylor, Huston and J. H.)

Taylor, John D., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Electric signaling system. (Reissue.) No. 1,083,663; Dec. 23; Gaz. vol. 197; p. 973.

Taylor, Perry E., Schoharie, N. Y. Stenographic-book holder. No. 1,082,979; Dec. 30; Gaz. vol. 197; p. 1177.

Taylor-Wilson Manufacturing Company. (See Beuninghoff, William G., assignor.)

Tedford, Joshua. (See Lytton and Tedford.)

Teichmann, Albert, Zeitz, Germany. Recovering graphite from worn-out crucibles. No. 1,080,085; Dec. 2; Gaz. vol. 197; p. 58.

Telle, Edwin, New Orleans, La. Manufacturing dental plates. No. 1,083,156; Dec. 30; Gaz. vol. 197; p. 1233.

Templin, Joseph H., Philadelphia, Pa. Discharging device for vacuum-cleaners. No. 1,080,789; Dec. 9; Gaz. vol. 197; p. 334.

Terashima, Noboru, Shinnakadori, Japan. Shuttle. No. 1,081,169; Dec. 9; Gaz. vol. 197; p. 461.

Terry, Helen H., Southampton, N. Y. Combined work-bag and reticule. No. 1,081,788; Dec. 16; Gaz. vol. 197; p. 705.

Terry, Louis K., Cooks, N. Mex. Hanger for miners' lamps. No. 1,082,779; Dec. 30; Gaz. vol. 197; p. 1110.

Tessler, Julien, assignor to Lubin Manufacturing Company, Philadelphia, Pa. Tripod-head. No. 1,082,053; Dec. 23; Gaz. vol. 197; p. 825.

Teter, Charles K., and D. A. Davies, assignors to The Teter Manufacturing Company, Cleveland, Ohio. Apparatus for heating nitrous-oxid-administering appliances. No. 1,082,482; Dec. 23; Gaz. vol. 197; p. 969.

Teter Manufacturing Company, The. (See Teter and Davies, assignors.)

Tewksbury, Russell B., assignor to The Oster Manufacturing Company, Cleveland, Ohio. Die-stock. No. 1,082,292; Dec. 23; Gaz. vol. 197; p. 908.

Tewksbury, Russell B., and H. W. Oster, assignors to The Oster Manufacturing Company, Cleveland, Ohio. Die-stock. No. 1,082,282; Dec. 23; Gaz. vol. 197; p. 904.

Texin, Reubin. (See Yolin and Texin.)

Thackaberry, Forrest G., Tampico, Ill. Inductance-coll. No. 1,080,605; Dec. 9; Gaz. vol. 197; p. 270.

Thaus, Alfred, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Blue sulfur dye. No. 1,081,638; Dec. 16; Gaz. vol. 197; p. 654.

Thayer, Ellis T., Jr., Charleston, W. Va. Gas cut-off. No. 1,080,889; Dec. 2; Gaz. vol. 197; p. 168.

Thayer, Harry M., Woodbury, Ill. Sectional roof construction for silos. No. 1,083,157; Dec. 30; Gaz. vol. 197; p. 1233.

Theberath, Joseph C. (See Rowe, Smack, and Theberath.)

Thew Automatic Shovel Company, The. (See Harris, Hollis H., assignor.)

Thiel, Otto, Landstuhl, Germany. Converter process. No. 1,080,606; Dec. 9; Gaz. vol. 197; p. 270.

Thiele, Albrecht, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Pharmaceutical compound. No. 1,082,780; Dec. 30; Gaz. vol. 197; p. 1110.

Thielenhaus, Otto, New York, N. Y. Hat-fastener. No. 1,082,180; Dec. 23; Gaz. vol. 197; p. 866.

Thomas, Charles, Joliet, Ill. Shaft-boxing. No. 1,082,293; Dec. 23; Gaz. vol. 197; p. 908.

Thomas, Charles B., Watts, S. C. Planter. No. 1,080,790; Dec. 9; Gaz. vol. 197; p. 335.

Thomas, George B., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Electric switch. No. 1,081,789; Dec. 16; Gaz. vol. 197; p. 705.

Thomas, Harry, et al. (See Moore, Justus J., assignor.)

Thomas, Herbert A., Bellaire, Mich. Drying-rack. No. 1,080,086; Dec. 2; Gaz. vol. 197; p. 59.

Thomas, John, Kingman, Ind. Automatic lamp-adjuster. No. 1,081,522; Dec. 16; Gaz. vol. 197; p. 619.

Thomas, Joseph H., Independence, Colo. Mine-car lubricator. No. 1,080,500; Dec. 2; Gaz. vol. 197; p. 203.

Thomas, Norman A., Staples, Minn. Supplemental car-step. No. 1,081,874; Dec. 16; Gaz. vol. 197; p. 735.

Thomas, Valentine. (See Baker, Porter C., assignor.)

Thomas, William D. (See Hanson and Thomas.)

Thomas, William L., Wheatley, assignor to The Smoke Eliminator Syndicate Limited, London, England. Apparatus for the treatment of smoke from furnaces and the like. No. 1,082,245; Dec. 23; Gaz. vol. 197; p. 890.

Thompson, Anna B., et al. (See Smith, Warren, assignor.)

Thompson, Clifford R., Jay, Me. Fruit-tree prop. No. 1,081,170; Dec. 9; Gaz. vol. 197; p. 461.

Thompson, Emory, New Rochelle, assignor to Emery Thompson Machine and Supply Co., New York, N. Y. Ice-cream freezer. No. 1,081,790; Dec. 16; Gaz. vol. 197; p. 706.

Thompson, John W., Washington, D. C. Muzzle. No. 1,082,372; Dec. 23; Gaz. vol. 197; p. 935.

Thompson, Nelson W. (See Peetz, McDanel, and Thompson.) (Reissue.)

Thompson, Peter. (See Roshon, Israel A., assignor.)

Thompson, Stephen G., Jersey City, N. J. Battery-supporting cradle for vehicles. No. 1,081,706; Dec. 16; Gaz. vol. 197; p. 676.

Thompson, Thomas L., Kingfisher, Okla. Churn. No. 1,083,158; Dec. 30; Gaz. vol. 197; p. 1233.

Thomson, Elihu, Swampscott, Mass. assignor to General Electric Company. Valve mechanism for engines. No. 1,080,733; Dec. 9; Gaz. vol. 197; p. 313.

Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Condensing apparatus. No. 1,080,734; Dec. 9; Gaz. vol. 197; p. 314.

Thomson, John, New York, N. Y. Electric zinc-furnace with integral condenser. No. 1,080,862; Dec. 9; Gaz. vol. 197; p. 361.

Thomson, John, New York, N. Y. Electric zinc-furnace with integral condenser. No. 1,080,863; Dec. 9; Gaz. vol. 197; p. 361.

Thomson, John, New York, N. Y. Electric zinc-furnace with integral compound condenser. No. 1,080,864; Dec. 9; Gaz. vol. 197; p. 361.

Thomson, John, New York, N. Y. Electrical zinc-furnace with integral condenser. No. 1,080,865; Dec. 9; Gaz. vol. 197; p. 362.

Thomson, John, New York, N. Y. Electric zinc-furnace with integral condenser. No. 1,080,866; Dec. 9; Gaz. vol. 197; p. 362.

Thomson, John A., assignor of one-third to J. H. Howard and one-third to J. L. Howard, Allentown, Pa. Inner tire. No. 1,082,660; Dec. 30; Gaz. vol. 197; p. 1066.

Thomson, Robert, Pollokshields, Glasgow, Scotland. Pile, pier, wharf, and like structure. No. 1,081,171; Dec. 9; Gaz. vol. 197; p. 461.

Thomson, Thomas N., Scranton, Pa., assignor, by mesne assignments, to Hoover-Incubator Manufacturing Company. Incubator. No. 1,082,980; Dec. 30; Gaz. vol. 197; p. 1178.

Thoreson, Harry M., Yankton county, near Irene, S. D. Mechanism to prevent the stripping of transmission-gears. No. 1,081,667; Dec. 9; Gaz. vol. 197; p. 427.

Thornton, Harold S., assignor to The Diamond Light and Heating Company of Canada, Limited, Montreal, Quebec, Canada. Burner. No. 1,082,294; Dec. 23; Gaz. vol. 197; p. 908.

Thropp, Peter D., assignor to The De Laski & Thropp Circular Woven Tire Company, Trenton, N. J. Vulcanizing-mold. No. 1,082,373; Dec. 23; Gaz. vol. 197; p. 936.

Tibbals, Walter H., assignor to Fyro Extinguisher Company, Syracuse, N. Y. Holder for hand fire-extinguishers. No. 1,083,159; Dec. 30; Gaz. vol. 197; p. 1234.

Tibbs, Angus, assignor of one-half to J. F. Page and one-fourth to W. P. Henderson, Uniontown, Pa. Automatic thermal cut-off for gas-burners. No. 1,082,712; Dec. 30; Gaz. vol. 197; p. 1085.

Tibyrick, Luiz W., São Paulo, Brazil. Conveyor. No. 1,080,501; Dec. 2; Gaz. vol. 197; p. 203.

Tidd, Winthrop L., Taunton, Mass. Combined wrist-strap and coin-holder. No. 1,080,240; Dec. 2; Gaz. vol. 197; p. 113.

Tiffany, Edward L., and F. S. Loomis, Hoboken, N. J. Cadet gun and rifle. No. 1,080,939; Dec. 9; Gaz. vol. 197; p. 387.

Tift, William A., Friday Harbor, Wash. Gas-engine. No. 1,082,569; Dec. 30; Gaz. vol. 197; p. 1034.

Tileston, Henry M., deceased, Chicago, Ill.; J. F. Devine, administrator. Axle for vehicle-wheels. No. 1,082,246; Dec. 23; Gaz. vol. 197; p. 890.

Tilton, John W., Atlantic City, N. J. Curtain-fastener. No. 1,082,455; Dec. 23; Gaz. vol. 197; p. 961.

Tink, John H., Mordialloc, Victoria, Australia. Handle for kerosene-tins and the like. No. 1,081,344; Dec. 16; Gaz. vol. 197; p. 558.

Tipp Building and Manufacturing Company, The. (See Ritter, Henry J., assignor.)

Titanium Alloy Manufacturing Company, The. (See Rossi, Auguste J., assignor.)

Titanium Alloy Manufacturing Company, The. (See Schroeder, Christian M. E., assignor.)

Tolchin, Ruby, St. Louis, Mo. Ear-stud fastener. No. 1,080,735; Dec. 9; Gaz. vol. 197; p. 315.

Toledo Computing Scale Company. (See Bancroft, James E., assignor.)

Toledo Parlor Furniture Company, The. (See Kloppling, Adolph C., assignor.)

Tollerton, William J., Chicago, Ill. Car construction. No. 1,082,247; Dec. 23; Gaz. vol. 197; p. 891.

Tollstam, Oscar W., assignor to J. N. Murray, Chicago, Ill. Card-case. No. 1,079,960; Dec. 2; Gaz. vol. 197; p. 13.

Tolman, Scott H., Boston, Mass. Torch. No. 1,082,713; Dec. 30; Gaz. vol. 197; p. 1086.

Toney, Frederick A., Greenacres, Wash. Combination-planter. No. 1,081,345; Dec. 16; Gaz. vol. 197; p. 659.

Tornajo, Gustaf E., St. Paul, Minn. Nutmeg-grater. No. 1,082,918; Dec. 30; Gaz. vol. 197; p. 1157.

Tower, Walter S. (See Franz, Tower, and Wells.)

Towle, Gustavus A. (See Northrop and Towle.)

Townsend, David. (See Melas, William, assignor.)

Tozer, Luke, Iola, Kans. Oil-burner. No. 1,081,994; Dec. 23; Gaz. vol. 197; p. 804.

Tracy, Harris A., Boston, Mass. Folding bed. No. 1,080,867; Dec. 9; Gaz. vol. 197; p. 362.

Tramel, Charles, Hotchkiss, Colo. Wagon-bolster. No. 1,081,346; Dec. 16; Gaz. vol. 197; p. 559.

Tregoning Electric Manufacturing Company, The. (See Tregoning, William C., assignor.)

Tregoning, William C., assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio. Electric-lamp socket. No. 1,082,181; Dec. 23; Gaz. vol. 197; p. 867.

Tri-Eye Hook & Eye Company. (See Marquand, Philip, assignor.)

Trick, William J., Hamilton, Ohio. Cupola. No. 1,080,241; Dec. 2; Gaz. vol. 197; p. 113.

Trinder, Claude E., Manlius, N. Y. Valve. No. 1,080,791; Dec. 9; Gaz. vol. 197; p. 335.

Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,081,172; Dec. 9; Gaz. vol. 197; p. 462.

Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,081,761; Dec. 16; Gaz. vol. 197; p. 706.

Triplett, James, assignor of one-half to A. D. Patteson, Columbia, Ky. Manuscript-holder. No. 1,080,502; Dec. 2; Gaz. vol. 197; p. 204.

Tripp, Eliphaz A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-attaching machine. No. 1,081,917; Dec. 16; Gaz. vol. 197; p. 748.

Trisler, Samuel E., Dayton, Ohio. Lamp. No. 1,081,875; Dec. 16; Gaz. vol. 197; p. 735.

Triumph Voting Machine Company. (See Abbott, Charles C., assignor.)

Triumph Voting Machine Company, The. (See Dean, James H., assignor.)

Triumph Voting Machine Company. (See Lausterer, William J., assignor.)

Trollhättans Elektrottermiska Aktiebolag. (See Olsson, Karl O. E., assignor.)

Tubbs, Lena, Charleston, S. C. Tooth-brush. No. 1,082,919; Dec. 30; Gaz. vol. 197; p. 1158.

Tubular Rivet & Stud Company. (See Brown, George W., assignor.)

Tucker, Frank S., and F. M. Laxton, Charlotte, N. C. Shoe-heel protector. No. 1,081,412; Dec. 16; Gaz. vol. 197; p. 681.

Tucker, Harry, assignor of one-half to P. Kovsky, Philadelphia, Pa. Key-duplicating machine. No. 1,081,471; Dec. 16; Gaz. vol. 197; p. 601.

Tucker, Harry, assignor of one-half to P. Kovsky, Philadelphia, Pa. Key-duplicating clamp. No. 1,081,472; Dec. 16; Gaz. vol. 197; p. 601.

Tucker, Martin L. N. (See Laroche and Tucker.)

Tucker, William H., Boston, Mass. Liquid-receptacle. No. 1,082,661; Dec. 30; Gaz. vol. 197; p. 1066.

Tueckmantel, Hugo, Irvington, N. J., assignor to The R. Neumann Hardware Co. Bag-fastener. No. 1,080,792; Dec. 9; Gaz. vol. 197; p. 336.

Turner, Clarence C., assignor of one-half to G. Yale, Portland, Ore. Automatic signaling and train-stopping device. No. 1,080,087; Dec. 2; Gaz. vol. 197; p. 59.

Turner, Clarence C., assignor of one-half to G. Yale, Portland, Ore. Automatic signaling and train-stopping combination circuit device. No. 1,080,088; Dec. 2; Gaz. vol. 197; p. 59.

Turner, George T., assignor of one-half to R. B. Hall, Ione, Wash. Fish-spear. No. 1,080,868; Dec. 9; Gaz. vol. 197; p. 363.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pressure-retaining-valve device. No. 1,081,347; Dec. 16; Gaz. vol. 197; p. 559.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electro-pneumatic control-valve mechanism. No. 1,082,295; Dec. 23; Gaz. vol. 197; p. 909.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake device. No. 1,082,296; Dec. 23; Gaz. vol. 197; p. 909.

Tuttle, Washington I., Baltimore, Md., assignor to The American Tobacco Company, New York, N. Y. Metallic box. No. 1,080,179; Dec. 2; Gaz. vol. 197; p. 91.

Tuttle, Washington I., Baltimore, Md., assignor to The American Tobacco Company, New York, N. Y. Metallic box. No. 1,080,180; Dec. 2; Gaz. vol. 197; p. 91.

Twitcheil, Ernst, Wyoming, Ohio. Manufacturing fatty acids and glycerine. No. 1,082,662; Dec. 30; Gaz. vol. 197; p. 1066.

Tyden, Emil, Hastings, Mich. Seal. No. 1,080,181; Dec. 2; Gaz. vol. 197; p. 91.

Tyden, Emil, Hastings, Mich. Seal. No. 1,080,182; Dec. 2; Gaz. vol. 197; p. 92.

Tyden, Emil, Hastings, Mich. Seal-locked can. No. 1,080,183; Dec. 2; Gaz. vol. 197; p. 92.

Tyden, Emil, Hastings, Mich. Seal for seal-locks. No. 1,080,184; Dec. 2; Gaz. vol. 197; p. 93.

Tyden, Emil, Hastings, Mich. Seal-lock. No. 1,080,185; Dec. 2; Gaz. vol. 197; p. 93.

Tyden, Emil, Hastings, Mich. Car-seal lock. No. 1,080,186; Dec. 2; Gaz. vol. 197; p. 93.

Tyden, Emil, Hastings, Mich. Hasp seal-lock. No. 1,080,242; Dec. 2; Gaz. vol. 197; p. 113.

Tyler, Clarence E., Newark, N. J., assignor to S. E. T. Valve & Hydrant Company, New York, Inc., New York, N. Y. Curb-box. No. 1,081,281; Dec. 9; Gaz. vol. 197; p. 499.

Tyler, Edward B. (See Staaf, Werner L., assignor.)

Tyvacana Farms Poultry Company. (See Hammond, Robert O., assignor.)

U. S. Mechanical Draft Company, The. (See Harley and Long, assignors.)

Uebel, Carl, Heidelberg, Germany. Dehalogenization of halogeniferous nitrates. No. 1,082,781; Dec. 30; Gaz. vol. 197; p. 1110.

Ullman, Joseph H., New Haven, assignor, by mesne assignments, to The King Machine Company, Bridgeport, Conn. Ironing-machine. No. 1,083,038; Dec. 30; Gaz. vol. 197; p. 1196.

Ulrich, Julius M., and W. Bahr, Jr., Manitowoc, Wis.; said Ulrich assignor to said Bahr. Carbureter. No. 1,081,258; Dec. 9; Gaz. vol. 197; p. 491.

Ulrich, Samuel A., Mendota, Mo. Gearing for stretchers. No. 1,080,503; Dec. 2; Gaz. vol. 197; p. 204.

Underwood Automatic Typewriter Pay Station Company. (See Bates, Harry, assignor.)

Underwood, Robert L., Denver, Colo. Pipe-wrench. No. 1,080,607; Dec. 9; Gaz. vol. 197; p. 270.

Underwood, Thomas J., Peoria, Ill. Lawn-trimmer. No. 1,082,570; Dec. 30; Gaz. vol. 197; p. 1035.

Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)

Underwood Typewriter Company. (See Lockwood, Marquis H., assignor.)

Underwood Typewriter Company. (See McLaughlin, John C., assignor.)

Underwood Typewriter Company. (See Vogel, Charles H., assignor.)

Union Gas Engine Company. (See Corson, William L., assignor.)

Union Metallic Cartridge Company, The. (See Hoagland, Frank O., assignor.)

Union Metallic Cartridge Company, The. (See Rylands, Thomas H., assignor.)

Union Paper Bag Machine Company. (See Lorenz, William A., assignor.)

Union Special Machine Company. (See Hayes, John, assignor.)

Union Special Machine Company. (See McNelly, Joseph, assignor.)

Union Special Machine Company. (See Moffatt, James R., assignor.)

Union Special Machine Company. (See Seymour, Dudley S., assignor.)

Union Switch & Signal Company, The. (See Taylor, John D., assignor.) (Reissue.)

United Gas Improvement Company, The. (See Nevanas, Harold H., assignor.)

United Shoe Machinery Company. (See Ashworth, Fred, assignor.)

United Shoe Machinery Company. (See Bates, Arthur, assignor.)

United Shoe Machinery Company. (See Baxter, William C., assignor.)

United Shoe Machinery Company. (See Beaumont, Ernest C., assignor.)

United Shoe Machinery Company. (See Brock, Matthias, assignor.)

United Shoe Machinery Company. (See Eaton, William G., assignor.)

United Shoe Machinery Company. (See Eppler, Andrew, assignor.)

ALPHABETICAL LIST OF PATENTEEES.

United Shoe Machinery Company. (See Flynt, Louis W. G., assignor.)
 United Shoe Machinery Company. (See Furber, Frederick M., assignor.)
 United Shoe Machinery Company. (See Gordon, William, assignor.)
 United Shoe Machinery Company. (See Gouldbourn and Hallam, assignors.)
 United Shoe Machinery Company. (See Hadaway, John B., assignor.)
 United Shoe Machinery Company. (See Harmon, Frank L., assignor.)
 United Shoe Machinery Company. (See Hill, George S., assignor.)
 United Shoe Machinery Company. (See Jacobs, Ernest C., assignor.)
 United Shoe Machinery Company. (See Johnson, Albert E., assignor.)
 United Shoe Machinery Company. (See Keats, Socrates, assignor.)
 United Shoe Machinery Company. (See Kenway, Herbert W., assignor.)
 United Shoe Machinery Company. (See La Chapelle, Fred N., assignor.)
 United Shoe Machinery Company. (See Locke, Frank D., assignor.)
 United Shoe Machinery Company. (See Lyon, Harry, assignor.)
 United Shoe Machinery Company. (See MacKenzie, Fred L., assignor.)
 United Shoe Machinery Company. (See Parker, Chandler L., assignor.)
 United Shoe Machinery Company. (See Ross and Freeman, assignors.)
 United Shoe Machinery Company. (See Russell, Arthur L., assignor.)
 United Shoe Machinery Company. (See Simmons, Ralph C., assignor.)
 United Shoe Machinery Company. (See Stiggins, Edward A., assignor.)
 United Shoe Machinery Company. (See Tripp, Elliphalet A., assignor.)
 United Shoe Machinery Company. (See Winter, Henry W., assignor.)
 United States Air Brake Corporation, The. (See Duke-Smith, Frank H., assignor.)
 Universal Electric Welding Company. (See Rietzel, Adolph F., assignor.)
 Universal Screen & Blind Company. (See Lancaster, George W., assignor.)
 Unke, Otto C. (See Unke, William H. and O. C.)
 Unke, William H. and O. C., Milwaukee, assignors, by mesne assignments, to Yale Steel Stamping Company, Oostburg, Wis. Exhaust-silencer. No. 1,081,348; Dec. 16; Gaz. vol. 197; p. 560.
 Unsinkable Bathing Boat Company. (See Johnson, Claude M., assignor.)
 Unterholzner, Josef, Zweibrücken, Germany. Condenser-telephone. No. 1,082,248; Dec. 23; Gaz. vol. 197; p. 591.
 Upham, Burt F., Evanston, Ill., assignor to Southgate Machinery Company, Boston, Mass. Feeding attachment for printing-presses. No. 1,082,374; Dec. 23; Gaz. vol. 197; p. 936.
 Upton, Alva T., Mount Vernon, Ill. Tempering-vat. No. 1,081,473; Dec. 16; Gaz. vol. 197; p. 602.
 Urban, Charles F., Milwaukee, Wis. Truing-tool for lathe-work. No. 1,082,714; Dec. 30; Gaz. vol. 197; p. 1086.
 Utahna Development Company. (See Pfeiffer, Otto G., assignor.)
 Utz, John G., Detroit, Mich. Transmission mechanism. No. 1,079,961; Dec. 2; Gaz. vol. 197; p. 13.
 Vachon, George C., Chicago, Ill., assignor to City Weather Proofing Company. Weather-strip. No. 1,082,375; Dec. 23; Gaz. vol. 197; p. 936.
 Vachon, Louis A., Newton Center, Mass. Aeroplane. No. 1,080,664; Dec. 9; Gaz. vol. 197; p. 290.
 Vacuum Hand Blocking Co. (See Stoffel, Fernand, assignor.)
 Vall, John W., Chicago, Ill. Bedstead. No. 1,081,630; Dec. 16; Gaz. vol. 197; p. 655.
 Valentin, Auguste. (See Georges, Valentin, and Zerrelis.)
 Valentin, Walter T., Los Angeles, Cal. Adjustable window-shade hanger. No. 1,080,869; Dec. 9; Gaz. vol. 197; p. 363.
 Valentine, William M., Rochester, N. Y. Combined door holder and stop. No. 1,081,707; Dec. 16; Gaz. vol. 197; p. 677.
 Valois, Felix E., Haverhill, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Shoe-sewing machine. No. 1,082,715; Dec. 30; Gaz. vol. 197; p. 1086.
 Van Houwelling, Arthur C., Pella, Iowa. Attachment for lateral conveyors. No. 1,080,940; Dec. 9; Gaz. vol. 197; p. 387.
 Van Houwelling, Arthur C., Pella, Iowa. Lateral conveyor for threshing-machine feeders. No. 1,082,716; Dec. 30; Gaz. vol. 197; p. 1087.
 Van Iderstine, John J., Kansas City, Mo. Vehicle-wheel. No. 1,080,128; Dec. 2; Gaz. vol. 197; p. 74.
 Van Ormer, William O., Osceola, Mo. Door-holder. No. 1,081,765; Dec. 16; Gaz. vol. 197; p. 708.
 Van Sinderen, John H., Albany, N. Y. Lubricator. No. 1,080,027; Dec. 2; Gaz. vol. 197; p. 38.

Van Slyke, John C., Fort Collins, Colo. Time-controlled mechanism for operating electric switches. No. 1,080,608; Dec. 9; Gaz. vol. 197; p. 271.
 Van Voorst, Menne, Hereld, S. D. Beet-harvester. No. 1,081,349; Dec. 16; Gaz. vol. 197; p. 560.
 Van Winkle, Walter H., Newark, N. J. Device for preventing excessive pressure in pneumatic tires. No. 1,082,182; Dec. 23; Gaz. vol. 197; p. 867.
 Van Wormer, John R., Toledo, Ohio, assignor to The Wels-Van Wormer Company, Monroe, Mich. Making paper bottles. No. 1,083,263; Dec. 30; Gaz. vol. 197; p. 1287.
 Vance, Albert J., Chicago, Ill. Folding paper box. No. 1,081,068; Dec. 9; Gaz. vol. 197; p. 427.
 Vandal, Marcel, Paris, France. Control of brushes. No. 1,080,390; Dec. 2; Gaz. vol. 197; p. 168.
 Vanderveld, Anthony. (See Dodge, Freeman, and Vanderveld.) (Reissue.)
 Vanderveld, Anthony, Grand Rapids, Mich. Automatic stop mechanism for power-driven machines. No. 1,080,870; Dec. 9; Gaz. vol. 197; p. 363.
 Vandewater, Charles G., Akron, Ind. Reinforced-concrete tie. No. 1,082,054; Dec. 23; Gaz. vol. 197; p. 825.
 Vaniman, Melvin, Atlantic City, N. J., assignor to International Aeronautical Construction Company. Making balloons. No. 1,081,792; Dec. 16; Gaz. vol. 197; p. 707.
 Vaniman, Melvin, Atlantic City, N. J., assignor to International Aeronautical Construction Company. Apparatus for building or covering balloons. No. 1,081,793; Dec. 16; Gaz. vol. 197; p. 707.
 Vaniman, Melvin, Atlantic City, N. J., assignor to International Aeronautical Construction Company. Balloon. No. 1,081,794; Dec. 16; Gaz. vol. 197; p. 707.
 Vanz, Frank, Cleveland, Ohio. Sharpening device. No. 1,081,796; Dec. 16; Gaz. vol. 197; p. 708.
 Varley, Richard, Englewood, N. J. Electrical system. No. 1,081,413; Dec. 16; Gaz. vol. 197; p. 581.
 Varley, Thomas W., New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company. Commutator-brush. No. 1,082,571; Dec. 30; Gaz. vol. 197; p. 1035.
 Vary, Elmer A., Middleport, N. Y. Gravity-feed can-marking machine. No. 1,080,504; Dec. 2; Gaz. vol. 197; p. 204.
 Vaughn, John W., Noroton Heights, Conn. Postal scale. No. 1,080,391; Dec. 2; Gaz. vol. 197; p. 168.
 Veeder, Curtis H., Hartford, Conn. Hub-odometer. No. 1,081,561; Dec. 16; Gaz. vol. 197; p. 631.
 Veld, Albert, assignor to Dakota Farm Machine Company, Deadwood, S. D. Combined planter, pulverizer, and weed-destroyer. No. 1,082,055; Dec. 23; Gaz. vol. 197; p. 825.
 Vellere, Algernon, Barnes, England. Point-lever for use on railways and the like. No. 1,081,708; Dec. 16; Gaz. vol. 197; p. 677.
 Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Means for supporting engines in self-propelled vehicles. No. 1,080,736; Dec. 9; Gaz. vol. 197; p. 315.
 Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Air-compressor. No. 1,080,737; Dec. 9; Gaz. vol. 197; p. 315.
 Vermerach, Adolphe, Lille, France. Suspension-spring for vehicles. No. 1,082,217; Dec. 23; Gaz. vol. 197; p. 879.
 Vernon, James B., assignor to Lee S. Smith & Son Company, Pittsburgh, Pa. Rotary motor and pump. No. 1,082,183; Dec. 23; Gaz. vol. 197; p. 867.
 Vescovi, Pietro, Pueblo, Colo. Folding safety-boat. No. 1,082,833; Dec. 30; Gaz. vol. 197; p. 1128.
 Vickers Limited. (See Dawson and Buckham, assignors.)
 Victor Talking Machine Company. (See Owen, James W., assignor.)
 Vidal, Charles H., Chiswick, England. Spring-tire for wheels of vehicles. No. 1,080,129; Dec. 2; Gaz. vol. 197; p. 74.
 Vleson, Joseph, Detroit, Mich. Driving mechanism for vibrators. No. 1,080,609; Dec. 9; Gaz. vol. 197; p. 272.
 Villinger, William E., Williamsport, Pa. Planing-machine. No. 1,083,160; Dec. 30; Gaz. vol. 197; p. 1234.
 Vincent, James M. (See Planders, Otis S., assignor.)
 Vincent, William W., assignor to The Simmons Manufacturing Company, Kenosha, Wis. Lacquering-machine. No. 1,080,392; Dec. 2; Gaz. vol. 197; p. 169.
 Viney, George, Pittsburgh, Pa. Buttermilk-cooler. No. 1,081,350; Dec. 16; Gaz. vol. 197; p. 560.
 Viquerat, Alois, deceased, Lausanne, Switzerland; widow and heirs assignors to Société générale pour l'exploitation de la catalysine et autres produits pharmaceutiques. Medicinal composition. No. 1,081,069; Dec. 9; Gaz. vol. 197; p. 427.
 Viragh, Stephen, Swissvale, Pa. Reversible window. No. 1,082,663; Dec. 30; Gaz. vol. 197; p. 1067.
 Virginia Laboratory Company. (See Kügelgen and Seward, assignors.)
 Virtue, Thomas J., Chauncey, Pa. Cross-rein buckle. No. 1,080,665; Dec. 9; Gaz. vol. 197; p. 290.
 Vleeschouwer, Camille de, and J. Tacoma, Amsterdam, Netherlands. Desk, table, or cabinet. No. 1,079,962; Dec. 2; Gaz. vol. 197; p. 14.
 Vogel, Charles H., Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,079,963; Dec. 2; Gaz. vol. 197; p. 14.

ALPHABETICAL LIST OF PATENTEEES.

li

Vogel, Charles H., Vancouver, British Columbia, Canada, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,080,028; Dec. 2; Gaz. vol. 197; p. 38.
 Vogel, Joseph A., Wilmington, Del. Flushing mechanism. No. 1,083,161; Dec. 30; Gaz. vol. 197; p. 1234.
 Voggenreiter, Louis, New York, N. Y. Rule. No. 1,081,995; Dec. 23; Gaz. vol. 197; p. 804.
 Voglesong, Clyde C., Oakland, assignor to himself, and P. A. McKenzie, San Francisco, Cal., trustees. Fare-box. No. 1,080,738; Dec. 9; Gaz. vol. 197; p. 316.
 Vohland, Henry, Gibbon, Neb. Cylinder-tooth. No. 1,079,964; Dec. 2; Gaz. vol. 197; p. 15.
 Vold, Lars H., Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Work-feeding mechanism. No. 1,080,793; Dec. 9; Gaz. vol. 197; p. 336.
 Völler, Karl, Düsseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Düsseldorf-Derendorf, Germany. Hydraulic brake for guns having a recoiling barrel. No. 1,082,717; Dec. 30; Gaz. vol. 197; p. 1087.
 Völler, Karl, Düsseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Düsseldorf-Derendorf, Germany. Gun having a recoiling barrel. No. 1,082,718; Dec. 30; Gaz. vol. 197; p. 1087.
 Vollmer, Wilhelm, New York, N. Y. Metal-bending machine. No. 1,080,309; Dec. 2; Gaz. vol. 197; p. 136.
 Voorhees, Raymond E. (See Hobbs, Arthur H., assignor.)
 Voris, Anthony, New York, N. Y. Camera. No. 1,081,173; Dec. 9; Gaz. vol. 197; p. 462.
 Votey, Edwin S., Summit, N. J., assignor to The Aeolian Company, New York, N. Y. Means for operating musical instruments. No. 1,082,218; Dec. 23; Gaz. vol. 197; p. 879.
 W. H. Bundy Recording Company. (See Bundy, Willard H., assignor.)
 W. H. Nicholson and Company et al. (See Armstrong, John B., assignor.)
 W. S. Tyler Company. (See Reynolds, Morley P., assignor.)
 Wadsworth, Henry L. (See Miller, Alfred K., assignor.)
 Wagar, William D., Michigan, N. D. Dental engine. No. 1,083,039; Dec. 30; Gaz. vol. 197; p. 1196.
 Wagner, Hermann, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Monoazo dyestuffs and making same. No. 1,082,719; Dec. 30; Gaz. vol. 197; p. 1088.
 Wagner, Myron E., Bridgeport, Ill. Fifth-wheel. No. 1,080,941; Dec. 9; Gaz. vol. 197; p. 387.
 Wagner, Warren, Barkburnett, Tex. Underreamer. No. 1,080,666; Dec. 9; Gaz. vol. 197; p. 290.
 Wagnitz, John A., Columbus, Ohio. Folding box. No. 1,080,610; Dec. 9; Gaz. vol. 197; p. 272.
 Walnwright, Charles, Erie, Pa. Combined vacuum-breaker and proportional unloader. No. 1,081,174; Dec. 9; Gaz. vol. 197; p. 462.
 Walnwright, Charles, Erie, Pa. Fluid-compressor. No. 1,081,175; Dec. 9; Gaz. vol. 197; p. 463.
 Walnwright, Charles, Erie, Pa. Fluid-compressor. No. 1,081,176; Dec. 9; Gaz. vol. 197; p. 463.
 Walnwright, Charles, Erie, Pa. Governing device for fluid-compressors. No. 1,081,177; Dec. 9; Gaz. vol. 197; p. 463.
 Walt, Henry H., Chicago, Ill., assignor, by mesne assignments, to Hiteau Battu Smoot Company. Laminated core for electric generators and motors. No. 1,080,611; Dec. 9; Gaz. vol. 197; p. 272.
 Walt, John S. Jr., and A. Halliday, Two Harbors, Minn. Bolt. No. 1,082,376; Dec. 23; Gaz. vol. 197; p. 937.
 Walte, Fred, Otley, England, assignor to Auto Falcon & Walte Die Press Company, Limited, Chicago, Ill. Die-press. No. 1,082,572; Dec. 30; Gaz. vol. 197; p. 1036.
 Walitt, Arthur M., Sharon, Conn., and W. H. Walitt, New York, N. Y. Car-door mechanism. No. 1,082,664; Dec. 30; Gaz. vol. 197; p. 1067.
 Walitt, Weymer H. (See Walitt, Arthur M. and W. H.)
 Wakenfield, Albert, Washington, D. C. Conveyor. No. 1,080,243; Dec. 2; Gaz. vol. 197; p. 114.
 Wakfer, William H., South Norwood, assignor to himself, and S. Peck, Calbourne, England. File. No. 1,082,219; Dec. 23; Gaz. vol. 197; p. 880.
 Wale, Alfred E., Birmingham, England. Making tires. No. 1,083,281; Dec. 30; Gaz. vol. 197; p. 1256.
 Wales, Samuel S. (See Reese and Wales.)
 Walker, Alonzo. (See Dashner and Jacobs, assignors.)
 Walker, Frederick W., Port Washington, Wis. Electric generating, transmitting, and distributing system. No. 1,080,029; Dec. 2; Gaz. vol. 197; p. 39.
 Walker, Fredrich J., and F. C. Loefler, Des Moines, Iowa. Spark-plug. No. 1,080,089; Dec. 2; Gaz. vol. 197; p. 59.
 Wallace, Elbert C., et al. (See Smith, Warren, assignor.)
 Wallace, Frederick L. (See Johnston, Browne, and Wallace.)
 Wallace, John N., La Crosse, Wis., assignor to Western Electric Company, New York, N. Y. Electric switch. No. 1,080,871; Dec. 30; Gaz. vol. 197; p. 364.
 Wallace, Roger W., and E. Wassmer, London, England. Production of ammonia. No. 1,083,232; Dec. 30; Gaz. vol. 197; p. 1257.
 Wallace, William C. (See White and Wallace.)
 Wallentin, Nils C., Attleboro, Mass. Fin. No. 1,080,872; Dec. 9; Gaz. vol. 197; p. 364.
 Walsh, John J., Yonkers, N. Y. Cable-hanger. No. 1,080,130; Dec. 2; Gaz. vol. 197; p. 74.

Walsh, John L., assignor to Ideal Machinery Company, Chicago, Ill. Unwinding device for spools. No. 1,080,739; Dec. 9; Gaz. vol. 197; p. 316.
 Walsh, Julius S., St. Louis, Mo. Headlight. No. 1,083,162; Dec. 30; Gaz. vol. 197; p. 1235.
 Walter, Henry C. (See Donovan, John B., assignor.)
 Walters, George, Dixfield, Me. Sewing kit. No. 1,081,070; Dec. 9; Gaz. vol. 197; p. 427.
 Walters, Joseph A., assignor to one-half to R. L. Ferguson, Poages Mill, Va. Apple sorter and cleaner. No. 1,081,640; Dec. 16; Gaz. vol. 197; p. 655.
 Walther, Robert E., Werdau, Germany. Ball-bearing for spinning-machine spindles. No. 1,080,393; Dec. 2; Gaz. vol. 197; p. 169.
 Walworth, Richard. (See Ramsey, George W., assignor.)
 Walworth, Richard, Waltham, Mass. Bobbin-stripping machine. No. 1,080,794; Dec. 9; Gaz. vol. 197; p. 337.
 Walworth, Richard, Waltham, Mass. Bobbin-stripper. No. 1,080,942; Dec. 9; Gaz. vol. 197; p. 388.
 Wanek, Hans. (See Forster and Wanek.)
 Wangelin, Friedrich G., Dresden, Germany. Water-supply or flush tank. No. 1,082,056; Dec. 23; Gaz. vol. 197; p. 826.
 Ward, Charles W., Lakewood, Ohio. Track-contact. No. 1,082,184; Dec. 23; Gaz. vol. 197; p. 867.
 Ward, Eugene S., Portland, Oreg. Search-light attachment for shotguns and the like. No. 1,080,795; Dec. 9; Gaz. vol. 197; p. 337.
 Ward, Walter P., Austin, Tex. Protractor. No. 1,082,377; Dec. 23; Gaz. vol. 197; p. 937.
 Wardwell, Simon W., Providence, R. I. Braiding-machine. No. 1,081,474; Dec. 16; Gaz. vol. 197; p. 602.
 Wardwell, Simon W., Providence, R. I. Braiding-machine. No. 1,082,981; Dec. 30; Gaz. vol. 197; p. 1178.
 Waring, Stewart, Evanston, assignor to Sears, Roebuck and Company, Chicago, Ill. Paper-winding mechanism. No. 1,081,933; Dec. 16; Gaz. vol. 197; p. 754.
 Warmbrunn, Quilitz & Co. (See Kaufmann, Ludwig, assignor.)
 Warne, Alfred, Miami, Fla. Cuspidor. No. 1,080,090; Dec. 2; Gaz. vol. 197; p. 60.
 Warner, Alonzo A., assignor to Landers, Frary & Clark, New Britain, Conn. Electric toaster. No. 1,080,667; Dec. 9; Gaz. vol. 197; p. 291.
 Warner, Alonzo A., assignor to Landers, Frary & Clark, New Britain, Conn. Electric heating element. No. 1,081,414; Dec. 16; Gaz. vol. 197; p. 582.
 Warren, Fred P., Evanston, Ill. Fastening device. No. 1,080,030; Dec. 2; Gaz. vol. 197; p. 39.
 Warren Webster & Company. (See Pitts, James L., assignor.)
 Warwick, Charles, Vancouver, British Columbia, Canada. Spring vehicle-wheel. No. 1,081,415; Dec. 16; Gaz. vol. 197; p. 582.
 Warwick, George T., assignor to International Machine and Screw Company, Springfield, Mass. Mechanism for slotting the heads of screws. No. 1,082,720; Dec. 30; Gaz. vol. 197; p. 1088.
 Washburn, Frederick, Michigan City, Ind. Curtain-bracket. No. 1,080,612; Dec. 9; Gaz. vol. 197; p. 272.
 Wassberg, Albert, Coscob, Conn. Hinge-seat-mortising tool. No. 1,080,310; Dec. 2; Gaz. vol. 197; p. 137.
 Wassmer, Eugene. (See Wallace and Wassmer.)
 Water Power Vacuum Cleaner Co. (See Clifton, James P., assignor.)
 Waterbury Mfg. Co. (See Becker, Adolph C., assignor.)
 Waterloo Register Company, The. (See Carter, William L., assignor.)
 Waterman, Frank N. (See Stillwell and Waterman.)
 Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Harrow. No. 1,081,918; Dec. 16; Gaz. vol. 197; p. 749.
 Waters, John F., Kansas City, Mo. Tire-gage. No. 1,079,965; Dec. 2; Gaz. vol. 197; p. 15.
 Watkins, George A., Columbus, Ohio. Form for concrete cisterns. No. 1,080,187; Dec. 2; Gaz. vol. 197; p. 94.
 Watkins, Robert L., New York, N. Y. Rheostat. No. 1,082,982; Dec. 30; Gaz. vol. 197; p. 1178.
 Watrous, Earl G., Chicago, Ill. Liquid-soap fixture. No. 1,082,249; Dec. 23; Gaz. vol. 197; p. 891.
 Watrous, Earl G., Chicago, Ill. Lavatory-fixture. No. 1,082,250; Dec. 23; Gaz. vol. 197; p. 892.
 Watson, Edward J., and R. F. Downey, said Downey assignor of one-half of his right to W. O. Sisson, Milwaukee, Wis. Tire-inflating mechanism. No. 1,082,983; Dec. 30; Gaz. vol. 197; p. 1179.
 Watson, Susan E. (See Commerford and Watson.)
 Watt, George F., assignor to Elliott-Fisher Company, Harrisburg, Pa. Tally attachment for type-writing machines. No. 1,082,057; Dec. 23; Gaz. vol. 197; p. 826.
 Watterson, William L., Baskerville, Va. Shaft-support. No. 1,080,031; Dec. 2; Gaz. vol. 197; p. 40.
 Watts, Augustus C., assignor of one-half to A. Winter and F. Oestrelcher and one-half to W. B. Forsythe, Columbus, Ohio. Non-refillable bottle. No. 1,080,311; Dec. 2; Gaz. vol. 197; p. 137.
 Watts, George W., Oneonta, N. Y. Vessel construction. No. 1,081,876; Dec. 16; Gaz. vol. 197; p. 736.
 Watts, Lewis H., assignor of one-half to E. T. McCarthy, Kansas City, Mo. Automatic magazine sign. No. 1,082,378; Dec. 23; Gaz. vol. 197; p. 937.

Waugh, Daniel S., Denver, Colo., assignor, by mesne assignments, to The Denver Rock Drill Manufacturing Company. Drill-rotating mechanism. No. 1,081,351; Dec. 16; Gaz. vol. 197; p. 561.

Waugh Draft Gear Company. (See Forsyth, George H., assignor.)

Wayne Manufacturing Company. (See Marth, Charles J., assignor.)

Weaver, Allen R., Batesville, Ark. Vehicle-wheel. No. 1,081,416; Dec. 16; Gaz. vol. 197; p. 582.

Weaver, Jesse, Oakland, Neb. Tire-chain. No. 1,080,394; Dec. 2; Gaz. vol. 197; p. 169.

Weaver, Joseph H. (See Weaver, Lowell T. and J. H.)

Weaver, Lowell T., Cincinnati, and J. H. Weaver, Williamsburg, Ohio. Dental disk. No. 1,083,163; Dec. 30; Gaz. vol. 197; p. 1235.

Webb, Kate, West Conshohocken, Pa. Oven. No. 1,081,475; Dec. 16; Gaz. vol. 197; p. 602.

Webb Talking Pictures Company, The. (See Crapo, Henry T., assignor.)

Webel, Franz, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing isoprene. No. 1,083,164; Dec. 30; Gaz. vol. 197; p. 1235.

Webel, Franz, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing isoprene. No. 1,083,165; Dec. 30; Gaz. vol. 197; p. 1235.

Weber, Albert, Cleveland, Ohio. Sifter. No. 1,081,919; Dec. 16; Gaz. vol. 197; p. 749.

Weber, Peter, Orange, assignor to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 1,081,352; Dec. 16; Gaz. vol. 197; p. 561.

Webster, Fred W., Spooner, Wis. Whiffletree. No. 1,081,353; Dec. 16; Gaz. vol. 197; p. 562.

Webster, Glenn C. (See Love and Webster.)

Webster, John A., Rutherford, N. J., assignor to Autosales Gum and Chocolate Company, New York, N. Y. Vending-machine. No. 1,080,873; Dec. 9; Gaz. vol. 197; p. 364.

Webster, John E., Falls Church, Va. Bed. No. 1,081,877; Dec. 16; Gaz. vol. 197; p. 736.

Webster, John E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive-bearing. No. 1,080,032; Dec. 2; Gaz. vol. 197; p. 40.

Webster, Nathan, Melrose, Mass. Couch-bed. No. 1,080,740; Dec. 9; Gaz. vol. 197; p. 317.

Weed, William G., Stamford, Conn. Thermometer-holder for incubators. No. 1,080,131; Dec. 2; Gaz. vol. 197; p. 74.

Weedon, William S., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Dissolved carbohydrate esters and making the same. No. 1,082,573; Dec. 30; Gaz. vol. 197; p. 1036.

Weeks, Charles A., and E. M. Hunter, assignors to T. R. Patton and F. C. Moncke, Philadelphia, Pa. Treating gases. No. 1,083,233; Dec. 30; Gaz. vol. 197; p. 1257.

Weeks, Joseph H. (See Fairfield, Alexander, assignor.)

Wehner, Casper, Central City, S. D. Implement for destroying revenue-stamps on beer-casks. No. 1,080,312; Dec. 2; Gaz. vol. 197; p. 127.

Well, William A., Glencoe, Ohio. Force-feed lubricator. No. 1,083,166; Dec. 30; Gaz. vol. 197; p. 1235.

Weller, Max, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Manufacture and production of oxycarboxydiarylcannabinols. No. 1,082,574; Dec. 30; Gaz. vol. 197; p. 1036.

Weinberg, Joe, Greenville, Miss. Combined collar-fastener and necktie-holder. No. 1,083,167; Dec. 30; Gaz. vol. 197; p. 1236.

Weinberg, Louis, and M. Maren, Chicago, Ill. Detachable billiard-cue tip and holder. No. 1,082,782; Dec. 30; Gaz. vol. 197; p. 1111.

Weir, Harry B., and J. L. Fyke, Milwaukee, Wis. Damper-regulating apparatus. No. 1,082,926; Dec. 30; Gaz. vol. 197; p. 1158.

Weir, William, Cathcart, Glasgow, Scotland. Evaporating and distilling plant. No. 1,079,966; Dec. 2; Gaz. vol. 197; p. 15.

Weis, John F., Brooklyn, N. Y., assignor, by mesne assignments, to Metropolitan Sewing Machine Company. Sewing and trimming machine. No. 1,081,797; Dec. 16; Gaz. vol. 197; p. 708.

Weis-Van Wormer Company, The. (See Van Wormer, John R., assignor.)

Weist, Edward, Ludden, N. D. Detachable teeth for gear-wheels. No. 1,081,996; Dec. 23; Gaz. vol. 197; p. 804.

Welch, Robert L., Chicago, Ill., assignor to A. G. Spalding & Bros., New York, N. Y. Base-ball mask. No. 1,081,798; Dec. 16; Gaz. vol. 197; p. 708.

Wellen, Carl, Düsseldorf, Germany. Grating, lattice structure, or the like. No. 1,081,476; Dec. 16; Gaz. vol. 197; p. 603.

Wellington, Quincy W., et al. (See Ferguson, Lyman H., assignor.)

Wellman, Samuel T., assignor to The Liquid Forged Steel Company, Cleveland, Ohio. Manufacture of ingots. No. 1,081,997; Dec. 23; Gaz. vol. 197; p. 805.

Wells, Archibald H. (See Franz, Tower, and Wells.)

Wells, Edward H., Montclair, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Water-tube boiler. No. 1,080,613; Dec. 9; Gaz. vol. 197; p. 273.

Wells, Frederic E., Greenfield, Mass. Flexible die-holder. No. 1,083,040; Dec. 30; Gaz. vol. 197; p. 1197.

Welsh, William J., et al. (See Seessle, Charles, assignor.)

Welter, Grover C., Roswell, N. Mex. Fly-catcher and garbage-can combination. No. 1,082,103; Dec. 23; Gaz. vol. 197; p. 841.

Wendt, Gustave A., Tacoma, Wash. Flying-machine. No. 1,082,143; Dec. 23; Gaz. vol. 197; p. 853.

Wensinger, Charles F., Fremont, Ohio. Storm-shield for vehicles. No. 1,080,033; Dec. 2; Gaz. vol. 197; p. 40.

Werner, Robert, Ludwigshafen-on-the-Rhine, Germany. Strontium salt of cholic acid. No. 1,081,178; Dec. 9; Gaz. vol. 197; p. 464.

Werner, William J., Kiel, Wis. Metal container. No. 1,082,783; Dec. 30; Gaz. vol. 197; p. 1111.

Wernimont, Anna M. (See Wernimont, Henry G., assignor.)

Wernimont, Henry G., assignor to A. M. Wernimont, Washington, D. C. Combination-tool. No. 1,079,997; Dec. 2; Gaz. vol. 197; p. 27.

Werst, Johannes J., Delft, P. M. H. L. Collée, and J. M. Egmond, Rotterdam, Netherlands. Separating fibrous matter from admixtures. No. 1,083,234; Dec. 30; Gaz. vol. 197; p. 1258.

Wessoleck, Augustus W., assignor to The American Hardware Corporation, New Britain, Conn. Clutch for speedometers and the like. No. 1,081,934; Dec. 16; Gaz. vol. 197; p. 754.

West, Augustus A., New York, N. Y., assignor to West Electric Hair Curler Co., Philadelphia, Pa. Hair-curler. No. 1,082,784; Dec. 30; Gaz. vol. 197; p. 1111.

West Electric Hair Curler Co. (See West, Augustus A., assignor.)

West, Owen A., Sabina, assignor of one-third to J. Mathews and one-third to F. E. Sears, Clinton county, Ohio. Chisel. No. 1,082,379; Dec. 23; Gaz. vol. 197; p. 938.

Wester, Arthur A., Boone, Iowa. Poultry-fountain. No. 1,082,921; Dec. 30; Gaz. vol. 197; p. 1158.

Westerfield, Newton C., Oregon City, Oreg., assignor to International Manufacturing & Equippling Co. Separator. No. 1,081,282; Dec. 9; Gaz. vol. 197; p. 499.

Western Electric Company. (See Bewlay, Henry, assignor.)

Western Electric Company. (See Craft and Dixon, assignors.)

Western Electric Company. (See Lundquist, Frank A., assignor.)

Western Electric Company. (See Wallace, John N., assignor.)

Western Refrigerator & Mfg. Co. (See Wittkopf, Gustave F., assignor.)

Westinghouse Air Brake Company, The. (See Oppermann, Georg, assignor.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Electric & Manufacturing Company. (See Burns, James A., assignor.)

Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)

Westinghouse Electric and Manufacturing Company. (See Fortescue, Charles L., assignor.)

Westinghouse Electric and Manufacturing Company. (See Hellmund, Rudolf E., assignor.)

Westinghouse Electric and Manufacturing Company. (See Lamme, Benjamin G., assignor.)

Westinghouse Electric and Manufacturing Company. (See Schwarz, Elmer H., assignor.)

Westinghouse Electric and Manufacturing Company. (See Smith, Harold B., assignor.)

Westinghouse Electric and Manufacturing Company. (See Taylor, Harold B., assignor.)

Westinghouse Electric and Manufacturing Company. (See Varley, Thomas W., assignor.)

Westinghouse Electric and Manufacturing Company. (See Webster, John E., assignor.)

Westinghouse Electric and Manufacturing Company. (See Wikander, Ragnar, assignor.)

Westinghouse Lamp Company. (See Madden, Harry D., assignor.)

Westinghouse Machine Company, The. (See Flanders, Warren B., assignor.)

Westland, George M., Wenatchee, Wash. Box-making machine. No. 1,081,071; Dec. 9; Gaz. vol. 197; p. 428.

Weston, Oliver, Cleveland, Ohio. Wrench. No. 1,080,132; Dec. 2; Gaz. vol. 197; p. 75.

Wheeler, James F., Southport, assignor of one-half to A. Boice, Indianapolis, Ind. Shock-former. No. 1,080,034; Dec. 2; Gaz. vol. 197; p. 41.

Wheeler, Monroe M., Catawba, N. Y. Wine-clearing apparatus. No. 1,082,297; Dec. 23; Gaz. vol. 197; p. 910.

Wheeling Stamping Company. (See Edwards, Alonzo L., assignor.)

Wheelock, Edwin M., Winona, Minn. Wagon. No. 1,080,035; Dec. 2; Gaz. vol. 197; p. 41.

Whipple, Charles N., Grangeville, Idaho. Friction-gearing. No. 1,081,799; Dec. 16; Gaz. vol. 197; p. 709.

Whipple, Dorris, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J. Producing a resinous compound. No. 1,083,108; Dec. 30; Gaz. vol. 197; p. 1236.

Whipple, Dorris, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J. Resinous compound. No. 1,083,169; Dec. 30; Gaz. vol. 197; p. 1236.

Whipple, Dorris, New York, N. Y., assignor to Standard Chemical Company, Bayonne, N. J. Resinous compound. No. 1,083,170; Dec. 30; Gaz. vol. 197; p. 1236.

Whitcomb, Lawrence, Brookline, assignor to The Cork Insert Company, Boston, Mass. Friction member for clutches. No. 1,081,998; Dec. 23; Gaz. vol. 197; p. 805.

Whitcomb, Lawrence, Brookline, assignor to The Cork Insert Company, Boston, Mass. Friction device. No. 1,081,999; Dec. 23; Gaz. vol. 197; p. 805.

Whitcomb, Russell, Elizabeth, N. J. Animated sign. No. 1,082,785; Dec. 30; Gaz. vol. 197; p. 1111.

Whitcomb, William W., Brookline, Mass. Friction device. No. 1,082,834; Dec. 30; Gaz. vol. 197; p. 1128.

White, Charles S., Oakland, assignor of one-half to A. Hunker, Berkeley, Cal. Faucet. No. 1,082,575; Dec. 30; Gaz. vol. 197; p. 1037.

White, Edmund R., Plattsville, N. Y. Spring-wheel. No. 1,082,380; Dec. 23; Gaz. vol. 197; p. 938.

White, Frank C., assignor to The Wilcox & White Company, Meriden, Conn. Governor and regulator for mechanical music-playing instruments. No. 1,082,665; Dec. 30; Gaz. vol. 197; p. 1068.

White, Frank C., assignor to The Wilcox & White Company, Meriden, Conn. Regulator for a pneumatic circuit. No. 1,082,666; Dec. 30; Gaz. vol. 197; p. 1068.

White, Franklin R., assignor to Patent Button Company, Waterbury, Conn. Button-feeding mechanism for bar-button-attaching machines. No. 1,079,967; Dec. 2; Gaz. vol. 197; p. 16.

White, Franklin R., Watertown, assignor to Patent Button Company, Waterbury, Conn. Button and staple feeding mechanism for button-attaching machines. No. 1,079,968; Dec. 2; Gaz. vol. 197; p. 16.

White, Joseph, Piscataway township, Middlesex county, assignor to Hall Printing Press Company, Dunellen, N. J. Sheet-delivery mechanism. No. 1,080,036; Dec. 2; Gaz. vol. 197; p. 41.

White, Leonard E. (See Lasares, George C., assignor.)

White, Thomas H., Pendleton, Salford, England. Hot-water injector. No. 1,082,220; Dec. 23; Gaz. vol. 197; p. 880.

White, William A., New York, N. Y. Furnace-front. No. 1,082,835; Dec. 30; Gaz. vol. 197; p. 1128.

White, William A., and W. C. Wallace, New York, N. Y.; said Wallace assignor to said White. Furnace-front. No. 1,082,576; Dec. 30; Gaz. vol. 197; p. 1037.

Whitin Machine Works. (See Jeffers, Jesse, assignor.)

Whitman Agricultural Co. (See Secord and Orr, assignors.)

Whitney, Edwin H., Somerville, assignor to American Water-Supply Company of New England, Boston, Mass. Automatic machine for making paper drinking-cups. No. 1,082,836; Dec. 30; Gaz. vol. 197; p. 1128.

Whittall, Matthew J., Worcester, Mass. Rug and making it. No. 1,082,837; Dec. 30; Gaz. vol. 197; p. 1129.

Whitten, Eugene A., Maricopa, Cal. Hydrocarbon-burner. No. 1,080,244; Dec. 2; Gaz. vol. 197; p. 114.

Whitworth, George W., Cedar Falls, Iowa. Concrete-mixer. No. 1,082,000; Dec. 23; Gaz. vol. 197; p. 805.

Widdfield, Watson P. (See Button and Widdfield.)

Wiedemann, Ferdinand G., New York, assignor to Fenofarm Corporation, Hastings-on-Hudson, N. Y. Making an anhydrous reaction product of phenol and formaldehyde. No. 1,080,188; Dec. 2; Gaz. vol. 197; p. 94.

Wiedeke, Gustav. (See Wiedeke, Otto, assignor.)

Wiedeke, Otto, assignor of one-half to G. Wiedeke, Dayton, Ohio. Tube-cutter. No. 1,082,984; Dec. 30; Gaz. vol. 197; p. 1179.

Wienand, Heinrich A., Frankfurt-on-the-Main, Germany. Casting artificial teeth. No. 1,082,053; Dec. 23; Gaz. vol. 197; p. 826.

Wiggins, Edward J., assignor to D. A. Heyman, Chicago, Ill. Alternating-current rectifier. No. 1,081,841; Dec. 16; Gaz. vol. 197; p. 655.

Wikander, Ragnar, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric switching device. No. 1,082,615; Dec. 30; Gaz. vol. 197; p. 1051.

Wilbur, Samuel P., Pittsburgh, Pa., assignor to Nernst Lamp Company. Guard for springs. No. 1,081,072; Dec. 9; Gaz. vol. 197; p. 428.

Wilcox, Frank E. (See Hickok, Lester E., assignor.)

Wilcox & White Company, The. (See White, Frank C., assignor.)

Wilde, Arthur E., New York, N. Y. Syringe. No. 1,080,395; Dec. 2; Gaz. vol. 197; p. 170.

Wilder, Allen B. (See Wilder, Edward B. and A. B.)

Wilder, Edward B. and A. B., St. Louis, Mo. Die-cutting wheel and similar materials. No. 1,082,985; Dec. 30; Gaz. vol. 197; p. 1179.

Wilder, Edward B. and A. B., St. Louis, Mo. Die for cutting wood and similar materials. No. 1,082,986; Dec. 30; Gaz. vol. 197; p. 1180.

Wildman, Frank B., Norristown, Pa. Circular-knitting machine. No. 1,081,179; Dec. 9; Gaz. vol. 197; p. 464.

Wildman, Frank B., and G. L. Ballard, Norristown, Pa., assignors to Wildman Mfg. Co. Stop-motion for knitting-machines. No. 1,081,180; Dec. 9; Gaz. vol. 197; p. 464.

Wildman Mfg. Co. (See Wildman and Ballard, assignors.)

Wiley, Ed. C., Nogo, Ark. Rail-joint. No. 1,081,878; Dec. 16; Gaz. vol. 197; p. 736.

Wiley, Roy R., and W. K. Buffalo, N. Y., and W. S. Hough, Jr., St. Catharines, Ontario, Canada. Illuminated sign. No. 1,081,800; Dec. 16; Gaz. vol. 197; p. 709.

Wiley, Wallace K. (See Wiley and Hough.)

Wilkie, Robert J. (See Schuh, Charles F., assignor.)

Wilkins, Albert J., Coal Center, Pa. Smoke-consumer. No. 1,081,417; Dec. 16; Gaz. vol. 197; p. 583.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Fluid-flow meter. No. 1,080,396; Dec. 2; Gaz. vol. 197; p. 170.

Wilkinson, James, Providence, R. I., assignor, by mesne assignments, to General Electric Company. Balancing-machine. No. 1,082,001; Dec. 23; Gaz. vol. 197; p. 806.

Willard, Jay L. (See MacLaughlin and Willard.)

Willcox, Roderick H., Columbus, Ohio. Vehicle door-fastener. No. 1,079,969; Dec. 2; Gaz. vol. 197; p. 17.

Willetts, William R., assignor to American Pin Company, Waterbury, Conn. Flush-valve. (Reissue.) No. 13,658; Dec. 16; Gaz. vol. 197; p. 757.

William A. Hall Lumber & Fibre Company. (See Hall, William A., assignor.)

William H. Horstmann Company. (See Kohler, John J., assignor.)

William Schollhorn Company, The. (See Bernard, William A., assignor.) (Reissue.)

William Sellers & Company. (See Vold, Lars H., assignor.)

Williams, Brown and Earle. (See Balderston, Caleb C., assignor.)

Williams, Charles H., Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam third-pole-suspension mount. No. 1,080,741; Dec. 9; Gaz. vol. 197; p. 317.

Williams, Elisha L., Little Rock, Ark. Machine for applying spoke-protectors. No. 1,083,171; Dec. 30; Gaz. vol. 197; p. 1236.

Williams, Ernest J., St. Louis, Mo. Combined eye-shade and fan. No. 1,082,987; Dec. 30; Gaz. vol. 197; p. 1180.

Williams, Henry C., Milwaukee, Wis. Sewer-trap. No. 1,081,354; Dec. 16; Gaz. vol. 197; p. 562.

Williams, James P., assignor to The De Long Hook and Eye Company, Philadelphia, Pa. Snap-fastener. No. 1,080,614; Dec. 9; Gaz. vol. 197; p. 273.

Williams, John F., Detroit, Mich. Sanding device for automobiles. No. 1,081,477; Dec. 16; Gaz. vol. 197; p. 603.

Williams, John P., and H. Huhn, New York, N. Y., assignors to Electric Bank Protection Company. Automatic resetting alarm cut-out for electric burglar-alarm systems. No. 1,082,667; Dec. 30; Gaz. vol. 197; p. 1069.

Williams, Thomas B. (See Smith and Williams.)

Williamson Machinery Company. (See Williamson, Romeo, assignor.)

Williamson, Romeo, assignor to Williamson Machinery Company, Milwaukee, Wis. Machine for forming hollow glassware. No. 1,080,742; Dec. 9; Gaz. vol. 197; p. 317.

Willich, John G., assignor of one-fourth to C. Steele, Elm Creek, Neb. Attachment for cash-registers. No. 1,081,478; Dec. 16; Gaz. vol. 197; p. 603.

Willis, Leland, assignor to Bateman Manufacturing Company, Grenloch, N. J. Pumping apparatus. No. 1,081,181; Dec. 9; Gaz. vol. 197; p. 464.

Willis, Robert F., Gotebo, Okla. Windrower attachment for mowers. No. 1,080,397; Dec. 2; Gaz. vol. 197; p. 170.

Willis, Albert P., New York, N. Y. Gearing. No. 1,081,642; Dec. 16; Gaz. vol. 197; p. 656.

Willis, Albert P., New York, N. Y. Gearing. No. 1,081,643; Dec. 16; Gaz. vol. 197; p. 656.

Willis, Edwin C., Frederick, Md. Clutch mechanism. No. 1,082,381; Dec. 23; Gaz. vol. 197; p. 938.

Willson, Charles C. T., Altoona, Pa. Automatic drop-door rigging. No. 1,080,796; Dec. 9; Gaz. vol. 197; p. 338.

Wilson, Alfred J., Evansville, Ind., assignor of one-third to L. McAlpin and one-third to G. R. Carroll. Switch. No. 1,082,251; Dec. 23; Gaz. vol. 197; p. 892.

Wilson, Charles E., assignor to The Shaw-Walker Company, Muskegon, Mich. Base for filing-cabinets and the like. No. 1,080,874; Dec. 9; Gaz. vol. 197; p. 365.

Wilson, Ellis F., et al. (See Honey, William B., assignor.)

Wilson, Frank E., Dayton, Ohio. Map rolling and reversing device. No. 1,081,644; Dec. 16; Gaz. vol. 197; p. 657.

Wilson, Fred C., Palouse, Wash. Can-opener. No. 1,081,645; Dec. 16; Gaz. vol. 197; p. 657.

Wilson, Frederick E., Bradford, Pa. Antiseptic sewage-vault for closets. No. 1,079,970; Dec. 2; Gaz. vol. 197; p. 17.

Wilson, George, assignor to Emerson-Brantingham Company, Rockford, Ill. Mowing-machine. No. 1,081,920; Dec. 16; Gaz. vol. 197; p. 749.

Wilson, Harry L., Cleveland, Ohio, assignor, by mesne assignments, to The Lamson Company, Boston, Mass. Parcel-elevator mechanism. No. 1,081,269; Dec. 9; Gaz. vol. 197; p. 491.

Wilson Motor Starter Company. (See Spohrer, Gregory J., assignor.)

Wilson Re-Enforced Concrete Co., The. (See Allen and Busch, assignors.)

Wilson, Samuel E., Vancouver, British Columbia, Canada. Molding device. No. 1,082,382; Dec. 23; Gaz. vol. 197; p. 939.

Wilson, Stella M., et al. (See Honey, William B., assignor.)

Wilton, George, Hendon, England. Furnace. No. 1,081,073; Dec. 9; Gaz. vol. 197; p. 428.

Wimmer, Karl H., Bremen, Germany, and E. B. Higgins, Wallasey, England. Reduction or hydrogenation of organic compounds, especially the fatty acids and their compounds. No. 1,081,182; Dec. 9; Gaz. vol. 197; p. 465.

Winans, Jonathan C. (See Connor and Winans.)

Winchester Repeating Arms Co. (See Johnson, Thomas C., assignor.)

Winchester Repeating Arms Co. (See Starkweather, Henry W., assignor.)

Winegarden, Arey V., assignor of one-half to A. J. Palmer, Eldorado, Kans. Folding car step and door. No. 1,081,879; Dec. 16; Gaz. vol. 197; p. 736.

Wines, Cephas D., Chicago, Ill. Wheel. No. 1,082,668; Dec. 30; Gaz. vol. 197; p. 1070.

Winfield, Joseph H. (See Niederauer and Winfield.)

Winkler, Karl, Schwarzenberg, Germany. Drilling and filling attachment for brush-making machines. No. 1,081,709; Dec. 16; Gaz. vol. 197; p. 677.

Winkler, Erastus E., Lynn, Mass. Sole-laying machine. No. 1,081,355; Dec. 16; Gaz. vol. 197; p. 562.

Winkley, Erastus E., Lynn, Mass. Automatic shoe-machine. No. 1,082,185; Dec. 23; Gaz. vol. 197; p. 868.

Winkley, Erastus E., Lynn, Mass. Automatic die-press. No. 1,082,669; Dec. 30; Gaz. vol. 197; p. 1070.

Winnie, William E., and J. E. Seeley, Los Angeles, Cal. Dry ore-concentrator. No. 1,083,172; Dec. 30; Gaz. vol. 197; p. 1237.

Winona Wagon Company. (See Wyman, Alton L., assignor.)

Winslow, Francis A., Chicago, Ill. Stair. No. 1,081,074; Dec. 9; Gaz. vol. 197; p. 428.

Winslow, Henry L., Fall River, Mass. Pail. No. 1,080,668; Dec. 9; Gaz. vol. 197; p. 291.

Winter, Andrew, et al. (See Watts, Augustus C., assignor.)

Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-rolling machine. No. 1,080,943; Dec. 9; Gaz. vol. 197; p. 388.

Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-rolling machine. No. 1,081,479; Dec. 16; Gaz. vol. 197; p. 604.

Winter, William G. (See Price and Winter.)

Wintermayr, Josef, Vienna, Austria-Hungary. Construction of power-looms. No. 1,080,091; Dec. 2; Gaz. vol. 197; p. 60.

Winton, Alexander, assignor to The Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Speed-governor. No. 1,082,383; Dec. 23; Gaz. vol. 197; p. 939.

Winton Gas Engine and Manufacturing Company, The. (See Winton, Alexander, assignor.)

Wiseman, Philip S., deceased; S. F. Wiseman, executrix. Springfield, Ohio. Padlock. No. 1,081,710; Dec. 16; Gaz. vol. 197; p. 678.

Wiseman, Sarah F., executrix. (See Wiseman, Philip S.)

Wittman, Adam P., Philadelphia, Pa. Crank-shaft support. No. 1,080,797; Dec. 9; Gaz. vol. 197; p. 338.

Wittich, Frederick A., assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio. Lock nut. No. 1,081,356; Dec. 16; Gaz. vol. 197; p. 563.

Wittkopf, Gustave F., assignor to Western Refrigerator & Mfg. Co., St. Louis, Mo. Partition for refrigerators and the like. No. 1,081,418; Dec. 16; Gaz. vol. 197; p. 583.

Witkowski, Leguel A. (See Didschuneit, Julius, assignor.)

Witwer, Cornelius. (See Ferrell and Witwer.)

Witz, Robert K., Chicago, Ill. Illuminating device. No. 1,081,646; Dec. 16; Gaz. vol. 197; p. 857.

Wm. Cramp & Sons Ship & Engine Building Company, The. (See Metten, John F., assignor.)

Wm. L. Gilbert Clock Company. (See Owen, George B., assignor.)

Wohle Mineral Oil Products (1910) Limited, The. (See Wohle, Salo, assignor.)

Wohle, Salo, assignor to The Wohle Mineral Oil Products (1910) Limited, London, England. Treating petroleum or other hydrocarbon oils. No. 1,081,801; Dec. 16; Gaz. vol. 197; p. 710.

Wolfe, William, et al., trustees. (See Dobyne, George A., assignor.)

Wolf, Franklin J., Minneapolis, Minn., assignor to L. Wolf Manufacturing Company, Chicago, Ill. Faucet. No. 1,082,988; Dec. 30; Gaz. vol. 197; p. 1180.

Wolfram, John C. (See Kronenberg, Samuel T., assignor.)

Wolhaupter, Benjamin, New York, N. Y. Expanded-metal reinforcing structure and producing same. No. 1,081,647; Dec. 16; Gaz. vol. 197; p. 858.

Wood, David W., Brazil, Ind. Automatic chuck. No. 1,081,183; Dec. 9; Gaz. vol. 197; p. 465.

Wood, George D., Belmont, Mass. Sad-iron holder. No. 1,082,838; Dec. 30; Gaz. vol. 197; p. 1129.

Wood, George W., Indianapolis, Ind. Shirt-cuff. No. 1,081,802; Dec. 16; Gaz. vol. 197; p. 710.

Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Mold for slug-casting machines. No. 1,082,059; Dec. 23; Gaz. vol. 197; p. 826.

Wood & Nathan Company. (See Johnston, Robert T., assignor.)

Wood & Nathan Company. (See Wood, Henry A. W., assignor.)

Wood, Robert, Westmount, Quebec, Canada, assignor to Nathan Manufacturing Co., New York, N. Y. Automatic lubricator. No. 1,082,002; Dec. 23; Gaz. vol. 197; p. 806.

Woodbridge, James E. (See De Fevre and Woodbridge.)

Woodin, William H. (See Handy, Levin G., assignor.)

Woodward, Alban C., Detroit, Mich. Collar-fastener. No. 1,081,075; Dec. 9; Gaz. vol. 197; p. 429.

Woodward, Frank R. (See Eastman, Walter W., assignor.)

Woodward, William, Chicago, Ill. Explosive-engine cooler. No. 1,081,880; Dec. 16; Gaz. vol. 197; p. 737.

Woodworth, Charles C., Portland, Oreg. Safety seam-ripper. No. 1,081,357; Dec. 16; Gaz. vol. 197; p. 563.

Worgan, Henry H., Carnegie, and W. Worgan, Crafton, Pa. Toy. No. 1,083,041; Dec. 30; Gaz. vol. 197; p. 1197.

Worgan, William. (See Worgan, Henry H. and W.)

Wortham, John W., Decatur, Ala. Apparatus for automatically loading coal-bins. No. 1,083,042; Dec. 30; Gaz. vol. 197; p. 1197.

Wotherspoon, William W., New York, N. Y. Air-tight hatch-covering. No. 1,083,043; Dec. 30; Gaz. vol. 197; p. 1198.

Wren, Edward C., county of Devon, England. Combined camp-bed and valise. No. 1,079,971; Dec. 2; Gaz. vol. 197; p. 17.

Wright, Francis, Luton, England. Straw hat. No. 1,082,060; Dec. 23; Gaz. vol. 197; p. 827.

Wright, Frank C., assignor to E. and T. Fairbanks & Company, St. Johnsbury, Vt. Scoop-balance scale. No. 1,080,398; Dec. 2; Gaz. vol. 197; p. 171.

Wright, John T. (See Hall and Wright.)

Wright, Robert F. and T. E., Circleville, Ohio. Rubbing-post. No. 1,080,037; Dec. 2; Gaz. vol. 197; p. 42.

Wright, Thomas E. (See Wright, Robert F. and T. E.)

Wright, Thomas W., Anderson, Ind. Fence-post. No. 1,081,076; Dec. 9; Gaz. vol. 197; p. 429.

Wright, Thomas W., Anderson, Ind. Post for fencing and the like. No. 1,081,077; Dec. 9; Gaz. vol. 197; p. 429.

Wrigley, James P. (See Howard and Wrigley.)

Wurfschmidt, Hugo H., Vienna, Austria-Hungary. Fountain-brush. No. 1,082,839; Dec. 30; Gaz. vol. 197; p. 1129.

Wyman, Alton L., Minneapolis, assignor to Winona Wagon Company, Winona, Minn. Combined traction-engine and motor-wagon. No. 1,083,044; Dec. 30; Gaz. vol. 197; p. 1198.

Wyson, Olmedo C., Greensboro, N. C. Polishing curved surfaces. No. 1,082,670; Dec. 30; Gaz. vol. 197; p. 1071.

Yaack, George A., Decatur, Ill. Bicycle-lock. No. 1,082,616; Dec. 30; Gaz. vol. 197; p. 1051.

Yale, George. (See Turner, Clarence C., assignor.)

Yale Steel Stamping Company. (See Unke, William H. and O. C., assignors.)

Yankee Wizard Clock Company. (See Gage, Edward E., assignor.)

Yassenoff, Isidor, Columbus, assignor to The Coffield Motor Washer Co., Dayton, Ohio. Water-motor. No. 1,082,477; Dec. 23; Gaz. vol. 197; p. 967.

Yates, Charles R. (See Hatfield and Yates.)

Yegalian, Rose, Yonkers, N. Y. Corset. No. 1,081,007; Dec. 9; Gaz. vol. 197; p. 408.

Yokel, Frank, et al. (See Gabrys, Georg, assignor.)

Yollin, Aaron, and R. Texin, New York, N. Y. Means for protecting articles of food. No. 1,081,711; Dec. 16; Gaz. vol. 197; p. 678.

Yolland, Charles W. (See Covey, Frank E., assignor.)

Yost Electric Manufacturing Company, The. (See Chapman and Kenney, assignors.)

Young, John W., Memphis, Tenn. Dust-catcher for air-pipes. No. 1,080,399; Dec. 2; Gaz. vol. 197; p. 171.

Young, Samuel M., New York, N. Y. Automatic system of block-signalling for electric railways. No. 1,082,840; Dec. 30; Gaz. vol. 197; p. 1130.

Youngberg, Eloy J., Canon City, Colo. Seeder. No. 1,080,038; Dec. 2; Gaz. vol. 197; p. 42.

Youngquist, Lawrence E., Glendive, Mont. Self-steering mechanism for traction-engines. No. 1,081,881; Dec. 16; Gaz. vol. 197; p. 737.

Youtsey, William H., Monroe township, Miami county, Ohio. Lubricant-distributor. No. 1,081,419; Dec. 16; Gaz. vol. 197; p. 583.

Yungling, Paul F., Los Angeles, Cal. Perforator for well casings or tubes. No. 1,080,313; Dec. 2; Gaz. vol. 197; p. 138.

Yungling, Paul F., Los Angeles, Cal. Elevator for well tubes or casings. No. 1,082,788; Dec. 30; Gaz. vol. 197; p. 1112.

Zabielki, Joseph, Chicago, Ill. Safety-pocket. No. 1,080,314; Dec. 2; Gaz. vol. 197; p. 138.

Zacharias, Harrison E., Humbert, Pa. Railway-spike. No. 1,080,189; Dec. 2; Gaz. vol. 197; p. 94.

Zackey, William W., Philadelphia, Pa., assignor of forty-nine one-hundredths to C. B. Hewitt, Burlington, N. J. Sound-box arm for talking-machines. No. 1,083,045; Dec. 30; Gaz. vol. 197; p. 1198.

Zahn, Robert, Plauen, Germany. Oscillatory shuttle. No. 1,082,003; Dec. 23; Gaz. vol. 197; p. 807.

Zahn, Robert, Plauen, Germany. Shuttle embroidering-machine. No. 1,082,456; Dec. 23; Gaz. vol. 197; p. 961.

Zawistowski, Martin, et al. (See Perlman, David, assignor.)

Zeckhauser, Ezekiel, Mount Pleasant, Pa. Lock. No. 1,083,173; Dec. 30; Gaz. vol. 197; p. 1237.

Zeiss, Firm of Carl. (See Eppenstein, Otto, assignor.)

Zerbe, Lewis E., Flint, Mich. Restaurant equipment. No. 1,081,358; Dec. 16; Gaz. vol. 197; p. 563.

Zerreiss, Jean. (See Georges, Valentin, and Zerreiss.)

Zetterstrom, Uno L. M., and C. G. Helstrom, Hartford, Conn. Tobacco-pipe. No. 1,082,384; Dec. 23; Gaz. vol. 197; p. 939.

Ziegfeld, Elizabeth, Rochester, N. Y. Combination cap and sunbonnet. No. 1,082,144; Dec. 23; Gaz. vol. 197; p. 854.

Ziegler, Alfred A., Boston, Mass. Railway signal-lantern. No. 1,082,577; Dec. 30; Gaz. vol. 197; p. 1037.

Ziegler, Joram A., Chattanooga, Tenn., assignor to Elliott-Fisher Company, Harrisburg, Pa. Ribbon mechanism for type-writing machines. No. 1,082,104; Dec. 23; Gaz. vol. 197; p. 842.

Ziegler, William F., Los Angeles, Cal. Fountain-brush. No. 1,080,669; Dec. 9; Gaz. vol. 197; p. 291.

Zifferer, Lothar R., Chicago, Ill. Expansion-bolt. No. 1,080,615; Dec. 9; Gaz. vol. 197; p. 273.

Zimmer, Conrad W., Buffalo, and G. W. Benjamin, Rochester, N. Y.; said Benjamin assignor to said Zimmer. Chain for filing-cabinets, &c. No. 1,082,298; Dec. 23; Gaz. vol. 197; p. 910.

Zimmer, Cyrus W., New York, N. Y. Poultry-feeder. No. 1,080,183; Dec. 2; Gaz. vol. 197; p. 75.

Zimmer Nachf., Firm of Otto. (See Lampe, Otto, assignor.)

Zimmerman, Charles F., Jersey City, N. J. Shears. No. 1,082,385; Dec. 23; Gaz. vol. 197; p. 939.

Zimmerman, John W., Chicago, Ill., assignor to Zimmerman Novelty Company, Toy. No. 1,080,670; Dec. 9; Gaz. vol. 197; p. 292.

Zimmerman Novelty Company. (See Zimmerman, John W., assignor.)

Zirnkilton, Franz X., Philadelphia, Pa. Necklace-clasp. No. 1,081,184; Dec. 9; Gaz. vol. 197; p. 465.

Zito, Salvatore, et al. (See De Giovanni, Gaetano, assignor.)

Zizilia, Paul T., New York, N. Y. Hickey. No. 1,080,616; Dec. 9; Gaz. vol. 197; p. 274.

Zizilia, Paul T., New York, N. Y. Hickey. No. 1,080,617; Dec. 9; Gaz. vol. 197; p. 274.

Zochling, Anton, Brooklyn, N. Y. Coating compound for razor-strops. No. 1,080,618; Dec. 9; Gaz. vol. 197; p. 274.

Zoelly, Heinrich, Zurich, Switzerland. Device for electromagnetic suspension. No. 1,081,260; Dec. 9; Gaz. vol. 197; p. 492.

Zywicki, Jan, Newark, N. J. Polishing-machine. No. 1,083,046; Dec. 30; Gaz. vol. 197; p. 1199.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

- A. B. Stove Company. (See Alexander and Berry, assignors.)
 Alexander, John A., and F. K. Berry, assignors to A. B. Stove Company, Battle Creek, Mich. Gas-range. No. 44,951; Dec. 2; Gaz. vol. 197; p. 214.
 Allen, Archibald K., Seattle, Wash. Automobile-tire. No. 45,083; Dec. 30; Gaz. vol. 197; p. 1270.
 American Enamel Company. (See Hawley, John H., assignor.)
 American Graphophone Company. (See Wirts and Duckwall, assignors.)
 American Silver Company, The. (See Large, Samuel J., assignor.)
 Andrew B. Hendryx Co., The. (See Hendryx, Nathan W., assignor.)
 Ankiam, William F., assignor to C. M. Hall Lamp Company, Detroit, Mich. Lamp. Nos. 45,039-40; Dec. 16; Gaz. vol. 197; p. 757.
 Aranyi, Joseph, Wallingford, assignor to International Silver Co., Meriden, Conn. Handle for spoons, forks, or similar articles. No. 45,053; Dec. 23; Gaz. vol. 197; p. 973.
 Audero, Emanuel, Brooklyn, N. Y. Handle for hand-actuated warning-signals. No. 44,994; Dec. 9; Gaz. vol. 197; p. 503.
 B. F. Goodrich Company, The. (See Raymond, Harry K., assignor.)
 B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)
 Baker Motor Vehicle Company, The. See Remde, Edward H., assignor.)
 Baker-Vawter Company. (See Fraser, John A., assignor.)
 Berg, John, Chicago, Ill. Cigar-lighter. No. 44,995; Dec. 9; Gaz. vol. 197; p. 503.
 Berry, Frank K. (See Alexander and Berry.)
 Bigelow Carpet Company. (See Elliot, William A., assignor.)
 Bigelow Carpet Company. (See Merry, John, assignor.)
 Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
 Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
 Bigelow Carpet Company. (See Schindler, Francis, assignor.)
 Bigelow Carpet Company. (See Spring, John, assignor.)
 Bigelow Carpet Company. (See Spring, William A., assignor.)
 Bigelow Carpet Company. (See Vetter, Ignatius J., assignor.)
 Booth, Kraft, Philadelphia, Pa., assignor to Gillinder & Sons, Inc. Glass dome for ceiling-lights. No. 45,041; Dec. 16; Gaz. vol. 197; p. 758.
 Booth, Kraft, Philadelphia, Pa., assignor to Gillinder & Sons, Inc. Lamp-shade. No. 45,054; Dec. 23; Gaz. vol. 197; p. 973.
 Boyce, Harrison H., Forest Hills, N. Y. Temperature-indicator. No. 45,042; Dec. 16; Gaz. vol. 197; p. 758.
 Brill, Aron, New York, N. Y. Badge or similar article. No. 45,084; Dec. 30; Gaz. vol. 197; p. 1270.
 Bromley & Sons, John. (See Petzold, Adolph, assignor.)
 Buser, Johann J., Pittsburgh, Pa. Shoe or protecting-tip for furniture-legs. No. 44,952; Dec. 2; Gaz. vol. 197; p. 214.
 Buser, Johann J., Pittsburgh, Pa. Shoe or protecting-tip for furniture-legs. No. 44,996; Dec. 9; Gaz. vol. 197; p. 503.
 C. M. Hall Lamp Company. (See Ankiam, William F., assignor.)
 Camp Fire Girls. (See Lanier, May F., assignor.)
 Carroll, Charles E., Newport, Ark. Tooth-brush. No. 44,997; Dec. 9; Gaz. vol. 197; p. 503.
 Cochran, Andrew, Trenton, N. J. Water-closet bowl. Nos. 45,055-6; Dec. 23; Gaz. vol. 197; p. 974.
 Cochran, Andrew, Trenton, N. J. Flush-tank. No. 45,085; Dec. 30; Gaz. vol. 197; p. 1271.
 Crouch, Albert W., assignor to Milwaukee Yacht & Boat Company, Milwaukee, Wis. Boat. No. 44,998; Dec. 9; Gaz. vol. 197; p. 503.
 Donnell, Elmer, Webster Groves, Mo. Paper-weight or statuette. No. 44,953; Dec. 2; Gaz. vol. 197; p. 214.
 Drayton, Grace G., New York, N. Y. Statuette. No. 45,086; Dec. 30; Gaz. vol. 197; p. 1271.
 Duckwall, Edward L. (See Wirts and Duckwall.)
 Dugan Glass Company. (See Rowland, Edward J., assignor.)
 Eick, William B., assignor to Genesee Cut Glass Company, Rochester, N. Y. Cut-glass article. No. 45,087; Dec. 30; Gaz. vol. 197; p. 1271.
 Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,954-5; Dec. 2; Gaz. vol. 197; p. 214.
 Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 45,057-60; Dec. 23; Gaz. vol. 197; p. 974.
 Foster, John R., Arlington, Mass. Stand for displaying pictures or other articles. No. 45,000; Dec. 9; Gaz. vol. 197; p. 504.
 Frankston, Samuel, Los Angeles, Cal. Vestette. No. 45,088; Dec. 30; Gaz. vol. 197; p. 1271.
 Fraser, John A., assignor to Baker-Vawter Company, Benton Harbor, Mich. Desk-tray. No. 44,999; Dec. 9; Gaz. vol. 197; p. 504.
 Geers, Cyrus A., Edwardsville, Ill. Road-sign. No. 45,001; Dec. 9; Gaz. vol. 197; p. 504.
 Genesee Cut Glass Company. (See Eick, William B., assignor.)
 Goerdes, Frederick W., East Orange, N. J. Combination ash-tray. No. 44,956; Dec. 2; Gaz. vol. 197; p. 215.
 Goetting, Karl F. G., Orange, assignor to New Jersey Patent Company, West Orange, N. J. Cabinet. No. 45,043; Dec. 16; Gaz. vol. 197; p. 758.
 Graham, William P., Brooklyn, N. Y. Covered dish. No. 45,002; Dec. 9; Gaz. vol. 197; p. 504.
 Grant, Joseph E., Detroit, Mich. Article of manufacture. No. 45,061; Dec. 23; Gaz. vol. 197; p. 975.
 Grizzard, Henry E., Franklin, Va. Paper-clip. No. 44,957; Dec. 2; Gaz. vol. 197; p. 215.
 Hawley, John H., New York, N. Y., assignor to American Enamel Co., Button. Nos. 45,003-4; Dec. 9; Gaz. vol. 197; pp. 504-5.
 Hawley, John H., New York, N. Y., assignor to American Enamel Company, Providence, R. I. Button. Nos. 45,062-3; Dec. 23; Gaz. vol. 197; p. 975.
 Heilborn, Franz J., Plainville, Mass. Necktie-holder. No. 45,064; Dec. 23; Gaz. vol. 197; p. 975.
 Helsey & Co., A. H. (See Helsey, Edgar W., assignor.)
 Helsey, Edgar W., assignor to A. H. Helsey & Co., Newark, Ohio. Glass vessel. No. 45,044; Dec. 16; Gaz. vol. 197; p. 758.
 Henckel, Gustave A., South Orange, N. J. Border-section. No. 45,045; Dec. 16; Gaz. vol. 197; p. 759.
 Henckel, Gustave A., South Orange, N. J. Dish. No. 45,089; Dec. 30; Gaz. vol. 197; p. 1271.
 Hendrie, William C., Los Angeles, Cal. Rubber vehicle-tire. No. 45,090; Dec. 30; Gaz. vol. 197; p. 1271.
 Hendryx, Nathan W., assignor to The Andrew B. Hendryx Co., New Haven, Conn. Bird-cage. No. 45,005; Dec. 9; Gaz. vol. 197; p. 505.
 Holan, Edward. (See Jirousek and Holan.)
 Hoover, William D., Beaver Falls, assignor of one-half to J. T. Parks, McKees Rocks, Pa. Combined ticket or label holder and match-striker. No. 44,958; Dec. 2; Gaz. vol. 197; p. 215.
 Howard, Frederick C., Spokane, Wash. Key-tag. No. 44,959; Dec. 2; Gaz. vol. 197; p. 215.
 Huttig, Ernest W., Pittsburgh, Pa., assignor to Jefferson Glass Co., Follansbee, W. Va. Lamp-shade. No. 45,006; Dec. 9; Gaz. vol. 197; p. 505.
 International Silver Co. (See Aranyi, Joseph, assignor.)
 International Silver Co. (See Pretat, Frederick E., assignor.)
 J. W. York and Sons. (See Johnson, Alfred J., assignor.)
 Jameson, William A., Niagara Falls, N. Y. Handle for spoons, forks, or similar articles. No. 45,065; Dec. 23; Gaz. vol. 197; p. 975.
 Jeavons, William R., Cleveland, Ohio. Stove-drum. No. 45,007; Dec. 9; Gaz. vol. 197; p. 505.
 Jeavons, William R., Cleveland, Ohio. Drum-base for stoves. No. 45,008; Dec. 9; Gaz. vol. 197; p. 505.
 Jefferson Glass Co. (See Huttig, Ernest W., assignor.)
 Jirousek, Jerry, and E. Holan, Verdigré, Nebr. Pin-cushion. No. 45,009; Dec. 9; Gaz. vol. 197; p. 505.
 Johnson, Alfred J., assignor to J. W. York and Sons, Grand Rapids, Mich. Cornet. No. 45,091; Dec. 30; Gaz. vol. 197; p. 1272.
 Johnson, Willis E., Newnan, Ga. Casing for weighing-machines. No. 45,046; Dec. 16; Gaz. vol. 197; p. 759.
 Johnston, Alexander, Edinburgh, Scotland. Tire-tread. No. 45,092; Dec. 30; Gaz. vol. 197; p. 1272.
 Kaempfer, Joseph G., New York, N. Y. Doll-head. No. 45,093; Dec. 30; Gaz. vol. 197; p. 1272.
 Kohner, Gustave, assignor of one-half to E. M. Vogel, New York, N. Y. Vest. No. 45,047; Dec. 16; Gaz. vol. 197; p. 759.
 Lanier, May F., Greenwich, Conn., assignor to Camp Fire Girls, an association. Ceremonial gown. No. 45,010; Dec. 9; Gaz. vol. 197; p. 506.
 Large, Samuel J., assignor to The American Silver Company, Bristol, Conn. Handle for spoons, forks, or similar articles. No. 45,066; Dec. 23; Gaz. vol. 197; p. 975.
 Larned, William L., New York, N. Y. Finger-ring. No. 45,011; Dec. 9; Gaz. vol. 197; p. 506.

Lewis, Frank D., Elizabeth, assignor to New Jersey Patent Company, West Orange, N. J. Cabinet. No. 45,048; Dec. 16; Gaz. vol. 197; p. 750.

Luttinger, Sadie, New York, N. Y. Garment-protector for nursing mothers. No. 45,012; Dec. 9; Gaz. vol. 197; p. 506.

McClymont, Bryce W., assignor to Penberthy Injector Company, Detroit, Mich. Cigar-cutter. No. 45,013; Dec. 9; Gaz. vol. 197; p. 506.

Meglin, James E., Covina, Cal. Shoe-horn. No. 45,014; Dec. 9; Gaz. vol. 197; p. 506.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,960-1; Dec. 2; Gaz. vol. 197; p. 215.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,962; Dec. 2; Gaz. vol. 197; p. 216.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,963-4; Dec. 2; Gaz. vol. 197; p. 216.

Miller, Thomas W., Ashland, Ohio. Bathing-cap. No. 45,015; Dec. 9; Gaz. vol. 197; p. 506.

Miller, Warren H., Interlaken, N. J. Tent. No. 45,016; Dec. 9; Gaz. vol. 197; p. 507.

Milwaukee Yacht & Boat Company. (See Crouch, Albert W., assignor.)

Mueller, Charles F., Elizabeth, N. J. Square-head-nail set. No. 45,049; Dec. 16; Gaz. vol. 197; p. 760.

New Jersey Patent Company. (See Goetting, Karl F. G., assignor.)

New Jersey Patent Company. (See Lewis, Frank D., assignor.)

Parks, Joseph T. (See Hoover, William D., assignor.)

Pauly, Nicholas J., Dubuque, Iowa. Envelop. No. 45,017; Dec. 9; Gaz. vol. 197; p. 507.

Penberthy Injector Company. (See McClymont, Bryce W., assignor.)

Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 44,965-7; Dec. 2; Gaz. vol. 197; p. 216.

Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 45,067-70; Dec. 23; Gaz. vol. 197; p. 976.

Plaut, Herman, New York, N. Y. Electroliter. Nos. 45,018-20; Dec. 9; Gaz. vol. 197; p. 507.

Pretat, Frederick E., Waterbury, assignor to International Silver Co., Meriden, Conn. Handle for spoons, forks, or similar articles. No. 45,071; Dec. 23; Gaz. vol. 197; p. 977.

Raymond, Harry K., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Tire-tread. No. 45,050; Dec. 16; Gaz. vol. 197; p. 760.

Remde, Edward H., assignor to The Baker Motor Vehicle Company, Cleveland, Ohio. Vehicle-body. No. 45,021; Dec. 9; Gaz. vol. 197; p. 507.

Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,968-70; Dec. 2; Gaz. vol. 197; p. 217.

Rowland, Edward J., assignor to Dugan Glass Company, Indiana, Pa. Toy candy-box. No. 45,004; Dec. 30; Gaz. vol. 197; p. 1272.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,971-2; Dec. 2; Gaz. vol. 197; p. 217.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,973-6; Dec. 2; Gaz. vol. 197; p. 218.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,977; Dec. 2; Gaz. vol. 197; p. 218.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 49,978; Dec. 2; Gaz. vol. 197; p. 218.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 45,072-5; Dec. 23; Gaz. vol. 197; p. 977.

Schlick, Gottfried, Tampa, Kans. Plate-rack. No. 45,022; Dec. 9; Gaz. vol. 197; p. 508.

Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,980-1; Dec. 2; Gaz. vol. 197; p. 219.

Schmid, Ernest E., Jamaica, N. Y. Protection-board bracket. No. 44,979; Dec. 2; Gaz. vol. 197; p. 219.

Schwenke, Albert, Houston, Tex. Child's Quaker bonnet. No. 45,076; Dec. 23; Gaz. vol. 197; p. 977.

Scott, William D., New York, N. Y. Carafe. No. 44,982; Dec. 2; Gaz. vol. 197; p. 219.

Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Tire-tread. No. 45,051; Dec. 16; Gaz. vol. 197; p. 760.

Shoe, William W., Philadelphia, Pa. Iron. No. 45,023; Dec. 9; Gaz. vol. 197; p. 508.

Smith, Earl J., Montrose, Pa. Clock-case. No. 45,095; Dec. 30; Gaz. vol. 197; p. 1272.

Sparks, William, Jackson, Mich. Signal. Nos. 45,024-5; Dec. 9; Gaz. vol. 197; p. 508.

Sparks, William, Jackson, Mich. Pump-casing. No. 45,026; Dec. 9; Gaz. vol. 197; p. 509.

Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,983-5; Dec. 2; Gaz. vol. 197; pp. 219-20.

Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,986; Dec. 2; Gaz. vol. 197; p. 220.

Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,077; Dec. 23; Gaz. vol. 197; p. 978.

Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,987-8; Dec. 2; Gaz. vol. 197; p. 220.

Starr, Perez H., Toledo, Ohio. Rug. No. 45,027; Dec. 9; Gaz. vol. 197; p. 509.

Stein, Meyer, Springfield, Ill. Lamp. No. 45,028; Dec. 9; Gaz. vol. 197; p. 509.

Stenberg, John E., Chicago, Ill. Stand. No. 44,989; Dec. 2; Gaz. vol. 197; p. 220.

Stewart, James J., Marshalltown, Iowa. Stove-base. No. 45,029; Dec. 9; Gaz. vol. 197; p. 509.

Strong, James H., Steubenville, Ohio. Shade-bowl. No. 45,030; Dec. 9; Gaz. vol. 197; p. 509.

Taylor, Henry, Chicago, Ill. Baby-spoon. No. 45,031; Dec. 9; Gaz. vol. 197; p. 509.

Thompson, Ralph C., Attleboro, Mass. Handle for pierced spoons, forks, or similar articles. No. 45,078; Dec. 23; Gaz. vol. 197; p. 978.

Travis, John M., St. Louis, Mo. Syrup-dispensing apparatus. Nos. 45,032-3; Dec. 9; Gaz. vol. 197; p. 510.

Travis, John M., St. Louis, Mo. Soda-dispensing apparatus. No. 45,096; Dec. 30; Gaz. vol. 197; p. 1273.

United Drug Company. (See Williams, Fred O., assignor.)

Vall, John W., Chicago, Ill. Bedstead-fitting. No. 45,052; Dec. 16; Gaz. vol. 197; p. 760.

Valasek, Otakar, Chicago, Ill. Card-case. No. 45,034; Dec. 9; Gaz. vol. 197; p. 510.

Van Raalte, Zealie, New York, N. Y. Net veiling. No. 44,990; Dec. 2; Gaz. vol. 197; p. 221.

Van Slyke, Lucille, New York, N. Y. Outdoor winter play-garment for children. No. 45,035; Dec. 9; Gaz. vol. 197; p. 510.

Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,991; Dec. 2; Gaz. vol. 197; p. 221.

Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,992; Dec. 2; Gaz. vol. 197; p. 221.

Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,079; Dec. 23; Gaz. vol. 197; p. 978.

Vogel, Edward M. (See Kohner, Gustave, assignor.)

Walsh, Edward J., St. Louis, Mo. Sheet-glass. No. 45,036; Dec. 9; Gaz. vol. 197; p. 510.

Walther, George, Dayton, Ohio. Automobile truck-wheel. No. 45,097; Dec. 30; Gaz. vol. 197; p. 1273.

Wass, Stanley, St. Louis, Mo. Shoe. No. 45,080; Dec. 23; Gaz. vol. 197; p. 978.

Williams, Fred O., Brookline, assignor to United Drug Company, Boston, Mass. Water-bottle, syringe-bag, or similar article. Nos. 45,037-8; Dec. 9; Gaz. vol. 197; p. 511.

Williams, Roger O., Carbondale, Pa. Curtain and shade bracket. No. 45,081; Dec. 23; Gaz. vol. 197; p. 978.

Wirts, Stephen M., Detroit, Mich., and E. L. Duckwall, Salem, Ind., assignors to American Graphophone Company, Bridgeport, Conn. Cabinet for talking-machines. No. 44,993; Dec. 2; Gaz. vol. 197; p. 221.

Worthington Ball Company, The. (See Worthington, George C., assignor.)

Worthington, George C., assignor to The Worthington Ball Company, Elyria, Ohio. Playing-ball. No. 45,082; Dec. 23; Gaz. vol. 197; p. 978.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. G. Hyde & Sons, New York, N. Y. Silk and cotton piece goods. No. 94,641; Dec. 23; Gaz. vol. 197; p. 993.

A. W. Cowen & Bros., New York, N. Y. Neckties, neckscarfs, and cravats. No. 94,606; Dec. 23; Gaz. vol. 197; p. 992.

A. W. Faber, Stein, near Nuremberg, and Berlin, Germany. Pencils, crayons, rubber erasers and bands, rulers, &c. No. 94,549; Dec. 16; Gaz. vol. 197; p. 777.

Akron Brewing Company, The, Akron, Ohio. Beer. No. 94,537; Dec. 16; Gaz. vol. 197; p. 777.

Alabastine Company, Grand Rapids, Mich. Base for making a paint and a wall-coating. No. 94,538; Dec. 16; Gaz. vol. 197; p. 777.

Albany Chemical Co., Albany, Ga. Remedy for venereal diseases. No. 94,539; Dec. 16; Gaz. vol. 197; p. 777.

Albany Perforated Wrapping Paper Company, Albany, N. Y. Toilet-paper. No. 94,570; Dec. 23; Gaz. vol. 197; p. 991.

Albert Dickinson Company, The, Chicago, Ill. Alfalfa. No. 94,430; Dec. 9; Gaz. vol. 197; p. 527.

Allan Chemical Co., Louisville, Ky., assignor, by mesne assignments, to The Oratone Company, Buffalo, N. Y. Dentifrice. No. 94,540; Dec. 16; Gaz. vol. 197; p. 777.

Allen & Hamburgs, Limited, London, England. Medicinal preparation. No. 94,411; Dec. 9; Gaz. vol. 197; p. 527.

American Association of Foreign Language Newspapers, Inc., New York, N. Y. Magazine issued semi-monthly. No. 94,412; Dec. 9; Gaz. vol. 197; p. 527.

American Felt Company, Boston, Mass. Felt in the piece. No. 94,413; Dec. 9; Gaz. vol. 197; p. 527.

American Glue Company, Boston, Mass. Sandpapers, garnet-papers, and emery papers and cloths. No. 94,709; Dec. 30; Gaz. vol. 197; p. 1287.

American Paint & Color Co., The, Arkansas City, Kans. Paint for condensers and other metal structures. No. 94,571; Dec. 23; Gaz. vol. 197; p. 991.

American Photographic Text Book Company, The, Scranton, Pa. Certain named measuring and scientific appliances. No. 94,414; Dec. 9; Gaz. vol. 197; p. 527.

American Sheet & Tin Plate Company, Pittsburgh, Pa. Iron and steel sheets and plates and tin andterne plates. No. 94,572; Dec. 23; Gaz. vol. 197; p. 991.

American Steel & Wire Co. of New Jersey, Cleveland, Ohio; Chicago, Ill.; Pittsburgh, Pa.; New York, N. Y.; Worcester, Mass., and Hoboken, N. J. Sulfate of iron. No. 94,573; Dec. 23; Gaz. vol. 197; p. 991.

American Sugar Refining Company, The, Jersey City, N. J. Molasses. Nos. 94,574-6; Dec. 23; Gaz. vol. 197; p. 991.

Amoskeag Manufacturing Company, Manchester, N. H. Cotton piece goods. No. 94,509; Dec. 9; Gaz. vol. 197; p. 530.

Anderson & Co., Wm., New York, N. Y. Percale. No. 94,578; Dec. 23; Gaz. vol. 197; p. 991.

Anderson, James A., St. Louis, Mo. Laundry boxes, bags, and cartons. No. 94,577; Dec. 23; Gaz. vol. 197; p. 991.

Anglo-American Pharmaceutical Company Ltd., The, Croydon, England, and New York, N. Y. Antiseptic powder. No. 94,780; Dec. 30; Gaz. vol. 197; p. 1289.

Ankeny, Calvin M., Somerset, Pa. Crates. No. 94,579; Dec. 23; Gaz. vol. 197; p. 991.

Annuzzi, Rosa, San Francisco, Cal. Salve. No. 94,781; Dec. 30; Gaz. vol. 197; p. 1289.

Arborol Chemical Company. (See Copleston, Henry, assignor.)

Archie, Wm. N., Atlanta, Ga. Dressing-combs made of cotton fiber. No. 94,580; Dec. 23; Gaz. vol. 197; p. 991.

Aristos Company, The, Wilmington, Del., and New York, N. Y. Shock-preventers. No. 94,710; Dec. 30; Gaz. vol. 197; p. 1287.

Art Brass Company, New York, N. Y. Certain holders, brackets, racks, hooks, shelves, bath seats and sprays, &c. No. 94,582; Dec. 23; Gaz. vol. 197; p. 991.

Arthur Chemical Co., New Haven, Conn. Perfumes, sachet and toilet powder, waters, and creams, &c. No. 94,541; Dec. 16; Gaz. vol. 197; p. 777.

Atlantic Macaroni Co., The, Long Island City, N. Y. Alimentary paste products. No. 94,344; Dec. 2; Gaz. vol. 197; p. 235.

Atlas Powder Company, Wilmington, Del. Dynamite. No. 94,583; Dec. 23; Gaz. vol. 197; p. 991.

Aurich, Alban, Hartmannsdorf, Germany. Gloves. No. 94,584; Dec. 23; Gaz. vol. 197; p. 991.

Austin-Walker Sales Company, New York, N. Y. Safety-pins. No. 94,585; Dec. 23; Gaz. vol. 197; p. 991.

Austral Window Company, Augusta, Me., and New York, N. Y. Windows. No. 94,586; Dec. 23; Gaz. vol. 197; p. 991.

Auto Parts Mfg. Co., Milwaukee, Wis. Automobile accessories. No. 94,345; Dec. 2; Gaz. vol. 197; p. 235.

Autosales Gum and Chocolate Company, New York, N. Y. Chewing-gum. Nos. 94,587-8; Dec. 23; Gaz. vol. 197; p. 991.

Autran & Ardisson, Paris, France. Perfumery. No. 94,416; Dec. 9; Gaz. vol. 197; p. 527.

Back-Rack Collar Button Co., Providence, R. I. Collar and cuff buttons and shirt-studs. No. 94,346; Dec. 2; Gaz. vol. 197; p. 235.

Barse & Hopkins, New York, N. Y. Calendar and collection of mottoes. Nos. 94,417-18; Dec. 9; Gaz. vol. 197; p. 527.

Bartlett, Albert G., Los Angeles, Cal. Lubricating-oils. No. 94,589; Dec. 23; Gaz. vol. 197; p. 991.

Bartlett-Orr Press, New York, N. Y. Certain named prints and publications. No. 94,419; Dec. 9; Gaz. vol. 197; p. 527.

Bayer Company, Inc., The, New York, N. Y. Copper preparation to be used in the treatment of tuberculosis. No. 94,590; Dec. 23; Gaz. vol. 197; p. 991.

Benger Söhne, Wilhelm, Stuttgart, Germany. Woven and knit fabrics and stockinet. No. 94,683; Dec. 23; Gaz. vol. 197; p. 994.

Bente, William F., Seattle, Wash. Remedy for certain diseases. No. 94,347; Dec. 2; Gaz. vol. 197; p. 235.

Berger & Co., E., New York, N. Y. Medicated lozenge. No. 94,593; Dec. 23; Gaz. vol. 197; p. 991.

Berkshire Springs Co., New York, N. Y. Mineral water. No. 94,711; Dec. 30; Gaz. vol. 197; p. 1287.

Berliner, Herbert S., Washington, D. C. Calculating-machines. No. 94,542; Dec. 16; Gaz. vol. 197; p. 777.

Berry & Co., C., Boston, Mass. Port-wine. No. 94,348; Dec. 2; Gaz. vol. 197; p. 235.

Berry & Co., C., Boston, Mass. Sherry-wine. No. 94,349; Dec. 2; Gaz. vol. 197; p. 235.

Biograph Company, New York, N. Y. Moving-picture films and cameras, microscope-pictures, and exhibiting-machines. No. 94,594; Dec. 23; Gaz. vol. 197; p. 991.

Blyth & Platt, Limited, Watford, England. Cleaning certain named articles, and certain polishes. No. 94,420; Dec. 9; Gaz. vol. 197; p. 527.

Bonetti Frères, Paris, France. Ointment. No. 94,552; Dec. 16; Gaz. vol. 197; p. 777.

Bradbury Equalizer Company, The, Cossack, N. Y. Remedy for diseases of horses. No. 94,350; Dec. 2; Gaz. vol. 197; p. 235.

Bradner Smith & Co., Chicago, Ill. Paper, envelope, and Bristol-board. No. 94,351; Dec. 2; Gaz. vol. 197; p. 235.

Brentano, Simon, Orange, N. J., and New York, N. Y. Bath-powder. No. 94,782; Dec. 30; Gaz. vol. 197; p. 1289.

Brinsler, Solomon C., Middletown, Pa. Cornmeal. No. 94,352; Dec. 2; Gaz. vol. 197; p. 235.

Brockton Peoples Shoe Co., Brockton, Mass. Leather shoes. No. 94,510; Dec. 9; Gaz. vol. 197; p. 530.

Bronston Bros. & Co., New York, N. Y. Straw hats. No. 94,595; Dec. 23; Gaz. vol. 197; p. 991.

Brower, John H., New York, N. Y. Wheat-flour. No. 94,586; Dec. 23; Gaz. vol. 197; p. 991.

Bryant, Charles, London, England. Chains of precious metal. No. 94,543; Dec. 16; Gaz. vol. 197; p. 777.

Buchanan Coal Company, Chicago, Ill. Coal. No. 94,421; Dec. 9; Gaz. vol. 197; p. 527.

Burke, Frank G., New York, N. Y. Toilet soaps. No. 94,424; Dec. 9; Gaz. vol. 197; p. 527.

Burton Bros. & Co., New York, N. Y. Cotton piece goods. No. 94,511; Dec. 9; Gaz. vol. 197; p. 530.

C. A. Cook Co., Cambridge, Mass. Type-writer and desk chairs and stools. No. 94,605; Dec. 23; Gaz. vol. 197; p. 992.

C. A. D. O. Co., Inc., New York, N. Y. Cigarettes. No. 94,713; Dec. 30; Gaz. vol. 197; p. 1287.

C. M. & R. Manufacturing Company, St. Joseph, Mo. Carbonated tonic beverage and syrup and powder for making same. No. 94,512; Dec. 9; Gaz. vol. 197; p. 530.

California Cracker Co., Oakland, Cal. Crackers, biscuits, and cakes. No. 94,597; Dec. 23; Gaz. vol. 197; p. 991.

Canton Steel Ceiling Co., The, New York, N. Y. Steel ceilings. No. 94,353; Dec. 2; Gaz. vol. 197; p. 235.

Carbon Cleaning Compound Co., St. Louis, Mo. Compound for cleaning the cylinders of internal-combustion engines. No. 94,354; Dec. 2; Gaz. vol. 197; p. 235.

Carson Glove Co., San Francisco, Cal. Leather gloves. No. 94,513; Dec. 9; Gaz. vol. 197; p. 530.

Chase-O Manufacturing Company, Camden, N. J., and Philadelphia, Pa. Detergent preparation in crystal form. No. 94,425; Dec. 9; Gaz. vol. 197; p. 527.

Chattanooga Plow Co., Chattanooga, Tenn. Cane-mills. No. 94,598; Dec. 23; Gaz. vol. 197; p. 992.

Chemische Fabrik Helfenberg A. G. vorm. Eugen Dieterich, Helfenberg, near Dresden, Germany. Agar preparations for bacteriological purposes. No. 94,783; Dec. 30; Gaz. vol. 197; p. 1289.

Chester Kent & Co., Boston, Mass. Medicinal tonic preparation. No. 94,557; Dec. 16; Gaz. vol. 197; p. 777.
 Clima y Garcia, José, Oviedo, Spain. Cider. No. 94,522; Dec. 9; Gaz. vol. 197; p. 530.
 Cointreau Pere et Fils, Angers, France. Liqueur. No. 94,714; Dec. 30; Gaz. vol. 197; p. 1287.
 Colorado Sanitarium Food Company, The, Boulder, Colo. Cereal breakfast food. No. 94,599; Dec. 23; Gaz. vol. 197; p. 992.
 Compagnie Générale des Établissements Pathé Frères, Phonographic apparatus and films and plates therefor. Nos. 94,800-3; Dec. 23; Gaz. vol. 197; p. 992.
 Compagnie Laferme Tabak- und Cigaretten-Fabriken, Dresden, Germany. Smoking-tobacco and cigarettes. No. 94,426; Dec. 9; Gaz. vol. 197; p. 527.
 Condit, Harry H., Indianapolis, Ind., and New York, N. Y. Ladies' underwears. No. 94,604; Dec. 23; Gaz. vol. 197; p. 992.
 Consolidated Manufacturing Company, The, Toledo, Ohio. Motor-cycles and bicycles. No. 94,355; Dec. 2; Gaz. vol. 197; p. 235.
 Coolbroth, Augusta P., Brookline, Mass. Catamenial belts. No. 94,356; Dec. 2; Gaz. vol. 197; p. 235.
 Copleston, Henry, assignor to Arboreal Chemical Company, Denver, Colo. Medicinal preparation. No. 94,715; Dec. 30; Gaz. vol. 197; p. 1287.
 Coplon & Co., D. H., Buffalo, N. Y. Textile rugs, carpets, and matting. No. 94,716; Dec. 30; Gaz. vol. 197; p. 1287.
 Corona Kid Manufacturing Company, Portland, Me., and Boston, Mass. Leather. No. 94,427; Dec. 9; Gaz. vol. 197; p. 527.
 Corti-A-Lap Company, Somerville, N. J. Paper adapted for certain purposes. No. 94,514; Dec. 9; Gaz. vol. 197; p. 530.
 Coughlan Brothers, Kansas City, Mo. Exterminator for all household vermin. No. 94,544; Dec. 16; Gaz. vol. 197; p. 777.
 Courtlands Limited, London, England. Thread and yarn. No. 94,607; Dec. 23; Gaz. vol. 197; p. 992.
 Crowley, Charles H., New York, N. Y. Hooks and eyes. No. 94,515; Dec. 9; Gaz. vol. 197; p. 530.
 Cutler-Hammer Mfg. Co., The, Milwaukee, Wis. Electric switches. Nos. 94,545-6; Dec. 16; Gaz. vol. 197; p. 777.
 D. Gruen, Sons & Company, The, Cincinnati, Ohio. Watches. No. 94,631; Dec. 23; Gaz. vol. 197; p. 993.
 D. M. Sechler Implement & Carriage Co., Moline, Ill. Manure-spreaders. No. 94,675; Dec. 23; Gaz. vol. 197; p. 994.
 David Berg Distilling Company, Philadelphia, Pa. Denatured alcohol. No. 94,592; Dec. 23; Gaz. vol. 197; p. 991.
 David, Emil, New York, N. Y. Hair-nets. No. 94,510; Dec. 9; Gaz. vol. 197; p. 530.
 David Nicholson Grocer Company, St. Louis, Mo. Extract of malt. No. 94,482; Dec. 9; Gaz. vol. 197; p. 529.
 De Groot & Co., J., Zeeland, Mich. Abrasive substances for removing stains, &c. from clothing. No. 94,717; Dec. 30; Gaz. vol. 197; p. 1287.
 De la Mora, V. de R., Guadalajara, Mexico. Tequila, an alcoholic beverage. No. 94,718; Dec. 30; Gaz. vol. 197; p. 1287.
 Dean Electric Company, Elyria, Ohio. Electric automobile-horns and circuit-controllers for same. No. 94,547; Dec. 16; Gaz. vol. 197; p. 777.
 Dean Electric Company, The, Elyria, Ohio. Electric automobile and motor-cycle horns. No. 94,608; Dec. 23; Gaz. vol. 197; p. 992.
 Dennison Manufacturing Company, Boston, Mass. Tags. Nos. 94,609-19; Dec. 23; Gaz. vol. 197; p. 992.
 Despesailles & Cie., Paris, France. Certain named electrical apparatus and accessories. No. 94,428; Dec. 9; Gaz. vol. 197; p. 527.
 Detrey, Emanuel, Zurich, Switzerland. Certain named dental supplies. No. 94,784; Dec. 30; Gaz. vol. 197; p. 1289.
 Detroit Emery Wheel Company, Detroit, Mich. Grinding-wheels. No. 94,429; Dec. 9; Gaz. vol. 197; p. 527.
 Dollfus-Mieg & Cie. Société Anonyme, Mulhouse, Germany. Yarns, threads, cords, braids, and laces. No. 94,720; Dec. 30; Gaz. vol. 197; p. 1287.
 Dr. Bruno Beckmann Chemische Fabrik Gesellschaft mit beschränkter Haftung, Chemical substances prepared for use in certain named purposes. No. 94,591; Dec. 23; Gaz. vol. 197; p. 991.
 Drägerwerk, Heintz & Bernh. Dräger, Lübeck, Germany. Respiratory apparatus and devices for administering oxygen. No. 94,620; Dec. 23; Gaz. vol. 197; p. 992.
 Dunford, J. W., Atlanta, Ga. Paints. No. 94,431; Dec. 9; Gaz. vol. 197; p. 527.
 Dunn, Jessie E., Chicago, Ill. Cleansing fluid. No. 94,432; Dec. 9; Gaz. vol. 197; p. 527.
 E. Greenfield's Sons, New York and Brooklyn, N. Y. Candles. No. 94,630; Dec. 23; Gaz. vol. 197; p. 992.
 E. B. Millar & Co., Chicago, Ill. Spices. No. 94,652; Dec. 23; Gaz. vol. 197; p. 993.
 E. C. Atkins & Company, Indianapolis, Ind. Machine-knives used in cutting-machines. No. 94,415; Dec. 9; Gaz. vol. 197; p. 527.
 E. F. Houghton & Company, Philadelphia, Pa. Lubricating oils and greases and tempering, wool, and metal-cutting oils. No. 94,633; Dec. 23; Gaz. vol. 197; p. 993.

Editor & Publishing Co., The, New York, N. Y. Newspapers. No. 94,433; Dec. 9; Gaz. vol. 197; p. 527.
 Efectine Company, The, Springfield, Mass. Medicinal preparation used in treatment of certain named diseases. No. 94,621; Dec. 23; Gaz. vol. 197; p. 992.
 Elsemann & Co., Samuel, New York, N. Y. Satin, silk, and silk and cotton piece goods. No. 94,517; Dec. 9; Gaz. vol. 197; p. 530.
 Elsemann, Kaiser & Co., Chicago, Ill. Purses and handbags. No. 94,622; Dec. 23; Gaz. vol. 197; p. 992.
 Electro Importing Company, The, New York, N. Y. Monthly magazine. No. 94,721; Dec. 30; Gaz. vol. 197; p. 1287.
 Emken Chemical Co., New York, N. Y. Beer-coloring. No. 94,518; Dec. 9; Gaz. vol. 197; p. 530.
 Empire Automobile Co., Indianapolis, Ind. Automobiles. No. 94,357; Dec. 2; Gaz. vol. 197; p. 235.
 Empire Bottle & Supply Company, New York, N. Y. Glass milk and cream bottles. No. 94,722; Dec. 30; Gaz. vol. 197; p. 1287.
 English & Mersick Co., The, New Haven, Conn. Automobile-radiators. No. 94,623; Dec. 23; Gaz. vol. 197; p. 992.
 Enos Adams Co., The, Bennington, Vt. Hand soap paste. No. 94,410; Dec. 9; Gaz. vol. 197; p. 527.
 Ernecke & Salenstein Company, Chicago, Ill. Adhesive pastes. No. 94,358; Dec. 2; Gaz. vol. 197; p. 235.
 Evans-Smith Drug Co., Kansas City, Mo. Whisky. No. 94,434; Dec. 9; Gaz. vol. 197; p. 527.
 Excelsior Shoe Company, Portsmouth, Ohio. Leather boots and shoes. No. 94,723; Dec. 30; Gaz. vol. 197; p. 1287.
 F. Mayer Boot & Shoe Co., Milwaukee, Wis. Leather boots and shoes. No. 94,738; Dec. 30; Gaz. vol. 197; p. 1288.
 F. H. Strong Company, New York, N. Y. Laxative. No. 94,504; Dec. 9; Gaz. vol. 197; p. 530.
 Farnsworth, Daniel W., Montclair, N. J., and New York, N. Y. Flannel and woolen piece goods. No. 94,725; Dec. 30; Gaz. vol. 197; p. 1287.
 Faunce, Benjamin R., Riverside township, Burlington county, N. J. Plain soft drink. No. 94,359; Dec. 2; Gaz. vol. 197; p. 235.
 Federal Sign System (Electric), Chicago, Ill. Shaving-mirrors. No. 94,360; Dec. 2; Gaz. vol. 197; p. 235.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain named hardware, plumbing, and steam-fitting supplies. No. 94,361; Dec. 2; Gaz. vol. 197; p. 235.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain named machinery and tools and parts thereof. No. 94,362; Dec. 2; Gaz. vol. 197; p. 235.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain named vehicles and parts thereof. No. 94,363; Dec. 2; Gaz. vol. 197; p. 235.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain metals in various shapes and certain named goods made therefrom. No. 94,435; Dec. 9; Gaz. vol. 197; p. 527.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain articles composed of vegetable and mineral substances and leather packing. No. 94,436; Dec. 9; Gaz. vol. 197; p. 527.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Certain vegetable substances and products. No. 94,437; Dec. 9; Gaz. vol. 197; p. 528.
 Felten & Guillaume Carlswerk Actien-Gesellschaft, Mulheim-on-the-Rhine, Germany. Air-tubes for wheel-tires and rubber valves. No. 94,724; Dec. 30; Gaz. vol. 197; p. 1287.
 Fisher Flouring Mills Company, Seattle, Wash. Wheat-flour. No. 94,624; Dec. 23; Gaz. vol. 197; p. 992.
 Flstupole Compounding Co., The, Latham, Ill. Remedy for fistula, poll-evil, old sores, and swellings. No. 94,438; Dec. 9; Gaz. vol. 197; p. 528.
 Flexume Sign Company, Inc., Buffalo, N. Y. Electrically-illuminated signs. No. 94,550; Dec. 16; Gaz. vol. 197; p. 777.
 Florists' Publishing Company, Chicago, Ill. Weekly publication for florists, &c. No. 94,439; Dec. 9; Gaz. vol. 197; p. 528.
 Fort Scott Sorghum Syrup Company, The, Fort Scott, Kans. Sorghum and sorghum compounds. Nos. 94,625-6; Dec. 23; Gaz. vol. 197; p. 992.
 Foulis, David, London, England. Medicine for gout, rheumatism, lumbago, and sciatica. No. 94,551; Dec. 16; Gaz. vol. 197; p. 777.
 Frank Pure Food Co., The, Milwaukee, Wis. Gelatin preparation. No. 94,365; Dec. 2; Gaz. vol. 197; p. 235.
 Franklin MacVeagh & Company, Chicago, Ill. Certain named foods. No. 94,648; Dec. 23; Gaz. vol. 197; p. 993.
 Frederick W. Lipps Company of Baltimore City, The, Baltimore, Md. Candy. No. 94,386; Dec. 2; Gaz. vol. 197; p. 236.
 Freund & Co., Leonhart H., New York, N. Y. Candles. No. 94,627; Dec. 23; Gaz. vol. 197; p. 992.
 Fried, Mendelson & Co., New York, N. Y. Silk, silk and cotton, and cotton-mixed fabrics. No. 94,521; Dec. 9; Gaz. vol. 197; p. 530.
 G. Reis & Bro., New York, N. Y. Embroidery foundations. No. 94,532; Dec. 9; Gaz. vol. 197; p. 530.

Garrett & Co., Norfolk, Va. Blackberry cordial. No. 94,785; Dec. 30; Gaz. vol. 197; p. 1289.
 General Composing Company, Gesellschaft mit beschränkter Haftung, Berlin, Germany. Certain named machines. No. 94,440; Dec. 9; Gaz. vol. 197; p. 528.
 General Electric Company, Schenectady, N. Y. Certain named glass articles used for illuminating purposes. No. 94,866; Dec. 2; Gaz. vol. 197; p. 235.
 General Fireproofing Company, The, Youngstown, Ohio. Metallic filing cases and cabinets. No. 94,367; Dec. 2; Gaz. vol. 197; p. 235.
 General Roofing Manufacturing Co., East St. Louis, Ill. Asphalt roofing, tarred felts, and building papers. No. 94,368; Dec. 2; Gaz. vol. 197; p. 235.
 Geo. Zett Brewery, The, Syracuse, N. Y. Lager-beer and ale. No. 94,779; Dec. 30; Gaz. vol. 197; p. 1289.
 Gesellschaft fur Drahtlose Telegraphie, m. b. H., Berlin, Germany. Wave-meters and electrical measuring instruments. No. 94,726; Dec. 30; Gaz. vol. 197; p. 1287.
 Gesswein & Company, Paul H., New York, N. Y. Jewelers' saws. No. 94,369; Dec. 2; Gaz. vol. 197; p. 235.
 Giguet, Julien, Lyon, France, and New York, N. Y. Hair-nets. No. 94,523; Dec. 9; Gaz. vol. 197; p. 530.
 Glamser Venn Drug Company, assignor to Persian Balm Company, Pittsburgh, Pa. Healing lotion or balm for chapped hands. No. 94,553; Dec. 16; Gaz. vol. 197; p. 777.
 Godwin, William S., Baltimore, Md. Antiseptics. No. 94,628; Dec. 23; Gaz. vol. 197; p. 992.
 Goldberg, Bowen & Co., San Francisco, Cal. Sugar and oysters. No. 94,629; Dec. 23; Gaz. vol. 197; p. 992.
 Goose Grease Co., Greensboro, N. C. Salve. No. 94,441; Dec. 9; Gaz. vol. 197; p. 528.
 Gottesman & Son, M., New York, N. Y. Wood-pulp. Nos. 94,442-3; Dec. 9; Gaz. vol. 197; p. 528.
 Governor and Company of Adventurers of England Trading into Hudson's Bay, The, Winnipeg, Manitoba, Canada. Whisky. No. 94,444; Dec. 9; Gaz. vol. 197; p. 528.
 Greenwald, Rose, Dinuba, Cal. Automobile-polish. No. 94,445; Dec. 9; Gaz. vol. 197; p. 528.
 H. P. Patents and Processes Company, Inc. (See Hochstetter, Frederick W., assignor.)
 Hauser & Sons, Ann Arbor, Mich. Salves and ointments. No. 94,446; Dec. 9; Gaz. vol. 197; p. 528.
 Haas Brothers, New York, N. Y. Light-weight silk crape. No. 94,727; Dec. 30; Gaz. vol. 197; p. 1287.
 Hahn, L. W., Kansas City, Mo. Baking-powder. No. 94,786; Dec. 30; Gaz. vol. 197; p. 1289.
 Hambley, Scott B., Detroit, Mich. Laxative cathartic and diuretic. No. 94,371; Dec. 2; Gaz. vol. 197; p. 236.
 Hammond, Standish & Co., Detroit, Mich. Lard, hams, bacon, dried beef, &c. No. 94,633; Dec. 23; Gaz. vol. 197; p. 993.
 Hannoverische Steinholzfabrik "Fama" Gesellschaft mit beschränkter Haftung, Hanover, Germany. Artificial wood. No. 94,372; Dec. 2; Gaz. vol. 197; p. 236.
 Harlow Chemical Co., The, New York, N. Y. Insect-exterminators. No. 94,554; Dec. 16; Gaz. vol. 197; p. 777.
 Harris, Benjamin E., Chicago, Ill. Vacuum-cleaners and carpet-sweepers. No. 94,373; Dec. 2; Gaz. vol. 197; p. 236.
 Havens and Geddes Company, Indianapolis, Ind. Negligée shirts. No. 94,634; Dec. 23; Gaz. vol. 197; p. 993.
 Hebe's Boudoir Corporation, Minneapolis, Minn. Tooth-paste, powders, face-creams, and perfumery. No. 94,374; Dec. 2; Gaz. vol. 197; p. 236.
 Hecker-Jones-Jewell Milling Company, New York, N. Y. Wheat-flour. No. 94,375; Dec. 2; Gaz. vol. 197; p. 236.
 Heco Envelope & Paper Company, Chicago, Ill. Paper towels and toilet-paper. No. 94,376; Dec. 2; Gaz. vol. 197; p. 236.
 Heintz, Curt H., Cassel, Germany. Chicories, certain grain, and ground fruits roasted for a food drink. No. 94,635; Dec. 23; Gaz. vol. 197; p. 993.
 Heller & Long, New York, N. Y. Handkerchiefs. No. 94,728; Dec. 30; Gaz. vol. 197; p. 1287.
 Henry Disston & Sons Incorporated, Philadelphia, Pa. Saws. No. 94,719; Dec. 30; Gaz. vol. 197; p. 1287.
 Hercules Rubber Company, New York, N. Y. Fabric for vehicle-tops. No. 94,524; Dec. 9; Gaz. vol. 197; p. 530.
 Higley, Christina J., New York, N. Y. Hose-supporters. No. 94,636; Dec. 23; Gaz. vol. 197; p. 993.
 Hill, Elmer W., Portland, Oreg. Valve-grinding paste. No. 94,447; Dec. 9; Gaz. vol. 197; p. 528.
 Hirsch Brothers, Milwaukee, Wis. Grain-separators, fanning-mills, and grain-cleaning machines. No. 94,448; Dec. 9; Gaz. vol. 197; p. 528.
 Hochstetter, Frederick W., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y. Moving-picture machines, cameras, kodaks, and photographic films. Nos. 94,729-30; Dec. 30; Gaz. vol. 197; p. 1287.
 Holbrook Mfg. Co., The, Jersey City, N. J. Soap powder. No. 94,449; Dec. 9; Gaz. vol. 197; p. 528.
 Hoynes Safety Powder Co., Cleveland, Ohio. Powders for blasting, &c. No. 94,637; Dec. 23; Gaz. vol. 197; p. 993.
 Hughes, George W., Birmingham, England. Steel pens. No. 94,379; Dec. 2; Gaz. vol. 197; p. 236.
 Hughes, George W., Birmingham, England. Steel pens. No. 94,640; Dec. 23; Gaz. vol. 197; p. 993.

Imperial Merchandise Co., The, Perry, Ohio. Gas-mantles. Nos. 94,450-1; Dec. 9; Gaz. vol. 197; p. 528.
 Imperial Merchandise Co., The, Perry, Ohio. Jar-rings. No. 94,452; Dec. 9; Gaz. vol. 197; p. 528.
 Imperial Typewriter Co. Limited, Leicester, England. Type-writers. Nos. 94,642-3; Dec. 23; Gaz. vol. 197; p. 993.
 Ingersoll-Rand Company, Phillipsburg, N. J., and New York, N. Y. Certain turbines, compressors, drills, &c., and repair parts for same. No. 94,644; Dec. 23; Gaz. vol. 197; p. 993.
 Inland Steel Company, Chicago, Ill. Sheet-steel. No. 94,380; Dec. 2; Gaz. vol. 197; p. 236.
 International Harvester Company of New Jersey, Chicago, Ill. Guard-plates for mowers. No. 94,453; Dec. 9; Gaz. vol. 197; p. 528.
 Israel, Fred W., Wichita, Kans. Salves and cough-drops. No. 94,381; Dec. 2; Gaz. vol. 197; p. 236.
 Italian Musical String Co., New York, N. Y. Gut strings for musical string instruments. No. 94,555; Dec. 16; Gaz. vol. 197; p. 777.
 J. Adler Gilding Co., New York, N. Y. Waterproof filler, varnish, and lacquer. No. 94,536; Dec. 16; Gaz. vol. 197; p. 777.
 J. Wilkes Co., New York, N. Y. Carbon-gas black and lampblack. No. 94,569; Dec. 16; Gaz. vol. 197; p. 778.
 J. & C. Fischer, New York, N. Y. Pianos and player-pianos. No. 94,384; Dec. 2; Gaz. vol. 197; p. 236.
 J. K. Armsby Company, The, San Francisco, Cal. Canned and dried fruits and raisins. No. 94,581; Dec. 23; Gaz. vol. 197; p. 991.
 J. L. Hopkins & Co., New York, N. Y. Capsicum, almond-meal, turmeric, &c. No. 94,378; Dec. 2; Gaz. vol. 197; p. 236.
 J. W. Buckley Rubber Co., New York, N. Y. Hose, belting, packing, and jar-rings. Nos. 94,422-3; Dec. 9; Gaz. vol. 197; p. 527.
 J. W. Buckley Rubber Co., New York, N. Y. Tubing and hose made of certain materials, belting, and machinery packing. No. 94,712; Dec. 30; Gaz. vol. 197; p. 1287.
 Jackson, Robt. G., Tacoma, Wash. Compound meal or flour. No. 94,454; Dec. 9; Gaz. vol. 197; p. 528.
 Jacob Frank Mercantile Co., St. Louis, Mo. Yarns. No. 94,519; Dec. 9; Gaz. vol. 197; p. 530.
 Jacob Frank Mercantile Co., St. Louis, Mo. Certain named articles used in embroidering. No. 94,520; Dec. 9; Gaz. vol. 197; p. 530.
 Jacobsen, Wm. H., Minneapolis, Minn. Garters, neckties, and suspenders. No. 94,731; Dec. 30; Gaz. vol. 197; p. 1287.
 Jefferson Distilling and Denaturing Company, New Orleans, La. Denatured alcohol. No. 94,787; Dec. 30; Gaz. vol. 197; p. 1289.
 Jenkins Mfg. Co., W. A., The, London, Ontario, Canada. Tonic for animals and poultry. No. 94,382; Dec. 2; Gaz. vol. 197; p. 236.
 John R. Ott Contracting Company, Los Angeles, Cal. Asphalt-cement paving material. No. 94,746; Dec. 30; Gaz. vol. 197; p. 1288.
 Johnson, William S., Baxley, Ga. Remedy for piles. No. 94,455; Dec. 9; Gaz. vol. 197; p. 528.
 Jones, Guy W., Erie, Pa. Preparation for the treatment of piles. No. 94,556; Dec. 16; Gaz. vol. 197; p. 777.
 Joseph Williams Company, Sparksburg, Pa. Insecticides. No. 94,705; Dec. 23; Gaz. vol. 197; p. 995.
 Kerns, Charles, Logansport, Ind. Liniment, cough-syrup, ointment, &c. No. 94,456; Dec. 9; Gaz. vol. 197; p. 528.
 Ketcham & McDougall, New York, N. Y. Sewing-thimbles of precious metal. No. 94,525; Dec. 9; Gaz. vol. 197; p. 530.
 Kiel Brothers, West New York, N. J. Butter and cheese. No. 94,383; Dec. 2; Gaz. vol. 197; p. 236.
 King Light Co., Peoria, Ill. Gas and vapor mantles. No. 94,457; Dec. 9; Gaz. vol. 197; p. 528.
 Kilgenstein Company, The, Los Angeles, Cal. Pipes. No. 94,645; Dec. 23; Gaz. vol. 197; p. 993.
 Kops Bros., New York, N. Y. Corsets. No. 94,526; Dec. 9; Gaz. vol. 197; p. 530.
 Kranich & Bach, New York, N. Y. Player-pianos and perforated music-sheets. No. 94,558; Dec. 16; Gaz. vol. 197; p. 777.
 Kretschmar, Oscar C., Minneapolis, Minn. Compound for use in exterminating rats, mice, gophers, and other animals. No. 94,384; Dec. 2; Gaz. vol. 197; p. 236.
 Kutzner, Oswald H., Santa Ana, Cal. Healing-salve. No. 94,646; Dec. 23; Gaz. vol. 197; p. 993.
 Lamb, Harvey W., Kansas City, Mo. Powder for cleaning painted or varnished surfaces, marble, glass, &c. No. 94,732; Dec. 30; Gaz. vol. 197; p. 1287.
 Lambdin, Hiram S., Peru, Kans. Remedy for earache, chapped hands, and eczema. No. 94,559; Dec. 16; Gaz. vol. 197; p. 777.
 Landon, A. et M., Paris, France. Toilet water. No. 94,647; Dec. 23; Gaz. vol. 197; p. 993.
 Lane, James V., Los Angeles, Cal. Polishing materials, furniture-polishes, and floor-dressings. No. 94,385; Dec. 2; Gaz. vol. 197; p. 236.
 Lavine, Chas., New York, N. Y. Outer coats, suits, dresses, and skirts. No. 94,458; Dec. 9; Gaz. vol. 197; p. 528.

Lawrence Manufacturing Company, Lowell and Boston, Mass. Certain named underwear. No. 94,733; Dec. 30; Gaz. vol. 197; p. 1287.

Lee Tire & Rubber Co., Whitmarsh township, Montgomery county, Pa. Rubber tires and tubing, inner tubes and cases, and valve-patches. No. 94,734; Dec. 30; Gaz. vol. 197; p. 1288.

Levy, Maxwell, Chicago, Ill. Broken glass. No. 94,459; Dec. 9; Gaz. vol. 197; p. 528.

Lighting Studios Company, New York, N. Y. Glass lamp shades, domes, and globes. No. 94,460; Dec. 9; Gaz. vol. 197; p. 528.

Lindsay Light Company, Chicago, Ill. Gas-manties. No. 94,735; Dec. 30; Gaz. vol. 197; p. 1288.

Lyma Vergaserfabrik Dietz und Compagnie, Dresden, Germany. Carbureters for explosion-engines. No. 94,461; Dec. 9; Gaz. vol. 197; p. 528.

M. Alshuler Company, Waukegan, Ill. Ladies' wash-dresses and negligees. No. 94,708; Dec. 30; Gaz. vol. 197; p. 1287.

M. S. Hallock Company, Rocky Point, N. Y. Poultry, fruits, and vegetables. No. 94,870; Dec. 2; Gaz. vol. 197; p. 235.

Macdonald, James, New York, N. Y. Shampoo preparations, perfumes, sachets, and toilet waters. No. 94,462; Dec. 9; Gaz. vol. 197; p. 528.

Machenbach Importing Co., New York, N. Y. Embroideries. No. 94,463; Dec. 9; Gaz. vol. 197; p. 528.

Magliaro, Antonio, Atlantic City, N. J. Hair-restorer. No. 94,788; Dec. 30; Gaz. vol. 197; p. 1289.

Magnano, Antonio, Seattle, Wash. Alimentary paste and olive-oil. No. 94,877; Dec. 2; Gaz. vol. 197; p. 236.

Maltbie, Birdsey L., assignor to Maltbie Chemical Company, Newark, N. J. Certain medicinal remedy for certain named diseases. No. 94,789; Dec. 30; Gaz. vol. 197; p. 1289.

Maltbie Chemical Company. (See Maltbie, Birdsey L., assignor.)

Manatee Fruit Co., Palmetto and Tampa, Fla. Oranges and grape-fruit. No. 94,649; Dec. 23; Gaz. vol. 197; p. 993.

Manning, Bowman & Co., Meriden, Conn. Imitation wood. No. 94,464; Dec. 9; Gaz. vol. 197; p. 528.

Manville Company, Providence, R. I. Napkins. No. 94,560; Dec. 16; Gaz. vol. 197; p. 777.

Marinello Company, The, Chicago, Ill. Certain named toilet preparations. No. 94,790; Dec. 30; Gaz. vol. 197; p. 1289.

Marinette Knitting Mills, Marinette, Wis. Knitted fabrics. No. 94,527; Dec. 9; Gaz. vol. 197; p. 530.

Marion Shoe Company, Marion, Ind. Men's and boys' leather shoes. No. 94,465; Dec. 9; Gaz. vol. 197; p. 528.

Matthews & Lively, Atlanta, Ga. Razors and razor-blades. Nos. 94,736-7; Dec. 30; Gaz. vol. 197; p. 1288.

Mayer, Saul, New York, N. Y. Hosiery. No. 94,650; Dec. 23; Gaz. vol. 197; p. 993.

Mayne, Caroline, New York, N. Y. Pills for the stomach and liver. No. 94,791; Dec. 30; Gaz. vol. 197; p. 1289.

McCreedy, George S., Brooklyn, N. Y. Talcum, sachet, and face powders, face-cream, and perfume. No. 94,388; Dec. 2; Gaz. vol. 197; p. 236.

McGinnis, Loyd, Canton, Ill. Leather shoes. No. 94,528; Dec. 9; Gaz. vol. 197; p. 530.

McNamara, Michael, Detroit, Mich. Liquid first-coater. No. 94,561; Dec. 16; Gaz. vol. 197; p. 777.

Mechanical Rubber Company, The, Jersey City, N. J.; New York, N. Y.; and Cleveland, Ohio. Hose. No. 94,466; Dec. 9; Gaz. vol. 197; p. 528.

Mechanics Union Overall Co., New York, N. Y. Overalls. No. 94,529; Dec. 9; Gaz. vol. 197; p. 530.

Meehan & Co., W. H., Springfield, Mass. Cigars. No. 94,739; Dec. 30; Gaz. vol. 197; p. 1288.

Messudlah Turkish Tobacco Company, Inc., New York, N. Y. Cigarettes. No. 94,467; Dec. 9; Gaz. vol. 197; p. 528.

Metal-Industrie Schönebeck Aktien-Gesellschaft, Schönebeck-on-the-Elbe, Germany. Type-writers and their parts. No. 94,468; Dec. 9; Gaz. vol. 197; p. 528.

Meyer, Firm of Arnold O., Hamburg, Germany. Oil and water-color paints and pigments therefor. No. 94,740; Dec. 30; Gaz. vol. 197; p. 1288.

Meyer & Co., John H., New York, N. Y. Waterproof fabrics. No. 94,469; Dec. 9; Gaz. vol. 197; p. 528.

Middletown Machine Co., The Middletown, Ohio, and New York, N. Y. Internal-combustion engines. No. 94,651; Dec. 23; Gaz. vol. 197; p. 993.

Midland Chemical Co., Dubuque, Iowa. Disinfectant and deodorant. No. 94,389; Dec. 2; Gaz. vol. 197; p. 236.

Mine and Smelter Supply Co., The, Denver, Colo., and New York, N. Y. Drill-steel. No. 94,470; Dec. 9; Gaz. vol. 197; p. 529.

Mine and Smelter Supply Co., The, Denver, Colo., and New York, N. Y. Friction-tape for insulation, dry-cell batteries, fuses, and fuse-wire. No. 94,471; Dec. 9; Gaz. vol. 197; p. 529.

Mine and Smelter Supply Co., The, Denver, Colo., and New York, N. Y. Scorifiers, muffles, and certain named furnaces and burners. No. 94,472; Dec. 9; Gaz. vol. 197; p. 529.

Mine and Smelter Supply Co., The, Denver, Colo. Glassware—namely, funnels, beakers, flasks, burettes, and cylinders. No. 94,473; Dec. 9; Gaz. vol. 197; p. 529.

Mine and Smelter Supply Co., The, Denver, Colo., and New York, N. Y. Crucibles, levels, and assay-balances. No. 94,474; Dec. 9; Gaz. vol. 197; p. 529.

Model American Kitchen Company, The, New York, N. Y. Periodicals issued monthly. No. 94,475; Dec. 9; Gaz. vol. 197; p. 529.

Moller & Schumann Co., New York, N. Y. Varnishes, wood fillers, stains, and enamels. No. 94,653; Dec. 23; Gaz. vol. 197; p. 993.

Montgomery, Edward F., Burkeville, Tex. Medicinal remedy for certain named diseases. No. 94,476; Dec. 9; Gaz. vol. 197; p. 529.

Montgomery-Washburn Company, Saugerties, N. Y. Aprons and covers for certain named vehicles. No. 94,654; Dec. 23; Gaz. vol. 197; p. 993.

Morris & Yeomans, Redditch and London, England. Crochet-needles. No. 94,741; Dec. 30; Gaz. vol. 197; p. 1288.

Morae, Asahel U., Kansas City, Mo. Toilet-paper. No. 94,390; Dec. 2; Gaz. vol. 197; p. 236.

Mount Pleasant Fertilizer Company, Incorporated, Mount Pleasant, Tenn. Fertilizer. No. 94,391; Dec. 2; Gaz. vol. 197; p. 236.

Munyon, James M., Jr., New York, N. Y. Preservation of rubber products. No. 94,530; Dec. 9; Gaz. vol. 197; p. 530.

Murphy Wall Bed Co. of California, San Francisco, Cal., and New York, N. Y. Folding beds. No. 94,655; Dec. 23; Gaz. vol. 197; p. 993.

Murray Wire Co., Newark, N. J. Resistance-wire. Nos. 94,656-8; Dec. 23; Gaz. vol. 197; p. 993.

Musolino & Berger, Boston, Mass. Macaroni. No. 94,659; Dec. 23; Gaz. vol. 197; p. 993.

Mystic Rubber Company, Medford, Mass. Certain named clothing made of rubber. No. 94,477; Dec. 9; Gaz. vol. 197; p. 529.

N. R. Allen's Sons Company, Kenosha, Wis. Leather strips. No. 94,707; Dec. 30; Gaz. vol. 197; p. 1287.

Nalley Grocery Co., Austin, Tex. Coffee. No. 94,660; Dec. 23; Gaz. vol. 197; p. 993.

National-Acme Manufacturing Company, The, Cleveland, Ohio. Metal-working, &c., screw-machines. No. 94,478; Dec. 9; Gaz. vol. 197; p. 529.

National Camera Company, St. Louis, Mo. Cameras. No. 94,661; Dec. 23; Gaz. vol. 197; p. 993.

National Carbon Company, Cleveland, Ohio. Dry cells, brushes for dynamo-electric machines, &c. No. 94,479; Dec. 9; Gaz. vol. 197; p. 529.

National Carbon Company, Cleveland, Ohio. Dry cells. No. 94,480; Dec. 9; Gaz. vol. 197; p. 529.

National Remedy Company, Boston, Mass. Medicinal preparation. No. 94,481; Dec. 9; Gaz. vol. 197; p. 529.

National Tube Company, Pittsburgh, Pa. Pipes, tubes, and castings. No. 94,392; Dec. 2; Gaz. vol. 197; p. 236.

New Jersey Wood Finishing Company, Perth Amboy, N. J. Varnishes, varnish-stain, enamel paint, wood filler and dyes. No. 94,662; Dec. 23; Gaz. vol. 197; p. 993.

New York Boat Oar Company, East Orange, N. J., and New York, N. Y. Oars, sweeps, and sculls. No. 94,393; Dec. 2; Gaz. vol. 197; p. 236.

New York Boat Oar Company, East Orange, N. J., and New York, N. Y. Handspikes. No. 94,663; Dec. 23; Gaz. vol. 197; p. 993.

New York Herald Company, The, New York, N. Y. Pictures and illustrations published serially. Nos. 94,742-3; Dec. 30; Gaz. vol. 197; p. 1288.

Northern Shoe Co., Duluth, Minn. Boots and shoes of rubber and leather. No. 94,744; Dec. 30; Gaz. vol. 197; p. 1288.

Northwestern Compo Board Co., Minneapolis, Minn. Artificial lumber in strips, sheets, and boards. No. 94,745; Dec. 30; Gaz. vol. 197; p. 1288.

O. M. Steinman Inc., New York, N. Y. Cover-paper in sheets. No. 94,403; Dec. 2; Gaz. vol. 197; p. 236.

Oratone Company. (See Allan Chemical Co., assignor.)

Oscar Schlegel Mfg. Co., New York, N. Y. Certain named painters' materials and prepared paints. No. 94,491; Dec. 9; Gaz. vol. 197; p. 529.

Paris Medicine Company, St. Louis, Mo. Antiseptic cream. No. 94,792; Dec. 30; Gaz. vol. 197; p. 1289.

Park Pharmacy, The, Fitchburg, Mass. Cold-cream, hair-tonic, and cough mixtures. No. 94,483; Dec. 9; Gaz. vol. 197; p. 529.

Pemberton Company, Lawrence, Mass. Cotton piece goods. No. 94,531; Dec. 9; Gaz. vol. 197; p. 530.

Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa. Barrel-fillers. No. 94,664; Dec. 23; Gaz. vol. 197; p. 993.

Permutt Company, The, New York, N. Y. Water purifying and treating materials. No. 94,665; Dec. 23; Gaz. vol. 197; p. 993.

Petrocelli & Company, Joseph, New York, N. Y. Wine. No. 94,747; Dec. 30; Gaz. vol. 197; p. 1288.

Phelps Manufacturing Company, Providence, R. I. Liquid dressing for leather and rubber. No. 94,748; Dec. 30; Gaz. vol. 197; p. 1288.

Philadelphia Pile Fabric Mills, Philadelphia, Pa. Cut-pile fabrics. No. 94,666; Dec. 23; Gaz. vol. 197; p. 994.

Pirazzi & Co., Gustav, Offenbach-on-the-Main, Germany. Certain named instruments and parts therefor. No. 94,394; Dec. 2; Gaz. vol. 197; p. 236.

Piso Company, The, Warren, Pa. Remedy for coughs and colds. No. 94,484; Dec. 9; Gaz. vol. 197; p. 529.

Pittsburgh Brewing Company, Pittsburgh, Pa. Beer. Nos. 94,749-55; Dec. 30; Gaz. vol. 197; p. 1288.

Pittsburgh Brewing Company, Pittsburgh, Pa. Beer, ale, and porter. No. 94,756; Dec. 30; Gaz. vol. 197; p. 1288.

Pittsburgh Brewing Company, Pittsburgh, Pa. Beer. Nos. 94,757-60; Dec. 30; Gaz. vol. 197; p. 1288.

Po-esh-i-ko Company, Pierz, Minn. Remedy for stomach and bowel disorders. No. 94,562; Dec. 16; Gaz. vol. 197; p. 778.

Posey, James A., Waxahachie, Tex. Puncture-proof composition. No. 94,395; Dec. 2; Gaz. vol. 197; p. 236.

Production Engineering Co., Philadelphia, Pa. Burners for burning fuel-oil. No. 94,485; Dec. 9; Gaz. vol. 197; p. 529.

Protocon Company, Incorporated, The, New York, N. Y. Hat frames and trimmings and artificial flowers. No. 94,761; Dec. 30; Gaz. vol. 197; p. 1288.

Pyrene Manufacturing Co., New York, N. Y. Fire-extinguishing compounds. No. 94,667; Dec. 23; Gaz. vol. 197; p. 994.

R. W. B. Co., Buffalo, N. Y. Remedy for corns, warts, and callouses. No. 94,396; Dec. 2; Gaz. vol. 197; p. 236.

Red Rosin Products Co., Montgomery, Ala. Preparation for banishing mosquitos, &c. No. 94,563; Dec. 16; Gaz. vol. 197; p. 778.

Reeves Company, The, New Orleans, La. Wood-preserved. No. 94,397; Dec. 2; Gaz. vol. 197; p. 236.

Rice-Stix Dry Goods Company, St. Louis, Mo. Shoulder-scarfs and shawls. No. 94,486; Dec. 9; Gaz. vol. 197; p. 529.

Richard Hudnut, New York, N. Y. Certain named toilet preparations. No. 94,639; Dec. 23; Gaz. vol. 197; p. 993.

Rickersberg Brass Company, The, Cleveland, Ohio. Certain named plumbing and steam-fitting supplies. No. 94,487; Dec. 9; Gaz. vol. 197; p. 529.

Riley, John T., Chicago, Ill. Salve. No. 94,668; Dec. 23; Gaz. vol. 197; p. 994.

Riplease, Tony, Cleveland, Ohio. Corn remedy, hair-tonic, and toilet water. No. 94,488; Dec. 9; Gaz. vol. 197; p. 529.

Roblee-Wass Shoe Company, St. Louis, Mo. Boots and shoes. No. 94,669; Dec. 23; Gaz. vol. 197; p. 994.

Roller Polisher Company, New York, N. Y. Manicuring hand-polishers, buffers, and enamelers. No. 94,398; Dec. 2; Gaz. vol. 197; p. 236.

Root Co., F. S., Boston, Mass. Printed books, booklets, pamphlets, and prints. No. 94,762; Dec. 30; Gaz. vol. 197; p. 1288.

Roper & Co., C. F., Hopedale, Mass. Gasolene-gages. No. 94,399; Dec. 2; Gaz. vol. 197; p. 236.

Rosenthal, G., Bayonne, France. Dentifrices. No. 94,564; Dec. 16; Gaz. vol. 197; p. 778.

Rotary Meter Company, New York, N. Y. Gaseous-fluid-measuring apparatus. No. 94,763; Dec. 30; Gaz. vol. 197; p. 1288.

Royal Tea Company, Chicago, Ill. Soap. No. 94,489; Dec. 9; Gaz. vol. 197; p. 529.

Ruhl, Peter, Heber, Cal. Remedy for certain named ailments. No. 94,670; Dec. 23; Gaz. vol. 197; p. 994.

Russell Pharmaceutical Co., B. A., The, Illon, N. Y. Cream for the relief of foot troubles and chafing. No. 94,490; Dec. 9; Gaz. vol. 197; p. 529.

Russell Playing Card Co., Milltown, N. J., and New York, N. Y. Playing-cards. No. 94,671; Dec. 23; Gaz. vol. 197; p. 994.

Russla Cement Company, Gloucester, Mass. Polishes for automobiles, &c. No. 94,672; Dec. 23; Gaz. vol. 197; p. 994.

Rust, Carl, Frederick, Md. Bread. No. 94,673; Dec. 23; Gaz. vol. 197; p. 994.

Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 94,400; Dec. 2; Gaz. vol. 197; p. 236.

Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 94,533; Dec. 9; Gaz. vol. 197; p. 550.

Schalk Brewery, Incorporated, Newark, N. J. Beer. No. 94,764; Dec. 30; Gaz. vol. 197; p. 1288.

Scheffer & Rossum Company, St. Paul, Minn. Fly-nets. No. 94,674; Dec. 23; Gaz. vol. 197; p. 994.

Schlessel, Philip, New York, N. Y. Ladies' dresses. No. 94,492; Dec. 9; Gaz. vol. 197; p. 529.

Schlemann's Oil & Ceresine Company, Inc., New York, N. Y. Certain lubricating and machine oils and engine-grease. No. 94,765; Dec. 30; Gaz. vol. 197; p. 1288.

Schott & Gen., Jena, Germany. Raw glass for certain named purposes. No. 94,493; Dec. 9; Gaz. vol. 197; p. 529.

Sea Island Thread Co., New York, N. Y. Mercerized thread and spool-cotton. No. 94,766; Dec. 30; Gaz. vol. 197; p. 1288.

Sears, Roebuck and Co., Chicago, Ill. Substitute for lard. No. 94,401; Dec. 2; Gaz. vol. 197; p. 236.

Shaft-Pierce Shoe Co., Faribault, Minn. Shoes. No. 94,494; Dec. 9; Gaz. vol. 197; p. 529.

Shapiro Bros., New York, N. Y. Ladies' misses', juniors', and children's dresses. No. 94,767; Dec. 30; Gaz. vol. 197; p. 1288.

Shapleigh Hardware Company, St. Louis, Mo. Enameled metal ware. No. 94,768; Dec. 30; Gaz. vol. 197; p. 1288.

Shiverts & Simon, New York, N. Y. Boots, shoes, slippers, and overshoes. No. 94,534; Dec. 9; Gaz. vol. 197; p. 530.

Skolnick, William, New Haven, Conn. Cream polish for furniture, &c. No. 94,676; Dec. 23; Gaz. vol. 197; p. 994.

Smiley & Co., J. L., Blaine, Wash. Canned salmon. Nos. 94,677-8; Dec. 23; Gaz. vol. 197; p. 994.

Smith, David A., Wonder, Nev. Preparation for the treatment of sore eyes. No. 94,793; Dec. 30; Gaz. vol. 197; p. 1289.

Società Anonima Italiana Gio. Ansaldo Armstrong & Co., Genoa and Rome, Italy. Armor-plates and iron and steel. No. 94,495; Dec. 9; Gaz. vol. 197; p. 529.

Société Anonyme Constructions Industrielles Dijonnaises, Dijon, France. Automobiles. No. 94,679; Dec. 23; Gaz. vol. 197; p. 994.

Société Anonyme Des Anciens Etablissements Braunstein Freres, Paris, France. Cigarette-papers. Nos. 94,680-2; Dec. 23; Gaz. vol. 197; p. 994.

Société Vermouth Mont Blanc, Marone & Cie., Chambéry, France. Vermouth. No. 94,565; Dec. 16; Gaz. vol. 197; p. 778.

Spiers, Ernest A., London, England. Rheumatic powder, liniment, and constipation-tablets. No. 94,794; Dec. 30; Gaz. vol. 197; p. 1289.

Spoener, Orlin E., Boston, Mass. Oranges, pineapples, lemons, limes, and grape-fruit. No. 94,684; Dec. 23; Gaz. vol. 197; p. 994.

Standard Charcoal Company, Bradford, Pa. Charcoal. No. 94,566; Dec. 16; Gaz. vol. 197; p. 778.

Standard Cigar Company, Incorporated, Wilmington, Del., and Norristown, Pa. Cigars. No. 94,496; Dec. 9; Gaz. vol. 197; p. 529.

Standard Oil Company of New York, New York, N. Y. Petroleum. No. 94,402; Dec. 2; Gaz. vol. 197; p. 236.

Standard Oil Company, Richmond, Cal. Lubricating oils and greases, refined oil, and gasolene. No. 94,497; Dec. 9; Gaz. vol. 197; p. 529.

Standard Oil Co. of New York, New York, N. Y. Refined petroleum. No. 94,498; Dec. 9; Gaz. vol. 197; p. 529.

Standard Oil Company of New York, New York, N. Y. Varnishes. No. 94,499; Dec. 9; Gaz. vol. 197; p. 529.

Standard Oil Company of New York, New York, N. Y. Paints. No. 94,500; Dec. 9; Gaz. vol. 197; p. 529.

Standard Paper Mfg. Co., Richmond, Va. Blotting-paper. Nos. 94,685-7; Dec. 23; Gaz. vol. 197; p. 994.

Standard Pipe Covering Co., Cleveland, Ohio. Ceiling-sleeves for pipes. No. 94,769; Dec. 30; Gaz. vol. 197; p. 1289.

Star Company, New York, N. Y. Newspaper-section published periodically. No. 94,501; Dec. 9; Gaz. vol. 197; p. 530.

Steel Improvement Company, The, Cleveland, Ohio. Compounds for the hardening of iron or steel. No. 94,688; Dec. 23; Gaz. vol. 197; p. 994.

Stein, Harry W., Wilkes-Barre, Pa. Photographs and postal-card photographs. No. 94,770; Dec. 30; Gaz. vol. 197; p. 1289.

Stephens Mfg. Co., A. W., Waltham, Mass. Ice-picks. No. 94,689; Dec. 23; Gaz. vol. 197; p. 994.

Stevenot, Charles J., New York, N. Y. Cleanser compound and metal-polish. No. 94,502; Dec. 9; Gaz. vol. 197; p. 530.

Stone, Uno, Lake Norden, S. D. Solution disinfectant and antiseptic. No. 94,567; Dec. 16; Gaz. vol. 197; p. 778.

Stonewall Cotton Mills, Stonewall, Miss. Certain named cotton goods. No. 94,690; Dec. 23; Gaz. vol. 197; p. 994.

Strohmeyer & Arpe Company, New York, N. Y. Mineral wax. No. 94,503; Dec. 9; Gaz. vol. 197; p. 530.

Sunset Paint Co., Los Angeles, Cal. Ready-mixed paints. No. 94,505; Dec. 9; Gaz. vol. 197; p. 530.

Swan & Finch Company, New York, N. Y. Lubricating oils and greases. No. 94,691; Dec. 23; Gaz. vol. 197; p. 994.

Sweet Valley Wine Co., The, Sandusky, Ohio. Wine. No. 94,771; Dec. 30; Gaz. vol. 197; p. 1289.

Symonett, Charles C., Live Oak, Fla. Cigars, cigarettes, and tobacco. No. 94,772; Dec. 30; Gaz. vol. 197; p. 1289.

Taeschner, Anna, Berlin, Germany. Remedy for gonorrhea. No. 94,692; Dec. 23; Gaz. vol. 197; p. 994.

"The H & W Company," Newark, N. J. Corset-waists. No. 94,632; Dec. 23; Gaz. vol. 197; p. 993.

Theobald and Son Co., The, Columbus, Ohio. Wine. No. 94,773; Dec. 30; Gaz. vol. 197; p. 1289.

Tire Treatment Company, The, Detroit, Mich. Compound for sealing punctures in inflatable tires. No. 94,693; Dec. 23; Gaz. vol. 197; p. 994.

Tower Manufacturing & Novelty Co., New York, N. Y. Writing tablets and paper, envelopes, and papeteries. No. 94,404; Dec. 2; Gaz. vol. 197; p. 236.

Tower Manufacturing & Novelty Co., New York, N. Y. Envelopes. No. 94,535; Dec. 9; Gaz. vol. 197; p. 530.

Treahy, Bartholomew T., Detroit, Mich. Chewing-tobacco. No. 94,568; Dec. 16; Gaz. vol. 197; p. 778.

Trieb Company, Carson, Nev. Liniment. No. 94,694; Dec. 23; Gaz. vol. 197; p. 994.

Trimble Company, The, Seymour, Mo. Salve for inflammations or congestions. No. 94,695; Dec. 23; Gaz. vol. 197; p. 994.

Troy Chemical Co., Binghamton, N. Y. Roup cure for poultry. No. 94,795; Dec. 30; Gaz. vol. 197; p. 1289.

Truax & Company, C. C., Toledo, Ohio. Clothes-lines and twine. No. 94,406; Dec. 2; Gaz. vol. 197; p. 237.

Truax & Company, C. C., Toledo, Ohio. Smokers' pipes. No. 94,406; Dec. 2; Gaz. vol. 197; p. 237.

lxiv ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Truax & Company, C. C., Toledo, Ohio. Can-openers. No. 94,508; Dec. 9; Gaz. vol. 197; p. 530.
Tuscarawas Chemical Company, Uhrichsville, Ohio. Remedy for live stock. No. 94,407; Dec. 2; Gaz. vol. 197; p. 237.
Ungarische Gummiwaarenfabriks Actiengesellschaft, Budapest, Austria-Hungary. Hollow and solid rubber tires. No. 94,774; Dec. 30; Gaz. vol. 197; p. 1289.
Union Gesellschaft für Metallindustrie mit beschränkter Haftung, Fröndenberg-on-the-Ruhr, Germany. Cycle chains, pedals, handle-bars, spokes, &c. No. 94,696; Dec. 23; Gaz. vol. 197; p. 994.
Union Metallic Cartridge Company, The, Bridgeport, Conn., and New York, N. Y. Paper shot-shells. No. 94,697; Dec. 23; Gaz. vol. 197; p. 994.
Union Roller Milling Co., Pocahtas, Ill. Self-raising Graham pancake-flour. No. 94,698; Dec. 23; Gaz. vol. 197; p. 994.
Varn-O-Wax and Oil Company, The, Detroit, Mich. Polish for floors and furniture. No. 94,507; Dec. 9; Gaz. vol. 197; p. 530.
Venezuela Trading Co., New York, N. Y. Rubber and gum. No. 94,775; Dec. 30; Gaz. vol. 197; p. 1289.
Vordick, August H., St. Louis, Mo. Remedy for certain named diseases. No. 94,508; Dec. 9; Gaz. vol. 197; p. 530.
Vulkan-Werke Gesellschaft für Brauerei-Bedarf m. b. H., Berlin, Germany. Filtering apparatus, refrigerating systems, &c. No. 94,408; Dec. 2; Gaz. vol. 197; p. 237.
W. E. Derry, M. D. Inc., Dover, N. J. Laxatives. No. 94,548; Dec. 16; Gaz. vol. 197; p. 777.
Walder & Co., Prague-Wrschowitz, Austria-Hungary. Snap-buttons. No. 94,699; Dec. 23; Gaz. vol. 197; p. 994.
Walton, Tiernan, Philadelphia, Pa. Toys. No. 94,776; Dec. 30; Gaz. vol. 197; p. 1289.
Ward-Young Mfg. Co., Buckhannon, W. Va. Cigars and stogies. No. 94,777; Dec. 30; Gaz. vol. 197; p. 1289.
Weeber & Don, New York, N. Y. Seeds and bulbs. No. 94,778; Dec. 30; Gaz. vol. 197; p. 1289.
Weinstock-Nichols Co., San Francisco, Cal. Lubricating-oil. Nos. 94,700-1; Dec. 23; Gaz. vol. 197; pp. 994-5.
Weiss & Rauscher, Leighton, Pa. Medicated gin. No. 94,702; Dec. 23; Gaz. vol. 197; p. 995.
Werthelmer & Cie., E., Paris, France. Perfumes, face-paints, and rouges. No. 94,703; Dec. 23; Gaz. vol. 197; p. 995.
West Disinfecting Co., New York, N. Y. Sanitary commodes and sanitary box and vat closets. No. 94,704; Dec. 23; Gaz. vol. 197; p. 995.
Wilson, George C., Tyrone, Pa. Perfumery. No. 94,706; Dec. 23; Gaz. vol. 197; p. 995.
Zeiss, Firm of Carl, Jena, Germany. Objective-lens systems. No. 94,409; Dec. 2; Gaz. vol. 197; p. 237.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. Harden Company, New York, N. Y. "The New White Heather Handkerchief." (For Handkerchiefs.) No. 17,383; Dec. 9; Gaz. vol. 197; p. 531.
A. M. Ramer Co., Winona, Minn. "Vera Sweet Chocolates." (For Candles.) No. 17,433; Dec. 23; Gaz. vol. 197; p. 996.
Alling, Wilbur M., New York, N. Y. "Satisfaction Sox." (For Socks.) No. 17,376; Dec. 9; Gaz. vol. 197; p. 531.
Andy Delmer Cigar Co., Burlington, Iowa. "Robert Watt." (For Cigars.) No. 17,381; Dec. 9; Gaz. vol. 197; p. 531.
Armour & Company, Chicago, Ill. "Sterling Medium Red Salmon." (For Salmon.) No. 17,411; Dec. 23; Gaz. vol. 197; p. 996.
Arms Mfg. Co., The, South Deerfield, Mass. "Tourist's Tablet." (For Writing-Tablets.) No. 17,377; Dec. 9; Gaz. vol. 197; p. 531.
Barcal & Barta, Chicago, Ill. "Atlas Floor Oil." (For a Preparation Used on Hardwood Floors.) No. 17,378; Dec. 9; Gaz. vol. 197; p. 531.
Bernheim Distg. Co., Louisville, Ky. "The Whiskey Your Grandfather Used." (For Whisky.) No. 17,412; Dec. 23; Gaz. vol. 197; p. 996.
Bullard, Ed., St. Martinville, La. "Evangeline Tabasco Sauce." (For Tabasco Sauce.) No. 17,379; Dec. 9; Gaz. vol. 197; p. 531.
C. B. Henschel Mfg. Co., Milwaukee, Wis. "Rip." (For Cigars.) No. 17,384; Dec. 9; Gaz. vol. 197; p. 531.
C. B. Henschel Mfg. Co., Milwaukee, Wis. "Consuela." (For Cigars.) No. 17,385; Dec. 9; Gaz. vol. 197; p. 531.
Davis Brothers Drug Co., The, Denver, Colo. "Da Ha Ma Blue Pennant." (For Writing-Tablets.) No. 17,380; Dec. 9; Gaz. vol. 197; p. 531.
F. D. Farmer Company, Omaha, Nebr. "Gold Bond." (For Japan Tea.) No. 17,398; Dec. 9; Gaz. vol. 197; p. 531.
F. D. Farmer Company, Omaha, Nebr. "Gold Bond." (For Coffee.) No. 17,399; Dec. 9; Gaz. vol. 197; p. 531.
Gebhardt, Harry, St. Louis, Mo. "Green Label Harry G. Kentucky Bourbon." (For Whisky.) No. 17,419; Dec. 23; Gaz. vol. 197; p. 996.
Gelster, Henry W., Springfield, Mo. "Geister's Club House." (For Cigars.) No. 17,420; Dec. 23; Gaz. vol. 197; p. 996.
Giunta, Anthony, Philadelphia, Pa. "Italian Pure Olive Oil." (For Olive-Oil.) No. 17,421; Dec. 23; Gaz. vol. 197; p. 996.
Heller & Long, New York, N. Y. "The Ideal." (For Handkerchiefs.) No. 17,438; Dec. 30; Gaz. vol. 197; p. 1290.
Hi-Po Waterproof Battery Co., Brooklyn, N. Y. "Hi-Po Water-proof Guaranteed Dry Battery." (For a Dry Battery.) No. 17,386; Dec. 9; Gaz. vol. 197; p. 531.
Hood Bros., Smithfield, N. C. "Hood's Croup, Cold and Pneumonia Salve." (For a Salve for Croup, Cold, and Pneumonia.) No. 17,439; Dec. 30; Gaz. vol. 197; p. 1290.
Huber Baking Co., Wilmington, Del. "Huber's Sun-Beam Bread." (For Bread.) No. 17,387; Dec. 9; Gaz. vol. 197; p. 531.
J. A. Walter Milling Co., Inc., Buffalo, N. Y. "Walter's Best Quality Flour." (For Flour.) No. 17,409; Dec. 9; Gaz. vol. 197; p. 531.
John Dewar & Sons Limited, Perth, Scotland, and London, England. "Extra Special Old Scotch Whisky." (For Scotch Whisky.) No. 17,414; Dec. 23; Gaz. vol. 197; p. 996.
John Dewar & Sons Limited, Perth, Scotland, and London, England. "Extra Special Liqueur." (For Scotch Whisky.) No. 17,415; Dec. 23; Gaz. vol. 197; p. 996.
John Dewar & Sons Limited, Perth, Scotland, and London, England. "Special Liqueur." (For Scotch Whisky.) No. 17,416; Dec. 23; Gaz. vol. 197; p. 996.
John Dewar & Sons Limited, Perth, Scotland, and London, England. "White Label." (For Scotch Whisky.) No. 17,417; Dec. 23; Gaz. vol. 197; p. 996.
John Dewar & Sons Limited, Perth, Scotland, and London, England. "Special Old Scotch Whisky." (For Scotch Whisky.) No. 17,418; Dec. 23; Gaz. vol. 197; p. 996.
Kansas City Breweries Company, The, Kansas City, Mo. "Old Fashioned Lager Beer." (For Beer.) No. 17,440; Dec. 30; Gaz. vol. 197; p. 1290.
Kerr & Company, Inc., New York, N. Y. "Kerr's Improved Metallic Lacing." (For Metallic Belt-Lacing.) No. 17,422; Dec. 23; Gaz. vol. 197; p. 996.
Kronberger, Israel B., Oakland, Cal. "Kronberger's California Mentholated Eucalyptus Drops." (For Eucalyptus Drops.) No. 17,388; Dec. 9; Gaz. vol. 197; p. 531.
Leopold Engelhardt G. m. b. H., Cairo, Egypt. "Egyptian Cigarettes." (For Cigarettes.) No. 17,382; Dec. 9; Gaz. vol. 197; p. 531.
Liver Ease Medicine Company, Atlanta, Ga. "Liver Ease." (For Medicinal Preparation.) No. 17,423; Dec. 23; Gaz. vol. 197; p. 996.
Mariani Bros., New York, N. Y. "Rhum Tipo Inglese." (For Rum.) No. 17,389; Dec. 9; Gaz. vol. 197; p. 531.
Mariani Bros., New York, N. Y. "Liquore Cannella." (For Alcoholic Liquors.) No. 17,390; Dec. 9; Gaz. vol. 197; p. 531.
Mariani Bros., New York, N. Y. "Sambuca Purissima." (For Alcoholic Liquors.) No. 17,391; Dec. 9; Gaz. vol. 197; p. 531.
Marshall, Blaine M., New Albany, Ind. "Marshall's Ebony Black Ink." (For Ink.) No. 17,441; Dec. 30; Gaz. vol. 197; p. 1290.
Martin Bros. Cigar Mfg., Elkhart, Ind. "Martin." (For Cigars.) No. 17,424; Dec. 23; Gaz. vol. 197; p. 996.
Martin, Rexford J., New York, N. Y. "Sag-Peru Hair Tonic." (For a Hair-Tonic.) No. 17,392; Dec. 9; Gaz. vol. 197; p. 531.
Minnesota Valley Canning Co., Le Sueur, Minn. "Blue and Gold." (For Canned Corn.) No. 17,393; Dec. 9; Gaz. vol. 197; p. 531.
Minnesota Valley Canning Co., Le Sueur, Minn. "Valley Pride." (For Sugar-Corn.) No. 17,394; Dec. 9; Gaz. vol. 197; p. 531.
Minnesota Valley Canning Co., Le Sueur, Minn. "Artisan." (For Canned Peas.) No. 17,395; Dec. 9; Gaz. vol. 197; p. 531.
Minnesota Valley Canning Co., Le Sueur, Minn. "Le Sueur." (For Canned Peas.) No. 17,396; Dec. 9; Gaz. vol. 197; p. 531.
Minnesota Valley Canning Co., Le Sueur, Minn. "Minnesota Valley." (For Peas.) No. 17,397; Dec. 9; Gaz. vol. 197; p. 531.
Morris Fertilizer Company, Atlanta, Ga. "Supreme Brand Guano." (For Guano.) No. 17,425; Dec. 23; Gaz. vol. 197; p. 996.
National Association of Steel and Copper Plate Engravers, The, Louisville, Ky. "Astor Text." (For Stationery.) No. 17,427; Dec. 23; Gaz. vol. 197; p. 996.
Neptonic Company, San Francisco, Cal. "Nep-Ton-ic." (For Medicinal Preparations.) No. 17,428; Dec. 23; Gaz. vol. 197; p. 996.
Northwestern Fruit Exchange, Portland, Oreg. "Skookum." (For Apples.) No. 17,429; Dec. 23; Gaz. vol. 197; p. 996.
Pennsylvania Sugar Company, Philadelphia, Pa. "Penn Sugar Quaker Brand." (For Sugar.) No. 17,442; Dec. 30; Gaz. vol. 197; p. 1290.
Petr, Italian-American Cigar Co., Inc., San Francisco, Cal. "Royal Arch." (For Cigars.) No. 17,443; Dec. 30; Gaz. vol. 197; p. 1290.
Platt, Mary E., New York, N. Y. "Platt's Chlorides." (For a Liquid Disinfectant.) No. 17,400; Dec. 9; Gaz. vol. 197; p. 531.
Premier Broom & Brush Co., Amsterdam, N. Y. "Little Princess." (For Brooms.) No. 17,401; Dec. 9; Gaz. vol. 197; p. 531.
Premier Broom & Brush Co., Amsterdam, N. Y. "Mo-Go Co." (For Brooms.) No. 17,402; Dec. 9; Gaz. vol. 197; p. 531.
Premier Broom & Brush Co., Amsterdam, N. Y. "May-flower." (For Brooms.) No. 17,403; Dec. 9; Gaz. vol. 197; p. 531.
Price, Guy E., Campbell, Cal. "Gold Crown Poison For the Destruction of Squirrels, Gophers and Rats." (For Squirrel, Gopher, and Rat Poison.) No. 17,430; Dec. 23; Gaz. vol. 197; p. 996.
R. Naegell's Sons, Hoboken, N. J. "Pilsner Weibrau Beer." (For Beer.) No. 17,426; Dec. 23; Gaz. vol. 197; p. 996.
Raab & Sons, W. H., Dallastown, Pa. "Luxury." (For Cigars.) No. 17,431; Dec. 23; Gaz. vol. 197; p. 996.
Raab & Sons, W. H., Dallastown, Pa. "Ted & Tess." (For Cigars.) No. 17,432; Dec. 23; Gaz. vol. 197; p. 996.
Reguera & Berengher, New Orleans, La. "Mena." (For Cigars.) No. 17,404; Dec. 9; Gaz. vol. 197; p. 531.
Reitz, Chas. J., Buffalo, N. Y. "Casco." (For Carbon-Remover.) No. 17,434; Dec. 23; Gaz. vol. 197; p. 996.
Rosenberg Bros. & Co., San Francisco, Cal. "Pyramid Brand." (For Figs.) No. 17,405; Dec. 9; Gaz. vol. 197; p. 531.

Royal Worcester Corset Co., Worcester, Mass. "Bon Ton The Most Perfect Fitting Corset in the World." (For Corsets.) No. 17,406; Dec. 9; Gaz. vol. 197; p. 531.
 Schroeder, Joseph C., St. Louis, Mo. "Schroeder's Tonic-mato Bracer." (For a Nerve Tonic and Invigorator.) No. 17,435; Dec. 23; Gaz. vol. 197; p. 996.
 Societe Generale Des Eaux Minerales De Vittel, Vittel, France. "Vittel Source Salée." (For Mineral Water.) No. 17,407; Dec. 9; Gaz. vol. 197; p. 531.
 Sol Cohn and Company, Nashville, Tenn. "Cream of the Crop." (For Whisky.) No. 17,413; Dec. 23; Gaz. vol. 197; p. 996.

Victoria Syrup & Coffee Company, Victoria, Tex. "O-U Molasses." (For Molasses.) No. 17,408; Dec. 9; Gaz. vol. 197; p. 531.
 White & Wyckoff Mfg. Co., Holyoke, Mass. "Nonatuck Lawn Fine Stationery." (For Stationery.) No. 17,436; Dec. 23; Gaz. vol. 197; p. 996.
 William Radam Microbe Killer Company, The, New York, N. Y. "Radam's." (For a Medicinal Preparation.) No. 17,410; Dec. 9; Gaz. vol. 197; p. 531.
 Wooldike, Ben, St. Louis, Mo. "Leaf Tobacco." (For Leaf-Tobacco.) No. 17,437; Dec. 23; Gaz. vol. 197; p. 996.

PRINTS.

Armour and Company, Chicago, Ill. "Girl Carrying The Bottle." (For Grape-Juice.) No. 3,432; Dec. 9; Gaz. vol. 197; p. 532.
 Armour and Company, Chicago, Ill. "Girl Hugging The Bottle." (For Grape-Juice.) No. 3,433; Dec. 9; Gaz. vol. 197; p. 532.
 Armour and Company, Chicago, Ill. "Girl With Bottle On Ice." (For Grape-Juice.) No. 3,434; Dec. 9; Gaz. vol. 197; p. 532.
 Armour and Company, Chicago, Ill. "Girl Taking Bottle Out Of Box." (For Grape-Juice.) No. 3,435; Dec. 9; Gaz. vol. 197; p. 532.
 Armour and Company, Chicago, Ill. "Girl On The Bottle." (For Grape-Juice.) No. 3,436; Dec. 9; Gaz. vol. 197; p. 532.
 Armour and Company, Chicago, Ill. "Girl Carrying Tray." (For Grape-Juice.) No. 3,437; Dec. 9; Gaz. vol. 197; p. 532.
 Bauer Chemical Co., The, New York, N. Y. "Formamint." (For Throat-Tablets.) No. 3,444; Dec. 23; Gaz. vol. 197; p. 996.
 Cluett, Peabody & Co., Inc., Troy, N. Y. "Anoka." (For Collars.) No. 3,438; Dec. 9; Gaz. vol. 197; p. 532.
 Cluett, Peabody & Company, Inc., Troy, N. Y. "Arrow Shirts There Is an Arrow Shirt for every indoor and outdoor occasion." (For Shirts.) No. 3,439; Dec. 9; Gaz. vol. 197; p. 532.
 Cream of Wheat Co., Minneapolis, Minn. "Forty Winks." (For Wheat Breakfast Food.) No. 3,445; Dec. 23; Gaz. vol. 197; p. 996.
 Interwoven Stocking Company, New Brunswick, N. J. "On the Run." (For Hosiery.) No. 3,446; Dec. 23; Gaz. vol. 197; p. 996.
 Interwoven Stocking Company, New Brunswick, N. J. "Putting on Socks." (For Hosiery.) No. 3,447; Dec. 23; Gaz. vol. 197; p. 996.
 Interwoven Stocking Company, New Brunswick, N. J. "Sitting Down." (For Hosiery.) No. 3,448; Dec. 23; Gaz. vol. 197; p. 996.

DISCLAIMER.

Greth, John C. W., Pittsburgh, Pa.; disclaimer filed by assignee, William B. Scaife and Sons Company. Water-purifying apparatus. No. 775,901; disclaimer filed Nov. 24, 1913; Gaz. vol. 197; p. 243.

Korne, G. Ross, Newark, Ohio. "The Game of Song and Story." (For Games.) No. 3,440; Dec. 9; Gaz. vol. 197; p. 532.
 Lawson Manufacturing Co., Chicago, Ill. "Who can beat them?" (For Hinges.) No. 3,449; Dec. 23; Gaz. vol. 197; p. 996.
 Old Ben Mining Corporation, Chicago, Ill. "Old Ben Spiralized Coal." (For Coal.) No. 3,457; Dec. 30; Gaz. vol. 197; p. 1290.
 R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "He does not chew Brown's Mule." (For Chewing-Tobacco.) No. 3,451; Dec. 23; Gaz. vol. 197; p. 996.
 Remington Arms-Union Metallic Cartridge Co., New York, N. Y. "A Bird In Every Shell." (For Guns and Ammunition.) No. 3,443; Dec. 16; Gaz. vol. 197; p. 778.
 Rumford Chemical Works, Providence, R. I. "Rumford The Wholesome Baking Powder." (For Baking-Powder.) No. 3,441; Dec. 9; Gaz. vol. 197; p. 532.
 S. H. Robison Co., Philadelphia, Pa. "Julep Mints." (For Julep Mints.) No. 3,452; Dec. 23; Gaz. vol. 197; p. 996.
 Schlichting, Albert T., Newark, N. J. "A. T. Schlichting Glassware." (For Glassware.) Nos. 3,453-4; Dec. 23; Gaz. vol. 197; p. 996.
 Standard Oil Company, Whiting, Ind. and Chicago, Ill. "Mica." (For Axle-Grease.) No. 3,455; Dec. 23; Gaz. vol. 197; p. 996.
 Swift Specific Company, The, Atlanta, Ga. "The S. S. S. Girl." (For a Blood Remedy.) No. 3,442; Dec. 9; Gaz. vol. 197; p. 532.
 Willys-Overland Company, The, Toledo, Ohio. "Overland." (For Automobiles.) No. 3,456; Dec. 23; Gaz. vol. 197; p. 996.
 Wm. J. Lemp Brewing Co., St. Louis, Mo. "Lemp Lager Bottled Beer." (For Lager Bottled Beer.) No. 3,450; Dec. 23; Gaz. vol. 197; p. 996.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1913.

[Abbreviations: "Gaz."—Official Gazette.]

Abdominal girdle. E. M. Martin. No. 1,082,204; Dec. 23; Gaz. vol. 197; p. 874.
 Abdominal supporter. E. M. Dhale. No. 1,080,958; Dec. 9; Gaz. vol. 197; p. 393.
 Abrading-disk. C. Krug. No. 1,082,202; Dec. 23; Gaz. vol. 197; p. 874.
 Abrasive-material-delivering apparatus. C. C. McLean. No. 1,081,762; Dec. 16; Gaz. vol. 197; p. 696.
 Acetylene-generator. A. F. Jenkins. No. 1,081,503; Dec. 16; Gaz. vol. 197; p. 612.
 Acid containing arsenic, High molecular fatty. E. Fischer. No. 1,082,509; Dec. 30; Gaz. vol. 197; p. 1013.
 Acid manufacture, Acetic. N. Grünstein. No. 1,081,959; Dec. 23; Gaz. vol. 197; p. 791.
 Acid or oleum, Apparatus for the manufacture of fuming sulfuric. T. L. Briggs and H. F. Merriam. No. 1,082,301; Dec. 23; Gaz. vol. 197; p. 911.
 Acids and glycerin, Manufacturing fatty. E. Twitchell. No. 1,082,662; Dec. 30; Gaz. vol. 197; p. 1066.
 Adding-machine. W. P. Skinner. No. 1,080,023; Dec. 2; Gaz. vol. 197; p. 36.
 Adding-machine crank driving mechanism. H. Kuntzler. No. 1,080,515; Dec. 2; Gaz. vol. 197; p. 208.
 Adding-machine flexible draft connection. H. Kuntzler. No. 1,080,516; Dec. 2; Gaz. vol. 197; p. 209.
 Adding-machine motor-stand. C. E. W. Gardner. No. 1,080,548; Dec. 9; Gaz. vol. 197; p. 252.
 Address-plates, Means for selecting. H. C. Osborn. No. 1,082,970; Dec. 30; Gaz. vol. 197; p. 1175.
 Addressing-machine. J. S. Duncan. No. 1,080,202; Dec. 2; Gaz. vol. 197; p. 99.
 Adhesive plaster. F. N. Lang. No. 1,081,302; Dec. 16; Gaz. vol. 197; p. 575.
 Adhesive-plaster spool. P. S. Bauer. No. 1,080,508; Dec. 2; Gaz. vol. 197; p. 206.
 Adjustable bracket. M. Kurtzon. No. 1,080,639; Dec. 9; Gaz. vol. 197; p. 281.
 Adjustable table. M. L. Leonard. No. 1,082,884; Dec. 30; Gaz. vol. 197; p. 1145.
 Adjustable wrench. H. A. McCarthy. No. 1,082,601; Dec. 30; Gaz. vol. 197; p. 1046.
 Advertising apparatus. F. F. Heissenbuttel. No. 1,080,340; Dec. 2; Gaz. vol. 197; p. 148.
 Advertising apparatus, Automatic. E. F. N. Candia. No. 1,082,583; Dec. 30; Gaz. vol. 197; p. 1040.
 Advertising device. J. F. Cunningham. No. 1,081,021; Dec. 9; Gaz. vol. 197; p. 412.
 Advertising device. F. J. Peterson. No. 1,082,608; Dec. 30; Gaz. vol. 197; p. 1049.
 Advertising device, Mechanical. C. E. Cook. No. 1,081,722; Dec. 16; Gaz. vol. 197; p. 682.
 Advertising display mechanism. A. L. Runyan. No. 1,081,001; Dec. 9; Gaz. vol. 197; p. 407.
 Advertising medium. G. T. Fielding. No. 1,082,311; Dec. 23; Gaz. vol. 197; p. 915.
 Aerating solutions. W. E. Darrow. No. 1,081,436; Dec. 16; Gaz. vol. 197; p. 589.
 Aerial-navigation propelling and sustaining means. M. Pearson. No. 1,082,481; Dec. 23; Gaz. vol. 197; p. 968.
 Aeroplane. L. J. Bergdoll. No. 1,080,531; Dec. 9; Gaz. vol. 197; p. 246.
 Aeroplane. L. A. Vachon. No. 1,080,664; Dec. 9; Gaz. vol. 197; p. 290.
 Aeroplane. T. Elsing. No. 1,081,029; Dec. 9; Gaz. vol. 197; p. 415.
 Aeroplane. B. J. Pressey. No. 1,081,147; Dec. 9; Gaz. vol. 197; p. 453.
 Aeroplane. J. E. G. Alexander. No. 1,081,420; Dec. 16; Gaz. vol. 197; p. 583.
 Aeroplane. W. B. Shouler. No. 1,081,558; Dec. 16; Gaz. vol. 197; p. 630.
 Aeroplane. J. G. Hanna. No. 1,081,828; Dec. 16; Gaz. vol. 197; p. 720.
 Aeroplane-stabilizer. H. C. Fisk. No. 1,082,688; Dec. 30; Gaz. vol. 197; p. 1076.
 Aeroplanes, &c., Strut for. G. R. E. Reimers. No. 1,081,467; Dec. 16; Gaz. vol. 197; p. 600.
 Agitator. F. E. Marcy. No. 1,082,431; Dec. 23; Gaz. vol. 197; p. 954.
 Agricultural implement, Combination. H. E. E. Molken-thin. No. 1,080,842; Dec. 9; Gaz. vol. 197; p. 355.
 Agricultural instrument. W. H. Rice. No. 1,081,915; Dec. 16; Gaz. vol. 197; p. 747.
 Agricultural machine. W. R. Arbour and J. W. Lepine. No. 1,080,799; Dec. 9; Gaz. vol. 197; p. 339.
 Agricultural machine. E. B. Cushman. No. 1,082,847; Dec. 30; Gaz. vol. 197; p. 1132.
 Air and gas compressor. J. H. Hurst. No. 1,082,156; Dec. 23; Gaz. vol. 197; p. 858.
 Air and other gas compressors, Apparatus for controlling. G. E. Huttelmaier. No. 1,080,462; Dec. 2; Gaz. vol. 197; p. 187.
 Air-brake applicator, Automatic. C. E. Hall. No. 1,081,303; Dec. 16; Gaz. vol. 197; p. 544.
 Air-brake hose-coupling. F. and V. J. Roberts. (Reissue.) No. 13,666; Dec. 30; Gaz. vol. 197; p. 1270.
 Air-brake system. G. Macloskie. No. 1,081,316; Dec. 16; Gaz. vol. 197; p. 548.
 Air-brake-system auxiliary reservoirs, Apparatus for the recharging of. H. T. Kleckner. No. 1,082,344; Dec. 23; Gaz. vol. 197; p. 925.
 Air-compressor. E. Hill. No. 1,080,063; Dec. 2; Gaz. vol. 197; p. 51.
 Air-compressor. W. E. Ver Planck. No. 1,080,737; Dec. 9; Gaz. vol. 197; p. 315.
 Air-compressor governor, Centrifugal. R. H. Rice. No. 1,080,717; Dec. 9; Gaz. vol. 197; p. 307.
 Air-cooler. A. Elson. No. 1,081,595; Dec. 16; Gaz. vol. 197; p. 641.
 Air, Device for modifying the physical state of. F. Berardi. No. 1,081,523; Dec. 16; Gaz. vol. 197; p. 619.
 Air-distributing device. A. E. Bossé. No. 1,082,492; Dec. 30; Gaz. vol. 197; p. 1006.
 Air-pipe dust-catcher. J. W. Young. No. 1,080,399; Dec. 2; Gaz. vol. 197; p. 171.
 Air-tight box. F. S. Bauer. No. 1,080,190; Dec. 2; Gaz. vol. 197; p. 95.
 Airship. E. F. Stoner. No. 1,080,498; Dec. 2; Gaz. vol. 197; p. 203.
 Airship. D. G. Newsome. No. 1,082,039; Dec. 23; Gaz. vol. 197; p. 820.
 Airship. J. E. Allen. No. 1,082,472; Dec. 23; Gaz. vol. 197; p. 966.
 Airship speed-indicator and package-dropper. F. P. Peel. No. 1,081,984; Dec. 23; Gaz. vol. 197; p. 800.
 Alarm. See Burglar-alarm; Fire-alarm; Suitcase-alarm; Vacuum-alarm.
 Alarm device. E. Aufero. No. 1,082,458; Dec. 23; Gaz. vol. 197; p. 961.
 Alarm system, Supervisory. J. G. Nolen. No. 1,082,606; Dec. 30; Gaz. vol. 197; p. 1048.
 Alarm system, Supervisory. J. G. Nolen. No. 1,082,703; Dec. 30; Gaz. vol. 197; p. 1082.
 Alimentary products from soy-beans, Manufacturing. F. G. G. No. 1,082,118; Dec. 23; Gaz. vol. 197; p. 846.
 Alimentary products, Manufacture of. P. Müller. No. 1,080,920; Dec. 9; Gaz. vol. 197; p. 381.
 Alkali-chromate solutions, Making. J. H. Payne. No. 1,081,625; Dec. 16; Gaz. vol. 197; p. 650.
 Alkali metals, Producing. J. E. Bucher. No. 1,079,974; Dec. 2; Gaz. vol. 197; p. 19.
 Aluminium alloy. W. N. Naylor and S. P. Hutton. No. 1,080,155; Dec. 2; Gaz. vol. 197; p. 83.
 Aluminium alloy. W. N. Naylor and S. P. Hutton. No. 1,080,156; Dec. 2; Gaz. vol. 197; p. 84.
 Ammonia-compressor. T. Shipley. No. 1,081,159; Dec. 9; Gaz. vol. 197; p. 458.
 Ammonia, Production of. R. W. Wallace and E. Wassmer. No. 1,083,232; Dec. 30; Gaz. vol. 197; p. 1257.
 Ammonium nitrate by the ammonia-soda process, Making. F. A. Freeth and H. E. Cocksedge. No. 1,081,107; Dec. 9; Gaz. vol. 197; p. 439.
 Amorphous bodies and product thereof, Treating. E. G. Acheson. No. 1,082,386; Dec. 23; Gaz. vol. 197; p. 940.
 Amusement apparatus. F. E. Maynard. No. 1,082,099; Dec. 30; Gaz. vol. 197; p. 1080.
 Amusement device, Public. G. C. Rodeck. No. 1,081,554; Dec. 16; Gaz. vol. 197; p. 629.
 Anchor. V. P. Smith. No. 1,081,163; Dec. 9; Gaz. vol. 197; p. 459.
 Anchor, Earth. J. Blackburn. No. 1,080,041; Dec. 2; Gaz. vol. 197; p. 43.

Anchor, Guy. G. E. Beck. No. 1,081,854; Dec. 16; Gaz. vol. 197; p. 860.
 Angle or miter clamp. M. Joachimsen. No. 1,081,311; Dec. 16; Gaz. vol. 197; p. 546.
 Animal-trap. W. I. Raymond. No. 1,082,649; Dec. 30; Gaz. vol. 197; p. 1062.
 Animal-trap. S. S. Goldman. No. 1,082,942; Dec. 30; Gaz. vol. 197; p. 1165.
 Animal-trap. O. H. Nebel. No. 1,083,125; Dec. 30; Gaz. vol. 197; p. 1224.
 Animals from burning structures, Means for removing. C. Docherty. No. 1,081,862; Dec. 16; Gaz. vol. 197; p. 862.
 Ankle support and protector. H. J. Collins. No. 1,081,366; Dec. 16; Gaz. vol. 197; p. 566.
 Annealing-box. J. A. Lawrence. No. 1,080,115; Dec. 2; Gaz. vol. 197; p. 60.
 Announcer. H. D. Bostock. No. 1,081,885; Dec. 16; Gaz. vol. 197; p. 738.
 Annunciator-resetting circuit. J. O. Cadieux. No. 1,081,266; Dec. 9; Gaz. vol. 197; p. 493.
 Anthraquinone compounds, Producing. J. Boner. No. 1,083,051; Dec. 30; Gaz. vol. 197; p. 1200.
 Anticreeping device. W. W. Holland. No. 1,081,305; Dec. 16; Gaz. vol. 197; p. 544.
 Antiseptic container. E. M. Doeringer and A. C. St. Marie. No. 1,081,493; Dec. 16; Gaz. vol. 197; p. 609.
 Anvil-base. G. V. Stake. No. 1,080,238; Dec. 2; Gaz. vol. 197; p. 112.
 Apple sorter and cleaner. J. A. Walters. No. 1,081,640; Dec. 16; Gaz. vol. 197; p. 855.
 Arithmetical abacus. J. M. de La Rosa. No. 1,081,815; Dec. 16; Gaz. vol. 197; p. 715.
 Armor-chain. P. Gauthier. No. 1,080,054; Dec. 2; Gaz. vol. 197; p. 47.
 Ash-pot. H. Laidel. No. 1,080,837; Dec. 9; Gaz. vol. 197; p. 353.
 Ash-sifter. M. L. Sobra. No. 1,080,854; Dec. 9; Gaz. vol. 197; p. 358.
 Aspirator, Air. W. Melas. No. 1,082,815; Dec. 30; Gaz. vol. 197; p. 1121.
 Assembler, Wheel. O. C. Ketring. No. 1,080,638; Dec. 9; Gaz. vol. 197; p. 281.
 Assembling mechanism. E. P. Sheldon. No. 1,081,519; Dec. 16; Gaz. vol. 197; p. 618.
 Assorting-machine. H. Hastings. No. 1,082,632; Dec. 30; Gaz. vol. 197; p. 1037.
 Atomizer. G. J. Kelley. No. 1,080,835; Dec. 9; Gaz. vol. 197; p. 353.
 Atomizer. G. J. Kelley. No. 1,082,159; Dec. 23; Gaz. vol. 197; p. 858.
 Auto-jack. C. Knudson and E. J. Brumbach. No. 1,080,504; Dec. 9; Gaz. vol. 197; p. 256.
 Auto-strap fastener, Adjustable concealed. G. E. Robinson. No. 1,081,152; Dec. 9; Gaz. vol. 197; p. 455.
 Automatic lubricator. R. Wood. No. 1,082,002; Dec. 23; Gaz. vol. 197; p. 806.
 Automatic sprinkler. A. M. Lewis. No. 1,082,348; Dec. 23; Gaz. vol. 197; p. 927.
 Automobile. G. De Fevre and J. E. Woodbridge. No. 1,081,023; Dec. 9; Gaz. vol. 197; p. 413.
 Automobile and other vehicle wheel. O. H. Attridge. No. 1,081,192; Dec. 9; Gaz. vol. 197; p. 468.
 Automobile and the like lock. J. E. Potts. No. 1,082,906; Dec. 30; Gaz. vol. 197; p. 1154.
 Automobile attachment. R. H. Preaton. No. 1,079,951; Dec. 2; Gaz. vol. 197; p. 10.
 Automobile emergency-windlass. L. O. Pillsbury. No. 1,080,653; Dec. 9; Gaz. vol. 197; p. 286.
 Automobile-engines, Crank for. G. W. Redburn. No. 1,082,650; Dec. 30; Gaz. vol. 197; p. 1062.
 Automobile-fender. J. Didschuneit. No. 1,082,415; Dec. 23; Gaz. vol. 197; p. 948.
 Automobile foot-accelerator. O. Spencer. No. 1,081,166; Dec. 9; Gaz. vol. 197; p. 460.
 Automobile-jack. C. A. Hart. No. 1,080,442; Dec. 2; Gaz. vol. 197; p. 184.
 Automobile-jack. J. D. Bunn. No. 1,081,013; Dec. 9; Gaz. vol. 197; p. 410.
 Automobile lifting and turning means. M. Stewart. No. 1,080,384; Dec. 2; Gaz. vol. 197; p. 166.
 Automobile rain-protector. E. J. Armbruster. No. 1,082,479; Dec. 23; Gaz. vol. 197; p. 968.
 Automobile-raising apparatus. J. J. Preece. No. 1,080,581; Dec. 9; Gaz. vol. 197; p. 262.
 Automobile sanding device. J. F. Williams. No. 1,081,477; Dec. 16; Gaz. vol. 197; p. 603.
 Automobile self-starters, Automatic circuit-controlling mechanism for electrical. W. A. Lurie. No. 1,081,683; Dec. 16; Gaz. vol. 197; p. 668.
 Automobile sign-holder. H. O. Havemeyer. No. 1,080,631; Dec. 9; Gaz. vol. 197; p. 279.
 Automobile signaling apparatus. J. L. Cayer. No. 1,081,433; Dec. 16; Gaz. vol. 197; p. 588.
 Automobile-axle. F. G. Smith. No. 1,082,449; Dec. 23; Gaz. vol. 197; p. 959.
 Automobile-wheel. J. A. Kolby, L. P. Larsen, and C. P. Neilsen. No. 1,081,237; Dec. 9; Gaz. vol. 197; p. 483.
 Automobile wheel-rim. O. L. Rickard. No. 1,080,580; Dec. 9; Gaz. vol. 197; p. 262.
 Automobiles and other vehicles, Device for automatically lifting and supporting. T. H. Sparks. No. 1,081,165; Dec. 9; Gaz. vol. 197; p. 459.
 Automobiles, Stretcher or bed for. R. L. Bradley. No. 1,082,223; Dec. 23; Gaz. vol. 197; p. 891.
 Awning. E. F. Hartshorn. No. 1,080,829; Dec. 9; Gaz. vol. 197; p. 351.
 Awning. E. F. Hartshorn. No. 1,080,910; Dec. 9; Gaz. vol. 197; p. 377.
 Awning. E. F. Hartshorn. No. 1,081,042; Dec. 9; Gaz. vol. 197; p. 419.
 Awning-arm. F. A. Anton. No. 1,081,882; Dec. 16; Gaz. vol. 197; p. 737.
 Awning or canopy for chairs, Collapsible. J. Grissim. No. 1,080,628; Dec. 9; Gaz. vol. 197; p. 278.
 Axes or centers of circular bodies, openings, or plane figures, Device for finding the. C. G. Lundstrom. No. 1,081,682; Dec. 16; Gaz. vol. 197; p. 668.
 Axle, Vehicle wheel. H. M. Tleston. No. 1,082,246; Dec. 23; Gaz. vol. 197; p. 890.
 Baby-dresser, Sanitary. L. A. Jiranek. No. 1,082,082; Dec. 23; Gaz. vol. 197; p. 835.
 Badge. J. Connor. No. 1,082,679; Dec. 30; Gaz. vol. 197; p. 1074.
 Bag. See Mothproof bag; Mothproof rug-bag.
 Bag-fastener. H. Tueckmantel. No. 1,080,792; Dec. 9; Gaz. vol. 197; p. 336.
 Bag-fastener. A. Kaufmann. No. 1,082,124; Dec. 23; Gaz. vol. 197; p. 848.
 Bag-fastener. A. Petrie. No. 1,082,476; Dec. 23; Gaz. vol. 197; p. 967.
 Bagholder. O. Anderson. No. 1,081,291; Dec. 16; Gaz. vol. 197; p. 540.
 Bag-lock. C. A. Landerholm. No. 1,080,286; Dec. 2; Gaz. vol. 197; p. 129.
 Bag reversing and lining apparatus. W. H. Richardson. No. 1,082,651; Dec. 30; Gaz. vol. 197; p. 1062.
 Bag separating and feeding appliance. J. B. Slosson. No. 1,081,705; Dec. 16; Gaz. vol. 197; p. 676.
 Balancing-machine. J. Wilkinson. No. 1,082,001; Dec. 23; Gaz. vol. 197; p. 806.
 Bale-tie. C. E. Pulver. No. 1,080,778; Dec. 9; Gaz. vol. 197; p. 331.
 Baling machine, Hay. L. W. Palmer. No. 1,081,624; Dec. 16; Gaz. vol. 197; p. 650.
 Baling-press lever mechanism. G. B. Swan. No. 1,082,454; Dec. 23; Gaz. vol. 197; p. 961.
 Ball. See Bowling-ball; Playing-ball.
 Ball-joint. L. W. Andersen. No. 1,080,405; Dec. 2; Gaz. vol. 197; p. 173.
 Balloon. M. Vaniman. No. 1,081,794; Dec. 16; Gaz. vol. 197; p. 707.
 Balloon building or covering apparatus. M. Vaniman. No. 1,081,793; Dec. 16; Gaz. vol. 197; p. 707.
 Balloons, Making. M. Vaniman. No. 1,081,792; Dec. 16; Gaz. vol. 197; p. 707.
 Ballot-box. C. A. Ball. No. 1,082,673; Dec. 30; Gaz. vol. 197; p. 1072.
 Balloting system. W. F. Legg. No. 1,081,314; Dec. 16; Gaz. vol. 197; p. 547.
 Banana-shipping device. J. F. Holmes. No. 1,082,524; Dec. 30; Gaz. vol. 197; p. 1017.
 Banjo, drum, or similar musical instrument. C. Habermann. No. 1,080,440; Dec. 2; Gaz. vol. 197; p. 184.
 Bar. See Gate-bar; Harrow-bar.
 Bark-softening vat. E. S. Connors. No. 1,081,890; Dec. 16; Gaz. vol. 197; p. 740.
 Barrel, Metal. G. G. Fryer. No. 1,080,825; Dec. 9; Gaz. vol. 197; p. 349.
 Barrel or receptacle. L. Sternecker. No. 1,080,601; Dec. 9; Gaz. vol. 197; p. 269.
 Basket, Portable laundry. J. Harris. No. 1,082,323; Dec. 23; Gaz. vol. 197; p. 919.
 Bath apparatus, Vapor. A. Brueggeman. No. 1,080,678; Dec. 9; Gaz. vol. 197; p. 294.
 Bath-mat. W. E. Allen. No. 1,080,315; Dec. 2; Gaz. vol. 197; p. 138.
 Bath-shower. C. S. C. Rock. No. 1,083,141; Dec. 30; Gaz. vol. 197; p. 1229.
 Bath-tub and washstand, Combined. G. H. Barker. No. 1,082,065; Dec. 23; Gaz. vol. 197; p. 829.
 Bath-tub lining. C. H. Price, Jr. No. 1,081,987; Dec. 23; Gaz. vol. 197; p. 901.
 Bathing-boat. C. M. Johnson. No. 1,080,935; Dec. 9; Gaz. vol. 197; p. 280.
 Bathing-suit. E. A. Plummer. No. 1,082,905; Dec. 30; Gaz. vol. 197; p. 1153.
 Baton, staff, or cane. J. H. Sutlive. No. 1,081,168; Dec. 9; Gaz. vol. 197; p. 460.
 Battery. See Dry-cell battery; Galvanic battery; Storage battery.
 Battery-charging apparatus, Storage. C. E. Beach. No. 1,082,187; Dec. 23; Gaz. vol. 197; p. 869.
 Battleship. H. M. Silveira. No. 1,080,490; Dec. 2; Gaz. vol. 197; p. 200.
 Battleship. H. M. Silveira. No. 1,080,491; Dec. 2; Gaz. vol. 197; p. 200.
 Battleship. H. M. Silveira. No. 1,080,492; Dec. 2; Gaz. vol. 197; p. 200.
 Beams, &c., Coupling for roller. W. H. Goldsmith, Jr. No. 1,080,055; Dec. 2; Gaz. vol. 197; p. 48.
 Bean-sorter. R. F. McWilliams. No. 1,080,988; Dec. 9; Gaz. vol. 197; p. 403.
 Bearing. S. H. Jones. No. 1,082,084; Dec. 23; Gaz. vol. 197; p. 835.
 Bearing, Ball. W. Sparks. No. 1,080,081; Dec. 2; Gaz. vol. 197; p. 57.
 Bearing construction, Ball. A. S. Reed. No. 1,080,160; Dec. 2; Gaz. vol. 197; p. 88.
 Bearing, Roller side. A. Stuckl. No. 1,082,179; Dec. 23; Gaz. vol. 197; p. 866.
 Bearing with roll-separators, Roller. C. S. Lockwood. No. 1,080,288; Dec. 2; Gaz. vol. 197; p. 129.
 Bearings, Ball-retainer for ball. W. Sparks. No. 1,080,082; Dec. 2; Gaz. vol. 197; p. 58.
 Bearings, Lubricating-bars for journal. F. J. Randall. No. 1,081,930; Dec. 16; Gaz. vol. 197; p. 753.
 Bed. J. E. Webster. No. 1,081,877; Dec. 16; Gaz. vol. 197; p. 736.
 Bed and lounging table. H. Braasch. No. 1,082,997; Dec. 30; Gaz. vol. 197; p. 1184.
 Bed and movement therefor, Folding and disappearing. A. E. Abbott. No. 1,081,186; Dec. 9; Gaz. vol. 197; p. 466.
 Bed and valise, Combined camp. E. C. Wren. No. 1,079,971; Dec. 2; Gaz. vol. 197; p. 17.
 Bed-bottom fabric. G. A. Mellon. No. 1,081,620; Dec. 16; Gaz. vol. 197; p. 649.
 Bed-couch. N. Webster. No. 1,080,740; Dec. 9; Gaz. vol. 197; p. 317.
 Bed, couch-bed, &c., Sofa. D. F. Dyke. No. 1,081,589; Dec. 16; Gaz. vol. 197; p. 639.
 Bed-davenport. A. C. Kloppling. No. 1,081,272; Dec. 9; Gaz. vol. 197; p. 496.
 Bed, Disappearing. W. L. Murphy. No. 1,083,025; Dec. 30; Gaz. vol. 197; p. 1102.
 Bed, Folding. H. A. Tracy. No. 1,080,807; Dec. 9; Gaz. vol. 197; p. 362.
 Bed, Folding sofa. G. M. Kim. No. 1,080,459; Dec. 2; Gaz. vol. 197; p. 190.
 Bed-frames or the like, Leg-locking means for foldable. A. C. Kloppling. No. 1,081,271; Dec. 9; Gaz. vol. 197; p. 496.
 Bed, lounge-bed, &c., Sofa. D. F. Dyke. No. 1,081,590; Dec. 16; Gaz. vol. 197; p. 639.
 Bed-spring frame. J. Hancock. No. 1,083,011; Dec. 30; Gaz. vol. 197; p. 1188.
 Bed-warmer. J. F. Pettit. No. 1,082,135; Dec. 23; Gaz. vol. 197; p. 851.
 Bedclothes-holder. C. E. Cartwright. No. 1,082,929; Dec. 30; Gaz. vol. 197; p. 1161.
 Bedstead. J. W. Vail. No. 1,081,639; Dec. 16; Gaz. vol. 197; p. 655.
 Bedstead corner-bracket. H. V. and W. E. Lough. No. 1,082,754; Dec. 30; Gaz. vol. 197; p. 1100.
 Bedstead-knob. S. J. Fletcher. No. 1,081,105; Dec. 9; Gaz. vol. 197; p. 438.
 Bedstead, Metal. R. Mainker. No. 1,082,165; Dec. 23; Gaz. vol. 197; p. 860.
 Beehive. N. Matthews. No. 1,080,152; Dec. 2; Gaz. vol. 197; p. 82.
 Belows-operating pedal. M. Clark. No. 1,081,948; Dec. 23; Gaz. vol. 197; p. 787.
 Belt, Driving. A. and M. A. Hendry. No. 1,080,443; Dec. 2; Gaz. vol. 197; p. 185.
 Belt-fastener. O. W. Dodge. No. 1,081,024; Dec. 9; Gaz. vol. 197; p. 413.
 Belt-lightener. J. P. German. No. 1,081,280; Dec. 9; Gaz. vol. 197; p. 501.
 Belt, Trousers. D. Basch. No. 1,082,486; Dec. 30; Gaz. vol. 197; p. 1004.
 Belt, Vanner concentrating. R. De Large. No. 1,082,309; Dec. 23; Gaz. vol. 197; p. 914.
 Bicycle-lock. G. A. Yaeck. No. 1,082,616; Dec. 30; Gaz. vol. 197; p. 1051.
 Billiard-cue tip and holder, Detachable. L. Weinberg and M. Maren. No. 1,082,782; Dec. 30; Gaz. vol. 197; p. 1111.
 Binder, Adjustable. P. W. Dargin. No. 1,082,848; Dec. 30; Gaz. vol. 197; p. 1132.
 Binder-frame. L. P. Dixon and G. E. Post. No. 1,081,297; Dec. 16; Gaz. vol. 197; p. 542.
 Binder, Loose-leaf. J. G. Magin. No. 1,083,021; Dec. 30; Gaz. vol. 197; p. 1191.
 Binder, Loose-leaf. J. G. Magin. No. 1,083,113; Dec. 30; Gaz. vol. 197; p. 1220.
 Binder, Temporary. C. Dorn. No. 1,082,852; Dec. 30; Gaz. vol. 197; p. 1134.
 Bit. See Cutter-bit; Drill-bit.
 Blasting-cap and carrier therefor. J. R. Powell. No. 1,081,772; Dec. 16; Gaz. vol. 197; p. 700.
 Bleaching articles. A. J. Rossi. No. 1,080,718; Dec. 9; Gaz. vol. 197; p. 308.
 Blind, Rolling. E. Cahill. No. 1,081,485; Dec. 16; Gaz. vol. 197; p. 606.
 Blinds or screens, Construction of. E. H. Hobling. No. 1,083,006; Dec. 30; Gaz. vol. 197; p. 1216.
 Blinds, Stop and runner for rolling. E. Cahill. No. 1,081,486; Dec. 16; Gaz. vol. 197; p. 607.
 Block. See Building-block; Vehicle stop-block.
 Block, Non-toppling. A. E. J. Luckhurst. No. 1,080,640; Dec. 9; Gaz. vol. 197; p. 281.
 Blocks or the like suitable for road or other purposes, Formation of. J. S. Kruse. No. 1,082,752; Dec. 30; Gaz. vol. 197; p. 1099.
 Blotter, Hand-attached. H. Marul. No. 1,081,053; Dec. 9; Gaz. vol. 197; p. 423.
 Blow-out patch. C. E. Brown. No. 1,081,012; Dec. 9; Gaz. vol. 197; p. 410.
 Blower. C. W. Kerr. No. 1,080,763; Dec. 9; Gaz. vol. 197; p. 326.
 Blower or pump, Rotary. L. N. Perkins. No. 1,082,903; Dec. 30; Gaz. vol. 197; p. 1152.

Board. See Drawing-board; Ironing-board; Panel-board.
 Boat. A. Currie. No. 1,081,489; Dec. 16; Gaz. vol. 197; p. 608.
 Boat attachment, Life. C. H. Langill. No. 1,081,679; Dec. 16; Gaz. vol. 197; p. 667.
 Boat-equilibrator. F. Olechnowicz. No. 1,082,133; Dec. 23; Gaz. vol. 197; p. 851.
 Boat, Folding safety. P. Vescovi. No. 1,082,833; Dec. 30; Gaz. vol. 197; p. 1128.
 Boat for submarine vessels, Life. G. Hilgers. No. 1,081,740; Dec. 16; Gaz. vol. 197; p. 687.
 Boat, Ice. W. M. Stanbrough. No. 1,082,831; Dec. 30; Gaz. vol. 197; p. 1127.
 Boat, Life. A. B. Andreassen. No. 1,080,876; Dec. 9; Gaz. vol. 197; p. 865.
 Boat-lowering apparatus for navigable vessels. C. D. and R. Dorrford. No. 1,088,065; Dec. 30; Gaz. vol. 197; p. 1205.
 Bobbin-stripper. R. Walworth. No. 1,080,942; Dec. 9; Gaz. vol. 197; p. 388.
 Bobbin-stripper. G. W. Ramsey. No. 1,081,914; Dec. 16; Gaz. vol. 197; p. 747.
 Bobbin-stripping machine. R. Walworth. No. 1,080,794; Dec. 9; Gaz. vol. 197; p. 337.
 Bodkin. A. C. Gault. No. 1,081,604; Dec. 16; Gaz. vol. 197; p. 645.
 Boiler. See Sectional boiler; Water-tube boiler.
 Boiler. R. D. Reed. No. 1,080,232; Dec. 2; Gaz. vol. 197; p. 109.
 Boiler. R. G. Fritz. No. 1,083,205; Dec. 30; Gaz. vol. 197; p. 1247.
 Boiler-feed purifier. S. Bessonoff. No. 1,081,935; Dec. 16; Gaz. vol. 197; p. 754.
 Boiler-flue. A. Gunkle. No. 1,082,119; Dec. 23; Gaz. vol. 197; p. 846.
 Boiler-flues, Heat-diffuser for. L. A. Smallwood. No. 1,082,829; Dec. 30; Gaz. vol. 197; p. 1126.
 Boiler furnace, Steam. J. Reagan. No. 1,080,868; Dec. 2; Gaz. vol. 197; p. 159.
 Roller-tube cleaner. J. F. Bailey. No. 1,081,651; Dec. 16; Gaz. vol. 197; p. 659.
 Boilers, Tool for spreading the tubes of water-tube. J. Keers. No. 1,082,809; Dec. 30; Gaz. vol. 197; p. 1119.
 Bolster, Collapsible bed. F. W. Rahn. No. 1,082,171; Dec. 23; Gaz. vol. 197; p. 863.
 Bolster-stake holder. C. Faust. No. 1,082,073; Dec. 23; Gaz. vol. 197; p. 831.
 Bolster-stake holder. C. Faust. No. 1,082,074; Dec. 23; Gaz. vol. 197; p. 832.
 Bolt. See Clamp-bolt; Expansion-bolt.
 Bolt. J. S. Wait, Jr. and A. Halliday. No. 1,082,376; Dec. 23; Gaz. vol. 197; p. 937.
 Bolt and nut lock. A. Sieminski. No. 1,080,175; Dec. 2; Gaz. vol. 197; p. 90.
 Bolt and nut lock. J. A. Hatter. No. 1,081,668; Dec. 16; Gaz. vol. 197; p. 664.
 Book-carrier. M. Feinen. No. 1,082,017; Dec. 23; Gaz. vol. 197; p. 812.
 Book holder, Stenographic. P. E. Taylor. No. 1,082,979; Dec. 30; Gaz. vol. 197; p. 1177.
 Book-support. W. T. Shea. No. 1,080,597; Dec. 9; Gaz. vol. 197; p. 268.
 Bookbinder. C. Dorn. No. 1,082,853; Dec. 30; Gaz. vol. 197; p. 1134.
 Bookbinder. R. L. Nay. No. 1,083,124; Dec. 30; Gaz. vol. 197; p. 1224.
 Boot and shoe ironing machine. J. S. Hansen. No. 1,081,907; Dec. 16; Gaz. vol. 197; p. 744.
 Boot and shoe pull-on devices, Making. E. C. Jacobs. No. 1,081,835; Dec. 16; Gaz. vol. 197; p. 723.
 Boot and shoe pull-on devices, Making. E. C. Beaumont. No. 1,081,924; Dec. 16; Gaz. vol. 197; p. 750.
 Boots and shoes, Machine for burnishing the edges of the soles of. Z. Beaudry. No. 1,080,804; Dec. 9; Gaz. vol. 197; p. 840.
 Boots and shoes, Machine for use in the manufacture of. A. Bates. No. 1,082,467; Dec. 30; Gaz. vol. 197; p. 1004.
 Boots and shoes, Manufacture of. M. Brock. No. 1,082,621; Dec. 30; Gaz. vol. 197; p. 1053.
 Boring and reaming tool, Adjustable. W. Pohlman. No. 1,082,553; Dec. 30; Gaz. vol. 197; p. 1028.
 Boring device. D. MacGregor. No. 1,080,356; Dec. 2; Gaz. vol. 197; p. 155.
 Boring-machine. C. F. Penn and F. P. Rand. No. 1,081,552; Dec. 16; Gaz. vol. 197; p. 628.
 Bottle. B. M. Morton. No. 1,080,293; Dec. 2; Gaz. vol. 197; p. 131.
 Bottle-capping machine. J. F. Prosser. No. 1,081,466; Dec. 16; Gaz. vol. 197; p. 600.
 Bottle-capping machines, Capping-head for. J. and J. A. Butkus. No. 1,080,046; Dec. 2; Gaz. vol. 197; p. 44.
 Bottle-caps, Machine for making. C. J. Lawson. No. 1,080,015; Dec. 2; Gaz. vol. 197; p. 33.
 Bottle closing and sealing stopper. J. P. Carson. No. 1,080,891; Dec. 9; Gaz. vol. 197; p. 371.
 Bottle-closure. H. V. Pick. No. 1,080,366; Dec. 2; Gaz. vol. 197; p. 158.
 Bottle-closure. F. E. Sanders. No. 1,081,556; Dec. 16; Gaz. vol. 197; p. 630.
 Bottle, Dropping. L. Kaufmann. No. 1,082,531; Dec. 30; Gaz. vol. 197; p. 1019.
 Bottle-filler. T. Bednarowicz. No. 1,083,183; Dec. 30; Gaz. vol. 197; p. 1240.

Bottle-handling device. T. F. Lamb. No. 1,080,984; Dec. 9; Gaz. vol. 197; p. 401.
 Bottle-holder. N. Hubbard. No. 1,082,808; Dec. 30; Gaz. vol. 197; p. 1118.
 Bottle holder, Milk. J. J. Dunn. No. 1,079,978; Dec. 2; Gaz. vol. 197; p. 20.
 Bottle, Lock-seal. J. Sharp. No. 1,081,156; Dec. 9; Gaz. vol. 197; p. 456.
 Bottle, Milk. H. Dikeman. No. 1,083,201; Dec. 30; Gaz. vol. 197; p. 1246.
 Bottle-neck valve, Insert. J. J. Kime. No. 1,082,125; Dec. 23; Gaz. vol. 197; p. 848.
 Bottle, Non-refillable. A. C. Watts. No. 1,080,311; Dec. 2; Gaz. vol. 197; p. 137.
 Bottle, Non-refillable. J. Behringer. No. 1,080,318; Dec. 2; Gaz. vol. 197; p. 140.
 Bottle, Non-refillable. C. F. Davy and T. Richardson. No. 1,081,491; Dec. 16; Gaz. vol. 197; p. 608.
 Bottle, Non-refillable. F. Kuhles. No. 1,081,506; Dec. 16; Gaz. vol. 197; p. 613.
 Bottle, Non-refillable. J. H. Platsted. No. 1,081,553; Dec. 16; Gaz. vol. 197; p. 629.
 Bottle, Non-refillable. W. E. Bailey. No. 1,081,883; Dec. 16; Gaz. vol. 197; p. 737.
 Bottle, Non-refillable. J. W. Freeman. No. 1,082,020; Dec. 23; Gaz. vol. 197; p. 813.
 Bottle, Non-refillable. G. P. Combs and P. J. Burke. No. 1,082,407; Dec. 23; Gaz. vol. 197; p. 946.
 Bottle, Non-refillable. W. H. Mannon. No. 1,083,110; Dec. 30; Gaz. vol. 197; p. 1222.
 Bottle, Non-refillable. W. E. Blackstock. No. 1,083,184; Dec. 30; Gaz. vol. 197; p. 1240.
 Bottle, Nursing. L. Mambourg. No. 1,080,070; Dec. 2; Gaz. vol. 197; p. 53.
 Bottle, Poison. A. L. Larsen. No. 1,080,464; Dec. 2; Gaz. vol. 197; p. 191.
 Bottle-stopper. E. M. De Valdes. No. 1,080,331; Dec. 2; Gaz. vol. 197; p. 144.
 Bottle-stopper. G. F. Barlow. No. 1,081,085; Dec. 9; Gaz. vol. 197; p. 431.
 Bottle stopper, Hot-water. C. F. Schuh. No. 1,080,659; Dec. 9; Gaz. vol. 197; p. 288.
 Bottles, Closure for poison. E. S. Crumb. No. 1,082,413; Dec. 23; Gaz. vol. 197; p. 948.
 Bottles, Device to prevent fraudulent refilling of. J. T. Humphrey. No. 1,082,872; Dec. 30; Gaz. vol. 197; p. 1140.
 Bottles, Manufacture of globular glass. A. Schiller. No. 1,080,372; Dec. 2; Gaz. vol. 197; p. 161.
 Bottles, Nipple for nursing. J. Pfeiffer. No. 1,081,464; Dec. 16; Gaz. vol. 197; p. 599.
 Bowling-alley pin-setter. E. Schlossberg. No. 1,080,373; Dec. 2; Gaz. vol. 197; p. 161.
 Bowling-ball. C. Seessle. No. 1,079,956; Dec. 2; Gaz. vol. 197; p. 12.
 Bowling-ball. A. Sondheimer. No. 1,080,307; Dec. 2; Gaz. vol. 197; p. 136.
 Box. See Air-tight box; Annealing-box; Ballot-box; Cigar-box; Collapsible box; Curb-box; Drop-end box; Fare-box; Fire-alarm signal-box; Folding box; Hat-box; Ice-box; Letter-box; Mail-box; Match-box; Metallic box; Outlet-box; Rough box; Sound-box; Ticket-deposit box; Wagon-box.
 Box. S. Bachmann. No. 1,083,048; Dec. 30; Gaz. vol. 197; p. 1199.
 Box-fastener. E. W. Stamm. No. 1,080,859; Dec. 9; Gaz. vol. 197; p. 360.
 Box-filling machine. W. G. Kendall. No. 1,082,876; Dec. 30; Gaz. vol. 197; p. 1142.
 Box-making machine. G. M. Westland. No. 1,081,071; Dec. 9; Gaz. vol. 197; p. 428.
 Box opener, Tin. E. M. Darque. No. 1,082,800; Dec. 30; Gaz. vol. 197; p. 1116.
 Box or bag, Grab. E. B. Rodman. No. 1,082,446; Dec. 23; Gaz. vol. 197; p. 958.
 Box or carton. C. C. Palmer. No. 1,081,981; Dec. 23; Gaz. vol. 197; p. 799.
 Brace. See Jaw-brace; Rail-brace.
 Bracelet-link. C. J. Callahan. No. 1,082,473; Dec. 23; Gaz. vol. 197; p. 966.
 Bracket. See Adjustable bracket; Bedstead corner-bracket; Curtain-bracket; Gage-bracket; Lamp-bracket; Shade-bracket.
 Bracket. W. F. O'Rourke. No. 1,082,549; Dec. 30; Gaz. vol. 197; p. 1027.
 Braiding-machine. S. W. Wardwell. No. 1,081,474; Dec. 16; Gaz. vol. 197; p. 602.
 Braiding-machine. S. W. Wardwell. No. 1,082,981; Dec. 30; Gaz. vol. 197; p. 1178.
 Brake. See Fluid-pressure brake; Vehicle-brake; Wagon-brake.
 Brake and attachment. W. L. Granger. No. 1,080,213; Dec. 2; Gaz. vol. 197; p. 103.
 Brake-beam. W. E. Fowler, Jr. No. 1,080,510; Dec. 2; Gaz. vol. 197; p. 206.
 Brake-beam third-point support. E. G. Busse. No. 1,082,495; Dec. 30; Gaz. vol. 197; p. 1007.
 Brake-beam third-point-suspension mount. C. H. Williams, Jr. No. 1,080,741; Dec. 9; Gaz. vol. 197; p. 317.
 Brake-head. E. G. Busse. No. 1,080,889; Dec. 9; Gaz. vol. 197; p. 870.
 Brake mechanism. H. C. Buhoup. No. 1,081,428; Dec. 16; Gaz. vol. 197; p. 586.
 Brake-shoe. B. A. Johnson. No. 1,081,046; Dec. 9; Gaz. vol. 197; p. 420.
 Brake-shoe. W. Gilmour. No. 1,082,462; Dec. 23; Gaz. vol. 197; p. 962.
 Brake-shoe, Composition-filled. H. Jones. No. 1,082,158; Dec. 23; Gaz. vol. 197; p. 858.
 Brake-shoe, Composition-filled. J. D. Gallagher and H. Jones. No. 1,082,266; Dec. 23; Gaz. vol. 197; p. 898.
 Braking system, Electropneumatic. W. C. Myers. No. 1,081,550; Dec. 16; Gaz. vol. 197; p. 628.
 Brassière. G. Kettel. No. 1,082,085; Dec. 23; Gaz. vol. 197; p. 836.
 Bread and toast cutting machine. P. A. Bondeson. No. 1,082,926; Dec. 30; Gaz. vol. 197; p. 1160.
 Bread or dough cutter. M. Devine. No. 1,081,099; Dec. 9; Gaz. vol. 197; p. 436.
 Bread, Preserving. O. Bitter. No. 1,081,945; Dec. 23; Gaz. vol. 197; p. 786.
 Breaker and proportional unloader, Combined vacuum. C. Wainwright. No. 1,081,174; Dec. 9; Gaz. vol. 197; p. 462.
 Breeches and leggings, Combined. M. Cowen. No. 1,082,737; Dec. 30; Gaz. vol. 197; p. 1094.
 Brick-cleaning machine. A. R. Christman. No. 1,082,306; Dec. 23; Gaz. vol. 197; p. 813.
 Brick-kiln. C. E. and J. S. Scholl. No. 1,081,335; Dec. 16; Gaz. vol. 197; p. 555.
 Brick-mason's steel trig. C. A. Lake. No. 1,080,836; Dec. 9; Gaz. vol. 197; p. 353.
 Bridle attachment. G. A. Laub. No. 1,082,598; Dec. 30; Gaz. vol. 197; p. 1045.
 Broiler. P. E. Gannon. No. 1,083,206; Dec. 30; Gaz. vol. 197; p. 1247.
 Brooder. J. A. Clark. No. 1,081,811; Dec. 16; Gaz. vol. 197; p. 713.
 Brooder, Fireless. N. P. E. Ellegaard. No. 1,082,116; Dec. 23; Gaz. vol. 197; p. 845.
 Brooder, Metallic fireless. E. W. Philo. No. 1,083,028; Dec. 30; Gaz. vol. 197; p. 1193.
 Broom attachment. A. McDonald. No. 1,080,572; Dec. 9; Gaz. vol. 197; p. 259.
 Broom-bridle. C. A. Case. No. 1,082,497; Dec. 30; Gaz. vol. 197; p. 1007.
 Broom dust collecting attachment. S. P. Low. No. 1,082,128; Dec. 23; Gaz. vol. 197; p. 849.
 Broom or mop holder. G. G. Hakes. No. 1,081,381; Dec. 16; Gaz. vol. 197; p. 571.
 Brush. G. C. Bemla. No. 1,082,922; Dec. 30; Gaz. vol. 197; p. 1159.
 Brush control. M. Vandal. No. 1,080,890; Dec. 2; Gaz. vol. 197; p. 168.
 Brush, Fountain. W. F. Moss. No. 1,080,574; Dec. 9; Gaz. vol. 197; p. 260.
 Brush, Fountain. W. F. Ziegler. No. 1,080,669; Dec. 9; Gaz. vol. 197; p. 291.
 Brush, Fountain. H. L. Larsen. No. 1,081,680; Dec. 16; Gaz. vol. 197; p. 667.
 Brush, Fountain. F. Schreidt. No. 1,082,288; Dec. 23; Gaz. vol. 197; p. 906.
 Brush, Fountain. H. H. Wurfshmidt. No. 1,082,839; Dec. 30; Gaz. vol. 197; p. 1129.
 Brush, Fountain. L. D. Falkenstein. No. 1,083,071; Dec. 30; Gaz. vol. 197; p. 1207.
 Brush-making machine drilling and filling attachment. K. Winkler. No. 1,081,709; Dec. 16; Gaz. vol. 197; p. 677.
 Brush, Massage shaving. W. Morrison. No. 1,080,919; Dec. 9; Gaz. vol. 197; p. 381.
 Brush, Shaving. E. Mentor. No. 1,081,319; Dec. 16; Gaz. vol. 197; p. 550.
 Brush, Shaving. L. D. Cortell. No. 1,082,934; Dec. 30; Gaz. vol. 197; p. 1162.
 Brush, Tooth. S. B. and G. S. Husch. No. 1,080,633; Dec. 9; Gaz. vol. 197; p. 279.
 Brush, Tooth. S. B. and G. S. Husch. No. 1,080,634; Dec. 9; Gaz. vol. 197; p. 280.
 Brush, Tooth. N. E. Paine. No. 1,082,041; Dec. 23; Gaz. vol. 197; p. 820.
 Brush, Tooth. L. Tubbs. No. 1,082,919; Dec. 30; Gaz. vol. 197; p. 1158.
 Bucket-hoisting apparatus, Dipper. A. W. Robinson. No. 1,081,774; Dec. 16; Gaz. vol. 197; p. 701.
 Buckle. L. S. Ayer. No. 1,080,672; Dec. 9; Gaz. vol. 197; p. 292.
 Buckle, Trace and tug. N. L. Anderson. No. 1,081,804; Dec. 16; Gaz. vol. 197; p. 711.
 Building-block. R. W. Rattis. No. 1,080,367; Dec. 2; Gaz. vol. 197; p. 159.
 Building-block. S. Rauno fu Biagio. No. 1,081,695; Dec. 16; Gaz. vol. 197; p. 673.
 Building construction. C. J. Perkins. No. 1,081,864; Dec. 16; Gaz. vol. 197; p. 732.
 Bullet, Mushroom. T. C. Johnson. No. 1,080,974; Dec. 9; Gaz. vol. 197; p. 398.
 Bullet, Mushroom. T. C. Johnson. No. 1,080,975; Dec. 9; Gaz. vol. 197; p. 399.
 Bullet, Mushroom. T. C. Johnson. No. 1,080,976; Dec. 9; Gaz. vol. 197; p. 399.
 Bullet, Mushroom. T. C. Johnson. No. 1,080,977; Dec. 9; Gaz. vol. 197; p. 399.
 Bullet, Mushroom. H. W. Starkweather. No. 1,081,065; Dec. 9; Gaz. vol. 197; p. 426.
 Bullet, Mushroom. T. C. Johnson. No. 1,081,616; Dec. 16; Gaz. vol. 197; p. 647.
 Bundle-carrier. T. E. Somerville. No. 1,081,559; Dec. 16; Gaz. vol. 197; p. 630.

Bunlon-rectifier. W. M. Scholl. No. 1,080,303; Dec. 2; Gaz. vol. 197; p. 134.
 Buoyancy-tank. A. Ehinger. No. 1,081,103; Dec. 9; Gaz. vol. 197; p. 438.
 Burglar alarm. E. C. and F. W. Bertagnoli. No. 1,081,884; Dec. 16; Gaz. vol. 197; p. 738.
 Burglar-alarm. C. S. Head. No. 1,082,325; Dec. 23; Gaz. vol. 197; p. 919.
 Burglar-alarm, Electric. H. S. Bittling. No. 1,081,278; Dec. 9; Gaz. vol. 197; p. 498.
 Burglar-alarm systems, Automatic resetting alarm cut-out for electric. J. P. Williams and H. Huhn. No. 1,082,667; Dec. 30; Gaz. vol. 197; p. 1069.
 Burner. See Gas-burner; Hydrocarbon-burner; Lamp-burner; Oil-burner; Oil and water burner; Stump-burner.
 Burner. H. S. Thornton. No. 1,082,294; Dec. 23; Gaz. vol. 197; p. 908.
 Burner, Hydrocarbon. E. A. Whitten. No. 1,080,244; Dec. 2; Gaz. vol. 197; p. 114.
 Buttermilk-cooler. G. Viney. No. 1,081,350; Dec. 16; Gaz. vol. 197; p. 560.
 Button. A. B. Commerford and S. E. Watson. No. 1,081,096; Dec. 9; Gaz. vol. 197; p. 435.
 Button. M. V. Gloeckner. No. 1,082,420; Dec. 23; Gaz. vol. 197; p. 950.
 Button-attaching machine. C. Baranovits. No. 1,082,485; Dec. 30; Gaz. vol. 197; p. 1037.
 Button-attaching machines, Button and staple feeding mechanism for. F. R. White. No. 1,079,968; Dec. 2; Gaz. vol. 197; p. 16.
 Button-attaching machines, Button-feeding mechanism for. F. R. White. No. 1,079,967; Dec. 2; Gaz. vol. 197; p. 16.
 Button-drilling machine. P. F. Dusha, A. Feyk, and J. Komancsek. No. 1,083,202; Dec. 30; Gaz. vol. 197; p. 1246.
 Button-fastener. A. W. Stone. No. 1,080,604; Dec. 9; Gaz. vol. 197; p. 270.
 Button-fastening-machine antilogging attachment. G. W. Perkins. No. 1,080,996; Dec. 9; Gaz. vol. 197; p. 405.
 Button-tub end. J. B. Russ. No. 1,080,785; Dec. 9; Gaz. vol. 197; p. 833.
 Buttonhole-cutting device. E. B. Allen. No. 1,083,236; Dec. 30; Gaz. vol. 197; p. 1258.
 Buttonhole-finishing machine. G. S. Hill. No. 1,080,341; Dec. 2; Gaz. vol. 197; p. 148.
 Cabinet, Bath. M. Beadle. No. 1,080,247; Dec. 2; Gaz. vol. 197; p. 115.
 Cabinet for disk records. P. J. Robinson. No. 1,082,361; Dec. 23; Gaz. vol. 197; p. 932.
 Cabinet, Kitchen. H. J. Ritter. No. 1,081,151; Dec. 9; Gaz. vol. 197; p. 455.
 Cabinet, Ribbon. R. O. Daniel. No. 1,083,196; Dec. 30; Gaz. vol. 197; p. 1244.
 Cabinet, Safety towel. H. Solomon. No. 1,080,855; Dec. 9; Gaz. vol. 197; p. 359.
 Cabinets, &c., Chain for dling. C. W. Zimmer and G. W. Benjamin. No. 1,082,298; Dec. 23; Gaz. vol. 197; p. 910.
 Cable-grip. W. J. Parker and A. A. Strom. No. 1,080,472; Dec. 2; Gaz. vol. 197; p. 193.
 Cable-hanger. J. J. Walsh. No. 1,080,130; Dec. 2; Gaz. vol. 197; p. 74.
 Cableway. F. Halterman. No. 1,080,827; Dec. 9; Gaz. vol. 197; p. 350.
 Cableway. F. Halterman. No. 1,080,828; Dec. 9; Gaz. vol. 197; p. 350.
 Calculating-machine. F. S. Baldwin. No. 1,080,245; Dec. 2; Gaz. vol. 197; p. 114.
 Calculating-machine. H. Hopkins. No. 1,080,694; Dec. 9; Gaz. vol. 197; p. 300.
 Calculating-machine. W. F. Gatewood and J. D. McAdams. No. 1,080,607; Dec. 9; Gaz. vol. 197; p. 376.
 Calculating-machine. C. A. Bishop. No. 1,081,089; Dec. 9; Gaz. vol. 197; p. 433.
 Calculating-machine. F. Trinks. No. 1,081,172; Dec. 9; Gaz. vol. 197; p. 462.
 Calculating-machine. E. Jahnz. No. 1,081,310; Dec. 16; Gaz. vol. 197; p. 546.
 Calculating-machine. F. Trinks. No. 1,081,791; Dec. 16; Gaz. vol. 197; p. 706.
 Camera. A. Voris. No. 1,081,173; Dec. 9; Gaz. vol. 197; p. 462.
 Camera. G. C. Beldler. No. 1,082,727; Dec. 30; Gaz. vol. 197; p. 1090.
 Camera and projecting apparatus, Kinematographic. W. Chipperfield. No. 1,082,305; Dec. 23; Gaz. vol. 197; p. 913.
 Camera flash-light attachment. P. Dietz. No. 1,080,543; Dec. 9; Gaz. vol. 197; p. 250.
 Can-body-making machine. F. Rudolphi. No. 1,082,557; Dec. 30; Gaz. vol. 197; p. 1030.
 Can-body-making machine. J. E. Schenck. No. 1,082,559; Dec. 30; Gaz. vol. 197; p. 1031.
 Can, box or the like opening device. P. Scholz. No. 1,081,939; Dec. 16; Gaz. vol. 197; p. 755.
 Can-carrier. A. E. Peppe. No. 1,080,578; Dec. 9; Gaz. vol. 197; p. 261.
 Can-cover lock and seal, Milk. F. A. Arlens. No. 1,082,726; Dec. 30; Gaz. vol. 197; p. 1090.
 Can filler, Milk. C. A. Patton. No. 1,081,982; Dec. 23; Gaz. vol. 197; p. 799.
 Can-heading machine. L. C. Sharp. No. 1,082,562; Dec. 30; Gaz. vol. 197; p. 1032.
 Can-marking machine, Gravity-feed. E. A. Vary. No. 1,080,504; Dec. 2; Gaz. vol. 197; p. 204.
 Can-opener. G. W. Johnson. No. 1,080,836; Dec. 9; Gaz. vol. 197; p. 280.
 Can-opener. F. C. Wilson. No. 1,081,645; Dec. 16; Gaz. vol. 197; p. 657.
 Can stopper attachment. E. M. De Laney and H. M. Bryant. No. 1,082,850; Dec. 30; Gaz. vol. 197; p. 1133.
 Can-top holder. G. Geddis. No. 1,081,302; Dec. 16; Gaz. vol. 197; p. 544.
 Can-top set. G. E. Ott. No. 1,081,980; Dec. 23; Gaz. vol. 197; p. 798.
 Caoutchouc and making same, Vulcanized. F. Hofmann and K. Delbrück. No. 1,081,813; Dec. 16; Gaz. vol. 197; p. 647.
 Caoutchouc substance and making same. F. Hofmann and K. Delbrück. No. 1,081,814; Dec. 16; Gaz. vol. 197; p. 647.
 Caoutchouc substances and making same. F. Hofmann, C. Coutelle, K. Meisenburg, and K. Delbrück. No. 1,082,522; Dec. 30; Gaz. vol. 197; p. 1017.
 Cap and sunbonnet, Combination. E. Ziegfeld. No. 1,082,144; Dec. 23; Gaz. vol. 197; p. 854.
 Cap, Miner's. D. F. Brubaker. No. 1,081,859; Dec. 16; Gaz. vol. 197; p. 661.
 Cap, Uniform. J. J. Kohler. No. 1,080,353; Dec. 2; Gaz. vol. 197; p. 154.
 Car. A. J. Stevens and J. H. Horne. No. 1,080,024; Dec. 2; Gaz. vol. 197; p. 37.
 Car. C. P. Astrom. No. 1,080,620; Dec. 9; Gaz. vol. 197; p. 275.
 Car. R. J. Magor. No. 1,080,709; Dec. 9; Gaz. vol. 197; p. 305.
 Car. G. H. Forsyth. No. 1,081,928; Dec. 16; Gaz. vol. 197; p. 752.
 Car advertising apparatus, Street. M. P. Smith. No. 1,080,728; Dec. 9; Gaz. vol. 197; p. 312.
 Car attachment, Motor. A. J. Crist. No. 1,080,680; Dec. 9; Gaz. vol. 197; p. 295.
 Car attachment, Side. L. A. Pothast. No. 1,080,020; Dec. 2; Gaz. vol. 197; p. 35.
 Car body, Adaptable motor. R. H. and V. Hopkinson. No. 1,083,097; Dec. 30; Gaz. vol. 197; p. 1216.
 Car, Box. R. J. Magor. No. 1,080,708; Dec. 9; Gaz. vol. 197; p. 305.
 Car-cage. J. P. Gibbons. No. 1,083,207; Dec. 30; Gaz. vol. 197; p. 1248.
 Car construction. G. H. Forsyth. No. 1,081,927; Dec. 16; Gaz. vol. 197; p. 751.
 Car construction. W. J. Tollerton. No. 1,082,247; Dec. 23; Gaz. vol. 197; p. 891.
 Car construction, Tank. J. A. Jackson. No. 1,082,269; Dec. 23; Gaz. vol. 197; p. 899.
 Car, Convertible. R. W. Burnett. No. 1,081,430; Dec. 16; Gaz. vol. 197; p. 587.
 Car, Convertible fat and hopper bottom dumping. R. W. Burnett. No. 1,081,205; Dec. 9; Gaz. vol. 197; p. 472.
 Car-coupling. J. W. Barib and J. F. Robertson. No. 1,080,744; Dec. 9; Gaz. vol. 197; p. 318.
 Car-coupling. H. R. Swan. No. 1,081,066; Dec. 9; Gaz. vol. 197; p. 426.
 Car-coupling. W. F. Richards. No. 1,082,822; Dec. 30; Gaz. vol. 197; p. 1124.
 Car-coupling. C. A. McKarahan. No. 1,083,121; Dec. 30; Gaz. vol. 197; p. 1223.
 Car-coupling, Automatic air. G. M. and H. W. Clark. No. 1,083,189; Dec. 30; Gaz. vol. 197; p. 1241.
 Car-door. G. H. Smith. No. 1,082,450; Dec. 23; Gaz. vol. 197; p. 959.
 Car-door fastener. F. W. Chaffee. No. 1,083,001; Dec. 30; Gaz. vol. 197; p. 1185.
 Car-door lock. M. Kriewitz and W. F. Ferris. No. 1,081,755; Dec. 16; Gaz. vol. 197; p. 693.
 Car-door lock, Dump. R. W. Burnett. No. 1,081,204; Dec. 9; Gaz. vol. 197; p. 472.
 Car-door mechanism. A. M. and W. H. Walitt. No. 1,082,664; Dec. 30; Gaz. vol. 197; p. 1067.
 Car-door-opening mechanism, Freight. W. W. Darrow. No. 1,081,294; Dec. 16; Gaz. vol. 197; p. 541.
 Car-door, Stormproof. G. M. Kirby. No. 1,082,343; Dec. 23; Gaz. vol. 197; p. 926.
 Car-draw-bar support, Railway. P. M. Elliott. No. 1,080,509; Dec. 2; Gaz. vol. 197; p. 206.
 Car, Dumping. R. W. Davies. No. 1,079,977; Dec. 2; Gaz. vol. 197; p. 20.
 Car, Dumping. C. P. Astrom. No. 1,080,619; Dec. 9; Gaz. vol. 197; p. 275.
 Car end framing. V. E. Sisson. No. 1,080,725; Dec. 9; Gaz. vol. 197; p. 311.
 Car-fender. J. B. Paxton, Jr. No. 1,082,235; Dec. 23; Gaz. vol. 197; p. 886.
 Car fender, Street. J. F. Gryn. No. 1,081,736; Dec. 16; Gaz. vol. 197; p. 686.
 Car-frame construction. H. M. Pfleger. No. 1,080,163; Dec. 2; Gaz. vol. 197; p. 86.
 Car, Freight. F. G. Miller. No. 1,081,853; Dec. 16; Gaz. vol. 197; p. 728.
 Car indicator, Street. H. Klarman. No. 1,081,389; Dec. 16; Gaz. vol. 197; p. 574.
 Car lubricator, Mine. J. H. Thomas. No. 1,080,500; Dec. 2; Gaz. vol. 197; p. 203.
 Car, Motor. P. H. Adams. No. 1,081,080; Dec. 9; Gaz. vol. 197; p. 430.

- Car-placard device, interchangeable. C. L. Herbat and R. C. Avansino. No. 1,082,155; Dec. 23; Gaz. vol. 197; p. 857.
- Car, Railway. R. H. Beach. No. 1,081,942; Dec. 23; Gaz. vol. 197; p. 785.
- Car-replacer. W. J. Dixon. No. 1,082,936; Dec. 30; Gaz. vol. 197; p. 1163.
- Car-roof. T. N. Russell. No. 1,080,173; Dec. 2; Gaz. vol. 197; p. 89.
- Car-roof. T. N. Russell. No. 1,082,974; Dec. 30; Gaz. vol. 197; p. 1176.
- Car-roof. R. W. Burnett. No. 1,083,240; Dec. 30; Gaz. vol. 197; p. 1260.
- Car-roofs, Hood-cap for outside metal. D. Murphy. No. 1,081,823; Dec. 16; Gaz. vol. 197; p. 551.
- Car screen. Motor. J. F. and E. N. Kennedy. No. 1,080,458; Dec. 2; Gaz. vol. 197; p. 190.
- Car-seal lock. E. Tyden. No. 1,080,186; Dec. 2; Gaz. vol. 197; p. 83.
- Car-stake. R. P. Borga. No. 1,081,807; Dec. 16; Gaz. vol. 197; p. 712.
- Car-standard. J. F. Meneses. No. 1,082,816; Dec. 30; Gaz. vol. 197; p. 1122.
- Car-starting device, Motor. J. R. Kinney. No. 1,082,595; Dec. 30; Gaz. vol. 197; p. 1043.
- Car, Steel. C. H. Anderson. No. 1,083,176; Dec. 30; Gaz. vol. 197; p. 1238.
- Car-step, Adjustable. W. D. Osterhout. No. 1,083,127; Dec. 30; Gaz. vol. 197; p. 1225.
- Car step and door, Folding. A. V. Winegarden. No. 1,081,879; Dec. 16; Gaz. vol. 197; p. 736.
- Car-step, Folding. C. Peppie. No. 1,083,131; Dec. 30; Gaz. vol. 197; p. 1226.
- Car-step, Supplemental. N. A. Thomas. No. 1,081,874; Dec. 16; Gaz. vol. 197; p. 735.
- Car, Stock. H. H. Dudley. No. 1,081,588; Dec. 16; Gaz. vol. 197; p. 639.
- Car, Tank. L. E. Evens. No. 1,081,032; Dec. 9; Gaz. vol. 197; p. 416.
- Car-temperature register. R. F. Blow and G. W. Sandford. No. 1,081,200; Dec. 9; Gaz. vol. 197; p. 470.
- Car, Tilting. A. Preussler. No. 1,081,061; Dec. 9; Gaz. vol. 197; p. 425.
- Car-trolley. F. E. Covey. No. 1,082,799; Dec. 30; Gaz. vol. 197; p. 1116.
- Car-underframe. W. A. Stearns. No. 1,079,958; Dec. 2; Gaz. vol. 197; p. 12.
- Car-underframe. V. M. Summa. No. 1,080,178; Dec. 2; Gaz. vol. 197; p. 90.
- Car-underframe. B. Magor. (Reissue.) No. 1,365; Dec. 9; Gaz. vol. 197; p. 502.
- Car-vestibule diaphragm. H. H. Schroyer. No. 1,082,241; Dec. 23; Gaz. vol. 197; p. 885.
- Car wheel, Mine. W. M. McCoy. No. 1,081,318; Dec. 16; Gaz. vol. 197; p. 549.
- Cars, Device for replacing derailed. A. F. Broderick. No. 1,081,717; Dec. 16; Gaz. vol. 197; p. 680.
- Cars, Inclosure for the bodies of motor. A. and C. Geissel. No. 1,082,316; Dec. 23; Gaz. vol. 197; p. 917.
- Carbid with calcium cyanamid, Coating. V. Imperatori. No. 1,081,938; Dec. 16; Gaz. vol. 197; p. 755.
- Carbureter. C. C. B. Morris. No. 1,079,947; Dec. 2; Gaz. vol. 197; p. 8.
- Carbureter. O. B. Monosmith. No. 1,080,118; Dec. 2; Gaz. vol. 197; p. 70.
- Carbureter. A. R. Fribill. No. 1,080,166; Dec. 2; Gaz. vol. 197; p. 87.
- Carbureter. G. J. Mayer. No. 1,080,645; Dec. 9; Gaz. vol. 197; p. 283.
- Carbureter. W. P. Hagnelet. No. 1,080,696; Dec. 9; Gaz. vol. 197; p. 301.
- Carbureter. F. Durr. No. 1,081,222; Dec. 9; Gaz. vol. 197; p. 478.
- Carbureter. J. M. Ulrich and W. Rahr, Jr. No. 1,081,258; Dec. 9; Gaz. vol. 197; p. 491.
- Carbureter. J. W. Parkin. No. 1,082,762; Dec. 30; Gaz. vol. 197; p. 1103.
- Carbureter. N. Goodyear. No. 1,082,865; Dec. 30; Gaz. vol. 197; p. 1138.
- Carbureter attachment. J. O'May. No. 1,083,216; Dec. 30; Gaz. vol. 197; p. 1251.
- Carbureter heating-coil. W. A. Erkenbrack. No. 1,081,729; Dec. 16; Gaz. vol. 197; p. 684.
- Carbureter, Internal-combustion-engine. E. P. Everest. No. 1,080,815; Dec. 9; Gaz. vol. 197; p. 346.
- Carbureter, Internal-combustion-engine. G. F. Bull. No. 1,081,203; Dec. 9; Gaz. vol. 197; p. 471.
- Carbureter, Internal-combustion-engine. O. D. Lucas. No. 1,082,466; Dec. 23; Gaz. vol. 197; p. 964.
- Card-case. O. W. Tollstam. No. 1,079,980; Dec. 2; Gaz. vol. 197; p. 13.
- Carding-engine-feeding mechanism. D. C. Fisher. No. 1,080,205; Dec. 2; Gaz. vol. 197; p. 100.
- Carpenter's gage. H. E. Haukom. No. 1,081,529; Dec. 16; Gaz. vol. 197; p. 622.
- Carpet-sweeper. J. M. Spangler. No. 1,081,840; Dec. 16; Gaz. vol. 197; p. 557.
- Carpet-sweeper. J. F. Evert. No. 1,081,375; Dec. 16; Gaz. vol. 197; p. 589.
- Carpet-sweeper pump mechanism. J. T. Johnson. No. 1,080,112; Dec. 2; Gaz. vol. 197; p. 68.
- Carriage-return mechanism. W. Ammerman. No. 1,082,063; Dec. 23; Gaz. vol. 197; p. 828.
- Carriage-top. L. S. Henderson. No. 1,080,147; Dec. 2; Gaz. vol. 197; p. 81.
- Carrier. See Book-carrier; Can-carrier; Luggage-carrier; Voting-machine counter-carrier.
- Carrier-screens. W. E. Lobdell. No. 1,081,893; Dec. 16; Gaz. vol. 197; p. 575.
- Carriers, Device for opening tubular. F. O. Hoagland. No. 1,082,867; Dec. 30; Gaz. vol. 197; p. 1139.
- Cart-lifting device. Push. N. Dupuis. No. 1,082,226; Dec. 23; Gaz. vol. 197; p. 882.
- Carton. H. De Smith. No. 1,081,724; Dec. 16; Gaz. vol. 197; p. 683.
- Cartons and the like, Means for opening. O. C. Schulz. No. 1,080,932; Dec. 9; Gaz. vol. 197; p. 385.
- Cartridge. J. D. Pedersen. No. 1,081,983; Dec. 23; Gaz. vol. 197; p. 799.
- Cartridge-loading machine. H. M. Pierce. No. 1,082,137; Dec. 23; Gaz. vol. 197; p. 852.
- Carttridges, Combined base-cup and primer-pocket for. T. H. Rylands. No. 1,082,976; Dec. 30; Gaz. vol. 197; p. 1176.
- Case. See Card-case; Cigarette-case; Display-case; Eye-glass-case; Packing-case; Sample-carrying case; Shipping-case.
- Caseln preparations, Producing. A. A. Dunham. No. 1,080,204; Dec. 2; Gaz. vol. 197; p. 100.
- Casing, Spring. O. Lampe. No. 1,080,567; Dec. 9; Gaz. vol. 197; p. 257.
- Cash-register. J. P. Cleal. No. 1,080,001; Dec. 2; Gaz. vol. 197; p. 29.
- Cash-register. E. E. Patten. No. 1,080,162; Dec. 2; Gaz. vol. 197; p. 85.
- Cash-register. J. H. McCormick. No. 1,080,646; Dec. 9; Gaz. vol. 197; p. 283.
- Cash-register. T. M. Sibbald. No. 1,083,035; Dec. 30; Gaz. vol. 197; p. 1195.
- Cash-register attachment. J. G. Willich. No. 1,081,478; Dec. 16; Gaz. vol. 197; p. 603.
- Cast-iron, Removing sulfur from. W. F. Prince. No. 1,081,403; Dec. 16; Gaz. vol. 197; p. 578.
- Caster, Ball. F. W. Morgan. No. 1,082,968; Dec. 30; Gaz. vol. 197; p. 1174.
- Castling-machine mold, Slug. H. A. W. Wood. No. 1,082,059; Dec. 23; Gaz. vol. 197; p. 826.
- Cattle-guard. G. N. Solomon. No. 1,081,871; Dec. 16; Gaz. vol. 197; p. 734.
- Cellulose-acetate manufacture. F. Paschke. No. 1,082,167; Dec. 23; Gaz. vol. 197; p. 861.
- Cellulose solutions and production of cellulose products from such solutions, Preparing. E. Berl. No. 1,082,490; Dec. 30; Gaz. vol. 197; p. 1006.
- Cement and making the same. E. Duryee. No. 1,082,684; Dec. 30; Gaz. vol. 197; p. 1075.
- Cement and making, Waterproof. R. Schuler. No. 1,081,155; Dec. 9; Gaz. vol. 197; p. 456.
- Cementing-machine. W. G. Eaton. No. 1,080,959; Dec. 9; Gaz. vol. 197; p. 393.
- Centering device. V. E. Sisson. No. 1,080,723; Dec. 9; Gaz. vol. 197; p. 310.
- Centering device. V. E. Sisson. No. 1,080,724; Dec. 9; Gaz. vol. 197; p. 310.
- Centrifugal drier. J. V. Kraneblat. No. 1,080,700; Dec. 9; Gaz. vol. 197; p. 302.
- Chain, bracelet, and the like lock, Neck. E. Schönmann and J. Rächle. No. 1,082,140; Dec. 23; Gaz. vol. 197; p. 853.
- Chain, Drive. G. G. and L. C. Howe. No. 1,082,332; Dec. 23; Gaz. vol. 197; p. 922.
- Chain-link, Fusible. E. R. Leonard. No. 1,083,019; Dec. 30; Gaz. vol. 197; p. 1190.
- Chain-lock. C. A. McCarthy. No. 1,082,813; Dec. 30; Gaz. vol. 197; p. 1120.
- Chair. See High chair; Rail-chair; Reclining-chair.
- Chair. J. Lewis. No. 1,083,215; Dec. 30; Gaz. vol. 197; p. 1251.
- Chandeller. W. Adams. No. 1,080,092; Dec. 2; Gaz. vol. 197; p. 60.
- Chandeller. W. Adams. No. 1,080,093; Dec. 2; Gaz. vol. 197; p. 61.
- Channeling-machine. F. L. Harmon. No. 1,082,631; Dec. 30; Gaz. vol. 197; p. 1057.
- Channels in streams, Apparatus for deepening. S. Bonner. No. 1,082,147; Dec. 23; Gaz. vol. 197; p. 854.
- Check-controlled device. C. H. Simerson. No. 1,081,782; Dec. 16; Gaz. vol. 197; p. 703.
- Check-disk-issuing machine. E. March. No. 1,079,943; Dec. 2; Gaz. vol. 197; p. 7.
- Check, Voucher. W. D. Myres. No. 1,082,702; Dec. 30; Gaz. vol. 197; p. 1082.
- Checkrein-lock. C. L. Taylor. No. 1,083,155; Dec. 30; Gaz. vol. 197; p. 1233.
- Chemical process. A. Hoffman. No. 1,082,424; Dec. 23; Gaz. vol. 197; p. 951.
- Chest. See Cooling-chest.
- Chilean mill, Slow-speed. C. C. Lane. No. 1,082,960; Dec. 30; Gaz. vol. 197; p. 1171.
- Chimney-cleaner. L. Moeller. No. 1,081,280; Dec. 9; Gaz. vol. 197; p. 499.
- Chisel. O. A. West. No. 1,082,379; Dec. 23; Gaz. vol. 197; p. 938.
- Chopper. See Cotton-chopper.
- Chuck. F. L. Smith and T. B. Williams. No. 1,081,727; Dec. 9; Gaz. vol. 197; p. 311.
- Chuck. J. Hartness. No. 1,082,590; Dec. 30; Gaz. vol. 197; p. 1042.
- Chuck, Automatic. D. W. Wood. No. 1,081,183; Dec. 9; Gaz. vol. 197; p. 465.
- Chuck, Magnetic. R. C. Patton. No. 1,081,462; Dec. 16; Gaz. vol. 197; p. 598.
- Churn. J. W. Barr. No. 1,080,040; Dec. 2; Gaz. vol. 197; p. 43.
- Churn. T. H. Gaines. No. 1,082,513; Dec. 30; Gaz. vol. 197; p. 1014.
- Churn. T. L. Thompson. No. 1,083,158; Dec. 30; Gaz. vol. 197; p. 1233.
- Chute, Self-locking fuel. A. H. Hobbs. No. 1,083,014; Dec. 30; Gaz. vol. 197; p. 1189.
- Cigar and cigarette holder. J. Hauenstein, Jr. No. 1,080,552; Dec. 9; Gaz. vol. 197; p. 253.
- Cigar-box and humidor, Combined. L. Brenauer. No. 1,082,399; Dec. 23; Gaz. vol. 197; p. 944.
- Cigar-cutter. J. H. Astruck. No. 1,082,257; Dec. 23; Gaz. vol. 197; p. 895.
- Cigar-holder. M. S. Cole. No. 1,081,889; Dec. 16; Gaz. vol. 197; p. 739.
- Cigar-making machine. C. F. Bremer. No. 1,080,949; Dec. 9; Gaz. vol. 197; p. 390.
- Cigar-tuck cutter. G. W. Bowman. No. 1,083,052; Dec. 30; Gaz. vol. 197; p. 1201.
- Cigar-wrapper moistener and container. B. Liberman. No. 1,082,277; Dec. 23; Gaz. vol. 197; p. 902.
- Cigar-wrapper moistener and container. B. Liberman. No. 1,082,278; Dec. 23; Gaz. vol. 197; p. 903.
- Cigars, Manufacturing. W. F. Metcalf and S. W. Leidich. No. 1,083,023; Dec. 30; Gaz. vol. 197; p. 1192.
- Cigarette-case. H. C. Pedersen. No. 1,081,512; Dec. 16; Gaz. vol. 197; p. 616.
- Circuit-closer, Thermostatic. J. Hartley. No. 1,080,339; Dec. 2; Gaz. vol. 197; p. 148.
- Circuit regulator, Pneumatic. F. C. White. No. 1,082,686; Dec. 30; Gaz. vol. 197; p. 1068.
- Clatern. W. H. Reifender. No. 1,082,444; Dec. 23; Gaz. vol. 197; p. 958.
- Clasters, Form for concrete. G. A. Watkins. No. 1,080,187; Dec. 2; Gaz. vol. 197; p. 94.
- Clamp. See Angle or miter clamp; Key-duplicating clamp; Wire-clamp.
- Clamp-bolt, Locking. E. O. Edwards. No. 1,082,461; Dec. 23; Gaz. vol. 197; p. 962.
- Clamping device. C. J. Landin. No. 1,080,013; Dec. 2; Gaz. vol. 197; p. 32.
- Clasp. See Necklace-clasp; Ribbon-bolt clasp.
- Clasp. O. L. Gammelgaard. No. 1,080,336; Dec. 2; Gaz. vol. 197; p. 146.
- Clasp. W. Conway. No. 1,080,539; Dec. 9; Gaz. vol. 197; p. 249.
- Clasp. F. Hirsh. No. 1,081,501; Dec. 16; Gaz. vol. 197; p. 611.
- Cleaner. See Apple sorter and cleaner; Boiler-tube cleaner; Chimney-cleaner; Colter-cleaner; Track-cleaner; Vacuum-cleaner; Window-cleaner.
- Cleaning device. P. E. Fischer. No. 1,081,597; Dec. 16; Gaz. vol. 197; p. 642.
- Clip. See Hame-clip; Pen and pencil clip; Wire clip.
- Clock alarm mechanism. E. E. Gage. No. 1,082,077; Dec. 23; Gaz. vol. 197; p. 833.
- Clock-crystal bezel. W. J. Herschede. No. 1,082,080; Dec. 23; Gaz. vol. 197; p. 834.
- Clock, Electric. F. Brunko. No. 1,080,414; Dec. 2; Gaz. vol. 197; p. 175.
- Clock, Electrically-operated alarm. W. P. Locke. No. 1,081,052; Dec. 9; Gaz. vol. 197; p. 422.
- Closet. See Dry closet.
- Closet-sanitation system. E. L. Miller. No. 1,081,130; Dec. 9; Gaz. vol. 197; p. 447.
- Closet-seat sanitary cover. N. Camelo. No. 1,081,091; Dec. 9; Gaz. vol. 197; p. 483.
- Closet-seat sanitary paper coverings, Machine for cutting and feeding. O. M. Gilbertson. No. 1,081,904; Dec. 16; Gaz. vol. 197; p. 743.
- Closure-applying mechanism. N. M. La Porte. No. 1,080,114; Dec. 2; Gaz. vol. 197; p. 69.
- Cloth-beam. J. Northrop. No. 1,082,166; Dec. 23; Gaz. vol. 197; p. 861.
- Cloth-cutting machines, Safety device for circular-knife. D. Perlman. No. 1,080,518; Dec. 2; Gaz. vol. 197; p. 210.
- Cloth-pling apparatus. W. M. Gustin. No. 1,082,692; Dec. 30; Gaz. vol. 197; p. 1078.
- Cloth-shearing machine. E. F. Butler, Sr. No. 1,081,265; Dec. 9; Gaz. vol. 197; p. 493.
- Clothes-line reel. S. A. Jullen. No. 1,082,637; Dec. 30; Gaz. vol. 197; p. 1059.
- Clothes-line support, Adjustable. A. S. Erickson. No. 1,081,440; Dec. 16; Gaz. vol. 197; p. 590.
- Clothes-lines and the like, Fastener for. W. G. Kendall and K. Shepard. No. 1,082,751; Dec. 30; Gaz. vol. 197; p. 1090.
- Clothes-pin. J. A. Mierzwik. No. 1,081,852; Dec. 16; Gaz. vol. 197; p. 728.
- Clothes-pin. E. J. Munz. No. 1,082,208; Dec. 23; Gaz. vol. 197; p. 876.
- Clothes-wringer. J. F. Gubbins. No. 1,081,880; Dec. 16; Gaz. vol. 197; p. 571.
- Clutch. P. Farwell. No. 1,080,817; Dec. 9; Gaz. vol. 197; p. 347.
- Clutch. J. J. Gilmartin. No. 1,081,735; Dec. 16; Gaz. vol. 197; p. 686.
- Clutch. W. Smith. No. 1,082,657; Dec. 30; Gaz. vol. 197; p. 1065.
- Clutch for speedometers and the like. A. W. Wessoleck. No. 1,081,934; Dec. 16; Gaz. vol. 197; p. 754.
- Clutch, Friction. J. E. Gilson. No. 1,081,528; Dec. 16; Gaz. vol. 197; p. 621.
- Clutch, Friction. L. A. Pagani. No. 1,081,861; Dec. 16; Gaz. vol. 197; p. 730.
- Clutch friction member. L. Whitcomb. No. 1,081,998; Dec. 23; Gaz. vol. 197; p. 805.
- Clutch mechanism. E. C. Willis. No. 1,082,381; Dec. 23; Gaz. vol. 197; p. 938.
- Coal, Apparatus for coking. H. L. Doherty. No. 1,080,142; Dec. 2; Gaz. vol. 197; p. 79.
- Coal-bins, Apparatus for automatically loading. J. W. Wortham. No. 1,083,042; Dec. 30; Gaz. vol. 197; p. 1197.
- Coal-conveyer. O. E. Barone. No. 1,082,391; Dec. 23; Gaz. vol. 197; p. 941.
- Coal-hod attachment. R. I. Alverson. No. 1,062,483; Dec. 30; Gaz. vol. 197; p. 1003.
- Coal-jigger. C. Simon. No. 1,082,102; Dec. 23; Gaz. vol. 197; p. 841.
- Coal-loading station. A. B. B. Harris. No. 1,082,194; Dec. 23; Gaz. vol. 197; p. 871.
- Coat. A. Granstrom. No. 1,083,209; Dec. 30; Gaz. vol. 197; p. 1249.
- Cock, Gage. W. A. Dittmer. No. 1,080,426; Dec. 2; Gaz. vol. 197; p. 180.
- Cock, Gage. W. A. Kitts, Jr. No. 1,081,968; Dec. 23; Gaz. vol. 197; p. 795.
- Cock, Locomotive-boiler frost. H. Jagielski and J. J. Holohan. No. 1,080,973; Dec. 9; Gaz. vol. 197; p. 398.
- Cock, Telescopic bib. E. A. Fountain. No. 1,080,273; Dec. 2; Gaz. vol. 197; p. 125.
- Coffee-machine. C. Nelson. No. 1,080,774; Dec. 9; Gaz. vol. 197; p. 329.
- Coffee-pot. M. Howell. No. 1,083,211; Dec. 30; Gaz. vol. 197; p. 1249.
- Coffee, &c., Refining-machine for. H. L. Johnston. No. 1,080,066; Dec. 2; Gaz. vol. 197; p. 52.
- Coil-forming apparatus. J. A. Burns. No. 1,082,494; Dec. 30; Gaz. vol. 197; p. 1007.
- Coin-controlled mechanism. J. E. Allison. No. 1,081,562; Dec. 16; Gaz. vol. 197; p. 632.
- Coin-counting machine. H. K. Smith. No. 1,080,881; Dec. 2; Gaz. vol. 197; p. 164.
- Coin-counting machine. A. C. O. Bock. No. 1,080,533; Dec. 9; Gaz. vol. 197; p. 247.
- Coin-handling machine. C. M. Grey. No. 1,081,958; Dec. 23; Gaz. vol. 197; p. 791.
- Coin-holder. C. A. Stearns. No. 1,083,149; Dec. 30; Gaz. vol. 197; p. 1231.
- Coin-operated mechanism. H. Fachs. No. 1,080,626; Dec. 9; Gaz. vol. 197; p. 277.
- Coke conveying and screening mechanism. T. J. Mitchell. No. 1,082,757; Dec. 30; Gaz. vol. 197; p. 1101.
- Collapsible box. D. H. Maguire. No. 1,080,643; Dec. 9; Gaz. vol. 197; p. 282.
- Collapsible-tube and the like closure. H. M. Russell, Jr. No. 1,081,555; Dec. 16; Gaz. vol. 197; p. 629.
- Collar. W. G. Kennedy. No. 1,081,121; Dec. 9; Gaz. vol. 197; p. 444.
- Collar and fastening means therefor, Combined separable. J. McLellan. No. 1,081,273; Dec. 9; Gaz. vol. 197; p. 496.
- Collar attachment. P. Harrison. No. 1,082,517; Dec. 30; Gaz. vol. 197; p. 1015.
- Collar-fastener. J. E. Fitzgerald. No. 1,080,819; Dec. 9; Gaz. vol. 197; p. 347.
- Collar-fastener. A. C. Woodward. No. 1,081,075; Dec. 9; Gaz. vol. 197; p. 429.
- Collar-fastener and necktie-holder, Combined. J. Weinberg. No. 1,083,167; Dec. 30; Gaz. vol. 197; p. 1236.
- Collar, Horse. J. Lévy. No. 1,082,347; Dec. 23; Gaz. vol. 197; p. 927.
- Collar, Inflatable horse. J. F. Pruden. No. 1,080,848; Dec. 9; Gaz. vol. 197; p. 357.
- Collar-pad, Sweat. J. M. Eilers. No. 1,080,901; Dec. 9; Gaz. vol. 197; p. 373.
- Collar-supporter. C. Poulain. No. 1,080,526; Dec. 2; Gaz. vol. 197; p. 213.
- Collector. M. P. Reynolds. No. 1,082,766; Dec. 30; Gaz. vol. 197; p. 1105.
- Color-screens, Manufacture of. C. Späth. No. 1,081,341; Dec. 16; Gaz. vol. 197; p. 557.
- Coloring-matter containing sulfur, Green. J. Flachsmaender, K. P. Gräler, and M. Buff. No. 1,081,599; Dec. 16; Gaz. vol. 197; p. 643.
- Coloring-matters, Brown sulfur. J. Flachsmaender, K. P. Gräler, and M. Buff. No. 1,081,602; Dec. 16; Gaz. vol. 197; p. 644.
- Coloring-matters containing sulfur, Blue. A. Lüttringhaus, H. von Diesbach, and E. Schwarz. No. 1,083,110; Dec. 30; Gaz. vol. 197; p. 1219.
- Colter-cleaner. H. J. Boelter. No. 1,080,677; Dec. 9; Gaz. vol. 197; p. 294.
- Column. J. F. May. No. 1,083,120; Dec. 30; Gaz. vol. 197; p. 1223.
- Comb. See Currycomb.
- Comb-cutting machine. P. H. Kirby. No. 1,082,877; Dec. 30; Gaz. vol. 197; p. 1142.
- Combination-lock. H. C. Stevens. No. 1,083,226; Dec. 30; Gaz. vol. 197; p. 1254.

Combustion-engine. J. A. Charter. No. 1,081,017; Dec. 9; Gaz. vol. 197; p. 411.
 Combustion-engine. A. Baumann. No. 1,083,265; Dec. 30; Gaz. vol. 197; p. 1267.
 Communion set. Pocket. P. Tangjerd. No. 1,082,710; Dec. 30; Gaz. vol. 197; p. 1084.
 Commutator-brush. T. W. Varley. No. 1,082,571; Dec. 30; Gaz. vol. 197; p. 1035.
 Commutator-motor. H. K. Schrage. No. 1,079,994; Dec. 2; Gaz. vol. 197; p. 26.
 Commutator-slotted. F. R. Alley. No. 1,083,175; Dec. 30; Gaz. vol. 197; p. 1238.
 Composing-machine. Typographical. D. S. Kennedy. No. 1,080,348; Dec. 2; Gaz. vol. 197; p. 152.
 Composing-machine. Typographical. G. P. Kingsbury. No. 1,080,350; Dec. 2; Gaz. vol. 197; p. 153.
 Composing-machine. Typographical. D. S. Kennedy. No. 1,081,753; Dec. 16; Gaz. vol. 197; p. 693.
 Compound-acting dies. W. C. Edwards, Jr. No. 1,083,244; Dec. 30; Gaz. vol. 197; p. 1262.
 Compound-reducing apparatus. E. Niewerth. No. 1,081,287; Dec. 9; Gaz. vol. 197; p. 501.
 Compression-wrench. W. H. Lutz. No. 1,081,684; Dec. 16; Gaz. vol. 197; p. 669.
 Compressor. Centrifugal. S. A. Moss. (Reissue). No. 13,665; Dec. 30; Gaz. vol. 197; p. 1269.
 Compressor. Rotary. K. Ahlquist. No. 1,080,743; Dec. 9; Gaz. vol. 197; p. 318.
 Computing device. C. D. Duffield. No. 1,081,663; Dec. 16; Gaz. vol. 197; p. 662.
 Concentrator. J. S. Finlay. No. 1,080,053; Dec. 2; Gaz. vol. 197; p. 47.
 Concentrator. Centrifugal. C. A. Christensen. No. 1,081,267; Dec. 9; Gaz. vol. 197; p. 494.
 Concentrator. Dry. E. A. Stephens. No. 1,083,152; Dec. 30; Gaz. vol. 197; p. 1232.
 Concrete constructions. Collapsible core for hollow. C. S. Bunnell. No. 1,082,999; Dec. 30; Gaz. vol. 197; p. 1184.
 Concrete flooring. H. H. Dupont. No. 1,081,373; Dec. 16; Gaz. vol. 197; p. 569.
 Concrete-mixer. H. U. Prindle. No. 1,079,952; Dec. 2; Gaz. vol. 197; p. 10.
 Concrete-mixer. G. F. Nye. No. 1,081,911; Dec. 16; Gaz. vol. 197; p. 746.
 Concrete-mixer. G. W. Whitworth. No. 1,082,000; Dec. 23; Gaz. vol. 197; p. 805.
 Concrete piling. Incased. J. Kenny. No. 1,080,283; Dec. 2; Gaz. vol. 197; p. 128.
 Concrete-reinforce. A. E. Lindau. No. 1,082,963; Dec. 30; Gaz. vol. 197; p. 1173.
 Concrete sectional pipe and culvert. Reinforced. C. C. Allen and C. H. Busch. No. 1,082,723; Dec. 30; Gaz. vol. 197; p. 1089.
 Concrete sectional pipe and culvert. Reinforced. C. C. Allen. No. 1,082,724; Dec. 30; Gaz. vol. 197; p. 1089.
 Concrete tie. Reinforced. C. G. Vandewater. No. 1,082,054; Dec. 23; Gaz. vol. 197; p. 825.
 Condensing apparatus. E. Thomson. No. 1,080,734; Dec. 9; Gaz. vol. 197; p. 314.
 Conduits. Means for detaching obstructions from electric telephone and other cable. M. Blumenthal. No. 1,080,231; Dec. 2; Gaz. vol. 197; p. 117.
 Confection-coating machine. P. Panquillas. No. 1,082,234; Dec. 23; Gaz. vol. 197; p. 886.
 Confetti-machine. G. G. Griffin. No. 1,082,804; Dec. 30; Gaz. vol. 197; p. 1117.
 Contact. Electrical sliding. J. V. Purcell. No. 1,080,230; Dec. 2; Gaz. vol. 197; p. 109.
 Container. Metal. W. J. Werner. No. 1,082,783; Dec. 30; Gaz. vol. 197; p. 1111.
 Control device. G. J. and F. E. Baker. No. 1,080,316; Dec. 2; Gaz. vol. 197; p. 139.
 Control device. Foot-operated. J. A. Staples. No. 1,080,936; Dec. 9; Gaz. vol. 197; p. 386.
 Converter process. O. Thiel. No. 1,080,606; Dec. 9; Gaz. vol. 197; p. 270.
 Conveyor. A. Wakefield. No. 1,080,243; Dec. 2; Gaz. vol. 197; p. 114.
 Conveyor. L. W. Tibbitts. No. 1,080,501; Dec. 2; Gaz. vol. 197; p. 203.
 Conveyor. M. J. Gibbons. No. 1,083,083; Dec. 30; Gaz. vol. 197; p. 1211.
 Conveyor. Pneumatic. E. T. Diden. No. 1,082,113; Dec. 23; Gaz. vol. 197; p. 844.
 Conveyers. Attachment for lateral. A. C. Van Houweling. No. 1,080,940; Dec. 9; Gaz. vol. 197; p. 387.
 Cooker for oil-bearing meal. Stearns. A. B. Carr. No. 1,082,303; Dec. 23; Gaz. vol. 197; p. 912.
 Cooking and cooling apparatus. Candy-syrup. N. Holman. No. 1,082,288; Dec. 23; Gaz. vol. 197; p. 899.
 Cooking utensil. L. R. St. John. No. 1,080,861; Dec. 9; Gaz. vol. 197; p. 361.
 Cooler. See Air-cooler. Buttermilk-cooler; Water-cooler.
 Cooling-chest. C. T. Rivers. No. 1,082,173; Dec. 23; Gaz. vol. 197; p. 893.
 Coop. Brooding. C. Lyman. No. 1,081,847; Dec. 16; Gaz. vol. 197; p. 727.
 Coop. Folding chicken. A. C. Danielson. No. 1,080,542; Dec. 9; Gaz. vol. 197; p. 250.
 Coop. Poultry. E. W. Philo. No. 1,083,029; Dec. 30; Gaz. vol. 197; p. 1193.
 Copy-holder. B. F. Peetz, H. S. McDanel, and N. W. Thompson. (Reissue). No. 13,662; Dec. 23; Gaz. vol. 197; p. 972.

Cordage and making same. Package of. K. G. Carpenter. No. 1,080,527; Dec. 2; Gaz. vol. 197; p. 213.
 Cores or molds. Means for producing. W. Kurze. No. 1,079,988; Dec. 2; Gaz. vol. 197; p. 24.
 Cork-extractor. A. L. Ridley. No. 1,082,555; Dec. 30; Gaz. vol. 197; p. 1029.
 Cork-retainer. O. B. Schellberg. No. 1,081,777; Dec. 16; Gaz. vol. 197; p. 702.
 Corn-header. F. E. Spencer. No. 1,080,856; Dec. 9; Gaz. vol. 197; p. 359.
 Corn rack and elevator. H. W. Steege. No. 1,080,084; Dec. 2; Gaz. vol. 197; p. 55.
 Corn stringer. Seed. F. W. Karli. No. 1,082,875; Dec. 30; Gaz. vol. 197; p. 1142.
 Corset. R. Yeganian. No. 1,081,007; Dec. 9; Gaz. vol. 197; p. 408.
 Corset. S. A. Jenyns. No. 1,081,385; Dec. 16; Gaz. vol. 197; p. 573.
 Corset. Apparel. D. Kops. No. 1,082,273; Dec. 23; Gaz. vol. 197; p. 901.
 Corset-stay fastener. I. M. Mitchell. No. 1,081,977; Dec. 23; Gaz. vol. 197; p. 798.
 Cosmetic. L. S. Penn. No. 1,081,327; Dec. 16; Gaz. vol. 197; p. 553.
 Cot. A. P. Pascale and R. Danae. No. 1,080,577; Dec. 9; Gaz. vol. 197; p. 260.
 Cotton-chopper. R. Freuler. No. 1,082,418; Dec. 23; Gaz. vol. 197; p. 949.
 Cotton-cleaning-machine feeding mechanism. D. Parks. No. 1,081,461; Dec. 16; Gaz. vol. 197; p. 598.
 Cotton-condenser. T. S. Grimes. No. 1,081,111; Dec. 9; Gaz. vol. 197; p. 440.
 Cotton condenser and regulator. J. B. Nixon. No. 1,079,940; Dec. 2; Gaz. vol. 197; p. 9.
 Cotton extracting and cleaning machine. R. S. Elliott. No. 1,081,594; Dec. 16; Gaz. vol. 197; p. 641.
 Cotton-gin roller. S. D. Shepperd. No. 1,080,487; Dec. 2; Gaz. vol. 197; p. 199.
 Cotton-picker. E. Swindell. No. 1,080,127; Dec. 2; Gaz. vol. 197; p. 73.
 Cotton-picker. J. W. Dinamore. No. 1,080,899; Dec. 9; Gaz. vol. 197; p. 373.
 Cotton-picker. E. Gathmann. No. 1,083,079; Dec. 30; Gaz. vol. 197; p. 1210.
 Couch. Folding. J. Hoey. No. 1,080,217; Dec. 2; Gaz. vol. 197; p. 104.
 Coupling. See Air-brake-hose coupling; Car-coupling; Hose-coupling; Pipe-coupling; Tower or derrick coupling; Tube-coupling.
 Coupling. J. Sachs. No. 1,082,558; Dec. 30; Gaz. vol. 197; p. 1030.
 Crank-shaft support. A. P. Witteman. No. 1,080,797; Dec. 9; Gaz. vol. 197; p. 338.
 Crate. J. F. Schoeppl. No. 1,080,077; Dec. 2; Gaz. vol. 197; p. 56.
 Crate. A. Hovorka. No. 1,081,831; Dec. 16; Gaz. vol. 197; p. 721.
 Crate. Collapsible shipping. J. E. Edwards. No. 1,080,753; Dec. 9; Gaz. vol. 197; p. 322.
 Crate. Foldable. E. T. Bond. No. 1,082,676; Dec. 30; Gaz. vol. 197; p. 1073.
 Crate. Folding. W. Herzfeldt. No. 1,080,553; Dec. 9; Gaz. vol. 197; p. 253.
 Crate. Folding. L. M. Green. No. 1,081,957; Dec. 23; Gaz. vol. 197; p. 791.
 Cream-separator. Centrifugal. J. and A. Persons. No. 1,080,997; Dec. 9; Gaz. vol. 197; p. 406.
 Crucible. G. N. Jeppson. No. 1,081,535; Dec. 16; Gaz. vol. 197; p. 624.
 Cuff. C. H. Smith. No. 1,080,380; Dec. 2; Gaz. vol. 197; p. 164.
 Cuff-link. G. W. Abraham. No. 1,082,145; Dec. 23; Gaz. vol. 197; p. 854.
 Cuff. Shirt. G. W. Wood. No. 1,081,802; Dec. 16; Gaz. vol. 197; p. 710.
 Culinary-article support. C. Nelson. No. 1,080,775; Dec. 9; Gaz. vol. 197; p. 330.
 Cultivator. H. Nagel. No. 1,080,993; Dec. 9; Gaz. vol. 197; p. 404.
 Cultivator. A. A. and L. A. Nash. No. 1,081,767; Dec. 16; Gaz. vol. 197; p. 698.
 Cultivator attachment. J. W. Gamble. No. 1,079,938; Dec. 2; Gaz. vol. 197; p. 6.
 Cultivator attachment. W. H. Ledbetter. No. 1,081,539; Dec. 16; Gaz. vol. 197; p. 625.
 Cultivator. Motor. T. F. McGough. No. 1,081,686; Dec. 16; Gaz. vol. 197; p. 670.
 Culvert. W. H. Klauer. No. 1,082,878; Dec. 30; Gaz. vol. 197; p. 1143.
 Culvert. Metallic. W. P. Du Chemin. No. 1,083,242; Dec. 30; Gaz. vol. 197; p. 1261.
 Culvert. Nesting. A. A. Ambler. No. 1,082,578; Dec. 30; Gaz. vol. 197; p. 1038.
 Culvert. Sheet-metal. J. H. Dean. No. 1,080,329; Dec. 2; Gaz. vol. 197; p. 144.
 Culvert. Sheet-metal. G. H. Charls. No. 1,083,002; Dec. 30; Gaz. vol. 197; p. 1185.
 Culvert. Sheet-metal. J. H. Dean. No. 1,083,062; Dec. 30; Gaz. vol. 197; p. 1204.
 Culverts. Fastening means for butt-joint metal. J. H. Dean. No. 1,081,295; Dec. 16; Gaz. vol. 197; p. 541.
 Cupola. W. J. Trilick. No. 1,080,241; Dec. 2; Gaz. vol. 197; p. 113.
 Curb-box. C. E. Tyler. No. 1,081,281; Dec. 9; Gaz. vol. 197; p. 499.

Curette. P. Romeo. No. 1,080,929; Dec. 9; Gaz. vol. 197; p. 384.
 Curlier. Hair. A. A. West. No. 1,082,784; Dec. 30; Gaz. vol. 197; p. 1111.
 Currency or the like handling device. W. Moore. No. 1,081,766; Dec. 16; Gaz. vol. 197; p. 698.
 Current commutator-motors. Means for compensating polyphase alternating. E. F. W. Alexanderson. No. 1,080,403; Dec. 2; Gaz. vol. 197; p. 172.
 Current induction-motor. Alternating. B. McCollum. No. 1,082,603; Dec. 30; Gaz. vol. 197; p. 1046.
 Current-motor. O. L. Howe. No. 1,081,118; Dec. 9; Gaz. vol. 197; p. 443.
 Current-motor. G. E. C. Rousseau and F. Gregory. No. 1,081,887; Dec. 16; Gaz. vol. 197; p. 733.
 Current motor. Alternating. C. L. Fortescue. No. 1,082,511; Dec. 30; Gaz. vol. 197; p. 1013.
 Current-motor controller. Alternating. C. A. Dresser and H. Fankbener. No. 1,080,200; Dec. 2; Gaz. vol. 197; p. 99.
 Current rectifier. Alternating. E. J. Wiggins. No. 1,081,641; Dec. 16; Gaz. vol. 197; p. 655.
 Currycomb. D. L. Griffiths. No. 1,083,087; Dec. 30; Gaz. vol. 197; p. 1213.
 Curtain and shade fixture. H. Scheiding. No. 1,080,370; Dec. 2; Gaz. vol. 197; p. 160.
 Curtain-bracket. F. Washburn. No. 1,080,612; Dec. 9; Gaz. vol. 197; p. 272.
 Curtain-fastener. J. W. Tilton. No. 1,082,455; Dec. 23; Gaz. vol. 197; p. 961.
 Curtain-fixture. H. Reubel. No. 1,080,479; Dec. 2; Gaz. vol. 197; p. 166.
 Curtain-stick machine. W. H. Ramsey. No. 1,079,992; Dec. 2; Gaz. vol. 197; p. 25.
 Cushion. See Heel-cushion.
 Cushion-wheel. E. H. Schur. No. 1,081,628; Dec. 16; Gaz. vol. 197; p. 651.
 Cuspidor. A. Warne. No. 1,080,090; Dec. 2; Gaz. vol. 197; p. 60.
 Cuspidor. C. E. Hunt. No. 1,081,448; Dec. 16; Gaz. vol. 197; p. 594.
 Cuspidor. M. Szymoinska. No. 1,082,371; Dec. 23; Gaz. vol. 197; p. 935.
 Cut-out and compensating socket. Automatic. G. T. Dunklin. No. 1,082,083; Dec. 30; Gaz. vol. 197; p. 1075.
 Cuticle-clipper. H. E. Eckler. No. 1,081,896; Dec. 16; Gaz. vol. 197; p. 742.
 Cutter. See Bread-cutter; Cigar-cutter; Cigar-tuck cutter; Pipe or rod cutter; Potato-cutter; Stalk-cutter; Tobacco-cutter; Tube-cutter; Weed-cutter.
 Cutter-head. H. G. Aldridge. No. 1,083,174; Dec. 30; Gaz. vol. 197; p. 1237.
 Cutting-bit. J. Olsen. No. 1,081,859; Dec. 16; Gaz. vol. 197; p. 730.
 Cutting-off-machine feeding mechanism. M. Meyers. No. 1,081,764; Dec. 16; Gaz. vol. 197; p. 697.
 Cutting tools, arbors, chucks, collets, &c. Adjusting means for. C. F. Heinke. No. 1,081,937; Dec. 16; Gaz. vol. 197; p. 755.
 Cyanogen compounds and the like. Synthetic production of. J. E. Bucher. No. 1,082,845; Dec. 30; Gaz. vol. 197; p. 1131.
 Cylinder cleaner. Engine. G. W. Gardner. No. 1,080,208; Dec. 2; Gaz. vol. 197; p. 101.
 Cylinder-liner. C. G. Sprado. No. 1,081,257; Dec. 9; Gaz. vol. 197; p. 490.
 Cylinder-tooth. H. Vohland. No. 1,079,964; Dec. 2; Gaz. vol. 197; p. 15.
 Dam. G. S. Binckley. No. 1,081,199; Dec. 9; Gaz. vol. 197; p. 470.
 Dam. J. R. Talnter. No. 1,082,291; Dec. 23; Gaz. vol. 197; p. 907.
 Damper. W. F. Rutherford. No. 1,082,174; Dec. 23; Gaz. vol. 197; p. 864.
 Damper. Chimney. T. Podmore. No. 1,080,777; Dec. 9; Gaz. vol. 197; p. 330.
 Damper-controlling device. F. A. Kateley. No. 1,082,338; Dec. 23; Gaz. vol. 197; p. 924.
 Damper-regulating apparatus. H. B. Weir and J. L. Fyke. No. 1,082,920; Dec. 30; Gaz. vol. 197; p. 1158.
 Damper-regulator. Automatic. H. V. Barron. No. 1,080,803; Dec. 9; Gaz. vol. 197; p. 340.
 Davenport, reclining-couch, and bed. Convertible. C. Danielson. No. 1,082,680; Dec. 30; Gaz. vol. 197; p. 1074.
 Deflector and ventilator. S. B. Shipley. No. 1,082,362; Dec. 23; Gaz. vol. 197; p. 932.
 Dehydrating apparatus. E. W. Cooke. No. 1,080,198; Dec. 2; Gaz. vol. 197; p. 98.
 Demijohn-washer. J. J. Clifford. No. 1,082,502; Dec. 30; Gaz. vol. 197; p. 1010.
 Dental appliance. C. M. Ballenger. No. 1,080,878; Dec. 9; Gaz. vol. 197; p. 366.
 Dental articulator. R. W. Burch. No. 1,080,809; Dec. 9; Gaz. vol. 197; p. 343.
 Dental blower and syringe. Automatic. I. W. Bush. No. 1,080,261; Dec. 2; Gaz. vol. 197; p. 120.
 Dental bridgework. Porcelain tooth and backing for. W. J. Stewart. No. 1,082,776; Dec. 30; Gaz. vol. 197; p. 1109.
 Dental broach-blank-making machine. J. F. Hardy. No. 1,082,589; Dec. 30; Gaz. vol. 197; p. 1042.
 Dental engine. W. D. Wagar. No. 1,083,039; Dec. 30; Gaz. vol. 197; p. 1196.

Dental flask. L. T. and J. H. Weaver. No. 1,083,163; Dec. 30; Gaz. vol. 197; p. 1235.
 Dental forceps. L. S. Hall. No. 1,082,630; Dec. 30; Gaz. vol. 197; p. 1056.
 Dental plates. Manufacturing. E. Telle. No. 1,083,156; Dec. 30; Gaz. vol. 197; p. 1233.
 Derail. T. F. McEvoy. No. 1,079,990; Dec. 2; Gaz. vol. 197; p. 24.
 Desiccating. L. C. Merrell. No. 1,082,469; Dec. 23; Gaz. vol. 197; p. 965.
 Desiccating apparatus. P. W. Foster. No. 1,081,227; Dec. 9; Gaz. vol. 197; p. 480.
 Desiccating apparatus. L. C. Merrell. No. 1,082,468; Dec. 23; Gaz. vol. 197; p. 965.
 Desk, table, or cabinet. C. de Vleeschouwer and J. Tacoma. No. 1,079,962; Dec. 2; Gaz. vol. 197; p. 14.
 Detector. See Wave-detector.
 Die. See Punching-die.
 Die for cutting wood and similar materials. E. B. and A. B. Wilder. No. 1,082,985; Dec. 30; Gaz. vol. 197; p. 1179.
 Die for cutting wood and similar materials. E. B. and A. B. Wilder. No. 1,082,986; Dec. 30; Gaz. vol. 197; p. 1180.
 Die-holder. Flexible. F. E. Wells. No. 1,083,040; Dec. 30; Gaz. vol. 197; p. 1197.
 Die-magazine. J. L. Rifer. No. 1,082,768; Dec. 30; Gaz. vol. 197; p. 1105.
 Die-press. F. Waite. No. 1,082,572; Dec. 30; Gaz. vol. 197; p. 1036.
 Die-press. Automatic. E. E. Winkley. No. 1,082,669; Dec. 30; Gaz. vol. 197; p. 1070.
 Die-stock. C. T. Benson. No. 1,081,293; Dec. 16; Gaz. vol. 197; p. 541.
 Die-stock. R. B. Tewksbury and H. W. Oster. No. 1,082,282; Dec. 23; Gaz. vol. 197; p. 904.
 Die-stock. H. W. Oster and W. J. Macak. No. 1,082,283; Dec. 23; Gaz. vol. 197; p. 904.
 Die-stock. R. B. Tewksbury. No. 1,082,292; Dec. 23; Gaz. vol. 197; p. 905.
 Die-upsetting device. W. E. Sennett. No. 1,080,079; Dec. 2; Gaz. vol. 197; p. 57.
 Dieing-out machine. S. Keats. No. 1,081,751; Dec. 16; Gaz. vol. 197; p. 692.
 Digger. See Potato-digger.
 Digging implement. Hole. A. J. Craven. No. 1,082,263; Dec. 23; Gaz. vol. 197; p. 897.
 Dinitro-methylnitramino-phenyl-arsinic acids. Making derivatives of. L. Ach and A. Rothmann. No. 1,081,079; Dec. 9; Gaz. vol. 197; p. 430.
 Disconnecting-switch. High-tension. A. S. Kalenborn and A. J. Pahl. No. 1,081,671; Dec. 16; Gaz. vol. 197; p. 665.
 Dish-washing machine. C. L. Lillieberg. No. 1,080,704; Dec. 9; Gaz. vol. 197; p. 304.
 Dish-washing machine. J. Baumliller and R. J. Barr, Jr. No. 1,082,259; Dec. 23; Gaz. vol. 197; p. 895.
 Disintegrating-machine. R. F. W. Rossberg. No. 1,083,033; Dec. 30; Gaz. vol. 197; p. 1194.
 Disks. Single-shaft. J. E. Symons. No. 1,083,229; Dec. 30; Gaz. vol. 197; p. 1256.
 Dispensing apparatus. L. W. Luellen. No. 1,081,508; Dec. 16; Gaz. vol. 197; p. 614.
 Dispensing-tank hood. T. Reiss. No. 1,080,478; Dec. 2; Gaz. vol. 197; p. 185.
 Display-case or the like. S. W. Badcon. No. 1,082,300; Dec. 23; Gaz. vol. 197; p. 911.
 Display case. Watch. B. A. Masson. No. 1,081,544; Dec. 16; Gaz. vol. 197; p. 626.
 Display device. E. P. Hirst. No. 1,080,108; Dec. 2; Gaz. vol. 197; p. 67.
 Display device. A. Hendon. No. 1,080,831; Dec. 9; Gaz. vol. 197; p. 351.
 Display-holder. W. C. Klee. No. 1,081,048; Dec. 9; Gaz. vol. 197; p. 421.
 Display-lid. Knockdown. P. A. Becker. No. 1,080,883; Dec. 9; Gaz. vol. 197; p. 367.
 Display-rack. A. W. Blair. No. 1,080,530; Dec. 9; Gaz. vol. 197; p. 243.
 Display-rack. R. M. McCleary and G. L. Harnly. No. 1,081,685; Dec. 16; Gaz. vol. 197; p. 669.
 Display-rack. F. W. Gibson and C. S. Marden. No. 1,082,078; Dec. 23; Gaz. vol. 197; p. 833.
 Display-racks. Support-bracket for. M. Mayer. No. 1,082,965; Dec. 30; Gaz. vol. 197; p. 1174.
 Display-stand. H. E. Bartindale and F. S. Scott. No. 1,081,009; Dec. 9; Gaz. vol. 197; p. 409.
 Displaying-machine. Automatic. W. J. Rowe, C. E. Smack, and J. C. Theberath. No. 1,082,770; Dec. 30; Gaz. vol. 197; p. 1106.
 Distilling apparatus. J. A. Houser. No. 1,082,525; Dec. 30; Gaz. vol. 197; p. 1018.
 Distilling apparatus. Continuous. A. C. Badger. No. 1,082,064; Dec. 23; Gaz. vol. 197; p. 828.
 Distribution system. E. H. Schwarz. No. 1,082,561; Dec. 30; Gaz. vol. 197; p. 1031.
 Distribution system. H. A. Laycock. No. 1,082,962; Dec. 30; Gaz. vol. 197; p. 1172.
 Ditch. Concrete. S. L. Stovall. No. 1,080,499; Dec. 2; Gaz. vol. 197; p. 203.
 Door and window locking device. H. J. Frederick. No. 1,082,019; Dec. 23; Gaz. vol. 197; p. 813.
 Door-check. F. Mertsheimer. No. 1,082,432; Dec. 23; Gaz. vol. 197; p. 954.

Door-fastener. W. I. Randall. No. 1,081,404; Dec. 16; Gaz. vol. 197; p. 578.
 Door-hanger. J. T. McCabe. No. 1,082,129; Dec. 23; Gaz. vol. 197; p. 849.
 Door-hanger. L. E. Fournier. No. 1,082,801; Dec. 30; Gaz. vol. 197; p. 1116.
 Door-holder. W. O. Van Ormer. No. 1,081,795; Dec. 16; Gaz. vol. 197; p. 708.
 Door holder and stop, Combined. W. M. Valentine. No. 1,081,707; Dec. 16; Gaz. vol. 197; p. 677.
 Door-key. A. Schrader. No. 1,082,360; Dec. 30; Gaz. vol. 197; p. 1031.
 Door-lock. C. Knudsen. No. 1,079,987; Dec. 2; Gaz. vol. 197; p. 23.
 Door-lock. J. Grandits. No. 1,081,036; Dec. 9; Gaz. vol. 197; p. 417.
 Door, Metallic. C. G. Danielson. No. 1,082,071; Dec. 23; Gaz. vol. 197; p. 831.
 Door-operating means. F. O. Hult. No. 1,080,280; Dec. 2; Gaz. vol. 197; p. 127.
 Door-operating mechanism, Dumping. J. O. Nelkirk. No. 1,081,324; Dec. 16; Gaz. vol. 197; p. 552.
 Door rigging, Automatic drop. C. T. Willson. No. 1,080,706; Dec. 9; Gaz. vol. 197; p. 338.
 Door-securer. F. A. Herman. No. 1,082,121; Dec. 23; Gaz. vol. 197; p. 847.
 Door-stay. O. C. Rixson. No. 1,082,909; Dec. 30; Gaz. vol. 197; p. 1155.
 Door-stop. W. Smith. No. 1,081,634; Dec. 16; Gaz. vol. 197; p. 653.
 Door trap, Screen. L. W. Critzer and H. J. H. Koster. No. 1,081,369; Dec. 16; Gaz. vol. 197; p. 567.
 Doors, Pier-shed. H. T. Goss. No. 1,080,524; Dec. 2; Gaz. vol. 197; p. 212.
 Double lock, Automatic. M. C. Sloderbeck. No. 1,080,787; Dec. 9; Gaz. vol. 197; p. 333.
 Dough-divider. P. F. Carroll. No. 1,080,890; Dec. 9; Gaz. vol. 197; p. 370.
 Dowel-cutting tool. G. E. Garon. No. 1,080,209; Dec. 2; Gaz. vol. 197; p. 102.
 Dowel-pin. H. H. Stein. No. 1,082,120; Dec. 23; Gaz. vol. 197; p. 847.
 Draft attachment. B. Dahl. No. 1,082,010; Dec. 23; Gaz. vol. 197; p. 810.
 Draft-gear. J. J. Kanane. No. 1,080,979; Dec. 9; Gaz. vol. 197; p. 400.
 Draft-rigging, Friction. J. F. O'Connor. No. 1,080,922; Dec. 9; Gaz. vol. 197; p. 382.
 Drafting instrument. C. H. Little. No. 1,081,758; Dec. 16; Gaz. vol. 197; p. 695.
 Drag, Road. C. E. Bolt. No. 1,080,252; Dec. 2; Gaz. vol. 197; p. 117.
 Drain-pipes, Clean-cut fitting for. H. J. Morris. No. 1,083,024; Dec. 30; Gaz. vol. 197; p. 1102.
 Drain-trap. S. G. Brown. No. 1,082,730; Dec. 30; Gaz. vol. 197; p. 1001.
 Draw-bar buffing-gear. J. Hook. No. 1,080,279; Dec. 2; Gaz. vol. 197; p. 126.
 Drawing-board. E. J. Early. No. 1,080,269; Dec. 2; Gaz. vol. 197; p. 123.
 Drawing-knife, gas attachment. W. H. Cleveland, Jr. No. 1,080,419; Dec. 2; Gaz. vol. 197; p. 177.
 Dress-form. F. J. Madell. No. 1,080,571; Dec. 9; Gaz. vol. 197; p. 259.
 Dress-shield. F. A. Bush. No. 1,081,016; Dec. 9; Gaz. vol. 197; p. 411.
 Dress-shield. H. P. Rindskopf. No. 1,083,140; Dec. 30; Gaz. vol. 197; p. 1229.
 Drier. See Centrifugal drier; Rotary drier.
 Drier. O. S. Sleeper. No. 1,081,335; Dec. 16; Gaz. vol. 197; p. 556.
 Dry-cell battery. A. Rordame. No. 1,080,234; Dec. 2; Gaz. vol. 197; p. 110.
 Dry closet. W. Schierding. No. 1,080,930; Dec. 9; Gaz. vol. 197; p. 384.
 Drying-apparatus feed mechanism. F. Kukkuck. No. 1,081,248; Dec. 9; Gaz. vol. 197; p. 483.
 Drying-machine. A. K. Miller. No. 1,080,517; Dec. 2; Gaz. vol. 197; p. 209.
 Drying-rack. H. A. Thomas. No. 1,080,086; Dec. 2; Gaz. vol. 197; p. 59.
 Drill. See Grain-drill; Hammer-drill; Rock-drill; Self-cleaning drill; Stopping-drill; Well-drill.
 Drill. C. L. Anton. No. 1,082,617; Dec. 30; Gaz. vol. 197; p. 1052.
 Drill-bit, Rock-cutting. W. E. Carr. No. 1,081,721; Dec. 16; Gaz. vol. 197; p. 681.
 Drill-presses, &c., Detachable turret for. J. Brosek. No. 1,079,973; Dec. 2; Gaz. vol. 197; p. 18.
 Drill-rotating mechanism. D. S. Waugh. No. 1,081,351; Dec. 16; Gaz. vol. 197; p. 561.
 Drill-shaft. J. Kuhnert. No. 1,080,012; Dec. 2; Gaz. vol. 197; p. 32.
 Drills, Adjustable arm for multiple-spindle. E. W. Cleveland. No. 1,082,009; Dec. 23; Gaz. vol. 197; p. 810.
 Drilling-machine. A. W. Coffinger, Jr. No. 1,082,150; Dec. 23; Gaz. vol. 197; p. 855.
 Drilling-machine. S. E. Hilles and B. V. Colburn. No. 1,082,866; Dec. 30; Gaz. vol. 197; p. 1138.
 Drinking-cup. H. M. Russell, Jr. No. 1,081,468; Dec. 16; Gaz. vol. 197; p. 600.
 Drinking-fount, nozzle. A. C. Brown. No. 1,081,718; Dec. 16; Gaz. vol. 197; p. 680.
 Drinking-fountain. D. M. Shrawder. No. 1,082,610; Dec. 30; Gaz. vol. 197; p. 1049.

Driving mechanism, Releasable. G. A. Anderson. No. 1,082,105; Dec. 23; Gaz. vol. 197; p. 842.
 Driving mechanism, Reversible. J. H. Gorman. No. 1,082,691; Dec. 30; Gaz. vol. 197; p. 1077.
 Drop-end box. M. S. Sellman. No. 1,080,933; Dec. 9; Gaz. vol. 197; p. 385.
 Drop-press. S. H. Dyer. No. 1,082,085; Dec. 30; Gaz. vol. 197; p. 1075.
 Dye, Blue sulfur. A. Thaus. No. 1,081,638; Dec. 16; Gaz. vol. 197; p. 654.
 Dye, Catechu-brown sulfur. J. Flachslaender, K. P. Grilert, and M. Buff. No. 1,081,601; Dec. 16; Gaz. vol. 197; p. 644.
 Dye, Cotton. A. Blank, C. Heidenreich, and J. Jansen. No. 1,082,925; Dec. 30; Gaz. vol. 197; p. 1160.
 Dye, Green sulfur. J. Flachslaender, K. P. Grilert, and M. Buff. No. 1,081,598; Dec. 16; Gaz. vol. 197; p. 643.
 Dye, Olive-green sulfur. J. Flachslaender, K. P. Grilert, and M. Buff. No. 1,081,600; Dec. 16; Gaz. vol. 197; p. 643.
 Dyeing. C. Goldstein. No. 1,082,627; Dec. 30; Gaz. vol. 197; p. 1055.
 Dyeing and printing. C. Millenhoff. No. 1,081,621; Dec. 16; Gaz. vol. 197; p. 640.
 Dyestuffs and making same, Monoazo. H. Wagner. No. 1,082,719; Dec. 30; Gaz. vol. 197; p. 1088.
 Dyestuffs and making same, Orange vat. G. Engi and J. Fröhlich. No. 1,081,808; Dec. 16; Gaz. vol. 197; p. 742.
 Dyestuffs, Azo. A. Blank and W. Bergdolt. No. 1,082,923; Dec. 30; Gaz. vol. 197; p. 1159.
 Dyestuffs, Cotton. A. Blank, C. Heidenreich, and J. Jansen. No. 1,082,581; Dec. 30; Gaz. vol. 197; p. 1039.
 Dyestuffs, Cotton. A. Blank, C. Heidenreich, and J. Jansen. No. 1,082,024; Dec. 30; Gaz. vol. 197; p. 1159.
 Dynamo, Ignition. C. T. Mason. No. 1,081,760; Dec. 16; Gaz. vol. 197; p. 695.
 Dynamometer for casing-screws and other purposes. R. W. Stephens. No. 1,080,937; Dec. 9; Gaz. vol. 197; p. 386.
 Earth-motion-demonstrating apparatus. L. D. von Iffland. No. 1,082,334; Dec. 23; Gaz. vol. 197; p. 922.
 Edge, Straight. M. R. Leaman. No. 1,080,225; Dec. 2; Gaz. vol. 197; p. 107.
 Egg-carrier. R. O. Hammond. No. 1,080,276; Dec. 2; Gaz. vol. 197; p. 126.
 Egg-case, Collapsible. M. L. Funk. No. 1,081,229; Dec. 9; Gaz. vol. 197; p. 481.
 Egg-lifter. W. C. Sandmann. No. 1,081,701; Dec. 16; Gaz. vol. 197; p. 675.
 Egg-supporting device. J. L. Shute. No. 1,081,870; Dec. 16; Gaz. vol. 197; p. 734.
 Egg-washing machine. E. B. Cook. No. 1,081,367; Dec. 16; Gaz. vol. 197; p. 567.
 Elastic fabric. W. Kops. No. 1,080,284; Dec. 2; Gaz. vol. 197; p. 128.
 Elastic fabric. W. Kops. No. 1,081,676; Dec. 16; Gaz. vol. 197; p. 666.
 Elastic fabric. G. C. Moore. No. 1,082,966; Dec. 30; Gaz. vol. 197; p. 1174.
 Elastic webbing. W. Kops. No. 1,081,675; Dec. 16; Gaz. vol. 197; p. 666.
 Elastic webbing and producing same. F. H. Frissell. No. 1,081,006; Dec. 9; Gaz. vol. 197; p. 408.
 Electric apparatus, Vapor. A. M. Jackson. No. 1,081,308; Dec. 16; Gaz. vol. 197; p. 545.
 Electric apparatus, Vapor. A. M. Jackson. No. 1,081,309; Dec. 16; Gaz. vol. 197; p. 546.
 Electric circuit attachment-plug. F. H. Chapman and O. E. Kenney. No. 1,080,325; Dec. 2; Gaz. vol. 197; p. 142.
 Electric circuit attachment-plug. F. H. Chapman and O. E. Kenney. No. 1,080,326; Dec. 2; Gaz. vol. 197; p. 142.
 Electric circuit attachment-plug. F. H. Chapman and O. E. Kenney. No. 1,080,327; Dec. 2; Gaz. vol. 197; p. 143.
 Electric conductor-connecting device. N. D. Levin. No. 1,082,032; Dec. 23; Gaz. vol. 197; p. 817.
 Electric conversion. S. Cabot. No. 1,081,090; Dec. 9; Gaz. vol. 197; p. 433.
 Electric cut-out fuse. L. E. Steward. No. 1,080,496; Dec. 2; Gaz. vol. 197; p. 202.
 Electric device. A. A. Kent. No. 1,082,810; Dec. 30; Gaz. vol. 197; p. 1119.
 Electric distribution system. L. B. Jones. No. 1,081,749; Dec. 16; Gaz. vol. 197; p. 691.
 Electric-fixture support. A. L. Freeman. No. 1,081,378; Dec. 16; Gaz. vol. 197; p. 570.
 Electric-fluid-heater regulator. W. S. Hadaway, Jr. No. 1,080,214; Dec. 2; Gaz. vol. 197; p. 103.
 Electric furnace. G. Massip. No. 1,080,840; Dec. 9; Gaz. vol. 197; p. 354.
 Electric furnace. A. Helfenstein. No. 1,082,195; Dec. 23; Gaz. vol. 197; p. 872.
 Electric furnace. A. Helfenstein. No. 1,082,196; Dec. 23; Gaz. vol. 197; p. 872.
 Electric furnace. J. Burke. No. 1,082,450; Dec. 23; Gaz. vol. 197; p. 961.
 Electric generating, transmitting, and distributing system. F. W. Walker. No. 1,080,029; Dec. 2; Gaz. vol. 197; p. 39.
 Electric generator, Magneto. B. P. and F. I. Remy. No. 1,081,666; Dec. 16; Gaz. vol. 197; p. 673.
 Electric generator, Thermo. J. J. Cook. No. 1,083,191; Dec. 30; Gaz. vol. 197; p. 1242.

Electric generators and motors, Laminated core for. H. H. Walt. No. 1,080,611; Dec. 9; Gaz. vol. 197; p. 272.
 Electric heater. F. Philip, G. Kemp, and W. H. Gibbons. No. 1,082,168; Dec. 23; Gaz. vol. 197; p. 861.
 Electric ignition system. F. R. Simms. No. 1,083,222; Dec. 30; Gaz. vol. 197; p. 1253.
 Electric-light fixture. L. Gudeman. No. 1,081,498; Dec. 16; Gaz. vol. 197; p. 610.
 Electric machine, Dynamo. Y. G. Apple. No. 1,081,084; Dec. 9; Gaz. vol. 197; p. 431.
 Electric machine, Dynamo. B. G. Lamme. No. 1,082,532; Dec. 30; Gaz. vol. 197; p. 1020.
 Electric machines, Magnetic wedge for dynamo. B. F. Lee. No. 1,082,109; Dec. 30; Gaz. vol. 197; p. 1210.
 Electric meter. G. A. Scheffer. No. 1,082,654; Dec. 30; Gaz. vol. 197; p. 1064.
 Electric meter, Multirate. A. W. Burke. No. 1,082,148; Dec. 23; Gaz. vol. 197; p. 855.
 Electric motor. R. E. Noble. No. 1,083,260; Dec. 30; Gaz. vol. 197; p. 1266.
 Electric-motor controller. H. F. Stratton. No. 1,080,126; Dec. 2; Gaz. vol. 197; p. 73.
 Electric-motor driving unit. M. Takman. No. 1,080,388; Dec. 2; Gaz. vol. 197; p. 167.
 Electric-motor-operated machines, Brake for. M. Talgman. No. 1,082,387; Dec. 2; Gaz. vol. 197; p. 167.
 Electric regulation. J. L. Creveling. No. 1,082,110; Dec. 23; Gaz. vol. 197; p. 843.
 Electric regulation. J. L. Creveling. No. 1,082,111; Dec. 23; Gaz. vol. 197; p. 843.
 Electric switch. O. M. Knoblock. No. 1,080,563; Dec. 9; Gaz. vol. 197; p. 256.
 Electric switch. J. N. Wallace. No. 1,080,871; Dec. 9; Gaz. vol. 197; p. 364.
 Electric switch. G. B. Thomas. No. 1,081,789; Dec. 16; Gaz. vol. 197; p. 705.
 Electric switch. E. A. Halbleib. No. 1,082,694; Dec. 30; Gaz. vol. 197; p. 1078.
 Electric switches, Time-controlled mechanism for operating. J. C. Van Slyke. No. 1,080,608; Dec. 9; Gaz. vol. 197; p. 271.
 Electric switching device. R. Wikander. No. 1,082,615; Dec. 30; Gaz. vol. 197; p. 1051.
 Electric transmission of intelligence. I. Kitsee. No. 1,083,255; Dec. 30; Gaz. vol. 197; p. 1264.
 Electric transmission of intelligence. I. Kitsee. No. 1,083,258; Dec. 30; Gaz. vol. 197; p. 1265.
 Electrical apparatus. H. E. Reeve. No. 1,080,583; Dec. 9; Gaz. vol. 197; p. 263.
 Electrical apparatus. H. E. Reeve. No. 1,080,584; Dec. 9; Gaz. vol. 197; p. 263.
 Electrical apparatus. H. E. Reeve. No. 1,080,585; Dec. 9; Gaz. vol. 197; p. 263.
 Electrical-apparatus coll. H. B. Smith. No. 1,082,563; Dec. 30; Gaz. vol. 197; p. 1032.
 Electrical coil and winding same. M. Helm. No. 1,080,830; Dec. 9; Gaz. vol. 197; p. 351.
 Electrical communicating system. L. W. Miller. No. 1,080,018; Dec. 2; Gaz. vol. 197; p. 34.
 Electrical-conductor protection, Static-pressure system for. G. N. Kercher. No. 1,082,272; Dec. 23; Gaz. vol. 197; p. 900.
 Electrical conductors, Testing. H. M. Friendly. No. 1,081,300; Dec. 16; Gaz. vol. 197; p. 543.
 Electrical distribution, Conductor-post for. C. Schuster and C. N. Bergmann. No. 1,082,772; Dec. 30; Gaz. vol. 197; p. 1107.
 Electrical distribution system. J. O. Luthy. No. 1,080,355; Dec. 2; Gaz. vol. 197; p. 155.
 Electrical machine, Dynamo. D. H. Andrews and E. C. Ketchum. No. 1,082,579; Dec. 30; Gaz. vol. 197; p. 1038.
 Electrical reduction-furnace. R. E. Frickey. No. 1,080,824; Dec. 9; Gaz. vol. 197; p. 349.
 Electrical snap-switch. C. F. Paul. No. 1,082,093; Dec. 23; Gaz. vol. 197; p. 838.
 Electrical switch. O. L. Davis. No. 1,081,022; Dec. 9; Gaz. vol. 197; p. 413.
 Electrical switch. H. R. Gilson. No. 1,082,021; Dec. 23; Gaz. vol. 197; p. 814.
 Electrical system. R. Varley. No. 1,081,413; Dec. 16; Gaz. vol. 197; p. 581.
 Electrically transmitting orders or signals and for indicating their nature and the points of transmission. Means for. H. Quertier. No. 1,080,167; Dec. 2; Gaz. vol. 197; p. 87.
 Electricity, Device for uniting insulated conductors of. A. A. Kent. No. 1,082,811; Dec. 30; Gaz. vol. 197; p. 1120.
 Electrode, Arc-lamp. C. P. Steinhilber. No. 1,082,978; Dec. 30; Gaz. vol. 197; p. 1177.
 Electrode, Arc-light. J. L. R. Hayden. No. 1,082,950; Dec. 30; Gaz. vol. 197; p. 1167.
 Electrode, Battery. J. J. Auringer. No. 1,081,277; Dec. 9; Gaz. vol. 197; p. 468.
 Electrode for preventing cathodic reduction. A. Pietsch and G. Adolph. No. 1,083,132; Dec. 30; Gaz. vol. 197; p. 1227.
 Electrodes, Making storage-battery. H. C. Hubbell. No. 1,081,531; Dec. 16; Gaz. vol. 197; p. 623.
 Electrolytes, Heating molten. F. Kugelgen and G. O. Seward. No. 1,080,113; Dec. 2; Gaz. vol. 197; p. 60.
 Electrolytic apparatus diaphragm. H. D. Ruhm. No. 1,082,286; Dec. 23; Gaz. vol. 197; p. 905.

Electromagnetic suspension, Device for. H. Zoelly. No. 1,081,260; Dec. 9; Gaz. vol. 197; p. 492.
 Electrotyping-molds, Treating. G. E. Dunton. No. 1,083,066; Dec. 30; Gaz. vol. 197; p. 1205.
 Elevator. G. B. Read. No. 1,082,808; Dec. 30; Gaz. vol. 197; p. 1154.
 Elevator, Automatic plunger. D. F. Morton. No. 1,081,690; Dec. 16; Gaz. vol. 197; p. 671.
 Elevator-door operating and locking device. W. J. Stilling. No. 1,081,873; Dec. 16; Gaz. vol. 197; p. 734.
 Elevator doors and cars, Controlling mechanism for. H. C. Randall. No. 1,080,021; Dec. 2; Gaz. vol. 197; p. 35.
 Elevator-guide lubricator. B. E. Marshall. (Reissue.) No. 13,884; Dec. 30; Gaz. vol. 197; p. 1268.
 Elevator mechanism. A. W. Le Boeuf and J. B. Armington. No. 1,080,569; Dec. 9; Gaz. vol. 197; p. 258.
 Elevator safety attachment. H. J. Piepgras. No. 1,081,771; Dec. 16; Gaz. vol. 197; p. 700.
 Elevator safety device. M. C. Hutchings. No. 1,080,450; Dec. 2; Gaz. vol. 197; p. 187.
 Elevator safety device. H. Phillips. No. 1,080,846; Dec. 9; Gaz. vol. 197; p. 356.
 Elevator safety device. A. Kalnash. No. 1,081,312; Dec. 16; Gaz. vol. 197; p. 547.
 Elevator-valve mechanism. T. Larsson. No. 1,082,882; Dec. 30; Gaz. vol. 197; p. 1144.
 Embroidering-machine, Automatic. K. Eggart. No. 1,081,591; Dec. 16; Gaz. vol. 197; p. 640.
 Embroidering-machine, Jacquard. K. Keller. No. 1,082,228; Dec. 23; Gaz. vol. 197; p. 883.
 Embroidering-machine, Shuttle. J. Groetschel. No. 1,080,550; Dec. 9; Gaz. vol. 197; p. 253.
 Embroidering-machine, Shuttle. R. Zahn. No. 1,082,456; Dec. 23; Gaz. vol. 197; p. 961.
 Embroidering-machine thread catching and severing device. A. Keller. No. 1,080,914; Dec. 9; Gaz. vol. 197; p. 378.
 Embroidery-machine thread catching and severing means. Shuttle. A. Keller. No. 1,080,915; Dec. 9; Gaz. vol. 197; p. 379.
 Emery-wheel bench-grinder. J. F. Pribnow. No. 1,081,465; Dec. 16; Gaz. vol. 197; p. 599.
 Engine. See Combustion-engine; Dental engine; Explosive-engine; Gas-engine; Hydraulic engine; Internal-combustion engine; Reciprocating engine; Rotary engine; Rotary internal-combustion engine; Steam-engine; Tractor-engine.
 Engine. E. W. Fletcher. No. 1,080,272; Dec. 2; Gaz. vol. 197; p. 124.
 Engine. J. B. Donovan. No. 1,081,217; Dec. 9; Gaz. vol. 197; p. 476.
 Engine cooler, Explosive. W. Woodward. No. 1,081,880; Dec. 16; Gaz. vol. 197; p. 737.
 Engine-cooling apparatus, Internal-combustion. E. de Normanville. No. 1,082,233; Dec. 23; Gaz. vol. 197; p. 886.
 Engine-cylinder. J. W. Cruzan. No. 1,080,894; Dec. 9; Gaz. vol. 197; p. 372.
 Engine fuel-gasifier, Internal-combustion. H. Fuchs. No. 1,081,228; Dec. 9; Gaz. vol. 197; p. 480.
 Engine fuel-pump, Internal-combustion. A. H. Hoadley. No. 1,080,216; Dec. 2; Gaz. vol. 197; p. 104.
 Engine fuel-supply regulator, Internal-combustion. A. E. Bray. No. 1,080,887; Dec. 9; Gaz. vol. 197; p. 369.
 Engine piston-ring, Internal-combustion. G. R. Rich. No. 1,082,172; Dec. 23; Gaz. vol. 197; p. 863.
 Engine primer. F. Fingerberg. No. 1,081,900; Dec. 16; Gaz. vol. 197; p. 742.
 Engine priming attachment, Explosive. W. Jay. No. 1,081,534; Dec. 16; Gaz. vol. 197; p. 623.
 Engine-reversing means, Internal-combustion. A. E. L. Chorlton. No. 1,082,068; Dec. 23; Gaz. vol. 197; p. 830.
 Engine safety device, Internal-combustion. B. Lemp. No. 1,080,765; Dec. 9; Gaz. vol. 197; p. 326.
 Engine self-steering mechanism, Tractor. L. E. Youngquist. No. 1,081,881; Dec. 16; Gaz. vol. 197; p. 737.
 Engine-starter. F. Gabm. No. 1,080,335; Dec. 2; Gaz. vol. 197; p. 146.
 Engine-starter. C. H. Myers. No. 1,080,772; Dec. 9; Gaz. vol. 197; p. 328.
 Engine-starter. C. H. Myers. No. 1,080,773; Dec. 9; Gaz. vol. 197; p. 329.
 Engine-starter. T. J. Gray. No. 1,081,268; Dec. 9; Gaz. vol. 197; p. 495.
 Engine starter, Explosive. M. C. Bright. No. 1,082,261; Dec. 23; Gaz. vol. 197; p. 896.
 Engine starter, Gas. C. E. Henning. No. 1,080,689; Dec. 9; Gaz. vol. 197; p. 208.
 Engine starter, Internal-combustion. S. G. Berry. No. 1,081,805; Dec. 16; Gaz. vol. 197; p. 711.
 Engine starter, Internal-combustion. F. R. Simms. No. 1,083,221; Dec. 30; Gaz. vol. 197; p. 1252.
 Engine-starting device, Explosive. B. B. Lewis. No. 1,082,885; Dec. 30; Gaz. vol. 197; p. 1145.
 Engine-starting device, Internal-combustion. A. P. Foster. No. 1,081,731; Dec. 16; Gaz. vol. 197; p. 685.
 Engine-starting device, Internal-combustion. E. F. Connor and J. C. Winans. No. 1,083,190; Dec. 30; Gaz. vol. 197; p. 1241.
 Engine-starting mechanism. J. H. Durno. No. 1,080,900; Dec. 9; Gaz. vol. 197; p. 373.
 Engine-supporting means. H. G. Chatain. No. 1,080,748; Dec. 9; Gaz. vol. 197; p. 320.

Engine track, Flexible endless traction. B. Holt. No. 1,082,330; Dec. 23; Gaz. vol. 197; p. 921.
 Engine valve-gear, Internal-combustion. K. Steinbecker. No. 1,080,485; Dec. 2; Gaz. vol. 197; p. 202.
 Engine vaporizer. J. E. Hesselman. No. 1,082,328; Dec. 23; Gaz. vol. 197; p. 920.
 Engines, Combined air motor and compressor for starting internal-combustion. H. A. Lord. No. 1,080,289; Dec. 2; Gaz. vol. 197; p. 130.
 Engines, Governing internal-combustion. J. S. Anthony. No. 1,082,004; Dec. 23; Gaz. vol. 197; p. 807.
 Engines, Lubricating-oil-conservation attachment for gas. C. Mayfield. No. 1,080,710; Dec. 9; Gaz. vol. 197; p. 305.
 Engines, Removing carbon deposited in internal-combustion. H. M. Eller. No. 1,081,950; Dec. 23; Gaz. vol. 197; p. 788.
 Engines, System of gas distribution for internal-combustion. W. R. McKee, Jr. No. 1,081,619; Dec. 16; Gaz. vol. 197; p. 648.
 Engraver's transfer device. I. N. Cassity. No. 1,081,362; Dec. 16; Gaz. vol. 197; p. 565.
 Envelop-opener. W. N. Burnite. No. 1,082,400; Dec. 23; Gaz. vol. 197; p. 944.
 Escapement. S. Czapas. No. 1,080,896; Dec. 9; Gaz. vol. 197; p. 372.
 Esters and making the same, Dissolved carbohydrate. W. S. Weedon. No. 1,082,573; Dec. 30; Gaz. vol. 197; p. 1036.
 Etching-machine. E. Albert. No. 1,081,289; Dec. 16; Gaz. vol. 197; p. 539.
 Etching process. E. Albert. No. 1,081,290; Dec. 16; Gaz. vol. 197; p. 539.
 Evaporating and distilling plant. W. Weir. No. 1,079,966; Dec. 2; Gaz. vol. 197; p. 15.
 Evaporating apparatus. D. Coszolino. No. 1,082,411; Dec. 23; Gaz. vol. 197; p. 947.
 Excavating and conveying apparatus. J. L. Potter. No. 1,081,060; Dec. 9; Gaz. vol. 197; p. 424.
 Excavating-machine. H. H. Damman. No. 1,082,011; Dec. 23; Gaz. vol. 197; p. 810.
 Excavating-machine. W. G. Clark. No. 1,082,501; Dec. 30; Gaz. vol. 197; p. 1009.
 Excavating-machine, Portable. J. H. Carr. No. 1,081,487; Dec. 16; Gaz. vol. 197; p. 607.
 Excavating-shovel. C. A. Morris. No. 1,080,292; Dec. 2; Gaz. vol. 197; p. 131.
 Excavator. L. A. Krupp. No. 1,081,454; Dec. 16; Gaz. vol. 197; p. 556.
 Exercising appliance. E. E. Flora. No. 1,082,940; Dec. 30; Gaz. vol. 197; p. 1164.
 Exhaust-silencer. W. H. and O. C. Unke. No. 1,081,348; Dec. 16; Gaz. vol. 197; p. 560.
 Expanding ring, Joint. H. Ferrell and C. Witwer. No. 1,080,430; Dec. 2; Gaz. vol. 197; p. 181.
 Expansion-bolt. L. R. Zifferer. No. 1,080,615; Dec. 9; Gaz. vol. 197; p. 273.
 Expansion-lift. M. L. Senderling. No. 1,080,375; Dec. 2; Gaz. vol. 197; p. 162.
 Explosion-motor. J. MacConaghy. No. 1,083,111; Dec. 30; Gaz. vol. 197; p. 1220.
 Explosion-motor, Two-cycle. J. D'Harveng. No. 1,081,492; Dec. 16; Gaz. vol. 197; p. 608.
 Explosive-engine. D. W. Jones and W. J. Miller. No. 1,081,120; Dec. 9; Gaz. vol. 197; p. 444.
 Explosive-engine. E. Prouty. No. 1,082,237; Dec. 23; Gaz. vol. 197; p. 887.
 Explosive-engine. C. W. Knight. No. 1,082,958; Dec. 30; Gaz. vol. 197; p. 1171.
 Explosive-engine, Two-cycle. J. L. Campbell. No. 1,082,402; Dec. 23; Gaz. vol. 197; p. 945.
 Explosive-fluid-storage reservoir. C. J. Coleman. No. 1,080,263; Dec. 2; Gaz. vol. 197; p. 121.
 Extension-table. H. W. Bradner. No. 1,080,043; Dec. 2; Gaz. vol. 197; p. 44.
 Extraction apparatus. H. J. Cary-Curr. No. 1,082,304; Dec. 23; Gaz. vol. 197; p. 913.
 Extractor. See Cork-extractor; Tube-extractor.
 Extractors, Making nail. W. F. Hobbs. No. 1,080,278; Dec. 2; Gaz. vol. 197; p. 126.
 Eye-shade and fan, Combined. E. J. Williams. No. 1,082,987; Dec. 30; Gaz. vol. 197; p. 1180.
 Eyeglass-case. J. Currin. No. 1,080,267; Dec. 2; Gaz. vol. 197; p. 123.
 Eyeglasses. N. A. Baker. No. 1,081,713; Dec. 16; Gaz. vol. 197; p. 679.
 Eyeglasses, spectacles, &c., Construction of. L. Courlander. No. 1,079,932; Dec. 2; Gaz. vol. 197; p. 4.
 Eyelets, Binding. W. R. Inghram. No. 1,082,335; Dec. 23; Gaz. vol. 197; p. 923.
 Fabric. See Bed-bottom fabric; Elastic fabric; Garter fabric; Pile fabric; Wire fabric.
 Fabric-folding device. H. S. Burham. No. 1,081,206; Dec. 9; Gaz. vol. 197; p. 473.
 Fan, Electric. G. C. Marx and A. F. Becker. No. 1,081,244; Dec. 9; Gaz. vol. 197; p. 486.
 Fare-box. C. C. Voglesong. No. 1,080,738; Dec. 9; Gaz. vol. 197; p. 316.
 Fare-regulator. L. J. Harris. No. 1,082,422; Dec. 23; Gaz. vol. 197; p. 950.
 Fastener. H. Rigert. No. 1,083,139; Dec. 30; Gaz. vol. 197; p. 1220.
 Fasteners. One-piece cap for snap. E. D. Simons. No. 1,083,262; Dec. 30; Gaz. vol. 197; p. 1266.

Fastening device. F. P. Warren. No. 1,080,030; Dec. 2; Gaz. vol. 197; p. 39.
 Fastening device, Adjustable. H. C. Hazard. No. 1,081,610; Dec. 16; Gaz. vol. 197; p. 646.
 Fastening-inserting machine. F. D. Locke. No. 1,081,975; Dec. 23; Gaz. vol. 197; p. 797.
 Fatty substances from oil, Manufacture of solid. J. Schilneck. No. 1,082,707; Dec. 30; Gaz. vol. 197; p. 1083.
 Faucet. G. Rollwing. No. 1,080,369; Dec. 2; Gaz. vol. 197; p. 159.
 Faucet. S. Held. No. 1,082,154; Dec. 23; Gaz. vol. 197; p. 857.
 Faucet. W. E. Hodgdon. No. 1,082,329; Dec. 23; Gaz. vol. 197; p. 921.
 Faucet. C. S. White. No. 1,082,575; Dec. 30; Gaz. vol. 197; p. 1037.
 Faucet. F. J. Wolff. No. 1,082,983; Dec. 30; Gaz. vol. 197; p. 1180.
 Faucet attachment, Fluid-mixing. L. Davis. No. 1,080,957; Dec. 9; Gaz. vol. 197; p. 393.
 Faucet attachment, Sanitary. C. E. Kella, Jr. No. 1,080,862; Dec. 9; Gaz. vol. 197; p. 256.
 Faucet-bung. D. Beebe. No. 1,080,805; Dec. 9; Gaz. vol. 197; p. 341.
 Feed-roller. J. B. Ladd and D. Baker. No. 1,081,969; Dec. 23; Gaz. vol. 197; p. 795.
 Feed-water heater and purifier. T. O. Organ. No. 1,081,138; Dec. 9; Gaz. vol. 197; p. 450.
 Feed-water heating and purifying attachment for boilers. W. H. Kay. No. 1,083,106; Dec. 30; Gaz. vol. 197; p. 1219.
 Feeder for live stock, Salt. E. E. Myer and O. P. Hawkins. No. 1,081,134; Dec. 9; Gaz. vol. 197; p. 449.
 Feeding device, Stock. F. H. Schults. No. 1,080,931; Dec. 9; Gaz. vol. 197; p. 384.
 Fence machine, Wire. J. A. Holmquist. No. 1,082,697; Dec. 30; Gaz. vol. 197; p. 1079.
 Fence-post. W. L. Collins. No. 1,080,048; Dec. 2; Gaz. vol. 197; p. 45.
 Fence-post. A. E. Hanson. No. 1,080,057; Dec. 2; Gaz. vol. 197; p. 48.
 Fence-post. T. W. Wright. No. 1,081,076; Dec. 9; Gaz. vol. 197; p. 429.
 Fence-post. E. H. Lehrke. No. 1,081,845; Dec. 16; Gaz. vol. 197; p. 726.
 Fence-post. W. L. McCain. No. 1,081,976; Dec. 23; Gaz. vol. 197; p. 798.
 Fencing and the like post. T. W. Wright. No. 1,081,077; Dec. 9; Gaz. vol. 197; p. 429.
 Fender. See Automobile-fender; Car-fender; Rake-fender.
 Fender. L. R. Flint. No. 1,081,821; Dec. 16; Gaz. vol. 197; p. 717.
 Ferrotungsten, Dephosphorizing. F. M. Becket. No. 1,081,569; Dec. 16; Gaz. vol. 197; p. 633.
 Fertilizer. W. E. Carson. No. 1,082,108; Dec. 23; Gaz. vol. 197; p. 843.
 Fertilizer-distributor. S. R. Sikes. No. 1,081,991; Dec. 23; Gaz. vol. 197; p. 802.
 Fertilizer-distributor. E. Middlebrooks. No. 1,082,037; Dec. 23; Gaz. vol. 197; p. 819.
 Fibrous matter from admixtures, Separating. J. J. Werst, F. M. H. L. Collée, and J. M. Egmond. No. 1,083,234; Dec. 30; Gaz. vol. 197; p. 1258.
 Fifth-wheel. M. E. Wagner. No. 1,080,941; Dec. 9; Gaz. vol. 197; p. 387.
 File. E. A. Dunn. No. 1,081,727; Dec. 16; Gaz. vol. 197; p. 683.
 File. W. H. Wakfer. No. 1,082,219; Dec. 23; Gaz. vol. 197; p. 880.
 File, Bill. A. Saffro, L. Sainberg, and E. B. Sainburg. No. 1,080,022; Dec. 2; Gaz. vol. 197; p. 36.
 File handle, Paper. K. A. O. Frindt. No. 1,080,963; Dec. 9; Gaz. vol. 197; p. 395.
 Filing-cabinet for credit-slips. W. H. Muzzy. No. 1,080,650; Dec. 9; Gaz. vol. 197; p. 285.
 Filing-cabinets and the like, Base for. C. E. Willson. No. 1,080,874; Dec. 9; Gaz. vol. 197; p. 365.
 Film-feeding machine. F. E. Stillings. No. 1,083,227; Dec. 30; Gaz. vol. 197; p. 1255.
 Film-pack. J. E. Pettibone. No. 1,081,770; Dec. 16; Gaz. vol. 197; p. 690.
 Film-winding apparatus. H. J. Hamann. No. 1,081,039; Dec. 9; Gaz. vol. 197; p. 418.
 Filter and faucet, Combined self-cleaning. H. Alsterberg. No. 1,081,563; Dec. 16; Gaz. vol. 197; p. 632.
 Filter for gasoline, Water-separating. C. A. Entorf. No. 1,081,030; Dec. 9; Gaz. vol. 197; p. 416.
 Filter, Water. S. Held. No. 1,082,024; Dec. 23; Gaz. vol. 197; p. 815.
 Filtering apparatus for laboratory use. P. A. Boeck. No. 1,081,574; Dec. 16; Gaz. vol. 197; p. 634.
 Finishing-machine. F. M. Furber. No. 1,080,207; Dec. 2; Gaz. vol. 197; p. 101.
 Fire-alarm. W. W. Mitchell and H. W. Cotter. No. 1,081,855; Dec. 16; Gaz. vol. 197; p. 729.
 Fire-alarm, Automatic. L. J. Bryant and J. Case. No. 1,080,323; Dec. 2; Gaz. vol. 197; p. 141.
 Fire-alarm, Electric. F. Records and M. Lewry. No. 1,080,480; Dec. 2; Gaz. vol. 197; p. 196.
 Fire-alarm signal-box. W. J. Leveridge. No. 1,080,854; Dec. 2; Gaz. vol. 197; p. 154.
 Fire-escape. D. I. Reed. No. 1,080,476; Dec. 2; Gaz. vol. 197; p. 195.

Fire-escape. H. Croteau. No. 1,081,813; Dec. 16; Gaz. vol. 197; p. 714.
 Fire-extinguisher, Automatic. A. La Breche. No. 1,080,068; Dec. 2; Gaz. vol. 197; p. 52.
 Fire-extinguisher, Holder for hand. W. H. Tibbals. No. 1,083,159; Dec. 30; Gaz. vol. 197; p. 1234.
 Fire-fighting apparatus. A. C. Farrand. No. 1,081,224; Dec. 9; Gaz. vol. 197; p. 479.
 Fire-protection suit. A. G. Robinson. No. 1,082,213; Dec. 23; Gaz. vol. 197; p. 877.
 Fire-protection suit. A. G. Robinson. No. 1,082,214; Dec. 23; Gaz. vol. 197; p. 878.
 Fire-shoots, Flue connection for. R. B. Housley. No. 1,080,009; Dec. 2; Gaz. vol. 197; p. 31.
 Firearm. C. A. Nelson. No. 1,080,364; Dec. 2; Gaz. vol. 197; p. 158.
 Firearm. S. Korovine. No. 1,082,201; Dec. 23; Gaz. vol. 197; p. 873.
 Firearm. C. W. Lang. No. 1,082,961; Dec. 30; Gaz. vol. 197; p. 1172.
 Firearm. C. A. Nelson. No. 1,082,969; Dec. 30; Gaz. vol. 197; p. 1175.
 Firearm-silencer. H. P. Moore. No. 1,080,154; Dec. 2; Gaz. vol. 197; p. 83.
 Firearms, Sight for. M. P. Nash. No. 1,082,355; Dec. 23; Gaz. vol. 197; p. 930.
 Fireproofing composition. W. A. Hall. No. 1,080,966; Dec. 9; Gaz. vol. 197; p. 396.
 Fish-guard. R. Chandler. No. 1,080,415; Dec. 2; Gaz. vol. 197; p. 176.
 Fish-hook, Automatic. F. Foerster. No. 1,081,106; Dec. 9; Gaz. vol. 197; p. 438.
 Fish-pounds, Lead-in for. A. C. Briggs. No. 1,082,998; Dec. 30; Gaz. vol. 197; p. 1184.
 Fish-scaler. F. Knapp. No. 1,080,982; Dec. 9; Gaz. vol. 197; p. 401.
 Fish-screen. H. I. Shotwell. No. 1,080,488; Dec. 2; Gaz. vol. 197; p. 199.
 Fishing-line-drying reel. C. M. Covington. No. 1,081,435; Dec. 16; Gaz. vol. 197; p. 589.
 Flange. No-slip. A. C. Schuermann. No. 1,080,520; Dec. 2; Gaz. vol. 197; p. 210.
 Flash-light apparatus. T. E. Halldorson. No. 1,081,500; Dec. 16; Gaz. vol. 197; p. 611.
 Flash-machine. J. L. Courson. No. 1,080,750; Dec. 9; Gaz. vol. 197; p. 321.
 Flashing. J. E. McCarville. No. 1,082,602; Dec. 30; Gaz. vol. 197; p. 1046.
 Flask. See Dental flask; Molding-flask.
 Flax, Retting. W. J. Fernie. No. 1,083,074; Dec. 30; Gaz. vol. 197; p. 1208.
 Floor polisher and sweeper. M. Lary. No. 1,081,240; Dec. 9; Gaz. vol. 197; p. 484.
 Flooring, Machine for tonguing and grooving the ends of wood. E. F. Beugler. No. 1,082,791; Dec. 30; Gaz. vol. 197; p. 1113.
 Flower-holder. W. S. Daniels. No. 1,081,097; Dec. 9; Gaz. vol. 197; p. 436.
 Fluid-circulating systems, Impelling device for. G. W. Kern. No. 1,082,594; Dec. 30; Gaz. vol. 197; p. 1043.
 Fluid-compressor. C. Wainwright. No. 1,081,178; Dec. 9; Gaz. vol. 197; p. 463.
 Fluid-compressor. C. Wainwright. No. 1,081,176; Dec. 9; Gaz. vol. 197; p. 463.
 Fluid-compressor-governing device. C. Wainwright. No. 1,081,177; Dec. 9; Gaz. vol. 197; p. 463.
 Fluid-distributing machine. C. P. Price. No. 1,083,030; Dec. 30; Gaz. vol. 197; p. 1194.
 Fluid engine, Elastic. W. A. Godfrey. No. 1,081,443; Dec. 16; Gaz. vol. 197; p. 592.
 Fluid-flow-controlling device. P. Mueller and A. C. Schuermann. No. 1,081,274; Dec. 9; Gaz. vol. 197; p. 497.
 Fluid-flow meter. J. Wilkinson. No. 1,080,396; Dec. 2; Gaz. vol. 197; p. 170.
 Fluid-pressure-apparatus regulator. A. C. E. Rateau. No. 1,080,582; Dec. 9; Gaz. vol. 197; p. 282.
 Fluid-pressure brake. G. Oppermann. No. 1,081,325; Dec. 16; Gaz. vol. 197; p. 552.
 Fluid-pressure brake device. W. V. Turner. No. 1,082,296; Dec. 23; Gaz. vol. 197; p. 909.
 Fluid-pressure-maintaining system. F. H. Dukessmith. No. 1,081,526; Dec. 16; Gaz. vol. 197; p. 620.
 Flume. P. T. Snyder. No. 1,082,564; Dec. 30; Gaz. vol. 197; p. 1032.
 Flushing device. N. J. Gondolf. No. 1,081,110; Dec. 9; Gaz. vol. 197; p. 440.
 Flushing device, Water-closet. P. Haas. No. 1,083,088; Dec. 30; Gaz. vol. 197; p. 1214.
 Flushing mechanism. J. A. Vogel. No. 1,083,161; Dec. 30; Gaz. vol. 197; p. 1234.
 Flushing mechanism, Closet. A. M. Houser. No. 1,081,502; Dec. 16; Gaz. vol. 197; p. 612.
 Fly-catcher. M. C. Armstrong. No. 1,083,179; Dec. 30; Gaz. vol. 197; p. 1238.
 Fly-catcher and garbage-can combination. G. C. Welter. No. 1,082,103; Dec. 23; Gaz. vol. 197; p. 841.
 Fly-chasing attachment for doors. J. W. Shumate. No. 1,080,598; Dec. 9; Gaz. vol. 197; p. 268.
 Fly-destroying device. O. E. Chapman. No. 1,081,364; Dec. 16; Gaz. vol. 197; p. 566.
 Fly-paper. N. L. Foster. No. 1,080,822; Dec. 9; Gaz. vol. 197; p. 348.
 Fly-paper holder. A. W. Bischoff. No. 1,080,249; Dec. 2; Gaz. vol. 197; p. 116.

Fly-paper holder. J. R. Smith. No. 1,080,382; Dec. 2; Gaz. vol. 197; p. 165.
 Fly-trap. D. W. John. No. 1,082,027; Dec. 23; Gaz. vol. 197; p. 816.
 Fly-trap. R. G. Price. No. 1,082,358; Dec. 23; Gaz. vol. 197; p. 931.
 Fly-wheel jack. S. D. Stackhouse. No. 1,082,452; Dec. 23; Gaz. vol. 197; p. 960.
 Flying-machine. S. L. Buchanan. No. 1,080,195; Dec. 2; Gaz. vol. 197; p. 97.
 Flying-machine. C. E. Smith. No. 1,080,726; Dec. 9; Gaz. vol. 197; p. 311.
 Flying-machine. C. F. Jenkins. No. 1,081,504; Dec. 16; Gaz. vol. 197; p. 612.
 Flying-machine. O. Shumate. No. 1,081,869; Dec. 16; Gaz. vol. 197; p. 733.
 Flying-machine. G. A. Wendt. No. 1,082,143; Dec. 23; Gaz. vol. 197; p. 853.
 Flying-machine. O. T. Ross. No. 1,082,769; Dec. 30; Gaz. vol. 197; p. 1106.
 Foldable table structure. V. J. Griesheimer. No. 1,080,437; Dec. 2; Gaz. vol. 197; p. 183.
 Folding and guiding device. J. McNelly. No. 1,082,351; Dec. 23; Gaz. vol. 197; p. 928.
 Folding box. J. A. Wagnitz. No. 1,080,610; Dec. 9; Gaz. vol. 197; p. 272.
 Folding box and crate. C. L. Lapsch. No. 1,082,274; Dec. 23; Gaz. vol. 197; p. 901.
 Folding box and the like, Flat. G. Maier. No. 1,083,114; Dec. 30; Gaz. vol. 197; p. 1221.
 Food articles, Means for protecting. A. Yolin and R. Texin. No. 1,081,711; Dec. 16; Gaz. vol. 197; p. 678.
 Food product. H. M. Isaacs. No. 1,080,971; Dec. 9; Gaz. vol. 197; p. 398.
 Food product. R. Douglas. No. 1,082,882; Dec. 30; Gaz. vol. 197; p. 1075.
 Force-feed lubricator. W. A. Well. No. 1,083,166; Dec. 30; Gaz. vol. 197; p. 1235.
 Forging. A. F. Rockwell. No. 1,082,910; Dec. 30; Gaz. vol. 197; p. 1155.
 Fork. See Motor-cycle spring front fork; Vehicle steering fork.
 Form, Adjustable garment. J. Satin, B. Mosesson, and M. Garhinkel. No. 1,081,313; Dec. 16; Gaz. vol. 197; p. 547.
 Form, Dress. C. R. De Bevoise. No. 1,081,814; Dec. 16; Gaz. vol. 197; p. 715.
 Form, Garment. R. P. Brown. No. 1,082,582; Dec. 30; Gaz. vol. 197; p. 1040.
 Form support, Dress. W. E. Hume. No. 1,080,911; Dec. 9; Gaz. vol. 197; p. 377.
 Forming-machine. J. D. Mattison. No. 1,080,359; Dec. 2; Gaz. vol. 197; p. 156.
 Forming-machine. J. D. Mattison. No. 1,080,360; Dec. 2; Gaz. vol. 197; p. 156.
 Fountain. See Drinking-fountain; Poultry-fountain.
 Fowl-decapitating device. H. T. Swanton. No. 1,081,411; Dec. 16; Gaz. vol. 197; p. 581.
 Fowl-decapitator. U. S. Michael. No. 1,081,851; Dec. 16; Gaz. vol. 197; p. 728.
 Frame. See Bed-spring frame; Binder-frame; Car-truck side frame; Loom heddle-frame; Pedestal side frame; Tent-frame.
 Frame mechanism, Casing for roving. E. E. Blaké and W. H. Goldsmith, Jr. No. 1,080,042; Dec. 2; Gaz. vol. 197; p. 43.
 Frame or easel. M. Karp. No. 1,082,271; Dec. 23; Gaz. vol. 197; p. 900.
 Frameless gas. M. A. Stickley. No. 1,080,497; Dec. 2; Gaz. vol. 197; p. 202.
 Fraud-preventer. C. H. Simerson. No. 1,081,781; Dec. 16; Gaz. vol. 197; p. 703.
 Friction device. L. Whitcomb. No. 1,081,999; Dec. 23; Gaz. vol. 197; p. 805.
 Friction device. W. W. Whitcomb. No. 1,082,834; Dec. 30; Gaz. vol. 197; p. 1128.
 Fruit-grading machine. L. W. Smith and D. H. Francis. No. 1,082,612; Dec. 30; Gaz. vol. 197; p. 1050.
 Fruit-picker. F. H. Bratzel. No. 1,083,053; Dec. 30; Gaz. vol. 197; p. 1201.
 Fuel mixture. G. E. Heyl and T. T. Baker. No. 1,081,739; Dec. 16; Gaz. vol. 197; p. 687.
 Fume-arrester. S. I. Clawson. No. 1,083,057; Dec. 30; Gaz. vol. 197; p. 1202.
 Fumigator. J. Price and W. G. Winter. No. 1,082,097; Dec. 23; Gaz. vol. 197; p. 840.
 Funnel. D. B. Landers. No. 1,083,107; Dec. 30; Gaz. vol. 197; p. 1219.
 Fur-beating machine. F. Herud. No. 1,082,747; Dec. 30; Gaz. vol. 197; p. 1098.
 Furnace. See Electric furnace; Gas-furnace; Liquid-fuel furnace; Metallurgical furnace; Muffle-furnace; Ore-treating furnace; Roasting-furnace; Smelting-furnace.
 Furnace. G. Wilton. No. 1,081,073; Dec. 9; Gaz. vol. 197; p. 428.
 Furnace. A. Mt. Joy. No. 1,081,321; Dec. 16; Gaz. vol. 197; p. 551.
 Furnace. R. D. McManigal. No. 1,081,545; Dec. 16; Gaz. vol. 197; p. 626.
 Furnace. F. J. Nice. No. 1,082,898; Dec. 30; Gaz. vol. 197; p. 1150.
 Furnace-front. W. A. White and W. C. Wallace. No. 1,082,576; Dec. 30; Gaz. vol. 197; p. 1037.

Furnace-front. W. A. White. No. 1,082,535; Dec. 30; Gaz. vol. 197; p. 1128.
Furniture, Sheet-metal. E. J. Jones. No. 1,080,513; Dec. 2; Gaz. vol. 197; p. 207.
Fuse, cap protector. R. C. Miller. No. 1,081,854; Dec. 16; Gaz. vol. 197; p. 729.
Fuse device, Multiple. G. S. Shoupe and W. H. Palmer. No. 1,081,160; Dec. 9; Gaz. vol. 197; p. 453.
Fuse, inclosed electric. F. N. Conant. No. 1,081,213; Dec. 9; Gaz. vol. 197; p. 475.
Fuse, inclosed electric. F. N. Conant. No. 1,081,214; Dec. 9; Gaz. vol. 197; p. 475.
Fuse-plug. T. E. Murray. No. 1,079,948; Dec. 2; Gaz. vol. 197; p. 9.
Fuse-resetter, Automatic. J. B. Elkin. No. 1,082,417; Dec. 23; Gaz. vol. 197; p. 949.
Gage. See Carpenter's gage; Liquid-gage; Paper-box-maker's gage; Tenon-machine gage; Tire-gage.
Gage-bracket. F. L. Hurley. No. 1,083,254; Dec. 30; Gaz. vol. 197; p. 1264.
Galvanic battery. C. B. Schoenmehl. No. 1,080,484; Dec. 2; Gaz. vol. 197; p. 198.
Game. C. A. Richmond. No. 1,080,299; Dec. 2; Gaz. vol. 197; p. 133.
Game. C. A. Richmond. No. 1,080,300; Dec. 2; Gaz. vol. 197; p. 133.
Game-table. L. Dosch. No. 1,080,427; Dec. 2; Gaz. vol. 197; p. 180.
Garbage-receptacle. C. A. and J. B. Peters. No. 1,082,550; Dec. 30; Gaz. vol. 197; p. 1027.
Garden-tool. E. L. Nolan. No. 1,082,040; Dec. 23; Gaz. vol. 197; p. 820.
Garment-hanger. A. L. Mann. No. 1,080,767; Dec. 9; Gaz. vol. 197; p. 327.
Garment-hanger, Folding. H. M. Owens. No. 1,081,058; Dec. 9; Gaz. vol. 197; p. 424.
Garment-hook. P. Marquand. No. 1,080,987; Dec. 9; Gaz. vol. 197; p. 402.
Garment-support. L. G. Dodge, W. F. Freeman, and A. Vanderveld. (Reliance). No. 13,660; Dec. 23; Gaz. vol. 197; p. 969.
Garments and the like, Adjustable connection for. H. C. Hazard. No. 1,081,611; Dec. 16; Gaz. vol. 197; p. 647.
Garter fabric. F. A. Freeman. No. 1,082,264; Dec. 23; Gaz. vol. 197; p. 898.
Garter-package. F. A. Freeman. No. 1,082,265; Dec. 23; Gaz. vol. 197; p. 898.
Gas and vapor absorber and separator. H. Hey. No. 1,080,445; Dec. 2; Gaz. vol. 197; p. 185.
Gas apparatus, Air. S. Olsen. No. 1,080,471; Dec. 2; Gaz. vol. 197; p. 193.
Gas apparatus, Air. F. J. Cox. No. 1,082,070; Dec. 23; Gaz. vol. 197; p. 830.
Gas-burner. G. E. Nickol. No. 1,081,275; Dec. 9; Gaz. vol. 197; p. 497.
Gas-burner. J. Antonuccio. No. 1,082,725; Dec. 30; Gaz. vol. 197; p. 1090.
Gas-burners, Attachment for incandescent. M. Giorgio. No. 1,080,212; Dec. 2; Gaz. vol. 197; p. 103.
Gas-burners, Automatic thermal cutoff for. A. Tibbs. No. 1,082,712; Dec. 30; Gaz. vol. 197; p. 1085.
Gas-cleaning mechanism. N. F. Egler. No. 1,083,068; Dec. 30; Gaz. vol. 197; p. 1206.
Gas cut-off. E. T. Phayer, Jr. No. 1,080,359; Dec. 2; Gaz. vol. 197; p. 168.
Gas-engine. A. A. Paysen. No. 1,081,252; Dec. 9; Gaz. vol. 197; p. 489.
Gas-engine. B. M. Aslakson. No. 1,081,450; Dec. 16; Gaz. vol. 197; p. 604.
Gas-engine. W. A. Tift. No. 1,082,569; Dec. 30; Gaz. vol. 197; p. 1034.
Gas-engine-starter valve. G. R. Holliger. No. 1,080,218; Dec. 2; Gaz. vol. 197; p. 105.
Gas from sewage, Apparatus for the production of. C. Birault. No. 1,080,508; Dec. 9; Gaz. vol. 197; p. 342.
Gas-furnace. A. H. Lewis. No. 1,080,838; Dec. 9; Gaz. vol. 197; p. 354.
Gas-generating apparatus. C. M. Gamand. No. 1,082,117; Dec. 23; Gaz. vol. 197; p. 846.
Gas generator, Acetylene. T. G. Allen. No. 1,079,972; Dec. 2; Gaz. vol. 197; p. 18.
Gas-heated iron. H. L. Brewer. No. 1,083,238; Dec. 30; Gaz. vol. 197; p. 1259.
Gas-heater. C. J. Rhodin. No. 1,082,238; Dec. 23; Gaz. vol. 197; p. 887.
Gas-igniter. J. L. Ducharme. No. 1,081,219; Dec. 9; Gaz. vol. 197; p. 477.
Gas in confinement, Means for the maintenance of. S. E. Bretherton. No. 1,082,797; Dec. 30; Gaz. vol. 197; p. 1115.
Gas-main and the like trap. S. A. Stum. No. 1,082,216; Dec. 23; Gaz. vol. 197; p. 879.
Gas-mantle mica cylinder, Inverted. A. P. Storrs. No. 1,081,343; Dec. 16; Gaz. vol. 197; p. 558.
Gas-mixture producer. A. P. Brush. No. 1,082,007; Dec. 23; Gaz. vol. 197; p. 806.
Gas-producer. N. F. Egler. No. 1,083,067; Dec. 30; Gaz. vol. 197; p. 1206.
Gas-purifier curb and holdfast. E. F. Lloyd. No. 1,080,705; Dec. 9; Gaz. vol. 197; p. 304.
Gas-washer. A. H. Lynn. No. 1,081,241; Dec. 9; Gaz. vol. 197; p. 484.
Gas washing and cooling method and apparatus. E. F. Lloyd. No. 1,081,455; Dec. 16; Gaz. vol. 197; p. 596.

Gases, Treating. C. A. Weeks and R. M. Hunter. No. 1,083,233; Dec. 30; Gaz. vol. 197; p. 1257.
Gasket and retainer therefor. A. E. Hart. No. 1,082,324; Dec. 23; Gaz. vol. 197; p. 919.
Gate. See Frameless gate; Head-gate.
Gate. G. W. Miller. No. 1,081,395; Dec. 16; Gaz. vol. 197; p. 575.
Gate. N. Early. No. 1,081,819; Dec. 16; Gaz. vol. 197; p. 717.
Gate-operating mechanism. L. M. Stone. No. 1,082,050; Dec. 23; Gaz. vol. 197; p. 823.
Gear. Electrically-operated reversing. K. Brüll. No. 1,080,044; Dec. 2; Gaz. vol. 197; p. 44.
Gear for milling and other machines, Transmission. J. Becker. No. 1,082,994; Dec. 30; Gaz. vol. 197; p. 1182.
Gear, Friction draft. H. C. Pribe. No. 1,082,098; Dec. 23; Gaz. vol. 197; p. 840.
Gear-generator. E. J. Lees. No. 1,081,971; Dec. 23; Gaz. vol. 197; p. 796.
Gear-generator. E. J. Lees. No. 1,081,972; Dec. 23; Gaz. vol. 197; p. 796.
Gear-generator. E. J. Lees. No. 1,081,973; Dec. 23; Gaz. vol. 197; p. 797.
Gear-wheel. G. B. Owen. No. 1,080,160; Dec. 2; Gaz. vol. 197; p. 84.
Gear-wheel. A. S. Finch. No. 1,081,104; Dec. 9; Gaz. vol. 197; p. 438.
Gear-wheel detachable teeth. E. Welst. No. 1,081,990; Dec. 23; Gaz. vol. 197; p. 804.
Gears, Mechanism to prevent the stripping of transmission. H. M. Thoreson. No. 1,081,067; Dec. 9; Gaz. vol. 197; p. 427.
Gearing. C. J. Marth. No. 1,080,151; Dec. 2; Gaz. vol. 197; p. 82.
Gearing. A. P. Willis. No. 1,081,642; Dec. 16; Gaz. vol. 197; p. 656.
Gearing. A. P. Willis. No. 1,081,643; Dec. 16; Gaz. vol. 197; p. 656.
Gearing. K. C. Likness. No. 1,082,340; Dec. 23; Gaz. vol. 197; p. 828.
Gearing for drills, Safety. J. O. Foster. No. 1,080,334; Dec. 2; Gaz. vol. 197; p. 145.
Gearing for stretchers. S. A. Ulrich. No. 1,080,503; Dec. 2; Gaz. vol. 197; p. 204.
Gearing, Friction. C. N. Whipple. No. 1,081,799; Dec. 16; Gaz. vol. 197; p. 709.
Gearing, Transmission. J. Chalmers. No. 1,081,092; Dec. 9; Gaz. vol. 197; p. 434.
Gearing, Transmission. E. L. Jones and C. H. Roth. No. 1,082,028; Dec. 23; Gaz. vol. 197; p. 816.
Gearing, Transmission. K. Probst. No. 1,082,907; Dec. 30; Gaz. vol. 197; p. 1154.
Gearing, Variable-speed. W. H. Raven. No. 1,081,062; Dec. 9; Gaz. vol. 197; p. 425.
Gearing, Variable-speed. F. D. Green. No. 1,081,954; Dec. 23; Gaz. vol. 197; p. 780.
Generator. See Acetylene-generator; Electric generator; Gear-generator; Steam-generator; Vapor-generator.
Glass-blowing machine. J. Rau. No. 1,080,168; Dec. 2; Gaz. vol. 197; p. 87.
Glassware, Machine for forming hollow. R. Williamson. No. 1,080,742; Dec. 9; Gaz. vol. 197; p. 317.
Glazed refractory article. A. T. Malm. No. 1,081,542; Dec. 16; Gaz. vol. 197; p. 626.
Globe, Geographical. B. J. S. Cahill. No. 1,081,207; Dec. 9; Gaz. vol. 197; p. 473.
Glove. E. Dacorisi. No. 1,080,813; Dec. 9; Gaz. vol. 197; p. 345.
Gluing and dowel-driving machine. J. R. Frantz. No. 1,080,274; Dec. 2; Gaz. vol. 197; p. 125.
Go-cart spring-mounting. F. H. Headley. No. 1,081,269; Dec. 9; Gaz. vol. 197; p. 495.
Goggles. G. B. Collier. No. 1,080,893; Dec. 9; Gaz. vol. 197; p. 371.
Goggles. L. D. Cutler. No. 1,082,480; Dec. 23; Gaz. vol. 197; p. 968.
Gown, Invalid bed. M. E. Hutchinson. No. 1,080,451; Dec. 2; Gaz. vol. 197; p. 187.
Grading, stamping, and selecting machine. H. C. Brown. No. 1,081,361; Dec. 16; Gaz. vol. 197; p. 564.
Grain-cleaning machine. J. C. Cramer. No. 1,080,423; Dec. 2; Gaz. vol. 197; p. 179.
Grain-drill. C. W. Davis. No. 1,082,072; Dec. 23; Gaz. vol. 197; p. 831.
Grain-shocking machine. J. E. Griffith. No. 1,080,438; Dec. 2; Gaz. vol. 197; p. 183.
Grain-stocking machine. H. L. Edge. No. 1,080,270; Dec. 2; Gaz. vol. 197; p. 124.
Grain-treating machine. H. Lyng. No. 1,080,060; Dec. 2; Gaz. vol. 197; p. 53.
Graphite from worn-out crucibles, Recovering. A. Teichmann. No. 1,080,085; Dec. 2; Gaz. vol. 197; p. 58.
Grate-bar. G. S. Sergeant. No. 1,081,780; Dec. 16; Gaz. vol. 197; p. 702.
Grate, Dumping. W. W. Lewis. No. 1,082,127; Dec. 23; Gaz. vol. 197; p. 849.
Grate, Forced-draft. T. Harley and R. G. Long. No. 1,083,094; Dec. 30; Gaz. vol. 197; p. 1215.
Grater, Nutmeg. G. E. Tornso. No. 1,082,918; Dec. 30; Gaz. vol. 197; p. 1157.
Grating, lattice structure, or the like. C. Wellen. No. 1,081,478; Dec. 16; Gaz. vol. 197; p. 603.
Gravity-motor. J. M. Schilling and H. A. Baldwin. No. 1,080,593; Dec. 9; Gaz. vol. 197; p. 267.

Grease-plug lock, Automatic. A. P. McGlinchey. No. 1,082,091; Dec. 23; Gaz. vol. 197; p. 838.
Grinders, Feed adjustment for band-saw. J. P. Hedstrom. No. 1,082,833; Dec. 30; Gaz. vol. 197; p. 1058.
Grinding. G. I. Alden. No. 1,081,082; Dec. 9; Gaz. vol. 197; p. 431.
Grinding-mill. J. D. Moore. No. 1,081,622; Dec. 16; Gaz. vol. 197; p. 649.
Grinding, pulping, and pulverizing machine. H. Jackson. No. 1,083,213; Dec. 30; Gaz. vol. 197; p. 1250.
Grip device for exhibitors, Intermittent. J. P. Sheagren. No. 1,080,486; Dec. 2; Gaz. vol. 197; p. 199.
Grip device, Intermittent. C. A. Kenworthy. No. 1,080,637; Dec. 9; Gaz. vol. 197; p. 281.
Gun, Air. E. S. Roe. No. 1,080,170; Dec. 2; Gaz. vol. 197; p. 88.
Gun and rifle, Cadet. E. L. Tiffany and F. S. Loomis. No. 1,080,939; Dec. 9; Gaz. vol. 197; p. 387.
Gun-carriage, Wheeled. E. Bourdelles. No. 1,082,795; Dec. 30; Gaz. vol. 197; p. 1114.
Gun-cleaning rod. T. W. Cook. No. 1,080,679; Dec. 9; Gaz. vol. 197; p. 295.
Gun, Gas-operated. W. H. Squire. No. 1,082,916; Dec. 30; Gaz. vol. 197; p. 1157.
Gun having a recoiling barrel. K. Völler. No. 1,082,718; Dec. 30; Gaz. vol. 197; p. 1087.
Guns having a recoiling barrel, Hydraulic brake for. K. Völler. No. 1,082,717; Dec. 30; Gaz. vol. 197; p. 1087.
Gyve. F. C. Nagle. No. 1,082,230; Dec. 23; Gaz. vol. 197; p. 884.
Gyve-lock. F. C. Nagle. No. 1,082,229; Dec. 23; Gaz. vol. 197; p. 884.
Hair-curler. H. N. Northrop and G. A. Towle. No. 1,081,400; Dec. 16; Gaz. vol. 197; p. 577.
Hair-drying apparatus, Wet. A. Schriever. No. 1,081,064; Dec. 9; Gaz. vol. 197; p. 426.
Hair-plin. J. Hughes. No. 1,082,833; Dec. 23; Gaz. vol. 197; p. 922.
Hame-clip. A. C. Back. No. 1,080,801; Dec. 9; Gaz. vol. 197; p. 339.
Hammer-drill. A. H. Taylor. No. 1,081,037; Dec. 16; Gaz. vol. 197; p. 654.
Hammer, Fluid-power. R. E. Bates. No. 1,082,580; Dec. 30; Gaz. vol. 197; p. 1039.
Hammer, Mechanical. J. S. Knowlson. No. 1,082,880; Dec. 30; Gaz. vol. 197; p. 1143.
Hammer mechanism, Drop. P. Malwurm. No. 1,080,357; Dec. 2; Gaz. vol. 197; p. 155.
Hand-wheel for valves, &c. A. L. Sessions. No. 1,080,080; Dec. 2; Gaz. vol. 197; p. 67.
Handle. See File-handle; Shovel-handle.
Handle-fastening. F. D. Moss. No. 1,081,546; Dec. 16; Gaz. vol. 197; p. 626.
Handle, Joint adjustable. A. Oriol. No. 1,080,121; Dec. 2; Gaz. vol. 197; p. 71.
Hanger. See Cable-hanger; Door-hanger; Garment-hanger; Harness-hanger; Lamp-hanger; Tool-hanger.
Hardening mixture. Case. J. F. Sallows. No. 1,079,954; Dec. 2; Gaz. vol. 197; p. 11.
Harness attachment for securing nets and blankets. F. H. McCormick. No. 1,081,054; Dec. 9; Gaz. vol. 197; p. 423.
Harness back-pad. J. S. Cusson. No. 1,080,895; Dec. 9; Gaz. vol. 197; p. 372.
Harness-hanger. N. A. Hannah. No. 1,083,092; Dec. 30; Gaz. vol. 197; p. 1215.
Harness-rack. S. B. Dyer. No. 1,083,203; Dec. 30; Gaz. vol. 197; p. 1246.
Harrow. L. E. Waterman. No. 1,081,918; Dec. 16; Gaz. vol. 197; p. 749.
Harrow and cultivator. A. Stavinska. No. 1,080,663; Dec. 9; Gaz. vol. 197; p. 289.
Harrow and pulverizer, Revolving-knife. W. W. Jackson. No. 1,082,749; Dec. 30; Gaz. vol. 197; p. 1099.
Harrow-bar. J. Kiel. No. 1,080,698; Dec. 9; Gaz. vol. 197; p. 302.
Harrow-disk. D. W. Bovee. No. 1,081,886; Dec. 16; Gaz. vol. 197; p. 738.
Harrow, Lister. J. Kiel. No. 1,080,699; Dec. 9; Gaz. vol. 197; p. 302.
Harrow, Lister. J. Kiel. No. 1,081,386; Dec. 16; Gaz. vol. 197; p. 573.
Harvester, Beet. M. Van Voorst. No. 1,081,349; Dec. 16; Gaz. vol. 197; p. 560.
Harvester, Seaweed. G. H. Eunis. No. 1,080,144; Dec. 2; Gaz. vol. 197; p. 79.
Harvesters from traction-engines, Gang-frame attachment for driving. A. H. Stemen. No. 1,080,985; Dec. 9; Gaz. vol. 197; p. 385.
Harvesters, Topping mechanism for vegetable. O. W. Fisher. No. 1,082,625; Dec. 30; Gaz. vol. 197; p. 1055.
Harvesting-sack supporter. H. Heard. No. 1,082,695; Dec. 30; Gaz. vol. 197; p. 1079.
Hasp, Door. P. Farwell. No. 1,082,938; Dec. 30; Gaz. vol. 197; p. 1163.
Hat attachment. W. D. Reese. No. 1,081,333; Dec. 16; Gaz. vol. 197; p. 555.
Hat-blocking apparatus. M. Flicker. No. 1,080,820; Dec. 9; Gaz. vol. 197; p. 348.
Hat-box, Folding. A. I. Selcer. No. 1,080,596; Dec. 9; Gaz. vol. 197; p. 268.
Hat card-holder. A. M. Shive. No. 1,081,630; Dec. 16; Gaz. vol. 197; p. 651.

197 O. G. vi

Hat-fastener. A. Homberg. No. 1,081,669; Dec. 16; Gaz. vol. 197; p. 664.
Hat-fastener. W. A. Kitts, Jr. No. 1,081,967; Dec. 23; Gaz. vol. 197; p. 794.
Hat-fastener. O. Thielehaus. No. 1,082,180; Dec. 23; Gaz. vol. 197; p. 866.
Hat-fastener. L. M. Beatson. No. 1,082,789; Dec. 30; Gaz. vol. 197; p. 1113.
Hat-pin guard. B. V. Chapman. No. 1,081,888; Dec. 16; Gaz. vol. 197; p. 739.
Hat-pin guard. A. L. Burger. No. 1,082,067; Dec. 23; Gaz. vol. 197; p. 829.
Hat-pin, Safety. E. H. Freeborn. No. 1,079,937; Dec. 2; Gaz. vol. 197; p. 5.
Hat, Straw. F. Wright. No. 1,082,060; Dec. 23; Gaz. vol. 197; p. 827.
Hats, Apparatus for rapidly shaping. F. Stoffel. No. 1,080,731; Dec. 9; Gaz. vol. 197; p. 313.
Hatch-covering, Air-tight. W. W. Wotherspoon. No. 1,083,043; Dec. 30; Gaz. vol. 197; p. 1198.
Hay-carriers, Automatic return for. A. Burkhaw. No. 1,080,045; Dec. 2; Gaz. vol. 197; p. 44.
Hay curling and stacking device. J. F. Harria. No. 1,080,441; Dec. 2; Gaz. vol. 197; p. 184.
Hay-knife. J. F. Sinsner. No. 1,082,363; Dec. 23; Gaz. vol. 197; p. 932.
Head and arm rest. L. Styve. No. 1,080,732; Dec. 9; Gaz. vol. 197; p. 313.
Head-dress. G. Rawak. No. 1,082,648; Dec. 30; Gaz. vol. 197; p. 1062.
Head-gate. J. Z. Hanson and W. D. Thomas. No. 1,083,093; Dec. 30; Gaz. vol. 197; p. 1215.
Headlight. J. S. Walsh. No. 1,083,162; Dec. 30; Gaz. vol. 197; p. 1235.
Headlight, Automatic. B. H. Brown, G. W. Edwards, and E. T. Manwell. No. 1,080,256; Dec. 2; Gaz. vol. 197; p. 118.
Headlight, Changeable. V. Howard and J. P. Wrigley. No. 1,080,110; Dec. 2; Gaz. vol. 197; p. 68.
Headlight, Dirigible. A. C. Hendry. No. 1,081,113; Dec. 9; Gaz. vol. 197; p. 441.
Headlight, Dirigible. B. F. Moye. No. 1,081,398; Dec. 16; Gaz. vol. 197; p. 576.
Headlight, Locomotive. J. L. Carnley. No. 1,082,623; Dec. 30; Gaz. vol. 197; p. 1054.
Headlight, Movable locomotive. S. E. Simmons. No. 1,081,992; Dec. 23; Gaz. vol. 197; p. 803.
Headlight, Vehicle. P. J. E. O'Brien. No. 1,083,126; Dec. 30; Gaz. vol. 197; p. 1225.
Heater. See Electric heater; Gas heater; Oil heater; Orchard heater; Subterranean heater; Tire heater; Water heater.
Heater. A. Jensen. No. 1,080,454; Dec. 2; Gaz. vol. 197; p. 188.
Heater. C. H. Hook. No. 1,081,306; Dec. 16; Gaz. vol. 197; p. 545.
Heating apparatus. D. J. F. Buck. No. 1,080,258; Dec. 2; Gaz. vol. 197; p. 119.
Heating apparatus. F. Craig. No. 1,081,891; Dec. 16; Gaz. vol. 197; p. 740.
Heating apparatus, Solar. M. De la Garza. No. 1,081,098; Dec. 9; Gaz. vol. 197; p. 436.
Heating element, Electric. D. Huntley. No. 1,081,233; Dec. 9; Gaz. vol. 197; p. 482.
Heating element, Electric. A. A. Warner. No. 1,081,414; Dec. 16; Gaz. vol. 197; p. 582.
Heating liquids by electricity, Apparatus for. J. von Hentzel. No. 1,081,114; Dec. 9; Gaz. vol. 197; p. 441.
Heating system, Steam. J. G. Midgley. No. 1,081,509; Dec. 16; Gaz. vol. 197; p. 614.
Heel-attaching machine. E. A. Tripp. No. 1,081,017; Dec. 16; Gaz. vol. 197; p. 748.
Heel-breasting machine. R. C. Simmons. No. 1,080,370; Dec. 2; Gaz. vol. 197; p. 162.
Heel-building machine. P. J. Riley. No. 1,080,302; Dec. 2; Gaz. vol. 197; p. 134.
Heel-building machine. G. A. Dobyne. No. 1,080,632; Dec. 9; Gaz. vol. 197; p. 296.
Heel-cushion. J. Razntch. No. 1,080,781; Dec. 9; Gaz. vol. 197; p. 332.
Heel for boots and shoes, Spring. P. Gáspár. No. 1,081,734; Dec. 16; Gaz. vol. 197; p. 886.
Heel-operating machine. H. W. Kenway. No. 1,080,160; Dec. 2; Gaz. vol. 197; p. 81.
Heel, Pileated. A. Gelger. No. 1,081,442; Dec. 16; Gaz. vol. 197; p. 591.
Heel protector, Shoe. F. S. Tucker and F. M. Laxton. No. 1,081,412; Dec. 16; Gaz. vol. 197; p. 581.
Helmet, Foot-ball. S. Hipkiss. No. 1,080,690; Dec. 9; Gaz. vol. 197; p. 298.
Hickey. P. T. Zizinia. No. 1,080,616; Dec. 9; Gaz. vol. 197; p. 274.
Hickey. P. T. Zizinia. No. 1,080,617; Dec. 9; Gaz. vol. 197; p. 274.
Hide-stretcher. W. C. Davis and J. Miller. No. 1,081,554; Dec. 16; Gaz. vol. 197; p. 637.
Hides and skins, Deplating and reducing. O. Röhms. No. 1,082,011; Dec. 30; Gaz. vol. 197; p. 1155.
High chair, Sully. L. V. Douglas. No. 1,082,854; Dec. 30; Gaz. vol. 197; p. 1134.
Hinge, Door. J. C. Bothwell. No. 1,082,677; Dec. 30; Gaz. vol. 197; p. 1073.
Hinge, Spring. O. Katzenberger. No. 1,080,456; Dec. 2; Gaz. vol. 197; p. 189.

Hinge, Spring. W. J. Keene. No. 1,081,752; Dec. 16; Gaz. vol. 197; p. 692.
Hog scraper and conveyor. A. Hannaford. No. 1,080,007; Dec. 2; Gaz. vol. 197; p. 31.
Holst, Electric. A. S. Blowers. No. 1,082,398; Dec. 23; Gaz. vol. 197; p. 943.
Holst, Portable. T. F. Moore. No. 1,081,055; Dec. 9; Gaz. vol. 197; p. 423.
Holder. J. Macdonald. No. 1,081,848; Dec. 16; Gaz. vol. 197; p. 727.
Holder, Box. W. H. Ramsey. No. 1,079,993; Dec. 2; Gaz. vol. 197; p. 26.
Hollow bodies, Manufacture of. B. Knaebel. No. 1,082,199; Dec. 23; Gaz. vol. 197; p. 873.
Hollow bodies, Manufacture of. B. Knaebel. No. 1,082,200; Dec. 23; Gaz. vol. 197; p. 873.
Honing and stropping machine. L. A. Flinker. No. 1,081,285; Dec. 9; Gaz. vol. 197; p. 501.
Hood. M. G. Melvin. No. 1,080,468; Dec. 2; Gaz. vol. 197; p. 192.
Hook: See Garment-hook; Swingletree-hook.
Hook-setting machine. G. W. Brown. No. 1,080,194; Dec. 2; Gaz. vol. 197; p. 96.
Hooking machine, Helical-spring. F. H. Sleeper. No. 1,083,223; Dec. 30; Gaz. vol. 197; p. 1253.
Hop-press and hop-strainer, Combined. C. F. Hettinger. No. 1,083,013; Dec. 30; Gaz. vol. 197; p. 1189.
Hopper-door operating device. L. G. Handy. No. 1,081,040; Dec. 9; Gaz. vol. 197; p. 418.
Horn, Exhaust. G. Placopo. No. 1,082,972; Dec. 30; Gaz. vol. 197; p. 1176.
Horseshoe. T. C. Amoth. No. 1,081,564; Dec. 16; Gaz. vol. 197; p. 632.
Horseshoe. L. Lehotzky. No. 1,082,276; Dec. 23; Gaz. vol. 197; p. 902.
Horseshoe-calk, Detachable. I. H. Gilliland. No. 1,080,757; Dec. 9; Gaz. vol. 197; p. 323.
Horseshoe-calk, Detachable. T. L. Haire. No. 1,082,421; Dec. 23; Gaz. vol. 197; p. 950.
Horseshoe-ice-creper. F. F. and M. S. Jacobs. No. 1,081,449; Dec. 16; Gaz. vol. 197; p. 594.
Hose-coupling. E. H. Gold. No. 1,081,444; Dec. 16; Gaz. vol. 197; p. 592.
Hose-coupling. J. A. Holloway. No. 1,081,963; Dec. 23; Gaz. vol. 197; p. 793.
Hose-coupling, Threadless. P. Berg. No. 1,080,674; Dec. 9; Gaz. vol. 197; p. 293.
Hose-coupling, Threadless. P. Berg. No. 1,080,675; Dec. 9; Gaz. vol. 197; p. 294.
Hose-holder, Adjustable. W. H. Matthews. No. 1,080,770; Dec. 9; Gaz. vol. 197; p. 328.
Hose-nozzle and lawn-sprinkler, Combined. C. G. Mohl. No. 1,081,688; Dec. 16; Gaz. vol. 197; p. 670.
Hose-supporter. J. Bellis. No. 1,082,006; Dec. 23; Gaz. vol. 197; p. 808.
Hotbed. W. Ahlen and V. Ross. No. 1,082,387; Dec. 23; Gaz. vol. 197; p. 940.
Hub. J. D. Jones. (Reissue.) No. 13,654; Dec. 9; Gaz. vol. 197; p. 502.
Hub flange, Wheel. F. Kopplin. No. 1,080,011; Dec. 2; Gaz. vol. 197; p. 32.
Hub-odometer. C. H. Veeder. No. 1,081,561; Dec. 16; Gaz. vol. 197; p. 631.
Hub, Resilient wheel. J. W. Brady. No. 1,080,253; Dec. 2; Gaz. vol. 197; p. 117.
Humidifier. C. S. Drake. No. 1,079,935; Dec. 2; Gaz. vol. 197; p. 5.
Humidity, Apparatus for indicating and regulating. W. B. Hodge. No. 1,080,109; Dec. 2; Gaz. vol. 197; p. 67.
Hydrant, Compression. J. A. Rourke. No. 1,080,719; Dec. 9; Gaz. vol. 197; p. 308.
Hydraulic engine. L. Bruton. No. 1,083,186; Dec. 30; Gaz. vol. 197; p. 1240.
Hydraulic jacks, &c., Pump mechanism for. E. P. Hess. No. 1,080,062; Dec. 2; Gaz. vol. 197; p. 50.
Hydraulic power-transmission device. A. Citroen. No. 1,080,000; Dec. 2; Gaz. vol. 197; p. 28.
Hydrocarbon-burner. E. P. Harma. No. 1,080,688; Dec. 9; Gaz. vol. 197; p. 298.
Hydrocarbon-motor. R. Huff. No. 1,080,761; Dec. 9; Gaz. vol. 197; p. 325.
Hydrocarbon-motor. R. Huff. No. 1,080,762; Dec. 9; Gaz. vol. 197; p. 325.
Hydrocarbon-motor. R. Huff. No. 1,082,527; Dec. 30; Gaz. vol. 197; p. 1018.
Hydrogen. Production of sulfured. W. A. Hall. No. 1,083,247; Dec. 30; Gaz. vol. 197; p. 1262.
Hydroplane. S. E. Bailey. No. 1,080,407; Dec. 2; Gaz. vol. 197; p. 173.
Ice, Apparatus for the manufacture of plate. E. E. Garner. No. 1,082,512; Dec. 30; Gaz. vol. 197; p. 1013.
Ice-box. R. W. Hartwell. No. 1,080,551; Dec. 9; Gaz. vol. 197; p. 253.
Ice-cream freezer. E. Thompson. No. 1,081,790; Dec. 16; Gaz. vol. 197; p. 706.
Ice-making apparatus. J. Humes. No. 1,082,871; Dec. 30; Gaz. vol. 197; p. 1140.
Ice-making machine. W. Graaff. No. 1,082,944; Dec. 30; Gaz. vol. 197; p. 1165.
Ice-pick. J. Hutchinson. No. 1,080,220; Dec. 2; Gaz. vol. 197; p. 106.
Illuminating device. R. K. Witz. No. 1,081,646; Dec. 16; Gaz. vol. 197; p. 657.

Implement, Pocket. M. P. Hermann. No. 1,083,085; Dec. 30; Gaz. vol. 197; p. 1216.
Incandescent mantles for holders, Attaching Inverted. A. Scheidegger. No. 1,079,955; Dec. 2; Gaz. vol. 197; p. 11.
Incubator. T. N. Thomson. No. 1,082,980; Dec. 30; Gaz. vol. 197; p. 1178.
Incubator attachment. M. R. Lowell. No. 1,082,350; Dec. 23; Gaz. vol. 197; p. 928.
Incubator egg-supporting surface. J. L. Shute. No. 1,080,489; Dec. 2; Gaz. vol. 197; p. 200.
Incubator egg-tray. F. Geiger. No. 1,081,903; Dec. 16; Gaz. vol. 197; p. 743.
Incubator, thermometer-holder. W. G. Weed. No. 1,080,131; Dec. 2; Gaz. vol. 197; p. 74.
Incubators and the like, Thermostatic damper-regulator for. N. P. B. Ellegaard. No. 1,082,115; Dec. 23; Gaz. vol. 197; p. 845.
Indicating-lock. M. Arta. No. 1,081,190; Dec. 9; Gaz. vol. 197; p. 467.
Indicator: See Station-indicator; Street or station indicator; Telephone-indicator.
Indicator. L. S. Larson. No. 1,081,843; Dec. 16; Gaz. vol. 197; p. 726.
Indicator mechanism. E. J. Pace and O. E. Kellum. No. 1,080,161; Dec. 2; Gaz. vol. 197; p. 85.
Inductance-coil. F. G. Thackberry. No. 1,080,605; Dec. 9; Gaz. vol. 197; p. 270.
Induction-motor. R. E. Hellmund. No. 1,080,061; Dec. 2; Gaz. vol. 197; p. 50.
Induction-motor. W. H. Powell. No. 1,080,475; Dec. 2; Gaz. vol. 197; p. 194.
Ingots, Manufacture of. S. T. Wellman. No. 1,081,997; Dec. 23; Gaz. vol. 197; p. 805.
Inhaler, Nasal. W. A. Johnston, A. W. Browne, and F. L. Wallace. No. 1,081,745; Dec. 16; Gaz. vol. 197; p. 689.
Injector, Hot-water. T. H. White. No. 1,082,220; Dec. 23; Gaz. vol. 197; p. 880.
Ink-fountain-roller lifter. W. Eben and W. Caldwell. No. 1,081,664; Dec. 16; Gaz. vol. 197; p. 663.
Inkstand. E. Davis. No. 1,082,152; Dec. 23; Gaz. vol. 197; p. 856.
Inkstand. J. W. Jacobus. No. 1,082,157; Dec. 23; Gaz. vol. 197; p. 858.
Inkstand. F. M. Ashley. (Reissue.) No. 13,659; Dec. 23; Gaz. vol. 197; p. 969.
Insect-excluding attachment for buildings. D. A. Clark. No. 1,080,417; Dec. 2; Gaz. vol. 197; p. 177.
Insect-trap. C. H. Bath. No. 1,082,489; Dec. 30; Gaz. vol. 197; p. 1005.
Insecticide. C. Ellis. No. 1,082,507; Dec. 30; Gaz. vol. 197; p. 1012.
Instep-support. M. J. O'Rourke. No. 1,081,057; Dec. 9; Gaz. vol. 197; p. 424.
Insulating means for railway ties and chairs. G. H. Shane. No. 1,082,826; Dec. 30; Gaz. vol. 197; p. 1125.
Insulator. K. Bruchsalter. No. 1,080,257; Dec. 2; Gaz. vol. 197; p. 119.
Insulator, Strain. G. A. Mead and W. H. Kempton. No. 1,080,713; Dec. 9; Gaz. vol. 197; p. 308.
Internal-combustion engine. D. E. Pratt. No. 1,080,123; Dec. 2; Gaz. vol. 197; p. 72.
Internal-combustion engine. A. M. Bach. No. 1,080,800; Dec. 9; Gaz. vol. 197; p. 339.
Internal-combustion engine. W. C. Carter. No. 1,081,432; Dec. 16; Gaz. vol. 197; p. 588.
Internal-combustion engine. C. De Lukasevics. No. 1,081,816; Dec. 16; Gaz. vol. 197; p. 716.
Internal-combustion engine. H. W. Bolena. No. 1,081,946; Dec. 23; Gaz. vol. 197; p. 786.
Internal-combustion engine. M. W. Quiggle. No. 1,082,138; Dec. 23; Gaz. vol. 197; p. 852.
Internal-combustion engine. J. Kerner. No. 1,082,341; Dec. 23; Gaz. vol. 197; p. 925.
Internal-combustion engine. L. F. Secord and B. Orr. No. 1,082,656; Dec. 30; Gaz. vol. 197; p. 1064.
Internal-combustion engine. A. F. Collins, A. Kerr, and A. E. Russell. No. 1,082,932; Dec. 30; Gaz. vol. 197; p. 1161.
Internal-combustion propulsion apparatus. R. Diesel. No. 1,080,625; Dec. 9; Gaz. vol. 197; p. 277.
Invalid-handling apparatus. J. A. Pitts and J. P. Boerman. No. 1,080,297; Dec. 2; Gaz. vol. 197; p. 132.
Invalids or the like, Apparatus for handling. A. Skemington. No. 1,082,177; Dec. 23; Gaz. vol. 197; p. 865.
Iron: See Gas-heated iron.
Iron. H. Lindstrom. No. 1,080,016; Dec. 2; Gaz. vol. 197; p. 33.
Iron, blast-furnace, flue-dust, Utilizing. R. Baggaley. No. 1,081,921; Dec. 16; Gaz. vol. 197; p. 749.
Iron from rust, Protecting. A. Lang. No. 1,082,161; Dec. 23; Gaz. vol. 197; p. 859.
Ironing-board. G. C. Carr. No. 1,082,403; Dec. 23; Gaz. vol. 197; p. 945.
Ironing-board and stand. A. G. L. Schwartz. No. 1,083,146; Dec. 30; Gaz. vol. 197; p. 1230.
Ironing-machine. R. E. Dodge. No. 1,081,027; Dec. 9; Gaz. vol. 197; p. 415.
Ironing-machine. W. H. Oliver. No. 1,082,548; Dec. 30; Gaz. vol. 197; p. 1026.
Ironing-machine. J. H. Ullman. No. 1,083,088; Dec. 30; Gaz. vol. 197; p. 1106.
Ironing-table. L. R. Brewer. No. 1,080,950; Dec. 9; Gaz. vol. 197; p. 390.

Irrigating-dam. P. C. Baker. No. 1,080,944; Dec. 9; Gaz. vol. 197; p. 388.
Irrigator. E. Spardel. No. 1,082,142; Dec. 23; Gaz. vol. 197; p. 853.
Isoprene, Producing. F. Webel. No. 1,083,164; Dec. 30; Gaz. vol. 197; p. 1235.
Isoprene, Producing. F. Webel. No. 1,083,165; Dec. 30; Gaz. vol. 197; p. 1235.
Jack: See Auto-jack; Automobile-jack; Fly-wheel jack; Lifting-jack.
Jack and thill-support, Combined. G. Adams. No. 1,081,008; Dec. 9; Gaz. vol. 197; p. 409.
Jar: See Sealed jar.
Jar cover, Dispensing. E. T. Langan. No. 1,079,942; Dec. 2; Gaz. vol. 197; p. 7.
Jars and the like, Closure for milk. A. E. Ayer. No. 1,082,989; Dec. 30; Gaz. vol. 197; p. 1181.
Jaw-brace. A. R. De Pass. No. 1,081,296; Dec. 16; Gaz. vol. 197; p. 542.
Joint: See Ball-joint; Rail-joint; Roof-joint; Universal joint.
Journal-box wear-plate. D. F. Gonware. No. 1,082,943; Dec. 30; Gaz. vol. 197; p. 1165.
Journal-cooling device. W. H. Clingman. No. 1,082,503; Dec. 30; Gaz. vol. 197; p. 1010.
Justifying mechanism. B. F. Bellows. No. 1,082,006; Dec. 23; Gaz. vol. 197; p. 808.
Kerosene-tins and the like, Handle for. J. H. Tink. No. 1,081,344; Dec. 16; Gaz. vol. 197; p. 558.
Kettle or boiler, Inner. W. H. Nutter and R. H. Sims. No. 1,080,470; Dec. 2; Gaz. vol. 197; p. 193.
Key: See Door-key.
Key-carrier. A. Reznicek. No. 1,081,627; Dec. 16; Gaz. vol. 197; p. 851.
Key-duplicating clamp. H. Tucker. No. 1,081,472; Dec. 16; Gaz. vol. 197; p. 601.
Key-duplicating machine. H. Tucker. No. 1,081,471; Dec. 16; Gaz. vol. 197; p. 601.
Key-fastener. W. Klespies. No. 1,082,427; Dec. 23; Gaz. vol. 197; p. 952.
Key-operating-machine trigger mechanism. D. Petri-Palmedo. No. 1,080,579; Dec. 9; Gaz. vol. 197; p. 261.
Keyboard. O. Petermann. No. 1,081,142; Dec. 9; Gaz. vol. 197; p. 451.
Keyboard. O. Petermann. No. 1,081,144; Dec. 9; Gaz. vol. 197; p. 452.
Kiln: See Brick-kiln.
Kinematograph-target. W. A. Bennett. No. 1,081,943; Dec. 23; Gaz. vol. 197; p. 785.
Kitchen-reminder, Perpetual. H. H. Ready, L. C. Connor, and L. C. Bevans. No. 1,082,044; Dec. 23; Gaz. vol. 197; p. 821.
Knitting-machine-operating mechanism, Dough. F. Münz. No. 1,081,858; Dec. 16; Gaz. vol. 197; p. 730.
Knee-pad and foot-rest for church-pews, Combination movable. M. Lavigne. No. 1,080,764; Dec. 9; Gaz. vol. 197; p. 326.
Knee-protector. D. B. McCall. No. 1,081,245; Dec. 9; Gaz. vol. 197; p. 486.
Knife: See Hay-knife.
Knife and scissors sharpener. W. P. Gray and J. H. Duncan. No. 1,081,606; Dec. 16; Gaz. vol. 197; p. 645.
Knife-lubricating device. D. S. Seymour. No. 1,080,485; Dec. 2; Gaz. vol. 197; p. 109.
Knife roller, Mote. J. Brady. No. 1,082,844; Dec. 30; Gaz. vol. 197; p. 1131.
Knitted web and making same. R. W. Scott. No. 1,081,779; Dec. 16; Gaz. vol. 197; p. 702.
Knitted web, Welter. R. W. Scott. No. 1,081,778; Dec. 16; Gaz. vol. 197; p. 702.
Knitting-machine. F. D. Holmes. No. 1,081,043; Dec. 9; Gaz. vol. 197; p. 419.
Knitting-machine. H. D. Shimer. No. 1,081,410; Dec. 16; Gaz. vol. 197; p. 581.
Knitting-machine. M. G. Rosenthal. No. 1,082,239; Dec. 23; Gaz. vol. 197; p. 888.
Knitting-machine. O. Laroche and M. L. N. Tucker. No. 1,082,881; Dec. 30; Gaz. vol. 197; p. 1144.
Knitting machine, Circular. W. Spiers. No. 1,080,857; Dec. 9; Gaz. vol. 197; p. 359.
Knitting machine, Circular. F. B. Wildman. No. 1,081,179; Dec. 9; Gaz. vol. 197; p. 464.
Knitting-machine clocking attachment, Circular. F. W. Robinson. No. 1,081,254; Dec. 9; Gaz. vol. 197; p. 489.
Knitting-machine stop-motion. F. B. Wildman and G. L. Ballard. No. 1,081,180; Dec. 9; Gaz. vol. 197; p. 464.
Lacquering-machine. W. W. Vincent. No. 1,080,392; Dec. 2; Gaz. vol. 197; p. 169.
Laquers and varnishes, Manufacture of. A. Cohn. No. 1,080,100; Dec. 2; Gaz. vol. 197; p. 64.
Ladder, Aerial. C. F. Kieser. No. 1,081,122; Dec. 9; Gaz. vol. 197; p. 444.
Ladder, Braced step. A. F. Talbot. No. 1,082,832; Dec. 30; Gaz. vol. 197; p. 1127.
Ladder, Fish. A. J. Collar. No. 1,082,109; Dec. 23; Gaz. vol. 197; p. 843.
Ladder, Slidable-section step. G. W. Inebnit. No. 1,081,236; Dec. 9; Gaz. vol. 197; p. 482.
Ladder-support, Revolving. G. W. Rowley. No. 1,082,240; Dec. 23; Gaz. vol. 197; p. 888.
Ladle. J. O'Connor and M. P. Brennan. No. 1,080,120; Dec. 2; Gaz. vol. 197; p. 71.
Lamp. J. G. McGregor. No. 1,080,362; Dec. 2; Gaz. vol. 197; p. 157.

Lamp. S. E. Trisler. No. 1,081,875; Dec. 16; Gaz. vol. 197; p. 735.
Lamp. L. J. Kablo and R. B. Cameron. No. 1,083,214; Dec. 30; Gaz. vol. 197; p. 1250.
Lamp, Acetylene. L. M. Evans. No. 1,081,899; Dec. 16; Gaz. vol. 197; p. 742.
Lamp-adjuster, Automatic. J. Thomas. No. 1,081,522; Dec. 16; Gaz. vol. 197; p. 619.
Lamp, Arc. C. A. B. Halvorsen, Jr. No. 1,083,210; Dec. 30; Gaz. vol. 197; p. 1249.
Lamp-bracket. H. A. Goff. No. 1,082,079; Dec. 23; Gaz. vol. 197; p. 834.
Lamp-bracket. J. M. Powell. No. 1,082,763; Dec. 30; Gaz. vol. 197; p. 1104.
Lamp-bracket for power-driven vehicles. G. K. Babcock. No. 1,082,618; Dec. 30; Gaz. vol. 197; p. 1052.
Lamp-bulb, Self-locking. C. Blass. No. 1,082,397; Dec. 23; Gaz. vol. 197; p. 943.
Lamp-burner. W. Collina. No. 1,080,537; Dec. 9; Gaz. vol. 197; p. 248.
Lamp-burner. J. Clifford. No. 1,081,095; Dec. 9; Gaz. vol. 197; p. 435.
Lamp-burner. F. Danuser. No. 1,083,060; Dec. 30; Gaz. vol. 197; p. 1203.
Lamp-burner, Safety. P. Schroeder. No. 1,083,220; Dec. 30; Gaz. vol. 197; p. 1252.
Lamp-controller, Automatic. W. B. Meeker. No. 1,082,545; Dec. 30; Gaz. vol. 197; p. 1025.
Lamp, Electric-arc. F. Buchanan. No. 1,083,187; Dec. 30; Gaz. vol. 197; p. 1241.
Lamp-extinguisher. I. C. Bergen. No. 1,080,946; Dec. 9; Gaz. vol. 197; p. 389.
Lamp, Gas. J. and G. Kelth. No. 1,080,140; Dec. 2; Gaz. vol. 197; p. 81.
Lamp, Gas. H. Humphrey. No. 1,082,955; Dec. 30; Gaz. vol. 197; p. 1169.
Lamp-hanger, Miner's. L. K. Terry. No. 1,082,779; Dec. 30; Gaz. vol. 197; p. 1110.
Lamp holder and reflector, Electric. L. M. Fluhart. No. 1,080,904; Dec. 9; Gaz. vol. 197; p. 374.
Lamp-holder, Miner's. N. Friebrand. No. 1,080,434; Dec. 2; Gaz. vol. 197; p. 182.
Lamp, Incandescent. A. G. Davis. No. 1,082,012; Dec. 23; Gaz. vol. 197; p. 811.
Lamp, Magnesium flash. O. B. Henrickson. No. 1,082,326; Dec. 23; Gaz. vol. 197; p. 920.
Lamp, Metal-filament incandescent. M. D. Greengard. No. 1,082,587; Dec. 30; Gaz. vol. 197; p. 1041.
Lamp, Miner's. C. Dushak. No. 1,080,050; Dec. 2; Gaz. vol. 197; p. 46.
Lamp receptacle, Incandescent-electric. J. S. Crossley. No. 1,081,581; Dec. 16; Gaz. vol. 197; p. 636.
Lamp-shade. J. Gilsey. No. 1,080,211; Dec. 2; Gaz. vol. 197; p. 102.
Lamp, Signal. J. S. Pixley. No. 1,082,169; Dec. 23; Gaz. vol. 197; p. 862.
Lamp, Signal. F. D. Spear. No. 1,082,178; Dec. 23; Gaz. vol. 197; p. 865.
Lamp-socket. W. F. Ankam. No. 1,082,484; Dec. 30; Gaz. vol. 197; p. 1003.
Lamp socket, Electric. W. C. Tregoning. No. 1,082,181; Dec. 23; Gaz. vol. 197; p. 867.
Lamp socket, Electric. A. W. Clauder. No. 1,082,404; Dec. 23; Gaz. vol. 197; p. 945.
Lamp, Vehicle. A. E. MacDonald. No. 1,083,112; Dec. 30; Gaz. vol. 197; p. 1220.
Lamps, Air-distributor for central-draft. W. A. Penfield. No. 1,082,284; Dec. 23; Gaz. vol. 197; p. 905.
Lamps, Contact device for hand. L. Malsel. No. 1,082,887; Dec. 30; Gaz. vol. 197; p. 1146.
Lamps, Valve mechanism for gas. F. J. and H. R. Humphrey. No. 1,082,954; Dec. 30; Gaz. vol. 197; p. 1168.
Land, Means for improving. R. H. Sparks. No. 1,083,148; Dec. 30; Gaz. vol. 197; p. 1231.
Land roller or pulverizer. W. J. Dunham. No. 1,082,739; Dec. 30; Gaz. vol. 197; p. 1094.
Land roller or pulverizer. J. Hist. No. 1,082,806; Dec. 30; Gaz. vol. 197; p. 1118.
Lantern. J. R. Cravath. No. 1,081,580; Dec. 16; Gaz. vol. 197; p. 636.
Lantern. J. A. Neill. No. 1,082,896; Dec. 30; Gaz. vol. 197; p. 1149.
Lantern attachment. W. W. Eastman. No. 1,081,028; Dec. 9; Gaz. vol. 197; p. 415.
Lantern, Railway signal. A. A. Ziegler. No. 1,082,577; Dec. 30; Gaz. vol. 197; p. 1037.
Lantern, Tubular. A. L. Edwards. No. 1,083,204; Dec. 30; Gaz. vol. 197; p. 1247.
Lard-extracting machine. H. E. Paolucci. No. 1,083,129; Dec. 30; Gaz. vol. 197; p. 1226.
Last. H. A. Ballard. No. 1,080,521; Dec. 2; Gaz. vol. 197; p. 211.
Lasting-machine. M. Brock. No. 1,079,930; Dec. 2; Gaz. vol. 197; p. 3.
Lasting-machine. E. A. Stiggins. No. 1,081,872; Dec. 16; Gaz. vol. 197; p. 734.
Lasting mechanism, End. A. L. Russell. No. 1,080,235; Dec. 2; Gaz. vol. 197; p. 111.
Lasting mechanism for welt-shoes, End. M. Brock. No. 1,082,620; Dec. 30; Gaz. vol. 197; p. 1053.
Latch, Gate. L. Conrad. No. 1,082,408; Dec. 23; Gaz. vol. 197; p. 946.
Lathe. C. F. Roth. No. 1,082,652; Dec. 30; Gaz. vol. 197; p. 1063.

- Lathe, Automatic turret. W. L. Miller. No. 1,081,396; Dec. 16; Gaz. vol. 197; p. 576.
- Lathe-relieving attachment. A. M. Sosa. No. 1,081,470; Dec. 16; Gaz. vol. 197; p. 661.
- Lathe-work, Truing-tool for. C. F. Urban. No. 1,082,714; Dec. 30; Gaz. vol. 197; p. 1086.
- Lathes, Indexing device for cranks. A. M. Sosa. No. 1,081,993; Dec. 23; Gaz. vol. 197; p. 803.
- Lavatory. T. A. Legge. No. 1,080,702; Dec. 9; Gaz. vol. 197; p. 303.
- Lavatory-fixture. E. G. Watrous. No. 1,082,250; Dec. 23; Gaz. vol. 197; p. 892.
- Lawn-trimmer. T. J. Underwood. No. 1,082,570; Dec. 30; Gaz. vol. 197; p. 1035.
- Lead pigments, Manufacture of. C. D. Holley. No. 1,082,953; Dec. 30; Gaz. vol. 197; p. 1168.
- Leather-cutting machine. W. Gordon. No. 1,082,628; Dec. 30; Gaz. vol. 197; p. 1056.
- Leather-cutting machine. J. B. Hadaway. No. 1,082,629; Dec. 30; Gaz. vol. 197; p. 1056.
- Leather-rolling machine. H. W. Winter. No. 1,080,943; Dec. 9; Gaz. vol. 197; p. 388.
- Leather-rolling machine. H. W. Winter. No. 1,081,479; Dec. 16; Gaz. vol. 197; p. 604.
- Leather-seasoning machine. C. E. Slocumb. No. 1,082,244; Dec. 23; Gaz. vol. 197; p. 890.
- Leg, Artificial. J. T. Appgar. No. 1,082,255; Dec. 23; Gaz. vol. 197; p. 894.
- Leg, Artificial. J. T. Appgar. No. 1,082,256; Dec. 23; Gaz. vol. 197; p. 894.
- Lens. W. T. Conson. No. 1,081,215; Dec. 9; Gaz. vol. 197; p. 476.
- Lens, Fresnel. W. Churchill. No. 1,081,210; Dec. 9; Gaz. vol. 197; p. 474.
- Lens, Trifocal. H. Bolde. No. 1,082,491; Dec. 30; Gaz. vol. 197; p. 1006.
- Letter and document distributor. F. Bristow. No. 1,080,888; Dec. 9; Gaz. vol. 197; p. 370.
- Letter-box. W. B. Benham. No. 1,079,999; Dec. 2; Gaz. vol. 197; p. 28.
- Letters, Apparatus for producing imitation type-written. J. A. Lockwood. No. 1,082,534; Dec. 30; Gaz. vol. 197; p. 1020.
- Lever, Compound. W. V. Gilbert. No. 1,083,084; Dec. 30; Gaz. vol. 197; p. 1212.
- Life-buoy. M. F. Matlack. No. 1,081,849; Dec. 16; Gaz. vol. 197; p. 728.
- Life-preserver. A. Sommerfeld. No. 1,081,520; Dec. 16; Gaz. vol. 197; p. 618.
- Life-preserver. J. W. Master. No. 1,082,698; Dec. 30; Gaz. vol. 197; p. 1080.
- Life-saving device. E. E. Hills. No. 1,081,115; Dec. 9; Gaz. vol. 197; p. 442.
- Life-saving suit. J. P. Park. No. 1,081,862; Dec. 16; Gaz. vol. 197; p. 731.
- Life-saving suit. T. Matthews. No. 1,082,643; Dec. 30; Gaz. vol. 197; p. 1061.
- Lifter. See Ege-lifter; Ink-fountain-roller lifter.
- Lifting-jack. C. M. Markham. No. 1,081,243; Dec. 9; Gaz. vol. 197; p. 495.
- Lifting-jack. S. Craig. No. 1,082,412; Dec. 23; Gaz. vol. 197; p. 948.
- Light-diffusing apparatus, Artificial. N. Losey. No. 1,082,753; Dec. 30; Gaz. vol. 197; p. 1100.
- Light-intensifier. G. Linde. No. 1,081,127; Dec. 9; Gaz. vol. 197; p. 446.
- Lighting-fixture. E. F. Guth. No. 1,082,322; Dec. 23; Gaz. vol. 197; p. 918.
- Line-casting machine. D. S. Knox. No. 1,080,352; Dec. 2; Gaz. vol. 197; p. 154.
- Line-casting machine. P. T. Dodge. No. 1,081,026; Dec. 9; Gaz. vol. 197; p. 414.
- Line-casting machine. G. P. Kingsbury. No. 1,081,047; Dec. 9; Gaz. vol. 197; p. 420.
- Line-casting machine. E. O. Boardman. No. 1,081,806; Dec. 16; Gaz. vol. 197; p. 712.
- Line-casting-machine slug-exPELLER mechanism. A. W. Le Boeuf. No. 1,080,570; Dec. 9; Gaz. vol. 197; p. 258.
- Linen, Smoothing device for starched. L. F. Pease. No. 1,082,094; Dec. 23; Gaz. vol. 197; p. 839.
- Link, Fusible. S. M. Marshall. No. 1,080,228; Dec. 2; Gaz. vol. 197; p. 108.
- Linotype-machine attachment. I. A. Roshon. No. 1,081,989; Dec. 23; Gaz. vol. 197; p. 802.
- Liquid-dispensing device. R. J. Conwell. No. 1,081,019; Dec. 9; Gaz. vol. 197; p. 412.
- Liquid-fuel furnace. J. W. M. and M. M. Burdon. No. 1,081,015; Dec. 9; Gaz. vol. 197; p. 411.
- Liquid-fuel gasifier. W. L. Corson. No. 1,080,139; Dec. 2; Gaz. vol. 197; p. 77.
- Liquid-gage. L. Meyer. No. 1,080,153; Dec. 2; Gaz. vol. 197; p. 82.
- Liquid, Low-freezing. M. A. Hunter. No. 1,082,528; Dec. 30; Gaz. vol. 197; p. 1019.
- Liquid-measuring apparatus. J. W. Gamble. No. 1,080,547; Dec. 9; Gaz. vol. 197; p. 251.
- Liquid-meter. H. C. Alger. No. 1,081,083; Dec. 9; Gaz. vol. 197; p. 431.
- Liquid-pasteurizer and cooler. A. Jensen. No. 1,080,455; Dec. 2; Gaz. vol. 197; p. 189.
- Liquid-receptacle. W. H. Tucker. No. 1,082,661; Dec. 30; Gaz. vol. 197; p. 1066.
- Liquid resistance. A. Alchele. No. 1,082,721; Dec. 30; Gaz. vol. 197; p. 1089.
- Liquid-separator. C. H. Hapgood. No. 1,081,936; Dec. 16; Gaz. vol. 197; p. 755.
- Liquid stirring and mixing apparatus. C. Still. No. 1,080,177; Dec. 2; Gaz. vol. 197; p. 90.
- Liquids, Apparatus for controlling the delivery of. A. A. Quick. No. 1,081,149; Dec. 9; Gaz. vol. 197; p. 464.
- Liquids, Apparatus for separating and recovering fibers, &c. from. E. V. Chambers and T. C. Hammond. No. 1,079,975; Dec. 2; Gaz. vol. 197; p. 18.
- Liquids from separated solids, Recovering separating. F. I. Du Pont. No. 1,081,949; Dec. 23; Gaz. vol. 197; p. 787.
- Loading and dumping device. L. E. Renney and W. J. Pedler. No. 1,081,897; Dec. 16; Gaz. vol. 197; p. 674.
- Lock. See Automobile and the like lock; Bag-lock; Bicycle-lock; Bolt-lock; Can-cover lock; Car-door lock; Car-seal lock; Chain-lock; Checkrein-lock; Combination-lock; Door-lock; Grease-plug lock; Gyve-lock; Indicating-lock; Nut-lock; Nut and bolt lock; Permutation-lock; Rudder-lock; Saash-lock; Seal-lock; Switch-lock; Table-lock; Valve-lock; Window-lock.
- Lock. A. Mourek. No. 1,081,133; Dec. 9; Gaz. vol. 197; p. 448.
- Lock. E. Zeckhauser. No. 1,083,173; Dec. 30; Gaz. vol. 197; p. 1237.
- Lock and circuit-breaker, Combination. G. J. Buckeye. No. 1,082,731; Dec. 30; Gaz. vol. 197; p. 1092.
- Lock-strike. J. Simler. No. 1,082,611; Dec. 30; Gaz. vol. 197; p. 1050.
- Locks of all kinds, Safety device with combinations for. L. J. M. Dardeau. No. 1,083,061; Dec. 30; Gaz. vol. 197; p. 1203.
- Locking device for clasps. M. Schiff. No. 1,080,371; Dec. 2; Gaz. vol. 197; p. 160.
- Locomotive. F. J. Doyle. No. 1,080,103; Dec. 2; Gaz. vol. 197; p. 64.
- Locomotive. F. J. Doyle. No. 1,081,494; Dec. 16; Gaz. vol. 197; p. 609.
- Locomotive-bearing. J. E. Webster. No. 1,080,032; Dec. 2; Gaz. vol. 197; p. 40.
- Locomotive-brake-operating means, Automatic. D. E. Heers. No. 1,080,806; Dec. 9; Gaz. vol. 197; p. 341.
- Locomotive, Compressed-air. J. A. Forsyth. No. 1,081,377; Dec. 16; Gaz. vol. 197; p. 570.
- Locomotive cross-heads, Babbitting-machine for. R. Reiber. No. 1,083,137; Dec. 30; Gaz. vol. 197; p. 1228.
- Locomotive-drifting-valve mechanism. F. W. Martin and J. L. Mohun. No. 1,080,290; Dec. 2; Gaz. vol. 197; p. 130.
- Locomotive, Electric. G. M. Eaton. No. 1,080,051; Dec. 2; Gaz. vol. 197; p. 46.
- Locomotive-exhaust tip. J. Carlson. No. 1,082,028; Dec. 30; Gaz. vol. 197; p. 1160.
- Locomotive-inspirator attachment. W. H. Gardner. No. 1,081,301; Dec. 16; Gaz. vol. 197; p. 543.
- Locomotive, Mine. W. F. Eckert and W. C. Whitcomb. No. 1,082,740; Dec. 30; Gaz. vol. 197; p. 1094.
- Locomotive-tender. J. B. Hoar. No. 1,080,969; Dec. 9; Gaz. vol. 197; p. 397.
- Locomotives and the like, Reversing-gear for. W. F. J. Casey and G. Cavin. No. 1,082,733; Dec. 30; Gaz. vol. 197; p. 1092.
- Locomotives, Equalizing arrangement for. H. A. Hoke. No. 1,082,592; Dec. 30; Gaz. vol. 197; p. 1043.
- Log-raft cradle. P. F. Dundon. No. 1,081,439; Dec. 16; Gaz. vol. 197; p. 590.
- Logging-car bunk. W. Houghton. No. 1,082,464; Dec. 23; Gaz. vol. 197; p. 963.
- Logging-car chain-release. J. Dodd. No. 1,081,371; Dec. 16; Gaz. vol. 197; p. 588.
- Loom feeler-motion. J. Hendry. No. 1,081,909; Dec. 16; Gaz. vol. 197; p. 745.
- Loom filling-stand. F. E. Ashton. No. 1,082,186; Dec. 23; Gaz. vol. 197; p. 868.
- Loom for weaving bags, &c. S. S. Jackson. No. 1,081,384; Dec. 16; Gaz. vol. 197; p. 572.
- Loom heddle-frame. J. Giardino. No. 1,082,317; Dec. 23; Gaz. vol. 197; p. 917.
- Loom-shuttle. E. S. Stimpson. No. 1,082,049; Dec. 23; Gaz. vol. 197; p. 823.
- Loom stopping mechanism. A. G. Koehlin. No. 1,082,086; Dec. 23; Gaz. vol. 197; p. 836.
- Loom warp stop-motion. A. E. Rhoades. No. 1,082,045; Dec. 23; Gaz. vol. 197; p. 822.
- Loom web-carrier chute, Automatic web-replenishing. M. L. Stone. No. 1,082,051; Dec. 23; Gaz. vol. 197; p. 824.
- Loom, Web-replenishing. E. H. Ballou. No. 1,082,390; Dec. 23; Gaz. vol. 197; p. 941.
- Looms, Construction of power. J. Wintermayr. No. 1,080,091; Dec. 2; Gaz. vol. 197; p. 60.
- Looms having electrical stopping and signaling devices, Current-distributor for power. A. G. Koehlin. No. 1,082,429; Dec. 23; Gaz. vol. 197; p. 953.
- Loop attachment, Adjustable. H. C. Hazard. No. 1,081,009; Dec. 16; Gaz. vol. 197; p. 646.
- Lubricant-distributor. W. H. Tousey. No. 1,081,419; Dec. 16; Gaz. vol. 197; p. 583.
- Lubricant for wheels. L. O. Pettit. No. 1,081,059; Dec. 9; Gaz. vol. 197; p. 424.
- Lubricating cup for wagons. G. E. Marbel. No. 1,081,457; Dec. 16; Gaz. vol. 197; p. 596.
- Lubricator. See Automatic lubricator; Force-feed lubricator.
- Lubricator. J. H. Van Sinderen. No. 1,080,027; Dec. 2; Gaz. vol. 197; p. 38.
- Lubricator. F. C. Jr. and J. J. Flechter. No. 1,081,951; Dec. 23; Gaz. vol. 197; p. 788.
- Luggage, Carriage for hand. M. Durkin. No. 1,081,221; Dec. 9; Gaz. vol. 197; p. 478.
- Luggage-carrier. F. G. Parker. No. 1,081,326; Dec. 16; Gaz. vol. 197; p. 552.
- Machine-recorder-controlling means. A. C. Johnson. No. 1,082,083; Dec. 23; Gaz. vol. 197; p. 835.
- Magnetic circuits, Water-tight joint for. R. C. Patton. No. 1,082,134; Dec. 23; Gaz. vol. 197; p. 851.
- Magnetic objects of oblong shape, Machine for facilitating the packing of. O. Gamper. No. 1,080,435; Dec. 2; Gaz. vol. 197; p. 183.
- Magnetic qualities of a magnetic body, Improving the. R. A. Hadfield. No. 1,082,947; Dec. 30; Gaz. vol. 197; p. 1166.
- Magnetic qualities of a magnetic body, Improving the. R. A. Hadfield. No. 1,082,948; Dec. 30; Gaz. vol. 197; p. 1166.
- Mail-bag catching and delivering apparatus. H. W. Brown. No. 1,080,740; Dec. 9; Gaz. vol. 197; p. 319.
- Mail-bag receiving and delivering apparatus. H. J. Hedrick. No. 1,081,008; Dec. 16; Gaz. vol. 197; p. 745.
- Mail-bag-transferring device. D. F. Keller. No. 1,081,672; Dec. 16; Gaz. vol. 197; p. 665.
- Mail-box. T. B. Hyatt. No. 1,081,383; Dec. 16; Gaz. vol. 197; p. 572.
- Mail-box. P. Amadeo. No. 1,082,787; Dec. 30; Gaz. vol. 197; p. 1112.
- Mail box and collector, Rural-route. A. V. Carlson. No. 1,083,241; Dec. 30; Gaz. vol. 197; p. 1260.
- Mail-carrier, Automatic. J. M. Schwendemann. No. 1,081,409; Dec. 16; Gaz. vol. 197; p. 580.
- Mail receiving and delivering apparatus. J. A. Chambers. No. 1,082,408; Dec. 30; Gaz. vol. 197; p. 1008.
- Mantle-protector. W. H. Hoffstot. No. 1,081,743; Dec. 16; Gaz. vol. 197; p. 689.
- Manure-loader. J. Kulhauek. No. 1,081,124; Dec. 9; Gaz. vol. 197; p. 445.
- Manuscript-holder. J. Triplett. No. 1,080,502; Dec. 2; Gaz. vol. 197; p. 204.
- Map rolling and reversing device. F. E. Wilson. No. 1,081,644; Dec. 16; Gaz. vol. 197; p. 657.
- Marble-surfacing machine. C. H. Jordan. No. 1,081,836; Dec. 16; Gaz. vol. 197; p. 723.
- Marker, Land. G. B. Randolph. (Reissue.) No. 13,656; Dec. 9; Gaz. vol. 197; p. 503.
- Marking-machine. V. Hoffman. No. 1,082,025; Dec. 23; Gaz. vol. 197; p. 815.
- Mask, Base-ball. R. L. Welch. No. 1,081,798; Dec. 16; Gaz. vol. 197; p. 708.
- Masonry, Heating apparatus for drying damp. H. Geyer. No. 1,081,035; Dec. 9; Gaz. vol. 197; p. 417.
- Massage-paddle. J. Banks. No. 1,081,923; Dec. 16; Gaz. vol. 197; p. 750.
- Match-box. S. J. Adams. No. 1,080,400; Dec. 2; Gaz. vol. 197; p. 171.
- Match-box. F. A. Strodel. No. 1,083,153; Dec. 30; Gaz. vol. 197; p. 1232.
- Match-box, Single-delivery. J. G. Bell. No. 1,080,248; Dec. 2; Gaz. vol. 197; p. 116.
- Match-safe. G. Rison. No. 1,081,407; Dec. 16; Gaz. vol. 197; p. 579.
- Matches in boxes, Packing apparatus for machines for packing. H. A. Geill. No. 1,081,379; Dec. 16; Gaz. vol. 197; p. 571.
- Matrix-plate holder and spacer. D. G. Holt and G. R. Horton. No. 1,082,197; Dec. 23; Gaz. vol. 197; p. 872.
- Mattress-guard. F. A. Palmer. No. 1,080,845; Dec. 9; Gaz. vol. 197; p. 356.
- Measure, Tailor's. L. Alfano. No. 1,081,649; Dec. 16; Gaz. vol. 197; p. 658.
- Measuring instrument. A. Kowalsky. No. 1,080,222; Dec. 2; Gaz. vol. 197; p. 106.
- Measuring instrument. D. E. Ferguson. No. 1,081,033; Dec. 9; Gaz. vol. 197; p. 417.
- Meat-cutting machine. J. E. Mayfield and H. B. Alger. No. 1,080,875; Dec. 9; Gaz. vol. 197; p. 365.
- Mechanical movement. L. E. Paris and A. Premo. No. 1,083,261; Dec. 30; Gaz. vol. 197; p. 1266.
- Medicinal composition. A. Viquerat. No. 1,081,069; Dec. 9; Gaz. vol. 197; p. 427.
- Medicinal composition, Making. F. E. Haflnall. No. 1,082,081; Dec. 23; Gaz. vol. 197; p. 834.
- Medicinal preparation. P. Ehrlich and A. Berthelm. No. 1,081,592; Dec. 16; Gaz. vol. 197; p. 640.
- Medicinal preparation. P. Ehrlich and A. Berthelm. No. 1,081,597; Dec. 16; Gaz. vol. 197; p. 742.
- Melting apparatus, Portable. G. Gabrys. No. 1,082,314; Dec. 23; Gaz. vol. 197; p. 916.
- Mercury bichloride, Apparatus for manufacturing. F. Kauffer and A. Klages. No. 1,082,530; Dec. 30; Gaz. vol. 197; p. 1019.
- Merry-go-round. T. W. Prior and F. A. Church. No. 1,082,764; Dec. 30; Gaz. vol. 197; p. 1104.
- Metal article. J. C. Russell. No. 1,080,590; Dec. 9; Gaz. vol. 197; p. 260.
- Metal-bending machine. W. Vollmer. No. 1,080,309; Dec. 2; Gaz. vol. 197; p. 130.
- Metal, Compound. B. E. Eldred. No. 1,083,070; Dec. 30; Gaz. vol. 197; p. 1207.
- Metal container. T. E. Buckley. No. 1,080,747; Dec. 9; Gaz. vol. 197; p. 320.
- Metal, Expanded. D. G. Clark. No. 1,080,418; Dec. 2; Gaz. vol. 197; p. 177.
- Metal reinforcing structure and producing same, Expanded. B. Wolhaupter. No. 1,081,647; Dec. 16; Gaz. vol. 197; p. 658.
- Metal structures, Machine for forming trussed. A. J. Bates. No. 1,083,180; Dec. 30; Gaz. vol. 197; p. 1239.
- Metal surfaces, Producing clean or deoxidized. J. A. Hatfield and C. R. Yates. No. 1,080,059; Dec. 2; Gaz. vol. 197; p. 49.
- Metal wheels, Apparatus for removing the projecting ridges from pressed. K. Kronenberg. No. 1,080,566; Dec. 9; Gaz. vol. 197; p. 257.
- Metal-work, Riveted. A. F. Rietzel. No. 1,082,767; Dec. 30; Gaz. vol. 197; p. 1105.
- Metal-working machine. H. M. Hunter. No. 1,081,964; Dec. 23; Gaz. vol. 197; p. 793.
- Metallic box. W. I. Tuttle. No. 1,080,719; Dec. 2; Gaz. vol. 197; p. 91.
- Metallic box. W. I. Tuttle. No. 1,080,180; Dec. 2; Gaz. vol. 197; p. 91.
- Metallurgical furnace. L. A. Smallwood. No. 1,082,828; Dec. 30; Gaz. vol. 197; p. 1126.
- Meter. See Electric meter; Fluid-flow meter; Liquid-meter; Time-cost meter.
- Microphone. J. J. Comer. No. 1,079,931; Dec. 2; Gaz. vol. 197; p. 3.
- Microscope-stage, Mechanical. H. Hayes. No. 1,080,968; Dec. 9; Gaz. vol. 197; p. 397.
- Milk-agitator. R. A. Schultz. No. 1,082,100; Dec. 23; Gaz. vol. 197; p. 840.
- Milk-retarding apparatus. F. R. Monroe. No. 1,082,206; Dec. 23; Gaz. vol. 197; p. 875.
- Milk-separating machine, Centrifugal. S. C. Hauberg. No. 1,081,304; Dec. 16; Gaz. vol. 197; p. 544.
- Milk, Sterilizing. C. E. Bonine. No. 1,081,433; Dec. 16; Gaz. vol. 197; p. 686.
- Mill. See Chilian mill; Grinding-mill; Pulverizing-mill.
- Mill, Ball. F. E. Marcy. No. 1,080,768; Dec. 9; Gaz. vol. 197; p. 327.
- Milling-machine. G. W. Smith. No. 1,081,932; Dec. 16; Gaz. vol. 197; p. 753.
- Milling machine, Crank-shaft. C. Overgaard. No. 1,080,576; Dec. 9; Gaz. vol. 197; p. 260.
- Milling-machine, Vertical. J. Becker. No. 1,082,995; Dec. 30; Gaz. vol. 197; p. 1183.
- Milling-machines, Gear-cutting attachment for. L. E. Bagwell. No. 1,080,094; Dec. 2; Gaz. vol. 197; p. 62.
- Mining-cage safety-catch. C. Methven. No. 1,080,648; Dec. 9; Gaz. vol. 197; p. 284.
- Mining-machine. H. B. Dierdorff. No. 1,081,818; Dec. 16; Gaz. vol. 197; p. 716.
- Mining-machine. A. H. Gibson. No. 1,082,318; Dec. 23; Gaz. vol. 197; p. 917.
- Mining-machine. A. H. Gibson. No. 1,082,319; Dec. 23; Gaz. vol. 197; p. 918.
- Mining-machine bit. J. J. Moore. No. 1,081,131; Dec. 9; Gaz. vol. 197; p. 448.
- Mitering-machine. F. Maximilian. No. 1,083,119; Dec. 30; Gaz. vol. 197; p. 1223.
- Mixer. See Concrete-mixer.
- Mixing device. W. G. Shelton. No. 1,082,243; Dec. 23; Gaz. vol. 197; p. 889.
- Moistener, Label. C. W. De Laney. No. 1,080,141; Dec. 2; Gaz. vol. 197; p. 76.
- Moistening-machine. C. H. Crowell. No. 1,081,582; Dec. 16; Gaz. vol. 197; p. 636.
- Moistening machine, Label. J. F. Hancock and C. E. Fisk. No. 1,081,906; Dec. 16; Gaz. vol. 197; p. 744.
- Mold. See Permanent mold; Sidewalk-construction mold; Vulcanizing-mold.
- Mold. S. E. Shafer. No. 1,080,850; Dec. 9; Gaz. vol. 197; p. 357.
- Molds, Pattern and chaplet therefor for producing. J. A. Field. No. 1,081,376; Dec. 16; Gaz. vol. 197; p. 570.
- Molding device. S. E. Wilson. No. 1,082,382; Dec. 23; Gaz. vol. 197; p. 939.
- Molding-flask. A. C. Mott, Jr. No. 1,081,251; Dec. 9; Gaz. vol. 197; p. 488.
- Molding-machine. I. M. Newman. No. 1,081,399; Dec. 16; Gaz. vol. 197; p. 577.
- Mole-trap. J. C. Barker. No. 1,081,652; Dec. 16; Gaz. vol. 197; p. 650.
- Mop. H. L. Feasel. No. 1,081,225; Dec. 9; Gaz. vol. 197; p. 479.
- Mop. C. A. Kelly. No. 1,081,450; Dec. 16; Gaz. vol. 197; p. 594.
- Mop, Dust. S. B. McHenry. No. 1,080,711; Dec. 9; Gaz. vol. 197; p. 306.
- Mop-press. R. B. Glichrist. No. 1,082,864; Dec. 30; Gaz. vol. 197; p. 1137.
- Mop-wringer. S. C. Lawlor. No. 1,082,465; Dec. 23; Gaz. vol. 197; p. 964.
- Mortar from bricks, Removing adhering. A. R. Christman. No. 1,082,307; Dec. 23; Gaz. vol. 197; p. 914.
- Mortar, Manufacturing a waterproof. A. Markus. No. 1,082,035; Dec. 23; Gaz. vol. 197; p. 818.
- Mortising tool, Hinge-seat. A. Wassberg. No. 1,080,310; Dec. 2; Gaz. vol. 197; p. 137.
- Mothproof bag and garment-supporting device therefor. L. Geschickter. No. 1,082,858; Dec. 30; Gaz. vol. 197; p. 1136.
- Mothproof bag, End-opening. L. Geschickter. No. 1,082,861; Dec. 30; Gaz. vol. 197; p. 1137.

Mothproof bags, &c., Garment-hanger for. L. Geschickter. No. 1,082,860; Dec. 30; Gaz. vol. 197; p. 1136.
 Mothproof bags, Side-opening for. L. Geschickter. No. 1,082,859; Dec. 30; Gaz. vol. 197; p. 1136.
 Mothproof rug-bag. L. Geschickter. No. 1,082,862; Dec. 30; Gaz. vol. 197; p. 1137.
 Mothproof rug-receptacle. L. Geschickter. No. 1,082,863; Dec. 30; Gaz. vol. 197; p. 1137.
 Motor. See Commutator-motor; Current-motor; Current induction-motor; Electric motor; Explosion-motor; Gravity-motor; Hydrocarbon-motor; Induction-motor; Rotary motor; Rotary valveless motor; Vehicle-motor; Water-motor; Wave-motor.
 Motor. I. Hurley. No. 1,081,044; Dec. 9; Gaz. vol. 197; p. 420.
 Motor. S. E. Carlin. No. 1,082,302; Dec. 23; Gaz. vol. 197; p. 912.
 Motor-cars and other vehicles, Wheel for. W. T. Smith. No. 1,079,995; Dec. 2; Gaz. vol. 197; p. 26.
 Motor control, Alternating-current. D. Larson. No. 1,081,681; Dec. 16; Gaz. vol. 197; p. 668.
 Motor-control system. C. S. Dauler. No. 1,080,140; Dec. 2; Gaz. vol. 197; p. 78.
 Motor-control system. J. H. Hall. No. 1,080,146; Dec. 2; Gaz. vol. 197; p. 80.
 Motor controller, Electric. H. F. Stratton. No. 1,080,126; Dec. 2; Gaz. vol. 197; p. 73.
 Motor-cycle seat. G. A. Hartman. No. 1,082,423; Dec. 23; Gaz. vol. 197; p. 951.
 Motor-cycle spring front fork. C. G. Stephenson. No. 1,082,775; Dec. 30; Gaz. vol. 197; p. 1108.
 Motor-driving unit, Electric. M. Talmann. No. 1,080,388; Dec. 2; Gaz. vol. 197; p. 167.
 Motor, multiple control, Electric. R. Richter. No. 1,080,587; Dec. 9; Gaz. vol. 197; p. 264.
 Motor, multiple control, Electric. R. Richter. No. 1,080,588; Dec. 9; Gaz. vol. 197; p. 265.
 Motor-operated machines, Brake for electric. M. Talmann. No. 1,080,387; Dec. 2; Gaz. vol. 197; p. 167.
 Motor or the like starting device, Electric. W. Griebel. No. 1,081,827; Dec. 16; Gaz. vol. 197; p. 720.
 Motor-starting apparatus, Internal-combustion. W. Clusson and J. Messen. No. 1,082,149; Dec. 23; Gaz. vol. 197; p. 855.
 Mouse-trap. J. I. Brorby. No. 1,080,623; Dec. 9; Gaz. vol. 197; p. 276.
 Mower, Lawn. W. H. Coldwell. No. 1,082,931; Dec. 30; Gaz. vol. 197; p. 1161.
 Mower windrower attachment. R. F. Willis. No. 1,080,397; Dec. 2; Gaz. vol. 197; p. 170.
 Mowing-machine. G. Wilson. No. 1,081,920; Dec. 16; Gaz. vol. 197; p. 749.
 Mowing-machine cutter-bar. A. D. Abbenzeller. No. 1,081,078; Dec. 9; Gaz. vol. 197; p. 429.
 Mowing-machines and harvesters, Sickle-drive for. J. C. Swanson. No. 1,082,659; Dec. 30; Gaz. vol. 197; p. 1065.
 Muffle-furnace. L. C. Hamlink. No. 1,081,960; Dec. 23; Gaz. vol. 197; p. 792.
 Muffler cut-out. R. L. Hubbard. No. 1,081,744; Dec. 16; Gaz. vol. 197; p. 639.
 Music holder, Adjustable. H. J. Kattenhorn. No. 1,083,105; Dec. 30; Gaz. vol. 197; p. 1218.
 Music-playing instruments, Governor and regulator for mechanical. F. C. White. No. 1,082,665; Dec. 30; Gaz. vol. 197; p. 1068.
 Music-recording means. M. Clark. No. 1,082,499; Dec. 30; Gaz. vol. 197; p. 1008.
 Music-sheets, Spool for perforated. O. Nelson. No. 1,080,229; Dec. 2; Gaz. vol. 197; p. 109.
 Music-tracking device, Sheet. C. Bergland. No. 1,081,422; Dec. 16; Gaz. vol. 197; p. 584.
 Musical instrument. J. Schwertner. No. 1,081,703; Dec. 16; Gaz. vol. 197; p. 675.
 Musical-instrument-operating means. E. S. Votey. No. 1,082,218; Dec. 23; Gaz. vol. 197; p. 879.
 Musical instrument, Pneumatically-actuated. A. Philipps. No. 1,080,164; Dec. 2; Gaz. vol. 197; p. 89.
 Musical instruments, Automatic music-sheet-guiding device for self-playing. G. H. Davis. No. 1,082,849; Dec. 30; Gaz. vol. 197; p. 1132.
 Musical instruments, Bellows-actuating mechanism for. J. P. Rawls. No. 1,083,136; Dec. 30; Gaz. vol. 197; p. 1228.
 Musical instruments, Stop-recording action for. M. Clark. No. 1,082,500; Dec. 30; Gaz. vol. 197; p. 1009.
 Muzzle. C. Hickey. No. 1,080,446; Dec. 2; Gaz. vol. 197; p. 186.
 Muzzle. J. W. Thompson. No. 1,082,372; Dec. 23; Gaz. vol. 197; p. 935.
 Nail. D. MacColl and D. A. Cameron. No. 1,082,540; Dec. 30; Gaz. vol. 197; p. 1023.
 Nail-puller. J. A. Giles. No. 1,080,210; Dec. 2; Gaz. vol. 197; p. 102.
 Nail-puller and scraper, Combined. W. F. Hobbs. No. 1,082,952; Dec. 30; Gaz. vol. 197; p. 1168.
 Nailing machines, Attachment for box. P. J. Healy. No. 1,080,080; Dec. 2; Gaz. vol. 197; p. 49.
 Napper. A. C. Baum. No. 1,082,992; Dec. 30; Gaz. vol. 197; p. 1182.
 Navigation instrument. J. L. H. Hand. No. 1,083,091; Dec. 30; Gaz. vol. 197; p. 1214.
 Nebulizer of liquids. J. H. Stringham. No. 1,082,777; Dec. 30; Gaz. vol. 197; p. 1109.

Necklace-clasp. F. X. Zirkilton. No. 1,081,184; Dec. 9; Gaz. vol. 197; p. 465.
 Necktie-form. L. W. Pennington. No. 1,080,296; Dec. 2; Gaz. vol. 197; p. 132.
 Needles, Machine for making sewing. W. Bühren. No. 1,082,483; Dec. 30; Gaz. vol. 197; p. 1006.
 Nest front, Poultry-trap. W. F. Mahony. No. 1,081,317; Dec. 16; Gaz. vol. 197; p. 549.
 Nest-trap. C. L. Grant. No. 1,081,005; Dec. 16; Gaz. vol. 197; p. 645.
 Nipple-anchoring means. A. C. Schuermann. No. 1,080,519; Dec. 2; Gaz. vol. 197; p. 210.
 Nipple, Nursing. E. E. Jencsa. No. 1,082,198; Dec. 23; Gaz. vol. 197; p. 873.
 Nitrates, Dehalogenization of halogeniferous. C. Uebel. No. 1,082,781; Dec. 30; Gaz. vol. 197; p. 1110.
 Nitrogen, Apparatus for forming oxide of. J. S. Island. No. 1,082,529; Dec. 30; Gaz. vol. 197; p. 1018.
 Nitrous-oxid-administering appliances, Apparatus for. C. E. Teter and D. A. Davies. No. 1,082,482; Dec. 23; Gaz. vol. 197; p. 960.
 Nodulizing materials, Mechanism for. L. P. Ross. No. 1,081,063; Dec. 9; Gaz. vol. 197; p. 426.
 Nozzle, Exhaust. L. C. Mooney. No. 1,082,701; Dec. 30; Gaz. vol. 197; p. 1081.
 Nozzle, Spraying. A. K. Dyke. No. 1,081,102; Dec. 9; Gaz. vol. 197; p. 437.
 Nozzle, Spraying. H. W. Grann. No. 1,081,667; Dec. 16; Gaz. vol. 197; p. 664.
 Nut and bolt lock. L. L. Edwards. No. 1,080,752; Dec. 9; Gaz. vol. 197; p. 322.
 Nut and bolt tightening machine. G. A. O'Connor. No. 1,080,994; Dec. 9; Gaz. vol. 197; p. 404.
 Nut, Lock. J. M. Doolittle. No. 1,080,199; Dec. 2; Gaz. vol. 197; p. 98.
 Nut, Lock. E. I. Dodds. No. 1,080,332; Dec. 2; Gaz. vol. 197; p. 145.
 Nut, Lock. F. A. Wittich. No. 1,081,356; Dec. 16; Gaz. vol. 197; p. 563.
 Nut, Lock. B. S. McClellan. No. 1,083,217; Dec. 30; Gaz. vol. 197; p. 1251.
 Nut-lock. H. T. Hughes. No. 1,081,232; Dec. 9; Gaz. vol. 197; p. 481.
 Nut-lock. C. J. Lantz. No. 1,081,239; Dec. 9; Gaz. vol. 197; p. 483.
 Nut-lock. H. Hall and J. T. Wright. No. 1,081,499; Dec. 16; Gaz. vol. 197; p. 611.
 Nut-lock. R. Mulon. No. 1,081,549; Dec. 16; Gaz. vol. 197; p. 627.
 Nut-lock. C. M. Slever. No. 1,081,631; Dec. 16; Gaz. vol. 197; p. 652.
 Nut-lock. I. C. Dashner and H. E. Jacobs. No. 1,081,661; Dec. 16; Gaz. vol. 197; p. 662.
 Nut-lock. J. R. Hipsley. No. 1,081,741; Dec. 16; Gaz. vol. 197; p. 688.
 Nut-lock. E. J. Fillingim. No. 1,081,820; Dec. 16; Gaz. vol. 197; p. 717.
 Nut-lock. M. Kester. No. 1,081,965; Dec. 23; Gaz. vol. 197; p. 794.
 Nut-lock. J. H. Phipps. No. 1,082,211; Dec. 23; Gaz. vol. 197; p. 877.
 Nut-lock. J. R. Armstrong. No. 1,082,389; Dec. 23; Gaz. vol. 197; p. 941.
 Nut-lock. H. Chesher. No. 1,082,734; Dec. 30; Gaz. vol. 197; p. 1093.
 Nut-lock. H. Chesher. No. 1,082,735; Dec. 30; Gaz. vol. 197; p. 1093.
 Nut-lock. J. W. Gaul. No. 1,083,080; Dec. 30; Gaz. vol. 197; p. 1210.
 Nut-lock. W. R. Powers. No. 1,083,133; Dec. 30; Gaz. vol. 197; p. 1227.
 Nut, Self-locking. E. E. Maher. No. 1,081,540; Dec. 16; Gaz. vol. 197; p. 625.
 Nut-wrench. J. Huber. No. 1,080,064; Dec. 2; Gaz. vol. 197; p. 51.
 Oats separator, Wild. W. G. Klauer. No. 1,082,879; Dec. 30; Gaz. vol. 197; p. 1143.
 Obstetrical instrument. W. B. Reeve and N. Siglin. No. 1,080,477; Dec. 2; Gaz. vol. 197; p. 195.
 Oil and water burner. C. G. Lundstrom. No. 1,082,755; Dec. 30; Gaz. vol. 197; p. 1100.
 Oil-burner. L. Tozer. No. 1,081,994; Dec. 23; Gaz. vol. 197; p. 804.
 Oil-burner. G. W. McCallen. No. 1,082,130; Dec. 23; Gaz. vol. 197; p. 849.
 Oil-burner. H. W. Brent, Jr. No. 1,082,796; Dec. 30; Gaz. vol. 197; p. 1115.
 Oil burner, Coal. C. E. Godley. No. 1,082,514; Dec. 30; Gaz. vol. 197; p. 1014.
 Oil-burner heater, Hot-blast. R. B. Carter. No. 1,080,810; Dec. 9; Gaz. vol. 197; p. 343.
 Oil-can holder. C. W. Beck. No. 1,080,882; Dec. 9; Gaz. vol. 197; p. 367.
 Oil from fish, Extracting. W. E. Overton. No. 1,080,294; Dec. 2; Gaz. vol. 197; p. 131.
 Oil from oil-bearing rock or sand, Extracting. R. H. Johnson. No. 1,083,018; Dec. 30; Gaz. vol. 197; p. 1160.
 Oil-heater. H. Swarteland. No. 1,082,370; Dec. 23; Gaz. vol. 197; p. 935.
 Oil-press. M. B. Green. No. 1,081,905; Dec. 16; Gaz. vol. 197; p. 744.
 Oils and fats, Obtaining sulfonated. R. Russ. No. 1,081,775; Dec. 16; Gaz. vol. 197; p. 701.

Oils, Treating petroleum or other hydrocarbon. S. Wohle. No. 1,081,801; Dec. 16; Gaz. vol. 197; p. 710.
 Oiler. K. A. Boggs. No. 1,080,320; Dec. 2; Gaz. vol. 197; p. 140.
 Oiler, Handsaw. L. W. Garner. No. 1,080,756; Dec. 9; Gaz. vol. 197; p. 323.
 Oiler, Wheel-flange. T. Carrick and W. A. Balsley. No. 1,082,798; Dec. 30; Gaz. vol. 197; p. 1115.
 Operating adjustable table. G. Payne and W. J. Galbraith. No. 1,082,043; Dec. 23; Gaz. vol. 197; p. 821.
 Optical projecting apparatus. G. Applan. No. 1,080,528; Dec. 9; Gaz. vol. 197; p. 243.
 Optical system. W. Churchill. No. 1,081,211; Dec. 9; Gaz. vol. 197; p. 474.
 Orchard-heater. H. K. Fairall, J. D. Boley, and J. M. Cleghorn. No. 1,080,816; Dec. 9; Gaz. vol. 197; p. 346.
 Orchard-heater. T. Silk. No. 1,082,101; Dec. 23; Gaz. vol. 197; p. 841.
 Ordnance breech mechanism. A. T. Dawson and G. T. Buckham. No. 1,080,268; Dec. 2; Gaz. vol. 197; p. 123.
 Ore-concentrating machine. G. W. Arnold. No. 1,081,421; Dec. 16; Gaz. vol. 197; p. 584.
 Ore-concentrator belt. P. H. Craven. No. 1,083,058; Dec. 30; Gaz. vol. 197; p. 1202.
 Ore-concentrator, Centrifugal. E. C. Latchem and L. W. Pollock. No. 1,080,223; Dec. 2; Gaz. vol. 197; p. 107.
 Ore-concentrator, Dry. W. E. Winnie and J. E. Seeley. No. 1,083,172; Dec. 30; Gaz. vol. 197; p. 1237.
 Ore-separator. C. H. Brown. No. 1,081,360; Dec. 16; Gaz. vol. 197; p. 564.
 Ore-treating apparatus. D. C. Reinohl. No. 1,081,516; Dec. 16; Gaz. vol. 197; p. 617.
 Ore-treating furnace. J. A. Frey. No. 1,081,732; Dec. 16; Gaz. vol. 197; p. 685.
 Ore-washing apparatus. H. A. Brackelsberg. No. 1,080,886; Dec. 9; Gaz. vol. 197; p. 369.
 Ores, Chloridizing. A. D. Ledoux. No. 1,082,599; Dec. 30; Gaz. vol. 197; p. 1045.
 Ores, Desulfurizing. V. A. Hall. No. 1,083,246; Dec. 30; Gaz. vol. 197; p. 1262.
 Ores, Desulfurizing and briquetting. W. A. Hall. No. 1,083,252; Dec. 30; Gaz. vol. 197; p. 1264.
 Ores for separating precious metals, Treating. D. C. Reinohl. No. 1,081,514; Dec. 16; Gaz. vol. 197; p. 616.
 Ores, Treating metal-carrying. I. Kitzee. No. 1,082,596; Dec. 30; Gaz. vol. 197; p. 1044.
 Organ-coupler. J. Schwertner. No. 1,082,655; Dec. 30; Gaz. vol. 197; p. 1064.
 Organ, Reed. O. H. Rue. No. 1,083,144; Dec. 30; Gaz. vol. 197; p. 1230.
 Outlet-box. E. W. Buffington. No. 1,081,947; Dec. 23; Gaz. vol. 197; p. 786.
 Oven. K. Webb. No. 1,081,475; Dec. 16; Gaz. vol. 197; p. 602.
 Oven, Adjustable. M. Dexter and J. L. Duke. No. 1,082,414; Dec. 23; Gaz. vol. 197; p. 948.
 Oven-closing means. H. Koppers. No. 1,080,916; Dec. 9; Gaz. vol. 197; p. 379.
 Oxycarboxydiarylcabonols, Manufacture and production of. M. Weller. No. 1,082,574; Dec. 30; Gaz. vol. 197; p. 1036.
 Ozonides and their production, Gaseous. W. J. Knox. No. 1,081,617; Dec. 16; Gaz. vol. 197; p. 648.
 Package-capping machine. J. R. Harbeck. No. 1,080,277; Dec. 2; Gaz. vol. 197; p. 126.
 Packing. D. E. Cota. No. 1,070,976; Dec. 2; Gaz. vol. 197; p. 19.
 Packing and making same, Rod. A. McLean. No. 1,082,890; Dec. 30; Gaz. vol. 197; p. 1147.
 Packing-case. G. Klenk. No. 1,081,674; Dec. 16; Gaz. vol. 197; p. 665.
 Packing-machine. J. Hochenauer. No. 1,081,742; Dec. 16; Gaz. vol. 197; p. 688.
 Packing, Piston. H. A. Hoke and C. J. Barley. No. 1,082,523; Dec. 30; Gaz. vol. 197; p. 1017.
 Packing-ring. J. C. Steinbrueck. No. 1,083,151; Dec. 30; Gaz. vol. 197; p. 1231.
 Packing, Shaft. O. Dahlke. No. 1,080,751; Dec. 9; Gaz. vol. 197; p. 321.
 Pad. See Collar-pad; Harness back-pad.
 Padlock. P. S. Wiseman. No. 1,081,710; Dec. 16; Gaz. vol. 197; p. 678.
 Padlock. R. A. Borsky. No. 1,081,808; Dec. 16; Gaz. vol. 197; p. 712.
 Padlock, Permutation. R. Drummond. No. 1,081,218; Dec. 9; Gaz. vol. 197; p. 477.
 Pall. H. L. Winslow. No. 1,080,668; Dec. 9; Gaz. vol. 197; p. 291.
 Panel-board switch. J. A. Obermiller and P. Elckenberg. No. 1,082,759; Dec. 30; Gaz. vol. 197; p. 1102.
 Paper-bag machine. W. A. Lorenz. No. 1,081,315; Dec. 16; Gaz. vol. 197; p. 548.
 Paper bottles, Making. J. R. Van Wormer. No. 1,083,263; Dec. 30; Gaz. vol. 197; p. 1267.
 Paper-box construction. I. Seltzman. No. 1,083,147; Dec. 30; Gaz. vol. 197; p. 1231.
 Paper box, Folding. A. J. Vance. No. 1,081,068; Dec. 9; Gaz. vol. 197; p. 427.
 Paper-box-maker's cage. L. E. Marchese. No. 1,081,759; Dec. 16; Gaz. vol. 197; p. 695.
 Paper boxes, Die for making folding. R. J. Gruenberg. No. 1,080,759; Dec. 9; Gaz. vol. 197; p. 324.

Paper, Detaching wall. C. Ellis. No. 1,083,007; Dec. 30; Gaz. vol. 197; p. 1187.
 Paper drinking-cups, Automatic machine for making. E. H. Whitney. No. 1,082,836; Dec. 30; Gaz. vol. 197; p. 1128.
 Paper drinking-cups, Flanging device for. L. W. Farmer. No. 1,082,687; Dec. 30; Gaz. vol. 197; p. 1076.
 Paper-pulp, Preparing. H. Jackson. No. 1,083,102; Dec. 30; Gaz. vol. 197; p. 1218.
 Paper-punch. J. Krösa. No. 1,082,812; Dec. 30; Gaz. vol. 197; p. 1120.
 Paper receptacle. C. T. Bloomer. No. 1,081,264; Dec. 9; Gaz. vol. 197; p. 493.
 Paper receptacle. L. W. Farmer. No. 1,082,686; Dec. 30; Gaz. vol. 197; p. 1076.
 Paper receptacle. I. W. Hollett. No. 1,082,868; Dec. 30; Gaz. vol. 197; p. 1139.
 Paper rolls, Machine for making toilet. H. Lilebeck. No. 1,081,507; Dec. 16; Gaz. vol. 197; p. 613.
 Paper vessel. C. T. Bloomer. No. 1,082,729; Dec. 30; Gaz. vol. 197; p. 1091.
 Paper-weight and automatic moistener, Combined. L. F. Baum and N. Massie. No. 1,081,087; Dec. 9; Gaz. vol. 197; p. 432.
 Paper-winding mechanism. S. Waring. No. 1,081,933; Dec. 16; Gaz. vol. 197; p. 754.
 Parachute. A. O. von Anzege. No. 1,081,137; Dec. 9; Gaz. vol. 197; p. 450.
 Parcel-elevator mechanism. H. L. Wilson. No. 1,081,259; Dec. 9; Gaz. vol. 197; p. 491.
 Pasteboard boxes, Machine for making paper-lined. F. Altmann. No. 1,080,039; Dec. 2; Gaz. vol. 197; p. 42.
 Pasteurizing. F. Gettelman. No. 1,082,743; Dec. 30; Gaz. vol. 197; p. 1095.
 Patterns on fabrics, Producing. M. Freiberger. No. 1,080,433; Dec. 2; Gaz. vol. 197; p. 182.
 Pavement, Transparent. L. G. Mullen. No. 1,081,979; Dec. 23; Gaz. vol. 197; p. 798.
 Peanut picker and stemmer. H. W. Eisenhart and M. W. Darden. No. 1,081,593; Dec. 16; Gaz. vol. 197; p. 640.
 Peanut shelling and grading machine. A. L. and C. H. Steere. No. 1,083,150; Dec. 30; Gaz. vol. 197; p. 1231.
 Pedal-operating mechanism. J. C. Cake. No. 1,082,846; Dec. 30; Gaz. vol. 197; p. 1132.
 Pedestal side frame. G. G. Floyd. No. 1,079,980; Dec. 2; Gaz. vol. 197; p. 21.
 Pen and pencil clip. A. W. Stone. No. 1,080,603; Dec. 9; Gaz. vol. 197; p. 270.
 Pen-billing device. H. and J. H. Taylor. No. 1,082,711; Dec. 30; Gaz. vol. 197; p. 1085.
 Pen, Fountain. W. L. Chapman. No. 1,080,099; Dec. 2; Gaz. vol. 197; p. 63.
 Pen, Fountain. R. H. Stevens. No. 1,080,176; Dec. 2; Gaz. vol. 197; p. 80.
 Pen, Fountain. J. G. Coffin. No. 1,080,197; Dec. 2; Gaz. vol. 197; p. 97.
 Pen, Fountain. W. W. Sanford. No. 1,081,557; Dec. 16; Gaz. vol. 197; p. 630.
 Pen-making machine. J. F. George. No. 1,081,230; Dec. 9; Gaz. vol. 197; p. 481.
 Pen, Writing. G. B. Haug. No. 1,080,760; Dec. 9; Gaz. vol. 197; p. 325.
 Penholder. J. Blachof and A. Hehn. No. 1,081,944; Dec. 23; Gaz. vol. 197; p. 786.
 Penholder, Magazine. S. O. Boyd. No. 1,081,424; Dec. 16; Gaz. vol. 197; p. 585.
 Pencil and other utensil holder. J. Pancke. No. 1,083,027; Dec. 30; Gaz. vol. 197; p. 1192.
 Pencil-sharpener. C. F. Bloch. No. 1,080,411; Dec. 2; Gaz. vol. 197; p. 175.
 Perambulator attachment. R. L. Clark. No. 1,082,930; Dec. 30; Gaz. vol. 197; p. 1161.
 Perborates, Electrolytic manufacture of. K. Arndt. No. 1,081,191; Dec. 9; Gaz. vol. 197; p. 467.
 Perch, Vermin-killing poultry. M. Cooper. No. 1,082,585; Dec. 30; Gaz. vol. 197; p. 1040.
 Perforating-machine. C. L. Lilleberg. No. 1,080,703; Dec. 9; Gaz. vol. 197; p. 303.
 Perforating-machine for leaves or sheets. C. E. Morehouse. No. 1,080,073; Dec. 2; Gaz. vol. 197; p. 54.
 Perforator. W. B. Hausman. No. 1,082,518; Dec. 30; Gaz. vol. 197; p. 1015.
 Permanent mold and means for operating the same. C. W. McWane. No. 1,083,122; Dec. 30; Gaz. vol. 197; p. 1224.
 Permutation-lock. A. Fischer. No. 1,083,008; Dec. 30; Gaz. vol. 197; p. 1187.
 Petticoat. M. E. Drake. No. 1,082,416; Dec. 23; Gaz. vol. 197; p. 948.
 Pharmaceutical compound. E. Fischer. No. 1,082,510; Dec. 30; Gaz. vol. 197; p. 1013.
 Pharmaceutical compound. A. Thiele. No. 1,082,780; Dec. 30; Gaz. vol. 197; p. 1110.
 Phenol and formaldehyde, Making an anhydrous reaction product of. F. G. Wiechmann. No. 1,080,188; Dec. 2; Gaz. vol. 197; p. 94.
 Phonograph. P. Weber. No. 1,081,352; Dec. 16; Gaz. vol. 197; p. 561.
 Phonograph. F. L. Dyer. No. 1,081,374; Dec. 16; Gaz. vol. 197; p. 569.
 Phonograph-reproducer. A. Luciano. No. 1,080,839; Dec. 9; Gaz. vol. 197; p. 354.
 Phonograph stop mechanism. G. H. Taggart. No. 1,080,586; Dec. 2; Gaz. vol. 197; p. 166.

Photograph-drying apparatus. C. L. Otto. No. 1,082,818; Dec. 30; Gaz. vol. 197; p. 1123.
 Photographs, cards, price-tickets, &c. Easel or holder for. W. R. Clough. No. 1,081,018; Dec. 9; Gaz. vol. 197; p. 412.
 Photographic developing device, Portable. J. C. Oliver. No. 1,080,995; Dec. 9; Gaz. vol. 197; p. 405.
 Photographic images, Development of. W. H. Caldwell. No. 1,082,622; Dec. 30; Gaz. vol. 197; p. 1054.
 Photographic lenses, Means for improving the definition of. H. Casler. No. 1,082,678; Dec. 30; Gaz. vol. 197; p. 1074.
 Photographic-printing machine. J. L. Higginbotham. No. 1,082,748; Dec. 30; Gaz. vol. 197; p. 1098.
 Photography, Making party-colored screens for use in color. C. L. A. Brasseur. No. 1,081,484; Dec. 16; Gaz. vol. 197; p. 606.
 Piano. F. A. Knight. No. 1,081,537; Dec. 16; Gaz. vol. 197; p. 624.
 Piano-action. R. H. Mulliner. No. 1,082,895; Dec. 30; Gaz. vol. 197; p. 1149.
 Piano-pedal. C. Mehlh. No. 1,079,945; Dec. 2; Gaz. vol. 197; p. 7.
 Piano-player paper-feed-controlling apparatus. E. R. Philblade. No. 1,081,913; Dec. 16; Gaz. vol. 197; p. 747.
 Piano, Pneumatic. C. Freborg. No. 1,081,603; Dec. 16; Gaz. vol. 197; p. 644.
 Pianos, Expression mechanism for automatic. G. H. Davis. No. 1,080,424; Dec. 2; Gaz. vol. 197; p. 179.
 Pianos, Hammer-rest-rail-operating device for player. E. Swanson. No. 1,082,369; Dec. 23; Gaz. vol. 197; p. 935.
 Pianos, Music-holder for. H. M. Kauffman. No. 1,082,639; Dec. 30; Gaz. vol. 197; p. 1059.
 Pianos, Valve for player. C. V. Jameson. No. 1,081,533; Dec. 16; Gaz. vol. 197; p. 623.
 Picker. See Cotton-picker; Fruit-picker.
 Picker-stick. E. Chevrete. No. 1,081,579; Dec. 16; Gaz. vol. 197; p. 635.
 Picture apparatus, Moving. C. F. Jenkins. No. 1,083,016; Dec. 30; Gaz. vol. 197; p. 1190.
 Picture-exhibiting machine. C. A. Braun. No. 1,082,260; Dec. 23; Gaz. vol. 197; p. 896.
 Picture-gallery, Portable. F. D. Sears and A. O. Sodergren. No. 1,082,914; Dec. 30; Gaz. vol. 197; p. 1156.
 Picture-machine magazine, Moving. W. A. Dietze. No. 1,081,926; Dec. 16; Gaz. vol. 197; p. 751.
 Picture-mount. F. E. Housh. No. 1,080,219; Dec. 2; Gaz. vol. 197; p. 105.
 Picture-projecting apparatus, Moving. H. L. Fritz. No. 1,081,733; Dec. 16; Gaz. vol. 197; p. 686.
 Picture screen, Moving. S. H. Jones. No. 1,082,123; Dec. 23; Gaz. vol. 197; p. 847.
 Pictures, Shiftable screen for moving. F. W. Hochstetter. No. 1,080,692; Dec. 9; Gaz. vol. 197; p. 299.
 Pile-cutting machine. A. Morton. No. 1,082,894; Dec. 30; Gaz. vol. 197; p. 1149.
 Pile fabric. W. H. Mellor. No. 1,080,291; Dec. 2; Gaz. vol. 197; p. 131.
 Pile, pier, wharf, and like structure. R. Thomson. No. 1,081,171; Dec. 9; Gaz. vol. 197; p. 461.
 Piling mechanism. W. M. Gustin. No. 1,082,693; Dec. 30; Gaz. vol. 197; p. 1078.
 Pin. See Clothes-pin; Dowel-pin; Hair-pin.
 Pin. N. C. Wallenthin. No. 1,080,872; Dec. 9; Gaz. vol. 197; p. 364.
 Pin-making machine, Safety. E. S. Ingraham. No. 1,082,873; Dec. 30; Gaz. vol. 197; p. 1141.
 Pin-tongue holder. T. W. Johnson. No. 1,082,593; Dec. 30; Gaz. vol. 197; p. 1043.
 Pins, Making platinum-covered. C. H. Kerk. No. 1,081,451; Dec. 16; Gaz. vol. 197; p. 594.
 Pipe. See Concrete sectional pipe; Tobacco-pipe.
 Pipe. A. W. Larison and J. Stuckel. No. 1,082,030; Dec. 23; Gaz. vol. 197; p. 817.
 Pipe and cigar-holder, Combination. M. H. Baron. No. 1,082,393; Dec. 23; Gaz. vol. 197; p. 942.
 Pipe-coupling. R. L. Beattie. No. 1,082,993; Dec. 30; Gaz. vol. 197; p. 1182.
 Pipe coupling, Automatic train. W. D. Leftwich. No. 1,081,125; Dec. 9; Gaz. vol. 197; p. 445.
 Pipe coupling, Automatic train. H. Fredricks. No. 1,082,941; Dec. 30; Gaz. vol. 197; p. 1164.
 Pipe-fitting and steam-separator. Combined. W. S. Elliott. No. 1,080,332; Dec. 2; Gaz. vol. 197; p. 145.
 Pipe fitting, Self. S. M. Smith. No. 1,081,633; Dec. 16; Gaz. vol. 197; p. 653.
 Pipe guard, Smoking. C. H. Robinson. No. 1,082,445; Dec. 23; Gaz. vol. 197; p. 858.
 Pipe jack or holder. J. Peterson. No. 1,081,513; Dec. 16; Gaz. vol. 197; p. 616.
 Pipe-molds, Apparatus for making. W. C. Swift. No. 1,079,959; Dec. 2; Gaz. vol. 197; p. 12.
 Pipe or rod cutter. G. Mullins. No. 1,081,857; Dec. 16; Gaz. vol. 197; p. 729.
 Pipe-ripping machine. C. G. Naylor and R. R. Robertson. No. 1,081,691; Dec. 16; Gaz. vol. 197; p. 671.
 Pipe-stem. C. D. Hill. No. 1,081,929; Dec. 16; Gaz. vol. 197; p. 752.
 Pipe-stock. A. Gordon. No. 1,080,627; Dec. 9; Gaz. vol. 197; p. 277.
 Pipe threading and cutting machine. F. H. Sampson. No. 1,081,916; Dec. 16; Gaz. vol. 197; p. 748.

Pipe, tube, &c. expander. H. G. Gillmor. No. 1,081,496; Dec. 16; Gaz. vol. 197; p. 610.
 Pipe-wrench. R. L. Underwood. No. 1,080,607; Dec. 9; Gaz. vol. 197; p. 270.
 Piston-ring. H. H. Patrick. No. 1,083,130; Dec. 30; Gaz. vol. 197; p. 1226.
 Pistons, Safety device for fluid-actuated. W. B. Kollar. No. 1,081,049; Dec. 9; Gaz. vol. 197; p. 421.
 Pivot connection. J. S. Davis. No. 1,081,940; Dec. 16; Gaz. vol. 197; p. 756.
 Plane attachment. O. S. Flanders. No. 1,080,546; Dec. 9; Gaz. vol. 197; p. 251.
 Planing-machine. W. E. Villinger. No. 1,083,160; Dec. 30; Gaz. vol. 197; p. 1234.
 Planter. C. B. Thomas. No. 1,080,790; Dec. 9; Gaz. vol. 197; p. 335.
 Planter. J. M. Baker. No. 1,080,802; Dec. 9; Gaz. vol. 197; p. 339.
 Planter attachment. W. O. Bostrom. No. 1,080,885; Dec. 9; Gaz. vol. 197; p. 368.
 Planter, Combination. F. A. Toney. No. 1,081,345; Dec. 16; Gaz. vol. 197; p. 559.
 Planter, pulverizer, and weed-destroyer, Combined. A. Veitl. No. 1,082,055; Dec. 23; Gaz. vol. 197; p. 825.
 Planter, Seed. S. Bruckman. No. 1,083,185; Dec. 30; Gaz. vol. 197; p. 1240.
 Plaster and similar materials, Composition of matter for. W. W. Baker. No. 1,081,565; Dec. 16; Gaz. vol. 197; p. 632.
 Plastic-material feeding and cutting mechanism, Automatic. A. E. Hopkins and O. S. Fellows. No. 1,082,331; Dec. 23; Gaz. vol. 197; p. 921.
 Plastic waterproof troweling composition, Pigmented. A. C. Horn. No. 1,080,632; Dec. 9; Gaz. vol. 197; p. 279.
 Playing-ball. A. T. Saunders. No. 1,080,592; Dec. 9; Gaz. vol. 197; p. 260.
 Playing instrument, Automatic. J. Schwertner. No. 1,080,595; Dec. 9; Gaz. vol. 197; p. 267.
 Playing-surface. G. P. Jackson. No. 1,080,972; Dec. 9; Gaz. vol. 197; p. 398.
 Pliers, Cutting. W. A. Bernard. (Reissue.) No. 1,083,657; Dec. 16; Gaz. vol. 197; p. 756.
 Plow. A. Schmidt. No. 1,080,076; Dec. 2; Gaz. vol. 197; p. 55.
 Plow. H. J. Aune. No. 1,081,194; Dec. 9; Gaz. vol. 197; p. 468.
 Plow. E. M. Heylman. No. 1,081,530; Dec. 16; Gaz. vol. 197; p. 622.
 Plow. G. W. Hammers. No. 1,081,961; Dec. 23; Gaz. vol. 197; p. 792.
 Plow. D. Cochran. No. 1,082,406; Dec. 23; Gaz. vol. 197; p. 946.
 Plow. R. J. Altgelt and C. F. Carlson. No. 1,082,672; Dec. 30; Gaz. vol. 197; p. 1071.
 Plow attachment, Stalk-cutting. N. W. Sumrall and R. C. Bligham. No. 1,081,521; Dec. 16; Gaz. vol. 197; p. 619.
 Plow, Ditching. L. E. Ludwig. No. 1,082,641; Dec. 30; Gaz. vol. 197; p. 1060.
 Plow, Gang. G. Carlson. No. 1,081,577; Dec. 16; Gaz. vol. 197; p. 634.
 Plow marking attachment. W. V. Davis. No. 1,080,425; Dec. 2; Gaz. vol. 197; p. 179.
 Plow, Motor. O. E. Pattison. No. 1,082,440; Dec. 23; Gaz. vol. 197; p. 857.
 Plow, Rotary. M. E. Playford. No. 1,082,357; Dec. 23; Gaz. vol. 197; p. 931.
 Plow, Traction. S. Belanger. No. 1,080,673; Dec. 9; Gaz. vol. 197; p. 293.
 Plug, Attachment. A. M. Bradley. No. 1,081,656; Dec. 16; Gaz. vol. 197; p. 660.
 Plumb and level. H. H. Lung. No. 1,082,163; Dec. 23; Gaz. vol. 197; p. 860.
 Plumb-bob support. W. B. Honey. No. 1,080,448; Dec. 2; Gaz. vol. 197; p. 186.
 Pneumatic-despatch-tube apparatus. E. A. Fordyce. No. 1,081,441; Dec. 16; Gaz. vol. 197; p. 591.
 Pneumatic-despatch-tube carrier. R. G. Collins, Jr. No. 1,080,538; Dec. 9; Gaz. vol. 197; p. 248.
 Pocket-books and the like, Germicide-insert for. J. H. Rand, Jr. No. 1,080,716; Dec. 9; Gaz. vol. 197; p. 307.
 Pocket, Safety. J. Zabieliski. No. 1,080,814; Dec. 2; Gaz. vol. 197; p. 138.
 Pocket, Safety watch. B. C. Dodds. No. 1,082,190; Dec. 23; Gaz. vol. 197; p. 870.
 Poke, Animal. J. S. Murchison. No. 1,080,992; Dec. 9; Gaz. vol. 197; p. 404.
 Pole, Reinforcing. R. S. Orr. No. 1,080,525; Dec. 2; Gaz. vol. 197; p. 213.
 Pole-tip. H. W. Randall. No. 1,080,780; Dec. 9; Gaz. vol. 197; p. 331.
 Pole-tip. E. McCauley. No. 1,082,090; Dec. 23; Gaz. vol. 197; p. 837.
 Polishing curved surfaces. O. C. Wyson. No. 1,082,670; Dec. 30; Gaz. vol. 197; p. 1071.
 Polishing device. C. F. Sperry. No. 1,081,002; Dec. 9; Gaz. vol. 197; p. 407.
 Polishing-machine. D. E. Bigelow. No. 1,081,715; Dec. 16; Gaz. vol. 197; p. 679.
 Polishing-machine. J. Zywicki. No. 1,083,046; Dec. 30; Gaz. vol. 197; p. 1199.
 Polishing-wheel. J. Joseph. No. 1,080,561; Dec. 9; Gaz. vol. 197; p. 258.

Pork-trimming machine. G. Sawyer. No. 1,083,219; Dec. 30; Gaz. vol. 197; p. 1252.
 Porous article. P. A. Boeck. No. 1,081,573; Dec. 16; Gaz. vol. 197; p. 634.
 Portfolios and the like, Catch for. J. S. Isidor. No. 1,080,832; Dec. 9; Gaz. vol. 197; p. 351.
 Post. See Fence-post.
 Post-puller. E. Duda. No. 1,081,895; Dec. 16; Gaz. vol. 197; p. 741.
 Post, Rubbing. R. F. and T. E. Wright. No. 1,080,037; Dec. 2; Gaz. vol. 197; p. 42.
 Pot. See Ash-pot; Coffee-pot.
 Pot-cover attachment. C. A. Ford. No. 1,080,906; Dec. 9; Gaz. vol. 197; p. 375.
 Pot cover, Cooking. C. A. Ford. No. 1,080,905; Dec. 9; Gaz. vol. 197; p. 375.
 Potato-cutter. W. H. Geske and C. Evans. No. 1,083,081; Dec. 30; Gaz. vol. 197; p. 1211.
 Potato-digger. H. M. Houchins. No. 1,083,098; Dec. 30; Gaz. vol. 197; p. 1217.
 Potato-sorter sack-holder attachment. F. S. Fuller. No. 1,080,685; Dec. 9; Gaz. vol. 197; p. 297.
 Poultry-feeder. C. W. Zimmer. No. 1,080,133; Dec. 2; Gaz. vol. 197; p. 75.
 Poultry-feeding device. I. M. Graham. No. 1,080,438; Dec. 2; Gaz. vol. 197; p. 183.
 Poultry-fountain. A. A. Wester. No. 1,082,921; Dec. 30; Gaz. vol. 197; p. 1158.
 Power and speed gear for transmission, Mechanical variable. A. Sundh. No. 1,081,636; Dec. 16; Gaz. vol. 197; p. 654.
 Power-transmission mechanism, Fluid-operated. C. S. Kellogg. No. 1,080,281; Dec. 2; Gaz. vol. 197; p. 127.
 Power-transmitting mechanism. A. J. Schroeder. No. 1,081,868; Dec. 16; Gaz. vol. 197; p. 733.
 Press. See Die-press; Drop-press; Hop-press; Mop-press; Oil-press; Printing-press; Screw-press.
 Press-feeding device. E. M. Lockwood. No. 1,082,088; Dec. 23; Gaz. vol. 197; p. 837.
 Press for enlarging holes. F. M. Blount. No. 1,082,793; Dec. 30; Gaz. vol. 197; p. 1114.
 Pressure controller, Electric pneumatic. E. K. Parker. No. 1,081,693; Dec. 16; Gaz. vol. 197; p. 672.
 Pressure-governor. G. M. Richards. No. 1,082,821; Dec. 30; Gaz. vol. 197; p. 1123.
 Pressure regulator, Fluid. J. M. Kaminsky. No. 1,079,985; Dec. 2; Gaz. vol. 197; p. 23.
 Primary battery. C. B. Schoenmehl. No. 1,080,483; Dec. 2; Gaz. vol. 197; p. 198.
 Print, Relief. I. D. Hurlbut. No. 1,083,100; Dec. 30; Gaz. vol. 197; p. 1217.
 Printing and issuing tickets or checks of different denominations and for registering and totaling numbers and indicating the totals, Apparatus for. G. A. Julius. No. 1,082,957; Dec. 30; Gaz. vol. 197; p. 1170.
 Printing apparatus. W. L. Noe and C. M. Mesner. No. 1,081,156; Dec. 9; Gaz. vol. 197; p. 449.
 Printing compound. P. A. Putnam. No. 1,082,099; Dec. 23; Gaz. vol. 197; p. 840.
 Printing-control system. J. S. Duncan. No. 1,082,506; Dec. 30; Gaz. vol. 197; p. 1012.
 Printing-cylinder. A. M. E. Grignard. No. 1,082,946; Dec. 30; Gaz. vol. 197; p. 1166.
 Printing device. J. S. Duncan. No. 1,080,201; Dec. 2; Gaz. vol. 197; p. 99.
 Printing device. J. S. Duncan. No. 1,082,505; Dec. 30; Gaz. vol. 197; p. 1011.
 Printing-machine. G. M. Breckenridge. No. 1,080,321; Dec. 2; Gaz. vol. 197; p. 141.
 Printing-machine. A. L. Sohm. No. 1,082,774; Dec. 30; Gaz. vol. 197; p. 1108.
 Printing-machine compensating and retrieving means. R. T. Johnston. No. 1,080,978; Dec. 9; Gaz. vol. 197; p. 399.
 Printing-machine offset mechanism. M. N. Cormack. No. 1,082,409; Dec. 23; Gaz. vol. 197; p. 947.
 Printing machine, Pencil. J. B. Scott. No. 1,080,722; Dec. 9; Gaz. vol. 197; p. 309.
 Printing mechanism. B. F. Joline. No. 1,080,913; Dec. 9; Gaz. vol. 197; p. 378.
 Printing-plates, Apparatus for wiping intaglio. H. Georges. A. Valentin, and J. Zerleiss. No. 1,082,586; Dec. 30; Gaz. vol. 197; p. 1041.
 Printing-press. C. H. Bright, Jr. No. 1,081,887; Dec. 16; Gaz. vol. 197; p. 739.
 Printing-press. A. E. Mowrey. No. 1,082,353; Dec. 23; Gaz. vol. 197; p. 929.
 Printing-press attachment. H. M. Bullis. No. 1,081,429; Dec. 16; Gaz. vol. 197; p. 586.
 Printing-press-feeding attachment. B. F. Upham. No. 1,082,374; Dec. 23; Gaz. vol. 197; p. 936.
 Printing-press tripping mechanism. B. Miehe. No. 1,081,320; Dec. 16; Gaz. vol. 197; p. 550.
 Prism, Refracting. O. Eppensteln. No. 1,081,031; Dec. 9; Gaz. vol. 197; p. 416.
 Prism, Ventilated. A. Chambley. No. 1,083,056; Dec. 30; Gaz. vol. 197; p. 1201.
 Projectile-tracer. P. D. Bunker. No. 1,080,413; Dec. 2; Gaz. vol. 197; p. 175.
 Projection apparatus. C. C. Balderston. No. 1,081,922; Dec. 16; Gaz. vol. 197; p. 750.
 Prompter, Mechanical. J. Durkin. No. 1,081,220; Dec. 9; Gaz. vol. 197; p. 477.

Propeller. H. D. F. Bagley. No. 1,080,406; Dec. 2; Gaz. vol. 197; p. 173.
 Propeller. E. A. Richter. No. 1,080,657; Dec. 9; Gaz. vol. 197; p. 288.
 Propeller. G. Gays. No. 1,080,964; Dec. 9; Gaz. vol. 197; p. 395.
 Propeller. S. Heath. No. 1,081,612; Dec. 16; Gaz. vol. 197; p. 647.
 Propeller, Metallic. P. Jacomy. No. 1,082,750; Dec. 30; Gaz. vol. 197; p. 1099.
 Protractor. A. P. Ward. No. 1,082,377; Dec. 23; Gaz. vol. 197; p. 937.
 Pruning implement. G. N. Spencer. No. 1,082,290; Dec. 23; Gaz. vol. 197; p. 907.
 Puller. See Nail-puller; Post-puller; Stone-puller; Weed-puller.
 Pulley, Lubricating. J. T. Hall. No. 1,082,193; Dec. 23; Gaz. vol. 197; p. 871.
 Pulling-over machine. A. Bates. No. 1,082,488; Dec. 30; Gaz. vol. 197; p. 1005.
 Pulp-feeder. T. F. Harkins. No. 1,081,737; Dec. 16; Gaz. vol. 197; p. 687.
 Pulverizer. A. Ketring. No. 1,080,010; Dec. 2; Gaz. vol. 197; p. 32.
 Pulverizer. J. E. Blake. No. 1,080,532; Dec. 9; Gaz. vol. 197; p. 246.
 Pulverizer, Land. A. Pinet. No. 1,082,552; Dec. 30; Gaz. vol. 197; p. 1028.
 Pulverizing-mill. B. A. O'Neill. No. 1,081,860; Dec. 16; Gaz. vol. 197; p. 730.
 Pump. W. Coyne. No. 1,081,020; Dec. 9; Gaz. vol. 197; p. 412.
 Pump and engine, Combination. W. B. McLane. No. 1,081,687; Dec. 16; Gaz. vol. 197; p. 670.
 Pump, Automatic. G. J. Spohrer. No. 1,081,764; Dec. 16; Gaz. vol. 197; p. 704.
 Pump, Centrifugal. W. K. Richardson. No. 1,080,655; Dec. 9; Gaz. vol. 197; p. 287.
 Pump, Centrifugal. W. K. Richardson. No. 1,080,656; Dec. 9; Gaz. vol. 197; p. 287.
 Pump, Centrifugal. D. L. Dodge and T. F. Armstrong. No. 1,081,725; Dec. 16; Gaz. vol. 197; p. 683.
 Pump, Measuring. E. R. Deming. No. 1,081,817; Dec. 16; Gaz. vol. 197; p. 716.
 Pump, motor, and like apparatus, Hydraulic. R. F. Carey. No. 1,081,810; Dec. 16; Gaz. vol. 197; p. 713.
 Pump-priming mechanism. C. S. Lewis. No. 1,080,917; Dec. 9; Gaz. vol. 197; p. 380.
 Pump, Rotary. A. F. Ford. No. 1,080,431; Dec. 2; Gaz. vol. 197; p. 181.
 Pump, Rotary. B. M. Blackmer. No. 1,080,676; Dec. 9; Gaz. vol. 197; p. 294.
 Pump-valve. F. H. Elwell. No. 1,082,508; Dec. 30; Gaz. vol. 197; p. 1012.
 Pump-valve and valve-deck. A. F. Nagle. No. 1,082,646; Dec. 30; Gaz. vol. 197; p. 1061.
 Pumping apparatus. L. Willis. No. 1,081,181; Dec. 9; Gaz. vol. 197; p. 464.
 Pumping apparatus, Player. A. Anderson. No. 1,082,254; Dec. 23; Gaz. vol. 197; p. 804.
 Punch. W. J. O'Neal. No. 1,082,209; Dec. 23; Gaz. vol. 197; p. 876.
 Punch. J. L. Cuba. No. 1,083,104; Dec. 30; Gaz. vol. 197; p. 1243.
 Punch, Can. W. B. Keith. No. 1,082,426; Dec. 23; Gaz. vol. 197; p. 952.
 Punching-die. E. E. Roberts. No. 1,081,517; Dec. 16; Gaz. vol. 197; p. 617.
 Punching, riveting, shearing, and other machines, Spacing device for. J. K. Graham and G. A. Rasmussen. No. 1,081,826; Dec. 16; Gaz. vol. 197; p. 719.
 Putty, Bituminous. W. A. Levering. No. 1,082,640; Dec. 30; Gaz. vol. 197; p. 1060.
 Puzzle. A. J. B. Clement. No. 1,080,955; Dec. 9; Gaz. vol. 197; p. 302.
 Puzzle. W. M. Bushfield. No. 1,082,400; Dec. 23; Gaz. vol. 197; p. 962.
 Quebracho, Treating. J. M. Flske. No. 1,081,730; Dec. 16; Gaz. vol. 197; p. 884.
 Rack. See Display-rack; Drying-rack; Harness-rack.
 Radiator, Cleanable heat. W. E. Bahr. No. 1,080,408; Dec. 2; Gaz. vol. 197; p. 174.
 Radiator for clothes-drying apparatus, Sectional. C. L. Esterly and B. A. Horwitz. No. 1,081,668; Dec. 16; Gaz. vol. 197; p. 663.
 Radiotelegraphic station. G. G. von Arco. No. 1,082,221; Dec. 23; Gaz. vol. 197; p. 880.
 Rag-tearing machine and fiber-opener and the like. A. Snowden. No. 1,081,783; Dec. 16; Gaz. vol. 197; p. 704.
 Rail brace and splice, Combined. W. M. Palmer. No. 1,082,042; Dec. 23; Gaz. vol. 197; p. 821.
 Rail-chair. J. W. Shafer. No. 1,080,174; Dec. 2; Gaz. vol. 197; p. 90.
 Rail-chair. A. E. Schotte. No. 1,083,034; Dec. 30; Gaz. vol. 197; p. 1195.
 Rail chair and anti-spreading device, Combined. S. N. Fraser. No. 1,080,962; Dec. 9; Gaz. vol. 197; p. 395.
 Rail-fastener, Insulating. A. J. Bates. No. 1,083,181; Dec. 30; Gaz. vol. 197; p. 1239.
 Rail-fastening. J. Harmatta. No. 1,080,008; Dec. 2; Gaz. vol. 197; p. 31.
 Rail-fastening. I. A. Miller. No. 1,082,433; Dec. 23; Gaz. vol. 197; p. 954.
 Rail-tilting machine. A. Caro. No. 1,082,732; Dec. 30; Gaz. vol. 197; p. 1092.

Rail-joint. P. W. L. Meadows. No. 1,080,017; Dec. 2; Gaz. vol. 197; p. 34.
 Rail-joint. H. Reed. No. 1,080,124; Dec. 2; Gaz. vol. 197; p. 73.
 Rail-joint. H. Riddle. No. 1,080,451; Dec. 2; Gaz. vol. 197; p. 197.
 Rail-joint. E. C. Wiley. No. 1,081,878; Dec. 16; Gaz. vol. 197; p. 738.
 Rail-joint. F. Steinhilber and C. Slemenda. No. 1,083,036; Dec. 30; Gaz. vol. 197; p. 1195.
 Rail-joint. G. W. T. Anderson. No. 1,083,177; Dec. 30; Gaz. vol. 197; p. 1238.
 Rail joint and fastener. B. F. Gilbert. No. 1,081,823; Dec. 16; Gaz. vol. 197; p. 718.
 Rail supporting and fastening device. D. L. Braine. No. 1,081,575; Dec. 16; Gaz. vol. 197; p. 634.
 Rails from spreading. Device to prevent. G. W. Carr, Sr. No. 1,082,496; Dec. 30; Gaz. vol. 197; p. 1007.
 Rails. Machine for working on compound. J. Noll. No. 1,080,651; Dec. 9; Gaz. vol. 197; p. 285.
 Railway and the like point-lever. A. Vellere. No. 1,081,708; Dec. 16; Gaz. vol. 197; p. 677.
 Railway-car signal. H. G. Sedgwick. No. 1,082,824; Dec. 30; Gaz. vol. 197; p. 1125.
 Railway concrete track construction. K. E. Porter. No. 1,082,236; Dec. 23; Gaz. vol. 197; p. 887.
 Railway-crossing. E. D. Millholland. No. 1,080,841; Dec. 9; Gaz. vol. 197; p. 355.
 Railway-crossing. D. H. Mahoney. No. 1,081,541; Dec. 16; Gaz. vol. 197; p. 625.
 Railway-crossing. J. W. Perkins. No. 1,082,807; Dec. 30; Gaz. vol. 197; p. 1048.
 Railway-crossing. I. V. Billyeu. No. 1,082,394; Dec. 23; Gaz. vol. 197; p. 942.
 Railway-drawbar. C. T. Martin, Jr. No. 1,081,543; Dec. 16; Gaz. vol. 197; p. 628.
 Railway ditching-machine. H. F. Sank. No. 1,081,632; Dec. 16; Gaz. vol. 197; p. 652.
 Railway draft-rigging. G. H. Forsyth. No. 1,081,298; Dec. 16; Gaz. vol. 197; p. 542.
 Railway-gate. Automatic. C. Grunow. No. 1,080,439; Dec. 2; Gaz. vol. 197; p. 184.
 Railway-joint plate. W. Goldie, Jr. No. 1,082,022; Dec. 23; Gaz. vol. 197; p. 814.
 Railway-rail tie and fastener. F. Holik. No. 1,081,615; Dec. 16; Gaz. vol. 197; p. 647.
 Railway-rails. Cross-tie for. H. K. Fletcher. No. 1,083,077; Dec. 30; Gaz. vol. 197; p. 1209.
 Railway-rails. Means for preventing the creeping of. L. W. Kent. No. 1,080,067; Dec. 2; Gaz. vol. 197; p. 52.
 Railway-rails upon the ties. Appliance for securing. F. G. Smith. No. 1,082,977; Dec. 30; Gaz. vol. 197; p. 1177.
 Railway signal device. H. L. Craig. No. 1,081,392; Dec. 16; Gaz. vol. 197; p. 740.
 Railway signaling system. A. V. T. Day. No. 1,081,925; Dec. 16; Gaz. vol. 197; p. 751.
 Railway-spike. H. E. Zacharias. No. 1,080,189; Dec. 2; Gaz. vol. 197; p. 94.
 Railway-switch. A. Lefebvre. No. 1,080,226; Dec. 2; Gaz. vol. 197; p. 107.
 Railway-switch. Electrically-controlled. E. S. Olmsted. No. 1,079,991; Dec. 2; Gaz. vol. 197; p. 25.
 Railway switches. Circuit-controlling mechanism for electric. C. W. Squires. No. 1,080,780; Dec. 9; Gaz. vol. 197; p. 312.
 Railway-tie. P. E. Pero. No. 1,080,473; Dec. 2; Gaz. vol. 197; p. 194.
 Railway-tie. S. Baughman. No. 1,081,086; Dec. 9; Gaz. vol. 197; p. 432.
 Railway-tie. E. Fritsch. No. 1,081,666; Dec. 16; Gaz. vol. 197; p. 663.
 Railway-tie. A. Bernier. No. 1,082,874; Dec. 30; Gaz. vol. 197; p. 1072.
 Railway-tie. D. Stevens. No. 1,083,037; Dec. 30; Gaz. vol. 197; p. 1195.
 Railway tie and rail chair. G. H. Shane. No. 1,082,827; Dec. 30; Gaz. vol. 197; p. 1126.
 Railway-tie. Concrete. J. F. Schomer. No. 1,081,702; Dec. 16; Gaz. vol. 197; p. 675.
 Railway-tie. Metallic. S. B. Elkins, Jr. No. 1,079,936; Dec. 2; Gaz. vol. 197; p. 5.
 Railway-tie. Metallic. H. J. Downey. No. 1,083,064; Dec. 30; Gaz. vol. 197; p. 1204.
 Railway-tie plate. A. Saari. No. 1,082,471; Dec. 23; Gaz. vol. 197; p. 966.
 Railway-tie renewer. J. R. Smith. No. 1,081,162; Dec. 9; Gaz. vol. 197; p. 458.
 Railway train control and signal system. Double-track. F. A. Pierce. No. 1,082,096; Dec. 23; Gaz. vol. 197; p. 839.
 Railways. Automatic block-signaling system for electric. S. M. Young. No. 1,082,840; Dec. 30; Gaz. vol. 197; p. 1130.
 Railways. Automatic control system for electric. B. F. Hutches, Jr. No. 1,082,956; Dec. 30; Gaz. vol. 197; p. 1169.
 Railways. Shoe or skate for electric. A. W. Barnhart. No. 1,080,410; Dec. 2; Gaz. vol. 197; p. 174.
 Rake. See Sweep-rake.
 Rake fender. Hay. E. N. Smith. No. 1,080,125; Dec. 2; Gaz. vol. 197; p. 73.
 Raking device. Cutter-bar. J. J. Leach. No. 1,080,568; Dec. 9; Gaz. vol. 197; p. 258.

Ratchet mechanism. H. C. Beckwith and O. B. Bjorge. No. 1,082,842; Dec. 30; Gaz. vol. 197; p. 1130.
 Ratchet-wrench. L. W. Hoover. No. 1,081,117; Dec. 9; Gaz. vol. 197; p. 443.
 Razor-guard. W. L. King. No. 1,081,123; Dec. 9; Gaz. vol. 197; p. 444.
 Razor. Safety. H. L. Henry. No. 1,079,984; Dec. 2; Gaz. vol. 197; p. 22.
 Razor. Safety. M. C. Sharpneck. No. 1,081,157; Dec. 9; Gaz. vol. 197; p. 457.
 Razor. Safety. F. D. Jones. No. 1,081,747; Dec. 16; Gaz. vol. 197; p. 690.
 Razor. Safety. F. D. Jones. No. 1,081,748; Dec. 16; Gaz. vol. 197; p. 690.
 Razor. Safety. J. A. Ohlsson. No. 1,083,026; Dec. 30; Gaz. vol. 197; p. 1192.
 Razor-strop-coating compound. A. Zochling. No. 1,080,618; Dec. 9; Gaz. vol. 197; p. 274.
 Razor stropping and sharpening mechanism. L. A. Flinker and J. Schade, Jr. No. 1,081,283; Dec. 9; Gaz. vol. 197; p. 500.
 Razor-stropping device. J. Kebola. No. 1,080,981; Dec. 9; Gaz. vol. 197; p. 400.
 Razor-stropping machine. R. S. Otis. No. 1,080,776; Dec. 9; Gaz. vol. 197; p. 330.
 Reaming and recessing machine. W. G. Benninghoff. No. 1,080,319; Dec. 2; Gaz. vol. 197; p. 140.
 Reciprocating engine. E. A. Perkins. No. 1,082,901; Dec. 30; Gaz. vol. 197; p. 1151.
 Reciprocating engine. E. A. Perkins. No. 1,082,902; Dec. 30; Gaz. vol. 197; p. 1151.
 Reclining-chair. F. Meyrose. No. 1,080,714; Dec. 9; Gaz. vol. 197; p. 307.
 Record holder. Disk. J. C. Frank. No. 1,082,018; Dec. 23; Gaz. vol. 197; p. 813.
 Recorder. See Siphon-recorder; Time-recorder.
 Recording apparatus. T. D. McCall. No. 1,081,246; Dec. 9; Gaz. vol. 197; p. 486.
 Recording mechanism. B. F. Stillman. No. 1,080,306; Dec. 2; Gaz. vol. 197; p. 135.
 Rectal tube. W. L. Shackelford. No. 1,080,934; Dec. 9; Gaz. vol. 197; p. 385.
 Recuperator. F. Stammshulte. No. 1,080,383; Dec. 2; Gaz. vol. 197; p. 165.
 Reduction or hydrogenation of organic compounds, especially the fatty acids and their compounds. K. H. Wimmer and E. B. Higgins. No. 1,081,182; Dec. 9; Gaz. vol. 197; p. 465.
 Reel. See Clothes-line reel; Fishing-line-drying reel.
 Reel. W. P. Ray. No. 1,082,139; Dec. 23; Gaz. vol. 197; p. 852.
 Reel-pocket. F. W. Macdonald. No. 1,082,964; Dec. 30; Gaz. vol. 197; p. 1173.
 Refractory composition. G. N. Jeppson. No. 1,081,536; Dec. 16; Gaz. vol. 197; p. 624.
 Refractory materials. Preparing billets of. H. D. Madden. No. 1,081,618; Dec. 16; Gaz. vol. 197; p. 648.
 Refrigerating apparatus. W. Cooper. No. 1,080,540; Dec. 9; Gaz. vol. 197; p. 240.
 Refrigerator. R. A. Riek. No. 1,080,074; Dec. 2; Gaz. vol. 197; p. 55.
 Refrigerator and the like. Partition. G. F. Wittkopf. No. 1,081,418; Dec. 16; Gaz. vol. 197; p. 583.
 Refrigerator. Car. G. E. Knepper. No. 1,080,983; Dec. 9; Gaz. vol. 197; p. 401.
 Register. See Car-temperature register; Cash-register; Fare-register.
 Register and ventilator construction. E. C. Goodwin. No. 1,080,512; Dec. 2; Gaz. vol. 197; p. 207.
 Register-bands. Machine for producing justification-symbols in. E. M. v. Marchthal. No. 1,082,842; Dec. 30; Gaz. vol. 197; p. 1060.
 Register-door holder. Wall. G. S. Auer. No. 1,082,788; Dec. 30; Gaz. vol. 197; p. 1113.
 Regulator. See Circuit-regulator; Electric regulator; Electric-fluid-heater regulator.
 Rein buckle. Cross. T. J. Virtue. No. 1,080,665; Dec. 9; Gaz. vol. 197; p. 290.
 Relay. J. Erickson. No. 1,082,310; Dec. 23; Gaz. vol. 197; p. 914.
 Relay device. A. Orling. No. 1,082,092; Dec. 23; Gaz. vol. 197; p. 838.
 Remedial appliance. S. Quayle. No. 1,081,148; Dec. 9; Gaz. vol. 197; p. 453.
 Resilient wheel. J. B. Ayotte. No. 1,080,621; Dec. 9; Gaz. vol. 197; p. 275.
 Resilient wheel. W. J. Jones. No. 1,080,834; Dec. 9; Gaz. vol. 197; p. 352.
 Resilient wheel. R. H. and W. B. Gray. No. 1,080,909; Dec. 9; Gaz. vol. 197; p. 376.
 Resilient wheel. F. F. Pataman. No. 1,082,900; Dec. 30; Gaz. vol. 197; p. 1150.
 Resin. Vulcanizing glycerol. W. C. Arsem. No. 1,082,106; Dec. 23; Gaz. vol. 197; p. 842.
 Resinous compound. D. Whipple. No. 1,083,169; Dec. 30; Gaz. vol. 197; p. 1236.
 Resinous compound. D. Whipple. No. 1,083,170; Dec. 30; Gaz. vol. 197; p. 1236.
 Resinous compound. Producing a. D. Whipple. No. 1,083,168; Dec. 30; Gaz. vol. 197; p. 1236.
 Resistances. Casing for. A. W. Berresford. No. 1,080,947; Dec. 9; Gaz. vol. 197; p. 389.
 Restaurant equipment. L. E. Zerbe. No. 1,081,358; Dec. 16; Gaz. vol. 197; p. 563.

Restraining device. J. R. Inabnit. No. 1,083,101; Dec. 30; Gaz. vol. 197; p. 1218.
 Reversible motor. Automatic. J. McKenney. No. 1,081,458; Dec. 16; Gaz. vol. 197; p. 597.
 Reversing-gear for engines. W. A. Birchett. No. 1,080,884; Dec. 9; Gaz. vol. 197; p. 368.
 Reversing means. Motor. H. B. Taylor. No. 1,080,026; Dec. 2; Gaz. vol. 197; p. 37.
 Revolver attachment. M. Ferguson and J. O. Fitzgerald, Jr. No. 1,083,073; Dec. 30; Gaz. vol. 197; p. 1208.
 Rewind mechanism. A. Anderson. No. 1,082,253; Dec. 23; Gaz. vol. 197; p. 893.
 Rheostat. R. L. Watkins. No. 1,082,982; Dec. 30; Gaz. vol. 197; p. 1178.
 Ribbon-bolt clasp. B. Rosenfeld. No. 1,080,909; Dec. 9; Gaz. vol. 197; p. 406.
 Ribbon holder and measuring device. Combined. R. B. E. Kallam. No. 1,082,337; Dec. 23; Gaz. vol. 197; p. 923.
 Rlm. Demountable. L. A. Gordon. No. 1,080,337; Dec. 2; Gaz. vol. 197; p. 146.
 Rlm. Demountable. R. W. Ashley and F. Oberkirch. No. 1,082,299; Dec. 23; Gaz. vol. 197; p. 911.
 Ring. See Piston-ring.
 Ring-setting. R. Rosenthal. No. 1,081,153; Dec. 9; Gaz. vol. 197; p. 455.
 Rivet-bolt holder. A. Salucci. No. 1,083,145; Dec. 30; Gaz. vol. 197; p. 1230.
 Riveting-machine, multiple drive. A. R. Havener. No. 1,081,447; Dec. 16; Gaz. vol. 197; p. 593.
 Road and street surfacing. J. H. Amles. No. 1,082,478; Dec. 23; Gaz. vol. 197; p. 968.
 Road-machine. H. T. Knight. No. 1,082,959; Dec. 30; Gaz. vol. 197; p. 1171.
 Roadways. Constructing. D. B. W. Alexander. No. 1,082,722; Dec. 30; Gaz. vol. 197; p. 1089.
 Roasting-furnace. C. W. Renwick and N. L. Heinz. No. 1,080,586; Dec. 9; Gaz. vol. 197; p. 264.
 Rock-drill. E. M. Mackie and P. F. Doyle. No. 1,080,706; Dec. 9; Gaz. vol. 197; p. 304.
 Rock-drill. E. M. Mackie and P. F. Doyle. No. 1,080,707; Dec. 9; Gaz. vol. 197; p. 305.
 Rock-drill chuck. F. Franz, W. S. Tower, and A. H. Wells. No. 1,081,527; Dec. 16; Gaz. vol. 197; p. 621.
 Rod. See Gun-cleaning rod.
 Rod connection. L. H. Nash. No. 1,081,768; Dec. 16; Gaz. vol. 197; p. 698.
 Rodent-exterminator. A. Bailey. No. 1,080,529; Dec. 9; Gaz. vol. 197; p. 243.
 Roll-cap. F. P. McColl. No. 1,082,280; Dec. 23; Gaz. vol. 197; p. 903.
 Roller. See Cotton-gin roller; Feed-roller; Knife-roller; Land-roller.
 Rolling deep-flanged shapes. T. H. Mathias. No. 1,082,756; Dec. 30; Gaz. vol. 197; p. 1101.
 Roof. R. W. Burnett. No. 1,083,239; Dec. 30; Gaz. vol. 197; p. 1260.
 Roof and tile therefor. Tile. J. Freund. No. 1,082,076; Dec. 23; Gaz. vol. 197; p. 832.
 Roof-joint. C. A. Overton. No. 1,080,159; Dec. 2; Gaz. vol. 197; p. 84.
 Roofs. Bracket for use in shingling. H. G. Rounds. No. 1,080,658; Dec. 9; Gaz. vol. 197; p. 288.
 Roofing. W. F. McKay. No. 1,080,847; Dec. 9; Gaz. vol. 197; p. 284.
 Roofing. Means for applying colored designs to composition. A. S. Spiegel. No. 1,082,364; Dec. 23; Gaz. vol. 197; p. 933.
 Roofing. Ready-to-lay composition. W. C. Edwards, Jr. No. 1,083,243; Dec. 30; Gaz. vol. 197; p. 1261.
 Rosin and turpentine from wood. Obtaining. C. Howard. No. 1,082,526; Dec. 30; Gaz. vol. 197; p. 1018.
 Rotary bit and holder. Hydraulic. J. R. Myers. No. 1,080,575; Dec. 9; Gaz. vol. 197; p. 260.
 Rotary drier. L. F. Griswold and C. B. Smith. No. 1,080,629; Dec. 9; Gaz. vol. 197; p. 278.
 Rotary engine. H. E. Bonham. No. 1,082,843; Dec. 30; Gaz. vol. 197; p. 1130.
 Rotary internal-combustion engine. F. Miller and H. L. Blum. No. 1,082,205; Dec. 23; Gaz. vol. 197; p. 874.
 Rotary motor and pump. J. B. Vernon. No. 1,082,183; Dec. 23; Gaz. vol. 197; p. 867.
 Rotary valveless motor. D. Crayssac. No. 1,082,224; Dec. 23; Gaz. vol. 197; p. 881.
 Rough box. W. M. Glotfelty. No. 1,082,803; Dec. 30; Gaz. vol. 197; p. 1117.
 Roundabout. R. G. Reeves. No. 1,080,927; Dec. 9; Gaz. vol. 197; p. 383.
 Roundhouses. Equipment for. W. J. Bohan. No. 1,080,193; Dec. 2; Gaz. vol. 197; p. 96.
 Rounding and channeling machine. A. Eppler. No. 1,080,902; Dec. 9; Gaz. vol. 197; p. 374.
 Routing-machine. S. Hunter. No. 1,083,212; Dec. 30; Gaz. vol. 197; p. 1250.
 Rubber-vulcanizing apparatus. R. B. Price. No. 1,081,330; Dec. 16; Gaz. vol. 197; p. 554.
 Rudder-lock. K. Lund. No. 1,080,641; Dec. 9; Gaz. vol. 197; p. 282.
 Rug and making it. M. J. Whittall. No. 1,082,837; Dec. 30; Gaz. vol. 197; p. 1129.
 Rule. L. Voggenreiter. No. 1,081,995; Dec. 23; Gaz. vol. 197; p. 804.
 Rule. Flexible. A. E. Hegardt. No. 1,079,983; Dec. 2; Gaz. vol. 197; p. 22.
 Rule for irregular curves. Drawing. R. P. O. Sahm. No. 1,079,953; Dec. 2; Gaz. vol. 197; p. 11.

Rule joint. Folding. C. Bodmer and E. A. Schade. No. 1,080,192; Dec. 2; Gaz. vol. 197; p. 95.
 Rule. Slide. R. C. Colwell. No. 1,080,811; Dec. 9; Gaz. vol. 197; p. 344.
 Sad-iron holder. G. D. Wood. No. 1,082,838; Dec. 30; Gaz. vol. 197; p. 1129.
 Sad-iron. Self-heating. O. Spahr. No. 1,080,600; Dec. 9; Gaz. vol. 197; p. 269.
 Safe-boltwork. C. Bartels. No. 1,082,990; Dec. 30; Gaz. vol. 197; p. 1181.
 Safe-boltwork. C. Bartels. No. 1,082,991; Dec. 30; Gaz. vol. 197; p. 1181.
 Safe-deposit receptacle. H. Bashore. No. 1,082,790; Dec. 30; Gaz. vol. 197; p. 1113.
 Salt of cholic acid. Strontium. R. Werner. No. 1,081,178; Dec. 9; Gaz. vol. 197; p. 464.
 Salts. Treating materials with solutions of titanous. C. M. E. Schroeder. No. 1,080,721; Dec. 9; Gaz. vol. 197; p. 309.
 Sample-carrying case. W. Schweitzer and H. H. Labadie. No. 1,082,976; Dec. 30; Gaz. vol. 197; p. 1177.
 Sample-case having link-connected trays. W. Schweitzer and H. H. Labadie. No. 1,081,929; Dec. 16; Gaz. vol. 197; p. 651.
 Sand-blast machine. C. F. Motz. No. 1,081,547; Dec. 16; Gaz. vol. 197; p. 627.
 Sand cutting and riddling machine. J. P. O'Brien and G. F. Bowdle. No. 1,081,769; Dec. 16; Gaz. vol. 197; p. 699.
 Sand. Device for reclaiming. W. C. Fletcher and L. E. Brown. No. 1,079,979; Dec. 2; Gaz. vol. 197; p. 21.
 Sand-point. P. E. Erickson. No. 1,080,684; Dec. 9; Gaz. vol. 197; p. 297.
 Sand-screen. D. Reinert. No. 1,081,253; Dec. 9; Gaz. vol. 197; p. 489.
 Sand-spreading device. F. W. Snow and A. B. Cummings. No. 1,083,224; Dec. 30; Gaz. vol. 197; p. 1254.
 Sanding-machine. J. H. Hamcheck. No. 1,082,949; Dec. 30; Gaz. vol. 197; p. 1167.
 Sash. M. S. Crane. No. 1,082,308; Dec. 23; Gaz. vol. 197; p. 914.
 Sash-balance. Spring. G. J. MacLaughlin and J. L. Willard. No. 1,082,034; Dec. 23; Gaz. vol. 197; p. 818.
 Sash-fastener. F. E. Slappey. No. 1,080,599; Dec. 9; Gaz. vol. 197; p. 268.
 Sash-fastener. H. J. Martin. No. 1,080,769; Dec. 9; Gaz. vol. 197; p. 327.
 Sash-fastener. B. Karger. No. 1,082,638; Dec. 30; Gaz. vol. 197; p. 1059.
 Sash fastener. Window. S. E. Driscoll. No. 1,081,101; Dec. 9; Gaz. vol. 197; p. 437.
 Sash-holder. Roller-bearing. W. S. Scarbury. No. 1,080,786; Dec. 9; Gaz. vol. 197; p. 333.
 Sash-lock. J. A. Gleason and B. S. Field. No. 1,080,687; Dec. 9; Gaz. vol. 197; p. 297.
 Sash-lock. J. Larsen. No. 1,081,538; Dec. 16; Gaz. vol. 197; p. 624.
 Sash-lock. I. L. Dempsey. No. 1,081,585; Dec. 16; Gaz. vol. 197; p. 637.
 Sash-lock. Automatic. N. Rusk. No. 1,080,172; Dec. 2; Gaz. vol. 197; p. 89.
 Sash lock. Ventilating window. M. Shenk. No. 1,082,773; Dec. 30; Gaz. vol. 197; p. 1108.
 Sash-operating apparatus. Window. W. E. Parsons. No. 1,082,899; Dec. 30; Gaz. vol. 197; p. 1150.
 Sash-weight. F. M. Gretn. No. 1,082,192; Dec. 23; Gaz. vol. 197; p. 871.
 Satchel, cart, and camp-stool. Combination. H. H. James. No. 1,081,670; Dec. 16; Gaz. vol. 197; p. 664.
 Saw. J. E. O'Neill and W. G. Menihan. No. 1,080,365; Dec. 2; Gaz. vol. 197; p. 158.
 Saw. D. R. Nelson. No. 1,081,135; Dec. 9; Gaz. vol. 197; p. 449.
 Saw and trimmer. Metal. K. Haepfner. No. 1,082,521; Dec. 30; Gaz. vol. 197; p. 1016.
 Saw cutting-off machines. Interlocking mechanism for cold. M. Meyers. No. 1,081,763; Dec. 16; Gaz. vol. 197; p. 697.
 Saw-filing machine. W. T. Nelson. No. 1,080,921; Dec. 9; Gaz. vol. 197; p. 381.
 Saw-guard. J. W. Humason. No. 1,082,870; Dec. 30; Gaz. vol. 197; p. 1140.
 Saw-jointer. F. M. Barnard. No. 1,081,714; Dec. 16; Gaz. vol. 197; p. 679.
 Saw mill. Twin band. C. E. Cleveland. No. 1,081,525; Dec. 16; Gaz. vol. 197; p. 620.
 Saw. Trimmer. G. F. De Wein. No. 1,083,006; Dec. 30; Gaz. vol. 197; p. 1187.
 Scaffold. Window-cleaner's. E. W. Cooper. No. 1,083,192; Dec. 30; Gaz. vol. 197; p. 1242.
 Scale. A. P. Aiken. No. 1,080,401; Dec. 2; Gaz. vol. 197; p. 171.
 Scale. Automatic weighing. G. Schnabl. No. 1,080,374; Dec. 2; Gaz. vol. 197; p. 161.
 Scale. Pocket postal. H. A. Meyer. No. 1,080,771; Dec. 9; Gaz. vol. 197; p. 328.
 Scale. Postal. J. W. Vaughn. No. 1,080,391; Dec. 2; Gaz. vol. 197; p. 168.
 Scale. Scoop-balance. F. C. Wright. No. 1,080,398; Dec. 2; Gaz. vol. 197; p. 171.
 Scale. Weighing. J. L. Saylor. No. 1,080,286; Dec. 2; Gaz. vol. 197; p. 111.
 Scale. Weighing. J. L. Saylor. No. 1,080,287; Dec. 2; Gaz. vol. 197; p. 111.

Scale, Weighing. G. Hutchinson. No. 1,081,234; Dec. 9; Gaz. vol. 197; p. 482.
 Scales, Bag-holding device for. E. S. Kneeland. No. 1,081,452; Dec. 16; Gaz. vol. 197; p. 595.
 Scales recording attachment. E. E. Hart. No. 1,081,738; Dec. 16; Gaz. vol. 197; p. 687.
 Scene apparatus, Stage. F. W. Hochstetter. No. 1,080,691; Dec. 9; Gaz. vol. 197; p. 299.
 Scissors, Buttonhole. P. Friederick. No. 1,080,145; Dec. 2; Gaz. vol. 197; p. 80.
 Scoop or bucket, Drag. F. L. Parker. No. 1,082,438; Dec. 23; Gaz. vol. 197; p. 956.
 Scraping-tool. P. Full. No. 1,082,802; Dec. 30; Gaz. vol. 197; p. 1116.
 Screen. See Carrier-screen; Fish-screen; Picture-screen; Sand-screen; Window-screen.
 Screen. E. Lynch. No. 1,080,466; Dec. 2; Gaz. vol. 197; p. 192.
 Screening apparatus. R. W. Dull. No. 1,082,855; Dec. 30; Gaz. vol. 197; p. 1134.
 Screening-machine. J. F. and A. W. Mold. No. 1,080,072; Dec. 2; Gaz. vol. 197; p. 54.
 Screw-driver. J. H. Shaw. No. 1,081,704; Dec. 16; Gaz. vol. 197; p. 676.
 Screw-driving mechanism. F. W. Russell. No. 1,082,771; Dec. 30; Gaz. vol. 197; p. 1107.
 Screw-heads, Mechanism for slotting. G. T. Warwick. No. 1,082,720; Dec. 30; Gaz. vol. 197; p. 1088.
 Screw, Locking. H. Meredith-Jones. No. 1,082,891; Dec. 30; Gaz. vol. 197; p. 1148.
 Screw-press to form insulators. R. G. Hemingway and C. Hawk. (Reliance.) No. 1,081,661; Dec. 23; Gaz. vol. 197; p. 970.
 Screw, Safety set. J. H. Graham. No. 1,082,945; Dec. 30; Gaz. vol. 197; p. 1166.
 Scriber. J. A. Koehl. No. 1,081,840; Dec. 16; Gaz. vol. 197; p. 725.
 Script holder, Railway. G. H. Cleveland. No. 1,081,004; Dec. 9; Gaz. vol. 197; p. 435.
 Seal. E. Tyden. No. 1,080,181; Dec. 2; Gaz. vol. 197; p. 91.
 Seal. E. Tyden. No. 1,080,182; Dec. 2; Gaz. vol. 197; p. 92.
 Seal. J. F. Mitchell. No. 1,081,978; Dec. 23; Gaz. vol. 197; p. 798.
 Seal-assembling machine, Bottle. A. K. Keller. No. 1,081,505; Dec. 16; Gaz. vol. 197; p. 613.
 Seal-lock. E. Tyden. No. 1,080,185; Dec. 2; Gaz. vol. 197; p. 93.
 Seal-lock hasp. E. Tyden. No. 1,080,242; Dec. 2; Gaz. vol. 197; p. 113.
 Seal-lock. E. Tyden. No. 1,080,184; Dec. 2; Gaz. vol. 197; p. 93.
 Seal-locked can. E. Tyden. No. 1,080,183; Dec. 2; Gaz. vol. 197; p. 92.
 Seal, Package. W. W. Freschl. No. 1,080,823; Dec. 9; Gaz. vol. 197; p. 348.
 Seals, Machine for manufacturing leaden. D. Debbas. No. 1,083,198; Dec. 30; Gaz. vol. 197; p. 1244.
 Sealed jar, Liquid. W. N. Moore. No. 1,081,856; Dec. 16; Gaz. vol. 197; p. 720.
 Sealer, Bread-wrapper. F. Streich. No. 1,081,560; Dec. 16; Gaz. vol. 197; p. 631.
 Sealing apparatus, Bottle. B. Adriance and A. Calleson. No. 1,083,235; Dec. 30; Gaz. vol. 197; p. 1258.
 Sealing-cap for vessels. J. A. Hicks. No. 1,082,896; Dec. 30; Gaz. vol. 197; p. 1079.
 Sealing device for cans, &c. S. W. Milligan and J. F. Jacobsen. No. 1,082,892; Dec. 30; Gaz. vol. 197; p. 1148.
 Sealing machine, Bottle. A. A. Rosengren. No. 1,081,931; Dec. 16; Gaz. vol. 197; p. 753.
 Sealing-machine feed mechanism, Bottle. A. Calleson. No. 1,082,189; Dec. 23; Gaz. vol. 197; p. 870.
 Seam-ripper, Safety. C. C. Woodworth. No. 1,081,357; Dec. 16; Gaz. vol. 197; p. 563.
 Search-light attachment for shotguns and the like. E. S. Ward. No. 1,080,795; Dec. 9; Gaz. vol. 197; p. 337.
 Seat. See Motor-cycle seat.
 Seat attachment, Tandem. J. W. Gates and O. P. Hobbs. No. 1,082,227; Dec. 23; Gaz. vol. 197; p. 881.
 Section-liner. B. Silverston. No. 1,081,161; Dec. 9; Gaz. vol. 197; p. 458.
 Sectional boiler. J. B. Bernhard. No. 1,082,996; Dec. 30; Gaz. vol. 197; p. 1183.
 Sectional case, Knockdown. O. B. Rowlette. No. 1,080,784; Dec. 9; Gaz. vol. 197; p. 333.
 Seed-grains, Compound for protecting planted. L. E. Hanczewski. No. 1,081,445; Dec. 16; Gaz. vol. 197; p. 593.
 Seed-hulling machine. J. Davidson. No. 1,083,004; Dec. 30; Gaz. vol. 197; p. 1186.
 Seeder. E. J. Youngberg. No. 1,080,038; Dec. 2; Gaz. vol. 197; p. 42.
 Seeder and planter. M. T. Mallory. No. 1,082,430; Dec. 23; Gaz. vol. 197; p. 954.
 Seeder, Fruit. N. S. Griffith. No. 1,082,516; Dec. 30; Gaz. vol. 197; p. 1015.
 Seeding apparatus. A. T. Button and W. P. Widdfield. No. 1,081,720; Dec. 16; Gaz. vol. 197; p. 681.
 Selector mechanism. E. B. Craft and A. F. Dixon. No. 1,081,368; Dec. 16; Gaz. vol. 197; p. 567.
 Self-cleaning drill. R. Binnie. No. 1,081,665; Dec. 16; Gaz. vol. 197; p. 660.

Self-leveling table. C. A. Smith. No. 1,081,330; Dec. 16; Gaz. vol. 197; p. 557.
 Semiliquid-material-feeding apparatus. A. Schaffer and A. Schröder. No. 1,082,287; Dec. 23; Gaz. vol. 197; p. 906.
 Separating mechanism. F. H. Mason and J. Allen. No. 1,080,467; Dec. 2; Gaz. vol. 197; p. 182.
 Separator. See Liquid-separator; Oats-separator; Ore-separator; Smoke-separator.
 Separator. J. W. Gamble. No. 1,080,511; Dec. 2; Gaz. vol. 197; p. 206.
 Separator. N. C. Westerfield. No. 1,081,282; Dec. 9; Gaz. vol. 197; p. 499.
 Separator. F. C. Morrow. No. 1,082,352; Dec. 23; Gaz. vol. 197; p. 929.
 Set-tub clothes-washing attachment. E. Cavender. No. 1,080,324; Dec. 2; Gaz. vol. 197; p. 142.
 Setting-machine. E. B. Stimpson. No. 1,079,096; Dec. 2; Gaz. vol. 197; p. 26.
 Settling-tank and filter, Combined. D. C. Reznohl. No. 1,081,615; Dec. 16; Gaz. vol. 197; p. 617.
 Sewage, Treating. A. Priestman. No. 1,080,926; Dec. 9; Gaz. vol. 197; p. 383.
 Sewage-vault for closets, Antiseptic. F. E. Wilson. No. 1,079,970; Dec. 2; Gaz. vol. 197; p. 17.
 Sewed-article seam. J. Barnett. No. 1,081,197; Dec. 9; Gaz. vol. 197; p. 469.
 Sewer cleaner and flusher. H. A. Goetz. No. 1,081,497; Dec. 16; Gaz. vol. 197; p. 610.
 Sewer-cleaning device. E. B. Culver. No. 1,081,488; Dec. 16; Gaz. vol. 197; p. 607.
 Sewer-trap. H. C. Williams. No. 1,081,354; Dec. 16; Gaz. vol. 197; p. 562.
 Sewing and other machines, Lighting attachment for. J. W. Love and G. C. Webster. No. 1,083,020; Dec. 30; Gaz. vol. 197; p. 1190.
 Sewing and trimming machine. J. P. Weis. No. 1,081,797; Dec. 16; Gaz. vol. 197; p. 708.
 Sewing and trimming machine. J. R. Moffatt. No. 1,082,281; Dec. 23; Gaz. vol. 197; p. 903.
 Sewing-kitt. G. Walters. No. 1,081,070; Dec. 9; Gaz. vol. 197; p. 427.
 Sewing-machine. G. S. Hill. No. 1,080,342; Dec. 2; Gaz. vol. 197; p. 149.
 Sewing-machine. G. S. Hill. No. 1,080,343; Dec. 2; Gaz. vol. 197; p. 149.
 Sewing-machine. C. T. E. Gould. No. 1,080,549; Dec. 9; Gaz. vol. 197; p. 252.
 Sewing-machine. F. Ashworth. No. 1,080,877; Dec. 9; Gaz. vol. 197; p. 365.
 Sewing-machine. J. Hayes. No. 1,080,967; Dec. 9; Gaz. vol. 197; p. 307.
 Sewing-machine. F. N. La Chapelle. No. 1,081,390; Dec. 16; Gaz. vol. 197; p. 574.
 Sewing-machine. K. von Korytynski. No. 1,081,841; Dec. 16; Gaz. vol. 197; p. 725.
 Sewing-machine. R. Rasbach. No. 1,082,819; Dec. 30; Gaz. vol. 197; p. 1123.
 Sewing machine, Buttonhole. R. Arendt. No. 1,083,178; Dec. 30; Gaz. vol. 197; p. 1238.
 Sewing-machine buttonhole-working attachment. F. Spaulding. No. 1,080,729; Dec. 9; Gaz. vol. 197; p. 312.
 Sewing-machine-feeding mechanism. L. Krug. No. 1,081,453; Dec. 16; Gaz. vol. 197; p. 595.
 Sewing-machine presser-foot. A. H. De Voe. No. 1,081,580; Dec. 16; Gaz. vol. 197; p. 638.
 Sewing machine, Shoe. F. E. Valois. No. 1,082,715; Dec. 30; Gaz. vol. 197; p. 1086.
 Sewing-machine table. J. J. Gedeon. No. 1,082,690; Dec. 30; Gaz. vol. 197; p. 1077.
 Sewing-machine thread-controller. J. S. Finch. No. 1,081,508; Dec. 16; Gaz. vol. 197; p. 642.
 Sewing-machine thread pull-off. A. E. Johnson. No. 1,082,636; Dec. 30; Gaz. vol. 197; p. 1059.
 Sewing-machine tucker attachment. T. W. Richardson. No. 1,082,360; Dec. 23; Gaz. vol. 197; p. 932.
 Shade. P. J. Handel. No. 1,082,805; Dec. 30; Gaz. vol. 197; p. 1117.
 Shade and hood holder, Adjustable combined. C. G. Rush. No. 1,083,218; Dec. 30; Gaz. vol. 197; p. 1251.
 Shade-bracket. I. M. Flanagan. No. 1,082,939; Dec. 30; Gaz. vol. 197; p. 1164.
 Shade bracket, Window. A. L. Hennessey. No. 1,082,591; Dec. 30; Gaz. vol. 197; p. 1042.
 Shade bracket, Window. E. Gibbons. No. 1,083,082; Dec. 30; Gaz. vol. 197; p. 1211.
 Shade fixture, Window. H. W. Clough. No. 1,082,736; Dec. 30; Gaz. vol. 197; p. 1093.
 Shade hanger, Adjustable window. W. T. Valentine. No. 1,080,860; Dec. 9; Gaz. vol. 197; p. 363.
 Shade-holder. A. C. Recker. No. 1,080,908; Dec. 9; Gaz. vol. 197; p. 406.
 Shade-holder. N. Krohn. No. 1,081,756; Dec. 16; Gaz. vol. 197; p. 694.
 Shade-holder. H. J. Morey. No. 1,082,604; Dec. 30; Gaz. vol. 197; p. 1047.
 Shade holder and curtain-pole support, Window. I. C. Gray. No. 1,083,010; Dec. 30; Gaz. vol. 197; p. 1188.
 Shade support, Window. F. W. Hagemeyer. No. 1,079,940; Dec. 2; Gaz. vol. 197; p. 6.
 Shade, Window. I. Nielsen. No. 1,080,844; Dec. 9; Gaz. vol. 197; p. 355.
 Shaft-boxing. C. Thomas. No. 1,082,293; Dec. 23; Gaz. vol. 197; p. 808.

Shaft-brake or friction device. F. A. Read. No. 1,081,988; Dec. 23; Gaz. vol. 197; p. 801.
 Shaft-governor. E. Schweter. No. 1,082,242; Dec. 23; Gaz. vol. 197; p. 880.
 Shaft-support. W. L. Watterson. No. 1,080,031; Dec. 2; Gaz. vol. 197; p. 40.
 Shaftering-grinding machine. H. W. Snyder. No. 1,082,451; Dec. 23; Gaz. vol. 197; p. 960.
 Sharpening and gaging machine, Tool. E. Rorive. No. 1,082,823; Dec. 30; Gaz. vol. 197; p. 1124.
 Sharpening device. F. Varga. No. 1,081,796; Dec. 16; Gaz. vol. 197; p. 708.
 Sharpening machine, Razor. J. Persault and T. Marquis. No. 1,082,904; Dec. 30; Gaz. vol. 197; p. 1153.
 Shears. O. B. Lintner. No. 1,081,974; Dec. 23; Gaz. vol. 197; p. 797.
 Shears. C. F. Zimmerman. No. 1,082,385; Dec. 23; Gaz. vol. 197; p. 939.
 Sheet-delivery mechanism. J. White. No. 1,080,036; Dec. 2; Gaz. vol. 197; p. 41.
 Sheet-feeding guides, Driving mechanism for movable. G. Spless. No. 1,082,613; Dec. 30; Gaz. vol. 197; p. 1050.
 Sheet material, Machine for operating on. A. Calleson. No. 1,080,047; Dec. 2; Gaz. vol. 197; p. 45.
 Sheet-metal-working machine. P. Kruse. No. 1,081,050; Dec. 9; Gaz. vol. 197; p. 422.
 Sheet-sorting machines, Device for removing scraps of paper in. G. Spless. No. 1,081,003; Dec. 9; Gaz. vol. 197; p. 407.
 Shelf, Adjustable. H. M. Dungan. No. 1,080,203; Dec. 2; Gaz. vol. 197; p. 100.
 Shipping-case. G. W. Stitzer. No. 1,082,567; Dec. 30; Gaz. vol. 197; p. 1034.
 Shipping-case, Refrigerating. A. P. Haines. No. 1,080,215; Dec. 2; Gaz. vol. 197; p. 104.
 Ship's log. E. C. Akers. No. 1,081,081; Dec. 9; Gaz. vol. 197; p. 430.
 Shirt. E. C. Roat. No. 1,080,928; Dec. 9; Gaz. vol. 197; p. 384.
 Shock-absorber. G. C. Beck. No. 1,080,745; Dec. 9; Gaz. vol. 197; p. 319.
 Shock-absorber. E. V. Hartford. No. 1,081,962; Dec. 23; Gaz. vol. 197; p. 793.
 Shock-absorber. J. L. Lawrence. No. 1,081,970; Dec. 23; Gaz. vol. 197; p. 795.
 Shock-former. J. F. Wheeler. No. 1,080,034; Dec. 2; Gaz. vol. 197; p. 41.
 Shock-loader. G. A. Imhoff. No. 1,080,345; Dec. 2; Gaz. vol. 197; p. 151.
 Shocking-machine. W. R. McHill. No. 1,081,247; Dec. 9; Gaz. vol. 197; p. 487.
 Shoe. M. Langerak. No. 1,081,078; Dec. 16; Gaz. vol. 197; p. 607.
 Shoe and glove fastener. J. W. Harmon. No. 1,081,231; Dec. 9; Gaz. vol. 197; p. 481.
 Shoe-clongating implement, Portable. H. E. Maine. No. 1,080,918; Dec. 9; Gaz. vol. 197; p. 380.
 Shoe for artistic dancing. F. Henschel. No. 1,079,941; Dec. 2; Gaz. vol. 197; p. 6.
 Shoe-horn. J. D. Lane. No. 1,081,991; Dec. 16; Gaz. vol. 197; p. 575.
 Shoe-machine. G. Parmentier. No. 1,082,704; Dec. 30; Gaz. vol. 197; p. 1082.
 Shoe-machine, Automatic. E. E. Winkley. No. 1,082,185; Dec. 23; Gaz. vol. 197; p. 868.
 Shoes, Making felt. J. A. Green. No. 1,081,955; Dec. 23; Gaz. vol. 197; p. 790.
 Shoes, Making felt. J. A. Green. No. 1,081,956; Dec. 23; Gaz. vol. 197; p. 790.
 Shovel. See Excavating-shovel.
 Shovel for stokers' use and other purposes. C. A. Fell. No. 1,080,903; Dec. 9; Gaz. vol. 197; p. 374.
 Shovel-handle extension. G. Albert. No. 1,081,187; Dec. 9; Gaz. vol. 197; p. 466.
 Shovel-handle, Supplementary. L. Brown. No. 1,083,054; Dec. 30; Gaz. vol. 197; p. 1201.
 Show-case roller-guide. J. Knape. No. 1,079,986; Dec. 2; Gaz. vol. 197; p. 23.
 Shutter, Automatic fire-resisting. E. H. McCloud. No. 1,081,129; Dec. 9; Gaz. vol. 197; p. 447.
 Shutter-closing device, Window. G. W. Lancaster. No. 1,081,842; Dec. 16; Gaz. vol. 197; p. 725.
 Shutter-fastener. D. S. Lagasse. No. 1,081,677; Dec. 16; Gaz. vol. 197; p. 666.
 Shutter-operating means, Exposure. P. J. Mukantz. No. 1,081,548; Dec. 16; Gaz. vol. 197; p. 627.
 Shutter-worker, Automatic. B. A. Proctor. No. 1,081,831; Dec. 16; Gaz. vol. 197; p. 554.
 Shutters, End member for the slats of fire. W. M. Brunst. No. 1,081,202; Dec. 9; Gaz. vol. 197; p. 471.
 Shuttle. N. Terashima. No. 1,081,169; Dec. 9; Gaz. vol. 197; p. 461.
 Shuttle, Oscillatory. R. Zahn. No. 1,082,003; Dec. 23; Gaz. vol. 197; p. 807.
 Sickie-bar mechanism. L. O. Ferbrache. No. 1,083,072; Dec. 30; Gaz. vol. 197; p. 1207.
 Sidewalk construction mold. J. W. Holman. No. 1,080,693; Dec. 9; Gaz. vol. 197; p. 300.
 Sifter. A. Weber. No. 1,081,919; Dec. 16; Gaz. vol. 197; p. 749.
 Sign. R. F. Mason. No. 1,080,358; Dec. 2; Gaz. vol. 197; p. 156.

Sign, Animated. R. Whitcomb. No. 1,082,785; Dec. 30; Gaz. vol. 197; p. 1111.
 Sign, Automatic magazine. L. H. Watts. No. 1,082,378; Dec. 23; Gaz. vol. 197; p. 937.
 Sign holder, Display. F. W. Beckwith. No. 1,080,317; Dec. 2; Gaz. vol. 197; p. 139.
 Sign, Illuminated. R. R. and W. K. Wiley and W. S. Hough, Jr. No. 1,081,800; Dec. 16; Gaz. vol. 197; p. 709.
 Sign structure, Reversible. C. B. Mohr. No. 1,081,307; Dec. 16; Gaz. vol. 197; p. 576.
 Signs, Circuit-controller for electric. F. C. Brodie. No. 1,080,535; Dec. 9; Gaz. vol. 197; p. 248.
 Signal. See Railway-signal; Vehicle-signal.
 Signaling and train-stopping combination circuit device, Automatic. C. C. Turner. No. 1,080,088; Dec. 2; Gaz. vol. 197; p. 59.
 Signaling and train-stopping device, Automatic. C. C. Turner. No. 1,080,087; Dec. 2; Gaz. vol. 197; p. 59.
 Signaling apparatus, Electrically-controlled. H. W. Aylward. No. 1,081,941; Dec. 23; Gaz. vol. 197; p. 785.
 Signaling by electromagnetic waves. R. A. Fessenden. No. 1,080,271; Dec. 2; Gaz. vol. 197; p. 124.
 Signaling-circuit, Controlling system for. C. E. Beach and H. W. Doughty. No. 1,080,246; Dec. 2; Gaz. vol. 197; p. 115.
 Signaling device. M. Levison. No. 1,080,287; Dec. 2; Gaz. vol. 197; p. 129.
 Signaling, Submarine. L. I. Blake. No. 1,080,098; Dec. 2; Gaz. vol. 197; p. 63.
 Signaling system. J. Olsen. No. 1,082,436; Dec. 23; Gaz. vol. 197; p. 956.
 Signaling system, Electric. J. D. Taylor. (Reliance.) No. 1,083,063; Dec. 23; Gaz. vol. 197; p. 973.
 Signaling system, Electrical. H. Bewlay. No. 1,081,572; Dec. 16; Gaz. vol. 197; p. 633.
 Signaling system, Wireless. C. D. Ehret. No. 1,080,544; Dec. 9; Gaz. vol. 197; p. 251.
 Signature-gatherer. E. R. Kast. No. 1,081,838; Dec. 16; Gaz. vol. 197; p. 724.
 Silo-door. C. J. Perkins. No. 1,081,863; Dec. 16; Gaz. vol. 197; p. 731.
 Silos, Sectional roof construction for. H. M. Thayer. No. 1,082,157; Dec. 30; Gaz. vol. 197; p. 1233.
 Sink-stopper. G. A. Cote. No. 1,081,434; Dec. 16; Gaz. vol. 197; p. 588.
 Siphon and starting device therefor. W. F. Stuart. No. 1,083,228; Dec. 30; Gaz. vol. 197; p. 1255.
 Siphon-recorder. S. G. Brown. No. 1,080,412; Dec. 2; Gaz. vol. 197; p. 175.
 Sizing and preparing same. A. A. Dunham. No. 1,080,143; Dec. 2; Gaz. vol. 197; p. 79.
 Skirt. M. McCallum. No. 1,082,467; Dec. 23; Gaz. vol. 197; p. 964.
 Skirt-protector. M. E. Bispham. No. 1,082,792; Dec. 30; Gaz. vol. 197; p. 1114.
 Skiving-machine. S. G. Ross and F. B. Freeman. No. 1,080,171; Dec. 2; Gaz. vol. 197; p. 89.
 Skiving-machine. H. Lyon. No. 1,080,227; Dec. 2; Gaz. vol. 197; p. 108.
 Skylight construction. J. B. King. No. 1,081,966; Dec. 23; Gaz. vol. 197; p. 794.
 Sled. R. Kelly. No. 1,080,457; Dec. 2; Gaz. vol. 197; p. 159.
 Sled. C. Stark. No. 1,082,565; Dec. 30; Gaz. vol. 197; p. 1033.
 Sled-stake and logging-bunk, Combined. W. A. Humphrey. No. 1,082,425; Dec. 23; Gaz. vol. 197; p. 952.
 Sleigh-runners, Means for attaching draft-hare to. C. M. Erickson. No. 1,080,960; Dec. 9; Gaz. vol. 197; p. 394.
 Slicing bread and spreading butter, jam, meat-pulp, &c. thereon. Machine for. W. Bagguley. No. 1,082,146; Dec. 23; Gaz. vol. 197; p. 854.
 Smelting-furnace. K. O. E. Olafsson. No. 1,081,912; Dec. 16; Gaz. vol. 197; p. 746.
 Smelting metals. J. D. Hillard. No. 1,080,344; Dec. 2; Gaz. vol. 197; p. 150.
 Smelting or refining of metals and the like in crucibles. H. G. Solomon. No. 1,081,164; Dec. 9; Gaz. vol. 197; p. 459.
 Smelting volatile metals, Electrically. W. M. Johnson. No. 1,080,912; Dec. 9; Gaz. vol. 197; p. 377.
 Smoke-consumer. A. J. Wilkins. No. 1,081,417; Dec. 16; Gaz. vol. 197; p. 583.
 Smoke-consumer. G. Fellers. No. 1,083,075; Dec. 30; Gaz. vol. 197; p. 1209.
 Smoke-consumer. J. O. Richard. No. 1,083,138; Dec. 30; Gaz. vol. 197; p. 1228.
 Smoke from furnaces and the like, Apparatus for the treatment of. W. L. Thomas. No. 1,082,245; Dec. 23; Gaz. vol. 197; p. 890.
 Smoke-separator. C. F. Holmes. No. 1,081,110; Dec. 9; Gaz. vol. 197; p. 442.
 Snap-fastener. J. P. Williams. No. 1,080,614; Dec. 9; Gaz. vol. 197; p. 273.
 Soap-dispensing device, Liquid. C. B. Buerger. No. 1,080,196; Dec. 2; Gaz. vol. 197; p. 97.
 Soap fixture, Liquid. E. G. Watrous. No. 1,082,249; Dec. 23; Gaz. vol. 197; p. 891.
 Socket, Combination allp. W. S. Brummett and L. S. Metz. No. 1,081,427; Dec. 16; Gaz. vol. 197; p. 586.
 Softening and filtering apparatus. M. C. Reynolds. No. 1,080,233; Dec. 2; Gaz. vol. 197; p. 110.

Soldering-chain. C. A. Becker. No. 1,081,088; Dec. 9; Gaz. vol. 197; p. 432.
 Soldering-iron, self-heating. R. W. Marvell. No. 1,080,644; Dec. 9; Gaz. vol. 197; p. 283.
 Soldering-machine. M. Karp. No. 1,082,270; Dec. 23; Gaz. vol. 197; p. 900.
 Sole-laying machine. E. E. Winkley. No. 1,081,355; Dec. 16; Gaz. vol. 197; p. 562.
 Sole-levelling machine. C. L. Parker. No. 1,082,761; Dec. 30; Gaz. vol. 197; p. 1103.
 Sole-rounding machine. W. C. Baxter. No. 1,080,191; Dec. 2; Gaz. vol. 197; p. 95.
 Sole-sewing machine. A. Bates. No. 1,080,879; Dec. 9; Gaz. vol. 197; p. 366.
 Solid balls, making. J. P. Appleby. No. 1,080,798; Dec. 9; Gaz. vol. 197; p. 338.
 Solvents by use of halogen compounds, Production of. W. E. Maaland. No. 1,082,543; Dec. 30; Gaz. vol. 197; p. 1024.
 Sound-box. P. Catucci. No. 1,080,954; Dec. 9; Gaz. vol. 197; p. 392.
 Sound-box diaphragm. P. Catucci. No. 1,080,953; Dec. 9; Gaz. vol. 197; p. 391.
 Sound-muffling device. A. Dare. No. 1,081,490; Dec. 16; Gaz. vol. 197; p. 608.
 Sound-producing means, Electrical. O. Stritter. No. 1,081,635; Dec. 16; Gaz. vol. 197; p. 853.
 Sound-record. L. H. Backland. No. 1,083,264; Dec. 30; Gaz. vol. 197; p. 1267.
 Sound-reproducing-machine stylus. J. W. Owen. No. 1,080,924; Dec. 9; Gaz. vol. 197; p. 382.
 Sound reproducing or transmitting instrument tone-clarity attachment. C. S. Butler. No. 1,081,719; Dec. 16; Gaz. vol. 197; p. 681.
 Sound-waves, Means for producing. L. E. Côté. No. 1,080,264; Dec. 2; Gaz. vol. 197; p. 122.
 Spark-plug. F. J. Walker and F. C. Loeffler. No. 1,080,089; Dec. 2; Gaz. vol. 197; p. 59.
 Spark-plug. G. L. Couter. No. 1,081,660; Dec. 16; Gaz. vol. 197; p. 661.
 Spark-plug. W. L. Edison. No. 1,081,728; Dec. 16; Gaz. vol. 197; p. 684.
 Sparking plug with removable electrode and central telescoping electrode. A. L. Cadé. No. 1,082,401; Dec. 23; Gaz. vol. 197; p. 944.
 Spear, Fish. G. T. Turner. No. 1,080,868; Dec. 9; Gaz. vol. 197; p. 363.
 Speed and power transmitting mechanism. C. S. Kellogg. No. 1,080,282; Dec. 2; Gaz. vol. 197; p. 127.
 Speed-controlling apparatus. J. T. Hume. No. 1,081,832; Dec. 16; Gaz. vol. 197; p. 722.
 Speed-governing mechanism. R. P. Deardorff. No. 1,082,225; Dec. 23; Gaz. vol. 197; p. 882.
 Speed-governor. L. Rhodes. No. 1,081,865; Dec. 16; Gaz. vol. 197; p. 732.
 Speed-governor. A. Winton. No. 1,082,383; Dec. 23; Gaz. vol. 197; p. 939.
 Speed indicating and registering device, Automatic. R. Star. No. 1,080,494; Dec. 2; Gaz. vol. 197; p. 201.
 Speed mechanism for motor-vehicles, Variable. J. C. Riegel. No. 1,080,782; Dec. 9; Gaz. vol. 197; p. 332.
 Speed mechanism, Variable. D. E. Crouse and C. G. Eldson. No. 1,082,624; Dec. 30; Gaz. vol. 197; p. 1054.
 Speed-varying transmission. F. H. Cheyne. No. 1,079,934; Dec. 2; Gaz. vol. 197; p. 4.
 Speedometer. J. K. Stewart. No. 1,080,308; Dec. 2; Gaz. vol. 197; p. 136.
 Spinning-machine. F. S. Culver. No. 1,080,266; Dec. 2; Gaz. vol. 197; p. 123.
 Spinning-machine spindles, Ball-bearing for. R. E. Walther. No. 1,080,399; Dec. 2; Gaz. vol. 197; p. 169.
 Spinning-mules, Reversing mechanism for the band-cylinders of. J. H. Ryalls. No. 1,082,912; Dec. 30; Gaz. vol. 197; p. 1155.
 Spinning or twisting machine gearing. S. B. Roy. No. 1,081,334; Dec. 16; Gaz. vol. 197; p. 555.
 Spoke-protectors, Machine for applying. E. L. Williams. No. 1,083,171; Dec. 30; Gaz. vol. 197; p. 1236.
 Spoke star, Wheel. R. Kronenberg. No. 1,082,087; Dec. 23; Gaz. vol. 197; p. 836.
 Spool-unwinding device. J. L. Walsh. No. 1,080,739; Dec. 9; Gaz. vol. 197; p. 316.
 Spooling-machine differential motion. P. Grosser. No. 1,080,965; Dec. 9; Gaz. vol. 197; p. 398.
 Spoon, Hypodermic. T. H. Forster. No. 1,081,901; Dec. 16; Gaz. vol. 197; p. 743.
 Sprayer, Chemical and insecticide. C. F. Silea. No. 1,082,141; Dec. 23; Gaz. vol. 197; p. 853.
 Spraying apparatus, Shoulder-bag water. D. W. Adams. No. 1,081,648; Dec. 16; Gaz. vol. 197; p. 658.
 Spraying liquid into air, Device for. G. A. Schüller. No. 1,080,594; Dec. 9; Gaz. vol. 197; p. 267.
 Springs. See Coiling-spring; Vehicle-spring; Suspension-spring.
 Spring and pneumatic wheel. J. A. Gray. No. 1,080,106; Dec. 2; Gaz. vol. 197; p. 66.
 Spring-cover. A. E. Peters. No. 1,080,652; Dec. 9; Gaz. vol. 197; p. 286.
 Spring-guard. S. P. Wilbur. No. 1,081,072; Dec. 9; Gaz. vol. 197; p. 428.
 Spring-wheel. A. Morgan. No. 1,080,649; Dec. 9; Gaz. vol. 197; p. 285.
 Spring-wheel. F. W. Pramschüfer. No. 1,081,146; Dec. 9; Gaz. vol. 197; p. 453.
 Spring-wheel. A. Laurencich. No. 1,081,844; Dec. 16; Gaz. vol. 197; p. 726.
 Spring-wheel. E. R. White. No. 1,082,380; Dec. 23; Gaz. vol. 197; p. 938.
 Spring-wheel. C. N. Sowden. No. 1,082,915; Dec. 30; Gaz. vol. 197; p. 1156.
 Spring-wheel. M. B. Ray and E. K. Henderson. No. 1,082,073; Dec. 30; Gaz. vol. 197; p. 1176.
 Sprinkler. See Automatic sprinkler.
 Sprinkler. J. P. Campbell. No. 1,080,136; Dec. 2; Gaz. vol. 197; p. 76.
 Sprinkler. W. A. Parish. No. 1,082,437; Dec. 23; Gaz. vol. 197; p. 956.
 Square. T. G. Foerst. No. 1,082,626; Dec. 30; Gaz. vol. 197; p. 1055.
 Staging and scaffolding bracket. E. Schärer. No. 1,082,448; Dec. 23; Gaz. vol. 197; p. 959.
 Stair. F. A. Winslow. No. 1,081,074; Dec. 9; Gaz. vol. 197; p. 428.
 Stakes, Means for supporting and releasing retaining. J. D. Mauch and F. Martin. No. 1,083,118; Dec. 30; Gaz. vol. 197; p. 1222.
 Stalk-cutter. R. A. Blunck. No. 1,081,201; Dec. 9; Gaz. vol. 197; p. 471.
 Stamp. J. H. Matthews and J. Stein. No. 1,081,394; Dec. 16; Gaz. vol. 197; p. 575.
 Stamp and label affixer. C. Leishman. No. 1,082,346; Dec. 23; Gaz. vol. 197; p. 927.
 Stamp feeding and affixing device. H. Isselhorst and H. Angerstein. No. 1,081,270; Dec. 9; Gaz. vol. 197; p. 495.
 Stamp-mill-operating means. E. Dollar. No. 1,082,015; Dec. 23; Gaz. vol. 197; p. 812.
 Stamp or ticket vending machine. S. L. W. Coe. No. 1,080,138; Dec. 2; Gaz. vol. 197; p. 77.
 Stamps on beer-casks, Implement for destroying revenue. C. Wehner. No. 1,080,312; Dec. 2; Gaz. vol. 197; p. 137.
 Stamping-machine. H. J. Grant. No. 1,082,023; Dec. 23; Gaz. vol. 197; p. 814.
 Stamping-machine. F. M. Mahood. No. 1,082,541; Dec. 30; Gaz. vol. 197; p. 1023.
 Stamping, punching, or cutting machine safety attachment. A. H. Bell. No. 1,082,188; Dec. 23; Gaz. vol. 197; p. 869.
 Stanchion. G. G. Friberg. No. 1,080,755; Dec. 9; Gaz. vol. 197; p. 323.
 Stanchion. W. D. James. No. 1,081,045; Dec. 9; Gaz. vol. 197; p. 420.
 Stanchion, Cattle. W. F. Jacobs. No. 1,080,065; Dec. 2; Gaz. vol. 197; p. 51.
 Stand. See Adding-machine-motor stand; Display-stand; Type-writing-machine stand.
 Starter, Automatic self. A. Borsella and C. Soccol. No. 1,082,927; Dec. 30; Gaz. vol. 197; p. 1160.
 Starting device, Motor. T. J. Roberts. No. 1,080,482; Dec. 2; Gaz. vol. 197; p. 197.
 Starting mechanism. M. MacFarland. No. 1,080,642; Dec. 9; Gaz. vol. 197; p. 282.
 Station-indicator. C. P. McDonnell. No. 1,082,036; Dec. 23; Gaz. vol. 197; p. 819.
 Stay, Garment. H. S. Brewington. No. 1,081,011; Dec. 9; Gaz. vol. 197; p. 409.
 Stay, Garment. D. Schuler. No. 1,082,176; Dec. 23; Gaz. vol. 197; p. 864.
 Stav-strip-preparing machine. C. H. Crowell. No. 1,081,563; Dec. 16; Gaz. vol. 197; p. 637.
 Steam-boiler. Water-tube. G. M. Kohler. No. 1,082,597; Dec. 30; Gaz. vol. 197; p. 1044.
 Steam-engine. W. H. Sullivan. No. 1,081,787; Dec. 16; Gaz. vol. 197; p. 705.
 Steam-engine, Rotary. C. Franco. No. 1,080,105; Dec. 2; Gaz. vol. 197; p. 65.
 Steam for industrial purposes from prime movers, Means for supplying. L. Sanders. No. 1,081,408; Dec. 16; Gaz. vol. 197; p. 580.
 Steam-generating apparatus. J. B. Pentz. No. 1,081,463; Dec. 16; Gaz. vol. 197; p. 599.
 Steam-generator. E. Pfeilock. No. 1,082,136; Dec. 23; Gaz. vol. 197; p. 851.
 Steam-generator with forced circulation. P. Fouque and G. Charpentier. No. 1,082,312; Dec. 23; Gaz. vol. 197; p. 915.
 Steam-heating apparatus. J. L. Flitts. No. 1,080,104; Dec. 2; Gaz. vol. 197; p. 65.
 Steam-regenerative accumulator and water-heater. D. B. Morrison. No. 1,081,132; Dec. 9; Gaz. vol. 197; p. 448.
 Steam-trap. E. S. Caldwell. No. 1,081,431; Dec. 16; Gaz. vol. 197; p. 587.
 Steaming and pressing machine, Garment. C. B. Howe. No. 1,080,695; Dec. 9; Gaz. vol. 197; p. 301.
 Steamship. W. Hargrove. No. 1,081,446; Dec. 16; Gaz. vol. 197; p. 593.
 Steel and refining thereof, Apparatus for the manufacture of. J. W. Latcher. No. 1,080,224; Dec. 2; Gaz. vol. 197; p. 107.
 Steel-furnaces, Spout for. C. E. Michaels. No. 1,080,071; Dec. 2; Gaz. vol. 197; p. 53.
 Steel, High-speed tool. R. Becker. No. 1,081,263; Dec. 9; Gaz. vol. 197; p. 493.
 Steel, Making. P. P. Reese and S. S. Wales. No. 1,082,359; Dec. 23; Gaz. vol. 197; p. 931.
 Steel, Manufacturing. G. H. Benjamin. No. 1,080,807; Dec. 9; Gaz. vol. 197; p. 342.
 Steel products, Manufacturing silicon. O. H. Cunningham. No. 1,081,370; Dec. 16; Gaz. vol. 197; p. 568.

Steel, Purifying. E. Humbert. No. 1,081,532; Dec. 16; Gaz. vol. 197; p. 623.
 Steering-gear. W. Lund and W. B. Lloyd. No. 1,080,766; Dec. 9; Gaz. vol. 197; p. 326.
 Steering mechanism. W. S. Hall. No. 1,081,607; Dec. 16; Gaz. vol. 197; p. 645.
 Steering-wheel, Electric heated. R. S. Smith. No. 1,082,830; Dec. 30; Gaz. vol. 197; p. 1127.
 Stirrup. W. Nasser, Jr. No. 1,082,435; Dec. 23; Gaz. vol. 197; p. 955.
 Stock-saiting device, Automatic. J. I. Iblings. No. 1,081,235; Dec. 9; Gaz. vol. 197; p. 482.
 Stocking, trousers, and the like supporter. E. Lange. No. 1,082,345; Dec. 23; Gaz. vol. 197; p. 926.
 Stoker. N. E. Gee. No. 1,082,419; Dec. 23; Gaz. vol. 197; p. 949.
 Stoker, Furnace. E. F. Krell. No. 1,082,126; Dec. 23; Gaz. vol. 197; p. 848.
 Stone composition for building and like purposes, Artificial. A. Rommel. No. 1,083,142; Dec. 30; Gaz. vol. 197; p. 1229.
 Stone-cutting machine. P. Burger. No. 1,081,576; Dec. 16; Gaz. vol. 197; p. 634.
 Stone-puller. J. Gustin. No. 1,079,939; Dec. 2; Gaz. vol. 197; p. 6.
 Stool for holding traps. W. Green. No. 1,083,086; Dec. 30; Gaz. vol. 197; p. 1213.
 Stop mechanism for power-driven machines, Automatic. A. Vanderveld. No. 1,080,870; Dec. 9; Gaz. vol. 197; p. 363.
 Stop-motion. F. Ainsworth. No. 1,082,388; Dec. 23; Gaz. vol. 197; p. 940.
 Stopper. See Bottle-stopper; Sink-stopper.
 Stopping-drill, Rock-drilling. J. G. Leyner. No. 1,082,162; Dec. 23; Gaz. vol. 197; p. 859.
 Stopping mechanism, Rover. J. Boyd. No. 1,080,522; Dec. 2; Gaz. vol. 197; p. 211.
 Storage battery. A. H. Snyder and J. Starkenstein. No. 1,080,852; Dec. 9; Gaz. vol. 197; p. 358.
 Storage battery. A. S. Hubbard. No. 1,082,869; Dec. 30; Gaz. vol. 197; p. 1139.
 Store-service apparatus. C. H. Miller. No. 1,081,249; Dec. 9; Gaz. vol. 197; p. 487.
 Stove. W. E. Huenefeld. No. 1,080,148; Dec. 2; Gaz. vol. 197; p. 81.
 Stove. E. W. Anthony. No. 1,080,671; Dec. 9; Gaz. vol. 197; p. 292.
 Stove-shelf, Detachable. M. A. Possons. No. 1,082,443; Dec. 23; Gaz. vol. 197; p. 958.
 Stove wick-holder. Oil. J. F. Bittle. No. 1,082,395; Dec. 23; Gaz. vol. 197; p. 942.
 Stovepipe-nest. A. G. Scherer. No. 1,082,175; Dec. 23; Gaz. vol. 197; p. 864.
 Strainer. J. C. W. Schopke. No. 1,081,469; Dec. 16; Gaz. vol. 197; p. 601.
 Strainer, Milk. C. H. Clark. No. 1,080,262; Dec. 2; Gaz. vol. 197; p. 121.
 Strainer, Milk. C. Ekvall. No. 1,080,545; Dec. 9; Gaz. vol. 197; p. 251.
 Straw of fax and the like, Mechanism for treating. B. S. Summers. No. 1,082,778; Dec. 30; Gaz. vol. 197; p. 1110.
 Straw-spreader. L. D. Rice. No. 1,082,820; Dec. 30; Gaz. vol. 197; p. 1123.
 Stream-deflector. W. H. Dean. No. 1,080,049; Dec. 2; Gaz. vol. 197; p. 45.
 Street-cleaning machine. H. Carr. No. 1,081,209; Dec. 9; Gaz. vol. 197; p. 473.
 Street or station indicator. J. W. De Ford. No. 1,083,063; Dec. 30; Gaz. vol. 197; p. 1204.
 Street-sweeper. W. C. Niemann. No. 1,081,571; Dec. 16; Gaz. vol. 197; p. 615.
 Stropping-machine. L. A. Flinker. No. 1,081,284; Dec. 9; Gaz. vol. 197; p. 500.
 Structure, Knockdown. G. N. Barrie. No. 1,080,622; Dec. 9; Gaz. vol. 197; p. 276.
 Structures of the continuous-wooden-stave type, Constructing spirally-wire-wound. H. E. Aine. No. 1,082,062; Dec. 23; Gaz. vol. 197; p. 827.
 Stucco and other plastering material, Support for receiving. M. H. Jester. No. 1,080,221; Dec. 2; Gaz. vol. 197; p. 106.
 Stud, Collar. M. Auerbach. No. 1,081,650; Dec. 16; Gaz. vol. 197; p. 658.
 Stud fastener, Ear. R. Tolchln. No. 1,080,735; Dec. 9; Gaz. vol. 197; p. 315.
 Stump-burner. W. H. Brasler. No. 1,082,619; Dec. 30; Gaz. vol. 197; p. 1052.
 Stump-burner. H. H. Morgan. No. 1,082,644; Dec. 30; Gaz. vol. 197; p. 1061.
 Stumps, Removing. W. W. Pope. No. 1,082,442; Dec. 23; Gaz. vol. 197; p. 958.
 Subterranean heater. A. Pick. No. 1,082,971; Dec. 30; Gaz. vol. 197; p. 1175.
 Sugar-container. R. C. Morris. No. 1,082,893; Dec. 30; Gaz. vol. 197; p. 1148.
 Sulficase. H. Burchess. No. 1,081,014; Dec. 9; Gaz. vol. 197; p. 410.
 Sulficase-alarm, Automatic. P. H. Read. No. 1,081,150; Dec. 9; Gaz. vol. 197; p. 454.
 Sulfur, Extracting. W. A. Hall. No. 1,083,253; Dec. 30; Gaz. vol. 197; p. 1264.
 Sulfur, Extracting. W. A. Hall. No. 1,083,255; Dec. 30; Gaz. vol. 197; p. 1264.
 Sulfur from metallic sulfides, Extraction of. W. A. Hall. No. 1,083,248; Dec. 30; Gaz. vol. 197; p. 1263.
 Sulfur, from sulfides, Obtaining. W. A. Hall. No. 1,083,251; Dec. 30; Gaz. vol. 197; p. 1263.
 Sulfur, Production of. W. A. Hall. No. 1,083,249; Dec. 30; Gaz. vol. 197; p. 1263.
 Sulfur, Recovering. W. A. Hall. No. 1,083,250; Dec. 30; Gaz. vol. 197; p. 1263.
 Supporter. M. E. Bird. No. 1,080,097; Dec. 2; Gaz. vol. 197; p. 63.
 Surgical appliance. M. Iversen. No. 1,081,834; Dec. 16; Gaz. vol. 197; p. 722.
 Surgical instrument. T. A. Hopkins. No. 1,080,554; Dec. 9; Gaz. vol. 197; p. 254.
 Suspenders. M. Bono. No. 1,080,534; Dec. 9; Gaz. vol. 197; p. 248.
 Sweep-rake. J. H. Hoener. No. 1,082,520; Dec. 30; Gaz. vol. 197; p. 1016.
 Swimming apparatus, Dry. R. Kupfer. No. 1,080,462; Dec. 2; Gaz. vol. 197; p. 191.
 Swing. J. W. Culp. No. 1,079,933; Dec. 2; Gaz. vol. 197; p. 4.
 Swingletree-hook. H. J. Dingfelder. No. 1,082,738; Dec. 30; Gaz. vol. 197; p. 1094.
 Switch. See Electric switch; Electrical switch; Electrical snap-switch; Panel-board switch; Railway-switch; Thermo-electric switch; Time-switch.
 Switch. G. W. Hart. No. 1,080,058; Dec. 2; Gaz. vol. 197; p. 49.
 Switch. A. W. Johnson. No. 1,081,119; Dec. 9; Gaz. vol. 197; p. 443.
 Switch. H. L. Kirkpatrick. No. 1,081,839; Dec. 16; Gaz. vol. 197; p. 724.
 Switch. A. J. Wilson. No. 1,082,251; Dec. 23; Gaz. vol. 197; p. 892.
 Switch-lock. O. M. Lockwood and A. A. Stout. No. 1,080,986; Dec. 9; Gaz. vol. 197; p. 402.
 Switch mechanism. E. J. Pace. No. 1,082,210; Dec. 23; Gaz. vol. 197; p. 876.
 Switch stand and lock. A. E. Kaltschmidt. No. 1,081,750; Dec. 16; Gaz. vol. 197; p. 691.
 Syringe. A. E. Wilde. No. 1,080,395; Dec. 2; Gaz. vol. 197; p. 170.
 Syruping-machine, Vacuum. W. G. Murray. No. 1,080,469; Dec. 2; Gaz. vol. 197; p. 193.
 Table. See Adjustable table; Extension-table; Game-table; Ironing-table; Self-leveling table; Sewing-machine table. Table and sled, Combination. G. V. Meagher. No. 1,082,162; Dec. 23; Gaz. vol. 197; p. 850.
 Table-lock. E. L. Marston. No. 1,082,889; Dec. 30; Gaz. vol. 197; p. 1147.
 Table structure, Foldable. V. J. Grieshekmer. No. 1,080,437; Dec. 2; Gaz. vol. 197; p. 133.
 Tableware. C. F. Smith. No. 1,080,661; Dec. 9; Gaz. vol. 197; p. 289.
 Tachometer. A. Allemann. No. 1,081,188; Dec. 9; Gaz. vol. 197; p. 467.
 Tack-driving machine. F. L. MacKenzie. No. 1,081,456; Dec. 16; Gaz. vol. 197; p. 596.
 Talking and moving-picture machines, Means for synchronizing. H. T. Crapo. No. 1,080,265; Dec. 2; Gaz. vol. 197; p. 122.
 Talking-machine. W. H. Rawles. No. 1,080,231; Dec. 2; Gaz. vol. 197; p. 109.
 Talking-machine-record blank. J. Schumacher. No. 1,082,709; Dec. 30; Gaz. vol. 197; p. 1084.
 Talking-machine-record holder. P. J. Robinson. No. 1,082,705; Dec. 30; Gaz. vol. 197; p. 1083.
 Talking-machine sound-box arm. W. W. Zackey. No. 1,083,045; Dec. 30; Gaz. vol. 197; p. 1198.
 Talking-machines, and holder therefor, Double-pointed reproducing-stylus for. E. T. Condon, Jr. No. 1,080,328; Dec. 2; Gaz. vol. 197; p. 143.
 Tally-machine. A. Gillespie. No. 1,081,952; Dec. 23; Gaz. vol. 197; p. 789.
 Tank. See Buoyancy-tank; Water-supply or flush tank.
 Tanks, Means for automatically regulating the flow of liquids from. E. Niederauer and J. H. Winfield. No. 1,082,605; Dec. 30; Gaz. vol. 197; p. 1047.
 Tanks, Operating settling. A. Potter. No. 1,081,329; Dec. 16; Gaz. vol. 197; p. 553.
 Tanning material and making same. M. Hönig. No. 1,080,970; Dec. 9; Gaz. vol. 197; p. 397.
 Tap. T. F. Kenn. No. 1,080,980; Dec. 9; Gaz. vol. 197; p. 400.
 Tapping and reaming head. W. M. Neckerman. No. 1,080,119; Dec. 2; Gaz. vol. 197; p. 71.
 Tapping water-mains under pressure, Apparatus for. A. Fairfield. No. 1,081,223; Dec. 9; Gaz. vol. 197; p. 479.
 Tape. W. L. E. Keuffel. No. 1,081,673; Dec. 16; Gaz. vol. 197; p. 665.
 Taping-machine. T. E. Raffel. No. 1,080,779; Dec. 9; Gaz. vol. 197; p. 331.
 Tar and ammonia from coal-gas, Recovery of. C. Still. No. 1,080,938; Dec. 9; Gaz. vol. 197; p. 387.
 Target-game apparatus. C. A. Richmond. No. 1,080,301; Dec. 2; Gaz. vol. 197; p. 134.
 Target, Sighting. F. Higgins. No. 1,081,829; Dec. 16; Gaz. vol. 197; p. 721.
 Teeth, Casting artificial. H. A. Wienand. No. 1,082,058; Dec. 23; Gaz. vol. 197; p. 826.
 Telegraph system. I. Kitsee. No. 1,083,257; Dec. 30; Gaz. vol. 197; p. 1265.

Telegraphy, Cable. I. Kitsee. No. 1,083,259; Dec. 30; Gaz. vol. 197; p. 1265.
 Telemeter. V. Colzi and F. Bardelli. No. 1,080,421; Dec. 2; Gaz. vol. 197; p. 178.
 Telephone, Condenser. J. Unterholzner. No. 1,082,248; Dec. 23; Gaz. vol. 197; p. 891.
 Telephone-exchange switching mechanism. F. A. Lundquist. No. 1,081,128; Dec. 9; Gaz. vol. 197; p. 446.
 Telephone-indicator. T. L. Savin. No. 1,081,990; Dec. 23; Gaz. vol. 197; p. 802.
 Telephone-receiver. M. Setter. No. 1,082,280; Dec. 23; Gaz. vol. 197; p. 806.
 Telephone switch-hook. Attachment for controlling. J. Frith. No. 1,082,856; Dec. 30; Gaz. vol. 197; p. 1135.
 Telephone system. Intercommunicating. P. G. Burgess. No. 1,080,260; Dec. 2; Gaz. vol. 197; p. 120.
 Telephonic apparatus key construction and release. W. P. Andrick, E. Lowe, and H. W. Haef. No. 1,081,712; Dec. 16; Gaz. vol. 197; p. 678.
 Telephony. I. Kitsee. No. 1,083,256; Dec. 30; Gaz. vol. 197; p. 1264.
 Tempering-vat. A. T. Upton. No. 1,081,473; Dec. 16; Gaz. vol. 197; p. 602.
 Tenon-machine gage. A. R. Rumohr. No. 1,082,048; Dec. 23; Gaz. vol. 197; p. 823.
 Tenoning-machine. L. Olsen. No. 1,082,760; Dec. 30; Gaz. vol. 197; p. 1103.
 Tent. W. H. Richling. No. 1,081,699; Dec. 16; Gaz. vol. 197; p. 674.
 Tent-frame. R. B. Fowzer. No. 1,081,902; Dec. 16; Gaz. vol. 197; p. 743.
 Tent-frame, Collapsible. B. F. Douglass. No. 1,082,937; Dec. 30; Gaz. vol. 197; p. 1163.
 Tent, Hanging. C. B. Avery and M. C. and L. A. Alverson. No. 1,081,481; Dec. 16; Gaz. vol. 197; p. 605.
 Textile-machine. T. E. Bingham. No. 1,081,423; Dec. 16; Gaz. vol. 197; p. 584.
 Textile materials. Apparatus for smoothing banks of. A. Clavel. No. 1,083,003; Dec. 30; Gaz. vol. 197; p. 1185.
 Theater or the like chair. A. Forster and H. Wanek. No. 1,081,034; Dec. 9; Gaz. vol. 197; p. 417.
 Thermal interchanging apparatus. J. I. Lyle. No. 1,082,539; Dec. 30; Gaz. vol. 197; p. 1022.
 Thermo-electric switch. H. Gillette. No. 1,080,908; Dec. 9; Gaz. vol. 197; p. 376.
 Thermometer. L. E. Parلمان. No. 1,081,139; Dec. 9; Gaz. vol. 197; p. 460.
 Thermopile. W. W. Coblenz. No. 1,081,365; Dec. 16; Gaz. vol. 197; p. 566.
 Thermoregulator. W. J. Smith. No. 1,080,493; Dec. 2; Gaz. vol. 197; p. 201.
 Thermostatic device for varying magnetic field. J. K. Stewart. No. 1,082,566; Dec. 30; Gaz. vol. 197; p. 1032.
 Thimble, Leather-worker's. D. Manson. No. 1,082,542; Dec. 30; Gaz. vol. 197; p. 1024.
 Thread-guide. J. Jeffers. No. 1,082,874; Dec. 30; Gaz. vol. 197; p. 1141.
 Threshing-machine. S. G. George. No. 1,082,191; Dec. 23; Gaz. vol. 197; p. 370.
 Threshing-machine. C. Schurch. No. 1,082,013; Dec. 30; Gaz. vol. 197; p. 1156.
 Threshing-machine feeders, Lateral conveyer for. A. C. Van Houweling. No. 1,082,716; Dec. 30; Gaz. vol. 197; p. 1087.
 Throat-braces, Securing. J. F. Gero. No. 1,080,686; Dec. 9; Gaz. vol. 197; p. 297.
 Ticket-deposit box. J. Anderson. No. 1,080,404; Dec. 2; Gaz. vol. 197; p. 172.
 Ticket, Transfer. W. Klein, Jr. No. 1,082,342; Dec. 23; Gaz. vol. 197; p. 925.
 Tie. See Bale-tie; Concrete tie; Railway-tie.
 Tie. W. L. Phelan. No. 1,082,470; Dec. 23; Gaz. vol. 197; p. 965.
 Tie and tie-plate support. C. W. and F. B. Ackermann. No. 1,082,252; Dec. 23; Gaz. vol. 197; p. 893.
 Tie-holder. W. Radl. No. 1,080,849; Dec. 9; Gaz. vol. 197; p. 357.
 Tile and plug fitting. Refractory. H. H. Nevanas. No. 1,080,715; Dec. 9; Gaz. vol. 197; p. 307.
 Tiles, bricks, and mosaics, Setting. F. P. Nale. No. 1,082,231; Dec. 23; Gaz. vol. 197; p. 885.
 Time-cost meter. J. T. Quigley. No. 1,080,165; Dec. 2; Gaz. vol. 197; p. 86.
 Time-recorder. W. H. Bundy. No. 1,082,008; Dec. 23; Gaz. vol. 197; p. 809.
 Time-recording mechanism. C. E. Johnson. No. 1,080,697; Dec. 9; Gaz. vol. 197; p. 301.
 Time-switch. W. E. Porter. No. 1,081,402; Dec. 16; Gaz. vol. 197; p. 578.
 Timer and distributing device. J. M. Smith. No. 1,080,788; Dec. 9; Gaz. vol. 197; p. 334.
 Tire. J. J. Patton. No. 1,080,295; Dec. 2; Gaz. vol. 197; p. 132.
 Tire. W. G. Chipley. No. 1,080,416; Dec. 2; Gaz. vol. 197; p. 176.
 Tire. W. L. Ross and A. Leifer. No. 1,083,143; Dec. 30; Gaz. vol. 197; p. 1230.
 Tire and rim, Wheel. J. B. Crawford. No. 1,081,812; Dec. 16; Gaz. vol. 197; p. 714.
 Tire antikidding attachment. W. E. Budd. No. 1,080,259; Dec. 2; Gaz. vol. 197; p. 120.
 Tire, Automobile. A. H. Fisher. No. 1,080,818; Dec. 9; Gaz. vol. 197; p. 347.

Tire, Automobile. E. N. Breitung. No. 1,081,010; Dec. 9; Gaz. vol. 197; p. 409.
 Tire-chain. J. Weaver. No. 1,080,394; Dec. 2; Gaz. vol. 197; p. 160.
 Tire, Cushion. C. E. Bright. No. 1,081,425; Dec. 16; Gaz. vol. 197; p. 585.
 Tire, Cushion. J. A. Mollitor. No. 1,081,765; Dec. 16; Gaz. vol. 197; p. 698.
 Tire, Cushion. N. K. Parrish. No. 1,082,647; Dec. 30; Gaz. vol. 197; p. 1061.
 Tire-cushioning device. J. E. Strong. No. 1,081,005; Dec. 9; Gaz. vol. 197; p. 408.
 Tire-filler. D. L. Clark. No. 1,083,188; Dec. 30; Gaz. vol. 197; p. 1241.
 Tire for vehicle-wheels, Cushion. A. Casazza. No. 1,083,000; Dec. 30; Gaz. vol. 197; p. 1184.
 Tire for vehicle-wheels, Spring. C. H. Vidal. No. 1,080,129; Dec. 2; Gaz. vol. 197; p. 74.
 Tire for vehicles, Cushion. J. Seadler. No. 1,081,518; Dec. 16; Gaz. vol. 197; p. 618.
 Tire-gage. J. F. Waters. No. 1,079,965; Dec. 2; Gaz. vol. 197; p. 15.
 Tire-heater. A. E. Stachel. No. 1,082,367; Dec. 23; Gaz. vol. 197; p. 934.
 Tire-heater. J. Gogel. No. 1,082,515; Dec. 30; Gaz. vol. 197; p. 1014.
 Tire, Heavy-car. F. W. Kremer. No. 1,082,029; Dec. 23; Gaz. vol. 197; p. 817.
 Tire-inflating mechanism. E. J. Watson and R. F. Downey. No. 1,082,983; Dec. 30; Gaz. vol. 197; p. 1179.
 Tire, Inner. J. A. Thomson. No. 1,082,660; Dec. 30; Gaz. vol. 197; p. 1066.
 Tire, Pneumatic. J. J. Luck. No. 1,081,846; Dec. 16; Gaz. vol. 197; p. 727.
 Tire-preserving compound. S. R. Ball. No. 1,079,929; Dec. 2; Gaz. vol. 197; p. 3.
 Tire-protector, Automobile. F. Persic. No. 1,081,694; Dec. 16; Gaz. vol. 197; p. 673.
 Tire, Resilient. C. F. Strohm. No. 1,082,453; Dec. 23; Gaz. vol. 197; p. 960.
 Tire, Resilient. R. Curry. No. 1,083,030; Dec. 30; Gaz. vol. 197; p. 1203.
 Tire-shoe-making machine. C. A. Edmonds. No. 1,080,683; Dec. 9; Gaz. vol. 197; p. 296.
 Tire-tread. D. Marshall. No. 1,082,203; Dec. 23; Gaz. vol. 197; p. 874.
 Tire, Vehicle. C. F. Forster. No. 1,080,821; Dec. 9; Gaz. vol. 197; p. 348.
 Tire, Vehicle. A. S. Richardson. No. 1,081,808; Dec. 16; Gaz. vol. 197; p. 674.
 Tire, Vehicle. L. H. Ferguson. No. 1,083,245; Dec. 30; Gaz. vol. 197; p. 1262.
 Tire, Vehicle wheel. H. L. Stillman. No. 1,080,385; Dec. 2; Gaz. vol. 197; p. 166.
 Tires, Cushion element for resilient. C. E. Bright. No. 1,081,426; Dec. 16; Gaz. vol. 197; p. 585.
 Tires, Device for preventing excessive pressure in pneumatic. W. H. Van Winkle. No. 1,082,182; Dec. 23; Gaz. vol. 197; p. 867.
 Tires, Grip-tread for vehicle. C. J. Ohlsson. No. 1,080,923; Dec. 9; Gaz. vol. 197; p. 382.
 Tires, Making. A. E. Vale. No. 1,083,231; Dec. 30; Gaz. vol. 197; p. 1256.
 Tires on rims, Device for building. W. C. Stevens. No. 1,080,860; Dec. 9; Gaz. vol. 197; p. 360.
 Tires, Rim for mounting pneumatic. E. F. Dreger and E. E. Paster. No. 1,080,814; Dec. 9; Gaz. vol. 197; p. 345.
 Toaster, Electric. A. A. Warner. No. 1,080,667; Dec. 9; Gaz. vol. 197; p. 291.
 Tobacco-container. O. H. Johnson. No. 1,083,104; Dec. 30; Gaz. vol. 197; p. 1218.
 Tobacco-cutter. J. W. Arrants. No. 1,079,998; Dec. 2; Gaz. vol. 197; p. 27.
 Tobacco-handling implement. E. Norbo. No. 1,081,400; Dec. 16; Gaz. vol. 197; p. 598.
 Tobacco-pipe. V. Simonin. No. 1,080,851; Dec. 9; Gaz. vol. 197; p. 357.
 Tobacco-pipe. U. L. M. Zetterstrom and C. G. Helstrom. No. 1,082,384; Dec. 23; Gaz. vol. 197; p. 939.
 Tobacco-pipe and the like cleaning device. C. H. Haig. No. 1,081,038; Dec. 9; Gaz. vol. 197; p. 418.
 Tobacco-plug extractor. B. T. Sublett. No. 1,081,786; Dec. 16; Gaz. vol. 197; p. 705.
 Tobacco-seeder. R. W. Ham. No. 1,083,090; Dec. 30; Gaz. vol. 197; p. 1214.
 Tobacco-working machine. H. P. Hill. No. 1,082,519; Dec. 30; Gaz. vol. 197; p. 1015.
 Toe-spreader. W. M. Scholl. No. 1,080,304; Dec. 2; Gaz. vol. 197; p. 135.
 Toe-straightening appliance. W. M. Scholl. No. 1,080,305; Dec. 2; Gaz. vol. 197; p. 135.
 Toggle. E. J. Fitzgerald. No. 1,082,075; Dec. 23; Gaz. vol. 197; p. 832.
 Tongs, Clothes. W. C. Dennis. No. 1,080,898; Dec. 9; Gaz. vol. 197; p. 373.
 Tongue-swing. W. L. Buckner. No. 1,080,951; Dec. 9; Gaz. vol. 197; p. 391.
 Tool. E. C. Shaw. No. 1,081,336; Dec. 16; Gaz. vol. 197; p. 556.
 Tool, Combination. H. G. Wernimont. No. 1,079,997; Dec. 2; Gaz. vol. 197; p. 27.
 Tool-hanger. S. C. Barrett. No. 1,081,261; Dec. 9; Gaz. vol. 197; p. 492.

Tool-holder. A. Cousot. No. 1,080,422; Dec. 2; Gaz. vol. 197; p. 178.
 Tool-holder. V. R. Koontz. No. 1,080,565; Dec. 9; Gaz. vol. 197; p. 257.
 Tool-holder. S. C. Barrett. No. 1,081,262; Dec. 9; Gaz. vol. 197; p. 492.
 Tool-holder. G. A. Taylor. No. 1,083,230; Dec. 30; Gaz. vol. 197; p. 1256.
 Tool-holder, Universal. P. E. Johanson. No. 1,080,560; Dec. 9; Gaz. vol. 197; p. 255.
 Tool-holding mechanism. G. Y. Courtney. No. 1,083,193; Dec. 30; Gaz. vol. 197; p. 1242.
 Tool, Household. J. C. Forster. No. 1,083,078; Dec. 30; Gaz. vol. 197; p. 1210.
 Tool, Percussive. L. C. Bayles. No. 1,080,095; Dec. 2; Gaz. vol. 197; p. 62.
 Tool, Percussive. L. C. Bayles. No. 1,060,096; Dec. 2; Gaz. vol. 197; p. 62.
 Tool, Percussive. L. C. Bayles. No. 1,080,880; Dec. 9; Gaz. vol. 197; p. 366.
 Tool, Percussive. L. C. Bayles. No. 1,080,881; Dec. 9; Gaz. vol. 197; p. 367.
 Tool, Percussive. L. C. Bayles. No. 1,081,653; Dec. 16; Gaz. vol. 197; p. 859.
 Tooth-fronts, Manufacturing artificial. T. Steele. No. 1,082,865; Dec. 23; Gaz. vol. 197; p. 933.
 Tooth, Interchangeable. T. Steele. No. 1,082,366; Dec. 23; Gaz. vol. 197; p. 934.
 Tooth, Interchangeable artificial. J. W. Ivory. No. 1,081,307; Dec. 16; Gaz. vol. 197; p. 545.
 Tooth-powder. W. E. Danner. No. 1,082,681; Dec. 30; Gaz. vol. 197; p. 1075.
 Tooth-powder container. W. G. Steadman, Jr. No. 1,081,785; Dec. 16; Gaz. vol. 197; p. 704.
 Tooth-regulating appliances, Instrument for recording changes in. R. H. W. Strang. No. 1,082,052; Dec. 23; Gaz. vol. 197; p. 824.
 Toothed wheels, milling-cutters, and the like, Grinding of. A. Alchele. No. 1,080,505; Dec. 2; Gaz. vol. 197; p. 205.
 Torch. S. H. Tolman. No. 1,082,713; Dec. 30; Gaz. vol. 197; p. 1086.
 Torpedo, Railway signal. F. Dutcher. No. 1,080,428; Dec. 2; Gaz. vol. 197; p. 181.
 Torpedoes, Steering mechanism for automobile. F. M. Leavitt. No. 1,080,116; Dec. 2; Gaz. vol. 197; p. 70.
 Tower or derrick coupling. Steel. L. C. Moore. No. 1,082,207; Dec. 23; Gaz. vol. 197; p. 375.
 Toy. J. F. Schoeppl. No. 1,080,078; Dec. 2; Gaz. vol. 197; p. 56.
 Toy. E. P. Lehmann. No. 1,080,465; Dec. 2; Gaz. vol. 197; p. 192.
 Toy. J. W. Zimmerman. No. 1,080,670; Dec. 9; Gaz. vol. 197; p. 292.
 Toy. H. H. and W. Worgan. No. 1,083,041; Dec. 30; Gaz. vol. 197; p. 1197.
 Toy. J. A. Marx. No. 1,083,117; Dec. 30; Gaz. vol. 197; p. 1222.
 Toy pistol. G. C. Lasarea. No. 1,080,701; Dec. 9; Gaz. vol. 197; p. 302.
 Toy projectile. E. Hackh. No. 1,081,037; Dec. 9; Gaz. vol. 197; p. 418.
 Toy-track switch mechanism. A. E. Miller. No. 1,080,363; Dec. 2; Gaz. vol. 197; p. 157.
 Track-cleaner. J. H. Haller. No. 1,081,608; Dec. 16; Gaz. vol. 197; p. 646.
 Track-contractor. C. W. Ward. No. 1,082,184; Dec. 23; Gaz. vol. 197; p. 867.
 Traction-engine and motor-wagon, Combined. A. L. Wyman. No. 1,083,044; Dec. 30; Gaz. vol. 197; p. 1198.
 Traction-engine flexible draw-bar. C. Edwards and H. H. Junkin. No. 1,080,429; Dec. 2; Gaz. vol. 197; p. 181.
 Traction system, Electric. L. B. Stillwell and F. N. Waterman. No. 1,081,342; Dec. 16; Gaz. vol. 197; p. 558.
 Traction-vehicle. L. S. Cushman. No. 1,080,101; Dec. 2; Gaz. vol. 197; p. 64.
 Train-order holder. J. Barlow. No. 1,082,392; Dec. 23; Gaz. vol. 197; p. 942.
 Train-orders, Means for transmitting. E. W. Dean. No. 1,083,197; Dec. 30; Gaz. vol. 197; p. 1244.
 Train-stop, Automatic. H. G. Sedgwick. No. 1,082,825; Dec. 30; Gaz. vol. 197; p. 1125.
 Translucent panel for signs and ornamental purposes. G. R. Meyerord. No. 1,080,989; Dec. 9; Gaz. vol. 197; p. 403.
 Translucent panels, Producing. G. R. Meyerord. No. 1,080,990; Dec. 9; Gaz. vol. 197; p. 403.
 Transmission mechanism. J. G. Utz. No. 1,079,961; Dec. 2; Gaz. vol. 197; p. 13.
 Trap. See Animal-trap; Drain-trap; Fly-trap; Gas-main and the like trap; Insect-trap; Mole-trap; Mouse-trap; Nest-trap; Screen-door trap; Sewer-trap; Steam-trap; Vermint-trap.
 Trap. J. R. McClenahan. No. 1,079,944; Dec. 2; Gaz. vol. 197; p. 7.
 Tread, Resilient. P. W. Pratt. No. 1,082,096; Dec. 23; Gaz. vol. 197; p. 839.
 Tree prop, Fruit. S. W. Glascock. No. 1,080,758; Dec. 9; Gaz. vol. 197; p. 324.
 Tree prop, Fruit. C. R. Thompson. No. 1,081,170; Dec. 9; Gaz. vol. 197; p. 461.
 Tree-protector. W. Barrett. No. 1,081,482; Dec. 16; Gaz. vol. 197; p. 606.

197 O. G.—vii

Tree-protector. J. J. Patterson. No. 1,082,439; Dec. 23; Gaz. vol. 197; p. 957.
 Tree surgery. E. B. Sherman. No. 1,080,660; Dec. 9; Gaz. vol. 197; p. 289.
 Trees, shrubs, and vines, Device for applying substances to. W. R. Kleckner. No. 1,080,460; Dec. 2; Gaz. vol. 197; p. 190.
 Trench-digger. M. G. Blick. No. 1,080,250; Dec. 2; Gaz. vol. 197; p. 116.
 Tricycle. M. M. Mallory. No. 1,083,115; Dec. 30; Gaz. vol. 197; p. 1221.
 Trigger mechanism for automatic or self-loading small-arms. P. Mauser. No. 1,081,761; Dec. 16; Gaz. vol. 197; p. 896.
 Trimmer. See Lawn-trimmer; Wood-trimmer.
 Tripod-head. J. Tessier. No. 1,082,053; Dec. 23; Gaz. vol. 197; p. 825.
 Trolley. G. O. Burwell and C. M. Kurtz. No. 1,081,809; Dec. 16; Gaz. vol. 197; p. 713.
 Trolley. G. L. Robertson. No. 1,082,046; Dec. 23; Gaz. vol. 197; p. 822.
 Trolley. P. Johnson. No. 1,083,017; Dec. 30; Gaz. vol. 197; p. 1190.
 Trolley. M. Adamski. No. 1,083,047; Dec. 30; Gaz. vol. 197; p. 1199.
 Trolley, Convertible. A. L. Behner and J. Scott. No. 1,083,049; Dec. 30; Gaz. vol. 197; p. 1200.
 Trolley-finder. P. J. Minck. No. 1,079,946; Dec. 2; Gaz. vol. 197; p. 7.
 Trolley-pole. A. R. Christian. No. 1,083,266; Dec. 30; Gaz. vol. 197; p. 1268.
 Trolley-wire clamp or fastening device. G. A. Mead and F. S. Denneen. No. 1,080,712; Dec. 9; Gaz. vol. 197; p. 806.
 Troling device. T. W. Jordan. No. 1,081,837; Dec. 16; Gaz. vol. 197; p. 724.
 Trousers and the like inflatable supporter. H. Leap. No. 1,080,985; Dec. 9; Gaz. vol. 197; p. 402.
 Trousers-creasing device. S. Ronda. No. 1,083,032; Dec. 30; Gaz. vol. 197; p. 1194.
 Trousers-stretcher and coat-hanger, Combined. J. Amato. No. 1,080,402; Dec. 2; Gaz. vol. 197; p. 172.
 Trowel. J. B. Runner. No. 1,080,075; Dec. 2; Gaz. vol. 197; p. 55.
 Trowel, Adjustable plastering. C. M. Howg. No. 1,083,099; Dec. 30; Gaz. vol. 197; p. 1217.
 Truck. H. H. Harris. No. 1,081,041; Dec. 9; Gaz. vol. 197; p. 418.
 Truck. E. M. Chapman and C. E. Cowan. No. 1,081,093; Dec. 9; Gaz. vol. 197; p. 434.
 Truck and plow, Combined motor. C. W. Clark. No. 1,080,749; Dec. 9; Gaz. vol. 197; p. 320.
 Truck body, Motor. R. S. McKeage. No. 1,082,814; Dec. 30; Gaz. vol. 197; p. 1121.
 Truck brake, Six-wheel-car. C. F. Frede. No. 1,080,206; Dec. 2; Gaz. vol. 197; p. 101.
 Truck, Car. E. Posson. No. 1,080,654; Dec. 9; Gaz. vol. 197; p. 266.
 Truck construction. C. H. Howard and H. M. Pfager. No. 1,080,555; Dec. 9; Gaz. vol. 197; p. 254.
 Truck construction. C. H. Howard and H. M. Pfager. No. 1,080,556; Dec. 9; Gaz. vol. 197; p. 254.
 Truck construction. C. H. Howard and H. M. Pfager. No. 1,080,557; Dec. 9; Gaz. vol. 197; p. 255.
 Truck construction. C. H. Howard and H. M. Pfager. No. 1,080,558; Dec. 9; Gaz. vol. 197; p. 255.
 Truck construction. C. H. Howard and H. M. Pfager. No. 1,080,559; Dec. 9; Gaz. vol. 197; p. 255.
 Truck, Delivery. W. W. Lytton and J. Tedford. No. 1,082,164; Dec. 23; Gaz. vol. 197; p. 860.
 Truck, Locomotive. A. F. Batchelder. No. 1,081,292; Dec. 16; Gaz. vol. 197; p. 540.
 Truck, Motor. F. M. Prettyman. No. 1,083,134; Dec. 30; Gaz. vol. 197; p. 1227.
 Truck, Motor. F. M. Prettyman. No. 1,083,135; Dec. 30; Gaz. vol. 197; p. 1227.
 Truck, Railway-car. W. F. Richards. No. 1,081,405; Dec. 16; Gaz. vol. 197; p. 579.
 Truck, Railway-car. W. F. Richards. No. 1,081,406; Dec. 16; Gaz. vol. 197; p. 579.
 Truck side frame, Car. W. D. Forsyth. No. 1,080,523; Dec. 2; Gaz. vol. 197; p. 212.
 Trunk and the like, Traveling. G. Brinckmann. No. 1,080,265; Dec. 2; Gaz. vol. 197; p. 118.
 Trunk-blinder. W. I. Bray. No. 1,081,657; Dec. 16; Gaz. vol. 197; p. 661.
 Trunk-fastener. W. D. Barnes. No. 1,080,409; Dec. 2; Gaz. vol. 197; p. 174.
 Trunk, Sectional. A. J. Gunn. No. 1,080,056; Dec. 2; Gaz. vol. 197; p. 48.
 Trunk, Wardrobe. E. W. Hawley. No. 1,083,012; Dec. 30; Gaz. vol. 197; p. 1188.
 Trunk, &c. with lids. A. Forbes. No. 1,079,981; Dec. 2; Gaz. vol. 197; p. 21.
 Trunks and similar receptacles, Manufacture of traveling. R. Studdert. No. 1,083,154; Dec. 30; Gaz. vol. 197; p. 1232.
 Truss. T. Amendold. No. 1,081,189; Dec. 9; Gaz. vol. 197; p. 467.
 Truss apparatus. J. M. Dunn. No. 1,082,153; Dec. 23; Gaz. vol. 197; p. 857.
 Tub. See Bath-tub.
 Tube cleaning machine. K. Mathews. No. 1,082,544; Dec. 30; Gaz. vol. 197; p. 1024.

Tube-coupling. S. G. Forst. No. 1,081,226; Dec. 9; Gaz. vol. 197; p. 480.
 Tube-cutter. O. Wiedeke. No. 1,082,984; Dec. 30; Gaz. vol. 197; p. 1179.
 Tube-extractor. R. Jentsch. No. 1,083,103; Dec. 30; Gaz. vol. 197; p. 1218.
 Tube-forming and sheathing apparatus. F. N. Palmer. No. 1,080,925; Dec. 9; Gaz. vol. 197; p. 382.
 Tube-splicing device, Elastic. E. A. Franklin. No. 1,081,299; Dec. 16; Gaz. vol. 197; p. 543.
 Tube-winding machine. J. Nazei. No. 1,081,510; Dec. 16; Gaz. vol. 197; p. 615.
 Tubing. Manufacture of double helical metallic. H. J. Davies and T. A. Judge. No. 1,080,897; Dec. 9; Gaz. vol. 197; p. 372.
 Tug and trace fastener. W. E. Seelye. No. 1,082,215; Dec. 23; Gaz. vol. 197; p. 878.
 Tungsten and alloys thereof, Preparing. F. M. Becket. No. 1,081,567; Dec. 16; Gaz. vol. 197; p. 633.
 Tungsten and alloys thereof, Preparing. F. M. Becket. No. 1,081,568; Dec. 16; Gaz. vol. 197; p. 633.
 Tungsten and alloys thereof, Preparing. F. M. Becket. No. 1,081,570; Dec. 16; Gaz. vol. 197; p. 633.
 Tungsten and making the same for use as filaments of incandescent electric lamps and for other purposes. W. D. Coolidge. No. 1,082,933; Dec. 30; Gaz. vol. 197; p. 1162.
 Tungsten ores, Treating. F. M. Becket. No. 1,081,566; Dec. 16; Gaz. vol. 197; p. 632.
 Tungsten ores, Treating. F. M. Becket. No. 1,081,571; Dec. 16; Gaz. vol. 197; p. 633.
 Tuning-coil, Loose-coupled. A. C. Gowing and M. C. Spencer. No. 1,083,085; Dec. 30; Gaz. vol. 197; p. 1212.
 Tunnel-form. C. D. McArthur. No. 1,082,700; Dec. 30; Gaz. vol. 197; p. 1081.
 Tunneling-machine. H. H. Born and H. A. Recen. No. 1,081,524; Dec. 16; Gaz. vol. 197; p. 819.
 Turbine. J. A. Groshon. No. 1,082,267; Dec. 23; Gaz. vol. 197; p. 898.
 Turbine-buckets, Machine for milling. J. F. Lyons. No. 1,081,242; Dec. 9; Gaz. vol. 197; p. 484.
 Turbine-controlling mechanism. W. B. Flanders. No. 1,082,689; Dec. 30; Gaz. vol. 197; p. 1076.
 Turbine, Elastic-fluid. S. Z. de Ferranti. No. 1,082,741; Dec. 30; Gaz. vol. 197; p. 1095.
 Turbine, Steam. J. F. Metten. No. 1,080,573; Dec. 9; Gaz. vol. 197; p. 359.
 Turbine, Steam. S. C. Rockman. No. 1,080,783; Dec. 9; Gaz. vol. 197; p. 332.
 Turbine, Steam. F. Ljungström. No. 1,082,886; Dec. 30; Gaz. vol. 197; p. 1146.
 Turbine system. W. Kleser. No. 1,081,387; Dec. 16; Gaz. vol. 197; p. 573.
 Turbine system. W. Kleser. No. 1,081,388; Dec. 16; Gaz. vol. 197; p. 573.
 Turpentine and rosin from wood, Extracting. B. F. A. Baylor. No. 1,081,276; Dec. 9; Gaz. vol. 197; p. 497.
 Tweezers, Watchmaker's. H. E. Holloway. No. 1,081,830; Dec. 16; Gaz. vol. 197; p. 721.
 Twisting-frames, Drip rail-plate for. J. Desautels and J. Lacroix. No. 1,083,005; Dec. 30; Gaz. vol. 197; p. 1186.
 Twisting-machines, Thread stop-motion for gripping a broken thread in. B. Dutkiewicz. No. 1,082,016; Dec. 23; Gaz. vol. 197; p. 812.
 Type-bar-making-machine spacer-handling mechanism. A. W. Le Boeuf. No. 1,082,275; Dec. 23; Gaz. vol. 197; p. 901.
 Type casting and composing machine. P. T. Dodge. No. 1,081,025; Dec. 9; Gaz. vol. 197; p. 414.
 Type. Device for locking lines of. C. E. Gilbert. No. 1,080,275; Dec. 2; Gaz. vol. 197; p. 125.
 Type-metal-treating device. E. M. Low. No. 1,082,279; Dec. 23; Gaz. vol. 197; p. 903.
 Type-setting and line-casting machine matrix. H. Degener. No. 1,080,330; Dec. 2; Gaz. vol. 197; p. 144.
 Type-writer. J. E. Mollie. No. 1,082,038; Dec. 23; Gaz. vol. 197; p. 819.
 Type-writer. E. H. Albertson. No. 1,082,671; Dec. 30; Gaz. vol. 197; p. 1071.
 Type-writer attachment. F. H. Alder. No. 1,080,506; Dec. 2; Gaz. vol. 197; p. 205.
 Type-writer attachment. M. Aaron. No. 1,081,185; Dec. 16; Gaz. vol. 197; p. 466.
 Type-writer attachment for desks. L. B. Pooler, J. M. Balner, and N. V. Elliott. No. 1,080,019; Dec. 2; Gaz. vol. 197; p. 34.
 Type-writer line-spacing mechanism. J. E. Mollie. No. 1,081,459; Dec. 16; Gaz. vol. 197; p. 597.
 Type-writer, Pneumatic. M. Soblik. No. 1,080,853; Dec. 9; Gaz. vol. 197; p. 358.
 Type-writing machine. G. A. Seib. No. 1,079,957; Dec. 2; Gaz. vol. 197; p. 12.
 Type-writing machine. C. H. Vogel. No. 1,079,963; Dec. 2; Gaz. vol. 197; p. 14.
 Type-writing machine. C. H. Vogel. No. 1,080,028; Dec. 2; Gaz. vol. 197; p. 38.
 Type-writing machine. J. C. McLaughlin. No. 1,080,117; Dec. 2; Gaz. vol. 197; p. 70.
 Type-writing machine. H. H. Steele. No. 1,080,239; Dec. 2; Gaz. vol. 197; p. 112.
 Type-writing machine. A. J. Briggs. No. 1,080,254; Dec. 2; Gaz. vol. 197; p. 118.

Type-writing machine. A. G. F. Kurowski. No. 1,080,285; Dec. 2; Gaz. vol. 197; p. 128.
 Type-writing machine. L. H. Friedman. No. 1,081,108; Dec. 9; Gaz. vol. 197; p. 439.
 Type-writing machine. O. Petermann. No. 1,081,145; Dec. 9; Gaz. vol. 197; p. 452.
 Type-writing machine. M. H. Lockwood. No. 1,082,038; Dec. 23; Gaz. vol. 197; p. 818.
 Type-writing machine. A. T. Brown. No. 1,082,262; Dec. 23; Gaz. vol. 197; p. 897.
 Type-writing machine. E. H. Lorenz. No. 1,082,535; Dec. 30; Gaz. vol. 197; p. 1021.
 Type-writing machine. E. H. Lorenz. No. 1,082,536; Dec. 30; Gaz. vol. 197; p. 1021.
 Type-writing machine. E. H. Lorenz. No. 1,082,537; Dec. 30; Gaz. vol. 197; p. 1022.
 Type-writing machine. W. A. Lorenz. No. 1,082,538; Dec. 30; Gaz. vol. 197; p. 1022.
 Type-writing machine. H. W. Merritt. No. 1,082,546; Dec. 30; Gaz. vol. 197; p. 1025.
 Type-writing machine. J. A. Ronchetti. No. 1,082,556; Dec. 30; Gaz. vol. 197; p. 1030.
 Type-writing machine. O. Fischer. No. 1,083,076; Dec. 30; Gaz. vol. 197; p. 1209.
 Type-writing-machine bar mechanism. O. Petermann. No. 1,081,141; Dec. 9; Gaz. vol. 197; p. 451.
 Type-writing-machine bar mechanism. O. Petermann. No. 1,081,143; Dec. 9; Gaz. vol. 197; p. 452.
 Type-writing-machine keyboard. O. Petermann. No. 1,081,140; Dec. 9; Gaz. vol. 197; p. 451.
 Type-writing-machine ribbon mechanism. J. A. Ziegler. No. 1,082,104; Dec. 23; Gaz. vol. 197; p. 842.
 Type-writing-machine stand. H. Bates. No. 1,081,198; Dec. 9; Gaz. vol. 197; p. 470.
 Type-writing machine, and stands, Caster raising and lowering device for. A. G. F. Kurowski. No. 1,082,160; Dec. 23; Gaz. vol. 197; p. 859.
 Type-writing-machine tally attachment. G. F. Watt. No. 1,082,057; Dec. 23; Gaz. vol. 197; p. 826.
 Typographic machine. F. C. L. D'Aix. No. 1,083,195; Dec. 30; Gaz. vol. 197; p. 1243.
 Typographical machine. L. L. Kennedy. No. 1,080,349; Dec. 2; Gaz. vol. 197; p. 152.
 Typographical machine. G. P. Kingsbury. No. 1,080,351; Dec. 2; Gaz. vol. 197; p. 153.
 Typographical machine. D. S. Kennedy. No. 1,081,754; Dec. 16; Gaz. vol. 197; p. 693.
 Typographical machine. N. Dodge. No. 1,082,114; Dec. 23; Gaz. vol. 197; p. 844.
 Umbrella. J. W. Lewis. No. 1,081,126; Dec. 9; Gaz. vol. 197; p. 445.
 Umbrella. Book. J. Sweeney. No. 1,080,025; Dec. 2; Gaz. vol. 197; p. 37.
 Umbrella-cover. A. E. Myers. No. 1,082,645; Dec. 30; Gaz. vol. 197; p. 1061.
 Umbrella. Folding. J. Bialosyt. No. 1,083,050; Dec. 30; Gaz. vol. 197; p. 1200.
 Umbrella, Folding. L. Messinger. No. 1,083,123; Dec. 30; Gaz. vol. 197; p. 1224.
 Undergarment. C. J. Baker. No. 1,081,196; Dec. 9; Gaz. vol. 197; p. 469.
 Undergarment. W. S. Elder. No. 1,083,069; Dec. 30; Gaz. vol. 197; p. 1206.
 Undergarment, Union. F. C. Rickert. No. 1,081,866; Dec. 16; Gaz. vol. 197; p. 733.
 Underreamer. R. E. Bole. No. 1,080,135; Dec. 2; Gaz. vol. 197; p. 76.
 Underreamer. W. Wagner. No. 1,080,666; Dec. 9; Gaz. vol. 197; p. 290.
 Universal joint. R. Huff. No. 1,080,111; Dec. 2; Gaz. vol. 197; p. 68.
 Vacuum-alarm. L. D. Copeland. No. 1,080,541; Dec. 9; Gaz. vol. 197; p. 249.
 Vacuum-cleaner. P. B. Newkirk. No. 1,082,356; Dec. 23; Gaz. vol. 197; p. 931.
 Vacuum-cleaner discharging device. J. H. Templin. No. 1,080,799; Dec. 9; Gaz. vol. 197; p. 334.
 Vacuum-cleaner handle-clips. G. Clements. No. 1,082,069; Dec. 23; Gaz. vol. 197; p. 830.
 Vacuum cleaning apparatus. J. P. Clifton. No. 1,080,420; Dec. 2; Gaz. vol. 197; p. 177.
 Vacuum-driers, Feeding material to and from. F. J. Stokes. No. 1,080,602; Dec. 9; Gaz. vol. 197; p. 269.
 Vacuum-producing device. H. Taylor. No. 1,082,568; Dec. 30; Gaz. vol. 197; p. 1034.
 Valve. C. E. Trinder. No. 1,080,791; Dec. 9; Gaz. vol. 197; p. 335.
 Valve. J. F. Milton. No. 1,080,991; Dec. 9; Gaz. vol. 197; p. 403.
 Valve. A. C. Murphy. No. 1,081,322; Dec. 16; Gaz. vol. 197; p. 551.
 Valve. G. H. Hyndman. No. 1,081,833; Dec. 16; Gaz. vol. 197; p. 722.
 Valve. F. Nielsen. No. 1,082,232; Dec. 23; Gaz. vol. 197; p. 885.
 Valve, Alarm. A. C. Rowley. No. 1,082,447; Dec. 23; Gaz. vol. 197; p. 959.
 Valve and emergency-switch, Combined conductor's. F. Hedley and J. B. Doyle. No. 1,082,951; Dec. 30; Gaz. vol. 197; p. 1168.
 Valve, Automatic cut-off. W. B. Ford. No. 1,081,822; Dec. 16; Gaz. vol. 197; p. 718.
 Valve, Automatically-closing. O. Schmachtenberger. No. 1,082,708; Dec. 30; Gaz. vol. 197; p. 1084.

Valve-controlling apparatus, Automatic thermic. F. A. Pollard. No. 1,082,212; Dec. 23; Gaz. vol. 197; p. 877.
 Valve device, Pressure-retaining. W. V. Turner. No. 1,081,347; Dec. 16; Gaz. vol. 197; p. 559.
 Valve, Discharge. A. L. Brown. No. 1,080,322; Dec. 2; Gaz. vol. 197; p. 141.
 Valve, Flush. W. B. Willetts. (Reissue.) No. 13,658; Dec. 16; Gaz. vol. 197; p. 757.
 Valve for air-brakes, Triple. S. G. Neal. No. 1,082,758; Dec. 30; Gaz. vol. 197; p. 1102.
 Valve for internal-combustion engines, Auxiliary air-. L. R. Saunders. No. 1,081,776; Dec. 16; Gaz. vol. 197; p. 701.
 Valve for internal-combustion engines, Rotary. M. G. Chandler. No. 1,080,892; Dec. 9; Gaz. vol. 197; p. 871.
 Valve, Gas-engine. F. C. Gonzales. No. 1,082,320; Dec. 23; Gaz. vol. 197; p. 918.
 Valve-gear, Internal-combustion-engine. K. Steinbecker. No. 1,080,495; Dec. 2; Gaz. vol. 197; p. 202.
 Valve-gear, Internal-combustion-engine. F. Lamplough. No. 1,081,051; Dec. 9; Gaz. vol. 197; p. 422.
 Valve, Internal-combustion-engine. O. A. Morris. No. 1,081,689; Dec. 16; Gaz. vol. 197; p. 870.
 Valve-lock. G. W. Cross. No. 1,082,935; Dec. 30; Gaz. vol. 197; p. 1162.
 Valve mechanism, Automatic. J. S. Goldberg. No. 1,082,744; Dec. 30; Gaz. vol. 197; p. 1096.
 Valve mechanism, Electropneumatic control. W. V. Turner. No. 1,082,295; Dec. 23; Gaz. vol. 197; p. 909.
 Valve mechanism for engines. E. Thomson. No. 1,080,733; Dec. 9; Gaz. vol. 197; p. 313.
 Valve mechanism, Trap. J. B. Armstrong. No. 1,080,507; Dec. 2; Gaz. vol. 197; p. 205.
 Valve, Mixing. R. C. A. Holzhausen. No. 1,083,015; Dec. 30; Gaz. vol. 197; p. 1189.
 Valve or disk form, Automatic. S. E. Alley and R. McGregor. No. 1,081,803; Dec. 16; Gaz. vol. 197; p. 710.
 Valve, Oscillating. F. A. Goodness. No. 1,083,208; Dec. 30; Gaz. vol. 197; p. 1248.
 Valve, Piston. C. J. Barley. No. 1,080,945; Dec. 9; Gaz. vol. 197; p. 389.
 Valve, Radiator. W. Staby. No. 1,080,858; Dec. 9; Gaz. vol. 197; p. 360.
 Valve, Reducing. J. and A. Graham, Jr. No. 1,082,321; Dec. 23; Gaz. vol. 197; p. 918.
 Valve-remover. A. E. Stoker. No. 1,082,917; Dec. 30; Gaz. vol. 197; p. 1157.
 Valve, Reversing. W. O. Amsler. No. 1,080,134; Dec. 2; Gaz. vol. 197; p. 75.
 Valve, Thermally-released check. A. W. Carlson. No. 1,082,107; Dec. 23; Gaz. vol. 197; p. 842.
 Valve, triple. J. R. Snyder. No. 1,080,662; Dec. 9; Gaz. vol. 197; p. 289.
 Vanner. G. F. De Wein. No. 1,081,894; Dec. 16; Gaz. vol. 197; p. 741.
 Vapor-generator. E. Seltz. No. 1,081,255; Dec. 9; Gaz. vol. 197; p. 489.
 Vaporizer. J. T. Freestone. No. 1,080,432; Dec. 2; Gaz. vol. 197; p. 182.
 Vaporizer attachment. E. M. Norton. No. 1,079,950; Dec. 2; Gaz. vol. 197; p. 9.
 Varnish. A. Kuegel. No. 1,080,461; Dec. 2; Gaz. vol. 197; p. 191.
 Vase, Fountain. W. F. Glassco. No. 1,081,825; Dec. 16; Gaz. vol. 197; p. 719.
 Vat. See Bark-softening vat; Tempering-vat.
 Vault-door. G. W. Kennington. No. 1,082,840; Dec. 23; Gaz. vol. 197; p. 924.
 Vehicle. J. W. Drew. No. 1,081,372; Dec. 16; Gaz. vol. 197; p. 568.
 Vehicle antivibration device. E. V. Hartford. No. 1,080,630; Dec. 9; Gaz. vol. 197; p. 278.
 Vehicle-axle-upsetting machine. C. W. Green. No. 1,080,338; Dec. 2; Gaz. vol. 197; p. 147.
 Vehicle-body. C. D. Orcutt. No. 1,081,056; Dec. 9; Gaz. vol. 197; p. 423.
 Vehicle-brake. R. H. Maxfield. No. 1,081,850; Dec. 16; Gaz. vol. 197; p. 728.
 Vehicle-brake. N. Blanchet. No. 1,082,396; Dec. 23; Gaz. vol. 197; p. 943.
 Vehicle-brake, Automatic. C. C. Cox. No. 1,082,410; Dec. 23; Gaz. vol. 197; p. 947.
 Vehicle door-fastener. R. H. Willcox. No. 1,079,969; Dec. 2; Gaz. vol. 197; p. 17.
 Vehicle, Double-decked. L. Spangler. No. 1,083,225; Dec. 30; Gaz. vol. 197; p. 1254.
 Vehicle driving-wheel, Motor. W. G. Miller. No. 1,082,434; Dec. 23; Gaz. vol. 197; p. 955.
 Vehicle-gear. L. E. Hickok. No. 1,081,910; Dec. 16; Gaz. vol. 197; p. 746.
 Vehicle-motor. T. F. McCallister. No. 1,080,361; Dec. 2; Gaz. vol. 197; p. 157.
 Vehicle-motor. B. Huff. No. 1,082,026; Dec. 23; Gaz. vol. 197; p. 815.
 Vehicle-motor. L. S. Ross. No. 1,082,047; Dec. 23; Gaz. vol. 197; p. 823.
 Vehicle-motor. J. Dain. No. 1,082,504; Dec. 30; Gaz. vol. 197; p. 1011.
 Vehicle-mounting. A. A. Pratt. No. 1,080,847; Dec. 9; Gaz. vol. 197; p. 356.
 Vehicle-raiser. E. Bean. No. 1,083,182; Dec. 30; Gaz. vol. 197; p. 1239.
 Vehicle, Self-propelled. F. de Alba B. No. 1,082,457; Dec. 23; Gaz. vol. 197; p. 961.

Vehicle-signal. E. B. and G. E. Roedding. No. 1,080,589; Dec. 9; Gaz. vol. 197; p. 265.
 Vehicle-spring. C. A. Boreham. No. 1,082,794; Dec. 30; Gaz. vol. 197; p. 1114.
 Vehicle-spring. M. M. McIntyre. No. 1,083,022; Dec. 30; Gaz. vol. 197; p. 1191.
 Vehicle starting mechanism, Motor. R. Huff. No. 1,081,382; Dec. 16; Gaz. vol. 197; p. 571.
 Vehicle steering-fork. J. A. Hill. No. 1,082,122; Dec. 23; Gaz. vol. 197; p. 847.
 Vehicle stop-block. H. Carduck and J. Matthe. No. 1,081,208; Dec. 9; Gaz. vol. 197; p. 473.
 Vehicle storm-front. J. B. Cretors. No. 1,080,812; Dec. 9; Gaz. vol. 197; p. 344.
 Vehicle storm-shield. C. F. Wensinger. No. 1,080,083; Dec. 2; Gaz. vol. 197; p. 40.
 Vehicle suspension-spring. A. Vermersch. No. 1,082,217; Dec. 23; Gaz. vol. 197; p. 879.
 Vehicle top-raising device. R. Sato. No. 1,082,706; Dec. 30; Gaz. vol. 197; p. 1083.
 Vehicle tractor system, Motor. A. H. Hoadley. No. 1,080,447; Dec. 2; Gaz. vol. 197; p. 186.
 Vehicle-wheel. J. J. Van Iderstine. No. 1,080,128; Dec. 2; Gaz. vol. 197; p. 74.
 Vehicle-wheel. S. A. Currin. No. 1,081,216; Dec. 9; Gaz. vol. 197; p. 476.
 Vehicle-wheel. A. R. Weaver. No. 1,081,416; Dec. 16; Gaz. vol. 197; p. 582.
 Vehicle-wheel. P. B. Donahoe. No. 1,081,587; Dec. 16; Gaz. vol. 197; p. 638.
 Vehicle-wheel. S. T. Kronenberg. No. 1,081,757; Dec. 16; Gaz. vol. 197; p. 894.
 Vehicle-wheel. F. E. Glasser. No. 1,083,009; Dec. 30; Gaz. vol. 197; p. 1187.
 Vehicle-wheel, Resilient. L. H. Schoonover. No. 1,080,720; Dec. 9; Gaz. vol. 197; p. 309.
 Vehicle-wheel, Resilient. F. A. Pearl. No. 1,081,551; Dec. 16; Gaz. vol. 197; p. 628.
 Vehicle wheel, Road. W. D. Douglas-Jones. No. 1,080,004; Dec. 2; Gaz. vol. 197; p. 30.
 Vehicle wheel, Road. H. A. Pryor. No. 1,082,170; Dec. 23; Gaz. vol. 197; p. 862.
 Vehicle-wheel, Spring. J. F. and H. E. Sipe. No. 1,080,377; Dec. 2; Gaz. vol. 197; p. 163.
 Vehicle-wheel, Spring. J. F. and H. E. Sipe. No. 1,080,378; Dec. 2; Gaz. vol. 197; p. 163.
 Vehicle-wheel, Spring. J. F. and H. E. Sipe. No. 1,080,379; Dec. 2; Gaz. vol. 197; p. 164.
 Vehicle-wheel, Spring. W. C. Warwick. No. 1,081,415; Dec. 16; Gaz. vol. 197; p. 582.
 Vehicles and similar motor plants, Driving of motor. R. Diesel. No. 1,080,624; Dec. 9; Gaz. vol. 197; p. 277.
 Vehicles, Battery-supporting cradle for. S. G. Thompson. No. 1,081,706; Dec. 16; Gaz. vol. 197; p. 676.
 Vehicles, Front-wheel drive and steer for motor. J. S. Rutkowski and W. T. Hutchison. No. 1,080,591; Dec. 9; Gaz. vol. 197; p. 266.
 Vehicles, Means for supporting engines in self-propelled. W. E. Ver Planck. No. 1,080,738; Dec. 9; Gaz. vol. 197; p. 315.
 Vell, Automobile. M. Saltz. No. 1,081,154; Dec. 9; Gaz. vol. 197; p. 456.
 Vender, Water. M. P. Henvia. No. 1,082,327; Dec. 23; Gaz. vol. 197; p. 920.
 Vending-machine. S. C. Jones. No. 1,080,833; Dec. 9; Gaz. vol. 197; p. 352.
 Vending-machine. J. A. Webster. No. 1,080,878; Dec. 9; Gaz. vol. 197; p. 364.
 Vending-machine. A. K. Collins. No. 1,081,212; Dec. 9; Gaz. vol. 197; p. 47.
 Vending-machine. C. Mettler and R. E. Fudge. No. 1,082,817; Dec. 30; Gaz. vol. 197; p. 1122.
 Vending-machine, Coin-controlled. W. T. Foster. No. 1,080,754; Dec. 9; Gaz. vol. 197; p. 322.
 Vending-machine coin mechanism. H. Pein. No. 1,081,401; Dec. 16; Gaz. vol. 197; p. 577.
 Ventilating device for clatena. W. L. Carter. No. 1,080,137; Dec. 2; Gaz. vol. 197; p. 77.
 Ventilator. See Window-ventilator.
 Ventilator. E. O. Janek. No. 1,080,453; Dec. 2; Gaz. vol. 197; p. 188.
 Vermin-trap. C. Celene. No. 1,081,363; Dec. 16; Gaz. vol. 197; p. 565.
 Vessel construction. G. W. Watts. No. 1,081,876; Dec. 16; Gaz. vol. 197; p. 736.
 Veterinary file holder. S. B. Dunn. No. 1,081,495; Dec. 16; Gaz. vol. 197; p. 609.
 Vibration measuring, indicating, and recording means. W. P. Digby, P. W. Beatty, and A. C. Huskinson. No. 1,082,014; Dec. 23; Gaz. vol. 197; p. 811.
 Vibrator. I. C. Orswell. No. 1,082,475; Dec. 23; Gaz. vol. 197; p. 967.
 Vibrator driving mechanism. J. Vlesou. No. 1,080,609; Dec. 9; Gaz. vol. 197; p. 272.
 Vibratory device. C. A. Peterson. No. 1,082,285; Dec. 23; Gaz. vol. 197; p. 905.
 Vine-hulling machine, Green-pea. R. P. Scott. No. 1,082,609; Dec. 30; Gaz. vol. 197; p. 1049.
 Vise, Pipe. F. W. Hedden. No. 1,081,279; Dec. 9; Gaz. vol. 197; p. 498.
 Voting-machine. F. W. Godfrey. No. 1,080,006; Dec. 2; Gaz. vol. 197; p. 30.
 Voting-machine. W. J. Lausterer. No. 1,080,014; Dec. 2; Gaz. vol. 197; p. 32.

ALPHABETICAL LIST OF INVENTIONS.

Voting-machine. G. W. Henning. No. 1,080,444; Dec. 2; Gaz. vol. 197; p. 185.
 Voting-machine counter-carrier. C. C. Abbott. No. 1,082,061; Dec. 23; Gaz. vol. 197; p. 827.
 Voting-machine voting mechanism. C. C. Abbott. No. 1,081,288; Dec. 16; Gaz. vol. 197; p. 639.
 Voting-machines. Interlocking mechanism for. J. H. Dean. No. 1,080,003; Dec. 2; Gaz. vol. 197; p. 29.
 Voting-machines. Interlocking mechanism for. C. H. O'Connell. No. 1,080,157; Dec. 2; Gaz. vol. 197; p. 84.
 Vulcanized froth. Manufacturing. F. Pfeumer. (Reissue). No. 13,967; Dec. 30; Gaz. vol. 197; p. 1270.
 Vulcanizing device. H. Glusti. No. 1,081,824; Dec. 16; Gaz. vol. 197; p. 719.
 Vulcanizing device. J. E. Bancroft. No. 1,082,258; Dec. 23; Gaz. vol. 197; p. 895.
 Vulcanizing-mold. P. D. Thropp. No. 1,082,373; Dec. 23; Gaz. vol. 197; p. 936.
 Wagon. E. M. Wheelock. No. 1,080,035; Dec. 2; Gaz. vol. 197; p. 41.
 Wagon. J. C. and J. J. Raum. No. 1,083,031; Dec. 30; Gaz. vol. 197; p. 1194.
 Wagon-bolster. C. Tramel. No. 1,081,346; Dec. 16; Gaz. vol. 197; p. 559.
 Wagon-box. A. B. Clippinger. No. 1,082,584; Dec. 30; Gaz. vol. 197; p. 1040.
 Wagon-brake. J. Gibbs. No. 1,081,109; Dec. 9; Gaz. vol. 197; p. 440.
 Wagon-cover. Removable. C. H. Bigbie and F. G. Tanner. No. 1,080,948; Dec. 9; Gaz. vol. 197; p. 390.
 Wagon. Dumping. J. R. Steele, Jr. No. 1,081,167; Dec. 9; Gaz. vol. 197; p. 460.
 Wagon-holst. H. W. Steege. No. 1,080,083; Dec. 2; Gaz. vol. 197; p. 58.
 Wall construction. L. J. Dare. No. 1,080,002; Dec. 2; Gaz. vol. 197; p. 29.
 Wall construction. Metallic-studding metal-clip plaster-board partition. M. H. Jester. No. 1,082,336; Dec. 23; Gaz. vol. 197; p. 923.
 Wardrobe, chest, &c. Collapsible. L. Geschickter. No. 1,082,857; Dec. 30; Gaz. vol. 197; p. 1135.
 Wardrobe. Collapsible. J. A. Hazzard and A. B. Jones. No. 1,081,112; Dec. 9; Gaz. vol. 197; p. 441.
 Warp stop-motion. H. Koch and J. J. Müller. No. 1,082,428; Dec. 23; Gaz. vol. 197; p. 952.
 Warp-tying apparatus. H. D. Colman. No. 1,082,474; Dec. 23; Gaz. vol. 197; p. 966.
 Washbench and ironing-board support. Folding combined. C. Danielson. No. 1,080,956; Dec. 9; Gaz. vol. 197; p. 392.
 Washer. See Demijohn-washer; Gas-washer; Window-washer.
 Washing device. M. P. Freiborg. No. 1,082,313; Dec. 23; Gaz. vol. 197; p. 916.
 Washing-machine. A. Bowers. No. 1,082,066; Dec. 23; Gaz. vol. 197; p. 829.
 Washing-machine-actuating mechanism. C. M. Dumond. No. 1,081,726; Dec. 16; Gaz. vol. 197; p. 683.
 Washing-machine wringer-gearing. D. G. Pfeiffer. No. 1,082,551; Dec. 30; Gaz. vol. 197; p. 1028.
 Washing-out and refining machine. H. Paatz. No. 1,083,128; Dec. 30; Gaz. vol. 197; p. 1225.
 Waste burner and incinerator. C. A. Raggio. No. 1,081,773; Dec. 16; Gaz. vol. 197; p. 701.
 Watch balance-staff. A. E. Hurwitz and C. W. Goodman. No. 1,080,449; Dec. 2; Gaz. vol. 197; p. 187.
 Watch. Impulse and rotary stem winding and setting. A. Plean. No. 1,080,474; Dec. 2; Gaz. vol. 197; p. 194.
 Water and purifying it from germs. Clarifying. R. Gans. No. 1,082,315; Dec. 23; Gaz. vol. 197; p. 916.
 Water-coil. R. F. Reed. No. 1,081,332; Dec. 16; Gaz. vol. 197; p. 554.
 Water-cooler. P. P. Adolph. No. 1,082,841; Dec. 30; Gaz. vol. 197; p. 1130.
 Water-flow. Apparatus for measuring and registering. W. F. Englebright. No. 1,080,052; Dec. 2; Gaz. vol. 197; p. 46.
 Water-gage-glass column. W. M. Paul. No. 1,082,441; Dec. 23; Gaz. vol. 197; p. 957.
 Water-gage-glass shield. T. F. Carbery. No. 1,080,952; Dec. 9; Gaz. vol. 197; p. 391.
 Water-heater. J. E. Malen. No. 1,082,089; Dec. 23; Gaz. vol. 197; p. 837.
 Water-heater and garbage-burner. Combined. H. Sims. No. 1,081,337; Dec. 16; Gaz. vol. 197; p. 556.
 Water-heater. Automatic. E. E. Meadham. No. 1,082,131; Dec. 23; Gaz. vol. 197; p. 850.
 Water. Heating and purifying. G. H. Gibson. No. 1,080,826; Dec. 9; Gaz. vol. 197; p. 349.
 Water-heating apparatus. J. B. Beavrais. No. 1,083,237; Dec. 30; Gaz. vol. 197; p. 1259.
 Water-motor. I. Yassenoff. No. 1,082,477; Dec. 23; Gaz. vol. 197; p. 967.
 Water-motor. H. R. Irwin. No. 1,082,634; Dec. 30; Gaz. vol. 197; p. 1053.
 Water-motor. H. R. Irwin. No. 1,082,635; Dec. 30; Gaz. vol. 197; p. 1058.
 Water-power wheel. W. B. Leder. No. 1,082,883; Dec. 30; Gaz. vol. 197; p. 1145.
 Water-pressure and fuel control. Automatic. C. E. and I. J. Bishop. No. 1,082,728; Dec. 30; Gaz. vol. 197; p. 1091.

Water-purifier. Electric. L. A. Fitzer. No. 1,080,005; Dec. 2; Gaz. vol. 197; p. 30.
 Water-supply or flush tank. F. G. Wangelin. No. 1,082,056; Dec. 23; Gaz. vol. 197; p. 826.
 Water-supply system. Non-freezing. P. Hardy. No. 1,079,982; Dec. 2; Gaz. vol. 197; p. 22.
 Water-tube boiler. E. H. Wells. No. 1,080,613; Dec. 9; Gaz. vol. 197; p. 273.
 Water-tube boiler. R. Delaunay-Belleville. No. 1,083,199; Dec. 30; Gaz. vol. 197; p. 1245.
 Watering-trough. M. and B. Greenberg. No. 1,080,107; Dec. 2; Gaz. vol. 197; p. 67.
 Wattmeter. Induction. G. A. Scheffer. No. 1,082,653; Dec. 30; Gaz. vol. 197; p. 1063.
 Wave-detector. J. H. Cuntz. No. 1,080,081; Dec. 9; Gaz. vol. 197; p. 295.
 Wave-motor. E. S. Hemmenway. No. 1,082,746; Dec. 30; Gaz. vol. 197; p. 1097.
 Weather-strip. G. C. Vachon. No. 1,082,375; Dec. 23; Gaz. vol. 197; p. 936.
 Weather-strip. F. S. Bloom. No. 1,082,675; Dec. 30; Gaz. vol. 197; p. 1073.
 Weaving apparatus. Fabric. E. Prein. No. 1,080,298; Dec. 2; Gaz. vol. 197; p. 133.
 Weed-cutter. W. M. Broady. No. 1,081,658; Dec. 16; Gaz. vol. 197; p. 661.
 Weed-cutter. C. E. Jones. No. 1,081,746; Dec. 16; Gaz. vol. 197; p. 689.
 Weed-cutter. W. C. Pence. No. 1,081,985; Dec. 23; Gaz. vol. 197; p. 800.
 Weed-killing train. I. F. Orton. No. 1,080,158; Dec. 2; Gaz. vol. 197; p. 84.
 Weed-puller. D. E. Nuttall. No. 1,082,547; Dec. 30; Gaz. vol. 197; p. 1026.
 Weeder. R. L. Bengt. No. 1,082,222; Dec. 23; Gaz. vol. 197; p. 851.
 Weeder and soil-pulverizer. J. S. De Long. No. 1,081,437; Dec. 16; Gaz. vol. 197; p. 589.
 Weighing and recording mechanism. G. Moore. No. 1,082,967; Dec. 30; Gaz. vol. 197; p. 1174.
 Weighing liquids. Mechanism for. W. I. Staaf. No. 1,082,814; Dec. 30; Gaz. vol. 197; p. 1051.
 Weighing-machine. Automatic. B. P. Mulloy. No. 1,082,354; Dec. 23; Gaz. vol. 197; p. 930.
 Weighing-machine delivery mechanism. E. S. Kneeland. No. 1,080,514; Dec. 2; Gaz. vol. 197; p. 208.
 Weight-regulating apparatus. Automatic. J. P. Curry. No. 1,081,723; Dec. 16; Gaz. vol. 197; p. 682.
 Well air-pump. Deep. W. L. Morrow. No. 1,080,843; Dec. 9; Gaz. vol. 197; p. 355.
 Well casing or tube perforator. P. F. Yüngling. No. 1,080,313; Dec. 2; Gaz. vol. 197; p. 138.
 Well-drill. Electric. H. E. Diehl. No. 1,083,200; Dec. 30; Gaz. vol. 197; p. 1245.
 Well machinery. M. Hall. No. 1,083,089; Dec. 30; Gaz. vol. 197; p. 1214.
 Well tubes or casings. Elevator for. P. F. Yüngling. No. 1,082,786; Dec. 30; Gaz. vol. 197; p. 1112.
 Wells or rands to stock. Machine for attaching. J. Gould-bourn and H. Hallam. No. 1,081,952; Dec. 23; Gaz. vol. 197; p. 789.
 Wheel. See Automobile and other vehicle wheel; Car-wheel; Cushion-wheel; Fifth-wheel; Gear-wheel; Polishing-wheel; Resilient wheel; Spring-wheel; Spring and pneumatic wheel; Steering-wheel; Vehicle-wheel; Vehicle driving-wheel; Water-power wheel.
 Wheel. J. W. Collinsworth. No. 1,082,151; Dec. 23; Gaz. vol. 197; p. 856.
 Wheel. F. W. Leib. No. 1,082,600; Dec. 30; Gaz. vol. 197; p. 1045.
 Wheel. C. D. Wines. No. 1,082,668; Dec. 30; Gaz. vol. 197; p. 1070.
 Wheel attachment. J. Newhouse. No. 1,082,897; Dec. 30; Gaz. vol. 197; p. 1150.
 Wheel-scratch. H. F. Holworthy. No. 1,082,807; Dec. 30; Gaz. vol. 197; p. 1118.
 Wheels. Cutting helical gear. E. J. Lees. No. 1,082,533; Dec. 30; Gaz. vol. 197; p. 1020.
 Wheeling and edge-setting machine. L. W. G. Flynt. No. 1,080,901; Dec. 9; Gaz. vol. 197; p. 394.
 Whiffetree. F. W. Webster. No. 1,081,353; Dec. 16; Gaz. vol. 197; p. 562.
 Whip-socket. C. Mann. No. 1,082,888; Dec. 30; Gaz. vol. 197; p. 1147.
 Wind-shield. F. A. Lawton. No. 1,083,108; Dec. 30; Gaz. vol. 197; p. 1219.
 Wind-shield tube. D. B. Lee. No. 1,082,031; Dec. 23; Gaz. vol. 197; p. 817.
 Winding-machine. A. Petersen. No. 1,081,986; Dec. 23; Gaz. vol. 197; p. 800.
 Window. D. A. Davison. No. 1,081,893; Dec. 16; Gaz. vol. 197; p. 740.
 Window-cleaner. F. J. Steinhäuser. No. 1,081,004; Dec. 9; Gaz. vol. 197; p. 408.
 Window cleaner. Car. J. W. Ruben. No. 1,081,000; Dec. 9; Gaz. vol. 197; p. 406.
 Window-lock. N. B. Denison. No. 1,082,013; Dec. 23; Gaz. vol. 197; p. 811.
 Window. Reversible. S. Viragh. No. 1,082,663; Dec. 30; Gaz. vol. 197; p. 1067.
 Window safety-barrier. B. B. Swanson. No. 1,082,368; Dec. 23; Gaz. vol. 197; p. 934.
 Window-screen. C. L. Kelly. No. 1,082,339; Dec. 23; Gaz. vol. 197; p. 924.

ALPHABETICAL LIST OF INVENTIONS.

Window shield. Car. W. B. Hanlon. (Reissue.) No. 13,653; Dec. 2; Gaz. vol. 197; p. 213.
 Window-ventilator. F. Austin. No. 1,081,195; Dec. 9; Gaz. vol. 197; p. 468.
 Window-ventilator. J. B. Sheridan. No. 1,081,256; Dec. 9; Gaz. vol. 197; p. 490.
 Window-washer. G. Di Giovanni. No. 1,081,100; Dec. 9; Gaz. vol. 197; p. 436.
 Window weather-guard. A. H. Newpher. No. 1,081,692; Dec. 16; Gaz. vol. 197; p. 672.
 Wine. Clarifying. A. Ornstein. No. 1,081,623; Dec. 16; Gaz. vol. 197; p. 650.
 Wine-clearing apparatus. M. M. Wheeler. No. 1,082,297; Dec. 23; Gaz. vol. 197; p. 910.
 Wire-clamp. J. A. Fossum. No. 1,082,742; Dec. 30; Gaz. vol. 197; p. 1093.
 Wire clip. H. Lea. No. 1,079,989; Dec. 2; Gaz. vol. 197; p. 24.
 Wire fabric. F. P. Dooley. No. 1,081,438; Dec. 16; Gaz. vol. 197; p. 590.
 Wire-hoop-forming apparatus. E. I. Braddock. No. 1,081,359; Dec. 16; Gaz. vol. 197; p. 564.
 Wire-stretcher. J. E. Miller. No. 1,081,250; Dec. 9; Gaz. vol. 197; p. 488.
 Wood. Apparatus for preserving. G. B. Shipley. No. 1,081,158; Dec. 9; Gaz. vol. 197; p. 457.
 Wood. Preserving. E. E. Somermeyer. No. 1,082,658; Dec. 30; Gaz. vol. 197; p. 1065.
 Wood-trimmer. J. S. Pickles. No. 1,080,122; Dec. 2; Gaz. vol. 197; p. 72.
 Woodworking machinery. J. C. Casey. No. 1,081,578; Dec. 16; Gaz. vol. 197; p. 635.
 Work-bag and reticule. Combined. H. H. Terry. No. 1,081,788; Dec. 16; Gaz. vol. 197; p. 705.
 Work-feeding mechanism. L. H. Vold. No. 1,080,793; Dec. 9; Gaz. vol. 197; p. 336.
 Work-holder. O. B. Gross. No. 1,082,588; Dec. 30; Gaz. vol. 197; p. 1041.
 Wrapping-machine. A. E. Hopkins and O. S. Fellows. No. 1,082,463; Dec. 23; Gaz. vol. 197; p. 963.
 Wrench. See Adjustable wrench; Compression-wrench; Nut-wrench; Pipe-wrench; Ratchet-wrench.
 Wrench. O. Weston. No. 1,080,182; Dec. 2; Gaz. vol. 197; p. 75.

Wrench. A. Laitinen. No. 1,080,463; Dec. 2; Gaz. vol. 197; p. 191.
 Wrench. O. P. Case. No. 1,080,536; Dec. 9; Gaz. vol. 197; p. 248.
 Wrench. S. R. Audibert. No. 1,081,193; Dec. 9; Gaz. vol. 197; p. 468.
 Wrench. A. W. Peterson. No. 1,081,626; Dec. 16; Gaz. vol. 197; p. 650.
 Wrench. F. W. Riesenber. No. 1,081,700; Dec. 16; Gaz. vol. 197; p. 674.
 Wrench. L. Cutler. No. 1,082,112; Dec. 23; Gaz. vol. 197; p. 844.
 Wrench. J. Dolan. No. 1,082,851; Dec. 30; Gaz. vol. 197; p. 1134.
 Wringer. See Clothes-wringer; Mop-wringer.
 Wringers. Gearing device for. C. E. Greenleaf. No. 1,082,745; Dec. 30; Gaz. vol. 197; p. 1097.
 Wrist-strap and coin-holder. Combined. W. L. Tidd. No. 1,080,240; Dec. 2; Gaz. vol. 197; p. 113.
 Writing a plurality of signatures. Machine for. F. A. Johnson. No. 1,080,346; Dec. 2; Gaz. vol. 197; p. 151.
 Writing machine. Multiple. F. A. Johnson. No. 1,080,347; Dec. 2; Gaz. vol. 197; p. 151.
 Writing machines. Document-binder for multiple. W. H. Remick. No. 1,082,564; Dec. 30; Gaz. vol. 197; p. 1029.
 Yarn-releasing device for spools. W. Boulais. No. 1,081,716; Dec. 16; Gaz. vol. 197; p. 680.
 Yarn-twisting mechanism. D. Porter and S. K. Oliver. No. 1,081,328; Dec. 16; Gaz. vol. 197; p. 553.
 Zinc compounds. Reducing. E. B. Cutten. No. 1,080,102; Dec. 2; Gaz. vol. 197; p. 64.
 Zinc. Condensation of. A. L. J. Queneau. No. 1,082,765; Dec. 30; Gaz. vol. 197; p. 1104.
 Zinc-furnace with integral compound condenser. Electric. J. Thomson. No. 1,080,864; Dec. 9; Gaz. vol. 197; p. 361.
 Zinc-furnace with integral condenser. Electric. J. Thomson. No. 1,080,862; Dec. 9; Gaz. vol. 197; p. 361.
 Zinc-furnace with integral condenser. Electric. J. Thomson. No. 1,080,863; Dec. 9; Gaz. vol. 197; p. 361.
 Zinc-furnace with integral condenser. Electric. J. Thomson. No. 1,080,865; Dec. 9; Gaz. vol. 197; p. 362.
 Zinc-furnace with integral condenser. Electric. J. Thomson. No. 1,080,866; Dec. 9; Gaz. vol. 197; p. 362.

ALPHABETICAL LIST OF DESIGNS.

- Article of manufacture. J. E. Grant. No. 45,061; Dec. 23; Gaz. vol. 197; p. 975.
- Ash-tray, Combination. F. W. Goerdes. No. 44,956; Dec. 2; Gaz. vol. 197; p. 215.
- Badge or similar article. A. Brill. No. 45,084; Dec. 30; Gaz. vol. 197; p. 1270.
- Ball, Playing. G. C. Worthington. No. 45,082; Dec. 23; Gaz. vol. 197; p. 978.
- Bedstead-fitting. J. W. Vall. No. 45,052; Dec. 16; Gaz. vol. 197; p. 760.
- Bird-cage. N. W. Hendryx. No. 45,005; Dec. 9; Gaz. vol. 197; p. 505.
- Boat. A. W. Crouch. No. 44,998; Dec. 9; Gaz. vol. 197; p. 503.
- Bonnet, Child's Quaker. A. Schwenke. No. 45,076; Dec. 23; Gaz. vol. 197; p. 977.
- Border-section. G. A. Henckel. No. 45,045; Dec. 16; Gaz. vol. 197; p. 759.
- Bottle, syringe-bag, or similar article, Water. F. O. Williams. Nos. 45,037-8; Dec. 9; Gaz. vol. 197; p. 511.
- Brush, Tooth. C. E. Carroll. No. 44,997; Dec. 9; Gaz. vol. 197; p. 508.
- Button. J. H. Hawley. Nos. 45,003-4; Dec. 9; Gaz. vol. 197; pp. 504-5.
- Button. J. H. Hawley. Nos. 45,062-3; Dec. 23; Gaz. vol. 197; p. 975.
- Cabinet. K. F. G. Goetting. No. 45,043; Dec. 16; Gaz. vol. 197; p. 758.
- Cabinet. F. D. Lewis. No. 45,048; Dec. 16; Gaz. vol. 197; p. 759.
- Cap, Bathing. T. W. Miller. No. 45,015; Dec. 9; Gaz. vol. 197; p. 506.
- Carafe. W. D. Scott. No. 44,982; Dec. 2; Gaz. vol. 197; p. 219.
- Card-case. O. Valasek. No. 45,034; Dec. 9; Gaz. vol. 197; p. 510.
- Carpet. W. A. Elliot. Nos. 44,954-5; Dec. 2; Gaz. vol. 197; p. 214.
- Carpet. J. Merry. Nos. 44,960-1; Dec. 2; Gaz. vol. 197; p. 215.
- Carpet. J. Merry. Nos. 44,963-4; Dec. 2; Gaz. vol. 197; p. 216.
- Carpet. R. F. Riddell. Nos. 44,968-70; Dec. 2; Gaz. vol. 197; p. 217.
- Carpet. E. G. Sauer. Nos. 44,973-6; Dec. 2; Gaz. vol. 197; p. 218.
- Carpet. E. G. Sauer. No. 44,978; Dec. 2; Gaz. vol. 197; p. 218.
- Carpet. F. Schindler. Nos. 44,980-1; Dec. 2; Gaz. vol. 197; p. 219.
- Carpet. J. Spring. No. 44,986; Dec. 2; Gaz. vol. 197; p. 220.
- Carpet. W. A. Spring. Nos. 44,987-8; Dec. 2; Gaz. vol. 197; p. 220.
- Carpet. I. J. Vetter. No. 44,991; Dec. 2; Gaz. vol. 197; p. 221.
- Carpet. W. A. Elliot. Nos. 45,057-60; Dec. 23; Gaz. vol. 197; p. 974.
- Carpet. E. G. Sauer. Nos. 45,072-5; Dec. 23; Gaz. vol. 197; p. 977.
- Carpet. J. Spring. No. 45,077; Dec. 23; Gaz. vol. 197; p. 978.
- Carpet. I. J. Vetter. No. 45,079; Dec. 23; Gaz. vol. 197; p. 978.
- Cigar-cutter. B. W. McClymont. No. 45,013; Dec. 9; Gaz. vol. 197; p. 506.
- Cigar-lighter. J. Berg. No. 44,995; Dec. 9; Gaz. vol. 197; p. 508.
- Clock-case. E. J. Smith. No. 45,095; Dec. 30; Gaz. vol. 197; p. 1272.
- Cornet. A. J. Johnson. No. 45,091; Dec. 30; Gaz. vol. 197; p. 1272.
- Curtain and shade bracket. R. O. Williams. No. 45,081; Dec. 23; Gaz. vol. 197; p. 978.
- Dish. G. A. Henckel. No. 45,089; Dec. 30; Gaz. vol. 197; p. 1271.
- Dish, Covered. W. P. Graham. No. 45,002; Dec. 9; Gaz. vol. 197; p. 504.
- Doll-head. J. G. Kaempfer. No. 45,093; Dec. 30; Gaz. vol. 197; p. 1272.
- Drum-base for stoves. W. R. Jeavons. No. 45,008; Dec. 9; Gaz. vol. 197; p. 505.
- Drum, Stove. W. R. Jeavons. No. 45,007; Dec. 9; Gaz. vol. 197; p. 505.
- Electrolier. H. Plaut. Nos. 45,018-20; Dec. 9; Gaz. vol. 197; p. 507.
- Envelop. N. J. Pauly. No. 45,017; Dec. 9; Gaz. vol. 197; p. 507.
- Furniture-leg shoe or protecting-tip. J. J. Buser. No. 44,952; Dec. 2; Gaz. vol. 197; p. 214.
- Furniture-leg shoe or protecting-tip. J. J. Buser. No. 44,996; Dec. 9; Gaz. vol. 197; p. 503.
- Garment for children, Outdoor winter play. L. Van Slyke. No. 45,035; Dec. 9; Gaz. vol. 197; p. 510.
- Garment-protector for nursing mothers. S. Luttinger. No. 45,012; Dec. 9; Gaz. vol. 197; p. 506.
- Glass article, Cut. W. B. Eick. No. 45,087; Dec. 30; Gaz. vol. 197; p. 1271.
- Glass dome for ceiling-lights. K. Booth. No. 45,041; Dec. 16; Gaz. vol. 197; p. 758.
- Glass, Sheet. E. J. Walsh. No. 45,036; Dec. 9; Gaz. vol. 197; p. 510.
- Glass vessel. E. W. Halsey. No. 45,044; Dec. 16; Gaz. vol. 197; p. 758.
- Gown, Ceremonial. M. F. Lanier. No. 45,010; Dec. 9; Gaz. vol. 197; p. 506.
- Iron. W. W. Shoe. No. 45,023; Dec. 9; Gaz. vol. 197; p. 508.
- Lamp. M. Stein. No. 45,028; Dec. 9; Gaz. vol. 197; p. 509.
- Lamp. W. F. Ankham. Nos. 45,039-40; Dec. 16; Gaz. vol. 197; p. 757.
- Lamp-shade. E. W. Huttig. No. 45,006; Dec. 9; Gaz. vol. 197; p. 505.
- Lamp-shade. K. Booth. No. 45,054; Dec. 23; Gaz. vol. 197; p. 973.
- Nail set, Square-head. C. F. Mueller. No. 45,049; Dec. 16; Gaz. vol. 197; p. 760.
- Necktie-holder. F. J. Heilborn. No. 45,064; Dec. 23; Gaz. vol. 197; p. 975.
- Paper-clip. H. E. Grissard. No. 44,957; Dec. 2; Gaz. vol. 197; p. 215.
- Paper-weight or statuette. E. Donnell. No. 44,953; Dec. 2; Gaz. vol. 197; p. 214.
- Picture or other article displaying stand. J. R. Foster. No. 45,000; Dec. 9; Gaz. vol. 197; p. 504.
- Pincushion. J. Jirousek and E. Holan. No. 45,009; Dec. 9; Gaz. vol. 197; p. 505.
- Plate-rack. G. Schick. No. 45,022; Dec. 9; Gaz. vol. 197; p. 508.
- Protection-board bracket. E. E. Schmid. No. 44,979; Dec. 2; Gaz. vol. 197; p. 219.
- Pump-casing. W. Sparks. No. 45,026; Dec. 9; Gaz. vol. 197; p. 509.
- Range, Gas. J. A. Alexander and F. K. Berry. No. 44,951; Dec. 2; Gaz. vol. 197; p. 214.
- Ring, Finger. W. L. Larned. No. 45,011; Dec. 9; Gaz. vol. 197; p. 506.
- Rug. J. Merry. No. 44,962; Dec. 2; Gaz. vol. 197; p. 216.
- Rug. A. Petzold. Nos. 44,965-7; Dec. 2; Gaz. vol. 197; pp. 216-17.
- Rug. E. G. Sauer. Nos. 44,971-2; Dec. 2; Gaz. vol. 197; p. 217.
- Rug. E. G. Sauer. No. 44,977; Dec. 2; Gaz. vol. 197; p. 218.
- Rug. J. Spring. Nos. 44,983-5; Dec. 2; Gaz. vol. 197; pp. 219-20.
- Rug. I. J. Vetter. No. 44,992; Dec. 2; Gaz. vol. 197; p. 221.
- Rug. P. H. Starr. No. 45,027; Dec. 9; Gaz. vol. 197; p. 509.
- Rug. A. Petzold. Nos. 45,067-70; Dec. 23; Gaz. vol. 197; p. 978.
- Shade-bowl. J. H. Strong. No. 45,030; Dec. 9; Gaz. vol. 197; p. 509.
- Shoe. S. Wass. No. 45,080; Dec. 23; Gaz. vol. 197; p. 978.
- Shoe-horn. J. E. Meginn. No. 45,014; Dec. 9; Gaz. vol. 197; p. 506.
- Sign, Road. C. A. Geers. No. 45,001; Dec. 9; Gaz. vol. 197; p. 504.
- Signal. W. Sparks. Nos. 45,024-5; Dec. 9; Gaz. vol. 197; p. 508.
- Soda-dispensing apparatus. J. M. Travla. No. 45,086; Dec. 30; Gaz. vol. 197; p. 1273.
- Spoon, Baby. H. Taylor. No. 45,031; Dec. 9; Gaz. vol. 197; p. 508.
- Spoon, fork, or similar article handle. J. Aranyi. No. 45,053; Dec. 23; Gaz. vol. 197; p. 978.
- Spoon, fork, or similar article handle. W. A. Jameson. No. 45,065; Dec. 23; Gaz. vol. 197; p. 975.
- Spoon, fork, or similar article handle. S. J. Large. No. 45,066; Dec. 23; Gaz. vol. 197; p. 975.
- Spoon, fork, or similar article handle. F. E. Pretat. No. 45,071; Dec. 23; Gaz. vol. 197; p. 977.
- Spoon, fork, or similar article handle, Pierced. R. C. Thompson. No. 45,078; Dec. 23; Gaz. vol. 197; p. 978.
- Stand. J. E. Stenberg. No. 44,989; Dec. 2; Gaz. vol. 197; p. 220.

ALPHABETICAL LIST OF DESIGNS.

Statuette. G. G. Drayton. No. 45,086; Dec. 30; Gaz. vol. 197; p. 1271.
 Stove-base. J. J. Stewart. No. 45,029; Dec. 9; Gaz. vol. 197; p. 509.
 Syrup-dispensing apparatus. J. M. Travis. Nos. 45,032-3; Dec. 9; Gaz. vol. 197; p. 510.
 Tag Key. F. C. Howard. No. 44,959; Dec. 2; Gaz. vol. 197; p. 215.
 Talking-machine cabinet. S. M. Wirts. No. 44,993; Dec. 2; Gaz. vol. 197; p. 221.
 Tank, Flush-. A. Cochran. No. 45,085; Dec. 30; Gaz. vol. 197; p. 1271.
 Temperature-indicator. H. H. Boyce. No. 45,042; Dec. 16; Gaz. vol. 197; p. 758.
 Tent. W. H. Miller. No. 45,016; Dec. 9; Gaz. vol. 197; p. 507.
 Ticket or label holder and match-striker, Combined. W. D. Hoover. No. 44,958; Dec. 2; Gaz. vol. 197; p. 215.
 Tire, Automobile-. A. K. Allen. No. 45,083; Dec. 30; Gaz. vol. 197; p. 1270.
 Tire, Rubber vehicle-. W. C. Hendrie. No. 45,090; Dec. 30; Gaz. vol. 197; p. 1271.
 Tire-tread. H. K. Raymond. No. 45,050; Dec. 16; Gaz. vol. 197; p. 760.
 Tire-tread. E. C. Shaw. No. 45,051; Dec. 16; Gaz. vol. 197; p. 760.
 Tire-tread. A. Johnston. No. 45,092; Dec. 30; Gaz. vol. 197; p. 1272.
 Toy candy-box. E. J. Rowland. No. 45,094; Dec. 30; Gaz. vol. 197; p. 1272.
 Tray, Desk. J. A. Fraser. No. 44,999; Dec. 9; Gaz. vol. 197; p. 504.
 Truck-wheel, Automobile. G. Walther. No. 45,097; Dec. 30; Gaz. vol. 197; p. 1273.
 Vehicle-body. E. H. Remde. No. 45,021; Dec. 9; Gaz. vol. 197; p. 507.
 Velling, Net. Z. Van Raalte. No. 44,990; Dec. 2; Gaz. vol. 197; p. 221.
 Vest. G. Kohner. No. 45,047; Dec. 16; Gaz. vol. 197; p. 759.
 Vestette. S. Frankston. No. 45,088; Dec. 30; Gaz. vol. 197; p. 1271.
 Warning-signals, Handle for hand-actuated. E. Aufero. No. 44,994; Dec. 9; Gaz. vol. 197; p. 503.
 Water-closet bowl. A. Cochran. Nos. 45,055-6; Dec. 23; Gaz. vol. 197; p. 974.
 Weighing-machine casing. W. E. Johnson. No. 45,048; Dec. 16; Gaz. vol. 197; p. 759.

ALPHABETICAL LIST OF TRADE-MARKS.

Abrasive substances for removing stains, &c., from clothing. J. De Groot & Co. No. 94,717; Dec. 30; Gaz. vol. 197; p. 1287.
 Alcohol, Denatured. David Berg Distilling Company. No. 94,592; Dec. 23; Gaz. vol. 197; p. 991.
 Alcohol, Denatured. Jefferson Distilling and Denaturing Company. No. 94,787; Dec. 30; Gaz. vol. 197; p. 1289.
 Alfalfa. The Albert Dickinson Company. No. 94,430; Dec. 9; Gaz. vol. 197; p. 527.
 Alimentary paste and olive-oil. A. Magnano. No. 94,587; Dec. 2; Gaz. vol. 197; p. 236.
 Alimentary paste products. Atlantic Macaroni Co. No. 94,344; Dec. 2; Gaz. vol. 197; p. 235.
 Antiseptics. W. S. Godwin. No. 94,628; Dec. 23; Gaz. vol. 197; p. 992.
 Armor-plates and iron and steel. Società Anonima Italiana Glo. Ansaldo Armstrong & Co. No. 94,495; Dec. 9; Gaz. vol. 197; p. 529.
 Automobile accessories. Auto Parts Mfg. Co. No. 94,345; Dec. 2; Gaz. vol. 197; p. 235.
 Automobile and motor-cycle horns, Electric. The Dean Electric Co. No. 94,608; Dec. 23; Gaz. vol. 197; p. 992.
 Automobile-horns and circuit-controllers for same, Electric. The Dean Electric Company. No. 94,547; Dec. 16; Gaz. vol. 197; p. 777.
 Automobile-polish. E. Greenwald. No. 94,445; Dec. 9; Gaz. vol. 197; p. 528.
 Automobile, &c., polishes. Russia Cement Company. No. 94,672; Dec. 23; Gaz. vol. 197; p. 994.
 Automobile-radiators. English & Mersick Co. No. 94,623; Dec. 23; Gaz. vol. 197; p. 992.
 Automobiles. Empire Automobile Co. No. 94,357; Dec. 2; Gaz. vol. 197; p. 235.
 Automobiles. Société Anonyme Constructions Industrielles Dijonnaises. No. 94,679; Dec. 23; Gaz. vol. 197; p. 994.
 Baking-powder. L. W. Hahn. No. 94,786; Dec. 30; Gaz. vol. 197; p. 1289.
 Barrel-fillers. Pennsylvania Flexible Metallic Tubing Co. No. 94,664; Dec. 23; Gaz. vol. 197; p. 993.
 Beds, Folding. Murphy Wall Bed Co. of California. No. 94,655; Dec. 23; Gaz. vol. 197; p. 993.
 Beer. The Akron Brewing Company. No. 94,537; Dec. 16; Gaz. vol. 197; p. 777.
 Beer. Pittsburgh Brewing Company. Nos. 94,749-60; Dec. 30; Gaz. vol. 197; p. 1288.
 Beer. Schalk Brewery. No. 94,764; Dec. 30; Gaz. vol. 197; p. 1288.
 Beer and ale, Lager-. Geo. Zett Brewery. No. 94,779; Dec. 30; Gaz. vol. 197; p. 1289.
 Beer-coloring. Emken Chemical Co. No. 94,518; Dec. 9; Gaz. vol. 197; p. 530.
 Belts, Catamenial. A. P. Coolbroth. No. 94,356; Dec. 2; Gaz. vol. 197; p. 235.
 Beverage, Alcoholic. Ve h de R. de la Mora. No. 94,718; Dec. 30; Gaz. vol. 197; p. 1287.
 Books, booklets, pamphlets, and prints, Printed. F. S. Root Co. No. 94,762; Dec. 30; Gaz. vol. 197; p. 1288.
 Boots and shoes. Roblee-Wass Shoe Company. No. 94,669; Dec. 23; Gaz. vol. 197; p. 994.
 Boots and shoes, Leather. The Excelsior Shoe Company. No. 94,723; Dec. 30; Gaz. vol. 197; p. 1287.
 Boots and shoes, Leather. F. Mayer Boot & Shoe Co. No. 94,738; Dec. 30; Gaz. vol. 197; p. 1288.
 Boots and shoes, Rubber and leather. Northern Shoe Co. No. 94,744; Dec. 30; Gaz. vol. 197; p. 1288.
 Boots, shoes, slippers, and overshoes. Shivers & Simon. No. 94,534; Dec. 9; Gaz. vol. 197; p. 530.
 Bottles, Glass milk and cream. Empire Bottle & Supply Company. No. 94,722; Dec. 30; Gaz. vol. 197; p. 1287.
 Bread. C. Rust. No. 94,673; Dec. 23; Gaz. vol. 197; p. 994.
 Burners for fuel-oil. Production Engineering Co. No. 94,485; Dec. 9; Gaz. vol. 197; p. 529.
 Butter and cheese. Kiel Brothers. No. 94,383; Dec. 2; Gaz. vol. 197; p. 236.
 Buttons and shirt-studs, Collar and cuff. Back-Rack Collar Button Co. No. 94,346; Dec. 2; Gaz. vol. 197; p. 235.
 Buttons, Snap-. Waldes & Co. No. 94,699; Dec. 23; Gaz. vol. 197; p. 994.
 Calculating-machines. H. S. Berliner. No. 94,542; Dec. 16; Gaz. vol. 197; p. 777.
 Calendar and collection of mottoes. Barse & Hopkins. Nos. 94,417-18; Dec. 9; Gaz. vol. 197; p. 527.
 Cameras. National Camera Company. No. 94,661; Dec. 23; Gaz. vol. 197; p. 993.
 Can-openers. C. C. Truax & Company. No. 94,506; Dec. 9; Gaz. vol. 197; p. 530.
 Canned and dried fruits and raisins. The J. K. Armaby Company. No. 94,581; Dec. 23; Gaz. vol. 197; p. 991.
 Canned salmon. J. L. Smiley & Co. Nos. 94,677-8; Dec. 23; Gaz. vol. 197; p. 994.
 Candles. L. H. Freund & Co. No. 94,627; Dec. 23; Gaz. vol. 197; p. 992.
 Candies. E. Greenfield's Sons. No. 94,650; Dec. 23; Gaz. vol. 197; p. 992.
 Candy. The Frederick W. Lipps Company of Baltimore City. No. 94,886; Dec. 2; Gaz. vol. 197; p. 236.
 Cane-mills. Chattanooga Plow Co. No. 94,598; Dec. 23; Gaz. vol. 197; p. 992.
 Capsicum, almond-meal, turmeric, &c. J. L. Hopkins & Co. No. 94,378; Dec. 2; Gaz. vol. 197; p. 236.
 Carbon-gas black and lampblack. J. Wilkes Co. No. 94,569; Dec. 16; Gaz. vol. 197; p. 778.
 Carbureters for explosion-engines. Lyma Vergaserfabrik Dietz und Compagnie. No. 94,461; Dec. 9; Gaz. vol. 197; p. 528.
 Cards, Playing-. Russell Playing Card Co. No. 94,671; Dec. 23; Gaz. vol. 197; p. 994.
 Cellings, Steel. The Canton Steel Ceiling Co. No. 94,353; Dec. 2; Gaz. vol. 197; p. 235.
 Cells, brushes for dynamo-electric machines, &c., Dry. National Carbon Company. No. 94,479; Dec. 9; Gaz. vol. 197; p. 529.
 Cells, Dry. National Carbon Company. No. 94,480; Dec. 9; Gaz. vol. 197; p. 529.
 Chains of precious metal. C. Bryant. No. 94,543; Dec. 16; Gaz. vol. 197; p. 777.
 Chairs and stools, Type-writer and desk. C. A. Cook Co. No. 94,605; Dec. 23; Gaz. vol. 197; p. 992.
 Chemical substances prepared for use in certain named purposes. Dr. Bruno Beckmann Chemische Fabrik Gesellschaft mit beschränkter Haftung. No. 94,591; Dec. 23; Gaz. vol. 197; p. 991.
 Cider. J. Clima y García. No. 94,522; Dec. 9; Gaz. vol. 197; p. 530.
 Cigarette-papers. Société Anonyme Des Anciens Etablissements Braunstein Freres. Nos. 94,680-2; Dec. 23; Gaz. vol. 197; p. 994.
 Cigarettes. Messudiah Turkish Tobacco Company. No. 94,467; Dec. 9; Gaz. vol. 197; p. 528.
 Cigarettes. C. A. D. O. Co. No. 94,713; Dec. 30; Gaz. vol. 197; p. 1287.
 Cigars. Standard Cigar Company. No. 94,496; Dec. 9; Gaz. vol. 197; p. 529.
 Cigars. W. H. Meehan & Co. No. 94,739; Dec. 30; Gaz. vol. 197; p. 1288.
 Cigars and stogies. Ward-Young Mfg. Co. No. 94,777; Dec. 30; Gaz. vol. 197; p. 1289.
 Cigars, cigarettes, and tobacco. C. C. Symonett. No. 94,772; Dec. 30; Gaz. vol. 197; p. 1289.
 Cleaning certain named articles and certain polishes, Preparation for. Blyth & Platt. No. 94,420; Dec. 9; Gaz. vol. 197; p. 527.
 Cleaning compound for cylinders of internal-combustion engines. Carbon Cleaning Compound Co. No. 94,354; Dec. 2; Gaz. vol. 197; p. 235.
 Cleaning painted or varnished surfaces, marble, glass, &c., Powder for. H. W. Lamb. No. 94,732; Dec. 30; Gaz. vol. 197; p. 1287.
 Cleanser compound and metal-polish. C. J. Stevenot. No. 94,502; Dec. 9; Gaz. vol. 197; p. 530.
 Cleansing fluid. J. E. L. Dunn. No. 94,432; Dec. 9; Gaz. vol. 197; p. 527.
 Clothes-lines and twine. C. C. Truax & Company. No. 94,405; Dec. 2; Gaz. vol. 197; p. 237.
 Coal. Buchanan Coal Company. No. 94,421; Dec. 9; Gaz. vol. 197; p. 527.
 Coater, Liquid first-. M. McNamara. No. 94,561; Dec. 16; Gaz. vol. 197; p. 777.
 Coats, suits, dresses, and skirts, Outer. C. Lavine. No. 94,458; Dec. 9; Gaz. vol. 197; p. 528.
 Coffee. Nalley Grocery Co. No. 94,660; Dec. 23; Gaz. vol. 197; p. 993.
 Combs, Dressing-. W. N. Archie. No. 94,580; Dec. 23; Gaz. vol. 197; p. 991.
 Commodes and box and vat closets, Sanitary. West Disinfecting Co. No. 94,704; Dec. 23; Gaz. vol. 197; p. 995.
 Cordial, Blackberry. Garrett & Co. No. 94,785; Dec. 30; Gaz. vol. 197; p. 1289.
 Corn remedy, hair-tonic, and toilet water. T. Rippe. No. 94,488; Dec. 9; Gaz. vol. 197; p. 529.
 Cornmeal. S. C. Brinsler. No. 94,352; Dec. 2; Gaz. vol. 197; p. 235.
 Corset-waists. "The H & W Company." No. 94,632; Dec. 23; Gaz. vol. 197; p. 993.
 Corsets. Kops Bros. No. 94,526; Dec. 9; Gaz. vol. 197; p. 530.
 Cotton goods, Certain named. Stonewall Cotton Mills. No. 94,690; Dec. 23; Gaz. vol. 197; p. 994.

Cotton piece goods. Amoskeag Manufacturing Company. No. 94,509; Dec. 9; Gaz. vol. 197; p. 530.
 Cotton piece goods. Burton Bros. & Co. No. 94,511; Dec. 9; Gaz. vol. 197; p. 530.
 Cotton piece goods. Pemberton Company. No. 94,531; Dec. 9; Gaz. vol. 197; p. 530.
 Crackers, biscuits, and cakes. California Cracker Co. No. 94,597; Dec. 23; Gaz. vol. 197; p. 991.
 Crape, silk. Haas Brothers. No. 94,727; Dec. 30; Gaz. vol. 197; p. 1287.
 Crates. C. M. Ankeney. No. 94,579; Dec. 23; Gaz. vol. 197; p. 991.
 Cream, Antiseptic. Paris Medicine Company. No. 94,792; Dec. 30; Gaz. vol. 197; p. 1280.
 Cream for the relief of foot troubles and chafing. The B. A. Russell Pharmaceutical Co. No. 94,490; Dec. 9; Gaz. vol. 197; p. 529.
 Cream, hair-tonic, and cough mixtures. Cold-. The Park Pharmacy. No. 94,483; Dec. 9; Gaz. vol. 197; p. 529.
 Crucibles, levels, and assay-balance. The Mine and Smelter Supply Co. No. 94,474; Dec. 9; Gaz. vol. 197; p. 529.
 Cycle chains, pedals, handle-bars, spokes, &c. Union Gesellschaft für Metallindustrie mit beschränkter Haftung. No. 94,696; Dec. 23; Gaz. vol. 197; p. 994.
 Dental supplies. Certain named. E. Detrey. No. 94,784; Dec. 30; Gaz. vol. 197; p. 1289.
 Dentifrice. The Allan Chemical Co. No. 94,540; Dec. 16; Gaz. vol. 197; p. 777.
 Dentifrices. G. Rosenthal. No. 94,564; Dec. 16; Gaz. vol. 197; p. 778.
 Detergent preparation in crystal form. Chase-O Manufacturing Company. No. 94,425; Dec. 9; Gaz. vol. 197; p. 527.
 Disinfectant and antiseptic. Solution. U. Stone. No. 94,567; Dec. 16; Gaz. vol. 197; p. 778.
 Disinfectant and deodorant. Midland Chemical Co. No. 94,389; Dec. 2; Gaz. vol. 197; p. 236.
 Dresses and negligees. Ladies' wash. M. Alshuler Company. No. 94,708; Dec. 30; Gaz. vol. 197; p. 1287.
 Dresses, Ladies'. F. Schlessel. No. 94,492; Dec. 9; Gaz. vol. 197; p. 529.
 Dresses, Ladies', misses', juniors', and children's. Shapiro Bros. No. 94,767; Dec. 30; Gaz. vol. 197; p. 1288.
 Drink, Plain soft. B. R. Faunce. No. 94,359; Dec. 2; Gaz. vol. 197; p. 235.
 Dynamite. Atlas Powder Company. No. 94,583; Dec. 23; Gaz. vol. 197; p. 991.
 Electric switches and switch specialties. The Cutler-Hammer Mfg. Co. Nos. 94,545-6; Dec. 16; Gaz. vol. 197; p. 777.
 Electrical apparatus and accessories. Certain named. Despersonall & Cie. No. 94,428; Dec. 9; Gaz. vol. 197; p. 527.
 Embroideries. Machenbach Importing Co. No. 94,463; Dec. 9; Gaz. vol. 197; p. 528.
 Embroidering. Certain named articles used in. Jacob Frank Mercantile Co. No. 94,520; Dec. 9; Gaz. vol. 197; p. 530.
 Embroidery foundations. G. Reis & Bro. No. 94,532; Dec. 9; Gaz. vol. 197; p. 530.
 Engines, internal-combustion. The Middletown Machine Co. No. 94,651; Dec. 23; Gaz. vol. 197; p. 993.
 Envelops. Tower Manufacturing & Novelty Co. No. 94,535; Dec. 9; Gaz. vol. 197; p. 530.
 Fabrics and stockinet. Woven and knit. W. Benger & Söhne. No. 94,683; Dec. 23; Gaz. vol. 197; p. 994.
 Fabrics, Cut-pile. Philadelphia Pile Fabric Mills. No. 94,666; Dec. 23; Gaz. vol. 197; p. 994.
 Fabrics, Knitted. Marinette Knitting Mills. No. 94,527; Dec. 9; Gaz. vol. 197; p. 530.
 Felt in the piece. American Felt Company. No. 94,413; Dec. 9; Gaz. vol. 197; p. 527.
 Fertilizer. Mount Pleasant Fertilizer Company. No. 94,391; Dec. 2; Gaz. vol. 197; p. 236.
 Filing cases and cabinets. Metallic. General Fireproofing Company. No. 94,367; Dec. 2; Gaz. vol. 197; p. 235.
 Filler, varnish, and lacquer. Waterproof. J. Adler Gliding Co. No. 94,536; Dec. 16; Gaz. vol. 197; p. 777.
 Filtering apparatus, refrigerating systems, &c. Vulkan-Werke Gesellschaft für Brauerei-Bedarf m. b. H. No. 94,408; Dec. 2; Gaz. vol. 197; p. 237.
 Fire-extinguishing compounds. Pyrene Manufacturing Co. No. 94,667; Dec. 23; Gaz. vol. 197; p. 994.
 Flannel and woolen piece goods. D. W. Farnsworth. No. 94,725; Dec. 30; Gaz. vol. 197; p. 1287.
 Floor and furniture polish. The Varn-O-Wax and Oil Company. No. 94,507; Dec. 9; Gaz. vol. 197; p. 530.
 Flour, Self-raising Graham pancakes. Union Roller Milling Co. No. 94,668; Dec. 23; Gaz. vol. 197; p. 994.
 Flour, Wheat-. Hecker-Jones-Jewell Milling Company. No. 94,375; Dec. 2; Gaz. vol. 197; p. 236.
 Flour, Wheat-. J. H. Brower. No. 94,596; Dec. 23; Gaz. vol. 197; p. 991.
 Flour, Wheat-. Fisher Flouring Mills Company. No. 94,624; Dec. 23; Gaz. vol. 197; p. 992.
 Food, Cereal breakfast. The Colorado Sanitarium Food Company. No. 94,599; Dec. 23; Gaz. vol. 197; p. 992.
 Foods, Certain named. F. MacVeagh & Company. No. 94,648; Dec. 23; Gaz. vol. 197; p. 993.
 Furniture, &c., polish. Cream. W. Skolnick. No. 94,676; Dec. 23; Gaz. vol. 197; p. 994.
 Garters, neckties, and suspenders. W. H. Jacobsen. No. 94,731; Dec. 30; Gaz. vol. 197; p. 1287.

Gas and vapor mantles. King Light Co. No. 94,457; Dec. 9; Gaz. vol. 197; p. 528.
 Gas-mantles. The Imperial Merchandise Co. Nos. 94,450-1; Dec. 9; Gaz. vol. 197; p. 528.
 Gas-mantles. Lindsay Light Company. No. 94,735; Dec. 30; Gaz. vol. 197; p. 1288.
 Gasolene-gages. C. F. Roper & Co. No. 94,399; Dec. 2; Gaz. vol. 197; p. 236.
 Gelatin preparation. The Frank Pure Food Co. No. 94,366; Dec. 2; Gaz. vol. 197; p. 235.
 Glass articles used for illuminating purposes. Certain named. General Electric Company. No. 94,366; Dec. 2; Gaz. vol. 197; p. 235.
 Glass, Broken. M. Levy. No. 94,459; Dec. 9; Gaz. vol. 197; p. 528.
 Glass for certain named purposes. Raw. Schott & Gen. No. 94,493; Dec. 9; Gaz. vol. 197; p. 529.
 Glassware—namely, funnels, beakers, flasks, burettes, and cylinders. The Mine and Smelter Supply Co. No. 94,478; Dec. 9; Gaz. vol. 197; p. 529.
 Gloves. A. Aurich. No. 94,584; Dec. 23; Gaz. vol. 197; p. 991.
 Gloves, Leather. Carson Glove Co. No. 94,513; Dec. 9; Gaz. vol. 197; p. 530.
 Grain and fruits for food drinks. C. H. Heinig. No. 94,635; Dec. 23; Gaz. vol. 197; p. 993.
 Grain-separators, fanning-mills, and grain-cleaning machines. Hirsch Brothers. No. 94,448; Dec. 9; Gaz. vol. 197; p. 528.
 Grinding-wheels. Detroit Emery Wheel Company. No. 94,429; Dec. 9; Gaz. vol. 197; p. 527.
 Gum, Chewing. Autosales Gum and Chocolate Company. No. 94,587-8; Dec. 23; Gaz. vol. 197; p. 991.
 Hair-nets. E. David. No. 94,516; Dec. 9; Gaz. vol. 197; p. 530.
 Hair-nets. J. Giguet. No. 94,523; Dec. 9; Gaz. vol. 197; p. 530.
 Hair-restorer. A. Magliaro. No. 94,788; Dec. 30; Gaz. vol. 197; p. 1289.
 Handkerchiefs. Heller & Long. No. 94,728; Dec. 30; Gaz. vol. 197; p. 1287.
 Handspikes. New York Boat Oar Company. No. 94,663; Dec. 23; Gaz. vol. 197; p. 993.
 Hardware, plumbing, and steam-fitting supplies. Certain named. Felten & Guillaume Carlswerk Actien-Gesellschaft. No. 94,361; Dec. 2; Gaz. vol. 197; p. 235.
 Hat frames and trimmings and artificial flowers. The Protocon Company. No. 94,761; Dec. 30; Gaz. vol. 197; p. 1288.
 Hats, Straw. Bronston Bros. & Co. No. 94,595; Dec. 23; Gaz. vol. 197; p. 991.
 Holders, brackets, racks, &c. Art Brass Company. No. 94,582; Dec. 23; Gaz. vol. 197; p. 991.
 Hooks and eyes. C. H. Crowley. No. 94,515; Dec. 9; Gaz. vol. 197; p. 530.
 Hose. The Mechanical Rubber Company. No. 94,466; Dec. 9; Gaz. vol. 197; p. 528.
 Hose, belting, packing, and jar-rings. J. W. Buckley Rubber Co. Nos. 94,422-3; Dec. 9; Gaz. vol. 197; p. 527.
 Hose-supporters. C. J. Higley. No. 94,636; Dec. 23; Gaz. vol. 197; p. 993.
 Hosiery. S. Mayer. No. 94,650; Dec. 23; Gaz. vol. 197; p. 993.
 Ice-picks. A. W. Stephens Mfg. Co. No. 94,689; Dec. 23; Gaz. vol. 197; p. 994.
 Insect-extinguishers. The Harlem Chemical Co. No. 94,554; Dec. 16; Gaz. vol. 197; p. 777.
 Insecticides. Joseph Williams Company. No. 94,706; Dec. 23; Gaz. vol. 197; p. 995.
 Instruments and parts therefor. Certain named. G. Pirazzi & Co. No. 94,394; Dec. 2; Gaz. vol. 197; p. 236.
 Insulation friction-tape, dry-cell batteries, fuses, and fuse-wire. The Mine and Smelter Supply Co. No. 94,471; Dec. 9; Gaz. vol. 197; p. 529.
 Iron and steel sheets and plates and tin andterne plates. American Sheet & Tin Plate Company. No. 94,572; Dec. 23; Gaz. vol. 197; p. 991.
 Iron or steel hardening compounds. The Steel Improvement Company. No. 94,688; Dec. 23; Gaz. vol. 197; p. 994.
 Jar-rings. The Imperial Merchandise Co. No. 94,452; Dec. 9; Gaz. vol. 197; p. 528.
 Jewellers' saws. B. H. Jesswein & Company. No. 94,369; Dec. 2; Gaz. vol. 197; p. 235.
 Kinematographic apparatus and films and plates therefor. Compagnie Générale des Etablissements Pathé Frères, Phonographe et Cinématographe. Nos. 94,600-3; Dec. 23; Gaz. vol. 197; p. 992.
 Knives used in cutting-machines. Machine. E. C. Atkin & Company. No. 94,415; Dec. 9; Gaz. vol. 197; p. 527.
 Lamp shades, domes, and globes. Glass. Lighting Studios Company. No. 94,460; Dec. 9; Gaz. vol. 197; p. 528.
 Lard, hams, bacon, sausage, &c. Hammond, Standish & Co. No. 94,633; Dec. 23; Gaz. vol. 197; p. 993.
 Lard substitute. Sears, Roebuck and Co. No. 94,401; Dec. 2; Gaz. vol. 197; p. 236.
 Laundry boxes, bags, and cartons. J. A. Anderson. No. 94,577; Dec. 23; Gaz. vol. 197; p. 991.
 Laxative. F. H. Strong Company. No. 94,504; Dec. 9; Gaz. vol. 197; p. 530.
 Laxative cathartic and diuretic. S. B. Hambly. No. 94,371; Dec. 2; Gaz. vol. 197; p. 236.

Laxatives. W. E. Derry, M. D. Inc. No. 94,548; Dec. 16; Gaz. vol. 197; p. 777.
 Leather. Corona Kid Manufacturing Company. No. 94,427; Dec. 9; Gaz. vol. 197; p. 527.
 Leather and rubber dressing. Liquid. Phelps Manufacturing Company. No. 94,748; Dec. 30; Gaz. vol. 197; p. 1288.
 Leather strips. N. R. Allen's Sons Company. No. 94,707; Dec. 30; Gaz. vol. 197; p. 1287.
 Lens systems. Objective. Firm of C. Zeiss. No. 94,409; Dec. 2; Gaz. vol. 197; p. 237.
 Liniment. Trib Company. No. 94,694; Dec. 23; Gaz. vol. 197; p. 994.
 Liniment, cough-syrup, ointment, &c. C. Kerns. No. 94,456; Dec. 9; Gaz. vol. 197; p. 528.
 Liqueur. Cointreau Pere et Fils. No. 94,714; Dec. 30; Gaz. vol. 197; p. 1287.
 Lotion or balm for chapped hands. Glamser Venn Drug Company. No. 94,553; Dec. 16; Gaz. vol. 197; p. 777.
 Lumber, Artificial. Northwestern Compo Board Co. No. 94,745; Dec. 30; Gaz. vol. 197; p. 1288.
 Macaroni. Musolino & Berger. No. 94,659; Dec. 23; Gaz. vol. 197; p. 993.
 Machines, Certain named. General Composing Company, Gesellschaft mit beschränkter Haftung. No. 94,440; Dec. 9; Gaz. vol. 197; p. 528.
 Magazine, Monthly. The Electro Importing Company. No. 94,721; Dec. 30; Gaz. vol. 197; p. 1287.
 Magazine, Semimonthly. American Association of Foreign Language Newspapers. No. 94,412; Dec. 9; Gaz. vol. 197; p. 527.
 Malt extract. David Nicholson Grocer Company. No. 94,482; Dec. 9; Gaz. vol. 197; p. 529.
 Manicuring hand polishers, buffers, and enamellers. Roller Polisher Company. No. 94,398; Dec. 2; Gaz. vol. 197; p. 236.
 Manure-spreaders. D. M. Sechler Implement & Carriage Co. No. 94,675; Dec. 23; Gaz. vol. 197; p. 994.
 Meal or flour, Compound. R. G. Jackson. No. 94,454; Dec. 9; Gaz. vol. 197; p. 528.
 Measuring and scientific appliances. Certain named. The American Photographic Text Book Company. No. 94,414; Dec. 9; Gaz. vol. 197; p. 527.
 Measuring apparatus, Gaseous-fluid. Rotary Meter Company. No. 94,763; Dec. 30; Gaz. vol. 197; p. 1288.
 Medicated gin. Weiss & Rauscher. No. 94,702; Dec. 23; Gaz. vol. 197; p. 995.
 Medicated lozenge. E. Berger & Co. No. 94,593; Dec. 23; Gaz. vol. 197; p. 991.
 Medicinal preparation. Allen & Hanbury, Limited. No. 94,411; Dec. 9; Gaz. vol. 197; p. 527.
 Medicinal preparation. National Remedy Company. No. 94,481; Dec. 9; Gaz. vol. 197; p. 529.
 Medicinal preparation for the treatment of rheumatism, neuralgia, strains, cuts, &c. The Effective Company. No. 94,621; Dec. 23; Gaz. vol. 197; p. 992.
 Medicinal remedy for certain named diseases. B. L. Maltbie. No. 94,789; Dec. 30; Gaz. vol. 197; p. 1289.
 Medicinal tonic preparation. Chester Kent & Co. No. 94,557; Dec. 16; Gaz. vol. 197; p. 777.
 Medicine for gout, rheumatism, lumbago, and sciatica. D. Foulis. No. 94,551; Dec. 16; Gaz. vol. 197; p. 777.
 Metal ware, Enameled. Shapleigh Hardware Company. No. 94,768; Dec. 30; Gaz. vol. 197; p. 1288.
 Metals in various shapes and certain named goods made therefrom. Certain. Felten & Guillaume Carlswerk Actien-Gesellschaft. No. 94,435; Dec. 9; Gaz. vol. 197; p. 527.
 Mirrors, Shaving. Federal Sign System (Electric). No. 94,360; Dec. 2; Gaz. vol. 197; p. 235.
 Molasses. The American Sugar Refining Company. Nos. 94,574-6; Dec. 23; Gaz. vol. 197; p. 991.
 Motor-cycles and bicycles. Consolidated Manufacturing Company. No. 94,358; Dec. 2; Gaz. vol. 197; p. 235.
 Mowers, Guard-plates for. International Harvester Company of New Jersey. No. 94,453; Dec. 9; Gaz. vol. 197; p. 528.
 Musical-instrument strings. Gut. Italian Musical String Co. No. 94,555; Dec. 16; Gaz. vol. 197; p. 777.
 Napkins. Manville Company. No. 94,560; Dec. 16; Gaz. vol. 197; p. 777.
 Neckties, neckscarfs, and cravats. A. W. Cowen & Bros. No. 94,606; Dec. 23; Gaz. vol. 197; p. 992.
 Needles, Crochet. Morris & Yeomans. No. 94,741; Dec. 30; Gaz. vol. 197; p. 1288.
 Nets, Fly. Scheffer & Rossum Company. No. 94,674; Dec. 23; Gaz. vol. 197; p. 994.
 Newspaper-section published periodically. Star Company. No. 94,501; Dec. 9; Gaz. vol. 197; p. 530.
 Newspapers. The Editor & Publisher Co. No. 94,433; Dec. 9; Gaz. vol. 197; p. 527.
 Oars, sweeps, and sculls. New York Boat Oar Company. No. 94,393; Dec. 2; Gaz. vol. 197; p. 236.
 Oil, Lubricating. Weinstock-Nichols Co. Nos. 94,700-1; Dec. 23; Gaz. vol. 197; pp. 994-5.
 Oils and engine-grease, Lubricating and machine. Schlemm's Oil & Ceresine Company. No. 94,765; Dec. 30; Gaz. vol. 197; p. 1288.
 Oils and greases and tempering, wool, &c., oils, Lubricating. E. F. Houghton & Company. No. 94,638; Dec. 23; Gaz. vol. 197; p. 993.
 Oils and greases, Lubricating. Swan & Finch Company. No. 94,691; Dec. 23; Gaz. vol. 197; p. 994.

Oils and greases, refined oil, and gasolene, Lubricating. Standard Oil Company. No. 94,497; Dec. 9; Gaz. vol. 197; p. 529.
 Oils, Lubricating. A. G. Bartlett. No. 94,589; Dec. 23; Gaz. vol. 197; p. 991.
 Ointment. Bonetti Frères. No. 94,552; Dec. 16; Gaz. vol. 197; p. 777.
 Ointment for treating certain diseases. H. Copleston. No. 94,715; Dec. 30; Gaz. vol. 197; p. 1287.
 Oranges and grape-fruit. Manatee Fruit Co. No. 94,649; Dec. 23; Gaz. vol. 197; p. 993.
 Oranges, pineapples, lemons, limes, and grape-fruit. O. E. Spooner. No. 94,684; Dec. 23; Gaz. vol. 197; p. 994.
 Overall. Mechanics Union Overall Co. No. 94,529; Dec. 9; Gaz. vol. 197; p. 530.
 Paint and a wall-coating, Base for making a. Alabastine Company. No. 94,538; Dec. 16; Gaz. vol. 197; p. 777.
 Paint for condensers and other metal structures. The American Paint & Color Co. No. 94,571; Dec. 23; Gaz. vol. 197; p. 991.
 Paints. J. W. Dunford. No. 94,431; Dec. 9; Gaz. vol. 197; p. 527.
 Paints. Standard Oil Company of New York. No. 94,500; Dec. 9; Gaz. vol. 197; p. 529.
 Paints and pigments therefor. A. O. Meyer. No. 94,740; Dec. 30; Gaz. vol. 197; p. 1288.
 Paints, Ready-mixed. Sunset Paint Co. No. 94,505; Dec. 9; Gaz. vol. 197; p. 530.
 Painters' material and prepared paint, Certain named. Oscar Schlegel Mfg. Co. No. 94,491; Dec. 9; Gaz. vol. 197; p. 529.
 Paper adapted for certain purposes. Cott-A-Lap Company. No. 94,514; Dec. 9; Gaz. vol. 197; p. 530.
 Paper, Blotting. Standard Paper Mfg. Co. Nos. 94,685-7; Dec. 23; Gaz. vol. 197; p. 994.
 Paper, envelopes, and Bristol-board. Bradner Smith & Co. No. 94,351; Dec. 2; Gaz. vol. 197; p. 235.
 Paper in sheets, Cover. O. M. Steinman Inc. No. 94,403; Dec. 2; Gaz. vol. 197; p. 236.
 Paper shot-shells. The Union Metallic Cartridge Company. No. 94,697; Dec. 23; Gaz. vol. 197; p. 994.
 Paper, Toilet-. A. U. Morse. No. 94,390; Dec. 2; Gaz. vol. 197; p. 236.
 Paper, Toilet-. Sauquoit Toilet Paper Co. No. 94,400; Dec. 2; Gaz. vol. 197; p. 236.
 Paper, Toilet-. Sauquoit Toilet Paper Co. No. 94,533; Dec. 9; Gaz. vol. 197; p. 530.
 Paper, Toilet-. Albany Perforated Wrapping Paper Co. No. 94,570; Dec. 23; Gaz. vol. 197; p. 991.
 Paper towels and toilet-paper. Heco Envelope & Paper Company. No. 94,376; Dec. 2; Gaz. vol. 197; p. 236.
 Pastes, Adhesive. Ernecke & Salmstern Company. No. 94,358; Dec. 2; Gaz. vol. 197; p. 235.
 Paving material, Asphalt-cement. John R. Ott Contracting Company. No. 94,746; Dec. 30; Gaz. vol. 197; p. 1288.
 Pencils, crayons, rubber erasers and bands, rulers, &c. A. W. Faber. No. 94,549; Dec. 16; Gaz. vol. 197; p. 777.
 Pens, Steel. G. W. Hughes. No. 94,379; Dec. 2; Gaz. vol. 197; p. 236.
 Pens, Steel. G. W. Hughes. No. 94,640; Dec. 23; Gaz. vol. 197; p. 993.
 Percals. W. Anderson & Co. No. 94,578; Dec. 23; Gaz. vol. 197; p. 991.
 Perfumery. Autran & Ardisson. No. 94,416; Dec. 9; Gaz. vol. 197; p. 527.
 Perfumery. G. C. Willson. No. 94,706; Dec. 23; Gaz. vol. 197; p. 995.
 Perfumes, face-paints, and rouges. E. Wertheimer & Cie. No. 94,703; Dec. 23; Gaz. vol. 197; p. 995.
 Perfumes, toilet powder, waters, and creams, sachet-powders, &c. Arthur Chemical Co. No. 94,541; Dec. 16; Gaz. vol. 197; p. 777.
 Periodicals, Monthly. The Model American Kitchen Company. No. 94,475; Dec. 9; Gaz. vol. 197; p. 529.
 Petroleum. Standard Oil Company of New York. No. 94,402; Dec. 2; Gaz. vol. 197; p. 236.
 Petroleum, Refined. Standard Oil Co. of New York. No. 94,498; Dec. 9; Gaz. vol. 197; p. 529.
 Photographs and postal-card photographs. H. W. Steln. No. 94,770; Dec. 30; Gaz. vol. 197; p. 1289.
 Pianos and perforated music-sheets. Player. Kranich & Bach. No. 94,558; Dec. 16; Gaz. vol. 197; p. 777.
 Pianos and player-pianos. J. & C. Fischer. No. 94,364; Dec. 2; Gaz. vol. 197; p. 235.
 Picture films and cameras, microscope-pictures, and exhibiting-machines, Moving-. Biograph Company. No. 94,594; Dec. 23; Gaz. vol. 197; p. 991.
 Picture machines, cameras, kodaks, and photographic films, Moving-. F. W. Hochstetter. Nos. 94,729-30; Dec. 30; Gaz. vol. 197; p. 1287.
 Pictures and illustrations published serially. The New York Herald Company. Nos. 94,742-3; Dec. 30; Gaz. vol. 197; p. 1288.
 Pills for the stomach and liver. C. Mayne. No. 94,791; Dec. 30; Gaz. vol. 197; p. 1289.
 Pins, Safety-. Austin-Walker Sales Company. No. 94,585; Dec. 23; Gaz. vol. 197; p. 991.
 Pipes, The Klingenstein Company. No. 94,645; Dec. 23; Gaz. vol. 197; p. 993.
 Pipes, Ceiling-sleeves for. Standard Pipe Covering Co. No. 94,769; Dec. 30; Gaz. vol. 197; p. 1289.
 Pipes, Smokers'. C. C. Truax & Company. No. 94,406; Dec. 2; Gaz. vol. 197; p. 237.

Pipes, tubes, and casings. National Tube Company. No. 94,892; Dec. 2; Gaz. vol. 197; p. 236.
 Plumbing and steam-fitting supplies. Certain named. Rickersberg Brass Company. No. 94,487; Dec. 9; Gaz. vol. 197; p. 529.
 Polishing materials, furniture-polishes, and floor-dressings. J. V. Lane. No. 94,885; Dec. 2; Gaz. vol. 197; p. 236.
 Poultry, fruits, and vegetables. M. S. Hallock & Co. No. 94,370; Dec. 2; Gaz. vol. 197; p. 235.
 Powder, Antiseptic. The Anglo-American Pharmaceutical Company. No. 94,780; Dec. 30; Gaz. vol. 197; p. 1289.
 Powder, Bath. S. Brentano. No. 94,782; Dec. 30; Gaz. vol. 197; p. 1289.
 Powders for blasting, &c. Hoynes Safety Powder Co. No. 94,637; Dec. 23; Gaz. vol. 197; p. 993.
 Preparation for banishing mosquitoes, &c. Red Rosin Products Co. No. 94,663; Dec. 16; Gaz. vol. 197; p. 778.
 Preparation for the treatment of piles. G. W. Jones. No. 94,556; Dec. 16; Gaz. vol. 197; p. 777.
 Preparation for the treatment of sore eyes. D. A. Smith. No. 94,793; Dec. 30; Gaz. vol. 197; p. 1289.
 Preparation to be used in the treatment of tuberculosis. Copper. The Bayer Company. No. 94,590; Dec. 23; Gaz. vol. 197; p. 991.
 Preparations for bacteriological purposes. Agar. Chemische Fabrik Helfenberg A. G. vorm. Eugen Dieterich. No. 94,783; Dec. 30; Gaz. vol. 197; p. 1289.
 Prints and publications. Certain named. Bartlett-Orr Press. No. 94,419; Dec. 9; Gaz. vol. 197; p. 527.
 Publication for florists, &c. Weekly. Florists Publishing Company. No. 94,439; Dec. 9; Gaz. vol. 197; p. 528.
 Pulp, Wood. M. Gottesman & Son. Nos. 94,442-3; Dec. 9; Gaz. vol. 197; p. 528.
 Puncture-proof composition. J. A. Posey. No. 94,395; Dec. 2; Gaz. vol. 197; p. 236.
 Purses and hand-bags. Elsmann, Kaiser & Co. No. 94,622; Dec. 23; Gaz. vol. 197; p. 992.
 Rats, mice, gophers, and other animals. Compound for use in exterminating. O. C. Kretschmar. No. 94,384; Dec. 2; Gaz. vol. 197; p. 236.
 Razors and razor-blades. Matthews & Lively. Nos. 94,736-7; Dec. 30; Gaz. vol. 197; p. 1288.
 Remedy for certain diseases. W. F. Bente. No. 94,347; Dec. 2; Gaz. vol. 197; p. 235.
 Remedy for certain named ailments. P. Ruhl. No. 94,670; Dec. 23; Gaz. vol. 197; p. 994.
 Remedy for certain named diseases. A. H. Vordick. No. 94,508; Dec. 9; Gaz. vol. 197; p. 530.
 Remedy for certain named diseases. Medicinal. E. F. Montgomery. No. 94,476; Dec. 9; Gaz. vol. 197; p. 528.
 Remedy for corns, warts, and callouses. R. W. B. Co. No. 94,396; Dec. 2; Gaz. vol. 197; p. 236.
 Remedy for coughs and colds. The Piso Company. No. 94,484; Dec. 9; Gaz. vol. 197; p. 529.
 Remedy for diseases of horses. The Bradbury Equalizer Company. No. 94,350; Dec. 2; Gaz. vol. 197; p. 235.
 Remedy for earache, chapped hands, and eczema. H. S. Lambdin. No. 94,559; Dec. 16; Gaz. vol. 197; p. 777.
 Remedy for fistula, poll-evil, old sores, and swellings. The Flatpole Compounding Co. No. 94,488; Dec. 9; Gaz. vol. 197; p. 528.
 Remedy for gonorrhea. A. Taeschner. No. 94,692; Dec. 23; Gaz. vol. 197; p. 994.
 Remedy for live stock. Tuscawawas Chemical Company. No. 94,407; Dec. 2; Gaz. vol. 197; p. 237.
 Remedy for piles. W. S. Johnson. No. 94,455; Dec. 9; Gaz. vol. 197; p. 528.
 Remedy for stomach and bowel disorders. Po-esh-i-ko Company. No. 94,562; Dec. 16; Gaz. vol. 197; p. 778.
 Remedy for venereal diseases. Albany Chemical Co. No. 94,539; Dec. 9; Gaz. vol. 197; p. 777.
 Respiratory apparatus and devices for administering oxygen. Mechanical. Drägerwerk, Heintz & Bernh. Dräger. No. 94,620; Dec. 23; Gaz. vol. 197; p. 992.
 Rheumatic powder, liniment, and constipation-tablets. E. A. Spliers. No. 94,794; Dec. 30; Gaz. vol. 197; p. 1289.
 Roofing, tarred felts, and building-papers. Asphalt. General Roofing Manufacturing Co. No. 94,368; Dec. 2; Gaz. vol. 197; p. 235.
 Roup cure for poultry. Troy Chemical Co. No. 94,795; Dec. 30; Gaz. vol. 197; p. 1289.
 Rubber and gum. Venezuela Trading Co. No. 94,775; Dec. 30; Gaz. vol. 197; p. 1289.
 Rubber, Certain named clothing made of. Mystic Rubber Company. No. 94,477; Dec. 9; Gaz. vol. 197; p. 529.
 Rubber products. Preservation of. J. M. Munyon, Jr. No. 94,530; Dec. 9; Gaz. vol. 197; p. 530.
 Rugs, carpets, and matting. Textile. D. H. Coplon & Co. No. 94,716; Dec. 30; Gaz. vol. 197; p. 1287.
 Salve. Goose Grease Co. No. 94,441; Dec. 9; Gaz. vol. 197; p. 528.
 Salve. J. T. Riley. No. 94,668; Dec. 23; Gaz. vol. 197; p. 994.
 Salve. R. Annuzzi. No. 94,781; Dec. 30; Gaz. vol. 197; p. 1289.
 Salve for inflammations or congestions. Trimbleine Company. No. 94,695; Dec. 23; Gaz. vol. 197; p. 994.
 Salve, Healing. O. H. Kutzner. No. 94,646; Dec. 23; Gaz. vol. 197; p. 993.
 Salves and cough-drops. F. W. Israel. No. 94,381; Dec. 2; Gaz. vol. 197; p. 236.

Salves and ointments. Haarer & Sons. No. 94,446; Dec. 9; Gaz. vol. 197; p. 528.
 Sandpapers, garnet-papers, and emery papers and cloths. American Glue Company. No. 94,709; Dec. 30; Gaz. vol. 197; p. 1287.
 Satin, silk, and silk and cotton piece goods. S. Elsmann & Co. No. 94,517; Dec. 9; Gaz. vol. 197; p. 530.
 Saws. Henry Plaston & Sons. No. 94,719; Dec. 30; Gaz. vol. 197; p. 1287.
 Scarfs and shawls. Shoulder. Rice-Stix Dry Goods Company. No. 94,486; Dec. 9; Gaz. vol. 197; p. 529.
 Scorifiers, mufflers, and certain named furnaces and burners. The Mine and Smelter Supply Co. No. 94,472; Dec. 9; Gaz. vol. 197; p. 529.
 Screw-machines, Metal-working, &c. National-Acme Manufacturing Company. No. 94,478; Dec. 9; Gaz. vol. 197; p. 529.
 Seeds and bulbs. Weeber & Don. No. 94,778; Dec. 30; Gaz. vol. 197; p. 1289.
 Shampoo preparations, perfumes, sachets, and toilet waters. J. Macdonald. No. 94,462; Dec. 9; Gaz. vol. 197; p. 528.
 Shirts. Negligée. Havens and Geddes Company. No. 94,634; Dec. 23; Gaz. vol. 197; p. 993.
 Shock-preventers. The Aristos Company. No. 94,710; Dec. 30; Gaz. vol. 197; p. 1287.
 Shoes. Shaft-Pierce Shoe Co. No. 94,494; Dec. 9; Gaz. vol. 197; p. 529.
 Shoes, Leather. Brockton Peoples Shoe Co. No. 94,510; Dec. 9; Gaz. vol. 197; p. 530.
 Shoes, Leather. L. McGinnis. No. 94,528; Dec. 9; Gaz. vol. 197; p. 530.
 Shoes, Men's and boys' leather. Marion Shoe Company. No. 94,465; Dec. 9; Gaz. vol. 197; p. 528.
 Signs, Electrically-illuminated. Flexume Sign Company. No. 94,550; Dec. 16; Gaz. vol. 197; p. 777.
 Silk and cotton piece goods. A. G. Hyde & Sons. No. 94,641; Dec. 23; Gaz. vol. 197; p. 993.
 Silk, silk and cotton, and cotton-mixed fabrics. Fried, Mendelson & Co. No. 94,521; Dec. 9; Gaz. vol. 197; p. 530.
 Soap. Royal Tea Company. No. 94,489; Dec. 9; Gaz. vol. 197; p. 529.
 Soap paste. Hand. The Enos Adams Co. No. 94,410; Dec. 9; Gaz. vol. 197; p. 527.
 Soap powder. The Holbrook Mfg. Co. No. 94,449; Dec. 9; Gaz. vol. 197; p. 528.
 Soaps, Toilet. F. G. Burke. No. 94,424; Dec. 9; Gaz. vol. 197; p. 527.
 Sorghum and sorghum products. The Fort Scott Sorghum Syrup Company. Nos. 94,625-6; Dec. 23; Gaz. vol. 197; p. 992.
 Spices. E. B. Millar Co. No. 94,652; Dec. 23; Gaz. vol. 197; p. 993.
 Steel, Drill. The Mine and Smelter Supply Co. No. 94,470; Dec. 9; Gaz. vol. 197; p. 529.
 Steel, Sheet. Inland Steel Company. No. 94,380; Dec. 2; Gaz. vol. 197; p. 236.
 Sugar and oysters. Goldberg, Bowen & Co. No. 94,629; Dec. 23; Gaz. vol. 197; p. 992.
 Sulfate of iron. The American Steel & Wire Co. of New Jersey. No. 94,573; Dec. 23; Gaz. vol. 197; p. 991.
 Tags. Dennison Manufacturing Company. Nos. 94,609-19; Dec. 23; Gaz. vol. 197; p. 992.
 Talcum, &c., powders, face-cream, and perfume. G. S. McCreedy. No. 94,388; Dec. 2; Gaz. vol. 197; p. 236.
 Thimbles, Precious-metal sewing. Ketcham & McDougall. No. 94,525; Dec. 9; Gaz. vol. 197; p. 530.
 Thread and spool-cotton, Mercerized. Sea Island Thread Co. No. 94,766; Dec. 30; Gaz. vol. 197; p. 1288.
 Thread and yarn. Courtaulds Limited. No. 94,607; Dec. 23; Gaz. vol. 197; p. 992.
 Tires and tubing, inner tubes and cases, and valve-patches, Rubber. Lee Tire & Rubber Co. No. 94,734; Dec. 30; Gaz. vol. 197; p. 1288.
 Tires, Compound for sealing punctures in inflatable. The Tire Treatment Company. No. 94,693; Dec. 23; Gaz. vol. 197; p. 994.
 Tires, Rubber. Ungarische Gummiwaarenfabriks Actien-Gesellschaft. No. 94,774; Dec. 30; Gaz. vol. 197; p. 1289.
 Tires, rubber valves, and air-tubes for tires. Felten & Guilleaume Carlsberg Actien-Gesellschaft. No. 94,724; Dec. 30; Gaz. vol. 197; p. 1287.
 Tobacco and cigarettes. Compagnie Laferme Tabak- und Cigaretten-Fabriken. No. 94,426; Dec. 9; Gaz. vol. 197; p. 527.
 Tobacco, Chewing. B. F. Treahy. No. 94,568; Dec. 16; Gaz. vol. 197; p. 778.
 Toilet preparations, Certain named. Richard Hudnut. No. 94,639; Dec. 23; Gaz. vol. 197; p. 993.
 Toilet preparations, Certain named. The Marinello Company. No. 94,790; Dec. 30; Gaz. vol. 197; p. 1289.
 Toilet water. A. et M. Landon. No. 94,647; Dec. 23; Gaz. vol. 197; p. 993.
 Tonic beverage and syrup and powder for making same. Carbonated. C. M. & R. Manufacturing Company. No. 94,512; Dec. 9; Gaz. vol. 197; p. 530.
 Tonic for animals and poultry. The W. A. Jenkins Mfg. Co. No. 94,382; Dec. 2; Gaz. vol. 197; p. 236.
 Tools and parts thereof, Certain named machinery and Felten & Guilleaume Carlsberg Actien-Gesellschaft. No. 94,362; Dec. 2; Gaz. vol. 197; p. 236.

Tooth-paste, powders, face-creams, and perfumery. Hebe's Boudoir Corporation. No. 94,374; Dec. 2; Gaz. vol. 197; p. 236.
 Toys. T. Walton. No. 94,776; Dec. 30; Gaz. vol. 197; p. 1289.
 Tubing, hose, belting, and machinery packing. J. W. Buckley Rubber Co. No. 94,712; Dec. 30; Gaz. vol. 197; p. 1287.
 Turbines, compressors, drills, &c., and repair parts for same. Steam. Ingersoll-Rand Company. No. 94,644; Dec. 23; Gaz. vol. 197; p. 993.
 Type-writers. Imperial Typewriter Co. Nos. 94,642-3; Dec. 23; Gaz. vol. 197; p. 993.
 Type-writers and their parts. Metall-Industrie Schönebeck Actien-Gesellschaft. No. 94,468; Dec. 9; Gaz. vol. 197; p. 528.
 Undervests, Ladies'. H. H. Condit. No. 94,604; Dec. 23; Gaz. vol. 197; p. 992.
 Underwear, Certain named. Lawrence Manufacturing Company. No. 94,733; Dec. 30; Gaz. vol. 197; p. 1287.
 Vacuum-cleaners and carpet-sweepers. B. E. Harris. No. 94,373; Dec. 2; Gaz. vol. 197; p. 236.
 Valve-grinding paste. E. W. Hill. No. 94,447; Dec. 9; Gaz. vol. 197; p. 528.
 Varnishes. Standard Oil Company of New York. No. 94,499; Dec. 9; Gaz. vol. 197; p. 529.
 Varnishes, varnish-stain, enamel paint, wood-filler, &c. New Jersey Wood Finishing Company. No. 94,662; Dec. 23; Gaz. vol. 197; p. 993.
 Varnishes, wood fillers, stains, and enamels. Moller & Schumann Co. No. 94,653; Dec. 23; Gaz. vol. 197; p. 993.
 Vegetable and mineral substances and leather packing. Certain articles composed of. Felten & Guilleaume Carlsberg Actien-Gesellschaft. No. 94,436; Dec. 9; Gaz. vol. 197; p. 527.
 Vegetable substances and products. Certain. Felten & Guilleaume Carlsberg Actien-Gesellschaft. No. 94,437; Dec. 9; Gaz. vol. 197; p. 528.
 Vehicle top fabric. Hercules Rubber Company. No. 94,524; Dec. 9; Gaz. vol. 197; p. 530.
 Vehicles and parts thereof, Certain named. Felten & Guilleaume Carlsberg Actien-Gesellschaft. No. 94,363; Dec. 2; Gaz. vol. 197; p. 235.
 Vehicles, Aprons and covers for certain named. Montgomery-Washburn Company. No. 94,654; Dec. 23; Gaz. vol. 197; p. 993.
 Vermin-exterminator. Coughlan Brothers. No. 94,544; Dec. 16; Gaz. vol. 197; p. 777.

Vermuth. Société Vermouth Mont Blanc, Marone & Cie. No. 94,565; Dec. 16; Gaz. vol. 197; p. 778.
 Watches. The D. Gruen, Sons & Company. No. 94,631; Dec. 23; Gaz. vol. 197; p. 993.
 Water, Mineral. Berkshires Springs Co. No. 94,711; Dec. 30; Gaz. vol. 197; p. 1287.
 Water purifying and treating materials. The Permutit Company. No. 94,665; Dec. 23; Gaz. vol. 197; p. 993.
 Waterproof fabrics. J. H. Meyer & Co. No. 94,469; Dec. 9; Gaz. vol. 197; p. 528.
 Wave-meters and electrical measuring instruments. Gesellschaft für Drahtlose Telegraphie, m. b. H. No. 94,726; Dec. 30; Gaz. vol. 197; p. 1287.
 Wax, Mineral. Strohmeier & Arpe Company. No. 94,503; Dec. 9; Gaz. vol. 197; p. 530.
 Whiskey. Evans-Smith Drug Co. No. 94,434; Dec. 9; Gaz. vol. 197; p. 527.
 Whiskey. The Governor and Company of Adventurers of England Trading into Hudson's Bay. No. 94,444; Dec. 9; Gaz. vol. 197; p. 528.
 Windows. Austral Window Company. No. 94,566; Dec. 23; Gaz. vol. 197; p. 991.
 Wine. J. Petrocelli & Company. No. 94,747; Dec. 30; Gaz. vol. 197; p. 1288.
 Wine. The Sweet Valley Wine Co. No. 94,771; Dec. 30; Gaz. vol. 197; p. 1288.
 Wine. The Theobald and Son Co. No. 94,773; Dec. 30; Gaz. vol. 197; p. 1288.
 Wine, Port. C. Berry & Co. No. 94,348; Dec. 2; Gaz. vol. 197; p. 235.
 Wine, Sherry. C. Berry & Co. No. 94,340; Dec. 2; Gaz. vol. 197; p. 235.
 Wire, Resistance. Murray Wire Co. Nos. 94,656-8; Dec. 23; Gaz. vol. 197; p. 993.
 Wood, Artificial. Hannoversche Steinhölzfabrik "Fama" Gesellschaft mit beschränkter Haftung. No. 94,372; Dec. 2; Gaz. vol. 197; p. 236.
 Wood, Imitation. Manning, Bowman & Co. No. 94,464; Dec. 9; Gaz. vol. 197; p. 528.
 Wood-preservers. The Reeves Company. No. 94,397; Dec. 2; Gaz. vol. 197; p. 236.
 Writing tablets and paper, envelopes, and papeteries. Tower Manufacturing & Novelty Co. No. 94,404; Dec. 2; Gaz. vol. 197; p. 236.
 Yarns. Jacob Frank Mercantile Co. No. 94,519; Dec. 9; Gaz. vol. 197; p. 530.
 Yarns, threads, cords, braids, and laces. Dollfus-Mieg & Cie. Société Anonyme. No. 94,720; Dec. 30; Gaz. vol. 197; p. 1287.

ALPHABETICAL LIST OF LABELS.

- "Artesian." (For Canned Peas.) Minnesota Valley Canning Co. No. 17,395; Dec. 9; Gaz. vol. 197; p. 531.
- "Astor Text." (For Stationery.) The National Association of Steel and Copper Plate Engravers. No. 17,427; Dec. 23; Gaz. vol. 197; p. 996.
- "Atlas Floor Oil." (For a Preparation Used on Hardwood Floors.) Barcal & Barta. No. 17,378; Dec. 9; Gaz. vol. 197; p. 531.
- "Blue and Gold." (For Canned Corn.) Minnesota Valley Canning Co. No. 17,393; Dec. 9; Gaz. vol. 197; p. 531.
- "Bon Ton The Most Perfect Fitting Corset in the World." (For Corsets.) Royal Worcester Corset Co. No. 17,406; Dec. 9; Gaz. vol. 197; p. 531.
- "Casco." (For Carbon-Remover.) C. J. Reitz. No. 17,434; Dec. 23; Gaz. vol. 197; p. 996.
- "Consuela." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,385; Dec. 9; Gaz. vol. 197; p. 531.
- "Cream of the Crop." (For Whisky.) Sol Cohn and Company. No. 17,413; Dec. 23; Gaz. vol. 197; p. 996.
- "Da Ha Ma Blue Pennant." (For Writing-Tablets.) The Davis Brothers Drug Co. No. 17,380; Dec. 9; Gaz. vol. 197; p. 531.
- "Egyptian Cigarettes." (For Cigarettes.) L. Engelhardt. No. 17,382; Dec. 9; Gaz. vol. 197; p. 531.
- "Evangeline Tabasco Sauce." (For Tabasco Sauce.) E. Bullard. No. 17,379; Dec. 9; Gaz. vol. 197; p. 531.
- "Extra Special Liqueur." (For Scotch Whisky.) John Dewar & Sons. No. 17,415; Dec. 23; Gaz. vol. 197; p. 996.
- "Extra Special Old Scotch Whisky." (For Scotch Whisky.) John Dewar & Sons. No. 17,414; Dec. 23; Gaz. vol. 197; p. 996.
- "Gelster's Club House." (For Cigars.) H. W. Gelster. No. 17,420; Dec. 23; Gaz. vol. 197; p. 996.
- "Gold Bond." (For Japan Tea.) F. D. Farmer Company. No. 17,398; Dec. 9; Gaz. vol. 197; p. 531.
- "Gold Bond." (For Coffee.) F. D. Farmer Company. No. 17,399; Dec. 9; Gaz. vol. 197; p. 531.
- "Gold Crown Poison For the Destruction of Squirrels, Gophers and Rats." (For Squirrel, Gopher, and Rat Poison.) G. E. Price. No. 17,430; Dec. 23; Gaz. vol. 197; p. 996.
- "Green Label Harry G. Kentucky Bourbon." (For Whisky.) H. Gebhardt. No. 17,419; Dec. 23; Gaz. vol. 197; p. 996.
- "Hi-Po Water-proof Guaranteed Dry Battery." (For a Dry Battery.) Hi-Po Waterproof Battery Co. No. 17,386; Dec. 9; Gaz. vol. 197; p. 531.
- "Hood's Croup, Cold and Pneumonia Salve." (For a Salve for Croup, Cold, and Pneumonia.) Hood Bros. No. 17,489; Dec. 30; Gaz. vol. 197; p. 1290.
- "Huber's Sun-Beam Bread." (For Bread.) Huber Baking Co. No. 17,387; Dec. 9; Gaz. vol. 197; p. 531.
- "Italian Pure Olive Oil." (For Olive-Oil.) A. Glunta. No. 17,421; Dec. 23; Gaz. vol. 197; p. 996.
- "Kerr's Improved Metallic Lacing." (For Metallic Belt-Lacing.) Kerr & Company. No. 17,422; Dec. 23; Gaz. vol. 197; p. 996.
- "Kronberger's California Mentholated Eucalyptus Drops." (For Eucalyptus Drops.) I. B. Kronberger. No. 17,388; Dec. 9; Gaz. vol. 197; p. 531.
- "Le Sueur." (For Canned Peas.) Minnesota Valley Canning Co. No. 17,396; Dec. 9; Gaz. vol. 197; p. 531.
- "Leaf Tobacco." (For Leaf-Tobacco.) B. Woelcke. No. 17,437; Dec. 23; Gaz. vol. 197; p. 996.
- "Liquore Cannella." (For Alcoholic Liquors.) Mariani Bros. No. 17,390; Dec. 9; Gaz. vol. 197; p. 531.
- "Little Princess." (For Brooms.) Premier Broom & Brush Co. No. 17,401; Dec. 9; Gaz. vol. 197; p. 531.
- "Liver Ease." (For Medicinal Preparation.) Liver Ease Medicine Company. No. 17,423; Dec. 23; Gaz. vol. 197; p. 996.
- "Luxury." (For Cigars.) W. H. Raab & Sons. No. 17,431; Dec. 23; Gaz. vol. 197; p. 996.
- "Marshall's Ebony Black Ink." (For Ink.) B. M. Marshall. No. 17,441; Dec. 30; Gaz. vol. 197; p. 1290.
- "Martin." (For Cigars.) Martin Bros. Cigar Mfg. Co. No. 17,424; Dec. 23; Gaz. vol. 197; p. 996.
- "Mayflower." (For Brooms.) Premier Broom & Brush Co. No. 17,403; Dec. 9; Gaz. vol. 197; p. 531.
- "Mena." (For Cigars.) Reguera & Berengher. No. 17,404; Dec. 9; Gaz. vol. 197; p. 531.
- "Minnesota Valley." (For Peas.) Minnesota Valley Canning Co. No. 17,397; Dec. 9; Gaz. vol. 197; p. 531.
- "Mo-Go-Co." (For Brooms.) Premier Broom & Brush Co. No. 17,402; Dec. 9; Gaz. vol. 197; p. 531.
- "Nep-Ton-ic." (For Medicinal Preparations.) Neptonic Company. No. 17,428; Dec. 23; Gaz. vol. 197; p. 996.
- "Nonatuck Lawn Fine Stationery." (For Stationery.) White & Wyckoff Mfg. Co. No. 17,436; Dec. 23; Gaz. vol. 197; p. 996.
- "O-U Molasses." (For Molasses.) Victoria Syrup & Coffee Company. No. 17,408; Dec. 9; Gaz. vol. 197; p. 531.
- "Old Fashioned Lager Beer." (For Beer.) The Kansas City Breweries Company. No. 17,440; Dec. 30; Gaz. vol. 197; p. 1290.
- "Penn Sugar Quaker Brand." (For Sugar.) Pennsylvania Sugar Company. No. 17,442; Dec. 30; Gaz. vol. 197; p. 1290.
- "Pilsener Weltbräu Beer." (For Beer.) R. Naegeli's Sons. No. 17,426; Dec. 23; Gaz. vol. 197; p. 996.
- "Platt's Chlorides." (For a Liquid Disinfectant.) M. E. Platt. No. 17,400; Dec. 9; Gaz. vol. 197; p. 531.
- "Pyramid Brand." (For Figs.) Rosenberg Bros. & Co. No. 17,405; Dec. 9; Gaz. vol. 197; p. 531.
- "Radam's." (For a Medicinal Preparation.) The William Radam Microbe Killer Company. No. 17,410; Dec. 9; Gaz. vol. 197; p. 531.
- "Rhum Tipo Ingles." (For Rum.) Mariani Bros. No. 17,389; Dec. 9; Gaz. vol. 197; p. 531.
- "Rip." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,384; Dec. 9; Gaz. vol. 197; p. 531.
- "Robert Watt." (For Cigars.) Andy Dehner Cigar Co. No. 17,381; Dec. 9; Gaz. vol. 197; p. 531.
- "Royal Arch." (For Cigars.) Petri-Italian-American Cigar Co. No. 17,443; Dec. 30; Gaz. vol. 197; p. 1290.
- "Sag-Peru Hair Tonic." (For a Hair-Tonic.) R. J. Martin. No. 17,392; Dec. 9; Gaz. vol. 197; p. 531.
- "Sambuca Purissima." (For Alcoholic Liquors.) Mariani Bros. No. 17,391; Dec. 9; Gaz. vol. 197; p. 531.
- "Satisfaction Sox." (For Socks.) W. M. Alling. No. 17,376; Dec. 9; Gaz. vol. 197; p. 531.
- "Schroeder's Tomato Bracer." (For a Nerve Tonic and Invigorator.) J. C. Schroeder. No. 17,435; Dec. 23; Gaz. vol. 197; p. 996.
- "Skookum." (For Apples.) Northwestern Fruit Exchange. No. 17,429; Dec. 23; Gaz. vol. 197; p. 996.
- "Special Liqueur." (For Scotch Whisky.) John Dewar & Sons. No. 17,416; Dec. 23; Gaz. vol. 197; p. 996.
- "Special Old Scotch Whisky." (For Scotch Whisky.) John Dewar & Sons. No. 17,418; Dec. 23; Gaz. vol. 197; p. 996.
- "Sterling Medium Red Salmon." (For Salmon.) Armour & Company. No. 17,411; Dec. 23; Gaz. vol. 197; p. 996.
- "Supreme Brand Guano." (For Guano.) Morris Fertilizer Company. No. 17,425; Dec. 23; Gaz. vol. 197; p. 996.
- "Ted & Tess." (For Cigars.) W. H. Raab & Sons. No. 17,432; Dec. 23; Gaz. vol. 197; p. 996.
- "The Ideal." (For Handkerchiefs.) Heller & Long. No. 17,438; Dec. 30; Gaz. vol. 197; p. 1290.
- "The New White Heather Handkerchief." (For Handkerchiefs.) A. Harden Company. No. 17,383; Dec. 9; Gaz. vol. 197; p. 531.
- "The Whiskey Your Grandfather Used." (For Whisky.) Bernheim Distg. Co. No. 17,412; Dec. 23; Gaz. vol. 197; p. 996.
- "Tourist's Tablet." (For Writing-Tablets.) The Arms Mfg. Co. No. 17,377; Dec. 9; Gaz. vol. 197; p. 531.
- "Valley Pride." (For Sugar-Corn.) Minnesota Valley Canning Co. No. 17,394; Dec. 9; Gaz. vol. 197; p. 531.
- "Vera Sweet Chocolates." (For Candies.) A. M. Ramer Co. No. 17,433; Dec. 23; Gaz. vol. 197; p. 996.
- "Vittel Source Salée." (For Mineral Water.) Societe Generale Des Eaux Minerales De Vittel. No. 17,407; Dec. 9; Gaz. vol. 197; p. 531.
- "Walter's Best Quality Flour." (For Flour.) J. A. Walter Milling Co. No. 17,409; Dec. 9; Gaz. vol. 197; p. 531.
- "White Label." (For Scotch Whisky.) John Dewar & Sons. No. 17,417; Dec. 23; Gaz. vol. 197; p. 996.

PRINTS.

- "A. T. Schlichting Glassware." (For Glassware.) A. T. Schlichting. Nos. 3,453-4; Dec. 23; Gaz. vol. 197; p. 996.
- "A Bird In Every Shell." (For Guns and Ammunition.) Remington Arms-Union Metallic Cartridge Co. No. 3,443; Dec. 16; Gaz. vol. 197; p. 778.
- "Anoka." (For Collars.) Cluett, Peabody & Co. No. 3,438; Dec. 9; Gaz. vol. 197; p. 532.
- "Arrow Shirts There is an Arrow Shirt for every indoor and outdoor occasion." (For Shirts.) Cluett, Peabody & Company. No. 3,439; Dec. 9; Gaz. vol. 197; p. 532.
- "Formamint." (For Throat-Tablets.) The Bauer Chemical Co. No. 3,444; Dec. 23; Gaz. vol. 197; p. 996.
- "Forty Winks." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,445; Dec. 23; Gaz. vol. 197; p. 996.
- "Girl Carrying The Bottle." (For Grape-Juice.) Armour and Company. No. 3,432; Dec. 9; Gaz. vol. 197; p. 532.
- "Girl Carrying Tray." (For Grape-Juice.) Armour and Company. No. 3,437; Dec. 9; Gaz. vol. 197; p. 532.
- "Girl Hugging The Bottle." (For Grape-Juice.) Armour and Company. No. 3,433; Dec. 9; Gaz. vol. 197; p. 532.
- "Girl On The Bottle." (For Grape-Juice.) Armour and Company. No. 3,436; Dec. 9; Gaz. vol. 197; p. 532.
- "Girl Taking Bottle Out Of Box." (For Grape-Juice.) Armour and Company. No. 3,435; Dec. 9; Gaz. vol. 197; p. 532.
- "Girl With Bottle On Ice." (For Grape-Juice.) Armour and Company. No. 3,434; Dec. 9; Gaz. vol. 197; p. 532.
- "He does not chew Brown's Mule." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,451; Dec. 23; Gaz. vol. 197; p. 996.
- "Julep Mints." (For Julep Mints.) S. H. Robison Co. No. 3,452; Dec. 23; Gaz. vol. 197; p. 996.
- "Lemp Lager Bottled Beer." (For Lager Bottled Beer.) Wm. J. Lemp Brewing Co. No. 3,450; Dec. 23; Gaz. vol. 197; p. 996.
- "Mica." (For Axle-Grease.) Standard Oil Company. No. 3,455; Dec. 23; Gaz. vol. 197; p. 996.
- "Old Ben Spirallized Coal." (For Coal.) Old Ben Mining Corporation. No. 3,457; Dec. 30; Gaz. vol. 197; p. 1290.
- "On the Run." (For Hosiery.) Interwoven Stocking Company. No. 3,446; Dec. 23; Gaz. vol. 197; p. 996.
- "Overland." (For Automobiles.) The Willlys-Overland Company. No. 3,456; Dec. 23; Gaz. vol. 197; p. 996.
- "Putting on Socks." (For Hosiery.) Interwoven Stocking Company. No. 3,447; Dec. 23; Gaz. vol. 197; p. 996.
- "Rumford 'The Wholesome' Baking Powder." (For Baking-Powder.) Rumford Chemical Works. No. 3,441; Dec. 9; Gaz. vol. 197; p. 532.
- "Sitting Down." (For Hosiery.) Interwoven Stocking Company. No. 3,448; Dec. 23; Gaz. vol. 197; p. 996.
- "The Game of Song and Story." (For Games.) G. R. Korne. No. 3,440; Dec. 9; Gaz. vol. 197; p. 532.
- "The S. S. S. Girl." (For a Blood Remedy.) The Swift Specific Company. No. 3,442; Dec. 9; Gaz. vol. 197; p. 532.
- "Who can beat them?" (For Hinges.) Lawson Manufacturing Co. No. 3,449; Dec. 23; Gaz. vol. 197; p. 996.

DISCLAIMER.

Water-purifying apparatus. J. C. W. Greth. No. 775,901; date of patent Nov. 22, 1904; disclaimer filed Nov. 24, 1913; Gaz. vol. 197; p. 243.

OFFICIAL
GAZETTE
UNITED STATES
PATENT OFFICE

VOL. 196 - 197

NOV. - DEC.

1913

MICRO PHOTO INC. - MP
CLEVELAND, OHIO